

Pantheon Report

Generated at 2019-06-27 10:00:48 (UTC).

Data path: AWS India 1 on `ens5` (*local*) → India on `em1` (*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 `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

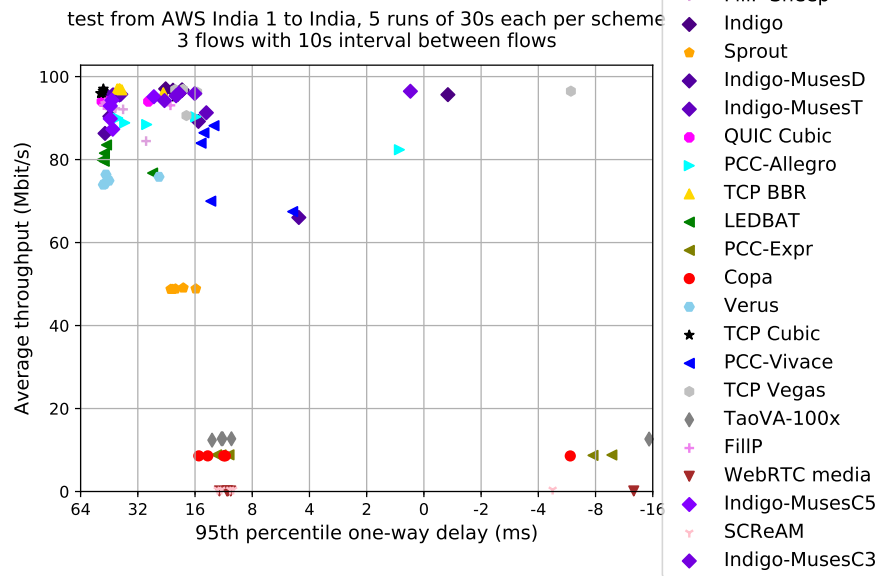
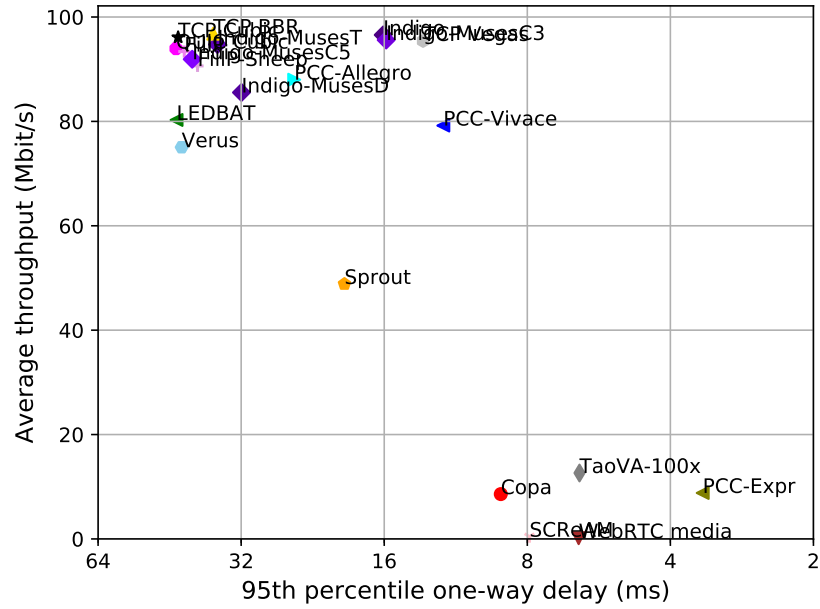
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

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 India 1 to India, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	56.19	40.92	40.29	34.63	39.15	38.82	1.89	4.35	4.47
Copa	5	0.00	10.09	5.61	6.54	12.89	7.43	98.00	66.45	71.79
TCP Cubic	5	71.58	27.57	18.66	43.52	43.04	43.57	0.78	0.73	0.80
FillP	5	57.12	40.63	28.73	39.99	44.08	43.44	29.49	46.92	58.37
FillP-Sheep	5	58.04	34.35	29.48	36.29	41.56	43.92	3.87	11.99	14.83
Indigo	5	56.75	37.56	45.46	14.49	16.59	16.10	0.00	0.60	0.00
Indigo-MusesC3	5	44.97	58.24	42.65	13.46	16.91	16.02	0.00	0.00	0.00
Indigo-MusesC5	5	58.97	40.83	21.46	38.57	41.26	45.18	5.04	10.69	25.63
Indigo-MusesD	5	49.13	45.46	22.89	29.31	32.04	32.59	6.83	11.91	21.04
Indigo-MusesT	5	59.47	41.42	27.96	31.43	36.70	40.80	3.09	6.60	16.81
LEDBAT	5	49.04	32.75	28.99	43.56	44.09	44.14	0.43	0.58	0.87
Muses_DecisionTree	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCC-Allegro	5	72.24	16.76	13.97	23.55	28.71	30.41	1.18	1.92	1.68
PCC-Expr	5	0.08	10.26	6.00	2.35	3.54	3.19	85.71	36.79	25.56
QUIC Cubic	5	66.94	31.75	18.25	43.86	43.80	43.92	1.92	2.48	2.69
SCReAM	5	0.21	0.21	0.22	7.89	7.84	7.96	0.00	0.00	0.00
Sprout	5	24.57	24.46	24.24	18.58	19.70	19.81	0.00	0.00	0.00
TaoVA-100x	5	6.56	8.12	2.01	6.26	6.34	7.44	89.54	91.75	92.41
TCP Vegas	5	56.19	39.62	38.55	14.51	10.17	9.02	0.36	0.00	0.00
Verus	5	49.42	26.34	26.67	43.10	41.91	42.51	38.52	32.90	30.70
PCC-Vivace	5	50.82	33.16	19.17	11.95	11.39	11.47	0.05	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	6.06	6.32	6.28	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-06-27 07:38:13

End at: 2019-06-27 07:38:43

Local clock offset: -1.027 ms

Remote clock offset: 2.971 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.02 Mbit/s

95th percentile per-packet one-way delay: 39.756 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 55.06 Mbit/s

95th percentile per-packet one-way delay: 37.767 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 46.75 Mbit/s

95th percentile per-packet one-way delay: 42.060 ms

Loss rate: 1.99%

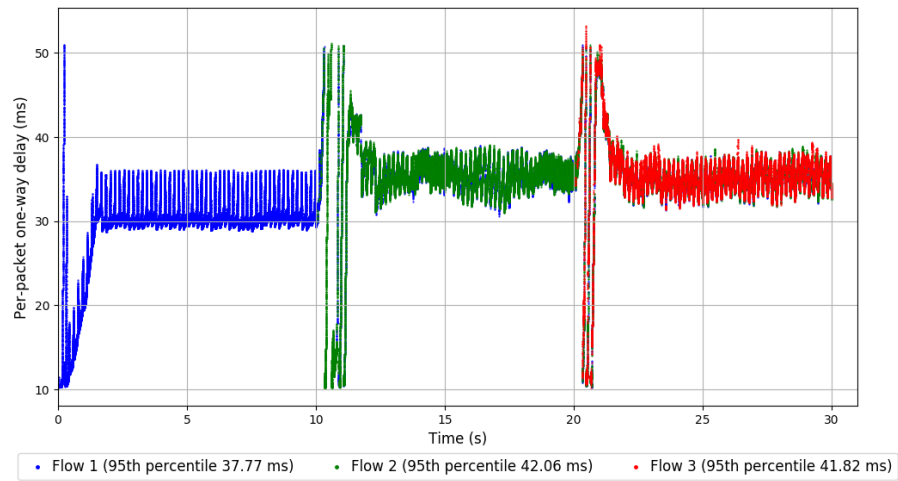
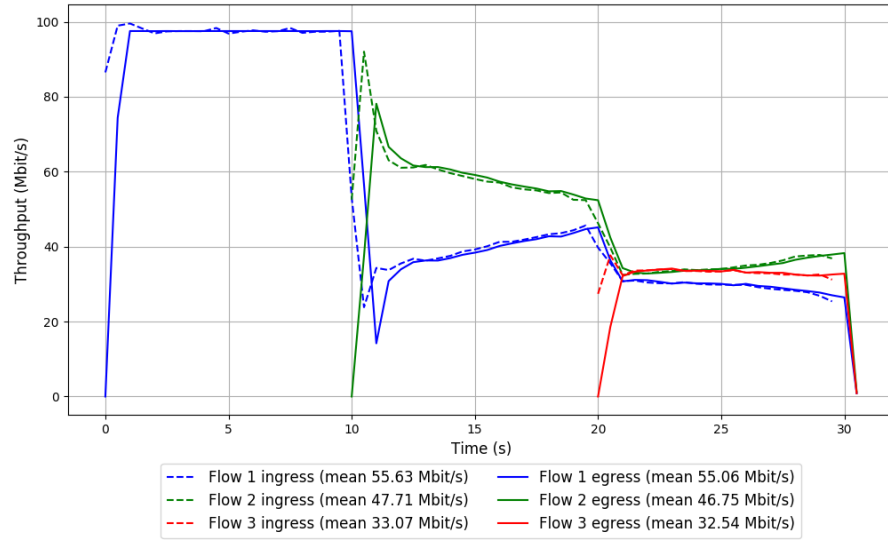
-- Flow 3:

Average throughput: 32.54 Mbit/s

95th percentile per-packet one-way delay: 41.816 ms

Loss rate: 1.64%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-27 08:04:22

End at: 2019-06-27 08:04:52

Local clock offset: -1.026 ms

Remote clock offset: 5.157 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.03 Mbit/s

95th percentile per-packet one-way delay: 41.054 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 54.84 Mbit/s

95th percentile per-packet one-way delay: 39.355 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 38.91 Mbit/s

95th percentile per-packet one-way delay: 43.363 ms

Loss rate: 2.64%

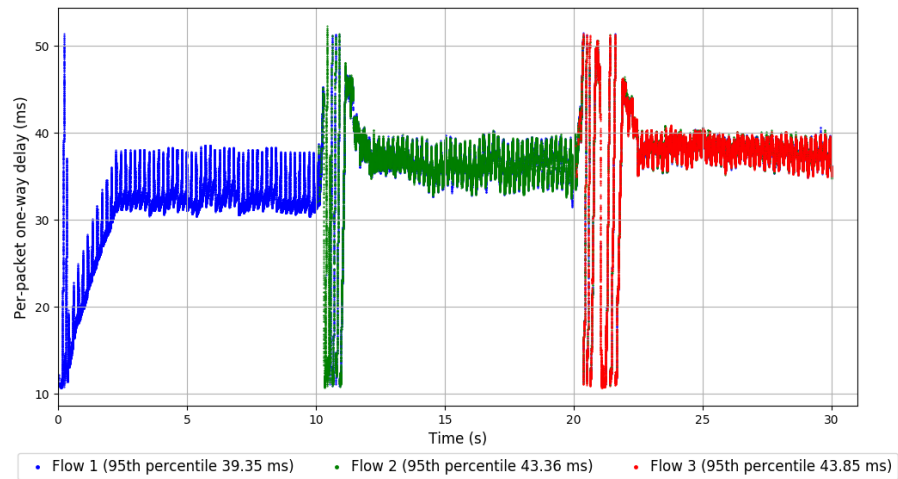
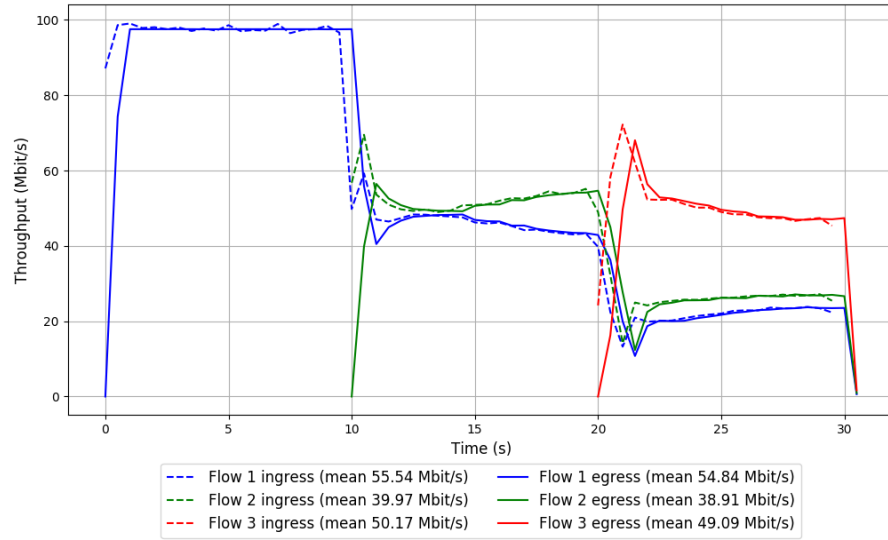
-- Flow 3:

Average throughput: 49.09 Mbit/s

95th percentile per-packet one-way delay: 43.850 ms

Loss rate: 2.19%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-06-27 08:30:45

End at: 2019-06-27 08:31:15

Local clock offset: 0.649 ms

Remote clock offset: 4.869 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.82 Mbit/s

95th percentile per-packet one-way delay: 38.831 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 54.08 Mbit/s

95th percentile per-packet one-way delay: 37.159 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 39.92 Mbit/s

95th percentile per-packet one-way delay: 40.964 ms

Loss rate: 2.77%

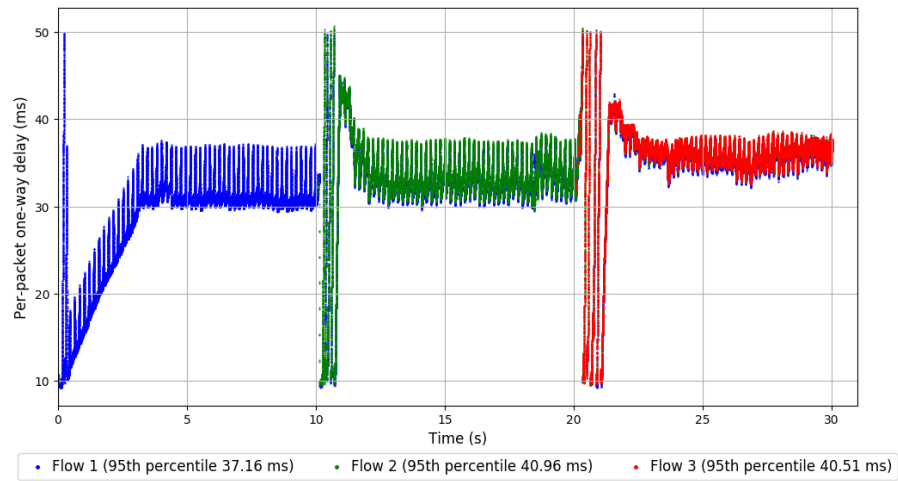
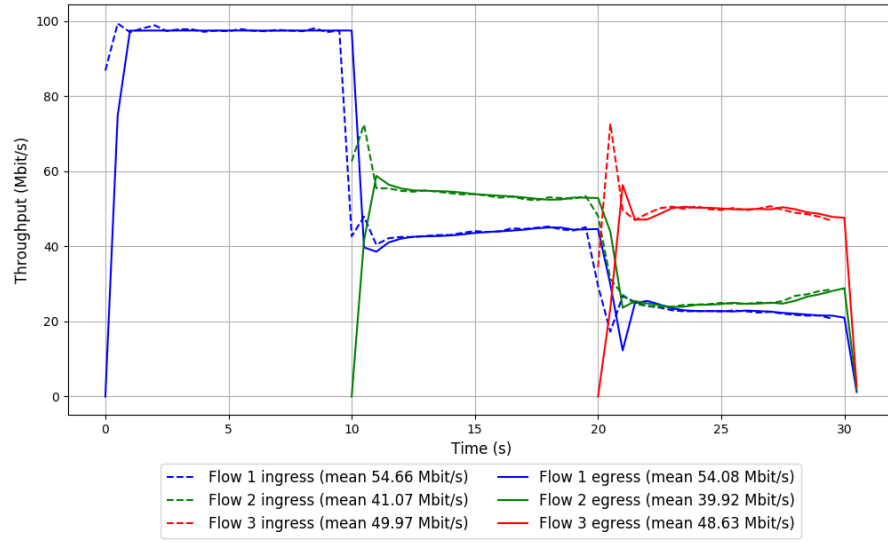
-- Flow 3:

Average throughput: 48.63 Mbit/s

95th percentile per-packet one-way delay: 40.513 ms

Loss rate: 2.62%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-06-27 08:56:36

End at: 2019-06-27 08:57:06

Local clock offset: -0.337 ms

Remote clock offset: 4.037 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.07 Mbit/s

95th percentile per-packet one-way delay: 40.092 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 56.45 Mbit/s

95th percentile per-packet one-way delay: 39.136 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 44.32 Mbit/s

95th percentile per-packet one-way delay: 40.565 ms

Loss rate: 2.74%

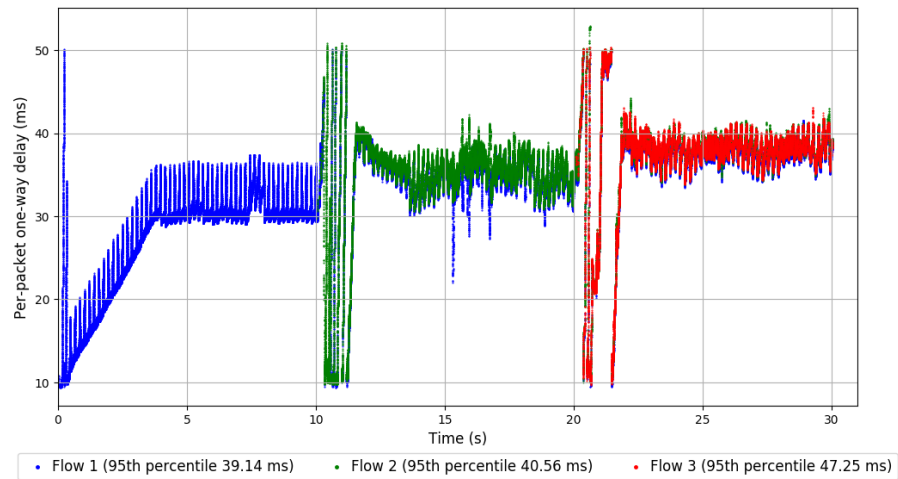
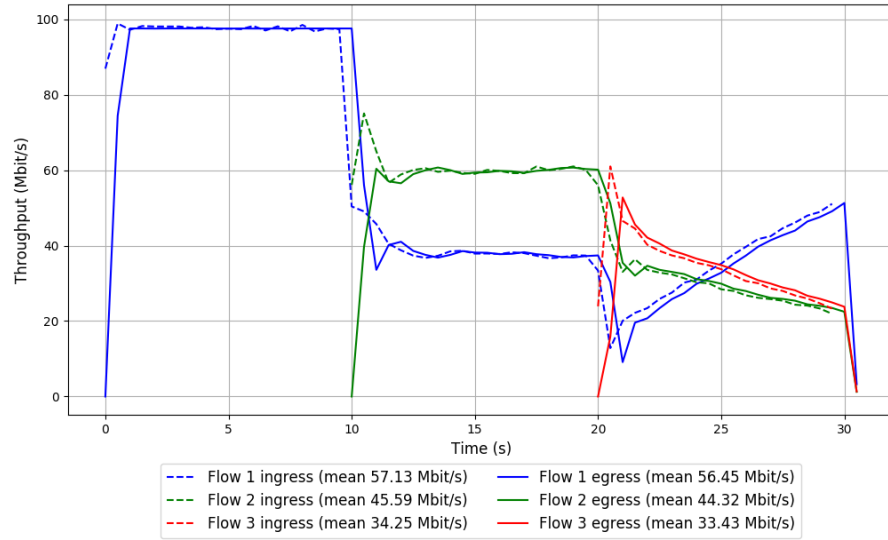
-- Flow 3:

Average throughput: 33.43 Mbit/s

95th percentile per-packet one-way delay: 47.251 ms

Loss rate: 2.39%

Run 4: Report of TCP BBR — Data Link

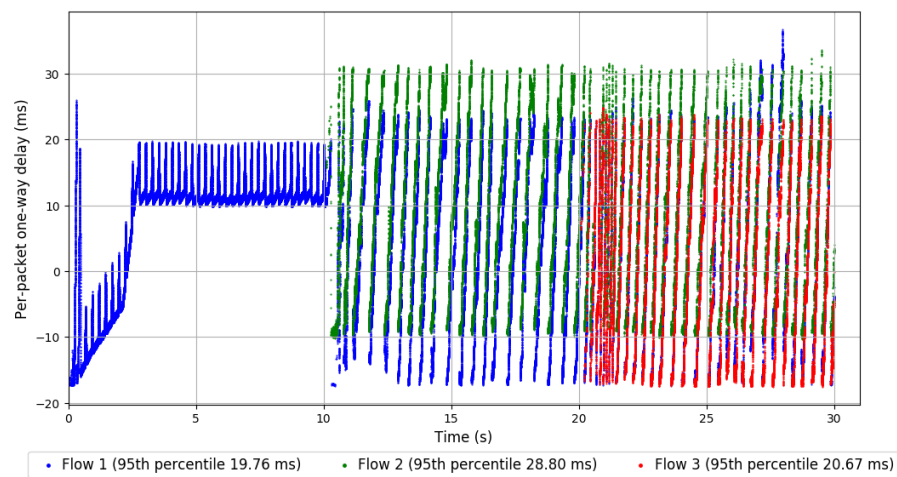
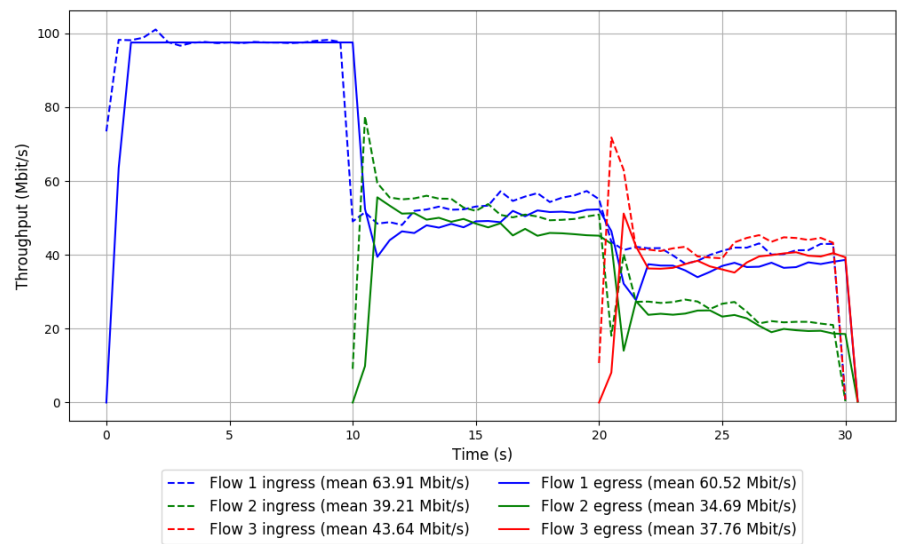


Run 5: Statistics of TCP BBR

Start at: 2019-06-27 09:22:55
End at: 2019-06-27 09:23:25
Local clock offset: -1.286 ms
Remote clock offset: -26.664 ms

Below is generated by plot.py at 2019-06-27 09:49:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.12 Mbit/s
95th percentile per-packet one-way delay: 23.495 ms
Loss rate: 8.00%
-- Flow 1:
Average throughput: 60.52 Mbit/s
95th percentile per-packet one-way delay: 19.757 ms
Loss rate: 5.27%
-- Flow 2:
Average throughput: 34.69 Mbit/s
95th percentile per-packet one-way delay: 28.800 ms
Loss rate: 11.62%
-- Flow 3:
Average throughput: 37.76 Mbit/s
95th percentile per-packet one-way delay: 20.669 ms
Loss rate: 13.53%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-06-27 07:54:58

End at: 2019-06-27 07:55:28

Local clock offset: 0.479 ms

Remote clock offset: 5.374 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 11.090 ms

Loss rate: 70.60%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 9.922 ms

Loss rate: 98.60%

-- Flow 2:

Average throughput: 10.33 Mbit/s

95th percentile per-packet one-way delay: 15.793 ms

Loss rate: 68.11%

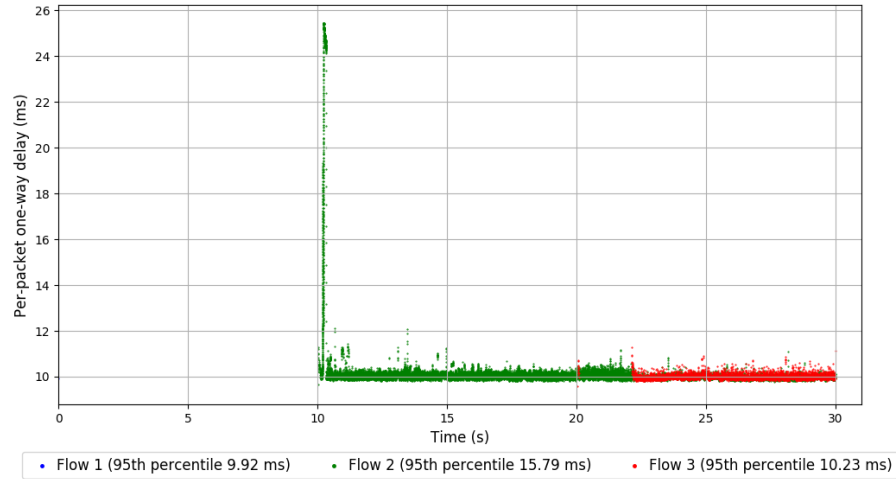
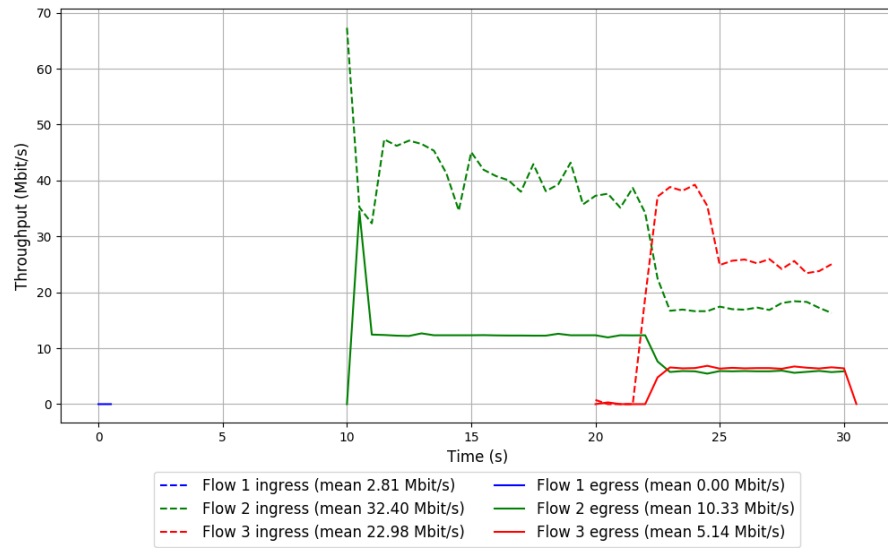
-- Flow 3:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 10.229 ms

Loss rate: 77.63%

Run 1: Report of Copa — Data Link

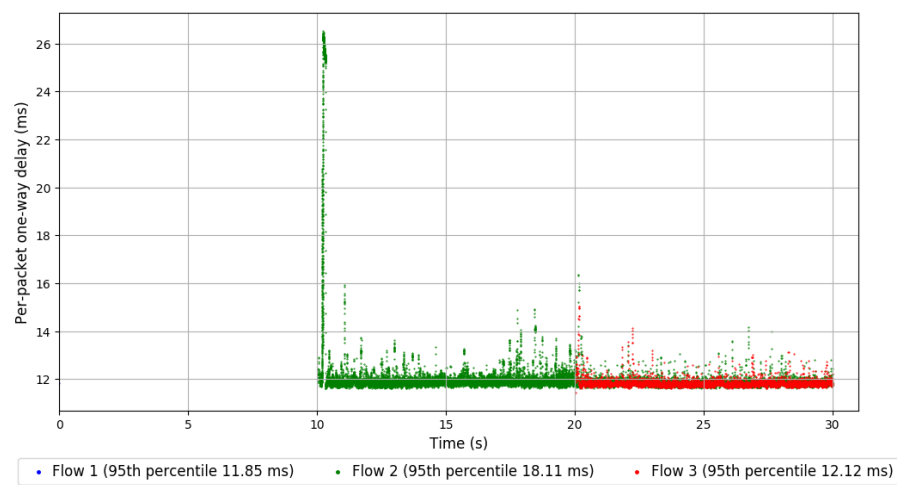
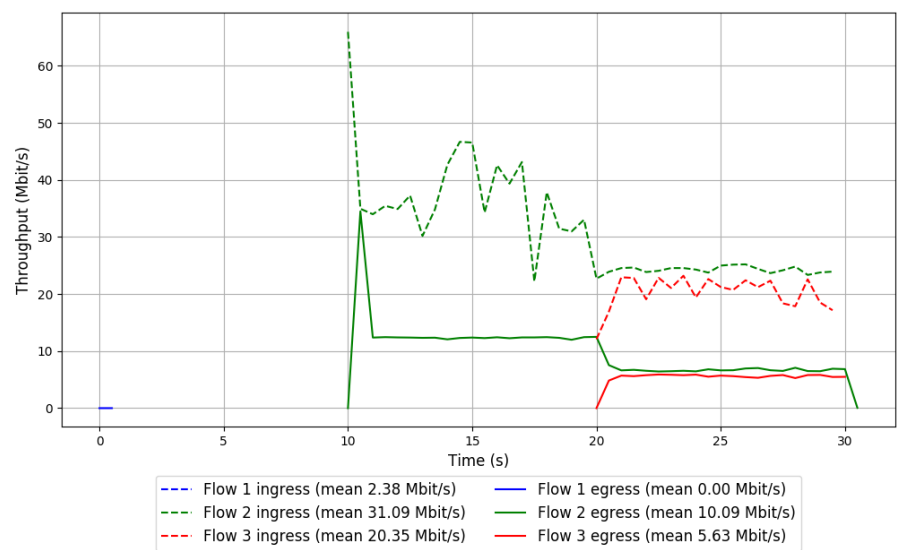


Run 2: Statistics of Copa

Start at: 2019-06-27 08:21:12
End at: 2019-06-27 08:21:42
Local clock offset: -0.097 ms
Remote clock offset: 6.465 ms

Below is generated by plot.py at 2019-06-27 09:49:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 13.713 ms
Loss rate: 68.72%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 11.847 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 10.09 Mbit/s
95th percentile per-packet one-way delay: 18.107 ms
Loss rate: 67.54%
-- Flow 3:
Average throughput: 5.63 Mbit/s
95th percentile per-packet one-way delay: 12.123 ms
Loss rate: 72.32%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-06-27 08:47:24

End at: 2019-06-27 08:47:54

Local clock offset: 1.134 ms

Remote clock offset: 4.834 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 15.285 ms

Loss rate: 62.79%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 9.727 ms

Loss rate: 95.92%

-- Flow 2:

Average throughput: 10.52 Mbit/s

95th percentile per-packet one-way delay: 17.248 ms

Loss rate: 62.07%

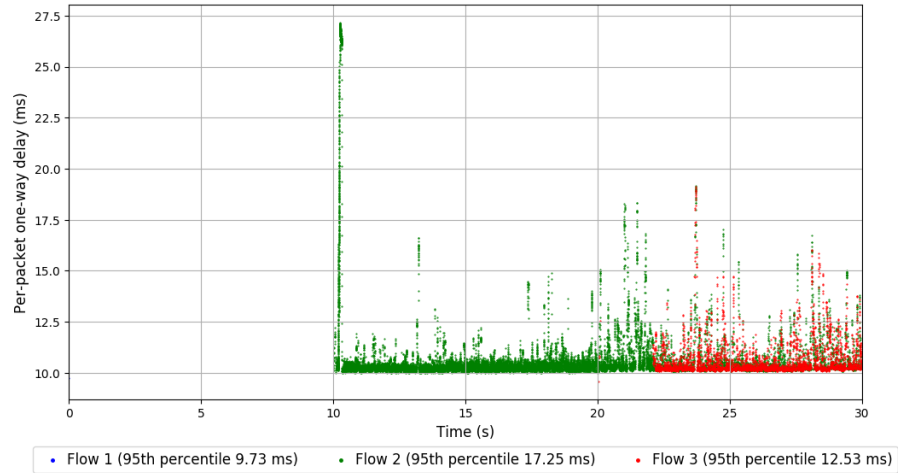
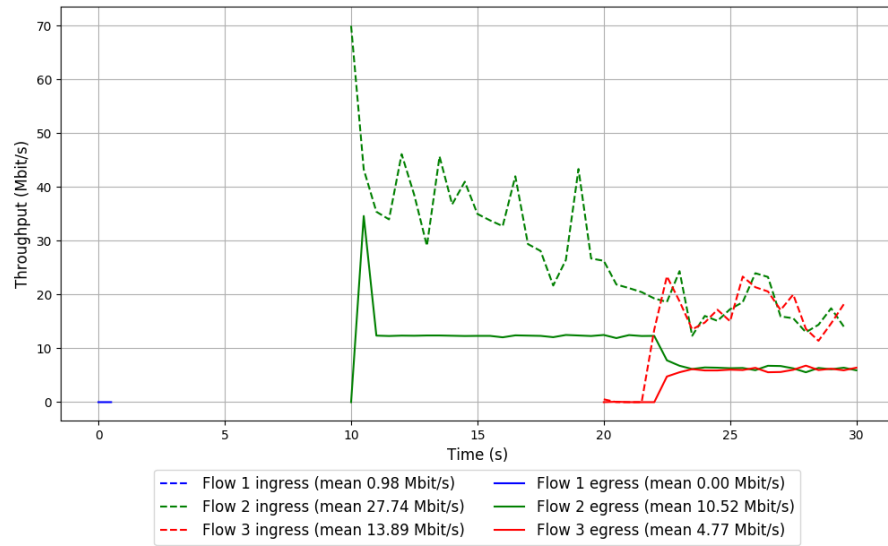
-- Flow 3:

Average throughput: 4.77 Mbit/s

95th percentile per-packet one-way delay: 12.526 ms

Loss rate: 65.64%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-06-27 09:13:20

End at: 2019-06-27 09:13:50

Local clock offset: -0.526 ms

Remote clock offset: 4.834 ms

Below is generated by plot.py at 2019-06-27 09:49:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 11.286 ms

Loss rate: 70.36%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 9.412 ms

Loss rate: 98.80%

-- Flow 2:

Average throughput: 9.73 Mbit/s

95th percentile per-packet one-way delay: 16.509 ms

Loss rate: 68.90%

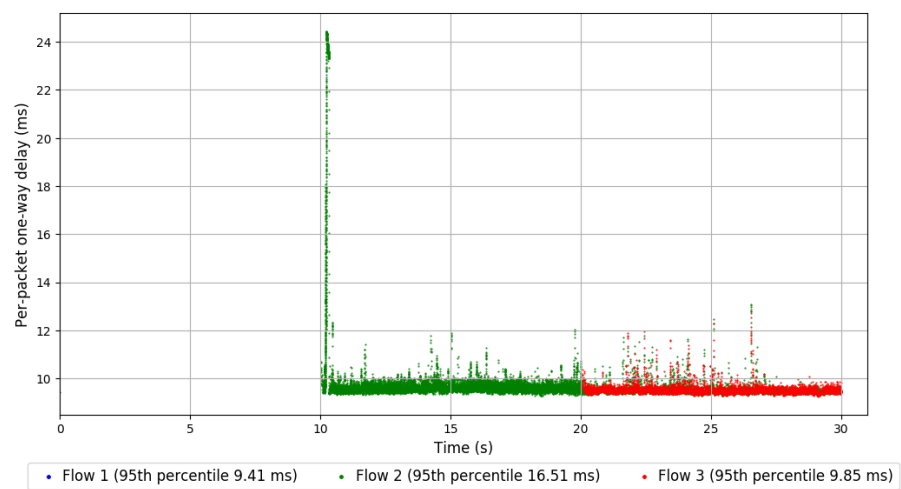
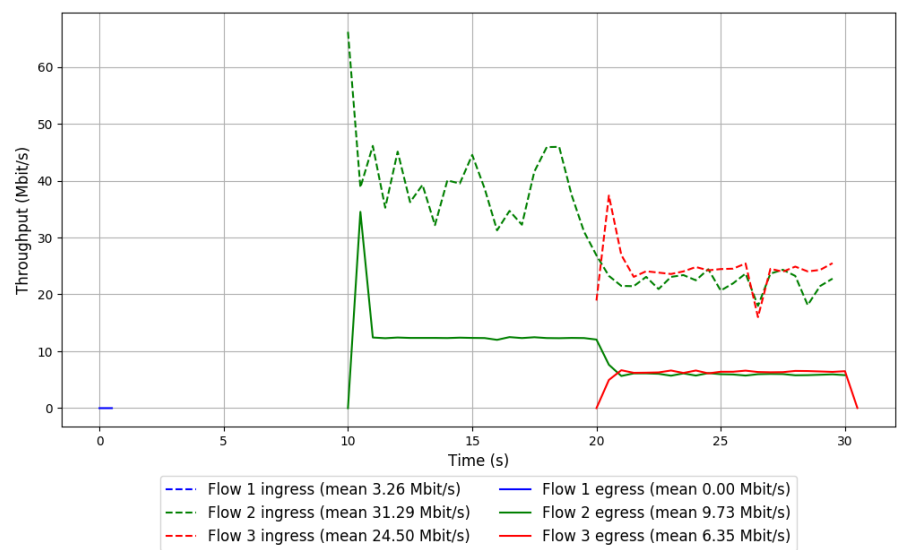
-- Flow 3:

Average throughput: 6.35 Mbit/s

95th percentile per-packet one-way delay: 9.851 ms

Loss rate: 74.07%

Run 4: Report of Copa — Data Link

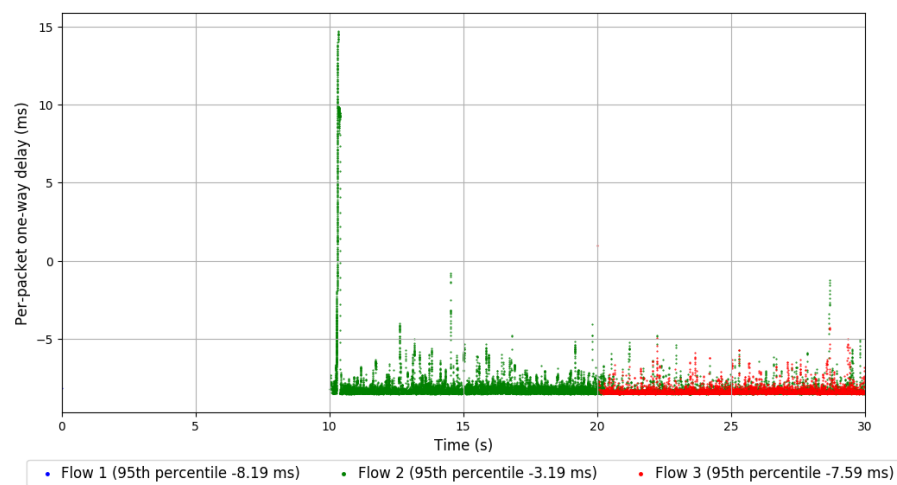
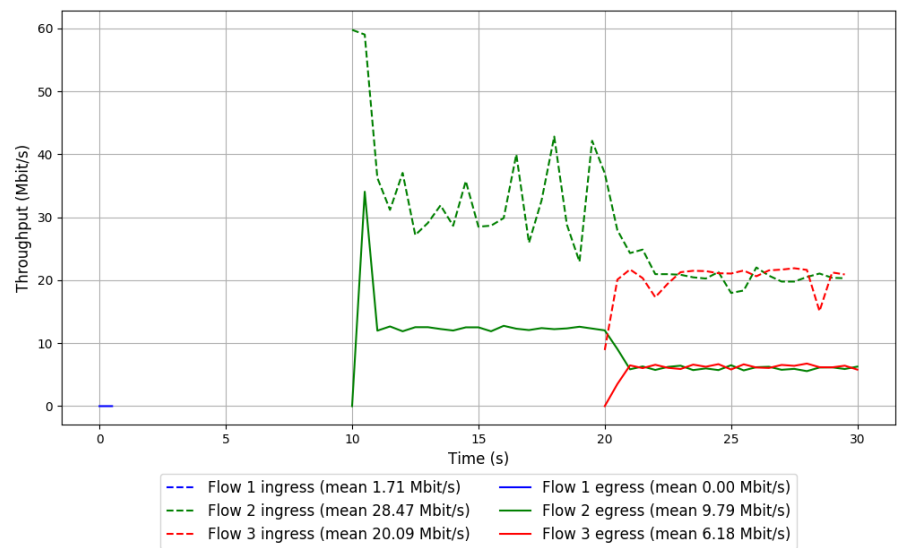


Run 5: Statistics of Copa

Start at: 2019-06-27 09:39:40
End at: 2019-06-27 09:40:10
Local clock offset: -1.225 ms
Remote clock offset: -17.488 ms

Below is generated by plot.py at 2019-06-27 09:49:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: -5.890 ms
Loss rate: 66.56%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: -8.186 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 9.79 Mbit/s
95th percentile per-packet one-way delay: -3.186 ms
Loss rate: 65.61%
-- Flow 3:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: -7.592 ms
Loss rate: 69.27%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-27 07:44:02

End at: 2019-06-27 07:44:32

Local clock offset: -0.677 ms

Remote clock offset: 4.192 ms

Below is generated by plot.py at 2019-06-27 09:49:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 49.245 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 71.92 Mbit/s

95th percentile per-packet one-way delay: 49.204 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 31.37 Mbit/s

95th percentile per-packet one-way delay: 49.345 ms

Loss rate: 0.58%

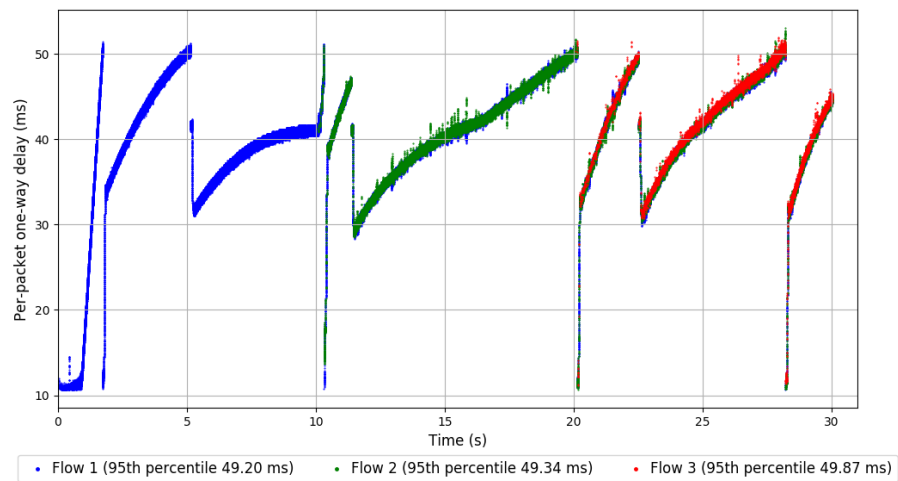
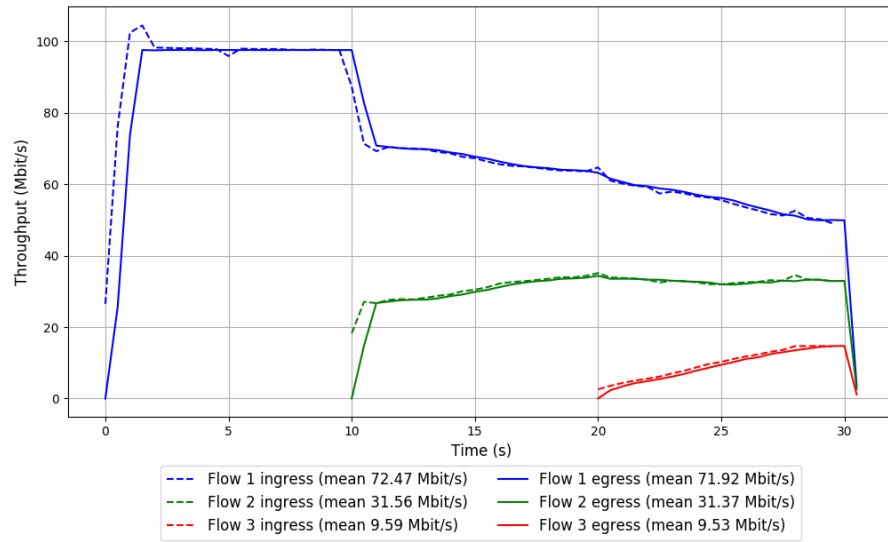
-- Flow 3:

Average throughput: 9.53 Mbit/s

95th percentile per-packet one-way delay: 49.868 ms

Loss rate: 0.69%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-06-27 08:10:16

End at: 2019-06-27 08:10:46

Local clock offset: 0.285 ms

Remote clock offset: 5.242 ms

Below is generated by plot.py at 2019-06-27 09:49:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.03 Mbit/s

95th percentile per-packet one-way delay: 48.555 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 69.95 Mbit/s

95th percentile per-packet one-way delay: 48.577 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 28.18 Mbit/s

95th percentile per-packet one-way delay: 48.535 ms

Loss rate: 0.81%

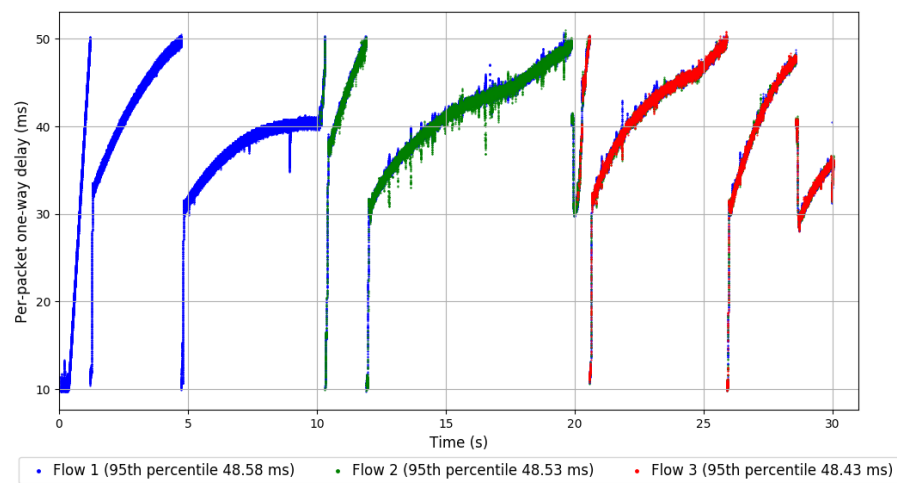
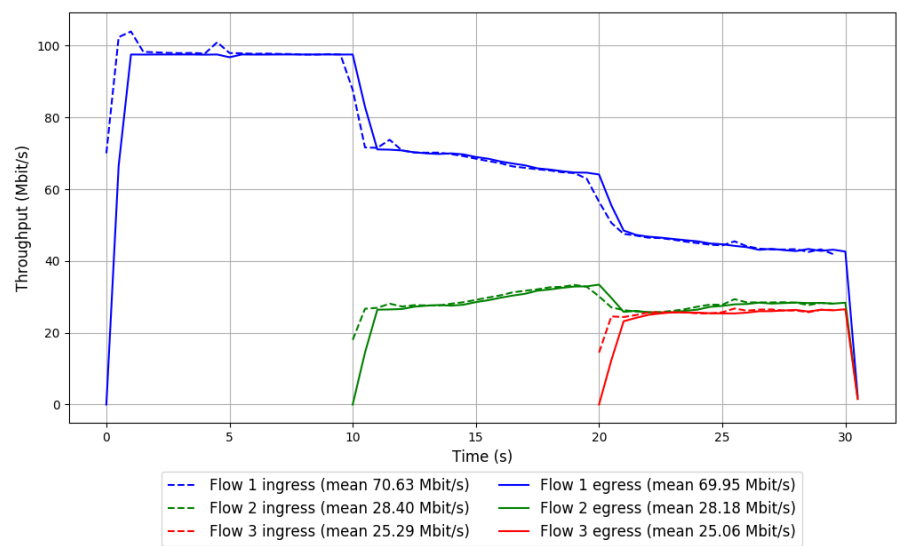
-- Flow 3:

Average throughput: 25.06 Mbit/s

95th percentile per-packet one-way delay: 48.427 ms

Loss rate: 0.84%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-06-27 08:36:39

End at: 2019-06-27 08:37:09

Local clock offset: 0.857 ms

Remote clock offset: 4.864 ms

Below is generated by plot.py at 2019-06-27 09:49:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.53 Mbit/s

95th percentile per-packet one-way delay: 48.771 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 69.46 Mbit/s

95th percentile per-packet one-way delay: 48.727 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 28.04 Mbit/s

95th percentile per-packet one-way delay: 48.938 ms

Loss rate: 0.70%

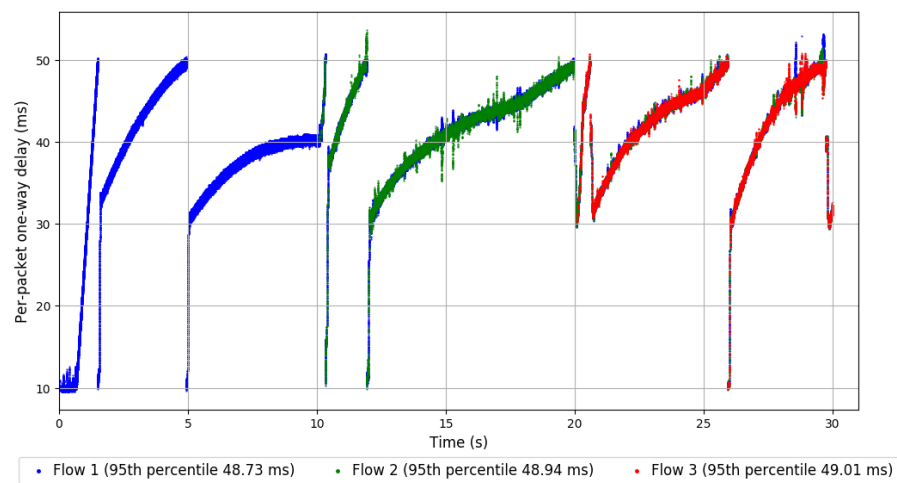
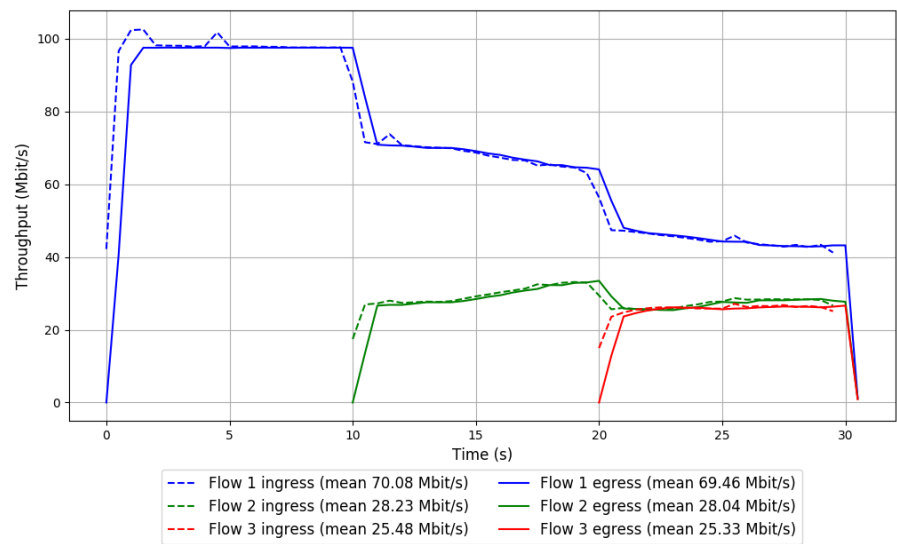
-- Flow 3:

Average throughput: 25.33 Mbit/s

95th percentile per-packet one-way delay: 49.007 ms

Loss rate: 0.56%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-06-27 09:02:24

End at: 2019-06-27 09:02:54

Local clock offset: -1.054 ms

Remote clock offset: 5.745 ms

Below is generated by plot.py at 2019-06-27 09:50:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.95 Mbit/s

95th percentile per-packet one-way delay: 50.314 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 72.92 Mbit/s

95th percentile per-packet one-way delay: 50.295 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 30.58 Mbit/s

95th percentile per-packet one-way delay: 50.383 ms

Loss rate: 0.65%

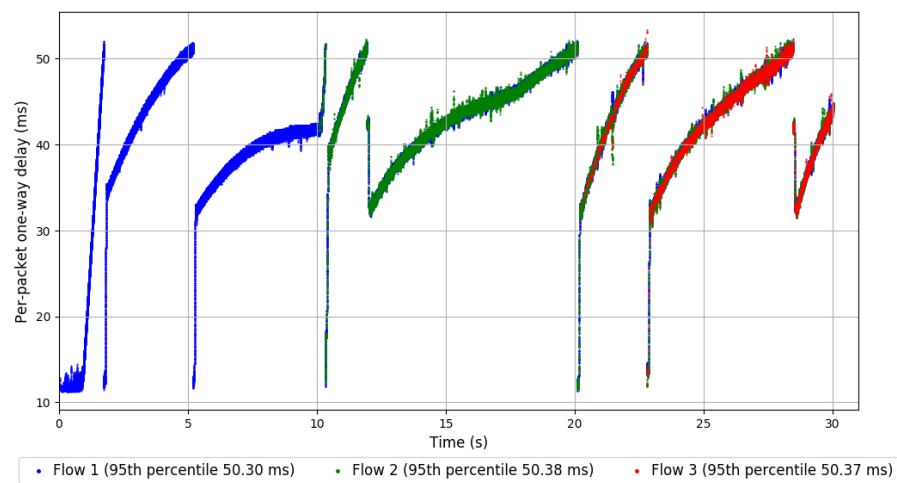
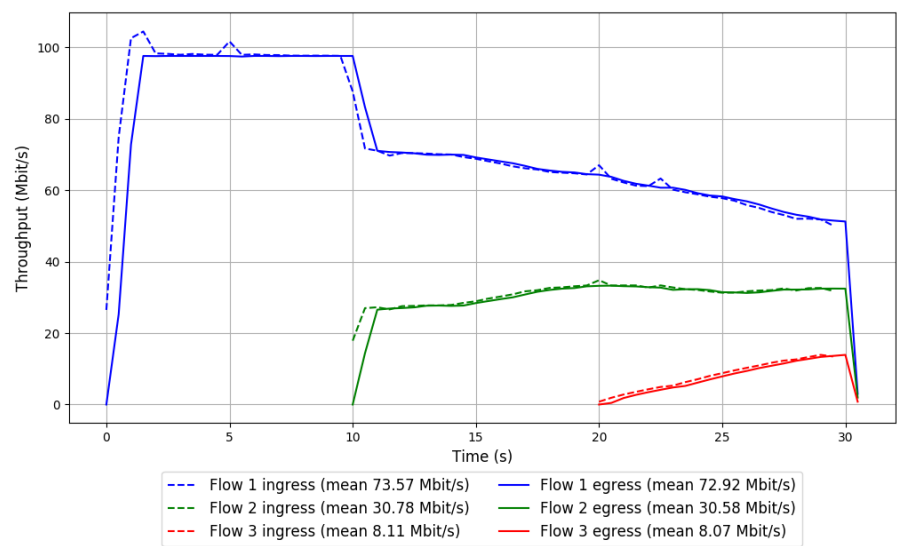
-- Flow 3:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 50.372 ms

Loss rate: 0.51%

Run 4: Report of TCP Cubic — Data Link

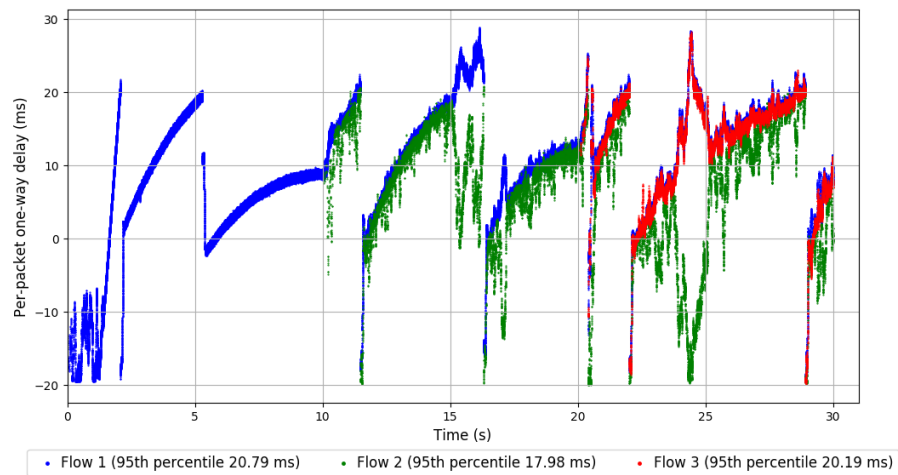
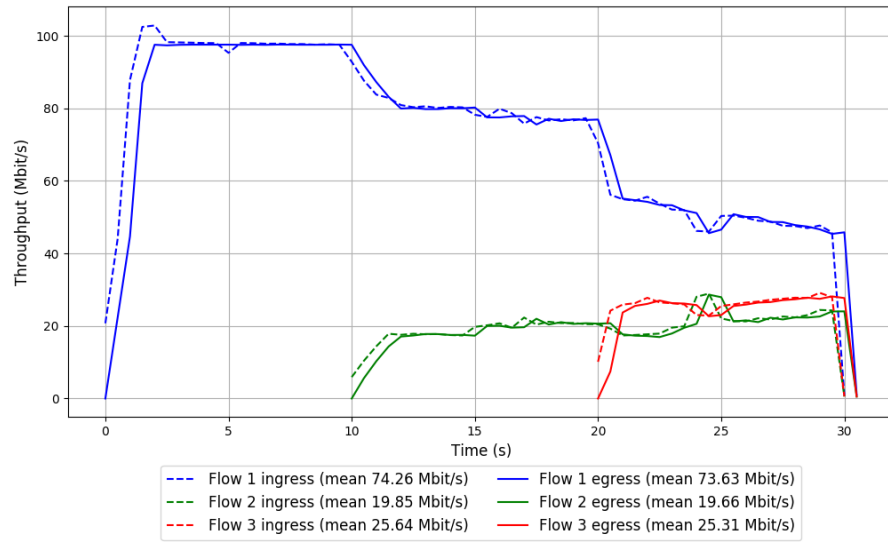


Run 5: Statistics of TCP Cubic

Start at: 2019-06-27 09:28:50
End at: 2019-06-27 09:29:20
Local clock offset: 0.133 ms
Remote clock offset: -27.365 ms

Below is generated by plot.py at 2019-06-27 09:50:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.10 Mbit/s
95th percentile per-packet one-way delay: 20.257 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 73.63 Mbit/s
95th percentile per-packet one-way delay: 20.790 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 19.66 Mbit/s
95th percentile per-packet one-way delay: 17.977 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 25.31 Mbit/s
95th percentile per-packet one-way delay: 20.191 ms
Loss rate: 1.38%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-06-27 07:53:45

End at: 2019-06-27 07:54:15

Local clock offset: -0.831 ms

Remote clock offset: 4.206 ms

Below is generated by plot.py at 2019-06-27 09:50:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.66 Mbit/s

95th percentile per-packet one-way delay: 47.093 ms

Loss rate: 40.04%

-- Flow 1:

Average throughput: 56.39 Mbit/s

95th percentile per-packet one-way delay: 44.968 ms

Loss rate: 29.74%

-- Flow 2:

Average throughput: 42.43 Mbit/s

95th percentile per-packet one-way delay: 48.387 ms

Loss rate: 46.93%

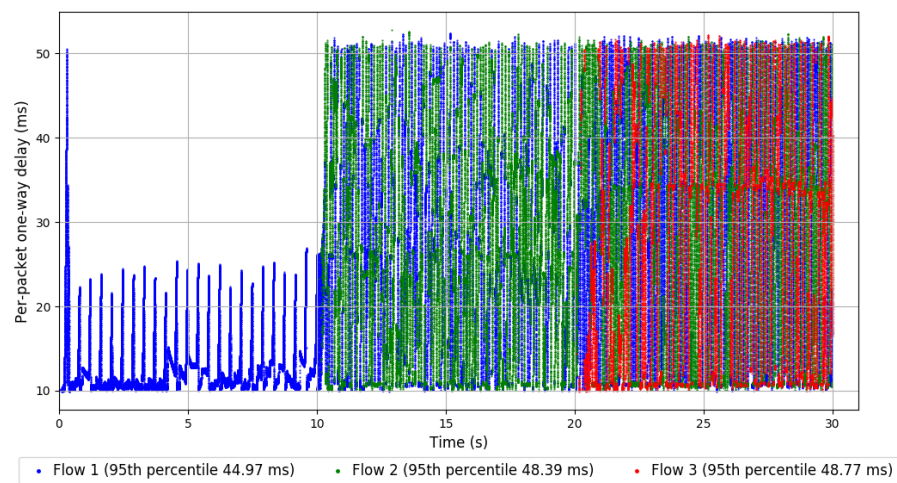
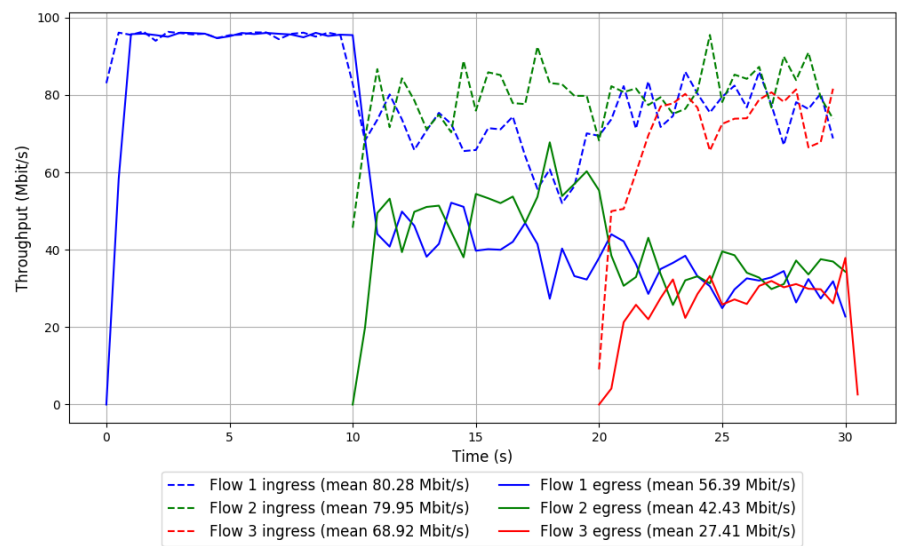
-- Flow 3:

Average throughput: 27.41 Mbit/s

95th percentile per-packet one-way delay: 48.772 ms

Loss rate: 60.16%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-06-27 08:19:58

End at: 2019-06-27 08:20:28

Local clock offset: -0.095 ms

Remote clock offset: 5.709 ms

Below is generated by plot.py at 2019-06-27 09:50:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.80 Mbit/s

95th percentile per-packet one-way delay: 47.507 ms

Loss rate: 40.20%

-- Flow 1:

Average throughput: 58.15 Mbit/s

95th percentile per-packet one-way delay: 45.162 ms

Loss rate: 29.04%

-- Flow 2:

Average throughput: 39.38 Mbit/s

95th percentile per-packet one-way delay: 49.096 ms

Loss rate: 48.85%

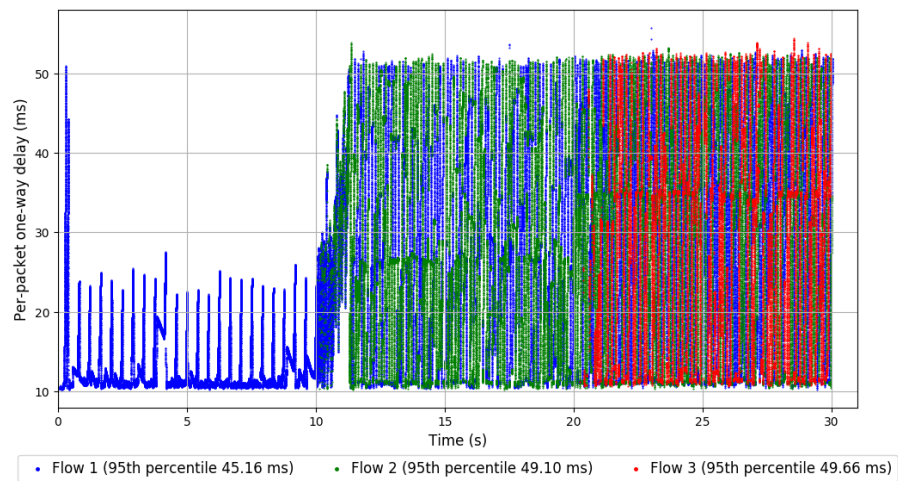
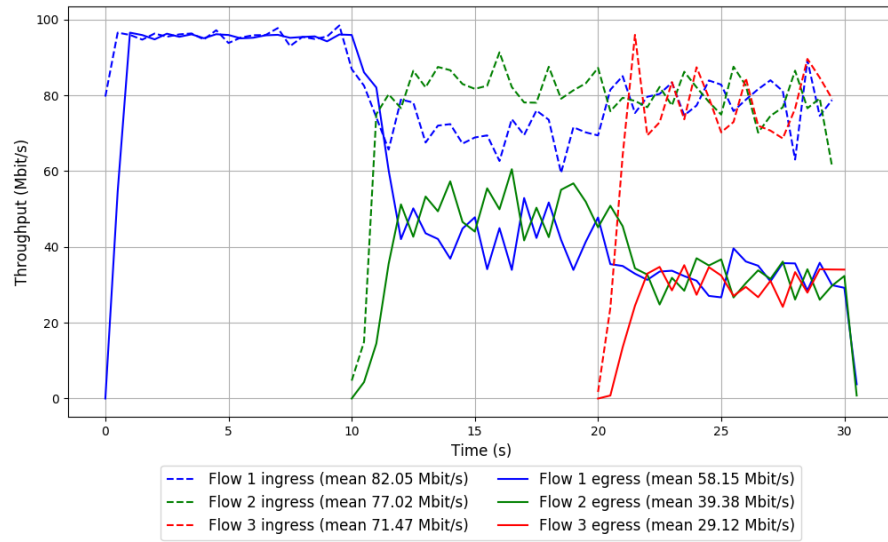
-- Flow 3:

Average throughput: 29.12 Mbit/s

95th percentile per-packet one-way delay: 49.656 ms

Loss rate: 60.12%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-06-27 08:46:09

End at: 2019-06-27 08:46:39

Local clock offset: 0.458 ms

Remote clock offset: 4.023 ms

Below is generated by plot.py at 2019-06-27 09:50:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.24 Mbit/s

95th percentile per-packet one-way delay: 46.332 ms

Loss rate: 39.25%

-- Flow 1:

Average throughput: 58.43 Mbit/s

95th percentile per-packet one-way delay: 44.494 ms

Loss rate: 28.25%

-- Flow 2:

Average throughput: 38.43 Mbit/s

95th percentile per-packet one-way delay: 47.701 ms

Loss rate: 48.05%

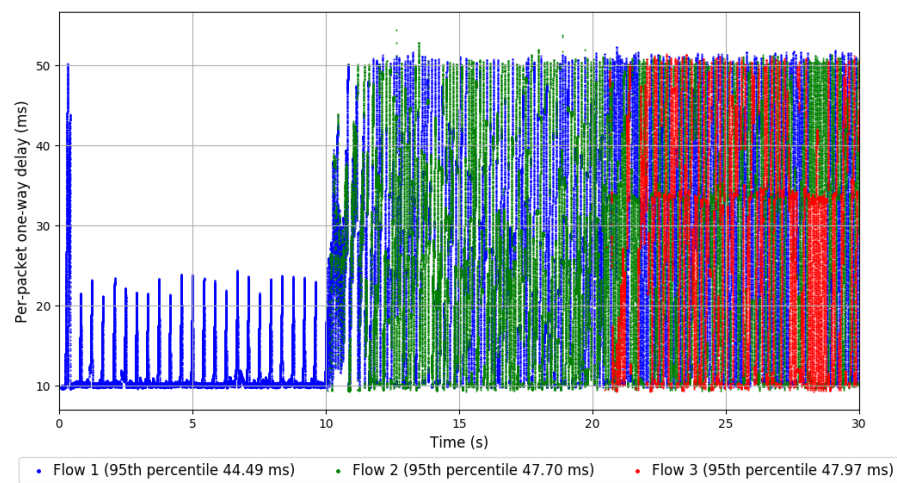
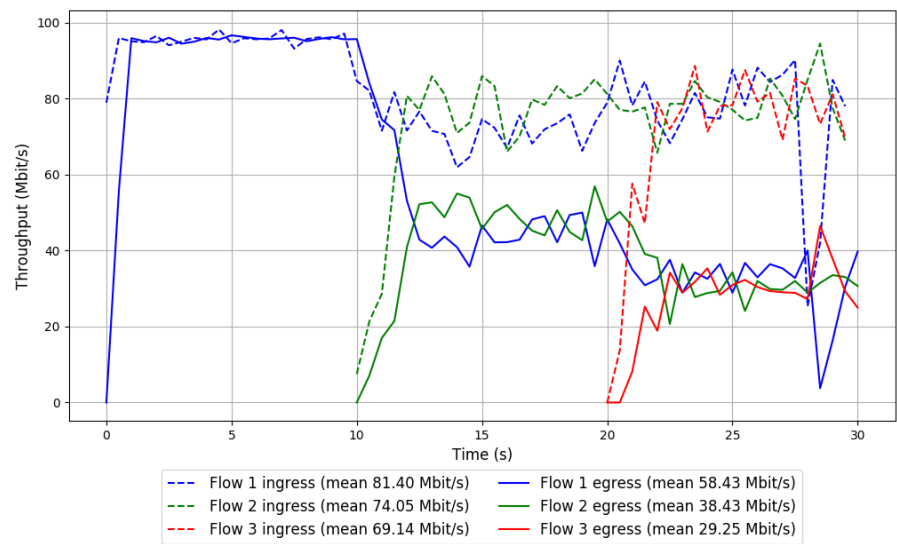
-- Flow 3:

Average throughput: 29.25 Mbit/s

95th percentile per-packet one-way delay: 47.974 ms

Loss rate: 59.41%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-06-27 09:12:08

End at: 2019-06-27 09:12:38

Local clock offset: -1.136 ms

Remote clock offset: 6.119 ms

Below is generated by plot.py at 2019-06-27 09:51:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.13 Mbit/s

95th percentile per-packet one-way delay: 48.294 ms

Loss rate: 39.73%

-- Flow 1:

Average throughput: 56.47 Mbit/s

95th percentile per-packet one-way delay: 46.266 ms

Loss rate: 30.24%

-- Flow 2:

Average throughput: 42.11 Mbit/s

95th percentile per-packet one-way delay: 49.385 ms

Loss rate: 46.29%

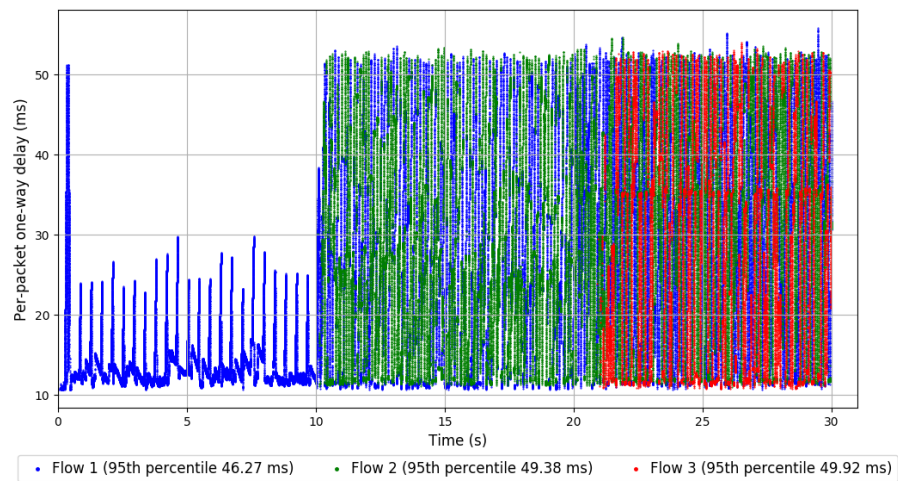
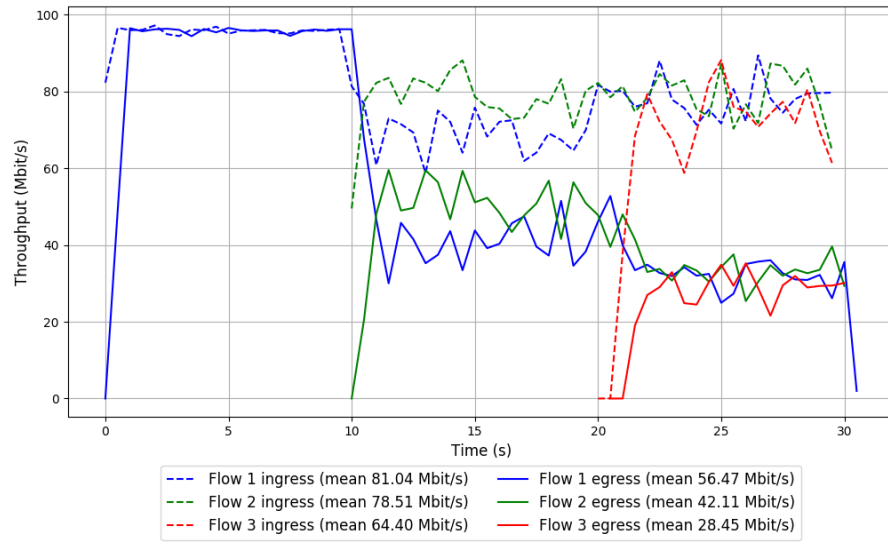
-- Flow 3:

Average throughput: 28.45 Mbit/s

95th percentile per-packet one-way delay: 49.919 ms

Loss rate: 59.65%

Run 4: Report of FillP — Data Link

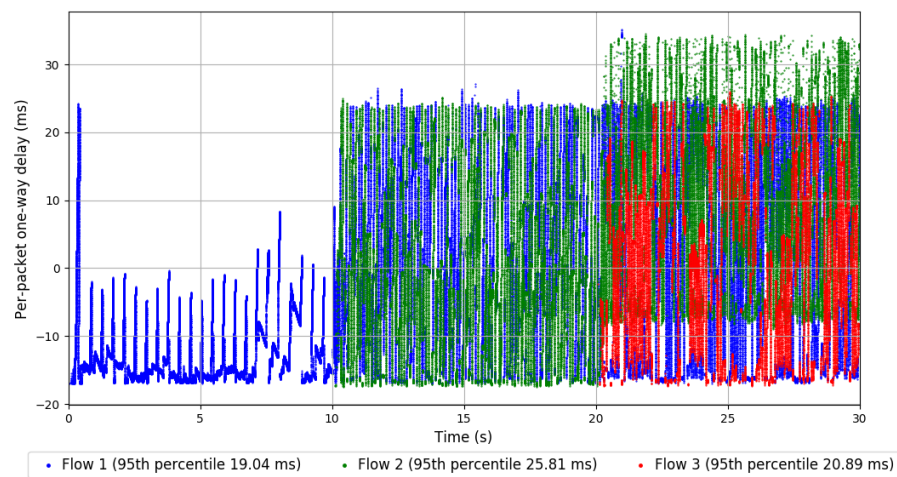
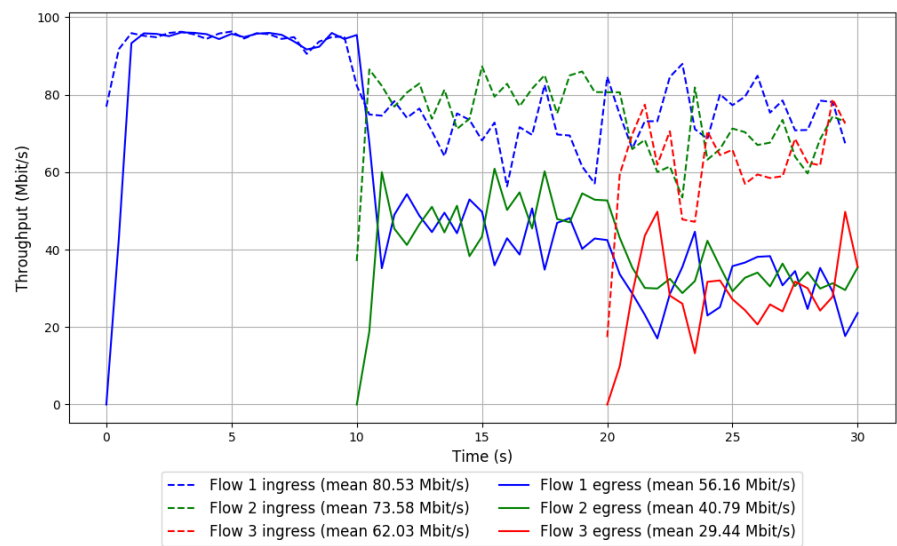


Run 5: Statistics of FillP

Start at: 2019-06-27 09:38:29
End at: 2019-06-27 09:38:59
Local clock offset: -0.829 ms
Remote clock offset: -25.658 ms

Below is generated by plot.py at 2019-06-27 09:51:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.07 Mbit/s
95th percentile per-packet one-way delay: 21.551 ms
Loss rate: 37.91%
-- Flow 1:
Average throughput: 56.16 Mbit/s
95th percentile per-packet one-way delay: 19.039 ms
Loss rate: 30.19%
-- Flow 2:
Average throughput: 40.79 Mbit/s
95th percentile per-packet one-way delay: 25.810 ms
Loss rate: 44.48%
-- Flow 3:
Average throughput: 29.44 Mbit/s
95th percentile per-packet one-way delay: 20.885 ms
Loss rate: 52.50%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-06-27 07:42:49

End at: 2019-06-27 07:43:19

Local clock offset: -0.752 ms

Remote clock offset: 2.32 ms

Below is generated by plot.py at 2019-06-27 09:51:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.36 Mbit/s

95th percentile per-packet one-way delay: 42.010 ms

Loss rate: 6.56%

-- Flow 1:

Average throughput: 54.15 Mbit/s

95th percentile per-packet one-way delay: 39.056 ms

Loss rate: 4.09%

-- Flow 2:

Average throughput: 39.42 Mbit/s

95th percentile per-packet one-way delay: 43.529 ms

Loss rate: 8.63%

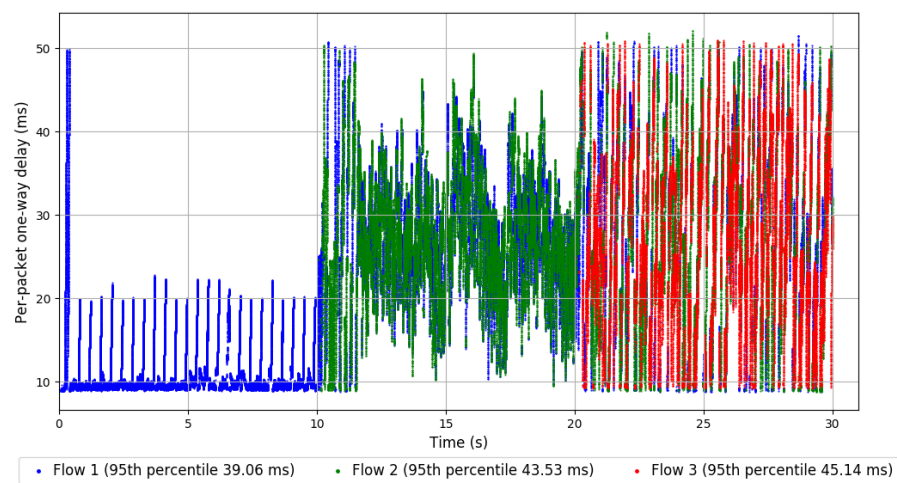
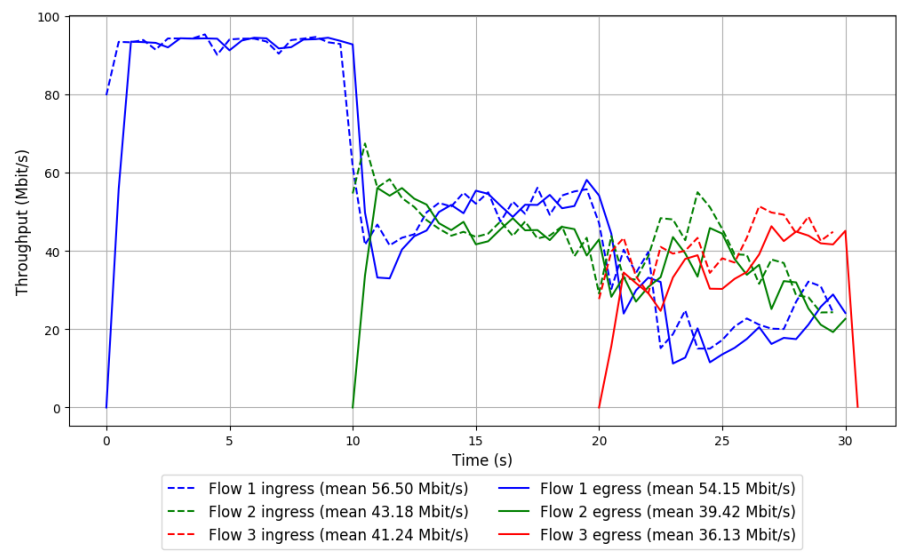
-- Flow 3:

Average throughput: 36.13 Mbit/s

95th percentile per-packet one-way delay: 45.136 ms

Loss rate: 12.38%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-27 08:09:04

End at: 2019-06-27 08:09:34

Local clock offset: 0.524 ms

Remote clock offset: 0.858 ms

Below is generated by plot.py at 2019-06-27 09:51:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.10 Mbit/s

95th percentile per-packet one-way delay: 38.246 ms

Loss rate: 6.91%

-- Flow 1:

Average throughput: 58.73 Mbit/s

95th percentile per-packet one-way delay: 35.531 ms

Loss rate: 4.25%

-- Flow 2:

Average throughput: 38.71 Mbit/s

95th percentile per-packet one-way delay: 40.273 ms

Loss rate: 9.69%

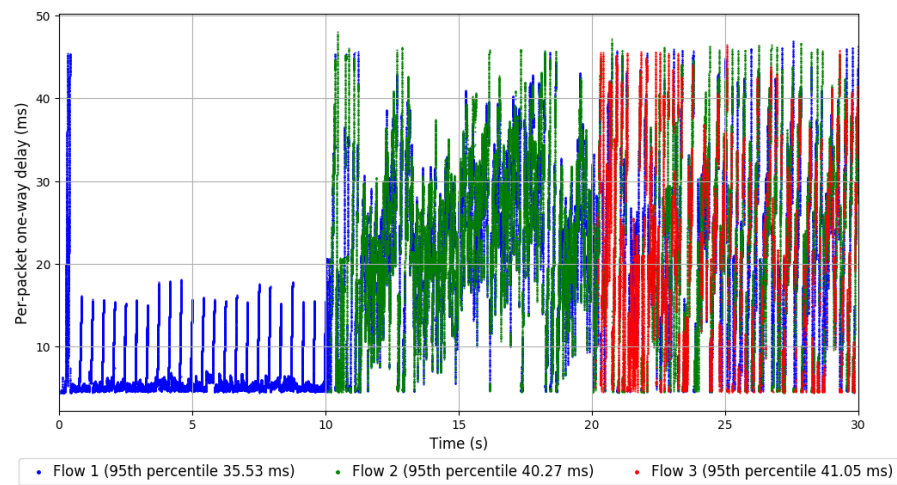
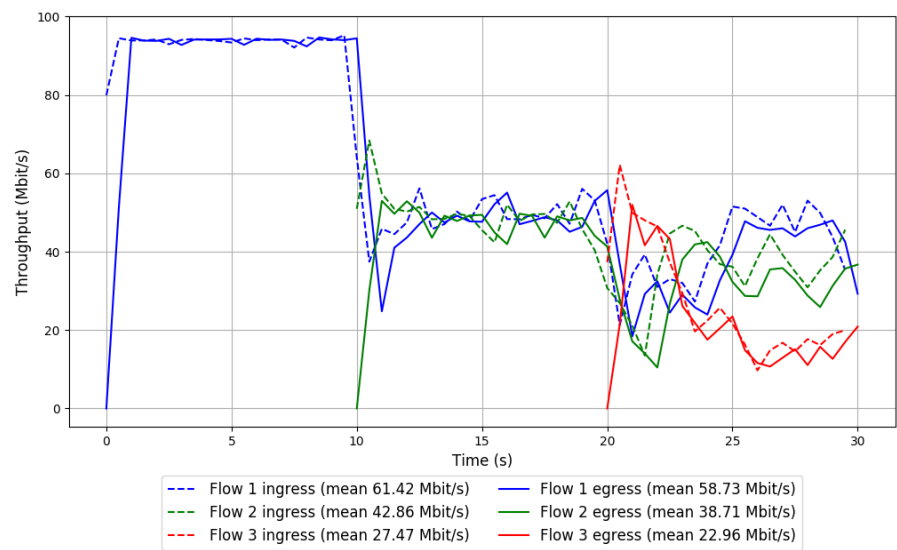
-- Flow 3:

Average throughput: 22.96 Mbit/s

95th percentile per-packet one-way delay: 41.050 ms

Loss rate: 16.14%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-06-27 08:35:27

End at: 2019-06-27 08:35:57

Local clock offset: -0.254 ms

Remote clock offset: 4.754 ms

Below is generated by plot.py at 2019-06-27 09:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.07 Mbit/s

95th percentile per-packet one-way delay: 43.495 ms

Loss rate: 6.44%

-- Flow 1:

Average throughput: 51.60 Mbit/s

95th percentile per-packet one-way delay: 40.028 ms

Loss rate: 4.06%

-- Flow 2:

Average throughput: 50.82 Mbit/s

95th percentile per-packet one-way delay: 44.789 ms

Loss rate: 7.64%

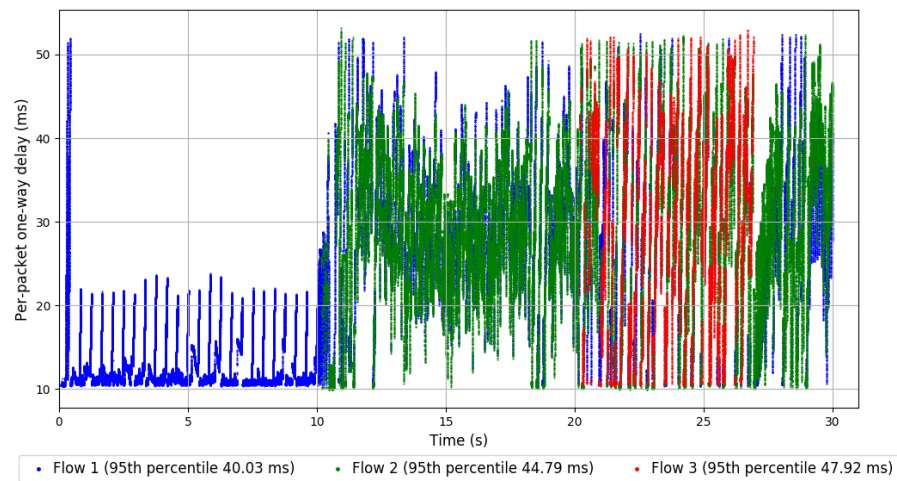
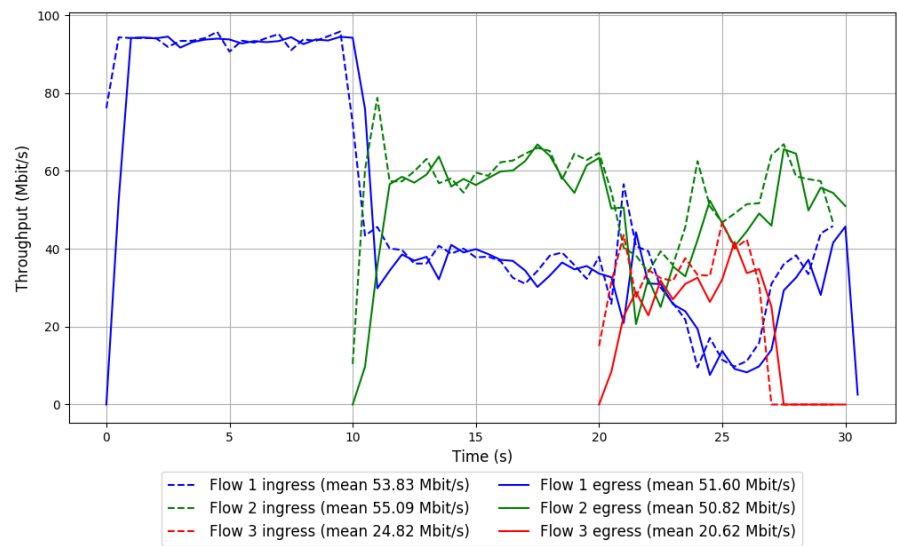
-- Flow 3:

Average throughput: 20.62 Mbit/s

95th percentile per-packet one-way delay: 47.922 ms

Loss rate: 16.94%

Run 3: Report of FillP-Sheep — Data Link

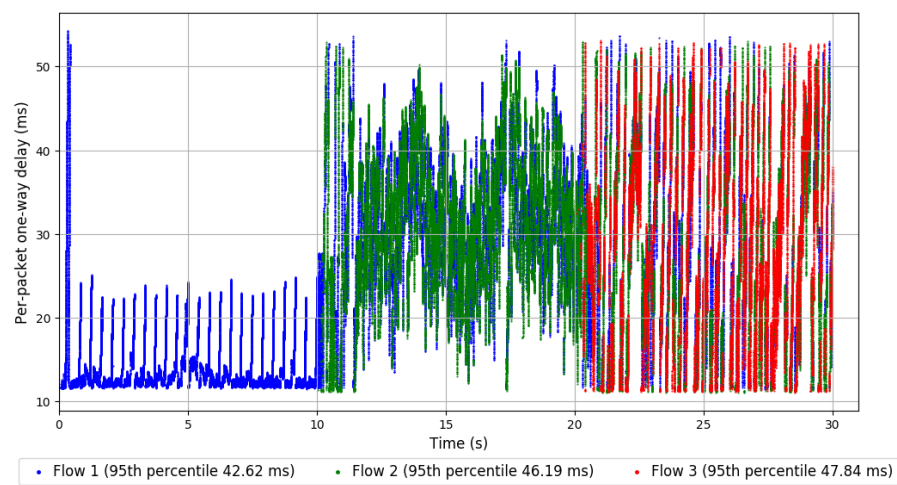
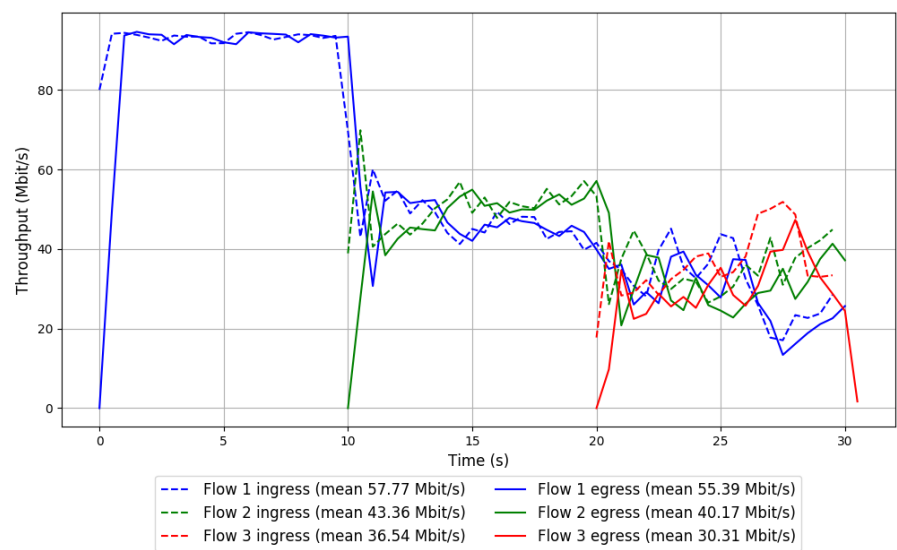


