

Pantheon Report

Generated at 2019-06-28 02:43:20 (UTC).

Data path: AWS Brazil 1 on `ens5` (*local*) → Brazil on `p4p1` (*remote*).

Repeated the test of 22 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:

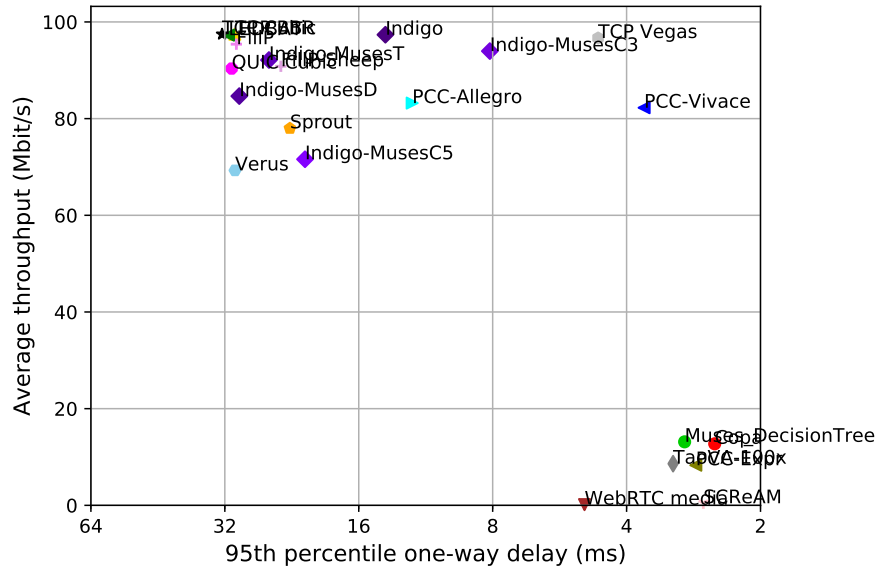
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

