

Pantheon Report

Generated at 2019-02-05 21:47:20 (UTC).

Data path: Stanford on `eno1` (*remote*) → AWS California 1 on `ens5` (*local*).

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.stanford.edu` and have been applied to correct the timestamps in logs.

System info:

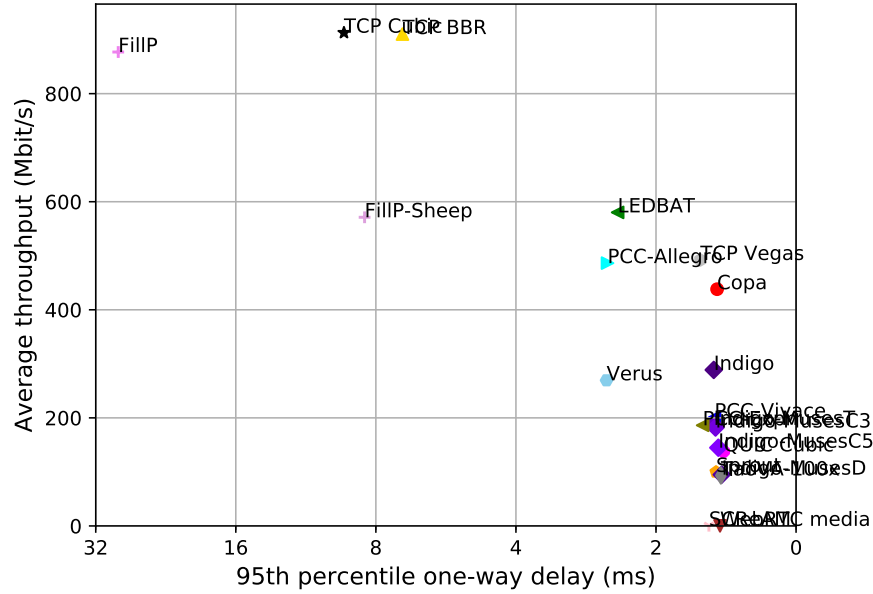
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

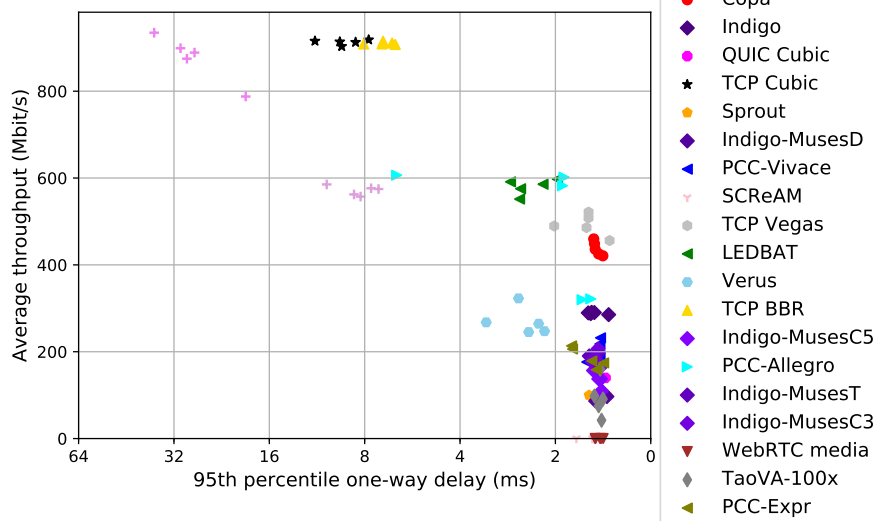
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	532.14	403.74	328.38	7.14	6.31	6.61	0.03	0.03	0.06
Copa	5	261.20	203.72	124.17	1.14	1.09	1.07	0.00	0.00	0.01
TCP Cubic	5	537.83	403.69	319.00	9.73	7.59	7.93	0.02	0.03	0.07
FillP	5	559.23	367.99	220.62	27.37	25.69	25.11	0.05	0.09	0.26
FillP-Sheep	5	418.65	192.64	74.16	9.11	4.60	2.59	0.01	0.01	0.00
Indigo	5	154.32	141.75	122.33	1.13	1.19	1.28	0.00	0.00	0.02
Indigo-MusesC3	5	131.22	67.59	31.21	1.14	1.18	1.12	0.00	0.00	0.02
Indigo-MusesC5	5	114.21	32.60	37.07	1.12	1.06	1.06	0.00	0.00	0.02
Indigo-MusesD	5	60.50	38.68	36.24	1.06	1.03	1.03	0.00	0.00	0.02
Indigo-MusesT	5	137.98	62.06	37.53	1.17	1.19	1.15	0.01	0.03	0.04
LEDBAT	5	355.82	244.23	186.15	2.93	1.82	1.52	0.00	0.02	0.04
PCC-Allegro	5	353.71	171.30	57.21	3.53	1.57	1.46	0.00	0.01	0.02
PCC-Expr	5	174.15	8.63	19.18	1.35	1.02	1.03	0.00	0.00	0.02
QUIC Cubic	5	74.07	68.85	54.53	1.03	1.02	1.01	0.00	0.01	0.01
SCReAM	5	0.22	0.22	0.22	1.24	1.24	1.27	0.00	0.00	0.07
Sprout	5	50.24	50.15	49.90	1.14	1.15	1.16	0.01	0.00	0.05
TaoVA-100x	5	39.83	55.20	50.63	1.08	1.07	1.08	0.00	0.01	0.02
TCP Vegas	5	241.79	247.87	256.34	1.23	1.82	1.40	0.01	0.01	0.02
Verus	5	156.49	130.55	79.16	2.73	1.80	1.49	0.00	0.00	0.01
PCC-Vivace	5	127.48	85.41	49.87	1.12	1.26	1.24	0.00	0.00	0.02
WebRTC media	5	0.05	0.05	0.05	1.17	1.08	1.08	0.01	0.03	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-02-05 18:13:52

End at: 2019-02-05 18:14:22

Local clock offset: 0.431 ms

Remote clock offset: 0.66 ms

Below is generated by plot.py at 2019-02-05 21:00:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 911.01 Mbit/s

95th percentile per-packet one-way delay: 6.553 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 532.92 Mbit/s

95th percentile per-packet one-way delay: 6.657 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 403.72 Mbit/s

95th percentile per-packet one-way delay: 5.950 ms

Loss rate: 0.02%

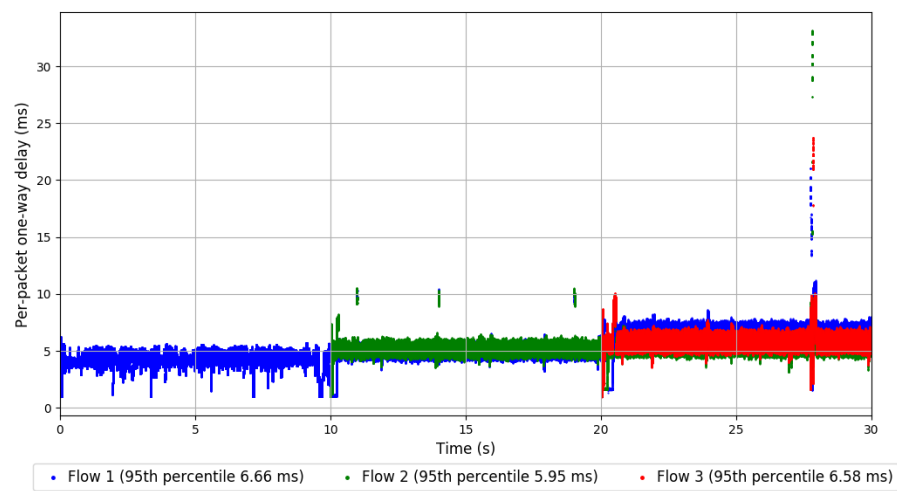
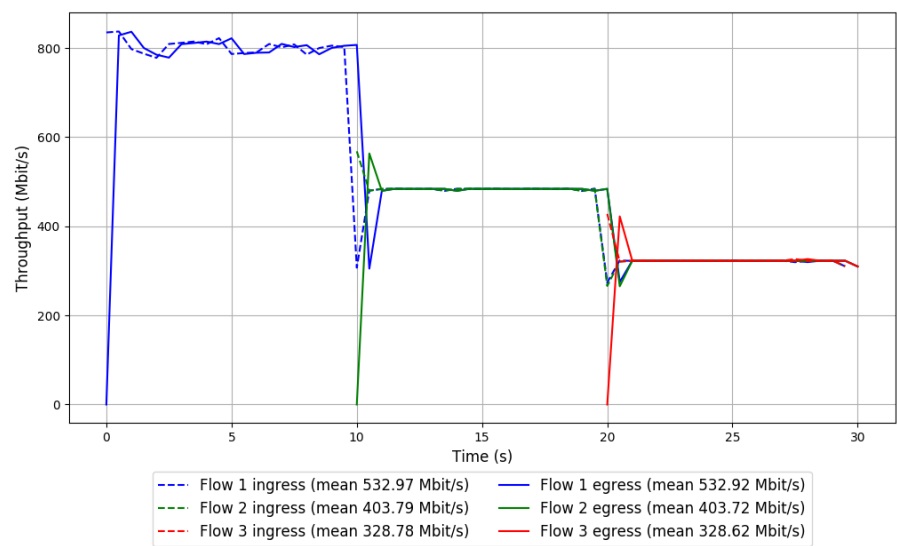
-- Flow 3:

Average throughput: 328.62 Mbit/s

95th percentile per-packet one-way delay: 6.581 ms

Loss rate: 0.07%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-02-05 18:44:13

End at: 2019-02-05 18:44:43

Local clock offset: 0.131 ms

Remote clock offset: 5.136 ms

Below is generated by plot.py at 2019-02-05 21:00:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 915.10 Mbit/s

95th percentile per-packet one-way delay: 6.998 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 536.42 Mbit/s

95th percentile per-packet one-way delay: 7.159 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 404.45 Mbit/s

95th percentile per-packet one-way delay: 6.251 ms

Loss rate: 0.03%

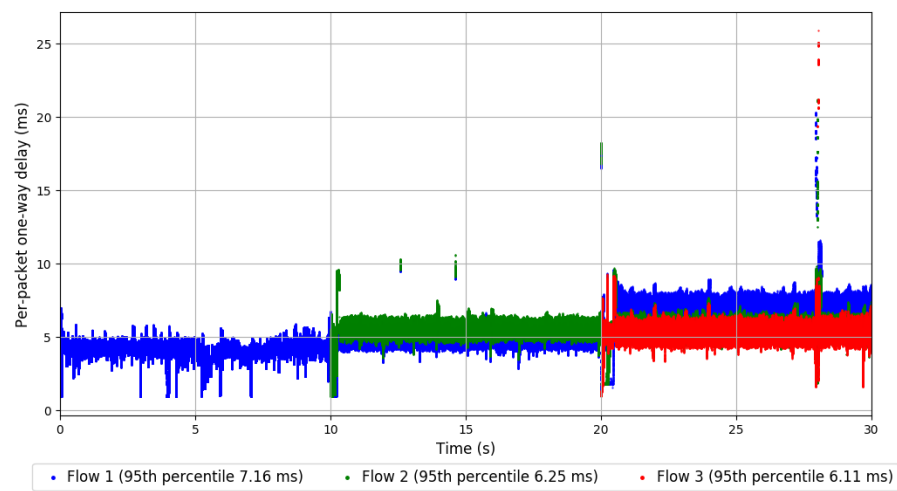
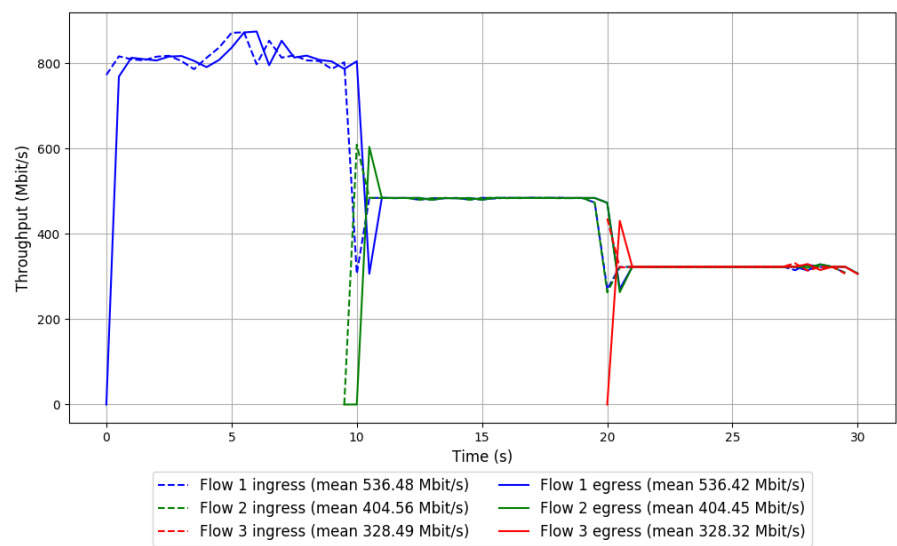
-- Flow 3:

Average throughput: 328.32 Mbit/s

95th percentile per-packet one-way delay: 6.107 ms

Loss rate: 0.06%

Run 2: Report of TCP BBR — Data Link

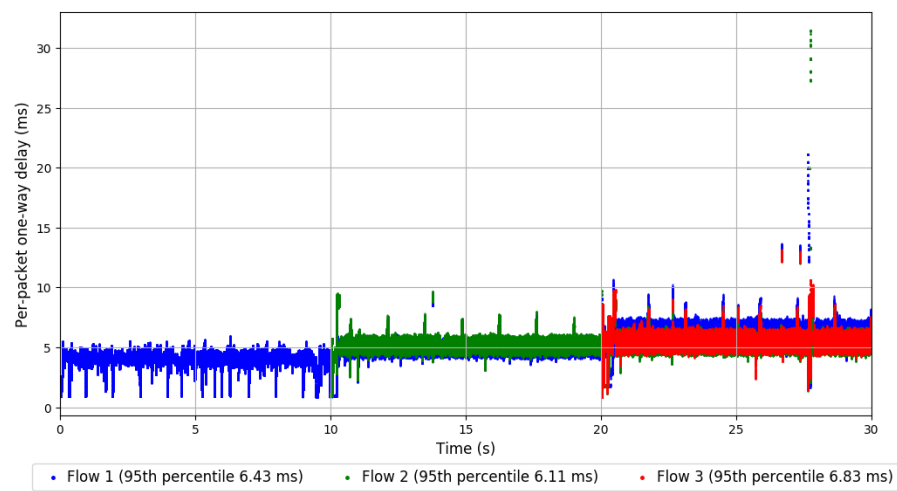
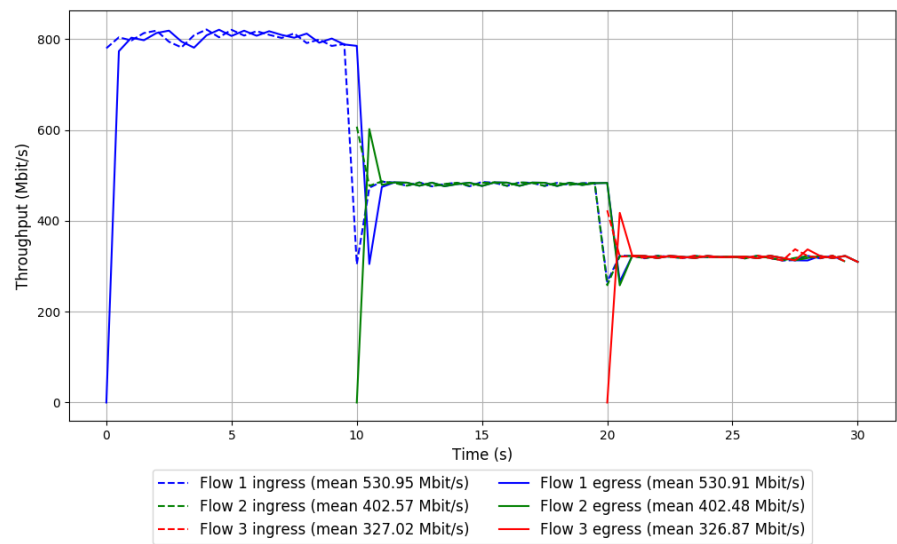


Run 3: Statistics of TCP BBR

Start at: 2019-02-05 19:14:17
End at: 2019-02-05 19:14:47
Local clock offset: 0.002 ms
Remote clock offset: -2.022 ms

Below is generated by plot.py at 2019-02-05 21:00:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 907.62 Mbit/s
95th percentile per-packet one-way delay: 6.404 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 530.91 Mbit/s
95th percentile per-packet one-way delay: 6.430 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.48 Mbit/s
95th percentile per-packet one-way delay: 6.111 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 326.87 Mbit/s
95th percentile per-packet one-way delay: 6.826 ms
Loss rate: 0.07%

Run 3: Report of TCP BBR — Data Link

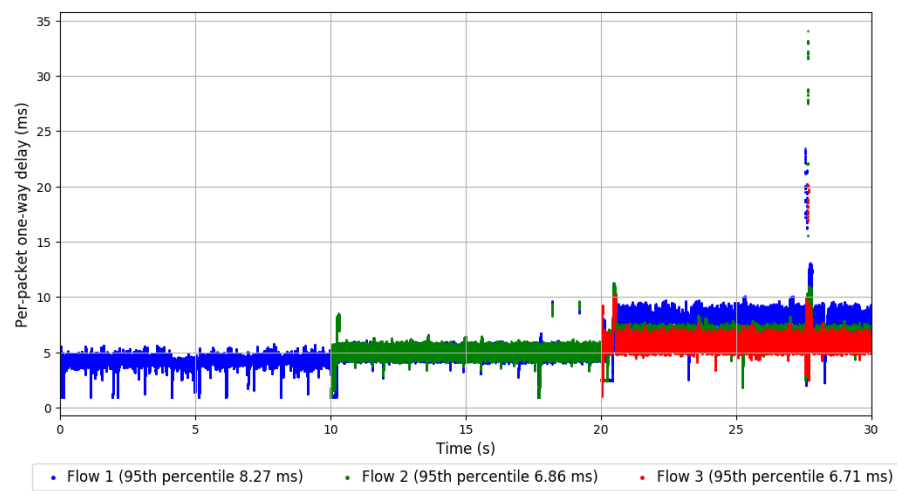
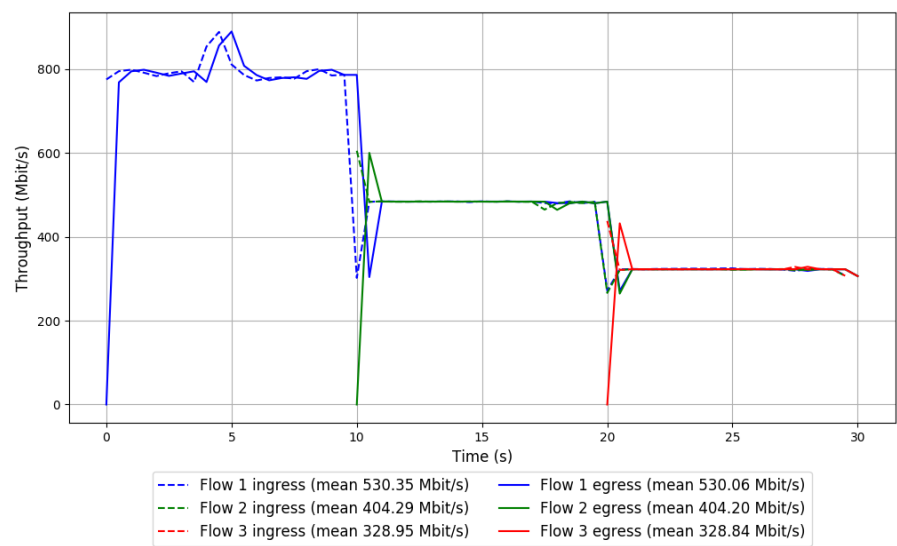


Run 4: Statistics of TCP BBR

Start at: 2019-02-05 19:44:35
End at: 2019-02-05 19:45:05
Local clock offset: 0.383 ms
Remote clock offset: -2.783 ms

Below is generated by plot.py at 2019-02-05 21:00:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 908.65 Mbit/s
95th percentile per-packet one-way delay: 8.058 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 530.06 Mbit/s
95th percentile per-packet one-way delay: 8.269 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 404.20 Mbit/s
95th percentile per-packet one-way delay: 6.862 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.84 Mbit/s
95th percentile per-packet one-way delay: 6.705 ms
Loss rate: 0.07%

Run 4: Report of TCP BBR — Data Link

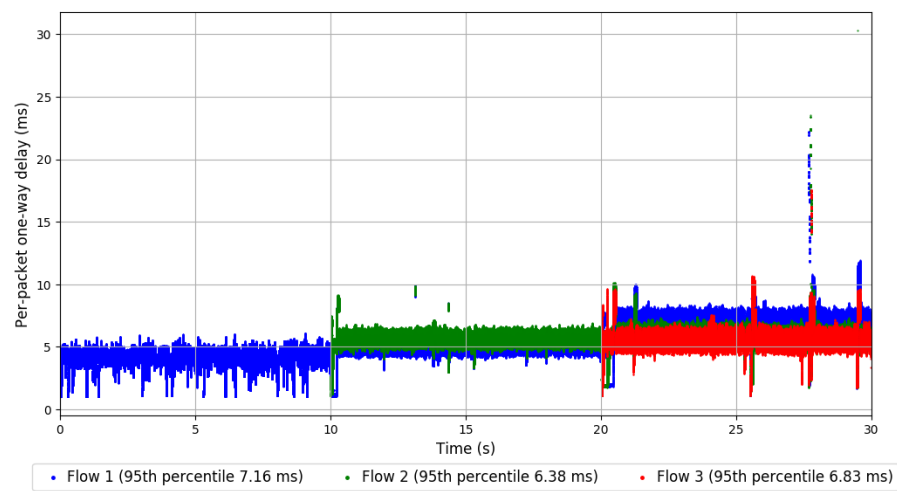
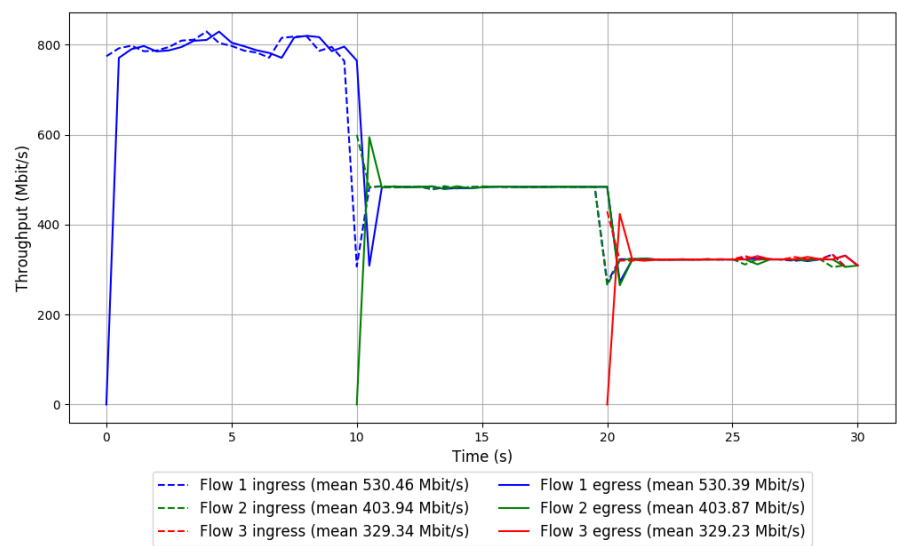


Run 5: Statistics of TCP BBR

Start at: 2019-02-05 20:14:54
End at: 2019-02-05 20:15:24
Local clock offset: -3.734 ms
Remote clock offset: -0.339 ms

Below is generated by plot.py at 2019-02-05 21:00:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 908.85 Mbit/s
95th percentile per-packet one-way delay: 7.052 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 530.39 Mbit/s
95th percentile per-packet one-way delay: 7.163 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 403.87 Mbit/s
95th percentile per-packet one-way delay: 6.380 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 329.23 Mbit/s
95th percentile per-packet one-way delay: 6.835 ms
Loss rate: 0.05%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-02-05 18:25:15

End at: 2019-02-05 18:25:45

Local clock offset: 0.231 ms

Remote clock offset: 2.083 ms

Below is generated by plot.py at 2019-02-05 21:00:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 448.75 Mbit/s

95th percentile per-packet one-way delay: 1.180 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 263.90 Mbit/s

95th percentile per-packet one-way delay: 1.170 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 219.76 Mbit/s

95th percentile per-packet one-way delay: 1.173 ms

Loss rate: 0.00%

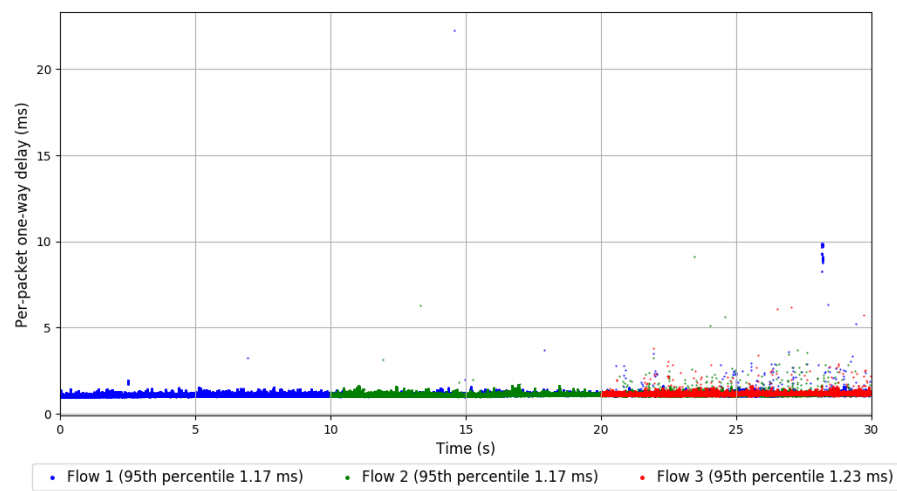
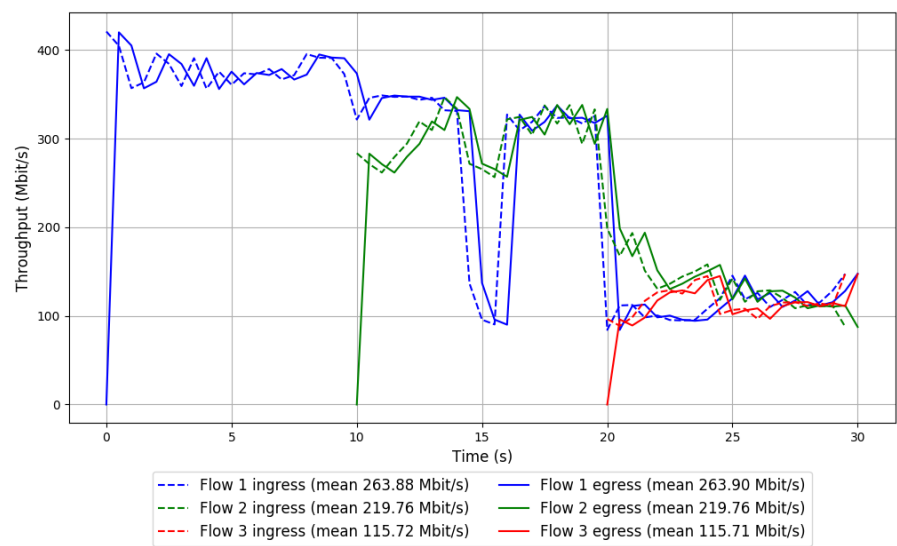
-- Flow 3:

Average throughput: 115.71 Mbit/s

95th percentile per-packet one-way delay: 1.229 ms

Loss rate: 0.02%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-02-05 18:55:32

End at: 2019-02-05 18:56:02

Local clock offset: 0.065 ms

Remote clock offset: 6.38 ms

Below is generated by plot.py at 2019-02-05 21:00:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.26 Mbit/s

95th percentile per-packet one-way delay: 1.093 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 259.40 Mbit/s

95th percentile per-packet one-way delay: 1.115 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.39 Mbit/s

95th percentile per-packet one-way delay: 0.963 ms

Loss rate: 0.00%

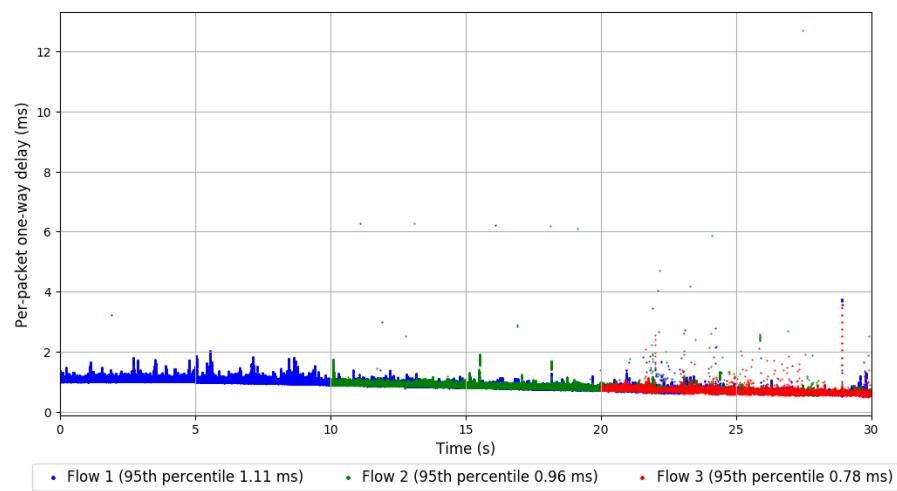
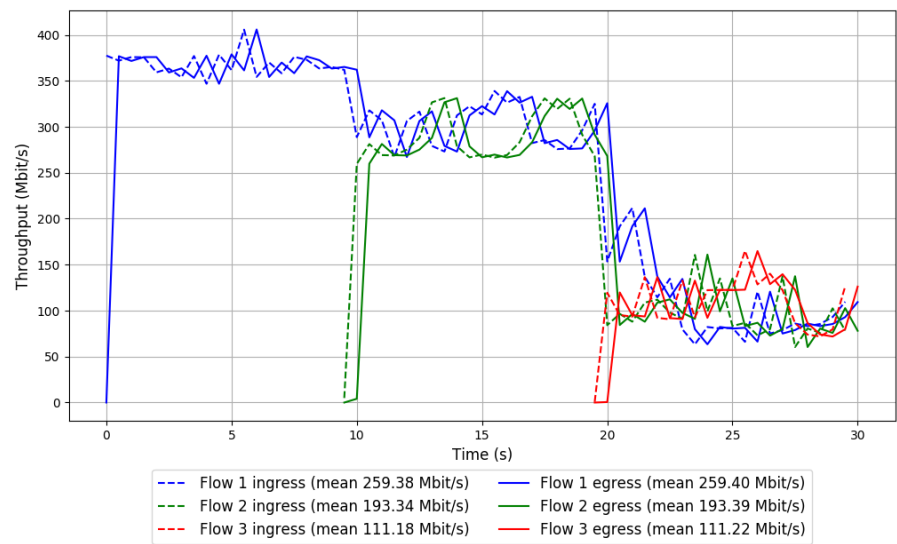
-- Flow 3:

Average throughput: 111.22 Mbit/s

95th percentile per-packet one-way delay: 0.784 ms

Loss rate: 0.01%

Run 2: Report of Copa — Data Link

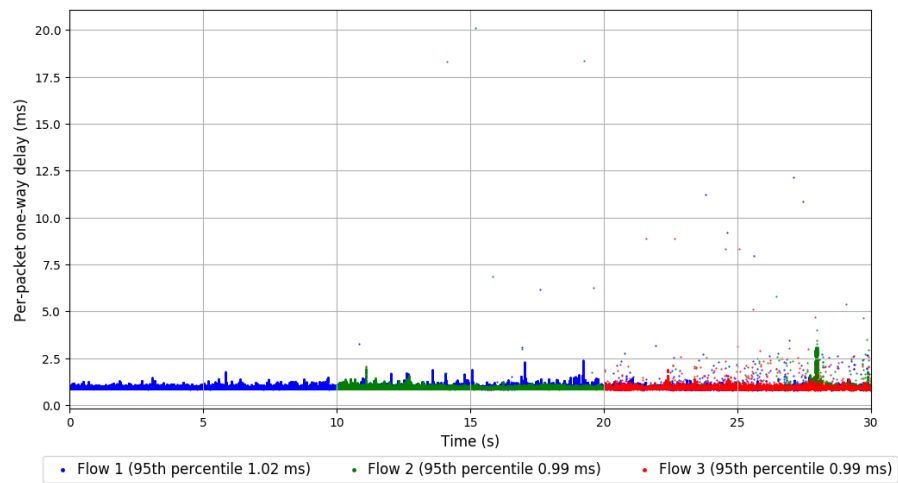
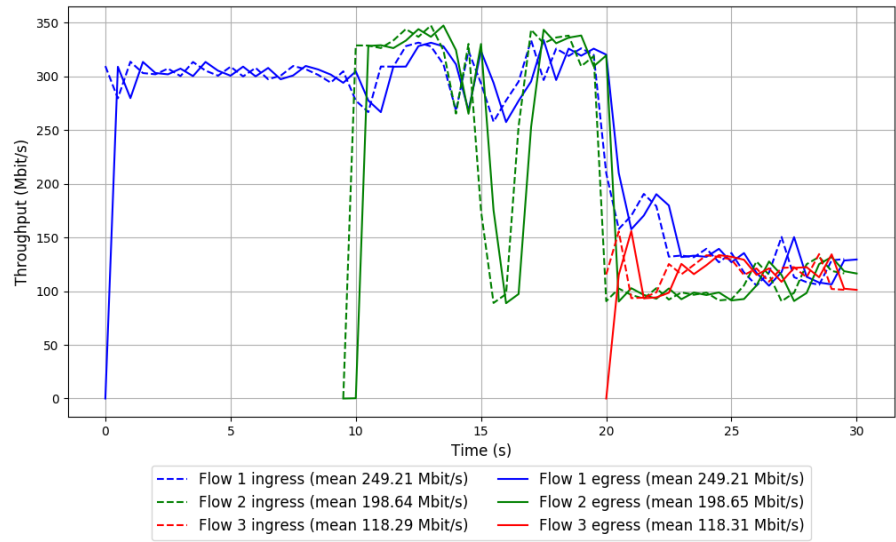


Run 3: Statistics of Copa

Start at: 2019-02-05 19:25:44
End at: 2019-02-05 19:26:14
Local clock offset: 0.243 ms
Remote clock offset: -3.033 ms

Below is generated by plot.py at 2019-02-05 21:00:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 420.92 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 249.21 Mbit/s
95th percentile per-packet one-way delay: 1.017 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 198.65 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 118.31 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.00%

Run 3: Report of Copa — Data Link

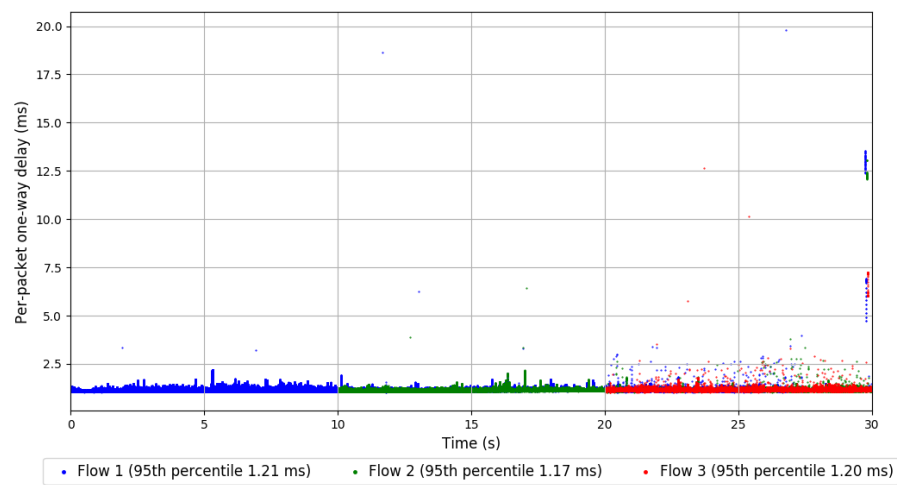
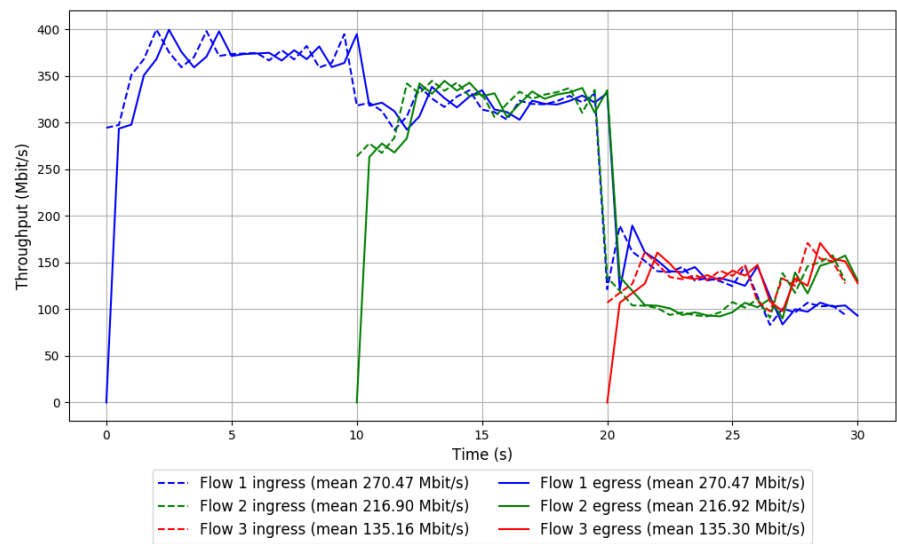


Run 4: Statistics of Copa

Start at: 2019-02-05 19:56:00
End at: 2019-02-05 19:56:30
Local clock offset: -2.119 ms
Remote clock offset: -2.873 ms

Below is generated by plot.py at 2019-02-05 21:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 459.72 Mbit/s
95th percentile per-packet one-way delay: 1.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 270.47 Mbit/s
95th percentile per-packet one-way delay: 1.208 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 216.92 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.30 Mbit/s
95th percentile per-packet one-way delay: 1.199 ms
Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-02-05 20:26:14

End at: 2019-02-05 20:26:44

Local clock offset: -4.273 ms

Remote clock offset: 0.506 ms

Below is generated by plot.py at 2019-02-05 21:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 435.94 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 263.02 Mbit/s

95th percentile per-packet one-way delay: 1.168 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 189.89 Mbit/s

95th percentile per-packet one-way delay: 1.159 ms

Loss rate: 0.00%

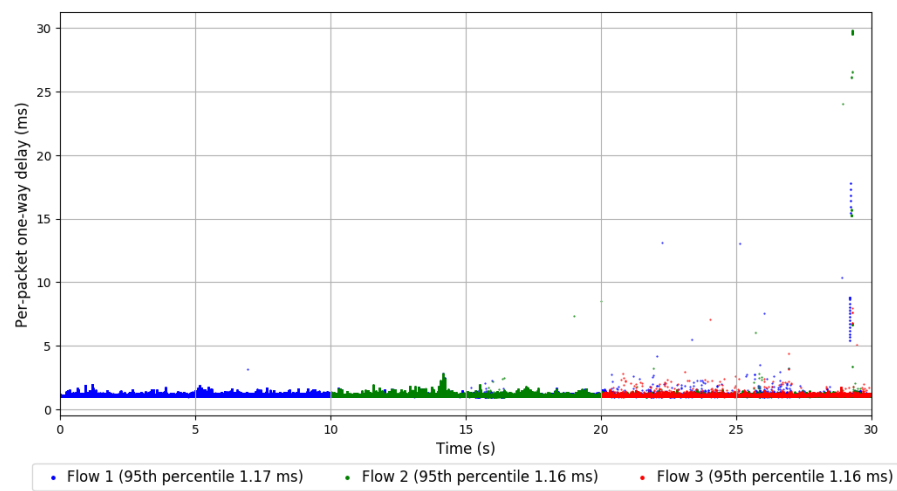
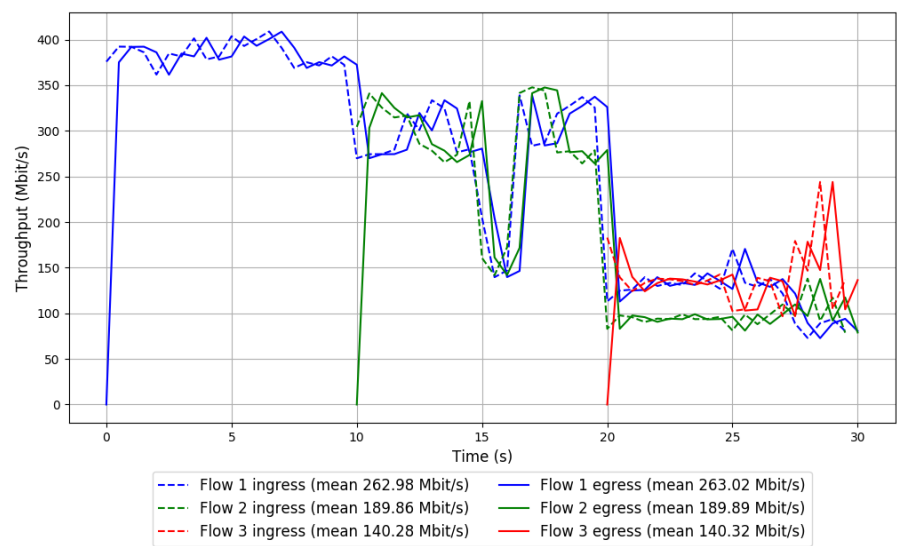
-- Flow 3:

Average throughput: 140.32 Mbit/s

95th percentile per-packet one-way delay: 1.159 ms

Loss rate: 0.03%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 18:38:38

End at: 2019-02-05 18:39:08

Local clock offset: 0.139 ms

Remote clock offset: 4.486 ms

Below is generated by plot.py at 2019-02-05 21:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 912.76 Mbit/s

95th percentile per-packet one-way delay: 8.547 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 538.21 Mbit/s

95th percentile per-packet one-way delay: 9.368 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 402.70 Mbit/s

95th percentile per-packet one-way delay: 7.595 ms

Loss rate: 0.03%

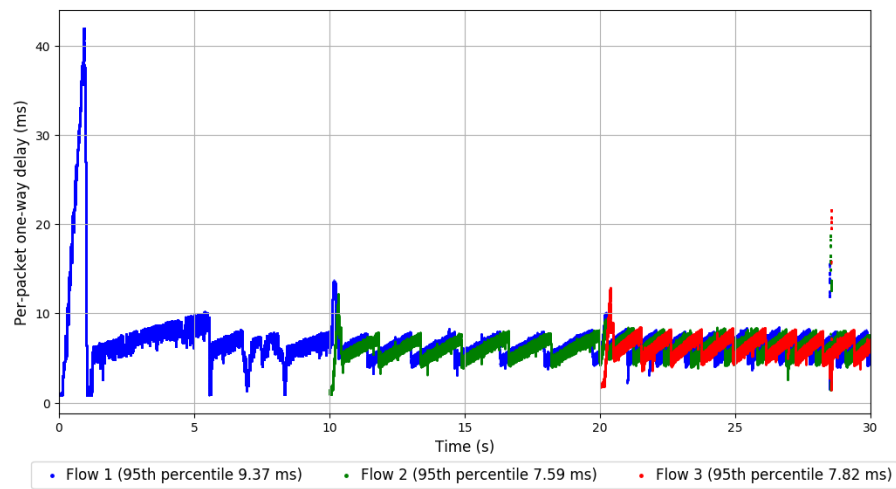
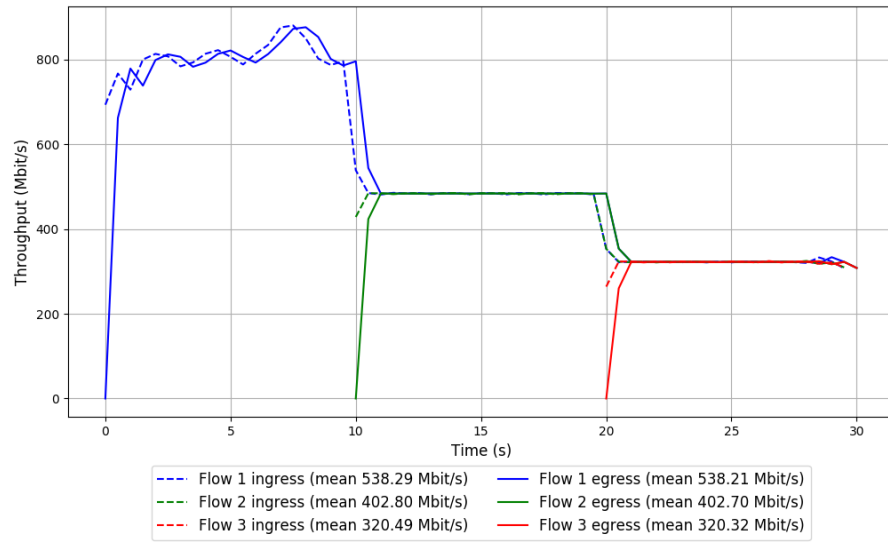
-- Flow 3:

