

Pantheon Report

Generated at 2019-01-21 19:17:05 (UTC).

Data path: AWS Korea on `ens5` (*local*) → China on `eno1` (*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 `ntp.nict.jp` and have been applied to correct the timestamps in logs.

System info:

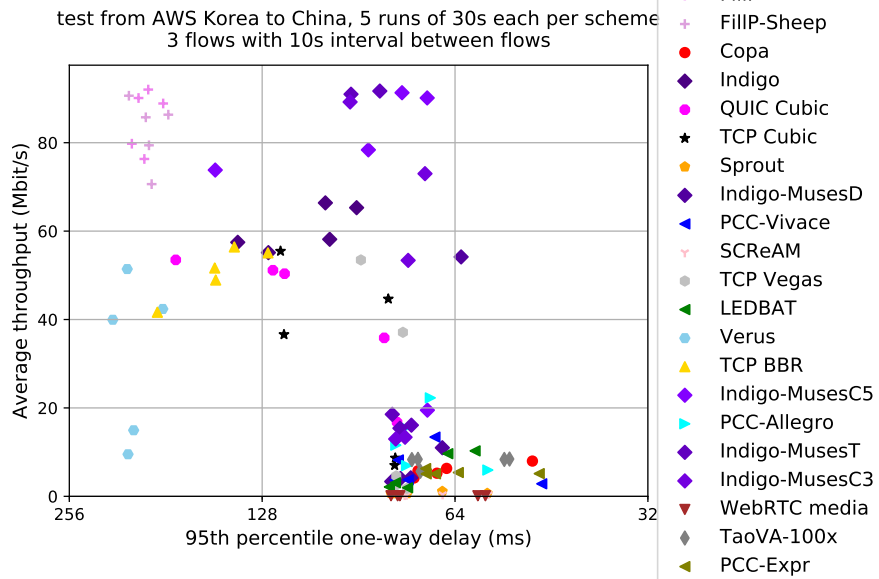
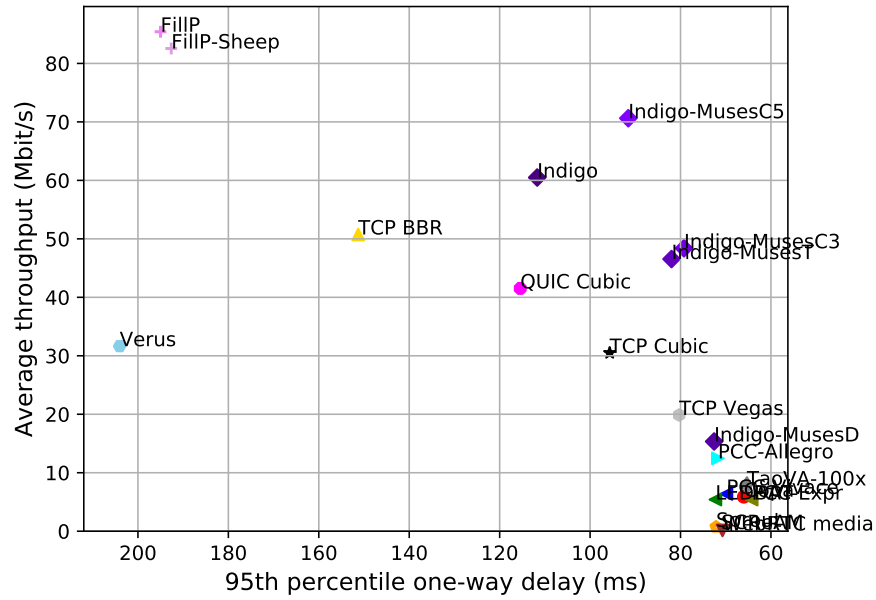
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 89d24e57783e7fbfec537a619071de937b639e38
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 1ddcff131048c6962f123bcd22b4d166a422adde
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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

test from AWS Korea to China, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



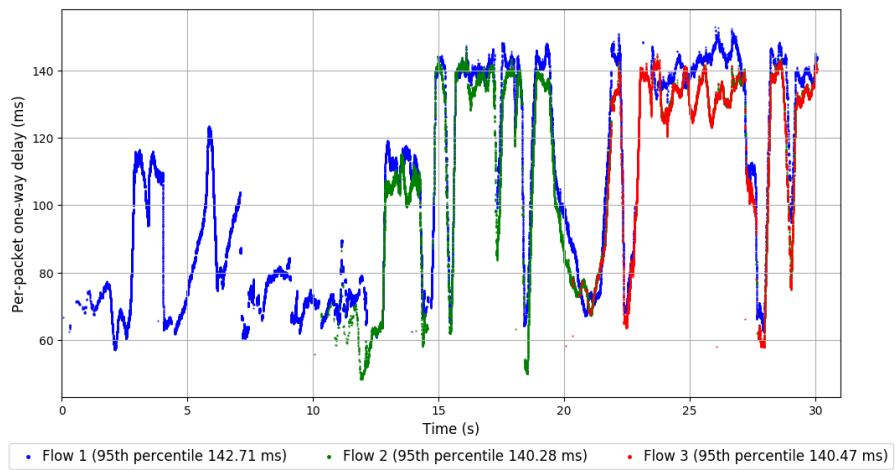
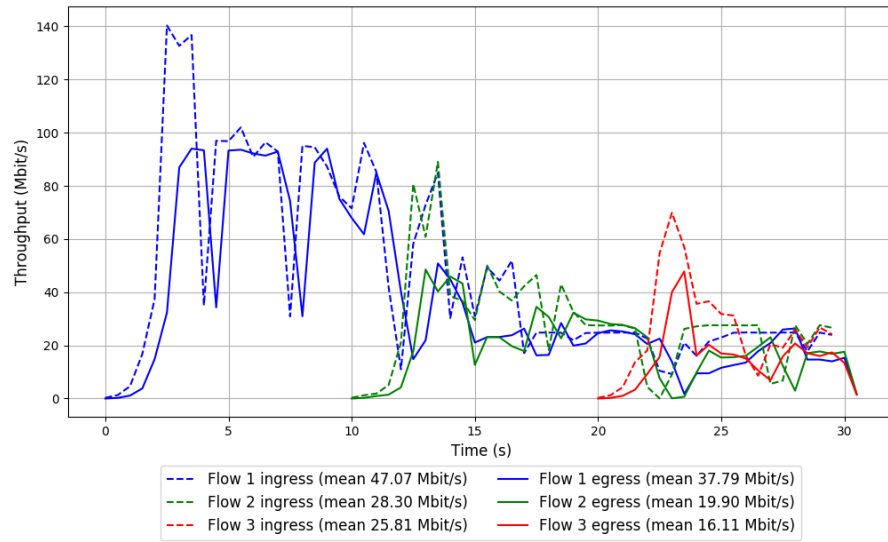
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	35.82	18.23	8.38	147.21	174.31	144.11	20.57	24.05	28.68
Copa	5	1.35	5.14	3.36	65.56	66.09	64.10	39.09	15.82	19.18
TCP Cubic	5	21.81	8.99	8.10	91.79	97.05	93.99	1.35	0.58	0.82
FillP	5	46.12	49.06	20.28	170.82	196.55	194.99	9.94	19.33	16.47
FillP-Sheep	5	44.00	44.44	27.10	192.84	192.00	197.08	4.05	5.29	5.91
Indigo	5	40.53	23.56	14.71	108.67	115.52	111.38	13.18	21.45	34.00
Indigo-MusesC3	5	37.25	8.86	17.83	74.61	76.19	80.11	0.20	0.18	0.18
Indigo-MusesC5	5	59.39	13.18	8.81	91.20	91.02	83.81	0.26	0.24	0.35
Indigo-MusesD	5	4.37	14.99	3.98	70.71	71.15	70.71	0.16	0.20	0.19
Indigo-MusesT	5	37.59	9.50	9.19	78.22	84.84	81.19	0.31	0.21	0.28
LEDBAT	5	3.58	2.10	1.33	72.73	67.44	65.39	0.20	0.22	0.17
PCC-Allegro	5	7.93	5.50	2.62	71.04	70.25	70.76	0.13	0.20	0.23
PCC-Expr	5	0.01	5.32	5.62	64.31	64.34	64.11	79.00	0.52	0.51
QUIC Cubic	5	24.99	15.69	18.91	96.09	118.18	126.03	0.20	0.30	0.21
SCReAM	5	0.18	0.18	0.20	66.32	69.91	66.43	0.14	0.13	0.10
Sprout	5	0.35	0.37	0.47	67.82	72.84	69.17	0.07	0.19	0.16
TaoVA-100x	5	0.01	8.98	5.57	60.63	65.29	69.81	92.16	7.01	13.76
TCP Vegas	5	7.76	15.00	6.38	76.66	80.85	72.48	0.90	0.85	0.88
Verus	5	22.05	9.42	10.57	172.19	170.15	163.99	16.41	8.73	27.57
PCC-Vivace	5	3.35	3.39	2.34	68.22	66.56	67.29	0.24	0.20	0.11
WebRTC media	5	0.04	0.05	0.04	63.91	68.07	67.83	0.33	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-01-21 12:09:47
End at: 2019-01-21 12:10:17
Local clock offset: 2.032 ms
Remote clock offset: 43.872 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 56.42 Mbit/s
95th percentile per-packet one-way delay: 141.468 ms
Loss rate: 24.26%
-- Flow 1:
Average throughput: 37.79 Mbit/s
95th percentile per-packet one-way delay: 142.708 ms
Loss rate: 19.71%
-- Flow 2:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 140.278 ms
Loss rate: 29.62%
-- Flow 3:
Average throughput: 16.11 Mbit/s
95th percentile per-packet one-way delay: 140.472 ms
Loss rate: 37.49%

Run 1: Report of TCP BBR — Data Link

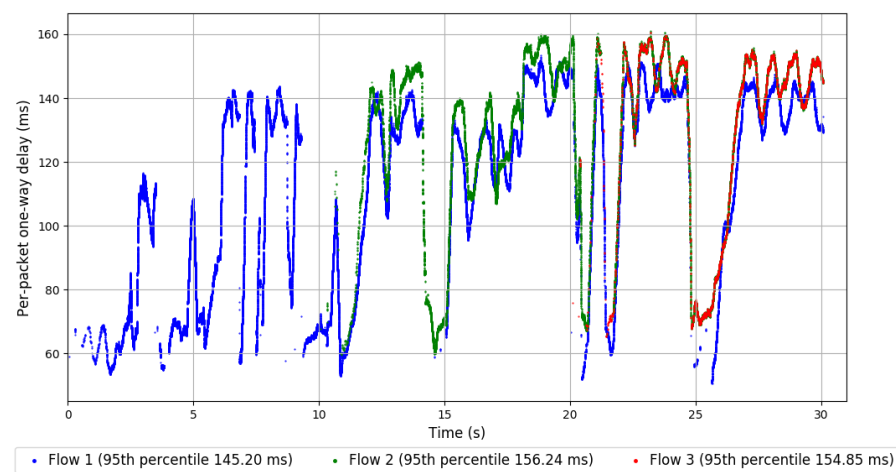
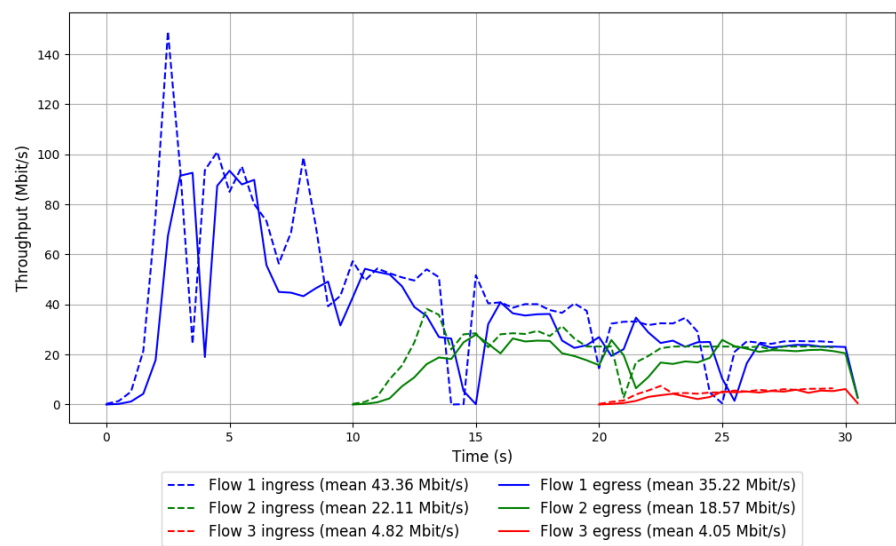


Run 2: Statistics of TCP BBR

Start at: 2019-01-21 13:41:56
End at: 2019-01-21 13:42:26
Local clock offset: 0.346 ms
Remote clock offset: 52.263 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 48.94 Mbit/s
95th percentile per-packet one-way delay: 151.270 ms
Loss rate: 17.98%
-- Flow 1:
Average throughput: 35.22 Mbit/s
95th percentile per-packet one-way delay: 145.202 ms
Loss rate: 18.73%
-- Flow 2:
Average throughput: 18.57 Mbit/s
95th percentile per-packet one-way delay: 156.241 ms
Loss rate: 15.98%
-- Flow 3:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 154.847 ms
Loss rate: 16.13%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-01-21 15:08:05

End at: 2019-01-21 15:08:35

Local clock offset: -0.128 ms

Remote clock offset: 50.79 ms

Below is generated by plot.py at 2019-01-21 19:12:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.66 Mbit/s

95th percentile per-packet one-way delay: 151.792 ms

Loss rate: 22.39%

-- Flow 1:

Average throughput: 34.67 Mbit/s

95th percentile per-packet one-way delay: 153.450 ms

Loss rate: 19.44%

-- Flow 2:

Average throughput: 21.70 Mbit/s

95th percentile per-packet one-way delay: 143.049 ms

Loss rate: 27.45%

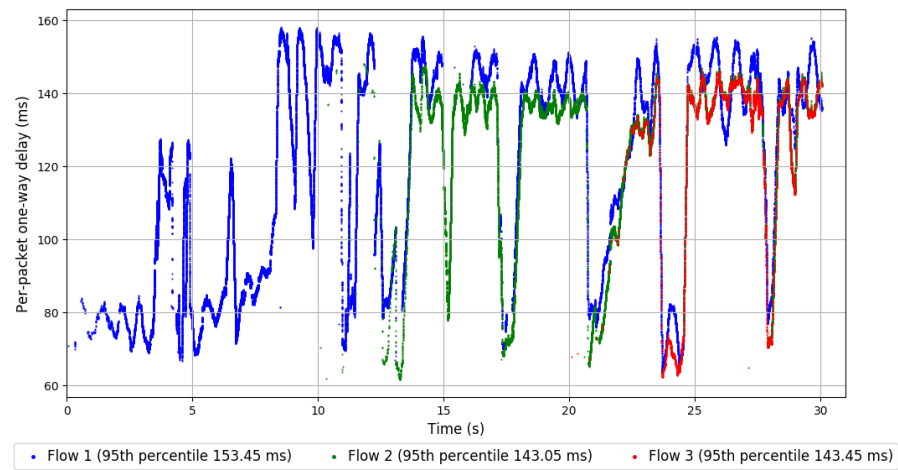
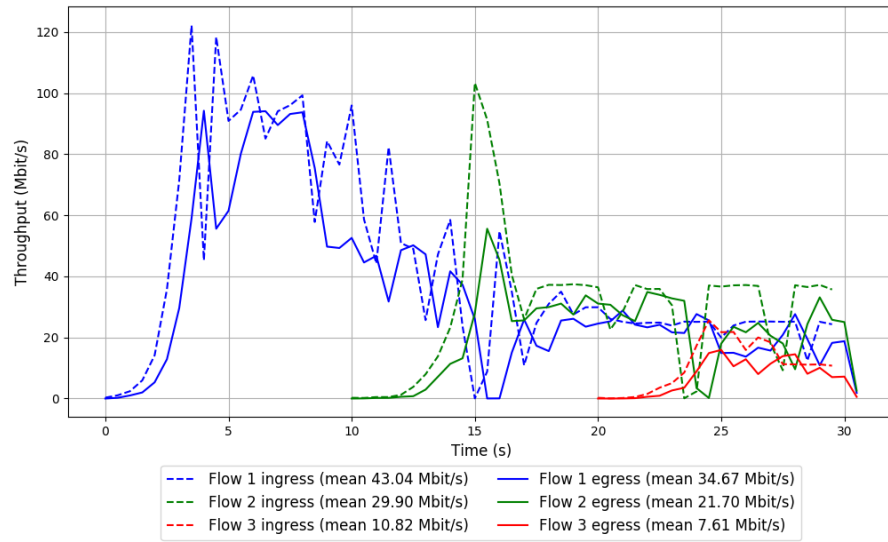
-- Flow 3:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 143.450 ms

Loss rate: 29.73%

Run 3: Report of TCP BBR — Data Link

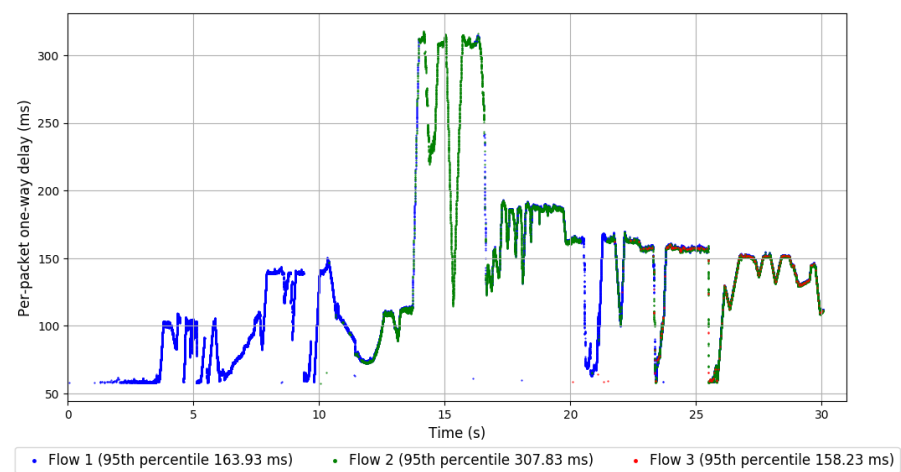
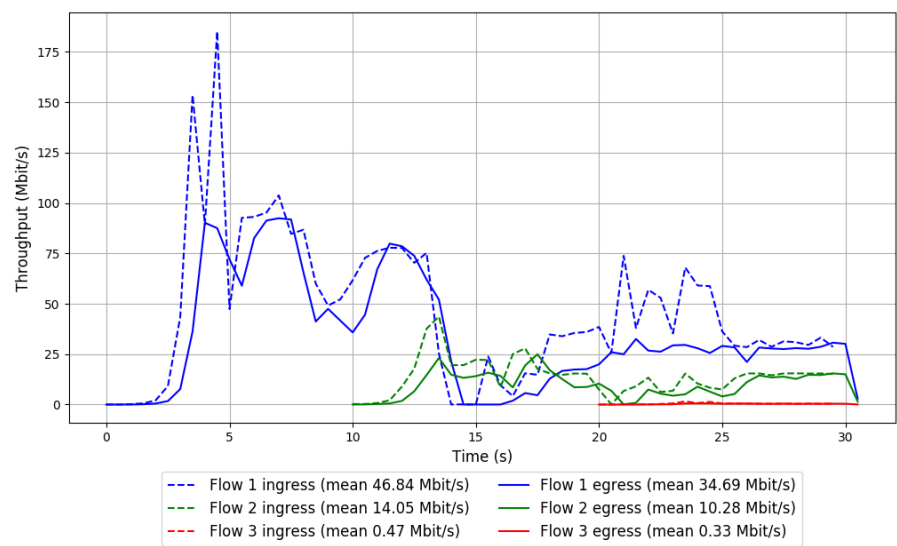


Run 4: Statistics of TCP BBR

Start at: 2019-01-21 16:47:21
End at: 2019-01-21 16:47:51
Local clock offset: 3.083 ms
Remote clock offset: 57.037 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 41.65 Mbit/s
95th percentile per-packet one-way delay: 186.540 ms
Loss rate: 26.10%
-- Flow 1:
Average throughput: 34.69 Mbit/s
95th percentile per-packet one-way delay: 163.925 ms
Loss rate: 25.94%
-- Flow 2:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 307.829 ms
Loss rate: 26.82%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 158.229 ms
Loss rate: 30.01%

Run 4: Report of TCP BBR — Data Link

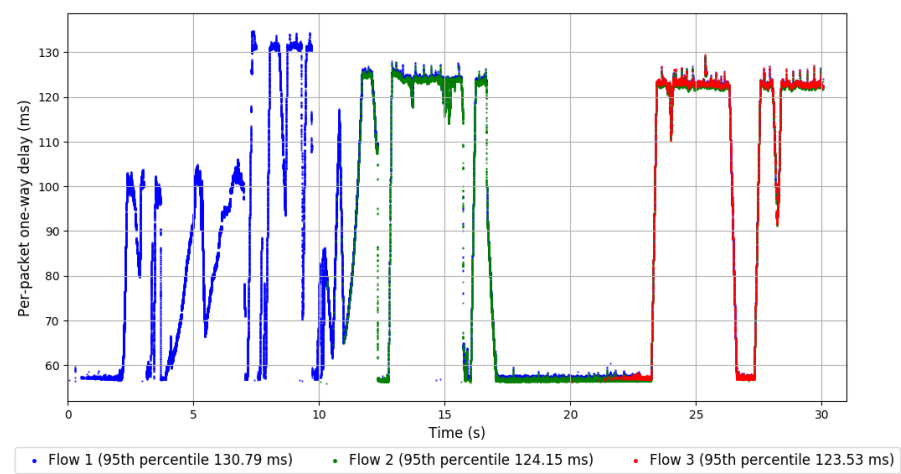
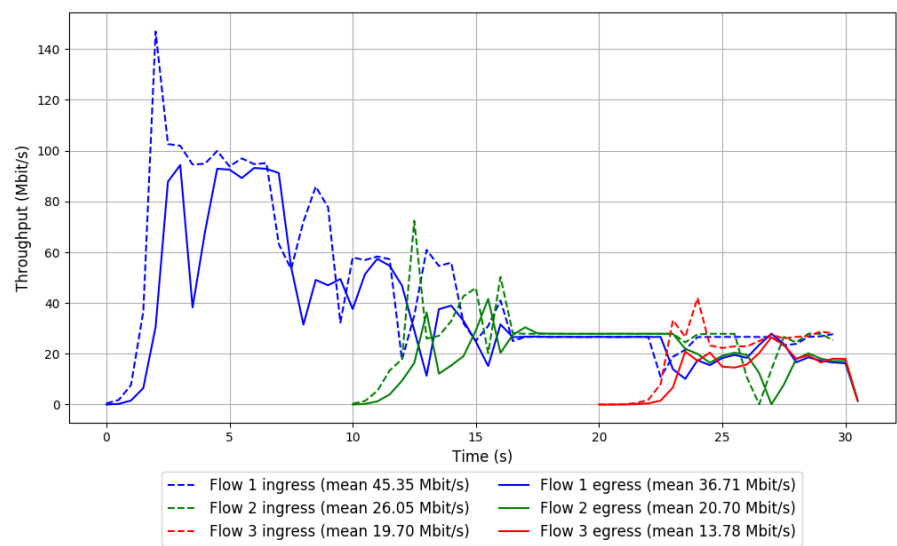


Run 5: Statistics of TCP BBR

Start at: 2019-01-21 18:49:21
End at: 2019-01-21 18:49:51
Local clock offset: 1.13 ms
Remote clock offset: 22.288 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 55.08 Mbit/s
95th percentile per-packet one-way delay: 125.365 ms
Loss rate: 20.43%
-- Flow 1:
Average throughput: 36.71 Mbit/s
95th percentile per-packet one-way delay: 130.788 ms
Loss rate: 19.05%
-- Flow 2:
Average throughput: 20.70 Mbit/s
95th percentile per-packet one-way delay: 124.150 ms
Loss rate: 20.38%
-- Flow 3:
Average throughput: 13.78 Mbit/s
95th percentile per-packet one-way delay: 123.533 ms
Loss rate: 30.05%

Run 5: Report of TCP BBR — Data Link

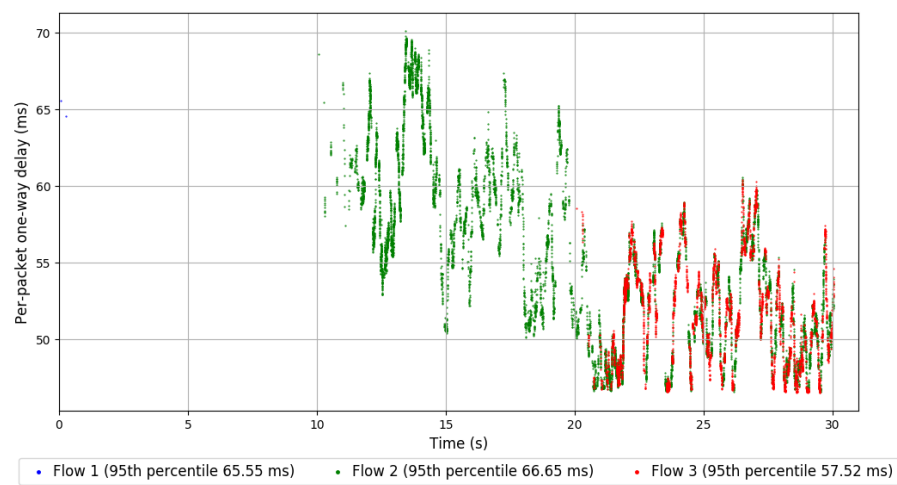
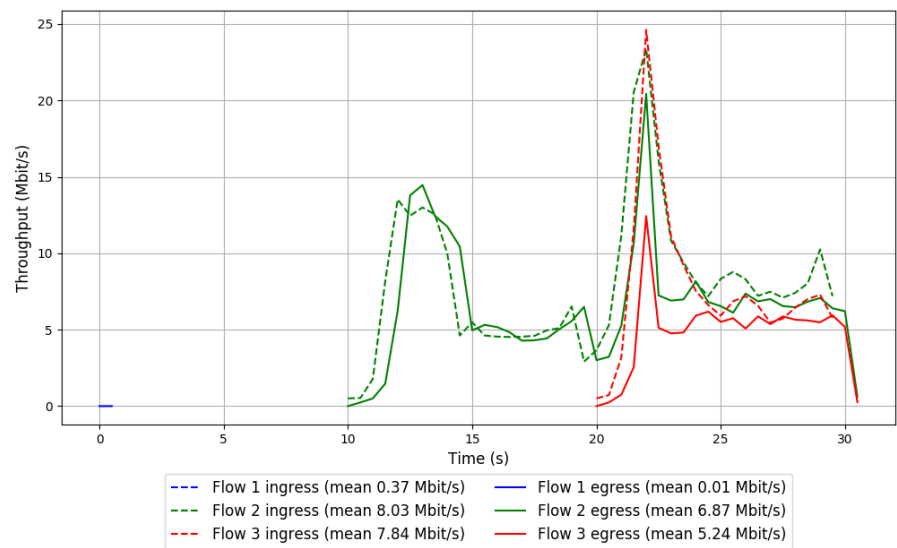


Run 1: Statistics of Copa

Start at: 2019-01-21 11:05:18
End at: 2019-01-21 11:05:48
Local clock offset: 1.889 ms
Remote clock offset: 48.811 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 65.965 ms
Loss rate: 20.61%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 65.547 ms
Loss rate: 97.63%
-- Flow 2:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 66.650 ms
Loss rate: 14.40%
-- Flow 3:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 57.525 ms
Loss rate: 33.25%

Run 1: Report of Copa — Data Link

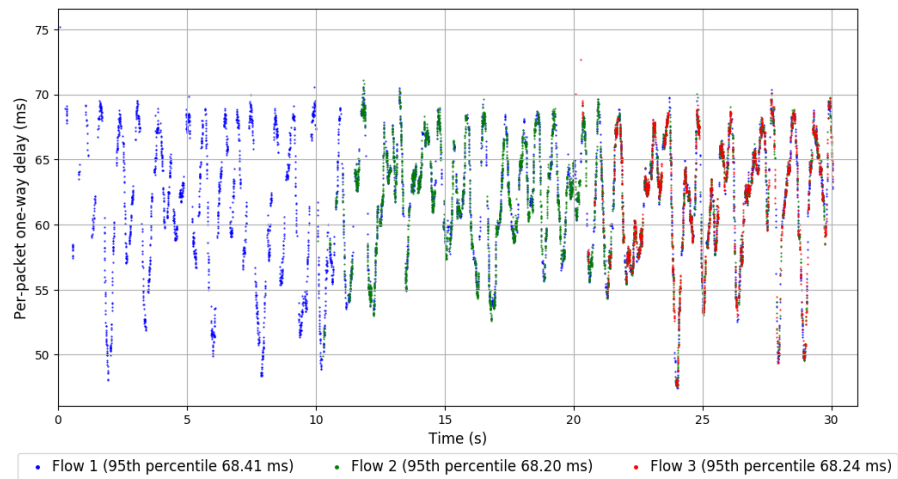
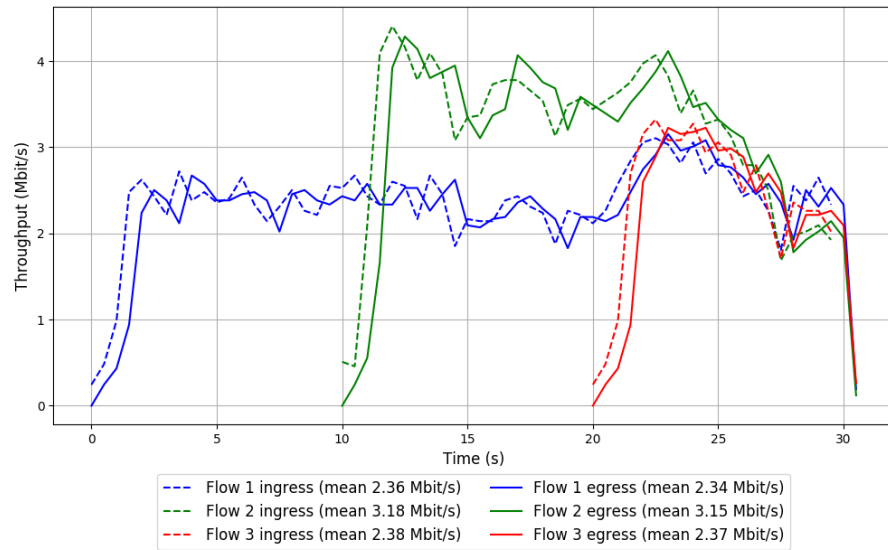


Run 2: Statistics of Copa

Start at: 2019-01-21 12:34:13
End at: 2019-01-21 12:34:43
Local clock offset: 8.629 ms
Remote clock offset: 48.825 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 68.305 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 68.406 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 68.202 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 2.37 Mbit/s
95th percentile per-packet one-way delay: 68.237 ms
Loss rate: 0.25%

Run 2: Report of Copa — Data Link

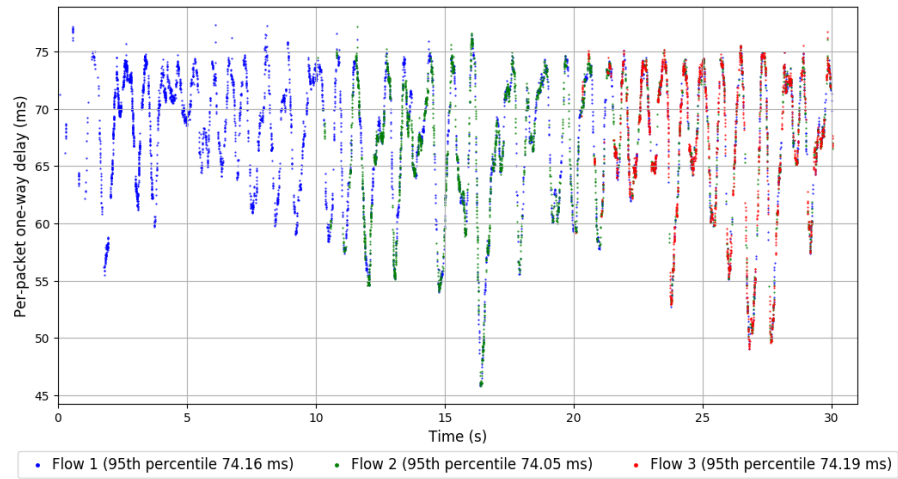
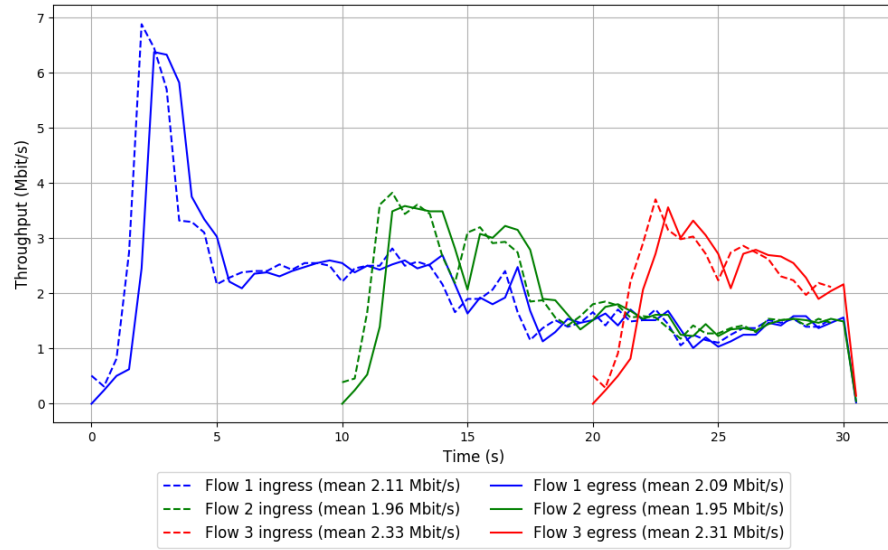


Run 3: Statistics of Copa

Start at: 2019-01-21 14:08:16
End at: 2019-01-21 14:08:46
Local clock offset: 7.038 ms
Remote clock offset: 54.304 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.16 Mbit/s
95th percentile per-packet one-way delay: 74.147 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 74.157 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 74.054 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 74.193 ms
Loss rate: 0.83%

Run 3: Report of Copa — Data Link

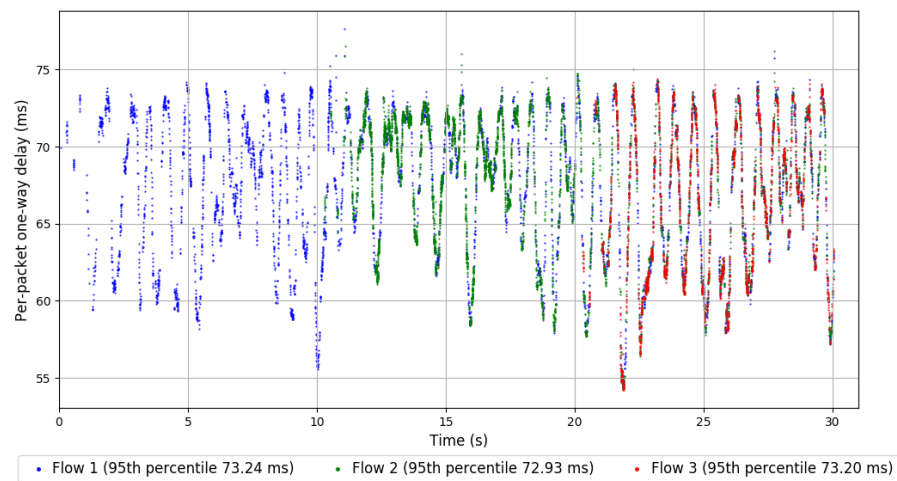
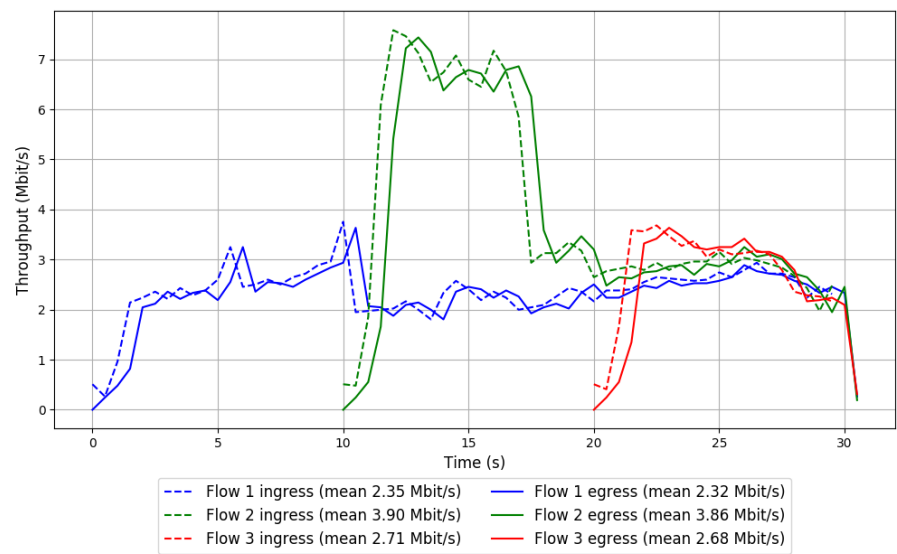


Run 4: Statistics of Copa

Start at: 2019-01-21 15:31:10
End at: 2019-01-21 15:31:40
Local clock offset: 12.826 ms
Remote clock offset: 51.291 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 73.110 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 73.244 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 72.933 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 73.202 ms
Loss rate: 1.20%

Run 4: Report of Copa — Data Link

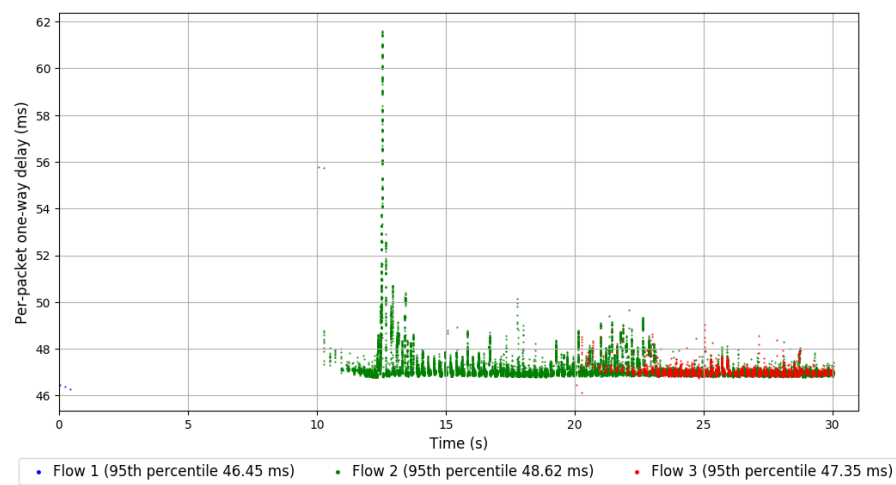
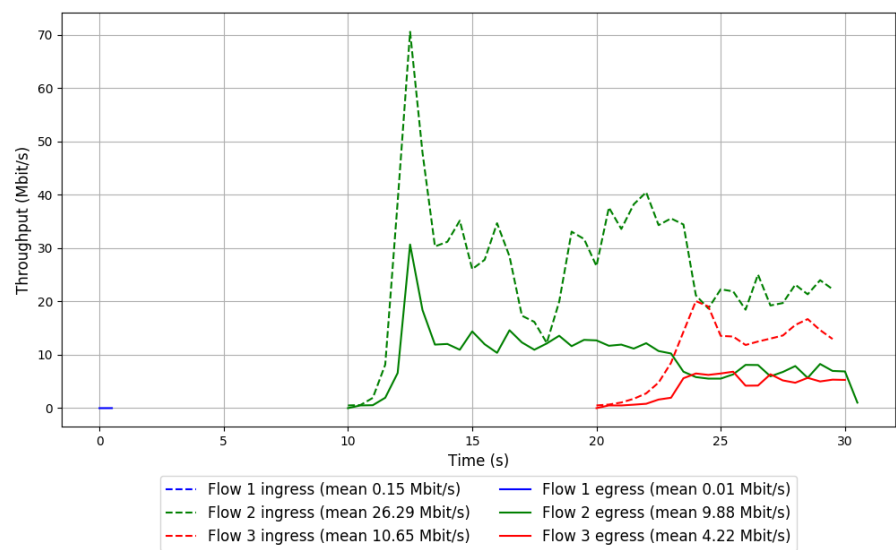


Run 5: Statistics of Copa

Start at: 2019-01-21 17:23:17
End at: 2019-01-21 17:23:47
Local clock offset: 13.689 ms
Remote clock offset: 42.974 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.98 Mbit/s
95th percentile per-packet one-way delay: 48.460 ms
Loss rate: 62.09%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 46.449 ms
Loss rate: 95.14%
-- Flow 2:
Average throughput: 9.88 Mbit/s
95th percentile per-packet one-way delay: 48.623 ms
Loss rate: 62.43%
-- Flow 3:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 47.352 ms
Loss rate: 60.35%

Run 5: Report of Copa — Data Link

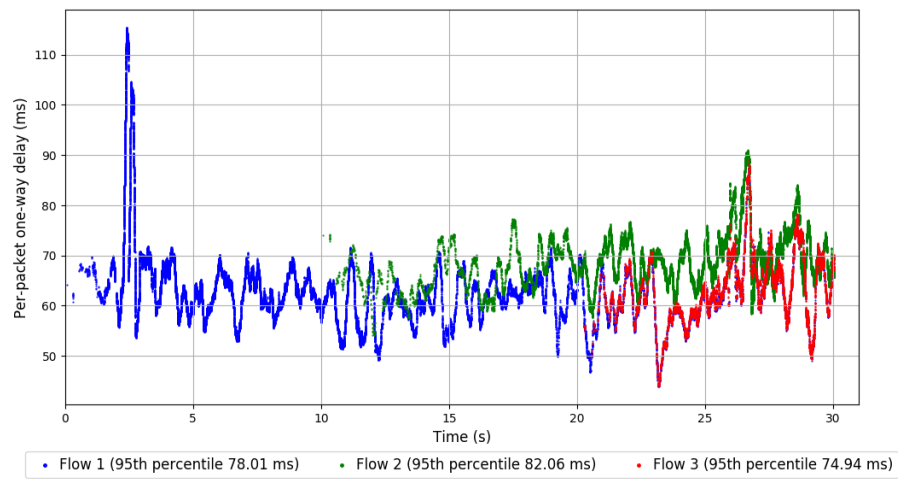
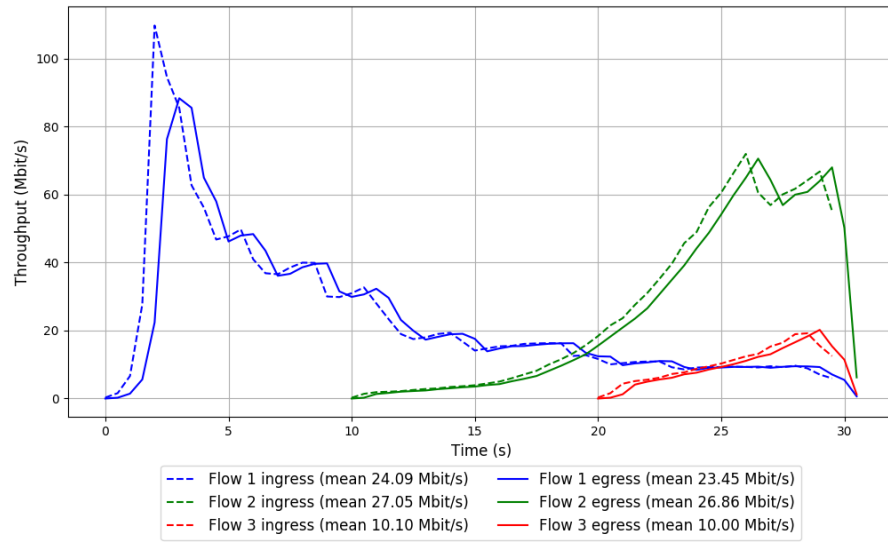


Run 1: Statistics of TCP Cubic

Start at: 2019-01-21 11:53:48
End at: 2019-01-21 11:54:18
Local clock offset: 9.102 ms
Remote clock offset: 45.095 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 44.66 Mbit/s
95th percentile per-packet one-way delay: 81.346 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 78.013 ms
Loss rate: 2.65%
-- Flow 2:
Average throughput: 26.86 Mbit/s
95th percentile per-packet one-way delay: 82.058 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 74.938 ms
Loss rate: 0.99%

