

Pantheon Report

Generated at 2019-02-13 00:18:37 (UTC).

Data path: GCE Sydney on **ens4** (*local*) → GCE Tokyo on **ens4** (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

System info:

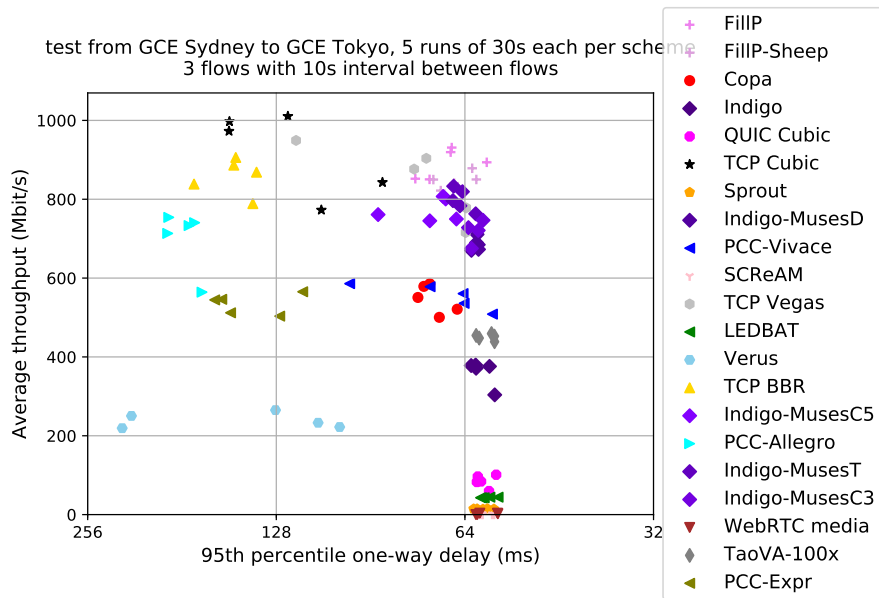
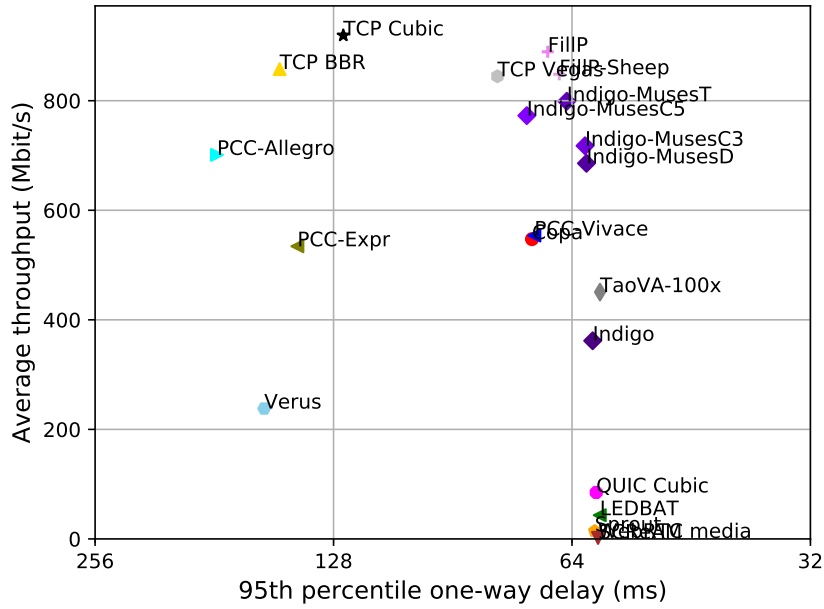
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from GCE Sydney to GCE Tokyo, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



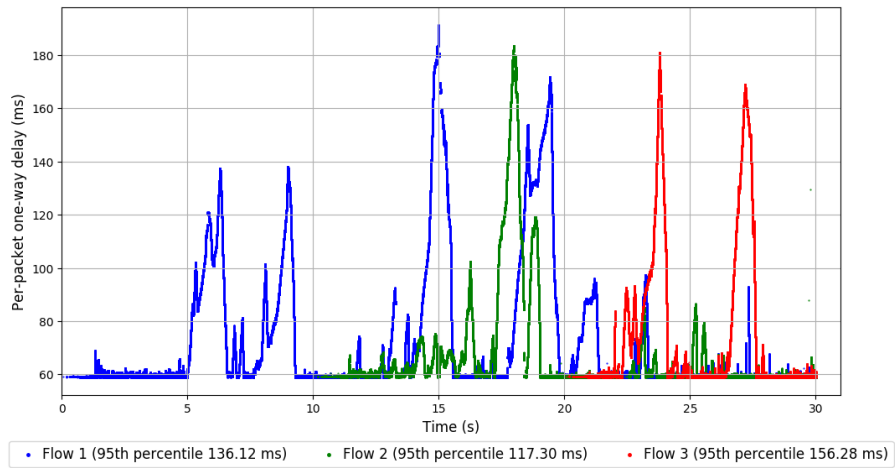
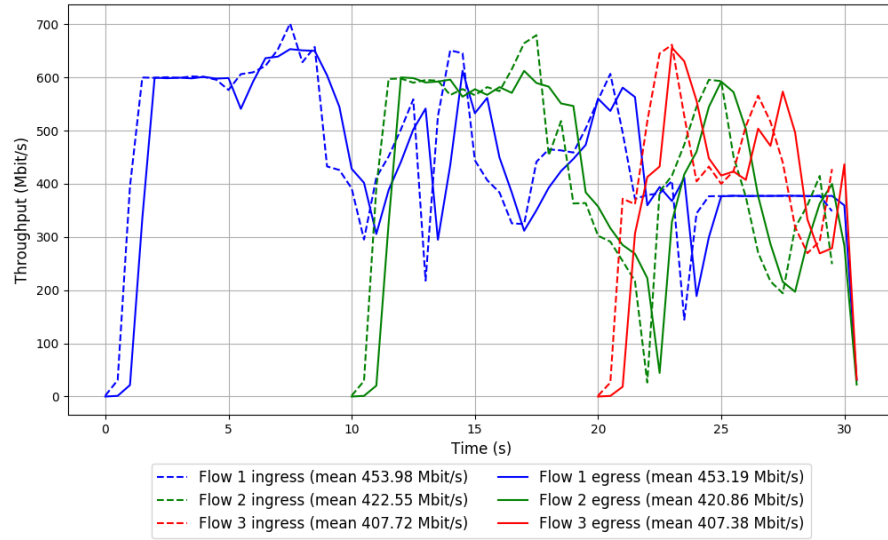
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	435.48	436.91	395.58	146.73	143.59	154.99	0.45	0.40	0.54
Copa	5	284.44	271.33	247.45	69.59	70.65	77.10	0.01	0.01	0.02
TCP Cubic	5	481.72	437.53	439.38	83.40	129.90	97.50	0.03	0.22	0.37
FillP	5	576.56	347.29	247.54	74.46	63.03	62.28	0.13	0.03	0.00
FillP-Sheep	5	546.52	325.18	257.84	66.97	63.57	62.28	0.02	0.02	0.00
Indigo	5	187.37	183.88	161.49	59.72	59.49	59.54	0.20	0.00	0.00
Indigo-MusesC3	4	426.97	362.10	237.39	61.24	61.19	61.02	0.00	0.01	0.04
Indigo-MusesC5	5	477.73	398.19	140.61	73.12	71.28	60.29	0.01	0.03	0.08
Indigo-MusesD	5	403.93	331.88	260.94	61.67	62.22	60.17	0.00	0.00	0.02
Indigo-MusesT	5	474.62	387.28	275.60	65.92	65.34	59.58	0.01	0.01	0.04
LEDBAT	5	28.09	18.21	9.39	58.12	58.61	57.14	0.00	0.04	0.00
PCC-Allegro	5	401.71	316.09	271.13	184.56	122.40	135.17	3.35	1.23	1.73
PCC-Expr	5	294.71	278.63	164.17	132.43	161.99	81.07	0.46	1.27	0.08
QUIC Cubic	5	36.76	51.22	43.34	58.24	58.94	58.85	0.01	0.01	0.01
SCReAM	5	0.22	0.22	0.22	57.42	58.03	58.60	0.00	0.00	0.07
Sprout	5	7.44	7.11	6.66	57.92	59.86	59.93	0.00	0.00	0.00
TaoVA-100x	5	228.44	225.45	216.69	58.22	57.73	59.39	0.00	0.00	0.01
TCP Vegas	5	400.82	467.94	397.46	64.94	81.91	82.36	0.01	0.01	0.03
Verus	5	144.51	101.47	80.48	142.84	110.60	115.50	0.93	0.31	1.74
PCC-Vivace	5	322.71	265.80	164.48	78.74	90.57	59.75	0.01	0.09	0.00
WebRTC media	5	1.23	0.53	0.22	58.73	58.75	58.68	0.00	0.04	0.09

Run 1: Statistics of TCP BBR

Start at: 2019-02-12 17:27:51
End at: 2019-02-12 17:28:21
Local clock offset: 0.106 ms
Remote clock offset: -1.325 ms

Below is generated by plot.py at 2019-02-12 20:56:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 868.65 Mbit/s
95th percentile per-packet one-way delay: 137.647 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 453.19 Mbit/s
95th percentile per-packet one-way delay: 136.122 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 420.86 Mbit/s
95th percentile per-packet one-way delay: 117.296 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 407.38 Mbit/s
95th percentile per-packet one-way delay: 156.282 ms
Loss rate: 0.12%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-02-12 18:09:29

End at: 2019-02-12 18:09:59

Local clock offset: 0.28 ms

Remote clock offset: 0.8 ms

Below is generated by plot.py at 2019-02-12 20:56:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 838.49 Mbit/s

95th percentile per-packet one-way delay: 173.183 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 420.12 Mbit/s

95th percentile per-packet one-way delay: 175.187 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 457.90 Mbit/s

95th percentile per-packet one-way delay: 169.519 ms

Loss rate: 0.72%

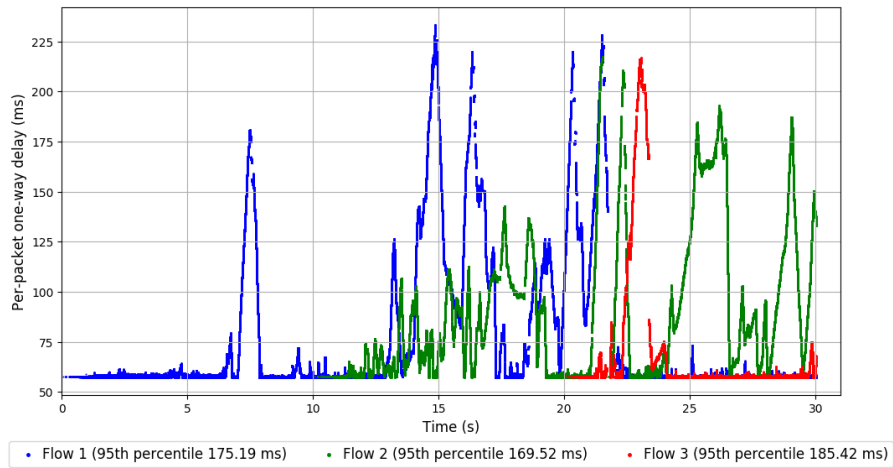
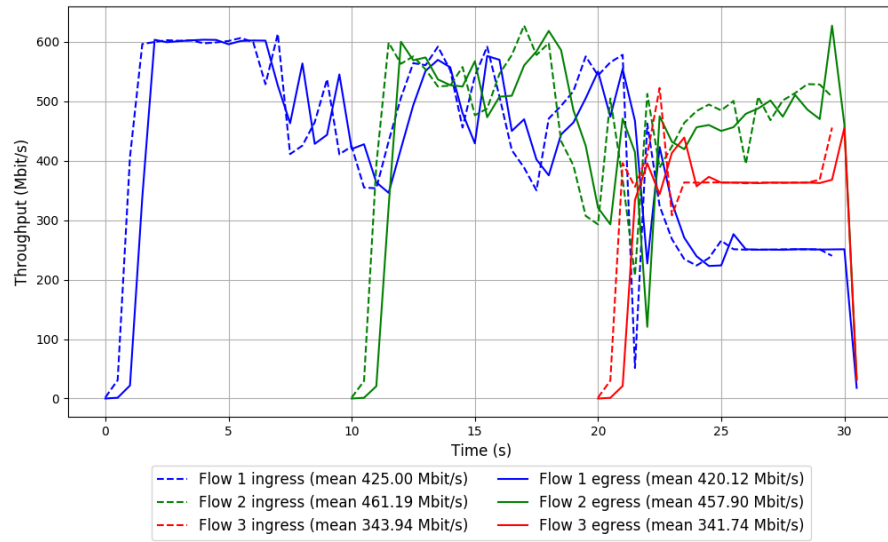
-- Flow 3:

Average throughput: 341.74 Mbit/s

95th percentile per-packet one-way delay: 185.421 ms

Loss rate: 0.64%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-02-12 18:49:47

End at: 2019-02-12 18:50:17

Local clock offset: 0.227 ms

Remote clock offset: -0.0 ms

Below is generated by plot.py at 2019-02-12 20:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 886.52 Mbit/s

95th percentile per-packet one-way delay: 149.629 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 434.83 Mbit/s

95th percentile per-packet one-way delay: 130.097 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 454.31 Mbit/s

95th percentile per-packet one-way delay: 165.242 ms

Loss rate: 0.29%

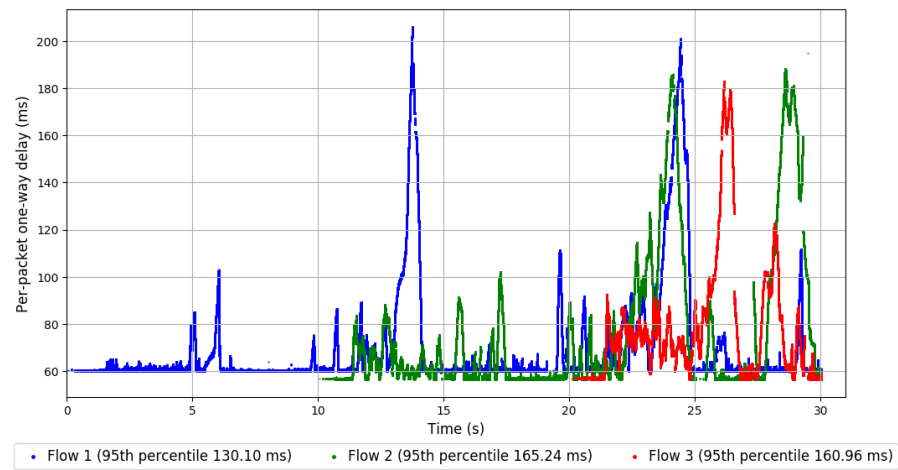
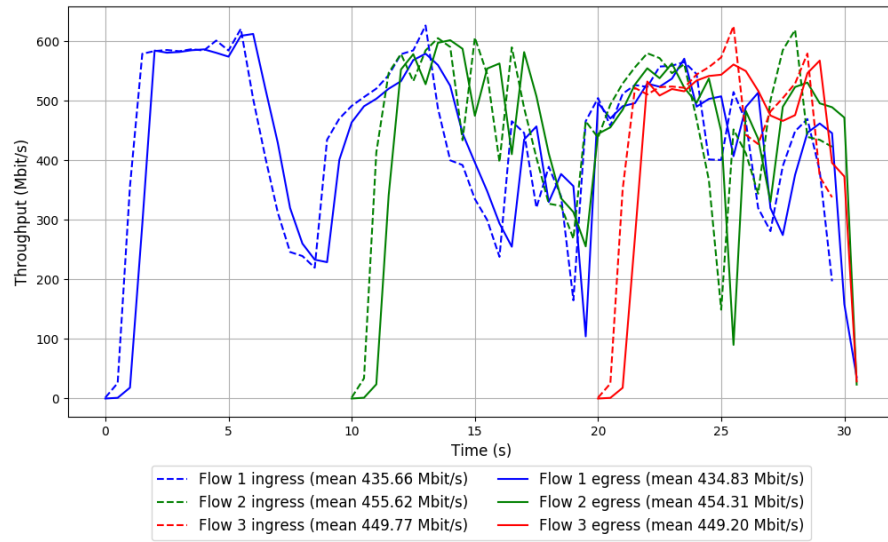
-- Flow 3:

Average throughput: 449.20 Mbit/s

95th percentile per-packet one-way delay: 160.956 ms

Loss rate: 0.12%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-02-12 19:31:34

End at: 2019-02-12 19:32:04

Local clock offset: -0.037 ms

Remote clock offset: 0.615 ms

Below is generated by plot.py at 2019-02-12 20:57:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 906.01 Mbit/s

95th percentile per-packet one-way delay: 148.566 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 464.85 Mbit/s

95th percentile per-packet one-way delay: 148.592 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 478.17 Mbit/s

95th percentile per-packet one-way delay: 148.520 ms

Loss rate: 0.45%

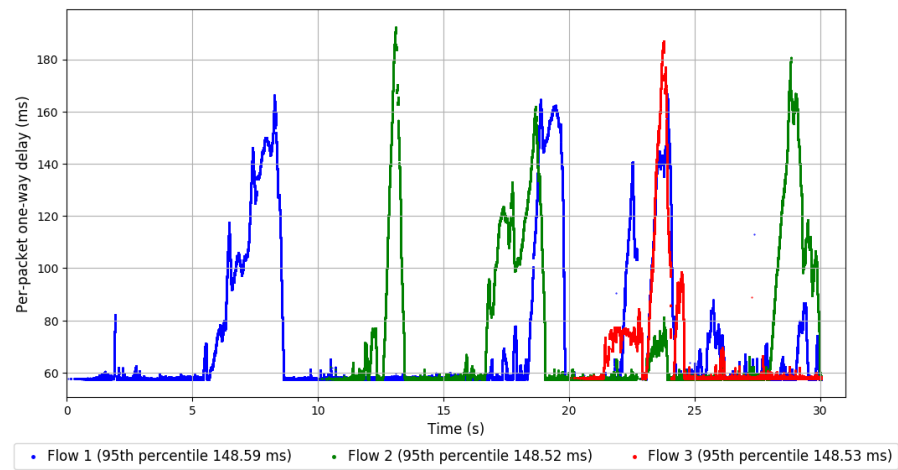
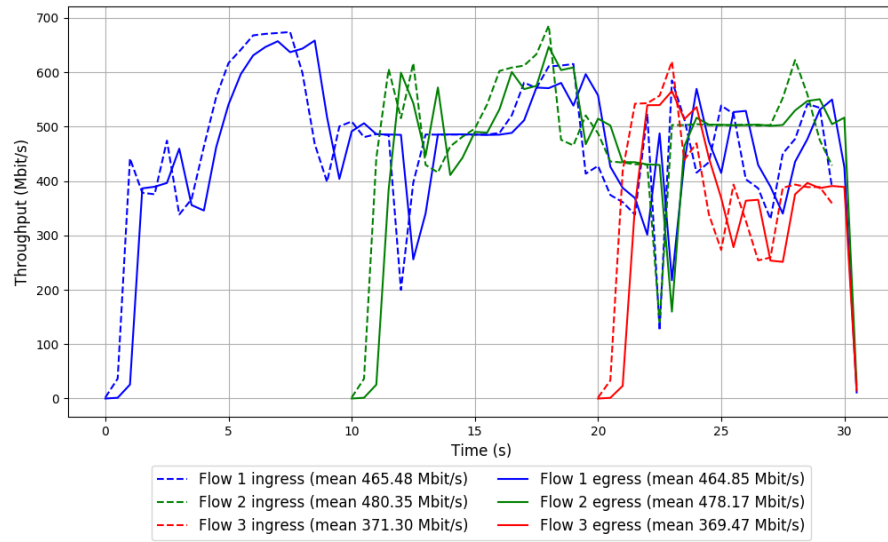
-- Flow 3:

Average throughput: 369.47 Mbit/s

95th percentile per-packet one-way delay: 148.532 ms

Loss rate: 0.49%

Run 4: Report of TCP BBR — Data Link

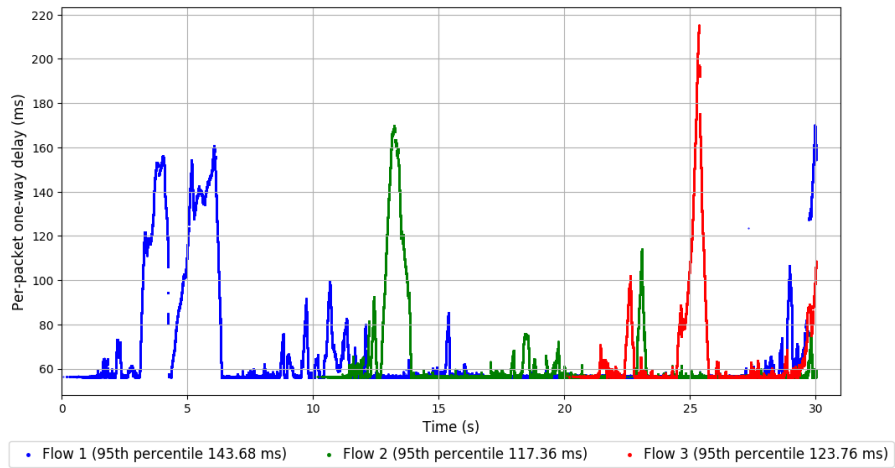
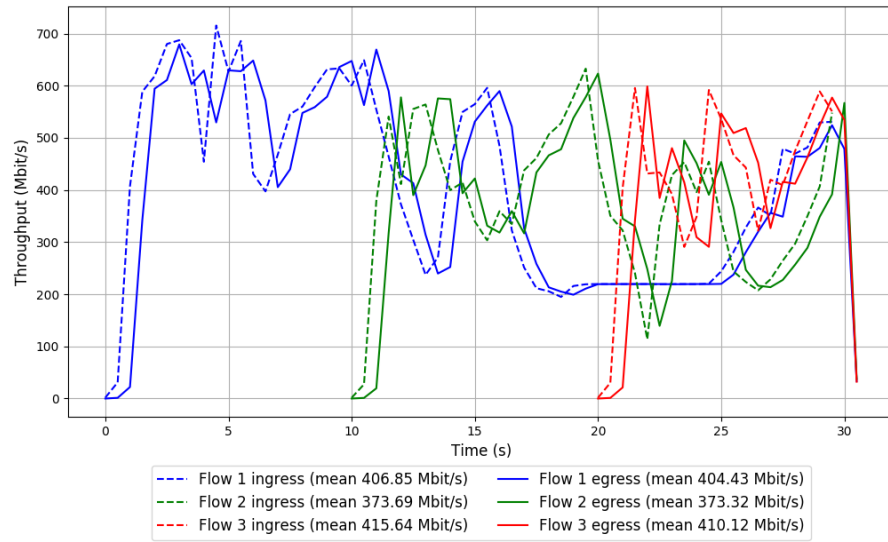


Run 5: Statistics of TCP BBR

Start at: 2019-02-12 20:12:42
End at: 2019-02-12 20:13:12
Local clock offset: -0.182 ms
Remote clock offset: -0.846 ms

Below is generated by plot.py at 2019-02-12 20:57:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 788.93 Mbit/s
95th percentile per-packet one-way delay: 139.518 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 404.43 Mbit/s
95th percentile per-packet one-way delay: 143.676 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 373.32 Mbit/s
95th percentile per-packet one-way delay: 117.363 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 410.12 Mbit/s
95th percentile per-packet one-way delay: 123.759 ms
Loss rate: 1.32%

Run 5: Report of TCP BBR — Data Link

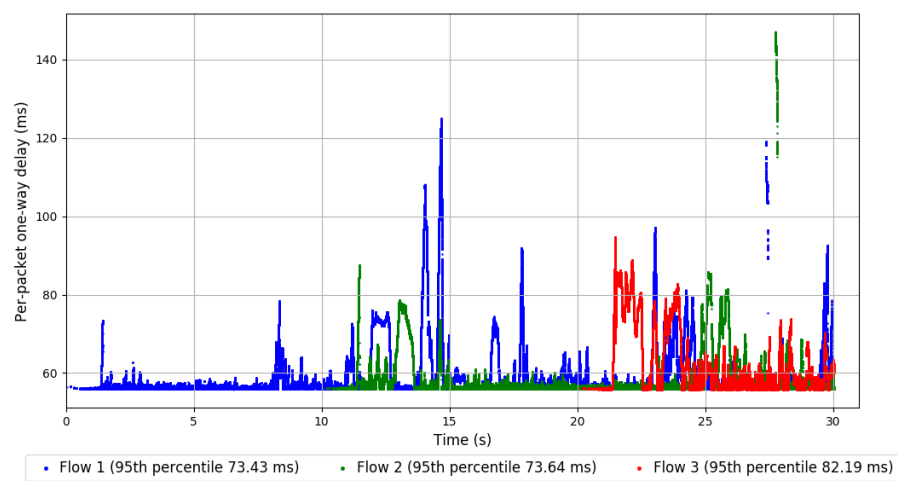
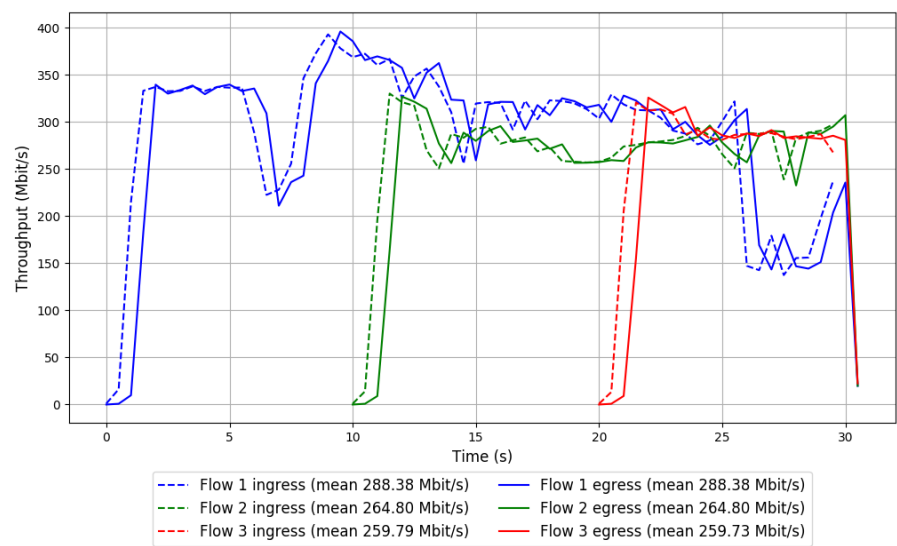


Run 1: Statistics of Copa

Start at: 2019-02-12 17:25:17
End at: 2019-02-12 17:25:47
Local clock offset: 0.448 ms
Remote clock offset: -0.841 ms

Below is generated by plot.py at 2019-02-12 21:00:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 550.84 Mbit/s
95th percentile per-packet one-way delay: 76.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 288.38 Mbit/s
95th percentile per-packet one-way delay: 73.433 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.80 Mbit/s
95th percentile per-packet one-way delay: 73.638 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 259.73 Mbit/s
95th percentile per-packet one-way delay: 82.189 ms
Loss rate: 0.02%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-02-12 18:06:46

End at: 2019-02-12 18:07:16

Local clock offset: -0.386 ms

Remote clock offset: -1.17 ms

Below is generated by plot.py at 2019-02-12 21:00:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 500.41 Mbit/s

95th percentile per-packet one-way delay: 70.307 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 247.45 Mbit/s

95th percentile per-packet one-way delay: 64.911 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 266.47 Mbit/s

95th percentile per-packet one-way delay: 69.583 ms

Loss rate: 0.00%

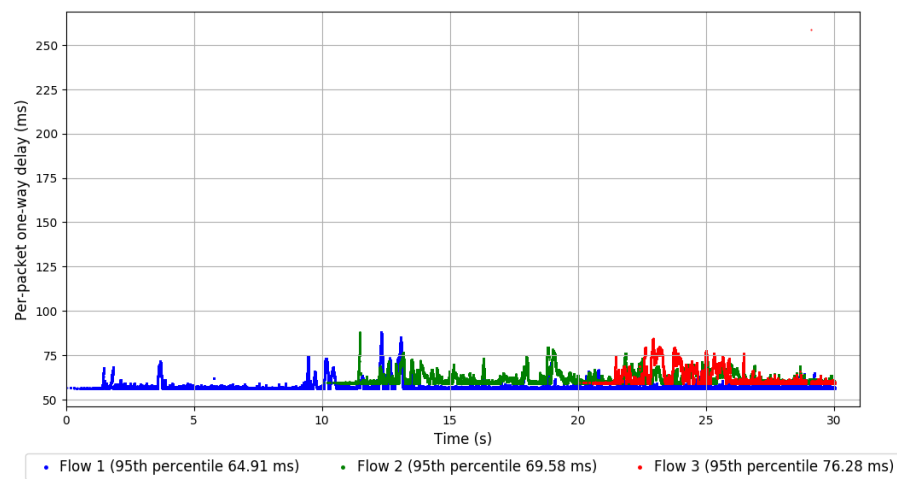
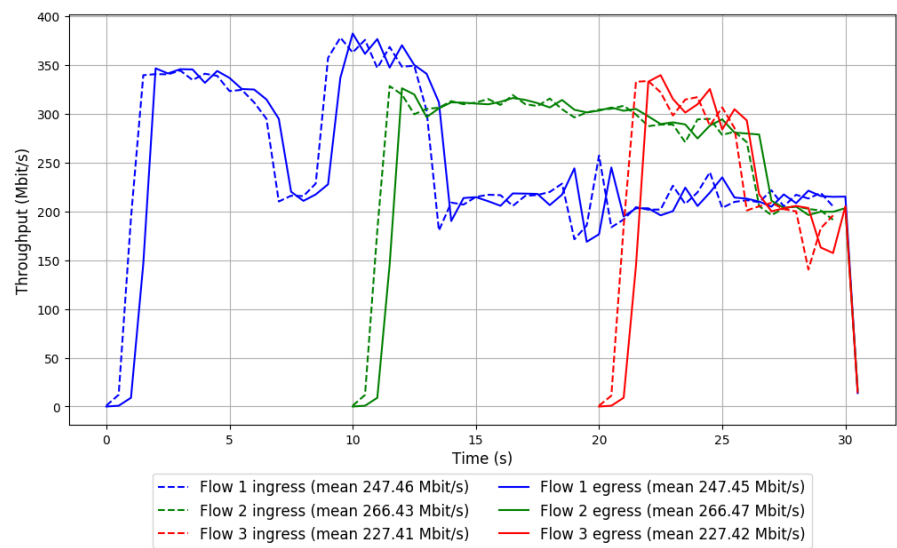
-- Flow 3:

Average throughput: 227.42 Mbit/s

95th percentile per-packet one-way delay: 76.284 ms

Loss rate: 0.03%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-02-12 18:47:14

End at: 2019-02-12 18:47:44

Local clock offset: -0.029 ms

Remote clock offset: 0.546 ms

Below is generated by plot.py at 2019-02-12 21:02:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.95 Mbit/s

95th percentile per-packet one-way delay: 74.430 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 303.23 Mbit/s

95th percentile per-packet one-way delay: 73.183 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 287.80 Mbit/s

95th percentile per-packet one-way delay: 71.242 ms

Loss rate: 0.01%

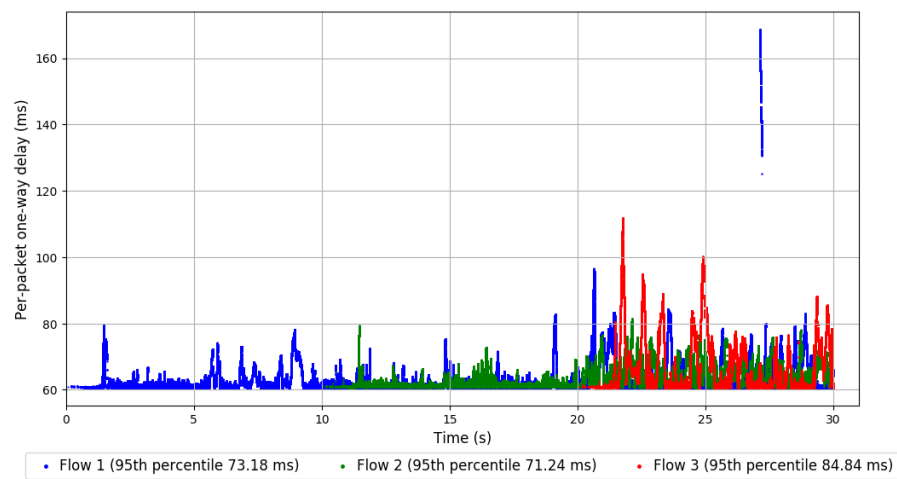
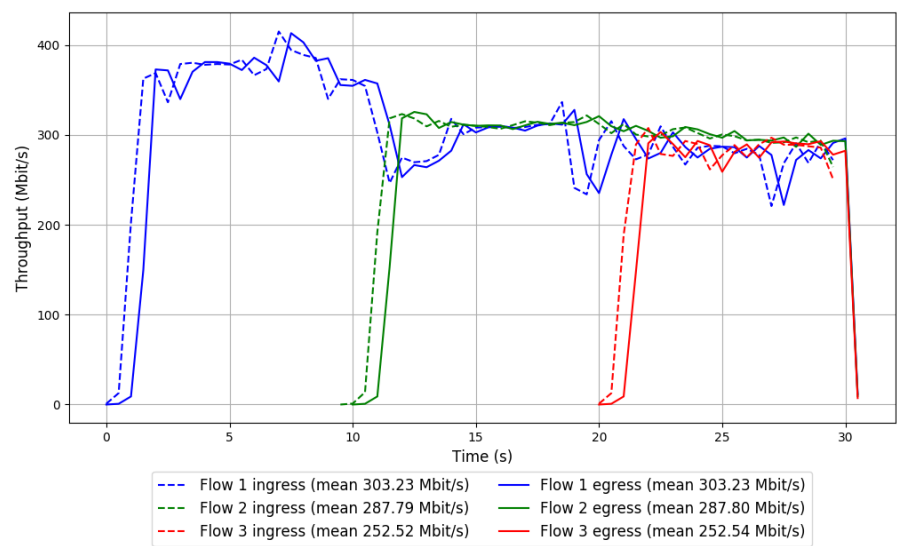
-- Flow 3:

Average throughput: 252.54 Mbit/s

95th percentile per-packet one-way delay: 84.840 ms

Loss rate: 0.02%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-02-12 19:29:10

End at: 2019-02-12 19:29:40

Local clock offset: -0.352 ms

Remote clock offset: 0.233 ms

Below is generated by plot.py at 2019-02-12 21:19:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 520.99 Mbit/s

95th percentile per-packet one-way delay: 65.839 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 269.93 Mbit/s

95th percentile per-packet one-way delay: 65.124 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 243.69 Mbit/s

95th percentile per-packet one-way delay: 65.022 ms

Loss rate: 0.01%

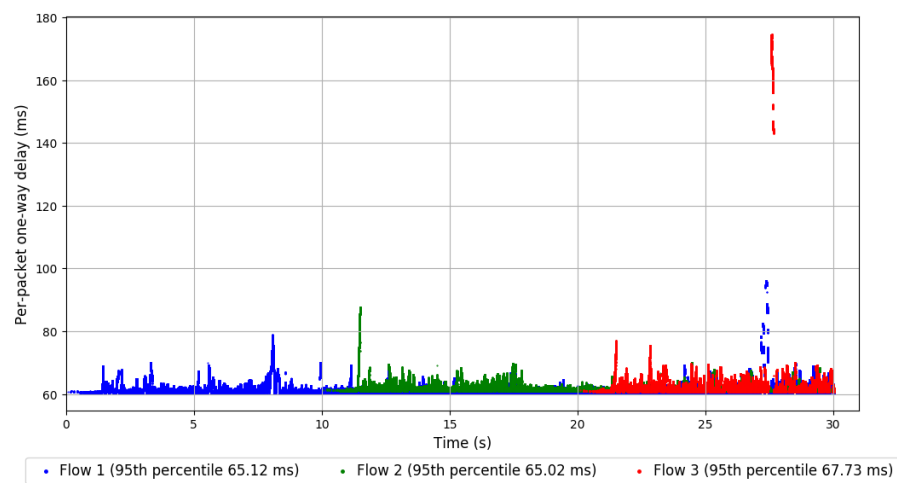
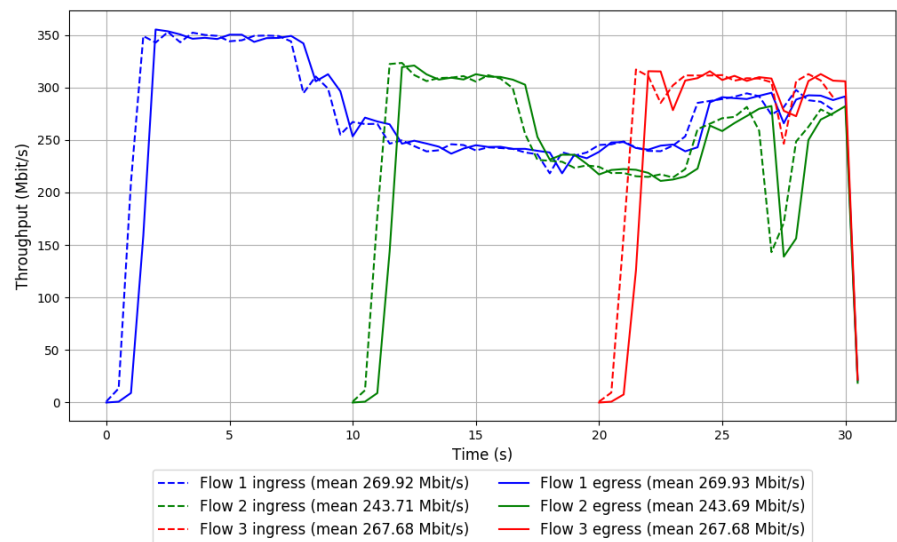
-- Flow 3:

Average throughput: 267.68 Mbit/s

95th percentile per-packet one-way delay: 67.733 ms

Loss rate: 0.03%

Run 4: Report of Copa — Data Link

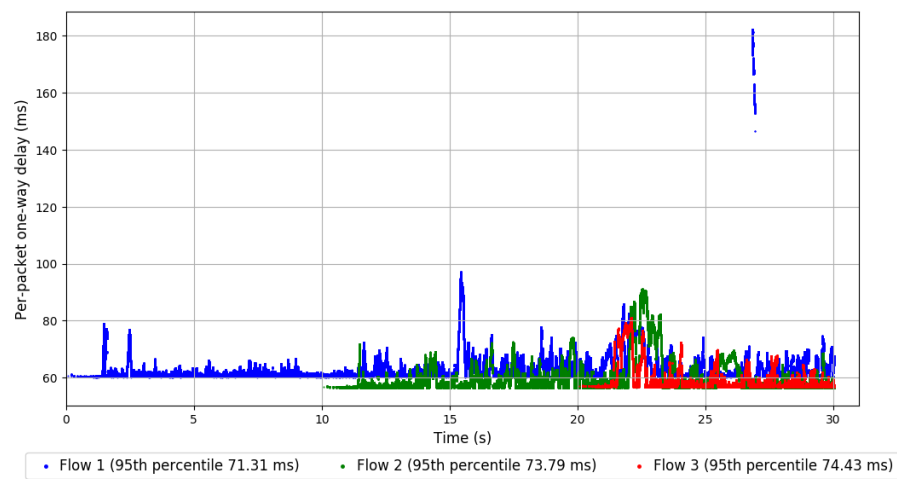
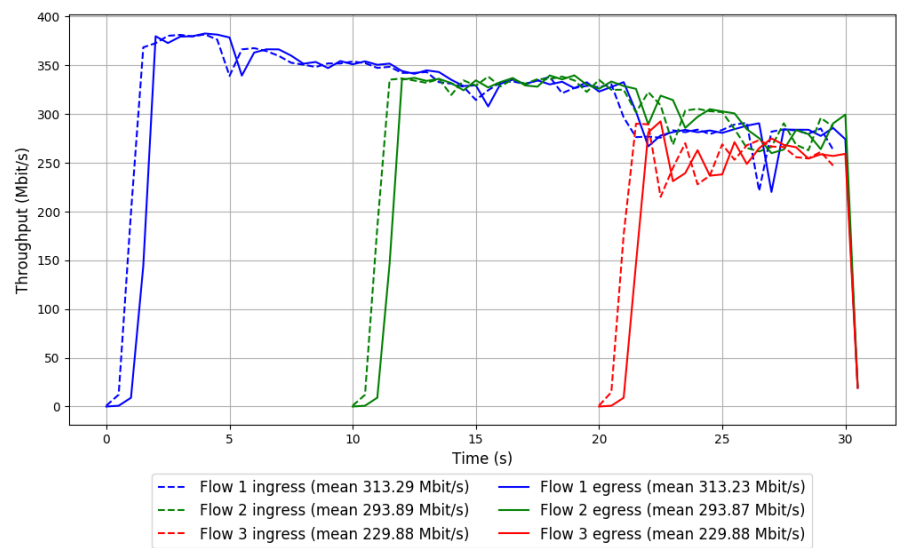


Run 5: Statistics of Copa

Start at: 2019-02-12 20:10:12
End at: 2019-02-12 20:10:42
Local clock offset: -0.172 ms
Remote clock offset: -0.186 ms

Below is generated by plot.py at 2019-02-12 21:25:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 585.40 Mbit/s
95th percentile per-packet one-way delay: 72.822 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 313.23 Mbit/s
95th percentile per-packet one-way delay: 71.309 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 293.87 Mbit/s
95th percentile per-packet one-way delay: 73.787 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 74.430 ms
Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-02-12 17:14:22

End at: 2019-02-12 17:14:52

Local clock offset: -0.074 ms

Remote clock offset: 0.621 ms

Below is generated by plot.py at 2019-02-12 21:25:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 772.74 Mbit/s

95th percentile per-packet one-way delay: 108.466 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 381.34 Mbit/s

95th percentile per-packet one-way delay: 60.358 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 340.35 Mbit/s

95th percentile per-packet one-way delay: 119.355 ms

Loss rate: 0.00%

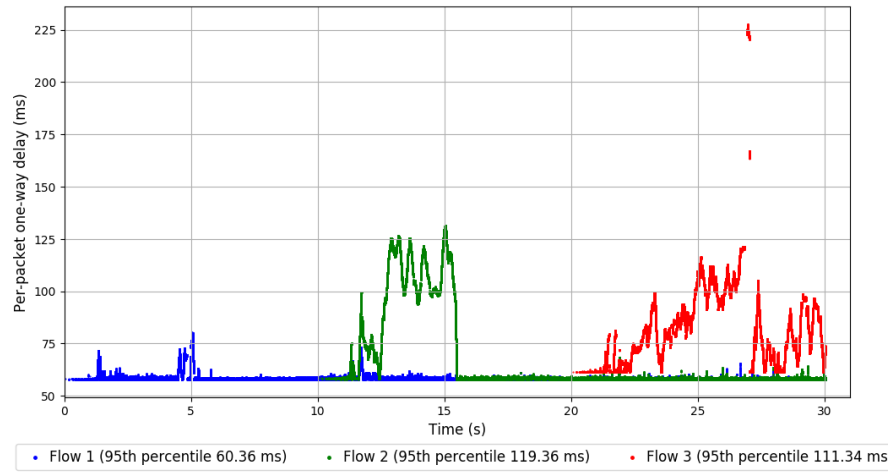
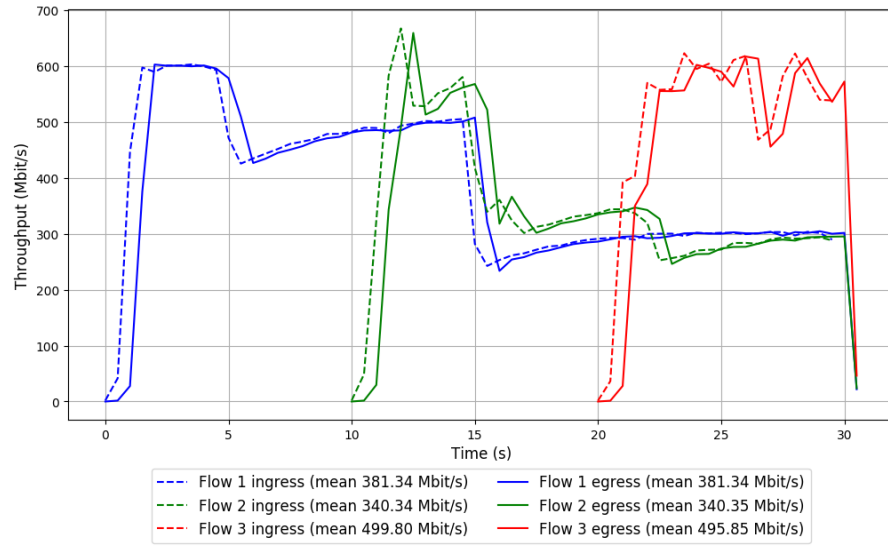
-- Flow 3:

Average throughput: 495.85 Mbit/s

95th percentile per-packet one-way delay: 111.342 ms

Loss rate: 0.82%

Run 1: Report of TCP Cubic — Data Link

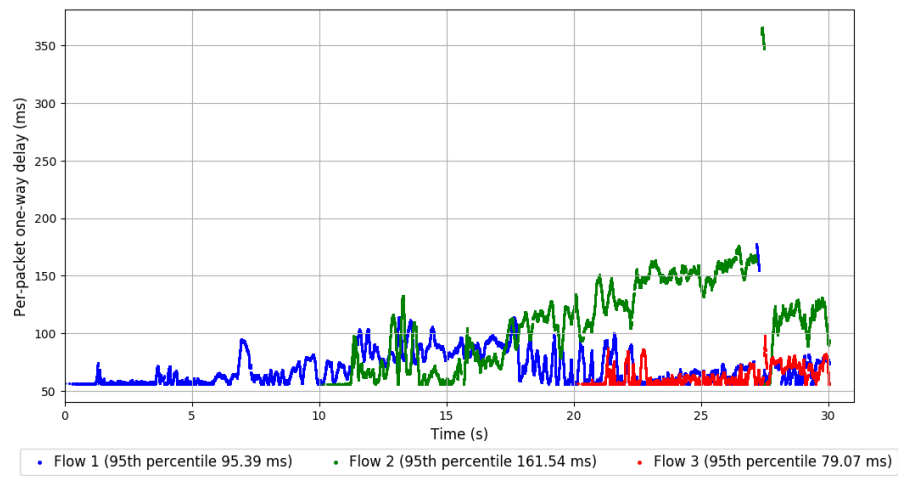
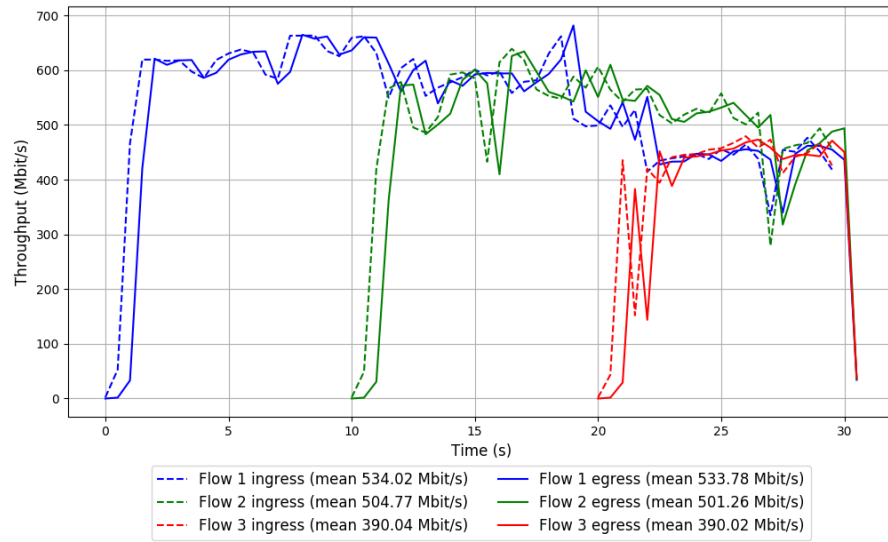


