

Pantheon Report

Generated at 2019-05-30 13:09:23 (UTC).

Data path: Brazil on p4p1 (*remote*) → AWS Brazil 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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

System info:

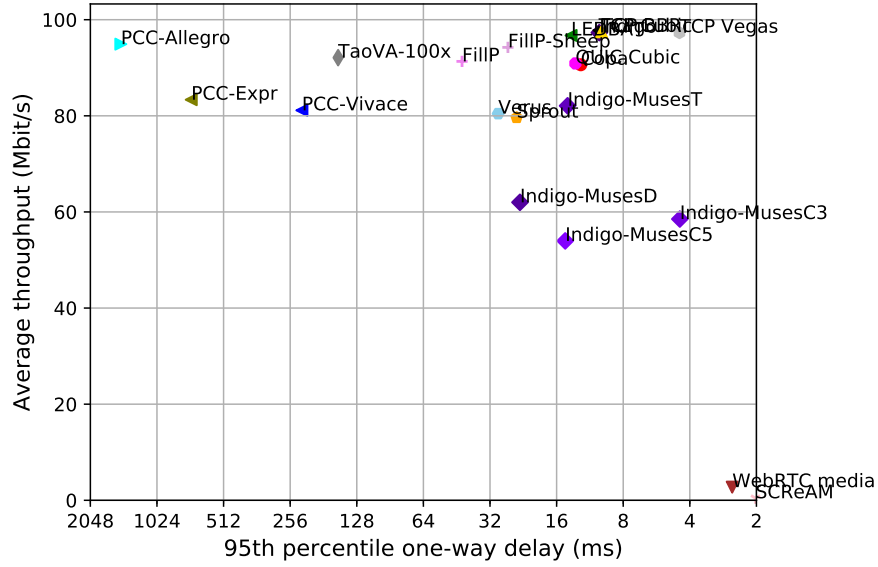
```
Linux 4.15.0-1035-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

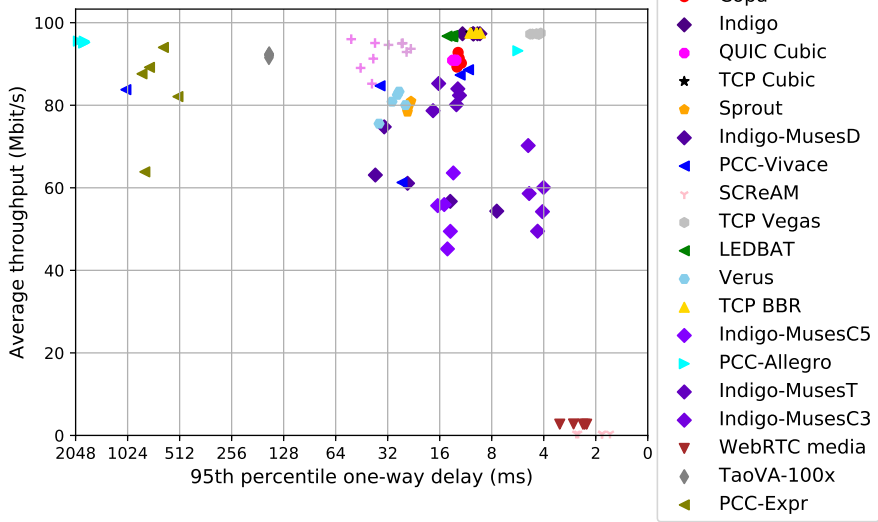
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 Brazil to AWS Brazil 1, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from Brazil to AWS Brazil 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	59.27	40.94	32.96	9.63	9.91	10.91	0.26	0.46	0.95
Copa	5	53.91	39.40	31.54	12.14	12.25	13.98	0.04	0.08	0.16
TCP Cubic	5	59.60	40.64	32.48	10.49	10.04	10.40	0.07	0.14	0.23
FillP	5	54.33	41.13	28.96	31.95	42.41	46.61	0.11	0.93	1.92
FillP-Sheep	5	55.78	40.10	35.48	20.35	25.20	38.17	0.01	0.05	0.15
Indigo	5	59.66	40.63	32.34	9.55	10.57	9.01	0.02	0.35	0.11
Indigo-MusesC3	5	39.65	23.01	15.53	4.04	4.83	4.81	0.01	0.02	0.12
Indigo-MusesC5	5	27.77	27.54	32.50	12.32	14.06	17.33	0.04	0.07	0.16
Indigo-MusesD	5	35.34	26.60	36.81	12.43	13.98	30.72	0.05	0.14	1.12
Indigo-MusesT	5	52.64	37.20	22.88	12.65	16.62	13.69	0.02	0.07	0.14
LEDBAT	5	58.99	40.39	32.63	13.34	14.19	13.64	0.11	0.19	0.36
PCC-Allegro	5	66.51	32.33	21.01	1508.93	275.19	5.86	7.99	3.36	0.05
PCC-Expr	5	52.14	32.56	28.97	760.53	240.50	194.13	18.89	3.11	2.49
QUIC Cubic	5	53.88	40.20	31.07	13.00	13.01	13.63	0.17	0.32	0.47
SCReAM	5	0.21	0.21	0.22	1.71	1.95	1.94	0.01	0.00	0.00
Sprout	5	42.93	39.24	32.08	22.90	24.57	25.31	0.10	0.23	0.31
TaoVA-100x	5	55.57	38.98	31.82	154.38	156.03	155.69	0.52	1.10	2.69
TCP Vegas	5	53.36	46.87	38.30	3.47	3.93	4.83	0.01	0.02	0.05
Verus	5	46.13	36.19	30.79	24.57	24.36	145.63	0.03	0.07	0.14
PCC-Vivace	5	51.25	31.66	26.74	19.22	92.22	431.24	0.14	0.80	4.39
WebRTC media	5	1.50	0.83	0.42	2.39	2.49	2.71	0.00	0.00	0.02

Run 1: Statistics of TCP BBR

Start at: 2019-05-30 11:05:22

End at: 2019-05-30 11:05:52

Local clock offset: -5.017 ms

Remote clock offset: 0.221 ms

Below is generated by plot.py at 2019-05-30 12:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 9.759 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 59.28 Mbit/s

95th percentile per-packet one-way delay: 9.701 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 40.94 Mbit/s

95th percentile per-packet one-way delay: 9.544 ms

Loss rate: 0.45%

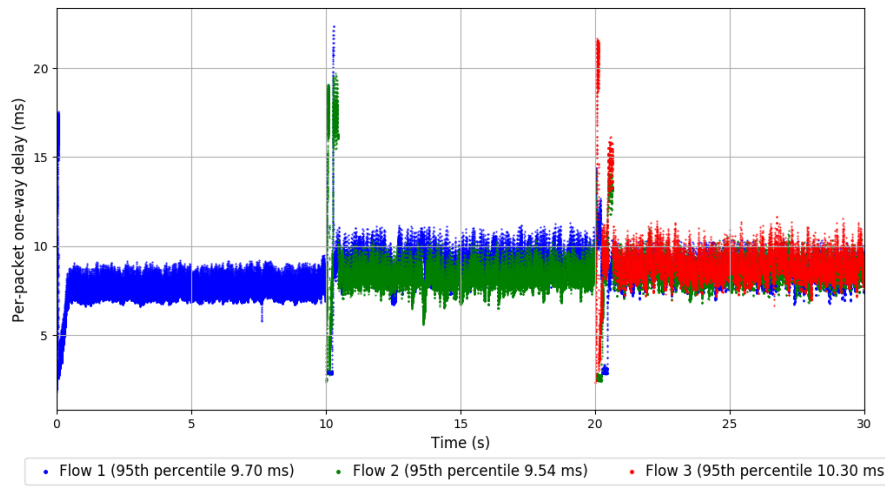
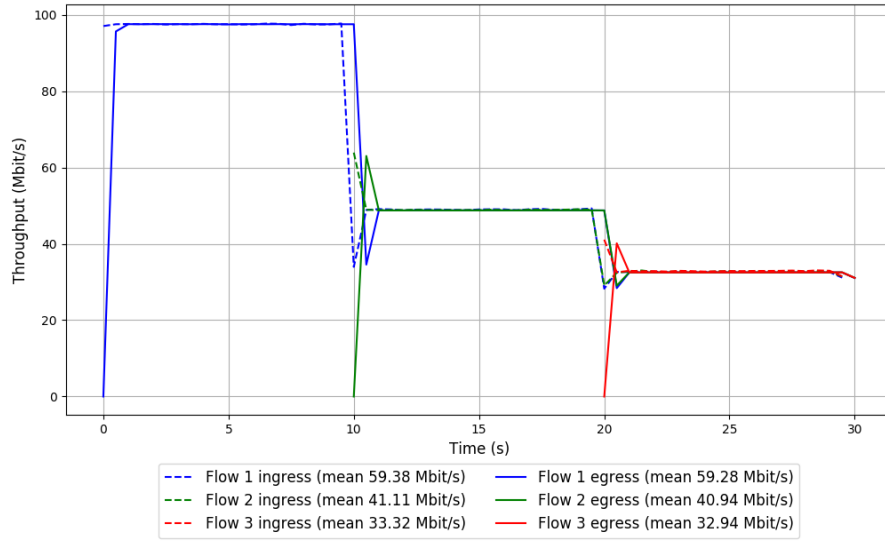
-- Flow 3:

Average throughput: 32.94 Mbit/s

95th percentile per-packet one-way delay: 10.299 ms

Loss rate: 1.16%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-30 11:29:31

End at: 2019-05-30 11:30:01

Local clock offset: -4.634 ms

Remote clock offset: 0.612 ms

Below is generated by plot.py at 2019-05-30 12:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 9.302 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 7.567 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.89 Mbit/s

95th percentile per-packet one-way delay: 9.730 ms

Loss rate: 0.49%

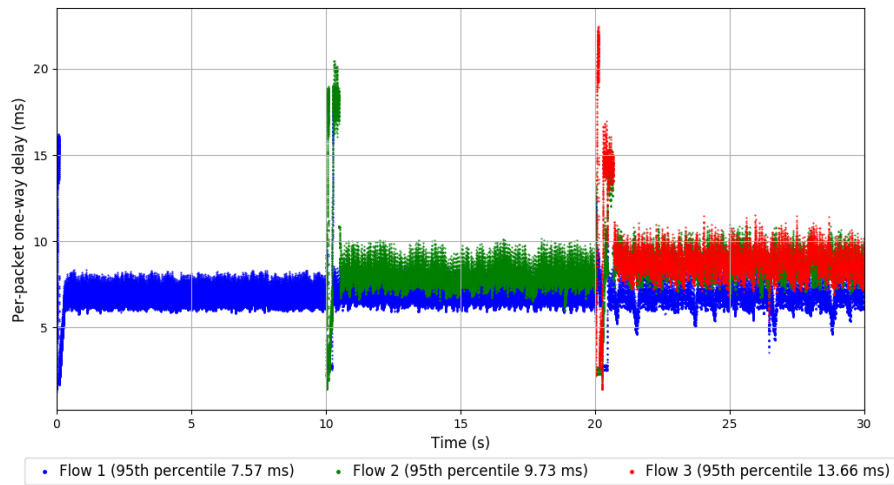
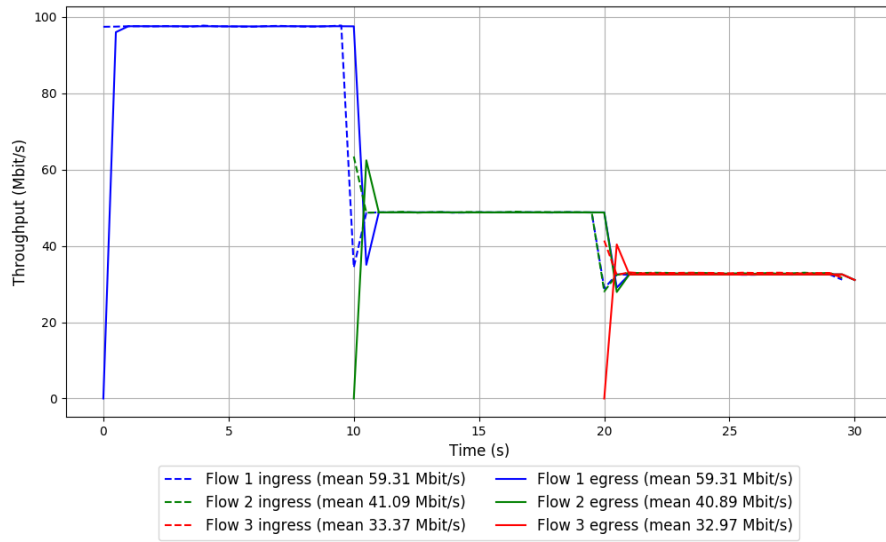
-- Flow 3:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 13.658 ms

Loss rate: 1.23%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-05-30 11:53:37

End at: 2019-05-30 11:54:07

Local clock offset: -3.04 ms

Remote clock offset: 1.007 ms

Below is generated by plot.py at 2019-05-30 12:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 10.693 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 10.389 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 40.93 Mbit/s

95th percentile per-packet one-way delay: 11.035 ms

Loss rate: 0.45%

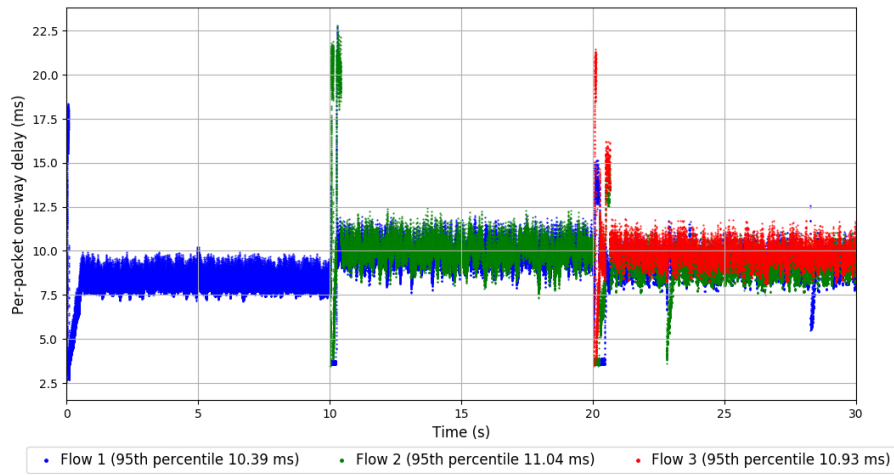
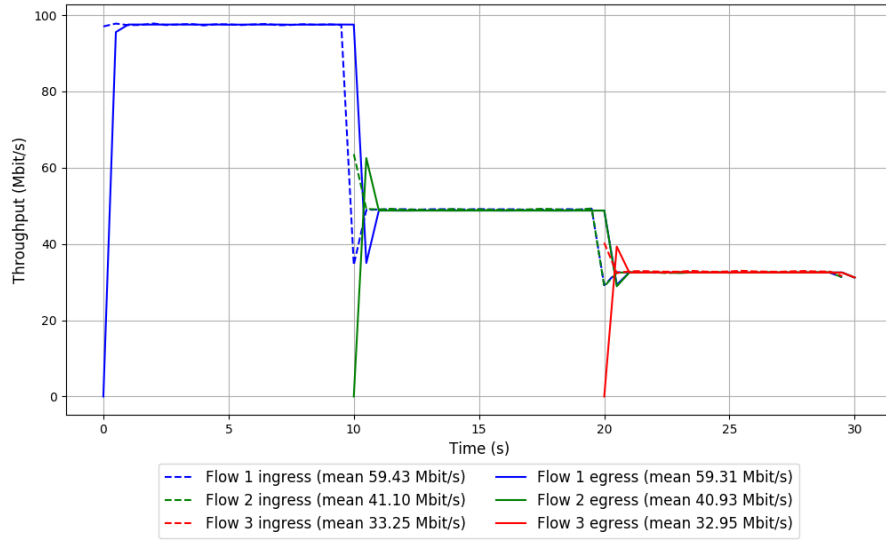
-- Flow 3:

Average throughput: 32.95 Mbit/s

95th percentile per-packet one-way delay: 10.929 ms

Loss rate: 0.96%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-05-30 12:17:42

End at: 2019-05-30 12:18:12

Local clock offset: -4.726 ms

Remote clock offset: 1.512 ms

Below is generated by plot.py at 2019-05-30 12:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 9.836 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 59.22 Mbit/s

95th percentile per-packet one-way delay: 9.869 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 40.97 Mbit/s

95th percentile per-packet one-way delay: 9.437 ms

Loss rate: 0.40%

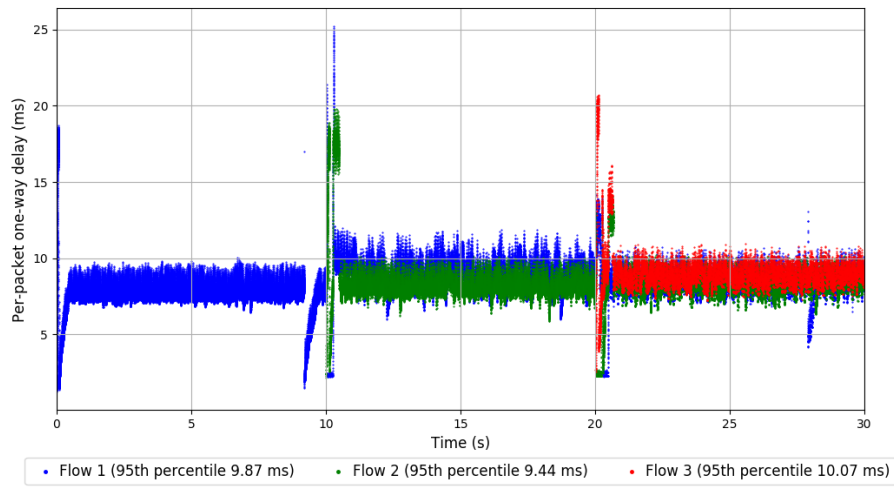
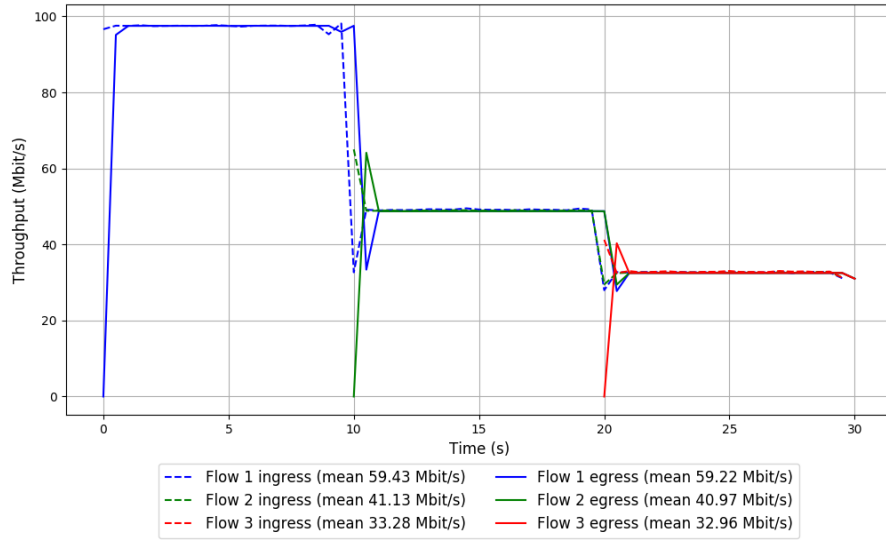
-- Flow 3:

Average throughput: 32.96 Mbit/s

95th percentile per-packet one-way delay: 10.067 ms

Loss rate: 1.02%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-05-30 12:41:50

End at: 2019-05-30 12:42:20

Local clock offset: -4.676 ms

Remote clock offset: 1.768 ms

Below is generated by plot.py at 2019-05-30 12:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 10.527 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 59.23 Mbit/s

95th percentile per-packet one-way delay: 10.643 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 40.99 Mbit/s

95th percentile per-packet one-way delay: 9.813 ms

Loss rate: 0.53%

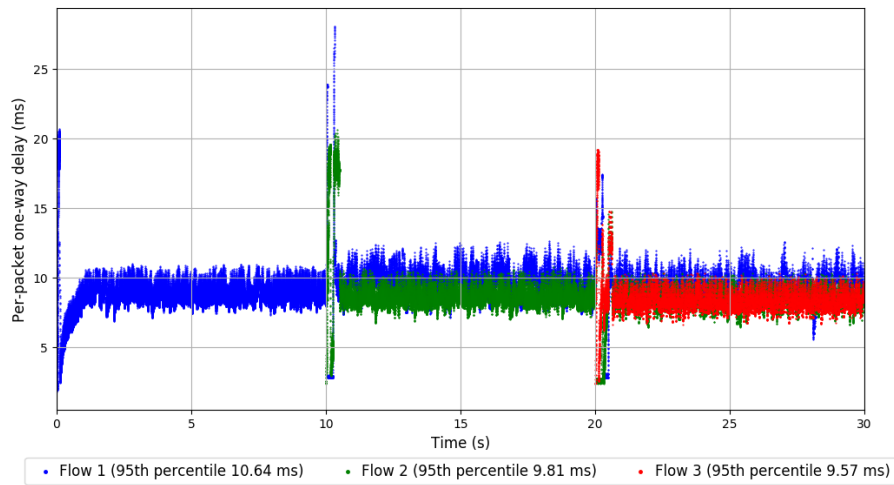
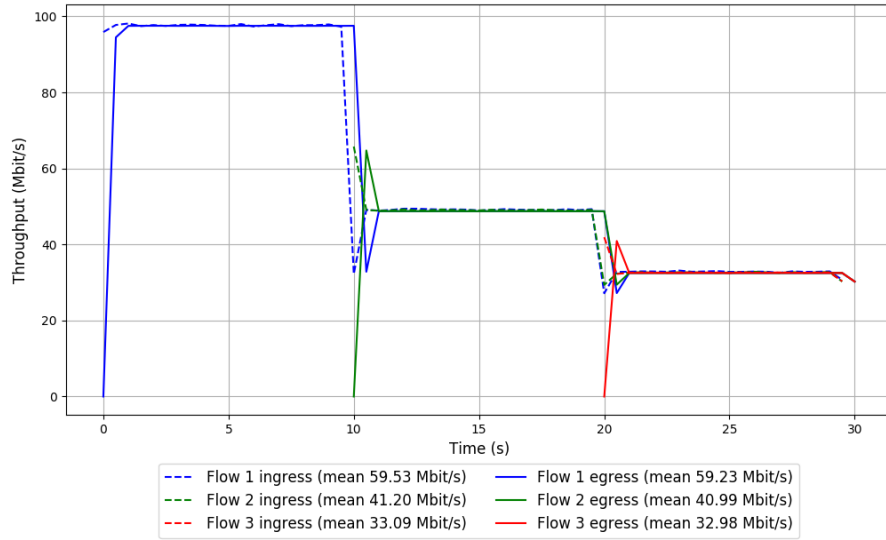
-- Flow 3:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 9.573 ms

Loss rate: 0.37%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-05-30 10:56:09

End at: 2019-05-30 10:56:39

Local clock offset: -4.937 ms

Remote clock offset: 0.039 ms

Below is generated by plot.py at 2019-05-30 12:57:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.39 Mbit/s

95th percentile per-packet one-way delay: 12.337 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 54.77 Mbit/s

95th percentile per-packet one-way delay: 11.305 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 39.18 Mbit/s

95th percentile per-packet one-way delay: 13.261 ms

Loss rate: 0.05%

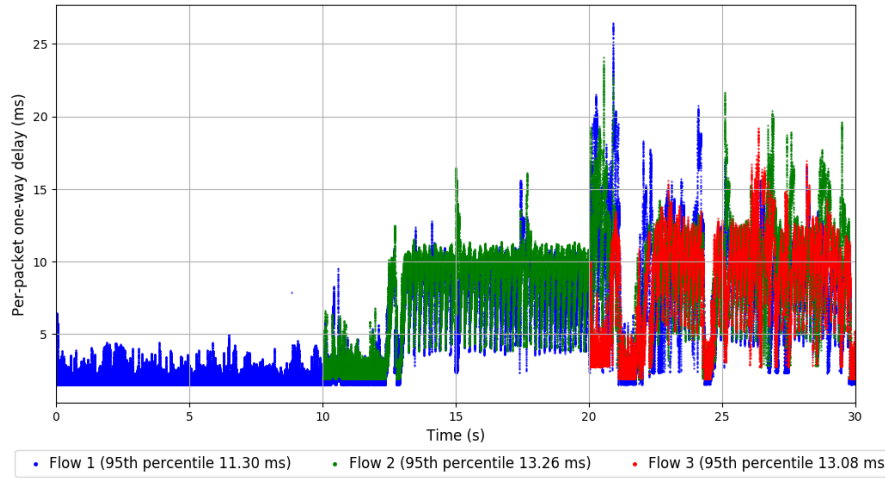
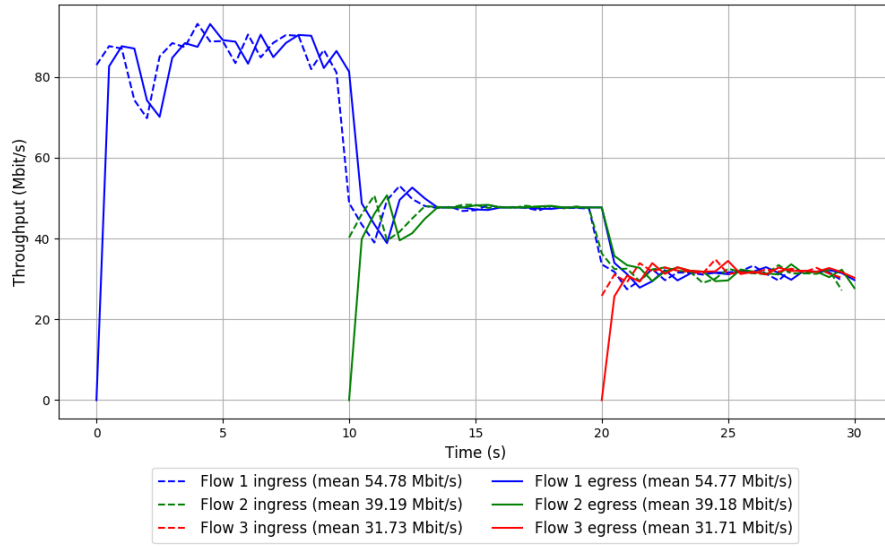
-- Flow 3:

Average throughput: 31.71 Mbit/s

95th percentile per-packet one-way delay: 13.076 ms

Loss rate: 0.09%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-05-30 11:20:17

End at: 2019-05-30 11:20:47

Local clock offset: -4.544 ms

Remote clock offset: 0.353 ms

Below is generated by plot.py at 2019-05-30 12:57:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.20 Mbit/s

95th percentile per-packet one-way delay: 11.989 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 54.13 Mbit/s

95th percentile per-packet one-way delay: 12.152 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 38.31 Mbit/s

95th percentile per-packet one-way delay: 11.568 ms

Loss rate: 0.07%

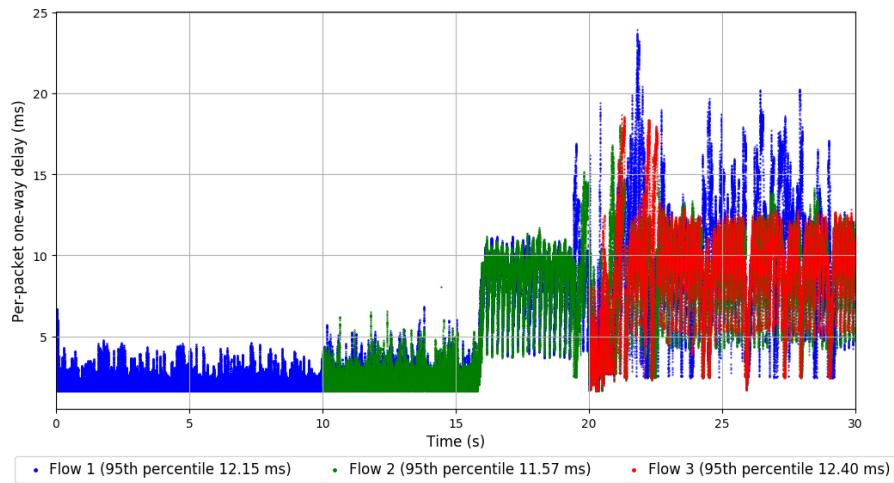
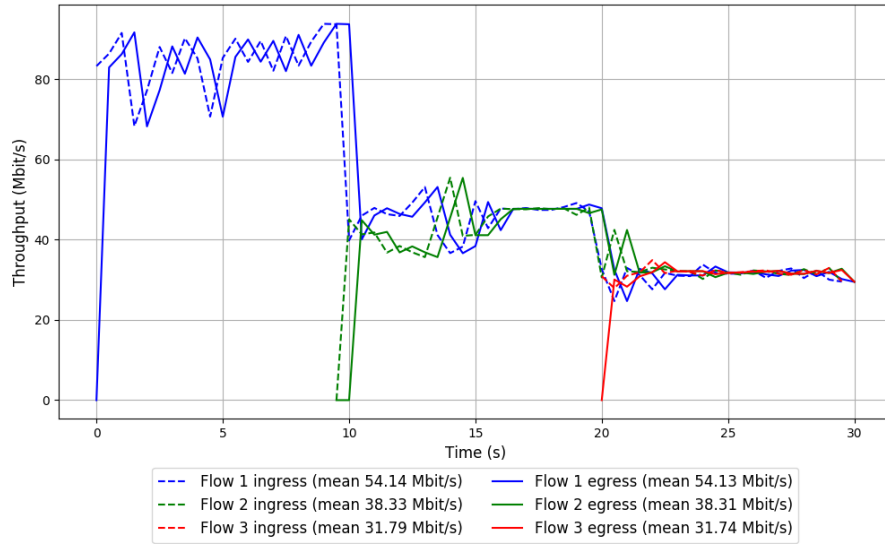
-- Flow 3:

Average throughput: 31.74 Mbit/s

95th percentile per-packet one-way delay: 12.405 ms

Loss rate: 0.18%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-05-30 11:44:22

End at: 2019-05-30 11:44:52

Local clock offset: -3.281 ms

Remote clock offset: 0.814 ms

Below is generated by plot.py at 2019-05-30 12:57:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.49 Mbit/s

95th percentile per-packet one-way delay: 12.677 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 52.57 Mbit/s

95th percentile per-packet one-way delay: 12.433 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 39.80 Mbit/s

95th percentile per-packet one-way delay: 12.380 ms

Loss rate: 0.10%

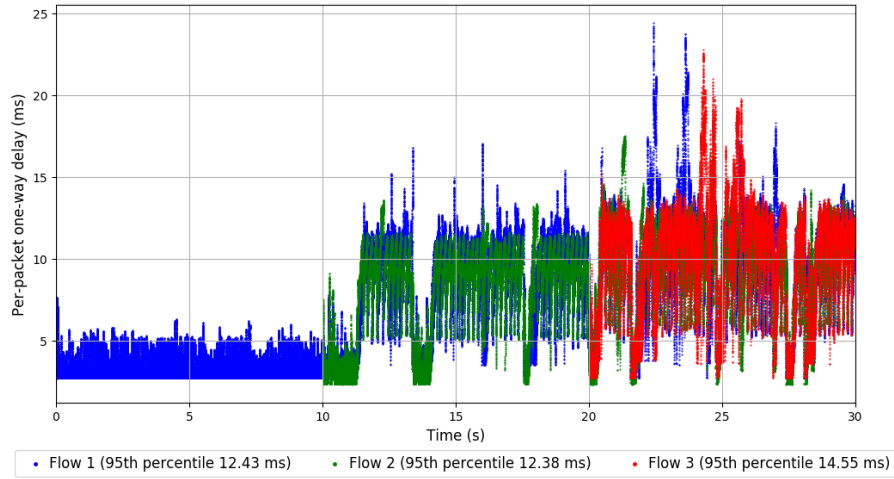
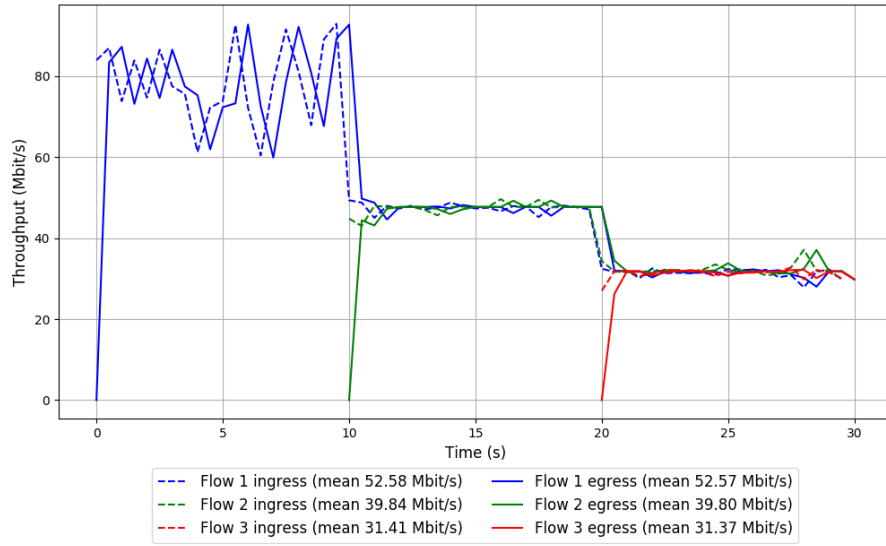
-- Flow 3:

Average throughput: 31.37 Mbit/s

95th percentile per-packet one-way delay: 14.550 ms

Loss rate: 0.18%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-05-30 12:08:28

End at: 2019-05-30 12:08:58

Local clock offset: -3.763 ms

Remote clock offset: 1.318 ms

Below is generated by plot.py at 2019-05-30 12:58:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.26 Mbit/s

95th percentile per-packet one-way delay: 12.694 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 52.11 Mbit/s

95th percentile per-packet one-way delay: 12.448 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 40.32 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 0.10%

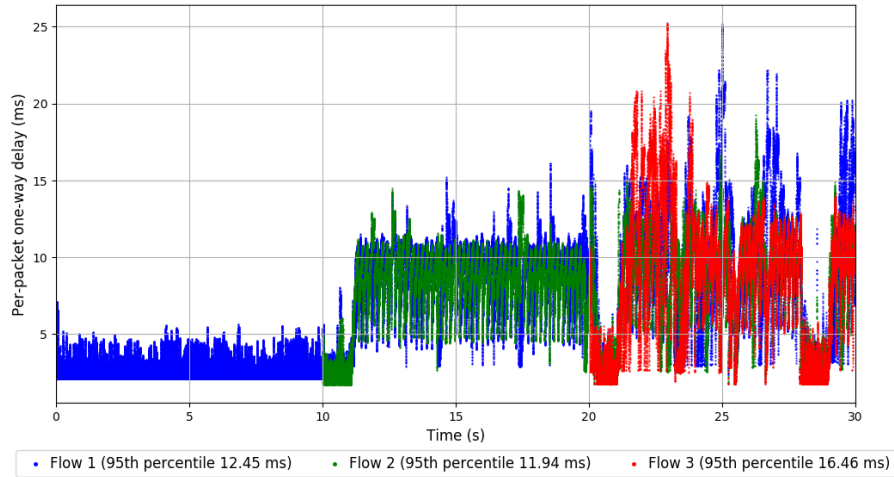
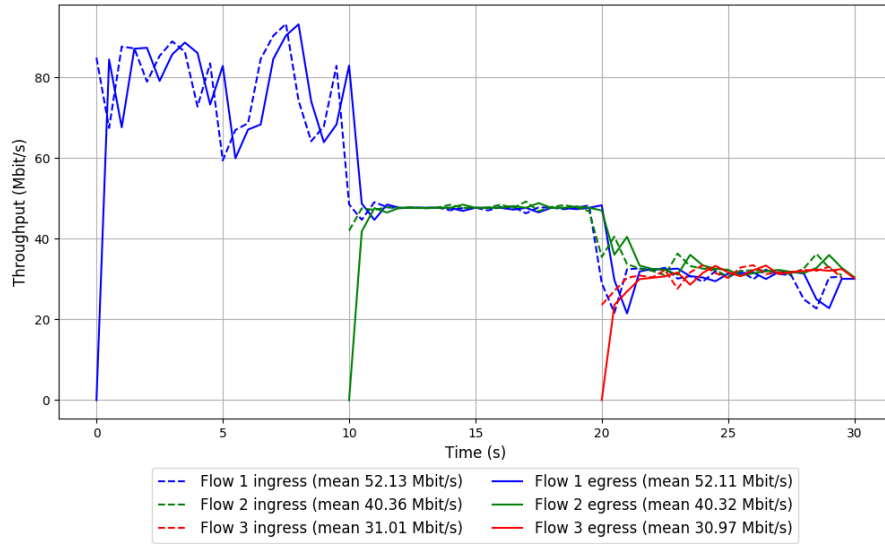
-- Flow 3:

Average throughput: 30.97 Mbit/s

95th percentile per-packet one-way delay: 16.462 ms

Loss rate: 0.16%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-05-30 12:32:36

End at: 2019-05-30 12:33:06

Local clock offset: -4.817 ms

Remote clock offset: 1.636 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.80 Mbit/s

95th percentile per-packet one-way delay: 12.520 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 55.98 Mbit/s

95th percentile per-packet one-way delay: 12.353 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 39.37 Mbit/s

95th percentile per-packet one-way delay: 12.116 ms

Loss rate: 0.08%

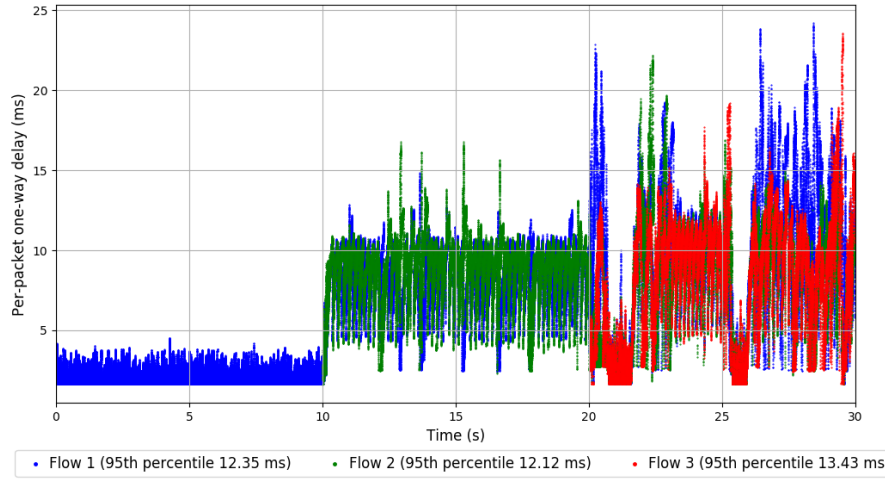
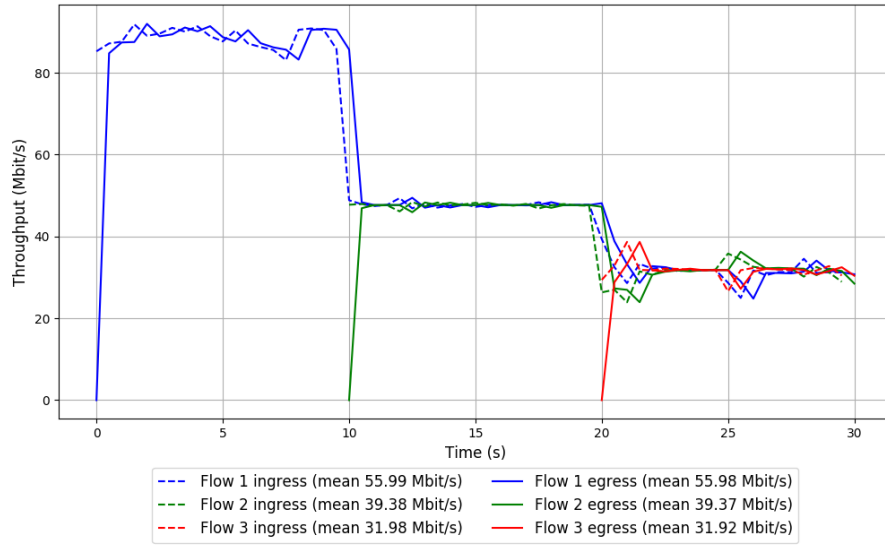
-- Flow 3:

Average throughput: 31.92 Mbit/s

95th percentile per-packet one-way delay: 13.430 ms

Loss rate: 0.20%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-30 11:00:44

End at: 2019-05-30 11:01:14

Local clock offset: -4.388 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 10.478 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 59.60 Mbit/s

95th percentile per-packet one-way delay: 10.536 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 10.213 ms

Loss rate: 0.13%

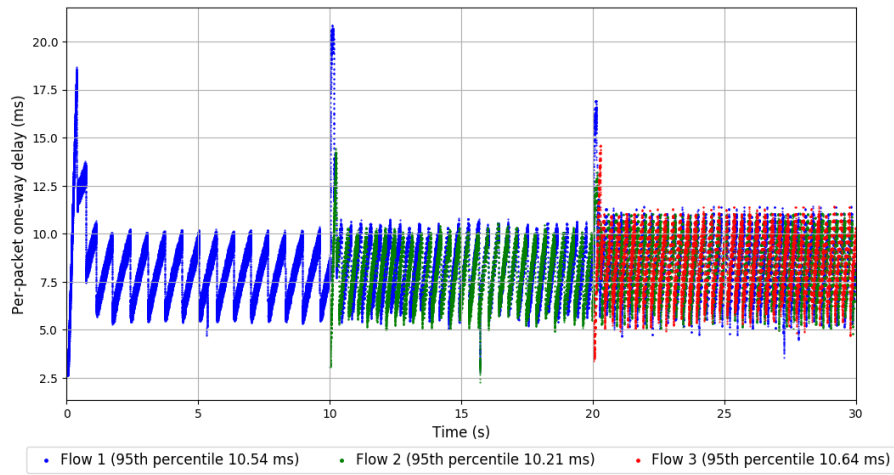
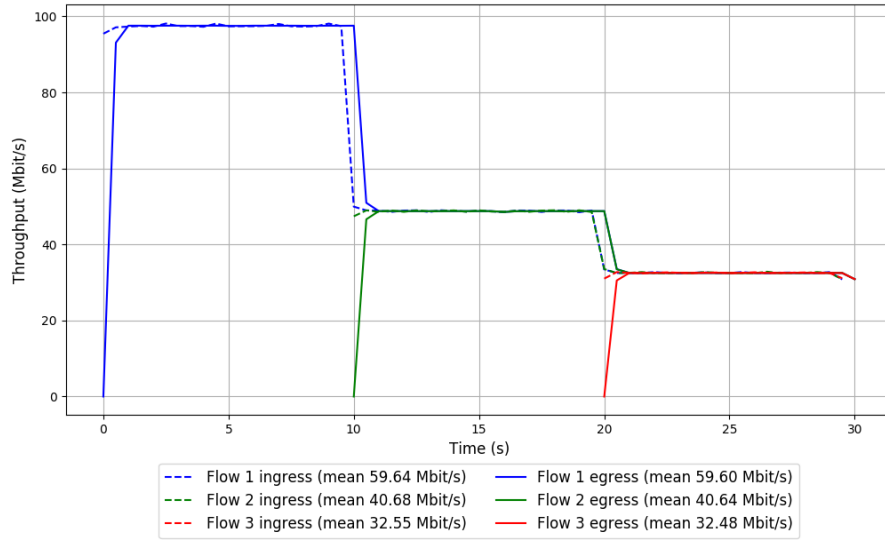
-- Flow 3:

Average throughput: 32.48 Mbit/s

95th percentile per-packet one-way delay: 10.639 ms

Loss rate: 0.23%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-05-30 11:24:52