Run 1: Report of TCP Cubic — Data Link

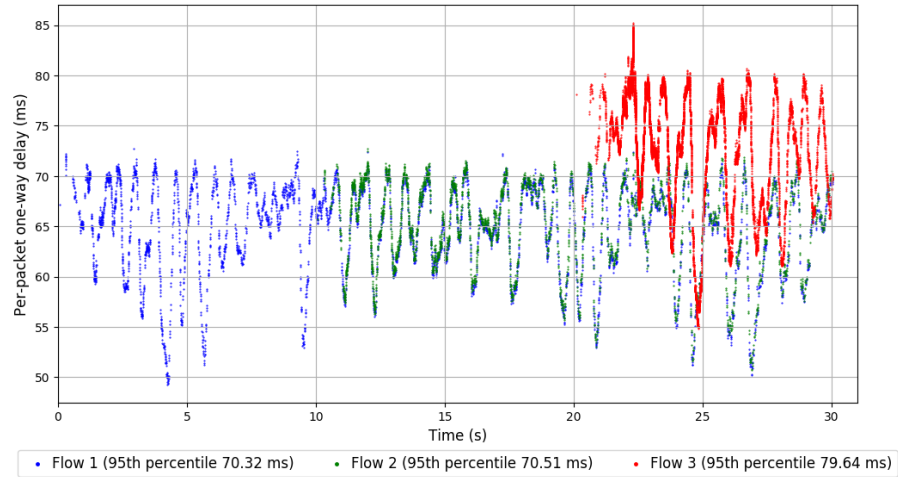
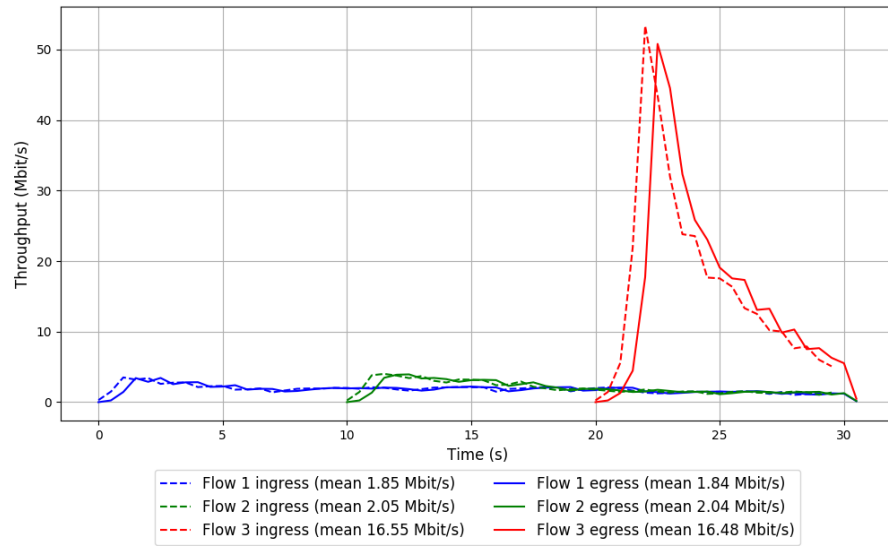


Run 2: Statistics of TCP Cubic

Start at: 2019-01-21 13:27:22
End at: 2019-01-21 13:27:52
Local clock offset: 5.324 ms
Remote clock offset: 45.001 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 79.322 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 70.317 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 70.511 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 16.48 Mbit/s
95th percentile per-packet one-way delay: 79.644 ms
Loss rate: 0.46%

Run 2: Report of TCP Cubic — Data Link

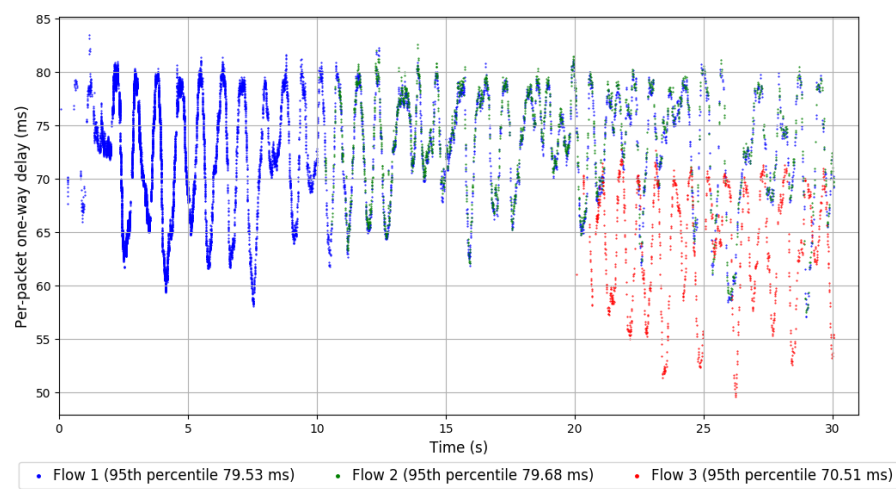
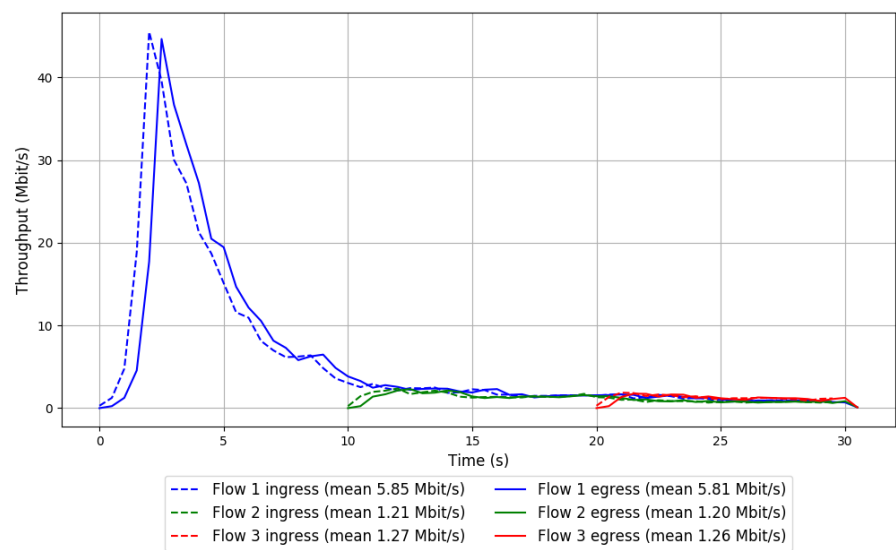


Run 3: Statistics of TCP Cubic

Start at: 2019-01-21 14:50:57
End at: 2019-01-21 14:51:27
Local clock offset: -0.417 ms
Remote clock offset: 50.372 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 79.511 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 5.81 Mbit/s
95th percentile per-packet one-way delay: 79.526 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 79.677 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 70.509 ms
Loss rate: 1.14%

Run 3: Report of TCP Cubic — Data Link

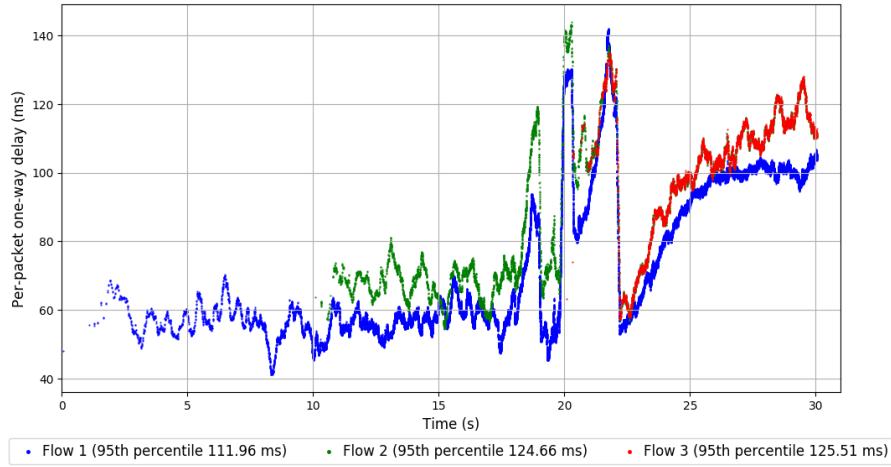
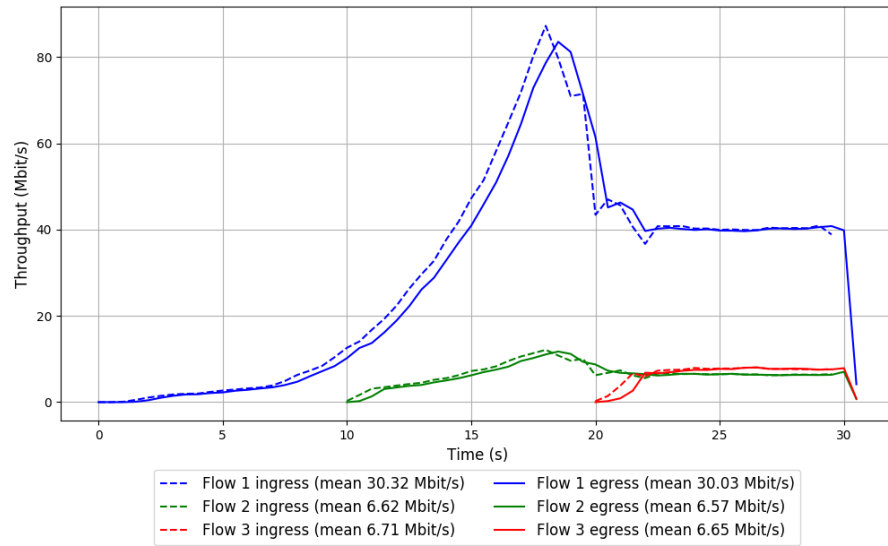


Run 4: Statistics of TCP Cubic

Start at: 2019-01-21 16:29:12
End at: 2019-01-21 16:29:42
Local clock offset: 1.199 ms
Remote clock offset: 52.141 ms

Below is generated by plot.py at 2019-01-21 19:12:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.60 Mbit/s
95th percentile per-packet one-way delay: 118.347 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 30.03 Mbit/s
95th percentile per-packet one-way delay: 111.959 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 124.662 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 6.65 Mbit/s
95th percentile per-packet one-way delay: 125.510 ms
Loss rate: 0.79%

Run 4: Report of TCP Cubic — Data Link

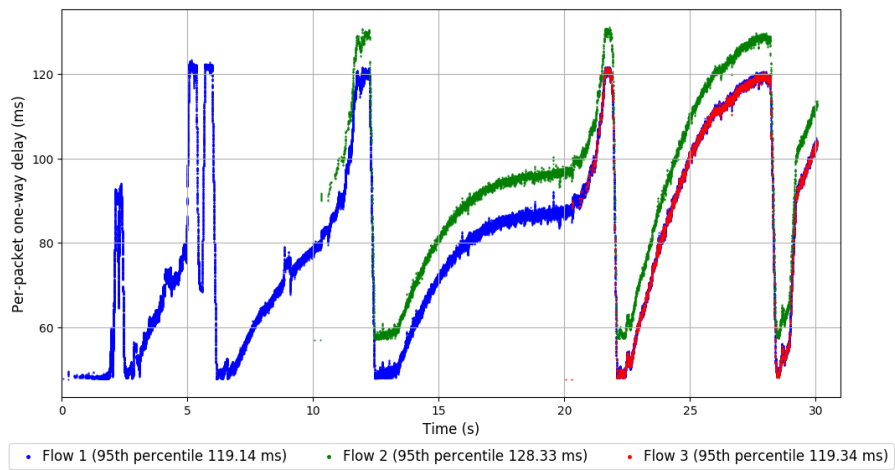
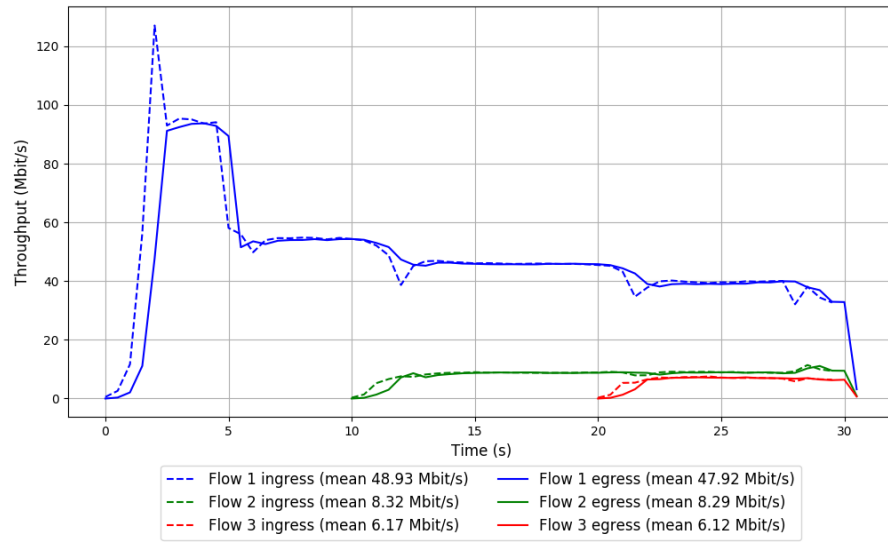


Run 5: Statistics of TCP Cubic

Start at: 2019-01-21 18:30:14
End at: 2019-01-21 18:30:44
Local clock offset: 1.515 ms
Remote clock offset: 32.705 ms

Below is generated by plot.py at 2019-01-21 19:12:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 55.47 Mbit/s
95th percentile per-packet one-way delay: 119.827 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 47.92 Mbit/s
95th percentile per-packet one-way delay: 119.143 ms
Loss rate: 2.04%
-- Flow 2:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 128.330 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 119.337 ms
Loss rate: 0.74%

Run 5: Report of TCP Cubic — Data Link

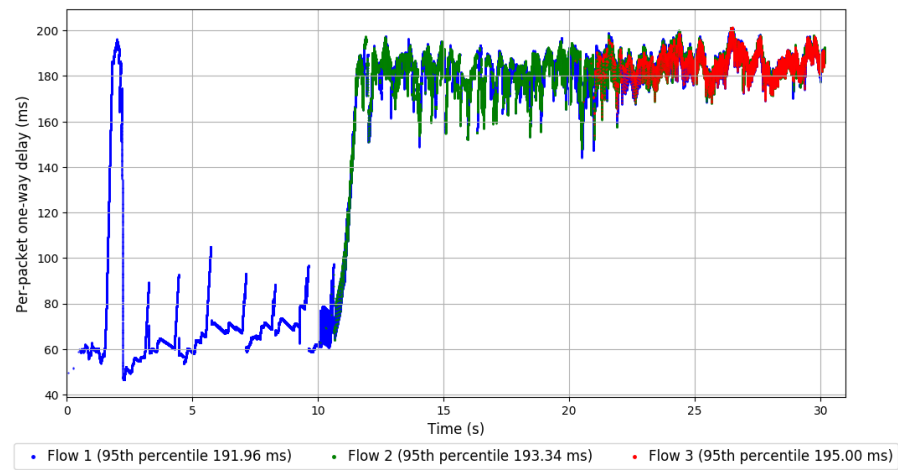
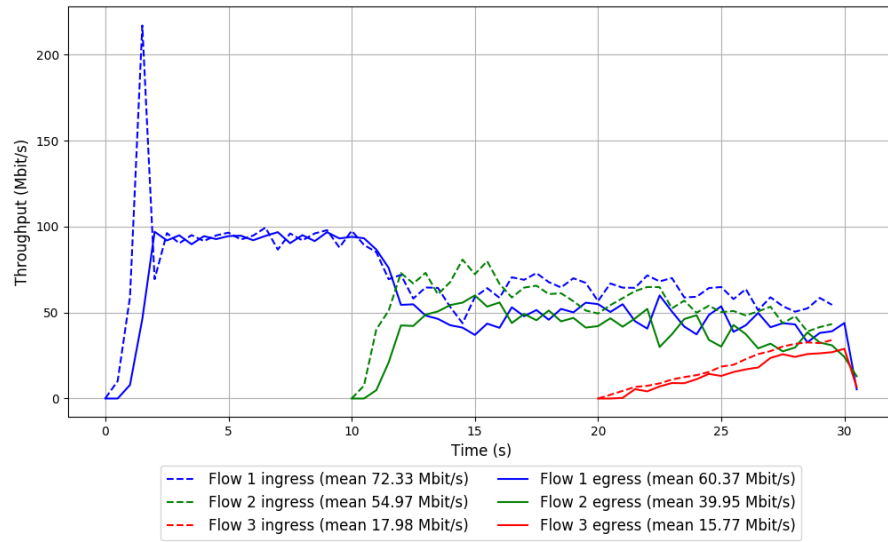


Run 1: Statistics of FillP

Start at: 2019-01-21 11:21:58
End at: 2019-01-21 11:22:28
Local clock offset: 9.034 ms
Remote clock offset: 52.521 ms

Below is generated by plot.py at 2019-01-21 19:13:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.02 Mbit/s
95th percentile per-packet one-way delay: 192.769 ms
Loss rate: 19.51%
-- Flow 1:
Average throughput: 60.37 Mbit/s
95th percentile per-packet one-way delay: 191.963 ms
Loss rate: 16.35%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 193.340 ms
Loss rate: 26.86%
-- Flow 3:
Average throughput: 15.77 Mbit/s
95th percentile per-packet one-way delay: 195.003 ms
Loss rate: 12.65%

Run 1: Report of FillP — Data Link

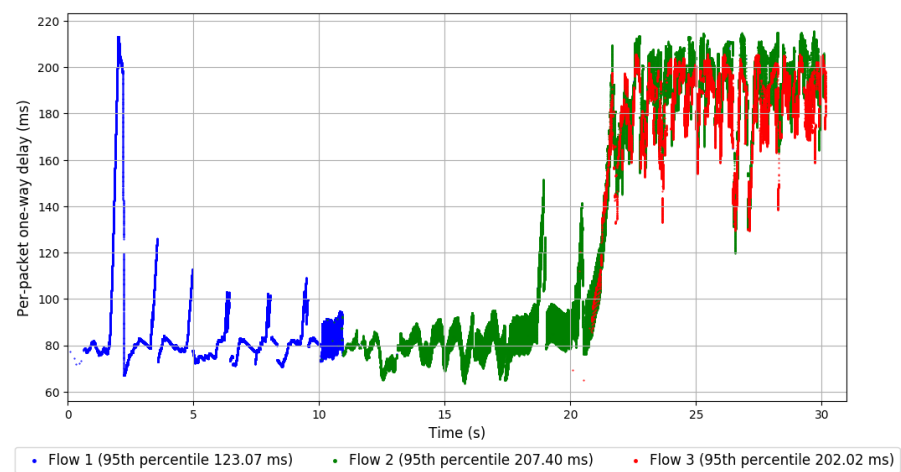
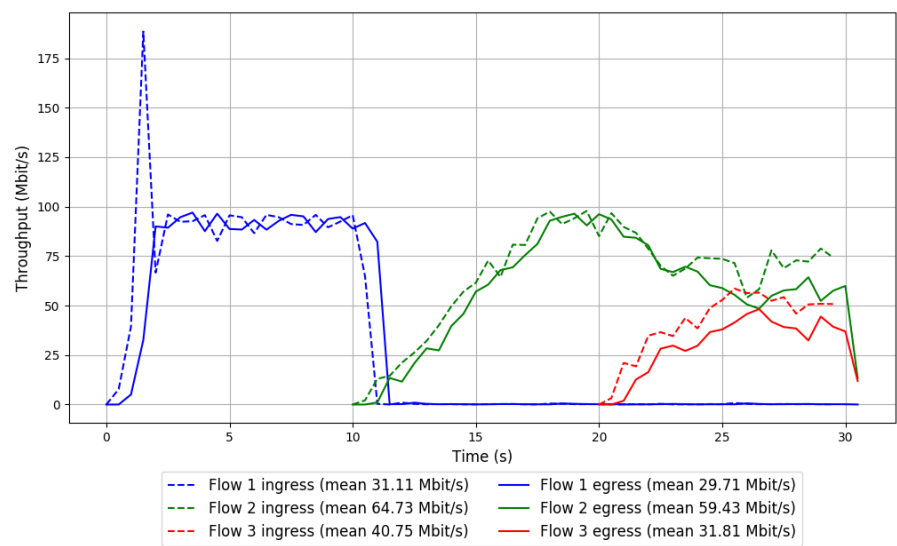


Run 2: Statistics of FillP

Start at: 2019-01-21 12:48:16
End at: 2019-01-21 12:48:46
Local clock offset: 11.03 ms
Remote clock offset: 35.419 ms

Below is generated by plot.py at 2019-01-21 19:13:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 79.77 Mbit/s
95th percentile per-packet one-way delay: 204.464 ms
Loss rate: 8.57%
-- Flow 1:
Average throughput: 29.71 Mbit/s
95th percentile per-packet one-way delay: 123.070 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 59.43 Mbit/s
95th percentile per-packet one-way delay: 207.400 ms
Loss rate: 7.92%
-- Flow 3:
Average throughput: 31.81 Mbit/s
95th percentile per-packet one-way delay: 202.020 ms
Loss rate: 20.93%

Run 2: Report of FillP — Data Link

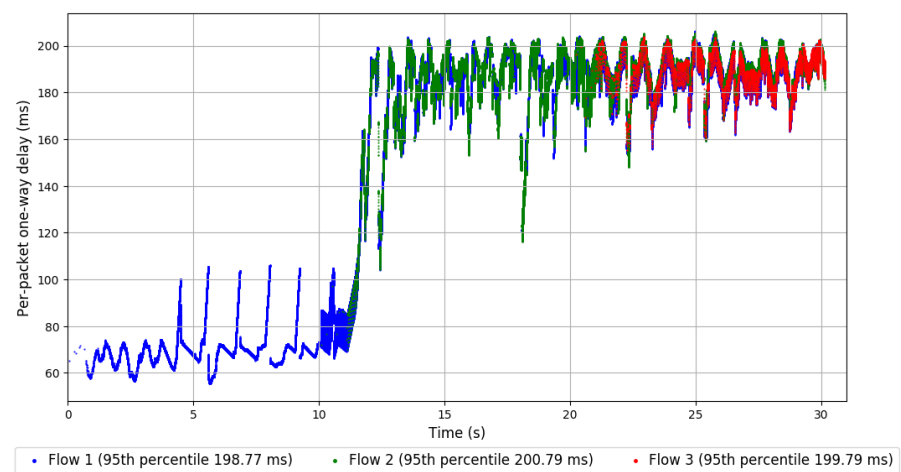
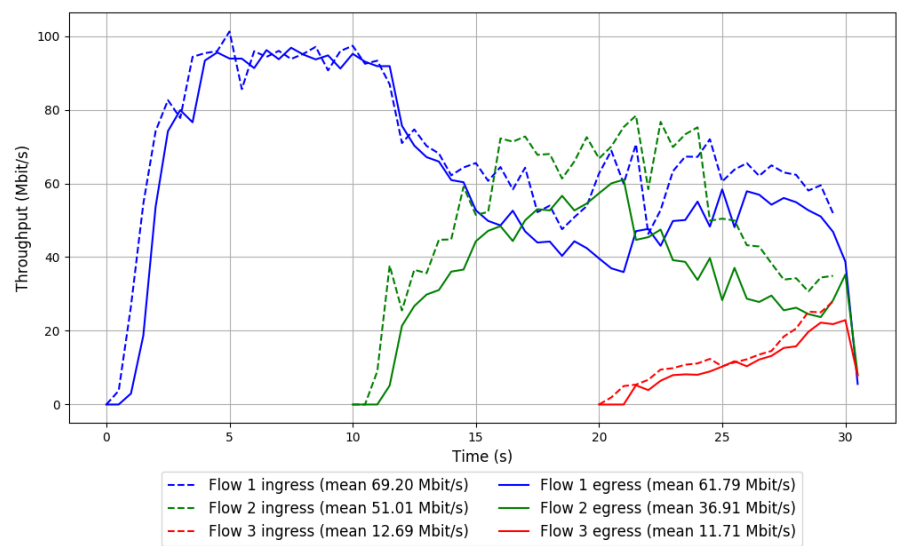


Run 3: Statistics of FillP

Start at: 2019-01-21 14:18:22
End at: 2019-01-21 14:18:52
Local clock offset: 6.044 ms
Remote clock offset: 54.367 ms

Below is generated by plot.py at 2019-01-21 19:13:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 199.619 ms
Loss rate: 15.72%
-- Flow 1:
Average throughput: 61.79 Mbit/s
95th percentile per-packet one-way delay: 198.774 ms
Loss rate: 10.55%
-- Flow 2:
Average throughput: 36.91 Mbit/s
95th percentile per-packet one-way delay: 200.795 ms
Loss rate: 27.23%
-- Flow 3:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 199.789 ms
Loss rate: 7.85%

Run 3: Report of FillP — Data Link

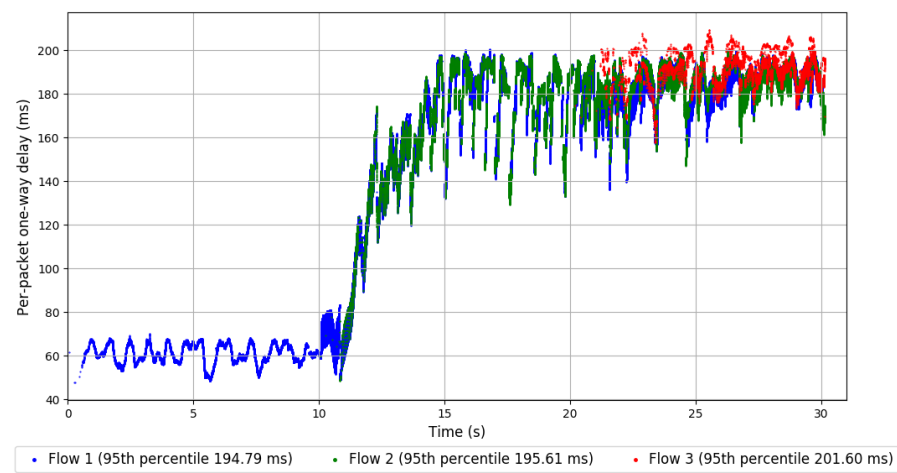
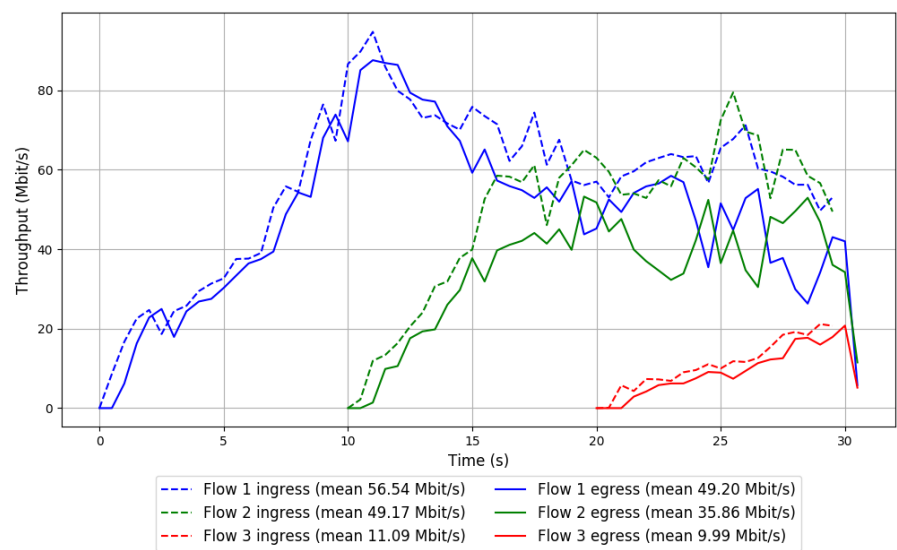


Run 4: Statistics of FillP

Start at: 2019-01-21 15:47:41
End at: 2019-01-21 15:48:11
Local clock offset: 14.311 ms
Remote clock offset: 46.168 ms

Below is generated by plot.py at 2019-01-21 19:13:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 76.32 Mbit/s
95th percentile per-packet one-way delay: 195.475 ms
Loss rate: 17.58%
-- Flow 1:
Average throughput: 49.20 Mbit/s
95th percentile per-packet one-way delay: 194.790 ms
Loss rate: 12.84%
-- Flow 2:
Average throughput: 35.86 Mbit/s
95th percentile per-packet one-way delay: 195.609 ms
Loss rate: 26.64%
-- Flow 3:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 201.598 ms
Loss rate: 9.93%

Run 4: Report of FillP — Data Link

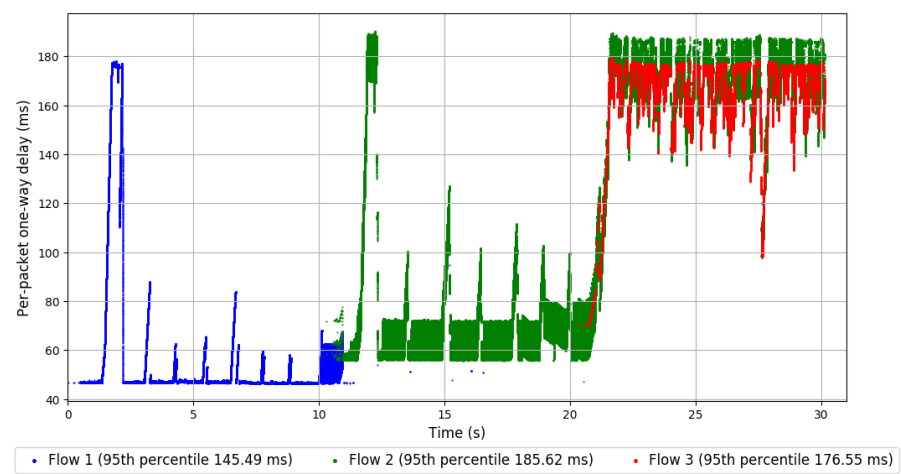
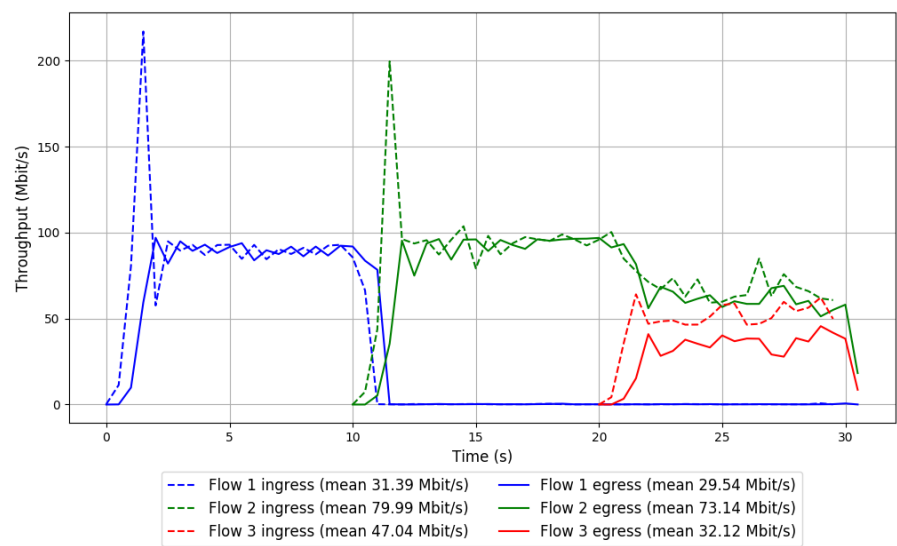


Run 5: Statistics of FillP

Start at: 2019-01-21 17:48:10
End at: 2019-01-21 17:48:40
Local clock offset: 4.201 ms
Remote clock offset: 31.616 ms

Below is generated by plot.py at 2019-01-21 19:13:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 88.87 Mbit/s
95th percentile per-packet one-way delay: 182.692 ms
Loss rate: 10.90%
-- Flow 1:
Average throughput: 29.54 Mbit/s
95th percentile per-packet one-way delay: 145.485 ms
Loss rate: 5.85%
-- Flow 2:
Average throughput: 73.14 Mbit/s
95th percentile per-packet one-way delay: 185.621 ms
Loss rate: 7.99%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 176.547 ms
Loss rate: 30.97%

Run 5: Report of FillP — Data Link

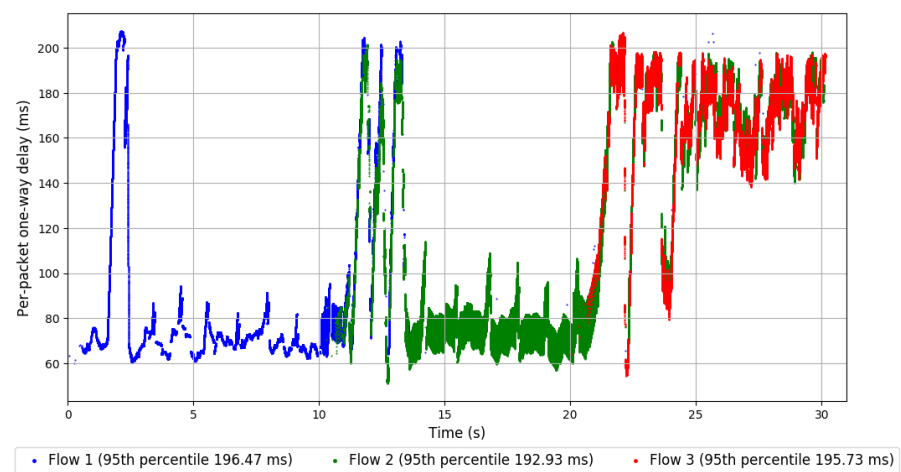
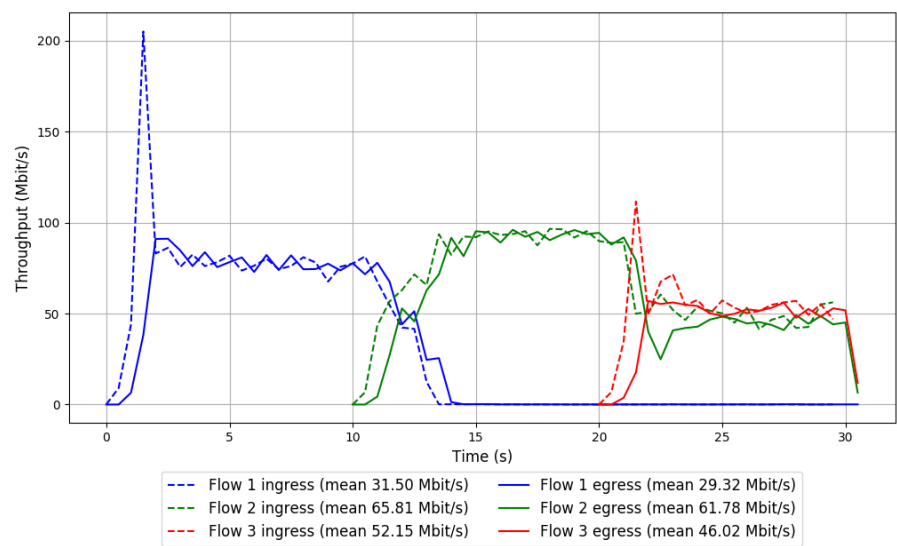


Run 1: Statistics of FillP-Sheep

Start at: 2019-01-21 11:31:26
End at: 2019-01-21 11:31:56
Local clock offset: 15.121 ms
Remote clock offset: 49.508 ms

Below is generated by plot.py at 2019-01-21 19:13:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 194.465 ms
Loss rate: 7.00%
-- Flow 1:
Average throughput: 29.32 Mbit/s
95th percentile per-packet one-way delay: 196.475 ms
Loss rate: 6.57%
-- Flow 2:
Average throughput: 61.78 Mbit/s
95th percentile per-packet one-way delay: 192.931 ms
Loss rate: 5.89%
-- Flow 3:
Average throughput: 46.02 Mbit/s
95th percentile per-packet one-way delay: 195.732 ms
Loss rate: 10.58%

Run 1: Report of FillP-Sheep — Data Link

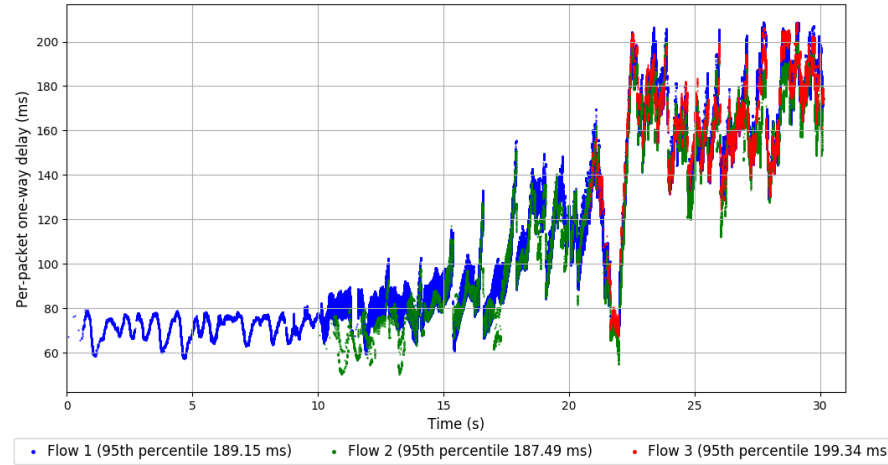
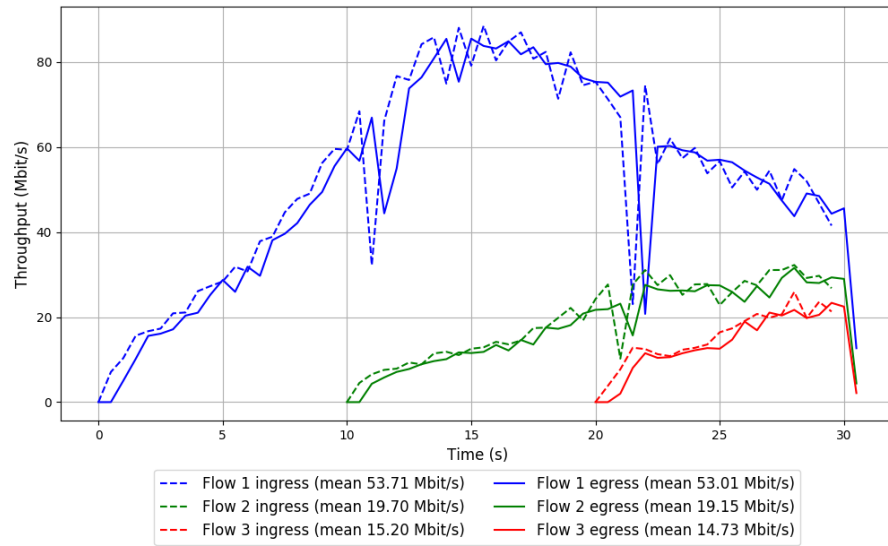


Run 2: Statistics of FillP-Sheep

Start at: 2019-01-21 12:58:10
End at: 2019-01-21 12:58:40
Local clock offset: 14.858 ms
Remote clock offset: 21.476 ms

Below is generated by plot.py at 2019-01-21 19:13:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 190.426 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 53.01 Mbit/s
95th percentile per-packet one-way delay: 189.147 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 19.15 Mbit/s
95th percentile per-packet one-way delay: 187.491 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 14.73 Mbit/s
95th percentile per-packet one-way delay: 199.337 ms
Loss rate: 2.92%

Run 2: Report of FillP-Sheep — Data Link

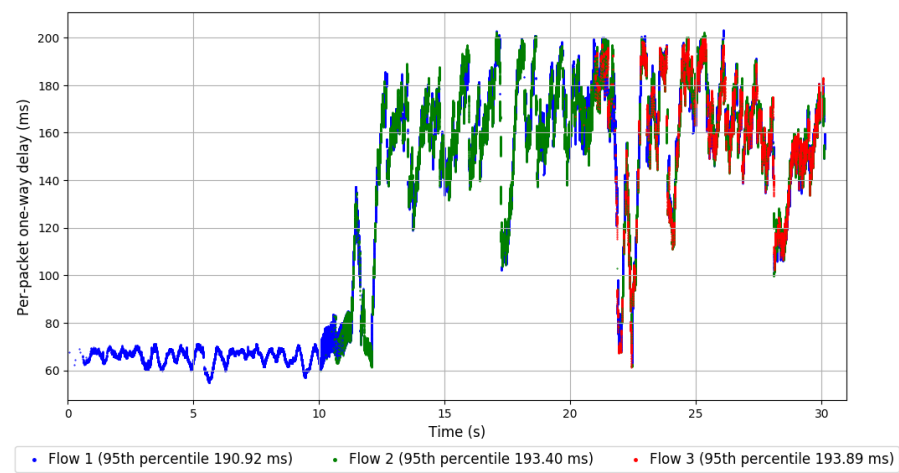
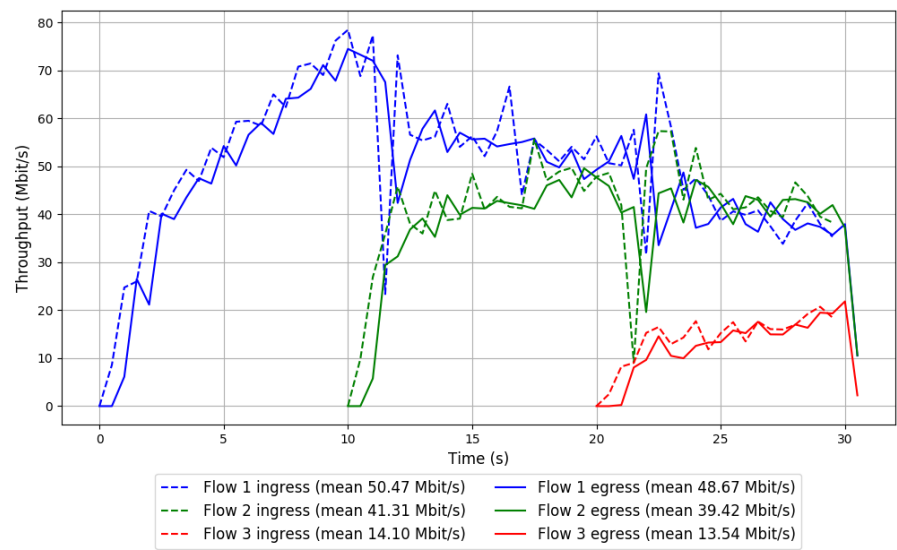


Run 3: Statistics of FillP-Sheep

Start at: 2019-01-21 14:31:52
End at: 2019-01-21 14:32:22
Local clock offset: 0.868 ms
Remote clock offset: 48.787 ms

Below is generated by plot.py at 2019-01-21 19:13:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 79.41 Mbit/s
95th percentile per-packet one-way delay: 192.263 ms
Loss rate: 3.63%
-- Flow 1:
Average throughput: 48.67 Mbit/s
95th percentile per-packet one-way delay: 190.919 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 39.42 Mbit/s
95th percentile per-packet one-way delay: 193.395 ms
Loss rate: 4.14%
-- Flow 3:
Average throughput: 13.54 Mbit/s
95th percentile per-packet one-way delay: 193.887 ms
Loss rate: 4.55%

Run 3: Report of FillP-Sheep — Data Link

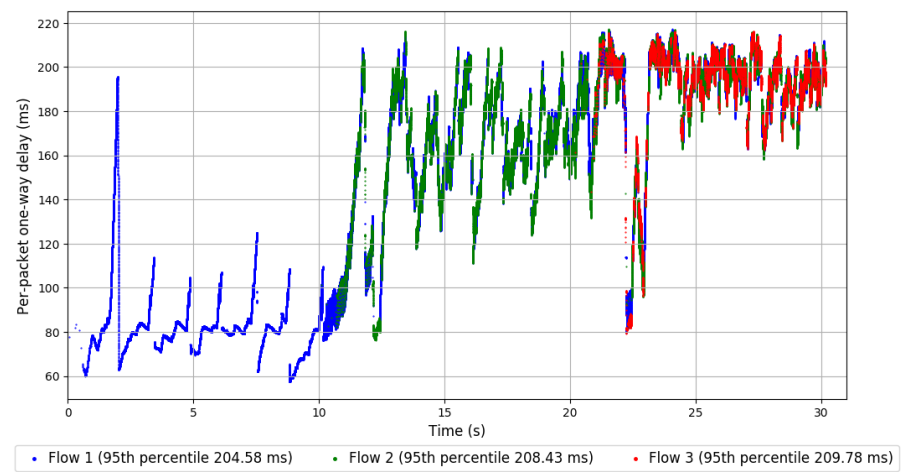
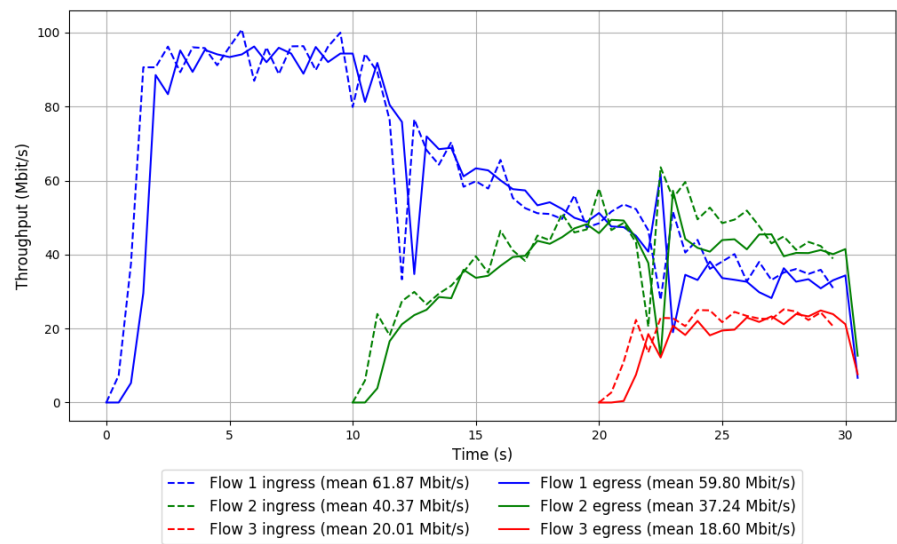


Run 4: Statistics of FillP-Sheep

Start at: 2019-01-21 16:02:07
End at: 2019-01-21 16:02:37
Local clock offset: 2.798 ms
Remote clock offset: 53.318 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 206.647 ms
Loss rate: 4.57%
-- Flow 1:
Average throughput: 59.80 Mbit/s
95th percentile per-packet one-way delay: 204.583 ms
Loss rate: 3.15%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 208.425 ms
Loss rate: 7.30%
-- Flow 3:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 209.785 ms
Loss rate: 6.71%