Run 2: Statistics of TCP Cubic

Start at: 2019-02-12 17:55:18
End at: 2019-02-12 17:55:48
Local clock offset: -0.037 ms
Remote clock offset: -1.297 ms

Below is generated by plot.py at 2019-02-12 21:25:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 997.22 Mbit/s
95th percentile per-packet one-way delay: 152.046 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 533.78 Mbit/s
95th percentile per-packet one-way delay: 95.395 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 501.26 Mbit/s
95th percentile per-packet one-way delay: 161.537 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 390.02 Mbit/s
95th percentile per-packet one-way delay: 79.073 ms
Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-02-12 18:36:28

End at: 2019-02-12 18:36:58

Local clock offset: -0.248 ms

Remote clock offset: 0.259 ms

Below is generated by plot.py at 2019-02-12 21:25:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1010.45 Mbit/s

95th percentile per-packet one-way delay: 122.665 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 539.90 Mbit/s

95th percentile per-packet one-way delay: 106.143 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 469.61 Mbit/s

95th percentile per-packet one-way delay: 117.947 ms

Loss rate: 0.26%

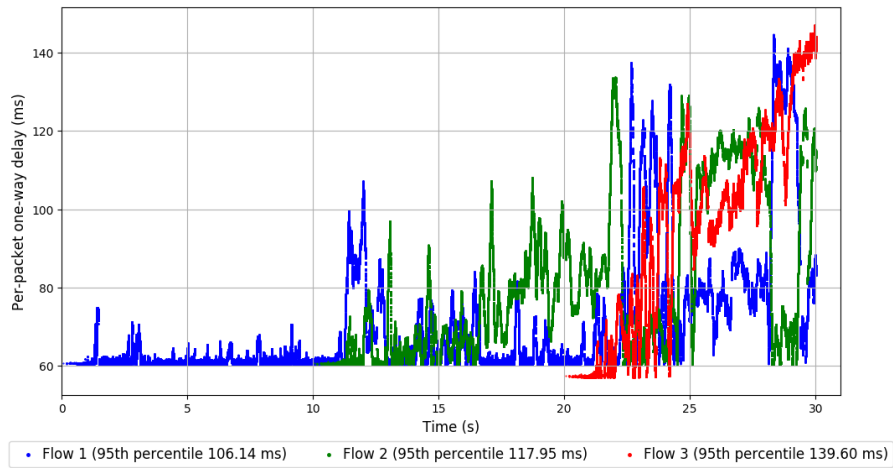
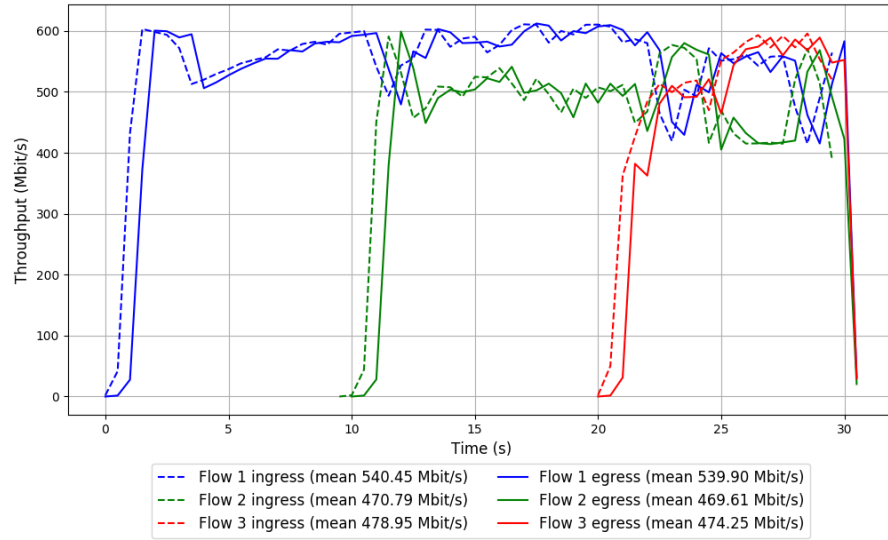
-- Flow 3:

Average throughput: 474.25 Mbit/s

95th percentile per-packet one-way delay: 139.596 ms

Loss rate: 0.98%

Run 3: Report of TCP Cubic — Data Link

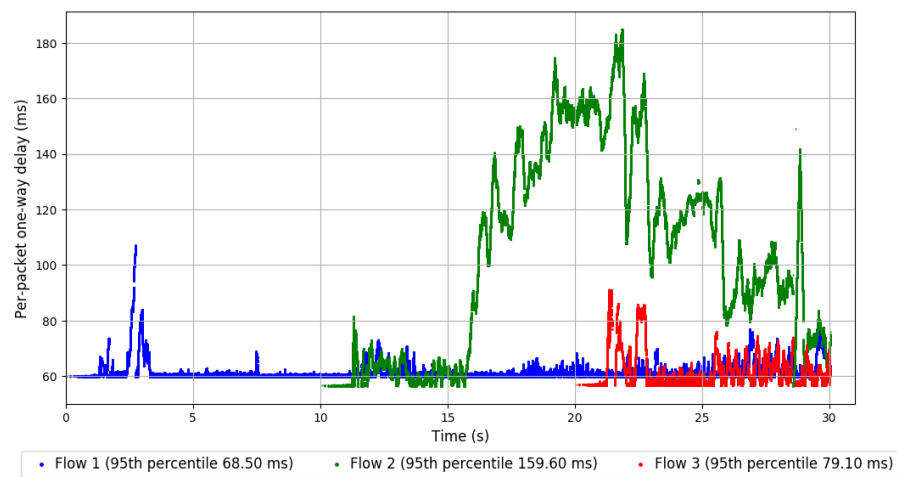
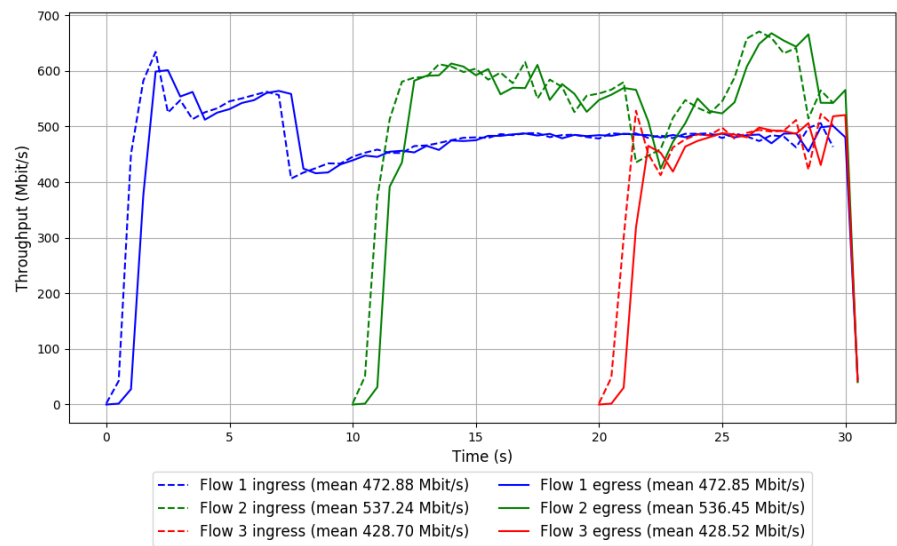


Run 4: Statistics of TCP Cubic

Start at: 2019-02-12 19:17:48
End at: 2019-02-12 19:18:18
Local clock offset: 0.227 ms
Remote clock offset: -0.157 ms

Below is generated by plot.py at 2019-02-12 21:25:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 972.78 Mbit/s
95th percentile per-packet one-way delay: 152.287 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 472.85 Mbit/s
95th percentile per-packet one-way delay: 68.499 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 536.45 Mbit/s
95th percentile per-packet one-way delay: 159.602 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 428.52 Mbit/s
95th percentile per-packet one-way delay: 79.100 ms
Loss rate: 0.04%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-02-12 19:59:25

End at: 2019-02-12 19:59:55

Local clock offset: -0.61 ms

Remote clock offset: 0.232 ms

Below is generated by plot.py at 2019-02-12 21:25:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 842.80 Mbit/s

95th percentile per-packet one-way delay: 86.649 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 480.75 Mbit/s

95th percentile per-packet one-way delay: 86.607 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 340.00 Mbit/s

95th percentile per-packet one-way delay: 91.082 ms

Loss rate: 0.00%

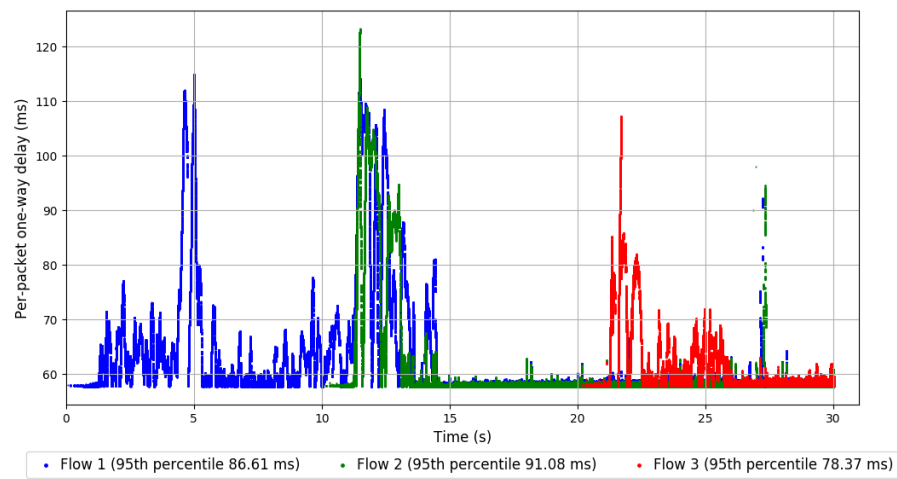
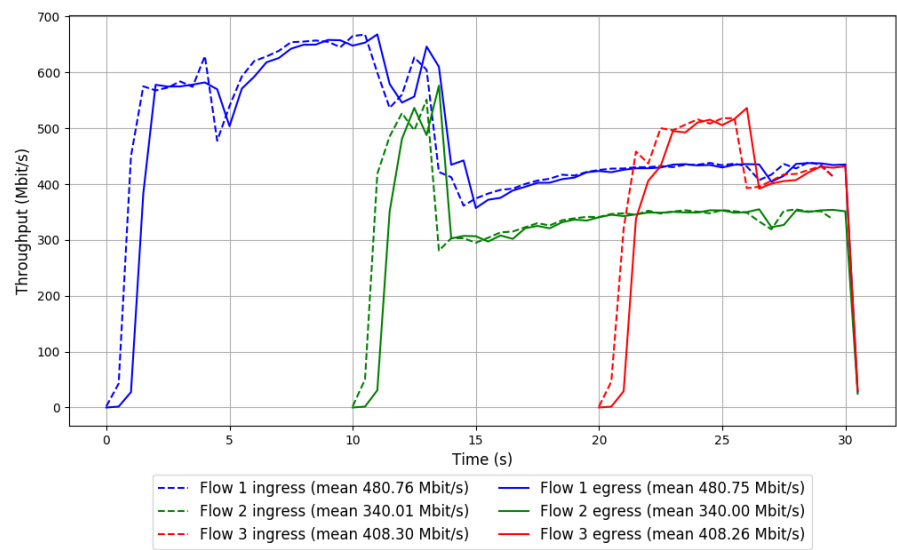
-- Flow 3:

Average throughput: 408.26 Mbit/s

95th percentile per-packet one-way delay: 78.371 ms

Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-02-12 17:21:52

End at: 2019-02-12 17:22:22

Local clock offset: -0.214 ms

Remote clock offset: 0.272 ms

Below is generated by plot.py at 2019-02-12 21:28:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 852.05 Mbit/s

95th percentile per-packet one-way delay: 76.799 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 546.14 Mbit/s

95th percentile per-packet one-way delay: 99.091 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 335.50 Mbit/s

95th percentile per-packet one-way delay: 61.335 ms

Loss rate: 0.01%

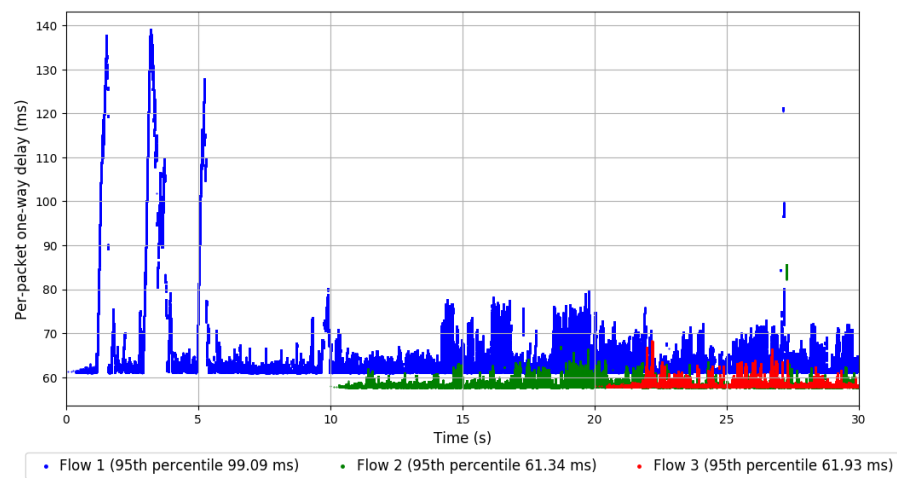
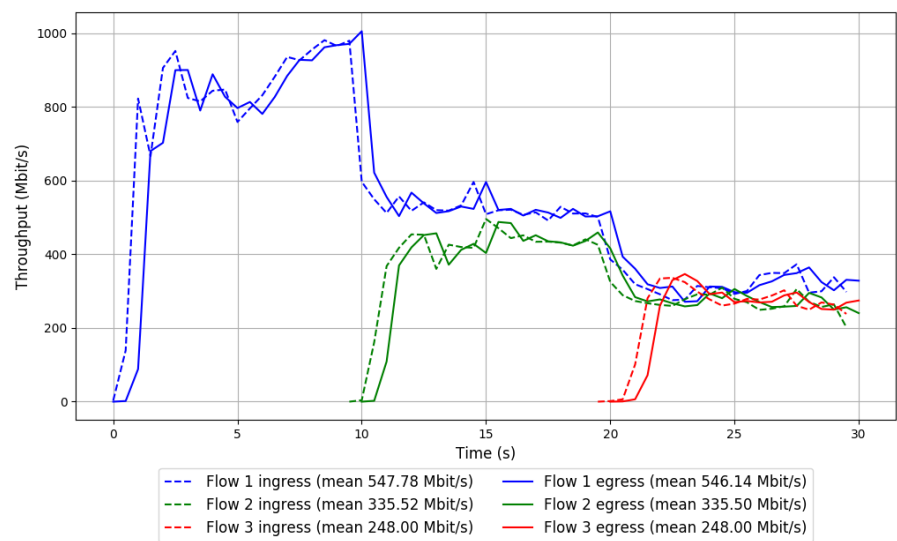
-- Flow 3:

Average throughput: 248.00 Mbit/s

95th percentile per-packet one-way delay: 61.930 ms

Loss rate: 0.00%

Run 1: Report of FillP — Data Link

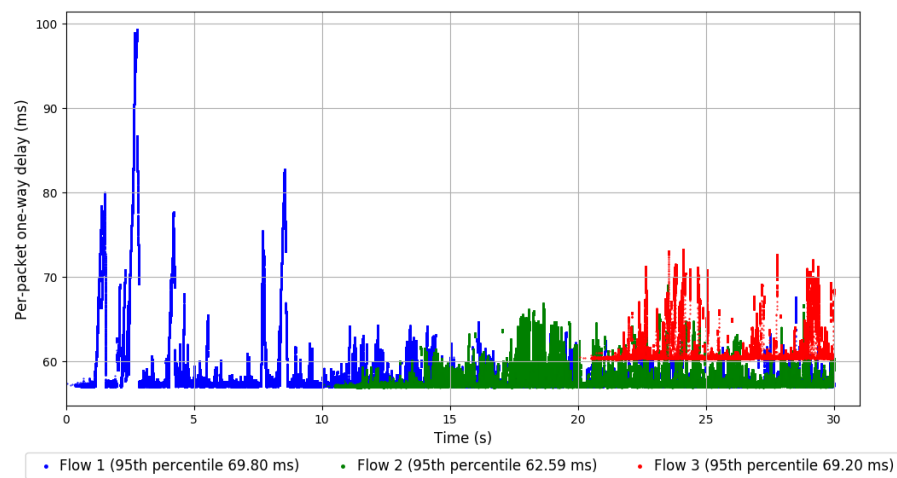
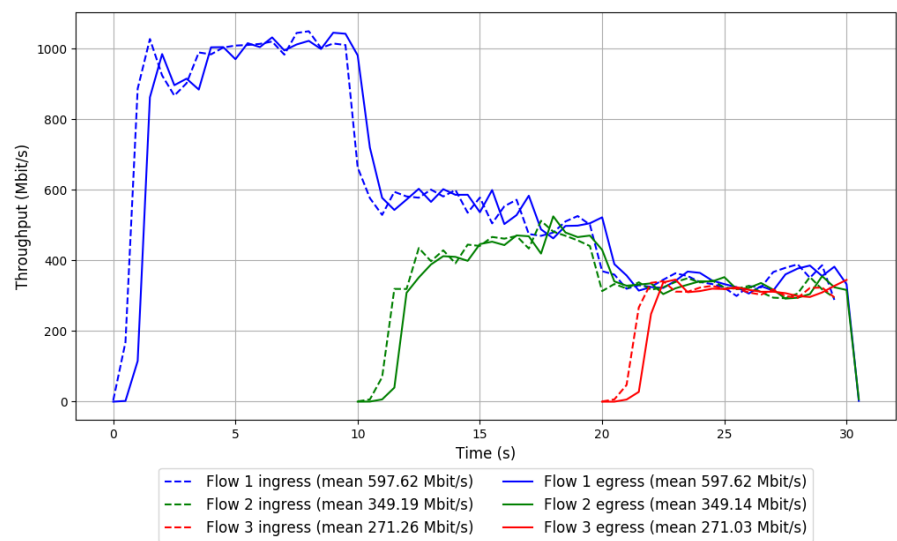


Run 2: Statistics of FillP

Start at: 2019-02-12 18:03:28
End at: 2019-02-12 18:03:58
Local clock offset: -0.107 ms
Remote clock offset: -0.058 ms

Below is generated by plot.py at 2019-02-12 21:45:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 919.51 Mbit/s
95th percentile per-packet one-way delay: 67.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 597.62 Mbit/s
95th percentile per-packet one-way delay: 69.801 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 349.14 Mbit/s
95th percentile per-packet one-way delay: 62.585 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 271.03 Mbit/s
95th percentile per-packet one-way delay: 69.197 ms
Loss rate: 0.01%

Run 2: Report of FillP — Data Link

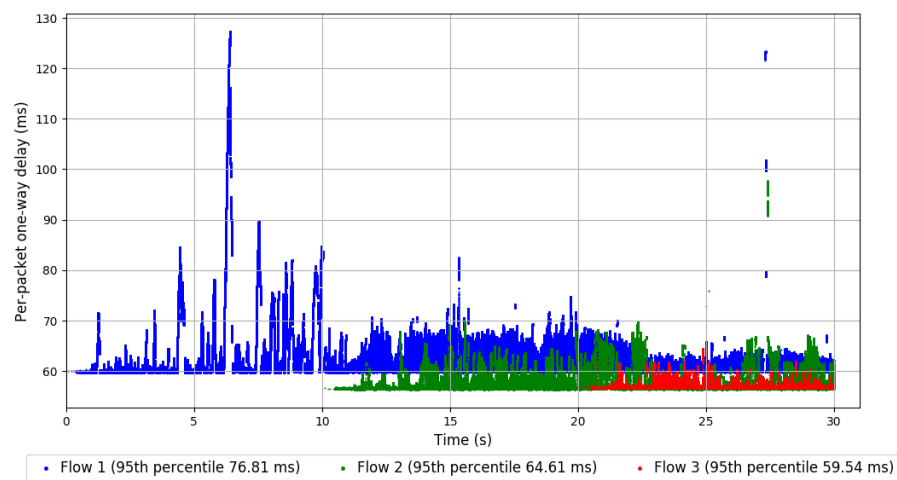
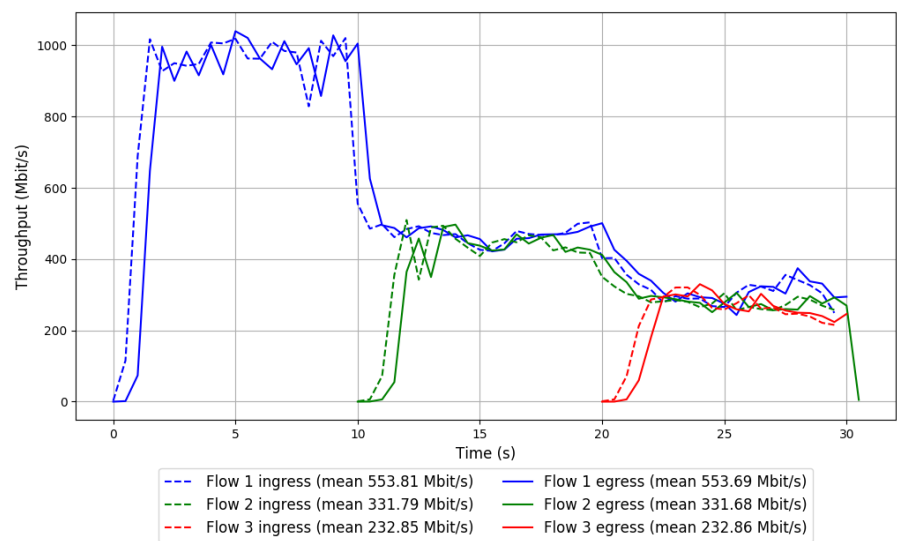


Run 3: Statistics of FillP

Start at: 2019-02-12 18:43:53
End at: 2019-02-12 18:44:23
Local clock offset: -0.185 ms
Remote clock offset: -0.632 ms

Below is generated by plot.py at 2019-02-12 21:46:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 850.44 Mbit/s
95th percentile per-packet one-way delay: 72.880 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 553.69 Mbit/s
95th percentile per-packet one-way delay: 76.805 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 331.68 Mbit/s
95th percentile per-packet one-way delay: 64.613 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 232.86 Mbit/s
95th percentile per-packet one-way delay: 59.538 ms
Loss rate: 0.00%

Run 3: Report of FillP — Data Link

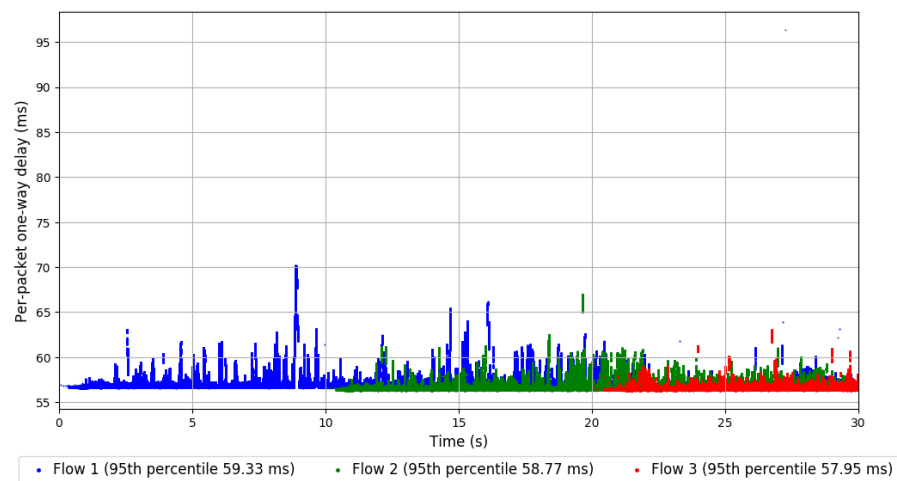
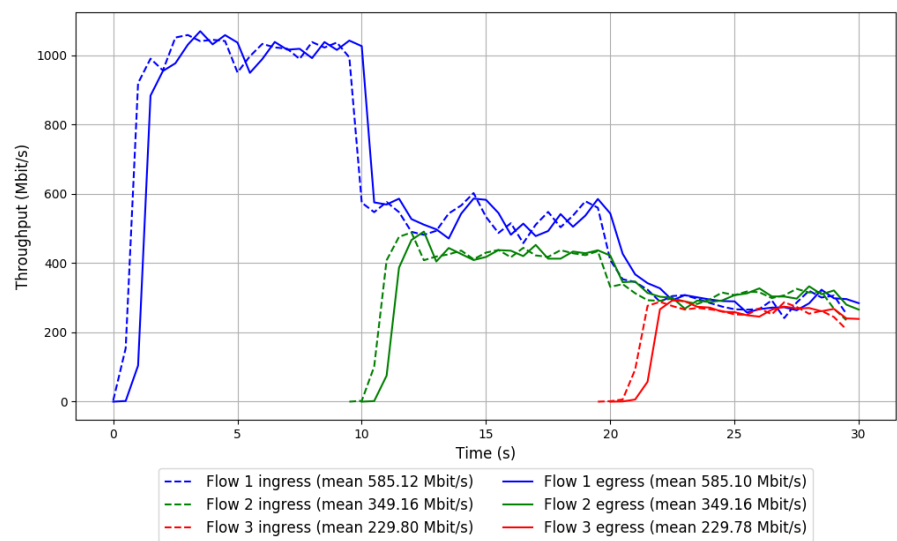


Run 4: Statistics of FillP

Start at: 2019-02-12 19:25:52
End at: 2019-02-12 19:26:22
Local clock offset: -0.222 ms
Remote clock offset: -0.742 ms

Below is generated by plot.py at 2019-02-12 21:51:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 893.72 Mbit/s
95th percentile per-packet one-way delay: 59.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 585.10 Mbit/s
95th percentile per-packet one-way delay: 59.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 349.16 Mbit/s
95th percentile per-packet one-way delay: 58.766 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 229.78 Mbit/s
95th percentile per-packet one-way delay: 57.945 ms
Loss rate: 0.00%

Run 4: Report of FillP — Data Link

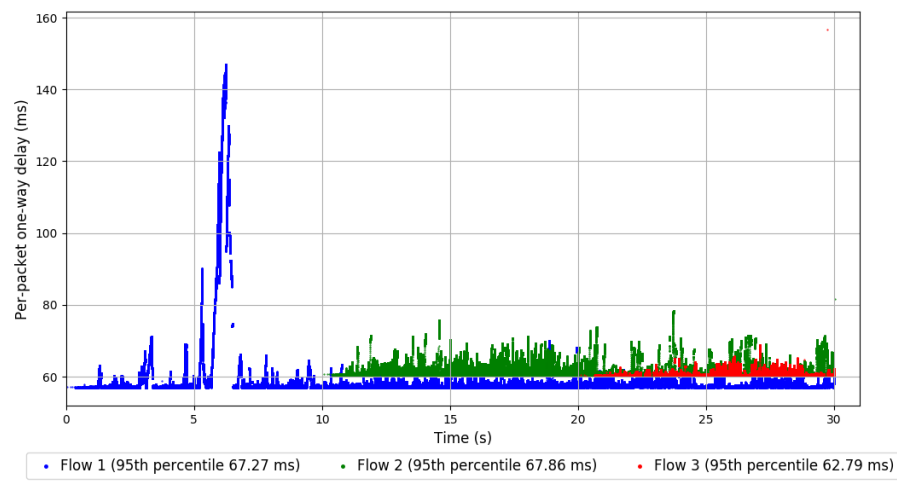
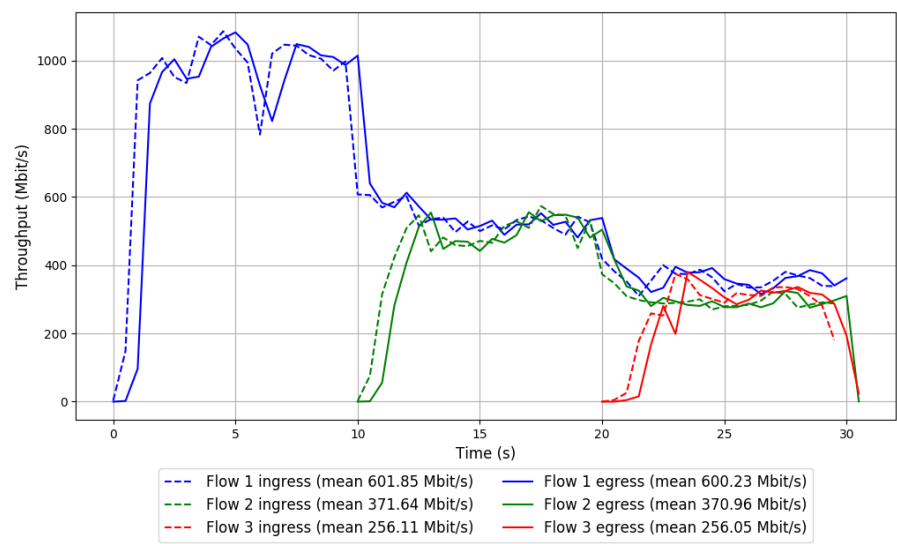


Run 5: Statistics of FillP

Start at: 2019-02-12 20:06:46
End at: 2019-02-12 20:07:16
Local clock offset: 0.079 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-02-12 21:52:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 931.10 Mbit/s
95th percentile per-packet one-way delay: 67.177 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 600.23 Mbit/s
95th percentile per-packet one-way delay: 67.266 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 370.96 Mbit/s
95th percentile per-packet one-way delay: 67.856 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 256.05 Mbit/s
95th percentile per-packet one-way delay: 62.794 ms
Loss rate: 0.00%

Run 5: Report of FillP — Data Link

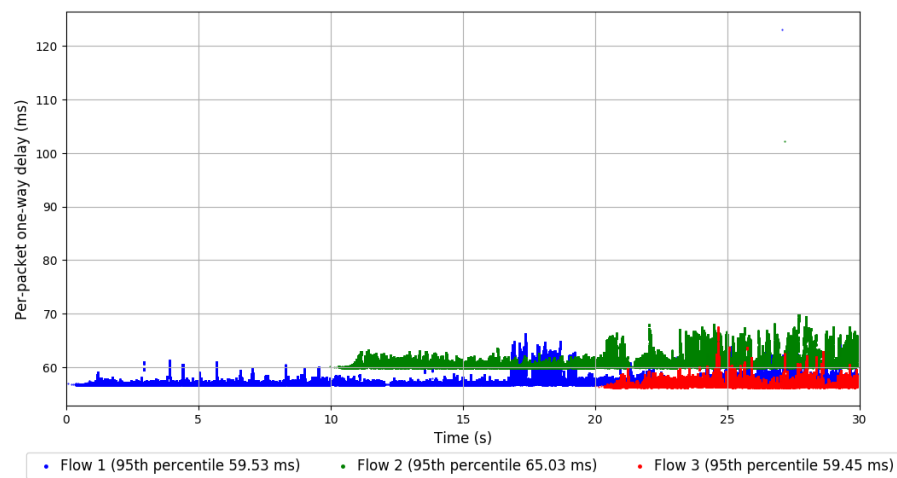
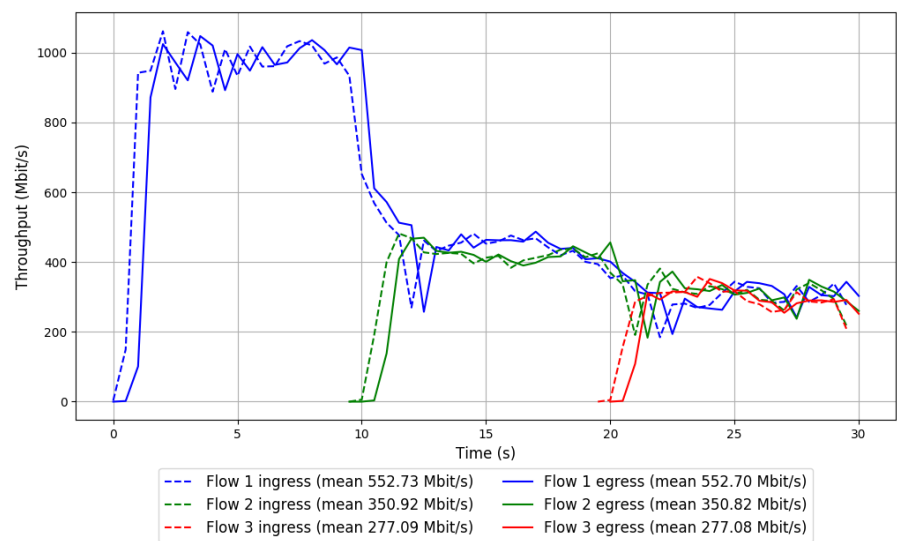


Run 1: Statistics of FillP-Sheep

Start at: 2019-02-12 17:02:29
End at: 2019-02-12 17:02:59
Local clock offset: 0.594 ms
Remote clock offset: -0.152 ms

Below is generated by plot.py at 2019-02-12 21:52:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 878.60 Mbit/s
95th percentile per-packet one-way delay: 62.306 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 552.70 Mbit/s
95th percentile per-packet one-way delay: 59.533 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 350.82 Mbit/s
95th percentile per-packet one-way delay: 65.025 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 277.08 Mbit/s
95th percentile per-packet one-way delay: 59.454 ms
Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-02-12 17:44:24

End at: 2019-02-12 17:44:54

Local clock offset: -0.195 ms

Remote clock offset: 0.405 ms

Below is generated by plot.py at 2019-02-12 21:52:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 849.91 Mbit/s

95th percentile per-packet one-way delay: 71.870 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 542.55 Mbit/s

95th percentile per-packet one-way delay: 73.691 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 329.36 Mbit/s

95th percentile per-packet one-way delay: 59.326 ms

Loss rate: 0.00%

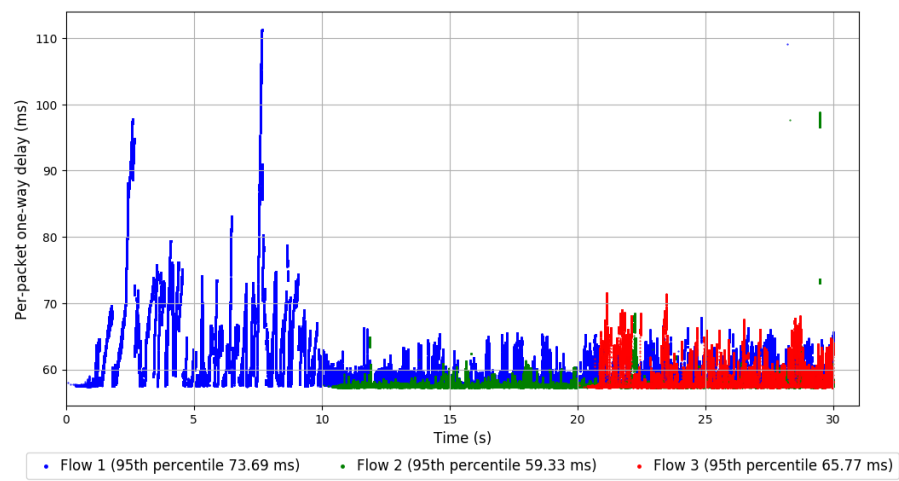
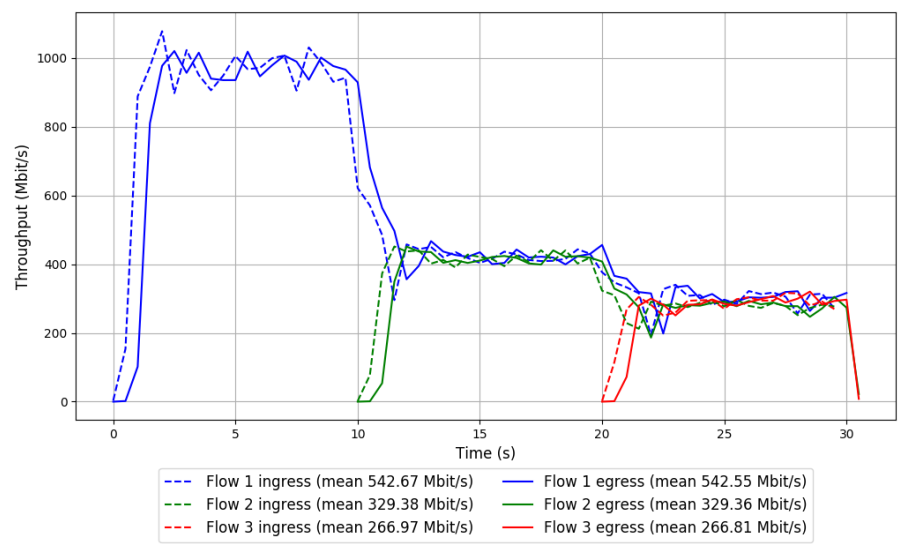
-- Flow 3:

Average throughput: 266.81 Mbit/s

95th percentile per-packet one-way delay: 65.768 ms

Loss rate: 0.01%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-02-12 18:25:18

End at: 2019-02-12 18:25:48

Local clock offset: -0.218 ms

Remote clock offset: -0.07 ms

Below is generated by plot.py at 2019-02-12 21:52:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 840.84 Mbit/s

95th percentile per-packet one-way delay: 66.586 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 552.15 Mbit/s

95th percentile per-packet one-way delay: 67.410 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 309.36 Mbit/s

95th percentile per-packet one-way delay: 66.491 ms

Loss rate: 0.03%

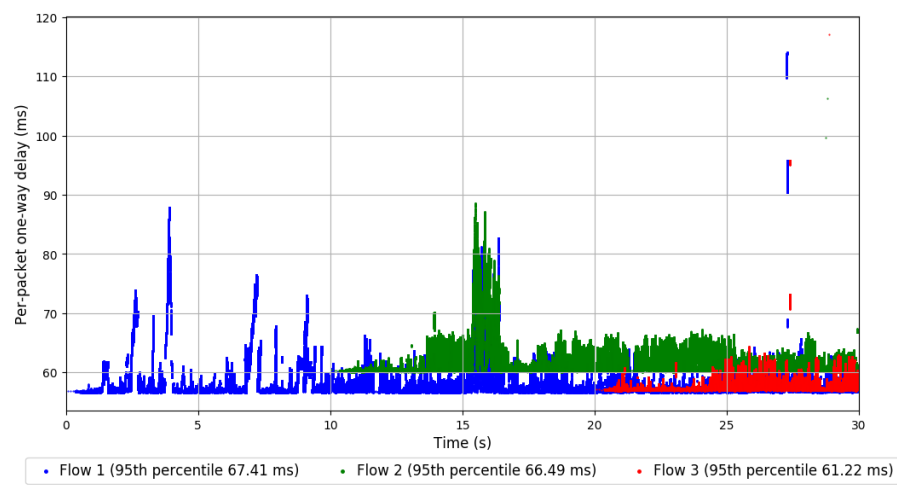
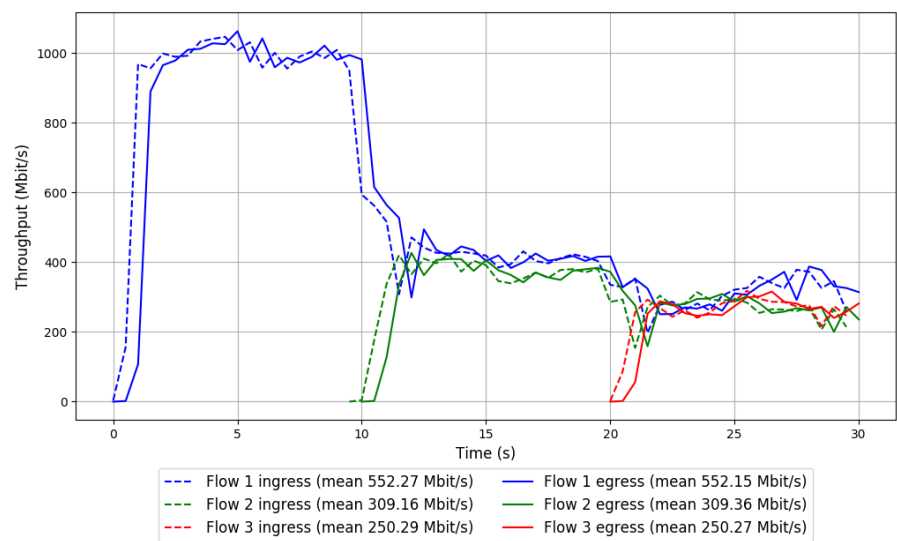
-- Flow 3:

Average throughput: 250.27 Mbit/s

95th percentile per-packet one-way delay: 61.220 ms

Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-02-12 19:06:19

End at: 2019-02-12 19:06:49

Local clock offset: -0.461 ms

Remote clock offset: 0.075 ms

Below is generated by plot.py at 2019-02-12 21:55:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 850.16 Mbit/s

95th percentile per-packet one-way delay: 61.369 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 556.65 Mbit/s

95th percentile per-packet one-way delay: 60.606 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 319.06 Mbit/s

95th percentile per-packet one-way delay: 60.117 ms

Loss rate: 0.00%

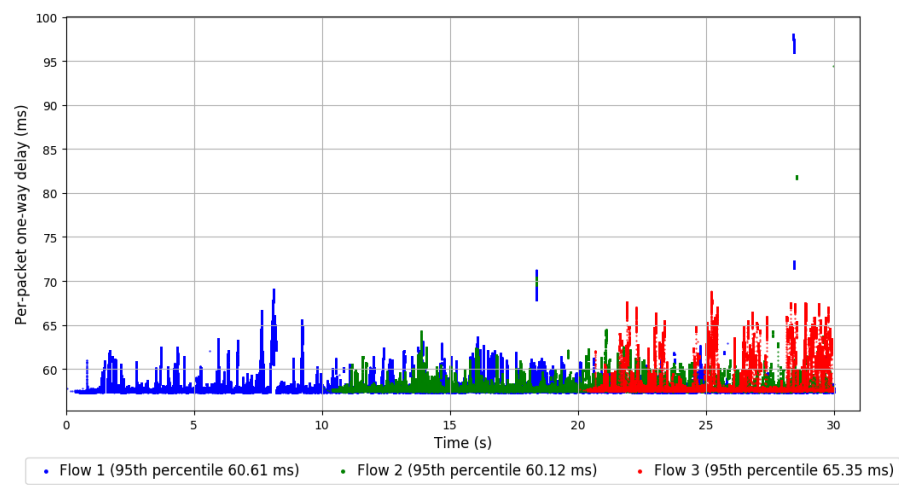
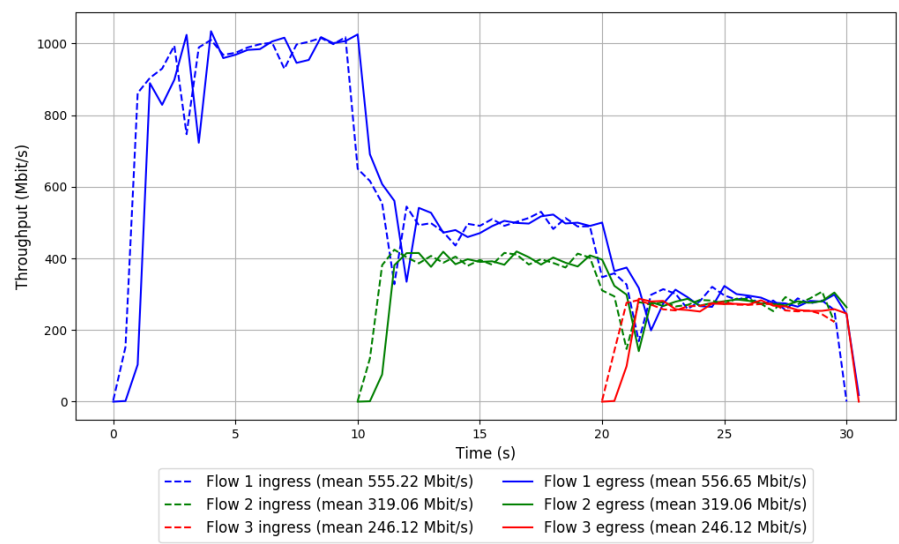
-- Flow 3:

Average throughput: 246.12 Mbit/s

95th percentile per-packet one-way delay: 65.348 ms

Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link

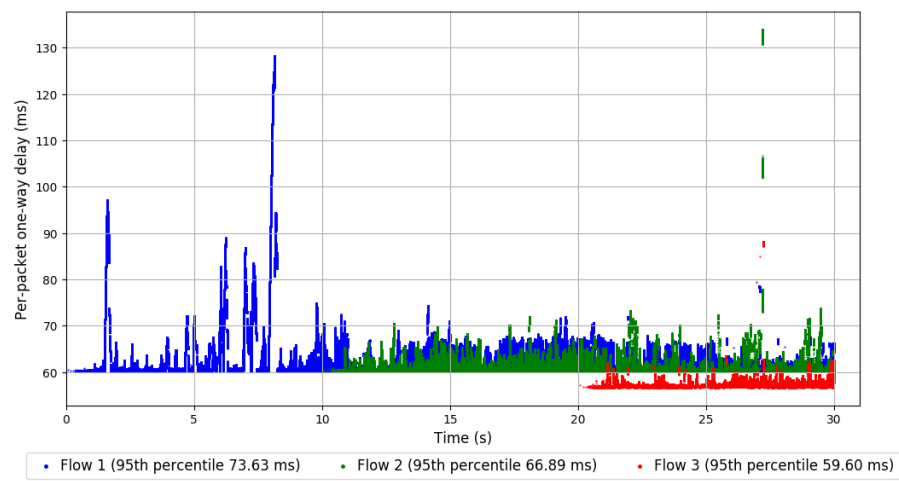
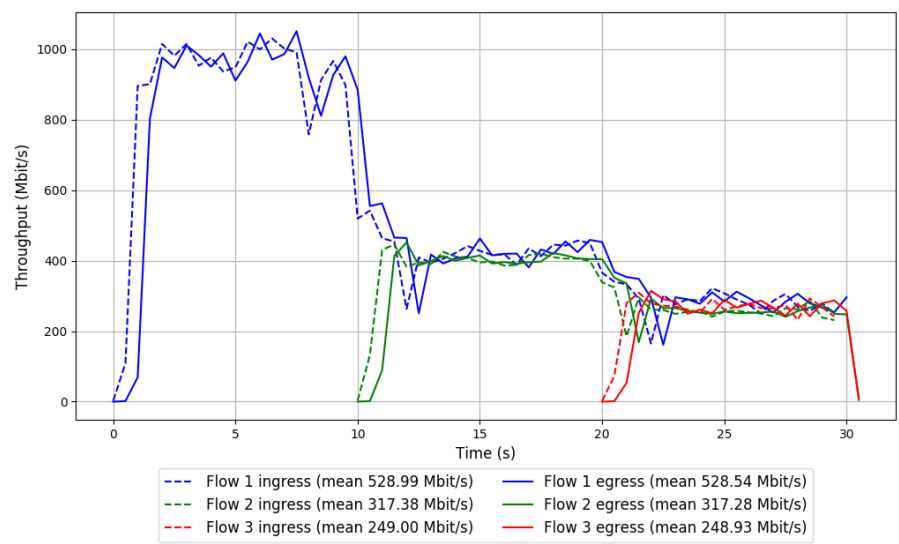