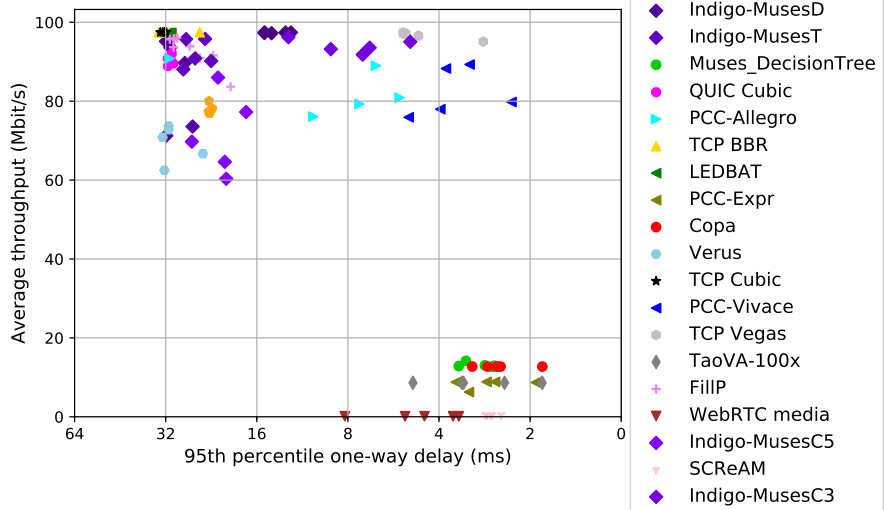
```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
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 AWS Brazil 1 to Brazil, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



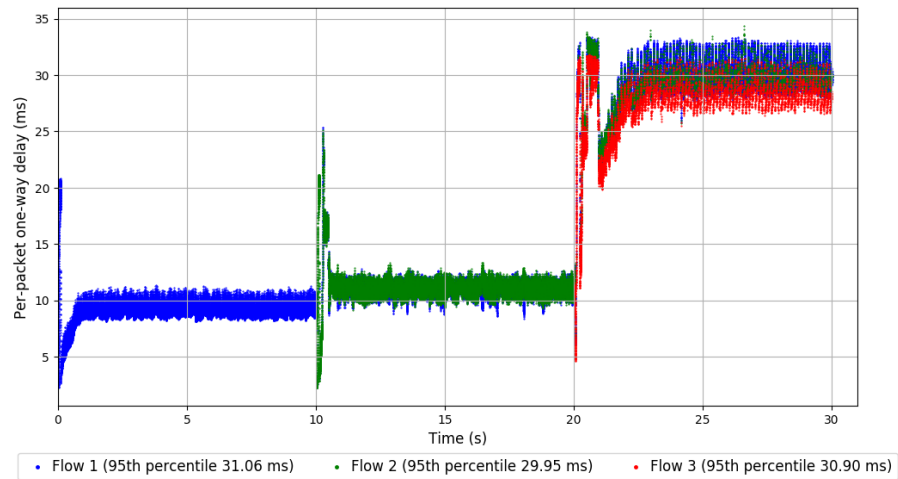
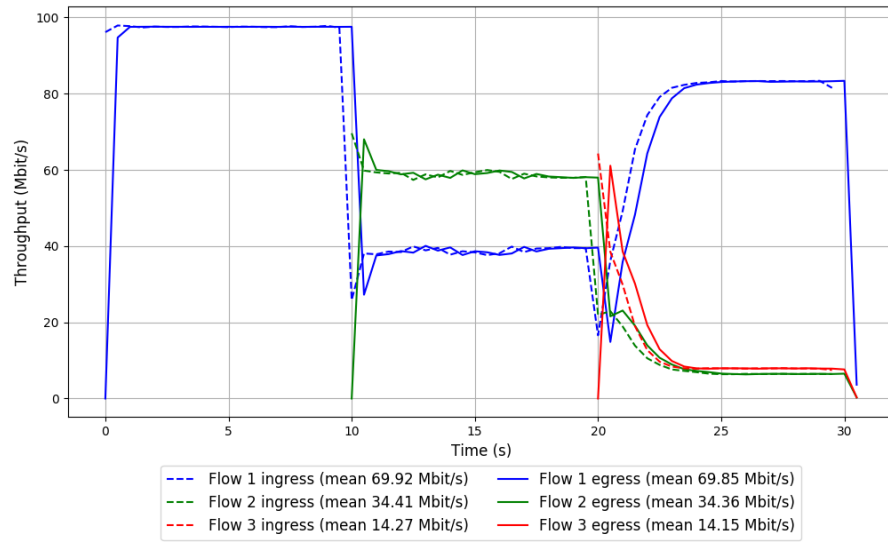
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	70.53	31.09	18.69	30.35	29.40	31.41	0.31	0.23	1.37
Copa	5	11.13	2.81	0.03	2.33	2.13	2.72	67.30	83.08	88.46
TCP Cubic	5	64.77	34.94	28.40	31.59	32.72	32.75	0.03	0.07	0.04
FillP	5	47.23	55.63	33.55	29.45	29.85	30.01	13.81	20.16	40.28
FillP-Sheep	5	52.65	36.59	41.76	20.74	24.66	27.23	0.85	1.53	4.01
Indigo	5	45.98	45.02	66.11	11.45	13.57	14.07	0.00	0.00	0.00
Indigo-MusesC3	5	47.25	55.49	36.78	7.49	8.33	7.06	0.00	0.00	0.00
Indigo-MusesC5	5	37.01	37.62	34.42	20.23	21.25	23.21	0.01	0.00	0.00
Indigo-MusesD	5	57.99	30.25	23.81	29.15	29.78	30.85	0.22	2.25	2.29
Indigo-MusesT	5	55.32	45.37	25.25	23.33	26.27	28.57	0.08	0.08	0.37
LEDBAT	5	62.69	38.97	26.01	31.42	31.19	31.85	0.03	0.07	0.18
Muses_DecisionTree	5	6.92	5.87	7.14	1.74	2.76	1.85	0.00	0.00	0.00
PCC-Allegro	5	62.66	26.16	9.57	9.42	14.86	17.33	0.02	0.08	0.12
PCC-Expr	5	0.48	9.24	6.53	2.15	3.00	2.25	85.71	33.01	21.44
QUIC Cubic	5	58.21	34.87	27.26	29.91	31.34	30.60	0.15	0.17	0.22
SCReAM	5	0.22	0.22	0.22	2.32	2.53	1.35	0.00	0.00	0.00
Sprout	5	41.03	39.72	31.93	21.98	22.35	24.49	0.00	0.00	0.00
TaoVA-100x	5	0.00	9.60	6.68	2.13	2.98	2.09	95.92	86.48	93.26
TCP Vegas	5	48.63	40.86	62.63	4.73	4.19	4.73	0.00	0.00	0.00
Verus	5	38.15	33.38	27.28	27.75	31.28	32.56	9.24	18.41	23.14
PCC-Vivace	5	52.82	31.87	24.94	3.50	3.43	4.39	0.00	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	4.67	5.10	4.05	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-06-28 00:30:41
End at: 2019-06-28 00:31:11
Local clock offset: -6.158 ms
Remote clock offset: -0.317 ms

Below is generated by plot.py at 2019-06-28 02:32:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 30.870 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 69.85 Mbit/s
95th percentile per-packet one-way delay: 31.056 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 34.36 Mbit/s
95th percentile per-packet one-way delay: 29.954 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 14.15 Mbit/s
95th percentile per-packet one-way delay: 30.901 ms
Loss rate: 0.60%

Run 1: Report of TCP BBR — Data Link

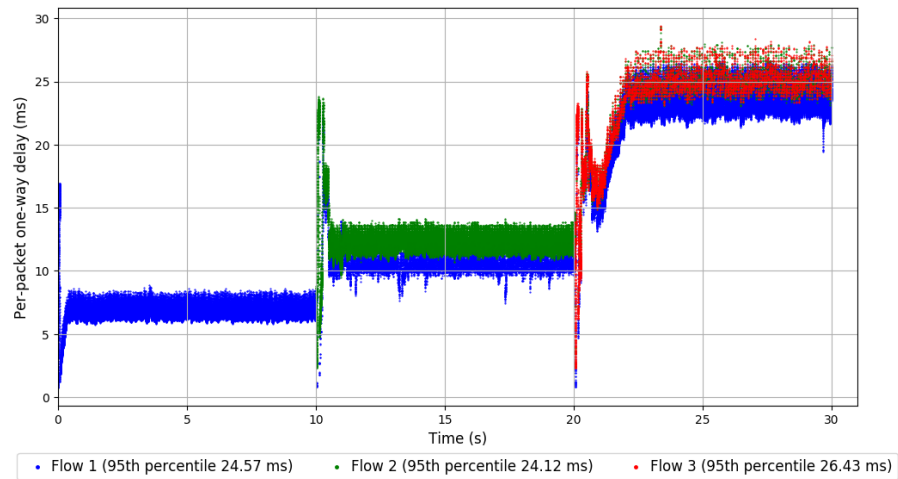
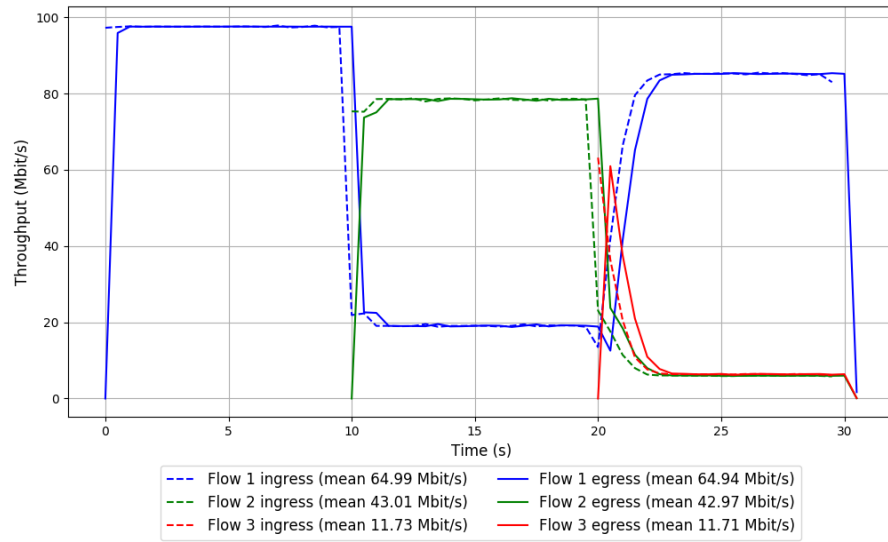


Run 2: Statistics of TCP BBR

Start at: 2019-06-28 00:55:44
End at: 2019-06-28 00:56:14
Local clock offset: -5.655 ms
Remote clock offset: -0.094 ms

Below is generated by plot.py at 2019-06-28 02:32:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.48 Mbit/s
95th percentile per-packet one-way delay: 24.701 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.94 Mbit/s
95th percentile per-packet one-way delay: 24.565 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.97 Mbit/s
95th percentile per-packet one-way delay: 24.116 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 26.434 ms
Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link

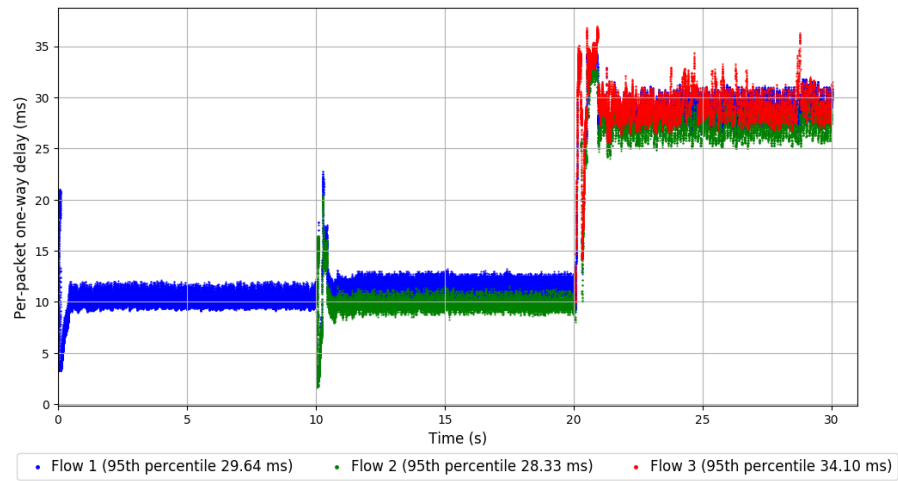
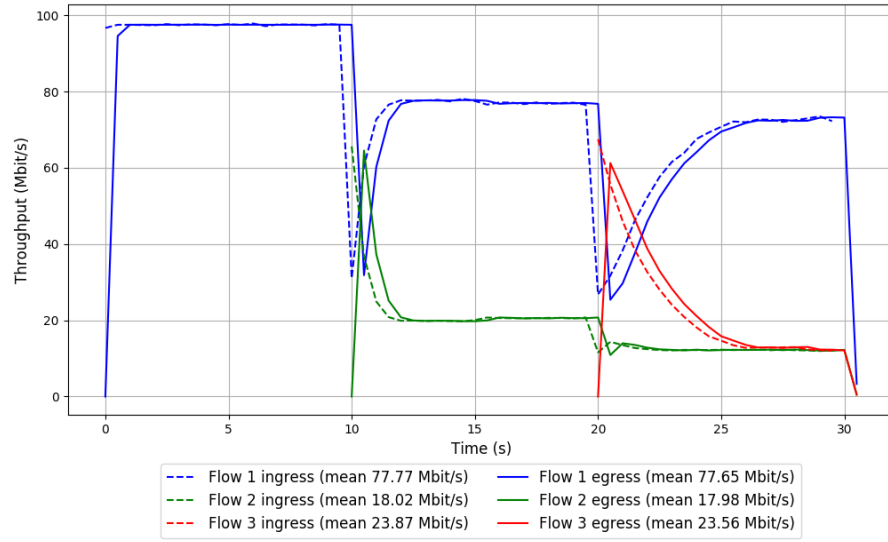


Run 3: Statistics of TCP BBR

Start at: 2019-06-28 01:20:48
End at: 2019-06-28 01:21:18
Local clock offset: -6.441 ms
Remote clock offset: -0.002 ms

Below is generated by plot.py at 2019-06-28 02:32:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 30.044 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 77.65 Mbit/s
95th percentile per-packet one-way delay: 29.644 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 17.98 Mbit/s
95th percentile per-packet one-way delay: 28.330 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 23.56 Mbit/s
95th percentile per-packet one-way delay: 34.105 ms
Loss rate: 1.08%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-06-28 01:45:53

End at: 2019-06-28 01:46:23

Local clock offset: -5.345 ms

Remote clock offset: 0.191 ms

Below is generated by plot.py at 2019-06-28 02:32:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 32.603 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 75.70 Mbit/s

95th percentile per-packet one-way delay: 32.753 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 22.34 Mbit/s

95th percentile per-packet one-way delay: 31.365 ms

Loss rate: 0.72%

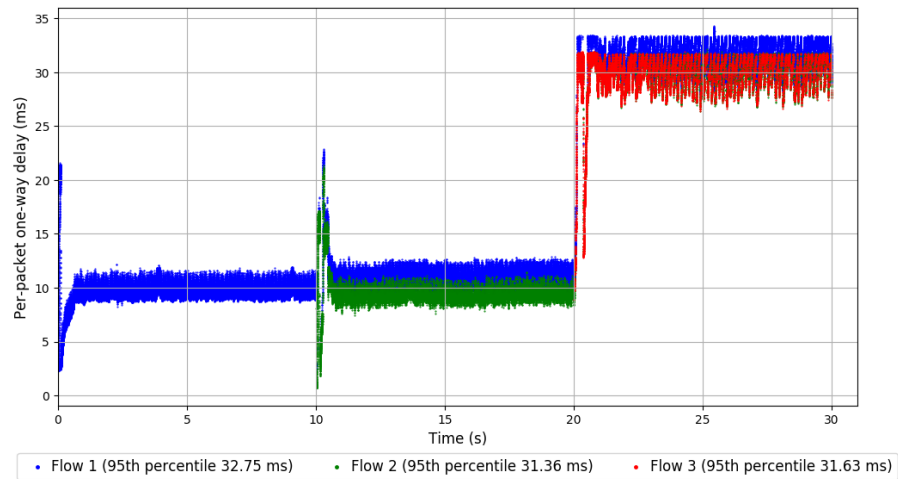
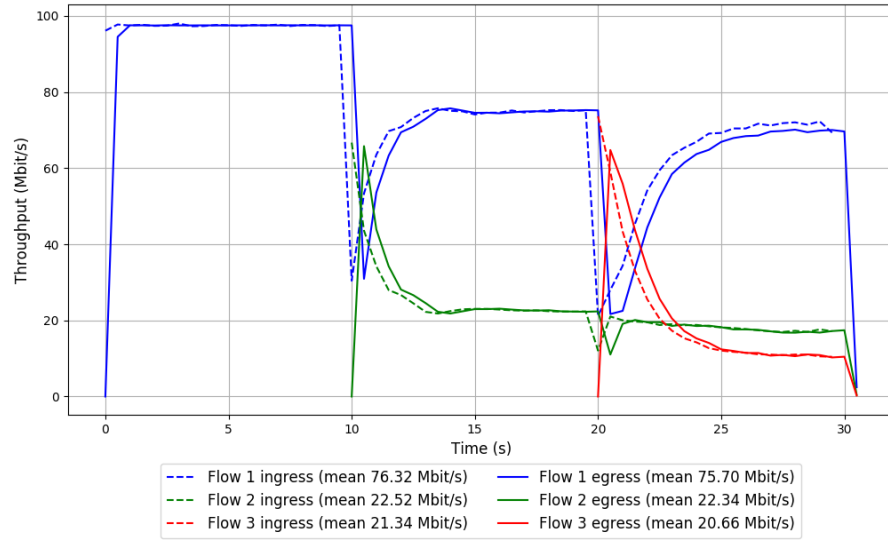
-- Flow 3:

Average throughput: 20.66 Mbit/s

95th percentile per-packet one-way delay: 31.634 ms

Loss rate: 2.97%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-06-28 02:10:56

End at: 2019-06-28 02:11:26

Local clock offset: -7.472 ms

Remote clock offset: 0.284 ms

Below is generated by plot.py at 2019-06-28 02:32:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.45 Mbit/s

95th percentile per-packet one-way delay: 33.721 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 64.49 Mbit/s

95th percentile per-packet one-way delay: 33.720 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 37.80 Mbit/s

95th percentile per-packet one-way delay: 33.245 ms

Loss rate: 0.33%

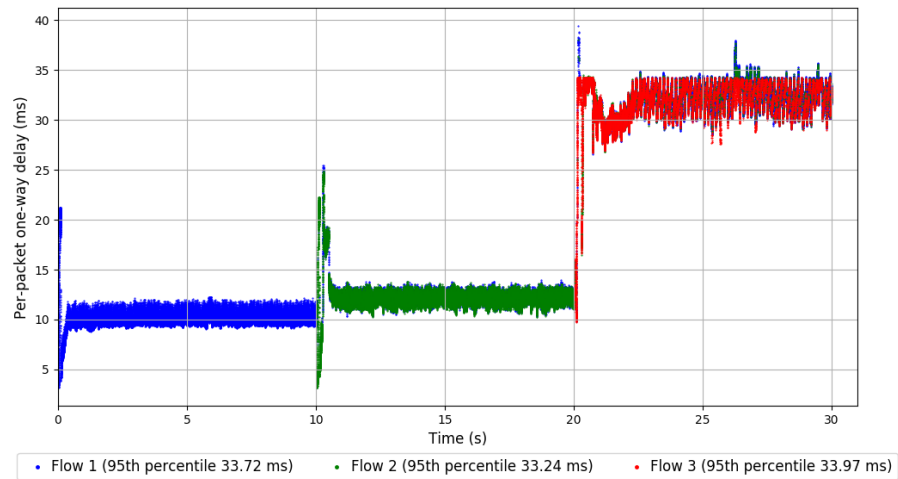
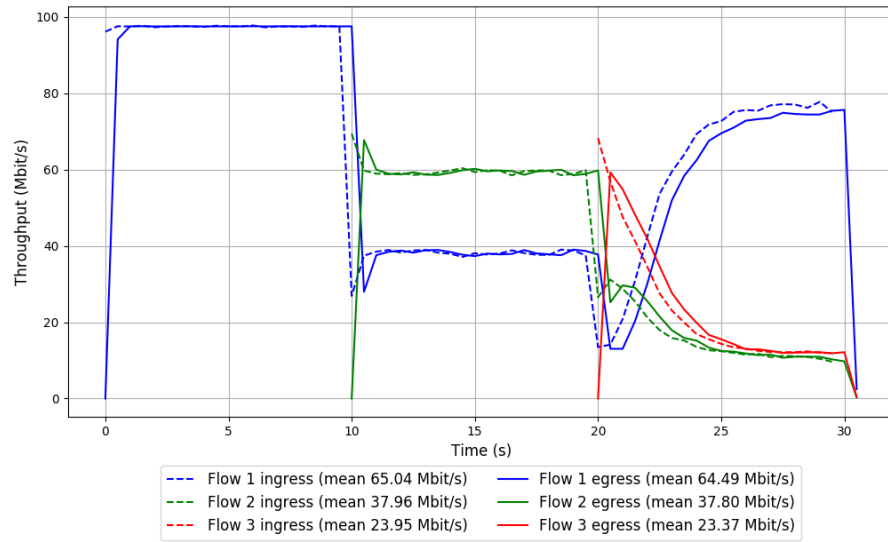
-- Flow 3:

Average throughput: 23.37 Mbit/s

95th percentile per-packet one-way delay: 33.966 ms

Loss rate: 2.21%

Run 5: Report of TCP BBR — Data Link

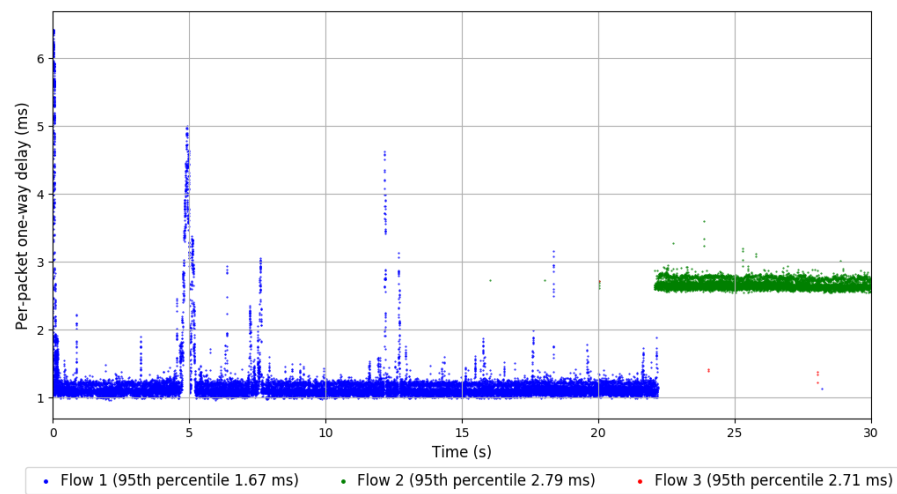
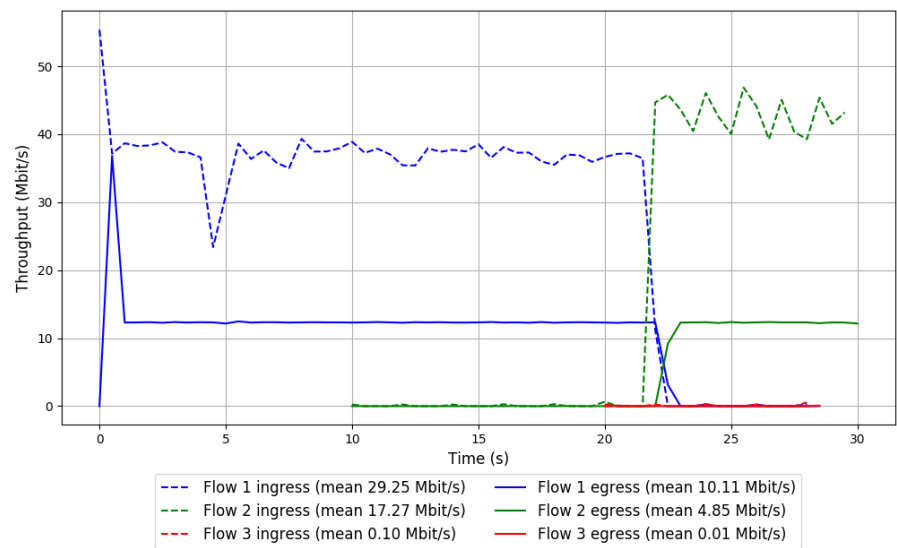


Run 1: Statistics of Copa

Start at: 2019-06-28 00:33:01
End at: 2019-06-28 00:33:31
Local clock offset: -6.327 ms
Remote clock offset: -0.197 ms

Below is generated by plot.py at 2019-06-28 02:32:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.764 ms
Loss rate: 67.38%
-- Flow 1:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 1.674 ms
Loss rate: 65.45%
-- Flow 2:
Average throughput: 4.85 Mbit/s
95th percentile per-packet one-way delay: 2.790 ms
Loss rate: 71.92%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2.713 ms
Loss rate: 92.31%

Run 1: Report of Copa — Data Link

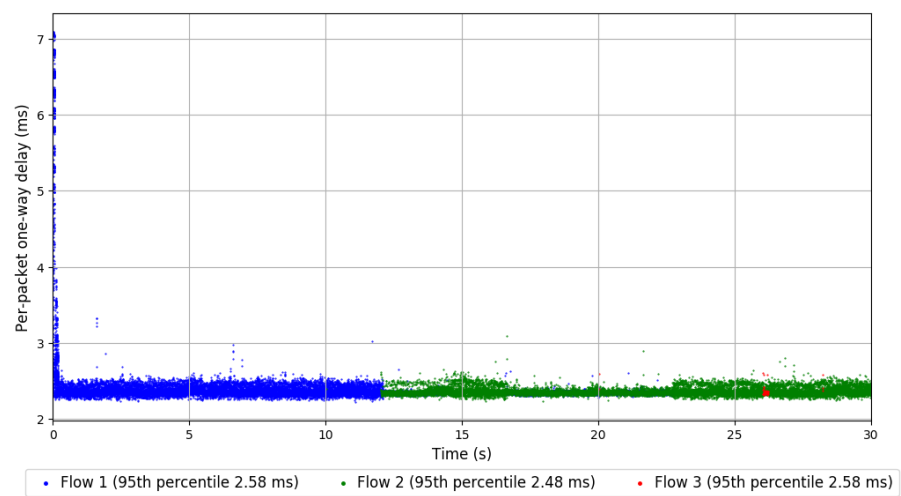
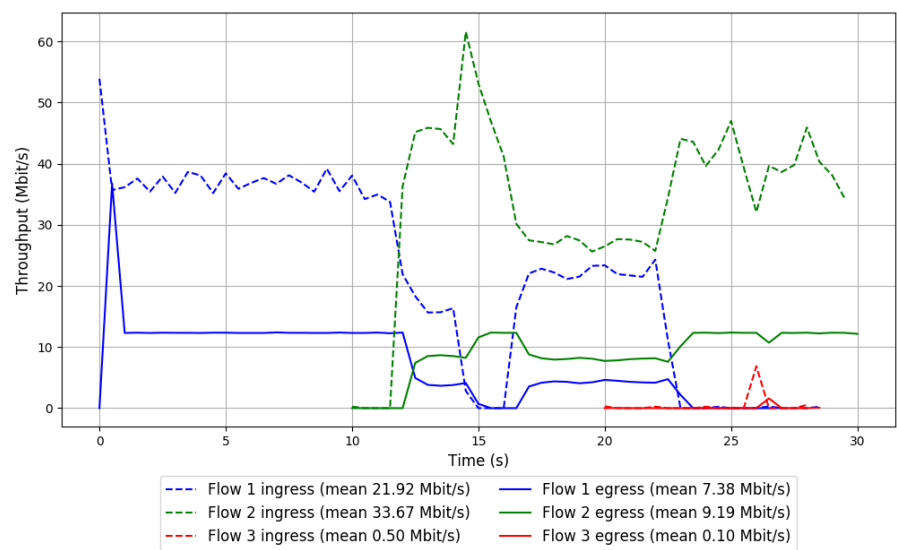


Run 2: Statistics of Copa

Start at: 2019-06-28 00:58:05
End at: 2019-06-28 00:58:35
Local clock offset: -5.607 ms
Remote clock offset: -0.085 ms

Below is generated by plot.py at 2019-06-28 02:32:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 2.504 ms
Loss rate: 70.78%
-- Flow 1:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 2.579 ms
Loss rate: 68.69%
-- Flow 2:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 2.475 ms
Loss rate: 72.69%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 2.580 ms
Loss rate: 79.33%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-06-28 01:23:08

End at: 2019-06-28 01:23:38

Local clock offset: -5.403 ms

Remote clock offset: 0.193 ms

Below is generated by plot.py at 2019-06-28 02:32:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.569 ms

Loss rate: 67.53%

-- Flow 1:

Average throughput: 12.72 Mbit/s

95th percentile per-packet one-way delay: 2.569 ms

Loss rate: 67.48%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1.131 ms

Loss rate: 90.24%

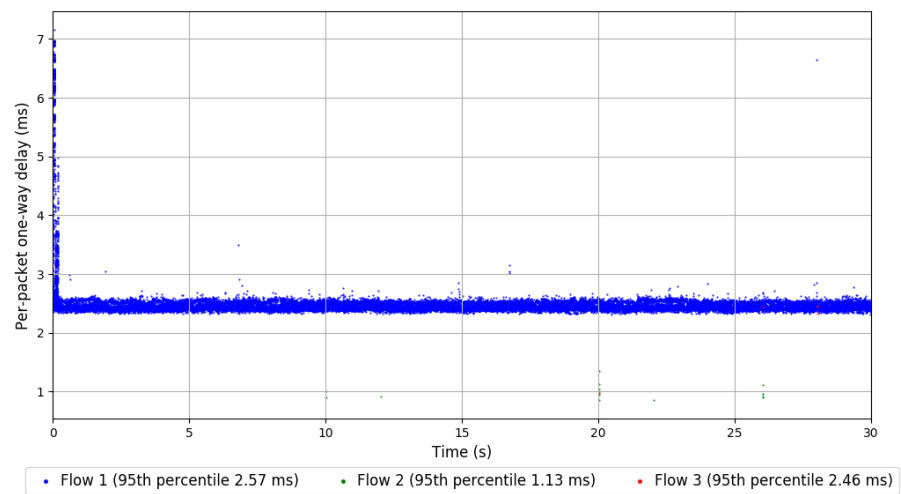
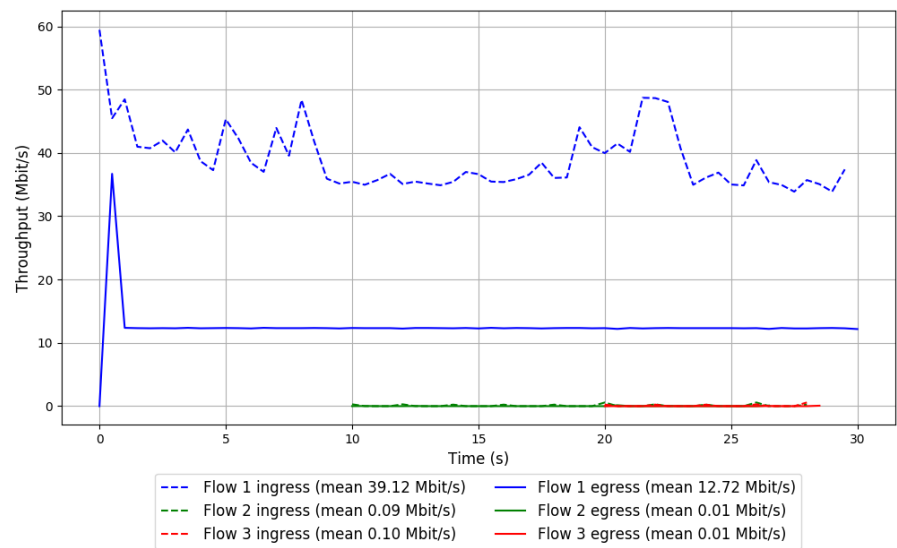
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 2.463 ms

Loss rate: 93.82%

Run 3: Report of Copa — Data Link

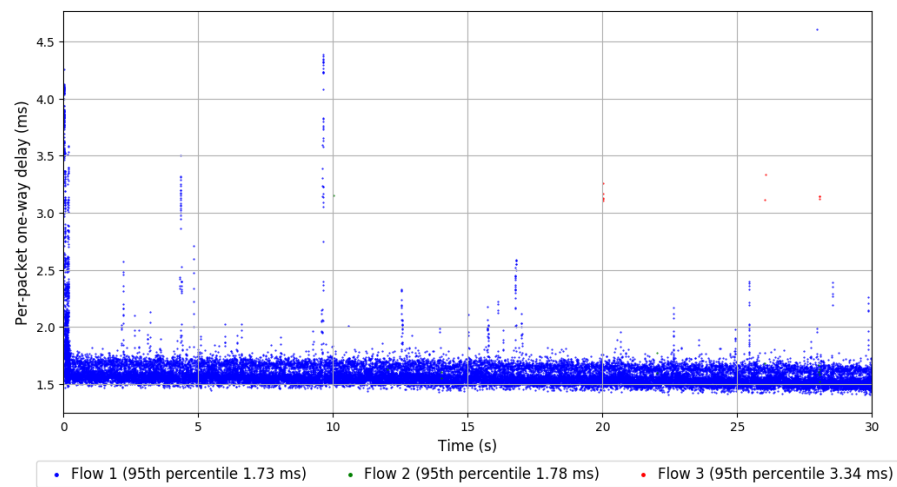
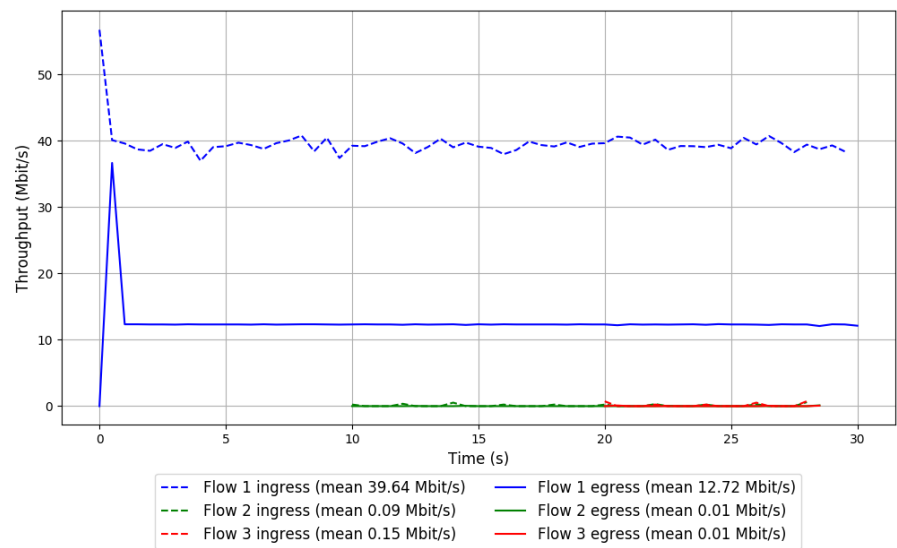


Run 4: Statistics of Copa

Start at: 2019-06-28 01:48:13
End at: 2019-06-28 01:48:43
Local clock offset: -6.132 ms
Remote clock offset: 0.282 ms

Below is generated by plot.py at 2019-06-28 02:32:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.732 ms
Loss rate: 67.97%
-- Flow 1:
Average throughput: 12.72 Mbit/s
95th percentile per-packet one-way delay: 1.731 ms
Loss rate: 67.91%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1.778 ms
Loss rate: 91.91%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3.336 ms
Loss rate: 91.19%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-06-28 02:13:16

End at: 2019-06-28 02:13:46

Local clock offset: -6.669 ms

Remote clock offset: 0.187 ms

Below is generated by plot.py at 2019-06-28 02:32:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 3.106 ms

Loss rate: 67.04%

-- Flow 1:

Average throughput: 12.72 Mbit/s

95th percentile per-packet one-way delay: 3.108 ms

Loss rate: 66.98%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 2.463 ms

Loss rate: 88.66%

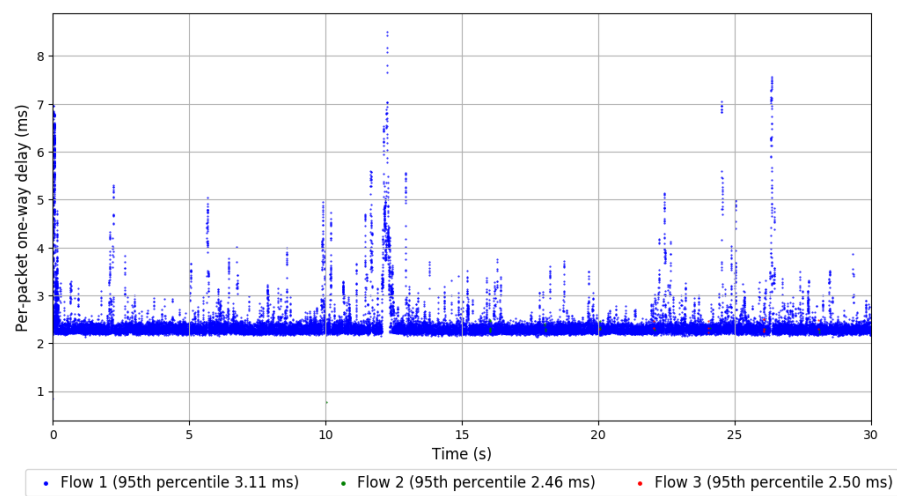
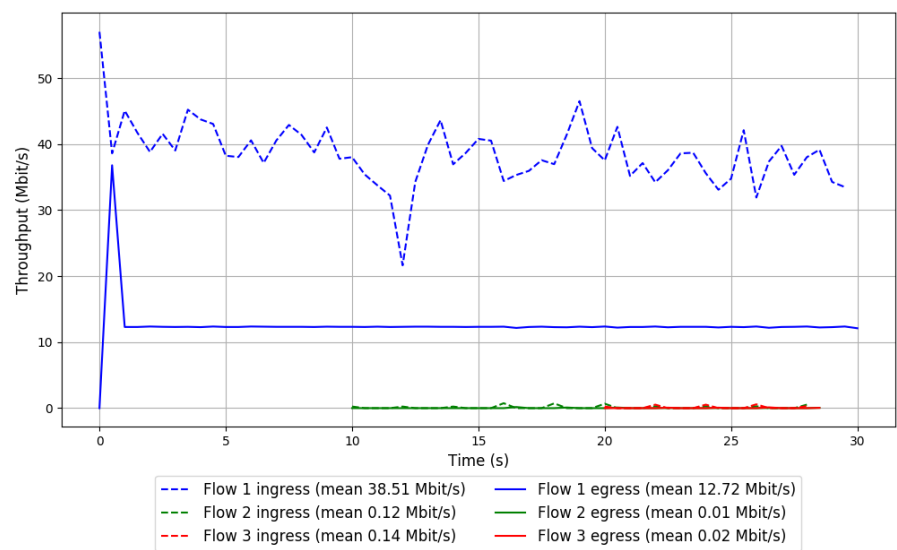
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 2.496 ms

Loss rate: 85.63%

Run 5: Report of Copa — Data Link

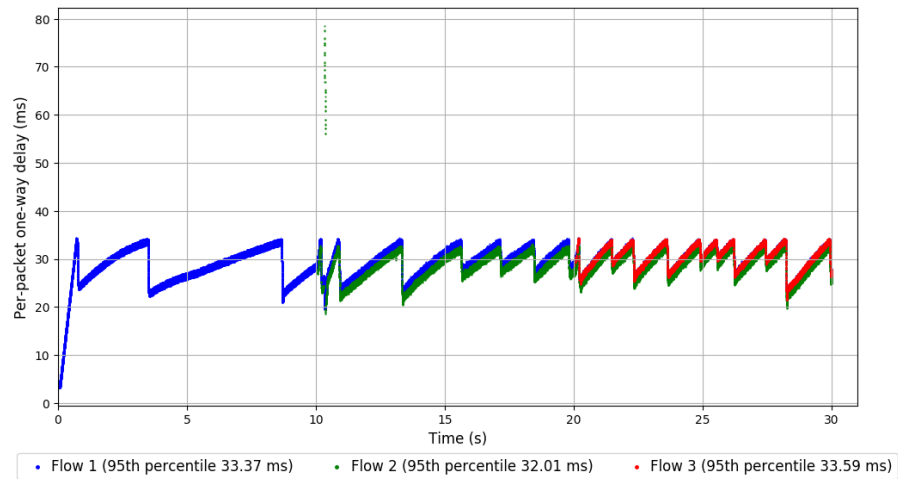
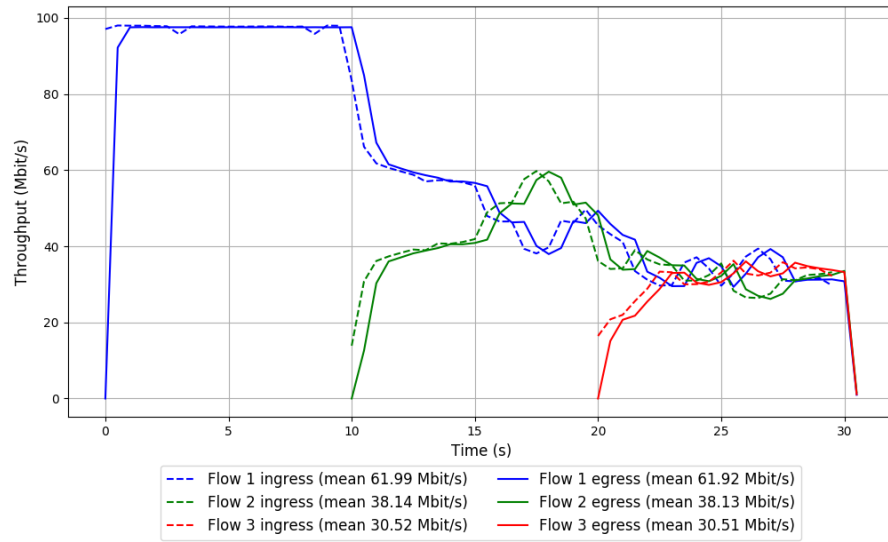


Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 00:34:07
End at: 2019-06-28 00:34:37
Local clock offset: -6.935 ms
Remote clock offset: -0.172 ms

Below is generated by plot.py at 2019-06-28 02:32:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 33.328 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 61.92 Mbit/s
95th percentile per-packet one-way delay: 33.365 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 38.13 Mbit/s
95th percentile per-packet one-way delay: 32.006 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 30.51 Mbit/s
95th percentile per-packet one-way delay: 33.588 ms
Loss rate: 0.05%

Run 1: Report of TCP Cubic — Data Link

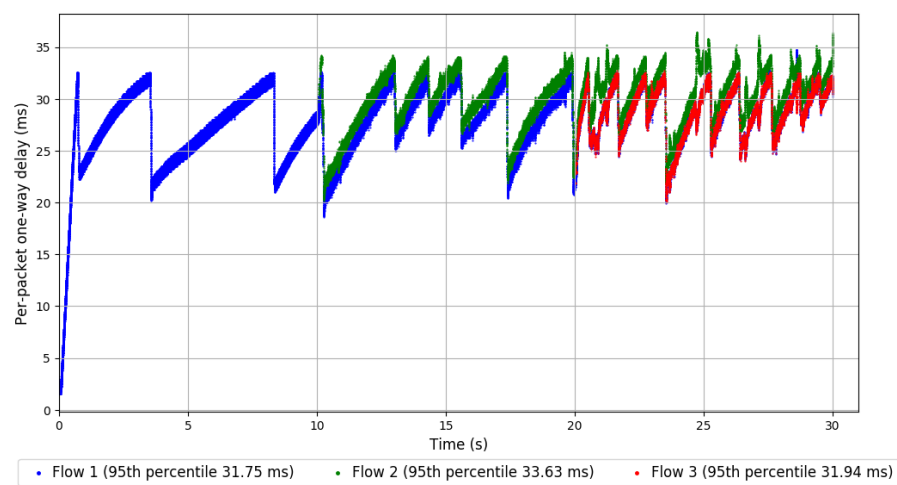
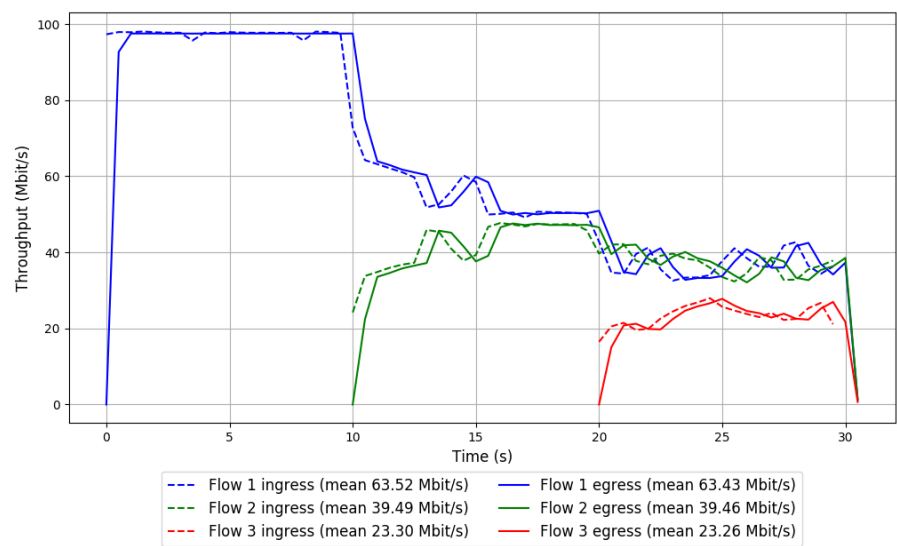


Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 00:59:11
End at: 2019-06-28 00:59:41
Local clock offset: -6.37 ms
Remote clock offset: -0.04 ms

Below is generated by plot.py at 2019-06-28 02:33:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 32.715 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 63.43 Mbit/s
95th percentile per-packet one-way delay: 31.755 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 39.46 Mbit/s
95th percentile per-packet one-way delay: 33.628 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 23.26 Mbit/s
95th percentile per-packet one-way delay: 31.942 ms
Loss rate: 0.05%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 01:24:14

End at: 2019-06-28 01:24:44

Local clock offset: -5.469 ms

Remote clock offset: 0.182 ms

Below is generated by plot.py at 2019-06-28 02:33:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 32.240 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 63.34 Mbit/s

95th percentile per-packet one-way delay: 31.037 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 39.30 Mbit/s

95th percentile per-packet one-way delay: 32.746 ms

Loss rate: 0.17%

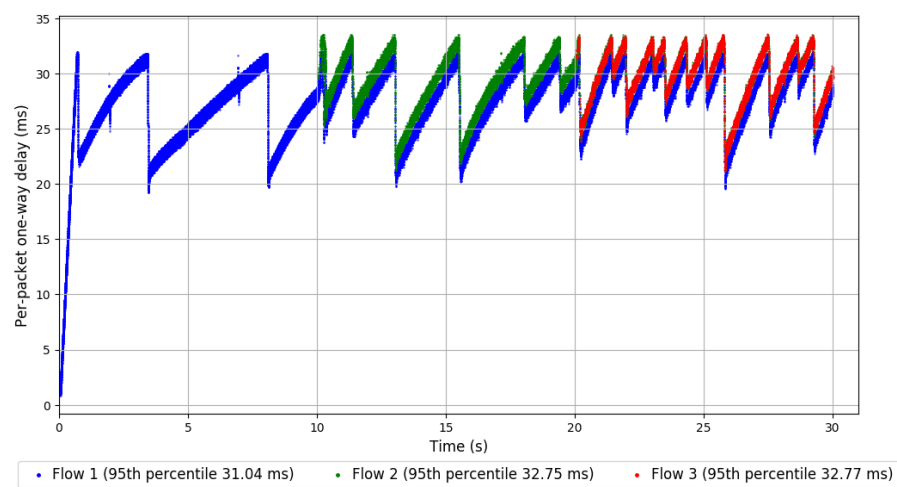
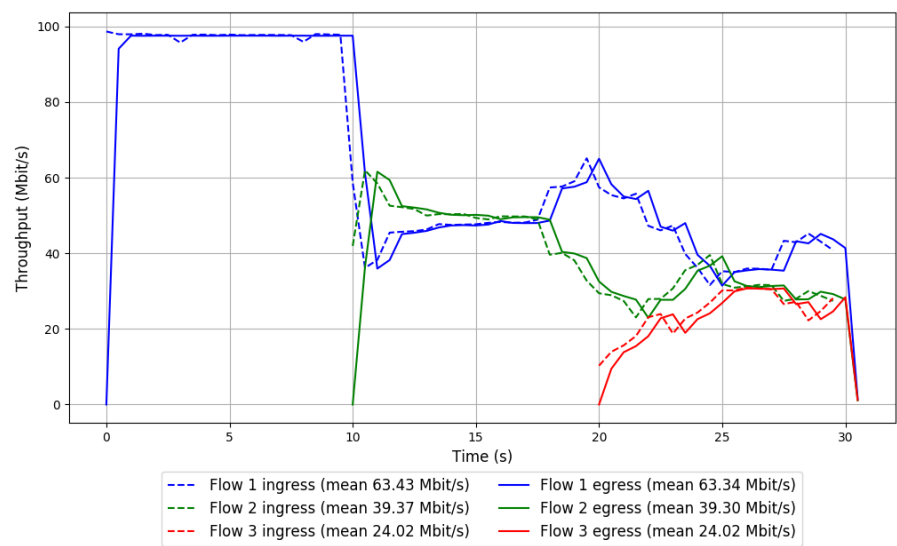
-- Flow 3:

Average throughput: 24.02 Mbit/s

95th percentile per-packet one-way delay: 32.765 ms

Loss rate: 0.04%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 01:49:20

End at: 2019-06-28 01:49:50

Local clock offset: -5.484 ms

Remote clock offset: 0.26 ms

Below is generated by plot.py at 2019-06-28 02:33:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 31.942 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 65.22 Mbit/s

95th percentile per-packet one-way delay: 30.817 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 34.07 Mbit/s

95th percentile per-packet one-way delay: 32.524 ms

Loss rate: 0.03%

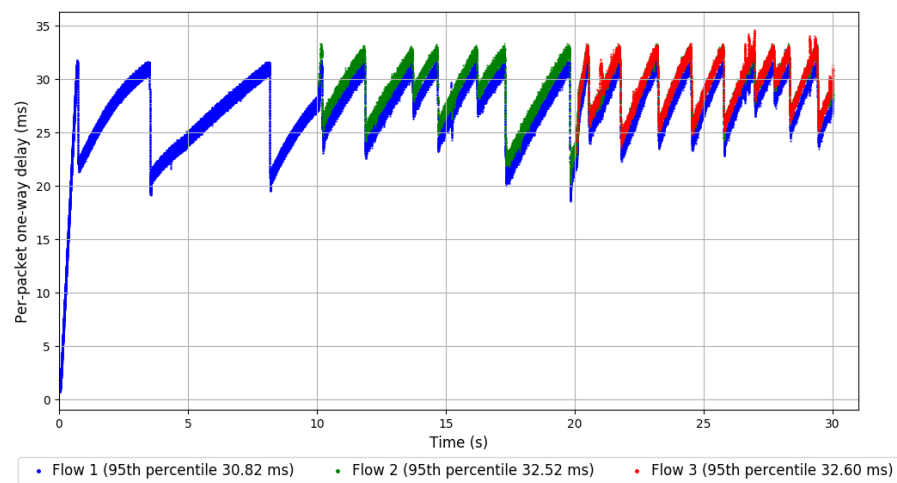
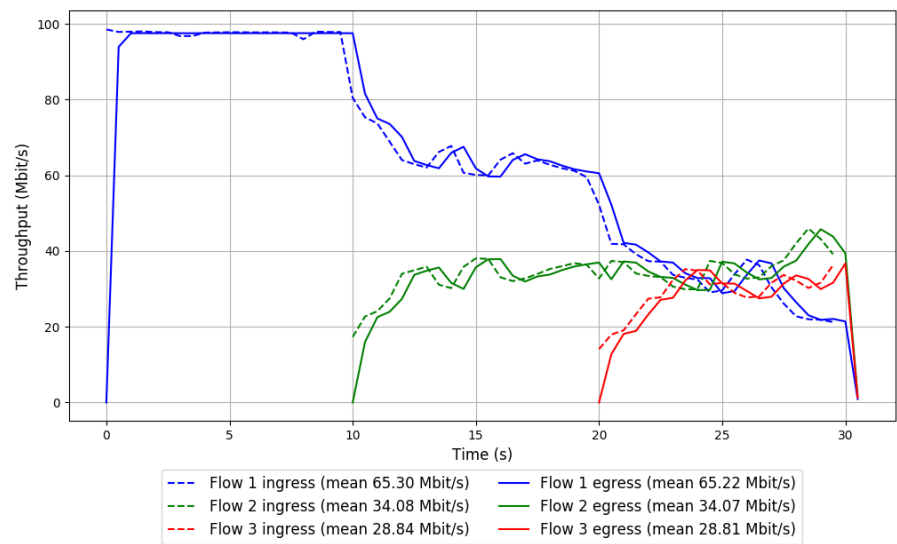
-- Flow 3:

Average throughput: 28.81 Mbit/s

95th percentile per-packet one-way delay: 32.605 ms

Loss rate: 0.06%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 02:14:22

End at: 2019-06-28 02:14:52

Local clock offset: -6.687 ms

Remote clock offset: 0.357 ms

Below is generated by plot.py at 2019-06-28 02:33:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 32.073 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 69.92 Mbit/s

95th percentile per-packet one-way delay: 30.988 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 23.73 Mbit/s

95th percentile per-packet one-way delay: 32.698 ms

Loss rate: 0.06%

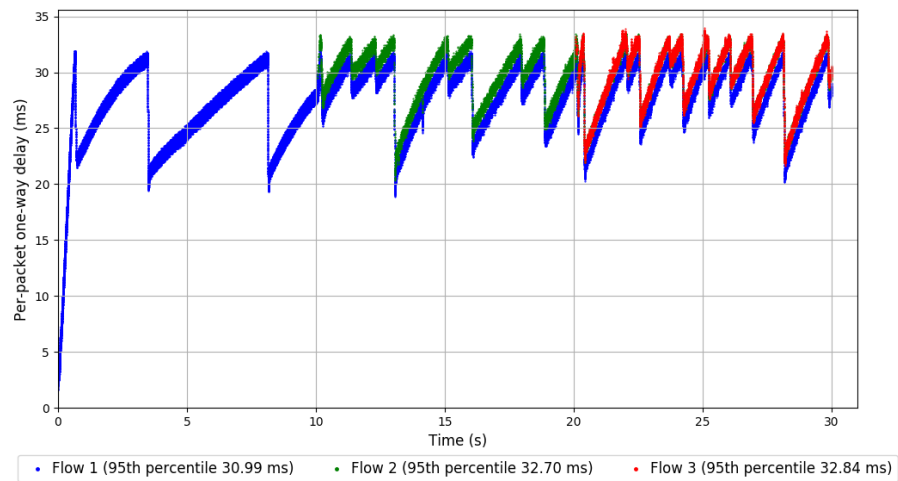
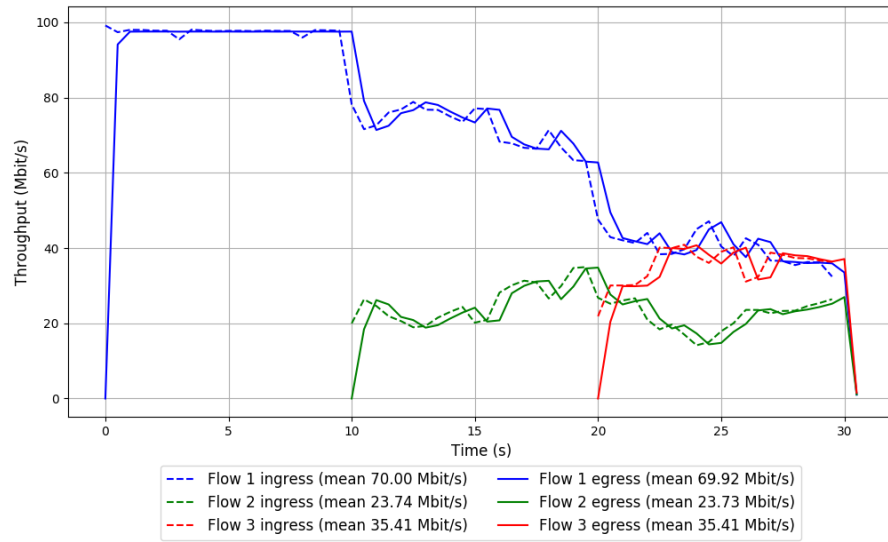
-- Flow 3:

Average throughput: 35.41 Mbit/s

95th percentile per-packet one-way delay: 32.841 ms

Loss rate: 0.02%

Run 5: Report of TCP Cubic — Data Link

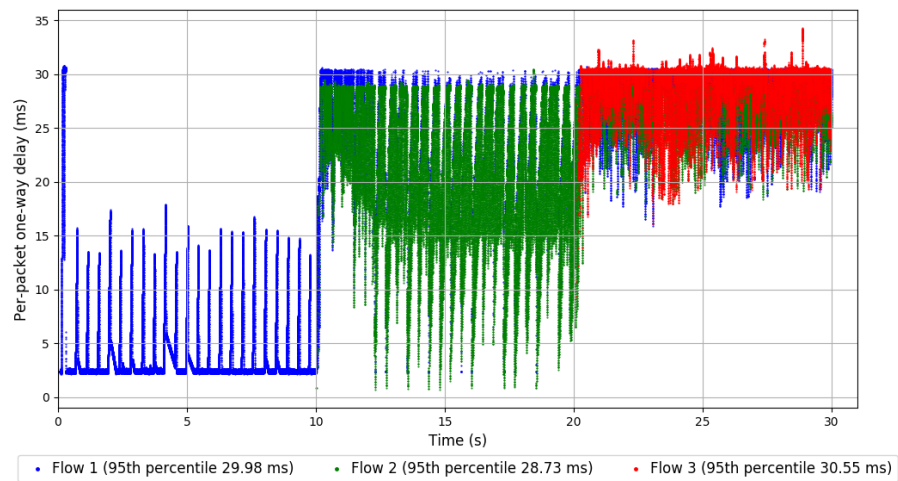
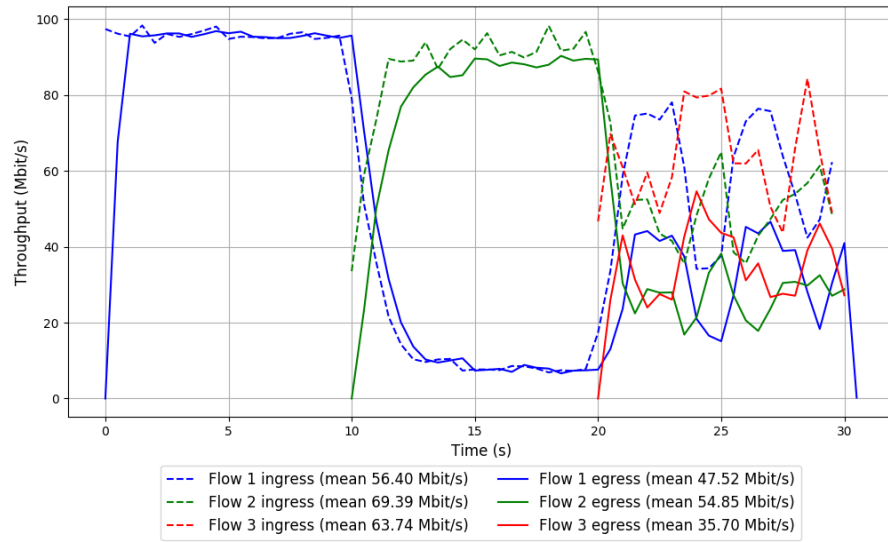


Run 1: Statistics of FillP

Start at: 2019-06-28 00:45:32
End at: 2019-06-28 00:46:02
Local clock offset: -6.068 ms
Remote clock offset: -0.163 ms

Below is generated by plot.py at 2019-06-28 02:34:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 30.015 ms
Loss rate: 22.43%
-- Flow 1:
Average throughput: 47.52 Mbit/s
95th percentile per-packet one-way delay: 29.979 ms
Loss rate: 15.66%
-- Flow 2:
Average throughput: 54.85 Mbit/s
95th percentile per-packet one-way delay: 28.726 ms
Loss rate: 20.86%
-- Flow 3:
Average throughput: 35.70 Mbit/s
95th percentile per-packet one-way delay: 30.545 ms
Loss rate: 43.98%

Run 1: Report of FillP — Data Link

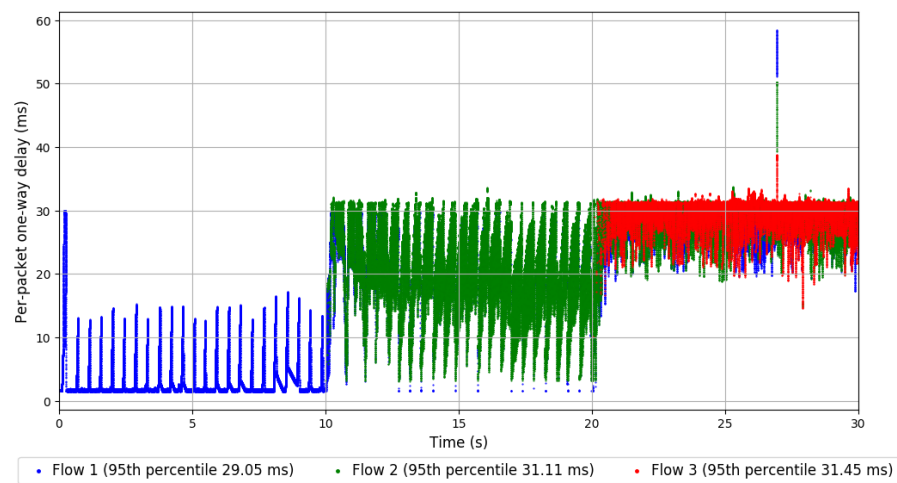
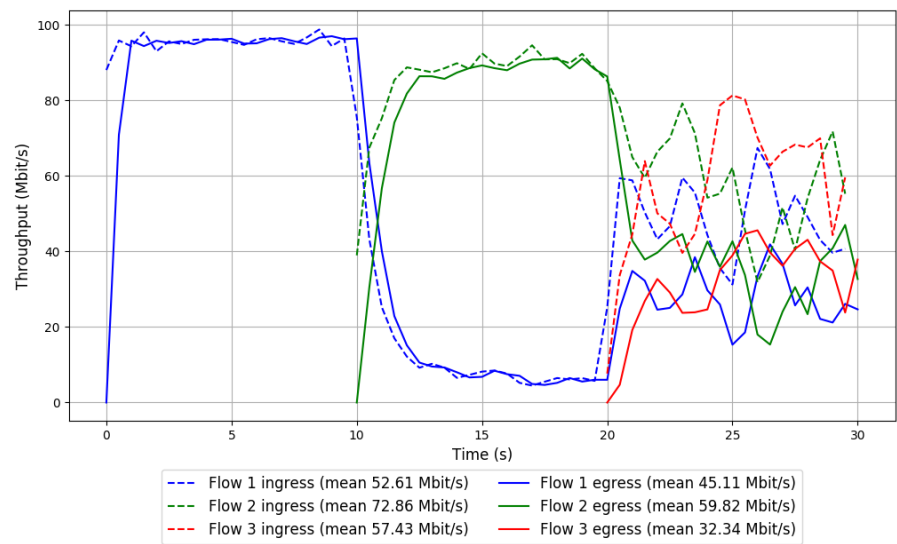


Run 2: Statistics of FillP

Start at: 2019-06-28 01:10:35
End at: 2019-06-28 01:11:05
Local clock offset: -6.341 ms
Remote clock offset: 0.036 ms

Below is generated by plot.py at 2019-06-28 02:34:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.69 Mbit/s
95th percentile per-packet one-way delay: 31.003 ms
Loss rate: 20.29%
-- Flow 1:
Average throughput: 45.11 Mbit/s
95th percentile per-packet one-way delay: 29.052 ms
Loss rate: 14.18%
-- Flow 2:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 31.106 ms
Loss rate: 17.78%
-- Flow 3:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 31.452 ms
Loss rate: 43.58%

Run 2: Report of FillP — Data Link

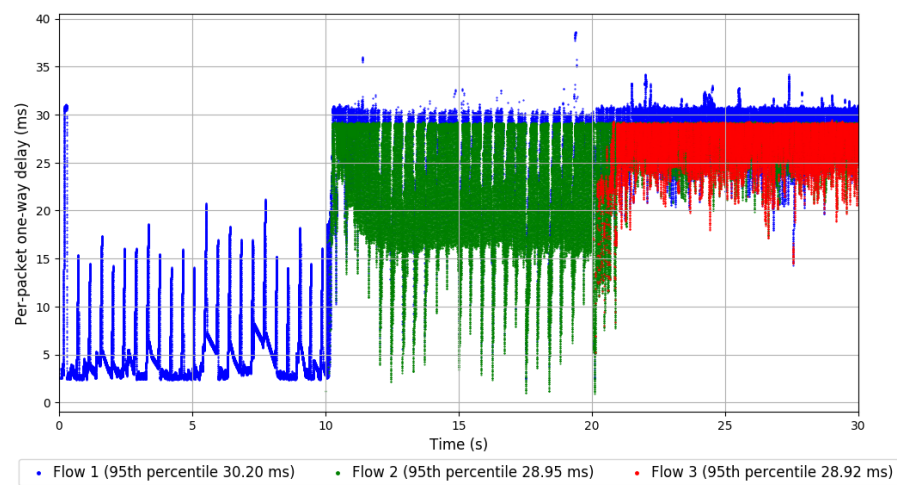
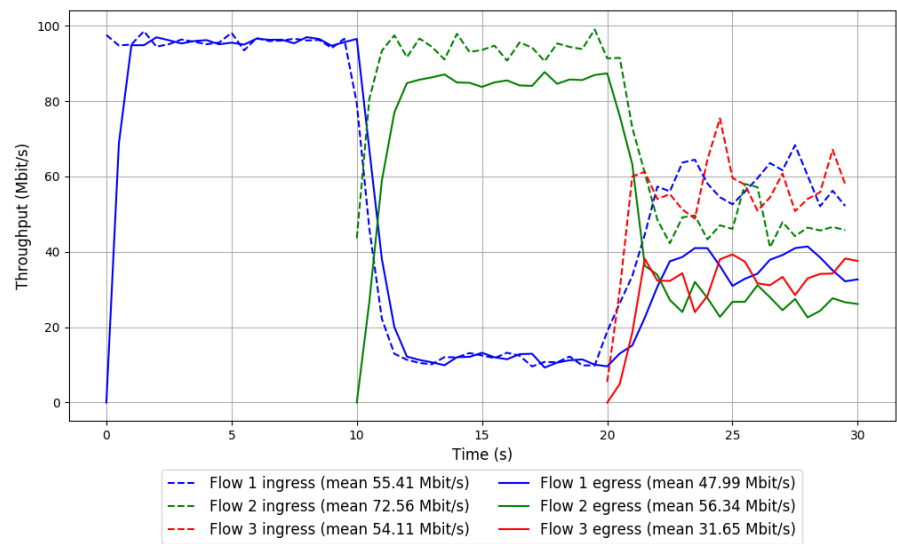


Run 3: Statistics of FillP

Start at: 2019-06-28 01:35:40
End at: 2019-06-28 01:36:10
Local clock offset: -5.592 ms
Remote clock offset: 0.168 ms

Below is generated by plot.py at 2019-06-28 02:34:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 29.425 ms
Loss rate: 21.02%
-- Flow 1:
Average throughput: 47.99 Mbit/s
95th percentile per-packet one-way delay: 30.196 ms
Loss rate: 13.30%
-- Flow 2:
Average throughput: 56.34 Mbit/s
95th percentile per-packet one-way delay: 28.945 ms
Loss rate: 22.28%
-- Flow 3:
Average throughput: 31.65 Mbit/s
95th percentile per-packet one-way delay: 28.921 ms
Loss rate: 41.47%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-06-28 02:00:43

End at: 2019-06-28 02:01:13

Local clock offset: -6.325 ms

Remote clock offset: 0.354 ms

Below is generated by plot.py at 2019-06-28 02:34:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 30.118 ms

Loss rate: 18.94%

-- Flow 1:

Average throughput: 43.30 Mbit/s

95th percentile per-packet one-way delay: 28.244 ms

Loss rate: 14.89%

-- Flow 2:

Average throughput: 62.55 Mbit/s

95th percentile per-packet one-way delay: 30.270 ms

Loss rate: 19.89%

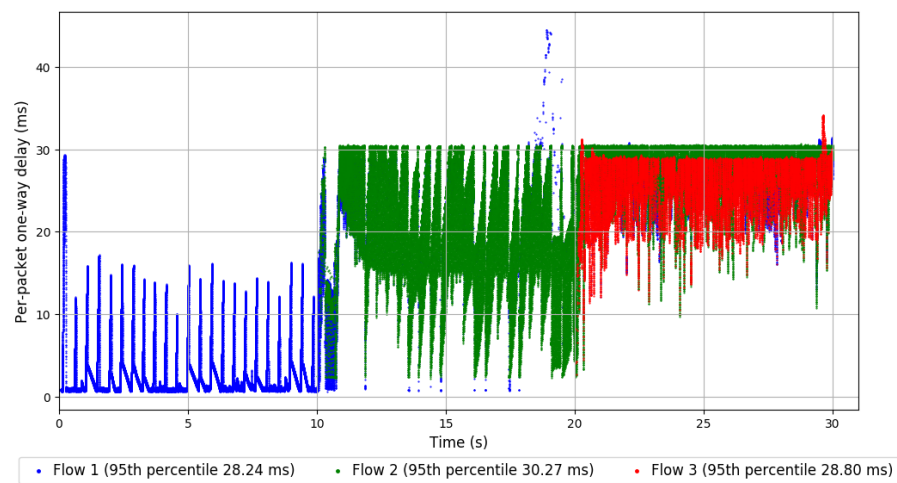
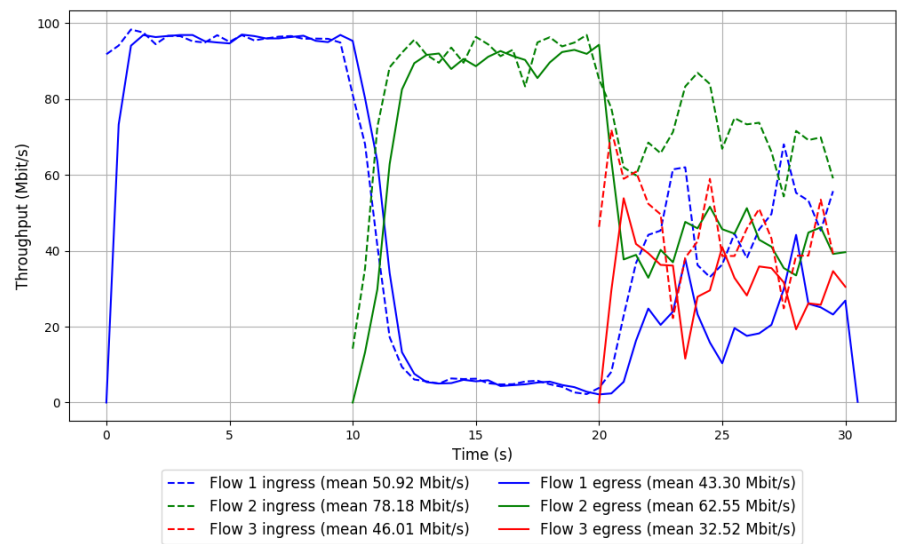
-- Flow 3:

Average throughput: 32.52 Mbit/s

95th percentile per-packet one-way delay: 28.798 ms

Loss rate: 29.19%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-06-28 02:25:46

End at: 2019-06-28 02:26:16

Local clock offset: -6.644 ms

Remote clock offset: 0.356 ms

Below is generated by plot.py at 2019-06-28 02:34:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.69 Mbit/s

95th percentile per-packet one-way delay: 30.157 ms

Loss rate: 19.61%

-- Flow 1:

Average throughput: 52.22 Mbit/s

95th percentile per-packet one-way delay: 29.791 ms

Loss rate: 11.04%

-- Flow 2:

Average throughput: 44.61 Mbit/s

95th percentile per-packet one-way delay: 30.198 ms

Loss rate: 20.00%

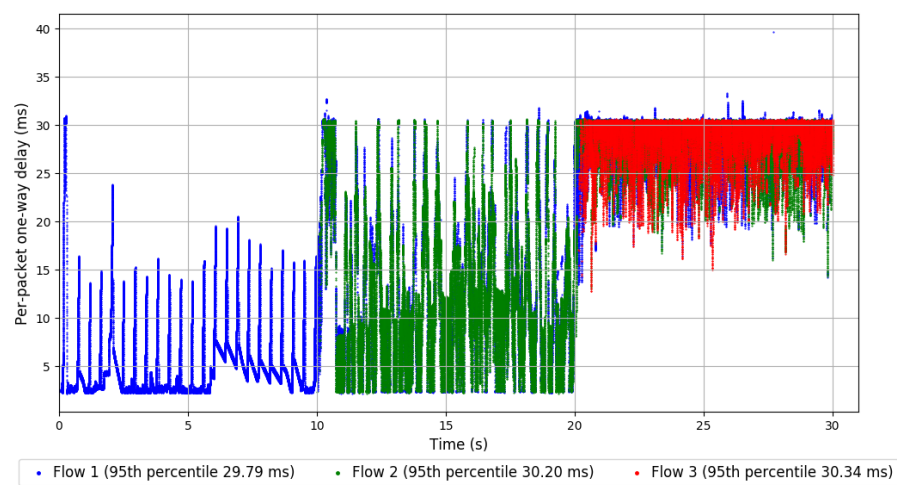
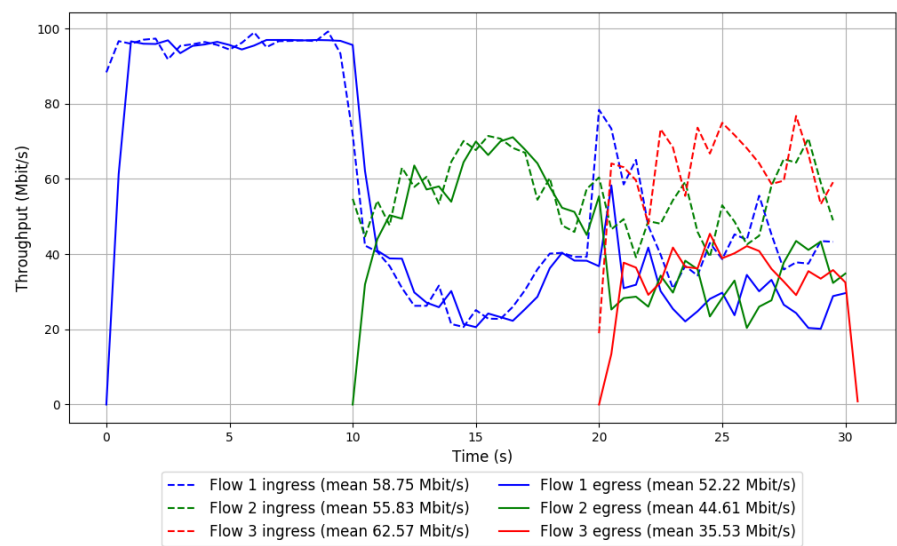
-- Flow 3:

Average throughput: 35.53 Mbit/s

95th percentile per-packet one-way delay: 30.336 ms

Loss rate: 43.16%

Run 5: Report of FillP — Data Link

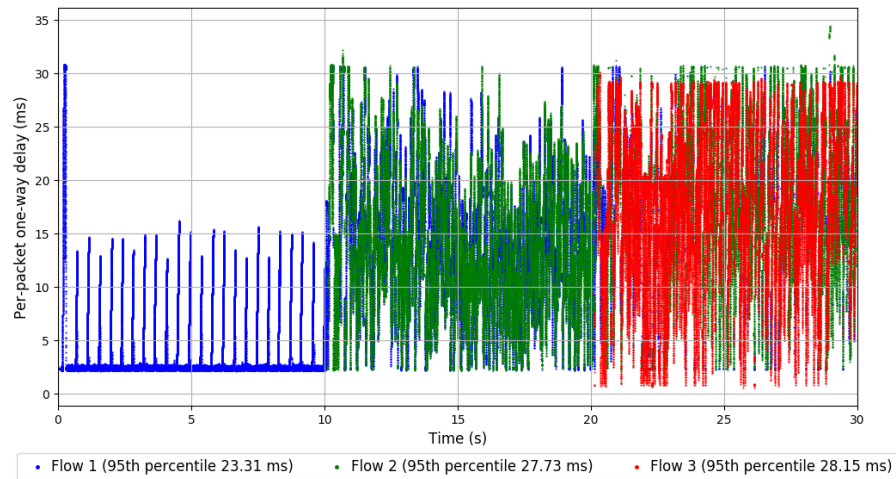
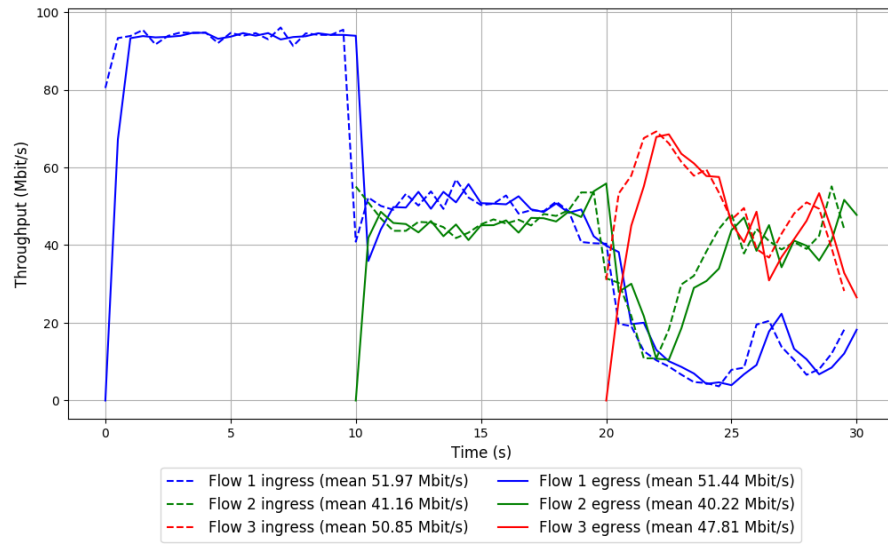


Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 00:35:17
End at: 2019-06-28 00:35:47
Local clock offset: -6.062 ms
Remote clock offset: -0.225 ms

Below is generated by plot.py at 2019-06-28 02:34:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.03 Mbit/s
95th percentile per-packet one-way delay: 26.660 ms
Loss rate: 2.17%
-- Flow 1:
Average throughput: 51.44 Mbit/s
95th percentile per-packet one-way delay: 23.314 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 40.22 Mbit/s
95th percentile per-packet one-way delay: 27.734 ms
Loss rate: 2.24%
-- Flow 3:
Average throughput: 47.81 Mbit/s
95th percentile per-packet one-way delay: 28.146 ms
Loss rate: 5.82%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 01:00:21

End at: 2019-06-28 01:00:51

Local clock offset: -5.579 ms

Remote clock offset: 0.029 ms

Below is generated by plot.py at 2019-06-28 02:35:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.59 Mbit/s

95th percentile per-packet one-way delay: 22.281 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 56.86 Mbit/s

95th percentile per-packet one-way delay: 19.801 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 37.12 Mbit/s

95th percentile per-packet one-way delay: 23.595 ms

Loss rate: 1.27%

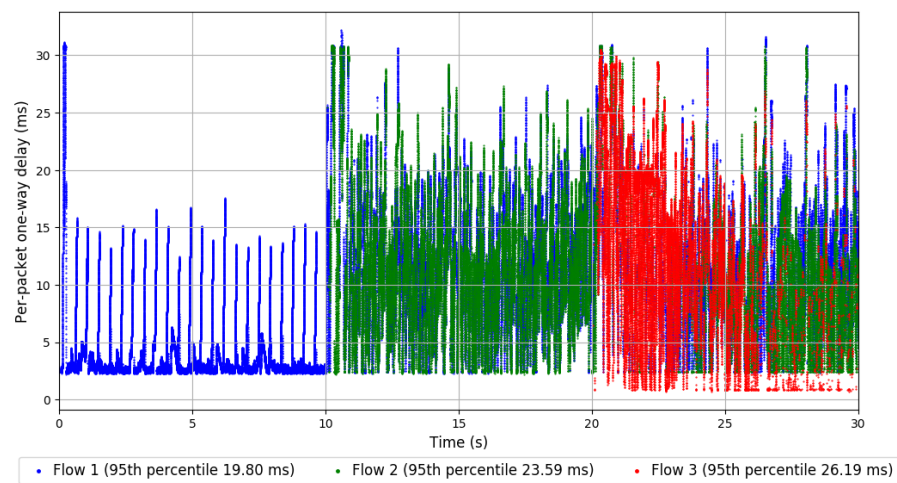
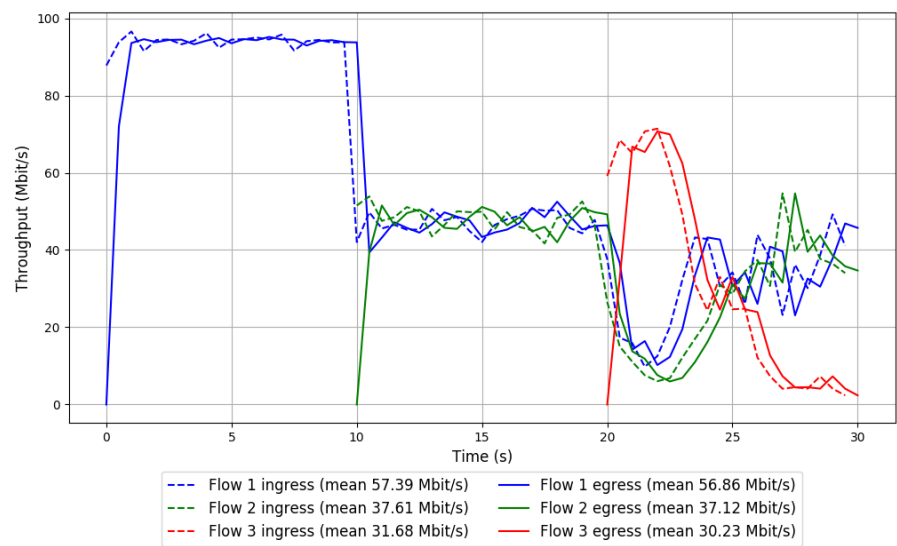
-- Flow 3:

Average throughput: 30.23 Mbit/s

95th percentile per-packet one-way delay: 26.191 ms

Loss rate: 4.54%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 01:25:24

End at: 2019-06-28 01:25:54

Local clock offset: -6.422 ms

Remote clock offset: 0.128 ms

Below is generated by plot.py at 2019-06-28 02:35:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.86 Mbit/s

95th percentile per-packet one-way delay: 26.608 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 54.67 Mbit/s

95th percentile per-packet one-way delay: 23.674 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 29.56 Mbit/s

95th percentile per-packet one-way delay: 26.945 ms

Loss rate: 1.26%

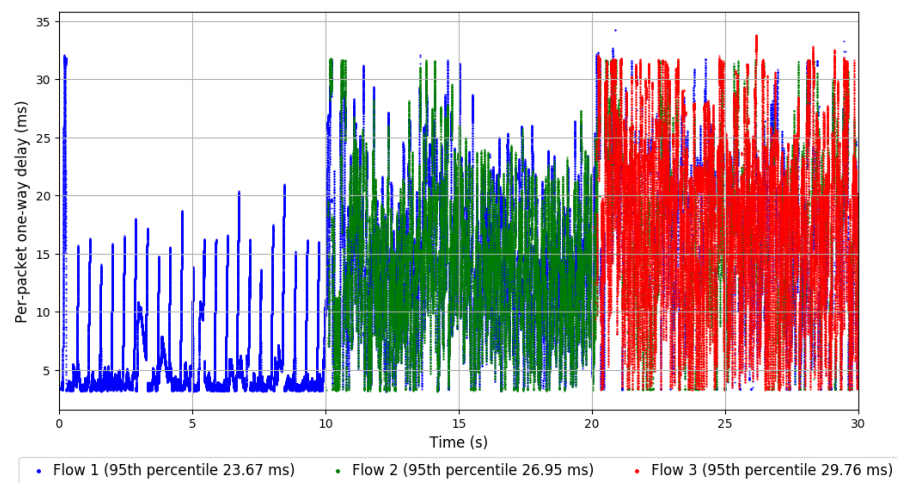
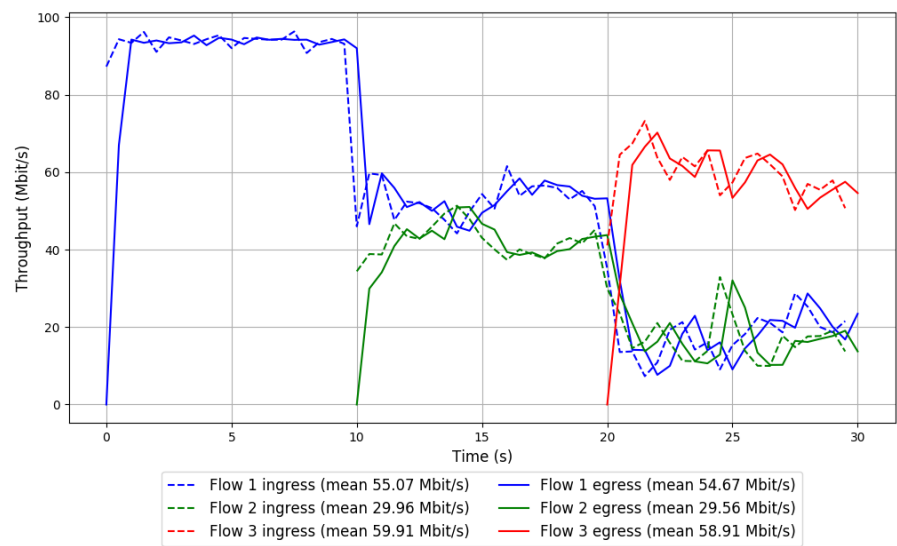
-- Flow 3:

Average throughput: 58.91 Mbit/s

95th percentile per-packet one-way delay: 29.758 ms

Loss rate: 1.57%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 01:50:29

End at: 2019-06-28 01:50:59

Local clock offset: -5.621 ms

Remote clock offset: 0.236 ms

Below is generated by plot.py at 2019-06-28 02:35:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.67 Mbit/s

95th percentile per-packet one-way delay: 19.529 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 42.04 Mbit/s

95th percentile per-packet one-way delay: 13.531 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 38.37 Mbit/s

95th percentile per-packet one-way delay: 19.003 ms

Loss rate: 1.52%

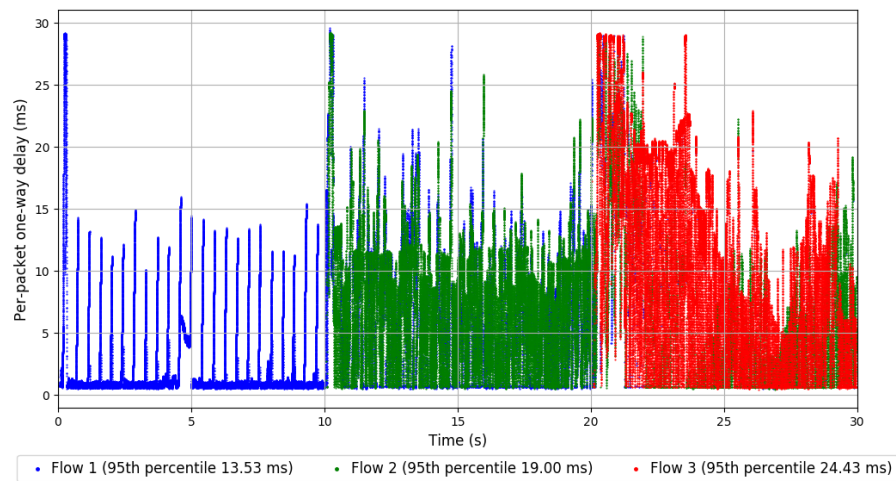
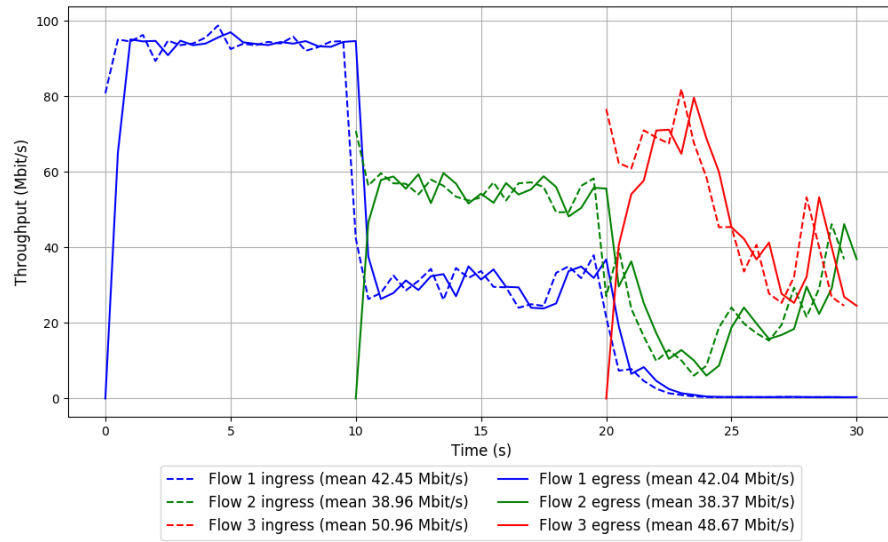
-- Flow 3:

Average throughput: 48.67 Mbit/s

95th percentile per-packet one-way delay: 24.430 ms

Loss rate: 4.66%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 02:15:32

End at: 2019-06-28 02:16:02

Local clock offset: -7.721 ms

Remote clock offset: 0.345 ms

Below is generated by plot.py at 2019-06-28 02:35:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.00 Mbit/s

95th percentile per-packet one-way delay: 24.646 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 58.26 Mbit/s

95th percentile per-packet one-way delay: 23.400 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 37.68 Mbit/s

95th percentile per-packet one-way delay: 26.016 ms

Loss rate: 1.37%

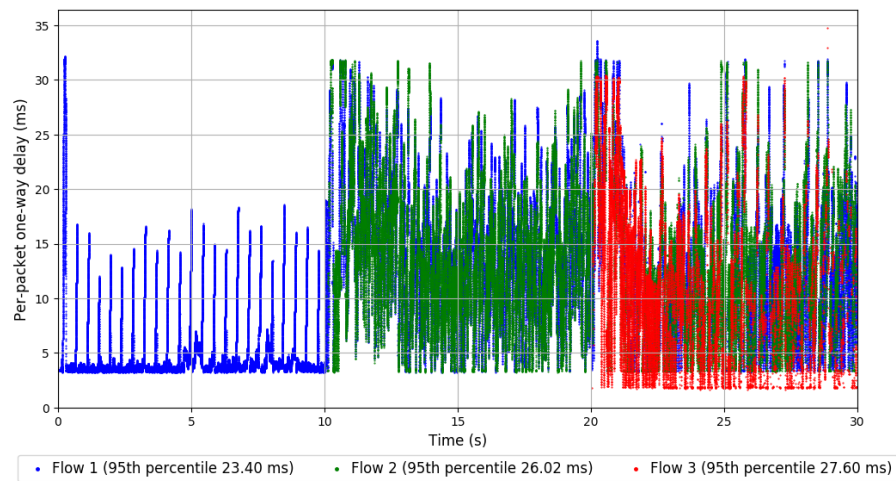
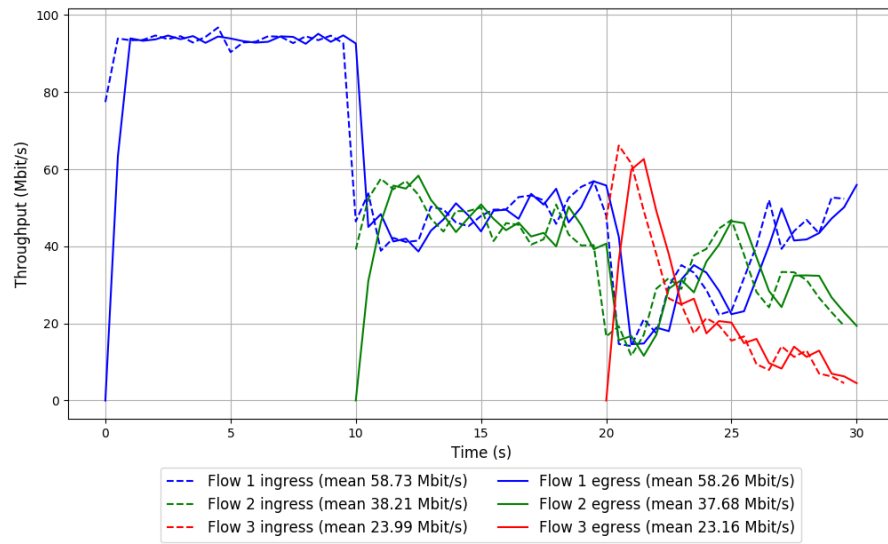
-- Flow 3:

Average throughput: 23.16 Mbit/s

95th percentile per-packet one-way delay: 27.600 ms

Loss rate: 3.48%

Run 5: Report of FillP-Sheep — Data Link

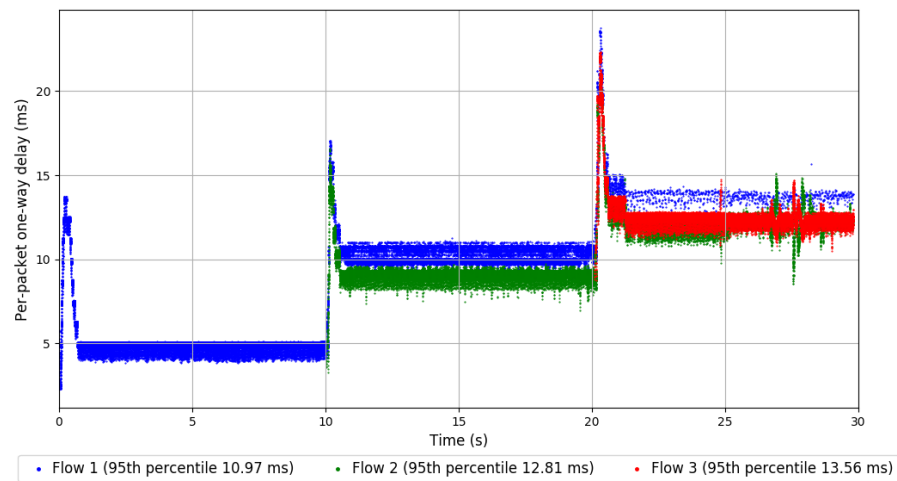
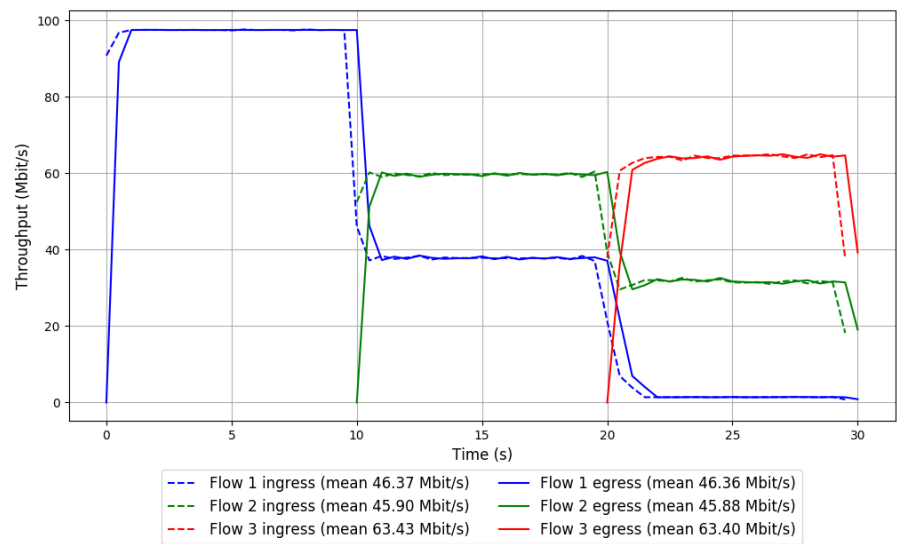