Run 4: Statistics of FillP-Sheep

Start at: 2019-06-27 09:01:14
End at: 2019-06-27 09:01:44
Local clock offset: -1.067 ms
Remote clock offset: 6.042 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.16 Mbit/s
95th percentile per-packet one-way delay: 44.948 ms
Loss rate: 6.58%
-- Flow 1:
Average throughput: 55.39 Mbit/s
95th percentile per-packet one-way delay: 42.620 ms
Loss rate: 4.05%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 46.185 ms
Loss rate: 7.26%
-- Flow 3:
Average throughput: 30.31 Mbit/s
95th percentile per-packet one-way delay: 47.835 ms
Loss rate: 17.02%
```

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-06-27 09:27:39

End at: 2019-06-27 09:28:09

Local clock offset: -0.638 ms

Remote clock offset: -13.208 ms

Below is generated by plot.py at 2019-06-27 09:52:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.46 Mbit/s

95th percentile per-packet one-way delay: 28.946 ms

Loss rate: 4.94%

-- Flow 1:

Average throughput: 70.32 Mbit/s

95th percentile per-packet one-way delay: 24.215 ms

Loss rate: 2.92%

-- Flow 2:

Average throughput: 2.64 Mbit/s

95th percentile per-packet one-way delay: 33.012 ms

Loss rate: 26.71%

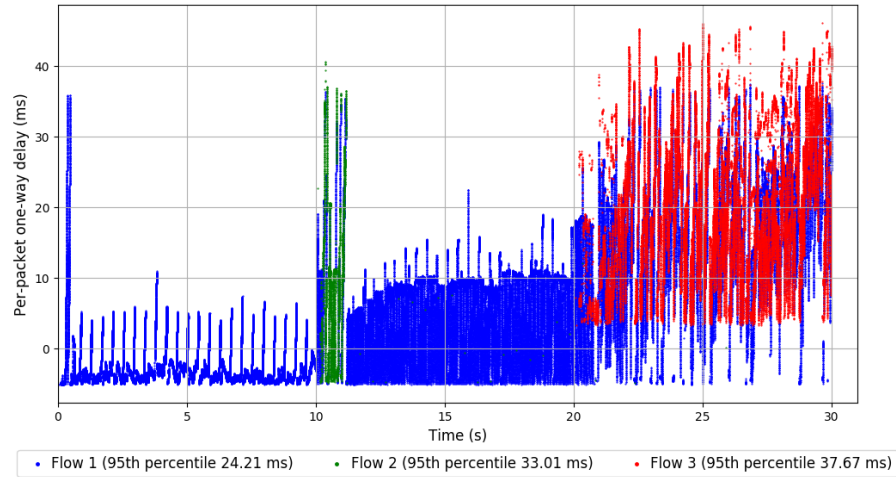
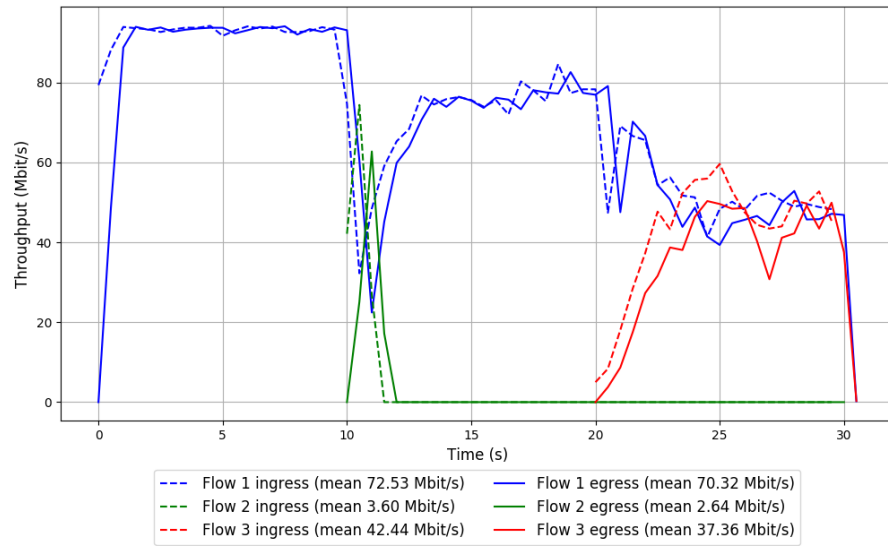
-- Flow 3:

Average throughput: 37.36 Mbit/s

95th percentile per-packet one-way delay: 37.673 ms

Loss rate: 11.66%

Run 5: Report of FillP-Sheep — Data Link

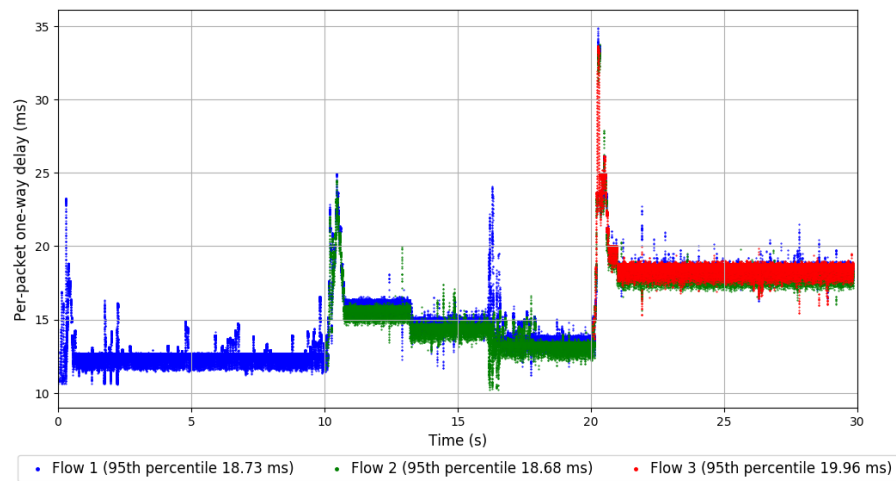
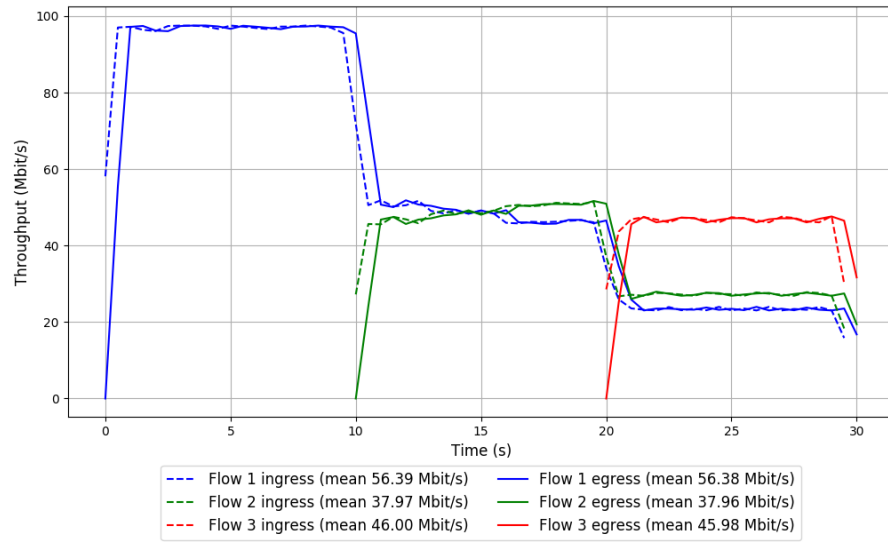


```
Run 1: Statistics of Indigo

Start at: 2019-06-27 07:39:23
End at: 2019-06-27 07:39:53
Local clock offset: -1.526 ms
Remote clock offset: 2.526 ms

# Below is generated by plot.py at 2019-06-27 09:52:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 18.778 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.38 Mbit/s
95th percentile per-packet one-way delay: 18.731 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.96 Mbit/s
95th percentile per-packet one-way delay: 18.678 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.98 Mbit/s
95th percentile per-packet one-way delay: 19.960 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-27 08:05:34

End at: 2019-06-27 08:06:04

Local clock offset: 0.41 ms

Remote clock offset: 5.156 ms

Below is generated by plot.py at 2019-06-27 09:52:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.80 Mbit/s

95th percentile per-packet one-way delay: 18.724 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.88 Mbit/s

95th percentile per-packet one-way delay: 18.688 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.10 Mbit/s

95th percentile per-packet one-way delay: 18.365 ms

Loss rate: 0.00%

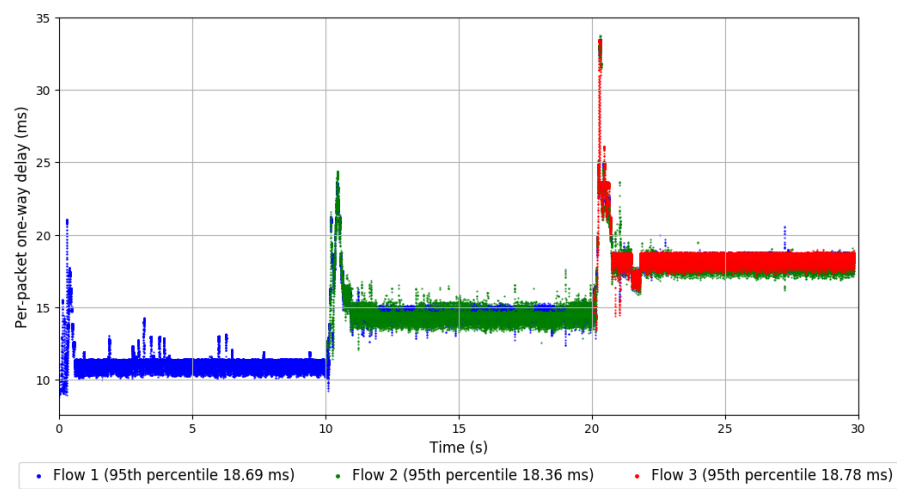
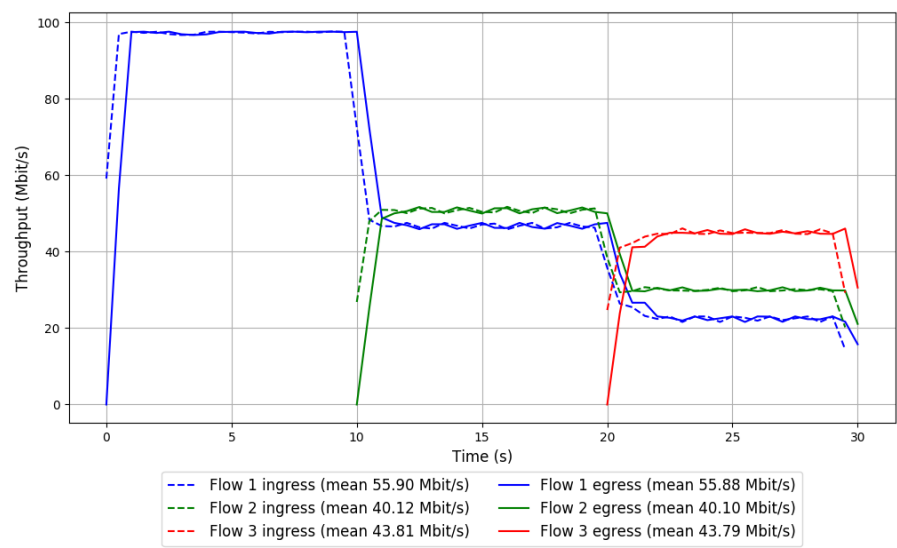
-- Flow 3:

Average throughput: 43.79 Mbit/s

95th percentile per-packet one-way delay: 18.778 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

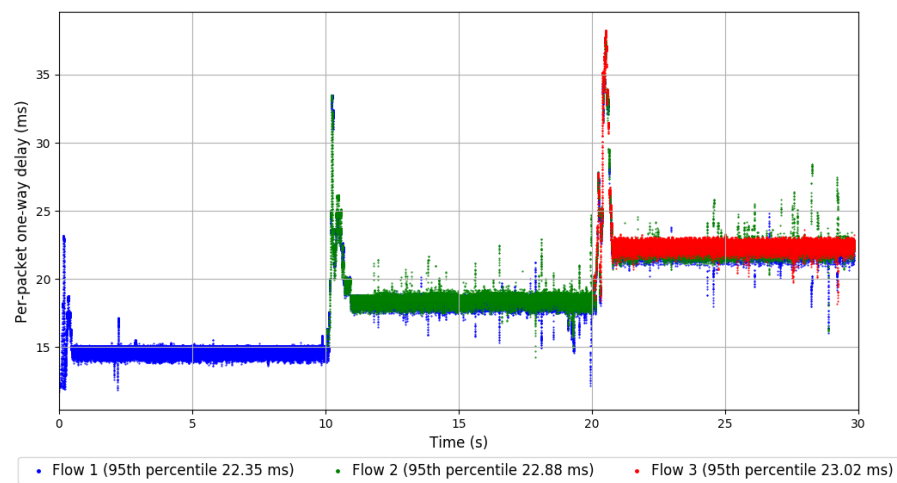
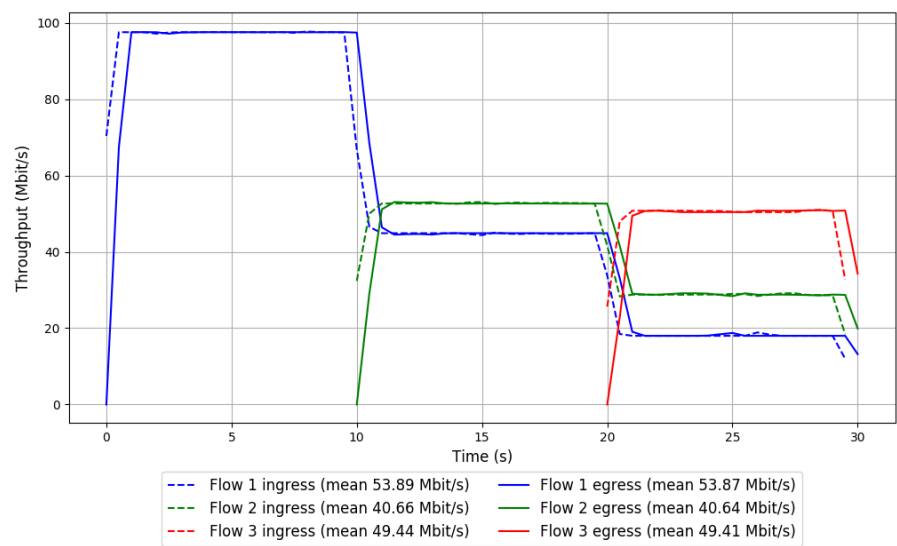