Run 5: Statistics of FillP-Sheep

Start at: 2019-02-12 19:48:18
End at: 2019-02-12 19:48:48
Local clock offset: -0.054 ms
Remote clock offset: -0.119 ms

```
# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 821.97 Mbit/s
95th percentile per-packet one-way delay: 69.939 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 528.54 Mbit/s
95th percentile per-packet one-way delay: 73.628 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 317.28 Mbit/s
95th percentile per-packet one-way delay: 66.893 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 248.93 Mbit/s
95th percentile per-packet one-way delay: 59.601 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

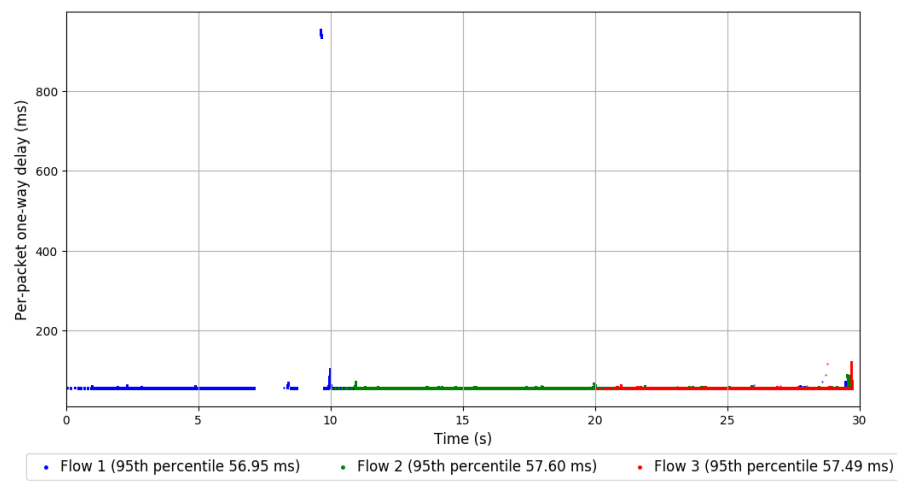
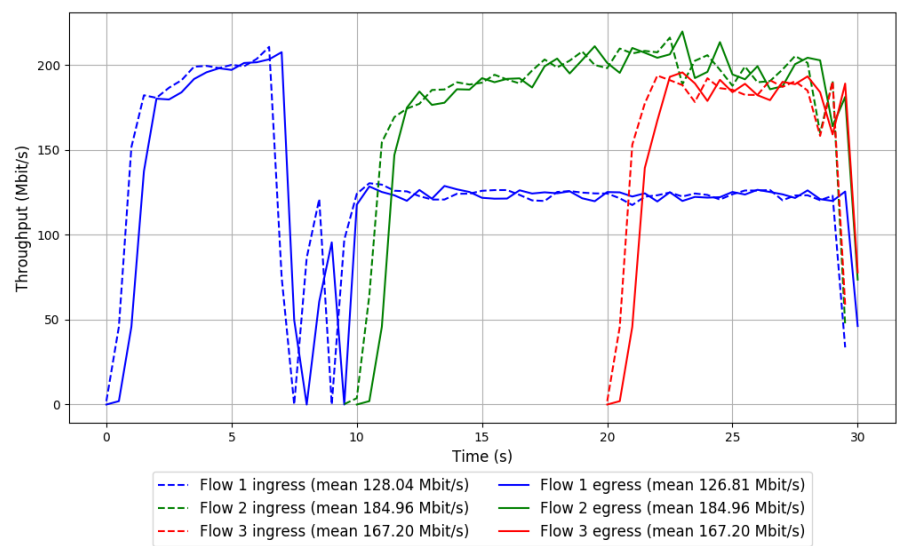


Run 1: Statistics of Indigo

Start at: 2019-02-12 17:20:00
End at: 2019-02-12 17:20:30
Local clock offset: -0.077 ms
Remote clock offset: -1.427 ms

Below is generated by plot.py at 2019-02-12 22:11:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 303.77 Mbit/s
95th percentile per-packet one-way delay: 57.359 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 126.81 Mbit/s
95th percentile per-packet one-way delay: 56.952 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 184.96 Mbit/s
95th percentile per-packet one-way delay: 57.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 167.20 Mbit/s
95th percentile per-packet one-way delay: 57.486 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

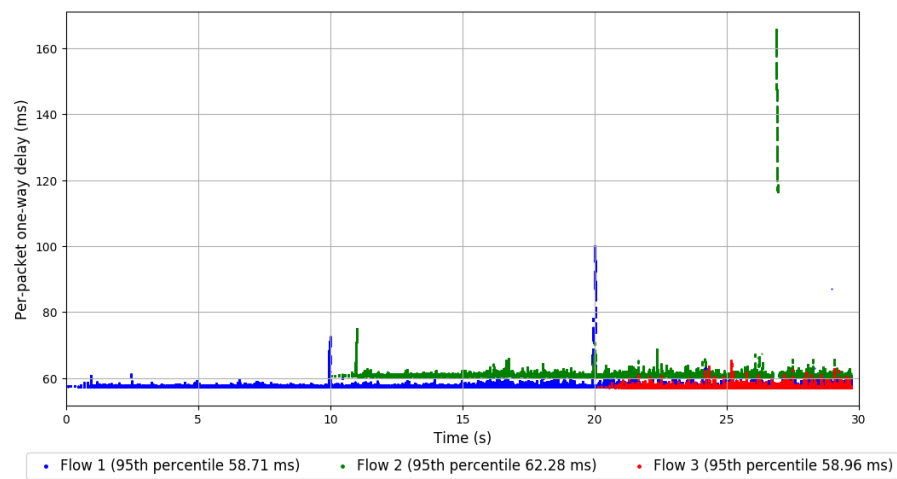
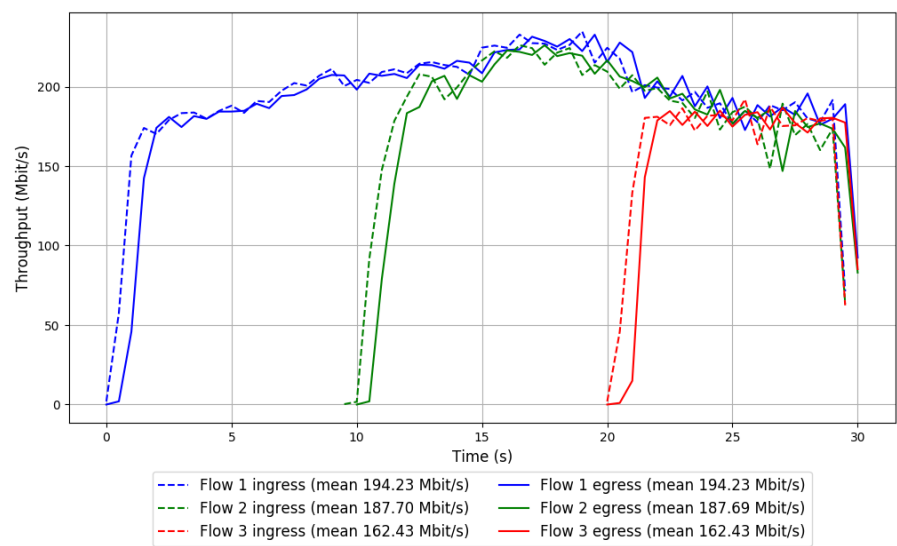


Run 2: Statistics of Indigo

Start at: 2019-02-12 18:01:25
End at: 2019-02-12 18:01:55
Local clock offset: -0.519 ms
Remote clock offset: -0.127 ms

Below is generated by plot.py at 2019-02-12 22:11:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 371.21 Mbit/s
95th percentile per-packet one-way delay: 61.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.23 Mbit/s
95th percentile per-packet one-way delay: 58.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.69 Mbit/s
95th percentile per-packet one-way delay: 62.276 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 162.43 Mbit/s
95th percentile per-packet one-way delay: 58.959 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-02-12 18:41:52

End at: 2019-02-12 18:42:22

Local clock offset: -0.252 ms

Remote clock offset: 1.288 ms

Below is generated by plot.py at 2019-02-12 22:11:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.15 Mbit/s

95th percentile per-packet one-way delay: 62.548 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 207.05 Mbit/s

95th percentile per-packet one-way delay: 62.557 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 177.71 Mbit/s

95th percentile per-packet one-way delay: 60.071 ms

Loss rate: 0.00%

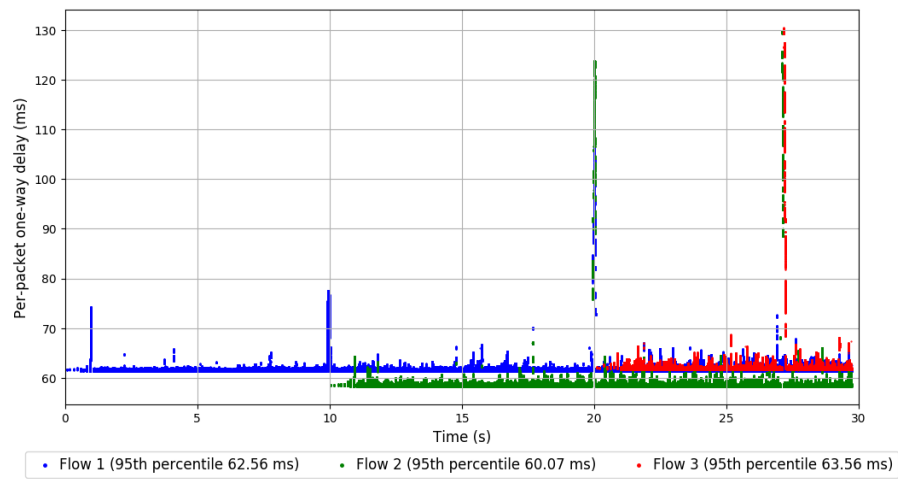
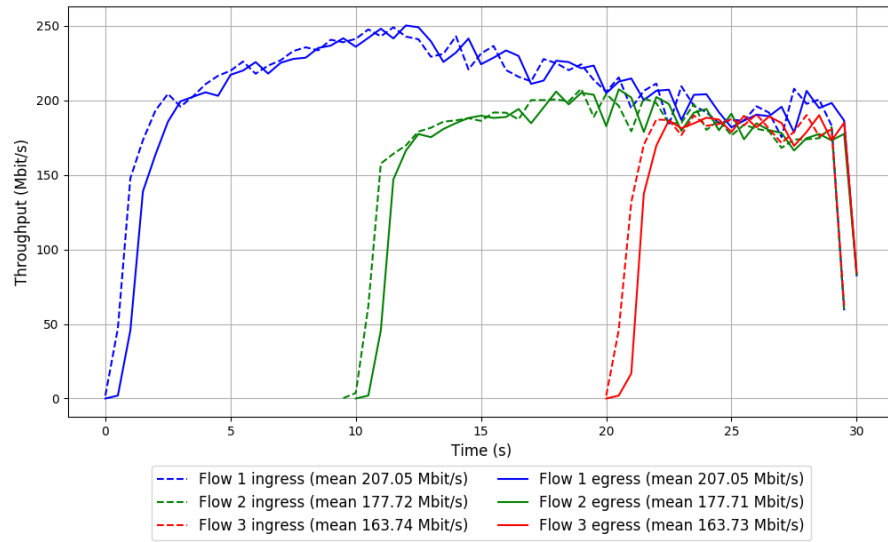
-- Flow 3:

Average throughput: 163.73 Mbit/s

95th percentile per-packet one-way delay: 63.564 ms

Loss rate: 0.02%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-02-12 19:23:42

End at: 2019-02-12 19:24:12

Local clock offset: -0.455 ms

Remote clock offset: 0.025 ms

Below is generated by plot.py at 2019-02-12 22:11:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 379.53 Mbit/s

95th percentile per-packet one-way delay: 61.528 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 203.84 Mbit/s

95th percentile per-packet one-way delay: 62.064 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 187.51 Mbit/s

95th percentile per-packet one-way delay: 58.822 ms

Loss rate: 0.00%

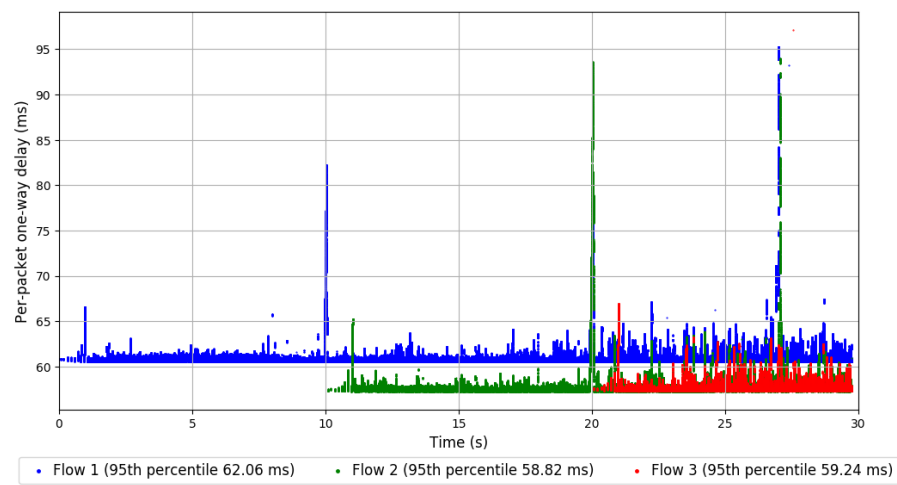
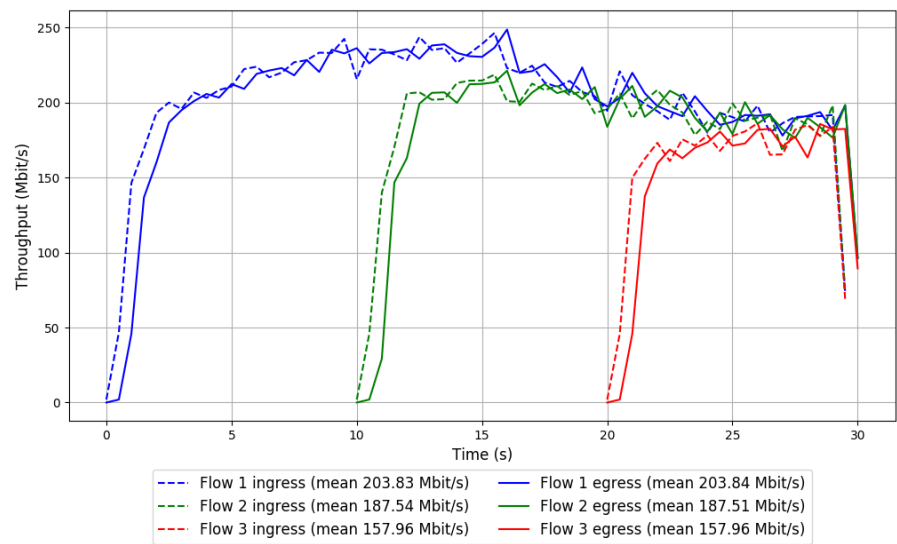
-- Flow 3:

Average throughput: 157.96 Mbit/s

95th percentile per-packet one-way delay: 59.244 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

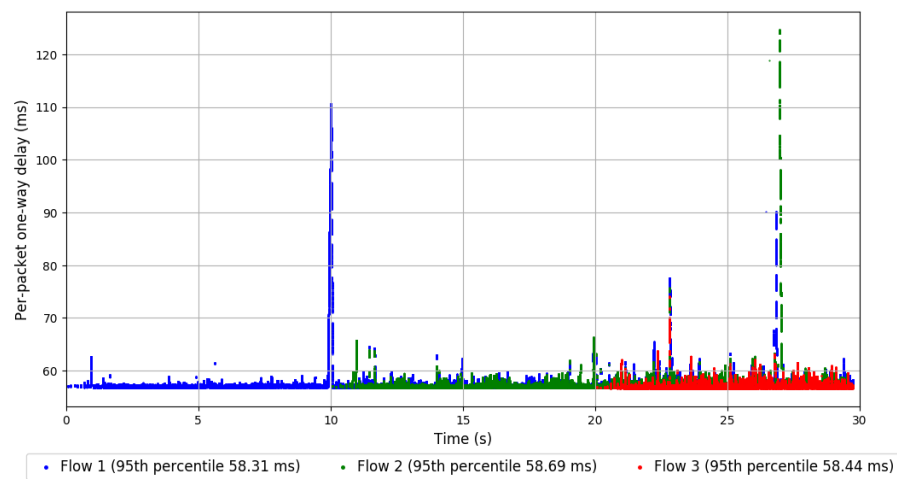
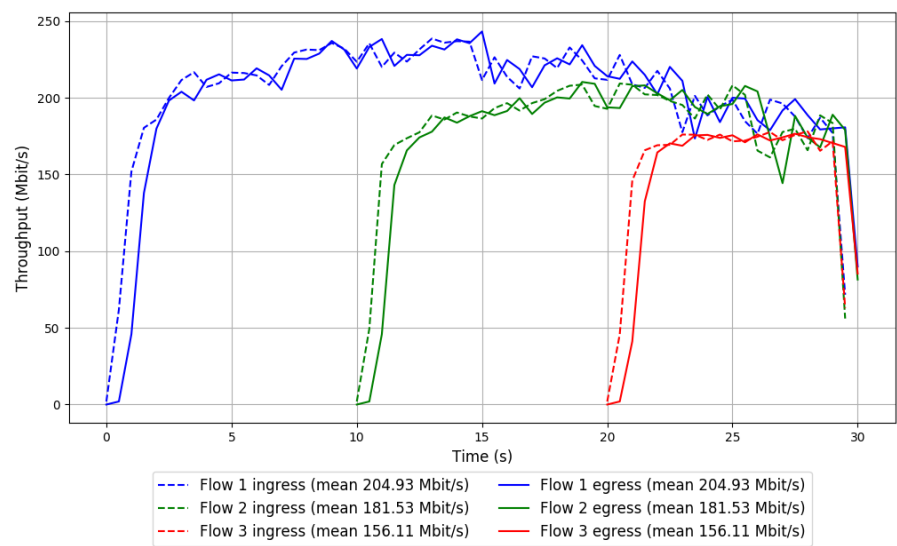


Run 5: Statistics of Indigo

Start at: 2019-02-12 20:04:45
End at: 2019-02-12 20:05:15
Local clock offset: -0.6 ms
Remote clock offset: -0.727 ms

Below is generated by plot.py at 2019-02-12 22:11:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 376.03 Mbit/s
95th percentile per-packet one-way delay: 58.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.93 Mbit/s
95th percentile per-packet one-way delay: 58.307 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.53 Mbit/s
95th percentile per-packet one-way delay: 58.689 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 156.11 Mbit/s
95th percentile per-packet one-way delay: 58.435 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

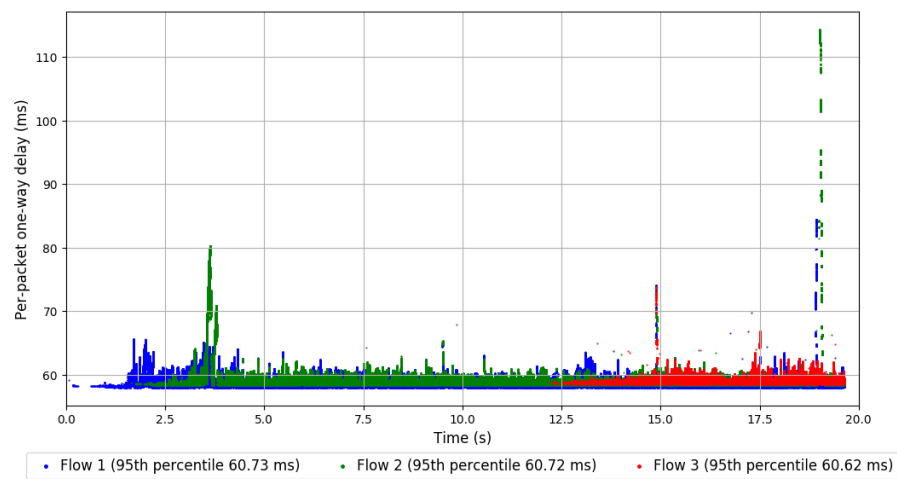
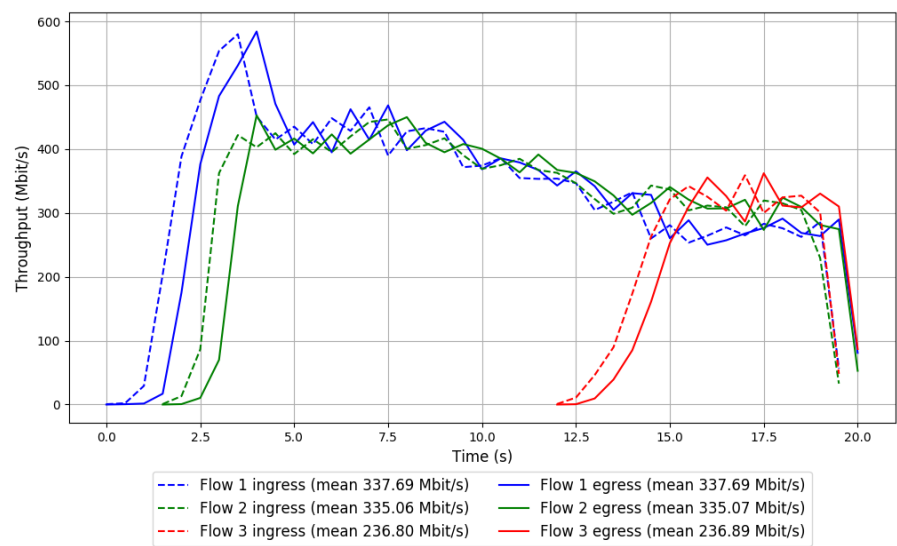
Start at: 2019-02-12 16:51:50

End at: 2019-02-12 16:52:20

Local clock offset: 0.248 ms

Remote clock offset: 1.295 ms

Run 1: Report of Indigo-MusesC3 — Data Link

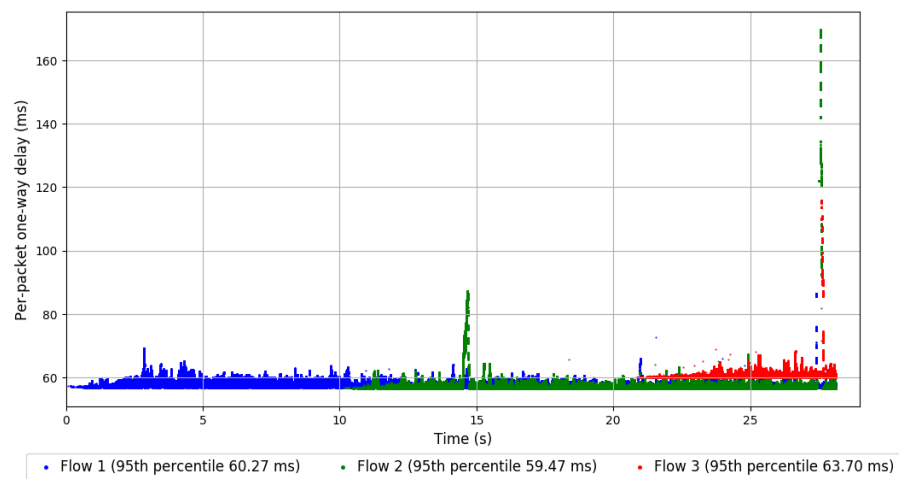
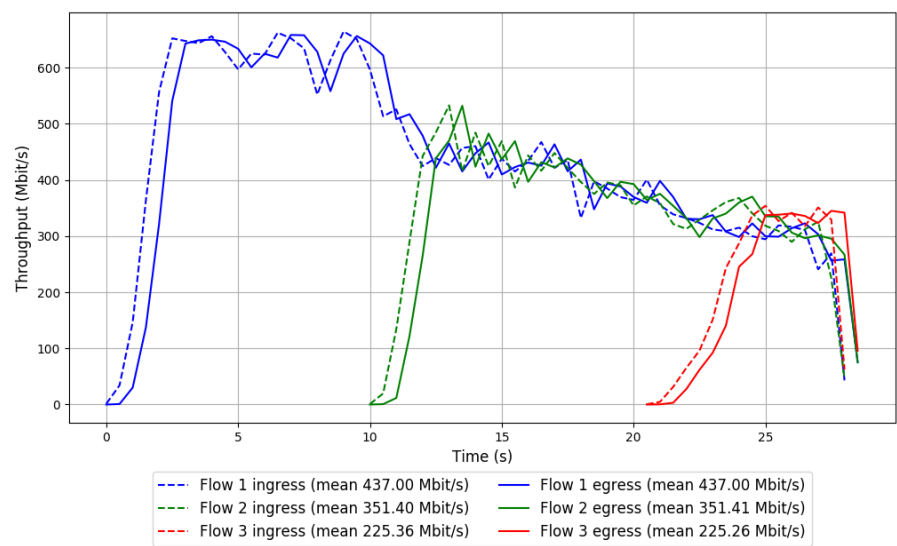


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-12 17:33:15
End at: 2019-02-12 17:33:45
Local clock offset: 0.22 ms
Remote clock offset: -0.131 ms

Below is generated by plot.py at 2019-02-12 22:14:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 720.99 Mbit/s
95th percentile per-packet one-way delay: 60.942 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 437.00 Mbit/s
95th percentile per-packet one-way delay: 60.270 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 351.41 Mbit/s
95th percentile per-packet one-way delay: 59.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 225.26 Mbit/s
95th percentile per-packet one-way delay: 63.700 ms
Loss rate: 0.07%

Run 2: Report of Indigo-MusesC3 — Data Link

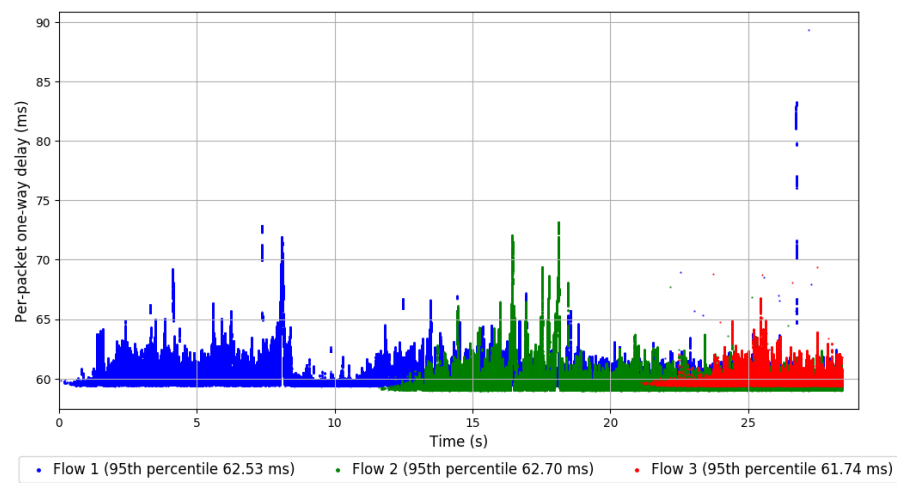
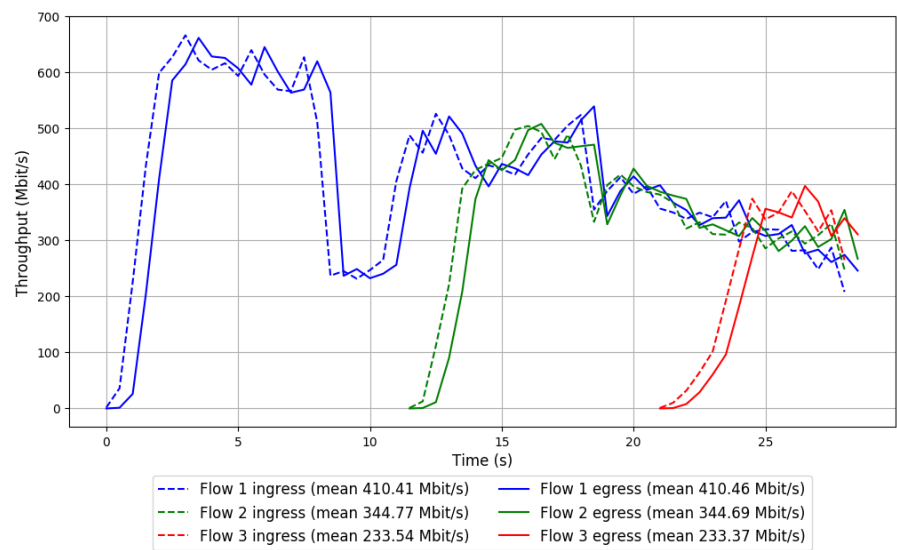


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-12 18:14:47
End at: 2019-02-12 18:15:17
Local clock offset: 0.238 ms
Remote clock offset: -0.706 ms

Below is generated by plot.py at 2019-02-12 22:18:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 675.23 Mbit/s
95th percentile per-packet one-way delay: 62.482 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 410.46 Mbit/s
95th percentile per-packet one-way delay: 62.535 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 344.69 Mbit/s
95th percentile per-packet one-way delay: 62.697 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 233.37 Mbit/s
95th percentile per-packet one-way delay: 61.745 ms
Loss rate: 0.11%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-12 18:55:17

End at: 2019-02-12 18:55:47

Local clock offset: 0.037 ms

Remote clock offset: 0.371 ms

Below is generated by plot.py at 2019-02-12 22:23:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 728.07 Mbit/s

95th percentile per-packet one-way delay: 63.178 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 424.44 Mbit/s

95th percentile per-packet one-way delay: 61.449 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 373.37 Mbit/s

95th percentile per-packet one-way delay: 64.380 ms

Loss rate: 0.00%

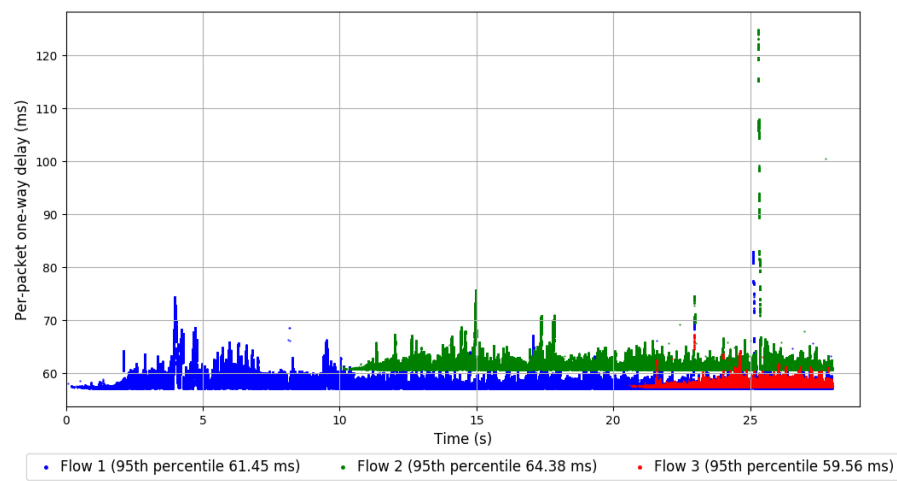
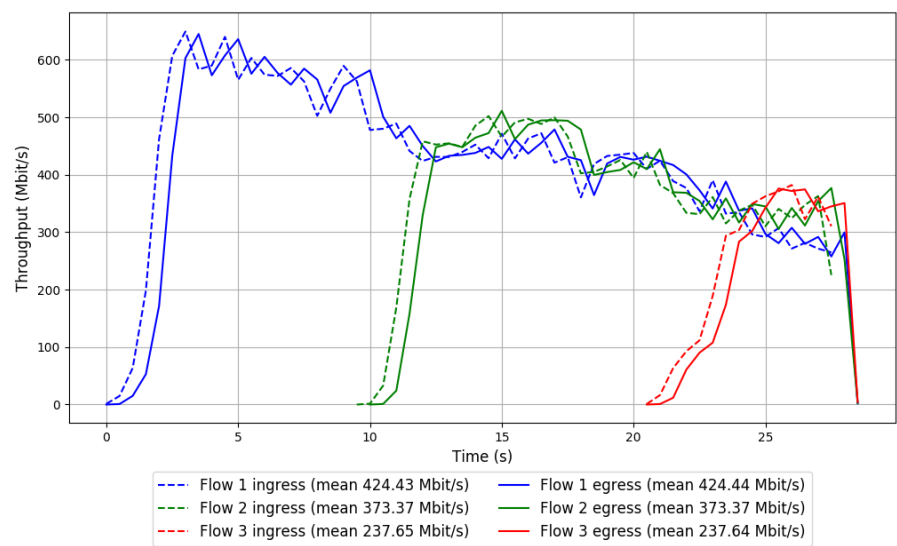
-- Flow 3:

Average throughput: 237.64 Mbit/s

95th percentile per-packet one-way delay: 59.557 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link

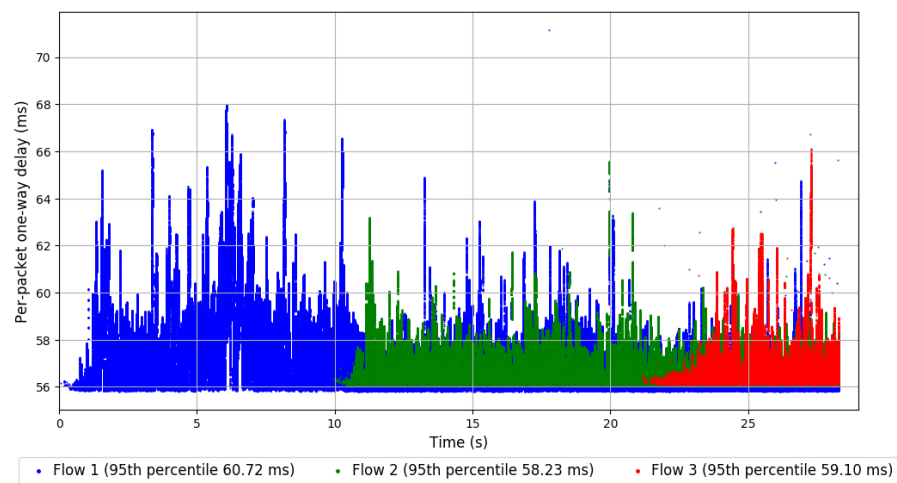
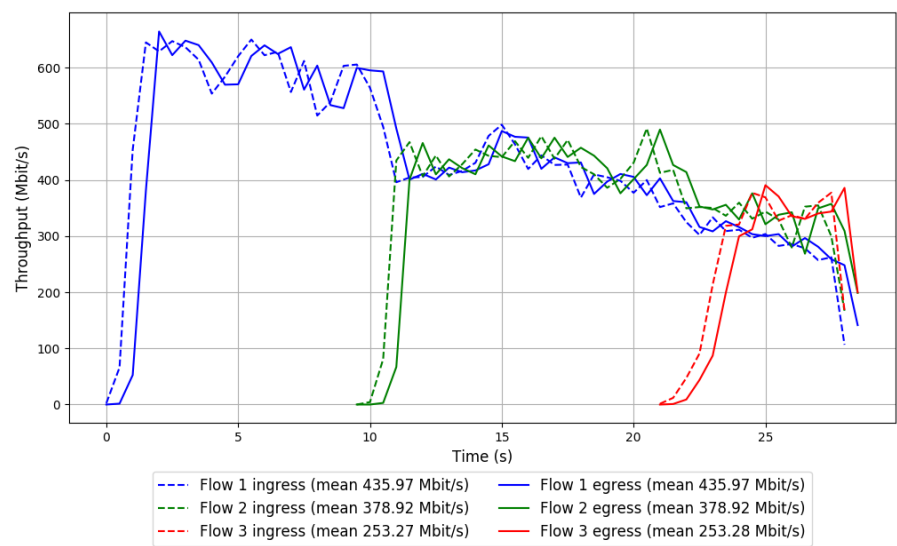


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-12 19:36:52
End at: 2019-02-12 19:37:22
Local clock offset: -0.218 ms
Remote clock offset: -0.957 ms

Below is generated by plot.py at 2019-02-12 22:27:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 746.58 Mbit/s
95th percentile per-packet one-way delay: 59.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 435.97 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 378.92 Mbit/s
95th percentile per-packet one-way delay: 58.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 253.28 Mbit/s
95th percentile per-packet one-way delay: 59.096 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-12 17:17:49

End at: 2019-02-12 17:18:19

Local clock offset: 0.187 ms

Remote clock offset: 0.779 ms

Below is generated by plot.py at 2019-02-12 22:28:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 745.29 Mbit/s

95th percentile per-packet one-way delay: 72.819 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 469.00 Mbit/s

95th percentile per-packet one-way delay: 75.751 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 389.66 Mbit/s

95th percentile per-packet one-way delay: 66.772 ms

Loss rate: 0.00%

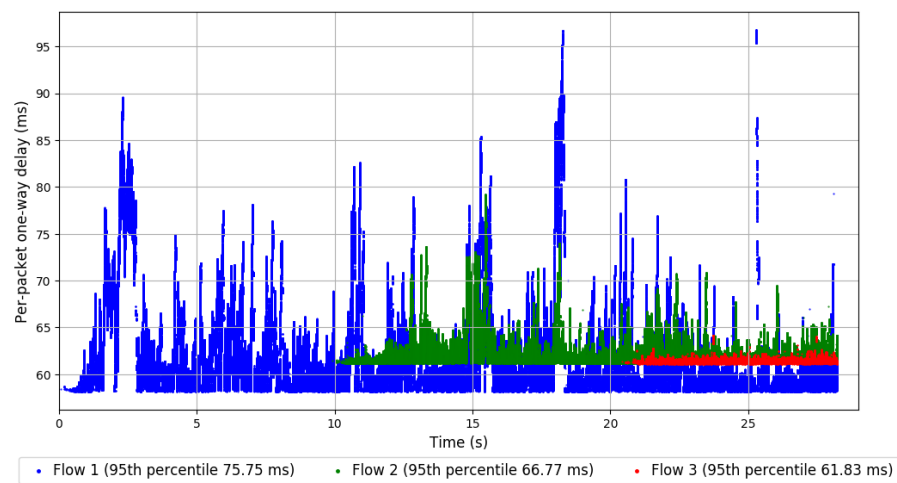
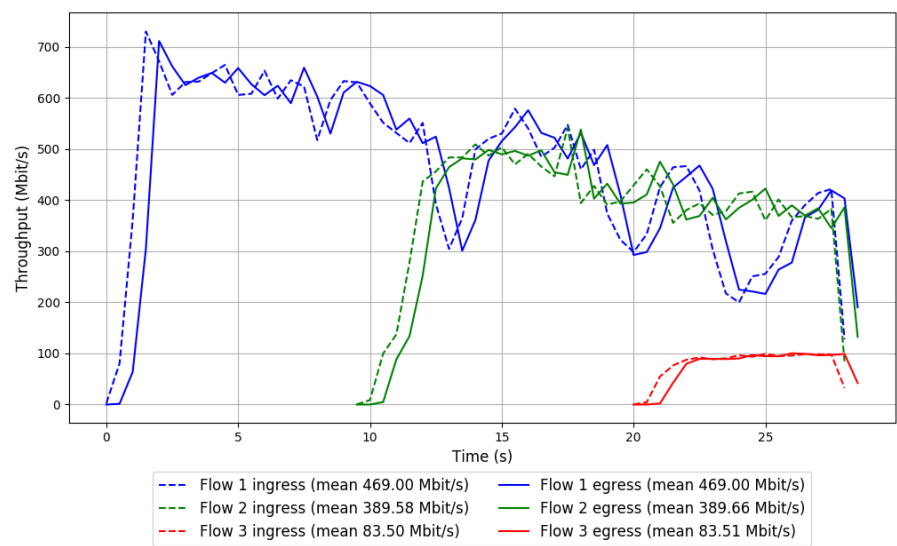
-- Flow 3:

Average throughput: 83.51 Mbit/s

95th percentile per-packet one-way delay: 61.833 ms

Loss rate: 0.02%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-12 17:59:14

End at: 2019-02-12 17:59:44

Local clock offset: -0.114 ms

Remote clock offset: 0.004 ms

Below is generated by plot.py at 2019-02-12 22:30:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 800.69 Mbit/s

95th percentile per-packet one-way delay: 68.694 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 458.12 Mbit/s

95th percentile per-packet one-way delay: 70.105 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 394.48 Mbit/s

95th percentile per-packet one-way delay: 67.542 ms

Loss rate: 0.09%

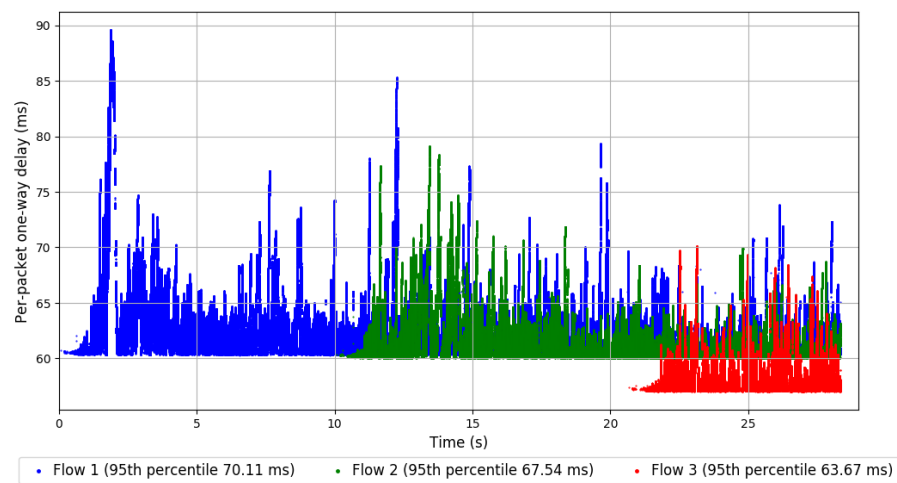
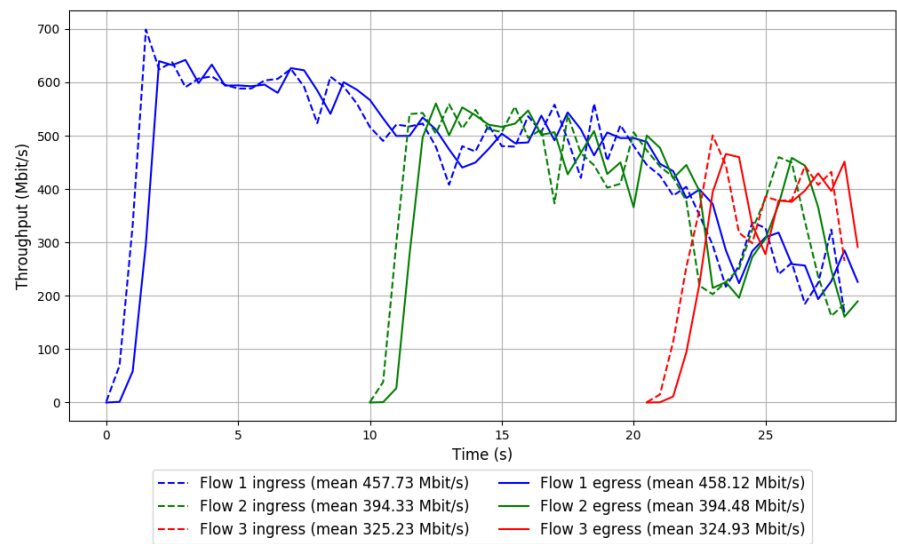
-- Flow 3:

Average throughput: 324.93 Mbit/s

95th percentile per-packet one-way delay: 63.669 ms

Loss rate: 0.33%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-12 18:39:56

End at: 2019-02-12 18:40:26

Local clock offset: -0.236 ms

Remote clock offset: -1.41 ms

Below is generated by plot.py at 2019-02-12 22:30:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 749.84 Mbit/s

95th percentile per-packet one-way delay: 66.034 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 491.35 Mbit/s

95th percentile per-packet one-way delay: 67.509 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 361.20 Mbit/s

95th percentile per-packet one-way delay: 59.749 ms

Loss rate: 0.00%

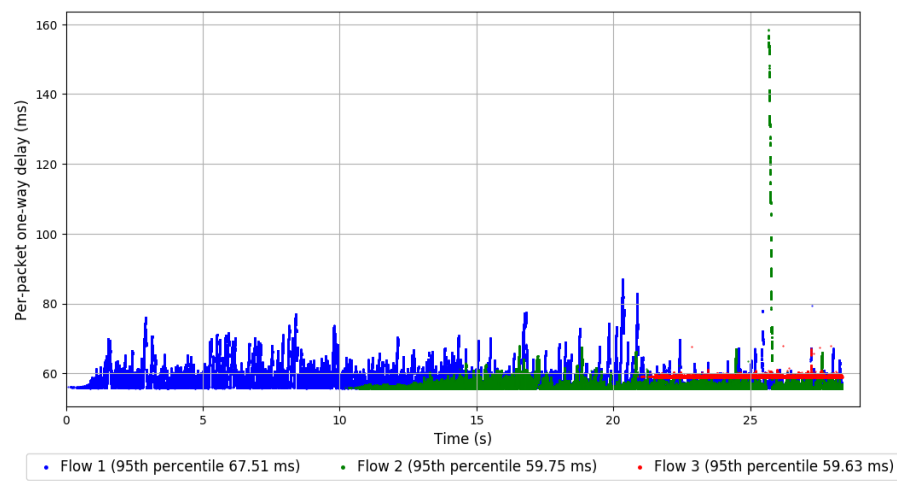
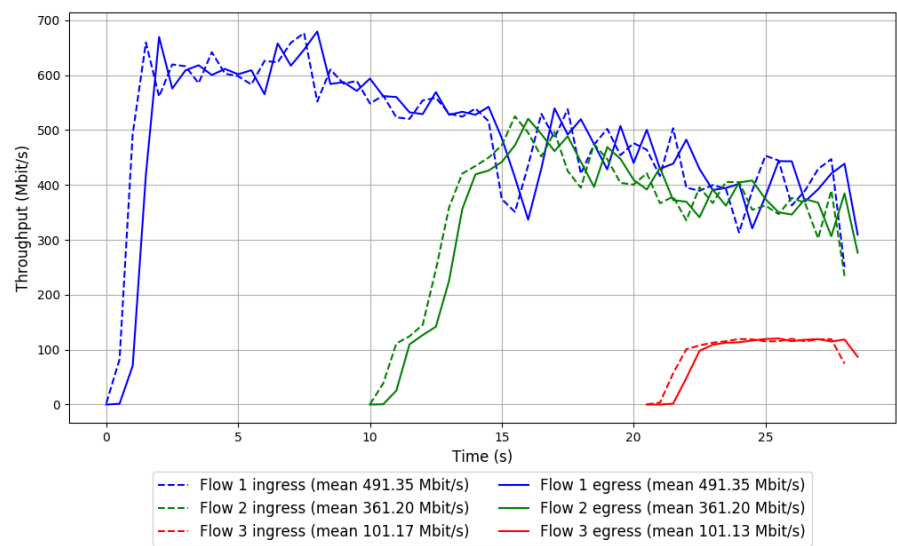
-- Flow 3:

Average throughput: 101.13 Mbit/s

95th percentile per-packet one-way delay: 59.626 ms

Loss rate: 0.07%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-12 19:21:35

End at: 2019-02-12 19:22:05

Local clock offset: 0.023 ms

Remote clock offset: 0.559 ms

Below is generated by plot.py at 2019-02-12 22:32:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 807.10 Mbit/s

95th percentile per-packet one-way delay: 69.331 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 496.42 Mbit/s

95th percentile per-packet one-way delay: 70.745 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 433.28 Mbit/s

95th percentile per-packet one-way delay: 66.997 ms

Loss rate: 0.06%

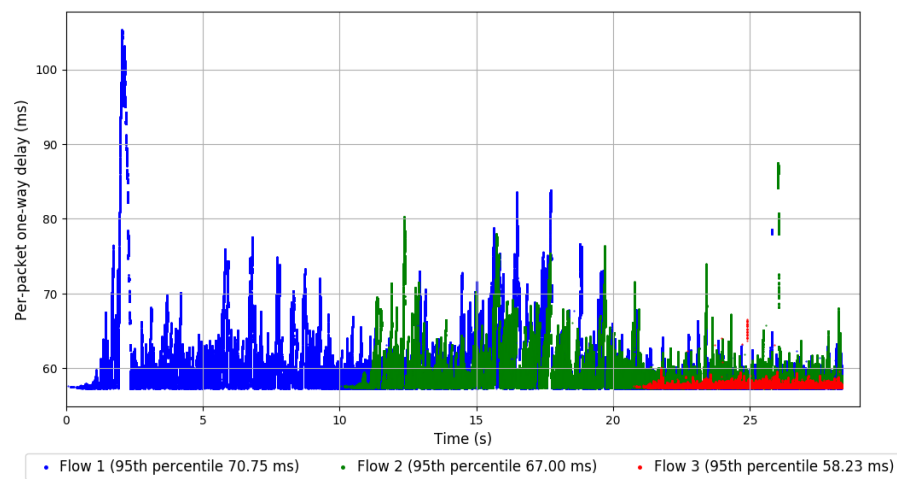
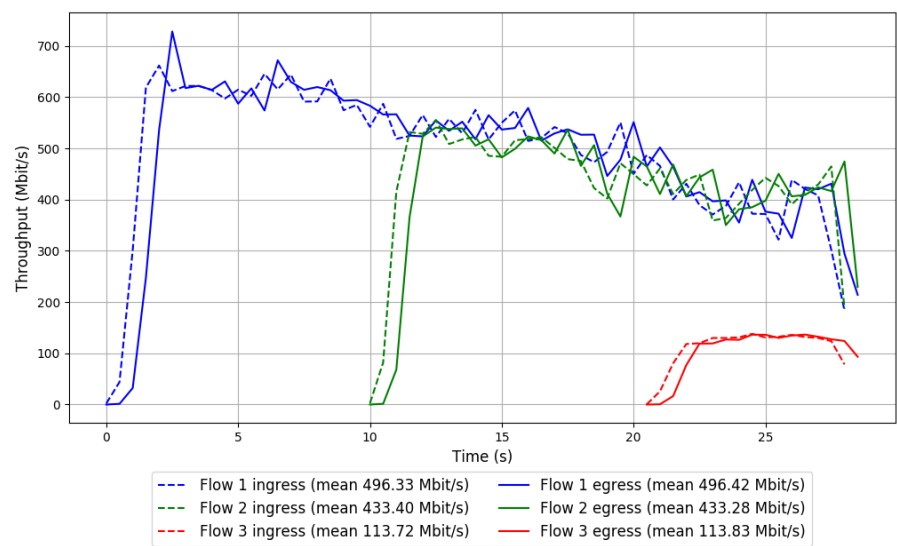
-- Flow 3:

Average throughput: 113.83 Mbit/s

95th percentile per-packet one-way delay: 58.231 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-12 20:02:45

End at: 2019-02-12 20:03:15

Local clock offset: -0.609 ms

Remote clock offset: -0.16 ms

Below is generated by plot.py at 2019-02-12 22:34:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 761.06 Mbit/s

95th percentile per-packet one-way delay: 88.052 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 473.74 Mbit/s

95th percentile per-packet one-way delay: 81.508 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 412.35 Mbit/s

95th percentile per-packet one-way delay: 95.350 ms

Loss rate: 0.01%

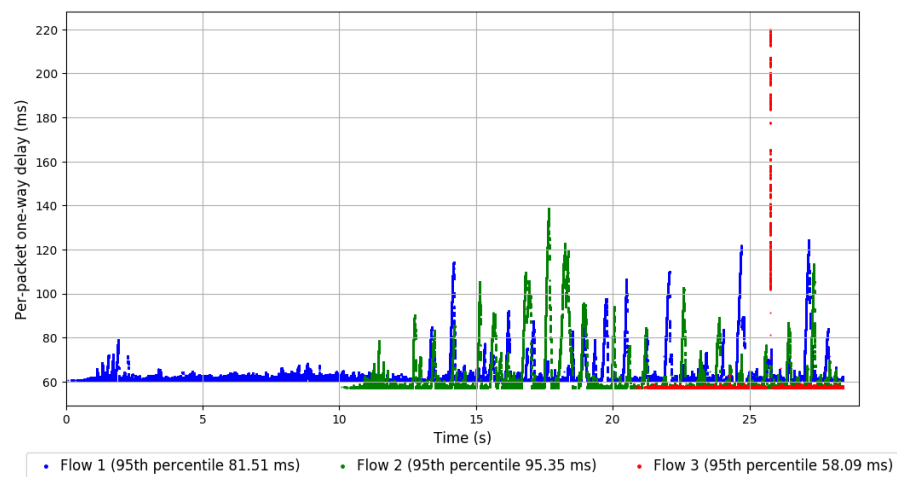
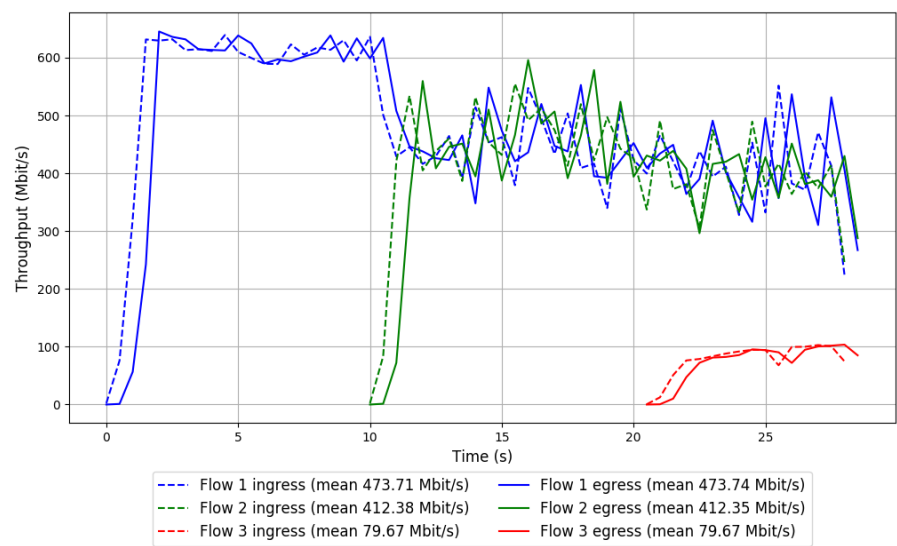
-- Flow 3:

Average throughput: 79.67 Mbit/s

95th percentile per-packet one-way delay: 58.085 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-12 16:57:17

End at: 2019-02-12 16:57:47

Local clock offset: 0.348 ms

Remote clock offset: 1.168 ms

Below is generated by plot.py at 2019-02-12 22:35:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 672.85 Mbit/s

95th percentile per-packet one-way delay: 60.879 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 409.20 Mbit/s

95th percentile per-packet one-way delay: 61.133 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 315.78 Mbit/s

95th percentile per-packet one-way delay: 60.385 ms

Loss rate: 0.00%

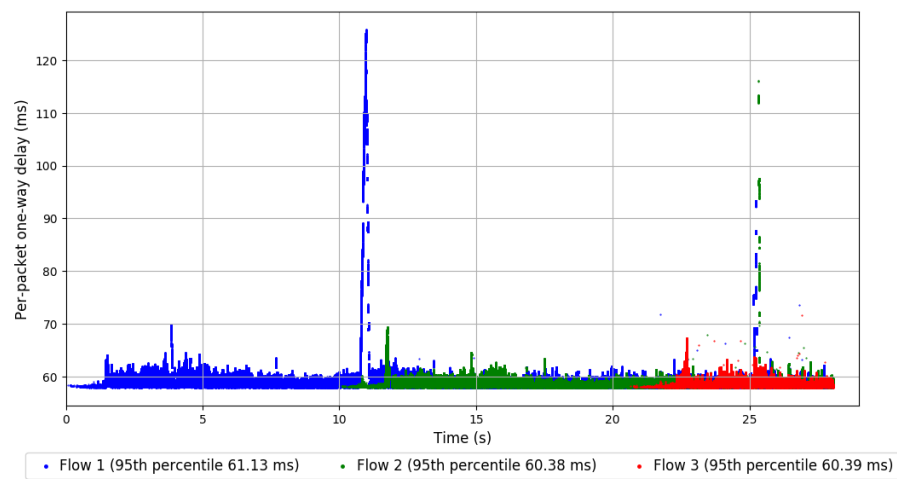
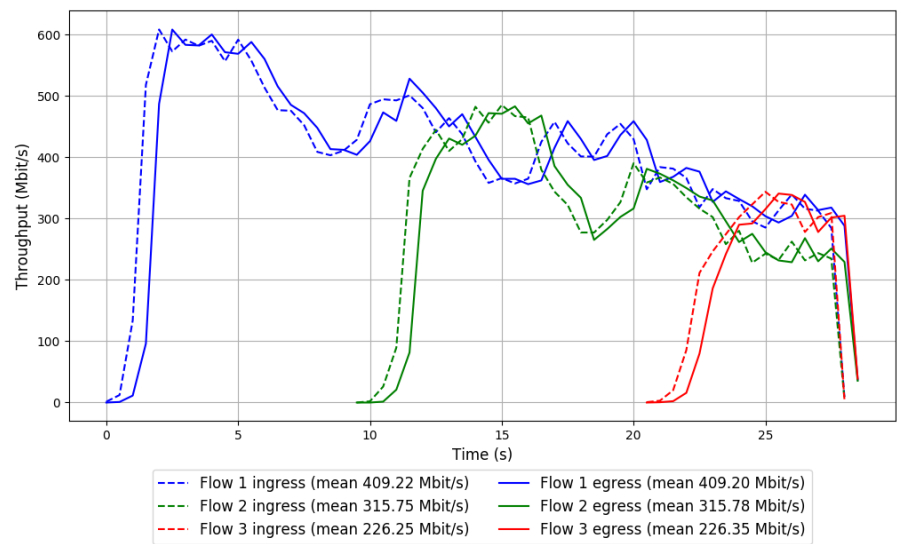
-- Flow 3:

Average throughput: 226.35 Mbit/s

95th percentile per-packet one-way delay: 60.389 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

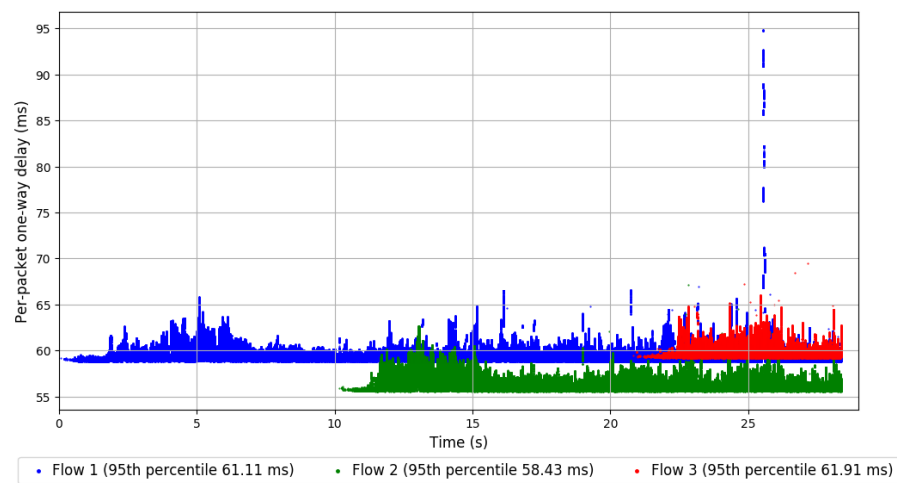
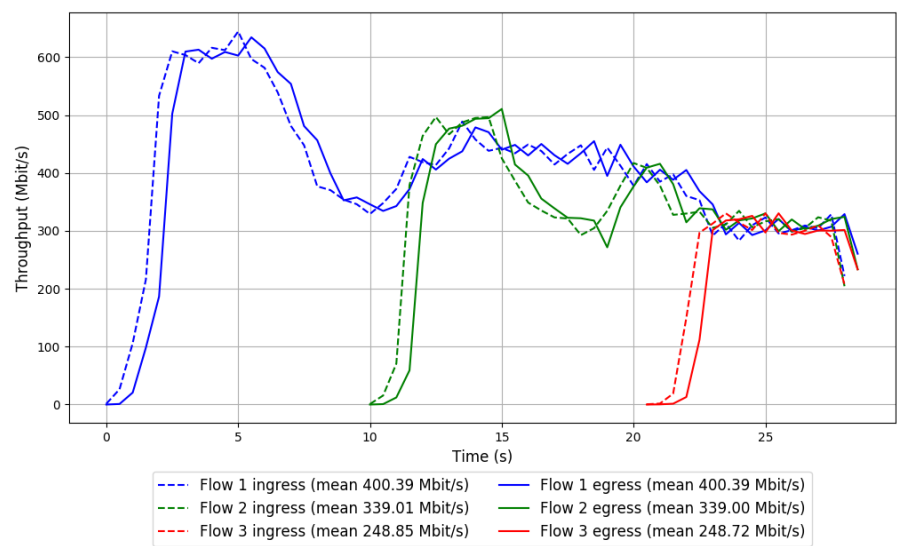


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-12 17:38:55
End at: 2019-02-12 17:39:25
Local clock offset: 0.242 ms
Remote clock offset: -1.112 ms

Below is generated by plot.py at 2019-02-12 22:41:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 684.73 Mbit/s
95th percentile per-packet one-way delay: 60.930 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 400.39 Mbit/s
95th percentile per-packet one-way delay: 61.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 339.00 Mbit/s
95th percentile per-packet one-way delay: 58.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.72 Mbit/s
95th percentile per-packet one-way delay: 61.915 ms
Loss rate: 0.08%

Run 2: Report of Indigo-MusesD — Data Link

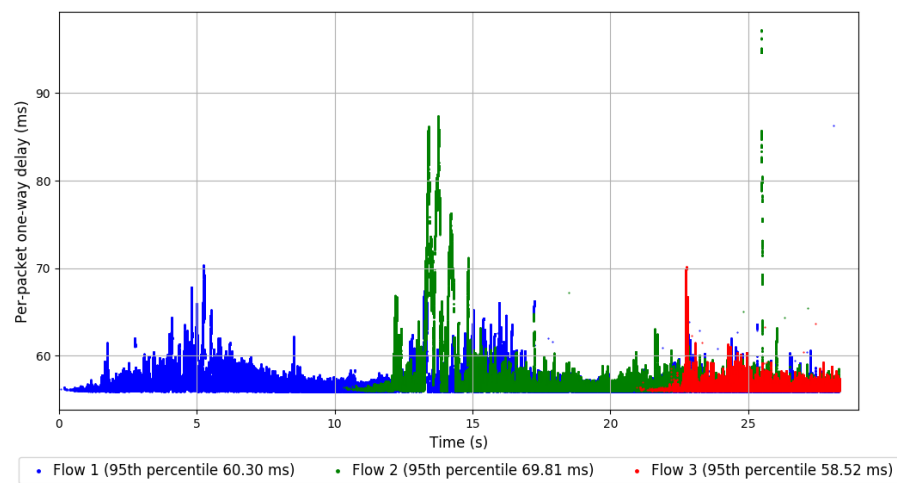
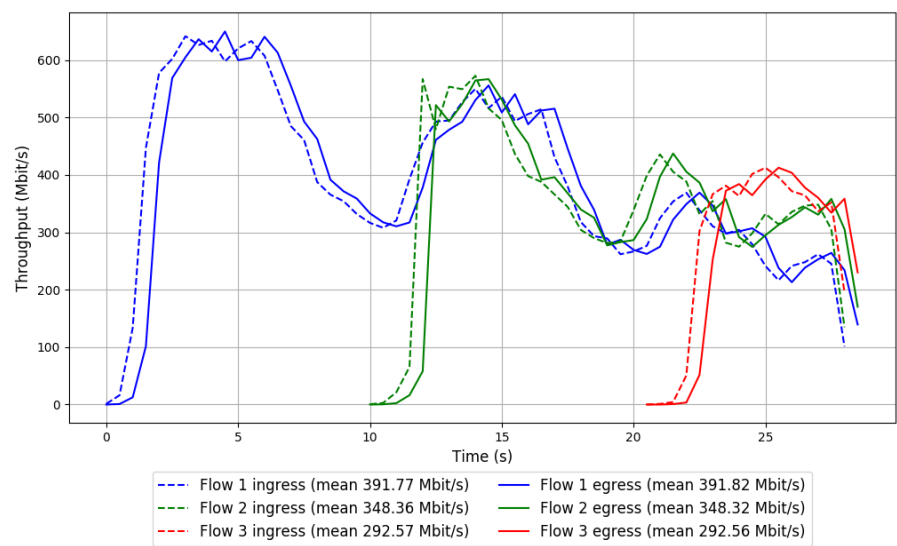


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-12 18:20:07
End at: 2019-02-12 18:20:37
Local clock offset: -0.426 ms
Remote clock offset: -1.164 ms

Below is generated by plot.py at 2019-02-12 22:44:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 689.72 Mbit/s
95th percentile per-packet one-way delay: 61.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 391.82 Mbit/s
95th percentile per-packet one-way delay: 60.296 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.32 Mbit/s
95th percentile per-packet one-way delay: 69.806 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 292.56 Mbit/s
95th percentile per-packet one-way delay: 58.516 ms
Loss rate: 0.01%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-12 19:00:50

End at: 2019-02-12 19:01:20

Local clock offset: -0.167 ms

Remote clock offset: 1.131 ms

Below is generated by plot.py at 2019-02-12 22:46:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 710.84 Mbit/s

95th percentile per-packet one-way delay: 61.197 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 423.82 Mbit/s

95th percentile per-packet one-way delay: 61.092 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 347.10 Mbit/s

95th percentile per-packet one-way delay: 61.687 ms

Loss rate: 0.01%

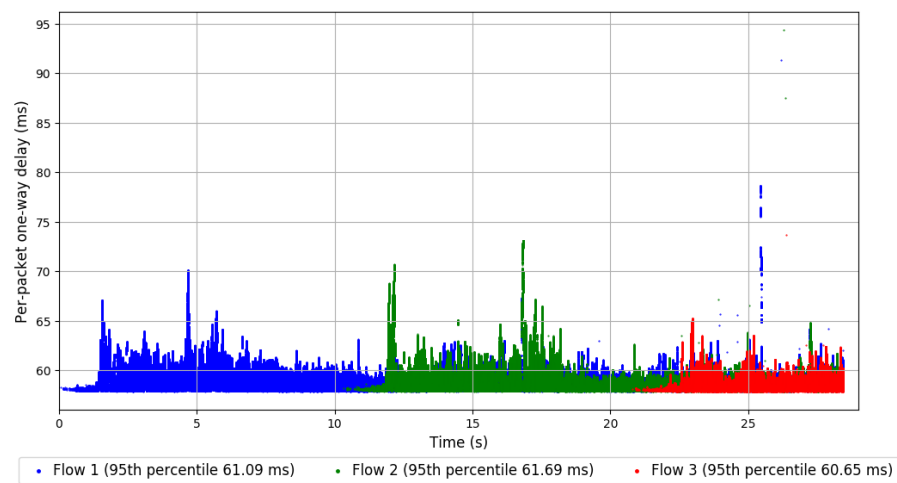
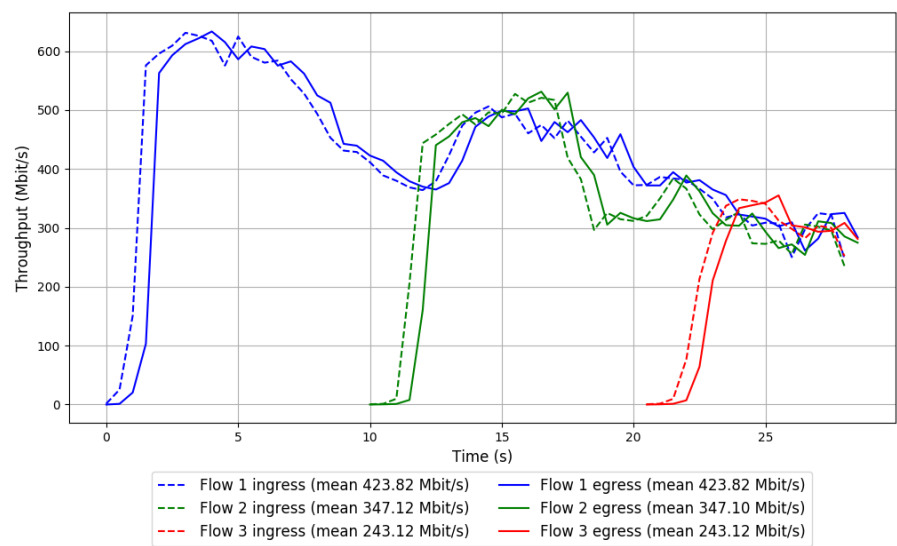
-- Flow 3:

Average throughput: 243.12 Mbit/s

95th percentile per-packet one-way delay: 60.653 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-12 19:42:41

End at: 2019-02-12 19:43:11

Local clock offset: 0.18 ms

Remote clock offset: 0.204 ms

Below is generated by plot.py at 2019-02-12 22:46:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 670.35 Mbit/s

95th percentile per-packet one-way delay: 62.489 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 394.40 Mbit/s

95th percentile per-packet one-way delay: 64.744 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 309.21 Mbit/s

95th percentile per-packet one-way delay: 60.780 ms

Loss rate: 0.00%

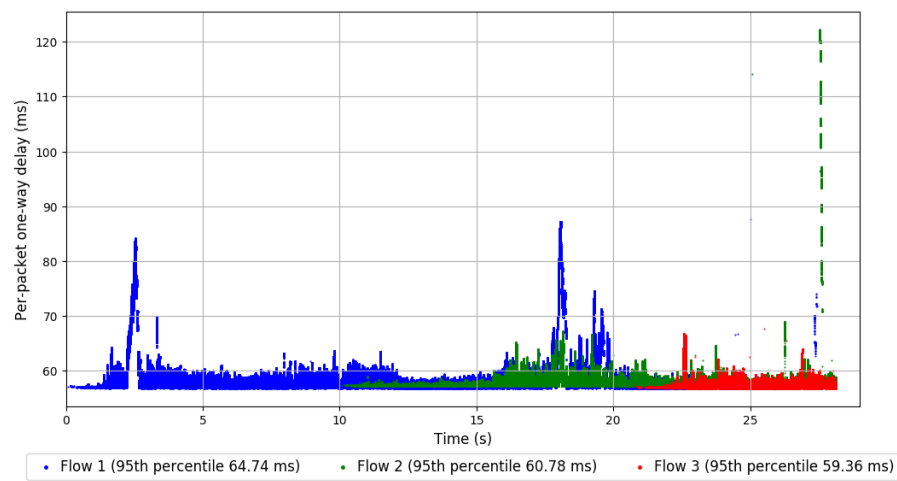
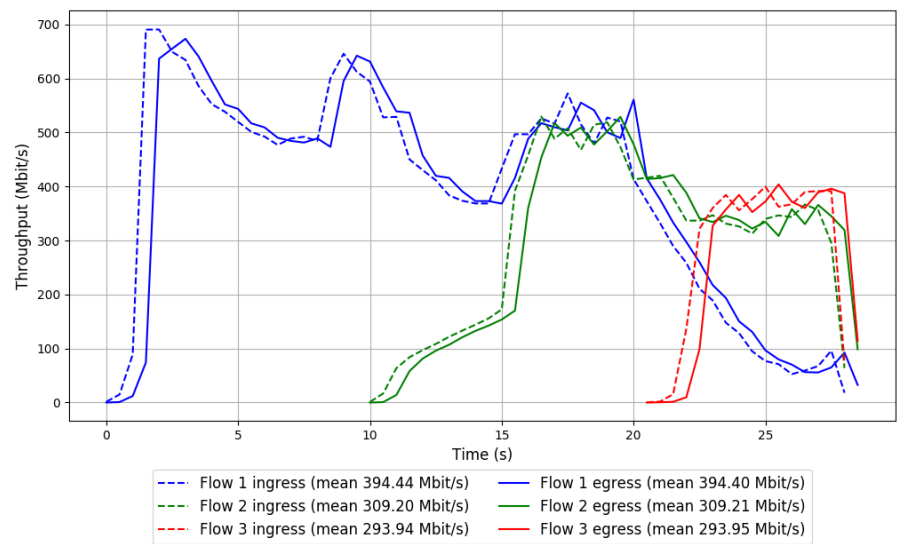
-- Flow 3:

Average throughput: 293.95 Mbit/s

95th percentile per-packet one-way delay: 59.361 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

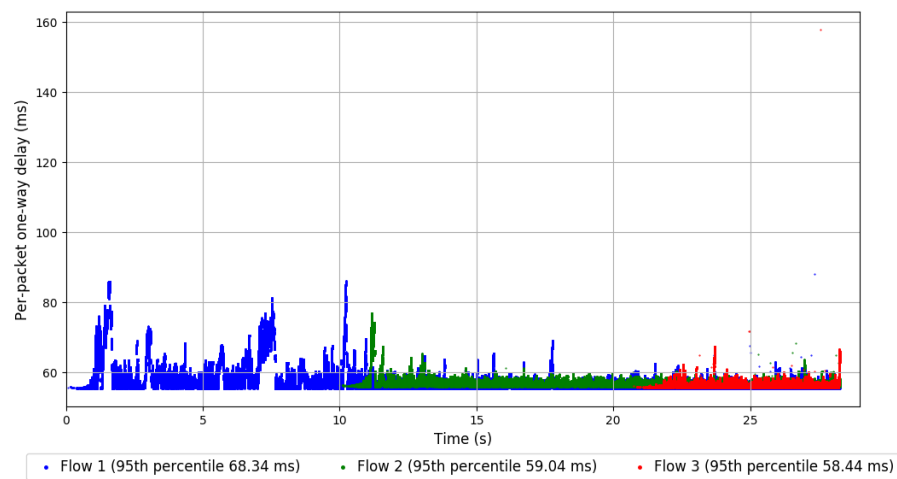
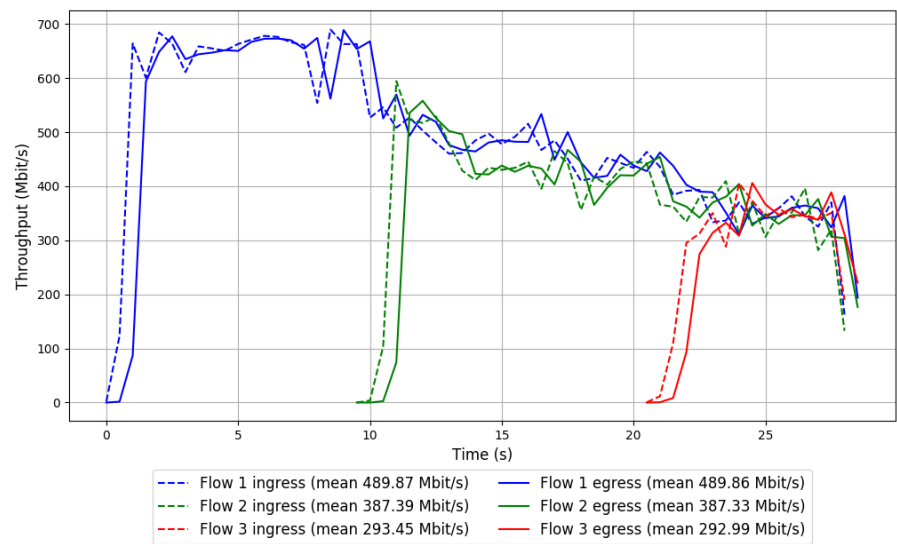


Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-12 17:06:57
End at: 2019-02-12 17:07:27
Local clock offset: 0.133 ms
Remote clock offset: -1.459 ms

Below is generated by plot.py at 2019-02-12 22:51:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 819.16 Mbit/s
95th percentile per-packet one-way delay: 64.581 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 489.86 Mbit/s
95th percentile per-packet one-way delay: 68.345 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 387.33 Mbit/s
95th percentile per-packet one-way delay: 59.040 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 292.99 Mbit/s
95th percentile per-packet one-way delay: 58.442 ms
Loss rate: 0.17%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-12 17:48:38

End at: 2019-02-12 17:49:08

Local clock offset: -0.465 ms

Remote clock offset: 0.02 ms

Below is generated by plot.py at 2019-02-12 22:52:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 783.33 Mbit/s

95th percentile per-packet one-way delay: 65.181 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 466.44 Mbit/s

95th percentile per-packet one-way delay: 64.437 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 374.37 Mbit/s

95th percentile per-packet one-way delay: 73.413 ms

Loss rate: 0.00%

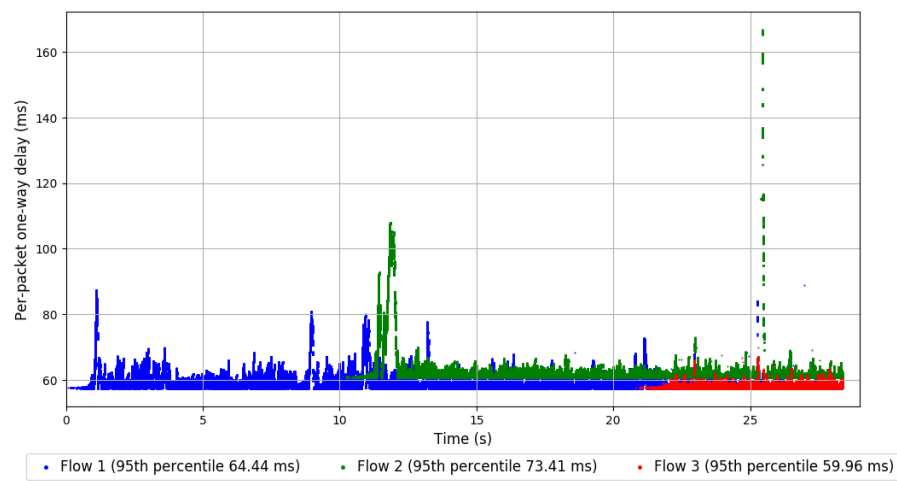
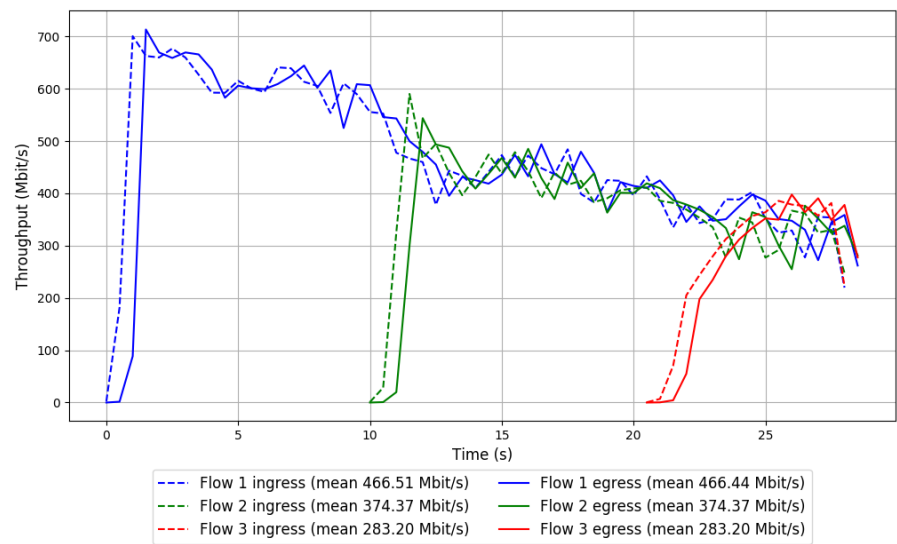
-- Flow 3:

Average throughput: 283.20 Mbit/s

95th percentile per-packet one-way delay: 59.960 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-12 18:29:31

End at: 2019-02-12 18:30:01

Local clock offset: 0.01 ms

Remote clock offset: 0.517 ms

Below is generated by plot.py at 2019-02-12 22:54:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 796.46 Mbit/s

95th percentile per-packet one-way delay: 66.881 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 467.81 Mbit/s

95th percentile per-packet one-way delay: 65.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 386.48 Mbit/s

95th percentile per-packet one-way delay: 70.222 ms

Loss rate: 0.00%

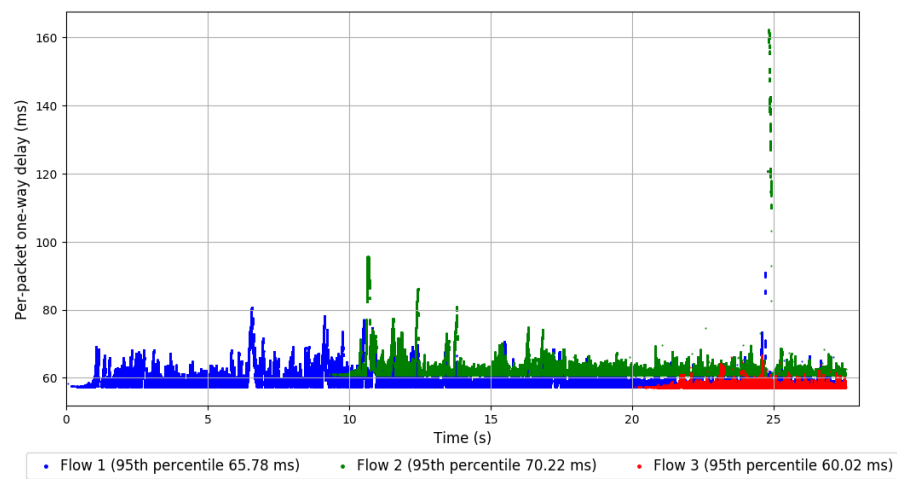
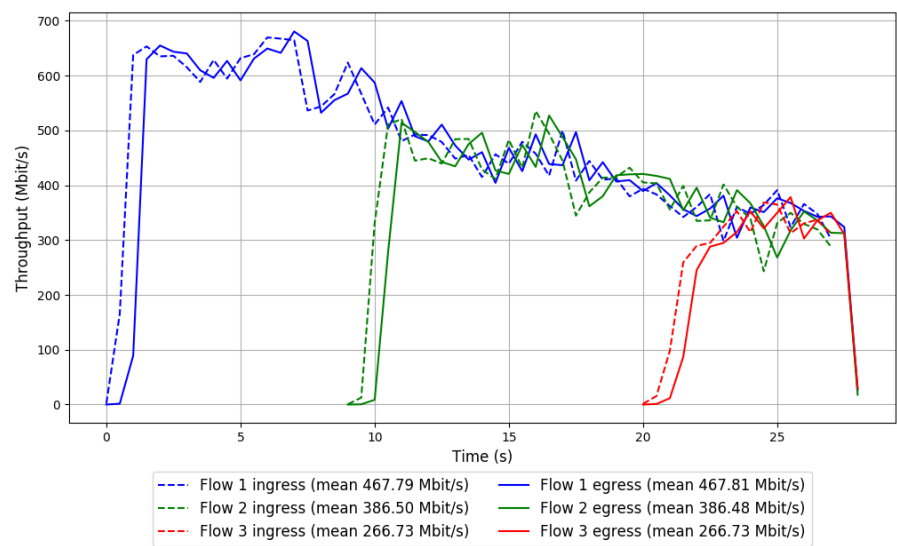
-- Flow 3:

Average throughput: 266.73 Mbit/s

95th percentile per-packet one-way delay: 60.021 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link

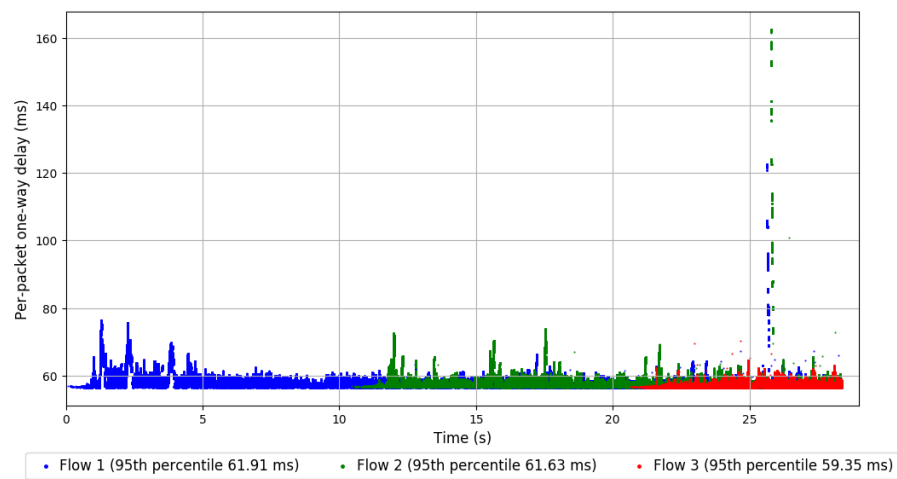
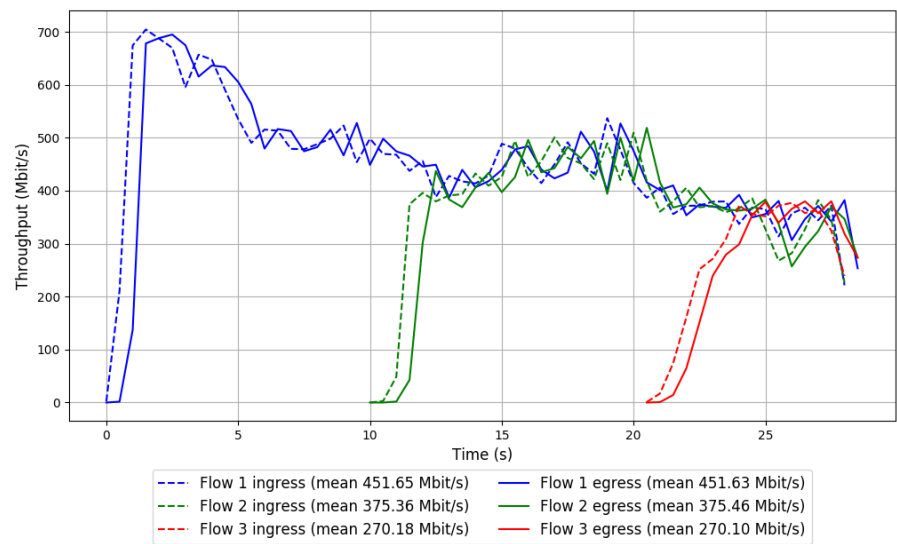


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-12 19:10:36
End at: 2019-02-12 19:11:06
Local clock offset: 0.207 ms
Remote clock offset: -0.078 ms

Below is generated by plot.py at 2019-02-12 22:55:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 763.13 Mbit/s
95th percentile per-packet one-way delay: 61.516 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 451.63 Mbit/s
95th percentile per-packet one-way delay: 61.910 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 375.46 Mbit/s
95th percentile per-packet one-way delay: 61.629 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 270.10 Mbit/s
95th percentile per-packet one-way delay: 59.351 ms
Loss rate: 0.03%

Run 4: Report of Indigo-MusesT — Data Link

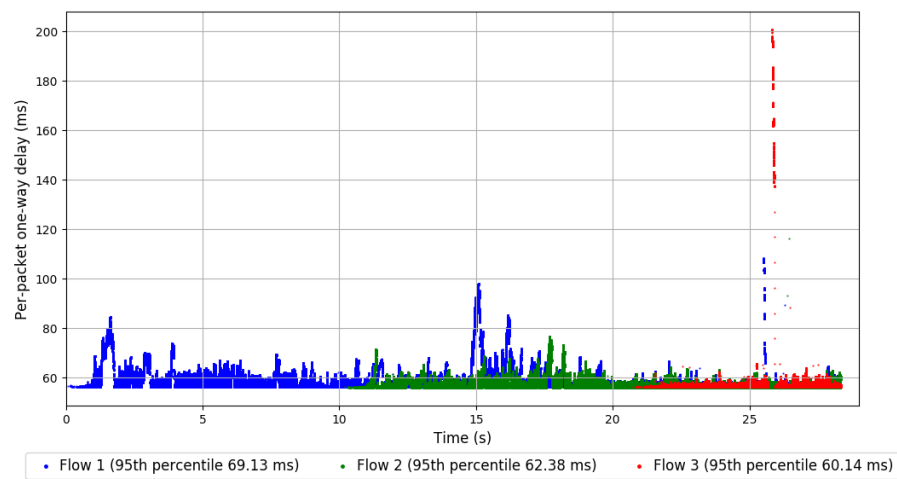
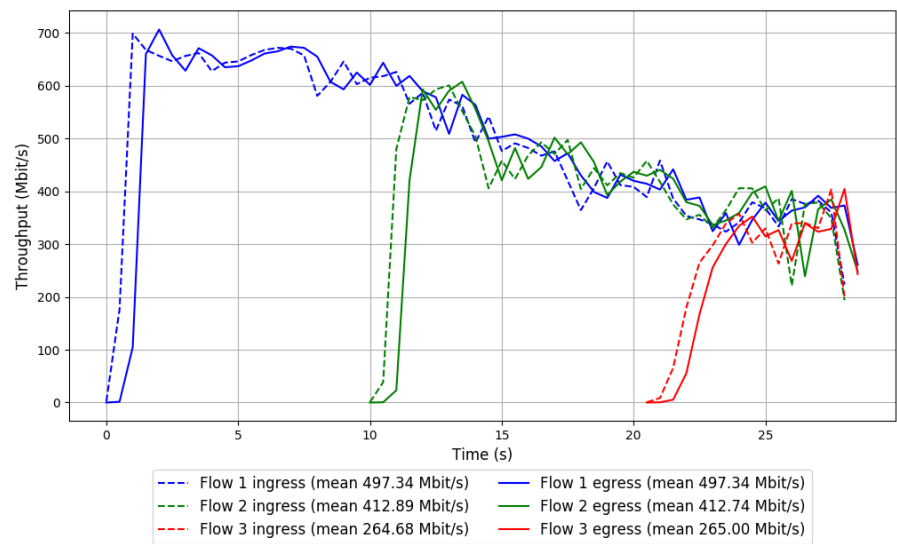


Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-12 19:52:27
End at: 2019-02-12 19:52:57
Local clock offset: -0.255 ms
Remote clock offset: -0.806 ms

Below is generated by plot.py at 2019-02-12 23:01:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 833.06 Mbit/s
95th percentile per-packet one-way delay: 66.708 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 497.34 Mbit/s
95th percentile per-packet one-way delay: 69.126 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 412.74 Mbit/s
95th percentile per-packet one-way delay: 62.381 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 265.00 Mbit/s
95th percentile per-packet one-way delay: 60.141 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

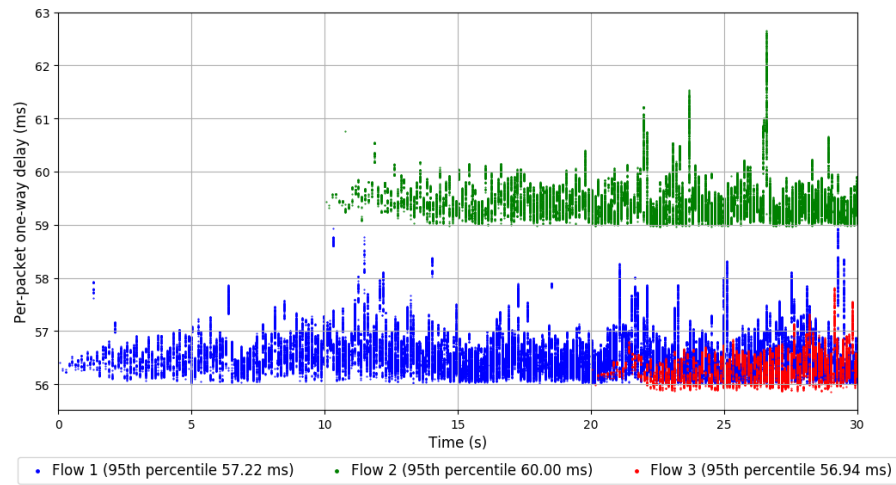
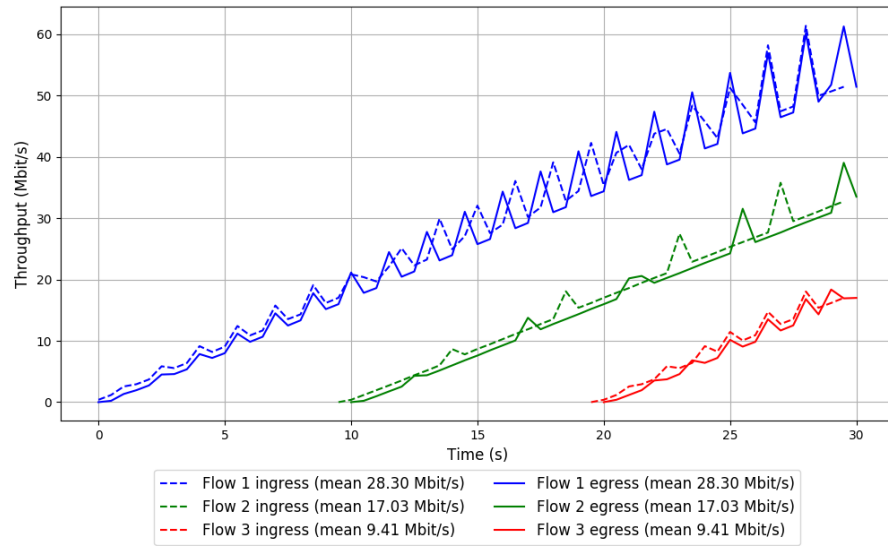


Run 1: Statistics of LEDBAT

Start at: 2019-02-12 16:50:33
End at: 2019-02-12 16:51:03
Local clock offset: 0.479 ms
Remote clock offset: -0.736 ms

Below is generated by plot.py at 2019-02-12 23:01:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 59.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.30 Mbit/s
95th percentile per-packet one-way delay: 57.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.03 Mbit/s
95th percentile per-packet one-way delay: 60.003 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 56.938 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

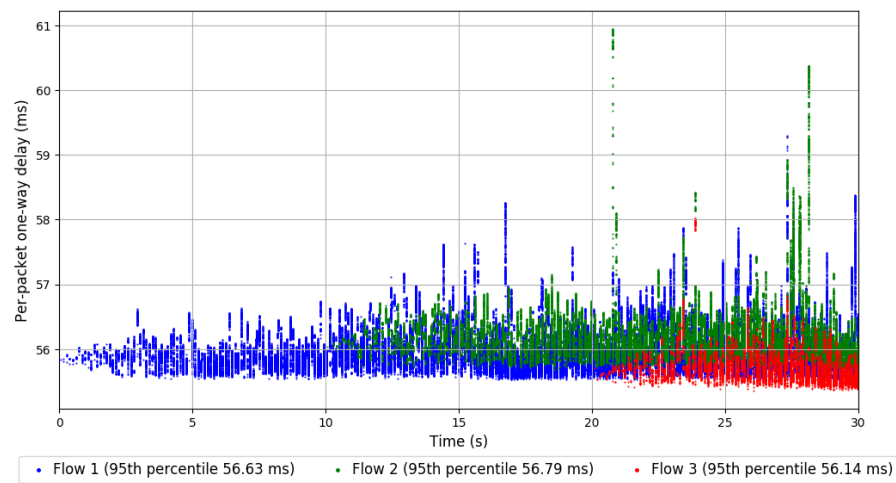
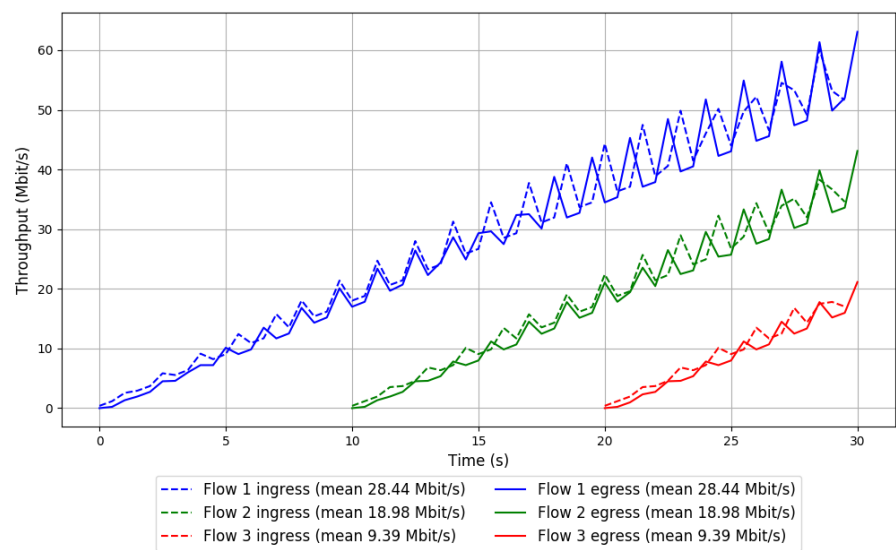


Run 2: Statistics of LEDBAT

Start at: 2019-02-12 17:31:55
End at: 2019-02-12 17:32:25
Local clock offset: 0.019 ms
Remote clock offset: -1.391 ms

Below is generated by plot.py at 2019-02-12 23:01:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 44.18 Mbit/s
95th percentile per-packet one-way delay: 56.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.44 Mbit/s
95th percentile per-packet one-way delay: 56.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 56.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 56.137 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

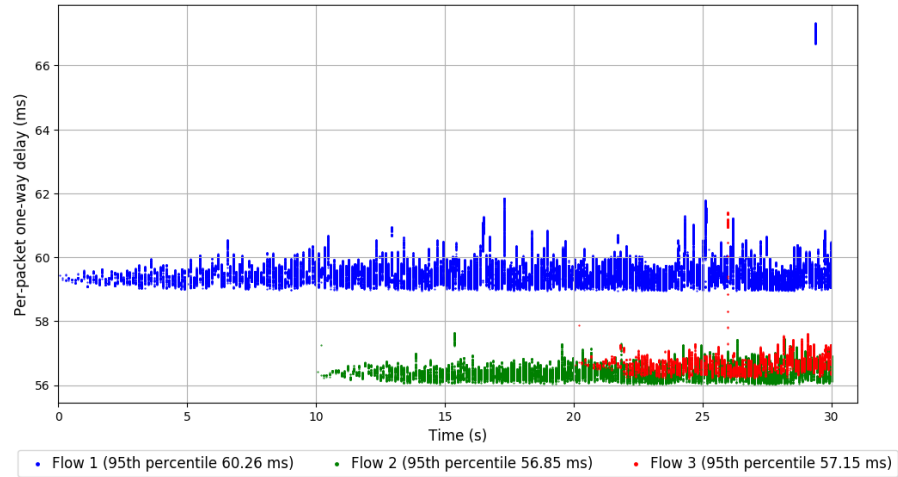
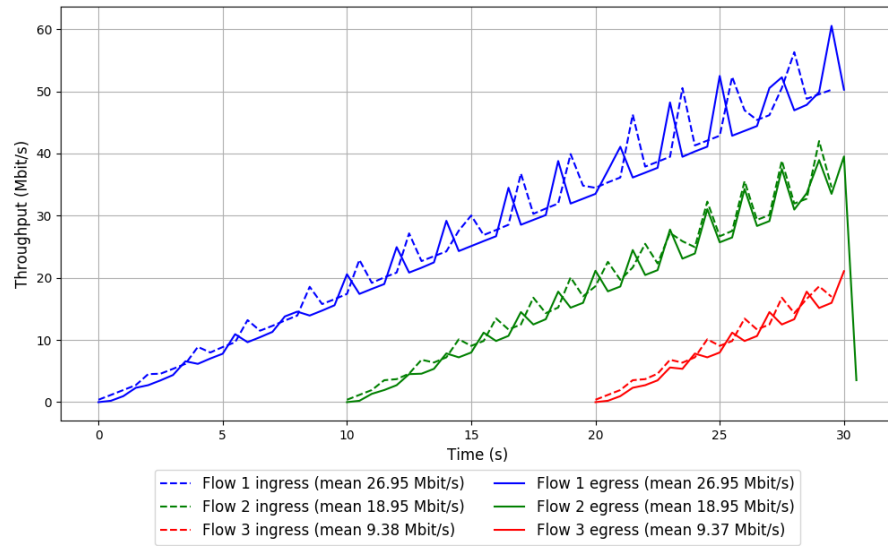


Run 3: Statistics of LEDBAT

Start at: 2019-02-12 18:13:29
End at: 2019-02-12 18:13:59
Local clock offset: 0.255 ms
Remote clock offset: -0.561 ms

Below is generated by plot.py at 2019-02-12 23:01:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 42.64 Mbit/s
95th percentile per-packet one-way delay: 60.078 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 60.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.95 Mbit/s
95th percentile per-packet one-way delay: 56.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 57.145 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

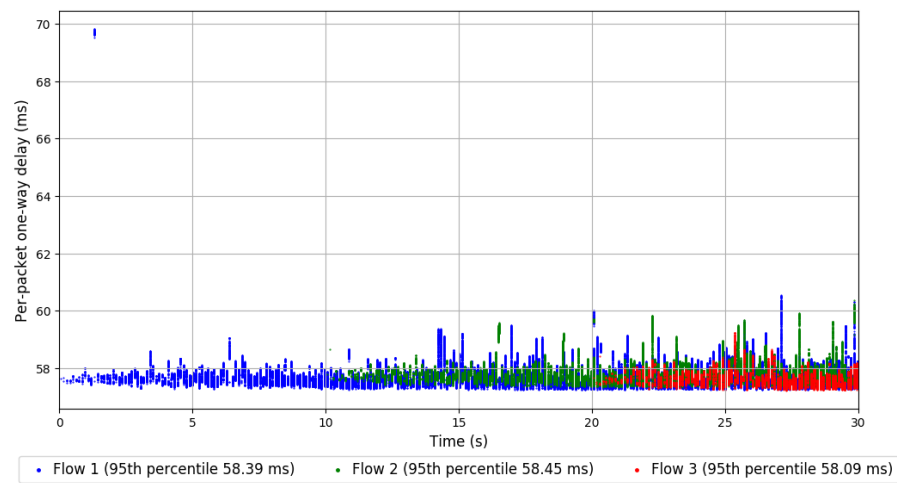
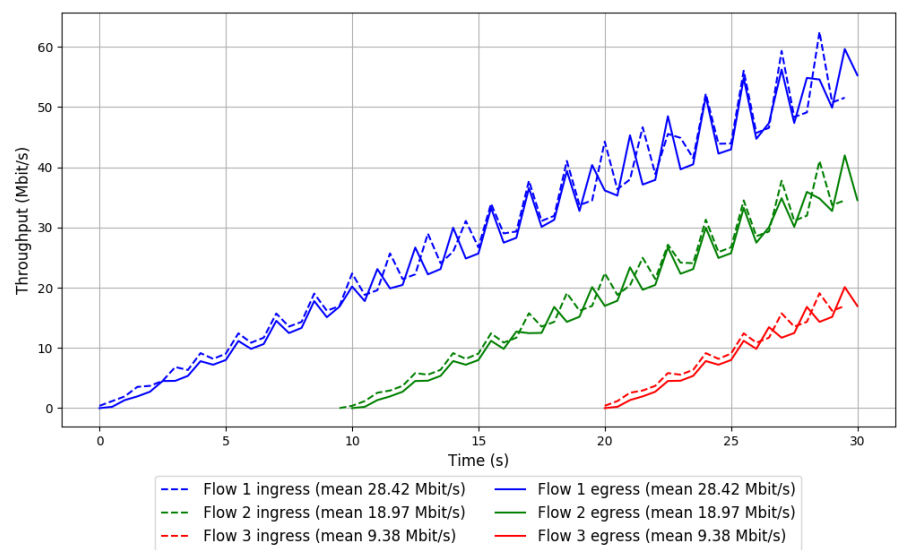


Run 4: Statistics of LEDBAT

Start at: 2019-02-12 18:53:59
End at: 2019-02-12 18:54:29
Local clock offset: -0.458 ms
Remote clock offset: -0.005 ms

