

Pantheon Report

Generated at 2019-02-20 13:33:33 (UTC).

Data path: Stanford on `eno1` (*remote*) → AWS California 1 on `ens5` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

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

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.

System info:

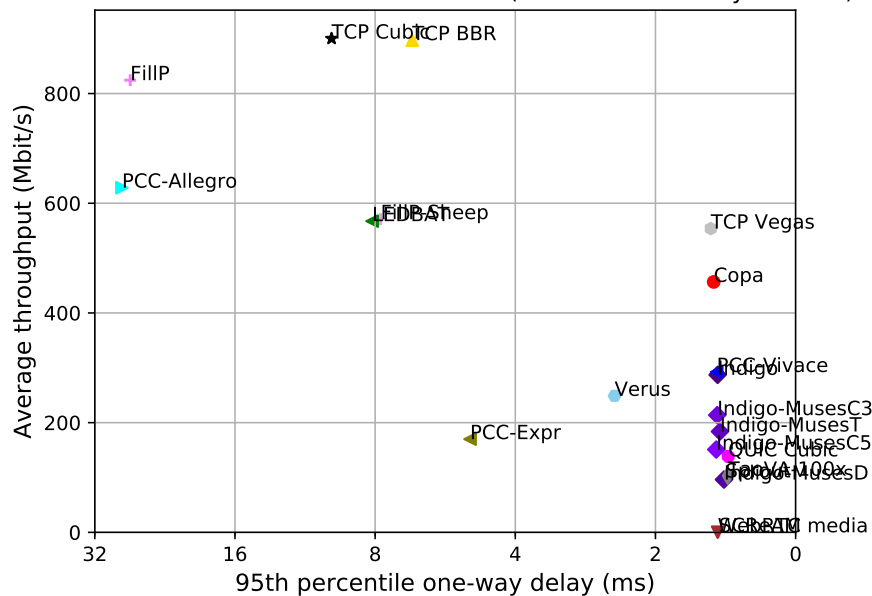
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

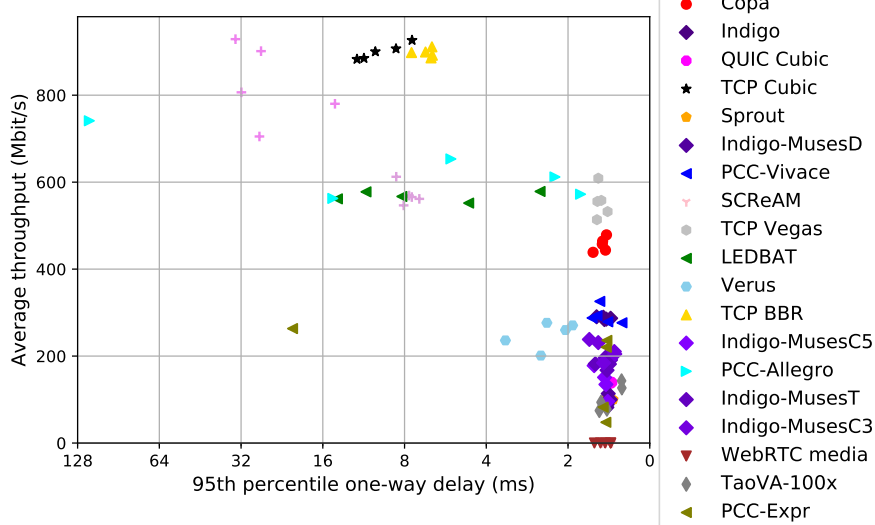
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d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

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

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	518.37	404.92	328.44	6.73	5.89	6.30	0.02	0.03	0.07
Copa	5	266.86	227.89	114.30	1.20	1.13	1.08	0.00	0.01	0.03
TCP Cubic	5	525.02	402.53	321.76	10.25	7.76	7.96	0.02	0.03	0.08
FillP	5	501.62	349.95	271.76	23.45	22.93	30.18	0.05	0.09	0.31
FillP-Sheep	5	421.48	206.24	37.99	8.19	5.24	3.43	0.00	0.00	0.00
Indigo	5	152.99	141.99	120.95	1.05	1.11	1.29	0.00	0.01	0.02
Indigo-MusesC3	5	149.92	84.19	41.06	1.09	1.17	1.04	0.01	0.01	0.03
Indigo-MusesC5	5	104.63	56.40	38.97	1.13	1.12	1.09	0.00	0.01	0.01
Indigo-MusesD	5	55.34	46.51	41.93	1.03	1.00	1.01	0.00	0.01	0.02
Indigo-MusesT	5	137.85	57.20	37.11	1.08	1.09	1.05	0.00	0.00	0.03
LEDBAT	5	347.42	244.19	172.91	8.91	2.97	1.78	0.00	0.00	0.02
PCC-Allegro	5	482.48	164.29	111.65	29.75	1.87	1.67	0.02	0.01	0.03
PCC-Expr	5	137.21	36.73	25.23	4.97	1.11	1.03	0.00	0.01	0.03
QUIC Cubic	5	75.12	68.04	54.54	0.96	0.97	0.95	0.00	0.01	0.02
SCReAM	5	0.22	0.22	0.22	1.10	1.08	1.06	0.00	0.04	0.07
Sprout	5	50.23	50.15	49.97	1.01	0.99	1.00	0.01	0.00	0.00
TaoVA-100x	5	66.18	42.50	26.25	0.96	0.97	0.96	0.00	0.01	0.01
TCP Vegas	5	275.37	281.16	273.72	1.20	1.30	1.21	0.01	0.01	0.02
Verus	5	148.35	110.51	81.64	2.66	1.83	1.48	0.00	0.01	0.00
PCC-Vivace	5	194.85	112.11	69.52	1.08	1.22	1.24	0.00	0.00	0.01
WebRTC media	5	0.05	0.05	0.05	1.16	1.17	1.09	0.00	0.04	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-02-20 10:14:41

End at: 2019-02-20 10:15:11

Local clock offset: -2.653 ms

Remote clock offset: 2.328 ms

Below is generated by plot.py at 2019-02-20 12:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 911.22 Mbit/s

95th percentile per-packet one-way delay: 6.342 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 532.41 Mbit/s

95th percentile per-packet one-way delay: 6.445 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 404.84 Mbit/s

95th percentile per-packet one-way delay: 5.706 ms

Loss rate: 0.03%

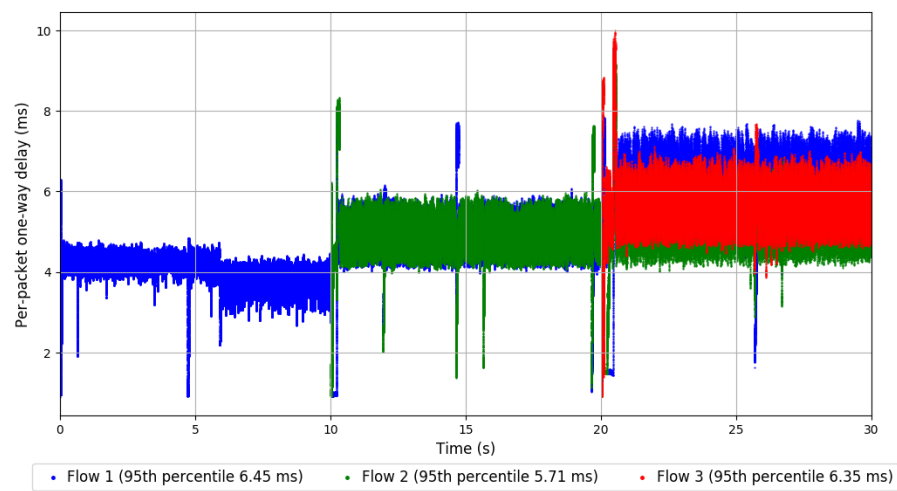
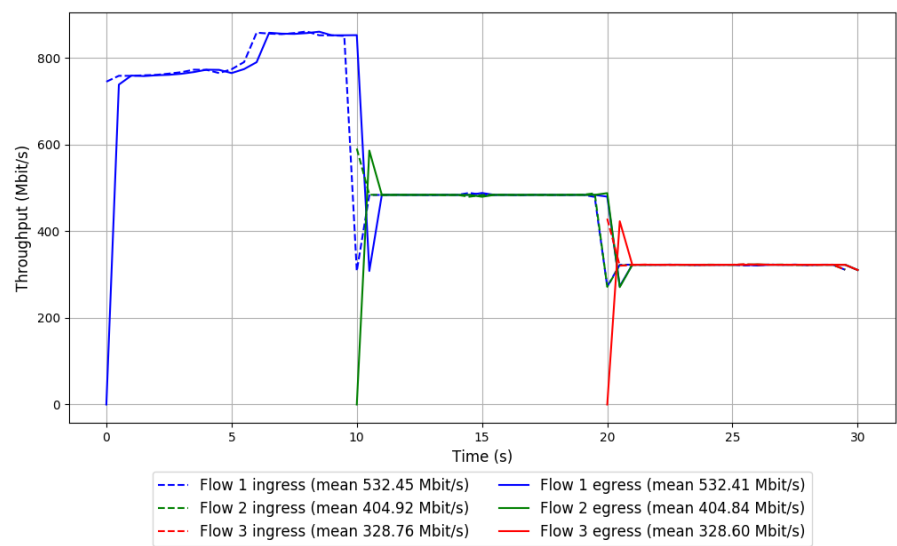
-- Flow 3:

Average throughput: 328.60 Mbit/s

95th percentile per-packet one-way delay: 6.349 ms

Loss rate: 0.07%

Run 1: Report of TCP BBR — Data Link

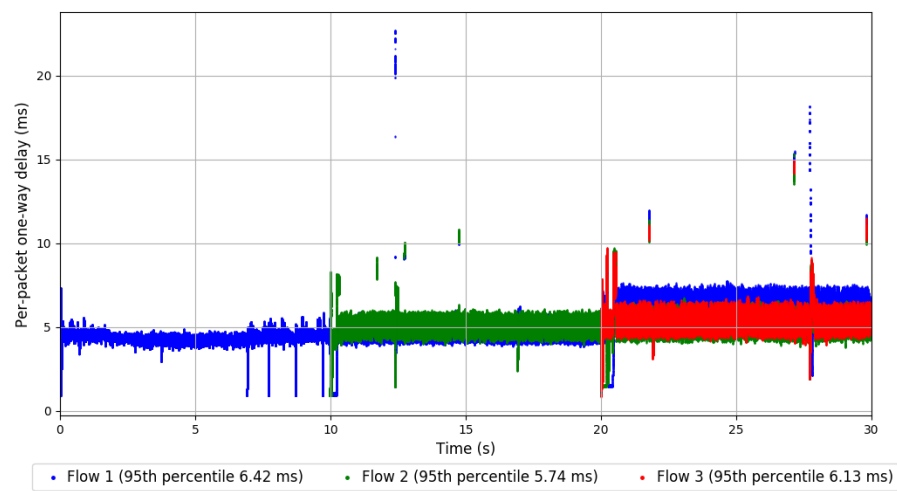
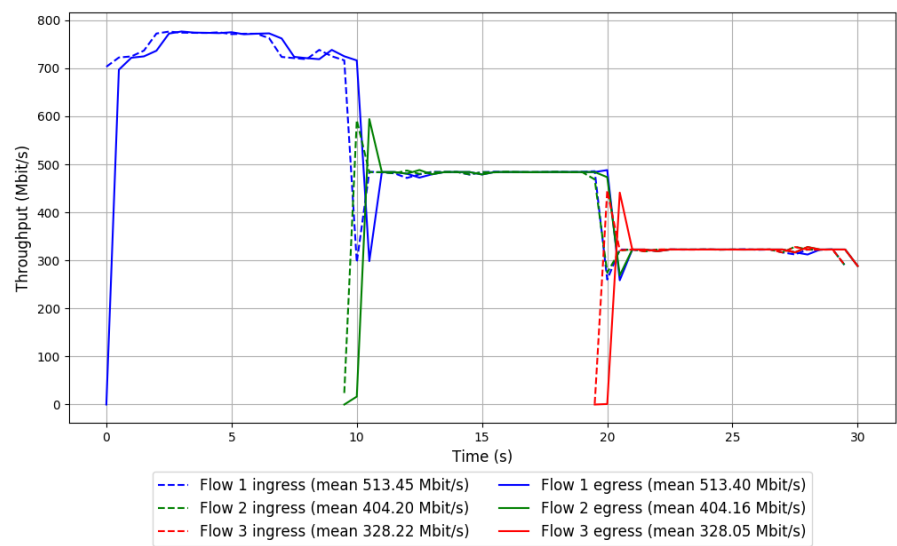


Run 2: Statistics of TCP BBR

Start at: 2019-02-20 10:45:09
End at: 2019-02-20 10:45:39
Local clock offset: -0.313 ms
Remote clock offset: -0.178 ms

Below is generated by plot.py at 2019-02-20 12:43:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 892.03 Mbit/s
95th percentile per-packet one-way delay: 6.319 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 513.40 Mbit/s
95th percentile per-packet one-way delay: 6.423 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 404.16 Mbit/s
95th percentile per-packet one-way delay: 5.738 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 328.05 Mbit/s
95th percentile per-packet one-way delay: 6.130 ms
Loss rate: 0.06%

Run 2: Report of TCP BBR — Data Link

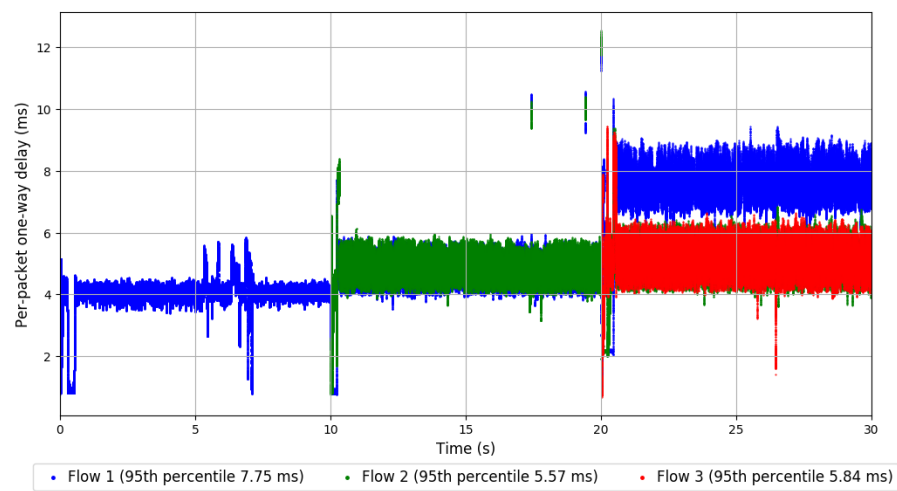
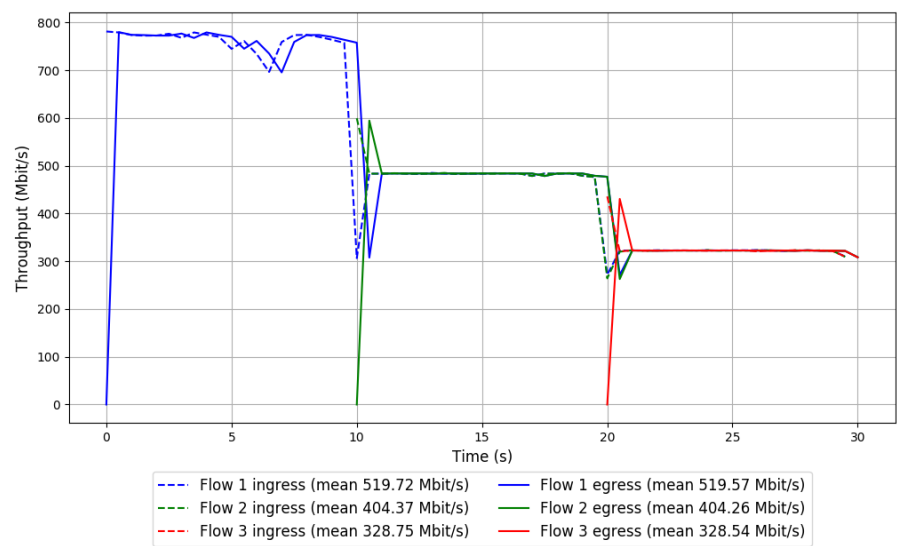


Run 3: Statistics of TCP BBR

Start at: 2019-02-20 11:15:19
End at: 2019-02-20 11:15:49
Local clock offset: 0.35 ms
Remote clock offset: -0.625 ms

Below is generated by plot.py at 2019-02-20 12:43:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 898.05 Mbit/s
95th percentile per-packet one-way delay: 7.540 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 519.57 Mbit/s
95th percentile per-packet one-way delay: 7.746 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 404.26 Mbit/s
95th percentile per-packet one-way delay: 5.569 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 328.54 Mbit/s
95th percentile per-packet one-way delay: 5.845 ms
Loss rate: 0.08%

Run 3: Report of TCP BBR — Data Link

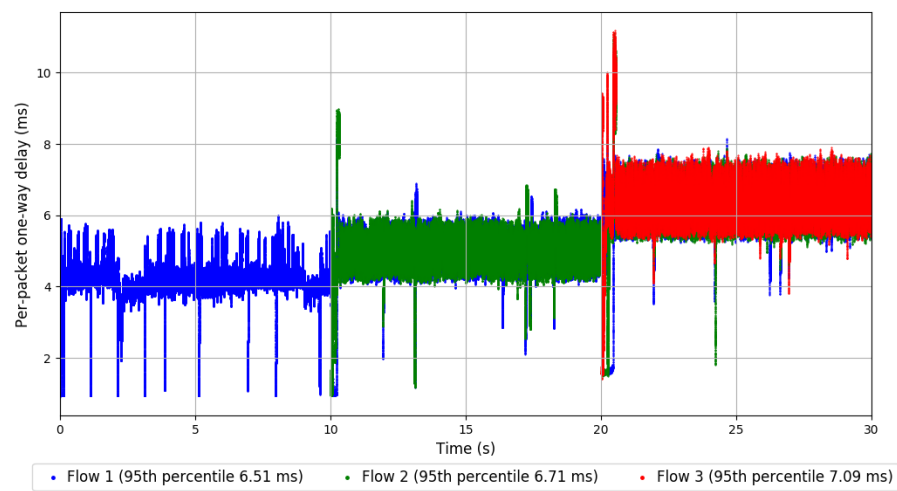
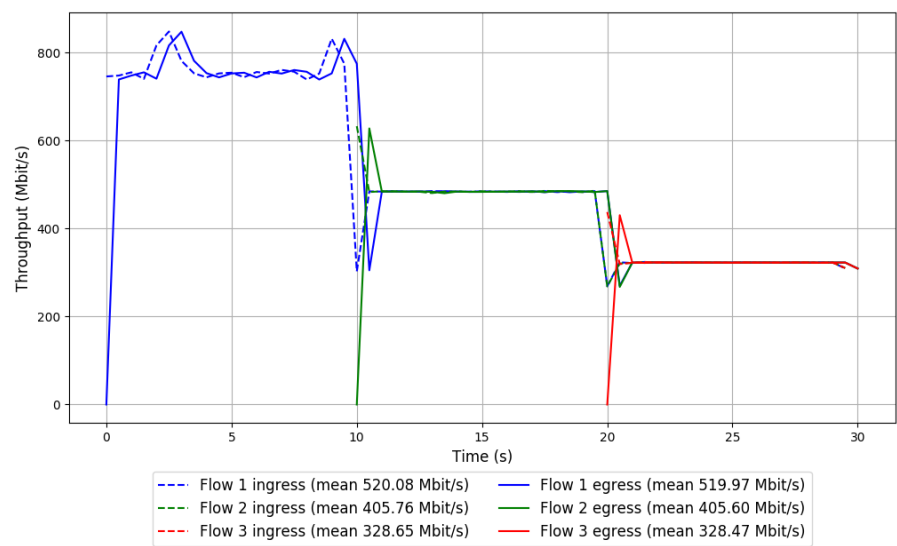


Run 4: Statistics of TCP BBR

Start at: 2019-02-20 11:45:50
End at: 2019-02-20 11:46:20
Local clock offset: -2.759 ms
Remote clock offset: -4.082 ms

Below is generated by plot.py at 2019-02-20 12:43:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 899.38 Mbit/s
95th percentile per-packet one-way delay: 6.697 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 519.97 Mbit/s
95th percentile per-packet one-way delay: 6.513 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 405.60 Mbit/s
95th percentile per-packet one-way delay: 6.713 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 328.47 Mbit/s
95th percentile per-packet one-way delay: 7.086 ms
Loss rate: 0.08%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-02-20 12:16:29

End at: 2019-02-20 12:16:59

Local clock offset: -0.085 ms

Remote clock offset: 5.764 ms

Below is generated by plot.py at 2019-02-20 12:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 885.83 Mbit/s

95th percentile per-packet one-way delay: 6.391 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 506.49 Mbit/s

95th percentile per-packet one-way delay: 6.512 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 405.73 Mbit/s

95th percentile per-packet one-way delay: 5.740 ms

Loss rate: 0.02%

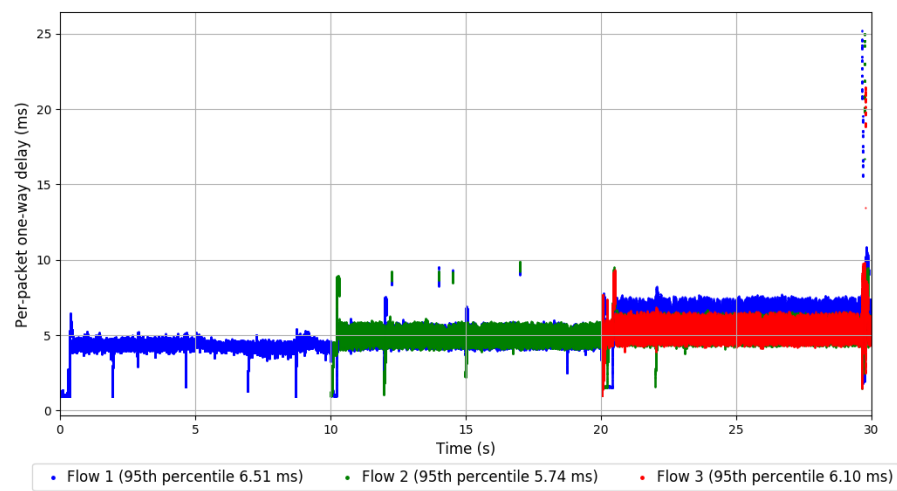
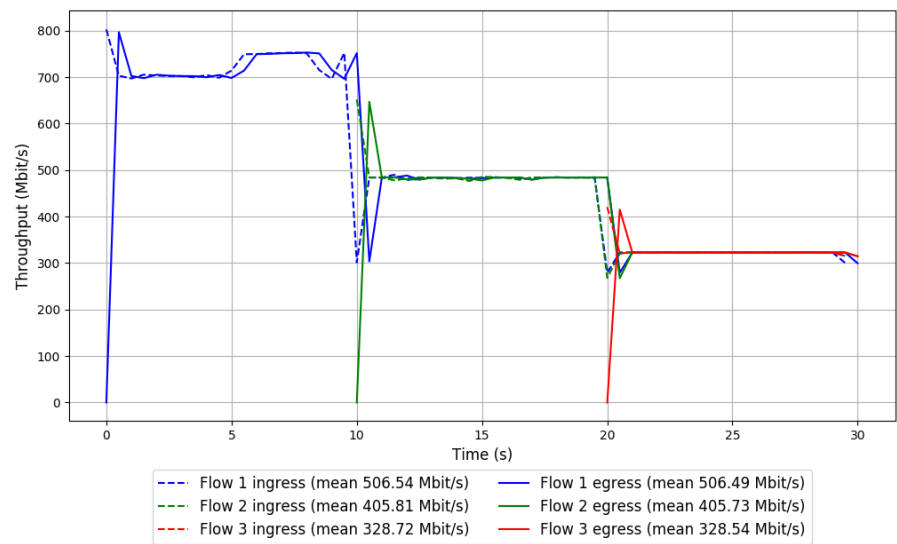
-- Flow 3:

Average throughput: 328.54 Mbit/s

95th percentile per-packet one-way delay: 6.100 ms

Loss rate: 0.06%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-02-20 10:22:17

End at: 2019-02-20 10:22:47

Local clock offset: -3.314 ms

Remote clock offset: 1.014 ms

Below is generated by plot.py at 2019-02-20 12:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 443.68 Mbit/s

95th percentile per-packet one-way delay: 1.084 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 259.99 Mbit/s

95th percentile per-packet one-way delay: 1.168 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.22 Mbit/s

95th percentile per-packet one-way delay: 0.990 ms

Loss rate: 0.01%

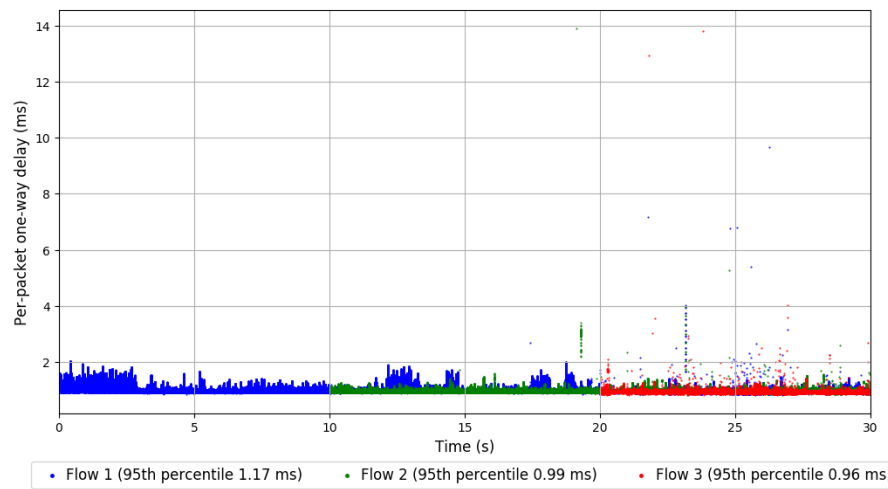
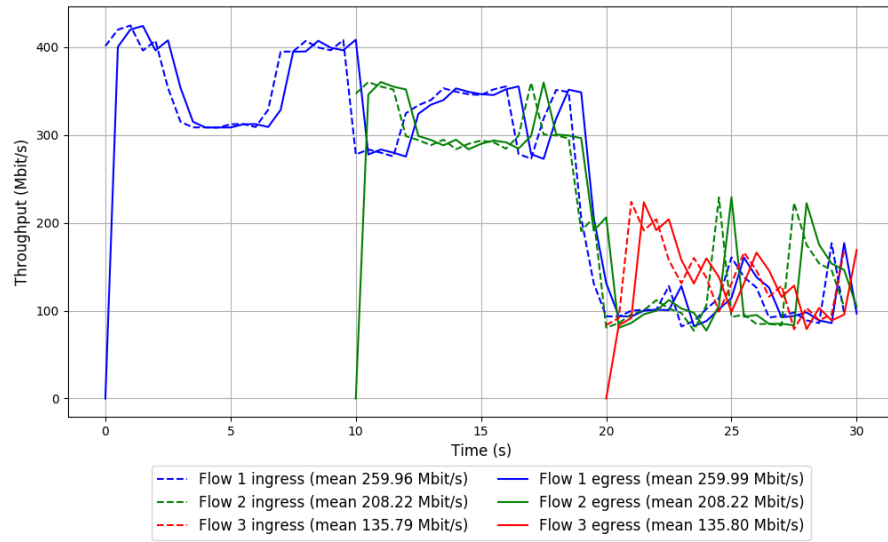
-- Flow 3:

Average throughput: 135.80 Mbit/s

95th percentile per-packet one-way delay: 0.965 ms

Loss rate: 0.01%

Run 1: Report of Copa — Data Link

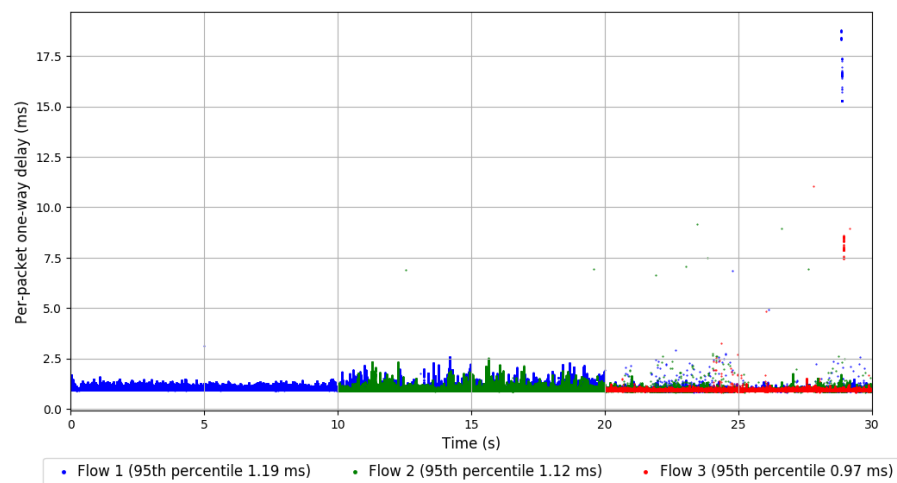
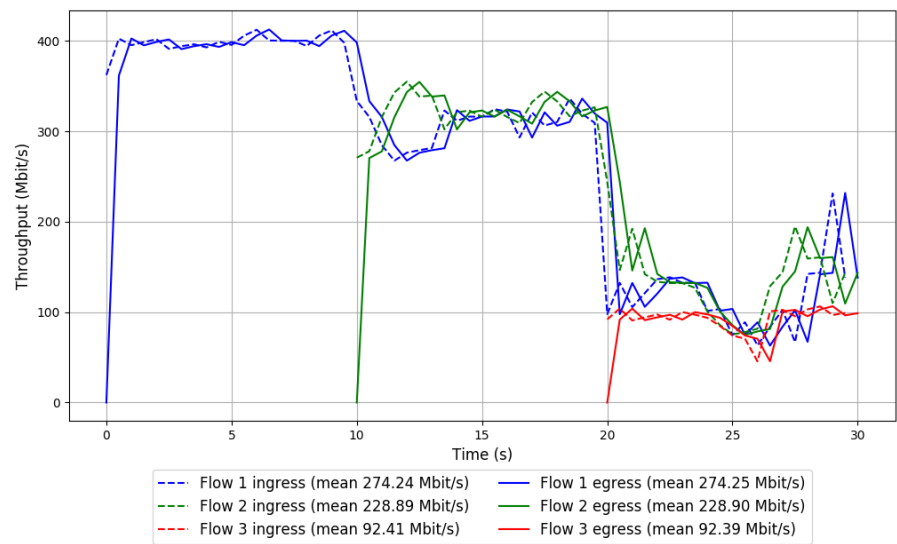


Run 2: Statistics of Copa

Start at: 2019-02-20 10:52:41
End at: 2019-02-20 10:53:11
Local clock offset: 0.175 ms
Remote clock offset: -0.214 ms

Below is generated by plot.py at 2019-02-20 12:43:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 457.35 Mbit/s
95th percentile per-packet one-way delay: 1.161 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 274.25 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 228.90 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 92.39 Mbit/s
95th percentile per-packet one-way delay: 0.975 ms
Loss rate: 0.03%

Run 2: Report of Copa — Data Link

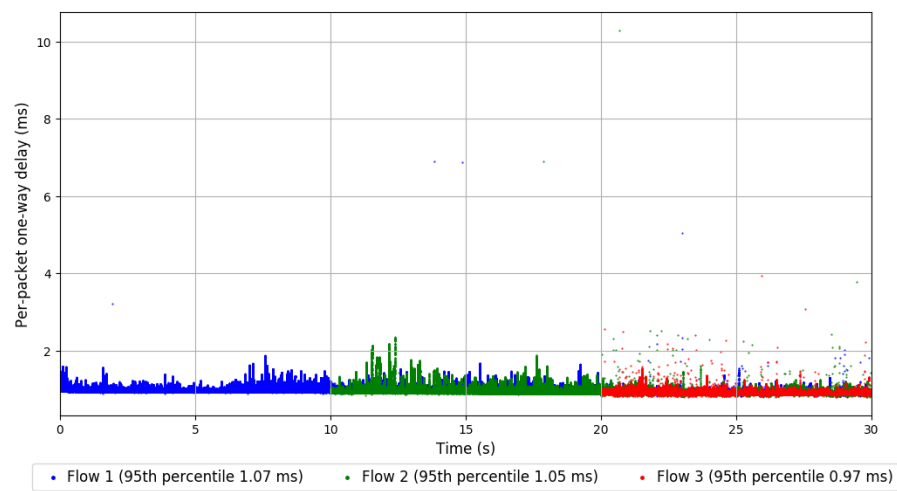
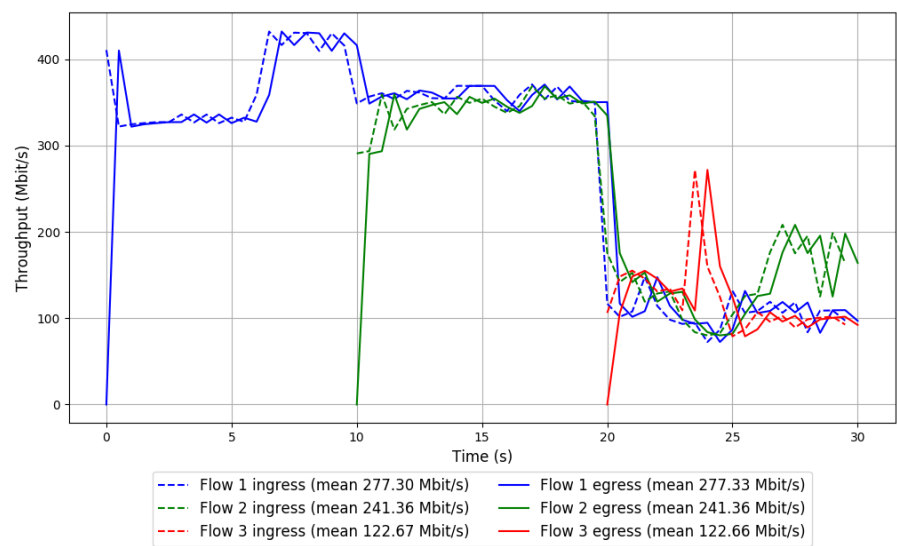


Run 3: Statistics of Copa

Start at: 2019-02-20 11:23:01
End at: 2019-02-20 11:23:31
Local clock offset: 0.41 ms
Remote clock offset: -2.266 ms

Below is generated by plot.py at 2019-02-20 12:43:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 478.77 Mbit/s
95th percentile per-packet one-way delay: 1.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 277.33 Mbit/s
95th percentile per-packet one-way delay: 1.074 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.36 Mbit/s
95th percentile per-packet one-way delay: 1.046 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 122.66 Mbit/s
95th percentile per-packet one-way delay: 0.968 ms
Loss rate: 0.03%

Run 3: Report of Copa — Data Link

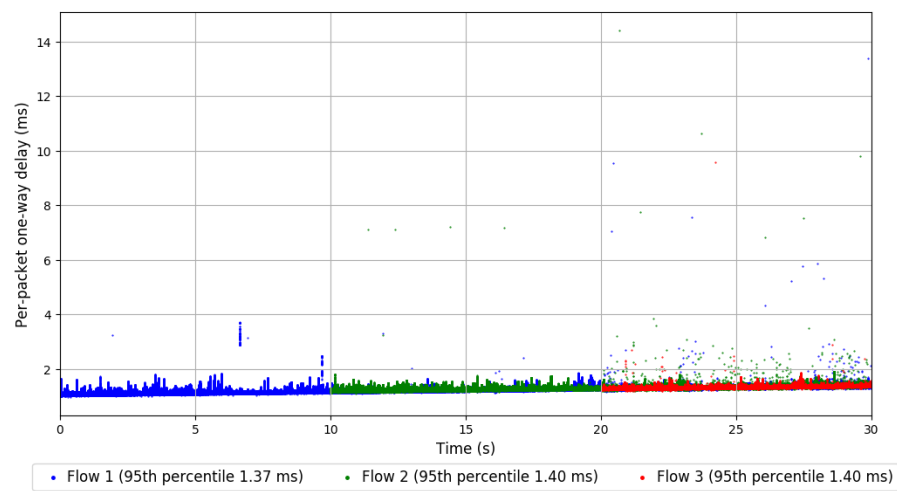
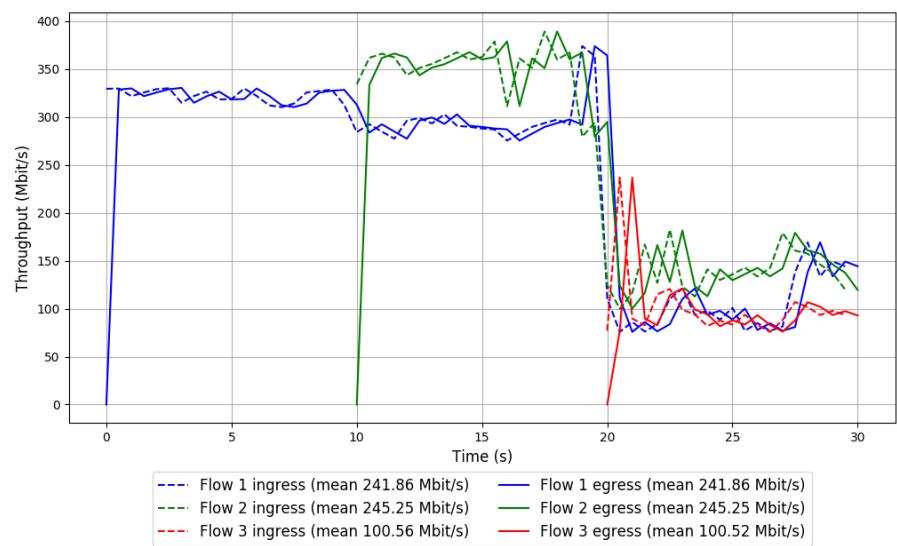


Run 4: Statistics of Copa

Start at: 2019-02-20 11:53:30
End at: 2019-02-20 11:54:00
Local clock offset: -3.305 ms
Remote clock offset: -0.795 ms

Below is generated by plot.py at 2019-02-20 12:52:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 438.62 Mbit/s
95th percentile per-packet one-way delay: 1.387 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 241.86 Mbit/s
95th percentile per-packet one-way delay: 1.370 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 245.25 Mbit/s
95th percentile per-packet one-way delay: 1.399 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 100.52 Mbit/s
95th percentile per-packet one-way delay: 1.398 ms
Loss rate: 0.05%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-02-20 12:24:04

End at: 2019-02-20 12:24:34

Local clock offset: 0.381 ms

Remote clock offset: 6.78 ms

Below is generated by plot.py at 2019-02-20 12:53:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 464.35 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 280.88 Mbit/s

95th percentile per-packet one-way delay: 1.201 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 215.70 Mbit/s

95th percentile per-packet one-way delay: 1.081 ms

Loss rate: 0.00%

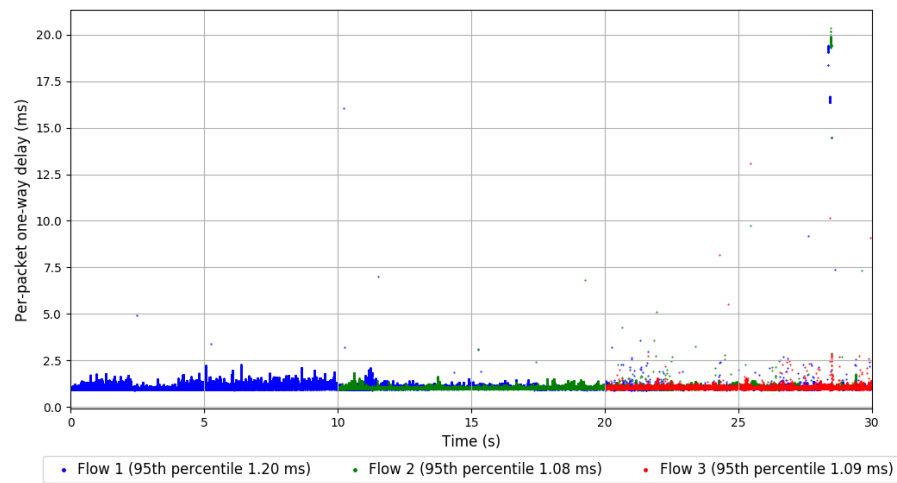
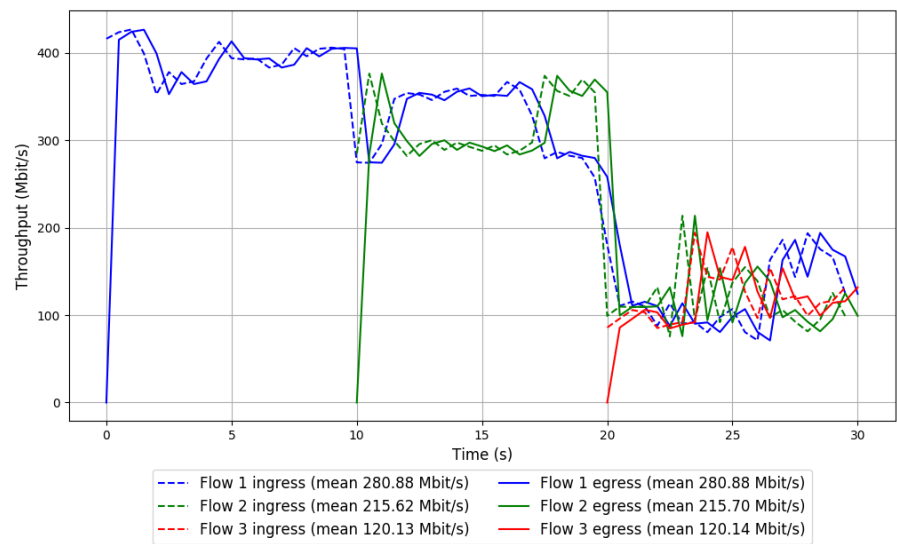
-- Flow 3:

Average throughput: 120.14 Mbit/s

95th percentile per-packet one-way delay: 1.091 ms

Loss rate: 0.01%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-02-20 09:53:51

End at: 2019-02-20 09:54:21

Local clock offset: 0.704 ms

Remote clock offset: 4.833 ms

Below is generated by plot.py at 2019-02-20 12:53:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 900.11 Mbit/s

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

Loss rate: 0.04%

-- Flow 1:

Average throughput: 522.89 Mbit/s

95th percentile per-packet one-way delay: 10.615 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 404.77 Mbit/s

95th percentile per-packet one-way delay: 7.634 ms

Loss rate: 0.04%

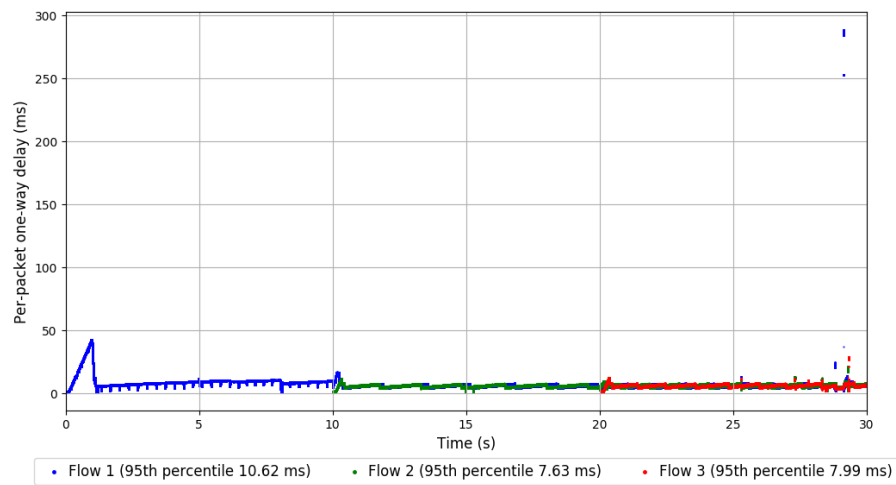
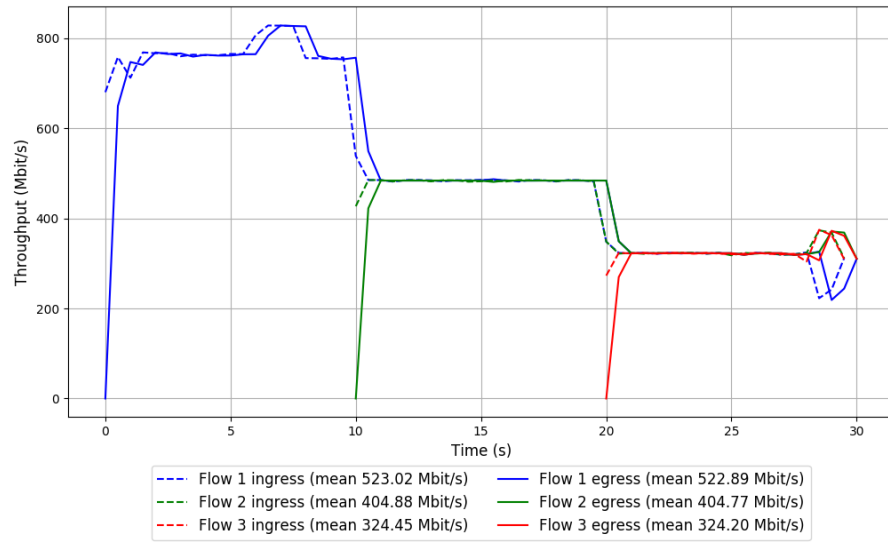
-- Flow 3:

Average throughput: 324.20 Mbit/s

95th percentile per-packet one-way delay: 7.990 ms

Loss rate: 0.08%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-02-20 10:23:59

End at: 2019-02-20 10:24:29

Local clock offset: -3.454 ms

Remote clock offset: 0.776 ms

Below is generated by plot.py at 2019-02-20 12:53:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 884.84 Mbit/s