Run 3: Statistics of Indigo

Start at: 2019-06-27 08:31:57
End at: 2019-06-27 08:32:27
Local clock offset: -0.744 ms
Remote clock offset: 6.125 ms

```
# Below is generated by plot.py at 2019-06-27 09:52:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.05 Mbit/s
95th percentile per-packet one-way delay: 22.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.87 Mbit/s
95th percentile per-packet one-way delay: 22.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.64 Mbit/s
95th percentile per-packet one-way delay: 22.876 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.41 Mbit/s
95th percentile per-packet one-way delay: 23.021 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link

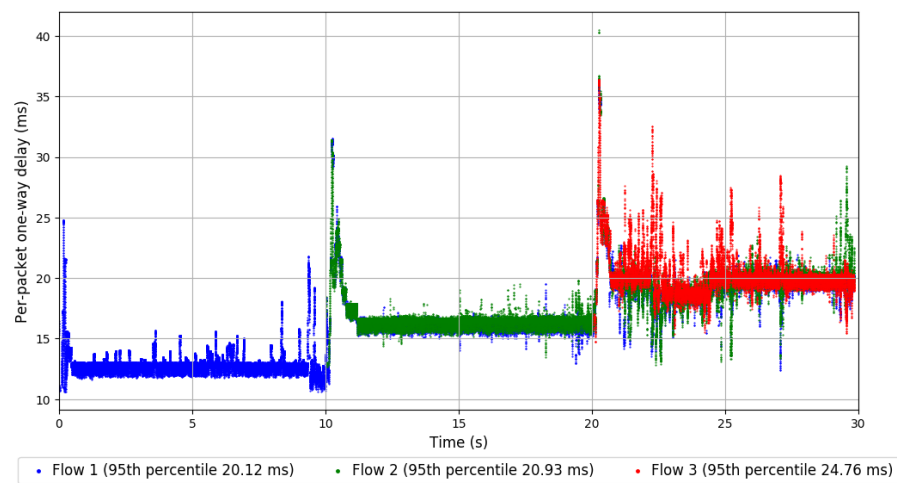
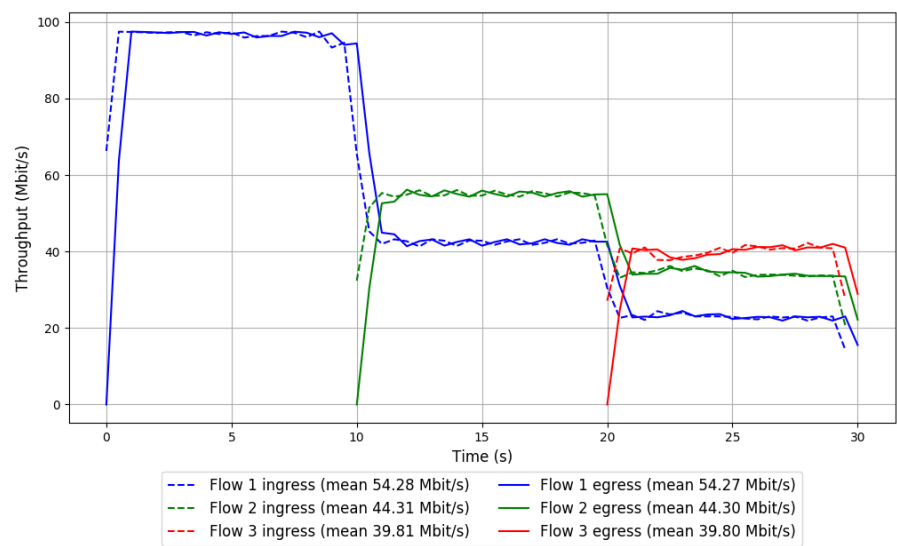


Run 4: Statistics of Indigo

Start at: 2019-06-27 08:57:47
End at: 2019-06-27 08:58:17
Local clock offset: -1.062 ms
Remote clock offset: 4.707 ms

Below is generated by plot.py at 2019-06-27 09:52:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.72 Mbit/s
95th percentile per-packet one-way delay: 20.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.27 Mbit/s
95th percentile per-packet one-way delay: 20.123 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.30 Mbit/s
95th percentile per-packet one-way delay: 20.930 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.80 Mbit/s
95th percentile per-packet one-way delay: 24.761 ms
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

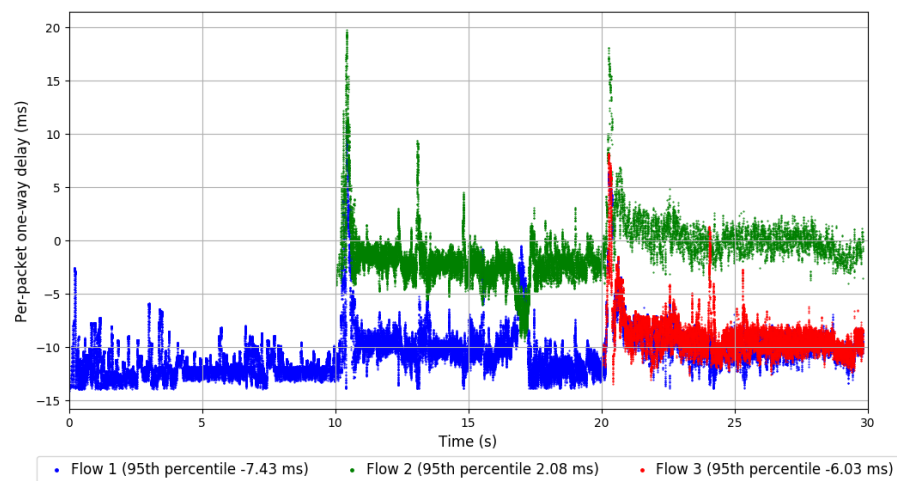
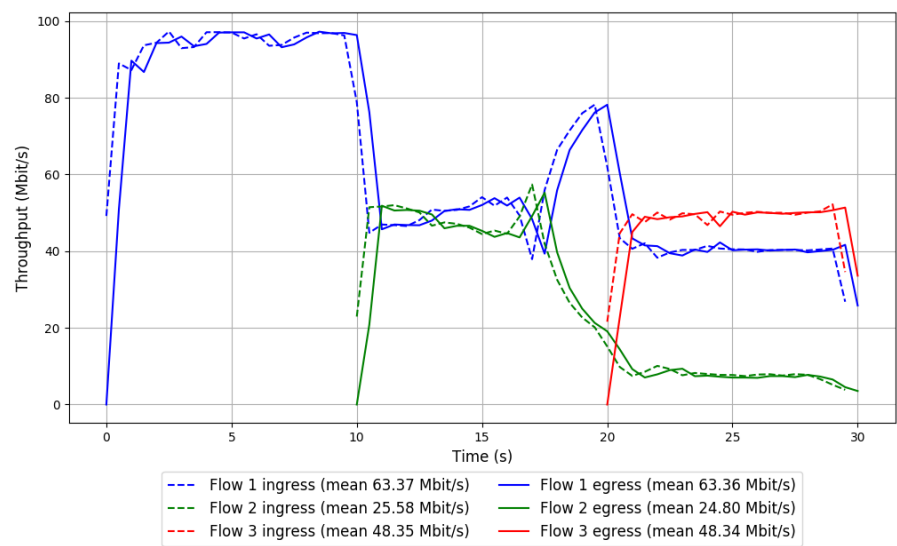


Run 5: Statistics of Indigo

Start at: 2019-06-27 09:24:09
End at: 2019-06-27 09:24:39
Local clock offset: -0.118 ms
Remote clock offset: -21.517 ms

Below is generated by plot.py at 2019-06-27 09:52:58
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: -0.839 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 63.36 Mbit/s
95th percentile per-packet one-way delay: -7.426 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 2.078 ms
Loss rate: 3.02%
-- Flow 3:
Average throughput: 48.34 Mbit/s
95th percentile per-packet one-way delay: -6.025 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-27 07:51:20

End at: 2019-06-27 07:51:50

Local clock offset: -0.587 ms

Remote clock offset: 4.108 ms

Below is generated by plot.py at 2019-06-27 09:52:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.37 Mbit/s

95th percentile per-packet one-way delay: 20.125 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.56 Mbit/s

95th percentile per-packet one-way delay: 15.377 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.98 Mbit/s

95th percentile per-packet one-way delay: 22.428 ms

Loss rate: 0.00%

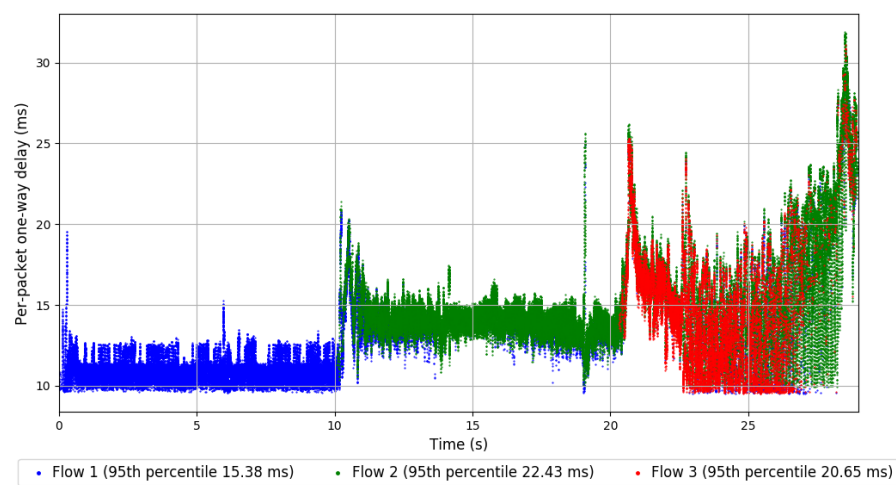
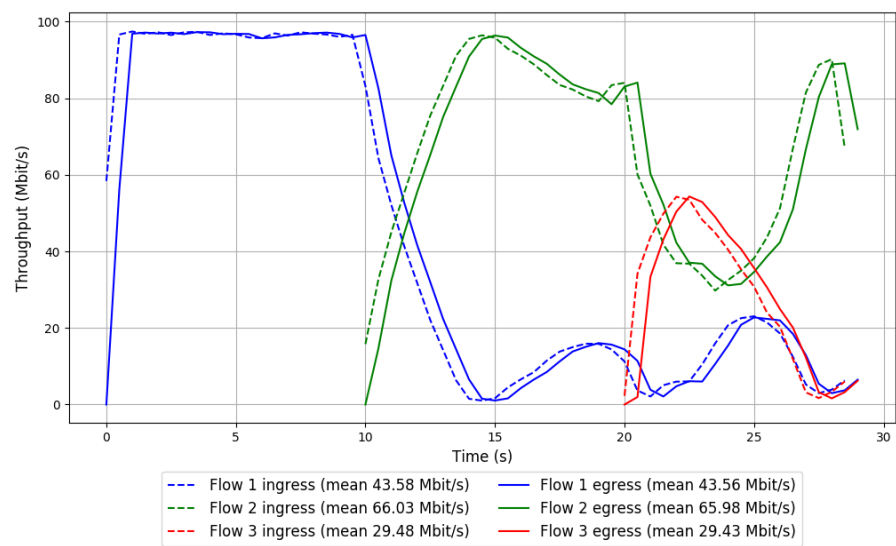
-- Flow 3:

Average throughput: 29.43 Mbit/s

95th percentile per-packet one-way delay: 20.653 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-27 08:17:34

End at: 2019-06-27 08:18:04

Local clock offset: -0.835 ms

Remote clock offset: 6.076 ms

Below is generated by plot.py at 2019-06-27 09:53:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 19.443 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.96 Mbit/s

95th percentile per-packet one-way delay: 19.906 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.35 Mbit/s

95th percentile per-packet one-way delay: 18.254 ms

Loss rate: 0.00%

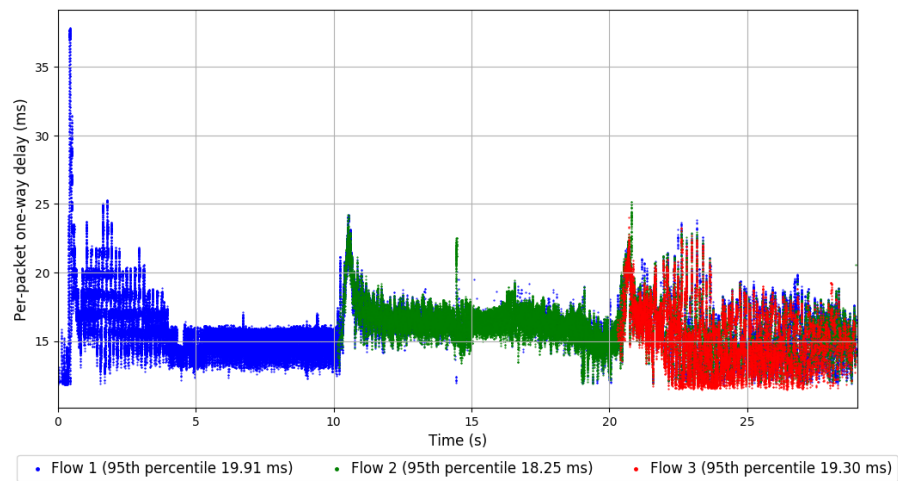
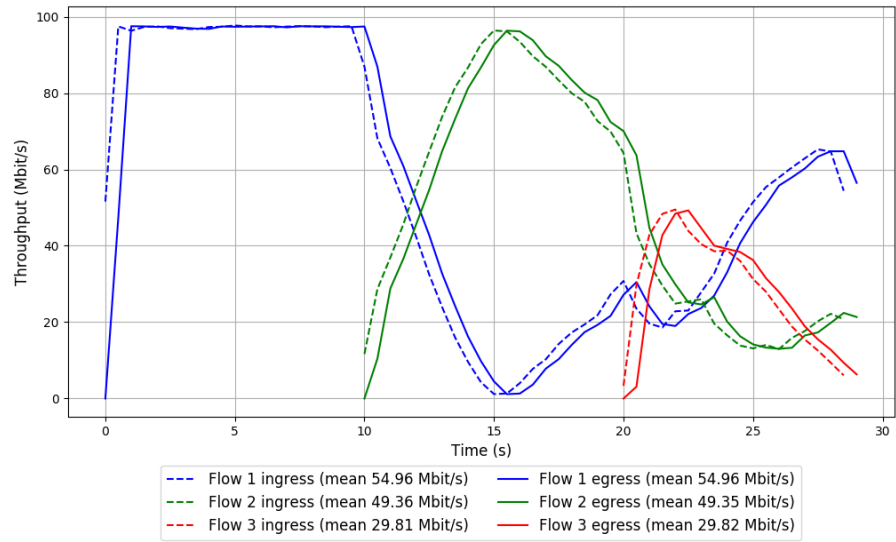
-- Flow 3:

Average throughput: 29.82 Mbit/s

95th percentile per-packet one-way delay: 19.301 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-27 08:43:47

End at: 2019-06-27 08:44:17

Local clock offset: -0.268 ms

Remote clock offset: 3.984 ms

Below is generated by plot.py at 2019-06-27 09:53:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.92 Mbit/s

95th percentile per-packet one-way delay: 16.051 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.79 Mbit/s

95th percentile per-packet one-way delay: 15.440 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.09 Mbit/s

95th percentile per-packet one-way delay: 16.440 ms

Loss rate: 0.00%

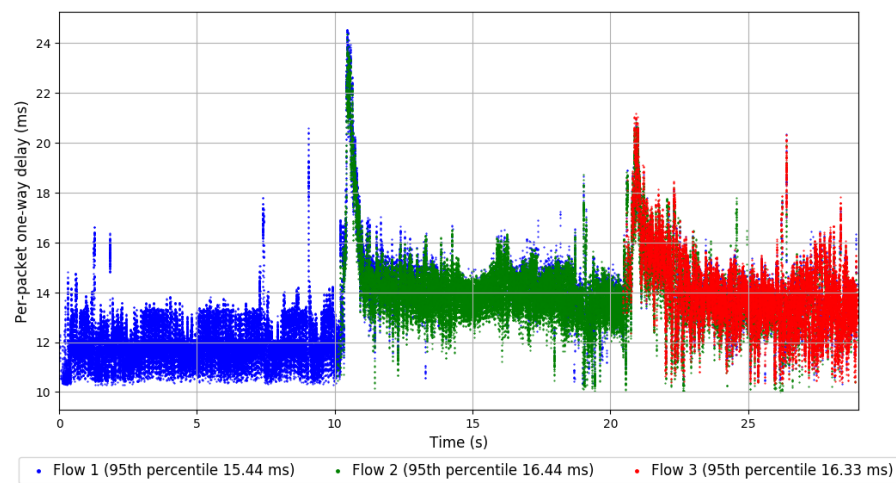
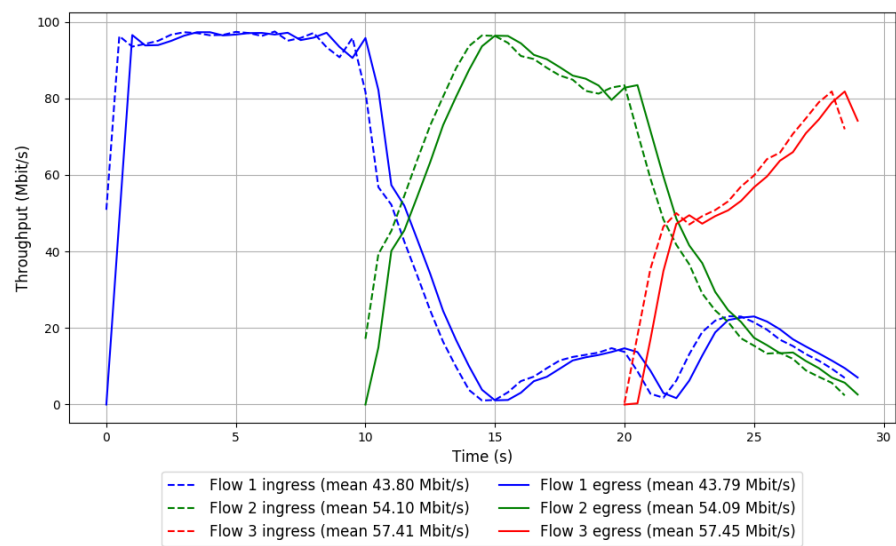
-- Flow 3:

Average throughput: 57.45 Mbit/s

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

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-27 09:09:35

End at: 2019-06-27 09:10:05

Local clock offset: -1.842 ms

Remote clock offset: 5.714 ms

Below is generated by plot.py at 2019-06-27 09:53:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.21 Mbit/s

95th percentile per-packet one-way delay: 23.162 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.70 Mbit/s

95th percentile per-packet one-way delay: 17.894 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.23 Mbit/s

95th percentile per-packet one-way delay: 25.875 ms

Loss rate: 0.00%

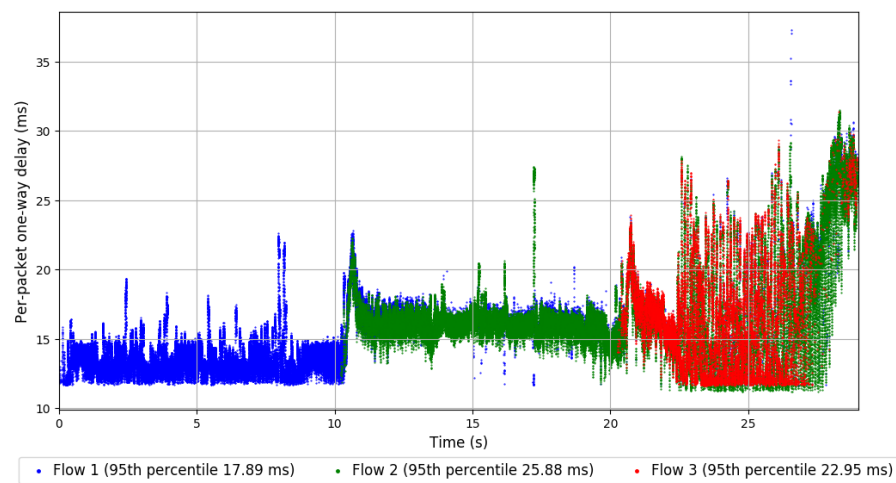
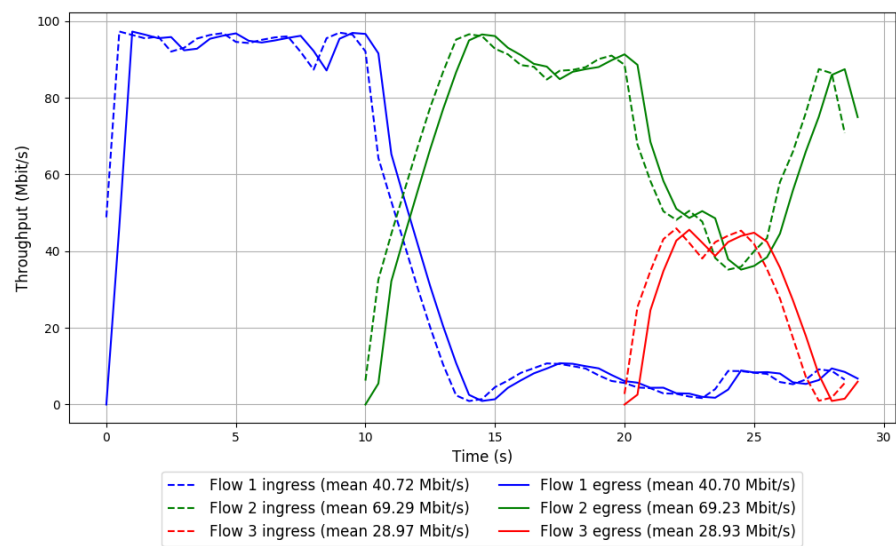
-- Flow 3:

Average throughput: 28.93 Mbit/s

95th percentile per-packet one-way delay: 22.950 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-27 09:36:07

End at: 2019-06-27 09:36:37

Local clock offset: -0.915 ms

Remote clock offset: -17.2 ms

Below is generated by plot.py at 2019-06-27 09:53:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.47 Mbit/s

95th percentile per-packet one-way delay: 0.472 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.82 Mbit/s

95th percentile per-packet one-way delay: -1.314 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.57 Mbit/s

95th percentile per-packet one-way delay: 1.562 ms

Loss rate: 0.00%

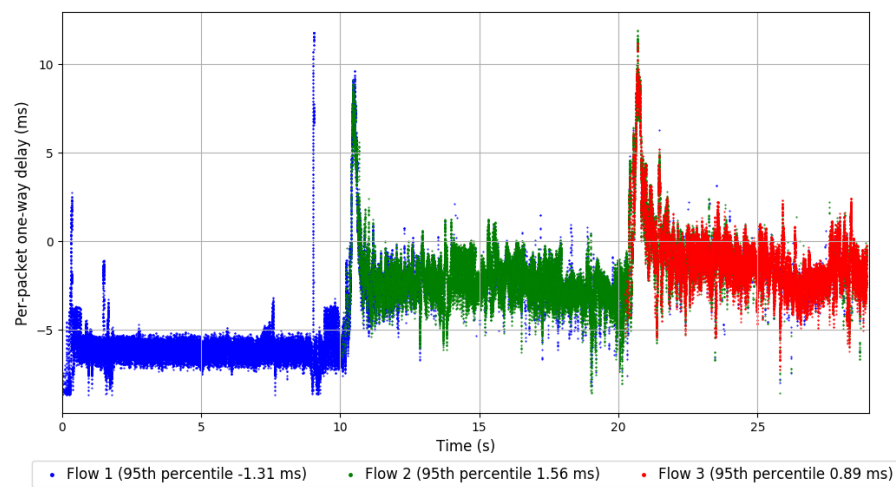
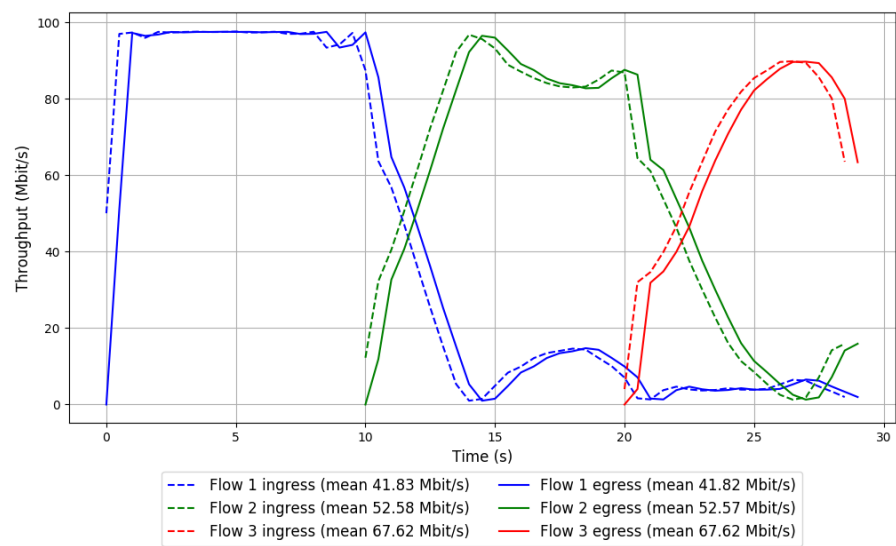
-- Flow 3:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 0.885 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-27 07:56:06

End at: 2019-06-27 07:56:36

Local clock offset: -0.267 ms

Remote clock offset: 5.381 ms

Below is generated by plot.py at 2019-06-27 09:53:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.32 Mbit/s

95th percentile per-packet one-way delay: 43.800 ms

Loss rate: 9.66%

-- Flow 1:

Average throughput: 61.98 Mbit/s

95th percentile per-packet one-way delay: 40.727 ms

Loss rate: 5.60%

-- Flow 2:

Average throughput: 39.66 Mbit/s

95th percentile per-packet one-way delay: 45.095 ms

Loss rate: 12.79%

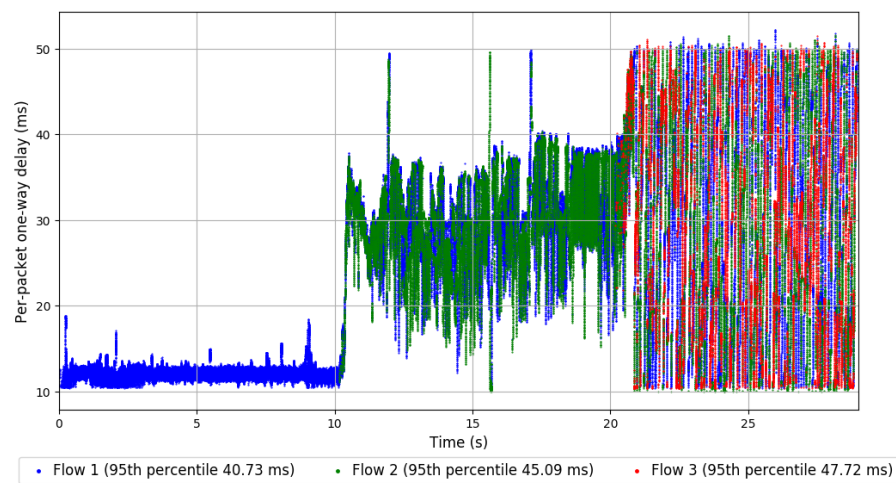
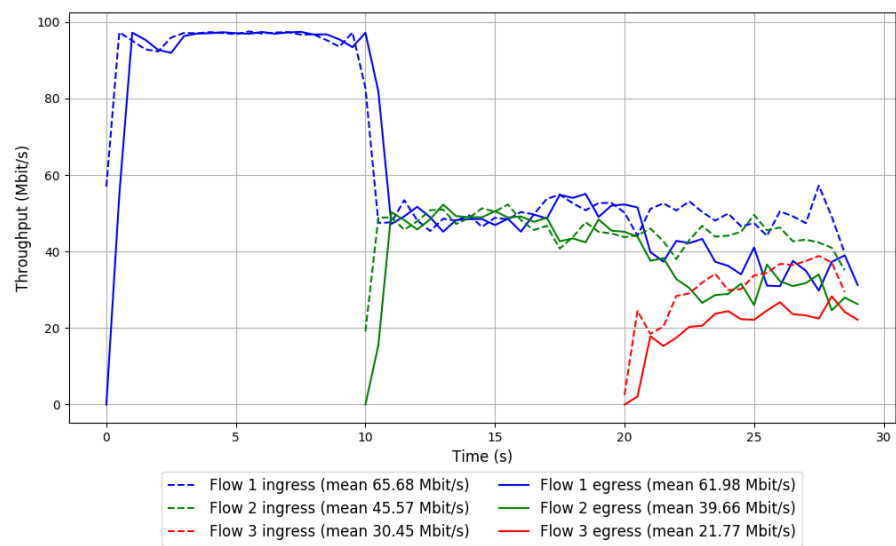
-- Flow 3:

Average throughput: 21.77 Mbit/s

95th percentile per-packet one-way delay: 47.721 ms

Loss rate: 28.51%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-27 08:22:21

End at: 2019-06-27 08:22:51

Local clock offset: 0.48 ms

Remote clock offset: 5.365 ms

Below is generated by plot.py at 2019-06-27 09:53:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.84 Mbit/s

95th percentile per-packet one-way delay: 44.684 ms

Loss rate: 8.09%

-- Flow 1:

Average throughput: 57.37 Mbit/s

95th percentile per-packet one-way delay: 42.929 ms

Loss rate: 5.02%

-- Flow 2:

Average throughput: 38.36 Mbit/s

95th percentile per-packet one-way delay: 45.459 ms

Loss rate: 10.08%

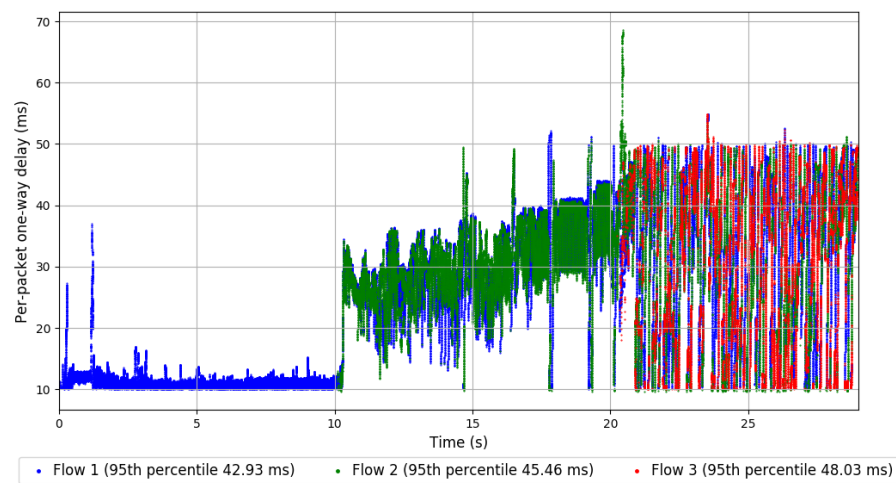
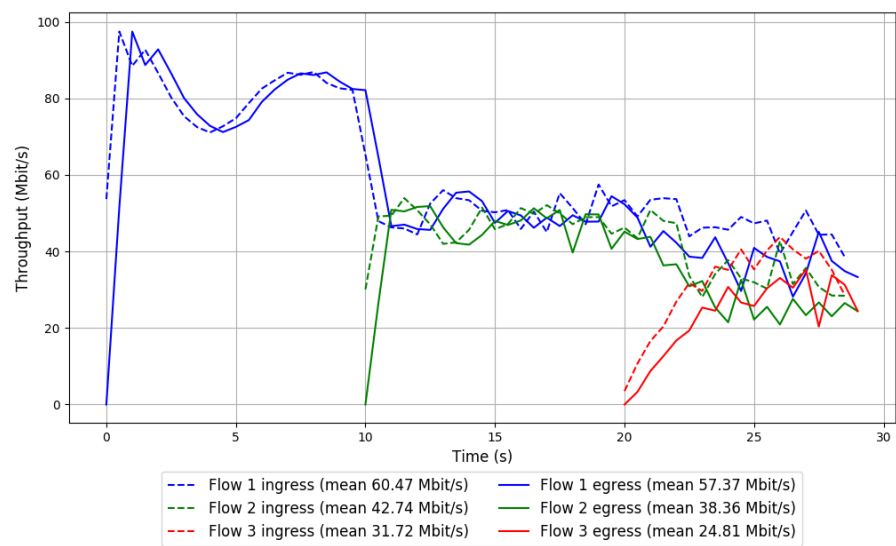
-- Flow 3:

Average throughput: 24.81 Mbit/s

95th percentile per-packet one-way delay: 48.028 ms

Loss rate: 21.74%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-27 08:48:31

End at: 2019-06-27 08:49:01

Local clock offset: 1.078 ms

Remote clock offset: 3.969 ms

Below is generated by plot.py at 2019-06-27 09:54:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.31 Mbit/s

95th percentile per-packet one-way delay: 43.352 ms

Loss rate: 10.33%

-- Flow 1:

Average throughput: 54.34 Mbit/s

95th percentile per-packet one-way delay: 41.819 ms

Loss rate: 6.39%

-- Flow 2:

Average throughput: 41.19 Mbit/s

95th percentile per-packet one-way delay: 44.229 ms

Loss rate: 12.91%

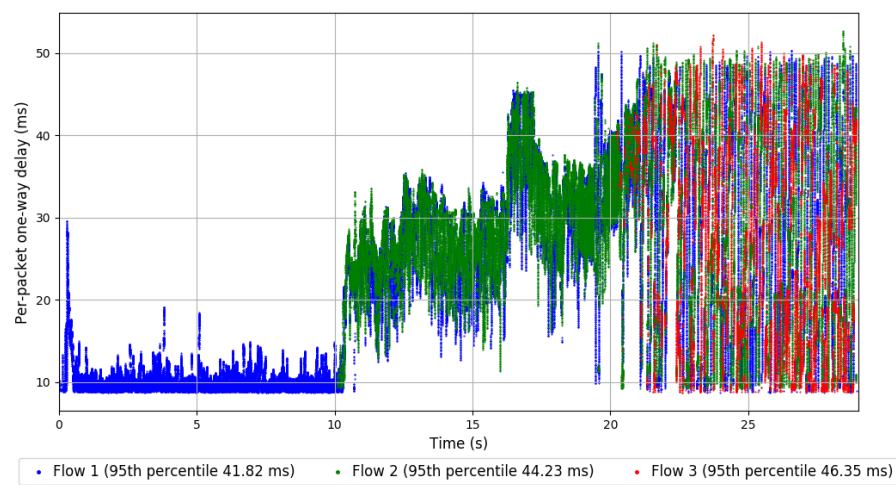
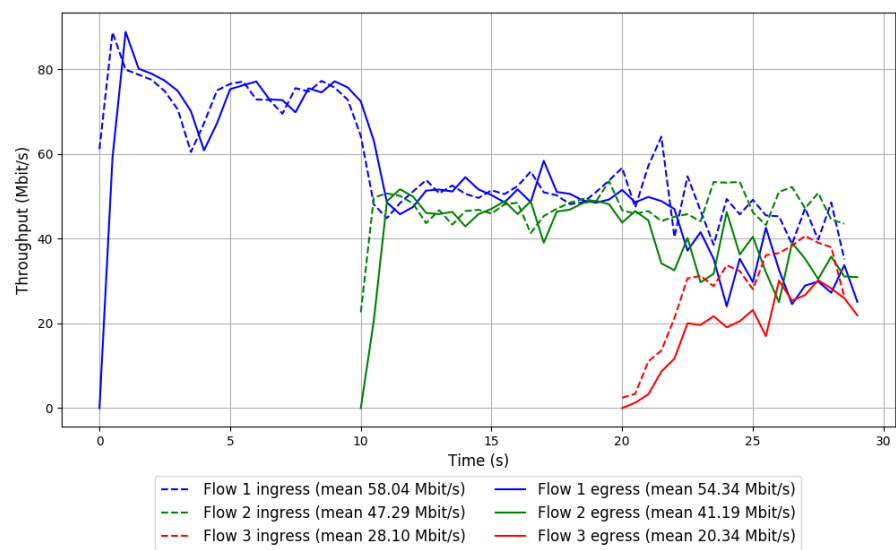
-- Flow 3:

Average throughput: 20.34 Mbit/s

95th percentile per-packet one-way delay: 46.348 ms

Loss rate: 27.89%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-27 09:14:28

End at: 2019-06-27 09:14:58

Local clock offset: -1.374 ms

Remote clock offset: 4.996 ms

Below is generated by plot.py at 2019-06-27 09:54:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.93 Mbit/s

95th percentile per-packet one-way delay: 44.651 ms

Loss rate: 9.86%

-- Flow 1:

Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 43.392 ms

Loss rate: 6.01%

-- Flow 2:

Average throughput: 43.17 Mbit/s

95th percentile per-packet one-way delay: 45.439 ms

Loss rate: 12.60%

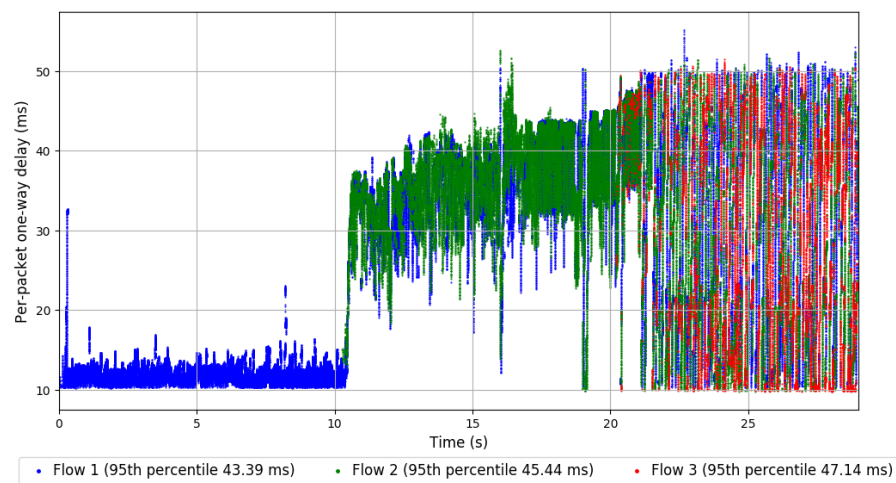
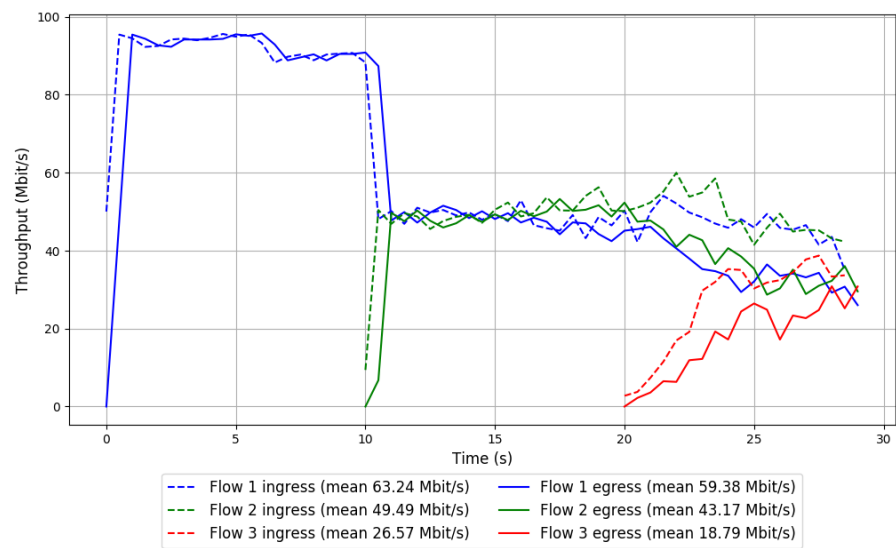
-- Flow 3:

Average throughput: 18.79 Mbit/s

95th percentile per-packet one-way delay: 47.136 ms

Loss rate: 29.25%

Run 4: Report of Indigo-MusesC5 — Data Link

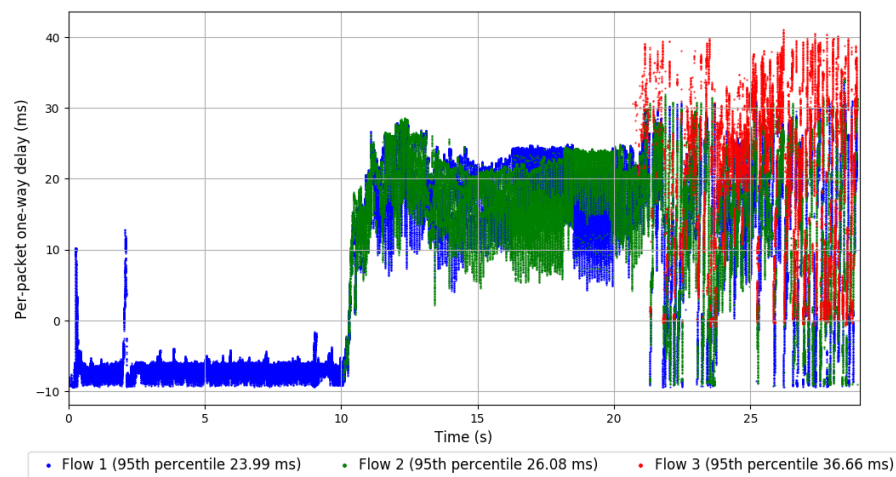
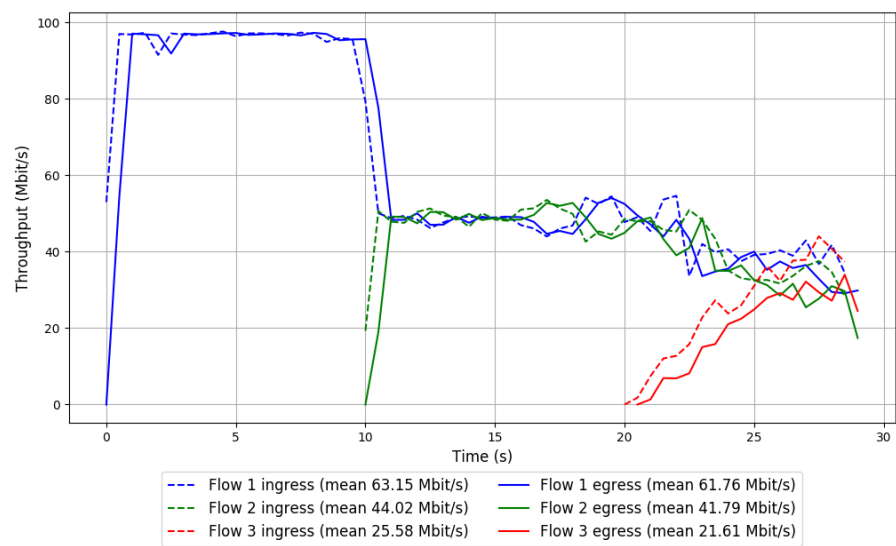


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-27 09:40:49
End at: 2019-06-27 09:41:19
Local clock offset: -1.047 ms
Remote clock offset: -18.174 ms

Below is generated by plot.py at 2019-06-27 09:54:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 26.341 ms
Loss rate: 4.47%
-- Flow 1:
Average throughput: 61.76 Mbit/s
95th percentile per-packet one-way delay: 23.990 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 41.79 Mbit/s
95th percentile per-packet one-way delay: 26.080 ms
Loss rate: 5.08%
-- Flow 3:
Average throughput: 21.61 Mbit/s
95th percentile per-packet one-way delay: 36.661 ms
Loss rate: 20.77%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-27 08:00:53

End at: 2019-06-27 08:01:23

Local clock offset: -0.11 ms

Remote clock offset: 5.729 ms

Below is generated by plot.py at 2019-06-27 09:54:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.74 Mbit/s

95th percentile per-packet one-way delay: 47.335 ms

Loss rate: 16.25%

-- Flow 1:

Average throughput: 73.12 Mbit/s

95th percentile per-packet one-way delay: 47.297 ms

Loss rate: 12.96%

-- Flow 2:

Average throughput: 34.66 Mbit/s

95th percentile per-packet one-way delay: 47.617 ms

Loss rate: 25.12%

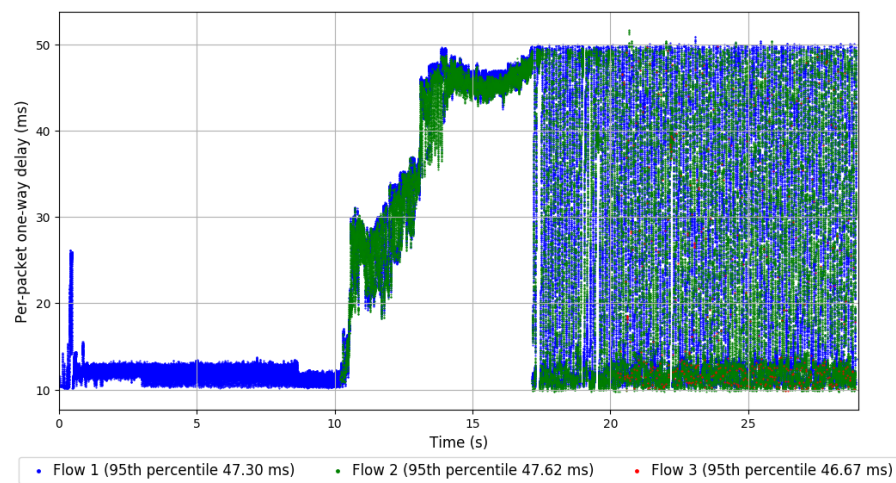
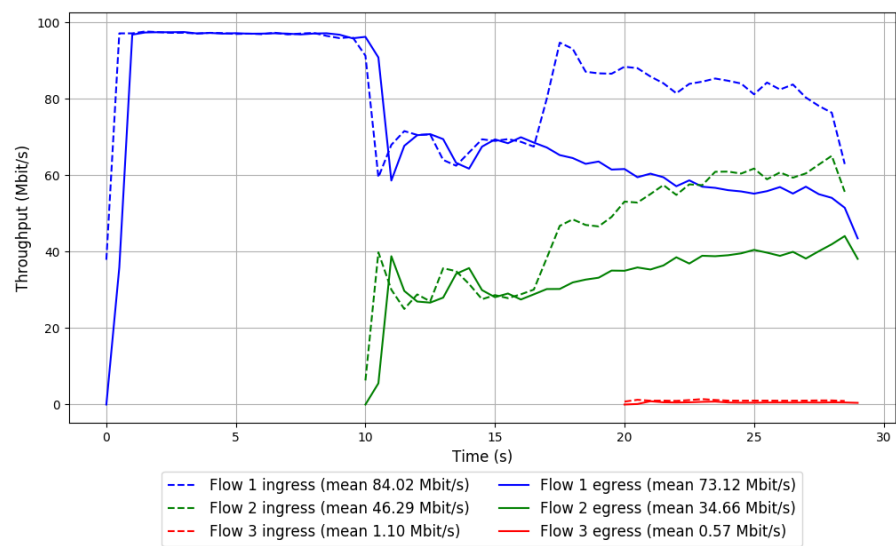
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 46.669 ms

Loss rate: 47.97%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-27 08:27:16

End at: 2019-06-27 08:27:46

Local clock offset: 0.671 ms

Remote clock offset: 6.43 ms

Below is generated by plot.py at 2019-06-27 09:54:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.20 Mbit/s

95th percentile per-packet one-way delay: 15.359 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.27 Mbit/s

95th percentile per-packet one-way delay: 14.946 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.35 Mbit/s

95th percentile per-packet one-way delay: 15.724 ms

Loss rate: 0.00%

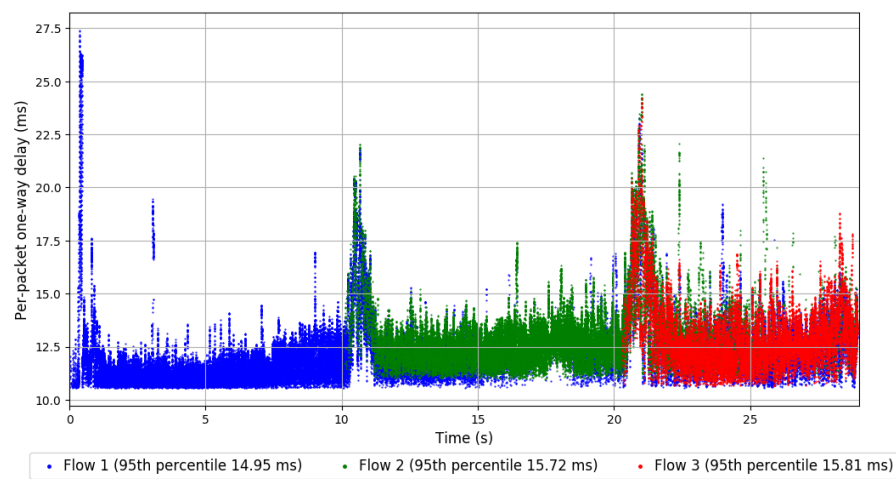
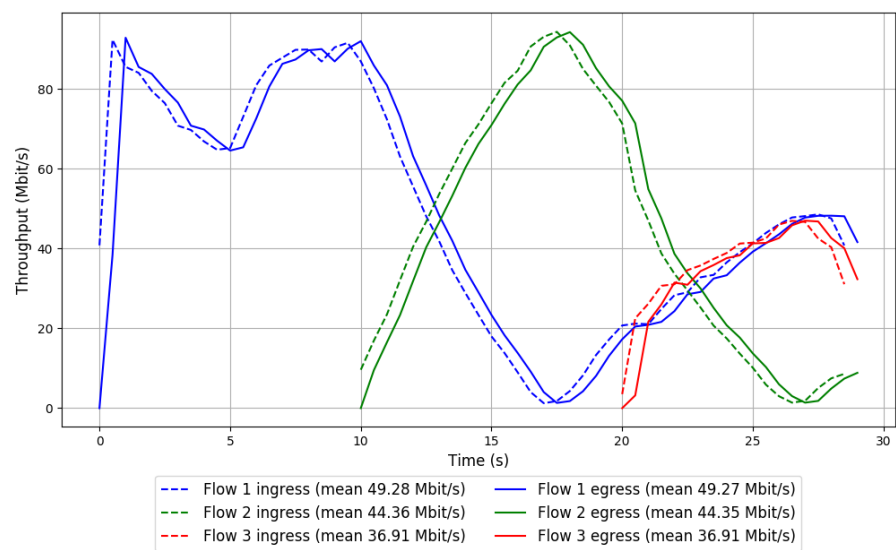
-- Flow 3:

Average throughput: 36.91 Mbit/s

95th percentile per-packet one-way delay: 15.806 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-27 08:53:10

End at: 2019-06-27 08:53:40

Local clock offset: -0.003 ms

Remote clock offset: 4.539 ms

Below is generated by plot.py at 2019-06-27 09:54:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.31 Mbit/s

95th percentile per-packet one-way delay: 47.612 ms

Loss rate: 20.72%

-- Flow 1:

Average throughput: 60.02 Mbit/s

95th percentile per-packet one-way delay: 47.400 ms

Loss rate: 17.60%

-- Flow 2:

Average throughput: 40.05 Mbit/s

95th percentile per-packet one-way delay: 47.916 ms

Loss rate: 26.90%

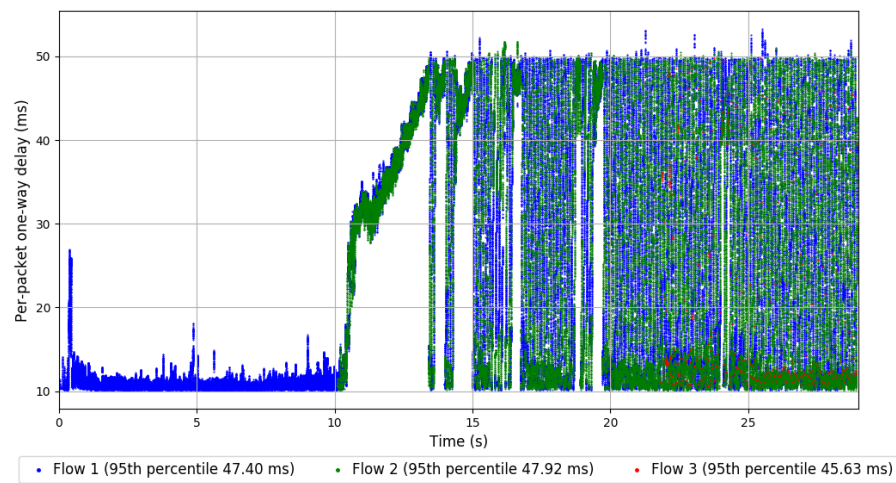
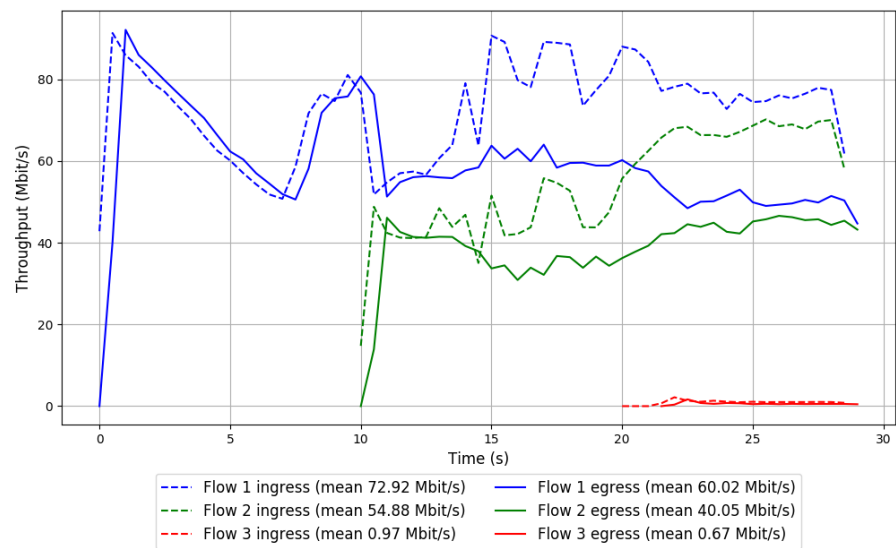
-- Flow 3:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 45.627 ms

Loss rate: 42.40%

Run 3: Report of Indigo-MusesD — Data Link

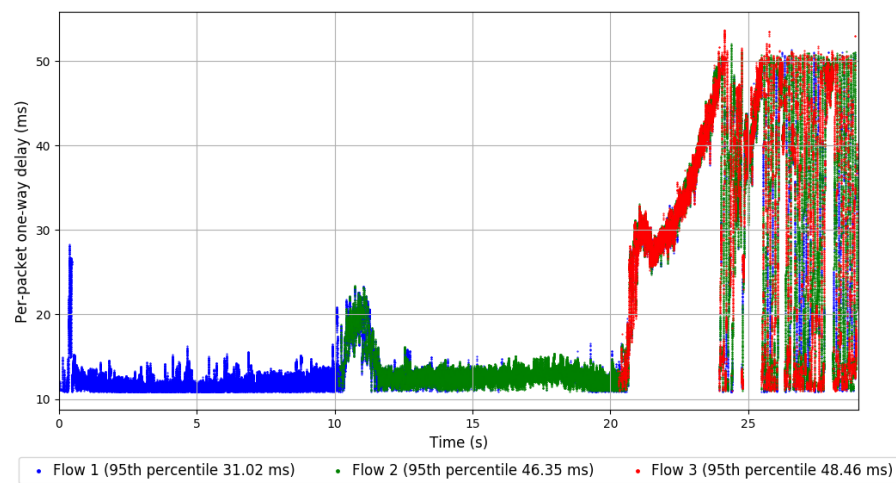
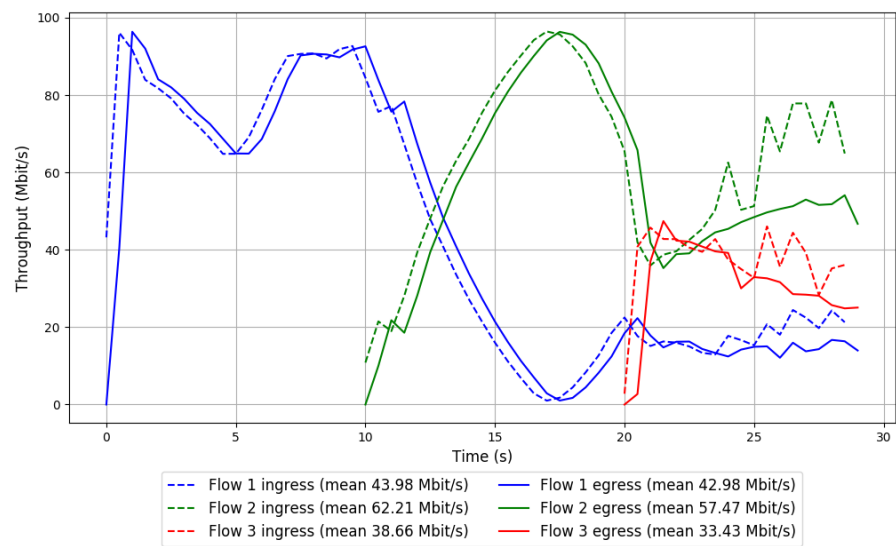


Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-27 09:19:10
End at: 2019-06-27 09:19:40
Local clock offset: -1.293 ms
Remote clock offset: 5.953 ms

Below is generated by plot.py at 2019-06-27 09:54:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.40 Mbit/s
95th percentile per-packet one-way delay: 44.915 ms
Loss rate: 5.76%
-- Flow 1:
Average throughput: 42.98 Mbit/s
95th percentile per-packet one-way delay: 31.024 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 57.47 Mbit/s
95th percentile per-packet one-way delay: 46.347 ms
Loss rate: 7.51%
-- Flow 3:
Average throughput: 33.43 Mbit/s
95th percentile per-packet one-way delay: 48.456 ms
Loss rate: 13.28%

Run 4: Report of Indigo-MusesD — Data Link

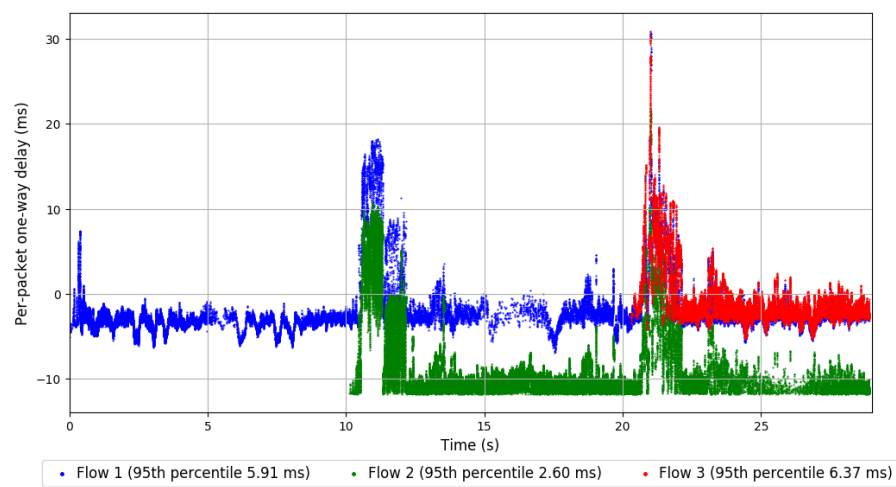
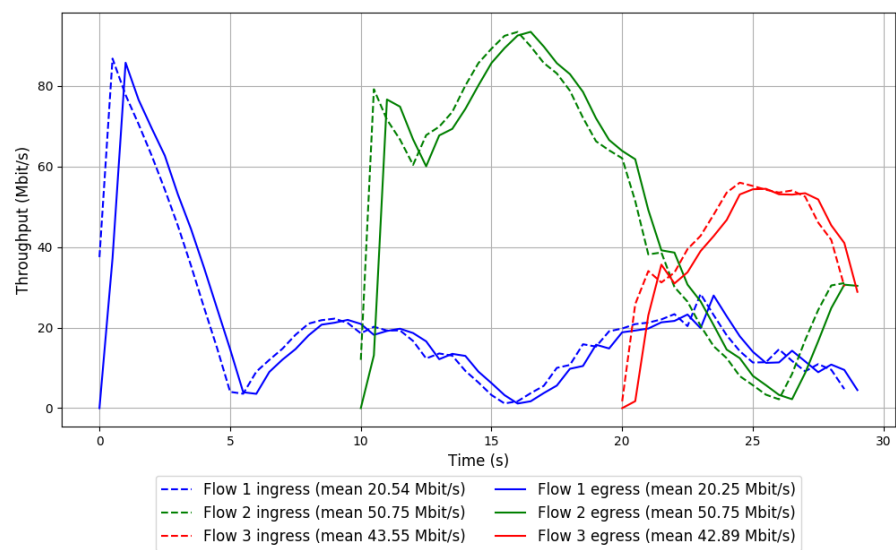


Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-27 09:45:38
End at: 2019-06-27 09:46:08
Local clock offset: -0.783 ms
Remote clock offset: -20.314 ms

Below is generated by plot.py at 2019-06-27 09:54:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 66.04 Mbit/s
95th percentile per-packet one-way delay: 4.550 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 5.906 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 50.75 Mbit/s
95th percentile per-packet one-way delay: 2.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.89 Mbit/s
95th percentile per-packet one-way delay: 6.368 ms
Loss rate: 1.57%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-27 07:45:15

End at: 2019-06-27 07:45:45

Local clock offset: -1.517 ms

Remote clock offset: 3.11 ms

Below is generated by plot.py at 2019-06-27 09:55:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.73 Mbit/s

95th percentile per-packet one-way delay: 39.329 ms

Loss rate: 3.80%

-- Flow 1:

Average throughput: 61.49 Mbit/s

95th percentile per-packet one-way delay: 33.904 ms

Loss rate: 2.32%

-- Flow 2:

Average throughput: 42.06 Mbit/s

95th percentile per-packet one-way delay: 40.231 ms

Loss rate: 4.15%

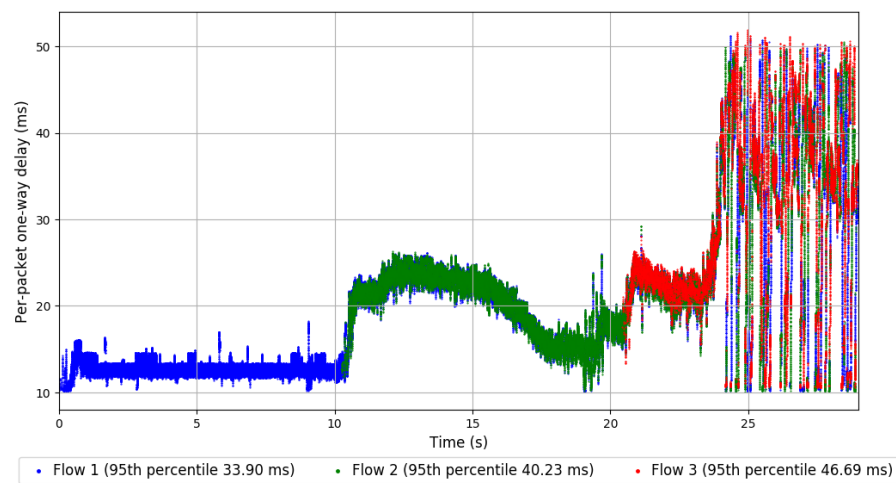
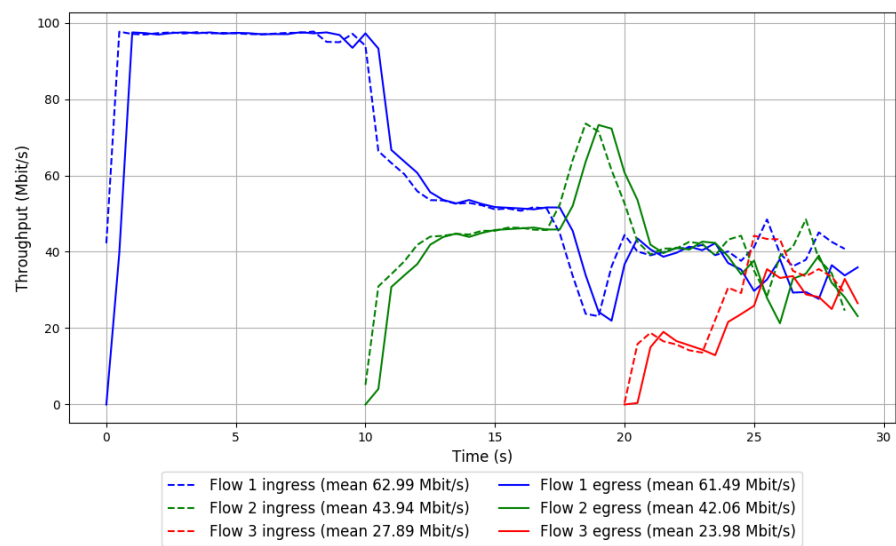
-- Flow 3:

Average throughput: 23.98 Mbit/s

95th percentile per-packet one-way delay: 46.686 ms

Loss rate: 13.87%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-27 08:11:29

End at: 2019-06-27 08:11:59

Local clock offset: -0.081 ms

Remote clock offset: 5.465 ms

Below is generated by plot.py at 2019-06-27 09:55:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.55 Mbit/s

95th percentile per-packet one-way delay: 43.371 ms

Loss rate: 6.19%

-- Flow 1:

Average throughput: 60.70 Mbit/s

95th percentile per-packet one-way delay: 39.452 ms

Loss rate: 3.27%

-- Flow 2:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 44.240 ms

Loss rate: 8.00%

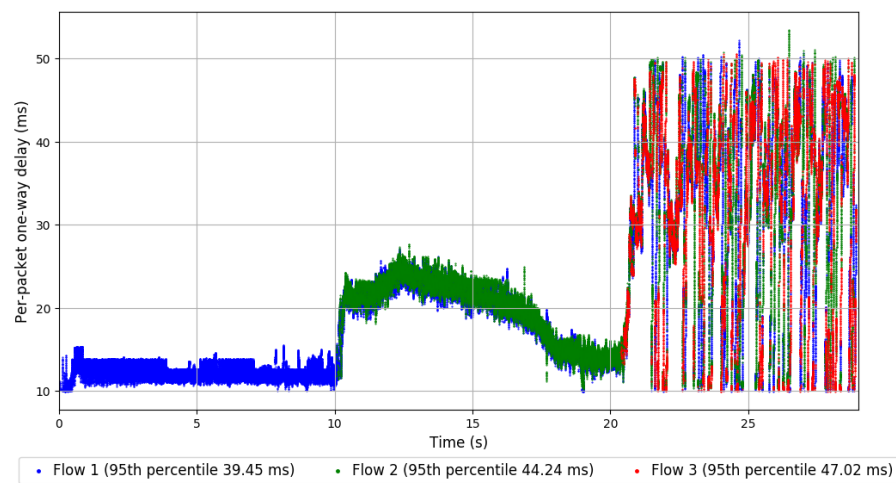
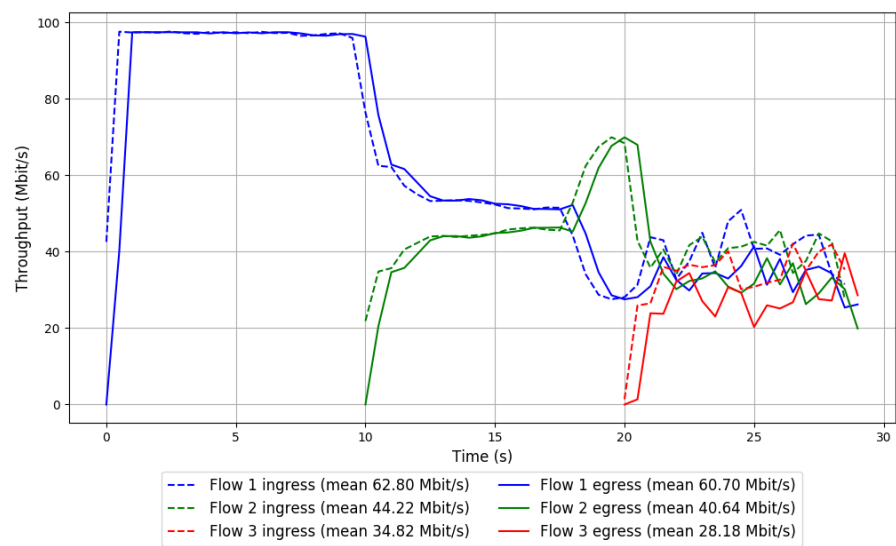
-- Flow 3:

Average throughput: 28.18 Mbit/s

95th percentile per-packet one-way delay: 47.024 ms

Loss rate: 18.89%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-27 08:37:51

End at: 2019-06-27 08:38:21

Local clock offset: 0.087 ms

Remote clock offset: 2.081 ms

Below is generated by plot.py at 2019-06-27 09:55:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.57 Mbit/s

95th percentile per-packet one-way delay: 39.968 ms

Loss rate: 6.11%

-- Flow 1:

Average throughput: 57.99 Mbit/s

95th percentile per-packet one-way delay: 35.240 ms

Loss rate: 3.42%

-- Flow 2:

Average throughput: 43.83 Mbit/s

95th percentile per-packet one-way delay: 40.732 ms

Loss rate: 6.78%

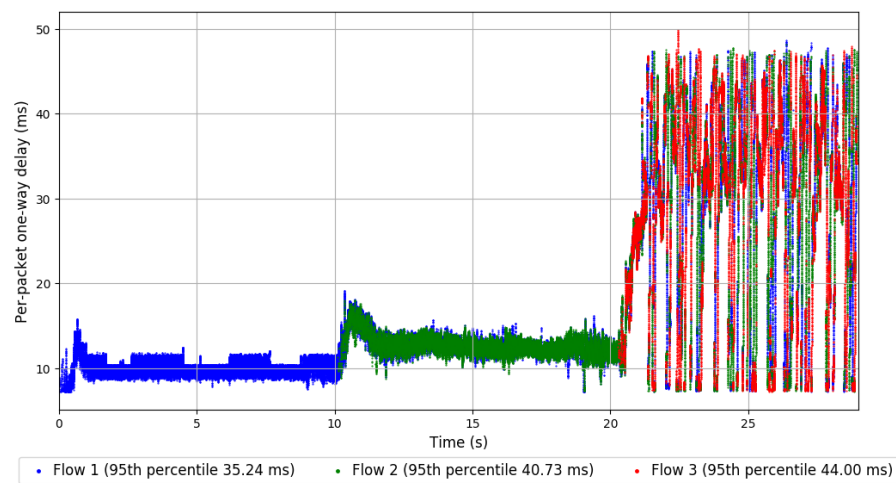
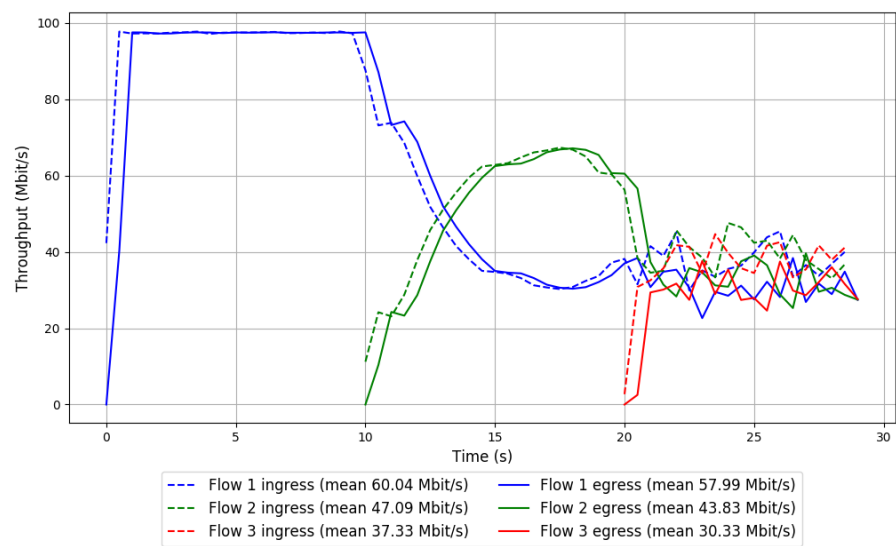
-- Flow 3:

Average throughput: 30.33 Mbit/s

95th percentile per-packet one-way delay: 43.996 ms

Loss rate: 18.71%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-27 09:03:36

End at: 2019-06-27 09:04:06

Local clock offset: -1.363 ms

Remote clock offset: 5.218 ms

Below is generated by plot.py at 2019-06-27 09:55:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.55 Mbit/s

95th percentile per-packet one-way delay: 42.862 ms

Loss rate: 4.93%

-- Flow 1:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 38.303 ms

Loss rate: 2.85%

-- Flow 2:

Average throughput: 40.27 Mbit/s

95th percentile per-packet one-way delay: 43.263 ms

Loss rate: 6.20%

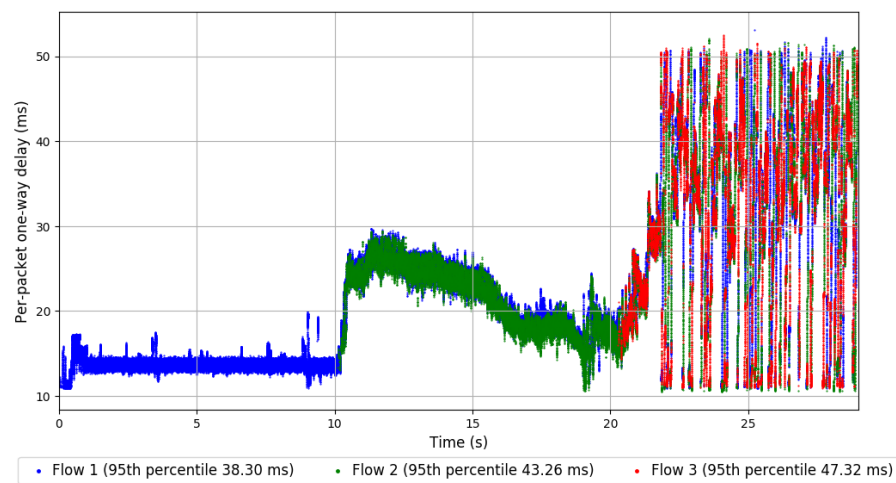
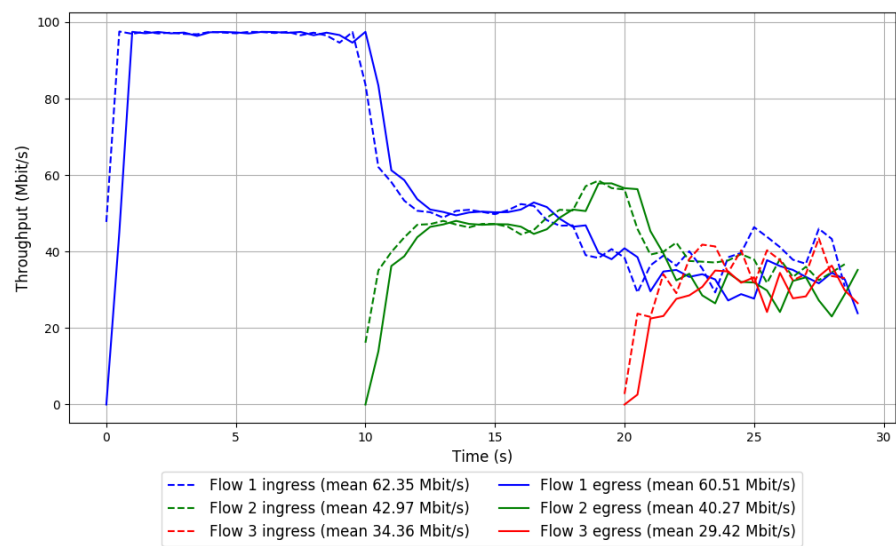
-- Flow 3:

Average throughput: 29.42 Mbit/s

95th percentile per-packet one-way delay: 47.319 ms

Loss rate: 14.11%

Run 4: Report of Indigo-MusesT — Data Link

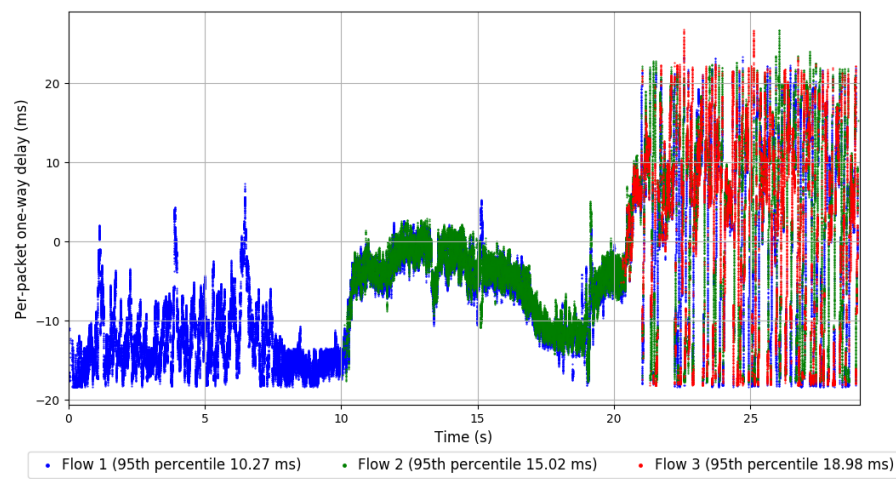
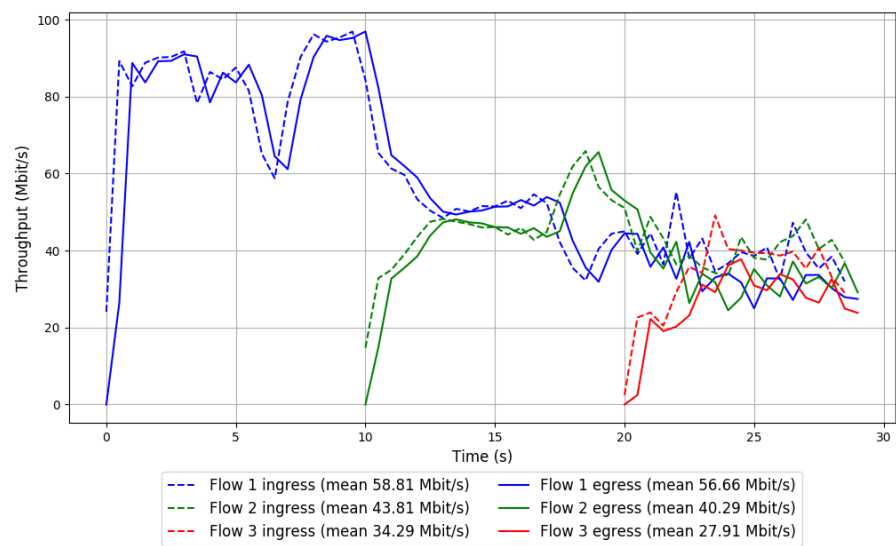


Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-27 09:30:03
End at: 2019-06-27 09:30:33
Local clock offset: -0.789 ms
Remote clock offset: -26.565 ms

Below is generated by plot.py at 2019-06-27 09:55:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.29 Mbit/s
95th percentile per-packet one-way delay: 13.950 ms
Loss rate: 6.40%
-- Flow 1:
Average throughput: 56.66 Mbit/s
95th percentile per-packet one-way delay: 10.270 ms
Loss rate: 3.57%
-- Flow 2:
Average throughput: 40.29 Mbit/s
95th percentile per-packet one-way delay: 15.019 ms
Loss rate: 7.88%
-- Flow 3:
Average throughput: 27.91 Mbit/s
95th percentile per-packet one-way delay: 18.982 ms
Loss rate: 18.47%

Run 5: Report of Indigo-MusesT — Data Link

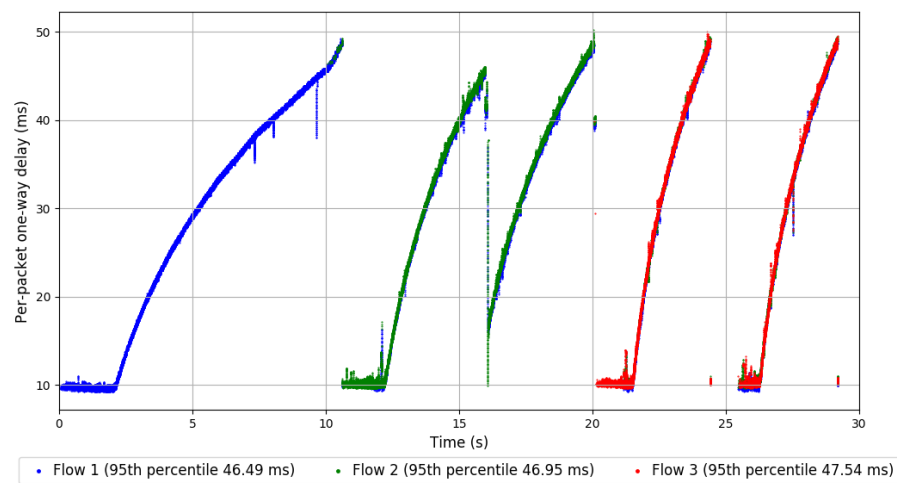
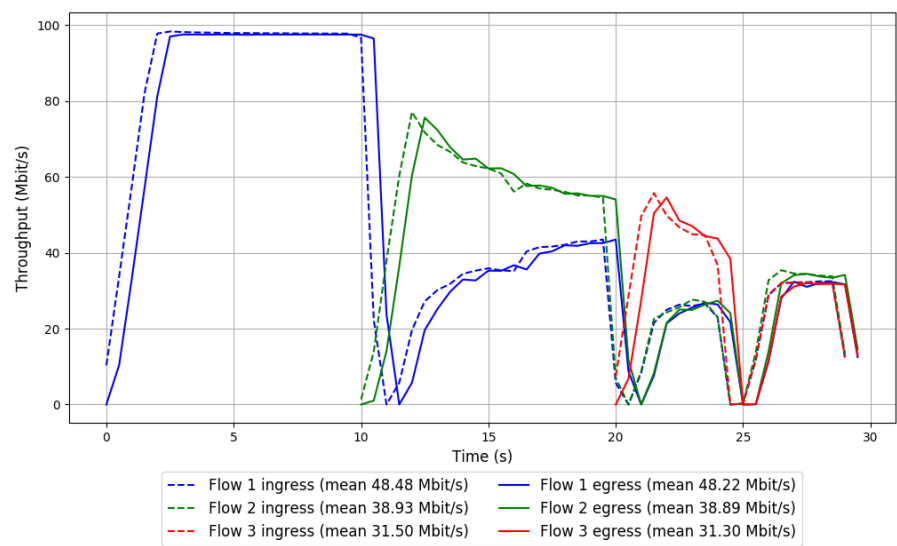


```
Run 1: Statistics of LEDBAT

Start at: 2019-06-27 07:57:21
End at: 2019-06-27 07:57:51
Local clock offset: -0.009 ms
Remote clock offset: 4.942 ms

# Below is generated by plot.py at 2019-06-27 09:55:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 83.52 Mbit/s
95th percentile per-packet one-way delay: 46.758 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 48.22 Mbit/s
95th percentile per-packet one-way delay: 46.490 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 38.89 Mbit/s
95th percentile per-packet one-way delay: 46.946 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 31.30 Mbit/s
95th percentile per-packet one-way delay: 47.537 ms
Loss rate: 0.94%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-06-27 08:23:43