```
Run 1: Statistics of Indigo

Start at: 2019-06-28 00:48:56
End at: 2019-06-28 00:49:26
Local clock offset: -6.025 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2019-06-28 02:35:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.40 Mbit/s
95th percentile per-packet one-way delay: 12.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 10.970 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: 12.810 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 63.40 Mbit/s
95th percentile per-packet one-way delay: 13.565 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-28 01:13:59

End at: 2019-06-28 01:14:29

Local clock offset: -5.446 ms

Remote clock offset: 0.039 ms

Below is generated by plot.py at 2019-06-28 02:35:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 12.340 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.34 Mbit/s

95th percentile per-packet one-way delay: 10.462 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.51 Mbit/s

95th percentile per-packet one-way delay: 13.014 ms

Loss rate: 0.00%

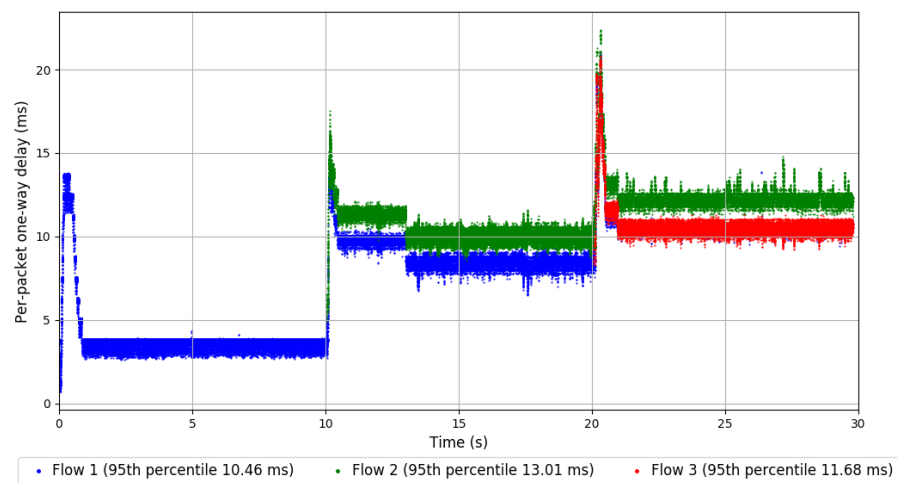
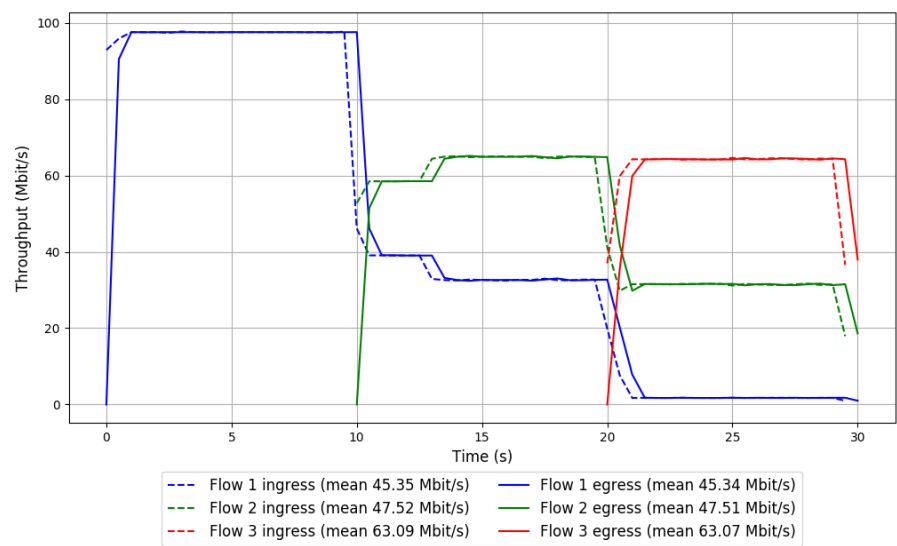
-- Flow 3:

Average throughput: 63.07 Mbit/s

95th percentile per-packet one-way delay: 11.676 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-06-28 01:39:04

End at: 2019-06-28 01:39:34

Local clock offset: -6.363 ms

Remote clock offset: 0.286 ms

Below is generated by plot.py at 2019-06-28 02:35:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 15.128 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.82 Mbit/s

95th percentile per-packet one-way delay: 12.318 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.72 Mbit/s

95th percentile per-packet one-way delay: 13.615 ms

Loss rate: 0.00%

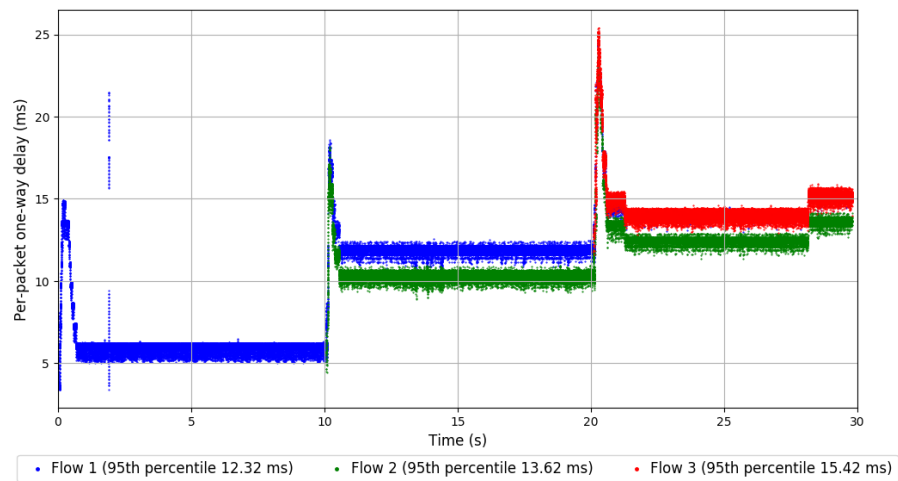
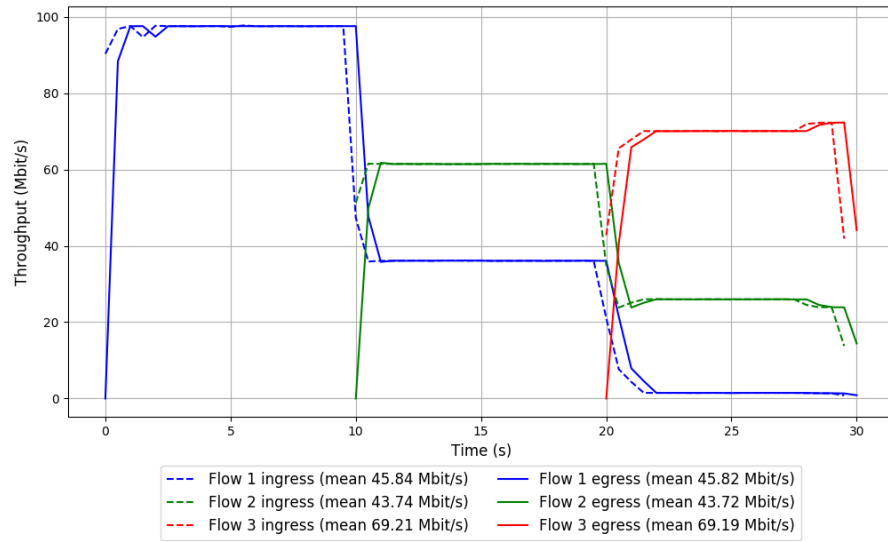
-- Flow 3:

Average throughput: 69.19 Mbit/s

95th percentile per-packet one-way delay: 15.417 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-06-28 02:04:07

End at: 2019-06-28 02:04:37

Local clock offset: -7.532 ms

Remote clock offset: 0.259 ms

Below is generated by plot.py at 2019-06-28 02:35:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 14.305 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 11.778 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.15 Mbit/s

95th percentile per-packet one-way delay: 14.551 ms

Loss rate: 0.00%

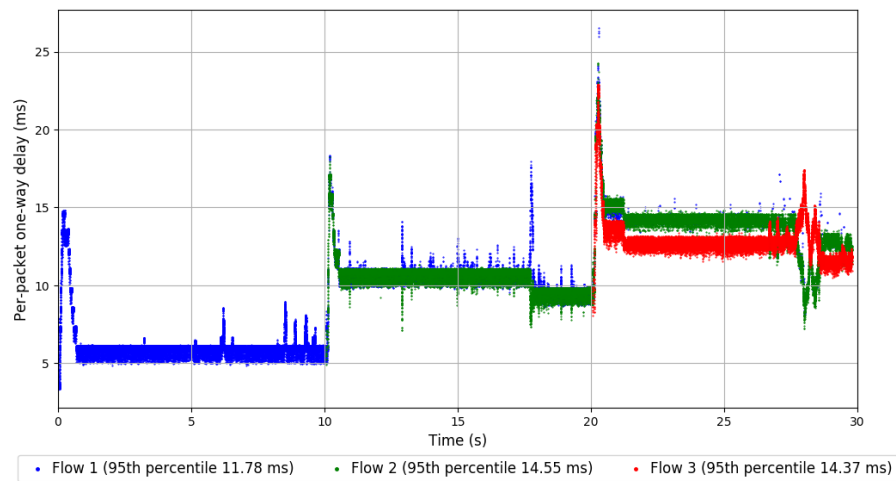
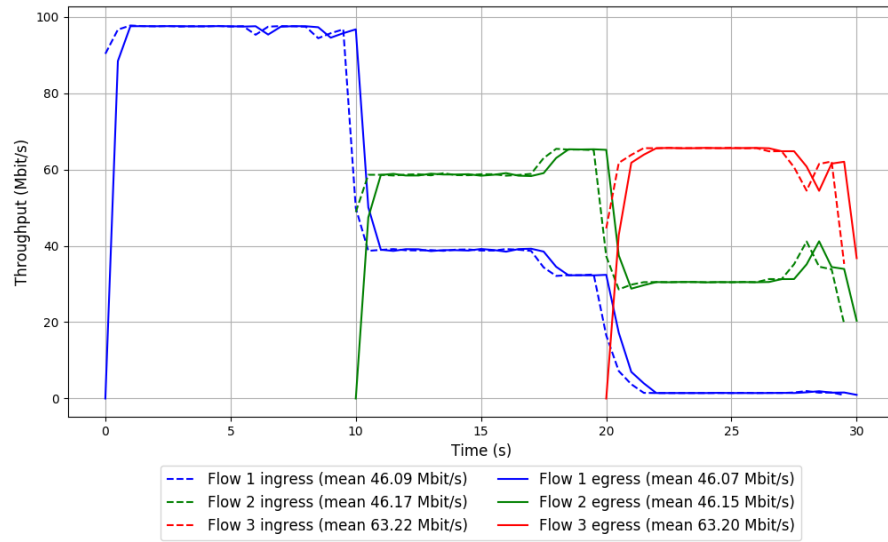
-- Flow 3:

Average throughput: 63.20 Mbit/s

95th percentile per-packet one-way delay: 14.368 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-06-28 02:29:10

End at: 2019-06-28 02:29:40

Local clock offset: -7.424 ms

Remote clock offset: 0.261 ms

Below is generated by plot.py at 2019-06-28 02:36:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.39 Mbit/s

95th percentile per-packet one-way delay: 15.053 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.33 Mbit/s

95th percentile per-packet one-way delay: 11.741 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.82 Mbit/s

95th percentile per-packet one-way delay: 13.859 ms

Loss rate: 0.00%

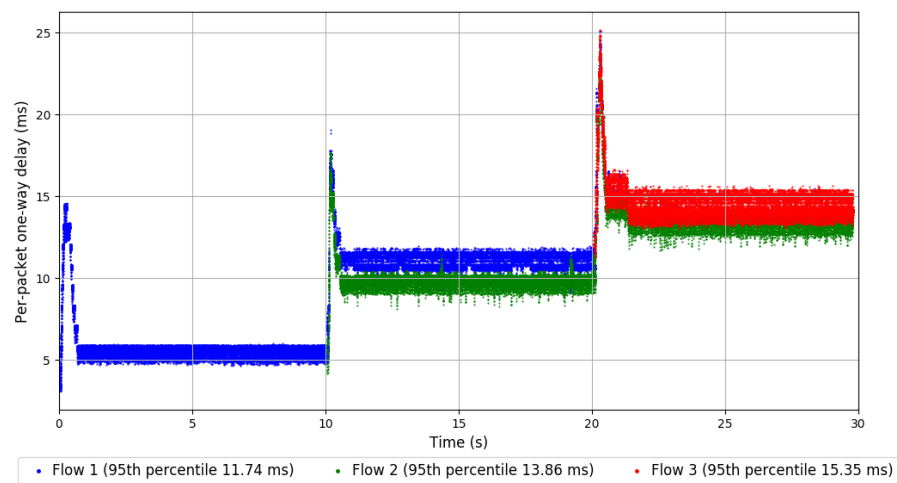
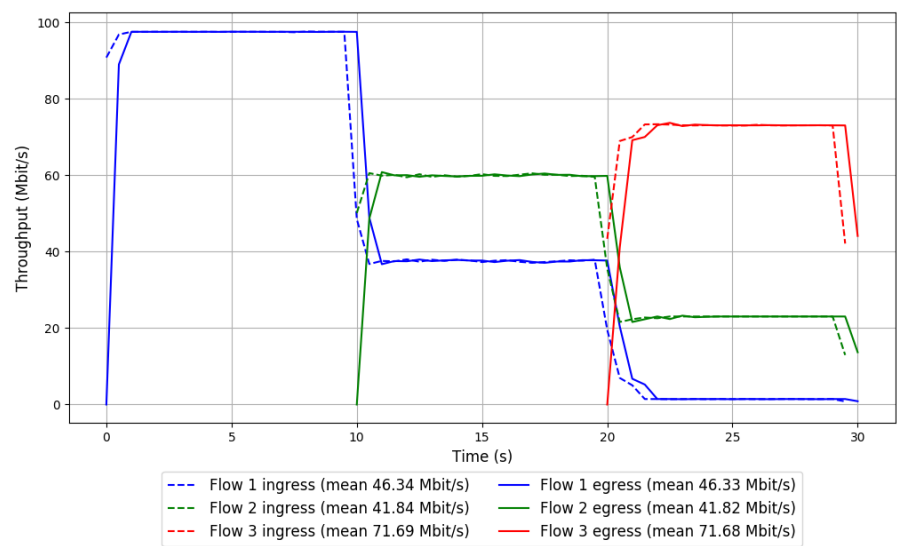
-- Flow 3:

Average throughput: 71.68 Mbit/s

95th percentile per-packet one-way delay: 15.347 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

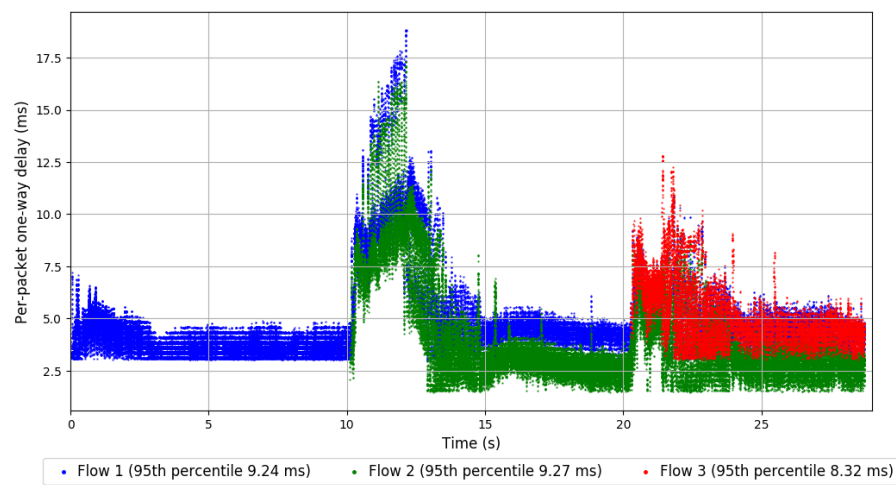
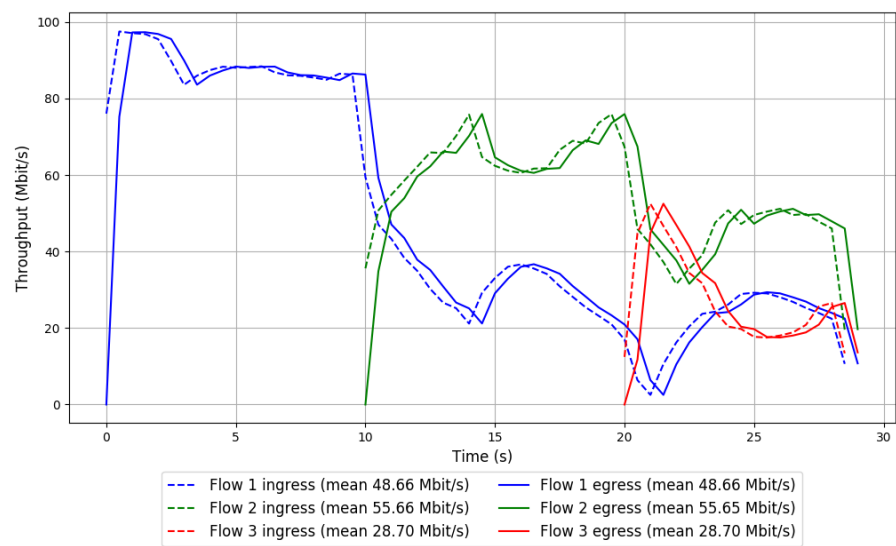


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 00:40:54
End at: 2019-06-28 00:41:24
Local clock offset: -6.834 ms
Remote clock offset: -0.204 ms

Below is generated by plot.py at 2019-06-28 02:36:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 9.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.66 Mbit/s
95th percentile per-packet one-way delay: 9.237 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 55.65 Mbit/s
95th percentile per-packet one-way delay: 9.266 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.70 Mbit/s
95th percentile per-packet one-way delay: 8.322 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 01:05:57

End at: 2019-06-28 01:06:27

Local clock offset: -6.368 ms

Remote clock offset: 0.002 ms

Below is generated by plot.py at 2019-06-28 02:36:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.23 Mbit/s

95th percentile per-packet one-way delay: 12.575 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.73 Mbit/s

95th percentile per-packet one-way delay: 10.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.92 Mbit/s

95th percentile per-packet one-way delay: 13.610 ms

Loss rate: 0.00%

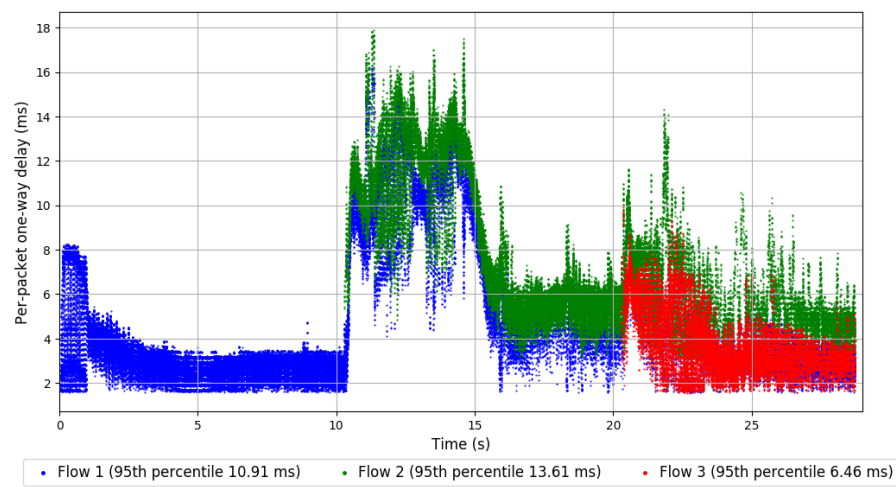
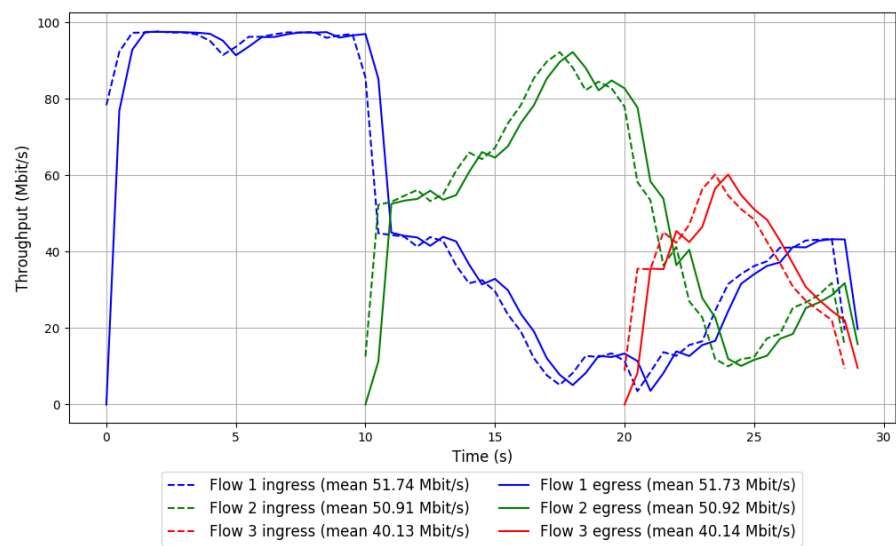
-- Flow 3:

Average throughput: 40.14 Mbit/s

95th percentile per-packet one-way delay: 6.455 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 01:31:01

End at: 2019-06-28 01:31:31

Local clock offset: -6.171 ms

Remote clock offset: 0.15 ms

Below is generated by plot.py at 2019-06-28 02:36:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.55 Mbit/s

95th percentile per-packet one-way delay: 6.781 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.58 Mbit/s

95th percentile per-packet one-way delay: 7.091 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.88 Mbit/s

95th percentile per-packet one-way delay: 6.058 ms

Loss rate: 0.00%

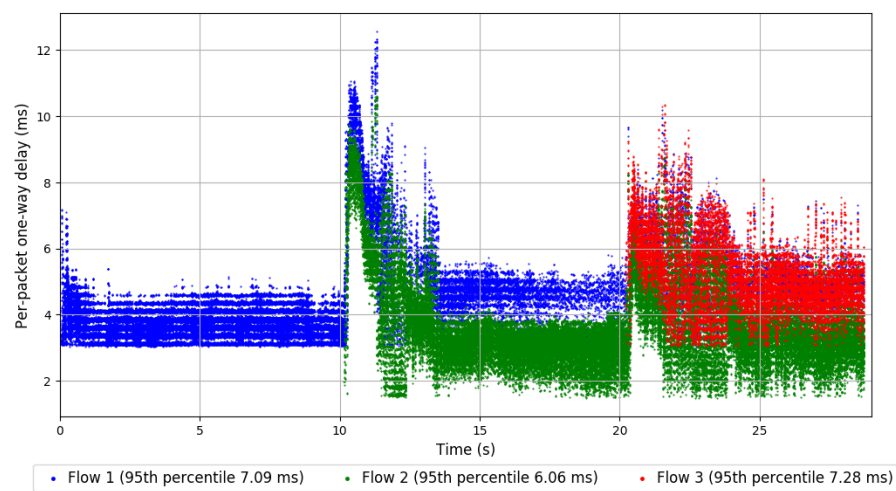
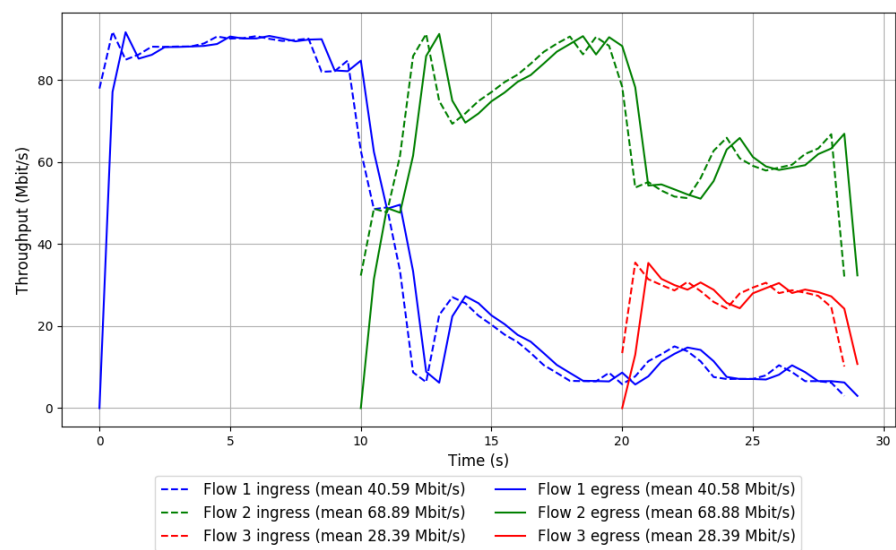
-- Flow 3:

Average throughput: 28.39 Mbit/s

95th percentile per-packet one-way delay: 7.284 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 01:56:05

End at: 2019-06-28 01:56:35

Local clock offset: -6.879 ms

Remote clock offset: 0.288 ms

Below is generated by plot.py at 2019-06-28 02:36:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 7.147 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.56 Mbit/s

95th percentile per-packet one-way delay: 6.104 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.88 Mbit/s

95th percentile per-packet one-way delay: 7.591 ms

Loss rate: 0.00%

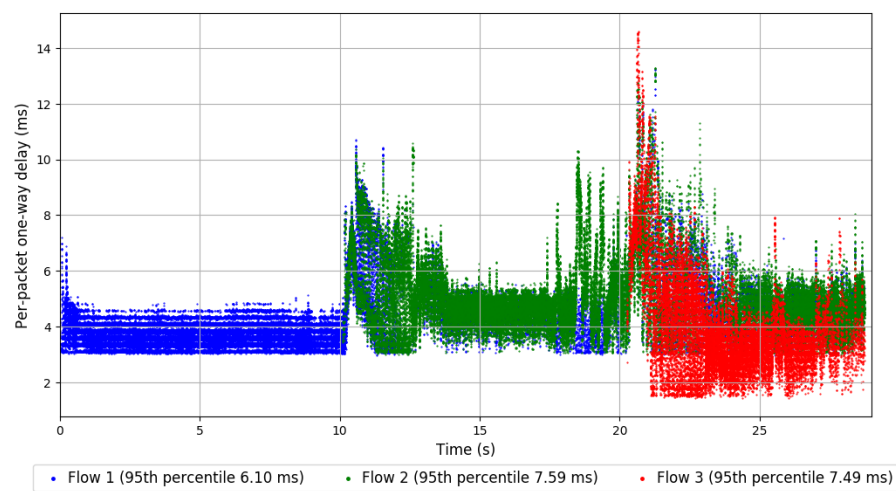
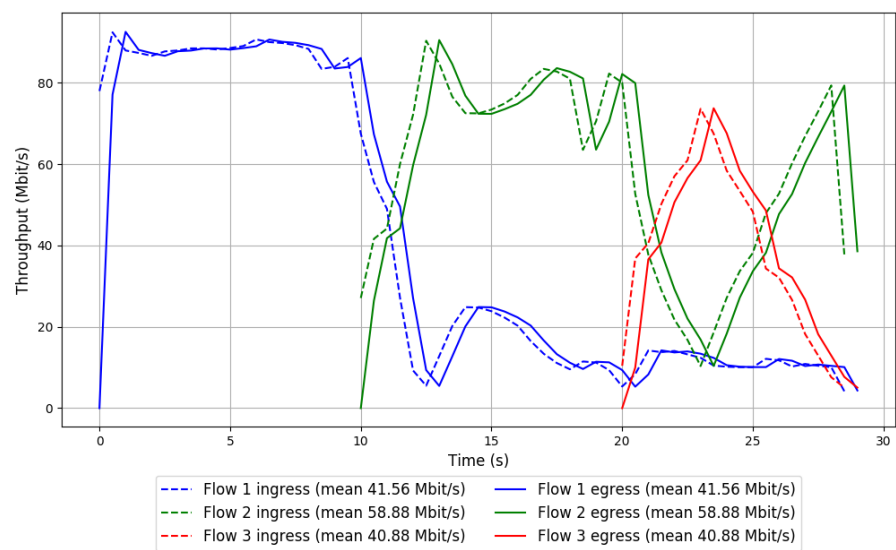
-- Flow 3:

Average throughput: 40.88 Mbit/s

95th percentile per-packet one-way delay: 7.485 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 02:21:09

End at: 2019-06-28 02:21:39

Local clock offset: -6.666 ms

Remote clock offset: 0.343 ms

Below is generated by plot.py at 2019-06-28 02:36:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.06 Mbit/s

95th percentile per-packet one-way delay: 4.978 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.73 Mbit/s

95th percentile per-packet one-way delay: 4.109 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.11 Mbit/s

95th percentile per-packet one-way delay: 5.142 ms

Loss rate: 0.00%

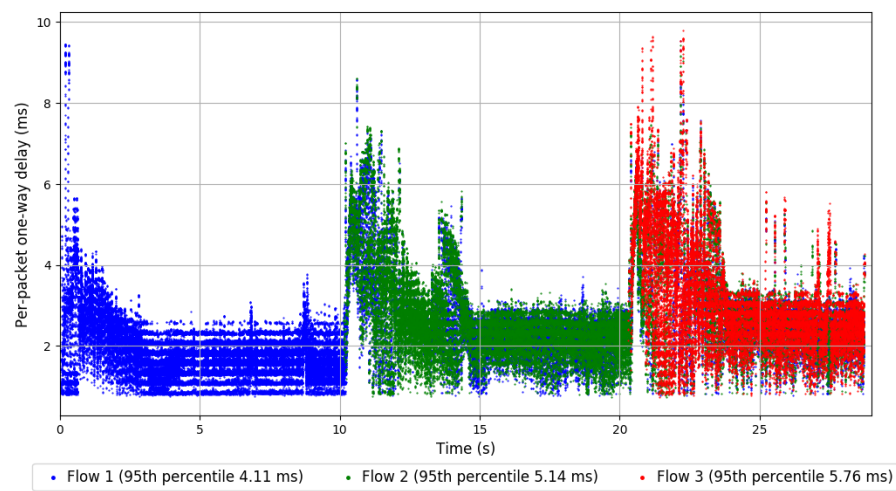
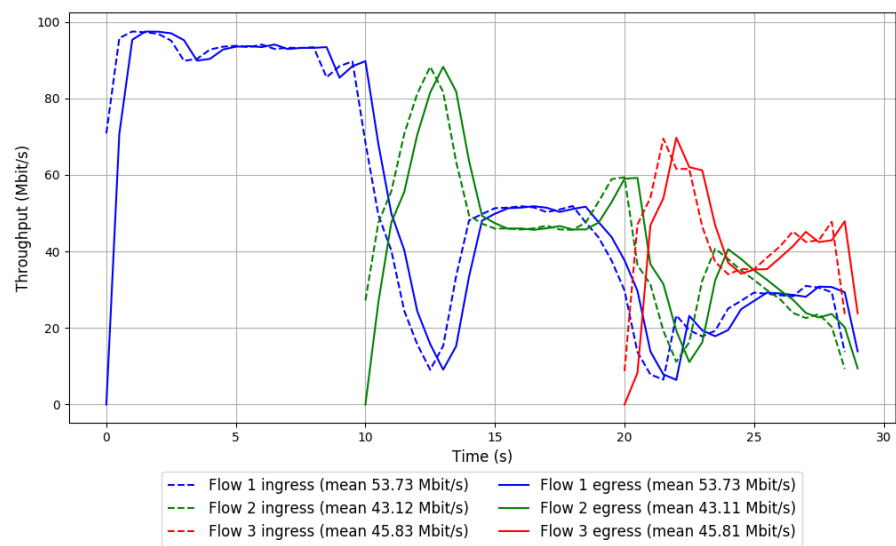
-- Flow 3:

Average throughput: 45.81 Mbit/s

95th percentile per-packet one-way delay: 5.762 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link

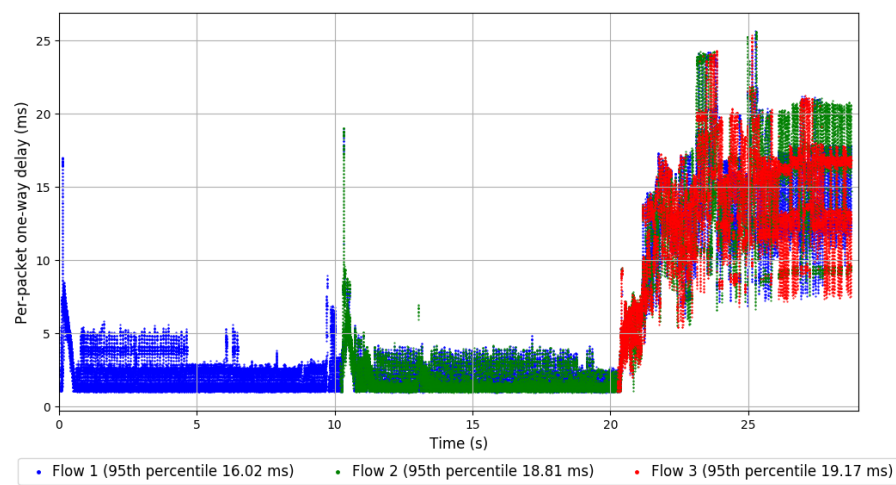
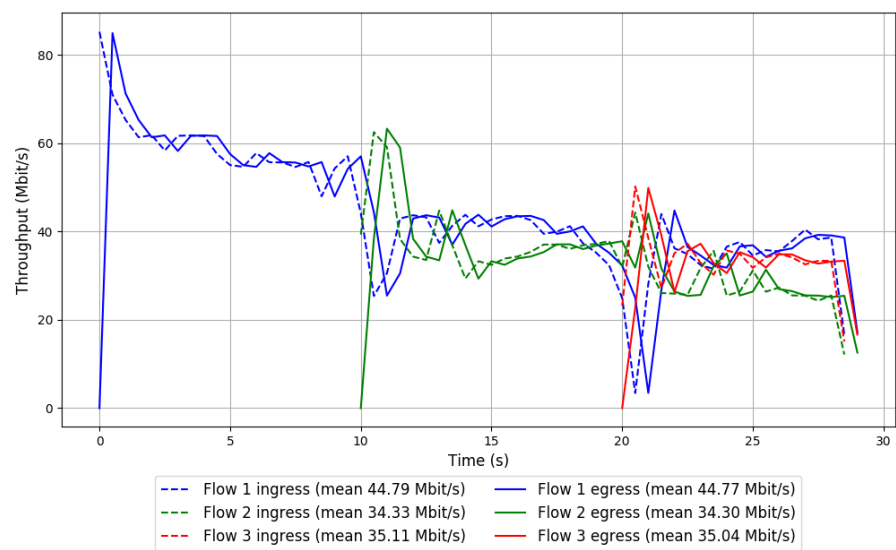


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 00:28:26
End at: 2019-06-28 00:28:56
Local clock offset: -6.436 ms
Remote clock offset: -0.209 ms

Below is generated by plot.py at 2019-06-28 02:36:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.25 Mbit/s
95th percentile per-packet one-way delay: 17.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 44.77 Mbit/s
95th percentile per-packet one-way delay: 16.018 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.30 Mbit/s
95th percentile per-packet one-way delay: 18.806 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.04 Mbit/s
95th percentile per-packet one-way delay: 19.171 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC5 — Data Link

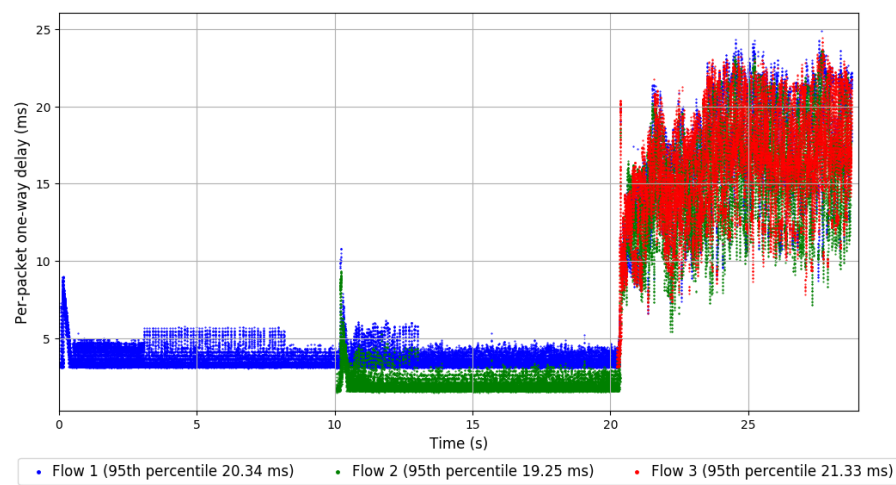
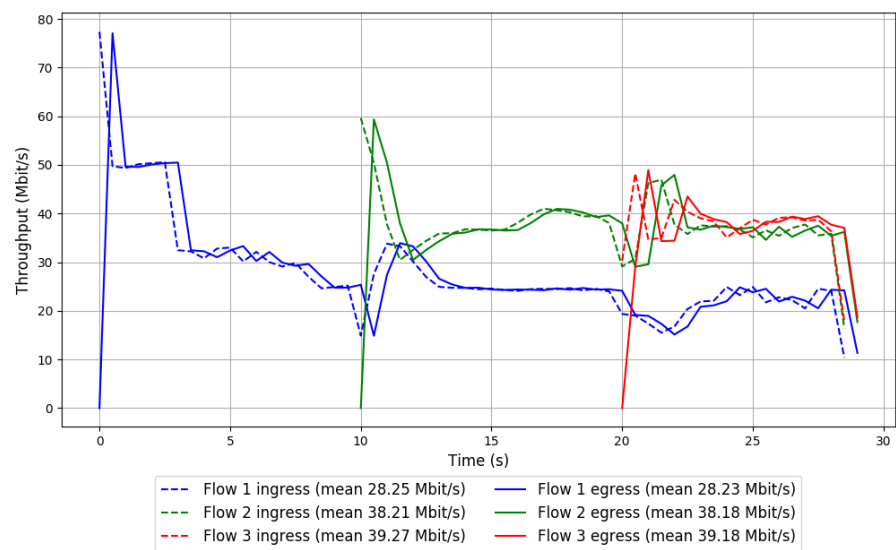


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 00:53:30
End at: 2019-06-28 00:54:00
Local clock offset: -6.526 ms
Remote clock offset: -0.081 ms

Below is generated by plot.py at 2019-06-28 02:36:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 64.64 Mbit/s
95th percentile per-packet one-way delay: 20.406 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.23 Mbit/s
95th percentile per-packet one-way delay: 20.340 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.18 Mbit/s
95th percentile per-packet one-way delay: 19.245 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.18 Mbit/s
95th percentile per-packet one-way delay: 21.334 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 01:18:34

End at: 2019-06-28 01:19:04

Local clock offset: -5.492 ms

Remote clock offset: 0.17 ms

Below is generated by plot.py at 2019-06-28 02:36:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.75 Mbit/s

95th percentile per-packet one-way delay: 26.221 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 32.54 Mbit/s

95th percentile per-packet one-way delay: 25.507 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 43.85 Mbit/s

95th percentile per-packet one-way delay: 26.113 ms

Loss rate: 0.01%

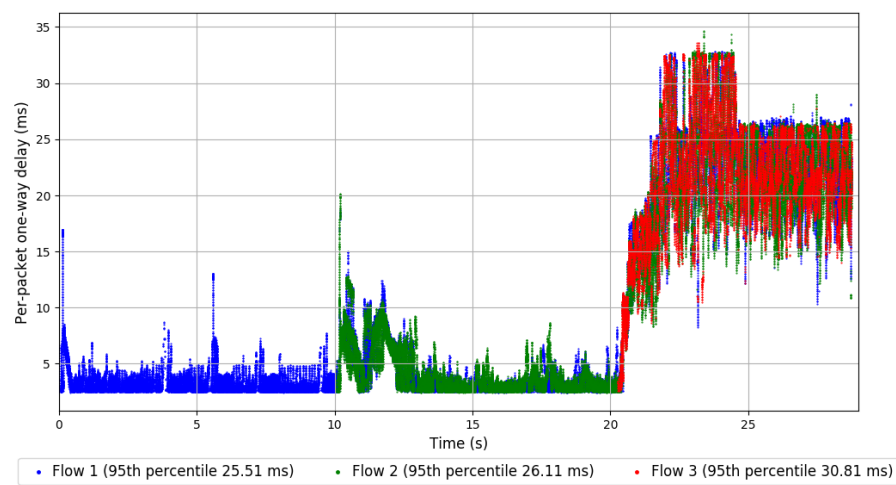
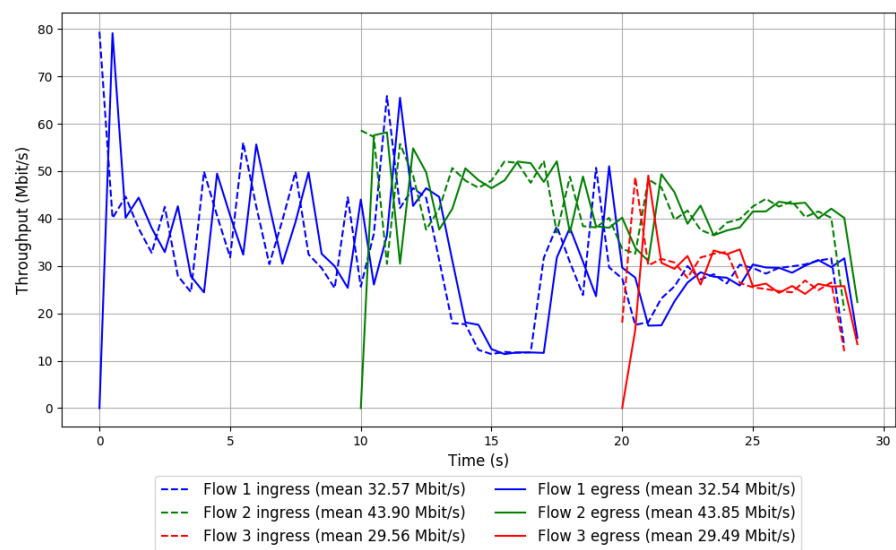
-- Flow 3:

Average throughput: 29.49 Mbit/s

95th percentile per-packet one-way delay: 30.813 ms

Loss rate: 0.01%

Run 3: Report of Indigo-MusesC5 — Data Link

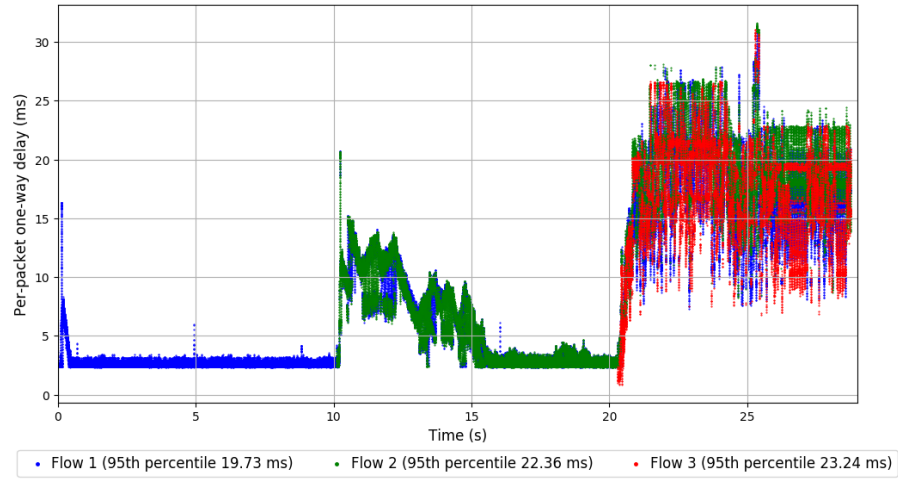
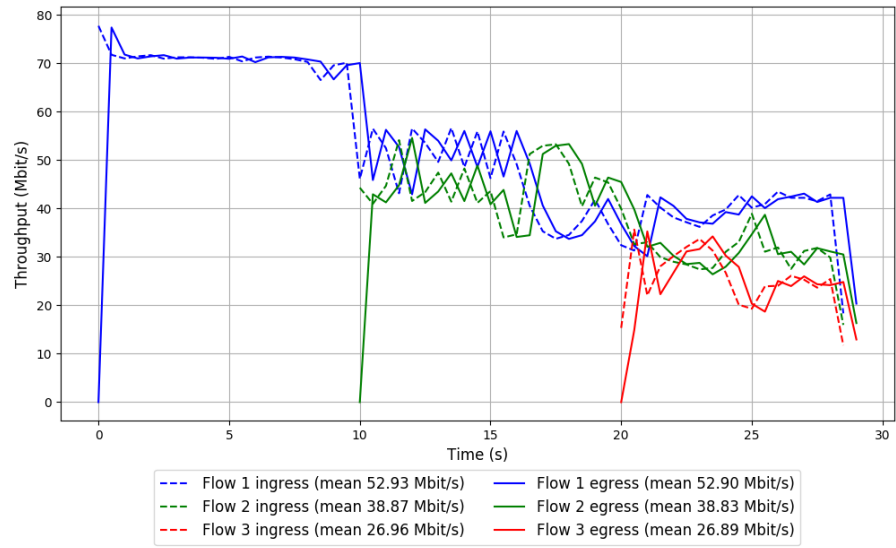


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 01:43:38
End at: 2019-06-28 01:44:08
Local clock offset: -5.328 ms
Remote clock offset: 0.29 ms

Below is generated by plot.py at 2019-06-28 02:37:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.00 Mbit/s
95th percentile per-packet one-way delay: 21.493 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.90 Mbit/s
95th percentile per-packet one-way delay: 19.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.83 Mbit/s
95th percentile per-packet one-way delay: 22.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.89 Mbit/s
95th percentile per-packet one-way delay: 23.237 ms
Loss rate: 0.01%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 02:08:42

End at: 2019-06-28 02:09:12

Local clock offset: -7.366 ms

Remote clock offset: 0.288 ms

Below is generated by plot.py at 2019-06-28 02:37:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.34 Mbit/s

95th percentile per-packet one-way delay: 20.189 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.63 Mbit/s

95th percentile per-packet one-way delay: 19.547 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.92 Mbit/s