Run 4: Report of FillP-Sheep — Data Link

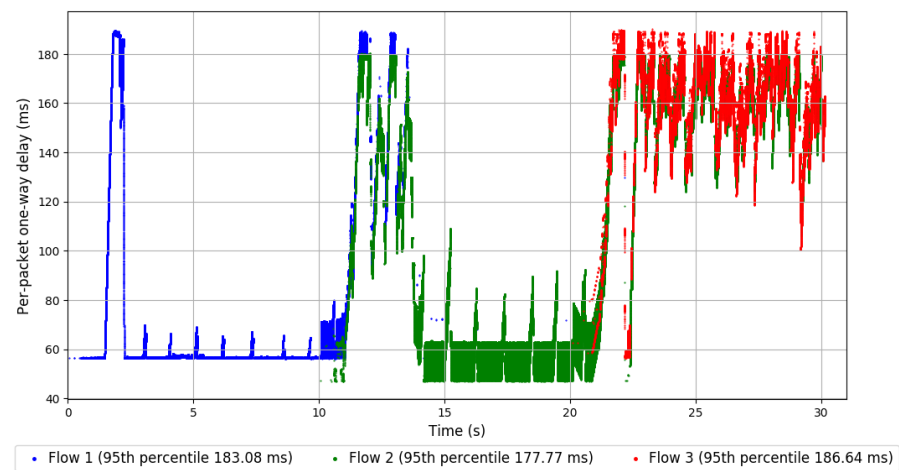
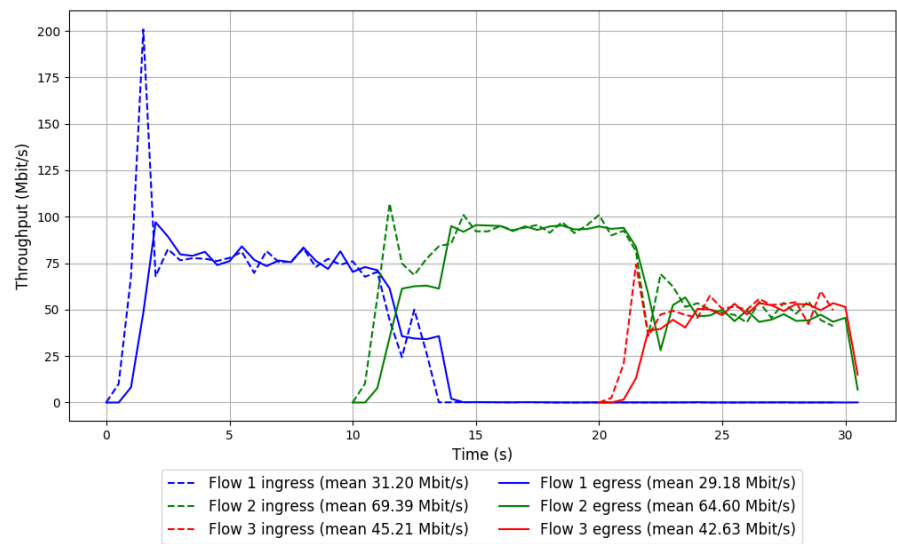


Run 5: Statistics of FillP-Sheep

Start at: 2019-01-21 18:01:10
End at: 2019-01-21 18:01:40
Local clock offset: 1.919 ms
Remote clock offset: 41.686 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 86.34 Mbit/s
95th percentile per-packet one-way delay: 179.348 ms
Loss rate: 6.19%
-- Flow 1:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 183.084 ms
Loss rate: 6.18%
-- Flow 2:
Average throughput: 64.60 Mbit/s
95th percentile per-packet one-way delay: 177.774 ms
Loss rate: 6.66%
-- Flow 3:
Average throughput: 42.63 Mbit/s
95th percentile per-packet one-way delay: 186.642 ms
Loss rate: 4.79%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-01-21 12:01:09

End at: 2019-01-21 12:01:39

Local clock offset: 4.807 ms

Remote clock offset: 45.31 ms

Below is generated by plot.py at 2019-01-21 19:14:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.47 Mbit/s

95th percentile per-packet one-way delay: 139.744 ms

Loss rate: 14.02%

-- Flow 1:

Average throughput: 41.31 Mbit/s

95th percentile per-packet one-way delay: 134.728 ms

Loss rate: 7.29%

-- Flow 2:

Average throughput: 13.39 Mbit/s

95th percentile per-packet one-way delay: 137.048 ms

Loss rate: 11.28%

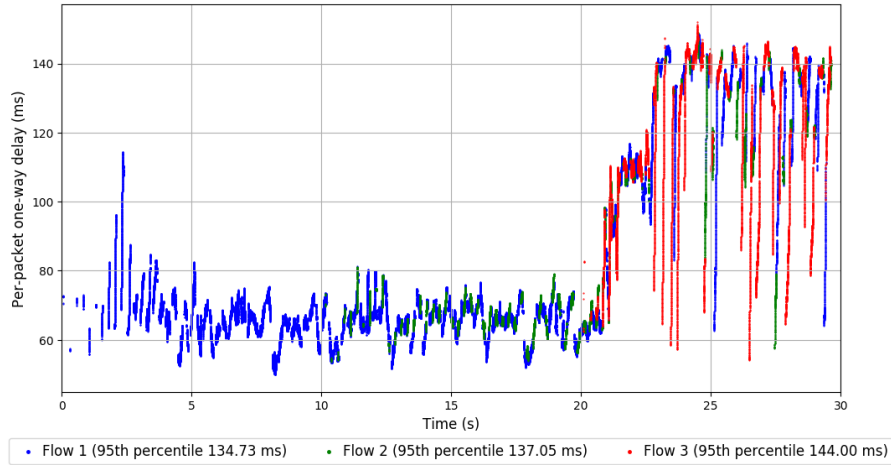
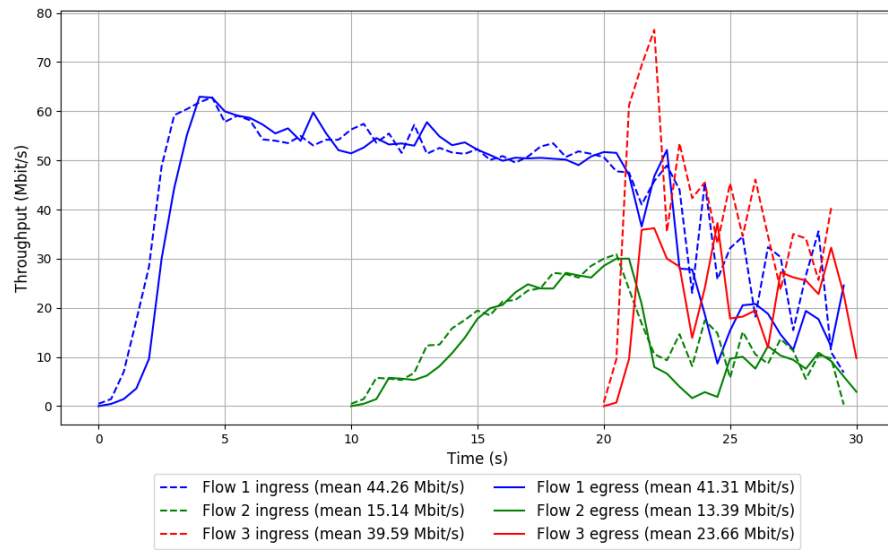
-- Flow 3:

Average throughput: 23.66 Mbit/s

95th percentile per-packet one-way delay: 143.999 ms

Loss rate: 39.75%

Run 1: Report of Indigo — Data Link

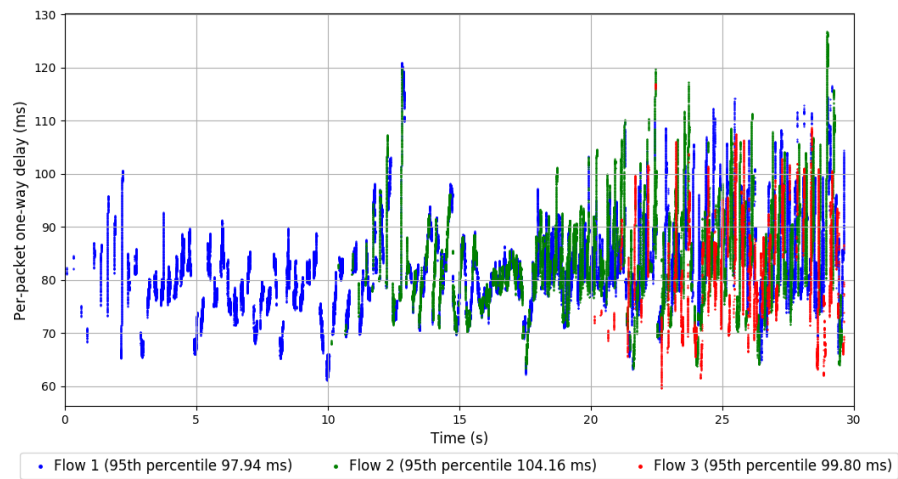
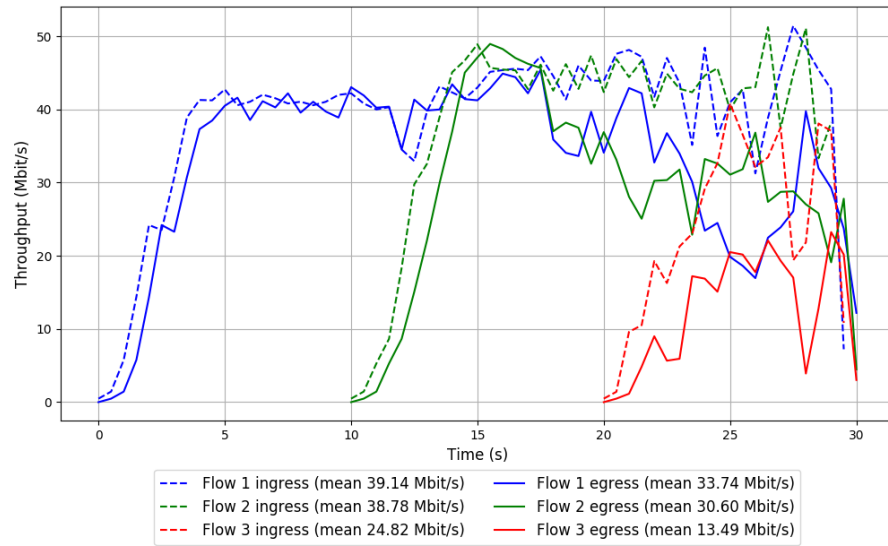


Run 2: Statistics of Indigo

Start at: 2019-01-21 13:32:01
End at: 2019-01-21 13:32:31
Local clock offset: 3.296 ms
Remote clock offset: 52.079 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 58.15 Mbit/s
95th percentile per-packet one-way delay: 100.414 ms
Loss rate: 19.85%
-- Flow 1:
Average throughput: 33.74 Mbit/s
95th percentile per-packet one-way delay: 97.936 ms
Loss rate: 13.81%
-- Flow 2:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 104.155 ms
Loss rate: 21.07%
-- Flow 3:
Average throughput: 13.49 Mbit/s
95th percentile per-packet one-way delay: 99.803 ms
Loss rate: 45.64%

Run 2: Report of Indigo — Data Link

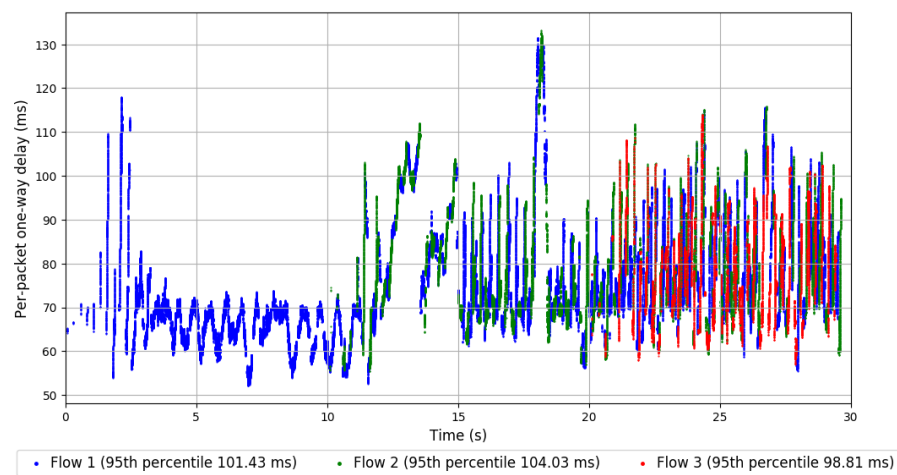
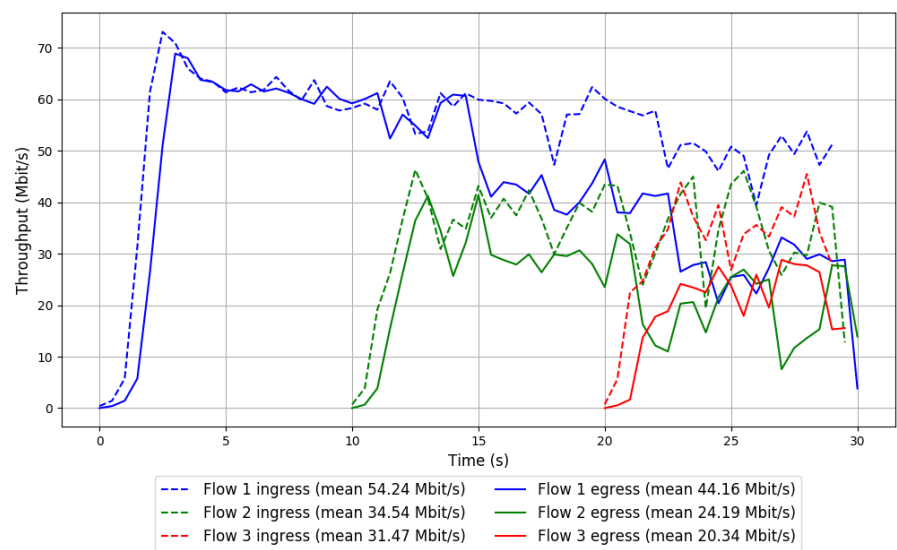


Run 3: Statistics of Indigo

Start at: 2019-01-21 14:55:24
End at: 2019-01-21 14:55:54
Local clock offset: 0.006 ms
Remote clock offset: 49.416 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 66.39 Mbit/s
95th percentile per-packet one-way delay: 101.990 ms
Loss rate: 23.45%
-- Flow 1:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 101.432 ms
Loss rate: 18.56%
-- Flow 2:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 104.026 ms
Loss rate: 29.90%
-- Flow 3:
Average throughput: 20.34 Mbit/s
95th percentile per-packet one-way delay: 98.814 ms
Loss rate: 35.30%

Run 3: Report of Indigo — Data Link

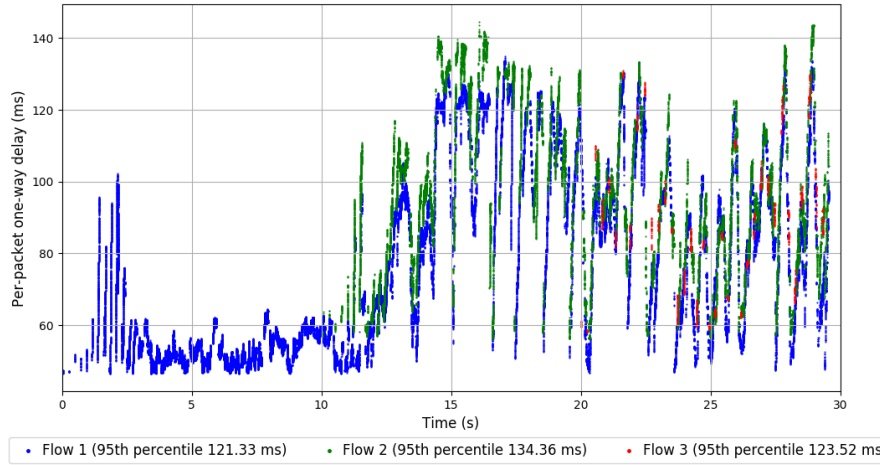
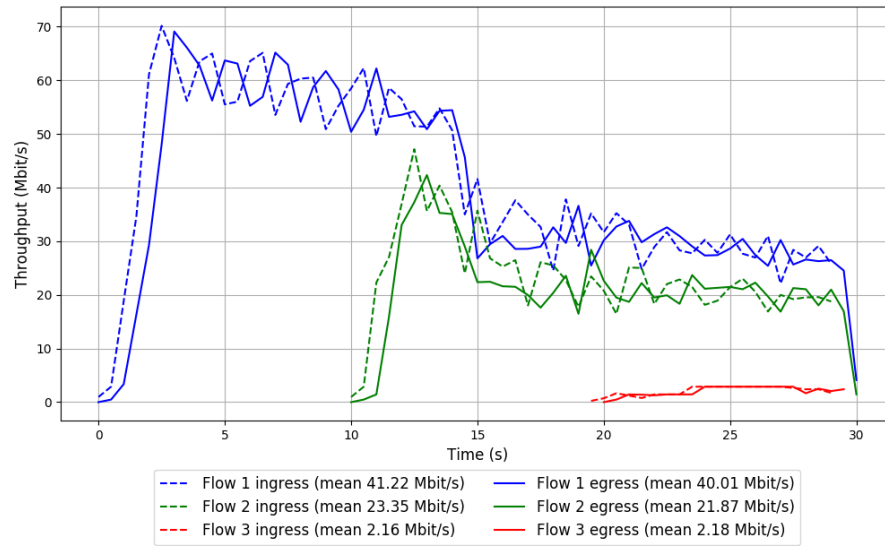


Run 4: Statistics of Indigo

Start at: 2019-01-21 16:37:47
End at: 2019-01-21 16:38:17
Local clock offset: 1.239 ms
Remote clock offset: 57.992 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 55.13 Mbit/s
95th percentile per-packet one-way delay: 125.167 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 40.01 Mbit/s
95th percentile per-packet one-way delay: 121.333 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 134.358 ms
Loss rate: 6.21%
-- Flow 3:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 123.515 ms
Loss rate: 1.34%

Run 4: Report of Indigo — Data Link

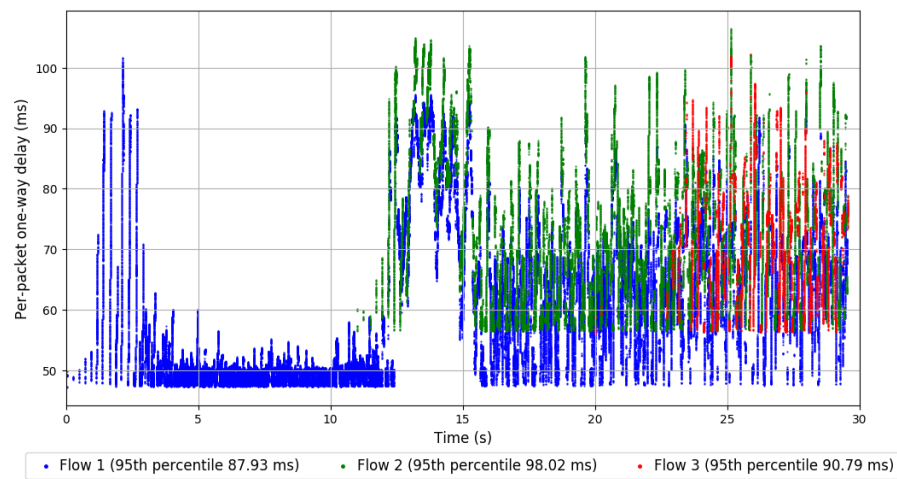
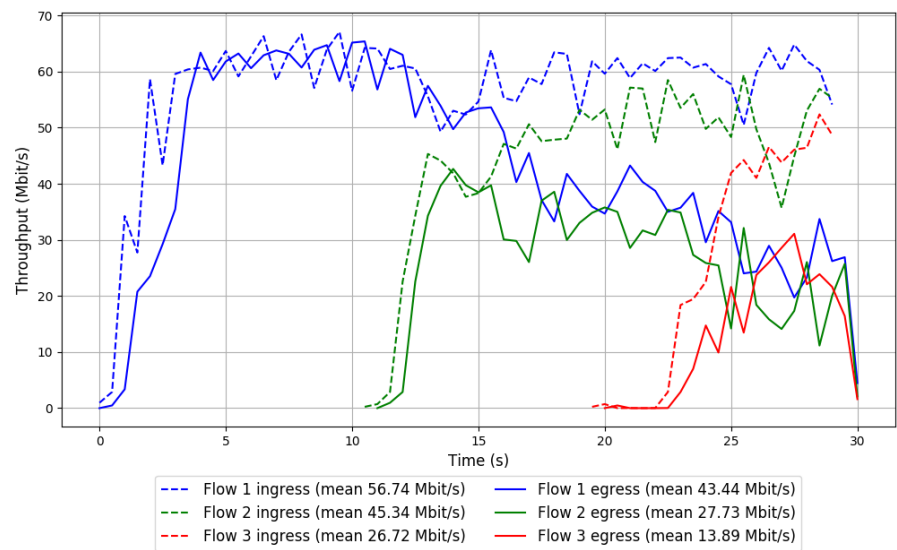


Run 5: Statistics of Indigo

Start at: 2019-01-21 18:39:54
End at: 2019-01-21 18:40:24
Local clock offset: 1.291 ms
Remote clock offset: 26.119 ms

Below is generated by plot.py at 2019-01-21 19:14:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 91.161 ms
Loss rate: 30.31%
-- Flow 1:
Average throughput: 43.44 Mbit/s
95th percentile per-packet one-way delay: 87.934 ms
Loss rate: 23.37%
-- Flow 2:
Average throughput: 27.73 Mbit/s
95th percentile per-packet one-way delay: 98.023 ms
Loss rate: 38.77%
-- Flow 3:
Average throughput: 13.89 Mbit/s
95th percentile per-packet one-way delay: 90.787 ms
Loss rate: 47.96%

Run 5: Report of Indigo — Data Link

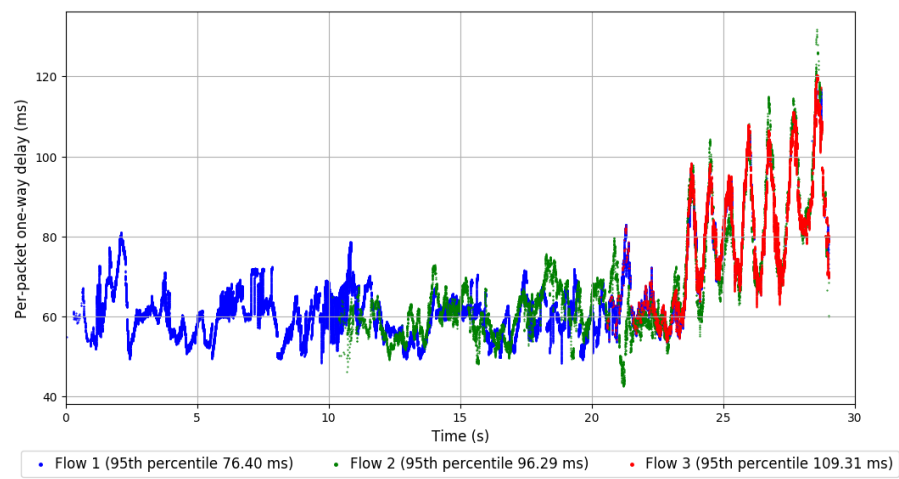
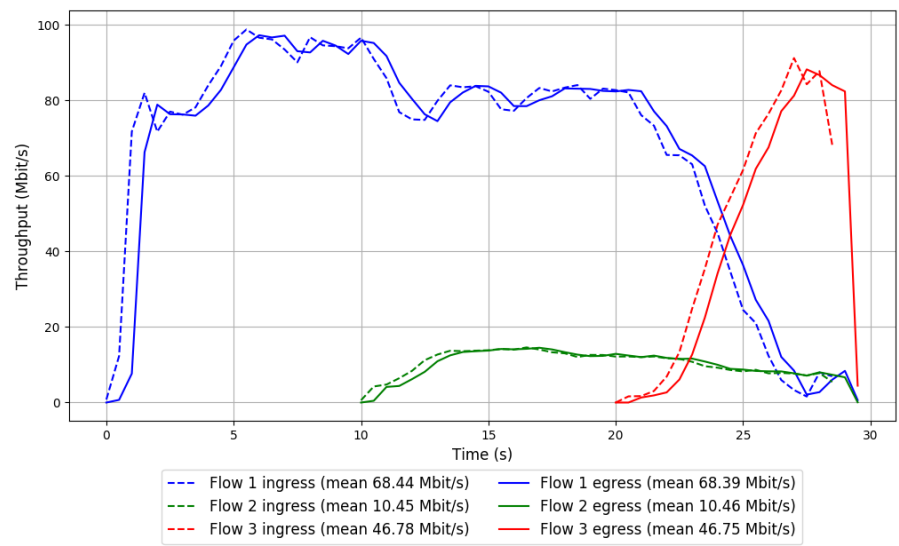


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-21 11:46:14
End at: 2019-01-21 11:46:44
Local clock offset: 19.394 ms
Remote clock offset: 45.615 ms

Below is generated by plot.py at 2019-01-21 19:14:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 89.21 Mbit/s
95th percentile per-packet one-way delay: 93.317 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 68.39 Mbit/s
95th percentile per-packet one-way delay: 76.396 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 10.46 Mbit/s
95th percentile per-packet one-way delay: 96.289 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.75 Mbit/s
95th percentile per-packet one-way delay: 109.305 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-21 13:14:54

End at: 2019-01-21 13:15:24

Local clock offset: 17.597 ms

Remote clock offset: 16.37 ms

Below is generated by plot.py at 2019-01-21 19:14:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.38 Mbit/s

95th percentile per-packet one-way delay: 75.745 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 39.26 Mbit/s

95th percentile per-packet one-way delay: 76.597 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 10.25 Mbit/s

95th percentile per-packet one-way delay: 73.729 ms

Loss rate: 0.25%

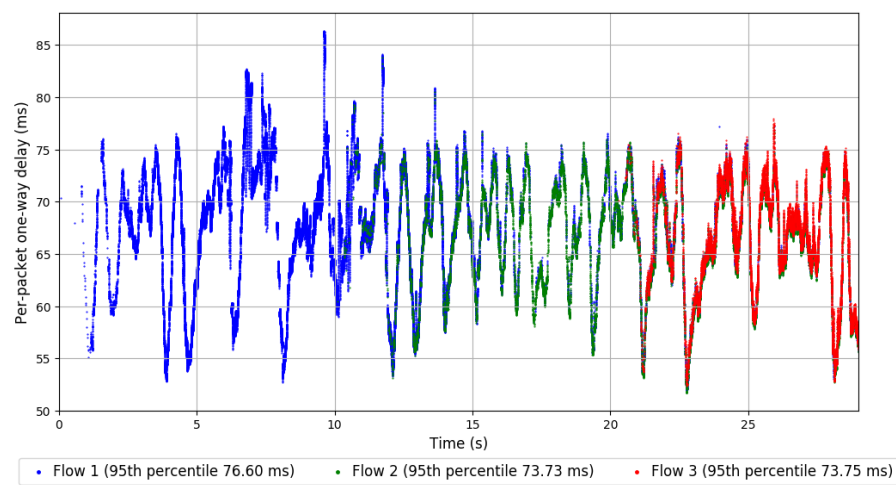
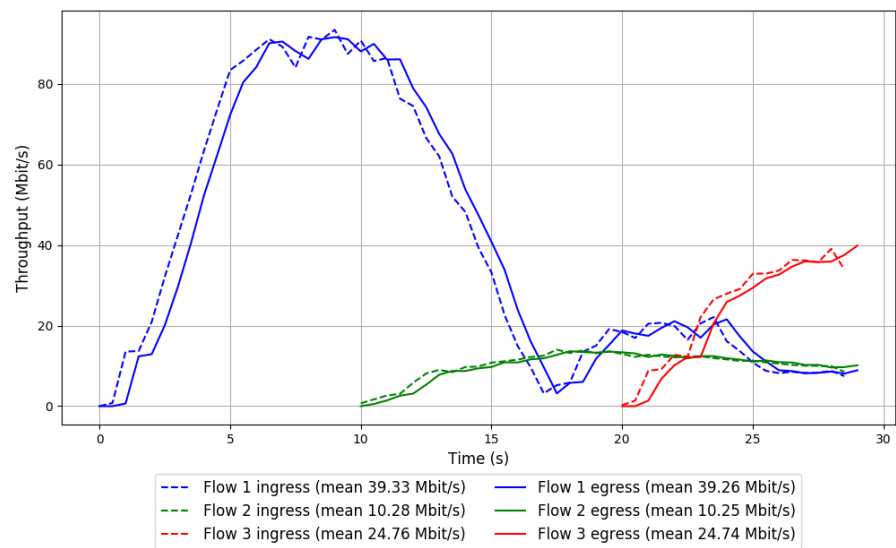
-- Flow 3:

Average throughput: 24.74 Mbit/s

95th percentile per-packet one-way delay: 73.748 ms

Loss rate: 0.25%

Run 2: Report of Indigo-MusesC3 — Data Link

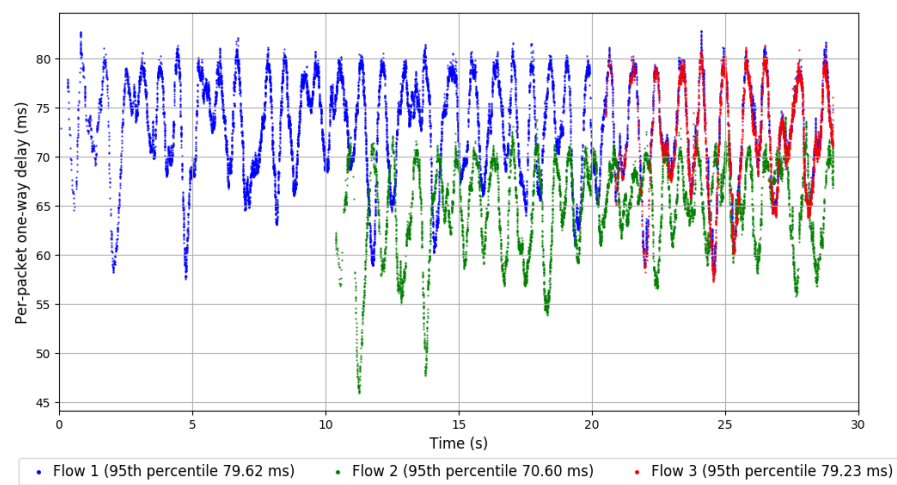
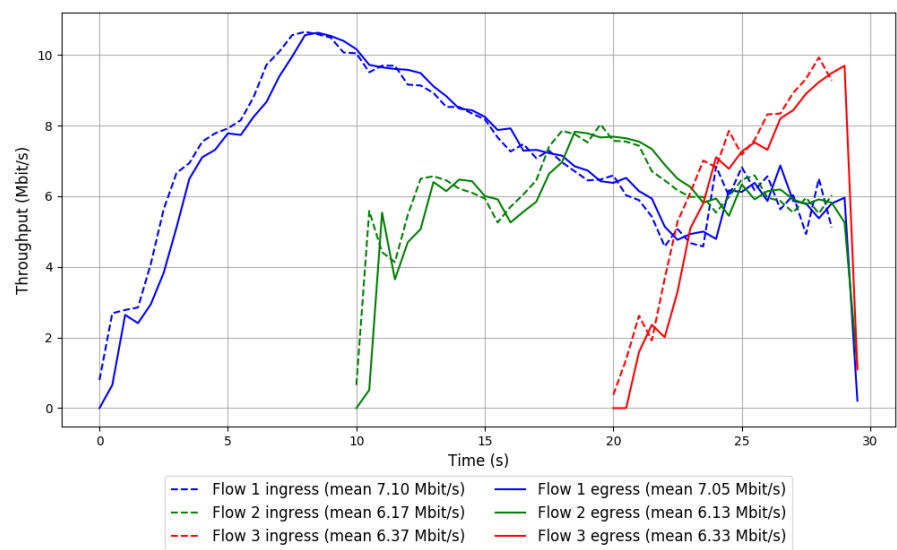


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-21 14:48:03
End at: 2019-01-21 14:48:33
Local clock offset: -0.789 ms
Remote clock offset: 50.671 ms

Below is generated by plot.py at 2019-01-21 19:14:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.97 Mbit/s
95th percentile per-packet one-way delay: 79.216 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 79.622 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 6.13 Mbit/s
95th percentile per-packet one-way delay: 70.601 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 79.230 ms
Loss rate: 0.65%

Run 3: Report of Indigo-MusesC3 — Data Link

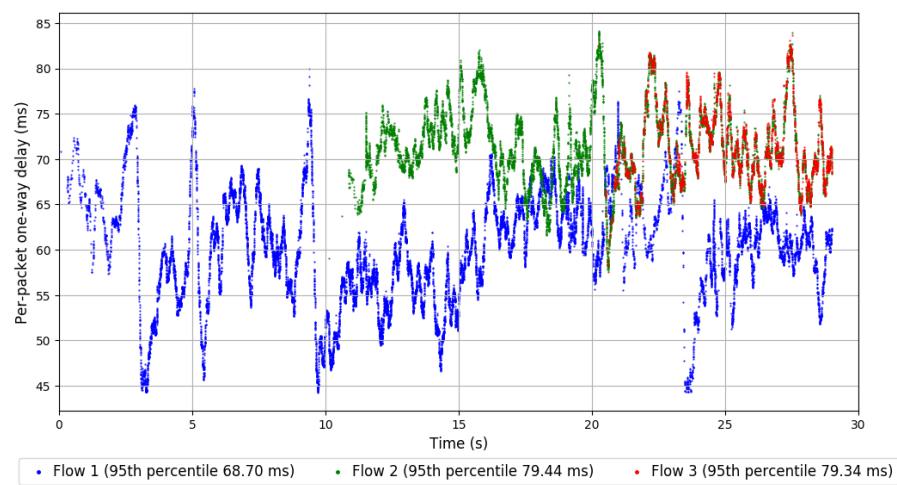
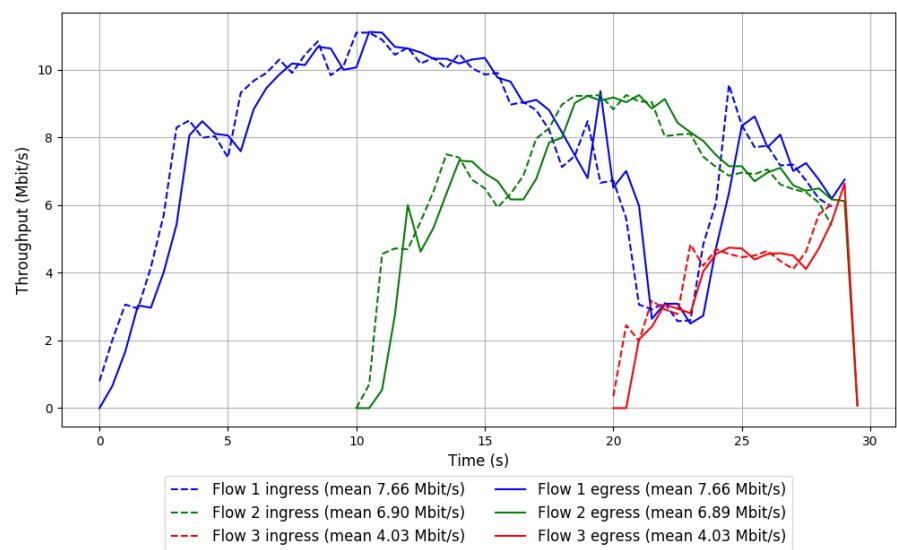


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-21 16:26:02
End at: 2019-01-21 16:26:32
Local clock offset: 1.163 ms
Remote clock offset: 55.213 ms

Below is generated by plot.py at 2019-01-21 19:14:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.37 Mbit/s
95th percentile per-packet one-way delay: 76.591 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 68.697 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 79.443 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 4.03 Mbit/s
95th percentile per-packet one-way delay: 79.341 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link

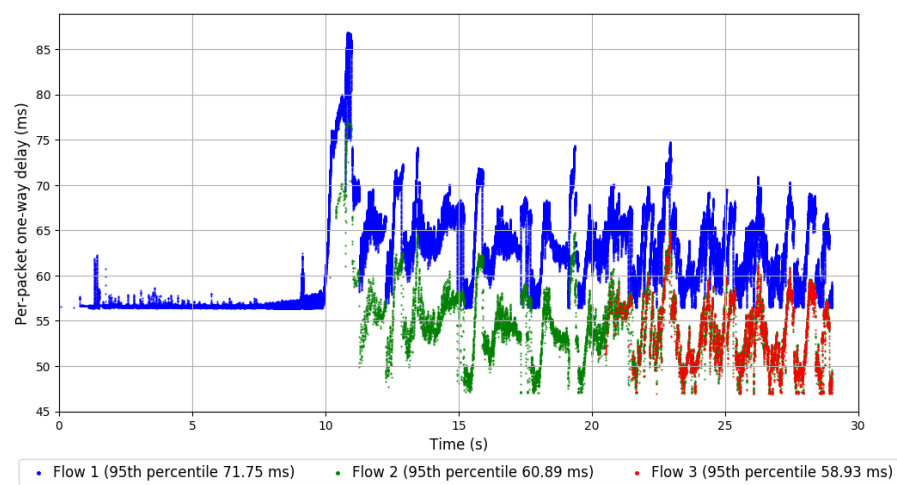
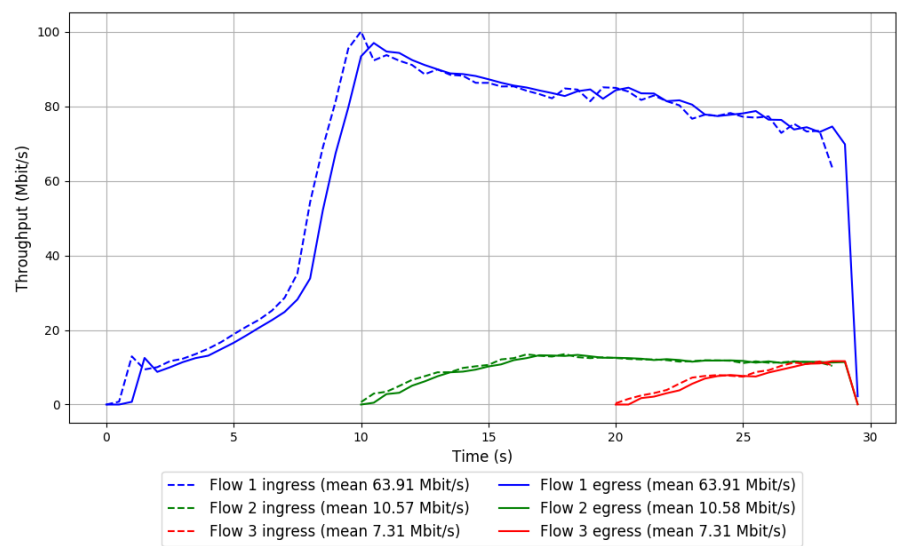


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-21 18:20:58
End at: 2019-01-21 18:21:28
Local clock offset: 1.073 ms
Remote clock offset: 41.936 ms

Below is generated by plot.py at 2019-01-21 19:15:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 73.00 Mbit/s
95th percentile per-packet one-way delay: 71.296 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.91 Mbit/s
95th percentile per-packet one-way delay: 71.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.58 Mbit/s
95th percentile per-packet one-way delay: 60.886 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.31 Mbit/s
95th percentile per-packet one-way delay: 58.933 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link

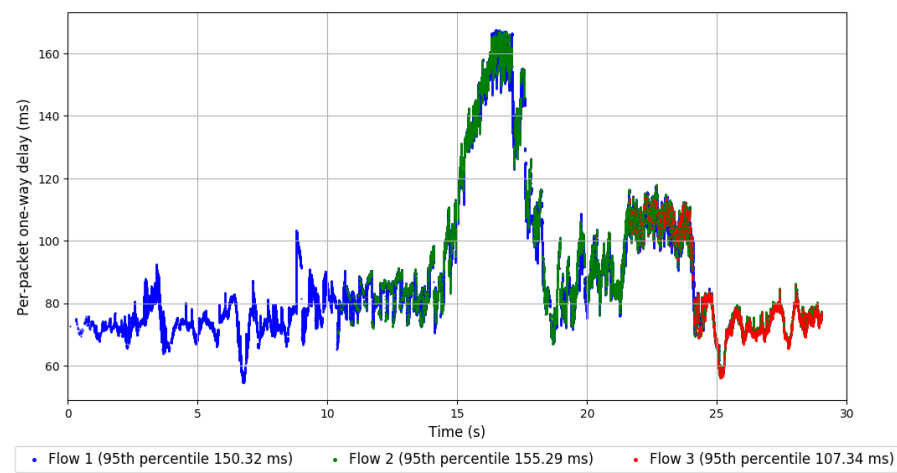
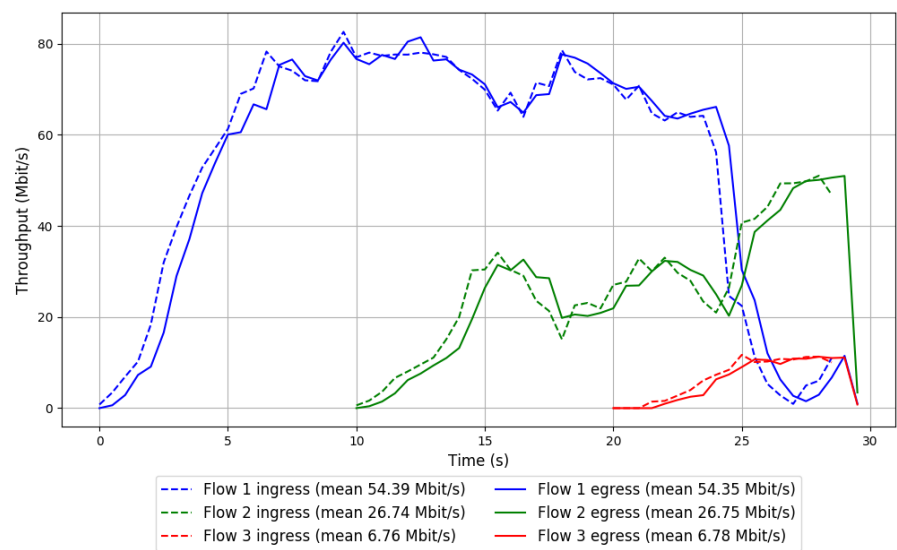


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-21 12:17:48
End at: 2019-01-21 12:18:18
Local clock offset: 2.146 ms
Remote clock offset: 50.392 ms

Below is generated by plot.py at 2019-01-21 19:15:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 73.81 Mbit/s
95th percentile per-packet one-way delay: 151.514 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 54.35 Mbit/s
95th percentile per-packet one-way delay: 150.319 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 26.75 Mbit/s
95th percentile per-packet one-way delay: 155.288 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 6.78 Mbit/s
95th percentile per-packet one-way delay: 107.340 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC5 — Data Link

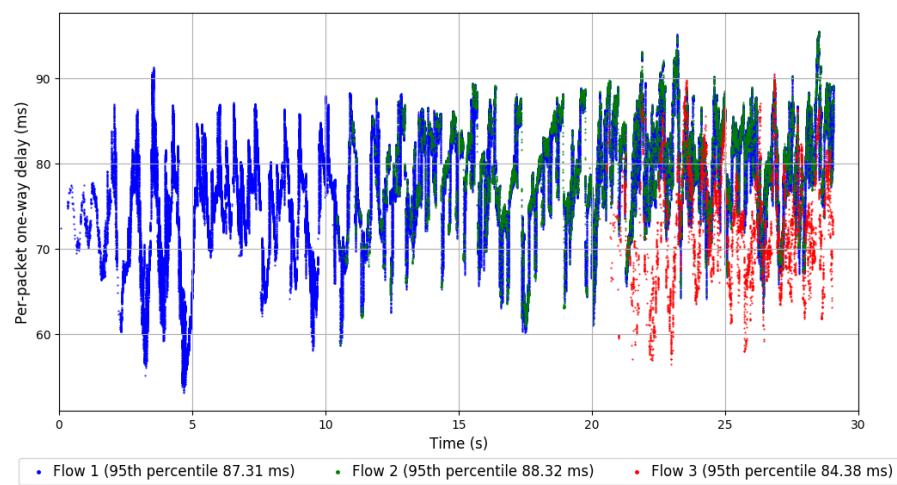
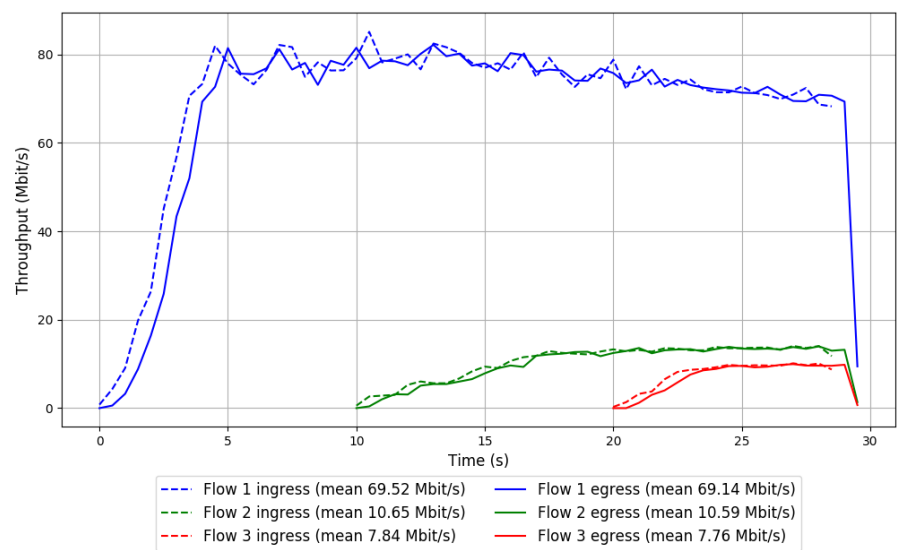


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-21 13:49:39
End at: 2019-01-21 13:50:09
Local clock offset: 2.183 ms
Remote clock offset: 53.629 ms

Below is generated by plot.py at 2019-01-21 19:15:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 78.38 Mbit/s
95th percentile per-packet one-way delay: 87.387 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 69.14 Mbit/s
95th percentile per-packet one-way delay: 87.307 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 10.59 Mbit/s
95th percentile per-packet one-way delay: 88.320 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 84.377 ms
Loss rate: 0.95%