End at: 2019-05-30 11:25:22

Local clock offset: -3.918 ms

Remote clock offset: 0.556 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 10.483 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.60 Mbit/s

95th percentile per-packet one-way delay: 10.603 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.65 Mbit/s

95th percentile per-packet one-way delay: 10.329 ms

Loss rate: 0.16%

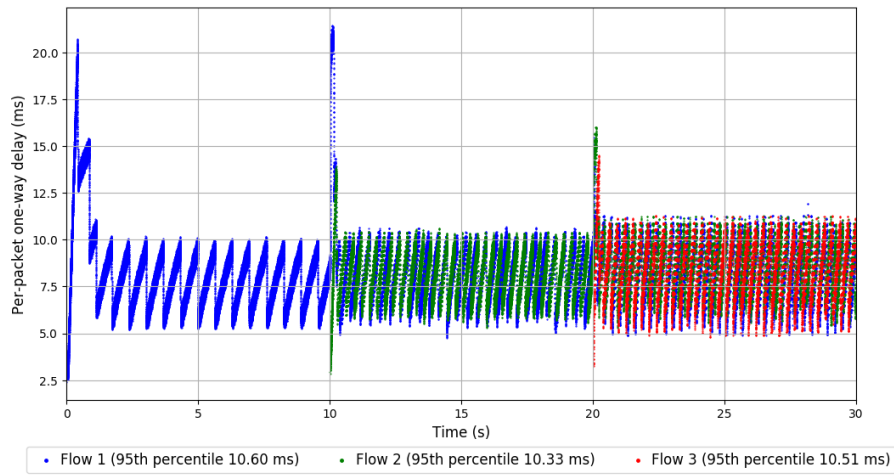
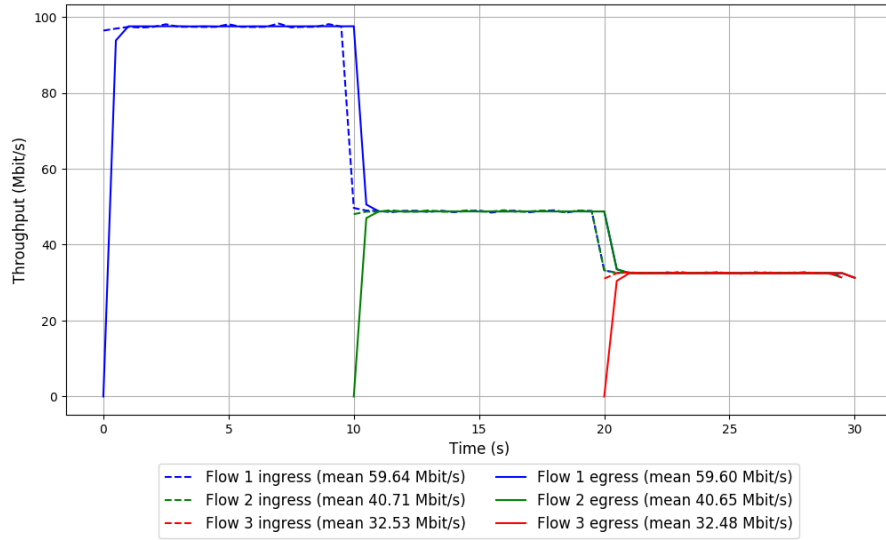
-- Flow 3:

Average throughput: 32.48 Mbit/s

95th percentile per-packet one-way delay: 10.514 ms

Loss rate: 0.20%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 11:48:58

End at: 2019-05-30 11:49:28

Local clock offset: -3.318 ms

Remote clock offset: 0.991 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 10.460 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.60 Mbit/s

95th percentile per-packet one-way delay: 10.738 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 10.020 ms

Loss rate: 0.14%

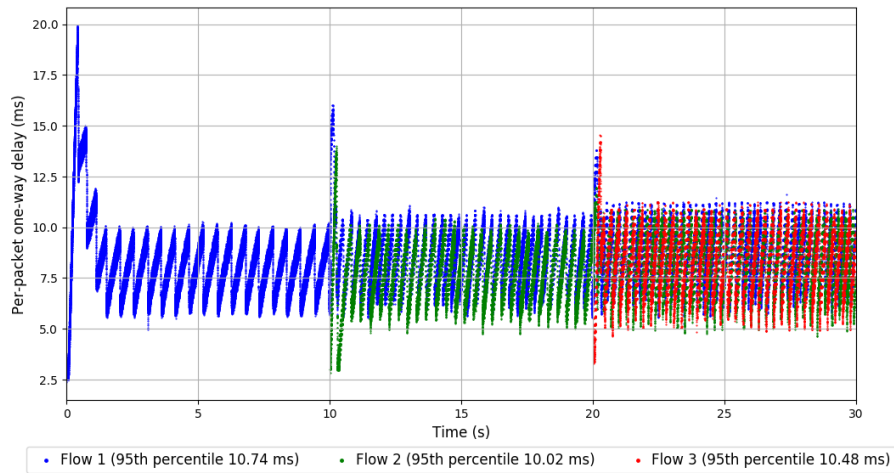
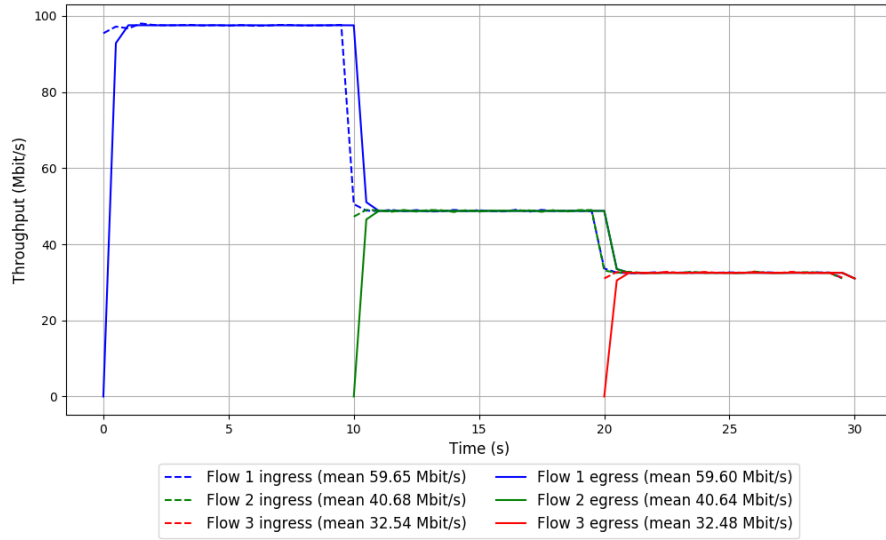
-- Flow 3:

Average throughput: 32.48 Mbit/s

95th percentile per-packet one-way delay: 10.481 ms

Loss rate: 0.23%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 12:13:03

End at: 2019-05-30 12:13:33

Local clock offset: -3.442 ms

Remote clock offset: 1.502 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 10.606 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.62 Mbit/s

95th percentile per-packet one-way delay: 10.684 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.63 Mbit/s

95th percentile per-packet one-way delay: 10.296 ms

Loss rate: 0.13%

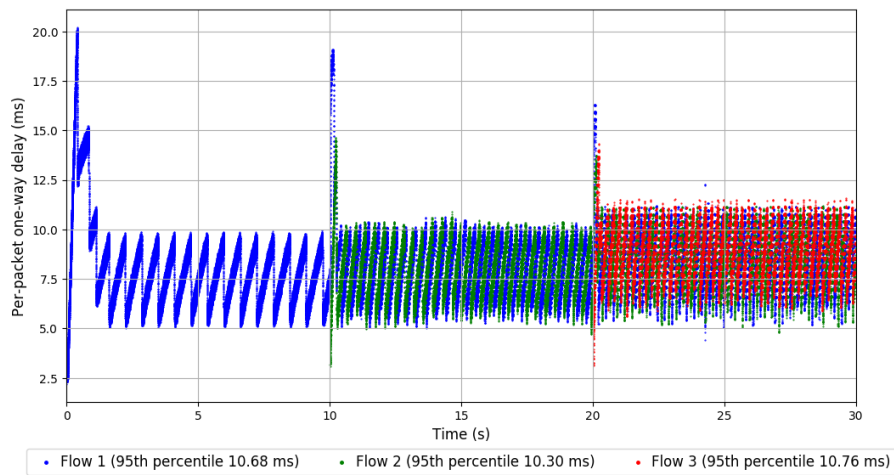
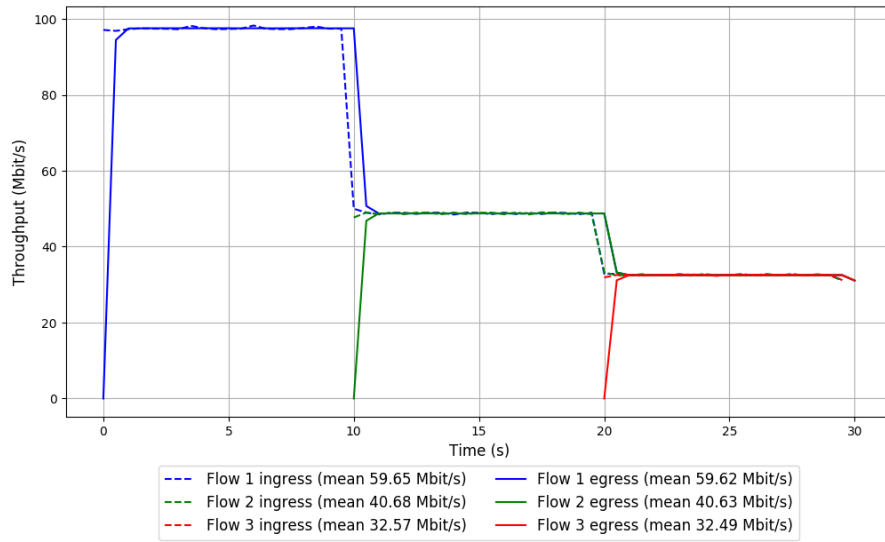
-- Flow 3:

Average throughput: 32.49 Mbit/s

95th percentile per-packet one-way delay: 10.756 ms

Loss rate: 0.26%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 12:37:11

End at: 2019-05-30 12:37:41

Local clock offset: -5.122 ms

Remote clock offset: 1.654 ms

Below is generated by plot.py at 2019-05-30 12:59:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 9.646 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 59.59 Mbit/s

95th percentile per-packet one-way delay: 9.912 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 9.350 ms

Loss rate: 0.14%

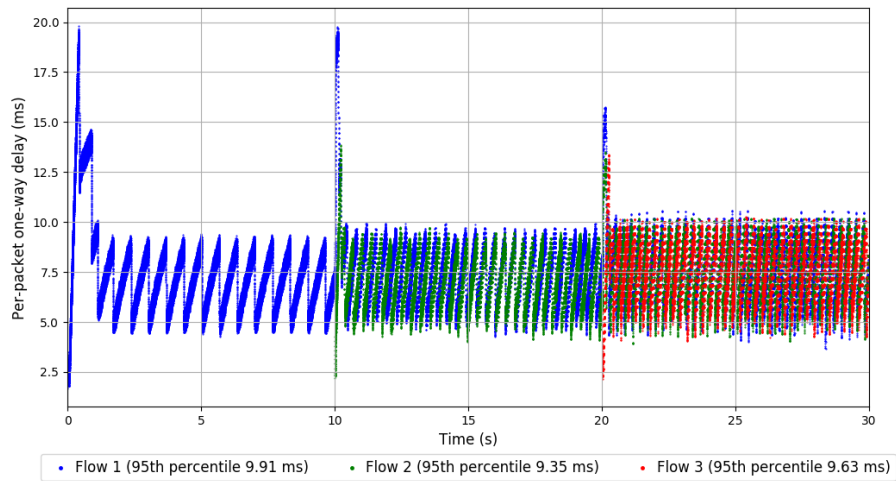
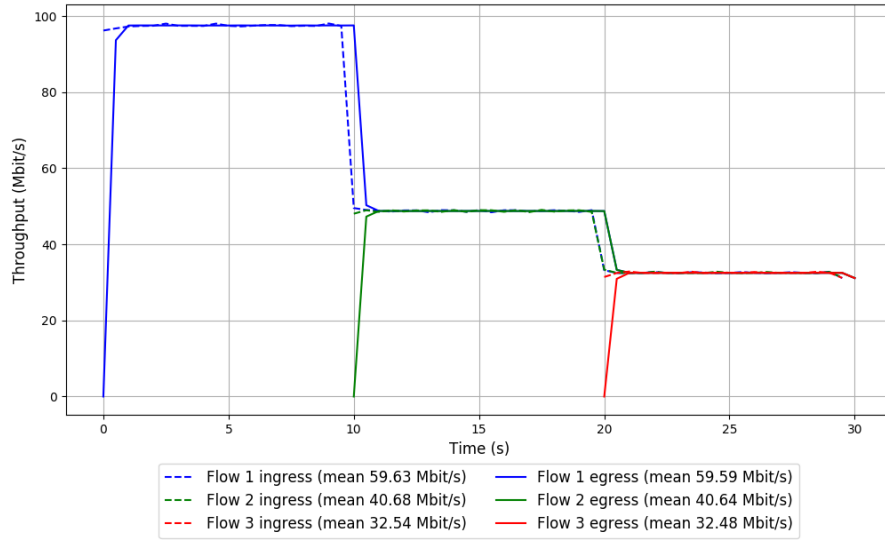
-- Flow 3:

Average throughput: 32.48 Mbit/s

95th percentile per-packet one-way delay: 9.634 ms

Loss rate: 0.22%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-05-30 11:12:15

End at: 2019-05-30 11:12:45

Local clock offset: -4.001 ms

Remote clock offset: 0.266 ms

Below is generated by plot.py at 2019-05-30 12:59:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.08 Mbit/s

95th percentile per-packet one-way delay: 37.882 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 52.47 Mbit/s

95th percentile per-packet one-way delay: 27.986 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 48.07 Mbit/s

95th percentile per-packet one-way delay: 42.578 ms

Loss rate: 0.49%

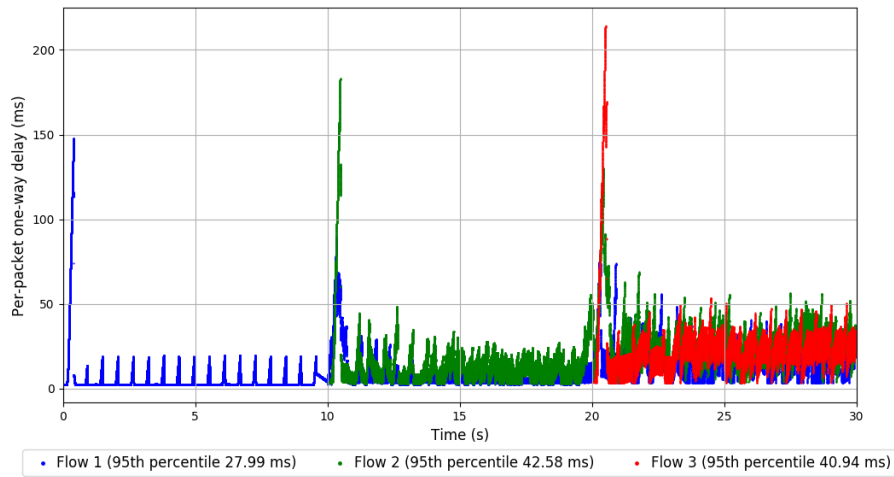
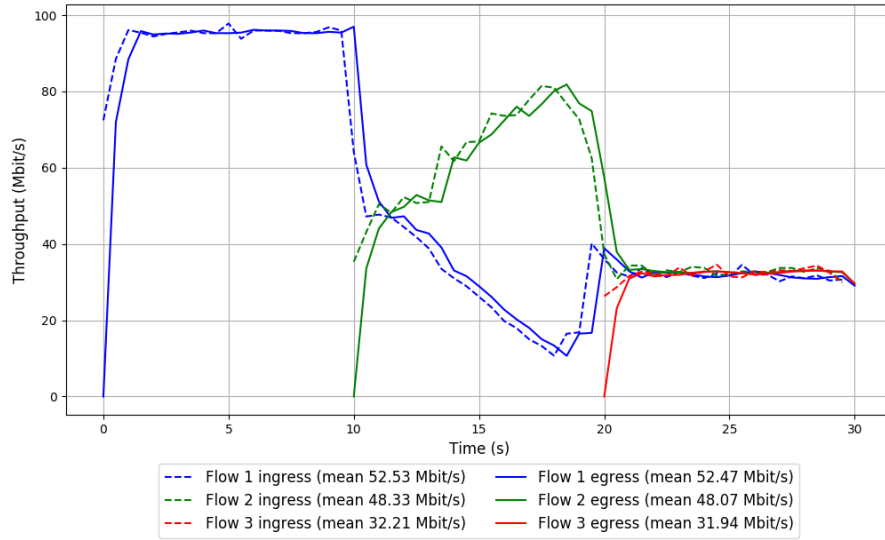
-- Flow 3:

Average throughput: 31.94 Mbit/s

95th percentile per-packet one-way delay: 40.943 ms

Loss rate: 0.88%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-05-30 11:36:23

End at: 2019-05-30 11:36:53

Local clock offset: -4.396 ms

Remote clock offset: 0.769 ms

Below is generated by plot.py at 2019-05-30 12:59:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.22 Mbit/s

95th percentile per-packet one-way delay: 39.459 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 55.37 Mbit/s

95th percentile per-packet one-way delay: 32.463 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 28.70 Mbit/s

95th percentile per-packet one-way delay: 28.495 ms

Loss rate: 0.11%

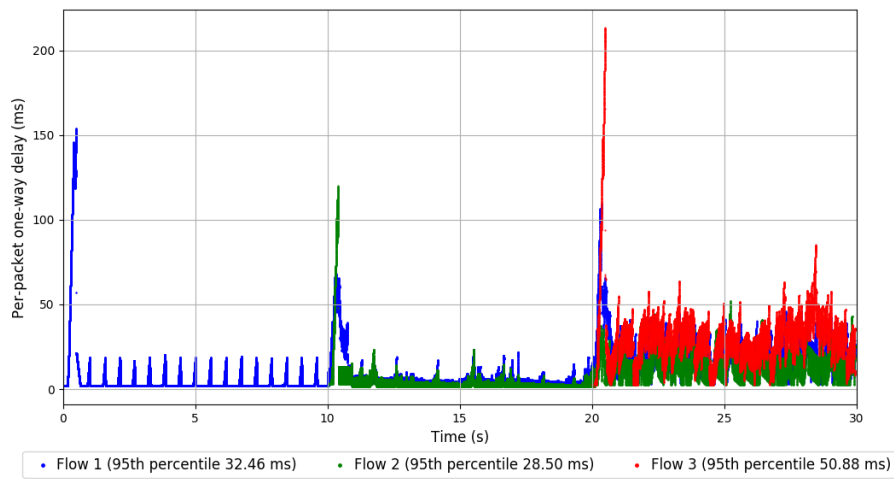
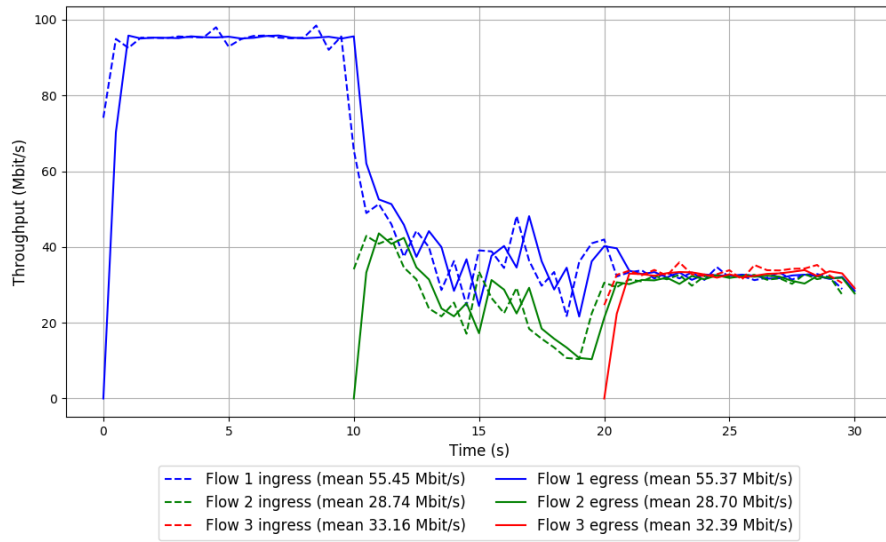
-- Flow 3:

Average throughput: 32.39 Mbit/s

95th percentile per-packet one-way delay: 50.884 ms

Loss rate: 2.33%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-05-30 12:00:28

End at: 2019-05-30 12:00:58

Local clock offset: -3.884 ms

Remote clock offset: 1.205 ms

Below is generated by plot.py at 2019-05-30 12:59:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.04 Mbit/s

95th percentile per-packet one-way delay: 45.902 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 49.03 Mbit/s

95th percentile per-packet one-way delay: 28.515 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 43.90 Mbit/s

95th percentile per-packet one-way delay: 39.938 ms

Loss rate: 0.25%

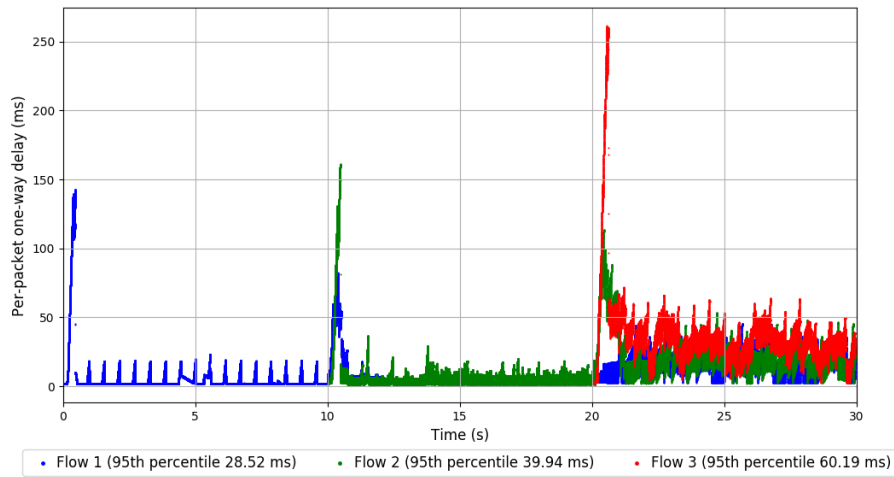
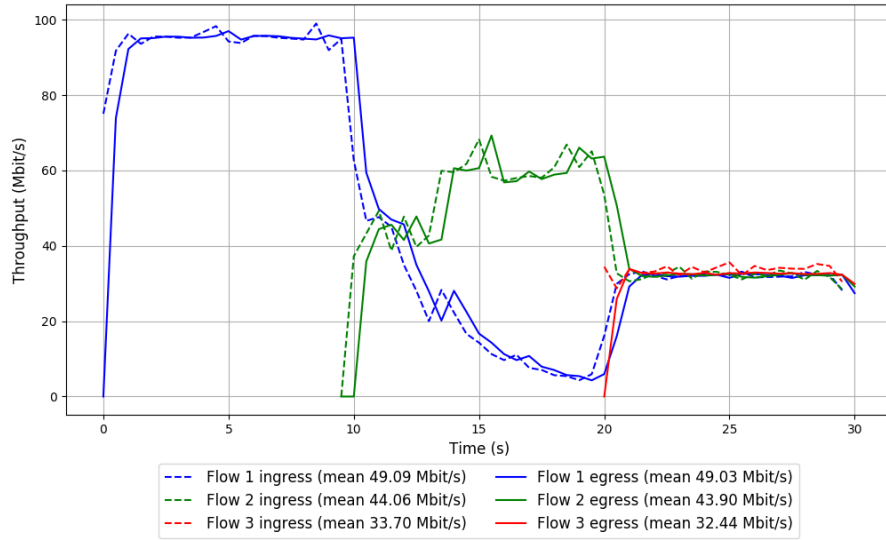
-- Flow 3:

Average throughput: 32.44 Mbit/s

95th percentile per-packet one-way delay: 60.185 ms

Loss rate: 3.71%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-05-30 12:24:33

End at: 2019-05-30 12:25:03

Local clock offset: -3.971 ms

Remote clock offset: 1.617 ms

Below is generated by plot.py at 2019-05-30 12:59:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 52.015 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 54.99 Mbit/s

95th percentile per-packet one-way delay: 35.459 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 45.63 Mbit/s

95th percentile per-packet one-way delay: 58.565 ms

Loss rate: 3.29%

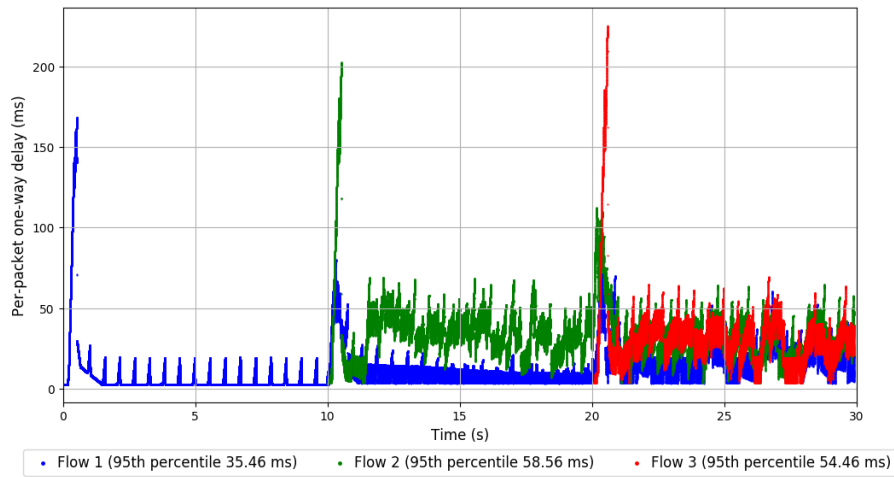
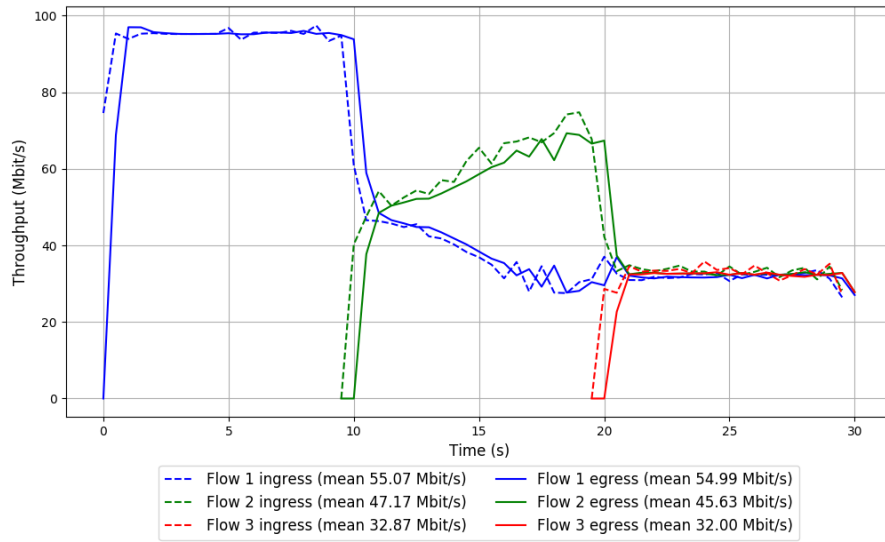
-- Flow 3:

Average throughput: 32.00 Mbit/s

95th percentile per-packet one-way delay: 54.461 ms

Loss rate: 2.56%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-05-30 12:48:42

End at: 2019-05-30 12:49:12

Local clock offset: -4.548 ms

Remote clock offset: 1.771 ms

Below is generated by plot.py at 2019-05-30 13:00:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.29 Mbit/s

95th percentile per-packet one-way delay: 38.769 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 59.79 Mbit/s

95th percentile per-packet one-way delay: 35.329 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 39.34 Mbit/s

95th percentile per-packet one-way delay: 42.454 ms

Loss rate: 0.53%

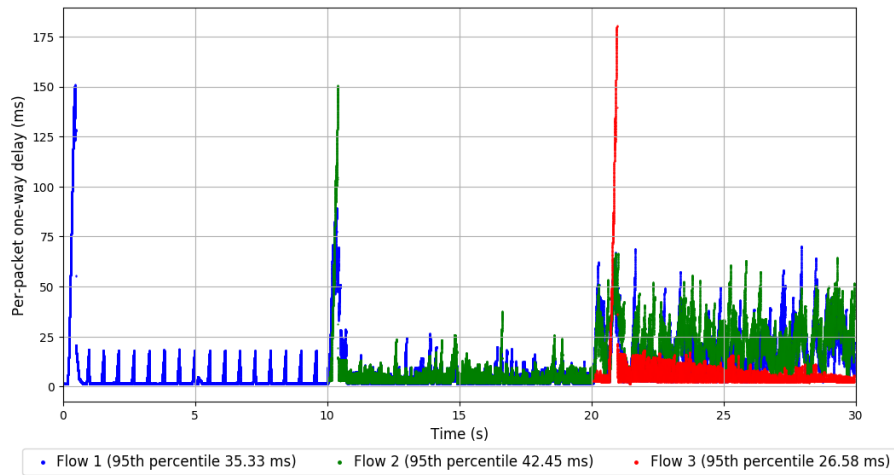
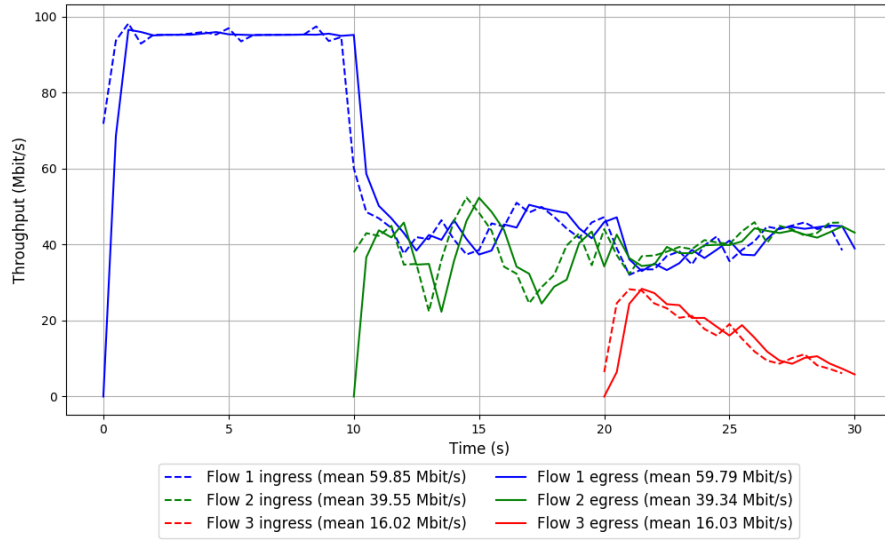
-- Flow 3:

Average throughput: 16.03 Mbit/s

95th percentile per-packet one-way delay: 26.578 ms

Loss rate: 0.11%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-05-30 11:09:58

End at: 2019-05-30 11:10:28

Local clock offset: -4.927 ms

Remote clock offset: 0.279 ms

Below is generated by plot.py at 2019-05-30 13:00:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.62 Mbit/s

95th percentile per-packet one-way delay: 31.657 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 53.64 Mbit/s

95th percentile per-packet one-way delay: 18.122 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 42.61 Mbit/s

95th percentile per-packet one-way delay: 27.854 ms

Loss rate: 0.01%

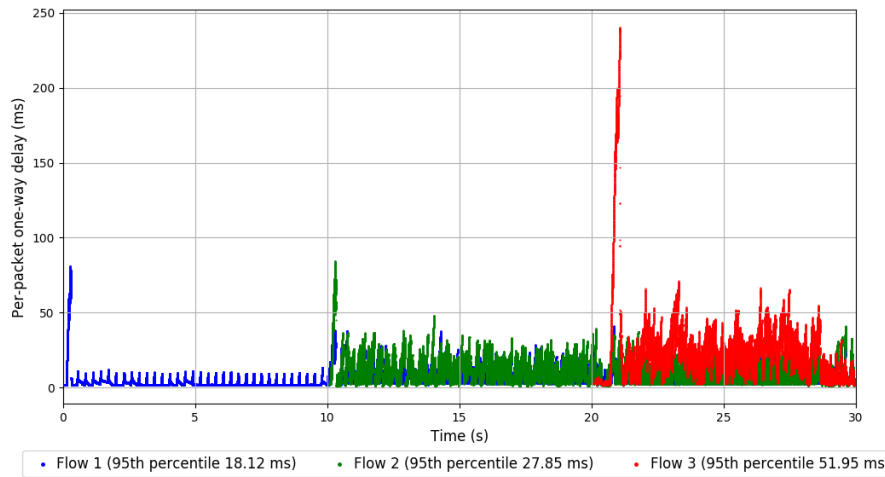
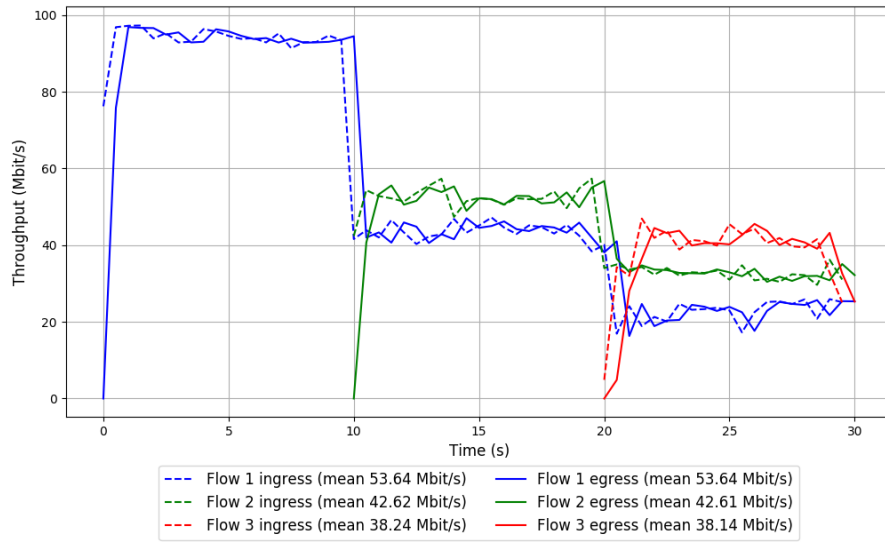
-- Flow 3:

Average throughput: 38.14 Mbit/s

95th percentile per-packet one-way delay: 51.953 ms

Loss rate: 0.28%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-05-30 11:34:05

End at: 2019-05-30 11:34:35

Local clock offset: -3.65 ms

Remote clock offset: 0.645 ms

Below is generated by plot.py at 2019-05-30 13:00:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.05 Mbit/s

95th percentile per-packet one-way delay: 26.205 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 60.75 Mbit/s

95th percentile per-packet one-way delay: 26.157 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 32.65 Mbit/s

95th percentile per-packet one-way delay: 20.599 ms

Loss rate: 0.05%

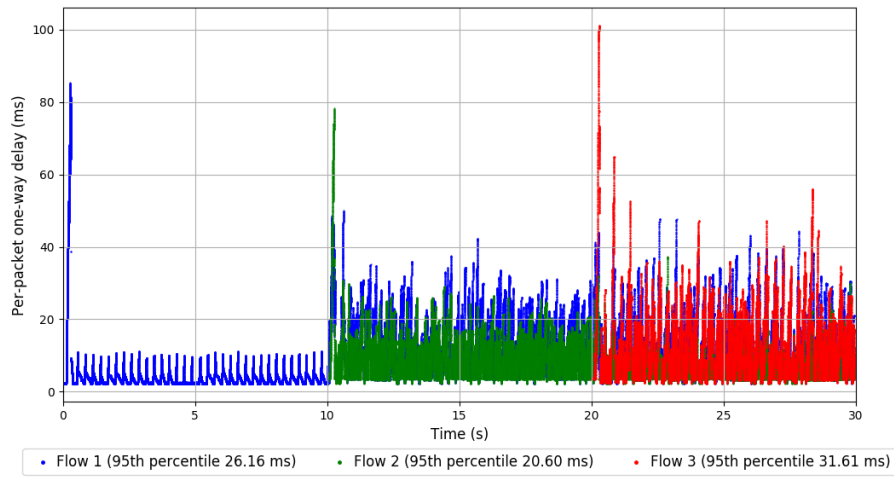
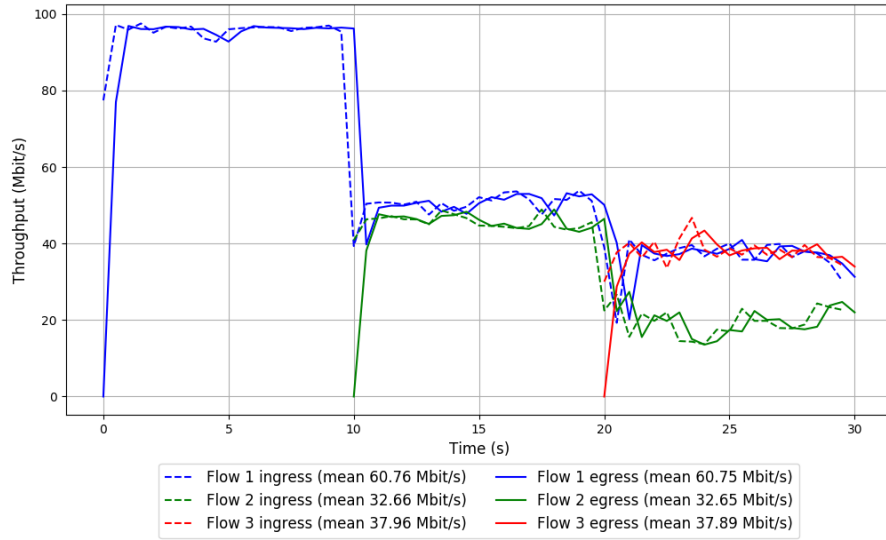
-- Flow 3:

Average throughput: 37.89 Mbit/s

95th percentile per-packet one-way delay: 31.605 ms

Loss rate: 0.15%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-30 11:58:11

End at: 2019-05-30 11:58:41

Local clock offset: -3.208 ms

Remote clock offset: 1.06 ms

Below is generated by plot.py at 2019-05-30 13:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.95 Mbit/s

95th percentile per-packet one-way delay: 26.540 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 54.37 Mbit/s

95th percentile per-packet one-way delay: 19.533 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.02 Mbit/s

95th percentile per-packet one-way delay: 27.691 ms

Loss rate: 0.13%

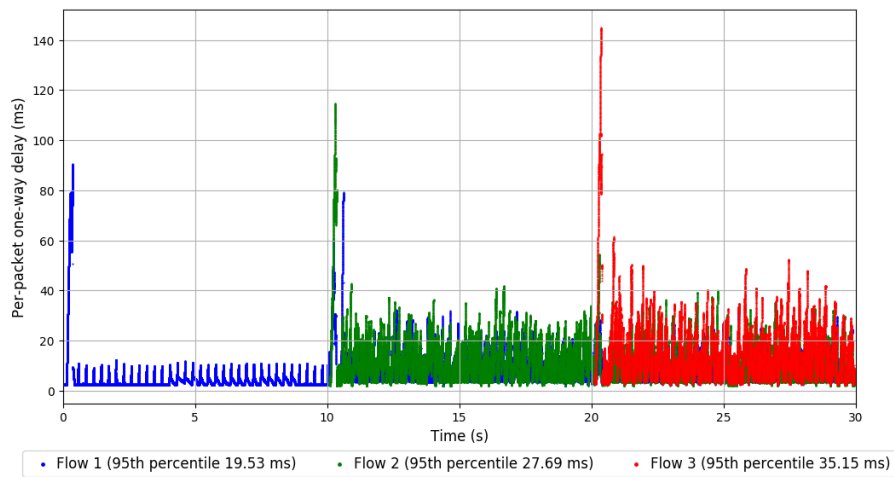
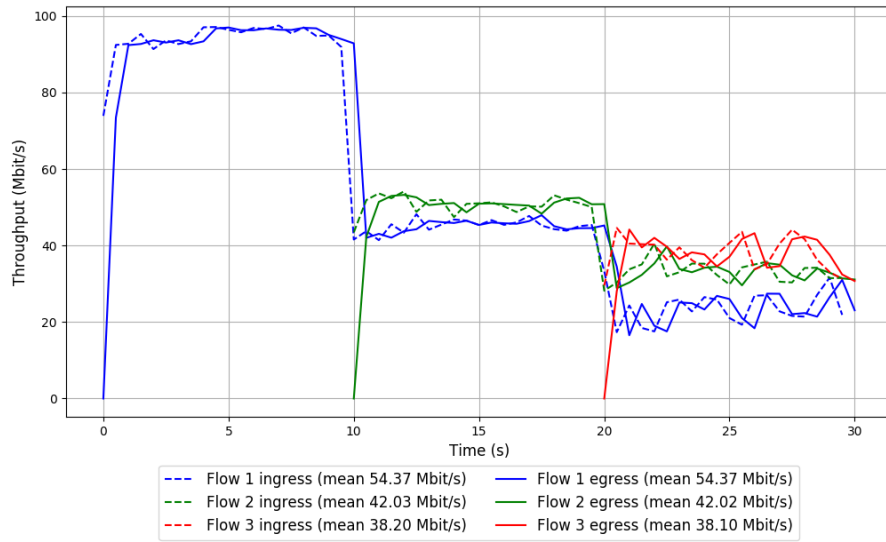
-- Flow 3:

Average throughput: 38.10 Mbit/s

95th percentile per-packet one-way delay: 35.147 ms

Loss rate: 0.26%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 12:22:16

End at: 2019-05-30 12:22:46

Local clock offset: -4.619 ms

Remote clock offset: 1.621 ms

Below is generated by plot.py at 2019-05-30 13:00:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.90 Mbit/s

95th percentile per-packet one-way delay: 24.880 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 51.33 Mbit/s

95th percentile per-packet one-way delay: 16.843 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 48.18 Mbit/s

95th percentile per-packet one-way delay: 28.022 ms

Loss rate: 0.08%

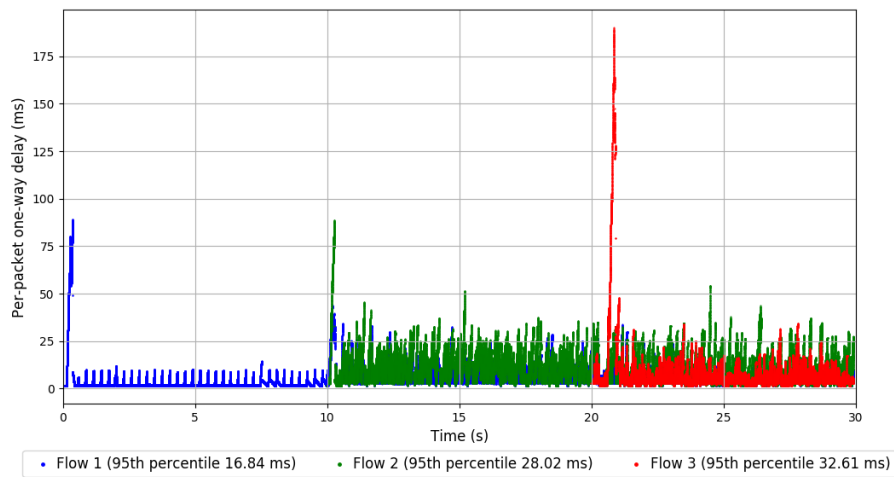
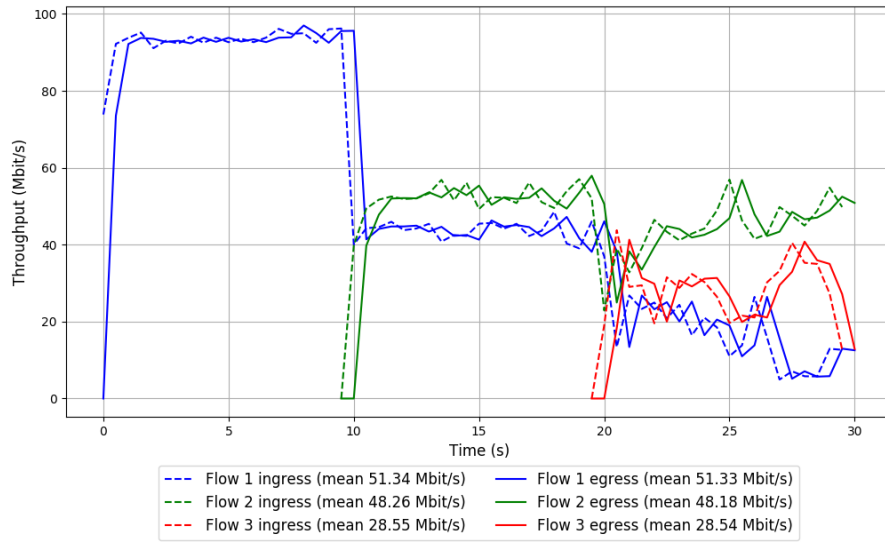
-- Flow 3:

Average throughput: 28.54 Mbit/s

95th percentile per-packet one-way delay: 32.607 ms

Loss rate: 0.02%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 12:46:25

End at: 2019-05-30 12:46:55

Local clock offset: -4.772 ms

Remote clock offset: 1.737 ms

Below is generated by plot.py at 2019-05-30 13:00:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.68 Mbit/s