Average throughput: 320.32 Mbit/s

95th percentile per-packet one-way delay: 7.824 ms

Loss rate: 0.08%

Run 1: Report of TCP Cubic — Data Link

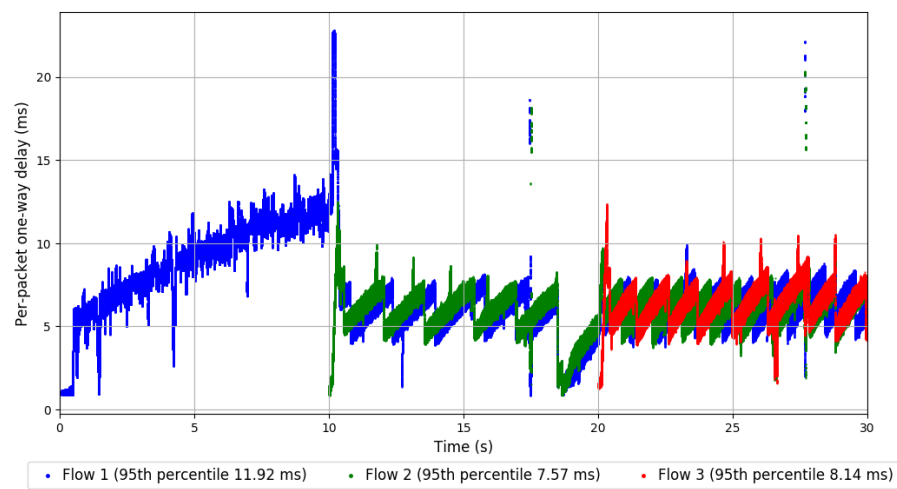
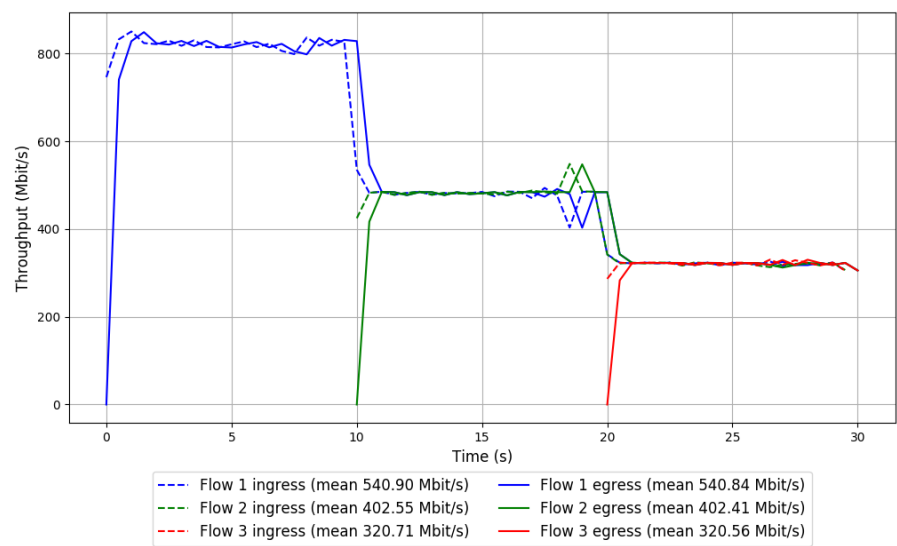


Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 19:08:45
End at: 2019-02-05 19:09:15
Local clock offset: 0.023 ms
Remote clock offset: -0.941 ms

Below is generated by plot.py at 2019-02-05 21:10:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 915.53 Mbit/s
95th percentile per-packet one-way delay: 11.483 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 540.84 Mbit/s
95th percentile per-packet one-way delay: 11.921 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.41 Mbit/s
95th percentile per-packet one-way delay: 7.565 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 320.56 Mbit/s
95th percentile per-packet one-way delay: 8.136 ms
Loss rate: 0.06%

Run 2: Report of TCP Cubic — Data Link

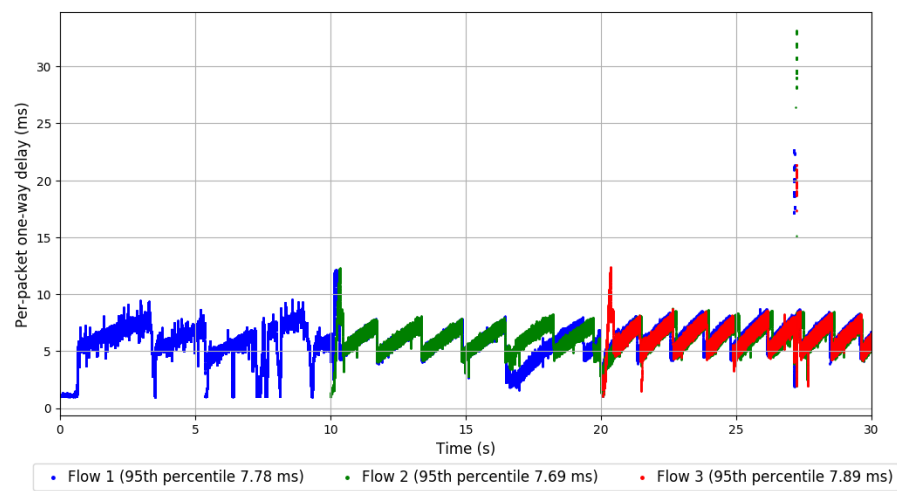
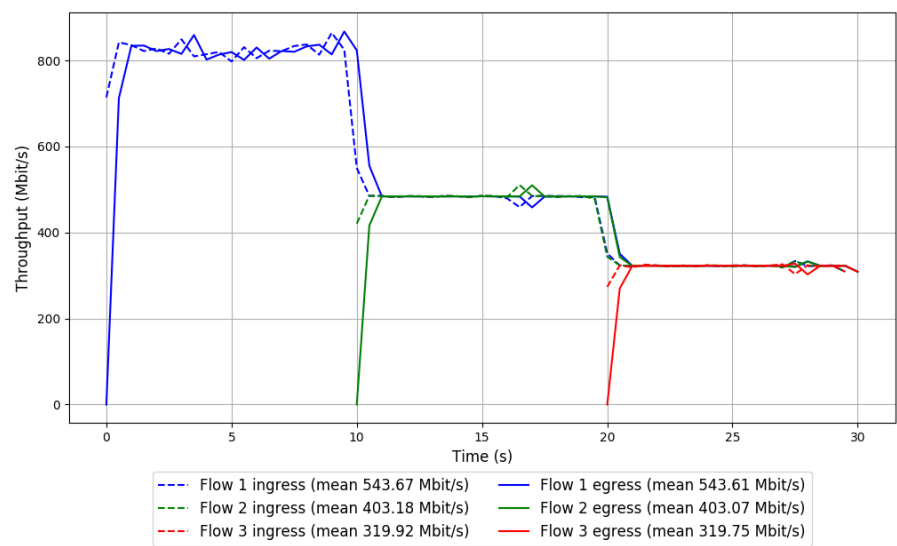


Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 19:38:59
End at: 2019-02-05 19:39:29
Local clock offset: 0.348 ms
Remote clock offset: -2.884 ms

Below is generated by plot.py at 2019-02-05 21:10:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 918.41 Mbit/s
95th percentile per-packet one-way delay: 7.773 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 543.61 Mbit/s
95th percentile per-packet one-way delay: 7.783 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 403.07 Mbit/s
95th percentile per-packet one-way delay: 7.689 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 319.75 Mbit/s
95th percentile per-packet one-way delay: 7.894 ms
Loss rate: 0.07%

Run 3: Report of TCP Cubic — Data Link

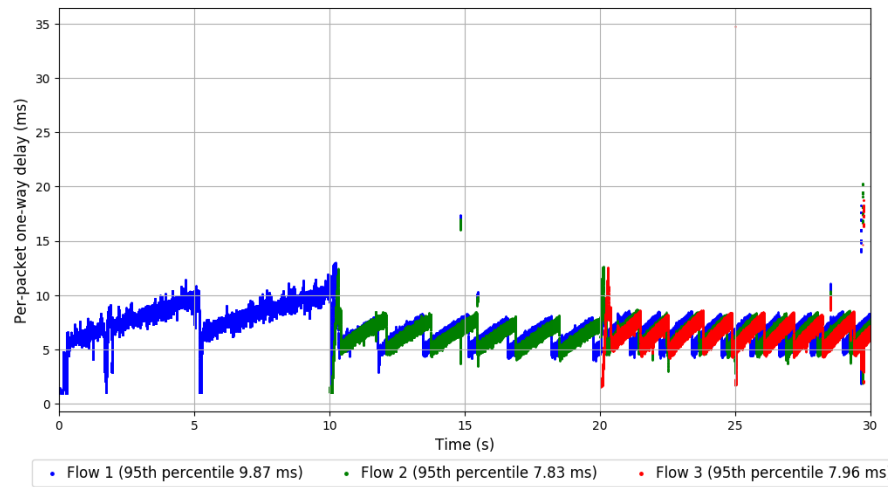
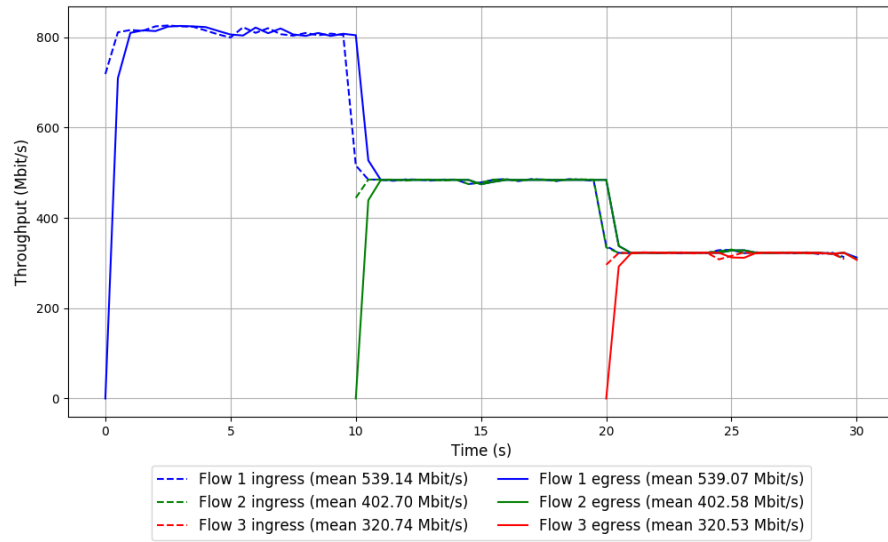


Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 20:09:19
End at: 2019-02-05 20:09:49
Local clock offset: -3.399 ms
Remote clock offset: -1.251 ms

Below is generated by plot.py at 2019-02-05 21:10:31
Datalink statistics
-- Total of 3 flows:
Average throughput: 913.75 Mbit/s
95th percentile per-packet one-way delay: 9.586 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 539.07 Mbit/s
95th percentile per-packet one-way delay: 9.871 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.58 Mbit/s
95th percentile per-packet one-way delay: 7.830 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 320.53 Mbit/s
95th percentile per-packet one-way delay: 7.955 ms
Loss rate: 0.08%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 20:39:33

End at: 2019-02-05 20:40:03

Local clock offset: -4.847 ms

Remote clock offset: 0.387 ms

Below is generated by plot.py at 2019-02-05 21:10:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 903.27 Mbit/s

95th percentile per-packet one-way delay: 9.454 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 527.41 Mbit/s

95th percentile per-packet one-way delay: 9.713 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 407.70 Mbit/s

95th percentile per-packet one-way delay: 7.262 ms

Loss rate: 0.02%

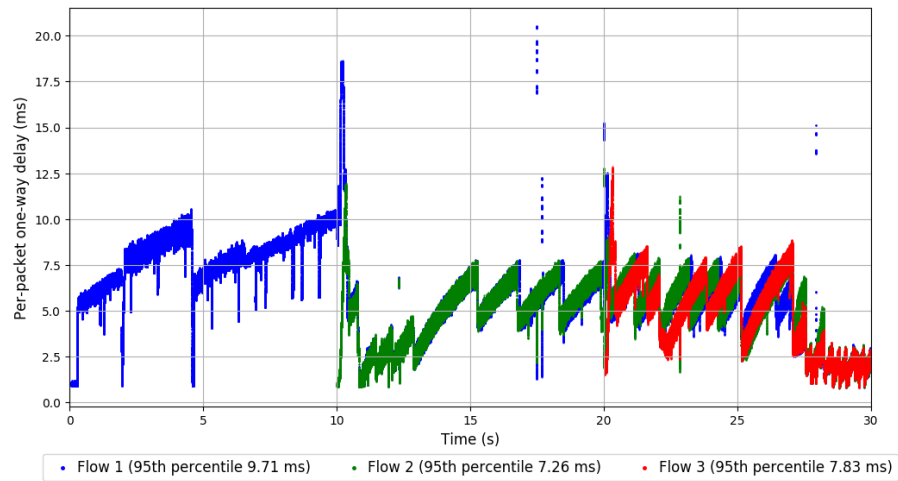
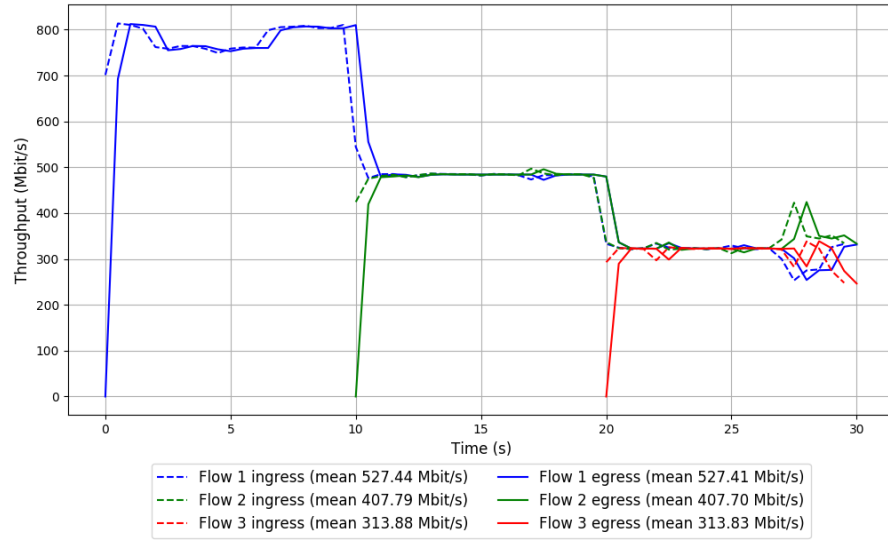
-- Flow 3:

Average throughput: 313.83 Mbit/s

95th percentile per-packet one-way delay: 7.827 ms

Loss rate: 0.05%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-02-05 18:20:59

End at: 2019-02-05 18:21:29

Local clock offset: 0.306 ms

Remote clock offset: 1.094 ms

Below is generated by plot.py at 2019-02-05 21:11:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 787.77 Mbit/s

95th percentile per-packet one-way delay: 18.996 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 463.32 Mbit/s

95th percentile per-packet one-way delay: 13.956 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 436.68 Mbit/s

95th percentile per-packet one-way delay: 23.208 ms

Loss rate: 0.04%

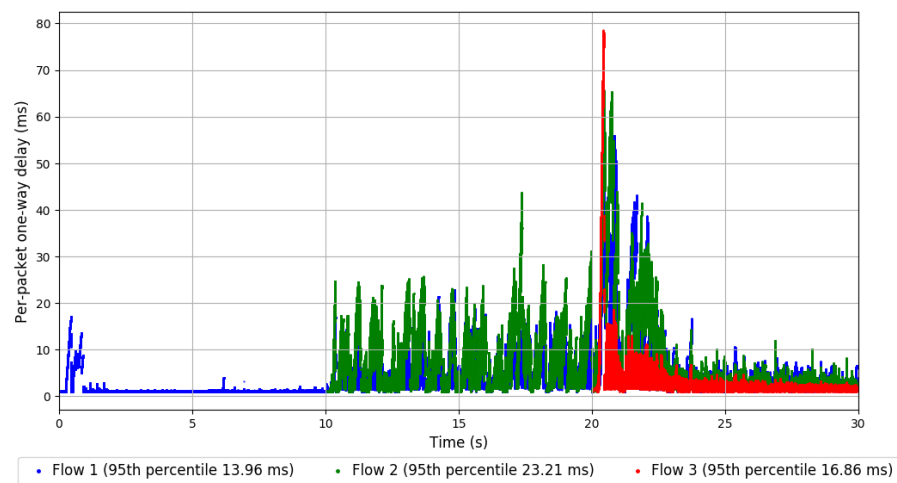
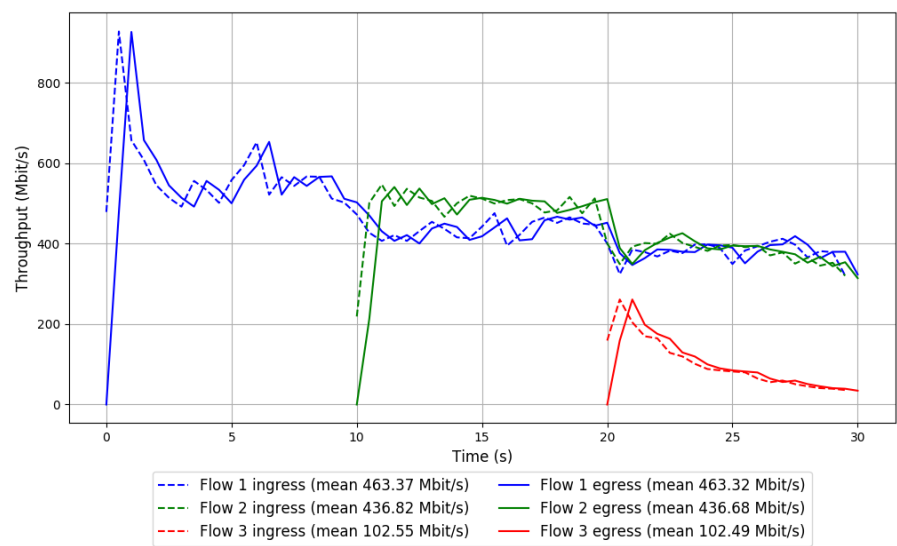
-- Flow 3:

Average throughput: 102.49 Mbit/s

95th percentile per-packet one-way delay: 16.861 ms

Loss rate: 0.08%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-02-05 18:51:14

End at: 2019-02-05 18:51:44

Local clock offset: 0.084 ms

Remote clock offset: 5.946 ms

Below is generated by plot.py at 2019-02-05 21:20:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 898.94 Mbit/s

95th percentile per-packet one-way delay: 30.508 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 543.53 Mbit/s

95th percentile per-packet one-way delay: 28.579 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 402.53 Mbit/s

95th percentile per-packet one-way delay: 34.099 ms

Loss rate: 0.15%

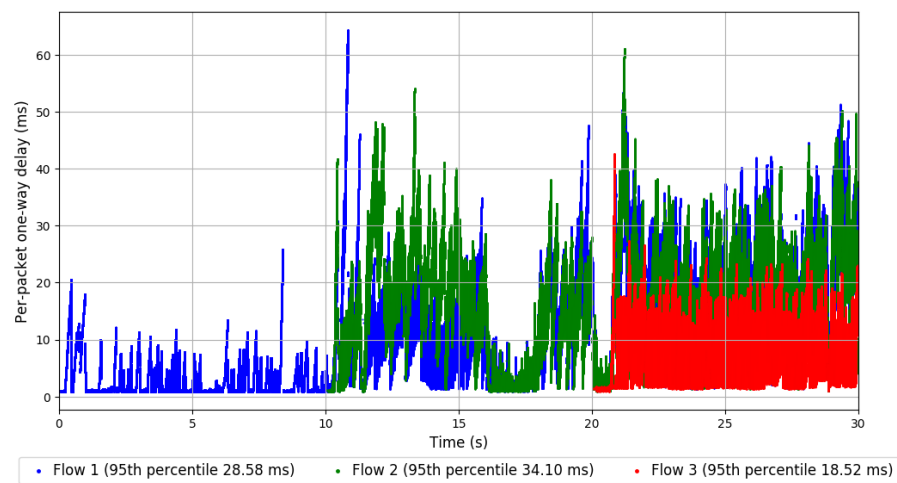
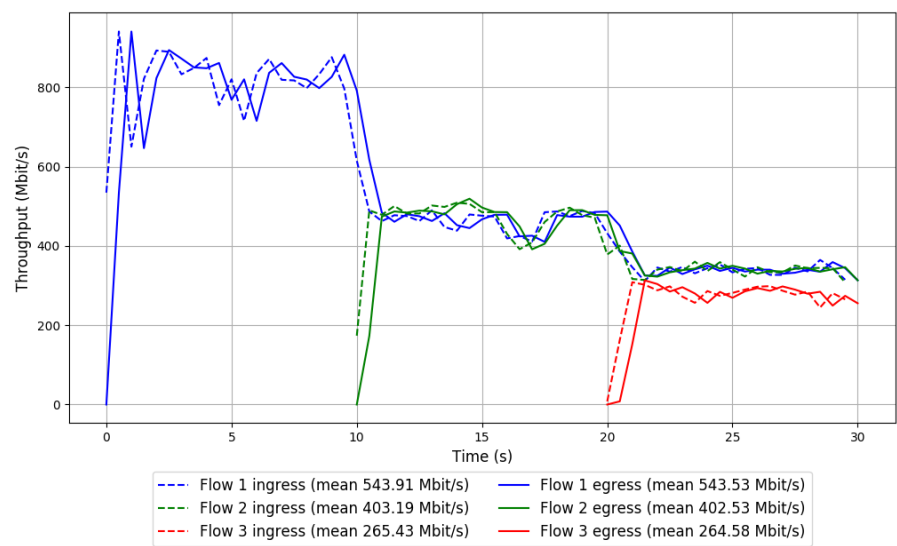
-- Flow 3:

Average throughput: 264.58 Mbit/s

95th percentile per-packet one-way delay: 18.519 ms

Loss rate: 0.36%

Run 2: Report of FillP — Data Link

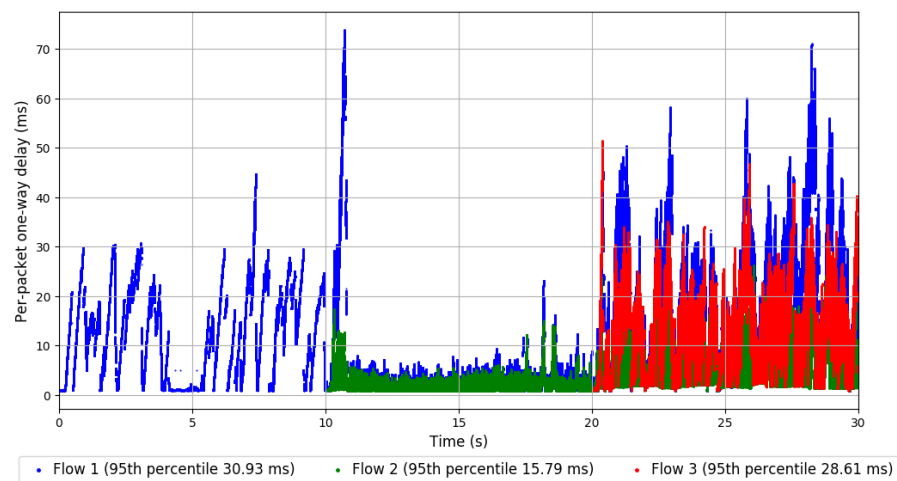
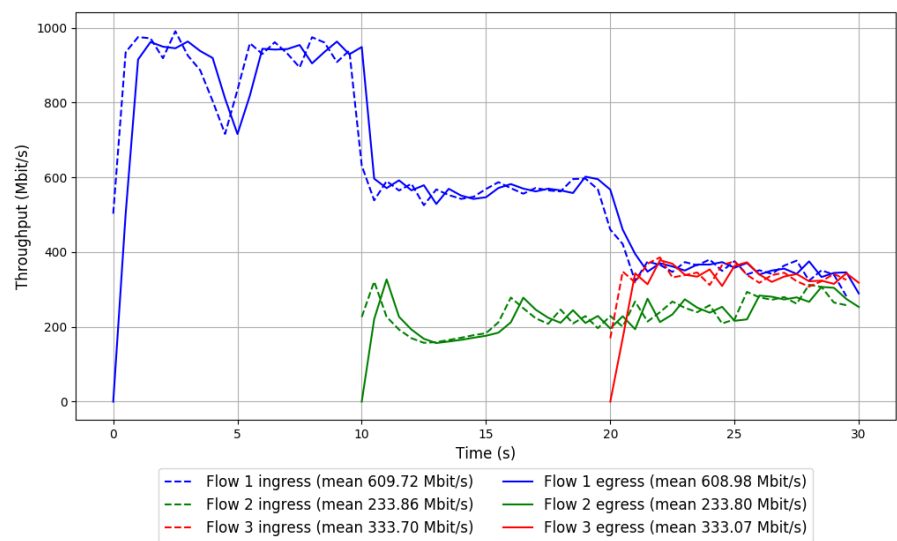


Run 3: Statistics of FillP

Start at: 2019-02-05 19:21:26
End at: 2019-02-05 19:21:56
Local clock offset: 0.158 ms
Remote clock offset: -2.827 ms

Below is generated by plot.py at 2019-02-05 21:20:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 874.82 Mbit/s
95th percentile per-packet one-way delay: 29.126 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 608.98 Mbit/s
95th percentile per-packet one-way delay: 30.925 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 233.80 Mbit/s
95th percentile per-packet one-way delay: 15.795 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 333.07 Mbit/s
95th percentile per-packet one-way delay: 28.611 ms
Loss rate: 0.21%

Run 3: Report of FillP — Data Link

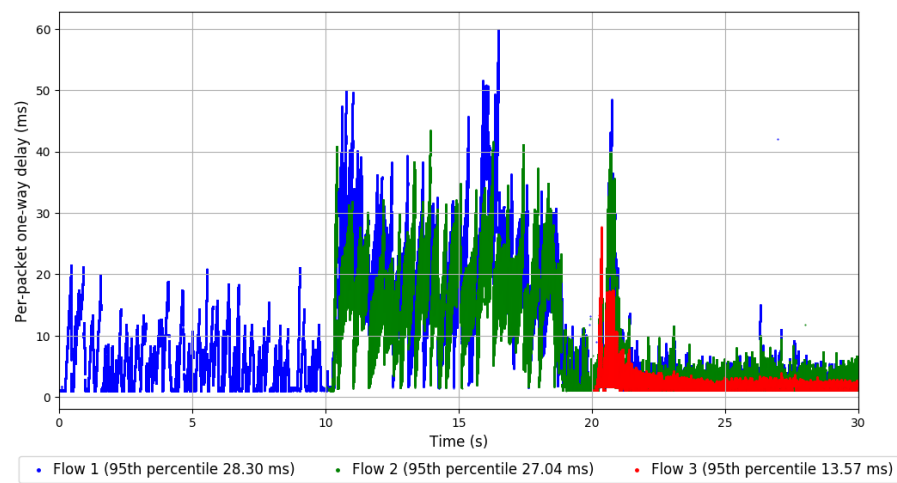
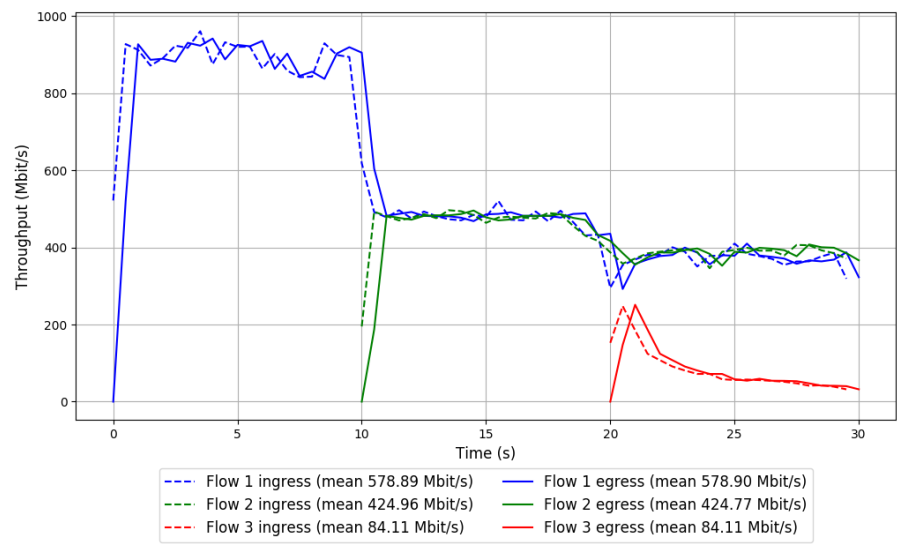


Run 4: Statistics of FillP

Start at: 2019-02-05 19:51:41
End at: 2019-02-05 19:52:11
Local clock offset: -1.317 ms
Remote clock offset: -2.807 ms

Below is generated by plot.py at 2019-02-05 21:21:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 888.91 Mbit/s
95th percentile per-packet one-way delay: 27.557 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 578.90 Mbit/s
95th percentile per-packet one-way delay: 28.295 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 424.77 Mbit/s
95th percentile per-packet one-way delay: 27.038 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 84.11 Mbit/s
95th percentile per-packet one-way delay: 13.573 ms
Loss rate: 0.00%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-02-05 20:21:54

End at: 2019-02-05 20:22:24

Local clock offset: -4.068 ms

Remote clock offset: 0.28 ms

Below is generated by plot.py at 2019-02-05 21:22:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 934.73 Mbit/s

95th percentile per-packet one-way delay: 36.947 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 601.42 Mbit/s

95th percentile per-packet one-way delay: 35.092 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 342.17 Mbit/s

95th percentile per-packet one-way delay: 28.331 ms

Loss rate: 0.15%

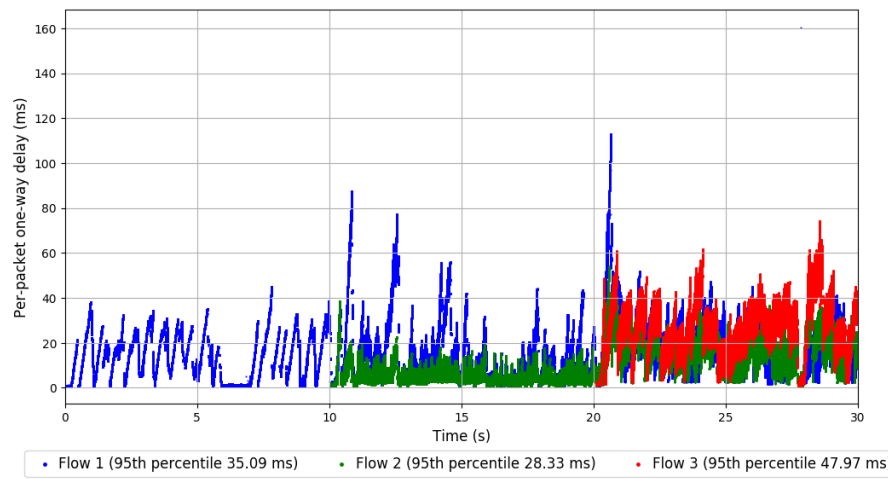
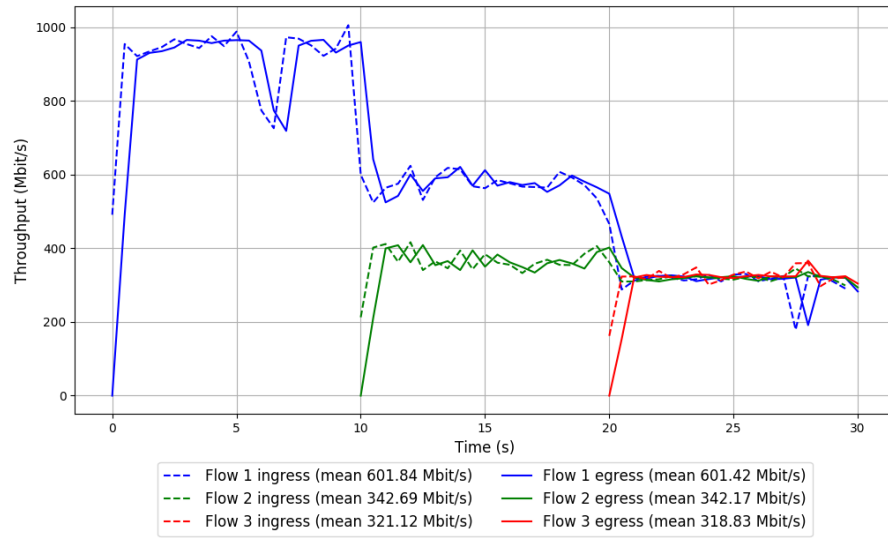
-- Flow 3:

Average throughput: 318.83 Mbit/s

95th percentile per-packet one-way delay: 47.966 ms

Loss rate: 0.66%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 18:34:22

End at: 2019-02-05 18:34:52

Local clock offset: 0.143 ms

Remote clock offset: 3.743 ms

Below is generated by plot.py at 2019-02-05 21:22:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 576.43 Mbit/s

95th percentile per-packet one-way delay: 7.634 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 422.17 Mbit/s

95th percentile per-packet one-way delay: 7.985 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 203.67 Mbit/s

95th percentile per-packet one-way delay: 5.954 ms

Loss rate: 0.03%

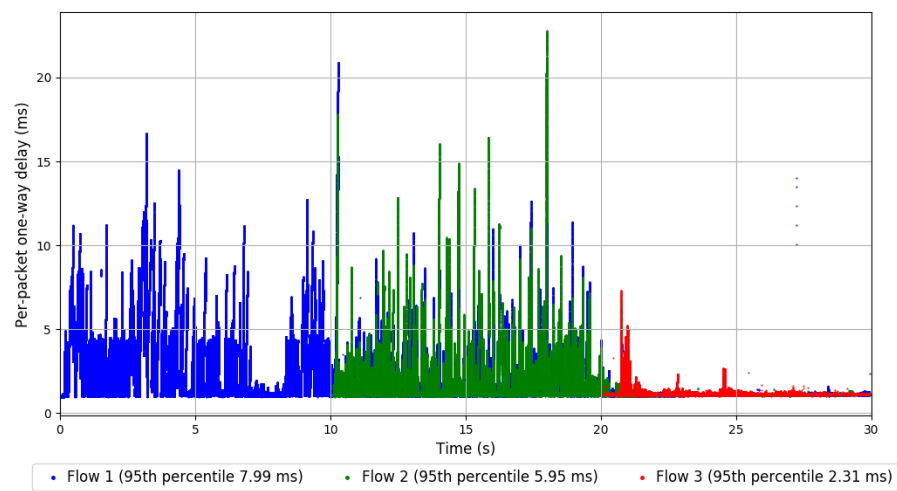
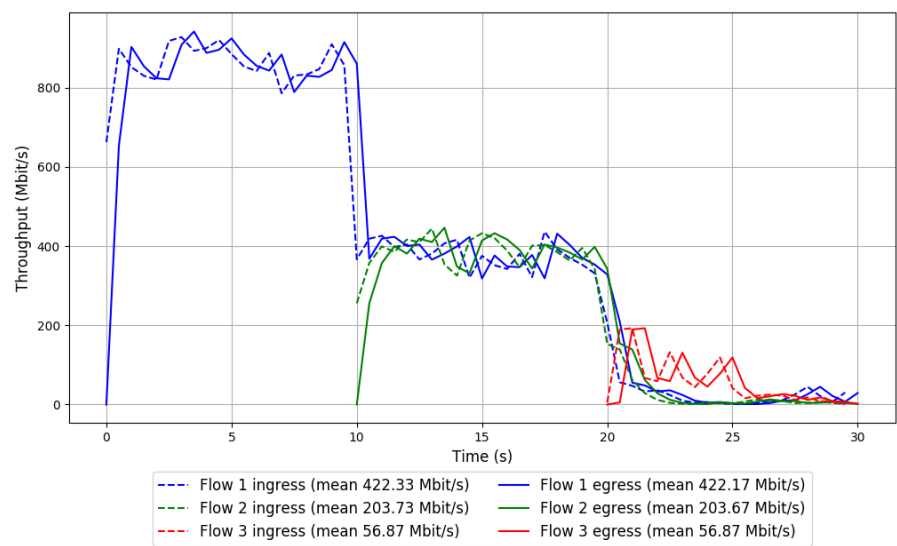
-- Flow 3:

Average throughput: 56.87 Mbit/s

95th percentile per-packet one-way delay: 2.307 ms

Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 19:04:32

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

Local clock offset: 0.038 ms

Remote clock offset: 0.423 ms

Below is generated by plot.py at 2019-02-05 21:22:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 562.28 Mbit/s

95th percentile per-packet one-way delay: 8.644 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 419.79 Mbit/s

95th percentile per-packet one-way delay: 9.341 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.73 Mbit/s

95th percentile per-packet one-way delay: 4.252 ms

Loss rate: 0.00%

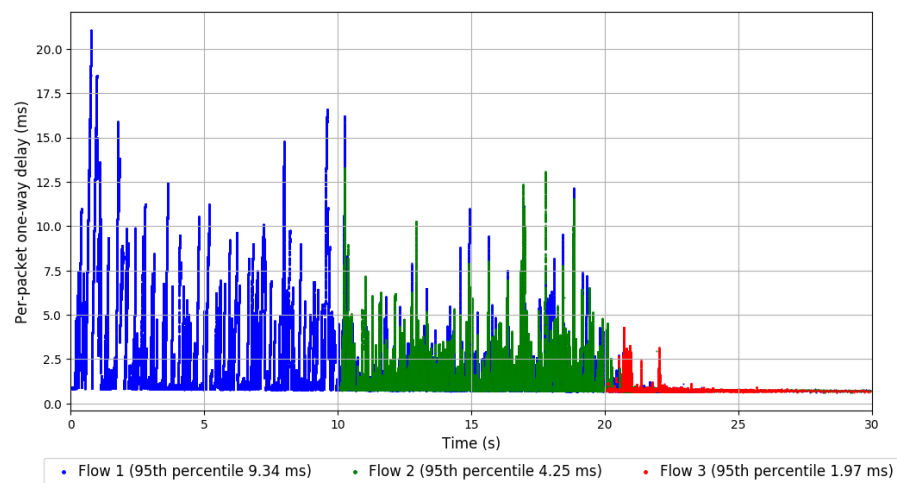
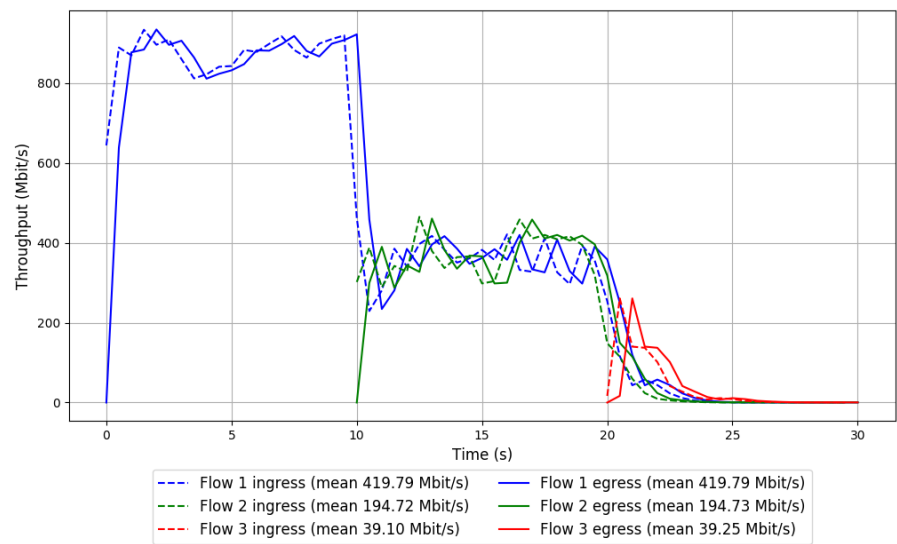
-- Flow 3:

Average throughput: 39.25 Mbit/s

95th percentile per-packet one-way delay: 1.968 ms

Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

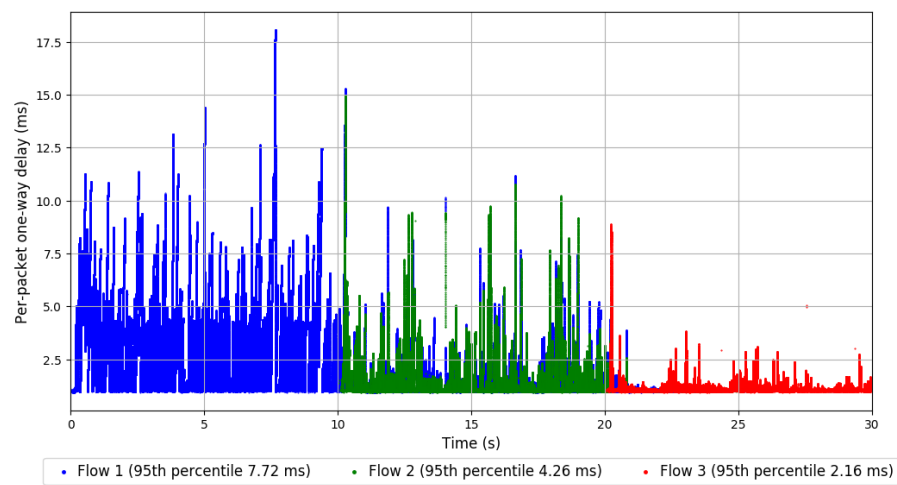
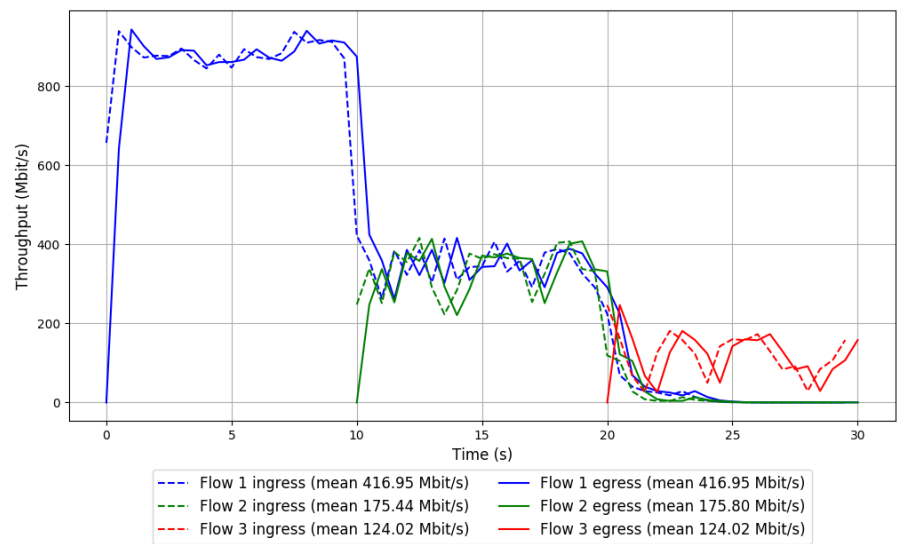


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 19:34:47
End at: 2019-02-05 19:35:17
Local clock offset: 0.323 ms
Remote clock offset: -3.025 ms

Below is generated by plot.py at 2019-02-05 21:22:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 574.70 Mbit/s
95th percentile per-packet one-way delay: 7.234 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 416.95 Mbit/s
95th percentile per-packet one-way delay: 7.723 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 175.80 Mbit/s
95th percentile per-packet one-way delay: 4.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 124.02 Mbit/s
95th percentile per-packet one-way delay: 2.164 ms
Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link

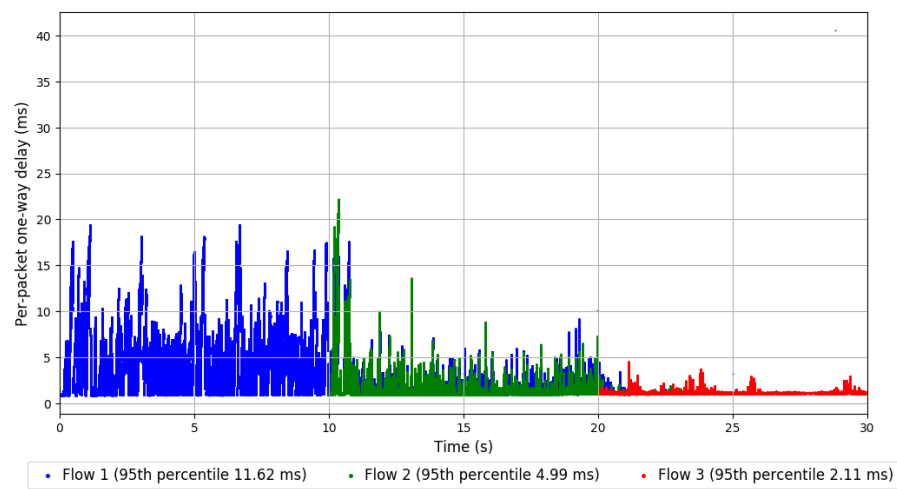
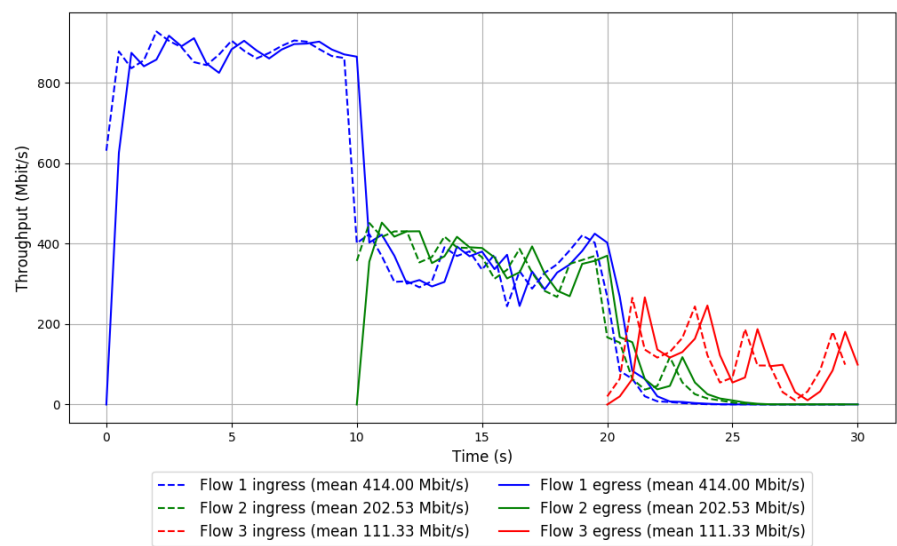


Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 20:05:03
End at: 2019-02-05 20:05:33
Local clock offset: -3.112 ms
Remote clock offset: -2.387 ms

Below is generated by plot.py at 2019-02-05 21:22:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 585.29 Mbit/s
95th percentile per-packet one-way delay: 10.542 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 414.00 Mbit/s
95th percentile per-packet one-way delay: 11.623 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 202.53 Mbit/s
95th percentile per-packet one-way delay: 4.985 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 111.33 Mbit/s
95th percentile per-packet one-way delay: 2.112 ms
Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 20:35:18

End at: 2019-02-05 20:35:49

Local clock offset: -4.682 ms

Remote clock offset: 0.965 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 557.27 Mbit/s

95th percentile per-packet one-way delay: 8.242 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 420.33 Mbit/s

95th percentile per-packet one-way delay: 8.860 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 186.47 Mbit/s