Run 2: Report of Indigo-MusesC5 — Data Link

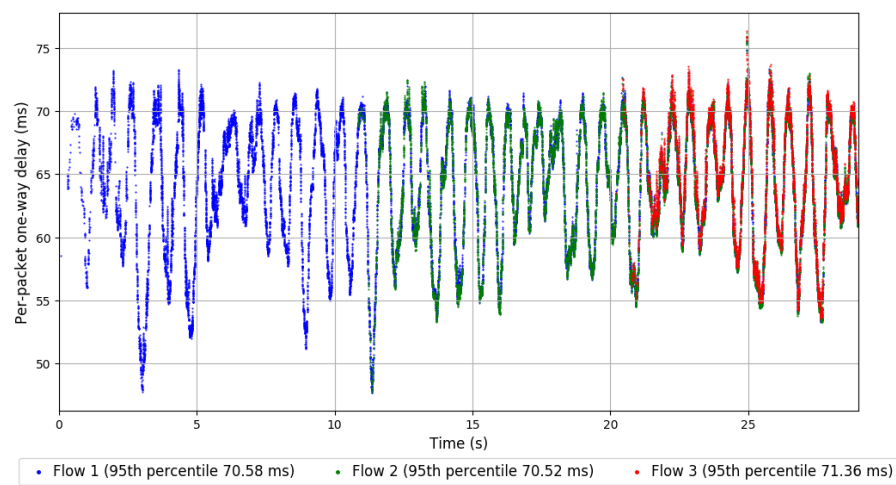
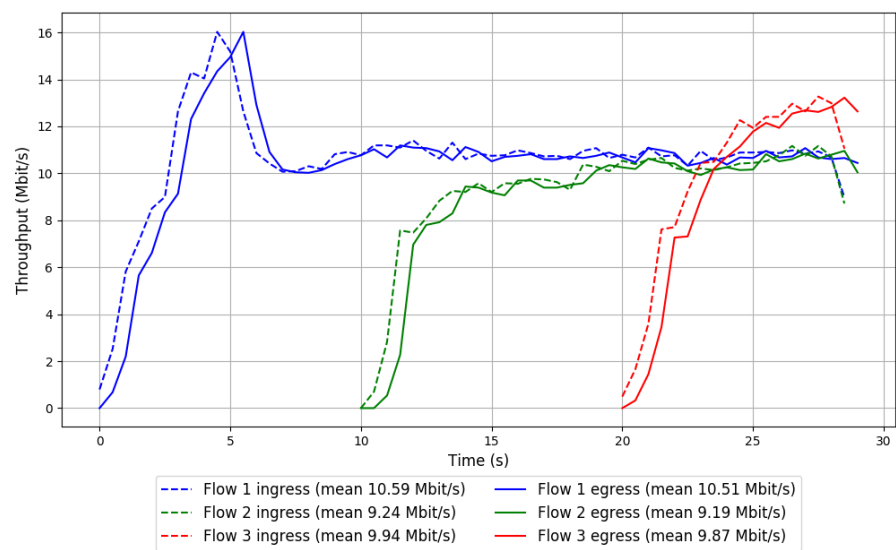


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-21 15:18:30
End at: 2019-01-21 15:19:00
Local clock offset: 3.073 ms
Remote clock offset: 48.002 ms

Below is generated by plot.py at 2019-01-21 19:15:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 19.49 Mbit/s
95th percentile per-packet one-way delay: 70.684 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 10.51 Mbit/s
95th percentile per-packet one-way delay: 70.585 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 70.524 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 9.87 Mbit/s
95th percentile per-packet one-way delay: 71.359 ms
Loss rate: 0.78%

Run 3: Report of Indigo-MusesC5 — Data Link

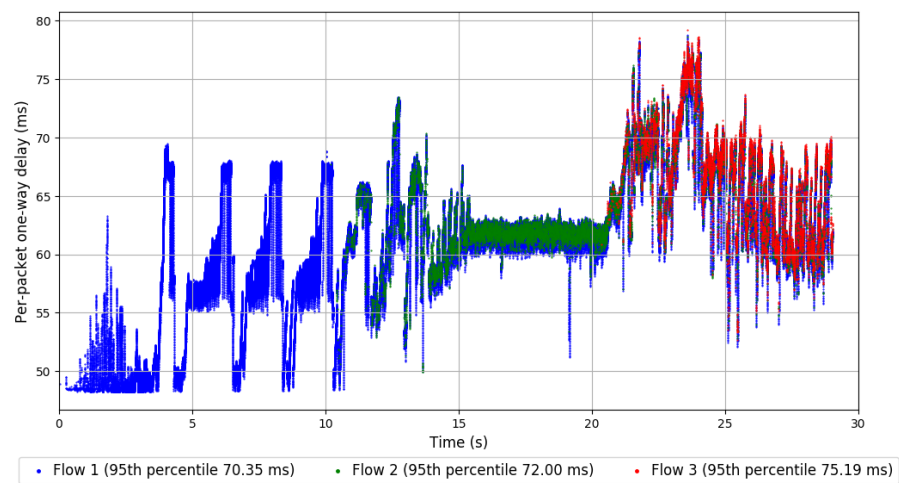
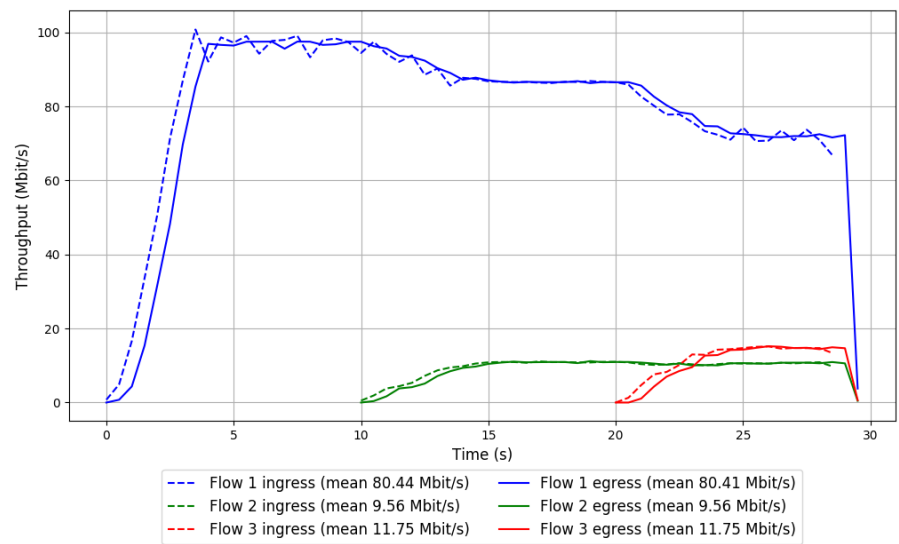


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-21 16:54:36
End at: 2019-01-21 16:55:06
Local clock offset: 13.355 ms
Remote clock offset: 57.224 ms

Below is generated by plot.py at 2019-01-21 19:15:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.13 Mbit/s
95th percentile per-packet one-way delay: 70.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.41 Mbit/s
95th percentile per-packet one-way delay: 70.349 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.56 Mbit/s
95th percentile per-packet one-way delay: 71.996 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 75.189 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link

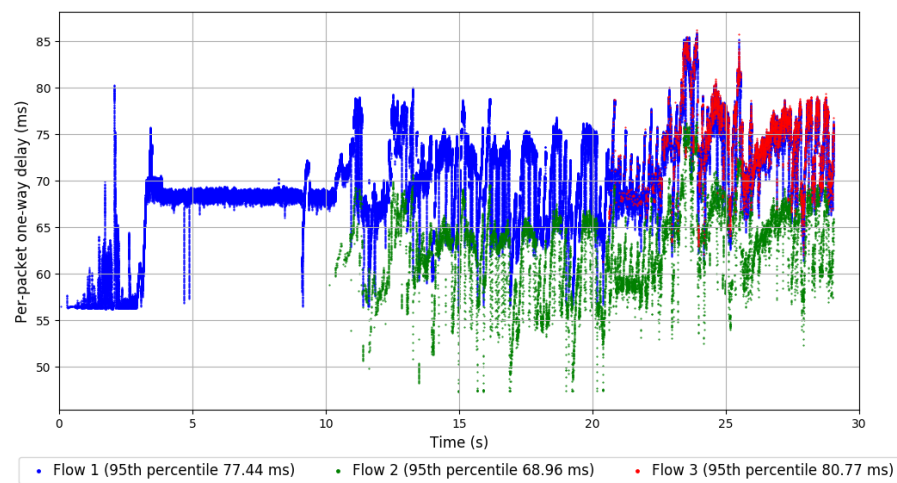
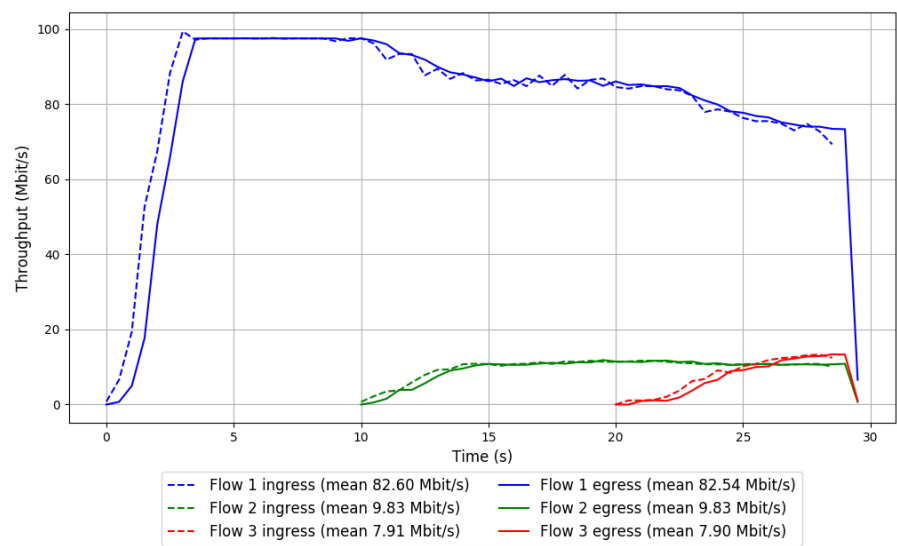


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-21 18:57:29
End at: 2019-01-21 18:57:59
Local clock offset: 1.051 ms
Remote clock offset: 17.458 ms

Below is generated by plot.py at 2019-01-21 19:15:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.31 Mbit/s
95th percentile per-packet one-way delay: 77.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.54 Mbit/s
95th percentile per-packet one-way delay: 77.438 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.83 Mbit/s
95th percentile per-packet one-way delay: 68.958 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 80.769 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link

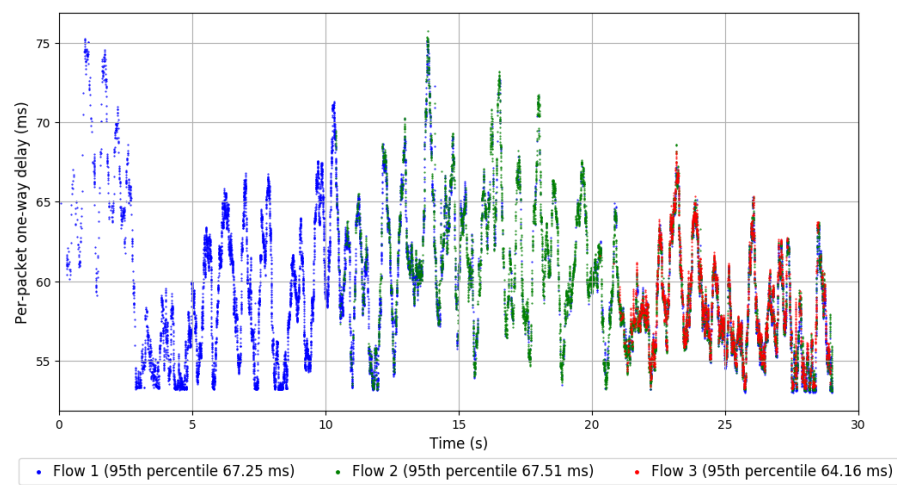
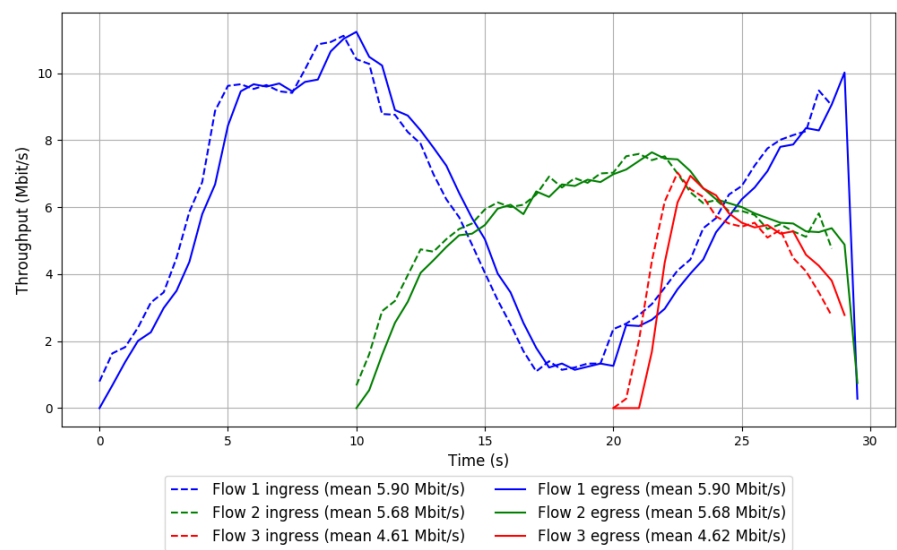


```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-21 11:09:25
End at: 2019-01-21 11:09:55
Local clock offset: 1.718 ms
Remote clock offset: 47.868 ms

# Below is generated by plot.py at 2019-01-21 19:15:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 66.990 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 67.252 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 67.509 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 64.162 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

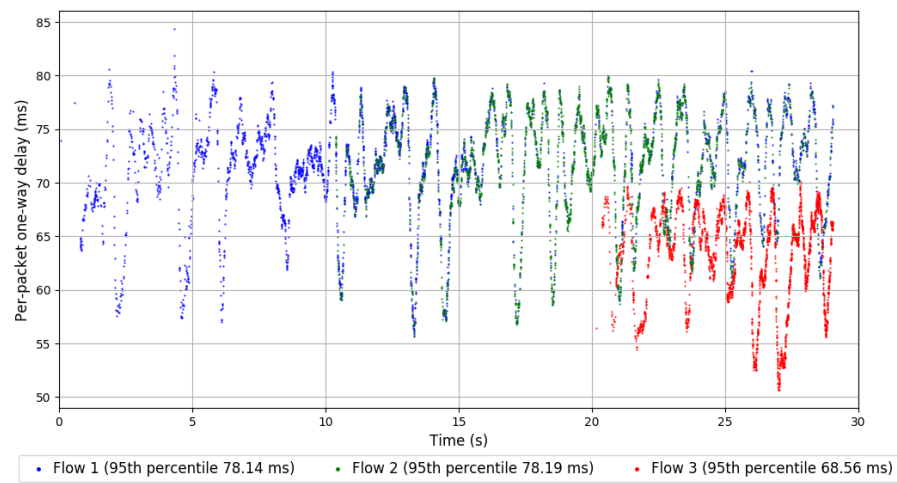
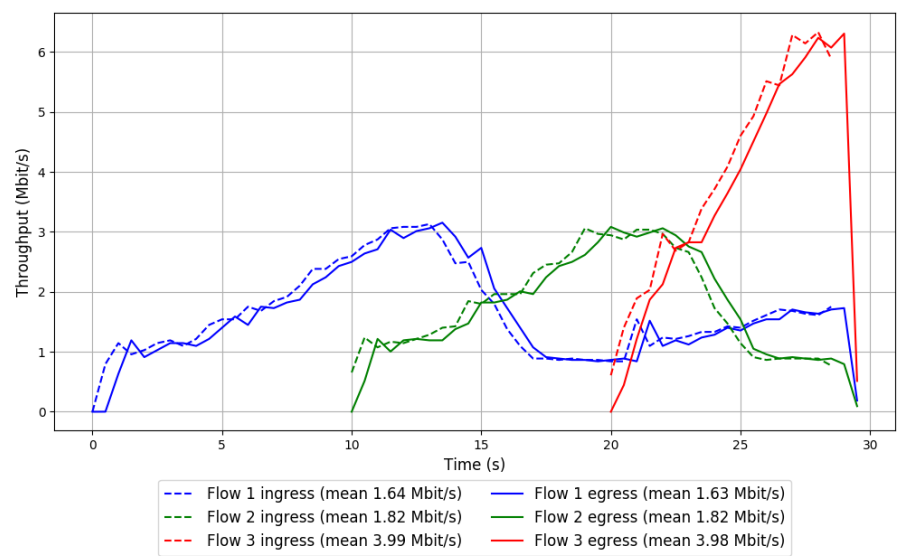


Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-21 12:37:49
End at: 2019-01-21 12:38:19
Local clock offset: 9.172 ms
Remote clock offset: 50.361 ms

Below is generated by plot.py at 2019-01-21 19:15:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 77.843 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 78.135 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 78.186 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 68.556 ms
Loss rate: 0.17%

Run 2: Report of Indigo-MusesD — Data Link

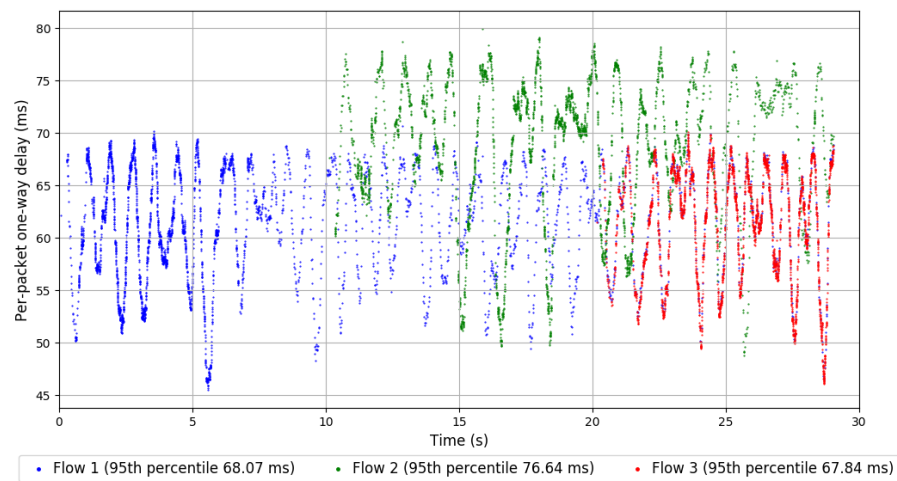
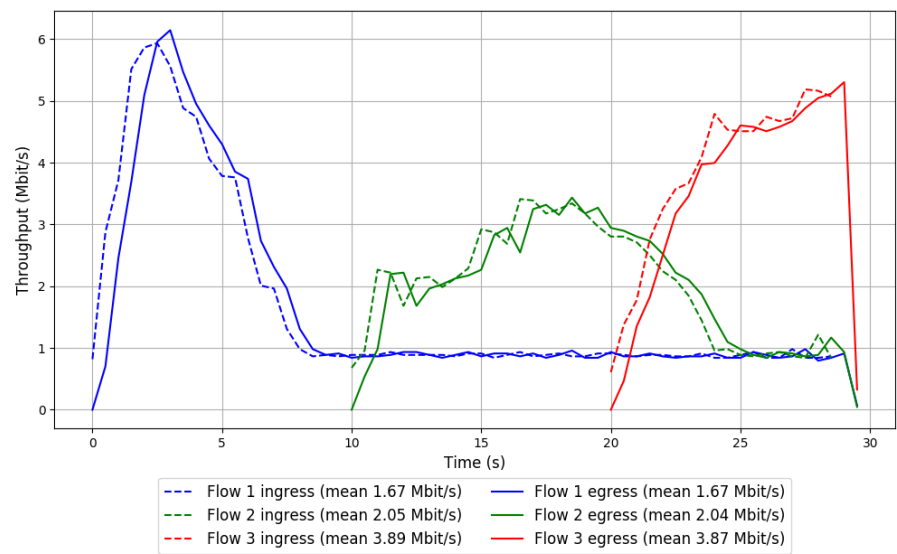


Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-21 14:11:53
End at: 2019-01-21 14:12:23
Local clock offset: 7.261 ms
Remote clock offset: 48.175 ms

Below is generated by plot.py at 2019-01-21 19:15:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.18 Mbit/s
95th percentile per-packet one-way delay: 75.039 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 68.072 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 76.637 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 67.836 ms
Loss rate: 0.51%

Run 3: Report of Indigo-MusesD — Data Link

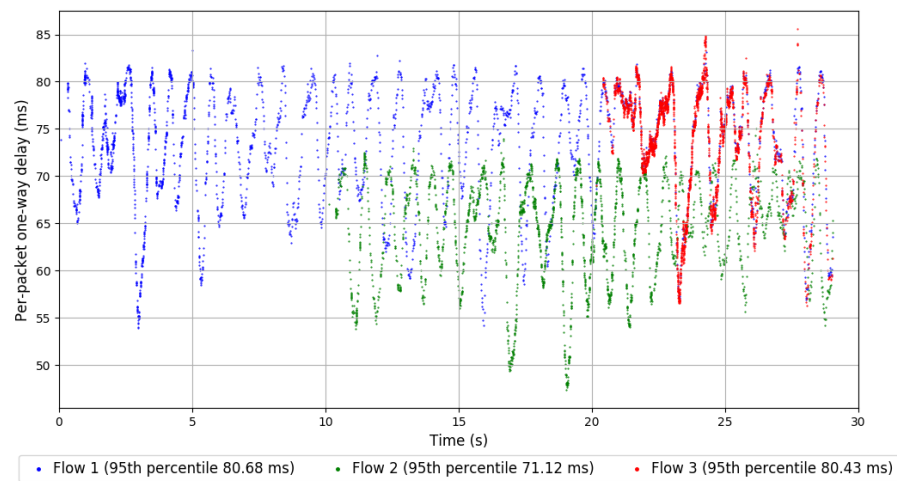
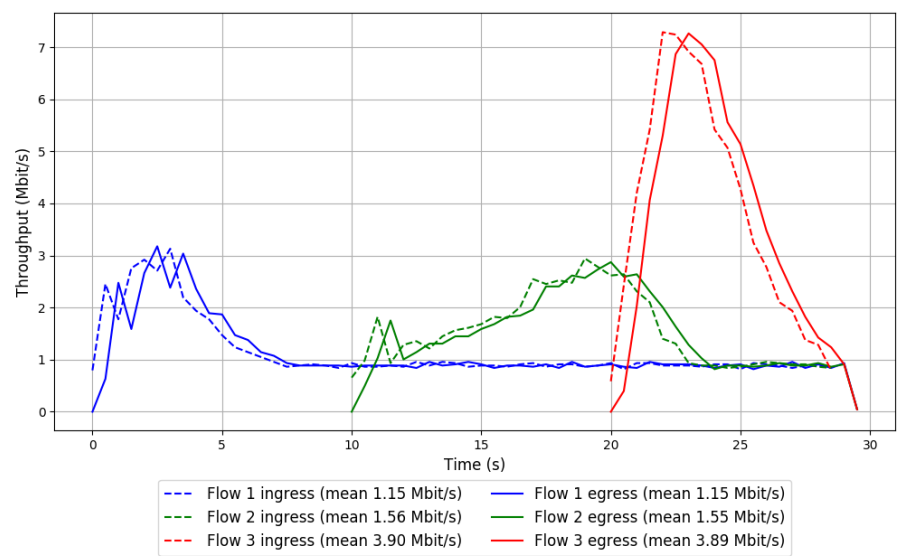


Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-21 15:35:18
End at: 2019-01-21 15:35:48
Local clock offset: 14.076 ms
Remote clock offset: 49.144 ms

Below is generated by plot.py at 2019-01-21 19:15:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 80.350 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 80.681 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 71.116 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 80.434 ms
Loss rate: 0.27%

Run 4: Report of Indigo-MusesD — Data Link

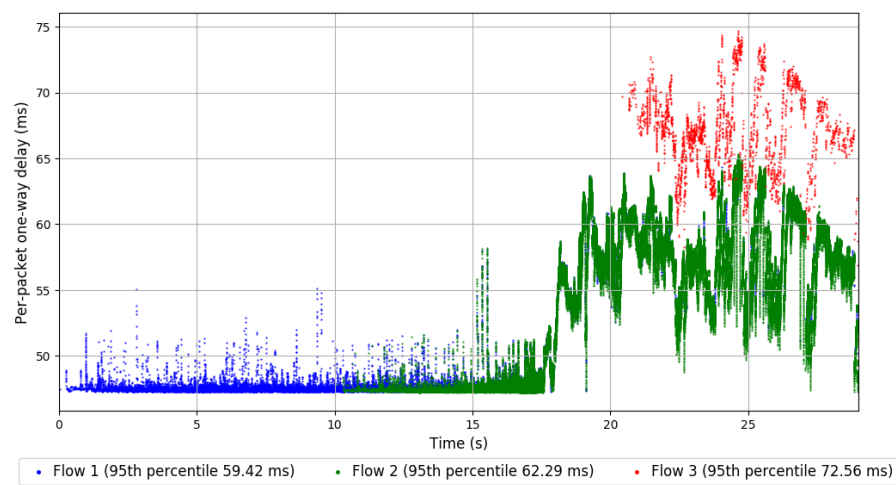
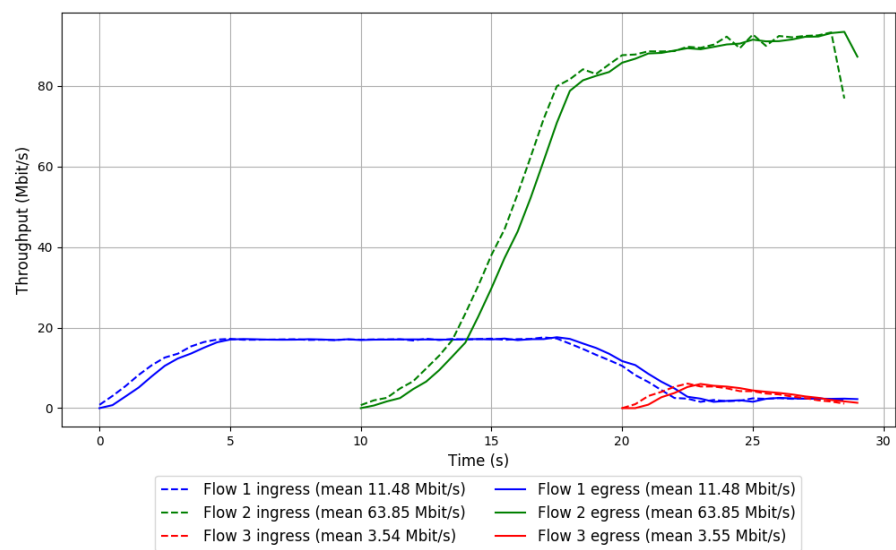


Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-21 17:28:45
End at: 2019-01-21 17:29:15
Local clock offset: 9.293 ms
Remote clock offset: 39.555 ms

Below is generated by plot.py at 2019-01-21 19:15:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 54.16 Mbit/s
95th percentile per-packet one-way delay: 62.614 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.48 Mbit/s
95th percentile per-packet one-way delay: 59.424 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 63.85 Mbit/s
95th percentile per-packet one-way delay: 62.287 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 72.561 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

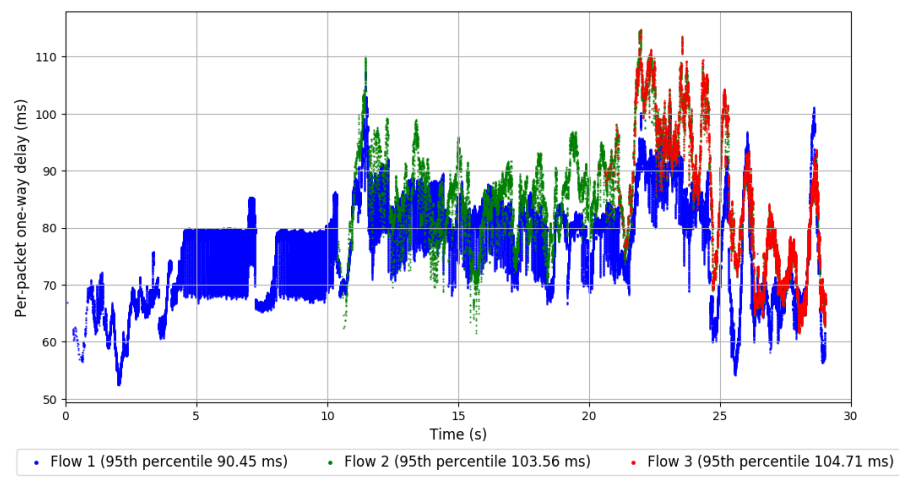
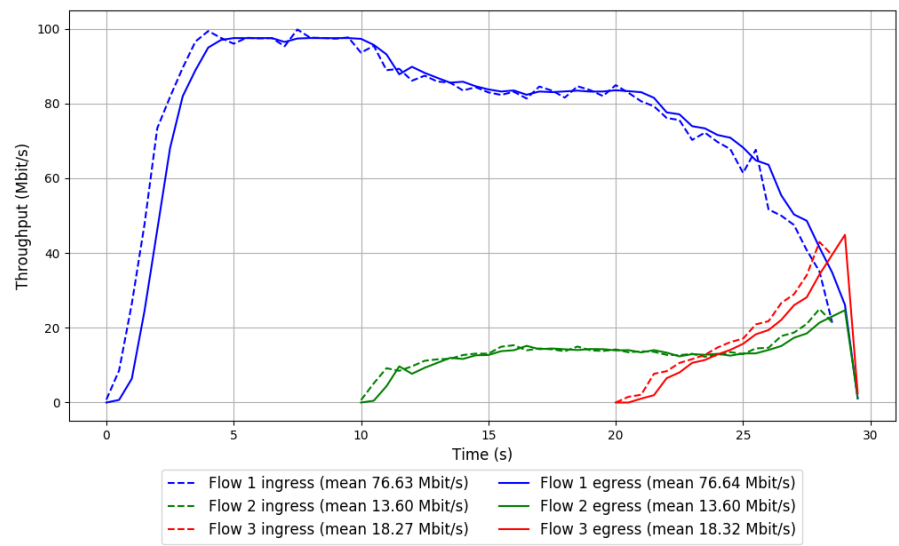


Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-21 10:57:57
End at: 2019-01-21 10:58:27
Local clock offset: 1.776 ms
Remote clock offset: 46.093 ms

Below is generated by plot.py at 2019-01-21 19:15:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 93.008 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.64 Mbit/s
95th percentile per-packet one-way delay: 90.451 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.60 Mbit/s
95th percentile per-packet one-way delay: 103.556 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 18.32 Mbit/s
95th percentile per-packet one-way delay: 104.710 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesT — Data Link

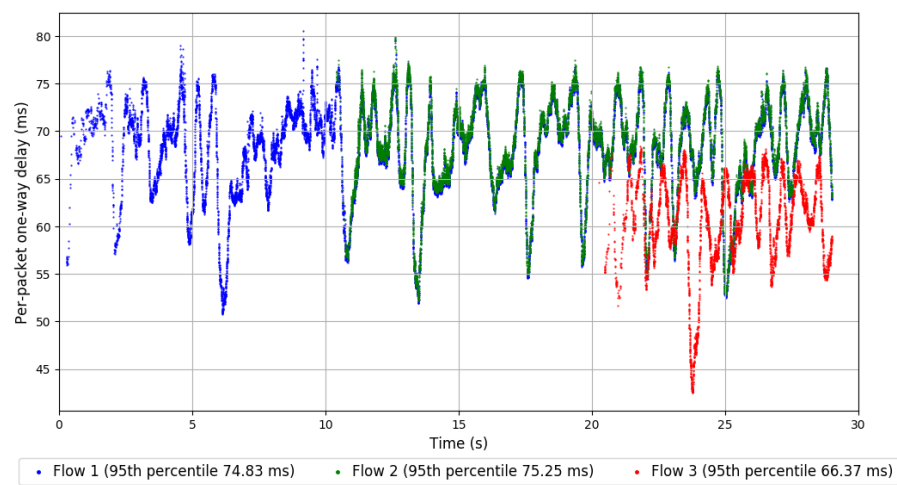
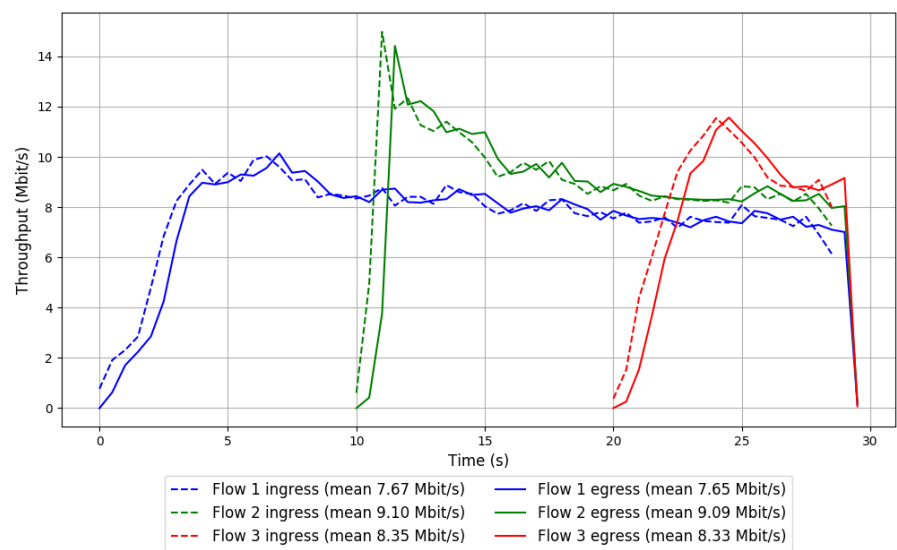


Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-21 12:31:11
End at: 2019-01-21 12:31:41
Local clock offset: 8.052 ms
Remote clock offset: 46.635 ms

Below is generated by plot.py at 2019-01-21 19:15:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 16.10 Mbit/s
95th percentile per-packet one-way delay: 74.866 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 74.829 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 9.09 Mbit/s
95th percentile per-packet one-way delay: 75.245 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 66.366 ms
Loss rate: 0.27%

Run 2: Report of Indigo-MusesT — Data Link

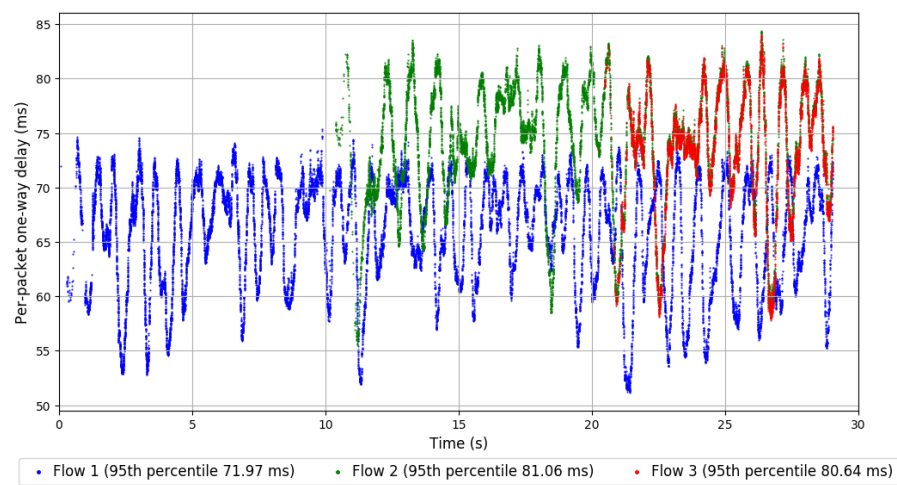
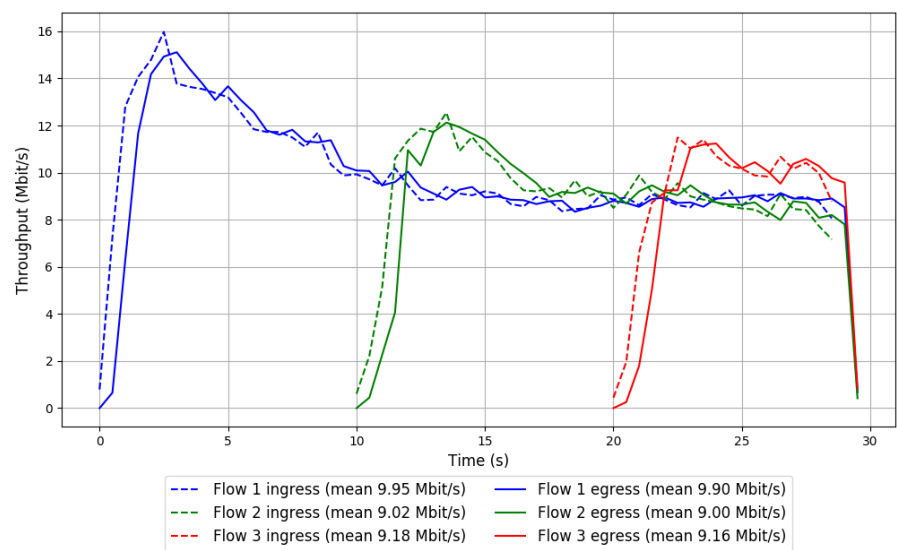


Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-21 14:04:59
End at: 2019-01-21 14:05:29
Local clock offset: 6.814 ms
Remote clock offset: 52.422 ms

Below is generated by plot.py at 2019-01-21 19:15:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 18.55 Mbit/s
95th percentile per-packet one-way delay: 80.191 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 9.90 Mbit/s
95th percentile per-packet one-way delay: 71.973 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 9.00 Mbit/s