95th percentile per-packet one-way delay: 23.496 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 58.83 Mbit/s

95th percentile per-packet one-way delay: 21.110 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 35.06 Mbit/s

95th percentile per-packet one-way delay: 21.816 ms

Loss rate: 0.00%

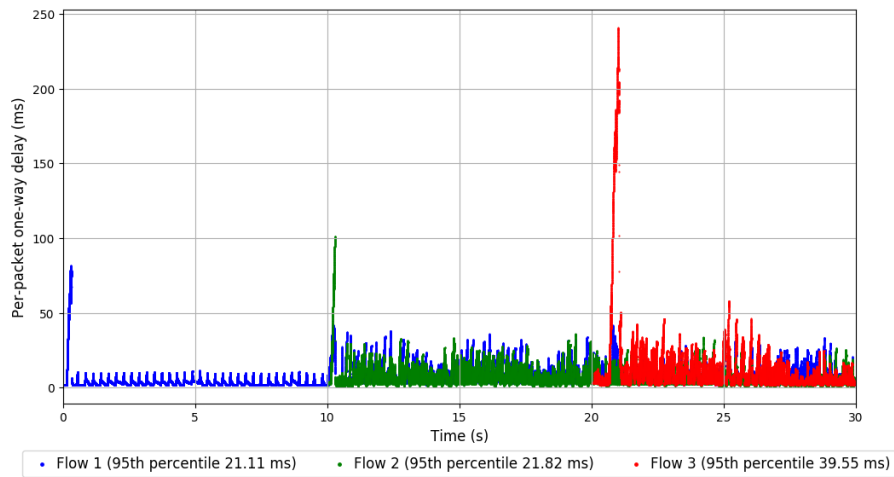
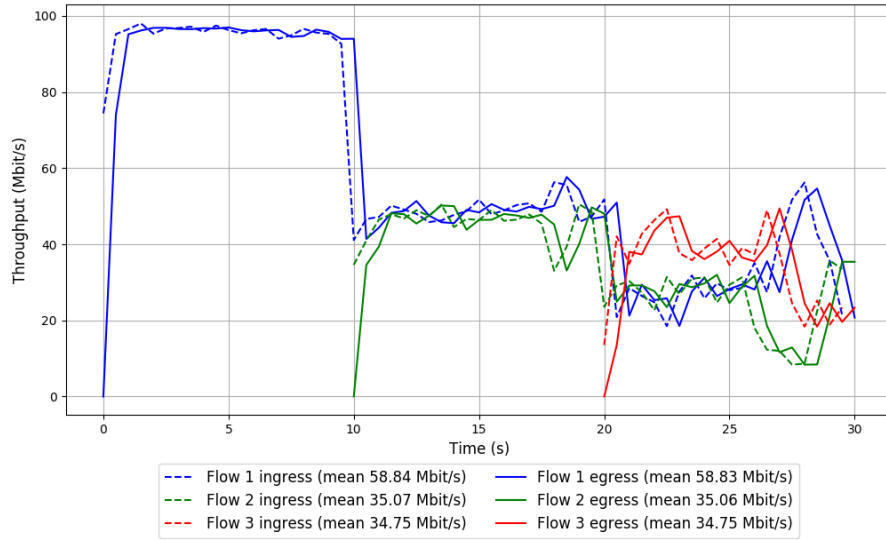
-- Flow 3:

Average throughput: 34.75 Mbit/s

95th percentile per-packet one-way delay: 39.552 ms

Loss rate: 0.02%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-05-30 11:03:05

End at: 2019-05-30 11:03:35

Local clock offset: -5.187 ms

Remote clock offset: 0.1 ms

Below is generated by plot.py at 2019-05-30 13:00:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.31 Mbit/s

95th percentile per-packet one-way delay: 9.674 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 59.66 Mbit/s

95th percentile per-packet one-way delay: 9.337 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.61 Mbit/s

95th percentile per-packet one-way delay: 9.725 ms

Loss rate: 0.15%

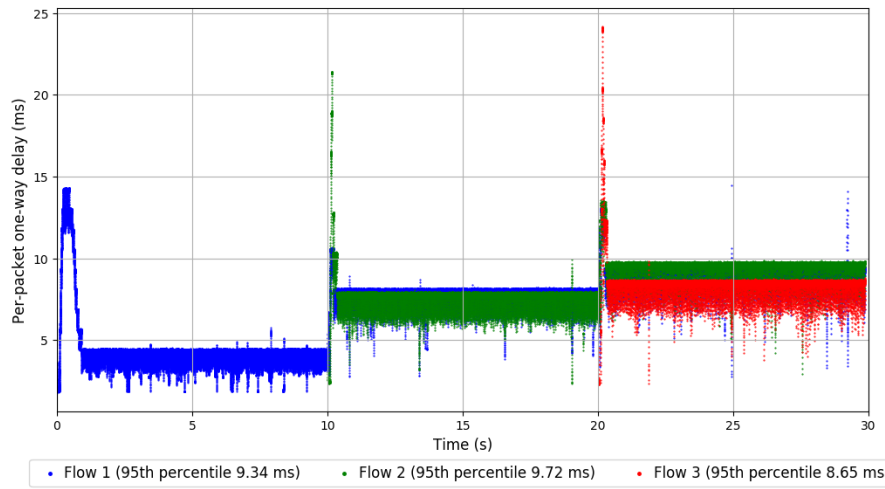
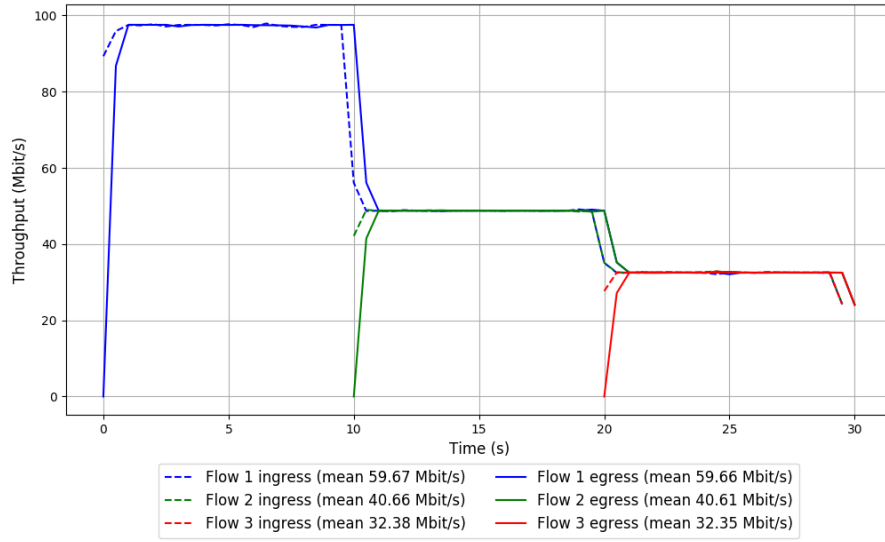
-- Flow 3:

Average throughput: 32.35 Mbit/s

95th percentile per-packet one-way delay: 8.648 ms

Loss rate: 0.11%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-05-30 11:27:14

End at: 2019-05-30 11:27:44

Local clock offset: -3.767 ms

Remote clock offset: 0.52 ms

Below is generated by plot.py at 2019-05-30 13:00:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 10.194 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 59.60 Mbit/s

95th percentile per-packet one-way delay: 9.783 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.63 Mbit/s

95th percentile per-packet one-way delay: 10.551 ms

Loss rate: 0.06%

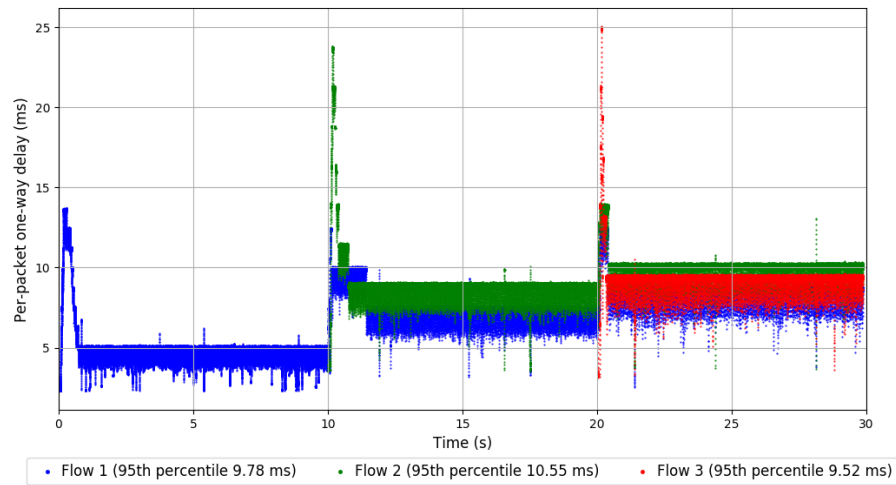
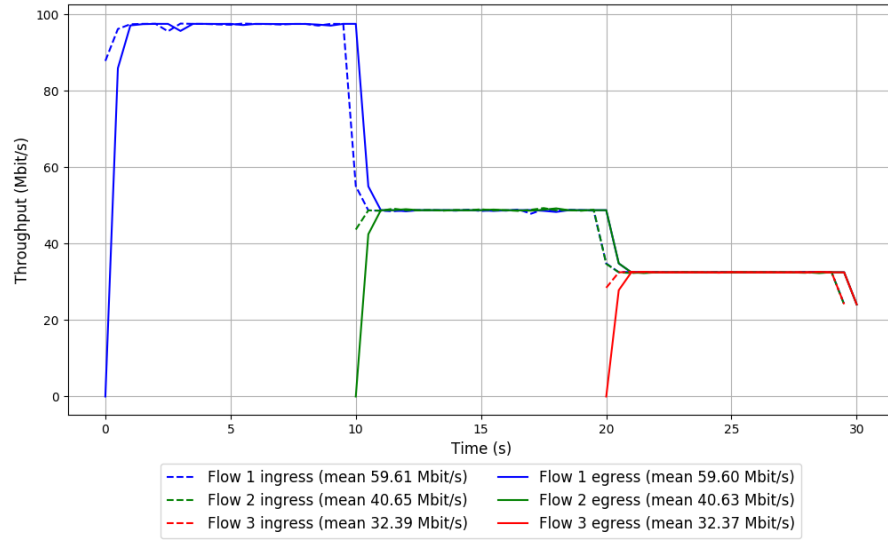
-- Flow 3:

Average throughput: 32.37 Mbit/s

95th percentile per-packet one-way delay: 9.523 ms

Loss rate: 0.11%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-05-30 11:51:19

End at: 2019-05-30 11:51:49

Local clock offset: -3.27 ms

Remote clock offset: 0.948 ms

Below is generated by plot.py at 2019-05-30 13:01:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 11.808 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 59.66 Mbit/s

95th percentile per-packet one-way delay: 9.645 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.62 Mbit/s

95th percentile per-packet one-way delay: 12.156 ms

Loss rate: 1.37%

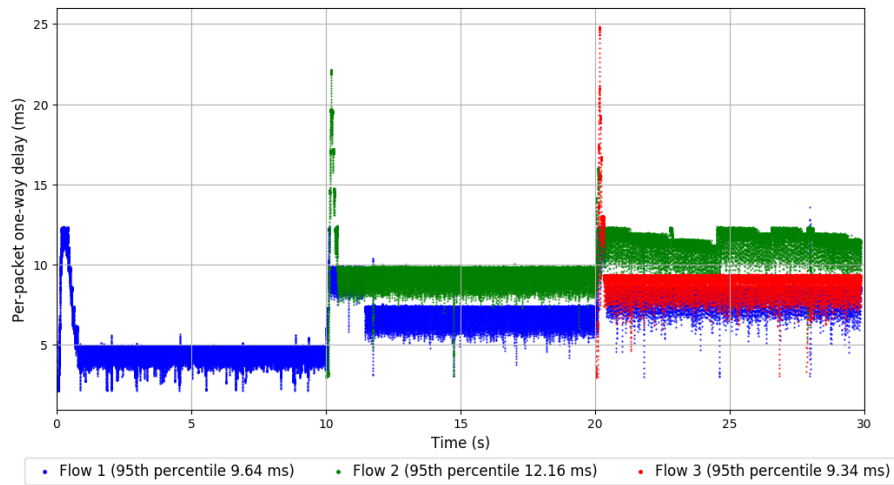
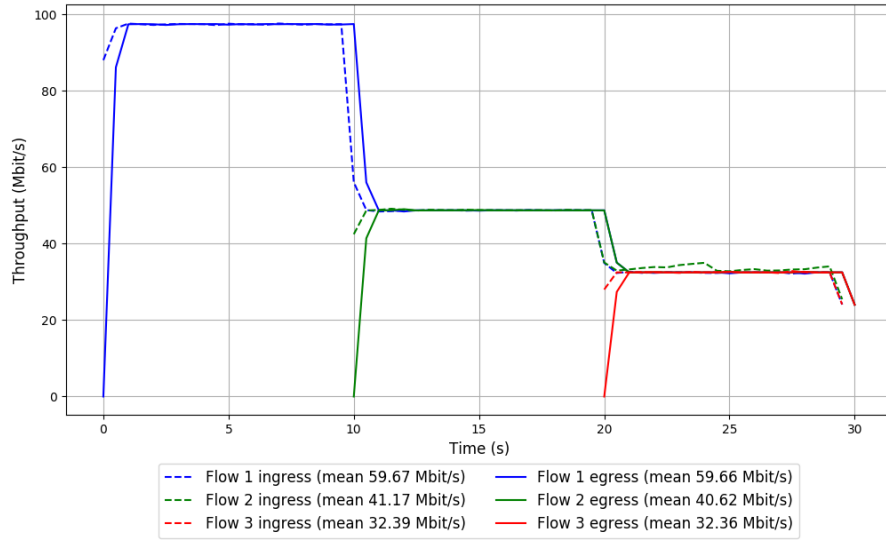
-- Flow 3:

Average throughput: 32.36 Mbit/s

95th percentile per-packet one-way delay: 9.338 ms

Loss rate: 0.11%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-05-30 12:15:24

End at: 2019-05-30 12:15:54

Local clock offset: -3.637 ms

Remote clock offset: 1.482 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 10.263 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 10.248 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.62 Mbit/s

95th percentile per-packet one-way delay: 10.390 ms

Loss rate: 0.06%

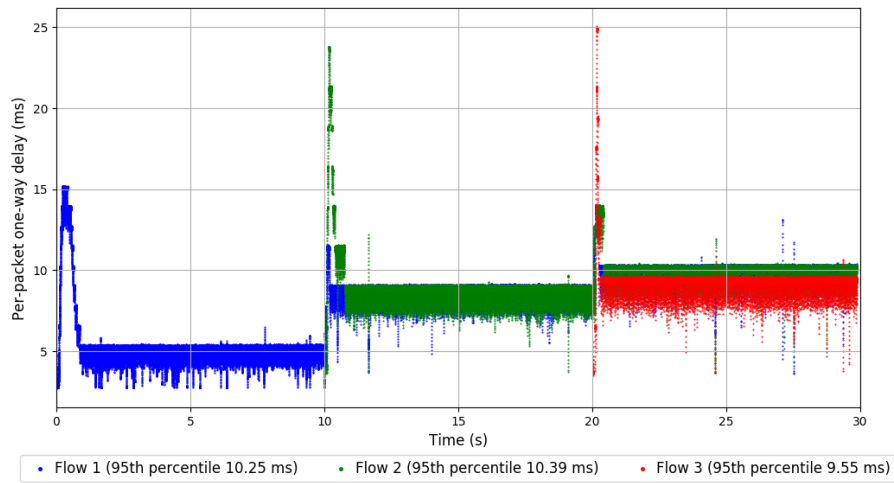
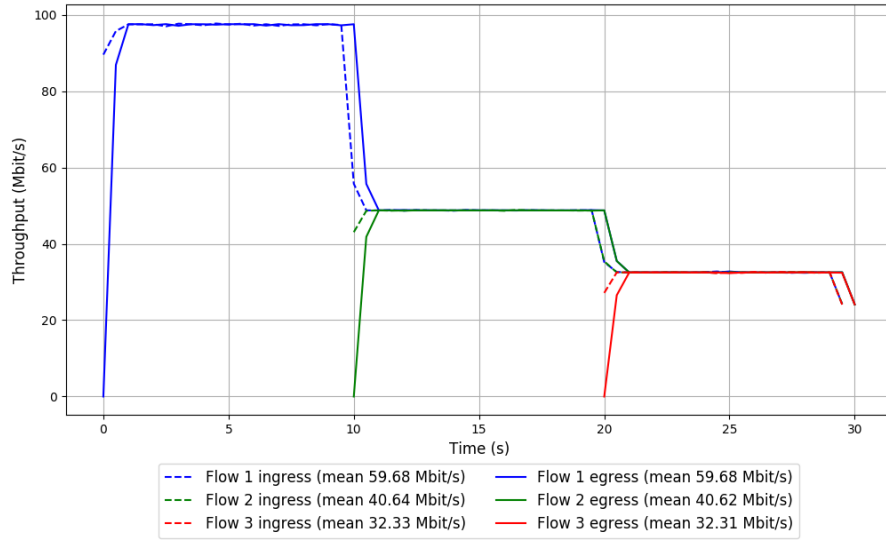
-- Flow 3:

Average throughput: 32.31 Mbit/s

95th percentile per-packet one-way delay: 9.547 ms

Loss rate: 0.09%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-05-30 12:39:32

End at: 2019-05-30 12:40:02

Local clock offset: -4.842 ms

Remote clock offset: 1.741 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.33 Mbit/s

95th percentile per-packet one-way delay: 9.363 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 8.762 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 40.67 Mbit/s

95th percentile per-packet one-way delay: 10.044 ms

Loss rate: 0.11%

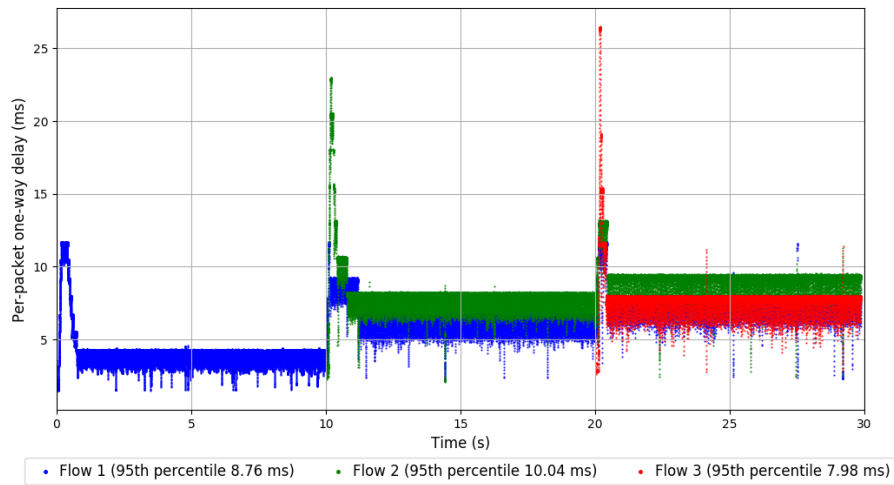
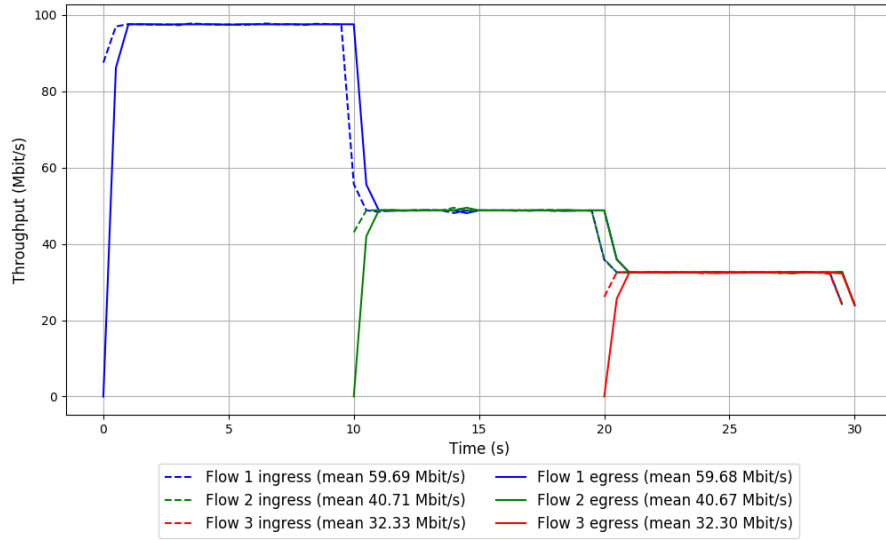
-- Flow 3:

Average throughput: 32.30 Mbit/s

95th percentile per-packet one-way delay: 7.979 ms

Loss rate: 0.11%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-30 10:57:21

End at: 2019-05-30 10:57:51

Local clock offset: -5.08 ms

Remote clock offset: 0.1 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.22 Mbit/s

95th percentile per-packet one-way delay: 4.069 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 33.17 Mbit/s

95th percentile per-packet one-way delay: 3.269 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 26.38 Mbit/s

95th percentile per-packet one-way delay: 4.974 ms

Loss rate: 0.00%

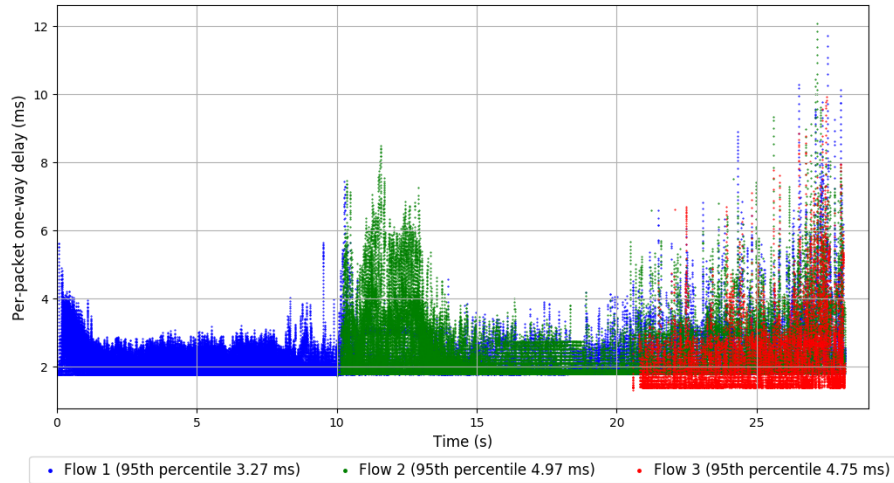
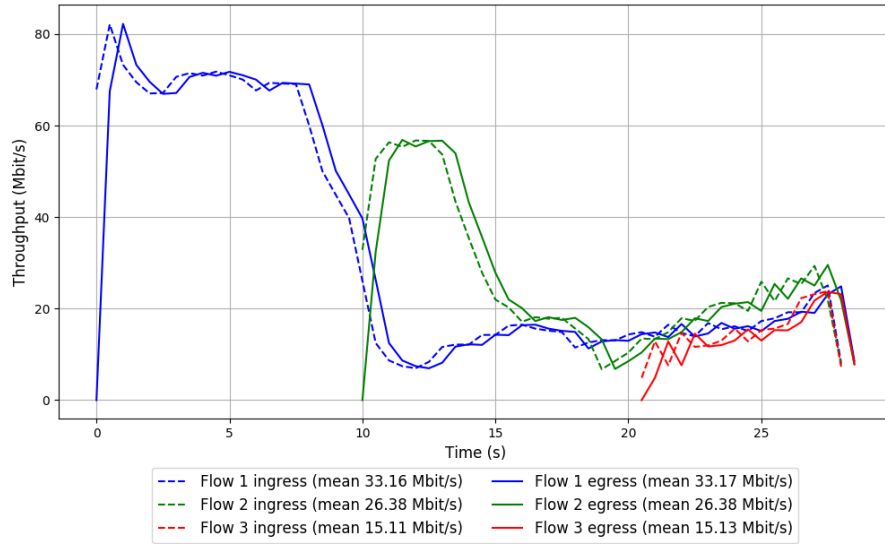
-- Flow 3:

Average throughput: 15.13 Mbit/s

95th percentile per-packet one-way delay: 4.747 ms

Loss rate: 0.07%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-30 11:21:29

End at: 2019-05-30 11:21:59

Local clock offset: -4.595 ms

Remote clock offset: 0.407 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.07 Mbit/s

95th percentile per-packet one-way delay: 4.009 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 39.23 Mbit/s

95th percentile per-packet one-way delay: 3.298 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 27.75 Mbit/s

95th percentile per-packet one-way delay: 5.003 ms

Loss rate: 0.02%

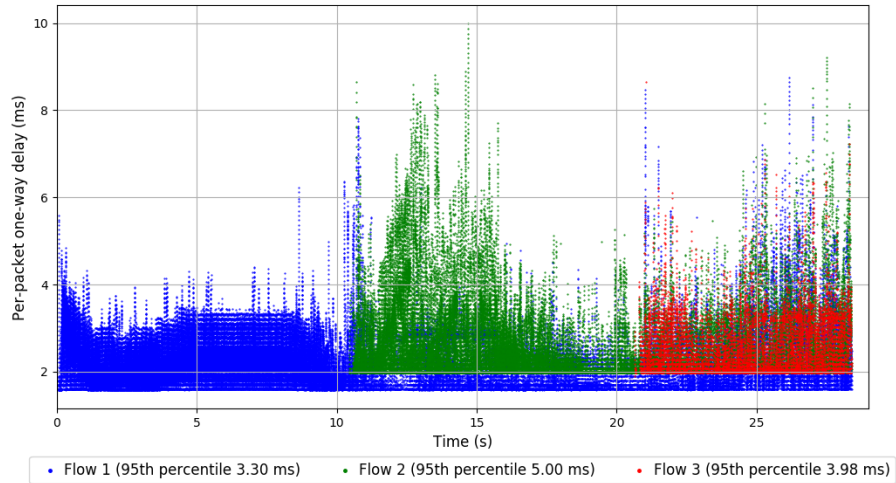
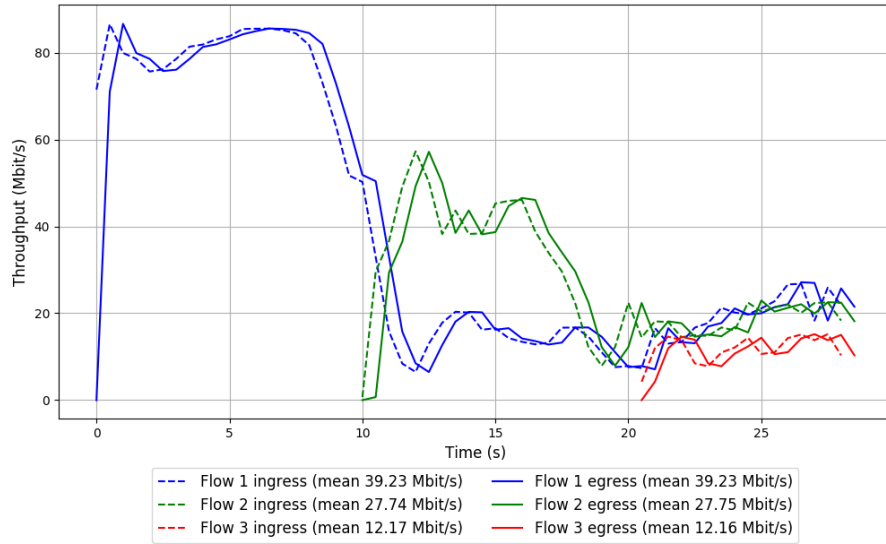
-- Flow 3:

Average throughput: 12.16 Mbit/s

95th percentile per-packet one-way delay: 3.979 ms

Loss rate: 0.09%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 11:45:34

End at: 2019-05-30 11:46:04

Local clock offset: -4.25 ms

Remote clock offset: 0.9 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.23 Mbit/s

95th percentile per-packet one-way delay: 4.920 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 52.52 Mbit/s

95th percentile per-packet one-way delay: 5.156 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 21.17 Mbit/s

95th percentile per-packet one-way delay: 4.223 ms

Loss rate: 0.05%

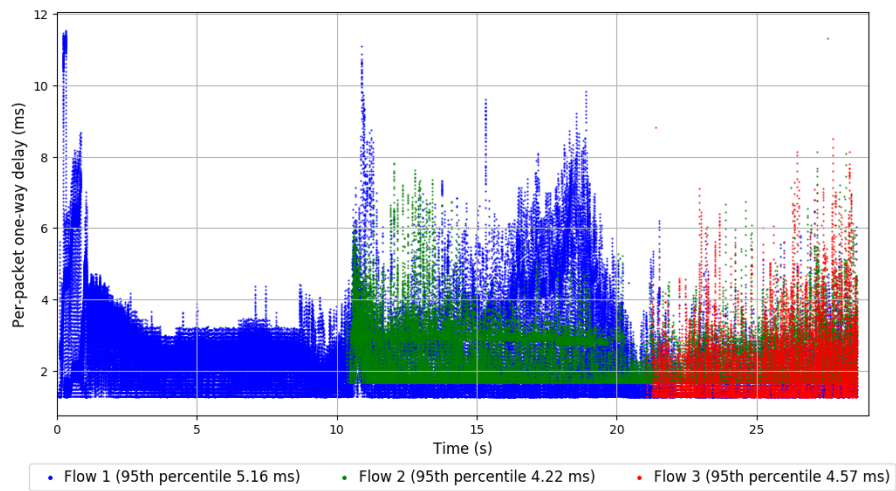
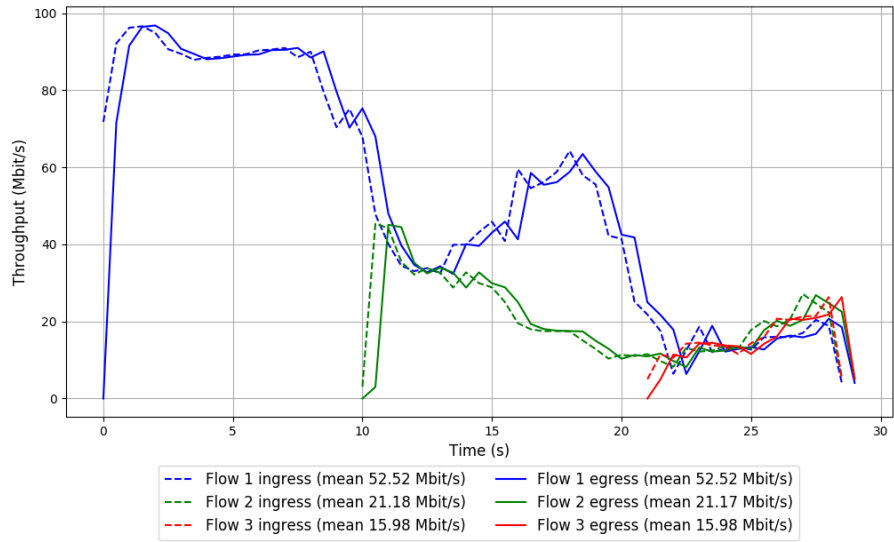
-- Flow 3:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 4.569 ms

Loss rate: 0.07%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 12:09:40

End at: 2019-05-30 12:10:10

Local clock offset: -3.156 ms

Remote clock offset: 1.37 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.61 Mbit/s

95th percentile per-packet one-way delay: 4.856 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 39.86 Mbit/s

95th percentile per-packet one-way delay: 4.486 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 21.27 Mbit/s

95th percentile per-packet one-way delay: 5.159 ms

Loss rate: 0.02%

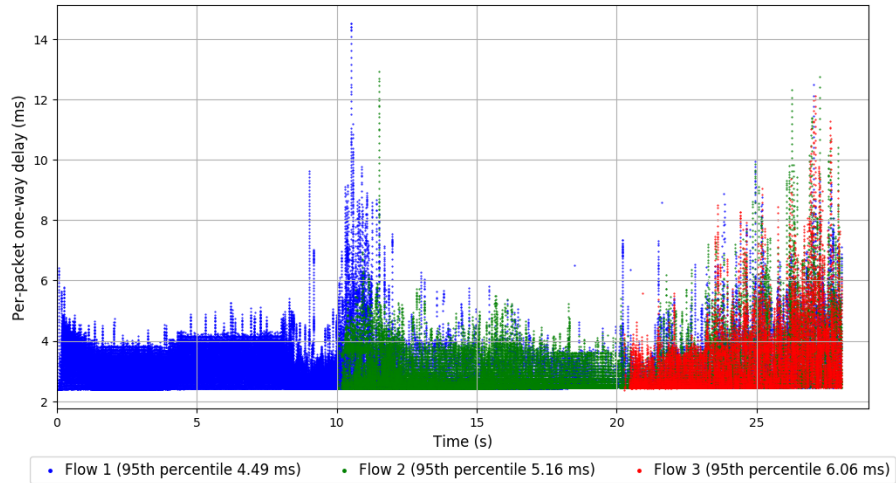
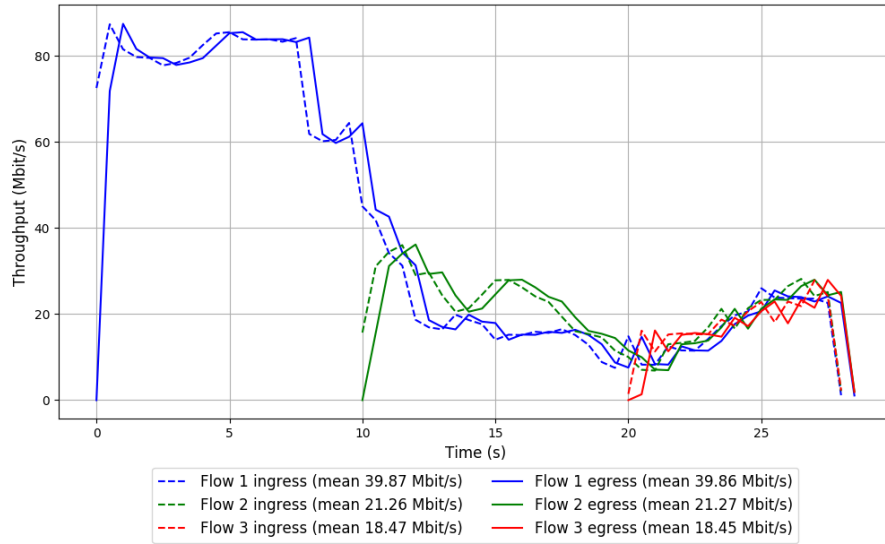
-- Flow 3:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 6.059 ms

Loss rate: 0.20%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 12:33:48

End at: 2019-05-30 12:34:18

Local clock offset: -4.263 ms

Remote clock offset: 1.739 ms

Below is generated by plot.py at 2019-05-30 13:01:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.48 Mbit/s

95th percentile per-packet one-way delay: 4.341 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 33.48 Mbit/s

95th percentile per-packet one-way delay: 3.967 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 18.50 Mbit/s

95th percentile per-packet one-way delay: 4.815 ms

Loss rate: 0.02%

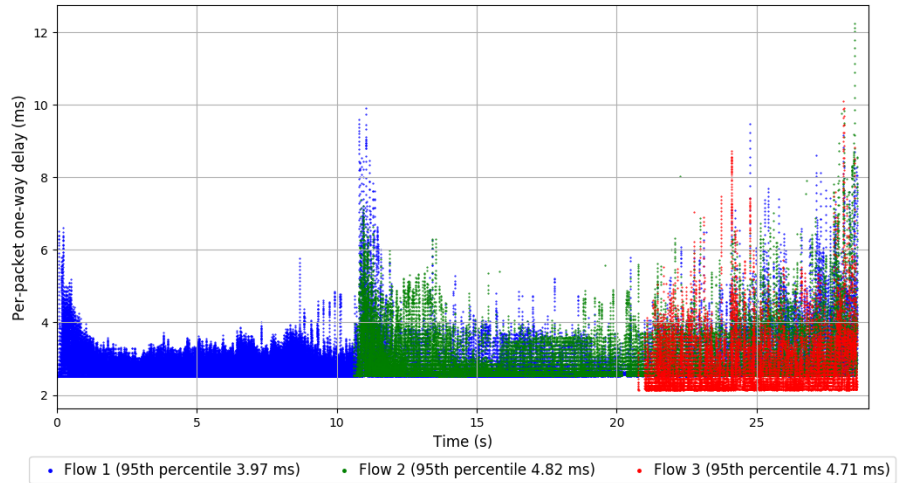
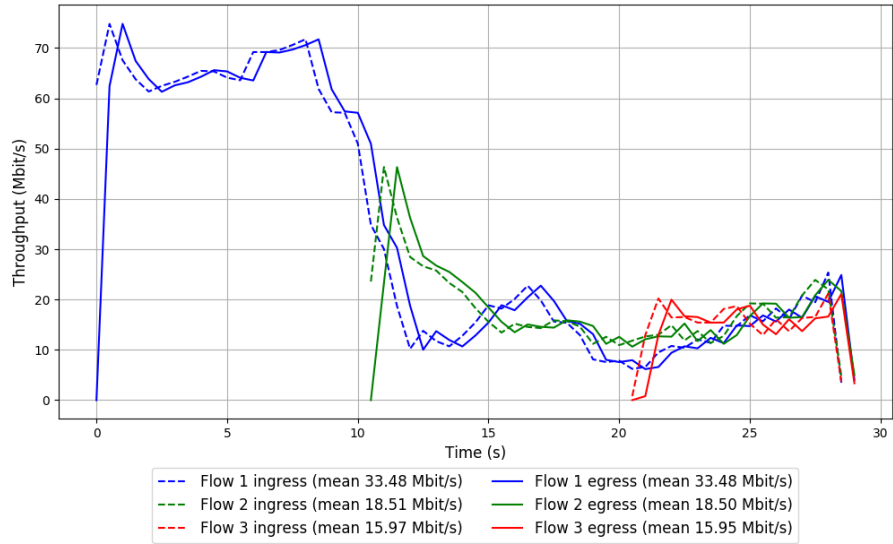
-- Flow 3:

Average throughput: 15.95 Mbit/s

95th percentile per-packet one-way delay: 4.707 ms

Loss rate: 0.17%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-30 11:04:15

End at: 2019-05-30 11:04:45

Local clock offset: -4.294 ms

Remote clock offset: 0.2 ms

Below is generated by plot.py at 2019-05-30 13:01:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.20 Mbit/s

95th percentile per-packet one-way delay: 14.432 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 18.73 Mbit/s

95th percentile per-packet one-way delay: 14.553 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 27.68 Mbit/s

95th percentile per-packet one-way delay: 12.412 ms

Loss rate: 0.00%

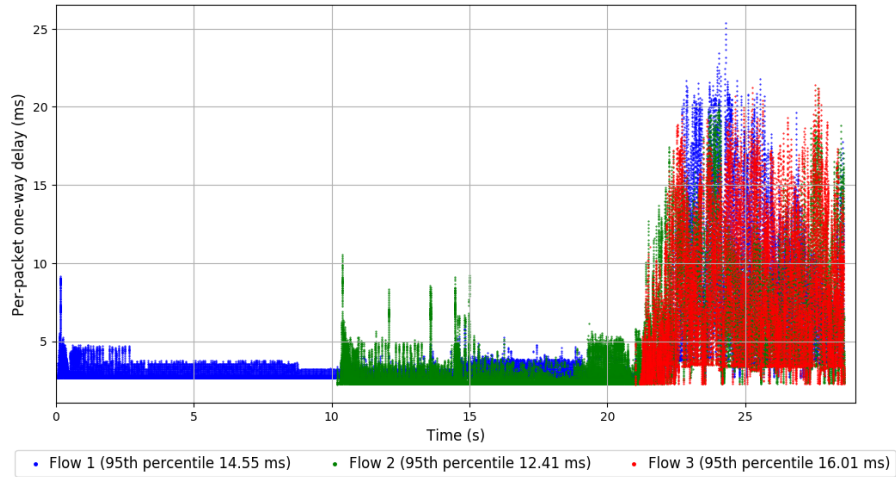
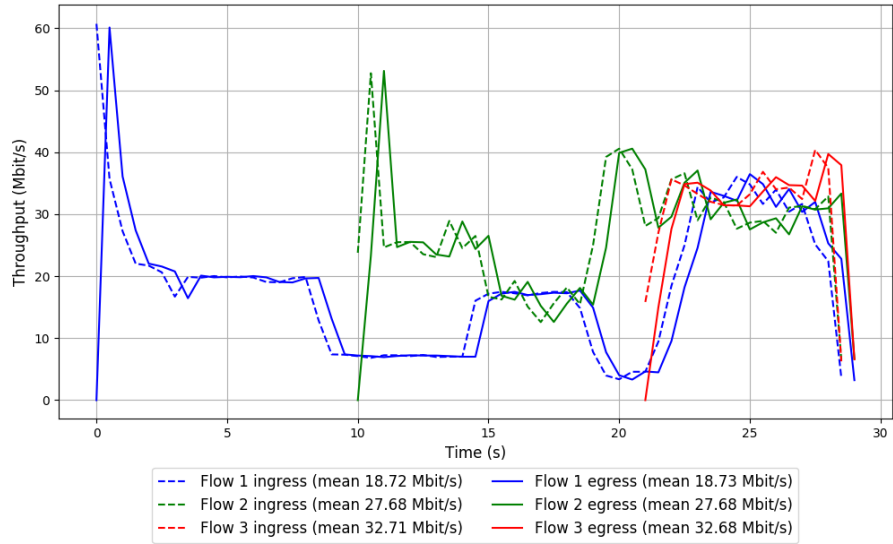
-- Flow 3:

Average throughput: 32.68 Mbit/s

95th percentile per-packet one-way delay: 16.009 ms

Loss rate: 0.08%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-30 11:28:24

End at: 2019-05-30 11:28:54

Local clock offset: -3.774 ms

Remote clock offset: 0.553 ms

Below is generated by plot.py at 2019-05-30 13:01:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 55.68 Mbit/s

95th percentile per-packet one-way delay: 16.435 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 28.73 Mbit/s

95th percentile per-packet one-way delay: 14.078 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 29.30 Mbit/s

95th percentile per-packet one-way delay: 15.920 ms

Loss rate: 0.12%

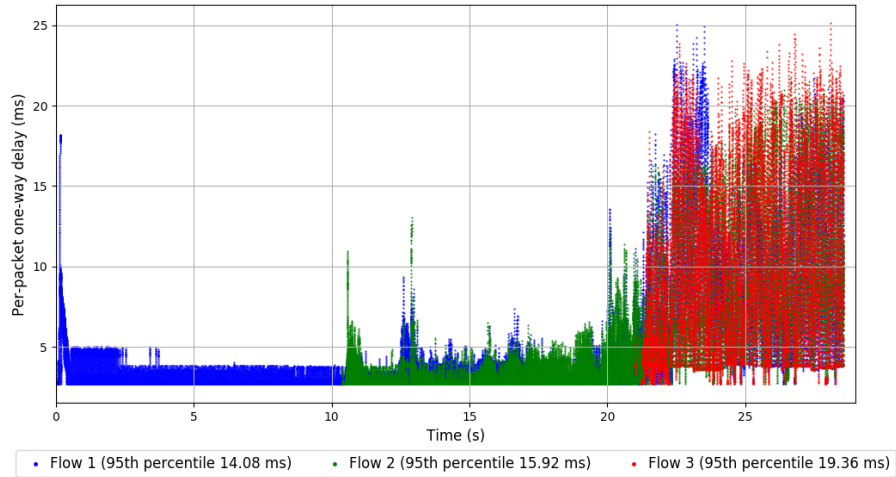
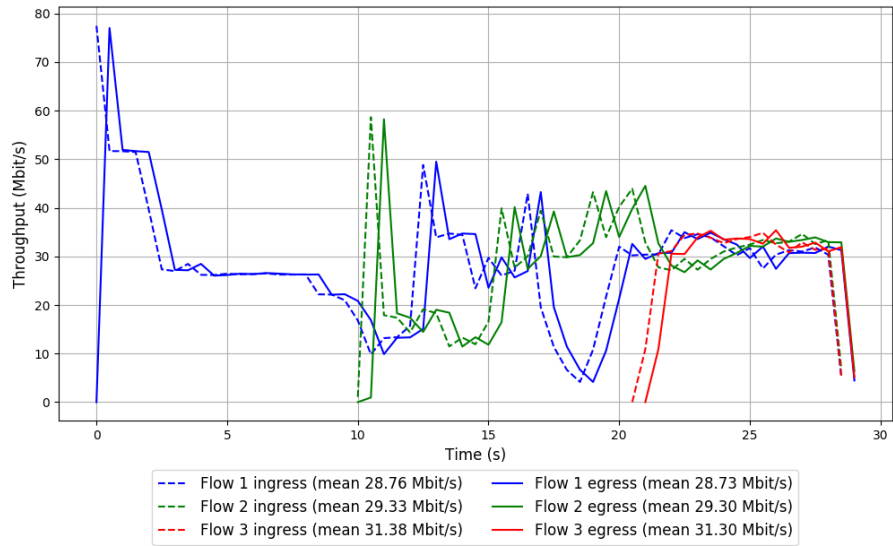
-- Flow 3:

Average throughput: 31.30 Mbit/s

95th percentile per-packet one-way delay: 19.364 ms

Loss rate: 0.16%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 11:52:29

End at: 2019-05-30 11:52:59

Local clock offset: -3.887 ms

Remote clock offset: 0.986 ms

Below is generated by plot.py at 2019-05-30 13:01:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.60 Mbit/s

95th percentile per-packet one-way delay: 13.342 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 39.74 Mbit/s

95th percentile per-packet one-way delay: 11.894 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 23.77 Mbit/s

95th percentile per-packet one-way delay: 11.808 ms

Loss rate: 0.09%

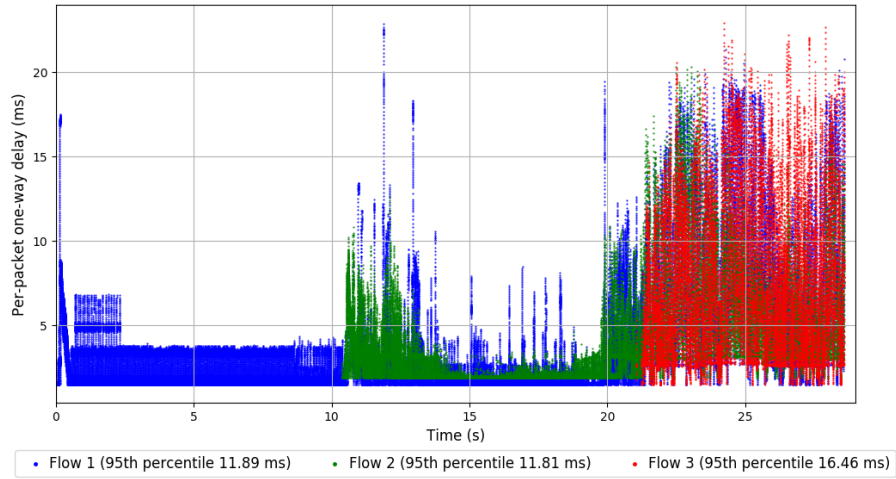
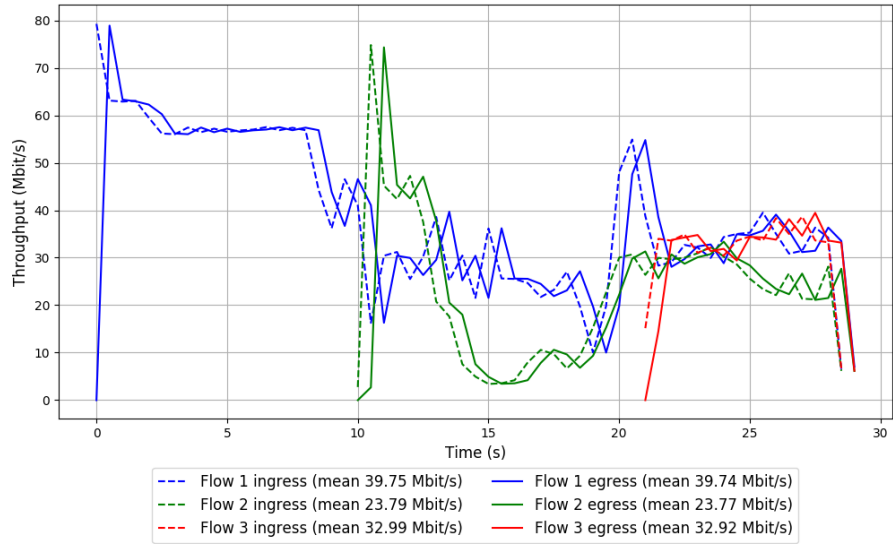
-- Flow 3:

Average throughput: 32.92 Mbit/s

95th percentile per-packet one-way delay: 16.465 ms

Loss rate: 0.17%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 12:16:35

End at: 2019-05-30 12:17:05

Local clock offset: -4.585 ms

Remote clock offset: 1.479 ms

Below is generated by plot.py at 2019-05-30 13:01:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.46 Mbit/s

95th percentile per-packet one-way delay: 13.882 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 24.56 Mbit/s

95th percentile per-packet one-way delay: 10.025 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 25.01 Mbit/s

95th percentile per-packet one-way delay: 14.144 ms

Loss rate: 0.09%

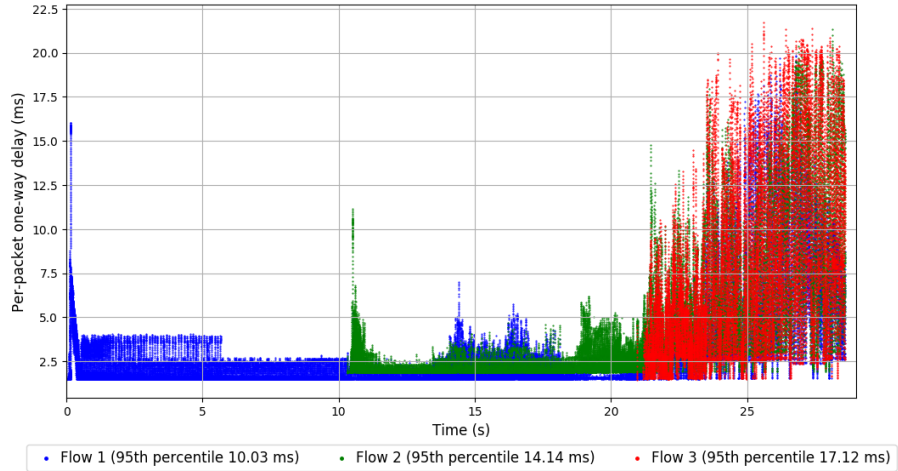
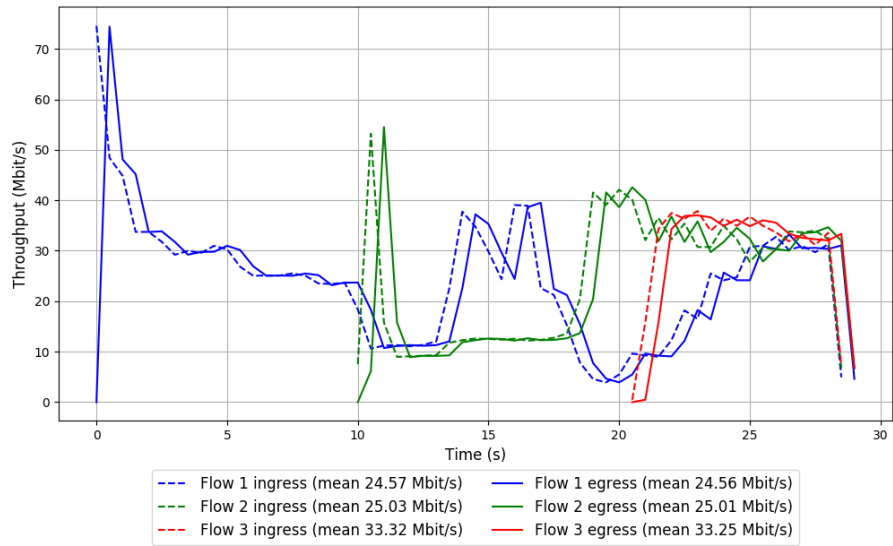
-- Flow 3:

Average throughput: 33.25 Mbit/s

95th percentile per-packet one-way delay: 17.121 ms

Loss rate: 0.22%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 12:40:43

End at: 2019-05-30 12:41:13

Local clock offset: -3.951 ms

Remote clock offset: 1.808 ms

Below is generated by plot.py at 2019-05-30 13:01:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 55.94 Mbit/s

95th percentile per-packet one-way delay: 15.063 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 27.09 Mbit/s

95th percentile per-packet one-way delay: 11.030 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 31.92 Mbit/s

95th percentile per-packet one-way delay: 16.014 ms

Loss rate: 0.07%

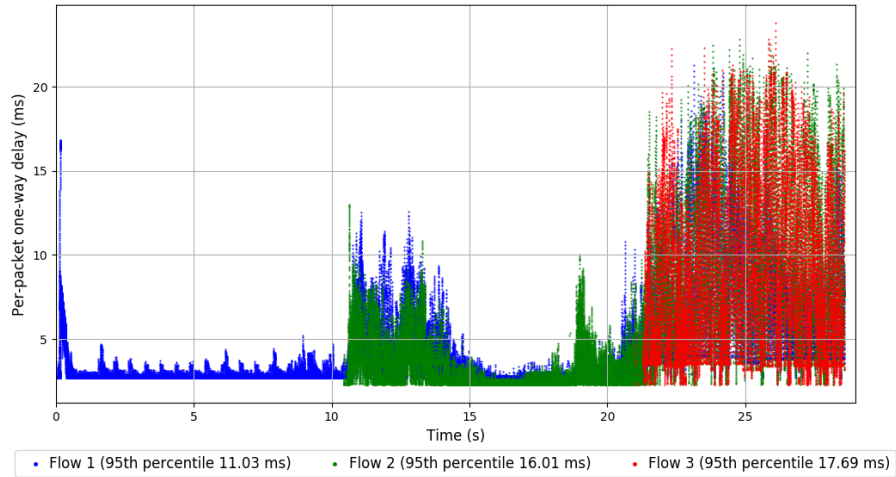
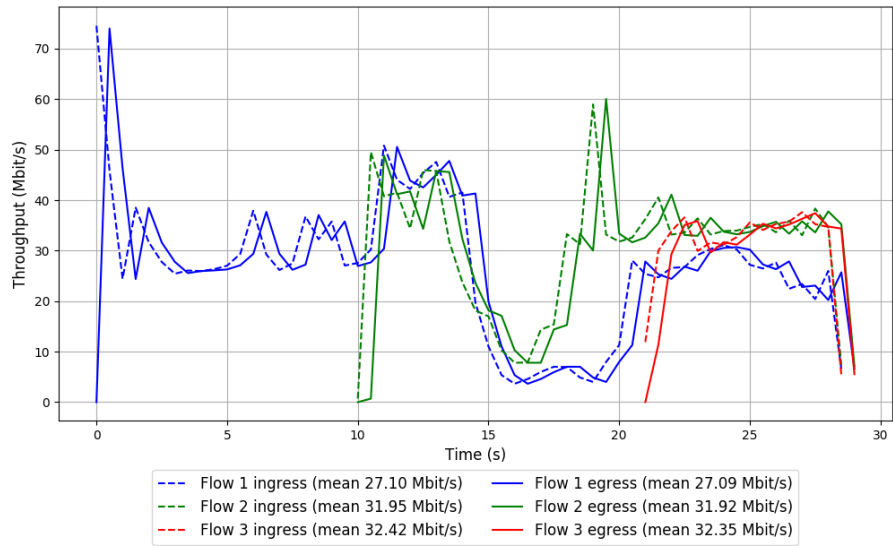
-- Flow 3:

Average throughput: 32.35 Mbit/s

95th percentile per-packet one-way delay: 17.688 ms

Loss rate: 0.17%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-30 11:08:50

End at: 2019-05-30 11:09:20

Local clock offset: -5.129 ms

Remote clock offset: 0.227 ms

Below is generated by plot.py at 2019-05-30 13:01:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.10 Mbit/s

95th percentile per-packet one-way delay: 37.718 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 32.87 Mbit/s

95th percentile per-packet one-way delay: 21.155 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 30.70 Mbit/s

95th percentile per-packet one-way delay: 21.254 ms

Loss rate: 0.09%

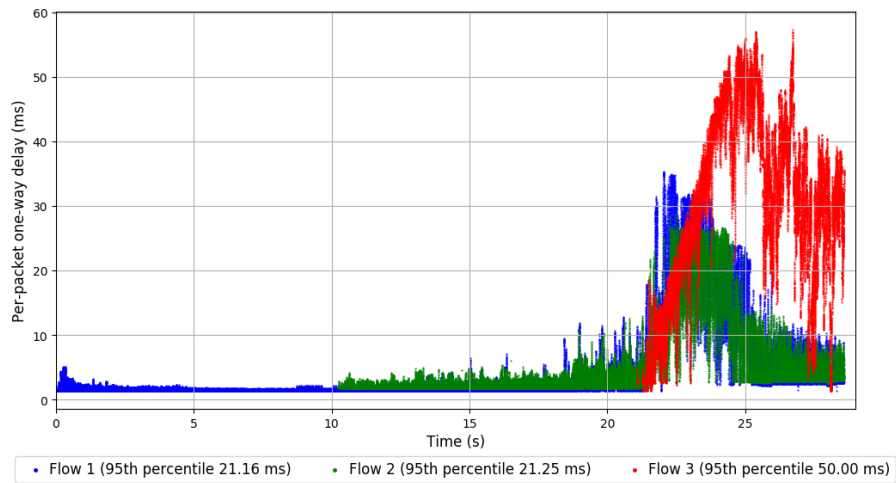
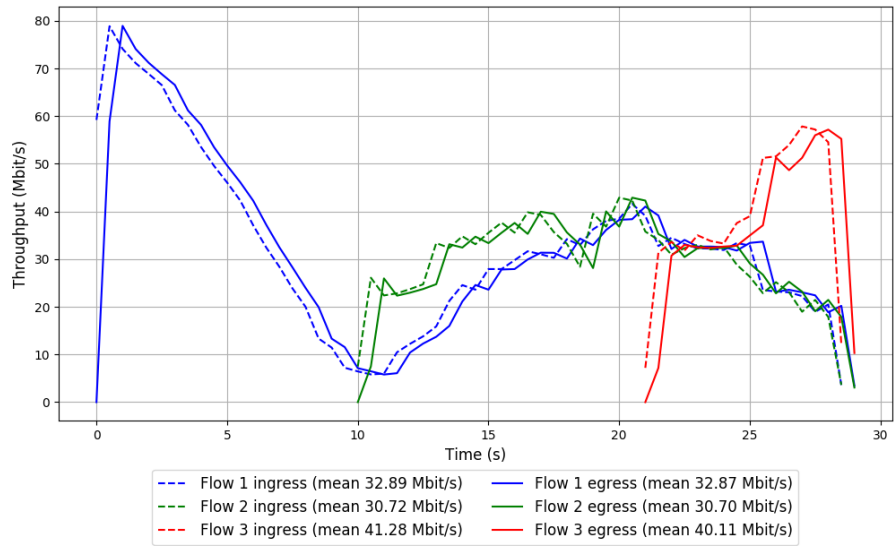
-- Flow 3:

Average throughput: 40.11 Mbit/s

95th percentile per-packet one-way delay: 49.996 ms

Loss rate: 2.86%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-30 11:32:58

End at: 2019-05-30 11:33:28

Local clock offset: -4.423 ms

Remote clock offset: 0.645 ms

Below is generated by plot.py at 2019-05-30 13:01:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.71 Mbit/s

95th percentile per-packet one-way delay: 13.896 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 30.70 Mbit/s

95th percentile per-packet one-way delay: 8.184 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 22.25 Mbit/s

95th percentile per-packet one-way delay: 5.187 ms

Loss rate: 0.05%

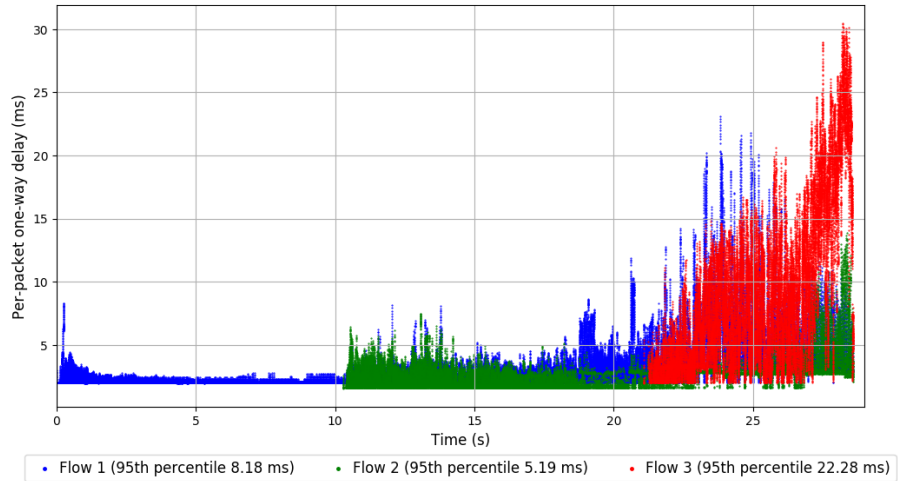
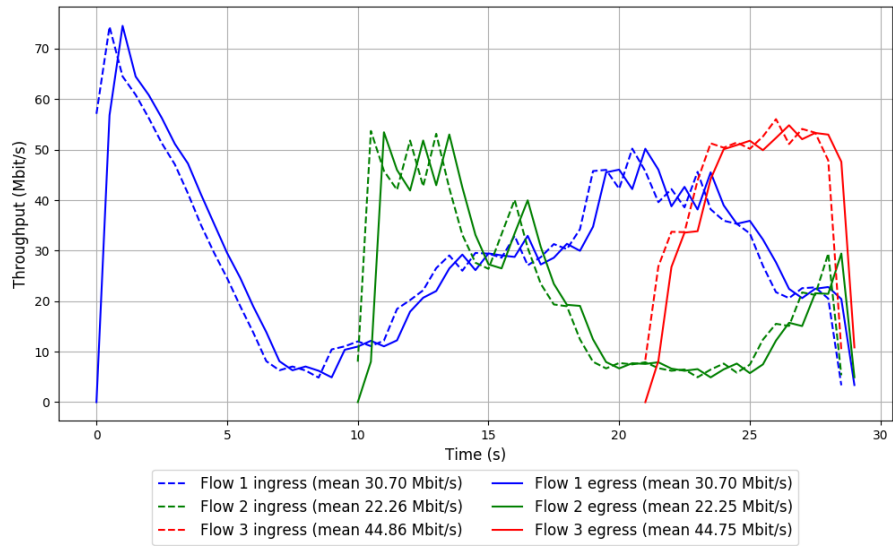
-- Flow 3:

Average throughput: 44.75 Mbit/s

95th percentile per-packet one-way delay: 22.284 ms

Loss rate: 0.29%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 11:57:02

End at: 2019-05-30 11:57:32

Local clock offset: -2.974 ms

Remote clock offset: 1.036 ms

Below is generated by plot.py at 2019-05-30 13:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.76 Mbit/s

95th percentile per-packet one-way delay: 33.500 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 41.20 Mbit/s

95th percentile per-packet one-way delay: 5.977 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 32.92 Mbit/s

95th percentile per-packet one-way delay: 9.887 ms

Loss rate: 0.03%

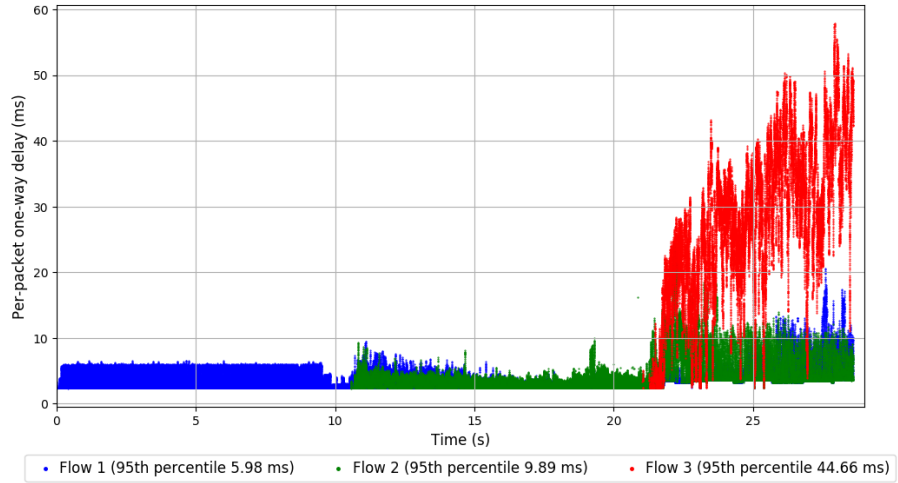
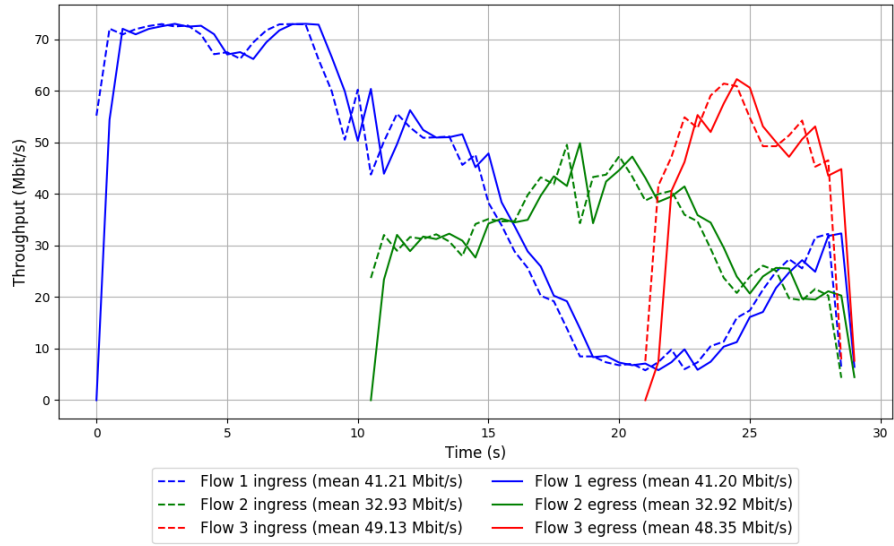
-- Flow 3:

Average throughput: 48.35 Mbit/s

95th percentile per-packet one-way delay: 44.664 ms

Loss rate: 1.60%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 12:21:09

End at: 2019-05-30 12:21:39

Local clock offset: -4.793 ms

Remote clock offset: 1.567 ms

Below is generated by plot.py at 2019-05-30 13:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 54.35 Mbit/s

95th percentile per-packet one-way delay: 7.481 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 32.68 Mbit/s

95th percentile per-packet one-way delay: 7.124 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.38 Mbit/s

95th percentile per-packet one-way delay: 8.186 ms

Loss rate: 0.08%

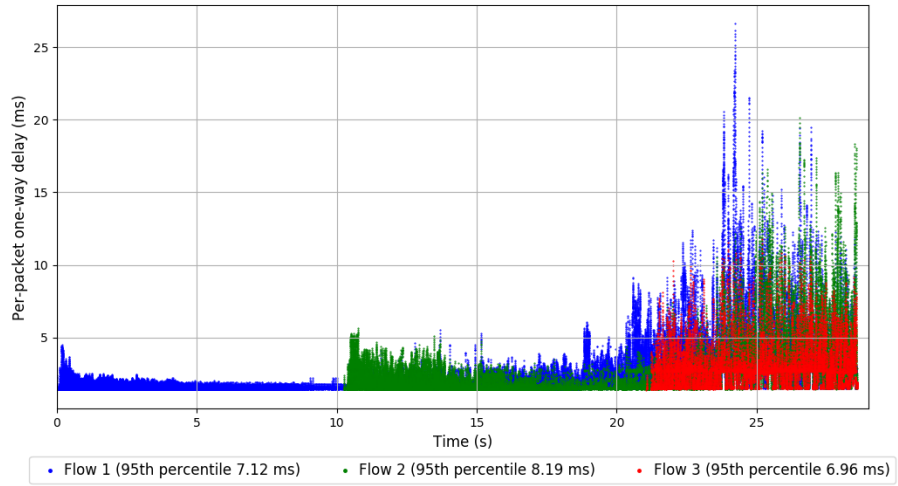
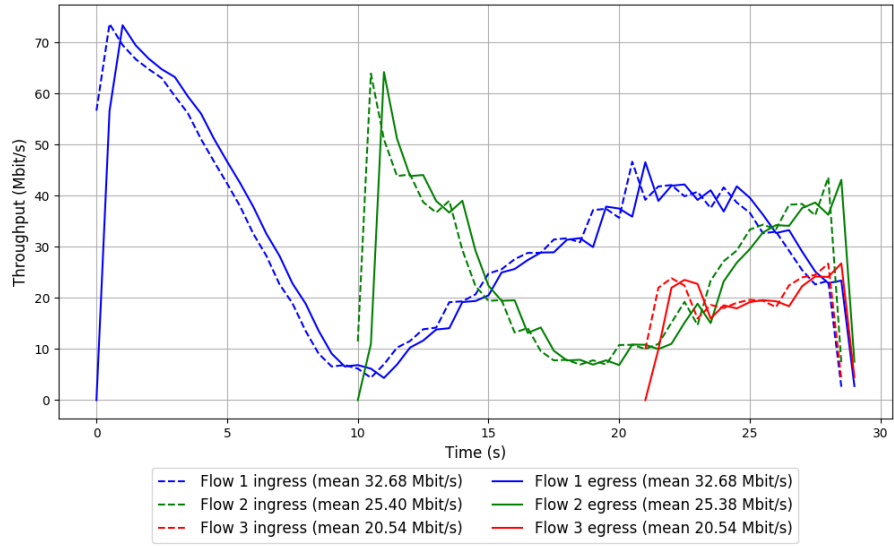
-- Flow 3:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 6.956 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 12:45:17

End at: 2019-05-30 12:45:47

Local clock offset: -4.036 ms

Remote clock offset: 1.779 ms

Below is generated by plot.py at 2019-05-30 13:02:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.09 Mbit/s

95th percentile per-packet one-way delay: 24.556 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 39.25 Mbit/s

95th percentile per-packet one-way delay: 19.710 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 21.76 Mbit/s

95th percentile per-packet one-way delay: 25.391 ms

Loss rate: 0.43%

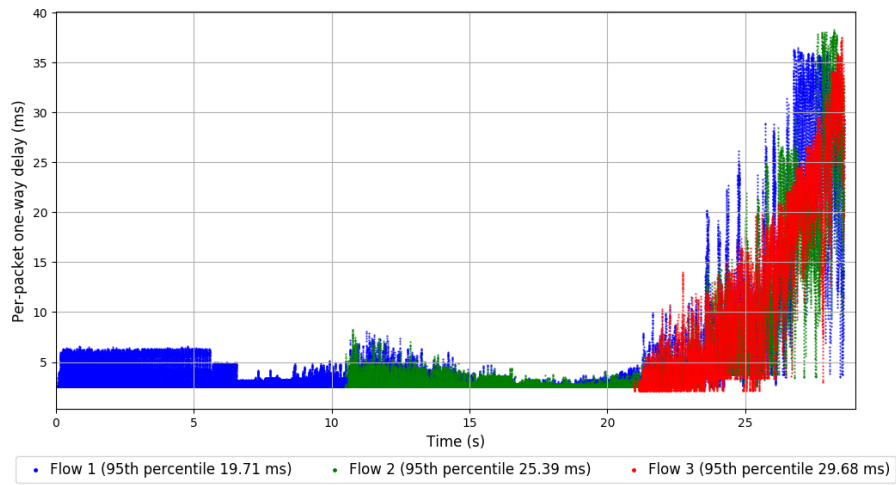
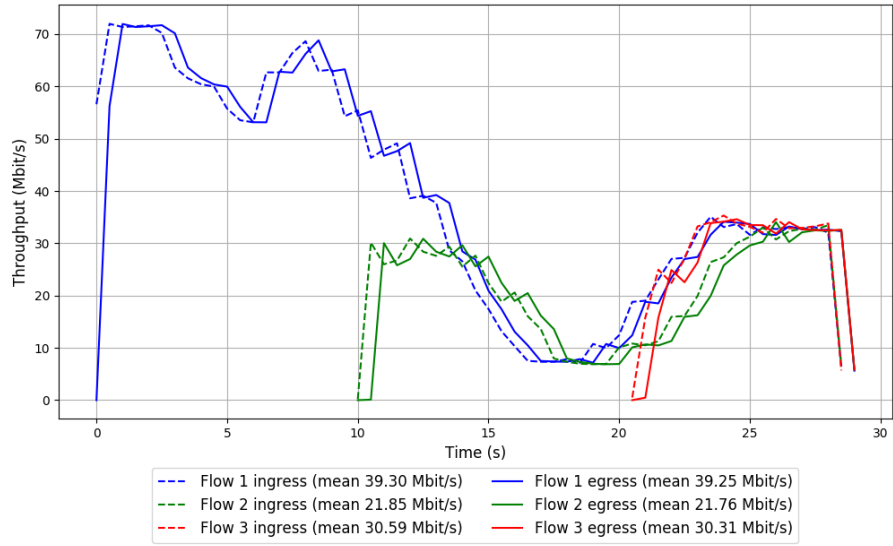
-- Flow 3:

Average throughput: 30.31 Mbit/s

95th percentile per-packet one-way delay: 29.677 ms

Loss rate: 0.84%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-05-30 10:53:51
End at: 2019-05-30 10:54:21
Local clock offset: -4.866 ms
Remote clock offset: -0.022 ms

Below is generated by plot.py at 2019-05-30 13:02:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.26 Mbit/s
95th percentile per-packet one-way delay: 16.223 ms
Loss rate: 0.06%

-- Flow 1:

Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 13.298 ms
Loss rate: 0.05%

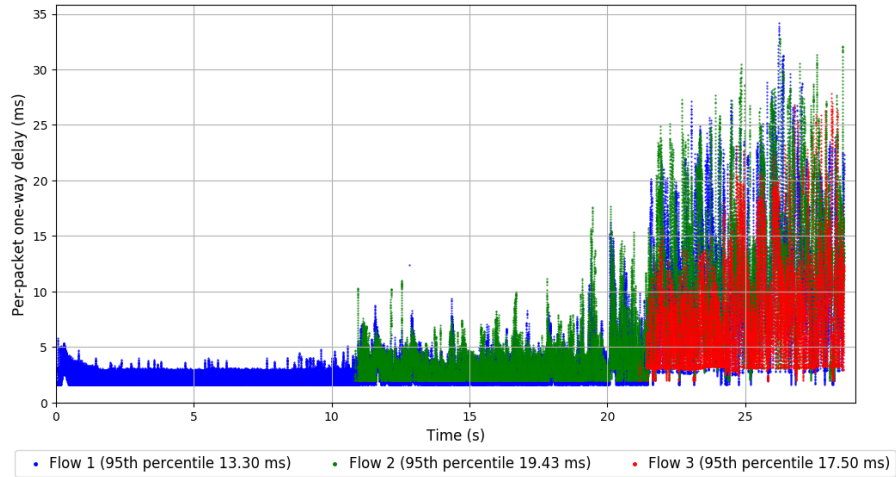
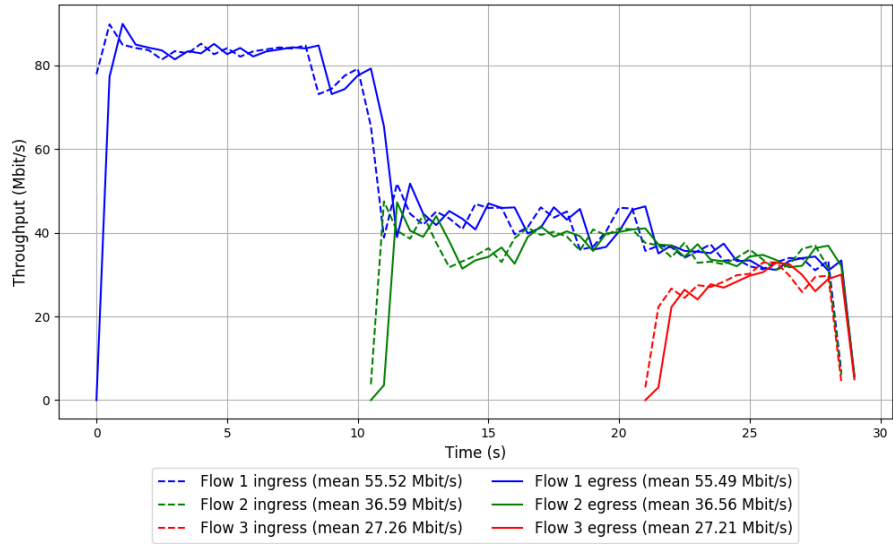
-- Flow 2:

Average throughput: 36.56 Mbit/s
95th percentile per-packet one-way delay: 19.434 ms
Loss rate: 0.08%

-- Flow 3:

Average throughput: 27.21 Mbit/s
95th percentile per-packet one-way delay: 17.505 ms
Loss rate: 0.02%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-05-30 11:18:00

End at: 2019-05-30 11:18:30

Local clock offset: -3.91 ms

Remote clock offset: 0.297 ms

Below is generated by plot.py at 2019-05-30 13:02:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.13 Mbit/s

95th percentile per-packet one-way delay: 12.808 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 52.37 Mbit/s

95th percentile per-packet one-way delay: 11.340 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 35.75 Mbit/s

95th percentile per-packet one-way delay: 15.170 ms

Loss rate: 0.03%

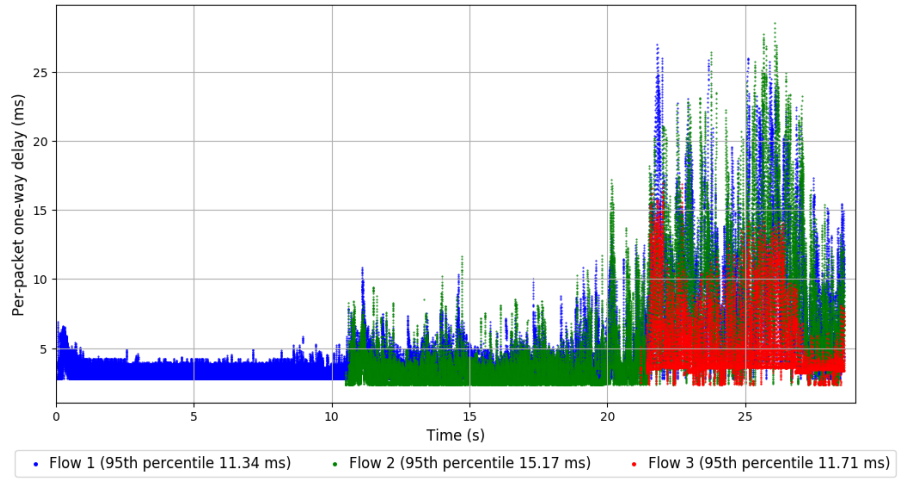
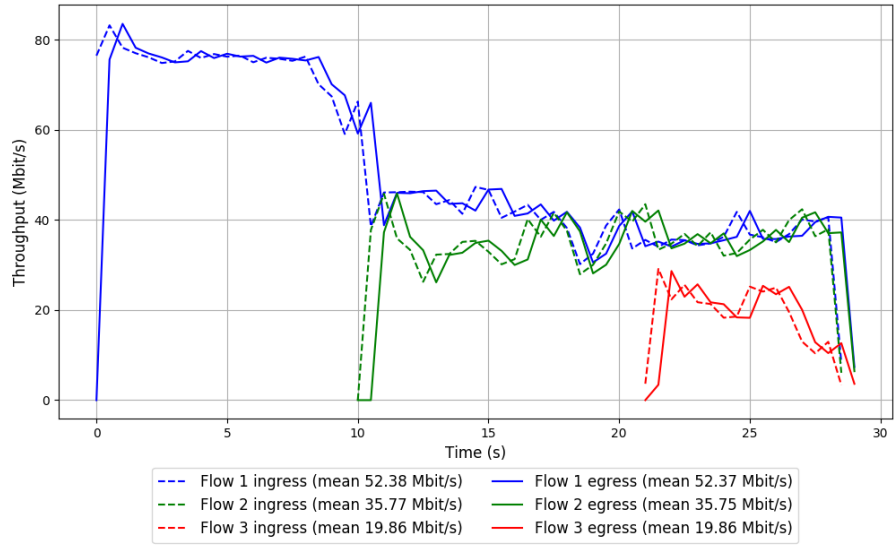
-- Flow 3:

Average throughput: 19.86 Mbit/s

95th percentile per-packet one-way delay: 11.707 ms

Loss rate: 0.04%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MuseST

Start at: 2019-05-30 11:42:05

End at: 2019-05-30 11:42:35

Local clock offset: -4.192 ms

Remote clock offset: 0.86 ms

Below is generated by plot.py at 2019-05-30 13:02:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.39 Mbit/s

95th percentile per-packet one-way delay: 12.293 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 52.74 Mbit/s

95th percentile per-packet one-way delay: 11.695 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 39.34 Mbit/s

95th percentile per-packet one-way delay: 13.106 ms

Loss rate: 0.06%

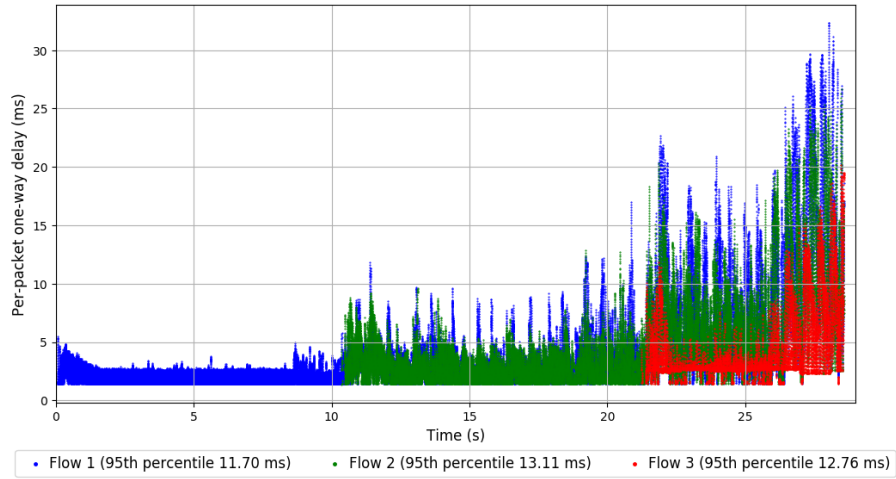
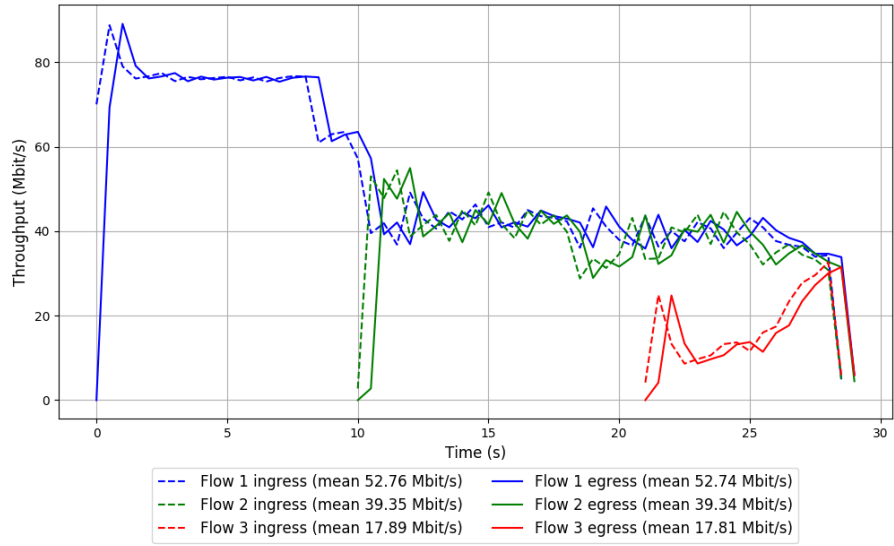
-- Flow 3:

Average throughput: 17.81 Mbit/s

95th percentile per-packet one-way delay: 12.760 ms

Loss rate: 0.46%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MuseST

Start at: 2019-05-30 12:06:11

End at: 2019-05-30 12:06:41

Local clock offset: -3.074 ms

Remote clock offset: 1.261 ms

Below is generated by plot.py at 2019-05-30 13:02:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.68 Mbit/s

95th percentile per-packet one-way delay: 17.486 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 48.23 Mbit/s

95th percentile per-packet one-way delay: 15.591 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.51 Mbit/s

95th percentile per-packet one-way delay: 20.511 ms

Loss rate: 0.11%

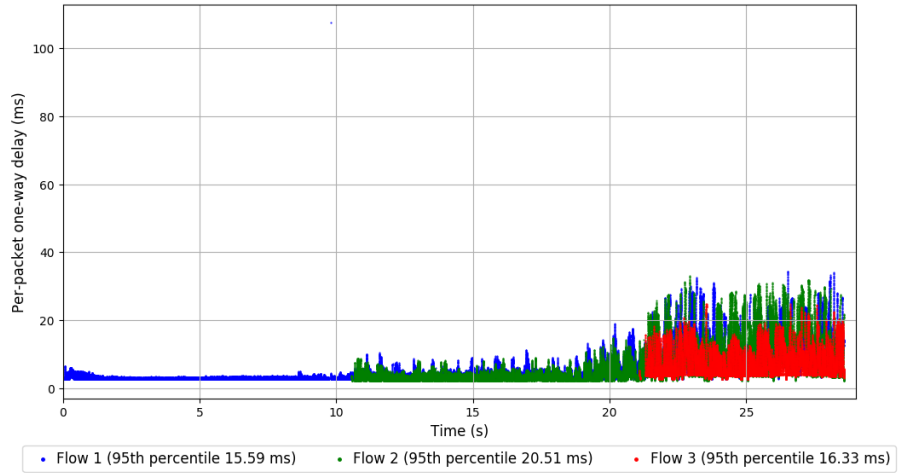
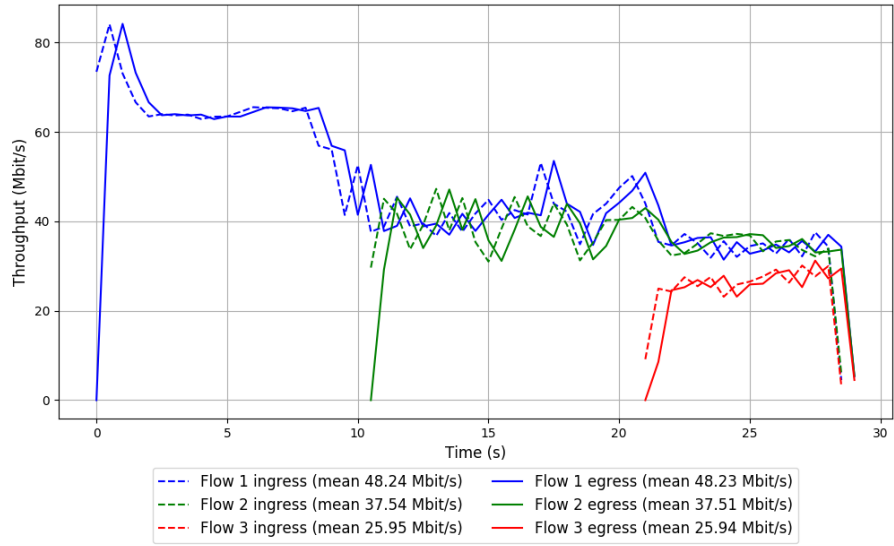
-- Flow 3:

Average throughput: 25.94 Mbit/s

95th percentile per-packet one-way delay: 16.326 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MuseST

Start at: 2019-05-30 12:30:18

End at: 2019-05-30 12:30:48

Local clock offset: -4.85 ms

Remote clock offset: 1.695 ms

Below is generated by plot.py at 2019-05-30 13:02:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.98 Mbit/s

95th percentile per-packet one-way delay: 12.569 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 54.38 Mbit/s

95th percentile per-packet one-way delay: 11.305 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 36.85 Mbit/s

95th percentile per-packet one-way delay: 14.867 ms

Loss rate: 0.06%

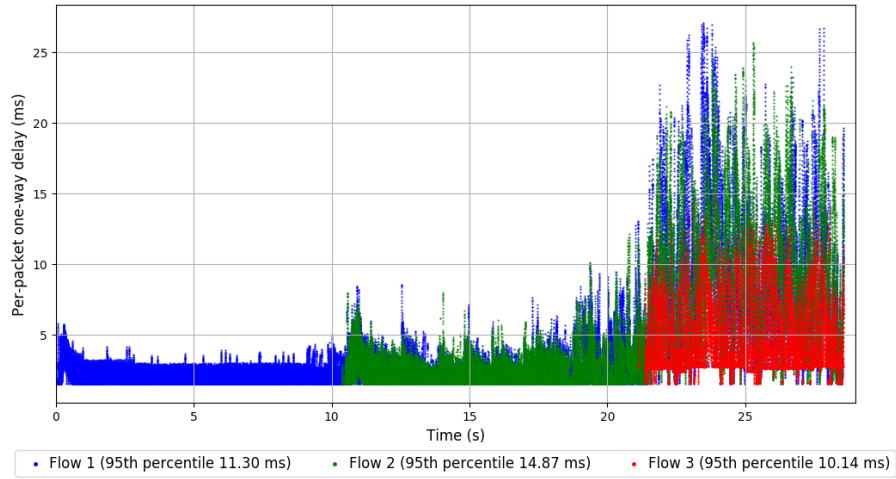
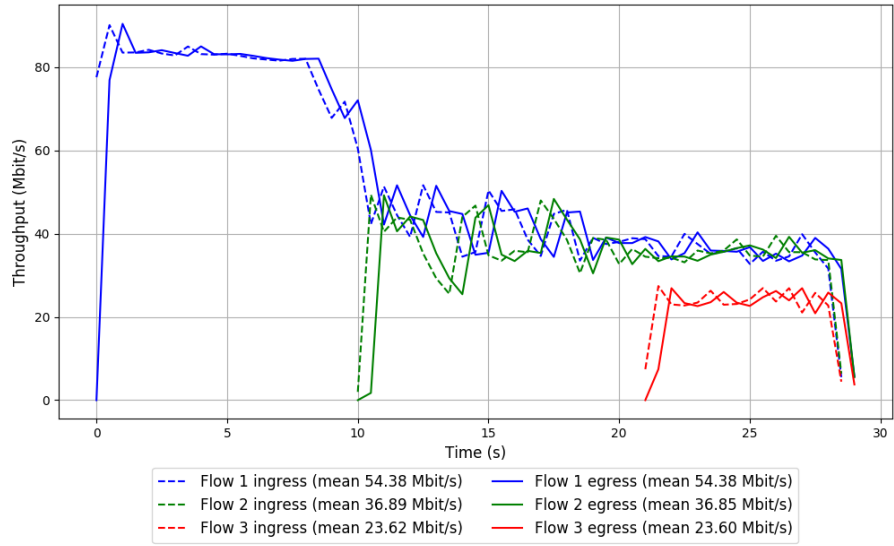
-- Flow 3:

Average throughput: 23.60 Mbit/s

95th percentile per-packet one-way delay: 10.144 ms

Loss rate: 0.19%

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-05-30 10:59:33

End at: 2019-05-30 11:00:03

Local clock offset: -4.173 ms

Remote clock offset: 0.056 ms

Below is generated by plot.py at 2019-05-30 13:03:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.74 Mbit/s

95th percentile per-packet one-way delay: 14.506 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 59.08 Mbit/s