End at: 2019-06-27 08:24:13

Local clock offset: -0.203 ms

Remote clock offset: 6.425 ms

Below is generated by plot.py at 2019-06-27 09:55:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.55 Mbit/s

95th percentile per-packet one-way delay: 47.968 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 51.36 Mbit/s

95th percentile per-packet one-way delay: 47.717 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 34.31 Mbit/s

95th percentile per-packet one-way delay: 47.981 ms

Loss rate: 0.54%

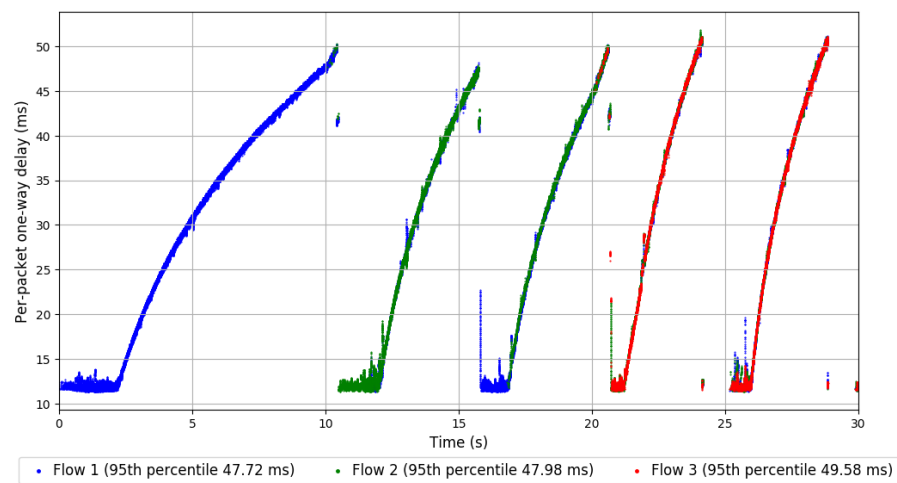
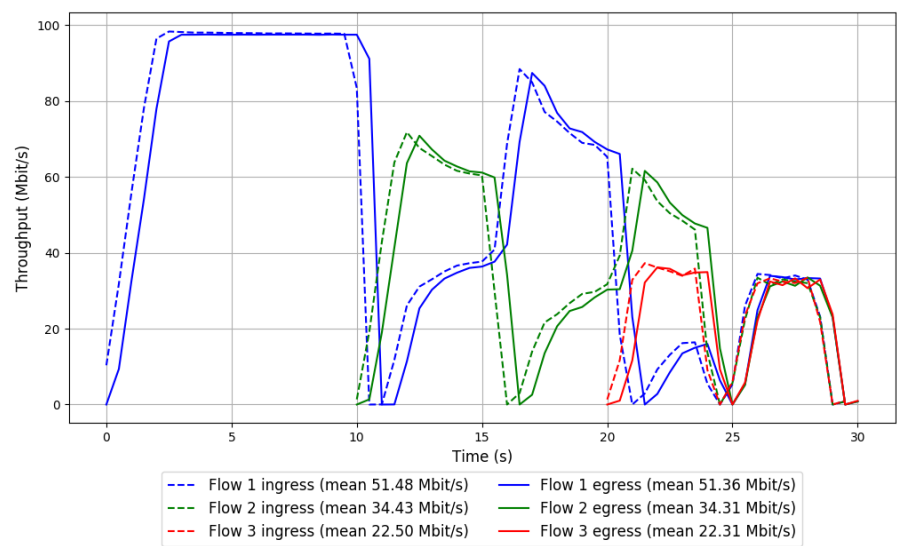
-- Flow 3:

Average throughput: 22.31 Mbit/s

95th percentile per-packet one-way delay: 49.576 ms

Loss rate: 1.18%

Run 2: Report of LEDBAT — Data Link

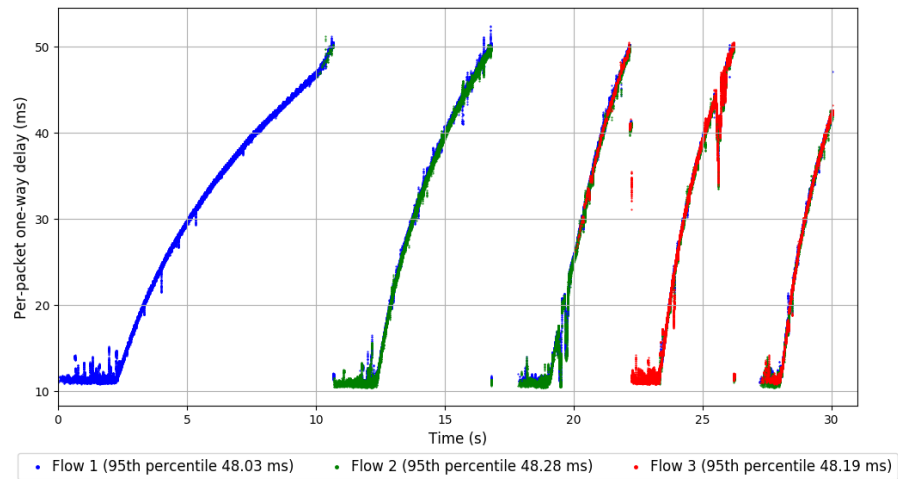
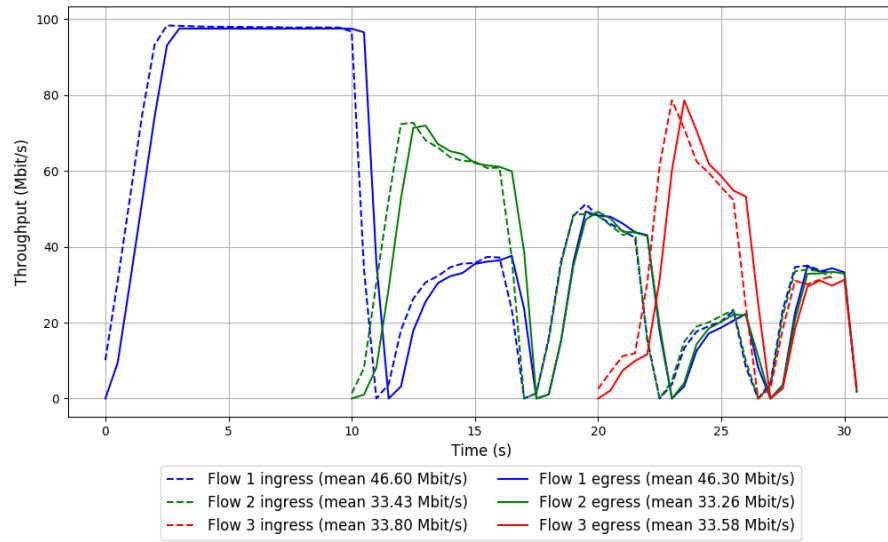


Run 3: Statistics of LEDBAT

Start at: 2019-06-27 08:49:43
End at: 2019-06-27 08:50:13
Local clock offset: -0.397 ms
Remote clock offset: 4.293 ms

Below is generated by plot.py at 2019-06-27 09:55:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 79.60 Mbit/s
95th percentile per-packet one-way delay: 48.071 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 46.30 Mbit/s
95th percentile per-packet one-way delay: 48.035 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 48.279 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 48.193 ms
Loss rate: 0.49%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-06-27 09:15:39

End at: 2019-06-27 09:16:09

Local clock offset: -2.073 ms

Remote clock offset: 6.038 ms

Below is generated by plot.py at 2019-06-27 09:56:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.95 Mbit/s

95th percentile per-packet one-way delay: 49.299 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 52.85 Mbit/s

95th percentile per-packet one-way delay: 49.039 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 25.84 Mbit/s

95th percentile per-packet one-way delay: 49.845 ms

Loss rate: 1.01%

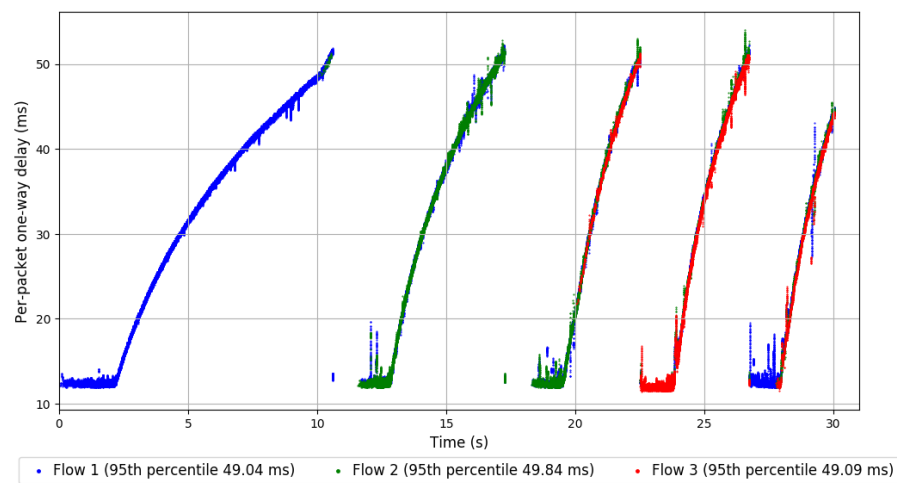
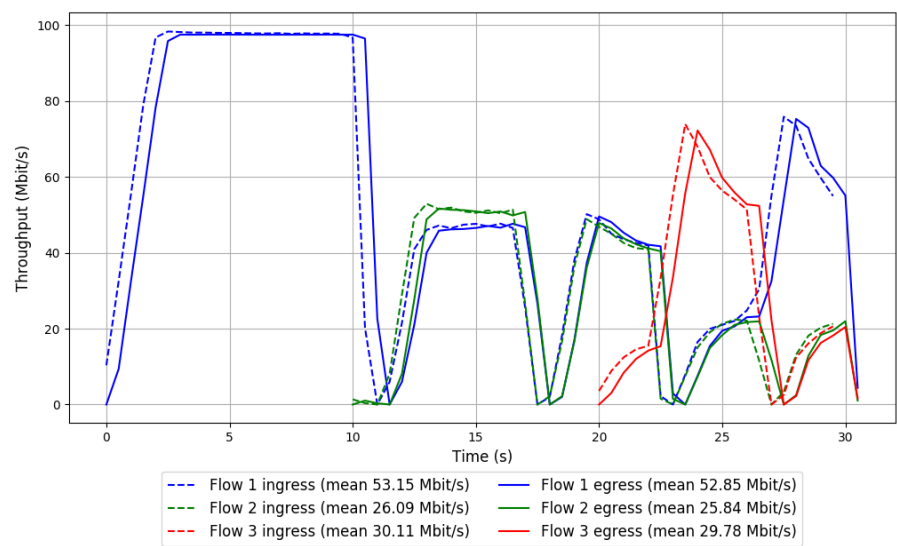
-- Flow 3:

Average throughput: 29.78 Mbit/s

95th percentile per-packet one-way delay: 49.088 ms

Loss rate: 0.90%

Run 4: Report of LEDBAT — Data Link

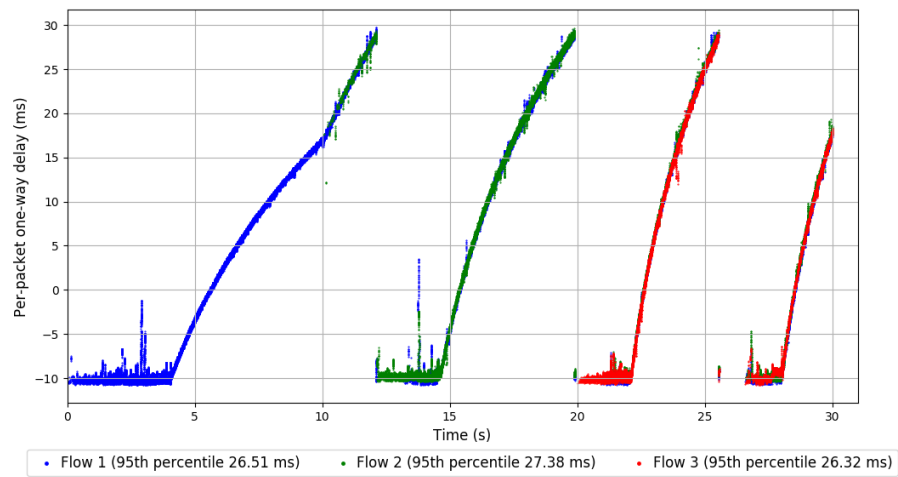
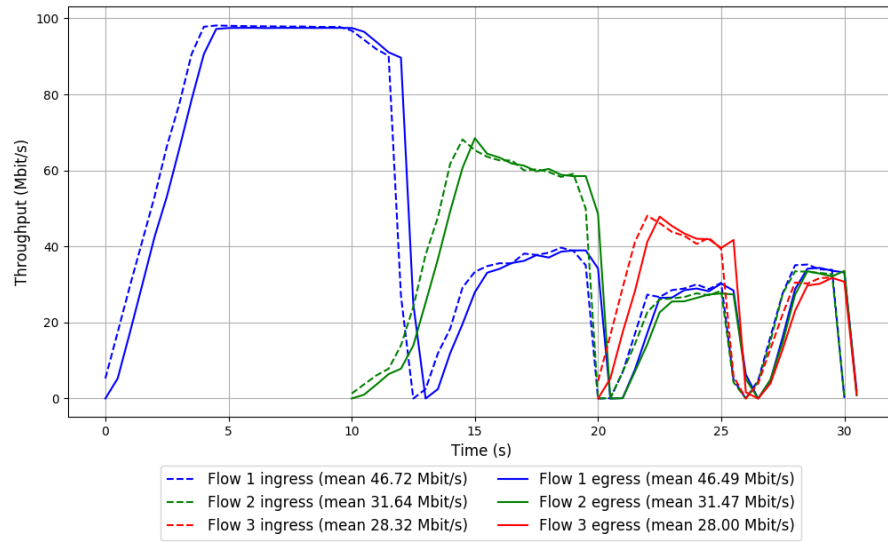


Run 5: Statistics of LEDBAT

Start at: 2019-06-27 09:42:07
End at: 2019-06-27 09:42:37
Local clock offset: -0.396 ms
Remote clock offset: -18.562 ms

Below is generated by plot.py at 2019-06-27 09:56:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 76.75 Mbit/s
95th percentile per-packet one-way delay: 26.754 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 26.513 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 31.47 Mbit/s
95th percentile per-packet one-way delay: 27.379 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 28.00 Mbit/s
95th percentile per-packet one-way delay: 26.323 ms
Loss rate: 0.86%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses_DecisionTree

Start at: 2019-06-27 07:58:35

End at: 2019-06-27 07:59:05

Local clock offset: -0.727 ms

Remote clock offset: 5.459 ms

Run 1: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Muses_DecisionTree

Start at: 2019-06-27 08:24:59

End at: 2019-06-27 08:25:29

Local clock offset: 0.353 ms

Remote clock offset: 4.524 ms

Run 2: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of Muses_DecisionTree

Start at: 2019-06-27 08:50:56

End at: 2019-06-27 08:51:26

Local clock offset: 0.003 ms

Remote clock offset: 3.383 ms

Run 3: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of Muses_DecisionTree

Start at: 2019-06-27 09:16:52

End at: 2019-06-27 09:17:22

Local clock offset: -1.279 ms

Remote clock offset: 4.705 ms

Run 4: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Muses_DecisionTree

Start at: 2019-06-27 09:43:21

End at: 2019-06-27 09:43:51

Local clock offset: -0.83 ms

Remote clock offset: -17.45 ms

Run 5: Report of Muses_DecisionTree — Data Link

Figure is missing

Figure is missing

Run 1: Statistics of PCC-Allegro

Start at: 2019-06-27 07:48:52

End at: 2019-06-27 07:49:22

Local clock offset: -0.553 ms

Remote clock offset: 3.406 ms

Below is generated by plot.py at 2019-06-27 09:56:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.98 Mbit/s

95th percentile per-packet one-way delay: 40.778 ms

Loss rate: 2.44%

-- Flow 1:

Average throughput: 77.28 Mbit/s

95th percentile per-packet one-way delay: 39.660 ms

Loss rate: 2.19%

-- Flow 2:

Average throughput: 10.07 Mbit/s

95th percentile per-packet one-way delay: 42.759 ms

Loss rate: 2.92%

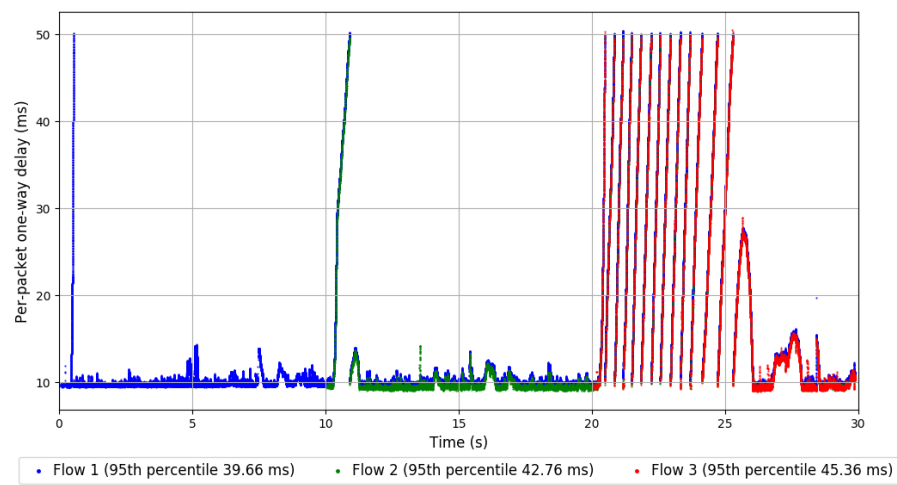
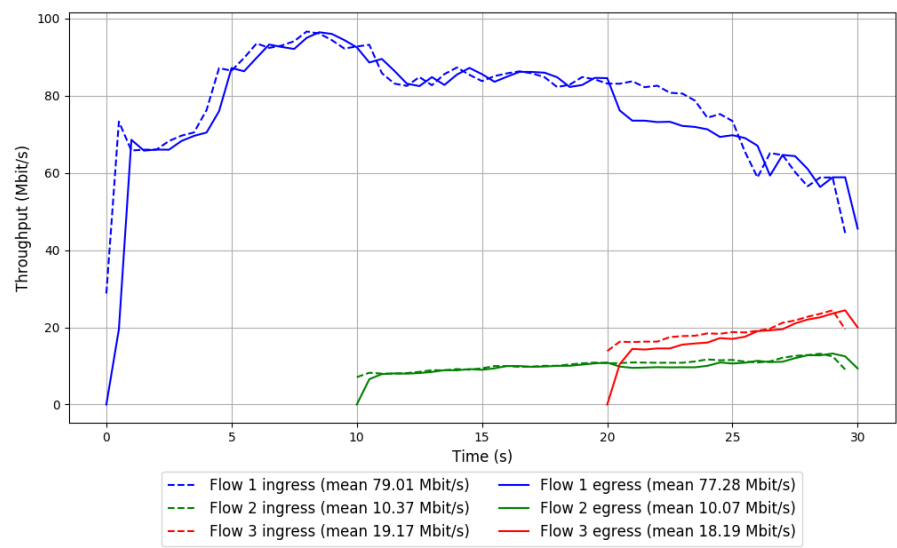
-- Flow 3:

Average throughput: 18.19 Mbit/s

95th percentile per-packet one-way delay: 45.364 ms

Loss rate: 5.10%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-06-27 08:15:09

End at: 2019-06-27 08:15:39

Local clock offset: 0.094 ms

Remote clock offset: 5.959 ms

Below is generated by plot.py at 2019-06-27 09:56:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.86 Mbit/s

95th percentile per-packet one-way delay: 37.492 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 68.69 Mbit/s

95th percentile per-packet one-way delay: 36.461 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 21.79 Mbit/s

95th percentile per-packet one-way delay: 39.638 ms

Loss rate: 2.01%

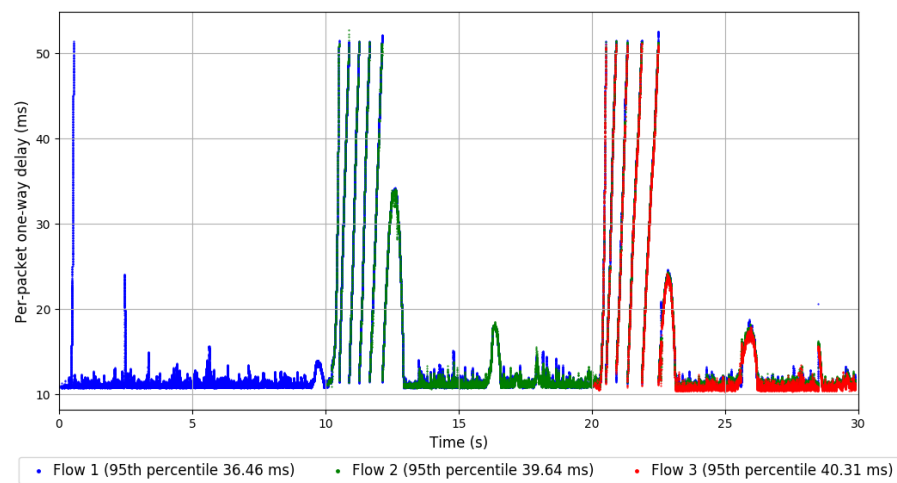
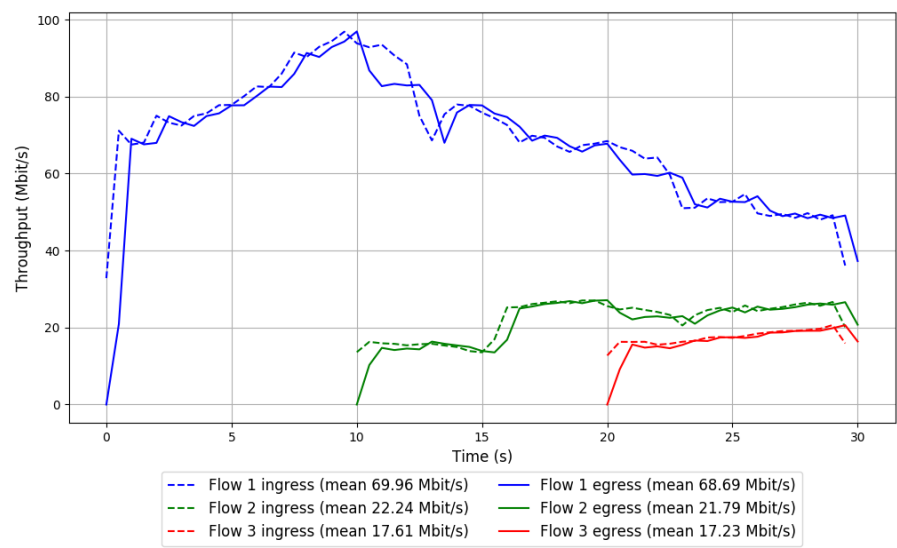
-- Flow 3:

Average throughput: 17.23 Mbit/s

95th percentile per-packet one-way delay: 40.309 ms

Loss rate: 2.17%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-06-27 08:41:25

End at: 2019-06-27 08:41:55

Local clock offset: 1.202 ms

Remote clock offset: 4.819 ms

Below is generated by plot.py at 2019-06-27 09:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.30 Mbit/s

95th percentile per-packet one-way delay: 15.873 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 81.49 Mbit/s

95th percentile per-packet one-way delay: 15.346 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 22.443 ms

Loss rate: 0.64%

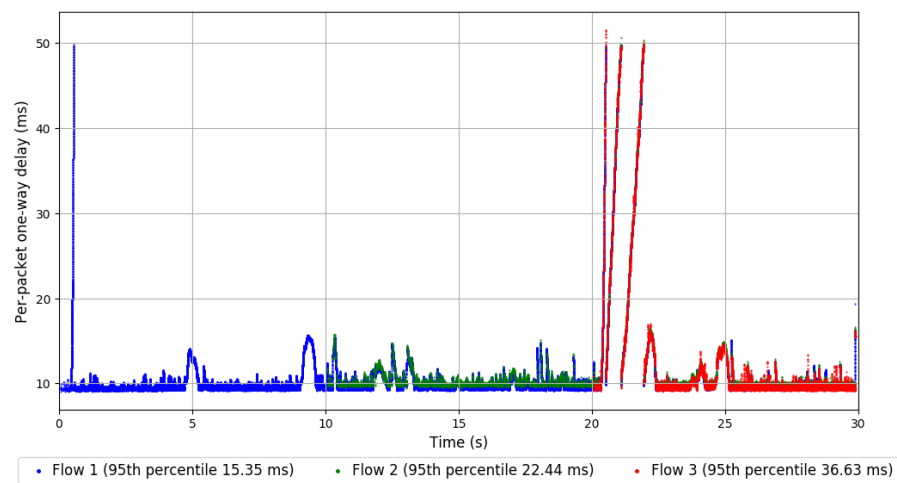
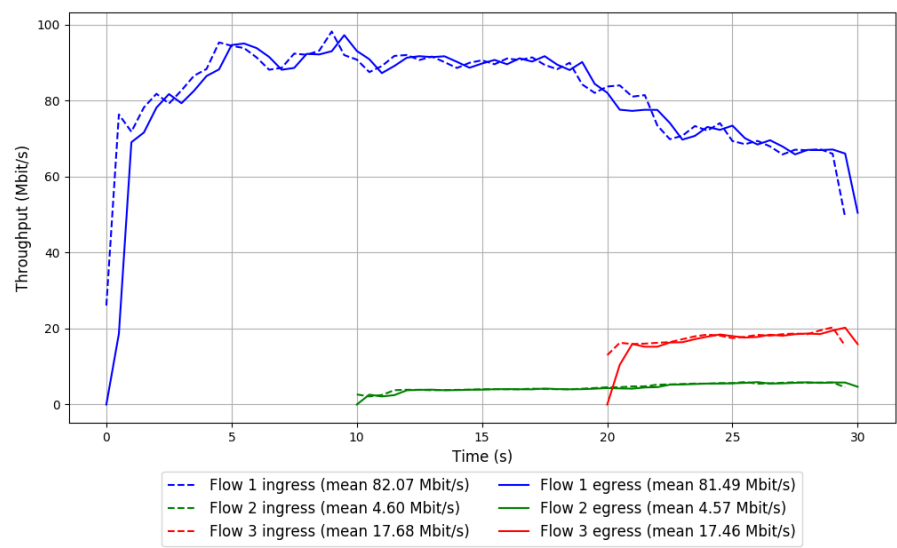
-- Flow 3:

Average throughput: 17.46 Mbit/s

95th percentile per-packet one-way delay: 36.630 ms

Loss rate: 1.14%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-06-27 09:07:12

End at: 2019-06-27 09:07:42

Local clock offset: -0.273 ms

Remote clock offset: 6.269 ms

Below is generated by plot.py at 2019-06-27 09:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.44 Mbit/s

95th percentile per-packet one-way delay: 28.736 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 64.40 Mbit/s

95th percentile per-packet one-way delay: 29.236 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 31.66 Mbit/s

95th percentile per-packet one-way delay: 28.306 ms

Loss rate: 0.40%

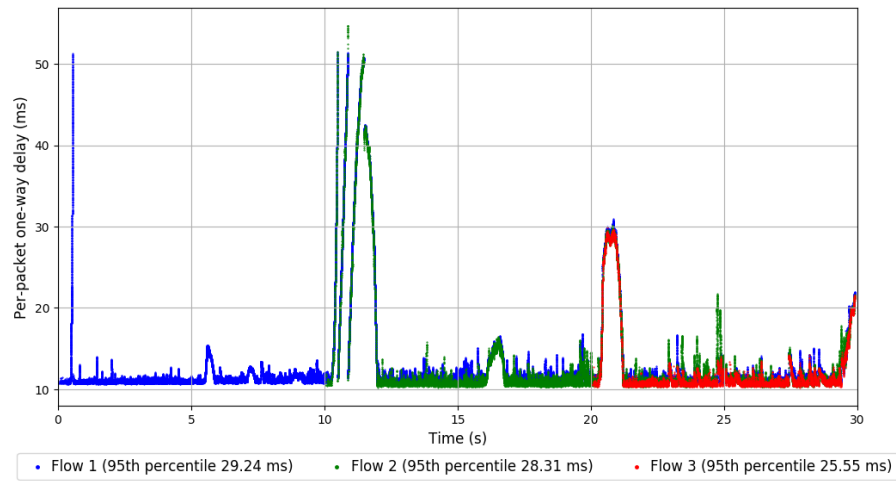
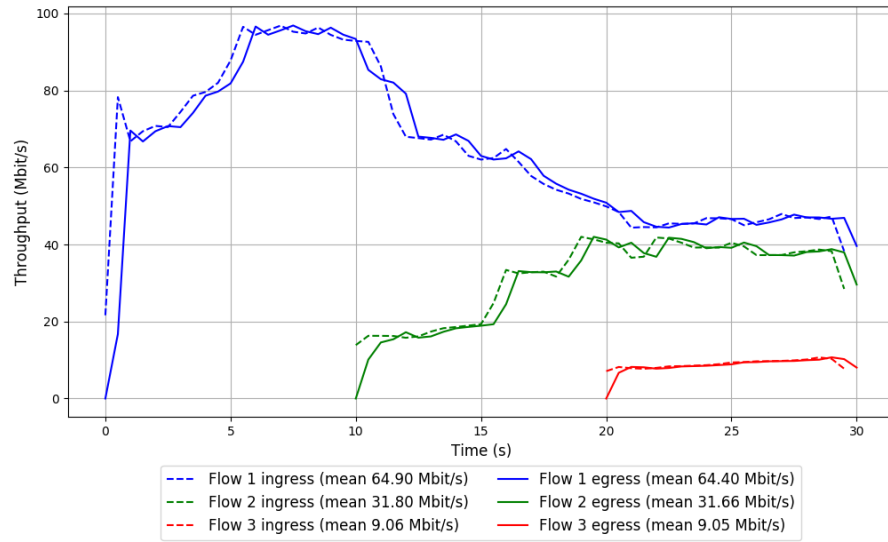
-- Flow 3:

Average throughput: 9.05 Mbit/s

95th percentile per-packet one-way delay: 25.547 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-06-27 09:33:46

End at: 2019-06-27 09:34:16

Local clock offset: -0.608 ms

Remote clock offset: -27.051 ms

Below is generated by plot.py at 2019-06-27 09:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.37 Mbit/s

95th percentile per-packet one-way delay: 0.856 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 69.33 Mbit/s

95th percentile per-packet one-way delay: -2.933 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 10.385 ms

Loss rate: 3.65%

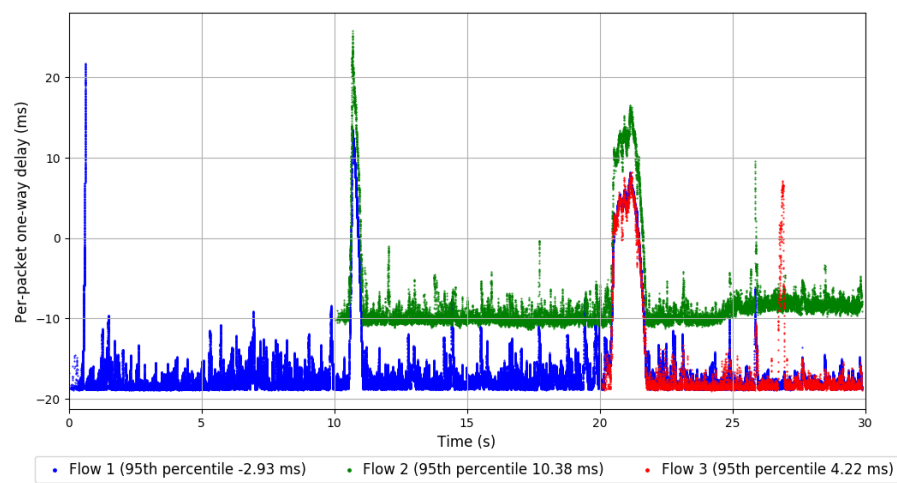
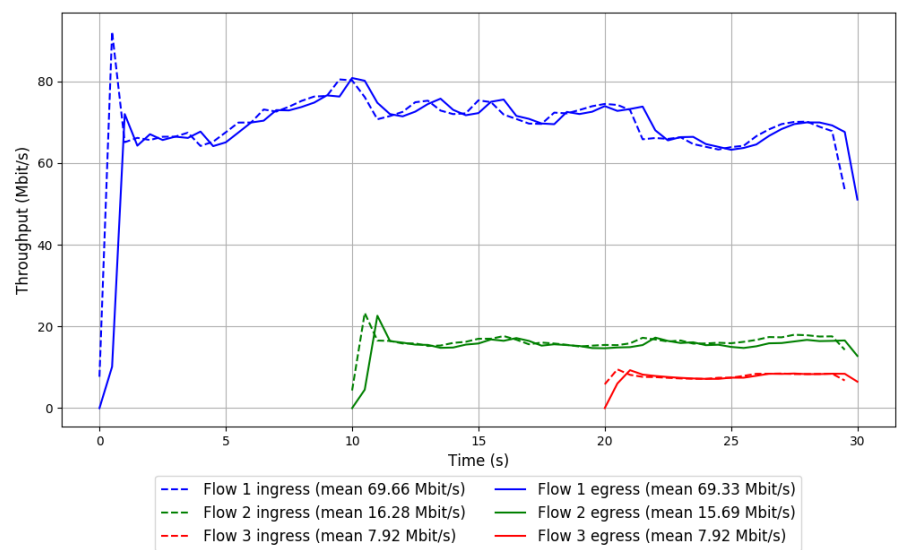
-- Flow 3:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 4.224 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