95th percentile per-packet one-way delay: 81.055 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 9.16 Mbit/s
95th percentile per-packet one-way delay: 80.639 ms
Loss rate: 0.22%

Run 3: Report of Indigo-MusesT — Data Link

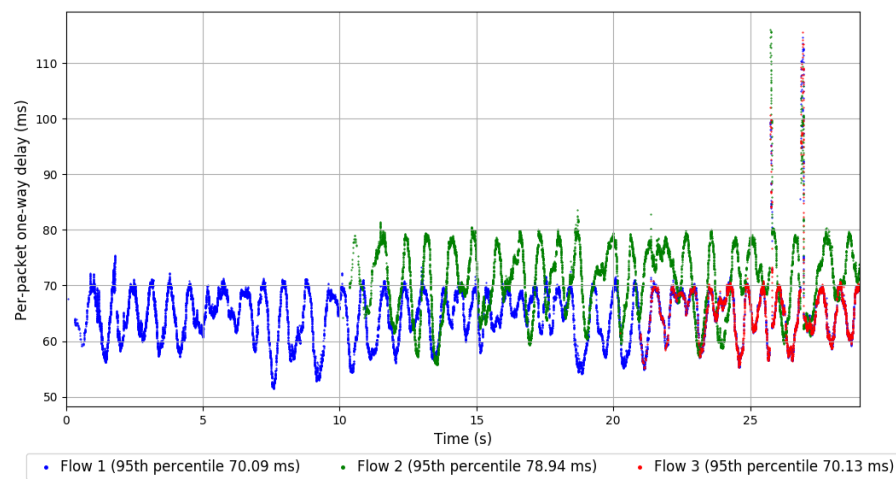
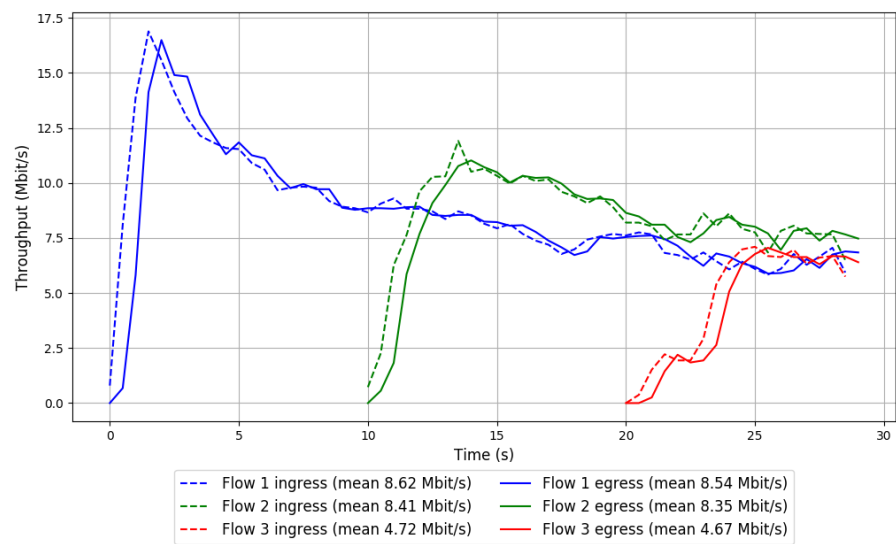


Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-21 15:27:37
End at: 2019-01-21 15:28:07
Local clock offset: 11.096 ms
Remote clock offset: 47.899 ms

Below is generated by plot.py at 2019-01-21 19:15:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 15.41 Mbit/s
95th percentile per-packet one-way delay: 78.021 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 8.54 Mbit/s
95th percentile per-packet one-way delay: 70.086 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 78.937 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 70.128 ms
Loss rate: 0.91%

Run 4: Report of Indigo-MusesT — Data Link

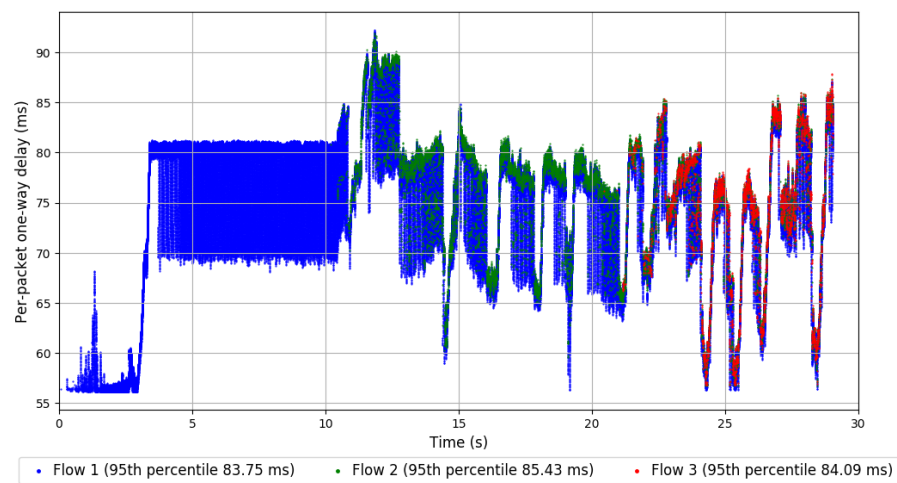
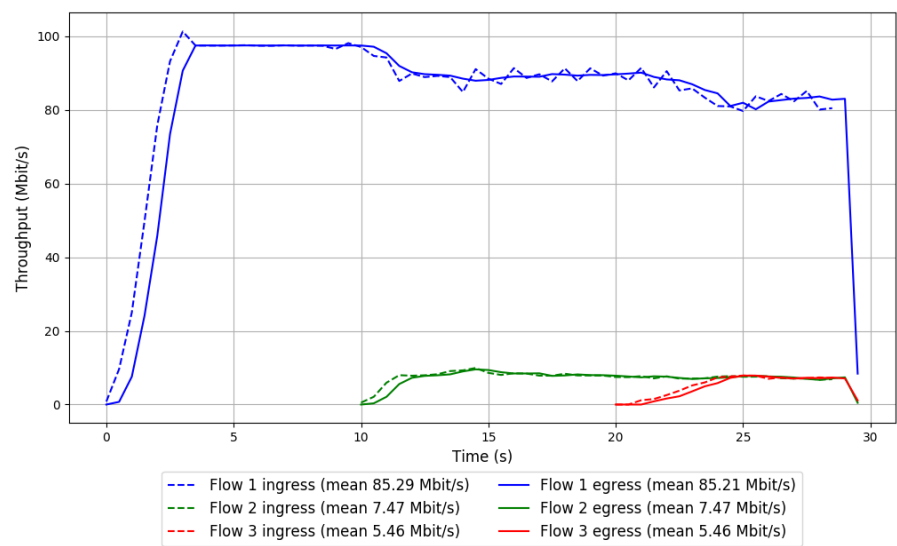


Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-21 17:11:27
End at: 2019-01-21 17:11:57
Local clock offset: 22.862 ms
Remote clock offset: 56.102 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 83.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.21 Mbit/s
95th percentile per-packet one-way delay: 83.755 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.47 Mbit/s
95th percentile per-packet one-way delay: 85.430 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.46 Mbit/s
95th percentile per-packet one-way delay: 84.091 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

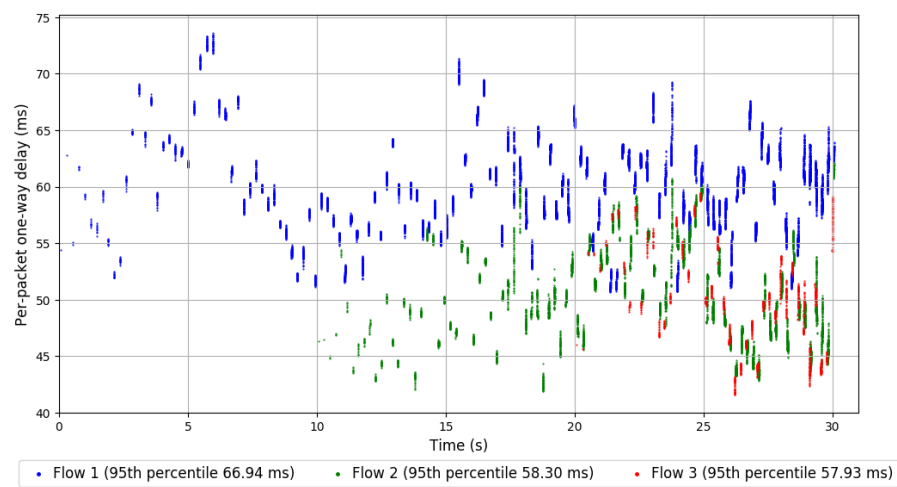
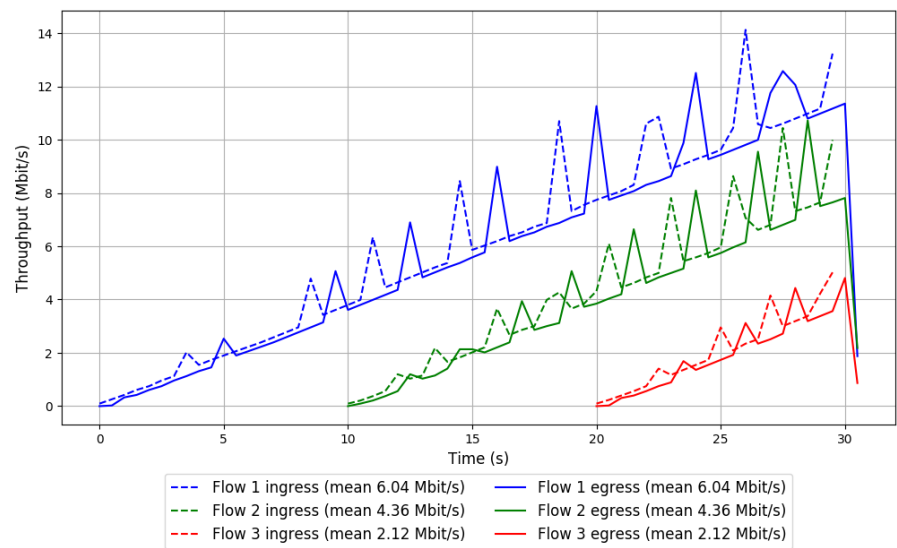


Run 1: Statistics of LEDBAT

Start at: 2019-01-21 11:07:11
End at: 2019-01-21 11:07:41
Local clock offset: 1.644 ms
Remote clock offset: 44.714 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 65.681 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 66.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 58.299 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 57.934 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

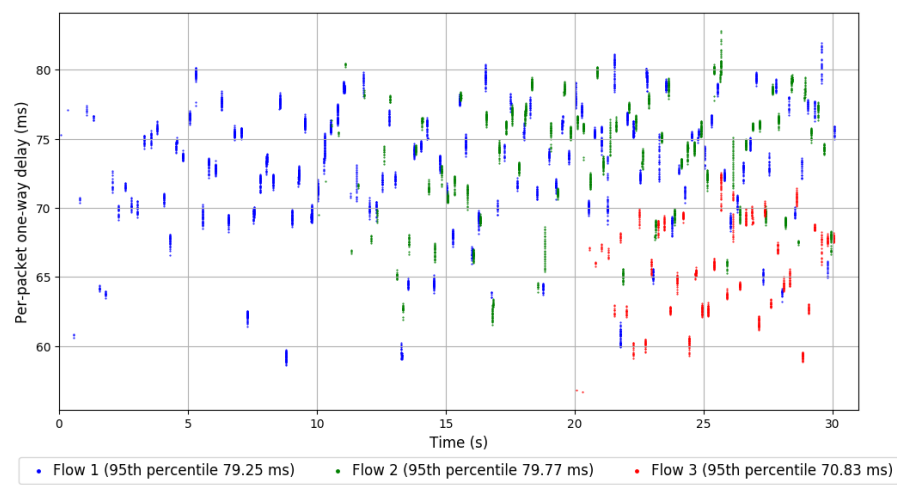
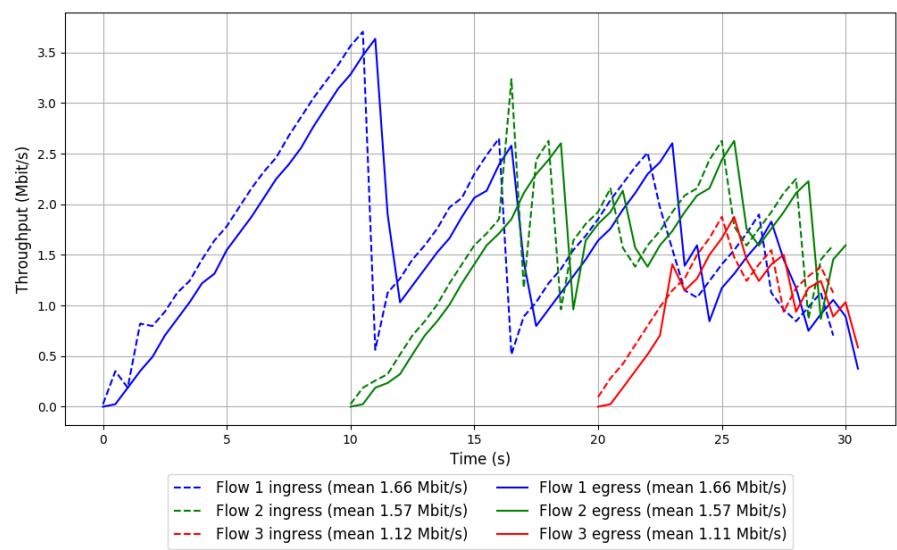


Run 2: Statistics of LEDBAT

Start at: 2019-01-21 12:36:07
End at: 2019-01-21 12:36:37
Local clock offset: 8.805 ms
Remote clock offset: 50.691 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.06 Mbit/s
95th percentile per-packet one-way delay: 79.275 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 79.252 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 79.765 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 70.827 ms
Loss rate: 0.53%

Run 2: Report of LEDBAT — Data Link

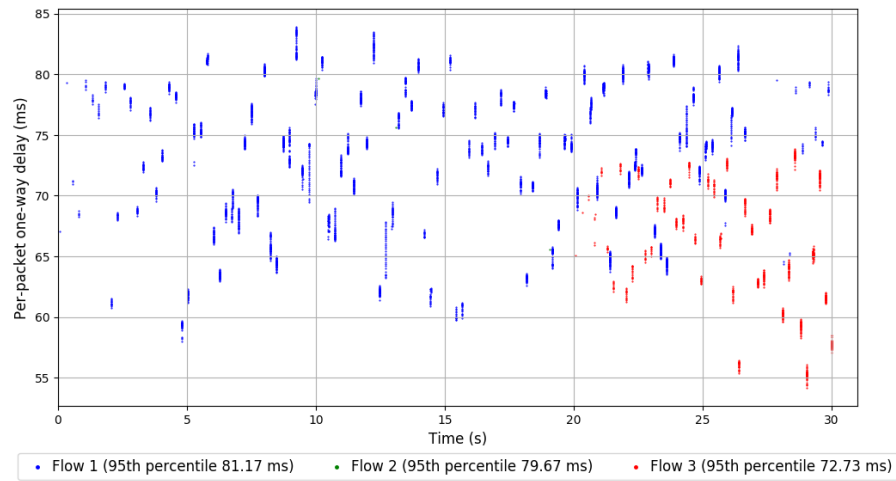
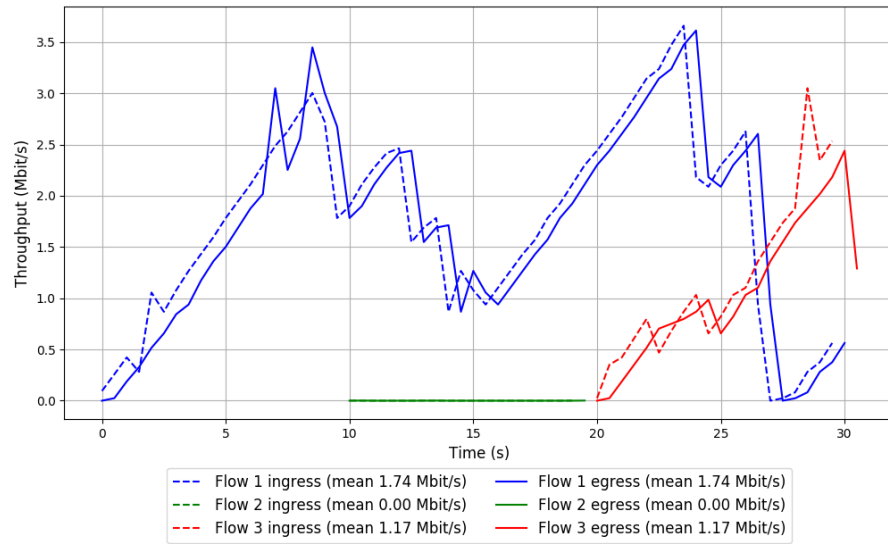


Run 3: Statistics of LEDBAT

Start at: 2019-01-21 14:10:16
End at: 2019-01-21 14:10:46
Local clock offset: 7.213 ms
Remote clock offset: 51.935 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 81.048 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 81.173 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 79.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 72.728 ms
Loss rate: 0.30%

Run 3: Report of LEDBAT — Data Link

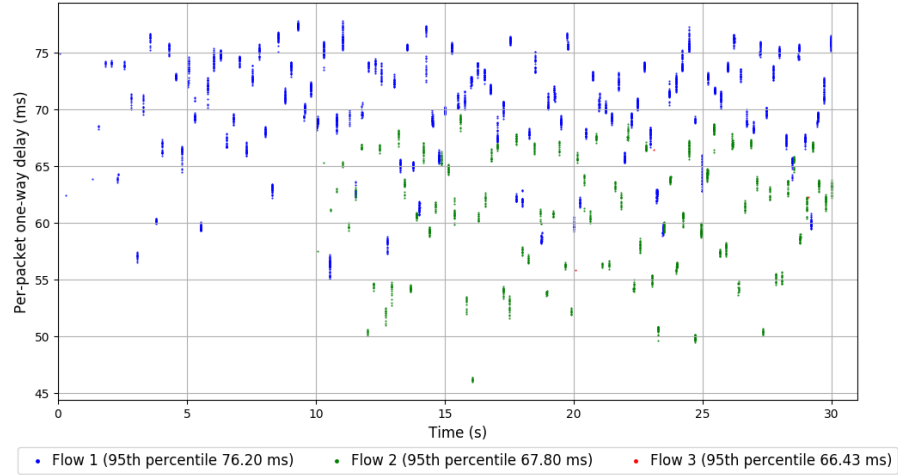
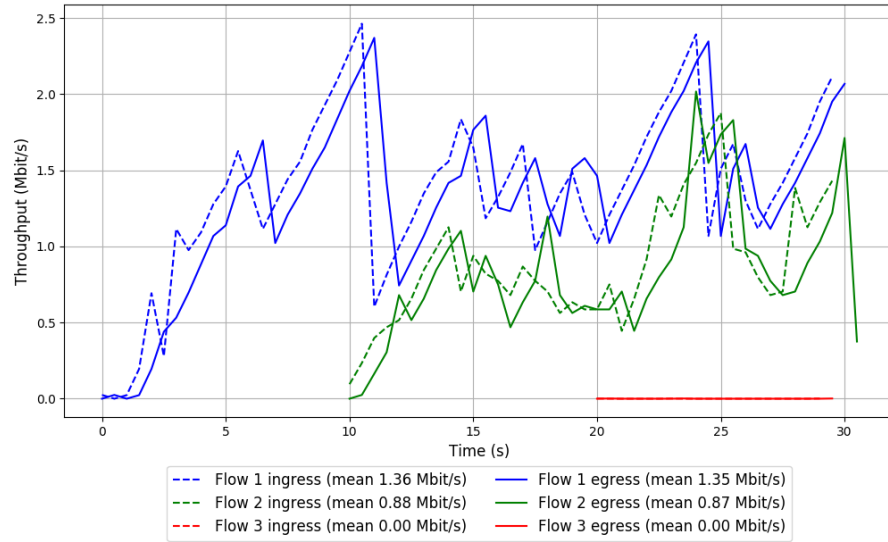


Run 4: Statistics of LEDBAT

Start at: 2019-01-21 15:33:32
End at: 2019-01-21 15:34:02
Local clock offset: 13.623 ms
Remote clock offset: 44.488 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 75.898 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 76.198 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 67.798 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 66.434 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

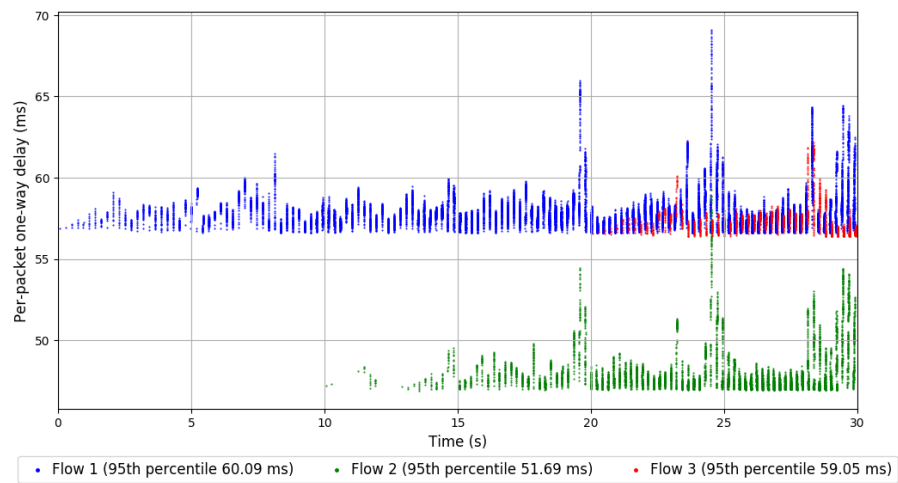
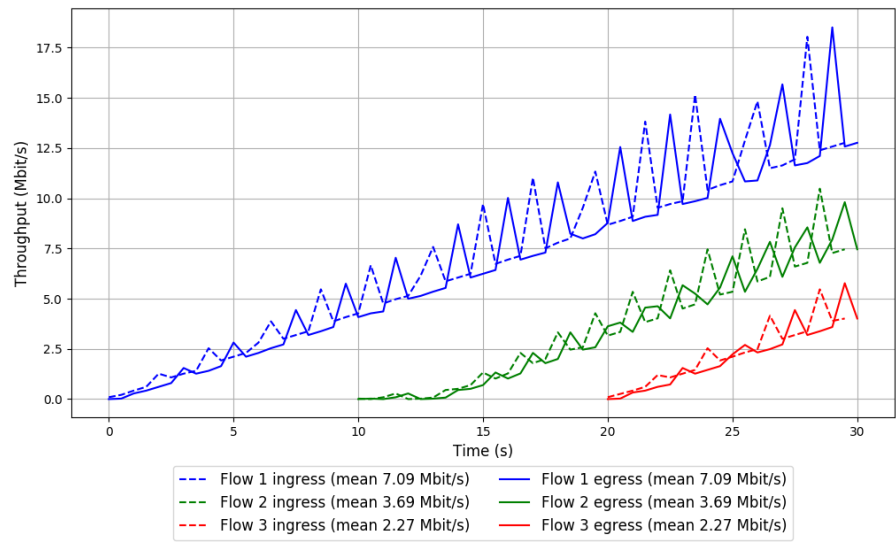


Run 5: Statistics of LEDBAT

Start at: 2019-01-21 17:25:54
End at: 2019-01-21 17:26:24
Local clock offset: 10.968 ms
Remote clock offset: 41.012 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.28 Mbit/s
95th percentile per-packet one-way delay: 59.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.09 Mbit/s
95th percentile per-packet one-way delay: 60.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.69 Mbit/s
95th percentile per-packet one-way delay: 51.690 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 59.045 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

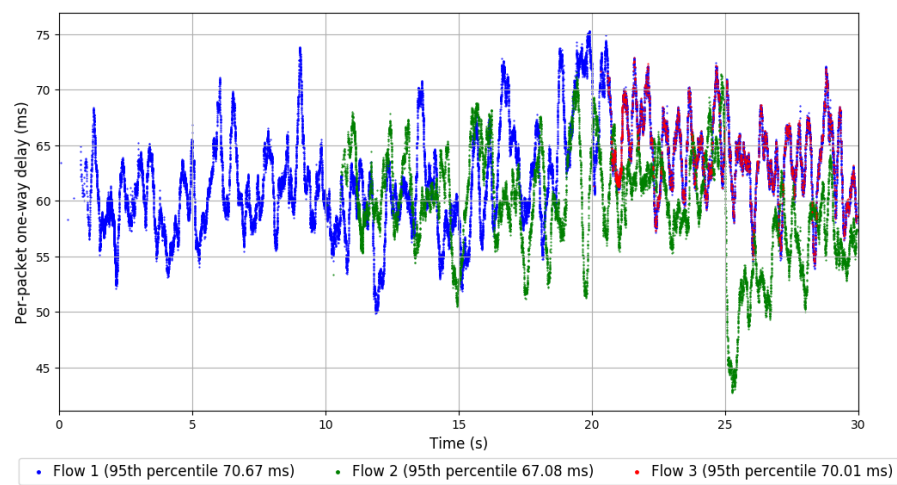
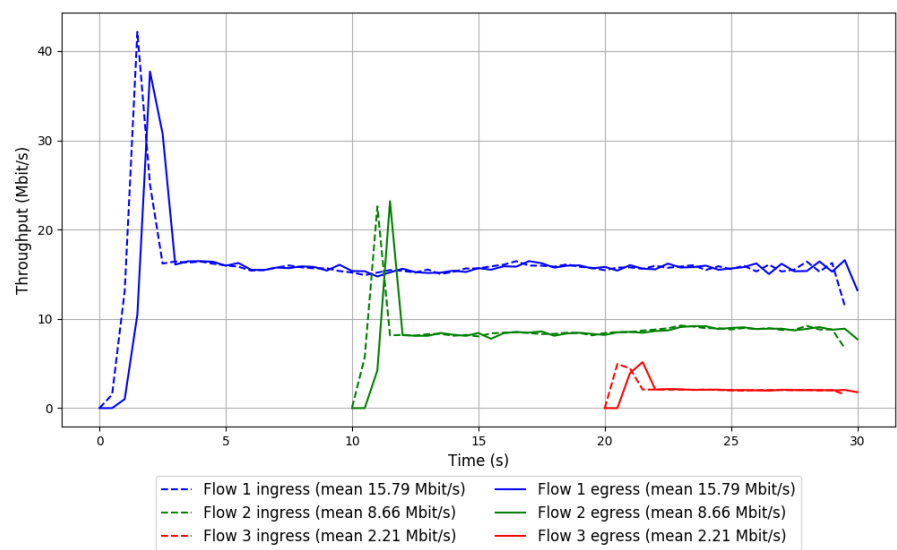


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-01-21 11:37:38
End at: 2019-01-21 11:38:08
Local clock offset: 17.507 ms
Remote clock offset: 45.455 ms

# Below is generated by plot.py at 2019-01-21 19:16:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.28 Mbit/s
95th percentile per-packet one-way delay: 69.938 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.79 Mbit/s
95th percentile per-packet one-way delay: 70.671 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 67.084 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 70.007 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

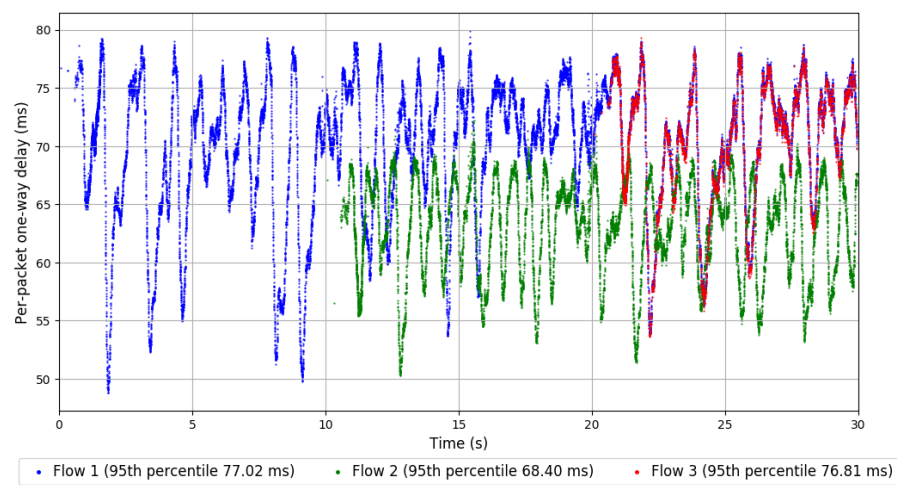
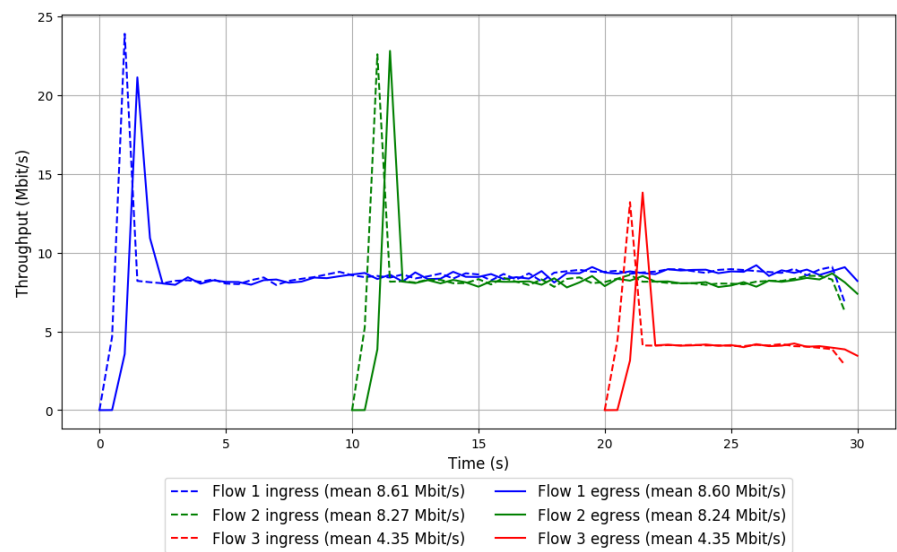


Run 2: Statistics of PCC-Allegro

Start at: 2019-01-21 13:05:30
End at: 2019-01-21 13:06:00
Local clock offset: 16.121 ms
Remote clock offset: 17.511 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 15.51 Mbit/s
95th percentile per-packet one-way delay: 76.500 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 77.023 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 68.404 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 4.35 Mbit/s
95th percentile per-packet one-way delay: 76.812 ms
Loss rate: 0.08%

Run 2: Report of PCC-Allegro — Data Link

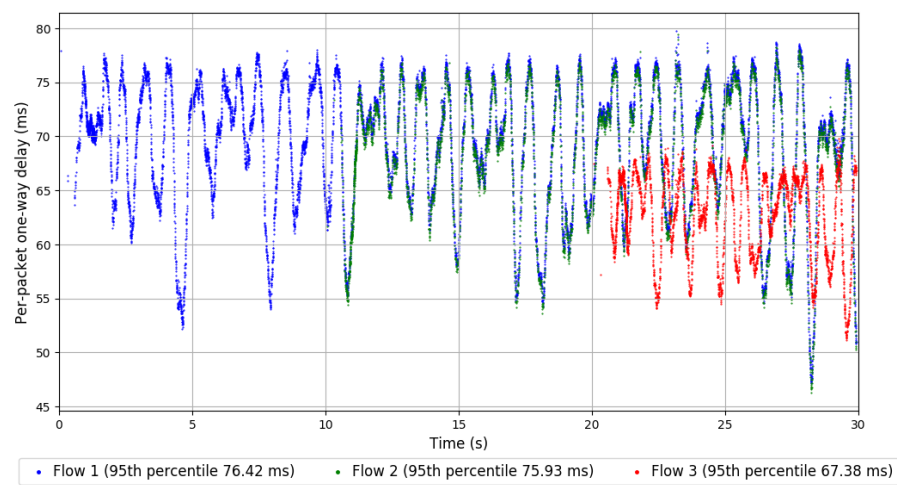
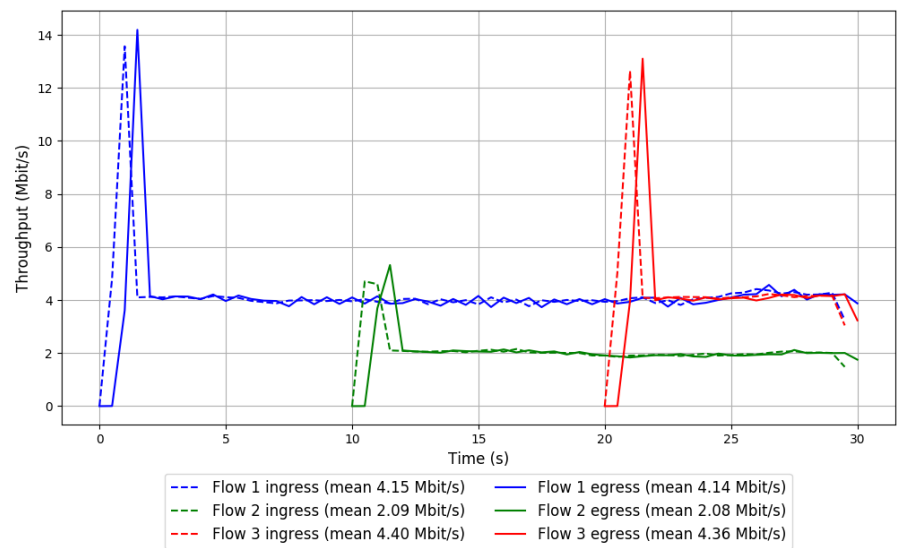


Run 3: Statistics of PCC-Allegro

Start at: 2019-01-21 14:41:13
End at: 2019-01-21 14:41:43
Local clock offset: -0.625 ms
Remote clock offset: 47.224 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.95 Mbit/s
95th percentile per-packet one-way delay: 76.170 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 4.14 Mbit/s
95th percentile per-packet one-way delay: 76.417 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 75.929 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 67.379 ms
Loss rate: 1.09%

Run 3: Report of PCC-Allegro — Data Link

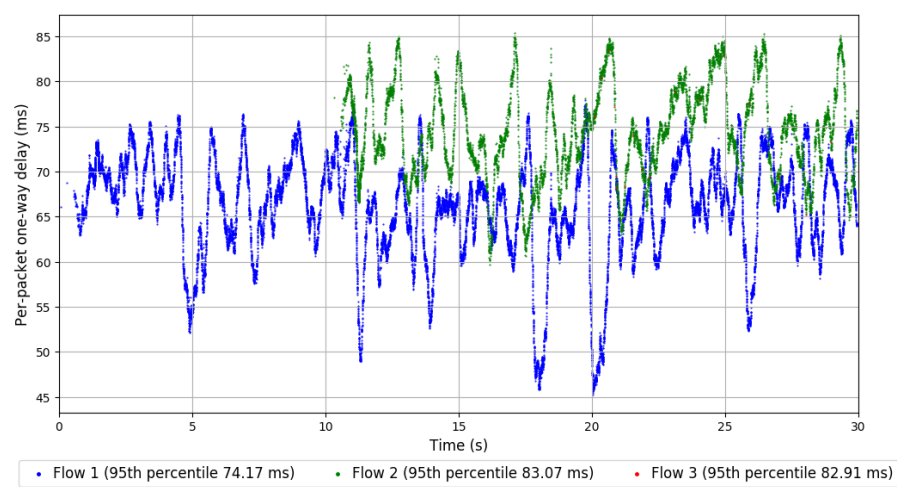
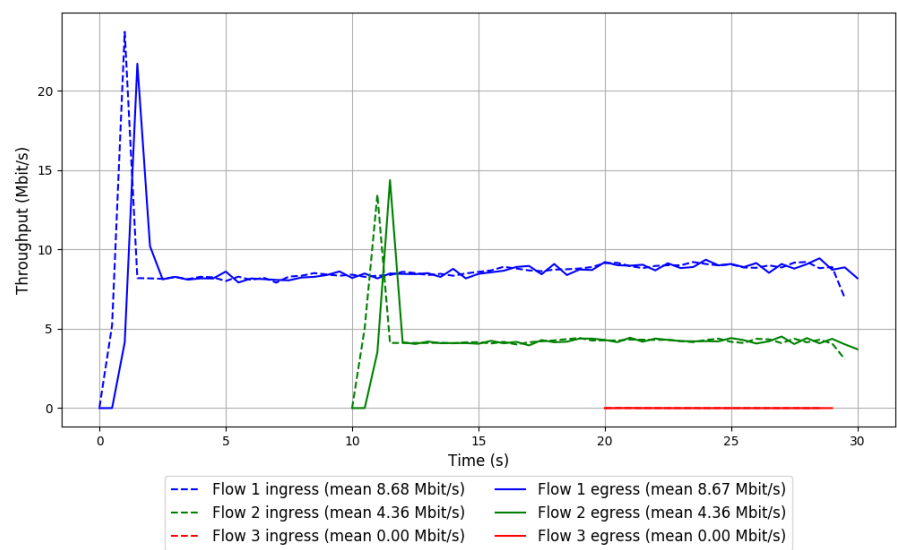


Run 4: Statistics of PCC-Allegro

Start at: 2019-01-21 16:14:18
End at: 2019-01-21 16:14:48
Local clock offset: 0.057 ms
Remote clock offset: 54.751 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 79.172 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 74.175 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 83.067 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.909 ms
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link

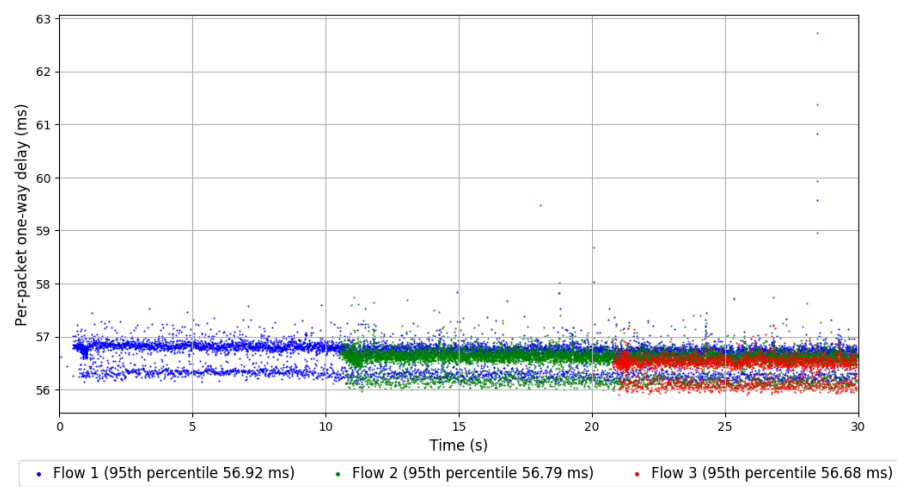
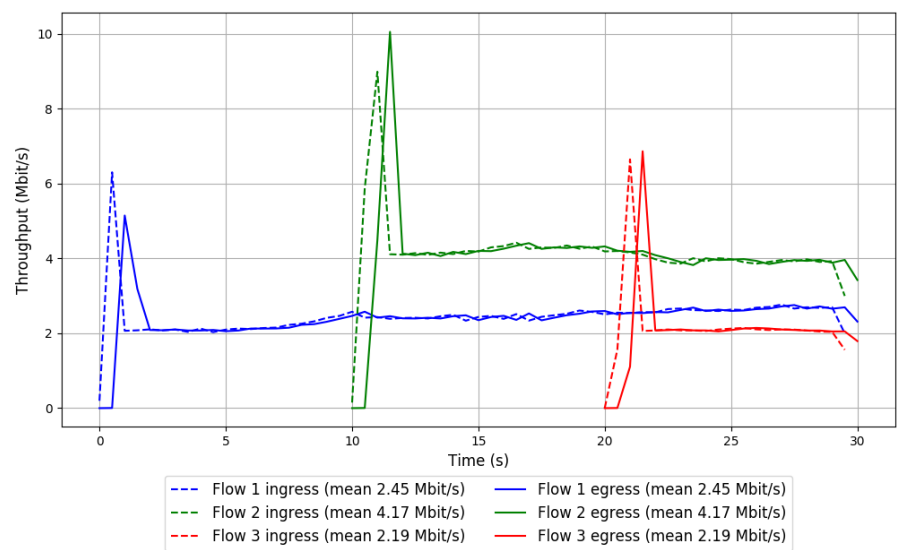


Run 5: Statistics of PCC-Allegro

Start at: 2019-01-21 18:10:48
End at: 2019-01-21 18:11:18
Local clock offset: 0.998 ms
Remote clock offset: 42.321 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 56.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 56.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.17 Mbit/s
95th percentile per-packet one-way delay: 56.791 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 56.681 ms
Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

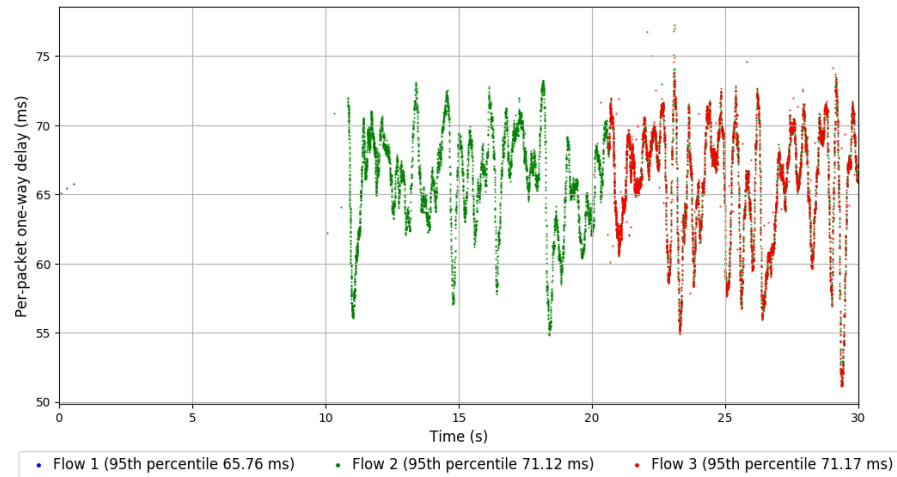
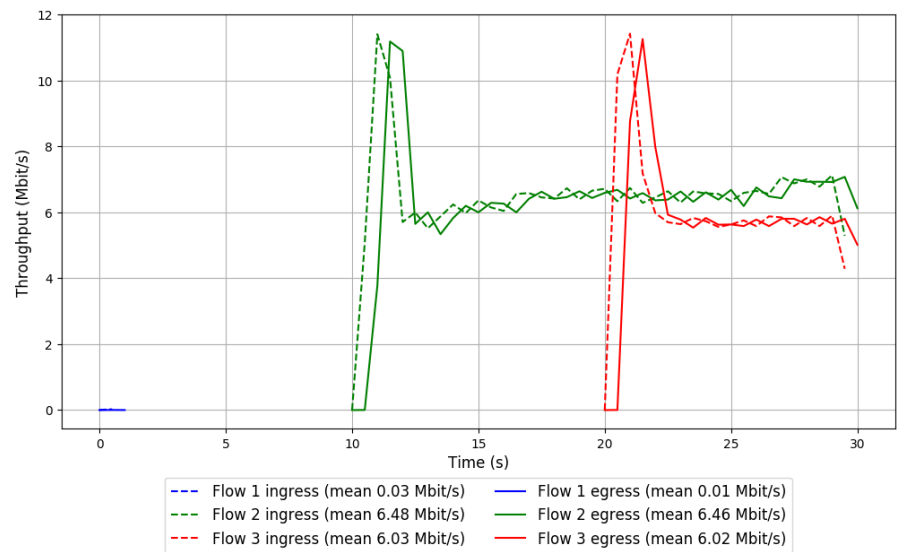


