

Pantheon Report

Generated at 2019-03-27 03:17:31 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

System info:

```
Linux 4.15.0-1034-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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



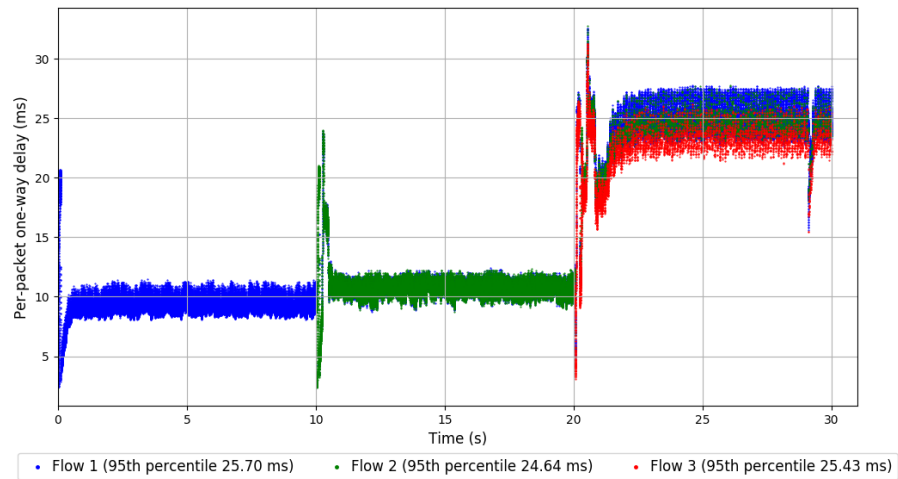
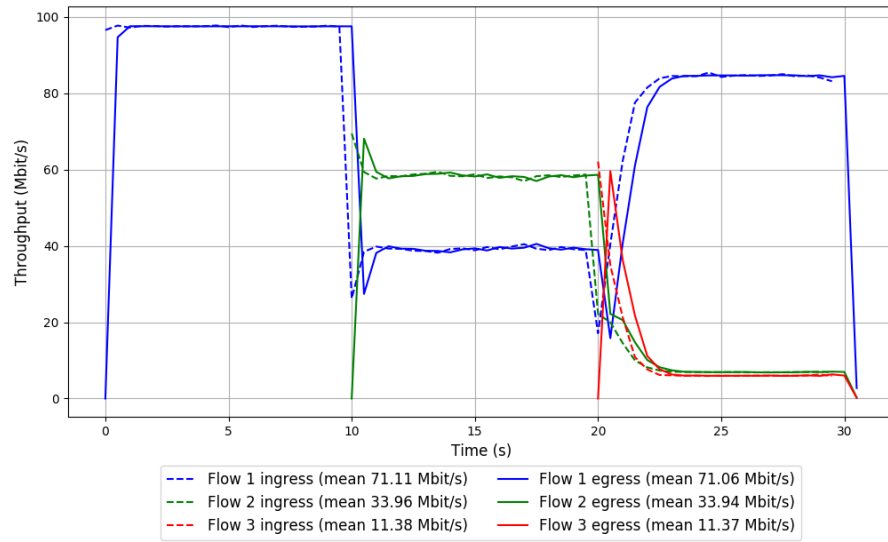
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	71.26	32.28	14.13	24.39	22.88	27.70	0.00	0.00	0.09
Copa	5	0.00	12.43	1.59	2.69	2.51	3.03	97.87	65.06	86.87
TCP Cubic	5	63.94	35.81	28.86	32.52	32.37	32.42	0.04	0.04	0.04
FillP	5	47.07	47.62	39.37	28.35	29.54	30.01	9.27	17.39	39.62
FillP-Sheep	5	59.82	30.03	24.26	20.18	23.50	24.07	0.76	1.91	4.84
Indigo	5	47.09	35.75	81.39	10.72	12.35	12.36	0.00	0.00	0.00
Indigo-MusesC3	5	53.01	43.01	52.72	10.18	12.48	9.35	0.00	0.00	0.00
Indigo-MusesC5	5	39.48	35.32	34.63	14.67	17.08	18.24	0.00	0.00	0.00
Indigo-MusesD	5	45.18	38.60	26.93	25.16	25.87	25.63	0.24	0.53	1.43
Indigo-MusesT	5	56.88	47.21	23.74	23.57	26.13	27.40	0.06	0.09	0.25
LEDBAT	5	61.45	38.61	30.42	31.87	32.31	32.33	0.03	0.06	0.09
PCC-Allegro	5	67.75	24.53	14.45	11.59	14.97	17.82	0.01	0.02	0.02
PCC-Expr	5	8.05	5.70	3.86	2.61	1.73	2.04	30.81	27.74	33.53
QUIC Cubic	5	57.52	34.52	29.95	31.28	30.88	31.13	0.13	0.19	0.22
SCReAM	5	0.22	0.22	0.22	1.87	1.56	2.75	0.00	0.00	0.00
Sprout	5	42.24	38.48	31.23	21.42	22.22	24.50	0.00	0.00	0.00
TaoVA-100x	5	7.30	6.39	3.53	3.00	3.98	3.08	87.94	92.47	94.81
TCP Vegas	5	52.53	44.87	44.42	6.00	3.96	4.01	0.00	0.00	0.00
Verus	5	44.34	32.37	24.56	27.75	31.31	32.32	6.45	12.48	20.90
PCC-Vivace	5	50.23	37.02	25.90	2.07	2.94	3.88	0.00	0.00	0.00
WebRTC media	5	0.05	0.05	0.05	5.46	3.78	4.22	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-03-27 01:06:59
End at: 2019-03-27 01:07:29
Local clock offset: -1.372 ms
Remote clock offset: -0.339 ms

Below is generated by plot.py at 2019-03-27 03:06:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.45 Mbit/s
95th percentile per-packet one-way delay: 25.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 71.06 Mbit/s
95th percentile per-packet one-way delay: 25.700 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 33.94 Mbit/s
95th percentile per-packet one-way delay: 24.640 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.37 Mbit/s
95th percentile per-packet one-way delay: 25.430 ms
Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link

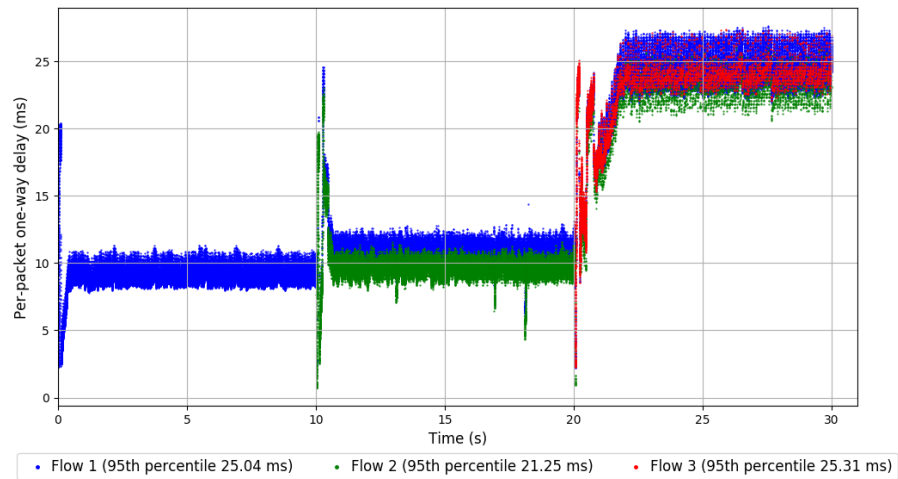
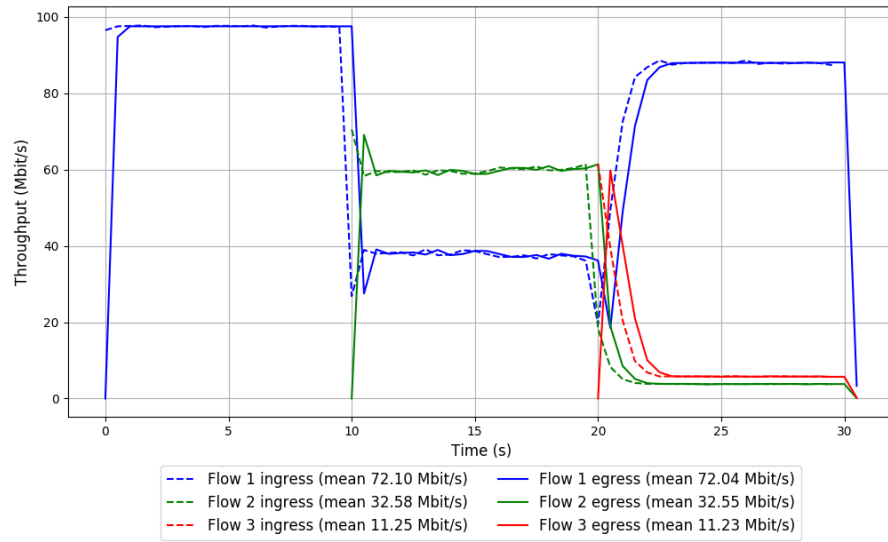


Run 2: Statistics of TCP BBR

Start at: 2019-03-27 01:30:54
End at: 2019-03-27 01:31:24
Local clock offset: -4.983 ms
Remote clock offset: -0.146 ms

Below is generated by plot.py at 2019-03-27 03:06:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 24.805 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.04 Mbit/s
95th percentile per-packet one-way delay: 25.044 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 21.246 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 25.313 ms
Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-03-27 01:54:49

End at: 2019-03-27 01:55:19

Local clock offset: -6.645 ms

Remote clock offset: 0.031 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.49 Mbit/s

95th percentile per-packet one-way delay: 22.143 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.76 Mbit/s

95th percentile per-packet one-way delay: 21.621 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.97 Mbit/s

95th percentile per-packet one-way delay: 20.598 ms

Loss rate: 0.00%

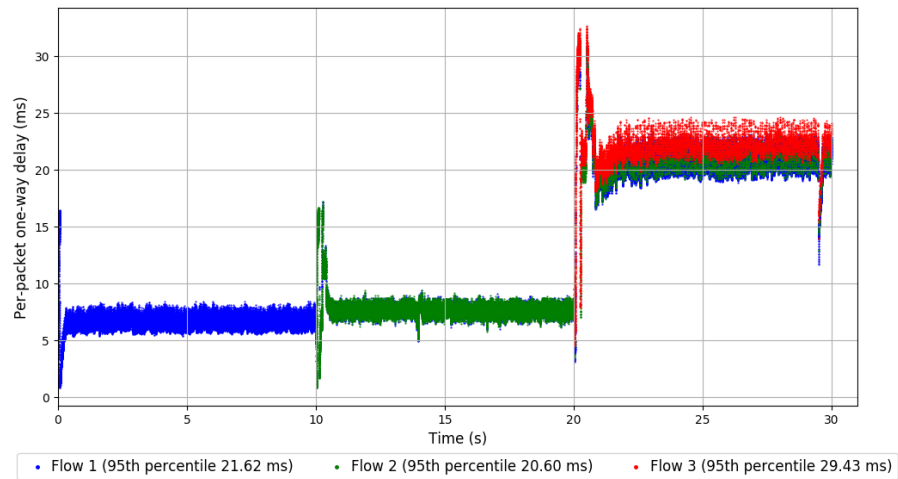
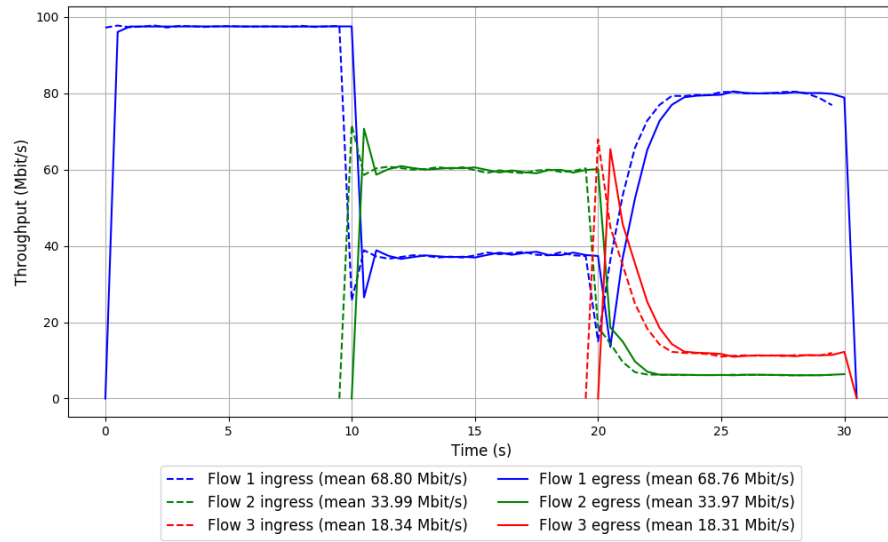
-- Flow 3:

Average throughput: 18.31 Mbit/s

95th percentile per-packet one-way delay: 29.434 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-03-27 02:18:45

End at: 2019-03-27 02:19:15

Local clock offset: -8.068 ms

Remote clock offset: 0.129 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.49 Mbit/s

95th percentile per-packet one-way delay: 25.612 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 74.62 Mbit/s

95th percentile per-packet one-way delay: 25.528 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 27.11 Mbit/s

95th percentile per-packet one-way delay: 24.672 ms

Loss rate: 0.01%

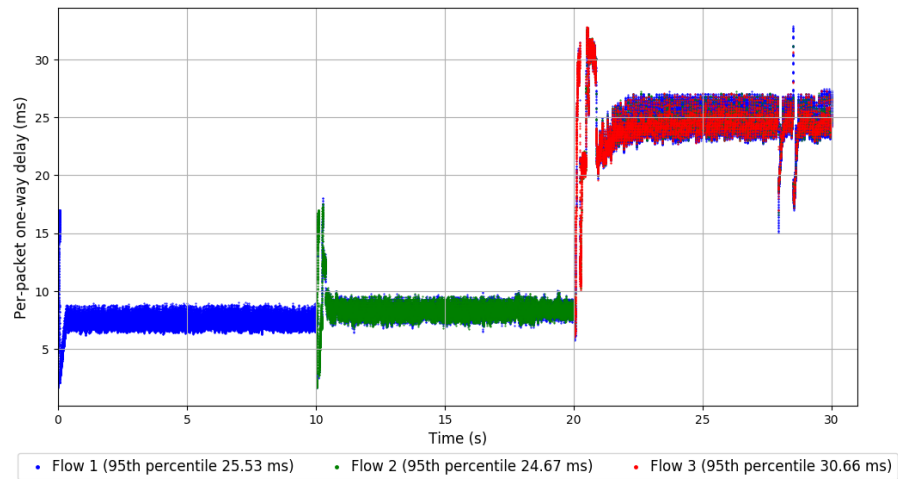
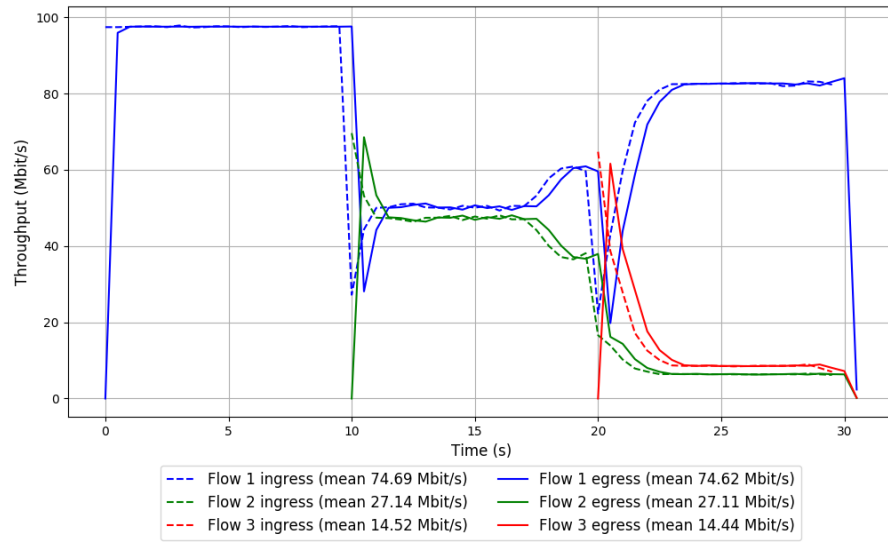
-- Flow 3:

Average throughput: 14.44 Mbit/s

95th percentile per-packet one-way delay: 30.660 ms

Loss rate: 0.33%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-03-27 02:42:41

End at: 2019-03-27 02:43:11

Local clock offset: -7.933 ms

Remote clock offset: 0.171 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 24.015 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 69.83 Mbit/s

95th percentile per-packet one-way delay: 24.058 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.83 Mbit/s

95th percentile per-packet one-way delay: 23.239 ms

Loss rate: 0.00%

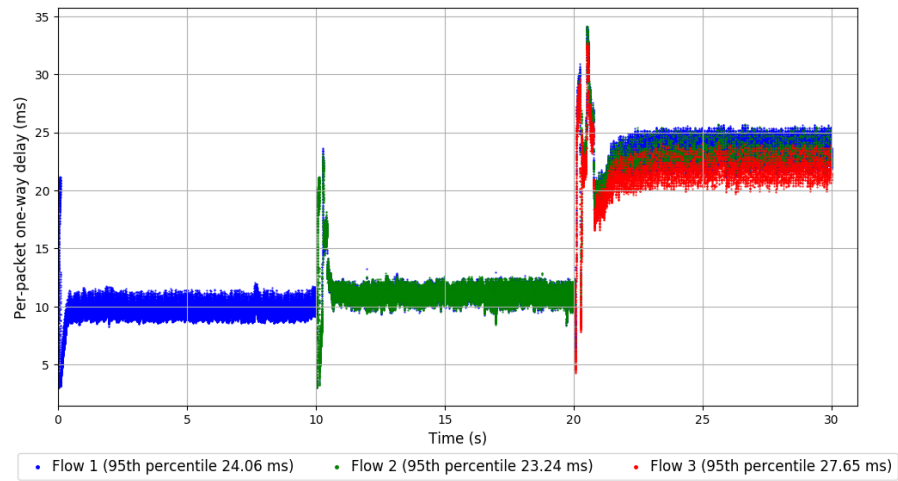
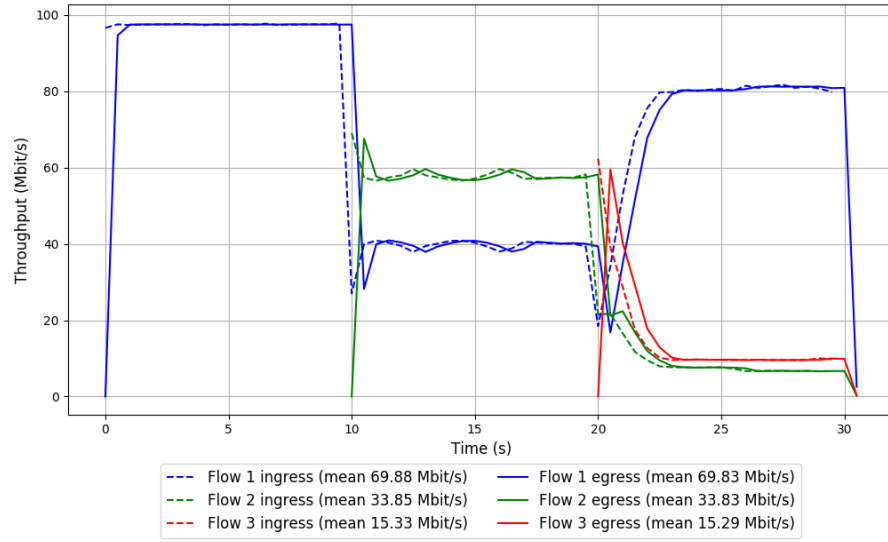
-- Flow 3:

Average throughput: 15.29 Mbit/s

95th percentile per-packet one-way delay: 27.648 ms

Loss rate: 0.13%

Run 5: Report of TCP BBR — Data Link

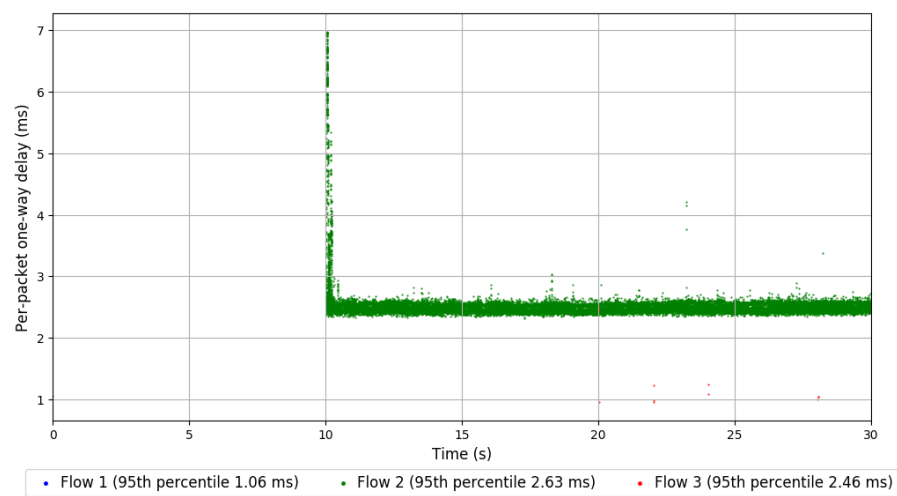
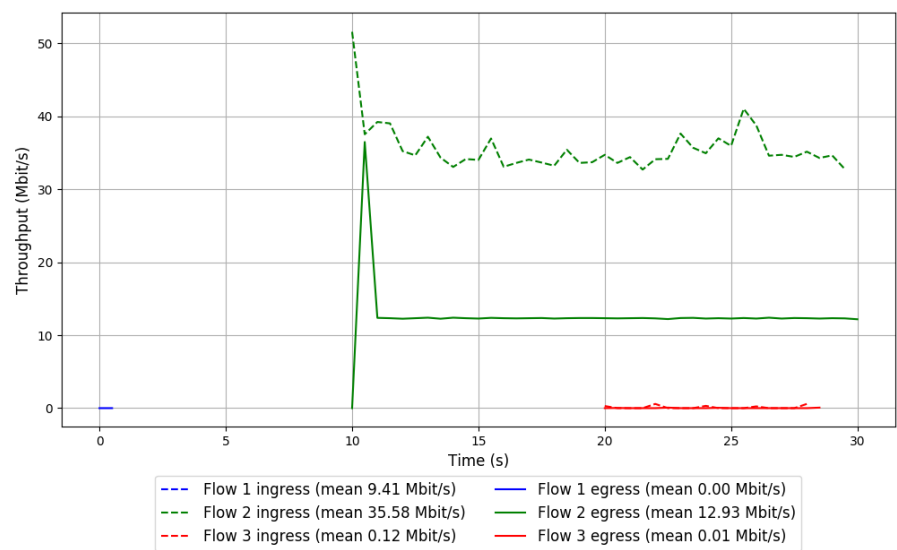


Run 1: Statistics of Copa

Start at: 2019-03-27 01:13:47
End at: 2019-03-27 01:14:17
Local clock offset: -1.063 ms
Remote clock offset: -0.258 ms

Below is generated by plot.py at 2019-03-27 03:06:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 2.635 ms
Loss rate: 63.70%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 1.056 ms
Loss rate: 97.24%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 2.635 ms
Loss rate: 63.66%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2.463 ms
Loss rate: 89.07%

Run 1: Report of Copa — Data Link

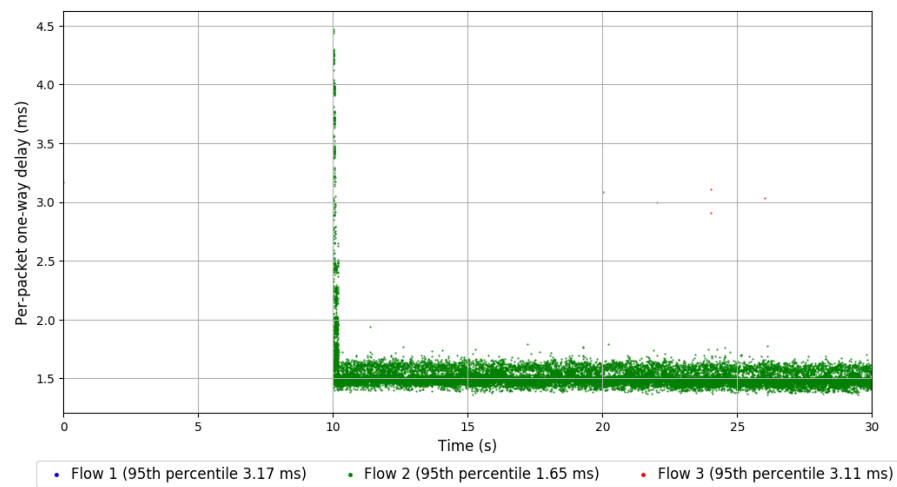
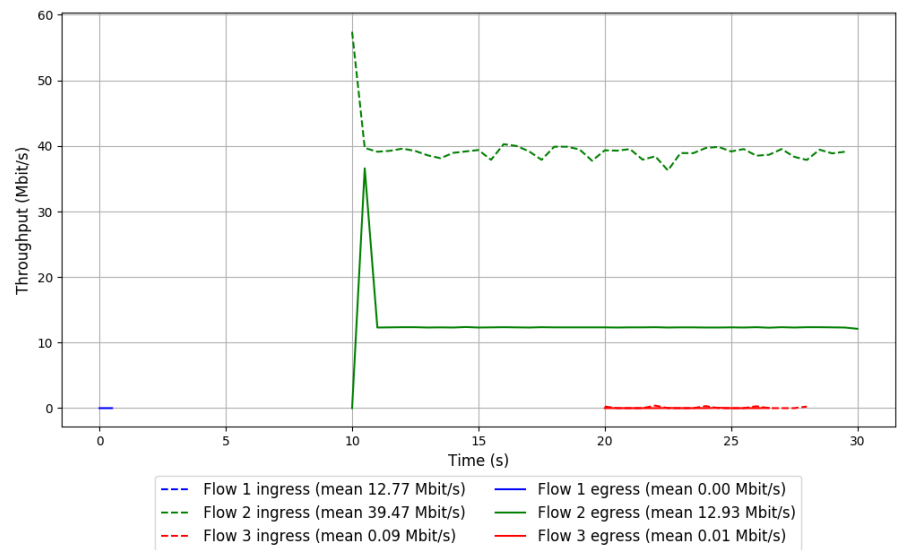


Run 2: Statistics of Copa

Start at: 2019-03-27 01:37:42
End at: 2019-03-27 01:38:12
Local clock offset: -6.394 ms
Remote clock offset: -0.185 ms

Below is generated by plot.py at 2019-03-27 03:06:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 1.656 ms
Loss rate: 67.26%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.169 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 12.93 Mbit/s
95th percentile per-packet one-way delay: 1.654 ms
Loss rate: 67.24%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3.108 ms
Loss rate: 93.31%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-03-27 02:01:38

End at: 2019-03-27 02:02:08

Local clock offset: -7.002 ms

Remote clock offset: 0.084 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

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

Loss rate: 67.48%

-- Flow 1:

Average throughput: 0.00 Mbit/s

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

Loss rate: 98.33%

-- Flow 2:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 1.129 ms

Loss rate: 67.45%

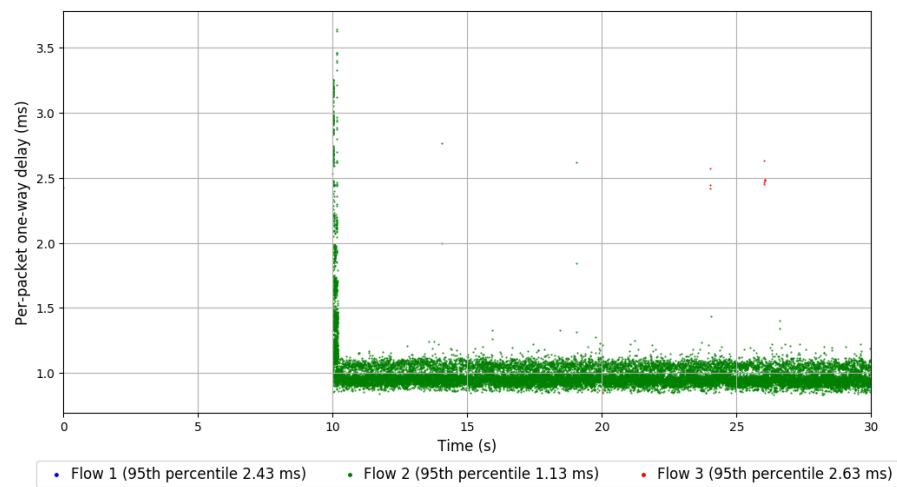
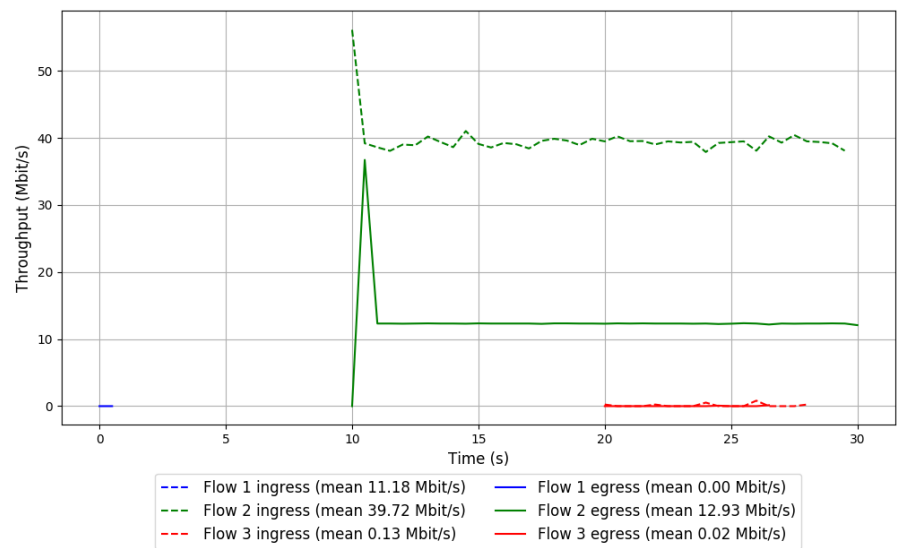
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 2.632 ms

Loss rate: 89.45%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-03-27 02:25:33

End at: 2019-03-27 02:26:03

Local clock offset: -7.81 ms

Remote clock offset: 0.172 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 3.317 ms

Loss rate: 65.96%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3.252 ms

Loss rate: 97.92%

-- Flow 2:

Average throughput: 10.41 Mbit/s

95th percentile per-packet one-way delay: 3.415 ms

Loss rate: 63.52%

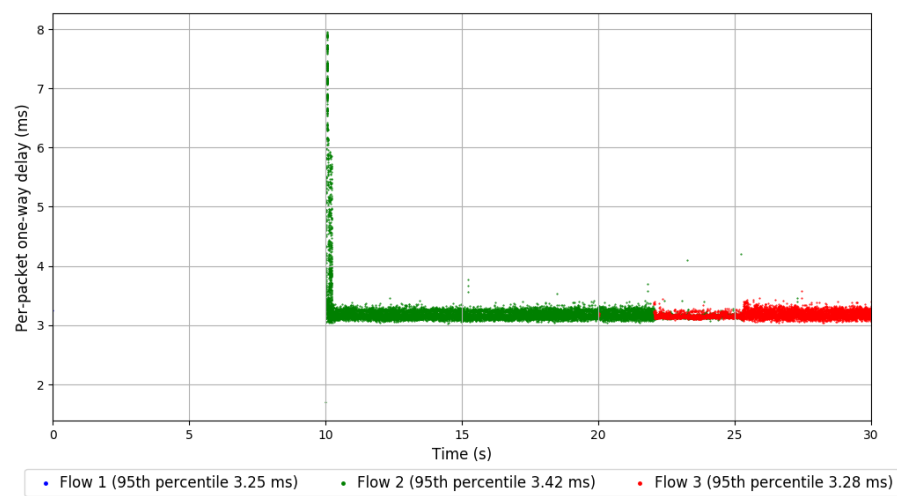
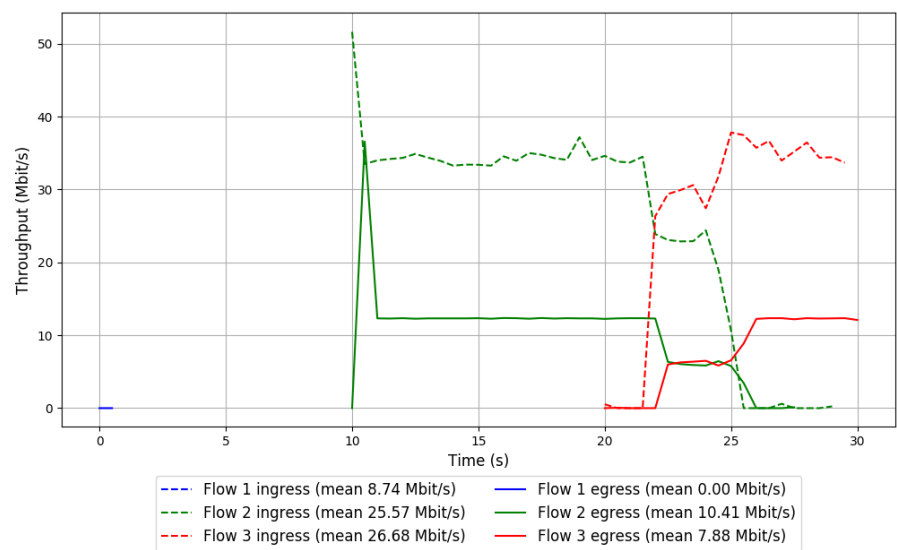
-- Flow 3:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 3.280 ms

Loss rate: 70.47%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-03-27 02:49:31

End at: 2019-03-27 02:50:01

Local clock offset: -6.72 ms

Remote clock offset: 0.151 ms

Below is generated by plot.py at 2019-03-27 03:06:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 3.722 ms

Loss rate: 63.45%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3.532 ms

Loss rate: 97.24%

-- Flow 2:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 3.722 ms

Loss rate: 63.42%

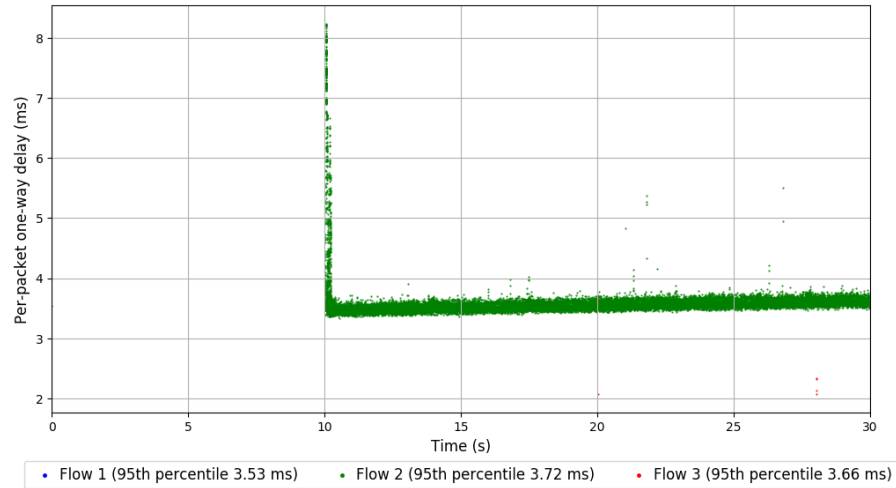
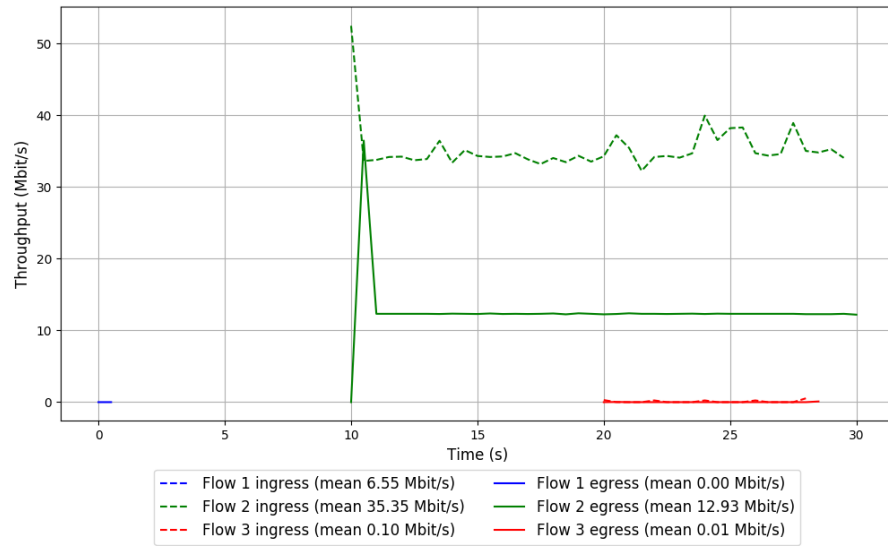
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3.663 ms

Loss rate: 92.07%

Run 5: Report of Copa — Data Link

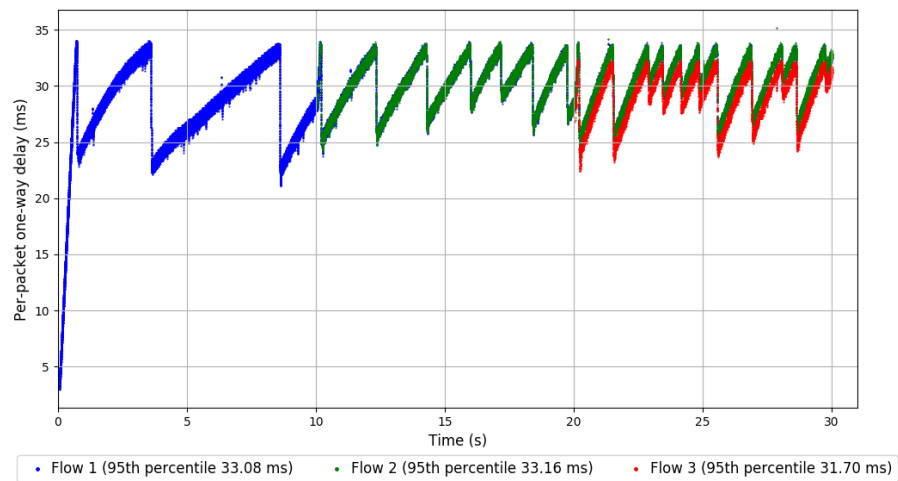
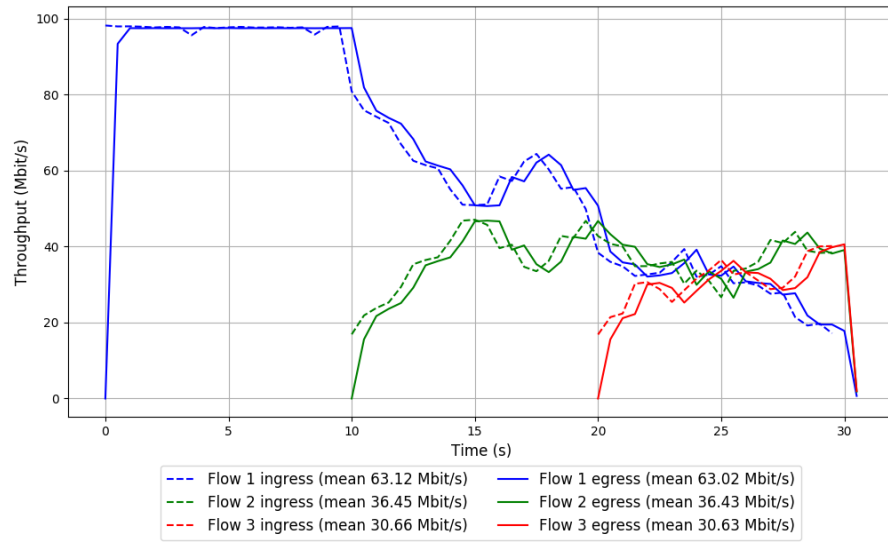


Run 1: Statistics of TCP Cubic

Start at: 2019-03-27 01:17:10
End at: 2019-03-27 01:17:40
Local clock offset: -2.303 ms
Remote clock offset: -0.231 ms

Below is generated by plot.py at 2019-03-27 03:06:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 33.077 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 33.084 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 36.43 Mbit/s
95th percentile per-packet one-way delay: 33.160 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 30.63 Mbit/s
95th percentile per-packet one-way delay: 31.700 ms
Loss rate: 0.05%

Run 1: Report of TCP Cubic — Data Link

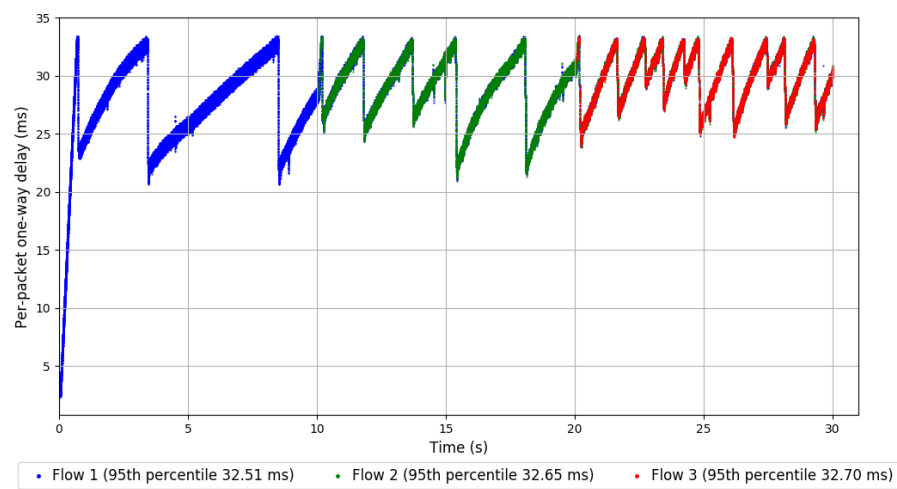
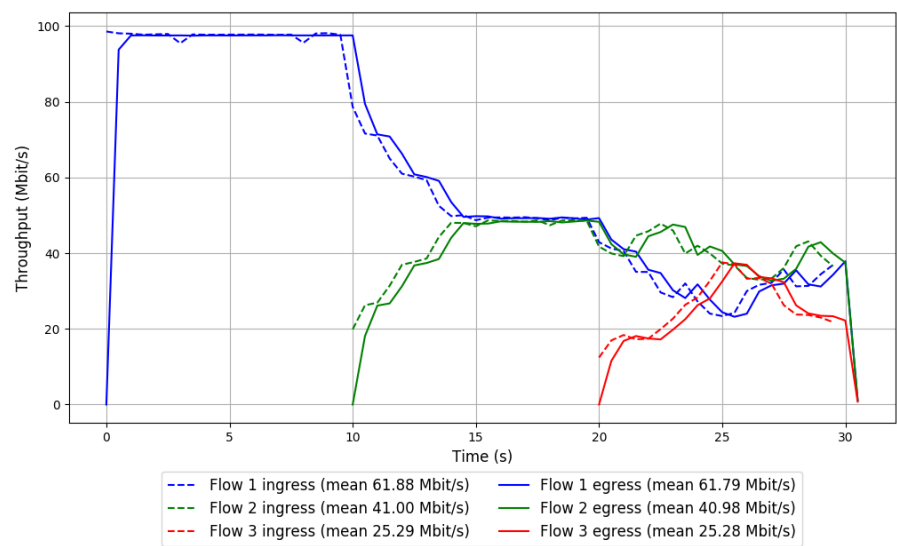


Run 2: Statistics of TCP Cubic

Start at: 2019-03-27 01:41:07
End at: 2019-03-27 01:41:37
Local clock offset: -5.872 ms
Remote clock offset: -0.045 ms

Below is generated by plot.py at 2019-03-27 03:06:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.46 Mbit/s
95th percentile per-packet one-way delay: 32.632 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 61.79 Mbit/s
95th percentile per-packet one-way delay: 32.505 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 40.98 Mbit/s
95th percentile per-packet one-way delay: 32.651 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 25.28 Mbit/s
95th percentile per-packet one-way delay: 32.705 ms
Loss rate: 0.03%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-03-27 02:05:02