```
# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.15 Mbit/s
95th percentile per-packet one-way delay: 58.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 58.393 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 58.454 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 58.095 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

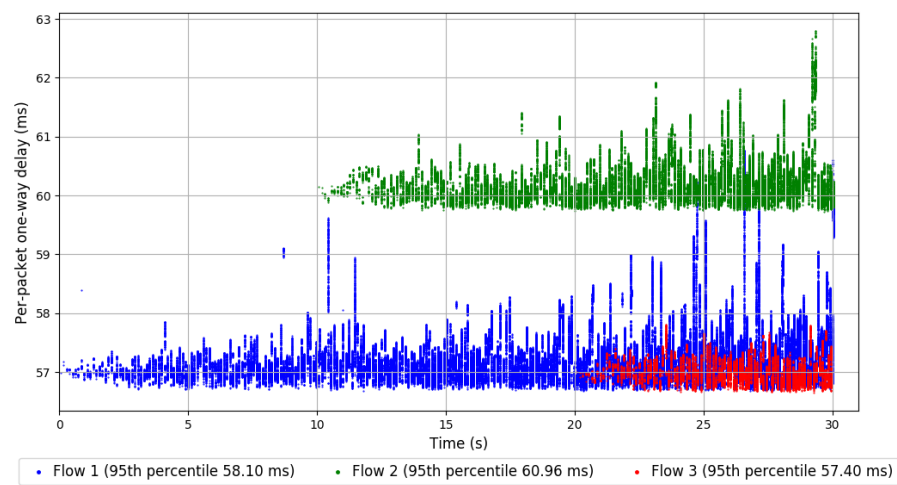
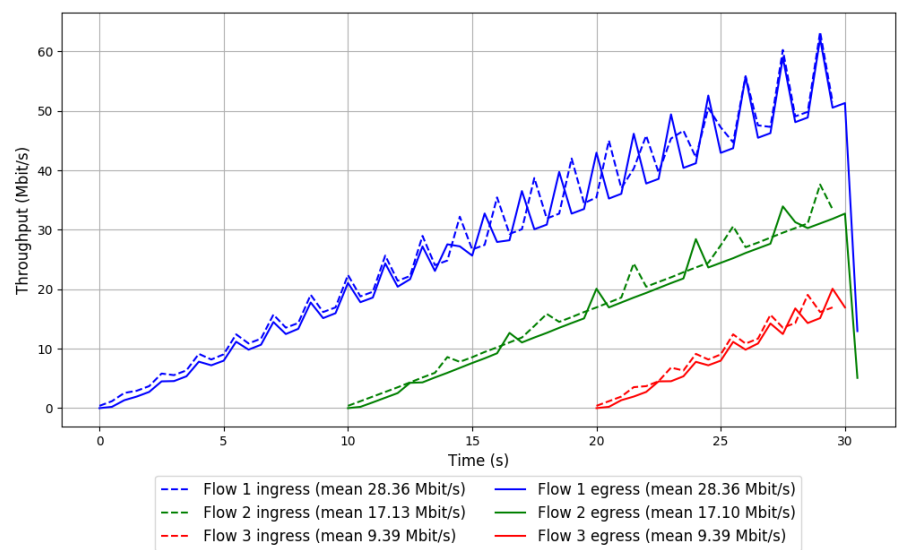


Run 5: Statistics of LEDBAT

Start at: 2019-02-12 19:35:33
End at: 2019-02-12 19:36:03
Local clock offset: 0.031 ms
Remote clock offset: -0.064 ms

Below is generated by plot.py at 2019-02-12 23:01:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 42.82 Mbit/s
95th percentile per-packet one-way delay: 60.428 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 58.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.10 Mbit/s
95th percentile per-packet one-way delay: 60.963 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 57.400 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-02-12 17:09:11

End at: 2019-02-12 17:09:41

Local clock offset: 0.184 ms

Remote clock offset: -0.68 ms

Below is generated by plot.py at 2019-02-12 23:23:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 713.32 Mbit/s

95th percentile per-packet one-way delay: 190.758 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 444.05 Mbit/s

95th percentile per-packet one-way delay: 204.522 ms

Loss rate: 3.85%

-- Flow 2:

Average throughput: 282.00 Mbit/s

95th percentile per-packet one-way delay: 68.263 ms

Loss rate: 0.00%

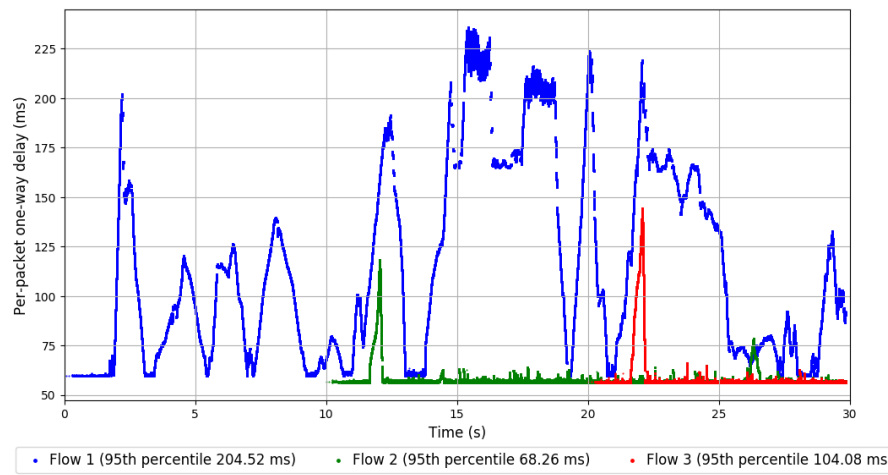
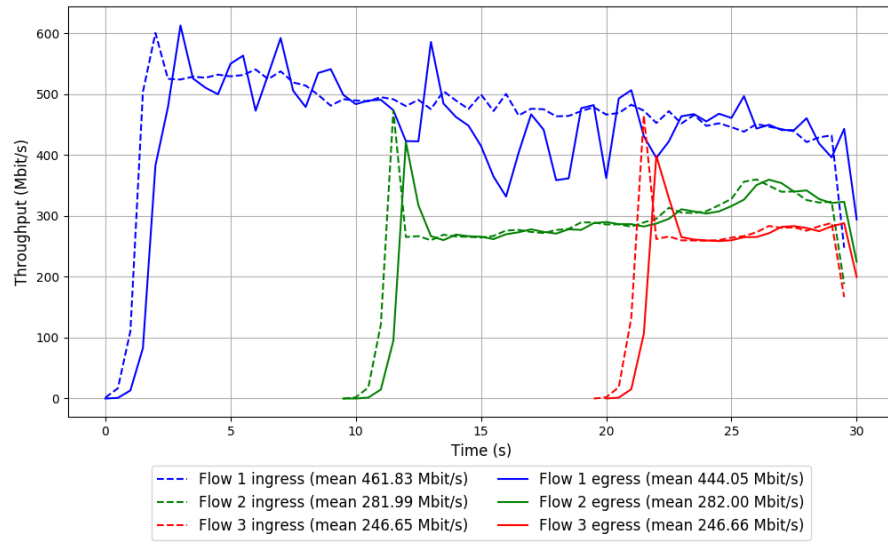
-- Flow 3:

Average throughput: 246.66 Mbit/s

95th percentile per-packet one-way delay: 104.075 ms

Loss rate: 0.00%

Run 1: Report of PCC-Allegro — Data Link

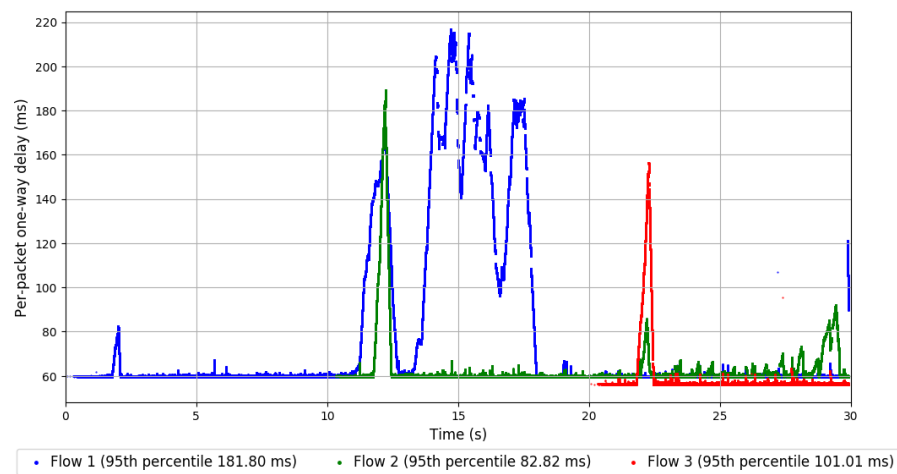
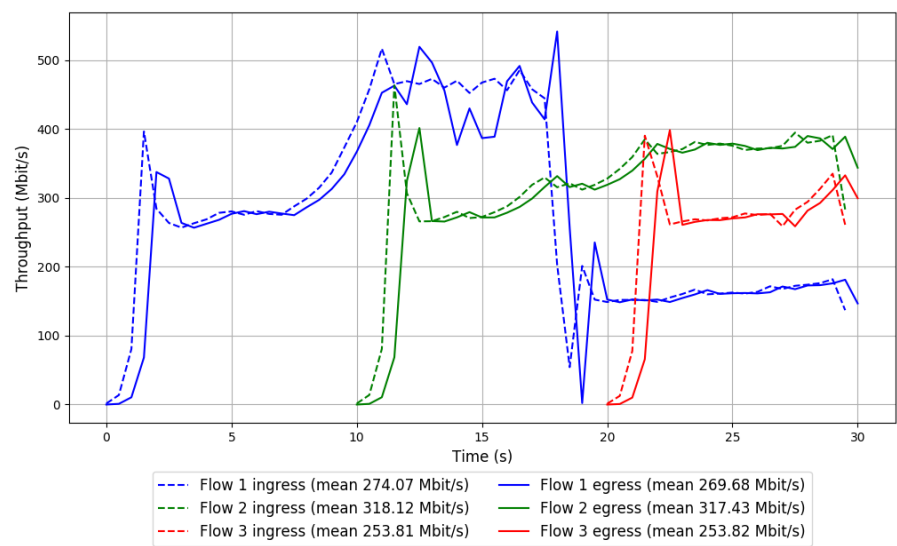


Run 2: Statistics of PCC-Allegro

Start at: 2019-02-12 17:50:44
End at: 2019-02-12 17:51:14
Local clock offset: -0.042 ms
Remote clock offset: -0.758 ms

Below is generated by plot.py at 2019-02-12 23:23:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 564.27 Mbit/s
95th percentile per-packet one-way delay: 168.166 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 269.68 Mbit/s
95th percentile per-packet one-way delay: 181.803 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 317.43 Mbit/s
95th percentile per-packet one-way delay: 82.817 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 253.82 Mbit/s
95th percentile per-packet one-way delay: 101.008 ms
Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link

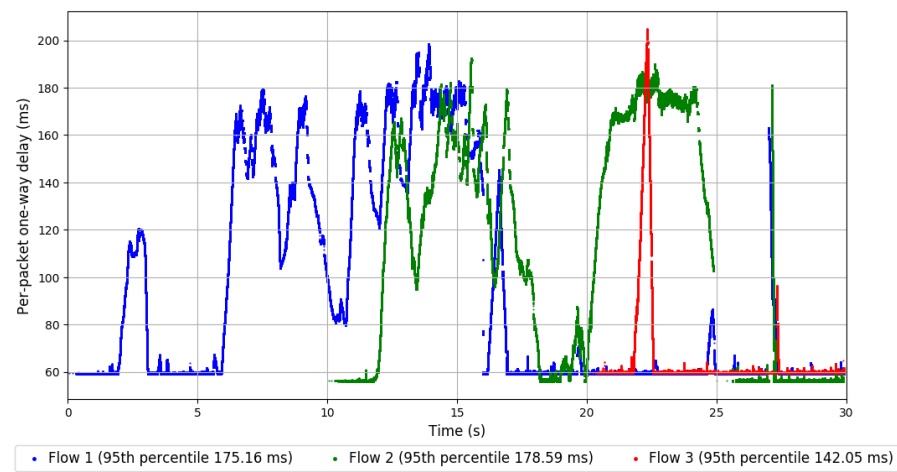
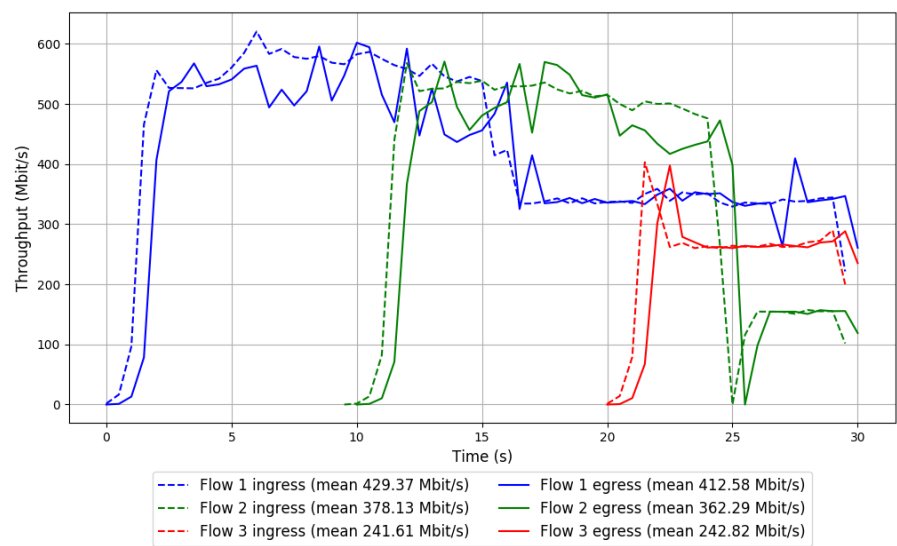


Run 3: Statistics of PCC-Allegro

Start at: 2019-02-12 18:31:41
End at: 2019-02-12 18:32:11
Local clock offset: -0.227 ms
Remote clock offset: -0.831 ms

Below is generated by plot.py at 2019-02-12 23:27:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 733.21 Mbit/s
95th percentile per-packet one-way delay: 176.352 ms
Loss rate: 3.80%
-- Flow 1:
Average throughput: 412.58 Mbit/s
95th percentile per-packet one-way delay: 175.159 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 362.29 Mbit/s
95th percentile per-packet one-way delay: 178.587 ms
Loss rate: 4.47%
-- Flow 3:
Average throughput: 242.82 Mbit/s
95th percentile per-packet one-way delay: 142.048 ms
Loss rate: 0.08%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-02-12 19:12:50

End at: 2019-02-12 19:13:20

Local clock offset: -0.396 ms

Remote clock offset: -1.0 ms

Below is generated by plot.py at 2019-02-12 23:29:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 754.01 Mbit/s

95th percentile per-packet one-way delay: 190.012 ms

Loss rate: 3.97%

-- Flow 1:

Average throughput: 455.85 Mbit/s

95th percentile per-packet one-way delay: 189.868 ms

Loss rate: 5.73%

-- Flow 2:

Average throughput: 326.08 Mbit/s

95th percentile per-packet one-way delay: 198.392 ms

Loss rate: 1.43%

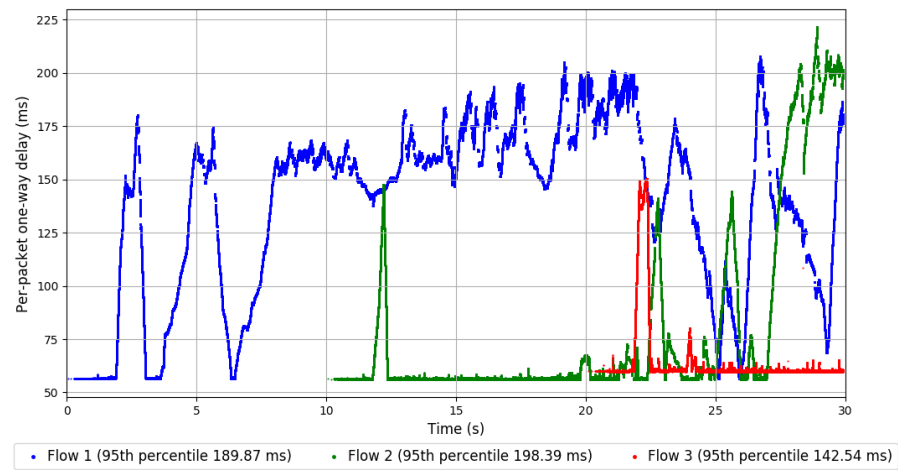
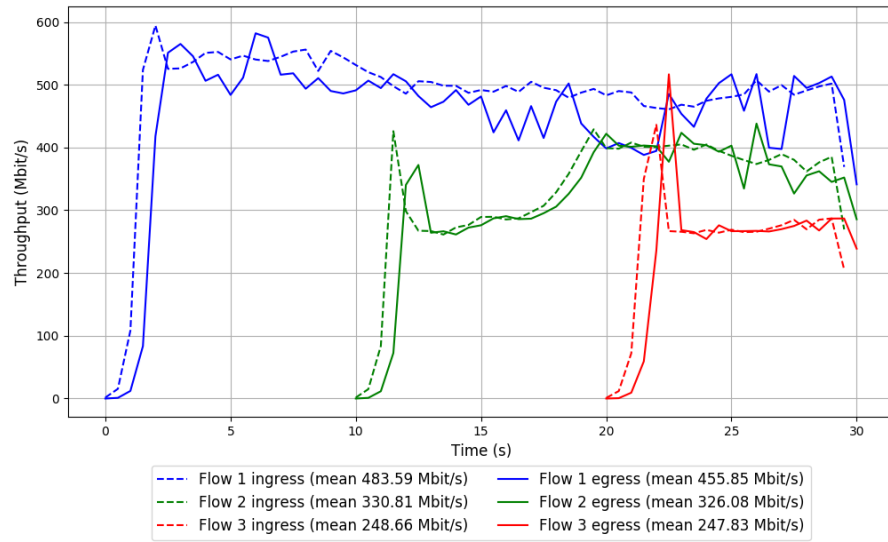
-- Flow 3:

Average throughput: 247.83 Mbit/s

95th percentile per-packet one-way delay: 142.542 ms

Loss rate: 0.36%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-12 19:54:38

End at: 2019-02-12 19:55:08

Local clock offset: 0.088 ms

Remote clock offset: -1.39 ms

Below is generated by plot.py at 2019-02-12 23:29:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 740.52 Mbit/s

95th percentile per-packet one-way delay: 172.788 ms

Loss rate: 2.25%

-- Flow 1:

Average throughput: 426.39 Mbit/s

95th percentile per-packet one-way delay: 171.441 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 292.63 Mbit/s

95th percentile per-packet one-way delay: 83.917 ms

Loss rate: 0.03%

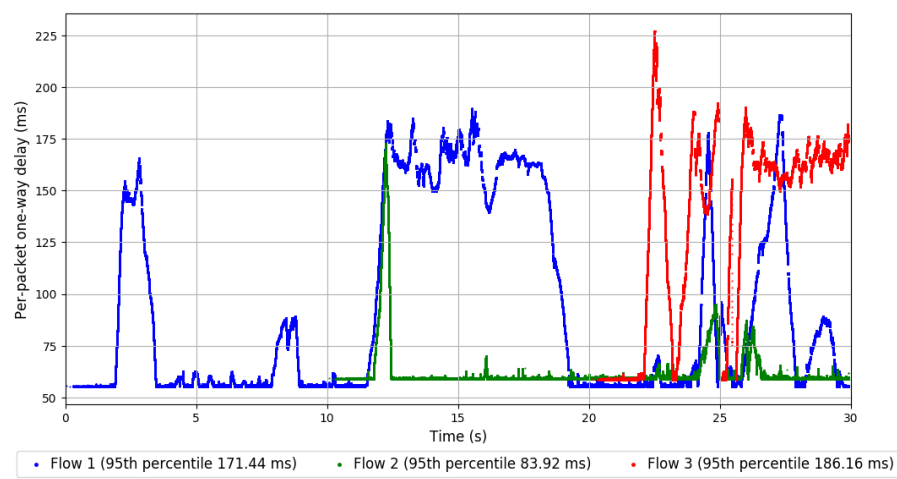
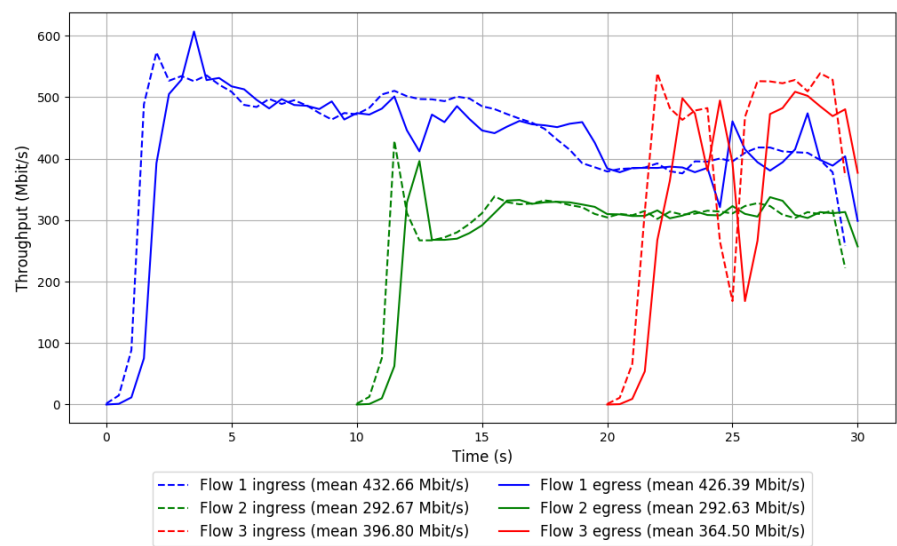
-- Flow 3:

Average throughput: 364.50 Mbit/s

95th percentile per-packet one-way delay: 186.165 ms

Loss rate: 8.22%

Run 5: Report of PCC-Allegro — Data Link

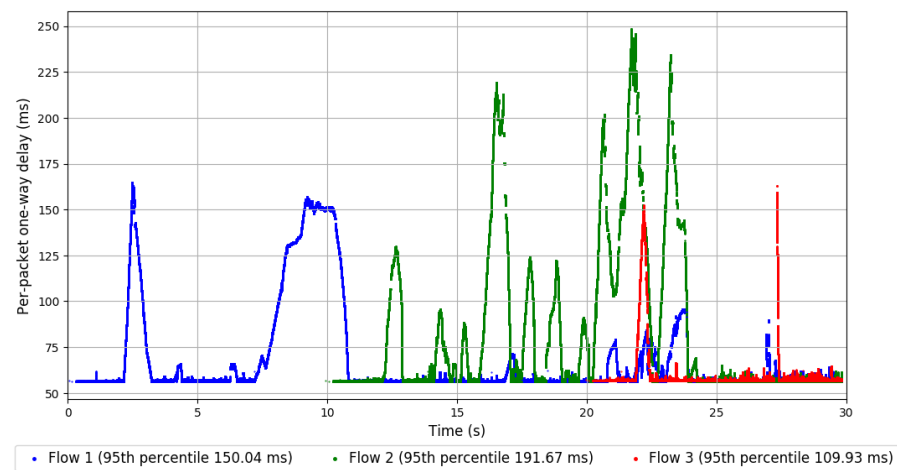
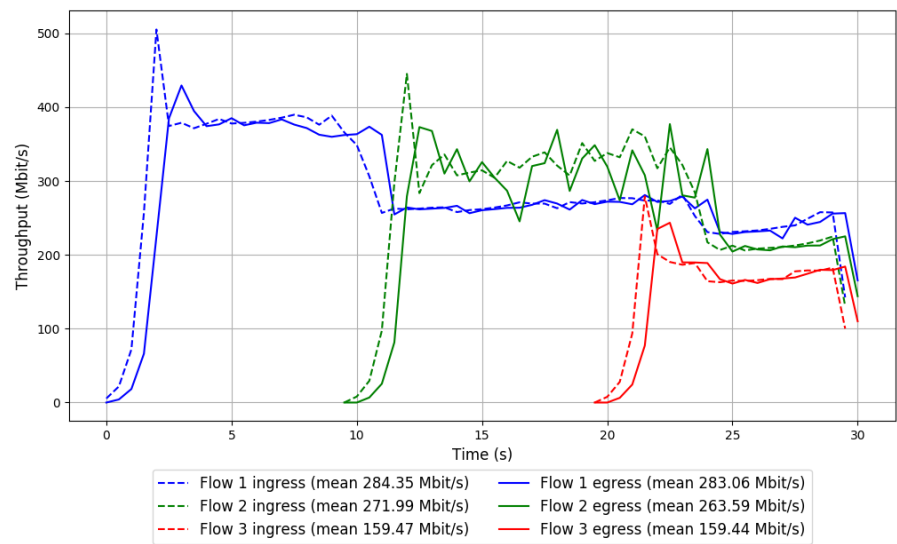


Run 1: Statistics of PCC-Expr

Start at: 2019-02-12 17:11:47
End at: 2019-02-12 17:12:17
Local clock offset: 0.562 ms
Remote clock offset: -0.104 ms

Below is generated by plot.py at 2019-02-12 23:29:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 511.90 Mbit/s
95th percentile per-packet one-way delay: 151.440 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 283.06 Mbit/s
95th percentile per-packet one-way delay: 150.043 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 263.59 Mbit/s
95th percentile per-packet one-way delay: 191.669 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 159.44 Mbit/s
95th percentile per-packet one-way delay: 109.931 ms
Loss rate: 0.24%

Run 1: Report of PCC-Expr — Data Link

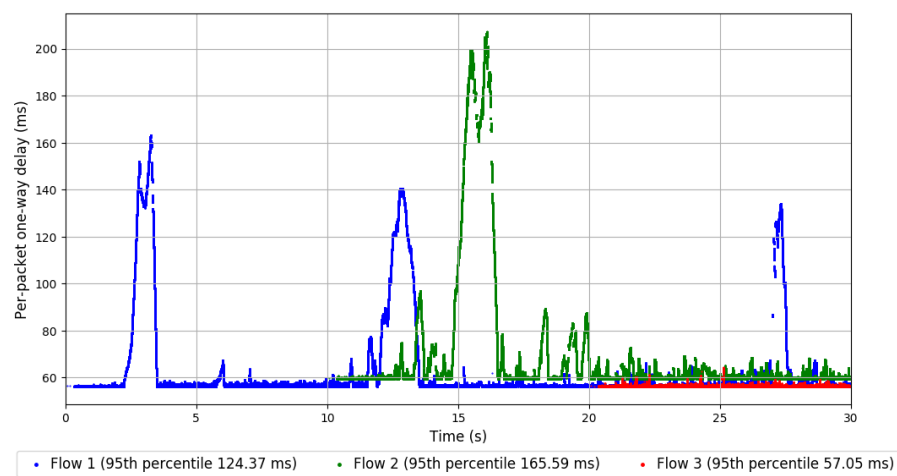
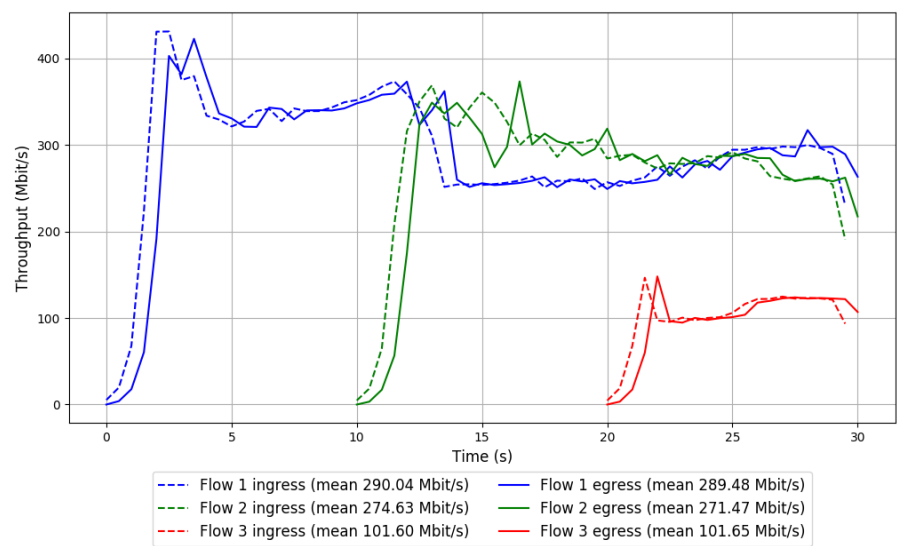


Run 2: Statistics of PCC-Expr

Start at: 2019-02-12 17:52:54
End at: 2019-02-12 17:53:24
Local clock offset: 0.122 ms
Remote clock offset: -0.584 ms

Below is generated by plot.py at 2019-02-12 23:29:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 503.41 Mbit/s
95th percentile per-packet one-way delay: 126.415 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 289.48 Mbit/s
95th percentile per-packet one-way delay: 124.371 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 165.593 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 101.65 Mbit/s
95th percentile per-packet one-way delay: 57.053 ms
Loss rate: 0.00%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-02-12 18:33:57

End at: 2019-02-12 18:34:27

Local clock offset: -0.2 ms

Remote clock offset: 1.056 ms

Below is generated by plot.py at 2019-02-12 23:30:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.07 Mbit/s

95th percentile per-packet one-way delay: 156.422 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 300.75 Mbit/s

95th percentile per-packet one-way delay: 136.487 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 278.91 Mbit/s

95th percentile per-packet one-way delay: 167.355 ms

Loss rate: 1.50%

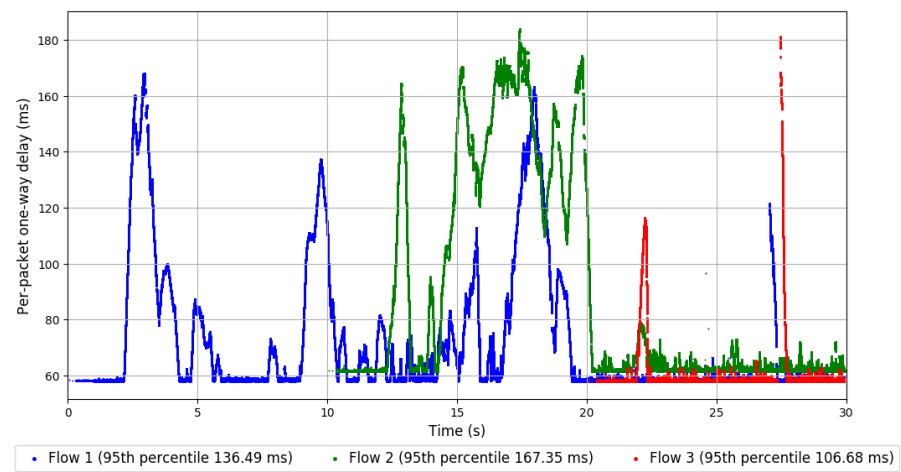
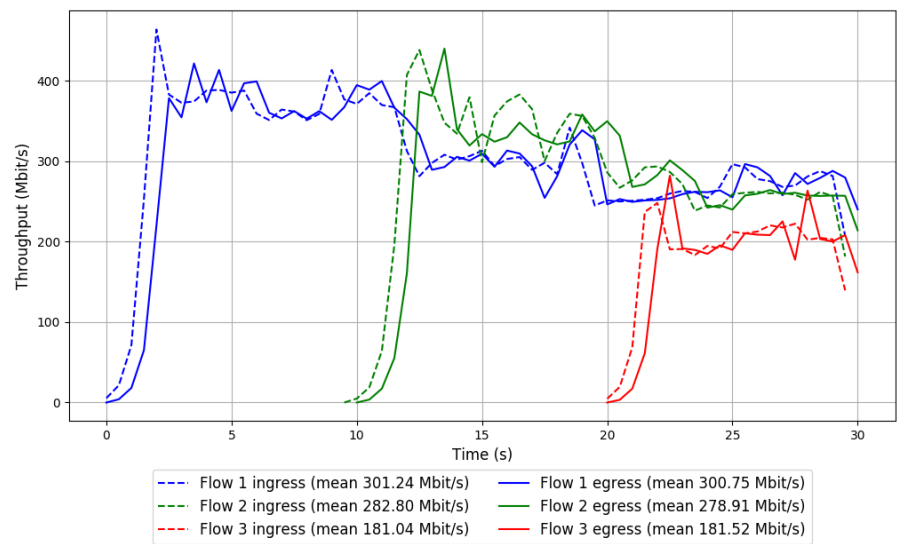
-- Flow 3:

Average throughput: 181.52 Mbit/s

95th percentile per-packet one-way delay: 106.679 ms

Loss rate: 0.00%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-02-12 19:15:14

End at: 2019-02-12 19:15:44

Local clock offset: 0.174 ms

Remote clock offset: 0.496 ms

Below is generated by plot.py at 2019-02-12 23:41:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 544.63 Mbit/s

95th percentile per-packet one-way delay: 160.529 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 300.84 Mbit/s

95th percentile per-packet one-way delay: 171.420 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 273.81 Mbit/s