```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-21 11:59:11
End at: 2019-01-21 11:59:41
Local clock offset: 5.53 ms
Remote clock offset: 46.487 ms

# Below is generated by plot.py at 2019-01-21 19:16:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.28 Mbit/s
95th percentile per-packet one-way delay: 71.132 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 65.756 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 6.46 Mbit/s
95th percentile per-packet one-way delay: 71.117 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 6.02 Mbit/s
95th percentile per-packet one-way delay: 71.166 ms
Loss rate: 0.21%
```

Run 1: Report of PCC-Expr — Data Link

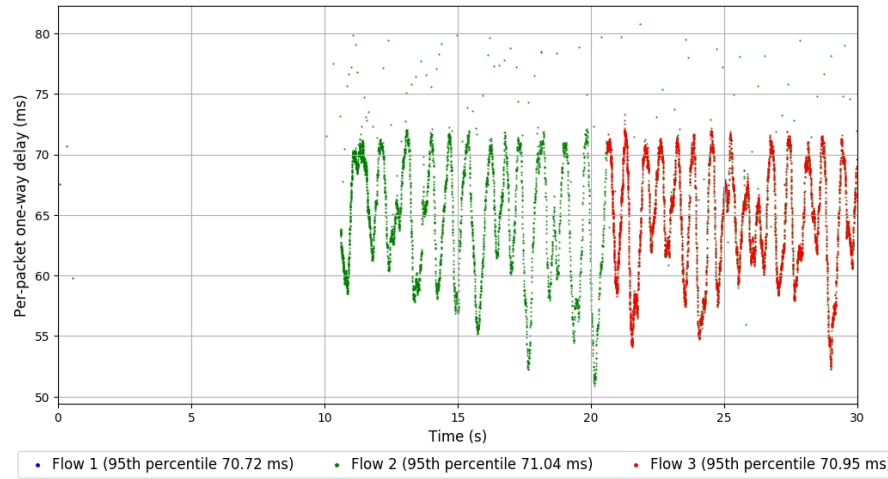
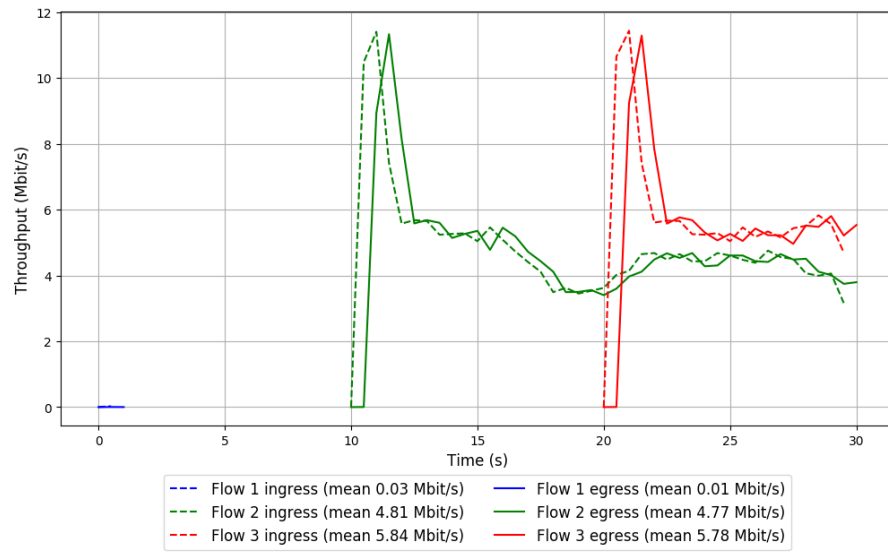


Run 2: Statistics of PCC-Expr

Start at: 2019-01-21 13:30:00
End at: 2019-01-21 13:30:30
Local clock offset: 4.091 ms
Remote clock offset: 48.515 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 70.993 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 70.716 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 71.041 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 5.78 Mbit/s
95th percentile per-packet one-way delay: 70.952 ms
Loss rate: 0.85%

Run 2: Report of PCC-Expr — Data Link

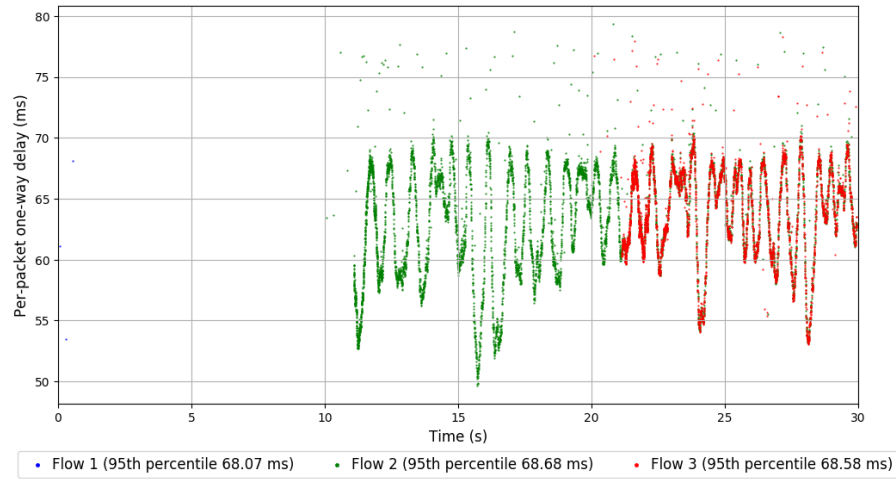
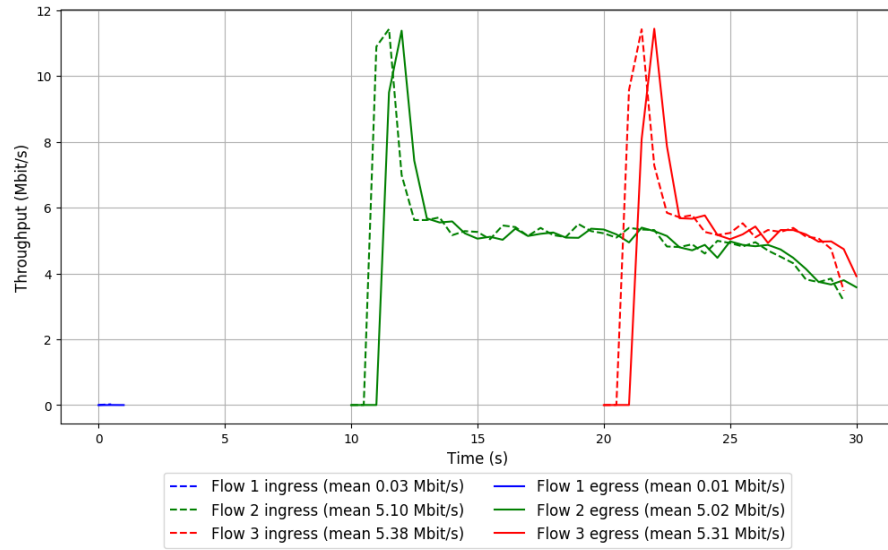


Run 3: Statistics of PCC-Expr

Start at: 2019-01-21 14:53:18
End at: 2019-01-21 14:53:48
Local clock offset: -0.052 ms
Remote clock offset: 49.092 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.09 Mbit/s
95th percentile per-packet one-way delay: 68.658 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 68.074 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 68.677 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 68.584 ms
Loss rate: 1.49%

Run 3: Report of PCC-Expr — Data Link

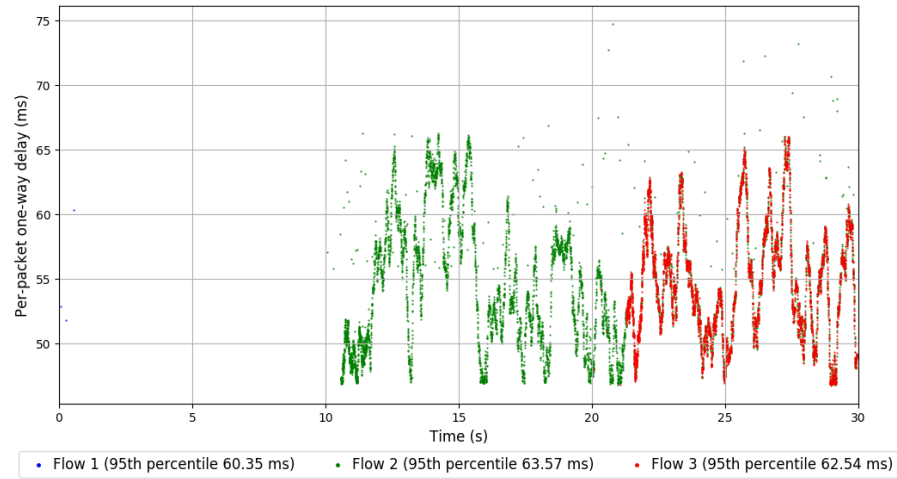
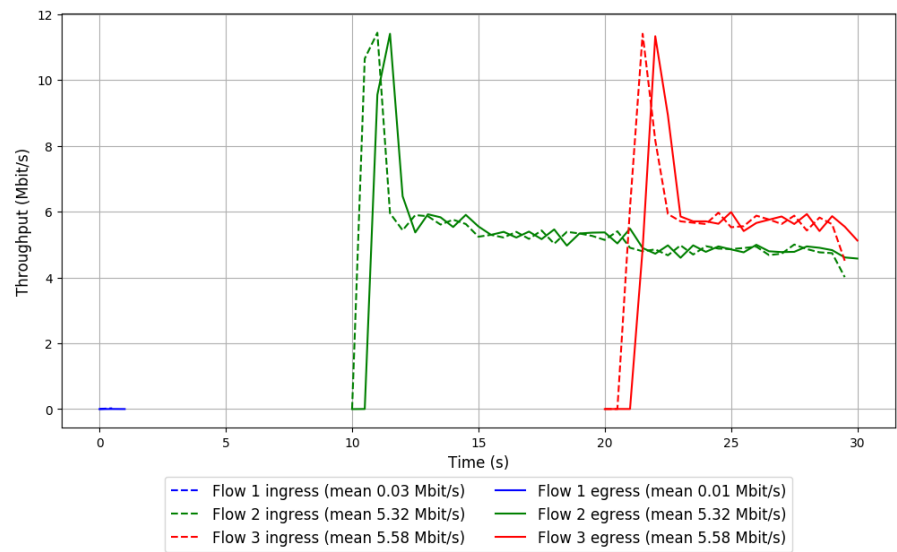


Run 4: Statistics of PCC-Expr

Start at: 2019-01-21 16:35:35
End at: 2019-01-21 16:36:05
Local clock offset: 1.072 ms
Remote clock offset: 57.719 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 63.259 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 60.350 ms
Loss rate: 80.00%
-- Flow 2:
Average throughput: 5.32 Mbit/s
95th percentile per-packet one-way delay: 63.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 62.542 ms
Loss rate: 0.00%

Run 4: Report of PCC-Expr — Data Link

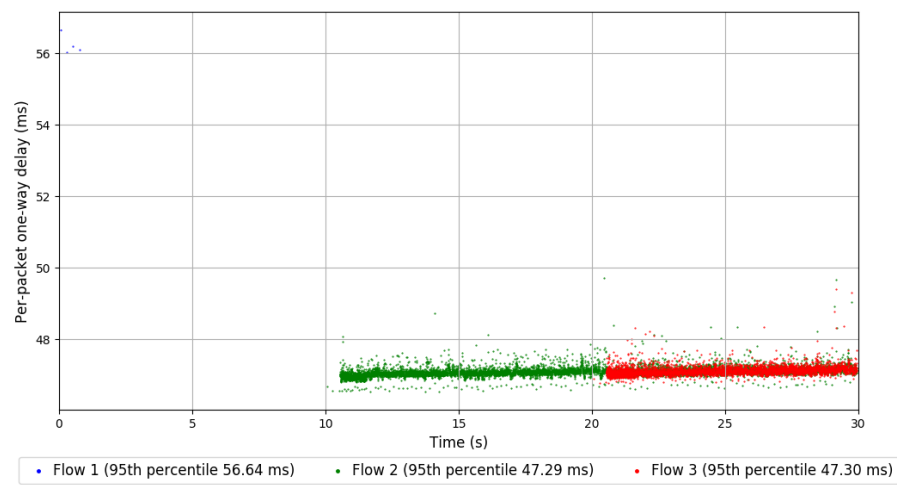
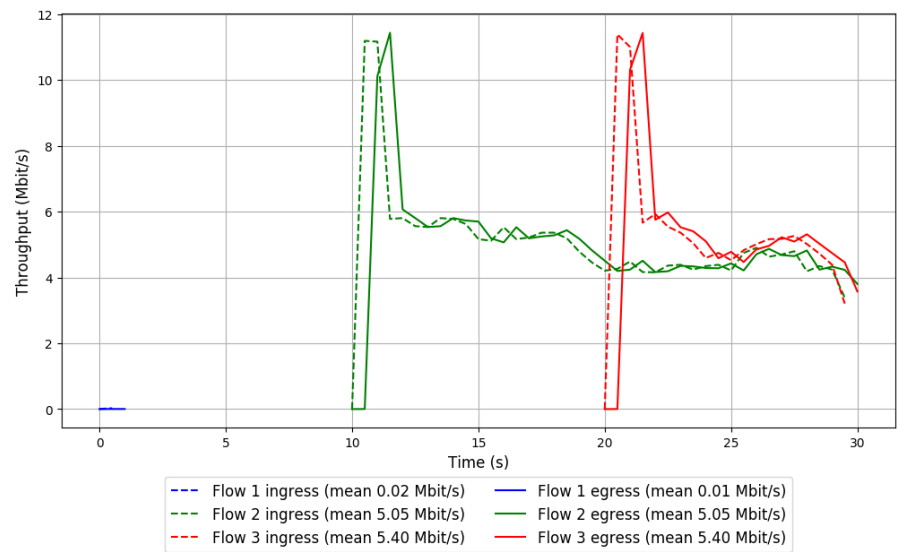


Run 5: Statistics of PCC-Expr

Start at: 2019-01-21 18:37:58
End at: 2019-01-21 18:38:28
Local clock offset: 1.592 ms
Remote clock offset: 26.982 ms

Below is generated by plot.py at 2019-01-21 19:16:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 47.296 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 56.642 ms
Loss rate: 75.00%
-- Flow 2:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 47.291 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.40 Mbit/s
95th percentile per-packet one-way delay: 47.303 ms
Loss rate: 0.00%

Run 5: Report of PCC-Expr — Data Link

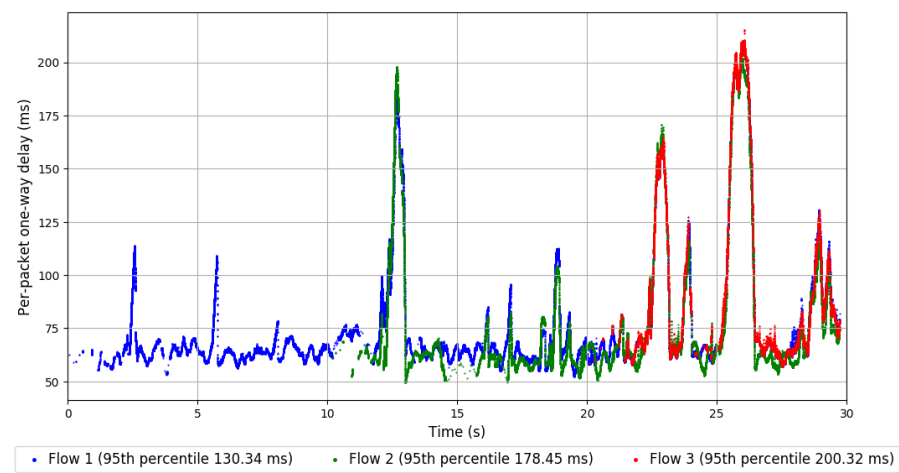
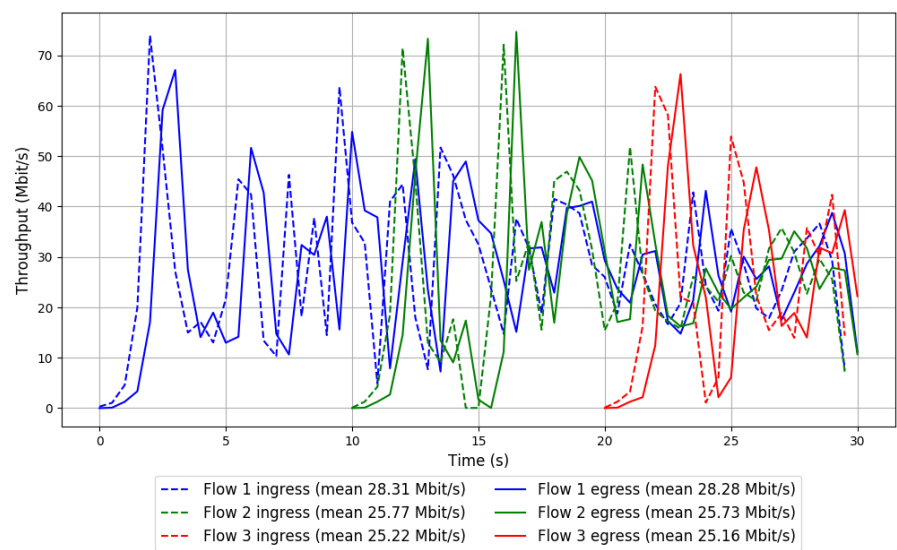


Run 1: Statistics of QUIC Cubic

Start at: 2019-01-21 11:39:59
End at: 2019-01-21 11:40:29
Local clock offset: 17.852 ms
Remote clock offset: 43.375 ms

Below is generated by plot.py at 2019-01-21 19:16:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 53.49 Mbit/s
95th percentile per-packet one-way delay: 174.615 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 28.28 Mbit/s
95th percentile per-packet one-way delay: 130.335 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 25.73 Mbit/s
95th percentile per-packet one-way delay: 178.448 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 25.16 Mbit/s
95th percentile per-packet one-way delay: 200.318 ms
Loss rate: 0.03%

Run 1: Report of QUIC Cubic — Data Link

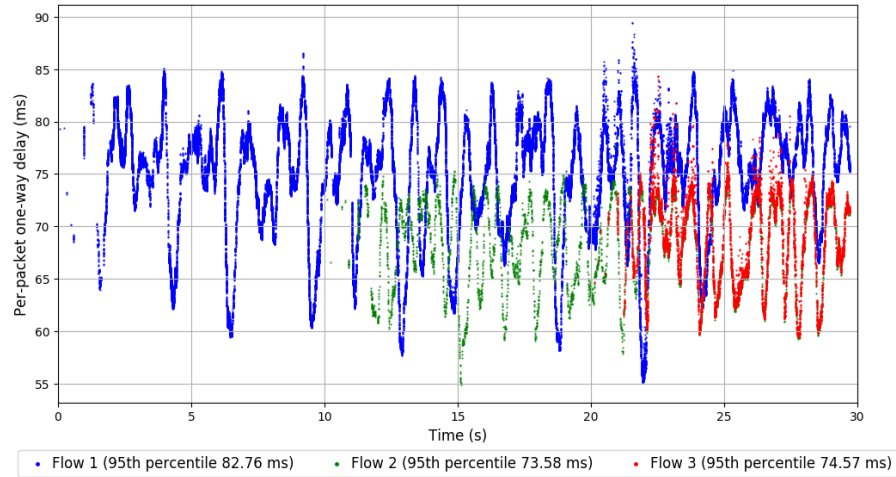
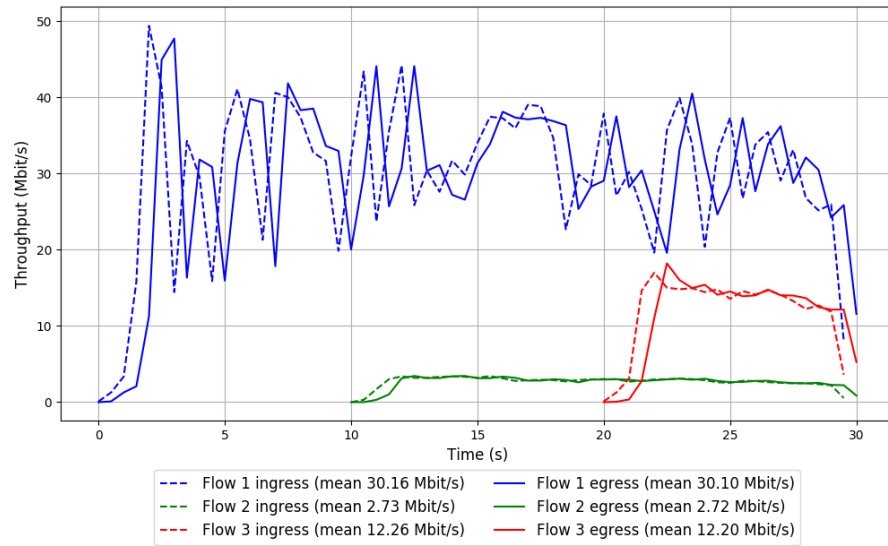


Run 2: Statistics of QUIC Cubic

Start at: 2019-01-21 13:08:08
End at: 2019-01-21 13:08:38
Local clock offset: 16.669 ms
Remote clock offset: 22.295 ms

Below is generated by plot.py at 2019-01-21 19:16:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 35.85 Mbit/s
95th percentile per-packet one-way delay: 82.549 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 30.10 Mbit/s
95th percentile per-packet one-way delay: 82.756 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 73.577 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 74.567 ms
Loss rate: 0.40%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-01-21 14:43:18

End at: 2019-01-21 14:43:48

Local clock offset: -0.771 ms

Remote clock offset: 51.65 ms

Below is generated by plot.py at 2019-01-21 19:16:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.75 Mbit/s

95th percentile per-packet one-way delay: 78.822 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 11.56 Mbit/s

95th percentile per-packet one-way delay: 71.600 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 71.553 ms

Loss rate: 0.89%

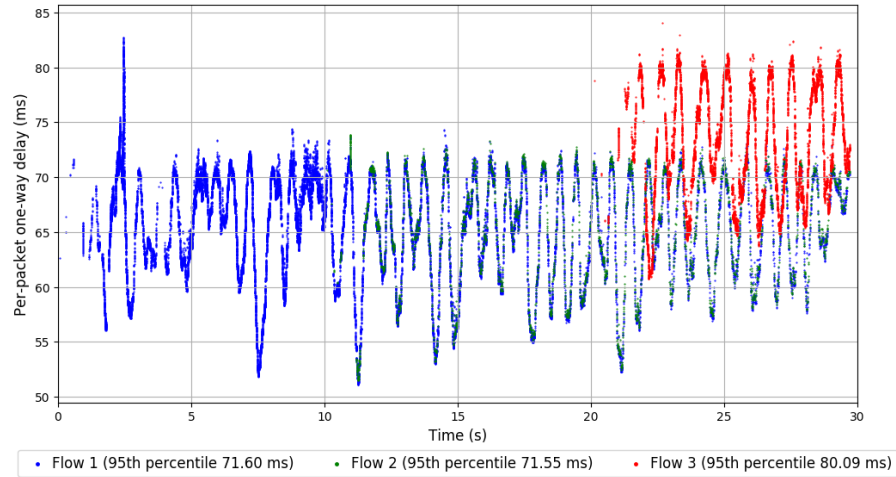
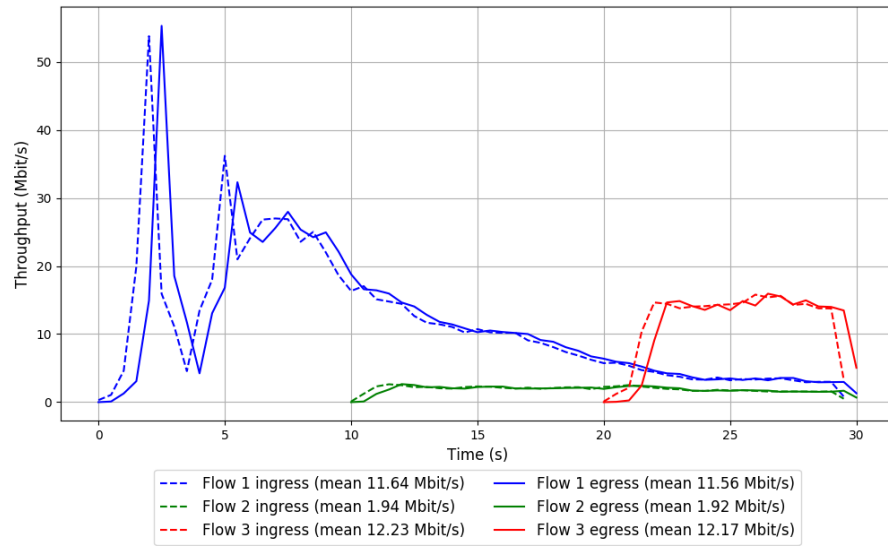
-- Flow 3:

Average throughput: 12.17 Mbit/s

95th percentile per-packet one-way delay: 80.094 ms

Loss rate: 0.53%

Run 3: Report of QUIC Cubic — Data Link

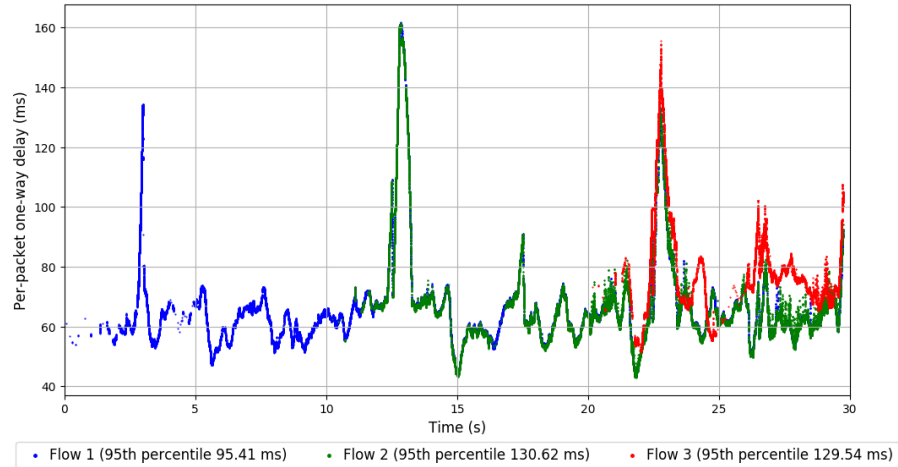
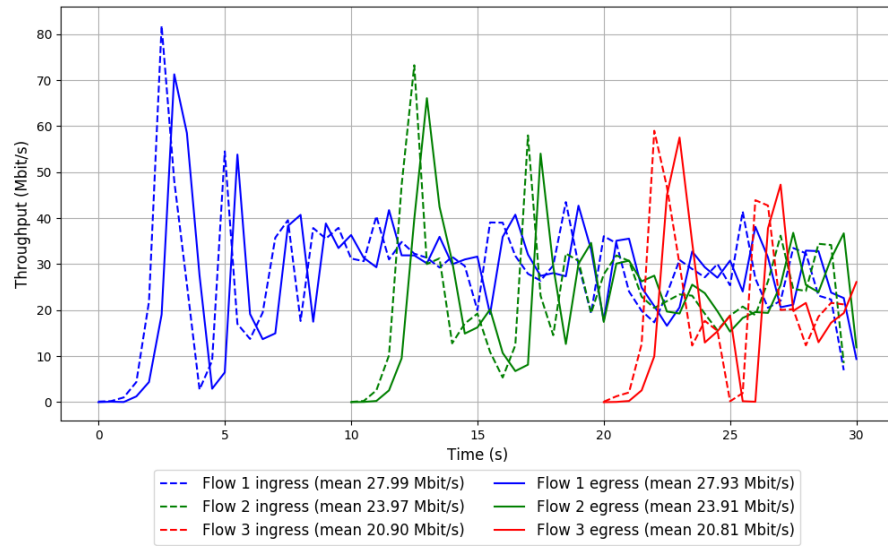


Run 4: Statistics of QUIC Cubic

Start at: 2019-01-21 16:16:45
End at: 2019-01-21 16:17:15
Local clock offset: -0.031 ms
Remote clock offset: 52.301 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 50.37 Mbit/s
95th percentile per-packet one-way delay: 118.100 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 27.93 Mbit/s
95th percentile per-packet one-way delay: 95.412 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 23.91 Mbit/s
95th percentile per-packet one-way delay: 130.624 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 20.81 Mbit/s
95th percentile per-packet one-way delay: 129.543 ms
Loss rate: 0.11%

Run 4: Report of QUIC Cubic — Data Link

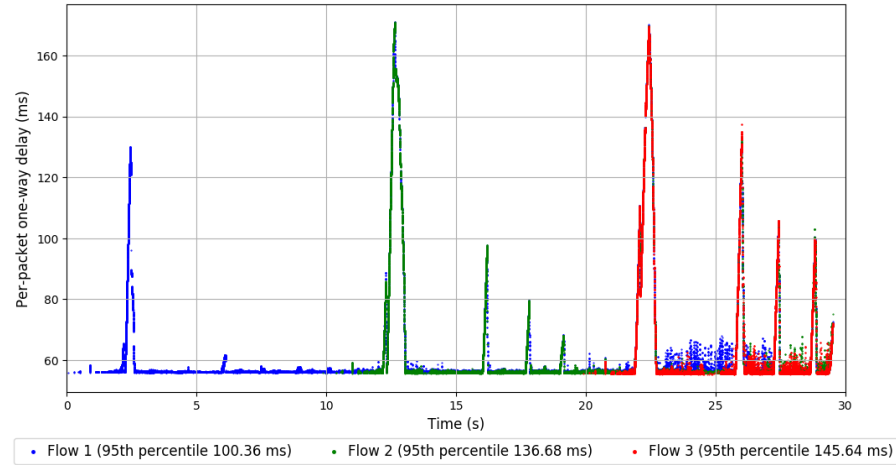
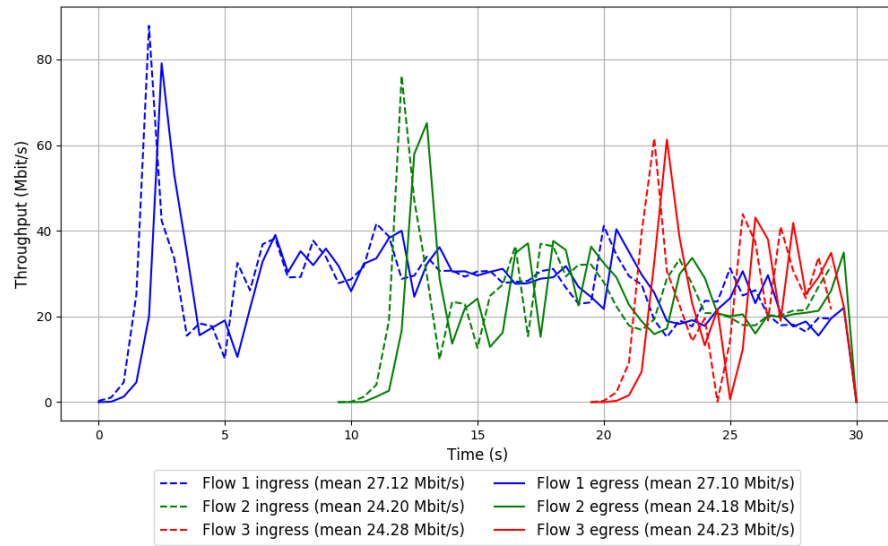


Run 5: Statistics of QUIC Cubic

Start at: 2019-01-21 18:12:45
End at: 2019-01-21 18:13:15
Local clock offset: 0.583 ms
Remote clock offset: 41.913 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 123.139 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 27.10 Mbit/s
95th percentile per-packet one-way delay: 100.359 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.18 Mbit/s
95th percentile per-packet one-way delay: 136.680 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 24.23 Mbit/s
95th percentile per-packet one-way delay: 145.640 ms
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

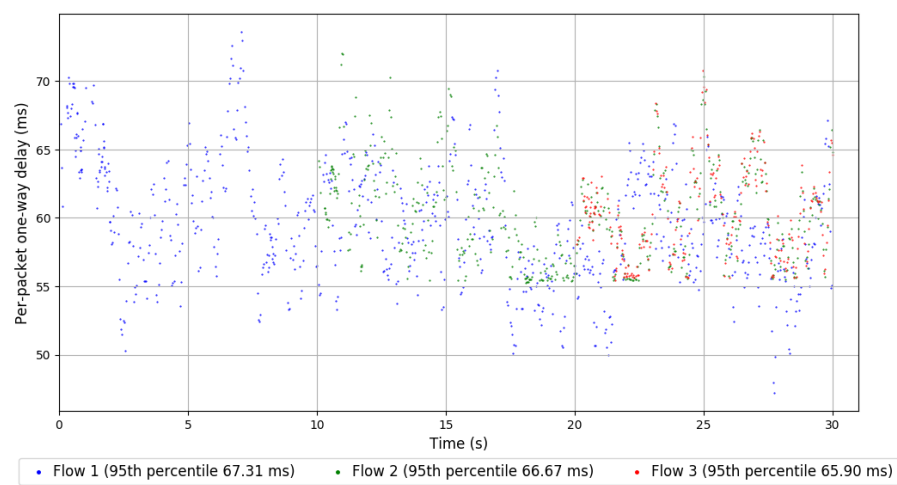
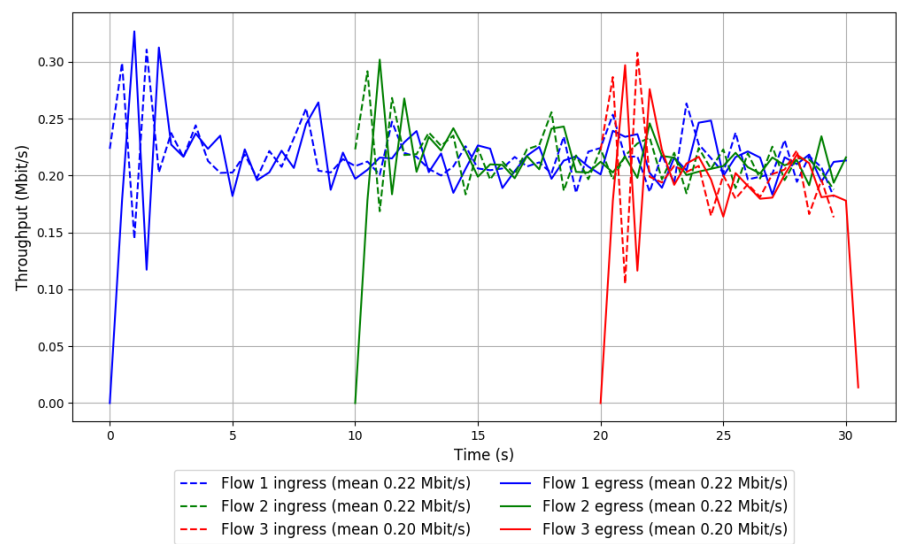


```
Run 1: Statistics of SReAM

Start at: 2019-01-21 10:56:35
End at: 2019-01-21 10:57:05
Local clock offset: 1.749 ms
Remote clock offset: 42.448 ms

# Below is generated by plot.py at 2019-01-21 19:16:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 66.918 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 67.315 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 66.675 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 65.903 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

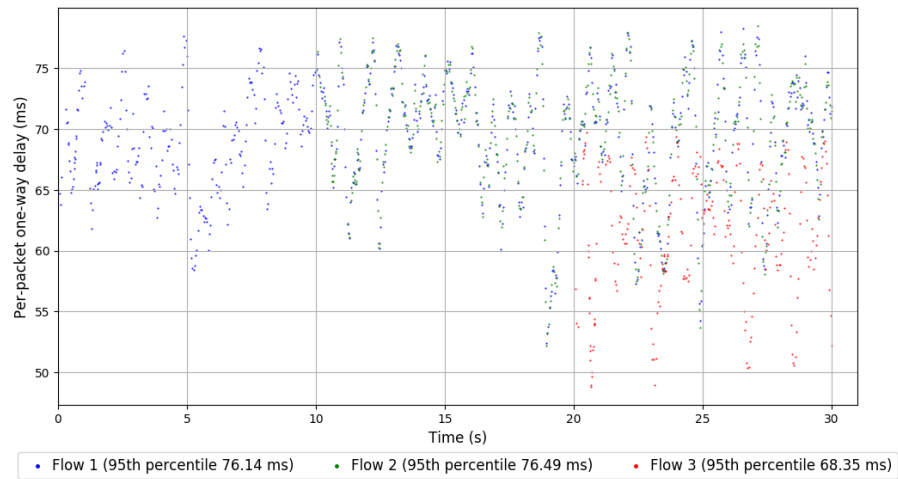
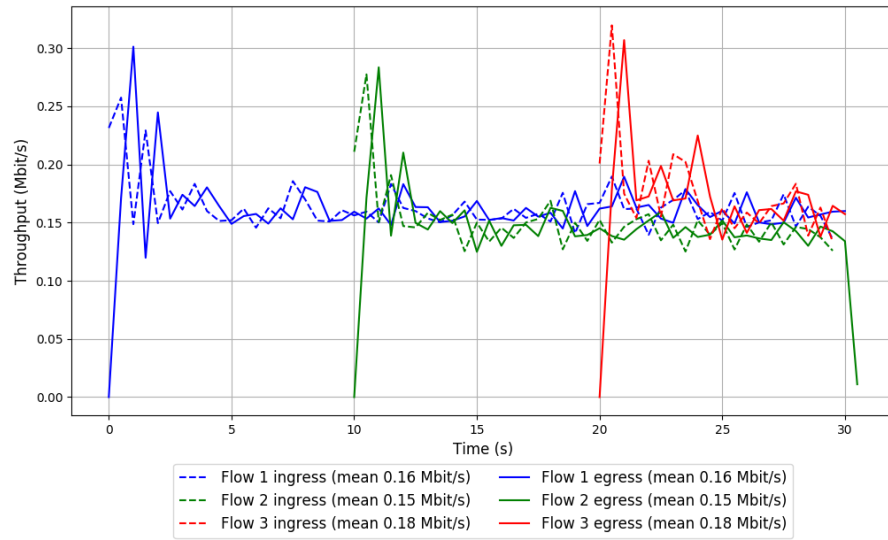


Run 2: Statistics of SReAM

Start at: 2019-01-21 12:29:47
End at: 2019-01-21 12:30:17
Local clock offset: 7.793 ms
Remote clock offset: 48.394 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 76.150 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 76.145 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 76.488 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 68.351 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

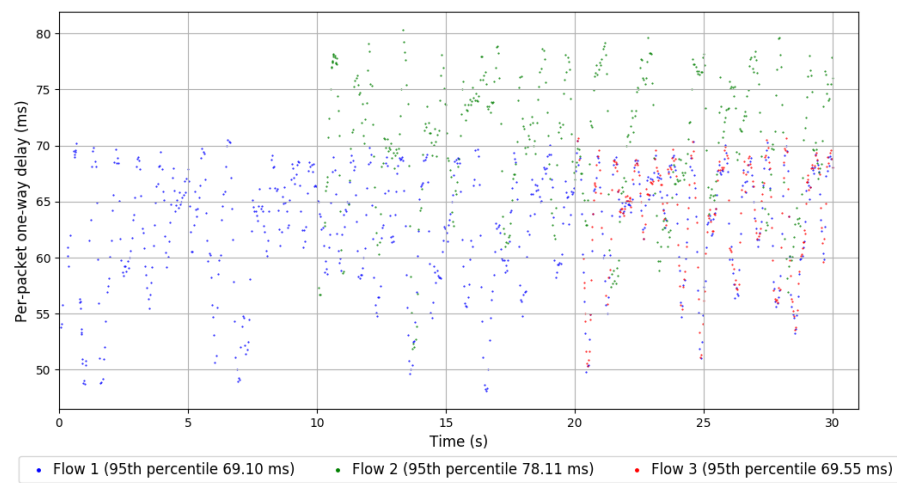
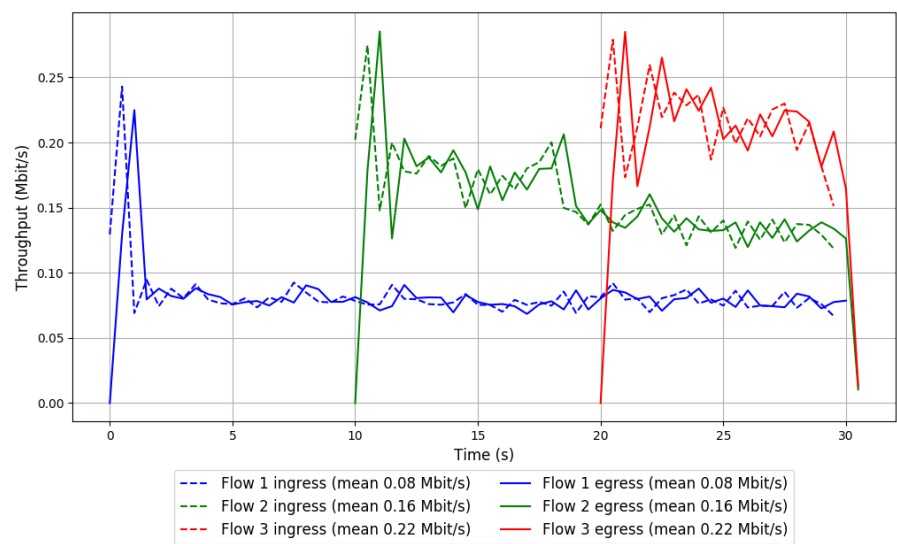


Run 3: Statistics of SReAM

Start at: 2019-01-21 14:03:34
End at: 2019-01-21 14:04:04
Local clock offset: 6.763 ms
Remote clock offset: 49.966 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 76.689 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 69.100 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 78.113 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 69.546 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

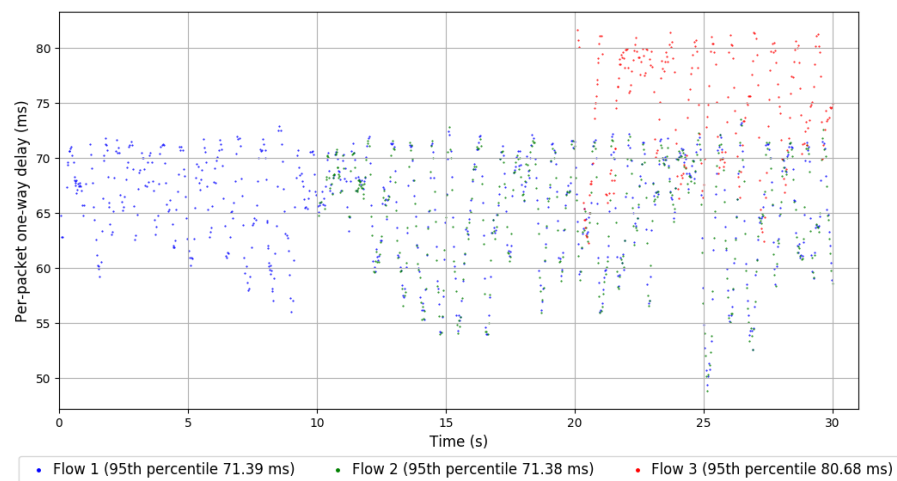
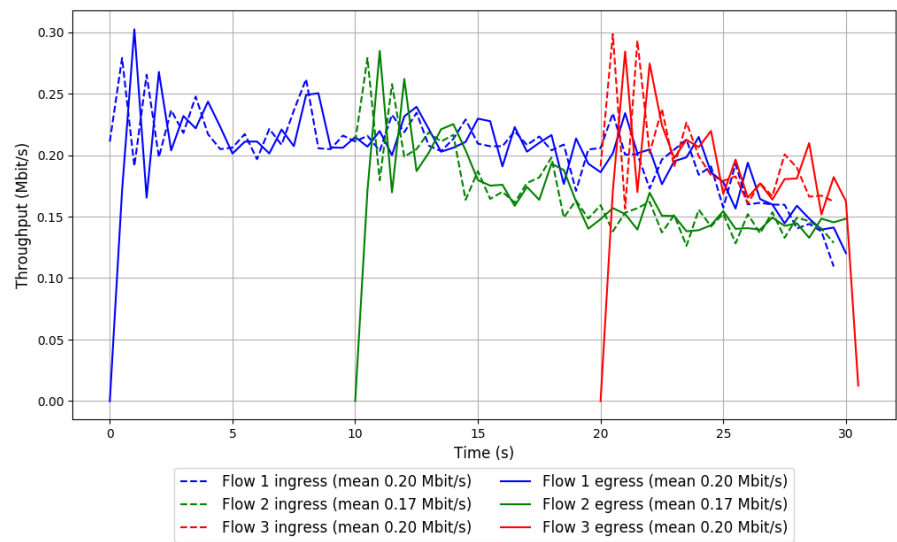


Run 4: Statistics of SReAM

Start at: 2019-01-21 15:26:08
End at: 2019-01-21 15:26:38
Local clock offset: 10.045 ms
Remote clock offset: 49.7 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 78.637 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 71.385 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 71.376 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 80.684 ms
Loss rate: 0.48%

Run 4: Report of SReAM — Data Link

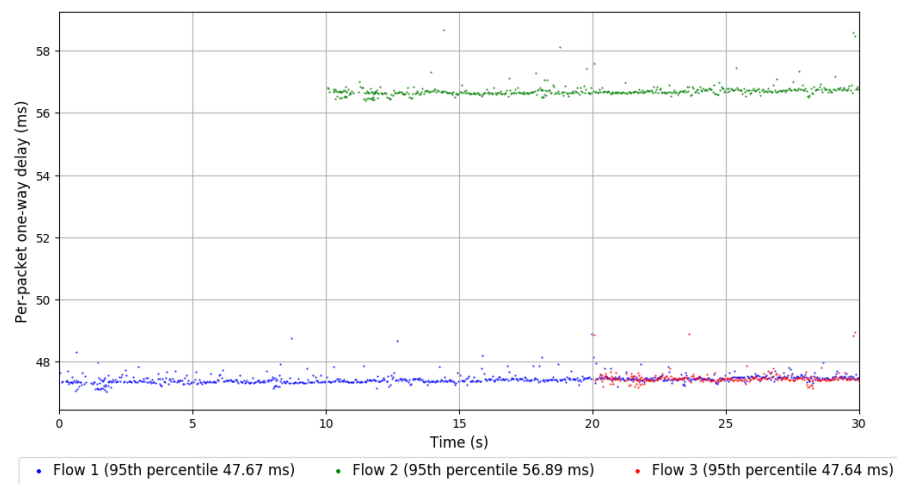
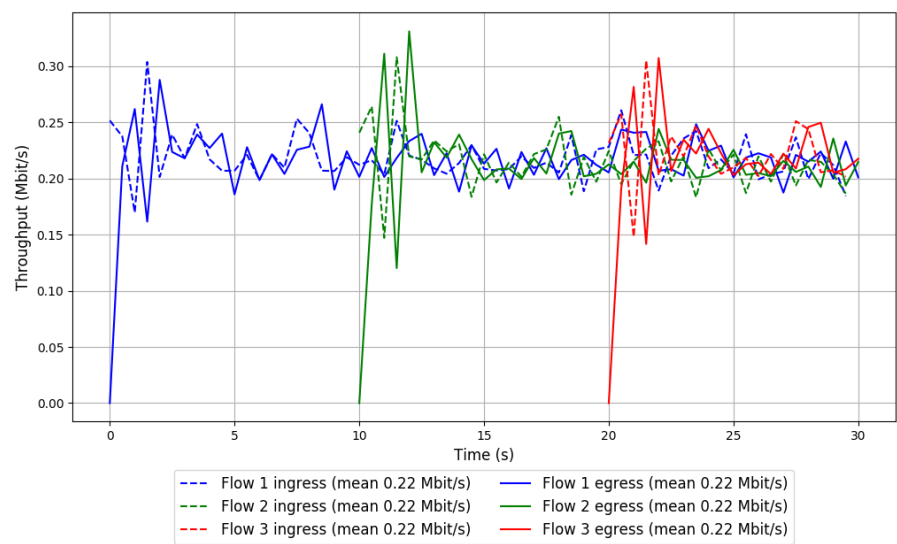


Run 5: Statistics of SReAM

Start at: 2019-01-21 17:09:55
End at: 2019-01-21 17:10:25
Local clock offset: 22.608 ms
Remote clock offset: 56.012 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 56.779 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.672 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.889 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.642 ms
Loss rate: 0.00%

Run 5: Report of SCSReAM — Data Link

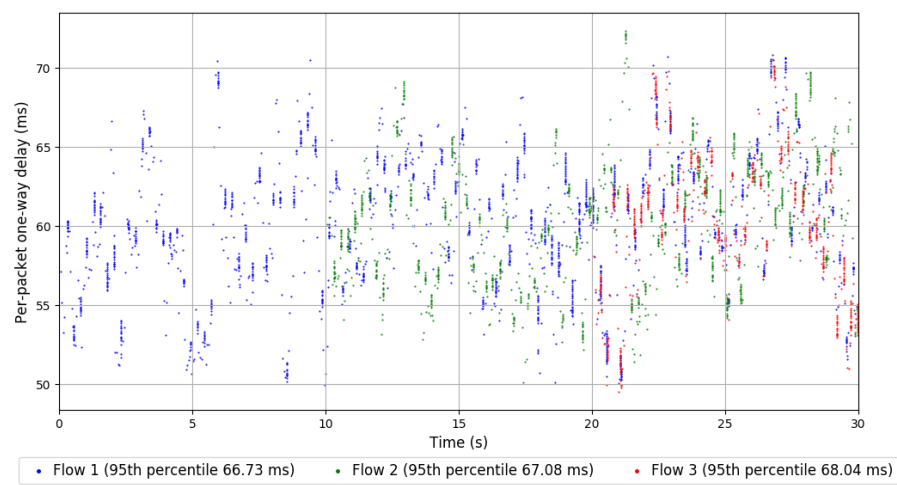
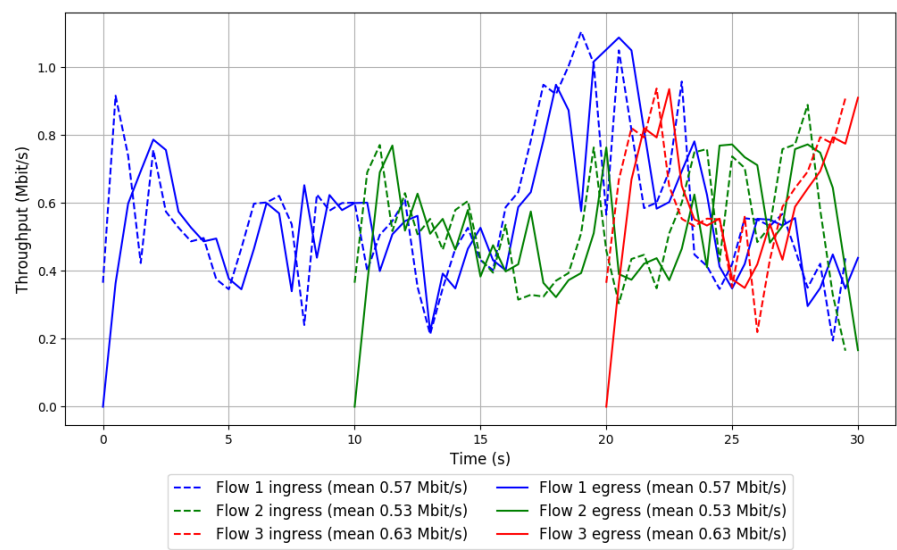


Run 1: Statistics of Sprout

Start at: 2019-01-21 11:44:48
End at: 2019-01-21 11:45:18
Local clock offset: 18.953 ms
Remote clock offset: 45.716 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 66.989 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 66.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 67.085 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 68.044 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

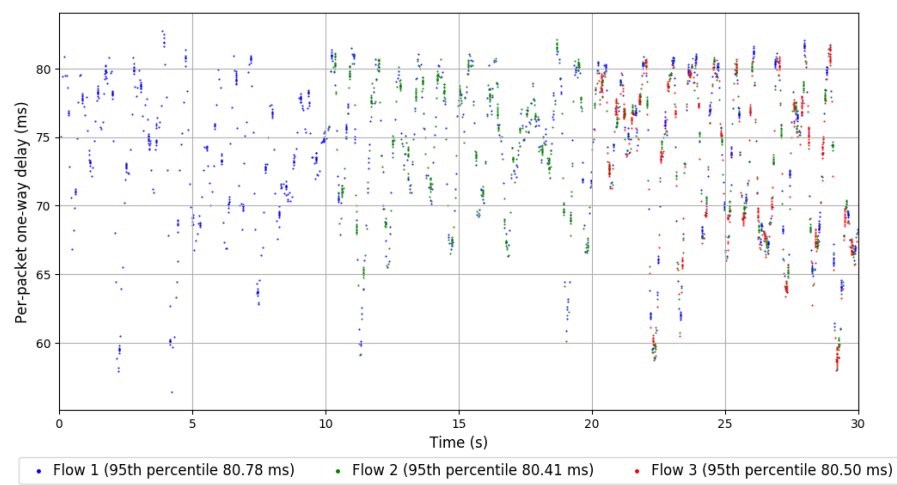
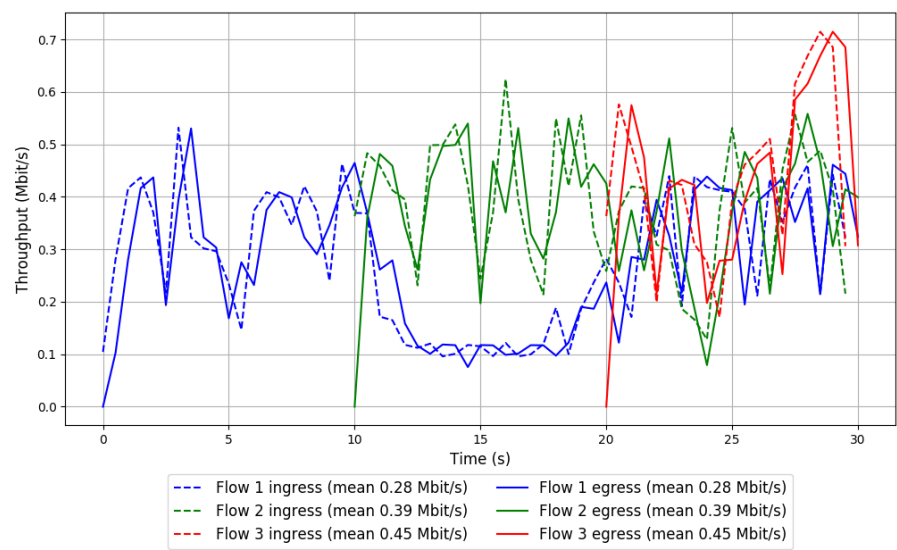


Run 2: Statistics of Sprout

Start at: 2019-01-21 13:13:25
End at: 2019-01-21 13:13:55
Local clock offset: 17.31 ms
Remote clock offset: 17.957 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 80.568 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 80.776 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 80.406 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 80.500 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

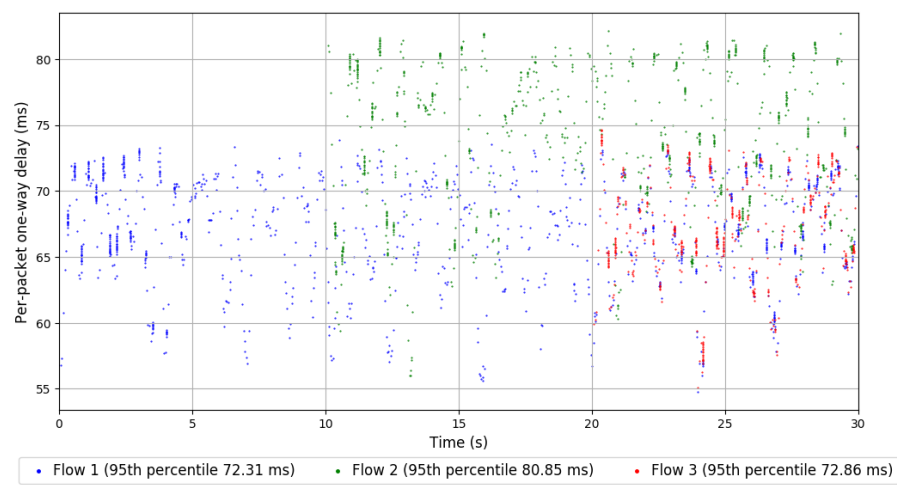
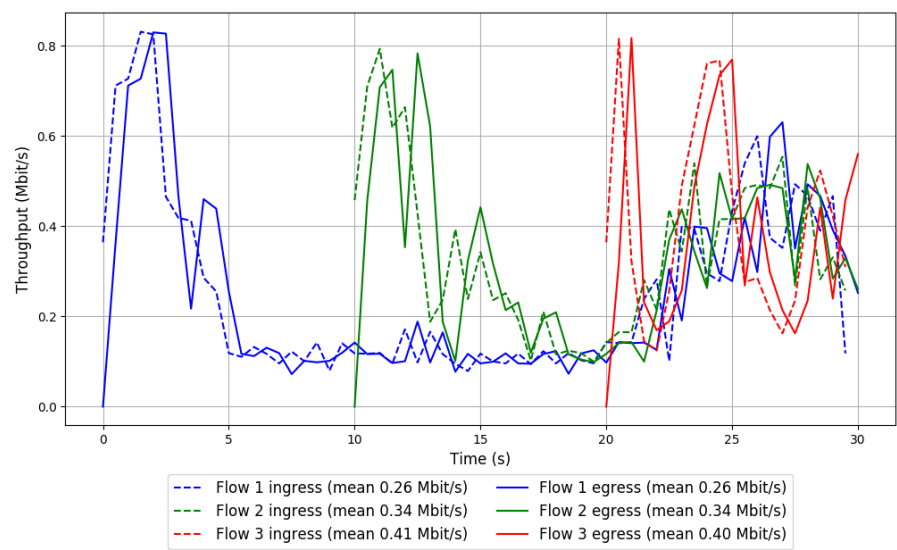