95th percentile per-packet one-way delay: 14.333 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 40.43 Mbit/s

95th percentile per-packet one-way delay: 14.878 ms

Loss rate: 0.18%

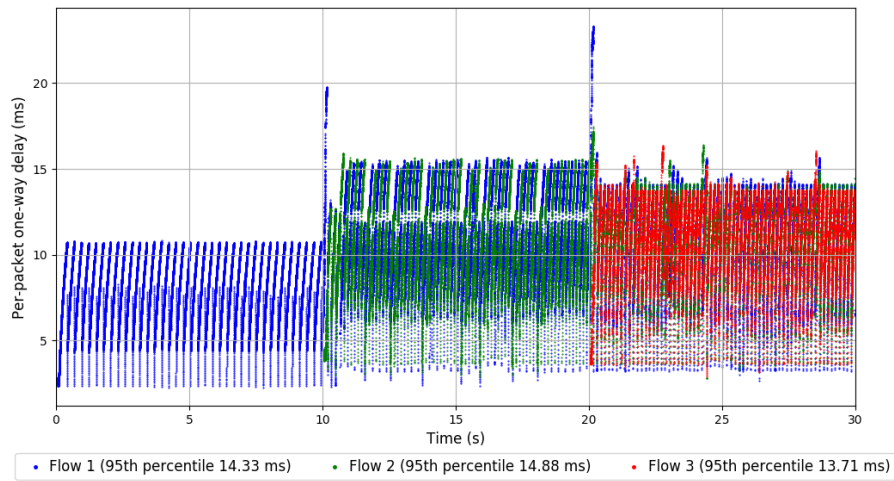
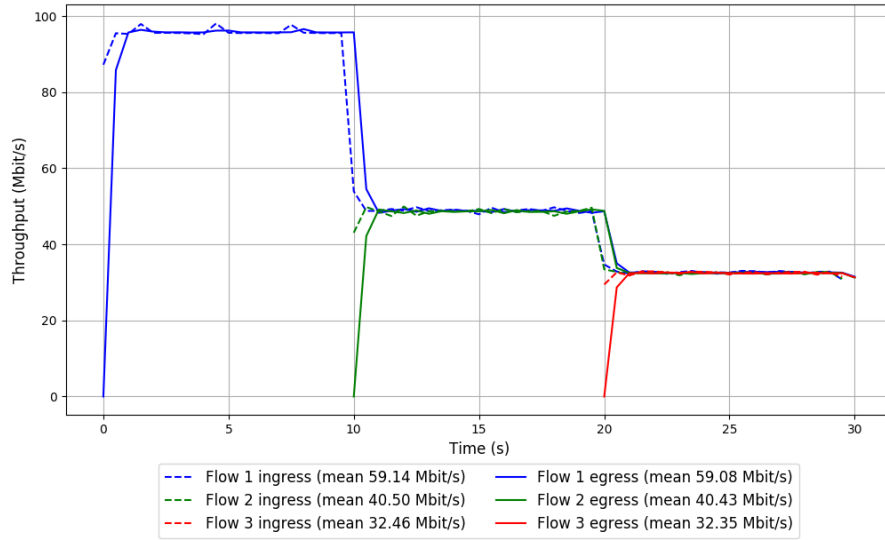
-- Flow 3:

Average throughput: 32.35 Mbit/s

95th percentile per-packet one-way delay: 13.714 ms

Loss rate: 0.38%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-05-30 11:23:42

End at: 2019-05-30 11:24:12

Local clock offset: -4.763 ms

Remote clock offset: 0.487 ms

Below is generated by plot.py at 2019-05-30 13:03:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.65 Mbit/s

95th percentile per-packet one-way delay: 13.565 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 58.90 Mbit/s

95th percentile per-packet one-way delay: 12.636 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 40.37 Mbit/s

95th percentile per-packet one-way delay: 13.826 ms

Loss rate: 0.19%

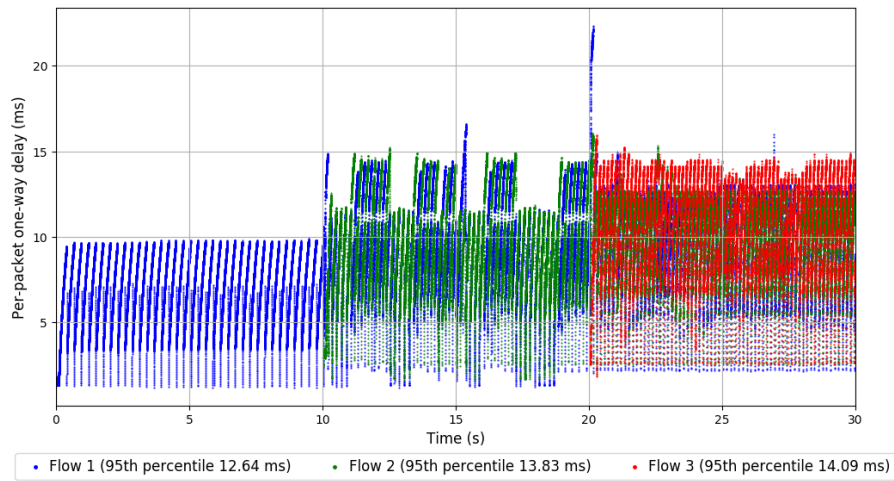
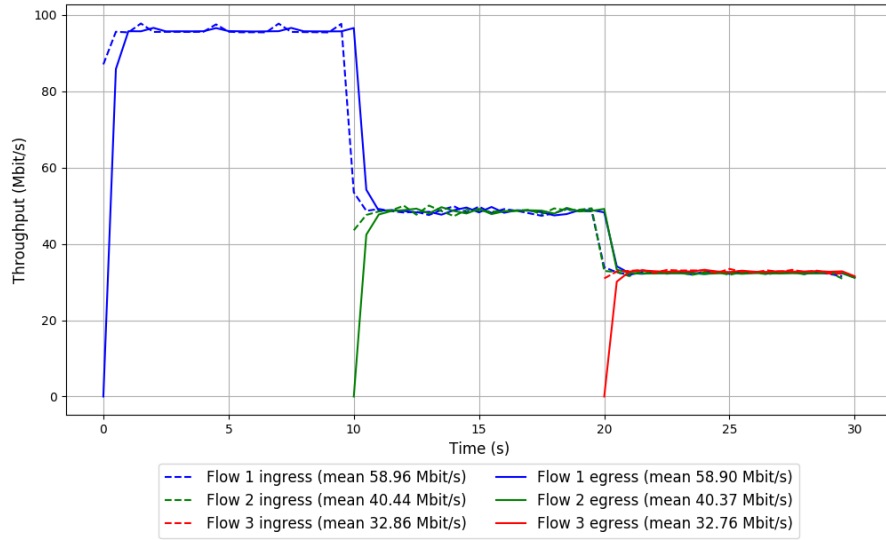
-- Flow 3:

Average throughput: 32.76 Mbit/s

95th percentile per-packet one-way delay: 14.088 ms

Loss rate: 0.36%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-05-30 11:47:47

End at: 2019-05-30 11:48:17

Local clock offset: -3.927 ms

Remote clock offset: 0.871 ms

Below is generated by plot.py at 2019-05-30 13:03:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.60 Mbit/s

95th percentile per-packet one-way delay: 13.454 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 58.89 Mbit/s

95th percentile per-packet one-way delay: 13.274 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 40.35 Mbit/s

95th percentile per-packet one-way delay: 13.980 ms

Loss rate: 0.18%

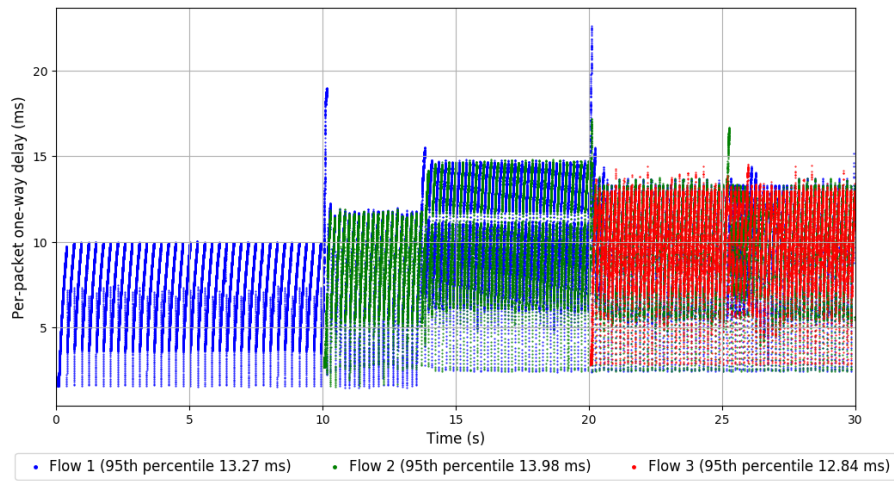
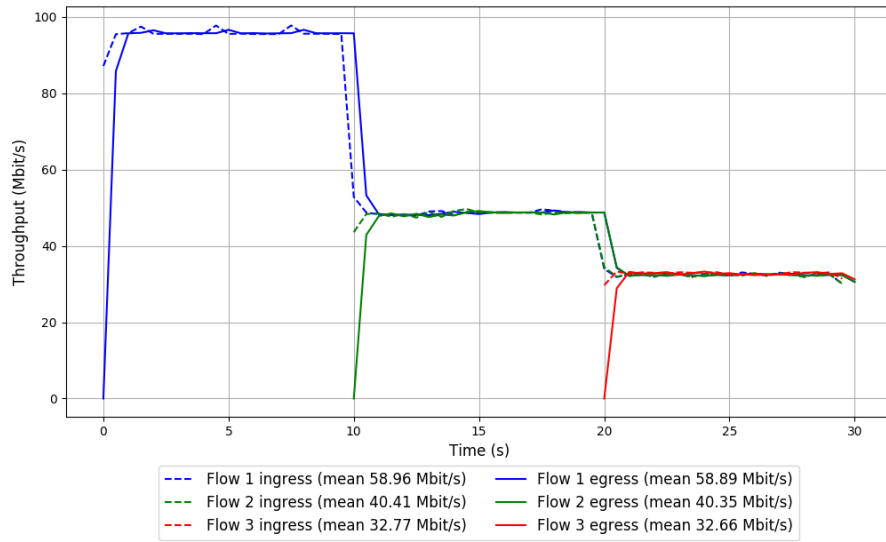
-- Flow 3:

Average throughput: 32.66 Mbit/s

95th percentile per-packet one-way delay: 12.837 ms

Loss rate: 0.38%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-05-30 12:11:53

End at: 2019-05-30 12:12:23

Local clock offset: -4.108 ms

Remote clock offset: 1.475 ms

Below is generated by plot.py at 2019-05-30 13:03:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.72 Mbit/s

95th percentile per-packet one-way delay: 13.860 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 58.92 Mbit/s

95th percentile per-packet one-way delay: 13.346 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 40.35 Mbit/s

95th percentile per-packet one-way delay: 14.141 ms

Loss rate: 0.19%

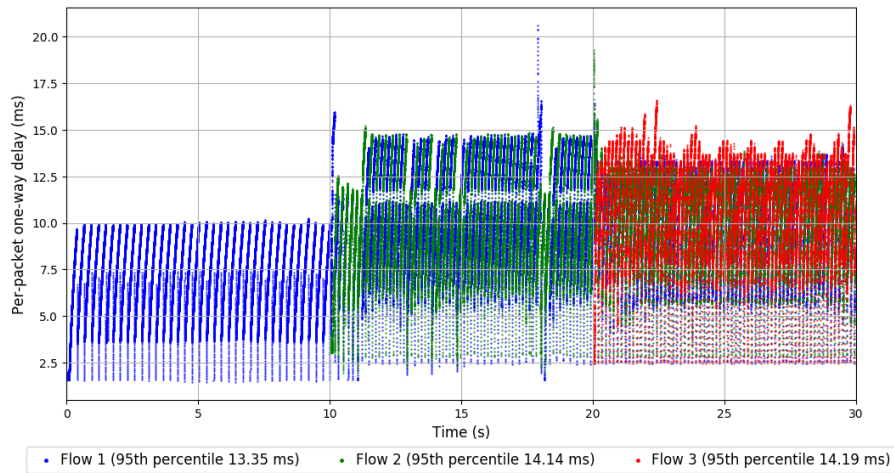
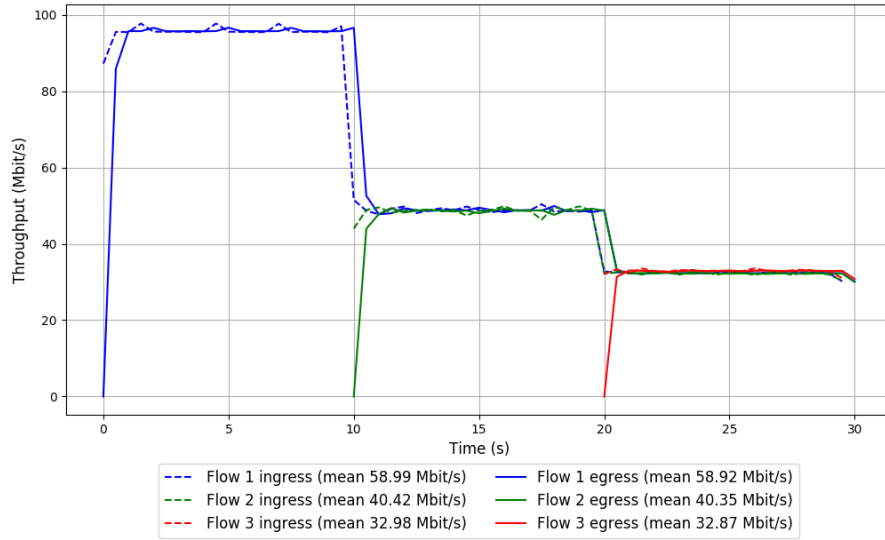
-- Flow 3:

Average throughput: 32.87 Mbit/s

95th percentile per-packet one-way delay: 14.191 ms

Loss rate: 0.38%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-05-30 12:36:00

End at: 2019-05-30 12:36:30

Local clock offset: -5.064 ms

Remote clock offset: 1.68 ms

Below is generated by plot.py at 2019-05-30 13:03:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.88 Mbit/s

95th percentile per-packet one-way delay: 13.453 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 59.16 Mbit/s

95th percentile per-packet one-way delay: 13.136 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 40.45 Mbit/s

95th percentile per-packet one-way delay: 14.119 ms

Loss rate: 0.20%

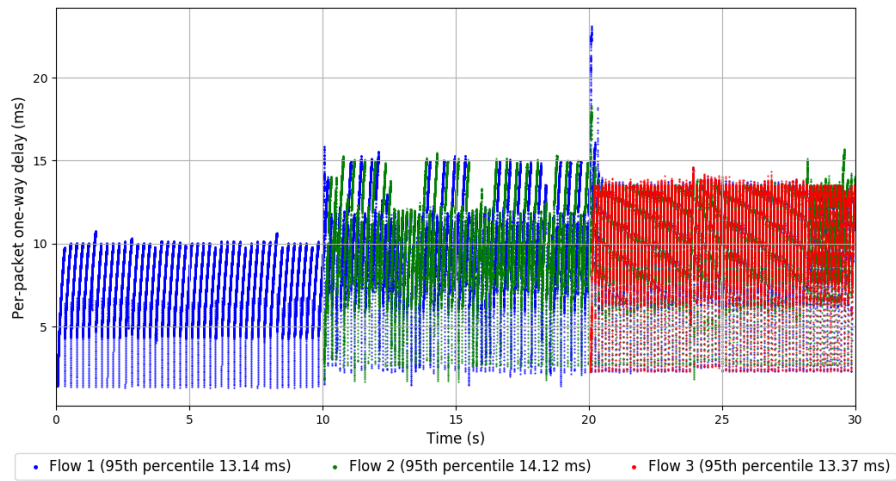
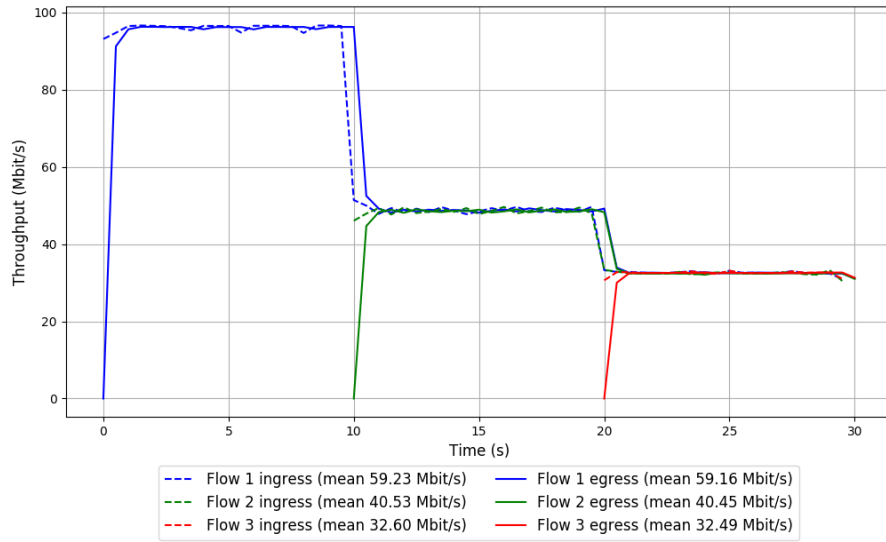
-- Flow 3:

Average throughput: 32.49 Mbit/s

95th percentile per-packet one-way delay: 13.365 ms

Loss rate: 0.31%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-05-30 11:14:36

End at: 2019-05-30 11:15:06

Local clock offset: -3.913 ms

Remote clock offset: 0.336 ms

Below is generated by plot.py at 2019-05-30 13:03:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.53 Mbit/s

95th percentile per-packet one-way delay: 1825.084 ms

Loss rate: 10.30%

-- Flow 1:

Average throughput: 67.02 Mbit/s

95th percentile per-packet one-way delay: 1849.045 ms

Loss rate: 11.44%

-- Flow 2:

Average throughput: 32.52 Mbit/s

95th percentile per-packet one-way delay: 775.414 ms

Loss rate: 9.67%

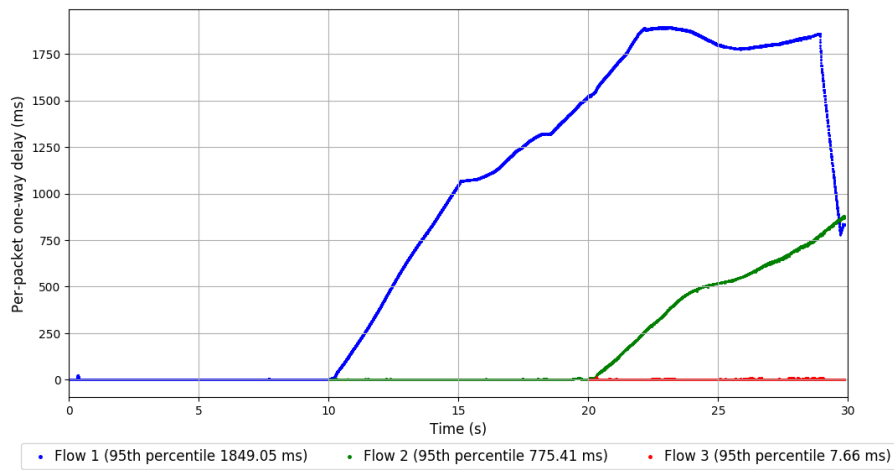
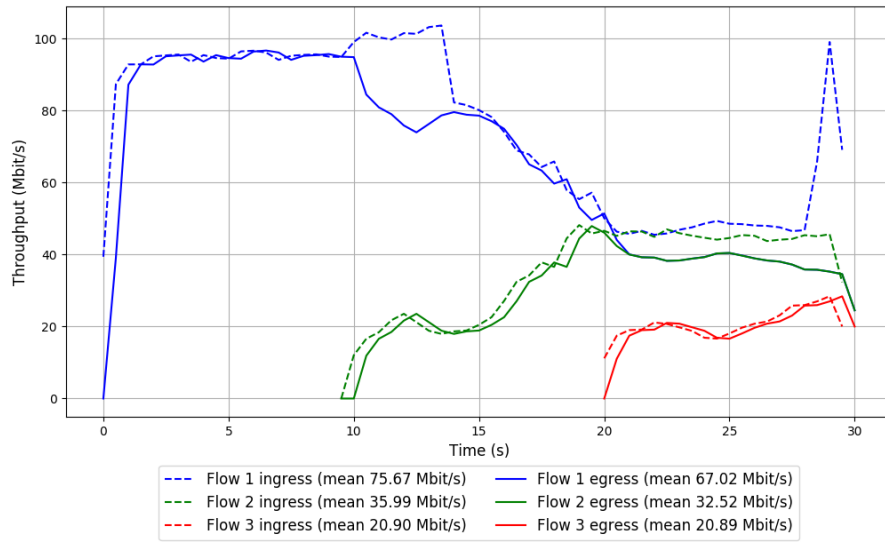
-- Flow 3:

Average throughput: 20.89 Mbit/s

95th percentile per-packet one-way delay: 7.659 ms

Loss rate: 0.06%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-05-30 11:38:42

End at: 2019-05-30 11:39:12

Local clock offset: -4.388 ms

Remote clock offset: 0.735 ms

Below is generated by plot.py at 2019-05-30 13:03:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.07 Mbit/s

95th percentile per-packet one-way delay: 1840.160 ms

Loss rate: 6.40%

-- Flow 1:

Average throughput: 63.85 Mbit/s

95th percentile per-packet one-way delay: 1864.886 ms

Loss rate: 9.22%

-- Flow 2:

Average throughput: 35.50 Mbit/s

95th percentile per-packet one-way delay: 13.994 ms

Loss rate: 0.08%

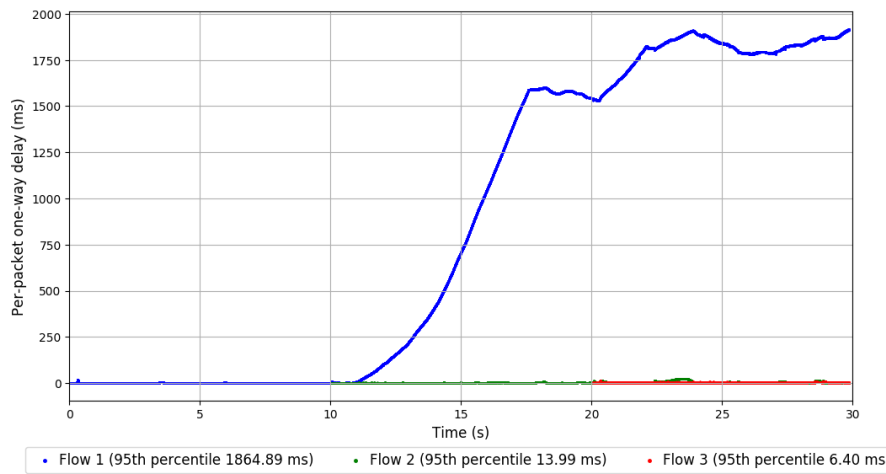
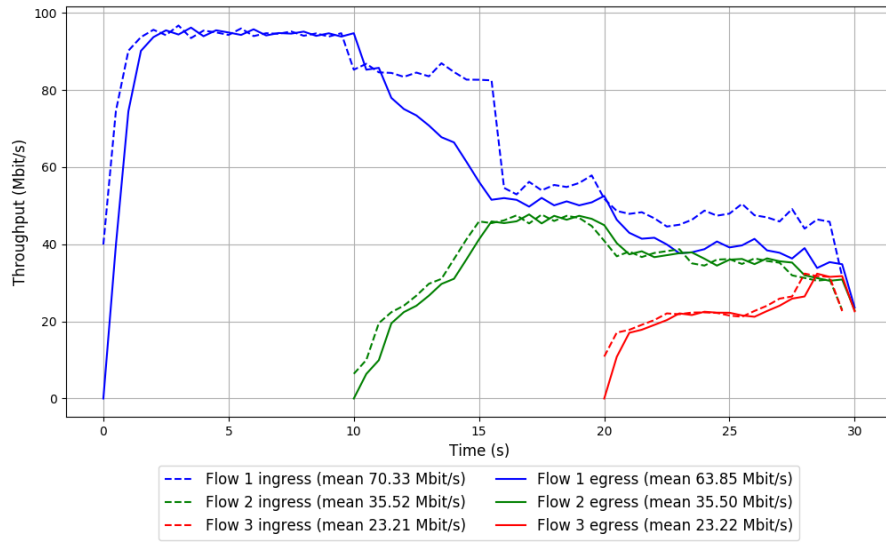
-- Flow 3:

Average throughput: 23.22 Mbit/s

95th percentile per-packet one-way delay: 6.400 ms

Loss rate: 0.05%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-05-30 12:02:48

End at: 2019-05-30 12:03:18

Local clock offset: -3.853 ms

Remote clock offset: 1.254 ms

Below is generated by plot.py at 2019-05-30 13:03:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.20 Mbit/s

95th percentile per-packet one-way delay: 5.645 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 73.61 Mbit/s

95th percentile per-packet one-way delay: 5.155 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 24.46 Mbit/s

95th percentile per-packet one-way delay: 9.928 ms

Loss rate: 0.32%

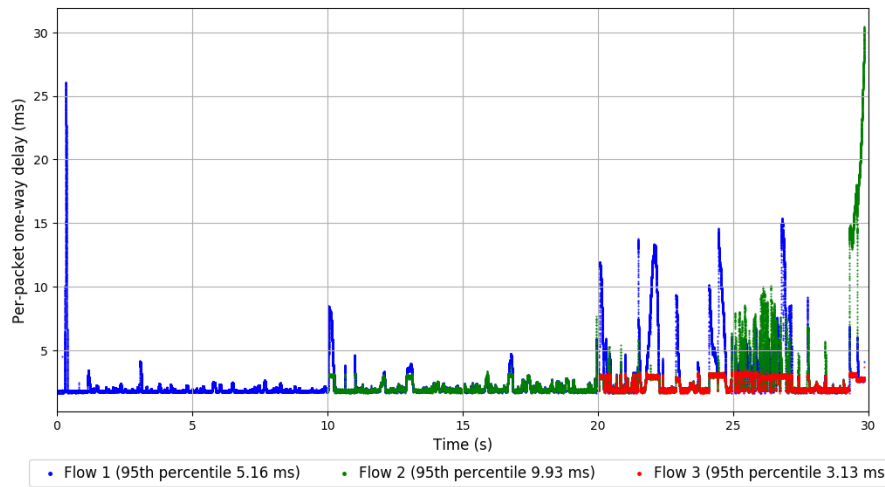
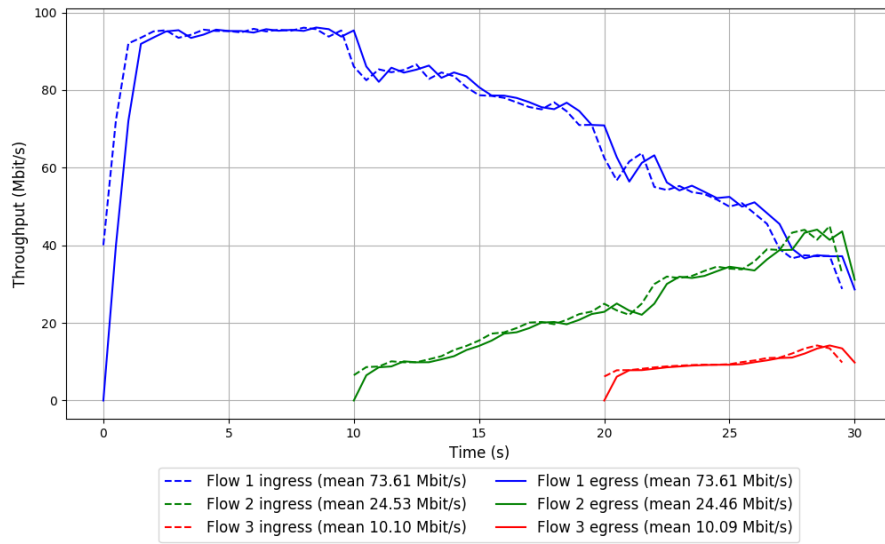
-- Flow 3:

Average throughput: 10.09 Mbit/s

95th percentile per-packet one-way delay: 3.134 ms

Loss rate: 0.05%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 12:26:55

End at: 2019-05-30 12:27:25

Local clock offset: -4.234 ms

Remote clock offset: 1.7 ms

Below is generated by plot.py at 2019-05-30 13:04:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.54 Mbit/s

95th percentile per-packet one-way delay: 1972.713 ms

Loss rate: 8.21%

-- Flow 1:

Average throughput: 63.20 Mbit/s

95th percentile per-packet one-way delay: 2003.721 ms

Loss rate: 9.84%

-- Flow 2:

Average throughput: 35.21 Mbit/s

95th percentile per-packet one-way delay: 544.967 ms

Loss rate: 6.57%

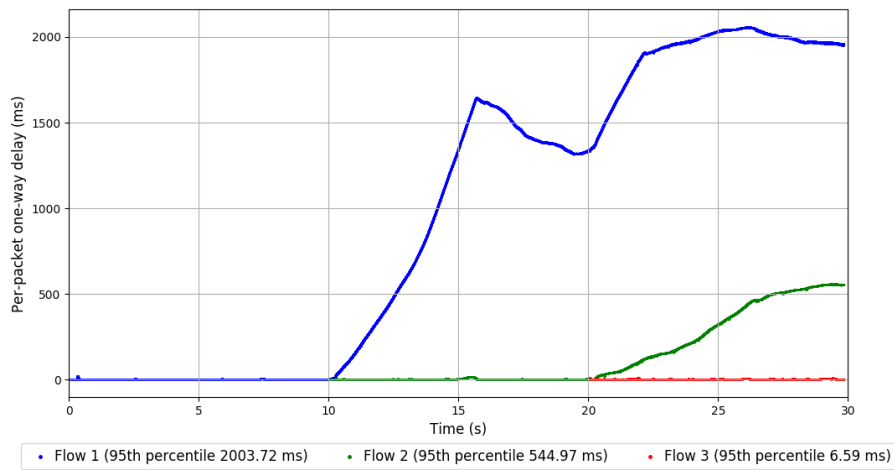
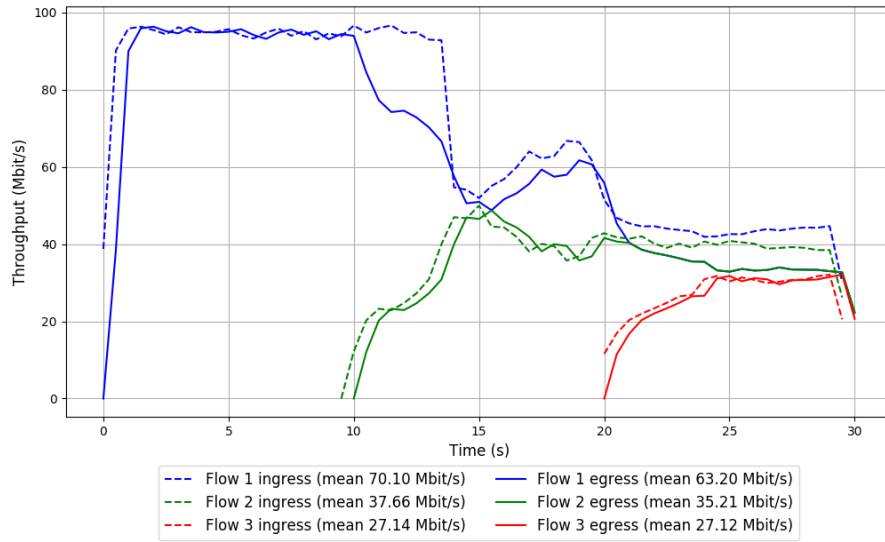
-- Flow 3:

Average throughput: 27.12 Mbit/s

95th percentile per-packet one-way delay: 6.593 ms

Loss rate: 0.04%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 12:51:04

End at: 2019-05-30 12:51:34

Local clock offset: -4.007 ms

Remote clock offset: 1.796 ms

Below is generated by plot.py at 2019-05-30 13:04:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.24 Mbit/s

95th percentile per-packet one-way delay: 1811.482 ms

Loss rate: 6.68%

-- Flow 1:

Average throughput: 64.86 Mbit/s

95th percentile per-packet one-way delay: 1821.832 ms

Loss rate: 9.46%

-- Flow 2:

Average throughput: 33.95 Mbit/s

95th percentile per-packet one-way delay: 31.648 ms

Loss rate: 0.14%

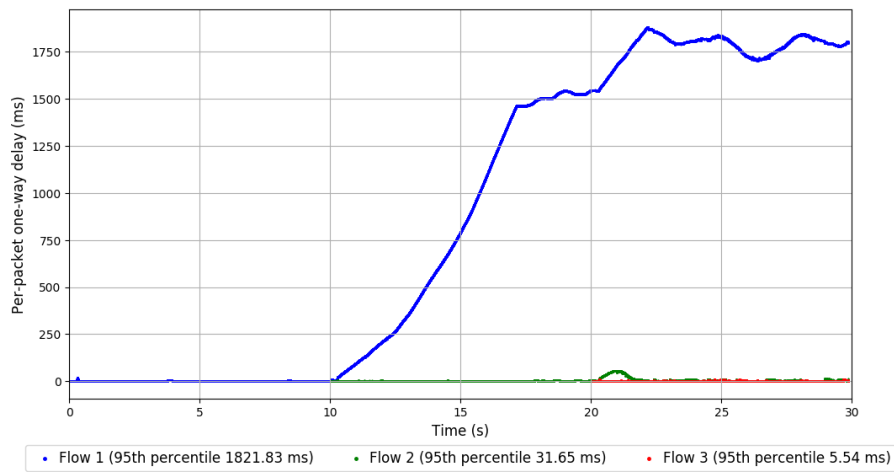
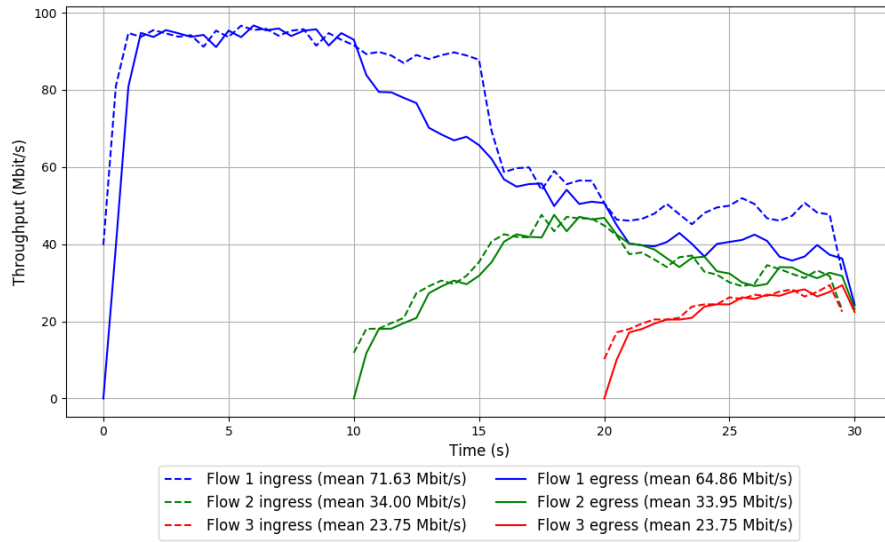
-- Flow 3:

Average throughput: 23.75 Mbit/s

95th percentile per-packet one-way delay: 5.537 ms

Loss rate: 0.06%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-05-30 11:13:23

End at: 2019-05-30 11:13:53

Local clock offset: -4.92 ms

Remote clock offset: 0.357 ms

Below is generated by plot.py at 2019-05-30 13:05:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.61 Mbit/s

95th percentile per-packet one-way delay: 845.776 ms

Loss rate: 10.84%

-- Flow 1:

Average throughput: 70.53 Mbit/s

95th percentile per-packet one-way delay: 850.473 ms

Loss rate: 13.10%

-- Flow 2:

Average throughput: 9.14 Mbit/s

95th percentile per-packet one-way delay: 32.414 ms

Loss rate: 0.22%

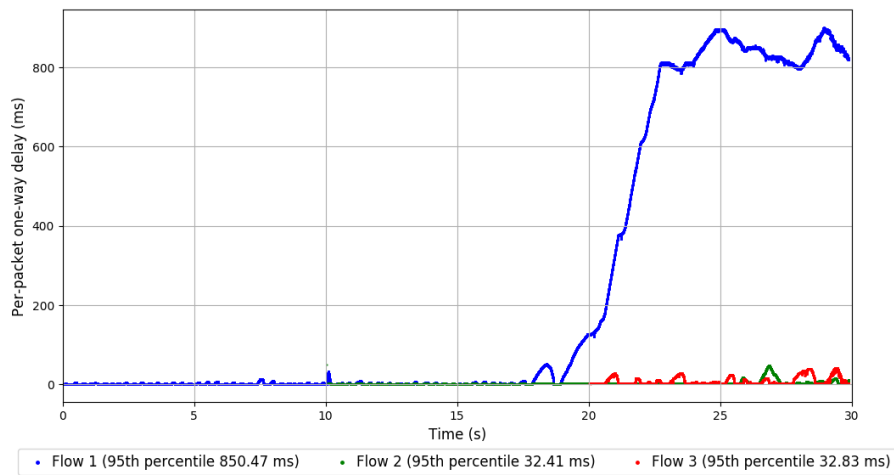
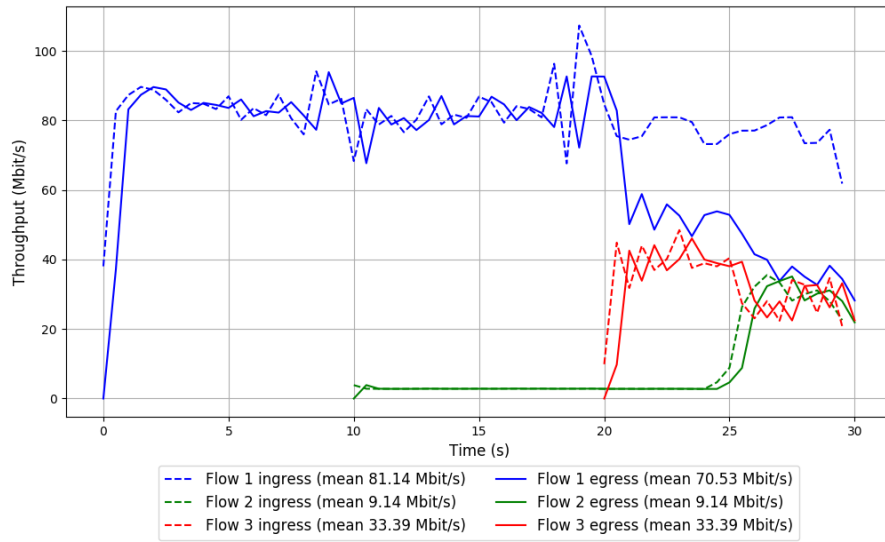
-- Flow 3:

Average throughput: 33.39 Mbit/s

95th percentile per-packet one-way delay: 32.828 ms

Loss rate: 0.05%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-05-30 11:37:31

End at: 2019-05-30 11:38:01

Local clock offset: -3.634 ms

Remote clock offset: 0.762 ms

Below is generated by plot.py at 2019-05-30 13:05:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.86 Mbit/s

95th percentile per-packet one-way delay: 814.378 ms

Loss rate: 16.25%

-- Flow 1:

Average throughput: 25.41 Mbit/s

95th percentile per-packet one-way delay: 723.649 ms

Loss rate: 22.33%

-- Flow 2:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 831.824 ms

Loss rate: 14.79%

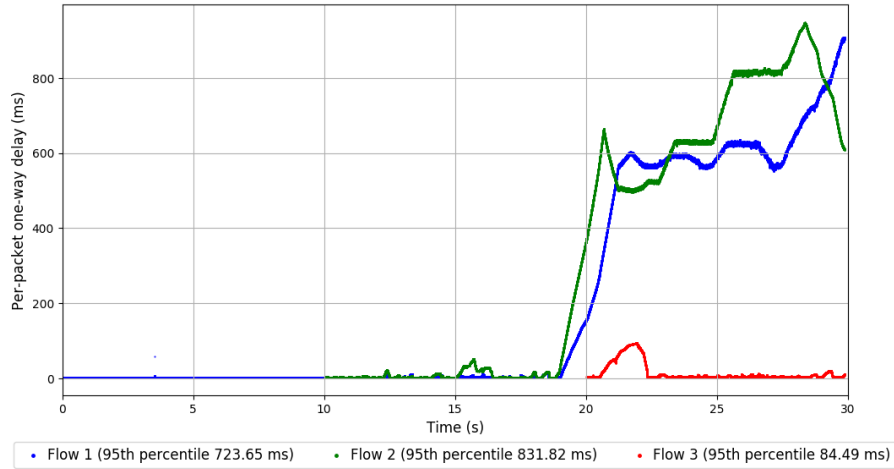
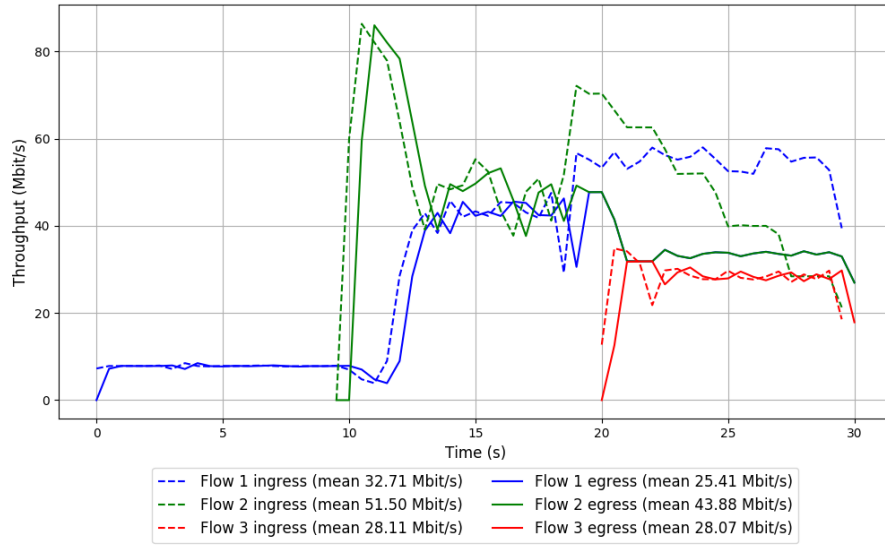
-- Flow 3:

Average throughput: 28.07 Mbit/s

95th percentile per-packet one-way delay: 84.489 ms

Loss rate: 0.19%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-05-30 12:01:36

End at: 2019-05-30 12:02:06

Local clock offset: -3.679 ms

Remote clock offset: 1.142 ms

Below is generated by plot.py at 2019-05-30 13:05:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.10 Mbit/s

95th percentile per-packet one-way delay: 523.940 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 49.00 Mbit/s

95th percentile per-packet one-way delay: 567.278 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 36.45 Mbit/s

95th percentile per-packet one-way delay: 29.146 ms

Loss rate: 0.11%

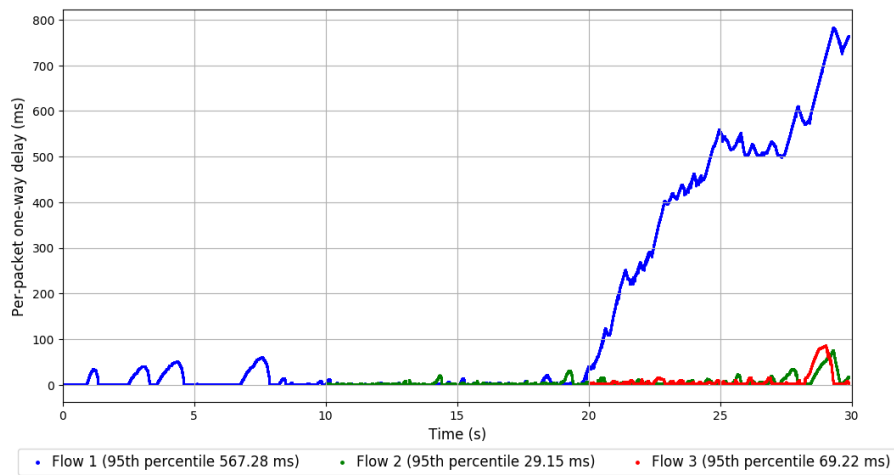
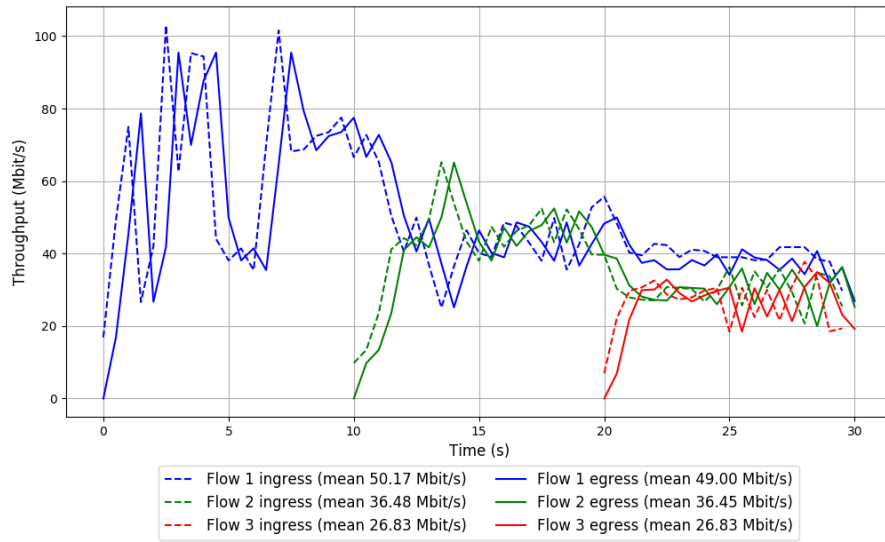
-- Flow 3:

Average throughput: 26.83 Mbit/s

95th percentile per-packet one-way delay: 69.215 ms

Loss rate: 0.05%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 12:25:42

End at: 2019-05-30 12:26:12