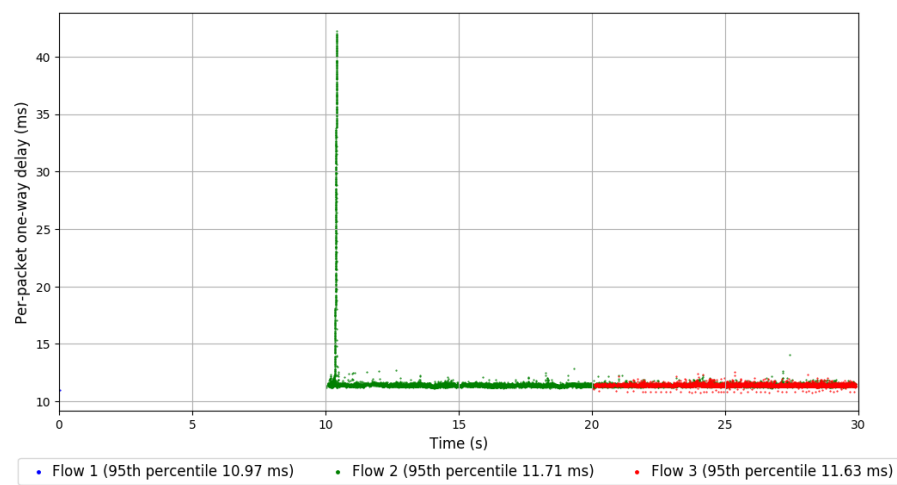
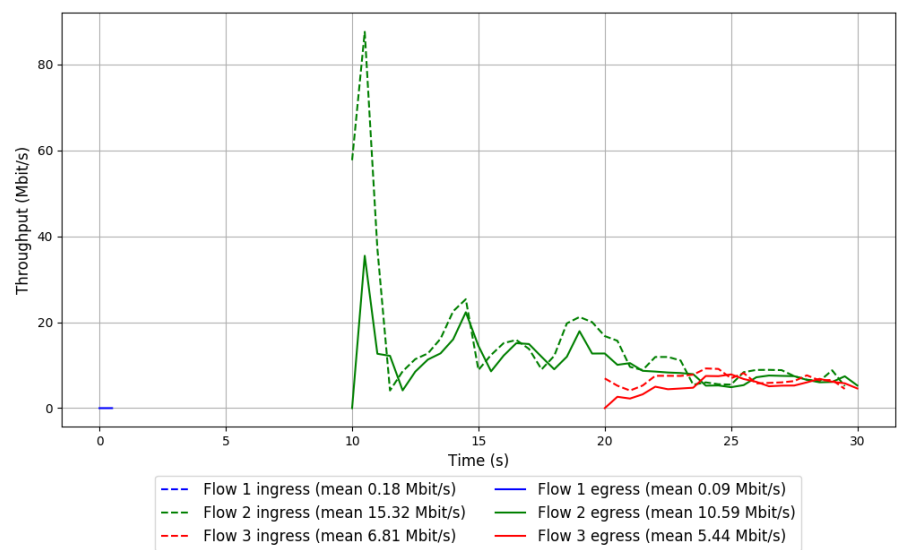


```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-27 07:40:35
End at: 2019-06-27 07:41:05
Local clock offset: -1.004 ms
Remote clock offset: 3.723 ms

# Below is generated by plot.py at 2019-06-27 09:57:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 11.677 ms
Loss rate: 28.95%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 10.970 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.59 Mbit/s
95th percentile per-packet one-way delay: 11.715 ms
Loss rate: 30.90%
-- Flow 3:
Average throughput: 5.44 Mbit/s
95th percentile per-packet one-way delay: 11.626 ms
Loss rate: 20.08%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-06-27 08:06:48

End at: 2019-06-27 08:07:18

Local clock offset: 0.308 ms

Remote clock offset: 5.712 ms

Below is generated by plot.py at 2019-06-27 09:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.85 Mbit/s

95th percentile per-packet one-way delay: 10.604 ms

Loss rate: 41.24%

-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 10.217 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 10.718 ms

Loss rate: 44.50%

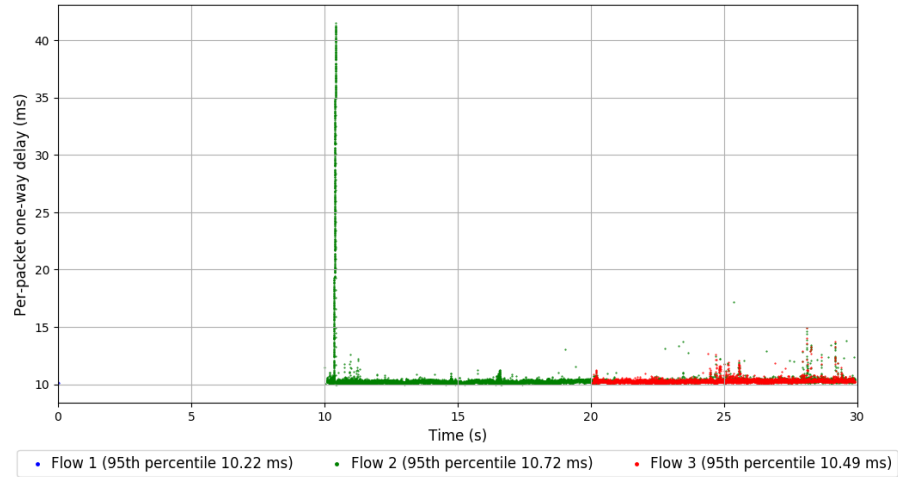
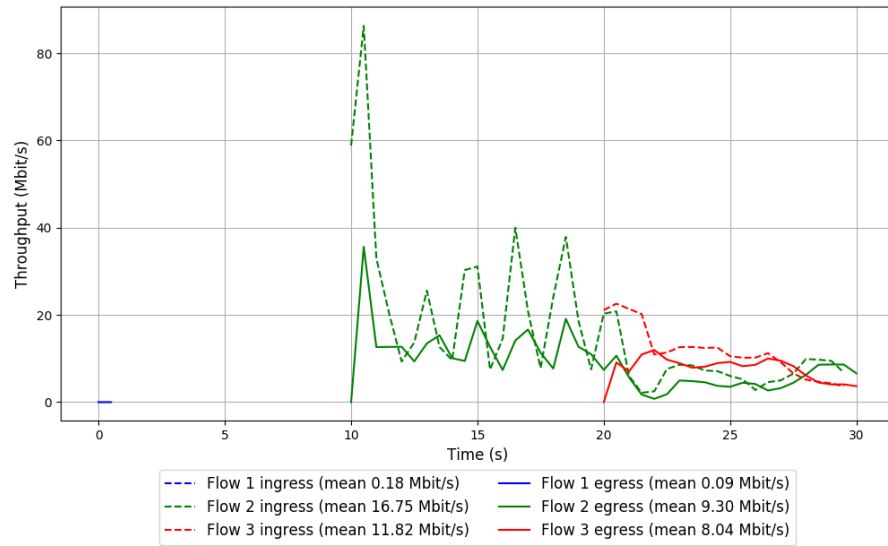
-- Flow 3:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 10.490 ms

Loss rate: 31.95%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-06-27 08:33:13

End at: 2019-06-27 08:33:43

Local clock offset: 0.594 ms

Remote clock offset: 5.371 ms

Below is generated by plot.py at 2019-06-27 09:57:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.85 Mbit/s

95th percentile per-packet one-way delay: 12.323 ms

Loss rate: 36.21%

-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 10.146 ms

Loss rate: 85.71%

-- Flow 2:

Average throughput: 10.36 Mbit/s

95th percentile per-packet one-way delay: 12.730 ms

Loss rate: 40.48%

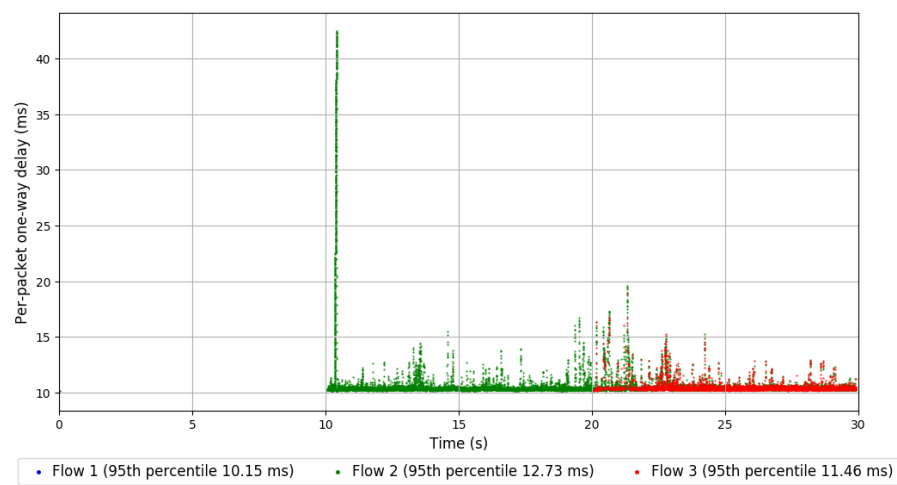
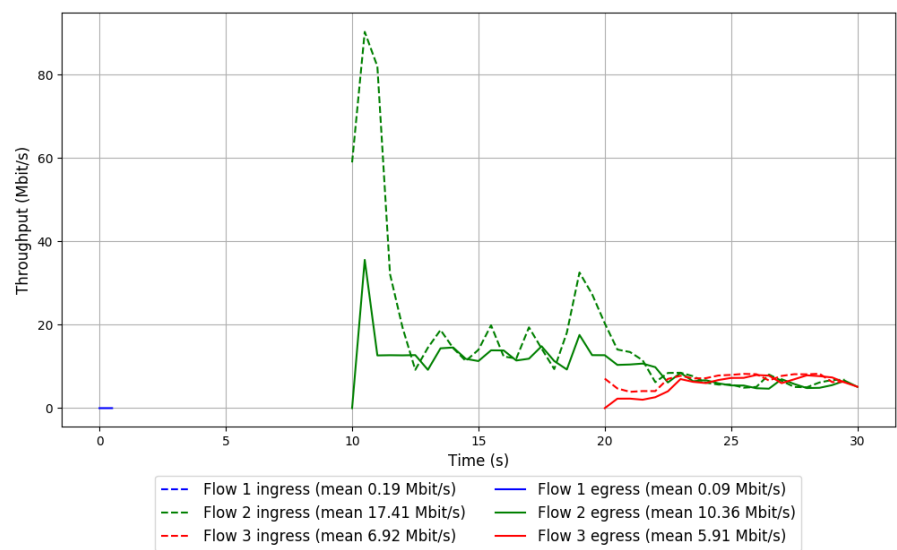
-- Flow 3:

Average throughput: 5.91 Mbit/s

95th percentile per-packet one-way delay: 11.456 ms

Loss rate: 14.60%

Run 3: Report of PCC-Expr — Data Link

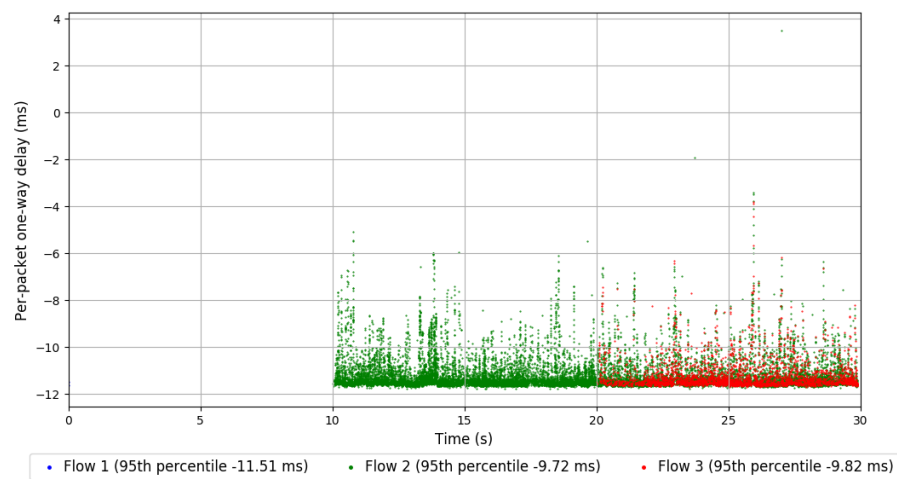
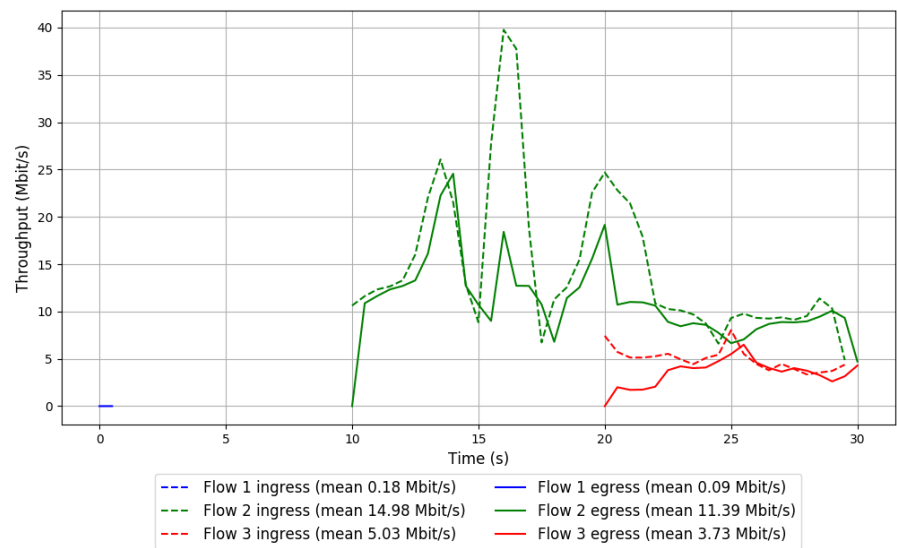


Run 4: Statistics of PCC-Expr

Start at: 2019-06-27 08:59:00
End at: 2019-06-27 08:59:30
Local clock offset: -0.587 ms
Remote clock offset: -17.28 ms

Below is generated by plot.py at 2019-06-27 09:57:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: -9.747 ms
Loss rate: 24.26%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: -11.505 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: -9.725 ms
Loss rate: 24.00%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: -9.822 ms
Loss rate: 25.76%

Run 4: Report of PCC-Expr — Data Link

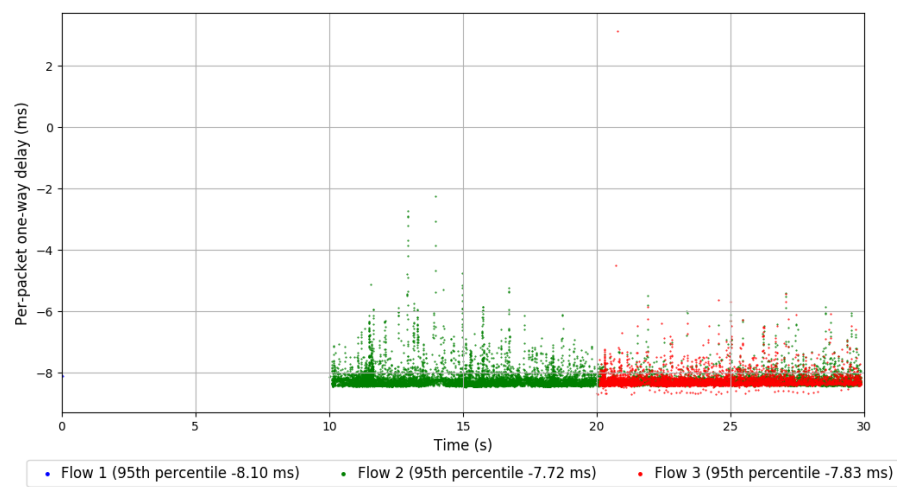
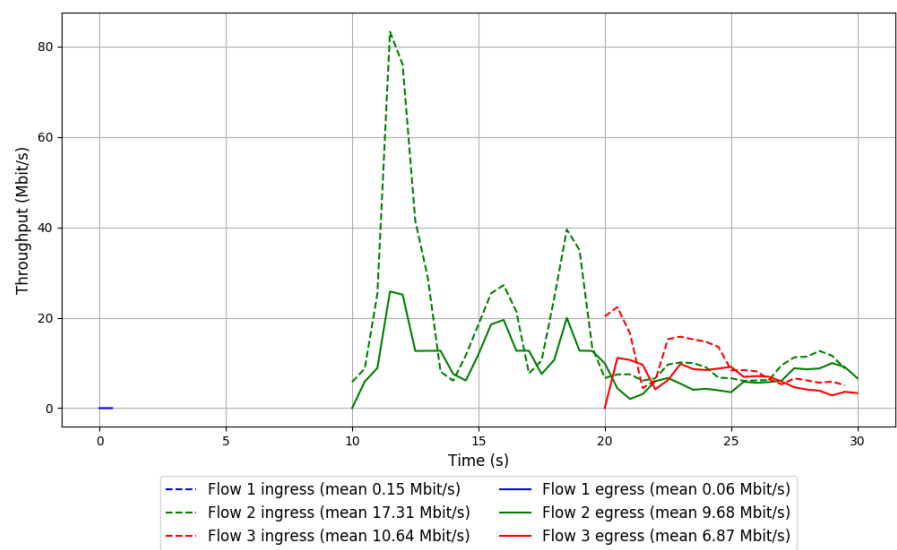


Run 5: Statistics of PCC-Expr

Start at: 2019-06-27 09:25:24
End at: 2019-06-27 09:25:54
Local clock offset: -0.168 ms
Remote clock offset: -16.364 ms

Below is generated by plot.py at 2019-06-27 09:57:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.71 Mbit/s
95th percentile per-packet one-way delay: -7.755 ms
Loss rate: 42.06%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: -8.099 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 9.68 Mbit/s
95th percentile per-packet one-way delay: -7.724 ms
Loss rate: 44.09%
-- Flow 3:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: -7.825 ms
Loss rate: 35.40%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-27 07:46:26

End at: 2019-06-27 07:46:56

Local clock offset: -0.38 ms

Remote clock offset: 4.056 ms

Below is generated by plot.py at 2019-06-27 09:57:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.92 Mbit/s

95th percentile per-packet one-way delay: 47.295 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 70.41 Mbit/s

95th percentile per-packet one-way delay: 47.138 ms

Loss rate: 1.77%

-- Flow 2:

Average throughput: 26.39 Mbit/s

95th percentile per-packet one-way delay: 47.466 ms

Loss rate: 2.26%

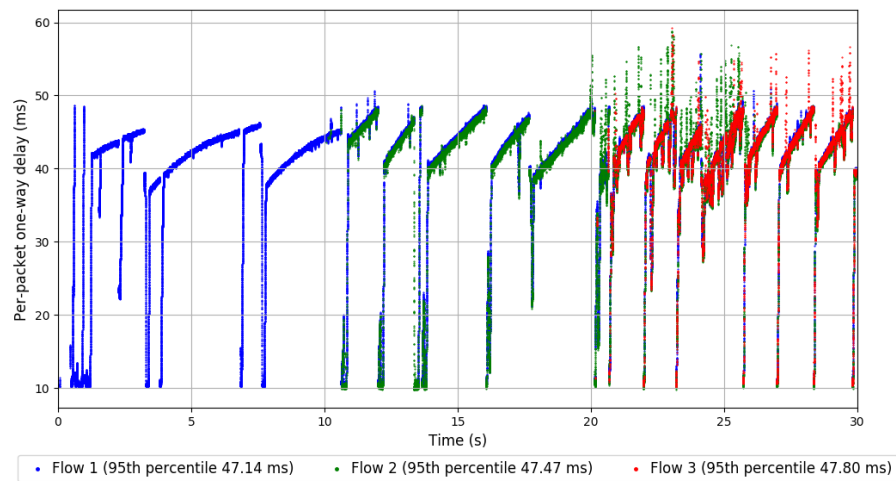
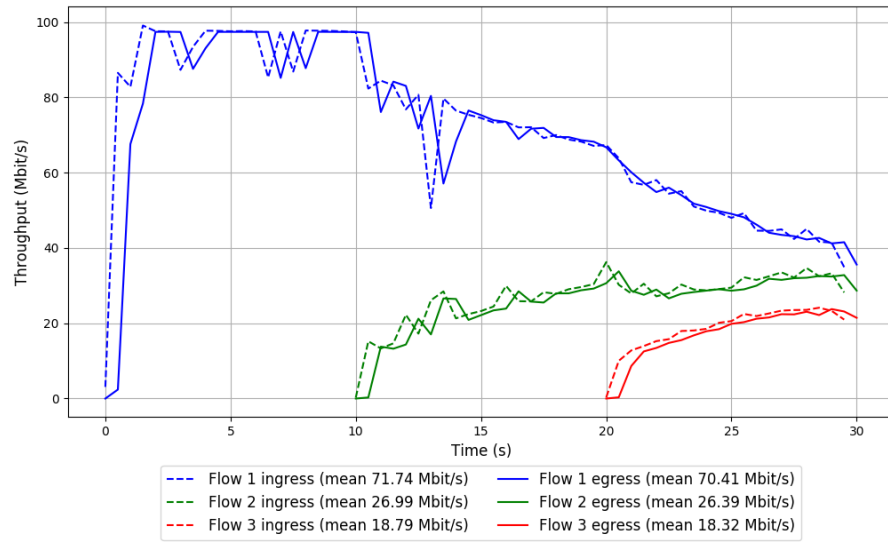
-- Flow 3:

Average throughput: 18.32 Mbit/s

95th percentile per-packet one-way delay: 47.800 ms

Loss rate: 2.59%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-06-27 08:12:42

End at: 2019-06-27 08:13:12

Local clock offset: 0.493 ms

Remote clock offset: 5.395 ms

Below is generated by plot.py at 2019-06-27 09:57:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.90 Mbit/s

95th percentile per-packet one-way delay: 47.227 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 69.92 Mbit/s

95th percentile per-packet one-way delay: 47.229 ms

Loss rate: 1.76%

-- Flow 2:

Average throughput: 26.19 Mbit/s

95th percentile per-packet one-way delay: 47.180 ms

Loss rate: 2.05%

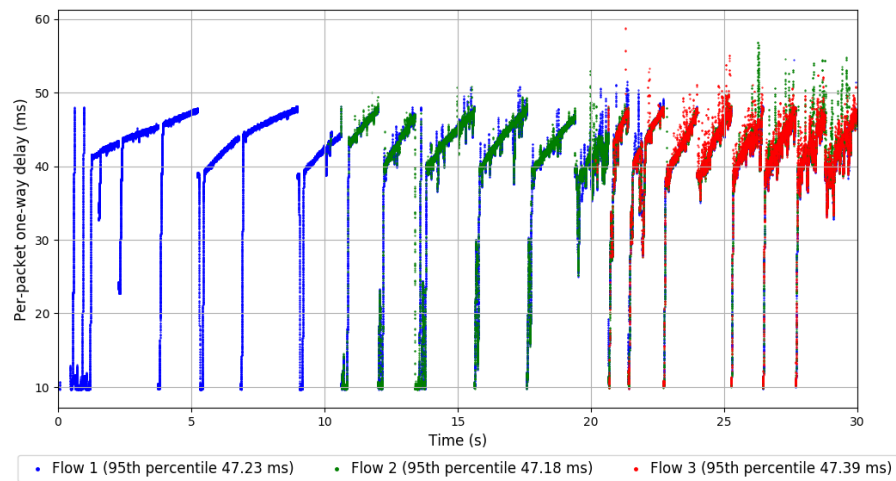
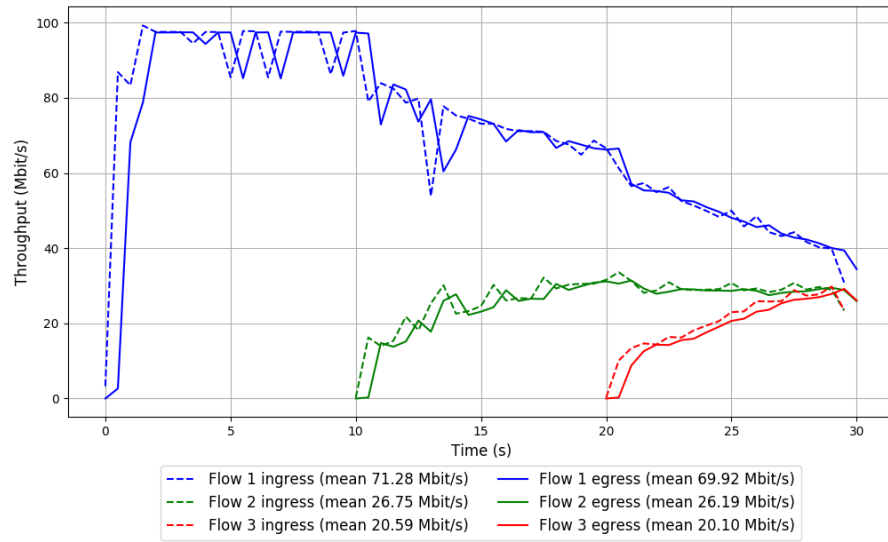
-- Flow 3:

Average throughput: 20.10 Mbit/s

95th percentile per-packet one-way delay: 47.388 ms

Loss rate: 2.31%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-06-27 08:39:02

End at: 2019-06-27 08:39:32

Local clock offset: -0.889 ms

Remote clock offset: 5.329 ms

Below is generated by plot.py at 2019-06-27 09:57:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.02 Mbit/s

95th percentile per-packet one-way delay: 49.486 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 67.73 Mbit/s

95th percentile per-packet one-way delay: 49.601 ms

Loss rate: 1.90%

-- Flow 2:

Average throughput: 30.09 Mbit/s

95th percentile per-packet one-way delay: 49.003 ms

Loss rate: 2.16%

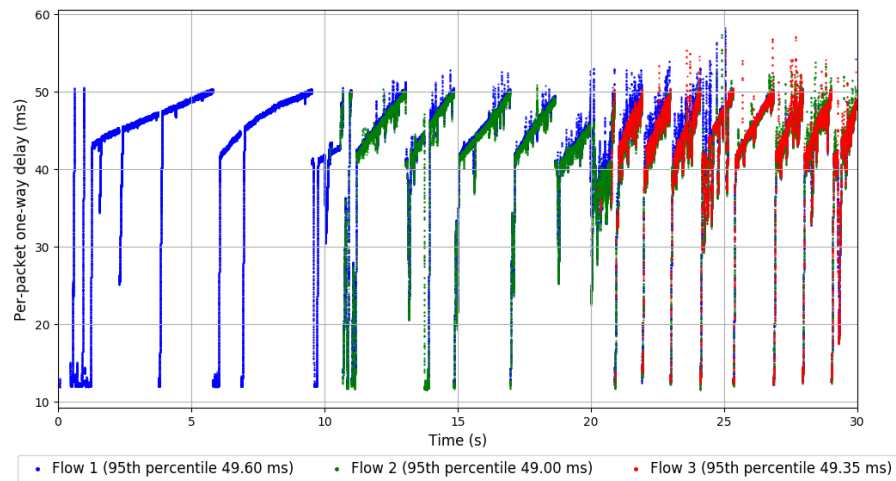
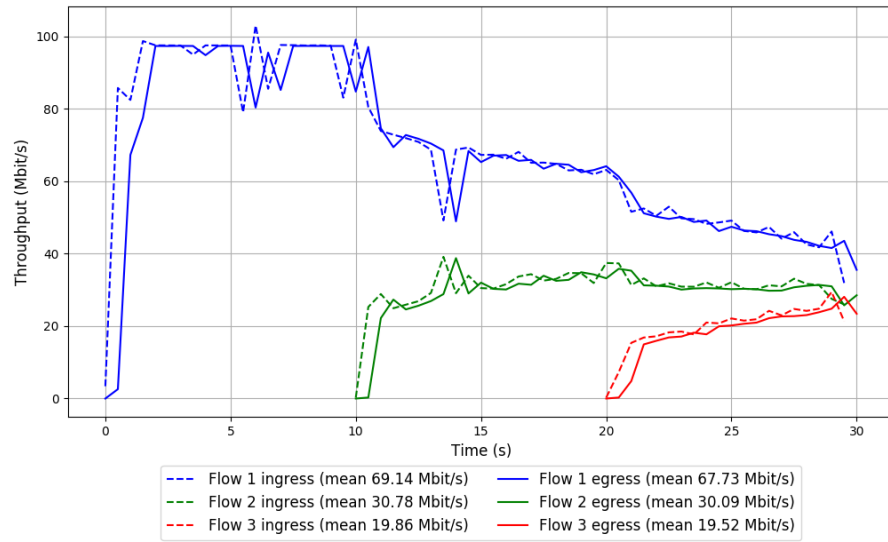
-- Flow 3:

Average throughput: 19.52 Mbit/s

95th percentile per-packet one-way delay: 49.349 ms

Loss rate: 3.08%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-06-27 09:04:47

End at: 2019-06-27 09:05:17

Local clock offset: -0.372 ms

Remote clock offset: 5.346 ms

Below is generated by plot.py at 2019-06-27 09:58:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.91 Mbit/s

95th percentile per-packet one-way delay: 47.212 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 69.15 Mbit/s

95th percentile per-packet one-way delay: 47.249 ms

Loss rate: 2.02%

-- Flow 2:

Average throughput: 28.65 Mbit/s

95th percentile per-packet one-way delay: 47.178 ms

Loss rate: 2.55%

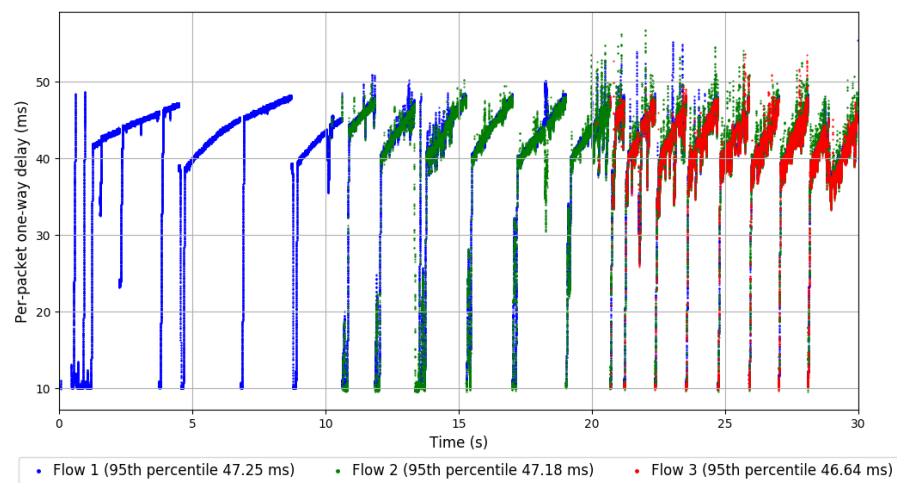
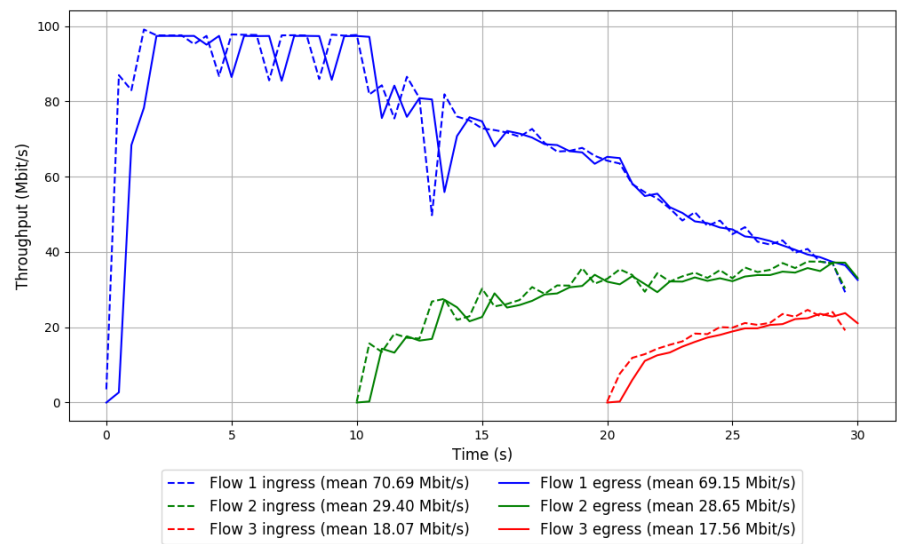
-- Flow 3:

Average throughput: 17.56 Mbit/s

95th percentile per-packet one-way delay: 46.643 ms

Loss rate: 2.84%

Run 4: Report of QUIC Cubic — Data Link

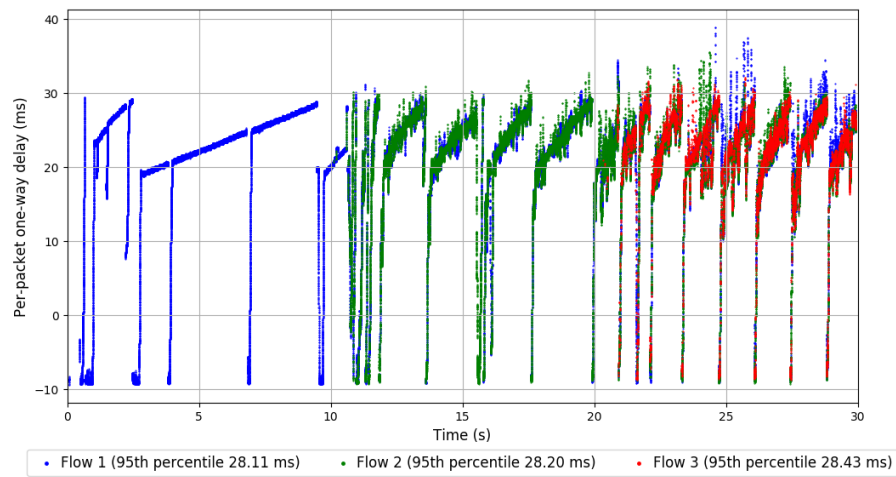
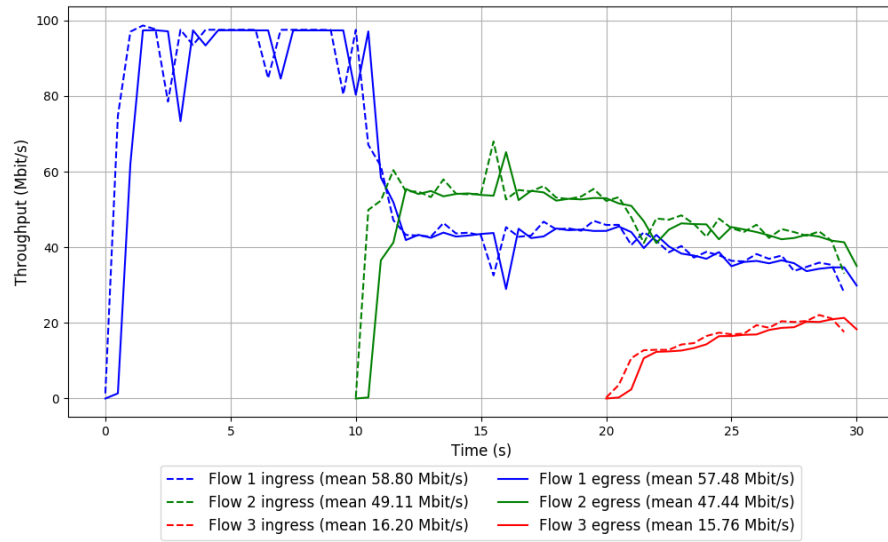


Run 5: Statistics of QUIC Cubic

Start at: 2019-06-27 09:31:14
End at: 2019-06-27 09:31:44
Local clock offset: -0.119 ms
Remote clock offset: -16.91 ms

Below is generated by plot.py at 2019-06-27 09:58:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 94.00 Mbit/s
95th percentile per-packet one-way delay: 28.160 ms
Loss rate: 2.58%
-- Flow 1:
Average throughput: 57.48 Mbit/s
95th percentile per-packet one-way delay: 28.107 ms
Loss rate: 2.14%
-- Flow 2:
Average throughput: 47.44 Mbit/s
95th percentile per-packet one-way delay: 28.197 ms
Loss rate: 3.38%
-- Flow 3:
Average throughput: 15.76 Mbit/s
95th percentile per-packet one-way delay: 28.434 ms
Loss rate: 2.62%

Run 5: Report of QUIC Cubic — Data Link

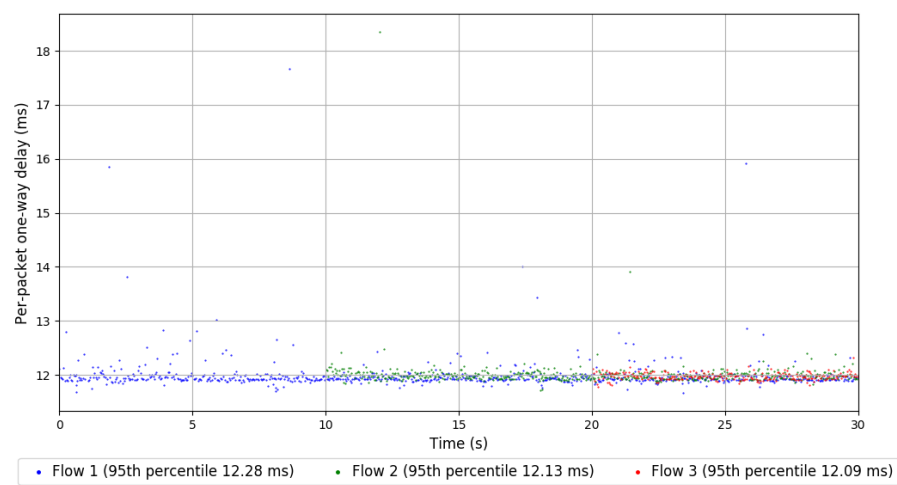
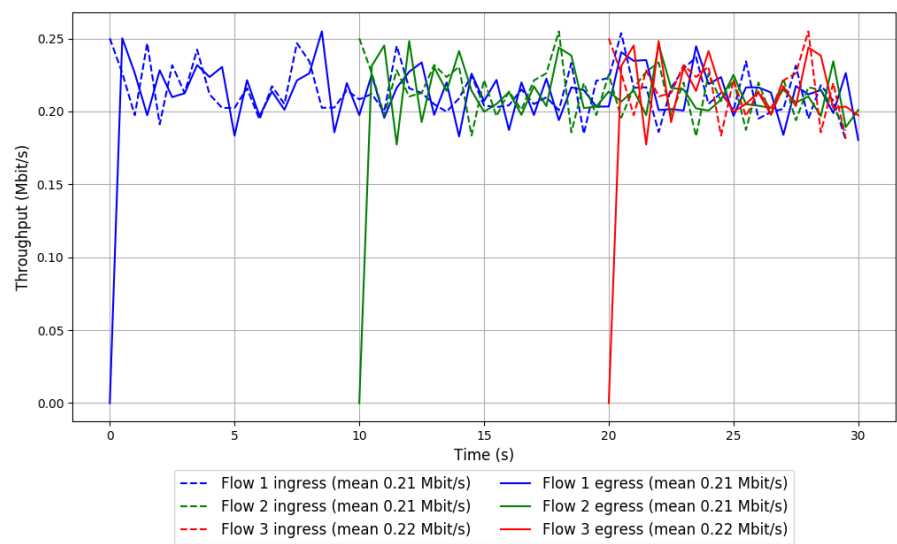


```
Run 1: Statistics of SReAM

Start at: 2019-06-27 07:41:42
End at: 2019-06-27 07:42:13
Local clock offset: -1.73 ms
Remote clock offset: 3.621 ms

# Below is generated by plot.py at 2019-06-27 09:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 12.160 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.277 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.131 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 12.092 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SReAM

Start at: 2019-06-27 08:07:58

End at: 2019-06-27 08:08:28

Local clock offset: 0.543 ms

Remote clock offset: 5.806 ms

Below is generated by plot.py at 2019-06-27 09:58:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 11.639 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.898 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 11.161 ms

Loss rate: 0.00%

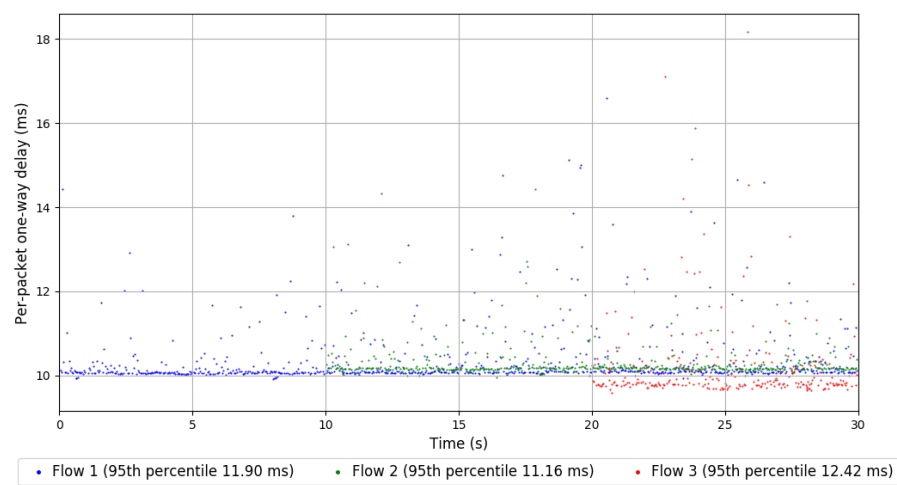
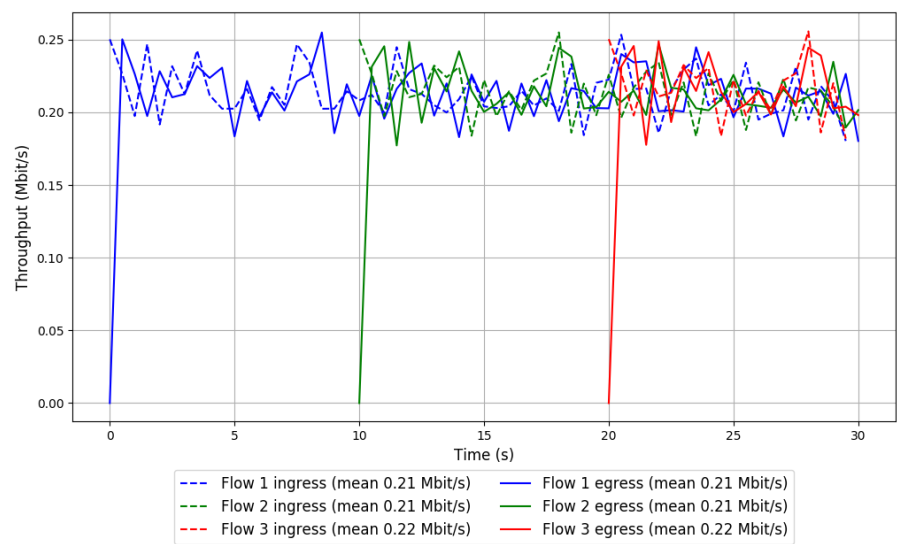
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 12.423 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2019-06-27 08:34:21

End at: 2019-06-27 08:34:51

Local clock offset: 0.47 ms

Remote clock offset: 4.726 ms

Below is generated by plot.py at 2019-06-27 09:58:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 10.083 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 9.859 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 10.089 ms

Loss rate: 0.00%

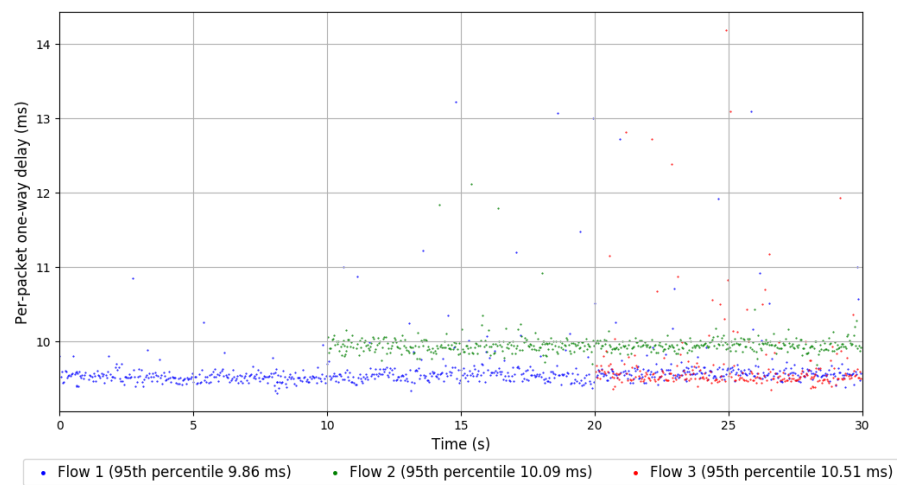
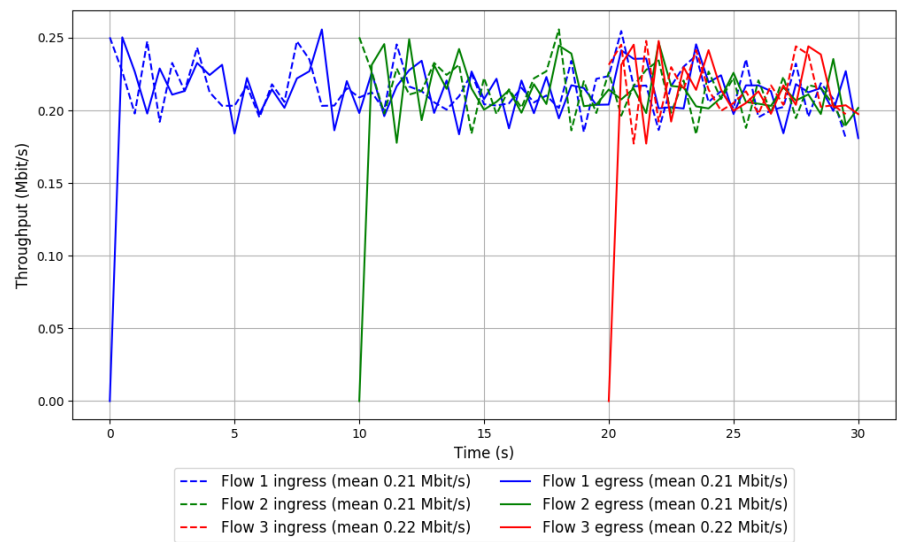
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 10.509 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

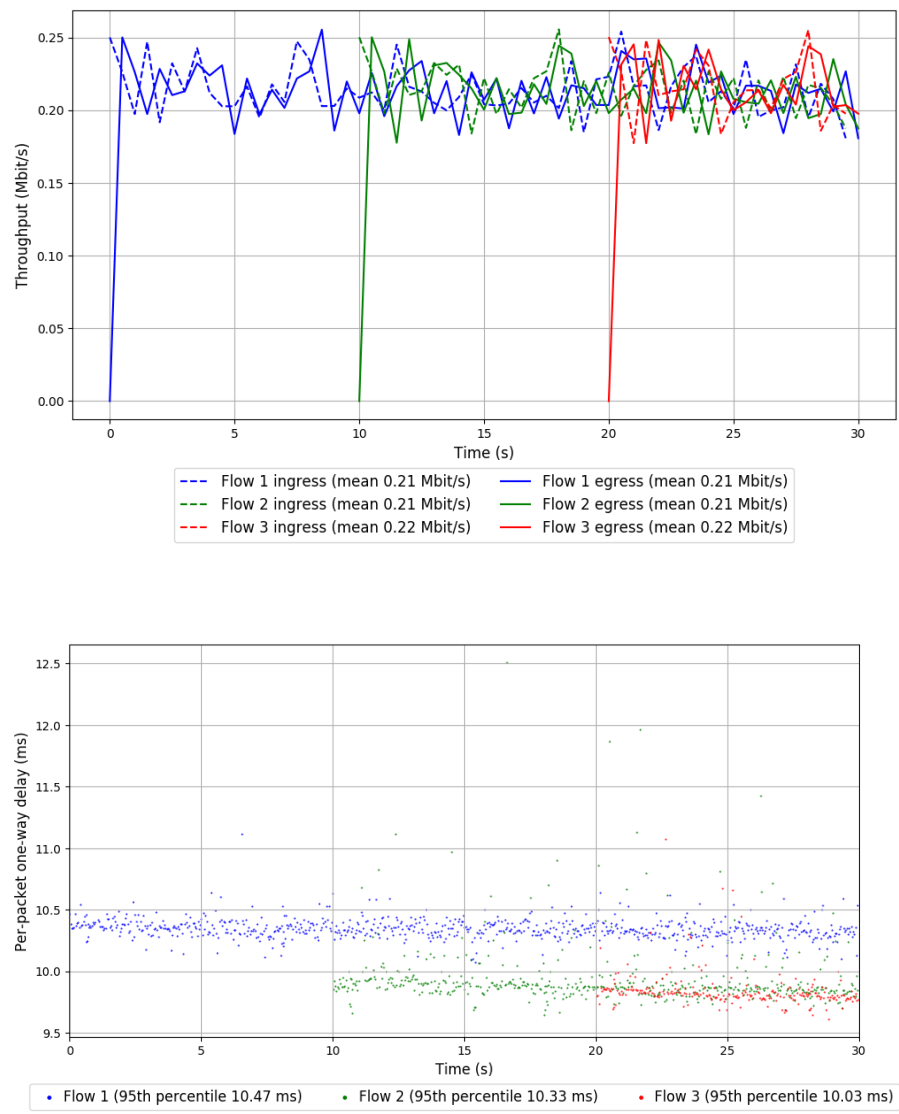


Run 4: Statistics of SReAM

Start at: 2019-06-27 09:00:08
End at: 2019-06-27 09:00:38
Local clock offset: -0.194 ms
Remote clock offset: 5.134 ms

Below is generated by plot.py at 2019-06-27 09:58:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 10.456 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.473 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 10.334 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 10.032 ms
Loss rate: 0.00%

Run 4: Report of SCReAM — Data Link

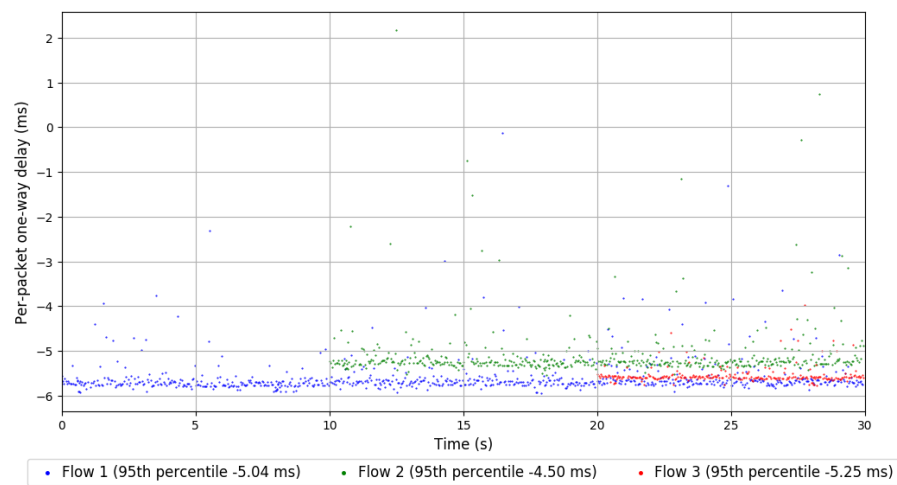
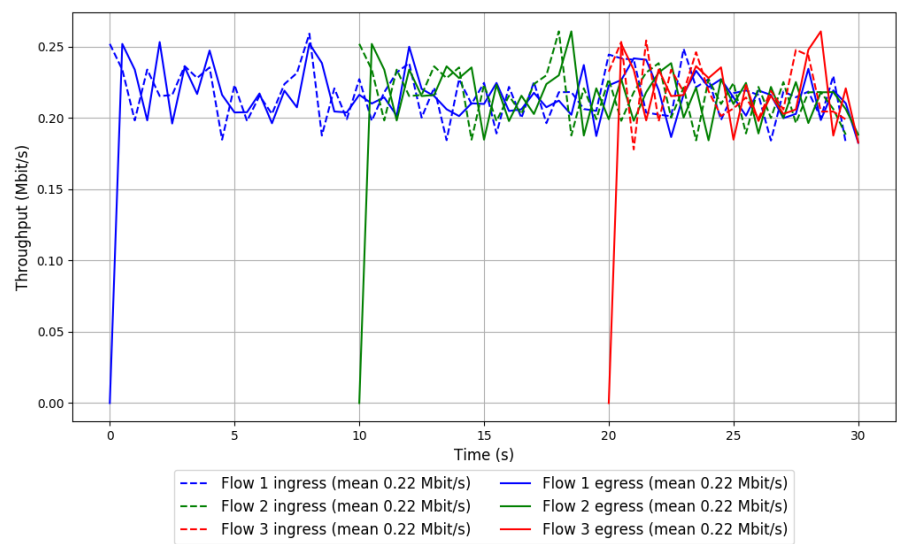


Run 5: Statistics of SReAM

Start at: 2019-06-27 09:26:32
End at: 2019-06-27 09:27:02
Local clock offset: -0.472 ms
Remote clock offset: -13.853 ms

Below is generated by plot.py at 2019-06-27 09:58:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: -4.758 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -5.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -4.499 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: -5.249 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-06-27 07:35:58

End at: 2019-06-27 07:36:28

Local clock offset: -0.707 ms

Remote clock offset: 3.175 ms

Below is generated by plot.py at 2019-06-27 09:58:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.73 Mbit/s

95th percentile per-packet one-way delay: 20.978 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.62 Mbit/s

95th percentile per-packet one-way delay: 19.159 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.28 Mbit/s

95th percentile per-packet one-way delay: 21.969 ms

Loss rate: 0.00%

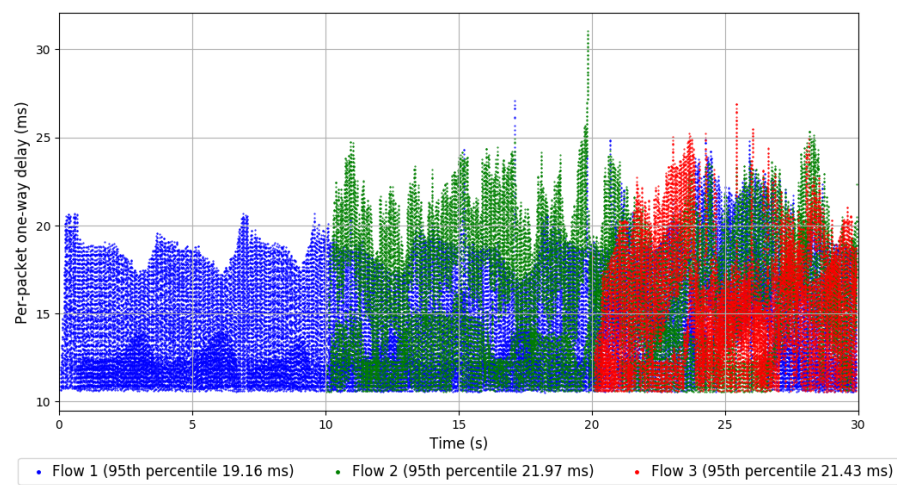
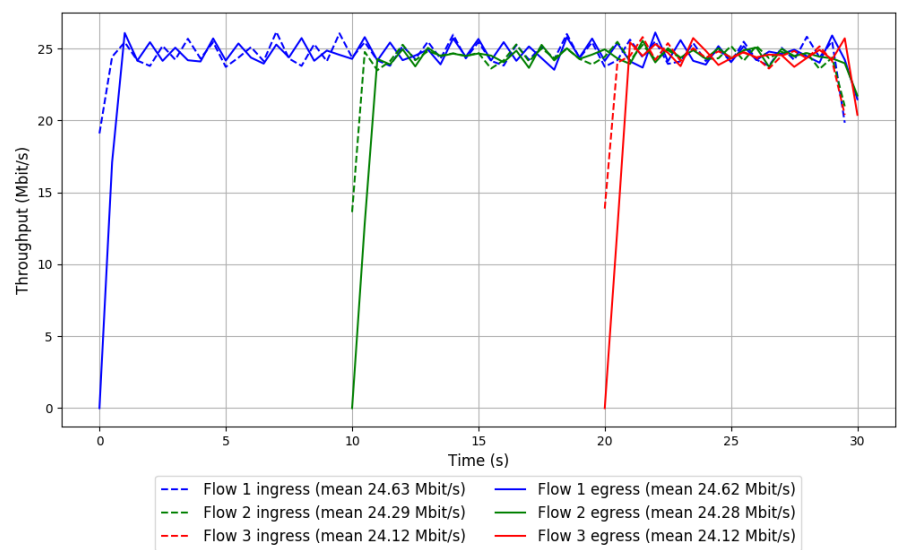
-- Flow 3:

Average throughput: 24.12 Mbit/s

95th percentile per-packet one-way delay: 21.427 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-06-27 08:02:06

End at: 2019-06-27 08:02:36

Local clock offset: 0.222 ms

Remote clock offset: 5.583 ms

Below is generated by plot.py at 2019-06-27 09:58:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.84 Mbit/s

95th percentile per-packet one-way delay: 20.275 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.54 Mbit/s

95th percentile per-packet one-way delay: 19.398 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.46 Mbit/s

95th percentile per-packet one-way delay: 20.514 ms

Loss rate: 0.00%

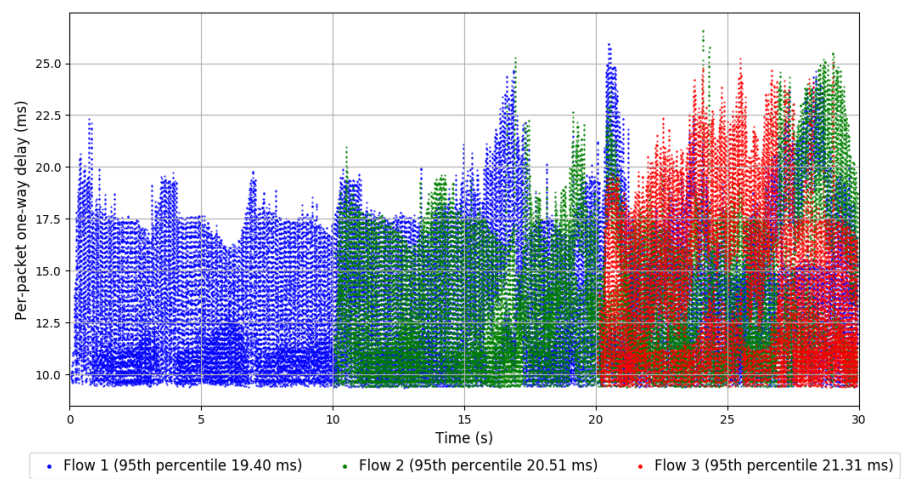
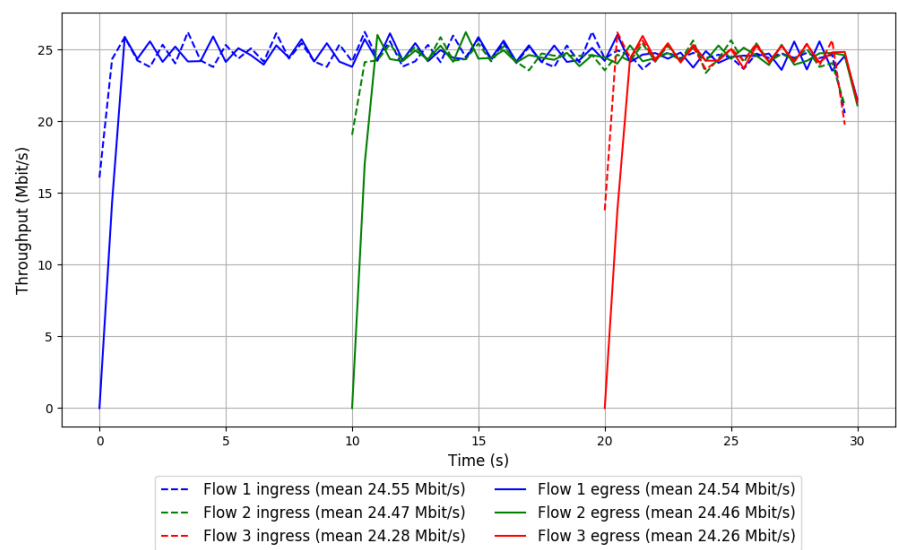
-- Flow 3:

Average throughput: 24.26 Mbit/s

95th percentile per-packet one-way delay: 21.310 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