95th percentile per-packet one-way delay: 19.718 ms

Loss rate: 0.00%

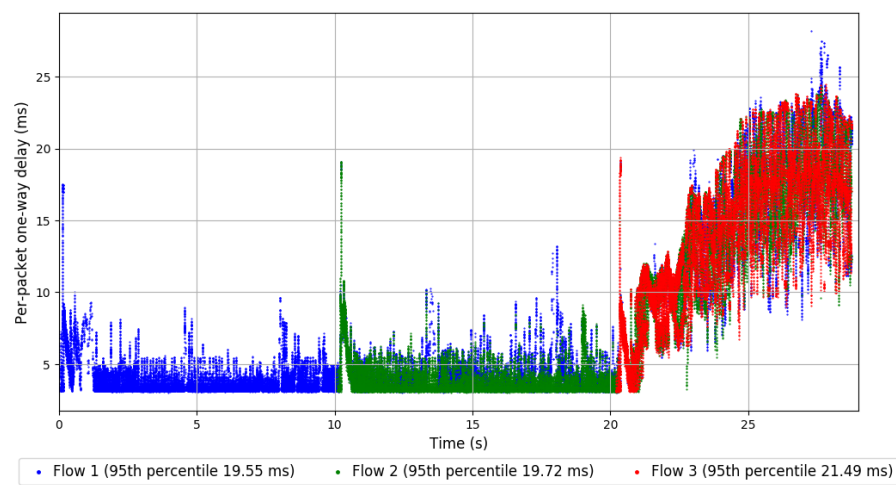
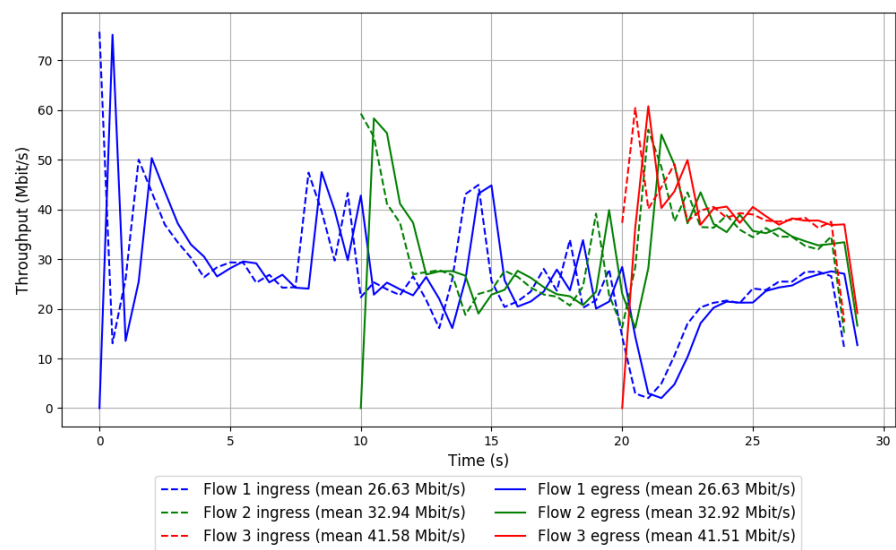
-- Flow 3:

Average throughput: 41.51 Mbit/s

95th percentile per-packet one-way delay: 21.491 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link

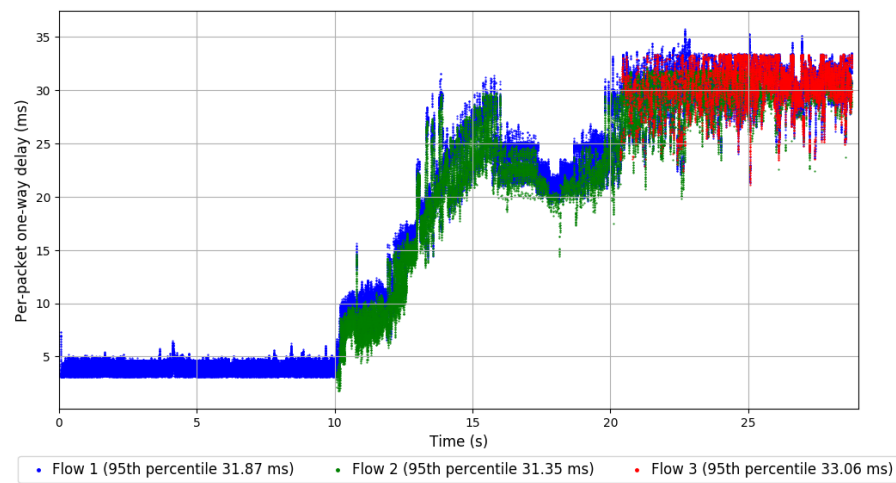
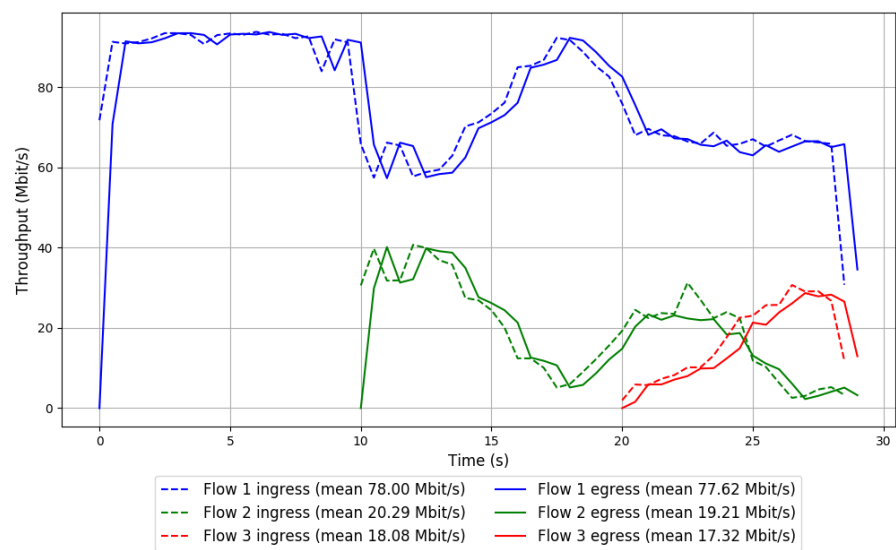


Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 00:39:45
End at: 2019-06-28 00:40:15
Local clock offset: -6.837 ms
Remote clock offset: -0.174 ms

Below is generated by plot.py at 2019-06-28 02:37:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.18 Mbit/s
95th percentile per-packet one-way delay: 31.938 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 77.62 Mbit/s
95th percentile per-packet one-way delay: 31.869 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 19.21 Mbit/s
95th percentile per-packet one-way delay: 31.347 ms
Loss rate: 5.17%
-- Flow 3:
Average throughput: 17.32 Mbit/s
95th percentile per-packet one-way delay: 33.056 ms
Loss rate: 4.17%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 01:04:49

End at: 2019-06-28 01:05:19

Local clock offset: -6.302 ms

Remote clock offset: 0.022 ms

Below is generated by plot.py at 2019-06-28 02:37:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.27 Mbit/s

95th percentile per-packet one-way delay: 31.872 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 42.85 Mbit/s

95th percentile per-packet one-way delay: 31.891 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 31.59 Mbit/s

95th percentile per-packet one-way delay: 31.232 ms

Loss rate: 0.68%

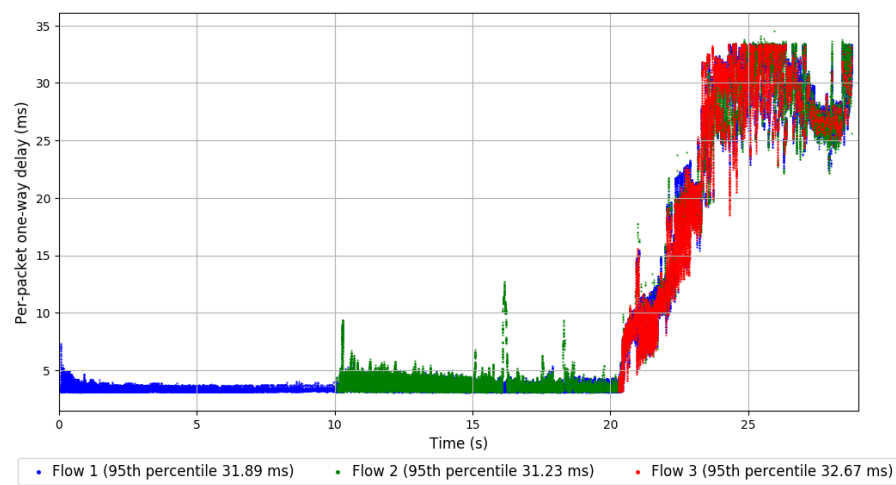
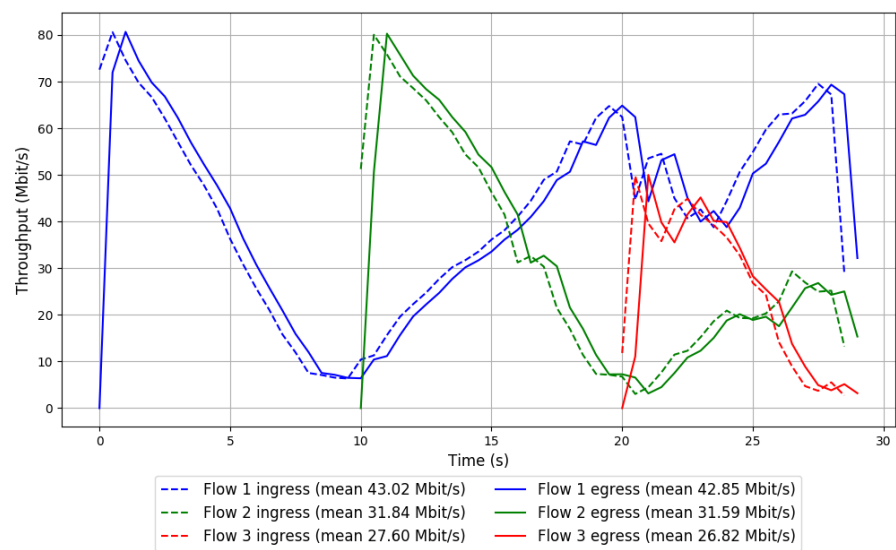
-- Flow 3:

Average throughput: 26.82 Mbit/s

95th percentile per-packet one-way delay: 32.668 ms

Loss rate: 2.48%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 01:29:52

End at: 2019-06-28 01:30:22

Local clock offset: -5.398 ms

Remote clock offset: 0.205 ms

Below is generated by plot.py at 2019-06-28 02:37:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.67 Mbit/s

95th percentile per-packet one-way delay: 27.677 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 65.56 Mbit/s

95th percentile per-packet one-way delay: 26.335 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 25.38 Mbit/s

95th percentile per-packet one-way delay: 29.341 ms

Loss rate: 0.02%

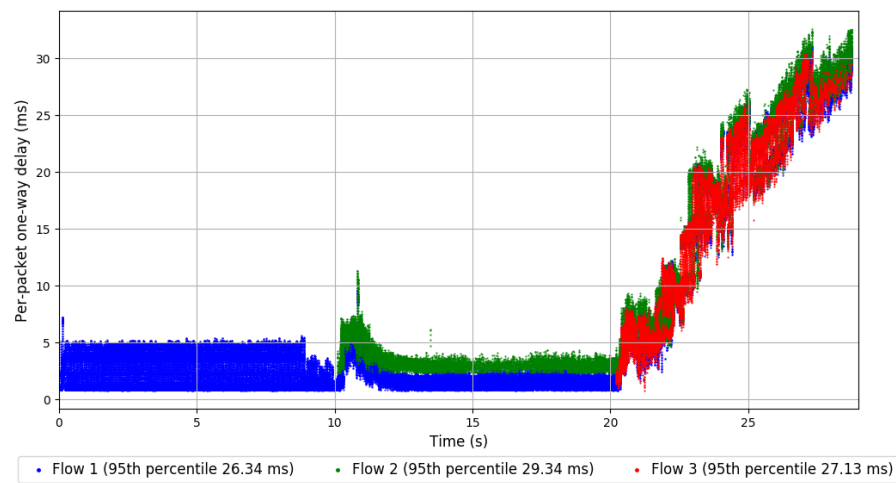
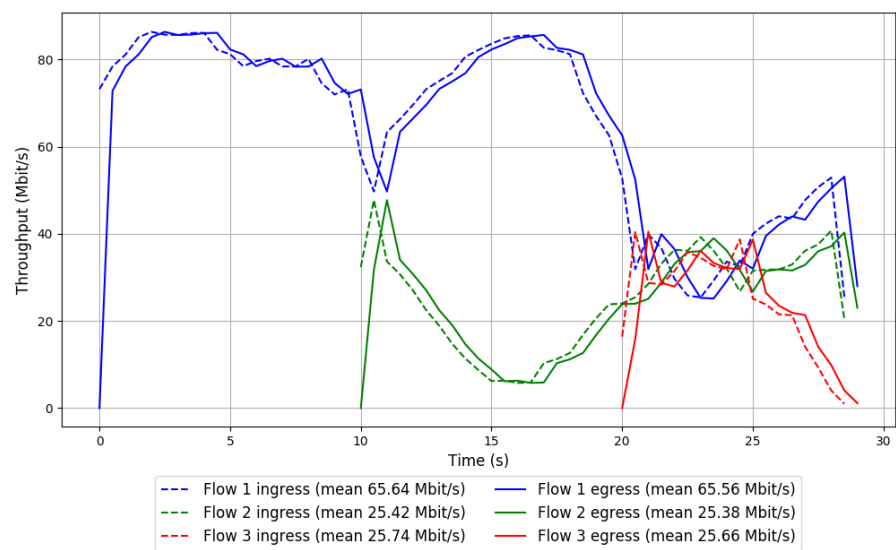
-- Flow 3:

Average throughput: 25.66 Mbit/s

95th percentile per-packet one-way delay: 27.128 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 01:54:57

End at: 2019-06-28 01:55:27

Local clock offset: -6.023 ms

Remote clock offset: 0.232 ms

Below is generated by plot.py at 2019-06-28 02:37:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.57 Mbit/s

95th percentile per-packet one-way delay: 26.078 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 29.21 Mbit/s

95th percentile per-packet one-way delay: 24.809 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 54.07 Mbit/s

95th percentile per-packet one-way delay: 26.354 ms

Loss rate: 0.02%

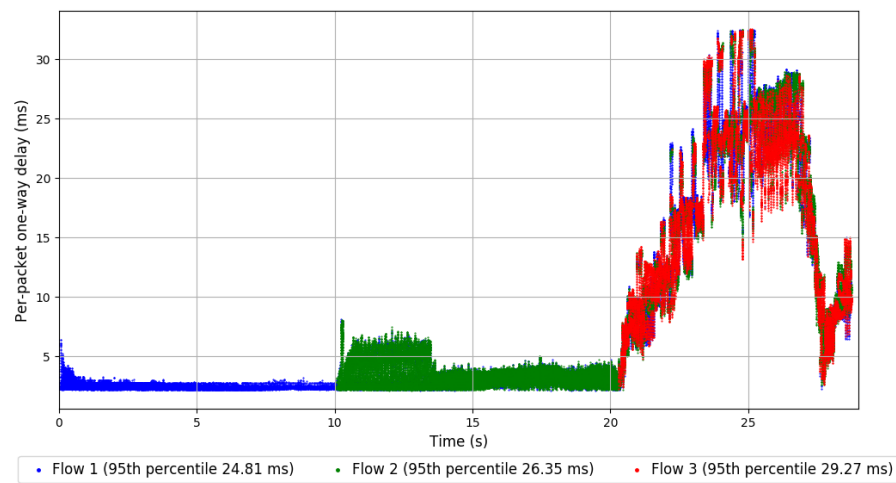
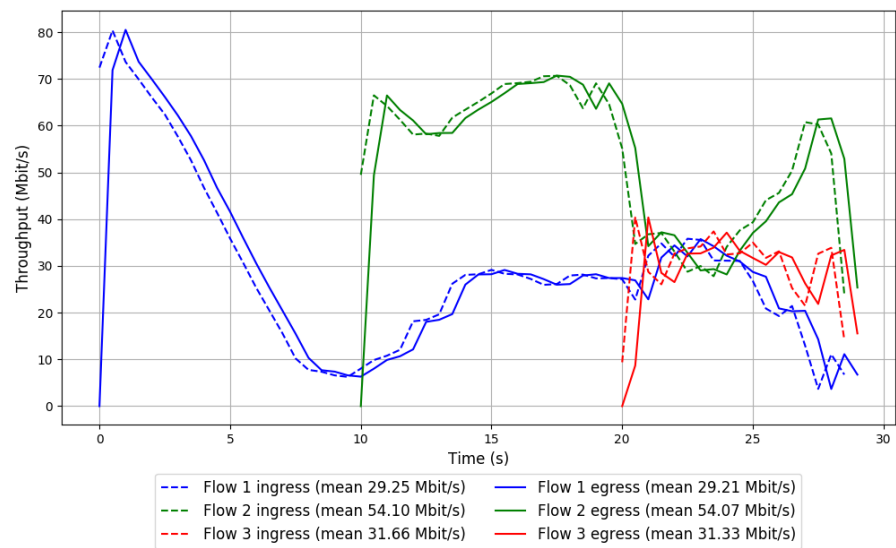
-- Flow 3:

Average throughput: 31.33 Mbit/s

95th percentile per-packet one-way delay: 29.266 ms

Loss rate: 0.97%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 02:20:00

End at: 2019-06-28 02:20:30

Local clock offset: -6.704 ms

Remote clock offset: 0.25 ms

Below is generated by plot.py at 2019-06-28 02:37:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.62 Mbit/s

95th percentile per-packet one-way delay: 30.905 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 74.70 Mbit/s

95th percentile per-packet one-way delay: 30.838 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 21.00 Mbit/s

95th percentile per-packet one-way delay: 30.616 ms

Loss rate: 5.34%

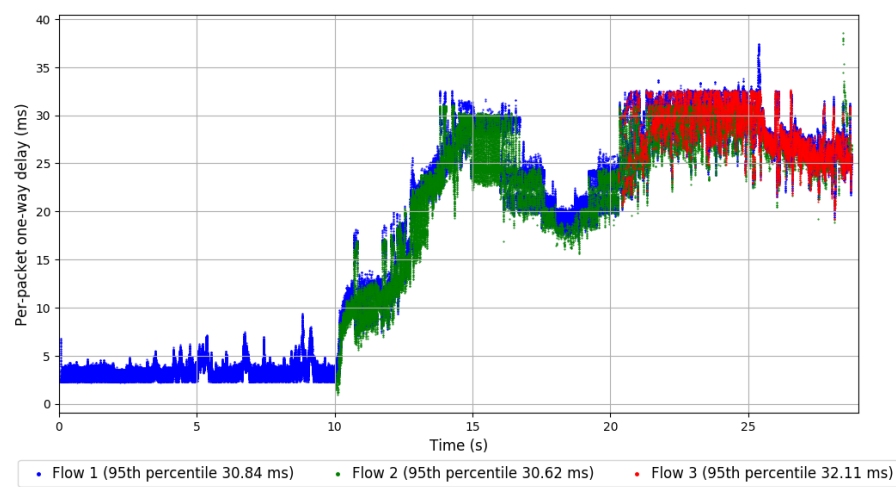
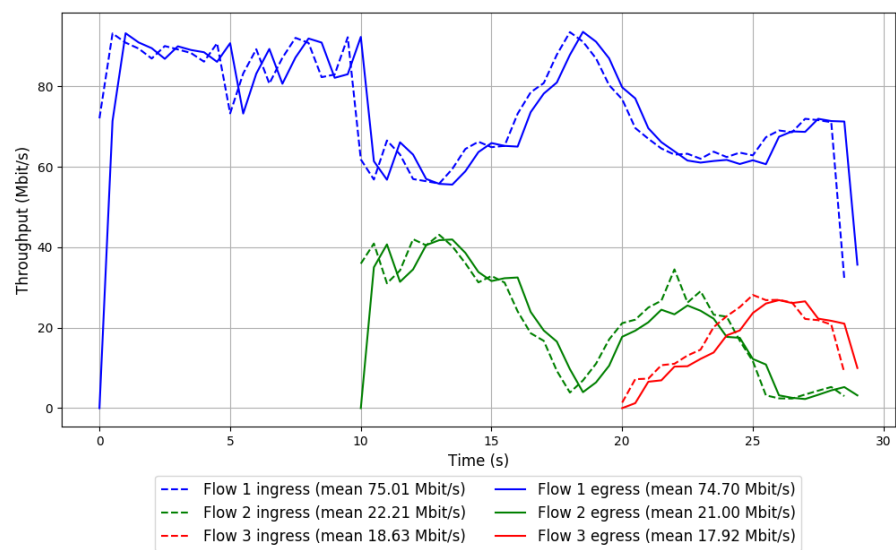
-- Flow 3:

Average throughput: 17.92 Mbit/s

95th percentile per-packet one-way delay: 32.108 ms

Loss rate: 3.83%

Run 5: Report of Indigo-MusesD — Data Link

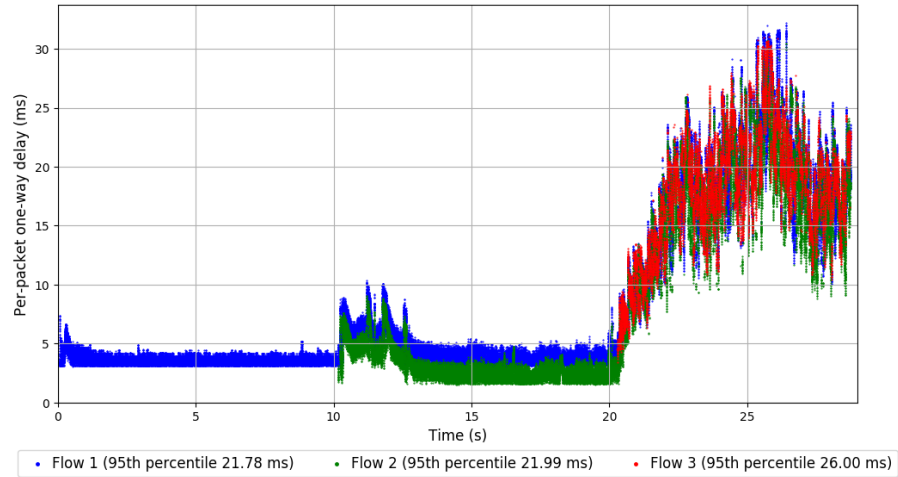
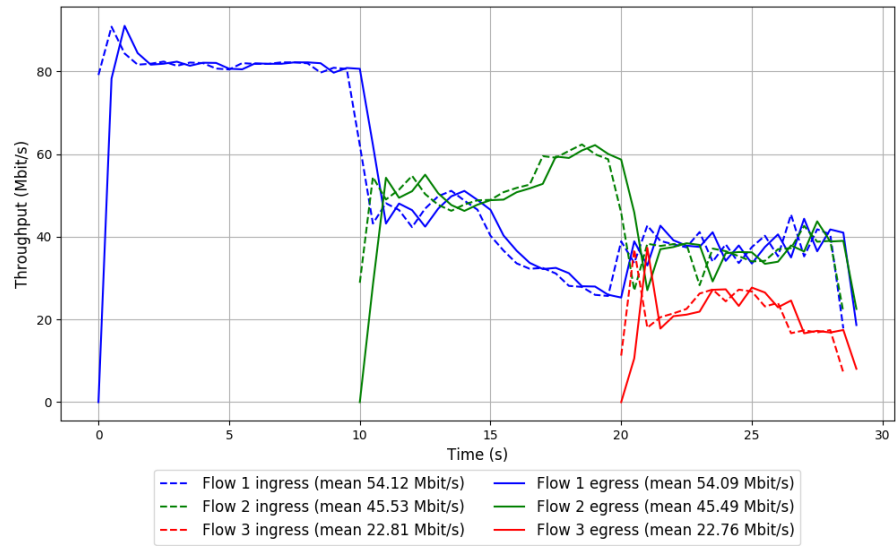


Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 00:46:42
End at: 2019-06-28 00:47:12
Local clock offset: -6.819 ms
Remote clock offset: -0.098 ms

Below is generated by plot.py at 2019-06-28 02:37:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.19 Mbit/s
95th percentile per-packet one-way delay: 22.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.09 Mbit/s
95th percentile per-packet one-way delay: 21.782 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.49 Mbit/s
95th percentile per-packet one-way delay: 21.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.76 Mbit/s
95th percentile per-packet one-way delay: 26.000 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 01:11:45

End at: 2019-06-28 01:12:15

Local clock offset: -6.489 ms

Remote clock offset: 0.012 ms

Below is generated by plot.py at 2019-06-28 02:38:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 27.409 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 58.49 Mbit/s

95th percentile per-packet one-way delay: 23.810 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 43.77 Mbit/s

95th percentile per-packet one-way delay: 28.670 ms

Loss rate: 0.14%

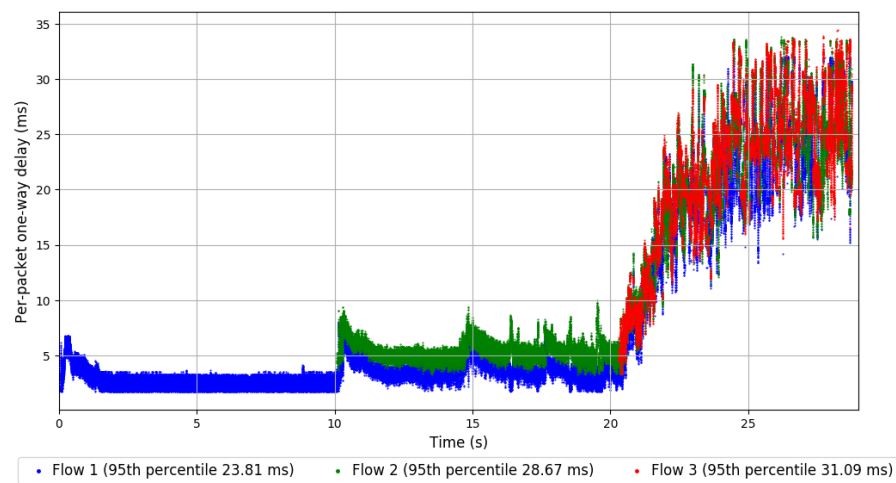
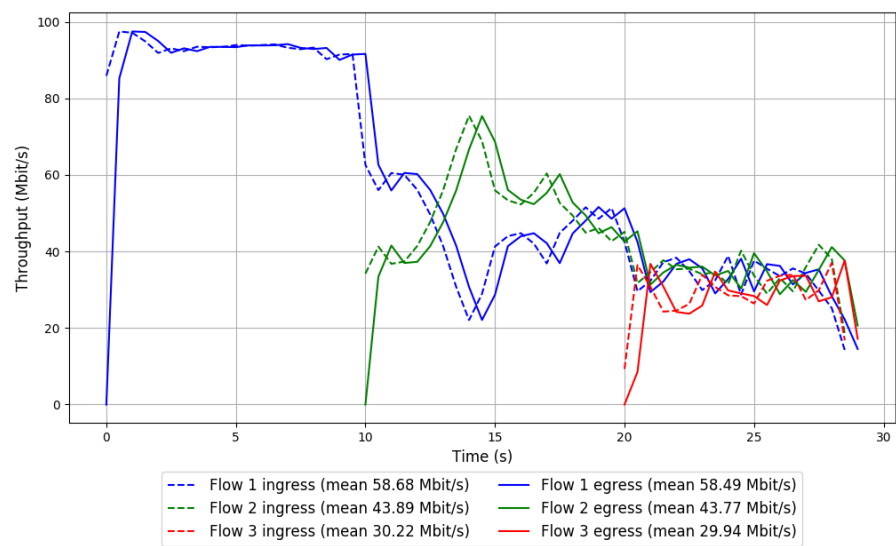
-- Flow 3:

Average throughput: 29.94 Mbit/s

95th percentile per-packet one-way delay: 31.092 ms

Loss rate: 0.60%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 01:36:49

End at: 2019-06-28 01:37:19

Local clock offset: -6.408 ms

Remote clock offset: 0.156 ms

Below is generated by plot.py at 2019-06-28 02:38:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.78 Mbit/s

95th percentile per-packet one-way delay: 23.718 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.58 Mbit/s

95th percentile per-packet one-way delay: 21.759 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.35 Mbit/s

95th percentile per-packet one-way delay: 25.058 ms

Loss rate: 0.00%

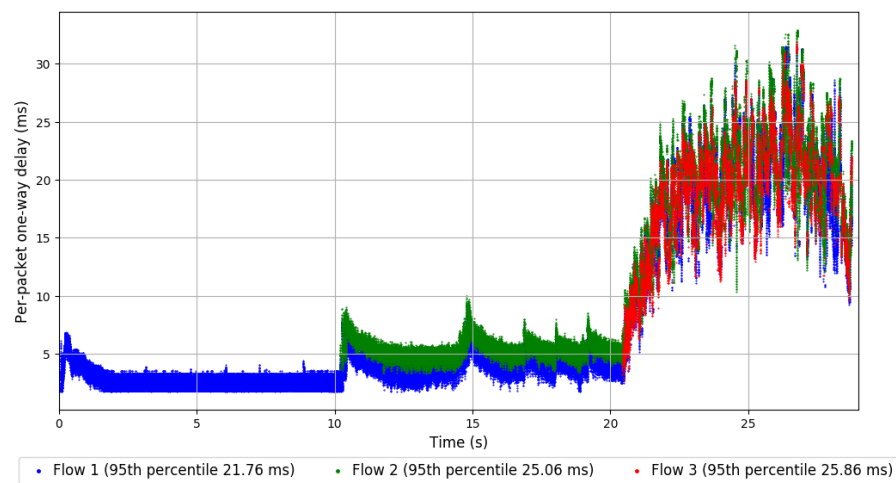
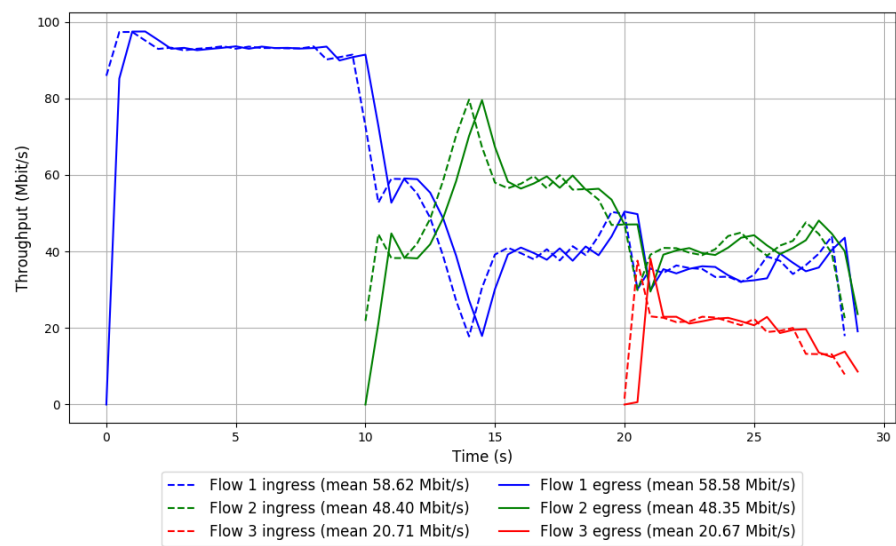
-- Flow 3:

Average throughput: 20.67 Mbit/s

95th percentile per-packet one-way delay: 25.856 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 02:01:53

End at: 2019-06-28 02:02:23

Local clock offset: -7.158 ms

Remote clock offset: 0.363 ms

Below is generated by plot.py at 2019-06-28 02:38:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.84 Mbit/s

95th percentile per-packet one-way delay: 25.581 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 53.52 Mbit/s

95th percentile per-packet one-way delay: 24.285 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 47.58 Mbit/s

95th percentile per-packet one-way delay: 26.321 ms

Loss rate: 0.00%

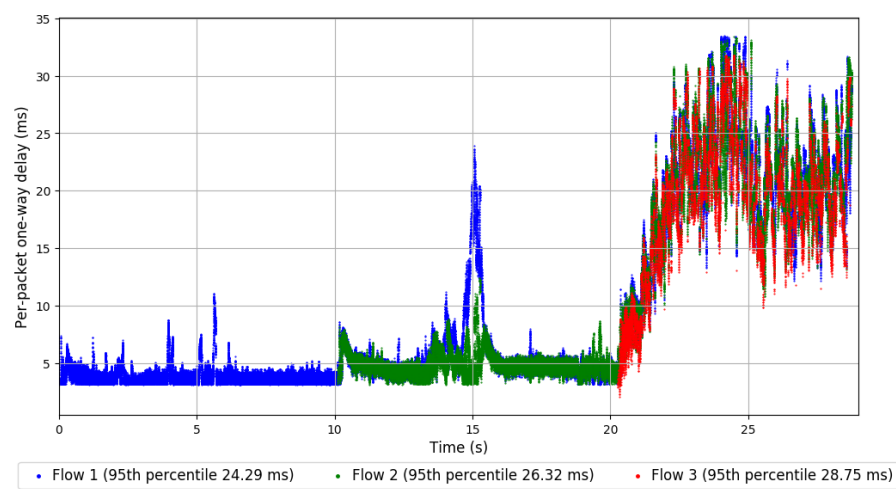
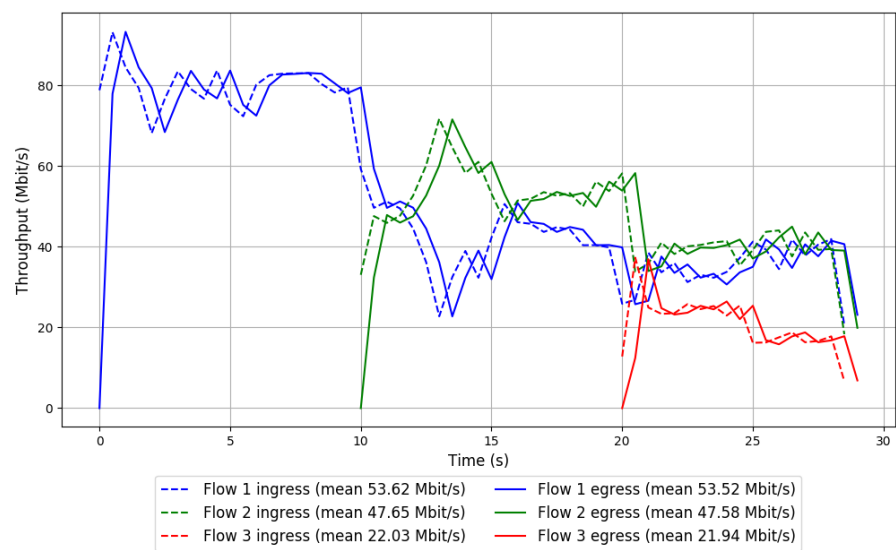
-- Flow 3:

Average throughput: 21.94 Mbit/s

95th percentile per-packet one-way delay: 28.754 ms

Loss rate: 0.11%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 02:26:56

End at: 2019-06-28 02:27:26

Local clock offset: -6.952 ms

Remote clock offset: 0.242 ms

Below is generated by plot.py at 2019-06-28 02:38:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.07 Mbit/s

95th percentile per-packet one-way delay: 27.985 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 51.90 Mbit/s

95th percentile per-packet one-way delay: 25.029 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 41.65 Mbit/s

95th percentile per-packet one-way delay: 29.320 ms

Loss rate: 0.24%

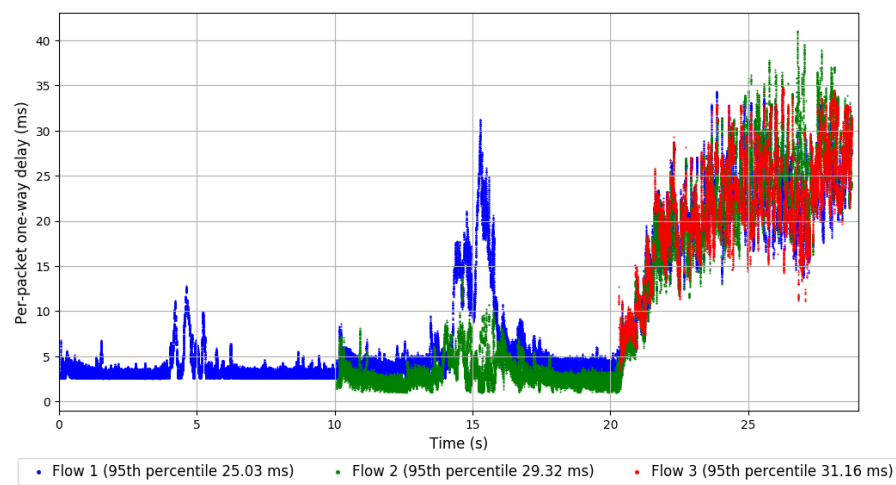
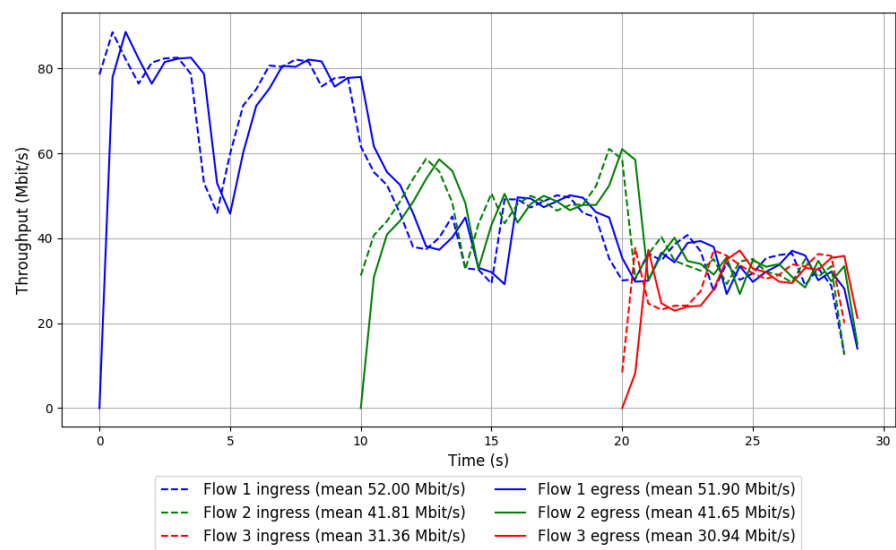
-- Flow 3:

Average throughput: 30.94 Mbit/s

95th percentile per-packet one-way delay: 31.162 ms

Loss rate: 1.14%

Run 5: Report of Indigo-MusesT — Data Link

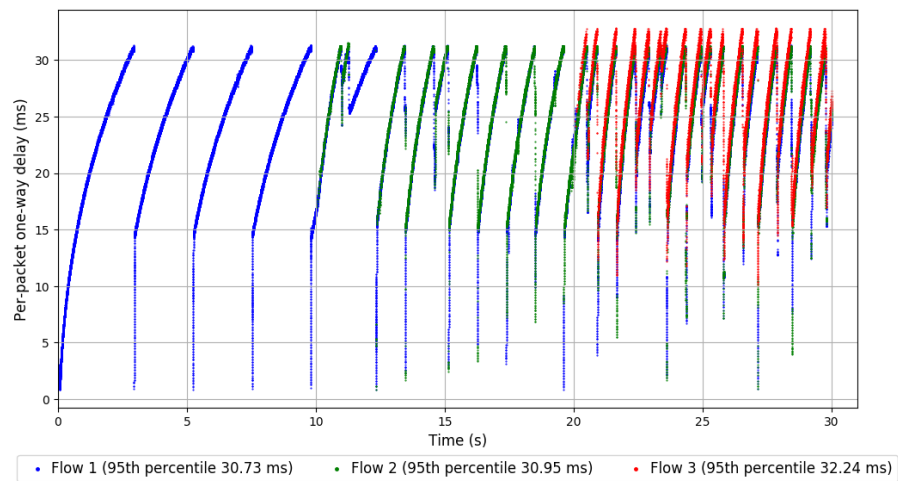
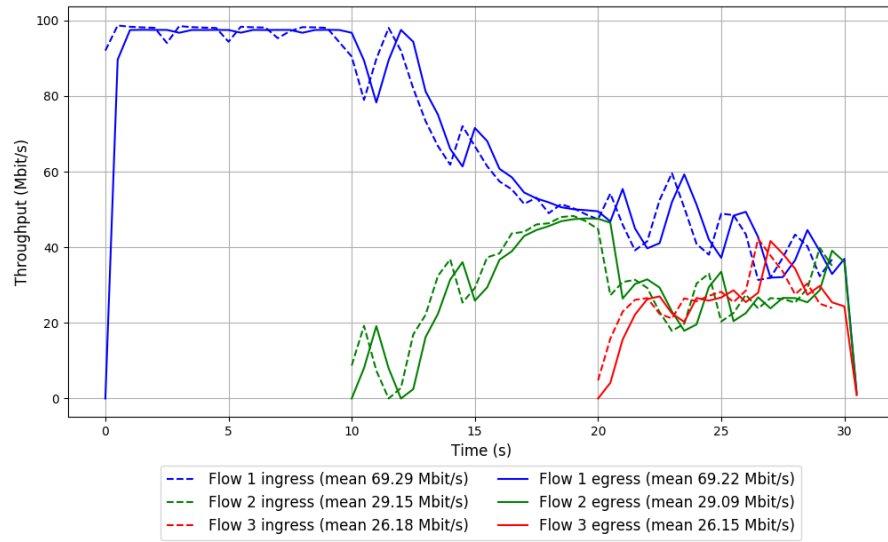


Run 1: Statistics of LEDBAT

Start at: 2019-06-28 00:31:50
End at: 2019-06-28 00:32:20
Local clock offset: -6.172 ms
Remote clock offset: -0.159 ms

Below is generated by plot.py at 2019-06-28 02:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.27 Mbit/s
95th percentile per-packet one-way delay: 30.805 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 69.22 Mbit/s
95th percentile per-packet one-way delay: 30.727 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 29.09 Mbit/s
95th percentile per-packet one-way delay: 30.947 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 26.15 Mbit/s
95th percentile per-packet one-way delay: 32.245 ms
Loss rate: 0.10%

Run 1: Report of LEDBAT — Data Link

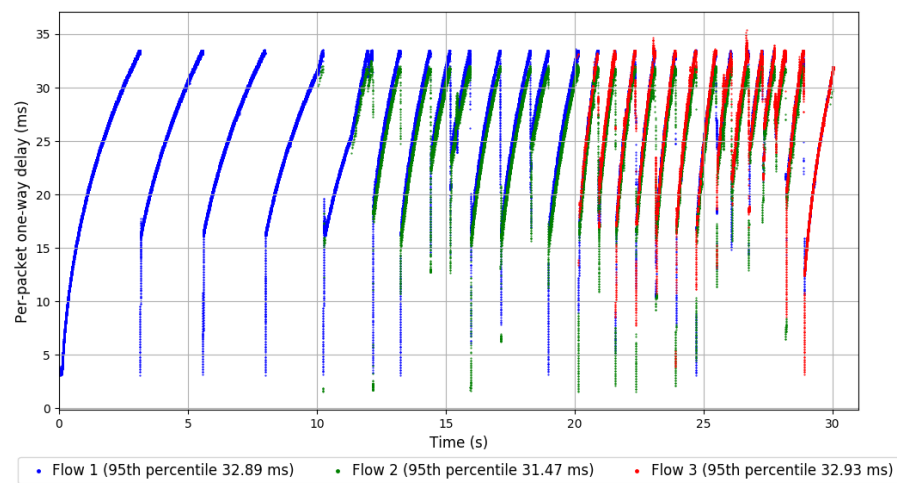
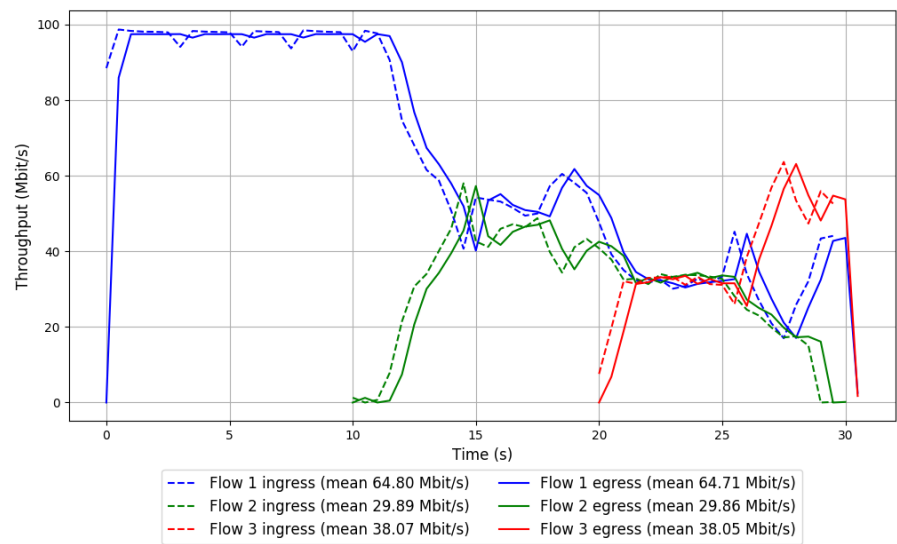


Run 2: Statistics of LEDBAT

Start at: 2019-06-28 00:56:54
End at: 2019-06-28 00:57:24
Local clock offset: -6.428 ms
Remote clock offset: -0.061 ms

Below is generated by plot.py at 2019-06-28 02:38:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.18 Mbit/s
95th percentile per-packet one-way delay: 32.693 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 64.71 Mbit/s
95th percentile per-packet one-way delay: 32.889 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 29.86 Mbit/s
95th percentile per-packet one-way delay: 31.474 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 38.05 Mbit/s
95th percentile per-packet one-way delay: 32.931 ms
Loss rate: 0.06%

Run 2: Report of LEDBAT — Data Link

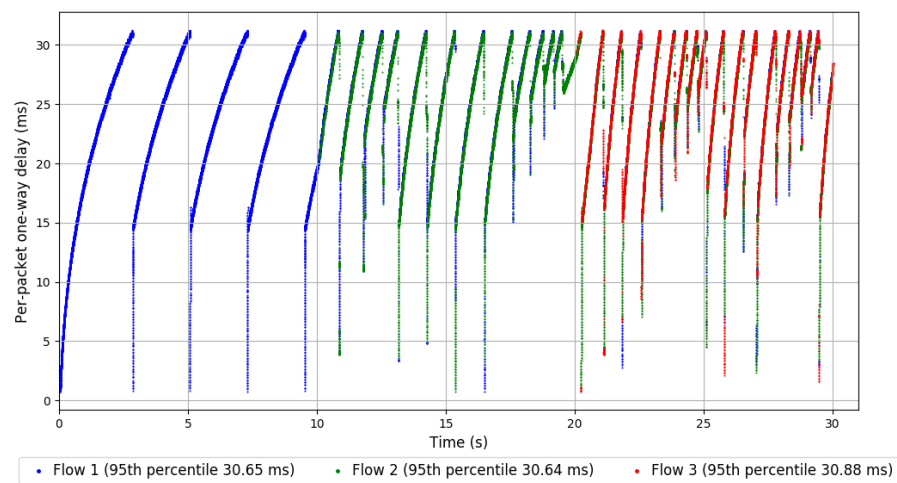
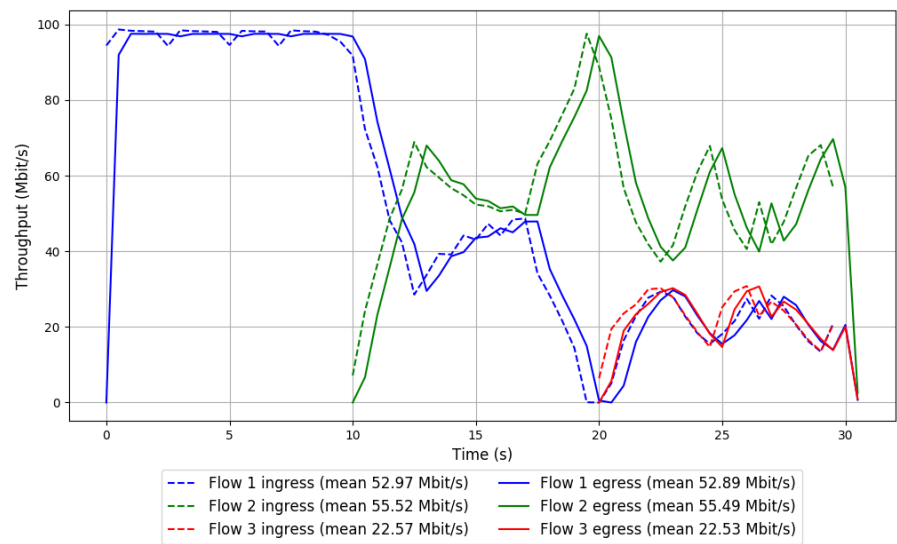


Run 3: Statistics of LEDBAT

Start at: 2019-06-28 01:21:57
End at: 2019-06-28 01:22:27
Local clock offset: -5.475 ms
Remote clock offset: 0.096 ms

Below is generated by plot.py at 2019-06-28 02:38:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.32 Mbit/s
95th percentile per-packet one-way delay: 30.658 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 52.89 Mbit/s
95th percentile per-packet one-way delay: 30.653 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 30.643 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 22.53 Mbit/s
95th percentile per-packet one-way delay: 30.875 ms
Loss rate: 0.20%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-06-28 01:47:03

End at: 2019-06-28 01:47:33

Local clock offset: -6.105 ms

Remote clock offset: 0.232 ms

Below is generated by plot.py at 2019-06-28 02:39:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 31.444 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 66.21 Mbit/s

95th percentile per-packet one-way delay: 31.434 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 41.04 Mbit/s