Run 3: Statistics of Sprout

Start at: 2019-01-21 14:46:28
End at: 2019-01-21 14:46:58
Local clock offset: -1.218 ms
Remote clock offset: 52.25 ms

```
# Below is generated by plot.py at 2019-01-21 19:16:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 80.111 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 72.307 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 80.852 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 72.859 ms
Loss rate: 0.81%
```

Run 3: Report of Sprout — Data Link

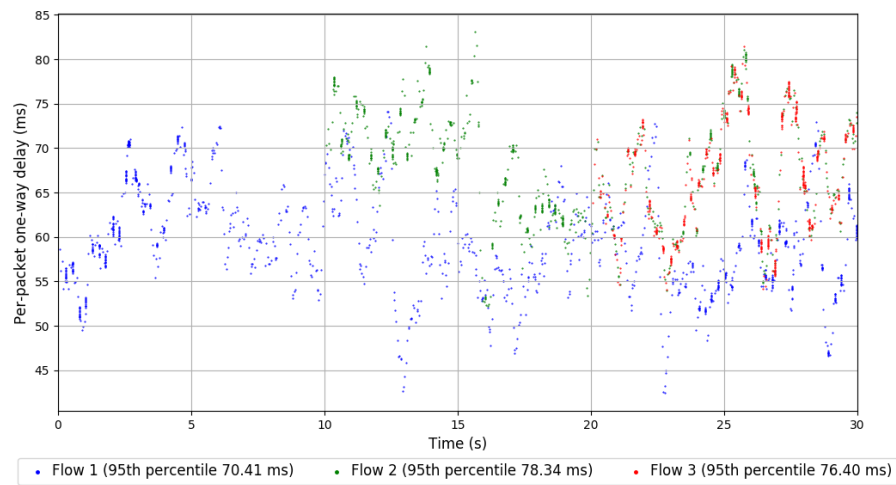
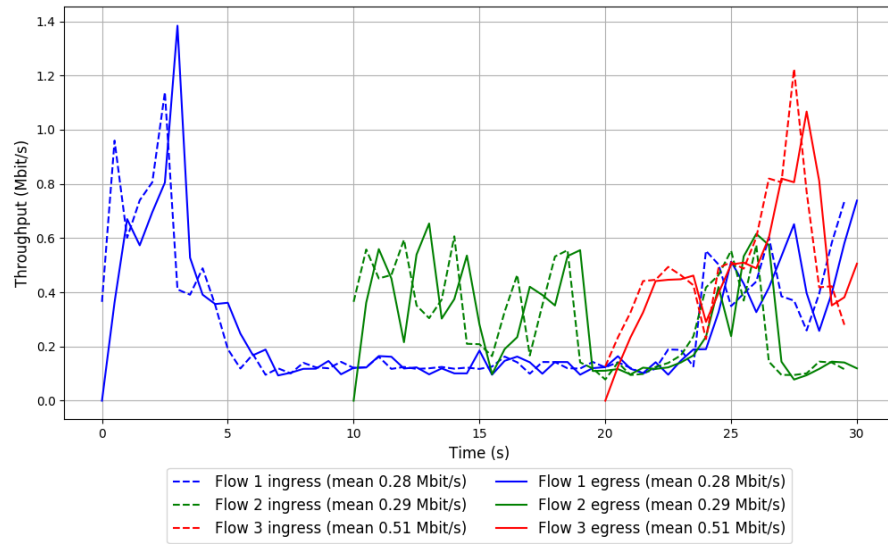


Run 4: Statistics of Sprout

Start at: 2019-01-21 16:24:28
End at: 2019-01-21 16:24:58
Local clock offset: 0.848 ms
Remote clock offset: 53.189 ms

```
# Below is generated by plot.py at 2019-01-21 19:16:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 76.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 70.407 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 78.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 76.398 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

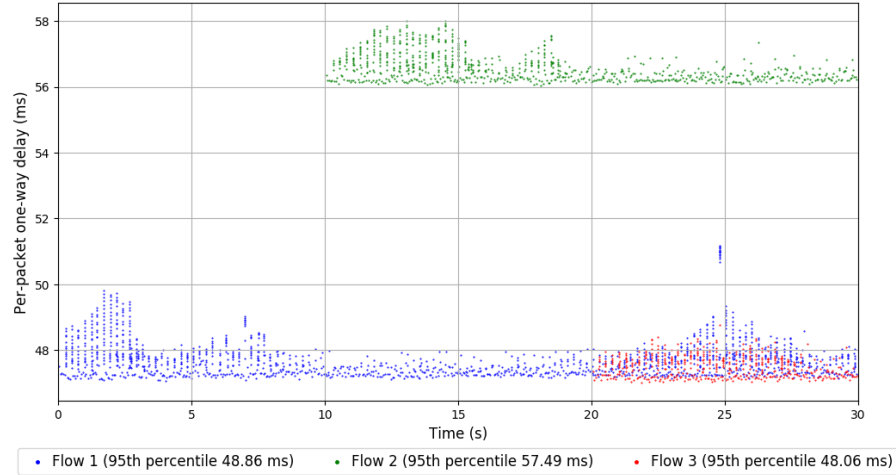
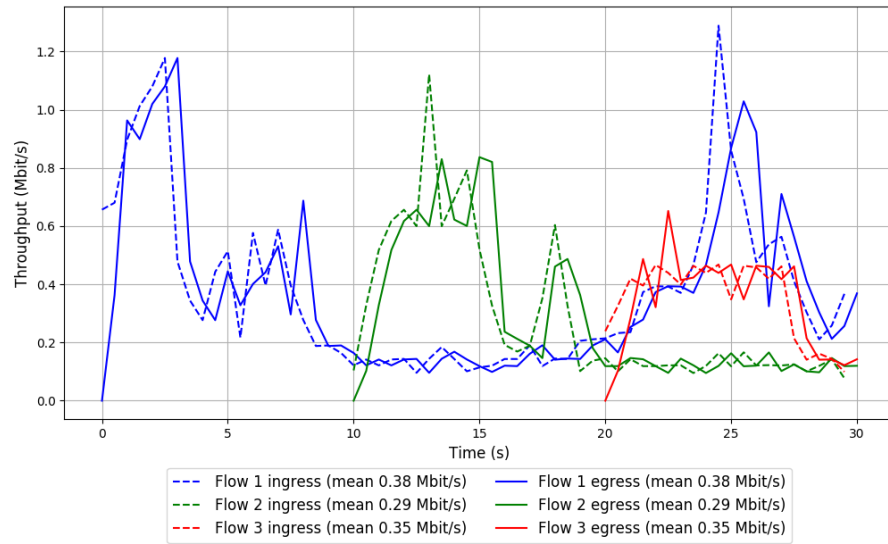


Run 5: Statistics of Sprout

Start at: 2019-01-21 18:19:30
End at: 2019-01-21 18:20:00
Local clock offset: 0.761 ms
Remote clock offset: 42.055 ms

```
# Below is generated by plot.py at 2019-01-21 19:16:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 56.991 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 48.861 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 57.494 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 48.065 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-01-21 12:27:27

End at: 2019-01-21 12:27:57

Local clock offset: 7.289 ms

Remote clock offset: 51.23 ms

Below is generated by plot.py at 2019-01-21 19:16:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.37 Mbit/s

95th percentile per-packet one-way delay: 73.124 ms

Loss rate: 12.30%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 64.475 ms

Loss rate: 92.16%

-- Flow 2:

Average throughput: 11.16 Mbit/s

95th percentile per-packet one-way delay: 72.510 ms

Loss rate: 11.79%

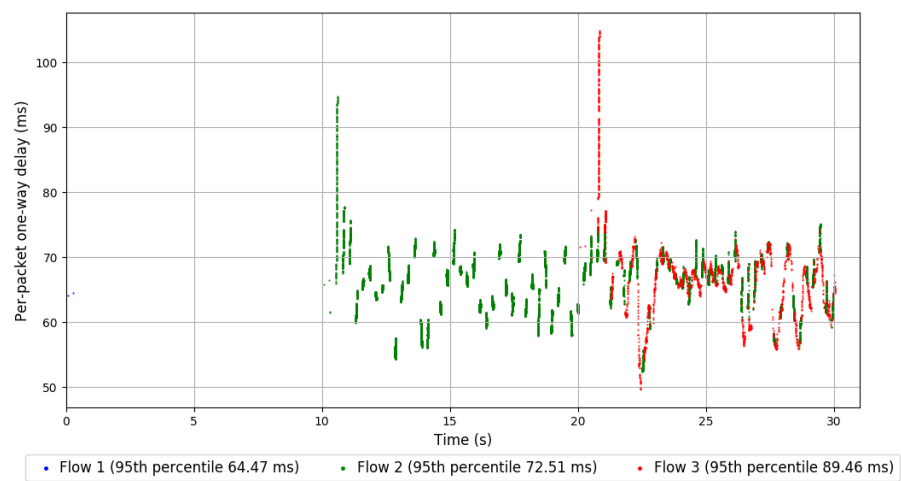
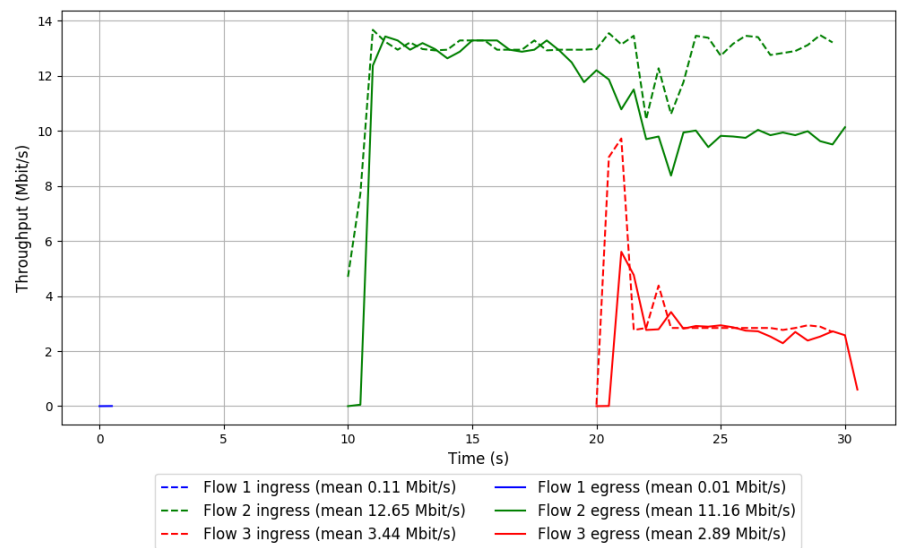
-- Flow 3:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 89.462 ms

Loss rate: 15.99%

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

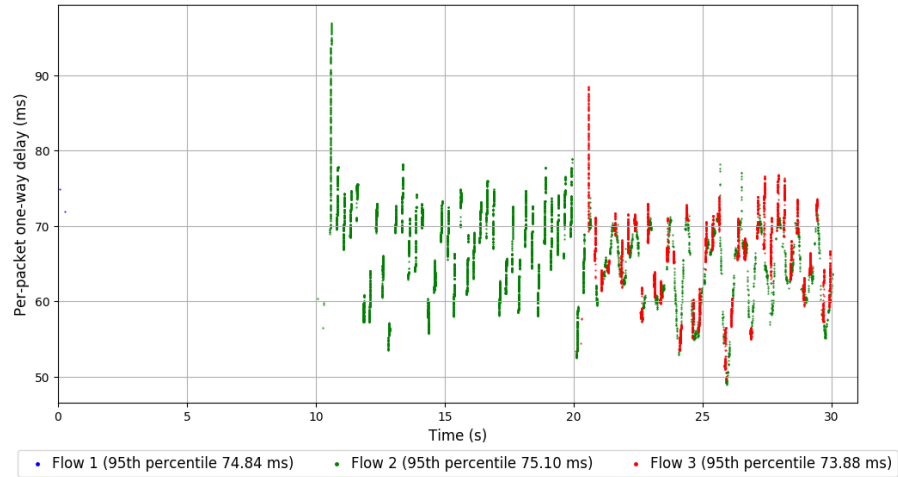
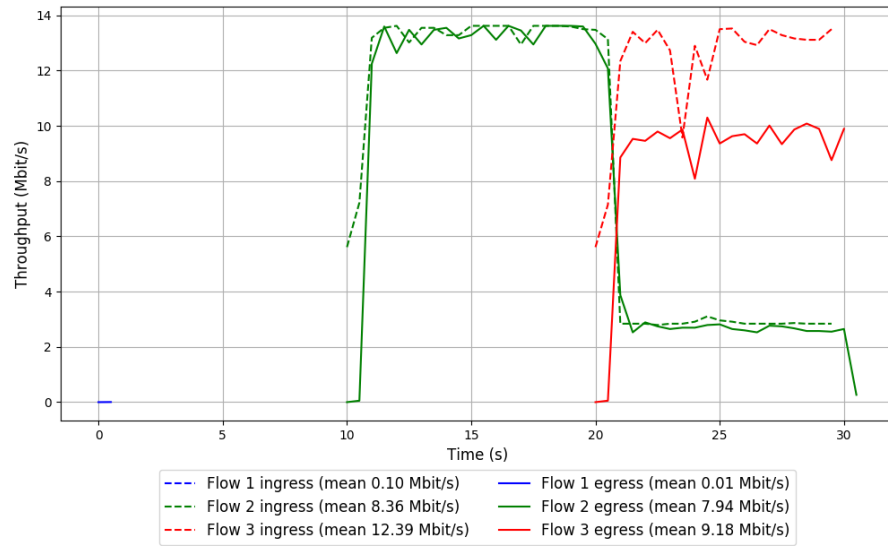


Run 2: Statistics of TaoVA-100x

Start at: 2019-01-21 14:01:01
End at: 2019-01-21 14:01:32
Local clock offset: 6.458 ms
Remote clock offset: 50.744 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 74.737 ms
Loss rate: 13.80%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 74.845 ms
Loss rate: 92.16%
-- Flow 2:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 75.096 ms
Loss rate: 4.96%
-- Flow 3:
Average throughput: 9.18 Mbit/s
95th percentile per-packet one-way delay: 73.879 ms
Loss rate: 25.82%

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

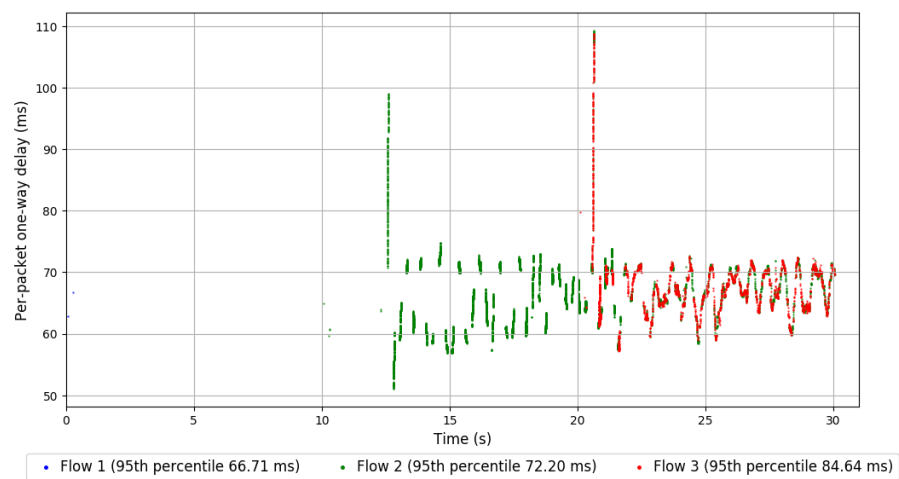
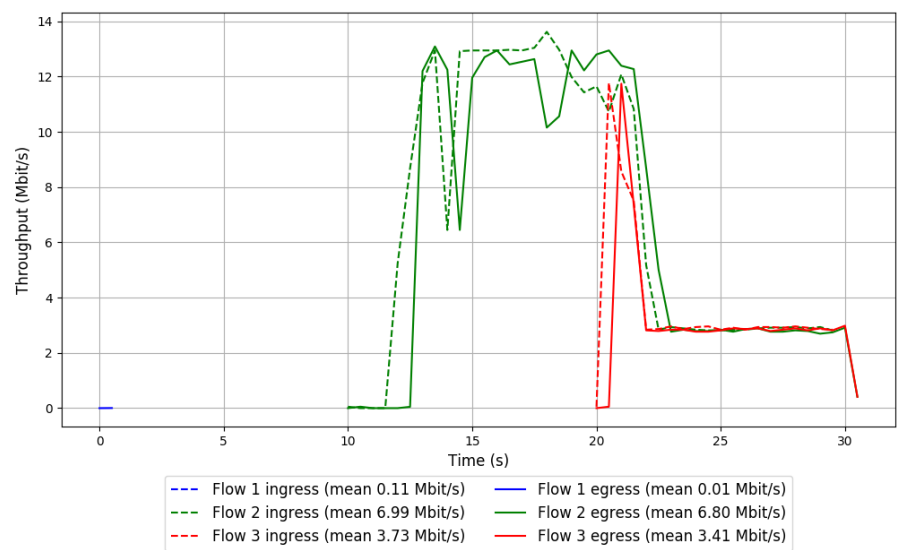


Run 3: Statistics of TaoVA-100x

Start at: 2019-01-21 15:23:43
End at: 2019-01-21 15:24:13
Local clock offset: 8.363 ms
Remote clock offset: 48.978 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.66 Mbit/s
95th percentile per-packet one-way delay: 72.494 ms
Loss rate: 3.99%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 66.711 ms
Loss rate: 92.16%
-- Flow 2:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 72.201 ms
Loss rate: 2.75%
-- Flow 3:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 84.643 ms
Loss rate: 8.62%

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

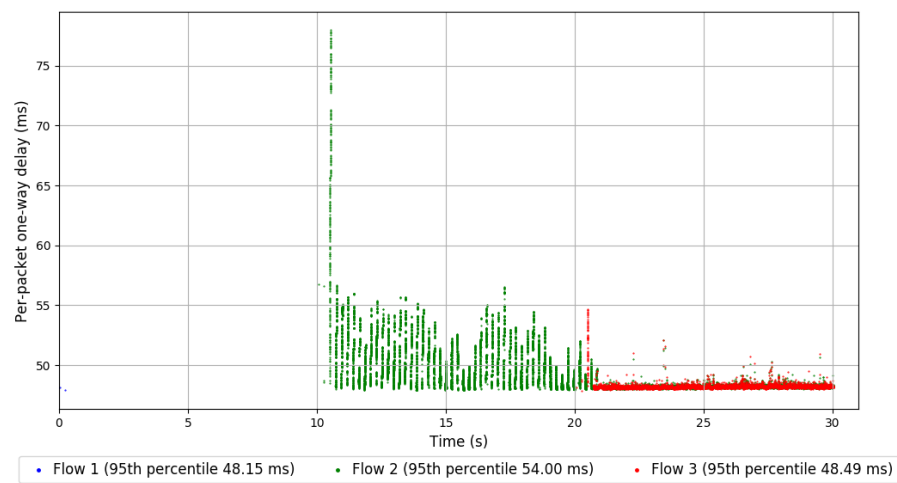
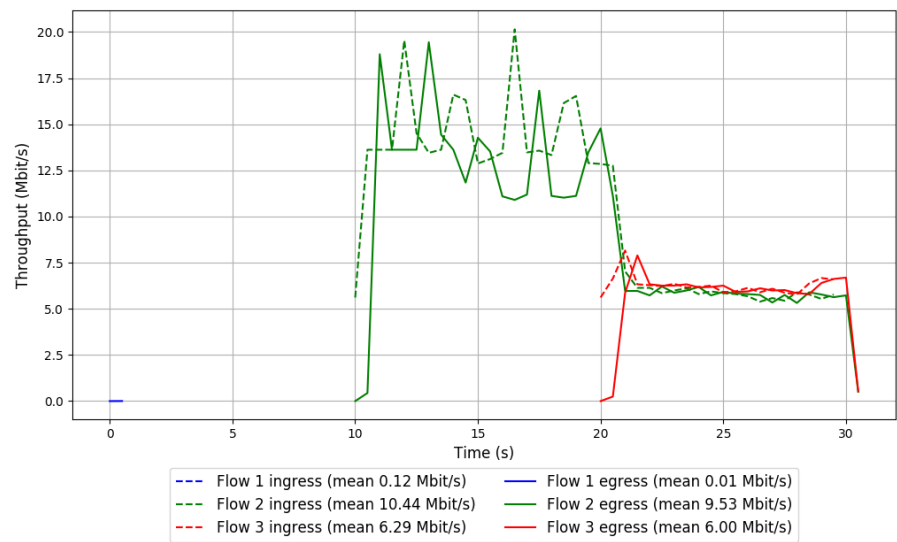


Run 4: Statistics of TaoVA-100x

Start at: 2019-01-21 17:07:26
End at: 2019-01-21 17:07:56
Local clock offset: 21.332 ms
Remote clock offset: 56.379 ms

Below is generated by plot.py at 2019-01-21 19:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.34 Mbit/s
95th percentile per-packet one-way delay: 53.612 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 48.153 ms
Loss rate: 92.16%
-- Flow 2:
Average throughput: 9.53 Mbit/s
95th percentile per-packet one-way delay: 53.999 ms
Loss rate: 8.78%
-- Flow 3:
Average throughput: 6.00 Mbit/s
95th percentile per-packet one-way delay: 48.493 ms
Loss rate: 4.62%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-01-21 19:08:53

End at: 2019-01-21 19:09:23

Local clock offset: 0.767 ms

Remote clock offset: 8.558 ms

Below is generated by plot.py at 2019-01-21 19:16:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.44 Mbit/s

95th percentile per-packet one-way delay: 52.618 ms

Loss rate: 8.63%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 48.957 ms

Loss rate: 92.16%

-- Flow 2:

Average throughput: 9.48 Mbit/s

95th percentile per-packet one-way delay: 52.637 ms

Loss rate: 6.76%

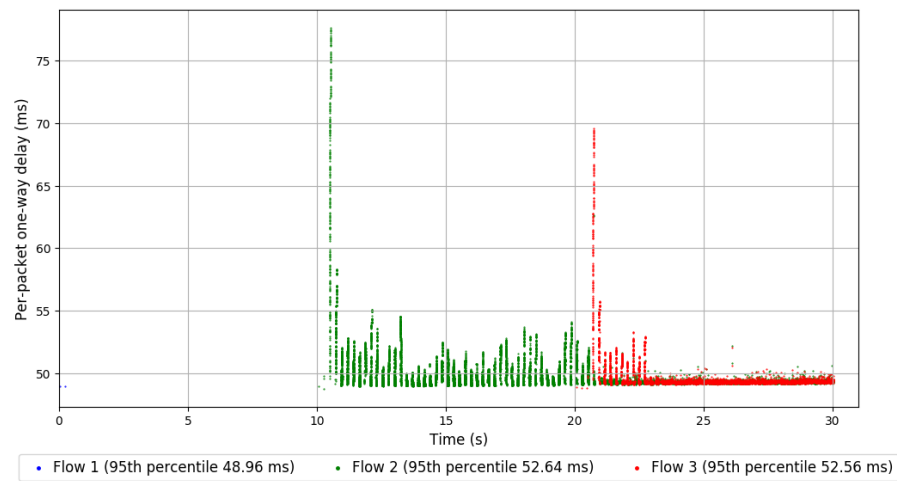
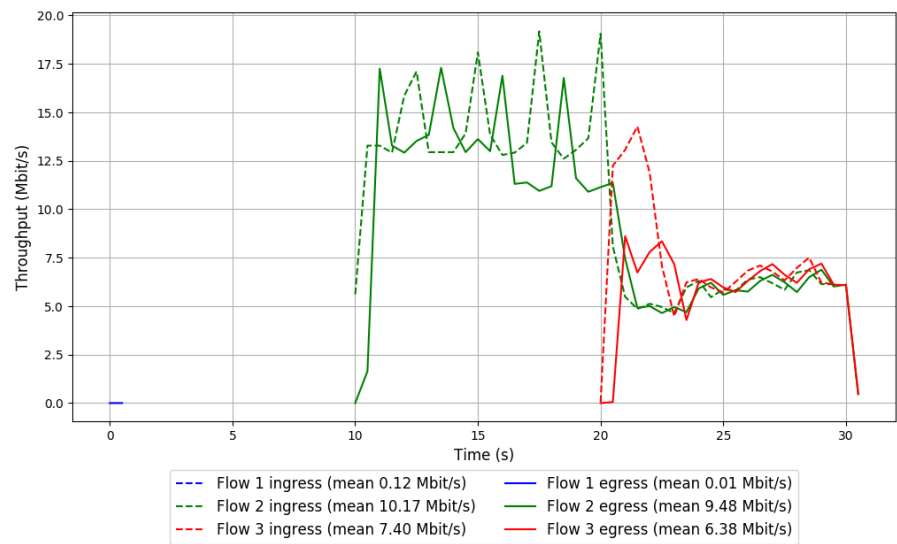
-- Flow 3:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 52.562 ms

Loss rate: 13.75%

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

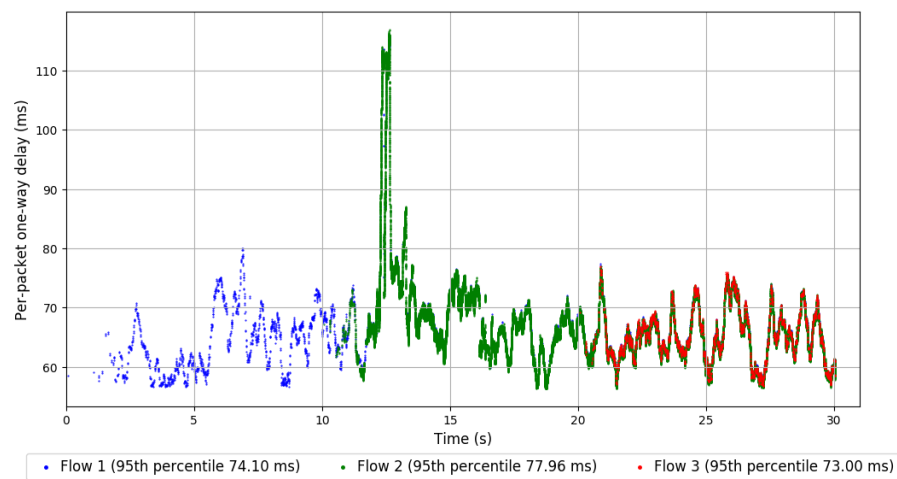
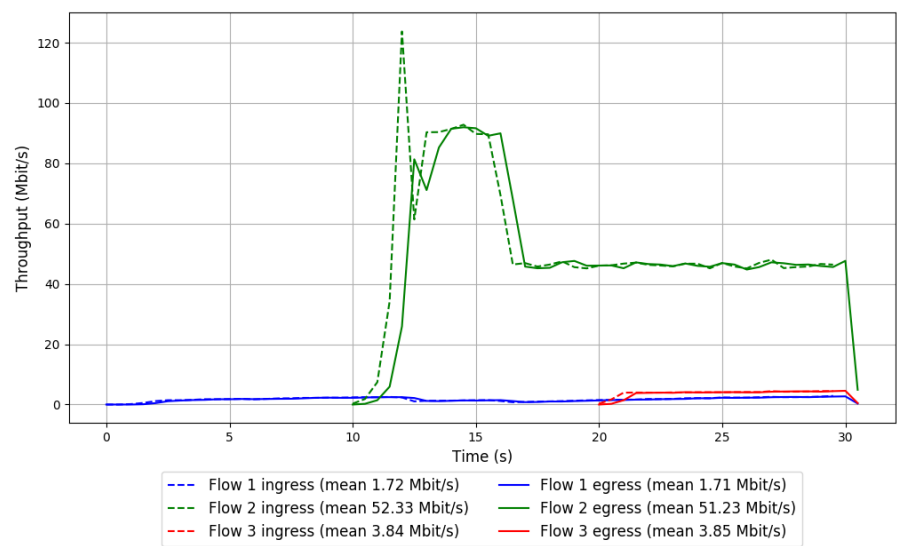


Run 1: Statistics of TCP Vegas

Start at: 2019-01-21 11:18:08
End at: 2019-01-21 11:18:38
Local clock offset: 4.566 ms
Remote clock offset: 52.412 ms

Below is generated by plot.py at 2019-01-21 19:16:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 37.11 Mbit/s
95th percentile per-packet one-way delay: 77.184 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 74.099 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 51.23 Mbit/s
95th percentile per-packet one-way delay: 77.962 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 73.005 ms
Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

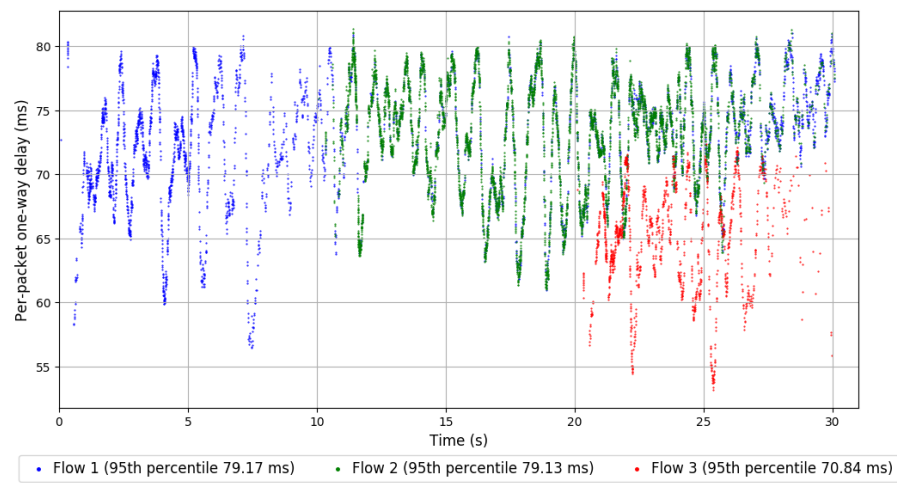
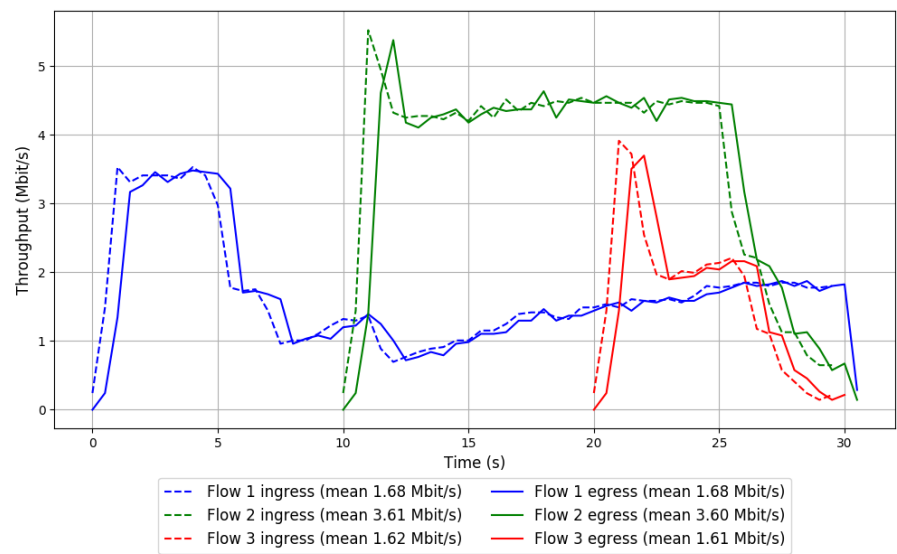


Run 2: Statistics of TCP Vegas

Start at: 2019-01-21 12:46:28
End at: 2019-01-21 12:46:58
Local clock offset: 9.786 ms
Remote clock offset: 34.679 ms

Below is generated by plot.py at 2019-01-21 19:16:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.61 Mbit/s
95th percentile per-packet one-way delay: 79.046 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 79.167 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 79.134 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 70.836 ms
Loss rate: 0.53%

Run 2: Report of TCP Vegas — Data Link

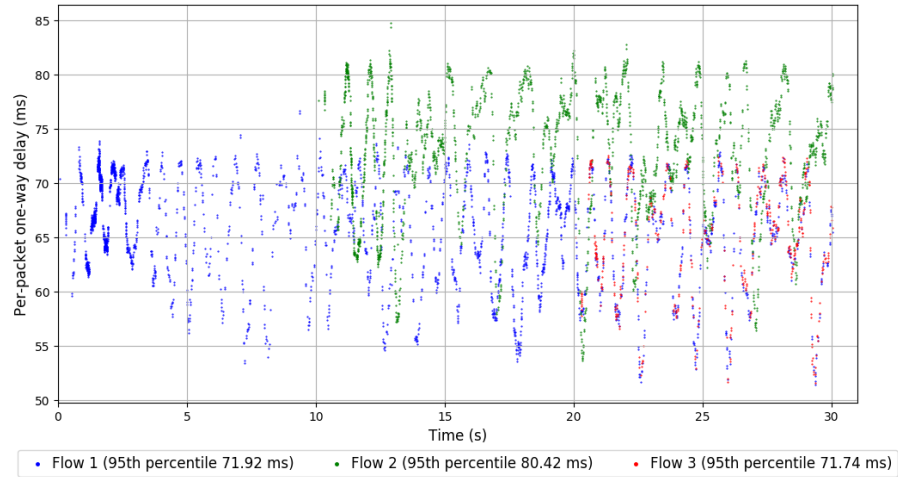
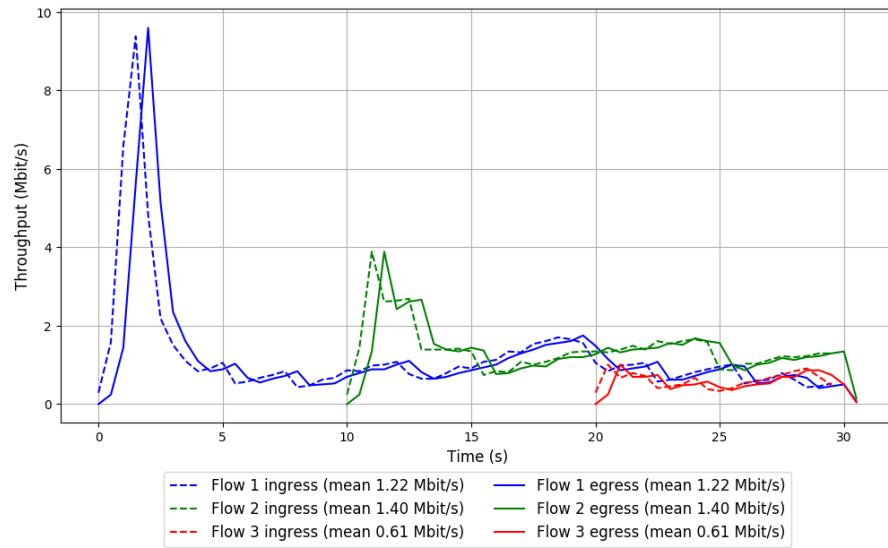


Run 3: Statistics of TCP Vegas

Start at: 2019-01-21 14:16:39
End at: 2019-01-21 14:17:09
Local clock offset: 7.221 ms
Remote clock offset: 53.352 ms

Below is generated by plot.py at 2019-01-21 19:16:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 79.457 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 71.918 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 80.418 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 71.741 ms
Loss rate: 0.79%

Run 3: Report of TCP Vegas — Data Link

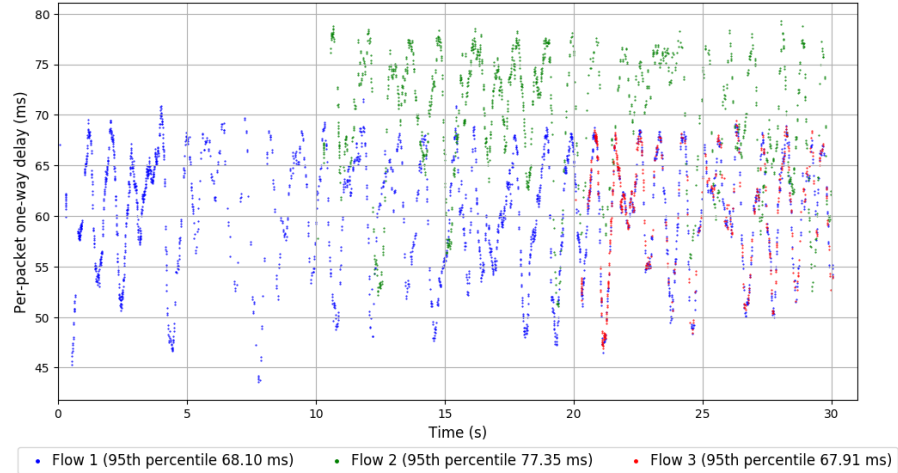
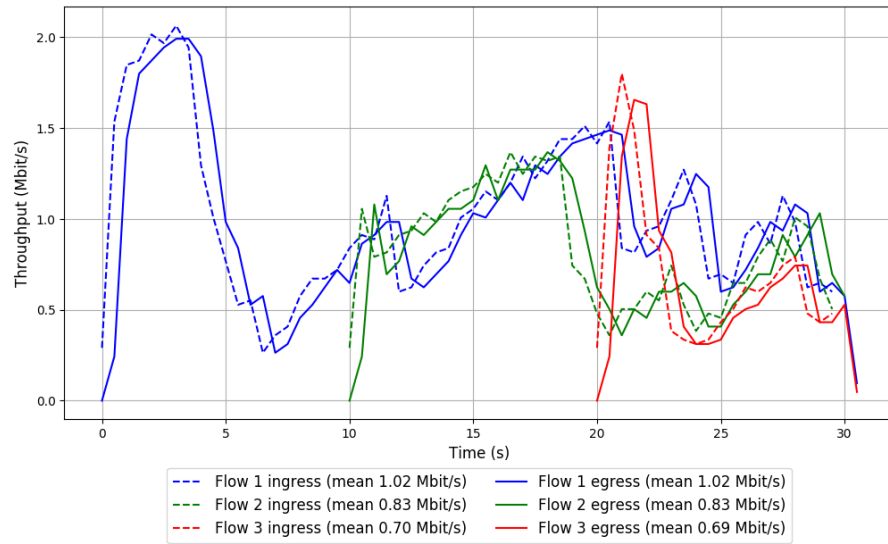


Run 4: Statistics of TCP Vegas

Start at: 2019-01-21 15:46:06
End at: 2019-01-21 15:46:36
Local clock offset: 16.725 ms
Remote clock offset: 46.701 ms

Below is generated by plot.py at 2019-01-21 19:16:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 76.088 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 68.104 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 77.351 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 67.910 ms
Loss rate: 0.87%

Run 4: Report of TCP Vegas — Data Link

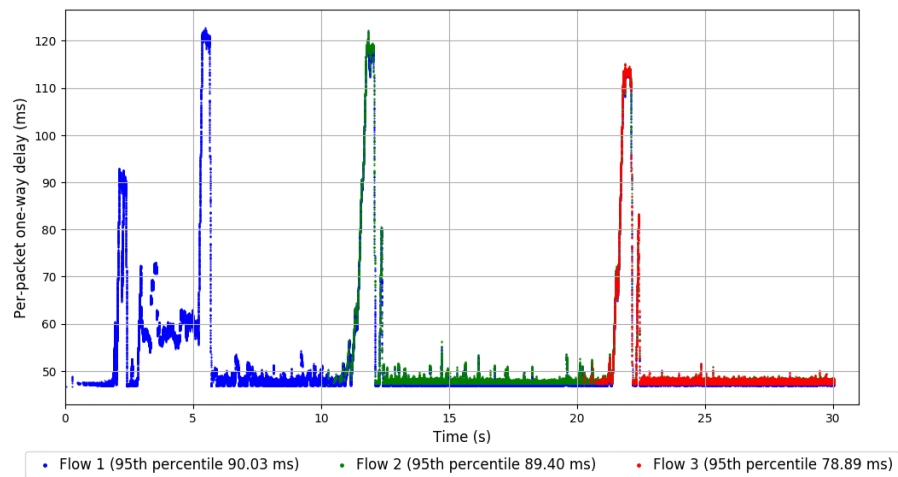
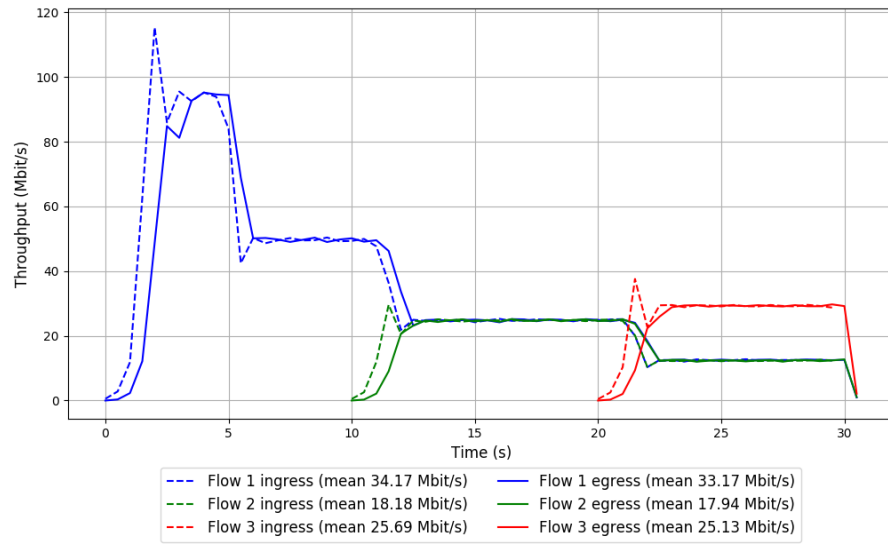


Run 5: Statistics of TCP Vegas

Start at: 2019-01-21 17:40:23
End at: 2019-01-21 17:40:53
Local clock offset: 5.555 ms
Remote clock offset: 33.188 ms

Below is generated by plot.py at 2019-01-21 19:17:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 89.763 ms
Loss rate: 2.45%
-- Flow 1:
Average throughput: 33.17 Mbit/s
95th percentile per-packet one-way delay: 90.030 ms
Loss rate: 2.91%
-- Flow 2:
Average throughput: 17.94 Mbit/s
95th percentile per-packet one-way delay: 89.399 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 25.13 Mbit/s
95th percentile per-packet one-way delay: 78.892 ms
Loss rate: 2.21%

Run 5: Report of TCP Vegas — Data Link

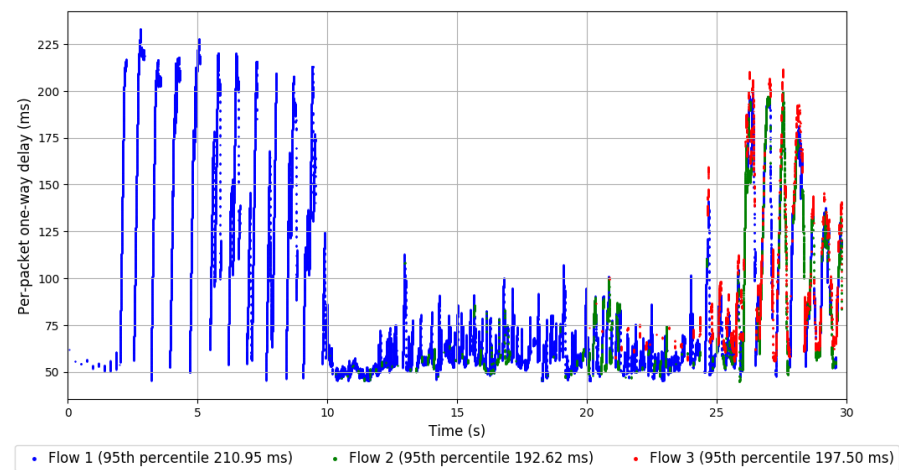
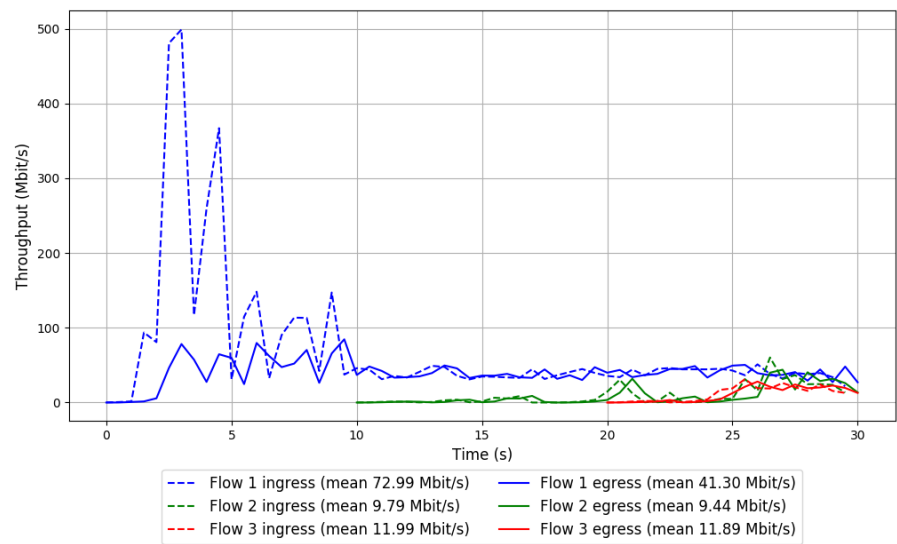