95th percentile per-packet one-way delay: 145.392 ms

Loss rate: 0.15%

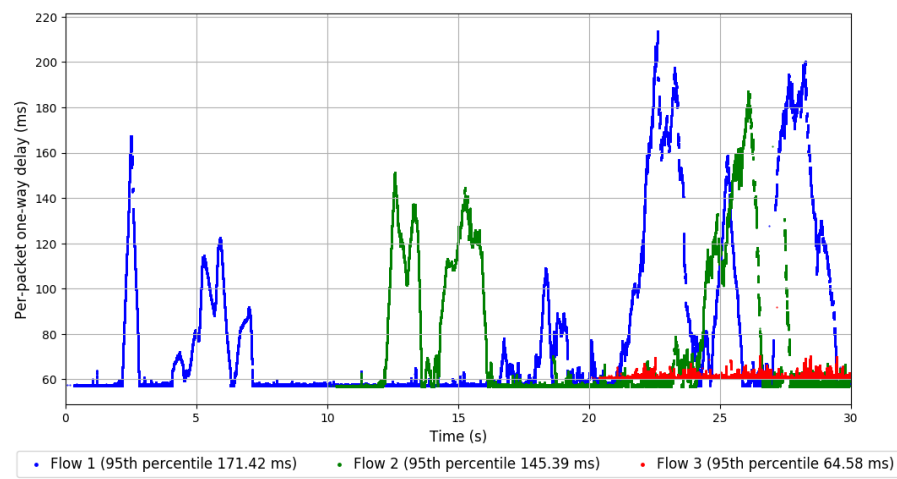
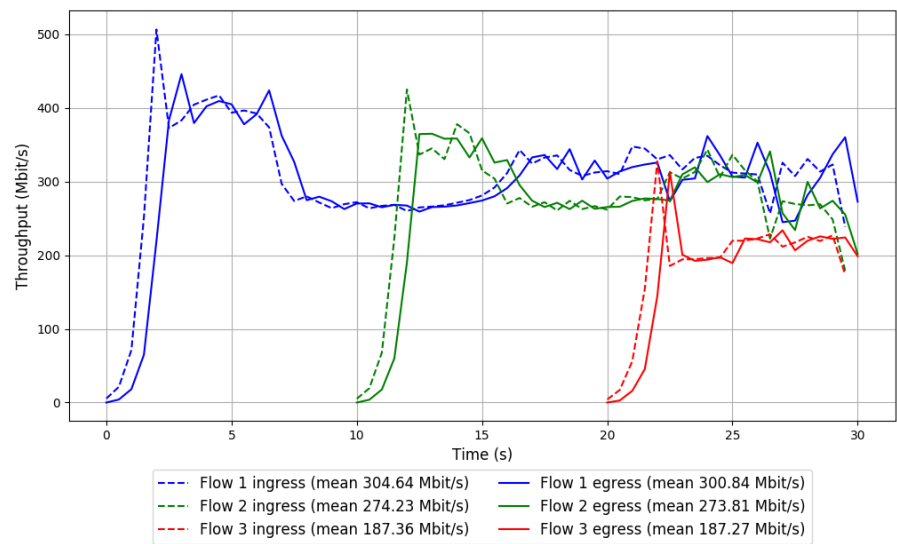
-- Flow 3:

Average throughput: 187.27 Mbit/s

95th percentile per-packet one-way delay: 64.581 ms

Loss rate: 0.07%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-02-12 19:57:04

End at: 2019-02-12 19:57:34

Local clock offset: -0.321 ms

Remote clock offset: 1.277 ms

Below is generated by plot.py at 2019-02-12 23:46:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 565.32 Mbit/s

95th percentile per-packet one-way delay: 116.176 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 299.43 Mbit/s

95th percentile per-packet one-way delay: 79.838 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 305.38 Mbit/s

95th percentile per-packet one-way delay: 139.917 ms

Loss rate: 0.30%

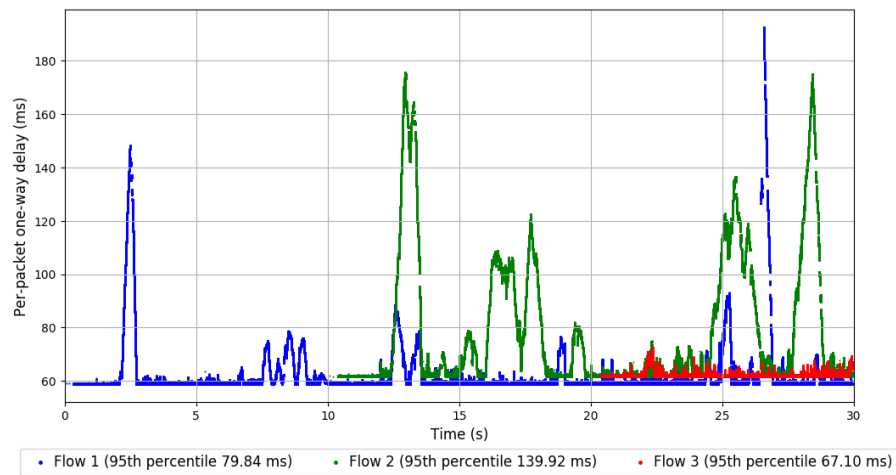
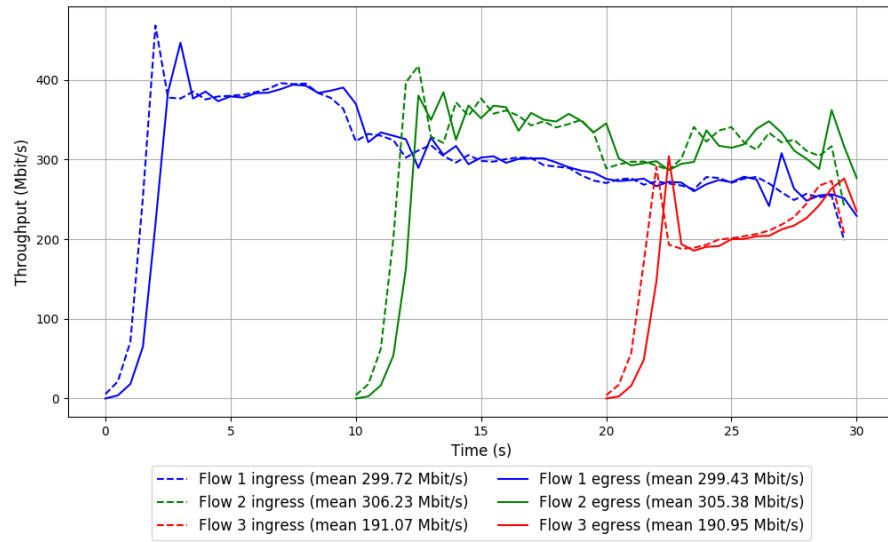
-- Flow 3:

Average throughput: 190.95 Mbit/s

95th percentile per-packet one-way delay: 67.101 ms

Loss rate: 0.11%

Run 5: Report of PCC-Expr — Data Link

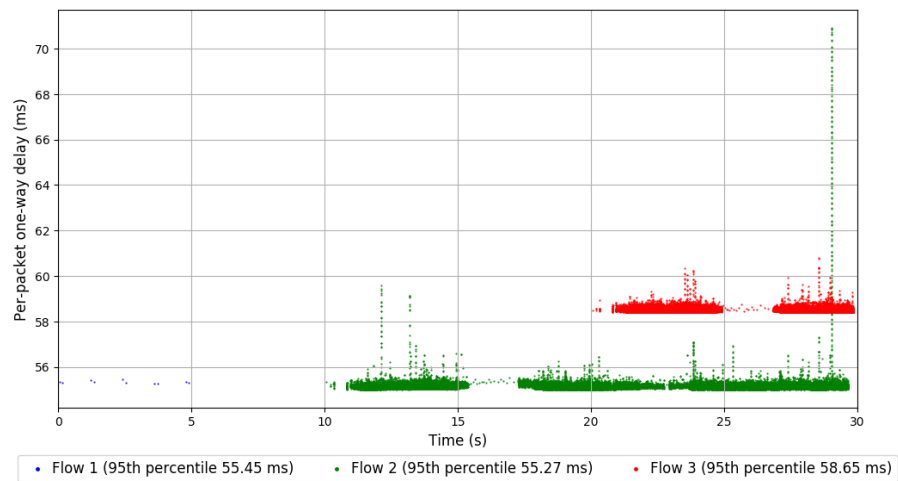
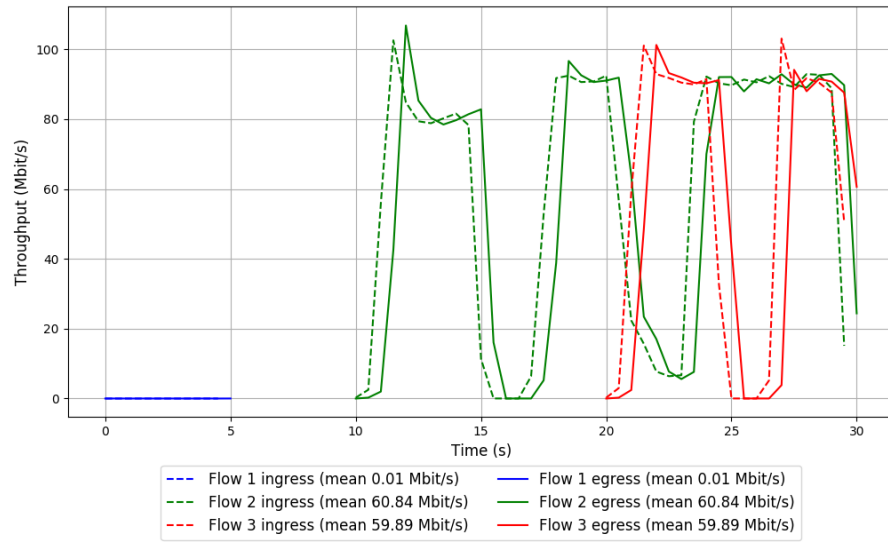


Run 1: Statistics of QUIC Cubic

Start at: 2019-02-12 17:01:13
End at: 2019-02-12 17:01:43
Local clock offset: 0.549 ms
Remote clock offset: -1.572 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 58.577 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 55.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 55.275 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.89 Mbit/s
95th percentile per-packet one-way delay: 58.654 ms
Loss rate: 0.04%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-02-12 17:43:05

End at: 2019-02-12 17:43:35

Local clock offset: 0.156 ms

Remote clock offset: 0.502 ms

Below is generated by plot.py at 2019-02-12 23:46:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.57 Mbit/s

95th percentile per-packet one-way delay: 61.042 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 43.32 Mbit/s

95th percentile per-packet one-way delay: 61.082 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 48.96 Mbit/s

95th percentile per-packet one-way delay: 60.835 ms

Loss rate: 0.03%

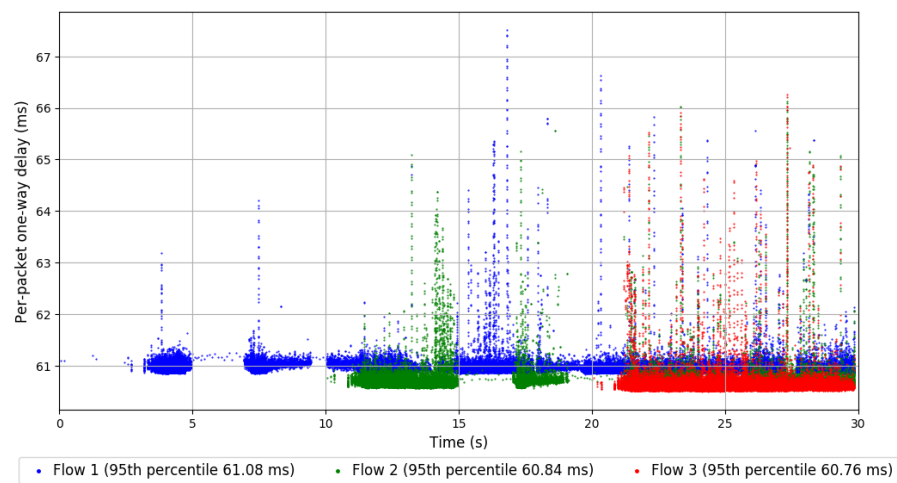
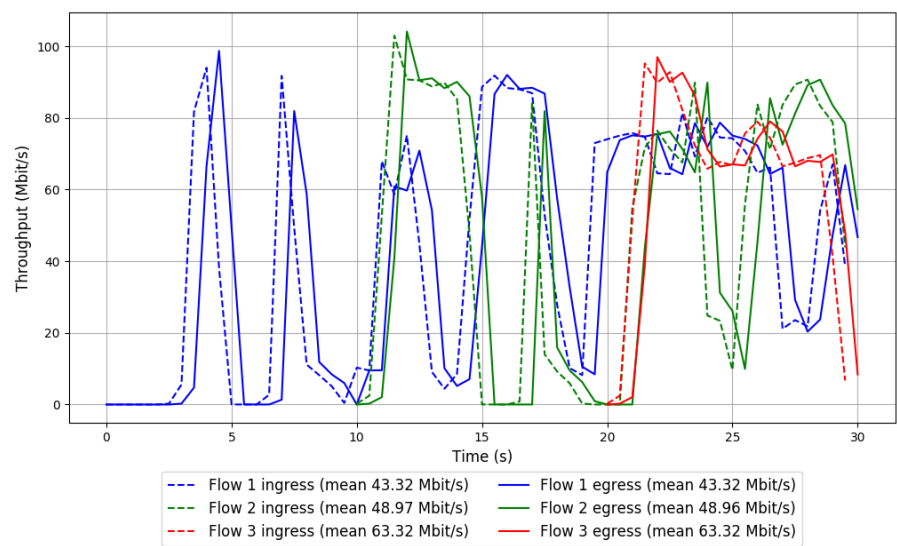
-- Flow 3:

Average throughput: 63.32 Mbit/s

95th percentile per-packet one-way delay: 60.759 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-02-12 18:23:59

End at: 2019-02-12 18:24:29

Local clock offset: -0.221 ms

Remote clock offset: 0.529 ms

Below is generated by plot.py at 2019-02-12 23:46:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.78 Mbit/s

95th percentile per-packet one-way delay: 61.249 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 43.45 Mbit/s

95th percentile per-packet one-way delay: 60.735 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 42.80 Mbit/s

95th percentile per-packet one-way delay: 61.319 ms

Loss rate: 0.02%

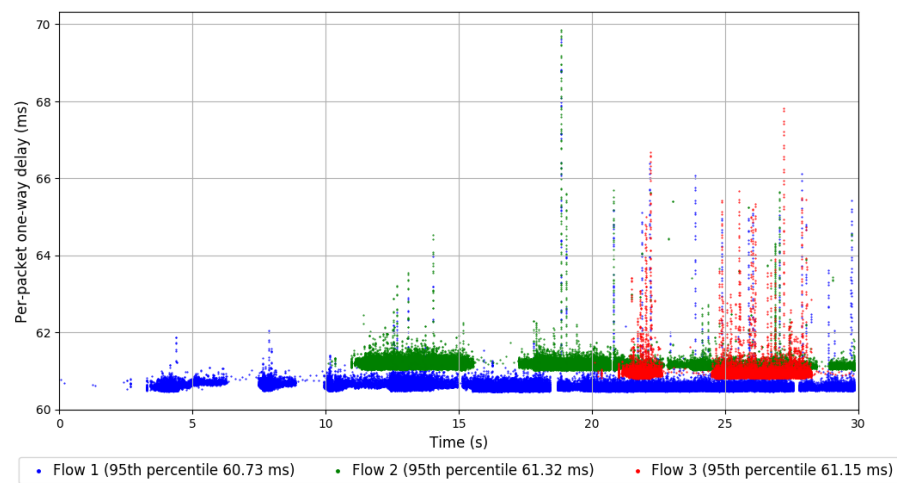
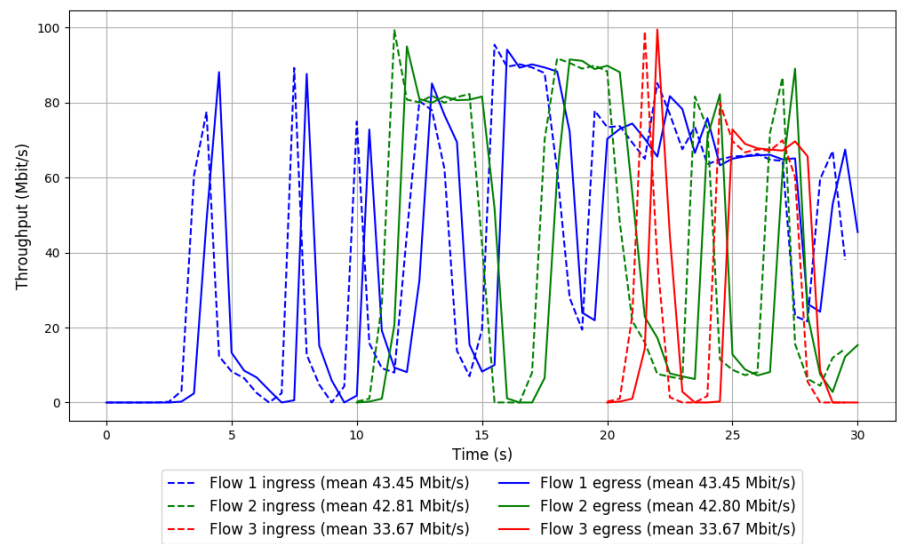
-- Flow 3:

Average throughput: 33.67 Mbit/s

95th percentile per-packet one-way delay: 61.145 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

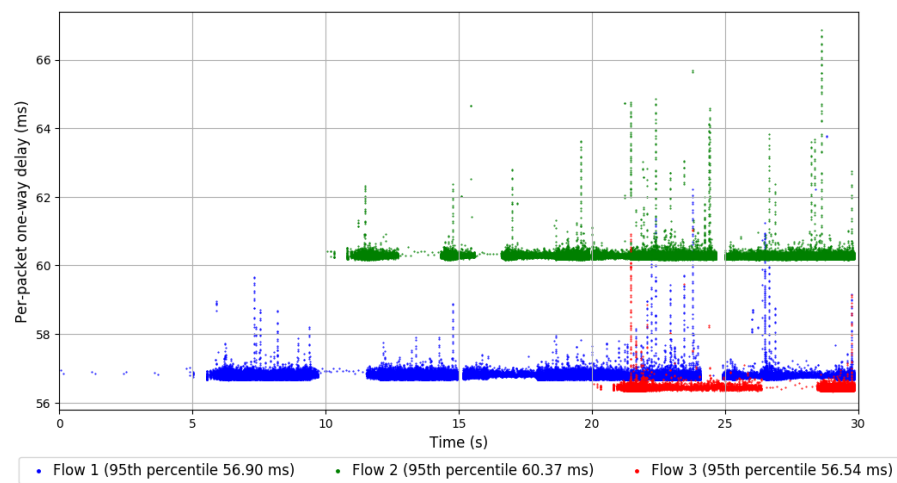
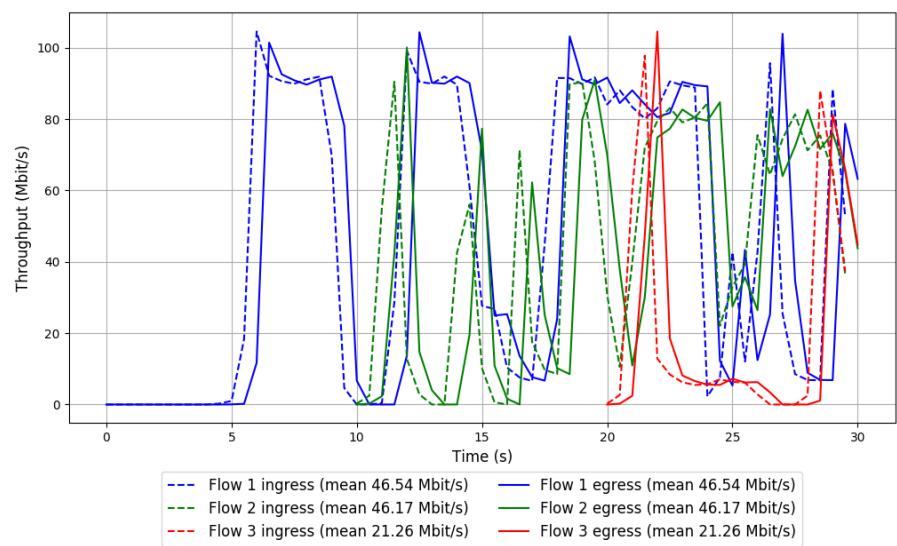


Run 4: Statistics of QUIC Cubic

Start at: 2019-02-12 19:04:58
End at: 2019-02-12 19:05:28
Local clock offset: -0.196 ms
Remote clock offset: -0.427 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.16 Mbit/s
95th percentile per-packet one-way delay: 60.312 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 46.54 Mbit/s
95th percentile per-packet one-way delay: 56.895 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 60.368 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 56.537 ms
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link

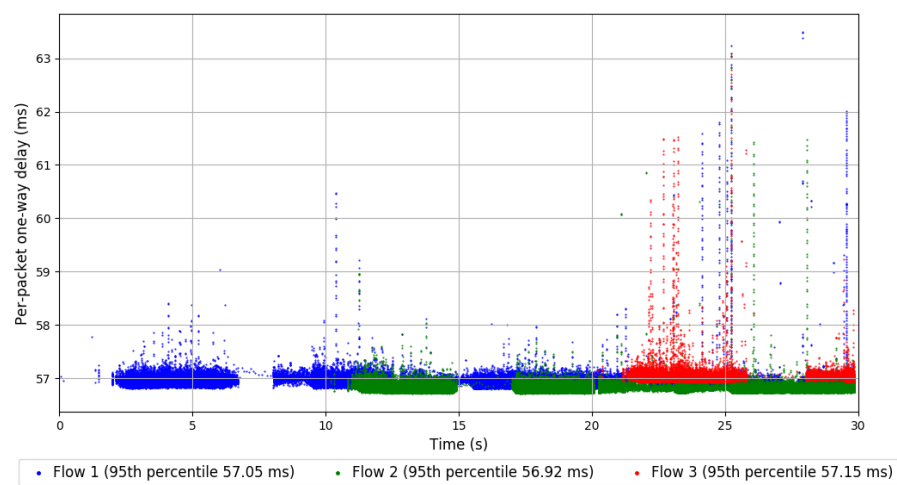
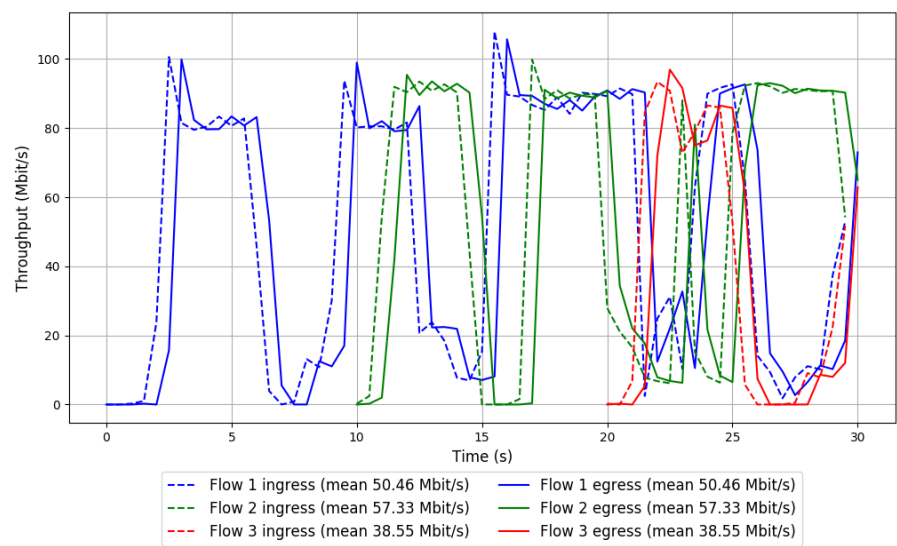


Run 5: Statistics of QUIC Cubic

Start at: 2019-02-12 19:46:58
End at: 2019-02-12 19:47:28
Local clock offset: -0.25 ms
Remote clock offset: -0.252 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 101.12 Mbit/s
95th percentile per-packet one-way delay: 57.056 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.46 Mbit/s
95th percentile per-packet one-way delay: 57.054 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 56.923 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 57.145 ms
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

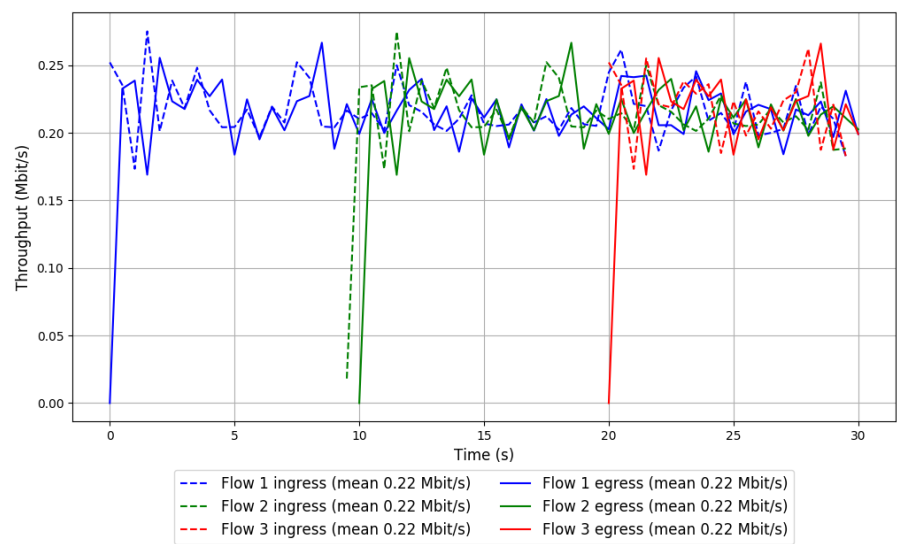


Run 1: Statistics of SReAM

Start at: 2019-02-12 17:24:05
End at: 2019-02-12 17:24:35
Local clock offset: 0.179 ms
Remote clock offset: -0.649 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 59.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.988 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.782 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

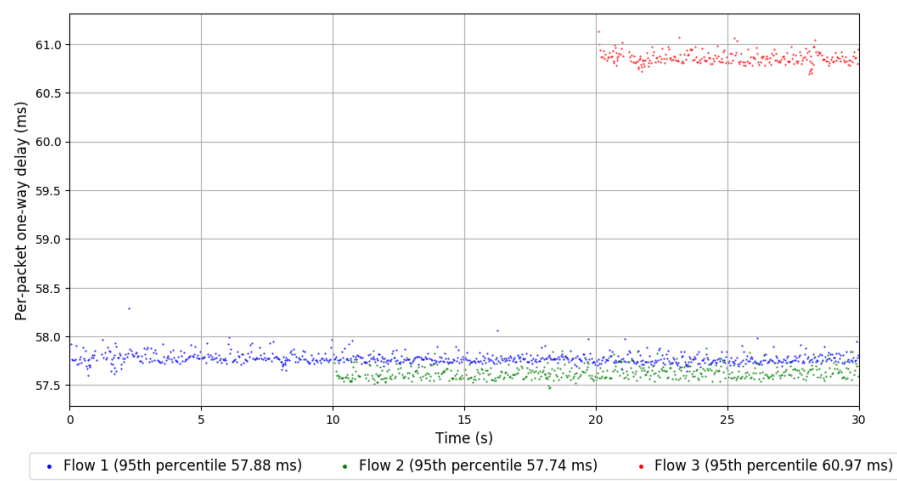
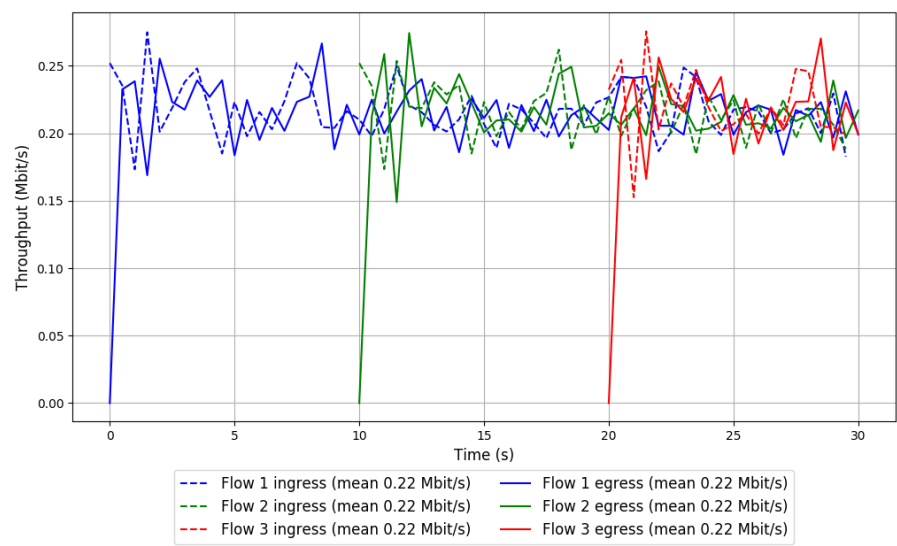


Run 2: Statistics of SReAM

Start at: 2019-02-12 18:05:34
End at: 2019-02-12 18:06:04
Local clock offset: -0.371 ms
Remote clock offset: 0.05 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.881 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.880 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.742 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.971 ms
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

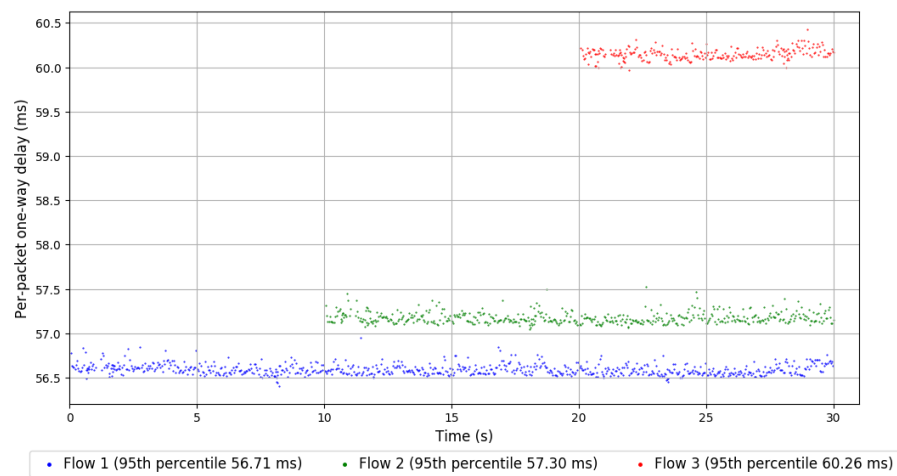
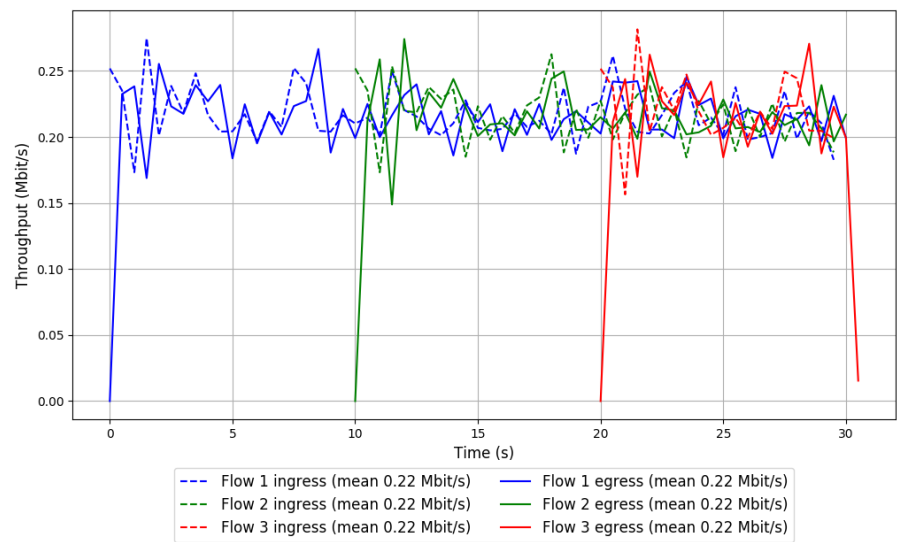


Run 3: Statistics of SReAM

Start at: 2019-02-12 18:46:02
End at: 2019-02-12 18:46:32
Local clock offset: -0.576 ms
Remote clock offset: -0.76 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 60.180 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.297 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.263 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-02-12 19:27:58

End at: 2019-02-12 19:28:28

Local clock offset: 0.045 ms

Remote clock offset: 0.355 ms

Below is generated by plot.py at 2019-02-12 23:46:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 57.473 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.508 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.426 ms

Loss rate: 0.00%

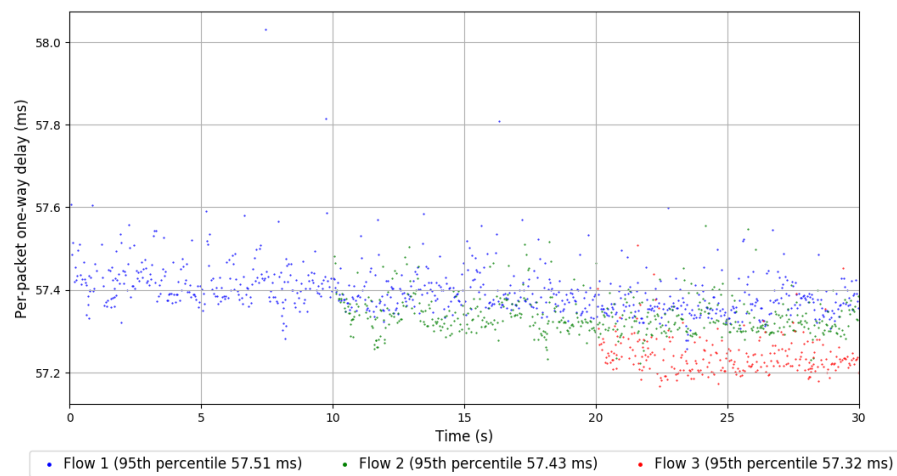
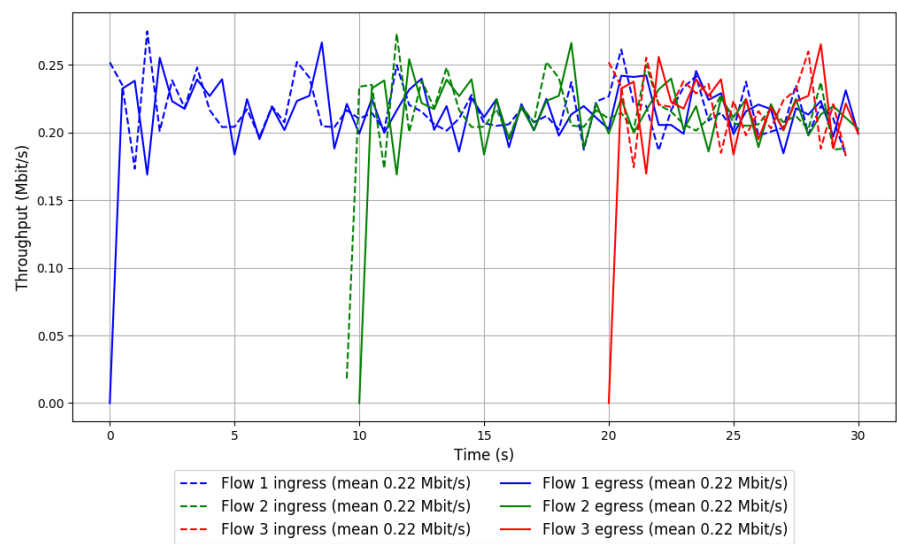
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.321 ms

Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link

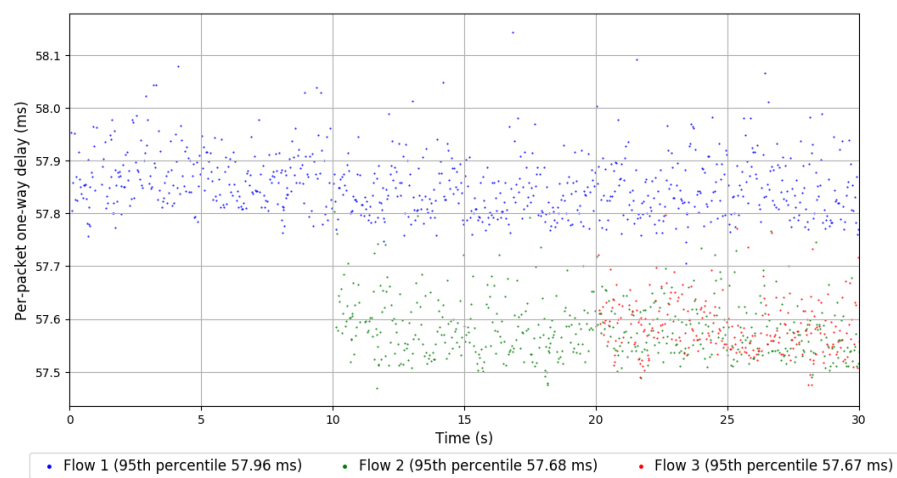
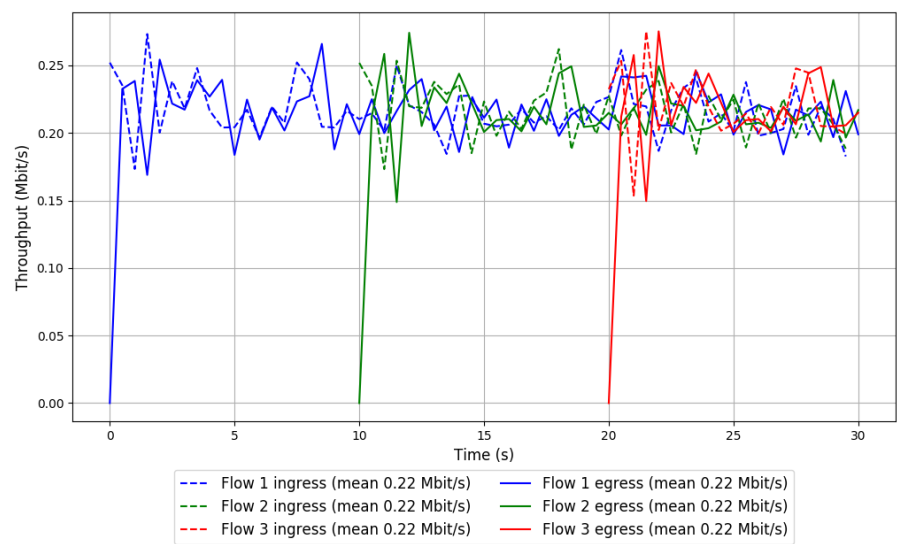


Run 5: Statistics of SReAM

Start at: 2019-02-12 20:09:00
End at: 2019-02-12 20:09:30
Local clock offset: -0.248 ms
Remote clock offset: 0.498 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 57.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.962 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.684 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.669 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

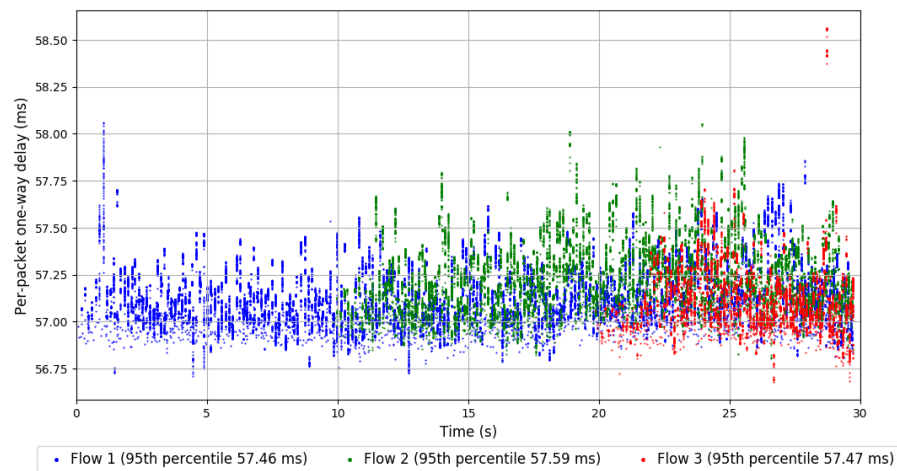
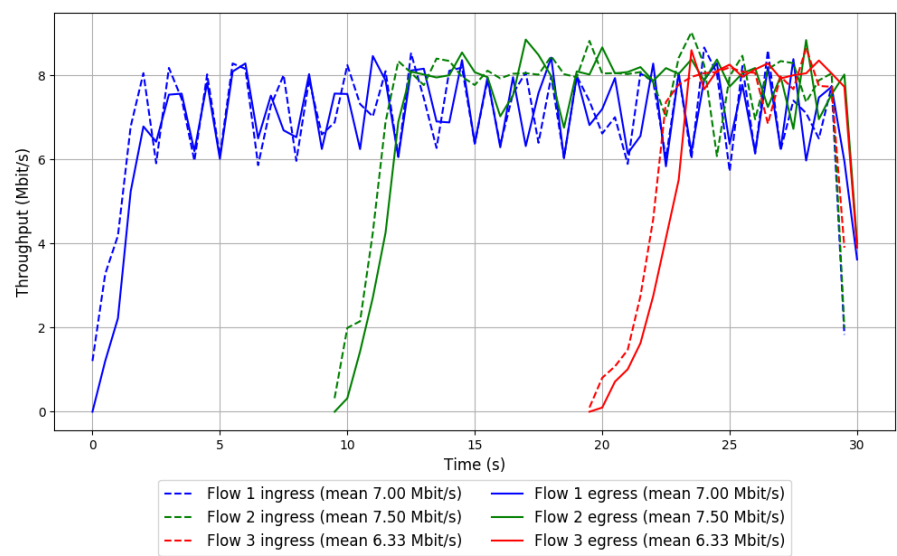


Run 1: Statistics of Sprout

Start at: 2019-02-12 16:53:29
End at: 2019-02-12 16:53:59
Local clock offset: -0.282 ms
Remote clock offset: -0.747 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 57.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 57.463 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 57.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 57.469 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

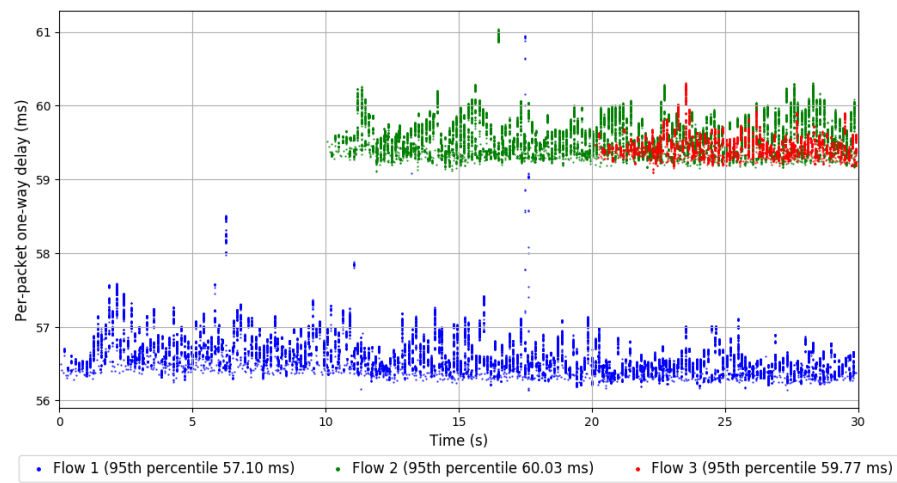
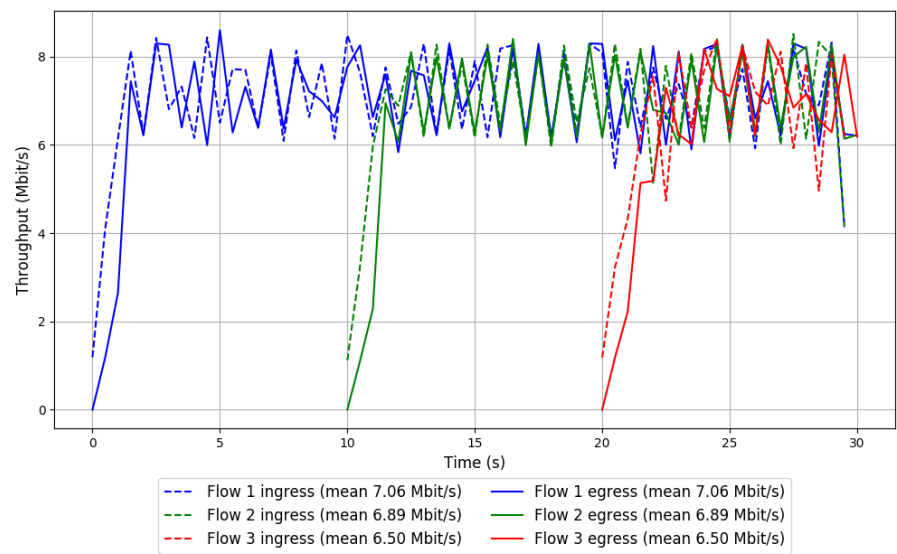


Run 2: Statistics of Sprout

Start at: 2019-02-12 17:35:14
End at: 2019-02-12 17:35:44
Local clock offset: -0.252 ms
Remote clock offset: -1.444 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.77 Mbit/s
95th percentile per-packet one-way delay: 59.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 57.098 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 60.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 59.765 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

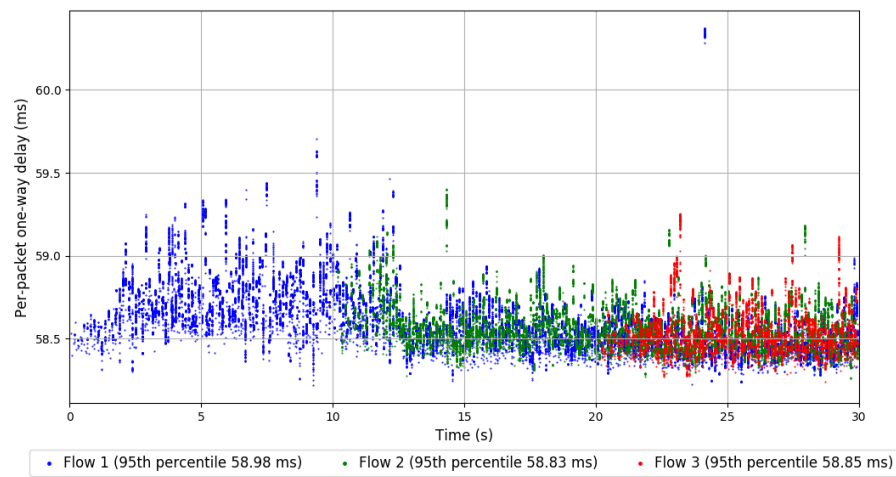
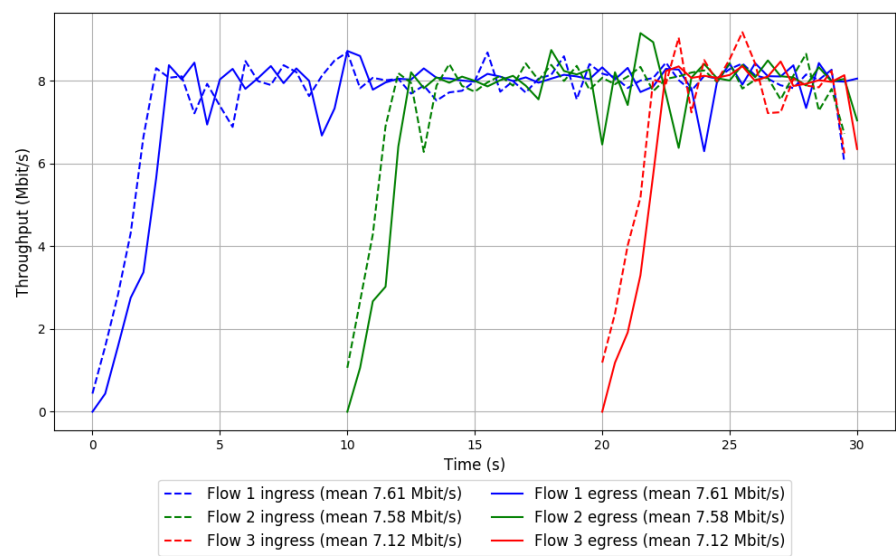