95th percentile per-packet one-way delay: 31.450 ms

Loss rate: 0.05%

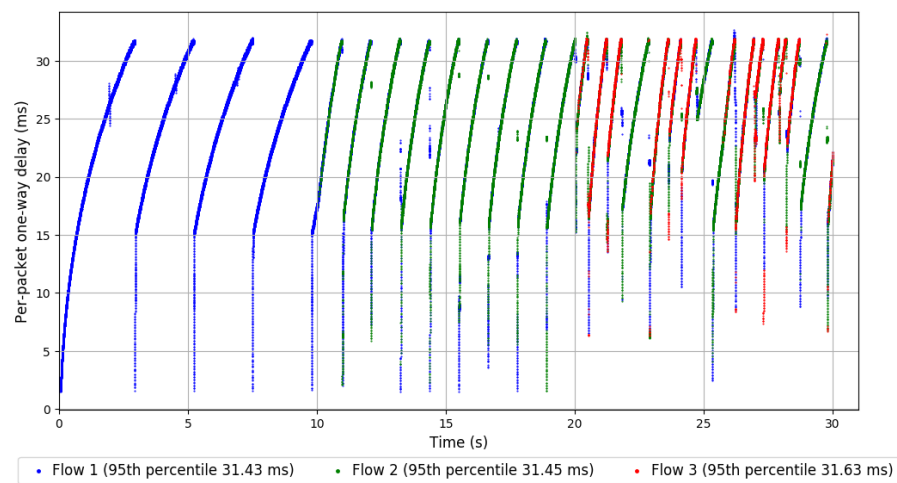
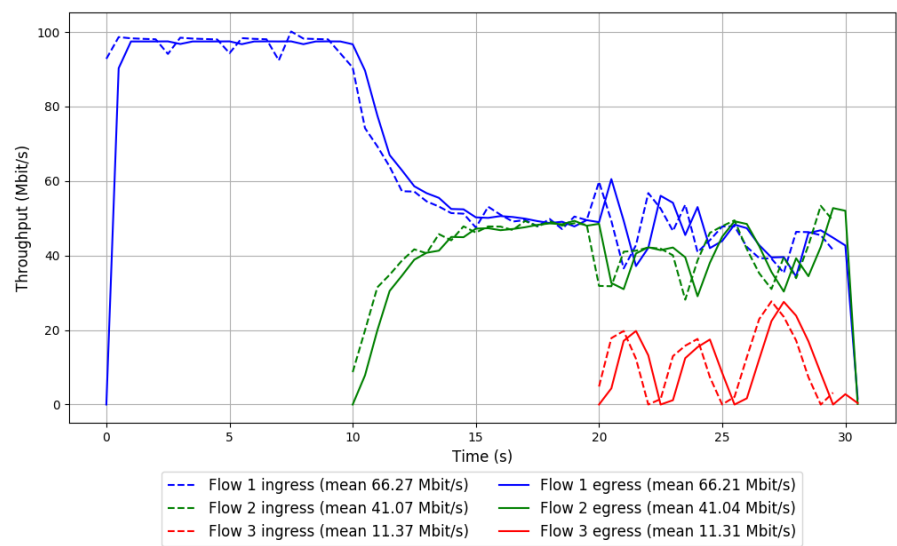
-- Flow 3:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 31.634 ms

Loss rate: 0.46%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-06-28 02:12:05

End at: 2019-06-28 02:12:35

Local clock offset: -7.425 ms

Remote clock offset: 0.267 ms

Below is generated by plot.py at 2019-06-28 02:39:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 31.430 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 60.43 Mbit/s

95th percentile per-packet one-way delay: 31.417 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 39.39 Mbit/s

95th percentile per-packet one-way delay: 31.446 ms

Loss rate: 0.06%

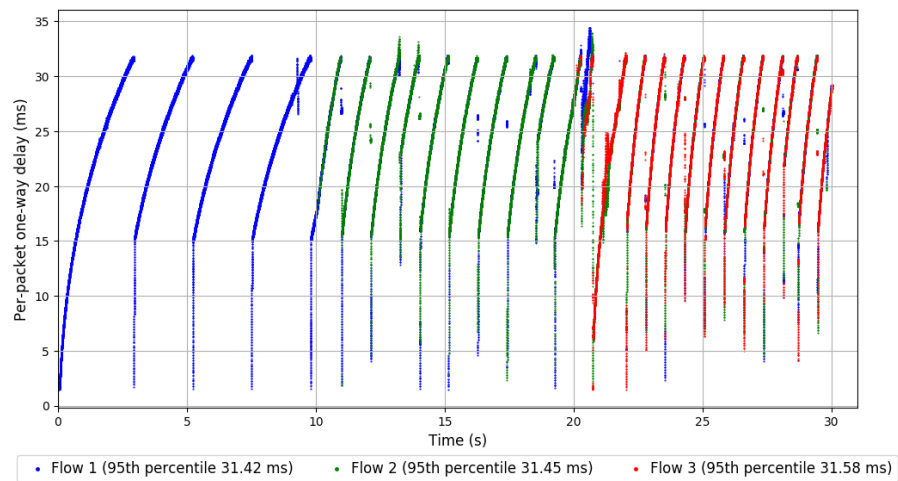
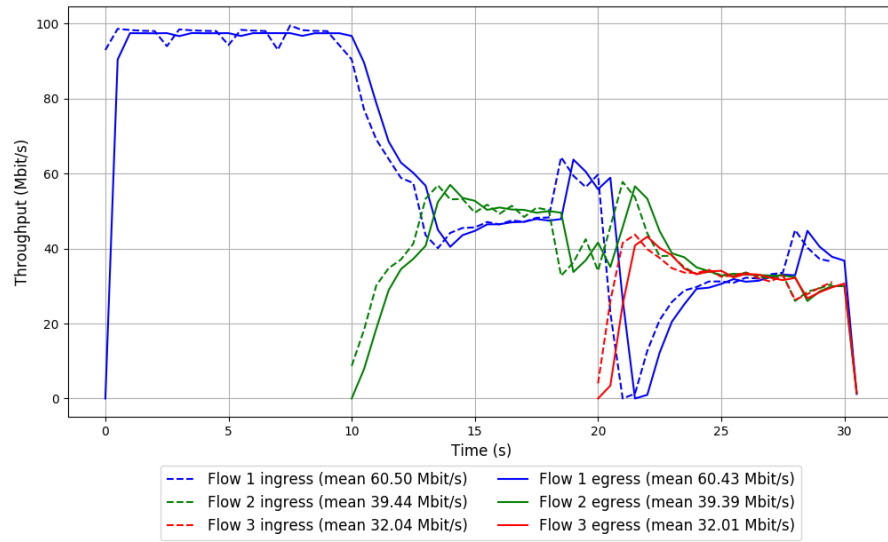
-- Flow 3:

Average throughput: 32.01 Mbit/s

95th percentile per-packet one-way delay: 31.581 ms

Loss rate: 0.09%

Run 5: Report of LEDBAT — Data Link

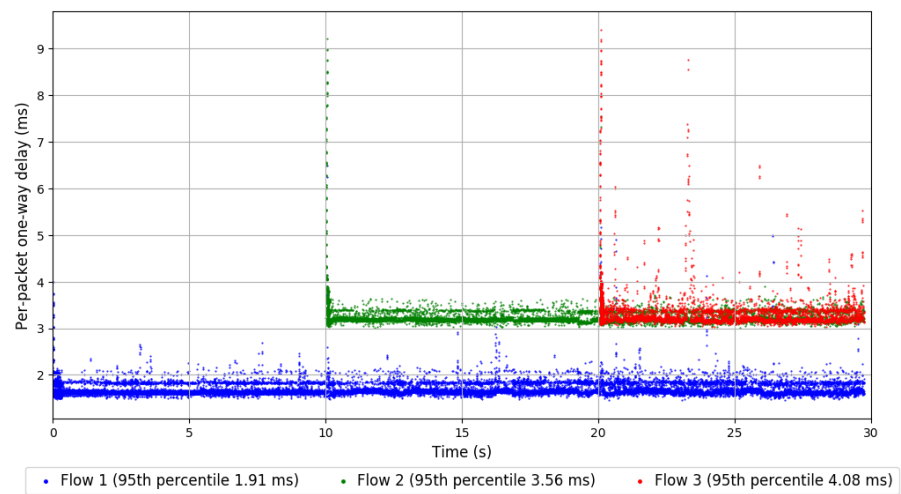
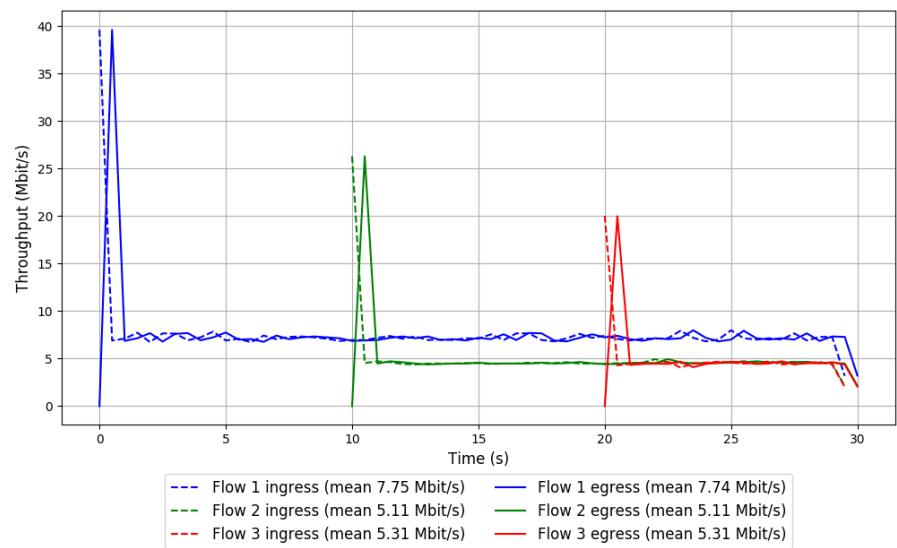


Run 1: Statistics of Muses_DecisionTree

Start at: 2019-06-28 00:29:35
End at: 2019-06-28 00:30:05
Local clock offset: -6.967 ms
Remote clock offset: -0.274 ms

Below is generated by plot.py at 2019-06-28 02:39:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.86 Mbit/s
95th percentile per-packet one-way delay: 3.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.74 Mbit/s
95th percentile per-packet one-way delay: 1.914 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 3.561 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 4.083 ms
Loss rate: 0.00%

Run 1: Report of Muses_DecisionTree — Data Link

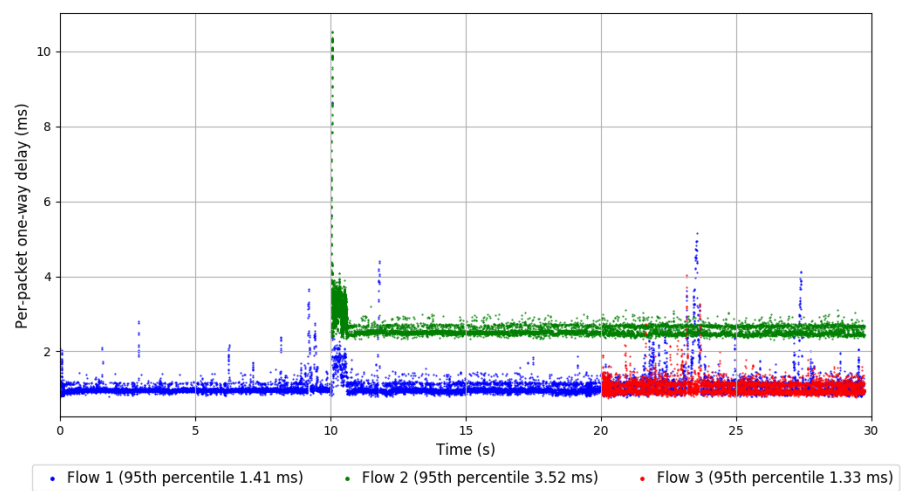
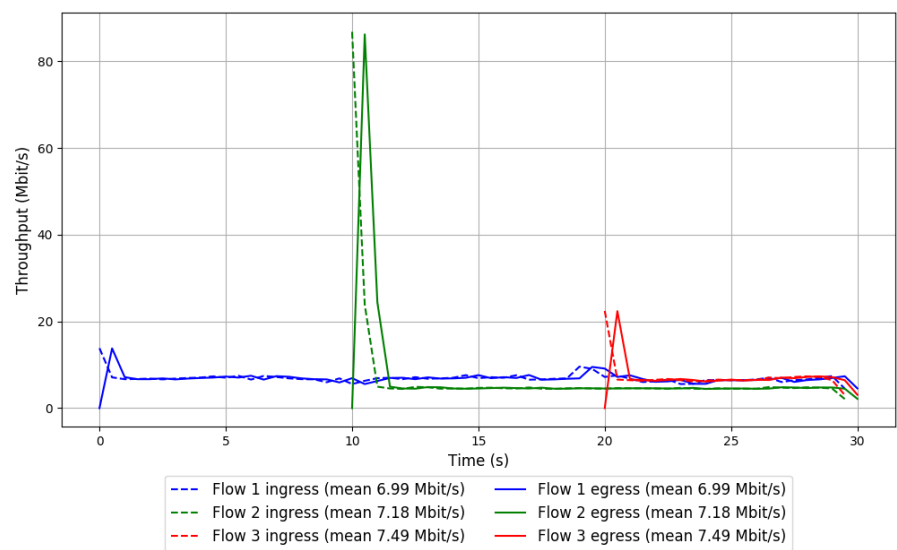


Run 2: Statistics of Muses_DecisionTree

Start at: 2019-06-28 00:54:38
End at: 2019-06-28 00:55:08
Local clock offset: -5.77 ms
Remote clock offset: -0.098 ms

Below is generated by plot.py at 2019-06-28 02:39:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.19 Mbit/s
95th percentile per-packet one-way delay: 3.258 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 1.410 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 3.517 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 1.333 ms
Loss rate: 0.00%

Run 2: Report of Muses_DecisionTree — Data Link



Run 3: Statistics of Muses_DecisionTree

Start at: 2019-06-28 01:19:42

End at: 2019-06-28 01:20:12

Local clock offset: -5.435 ms

Remote clock offset: 0.119 ms

Below is generated by plot.py at 2019-06-28 02:39:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.66 Mbit/s

95th percentile per-packet one-way delay: 2.662 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 2.859 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 1.113 ms

Loss rate: 0.00%

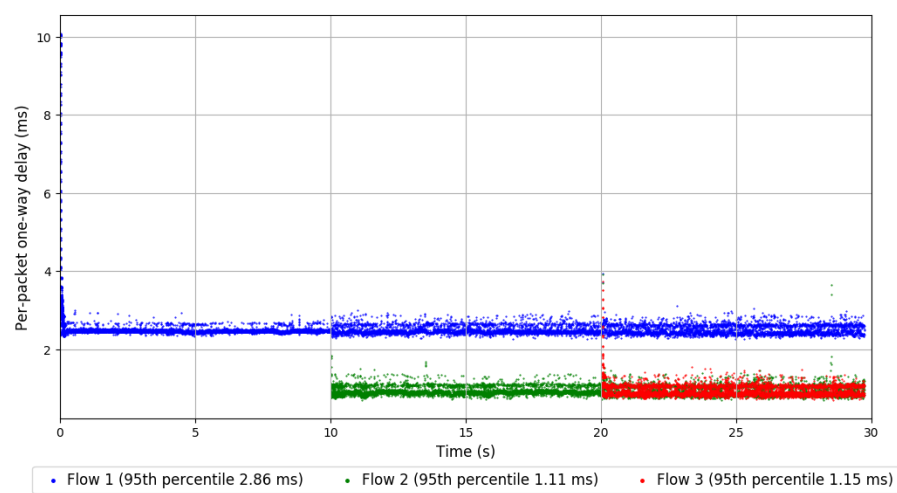
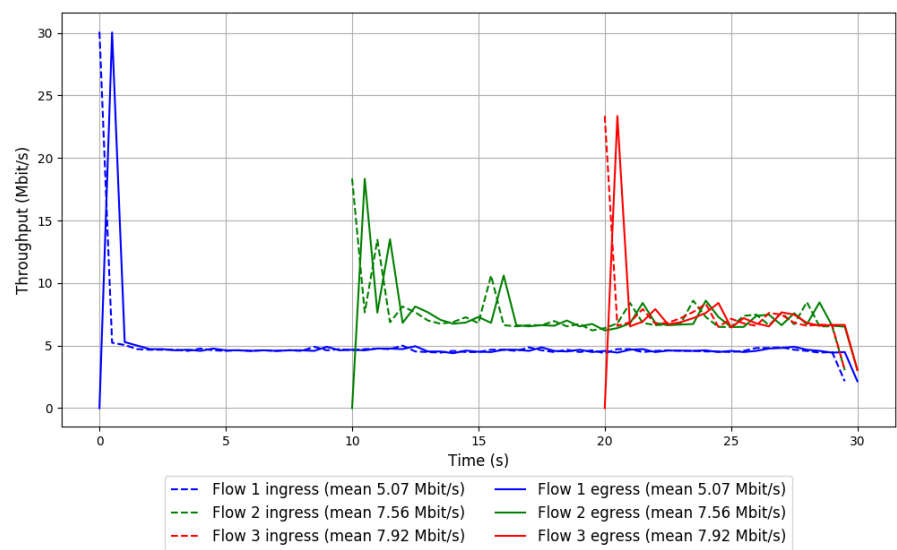
-- Flow 3:

Average throughput: 7.92 Mbit/s

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

Loss rate: 0.00%

Run 3: Report of Muses_DecisionTree — Data Link



Run 4: Statistics of Muses_DecisionTree

Start at: 2019-06-28 01:44:47

End at: 2019-06-28 01:45:17

Local clock offset: -5.379 ms

Remote clock offset: 0.23 ms

Below is generated by plot.py at 2019-06-28 02:39:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.94 Mbit/s

95th percentile per-packet one-way delay: 2.628 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.44 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.68 Mbit/s

95th percentile per-packet one-way delay: 2.700 ms

Loss rate: 0.00%

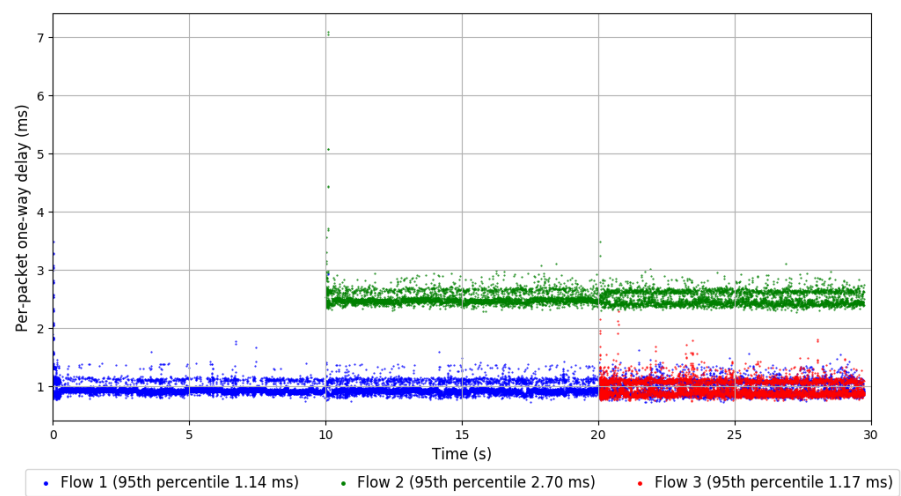
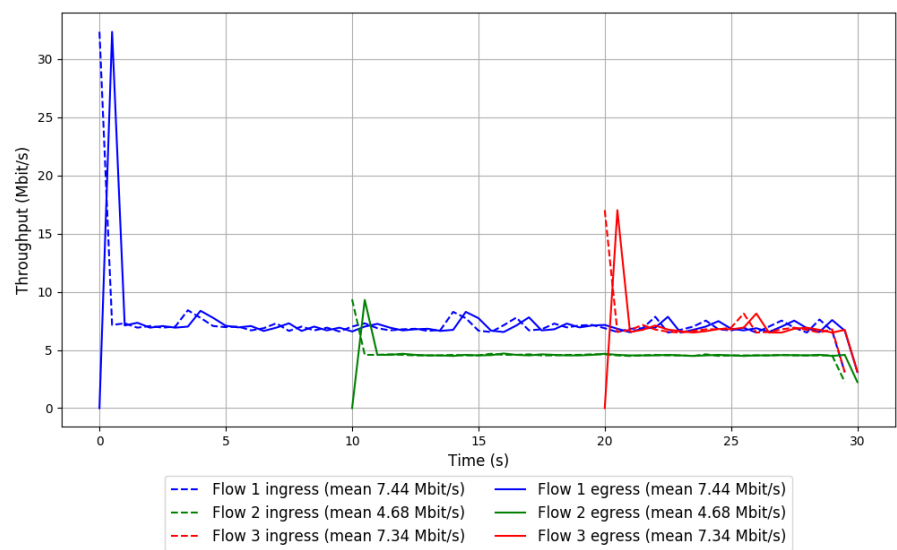
-- Flow 3:

Average throughput: 7.34 Mbit/s

95th percentile per-packet one-way delay: 1.167 ms

Loss rate: 0.00%

Run 4: Report of Muses_DecisionTree — Data Link



Run 5: Statistics of Muses_DecisionTree

Start at: 2019-06-28 02:09:50

End at: 2019-06-28 02:10:20

Local clock offset: -6.819 ms

Remote clock offset: 0.322 ms

Below is generated by plot.py at 2019-06-28 02:39:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.04 Mbit/s

95th percentile per-packet one-way delay: 2.822 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.36 Mbit/s

95th percentile per-packet one-way delay: 1.375 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.81 Mbit/s

95th percentile per-packet one-way delay: 2.902 ms

Loss rate: 0.00%

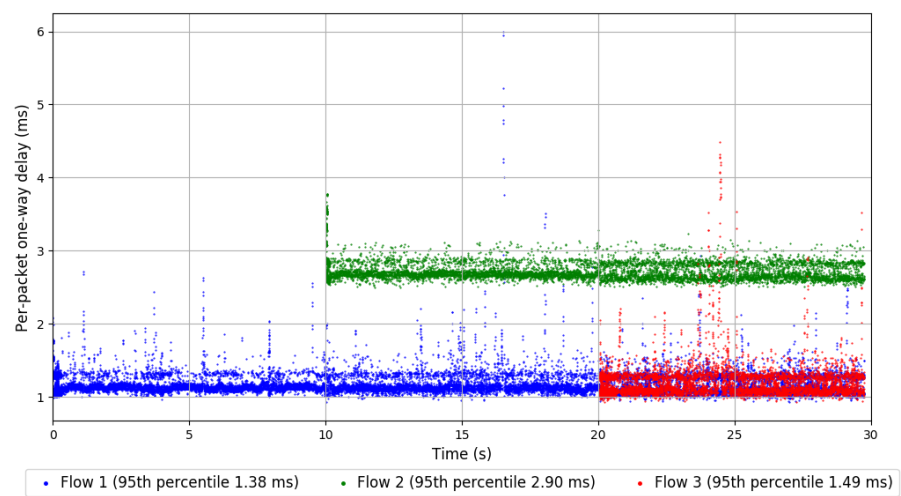
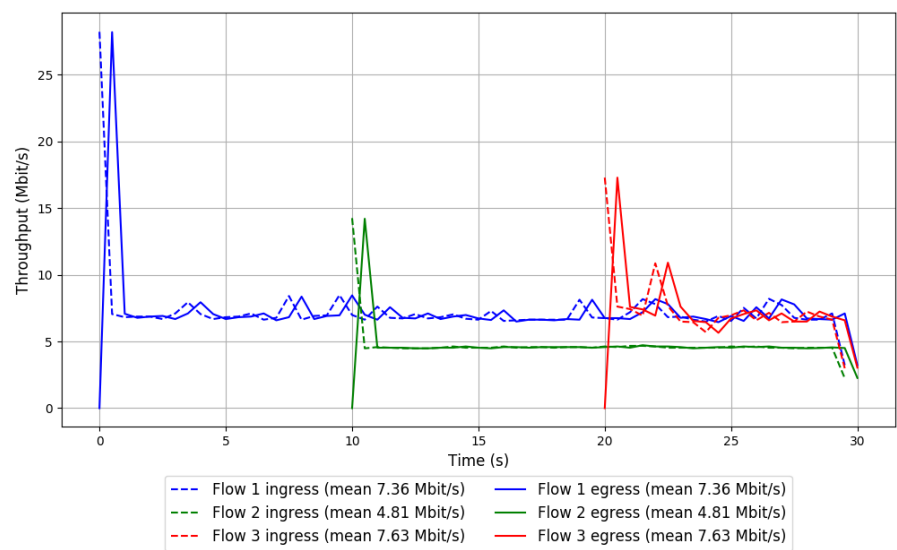
-- Flow 3:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 1.489 ms

Loss rate: 0.00%

Run 5: Report of Muses_DecisionTree — Data Link

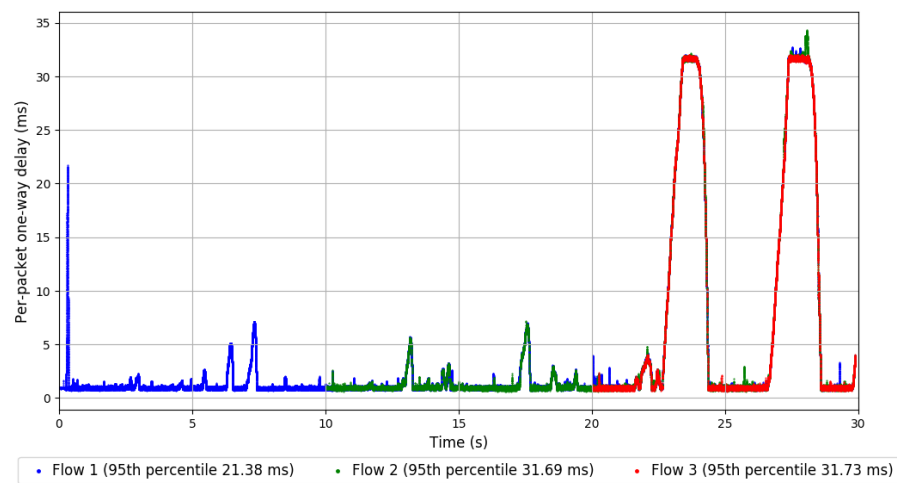
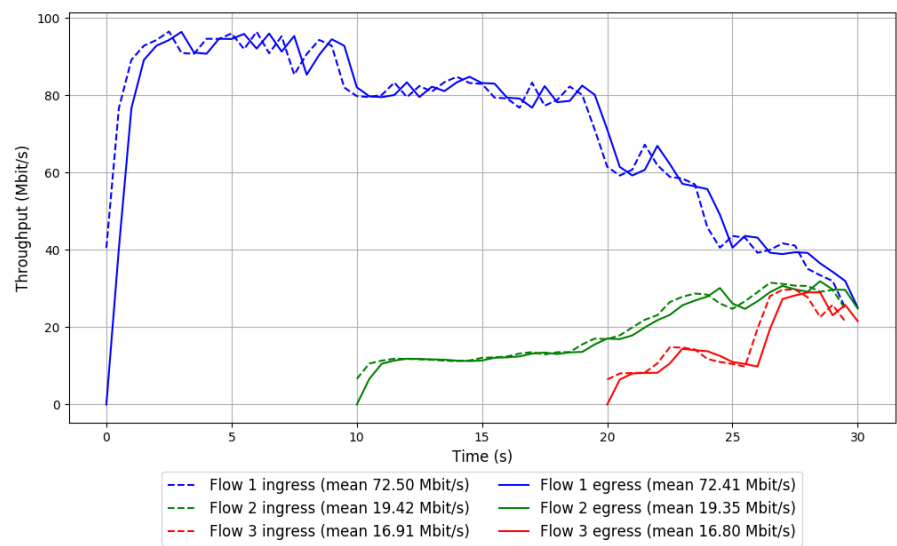


Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 00:36:25
End at: 2019-06-28 00:36:55
Local clock offset: -6.035 ms
Remote clock offset: -0.132 ms

Below is generated by plot.py at 2019-06-28 02:39:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 31.089 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 72.41 Mbit/s
95th percentile per-packet one-way delay: 21.380 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 19.35 Mbit/s
95th percentile per-packet one-way delay: 31.690 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 16.80 Mbit/s
95th percentile per-packet one-way delay: 31.729 ms
Loss rate: 0.60%

Run 1: Report of PCC-Allegro — Data Link

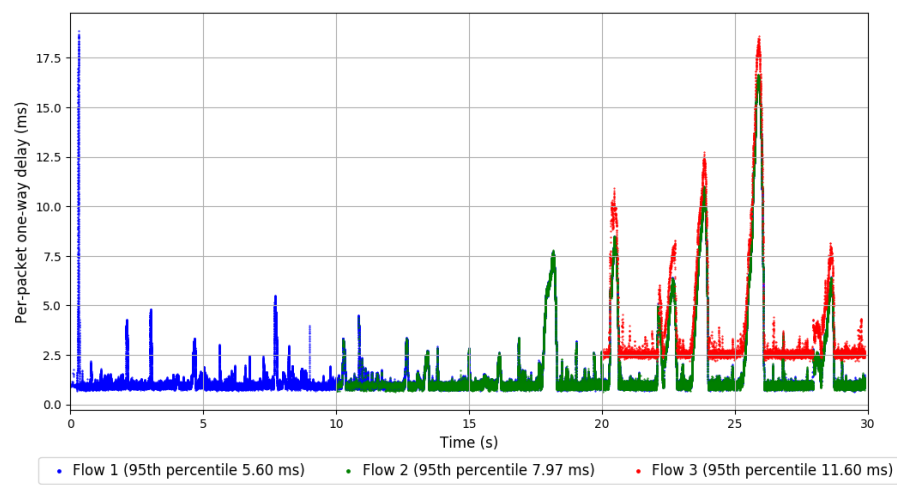
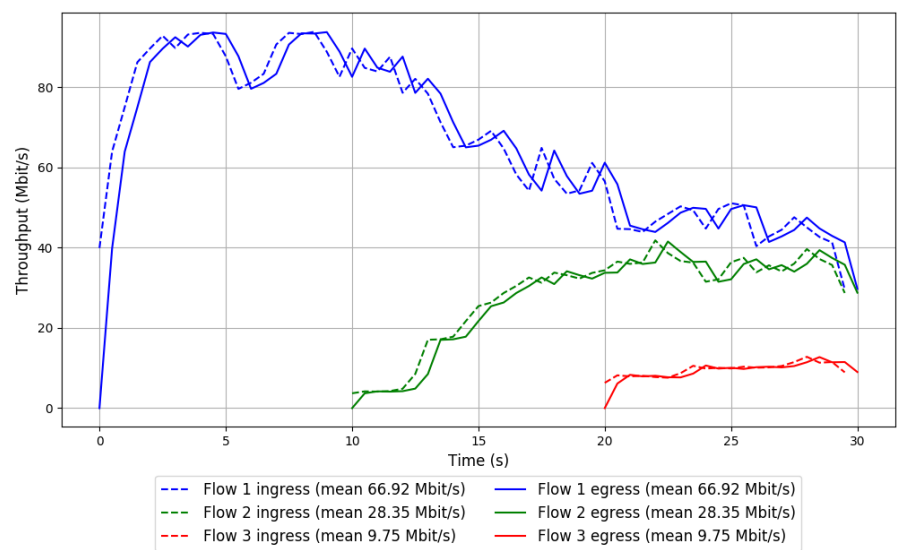


Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 01:01:29
End at: 2019-06-28 01:01:59
Local clock offset: -5.616 ms
Remote clock offset: -0.038 ms

Below is generated by plot.py at 2019-06-28 02:39:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.98 Mbit/s
95th percentile per-packet one-way delay: 6.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.92 Mbit/s
95th percentile per-packet one-way delay: 5.598 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 28.35 Mbit/s
95th percentile per-packet one-way delay: 7.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.75 Mbit/s
95th percentile per-packet one-way delay: 11.597 ms
Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 01:26:33

End at: 2019-06-28 01:27:03

Local clock offset: -5.628 ms

Remote clock offset: 0.18 ms

Below is generated by plot.py at 2019-06-28 02:39:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 10.399 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.47 Mbit/s

95th percentile per-packet one-way delay: 8.999 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.98 Mbit/s

95th percentile per-packet one-way delay: 13.407 ms

Loss rate: 0.00%

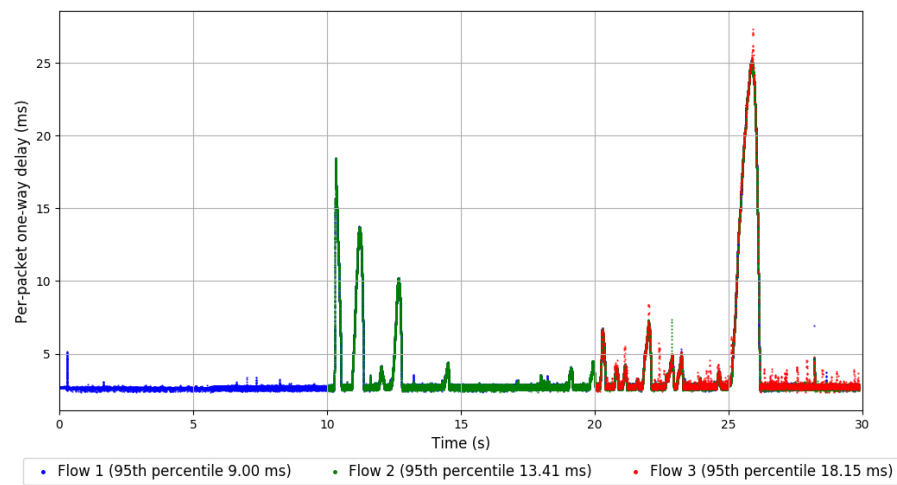
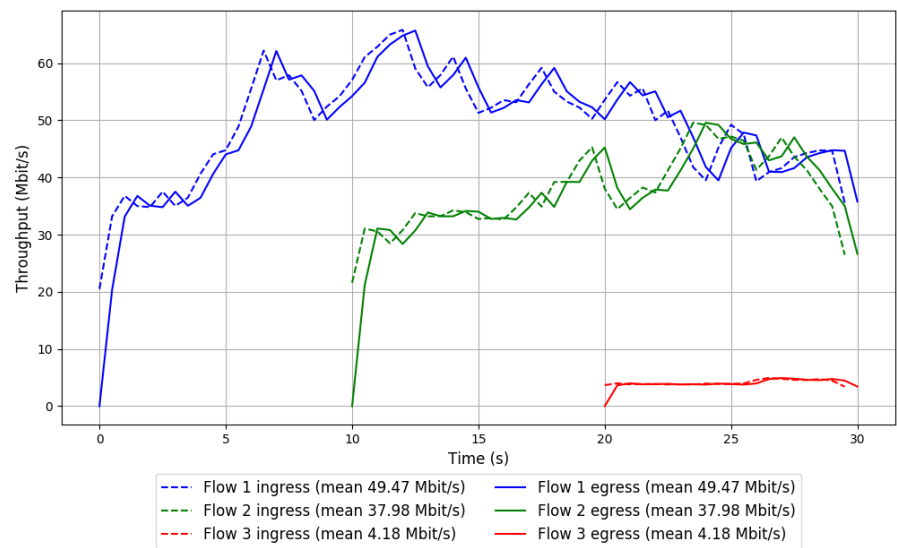
-- Flow 3:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 18.152 ms

Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 01:51:38

End at: 2019-06-28 01:52:08

Local clock offset: -6.559 ms

Remote clock offset: 0.33 ms

Below is generated by plot.py at 2019-06-28 02:39:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.89 Mbit/s

95th percentile per-packet one-way delay: 5.397 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.34 Mbit/s

95th percentile per-packet one-way delay: 5.564 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.29 Mbit/s

95th percentile per-packet one-way delay: 4.620 ms

Loss rate: 0.00%

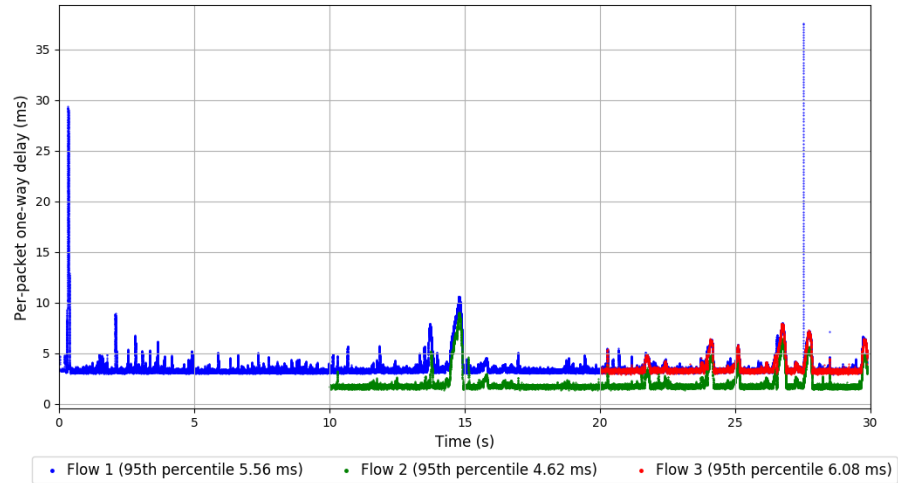
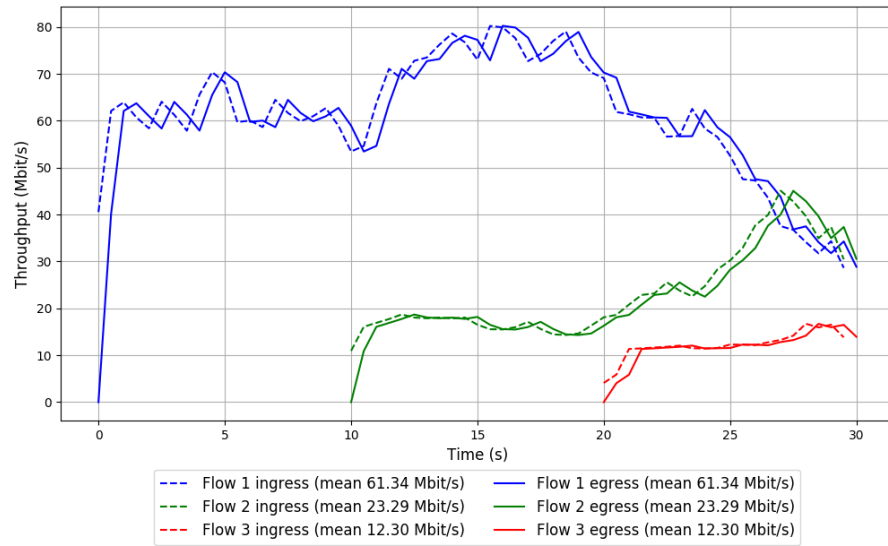
-- Flow 3:

Average throughput: 12.30 Mbit/s

95th percentile per-packet one-way delay: 6.079 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 02:16:40

End at: 2019-06-28 02:17:10

Local clock offset: -6.729 ms

Remote clock offset: 0.342 ms

Below is generated by plot.py at 2019-06-28 02:39:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.28 Mbit/s

95th percentile per-packet one-way delay: 7.324 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.18 Mbit/s

95th percentile per-packet one-way delay: 5.569 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.83 Mbit/s

95th percentile per-packet one-way delay: 16.609 ms

Loss rate: 0.00%

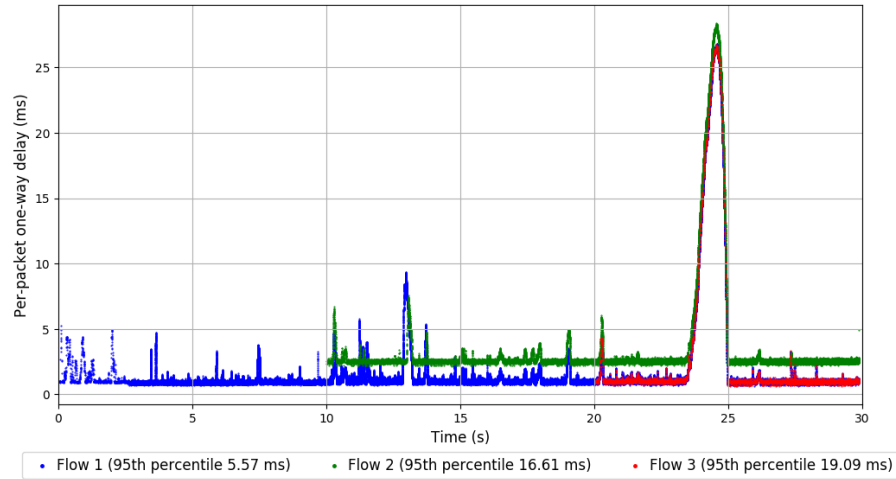
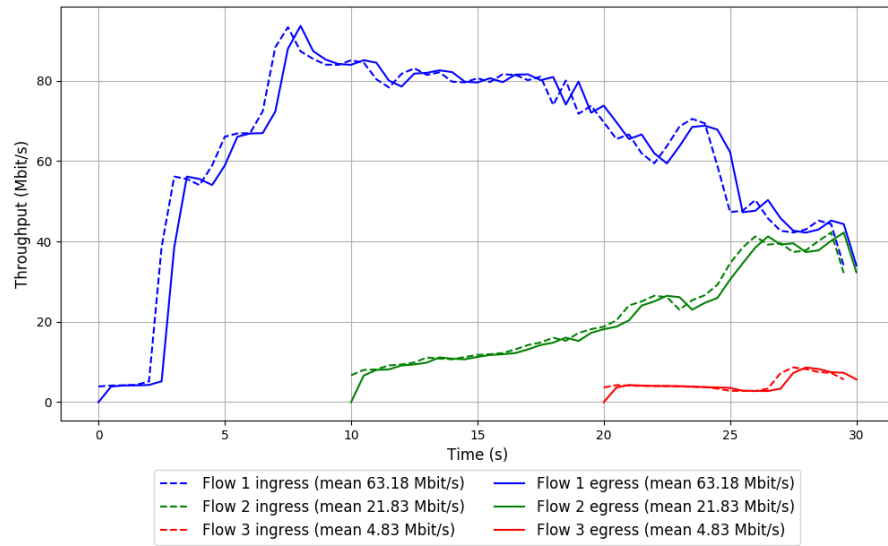
-- Flow 3:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 19.095 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

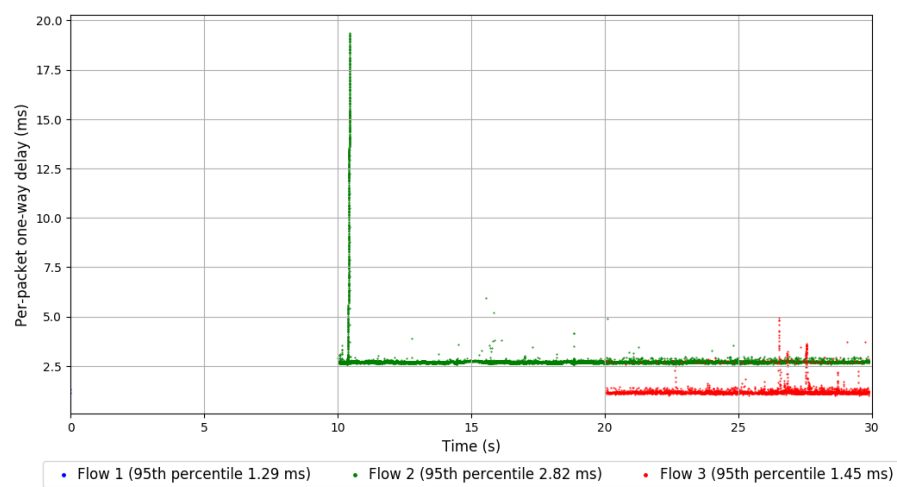
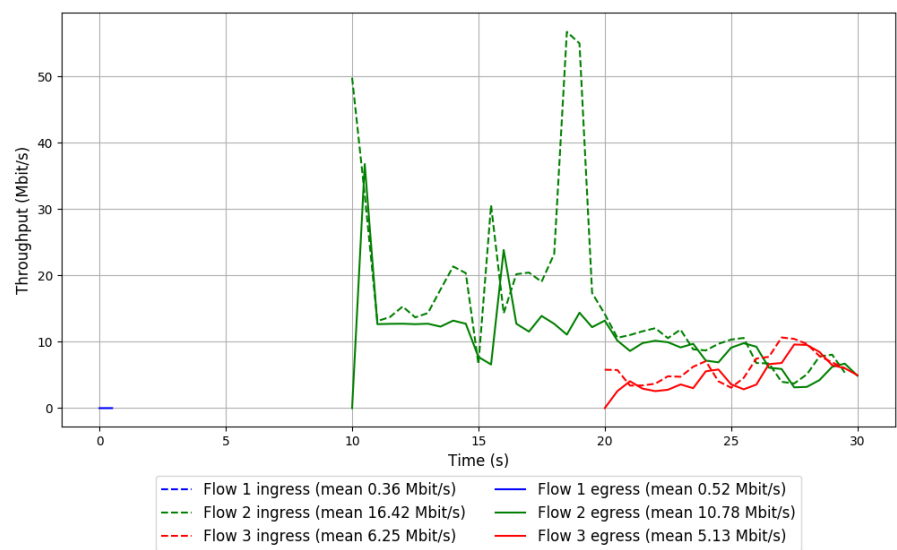


```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 00:38:39
End at: 2019-06-28 00:39:09
Local clock offset: -6.341 ms
Remote clock offset: -0.17 ms

# Below is generated by plot.py at 2019-06-28 02:39:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 2.787 ms
Loss rate: 31.73%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 1.294 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.78 Mbit/s
95th percentile per-packet one-way delay: 2.817 ms
Loss rate: 34.36%
-- Flow 3:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 1.451 ms
Loss rate: 17.82%
```

Run 1: Report of PCC-Expr — Data Link

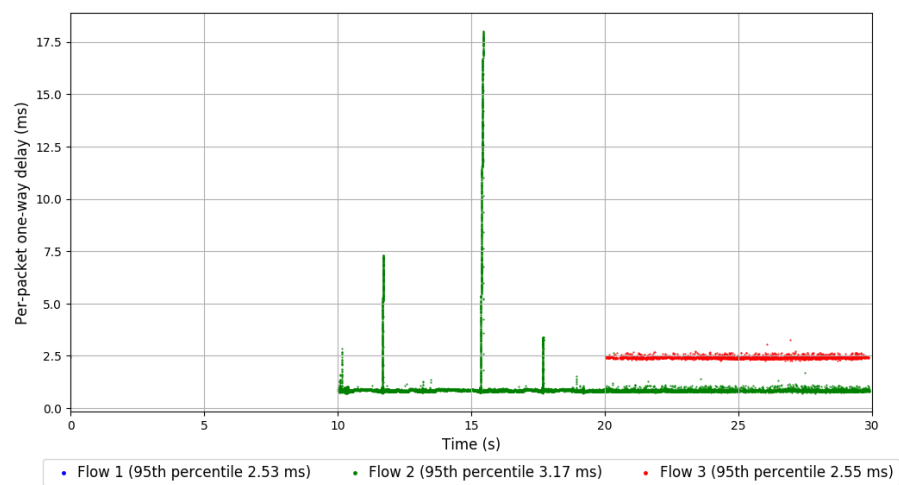
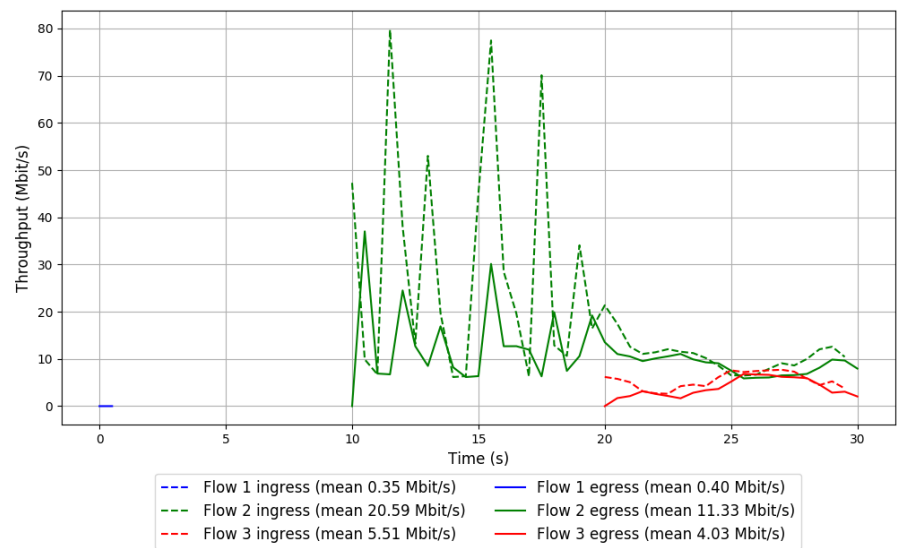


Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 01:03:43
End at: 2019-06-28 01:04:13
Local clock offset: -5.588 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-06-28 02:39:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.87 Mbit/s
95th percentile per-packet one-way delay: 2.610 ms
Loss rate: 42.87%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 2.533 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 3.169 ms
Loss rate: 44.97%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 2.552 ms
Loss rate: 27.01%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 01:28:46

End at: 2019-06-28 01:29:16

Local clock offset: -6.186 ms

Remote clock offset: 0.111 ms

Below is generated by plot.py at 2019-06-28 02:39:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.27 Mbit/s