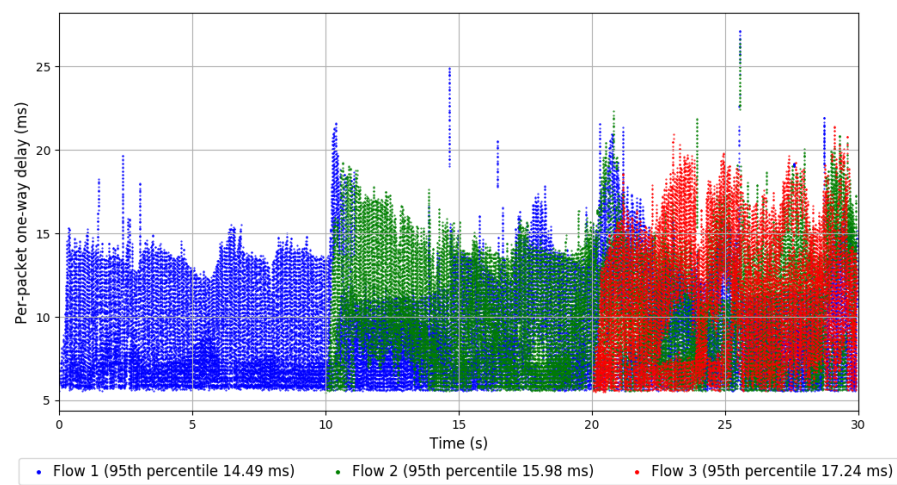
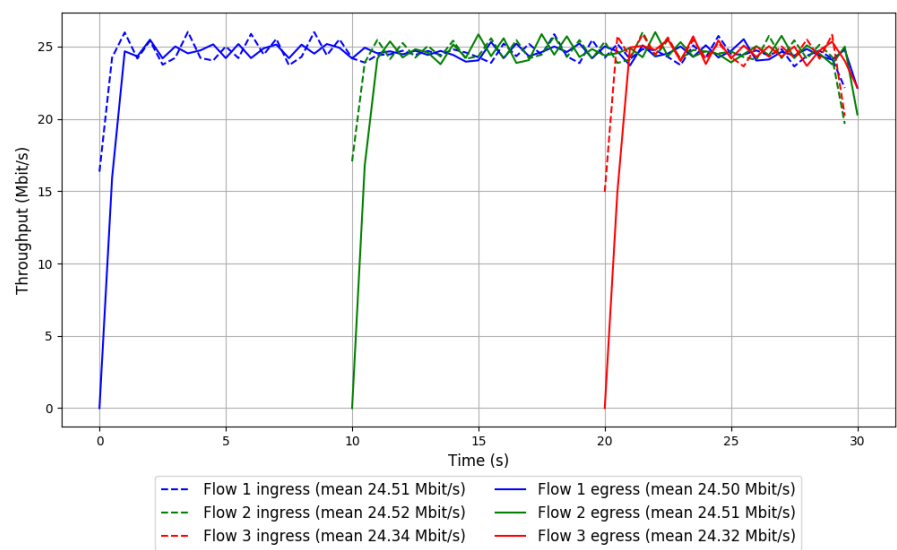


Run 3: Statistics of Sprout

Start at: 2019-06-27 08:28:30
End at: 2019-06-27 08:29:00
Local clock offset: -0.314 ms
Remote clock offset: -0.065 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.85 Mbit/s
95th percentile per-packet one-way delay: 15.849 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.50 Mbit/s
95th percentile per-packet one-way delay: 14.487 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.51 Mbit/s
95th percentile per-packet one-way delay: 15.984 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.32 Mbit/s
95th percentile per-packet one-way delay: 17.244 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2019-06-27 08:54:22

End at: 2019-06-27 08:54:52

Local clock offset: 0.613 ms

Remote clock offset: 4.757 ms

Below is generated by plot.py at 2019-06-27 09:58:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.08 Mbit/s

95th percentile per-packet one-way delay: 18.436 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.72 Mbit/s

95th percentile per-packet one-way delay: 18.132 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.50 Mbit/s

95th percentile per-packet one-way delay: 18.982 ms

Loss rate: 0.00%

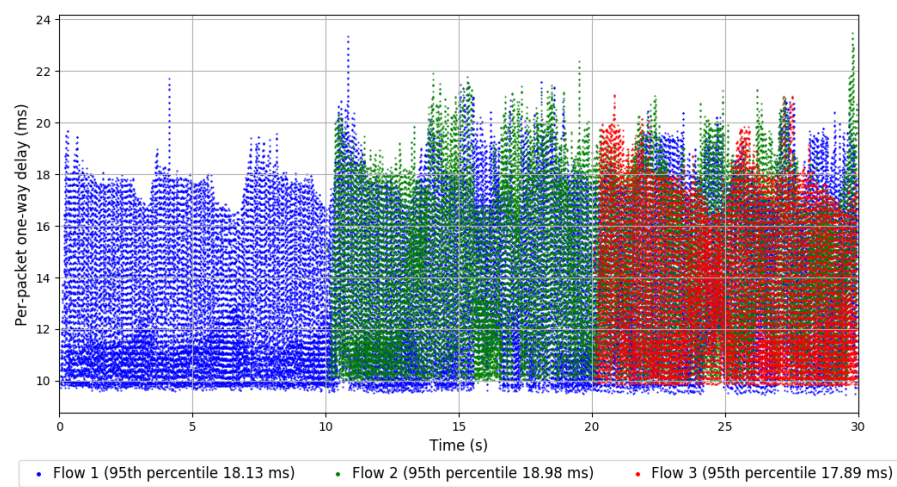
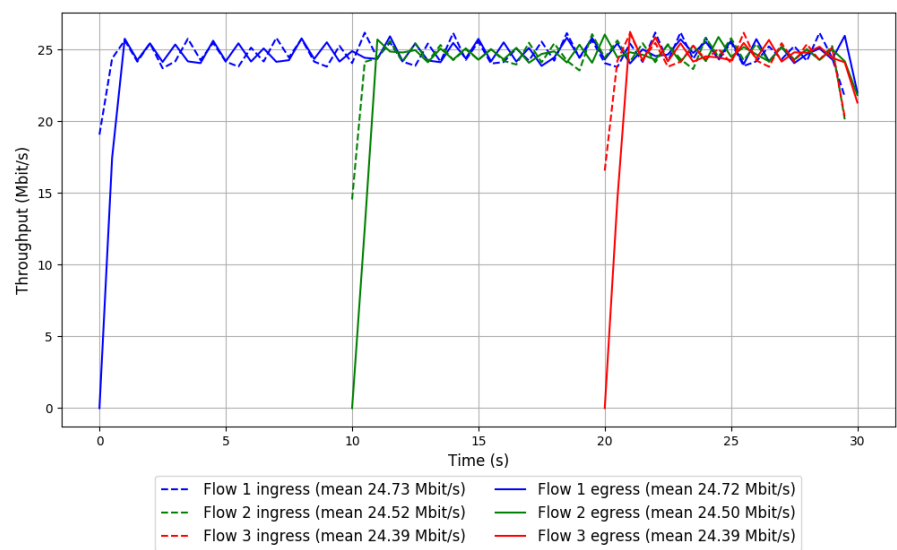
-- Flow 3:

Average throughput: 24.39 Mbit/s

95th percentile per-packet one-way delay: 17.895 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

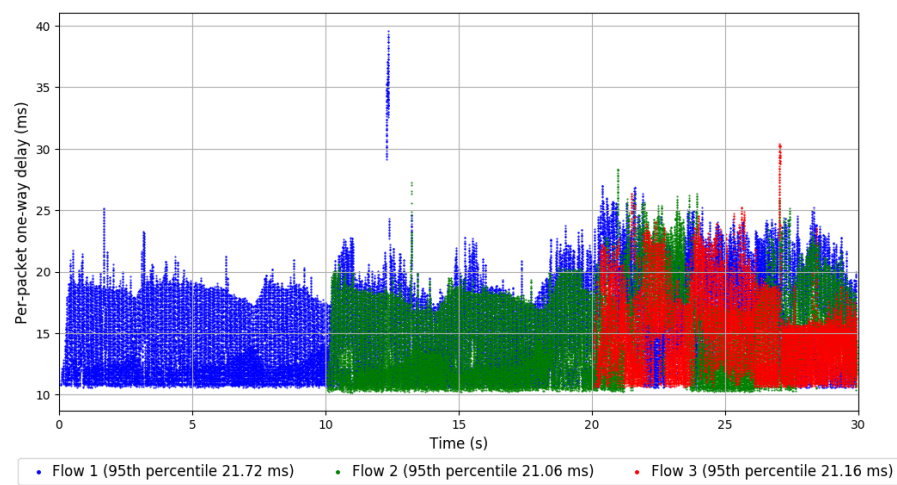
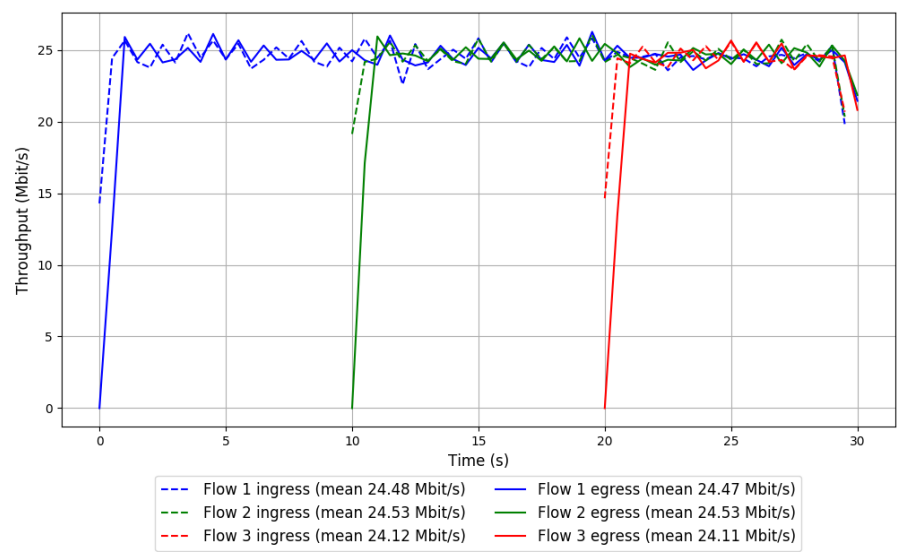