95th percentile per-packet one-way delay: 11.289 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 510.25 Mbit/s

95th percentile per-packet one-way delay: 11.817 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 402.11 Mbit/s

95th percentile per-packet one-way delay: 7.849 ms

Loss rate: 0.03%

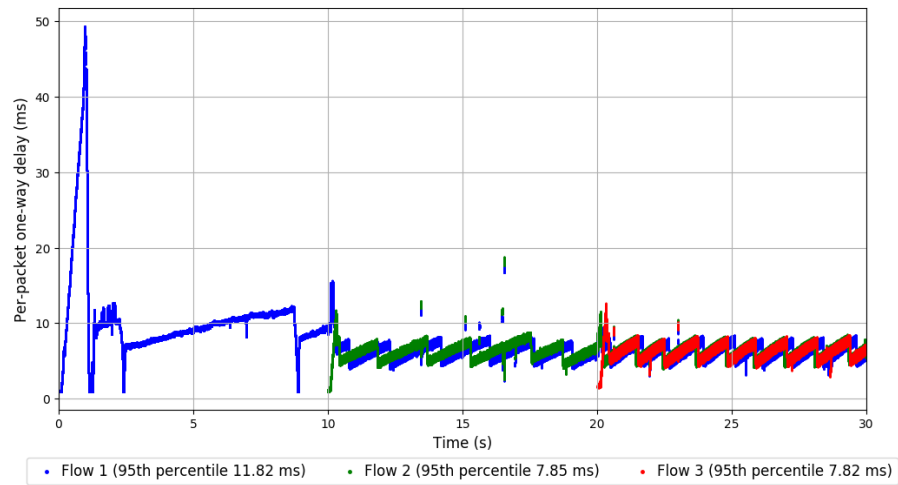
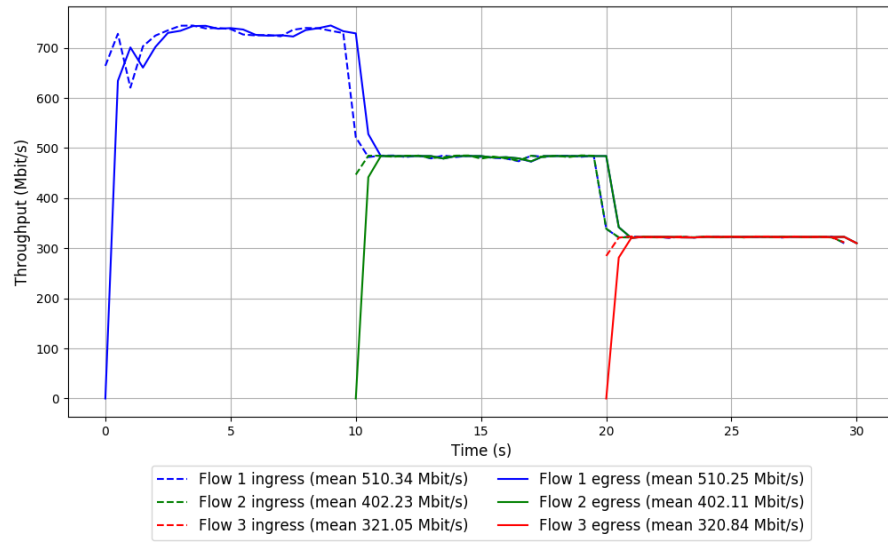
-- Flow 3:

Average throughput: 320.84 Mbit/s

95th percentile per-packet one-way delay: 7.820 ms

Loss rate: 0.08%

Run 2: Report of TCP Cubic — Data Link

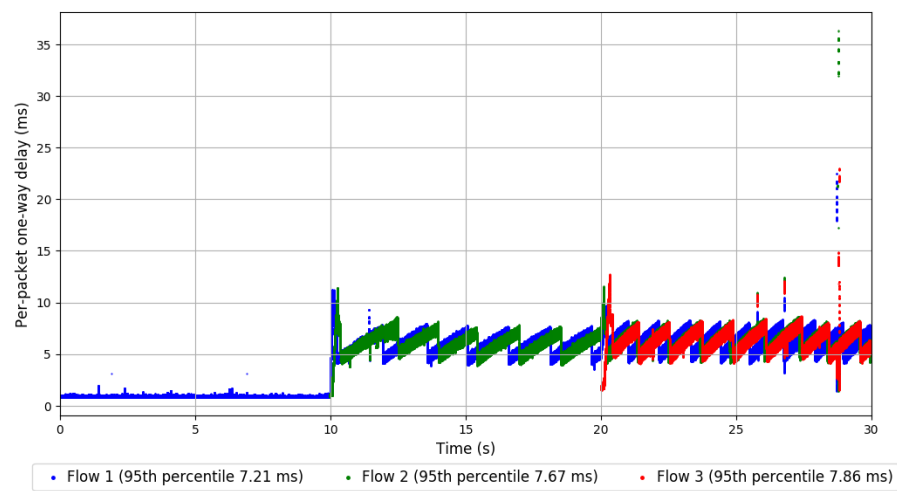
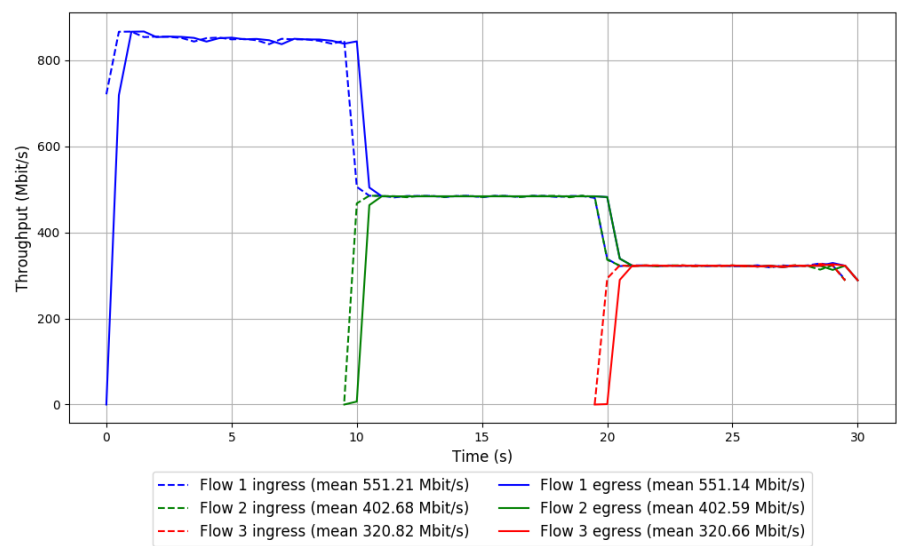


Run 3: Statistics of TCP Cubic

Start at: 2019-02-20 10:54:25
End at: 2019-02-20 10:54:55
Local clock offset: 0.246 ms
Remote clock offset: -0.148 ms

Below is generated by plot.py at 2019-02-20 12:53:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 926.32 Mbit/s
95th percentile per-packet one-way delay: 7.507 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 551.14 Mbit/s
95th percentile per-packet one-way delay: 7.206 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 402.59 Mbit/s
95th percentile per-packet one-way delay: 7.673 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 320.66 Mbit/s
95th percentile per-packet one-way delay: 7.856 ms
Loss rate: 0.07%

Run 3: Report of TCP Cubic — Data Link

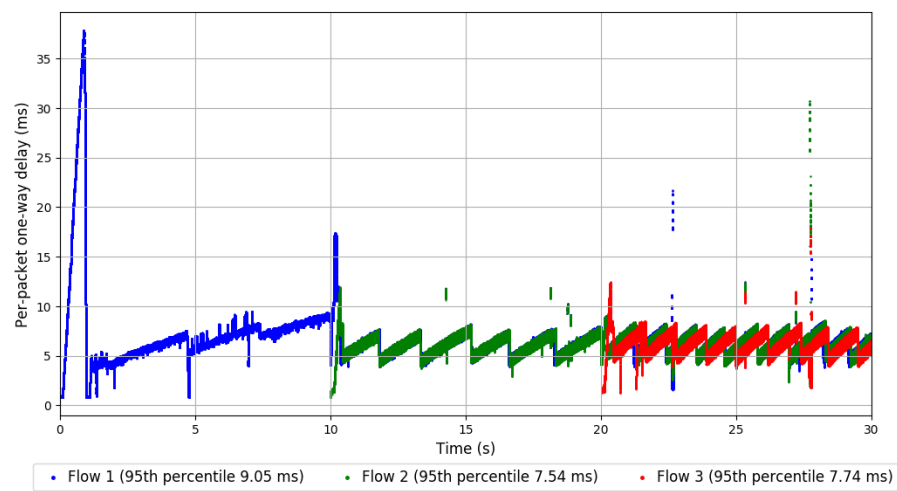
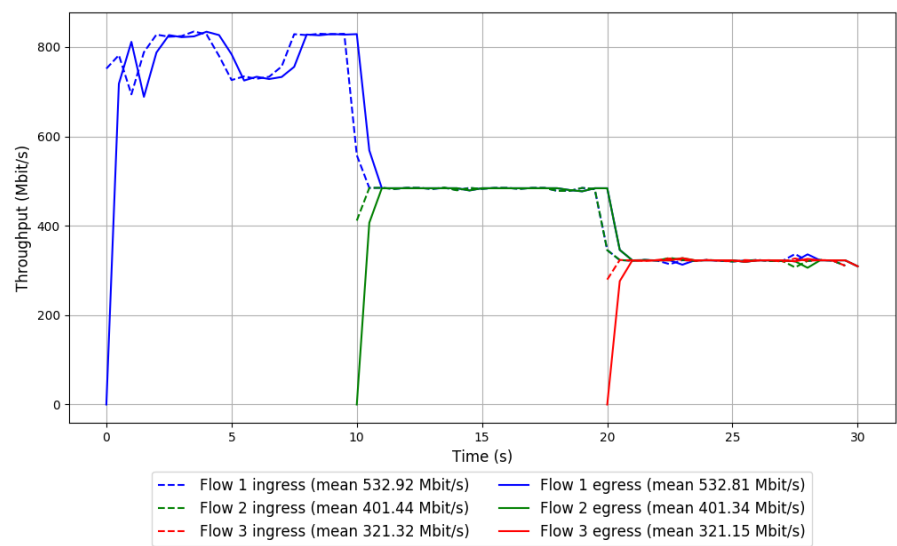


Run 4: Statistics of TCP Cubic

Start at: 2019-02-20 11:24:46
End at: 2019-02-20 11:25:16
Local clock offset: 0.431 ms
Remote clock offset: -2.397 ms

Below is generated by plot.py at 2019-02-20 12:53:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 906.86 Mbit/s
95th percentile per-packet one-way delay: 8.601 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 532.81 Mbit/s
95th percentile per-packet one-way delay: 9.052 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 401.34 Mbit/s
95th percentile per-packet one-way delay: 7.545 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 321.15 Mbit/s
95th percentile per-packet one-way delay: 7.738 ms
Loss rate: 0.07%

Run 4: Report of TCP Cubic — Data Link

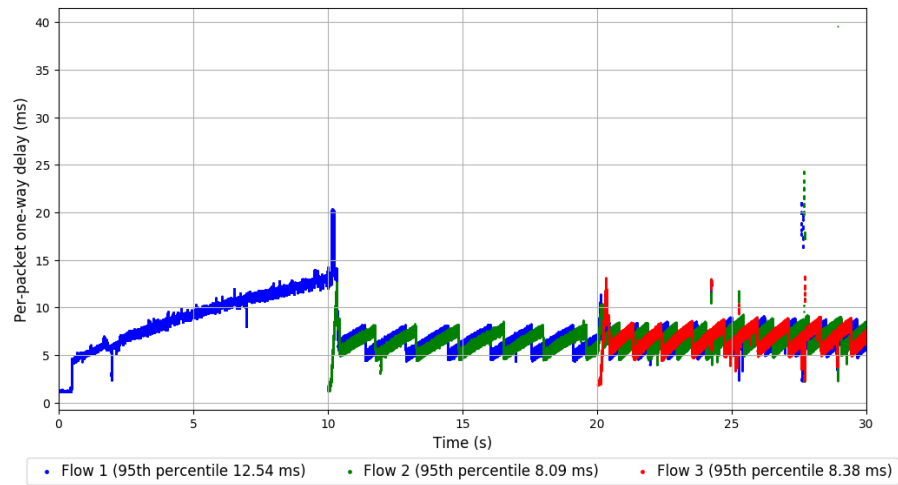
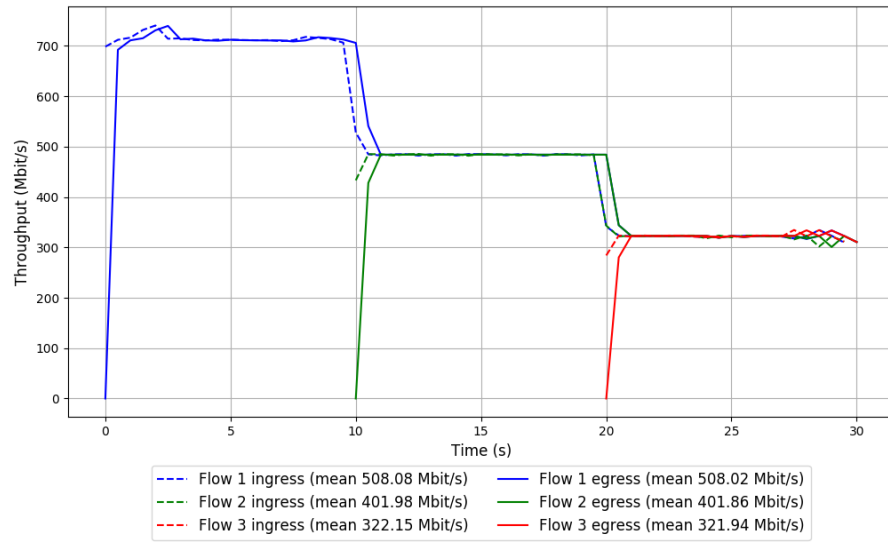


Run 5: Statistics of TCP Cubic

Start at: 2019-02-20 11:55:12
End at: 2019-02-20 11:55:42
Local clock offset: -3.393 ms
Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-02-20 12:53:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 882.74 Mbit/s
95th percentile per-packet one-way delay: 11.975 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 508.02 Mbit/s
95th percentile per-packet one-way delay: 12.539 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 401.86 Mbit/s
95th percentile per-packet one-way delay: 8.088 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 321.94 Mbit/s
95th percentile per-packet one-way delay: 8.376 ms
Loss rate: 0.08%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-02-20 10:19:21

End at: 2019-02-20 10:19:51

Local clock offset: -3.107 ms

Remote clock offset: 1.422 ms

Below is generated by plot.py at 2019-02-20 12:54:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 780.21 Mbit/s

95th percentile per-packet one-way delay: 14.433 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 442.46 Mbit/s

95th percentile per-packet one-way delay: 10.857 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 449.04 Mbit/s

95th percentile per-packet one-way delay: 18.786 ms

Loss rate: 0.02%

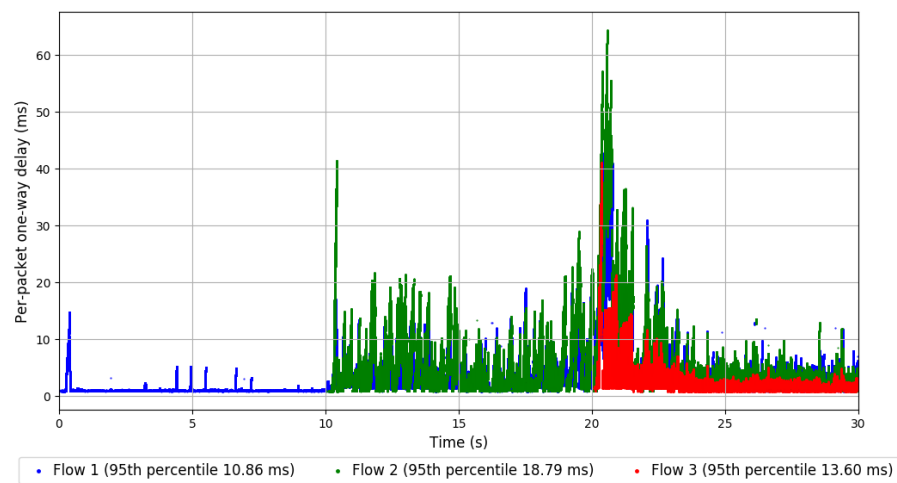
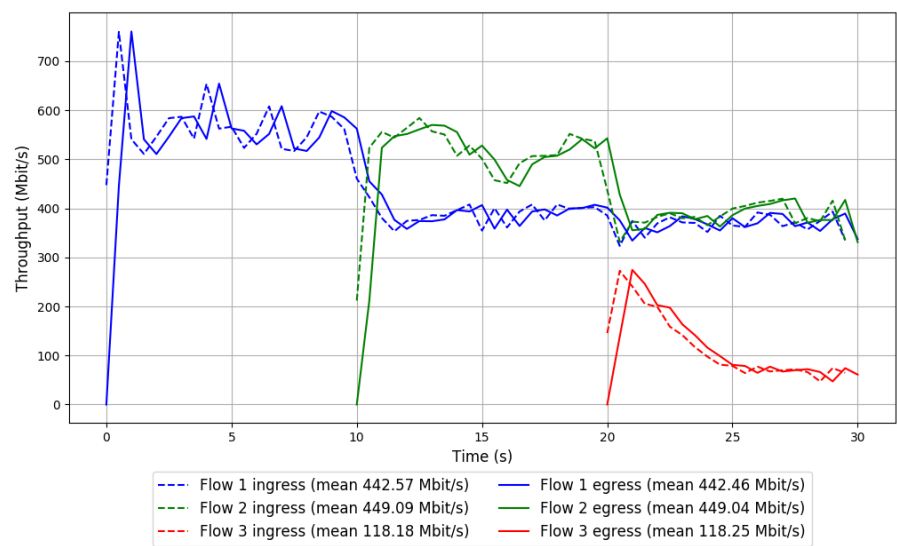
-- Flow 3:

Average throughput: 118.25 Mbit/s

95th percentile per-packet one-way delay: 13.604 ms

Loss rate: 0.16%

Run 1: Report of FillP — Data Link

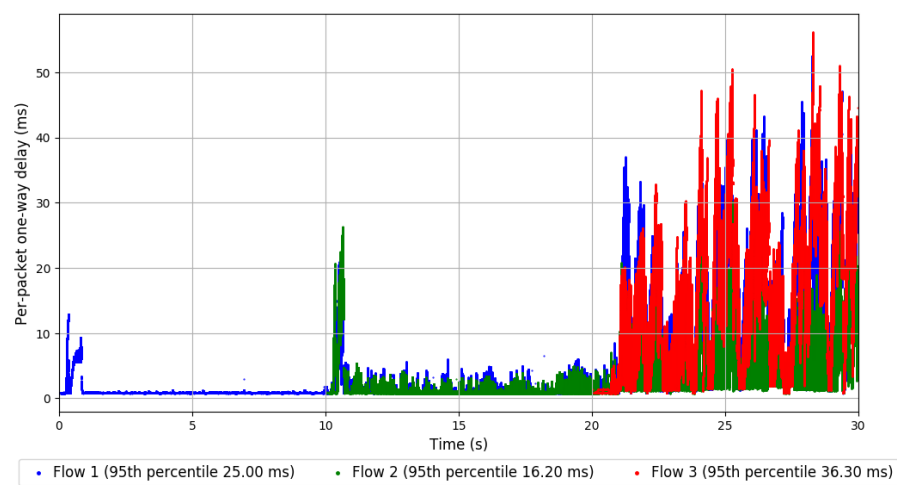
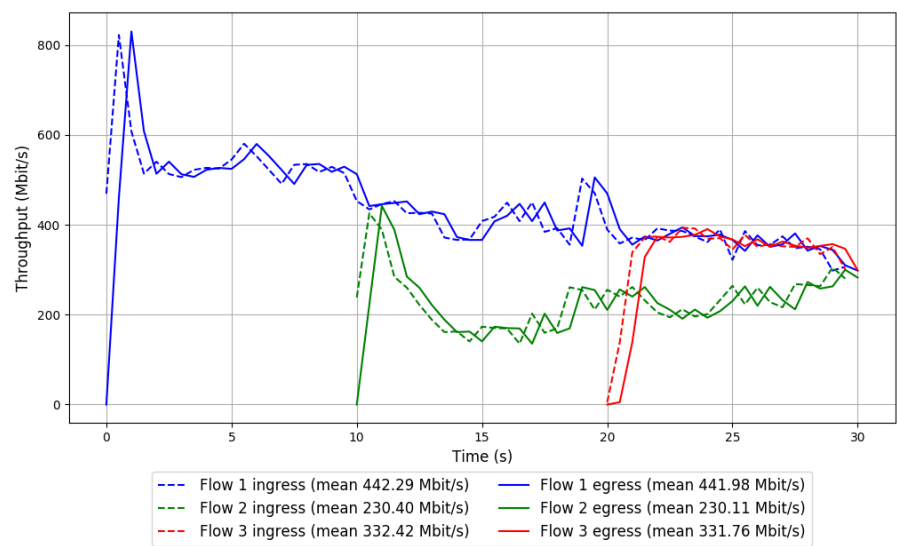


Run 2: Statistics of FillP

Start at: 2019-02-20 10:49:49
End at: 2019-02-20 10:50:19
Local clock offset: 0.011 ms
Remote clock offset: -0.111 ms

Below is generated by plot.py at 2019-02-20 13:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 705.05 Mbit/s
95th percentile per-packet one-way delay: 27.385 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 441.98 Mbit/s
95th percentile per-packet one-way delay: 25.000 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 230.11 Mbit/s
95th percentile per-packet one-way delay: 16.204 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 331.76 Mbit/s
95th percentile per-packet one-way delay: 36.302 ms
Loss rate: 0.21%