95th percentile per-packet one-way delay: 3.185 ms

Loss rate: 23.37%

-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 1.724 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 1.682 ms

Loss rate: 20.74%

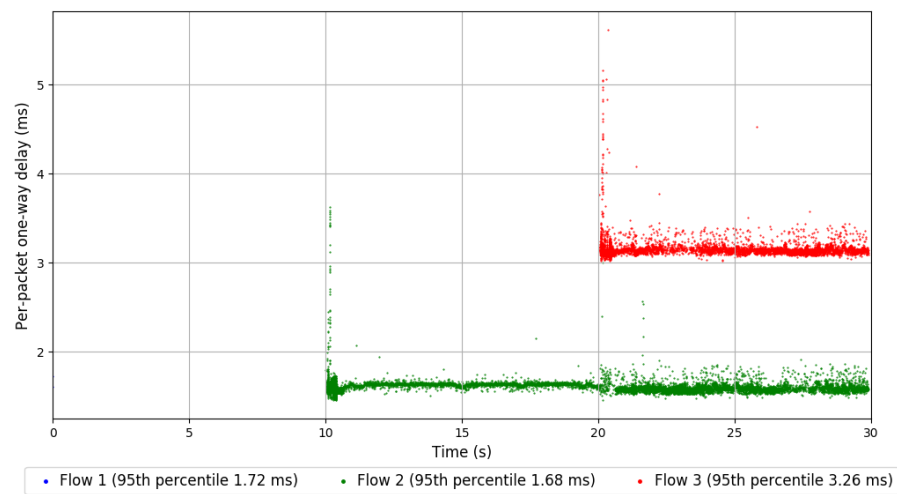
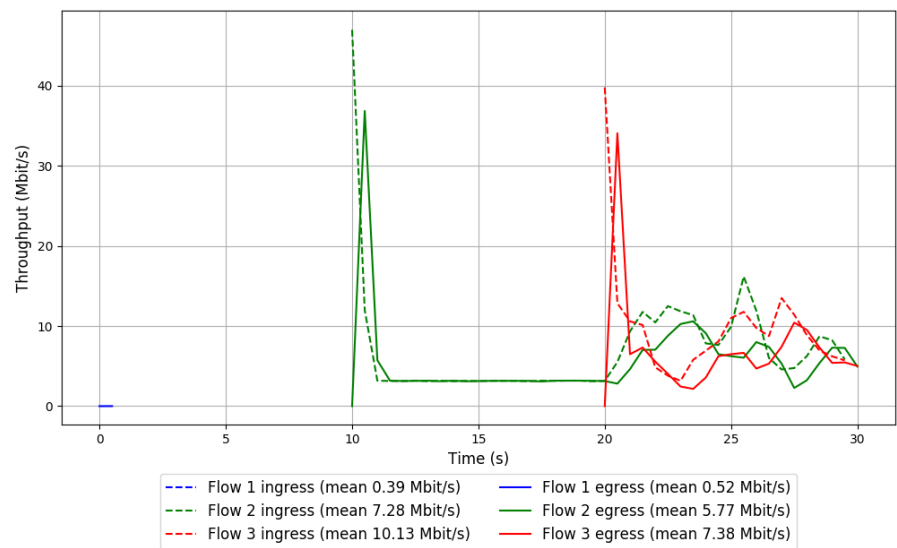
-- Flow 3:

Average throughput: 7.38 Mbit/s

95th percentile per-packet one-way delay: 3.263 ms

Loss rate: 27.17%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 01:53:51

End at: 2019-06-28 01:54:21

Local clock offset: -6.781 ms

Remote clock offset: 0.319 ms

Below is generated by plot.py at 2019-06-28 02:39:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.70 Mbit/s

95th percentile per-packet one-way delay: 1.877 ms

Loss rate: 22.34%

-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 3.346 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 9.38 Mbit/s

95th percentile per-packet one-way delay: 1.851 ms

Loss rate: 24.53%

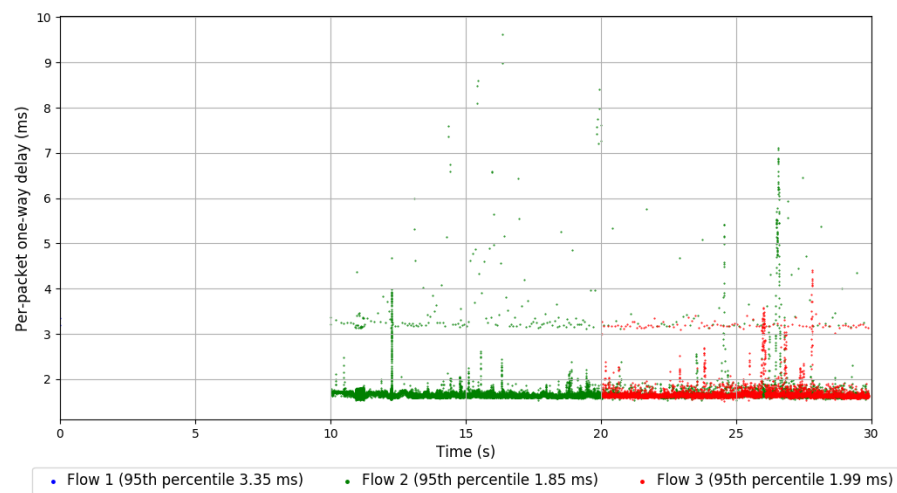
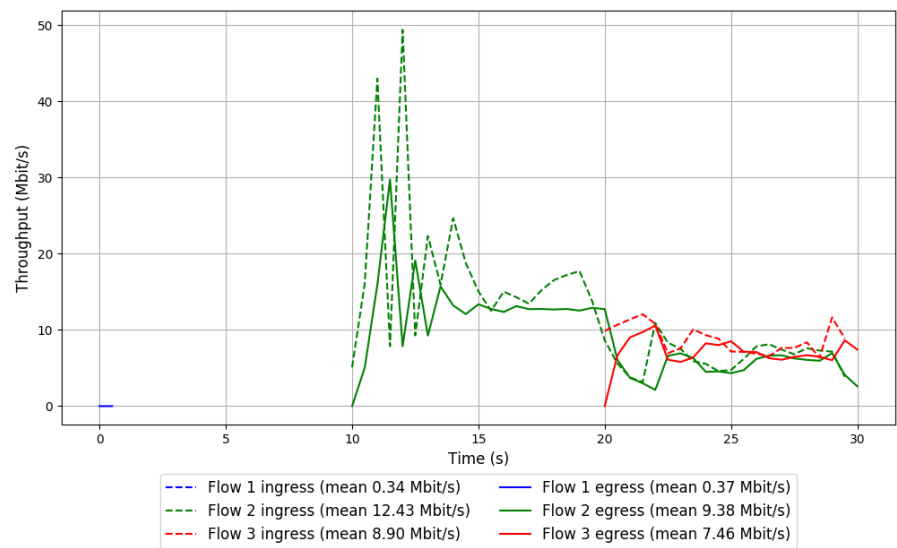
-- Flow 3:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 1.993 ms

Loss rate: 16.15%

Run 4: Report of PCC-Expr — Data Link

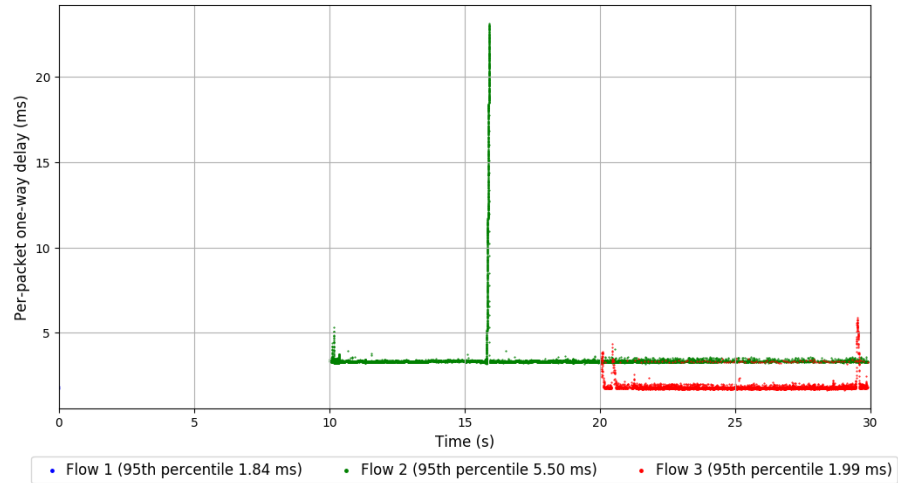
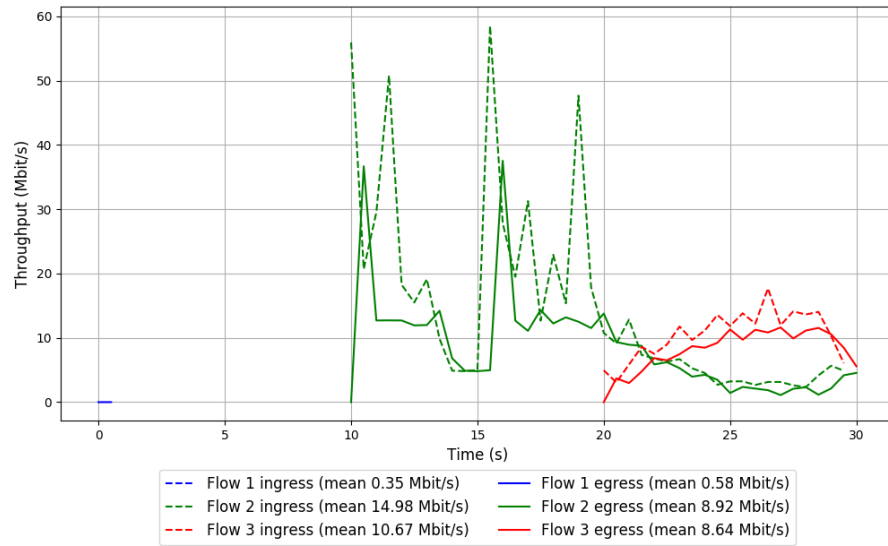


```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 02:18:54
End at: 2019-06-28 02:19:24
Local clock offset: -7.575 ms
Remote clock offset: 0.358 ms

# Below is generated by plot.py at 2019-06-28 02:39:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.79 Mbit/s
95th percentile per-packet one-way delay: 3.520 ms
Loss rate: 34.85%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1.839 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 8.92 Mbit/s
95th percentile per-packet one-way delay: 5.505 ms
Loss rate: 40.44%
-- Flow 3:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 1.993 ms
Loss rate: 19.07%
```

Run 5: Report of PCC-Expr — Data Link

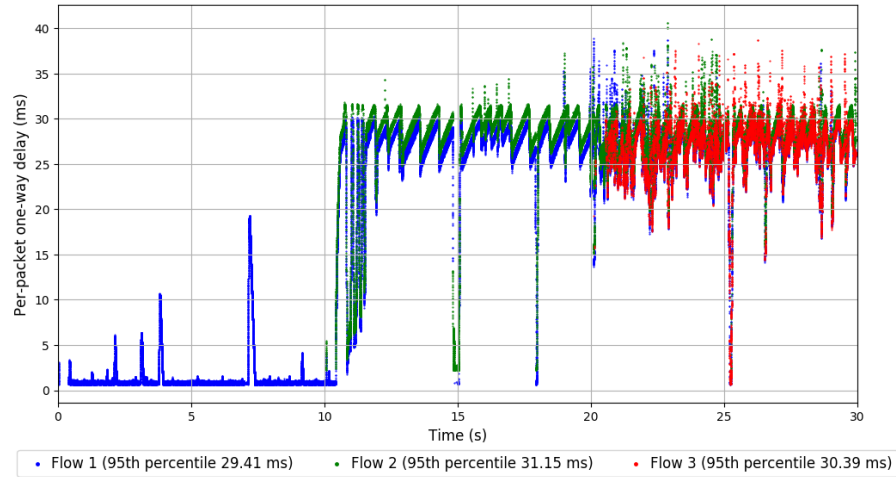
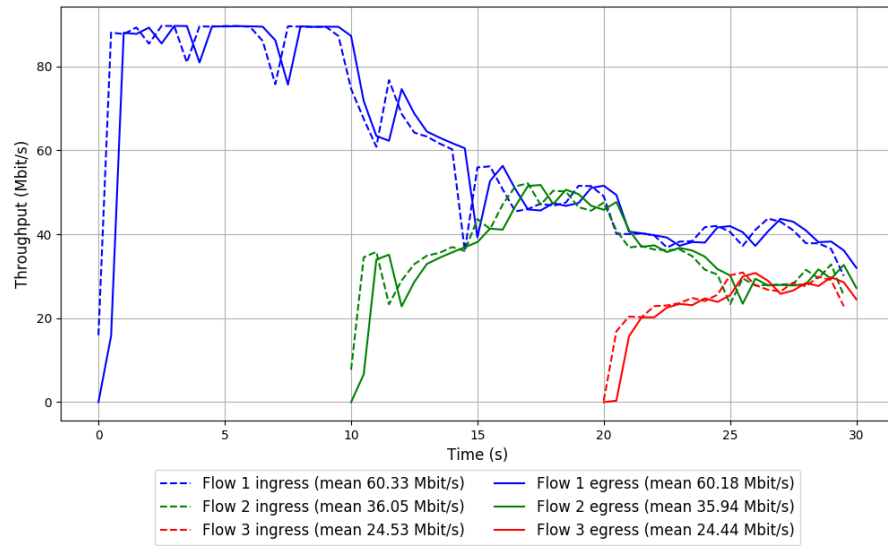


Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 00:25:02
End at: 2019-06-28 00:25:32
Local clock offset: -6.272 ms
Remote clock offset: -0.301 ms

Below is generated by plot.py at 2019-06-28 02:40:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 30.555 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 60.18 Mbit/s
95th percentile per-packet one-way delay: 29.414 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 35.94 Mbit/s
95th percentile per-packet one-way delay: 31.150 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 24.44 Mbit/s
95th percentile per-packet one-way delay: 30.391 ms
Loss rate: 0.30%

Run 1: Report of QUIC Cubic — Data Link

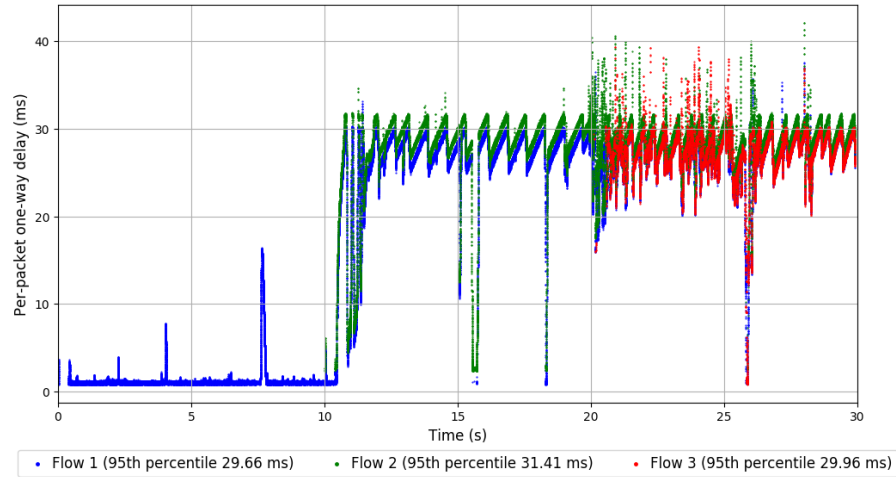
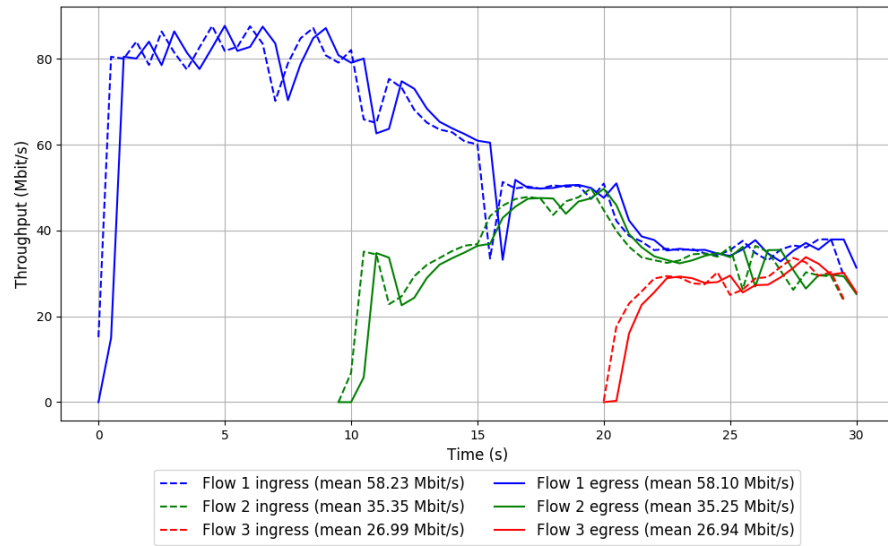


Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 00:50:07
End at: 2019-06-28 00:50:37
Local clock offset: -5.925 ms
Remote clock offset: -0.057 ms

Below is generated by plot.py at 2019-06-28 02:40:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.41 Mbit/s
95th percentile per-packet one-way delay: 30.743 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 58.10 Mbit/s
95th percentile per-packet one-way delay: 29.664 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 35.25 Mbit/s
95th percentile per-packet one-way delay: 31.410 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 26.94 Mbit/s
95th percentile per-packet one-way delay: 29.964 ms
Loss rate: 0.20%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 01:15:10

End at: 2019-06-28 01:15:40

Local clock offset: -5.72 ms

Remote clock offset: 0.094 ms

Below is generated by plot.py at 2019-06-28 02:40:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.57 Mbit/s

95th percentile per-packet one-way delay: 30.199 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 58.13 Mbit/s

95th percentile per-packet one-way delay: 29.913 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 33.66 Mbit/s

95th percentile per-packet one-way delay: 30.036 ms

Loss rate: 0.16%

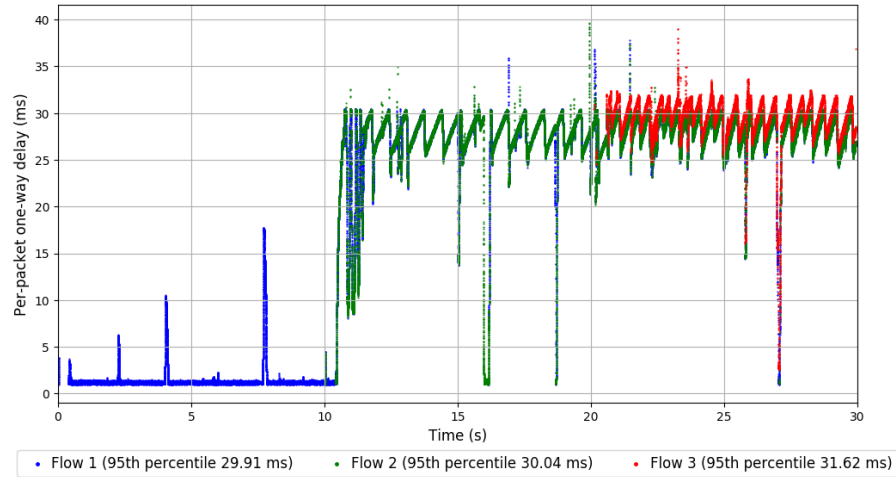
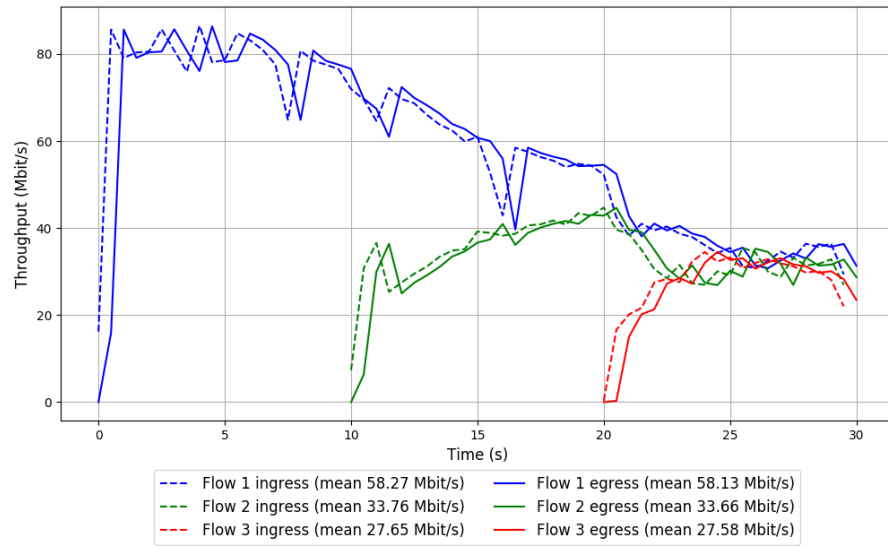
-- Flow 3:

Average throughput: 27.58 Mbit/s

95th percentile per-packet one-way delay: 31.623 ms

Loss rate: 0.17%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 01:40:14

End at: 2019-06-28 01:40:44

Local clock offset: -6.197 ms

Remote clock offset: 0.169 ms

Below is generated by plot.py at 2019-06-28 02:40:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.88 Mbit/s

95th percentile per-packet one-way delay: 31.473 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 57.27 Mbit/s

95th percentile per-packet one-way delay: 30.332 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 34.50 Mbit/s

95th percentile per-packet one-way delay: 32.065 ms

Loss rate: 0.14%

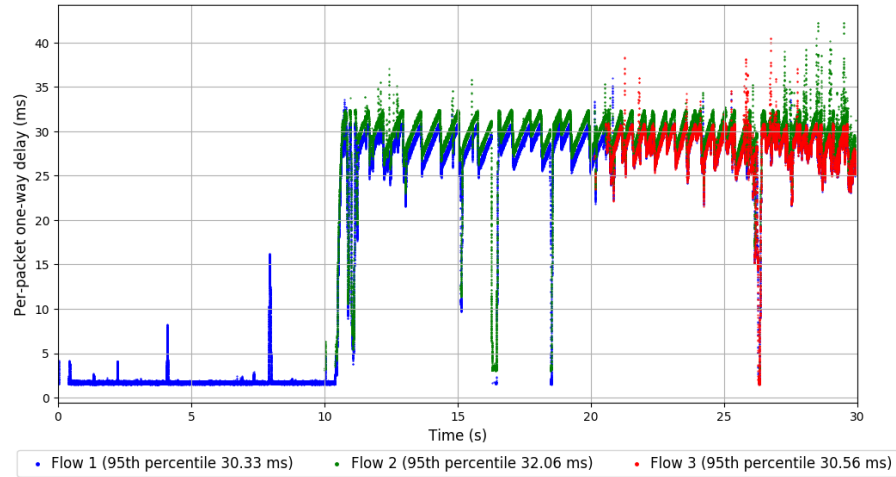
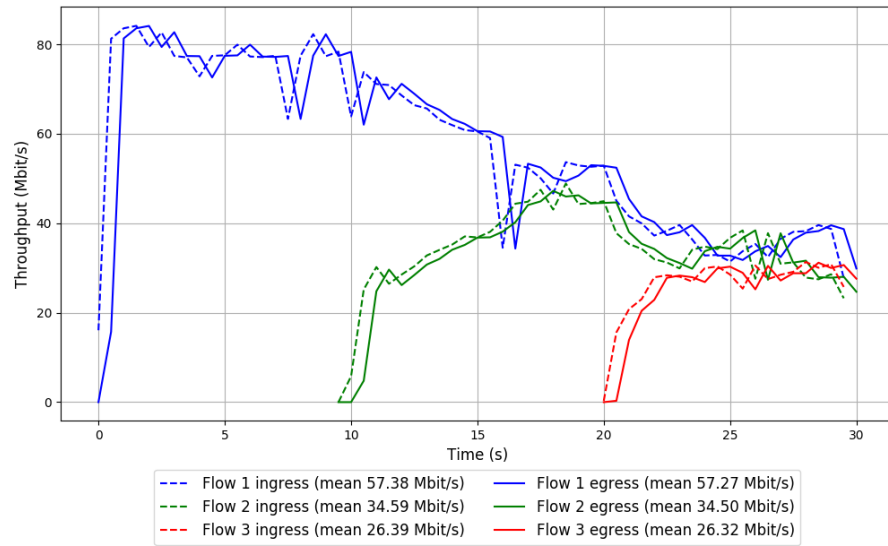
-- Flow 3:

Average throughput: 26.32 Mbit/s

95th percentile per-packet one-way delay: 30.560 ms

Loss rate: 0.27%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 02:05:18

End at: 2019-06-28 02:05:48

Local clock offset: -7.261 ms

Remote clock offset: 0.23 ms

Below is generated by plot.py at 2019-06-28 02:40:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.80 Mbit/s

95th percentile per-packet one-way delay: 31.470 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 57.35 Mbit/s

95th percentile per-packet one-way delay: 30.239 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 35.01 Mbit/s

95th percentile per-packet one-way delay: 32.035 ms

Loss rate: 0.18%

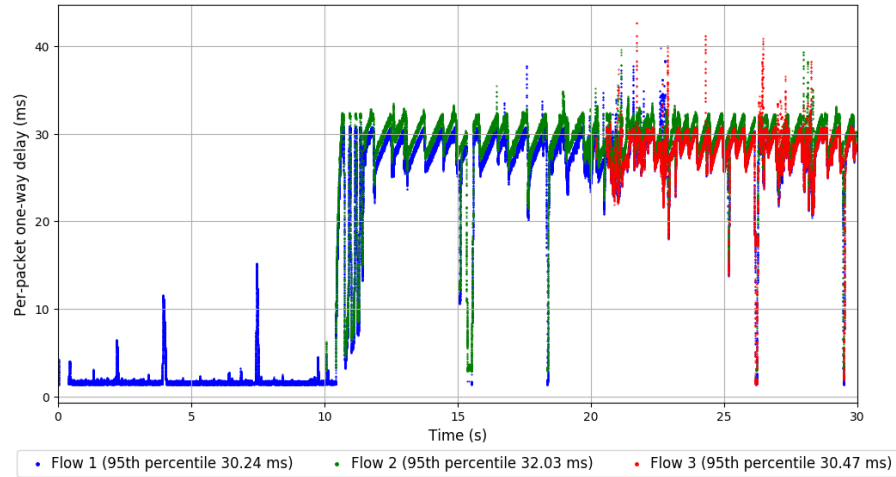
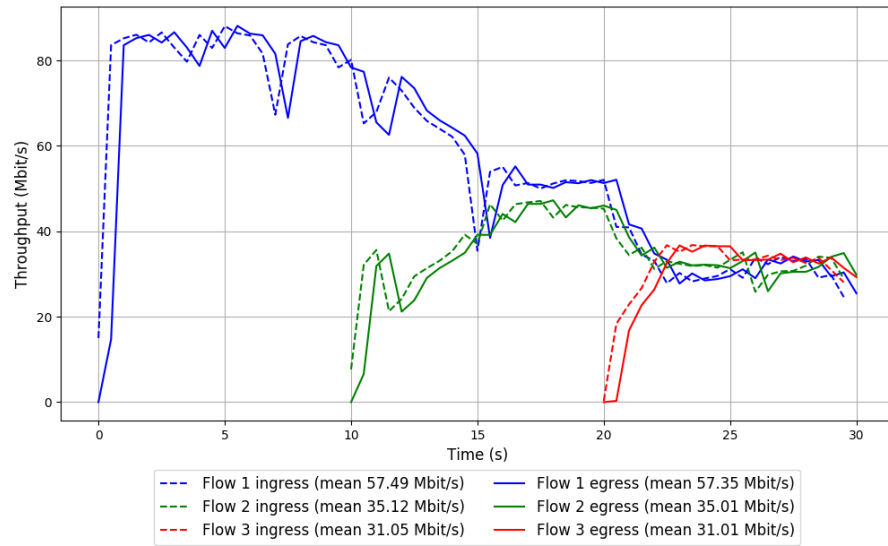
-- Flow 3:

Average throughput: 31.01 Mbit/s

95th percentile per-packet one-way delay: 30.471 ms

Loss rate: 0.14%

Run 5: Report of QUIC Cubic — Data Link

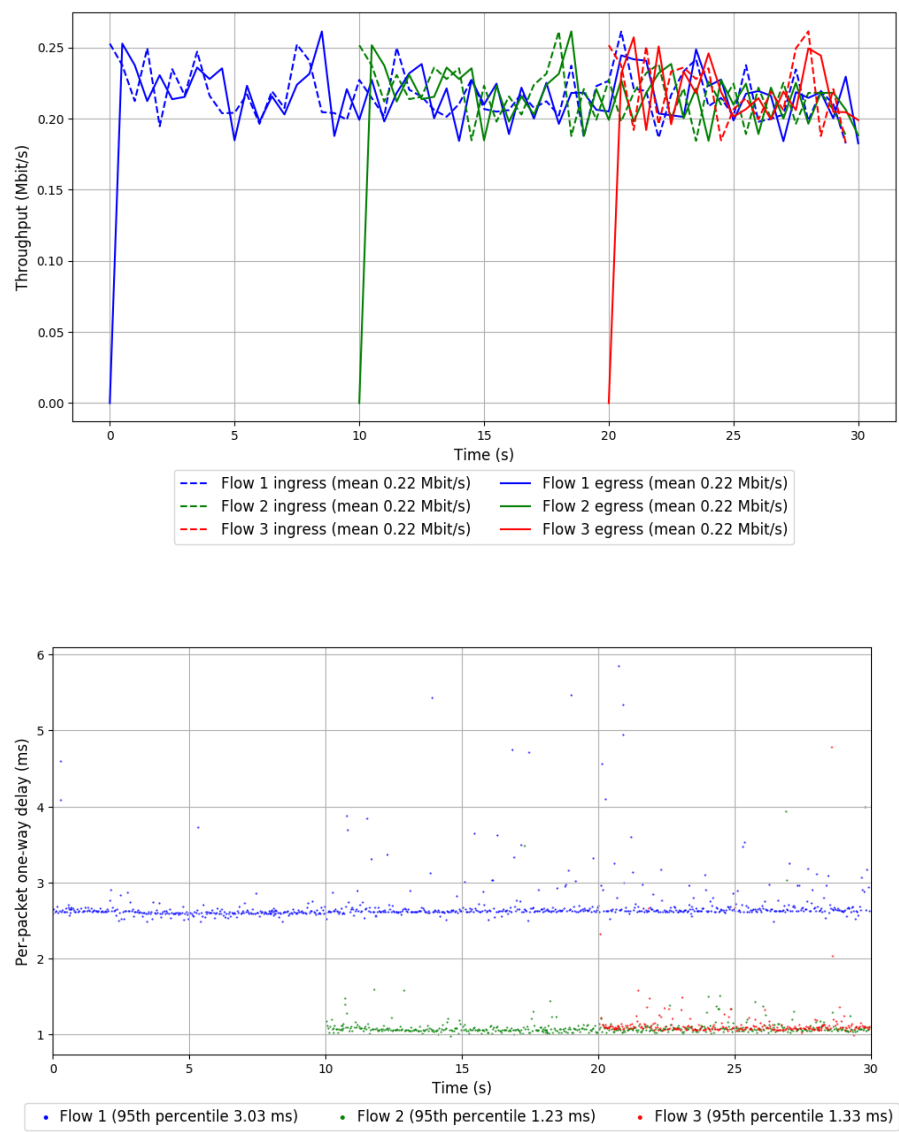


Run 1: Statistics of SReAM

Start at: 2019-06-28 00:47:51
End at: 2019-06-28 00:48:21
Local clock offset: -6.248 ms
Remote clock offset: -0.186 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.803 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.033 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

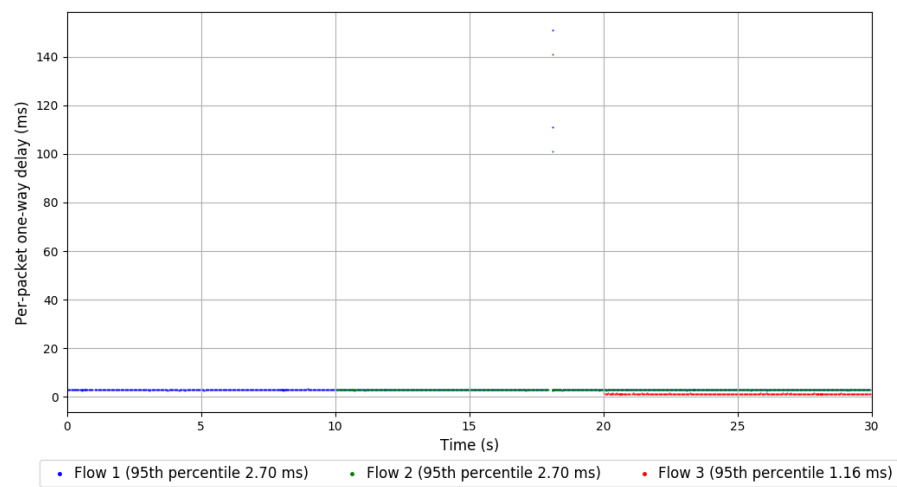
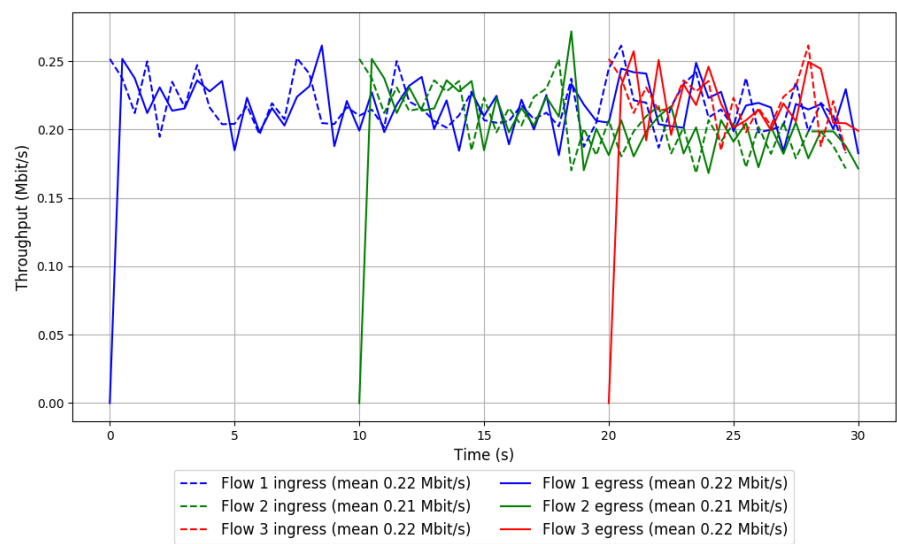


Run 2: Statistics of SReAM

Start at: 2019-06-28 01:12:54
End at: 2019-06-28 01:13:24
Local clock offset: -5.687 ms
Remote clock offset: 0.066 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.704 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 2.701 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.157 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

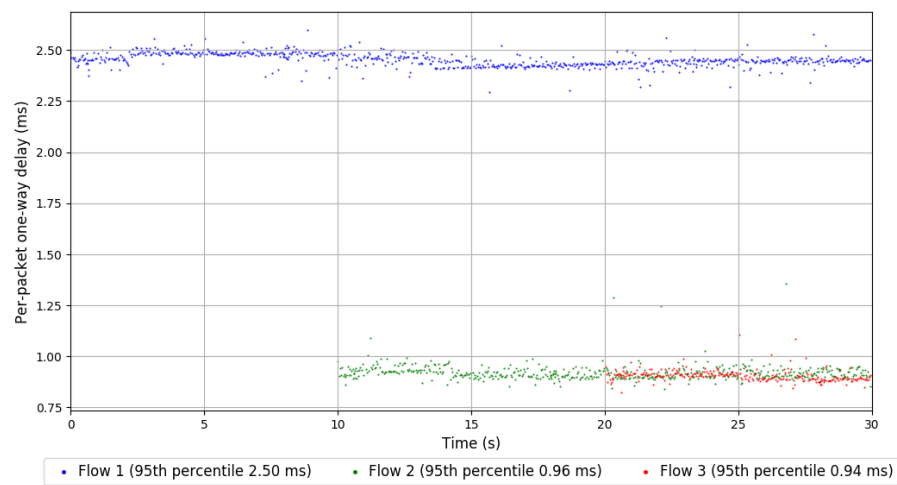
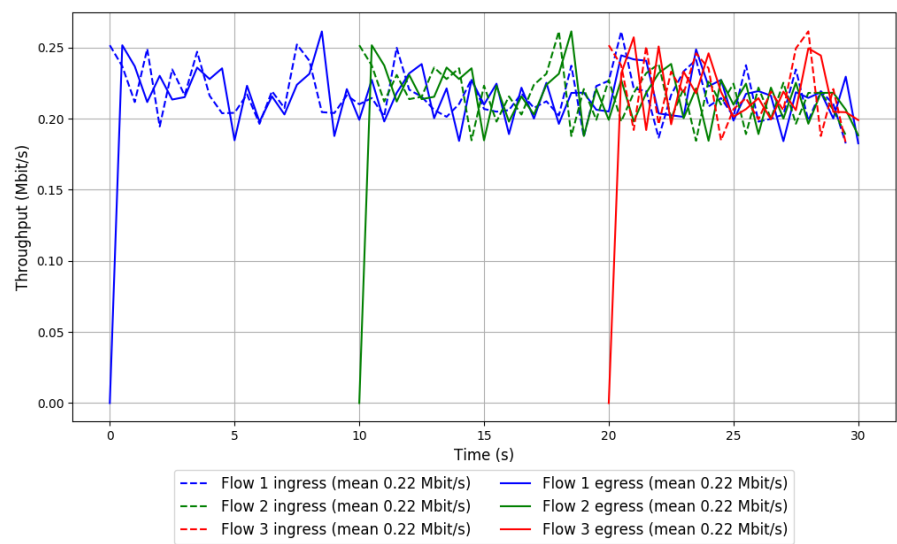


Run 3: Statistics of SReAM

Start at: 2019-06-28 01:37:58
End at: 2019-06-28 01:38:28
Local clock offset: -5.354 ms
Remote clock offset: 0.229 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.492 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.505 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.964 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.940 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

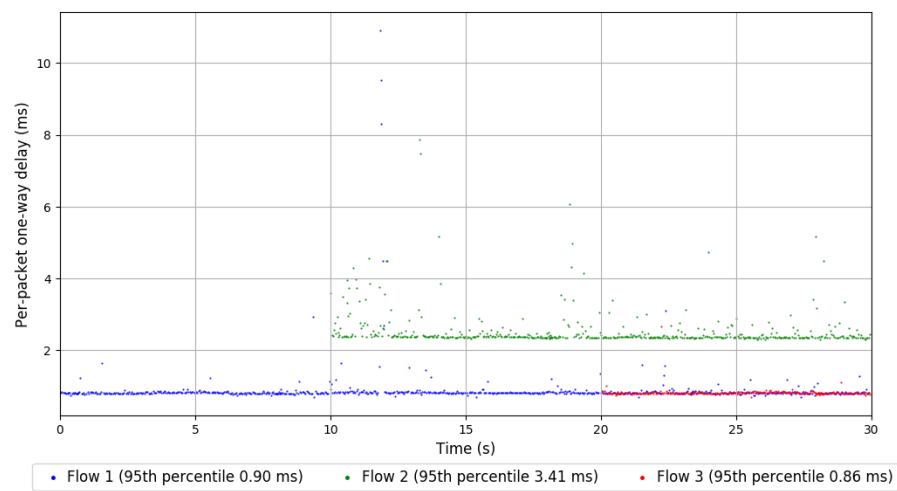
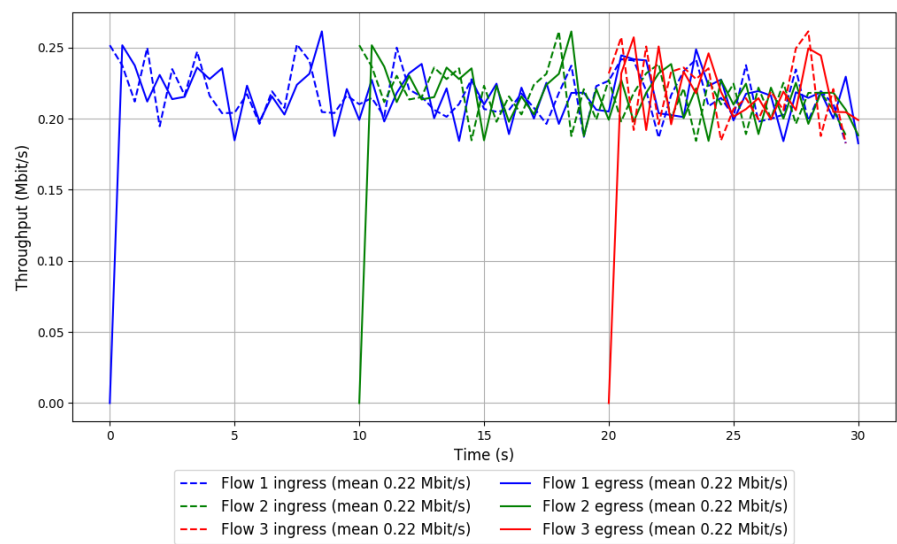


Run 4: Statistics of SReAM

Start at: 2019-06-28 02:03:02
End at: 2019-06-28 02:03:32
Local clock offset: -6.428 ms
Remote clock offset: 0.249 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.671 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.414 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.856 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-06-28 02:28:05

End at: 2019-06-28 02:28:35

Local clock offset: -6.698 ms

Remote clock offset: 0.223 ms

Below is generated by plot.py at 2019-06-28 02:40:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.779 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.473 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 4.345 ms

Loss rate: 0.00%

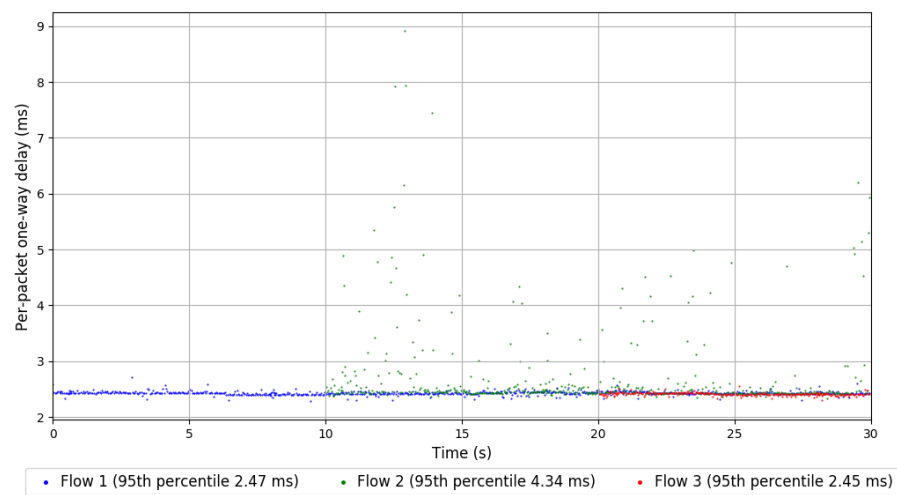
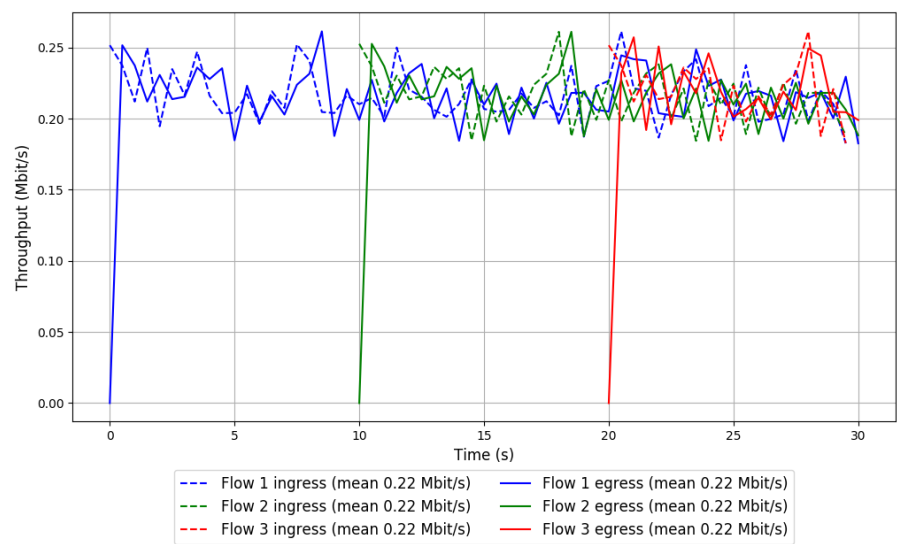
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.448 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

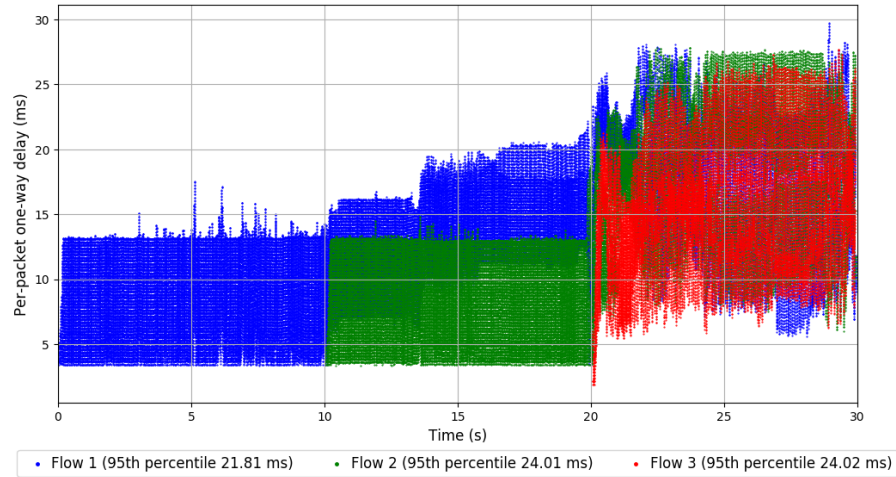
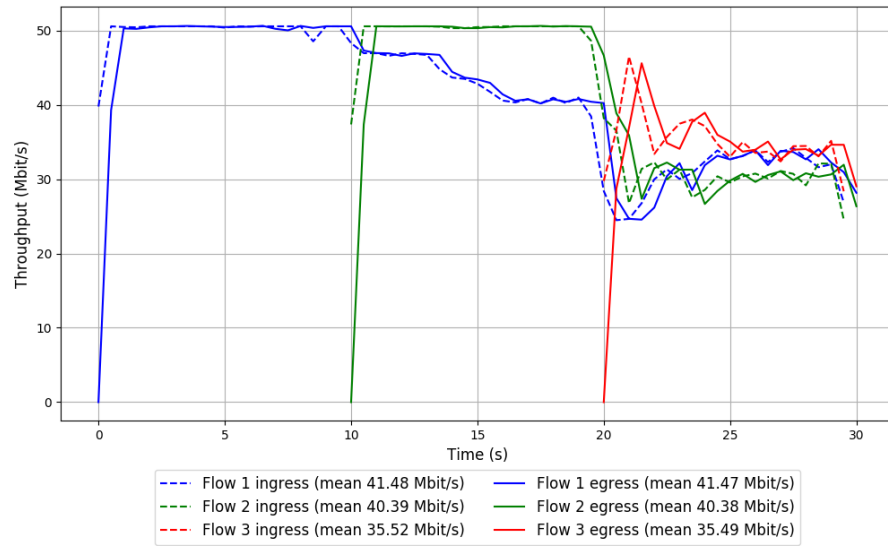


Run 1: Statistics of Sprout

Start at: 2019-06-28 00:27:18
End at: 2019-06-28 00:27:48
Local clock offset: -7.255 ms
Remote clock offset: -0.193 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.06 Mbit/s
95th percentile per-packet one-way delay: 23.016 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.47 Mbit/s
95th percentile per-packet one-way delay: 21.807 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.38 Mbit/s
95th percentile per-packet one-way delay: 24.010 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 35.49 Mbit/s
95th percentile per-packet one-way delay: 24.019 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