End at: 2019-03-27 02:05:32

Local clock offset: -7.899 ms

Remote clock offset: 0.107 ms

Below is generated by plot.py at 2019-03-27 03:07:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 33.262 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 67.08 Mbit/s

95th percentile per-packet one-way delay: 33.307 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 33.50 Mbit/s

95th percentile per-packet one-way delay: 31.993 ms

Loss rate: 0.04%

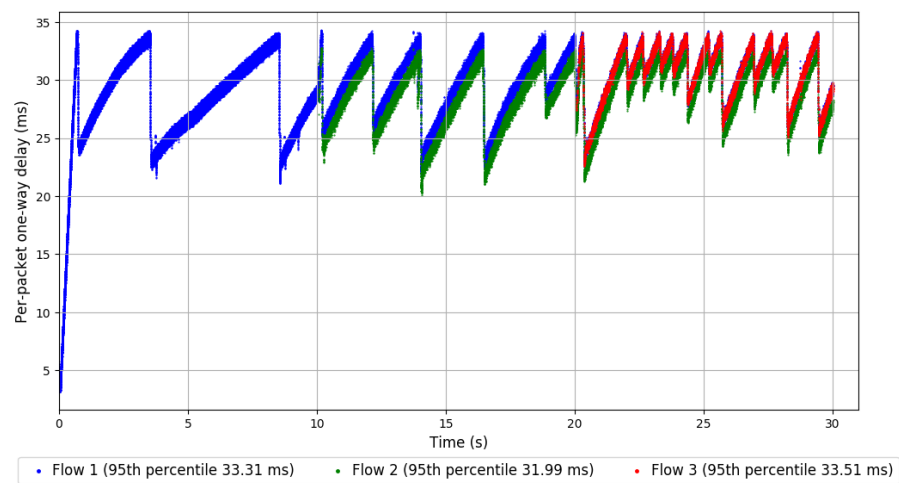
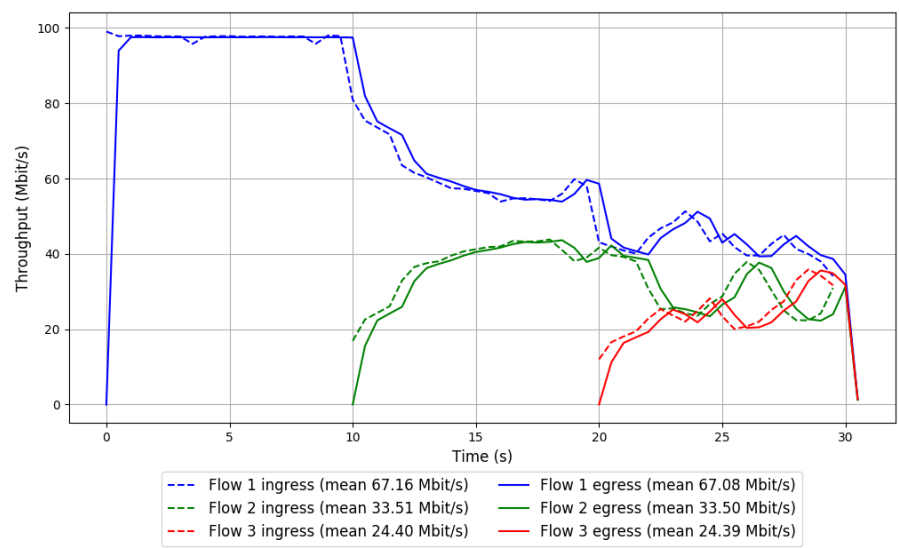
-- Flow 3:

Average throughput: 24.39 Mbit/s

95th percentile per-packet one-way delay: 33.513 ms

Loss rate: 0.03%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-03-27 02:28:57

End at: 2019-03-27 02:29:27

Local clock offset: -7.014 ms

Remote clock offset: 0.132 ms

Below is generated by plot.py at 2019-03-27 03:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.95 Mbit/s

95th percentile per-packet one-way delay: 32.360 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 64.14 Mbit/s

95th percentile per-packet one-way delay: 32.466 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 32.19 Mbit/s

95th percentile per-packet one-way delay: 31.126 ms

Loss rate: 0.05%

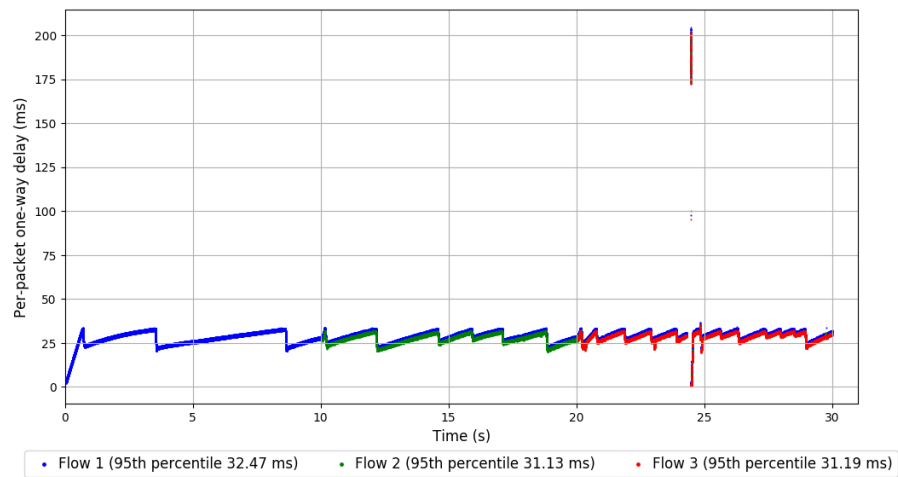
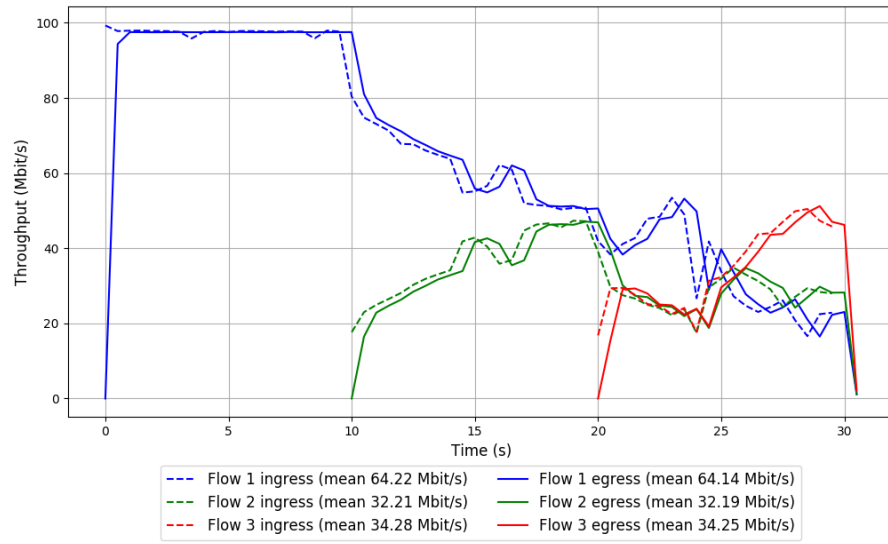
-- Flow 3:

Average throughput: 34.25 Mbit/s

95th percentile per-packet one-way delay: 31.188 ms

Loss rate: 0.03%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-03-27 02:52:54

End at: 2019-03-27 02:53:24

Local clock offset: -4.508 ms

Remote clock offset: 0.171 ms

Below is generated by plot.py at 2019-03-27 03:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 32.282 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 63.68 Mbit/s

95th percentile per-packet one-way delay: 31.239 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 35.93 Mbit/s

95th percentile per-packet one-way delay: 32.914 ms

Loss rate: 0.03%

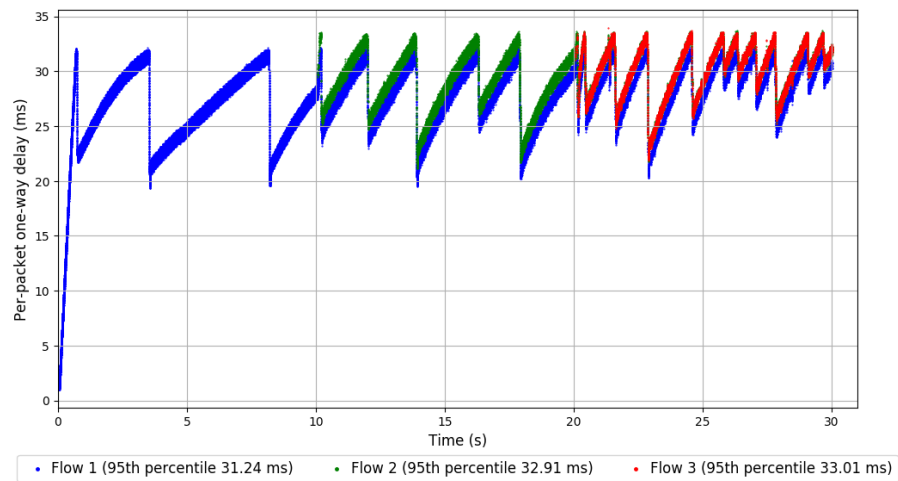
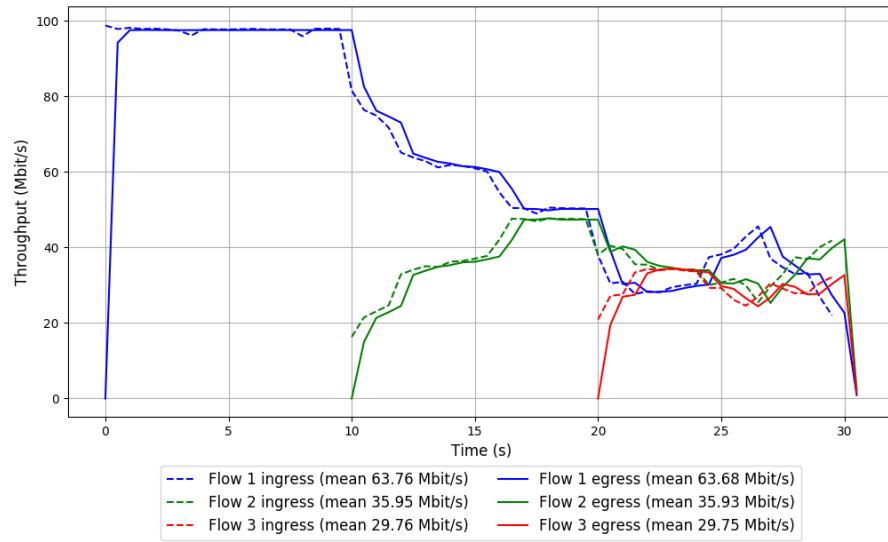
-- Flow 3:

Average throughput: 29.75 Mbit/s

95th percentile per-packet one-way delay: 33.010 ms

Loss rate: 0.04%

Run 5: Report of TCP Cubic — Data Link

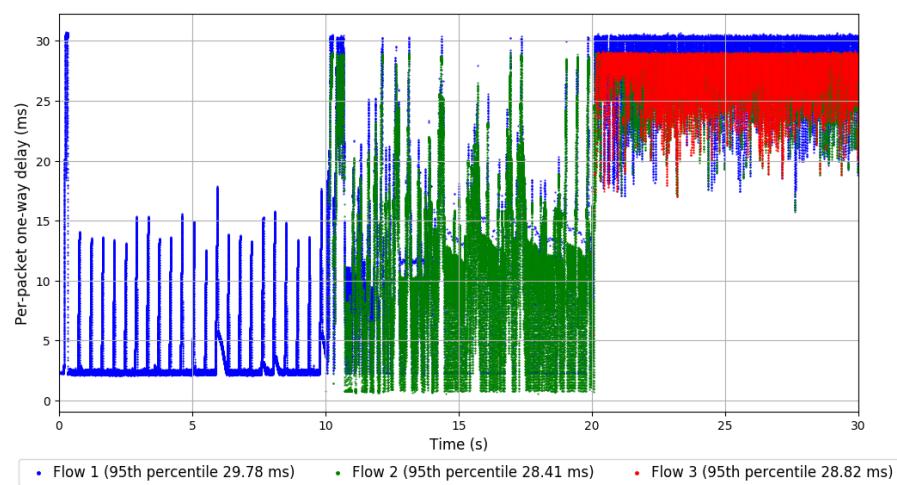
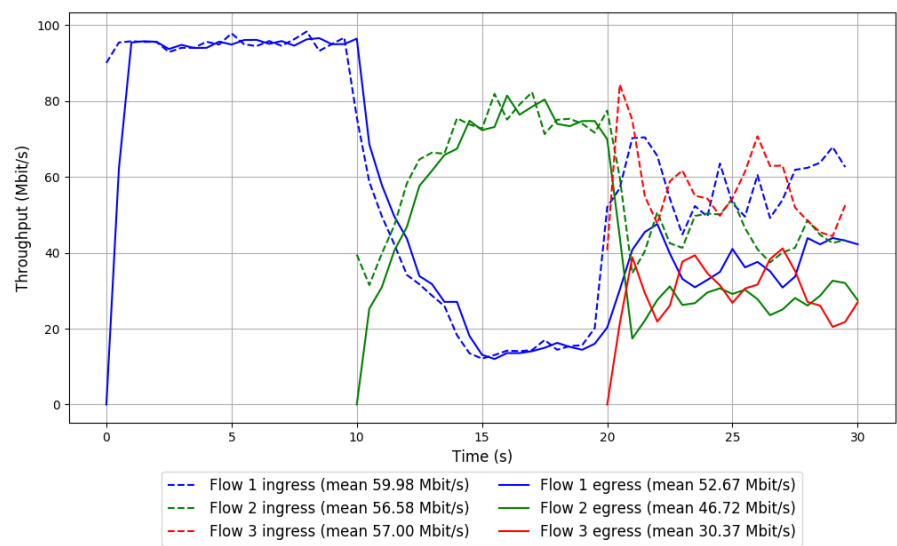


Run 1: Statistics of FillP

Start at: 2019-03-27 01:05:50
End at: 2019-03-27 01:06:20
Local clock offset: -1.353 ms
Remote clock offset: -0.355 ms

Below is generated by plot.py at 2019-03-27 03:08:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.84 Mbit/s
95th percentile per-packet one-way delay: 29.104 ms
Loss rate: 19.42%
-- Flow 1:
Average throughput: 52.67 Mbit/s
95th percentile per-packet one-way delay: 29.780 ms
Loss rate: 12.10%
-- Flow 2:
Average throughput: 46.72 Mbit/s
95th percentile per-packet one-way delay: 28.405 ms
Loss rate: 17.36%
-- Flow 3:
Average throughput: 30.37 Mbit/s
95th percentile per-packet one-way delay: 28.818 ms
Loss rate: 46.67%

Run 1: Report of FillP — Data Link

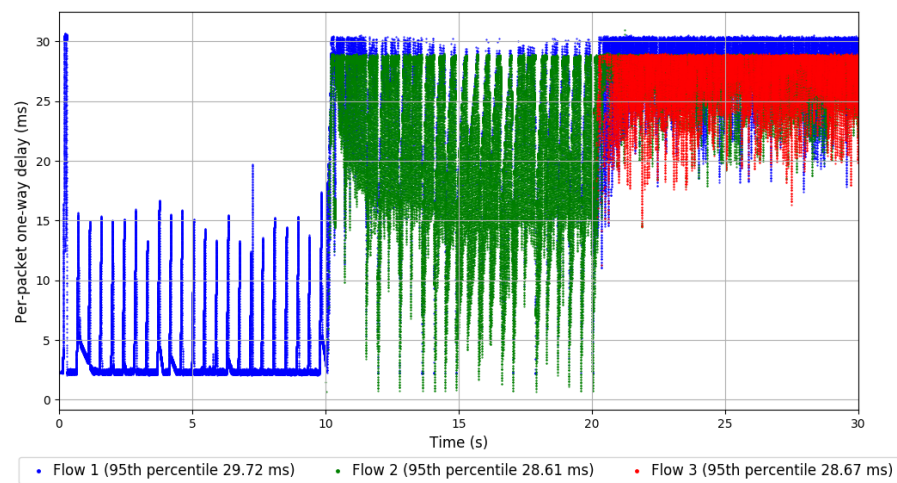
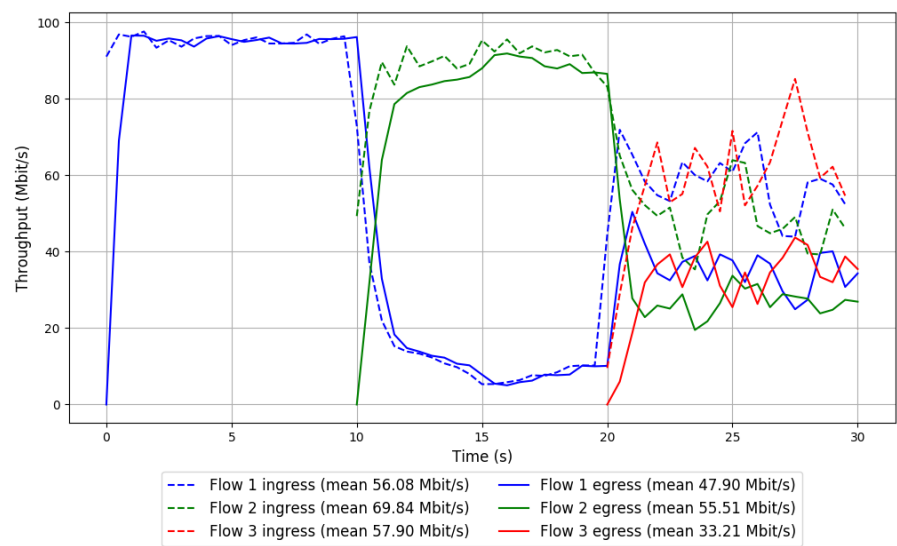


Run 2: Statistics of FillP

Start at: 2019-03-27 01:29:45
End at: 2019-03-27 01:30:15
Local clock offset: -4.84 ms
Remote clock offset: -0.163 ms

Below is generated by plot.py at 2019-03-27 03:08:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 28.936 ms
Loss rate: 21.20%
-- Flow 1:
Average throughput: 47.90 Mbit/s
95th percentile per-packet one-way delay: 29.721 ms
Loss rate: 14.51%
-- Flow 2:
Average throughput: 55.51 Mbit/s
95th percentile per-packet one-way delay: 28.615 ms
Loss rate: 20.43%
-- Flow 3:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 28.670 ms
Loss rate: 42.61%

Run 2: Report of FillP — Data Link

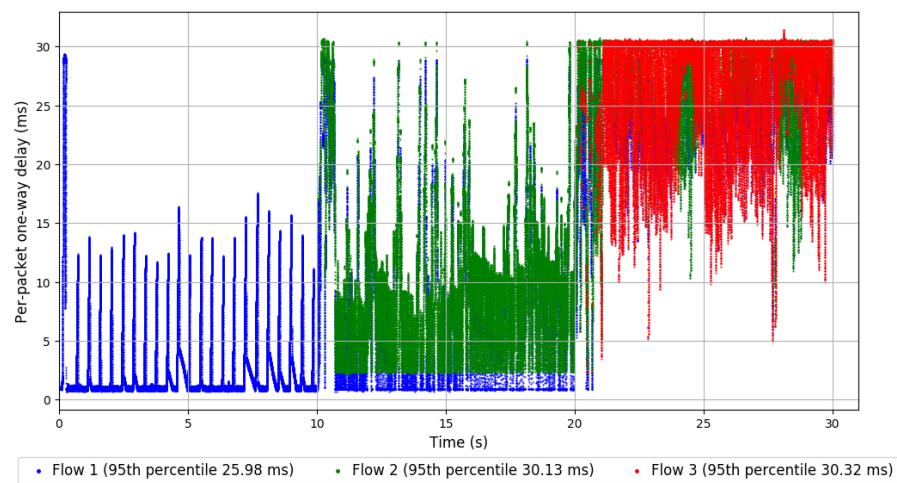
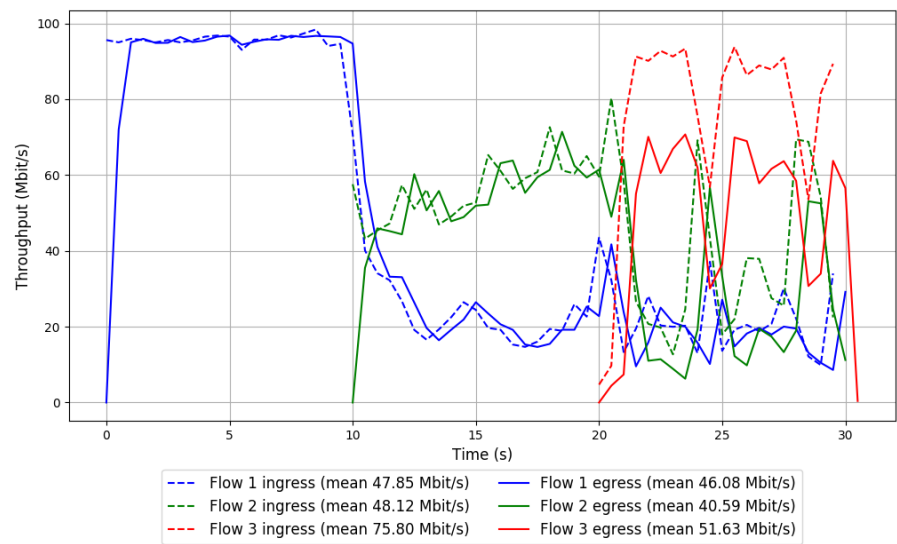


Run 3: Statistics of FillP

Start at: 2019-03-27 01:53:41
End at: 2019-03-27 01:54:11
Local clock offset: -6.639 ms
Remote clock offset: 0.016 ms

Below is generated by plot.py at 2019-03-27 03:08:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.24 Mbit/s
95th percentile per-packet one-way delay: 30.133 ms
Loss rate: 14.02%
-- Flow 1:
Average throughput: 46.08 Mbit/s
95th percentile per-packet one-way delay: 25.981 ms
Loss rate: 3.62%
-- Flow 2:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 30.127 ms
Loss rate: 15.54%
-- Flow 3:
Average throughput: 51.63 Mbit/s
95th percentile per-packet one-way delay: 30.324 ms
Loss rate: 31.84%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-03-27 02:17:36

End at: 2019-03-27 02:18:06

Local clock offset: -8.228 ms

Remote clock offset: 0.072 ms

Below is generated by plot.py at 2019-03-27 03:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.52 Mbit/s

95th percentile per-packet one-way delay: 30.995 ms

Loss rate: 14.63%

-- Flow 1:

Average throughput: 42.48 Mbit/s

95th percentile per-packet one-way delay: 25.697 ms

Loss rate: 3.05%

-- Flow 2:

Average throughput: 38.36 Mbit/s

95th percentile per-packet one-way delay: 31.006 ms

Loss rate: 13.31%

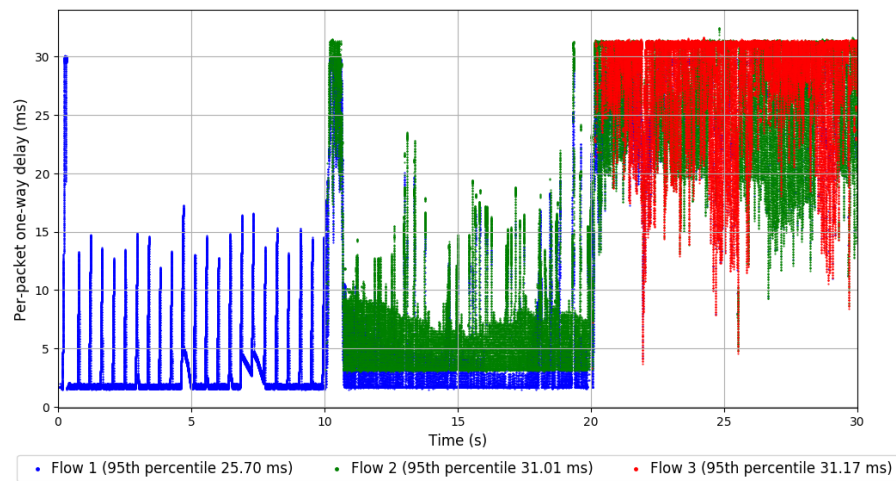
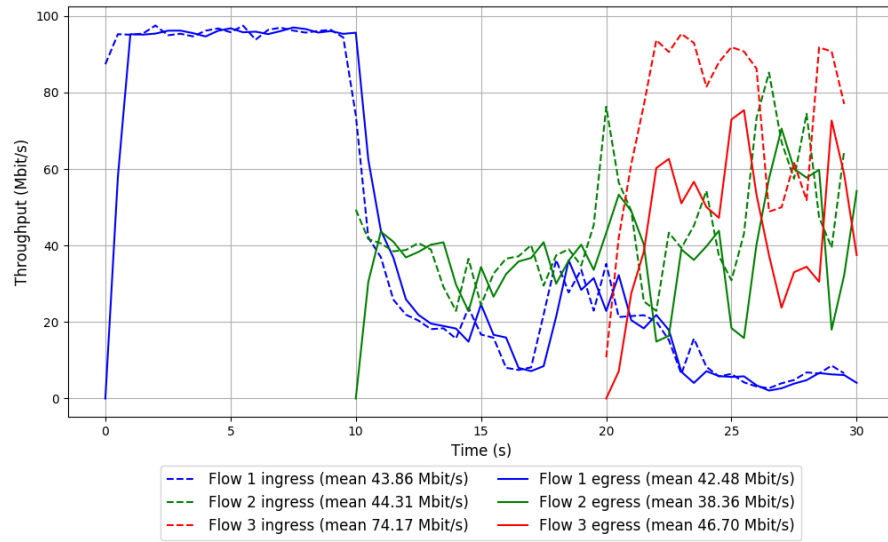
-- Flow 3:

Average throughput: 46.70 Mbit/s

95th percentile per-packet one-way delay: 31.171 ms

Loss rate: 36.85%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-03-27 02:41:32

End at: 2019-03-27 02:42:02

Local clock offset: -7.999 ms

Remote clock offset: 0.153 ms

Below is generated by plot.py at 2019-03-27 03:08:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.70 Mbit/s

95th percentile per-packet one-way delay: 30.553 ms

Loss rate: 20.30%

-- Flow 1:

Average throughput: 46.23 Mbit/s

95th percentile per-packet one-way delay: 30.570 ms

Loss rate: 13.07%

-- Flow 2:

Average throughput: 56.91 Mbit/s

95th percentile per-packet one-way delay: 29.534 ms

Loss rate: 20.33%

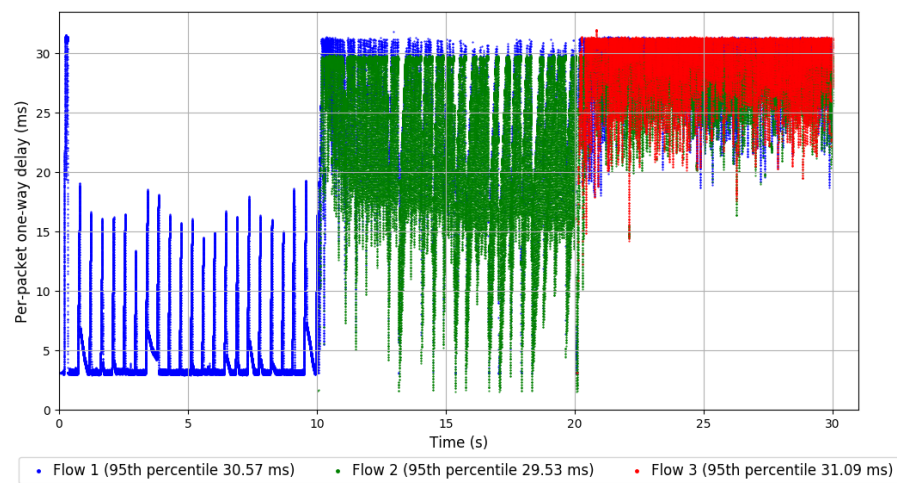
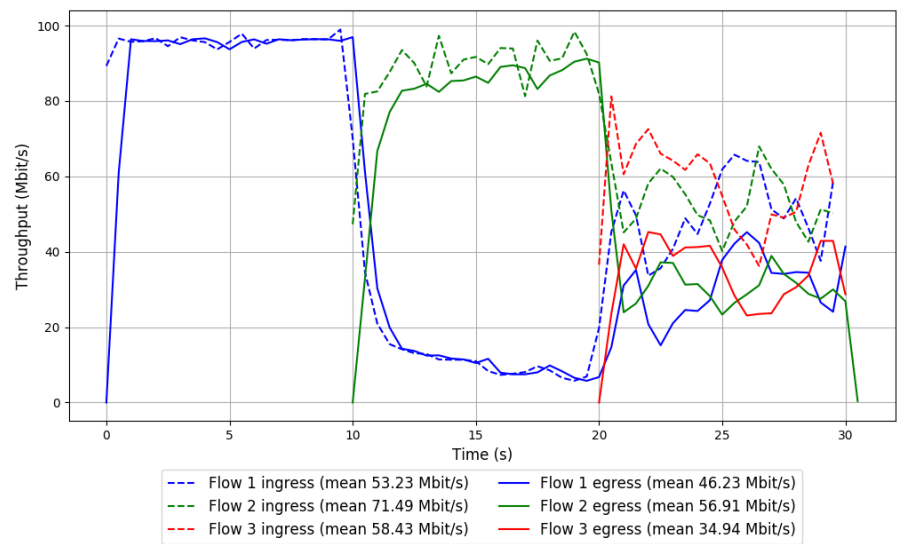
-- Flow 3:

Average throughput: 34.94 Mbit/s

95th percentile per-packet one-way delay: 31.086 ms

Loss rate: 40.11%

Run 5: Report of FillP — Data Link

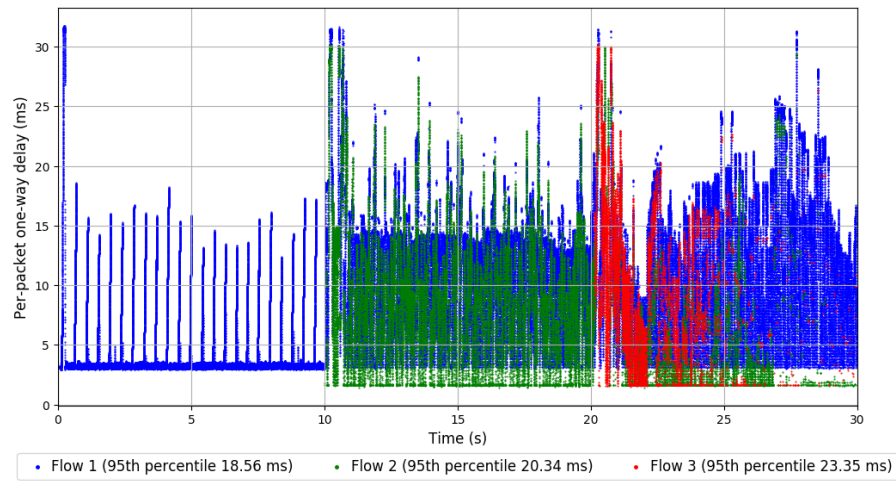
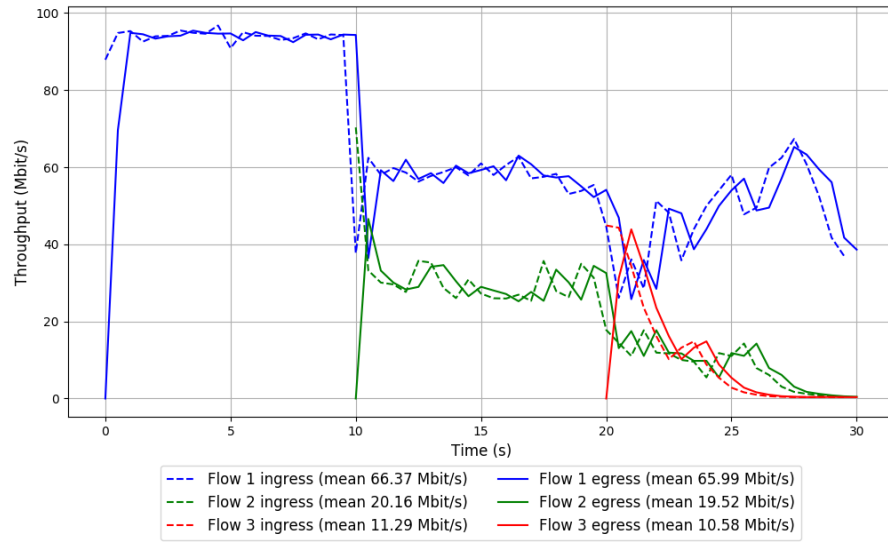


Run 1: Statistics of FillP-Sheep

Start at: 2019-03-27 01:09:18
End at: 2019-03-27 01:09:48
Local clock offset: -1.959 ms
Remote clock offset: -0.274 ms

Below is generated by plot.py at 2019-03-27 03:08:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 82.48 Mbit/s
95th percentile per-packet one-way delay: 19.043 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 65.99 Mbit/s
95th percentile per-packet one-way delay: 18.556 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 19.52 Mbit/s
95th percentile per-packet one-way delay: 20.336 ms
Loss rate: 3.16%
-- Flow 3:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 23.354 ms
Loss rate: 6.28%

Run 1: Report of FillP-Sheep — Data Link

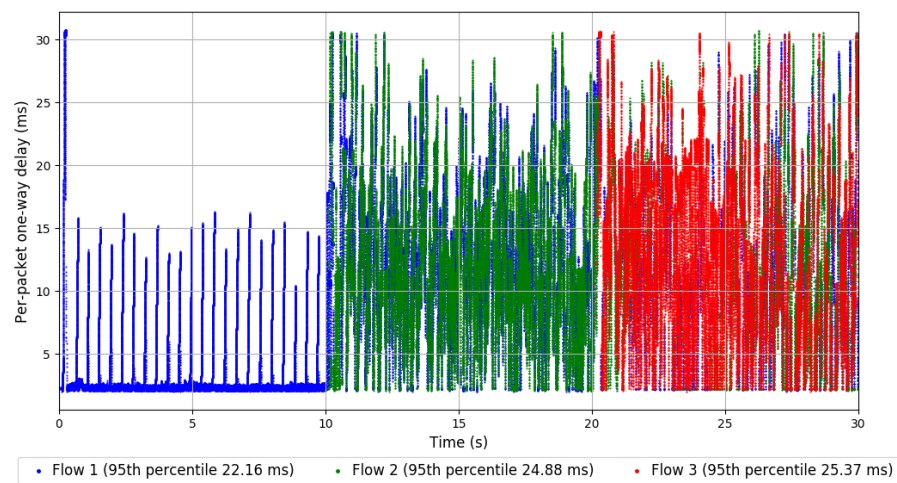
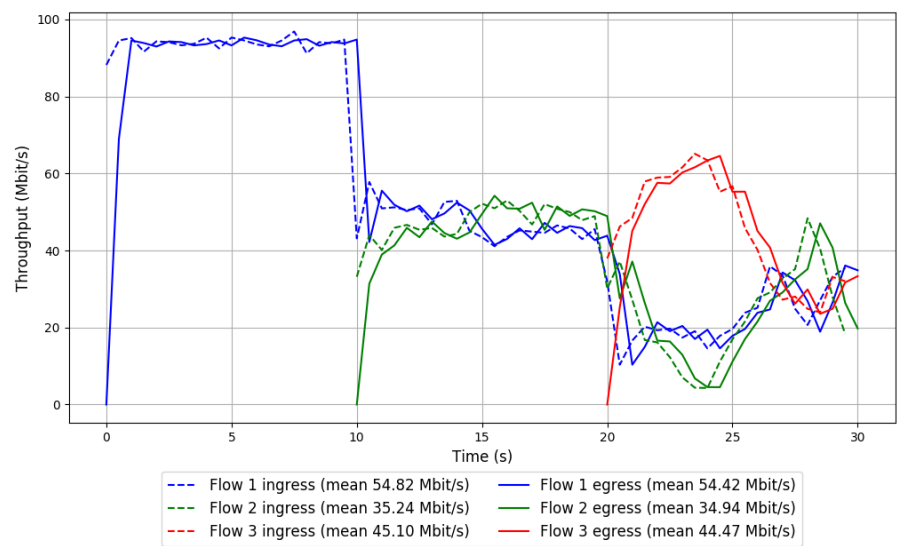


Run 2: Statistics of FillP-Sheep

Start at: 2019-03-27 01:33:12
End at: 2019-03-27 01:33:42
Local clock offset: -5.269 ms
Remote clock offset: -0.181 ms

Below is generated by plot.py at 2019-03-27 03:09:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.44 Mbit/s
95th percentile per-packet one-way delay: 23.828 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 54.42 Mbit/s
95th percentile per-packet one-way delay: 22.156 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 34.94 Mbit/s
95th percentile per-packet one-way delay: 24.880 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 25.368 ms
Loss rate: 1.41%

Run 2: Report of FillP-Sheep — Data Link

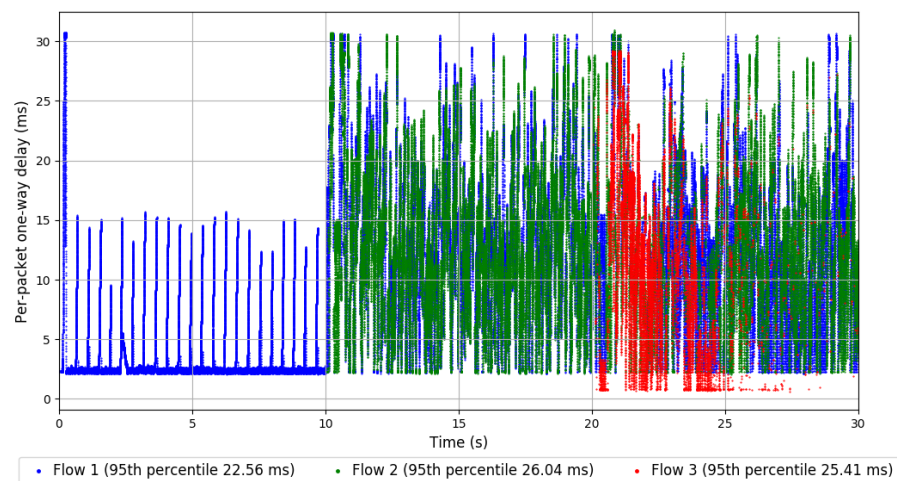
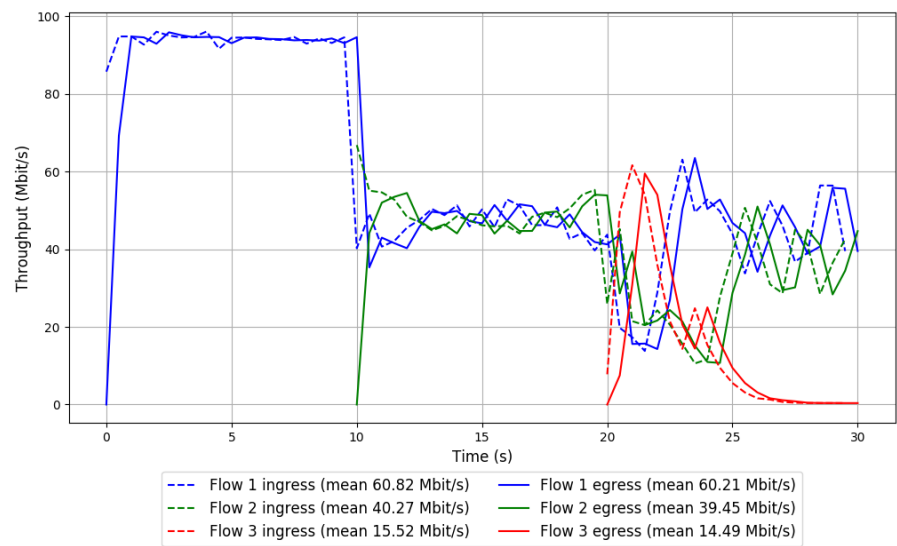


Run 3: Statistics of FillP-Sheep

Start at: 2019-03-27 01:57:08
End at: 2019-03-27 01:57:38
Local clock offset: -6.732 ms
Remote clock offset: -0.019 ms

Below is generated by plot.py at 2019-03-27 03:09:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 24.049 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 60.21 Mbit/s
95th percentile per-packet one-way delay: 22.563 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 26.044 ms
Loss rate: 2.03%
-- Flow 3:
Average throughput: 14.49 Mbit/s
95th percentile per-packet one-way delay: 25.408 ms
Loss rate: 6.80%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-03-27 02:21:03

End at: 2019-03-27 02:21:33

Local clock offset: -7.945 ms

Remote clock offset: 0.081 ms

Below is generated by plot.py at 2019-03-27 03:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.28 Mbit/s

95th percentile per-packet one-way delay: 20.702 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 18.601 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 17.74 Mbit/s

95th percentile per-packet one-way delay: 24.342 ms

Loss rate: 2.66%

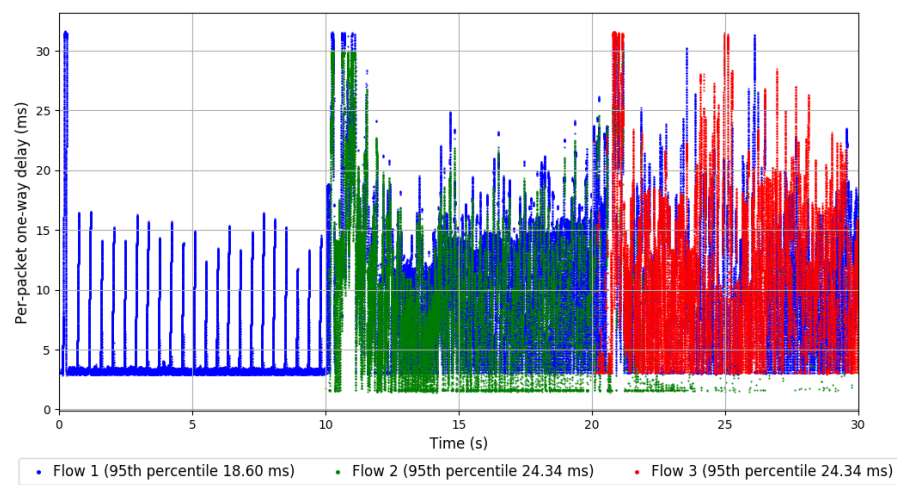
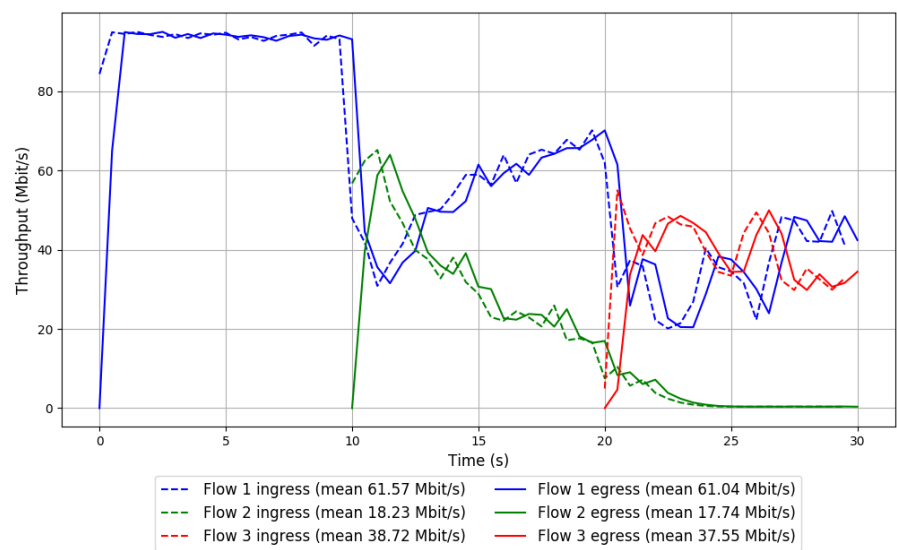
-- Flow 3:

Average throughput: 37.55 Mbit/s

95th percentile per-packet one-way delay: 24.339 ms

Loss rate: 2.92%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-03-27 02:45:00

End at: 2019-03-27 02:45:30

Local clock offset: -7.976 ms

Remote clock offset: 0.174 ms

Below is generated by plot.py at 2019-03-27 03:09:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.76 Mbit/s

95th percentile per-packet one-way delay: 20.379 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 57.44 Mbit/s

95th percentile per-packet one-way delay: 19.044 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 38.49 Mbit/s

95th percentile per-packet one-way delay: 21.903 ms

Loss rate: 0.87%

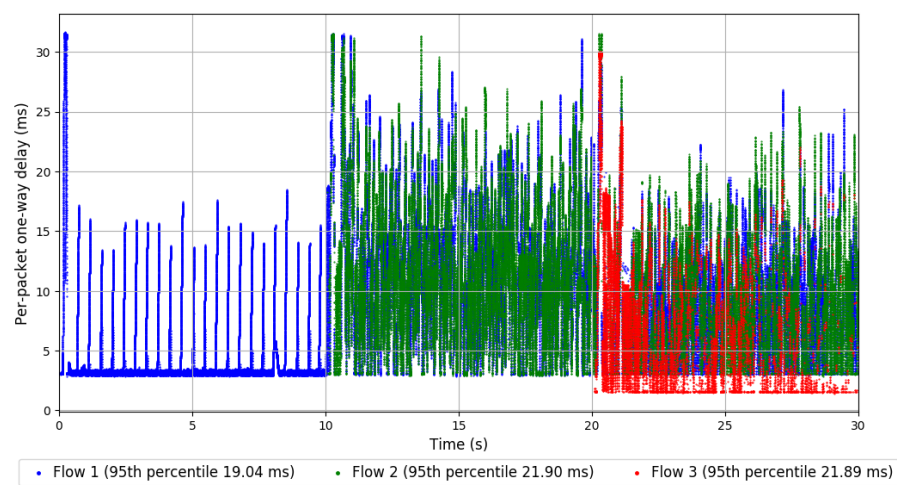
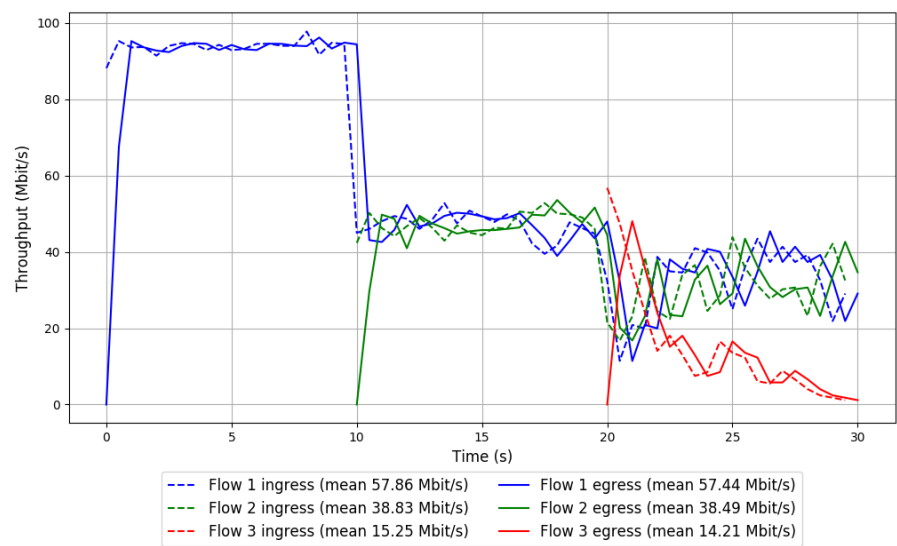
-- Flow 3:

Average throughput: 14.21 Mbit/s

95th percentile per-packet one-way delay: 21.889 ms

Loss rate: 6.81%

Run 5: Report of FillP-Sheep — Data Link

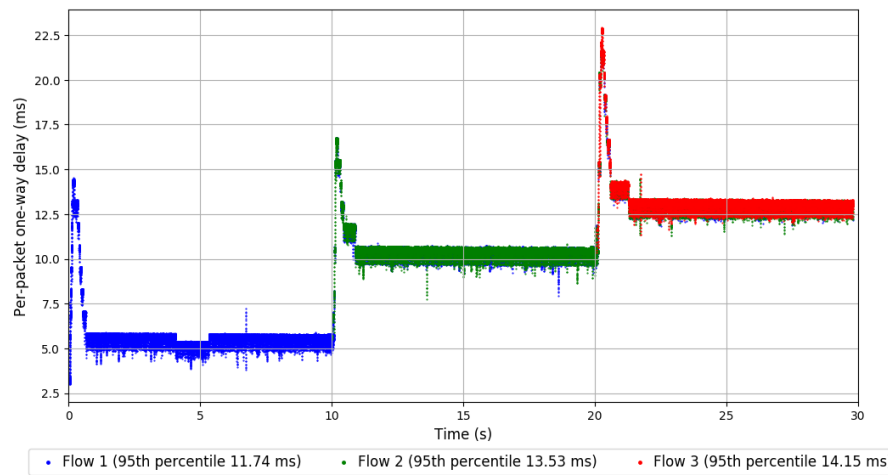
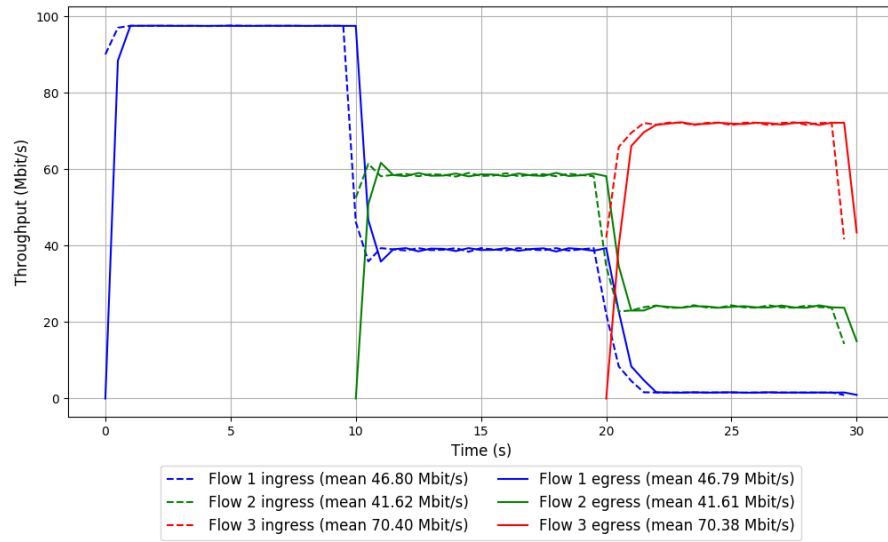