Local clock offset: -3.929 ms

Remote clock offset: 1.605 ms

Below is generated by plot.py at 2019-05-30 13:05:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.18 Mbit/s

95th percentile per-packet one-way delay: 765.463 ms

Loss rate: 9.59%

-- Flow 1:

Average throughput: 56.04 Mbit/s

95th percentile per-packet one-way delay: 956.690 ms

Loss rate: 12.91%

-- Flow 2:

Average throughput: 36.15 Mbit/s

95th percentile per-packet one-way delay: 38.453 ms

Loss rate: 0.15%

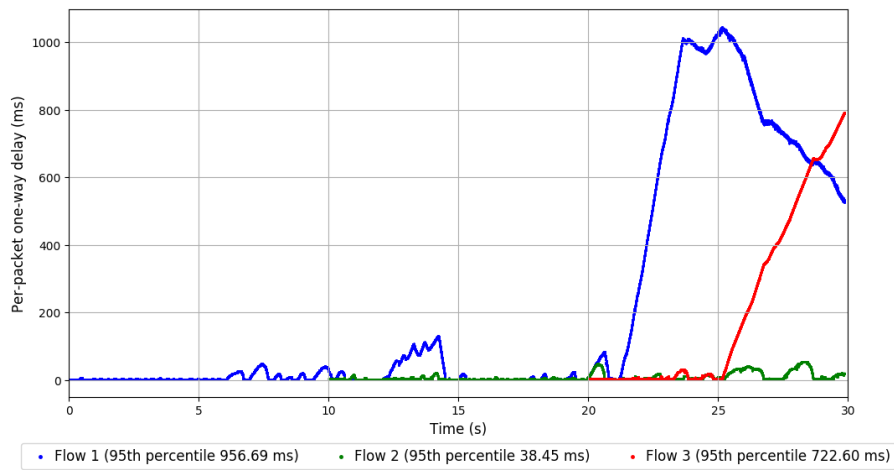
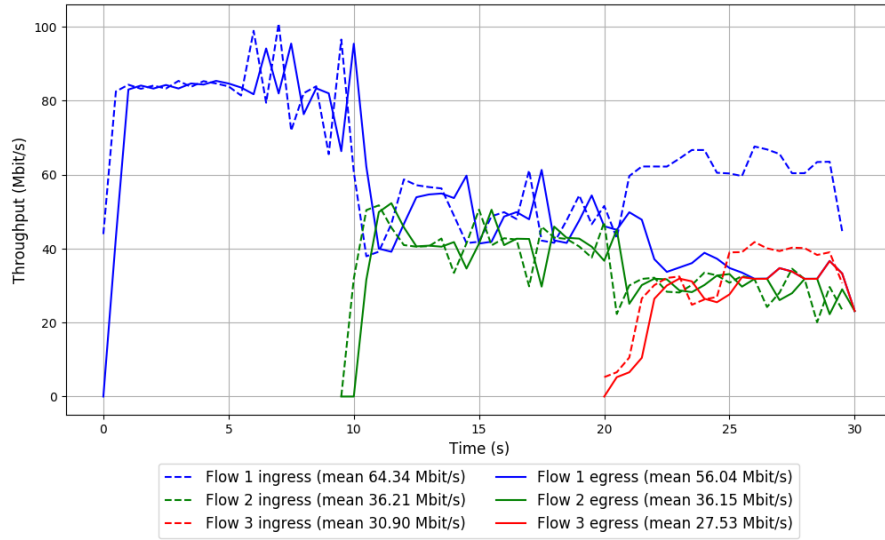
-- Flow 3:

Average throughput: 27.53 Mbit/s

95th percentile per-packet one-way delay: 722.602 ms

Loss rate: 10.95%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 12:49:50

End at: 2019-05-30 12:50:20

Local clock offset: -4.528 ms

Remote clock offset: 1.785 ms

Below is generated by plot.py at 2019-05-30 13:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 635.778 ms

Loss rate: 33.14%

-- Flow 1:

Average throughput: 59.70 Mbit/s

95th percentile per-packet one-way delay: 704.577 ms

Loss rate: 43.75%

-- Flow 2:

Average throughput: 37.20 Mbit/s

95th percentile per-packet one-way delay: 270.670 ms

Loss rate: 0.27%

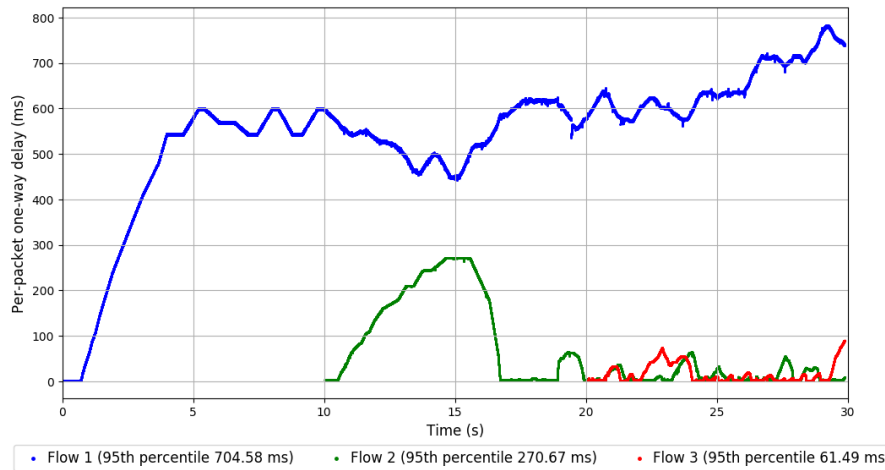
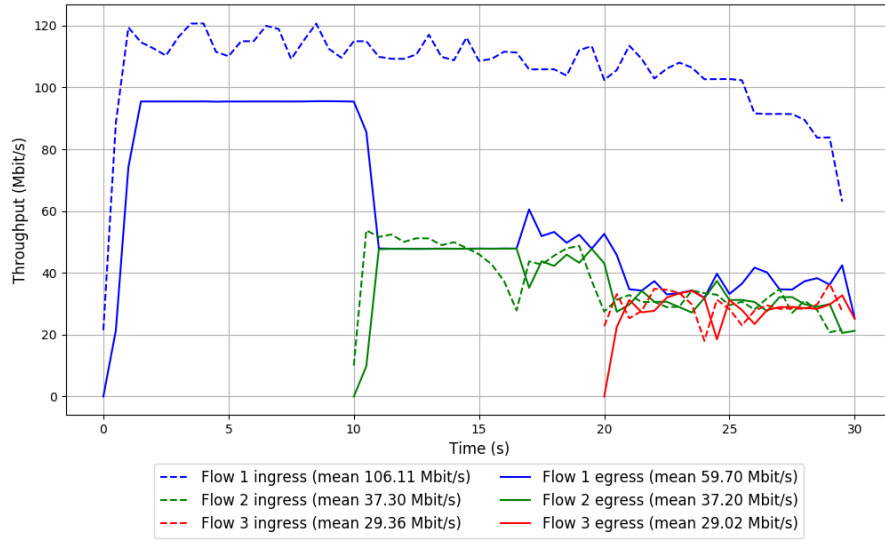
-- Flow 3:

Average throughput: 29.02 Mbit/s

95th percentile per-packet one-way delay: 61.492 ms

Loss rate: 1.20%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-30 10:55:00

End at: 2019-05-30 10:55:30

Local clock offset: -4.916 ms

Remote clock offset: 0.063 ms

Below is generated by plot.py at 2019-05-30 13:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.80 Mbit/s

95th percentile per-packet one-way delay: 12.882 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 53.69 Mbit/s

95th percentile per-packet one-way delay: 12.808 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 40.30 Mbit/s

95th percentile per-packet one-way delay: 12.928 ms

Loss rate: 0.35%

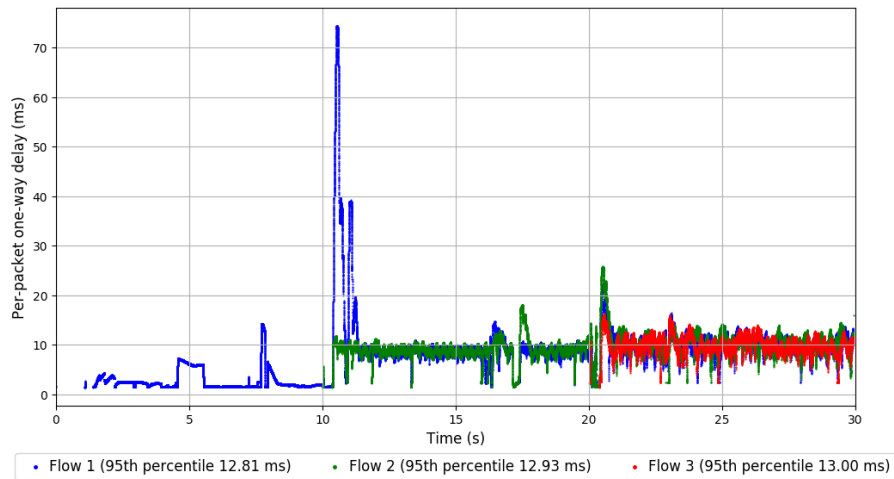
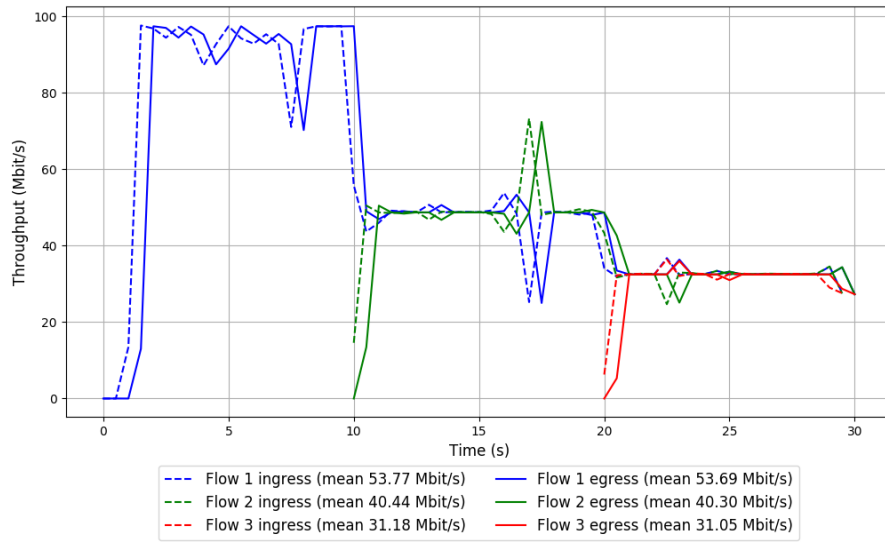
-- Flow 3:

Average throughput: 31.05 Mbit/s

95th percentile per-packet one-way delay: 12.999 ms

Loss rate: 0.48%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-05-30 11:19:08

End at: 2019-05-30 11:19:38

Local clock offset: -3.881 ms

Remote clock offset: 0.405 ms

Below is generated by plot.py at 2019-05-30 13:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.87 Mbit/s

95th percentile per-packet one-way delay: 13.524 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 53.86 Mbit/s

95th percentile per-packet one-way delay: 13.212 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 13.529 ms

Loss rate: 0.34%

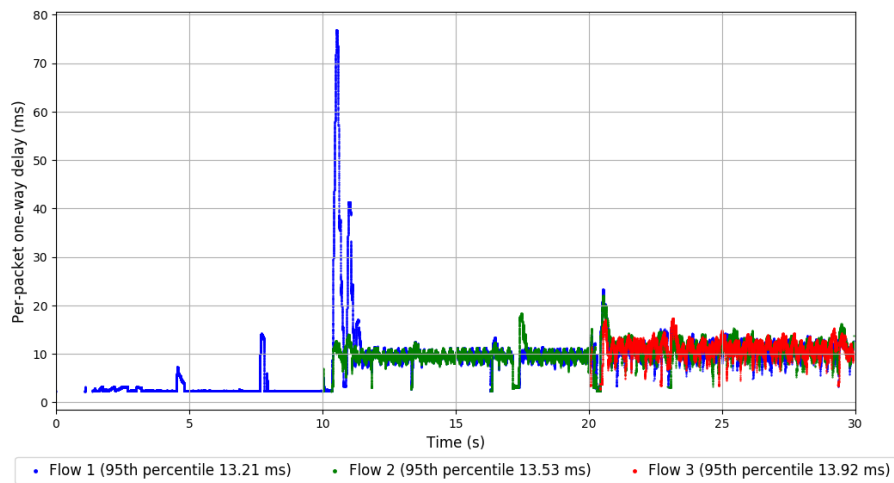
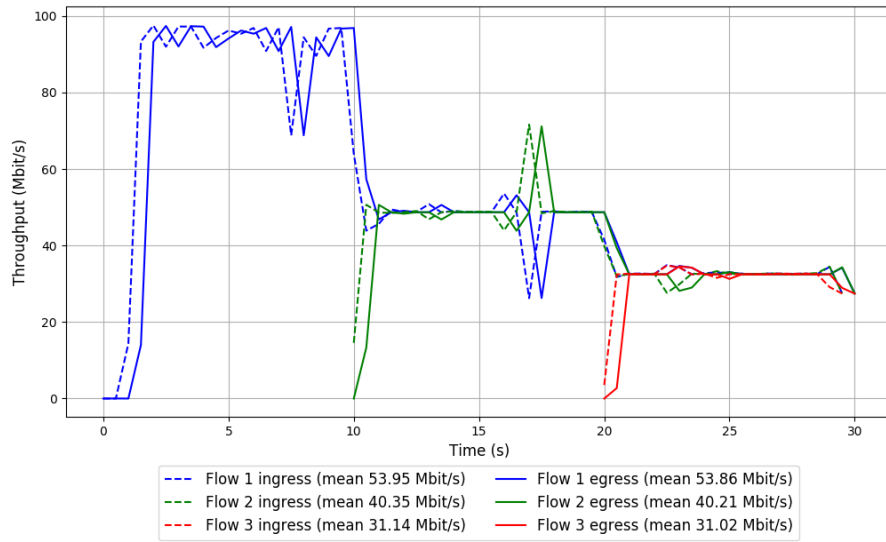
-- Flow 3:

Average throughput: 31.02 Mbit/s

95th percentile per-packet one-way delay: 13.922 ms

Loss rate: 0.43%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 11:43:13

End at: 2019-05-30 11:43:43

Local clock offset: -3.568 ms

Remote clock offset: 0.791 ms

Below is generated by plot.py at 2019-05-30 13:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.84 Mbit/s

95th percentile per-packet one-way delay: 13.198 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 53.80 Mbit/s

95th percentile per-packet one-way delay: 13.324 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 12.727 ms

Loss rate: 0.29%

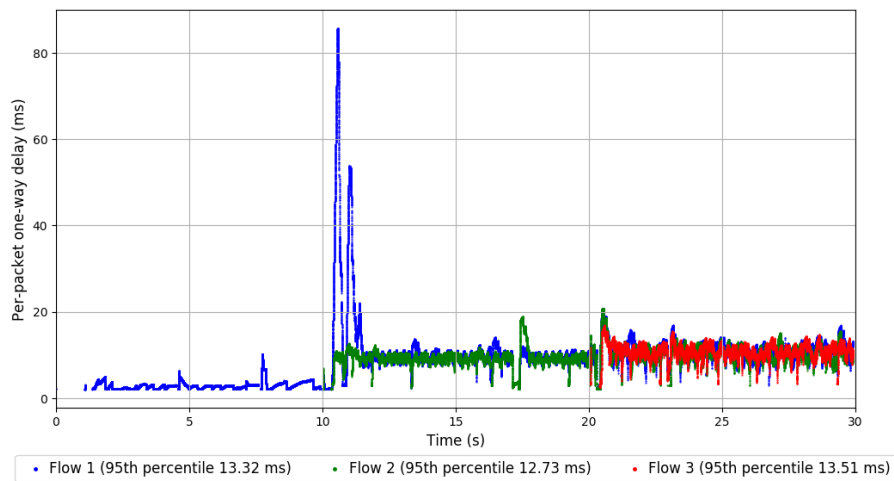
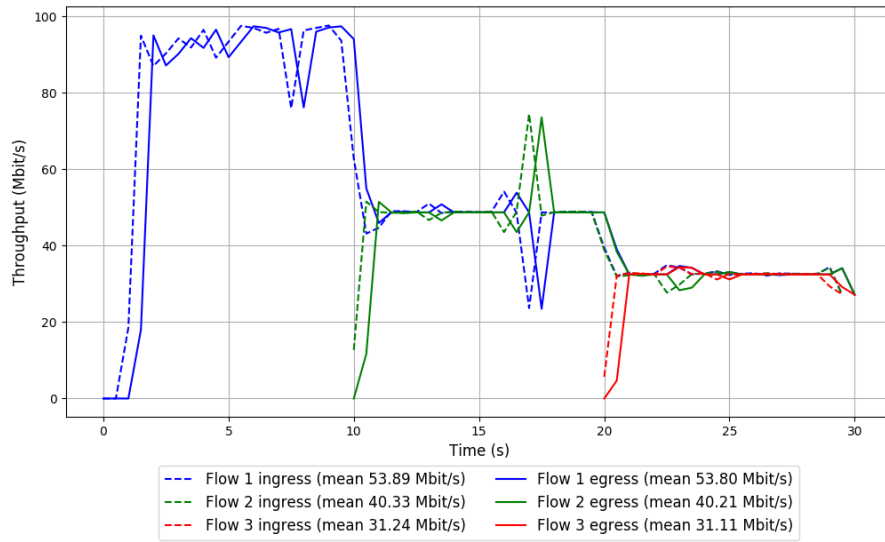
-- Flow 3:

Average throughput: 31.11 Mbit/s

95th percentile per-packet one-way delay: 13.511 ms

Loss rate: 0.45%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 12:07:19

End at: 2019-05-30 12:07:49

Local clock offset: -2.866 ms

Remote clock offset: 1.315 ms

Below is generated by plot.py at 2019-05-30 13:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.01 Mbit/s

95th percentile per-packet one-way delay: 13.328 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 54.07 Mbit/s

95th percentile per-packet one-way delay: 12.828 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 40.05 Mbit/s

95th percentile per-packet one-way delay: 13.326 ms

Loss rate: 0.29%

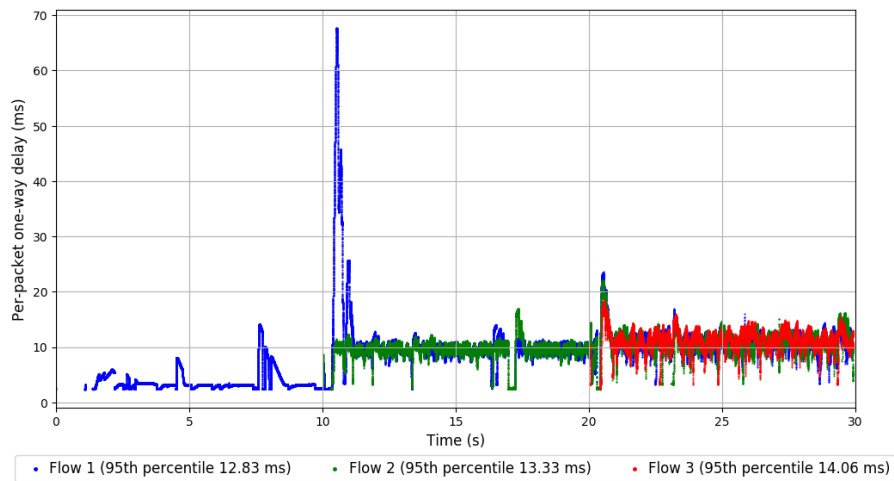
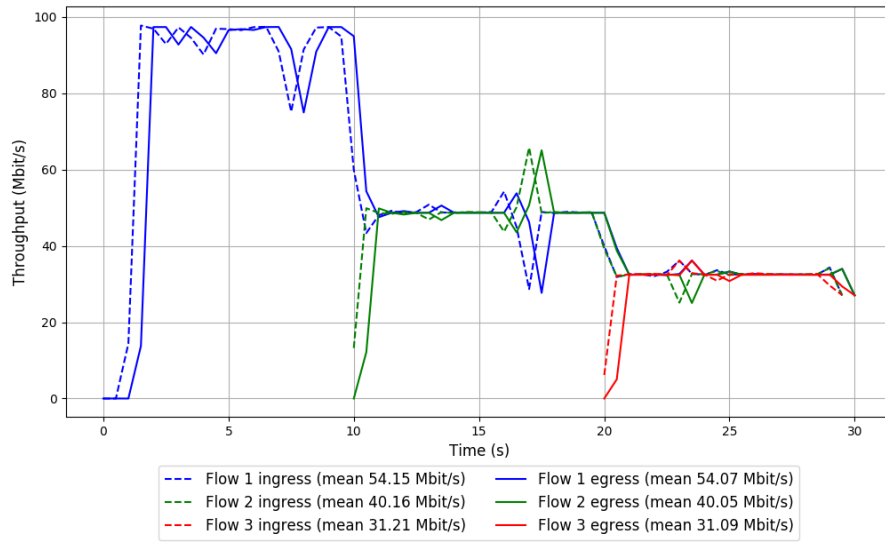
-- Flow 3:

Average throughput: 31.09 Mbit/s

95th percentile per-packet one-way delay: 14.063 ms

Loss rate: 0.50%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 12:31:27

End at: 2019-05-30 12:31:57

Local clock offset: -4.992 ms

Remote clock offset: 1.645 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.00 Mbit/s

95th percentile per-packet one-way delay: 12.853 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 53.97 Mbit/s

95th percentile per-packet one-way delay: 12.847 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 40.22 Mbit/s

95th percentile per-packet one-way delay: 12.562 ms

Loss rate: 0.34%

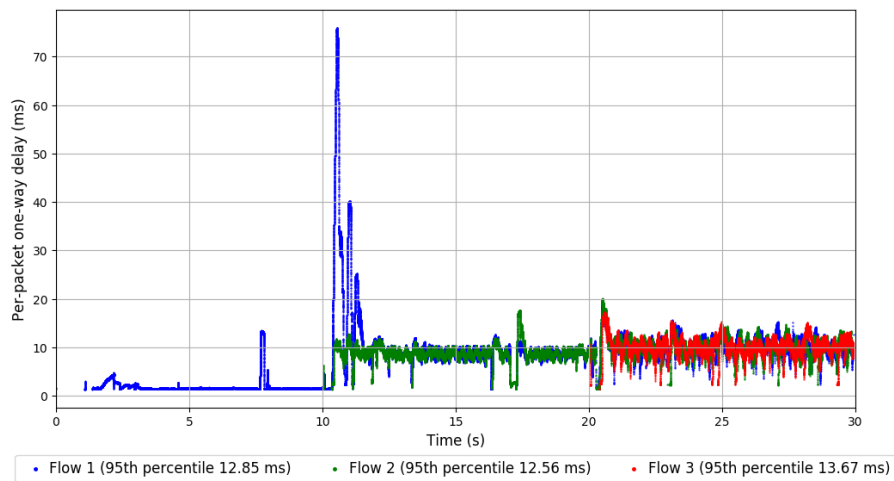
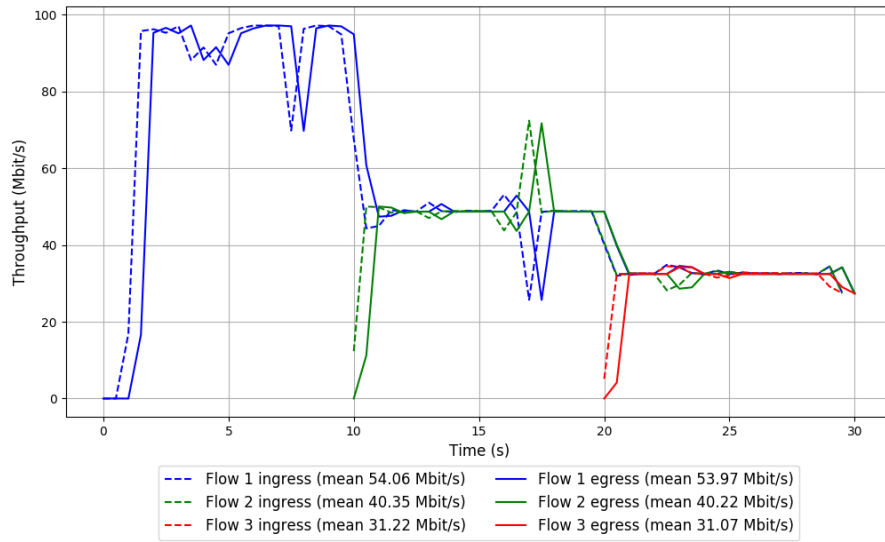
-- Flow 3:

Average throughput: 31.07 Mbit/s

95th percentile per-packet one-way delay: 13.669 ms

Loss rate: 0.51%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-05-30 11:15:45

End at: 2019-05-30 11:16:15

Local clock offset: -4.848 ms

Remote clock offset: 0.304 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.452 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.449 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.448 ms

Loss rate: 0.00%

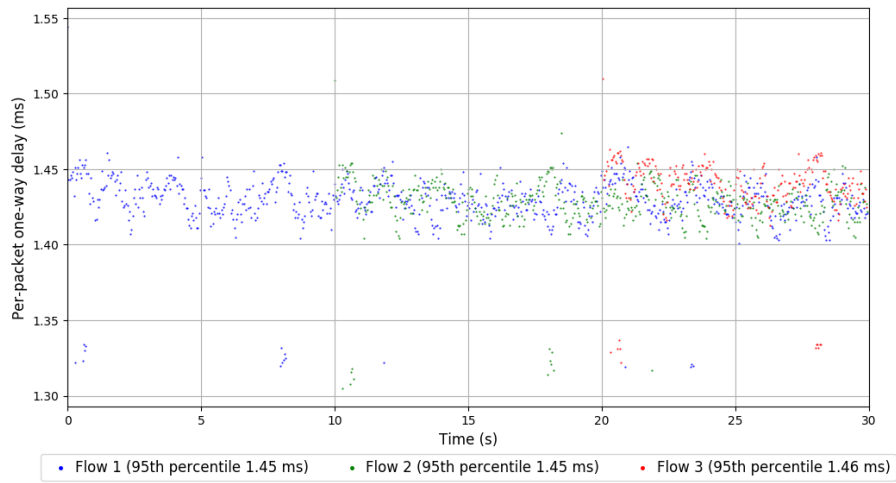
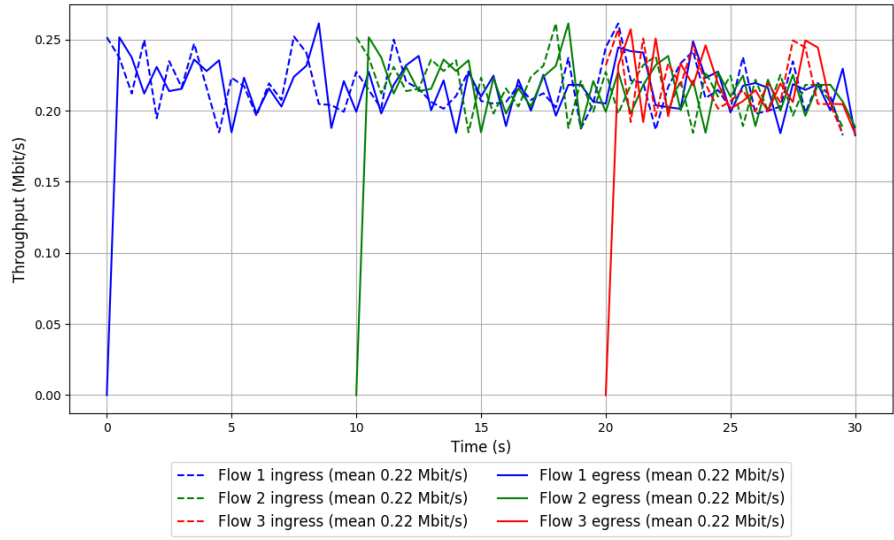
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.459 ms

Loss rate: 0.00%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-05-30 11:39:50

End at: 2019-05-30 11:40:20

Local clock offset: -3.646 ms

Remote clock offset: 0.728 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.596 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.208 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.603 ms

Loss rate: 0.00%

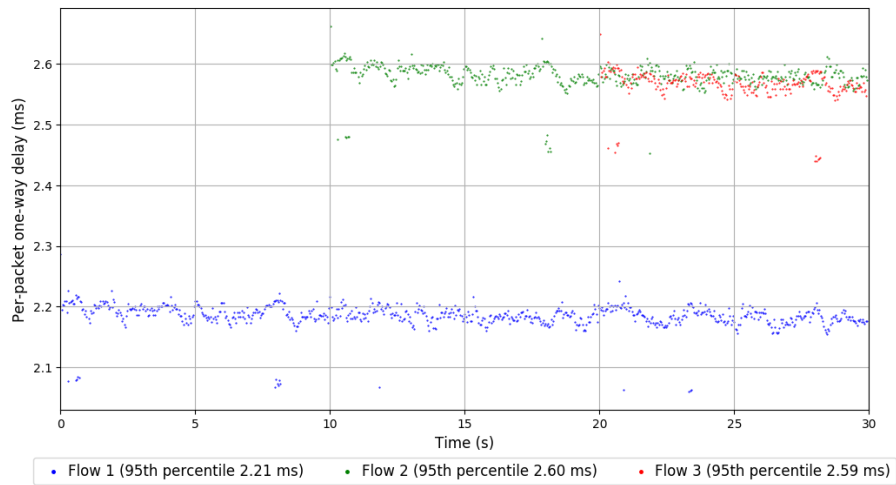
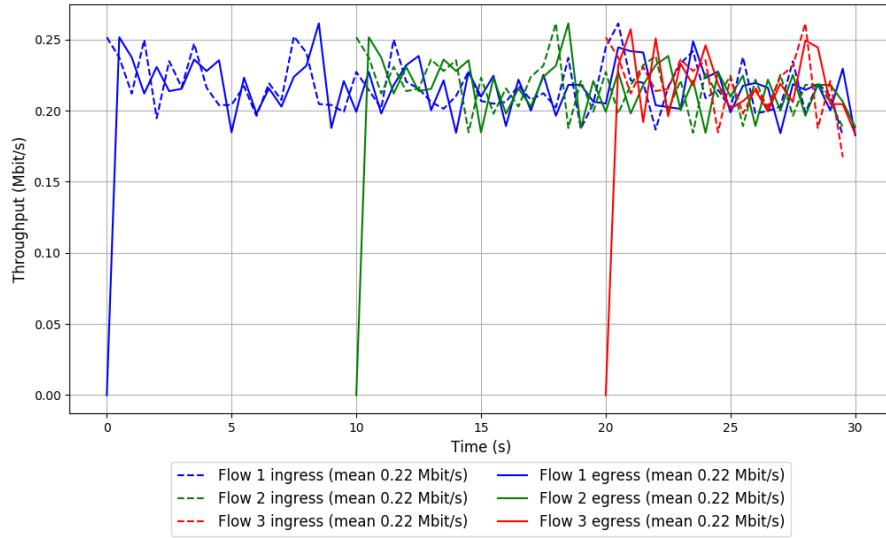
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.589 ms

Loss rate: 0.00%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-05-30 12:03:56

End at: 2019-05-30 12:04:26

Local clock offset: -3.914 ms

Remote clock offset: 1.246 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1.757 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.377 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.380 ms

Loss rate: 0.00%

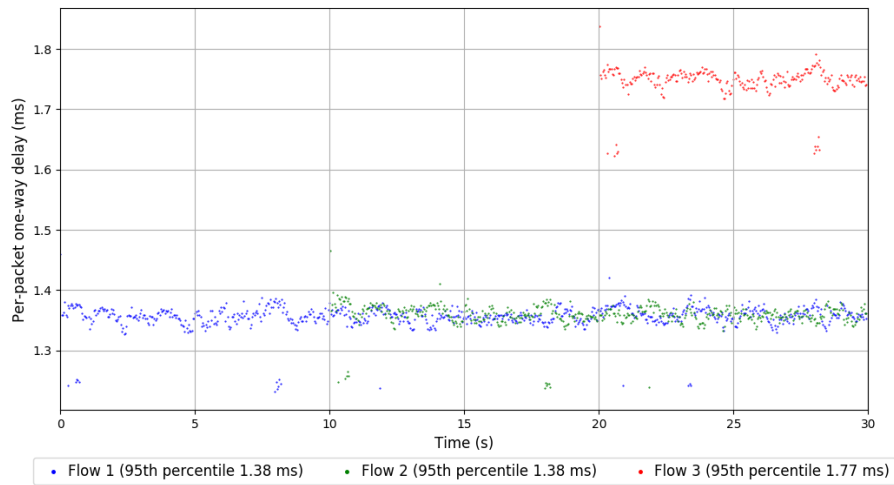
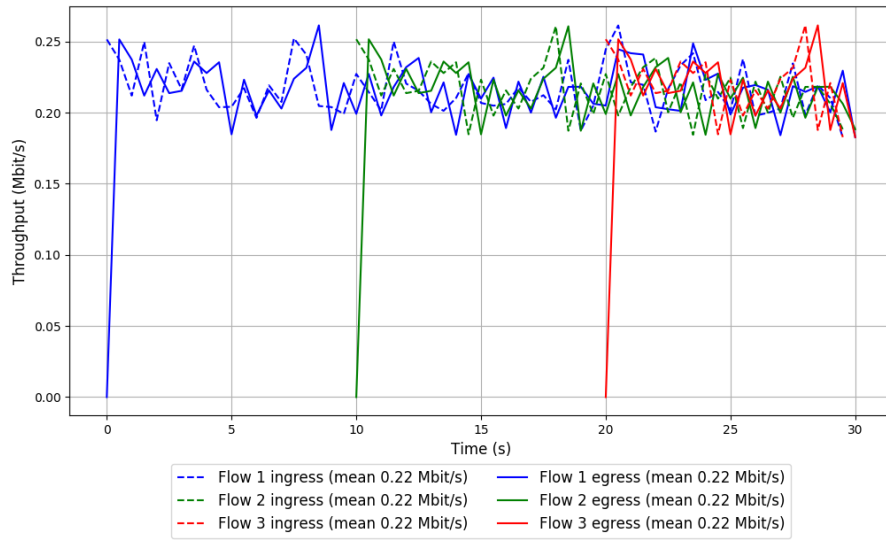
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.768 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2019-05-30 12:28:04

End at: 2019-05-30 12:28:34

Local clock offset: -4.944 ms

Remote clock offset: 1.71 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 1.760 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 1.359 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1.772 ms

Loss rate: 0.00%

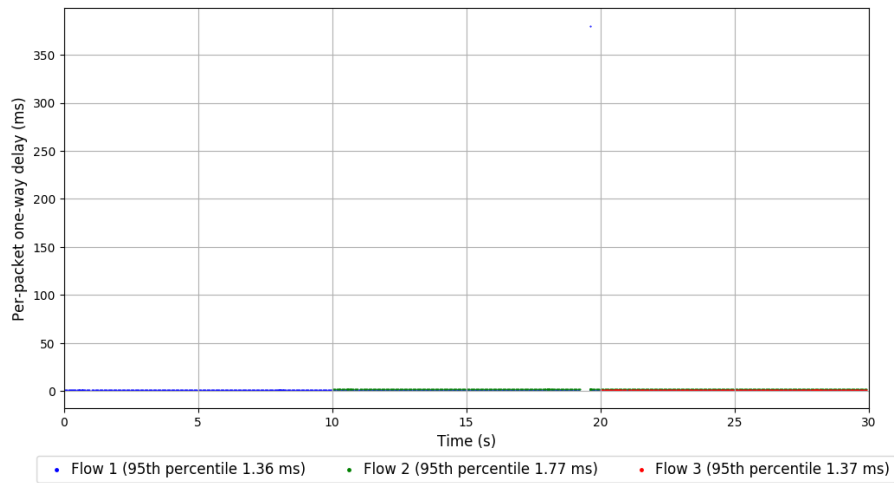
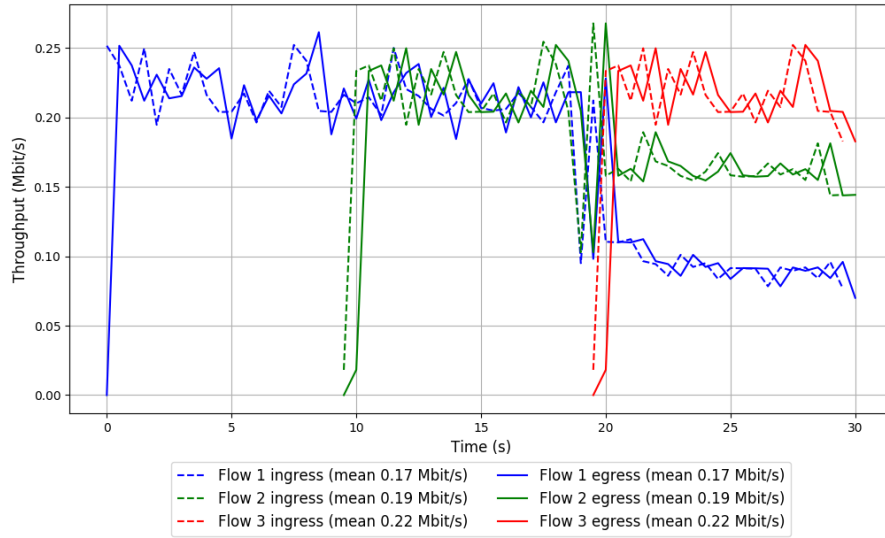
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.370 ms

Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-05-30 12:52:13

End at: 2019-05-30 12:52:43

Local clock offset: -3.94 ms

Remote clock offset: 1.809 ms

Below is generated by plot.py at 2019-05-30 13:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.528 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.146 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.531 ms

Loss rate: 0.00%

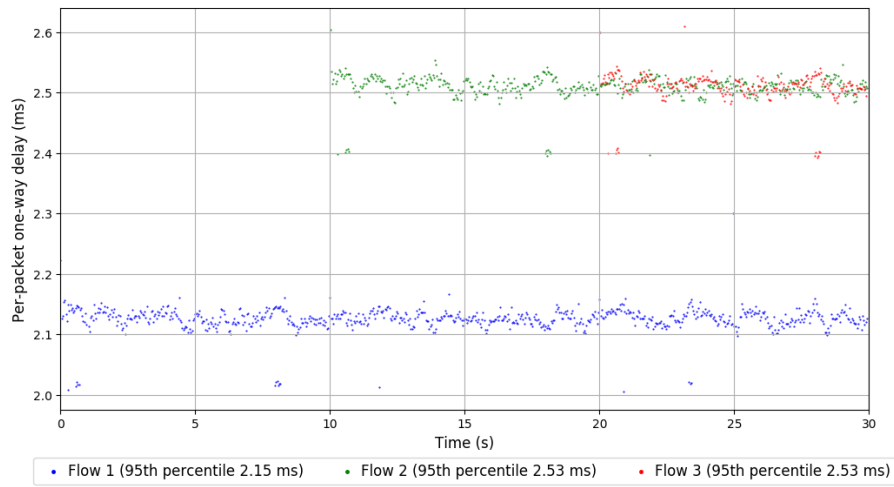
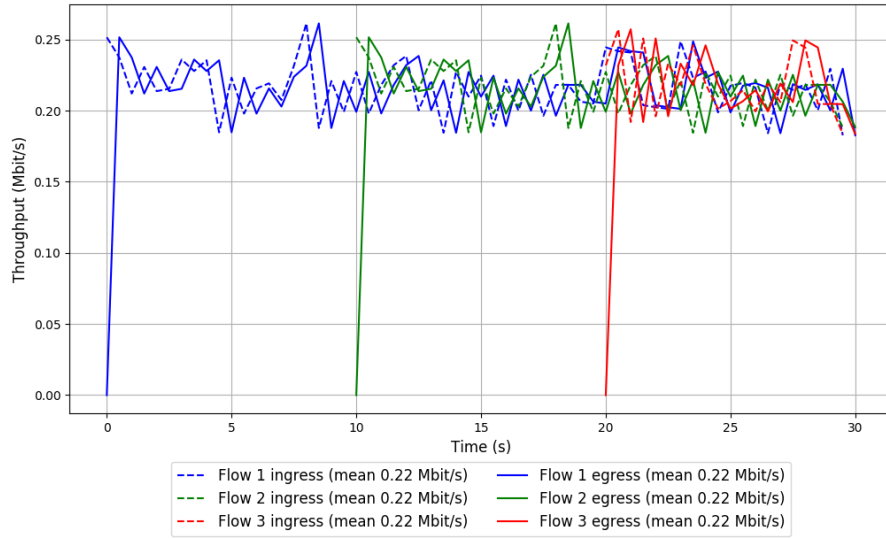
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.533 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-05-30 11:06:32

End at: 2019-05-30 11:07:02

Local clock offset: -5.022 ms

Remote clock offset: 0.197 ms

Below is generated by plot.py at 2019-05-30 13:06:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.35 Mbit/s

95th percentile per-packet one-way delay: 23.943 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 43.52 Mbit/s

95th percentile per-packet one-way delay: 23.041 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 39.38 Mbit/s

95th percentile per-packet one-way delay: 24.237 ms

Loss rate: 0.23%

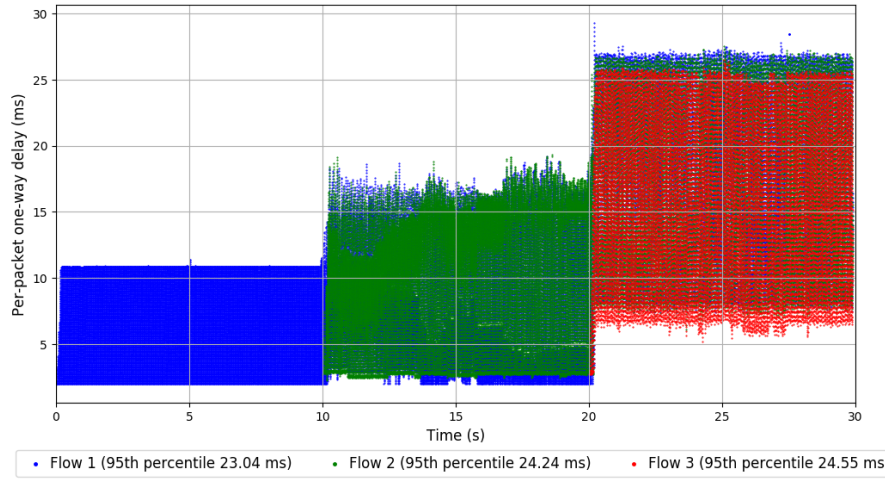
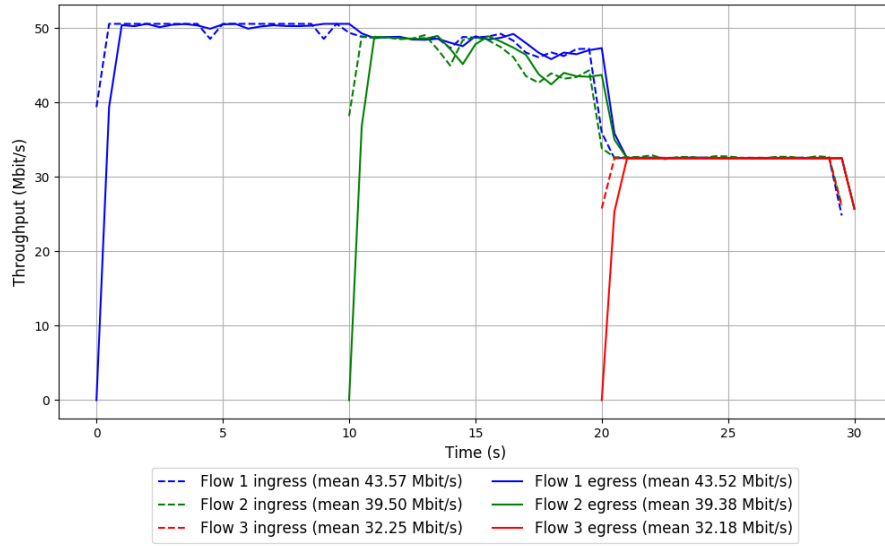
-- Flow 3:

Average throughput: 32.18 Mbit/s

95th percentile per-packet one-way delay: 24.547 ms

Loss rate: 0.12%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-05-30 11:30:40

End at: 2019-05-30 11:31:10

Local clock offset: -4.446 ms

Remote clock offset: 0.666 ms

Below is generated by plot.py at 2019-05-30 13:06:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.12 Mbit/s

95th percentile per-packet one-way delay: 24.518 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 42.91 Mbit/s

95th percentile per-packet one-way delay: 23.038 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 24.584 ms

Loss rate: 0.36%

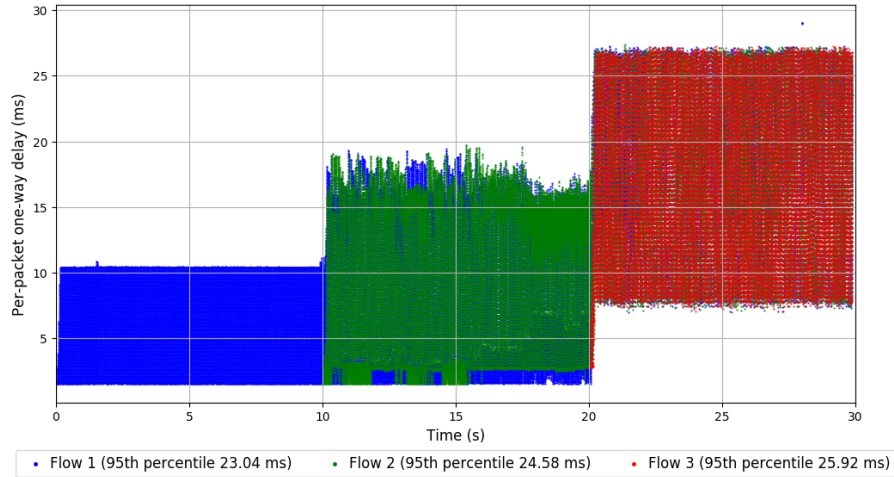
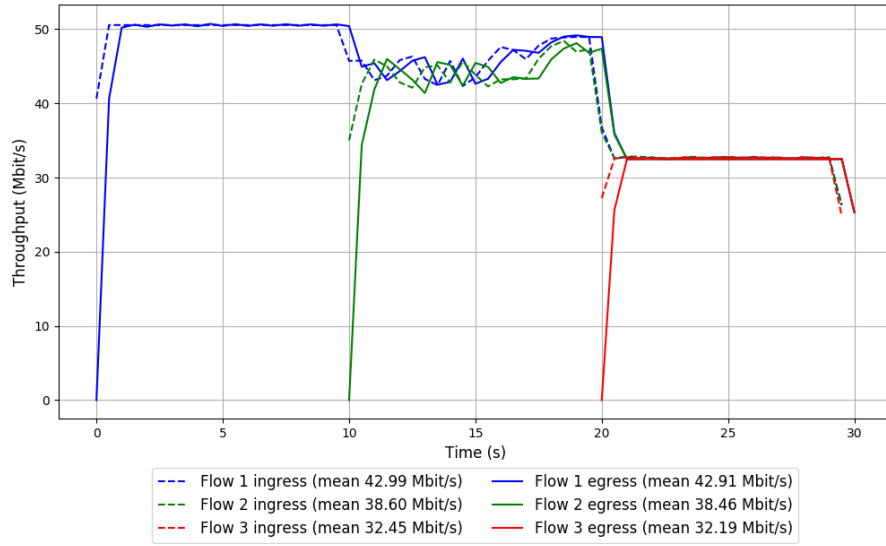
-- Flow 3:

Average throughput: 32.19 Mbit/s

95th percentile per-packet one-way delay: 25.919 ms

Loss rate: 0.70%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-05-30 11:54:46

End at: 2019-05-30 11:55:16

Local clock offset: -3.025 ms

Remote clock offset: 0.966 ms

Below is generated by plot.py at 2019-05-30 13:06:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.39 Mbit/s

95th percentile per-packet one-way delay: 24.565 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 42.84 Mbit/s

95th percentile per-packet one-way delay: 24.000 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 37.78 Mbit/s

95th percentile per-packet one-way delay: 24.256 ms

Loss rate: 0.08%