95th percentile per-packet one-way delay: 3.534 ms

Loss rate: 0.00%

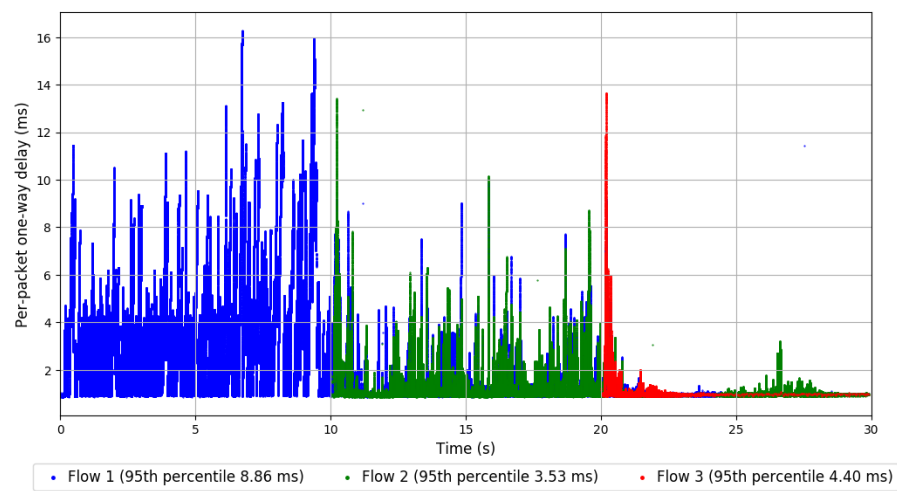
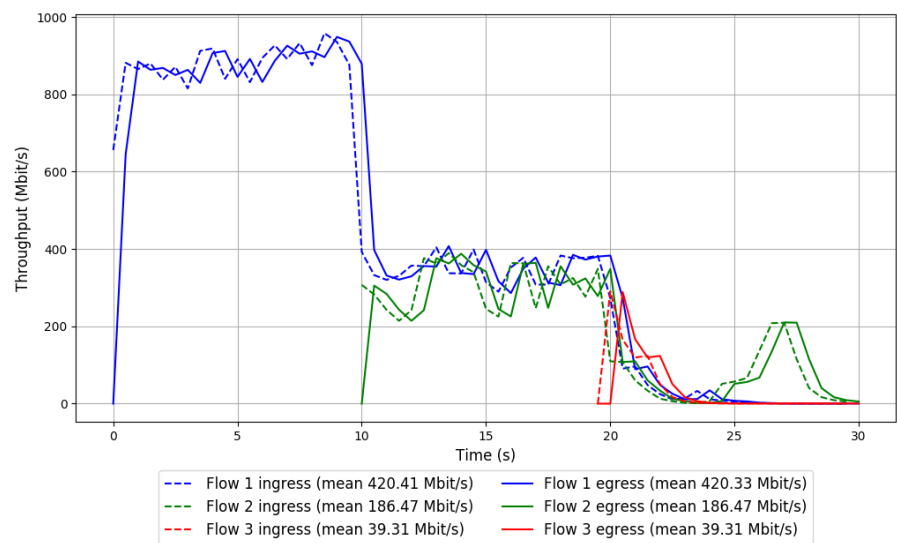
-- Flow 3:

Average throughput: 39.31 Mbit/s

95th percentile per-packet one-way delay: 4.398 ms

Loss rate: 0.00%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-02-05 18:31:27

End at: 2019-02-05 18:31:57

Local clock offset: 0.164 ms

Remote clock offset: 3.225 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.45 Mbit/s

95th percentile per-packet one-way delay: 1.311 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 154.06 Mbit/s

95th percentile per-packet one-way delay: 1.248 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 143.48 Mbit/s

95th percentile per-packet one-way delay: 1.346 ms

Loss rate: 0.00%

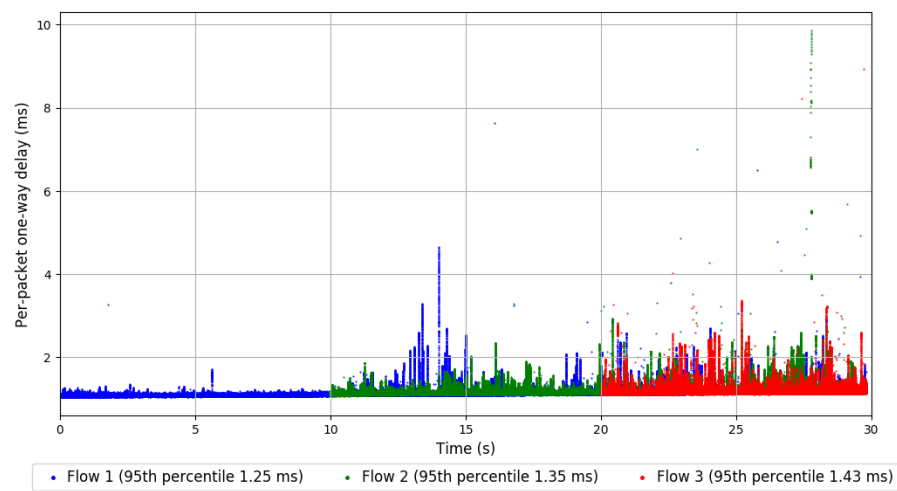
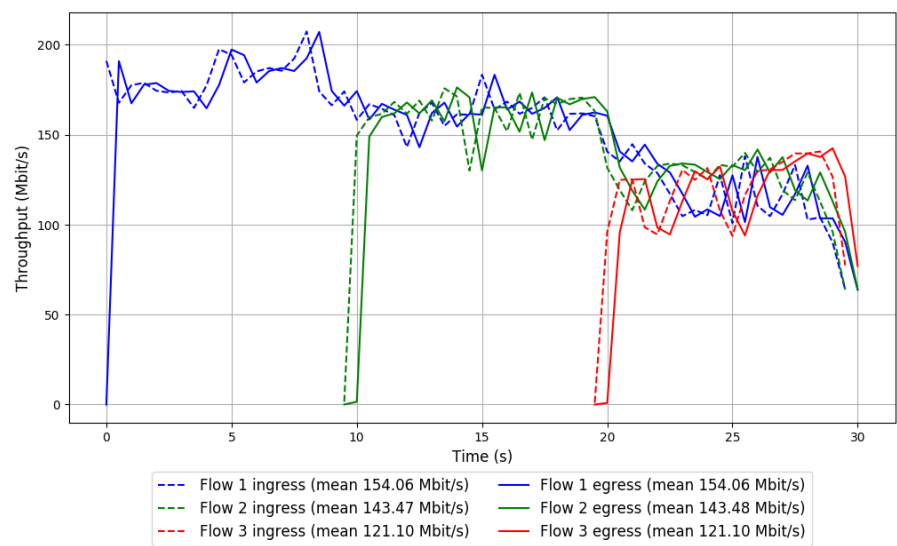
-- Flow 3:

Average throughput: 121.10 Mbit/s

95th percentile per-packet one-way delay: 1.432 ms

Loss rate: 0.02%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-02-05 19:01:40

End at: 2019-02-05 19:02:10

Local clock offset: 0.029 ms

Remote clock offset: 1.781 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.40 Mbit/s

95th percentile per-packet one-way delay: 0.883 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 153.81 Mbit/s

95th percentile per-packet one-way delay: 0.863 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 141.11 Mbit/s

95th percentile per-packet one-way delay: 0.912 ms

Loss rate: 0.01%

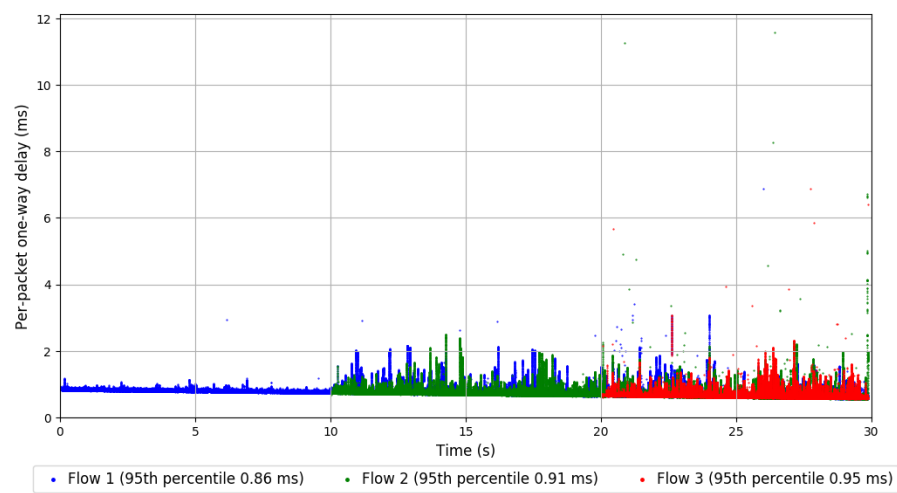
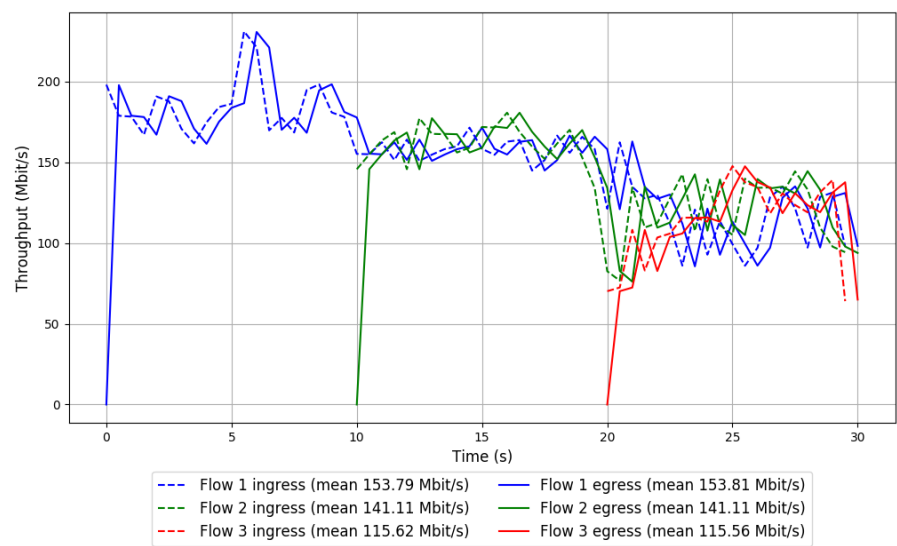
-- Flow 3:

Average throughput: 115.56 Mbit/s

95th percentile per-packet one-way delay: 0.950 ms

Loss rate: 0.03%

Run 2: Report of Indigo — Data Link

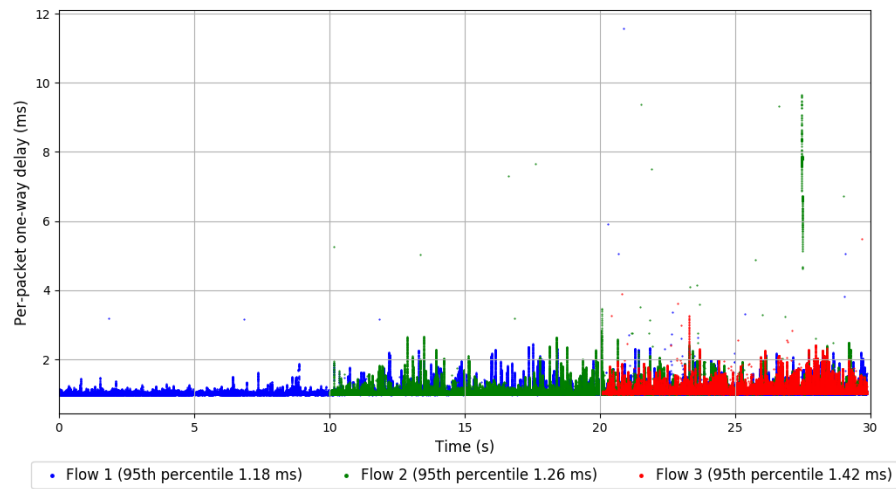
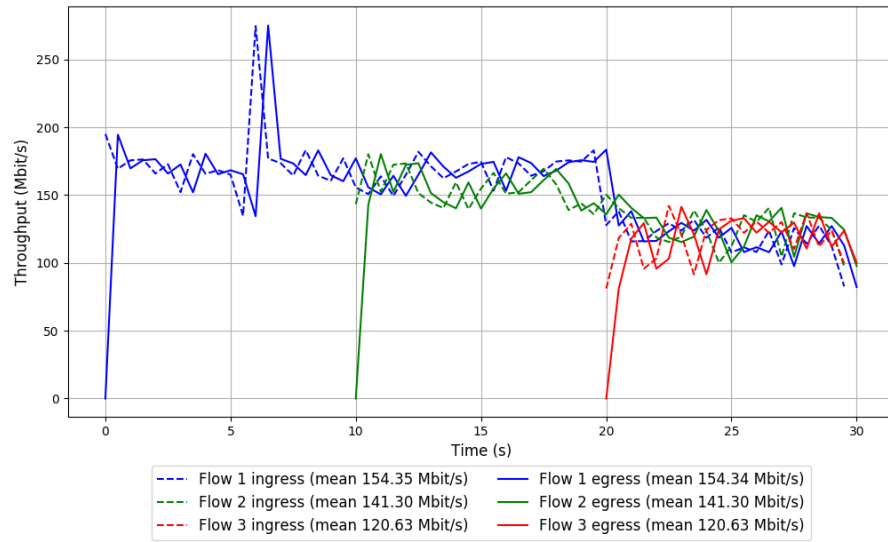


Run 3: Statistics of Indigo

Start at: 2019-02-05 19:31:55
End at: 2019-02-05 19:32:25
Local clock offset: 0.299 ms
Remote clock offset: -3.121 ms

Below is generated by plot.py at 2019-02-05 21:25:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 287.76 Mbit/s
95th percentile per-packet one-way delay: 1.259 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 154.34 Mbit/s
95th percentile per-packet one-way delay: 1.184 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 141.30 Mbit/s
95th percentile per-packet one-way delay: 1.261 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.63 Mbit/s
95th percentile per-packet one-way delay: 1.421 ms
Loss rate: 0.01%

Run 3: Report of Indigo — Data Link

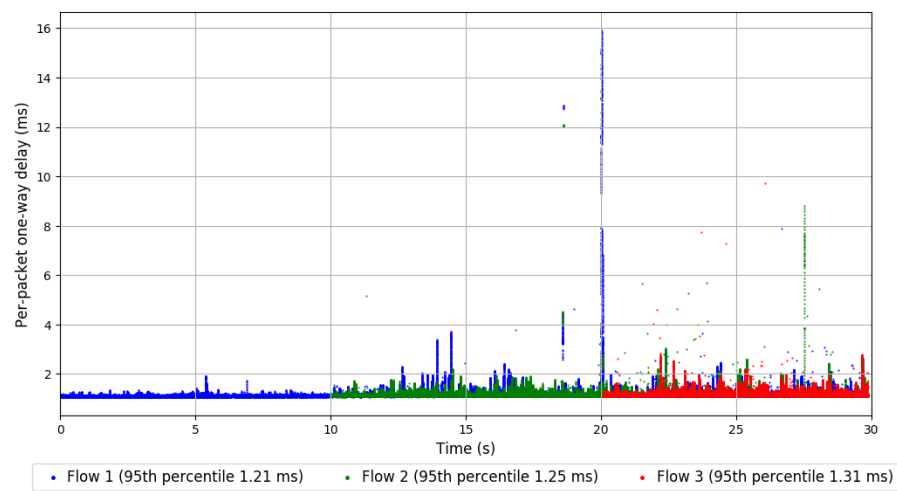
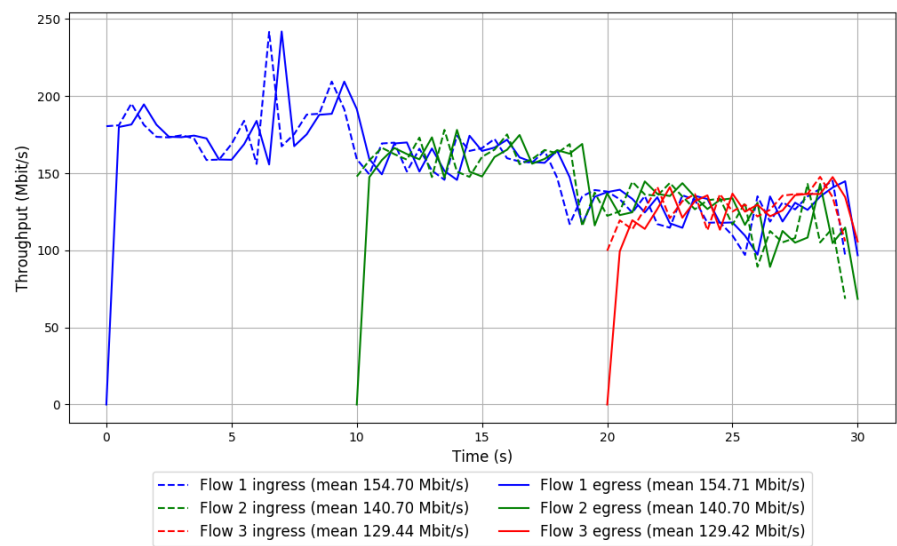


Run 4: Statistics of Indigo

Start at: 2019-02-05 20:02:11
End at: 2019-02-05 20:02:41
Local clock offset: -2.85 ms
Remote clock offset: -2.965 ms

Below is generated by plot.py at 2019-02-05 21:25:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 290.76 Mbit/s
95th percentile per-packet one-way delay: 1.241 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 154.71 Mbit/s
95th percentile per-packet one-way delay: 1.209 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.70 Mbit/s
95th percentile per-packet one-way delay: 1.245 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 129.42 Mbit/s
95th percentile per-packet one-way delay: 1.311 ms
Loss rate: 0.02%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-02-05 20:32:27

End at: 2019-02-05 20:32:57

Local clock offset: -4.558 ms

Remote clock offset: 0.833 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.20 Mbit/s

95th percentile per-packet one-way delay: 1.183 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 154.68 Mbit/s

95th percentile per-packet one-way delay: 1.142 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 142.16 Mbit/s

95th percentile per-packet one-way delay: 1.200 ms

Loss rate: 0.01%

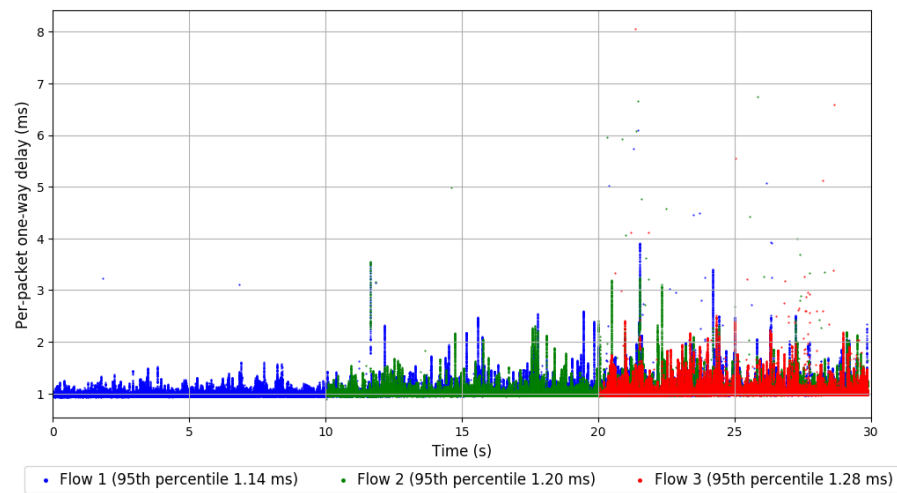
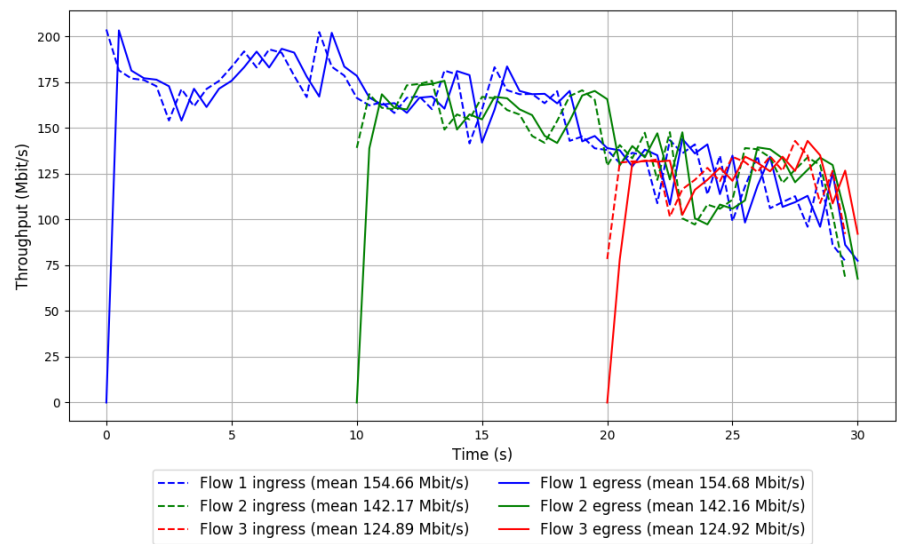
-- Flow 3:

Average throughput: 124.92 Mbit/s

95th percentile per-packet one-way delay: 1.282 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-05 18:23:55

End at: 2019-02-05 18:24:25

Local clock offset: 0.247 ms

Remote clock offset: 1.755 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.35 Mbit/s

95th percentile per-packet one-way delay: 1.210 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 130.05 Mbit/s

95th percentile per-packet one-way delay: 1.182 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.35 Mbit/s

95th percentile per-packet one-way delay: 1.271 ms

Loss rate: 0.00%

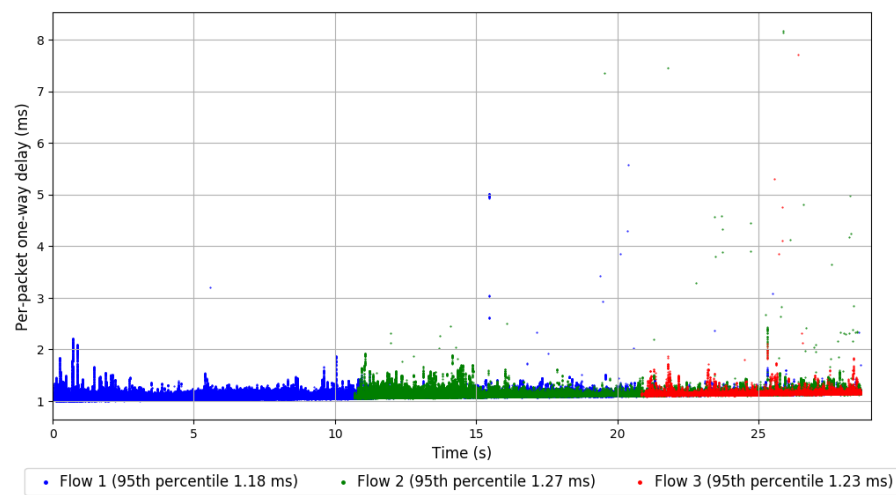
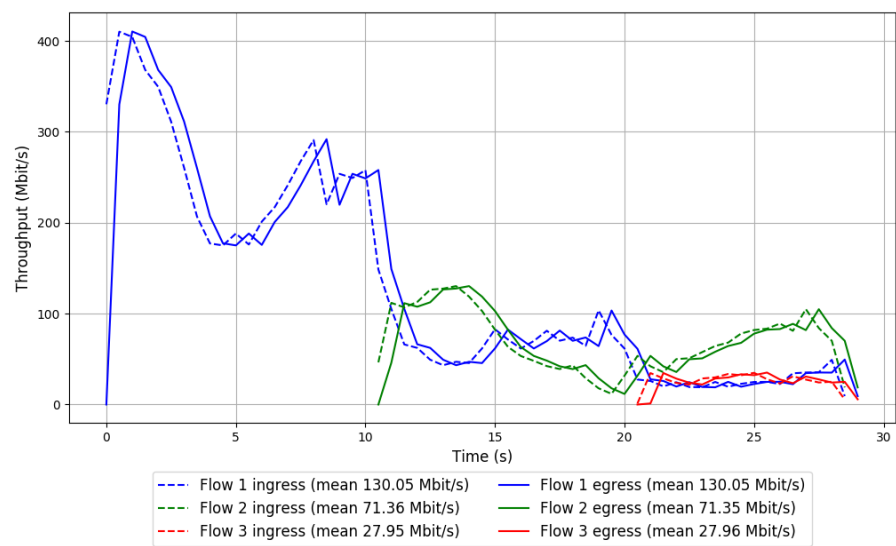
-- Flow 3:

Average throughput: 27.96 Mbit/s

95th percentile per-packet one-way delay: 1.230 ms

Loss rate: 0.01%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 18:54:12

End at: 2019-02-05 18:54:42

Local clock offset: 0.07 ms

Remote clock offset: 6.23 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.51 Mbit/s

95th percentile per-packet one-way delay: 1.144 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 130.56 Mbit/s

95th percentile per-packet one-way delay: 1.138 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 67.41 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.00%

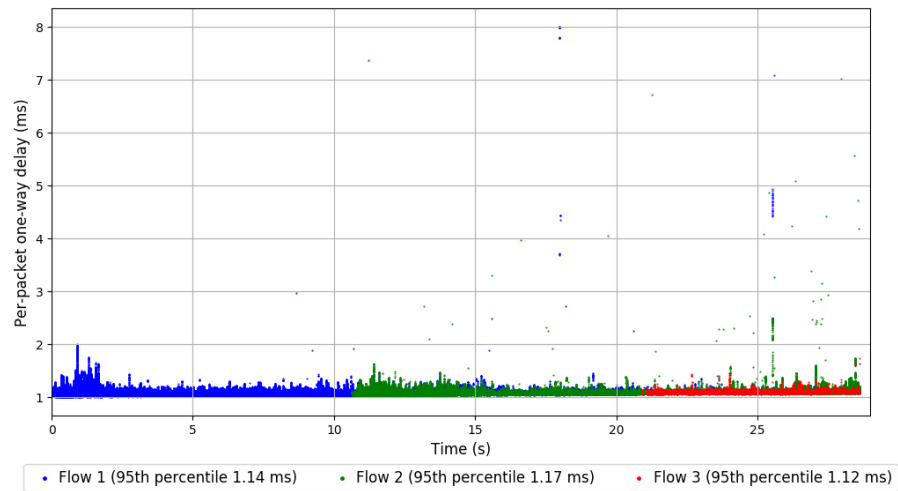
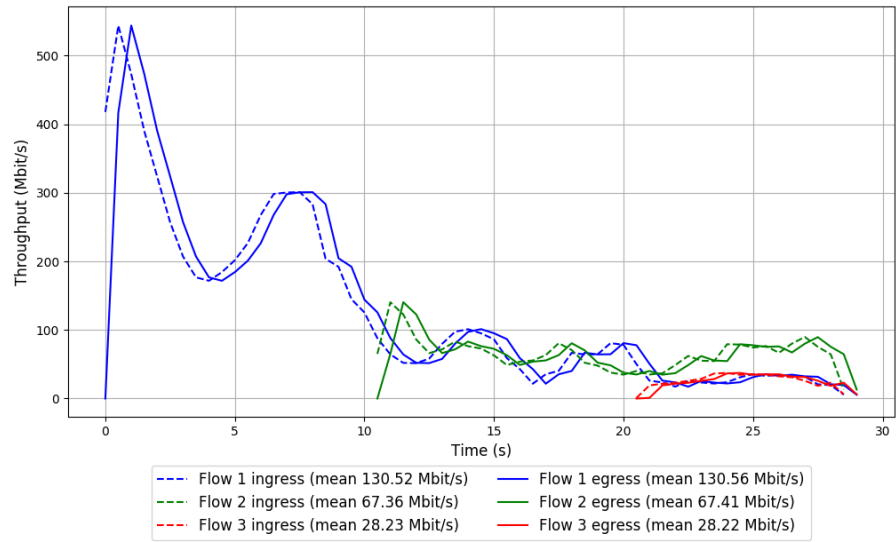
-- Flow 3:

Average throughput: 28.22 Mbit/s

95th percentile per-packet one-way delay: 1.124 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link

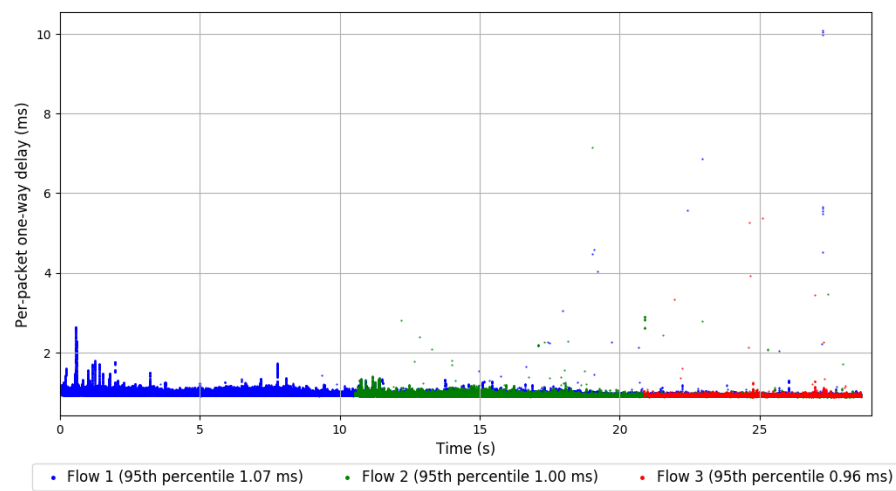
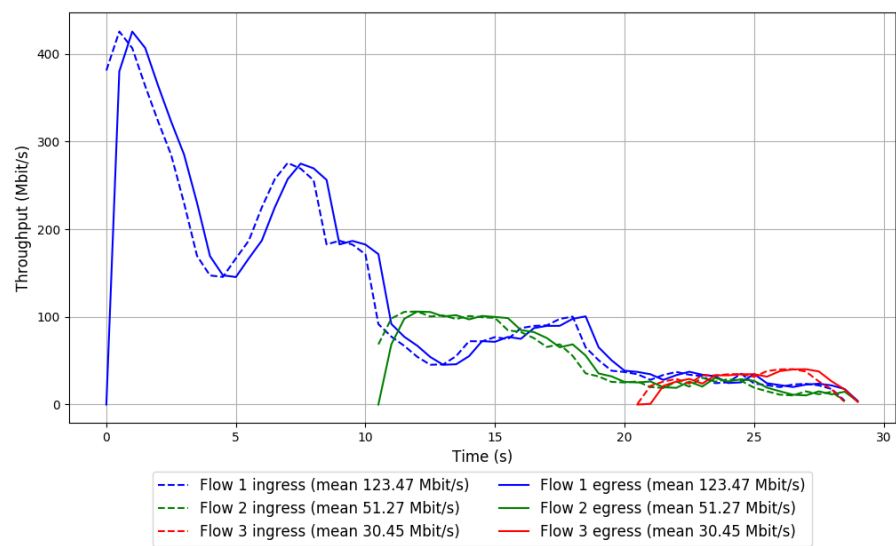


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 19:24:25
End at: 2019-02-05 19:24:55
Local clock offset: 0.208 ms
Remote clock offset: -2.987 ms

Below is generated by plot.py at 2019-02-05 21:25:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 164.11 Mbit/s
95th percentile per-packet one-way delay: 1.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 123.47 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.27 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.45 Mbit/s
95th percentile per-packet one-way delay: 0.956 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

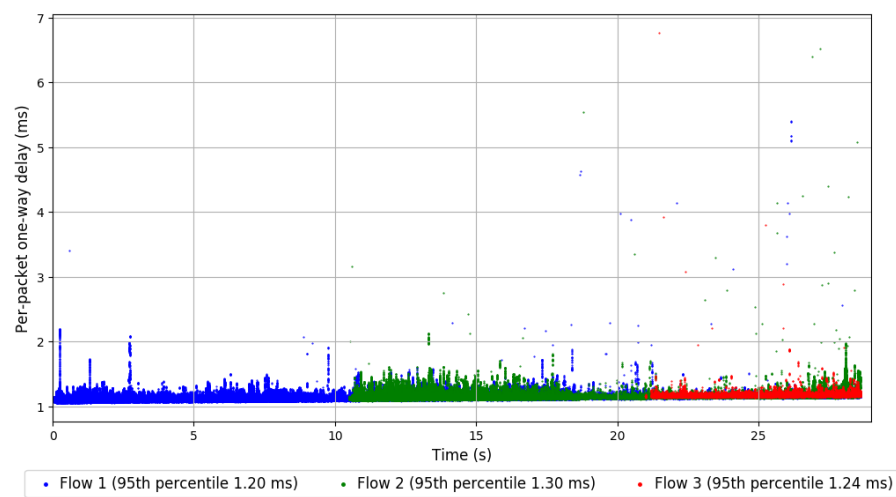
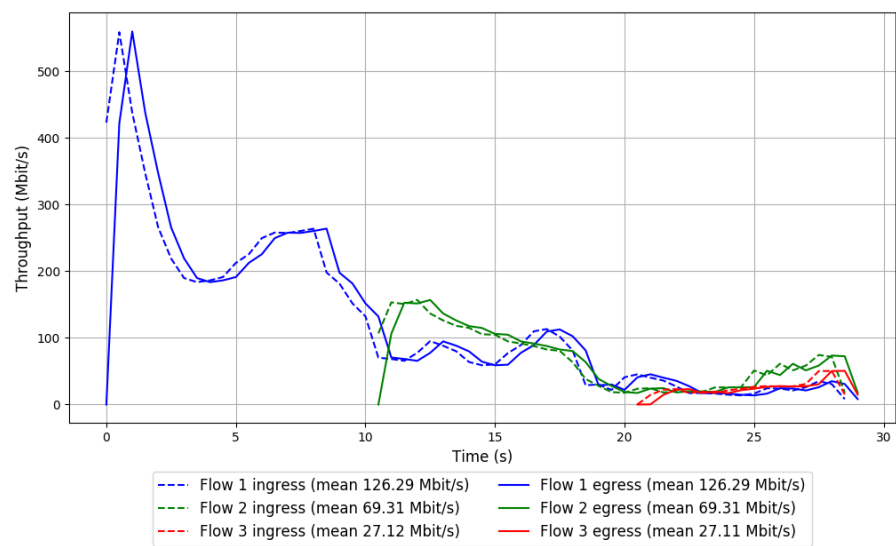


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 19:54:40
End at: 2019-02-05 19:55:10
Local clock offset: -1.901 ms
Remote clock offset: -2.865 ms

Below is generated by plot.py at 2019-02-05 21:25:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 177.33 Mbit/s
95th percentile per-packet one-way delay: 1.231 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 126.29 Mbit/s
95th percentile per-packet one-way delay: 1.202 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 69.31 Mbit/s
95th percentile per-packet one-way delay: 1.299 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.11 Mbit/s
95th percentile per-packet one-way delay: 1.235 ms
Loss rate: 0.08%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 20:24:54

End at: 2019-02-05 20:25:24

Local clock offset: -4.205 ms

Remote clock offset: 0.561 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.43 Mbit/s

95th percentile per-packet one-way delay: 1.105 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 145.74 Mbit/s

95th percentile per-packet one-way delay: 1.094 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 78.60 Mbit/s

95th percentile per-packet one-way delay: 1.153 ms

Loss rate: 0.00%

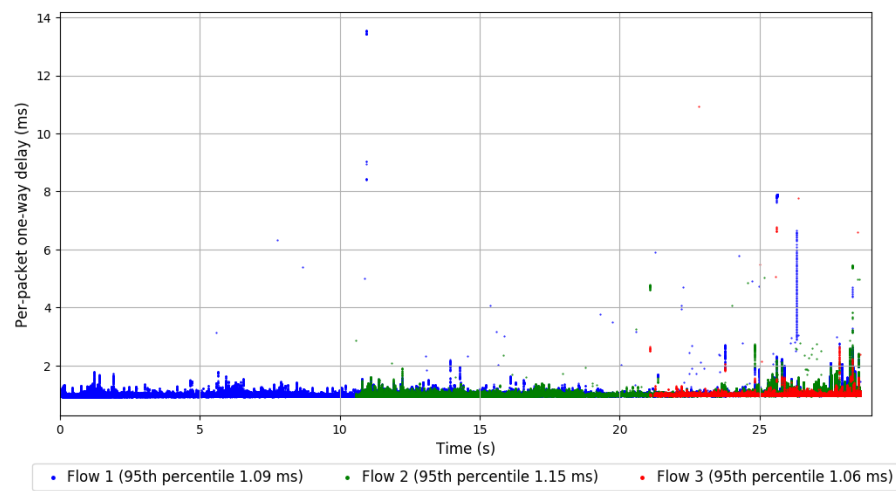
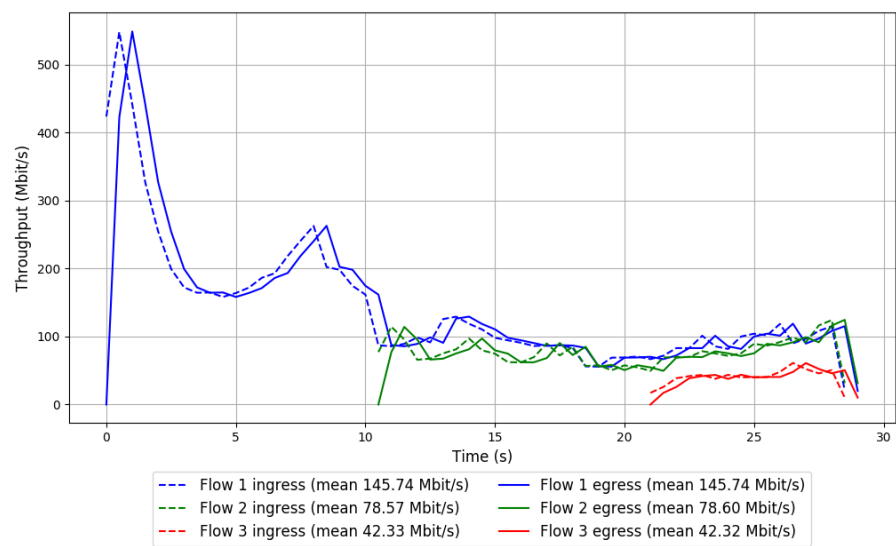
-- Flow 3:

Average throughput: 42.32 Mbit/s

95th percentile per-packet one-way delay: 1.060 ms

Loss rate: 0.02%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 18:35:52

End at: 2019-02-05 18:36:22

Local clock offset: 0.135 ms

Remote clock offset: 3.951 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.71 Mbit/s

95th percentile per-packet one-way delay: 1.200 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.70 Mbit/s

95th percentile per-packet one-way delay: 1.197 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.62 Mbit/s

95th percentile per-packet one-way delay: 1.193 ms

Loss rate: 0.00%

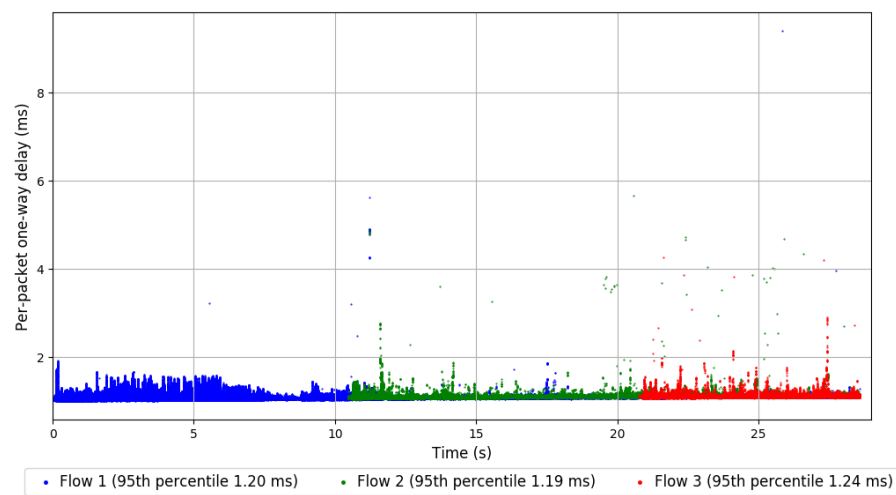
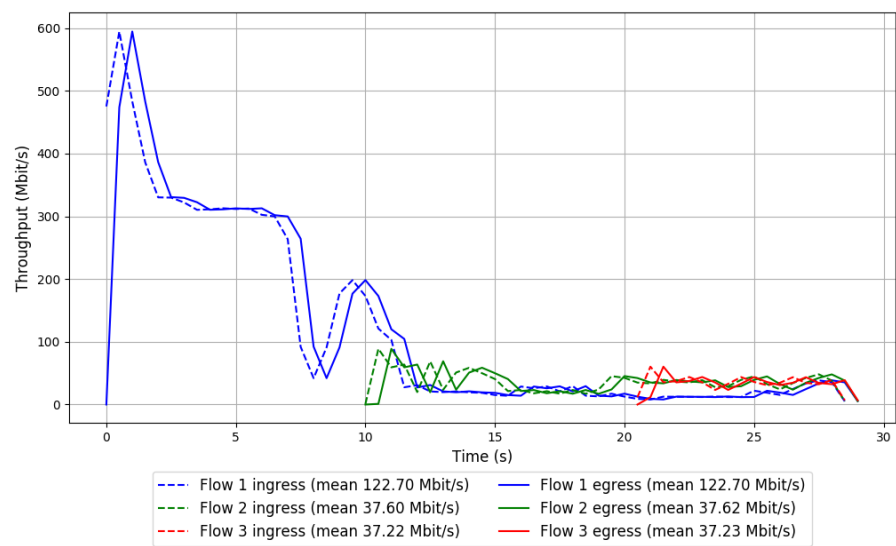
-- Flow 3:

Average throughput: 37.23 Mbit/s

95th percentile per-packet one-way delay: 1.243 ms

Loss rate: 0.02%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 19:06:02

End at: 2019-02-05 19:06:32

Local clock offset: 0.025 ms

Remote clock offset: -0.2 ms

Below is generated by plot.py at 2019-02-05 21:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.31 Mbit/s

95th percentile per-packet one-way delay: 1.050 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.41 Mbit/s

95th percentile per-packet one-way delay: 1.070 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.04 Mbit/s

95th percentile per-packet one-way delay: 0.939 ms

Loss rate: 0.00%

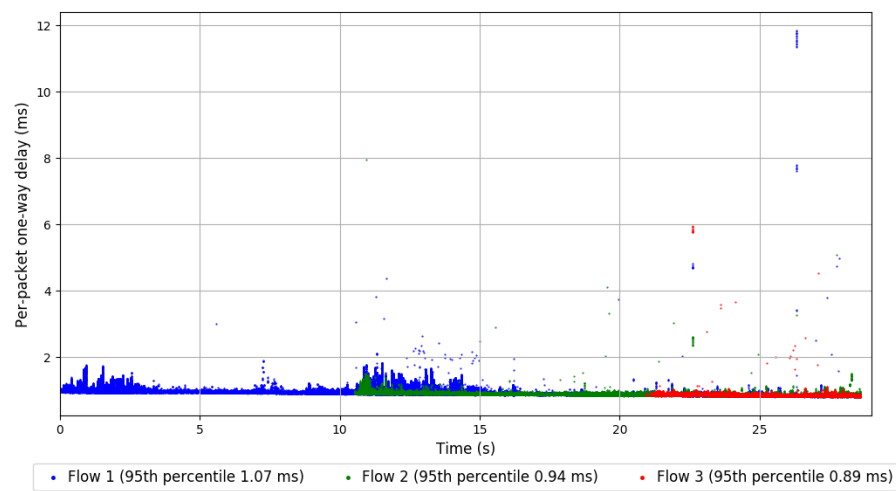
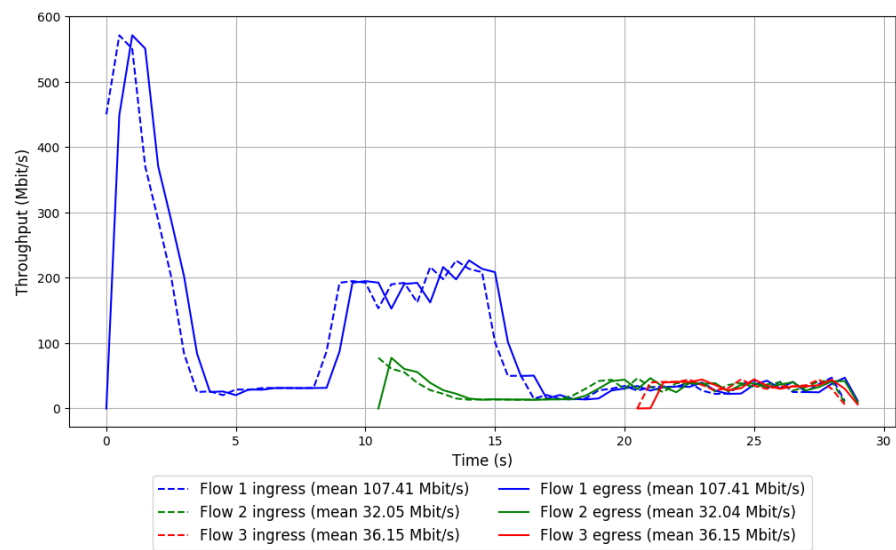
-- Flow 3:

Average throughput: 36.15 Mbit/s

95th percentile per-packet one-way delay: 0.889 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

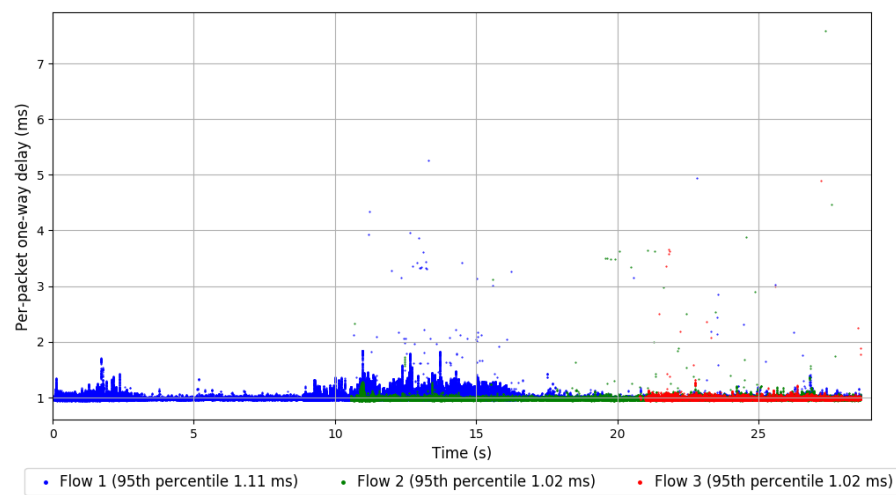
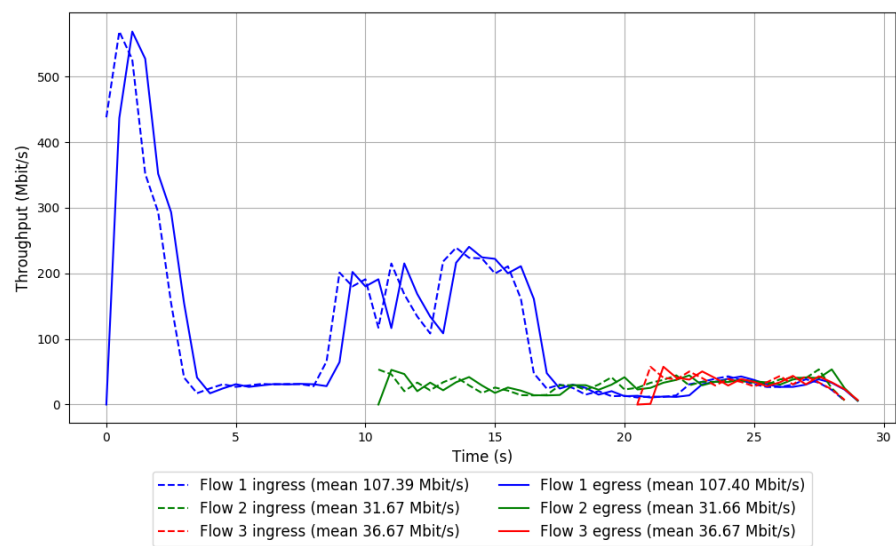