```
Run 1: Statistics of Indigo

Start at: 2019-03-27 01:16:00
End at: 2019-03-27 01:16:30
Local clock offset: -1.751 ms
Remote clock offset: -0.18 ms

# Below is generated by plot.py at 2019-03-27 03:09:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.38 Mbit/s
95th percentile per-packet one-way delay: 13.311 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 11.736 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 13.532 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.38 Mbit/s
95th percentile per-packet one-way delay: 14.151 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

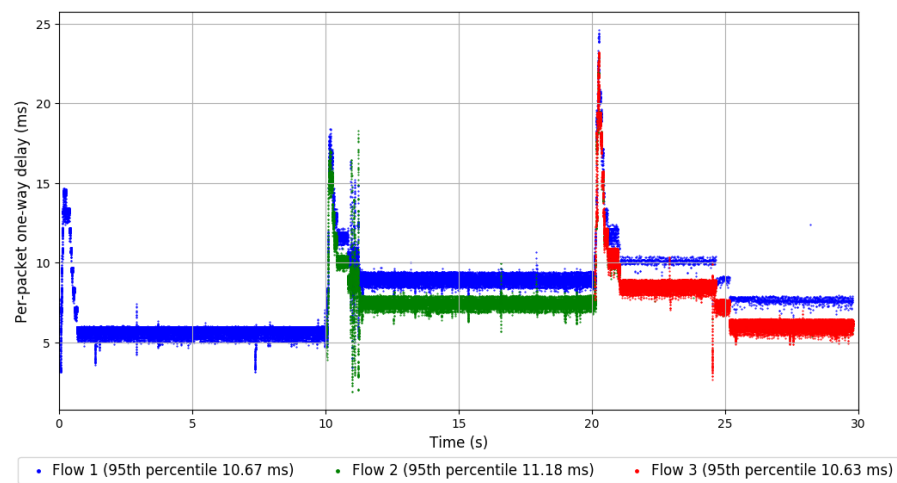
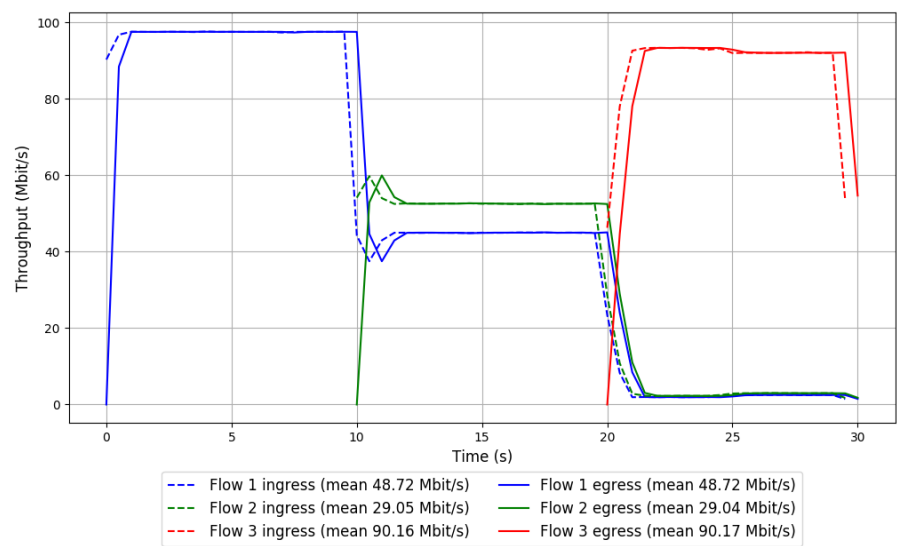


Run 2: Statistics of Indigo

Start at: 2019-03-27 01:39:57
End at: 2019-03-27 01:40:27
Local clock offset: -6.618 ms
Remote clock offset: -0.017 ms

Below is generated by plot.py at 2019-03-27 03:09:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.36 Mbit/s
95th percentile per-packet one-way delay: 10.647 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 48.72 Mbit/s
95th percentile per-packet one-way delay: 10.673 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.04 Mbit/s
95th percentile per-packet one-way delay: 11.175 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 90.17 Mbit/s
95th percentile per-packet one-way delay: 10.628 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-03-27 02:03:52

End at: 2019-03-27 02:04:22

Local clock offset: -7.074 ms

Remote clock offset: 0.051 ms

Below is generated by plot.py at 2019-03-27 03:09:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 12.145 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.83 Mbit/s

95th percentile per-packet one-way delay: 10.242 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.00 Mbit/s

95th percentile per-packet one-way delay: 12.822 ms

Loss rate: 0.00%

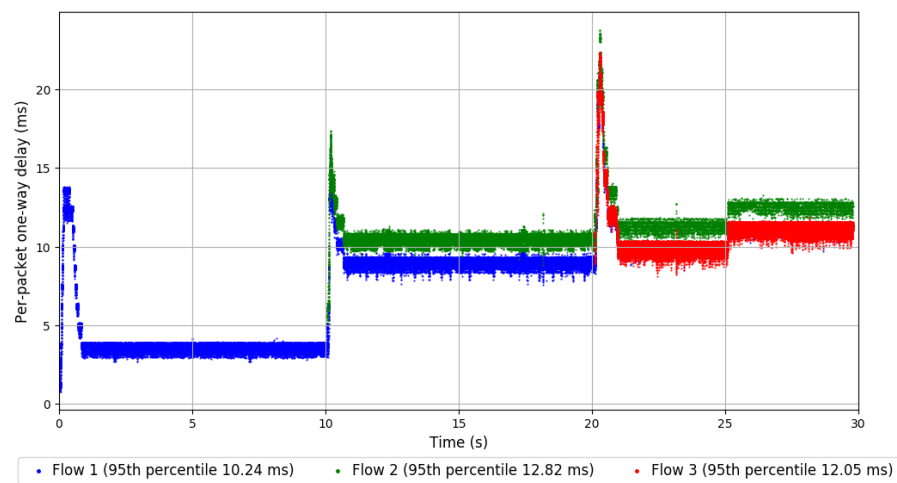
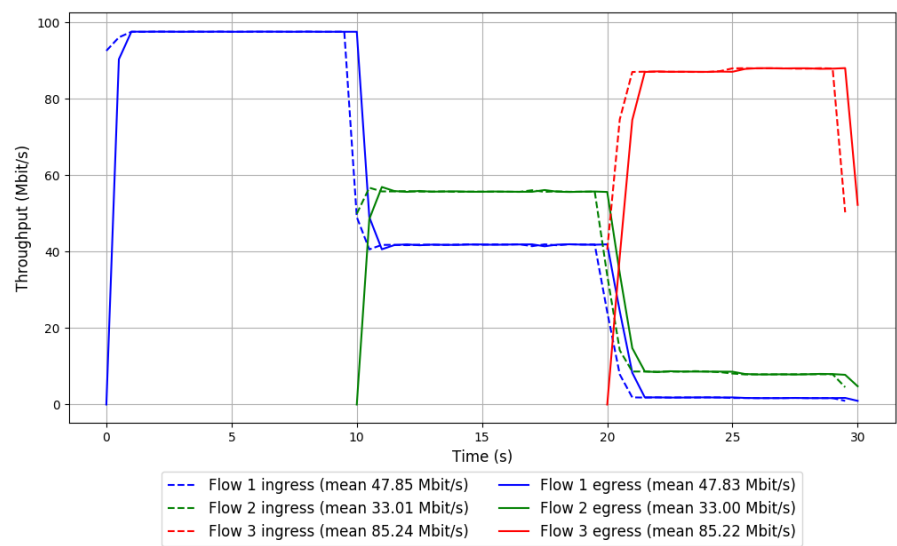
-- Flow 3:

Average throughput: 85.22 Mbit/s

95th percentile per-packet one-way delay: 12.055 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-03-27 02:27:47

End at: 2019-03-27 02:28:17

Local clock offset: -7.794 ms

Remote clock offset: 0.14 ms

Below is generated by plot.py at 2019-03-27 03:09:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.09 Mbit/s

95th percentile per-packet one-way delay: 10.833 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.28 Mbit/s

95th percentile per-packet one-way delay: 9.611 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.51 Mbit/s

95th percentile per-packet one-way delay: 10.784 ms

Loss rate: 0.00%

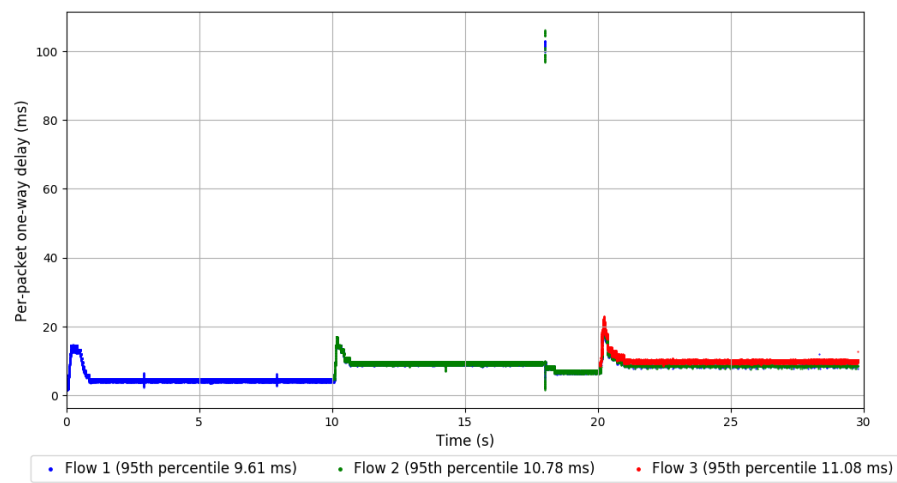
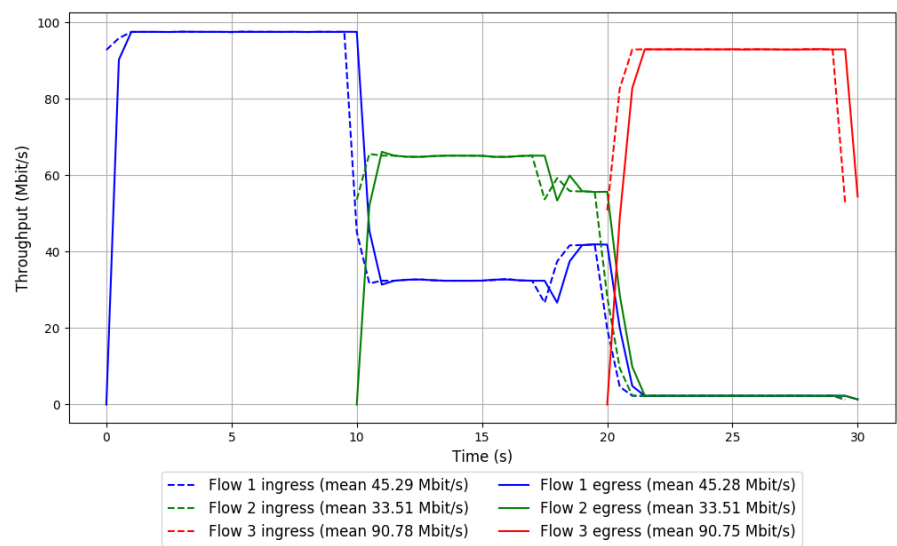
-- Flow 3:

Average throughput: 90.75 Mbit/s

95th percentile per-packet one-way delay: 11.078 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-03-27 02:51:43

End at: 2019-03-27 02:52:13

Local clock offset: -4.862 ms

Remote clock offset: 0.197 ms

Below is generated by plot.py at 2019-03-27 03:10:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 13.130 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.84 Mbit/s

95th percentile per-packet one-way delay: 11.314 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.57 Mbit/s

95th percentile per-packet one-way delay: 13.439 ms

Loss rate: 0.00%

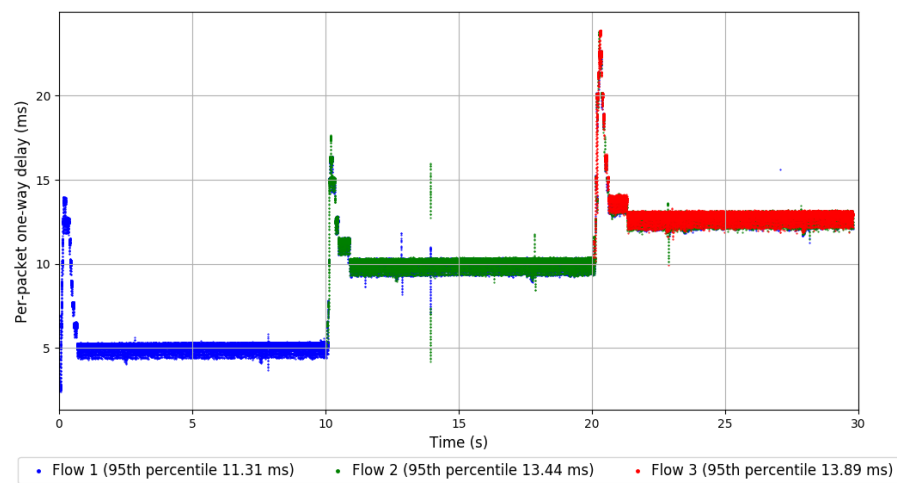
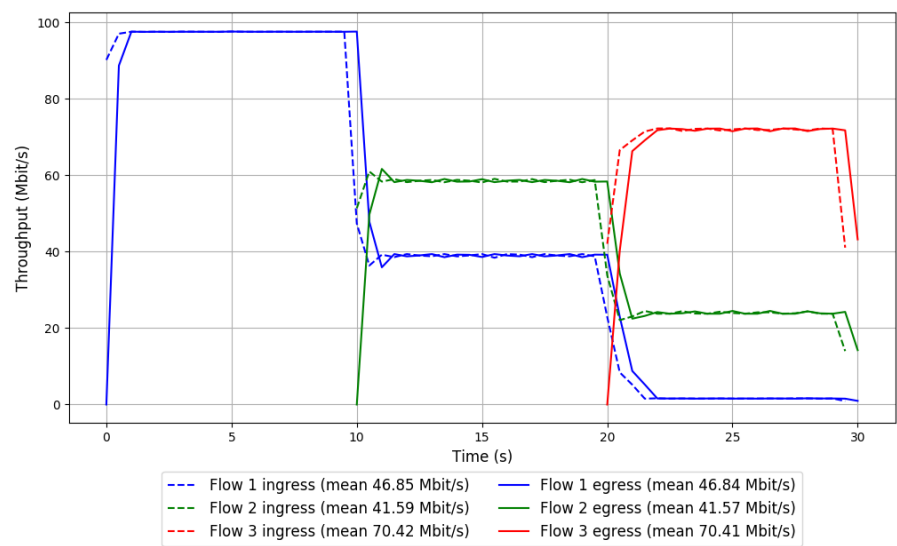
-- Flow 3:

Average throughput: 70.41 Mbit/s

95th percentile per-packet one-way delay: 13.890 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

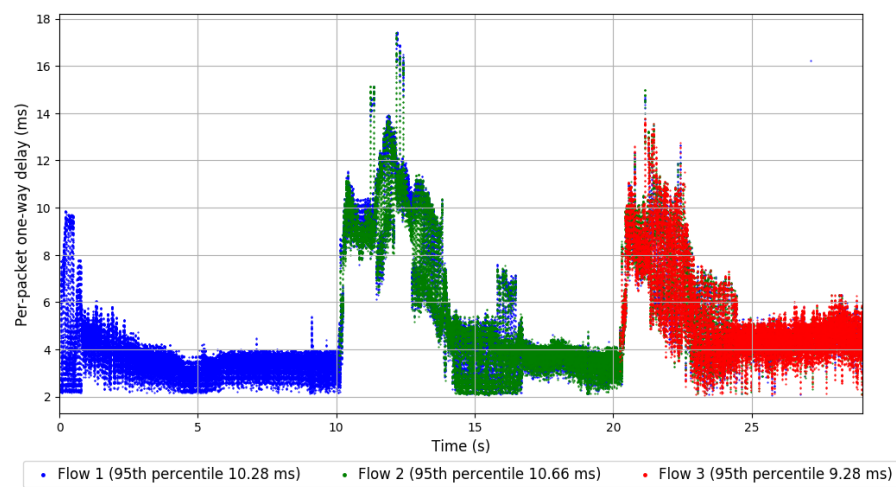
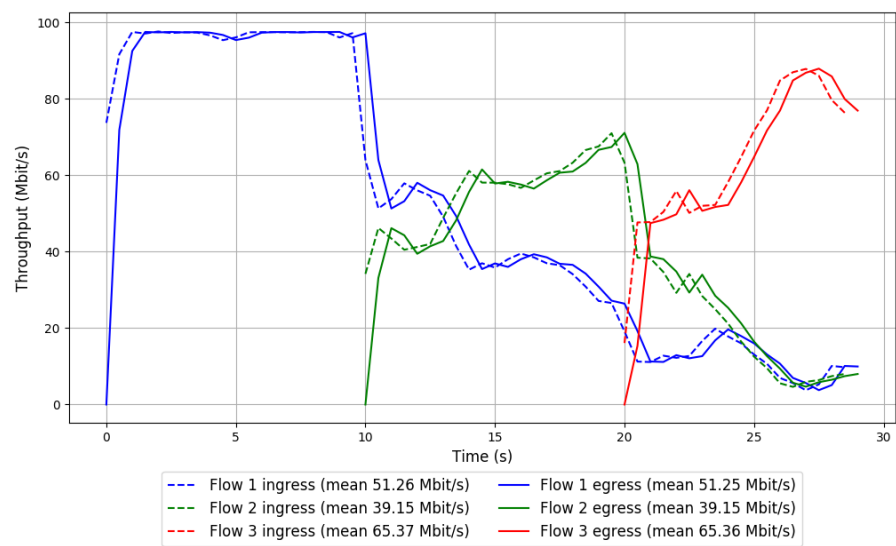


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-27 01:22:47
End at: 2019-03-27 01:23:17
Local clock offset: -3.501 ms
Remote clock offset: -0.198 ms

Below is generated by plot.py at 2019-03-27 03:10:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.53 Mbit/s
95th percentile per-packet one-way delay: 10.217 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.25 Mbit/s
95th percentile per-packet one-way delay: 10.284 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.15 Mbit/s
95th percentile per-packet one-way delay: 10.657 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 65.36 Mbit/s
95th percentile per-packet one-way delay: 9.278 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link

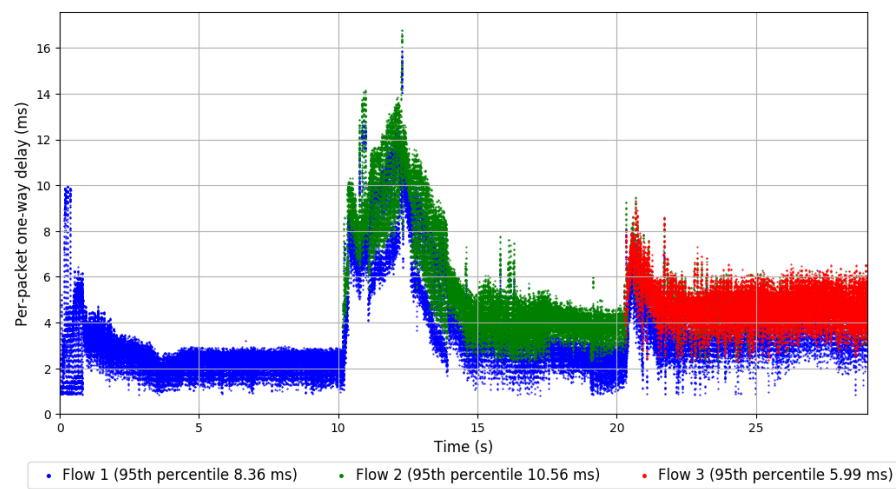
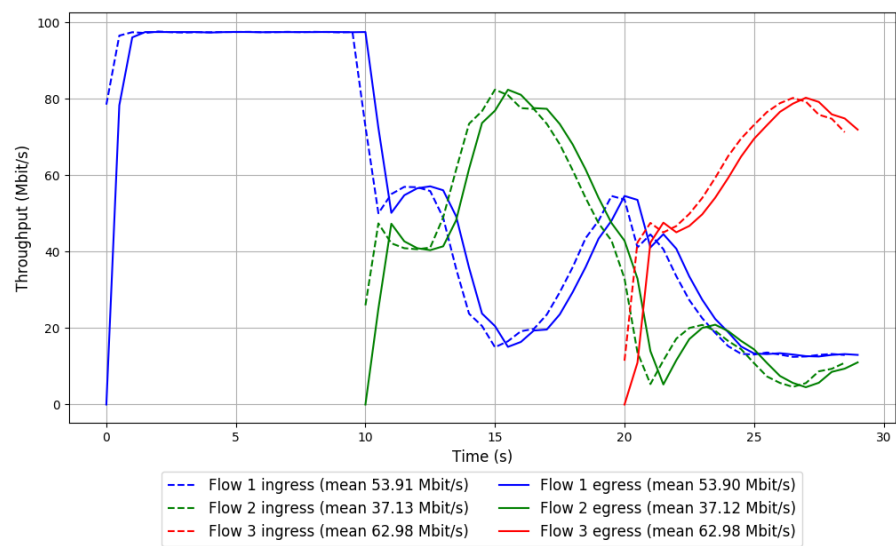


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-27 01:46:44
End at: 2019-03-27 01:47:14
Local clock offset: -6.251 ms
Remote clock offset: -0.015 ms

Below is generated by plot.py at 2019-03-27 03:10:24
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.01 Mbit/s
95th percentile per-packet one-way delay: 8.893 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.90 Mbit/s
95th percentile per-packet one-way delay: 8.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 10.559 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 62.98 Mbit/s
95th percentile per-packet one-way delay: 5.993 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-27 02:10:39

End at: 2019-03-27 02:11:09

Local clock offset: -8.061 ms

Remote clock offset: 0.082 ms

Below is generated by plot.py at 2019-03-27 03:10:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.87 Mbit/s

95th percentile per-packet one-way delay: 14.221 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 11.495 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.76 Mbit/s

95th percentile per-packet one-way delay: 16.476 ms

Loss rate: 0.00%

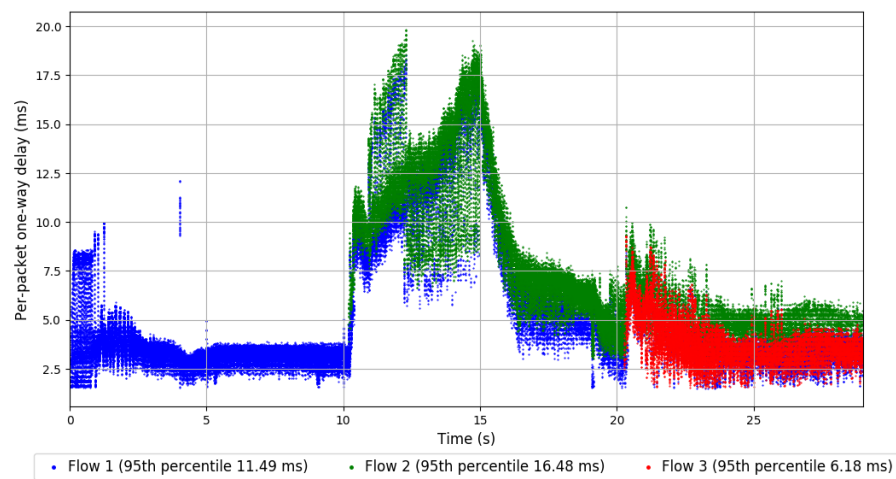
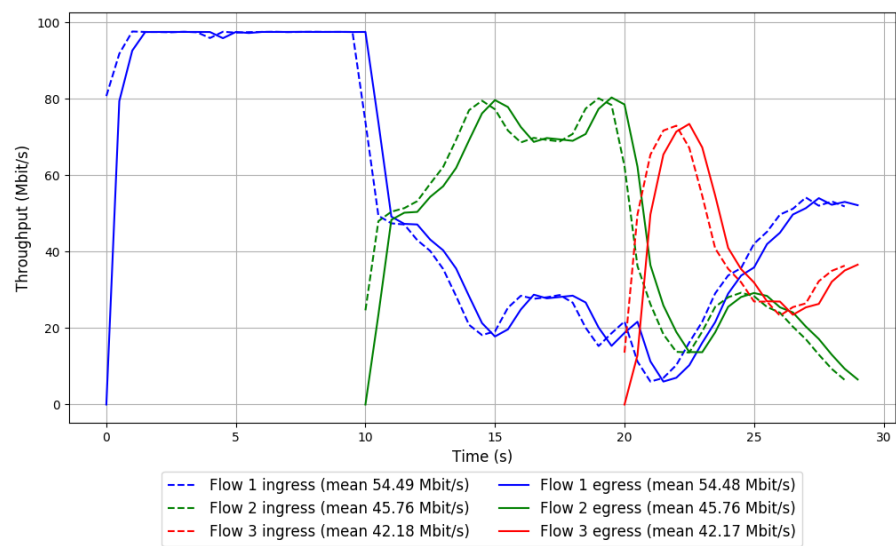
-- Flow 3:

Average throughput: 42.17 Mbit/s

95th percentile per-packet one-way delay: 6.183 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-27 02:34:35

End at: 2019-03-27 02:35:05

Local clock offset: -7.896 ms

Remote clock offset: 0.238 ms

Below is generated by plot.py at 2019-03-27 03:10:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.99 Mbit/s

95th percentile per-packet one-way delay: 12.024 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.97 Mbit/s

95th percentile per-packet one-way delay: 11.679 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.69 Mbit/s

95th percentile per-packet one-way delay: 12.888 ms

Loss rate: 0.00%

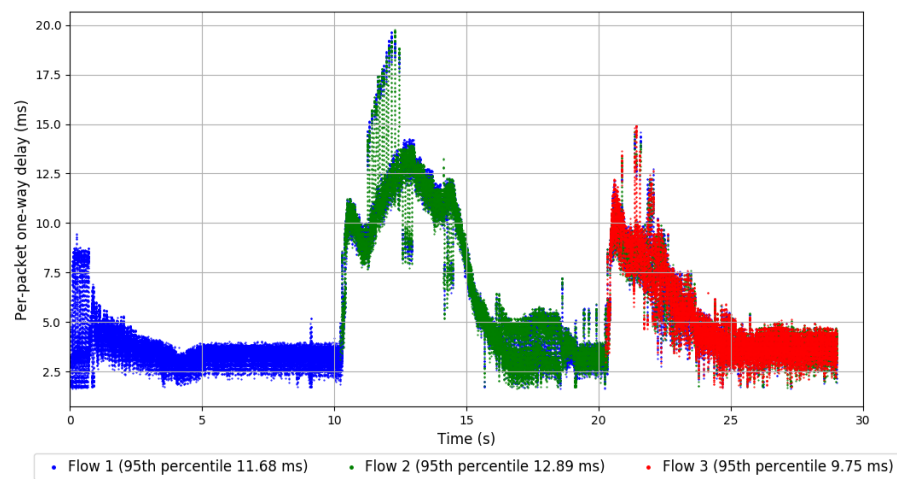
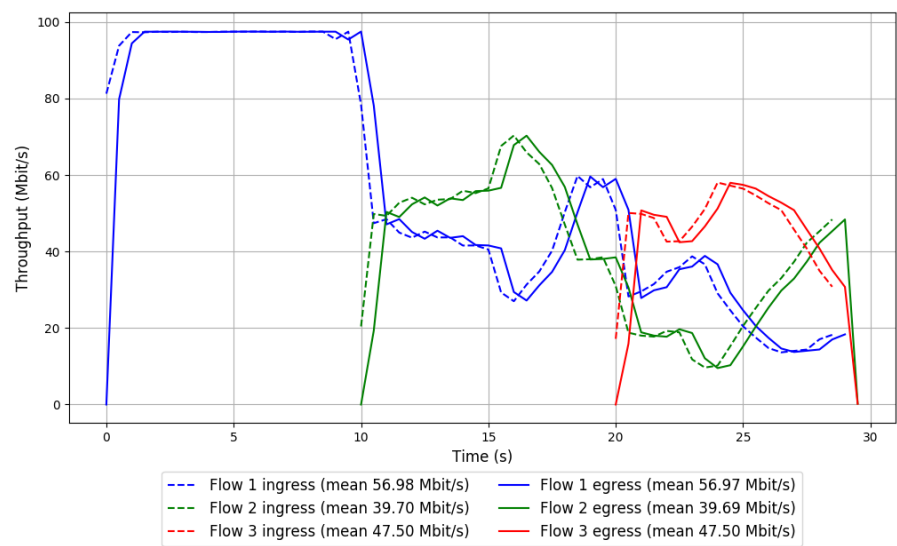
-- Flow 3:

Average throughput: 47.50 Mbit/s

95th percentile per-packet one-way delay: 9.749 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-27 02:58:31

End at: 2019-03-27 02:59:01

Local clock offset: -2.964 ms

Remote clock offset: 0.248 ms

Below is generated by plot.py at 2019-03-27 03:10:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.77 Mbit/s

95th percentile per-packet one-way delay: 13.255 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.43 Mbit/s

95th percentile per-packet one-way delay: 9.073 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.34 Mbit/s

95th percentile per-packet one-way delay: 11.837 ms

Loss rate: 0.00%

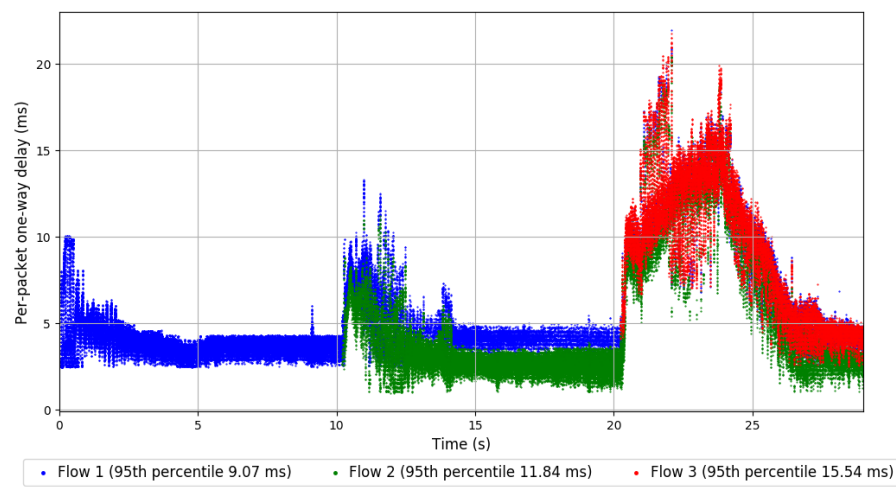
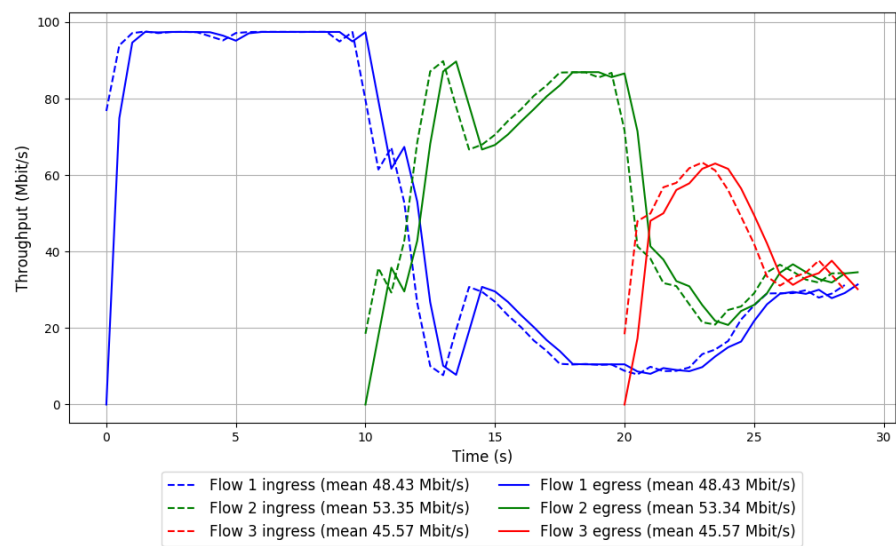
-- Flow 3:

Average throughput: 45.57 Mbit/s

95th percentile per-packet one-way delay: 15.538 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link

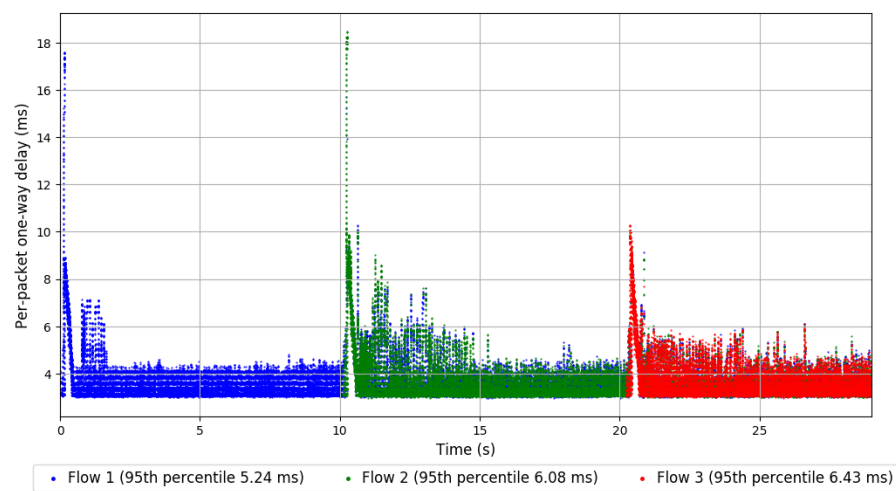
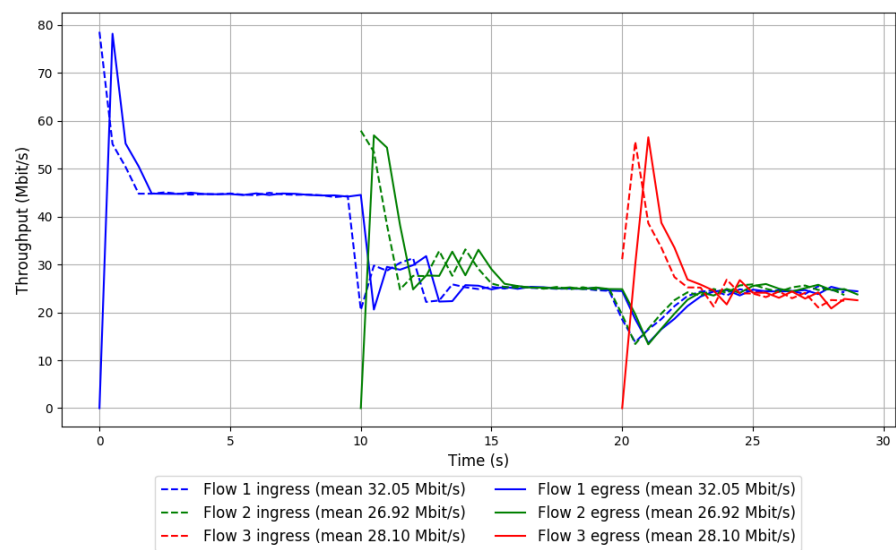


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-27 01:12:39
End at: 2019-03-27 01:13:09
Local clock offset: -1.81 ms
Remote clock offset: -0.304 ms

Below is generated by plot.py at 2019-03-27 03:10:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 58.09 Mbit/s
95th percentile per-packet one-way delay: 5.727 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.05 Mbit/s
95th percentile per-packet one-way delay: 5.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.92 Mbit/s
95th percentile per-packet one-way delay: 6.084 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 28.10 Mbit/s
95th percentile per-packet one-way delay: 6.429 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC5 — Data Link

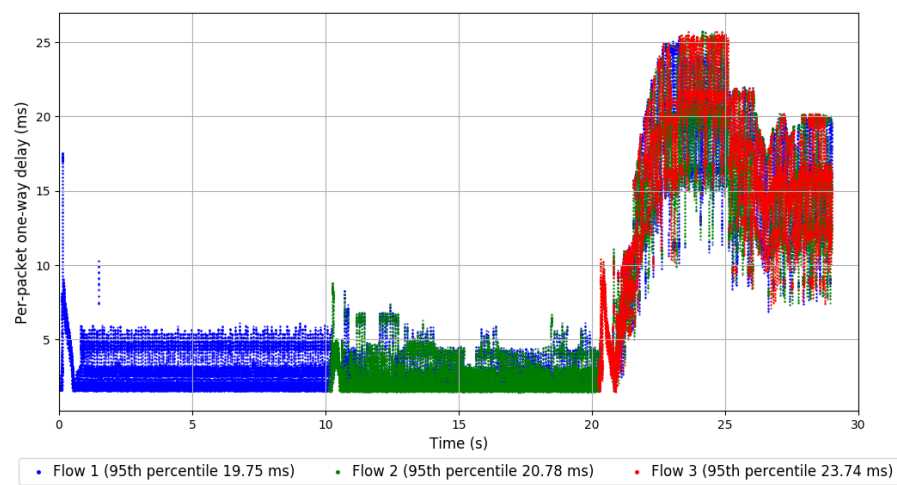
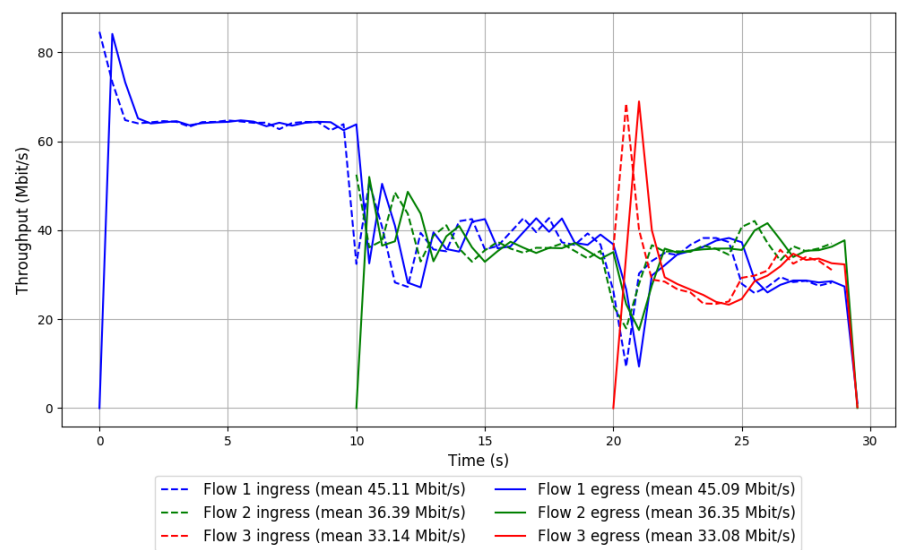


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-27 01:36:34
End at: 2019-03-27 01:37:04
Local clock offset: -6.292 ms
Remote clock offset: -0.098 ms

Below is generated by plot.py at 2019-03-27 03:10:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 78.79 Mbit/s
95th percentile per-packet one-way delay: 20.748 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 45.09 Mbit/s
95th percentile per-packet one-way delay: 19.748 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.35 Mbit/s
95th percentile per-packet one-way delay: 20.782 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 23.739 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

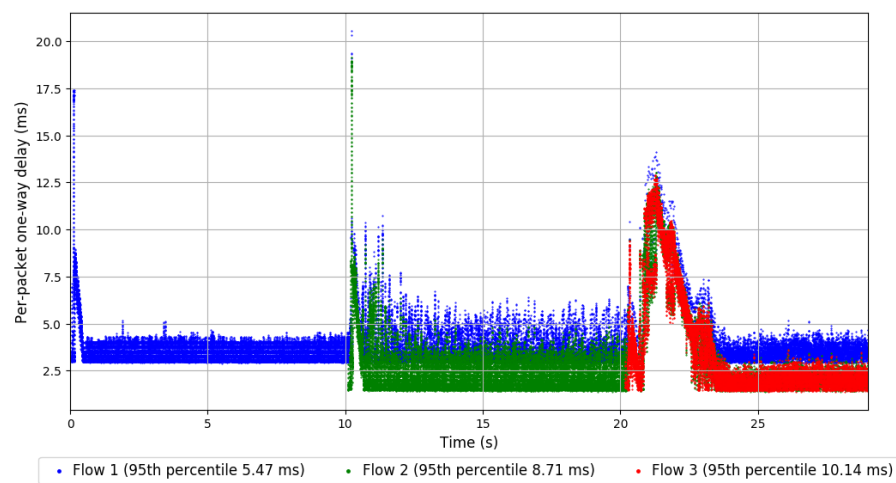
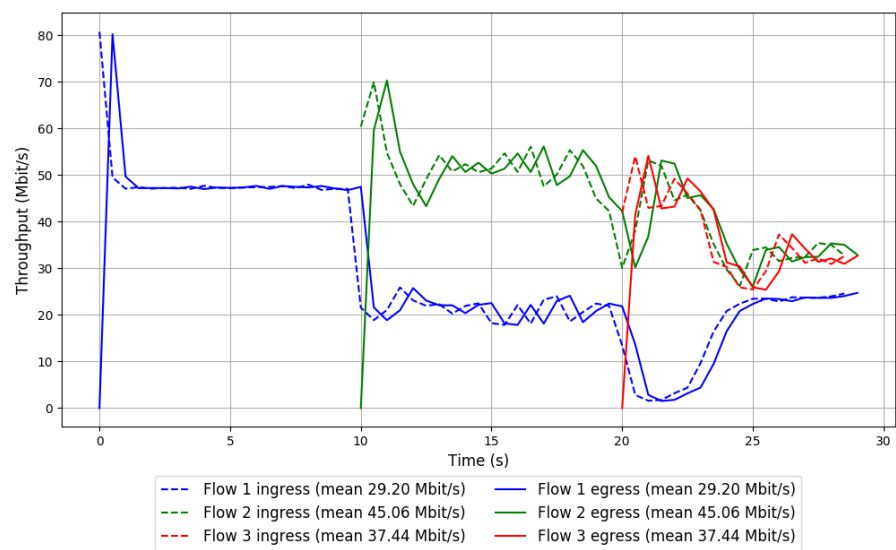


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-27 02:00:29
End at: 2019-03-27 02:00:59
Local clock offset: -7.659 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-03-27 03:10:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 69.96 Mbit/s
95th percentile per-packet one-way delay: 7.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.20 Mbit/s
95th percentile per-packet one-way delay: 5.467 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.06 Mbit/s
95th percentile per-packet one-way delay: 8.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.44 Mbit/s
95th percentile per-packet one-way delay: 10.137 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-27 02:24:25

End at: 2019-03-27 02:24:55

Local clock offset: -7.066 ms

Remote clock offset: 0.13 ms

Below is generated by plot.py at 2019-03-27 03:11:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.96 Mbit/s

95th percentile per-packet one-way delay: 19.731 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.01 Mbit/s

95th percentile per-packet one-way delay: 17.667 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.91 Mbit/s