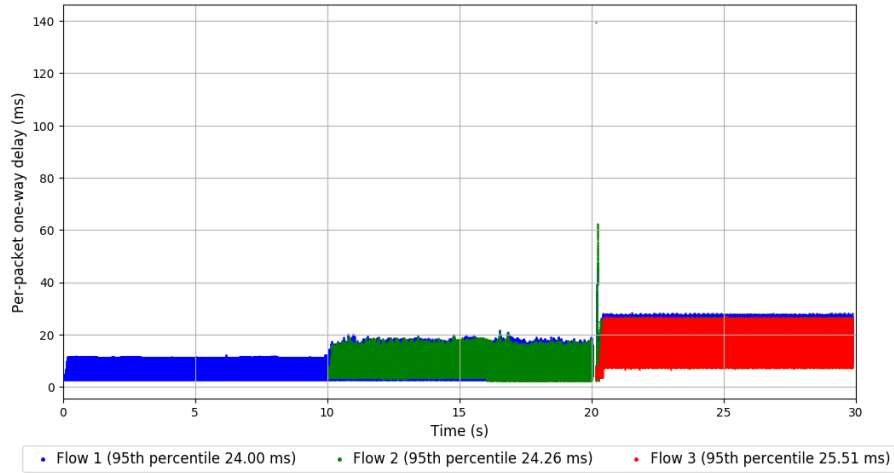
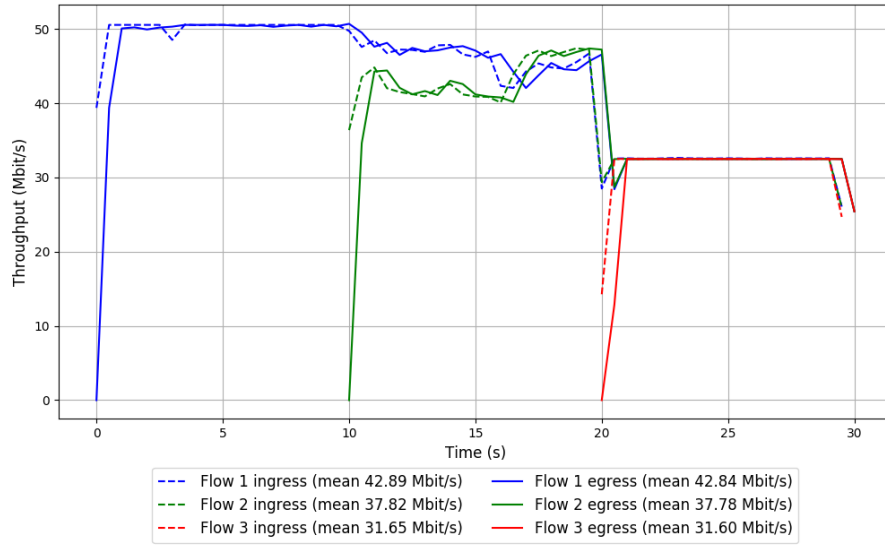
-- Flow 3:

Average throughput: 31.60 Mbit/s

95th percentile per-packet one-way delay: 25.509 ms

Loss rate: 0.11%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2019-05-30 12:18:51

End at: 2019-05-30 12:19:21

Local clock offset: -3.933 ms

Remote clock offset: 1.49 ms

Below is generated by plot.py at 2019-05-30 13:06:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.29 Mbit/s

95th percentile per-packet one-way delay: 24.800 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 41.98 Mbit/s

95th percentile per-packet one-way delay: 22.643 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 40.10 Mbit/s

95th percentile per-packet one-way delay: 25.401 ms

Loss rate: 0.18%

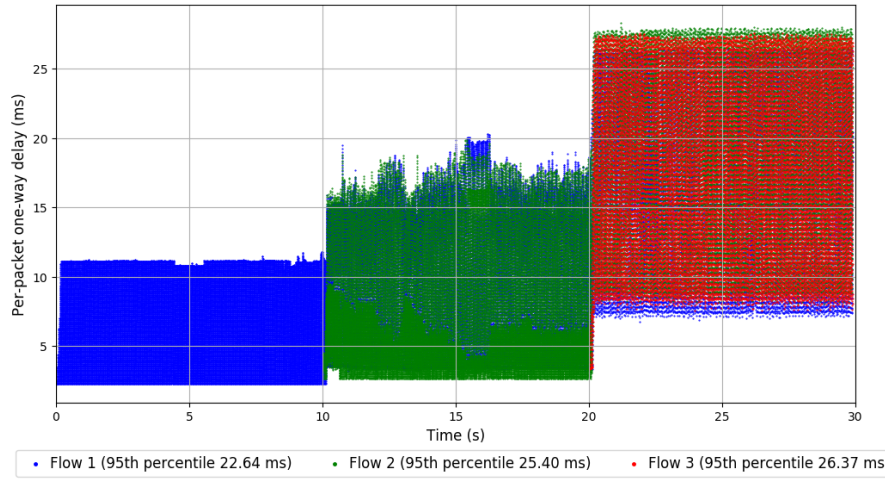
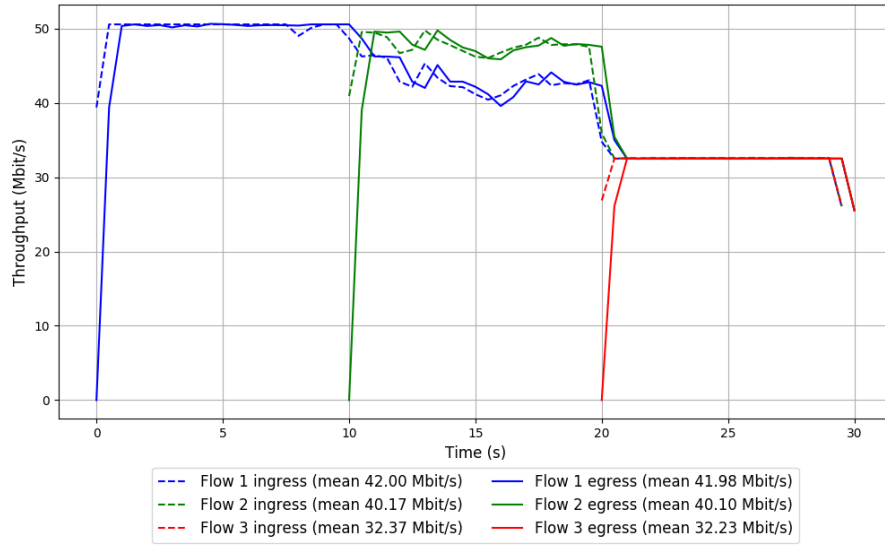
-- Flow 3:

Average throughput: 32.23 Mbit/s

95th percentile per-packet one-way delay: 26.367 ms

Loss rate: 0.37%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-05-30 12:42:59

End at: 2019-05-30 12:43:29

Local clock offset: -4.656 ms

Remote clock offset: 1.776 ms

Below is generated by plot.py at 2019-05-30 13:06:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.97 Mbit/s

95th percentile per-packet one-way delay: 23.450 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 43.41 Mbit/s

95th percentile per-packet one-way delay: 21.802 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 40.49 Mbit/s

95th percentile per-packet one-way delay: 24.382 ms

Loss rate: 0.29%

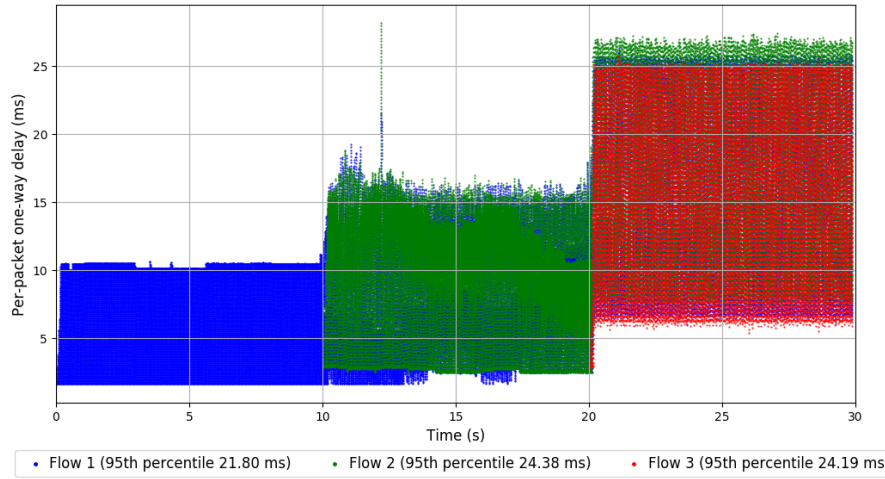
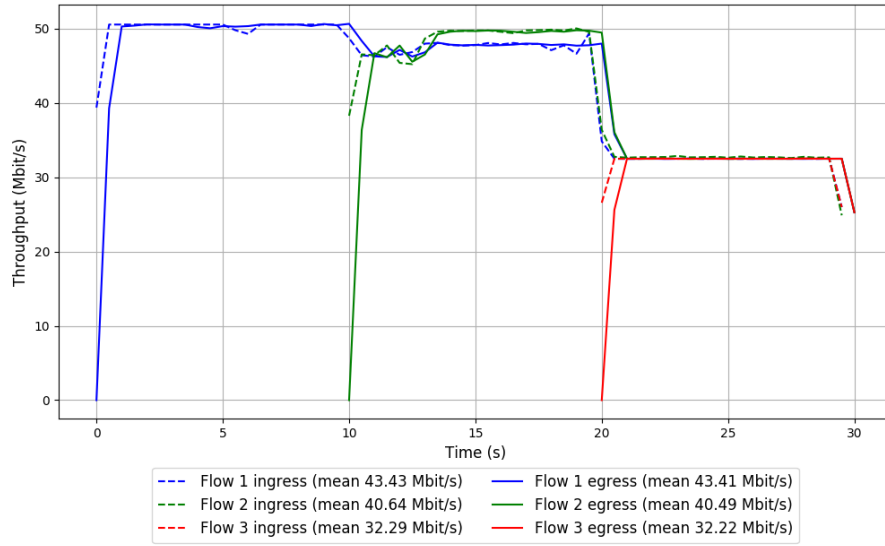
-- Flow 3:

Average throughput: 32.22 Mbit/s

95th percentile per-packet one-way delay: 24.188 ms

Loss rate: 0.26%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-05-30 11:01:53

End at: 2019-05-30 11:02:23

Local clock offset: -4.973 ms

Remote clock offset: 0.034 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.46 Mbit/s

95th percentile per-packet one-way delay: 155.226 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 55.54 Mbit/s

95th percentile per-packet one-way delay: 154.217 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 39.57 Mbit/s

95th percentile per-packet one-way delay: 155.924 ms

Loss rate: 1.11%

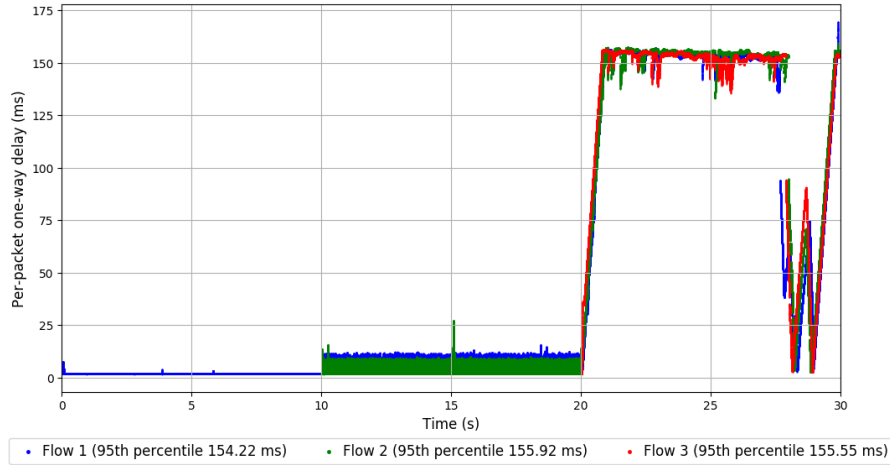
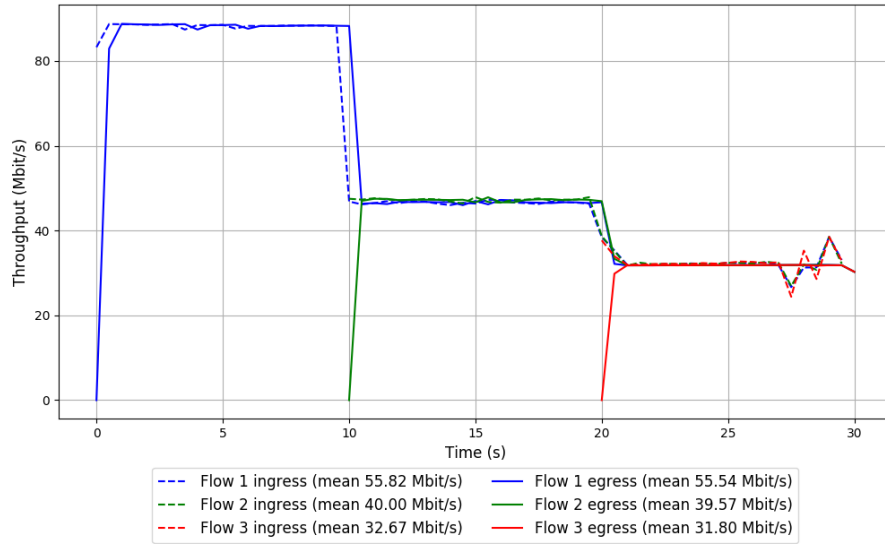
-- Flow 3:

Average throughput: 31.80 Mbit/s

95th percentile per-packet one-way delay: 155.549 ms

Loss rate: 2.73%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-05-30 11:26:01

End at: 2019-05-30 11:26:31

Local clock offset: -4.733 ms

Remote clock offset: 0.555 ms

Below is generated by plot.py at 2019-05-30 13:07:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.16 Mbit/s

95th percentile per-packet one-way delay: 155.478 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 55.23 Mbit/s

95th percentile per-packet one-way delay: 155.218 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 39.54 Mbit/s

95th percentile per-packet one-way delay: 155.839 ms

Loss rate: 1.09%

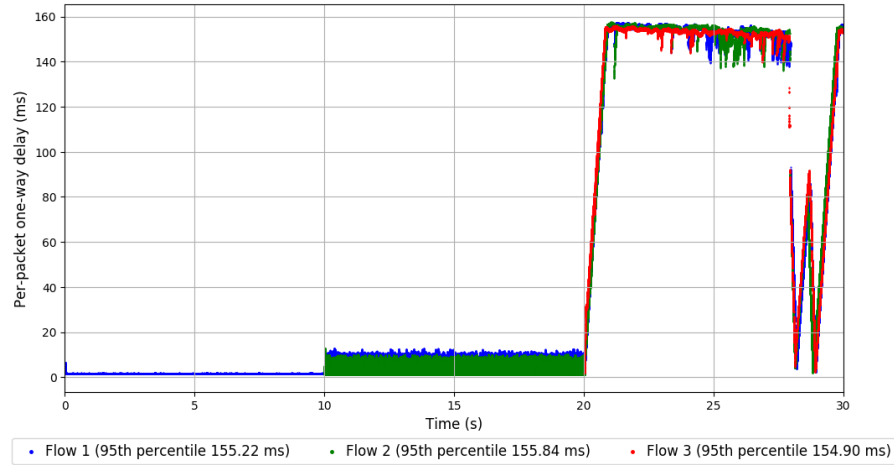
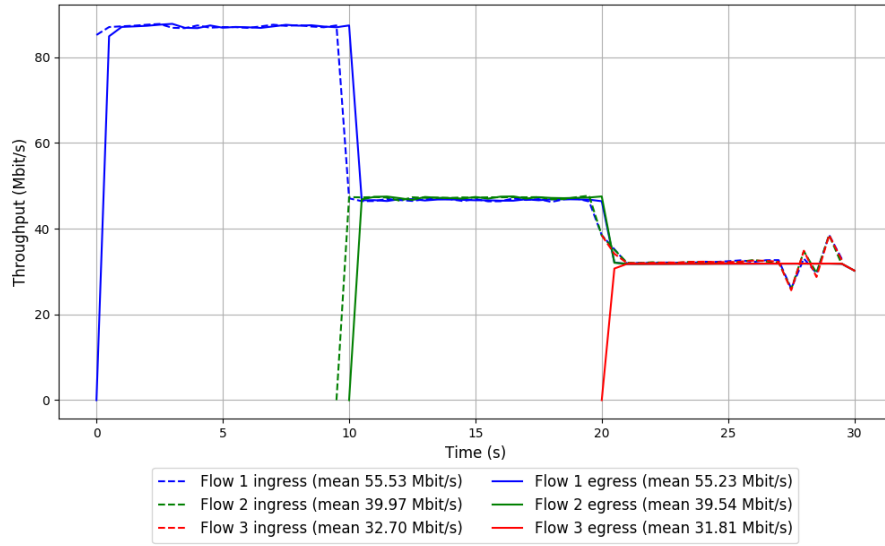
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 154.904 ms

Loss rate: 2.75%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 11:50:07

End at: 2019-05-30 11:50:37

Local clock offset: -3.303 ms

Remote clock offset: 0.977 ms

Below is generated by plot.py at 2019-05-30 13:07:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.56 Mbit/s

95th percentile per-packet one-way delay: 155.799 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 56.47 Mbit/s

95th percentile per-packet one-way delay: 154.434 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 36.81 Mbit/s

95th percentile per-packet one-way delay: 156.578 ms

Loss rate: 1.09%

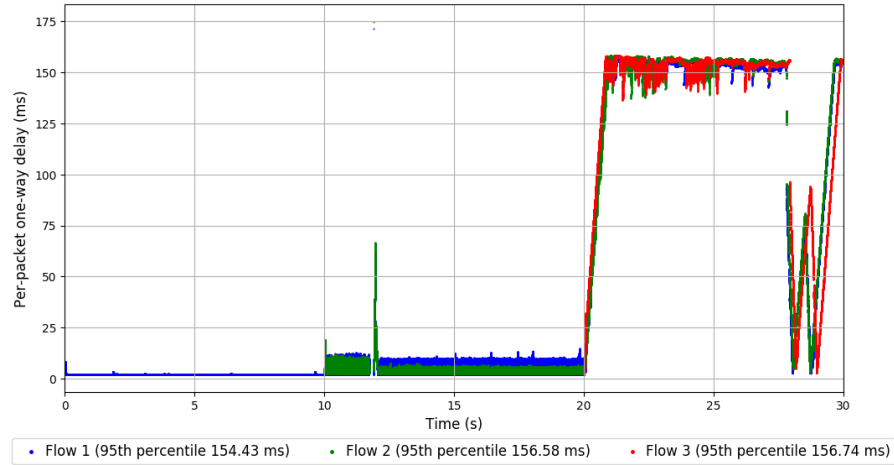
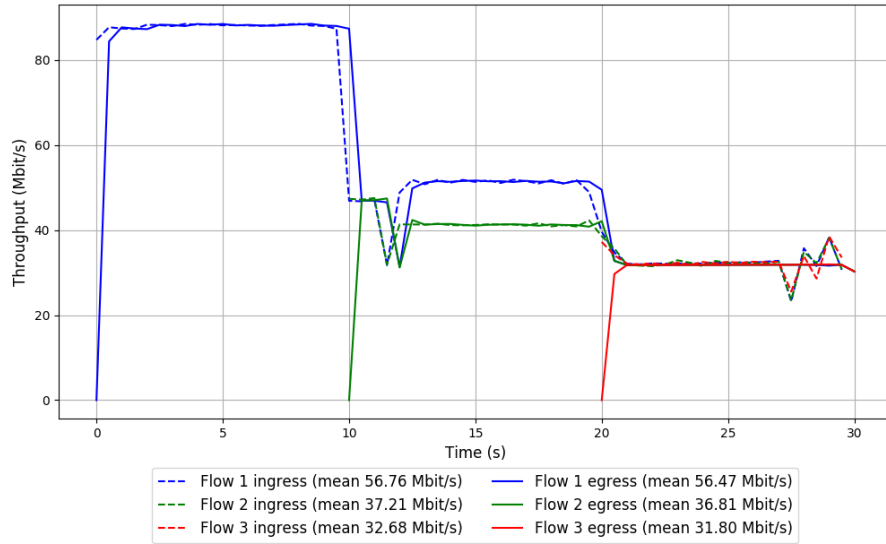
-- Flow 3:

Average throughput: 31.80 Mbit/s

95th percentile per-packet one-way delay: 156.744 ms

Loss rate: 2.72%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 12:14:12

End at: 2019-05-30 12:14:42

Local clock offset: -3.503 ms

Remote clock offset: 1.356 ms

Below is generated by plot.py at 2019-05-30 13:08:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.28 Mbit/s

95th percentile per-packet one-way delay: 155.619 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 55.36 Mbit/s

95th percentile per-packet one-way delay: 154.941 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 39.52 Mbit/s

95th percentile per-packet one-way delay: 155.687 ms

Loss rate: 1.13%

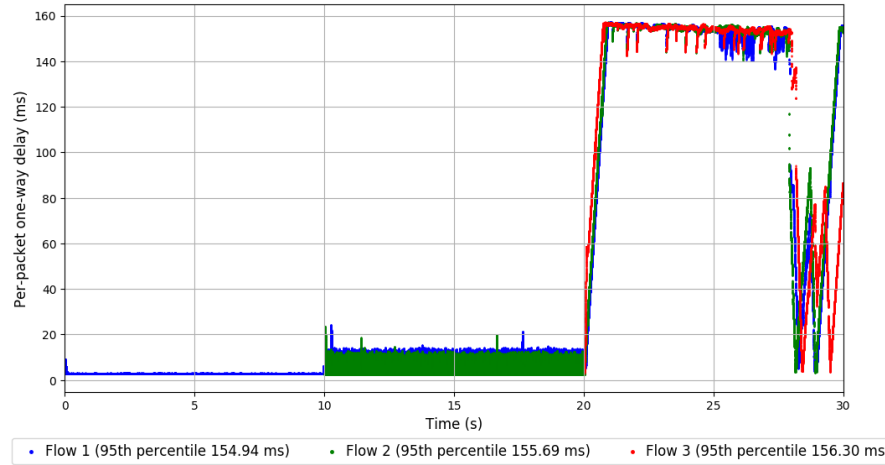
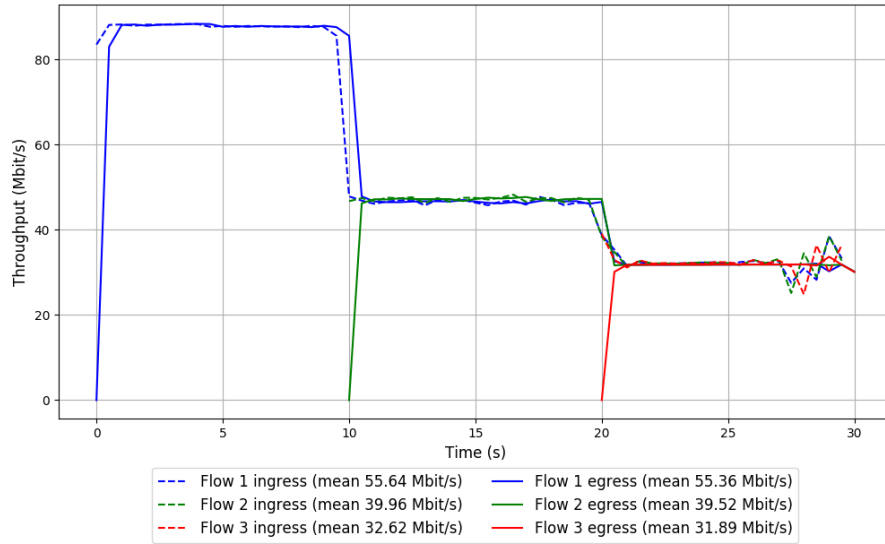
-- Flow 3:

Average throughput: 31.89 Mbit/s

95th percentile per-packet one-way delay: 156.299 ms

Loss rate: 2.33%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 12:38:20

End at: 2019-05-30 12:38:50

Local clock offset: -4.815 ms

Remote clock offset: 1.738 ms

Below is generated by plot.py at 2019-05-30 13:08:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.07 Mbit/s

95th percentile per-packet one-way delay: 155.066 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 55.23 Mbit/s

95th percentile per-packet one-way delay: 153.074 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 39.45 Mbit/s

95th percentile per-packet one-way delay: 156.105 ms

Loss rate: 1.10%

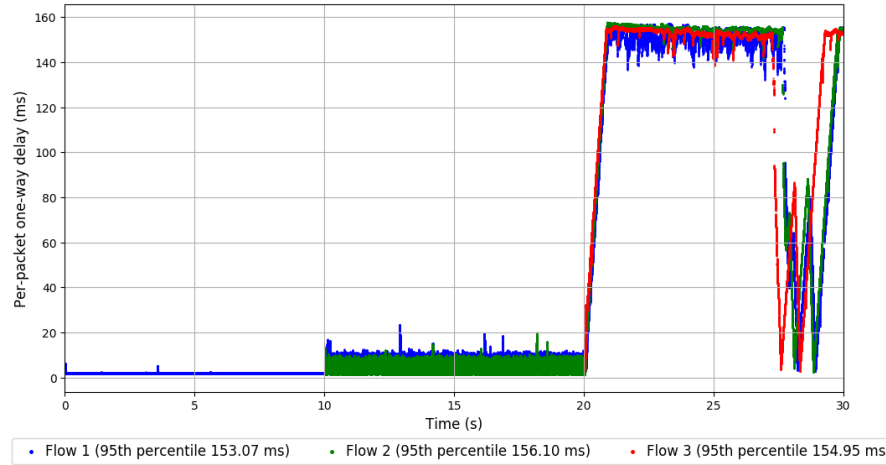
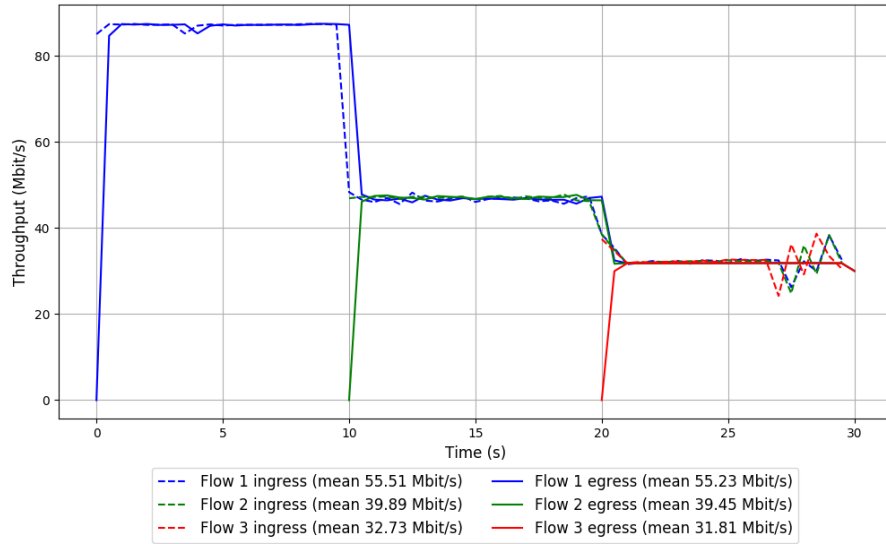
-- Flow 3:

Average throughput: 31.81 Mbit/s

95th percentile per-packet one-way delay: 154.949 ms

Loss rate: 2.91%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-30 11:11:06

End at: 2019-05-30 11:11:36

Local clock offset: -4.041 ms

Remote clock offset: 0.32 ms

Below is generated by plot.py at 2019-05-30 13:08:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 4.792 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 51.89 Mbit/s

95th percentile per-packet one-way delay: 3.622 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 3.606 ms

Loss rate: 0.01%

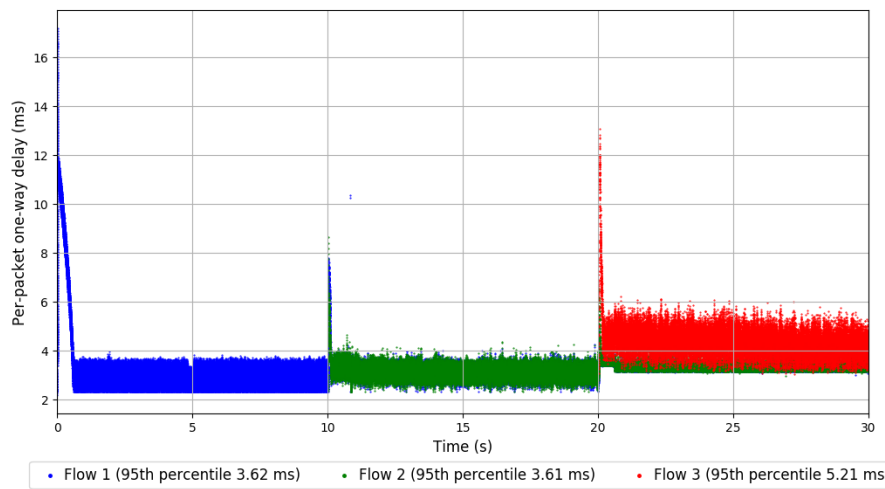
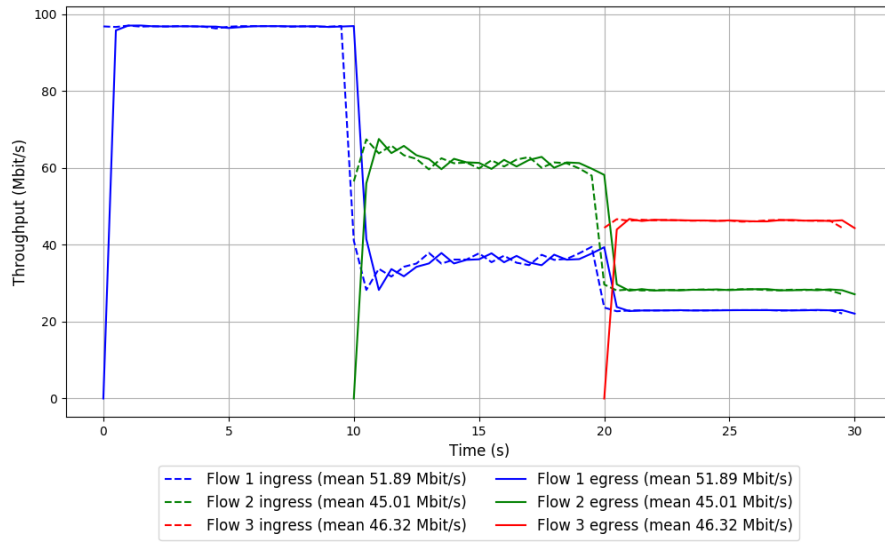
-- Flow 3:

Average throughput: 46.32 Mbit/s

95th percentile per-packet one-way delay: 5.208 ms

Loss rate: 0.04%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-05-30 11:35:14

End at: 2019-05-30 11:35:44

Local clock offset: -3.665 ms

Remote clock offset: 0.749 ms

Below is generated by plot.py at 2019-05-30 13:08:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.25 Mbit/s

95th percentile per-packet one-way delay: 4.649 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 52.97 Mbit/s

95th percentile per-packet one-way delay: 3.742 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 43.99 Mbit/s

95th percentile per-packet one-way delay: 3.731 ms

Loss rate: 0.01%

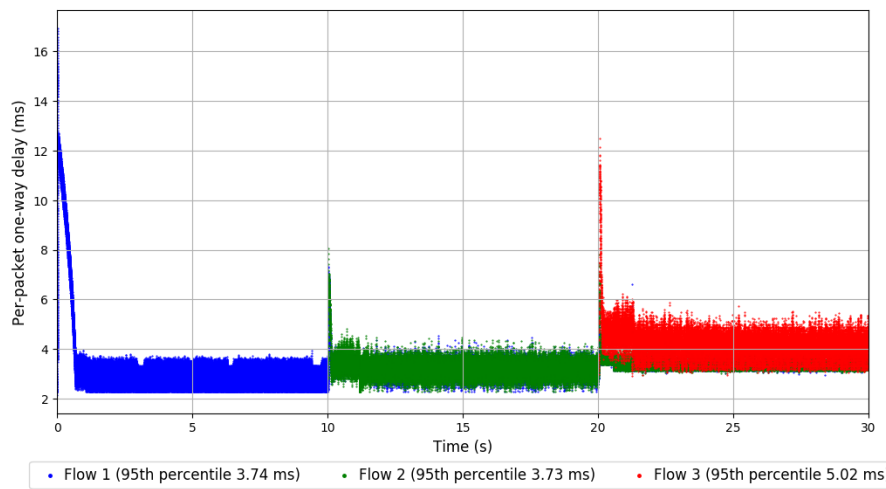
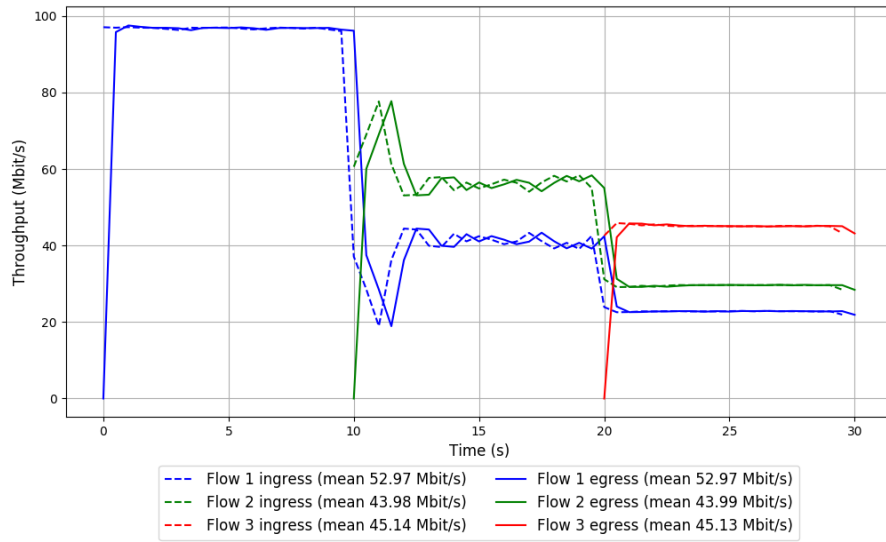
-- Flow 3:

Average throughput: 45.13 Mbit/s

95th percentile per-packet one-way delay: 5.023 ms

Loss rate: 0.05%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 11:59:19

End at: 2019-05-30 11:59:49

Local clock offset: -3.886 ms

Remote clock offset: 1.092 ms

Below is generated by plot.py at 2019-05-30 13:08:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.33 Mbit/s

95th percentile per-packet one-way delay: 4.405 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 52.34 Mbit/s

95th percentile per-packet one-way delay: 2.826 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 50.61 Mbit/s

95th percentile per-packet one-way delay: 4.232 ms

Loss rate: 0.02%

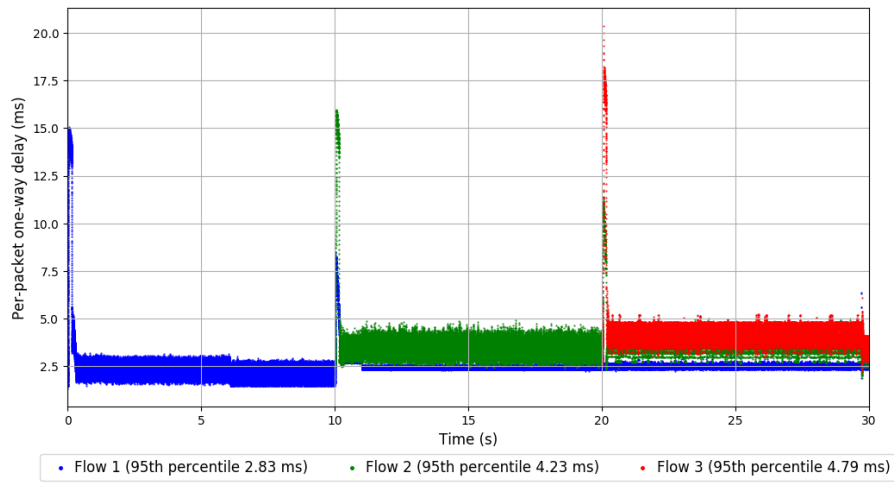
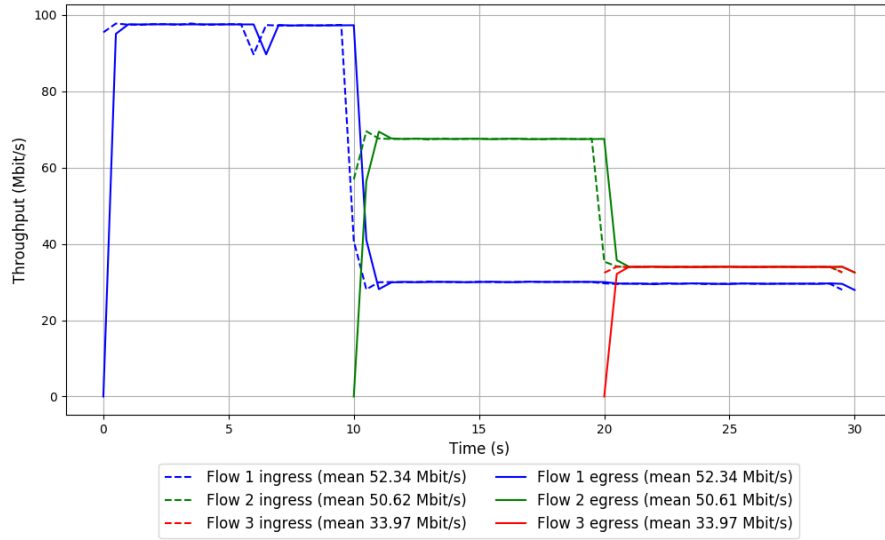
-- Flow 3:

Average throughput: 33.97 Mbit/s

95th percentile per-packet one-way delay: 4.786 ms

Loss rate: 0.05%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 12:23:24

End at: 2019-05-30 12:23:54

Local clock offset: -4.655 ms

Remote clock offset: 1.586 ms

Below is generated by plot.py at 2019-05-30 13:08:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 4.162 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 55.40 Mbit/s

95th percentile per-packet one-way delay: 3.839 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 46.76 Mbit/s

95th percentile per-packet one-way delay: 4.161 ms

Loss rate: 0.02%

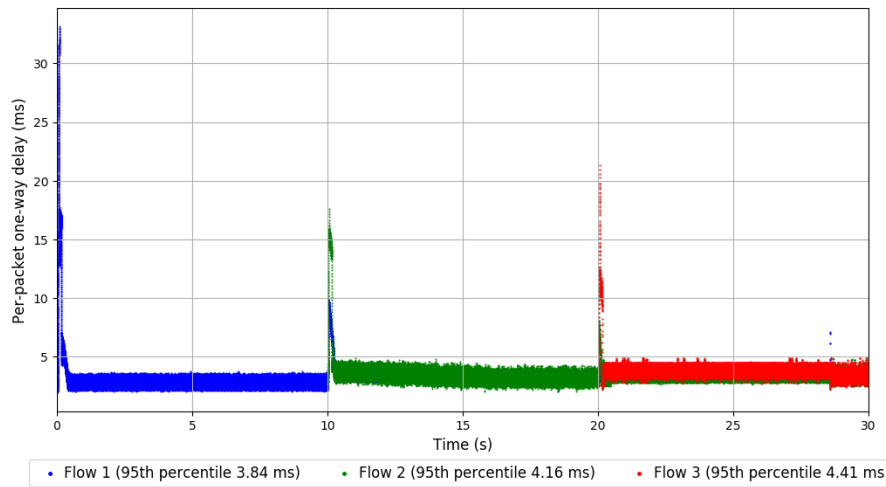
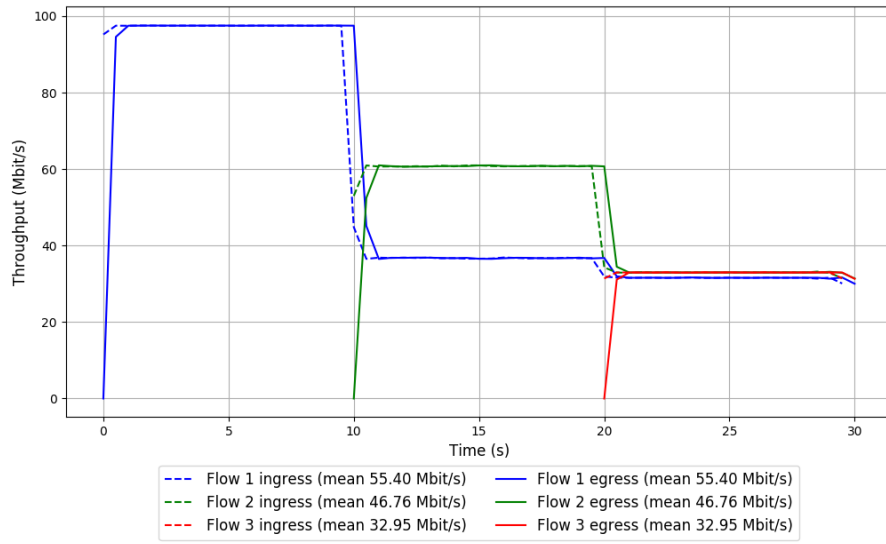
-- Flow 3:

Average throughput: 32.95 Mbit/s

95th percentile per-packet one-way delay: 4.410 ms

Loss rate: 0.06%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 12:47:33

End at: 2019-05-30 12:48:03

Local clock offset: -4.556 ms

Remote clock offset: 1.782 ms

Below is generated by plot.py at 2019-05-30 13:08:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.16 Mbit/s

95th percentile per-packet one-way delay: 4.268 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 54.22 Mbit/s

95th percentile per-packet one-way delay: 3.302 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 47.99 Mbit/s

95th percentile per-packet one-way delay: 3.898 ms

Loss rate: 0.02%

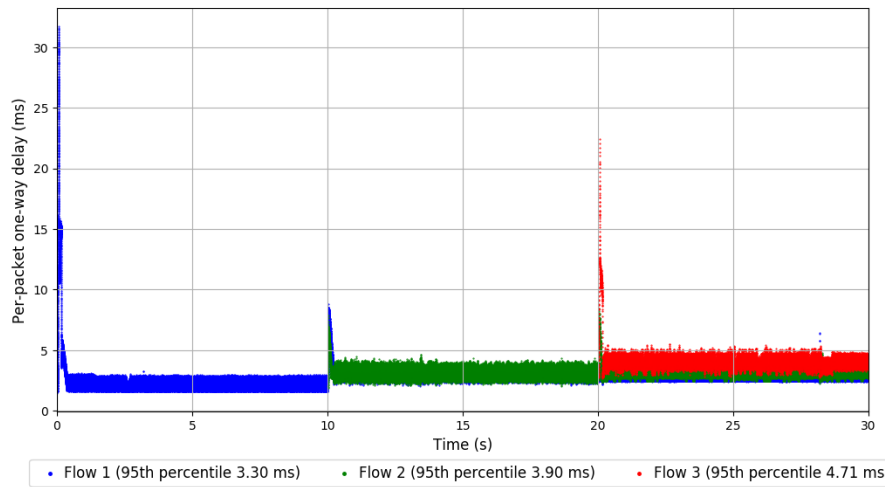
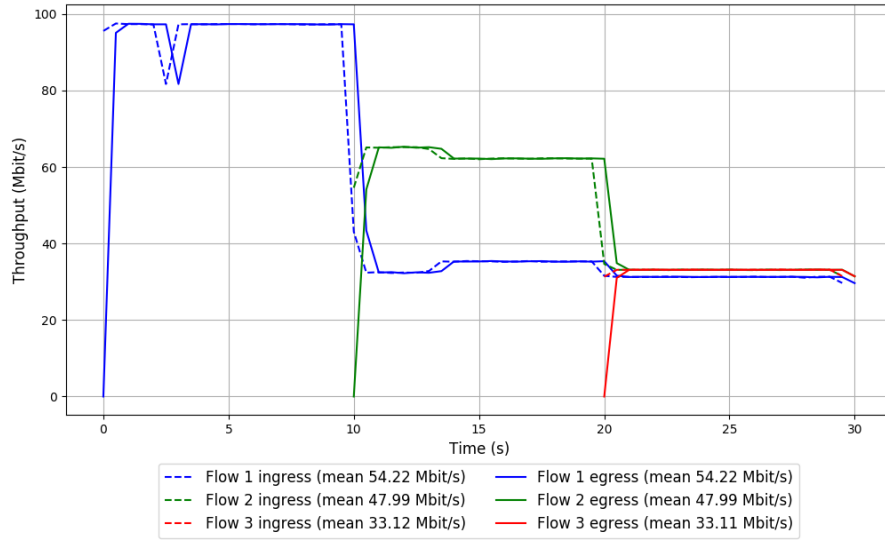
-- Flow 3:

Average throughput: 33.11 Mbit/s

95th percentile per-packet one-way delay: 4.715 ms

Loss rate: 0.05%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-05-30 11:16:50

End at: 2019-05-30 11:17:20

Local clock offset: -4.627 ms

Remote clock offset: 0.377 ms

Below is generated by plot.py at 2019-05-30 13:08:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.87 Mbit/s

95th percentile per-packet one-way delay: 30.213 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 46.74 Mbit/s

95th percentile per-packet one-way delay: 24.329 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 37.06 Mbit/s