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 19:36:17
End at: 2019-02-05 19:36:47
Local clock offset: 0.315 ms
Remote clock offset: -2.918 ms

Below is generated by plot.py at 2019-02-05 21:25:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 137.40 Mbit/s
95th percentile per-packet one-way delay: 1.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.40 Mbit/s
95th percentile per-packet one-way delay: 1.110 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 1.016 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 36.67 Mbit/s
95th percentile per-packet one-way delay: 1.021 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC5 — Data Link

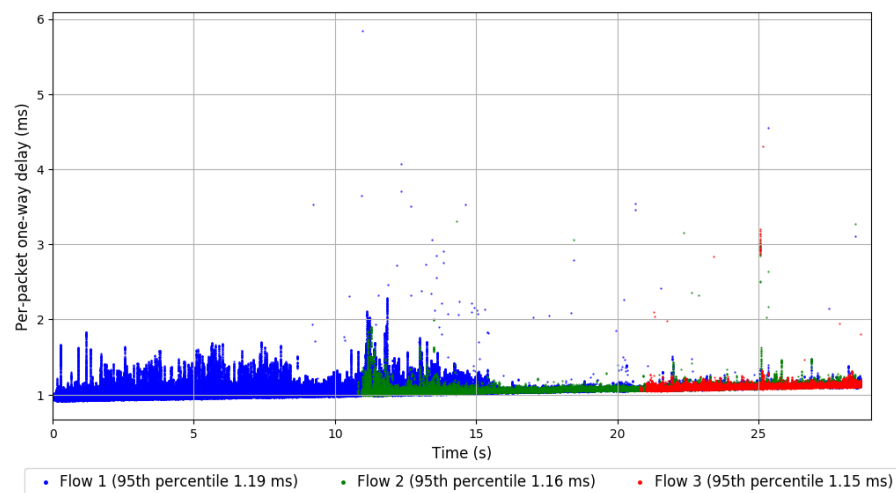
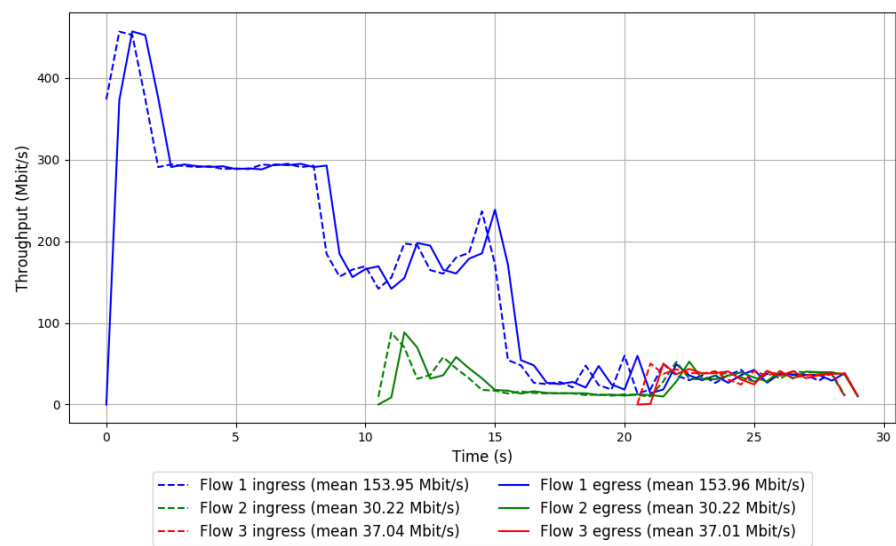


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 20:06:33
End at: 2019-02-05 20:07:03
Local clock offset: -3.216 ms
Remote clock offset: -1.899 ms

Below is generated by plot.py at 2019-02-05 21:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 182.83 Mbit/s
95th percentile per-packet one-way delay: 1.177 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.96 Mbit/s
95th percentile per-packet one-way delay: 1.187 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.22 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.01 Mbit/s
95th percentile per-packet one-way delay: 1.148 ms
Loss rate: 0.09%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 20:36:48

End at: 2019-02-05 20:37:18

Local clock offset: -4.725 ms

Remote clock offset: 1.015 ms

Below is generated by plot.py at 2019-02-05 21:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.69 Mbit/s

95th percentile per-packet one-way delay: 1.033 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 79.57 Mbit/s

95th percentile per-packet one-way delay: 1.043 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.44 Mbit/s

95th percentile per-packet one-way delay: 1.014 ms

Loss rate: 0.00%

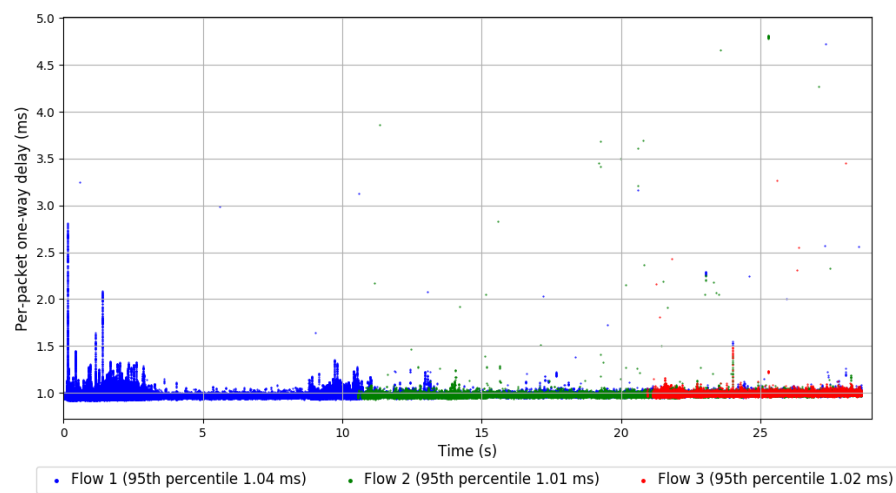
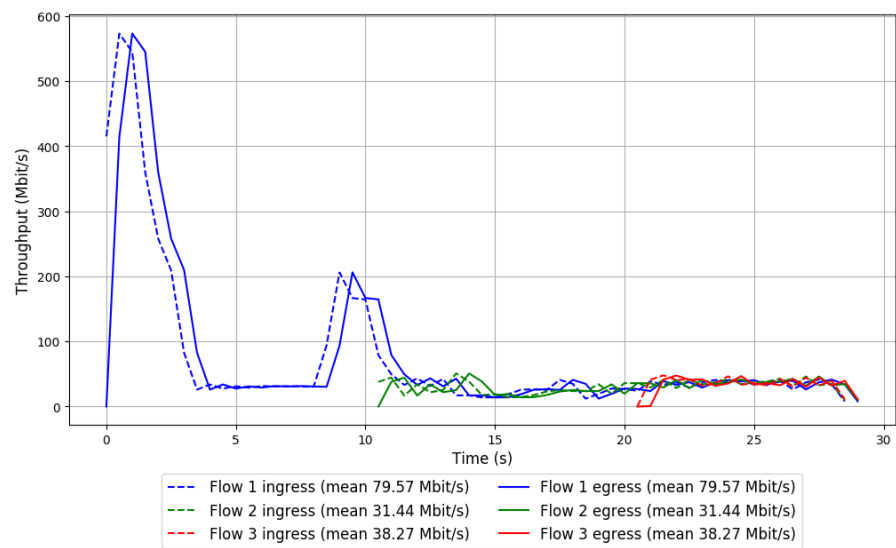
-- Flow 3:

Average throughput: 38.27 Mbit/s

95th percentile per-packet one-way delay: 1.021 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 18:41:37

End at: 2019-02-05 18:42:07

Local clock offset: 0.149 ms

Remote clock offset: 4.737 ms

Below is generated by plot.py at 2019-02-05 21:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.55 Mbit/s

95th percentile per-packet one-way delay: 1.155 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 57.52 Mbit/s

95th percentile per-packet one-way delay: 1.141 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 35.11 Mbit/s

95th percentile per-packet one-way delay: 1.183 ms

Loss rate: 0.00%

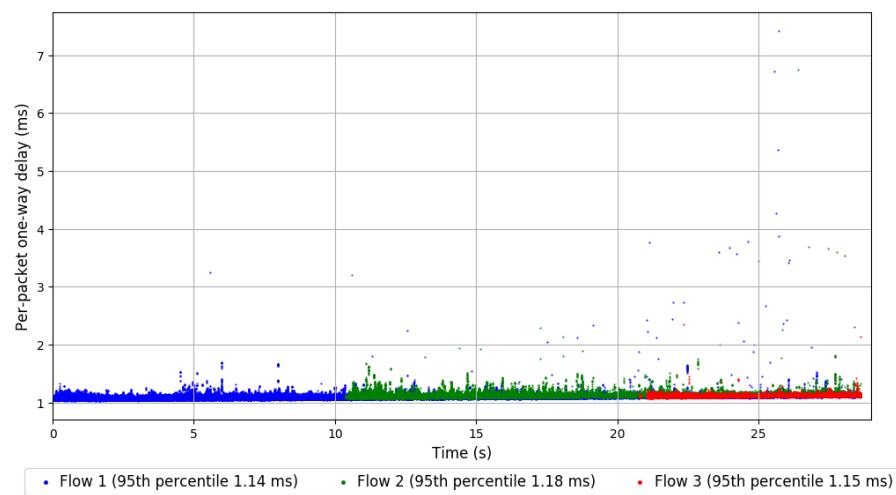
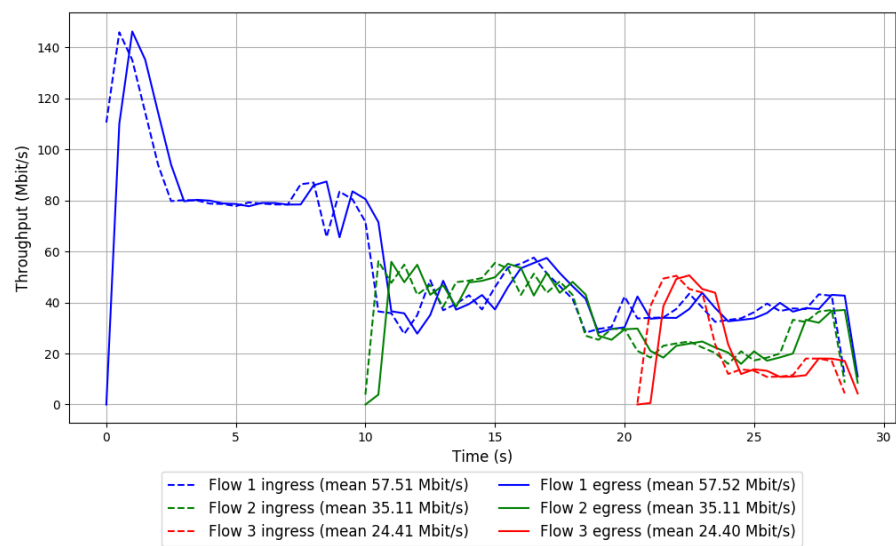
-- Flow 3:

Average throughput: 24.40 Mbit/s

95th percentile per-packet one-way delay: 1.150 ms

Loss rate: 0.01%

Run 1: Report of Indigo-MusesD — Data Link

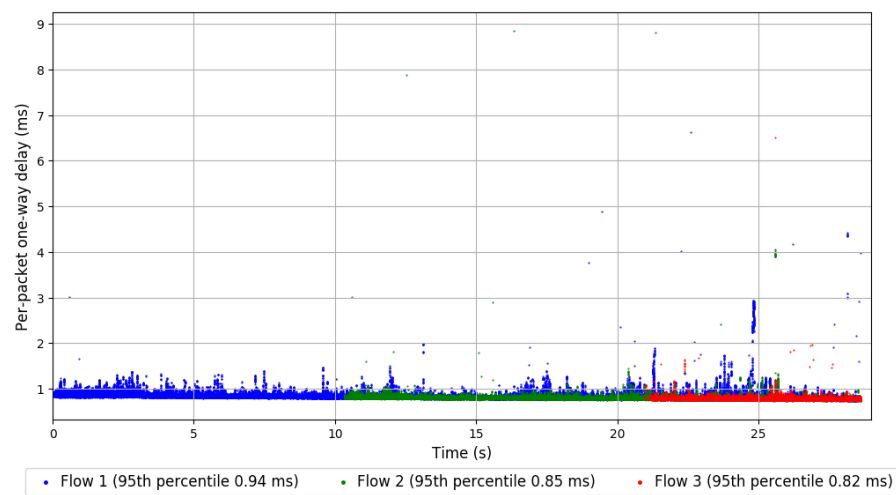
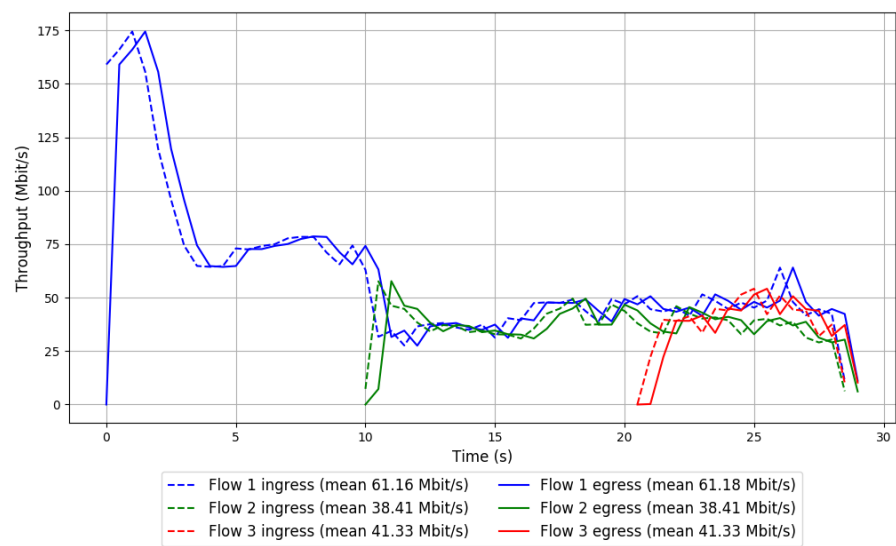


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 19:11:43
End at: 2019-02-05 19:12:13
Local clock offset: 0.016 ms
Remote clock offset: -1.516 ms

Below is generated by plot.py at 2019-02-05 21:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.75 Mbit/s
95th percentile per-packet one-way delay: 0.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.18 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.41 Mbit/s
95th percentile per-packet one-way delay: 0.848 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 41.33 Mbit/s
95th percentile per-packet one-way delay: 0.823 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

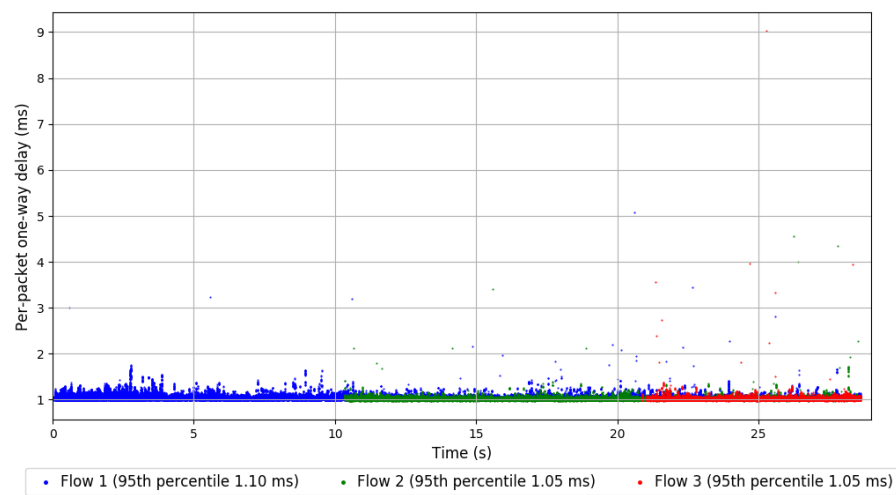
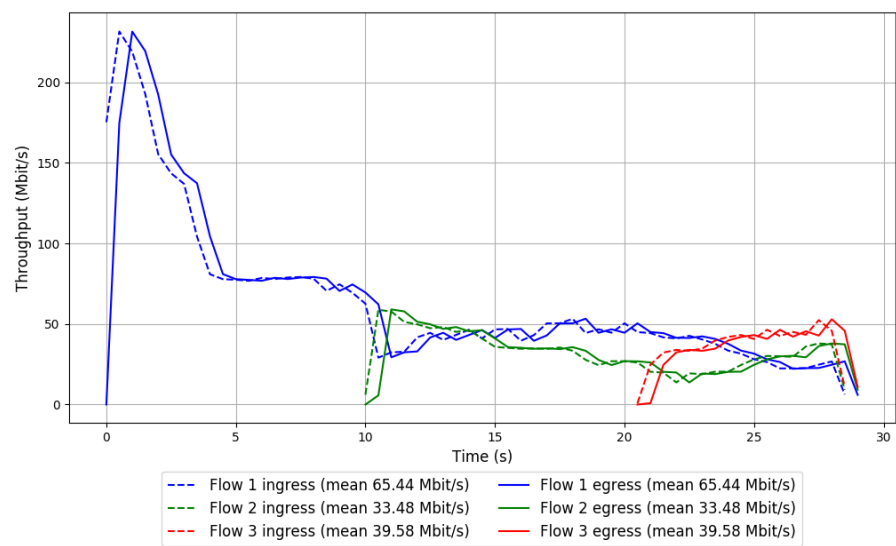


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 19:41:57
End at: 2019-02-05 19:42:27
Local clock offset: 0.349 ms
Remote clock offset: -2.837 ms

Below is generated by plot.py at 2019-02-05 21:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.50 Mbit/s
95th percentile per-packet one-way delay: 1.087 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.44 Mbit/s
95th percentile per-packet one-way delay: 1.100 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 33.48 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.58 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

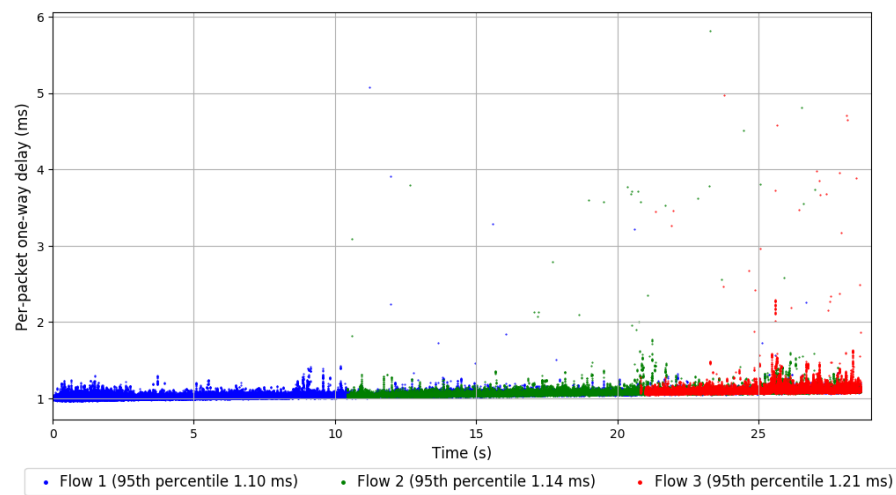
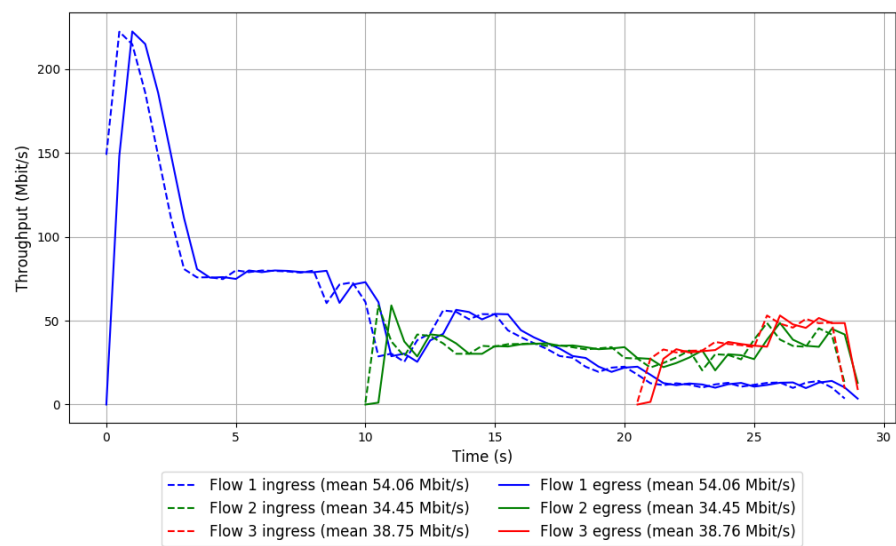


Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 20:12:17
End at: 2019-02-05 20:12:47
Local clock offset: -3.591 ms
Remote clock offset: -0.674 ms

Below is generated by plot.py at 2019-02-05 21:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.53 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 54.06 Mbit/s
95th percentile per-packet one-way delay: 1.097 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.45 Mbit/s
95th percentile per-packet one-way delay: 1.138 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 38.76 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.08%

Run 4: Report of Indigo-MusesD — Data Link

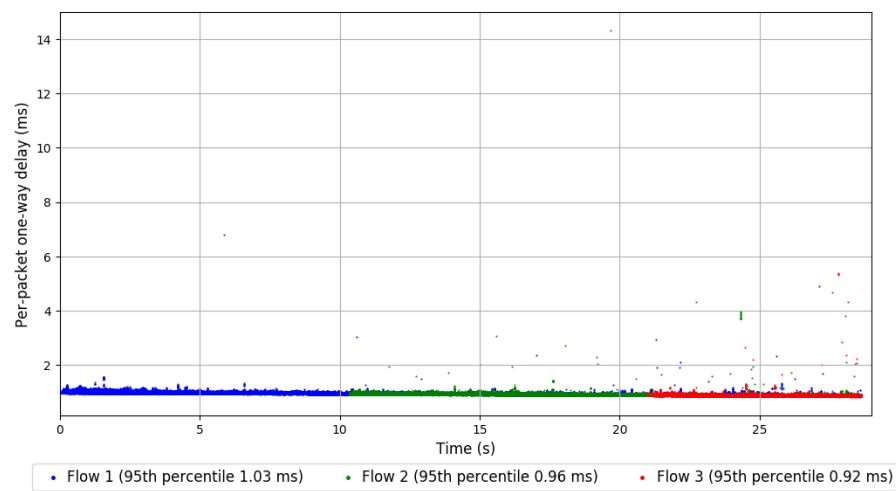
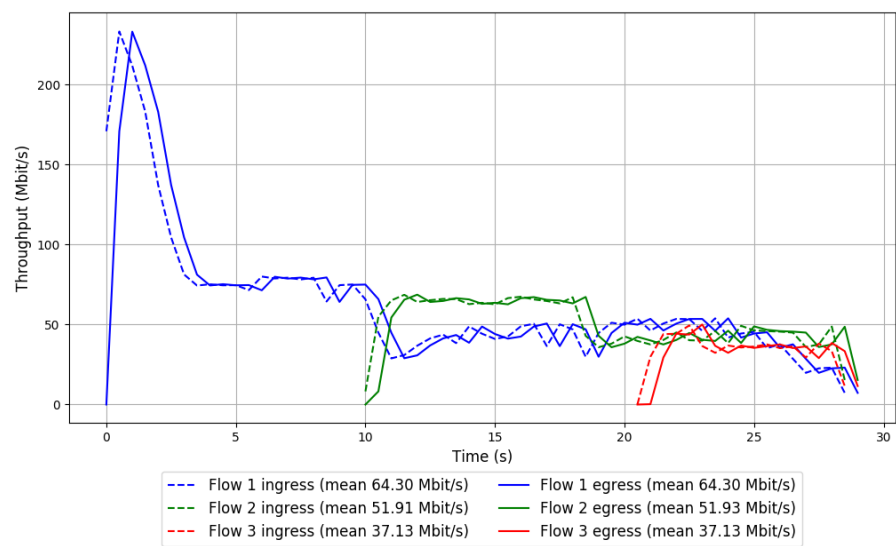


Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 20:42:31
End at: 2019-02-05 20:43:01
Local clock offset: -4.981 ms
Remote clock offset: -0.724 ms

Below is generated by plot.py at 2019-02-05 21:26:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 107.35 Mbit/s
95th percentile per-packet one-way delay: 1.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.30 Mbit/s
95th percentile per-packet one-way delay: 1.030 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.93 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.13 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 18:22:35

End at: 2019-02-05 18:23:05

Local clock offset: 0.255 ms

Remote clock offset: 1.327 ms

Below is generated by plot.py at 2019-02-05 21:27:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.24 Mbit/s

95th percentile per-packet one-way delay: 1.289 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 149.45 Mbit/s

95th percentile per-packet one-way delay: 1.290 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.35 Mbit/s

95th percentile per-packet one-way delay: 1.278 ms

Loss rate: 0.02%

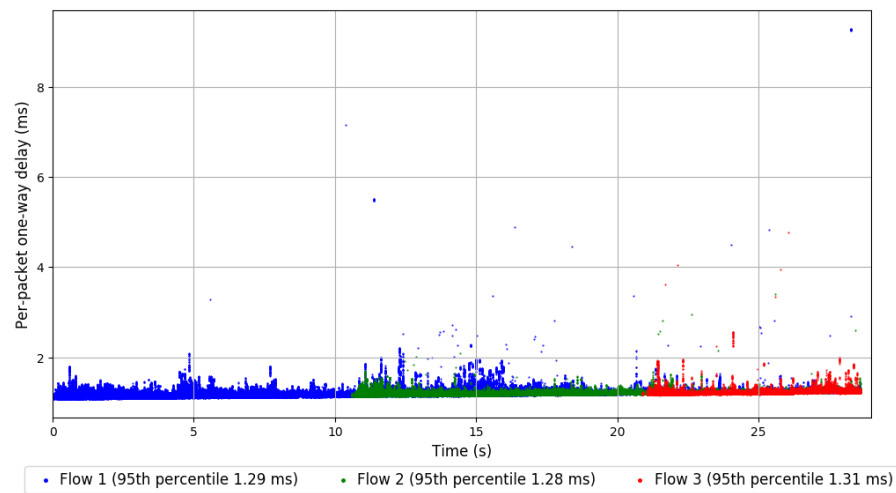
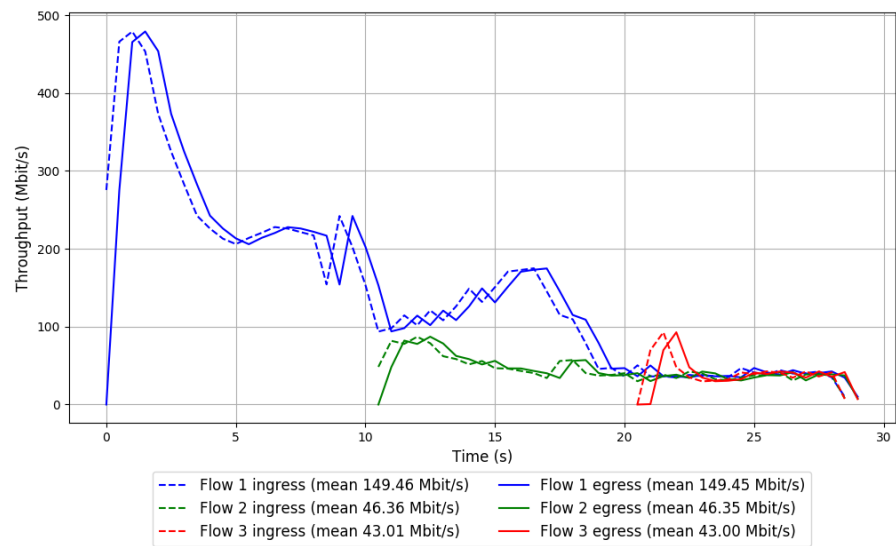
-- Flow 3:

Average throughput: 43.00 Mbit/s

95th percentile per-packet one-way delay: 1.313 ms

Loss rate: 0.04%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 18:52:52

End at: 2019-02-05 18:53:22

Local clock offset: 0.068 ms

Remote clock offset: 6.051 ms

Below is generated by plot.py at 2019-02-05 21:27:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.49 Mbit/s

95th percentile per-packet one-way delay: 1.179 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.04 Mbit/s

95th percentile per-packet one-way delay: 1.172 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 75.50 Mbit/s

95th percentile per-packet one-way delay: 1.204 ms

Loss rate: 0.00%

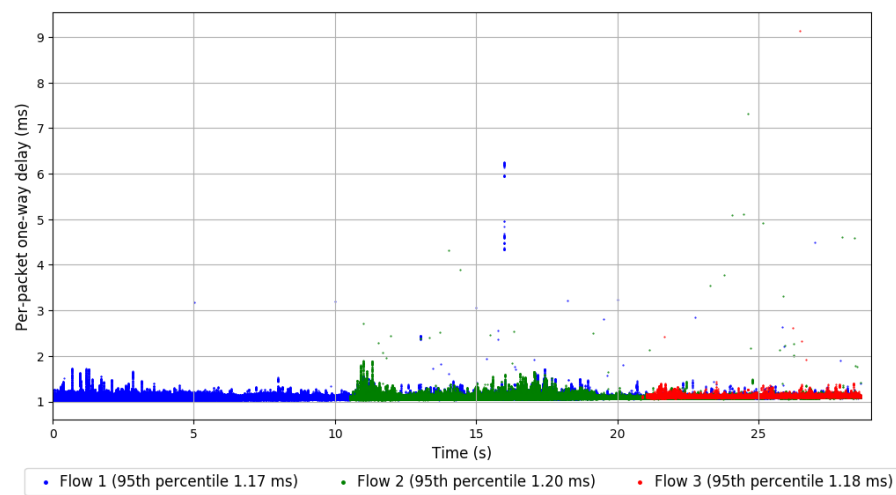
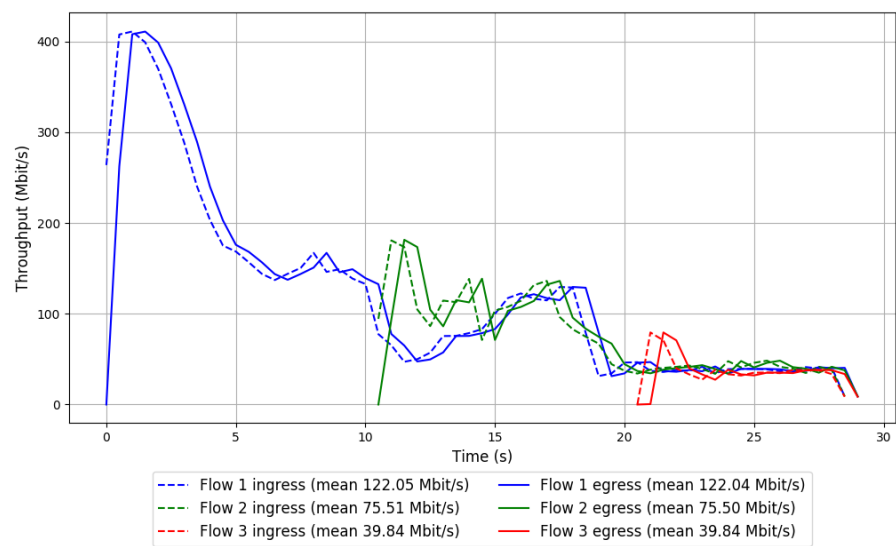
-- Flow 3:

Average throughput: 39.84 Mbit/s

95th percentile per-packet one-way delay: 1.179 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 19:23:05

End at: 2019-02-05 19:23:35

Local clock offset: 0.189 ms

Remote clock offset: -2.97 ms

Below is generated by plot.py at 2019-02-05 21:27:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 196.96 Mbit/s

95th percentile per-packet one-way delay: 1.102 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 149.46 Mbit/s

95th percentile per-packet one-way delay: 1.098 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 61.18 Mbit/s

95th percentile per-packet one-way delay: 1.153 ms

Loss rate: 0.11%

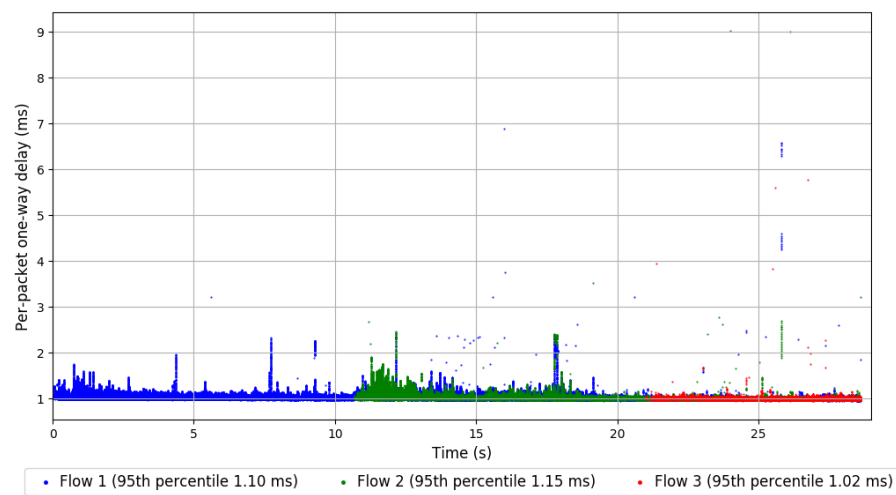
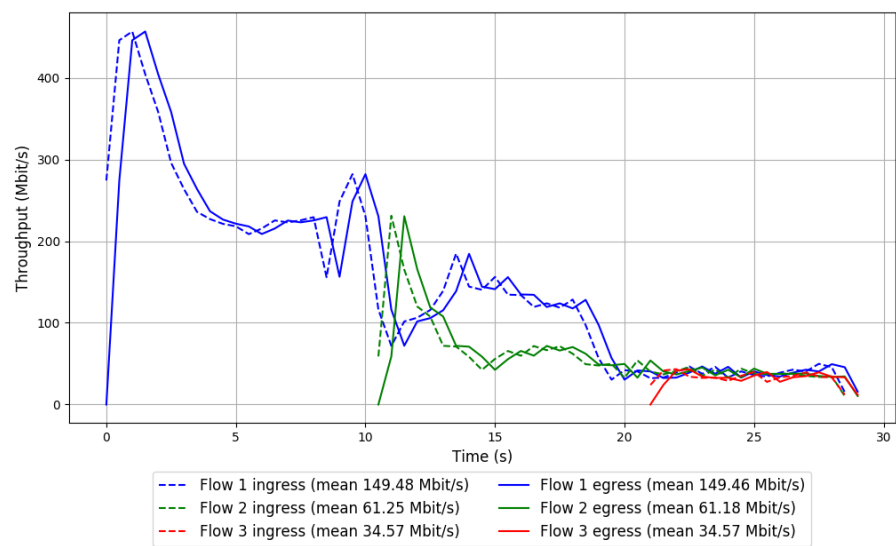
-- Flow 3:

Average throughput: 34.57 Mbit/s

95th percentile per-packet one-way delay: 1.020 ms

Loss rate: 0.04%

Run 3: Report of Indigo-MusesT — Data Link

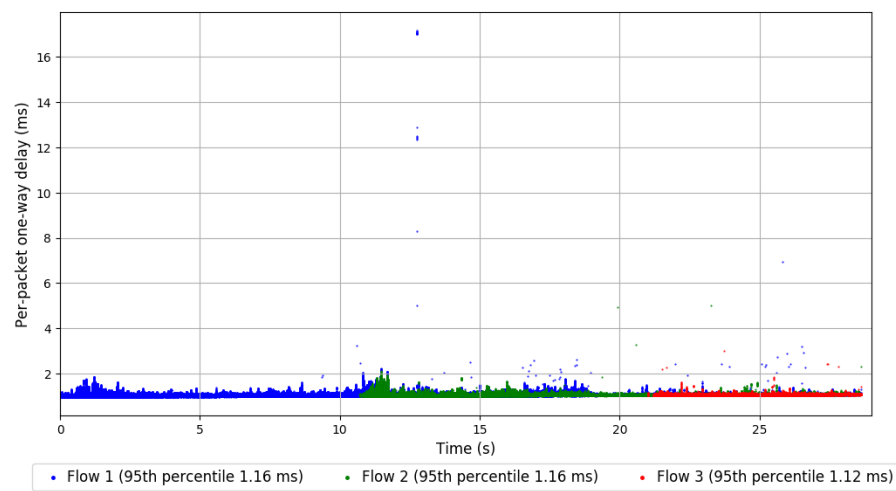
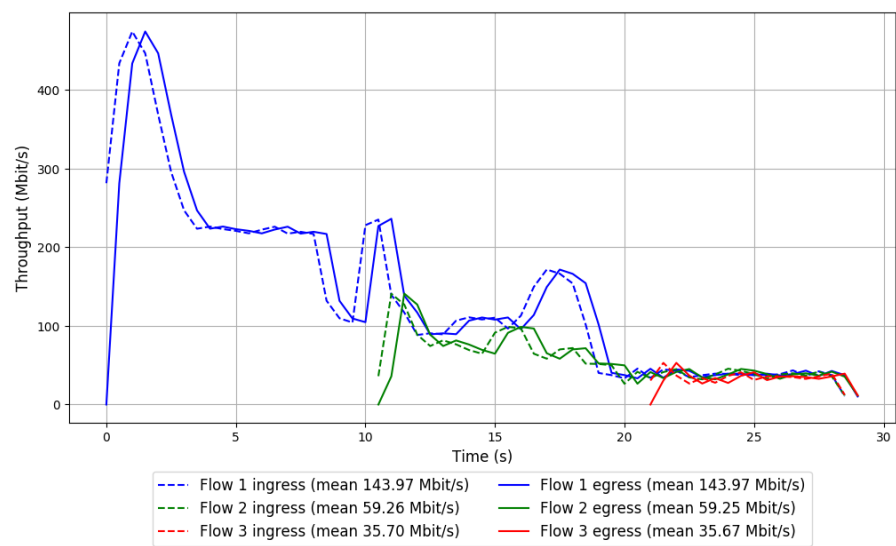


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 19:53:20
End at: 2019-02-05 19:53:50
Local clock offset: -1.654 ms
Remote clock offset: -2.749 ms

Below is generated by plot.py at 2019-02-05 21:27:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 190.53 Mbit/s
95th percentile per-packet one-way delay: 1.154 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 143.97 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 59.25 Mbit/s
95th percentile per-packet one-way delay: 1.160 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 35.67 Mbit/s
95th percentile per-packet one-way delay: 1.118 ms
Loss rate: 0.11%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 20:23:34

End at: 2019-02-05 20:24:04

Local clock offset: -4.167 ms

Remote clock offset: 0.361 ms

Below is generated by plot.py at 2019-02-05 21:27:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.63 Mbit/s

95th percentile per-packet one-way delay: 1.160 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 124.96 Mbit/s

95th percentile per-packet one-way delay: 1.159 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.00 Mbit/s

95th percentile per-packet one-way delay: 1.175 ms

Loss rate: 0.01%

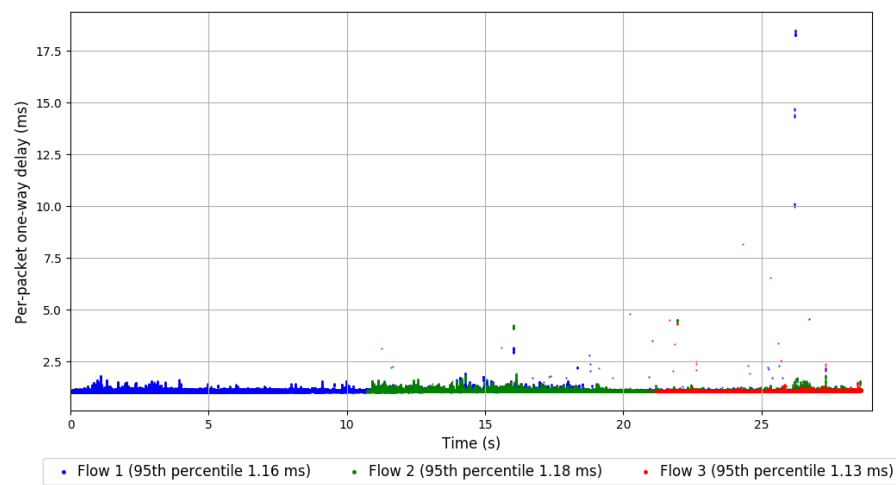
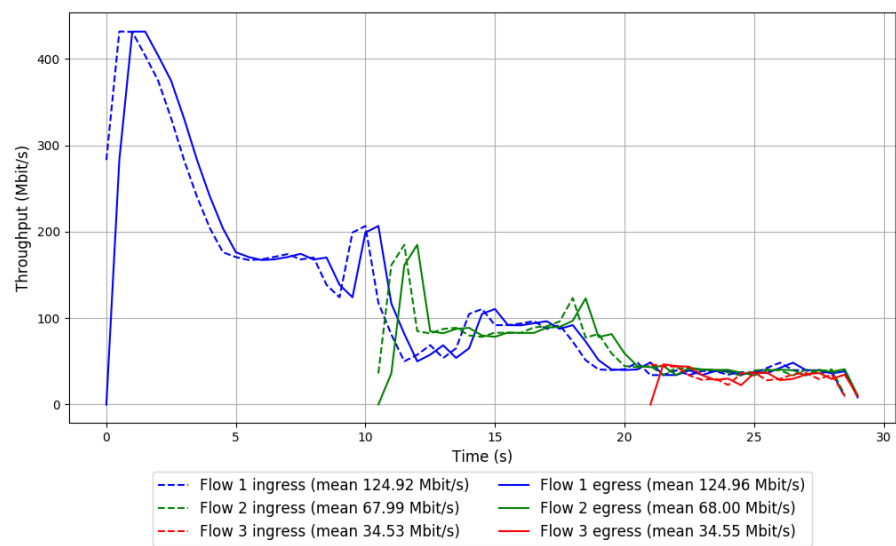
-- Flow 3:

Average throughput: 34.55 Mbit/s

95th percentile per-packet one-way delay: 1.127 ms

Loss rate: 0.02%

Run 5: Report of Indigo-MusesT — Data Link

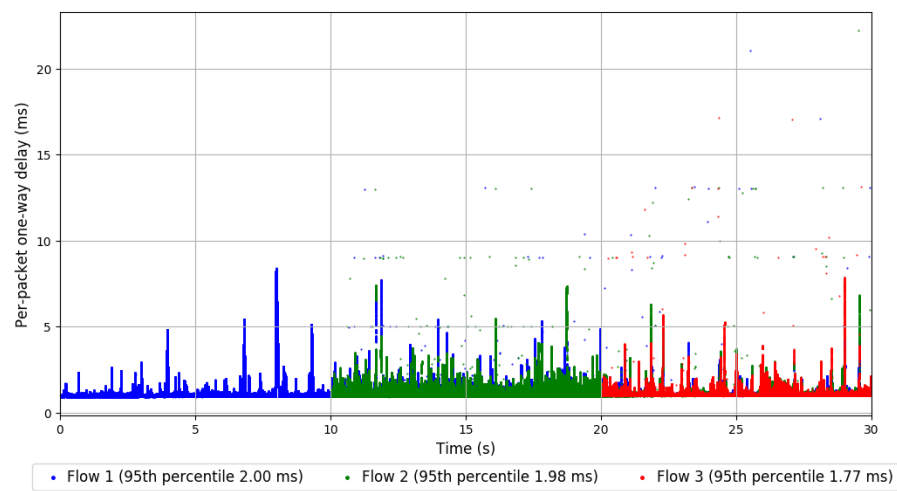
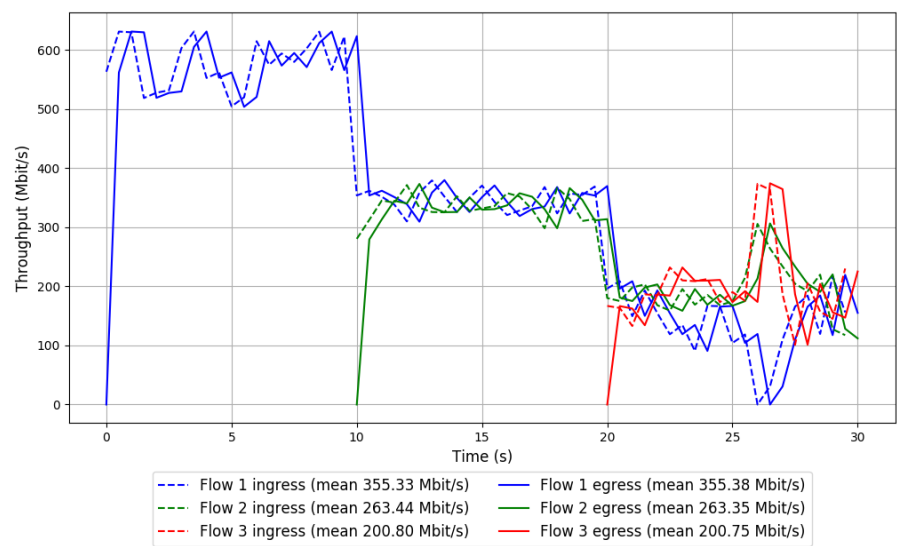


```
Run 1: Statistics of LEDBAT

Start at: 2019-02-05 18:28:28
End at: 2019-02-05 18:28:58
Local clock offset: 0.186 ms
Remote clock offset: 2.817 ms

# Below is generated by plot.py at 2019-02-05 21:32:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 597.37 Mbit/s
95th percentile per-packet one-way delay: 1.960 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 355.38 Mbit/s
95th percentile per-packet one-way delay: 2.001 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 263.35 Mbit/s
95th percentile per-packet one-way delay: 1.982 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 200.75 Mbit/s
95th percentile per-packet one-way delay: 1.773 ms
Loss rate: 0.13%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-02-05 18:58:42

End at: 2019-02-05 18:59:12

Local clock offset: 0.048 ms

Remote clock offset: 3.735 ms

Below is generated by plot.py at 2019-02-05 21:32:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.35 Mbit/s

95th percentile per-packet one-way delay: 2.576 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 368.12 Mbit/s

95th percentile per-packet one-way delay: 3.494 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 230.49 Mbit/s

95th percentile per-packet one-way delay: 1.442 ms

Loss rate: 0.00%

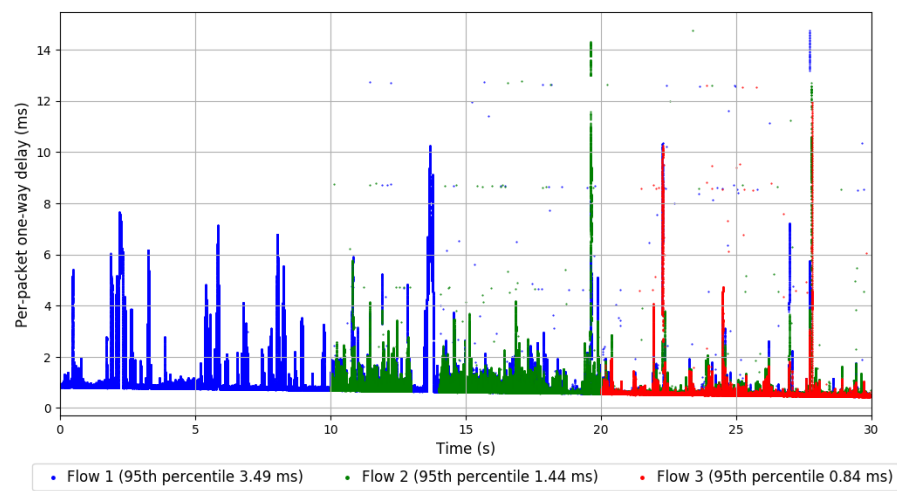
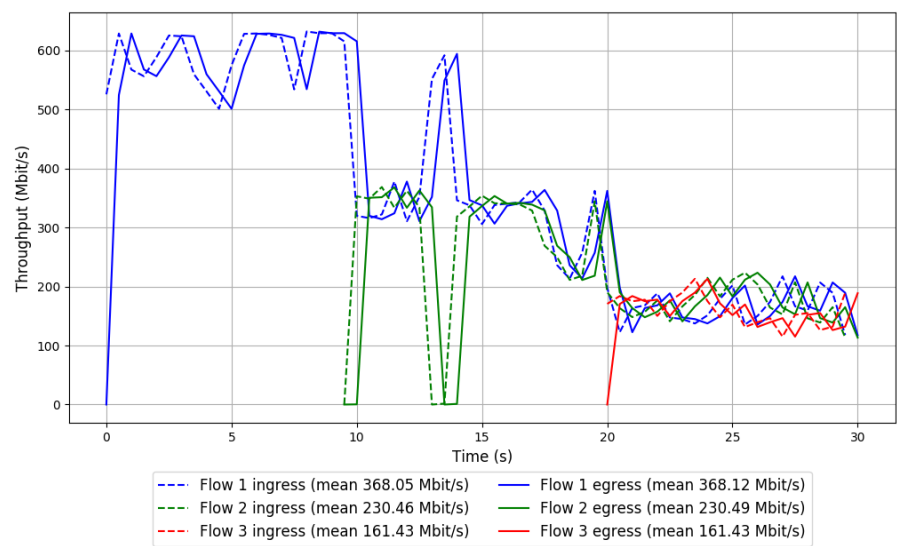
-- Flow 3:

Average throughput: 161.43 Mbit/s

95th percentile per-packet one-way delay: 0.837 ms

Loss rate: 0.02%

Run 2: Report of LEDBAT — Data Link

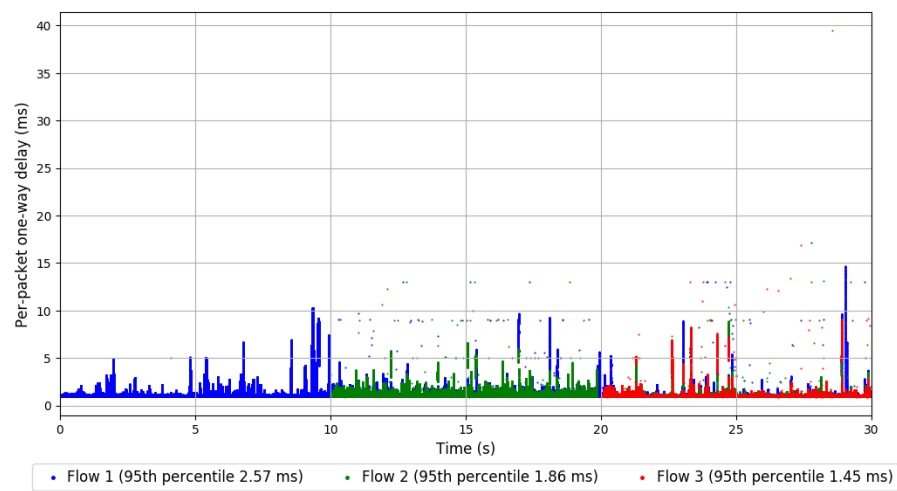
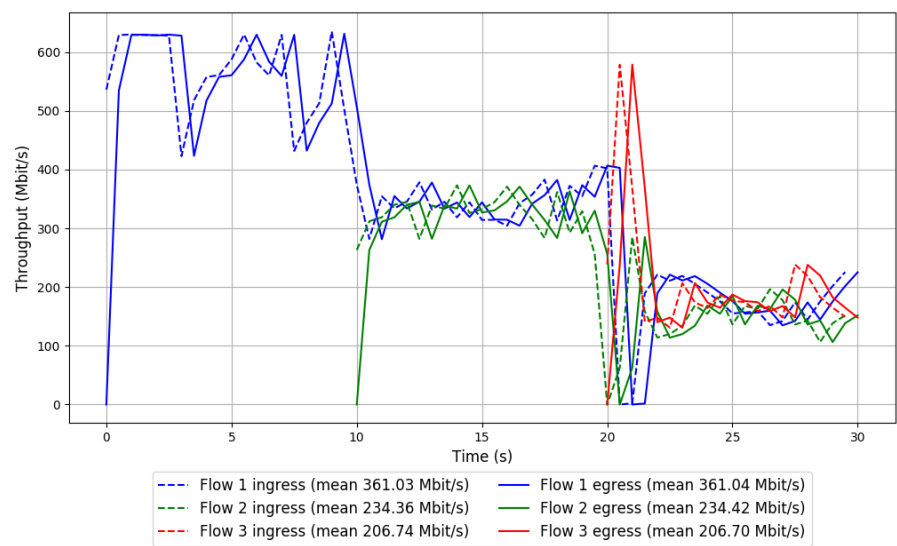


Run 3: Statistics of LEDBAT

Start at: 2019-02-05 19:28:56
End at: 2019-02-05 19:29:26
Local clock offset: 0.276 ms
Remote clock offset: -3.216 ms

Below is generated by plot.py at 2019-02-05 21:33:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 585.75 Mbit/s
95th percentile per-packet one-way delay: 2.188 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 361.04 Mbit/s
95th percentile per-packet one-way delay: 2.574 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.42 Mbit/s
95th percentile per-packet one-way delay: 1.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 206.70 Mbit/s
95th percentile per-packet one-way delay: 1.450 ms
Loss rate: 0.04%

Run 3: Report of LEDBAT — Data Link

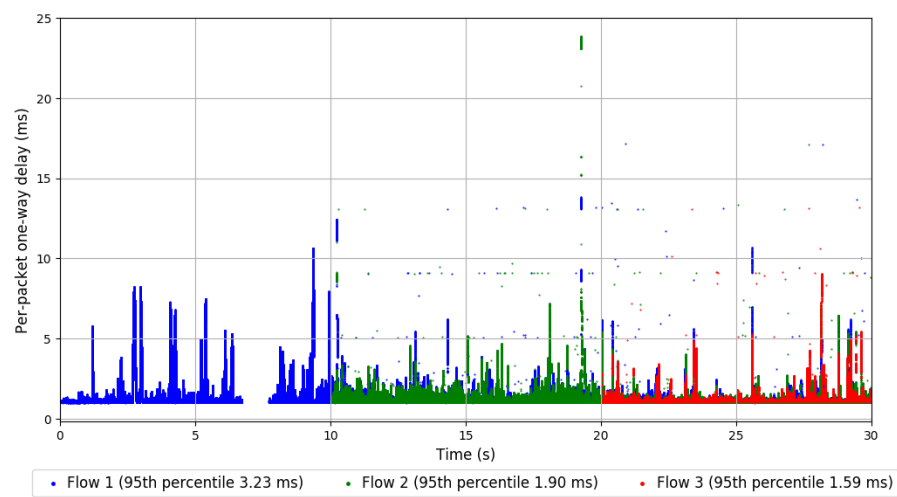
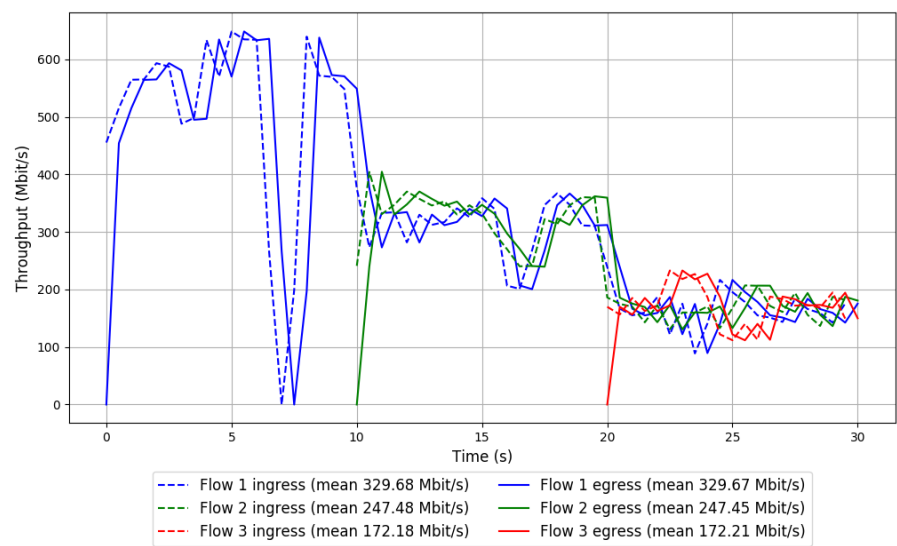


Run 4: Statistics of LEDBAT

Start at: 2019-02-05 19:59:14
End at: 2019-02-05 19:59:44
Local clock offset: -2.522 ms
Remote clock offset: -2.844 ms

Below is generated by plot.py at 2019-02-05 21:33:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 551.56 Mbit/s
95th percentile per-packet one-way delay: 2.595 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 329.67 Mbit/s
95th percentile per-packet one-way delay: 3.226 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 247.45 Mbit/s
95th percentile per-packet one-way delay: 1.900 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 172.21 Mbit/s
95th percentile per-packet one-way delay: 1.595 ms
Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-02-05 20:29:27

End at: 2019-02-05 20:29:57

Local clock offset: -4.41 ms

Remote clock offset: 0.659 ms

Below is generated by plot.py at 2019-02-05 21:34:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 591.25 Mbit/s

95th percentile per-packet one-way delay: 2.772 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 364.87 Mbit/s

95th percentile per-packet one-way delay: 3.340 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 245.43 Mbit/s

95th percentile per-packet one-way delay: 1.917 ms

Loss rate: 0.01%

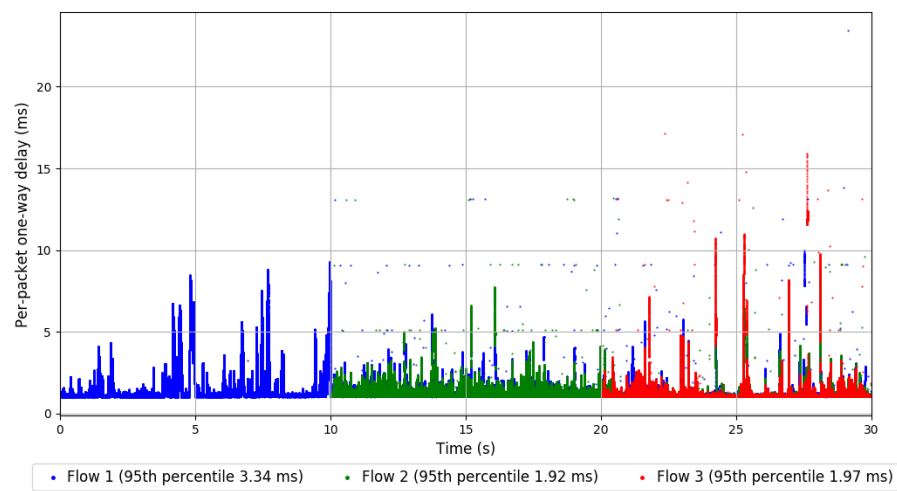
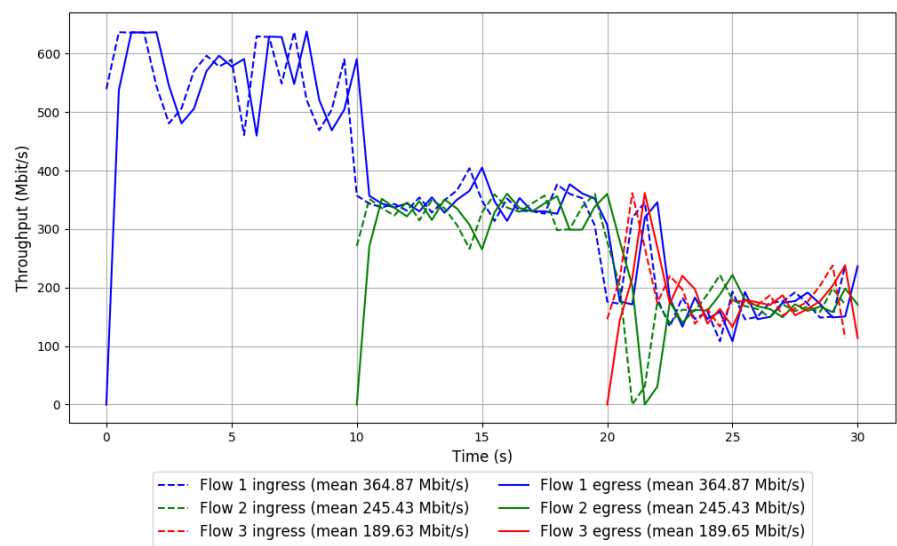
-- Flow 3:

Average throughput: 189.65 Mbit/s

95th percentile per-packet one-way delay: 1.968 ms

Loss rate: 0.01%

Run 5: Report of LEDBAT — Data Link

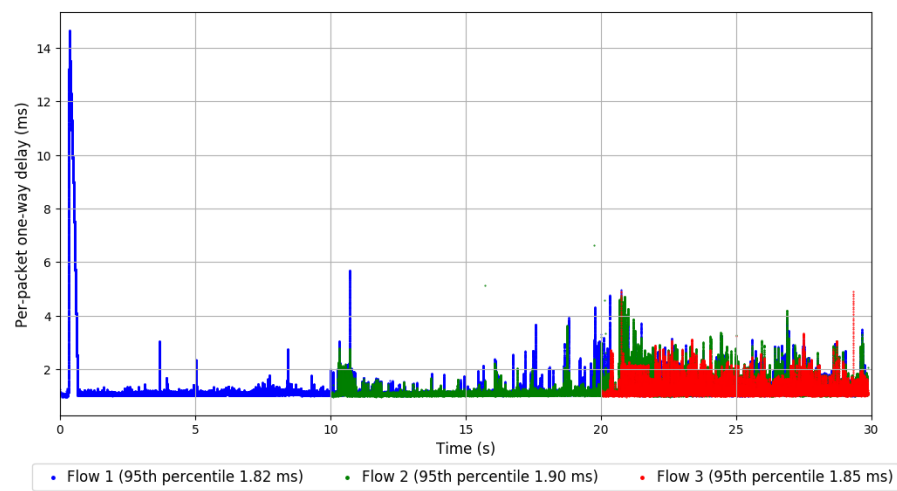
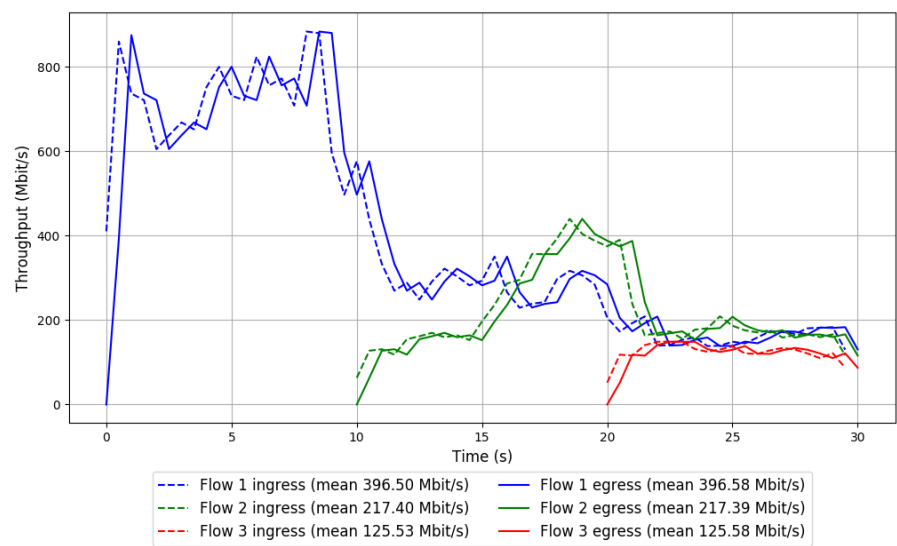


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 18:16:51
End at: 2019-02-05 18:17:21
Local clock offset: 0.426 ms
Remote clock offset: 0.817 ms

# Below is generated by plot.py at 2019-02-05 21:34:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.32 Mbit/s
95th percentile per-packet one-way delay: 1.852 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 396.58 Mbit/s
95th percentile per-packet one-way delay: 1.823 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 217.39 Mbit/s
95th percentile per-packet one-way delay: 1.895 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 125.58 Mbit/s
95th percentile per-packet one-way delay: 1.848 ms
Loss rate: 0.02%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 18:47:11

End at: 2019-02-05 18:47:41

Local clock offset: 0.117 ms

Remote clock offset: 5.541 ms

Below is generated by plot.py at 2019-02-05 21:34:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.62 Mbit/s

95th percentile per-packet one-way delay: 1.258 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 249.31 Mbit/s

95th percentile per-packet one-way delay: 1.278 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 87.59 Mbit/s

95th percentile per-packet one-way delay: 1.182 ms

Loss rate: 0.01%

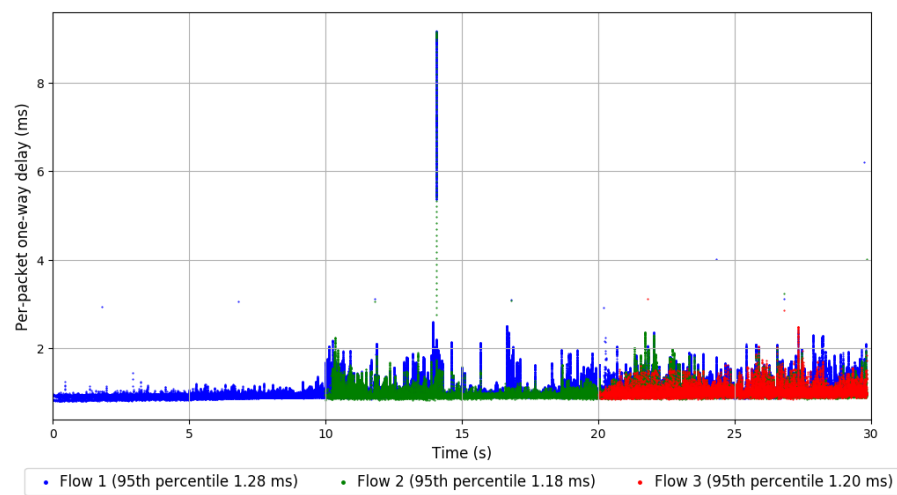
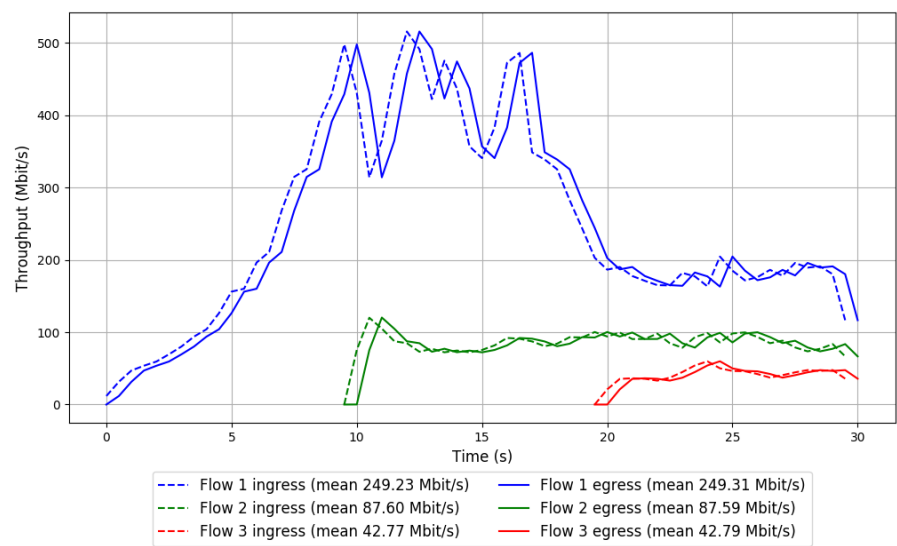
-- Flow 3:

Average throughput: 42.79 Mbit/s

95th percentile per-packet one-way delay: 1.204 ms

Loss rate: 0.02%

Run 2: Report of PCC-Allegro — Data Link

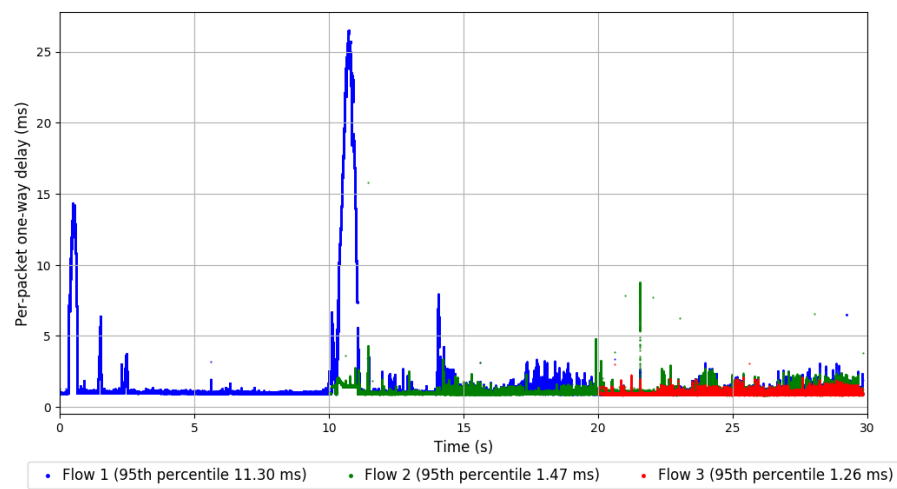
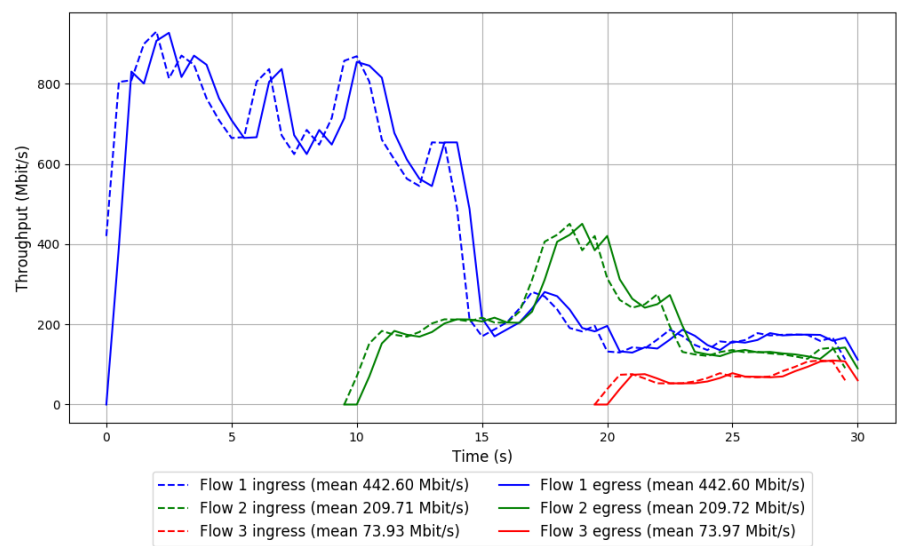


Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 19:17:15
End at: 2019-02-05 19:17:45
Local clock offset: 0.054 ms
Remote clock offset: -2.444 ms

Below is generated by plot.py at 2019-02-05 21:34:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 606.40 Mbit/s
95th percentile per-packet one-way delay: 6.341 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 442.60 Mbit/s
95th percentile per-packet one-way delay: 11.296 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 209.72 Mbit/s
95th percentile per-packet one-way delay: 1.474 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 73.97 Mbit/s
95th percentile per-packet one-way delay: 1.257 ms
Loss rate: 0.01%

Run 3: Report of PCC-Allegro — Data Link

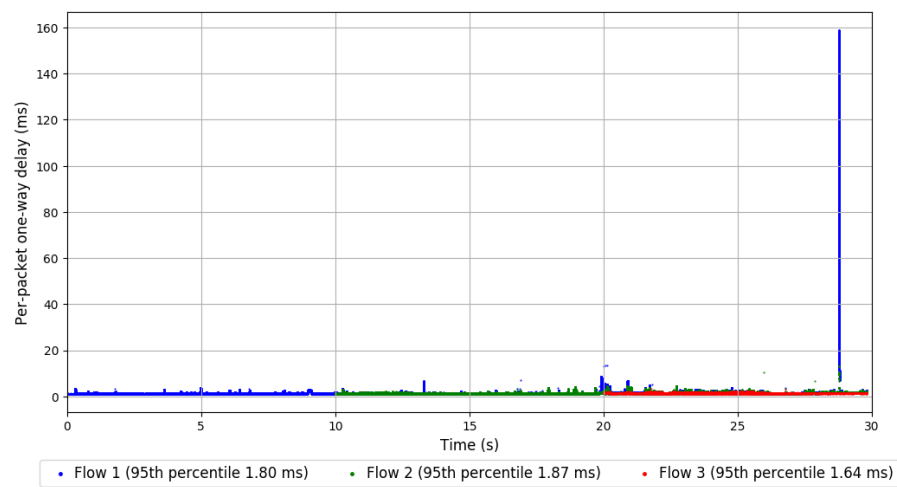
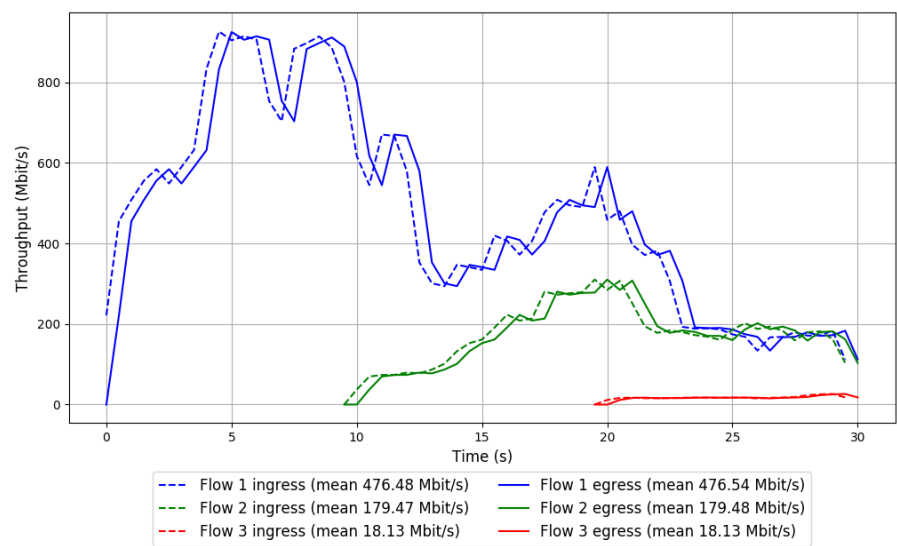


Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 19:47:33
End at: 2019-02-05 19:48:03
Local clock offset: -0.109 ms
Remote clock offset: -2.749 ms

Below is generated by plot.py at 2019-02-05 21:38:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 601.85 Mbit/s
95th percentile per-packet one-way delay: 1.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 476.54 Mbit/s
95th percentile per-packet one-way delay: 1.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.48 Mbit/s
95th percentile per-packet one-way delay: 1.874 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 18.13 Mbit/s
95th percentile per-packet one-way delay: 1.637 ms
Loss rate: 0.03%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 20:17:53

End at: 2019-02-05 20:18:23

Local clock offset: -3.881 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-02-05 21:38:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.84 Mbit/s

95th percentile per-packet one-way delay: 1.440 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 203.54 Mbit/s

95th percentile per-packet one-way delay: 1.441 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 162.32 Mbit/s

95th percentile per-packet one-way delay: 1.446 ms

Loss rate: 0.01%

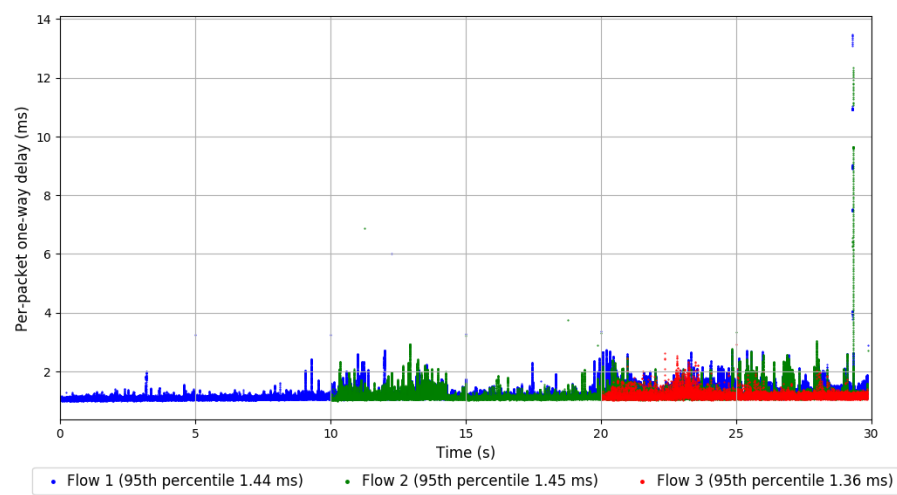
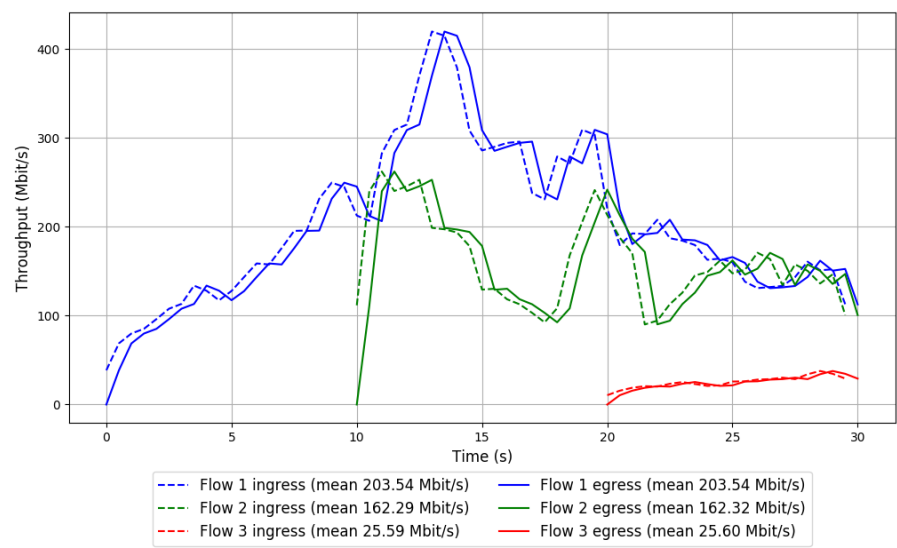
-- Flow 3:

Average throughput: 25.60 Mbit/s

95th percentile per-packet one-way delay: 1.357 ms

Loss rate: 0.03%

Run 5: Report of PCC-Allegro — Data Link

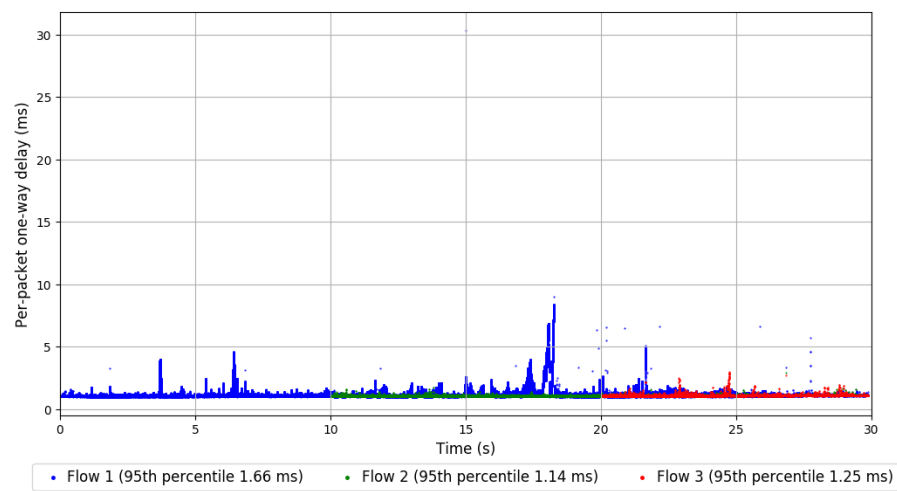
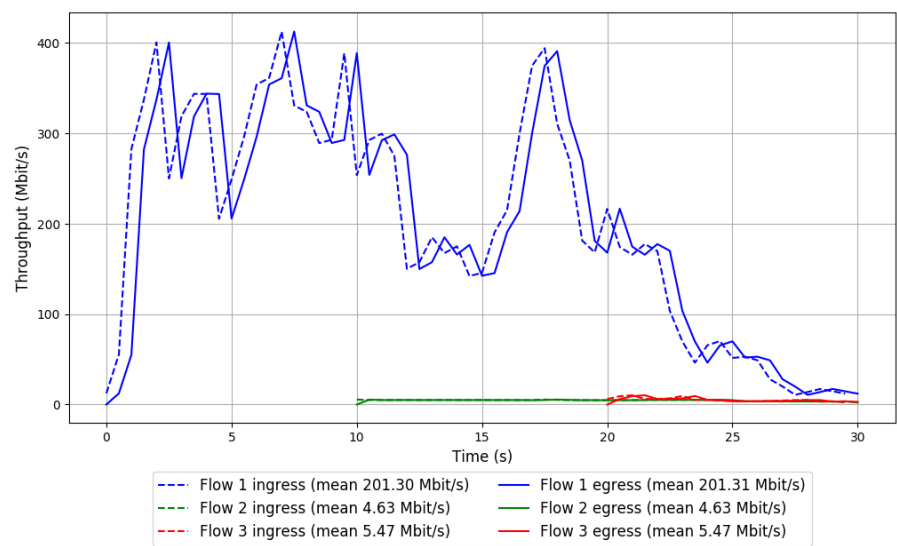



```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 18:37:11
End at: 2019-02-05 18:37:41
Local clock offset: 0.149 ms
Remote clock offset: 4.178 ms

# Below is generated by plot.py at 2019-02-05 21:38:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 206.19 Mbit/s
95th percentile per-packet one-way delay: 1.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.31 Mbit/s
95th percentile per-packet one-way delay: 1.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.63 Mbit/s
95th percentile per-packet one-way delay: 1.141 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 5.47 Mbit/s
95th percentile per-packet one-way delay: 1.245 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

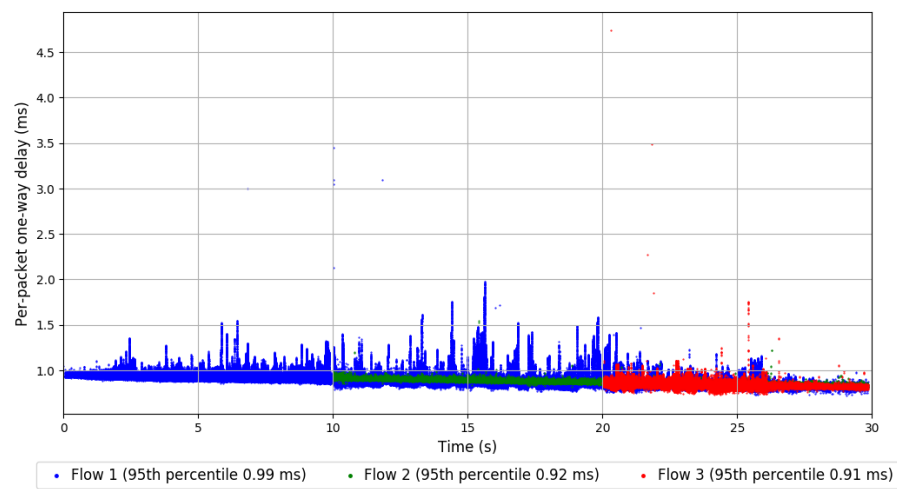
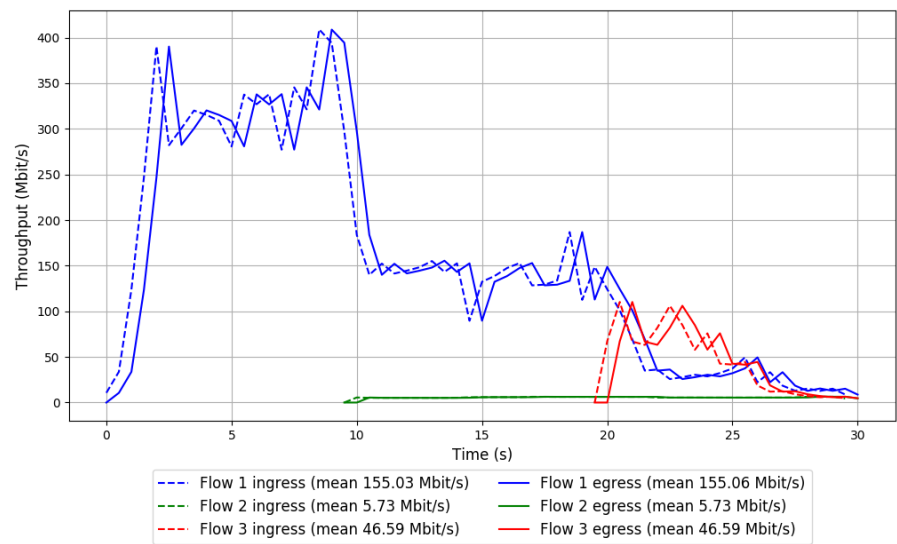


Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 19:07:20
End at: 2019-02-05 19:07:50
Local clock offset: 0.028 ms
Remote clock offset: -0.591 ms

Below is generated by plot.py at 2019-02-05 21:38:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 174.25 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 155.06 Mbit/s
95th percentile per-packet one-way delay: 0.993 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 0.922 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.59 Mbit/s
95th percentile per-packet one-way delay: 0.908 ms
Loss rate: 0.00%

Run 2: Report of PCC-Expr — Data Link

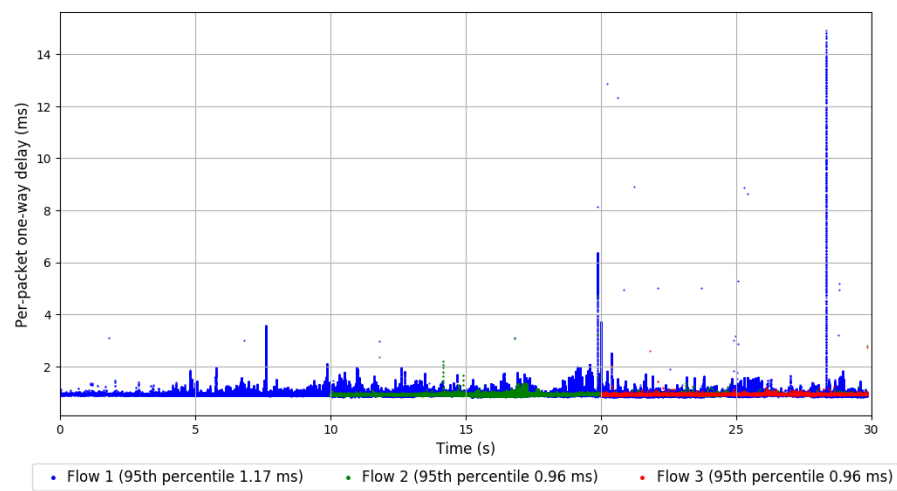
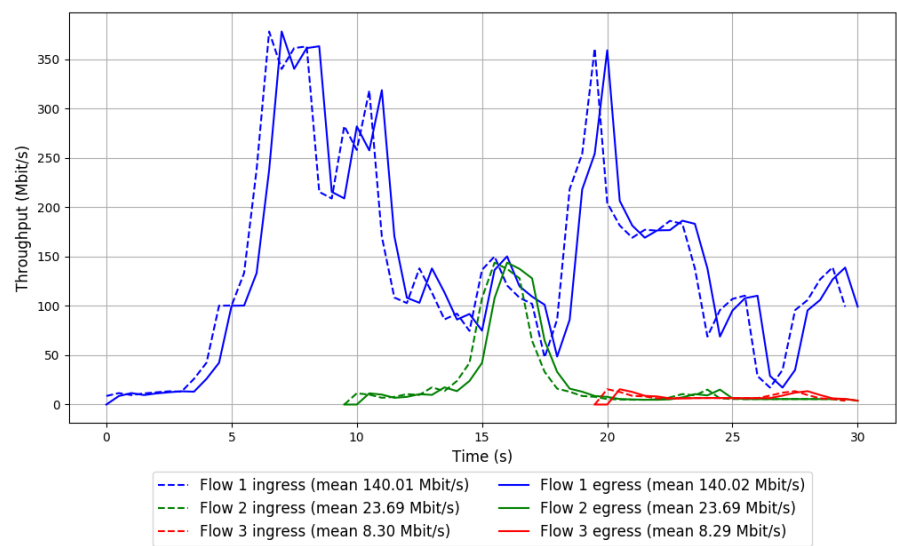


Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 19:37:35
End at: 2019-02-05 19:38:05
Local clock offset: 0.337 ms
Remote clock offset: -2.819 ms

Below is generated by plot.py at 2019-02-05 21:38:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 158.52 Mbit/s
95th percentile per-packet one-way delay: 1.144 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 140.02 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.69 Mbit/s
95th percentile per-packet one-way delay: 0.962 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 0.958 ms
Loss rate: 0.00%

Run 3: Report of PCC-Expr — Data Link

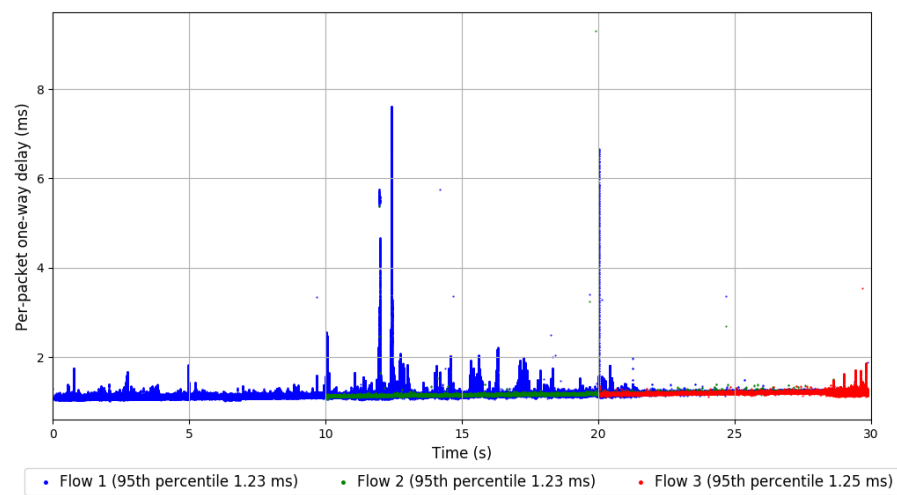
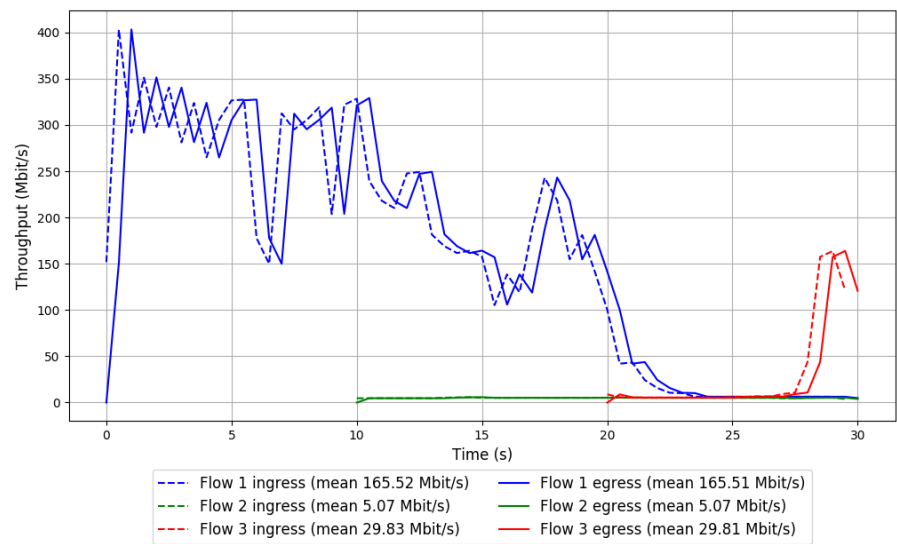


Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 20:07:53
End at: 2019-02-05 20:08:23
Local clock offset: -3.322 ms
Remote clock offset: -1.655 ms

Below is generated by plot.py at 2019-02-05 21:38:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 178.72 Mbit/s
95th percentile per-packet one-way delay: 1.237 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 165.51 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 1.232 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 1.254 ms
Loss rate: 0.09%

Run 4: Report of PCC-Expr — Data Link

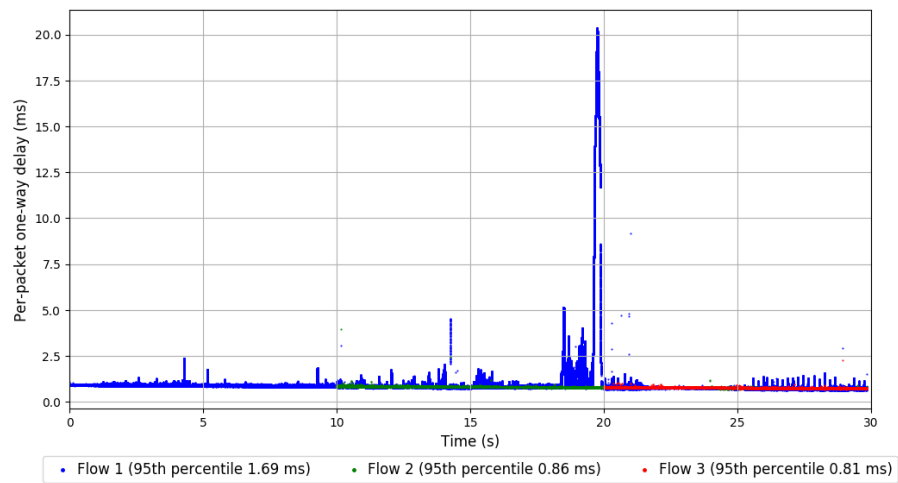
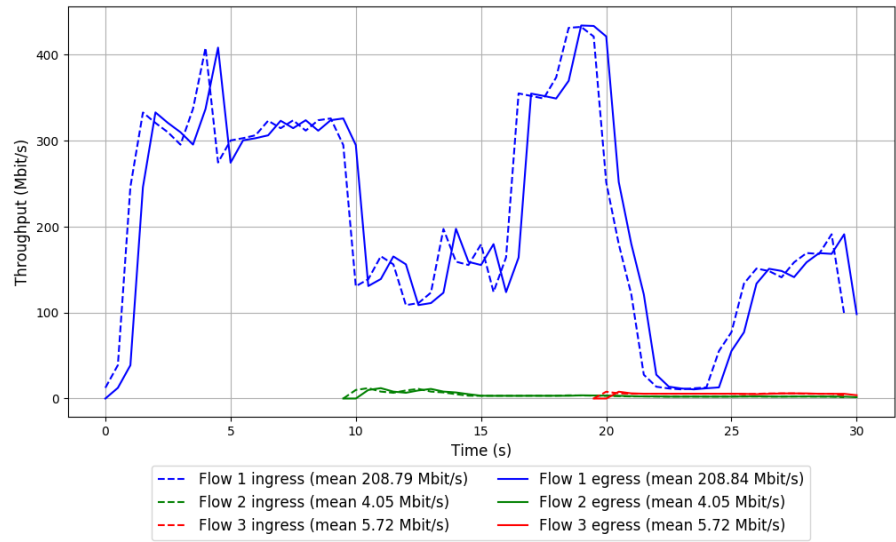



```
Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 20:38:05
End at: 2019-02-05 20:38:35
Local clock offset: -4.768 ms
Remote clock offset: 1.063 ms

# Below is generated by plot.py at 2019-02-05 21:38:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.43 Mbit/s
95th percentile per-packet one-way delay: 1.661 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.84 Mbit/s
95th percentile per-packet one-way delay: 1.690 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 0.860 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 0.807 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 18:30:08

End at: 2019-02-05 18:30:38

Local clock offset: 0.184 ms

Remote clock offset: 3.133 ms

Below is generated by plot.py at 2019-02-05 21:38:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.57 Mbit/s

95th percentile per-packet one-way delay: 1.059 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 72.20 Mbit/s

95th percentile per-packet one-way delay: 1.050 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 70.29 Mbit/s

95th percentile per-packet one-way delay: 1.060 ms

Loss rate: 0.01%

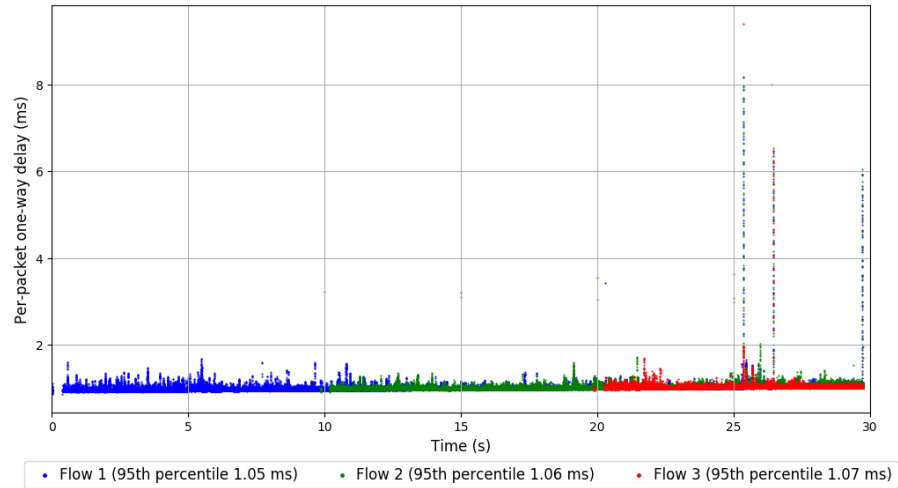
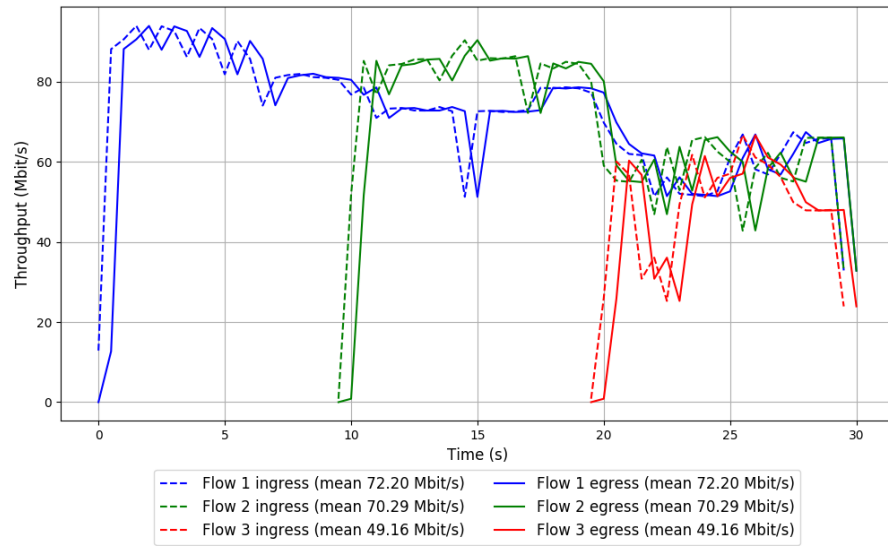
-- Flow 3:

Average throughput: 49.16 Mbit/s

95th percentile per-packet one-way delay: 1.074 ms

Loss rate: 0.01%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 19:00:21

End at: 2019-02-05 19:00:51

Local clock offset: 0.065 ms

Remote clock offset: 2.478 ms

Below is generated by plot.py at 2019-02-05 21:38:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.79 Mbit/s

95th percentile per-packet one-way delay: 0.947 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 76.05 Mbit/s

95th percentile per-packet one-way delay: 0.959 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 67.39 Mbit/s

95th percentile per-packet one-way delay: 0.863 ms

Loss rate: 0.01%

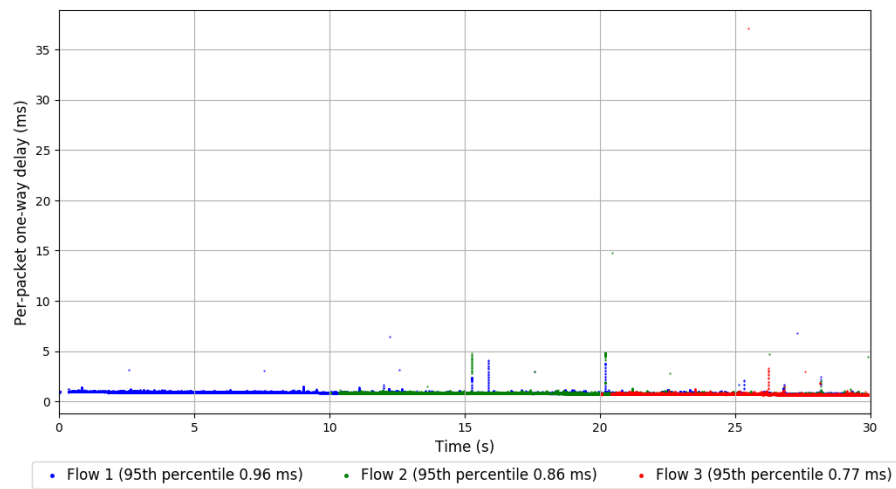
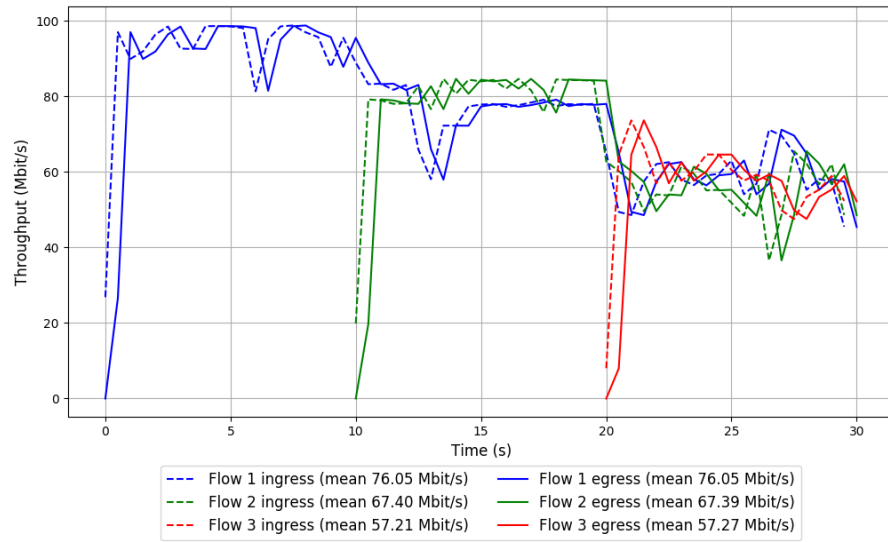
-- Flow 3:

Average throughput: 57.27 Mbit/s

95th percentile per-packet one-way delay: 0.770 ms

Loss rate: 0.02%

Run 2: Report of QUIC Cubic — Data Link

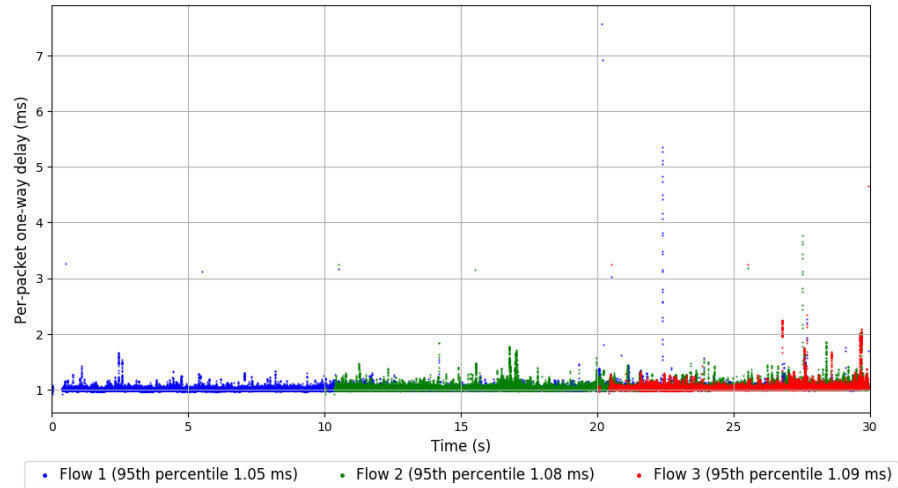
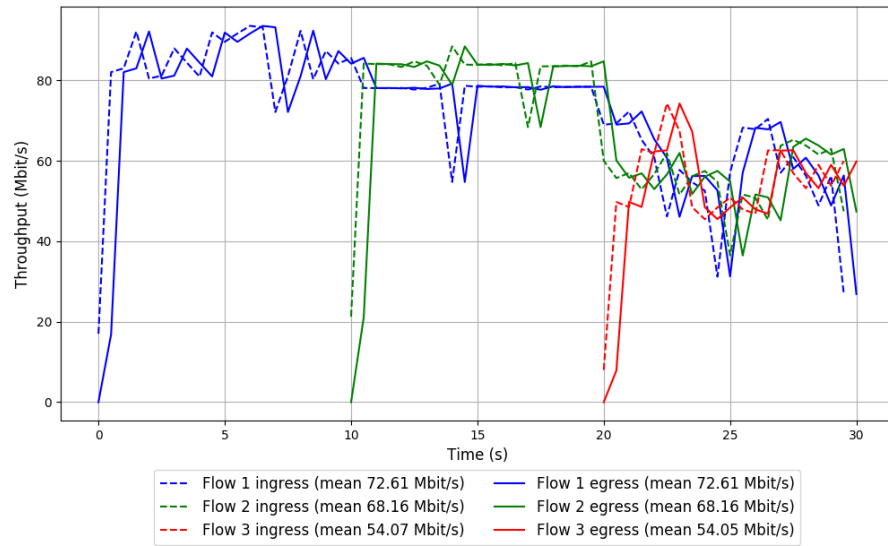


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 19:30:36
End at: 2019-02-05 19:31:06
Local clock offset: 0.287 ms
Remote clock offset: -3.207 ms

Below is generated by plot.py at 2019-02-05 21:38:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 135.80 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 72.61 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 68.16 Mbit/s
95th percentile per-packet one-way delay: 1.077 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 54.05 Mbit/s
95th percentile per-packet one-way delay: 1.090 ms
Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link

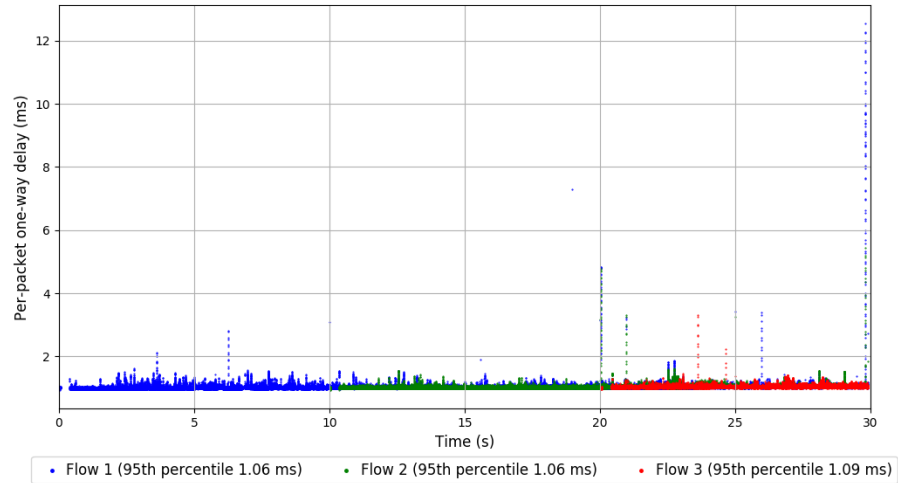
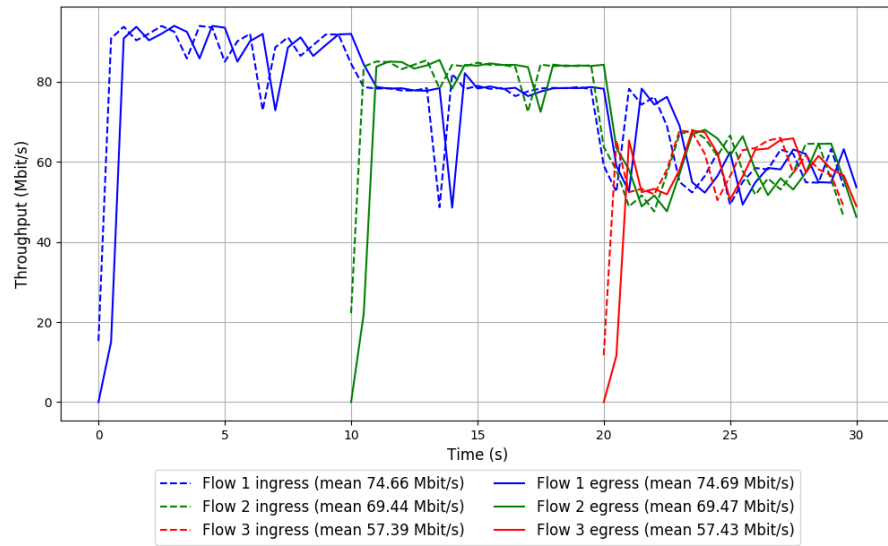


Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 20:00:52
End at: 2019-02-05 20:01:22
Local clock offset: -2.734 ms
Remote clock offset: -2.859 ms

Below is generated by plot.py at 2019-02-05 21:38:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 139.88 Mbit/s
95th percentile per-packet one-way delay: 1.066 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 74.69 Mbit/s
95th percentile per-packet one-way delay: 1.060 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 69.47 Mbit/s
95th percentile per-packet one-way delay: 1.064 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 57.43 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 20:31:08

End at: 2019-02-05 20:31:38

Local clock offset: -4.485 ms

Remote clock offset: 0.8 ms

Below is generated by plot.py at 2019-02-05 21:38:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.73 Mbit/s

95th percentile per-packet one-way delay: 1.043 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 74.81 Mbit/s

95th percentile per-packet one-way delay: 1.032 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.92 Mbit/s

95th percentile per-packet one-way delay: 1.053 ms

Loss rate: 0.01%

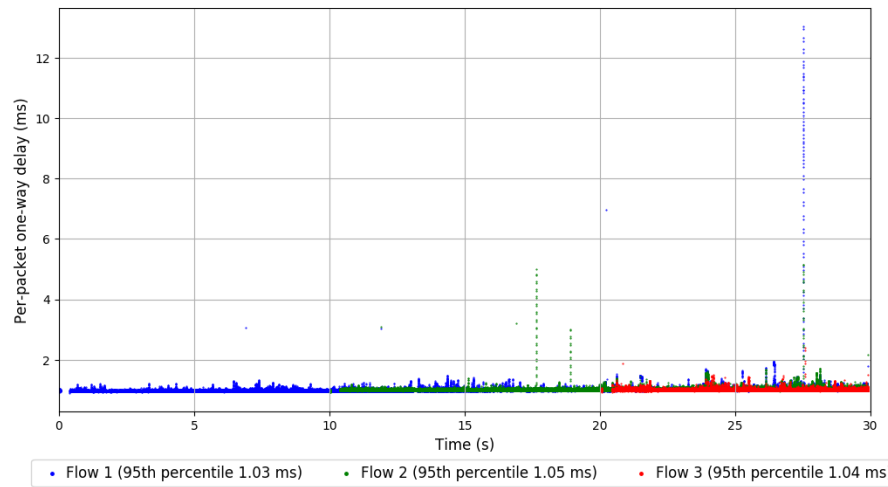
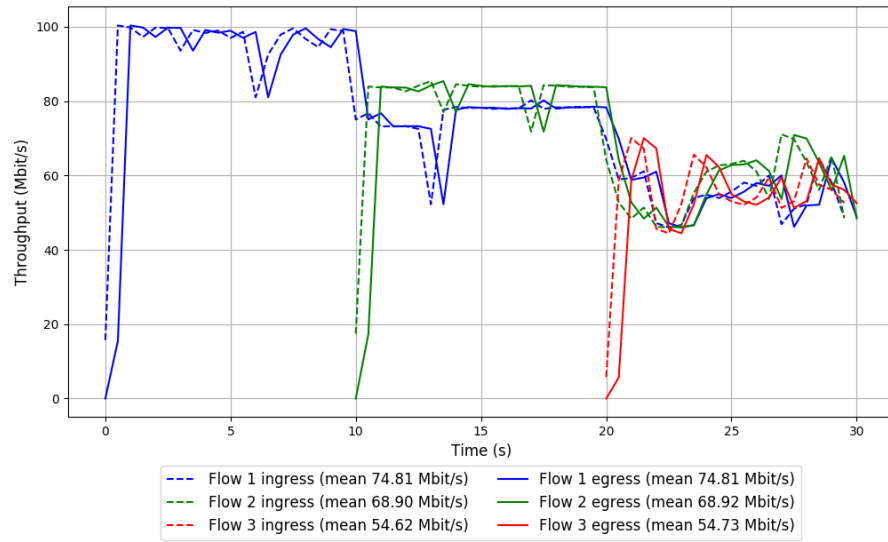
-- Flow 3:

Average throughput: 54.73 Mbit/s

95th percentile per-packet one-way delay: 1.045 ms

Loss rate: 0.02%

Run 5: Report of QUIC Cubic — Data Link

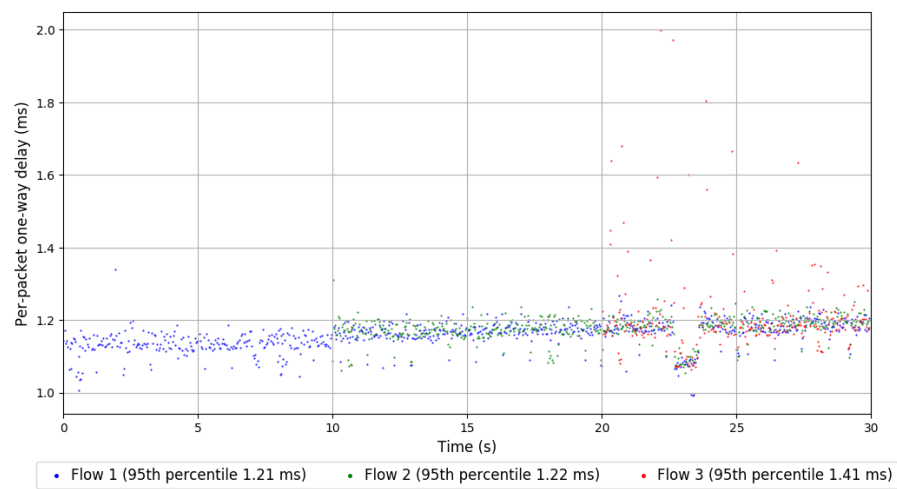
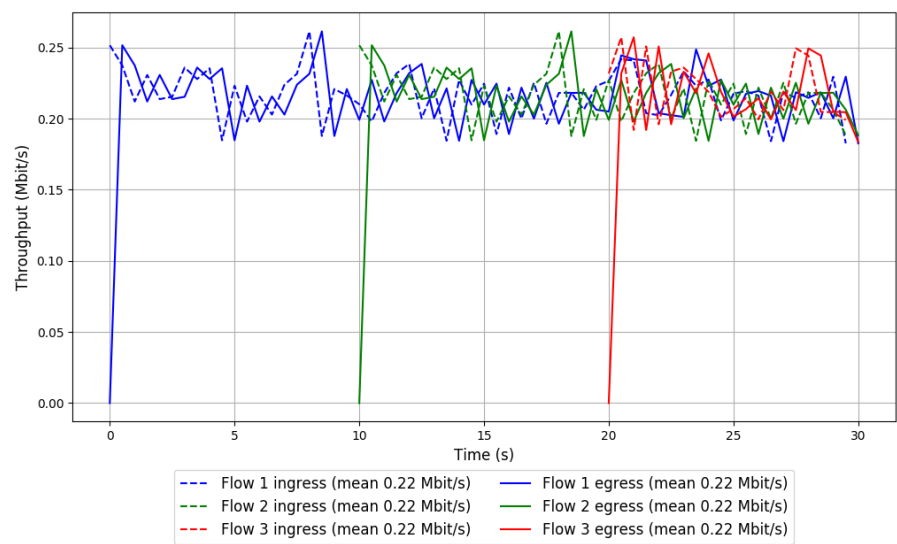


```
Run 1: Statistics of SReAM

Start at: 2019-02-05 18:15:37
End at: 2019-02-05 18:16:07
Local clock offset: 0.428 ms
Remote clock offset: 0.709 ms

# Below is generated by plot.py at 2019-02-05 21:38:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.224 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.208 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.410 ms
Loss rate: 0.35%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2019-02-05 18:45:57

End at: 2019-02-05 18:46:27

Local clock offset: 0.131 ms

Remote clock offset: 5.335 ms

Below is generated by plot.py at 2019-02-05 21:38:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.209 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.222 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.193 ms

Loss rate: 0.00%

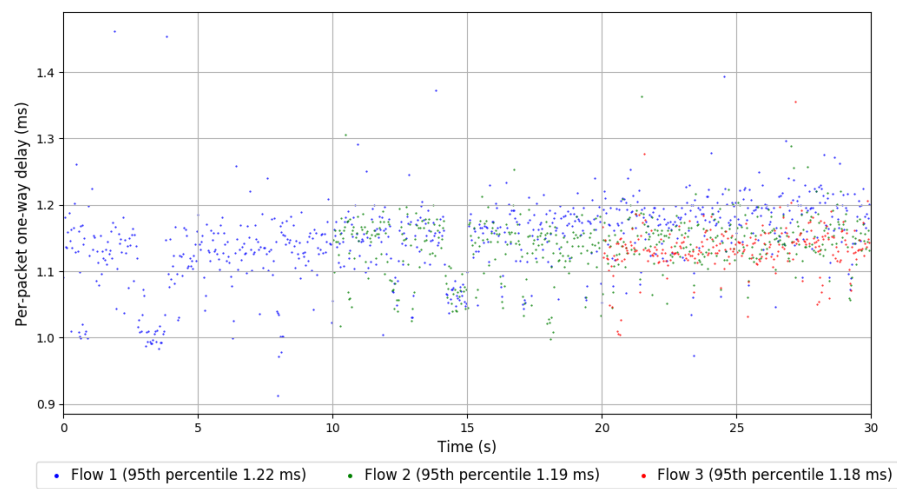
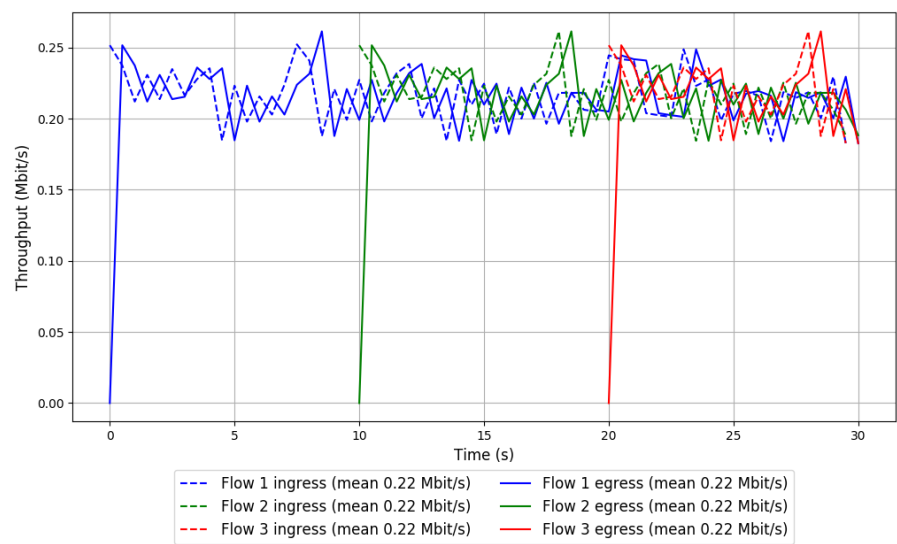
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.177 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

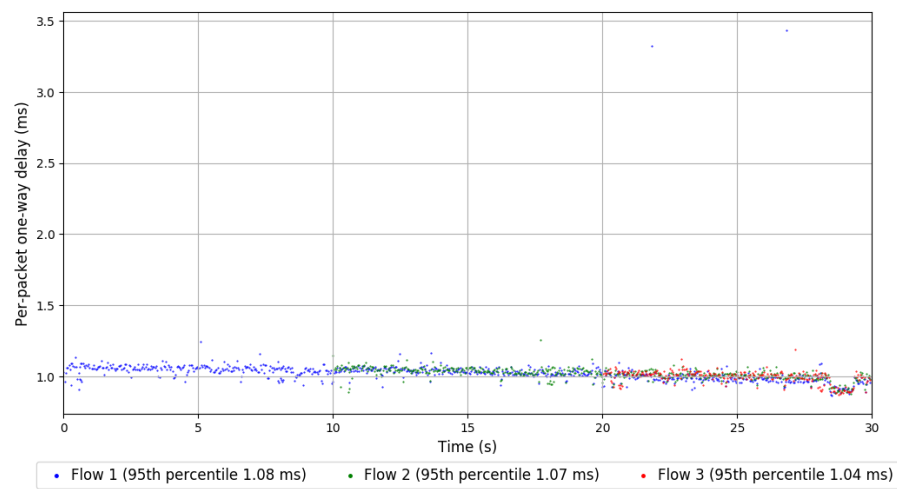
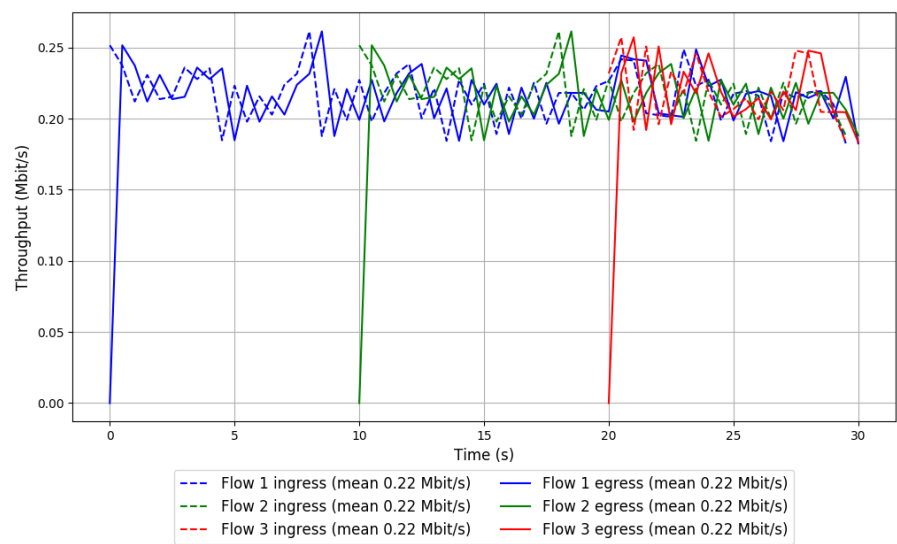


Run 3: Statistics of SReAM

Start at: 2019-02-05 19:16:01
End at: 2019-02-05 19:16:31
Local clock offset: 0.007 ms
Remote clock offset: -2.285 ms

Below is generated by plot.py at 2019-02-05 21:38:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.068 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.045 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

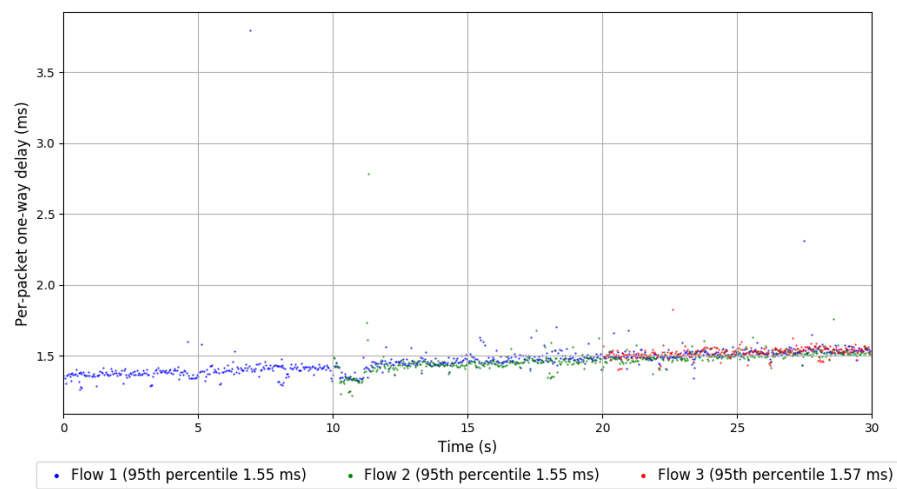
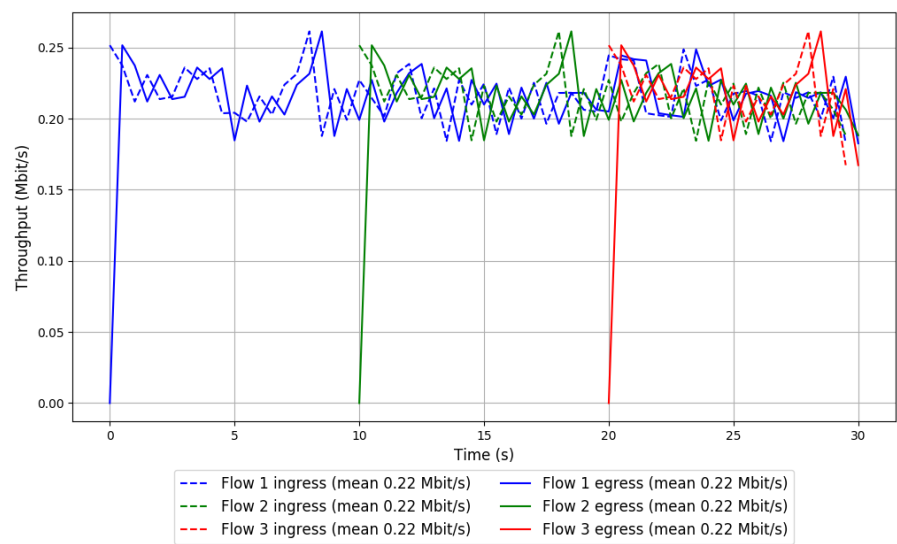


Run 4: Statistics of SReAM

Start at: 2019-02-05 19:46:19
End at: 2019-02-05 19:46:49
Local clock offset: 0.318 ms
Remote clock offset: -2.827 ms

Below is generated by plot.py at 2019-02-05 21:38:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.546 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.568 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

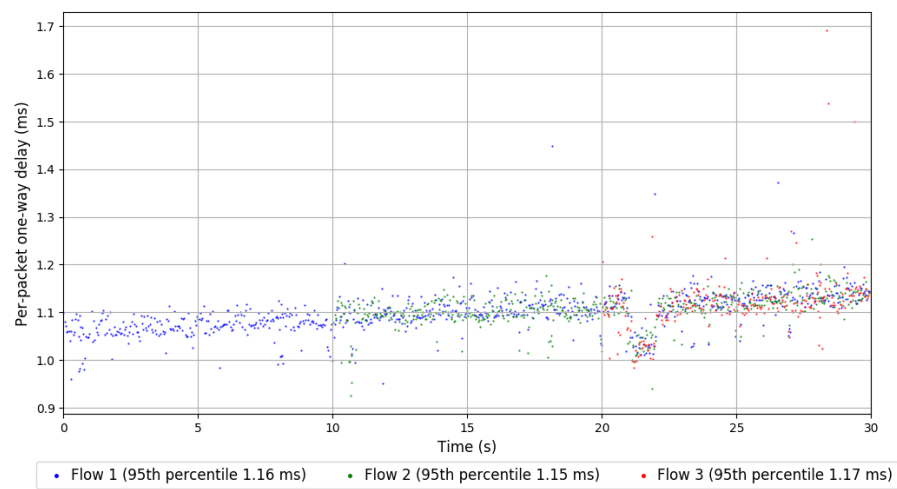
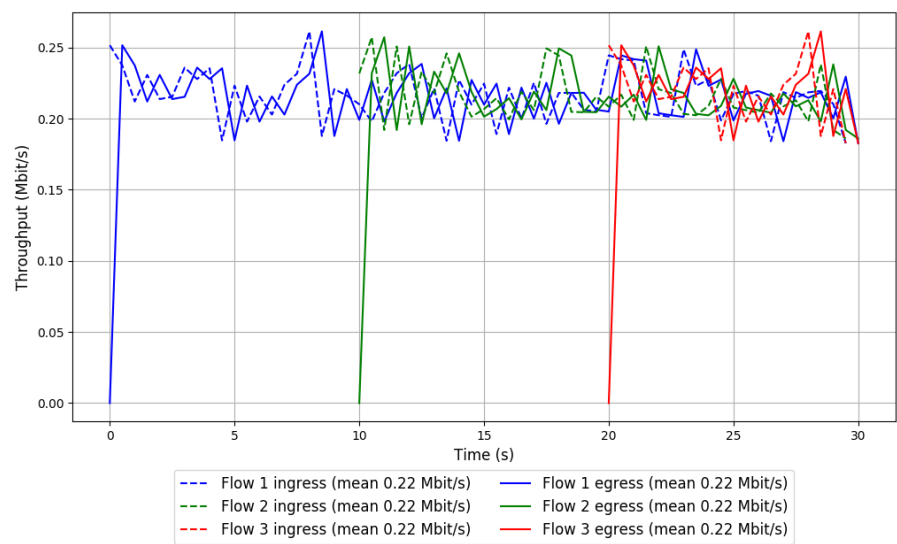


Run 5: Statistics of SReAM

Start at: 2019-02-05 20:16:38
End at: 2019-02-05 20:17:08
Local clock offset: -3.833 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-02-05 21:38:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.155 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.174 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-02-05 18:19:42

End at: 2019-02-05 18:20:12

Local clock offset: 0.334 ms

Remote clock offset: 1.003 ms

Below is generated by plot.py at 2019-02-05 21:38:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.95 Mbit/s

95th percentile per-packet one-way delay: 1.158 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 50.26 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 50.13 Mbit/s

95th percentile per-packet one-way delay: 1.176 ms

Loss rate: 0.00%

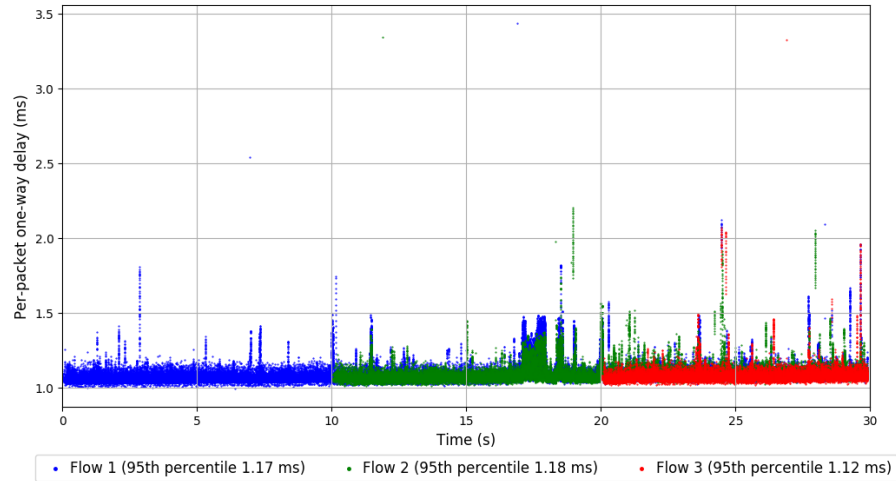
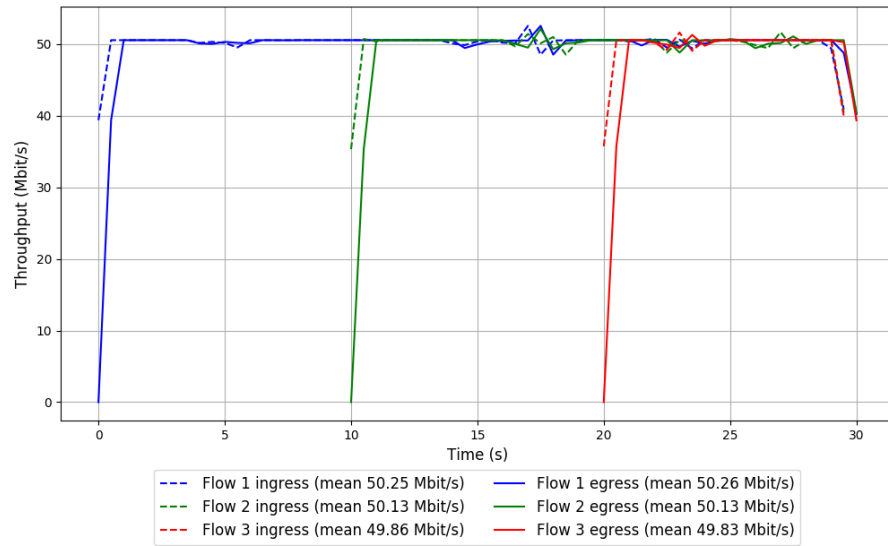
-- Flow 3:

Average throughput: 49.83 Mbit/s

95th percentile per-packet one-way delay: 1.117 ms

Loss rate: 0.09%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-02-05 18:49:57

End at: 2019-02-05 18:50:27

Local clock offset: 0.085 ms

Remote clock offset: 5.739 ms

Below is generated by plot.py at 2019-02-05 21:39:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.92 Mbit/s

95th percentile per-packet one-way delay: 1.154 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.21 Mbit/s

95th percentile per-packet one-way delay: 1.155 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.12 Mbit/s

95th percentile per-packet one-way delay: 1.165 ms

Loss rate: 0.00%

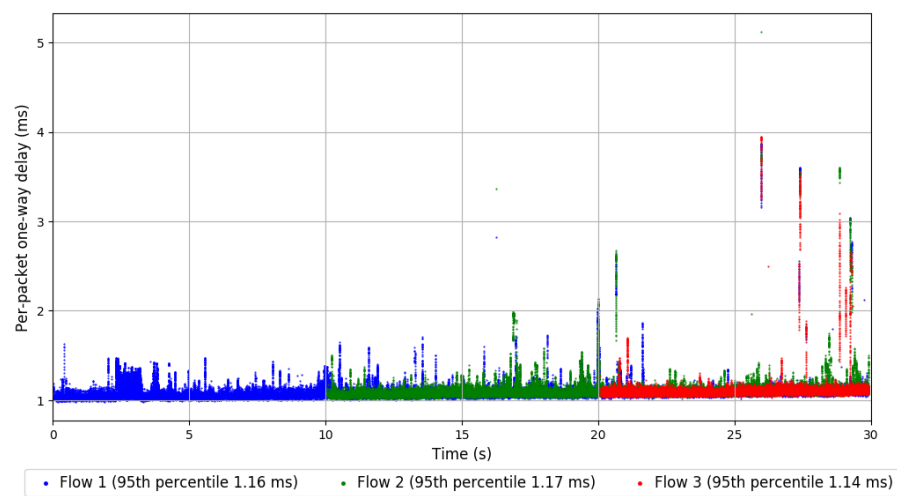
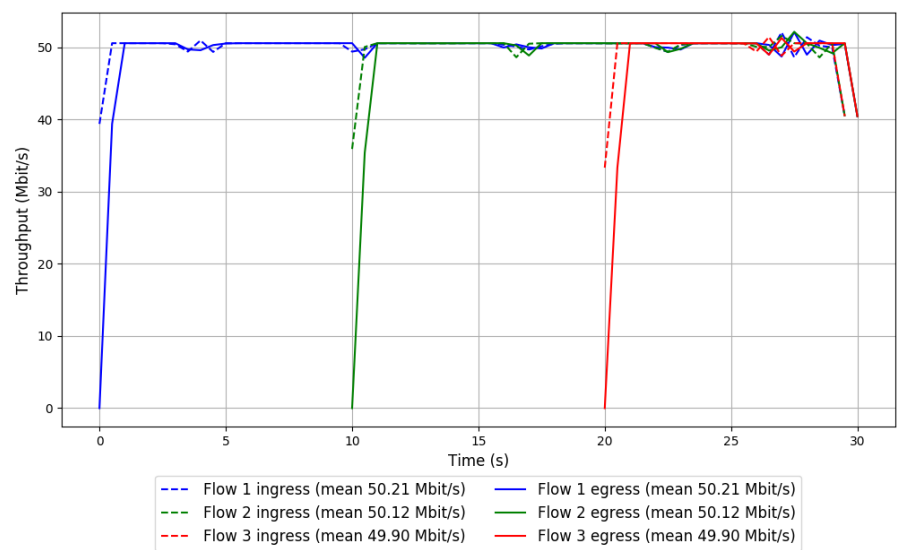
-- Flow 3:

Average throughput: 49.90 Mbit/s

95th percentile per-packet one-way delay: 1.138 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

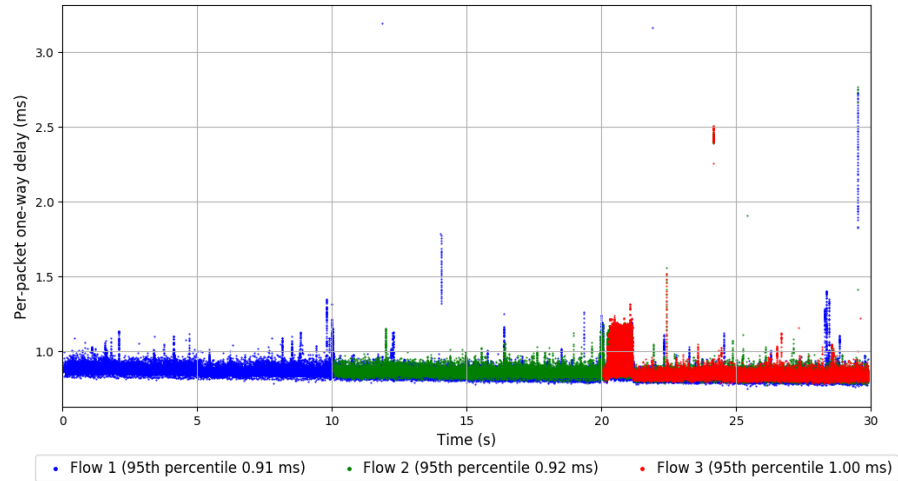
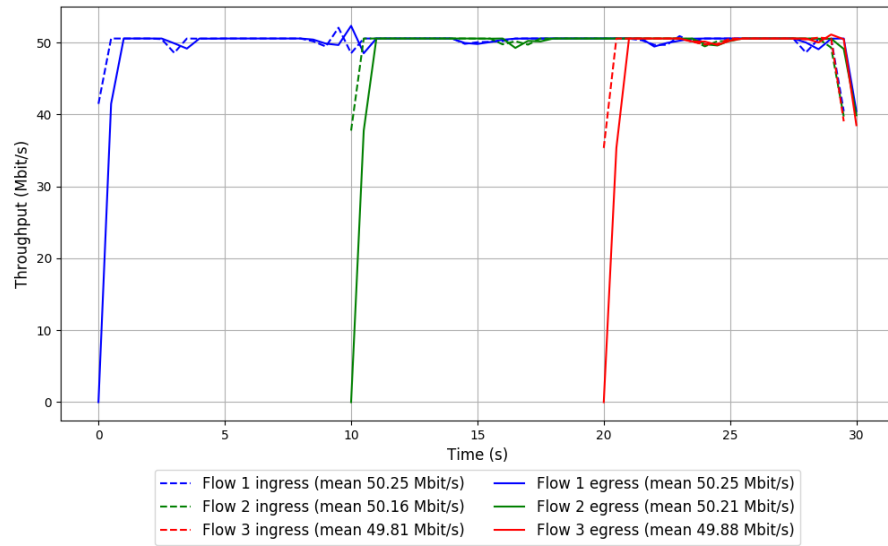