Run 2: Report of FillP — Data Link

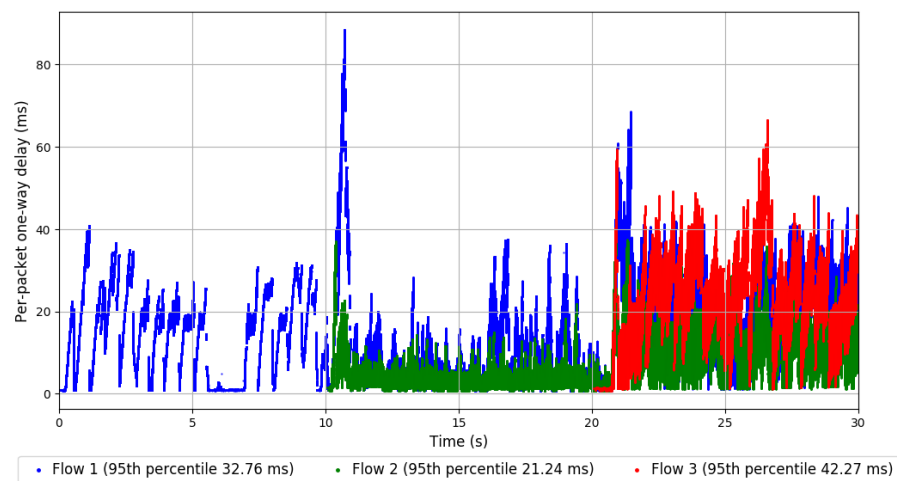
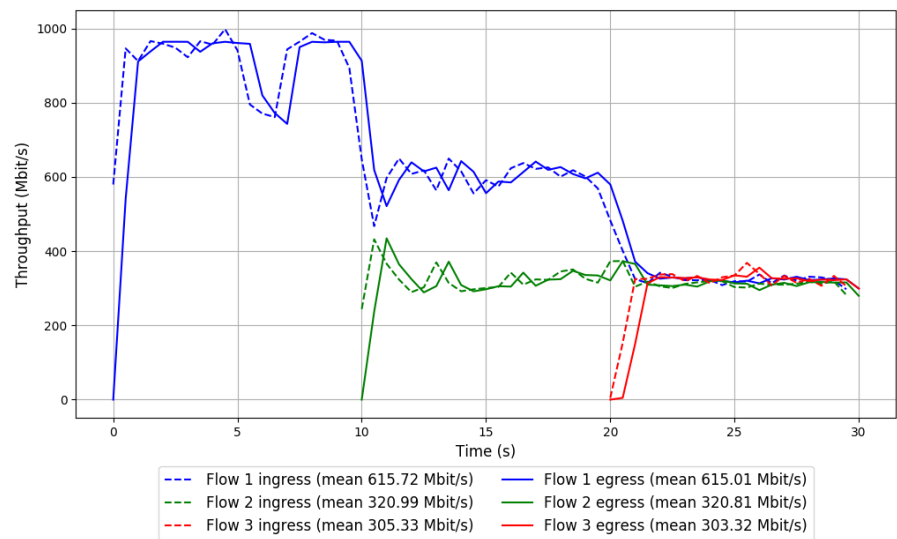


Run 3: Statistics of FillP

Start at: 2019-02-20 11:20:01
End at: 2019-02-20 11:20:31
Local clock offset: 0.389 ms
Remote clock offset: -1.678 ms

Below is generated by plot.py at 2019-02-20 13:06:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 928.85 Mbit/s
95th percentile per-packet one-way delay: 33.555 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 615.01 Mbit/s
95th percentile per-packet one-way delay: 32.759 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 320.81 Mbit/s
95th percentile per-packet one-way delay: 21.244 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 303.32 Mbit/s
95th percentile per-packet one-way delay: 42.266 ms
Loss rate: 0.46%

Run 3: Report of FillP — Data Link

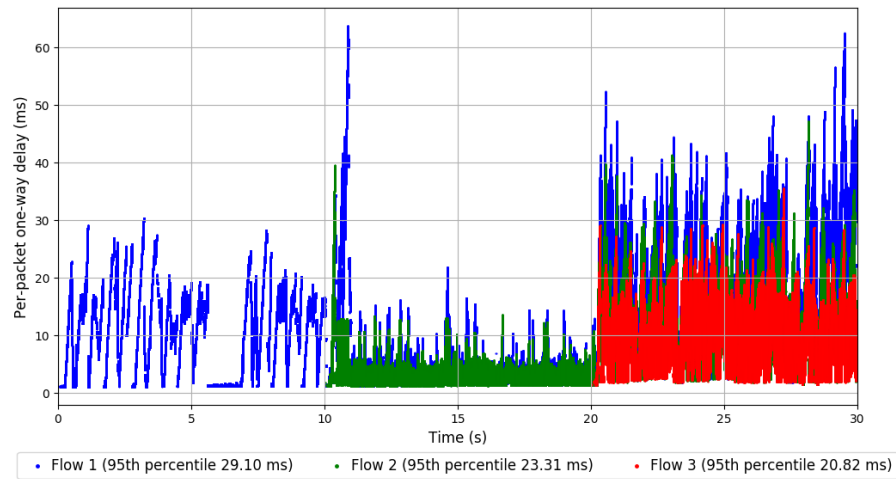
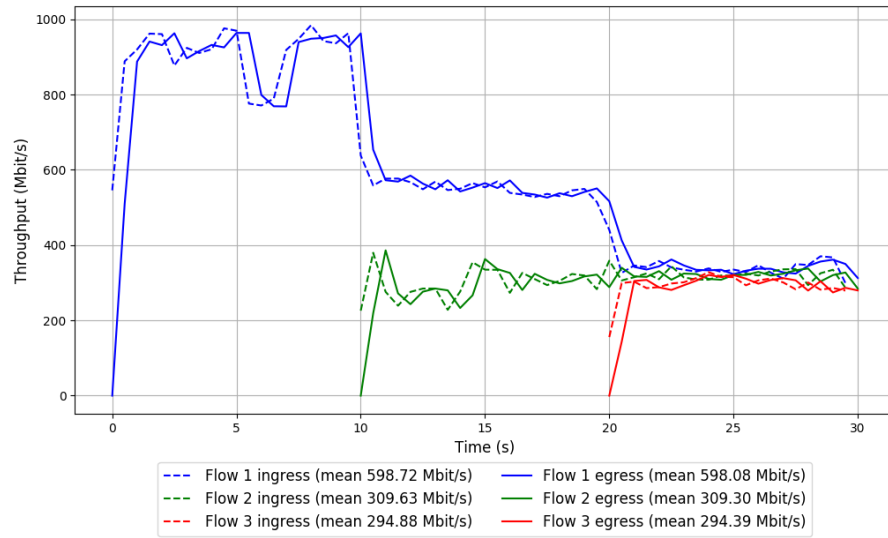


Run 4: Statistics of FillP

Start at: 2019-02-20 11:50:30
End at: 2019-02-20 11:51:00
Local clock offset: -3.143 ms
Remote clock offset: -2.951 ms

Below is generated by plot.py at 2019-02-20 13:06:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 901.29 Mbit/s
95th percentile per-packet one-way delay: 27.018 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 598.08 Mbit/s
95th percentile per-packet one-way delay: 29.101 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 309.30 Mbit/s
95th percentile per-packet one-way delay: 23.307 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 294.39 Mbit/s
95th percentile per-packet one-way delay: 20.819 ms
Loss rate: 0.11%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-02-20 12:21:08

End at: 2019-02-20 12:21:38

Local clock offset: 0.227 ms

Remote clock offset: 6.393 ms

Below is generated by plot.py at 2019-02-20 13:06:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 806.60 Mbit/s

95th percentile per-packet one-way delay: 31.914 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 410.59 Mbit/s

95th percentile per-packet one-way delay: 19.515 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 440.51 Mbit/s

95th percentile per-packet one-way delay: 35.087 ms

Loss rate: 0.11%

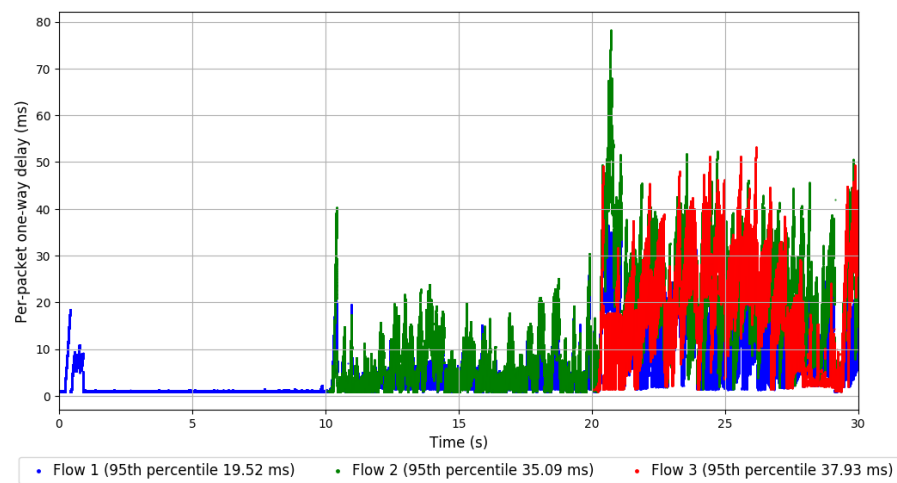
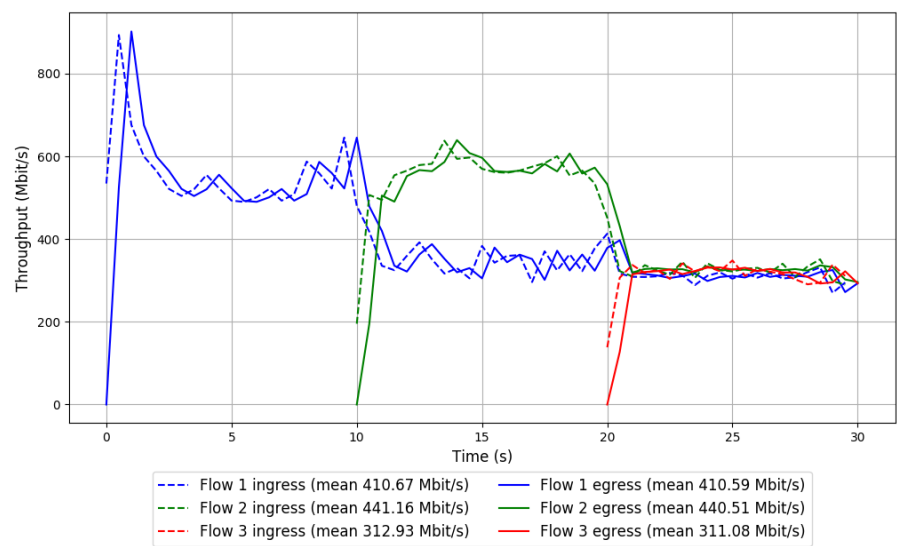
-- Flow 3:

Average throughput: 311.08 Mbit/s

95th percentile per-packet one-way delay: 37.929 ms

Loss rate: 0.62%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-02-20 10:17:52

End at: 2019-02-20 10:18:22

Local clock offset: -2.966 ms

Remote clock offset: 1.597 ms

Below is generated by plot.py at 2019-02-20 13:06:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 569.19 Mbit/s

95th percentile per-packet one-way delay: 7.699 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 433.36 Mbit/s

95th percentile per-packet one-way delay: 8.025 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 180.10 Mbit/s

95th percentile per-packet one-way delay: 5.552 ms

Loss rate: 0.00%

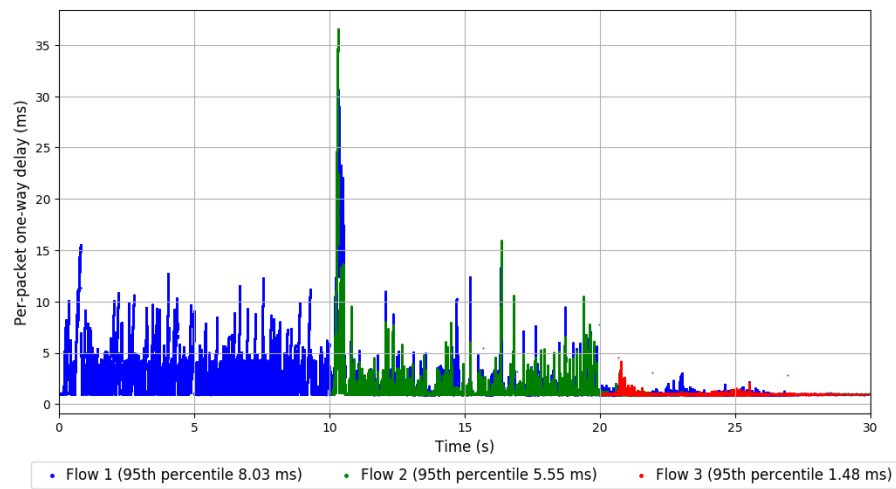
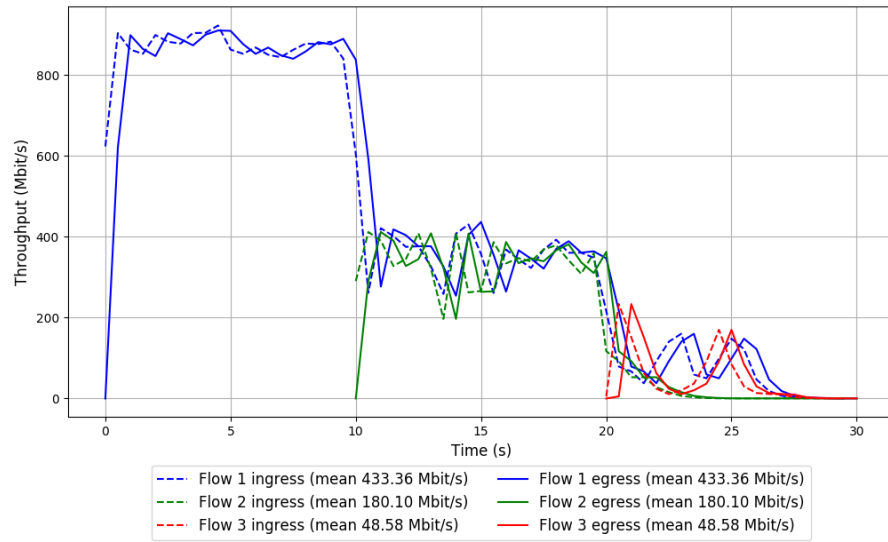
-- Flow 3:

Average throughput: 48.58 Mbit/s

95th percentile per-packet one-way delay: 1.477 ms

Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link

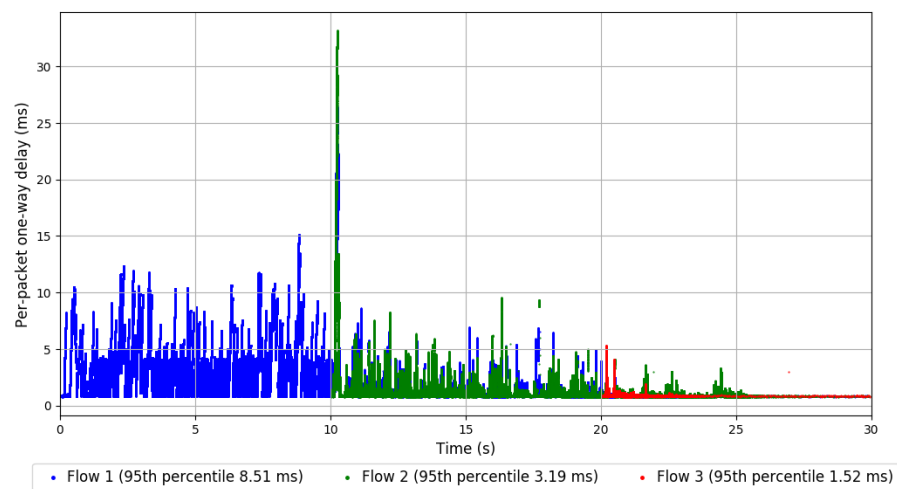
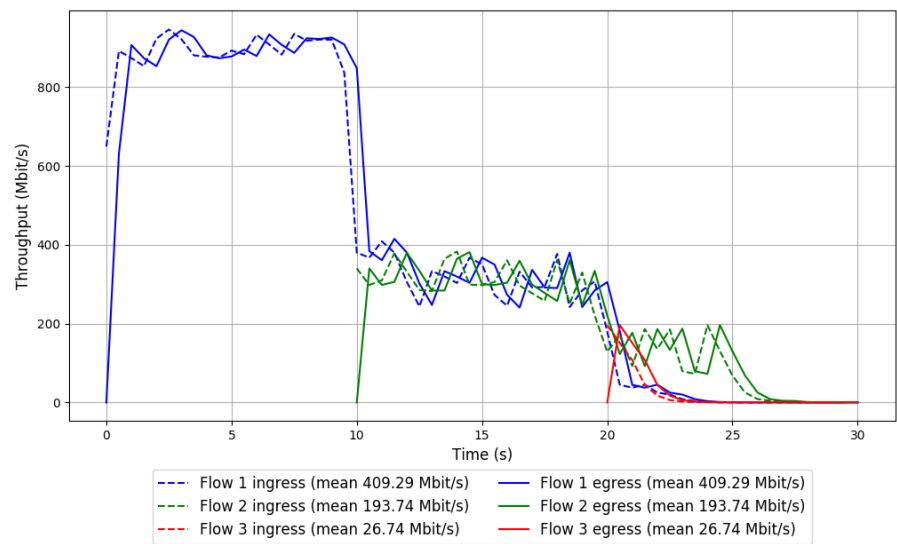


Run 2: Statistics of FillP-Sheep

Start at: 2019-02-20 10:48:20
End at: 2019-02-20 10:48:50
Local clock offset: -0.072 ms
Remote clock offset: -0.109 ms

Below is generated by plot.py at 2019-02-20 13:06:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 546.57 Mbit/s
95th percentile per-packet one-way delay: 8.061 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 409.29 Mbit/s
95th percentile per-packet one-way delay: 8.513 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 193.74 Mbit/s
95th percentile per-packet one-way delay: 3.195 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.74 Mbit/s
95th percentile per-packet one-way delay: 1.519 ms
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

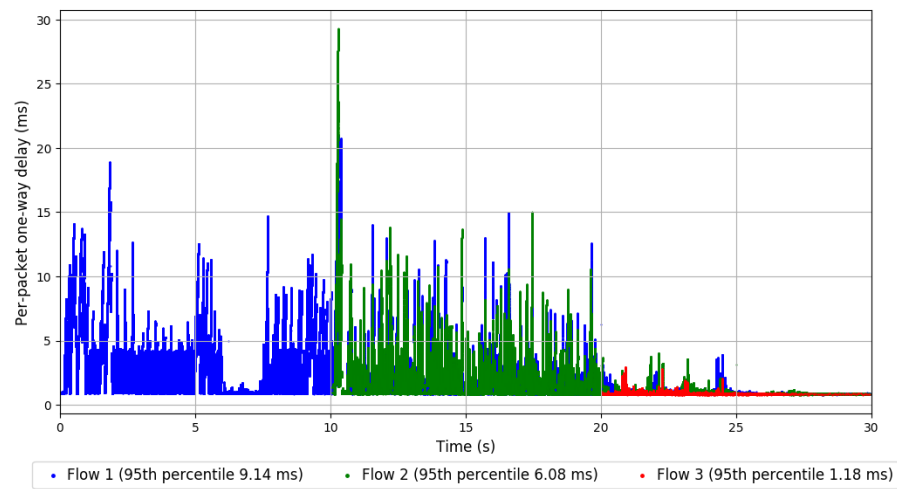
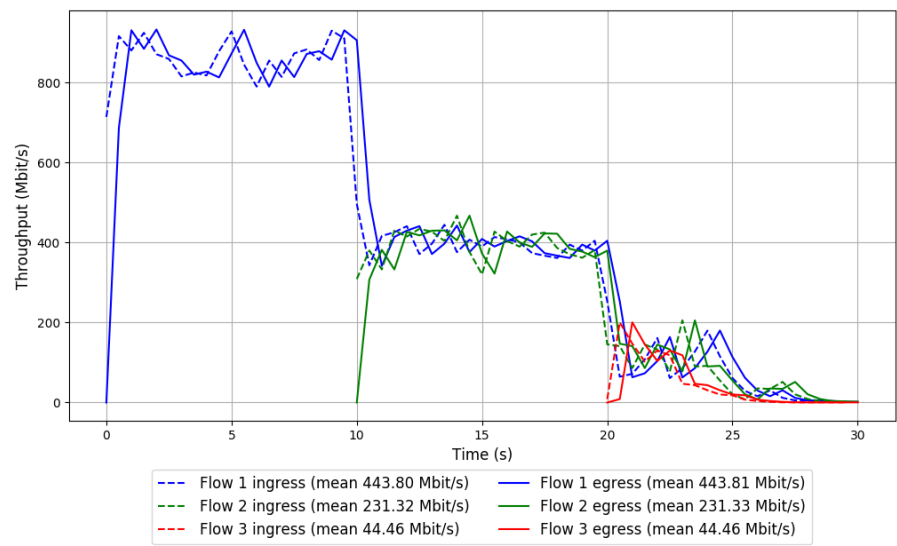


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-20 11:18:30
End at: 2019-02-20 11:19:00
Local clock offset: 0.374 ms
Remote clock offset: -1.481 ms

Below is generated by plot.py at 2019-02-20 13:06:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 612.39 Mbit/s
95th percentile per-packet one-way delay: 8.584 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 443.81 Mbit/s
95th percentile per-packet one-way delay: 9.145 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 231.33 Mbit/s
95th percentile per-packet one-way delay: 6.085 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.46 Mbit/s
95th percentile per-packet one-way delay: 1.182 ms
Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link

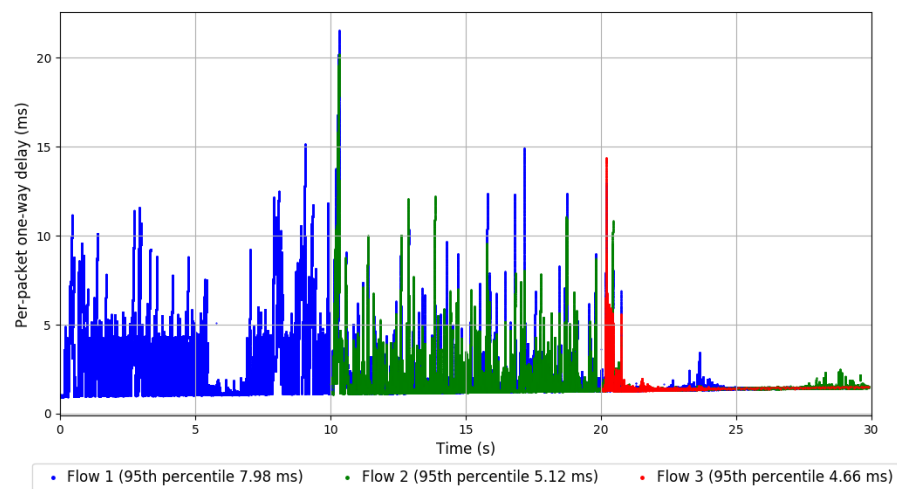
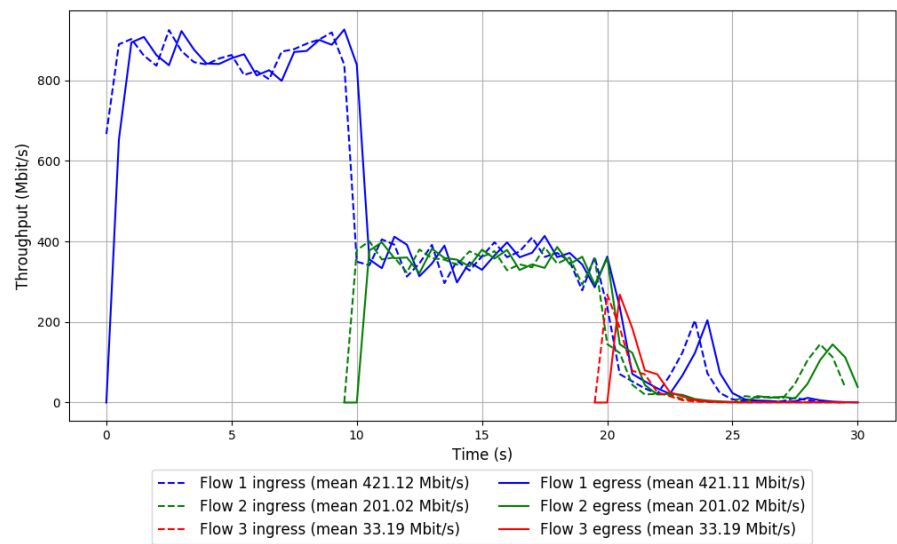