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

Loss rate: 0.00%

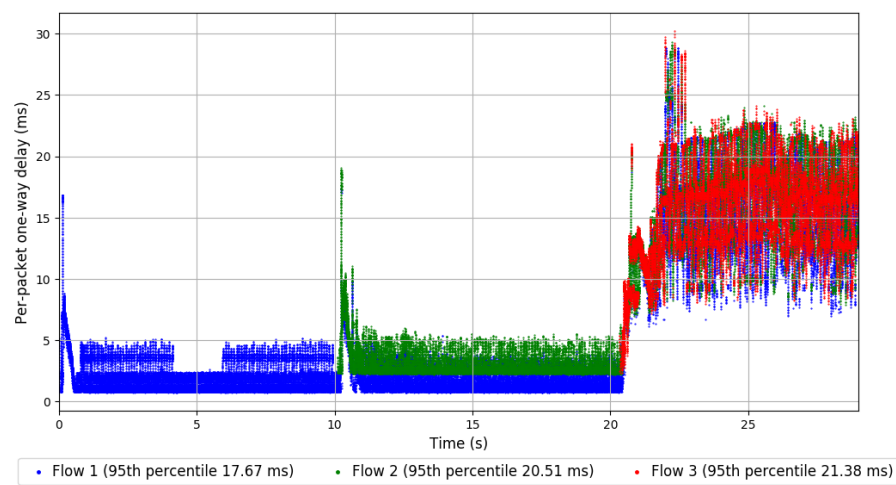
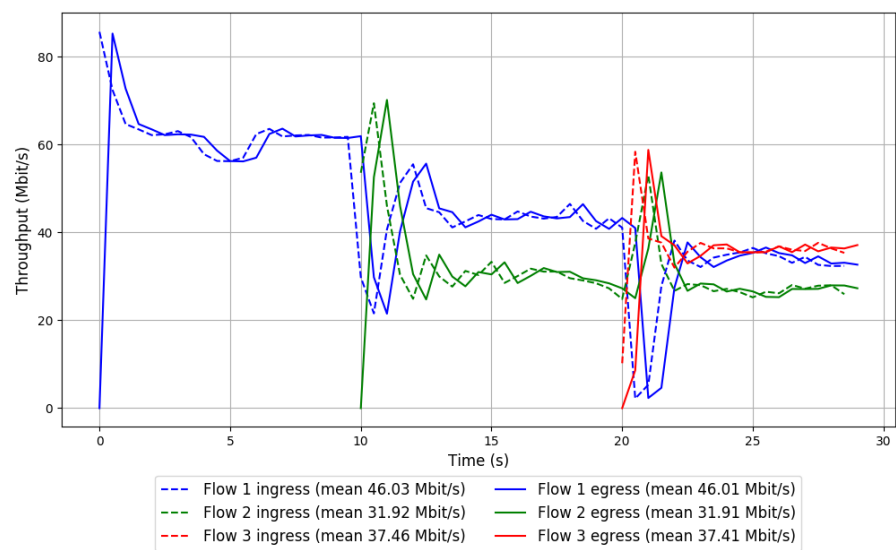
-- Flow 3:

Average throughput: 37.41 Mbit/s

95th percentile per-packet one-way delay: 21.375 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-27 02:48:22

End at: 2019-03-27 02:48:52

Local clock offset: -7.317 ms

Remote clock offset: 0.169 ms

Below is generated by plot.py at 2019-03-27 03:11:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.89 Mbit/s

95th percentile per-packet one-way delay: 27.698 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.03 Mbit/s

95th percentile per-packet one-way delay: 25.231 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 29.295 ms

Loss rate: 0.00%

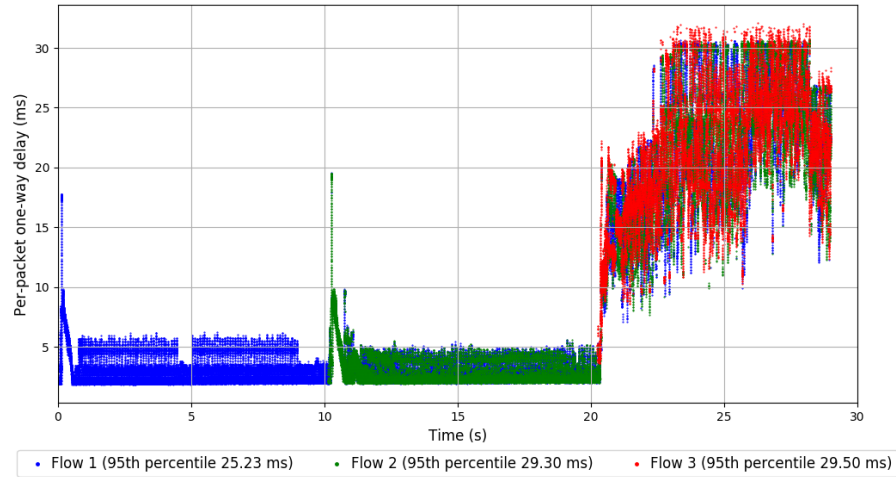
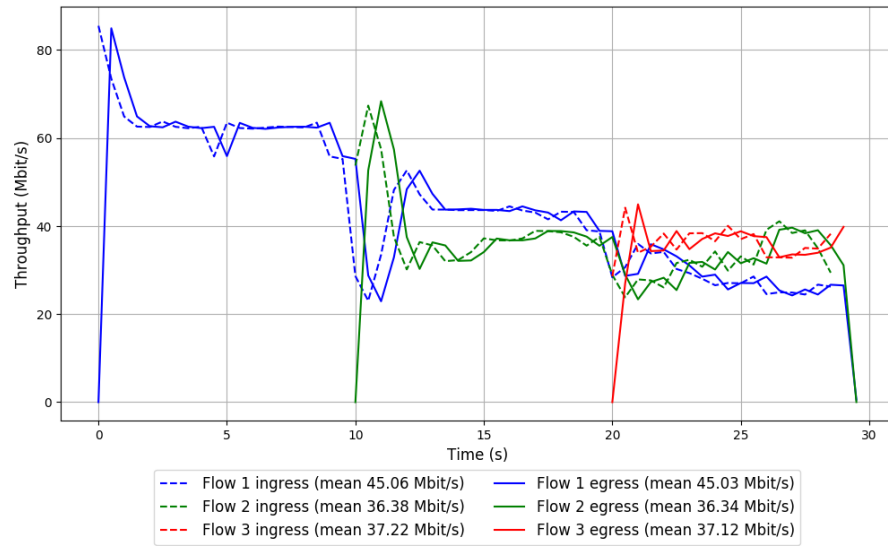
-- Flow 3:

Average throughput: 37.12 Mbit/s

95th percentile per-packet one-way delay: 29.501 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link

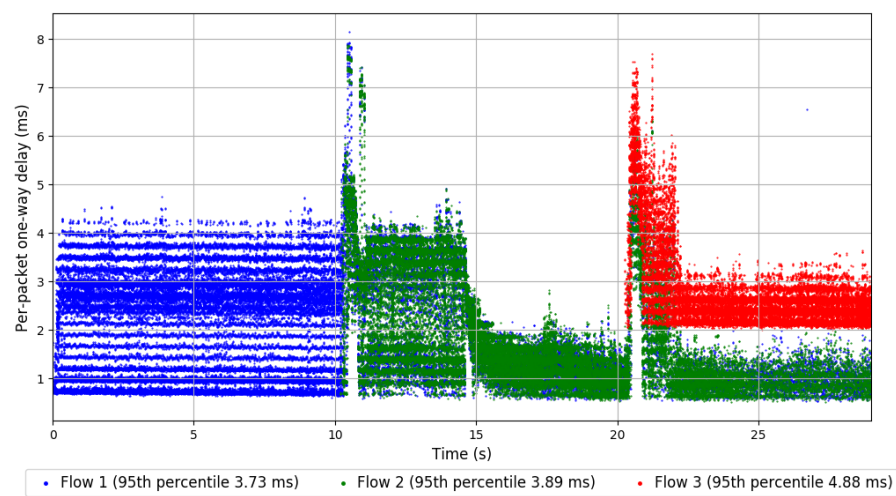
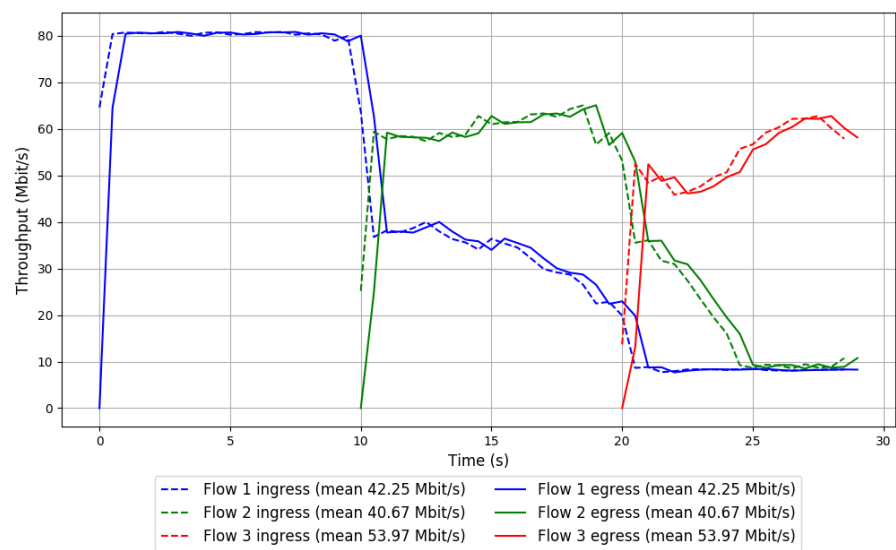


Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-27 01:25:06
End at: 2019-03-27 01:25:36
Local clock offset: -4.026 ms
Remote clock offset: -0.205 ms

Below is generated by plot.py at 2019-03-27 03:11:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 3.893 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 3.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.67 Mbit/s
95th percentile per-packet one-way delay: 3.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 53.97 Mbit/s
95th percentile per-packet one-way delay: 4.879 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

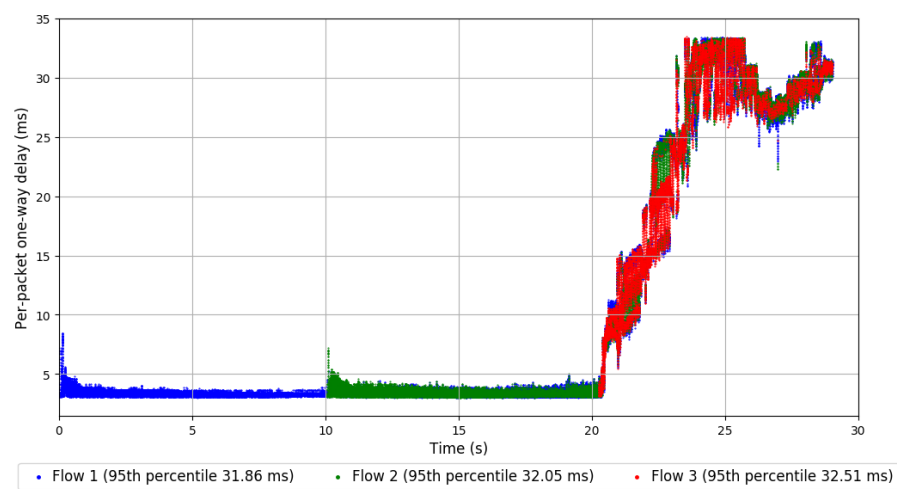
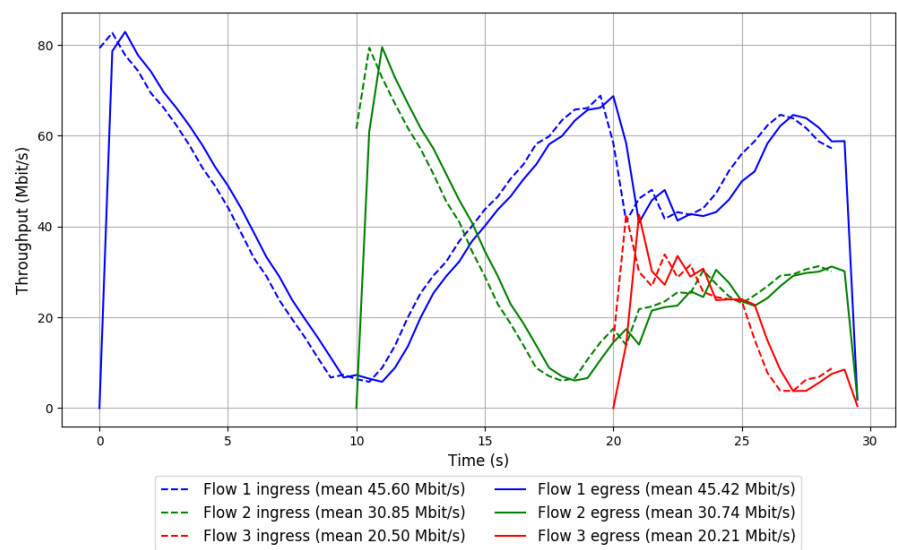


Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-27 01:49:03
End at: 2019-03-27 01:49:33
Local clock offset: -7.16 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-03-27 03:11:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 71.62 Mbit/s
95th percentile per-packet one-way delay: 32.048 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 45.42 Mbit/s
95th percentile per-packet one-way delay: 31.857 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 30.74 Mbit/s
95th percentile per-packet one-way delay: 32.047 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 20.21 Mbit/s
95th percentile per-packet one-way delay: 32.514 ms
Loss rate: 1.11%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-27 02:12:58

End at: 2019-03-27 02:13:28

Local clock offset: -7.355 ms

Remote clock offset: 0.012 ms

Below is generated by plot.py at 2019-03-27 03:11:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.93 Mbit/s

95th percentile per-packet one-way delay: 29.432 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 31.01 Mbit/s

95th percentile per-packet one-way delay: 29.039 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 58.84 Mbit/s

95th percentile per-packet one-way delay: 29.432 ms

Loss rate: 0.15%

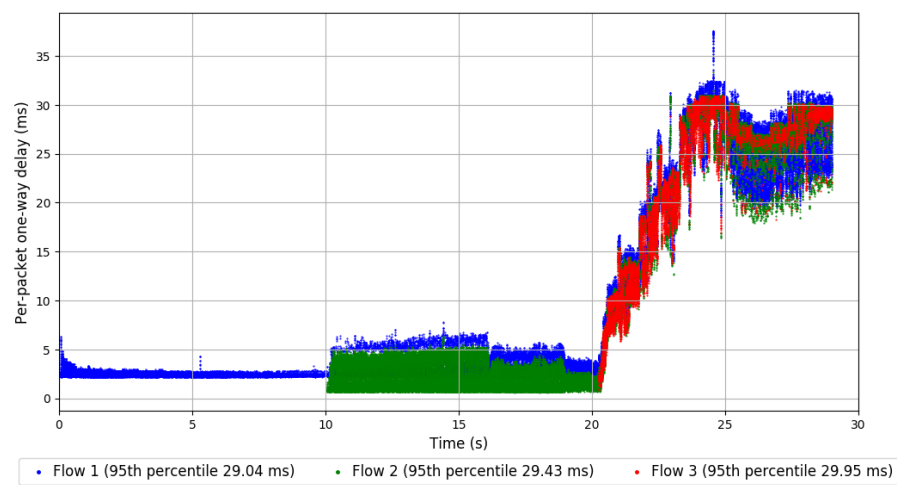
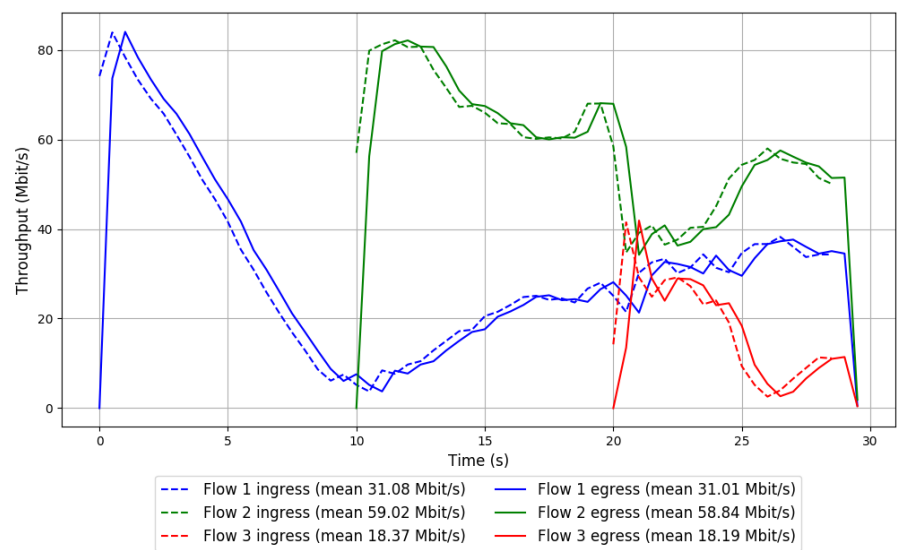
-- Flow 3:

Average throughput: 18.19 Mbit/s

95th percentile per-packet one-way delay: 29.953 ms

Loss rate: 0.65%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-27 02:36:53

End at: 2019-03-27 02:37:23

Local clock offset: -7.866 ms

Remote clock offset: 0.165 ms

Below is generated by plot.py at 2019-03-27 03:11:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.04 Mbit/s

95th percentile per-packet one-way delay: 31.069 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 63.77 Mbit/s

95th percentile per-packet one-way delay: 30.417 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 32.15 Mbit/s

95th percentile per-packet one-way delay: 32.517 ms

Loss rate: 1.88%

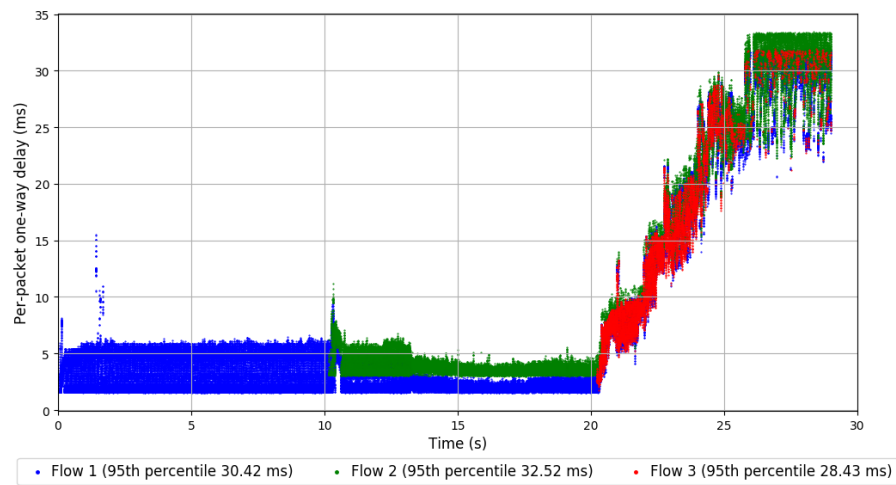
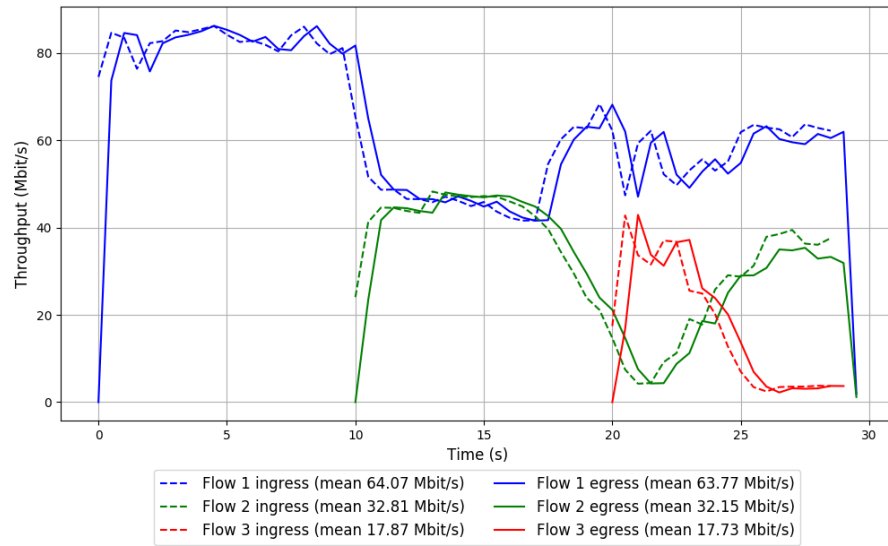
-- Flow 3:

Average throughput: 17.73 Mbit/s

95th percentile per-packet one-way delay: 28.427 ms

Loss rate: 0.52%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-27 03:00:50

End at: 2019-03-27 03:01:20

Local clock offset: -2.475 ms

Remote clock offset: 0.204 ms

Below is generated by plot.py at 2019-03-27 03:11:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.86 Mbit/s

95th percentile per-packet one-way delay: 31.741 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 43.47 Mbit/s

95th percentile per-packet one-way delay: 30.747 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 30.62 Mbit/s

95th percentile per-packet one-way delay: 31.447 ms

Loss rate: 0.42%

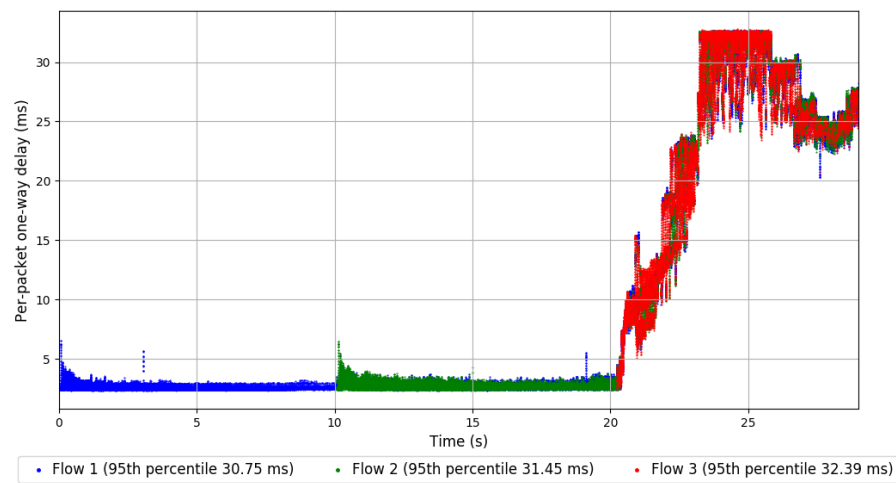
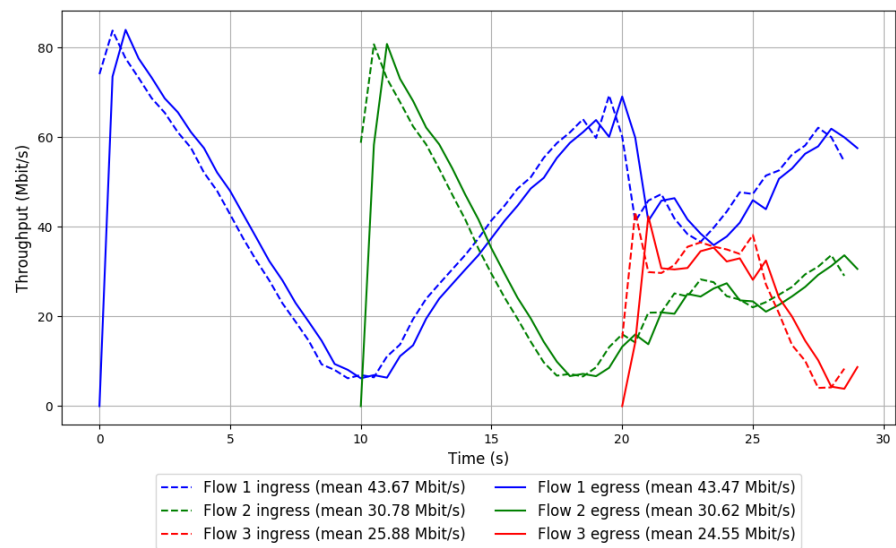
-- Flow 3:

Average throughput: 24.55 Mbit/s

95th percentile per-packet one-way delay: 32.388 ms

Loss rate: 4.88%

Run 5: Report of Indigo-MusesD — Data Link

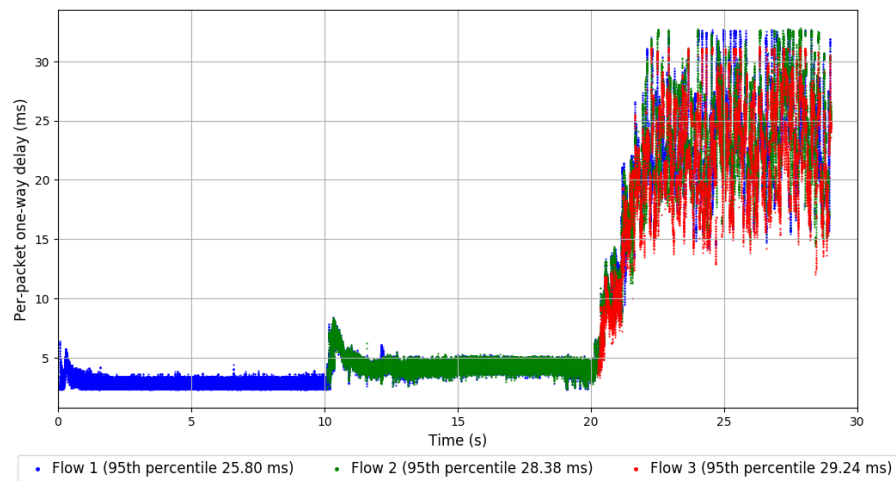
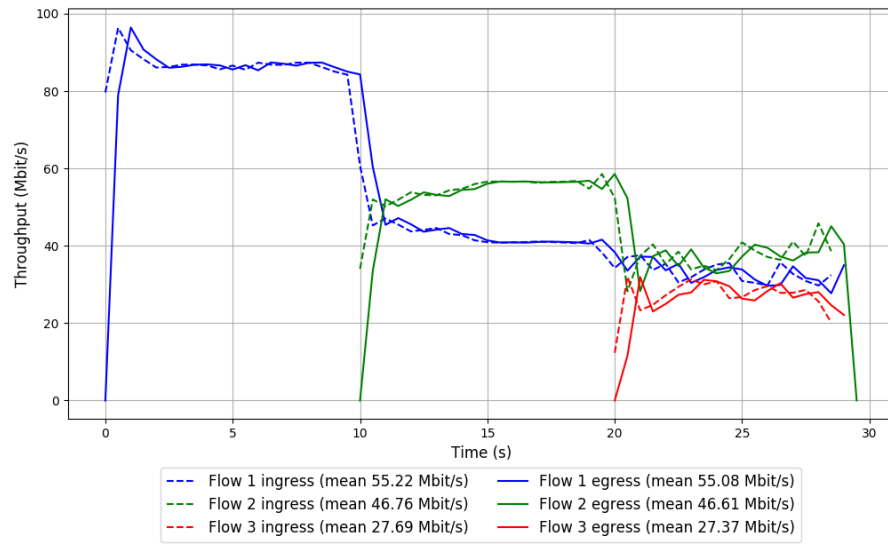


Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-27 01:08:09
End at: 2019-03-27 01:08:39
Local clock offset: -1.231 ms
Remote clock offset: -0.246 ms

Below is generated by plot.py at 2019-03-27 03:12:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.69 Mbit/s
95th percentile per-packet one-way delay: 27.386 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 55.08 Mbit/s
95th percentile per-packet one-way delay: 25.800 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 46.61 Mbit/s
95th percentile per-packet one-way delay: 28.379 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 27.37 Mbit/s
95th percentile per-packet one-way delay: 29.239 ms
Loss rate: 0.93%

Run 1: Report of Indigo-MusesT — Data Link

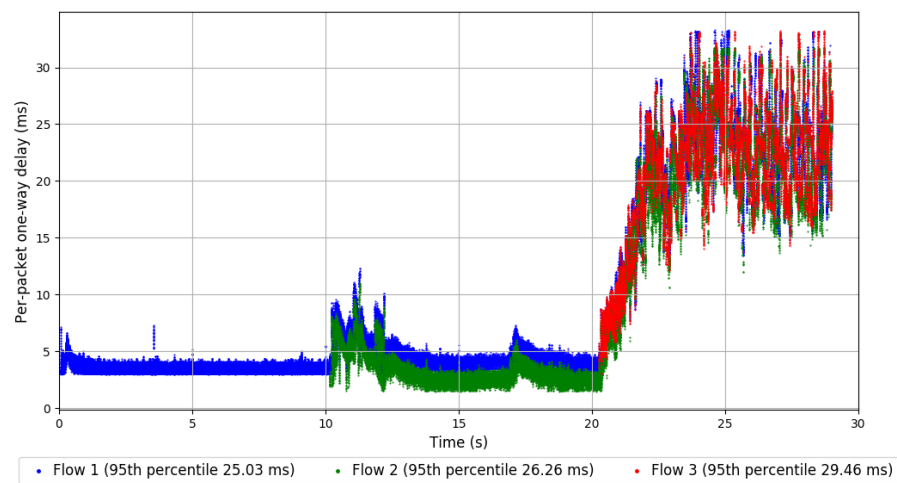
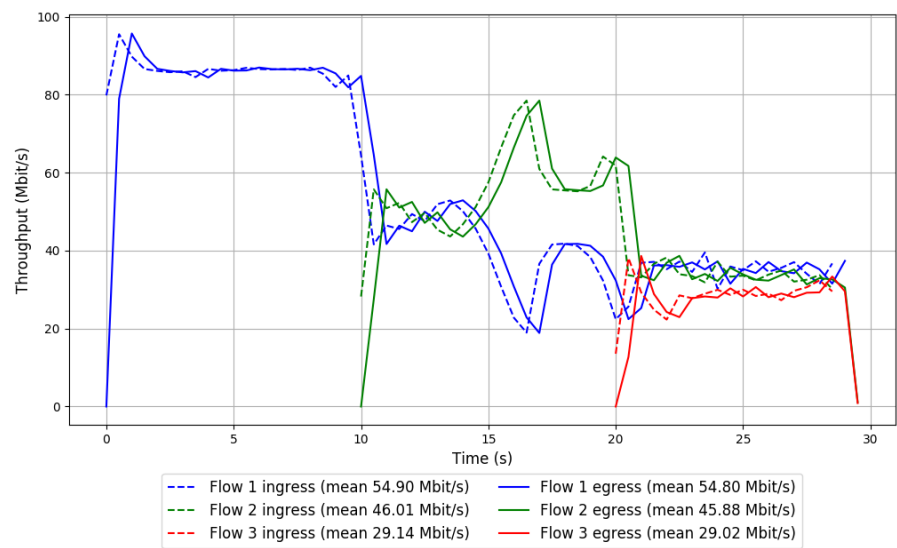


Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-27 01:32:03
End at: 2019-03-27 01:32:33
Local clock offset: -5.892 ms
Remote clock offset: -0.153 ms

Below is generated by plot.py at 2019-03-27 03:12:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.35 Mbit/s
95th percentile per-packet one-way delay: 26.211 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 54.80 Mbit/s
95th percentile per-packet one-way delay: 25.026 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: 26.260 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 29.02 Mbit/s
95th percentile per-packet one-way delay: 29.463 ms
Loss rate: 0.13%

Run 2: Report of Indigo-MusesT — Data Link

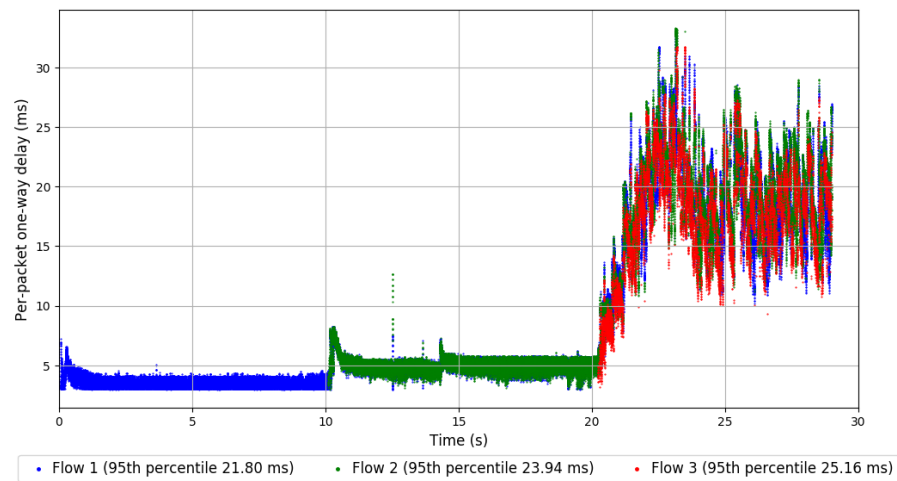
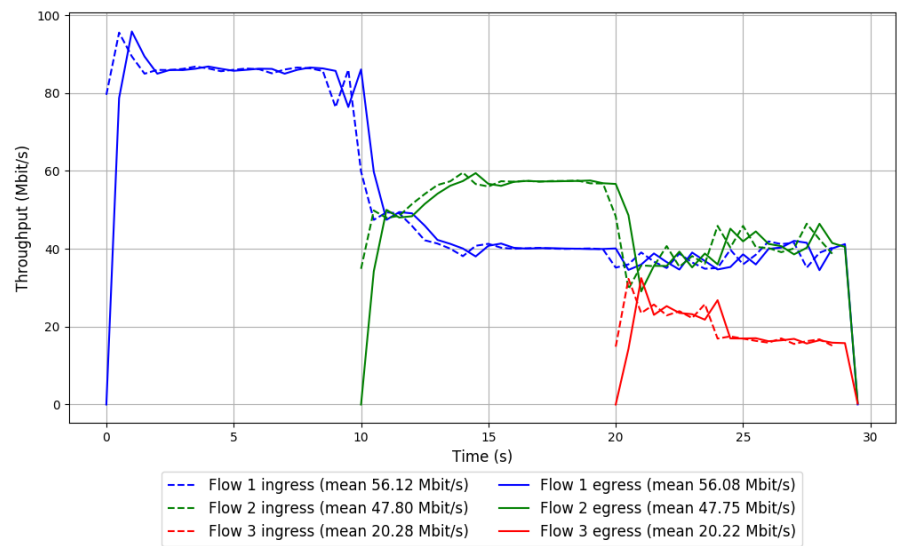


Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-27 01:55:59
End at: 2019-03-27 01:56:29
Local clock offset: -7.446 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2019-03-27 03:12:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 93.34 Mbit/s
95th percentile per-packet one-way delay: 23.013 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 56.08 Mbit/s
95th percentile per-packet one-way delay: 21.804 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.75 Mbit/s
95th percentile per-packet one-way delay: 23.936 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 20.22 Mbit/s
95th percentile per-packet one-way delay: 25.155 ms
Loss rate: 0.11%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-27 02:19:54

End at: 2019-03-27 02:20:24

Local clock offset: -7.211 ms

Remote clock offset: 0.106 ms

Below is generated by plot.py at 2019-03-27 03:12:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.60 Mbit/s

95th percentile per-packet one-way delay: 23.247 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.41 Mbit/s

95th percentile per-packet one-way delay: 21.092 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.12 Mbit/s

95th percentile per-packet one-way delay: 24.771 ms

Loss rate: 0.00%

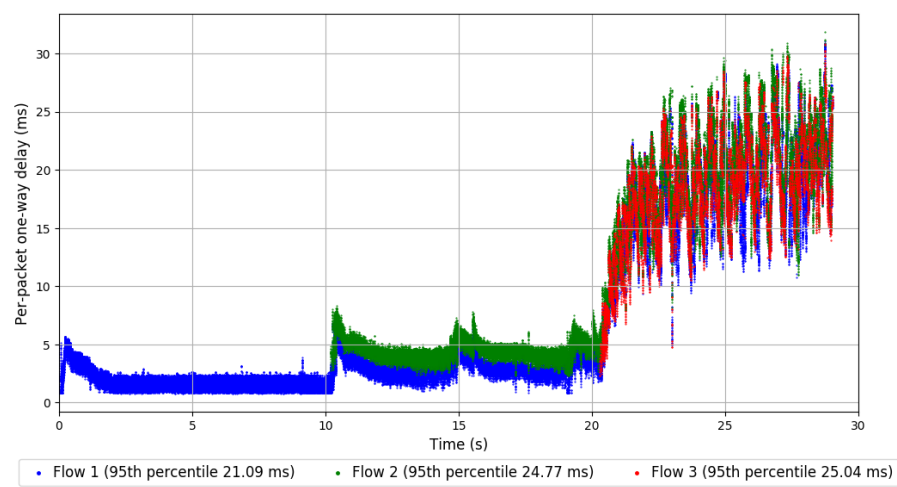
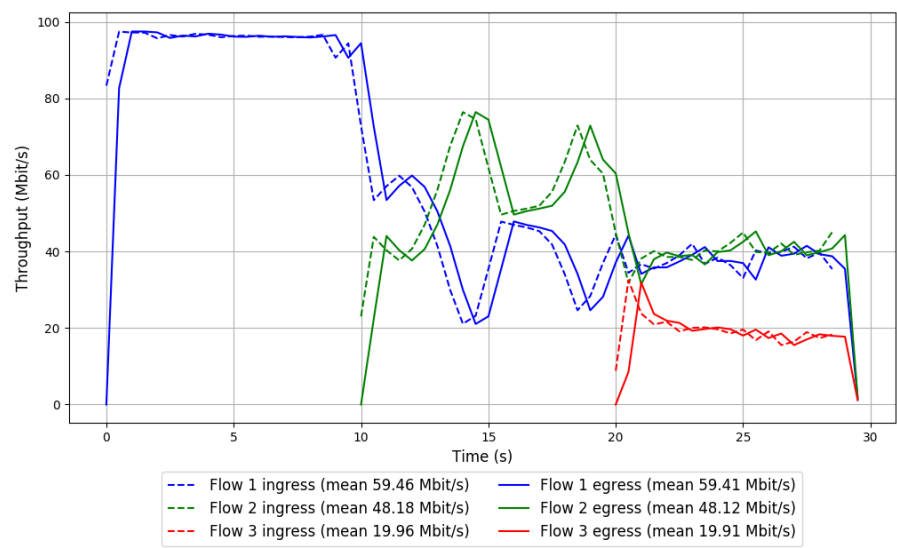
-- Flow 3:

Average throughput: 19.91 Mbit/s

95th percentile per-packet one-way delay: 25.038 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-27 02:43:51

End at: 2019-03-27 02:44:21

Local clock offset: -8.035 ms

Remote clock offset: 0.221 ms

Below is generated by plot.py at 2019-03-27 03:12:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.69 Mbit/s

95th percentile per-packet one-way delay: 26.104 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 59.04 Mbit/s

95th percentile per-packet one-way delay: 24.127 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 47.69 Mbit/s

95th percentile per-packet one-way delay: 27.309 ms

Loss rate: 0.04%

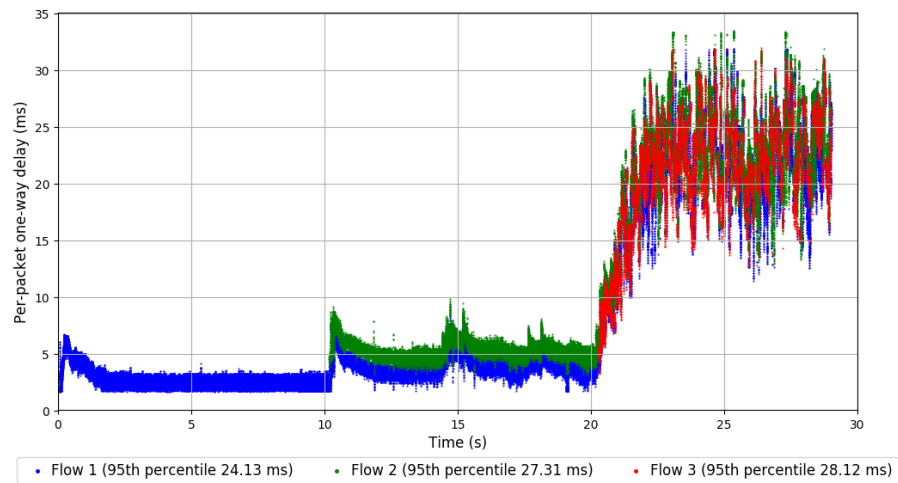
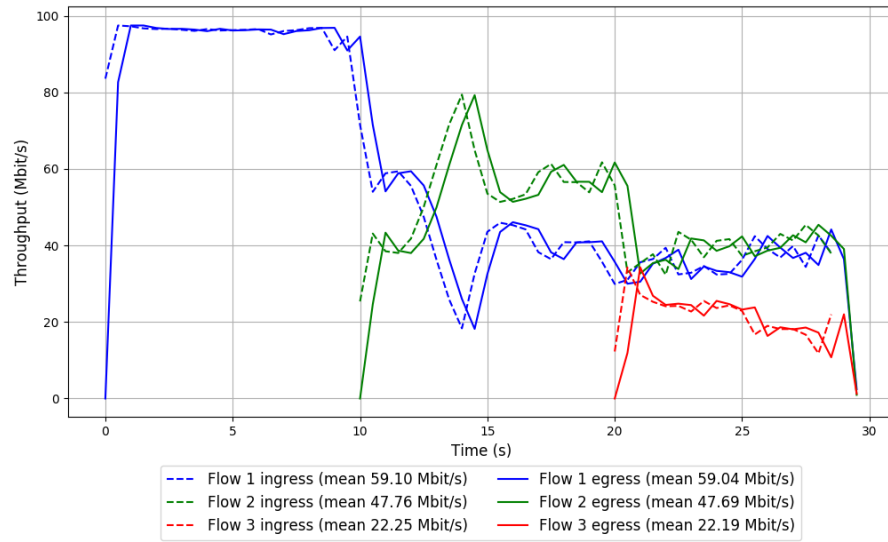
-- Flow 3:

Average throughput: 22.19 Mbit/s

95th percentile per-packet one-way delay: 28.122 ms

Loss rate: 0.09%

Run 5: Report of Indigo-MusesT — Data Link

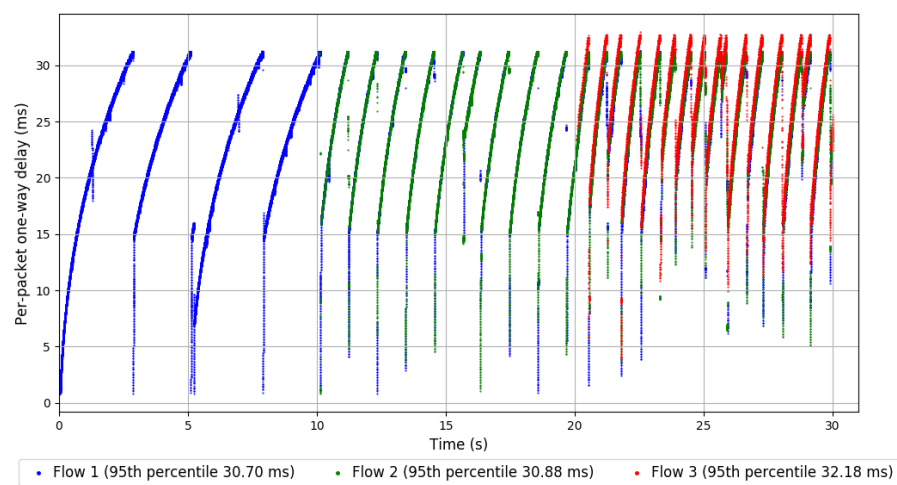
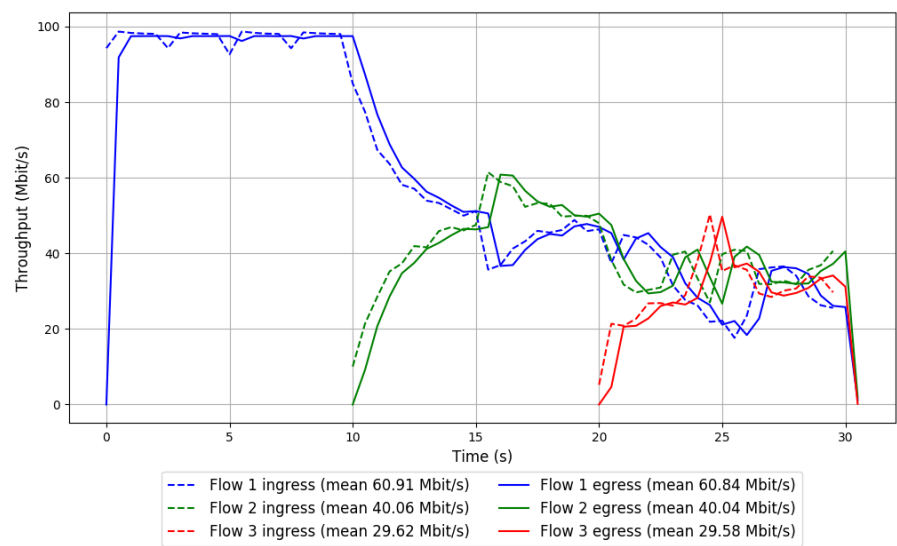


Run 1: Statistics of LEDBAT

Start at: 2019-03-27 01:04:40
End at: 2019-03-27 01:05:10
Local clock offset: -1.444 ms
Remote clock offset: -0.314 ms

Below is generated by plot.py at 2019-03-27 03:12:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.30 Mbit/s
95th percentile per-packet one-way delay: 30.928 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 30.705 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 40.04 Mbit/s
95th percentile per-packet one-way delay: 30.877 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 29.58 Mbit/s
95th percentile per-packet one-way delay: 32.176 ms
Loss rate: 0.10%

Run 1: Report of LEDBAT — Data Link

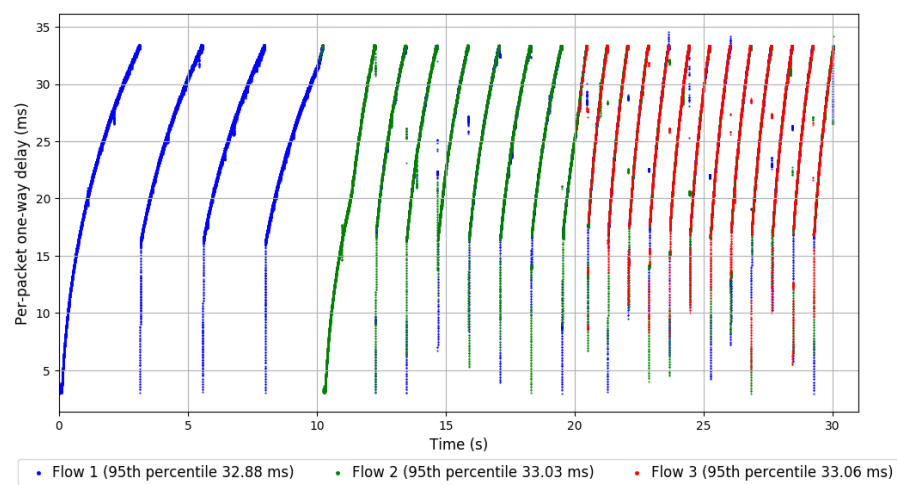
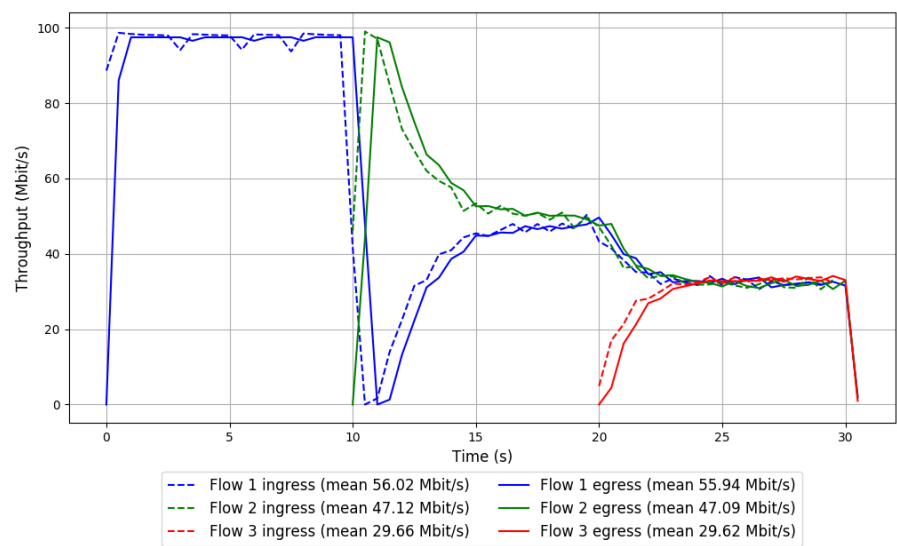