Run 3: Statistics of Sprout

Start at: 2019-02-05 19:20:09
End at: 2019-02-05 19:20:39
Local clock offset: 0.115 ms
Remote clock offset: -2.612 ms

Below is generated by plot.py at 2019-02-05 21:39:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 100.02 Mbit/s
95th percentile per-packet one-way delay: 0.919 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.25 Mbit/s
95th percentile per-packet one-way delay: 0.912 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 0.917 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.88 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.07%

Run 3: Report of Sprout — Data Link

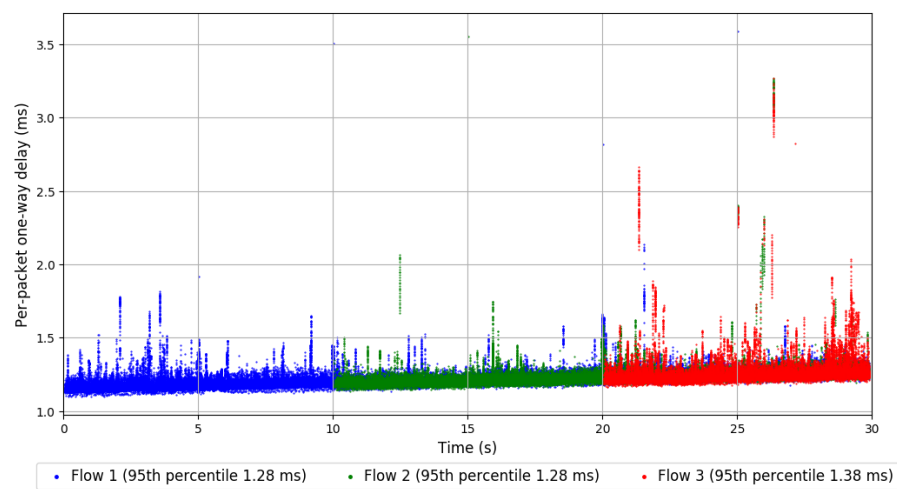
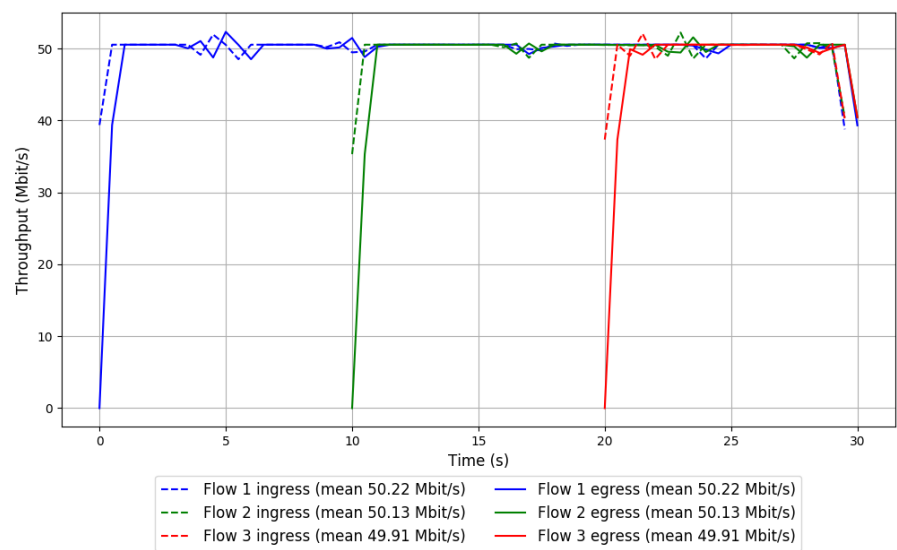


Run 4: Statistics of Sprout

Start at: 2019-02-05 19:50:24
End at: 2019-02-05 19:50:54
Local clock offset: -1.039 ms
Remote clock offset: -2.844 ms

```
# Below is generated by plot.py at 2019-02-05 21:39:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.22 Mbit/s
95th percentile per-packet one-way delay: 1.281 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 1.285 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.91 Mbit/s
95th percentile per-packet one-way delay: 1.381 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

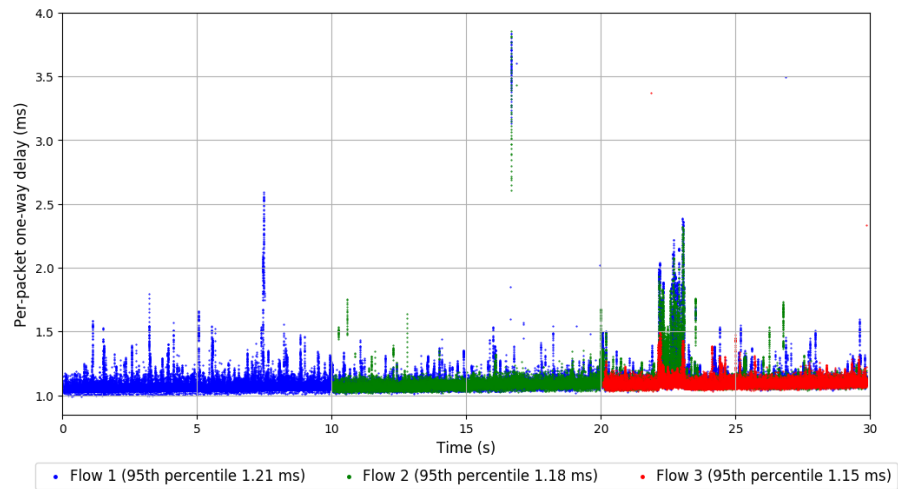
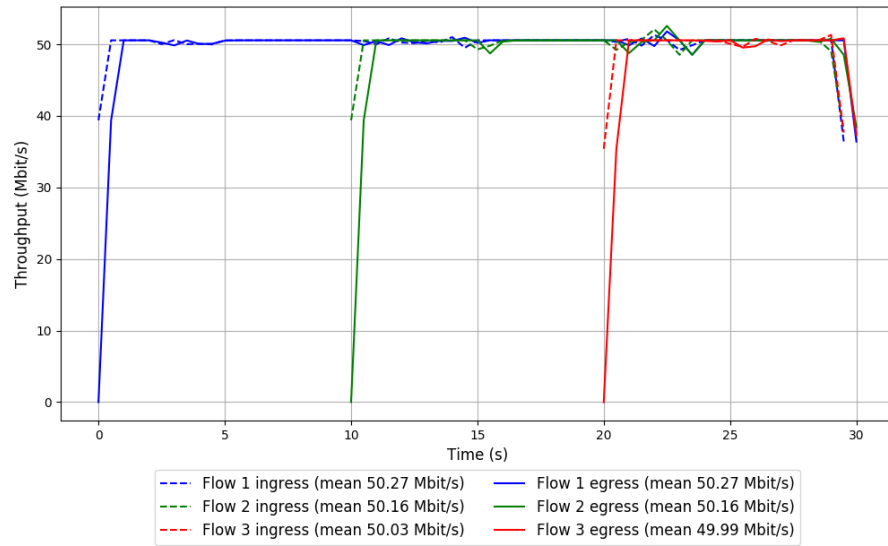


Run 5: Statistics of Sprout

Start at: 2019-02-05 20:20:37
End at: 2019-02-05 20:21:07
Local clock offset: -4.015 ms
Remote clock offset: 0.205 ms

```
# Below is generated by plot.py at 2019-02-05 21:39:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.02 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.16 Mbit/s
95th percentile per-packet one-way delay: 1.183 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.99 Mbit/s
95th percentile per-packet one-way delay: 1.151 ms
Loss rate: 0.08%
```

Run 5: Report of Sprout — Data Link

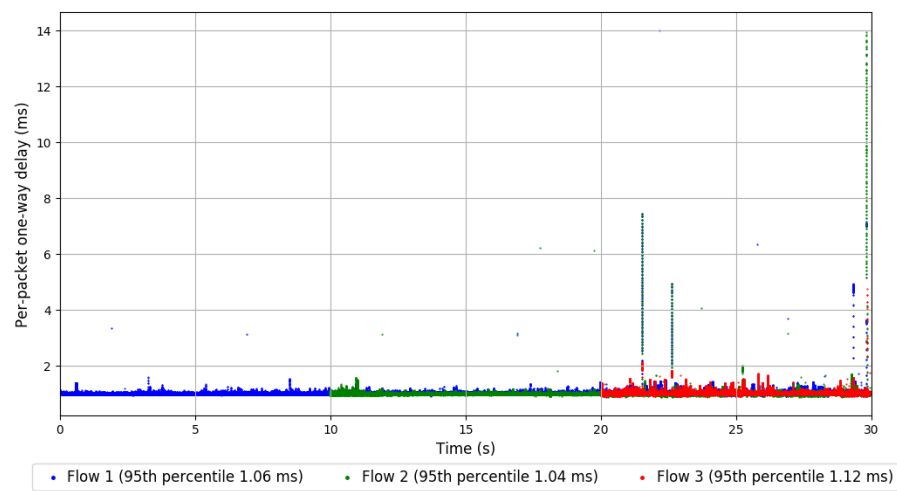
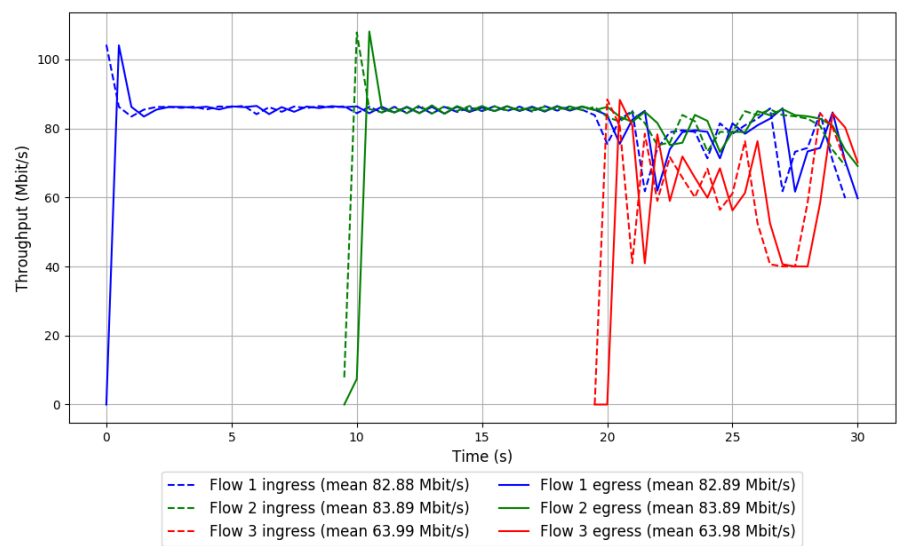



```
Run 1: Statistics of TaoVA-100x

Start at: 2019-02-05 18:12:28
End at: 2019-02-05 18:12:58
Local clock offset: 0.439 ms
Remote clock offset: 0.587 ms