Run 4: Statistics of FillP-Sheep

Start at: 2019-02-20 11:49:01
End at: 2019-02-20 11:49:31
Local clock offset: -3.002 ms
Remote clock offset: -4.167 ms

Below is generated by plot.py at 2019-02-20 13:06:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 565.70 Mbit/s
95th percentile per-packet one-way delay: 7.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 421.11 Mbit/s
95th percentile per-packet one-way delay: 7.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 201.02 Mbit/s
95th percentile per-packet one-way delay: 5.125 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 33.19 Mbit/s
95th percentile per-packet one-way delay: 4.659 ms
Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-02-20 12:19:39

End at: 2019-02-20 12:20:09

Local clock offset: 0.157 ms

Remote clock offset: 6.222 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 561.55 Mbit/s

95th percentile per-packet one-way delay: 7.058 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 399.83 Mbit/s

95th percentile per-packet one-way delay: 7.309 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 225.02 Mbit/s

95th percentile per-packet one-way delay: 6.257 ms

Loss rate: 0.00%

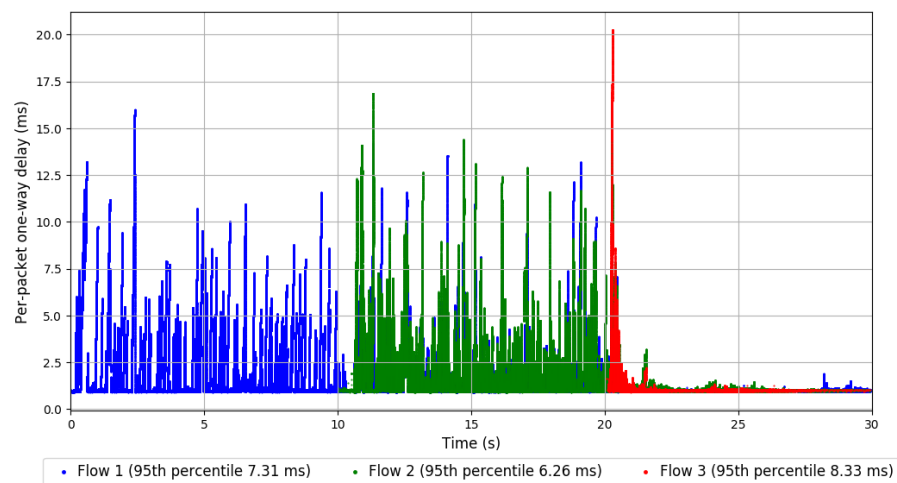
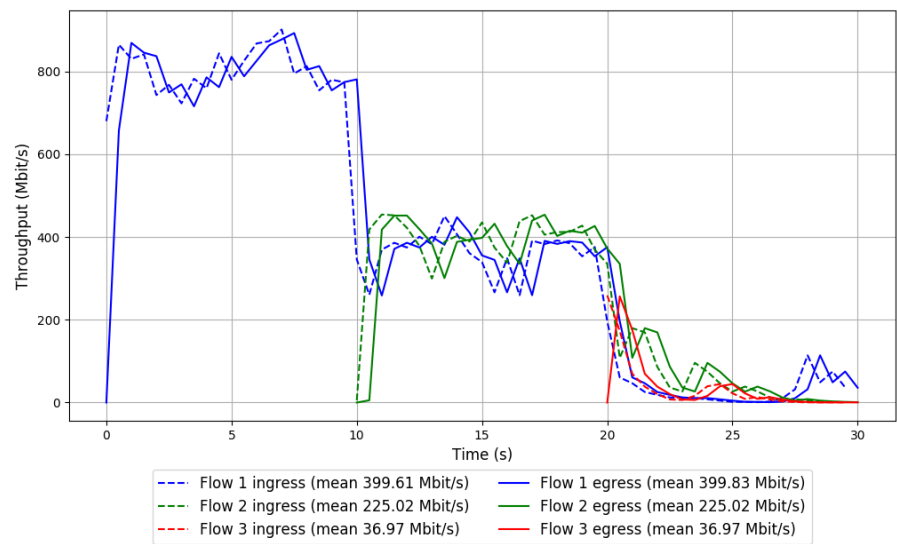
-- Flow 3:

Average throughput: 36.97 Mbit/s

95th percentile per-packet one-way delay: 8.333 ms

Loss rate: 0.00%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-02-20 10:16:25

End at: 2019-02-20 10:16:55

Local clock offset: -2.82 ms

Remote clock offset: 2.041 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.98 Mbit/s

95th percentile per-packet one-way delay: 0.957 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 151.78 Mbit/s

95th percentile per-packet one-way delay: 0.912 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 142.32 Mbit/s

95th percentile per-packet one-way delay: 0.998 ms

Loss rate: 0.00%

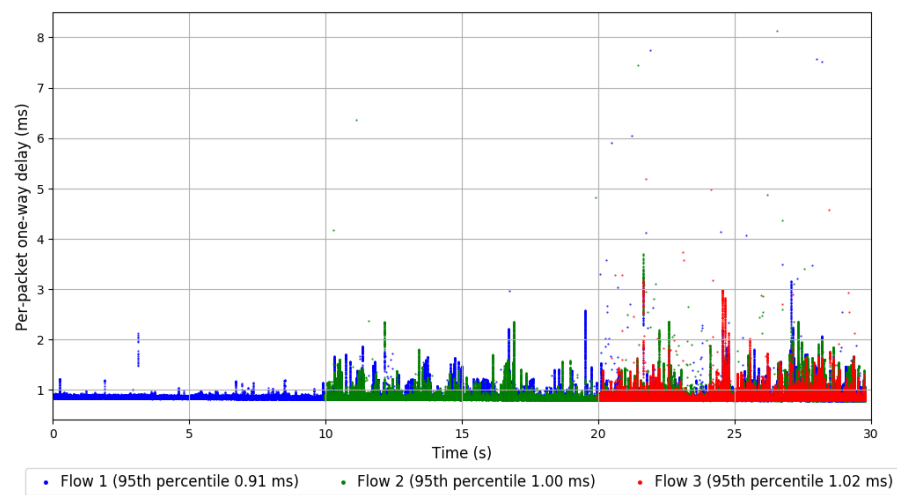
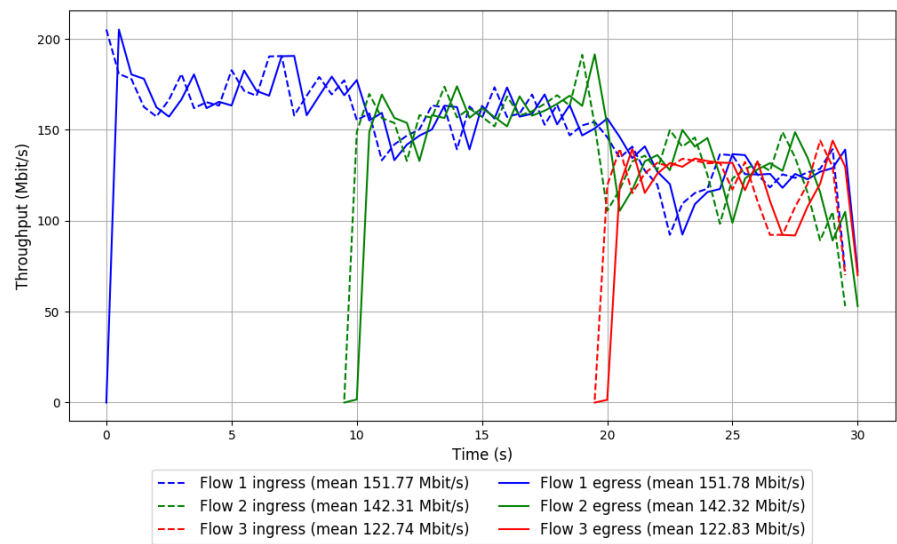
-- Flow 3:

Average throughput: 122.83 Mbit/s

95th percentile per-packet one-way delay: 1.017 ms

Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

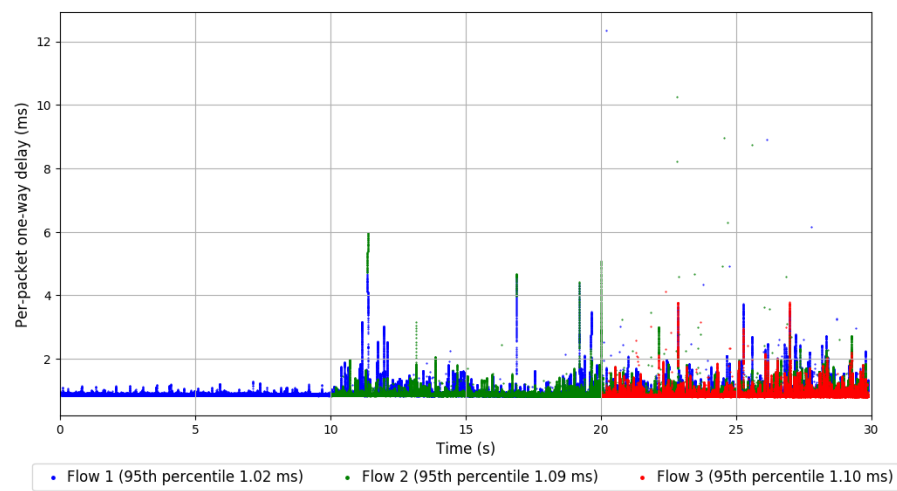
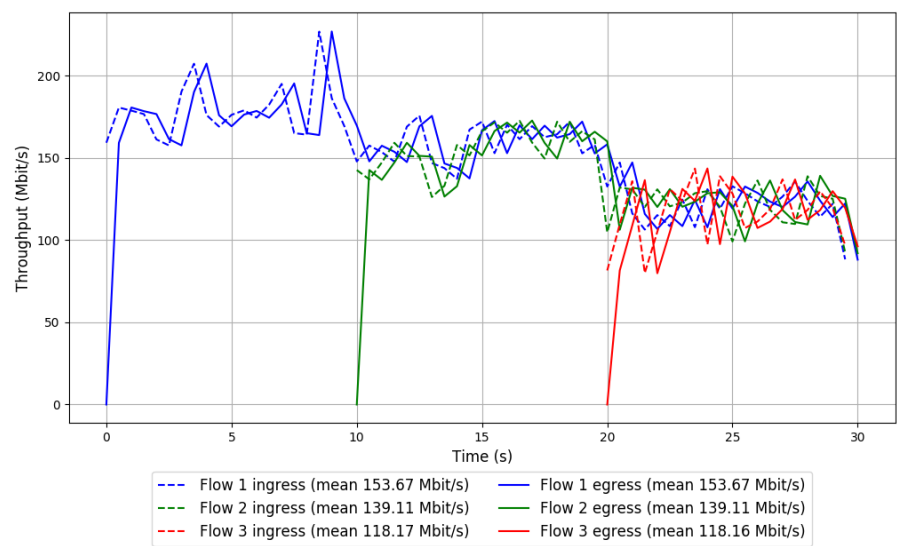


Run 2: Statistics of Indigo

Start at: 2019-02-20 10:46:53
End at: 2019-02-20 10:47:23
Local clock offset: -0.158 ms
Remote clock offset: -0.096 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 284.99 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 153.67 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 139.11 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 118.16 Mbit/s
95th percentile per-packet one-way delay: 1.097 ms
Loss rate: 0.03%

Run 2: Report of Indigo — Data Link

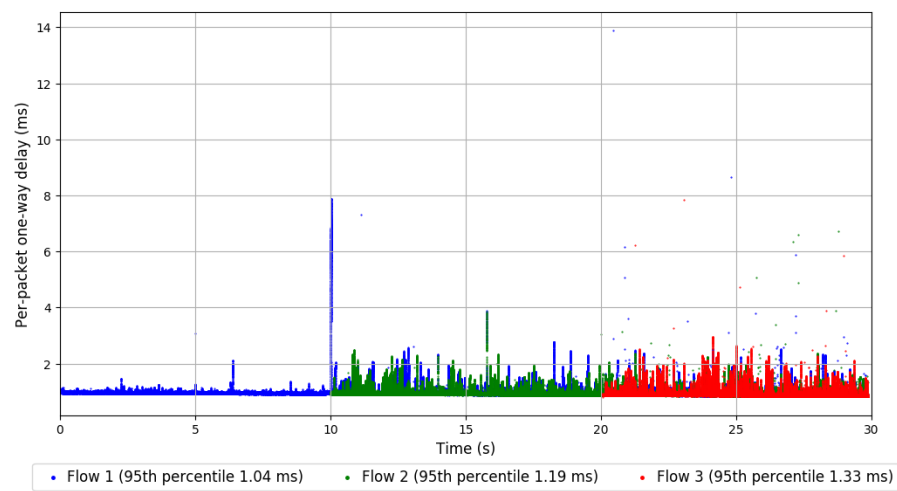
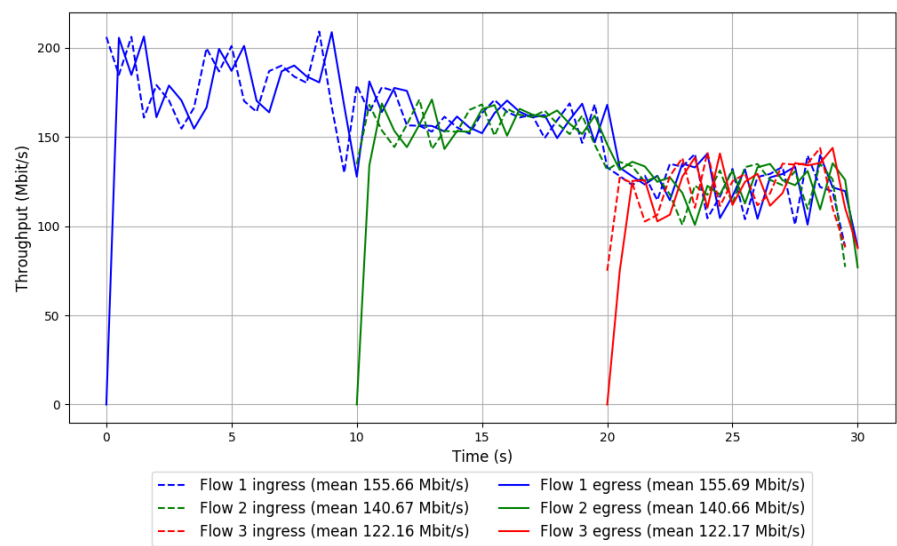


Run 3: Statistics of Indigo

Start at: 2019-02-20 11:17:03
End at: 2019-02-20 11:17:33
Local clock offset: 0.369 ms
Remote clock offset: -1.178 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 289.31 Mbit/s
95th percentile per-packet one-way delay: 1.135 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 155.69 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 140.66 Mbit/s
95th percentile per-packet one-way delay: 1.192 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 122.17 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.03%

Run 3: Report of Indigo — Data Link

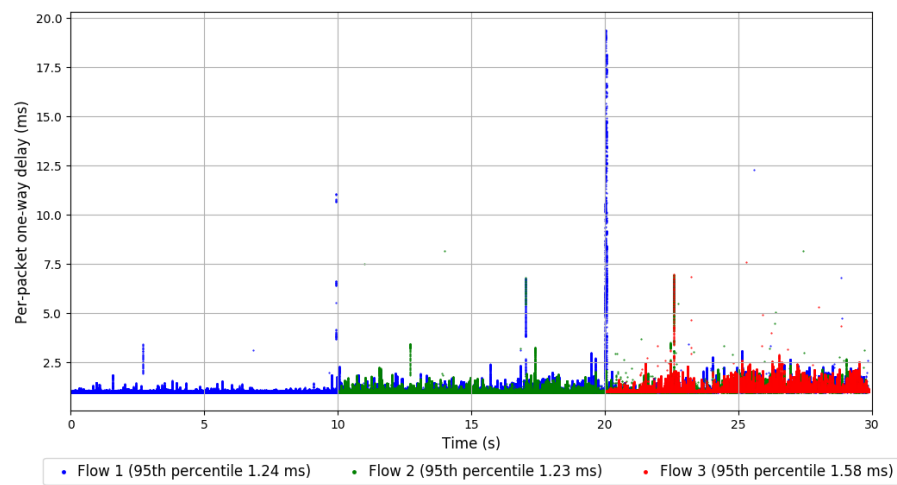
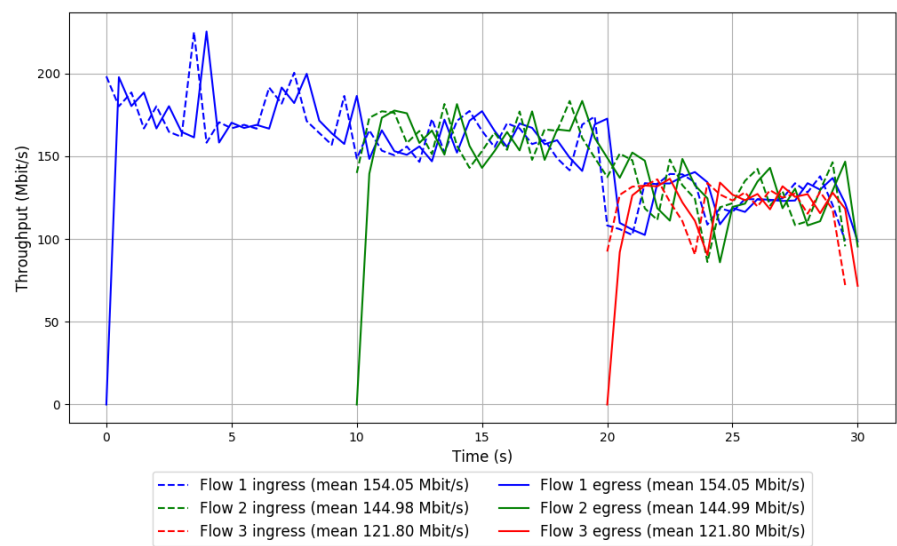


Run 4: Statistics of Indigo

Start at: 2019-02-20 11:47:34
End at: 2019-02-20 11:48:04
Local clock offset: -2.906 ms
Remote clock offset: -4.211 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 290.39 Mbit/s
95th percentile per-packet one-way delay: 1.301 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 154.05 Mbit/s
95th percentile per-packet one-way delay: 1.242 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 144.99 Mbit/s
95th percentile per-packet one-way delay: 1.231 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 121.80 Mbit/s
95th percentile per-packet one-way delay: 1.585 ms
Loss rate: 0.02%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-02-20 12:18:12

End at: 2019-02-20 12:18:42

Local clock offset: 0.042 ms

Remote clock offset: 6.083 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.00 Mbit/s

95th percentile per-packet one-way delay: 1.110 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 149.76 Mbit/s

95th percentile per-packet one-way delay: 1.038 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 142.88 Mbit/s

95th percentile per-packet one-way delay: 1.063 ms

Loss rate: 0.01%

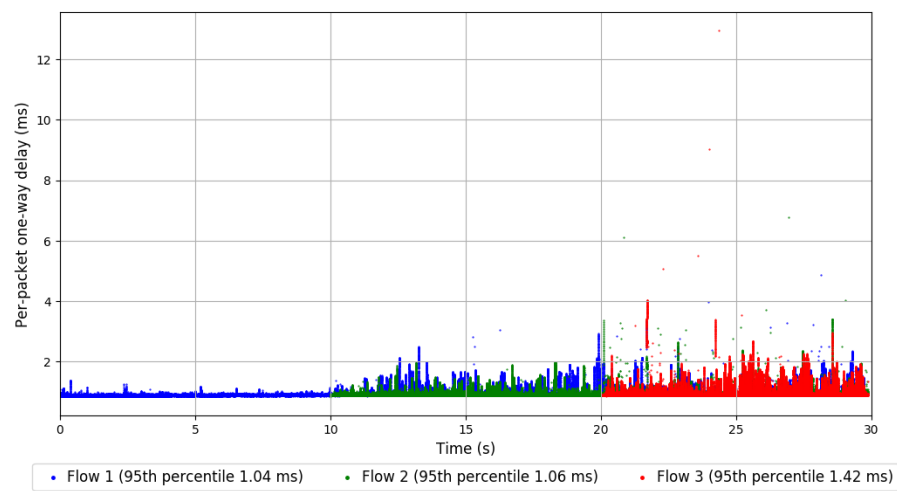
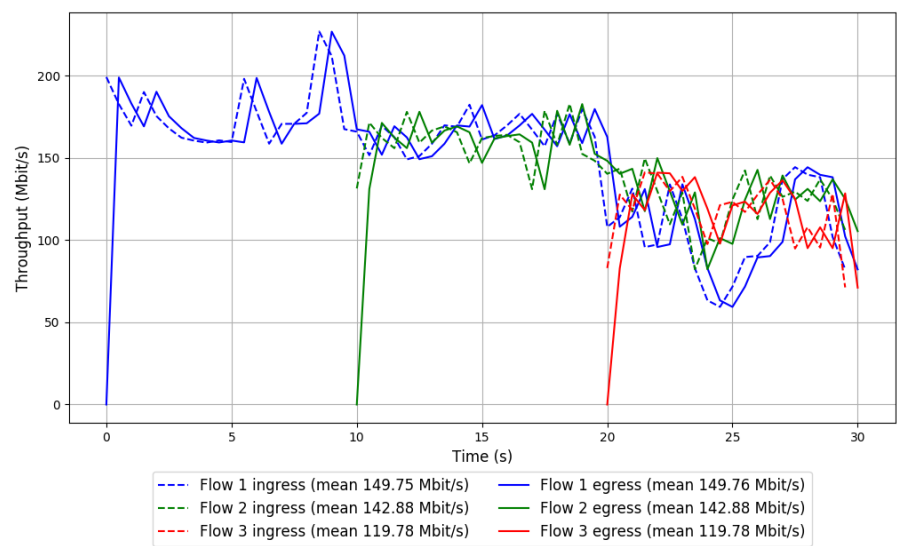
-- Flow 3:

Average throughput: 119.78 Mbit/s

95th percentile per-packet one-way delay: 1.416 ms

Loss rate: 0.01%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-20 10:03:48

End at: 2019-02-20 10:04:18

Local clock offset: -0.574 ms

Remote clock offset: 5.43 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.28 Mbit/s

95th percentile per-packet one-way delay: 1.478 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 163.68 Mbit/s

95th percentile per-packet one-way delay: 1.427 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 1.621 ms