Run 2: Statistics of LEDBAT

Start at: 2019-03-27 01:28:34
End at: 2019-03-27 01:29:04
Local clock offset: -5.44 ms
Remote clock offset: -0.111 ms

Below is generated by plot.py at 2019-03-27 03:12:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 32.903 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 55.94 Mbit/s
95th percentile per-packet one-way delay: 32.878 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 47.09 Mbit/s
95th percentile per-packet one-way delay: 33.029 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 29.62 Mbit/s
95th percentile per-packet one-way delay: 33.064 ms
Loss rate: 0.08%

Run 2: Report of LEDBAT — Data Link

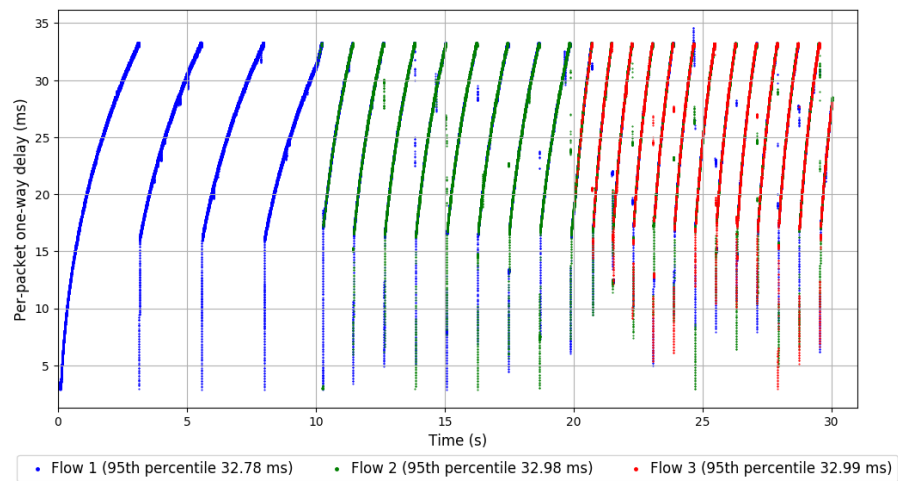
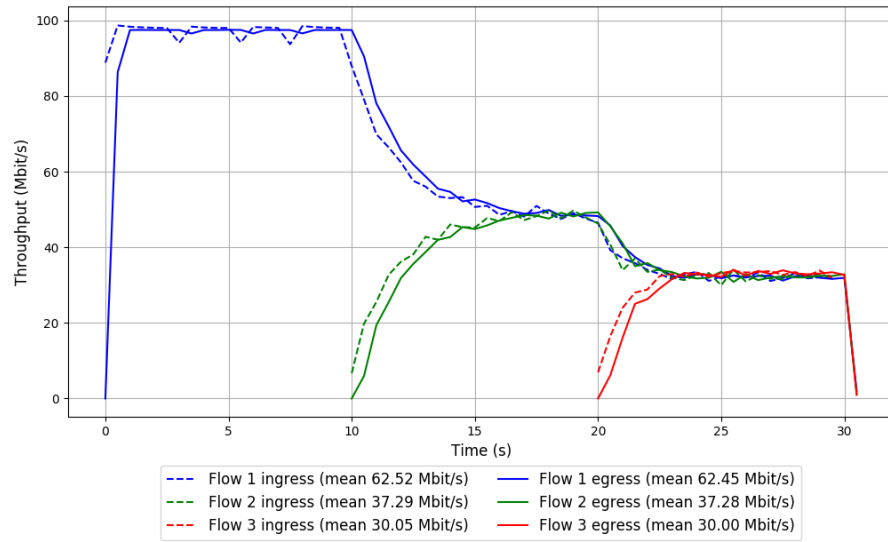


Run 3: Statistics of LEDBAT

Start at: 2019-03-27 01:52:30
End at: 2019-03-27 01:53:00
Local clock offset: -7.282 ms
Remote clock offset: -0.135 ms

Below is generated by plot.py at 2019-03-27 03:12:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.21 Mbit/s
95th percentile per-packet one-way delay: 32.808 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 62.45 Mbit/s
95th percentile per-packet one-way delay: 32.776 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 37.28 Mbit/s
95th percentile per-packet one-way delay: 32.975 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 30.00 Mbit/s
95th percentile per-packet one-way delay: 32.992 ms
Loss rate: 0.07%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-03-27 02:16:25

End at: 2019-03-27 02:16:56

Local clock offset: -8.251 ms

Remote clock offset: 0.167 ms

Below is generated by plot.py at 2019-03-27 03:13:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.27 Mbit/s

95th percentile per-packet one-way delay: 31.816 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 65.75 Mbit/s

95th percentile per-packet one-way delay: 31.534 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 31.94 Mbit/s

95th percentile per-packet one-way delay: 33.044 ms

Loss rate: 0.08%

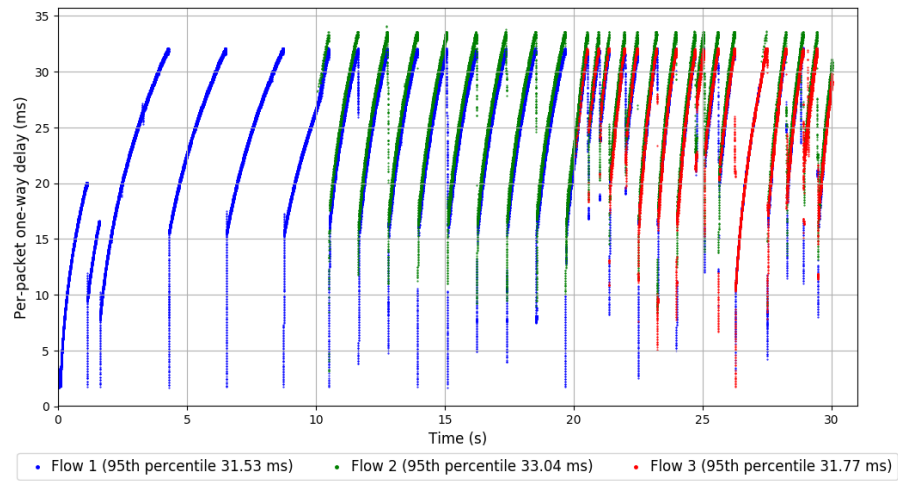
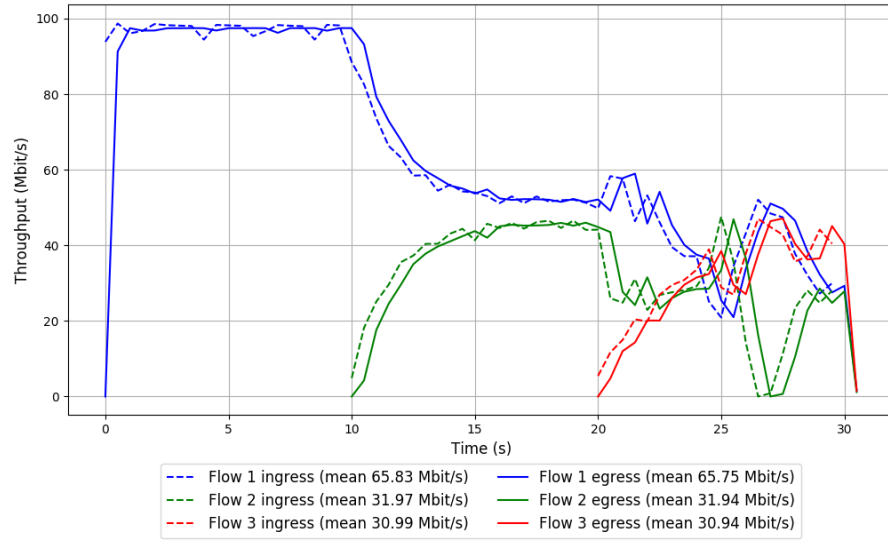
-- Flow 3:

Average throughput: 30.94 Mbit/s

95th percentile per-packet one-way delay: 31.769 ms

Loss rate: 0.10%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-03-27 02:40:22

End at: 2019-03-27 02:40:52

Local clock offset: -7.892 ms

Remote clock offset: 0.181 ms

Below is generated by plot.py at 2019-03-27 03:13:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.33 Mbit/s

95th percentile per-packet one-way delay: 31.486 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 62.28 Mbit/s

95th percentile per-packet one-way delay: 31.440 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 36.70 Mbit/s

95th percentile per-packet one-way delay: 31.626 ms

Loss rate: 0.06%

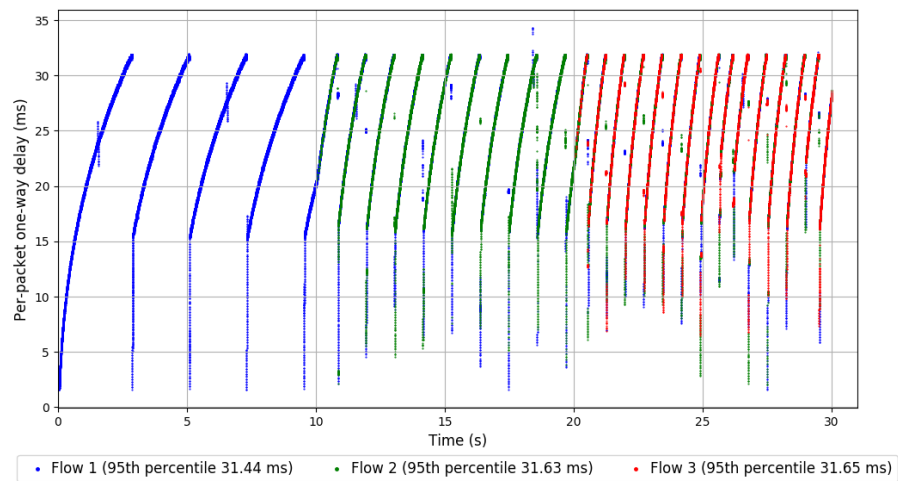
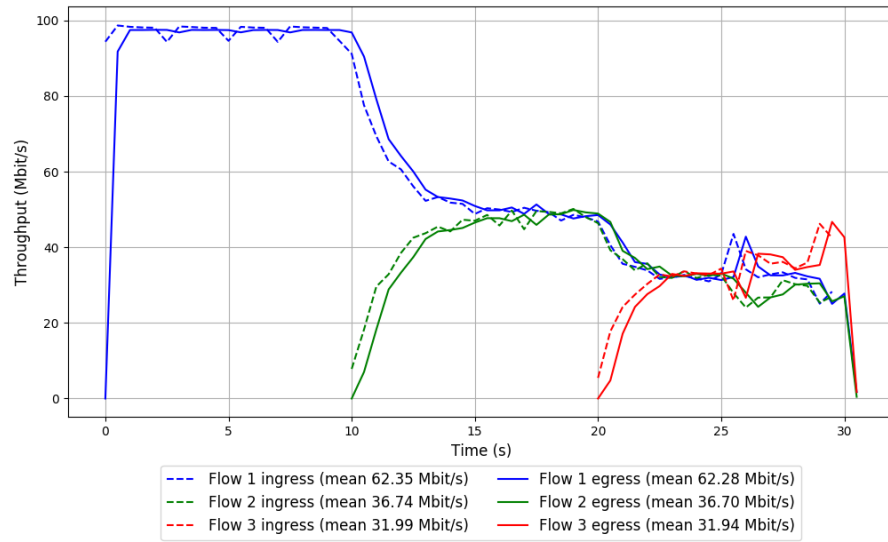
-- Flow 3:

Average throughput: 31.94 Mbit/s

95th percentile per-packet one-way delay: 31.652 ms

Loss rate: 0.08%

Run 5: Report of LEDBAT — Data Link

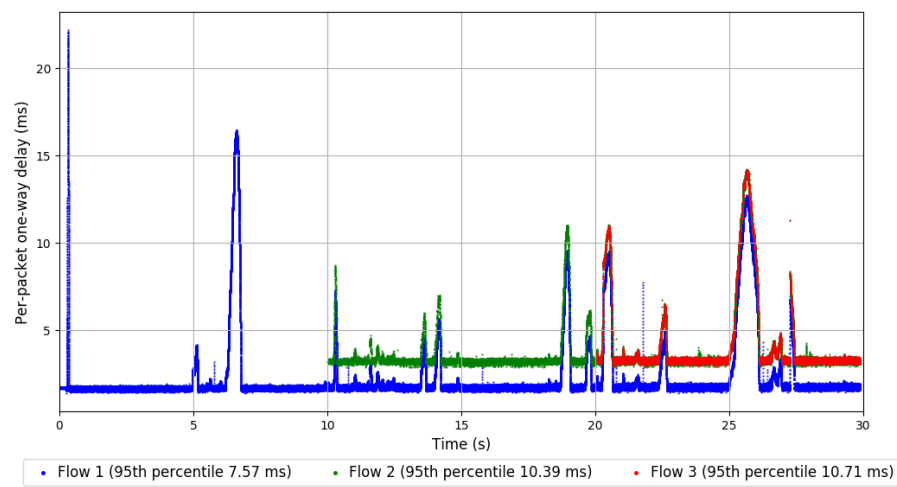
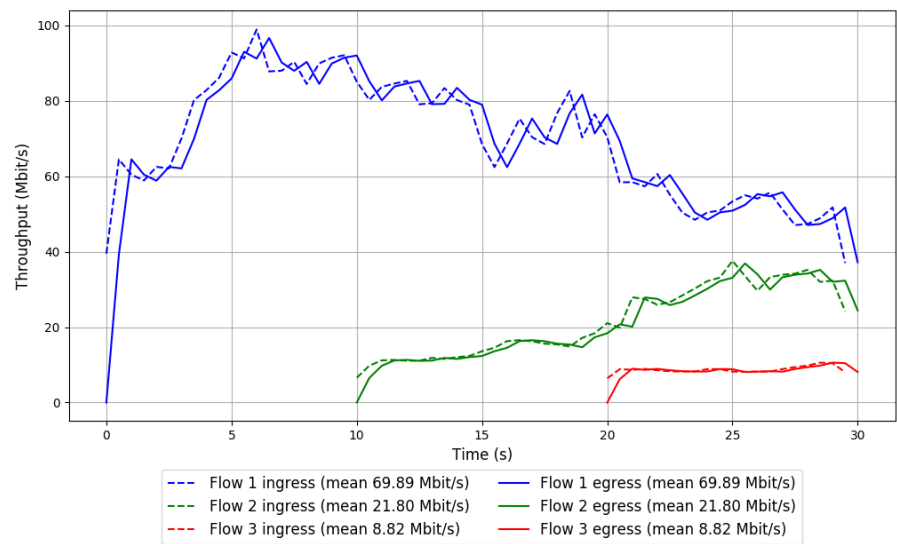


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-27 01:10:26
End at: 2019-03-27 01:10:56
Local clock offset: -1.905 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2019-03-27 03:13:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.29 Mbit/s
95th percentile per-packet one-way delay: 8.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.89 Mbit/s
95th percentile per-packet one-way delay: 7.566 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 10.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.82 Mbit/s
95th percentile per-packet one-way delay: 10.705 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

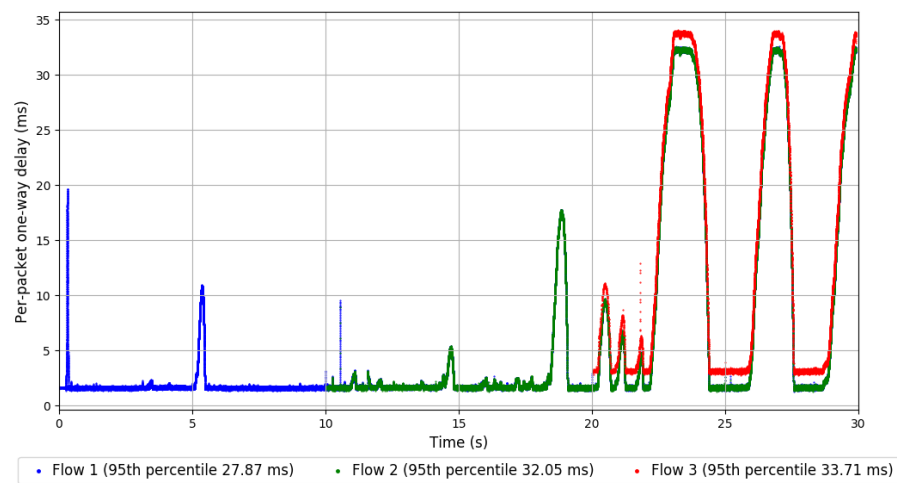
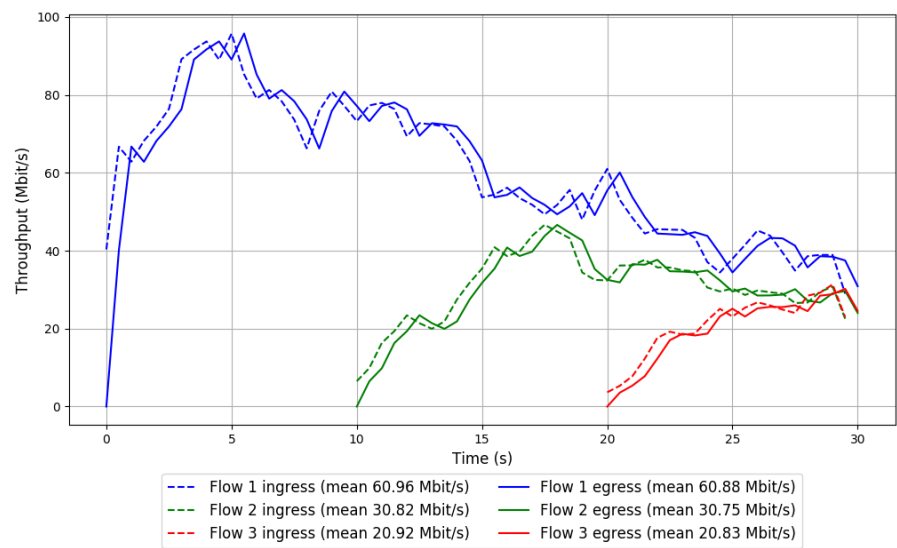


Run 2: Statistics of PCC-Allegro

Start at: 2019-03-27 01:34:21
End at: 2019-03-27 01:34:51
Local clock offset: -6.125 ms
Remote clock offset: -0.158 ms

Below is generated by plot.py at 2019-03-27 03:13:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.22 Mbit/s
95th percentile per-packet one-way delay: 31.538 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 27.871 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 32.050 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 20.83 Mbit/s
95th percentile per-packet one-way delay: 33.707 ms
Loss rate: 0.12%

Run 2: Report of PCC-Allegro — Data Link

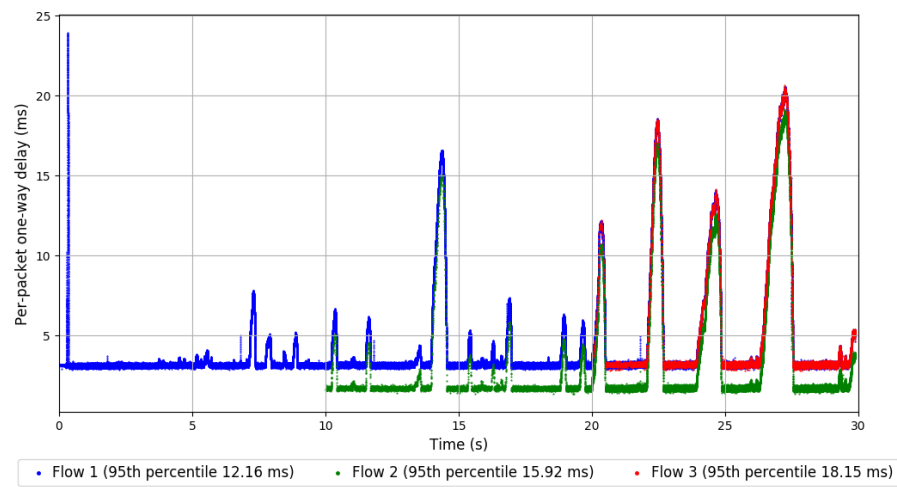
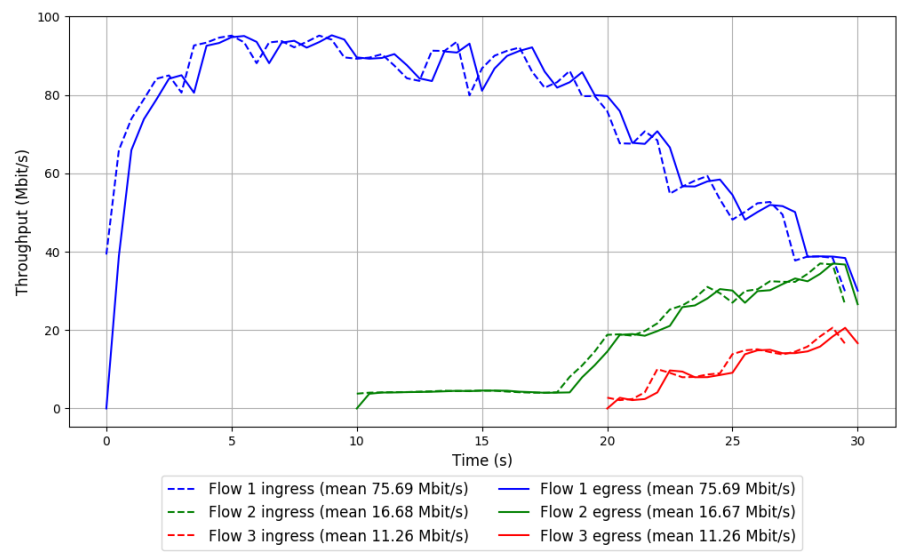


Run 3: Statistics of PCC-Allegro

Start at: 2019-03-27 01:58:16
End at: 2019-03-27 01:58:46
Local clock offset: -7.57 ms
Remote clock offset: -0.006 ms

Below is generated by plot.py at 2019-03-27 03:13:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.49 Mbit/s
95th percentile per-packet one-way delay: 13.152 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.69 Mbit/s
95th percentile per-packet one-way delay: 12.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 16.67 Mbit/s
95th percentile per-packet one-way delay: 15.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 18.151 ms
Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-03-27 02:22:11

End at: 2019-03-27 02:22:41

Local clock offset: -7.892 ms

Remote clock offset: 0.174 ms

Below is generated by plot.py at 2019-03-27 03:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.15 Mbit/s

95th percentile per-packet one-way delay: 6.072 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.05 Mbit/s

95th percentile per-packet one-way delay: 5.759 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.24 Mbit/s

95th percentile per-packet one-way delay: 7.183 ms

Loss rate: 0.00%

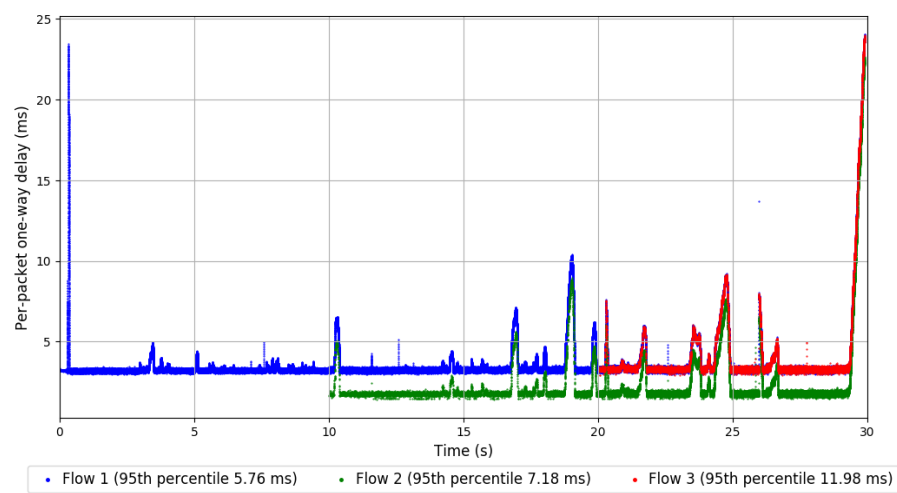
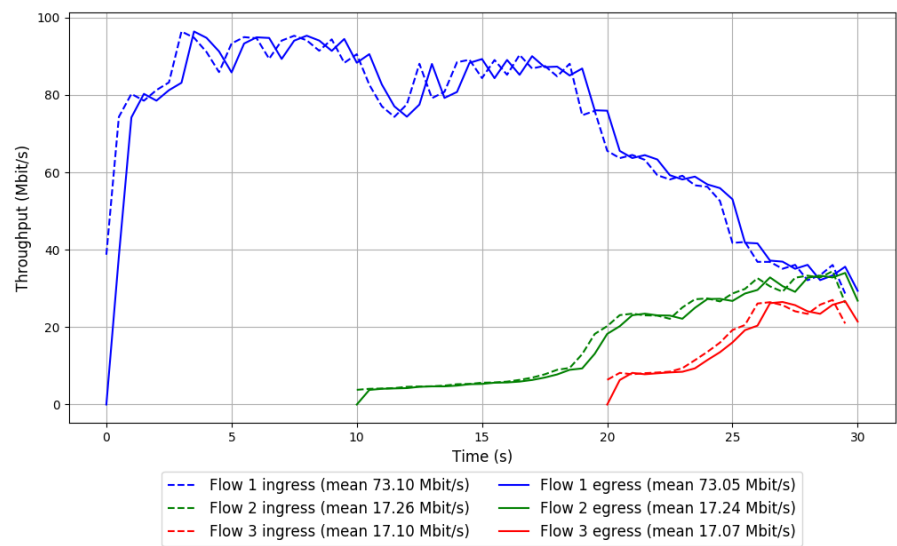
-- Flow 3:

Average throughput: 17.07 Mbit/s

95th percentile per-packet one-way delay: 11.979 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-03-27 02:46:08

End at: 2019-03-27 02:46:38

Local clock offset: -7.14 ms

Remote clock offset: 0.084 ms

Below is generated by plot.py at 2019-03-27 03:13:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.98 Mbit/s

95th percentile per-packet one-way delay: 6.005 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.22 Mbit/s

95th percentile per-packet one-way delay: 4.590 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.19 Mbit/s

95th percentile per-packet one-way delay: 9.284 ms

Loss rate: 0.00%

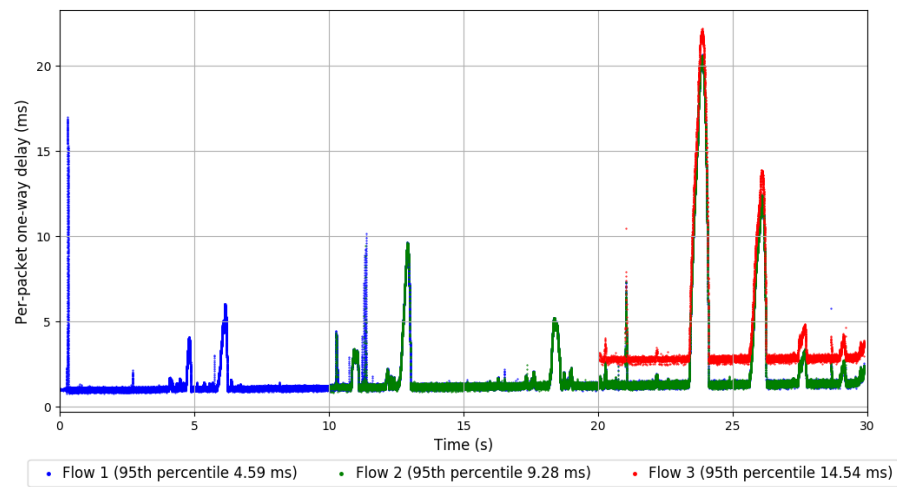
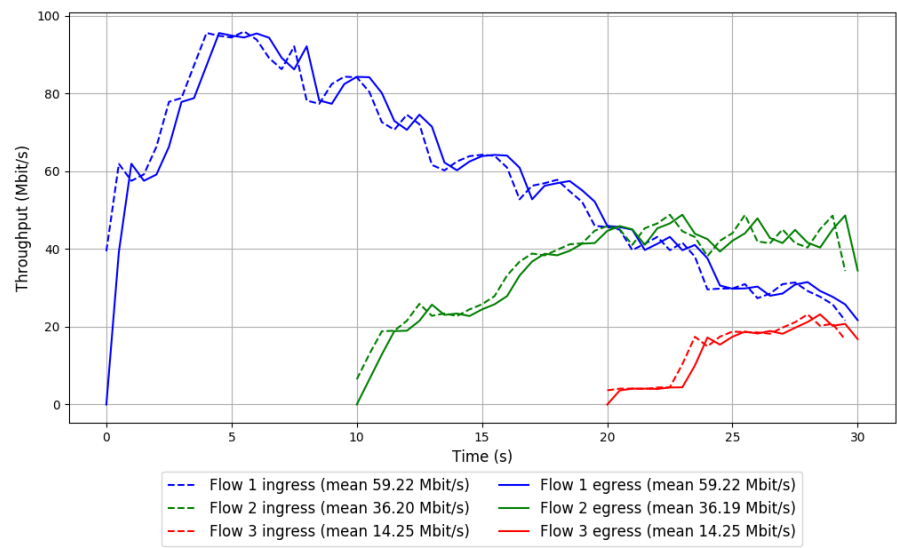
-- Flow 3:

Average throughput: 14.25 Mbit/s

95th percentile per-packet one-way delay: 14.537 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

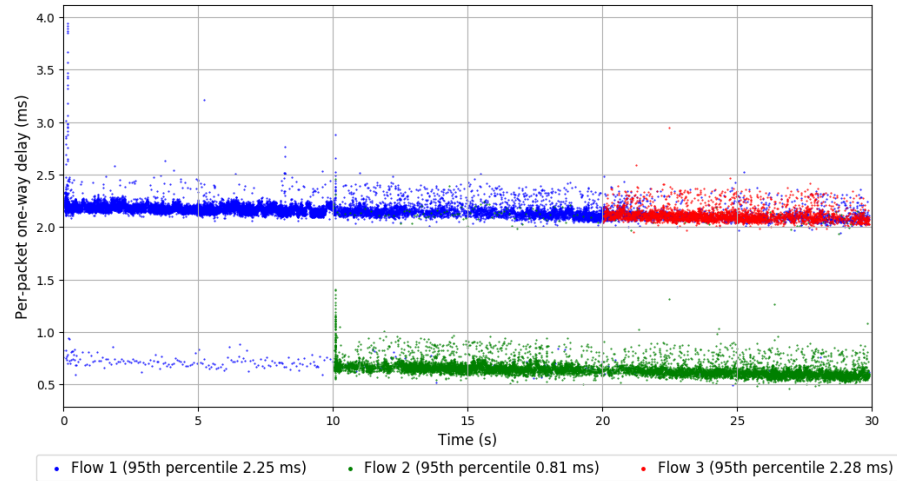
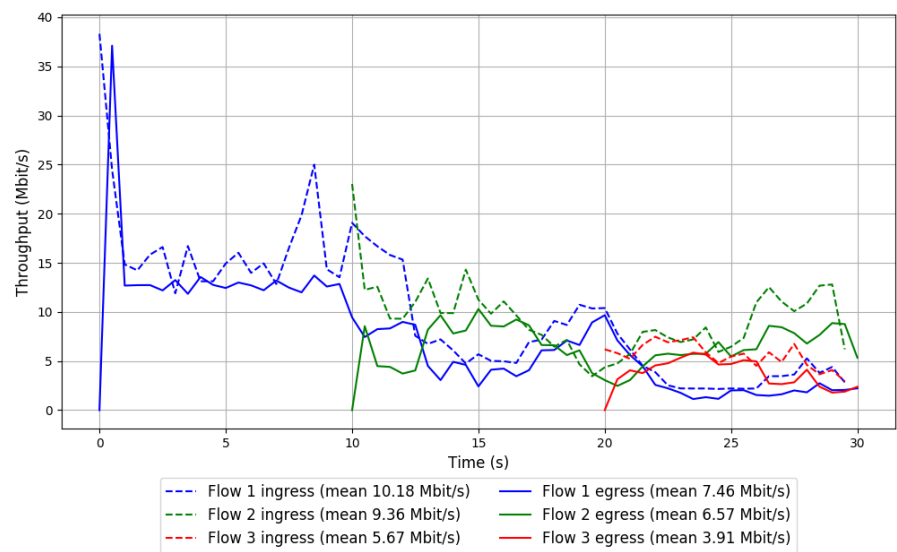


Run 1: Statistics of PCC-Expr

Start at: 2019-03-27 01:21:41
End at: 2019-03-27 01:22:11
Local clock offset: -3.173 ms
Remote clock offset: -0.232 ms

Below is generated by plot.py at 2019-03-27 03:13:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 2.233 ms
Loss rate: 28.23%
-- Flow 1:
Average throughput: 7.46 Mbit/s
95th percentile per-packet one-way delay: 2.248 ms
Loss rate: 26.78%
-- Flow 2:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 0.807 ms
Loss rate: 29.76%
-- Flow 3:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 2.278 ms
Loss rate: 30.99%

Run 1: Report of PCC-Expr — Data Link

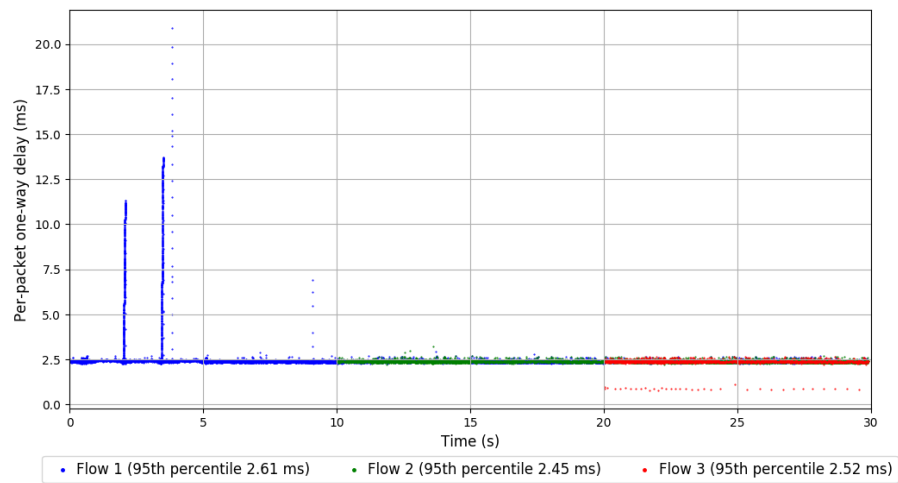
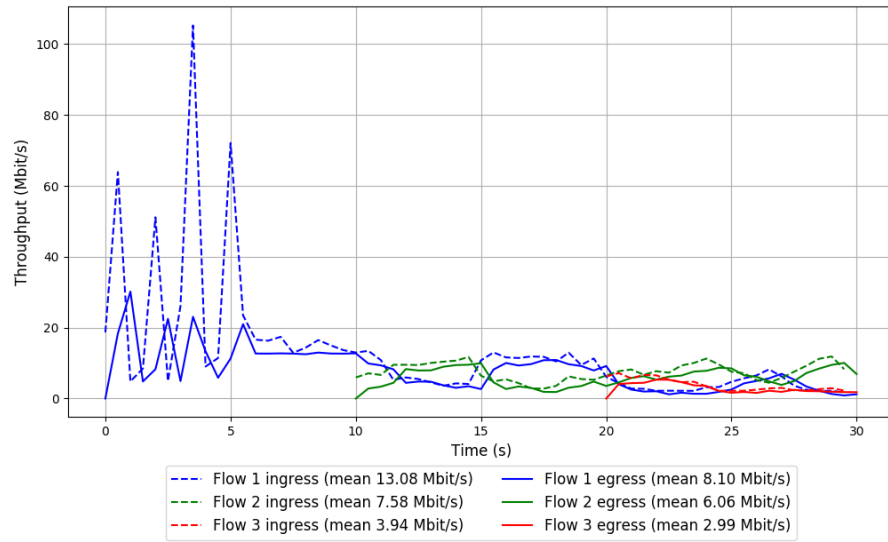


Run 2: Statistics of PCC-Expr

Start at: 2019-03-27 01:45:38
End at: 2019-03-27 01:46:08
Local clock offset: -6.119 ms
Remote clock offset: -0.011 ms

Below is generated by plot.py at 2019-03-27 03:13:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 2.520 ms
Loss rate: 32.50%
-- Flow 1:
Average throughput: 8.10 Mbit/s
95th percentile per-packet one-way delay: 2.613 ms
Loss rate: 38.10%
-- Flow 2:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 2.450 ms
Loss rate: 20.09%
-- Flow 3:
Average throughput: 2.99 Mbit/s
95th percentile per-packet one-way delay: 2.520 ms
Loss rate: 24.28%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-03-27 02:09:33

End at: 2019-03-27 02:10:03

Local clock offset: -7.251 ms

Remote clock offset: 0.062 ms

Below is generated by plot.py at 2019-03-27 03:13:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.12 Mbit/s

95th percentile per-packet one-way delay: 2.386 ms

Loss rate: 23.66%

-- Flow 1:

Average throughput: 9.20 Mbit/s

95th percentile per-packet one-way delay: 2.394 ms

Loss rate: 20.53%

-- Flow 2:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 0.985 ms

Loss rate: 28.68%

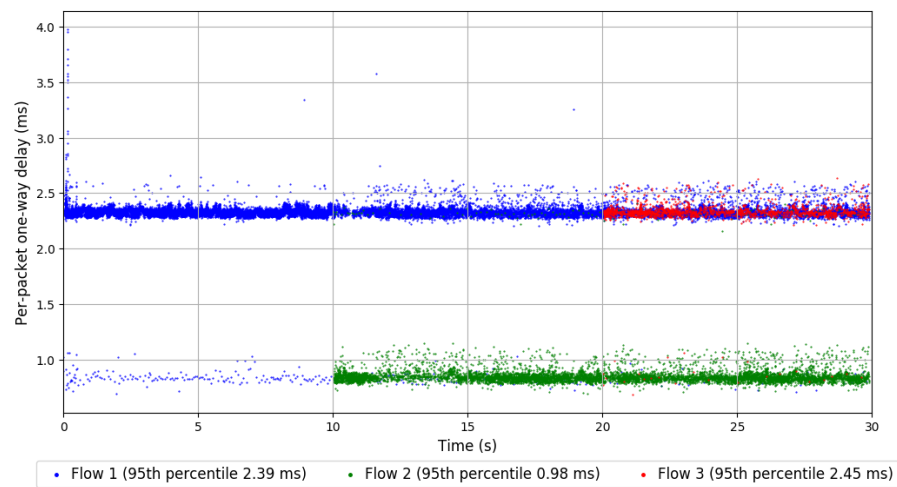
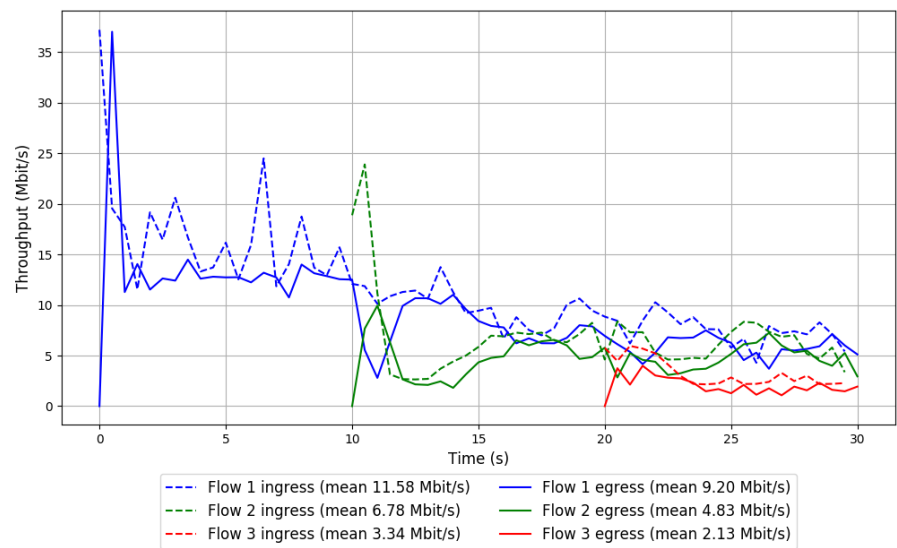
-- Flow 3:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 2.450 ms

Loss rate: 36.08%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-03-27 02:33:28

End at: 2019-03-27 02:33:59

Local clock offset: -7.8 ms

Remote clock offset: 0.228 ms

Below is generated by plot.py at 2019-03-27 03:13:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.12 Mbit/s

95th percentile per-packet one-way delay: 3.240 ms

Loss rate: 35.44%

-- Flow 1:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 3.261 ms

Loss rate: 37.21%

-- Flow 2:

Average throughput: 6.22 Mbit/s

95th percentile per-packet one-way delay: 1.837 ms

Loss rate: 29.75%

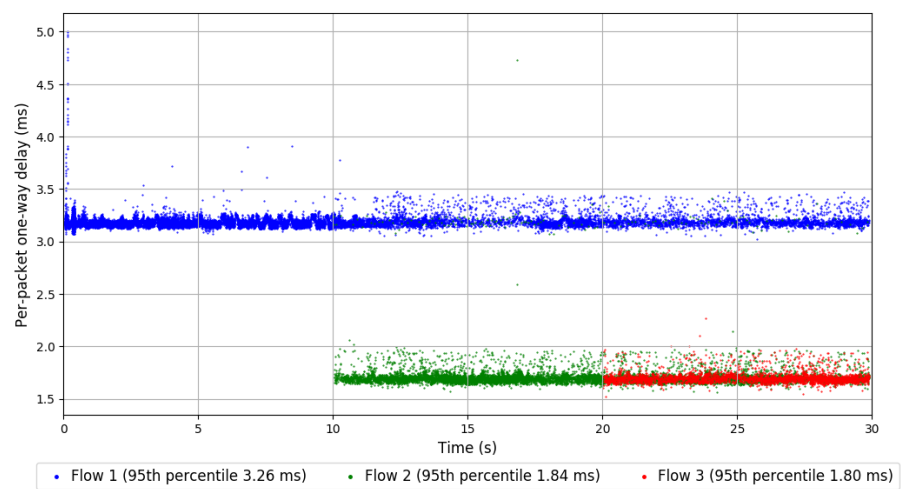
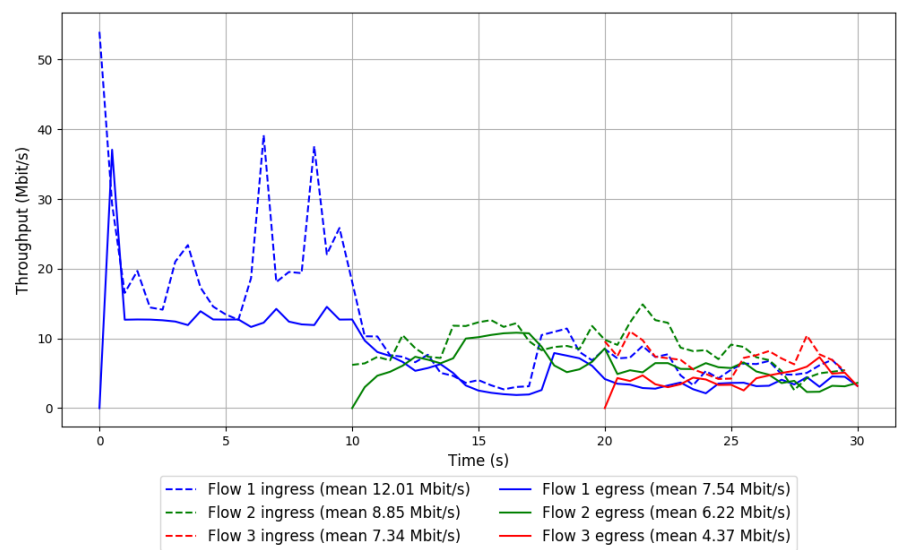
-- Flow 3:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 1.798 ms

Loss rate: 40.44%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-03-27 02:57:25

End at: 2019-03-27 02:57:55

Local clock offset: -3.16 ms

Remote clock offset: 0.128 ms

Below is generated by plot.py at 2019-03-27 03:13:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.12 Mbit/s

95th percentile per-packet one-way delay: 2.516 ms

Loss rate: 31.90%

-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 2.511 ms

Loss rate: 31.45%

-- Flow 2:

Average throughput: 4.82 Mbit/s

95th percentile per-packet one-way delay: 2.558 ms

Loss rate: 30.43%

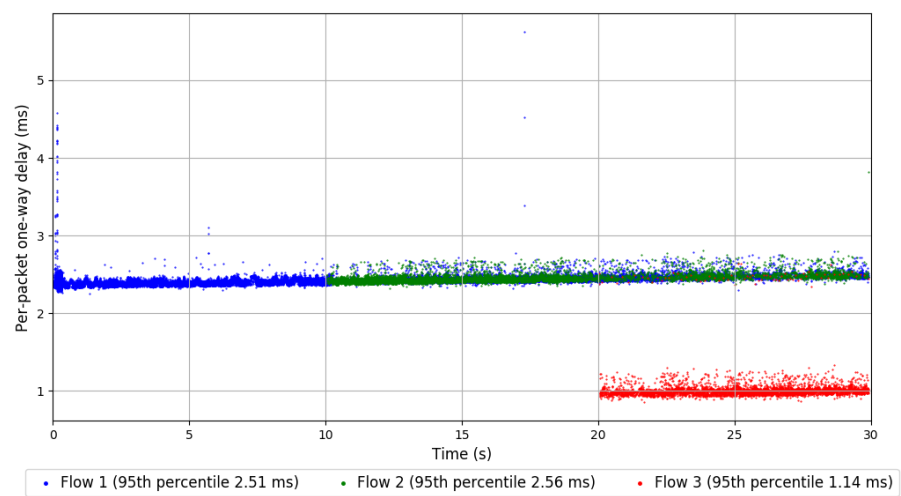
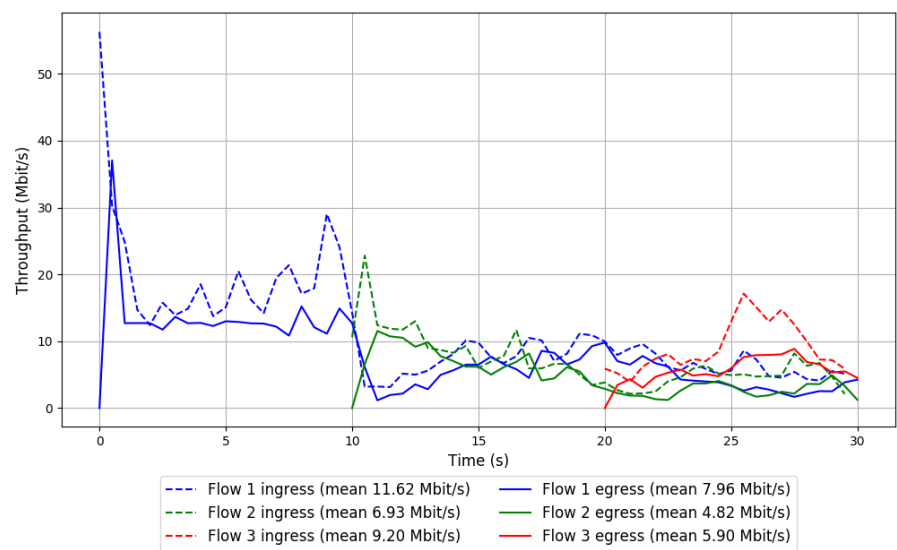
-- Flow 3:

Average throughput: 5.90 Mbit/s

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

Loss rate: 35.85%

Run 5: Report of PCC-Expr — Data Link

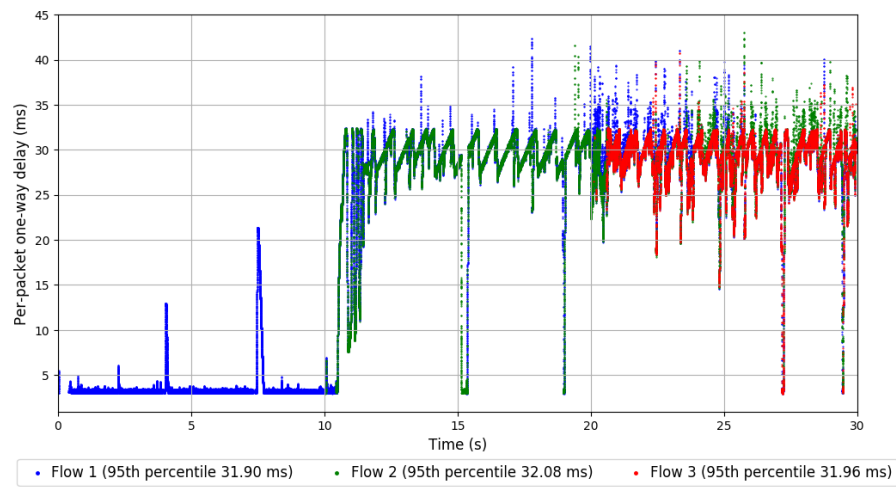
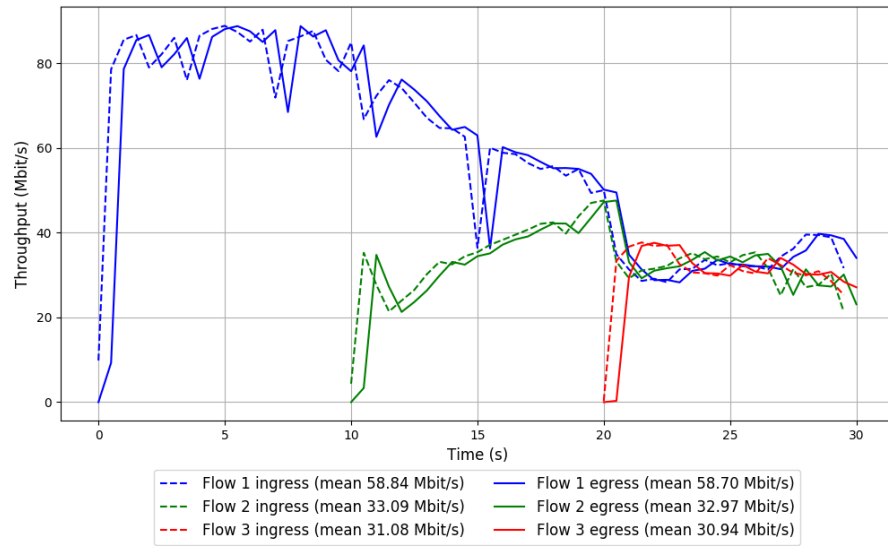


Run 1: Statistics of QUIC Cubic

Start at: 2019-03-27 01:27:25
End at: 2019-03-27 01:27:55
Local clock offset: -5.328 ms
Remote clock offset: -0.182 ms

Below is generated by plot.py at 2019-03-27 03:14:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.78 Mbit/s
95th percentile per-packet one-way delay: 31.962 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 58.70 Mbit/s
95th percentile per-packet one-way delay: 31.898 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 32.97 Mbit/s
95th percentile per-packet one-way delay: 32.076 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 31.964 ms
Loss rate: 0.37%

Run 1: Report of QUIC Cubic — Data Link

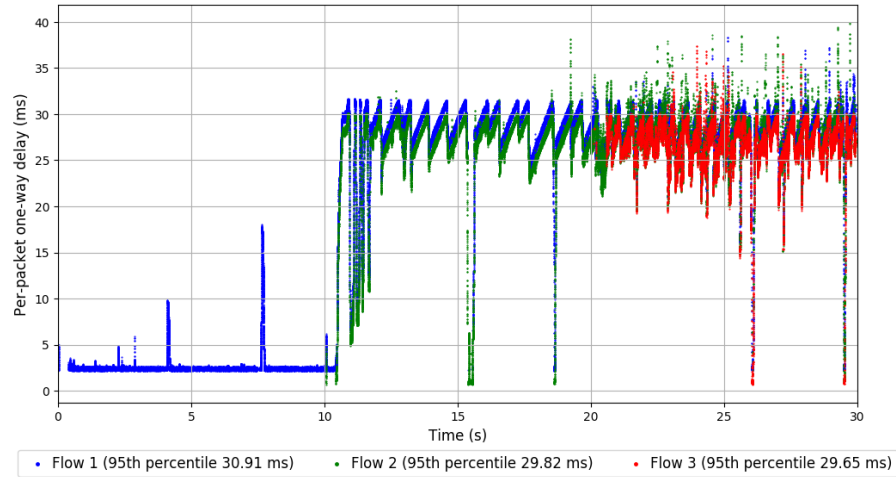
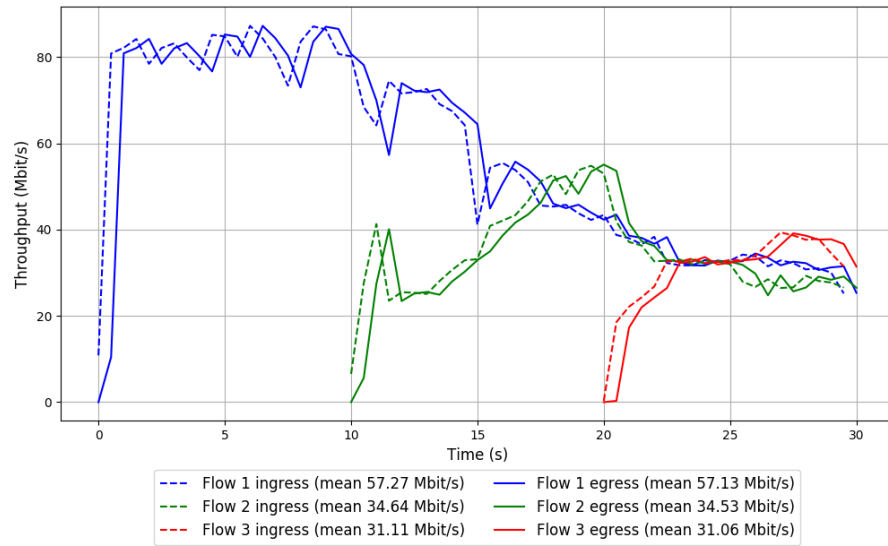


Run 2: Statistics of QUIC Cubic

Start at: 2019-03-27 01:51:21
End at: 2019-03-27 01:51:51
Local clock offset: -6.464 ms
Remote clock offset: -0.047 ms

Below is generated by plot.py at 2019-03-27 03:14:44
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.29 Mbit/s
95th percentile per-packet one-way delay: 30.730 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 57.13 Mbit/s
95th percentile per-packet one-way delay: 30.908 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 34.53 Mbit/s
95th percentile per-packet one-way delay: 29.825 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 31.06 Mbit/s
95th percentile per-packet one-way delay: 29.647 ms
Loss rate: 0.13%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-03-27 02:15:16

End at: 2019-03-27 02:15:46

Local clock offset: -7.467 ms

Remote clock offset: 0.113 ms

Below is generated by plot.py at 2019-03-27 03:14:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.83 Mbit/s

95th percentile per-packet one-way delay: 30.998 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 31.094 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 34.67 Mbit/s

95th percentile per-packet one-way delay: 29.711 ms

Loss rate: 0.20%

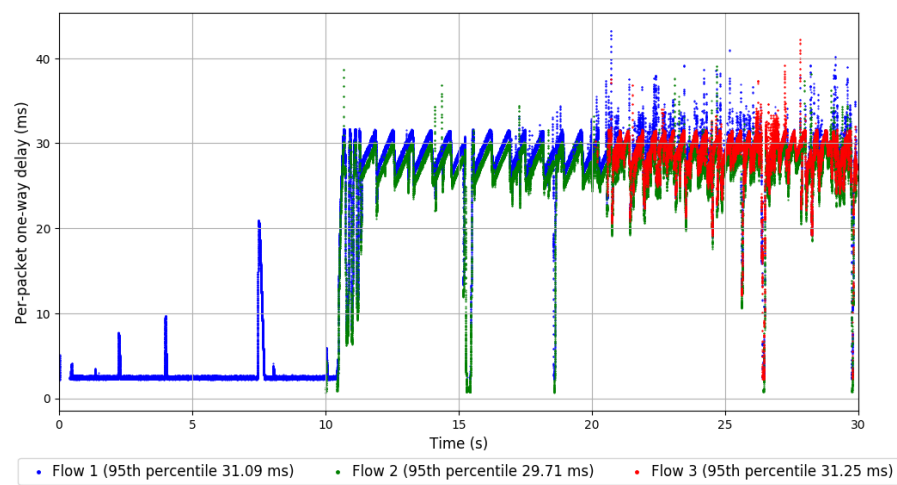
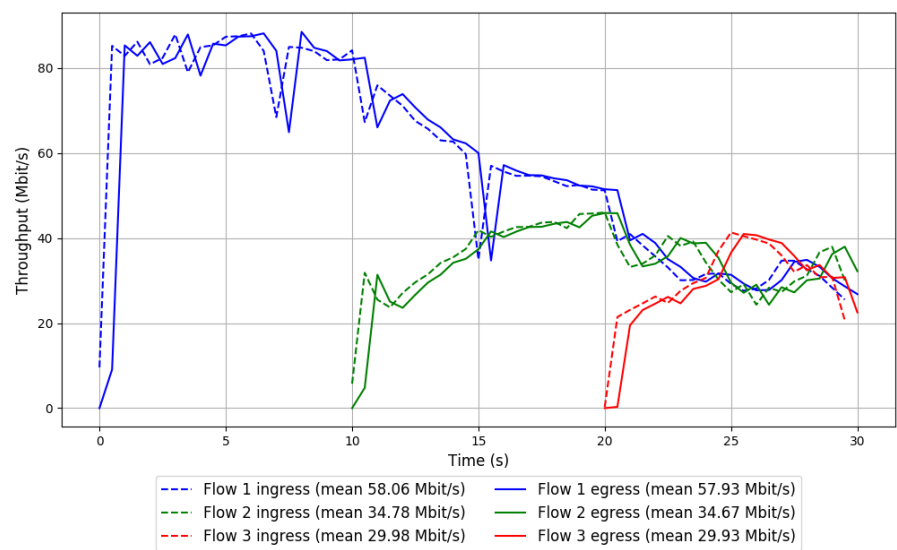
-- Flow 3:

Average throughput: 29.93 Mbit/s

95th percentile per-packet one-way delay: 31.250 ms

Loss rate: 0.22%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-03-27 02:39:12

End at: 2019-03-27 02:39:42

Local clock offset: -7.879 ms

Remote clock offset: 0.144 ms

Below is generated by plot.py at 2019-03-27 03:14:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.78 Mbit/s

95th percentile per-packet one-way delay: 30.488 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 58.70 Mbit/s

95th percentile per-packet one-way delay: 30.406 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 34.01 Mbit/s

95th percentile per-packet one-way delay: 30.573 ms

Loss rate: 0.17%

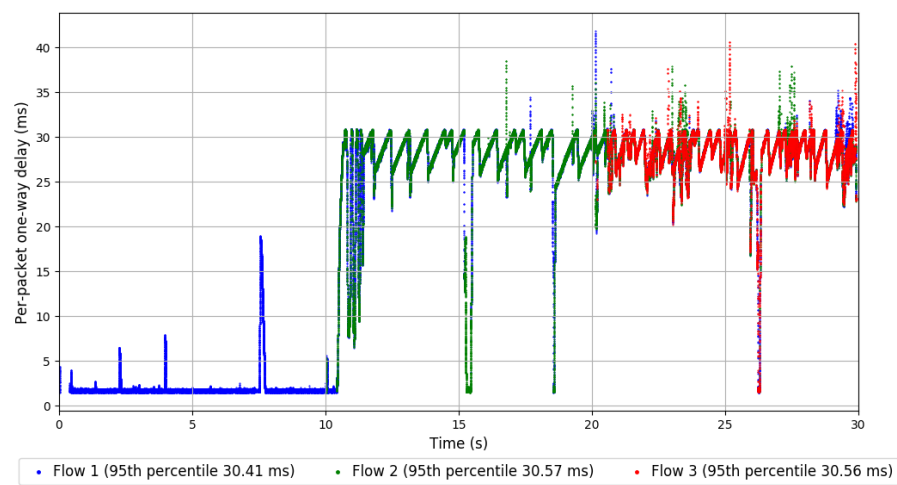
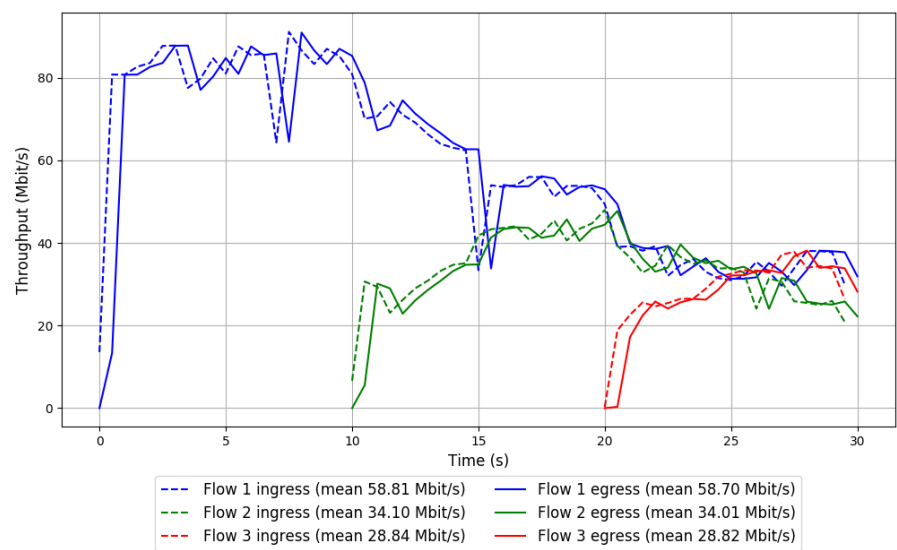
-- Flow 3:

Average throughput: 28.82 Mbit/s

95th percentile per-packet one-way delay: 30.564 ms

Loss rate: 0.17%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

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

End at: 2019-03-27 03:03:38

Local clock offset: -2.942 ms

Remote clock offset: 0.198 ms

Below is generated by plot.py at 2019-03-27 03:14:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.87 Mbit/s

95th percentile per-packet one-way delay: 32.159 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 55.13 Mbit/s

95th percentile per-packet one-way delay: 32.086 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 36.40 Mbit/s

95th percentile per-packet one-way delay: 32.198 ms

Loss rate: 0.16%

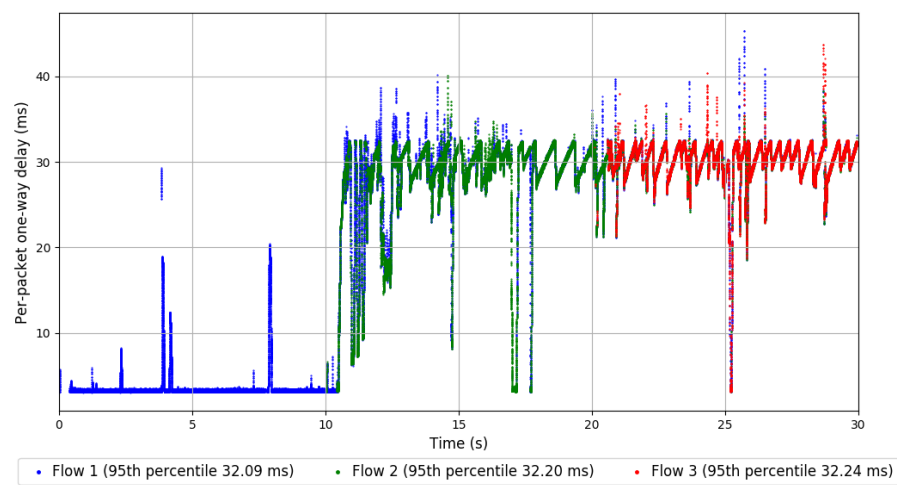
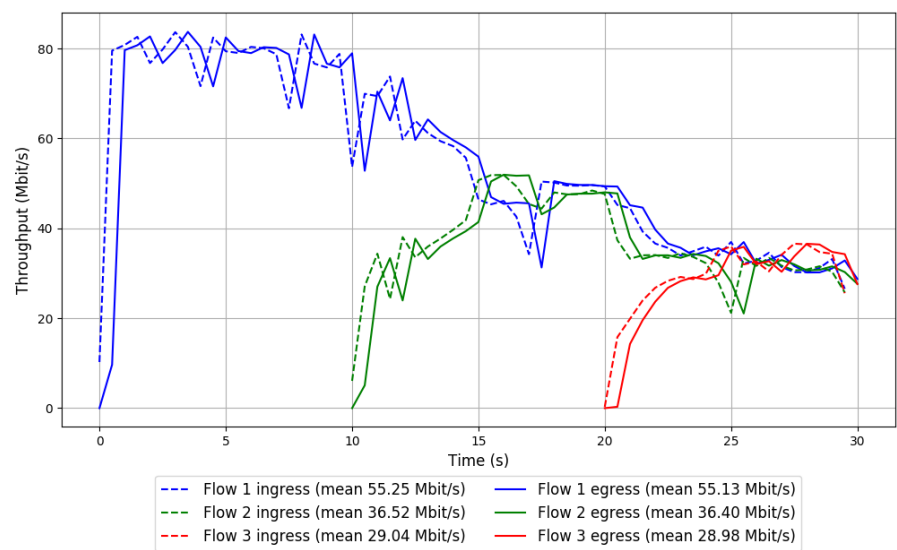
-- Flow 3:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 32.242 ms

Loss rate: 0.19%

Run 5: Report of QUIC Cubic — Data Link

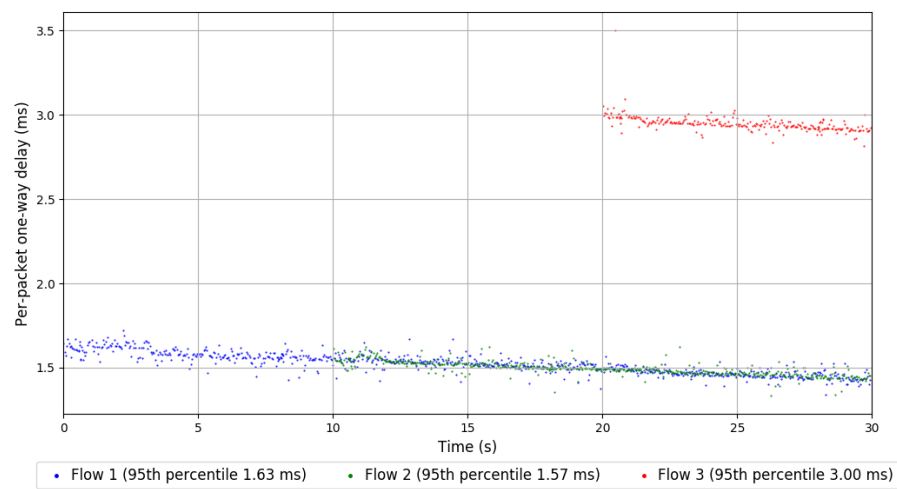
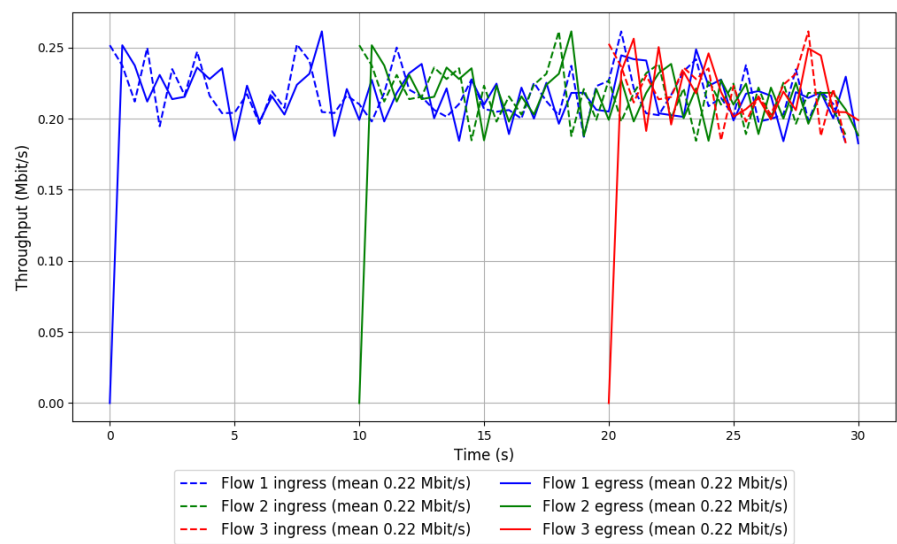


```
Run 1: Statistics of SReAM

Start at: 2019-03-27 01:19:29
End at: 2019-03-27 01:19:59
Local clock offset: -3.257 ms
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-03-27 03:14:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.627 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.567 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.005 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

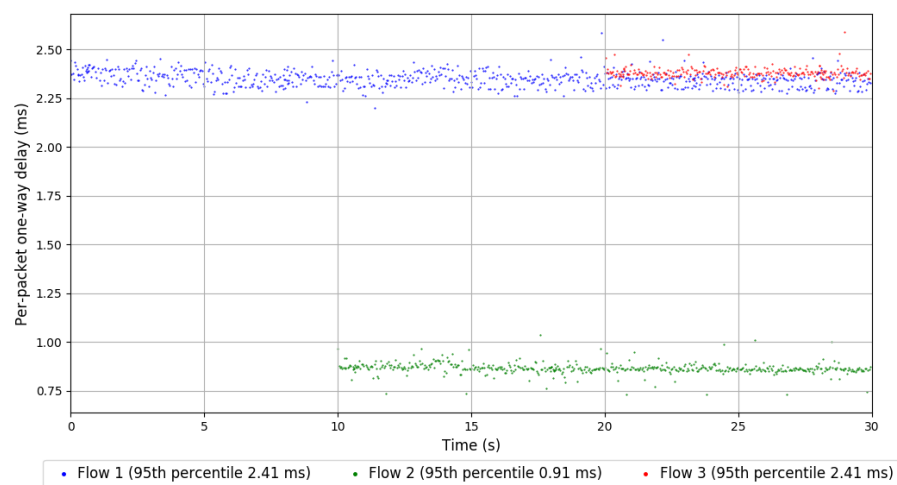
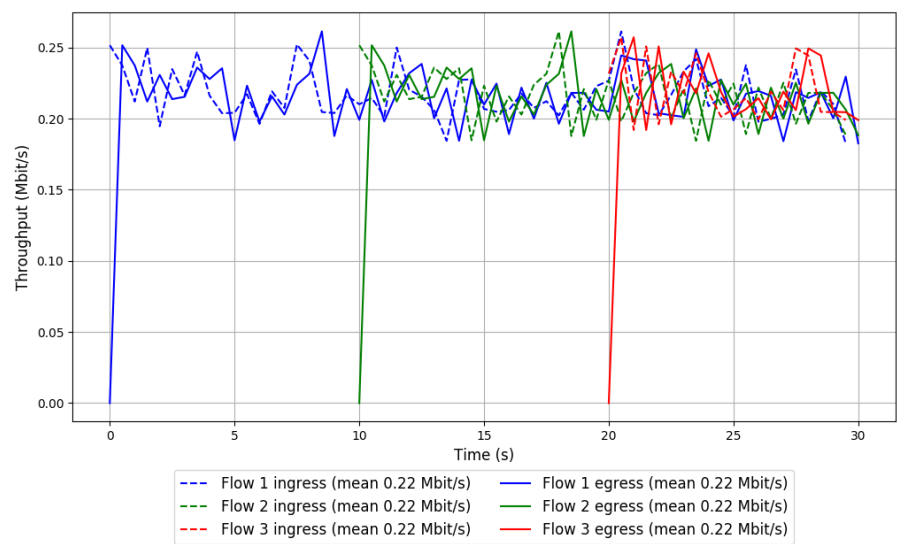


Run 2: Statistics of SReAM

Start at: 2019-03-27 01:43:25
End at: 2019-03-27 01:43:55
Local clock offset: -5.998 ms
Remote clock offset: -0.051 ms

Below is generated by plot.py at 2019-03-27 03:14:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 2.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.411 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.905 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.413 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

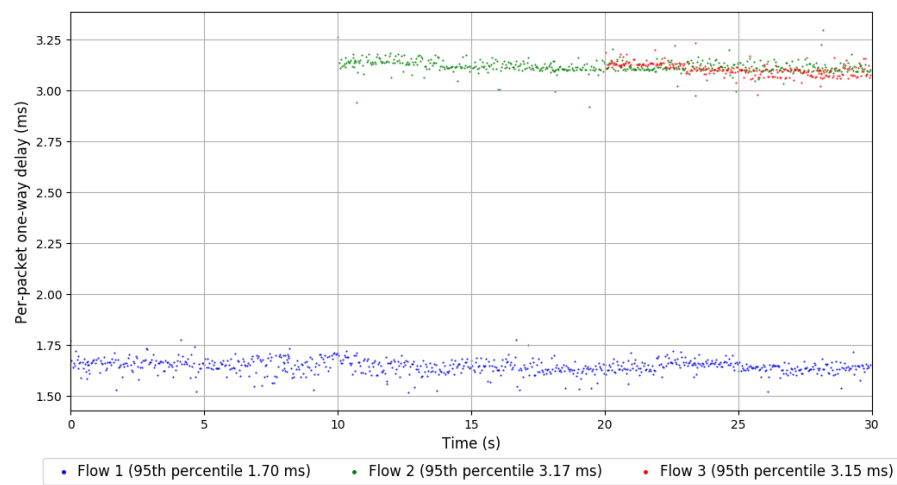
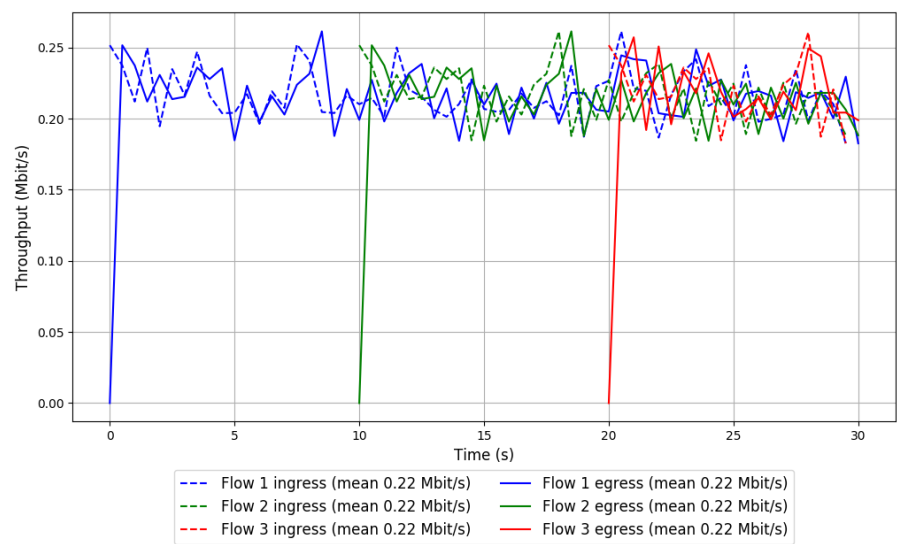


Run 3: Statistics of SReAM

Start at: 2019-03-27 02:07:21
End at: 2019-03-27 02:07:51
Local clock offset: -7.923 ms
Remote clock offset: 0.06 ms

Below is generated by plot.py at 2019-03-27 03:14:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 3.147 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.701 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.150 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-03-27 02:31:16

End at: 2019-03-27 02:31:46

Local clock offset: -7.069 ms

Remote clock offset: 0.188 ms

Below is generated by plot.py at 2019-03-27 03:14:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.493 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.494 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.992 ms

Loss rate: 0.00%

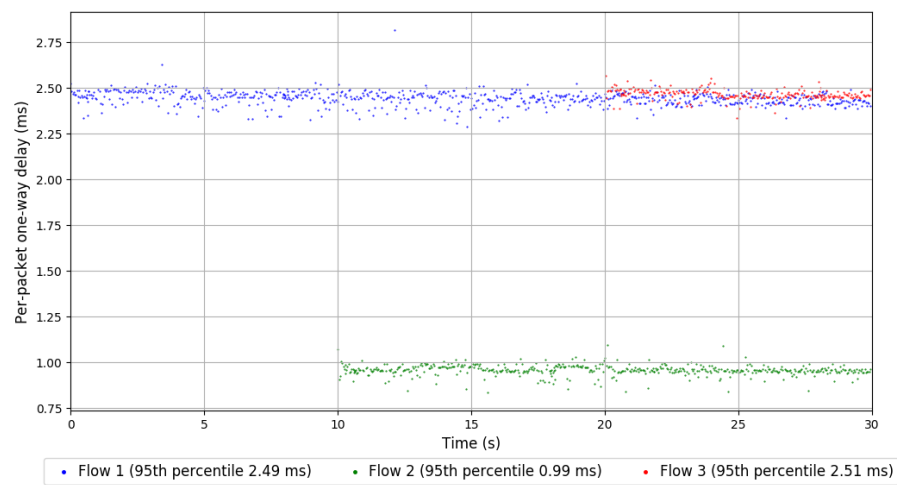
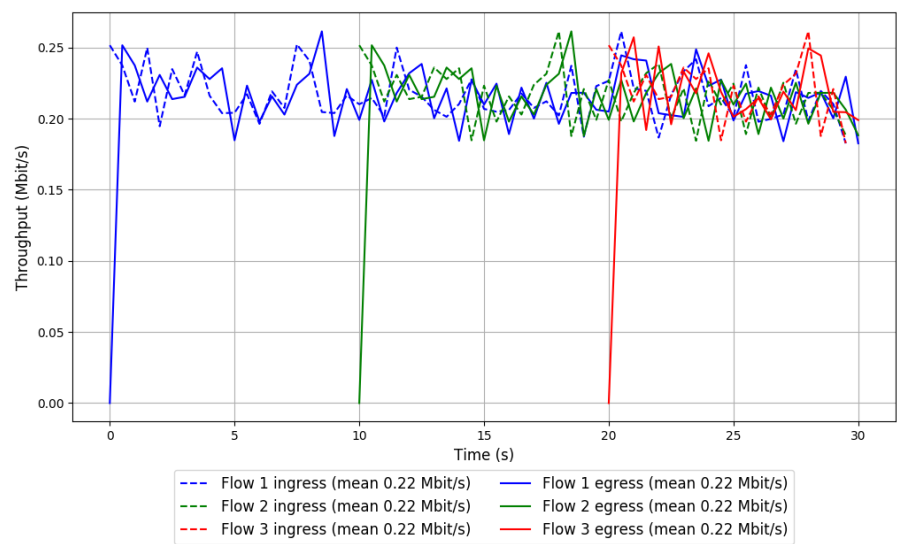
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.512 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-03-27 02:55:12

End at: 2019-03-27 02:55:42

Local clock offset: -3.763 ms

Remote clock offset: 0.15 ms

Below is generated by plot.py at 2019-03-27 03:14:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 2.626 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.139 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

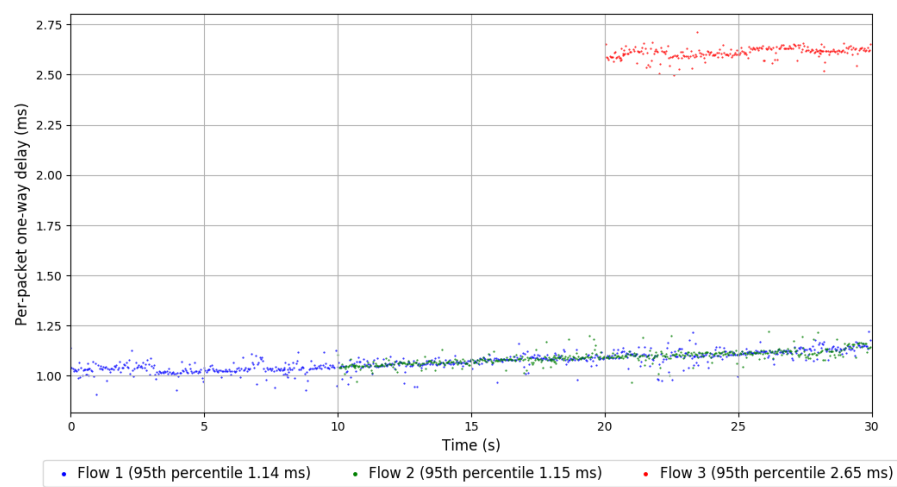
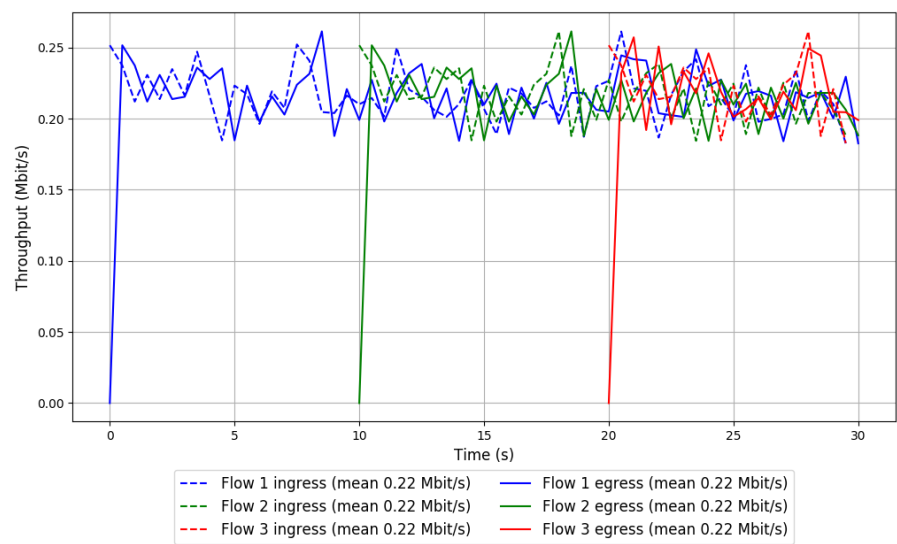
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.648 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

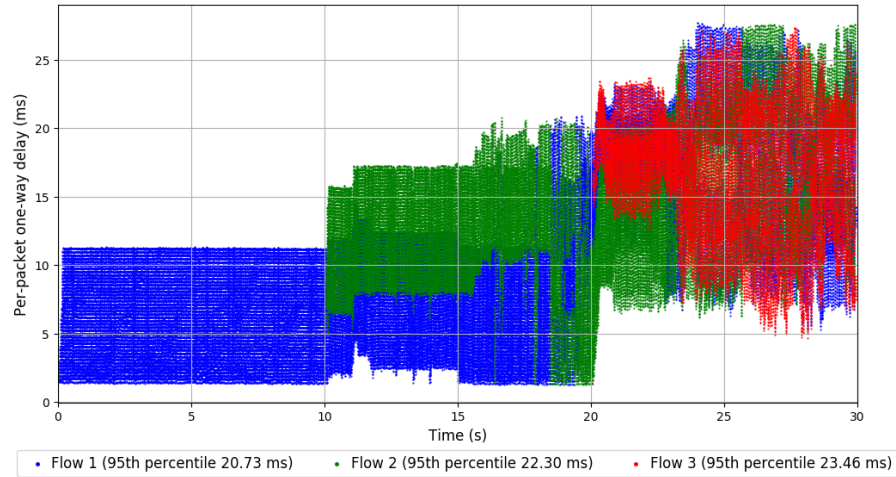
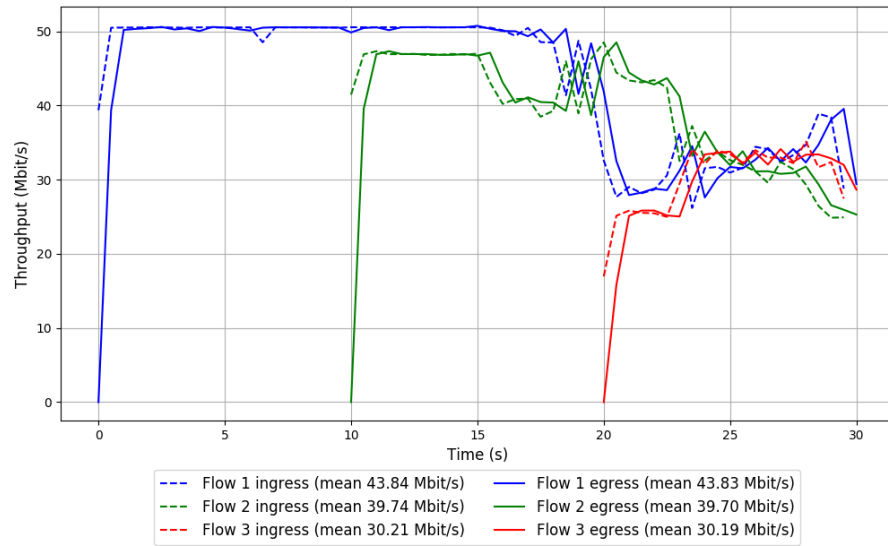


Run 1: Statistics of Sprout

Start at: 2019-03-27 01:20:34
End at: 2019-03-27 01:21:04
Local clock offset: -3.549 ms
Remote clock offset: -0.209 ms

Below is generated by plot.py at 2019-03-27 03:14:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.23 Mbit/s
95th percentile per-packet one-way delay: 21.972 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.83 Mbit/s
95th percentile per-packet one-way delay: 20.730 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.70 Mbit/s
95th percentile per-packet one-way delay: 22.298 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.19 Mbit/s
95th percentile per-packet one-way delay: 23.461 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

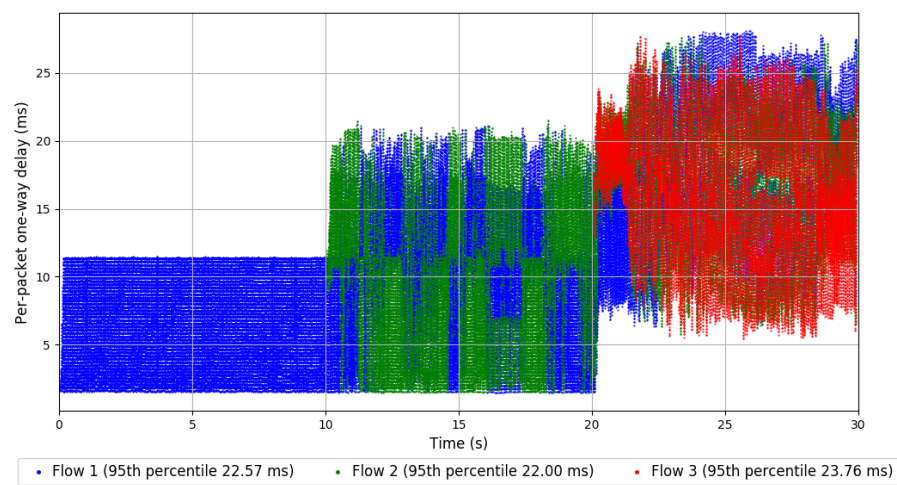
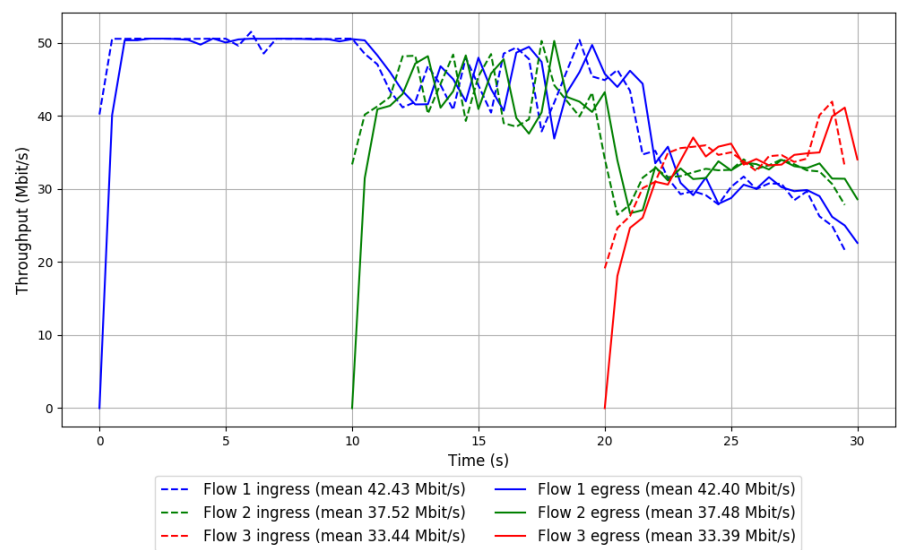


Run 2: Statistics of Sprout

Start at: 2019-03-27 01:44:31
End at: 2019-03-27 01:45:01
Local clock offset: -6.826 ms
Remote clock offset: -0.074 ms

Below is generated by plot.py at 2019-03-27 03:14:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 78.38 Mbit/s
95th percentile per-packet one-way delay: 22.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.40 Mbit/s
95th percentile per-packet one-way delay: 22.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.48 Mbit/s
95th percentile per-packet one-way delay: 22.002 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.39 Mbit/s
95th percentile per-packet one-way delay: 23.761 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2019-03-27 02:08:26

End at: 2019-03-27 02:08:56

Local clock offset: -7.964 ms

Remote clock offset: 0.008 ms

Below is generated by plot.py at 2019-03-27 03:14:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.81 Mbit/s

95th percentile per-packet one-way delay: 23.024 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 42.31 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.37 Mbit/s

95th percentile per-packet one-way delay: 23.546 ms

Loss rate: 0.00%

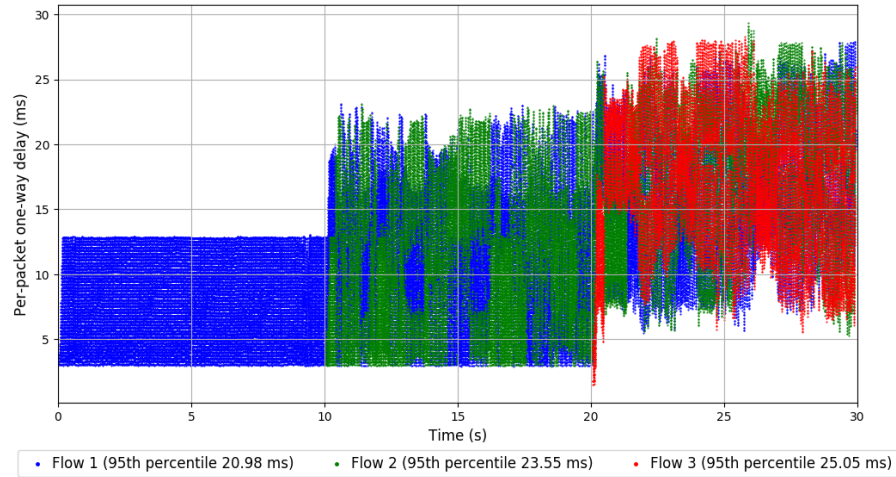
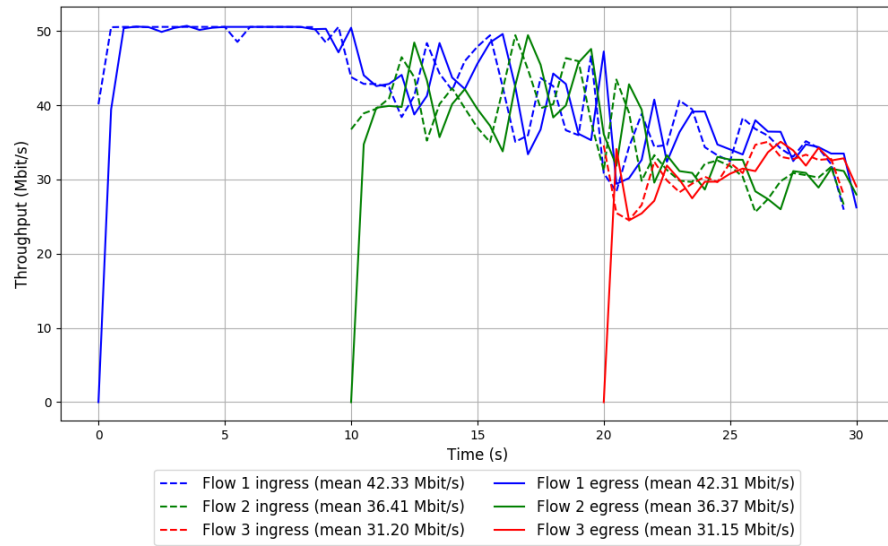
-- Flow 3:

Average throughput: 31.15 Mbit/s

95th percentile per-packet one-way delay: 25.050 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

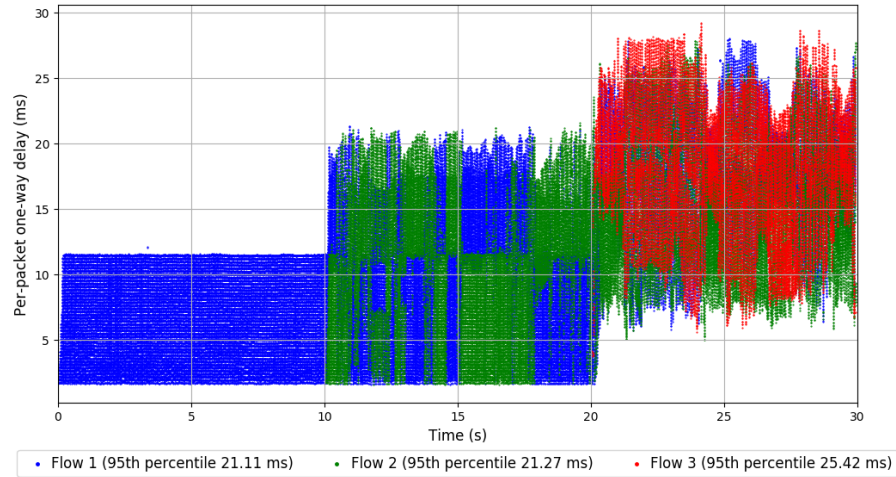
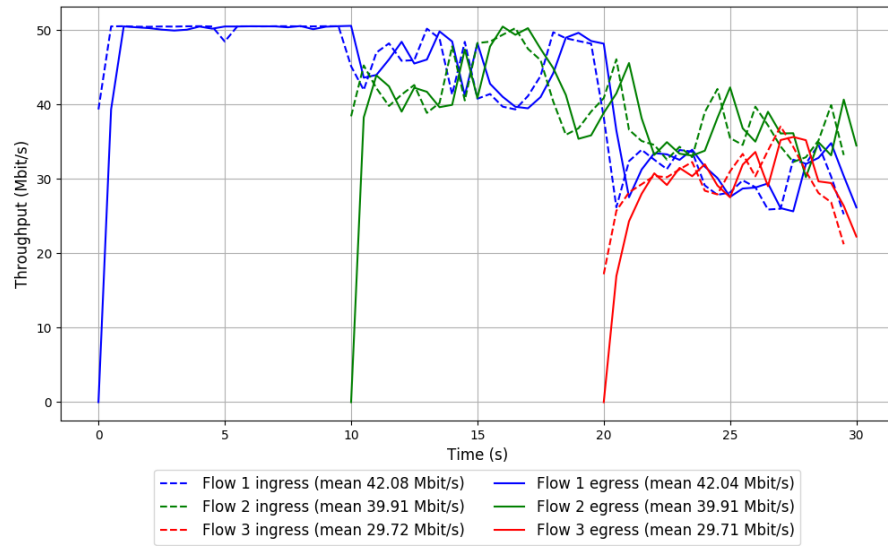


Run 4: Statistics of Sprout

Start at: 2019-03-27 02:32:21
End at: 2019-03-27 02:32:51
Local clock offset: -7.859 ms
Remote clock offset: 0.192 ms