Run 3: Statistics of Sprout

Start at: 2019-02-12 18:16:41
End at: 2019-02-12 18:17:11
Local clock offset: -0.152 ms
Remote clock offset: 1.191 ms

```
# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 58.932 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 58.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 58.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 58.849 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

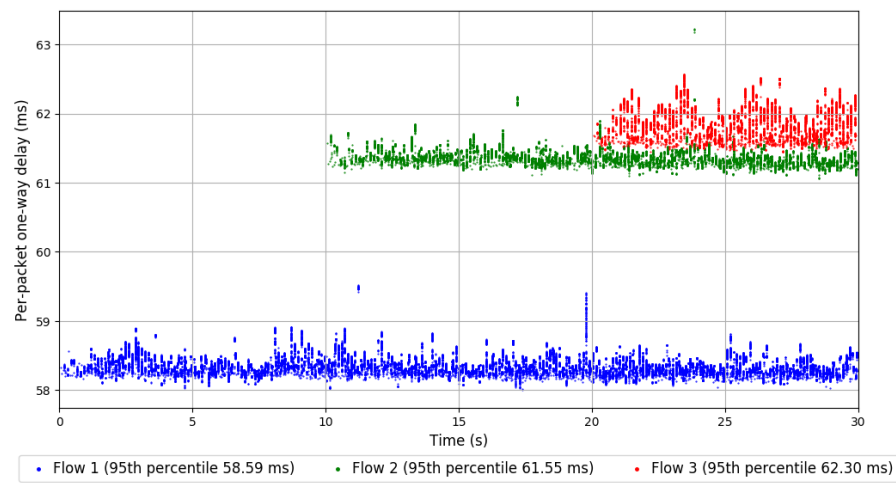
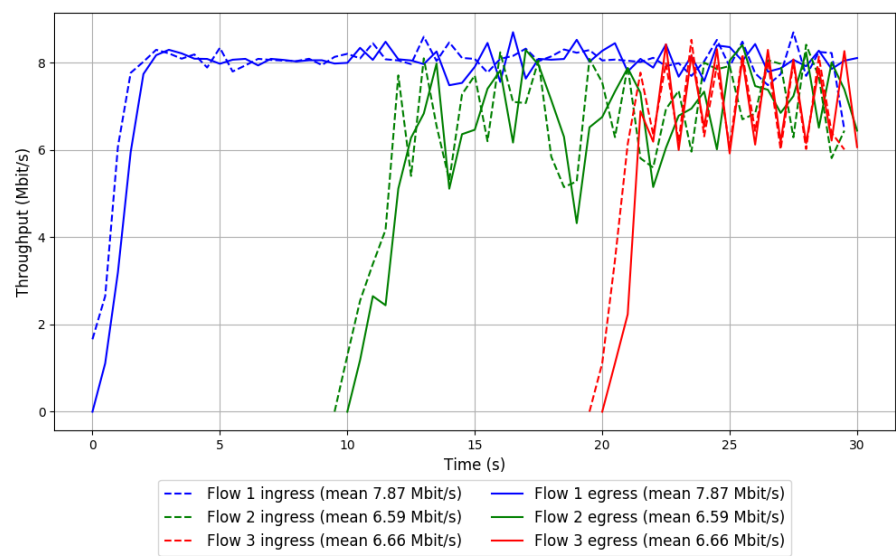


Run 4: Statistics of Sprout

Start at: 2019-02-12 18:57:15
End at: 2019-02-12 18:57:45
Local clock offset: -0.408 ms
Remote clock offset: 0.766 ms

```
# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 61.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 58.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 61.546 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 62.299 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

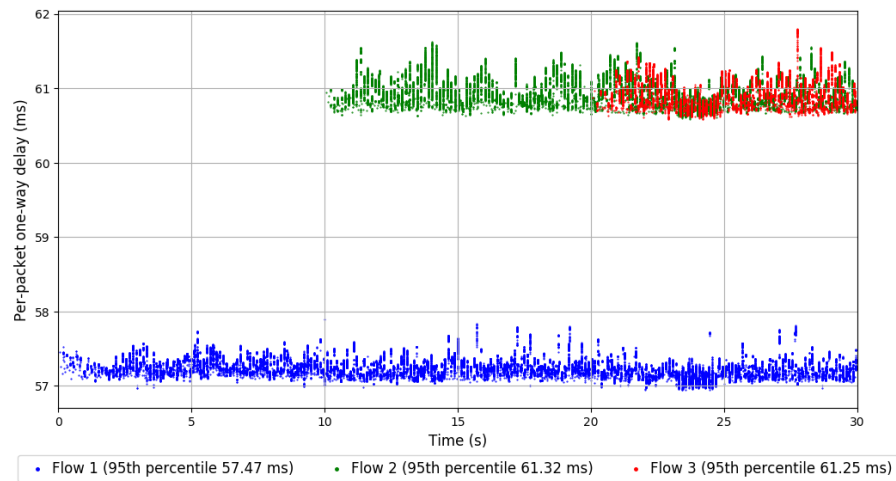
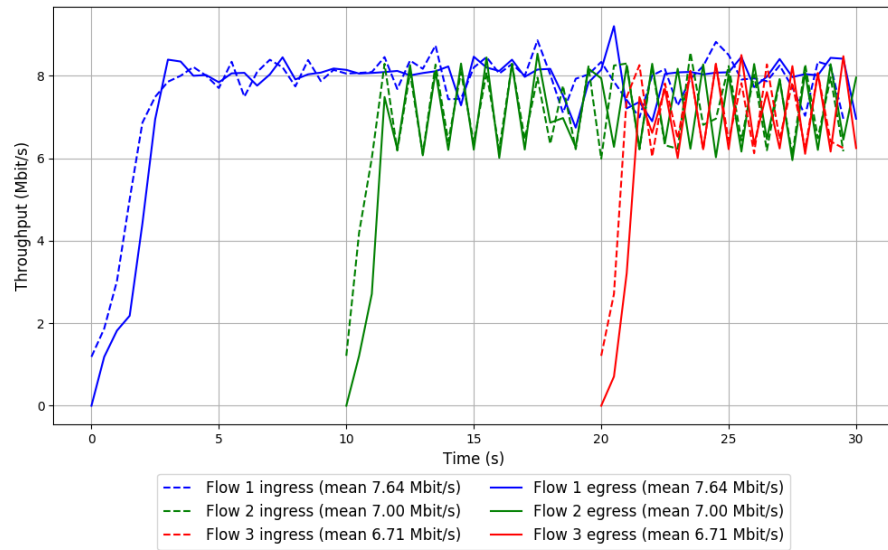


Run 5: Statistics of Sprout

Start at: 2019-02-12 19:39:07
End at: 2019-02-12 19:39:37
Local clock offset: -0.213 ms
Remote clock offset: -0.052 ms

Below is generated by plot.py at 2019-02-12 23:46:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 61.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 57.466 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 61.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 61.248 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

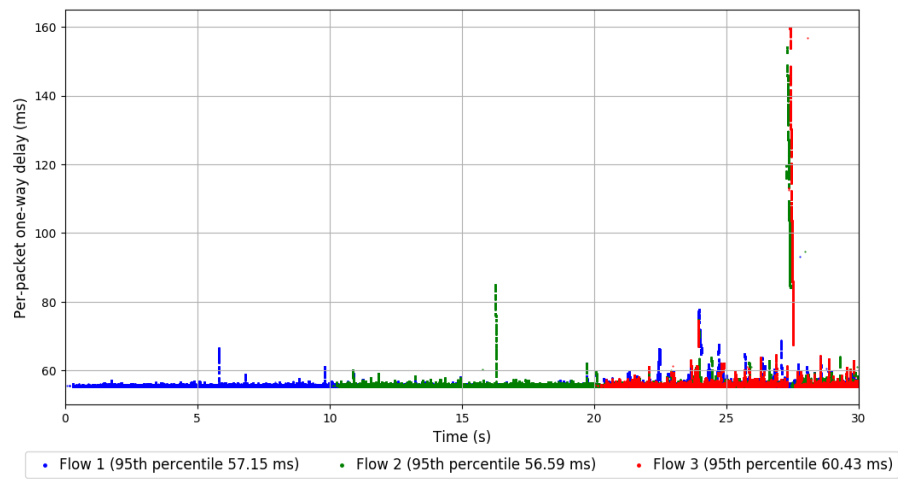
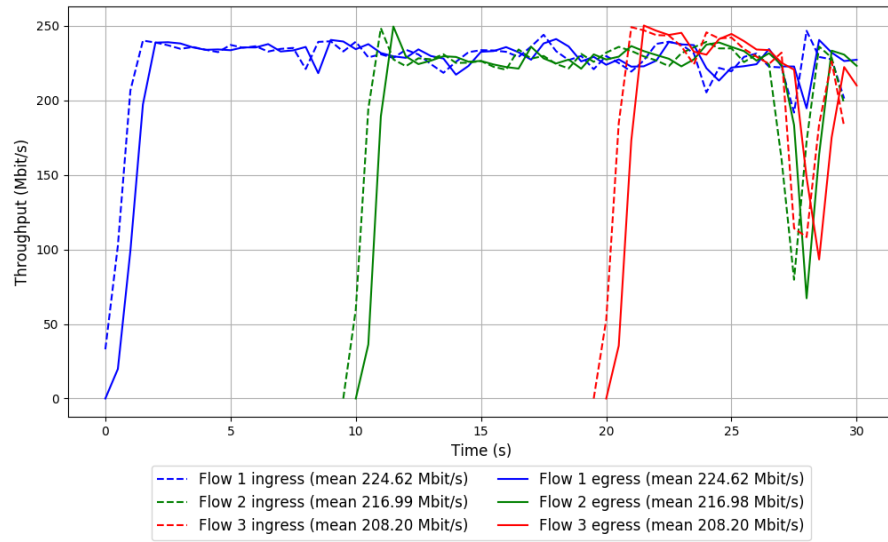


```
Run 1: Statistics of TaoVA-100x

Start at: 2019-02-12 16:54:43
End at: 2019-02-12 16:55:13
Local clock offset: 0.28 ms
Remote clock offset: -1.398 ms

# Below is generated by plot.py at 2019-02-12 23:50:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.62 Mbit/s
95th percentile per-packet one-way delay: 57.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.62 Mbit/s
95th percentile per-packet one-way delay: 57.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 216.98 Mbit/s
95th percentile per-packet one-way delay: 56.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.20 Mbit/s
95th percentile per-packet one-way delay: 60.433 ms
Loss rate: 0.00%
```

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

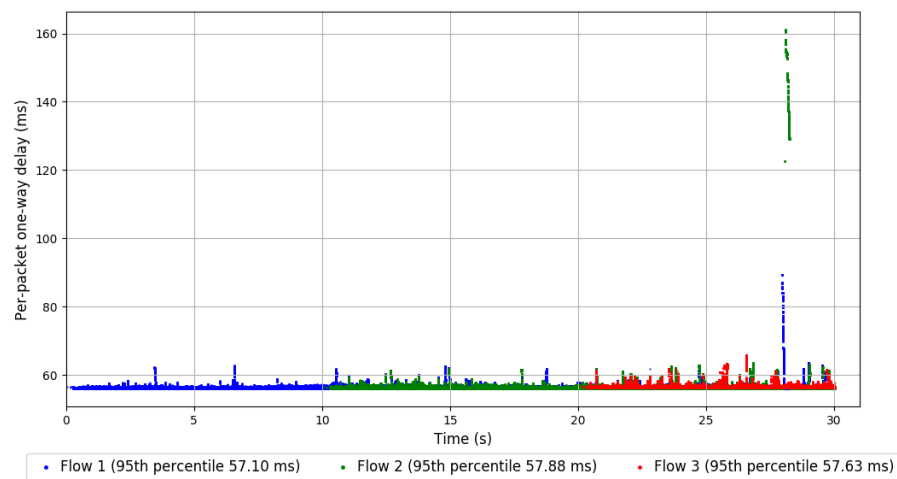
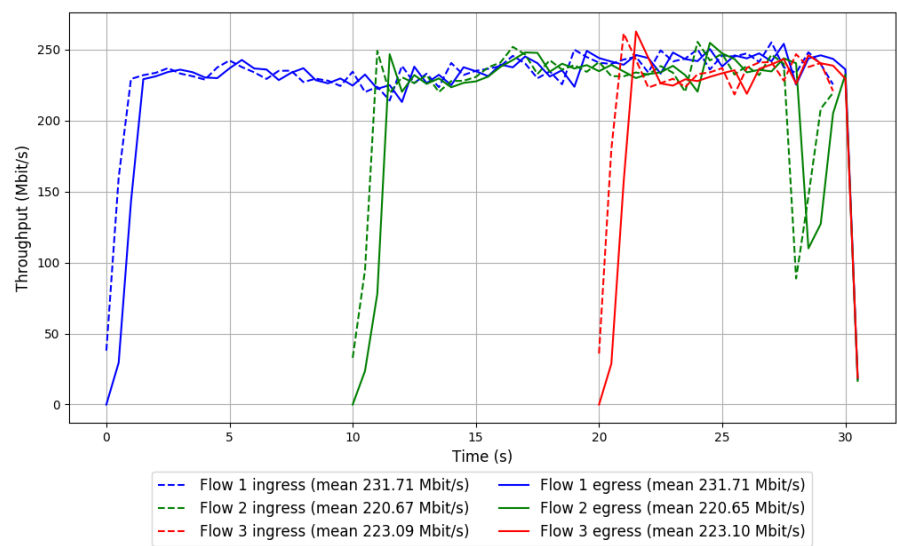


Run 2: Statistics of TaoVA-100x

Start at: 2019-02-12 17:36:27
End at: 2019-02-12 17:36:57
Local clock offset: 0.267 ms
Remote clock offset: -0.739 ms

Below is generated by plot.py at 2019-02-12 23:51:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 452.69 Mbit/s
95th percentile per-packet one-way delay: 57.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.71 Mbit/s
95th percentile per-packet one-way delay: 57.099 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.65 Mbit/s
95th percentile per-packet one-way delay: 57.885 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.10 Mbit/s
95th percentile per-packet one-way delay: 57.628 ms
Loss rate: 0.00%

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

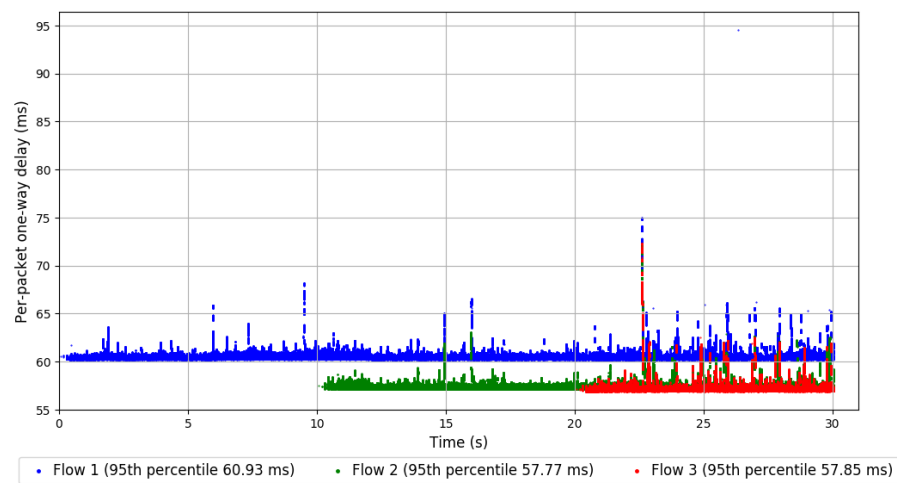
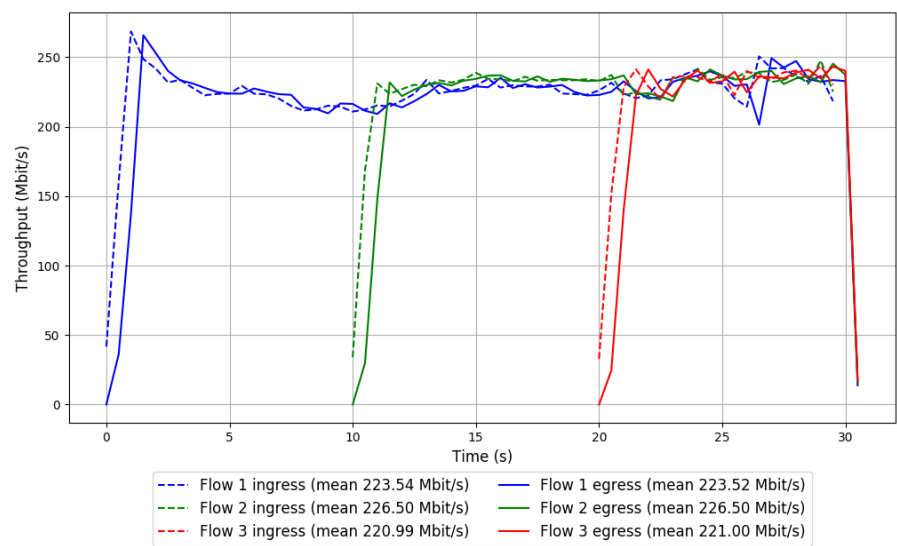


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-12 18:17:55
End at: 2019-02-12 18:18:25
Local clock offset: -0.189 ms
Remote clock offset: -0.073 ms

Below is generated by plot.py at 2019-02-12 23:51:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 447.79 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 223.52 Mbit/s
95th percentile per-packet one-way delay: 60.926 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 226.50 Mbit/s
95th percentile per-packet one-way delay: 57.769 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.00 Mbit/s
95th percentile per-packet one-way delay: 57.855 ms
Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-02-12 18:58:29

End at: 2019-02-12 18:58:59

Local clock offset: -0.205 ms

Remote clock offset: 0.425 ms

Below is generated by plot.py at 2019-02-12 23:52:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 454.51 Mbit/s

95th percentile per-packet one-way delay: 61.412 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 227.86 Mbit/s

95th percentile per-packet one-way delay: 58.028 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 229.06 Mbit/s

95th percentile per-packet one-way delay: 58.523 ms

Loss rate: 0.00%

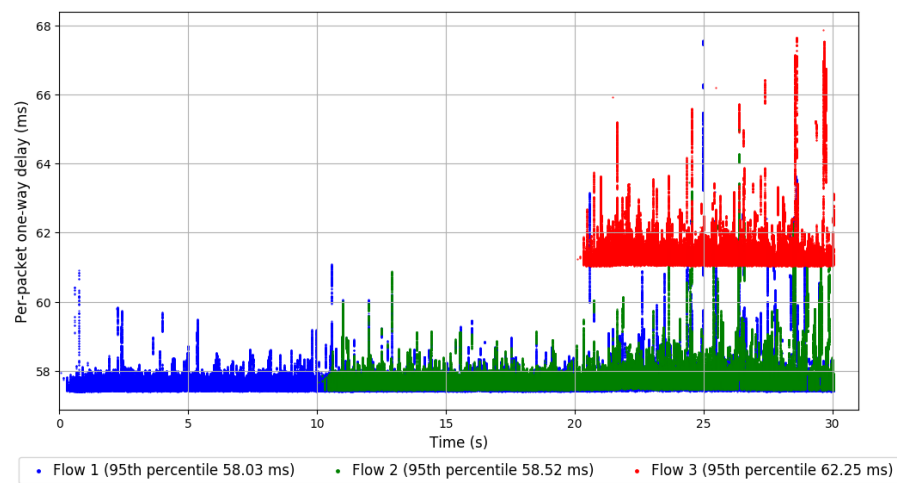
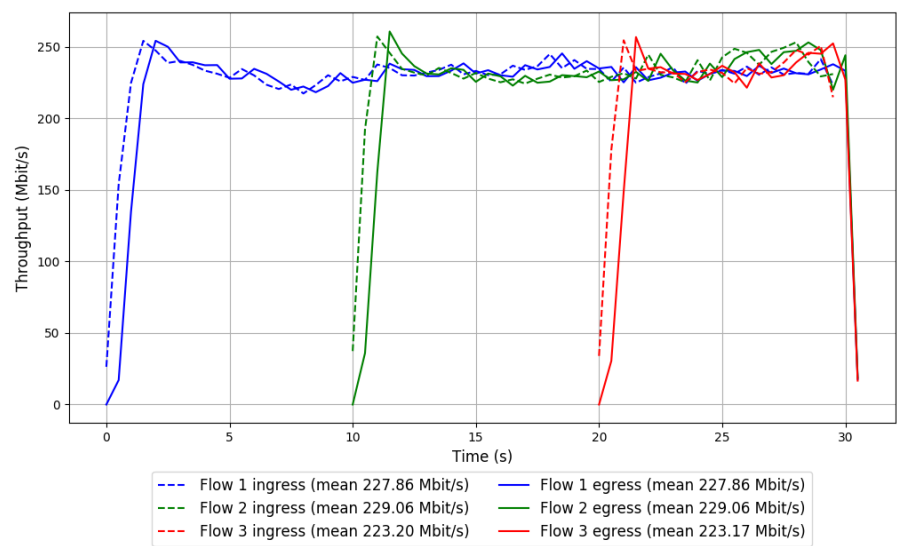
-- Flow 3:

Average throughput: 223.17 Mbit/s

95th percentile per-packet one-way delay: 62.252 ms

Loss rate: 0.04%

Run 4: Report of TaoVA-100x — Data Link



Run 5: Statistics of TaoVA-100x

Start at: 2019-02-12 19:40:22

End at: 2019-02-12 19:40:52

Local clock offset: -0.051 ms

Remote clock offset: 0.23 ms

Below is generated by plot.py at 2019-02-12 23:52:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.24 Mbit/s

95th percentile per-packet one-way delay: 58.042 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 234.48 Mbit/s

95th percentile per-packet one-way delay: 57.909 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 234.06 Mbit/s

95th percentile per-packet one-way delay: 57.869 ms

Loss rate: 0.00%

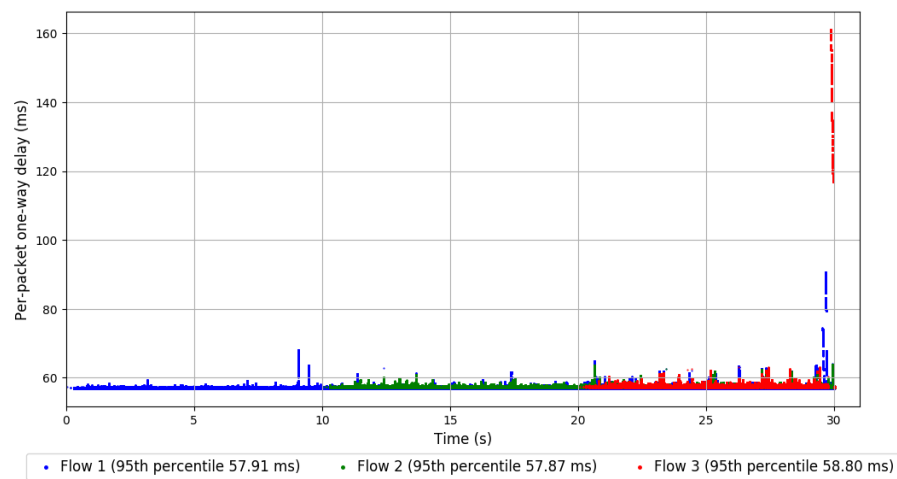
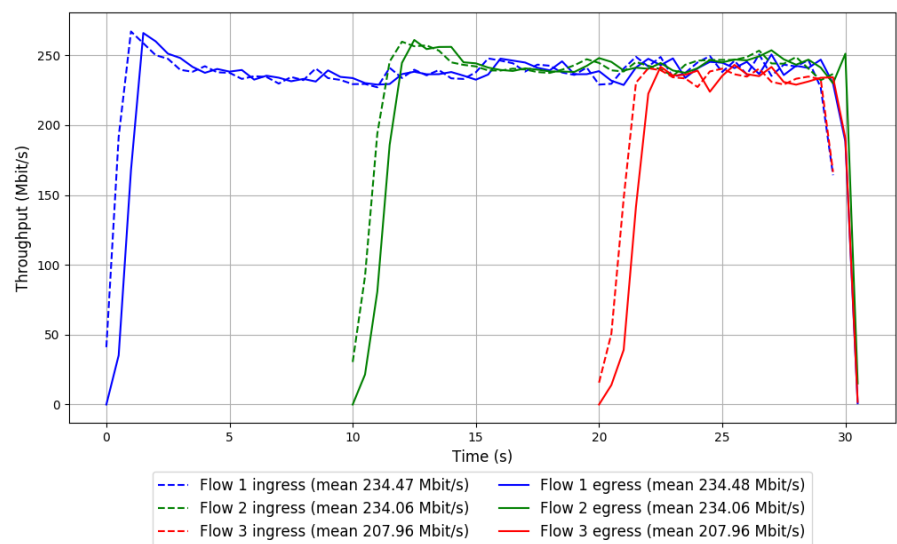
-- Flow 3:

Average throughput: 207.96 Mbit/s

95th percentile per-packet one-way delay: 58.805 ms

Loss rate: 0.00%

Run 5: Report of TaoVA-100x — Data Link

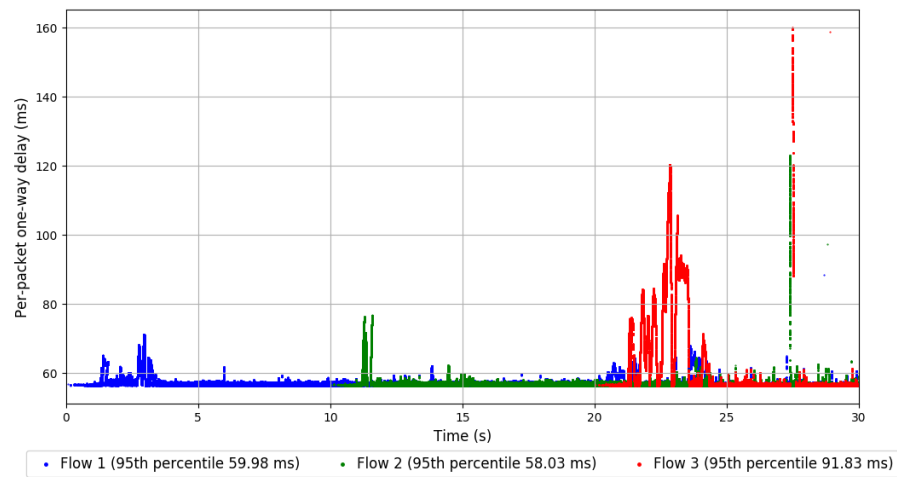
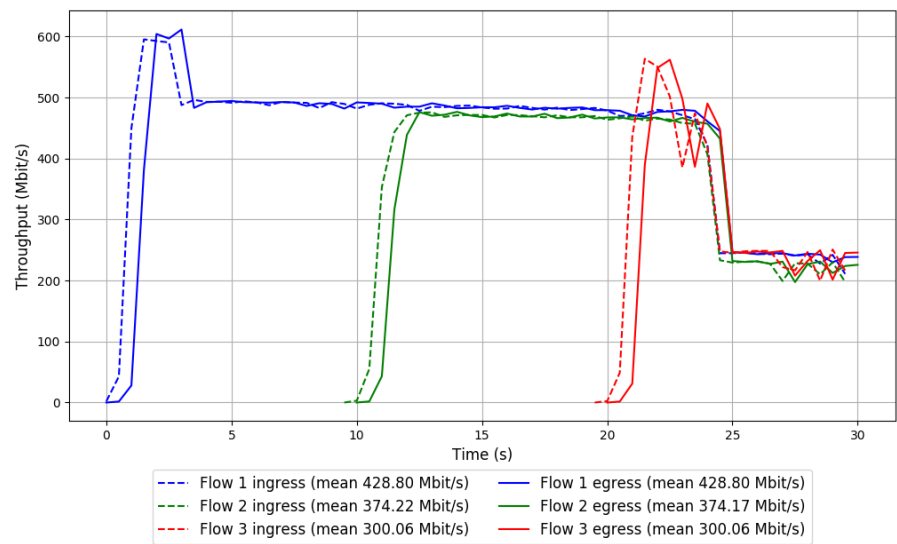


Run 1: Statistics of TCP Vegas

Start at: 2019-02-12 16:59:11
End at: 2019-02-12 16:59:41
Local clock offset: -0.316 ms
Remote clock offset: -1.122 ms

Below is generated by plot.py at 2019-02-12 23:52:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 778.09 Mbit/s
95th percentile per-packet one-way delay: 63.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 428.80 Mbit/s
95th percentile per-packet one-way delay: 59.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 374.17 Mbit/s
95th percentile per-packet one-way delay: 58.029 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 300.06 Mbit/s
95th percentile per-packet one-way delay: 91.829 ms
Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

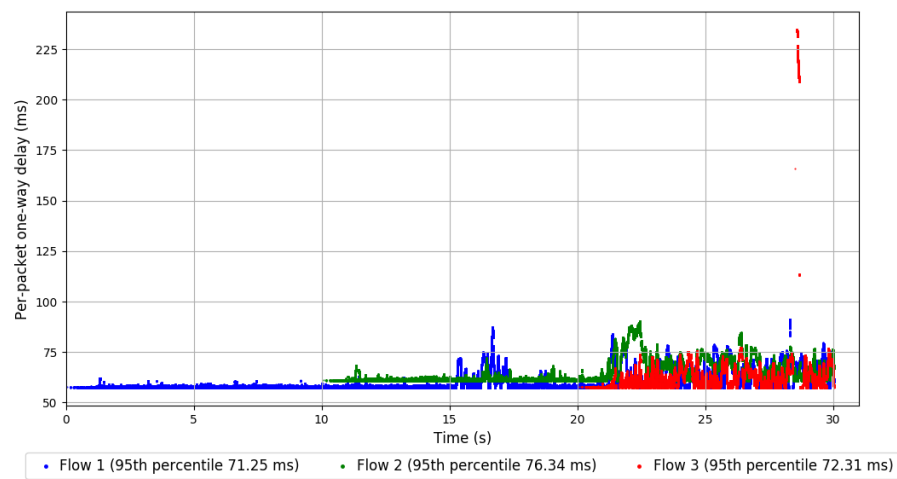
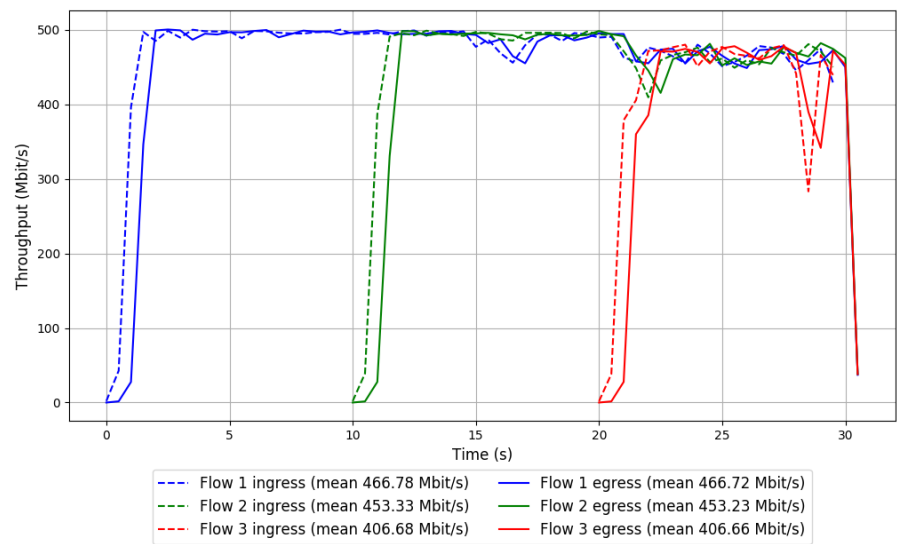


Run 2: Statistics of TCP Vegas

Start at: 2019-02-12 17:40:55
End at: 2019-02-12 17:41:25
Local clock offset: -0.38 ms
Remote clock offset: -0.116 ms

Below is generated by plot.py at 2019-02-13 00:07:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 903.77 Mbit/s
95th percentile per-packet one-way delay: 73.759 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 466.72 Mbit/s
95th percentile per-packet one-way delay: 71.246 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 453.23 Mbit/s
95th percentile per-packet one-way delay: 76.339 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 406.66 Mbit/s
95th percentile per-packet one-way delay: 72.312 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

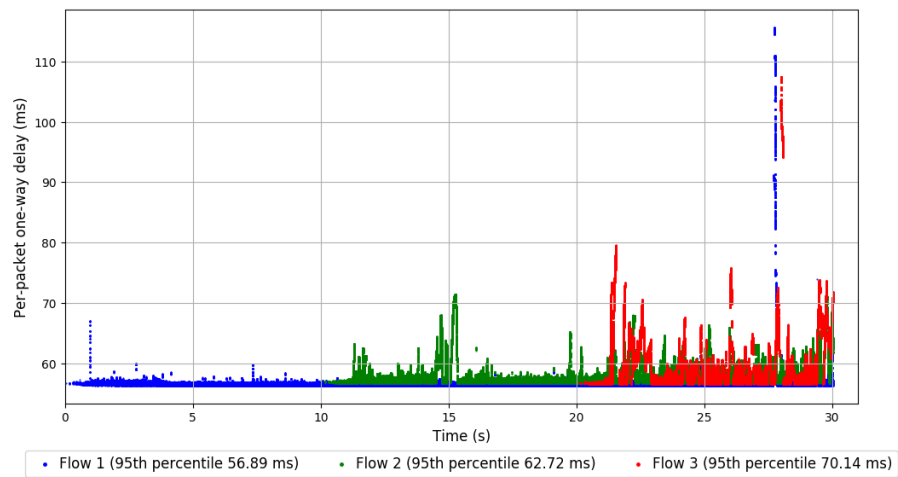
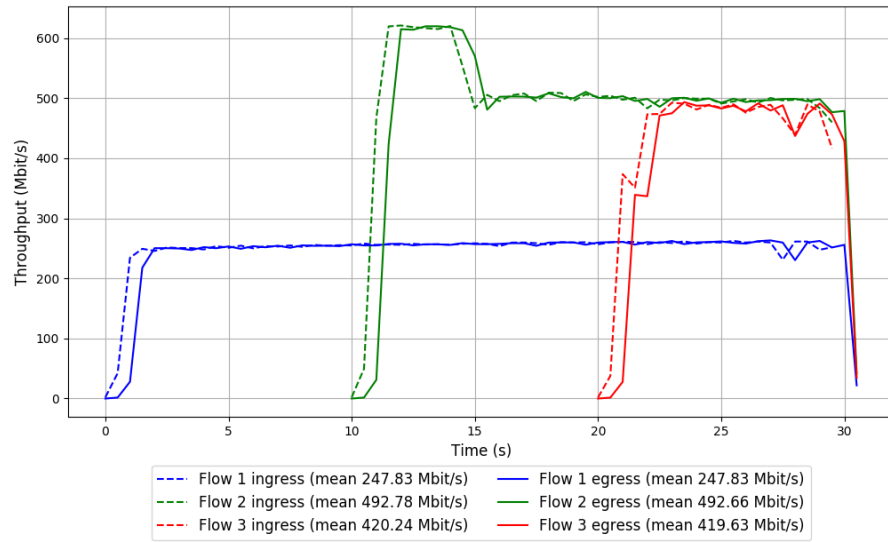


Run 3: Statistics of TCP Vegas

Start at: 2019-02-12 18:22:01
End at: 2019-02-12 18:22:31
Local clock offset: 0.052 ms
Remote clock offset: -0.087 ms

Below is generated by plot.py at 2019-02-13 00:07:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 715.48 Mbit/s
95th percentile per-packet one-way delay: 63.820 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 247.83 Mbit/s
95th percentile per-packet one-way delay: 56.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 492.66 Mbit/s
95th percentile per-packet one-way delay: 62.723 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 419.63 Mbit/s
95th percentile per-packet one-way delay: 70.141 ms
Loss rate: 0.14%

Run 3: Report of TCP Vegas — Data Link

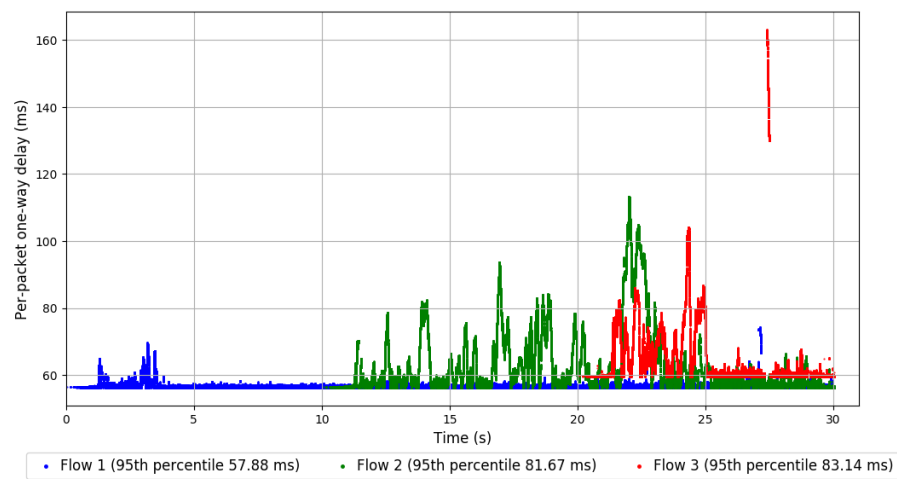
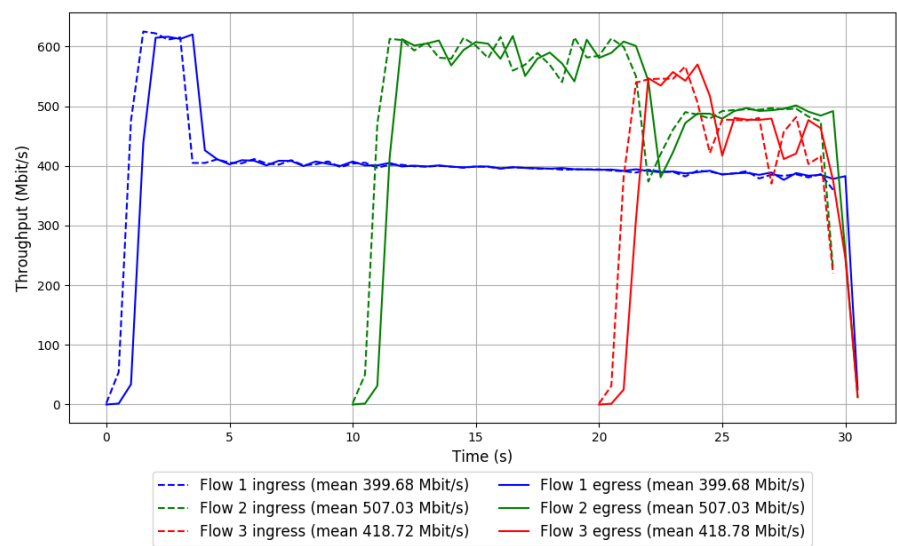


Run 4: Statistics of TCP Vegas

Start at: 2019-02-12 19:02:48
End at: 2019-02-12 19:03:18
Local clock offset: -0.199 ms
Remote clock offset: -0.754 ms

Below is generated by plot.py at 2019-02-13 00:13:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 876.49 Mbit/s
95th percentile per-packet one-way delay: 77.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 399.68 Mbit/s
95th percentile per-packet one-way delay: 57.882 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 507.03 Mbit/s
95th percentile per-packet one-way delay: 81.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 418.78 Mbit/s
95th percentile per-packet one-way delay: 83.141 ms
Loss rate: 0.02%

Run 4: Report of TCP Vegas — Data Link

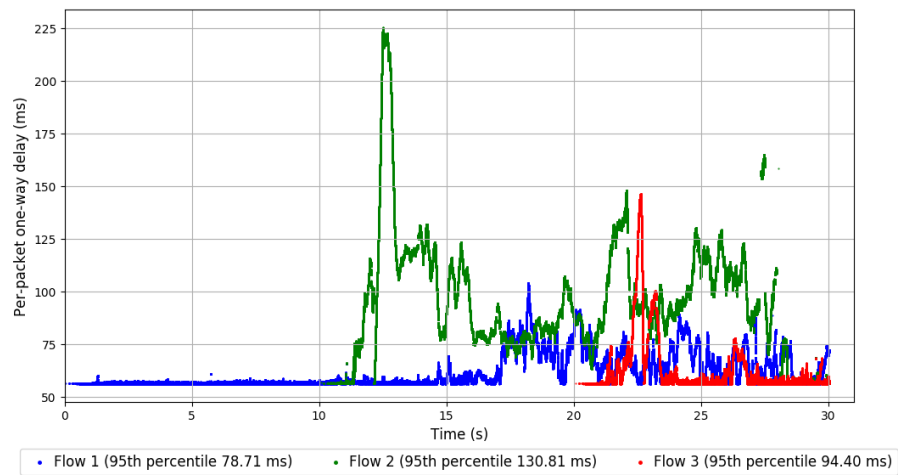
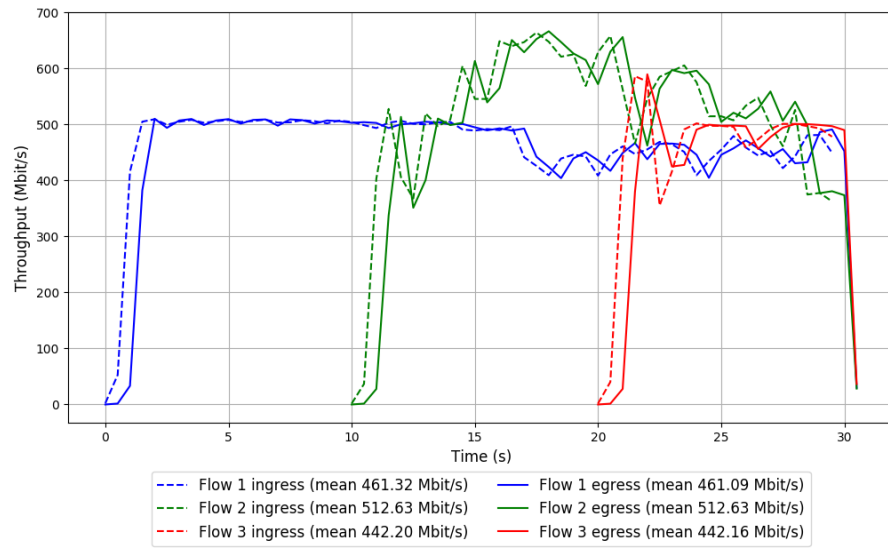


Run 5: Statistics of TCP Vegas

Start at: 2019-02-12 19:44:40
End at: 2019-02-12 19:45:10
Local clock offset: 0.043 ms
Remote clock offset: -0.685 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 949.17 Mbit/s
95th percentile per-packet one-way delay: 119.030 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 461.09 Mbit/s
95th percentile per-packet one-way delay: 78.711 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 512.63 Mbit/s
95th percentile per-packet one-way delay: 130.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 442.16 Mbit/s
95th percentile per-packet one-way delay: 94.398 ms
Loss rate: 0.01%

Run 5: Report of TCP Vegas — Data Link

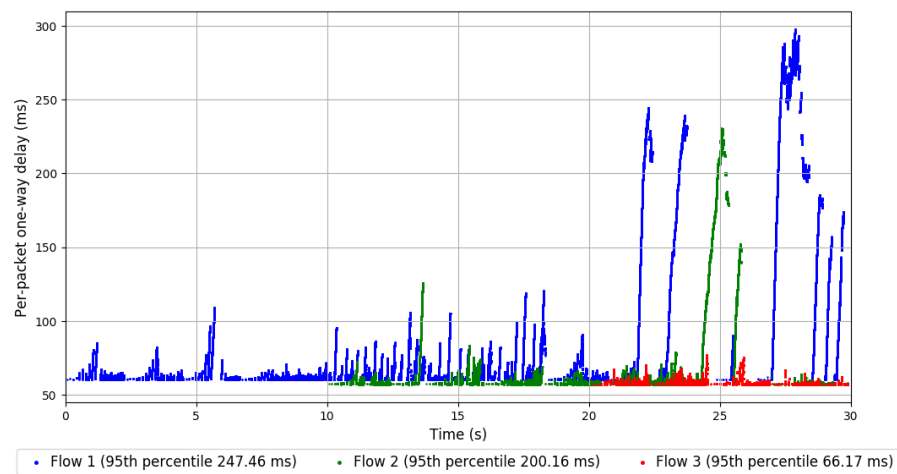
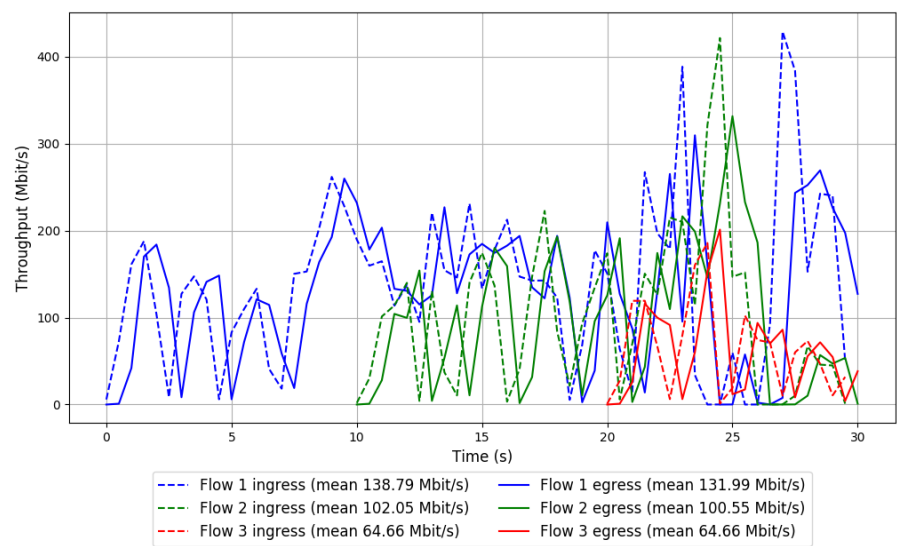