Run 1: Statistics of Verus

Start at: 2019-01-21 11:11:38
End at: 2019-01-21 11:12:08
Local clock offset: 1.556 ms
Remote clock offset: 49.559 ms

Below is generated by plot.py at 2019-01-21 19:17:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 51.42 Mbit/s
95th percentile per-packet one-way delay: 207.891 ms
Loss rate: 38.20%
-- Flow 1:
Average throughput: 41.30 Mbit/s
95th percentile per-packet one-way delay: 210.946 ms
Loss rate: 43.30%
-- Flow 2:
Average throughput: 9.44 Mbit/s
95th percentile per-packet one-way delay: 192.618 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 197.503 ms
Loss rate: 0.72%

Run 1: Report of Verus — Data Link

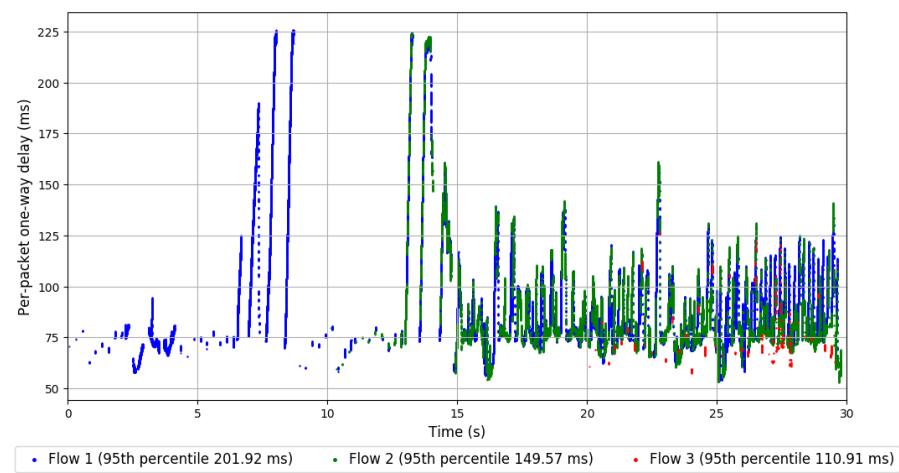
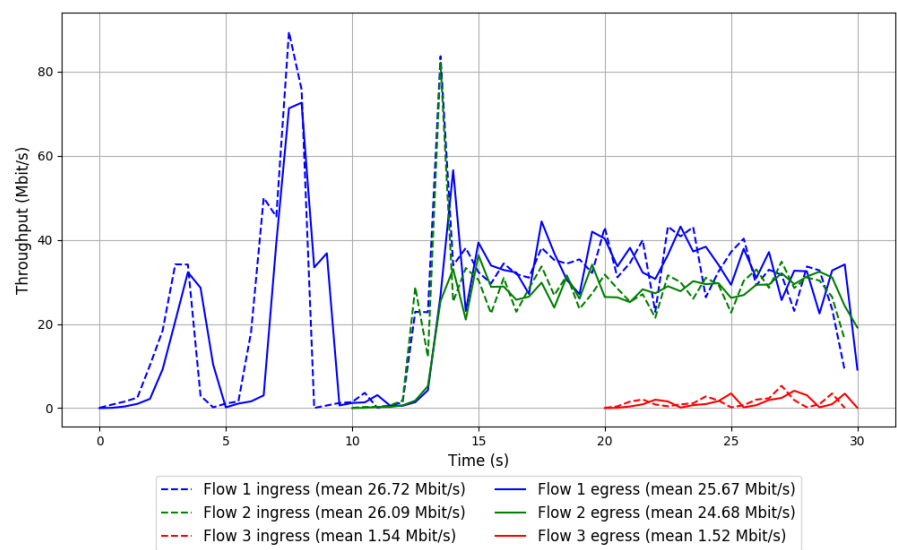


Run 2: Statistics of Verus

Start at: 2019-01-21 12:39:37
End at: 2019-01-21 12:40:07
Local clock offset: 9.258 ms
Remote clock offset: 51.285 ms

Below is generated by plot.py at 2019-01-21 19:17:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 42.39 Mbit/s
95th percentile per-packet one-way delay: 182.939 ms
Loss rate: 4.52%
-- Flow 1:
Average throughput: 25.67 Mbit/s
95th percentile per-packet one-way delay: 201.922 ms
Loss rate: 3.97%
-- Flow 2:
Average throughput: 24.68 Mbit/s
95th percentile per-packet one-way delay: 149.567 ms
Loss rate: 5.48%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 110.909 ms
Loss rate: 0.40%

Run 2: Report of Verus — Data Link

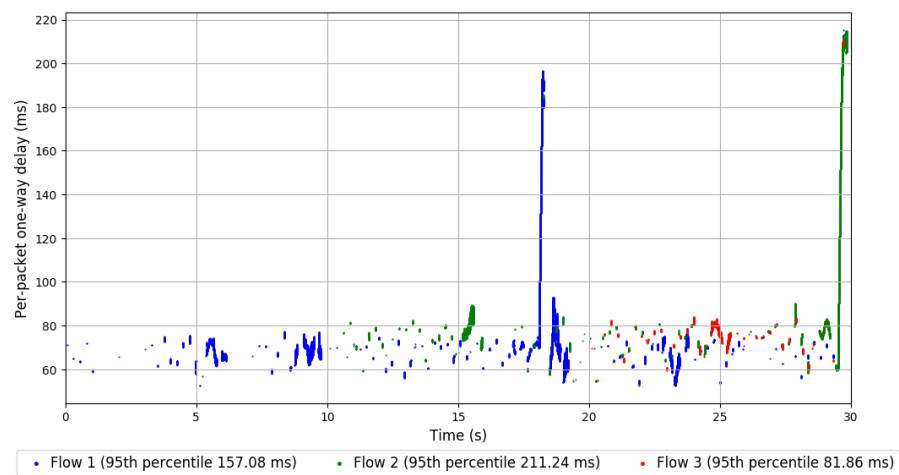
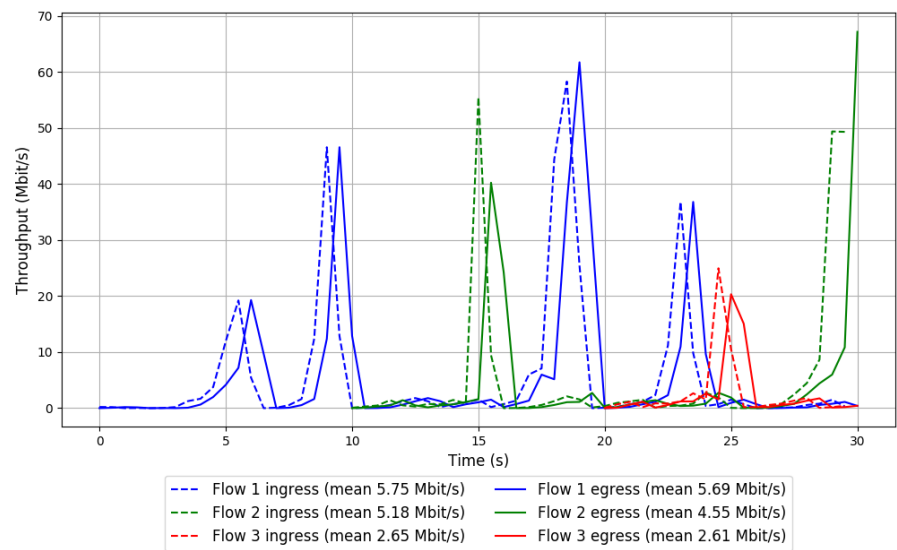


Run 3: Statistics of Verus

Start at: 2019-01-21 14:13:47
End at: 2019-01-21 14:14:17
Local clock offset: 7.26 ms
Remote clock offset: 52.525 ms

Below is generated by plot.py at 2019-01-21 19:17:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 207.284 ms
Loss rate: 4.39%
-- Flow 1:
Average throughput: 5.69 Mbit/s
95th percentile per-packet one-way delay: 157.081 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 211.240 ms
Loss rate: 11.76%
-- Flow 3:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 81.855 ms
Loss rate: 0.33%

Run 3: Report of Verus — Data Link

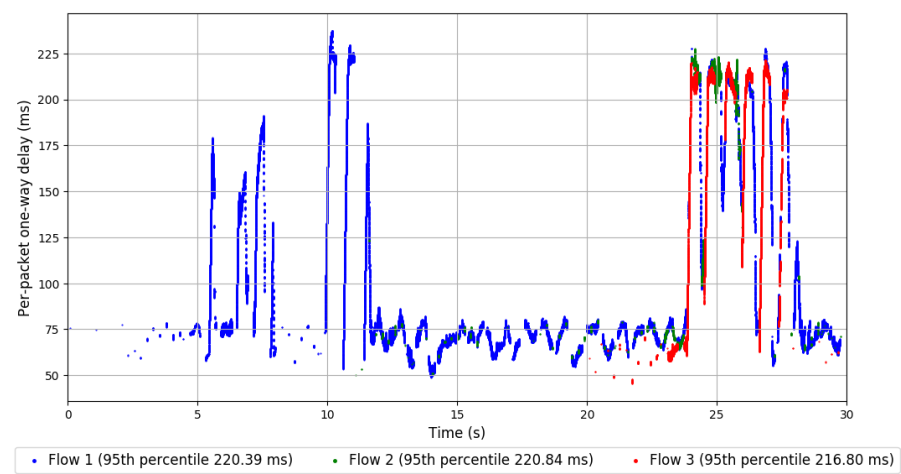
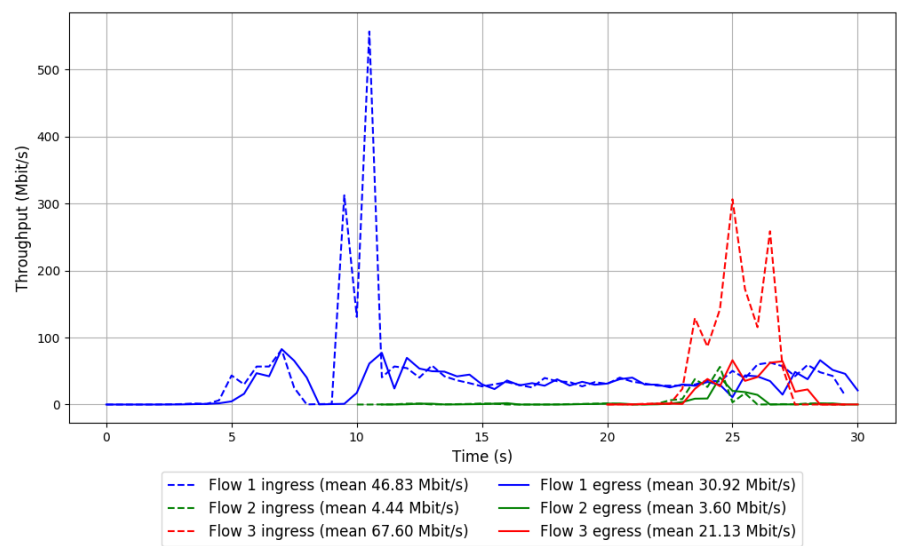


Run 4: Statistics of Verus

Start at: 2019-01-21 15:37:03
End at: 2019-01-21 15:37:33
Local clock offset: 14.637 ms
Remote clock offset: 46.047 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 218.941 ms
Loss rate: 44.12%
-- Flow 1:
Average throughput: 30.92 Mbit/s
95th percentile per-packet one-way delay: 220.386 ms
Loss rate: 33.99%
-- Flow 2:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 220.835 ms
Loss rate: 22.88%
-- Flow 3:
Average throughput: 21.13 Mbit/s
95th percentile per-packet one-way delay: 216.804 ms
Loss rate: 68.73%

Run 4: Report of Verus — Data Link

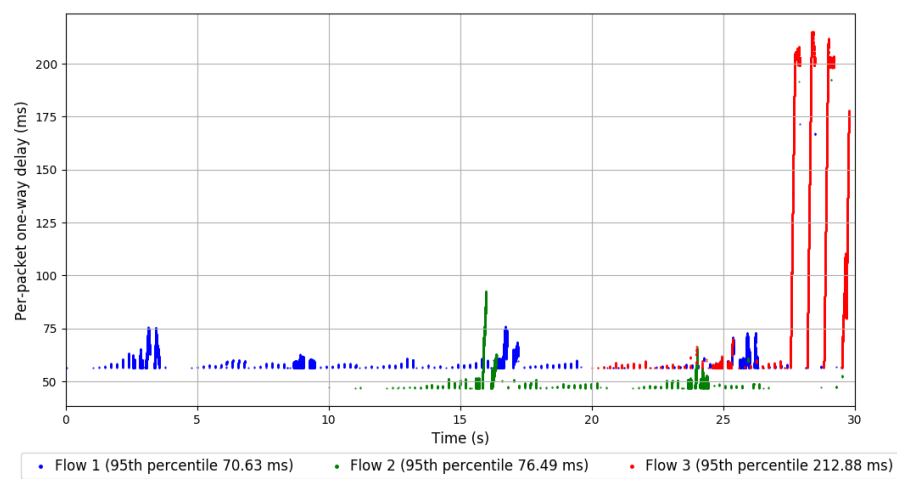
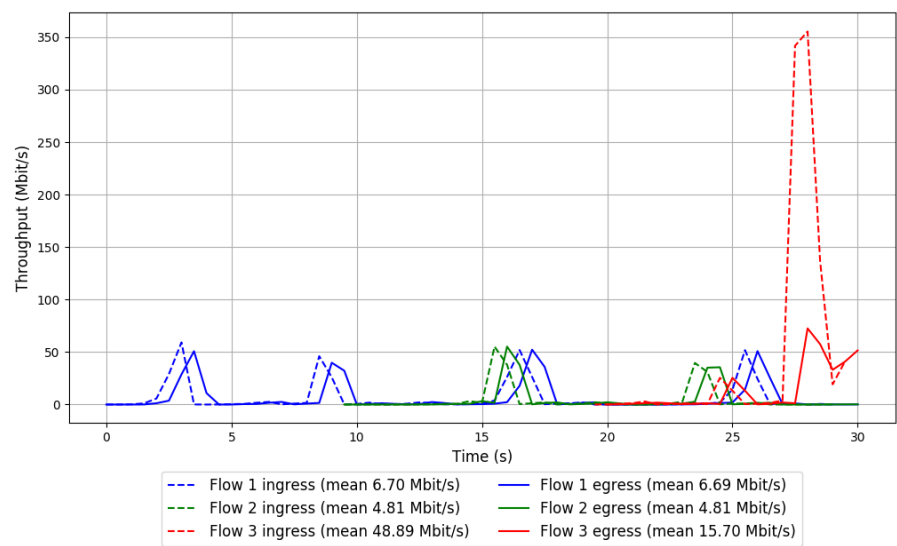


Run 5: Statistics of Verus

Start at: 2019-01-21 17:36:41
End at: 2019-01-21 17:37:11
Local clock offset: 6.326 ms
Remote clock offset: 34.754 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 203.140 ms
Loss rate: 41.95%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 70.626 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 4.81 Mbit/s
95th percentile per-packet one-way delay: 76.487 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.70 Mbit/s
95th percentile per-packet one-way delay: 212.883 ms
Loss rate: 67.66%

Run 5: Report of Verus — Data Link

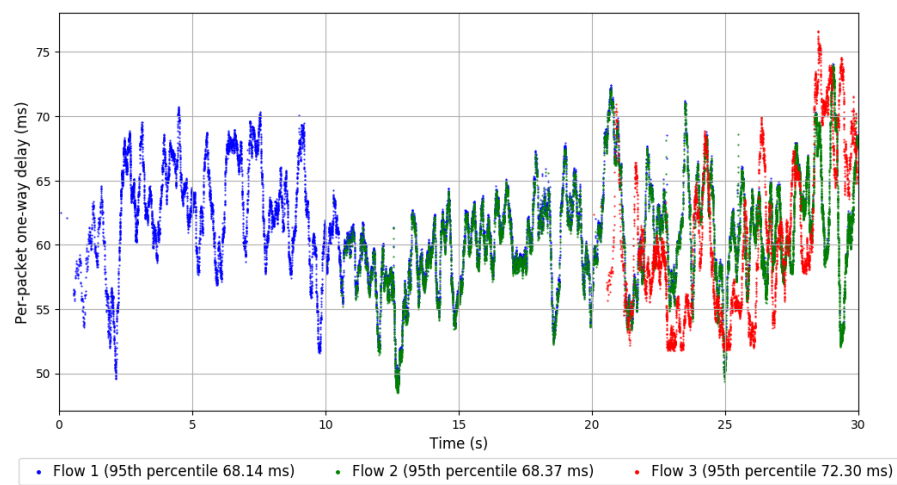
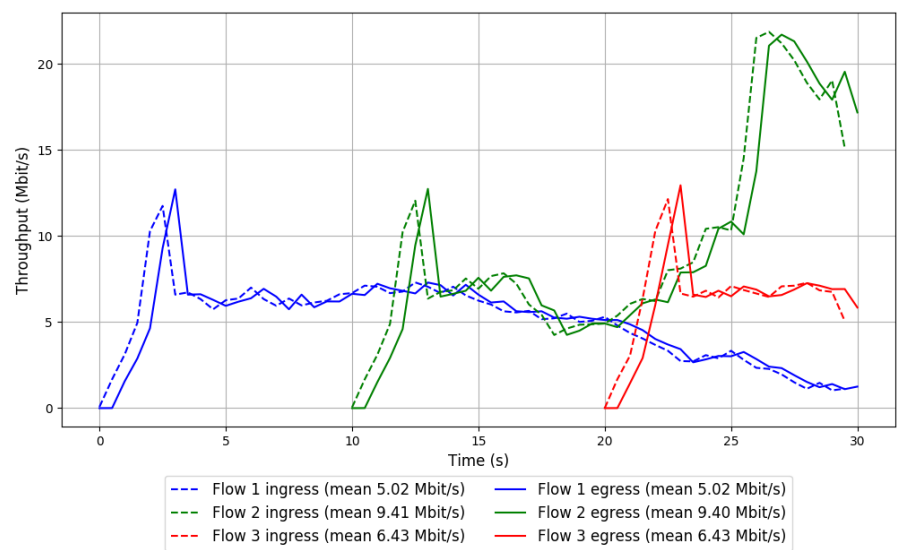


Run 1: Statistics of PCC-Vivace

Start at: 2019-01-21 11:28:41
End at: 2019-01-21 11:29:11
Local clock offset: 13.849 ms
Remote clock offset: 50.244 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.40 Mbit/s
95th percentile per-packet one-way delay: 68.796 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 68.139 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 9.40 Mbit/s
95th percentile per-packet one-way delay: 68.371 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 72.299 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

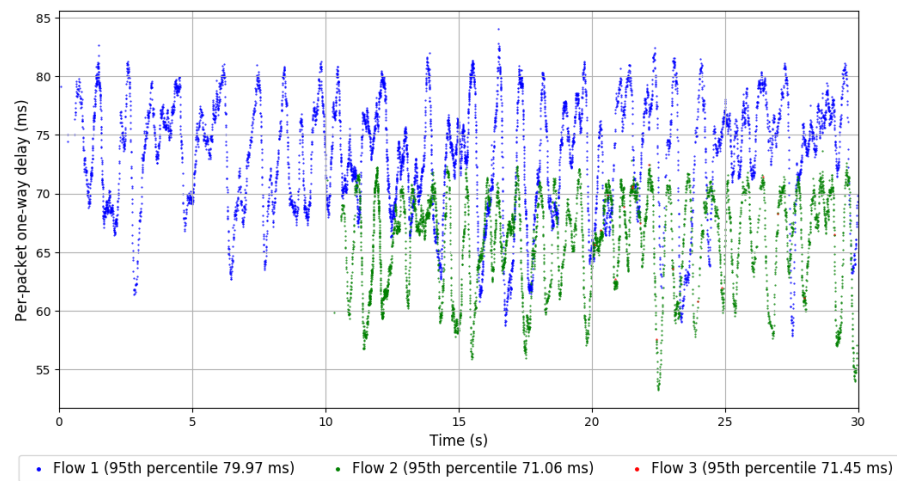
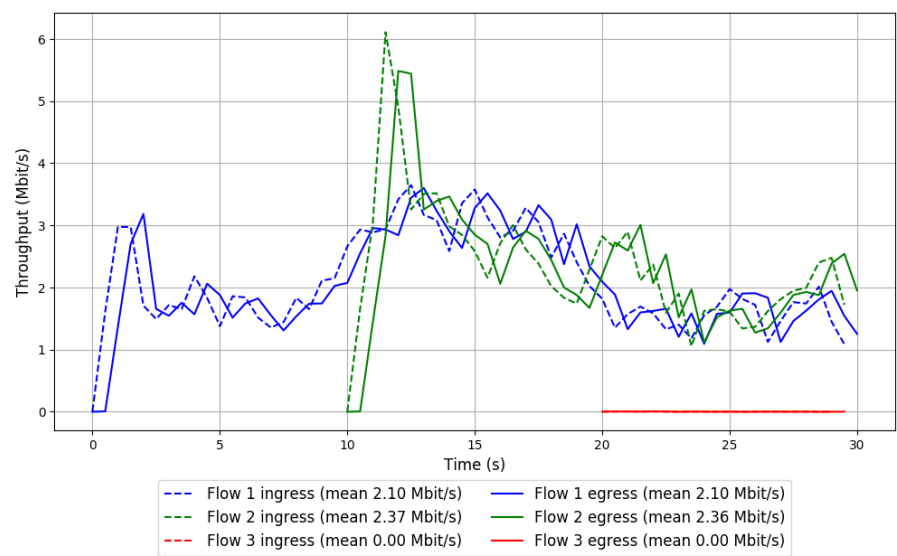


Run 2: Statistics of PCC-Vivace

Start at: 2019-01-21 12:56:13
End at: 2019-01-21 12:56:43
Local clock offset: 14.284 ms
Remote clock offset: 25.458 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 79.432 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 79.966 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 71.064 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 71.455 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

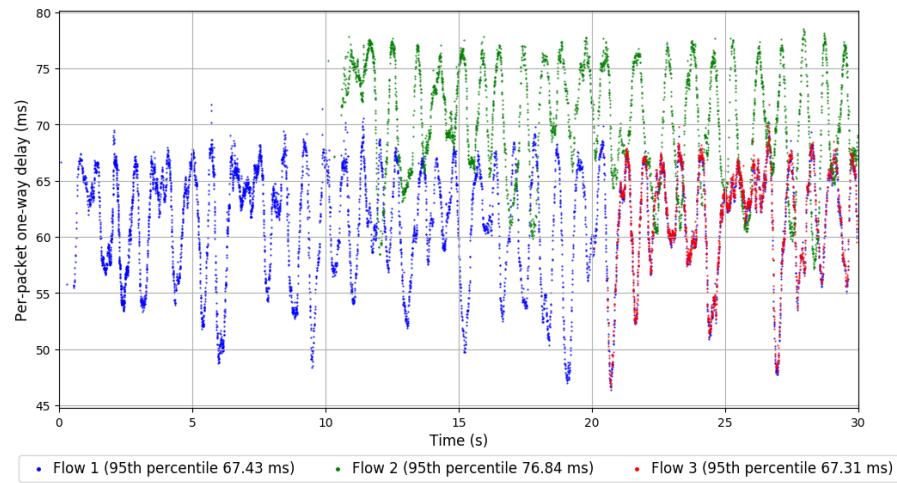
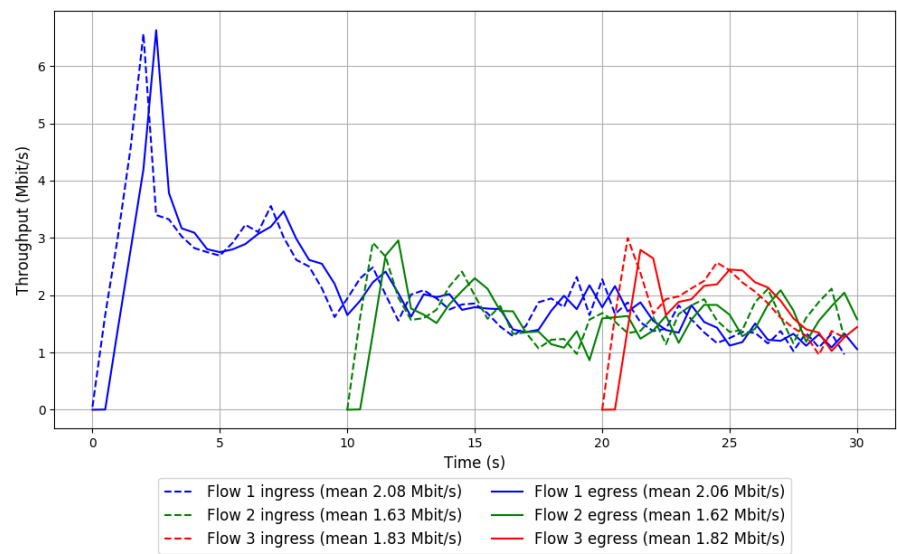


Run 3: Statistics of PCC-Vivace

Start at: 2019-01-21 14:29:48
End at: 2019-01-21 14:30:18
Local clock offset: 1.542 ms
Remote clock offset: 47.999 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 75.741 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 67.429 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 76.837 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 67.310 ms
Loss rate: 0.40%

Run 3: Report of PCC-Vivace — Data Link

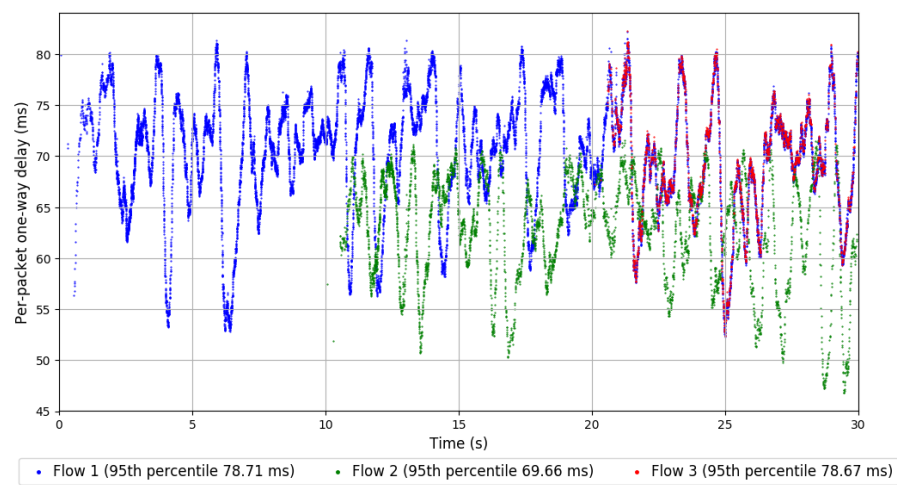
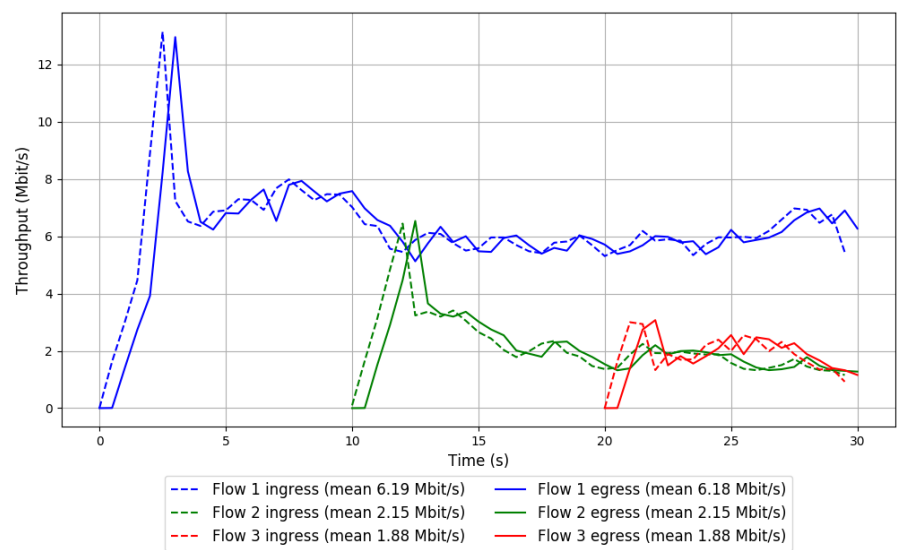


Run 4: Statistics of PCC-Vivace

Start at: 2019-01-21 15:58:53
End at: 2019-01-21 15:59:23
Local clock offset: 4.005 ms
Remote clock offset: 48.475 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 78.461 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 6.18 Mbit/s
95th percentile per-packet one-way delay: 78.711 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 69.662 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 78.674 ms
Loss rate: 0.13%

Run 4: Report of PCC-Vivace — Data Link

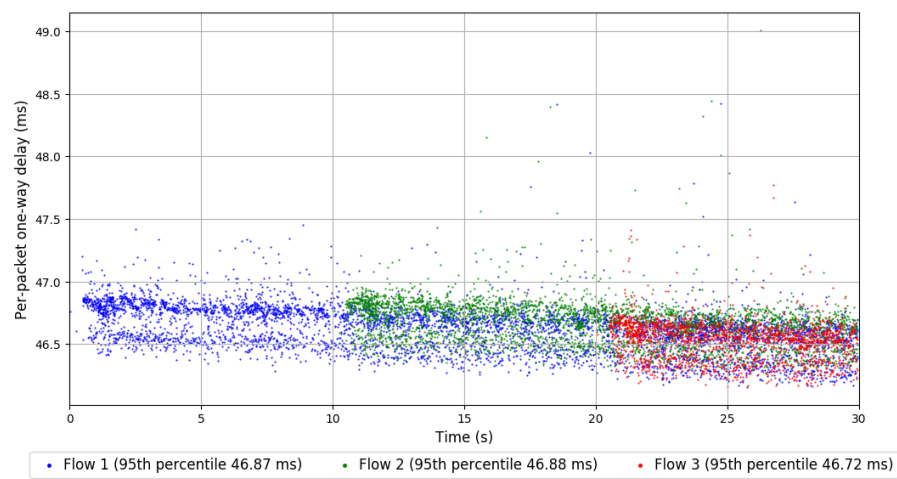
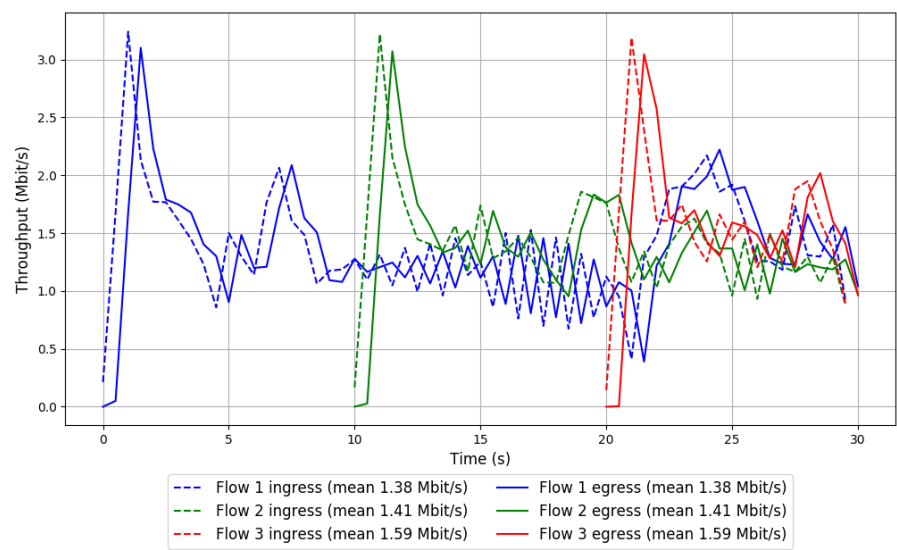


Run 5: Statistics of PCC-Vivace

Start at: 2019-01-21 17:59:04
End at: 2019-01-21 17:59:34
Local clock offset: 2.297 ms
Remote clock offset: 40.464 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 46.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 46.869 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 46.883 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 46.717 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

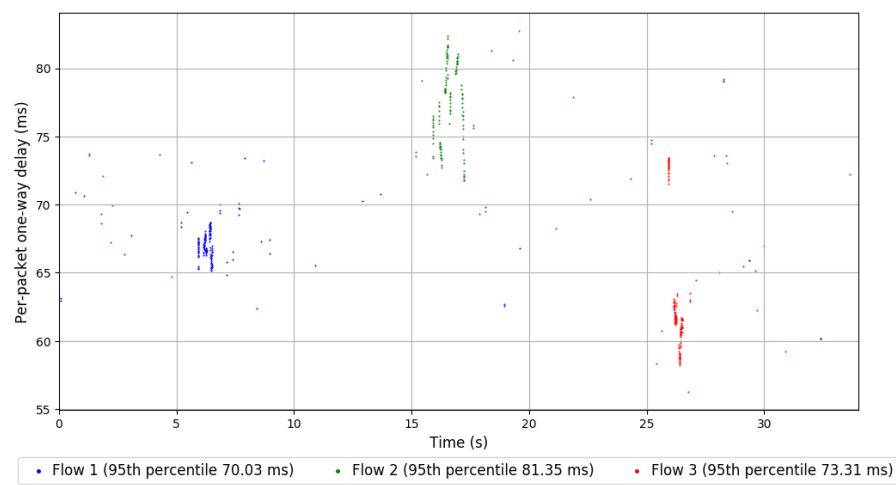
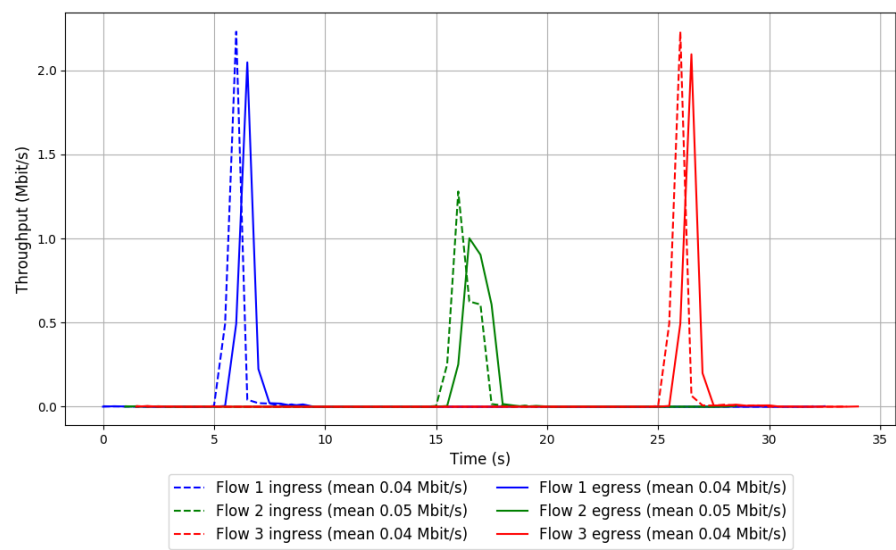


Run 1: Statistics of WebRTC media

Start at: 2019-01-21 12:26:04
End at: 2019-01-21 12:26:34
Local clock offset: 6.624 ms
Remote clock offset: 53.869 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 80.549 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 70.026 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 81.350 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 73.308 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

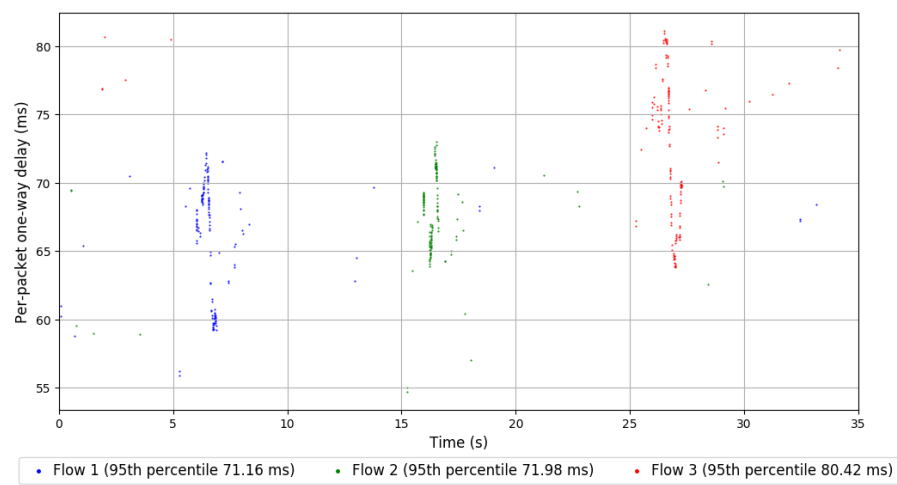
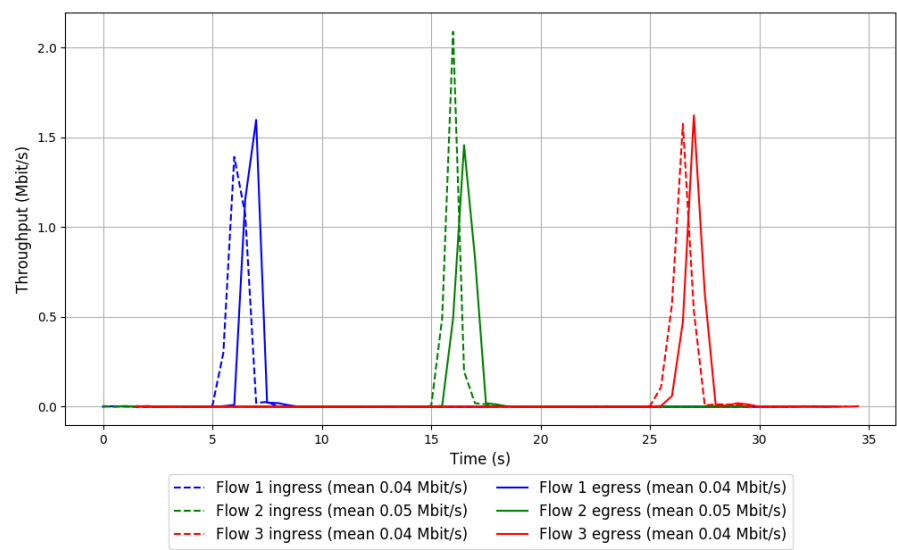


Run 2: Statistics of WebRTC media

Start at: 2019-01-21 13:59:34
End at: 2019-01-21 14:00:04
Local clock offset: 5.944 ms
Remote clock offset: 51.295 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 78.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 71.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 71.976 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 80.417 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

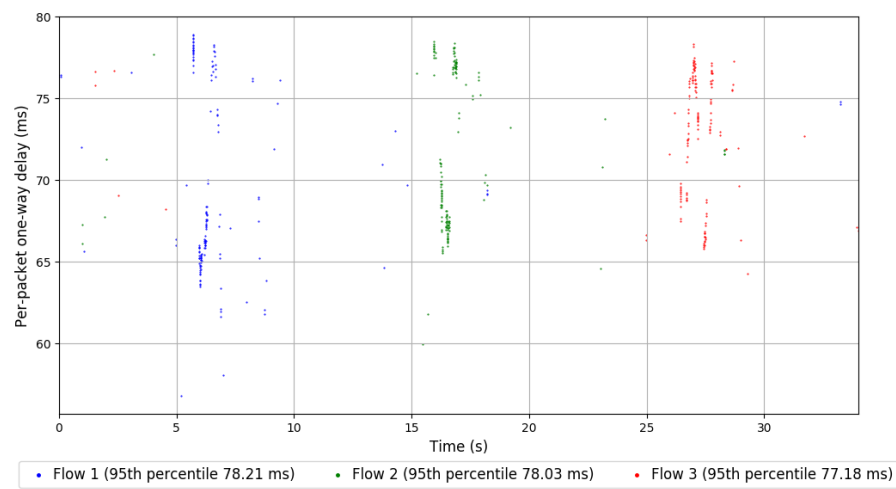
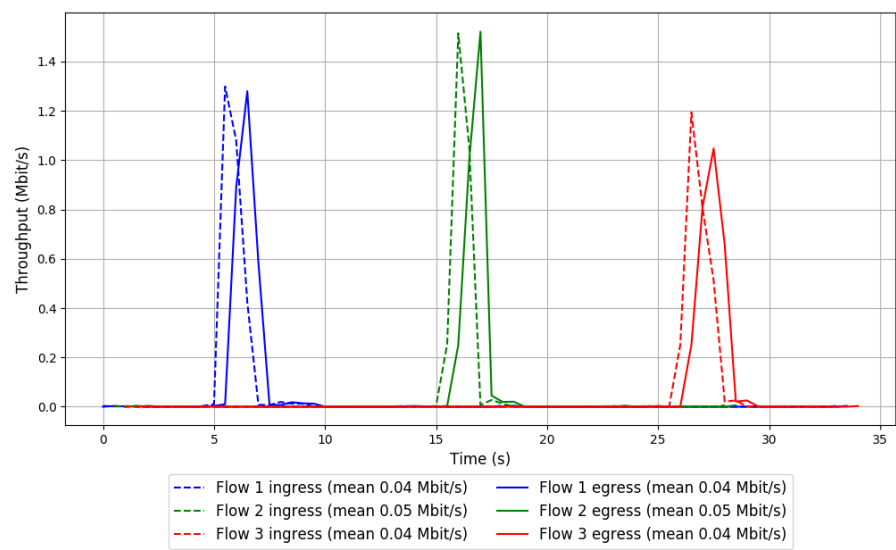


Run 3: Statistics of WebRTC media

Start at: 2019-01-21 15:22:18
End at: 2019-01-21 15:22:48
Local clock offset: 7.046 ms
Remote clock offset: 45.934 ms

Below is generated by plot.py at 2019-01-21 19:17:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 78.031 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 78.206 ms
Loss rate: 1.66%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 78.031 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 77.176 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

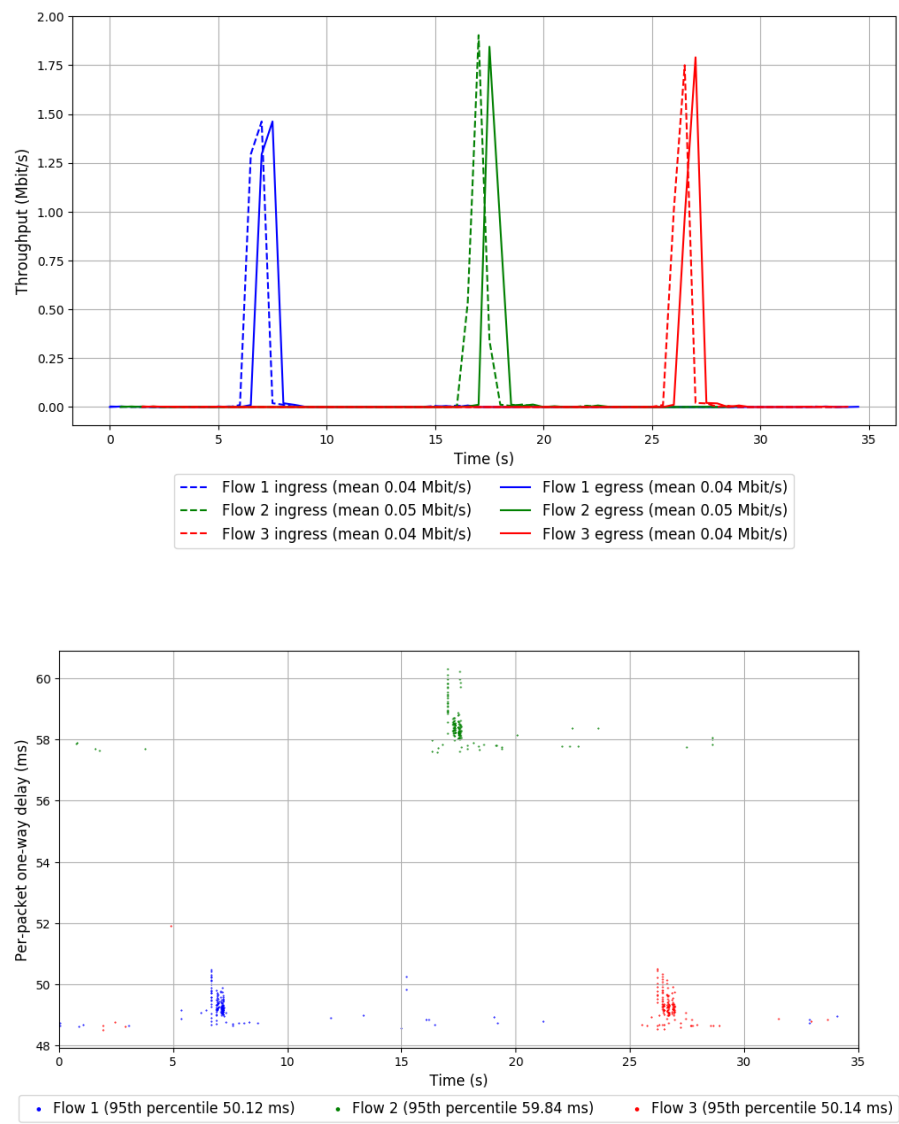


Run 4: Statistics of WebRTC media

Start at: 2019-01-21 17:05:56
End at: 2019-01-21 17:06:26
Local clock offset: 20.772 ms
Remote clock offset: 57.569 ms

```
# Below is generated by plot.py at 2019-01-21 19:17:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 58.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 50.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 59.836 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 50.137 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-01-21 19:07:29

End at: 2019-01-21 19:07:59

Local clock offset: 0.867 ms

Remote clock offset: 7.982 ms

Below is generated by plot.py at 2019-01-21 19:17:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 57.383 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 50.018 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 49.140 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 58.116 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