95th percentile per-packet one-way delay: 27.108 ms

Loss rate: 0.03%

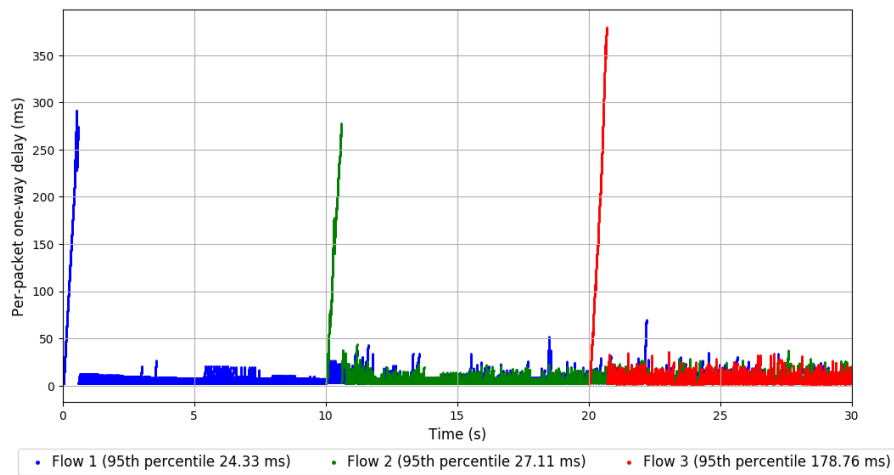
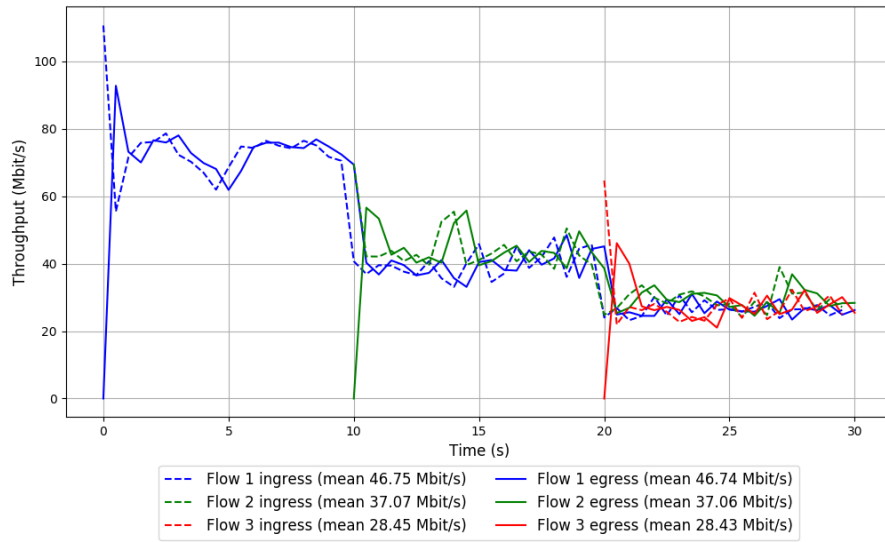
-- Flow 3:

Average throughput: 28.43 Mbit/s

95th percentile per-packet one-way delay: 178.757 ms

Loss rate: 0.05%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-05-30 11:40:55

End at: 2019-05-30 11:41:25

Local clock offset: -3.595 ms

Remote clock offset: 0.827 ms

Below is generated by plot.py at 2019-05-30 13:08:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.54 Mbit/s

95th percentile per-packet one-way delay: 35.890 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 41.93 Mbit/s

95th percentile per-packet one-way delay: 26.489 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 34.93 Mbit/s

95th percentile per-packet one-way delay: 26.767 ms

Loss rate: 0.06%

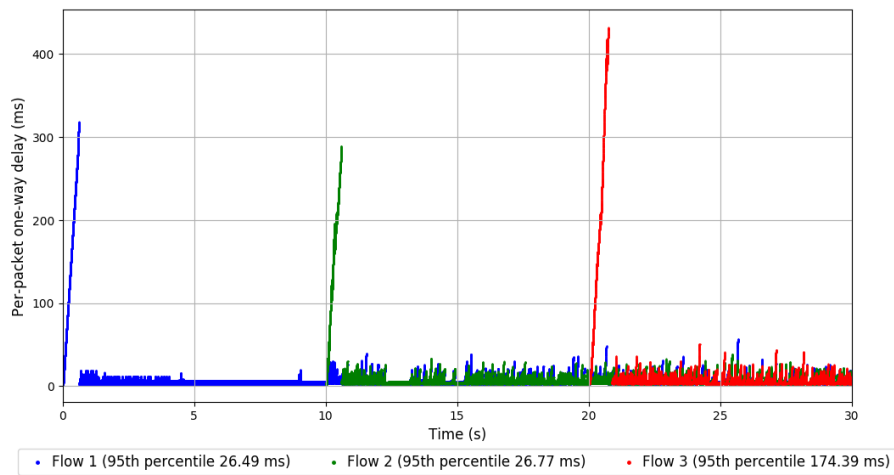
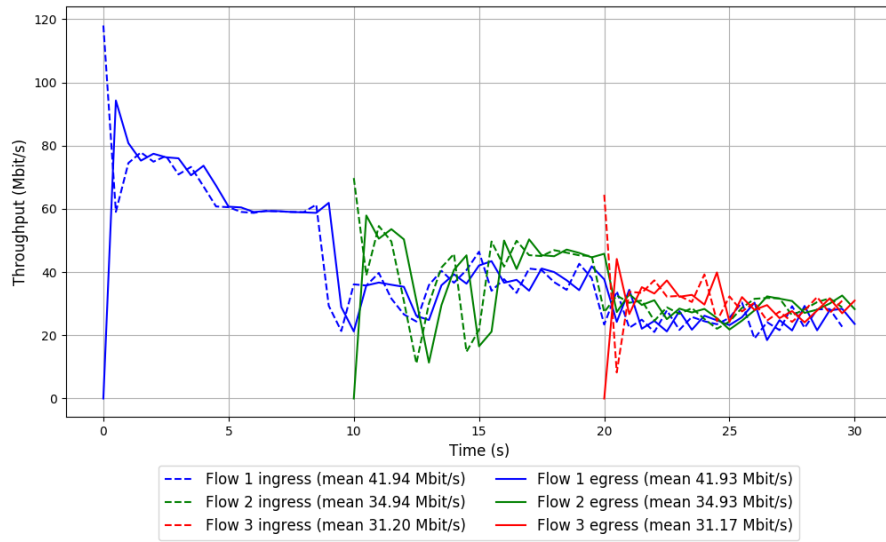
-- Flow 3:

Average throughput: 31.17 Mbit/s

95th percentile per-packet one-way delay: 174.393 ms

Loss rate: 0.15%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-05-30 12:05:01

End at: 2019-05-30 12:05:31

Local clock offset: -3.719 ms

Remote clock offset: 1.224 ms

Below is generated by plot.py at 2019-05-30 13:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.30 Mbit/s

95th percentile per-packet one-way delay: 27.504 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 49.13 Mbit/s

95th percentile per-packet one-way delay: 25.418 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 23.597 ms

Loss rate: 0.10%

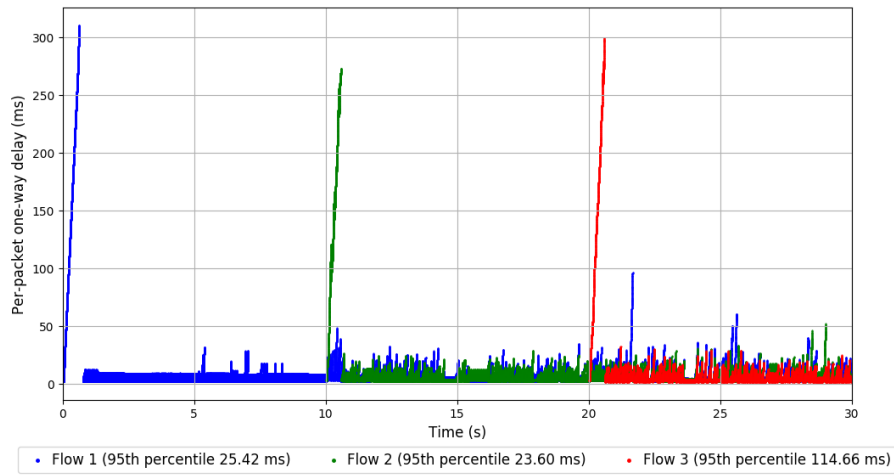
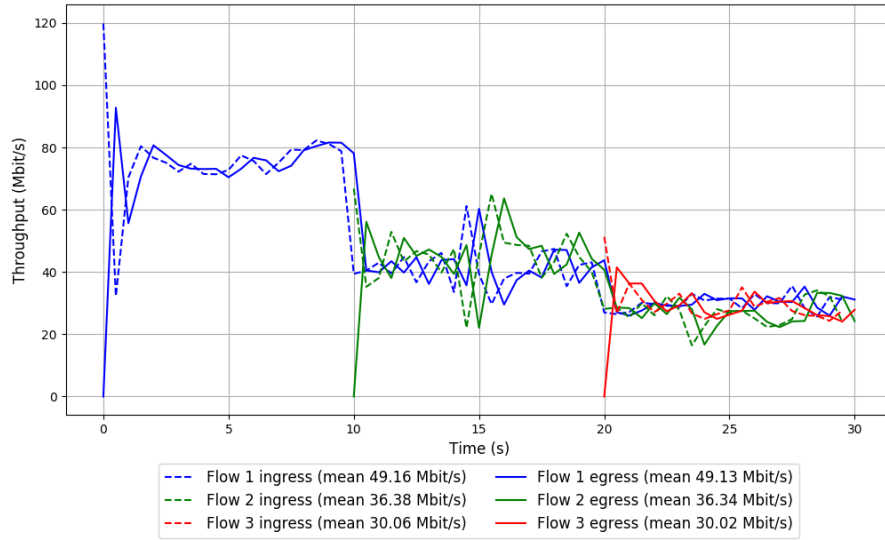
-- Flow 3:

Average throughput: 30.02 Mbit/s

95th percentile per-packet one-way delay: 114.657 ms

Loss rate: 0.13%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-05-30 12:29:09

End at: 2019-05-30 12:29:39

Local clock offset: -4.074 ms

Remote clock offset: 1.633 ms

Below is generated by plot.py at 2019-05-30 13:08:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.04 Mbit/s

95th percentile per-packet one-way delay: 25.210 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 44.00 Mbit/s

95th percentile per-packet one-way delay: 20.346 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 38.28 Mbit/s

95th percentile per-packet one-way delay: 21.422 ms

Loss rate: 0.04%

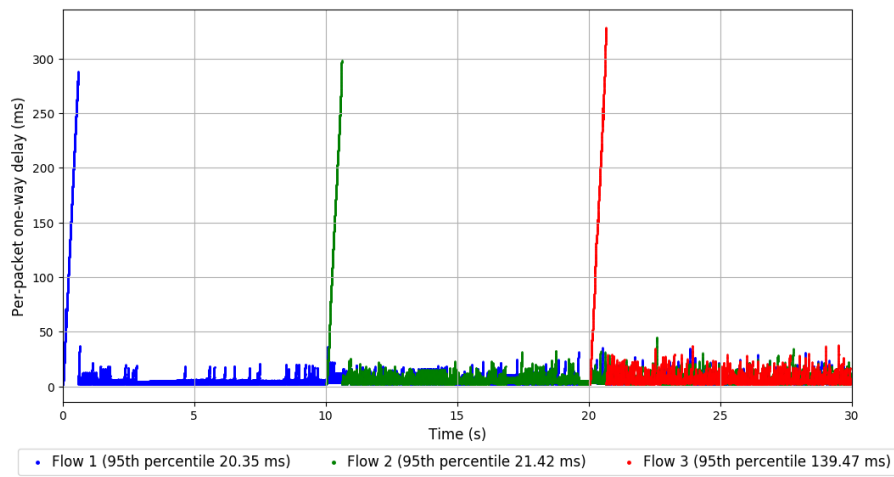
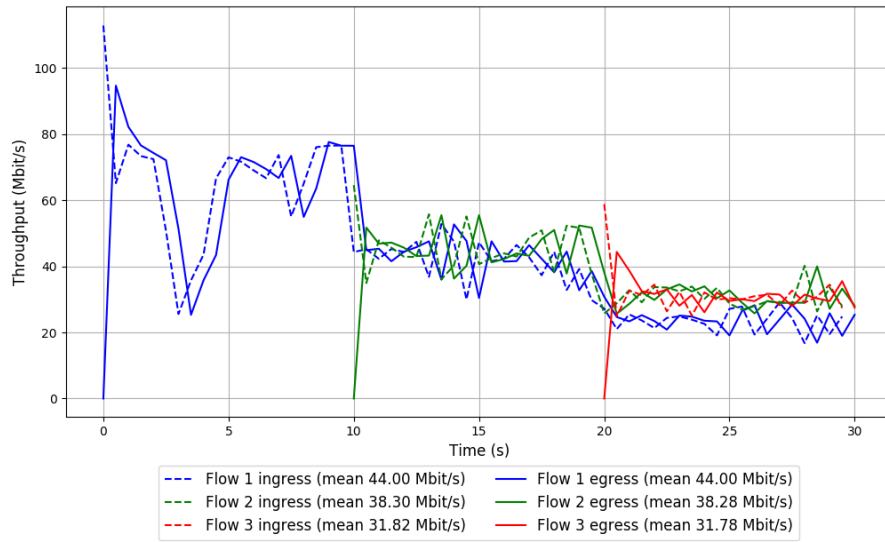
-- Flow 3:

Average throughput: 31.78 Mbit/s

95th percentile per-packet one-way delay: 139.473 ms

Loss rate: 0.18%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-05-30 12:53:18

End at: 2019-05-30 12:53:48

Local clock offset: -3.797 ms

Remote clock offset: 1.788 ms

Below is generated by plot.py at 2019-05-30 13:09:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.52 Mbit/s

95th percentile per-packet one-way delay: 28.128 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 48.83 Mbit/s

95th percentile per-packet one-way delay: 26.253 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 34.32 Mbit/s

95th percentile per-packet one-way delay: 22.918 ms

Loss rate: 0.12%

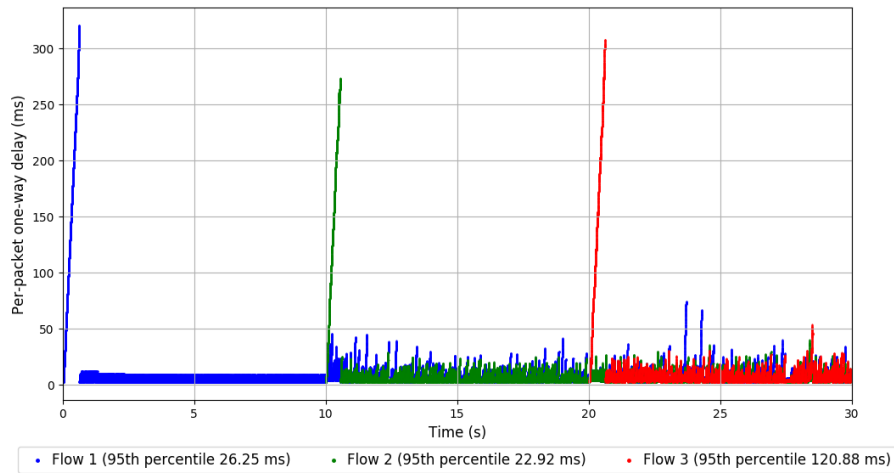
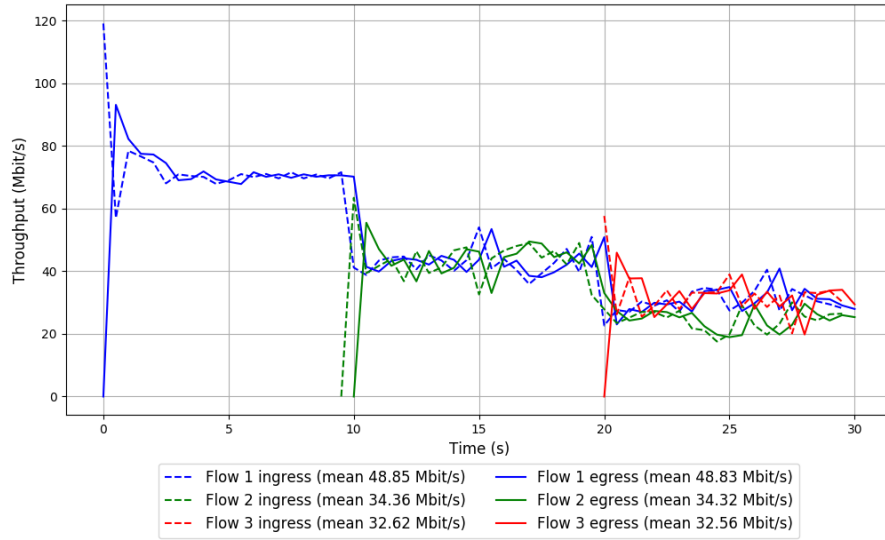
-- Flow 3:

Average throughput: 32.56 Mbit/s

95th percentile per-packet one-way delay: 120.883 ms

Loss rate: 0.17%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-05-30 11:07:39

End at: 2019-05-30 11:08:09

Local clock offset: -5.08 ms

Remote clock offset: 0.203 ms

Below is generated by plot.py at 2019-05-30 13:09:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.78 Mbit/s

95th percentile per-packet one-way delay: 1048.226 ms

Loss rate: 4.50%

-- Flow 1:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 3.791 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 29.30 Mbit/s

95th percentile per-packet one-way delay: 314.123 ms

Loss rate: 3.64%

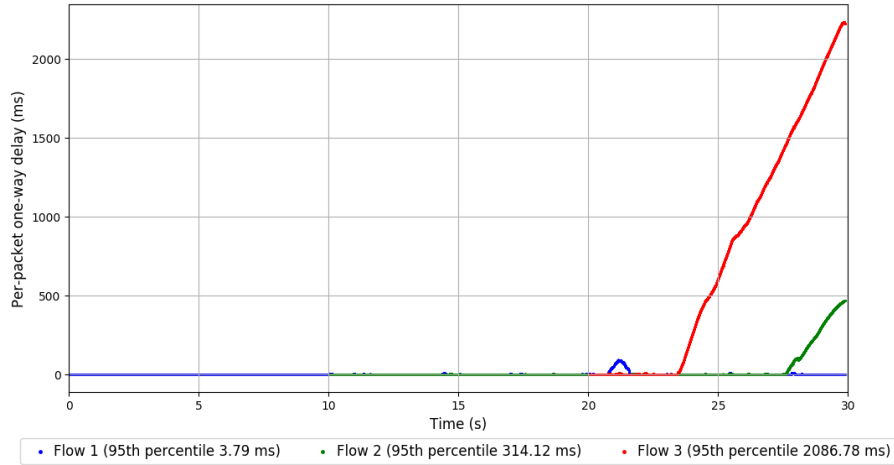
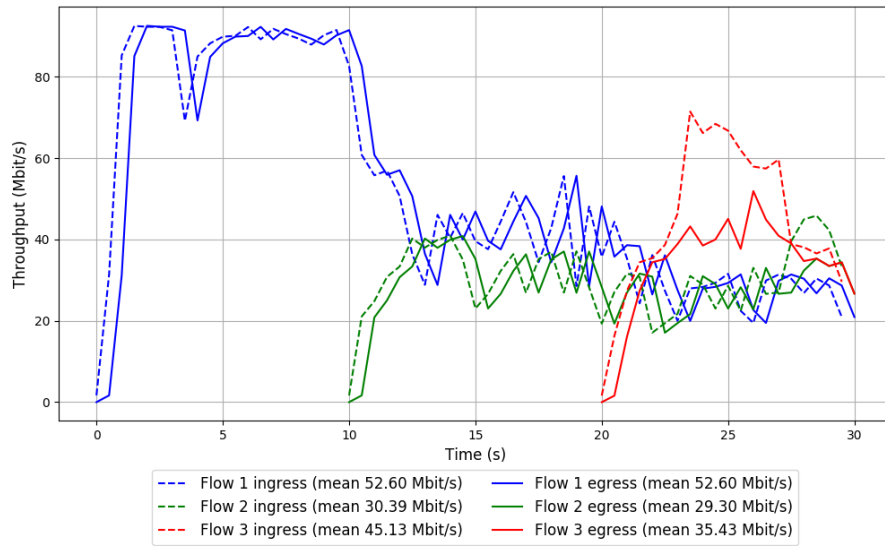
-- Flow 3:

Average throughput: 35.43 Mbit/s

95th percentile per-packet one-way delay: 2086.780 ms

Loss rate: 21.49%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-05-30 11:31:48

End at: 2019-05-30 11:32:18

Local clock offset: -4.495 ms

Remote clock offset: 0.66 ms

Below is generated by plot.py at 2019-05-30 13:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.71 Mbit/s

95th percentile per-packet one-way delay: 35.433 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 49.58 Mbit/s

95th percentile per-packet one-way delay: 3.391 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 39.54 Mbit/s

95th percentile per-packet one-way delay: 125.045 ms

Loss rate: 0.31%

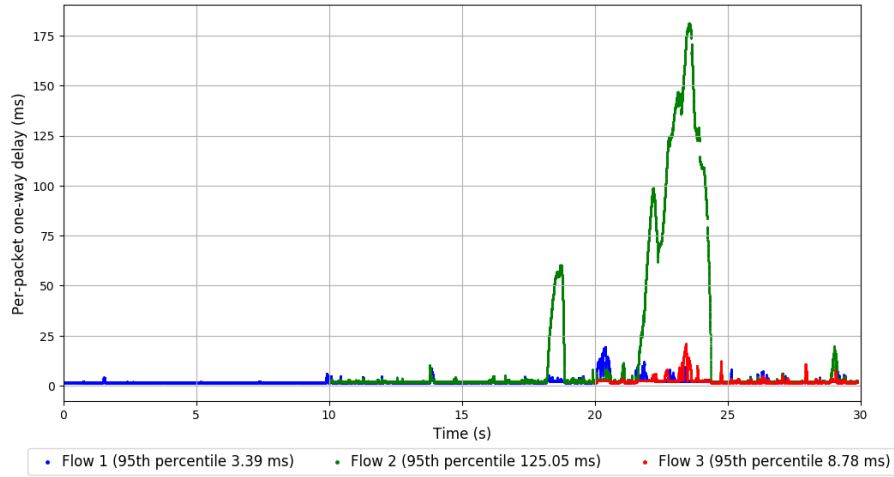
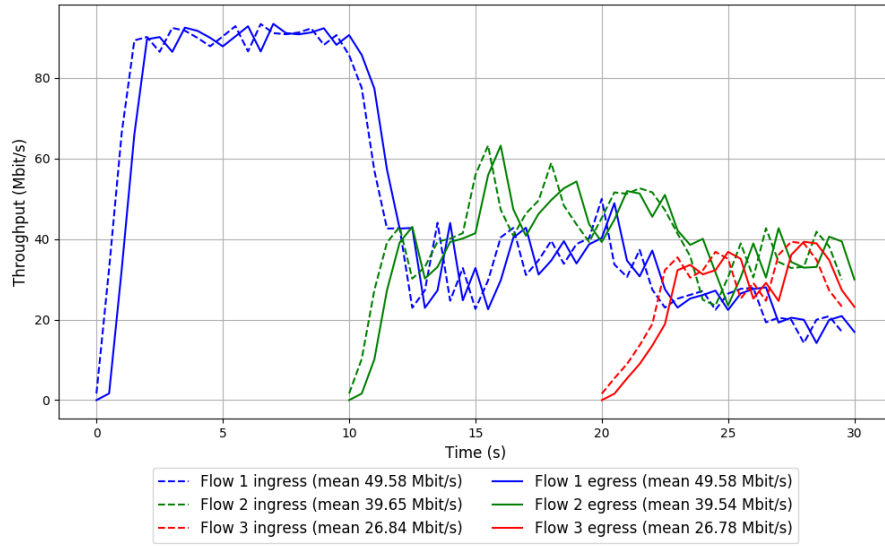
-- Flow 3:

Average throughput: 26.78 Mbit/s

95th percentile per-packet one-way delay: 8.783 ms

Loss rate: 0.23%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 11:55:54

End at: 2019-05-30 11:56:24

Local clock offset: -3.94 ms

Remote clock offset: 1.02 ms

Below is generated by plot.py at 2019-05-30 13:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.29 Mbit/s

95th percentile per-packet one-way delay: 26.451 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 34.23 Mbit/s

95th percentile per-packet one-way delay: 57.503 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 30.56 Mbit/s

95th percentile per-packet one-way delay: 7.177 ms

Loss rate: 0.02%

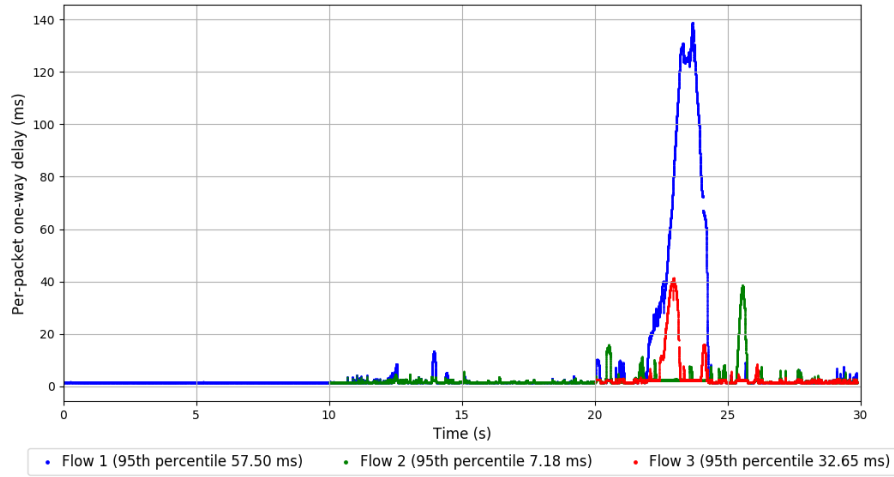
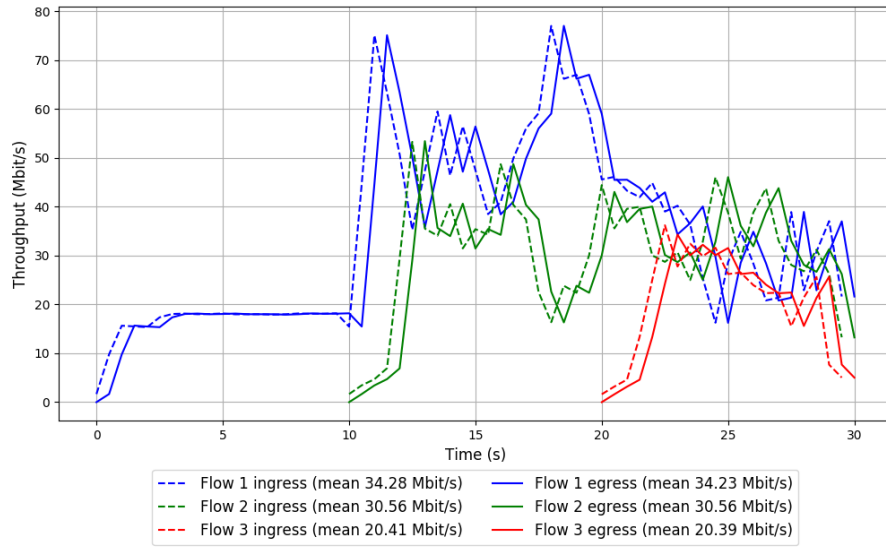
-- Flow 3:

Average throughput: 20.39 Mbit/s

95th percentile per-packet one-way delay: 32.649 ms

Loss rate: 0.13%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 12:19:59

End at: 2019-05-30 12:20:29

Local clock offset: -4.802 ms

Remote clock offset: 1.54 ms

Below is generated by plot.py at 2019-05-30 13:09:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.32 Mbit/s

95th percentile per-packet one-way delay: 12.191 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 58.97 Mbit/s

95th percentile per-packet one-way delay: 17.177 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 30.42 Mbit/s

95th percentile per-packet one-way delay: 9.978 ms

Loss rate: 0.03%

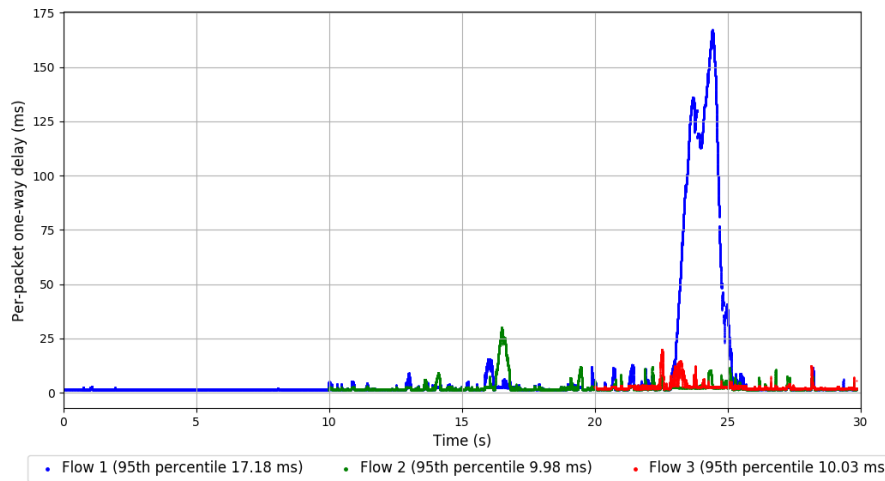
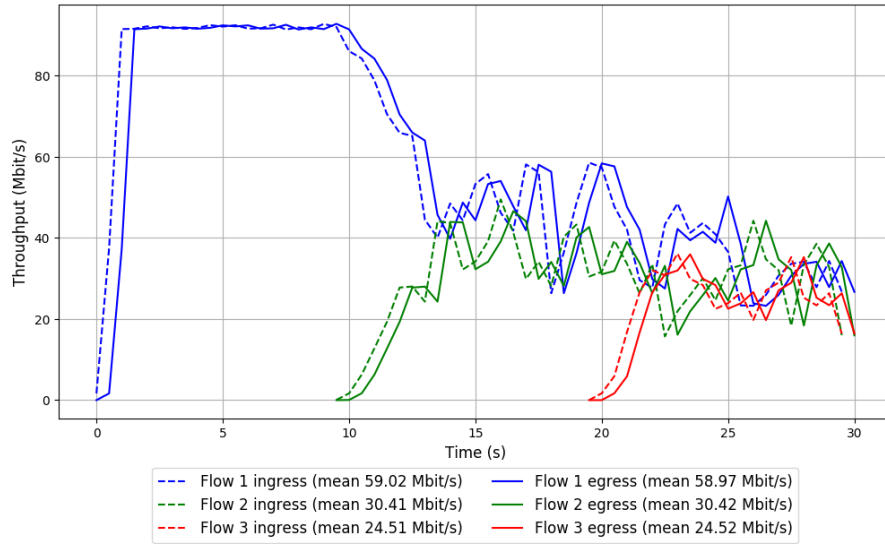
-- Flow 3:

Average throughput: 24.52 Mbit/s

95th percentile per-packet one-way delay: 10.028 ms

Loss rate: 0.03%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 12:44:07

End at: 2019-05-30 12:44:37

Local clock offset: -4.63 ms

Remote clock offset: 1.791 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.61 Mbit/s

95th percentile per-packet one-way delay: 10.902 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 60.88 Mbit/s

95th percentile per-packet one-way delay: 14.255 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 28.50 Mbit/s

95th percentile per-packet one-way delay: 4.800 ms

Loss rate: 0.02%

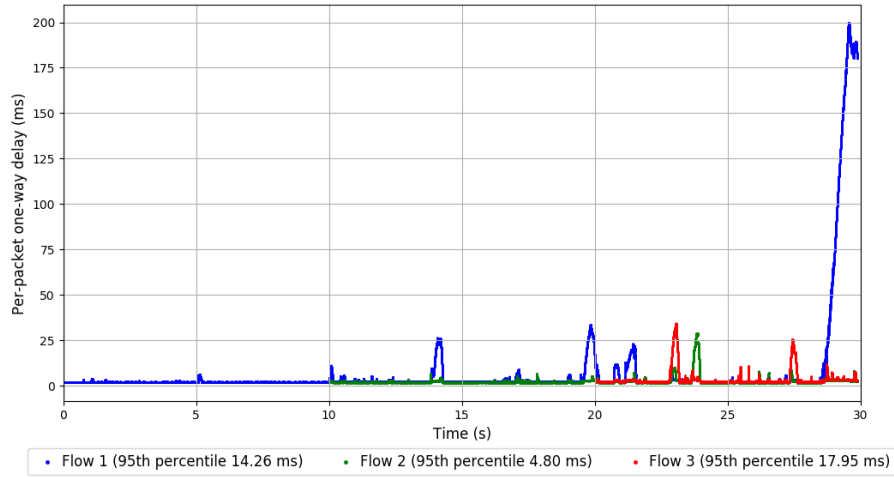
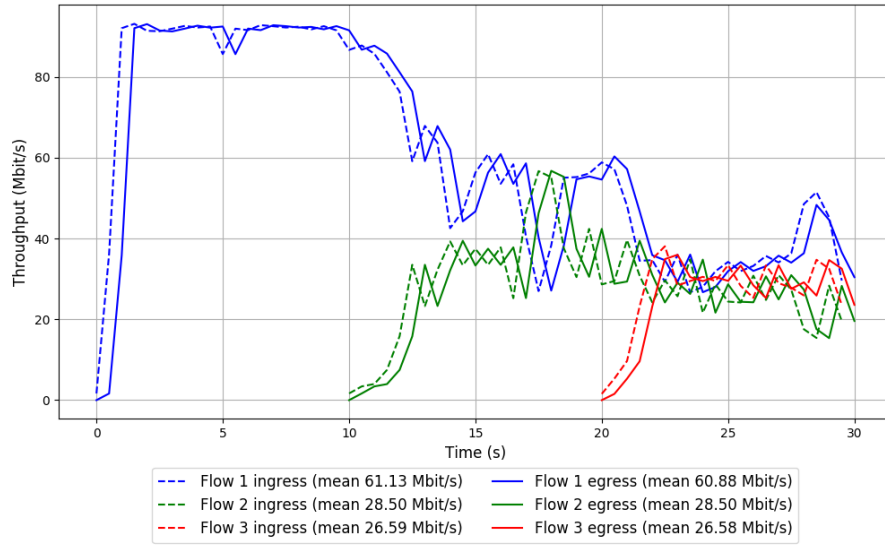
-- Flow 3:

Average throughput: 26.58 Mbit/s

95th percentile per-packet one-way delay: 17.951 ms

Loss rate: 0.07%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-05-30 10:58:28

End at: 2019-05-30 10:58:58

Local clock offset: -5.121 ms

Remote clock offset: 0.053 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 2.371 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 2.456 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 1.861 ms

Loss rate: 0.00%

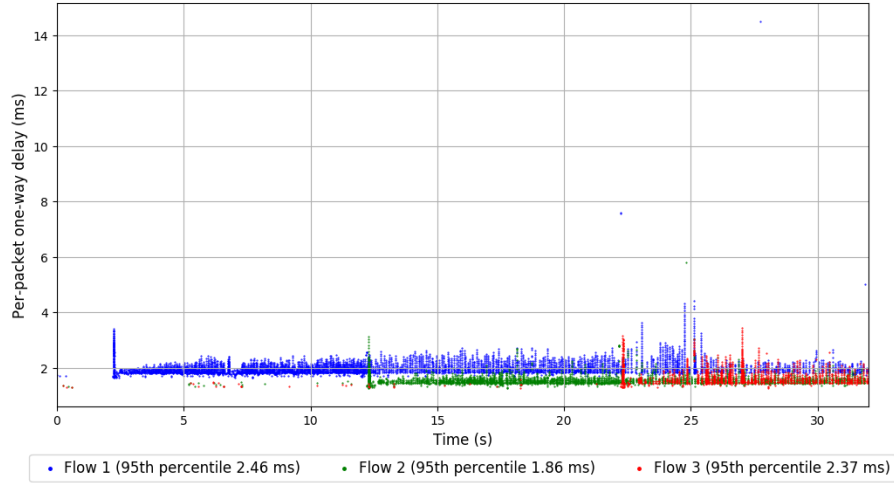
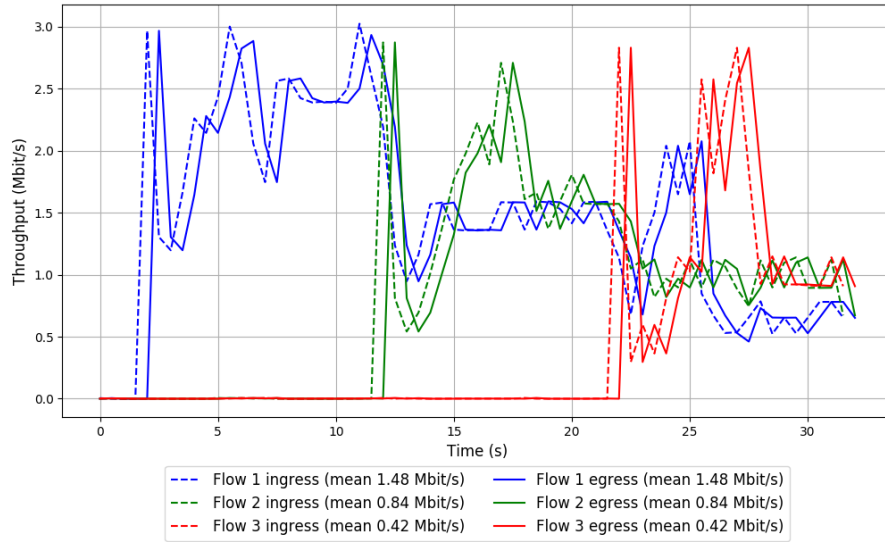
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 2.374 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-05-30 11:22:36

End at: 2019-05-30 11:23:06

Local clock offset: -3.754 ms

Remote clock offset: 0.451 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 3.231 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 3.037 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 2.989 ms

Loss rate: 0.00%

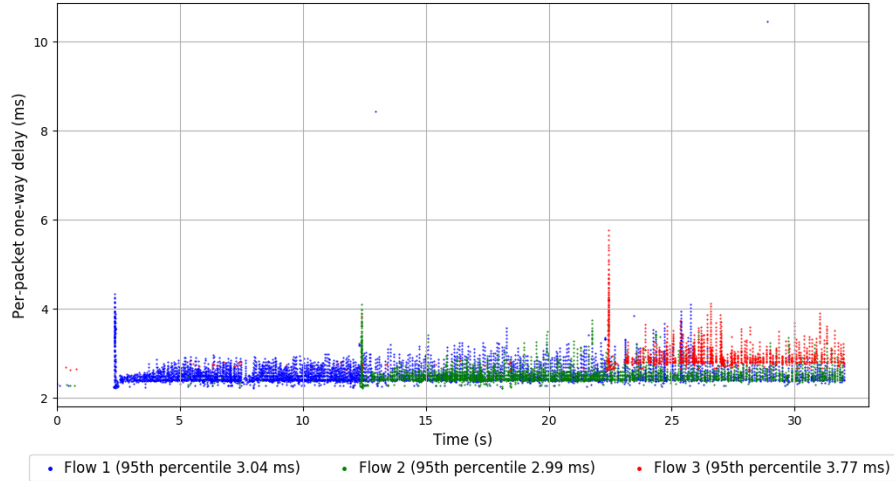
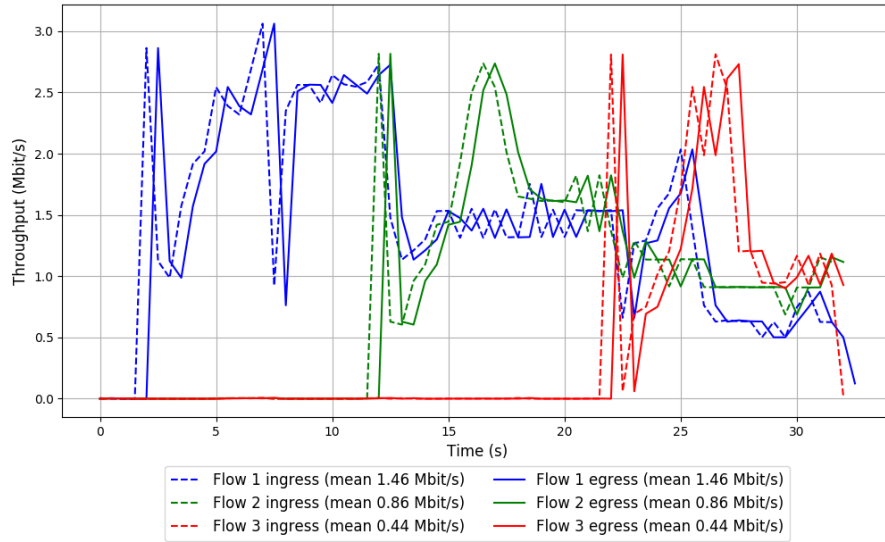
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 3.775 ms

Loss rate: 0.07%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-05-30 11:46:42

End at: 2019-05-30 11:47:12

Local clock offset: -4.149 ms

Remote clock offset: 0.847 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 2.258 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 2.088 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 2.368 ms

Loss rate: 0.00%

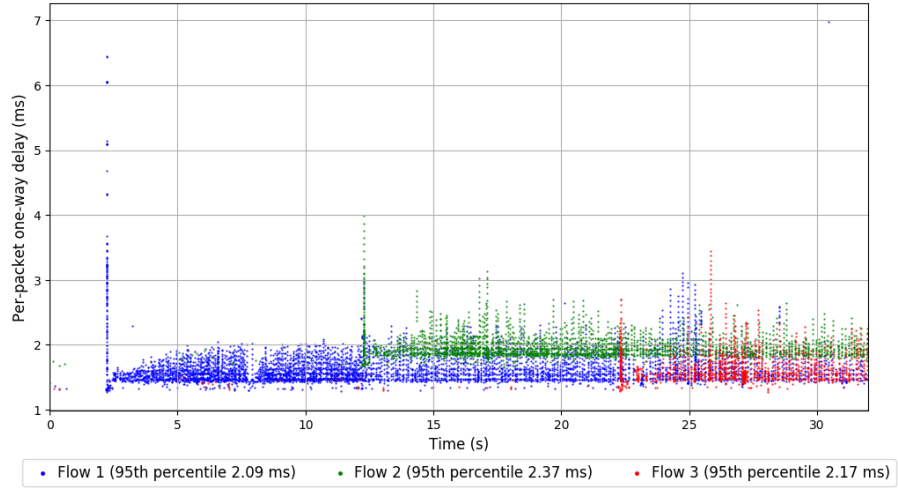
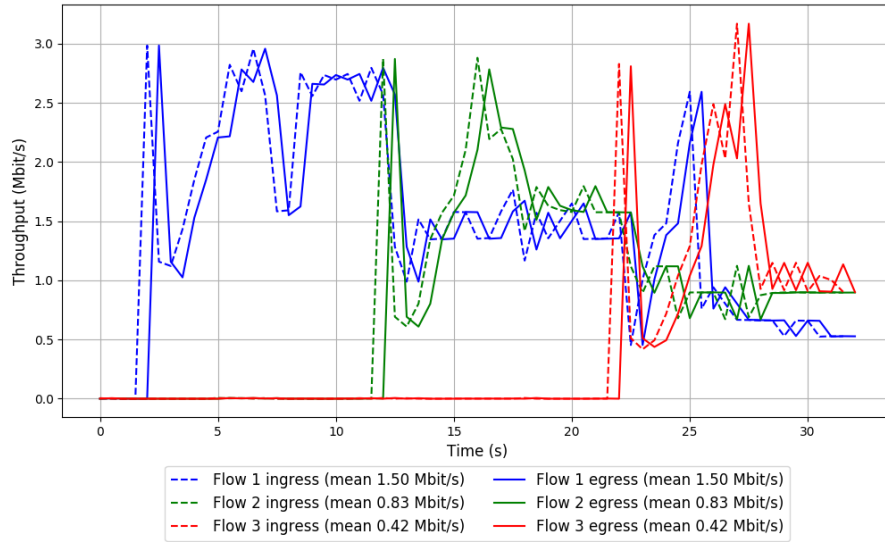
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 2.168 ms

Loss rate: 0.01%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-05-30 12:10:47

End at: 2019-05-30 12:11:17

Local clock offset: -4.268 ms

Remote clock offset: 1.438 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 2.319 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 2.061 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 2.444 ms

Loss rate: 0.00%

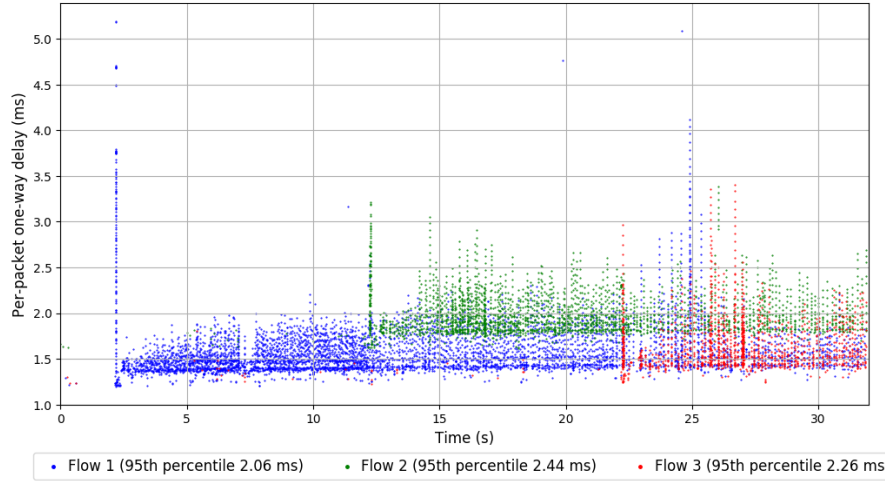
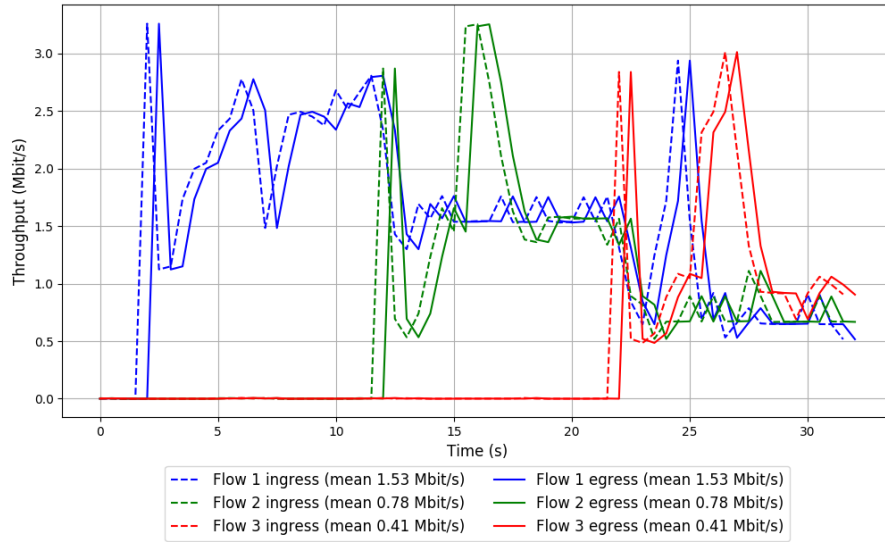
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 2.258 ms

Loss rate: 0.01%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-05-30 12:34:55

End at: 2019-05-30 12:35:25

Local clock offset: -4.85 ms

Remote clock offset: 1.693 ms

Below is generated by plot.py at 2019-05-30 13:09:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.78 Mbit/s

95th percentile per-packet one-way delay: 2.688 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 2.323 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.85 Mbit/s

95th percentile per-packet one-way delay: 2.789 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.989 ms

Loss rate: 0.01%

Run 5: Report of WebRTC media — Data Link