Loss rate: 0.02%

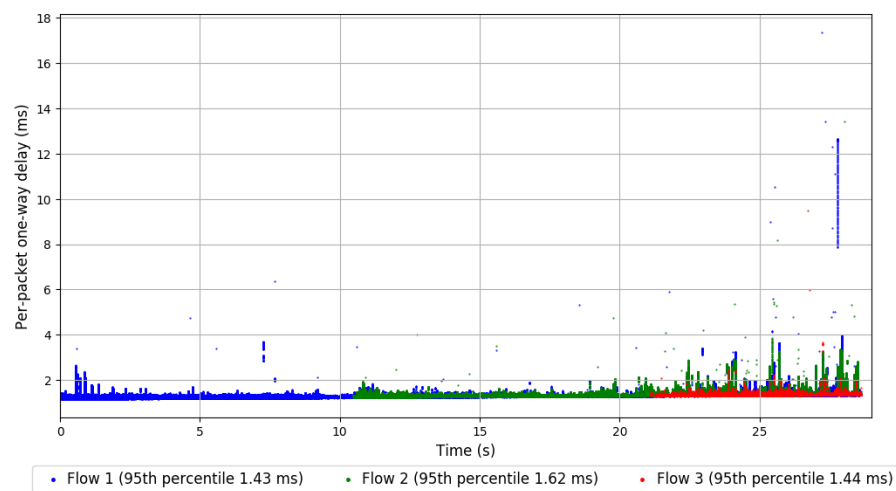
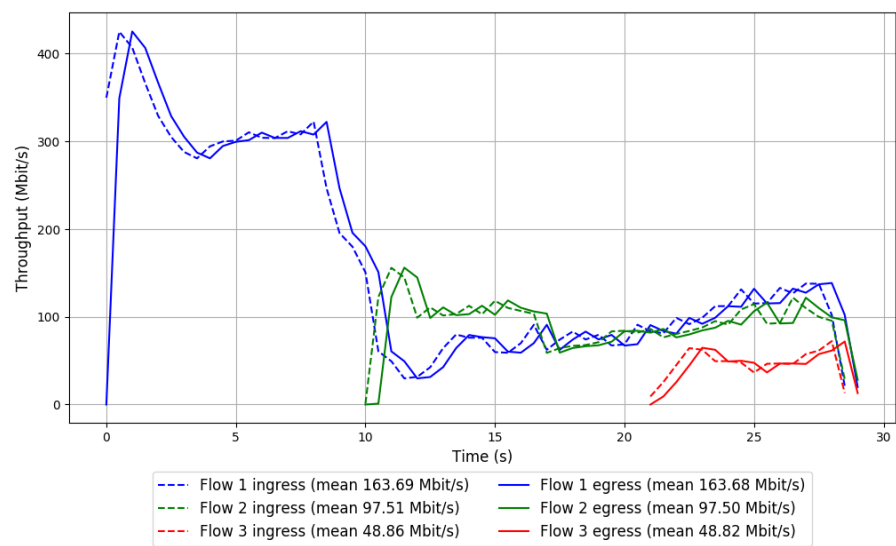
-- Flow 3:

Average throughput: 48.82 Mbit/s

95th percentile per-packet one-way delay: 1.440 ms

Loss rate: 0.09%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-20 10:34:18

End at: 2019-02-20 10:34:48

Local clock offset: -2.229 ms

Remote clock offset: 0.093 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.43 Mbit/s

95th percentile per-packet one-way delay: 0.867 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 145.84 Mbit/s

95th percentile per-packet one-way delay: 0.870 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 85.10 Mbit/s

95th percentile per-packet one-way delay: 0.858 ms

Loss rate: 0.02%

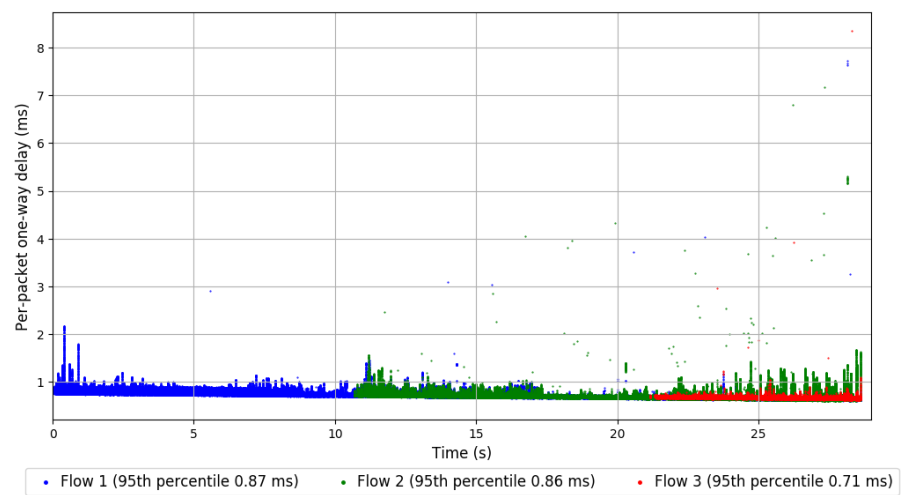
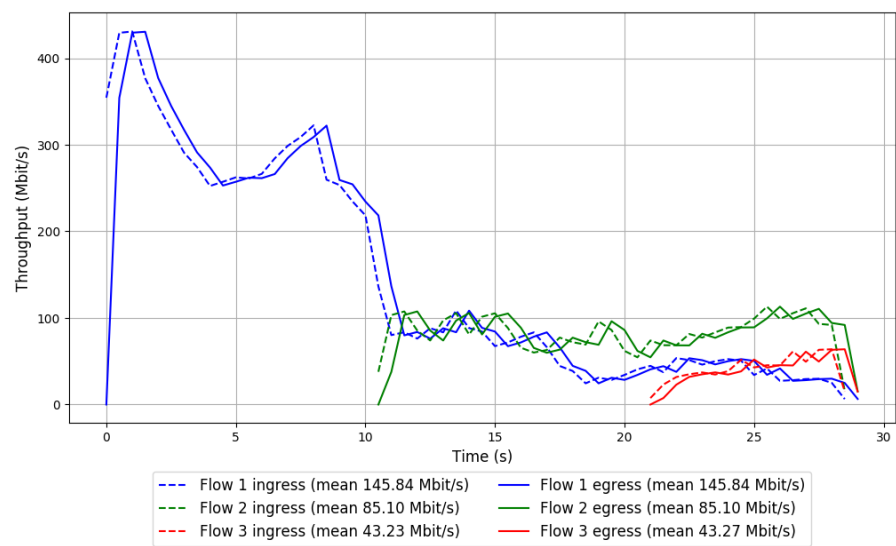
-- Flow 3:

Average throughput: 43.27 Mbit/s

95th percentile per-packet one-way delay: 0.708 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link

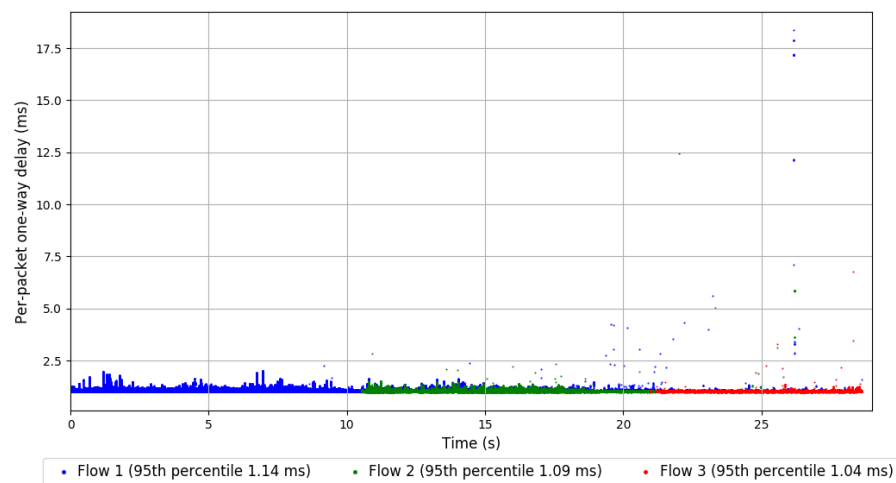
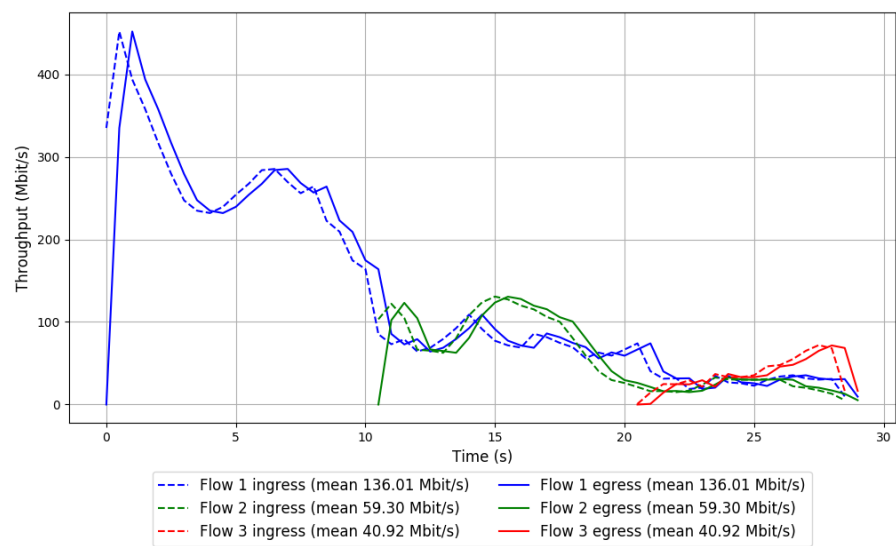


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-20 11:04:28
End at: 2019-02-20 11:04:58
Local clock offset: 0.36 ms
Remote clock offset: -0.408 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 184.39 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 136.01 Mbit/s
95th percentile per-packet one-way delay: 1.141 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.92 Mbit/s
95th percentile per-packet one-way delay: 1.042 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

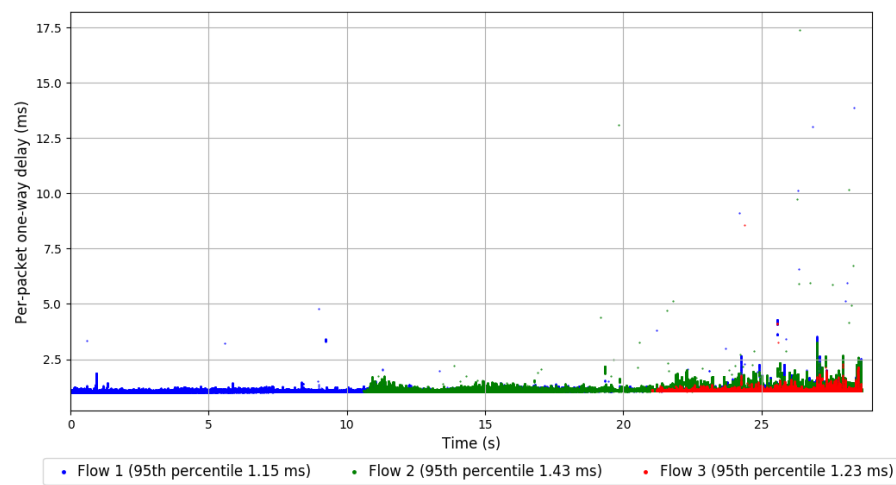
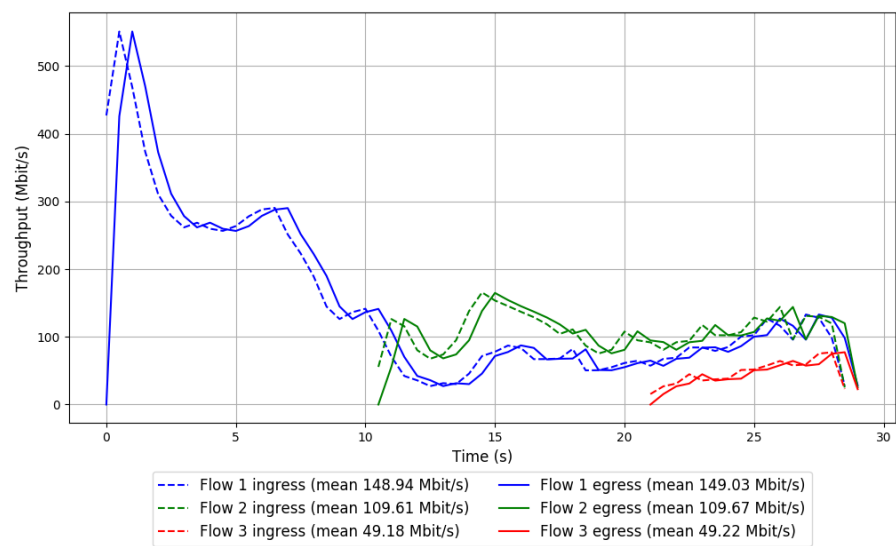


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-20 11:34:58
End at: 2019-02-20 11:35:28
Local clock offset: -1.099 ms
Remote clock offset: -3.333 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 231.00 Mbit/s
95th percentile per-packet one-way delay: 1.260 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 149.03 Mbit/s
95th percentile per-packet one-way delay: 1.147 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.67 Mbit/s
95th percentile per-packet one-way delay: 1.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.22 Mbit/s
95th percentile per-packet one-way delay: 1.225 ms
Loss rate: 0.07%

Run 4: Report of Indigo-MusesC3 — Data Link

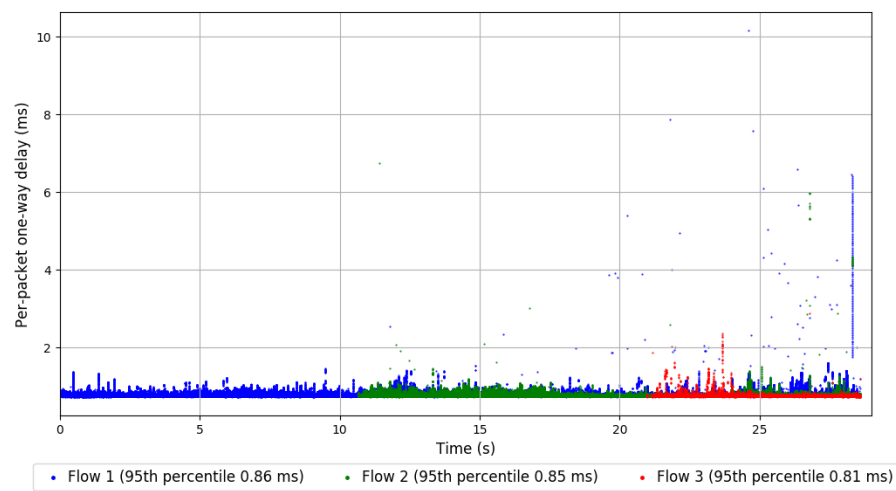
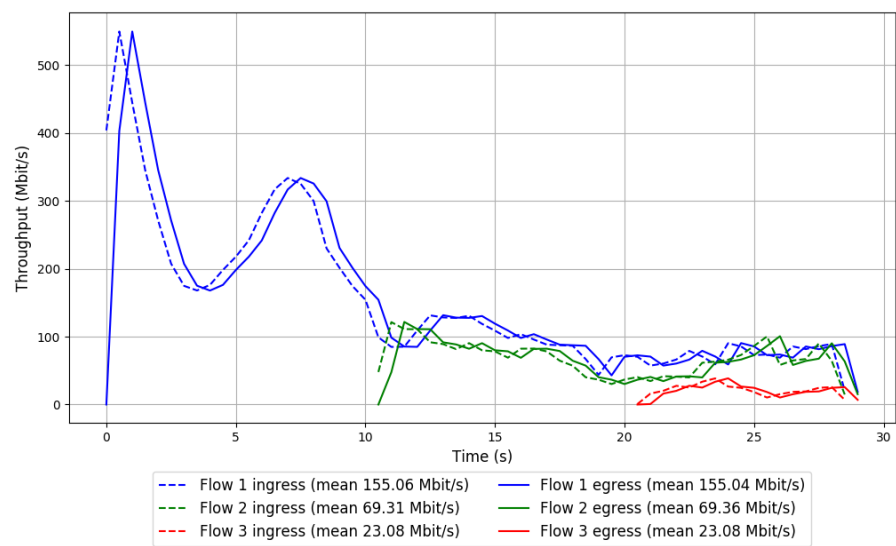


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-20 12:05:34
End at: 2019-02-20 12:06:04
Local clock offset: -1.735 ms
Remote clock offset: 3.932 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 204.66 Mbit/s
95th percentile per-packet one-way delay: 0.856 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 155.04 Mbit/s
95th percentile per-packet one-way delay: 0.858 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 69.36 Mbit/s
95th percentile per-packet one-way delay: 0.854 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 23.08 Mbit/s
95th percentile per-packet one-way delay: 0.809 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-20 09:55:35

End at: 2019-02-20 09:56:05

Local clock offset: 0.737 ms

Remote clock offset: 4.983 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.77 Mbit/s

95th percentile per-packet one-way delay: 1.029 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 67.11 Mbit/s

95th percentile per-packet one-way delay: 1.033 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.41 Mbit/s

95th percentile per-packet one-way delay: 1.029 ms

Loss rate: 0.01%

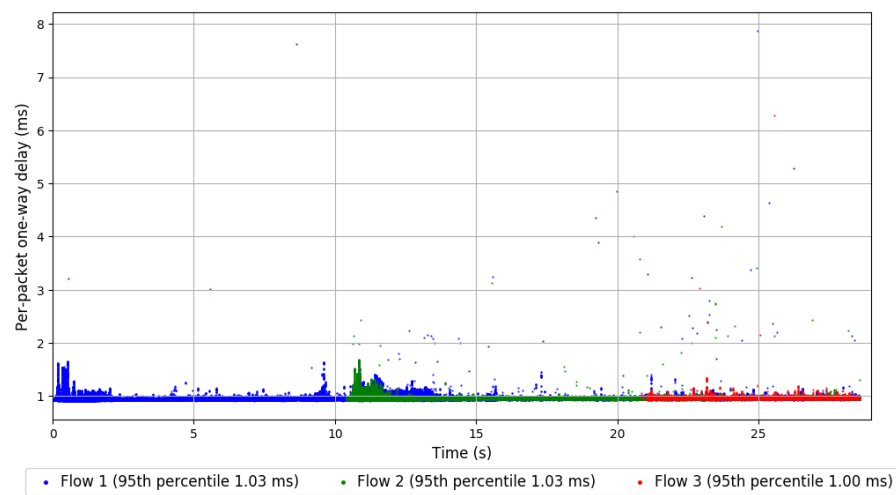
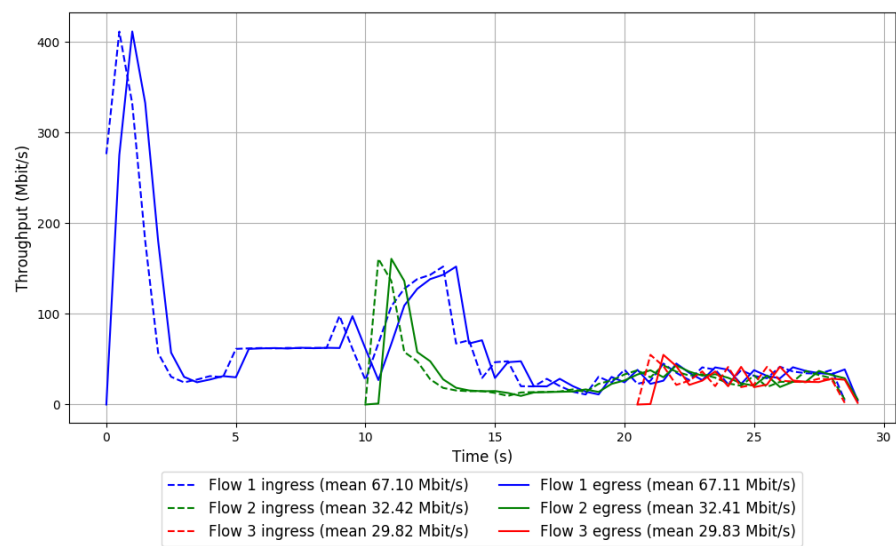
-- Flow 3:

Average throughput: 29.83 Mbit/s

95th percentile per-packet one-way delay: 1.002 ms

Loss rate: 0.01%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-20 10:25:43

End at: 2019-02-20 10:26:13

Local clock offset: -3.551 ms

Remote clock offset: 0.668 ms

Below is generated by plot.py at 2019-02-20 13:09:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.05 Mbit/s

95th percentile per-packet one-way delay: 1.107 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 106.77 Mbit/s

95th percentile per-packet one-way delay: 1.137 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.58 Mbit/s

95th percentile per-packet one-way delay: 1.049 ms

Loss rate: 0.02%

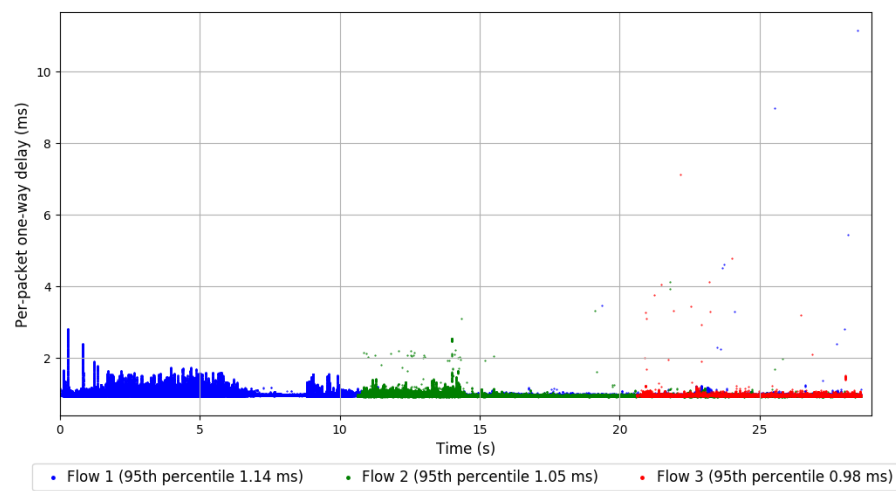
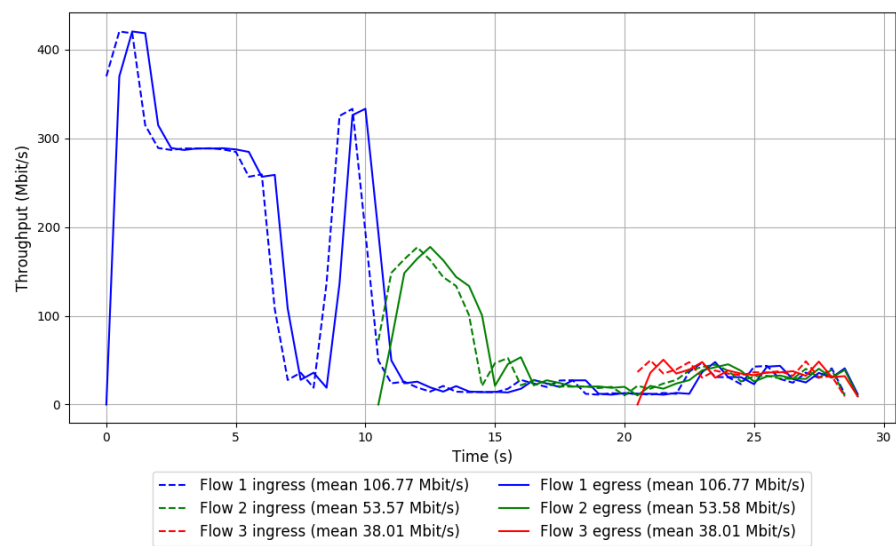
-- Flow 3:

Average throughput: 38.01 Mbit/s

95th percentile per-packet one-way delay: 0.983 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

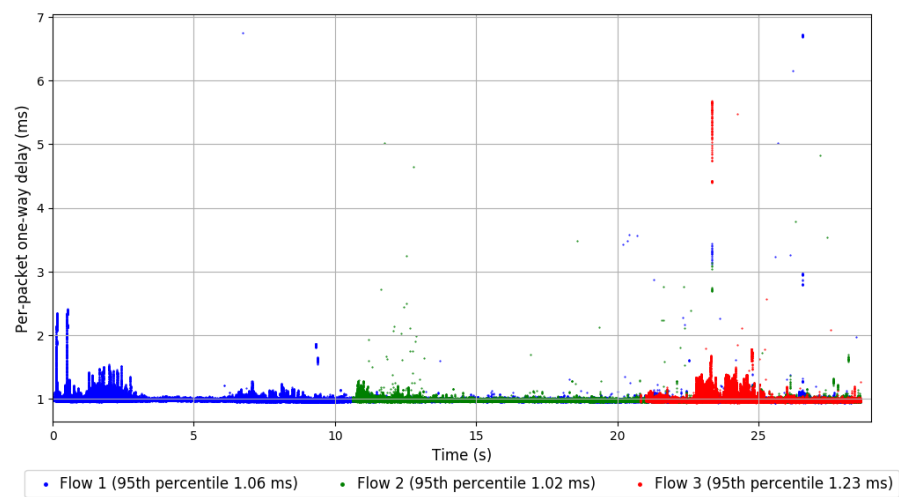
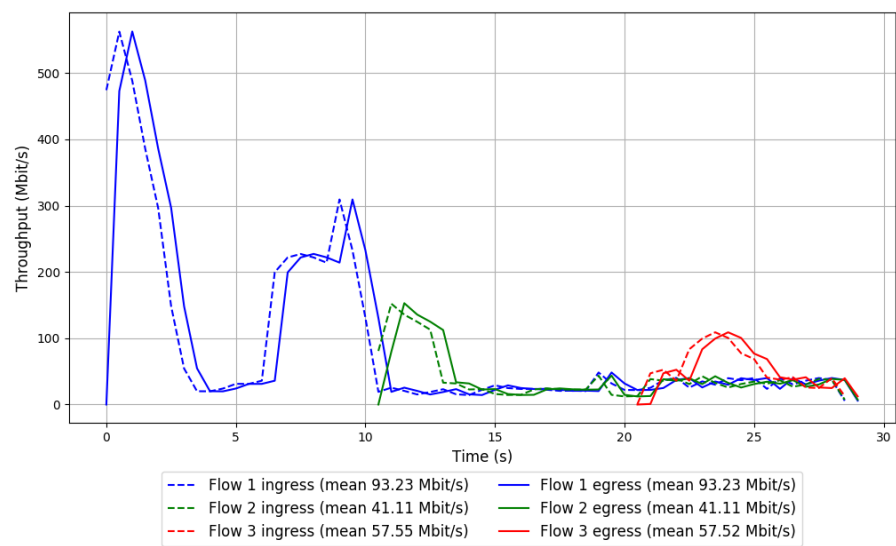


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-20 10:56:09
End at: 2019-02-20 10:56:39
Local clock offset: 0.309 ms
Remote clock offset: -0.276 ms

Below is generated by plot.py at 2019-02-20 13:09:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 134.75 Mbit/s
95th percentile per-packet one-way delay: 1.073 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 1.059 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.11 Mbit/s
95th percentile per-packet one-way delay: 1.018 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 1.233 ms
Loss rate: 0.06%

Run 3: Report of Indigo-MusesC5 — Data Link

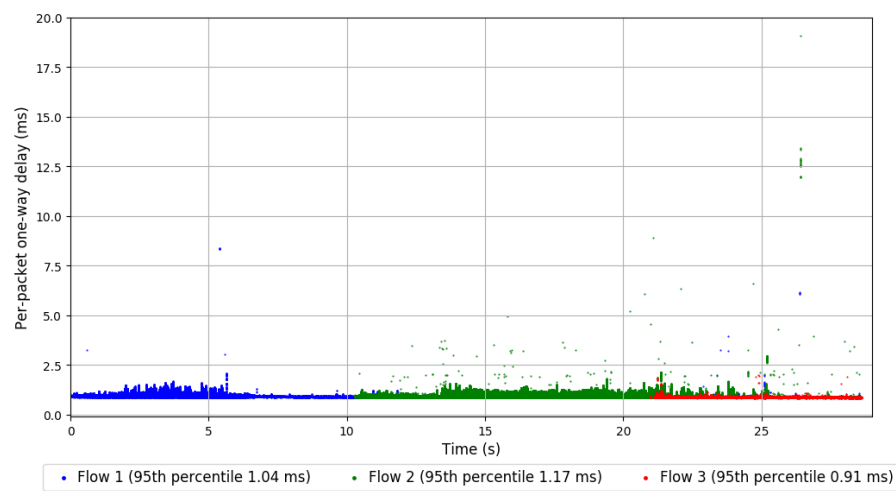
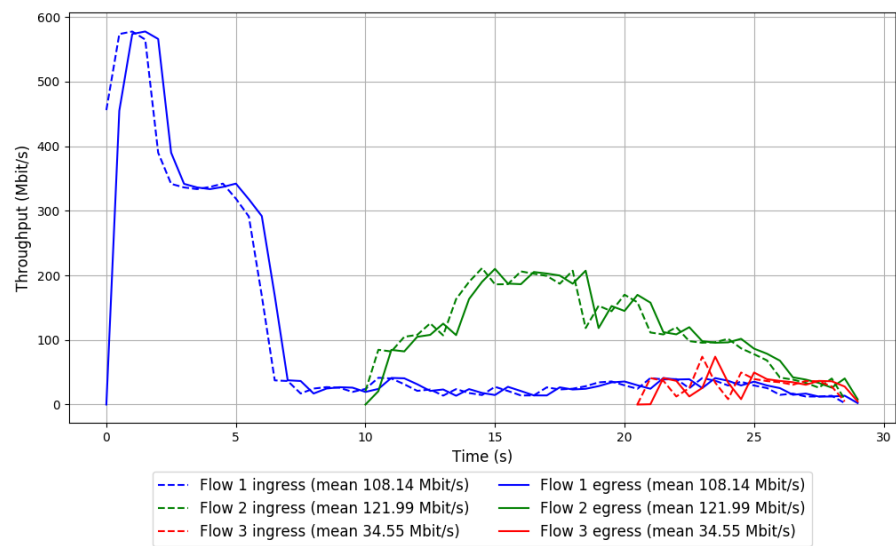


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-20 11:26:29
End at: 2019-02-20 11:26:59
Local clock offset: 0.446 ms
Remote clock offset: -2.647 ms

Below is generated by plot.py at 2019-02-20 13:10:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 195.46 Mbit/s
95th percentile per-packet one-way delay: 1.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 108.14 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 121.99 Mbit/s
95th percentile per-packet one-way delay: 1.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 34.55 Mbit/s
95th percentile per-packet one-way delay: 0.912 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-20 11:56:55

End at: 2019-02-20 11:57:25

Local clock offset: -3.493 ms

Remote clock offset: 0.986 ms

Below is generated by plot.py at 2019-02-20 13:10:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.04 Mbit/s

95th percentile per-packet one-way delay: 1.361 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 147.89 Mbit/s

95th percentile per-packet one-way delay: 1.378 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.93 Mbit/s

95th percentile per-packet one-way delay: 1.327 ms

Loss rate: 0.02%

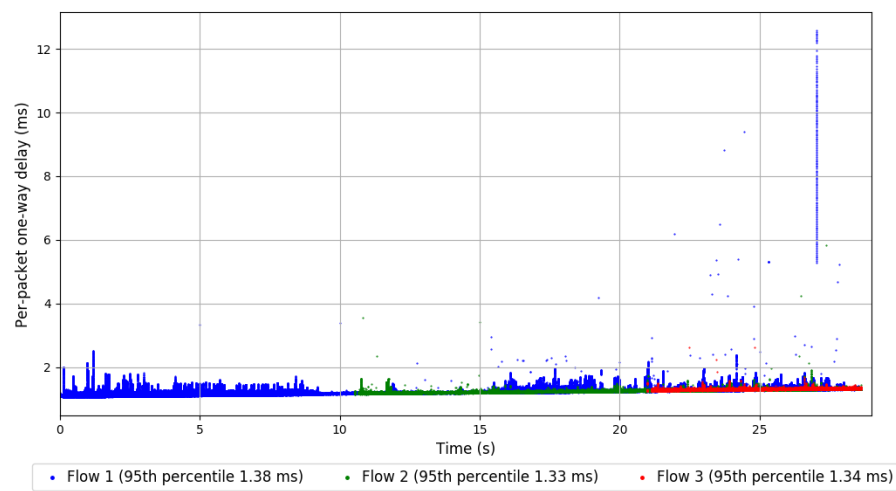
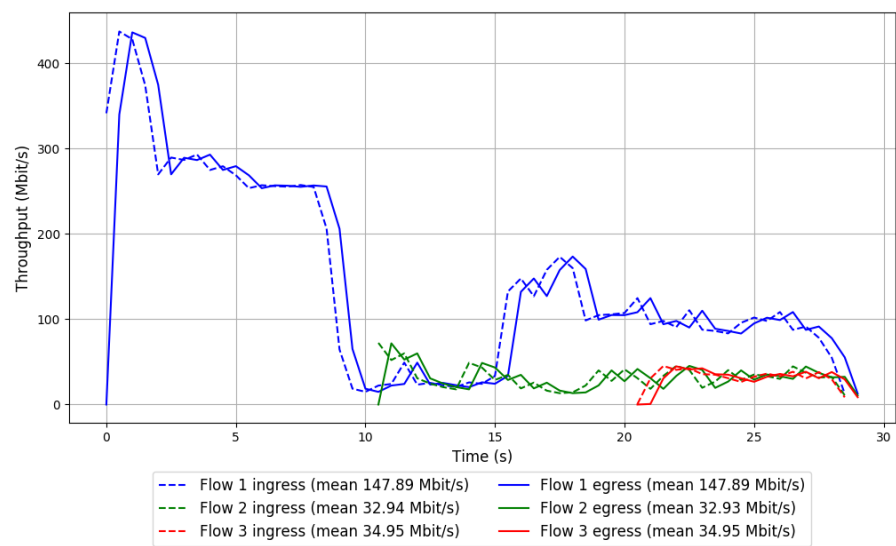
-- Flow 3:

Average throughput: 34.95 Mbit/s

95th percentile per-packet one-way delay: 1.344 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-20 10:13:24

End at: 2019-02-20 10:13:54

Local clock offset: -2.476 ms

Remote clock offset: 2.681 ms

Below is generated by plot.py at 2019-02-20 13:10:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.07 Mbit/s

95th percentile per-packet one-way delay: 1.049 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 57.00 Mbit/s

95th percentile per-packet one-way delay: 1.063 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.26 Mbit/s

95th percentile per-packet one-way delay: 0.983 ms

Loss rate: 0.03%

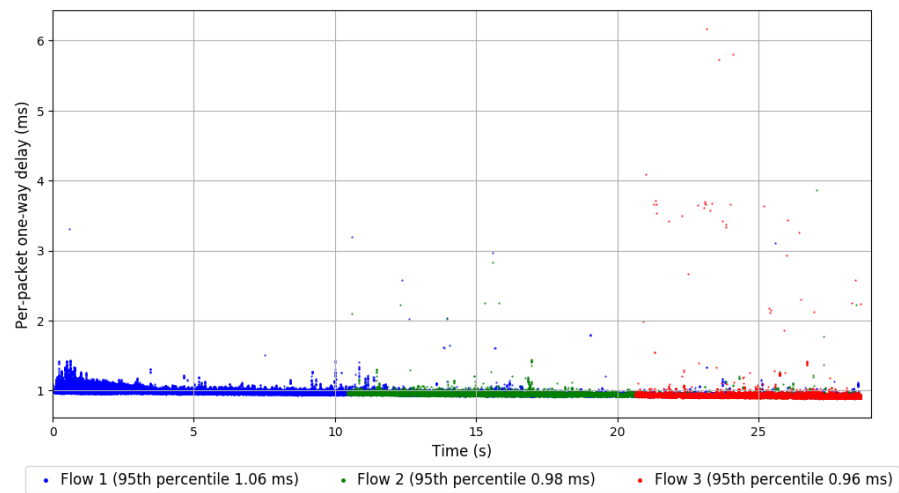
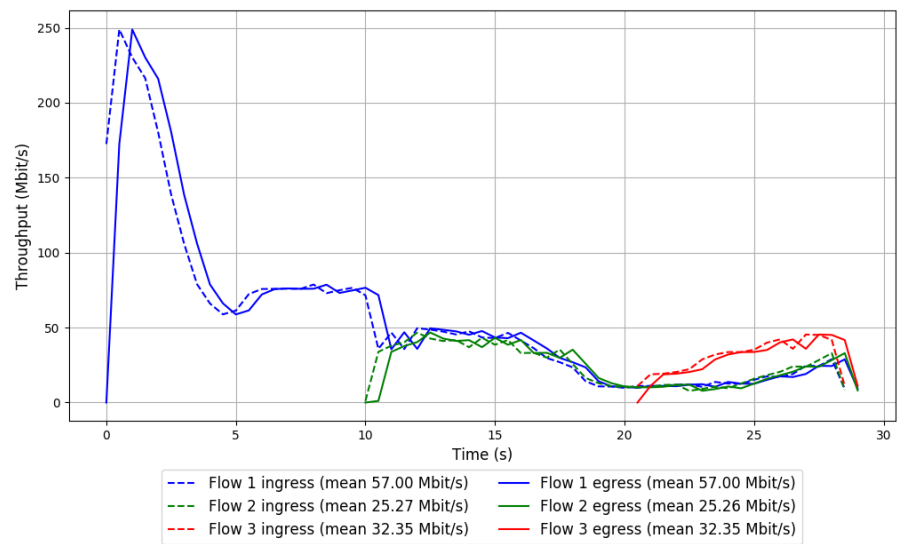
-- Flow 3:

Average throughput: 32.35 Mbit/s

95th percentile per-packet one-way delay: 0.965 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

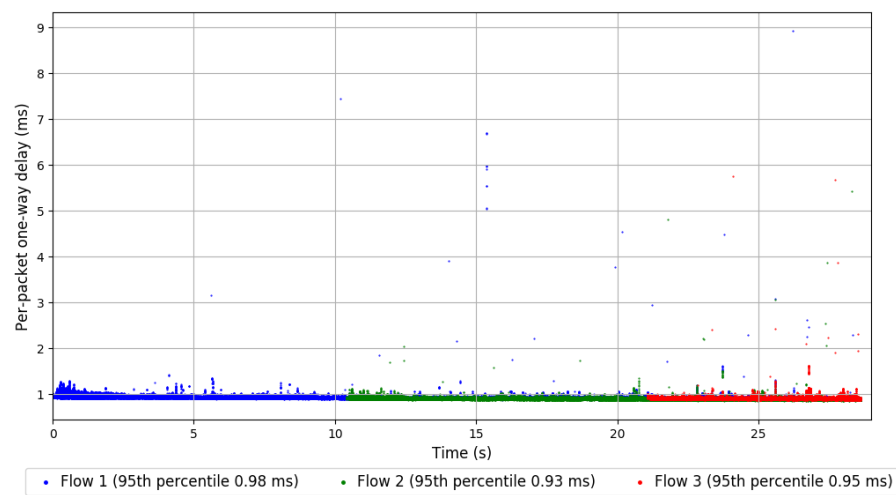
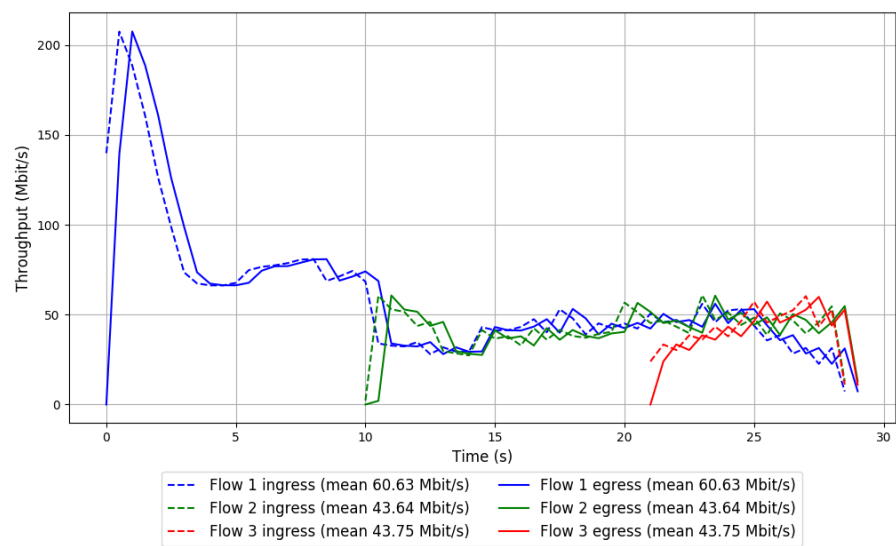


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-20 10:43:52
End at: 2019-02-20 10:44:22
Local clock offset: -0.439 ms
Remote clock offset: -0.171 ms

Below is generated by plot.py at 2019-02-20 13:10:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 0.968 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.63 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 0.927 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 43.75 Mbit/s
95th percentile per-packet one-way delay: 0.950 ms
Loss rate: 0.02%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-20 11:14:02

End at: 2019-02-20 11:14:32

Local clock offset: 0.347 ms

Remote clock offset: -0.6 ms

Below is generated by plot.py at 2019-02-20 13:10:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.49 Mbit/s

95th percentile per-packet one-way delay: 1.038 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 47.40 Mbit/s

95th percentile per-packet one-way delay: 1.056 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.49 Mbit/s

95th percentile per-packet one-way delay: 1.017 ms

Loss rate: 0.00%

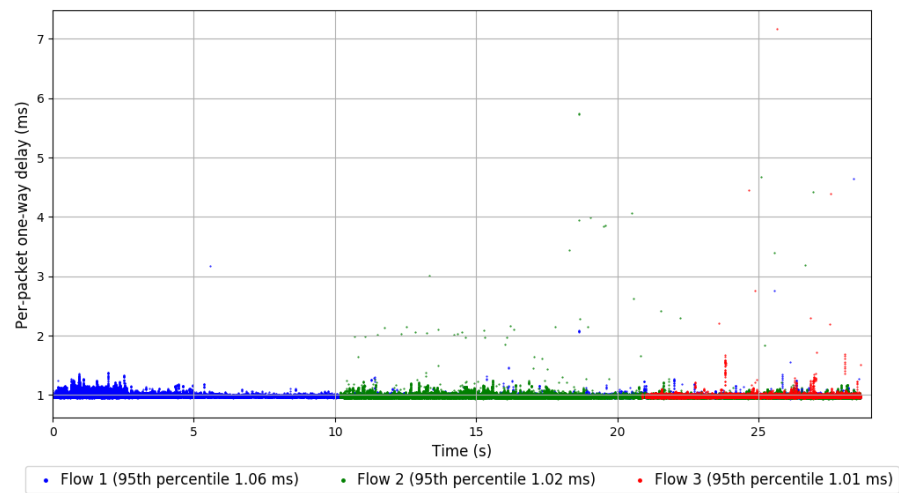
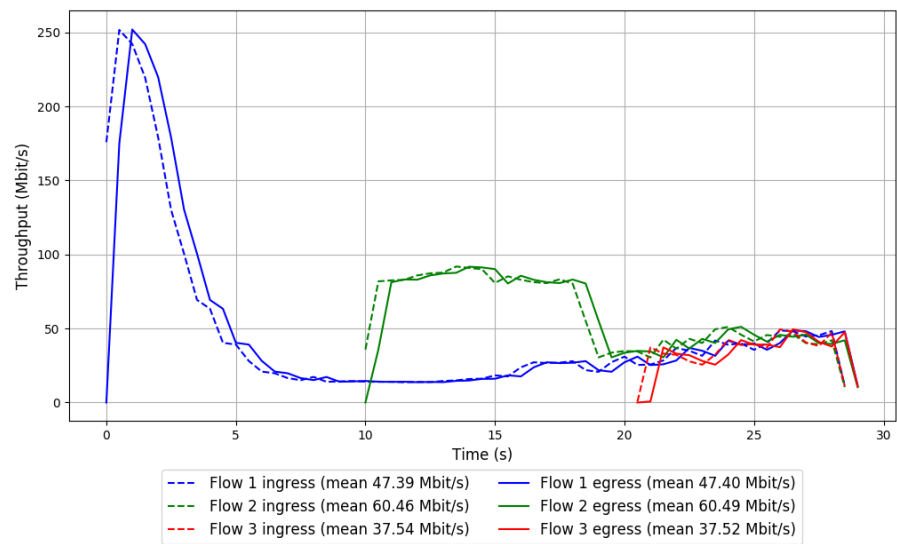
-- Flow 3:

Average throughput: 37.52 Mbit/s

95th percentile per-packet one-way delay: 1.009 ms

Loss rate: 0.06%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-20 11:44:33

End at: 2019-02-20 11:45:03

Local clock offset: -2.638 ms

Remote clock offset: -4.03 ms

Below is generated by plot.py at 2019-02-20 13:10:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.82 Mbit/s

95th percentile per-packet one-way delay: 1.042 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 42.97 Mbit/s

95th percentile per-packet one-way delay: 1.043 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 52.13 Mbit/s