Run 1: Statistics of Verus

Start at: 2019-02-12 17:30:09
End at: 2019-02-12 17:30:39
Local clock offset: 0.093 ms
Remote clock offset: -0.206 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 219.28 Mbit/s
95th percentile per-packet one-way delay: 225.520 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 131.99 Mbit/s
95th percentile per-packet one-way delay: 247.461 ms
Loss rate: 4.53%
-- Flow 2:
Average throughput: 100.55 Mbit/s
95th percentile per-packet one-way delay: 200.160 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 66.174 ms
Loss rate: 0.00%

Run 1: Report of Verus — Data Link

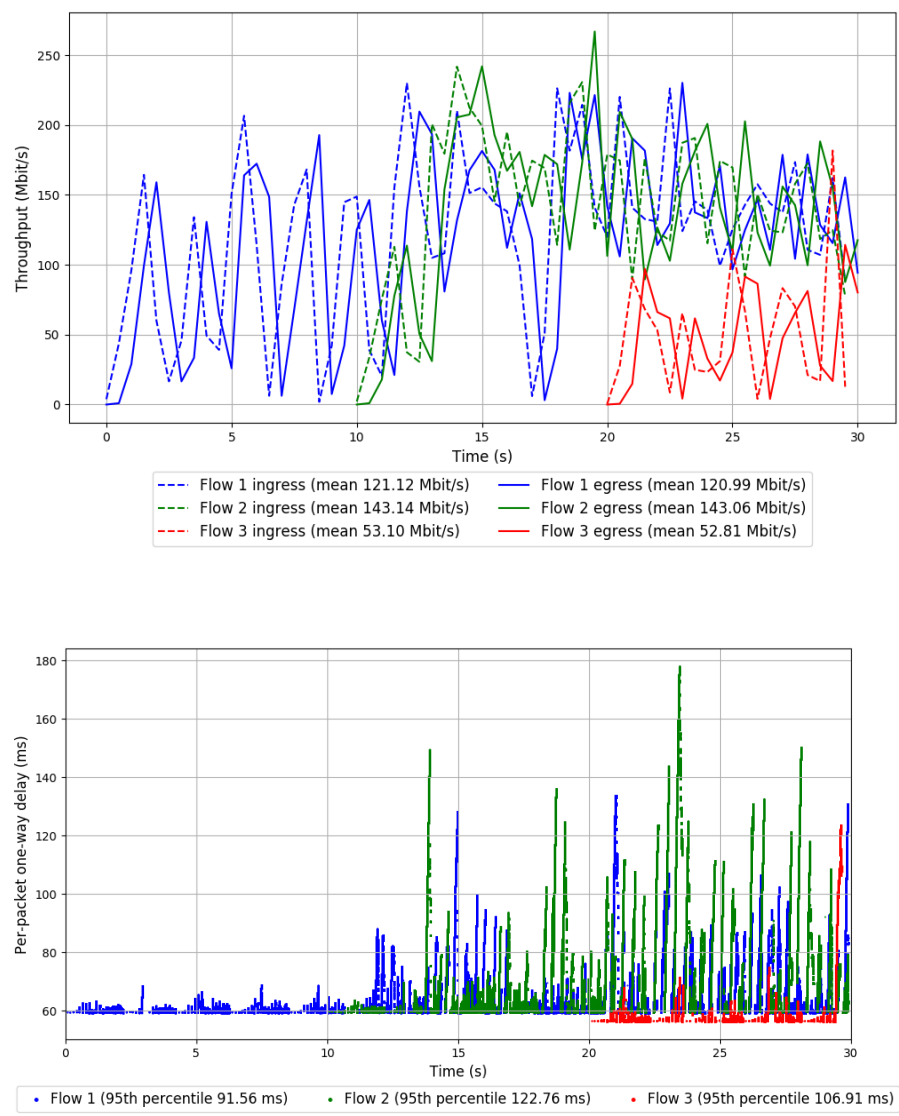


Run 2: Statistics of Verus

Start at: 2019-02-12 18:11:47
End at: 2019-02-12 18:12:17
Local clock offset: 0.258 ms
Remote clock offset: -0.189 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 232.98 Mbit/s
95th percentile per-packet one-way delay: 109.766 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 120.99 Mbit/s
95th percentile per-packet one-way delay: 91.565 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 143.06 Mbit/s
95th percentile per-packet one-way delay: 122.763 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 106.912 ms
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

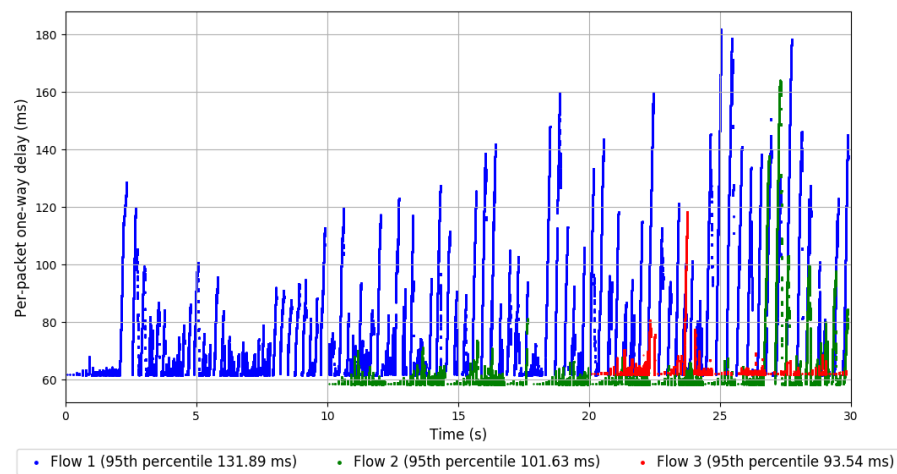
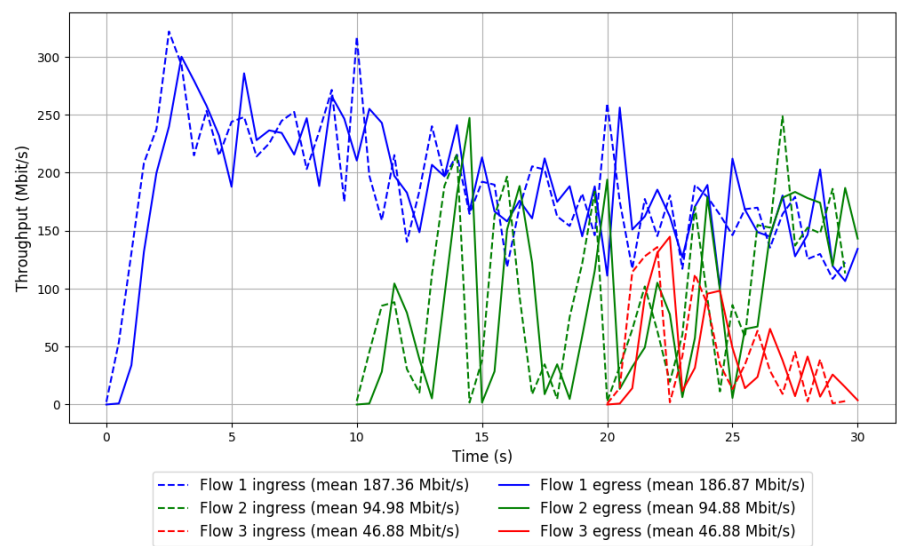


Run 3: Statistics of Verus

Start at: 2019-02-12 18:52:12
End at: 2019-02-12 18:52:42
Local clock offset: -0.211 ms
Remote clock offset: 1.281 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 265.10 Mbit/s
95th percentile per-packet one-way delay: 128.362 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 186.87 Mbit/s
95th percentile per-packet one-way delay: 131.893 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 101.633 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.88 Mbit/s
95th percentile per-packet one-way delay: 93.540 ms
Loss rate: 0.00%

Run 3: Report of Verus — Data Link

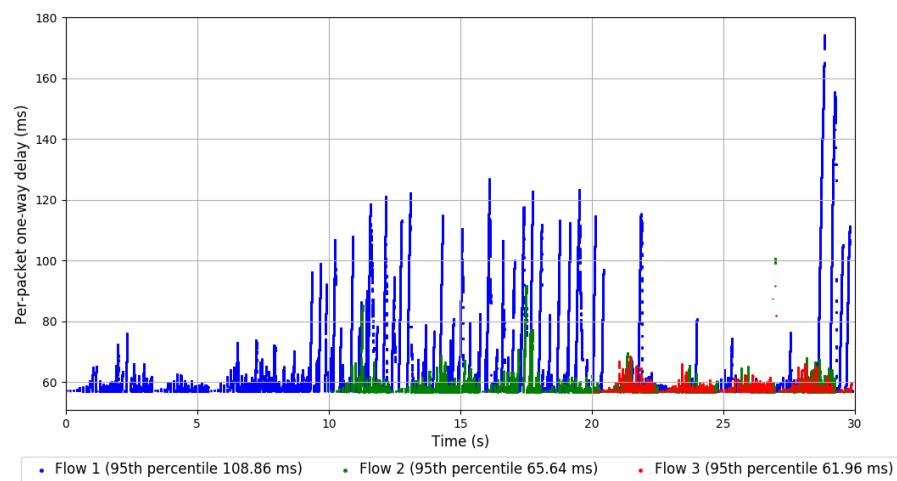
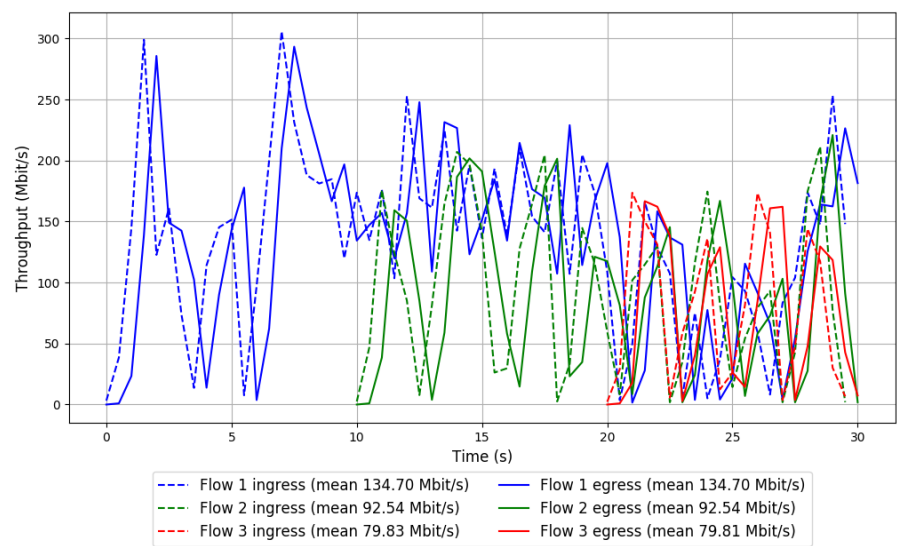


Run 4: Statistics of Verus

Start at: 2019-02-12 19:33:50
End at: 2019-02-12 19:34:20
Local clock offset: -0.271 ms
Remote clock offset: -0.333 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 222.18 Mbit/s
95th percentile per-packet one-way delay: 101.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 134.70 Mbit/s
95th percentile per-packet one-way delay: 108.859 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 65.636 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.81 Mbit/s
95th percentile per-packet one-way delay: 61.963 ms
Loss rate: 0.00%

Run 4: Report of Verus — Data Link

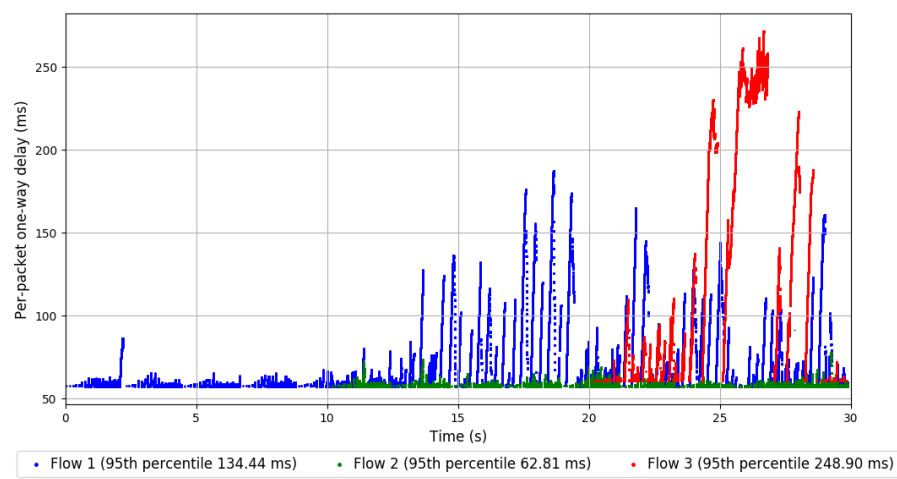
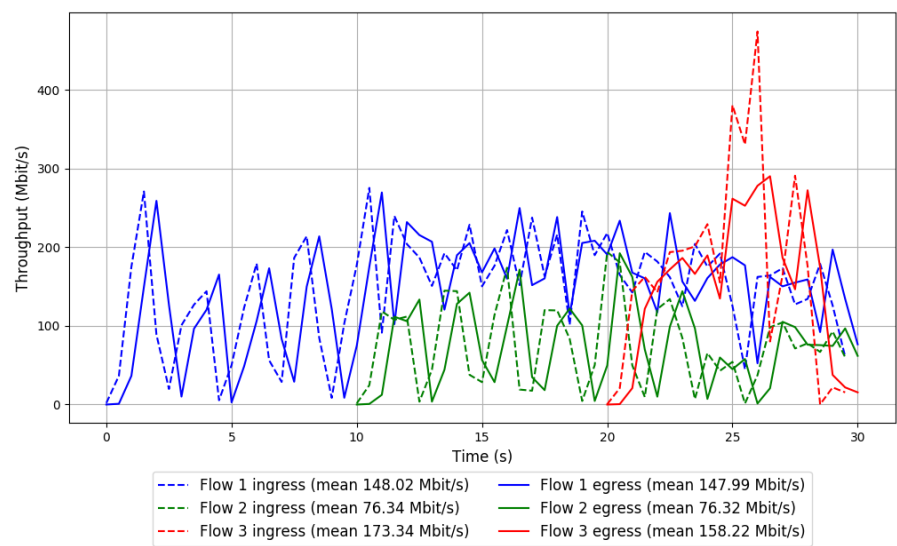


Run 5: Statistics of Verus

Start at: 2019-02-12 20:14:46
End at: 2019-02-12 20:15:16
Local clock offset: -0.638 ms
Remote clock offset: -0.212 ms

Below is generated by plot.py at 2019-02-13 00:15:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 250.36 Mbit/s
95th percentile per-packet one-way delay: 217.953 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 147.99 Mbit/s
95th percentile per-packet one-way delay: 134.440 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 76.32 Mbit/s
95th percentile per-packet one-way delay: 62.808 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 158.22 Mbit/s
95th percentile per-packet one-way delay: 248.903 ms
Loss rate: 8.72%

Run 5: Report of Verus — Data Link

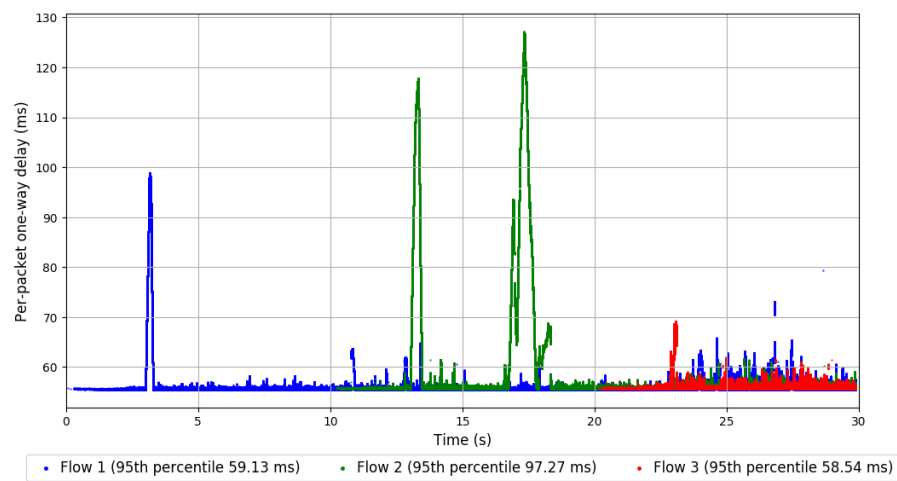
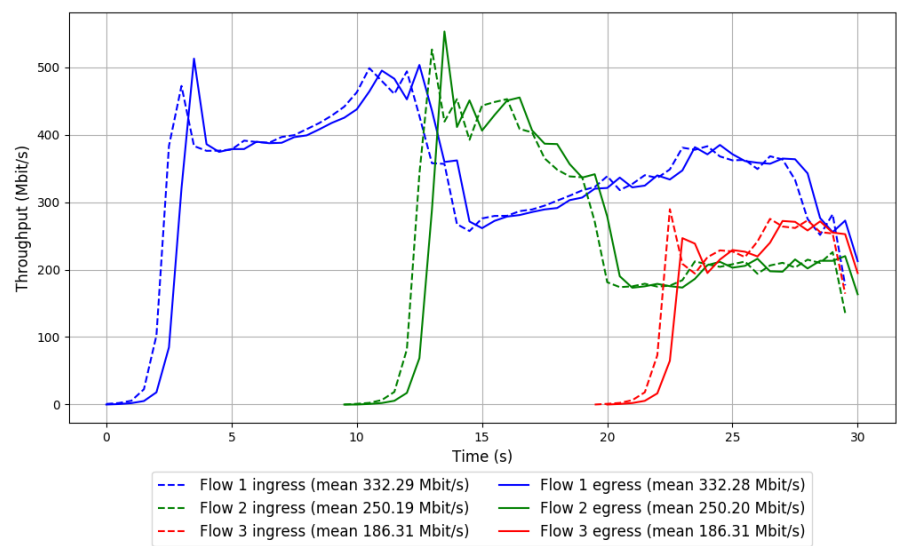


Run 1: Statistics of PCC-Vivace

Start at: 2019-02-12 17:04:42
End at: 2019-02-12 17:05:12
Local clock offset: 0.147 ms
Remote clock offset: -1.556 ms

Below is generated by plot.py at 2019-02-13 00:17:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 560.64 Mbit/s
95th percentile per-packet one-way delay: 64.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 332.28 Mbit/s
95th percentile per-packet one-way delay: 59.133 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.20 Mbit/s
95th percentile per-packet one-way delay: 97.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.31 Mbit/s
95th percentile per-packet one-way delay: 58.538 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-02-12 17:46:28

End at: 2019-02-12 17:46:58

Local clock offset: 0.006 ms

Remote clock offset: 0.371 ms

Below is generated by plot.py at 2019-02-13 00:17:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 535.90 Mbit/s

95th percentile per-packet one-way delay: 64.194 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 321.57 Mbit/s

95th percentile per-packet one-way delay: 63.372 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 270.18 Mbit/s

95th percentile per-packet one-way delay: 121.908 ms

Loss rate: 0.32%

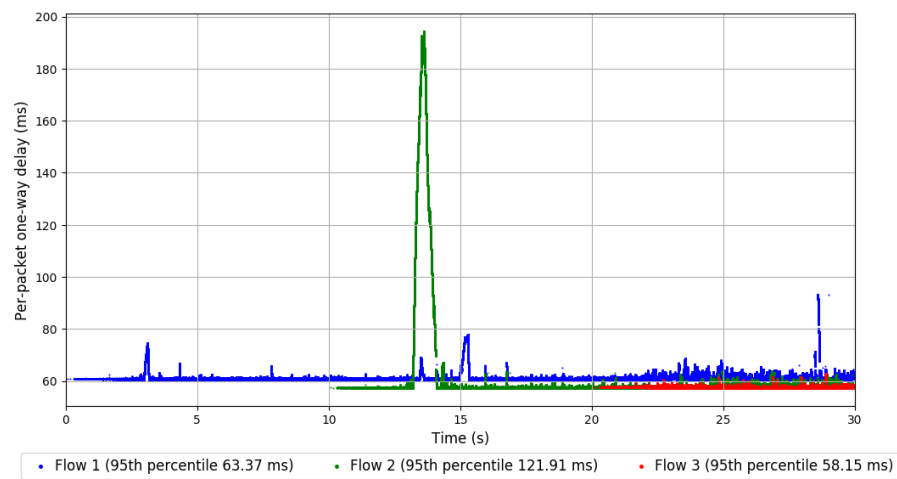
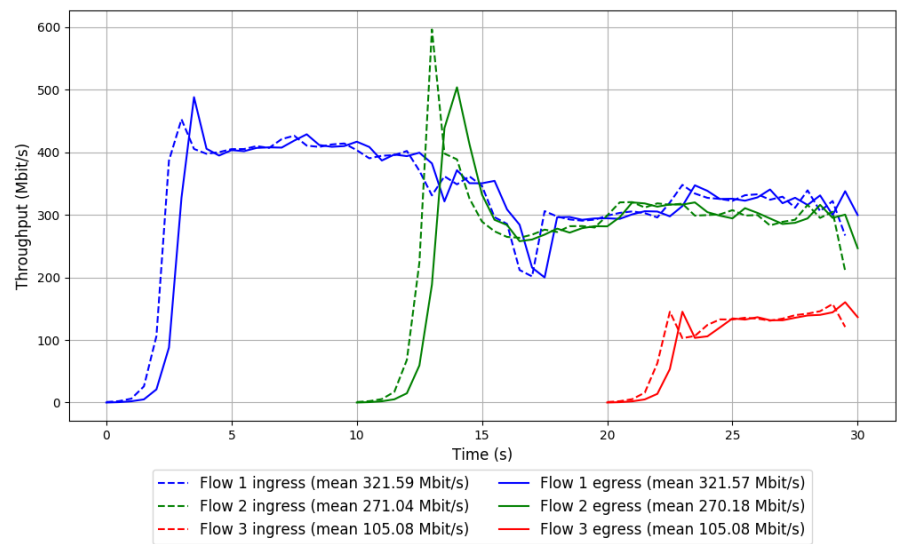
-- Flow 3:

Average throughput: 105.08 Mbit/s

95th percentile per-packet one-way delay: 58.152 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

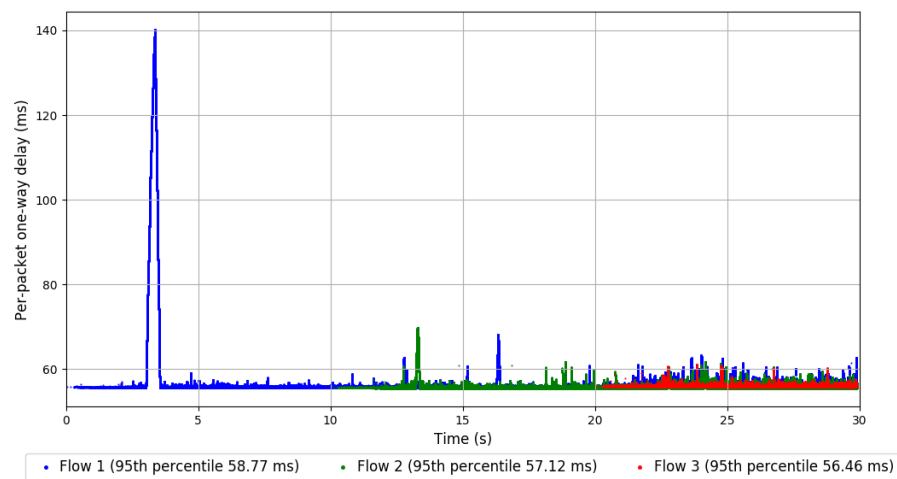
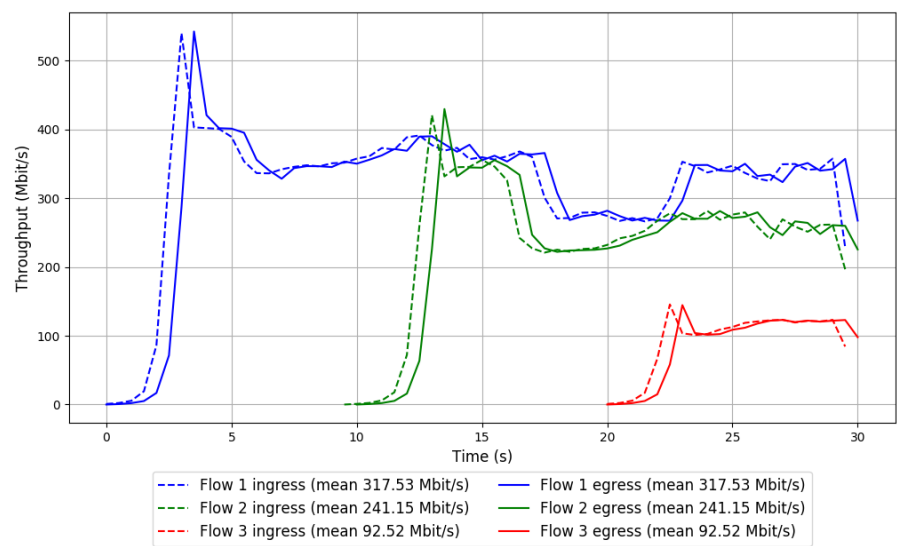


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-12 18:27:17
End at: 2019-02-12 18:27:47
Local clock offset: -0.212 ms
Remote clock offset: -1.359 ms

Below is generated by plot.py at 2019-02-13 00:17:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 508.56 Mbit/s
95th percentile per-packet one-way delay: 57.852 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 317.53 Mbit/s
95th percentile per-packet one-way delay: 58.769 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.15 Mbit/s
95th percentile per-packet one-way delay: 57.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.52 Mbit/s
95th percentile per-packet one-way delay: 56.461 ms
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-02-12 19:08:23

End at: 2019-02-12 19:08:53

Local clock offset: -0.494 ms

Remote clock offset: 1.226 ms

Below is generated by plot.py at 2019-02-13 00:18:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.12 Mbit/s

95th percentile per-packet one-way delay: 72.744 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 323.17 Mbit/s

95th percentile per-packet one-way delay: 70.589 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 290.98 Mbit/s

95th percentile per-packet one-way delay: 112.705 ms

Loss rate: 0.12%

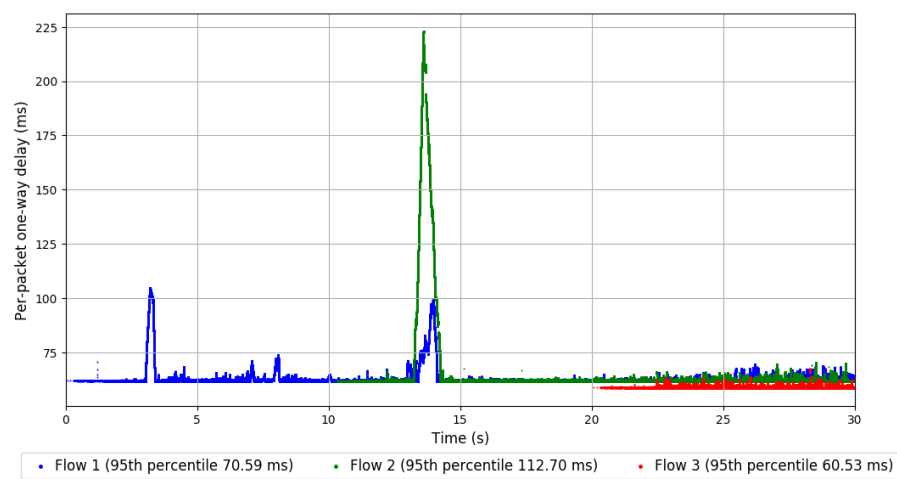
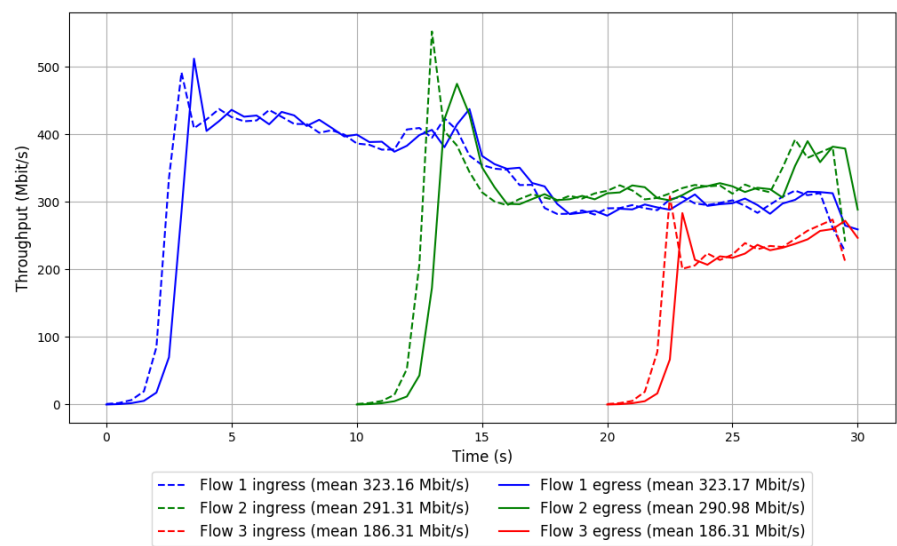
-- Flow 3:

Average throughput: 186.31 Mbit/s

95th percentile per-packet one-way delay: 60.531 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-12 19:50:18

End at: 2019-02-12 19:50:48

Local clock offset: -0.547 ms

Remote clock offset: 0.261 ms

Below is generated by plot.py at 2019-02-13 00:18:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 585.95 Mbit/s

95th percentile per-packet one-way delay: 97.759 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 319.00 Mbit/s

95th percentile per-packet one-way delay: 141.820 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 276.48 Mbit/s

95th percentile per-packet one-way delay: 63.868 ms

Loss rate: 0.01%

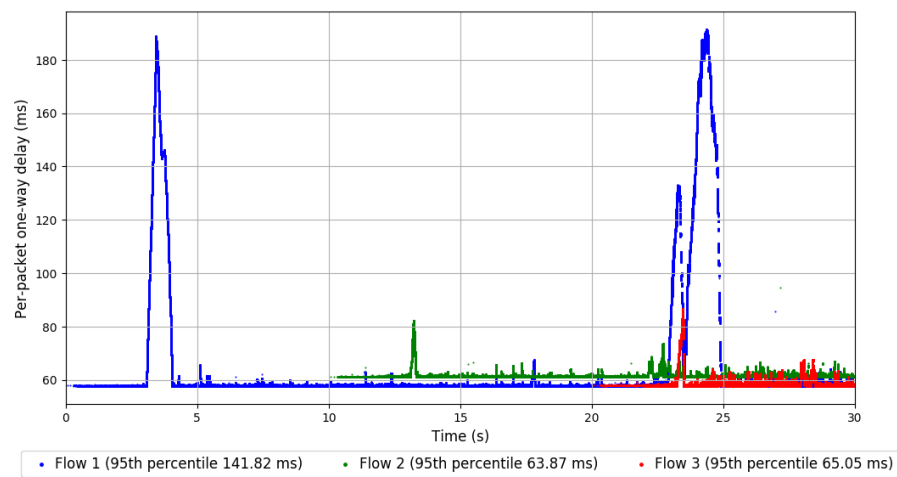
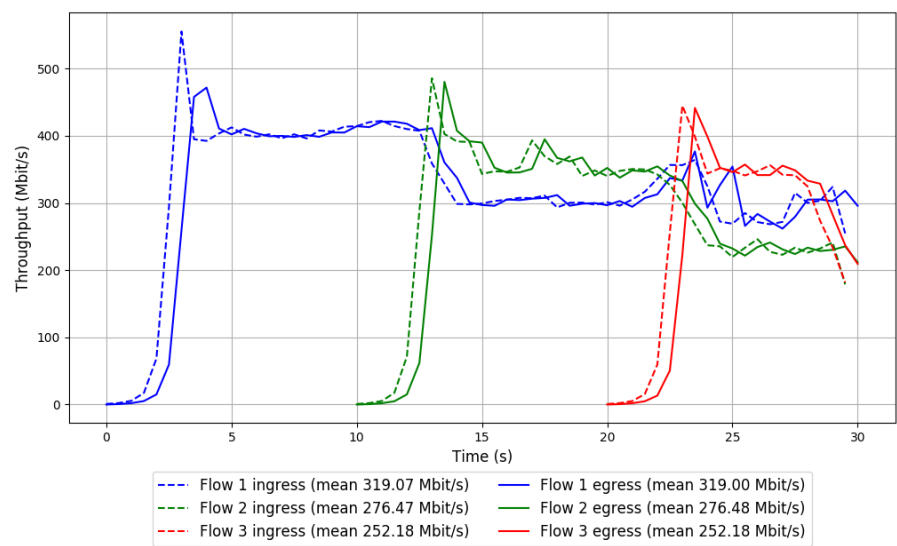
-- Flow 3:

Average throughput: 252.18 Mbit/s

95th percentile per-packet one-way delay: 65.046 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-02-12 17:16:36

End at: 2019-02-12 17:17:06

Local clock offset: 0.041 ms

Remote clock offset: -0.22 ms

Below is generated by plot.py at 2019-02-13 00:18:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.65 Mbit/s

95th percentile per-packet one-way delay: 60.590 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 57.502 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 57.526 ms

Loss rate: 0.18%

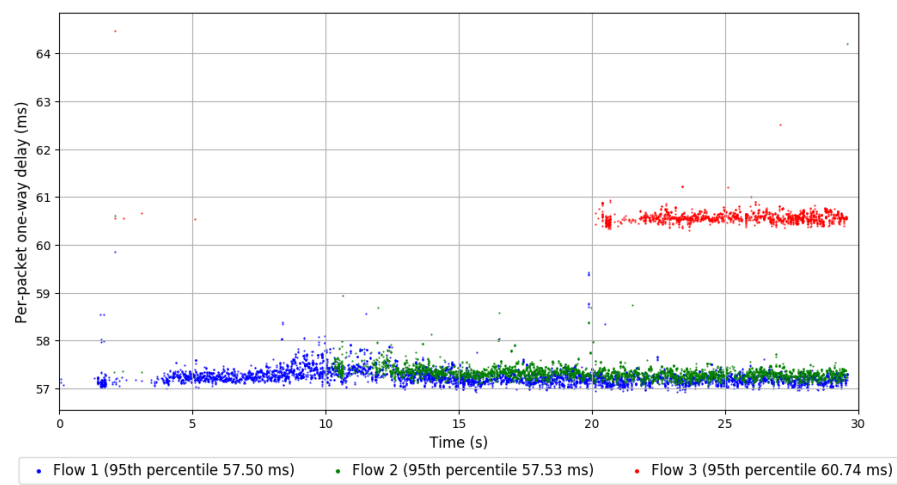
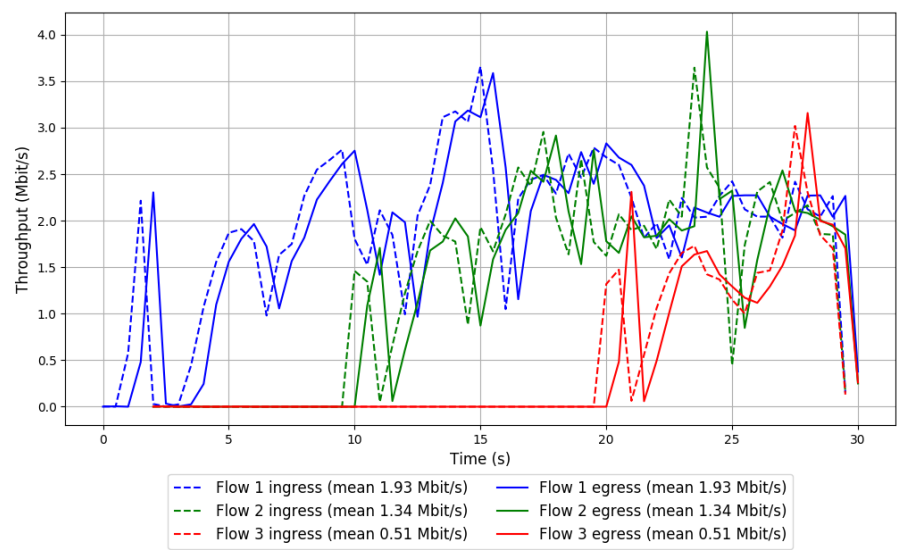
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 60.737 ms

Loss rate: 0.47%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-02-12 17:58:02

End at: 2019-02-12 17:58:32

Local clock offset: -0.453 ms

Remote clock offset: 0.097 ms

Below is generated by plot.py at 2019-02-13 00:18:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 61.464 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 61.450 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 61.564 ms

Loss rate: 0.00%

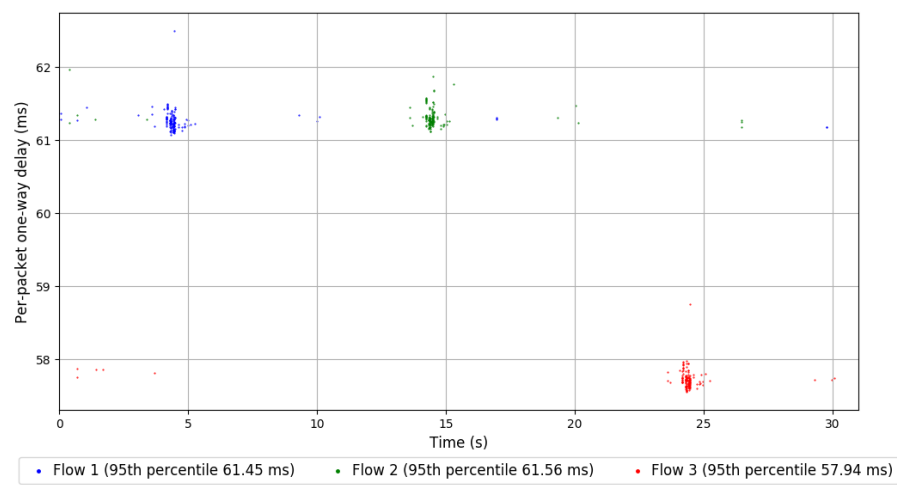
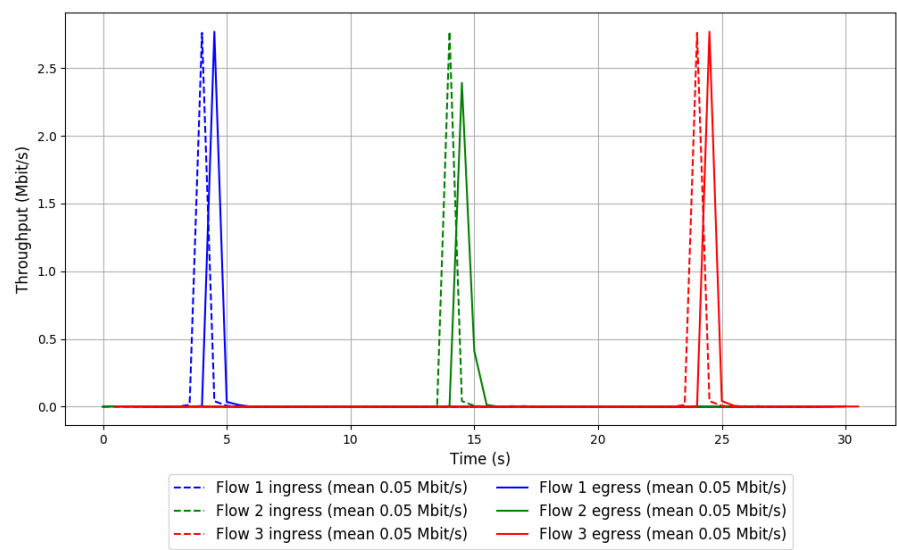
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.936 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-02-12 18:38:44

End at: 2019-02-12 18:39:14

Local clock offset: -0.634 ms

Remote clock offset: 0.136 ms

Below is generated by plot.py at 2019-02-13 00:18:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 61.176 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 61.256 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.934 ms

Loss rate: 0.00%

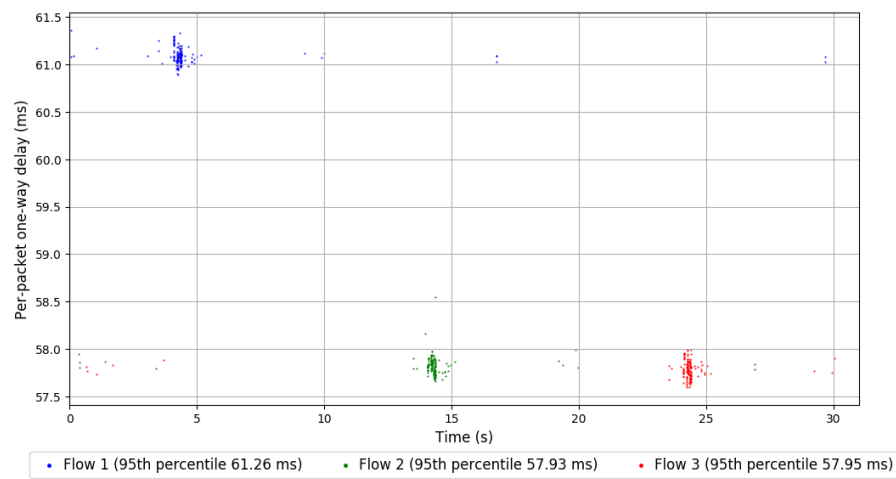
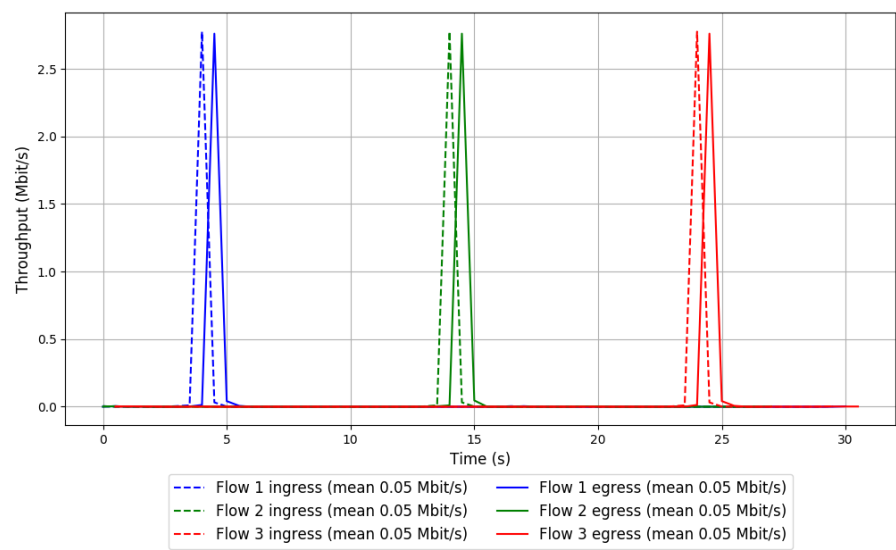
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 57.946 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

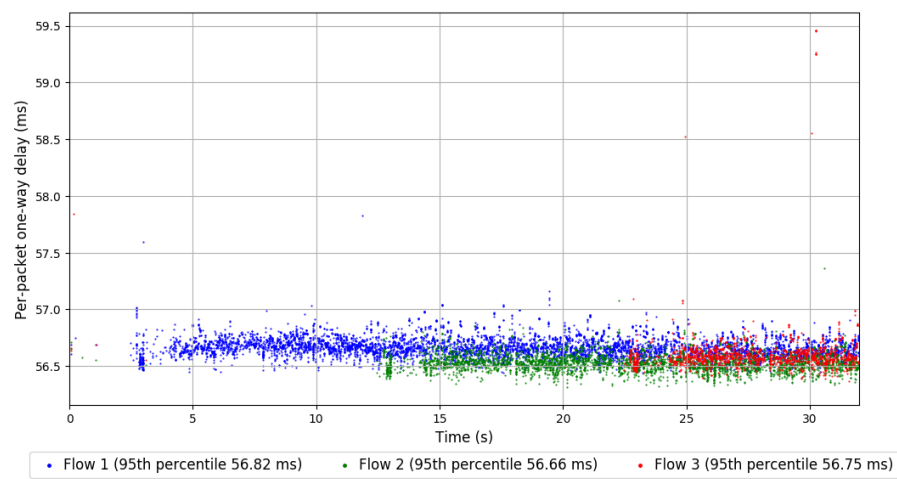
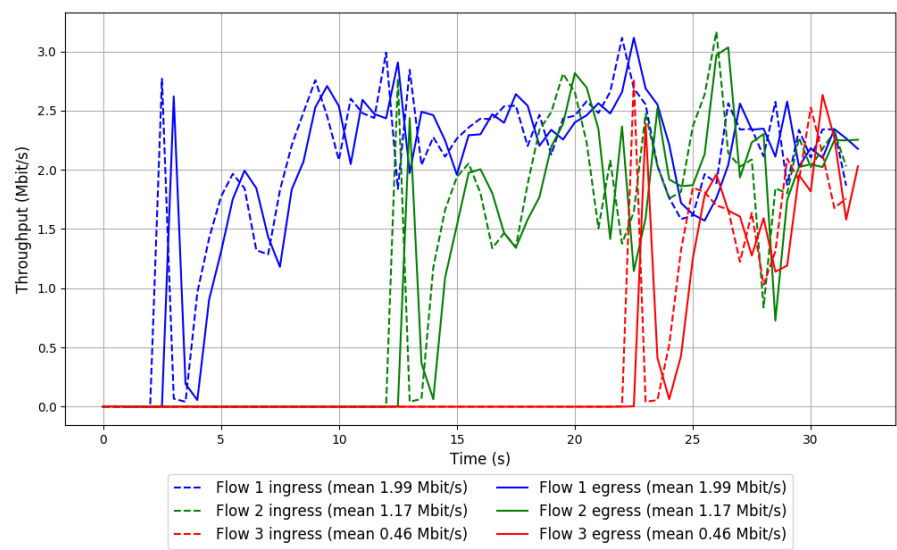


Run 4: Statistics of WebRTC media

Start at: 2019-02-12 19:20:22
End at: 2019-02-12 19:20:52
Local clock offset: -0.494 ms
Remote clock offset: -0.938 ms

Below is generated by plot.py at 2019-02-13 00:18:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 56.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 56.816 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 56.664 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 56.750 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-02-12 20:01:33
End at: 2019-02-12 20:02:03
Local clock offset: 0.212 ms
Remote clock offset: -0.161 ms

Below is generated by plot.py at 2019-02-13 00:18:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 56.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 56.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.049 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