```
# Below is generated by plot.py at 2019-03-27 03:15:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.40 Mbit/s
95th percentile per-packet one-way delay: 22.535 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 42.04 Mbit/s
95th percentile per-packet one-way delay: 21.110 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 21.274 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 25.420 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

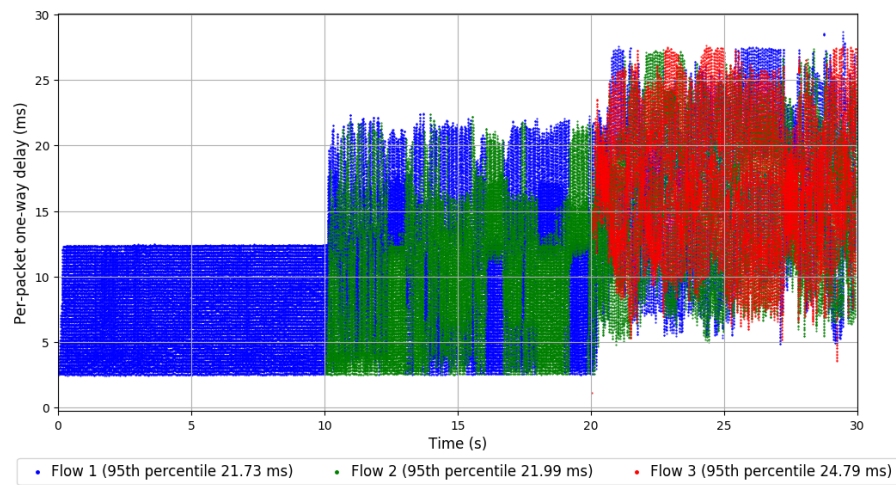
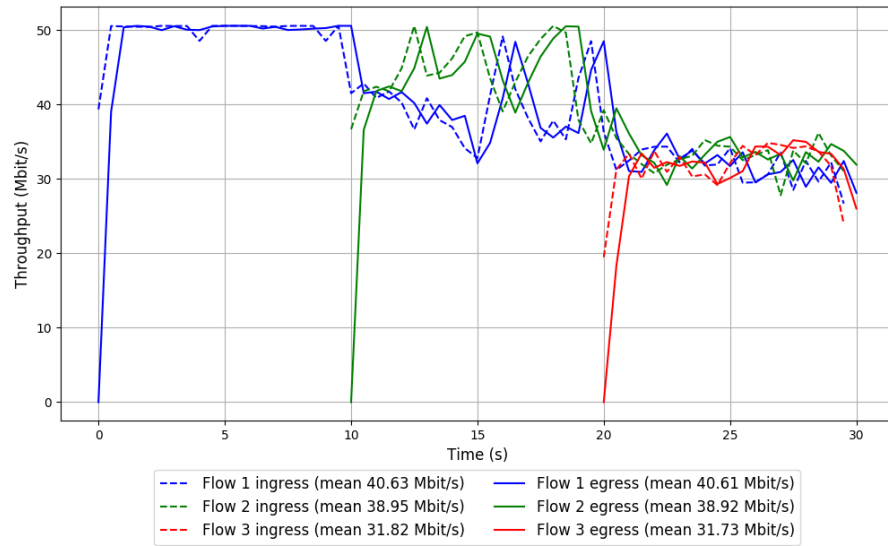