Run 5: Statistics of Sprout

Start at: 2019-06-27 09:20:23
End at: 2019-06-27 09:20:53
Local clock offset: -0.928 ms
Remote clock offset: 6.033 ms

```
# Below is generated by plot.py at 2019-06-27 09:58:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 21.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.47 Mbit/s
95th percentile per-packet one-way delay: 21.722 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.53 Mbit/s
95th percentile per-packet one-way delay: 21.063 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 24.11 Mbit/s
95th percentile per-packet one-way delay: 21.156 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-06-27 07:59:41

End at: 2019-06-27 08:00:11

Local clock offset: -0.464 ms

Remote clock offset: 5.002 ms

Below is generated by plot.py at 2019-06-27 09:58:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 10.292 ms

Loss rate: 95.46%

-- Flow 1:

Average throughput: 7.22 Mbit/s

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

Loss rate: 91.83%

-- Flow 2:

Average throughput: 5.50 Mbit/s

95th percentile per-packet one-way delay: 10.236 ms

Loss rate: 96.81%

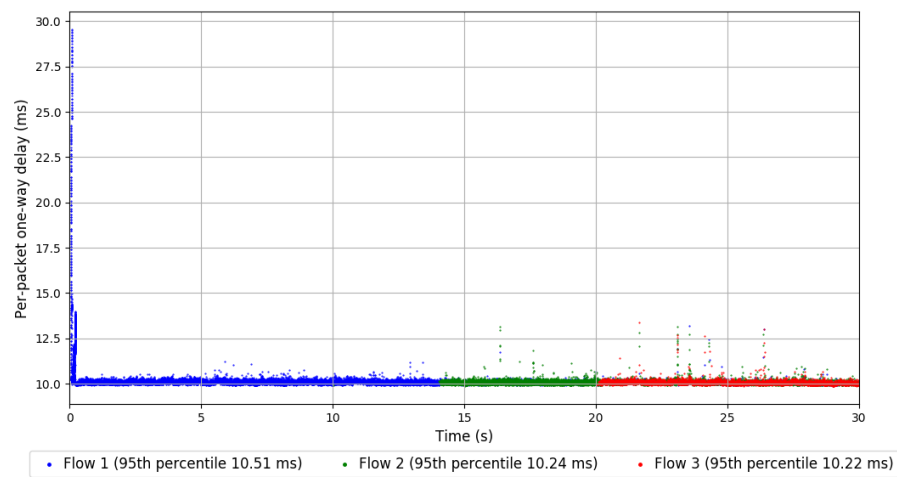
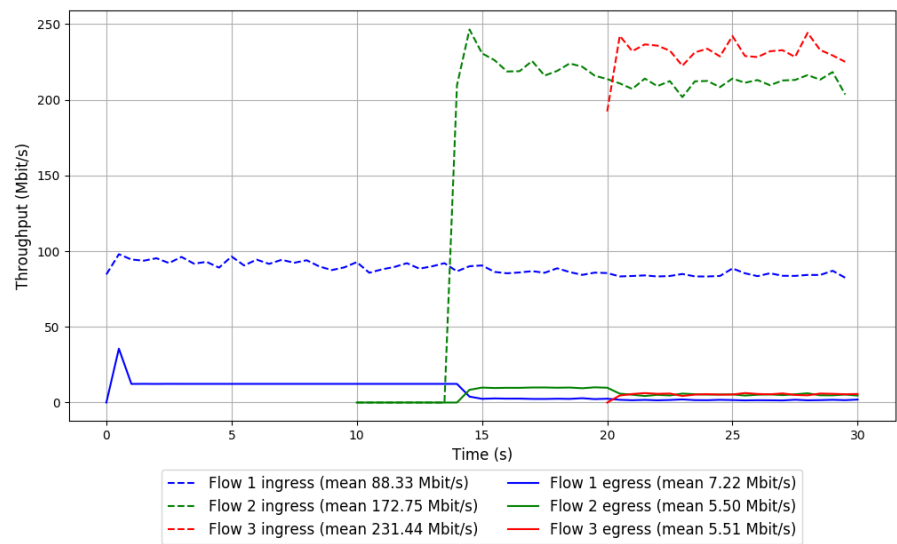
-- Flow 3:

Average throughput: 5.51 Mbit/s

95th percentile per-packet one-way delay: 10.224 ms

Loss rate: 97.62%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-27 08:26:05

End at: 2019-06-27 08:26:35

Local clock offset: 0.245 ms

Remote clock offset: 5.632 ms

Below is generated by plot.py at 2019-06-27 09:58:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 11.610 ms

Loss rate: 92.26%

-- Flow 1:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 11.463 ms

Loss rate: 92.84%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 11.930 ms

Loss rate: 91.19%

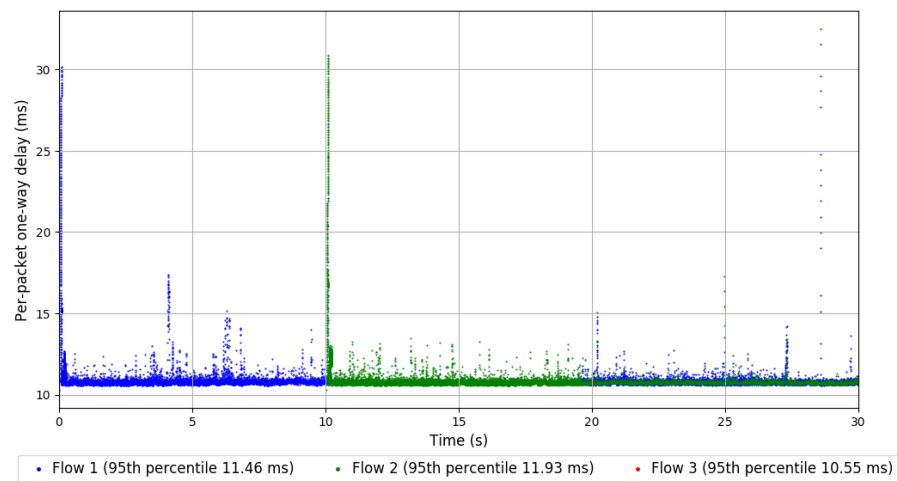
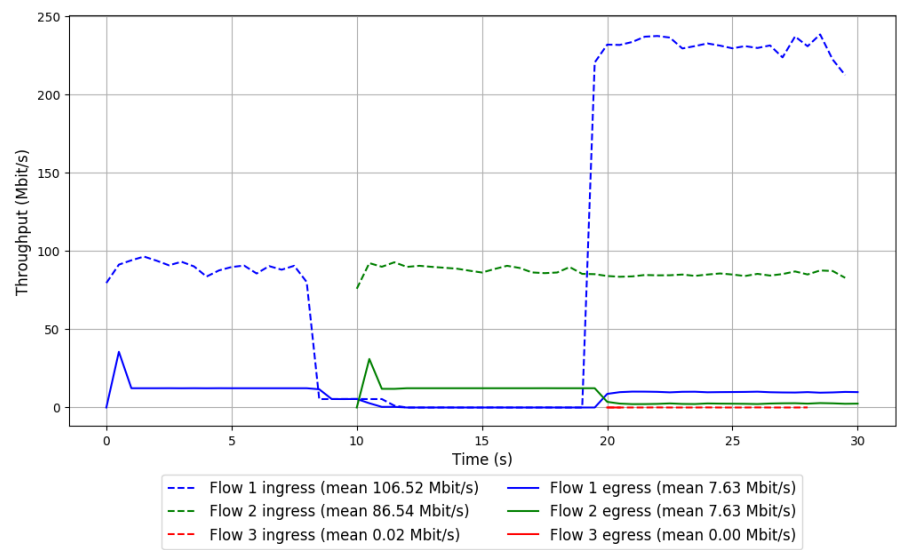
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 10.550 ms

Loss rate: 99.16%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-27 08:52:02

End at: 2019-06-27 08:52:32

Local clock offset: -0.124 ms

Remote clock offset: 3.728 ms

Below is generated by plot.py at 2019-06-27 09:58:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 11.455 ms

Loss rate: 84.66%

-- Flow 1:

Average throughput: 4.67 Mbit/s

95th percentile per-packet one-way delay: 11.536 ms

Loss rate: 83.96%

-- Flow 2:

Average throughput: 10.96 Mbit/s

95th percentile per-packet one-way delay: 11.230 ms

Loss rate: 85.68%

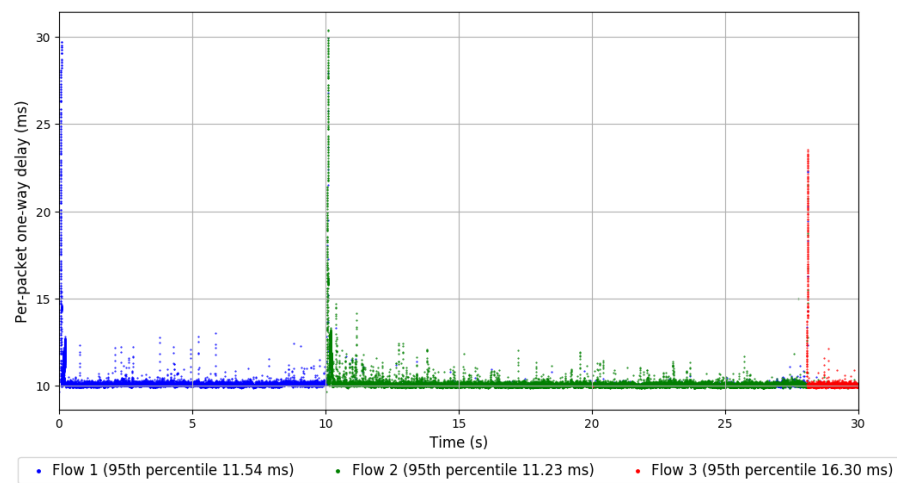
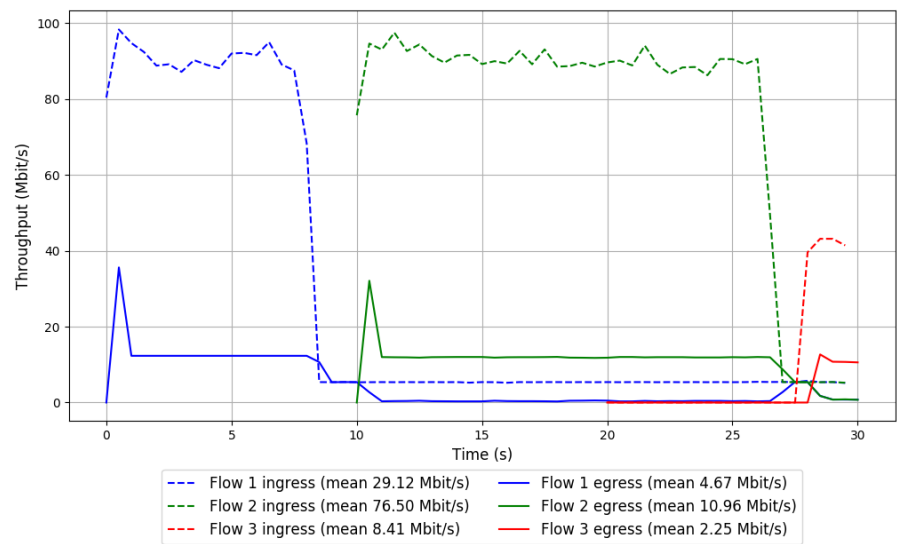
-- Flow 3:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 16.300 ms

Loss rate: 73.30%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-06-27 09:17:58

End at: 2019-06-27 09:18:28

Local clock offset: -1.659 ms

Remote clock offset: 4.745 ms

Below is generated by plot.py at 2019-06-27 09:58:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.38 Mbit/s

95th percentile per-packet one-way delay: 13.015 ms

Loss rate: 90.49%

-- Flow 1:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 13.472 ms

Loss rate: 85.58%

-- Flow 2:

Average throughput: 9.76 Mbit/s

95th percentile per-packet one-way delay: 12.054 ms

Loss rate: 92.16%

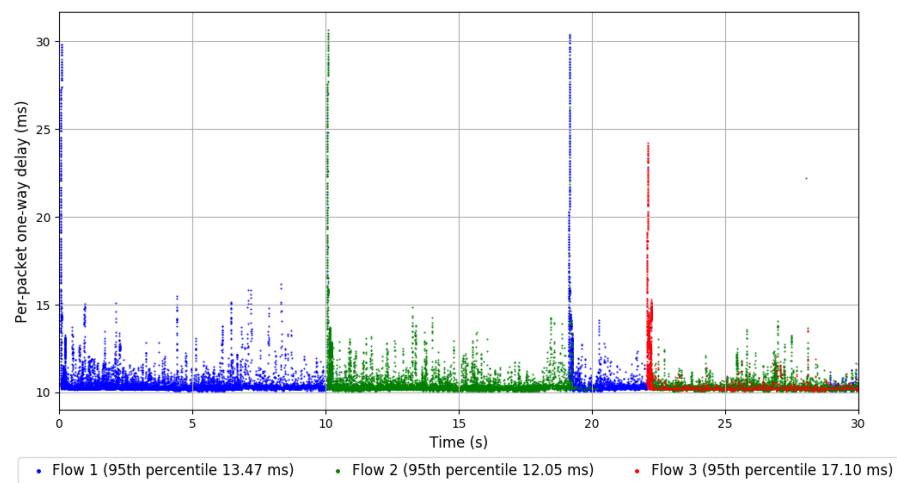
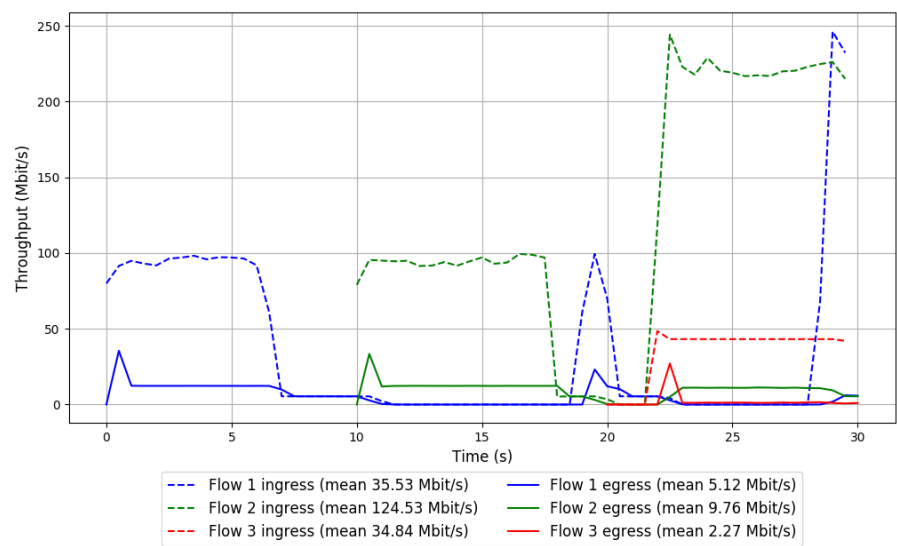
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 17.099 ms

Loss rate: 93.52%

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

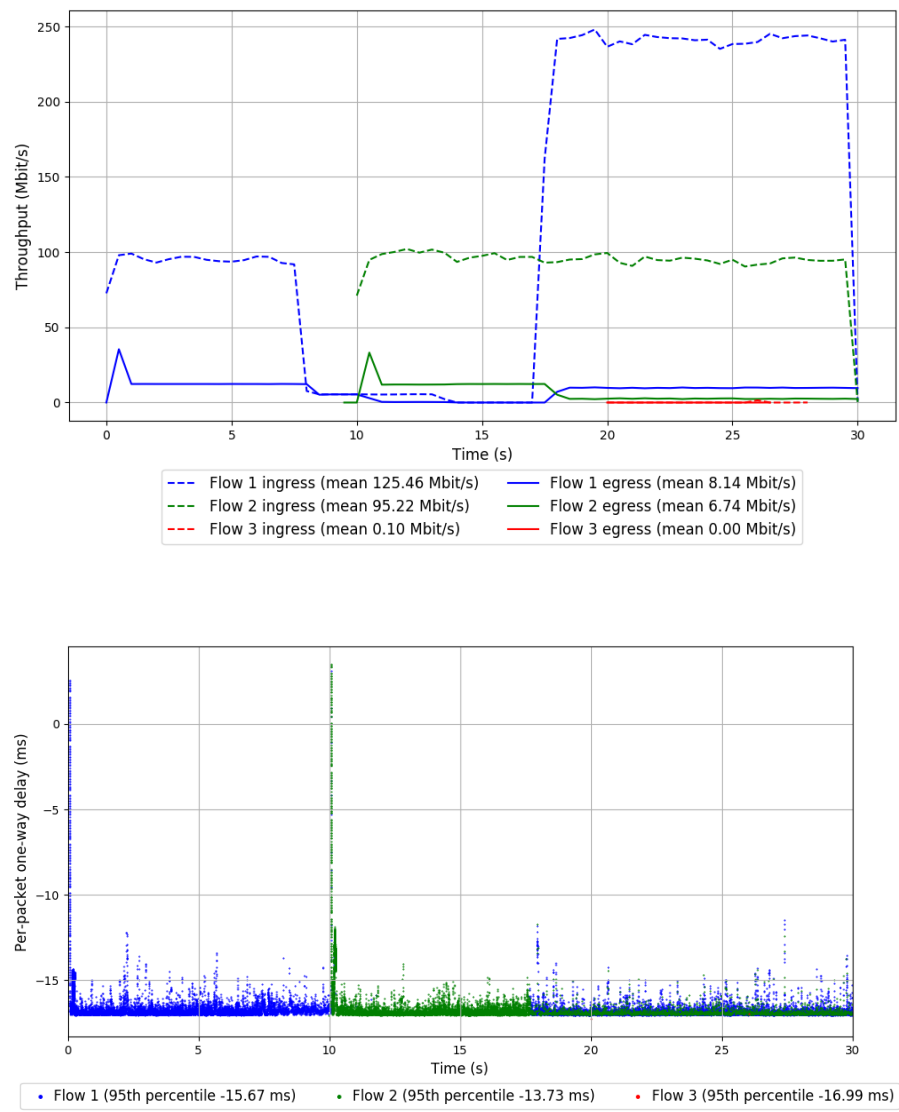


Run 5: Statistics of TaoVA-100x

Start at: 2019-06-27 09:44:28
End at: 2019-06-27 09:44:58
Local clock offset: -0.527 ms
Remote clock offset: -25.268 ms

Below is generated by plot.py at 2019-06-27 09:58:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.64 Mbit/s
95th percentile per-packet one-way delay: -15.309 ms
Loss rate: 93.31%
-- Flow 1:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: -15.666 ms
Loss rate: 93.51%
-- Flow 2:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: -13.735 ms
Loss rate: 92.92%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: -16.989 ms
Loss rate: 98.43%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-06-27 07:52:34

End at: 2019-06-27 07:53:04

Local clock offset: -0.855 ms

Remote clock offset: 4.239 ms

Below is generated by plot.py at 2019-06-27 09:59:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.60 Mbit/s

95th percentile per-packet one-way delay: 17.753 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 42.13 Mbit/s

95th percentile per-packet one-way delay: 18.530 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 46.85 Mbit/s

95th percentile per-packet one-way delay: 17.054 ms

Loss rate: 0.00%

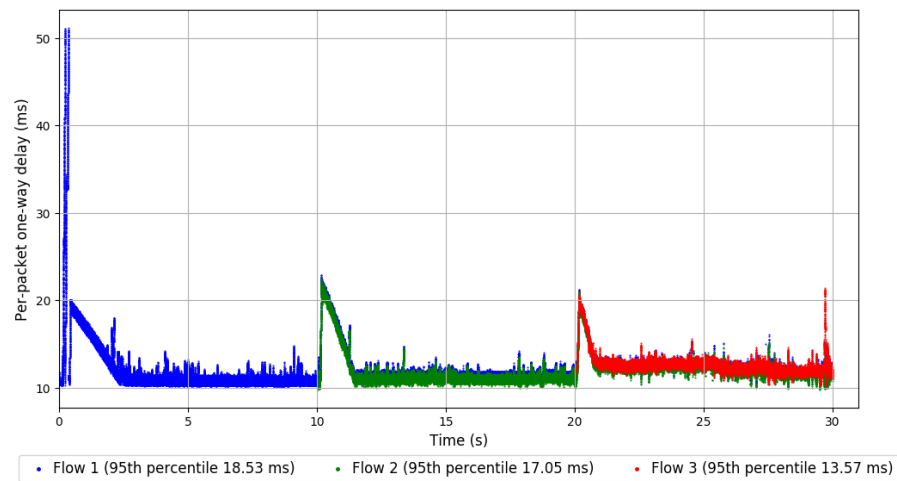
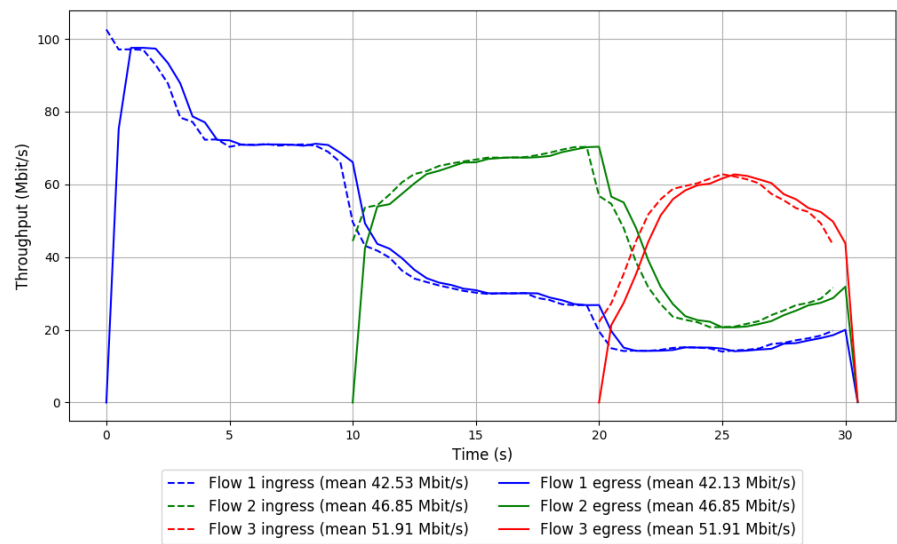
-- Flow 3:

Average throughput: 51.91 Mbit/s

95th percentile per-packet one-way delay: 13.572 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-06-27 08:18:46

End at: 2019-06-27 08:19:16

Local clock offset: -0.191 ms

Remote clock offset: 4.344 ms

Below is generated by plot.py at 2019-06-27 09:59:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.90 Mbit/s

95th percentile per-packet one-way delay: 18.521 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.18 Mbit/s

95th percentile per-packet one-way delay: 20.710 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.13 Mbit/s

95th percentile per-packet one-way delay: 12.394 ms

Loss rate: 0.00%

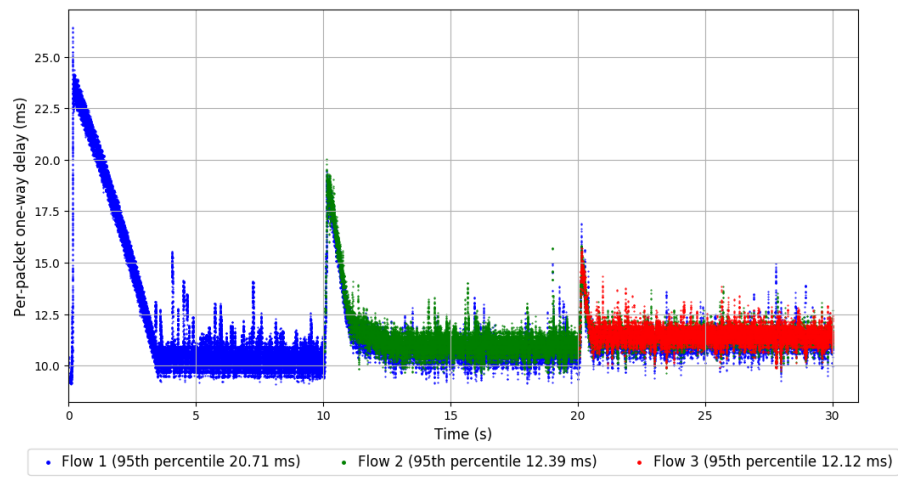
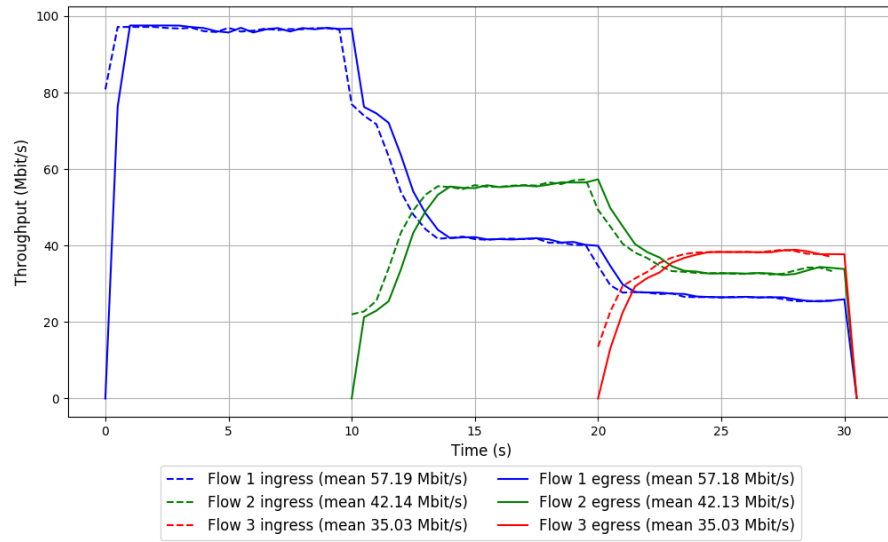
-- Flow 3:

Average throughput: 35.03 Mbit/s

95th percentile per-packet one-way delay: 12.119 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-06-27 08:44:58

End at: 2019-06-27 08:45:28

Local clock offset: 0.42 ms

Remote clock offset: 4.45 ms

Below is generated by plot.py at 2019-06-27 09:59:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.84 Mbit/s

95th percentile per-packet one-way delay: 20.351 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.12 Mbit/s

95th percentile per-packet one-way delay: 22.438 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.21 Mbit/s

95th percentile per-packet one-way delay: 14.663 ms

Loss rate: 0.00%

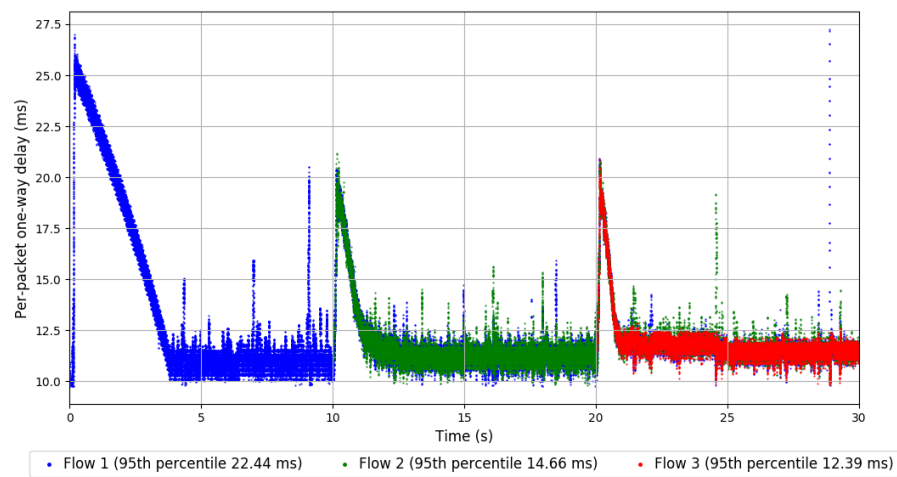
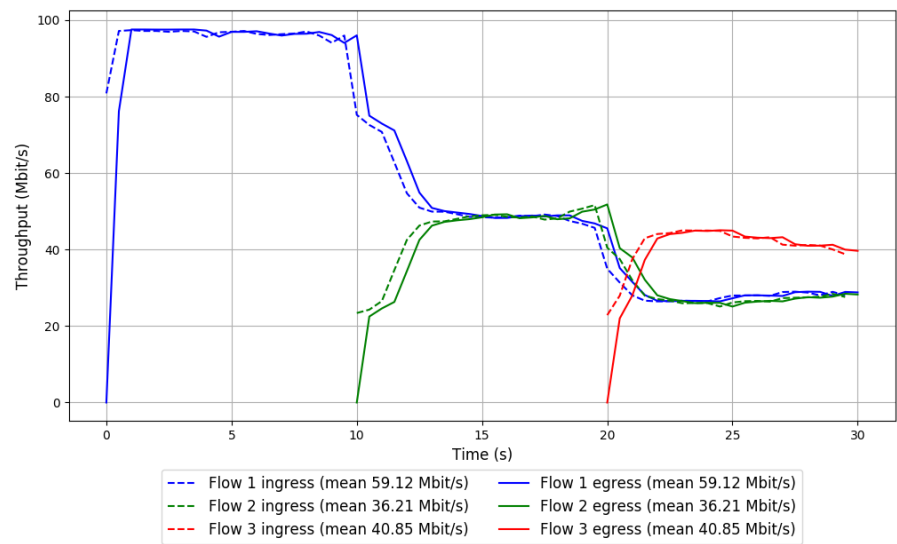
-- Flow 3:

Average throughput: 40.85 Mbit/s

95th percentile per-packet one-way delay: 12.389 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-06-27 09:10:55

End at: 2019-06-27 09:11:25

Local clock offset: -0.459 ms

Remote clock offset: 5.022 ms

Below is generated by plot.py at 2019-06-27 09:59:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.24 Mbit/s

95th percentile per-packet one-way delay: 15.588 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 58.06 Mbit/s

95th percentile per-packet one-way delay: 16.638 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 38.35 Mbit/s

95th percentile per-packet one-way delay: 13.016 ms

Loss rate: 0.00%

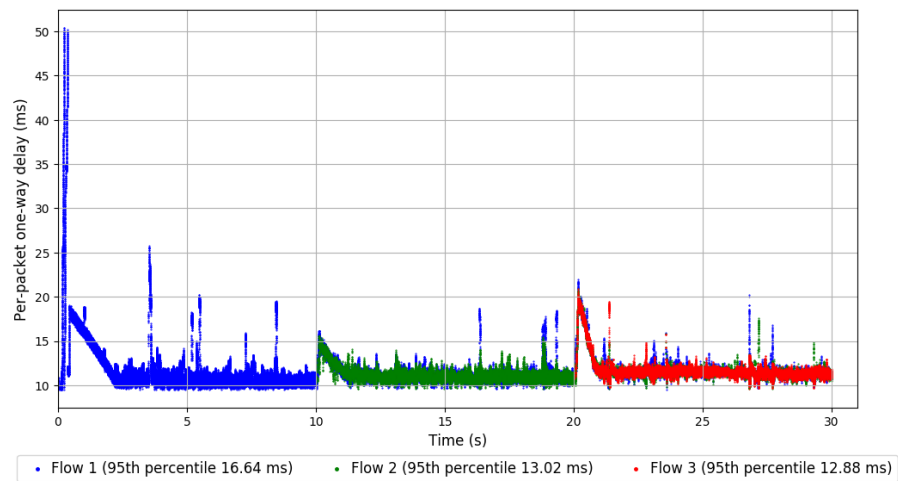
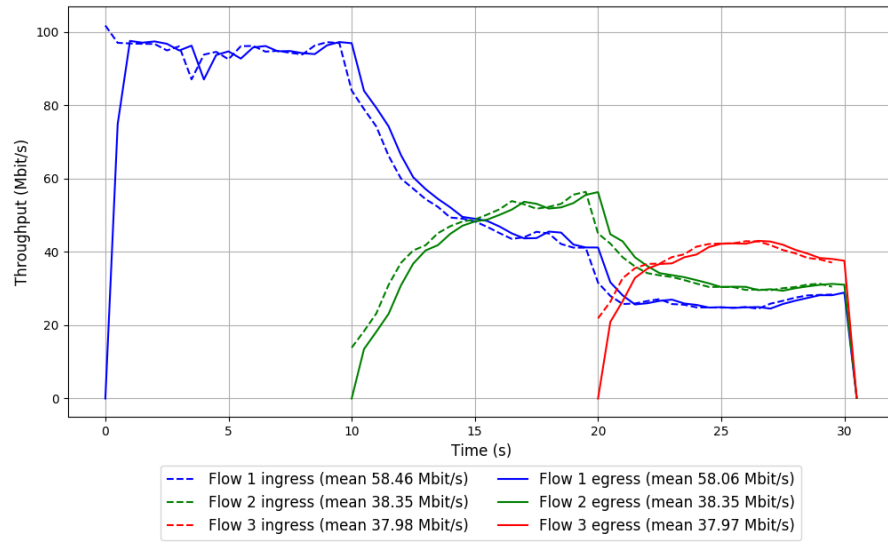
-- Flow 3:

Average throughput: 37.97 Mbit/s

95th percentile per-packet one-way delay: 12.879 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link

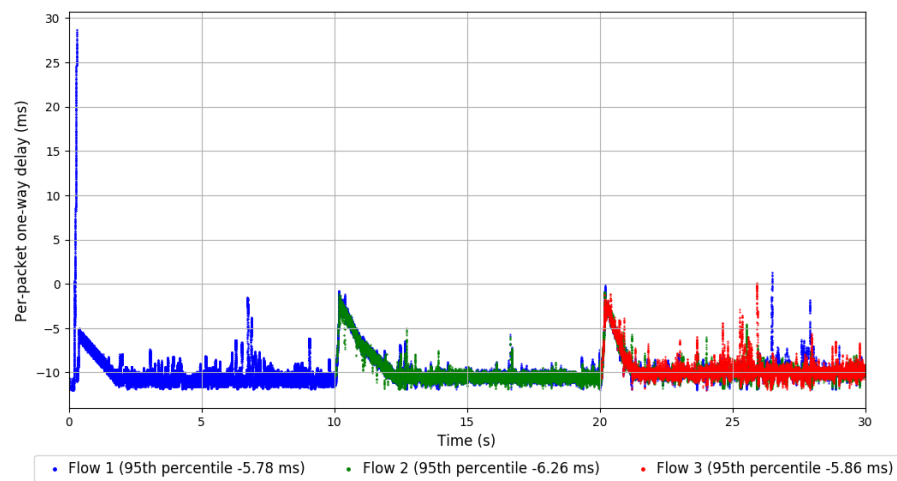
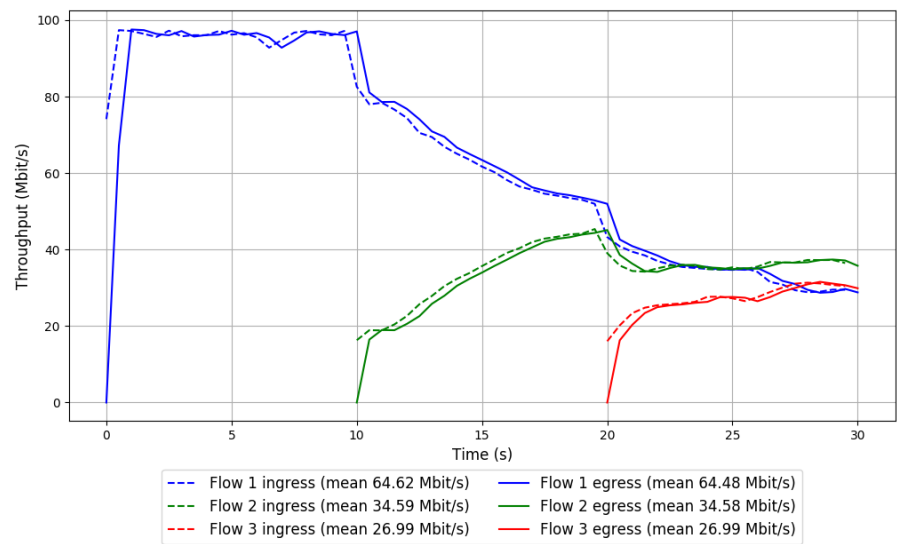


Run 5: Statistics of TCP Vegas

Start at: 2019-06-27 09:37:18
End at: 2019-06-27 09:37:48
Local clock offset: -1.193 ms
Remote clock offset: -20.783 ms

Below is generated by plot.py at 2019-06-27 09:59:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.48 Mbit/s
95th percentile per-packet one-way delay: -5.934 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 64.48 Mbit/s
95th percentile per-packet one-way delay: -5.781 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 34.58 Mbit/s
95th percentile per-packet one-way delay: -6.264 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.99 Mbit/s
95th percentile per-packet one-way delay: -5.859 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-06-27 07:47:38

End at: 2019-06-27 07:48:08

Local clock offset: -0.472 ms

Remote clock offset: 4.668 ms

Below is generated by plot.py at 2019-06-27 09:59:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.38 Mbit/s

95th percentile per-packet one-way delay: 47.082 ms

Loss rate: 32.20%

-- Flow 1:

Average throughput: 46.37 Mbit/s

95th percentile per-packet one-way delay: 47.493 ms

Loss rate: 36.09%

-- Flow 2:

Average throughput: 35.61 Mbit/s

95th percentile per-packet one-way delay: 46.291 ms

Loss rate: 24.96%

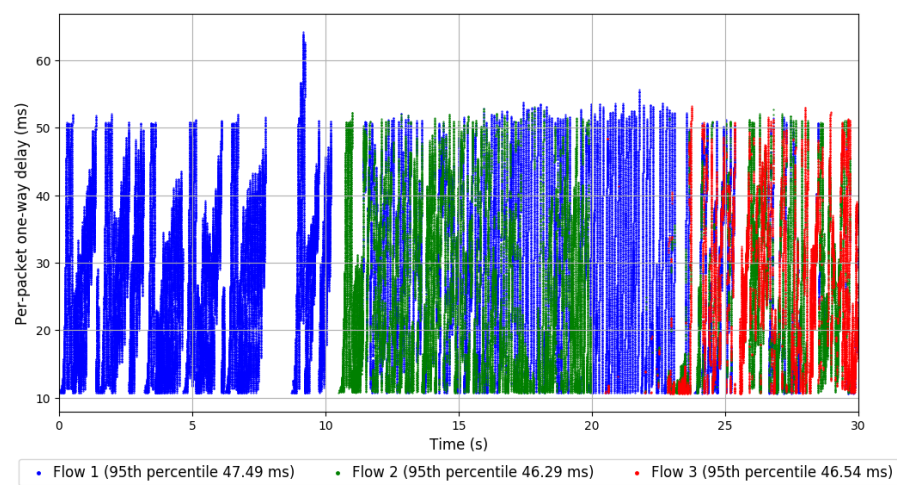
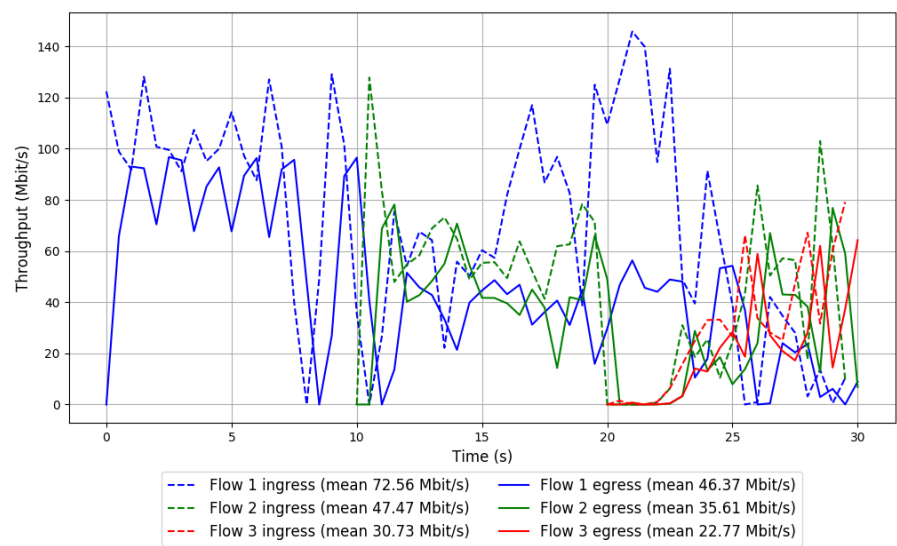
-- Flow 3:

Average throughput: 22.77 Mbit/s

95th percentile per-packet one-way delay: 46.541 ms

Loss rate: 25.82%

Run 1: Report of Verus — Data Link

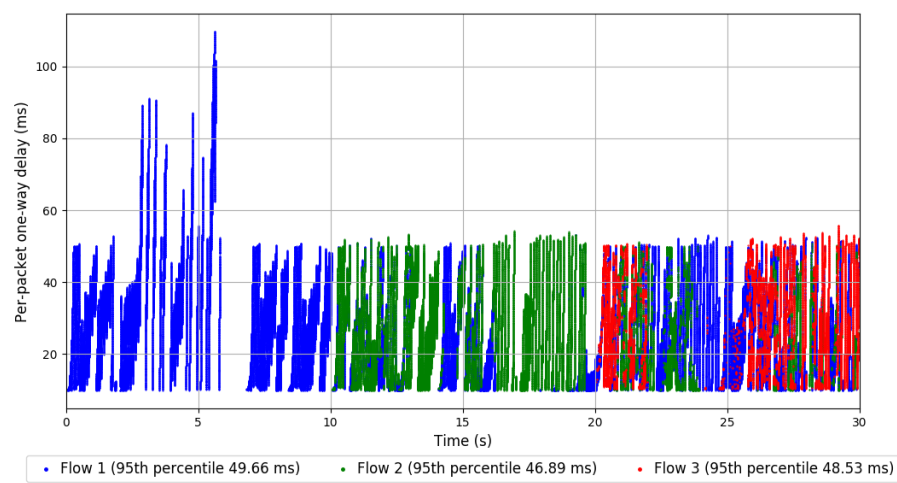
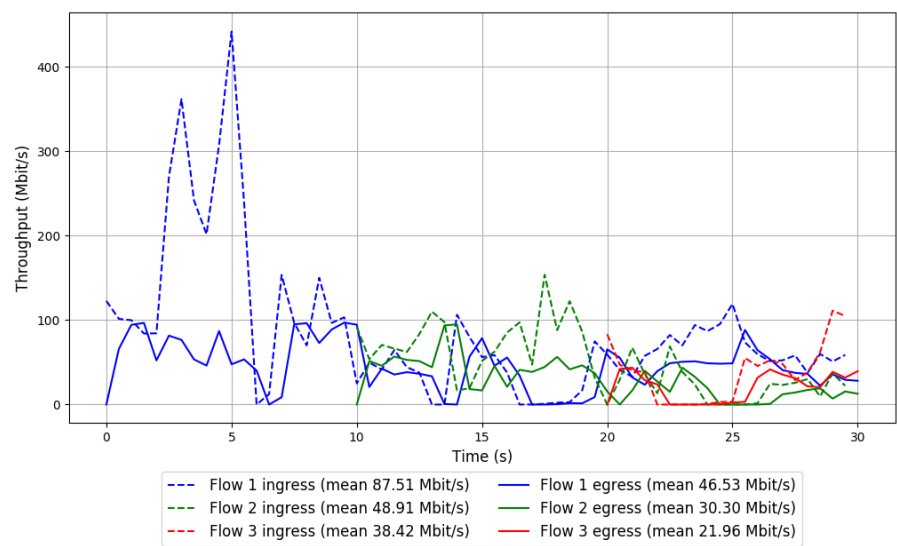


Run 2: Statistics of Verus

Start at: 2019-06-27 08:13:54
End at: 2019-06-27 08:14:24
Local clock offset: 0.108 ms
Remote clock offset: 5.45 ms

Below is generated by plot.py at 2019-06-27 09:59:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 73.95 Mbit/s
95th percentile per-packet one-way delay: 48.565 ms
Loss rate: 44.27%
-- Flow 1:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 49.659 ms
Loss rate: 46.82%
-- Flow 2:
Average throughput: 30.30 Mbit/s
95th percentile per-packet one-way delay: 46.893 ms
Loss rate: 38.01%
-- Flow 3:
Average throughput: 21.96 Mbit/s
95th percentile per-packet one-way delay: 48.533 ms
Loss rate: 42.74%

Run 2: Report of Verus — Data Link

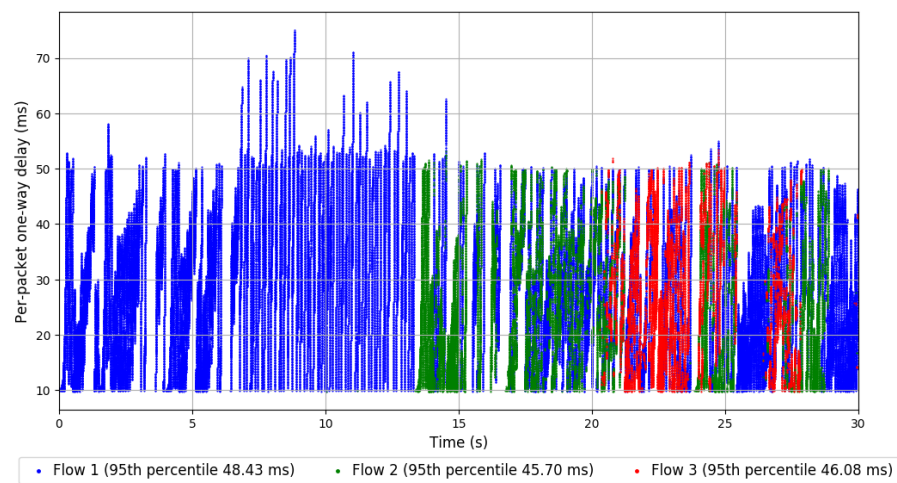
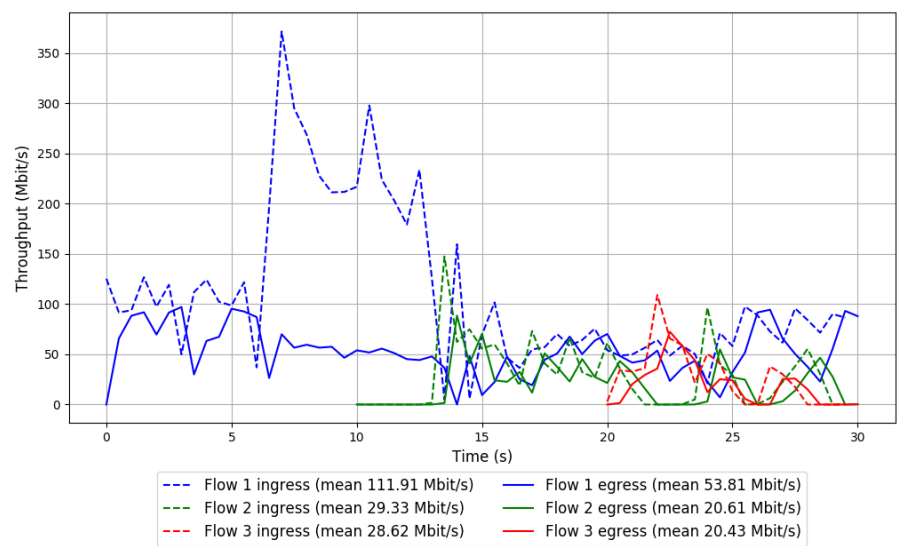


Run 3: Statistics of Verus

Start at: 2019-06-27 08:40:13
End at: 2019-06-27 08:40:43
Local clock offset: 0.89 ms
Remote clock offset: 4.851 ms

Below is generated by plot.py at 2019-06-27 10:00:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 47.668 ms
Loss rate: 47.23%
-- Flow 1:
Average throughput: 53.81 Mbit/s
95th percentile per-packet one-way delay: 48.427 ms
Loss rate: 51.86%
-- Flow 2:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 45.695 ms
Loss rate: 29.61%
-- Flow 3:
Average throughput: 20.43 Mbit/s
95th percentile per-packet one-way delay: 46.078 ms
Loss rate: 28.47%

Run 3: Report of Verus — Data Link

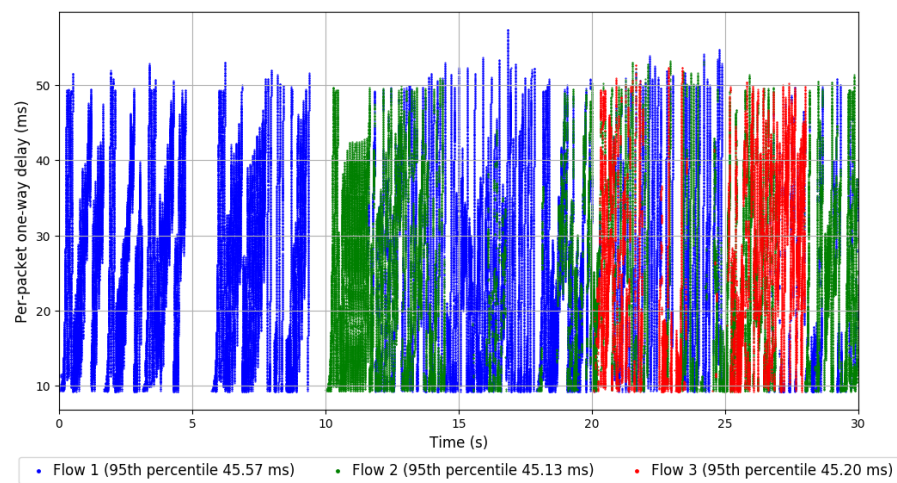
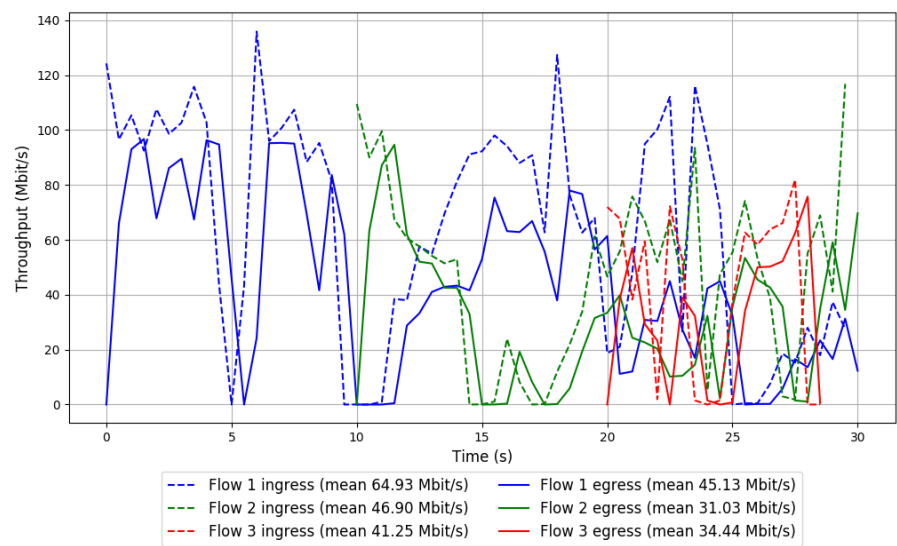


Run 4: Statistics of Verus

Start at: 2019-06-27 09:06:00
End at: 2019-06-27 09:06:30
Local clock offset: -0.568 ms
Remote clock offset: 4.485 ms

Below is generated by plot.py at 2019-06-27 10:00:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.92 Mbit/s
95th percentile per-packet one-way delay: 45.407 ms
Loss rate: 30.92%
-- Flow 1:
Average throughput: 45.13 Mbit/s
95th percentile per-packet one-way delay: 45.566 ms
Loss rate: 30.48%
-- Flow 2:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 45.133 ms
Loss rate: 33.82%
-- Flow 3:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 45.204 ms
Loss rate: 25.83%

Run 4: Report of Verus — Data Link

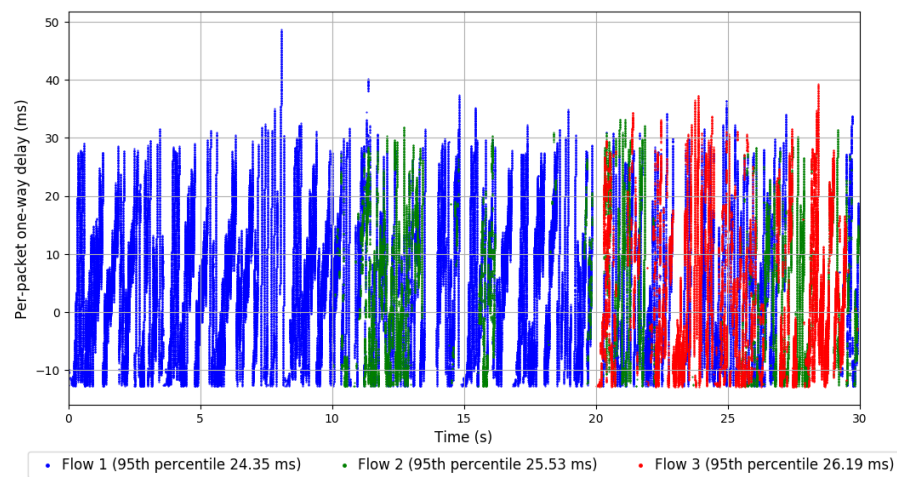
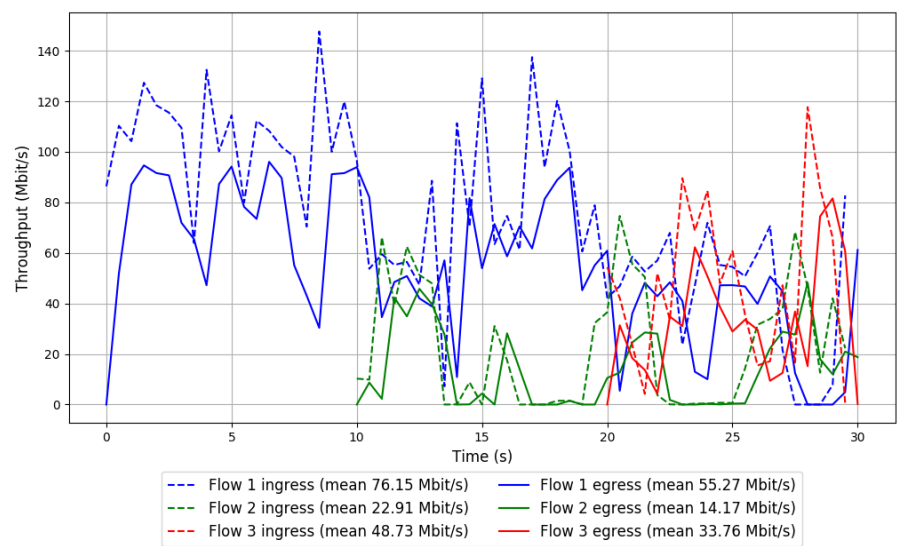


Run 5: Statistics of Verus

Start at: 2019-06-27 09:32:26
End at: 2019-06-27 09:32:56
Local clock offset: -1.215 ms
Remote clock offset: -22.022 ms

Below is generated by plot.py at 2019-06-27 10:00:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 24.759 ms
Loss rate: 29.36%
-- Flow 1:
Average throughput: 55.27 Mbit/s
95th percentile per-packet one-way delay: 24.348 ms
Loss rate: 27.34%
-- Flow 2:
Average throughput: 14.17 Mbit/s
95th percentile per-packet one-way delay: 25.527 ms
Loss rate: 38.09%
-- Flow 3:
Average throughput: 33.76 Mbit/s
95th percentile per-packet one-way delay: 26.191 ms
Loss rate: 30.64%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-06-27 07:50:03

End at: 2019-06-27 07:50:33

Local clock offset: 0.261 ms

Remote clock offset: 4.222 ms

Below is generated by plot.py at 2019-06-27 10:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.98 Mbit/s

95th percentile per-packet one-way delay: 13.222 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 39.61 Mbit/s

95th percentile per-packet one-way delay: 13.164 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.54 Mbit/s

95th percentile per-packet one-way delay: 13.277 ms

Loss rate: 0.00%

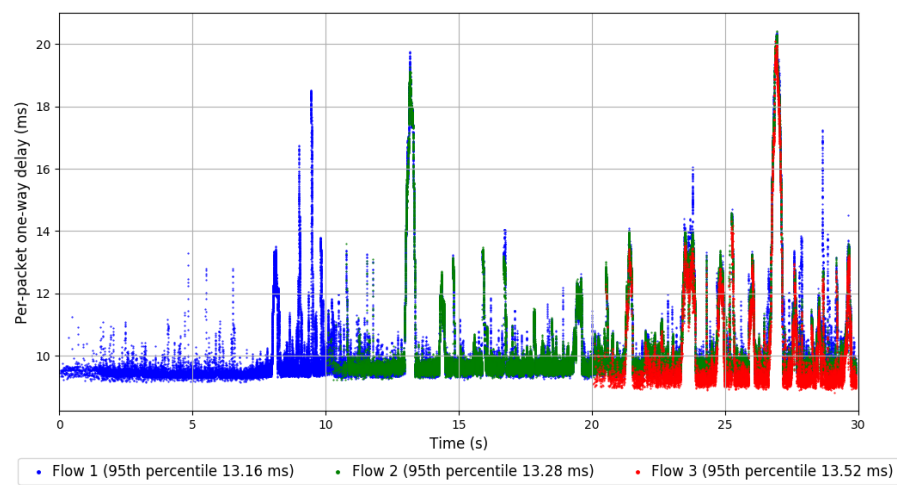
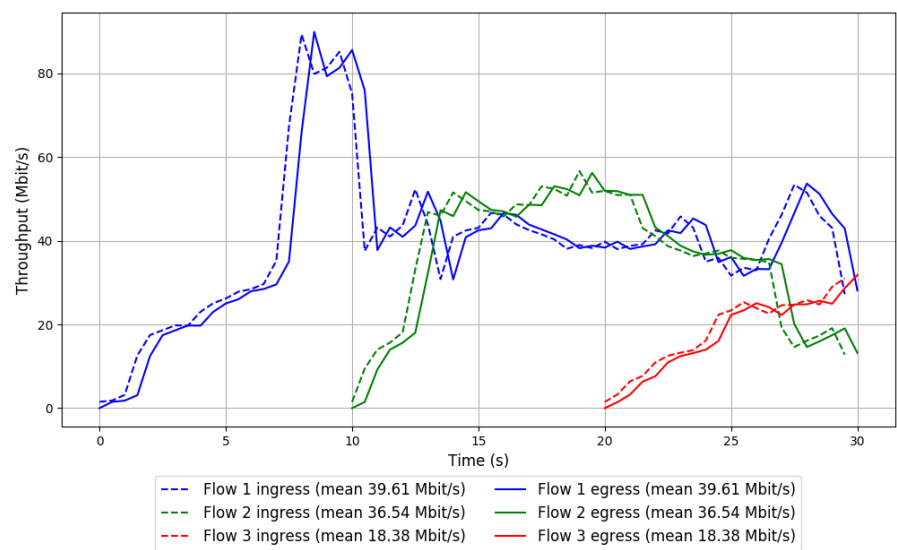
-- Flow 3:

Average throughput: 18.38 Mbit/s

95th percentile per-packet one-way delay: 13.521 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-06-27 08:16:20

End at: 2019-06-27 08:16:50

Local clock offset: -0.093 ms

Remote clock offset: 5.259 ms

Below is generated by plot.py at 2019-06-27 10:00:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.16 Mbit/s

95th percentile per-packet one-way delay: 12.719 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.42 Mbit/s

95th percentile per-packet one-way delay: 12.603 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.18 Mbit/s

95th percentile per-packet one-way delay: 12.167 ms

Loss rate: 0.00%

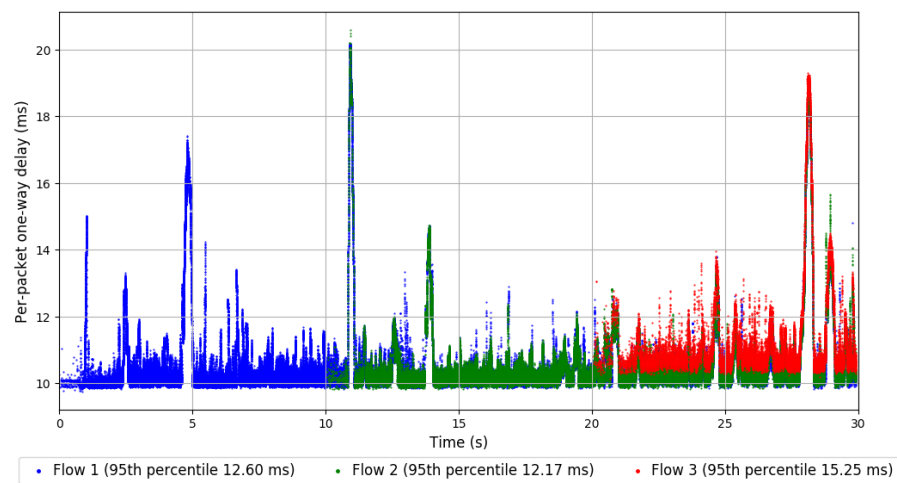
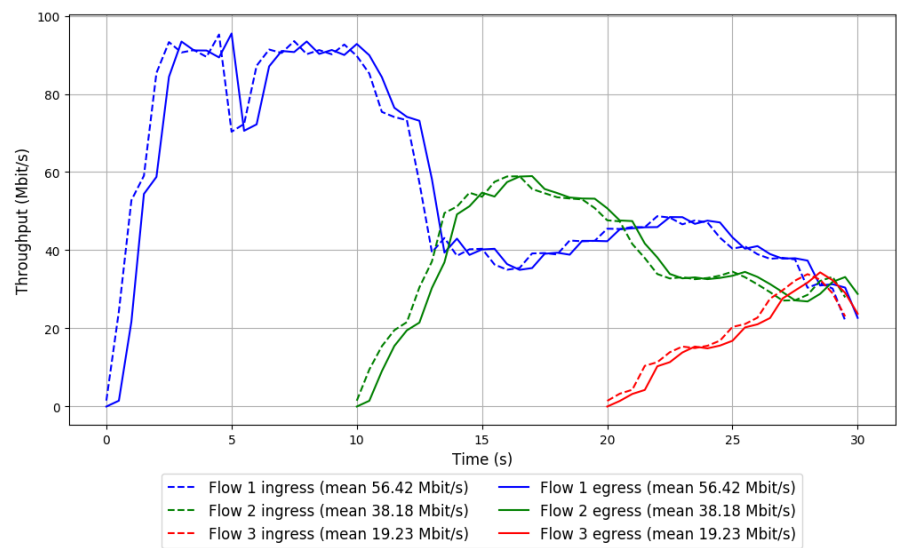
-- Flow 3:

Average throughput: 19.23 Mbit/s

95th percentile per-packet one-way delay: 15.253 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-06-27 08:42:34

End at: 2019-06-27 08:43:04

Local clock offset: 0.329 ms

Remote clock offset: 4.701 ms

Below is generated by plot.py at 2019-06-27 10:00:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.95 Mbit/s

95th percentile per-packet one-way delay: 14.876 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 13.642 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.66 Mbit/s

95th percentile per-packet one-way delay: 15.214 ms

Loss rate: 0.00%

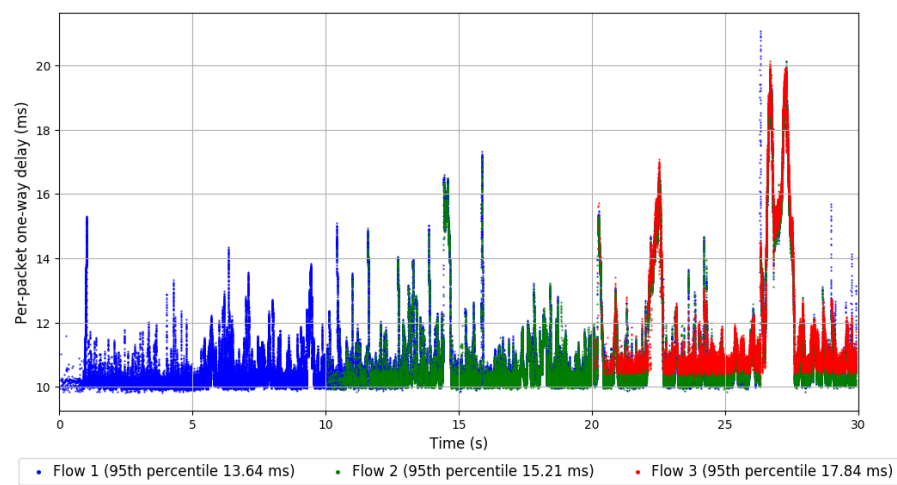
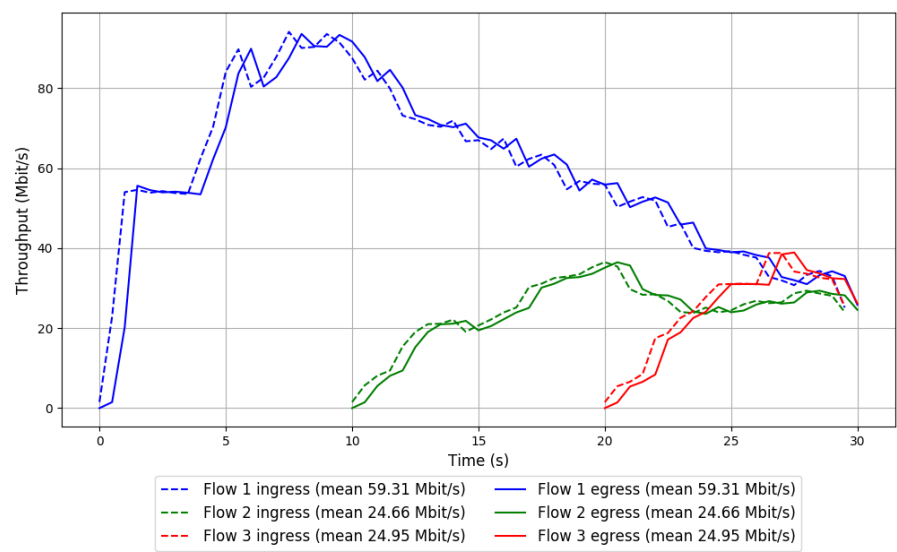
-- Flow 3:

Average throughput: 24.95 Mbit/s

95th percentile per-packet one-way delay: 17.839 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-06-27 09:08:21

End at: 2019-06-27 09:08:51

Local clock offset: -1.233 ms

Remote clock offset: 5.191 ms

Below is generated by plot.py at 2019-06-27 10:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.46 Mbit/s

95th percentile per-packet one-way delay: 14.369 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 14.049 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 29.32 Mbit/s

95th percentile per-packet one-way delay: 14.576 ms

Loss rate: 0.00%

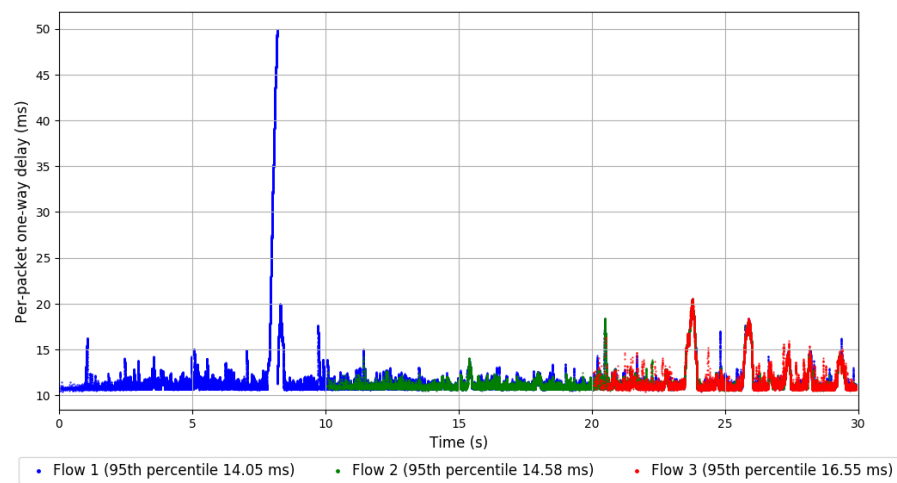
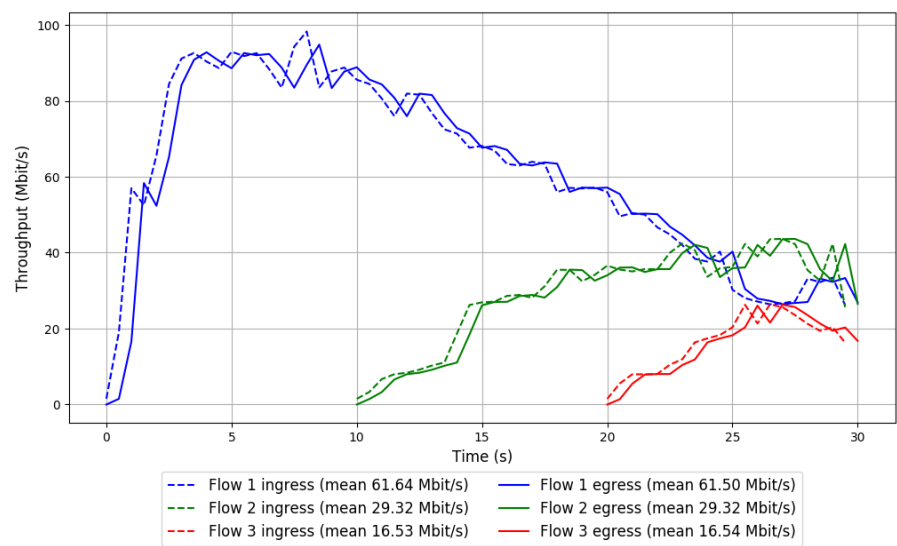
-- Flow 3:

Average throughput: 16.54 Mbit/s

95th percentile per-packet one-way delay: 16.552 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

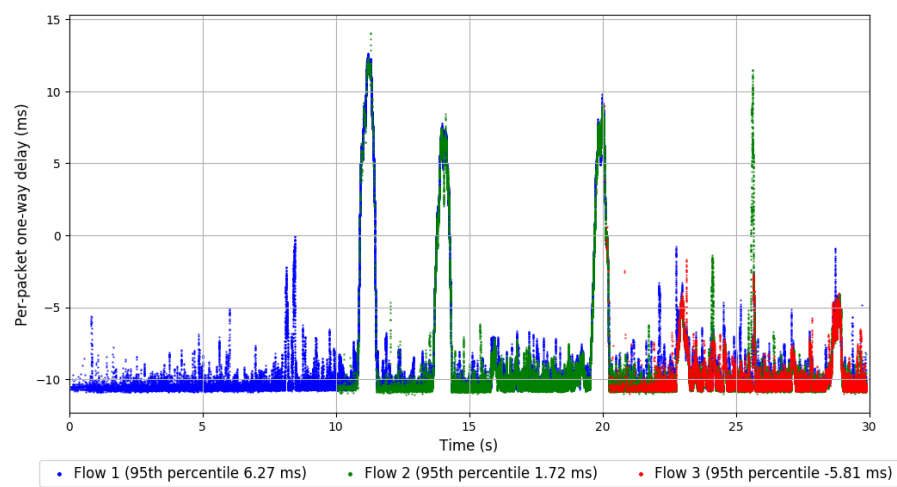
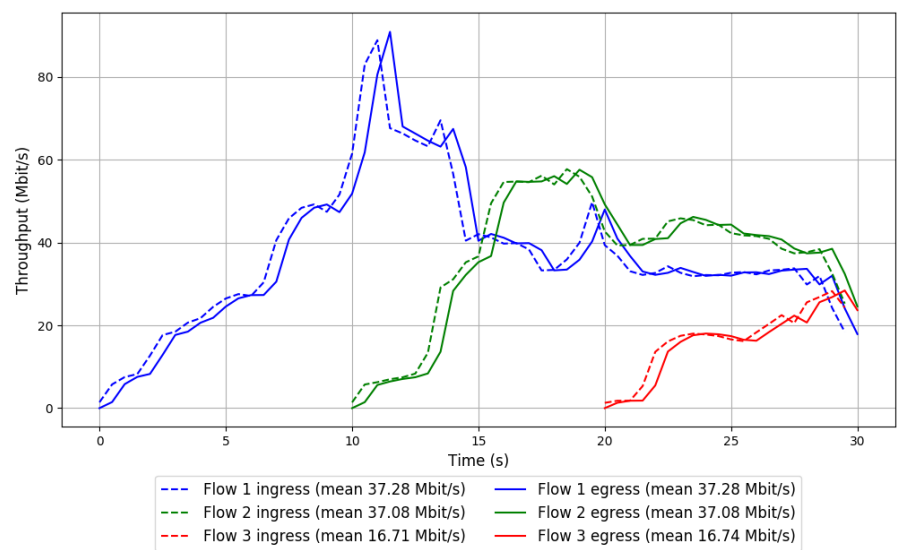


Run 5: Statistics of PCC-Vivace

Start at: 2019-06-27 09:34:55
End at: 2019-06-27 09:35:25
Local clock offset: -1.534 ms
Remote clock offset: -19.796 ms

Below is generated by plot.py at 2019-06-27 10:00:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 67.46 Mbit/s
95th percentile per-packet one-way delay: 4.902 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 37.28 Mbit/s
95th percentile per-packet one-way delay: 6.272 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.08 Mbit/s
95th percentile per-packet one-way delay: 1.722 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: -5.813 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-06-27 07:37:06

End at: 2019-06-27 07:37:36

Local clock offset: -0.418 ms

Remote clock offset: 3.17 ms

Below is generated by plot.py at 2019-06-27 10:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 10.859 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.624 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 11.011 ms

Loss rate: 0.00%

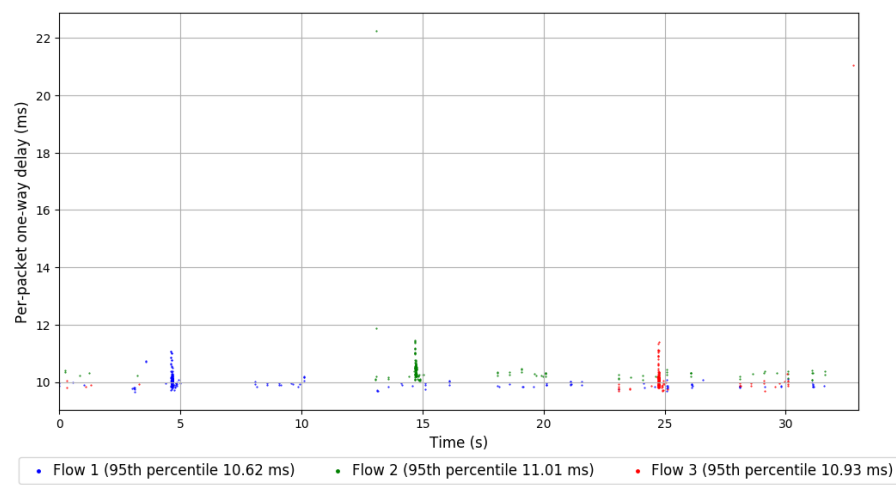
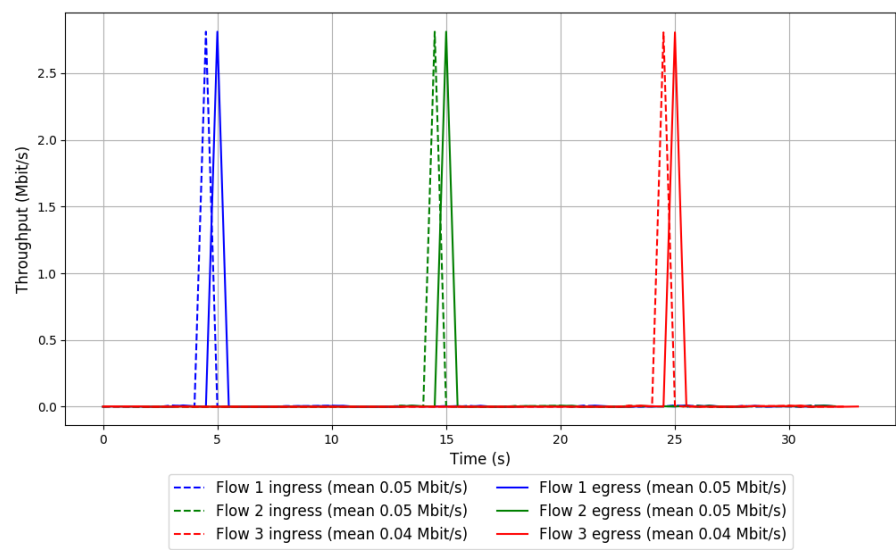
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 10.927 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-27 08:03:15

End at: 2019-06-27 08:03:45

Local clock offset: 0.717 ms

Remote clock offset: 5.919 ms

Below is generated by plot.py at 2019-06-27 10:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 10.384 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.188 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.276 ms

Loss rate: 0.00%

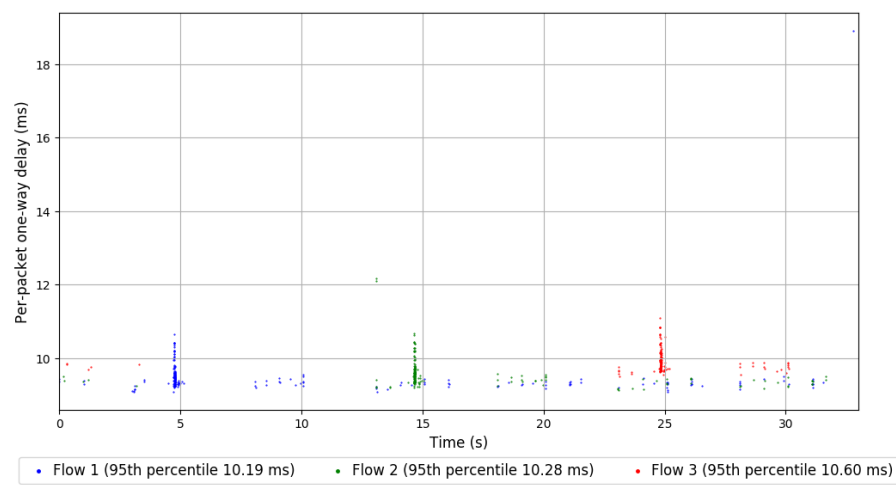
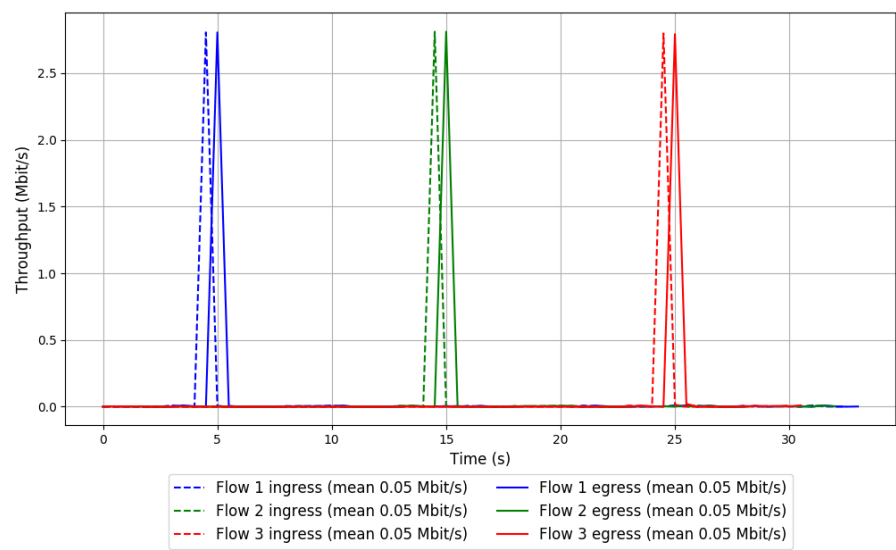
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.595 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-06-27 08:29:39

End at: 2019-06-27 08:30:09

Local clock offset: 1.193 ms

Remote clock offset: 5.943 ms

Below is generated by plot.py at 2019-06-27 10:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 10.745 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.441 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 11.213 ms

Loss rate: 0.00%

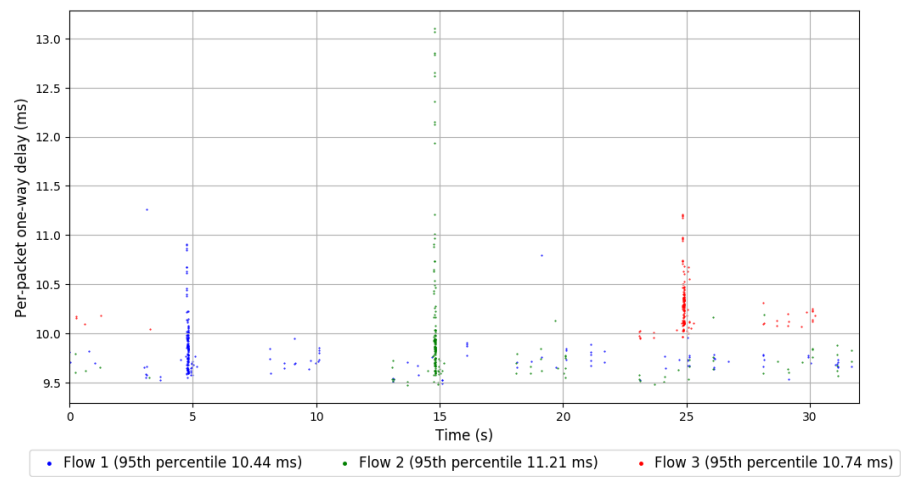
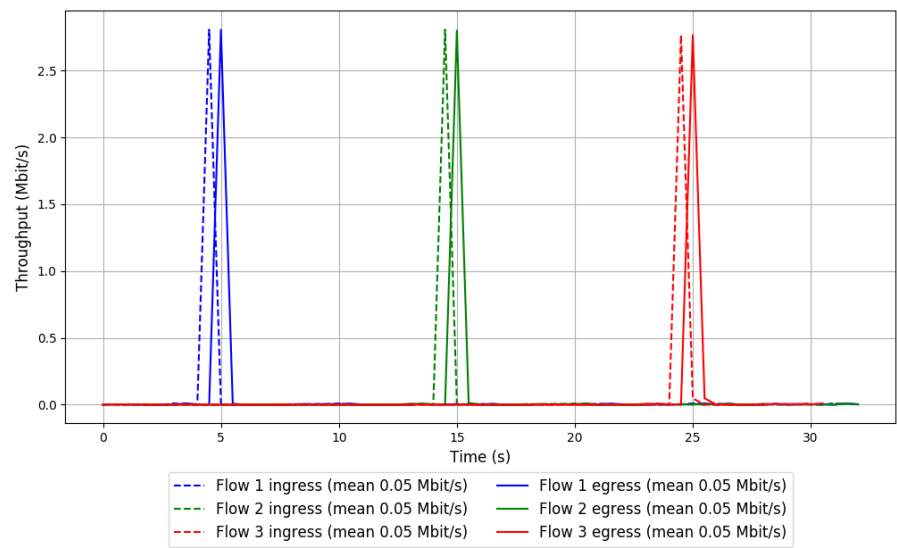
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 10.745 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

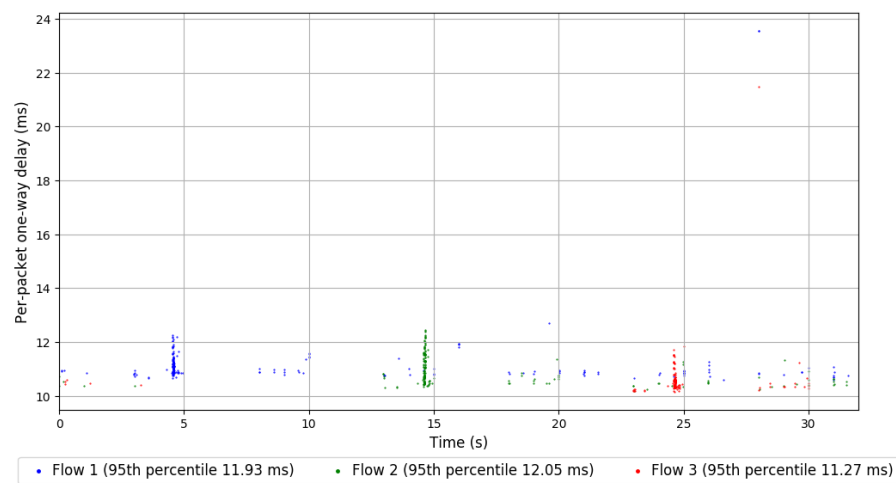
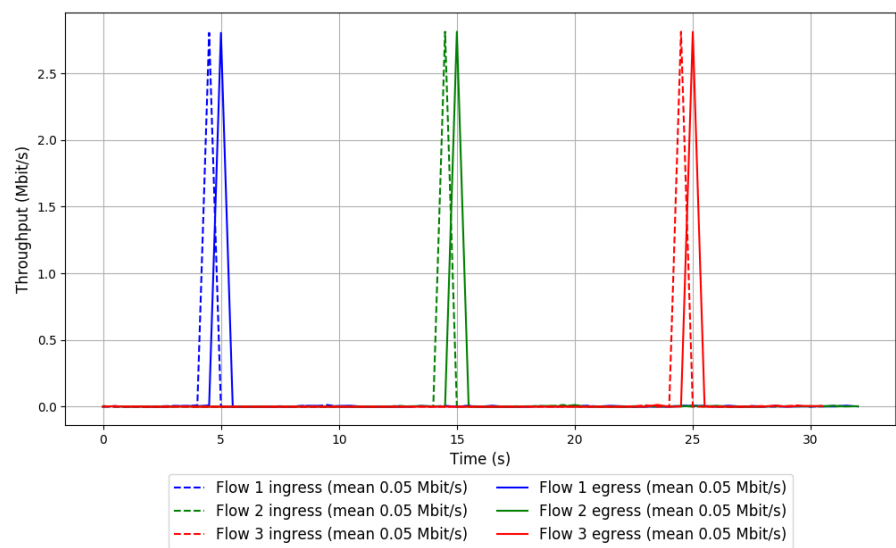


Run 4: Statistics of WebRTC media

Start at: 2019-06-27 08:55:30
End at: 2019-06-27 08:56:00
Local clock offset: -0.764 ms
Remote clock offset: 4.454 ms

Below is generated by plot.py at 2019-06-27 10:00:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 11.910 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 11.931 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 12.049 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 11.266 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-27 09:21:48
End at: 2019-06-27 09:22:18
Local clock offset: -1.83 ms
Remote clock offset: -23.773 ms

Below is generated by plot.py at 2019-06-27 10:00:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: -12.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: -12.901 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: -12.938 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: -12.151 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