# Below is generated by plot.py at 2019-02-05 21:41:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 160.08 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 82.89 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 83.89 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 63.98 Mbit/s
95th percentile per-packet one-way delay: 1.121 ms
Loss rate: 0.03%
```

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-02-05 18:42:54

End at: 2019-02-05 18:43:24

Local clock offset: 0.14 ms

Remote clock offset: 4.942 ms

Below is generated by plot.py at 2019-02-05 21:41:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.53 Mbit/s

95th percentile per-packet one-way delay: 1.093 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 12.03 Mbit/s

95th percentile per-packet one-way delay: 1.110 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 89.75 Mbit/s

95th percentile per-packet one-way delay: 1.089 ms

Loss rate: 0.01%

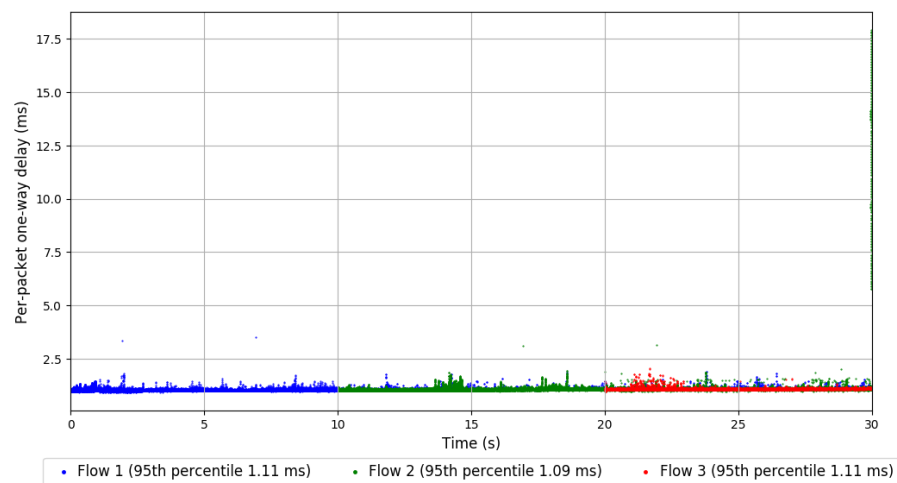
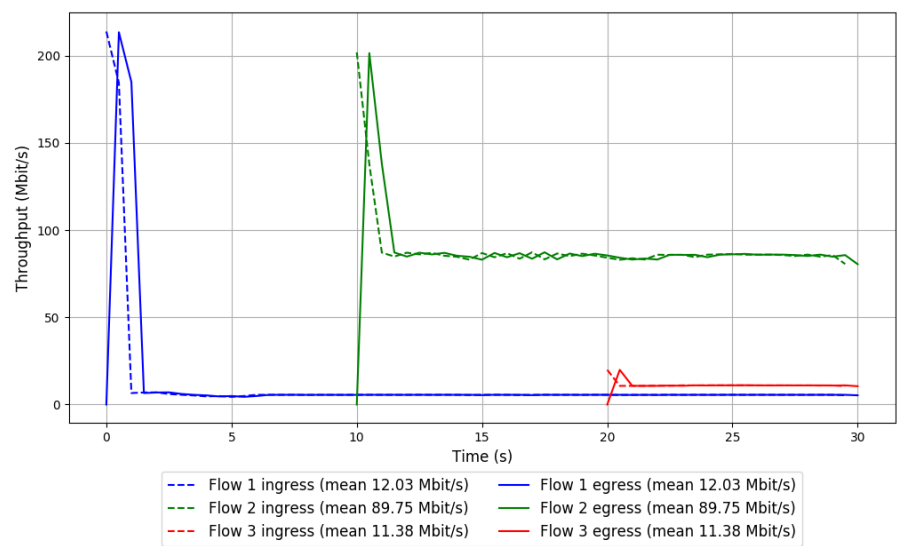
-- Flow 3:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 1.112 ms

Loss rate: 0.02%

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

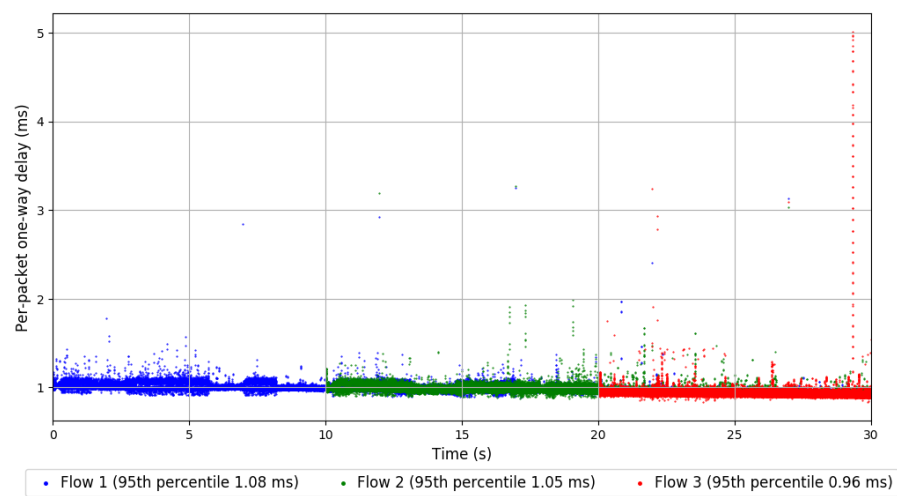
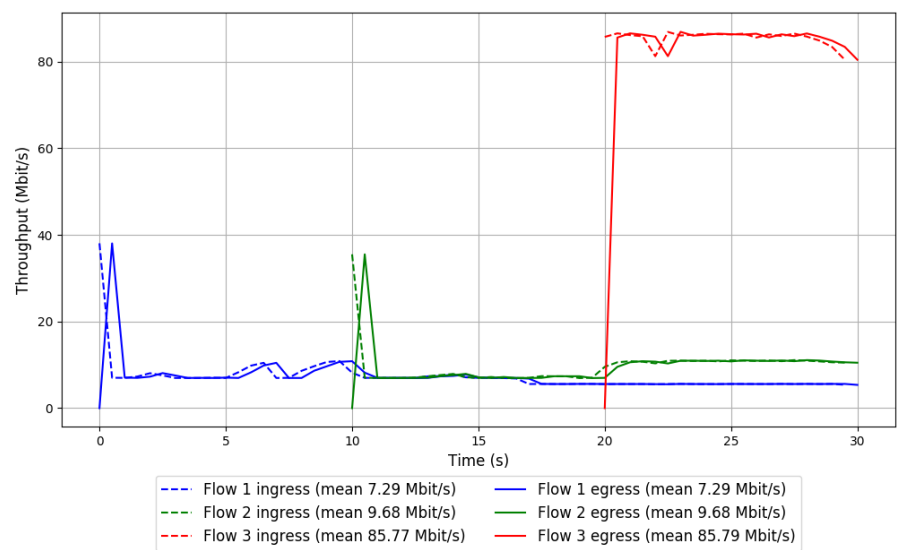


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-05 19:13:00
End at: 2019-02-05 19:13:30
Local clock offset: 0.023 ms
Remote clock offset: -1.874 ms

Below is generated by plot.py at 2019-02-05 21:41:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 42.22 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 7.29 Mbit/s
95th percentile per-packet one-way delay: 1.077 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 85.79 Mbit/s
95th percentile per-packet one-way delay: 0.962 ms
Loss rate: 0.01%

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

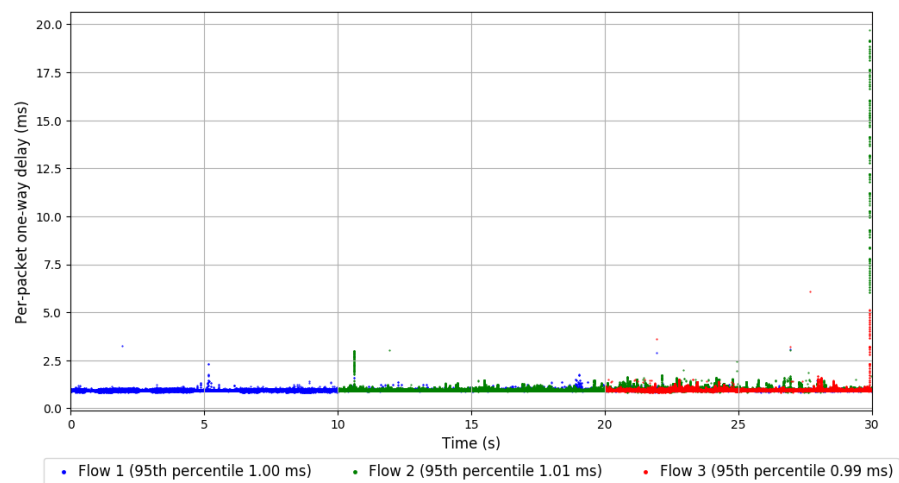
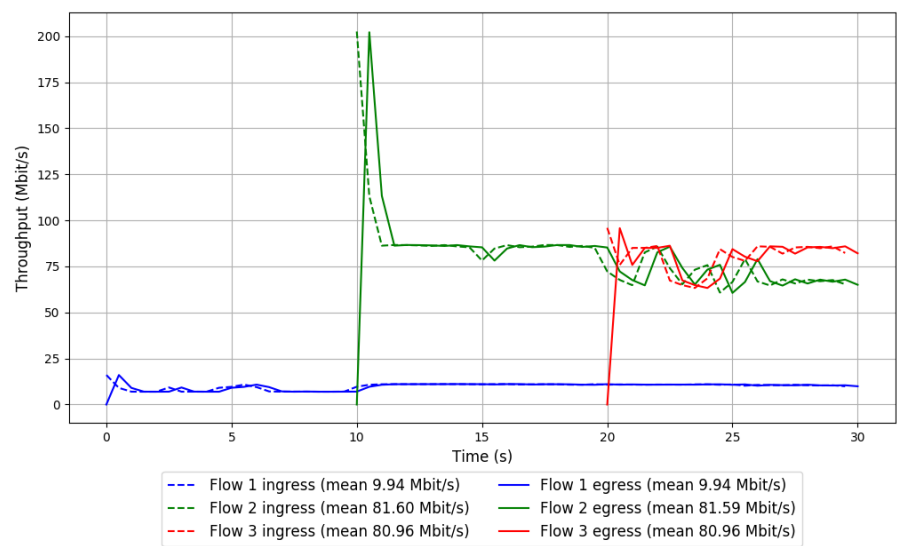


Run 4: Statistics of TaoVA-100x

Start at: 2019-02-05 19:43:15
End at: 2019-02-05 19:43:45
Local clock offset: 0.367 ms
Remote clock offset: -2.747 ms

Below is generated by plot.py at 2019-02-05 21:41:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.11 Mbit/s
95th percentile per-packet one-way delay: 1.001 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.94 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 81.59 Mbit/s
95th percentile per-packet one-way delay: 1.012 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 80.96 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.02%

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

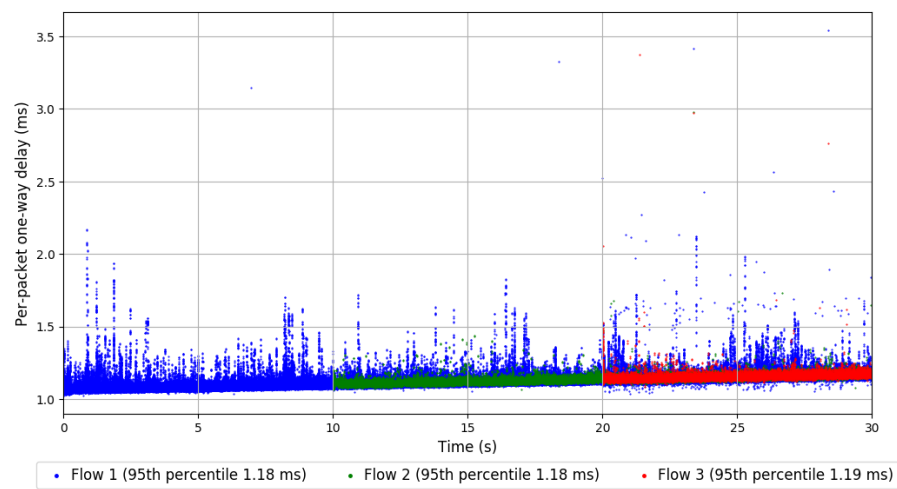
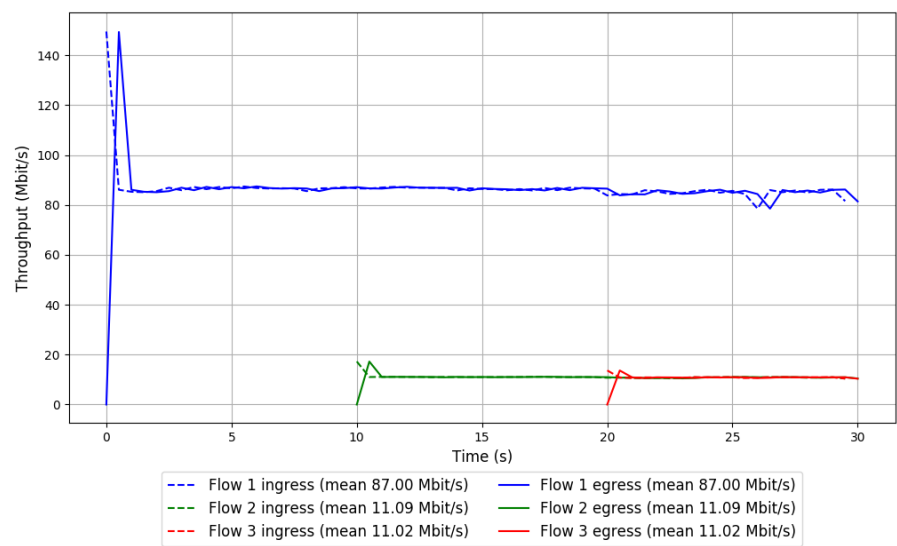


Run 5: Statistics of TaoVA-100x

Start at: 2019-02-05 20:13:34
End at: 2019-02-05 20:14:04
Local clock offset: -3.656 ms
Remote clock offset: -0.549 ms

Below is generated by plot.py at 2019-02-05 21:41:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 98.04 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 87.00 Mbit/s
95th percentile per-packet one-way delay: 1.178 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.09 Mbit/s
95th percentile per-packet one-way delay: 1.180 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 11.02 Mbit/s
95th percentile per-packet one-way delay: 1.193 ms
Loss rate: 0.02%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 18:26:58

End at: 2019-02-05 18:27:28

Local clock offset: 0.203 ms

Remote clock offset: 2.519 ms

Below is generated by plot.py at 2019-02-05 21:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 485.82 Mbit/s

95th percentile per-packet one-way delay: 1.347 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 227.36 Mbit/s

95th percentile per-packet one-way delay: 1.331 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 246.68 Mbit/s

95th percentile per-packet one-way delay: 1.290 ms

Loss rate: 0.01%

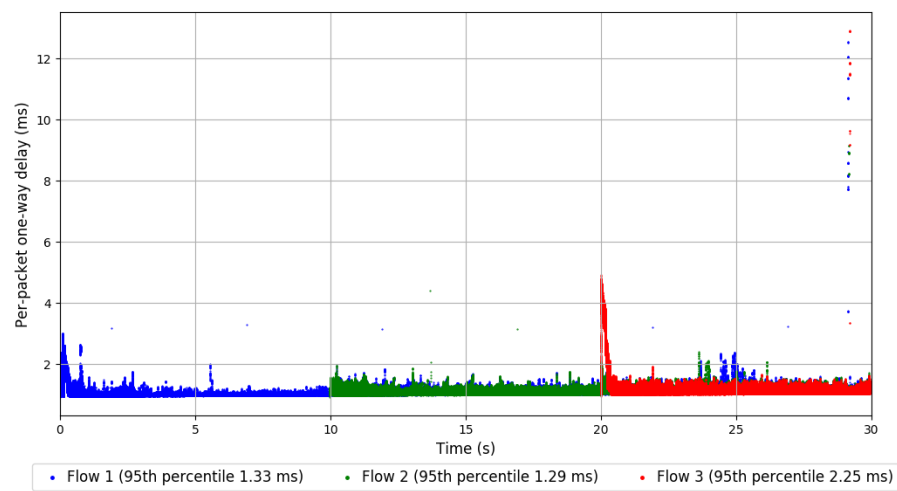
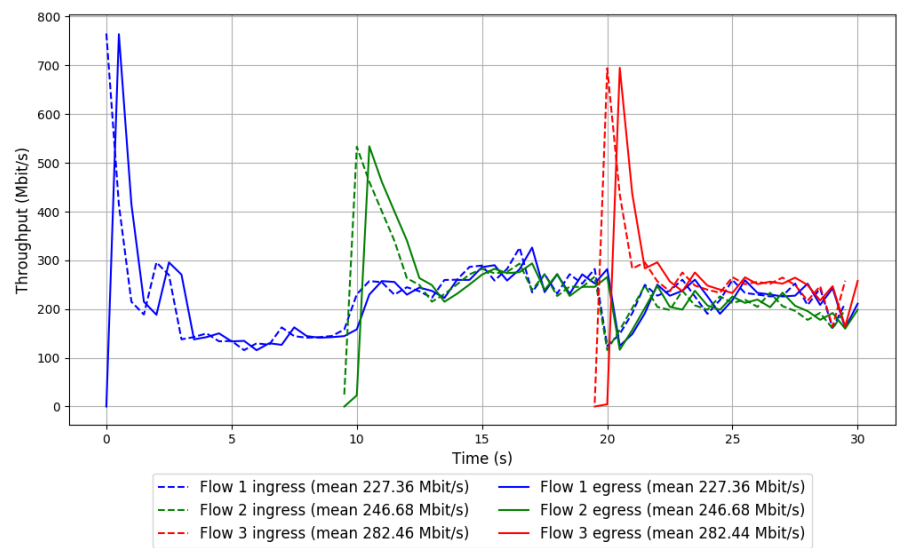
-- Flow 3:

Average throughput: 282.44 Mbit/s

95th percentile per-packet one-way delay: 2.245 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 18:57:13

End at: 2019-02-05 18:57:43

Local clock offset: 0.058 ms

Remote clock offset: 5.027 ms

Below is generated by plot.py at 2019-02-05 21:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 456.01 Mbit/s

95th percentile per-packet one-way delay: 0.863 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 222.77 Mbit/s

95th percentile per-packet one-way delay: 0.937 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 229.85 Mbit/s

95th percentile per-packet one-way delay: 0.766 ms

Loss rate: 0.01%

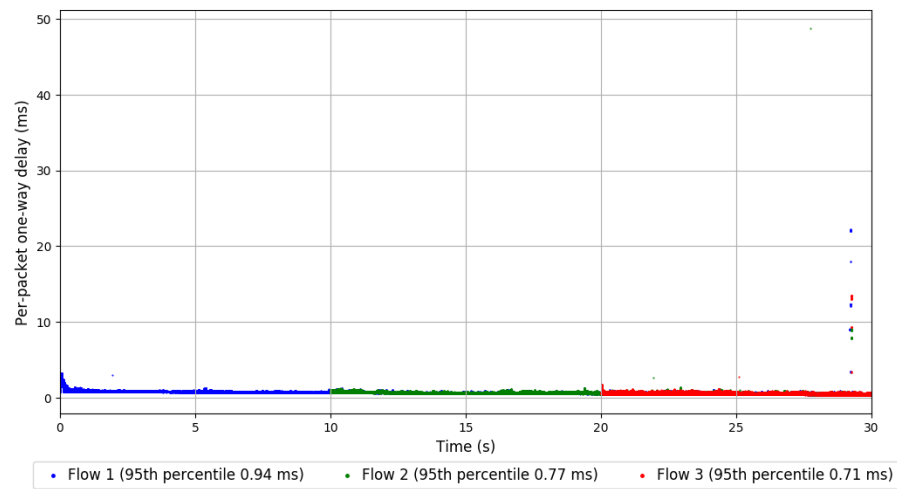
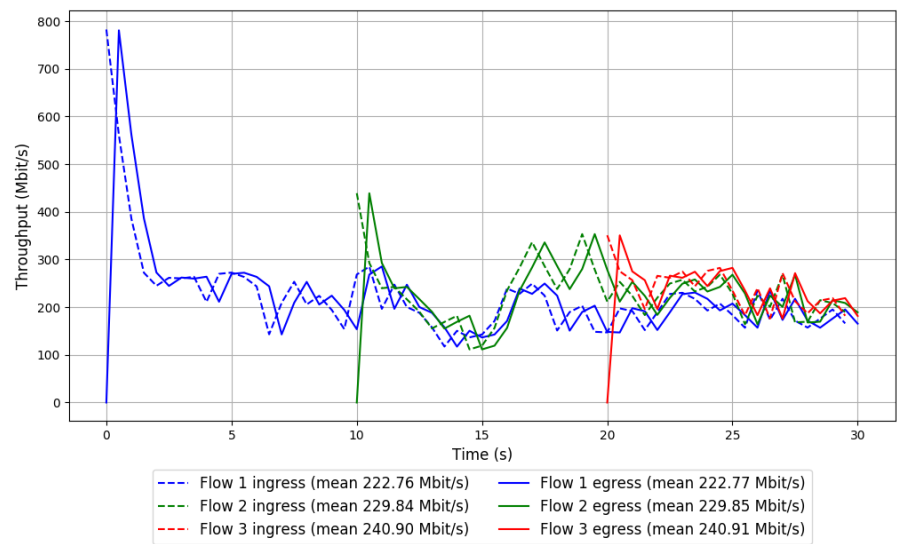
-- Flow 3:

Average throughput: 240.91 Mbit/s

95th percentile per-packet one-way delay: 0.715 ms

Loss rate: 0.02%

Run 2: Report of TCP Vegas — Data Link

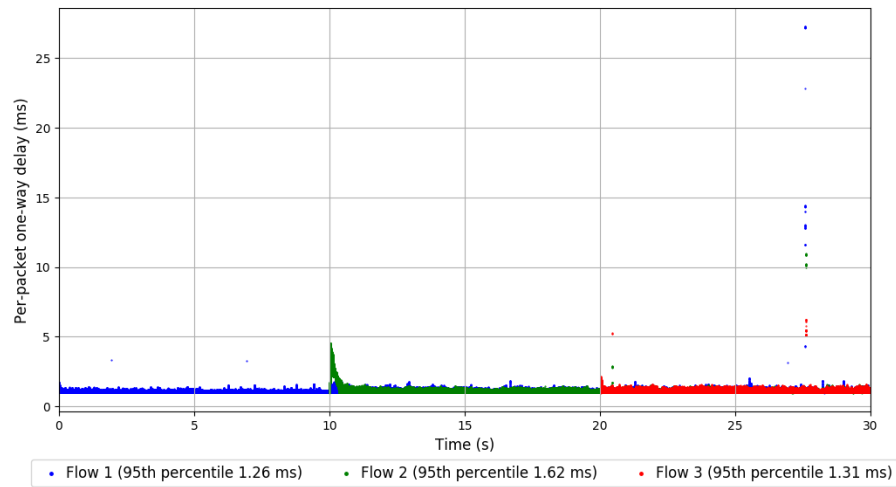
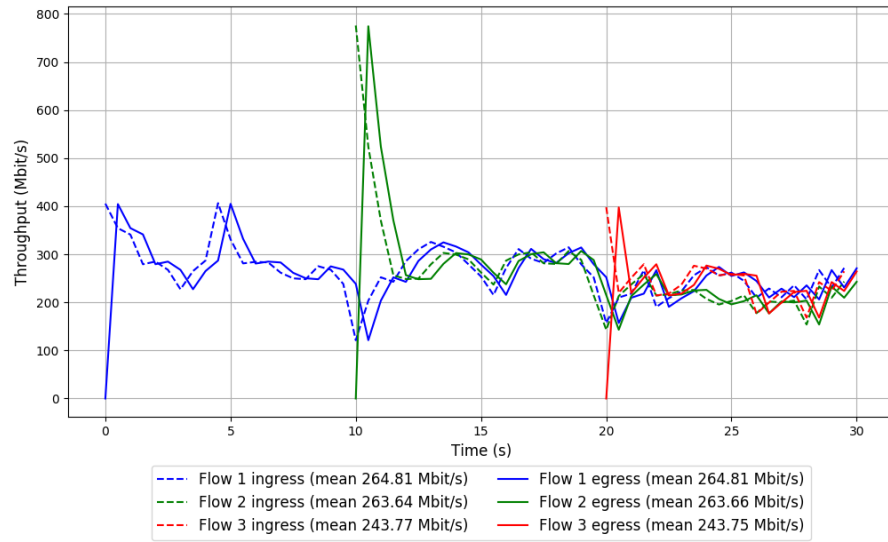


Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 19:27:25
End at: 2019-02-05 19:27:55
Local clock offset: 0.282 ms
Remote clock offset: -3.198 ms

Below is generated by plot.py at 2019-02-05 21:45:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 521.45 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 264.81 Mbit/s
95th percentile per-packet one-way delay: 1.256 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 263.66 Mbit/s
95th percentile per-packet one-way delay: 1.618 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 243.75 Mbit/s
95th percentile per-packet one-way delay: 1.311 ms
Loss rate: 0.02%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 19:57:43

End at: 2019-02-05 19:58:13

Local clock offset: -2.365 ms

Remote clock offset: -2.84 ms

Below is generated by plot.py at 2019-02-05 21:45:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.26 Mbit/s

95th percentile per-packet one-way delay: 1.305 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 266.46 Mbit/s

95th percentile per-packet one-way delay: 1.282 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 222.92 Mbit/s

95th percentile per-packet one-way delay: 1.307 ms

Loss rate: 0.01%

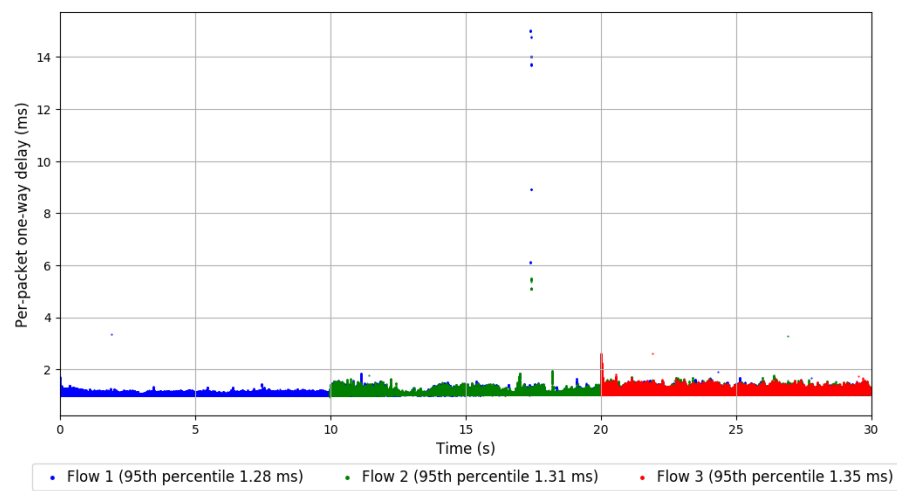
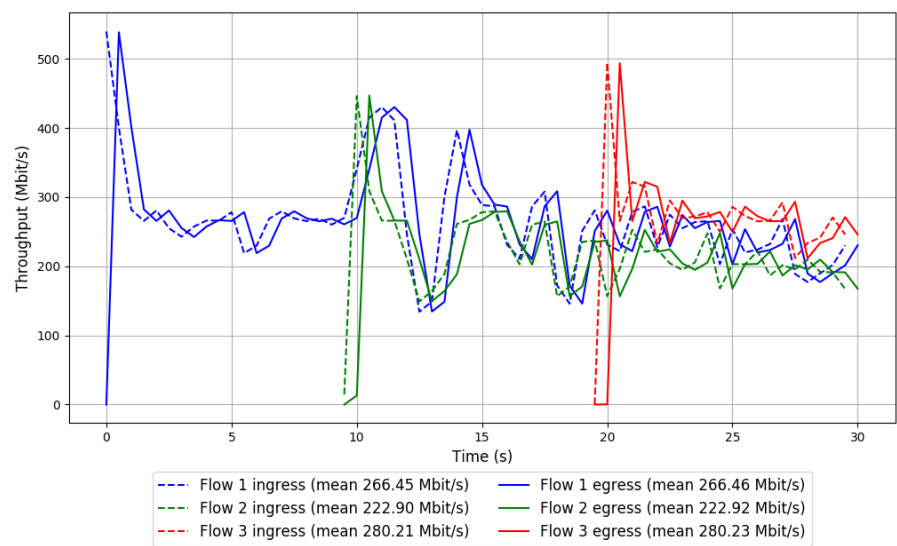
-- Flow 3:

Average throughput: 280.23 Mbit/s

95th percentile per-packet one-way delay: 1.349 ms

Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 20:27:57

End at: 2019-02-05 20:28:27

Local clock offset: -4.335 ms

Remote clock offset: 0.577 ms

Below is generated by plot.py at 2019-02-05 21:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 489.52 Mbit/s

95th percentile per-packet one-way delay: 2.018 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 227.54 Mbit/s

95th percentile per-packet one-way delay: 1.354 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 276.22 Mbit/s

95th percentile per-packet one-way delay: 4.142 ms

Loss rate: 0.01%

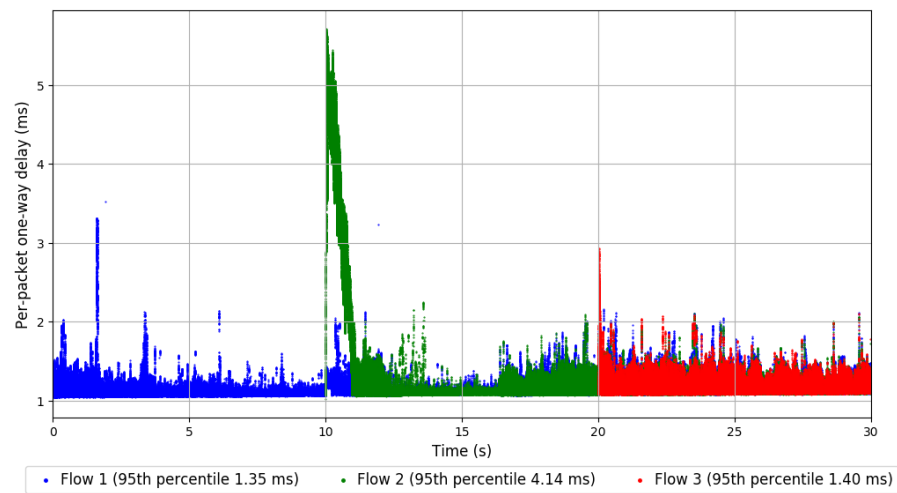
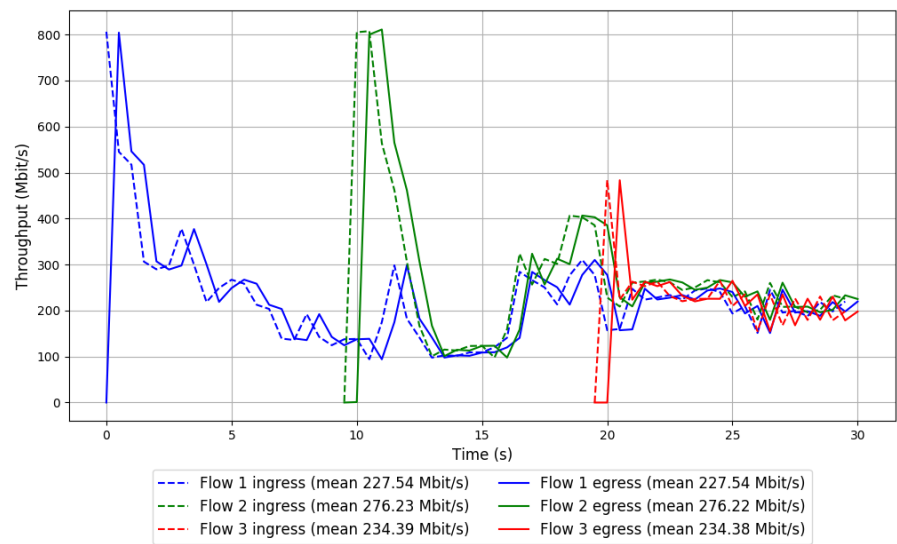
-- Flow 3:

Average throughput: 234.38 Mbit/s

95th percentile per-packet one-way delay: 1.400 ms

Loss rate: 0.02%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-02-05 18:32:54

End at: 2019-02-05 18:33:24

Local clock offset: 0.174 ms

Remote clock offset: 3.493 ms

Below is generated by plot.py at 2019-02-05 21:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.84 Mbit/s

95th percentile per-packet one-way delay: 2.615 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 148.69 Mbit/s

95th percentile per-packet one-way delay: 2.694 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 219.42 Mbit/s

95th percentile per-packet one-way delay: 2.461 ms

Loss rate: 0.00%

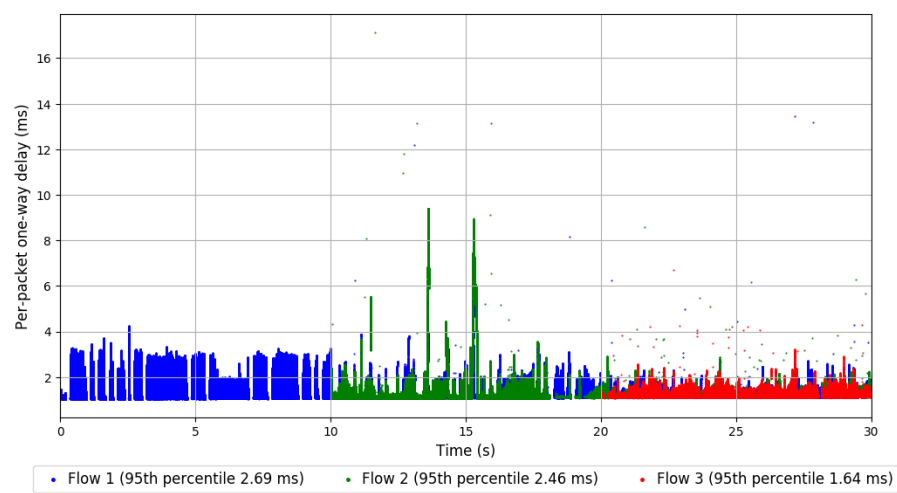
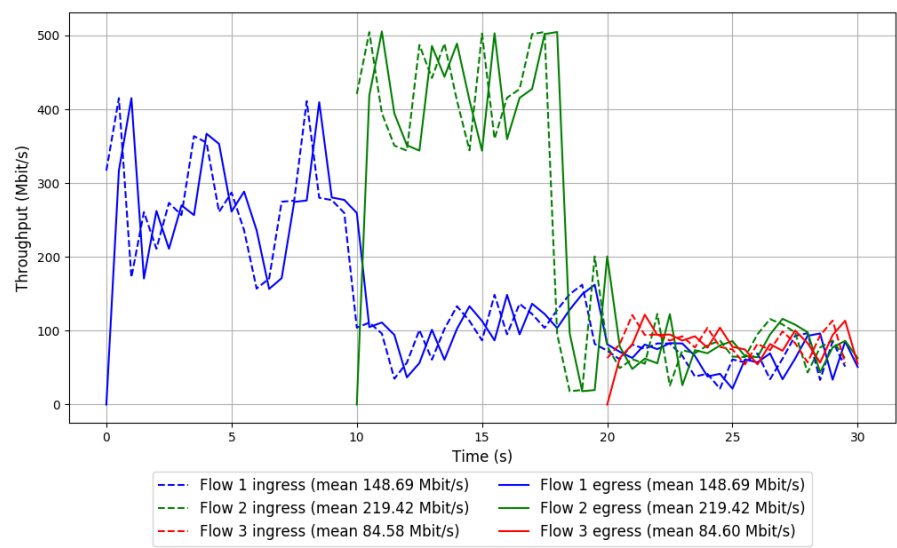
-- Flow 3:

Average throughput: 84.60 Mbit/s

95th percentile per-packet one-way delay: 1.639 ms

Loss rate: 0.03%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-02-05 19:03:06

End at: 2019-02-05 19:03:36

Local clock offset: 0.039 ms

Remote clock offset: 1.003 ms

Below is generated by plot.py at 2019-02-05 21:45:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 267.65 Mbit/s

95th percentile per-packet one-way delay: 3.307 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 165.63 Mbit/s

95th percentile per-packet one-way delay: 3.537 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.45 Mbit/s

95th percentile per-packet one-way delay: 1.529 ms

Loss rate: 0.00%

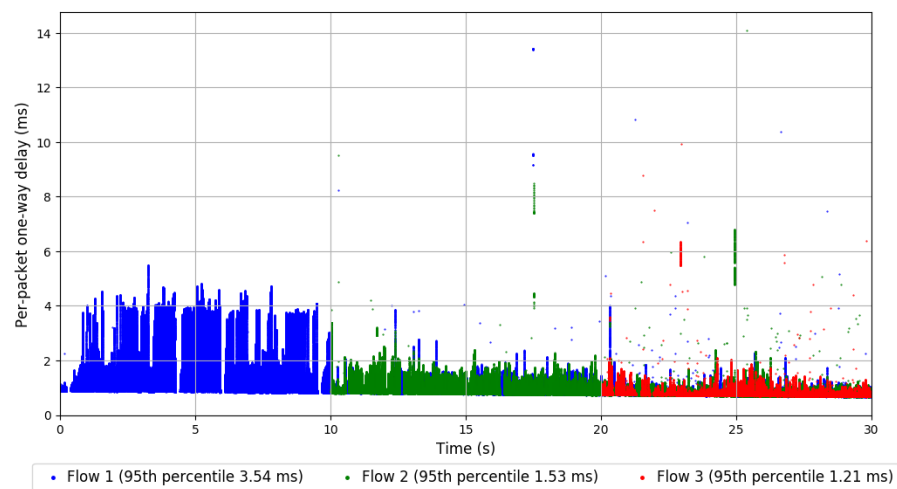
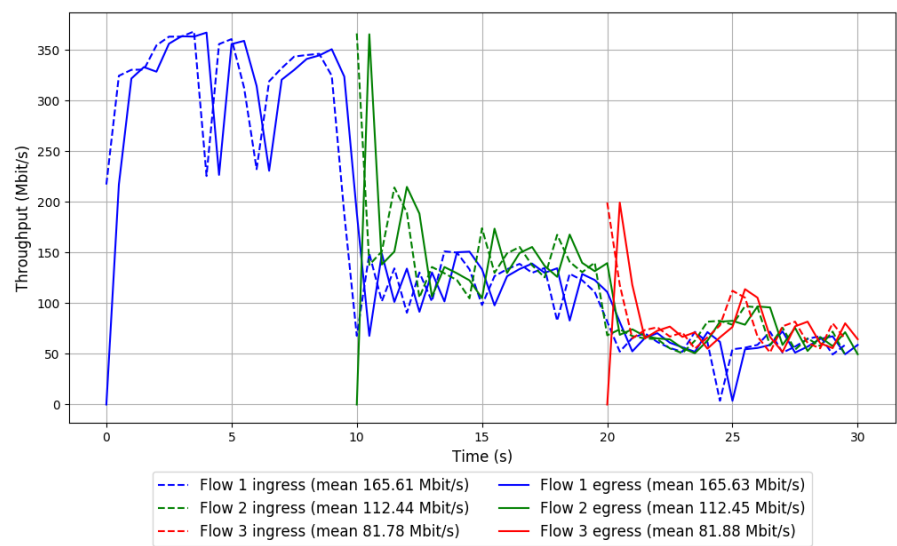
-- Flow 3:

Average throughput: 81.88 Mbit/s

95th percentile per-packet one-way delay: 1.206 ms

Loss rate: 0.01%

Run 2: Report of Verus — Data Link

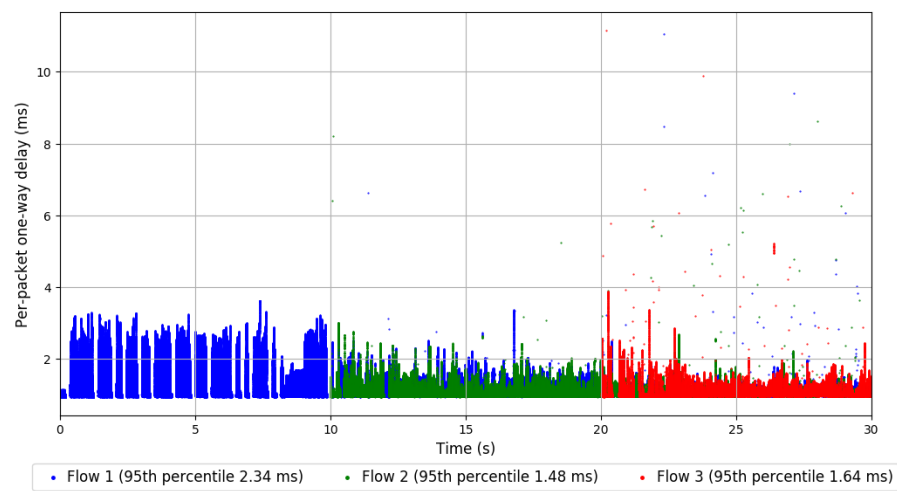
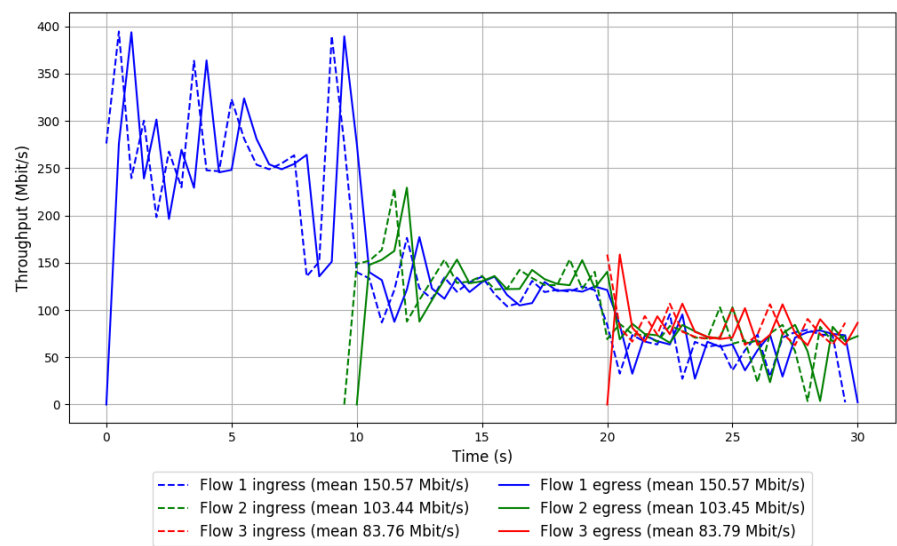


Run 3: Statistics of Verus

Start at: 2019-02-05 19:33:22
End at: 2019-02-05 19:33:52
Local clock offset: 0.314 ms
Remote clock offset: -3.027 ms

Below is generated by plot.py at 2019-02-05 21:45:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 247.31 Mbit/s
95th percentile per-packet one-way delay: 2.165 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 150.57 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 103.45 Mbit/s
95th percentile per-packet one-way delay: 1.478 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 83.79 Mbit/s
95th percentile per-packet one-way delay: 1.635 ms
Loss rate: 0.00%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-02-05 20:03:38

End at: 2019-02-05 20:04:08

Local clock offset: -2.999 ms

Remote clock offset: -2.91 ms

Below is generated by plot.py at 2019-02-05 21:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.49 Mbit/s

95th percentile per-packet one-way delay: 2.259 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 167.41 Mbit/s

95th percentile per-packet one-way delay: 2.457 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 108.91 Mbit/s

95th percentile per-packet one-way delay: 1.728 ms

Loss rate: 0.00%

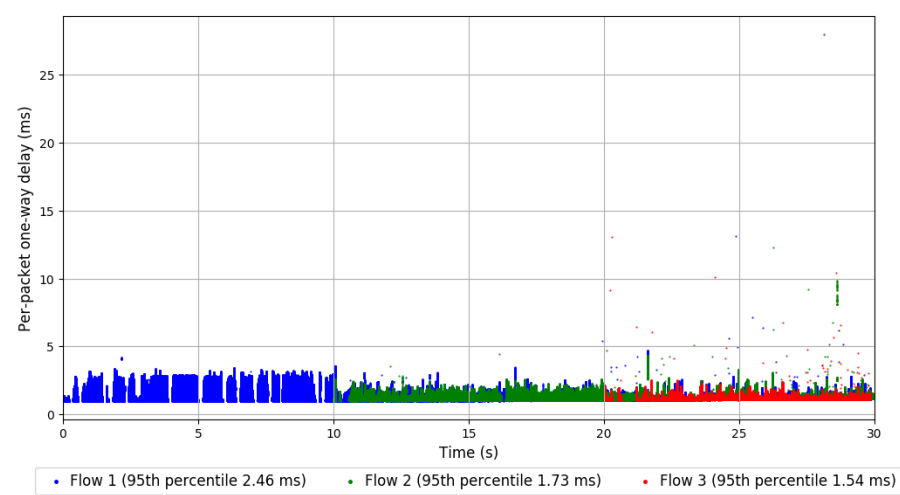
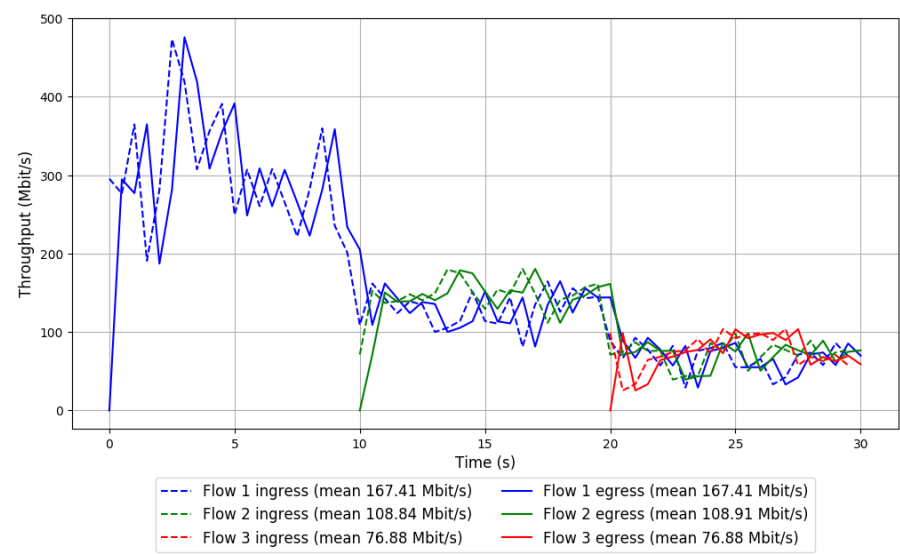
-- Flow 3:

Average throughput: 76.88 Mbit/s

95th percentile per-packet one-way delay: 1.542 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-02-05 20:33:53

End at: 2019-02-05 20:34:23

Local clock offset: -4.609 ms

Remote clock offset: 0.802 ms

Below is generated by plot.py at 2019-02-05 21:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.27 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 150.17 Mbit/s

95th percentile per-packet one-way delay: 2.640 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 108.53 Mbit/s

95th percentile per-packet one-way delay: 1.796 ms

Loss rate: 0.00%

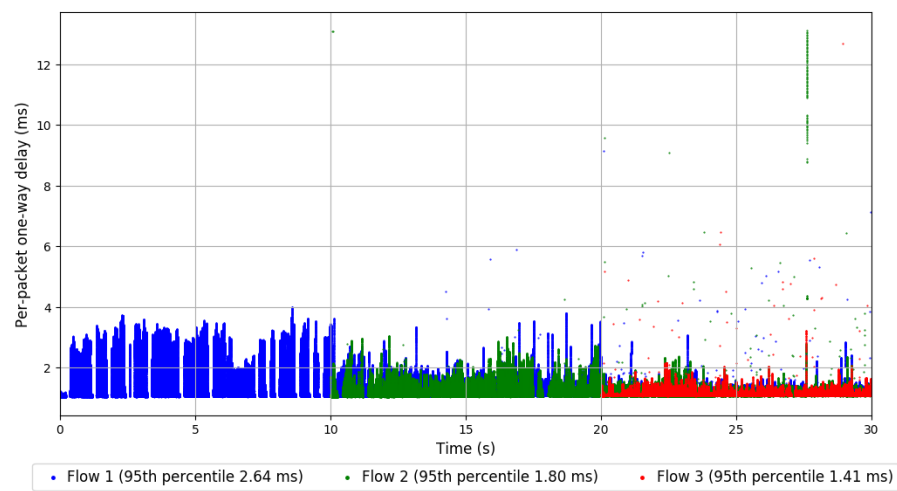
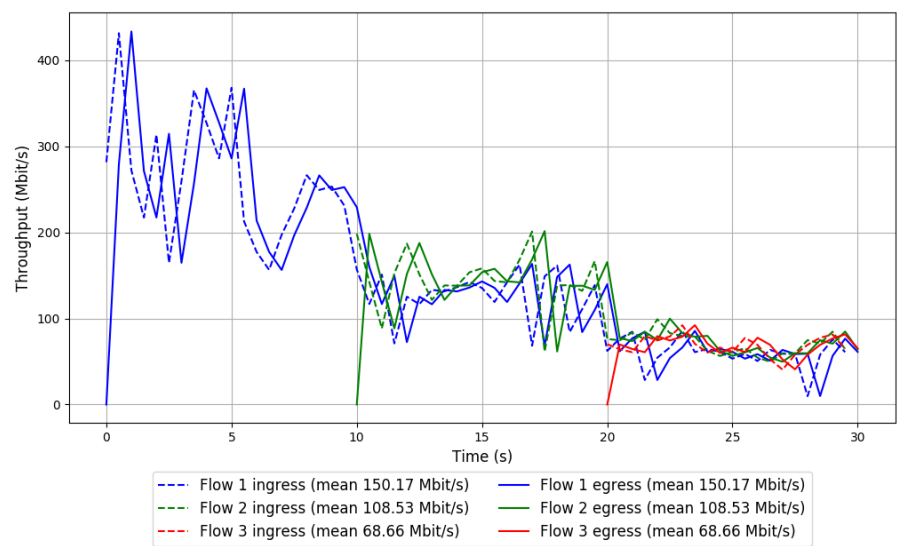
-- Flow 3:

Average throughput: 68.66 Mbit/s

95th percentile per-packet one-way delay: 1.412 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 18:18:19

End at: 2019-02-05 18:18:49

Local clock offset: 0.376 ms

Remote clock offset: 1.01 ms

Below is generated by plot.py at 2019-02-05 21:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.79 Mbit/s

95th percentile per-packet one-way delay: 1.064 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 115.30 Mbit/s

95th percentile per-packet one-way delay: 1.047 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 93.01 Mbit/s

95th percentile per-packet one-way delay: 1.111 ms

Loss rate: 0.00%

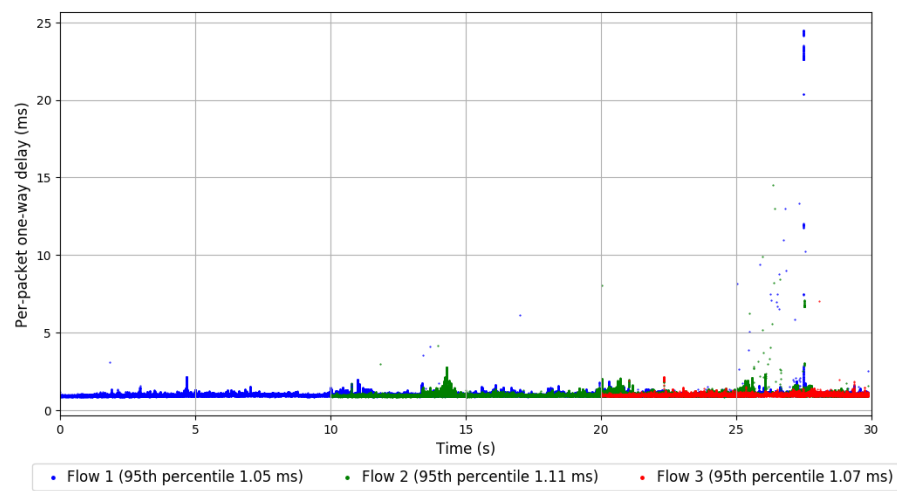
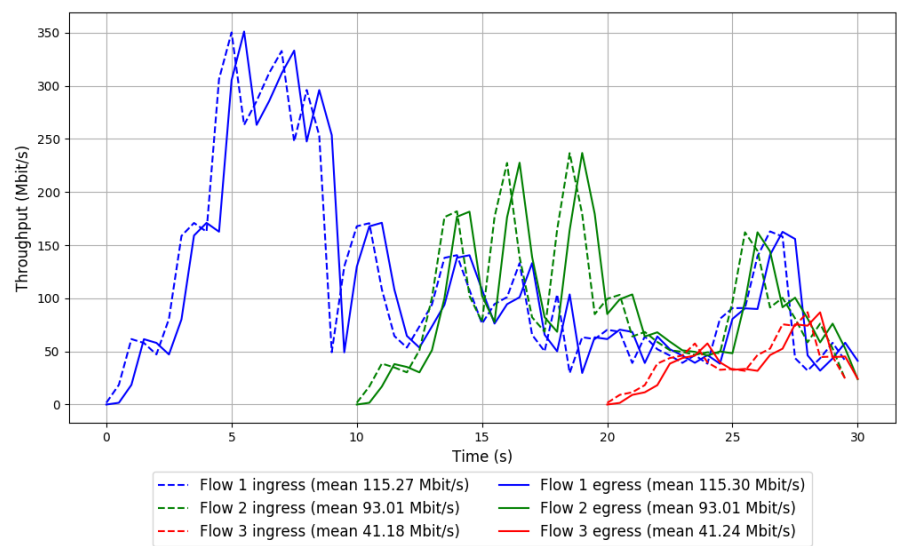
-- Flow 3:

Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 1.070 ms

Loss rate: 0.02%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 18:48:33

End at: 2019-02-05 18:49:03

Local clock offset: 0.103 ms

Remote clock offset: 5.687 ms

Below is generated by plot.py at 2019-02-05 21:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.75 Mbit/s

95th percentile per-packet one-way delay: 1.067 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 141.06 Mbit/s

95th percentile per-packet one-way delay: 1.025 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.85 Mbit/s

95th percentile per-packet one-way delay: 1.186 ms

Loss rate: 0.00%

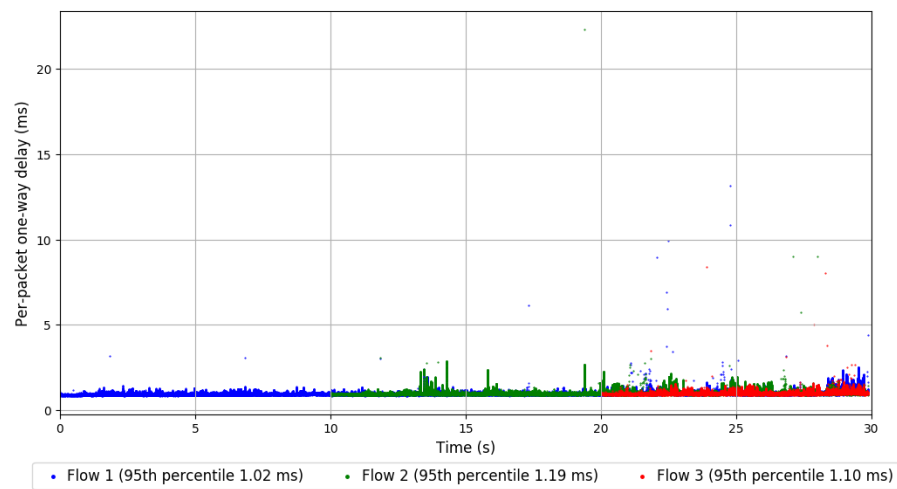
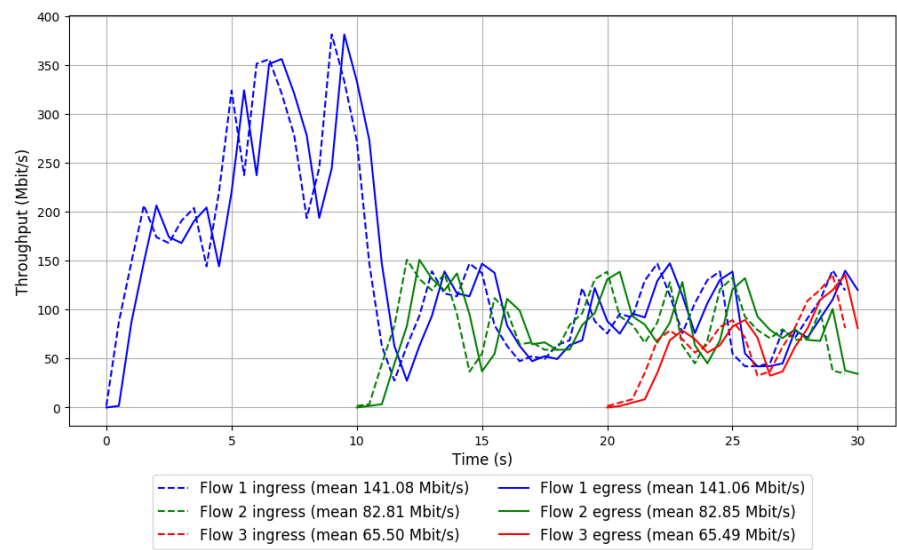
-- Flow 3:

Average throughput: 65.49 Mbit/s

95th percentile per-packet one-way delay: 1.098 ms

Loss rate: 0.03%

Run 2: Report of PCC-Vivace — Data Link

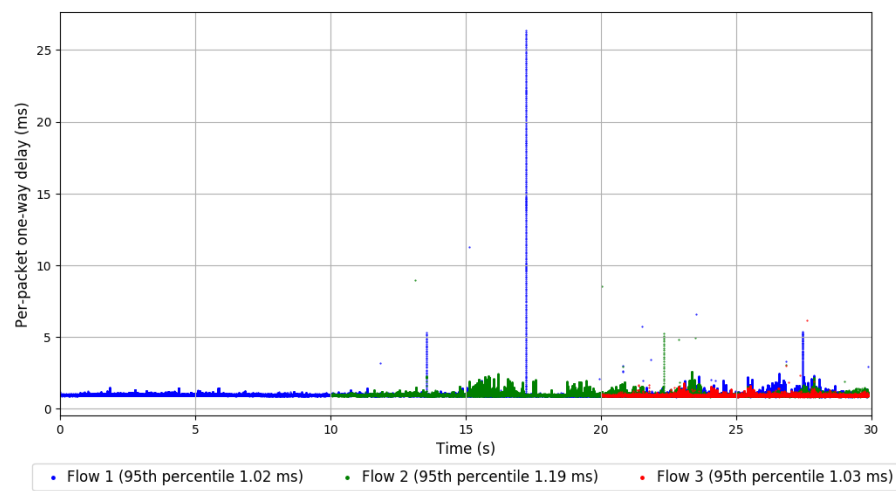
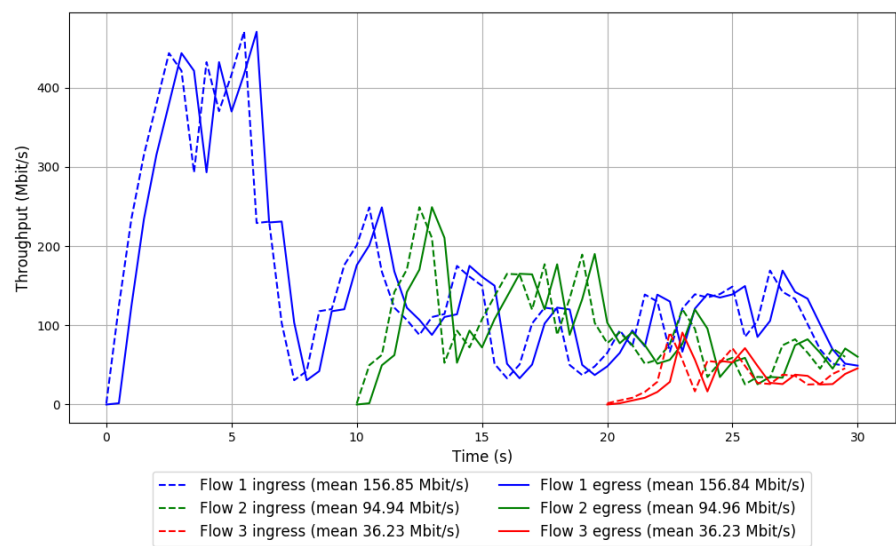


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 19:18:44
End at: 2019-02-05 19:19:14
Local clock offset: 0.106 ms
Remote clock offset: -2.597 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 231.93 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.84 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 94.96 Mbit/s
95th percentile per-packet one-way delay: 1.189 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 1.034 ms
Loss rate: 0.02%

Run 3: Report of PCC-Vivace — Data Link

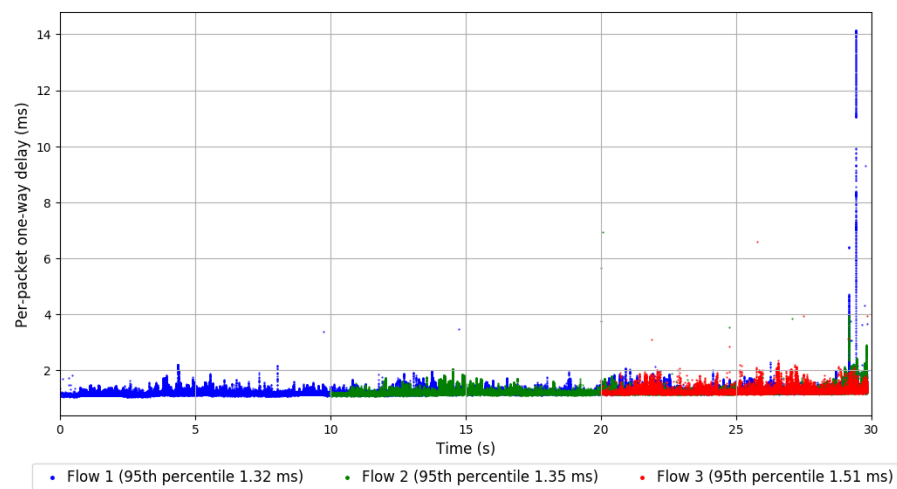
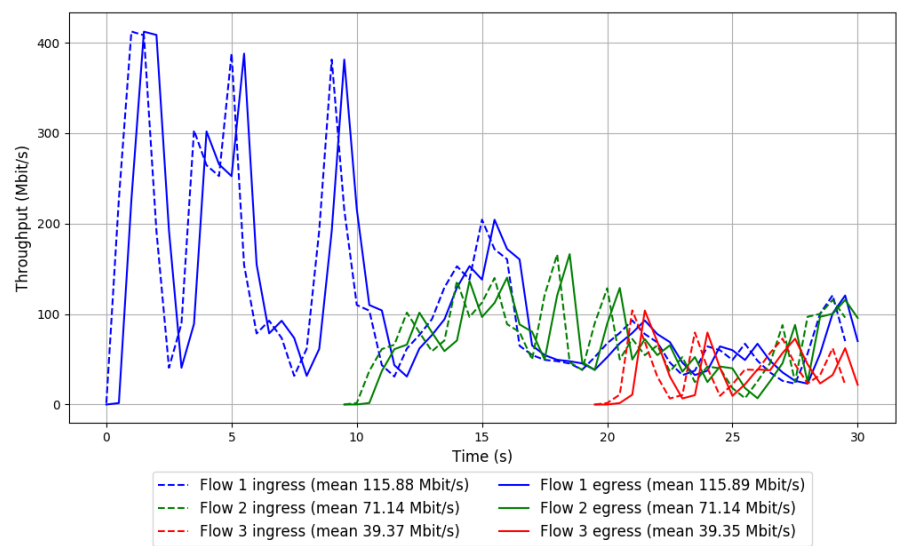


Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 19:49:02
End at: 2019-02-05 19:49:32
Local clock offset: -0.661 ms
Remote clock offset: -2.822 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 176.27 Mbit/s
95th percentile per-packet one-way delay: 1.343 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 115.89 Mbit/s
95th percentile per-packet one-way delay: 1.318 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 71.14 Mbit/s
95th percentile per-packet one-way delay: 1.355 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 39.35 Mbit/s
95th percentile per-packet one-way delay: 1.510 ms
Loss rate: 0.03%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 20:19:14

End at: 2019-02-05 20:19:44

Local clock offset: -3.948 ms

Remote clock offset: 0.05 ms

Below is generated by plot.py at 2019-02-05 21:47:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.01 Mbit/s

95th percentile per-packet one-way delay: 1.299 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 108.30 Mbit/s

95th percentile per-packet one-way delay: 1.207 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 85.09 Mbit/s

95th percentile per-packet one-way delay: 1.456 ms

Loss rate: 0.00%

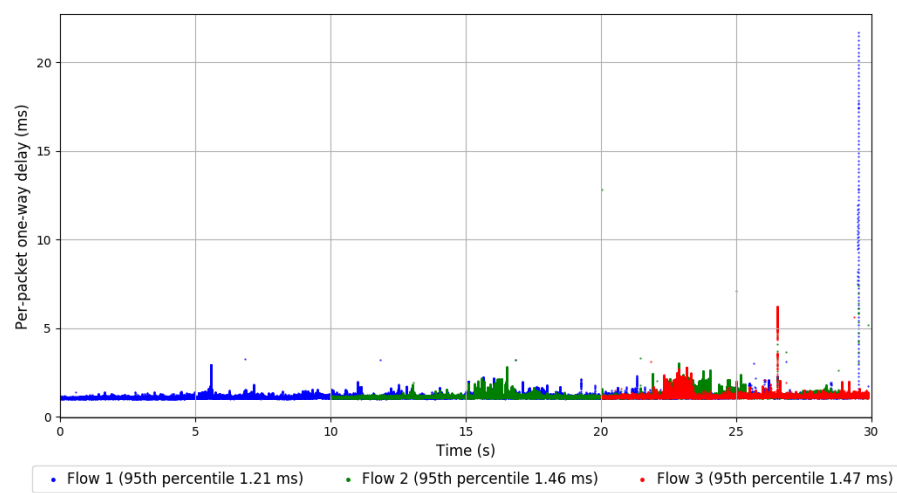
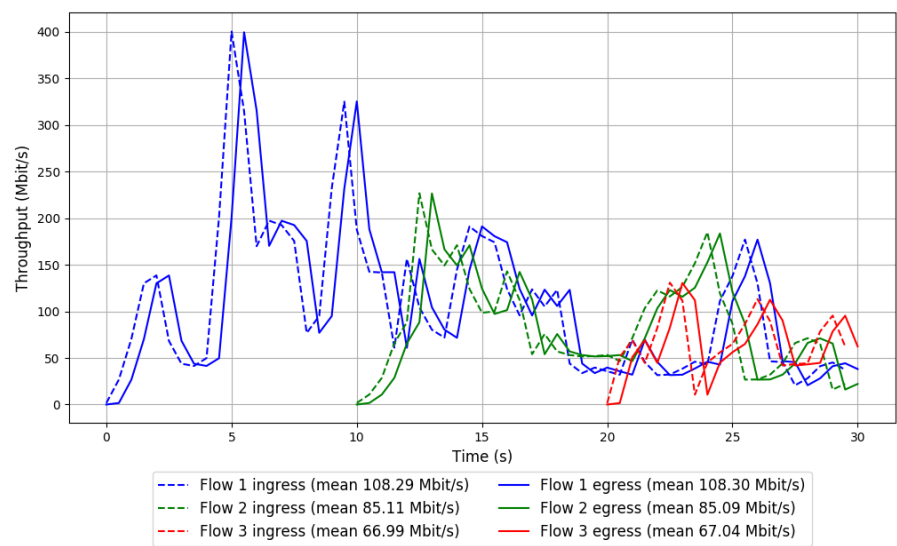
-- Flow 3:

Average throughput: 67.04 Mbit/s

95th percentile per-packet one-way delay: 1.467 ms

Loss rate: 0.02%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-02-05 18:40:23

End at: 2019-02-05 18:40:53

Local clock offset: 0.137 ms

Remote clock offset: 4.61 ms

Below is generated by plot.py at 2019-02-05 21:47:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.160 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.136 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.143 ms

Loss rate: 0.00%

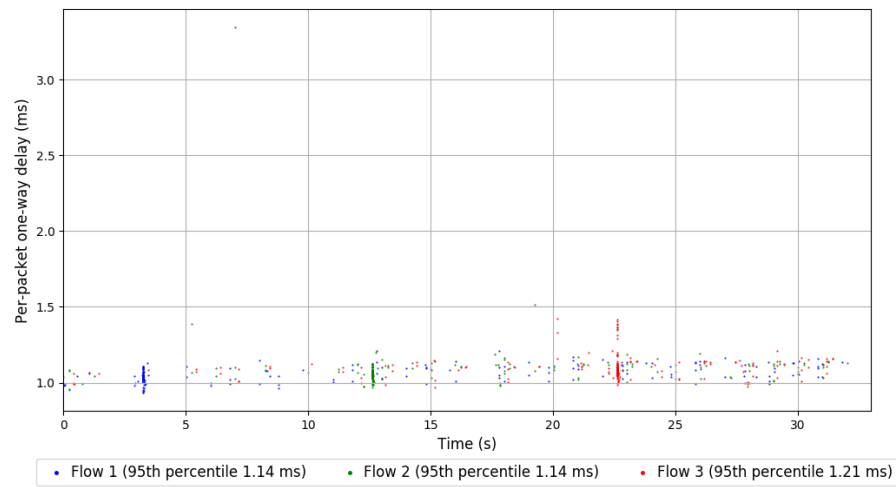
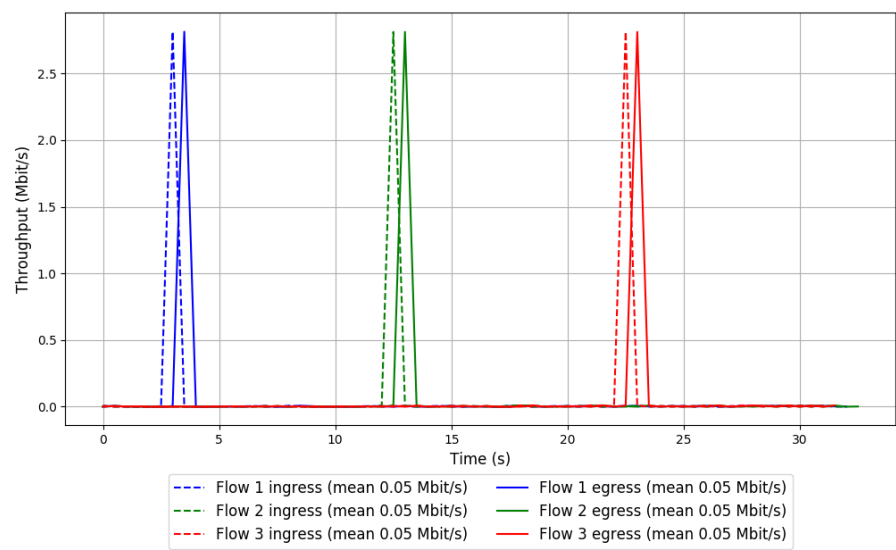
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.211 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

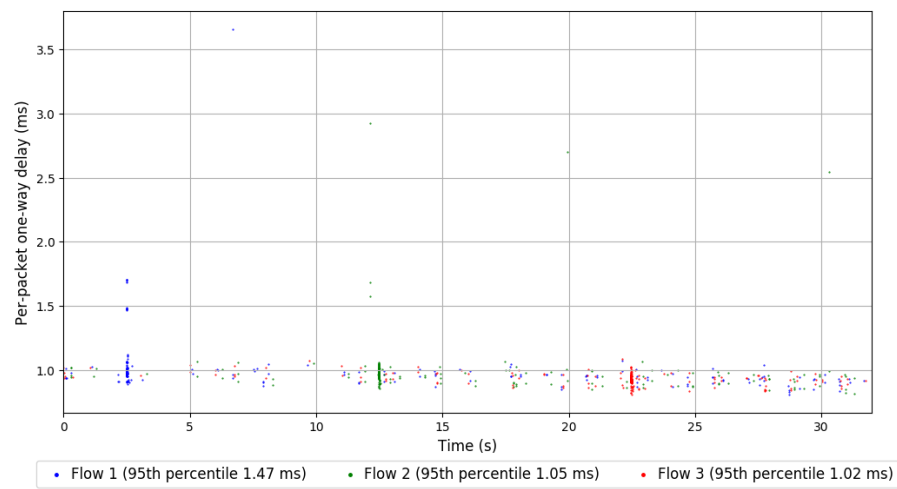
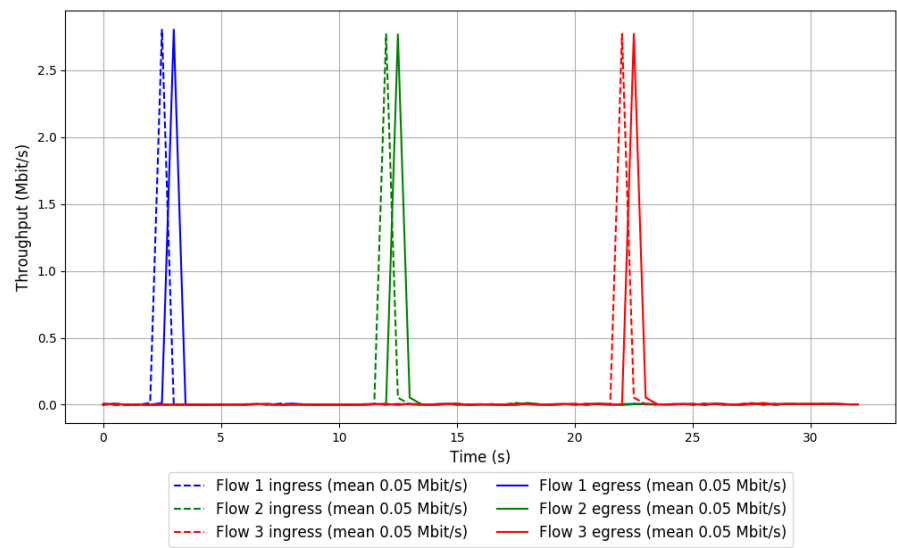


Run 2: Statistics of WebRTC media

Start at: 2019-02-05 19:10:29
End at: 2019-02-05 19:10:59
Local clock offset: 0.023 ms
Remote clock offset: -1.392 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.474 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.053 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.019 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

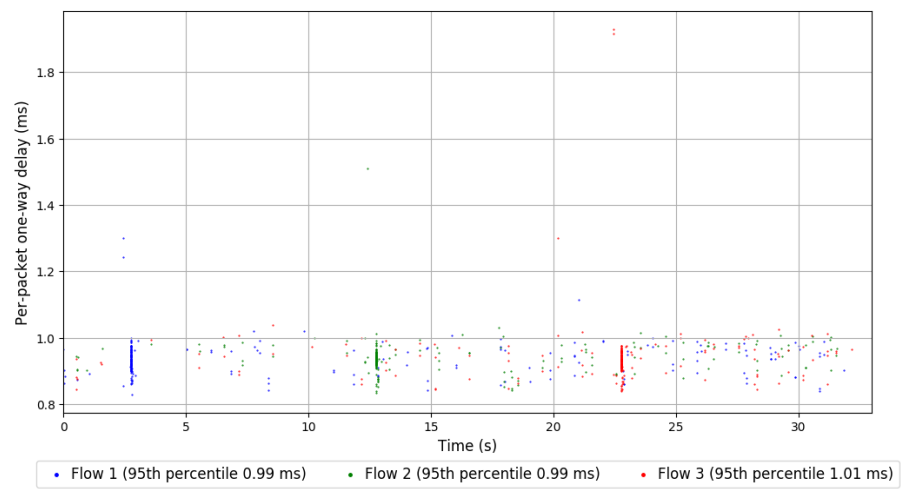
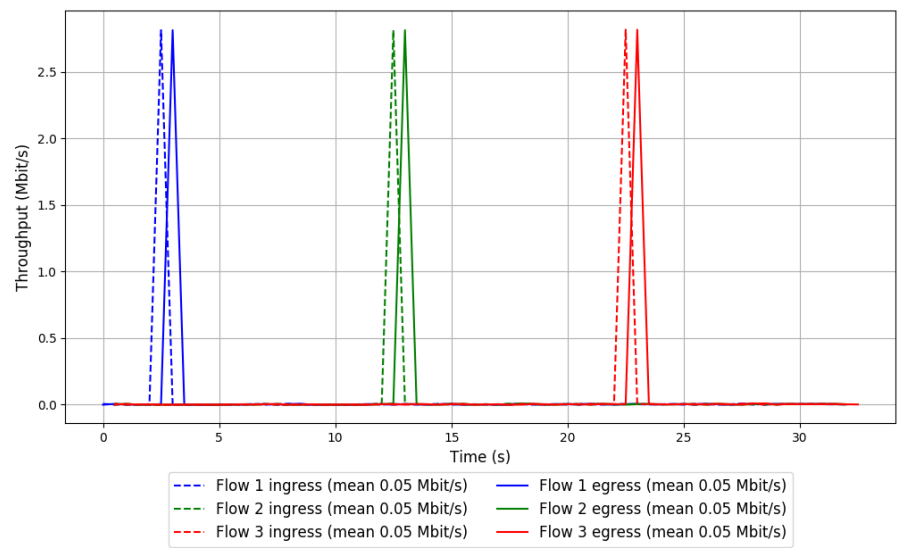


Run 3: Statistics of WebRTC media

Start at: 2019-02-05 19:40:43
End at: 2019-02-05 19:41:13
Local clock offset: 0.342 ms
Remote clock offset: -2.768 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 0.999 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.995 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.006 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

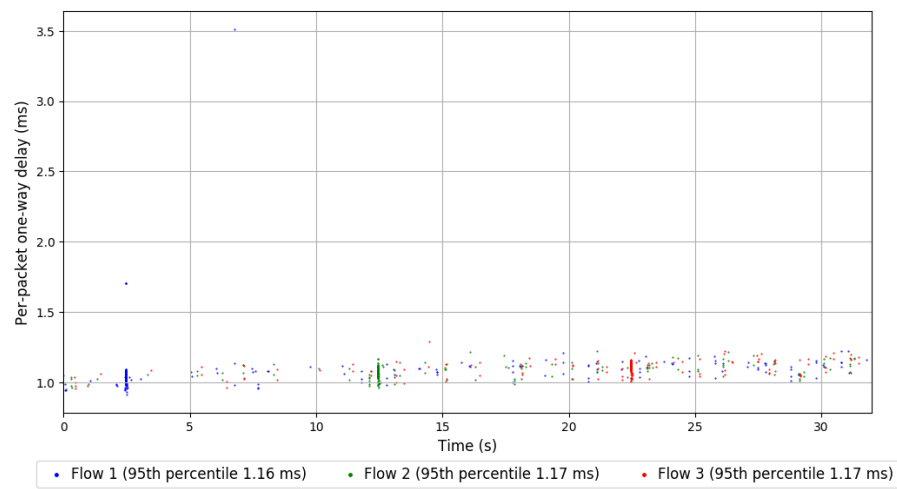
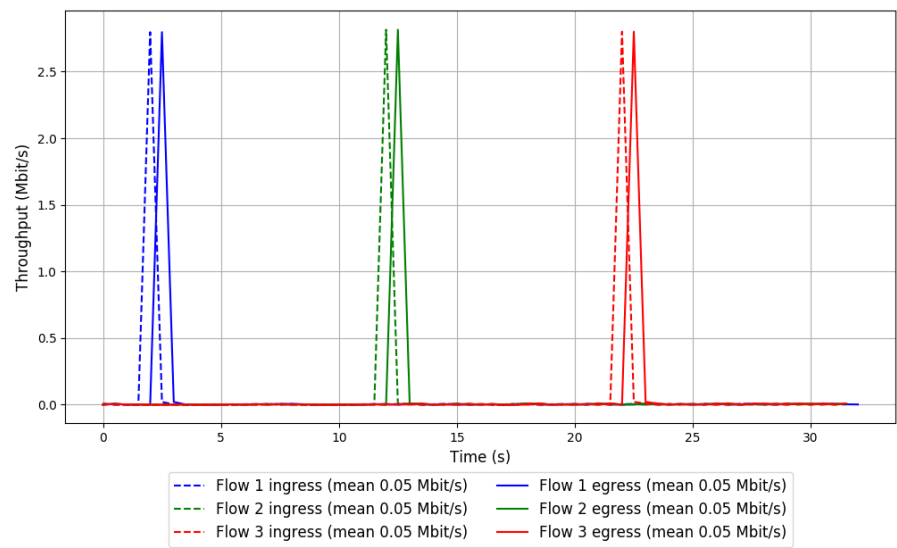


Run 4: Statistics of WebRTC media

Start at: 2019-02-05 20:11:03
End at: 2019-02-05 20:11:33
Local clock offset: -3.518 ms
Remote clock offset: -0.883 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.166 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-02-05 20:41:17
End at: 2019-02-05 20:41:47
Local clock offset: -4.929 ms
Remote clock offset: -0.321 ms

Below is generated by plot.py at 2019-02-05 21:47:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.052 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