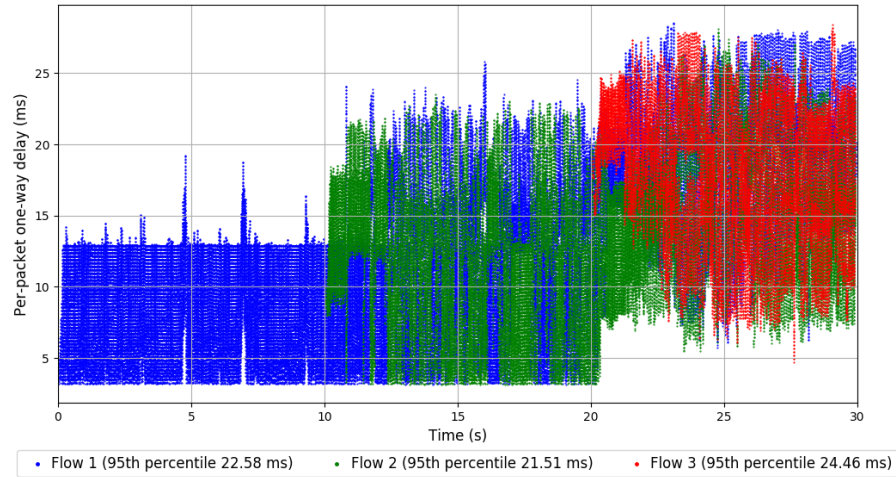
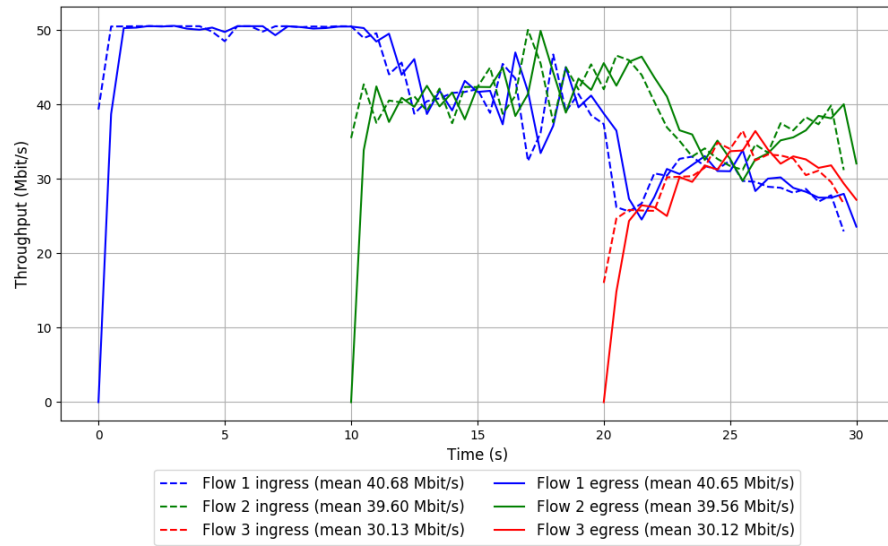


Run 2: Statistics of Sprout

Start at: 2019-06-28 00:52:23
End at: 2019-06-28 00:52:53
Local clock offset: -6.601 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2019-06-28 02:40:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 76.92 Mbit/s
95th percentile per-packet one-way delay: 22.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 22.577 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.56 Mbit/s
95th percentile per-packet one-way delay: 21.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.12 Mbit/s
95th percentile per-packet one-way delay: 24.461 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

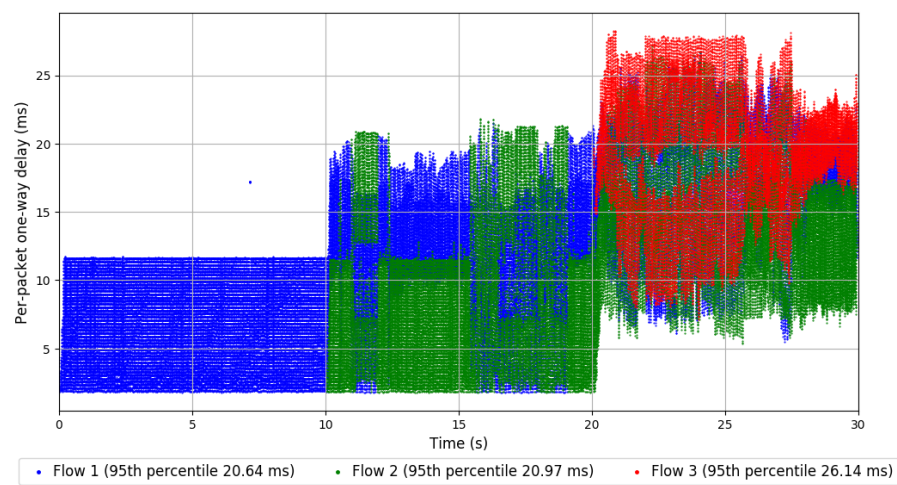
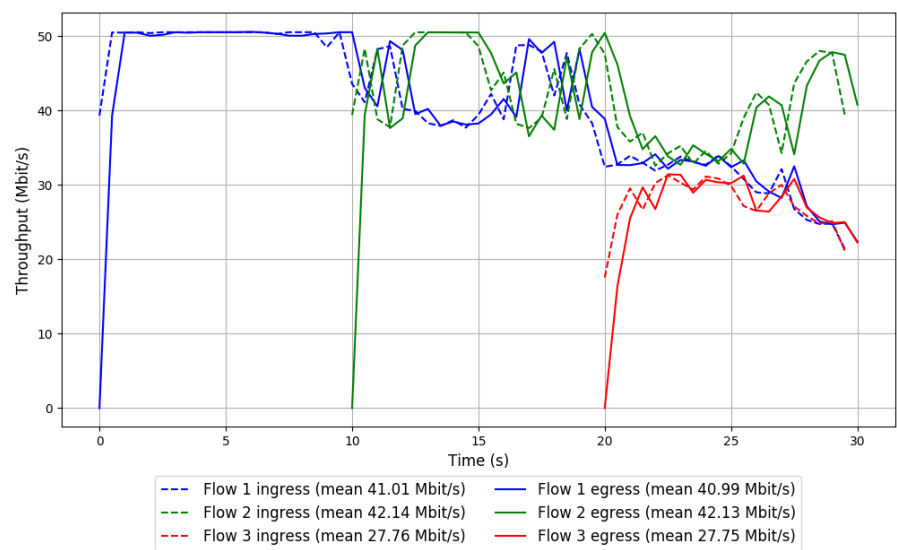


Run 3: Statistics of Sprout

Start at: 2019-06-28 01:17:26
End at: 2019-06-28 01:17:56
Local clock offset: -6.501 ms
Remote clock offset: 0.059 ms

```
# Below is generated by plot.py at 2019-06-28 02:40:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.18 Mbit/s
95th percentile per-packet one-way delay: 22.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 20.639 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.13 Mbit/s
95th percentile per-packet one-way delay: 20.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.75 Mbit/s
95th percentile per-packet one-way delay: 26.140 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

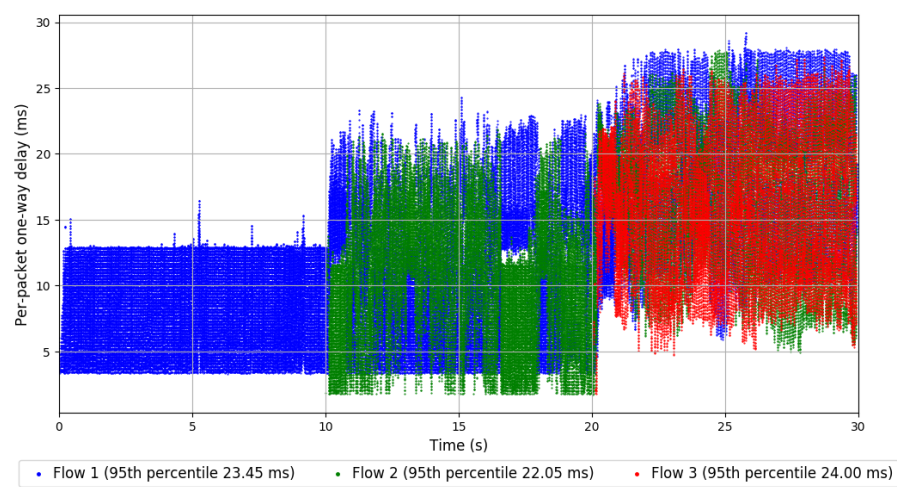
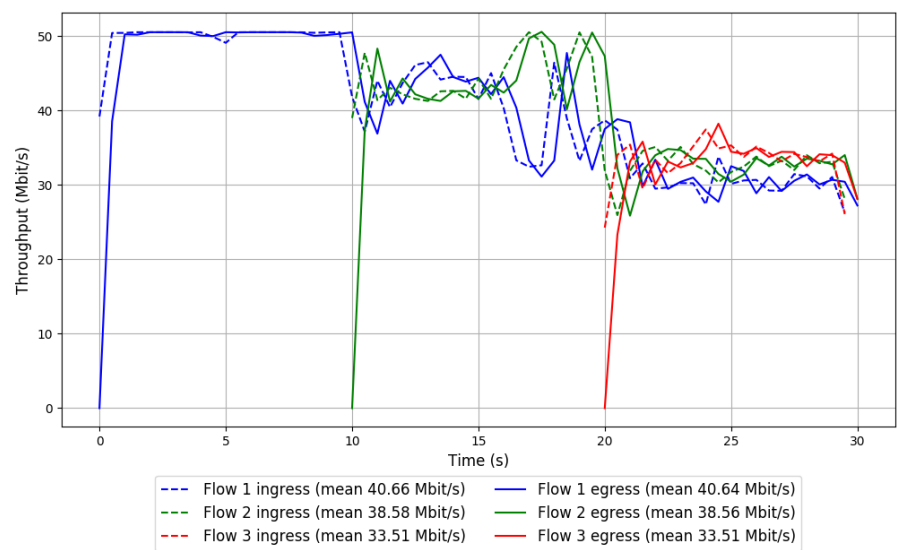


Run 4: Statistics of Sprout

Start at: 2019-06-28 01:42:31
End at: 2019-06-28 01:43:01
Local clock offset: -6.365 ms
Remote clock offset: 0.196 ms

```
# Below is generated by plot.py at 2019-06-28 02:41:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.35 Mbit/s
95th percentile per-packet one-way delay: 23.110 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 23.446 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.56 Mbit/s
95th percentile per-packet one-way delay: 22.054 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.51 Mbit/s
95th percentile per-packet one-way delay: 23.996 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

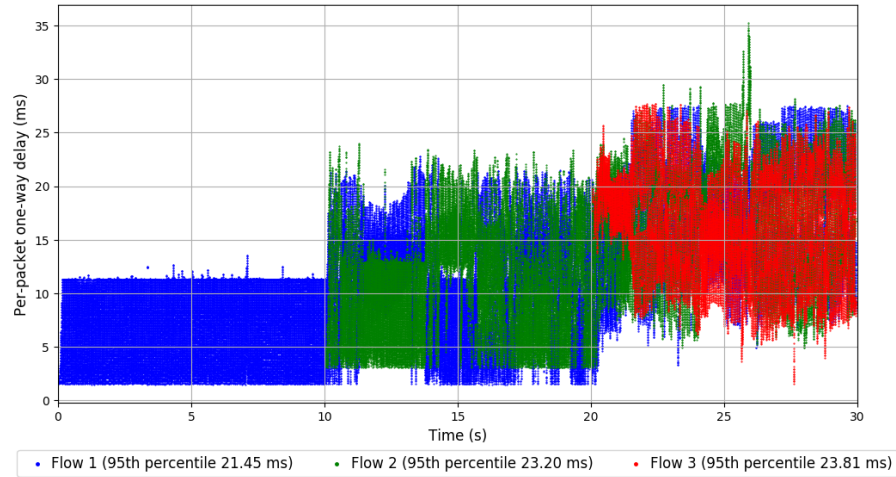
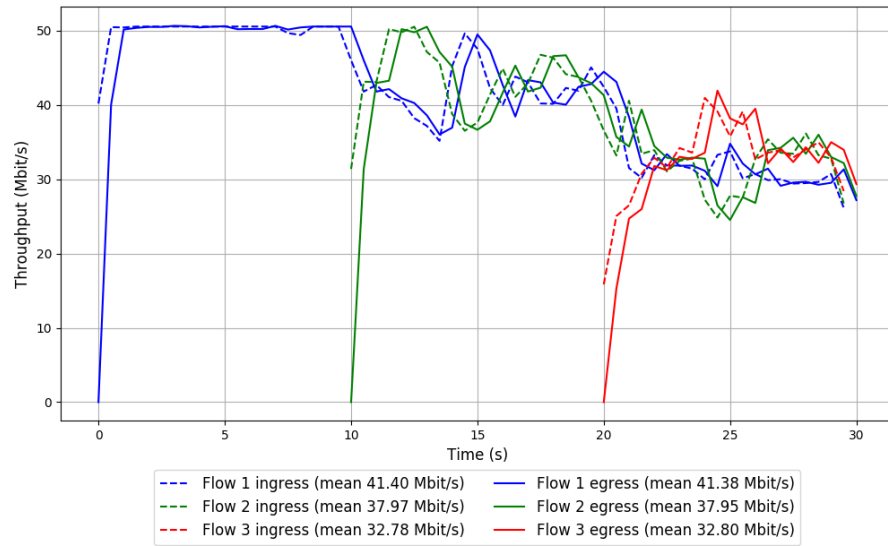