Run 5: Statistics of Sprout

Start at: 2019-03-27 02:56:18
End at: 2019-03-27 02:56:48
Local clock offset: -3.452 ms
Remote clock offset: 0.248 ms

```
# Below is generated by plot.py at 2019-03-27 03:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.00 Mbit/s
95th percentile per-packet one-way delay: 22.692 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 21.731 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.92 Mbit/s
95th percentile per-packet one-way delay: 21.990 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.73 Mbit/s
95th percentile per-packet one-way delay: 24.793 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

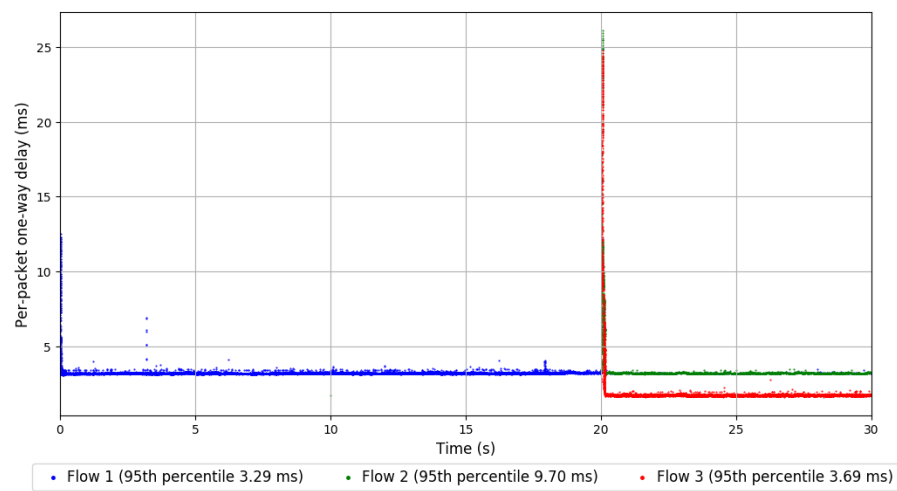
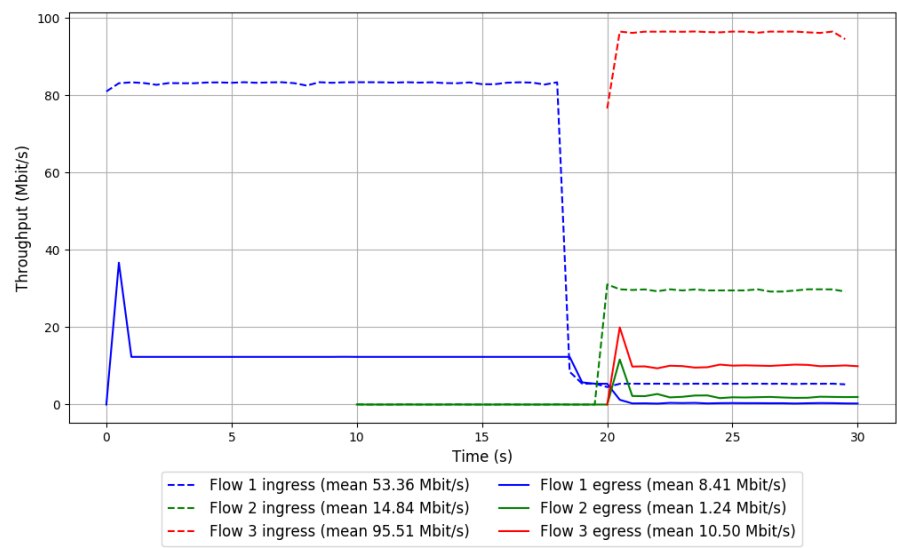


Run 1: Statistics of TaoVA-100x

Start at: 2019-03-27 01:14:53
End at: 2019-03-27 01:15:23
Local clock offset: -1.774 ms
Remote clock offset: -0.247 ms

Below is generated by plot.py at 2019-03-27 03:15:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.340 ms
Loss rate: 86.60%
-- Flow 1:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 3.288 ms
Loss rate: 84.24%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 9.703 ms
Loss rate: 91.62%
-- Flow 3:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 3.693 ms
Loss rate: 89.01%

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

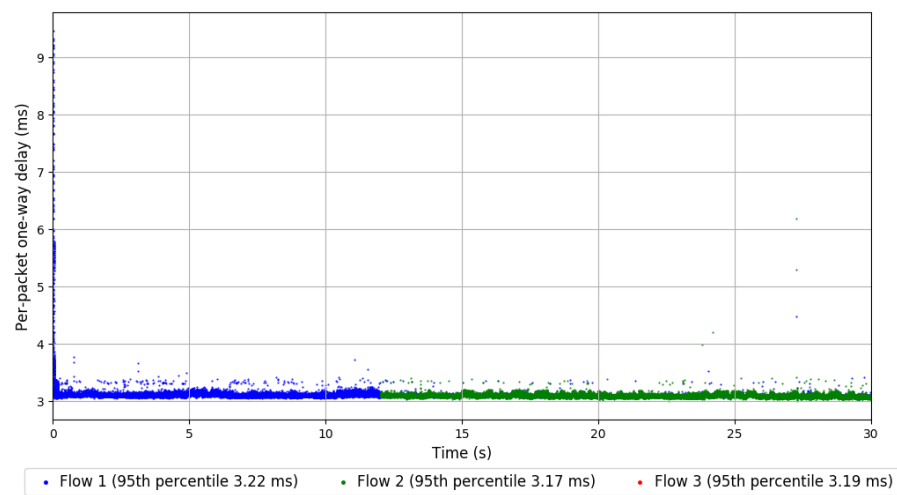
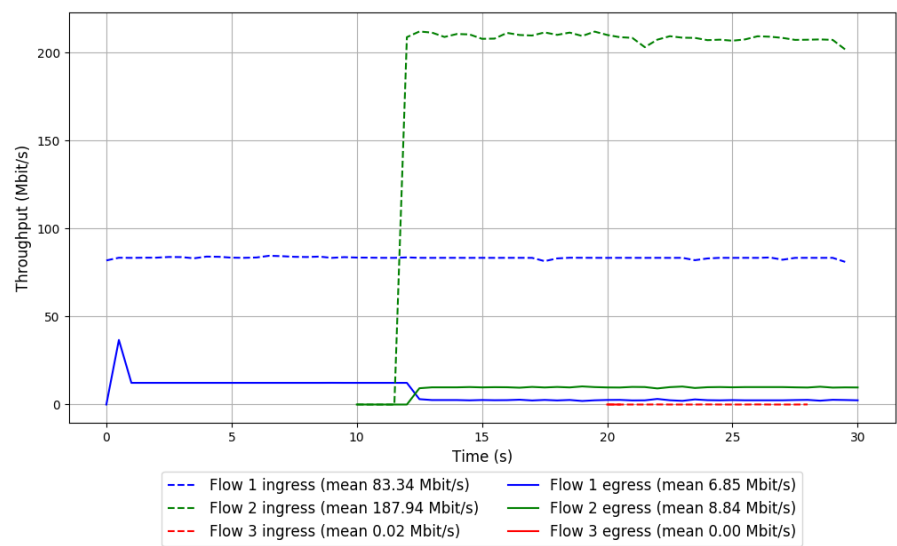


Run 2: Statistics of TaoVA-100x

Start at: 2019-03-27 01:38:48
End at: 2019-03-27 01:39:18
Local clock offset: -6.508 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-03-27 03:15:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 3.184 ms
Loss rate: 93.90%
-- Flow 1:
Average throughput: 6.85 Mbit/s
95th percentile per-packet one-way delay: 3.219 ms
Loss rate: 91.79%
-- Flow 2:
Average throughput: 8.84 Mbit/s
95th percentile per-packet one-way delay: 3.166 ms
Loss rate: 95.30%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3.192 ms
Loss rate: 99.16%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-03-27 02:02:44

End at: 2019-03-27 02:03:14

Local clock offset: -7.799 ms

Remote clock offset: 0.111 ms

Below is generated by plot.py at 2019-03-27 03:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 3.276 ms

Loss rate: 93.50%

-- Flow 1:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 3.283 ms

Loss rate: 90.95%

-- Flow 2:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 3.268 ms

Loss rate: 95.38%

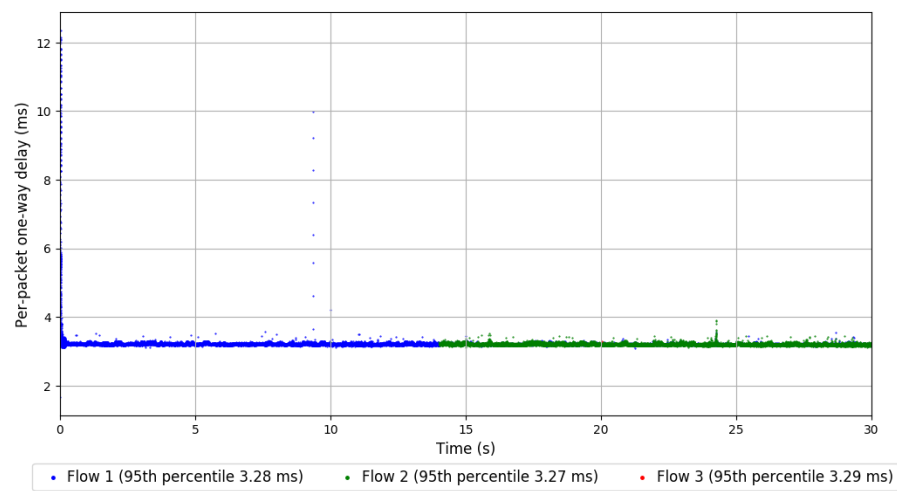
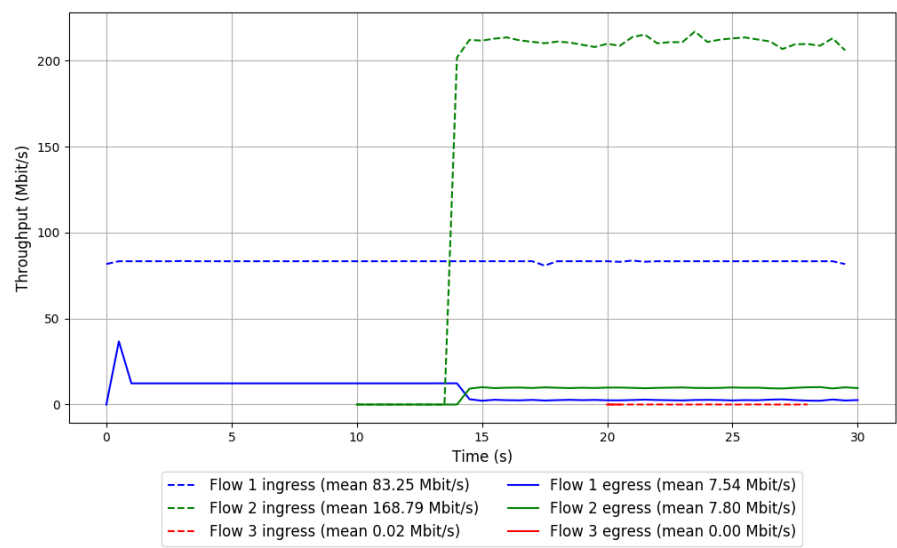
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3.292 ms

Loss rate: 99.16%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-03-27 02:26:39

End at: 2019-03-27 02:27:09

Local clock offset: -7.8 ms

Remote clock offset: 0.134 ms

Below is generated by plot.py at 2019-03-27 03:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 1.688 ms

Loss rate: 92.34%

-- Flow 1:

Average throughput: 8.83 Mbit/s

95th percentile per-packet one-way delay: 1.687 ms

Loss rate: 89.40%

-- Flow 2:

Average throughput: 5.86 Mbit/s

95th percentile per-packet one-way delay: 1.688 ms

Loss rate: 95.30%

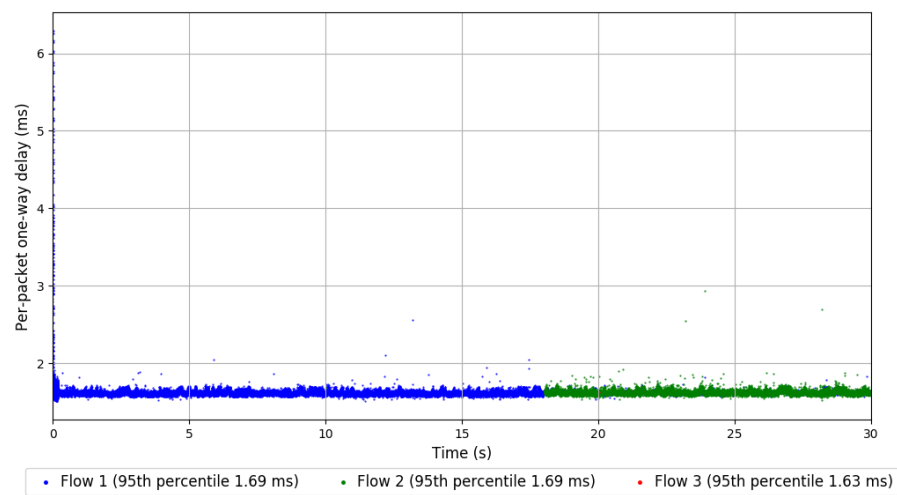
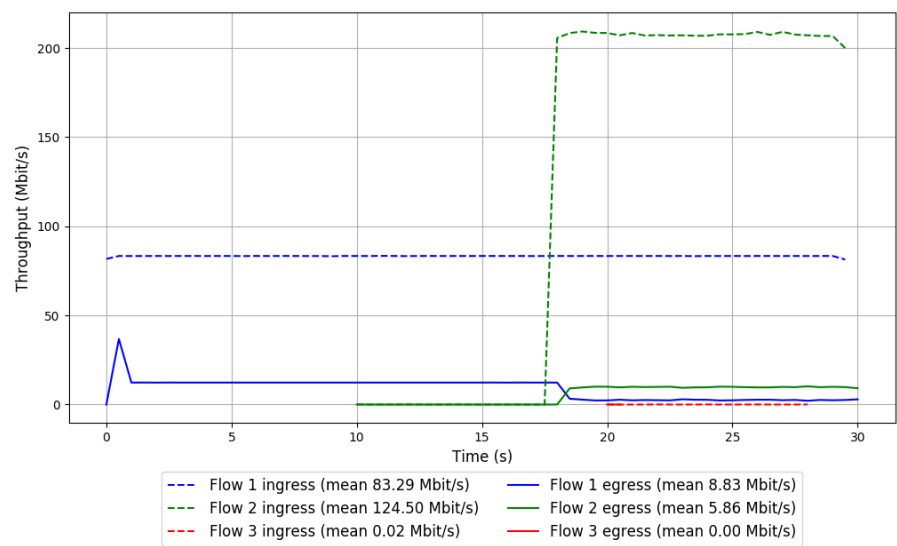
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 1.634 ms

Loss rate: 99.16%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-03-27 02:50:37

End at: 2019-03-27 02:51:07

Local clock offset: -6.105 ms

Remote clock offset: 0.244 ms

Below is generated by plot.py at 2019-03-27 03:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 3.554 ms

Loss rate: 84.88%

-- Flow 1:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 3.539 ms

Loss rate: 83.30%

-- Flow 2:

Average throughput: 8.21 Mbit/s

95th percentile per-packet one-way delay: 2.053 ms

Loss rate: 84.73%

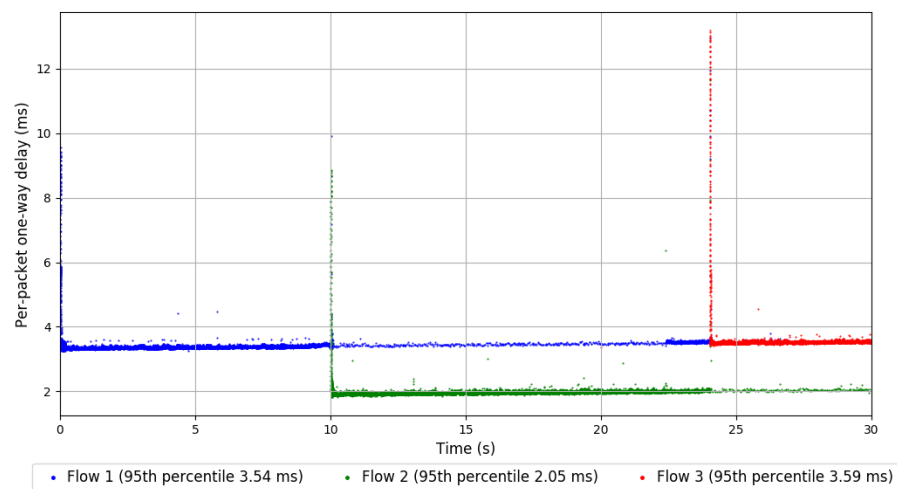
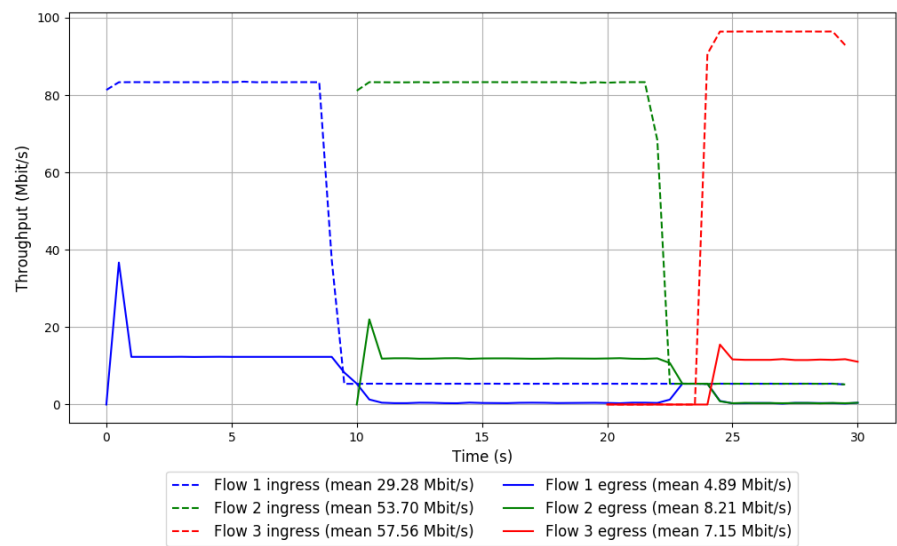
-- Flow 3:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 3.593 ms

Loss rate: 87.58%

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

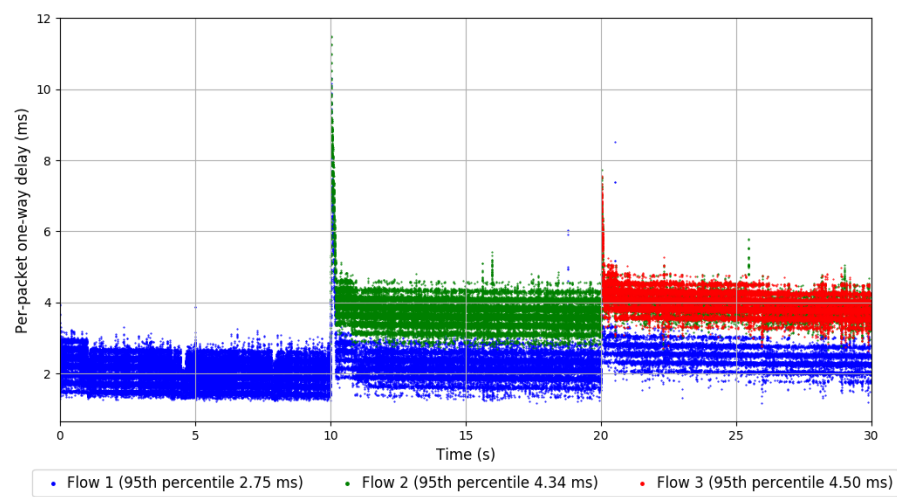
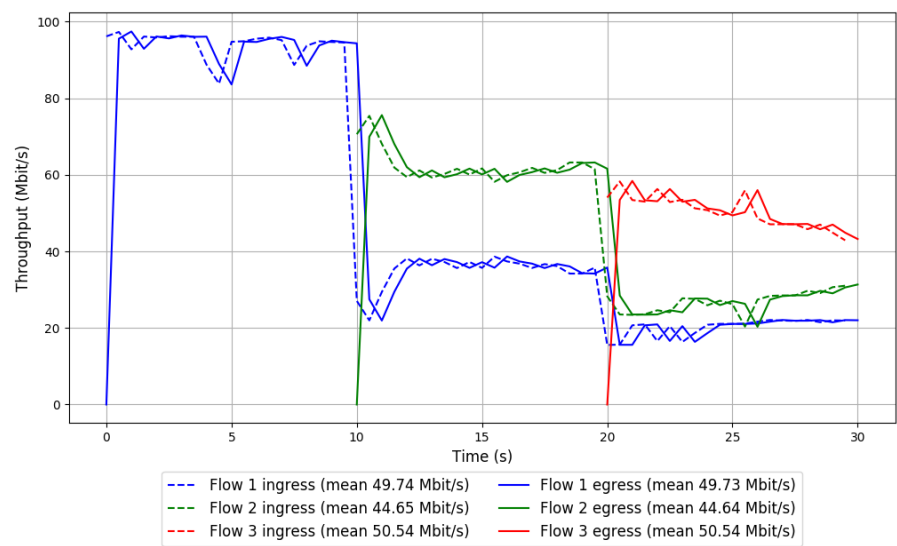


Run 1: Statistics of TCP Vegas

Start at: 2019-03-27 01:18:19
End at: 2019-03-27 01:18:49
Local clock offset: -2.702 ms
Remote clock offset: -0.253 ms

Below is generated by plot.py at 2019-03-27 03:16:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 4.290 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.73 Mbit/s
95th percentile per-packet one-way delay: 2.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.64 Mbit/s
95th percentile per-packet one-way delay: 4.345 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.54 Mbit/s
95th percentile per-packet one-way delay: 4.504 ms
Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

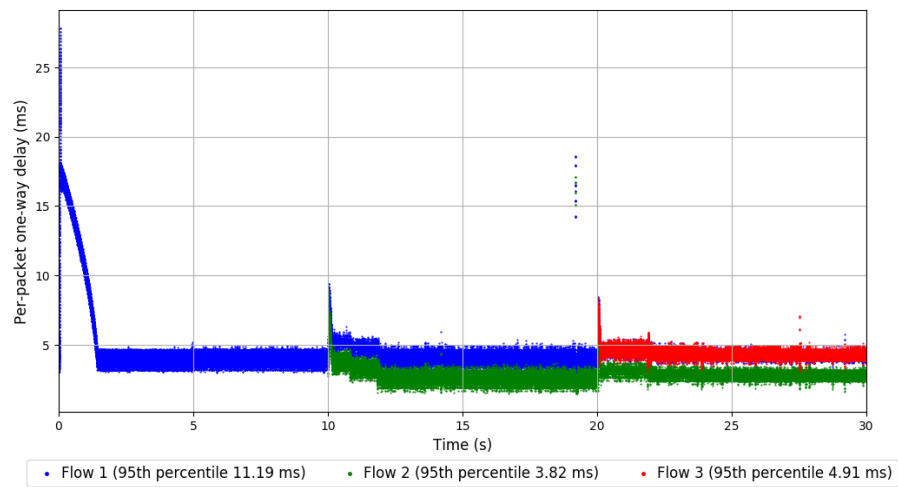
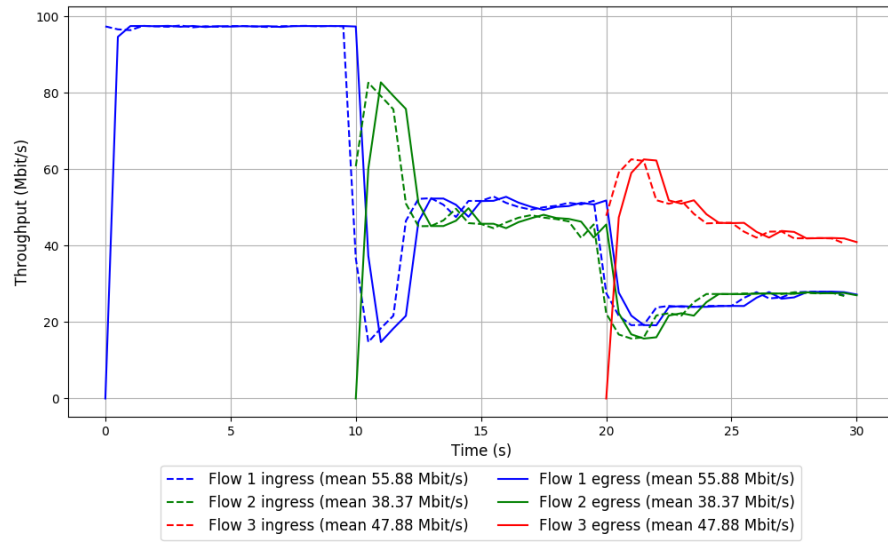


Run 2: Statistics of TCP Vegas

Start at: 2019-03-27 01:42:16
End at: 2019-03-27 01:42:46
Local clock offset: -6.706 ms
Remote clock offset: -0.065 ms

Below is generated by plot.py at 2019-03-27 03:16:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 5.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 11.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.37 Mbit/s
95th percentile per-packet one-way delay: 3.821 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.88 Mbit/s
95th percentile per-packet one-way delay: 4.914 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-03-27 02:06:11

End at: 2019-03-27 02:06:41

Local clock offset: -7.1 ms

Remote clock offset: 0.046 ms

Below is generated by plot.py at 2019-03-27 03:16:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 4.077 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.56 Mbit/s

95th percentile per-packet one-way delay: 3.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 55.84 Mbit/s

95th percentile per-packet one-way delay: 4.113 ms

Loss rate: 0.00%

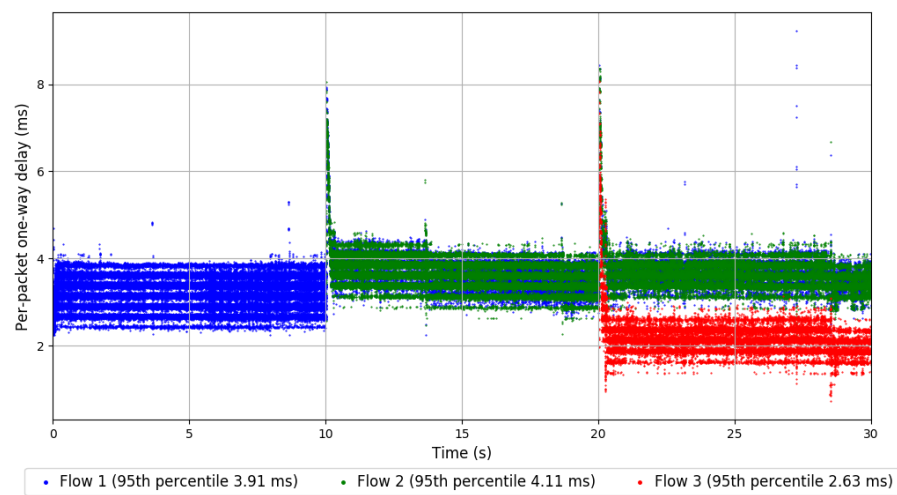
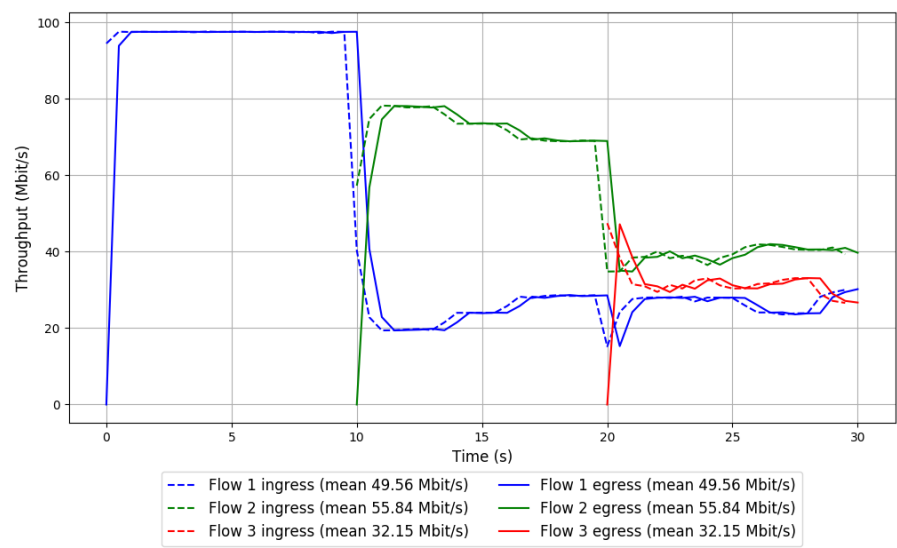
-- Flow 3:

Average throughput: 32.15 Mbit/s

95th percentile per-packet one-way delay: 2.634 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-03-27 02:30:06

End at: 2019-03-27 02:30:36

Local clock offset: -7.091 ms

Remote clock offset: 0.071 ms

Below is generated by plot.py at 2019-03-27 03:16:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 4.179 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.29 Mbit/s

95th percentile per-packet one-way delay: 8.669 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.19 Mbit/s

95th percentile per-packet one-way delay: 3.921 ms

Loss rate: 0.00%

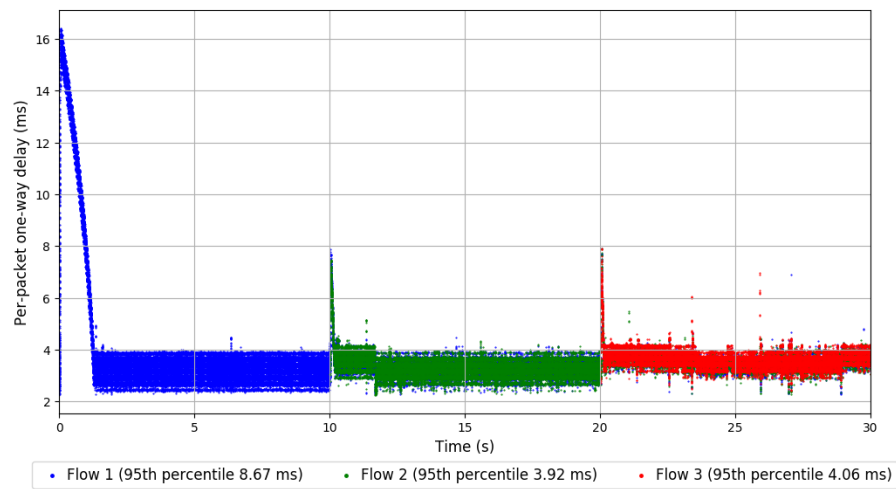
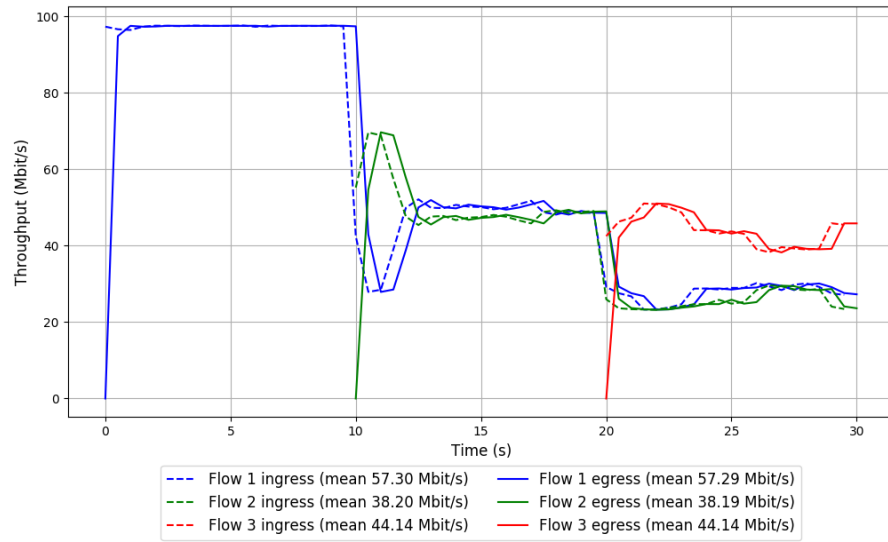
-- Flow 3:

Average throughput: 44.14 Mbit/s

95th percentile per-packet one-way delay: 4.057 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-03-27 02:54:03

End at: 2019-03-27 02:54:33

Local clock offset: -4.944 ms

Remote clock offset: 0.205 ms

Below is generated by plot.py at 2019-03-27 03:16:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 3.598 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.21 Mbit/s

95th percentile per-packet one-way delay: 3.483 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.29 Mbit/s

95th percentile per-packet one-way delay: 3.585 ms

Loss rate: 0.00%

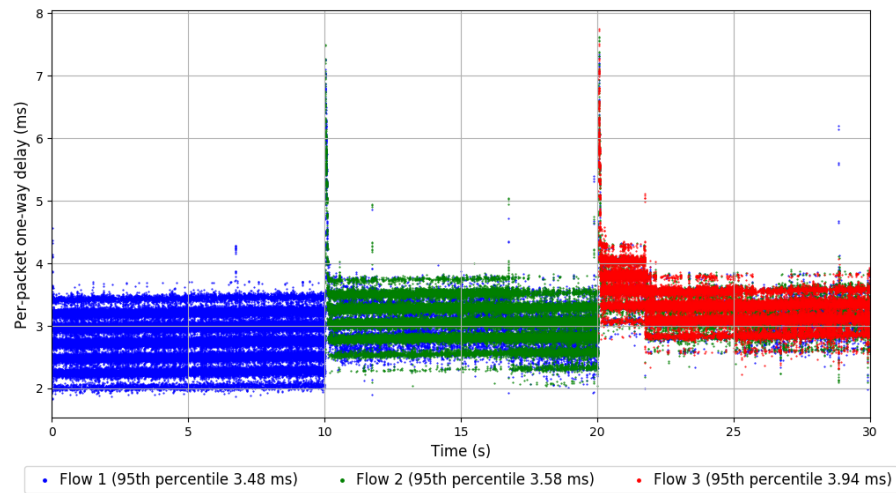
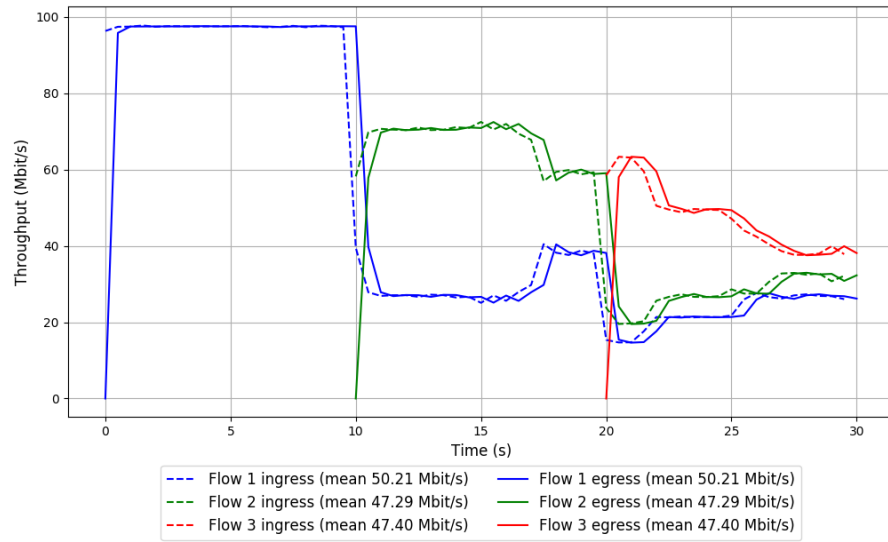
-- Flow 3:

Average throughput: 47.40 Mbit/s

95th percentile per-packet one-way delay: 3.940 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

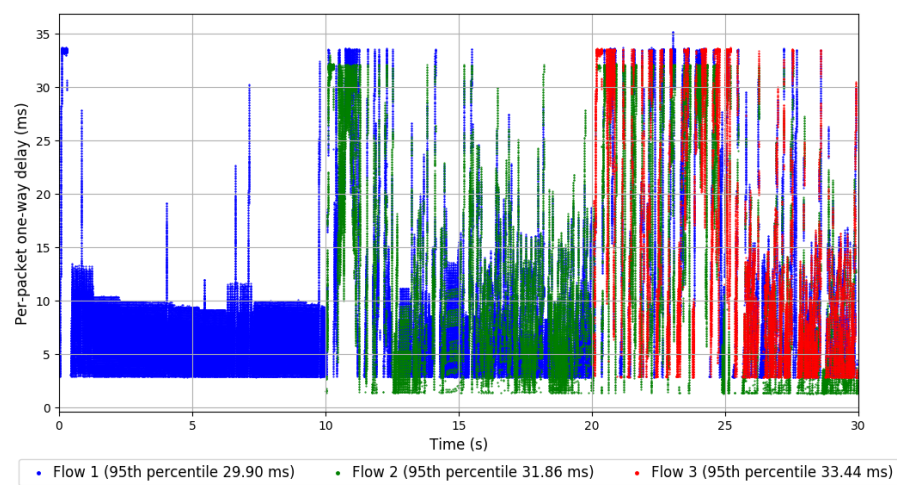
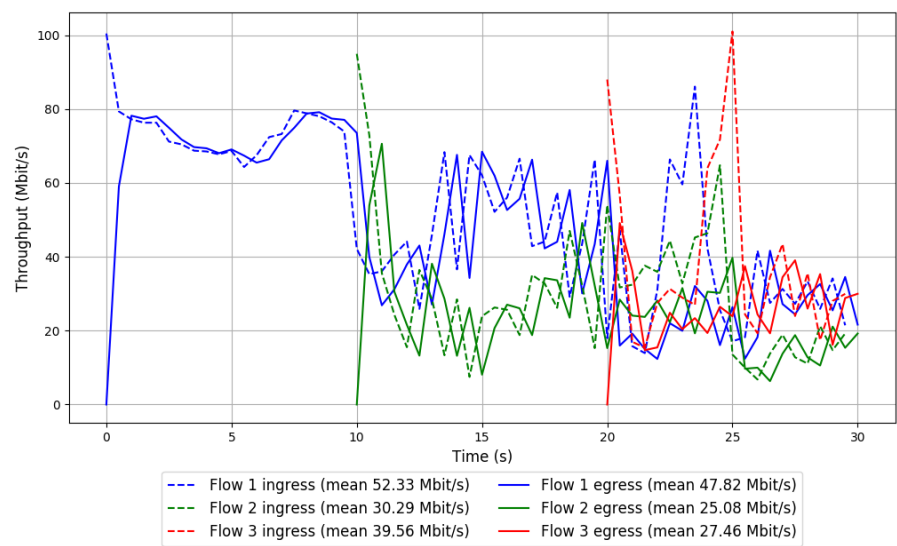


Run 1: Statistics of Verus

Start at: 2019-03-27 01:23:57
End at: 2019-03-27 01:24:27
Local clock offset: -4.636 ms
Remote clock offset: -0.261 ms

Below is generated by plot.py at 2019-03-27 03:16:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 73.61 Mbit/s
95th percentile per-packet one-way delay: 31.892 ms
Loss rate: 14.01%
-- Flow 1:
Average throughput: 47.82 Mbit/s
95th percentile per-packet one-way delay: 29.899 ms
Loss rate: 8.62%
-- Flow 2:
Average throughput: 25.08 Mbit/s
95th percentile per-packet one-way delay: 31.863 ms
Loss rate: 17.20%
-- Flow 3:
Average throughput: 27.46 Mbit/s
95th percentile per-packet one-way delay: 33.436 ms
Loss rate: 30.60%

Run 1: Report of Verus — Data Link

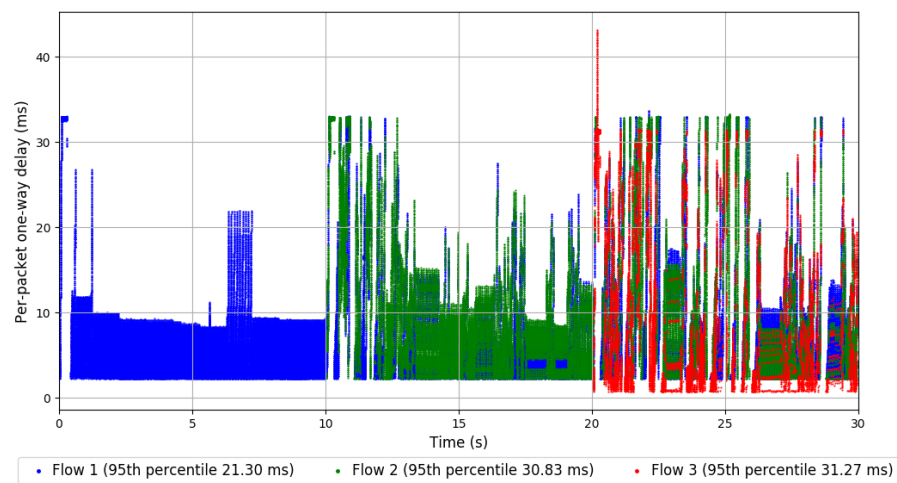
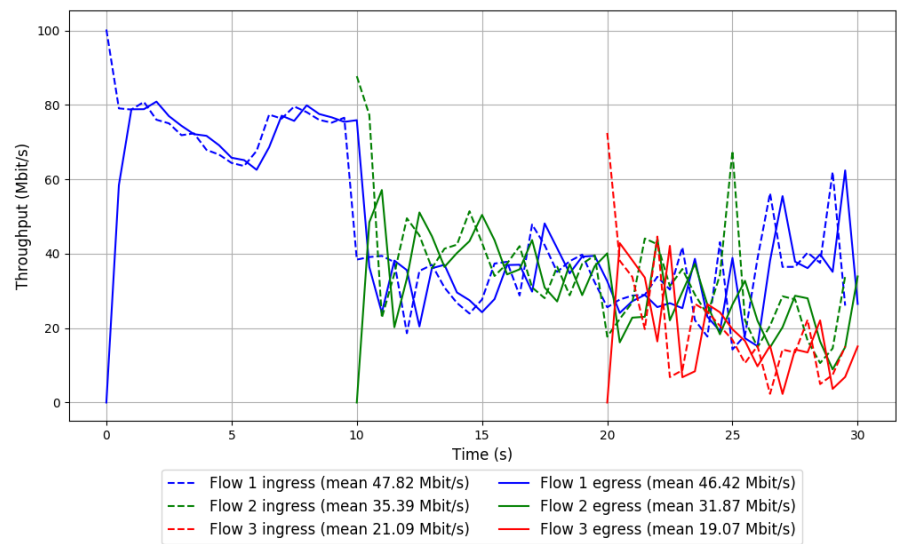


Run 2: Statistics of Verus

Start at: 2019-03-27 01:47:54
End at: 2019-03-27 01:48:24
Local clock offset: -6.254 ms
Remote clock offset: -0.003 ms

Below is generated by plot.py at 2019-03-27 03:16:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 73.94 Mbit/s
95th percentile per-packet one-way delay: 27.936 ms
Loss rate: 5.63%
-- Flow 1:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 21.302 ms
Loss rate: 2.93%
-- Flow 2:
Average throughput: 31.87 Mbit/s
95th percentile per-packet one-way delay: 30.830 ms
Loss rate: 9.93%
-- Flow 3:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 31.266 ms
Loss rate: 9.60%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-03-27 02:11:49

End at: 2019-03-27 02:12:19

Local clock offset: -7.411 ms

Remote clock offset: 0.082 ms

Below is generated by plot.py at 2019-03-27 03:16:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.72 Mbit/s

95th percentile per-packet one-way delay: 30.663 ms

Loss rate: 8.65%

-- Flow 1:

Average throughput: 32.23 Mbit/s

95th percentile per-packet one-way delay: 28.896 ms

Loss rate: 6.90%

-- Flow 2:

Average throughput: 44.97 Mbit/s

95th percentile per-packet one-way delay: 29.951 ms

Loss rate: 7.60%

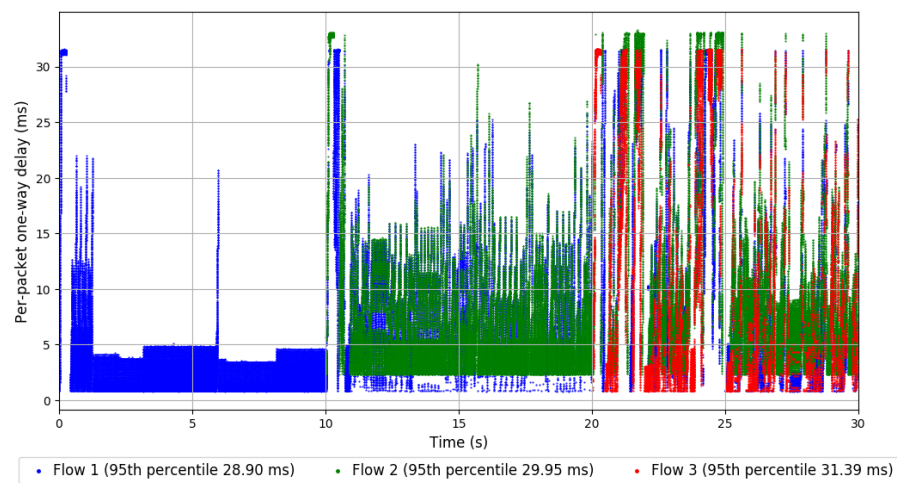
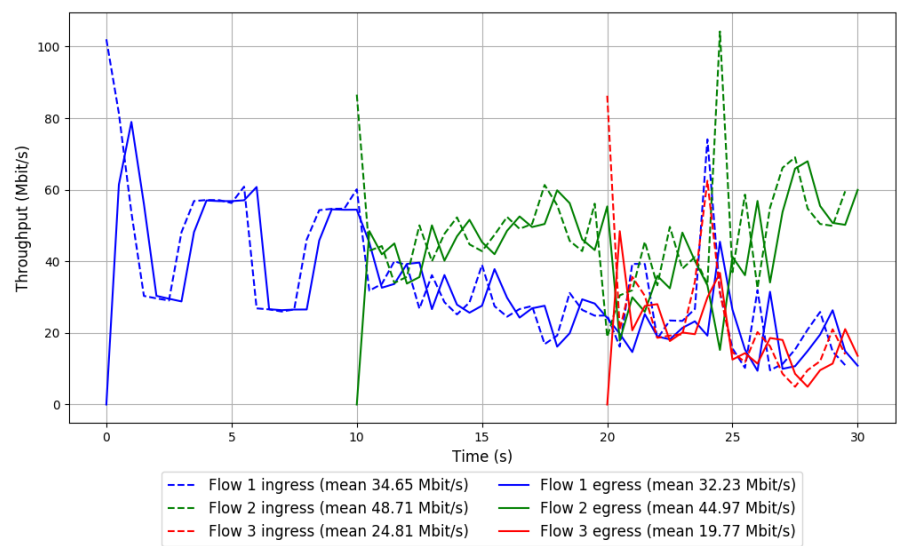
-- Flow 3:

Average throughput: 19.77 Mbit/s

95th percentile per-packet one-way delay: 31.392 ms

Loss rate: 20.12%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-03-27 02:35:44

End at: 2019-03-27 02:36:14

Local clock offset: -7.04 ms

Remote clock offset: 0.142 ms

Below is generated by plot.py at 2019-03-27 03:17:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.84 Mbit/s

95th percentile per-packet one-way delay: 32.622 ms

Loss rate: 15.12%

-- Flow 1:

Average throughput: 45.60 Mbit/s

95th percentile per-packet one-way delay: 32.522 ms

Loss rate: 9.44%

-- Flow 2:

Average throughput: 34.31 Mbit/s

95th percentile per-packet one-way delay: 32.671 ms

Loss rate: 17.72%

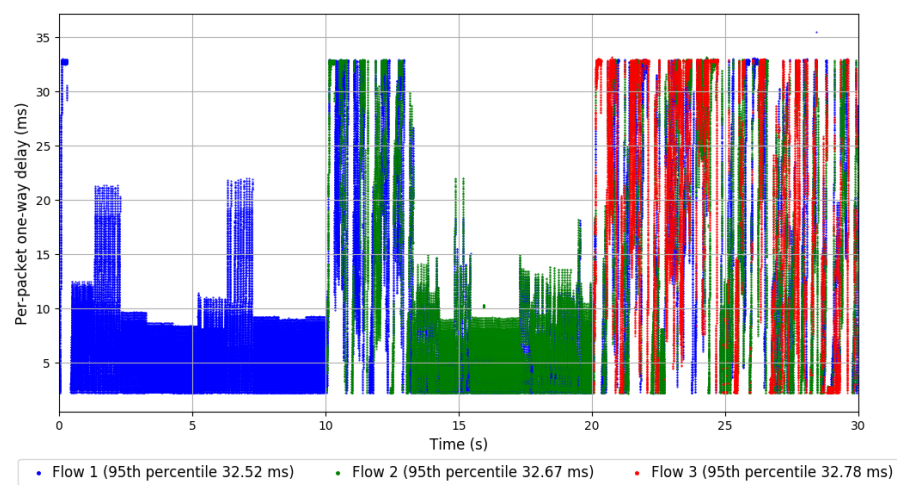
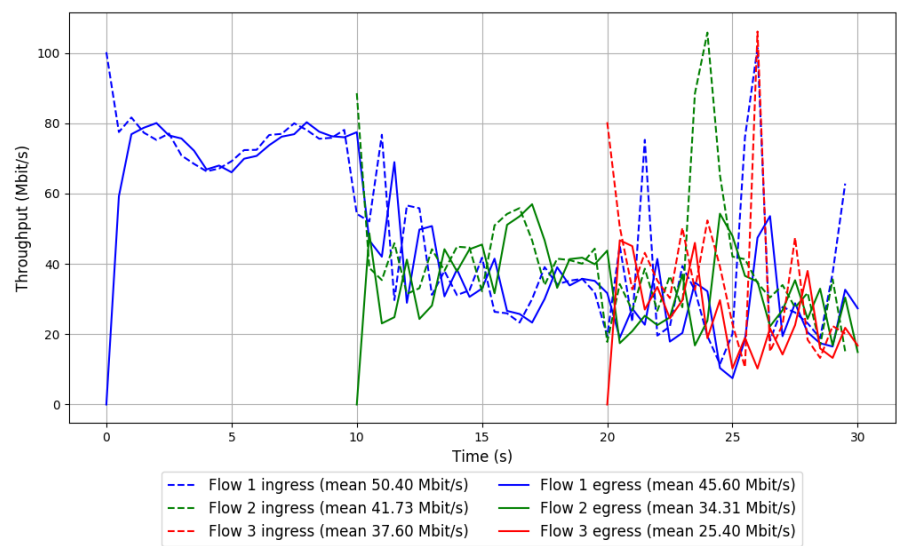
-- Flow 3:

Average throughput: 25.40 Mbit/s

95th percentile per-packet one-way delay: 32.777 ms

Loss rate: 32.32%

Run 4: Report of Verus — Data Link

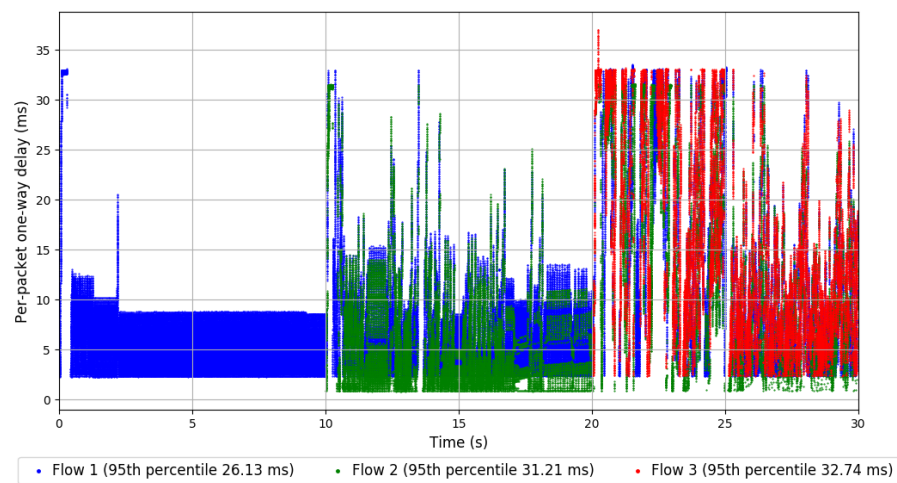
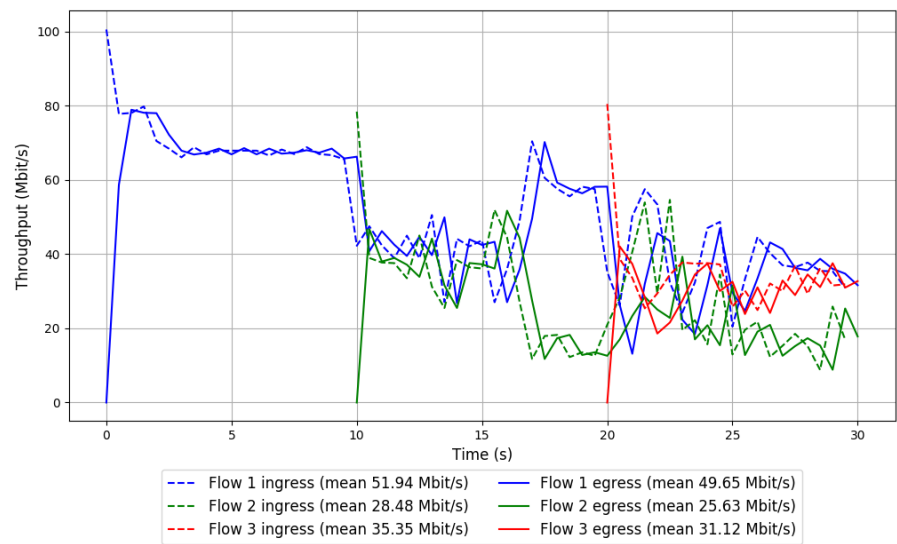


Run 5: Statistics of Verus

Start at: 2019-03-27 02:59:40
End at: 2019-03-27 03:00:10
Local clock offset: -2.687 ms
Remote clock offset: 0.18 ms

Below is generated by plot.py at 2019-03-27 03:17:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 30.604 ms
Loss rate: 6.72%
-- Flow 1:
Average throughput: 49.65 Mbit/s
95th percentile per-packet one-way delay: 26.131 ms
Loss rate: 4.38%
-- Flow 2:
Average throughput: 25.63 Mbit/s
95th percentile per-packet one-way delay: 31.215 ms
Loss rate: 9.95%
-- Flow 3:
Average throughput: 31.12 Mbit/s
95th percentile per-packet one-way delay: 32.736 ms
Loss rate: 11.84%

Run 5: Report of Verus — Data Link

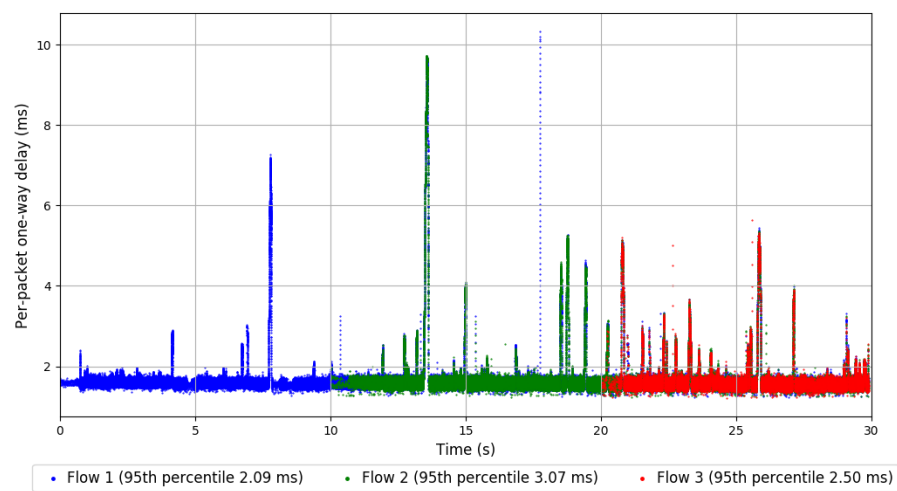
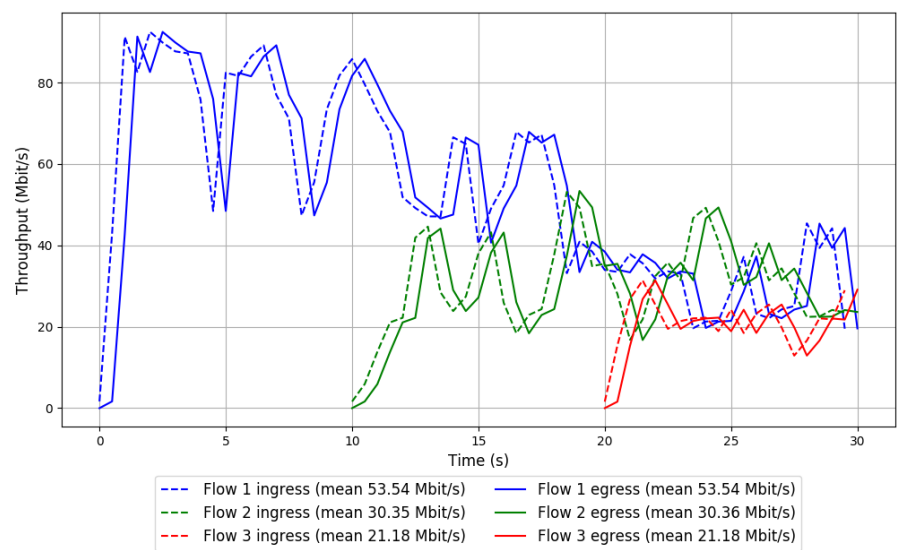


Run 1: Statistics of PCC-Vivace

Start at: 2019-03-27 01:26:15
End at: 2019-03-27 01:26:45
Local clock offset: -5.028 ms
Remote clock offset: -0.157 ms

Below is generated by plot.py at 2019-03-27 03:17:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.73 Mbit/s
95th percentile per-packet one-way delay: 2.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.54 Mbit/s
95th percentile per-packet one-way delay: 2.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 30.36 Mbit/s
95th percentile per-packet one-way delay: 3.073 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.18 Mbit/s
95th percentile per-packet one-way delay: 2.505 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

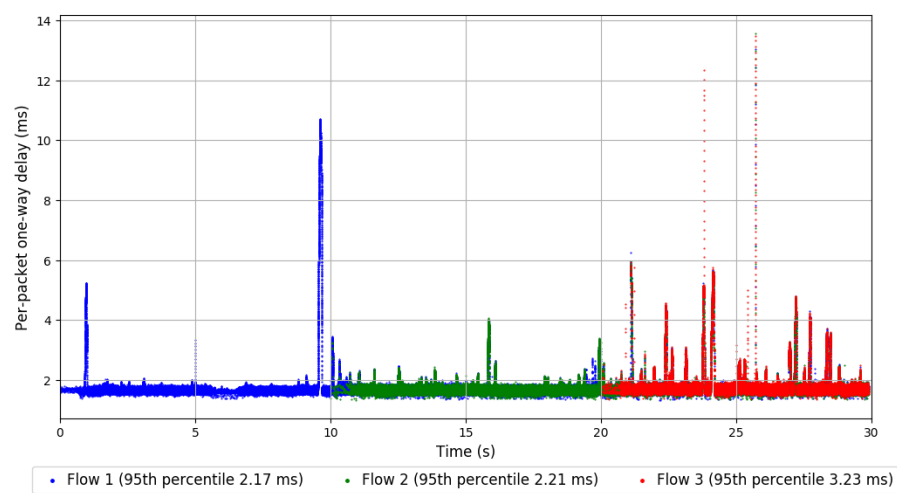
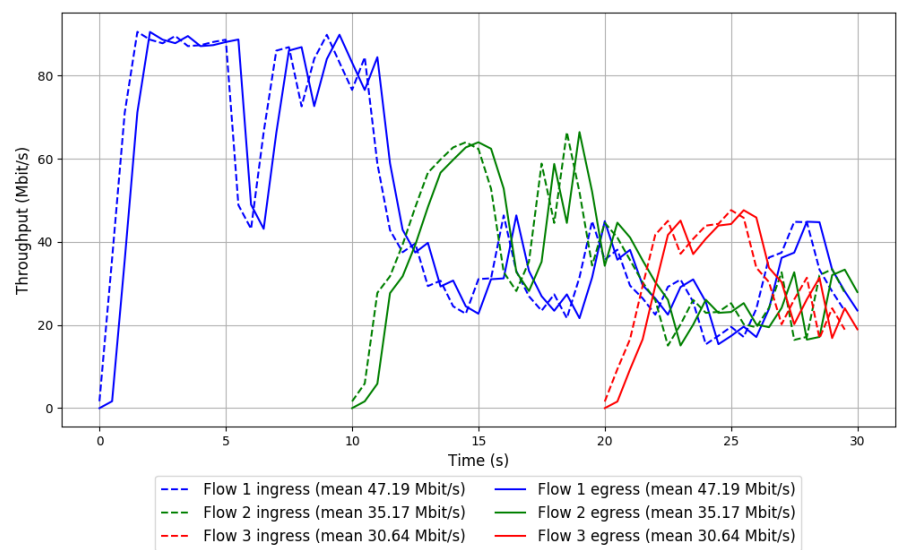


Run 2: Statistics of PCC-Vivace

Start at: 2019-03-27 01:50:11
End at: 2019-03-27 01:50:41
Local clock offset: -7.166 ms
Remote clock offset: -0.032 ms

Below is generated by plot.py at 2019-03-27 03:17:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 80.70 Mbit/s
95th percentile per-packet one-way delay: 2.326 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.19 Mbit/s
95th percentile per-packet one-way delay: 2.170 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.17 Mbit/s
95th percentile per-packet one-way delay: 2.213 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 3.234 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-03-27 02:14:06

End at: 2019-03-27 02:14:36

Local clock offset: -8.173 ms

Remote clock offset: 0.069 ms

Below is generated by plot.py at 2019-03-27 03:17:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.98 Mbit/s

95th percentile per-packet one-way delay: 3.473 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.94 Mbit/s

95th percentile per-packet one-way delay: 2.095 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.47 Mbit/s

95th percentile per-packet one-way delay: 4.127 ms

Loss rate: 0.00%

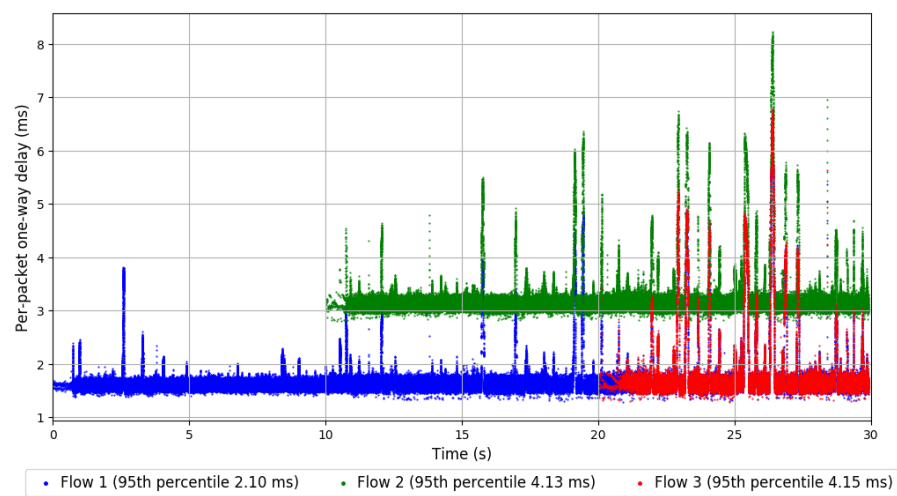
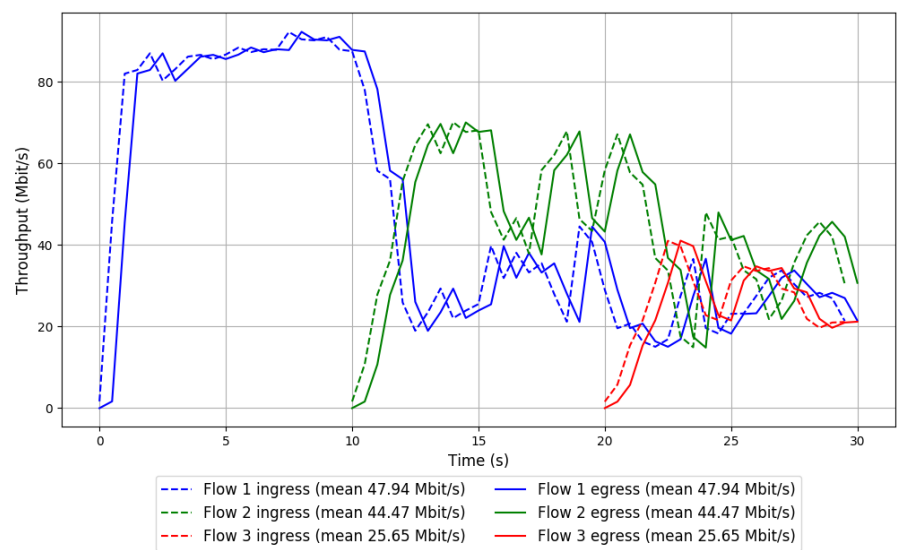
-- Flow 3:

Average throughput: 25.65 Mbit/s

95th percentile per-packet one-way delay: 4.149 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-03-27 02:38:02

End at: 2019-03-27 02:38:32

Local clock offset: -7.151 ms

Remote clock offset: 0.178 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.98 Mbit/s

95th percentile per-packet one-way delay: 2.595 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.43 Mbit/s

95th percentile per-packet one-way delay: 1.508 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.00 Mbit/s

95th percentile per-packet one-way delay: 2.043 ms

Loss rate: 0.00%

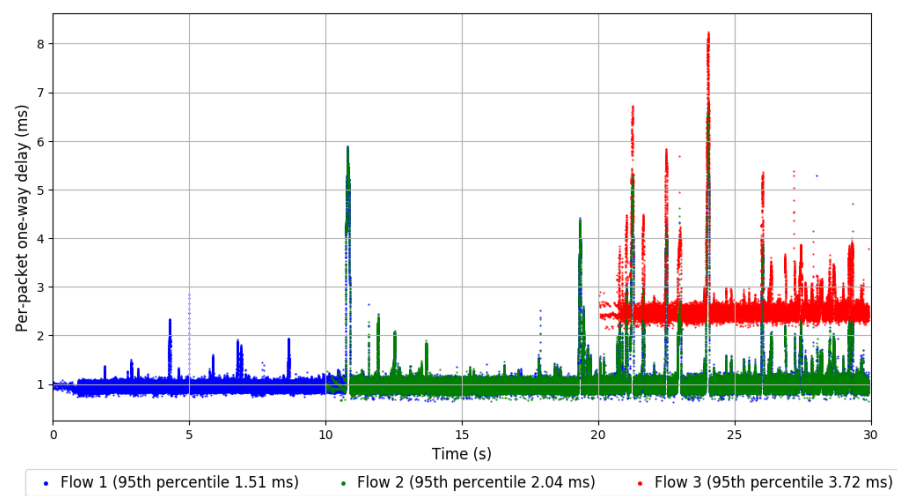
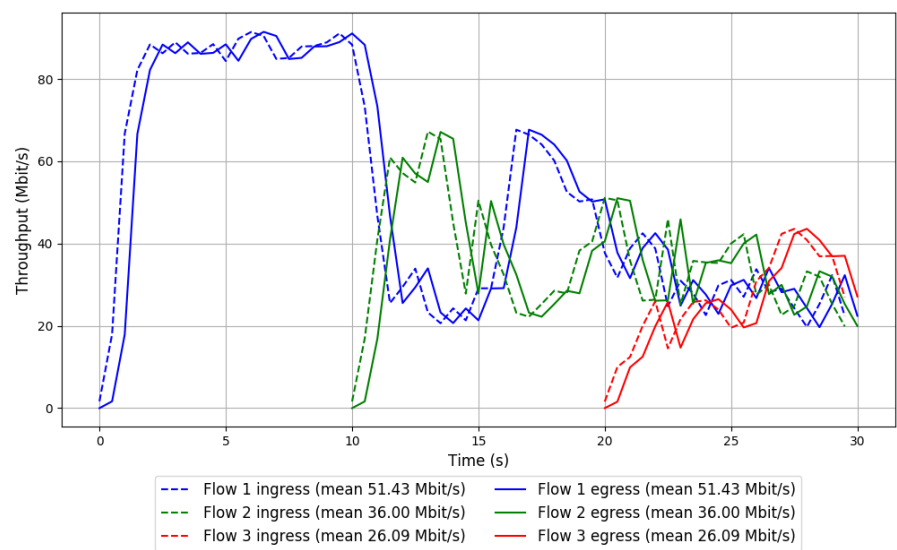
-- Flow 3:

Average throughput: 26.09 Mbit/s

95th percentile per-packet one-way delay: 3.721 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-03-27 03:01:58

End at: 2019-03-27 03:02:28

Local clock offset: -3.039 ms

Remote clock offset: 0.198 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.65 Mbit/s

95th percentile per-packet one-way delay: 3.488 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.06 Mbit/s

95th percentile per-packet one-way delay: 2.475 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.12 Mbit/s

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

Loss rate: 0.00%

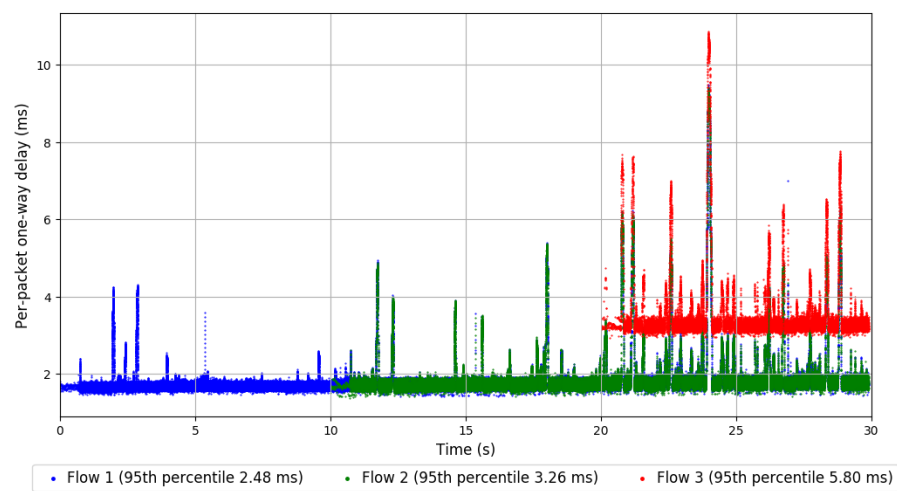
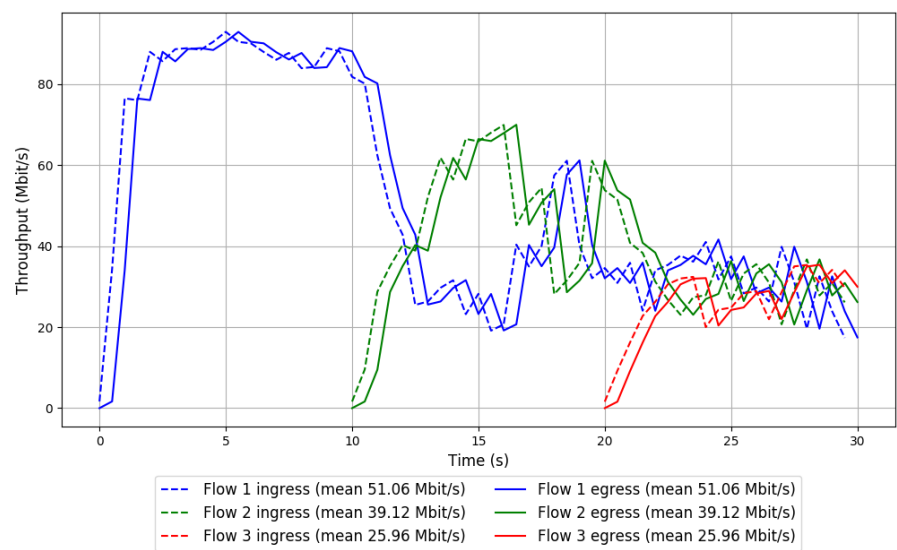
-- Flow 3:

Average throughput: 25.96 Mbit/s

95th percentile per-packet one-way delay: 5.797 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-03-27 01:11:34

End at: 2019-03-27 01:12:04

Local clock offset: -1.095 ms

Remote clock offset: -0.32 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.881 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 7.553 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.835 ms

Loss rate: 0.00%

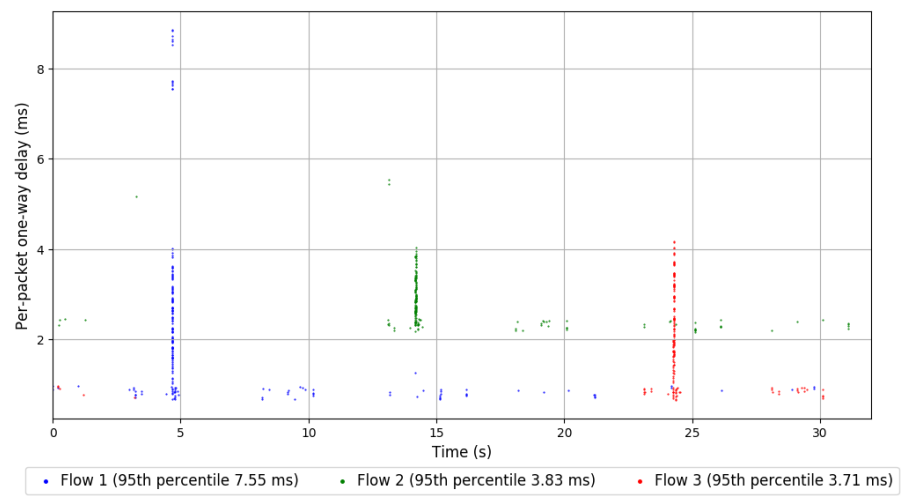
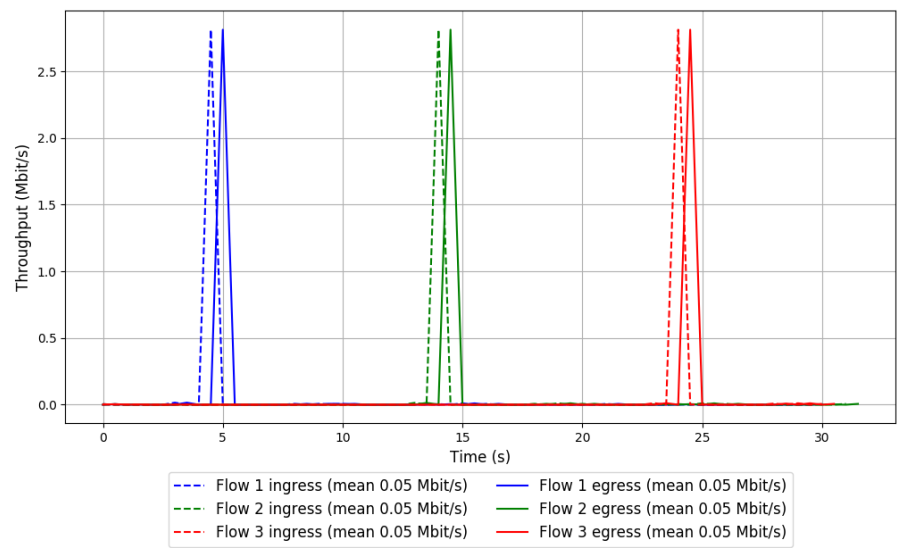
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.706 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

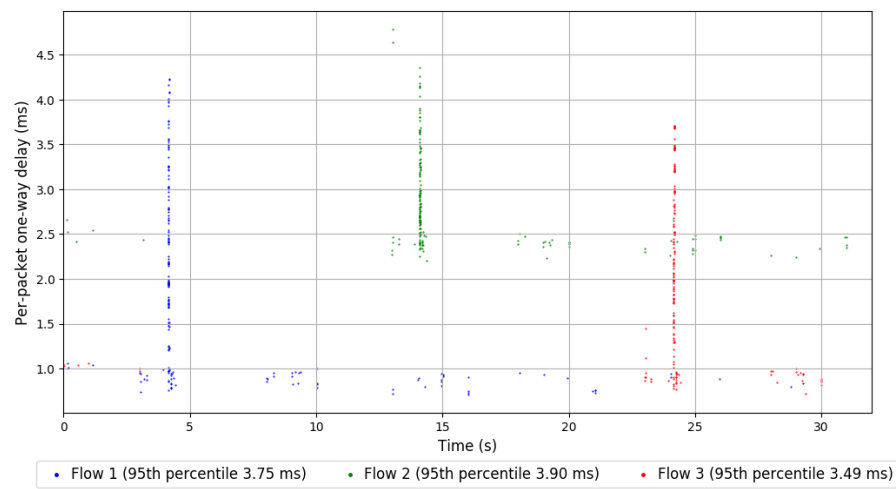
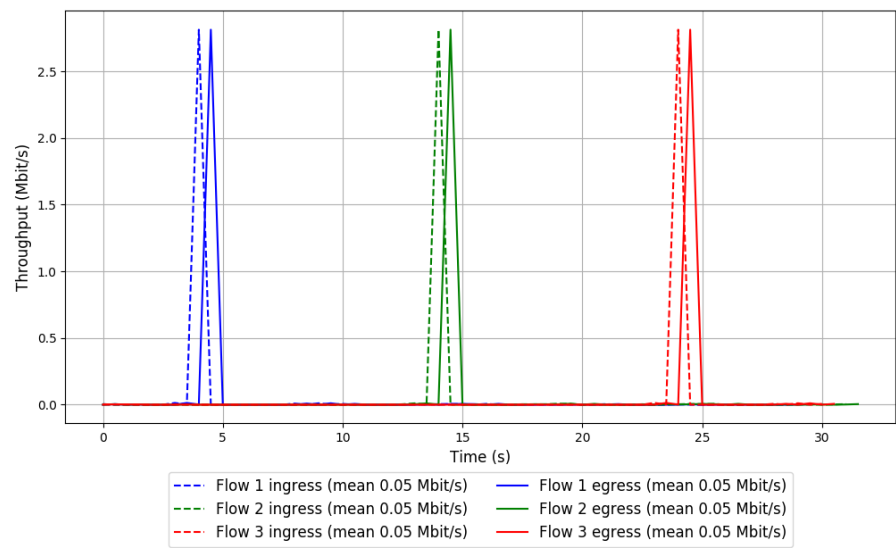


Run 2: Statistics of WebRTC media

Start at: 2019-03-27 01:35:29
End at: 2019-03-27 01:35:59
Local clock offset: -5.536 ms
Remote clock offset: -0.101 ms

Below is generated by plot.py at 2019-03-27 03:17:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 3.706 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.752 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.898 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.494 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-03-27 01:59:24

End at: 2019-03-27 01:59:54

Local clock offset: -7.601 ms

Remote clock offset: 0.011 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 7.108 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 7.825 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.937 ms

Loss rate: 0.00%

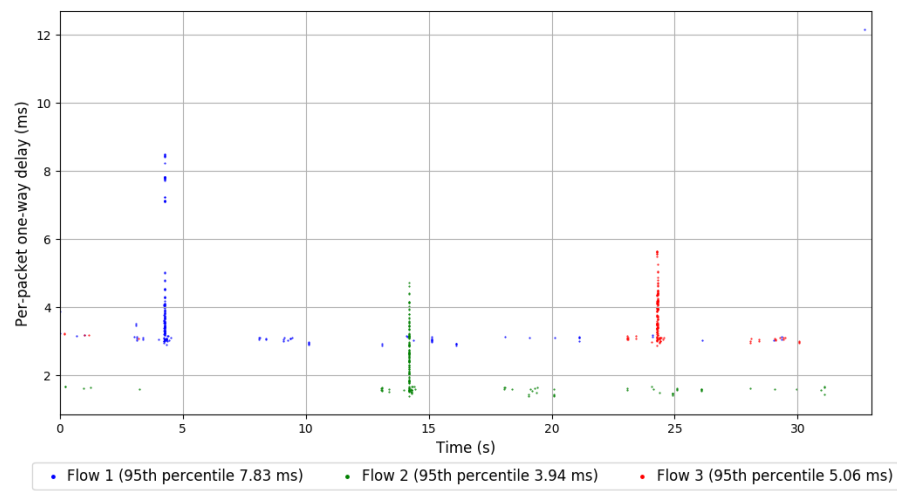
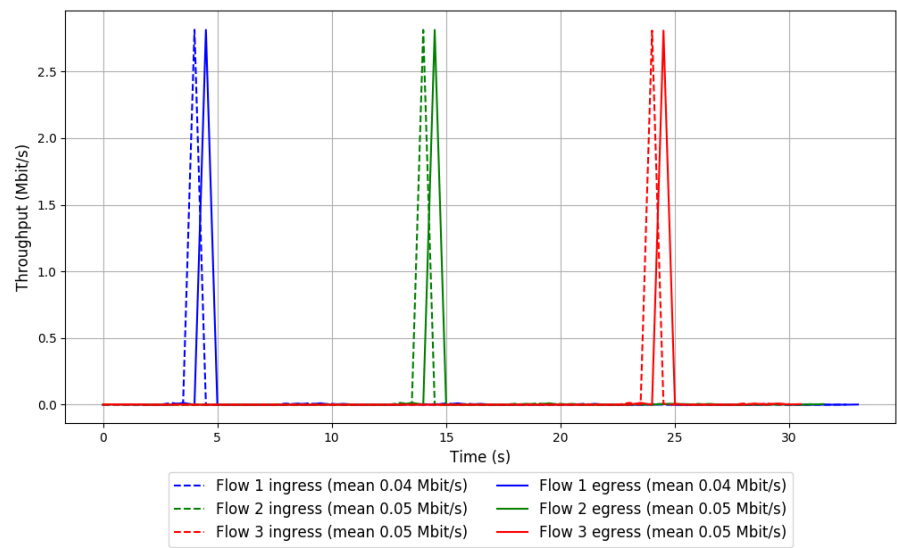
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 5.060 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-03-27 02:23:19

End at: 2019-03-27 02:23:49

Local clock offset: -7.08 ms

Remote clock offset: 0.092 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 3.840 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3.162 ms

Loss rate: 0.00%

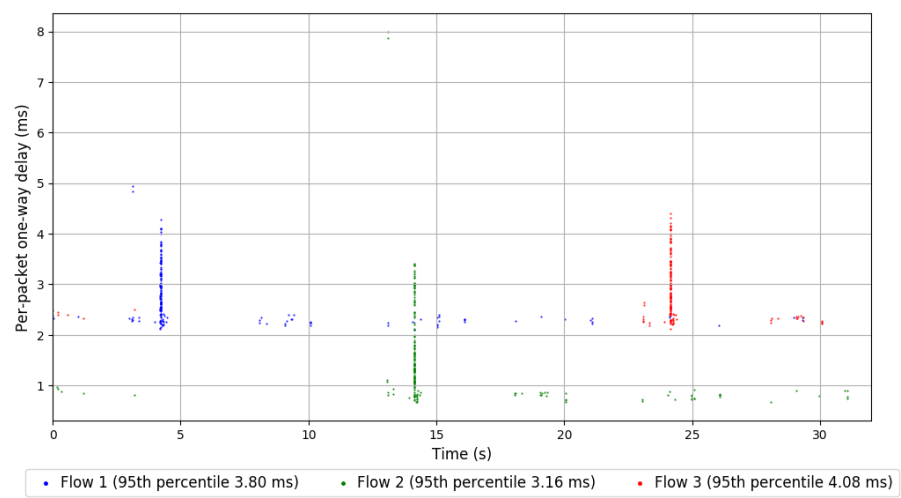
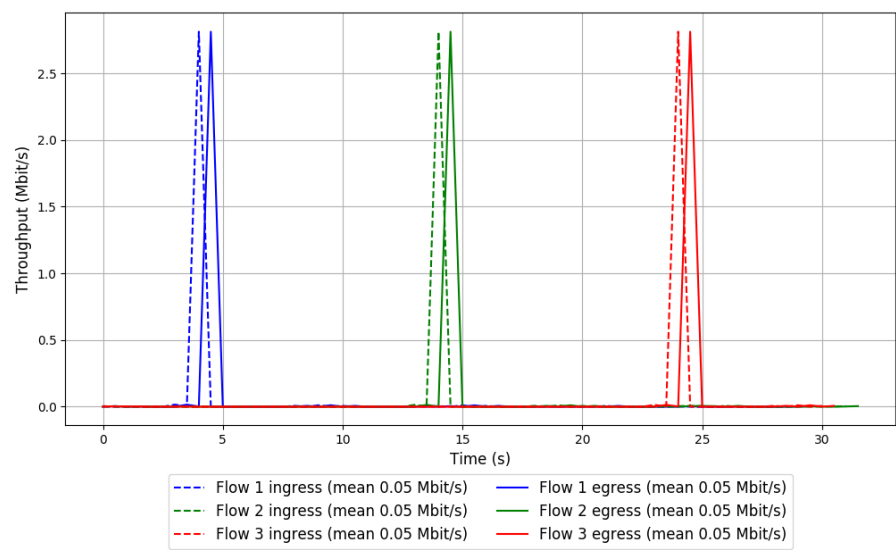
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.078 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-03-27 02:47:17

End at: 2019-03-27 02:47:47

Local clock offset: -7.279 ms

Remote clock offset: 0.237 ms

Below is generated by plot.py at 2019-03-27 03:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 4.565 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.373 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.070 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 4.764 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