Run 5: Statistics of Sprout

Start at: 2019-06-28 02:07:34
End at: 2019-06-28 02:08:04
Local clock offset: -7.326 ms
Remote clock offset: 0.263 ms

```
# Below is generated by plot.py at 2019-06-28 02:41:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.46 Mbit/s
95th percentile per-packet one-way delay: 22.718 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.38 Mbit/s
95th percentile per-packet one-way delay: 21.451 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.95 Mbit/s
95th percentile per-packet one-way delay: 23.195 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.80 Mbit/s
95th percentile per-packet one-way delay: 23.812 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

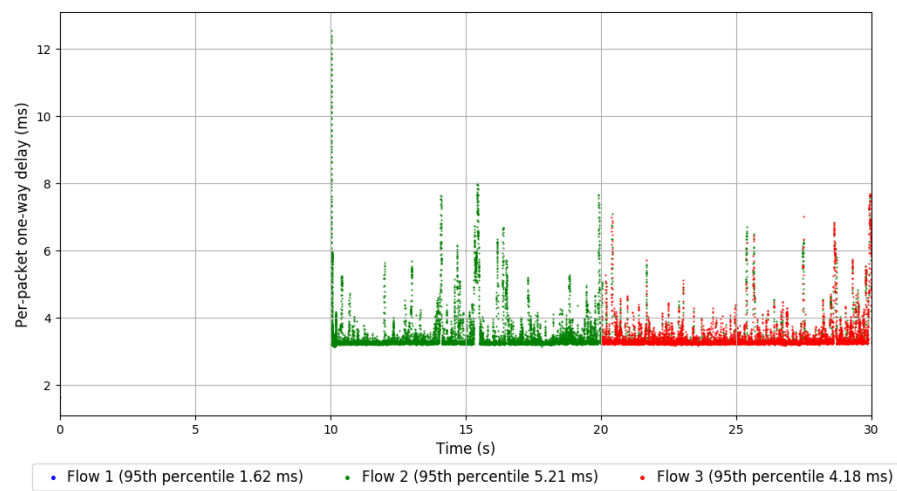
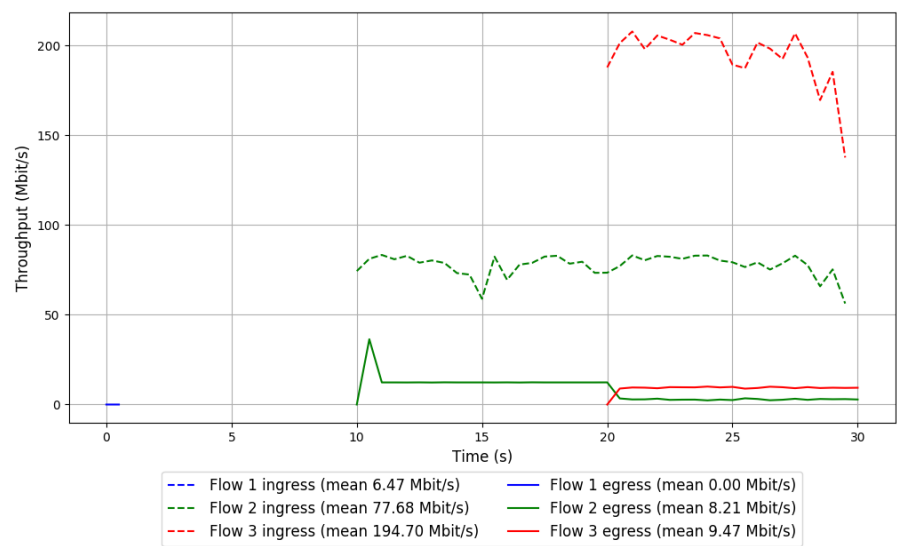


Run 1: Statistics of TaoVA-100x

Start at: 2019-06-28 00:26:11
End at: 2019-06-28 00:26:41
Local clock offset: -7.051 ms
Remote clock offset: -0.185 ms

Below is generated by plot.py at 2019-06-28 02:41:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 4.879 ms
Loss rate: 92.60%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.625 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 5.207 ms
Loss rate: 89.44%
-- Flow 3:
Average throughput: 9.47 Mbit/s
95th percentile per-packet one-way delay: 4.181 ms
Loss rate: 95.14%

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

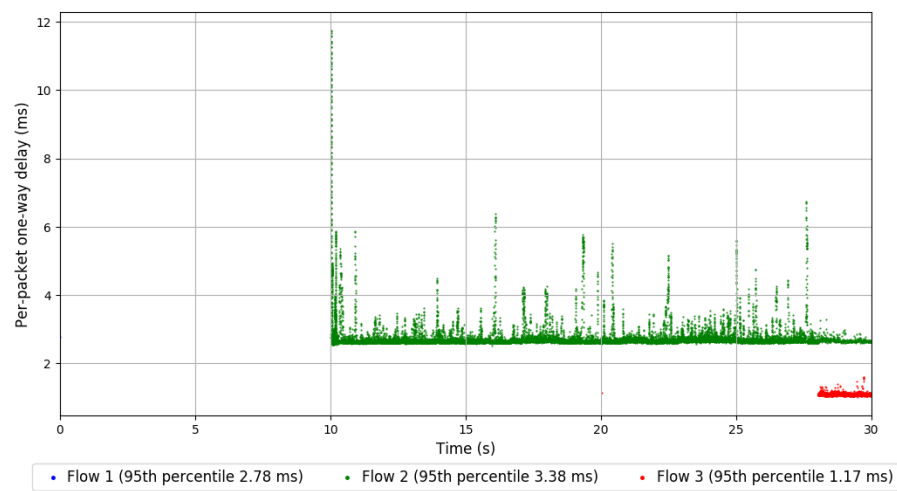
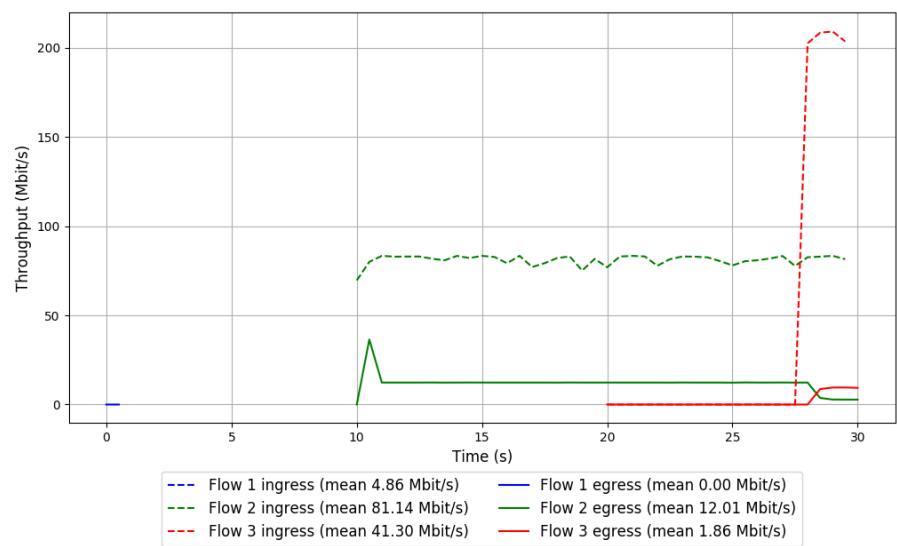


Run 2: Statistics of TaoVA-100x

Start at: 2019-06-28 00:51:16
End at: 2019-06-28 00:51:46
Local clock offset: -6.075 ms
Remote clock offset: -0.107 ms

Below is generated by plot.py at 2019-06-28 02:41:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 3.320 ms
Loss rate: 87.29%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2.781 ms
Loss rate: 95.92%
-- Flow 2:
Average throughput: 12.01 Mbit/s
95th percentile per-packet one-way delay: 3.379 ms
Loss rate: 85.20%
-- Flow 3:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 1.168 ms
Loss rate: 95.50%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-28 01:16:19

End at: 2019-06-28 01:16:49

Local clock offset: -6.222 ms

Remote clock offset: 0.121 ms

Below is generated by plot.py at 2019-06-28 02:41:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 1.734 ms

Loss rate: 84.38%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.721 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 6.72 Mbit/s

95th percentile per-packet one-way delay: 1.738 ms

Loss rate: 83.71%

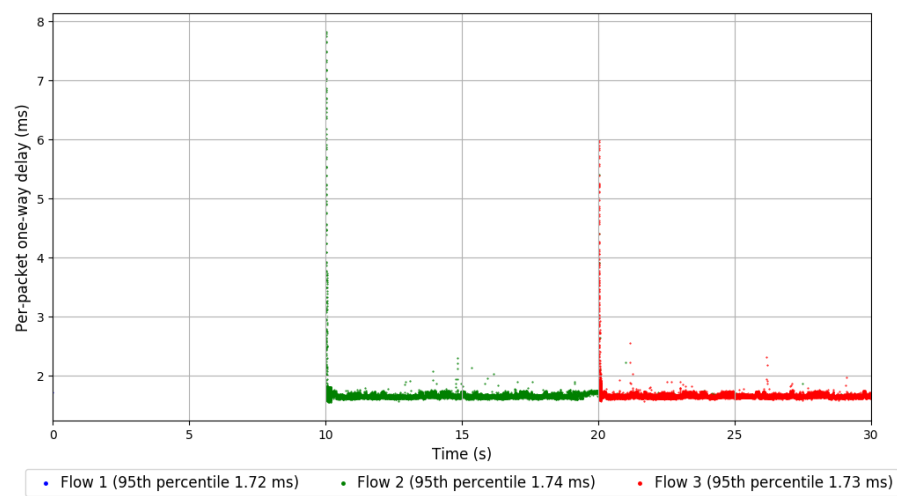
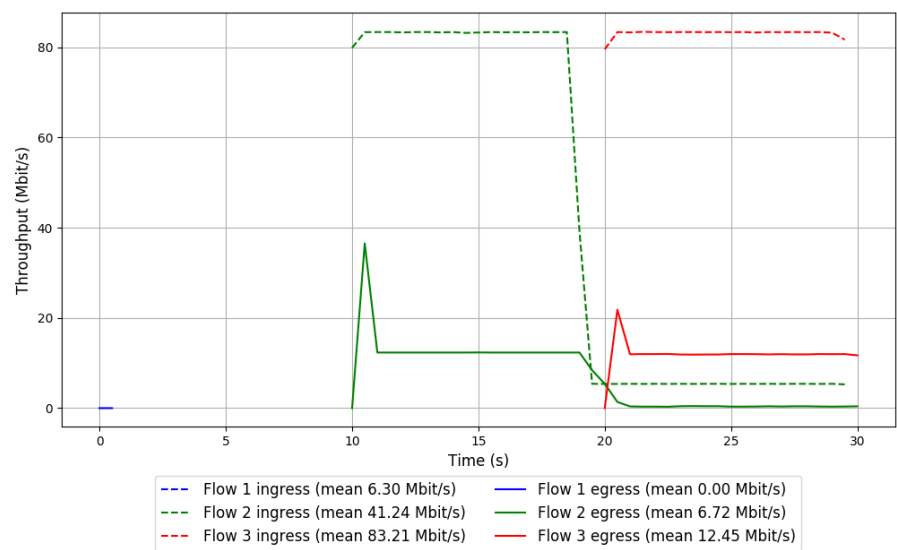
-- Flow 3:

Average throughput: 12.45 Mbit/s

95th percentile per-packet one-way delay: 1.730 ms

Loss rate: 85.04%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-06-28 01:41:24

End at: 2019-06-28 01:41:54

Local clock offset: -5.334 ms

Remote clock offset: 0.261 ms

Below is generated by plot.py at 2019-06-28 02:41:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 2.429 ms

Loss rate: 89.67%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3.563 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 11.01 Mbit/s

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

Loss rate: 86.76%

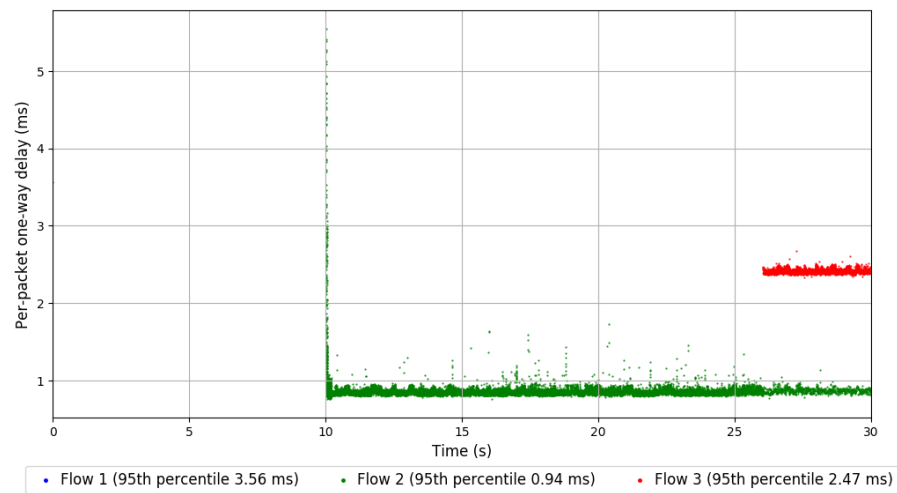
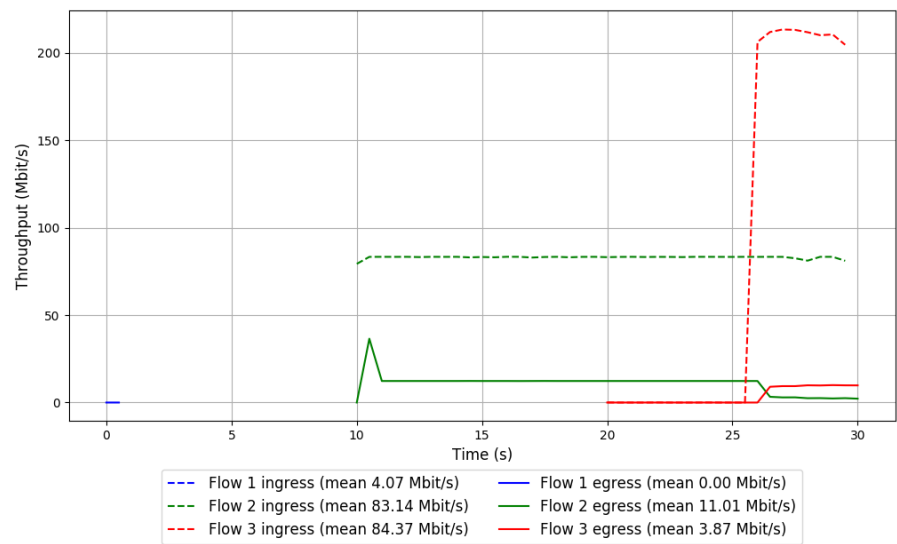
-- Flow 3:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 2.473 ms

Loss rate: 95.42%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-06-28 02:06:27

End at: 2019-06-28 02:06:57

Local clock offset: -6.513 ms

Remote clock offset: 0.328 ms

Below is generated by plot.py at 2019-06-28 02:41:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 3.360 ms

Loss rate: 90.71%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 0.946 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 3.658 ms

Loss rate: 87.29%

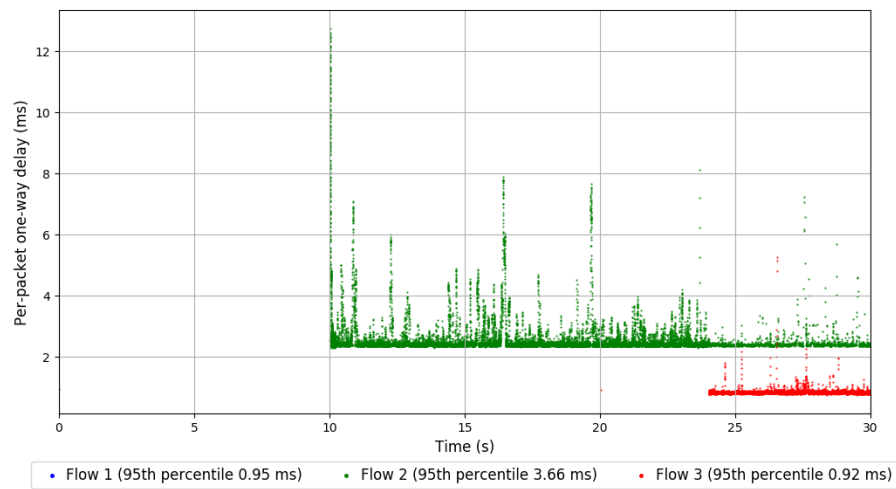
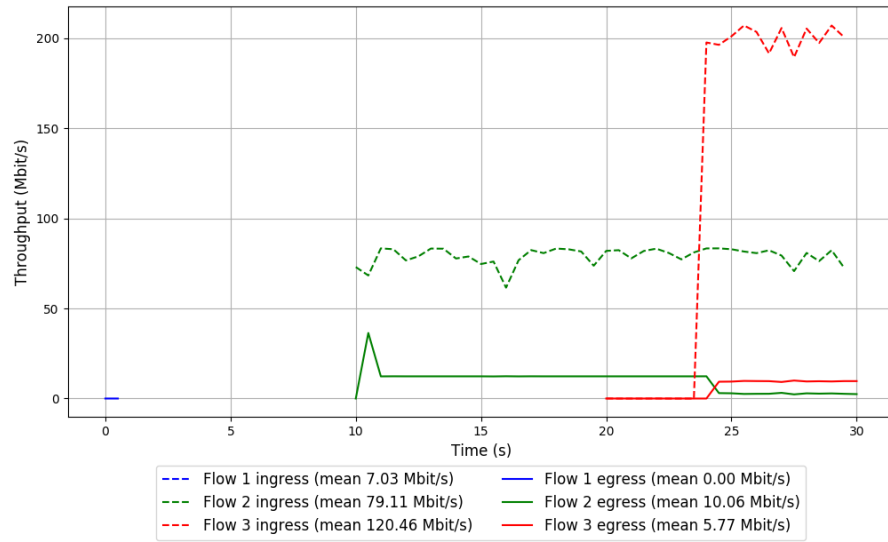
-- Flow 3:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 0.917 ms

Loss rate: 95.21%

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

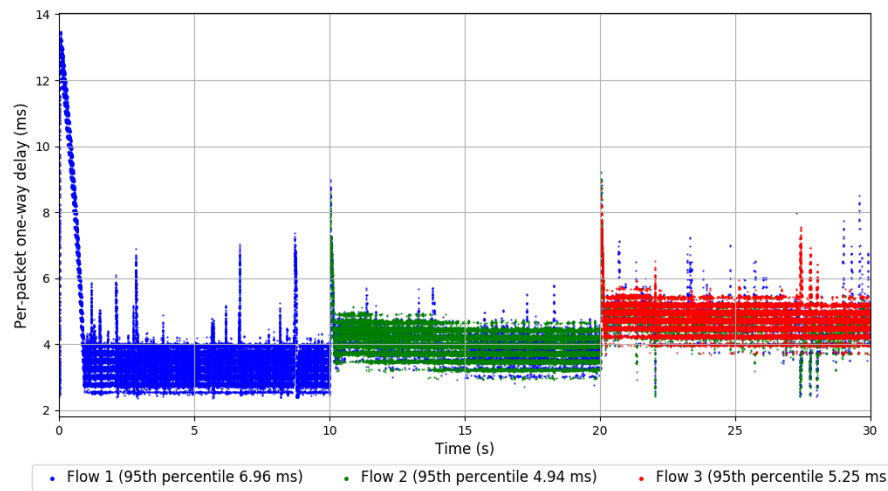
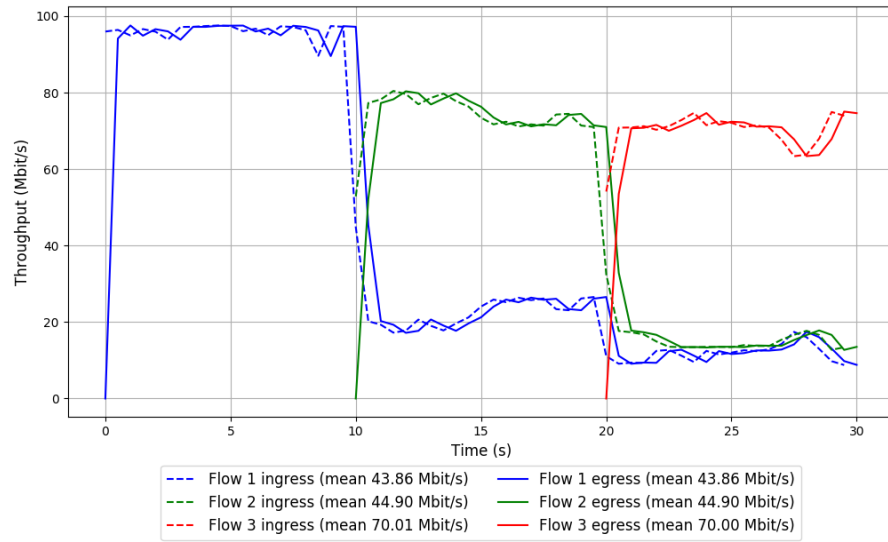


Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 00:44:23
End at: 2019-06-28 00:44:53
Local clock offset: -6.056 ms
Remote clock offset: -0.109 ms

Below is generated by plot.py at 2019-06-28 02:42:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.06 Mbit/s
95th percentile per-packet one-way delay: 5.247 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.86 Mbit/s
95th percentile per-packet one-way delay: 6.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.90 Mbit/s
95th percentile per-packet one-way delay: 4.938 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.00 Mbit/s
95th percentile per-packet one-way delay: 5.248 ms
Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

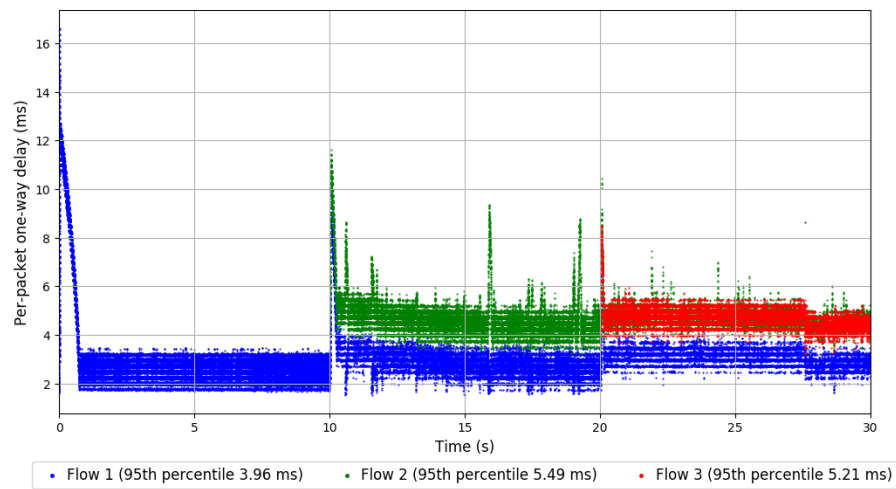
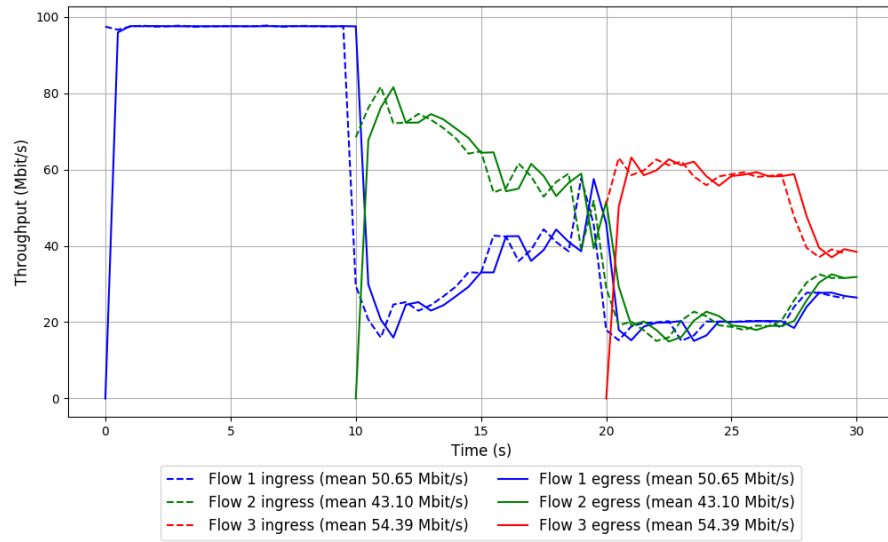


Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 01:09:26
End at: 2019-06-28 01:09:56
Local clock offset: -6.344 ms
Remote clock offset: -0.008 ms

Below is generated by plot.py at 2019-06-28 02:42:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.44 Mbit/s
95th percentile per-packet one-way delay: 5.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.65 Mbit/s
95th percentile per-packet one-way delay: 3.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.10 Mbit/s
95th percentile per-packet one-way delay: 5.489 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 54.39 Mbit/s
95th percentile per-packet one-way delay: 5.211 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 01:34:30

End at: 2019-06-28 01:35:00

Local clock offset: -5.385 ms

Remote clock offset: 0.241 ms

Below is generated by plot.py at 2019-06-28 02:42:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.63 Mbit/s

95th percentile per-packet one-way delay: 4.674 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 48.96 Mbit/s

95th percentile per-packet one-way delay: 4.719 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 40.20 Mbit/s

95th percentile per-packet one-way delay: 2.760 ms

Loss rate: 0.00%

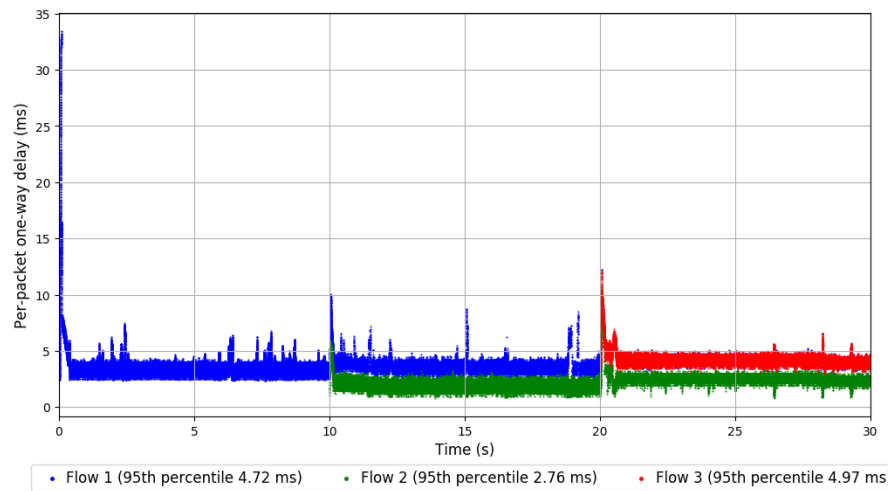
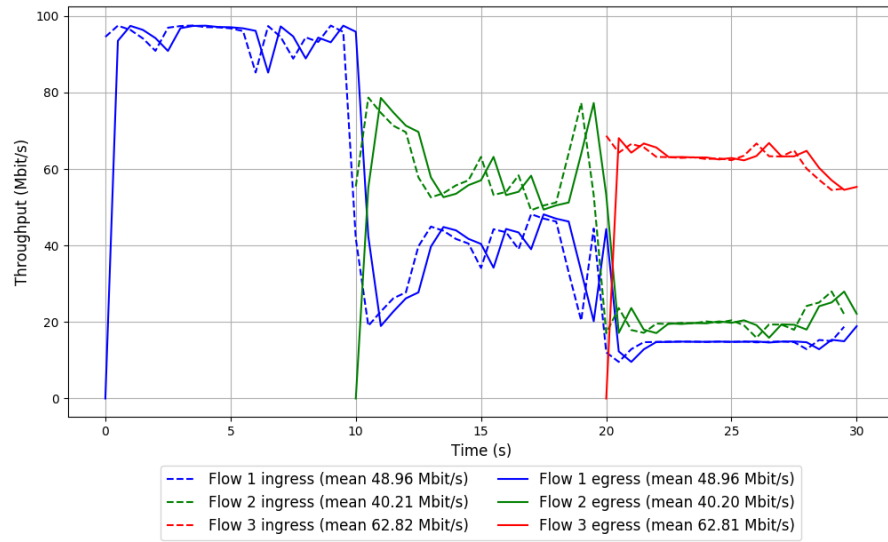
-- Flow 3:

Average throughput: 62.81 Mbit/s

95th percentile per-packet one-way delay: 4.967 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 01:59:34

End at: 2019-06-28 02:00:04

Local clock offset: -6.278 ms

Remote clock offset: 0.288 ms

Below is generated by plot.py at 2019-06-28 02:42:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 2.857 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.70 Mbit/s

95th percentile per-packet one-way delay: 2.569 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.88 Mbit/s

95th percentile per-packet one-way delay: 2.847 ms

Loss rate: 0.00%

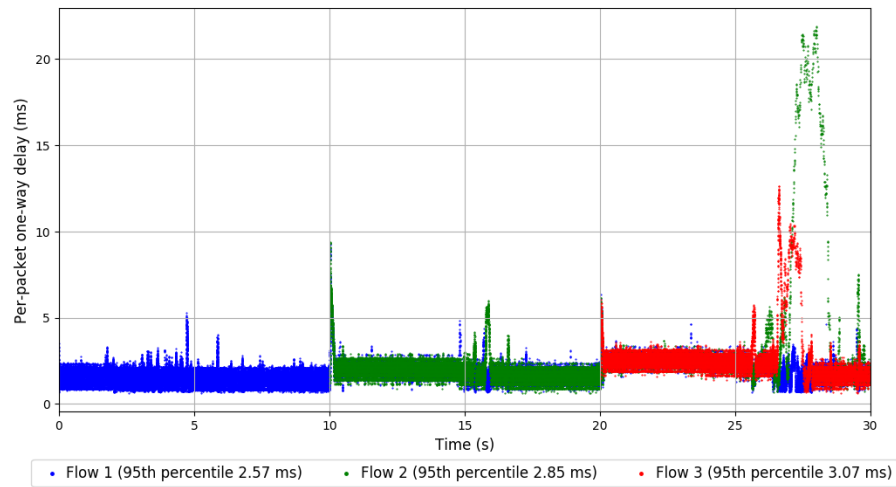
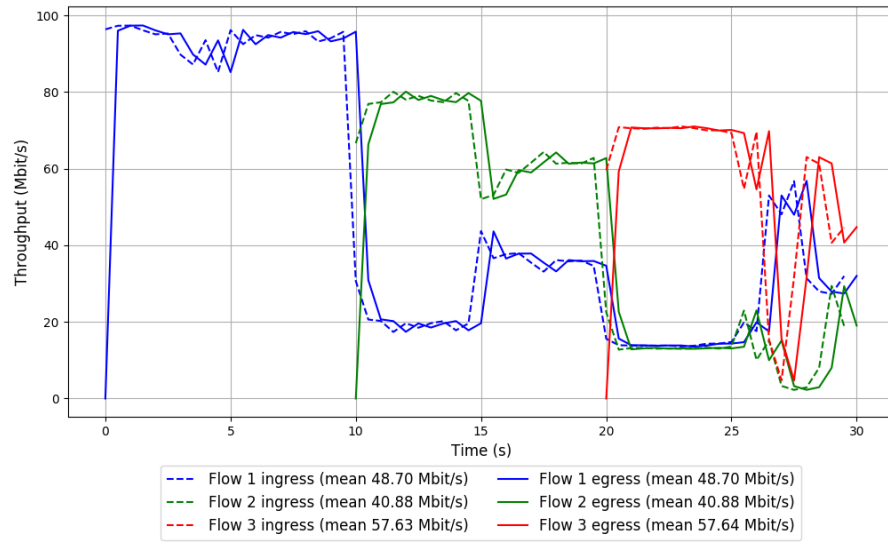
-- Flow 3:

Average throughput: 57.64 Mbit/s

95th percentile per-packet one-way delay: 3.068 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 02:24:37

End at: 2019-06-28 02:25:07

Local clock offset: -6.883 ms

Remote clock offset: 0.331 ms

Below is generated by plot.py at 2019-06-28 02:42:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.16 Mbit/s

95th percentile per-packet one-way delay: 5.147 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.96 Mbit/s

95th percentile per-packet one-way delay: 5.440 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.22 Mbit/s

95th percentile per-packet one-way delay: 4.893 ms

Loss rate: 0.00%

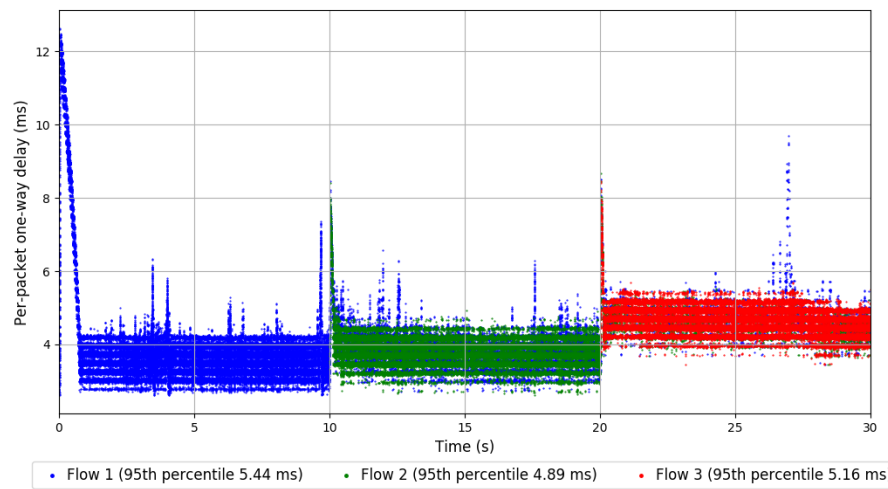
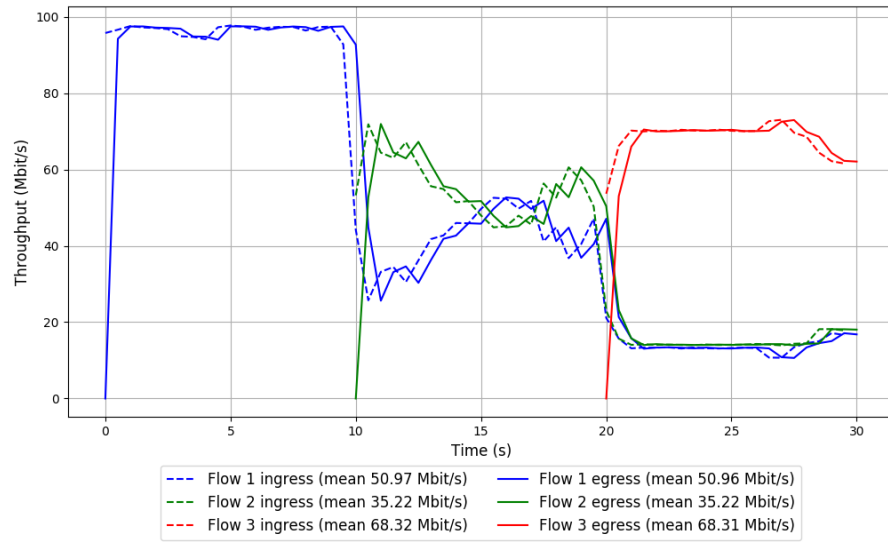
-- Flow 3:

Average throughput: 68.31 Mbit/s

95th percentile per-packet one-way delay: 5.162 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

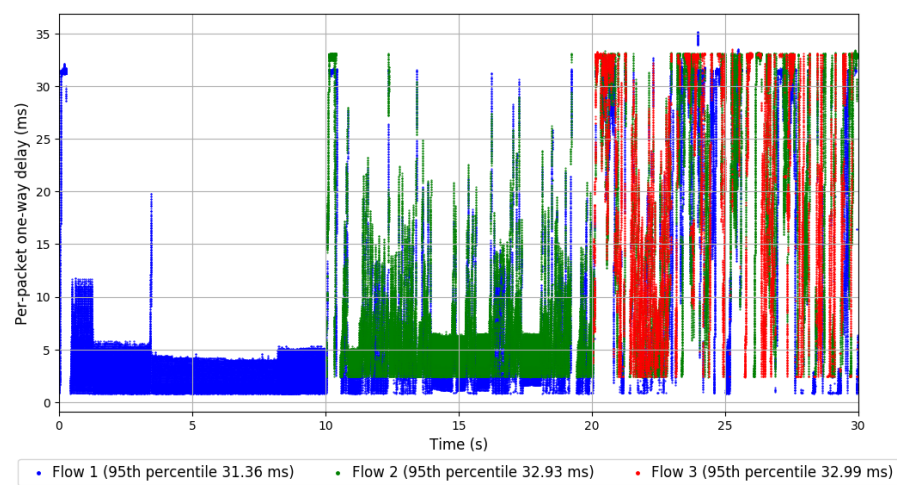
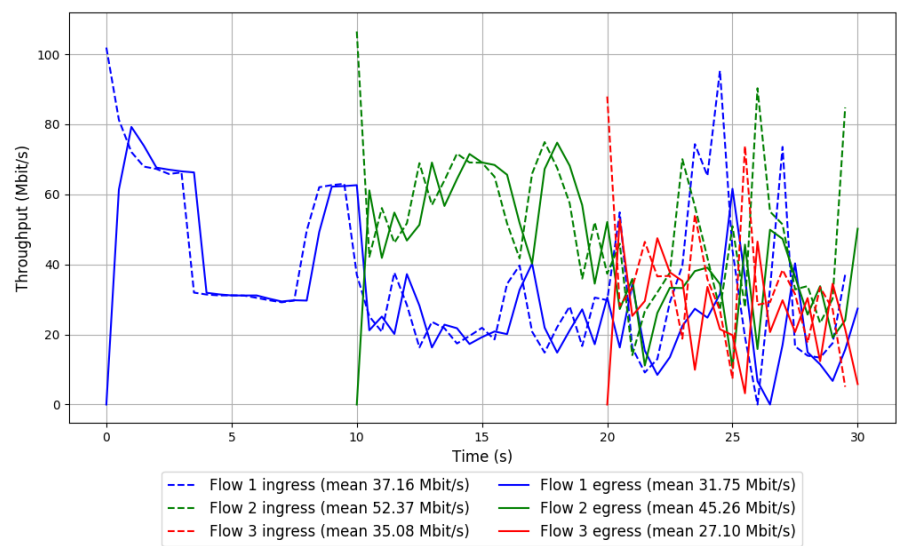


Run 1: Statistics of Verus

Start at: 2019-06-28 00:42:03
End at: 2019-06-28 00:42:33
Local clock offset: -6.123 ms
Remote clock offset: -0.111 ms

Below is generated by plot.py at 2019-06-28 02:42:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 70.83 Mbit/s
95th percentile per-packet one-way delay: 32.769 ms
Loss rate: 15.24%
-- Flow 1:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 31.364 ms
Loss rate: 14.55%
-- Flow 2:
Average throughput: 45.26 Mbit/s
95th percentile per-packet one-way delay: 32.926 ms
Loss rate: 13.46%
-- Flow 3:
Average throughput: 27.10 Mbit/s
95th percentile per-packet one-way delay: 32.986 ms
Loss rate: 22.74%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-06-28 01:07:06

End at: 2019-06-28 01:07:36

Local clock offset: -6.359 ms

Remote clock offset: 0.045 ms

Below is generated by plot.py at 2019-06-28 02:42:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.47 Mbit/s

95th percentile per-packet one-way delay: 32.318 ms

Loss rate: 24.16%

-- Flow 1:

Average throughput: 34.42 Mbit/s

95th percentile per-packet one-way delay: 32.109 ms

Loss rate: 15.58%

-- Flow 2:

Average throughput: 27.72 Mbit/s

95th percentile per-packet one-way delay: 32.216 ms

Loss rate: 30.52%

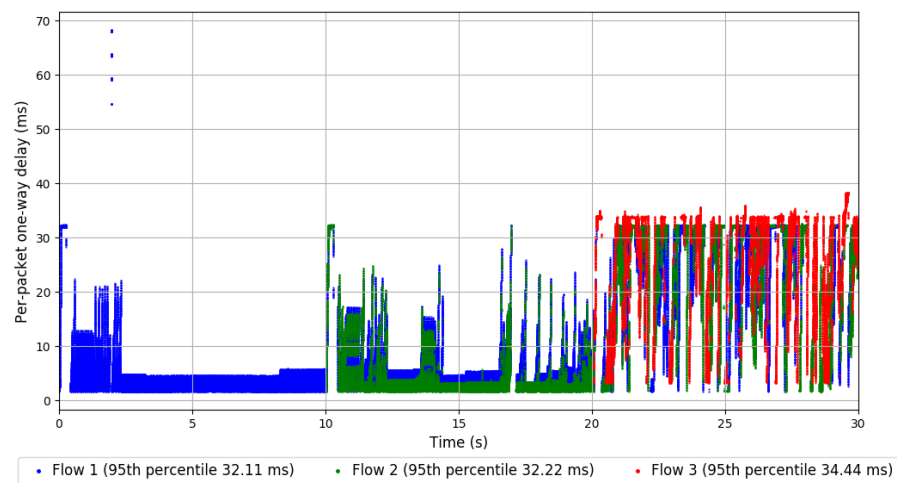
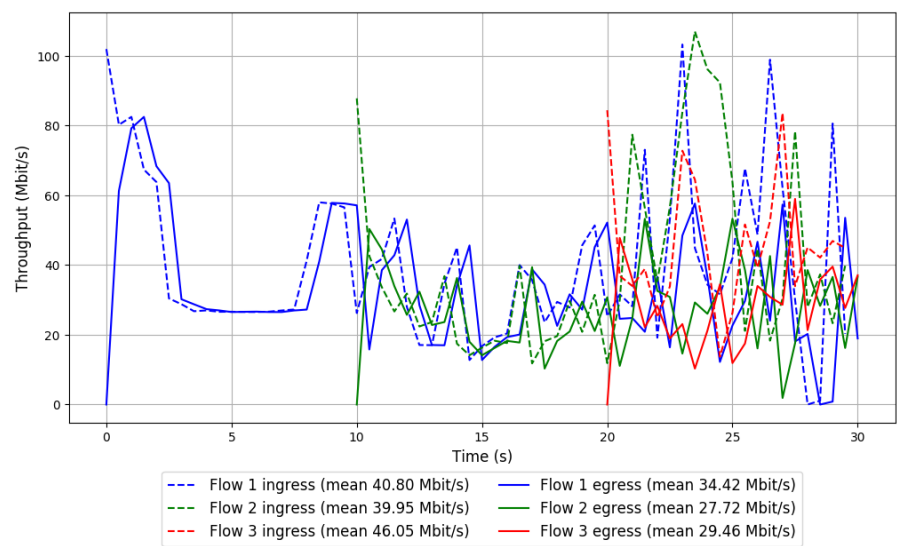
-- Flow 3:

Average throughput: 29.46 Mbit/s

95th percentile per-packet one-way delay: 34.442 ms

Loss rate: 35.93%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-06-28 01:32:10

End at: 2019-06-28 01:32:40

Local clock offset: -5.39 ms

Remote clock offset: 0.133 ms

Below is generated by plot.py at 2019-06-28 02:42:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.72 Mbit/s

95th percentile per-packet one-way delay: 31.298 ms

Loss rate: 17.67%

-- Flow 1:

Average throughput: 38.72 Mbit/s

95th percentile per-packet one-way delay: 28.535 ms

Loss rate: 8.10%

-- Flow 2:

Average throughput: 33.83 Mbit/s

95th percentile per-packet one-way delay: 32.703 ms

Loss rate: 29.56%

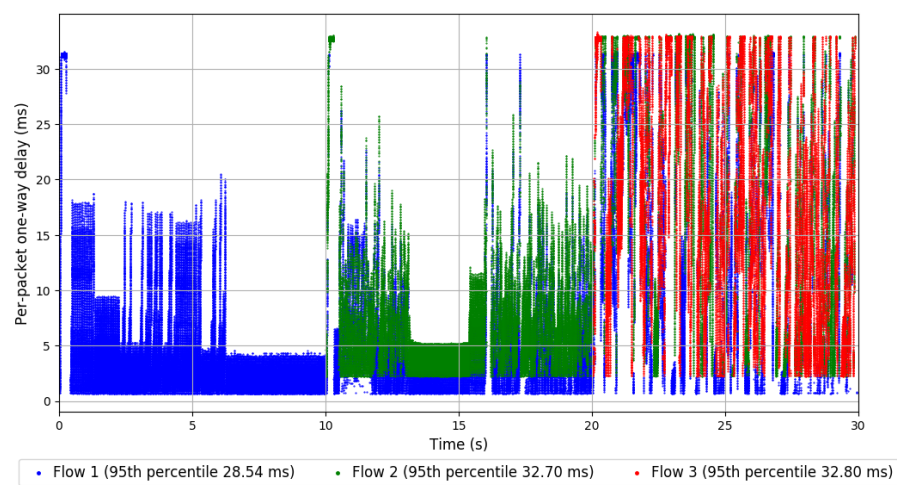
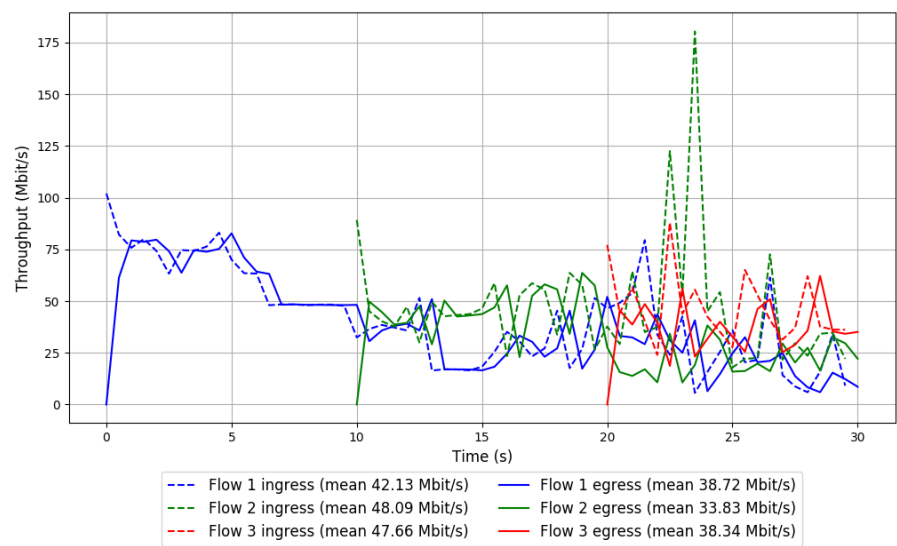
-- Flow 3:

Average throughput: 38.34 Mbit/s

95th percentile per-packet one-way delay: 32.795 ms

Loss rate: 19.31%

Run 3: Report of Verus — Data Link

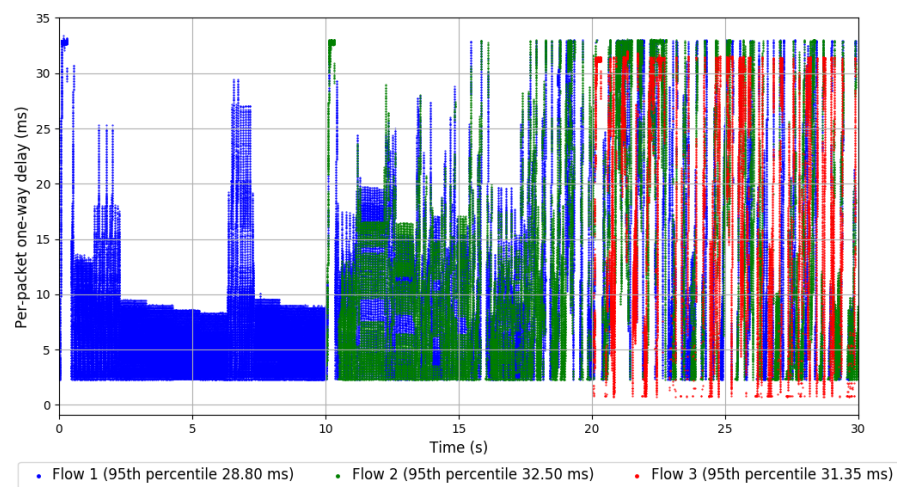
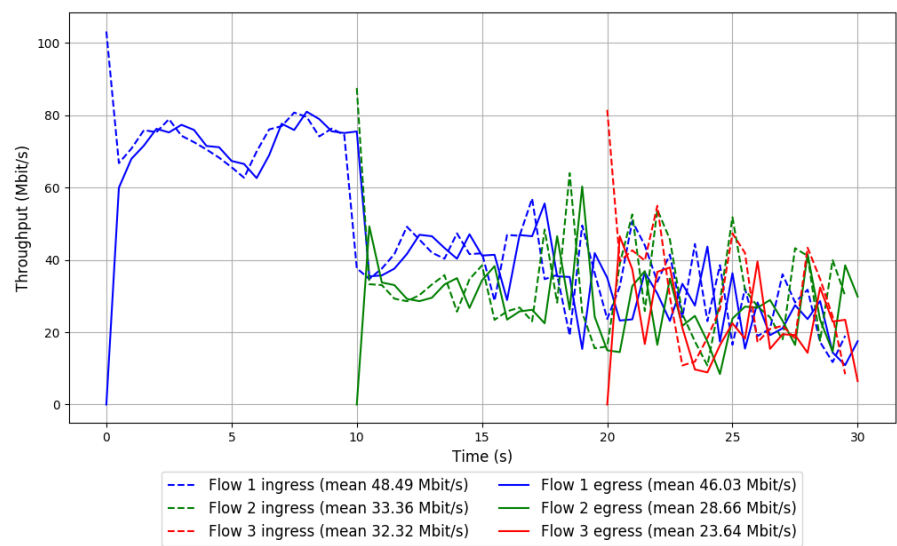


Run 4: Statistics of Verus

Start at: 2019-06-28 01:57:14
End at: 2019-06-28 01:57:44
Local clock offset: -6.245 ms
Remote clock offset: 0.275 ms

Below is generated by plot.py at 2019-06-28 02:42:58
Datalink statistics
-- Total of 3 flows:
Average throughput: 72.76 Mbit/s
95th percentile per-packet one-way delay: 31.292 ms
Loss rate: 10.29%
-- Flow 1:
Average throughput: 46.03 Mbit/s
95th percentile per-packet one-way delay: 28.802 ms
Loss rate: 4.98%
-- Flow 2:
Average throughput: 28.66 Mbit/s
95th percentile per-packet one-way delay: 32.499 ms
Loss rate: 14.06%
-- Flow 3:
Average throughput: 23.64 Mbit/s
95th percentile per-packet one-way delay: 31.348 ms
Loss rate: 26.64%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-06-28 02:22:18

End at: 2019-06-28 02:22:48

Local clock offset: -6.67 ms

Remote clock offset: 0.233 ms

Below is generated by plot.py at 2019-06-28 02:42:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.68 Mbit/s

95th percentile per-packet one-way delay: 24.102 ms

Loss rate: 4.23%

-- Flow 1:

Average throughput: 39.85 Mbit/s

95th percentile per-packet one-way delay: 17.928 ms

Loss rate: 2.99%

-- Flow 2:

Average throughput: 31.44 Mbit/s

95th percentile per-packet one-way delay: 26.064 ms

Loss rate: 4.46%

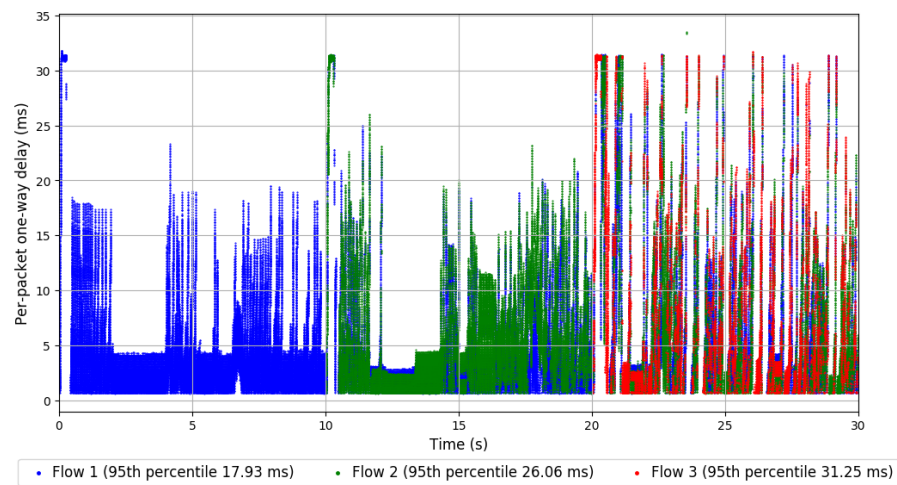
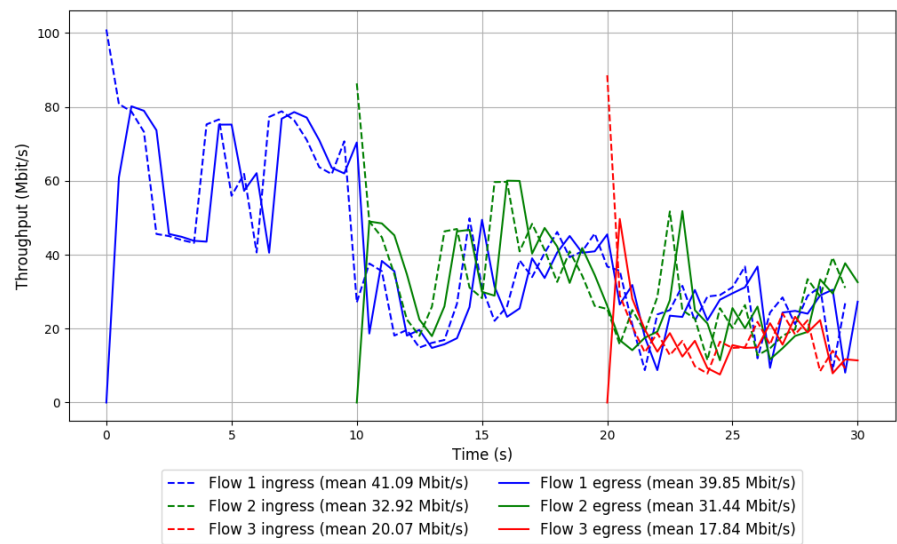
-- Flow 3:

Average throughput: 17.84 Mbit/s

95th percentile per-packet one-way delay: 31.248 ms

Loss rate: 11.09%

Run 5: Report of Verus — Data Link

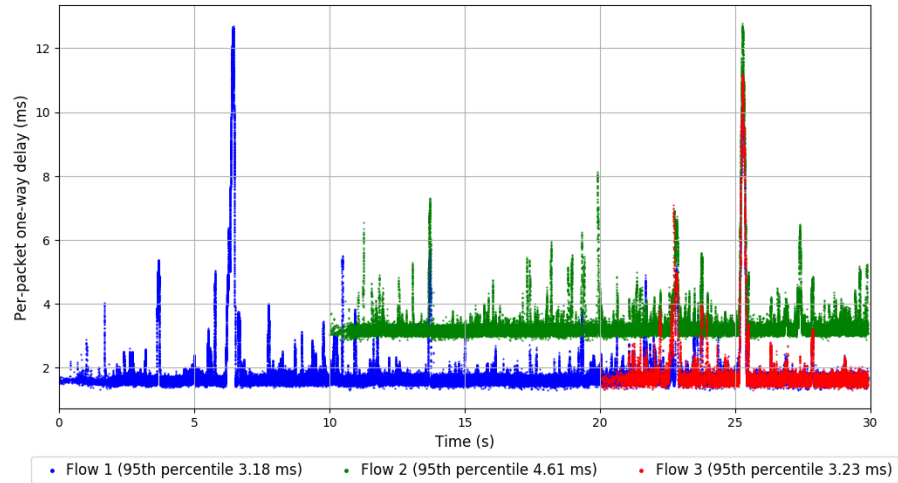
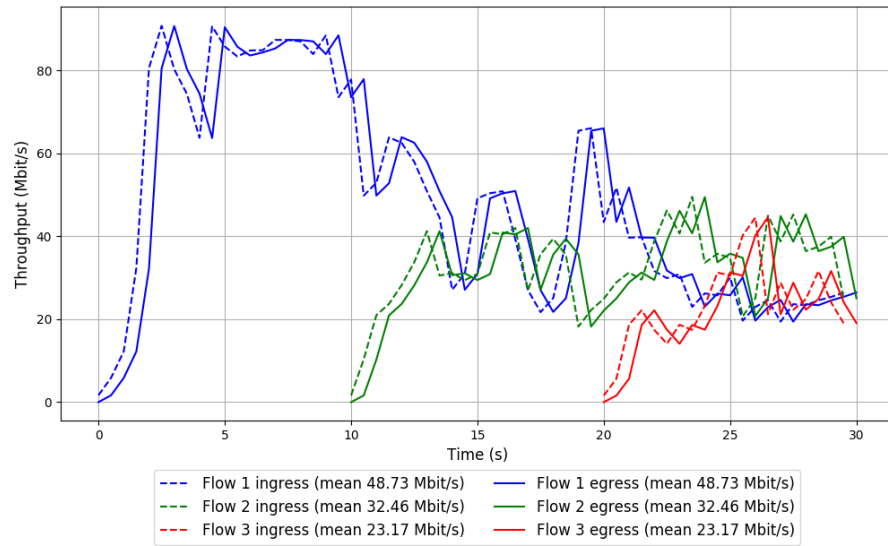


Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 00:43:13
End at: 2019-06-28 00:43:43
Local clock offset: -6.844 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2019-06-28 02:43:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.97 Mbit/s
95th percentile per-packet one-way delay: 3.960 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.73 Mbit/s
95th percentile per-packet one-way delay: 3.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 4.611 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.17 Mbit/s
95th percentile per-packet one-way delay: 3.234 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 01:08:15

End at: 2019-06-28 01:08:45

Local clock offset: -6.305 ms

Remote clock offset: 0.049 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.27 Mbit/s

95th percentile per-packet one-way delay: 3.796 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.43 Mbit/s

95th percentile per-packet one-way delay: 3.823 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.64 Mbit/s

95th percentile per-packet one-way delay: 3.225 ms

Loss rate: 0.00%

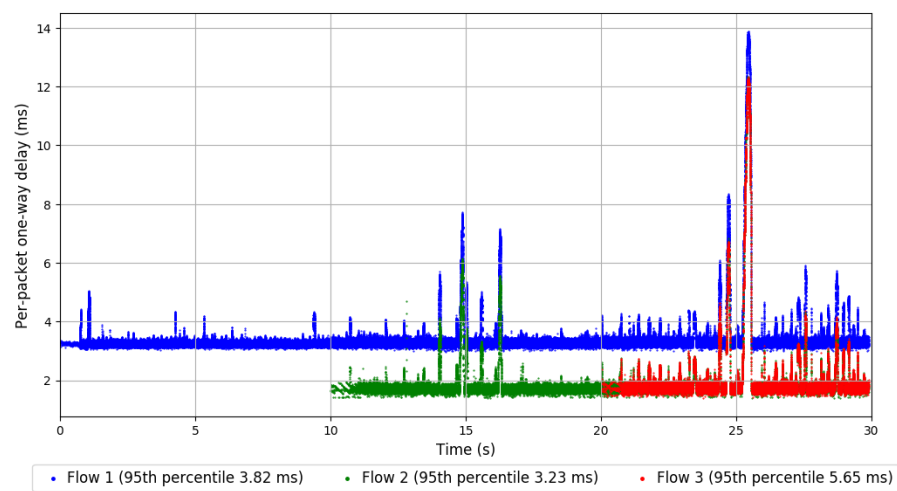
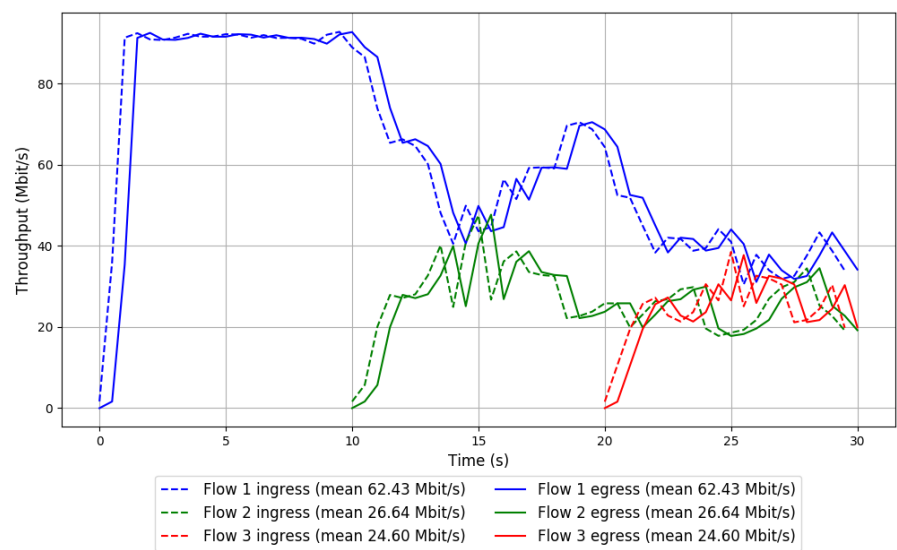
-- Flow 3:

Average throughput: 24.60 Mbit/s

95th percentile per-packet one-way delay: 5.651 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 01:33:20

End at: 2019-06-28 01:33:50

Local clock offset: -5.392 ms

Remote clock offset: 0.231 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.30 Mbit/s

95th percentile per-packet one-way delay: 3.170 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.47 Mbit/s

95th percentile per-packet one-way delay: 2.831 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 34.78 Mbit/s

95th percentile per-packet one-way delay: 3.386 ms

Loss rate: 0.00%

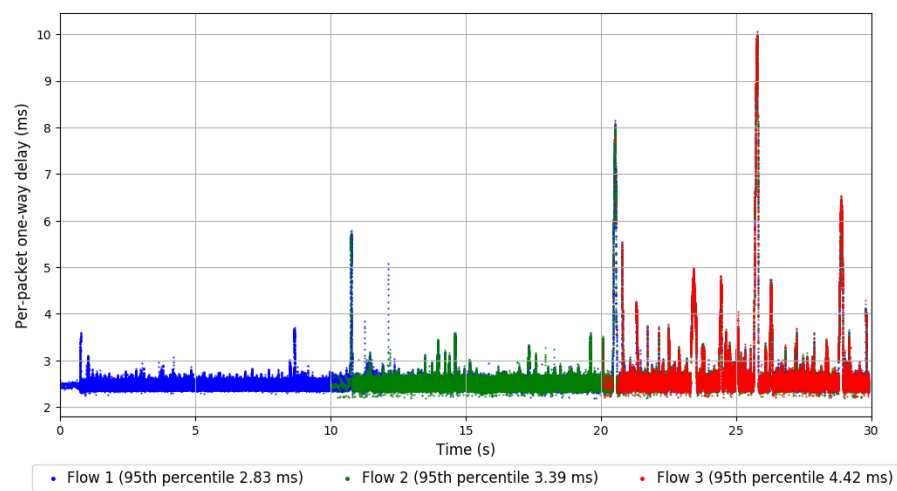
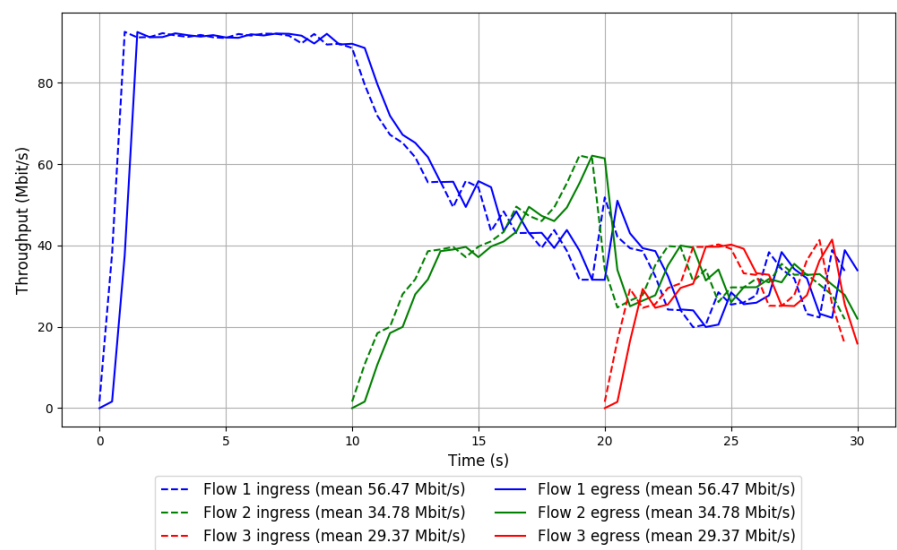
-- Flow 3:

Average throughput: 29.37 Mbit/s

95th percentile per-packet one-way delay: 4.415 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 01:58:24

End at: 2019-06-28 01:58:54

Local clock offset: -6.215 ms

Remote clock offset: 0.299 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.80 Mbit/s

95th percentile per-packet one-way delay: 2.305 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.32 Mbit/s

95th percentile per-packet one-way delay: 1.928 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.56 Mbit/s

95th percentile per-packet one-way delay: 2.711 ms

Loss rate: 0.00%

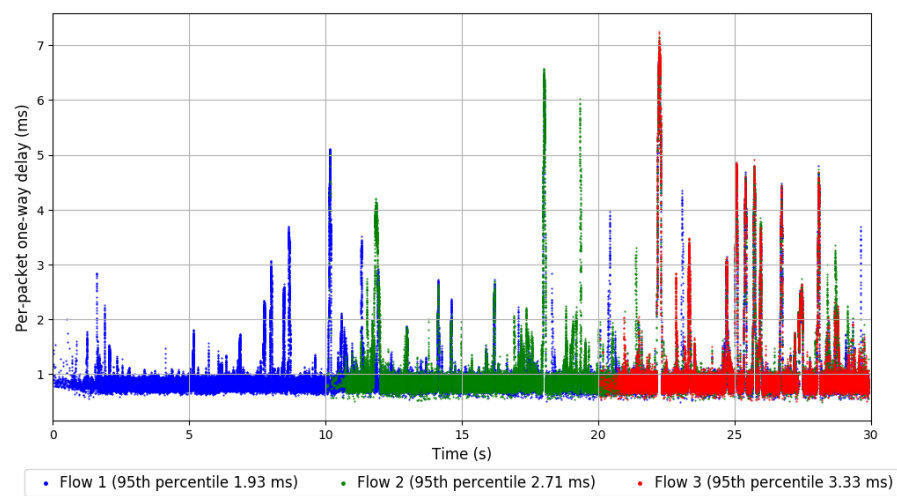
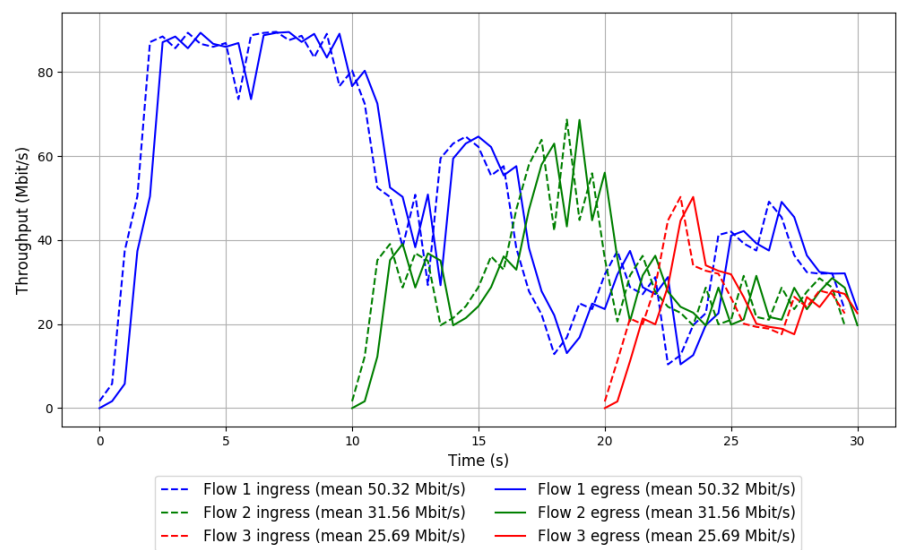
-- Flow 3:

Average throughput: 25.69 Mbit/s

95th percentile per-packet one-way delay: 3.335 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 02:23:27

End at: 2019-06-28 02:23:57

Local clock offset: -6.678 ms

Remote clock offset: 0.326 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.93 Mbit/s

95th percentile per-packet one-way delay: 5.037 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.15 Mbit/s

95th percentile per-packet one-way delay: 5.721 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.92 Mbit/s

95th percentile per-packet one-way delay: 3.222 ms

Loss rate: 0.00%

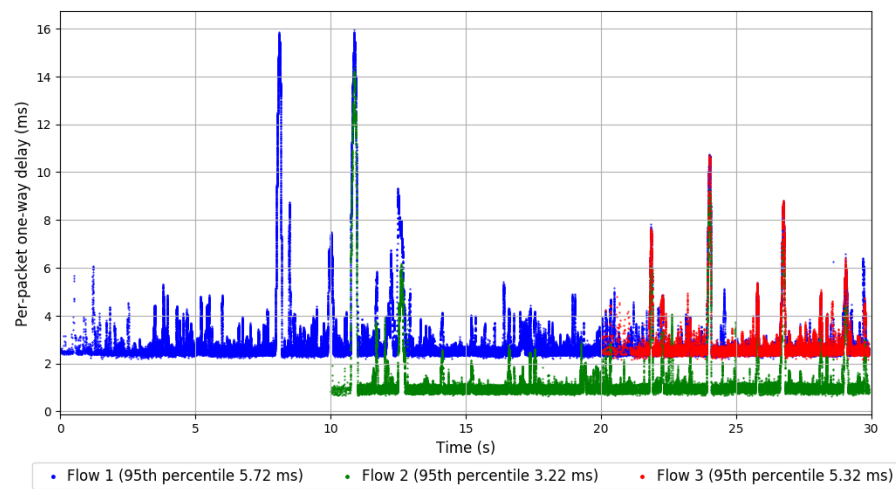
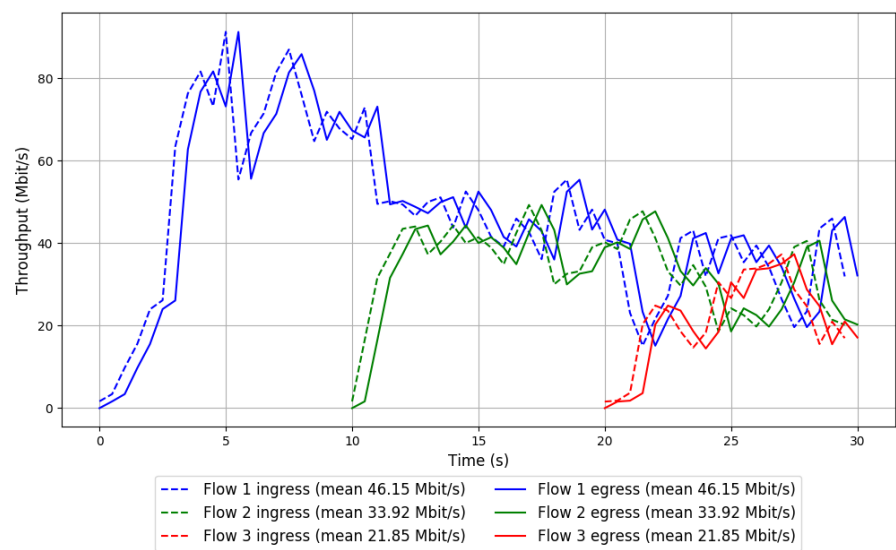
-- Flow 3:

Average throughput: 21.85 Mbit/s

95th percentile per-packet one-way delay: 5.324 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

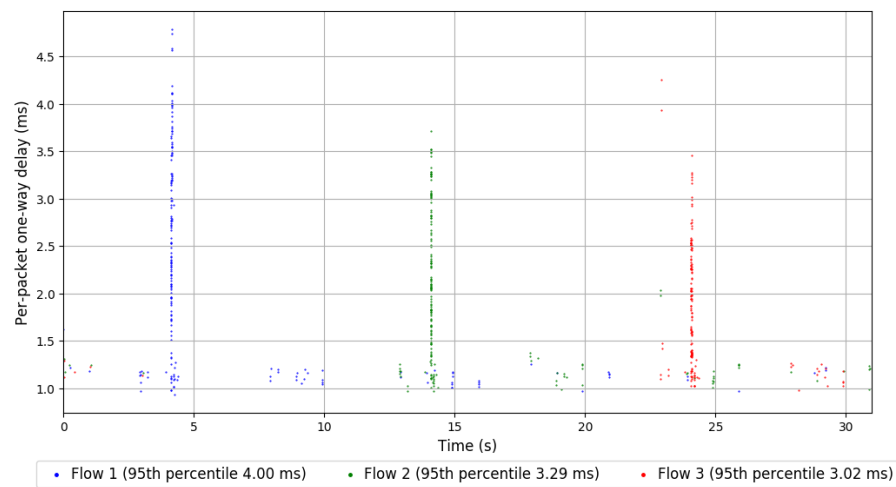
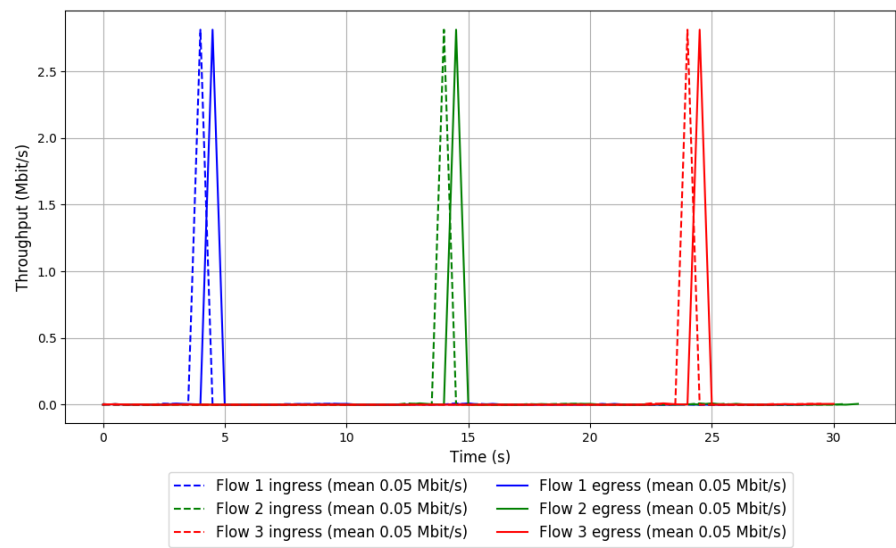


Run 1: Statistics of WebRTC media

Start at: 2019-06-28 00:37:33
End at: 2019-06-28 00:38:04
Local clock offset: -6.327 ms
Remote clock offset: -0.146 ms

Below is generated by plot.py at 2019-06-28 02:43:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.592 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.003 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.288 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.019 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-28 01:02:37

End at: 2019-06-28 01:03:07

Local clock offset: -5.542 ms

Remote clock offset: 0.018 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.442 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.579 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.150 ms

Loss rate: 0.00%

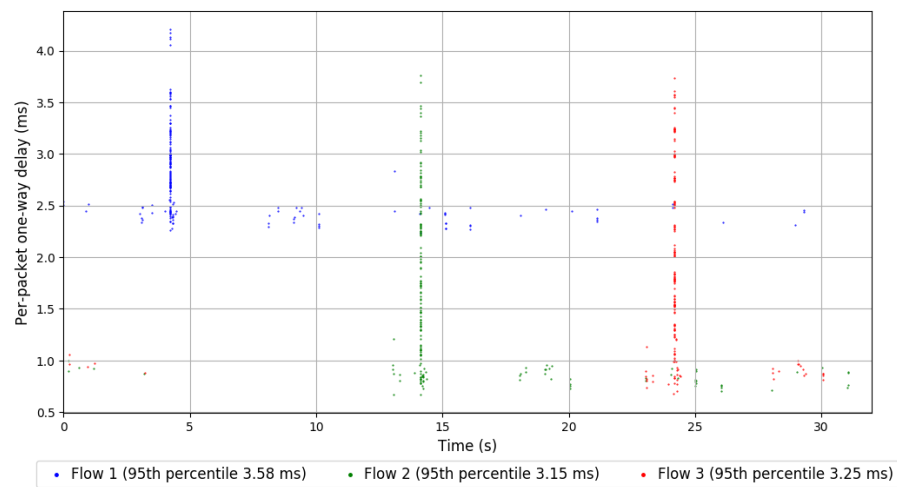
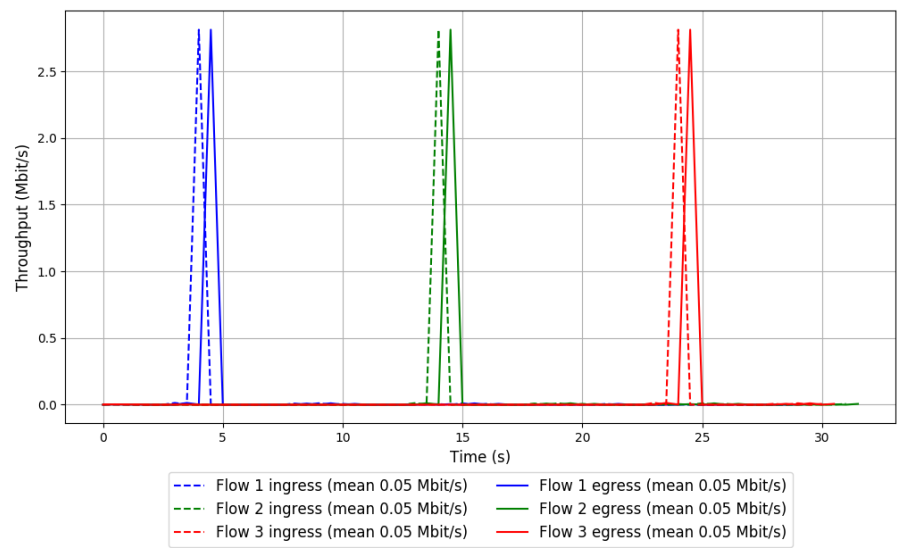
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.255 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-06-28 01:27:40

End at: 2019-06-28 01:28:10

Local clock offset: -5.686 ms

Remote clock offset: 0.189 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 4.467 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.993 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.829 ms

Loss rate: 0.00%

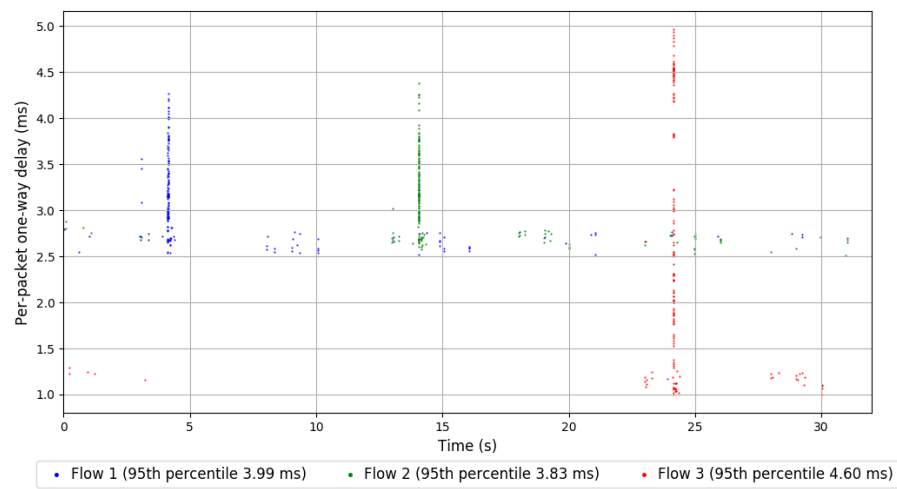
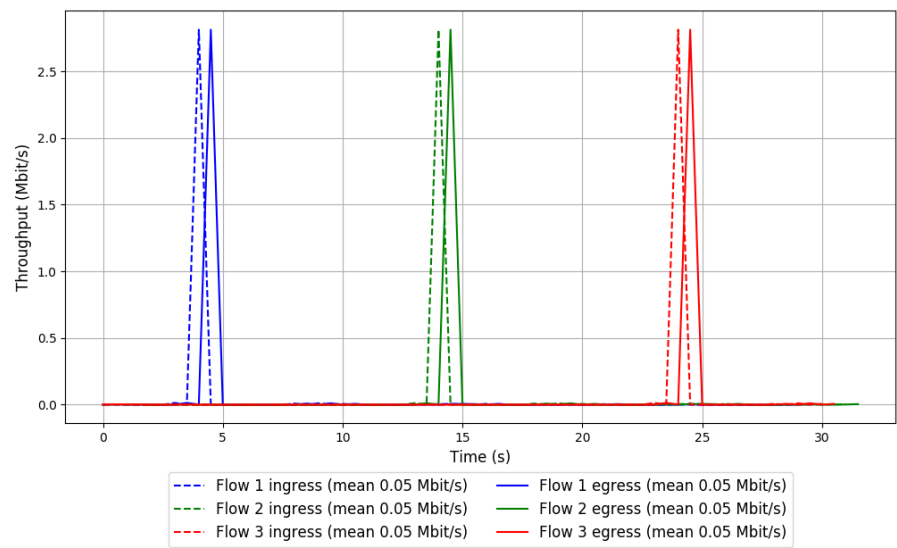
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.596 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-06-28 01:52:45

End at: 2019-06-28 01:53:15

Local clock offset: -5.859 ms

Remote clock offset: 0.258 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 5.178 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.627 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 6.091 ms

Loss rate: 0.00%

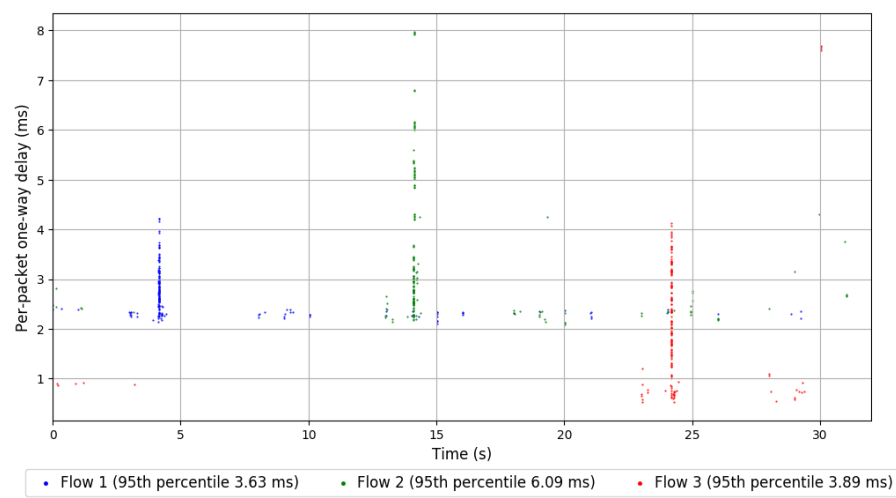
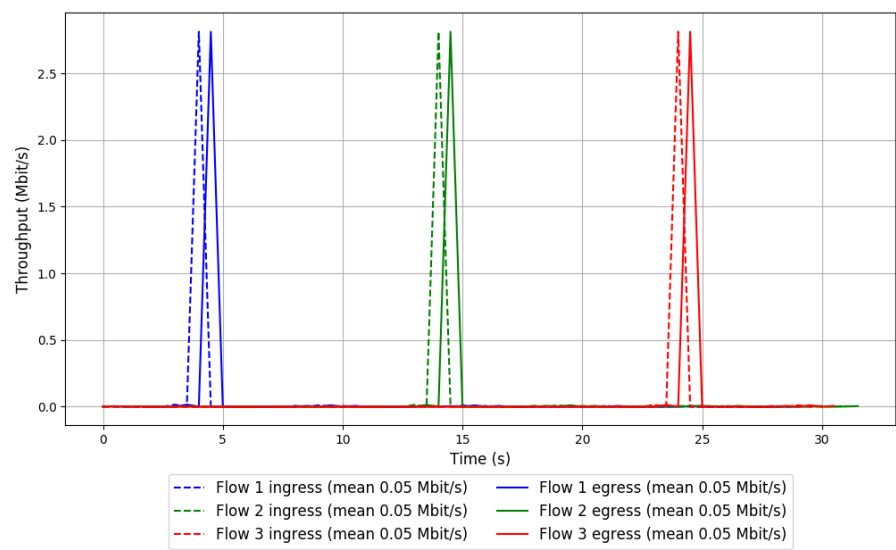
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.887 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-28 02:17:48

End at: 2019-06-28 02:18:18

Local clock offset: -7.585 ms

Remote clock offset: 0.188 ms

Below is generated by plot.py at 2019-06-28 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 8.189 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 8.139 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 9.134 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.494 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