95th percentile per-packet one-way delay: 1.041 ms

Loss rate: 0.00%

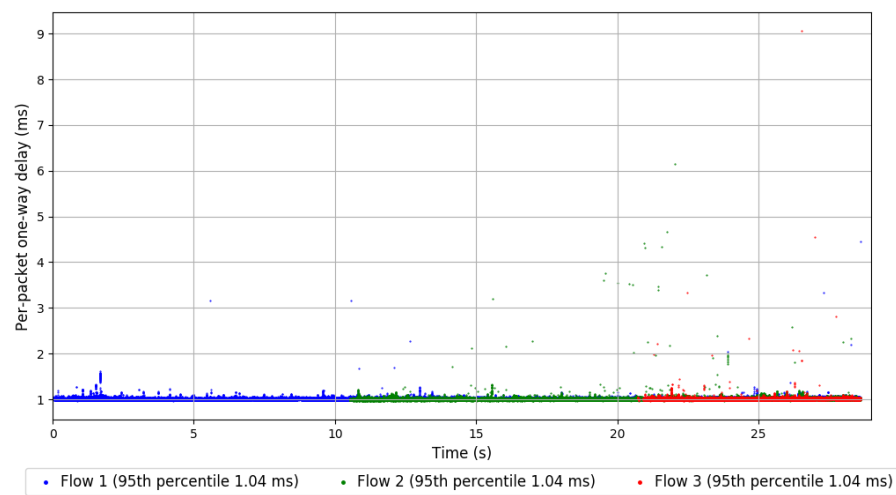
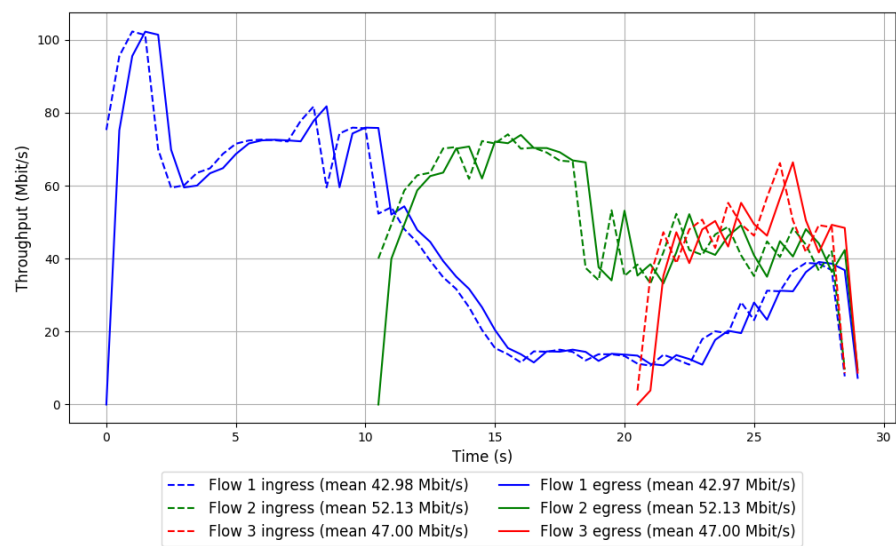
-- Flow 3:

Average throughput: 47.00 Mbit/s

95th percentile per-packet one-way delay: 1.037 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-20 12:15:11

End at: 2019-02-20 12:15:41

Local clock offset: -0.196 ms

Remote clock offset: 5.575 ms

Below is generated by plot.py at 2019-02-20 13:10:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.64 Mbit/s

95th percentile per-packet one-way delay: 1.016 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 68.70 Mbit/s

95th percentile per-packet one-way delay: 0.997 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.01 Mbit/s

95th percentile per-packet one-way delay: 1.030 ms

Loss rate: 0.01%

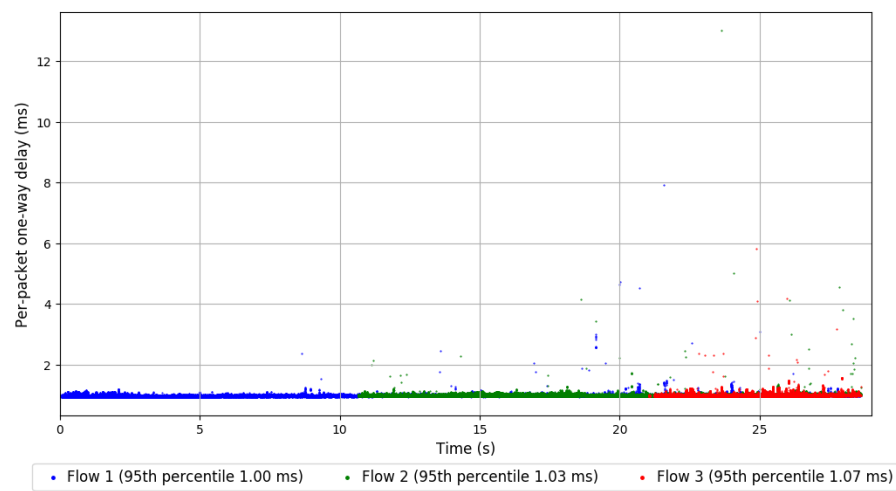
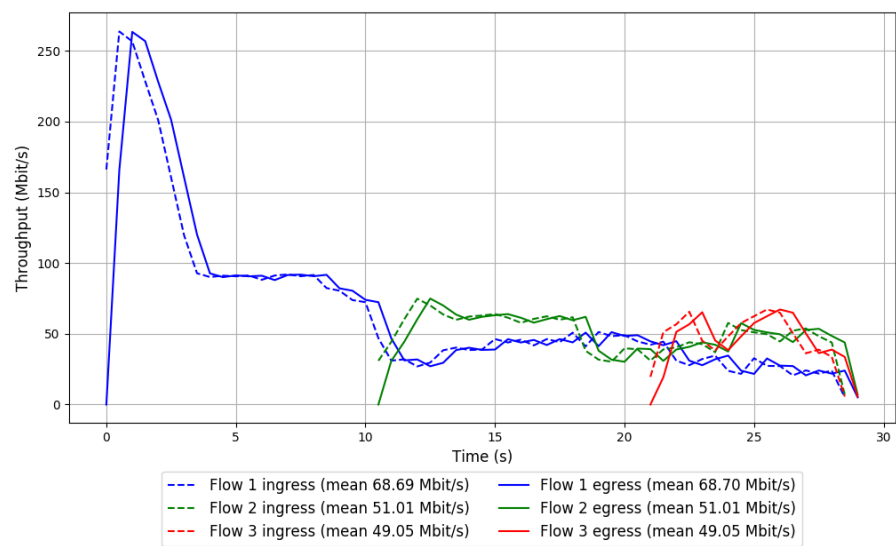
-- Flow 3:

Average throughput: 49.05 Mbit/s

95th percentile per-packet one-way delay: 1.071 ms

Loss rate: 0.01%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-20 10:20:57

End at: 2019-02-20 10:21:27

Local clock offset: -3.22 ms

Remote clock offset: 1.125 ms

Below is generated by plot.py at 2019-02-20 13:11:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 197.10 Mbit/s

95th percentile per-packet one-way delay: 1.077 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 140.64 Mbit/s

95th percentile per-packet one-way delay: 1.082 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 72.56 Mbit/s

95th percentile per-packet one-way delay: 1.068 ms

Loss rate: 0.01%

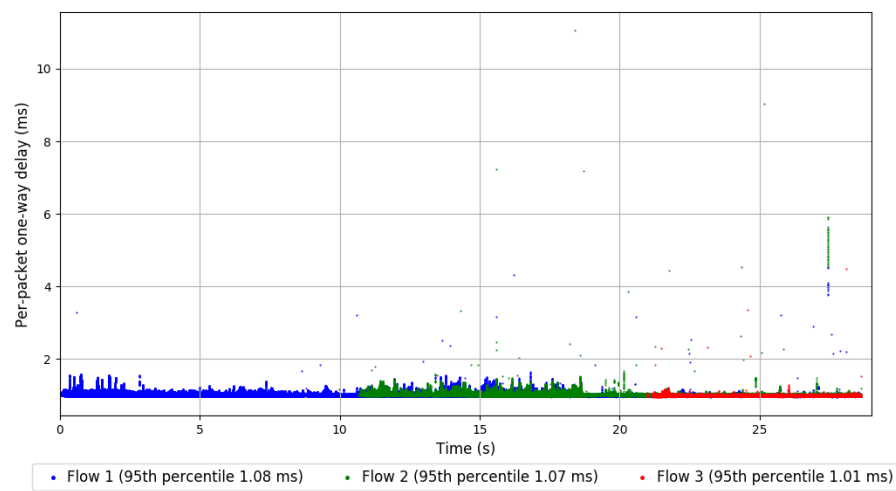
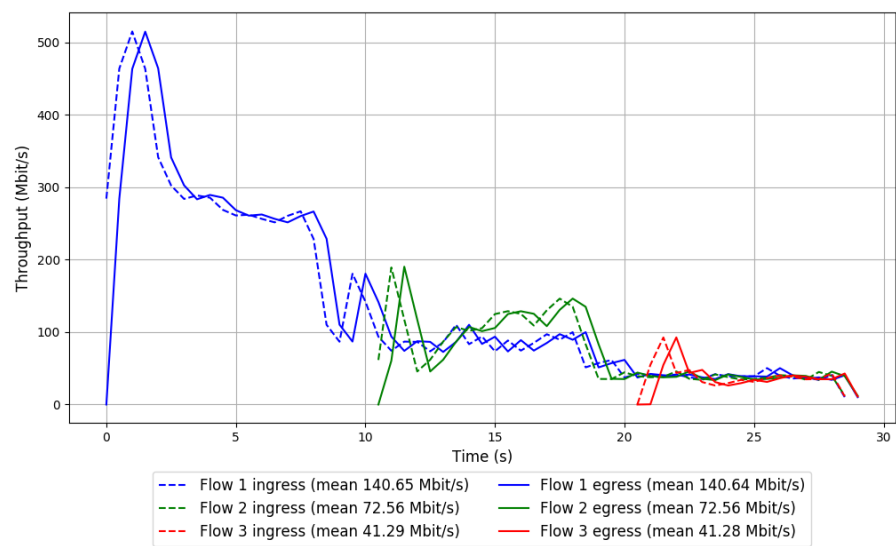
-- Flow 3:

Average throughput: 41.28 Mbit/s

95th percentile per-packet one-way delay: 1.013 ms

Loss rate: 0.03%

Run 1: Report of Indigo-MusesT — Data Link

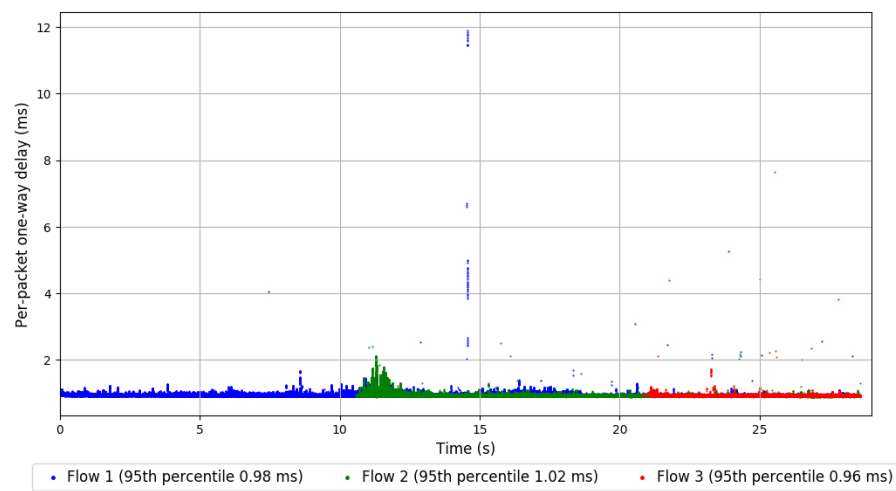
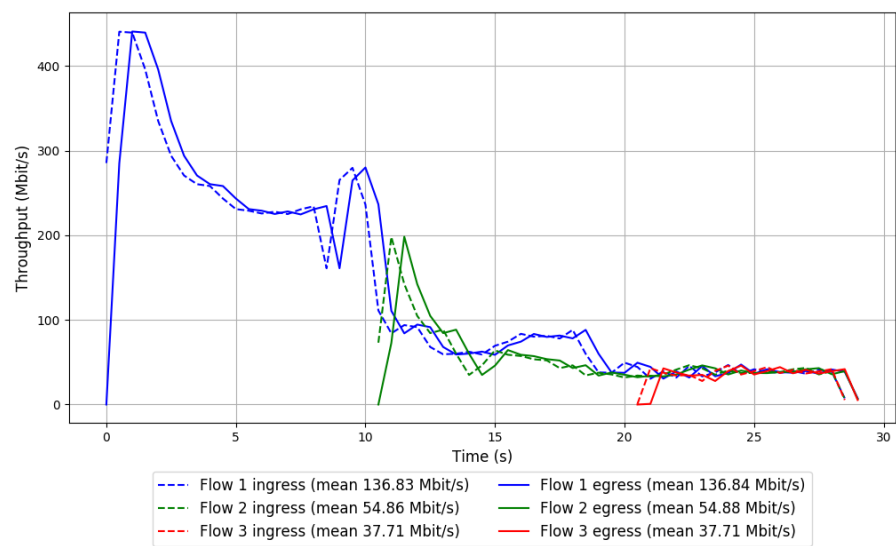


Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-20 10:51:22
End at: 2019-02-20 10:51:52
Local clock offset: 0.1 ms
Remote clock offset: -0.198 ms

Below is generated by plot.py at 2019-02-20 13:11:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 181.56 Mbit/s
95th percentile per-packet one-way delay: 0.987 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 136.84 Mbit/s
95th percentile per-packet one-way delay: 0.983 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.88 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 37.71 Mbit/s
95th percentile per-packet one-way delay: 0.957 ms
Loss rate: 0.01%

Run 2: Report of Indigo-MusesT — Data Link

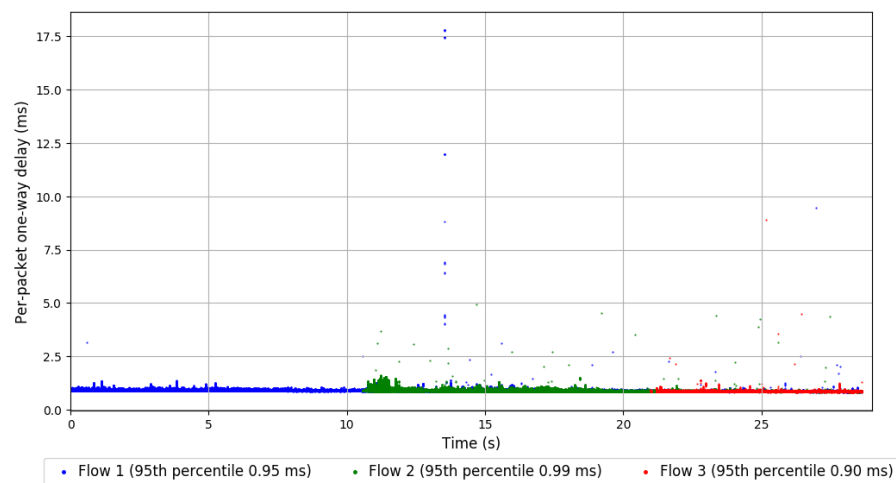
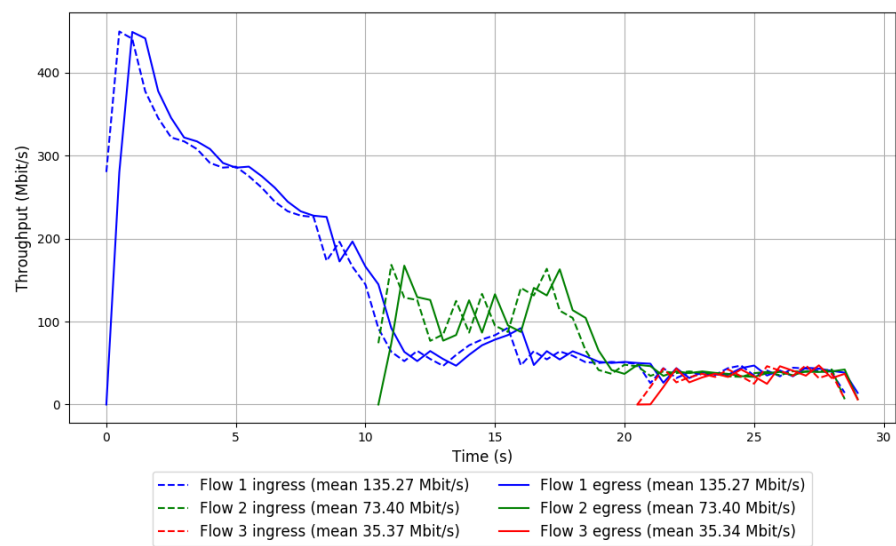


Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-20 11:21:41
End at: 2019-02-20 11:22:11
Local clock offset: 0.401 ms
Remote clock offset: -2.023 ms

Below is generated by plot.py at 2019-02-20 13:11:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 191.00 Mbit/s
95th percentile per-packet one-way delay: 0.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 135.27 Mbit/s
95th percentile per-packet one-way delay: 0.953 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 73.40 Mbit/s
95th percentile per-packet one-way delay: 0.992 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.34 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.10%

Run 3: Report of Indigo-MusesT — Data Link

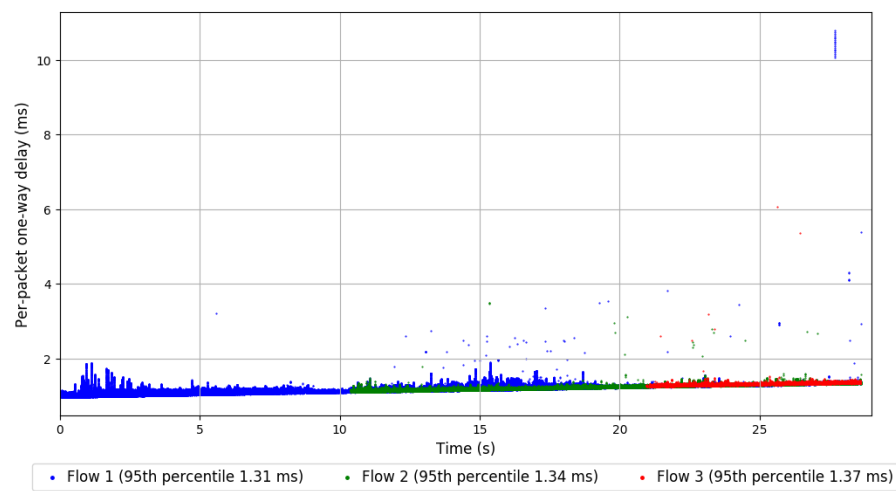
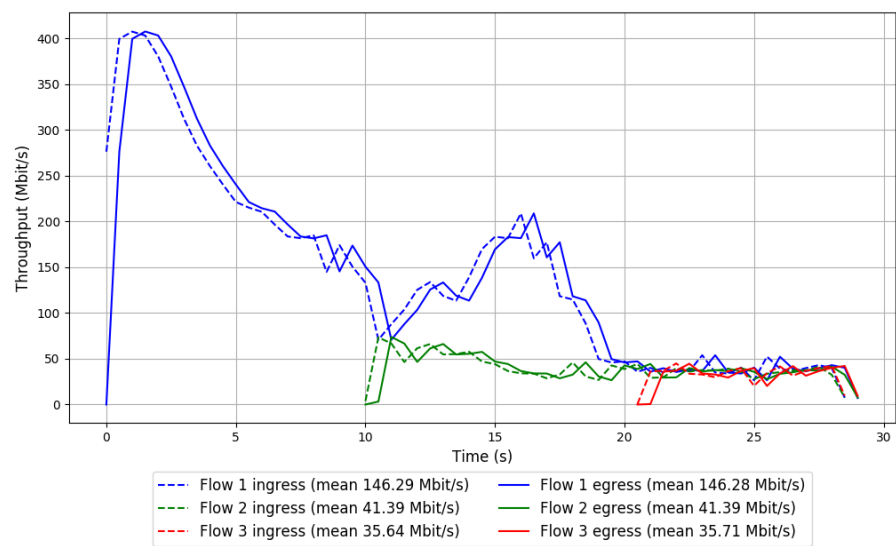


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-20 11:52:10
End at: 2019-02-20 11:52:40
Local clock offset: -3.237 ms
Remote clock offset: -1.593 ms

Below is generated by plot.py at 2019-02-20 13:11:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 182.19 Mbit/s
95th percentile per-packet one-way delay: 1.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 146.28 Mbit/s
95th percentile per-packet one-way delay: 1.310 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.39 Mbit/s
95th percentile per-packet one-way delay: 1.339 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.03%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-20 12:22:44

End at: 2019-02-20 12:23:14

Local clock offset: 0.317 ms

Remote clock offset: 6.637 ms

Below is generated by plot.py at 2019-02-20 13:11:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 167.49 Mbit/s

95th percentile per-packet one-way delay: 1.045 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 130.21 Mbit/s

95th percentile per-packet one-way delay: 1.050 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.77 Mbit/s

95th percentile per-packet one-way delay: 1.024 ms

Loss rate: 0.00%

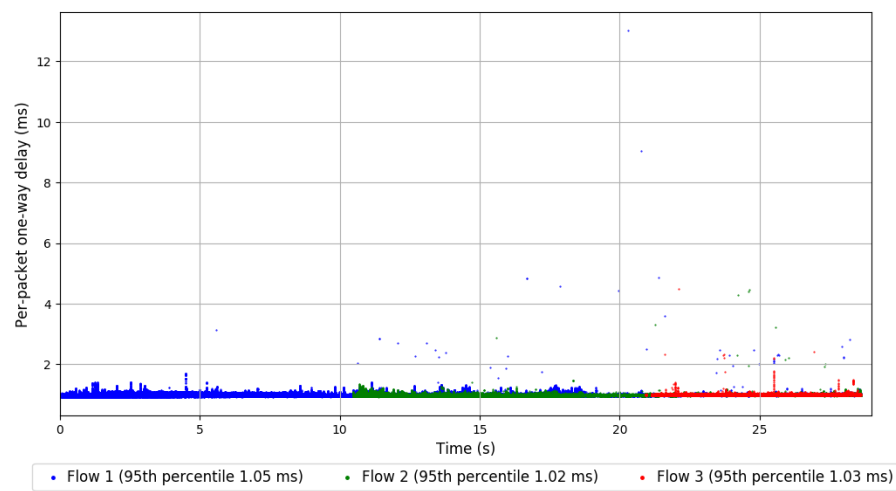
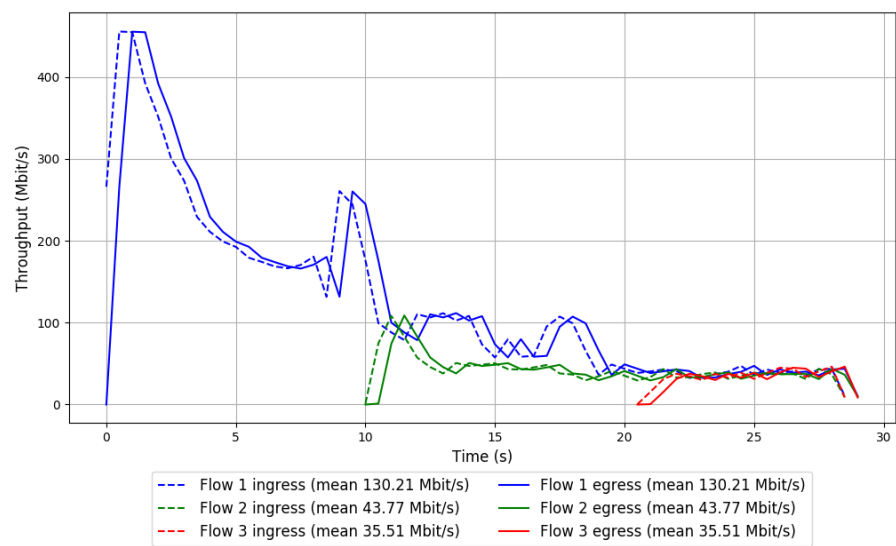
-- Flow 3:

Average throughput: 35.51 Mbit/s

95th percentile per-packet one-way delay: 1.029 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

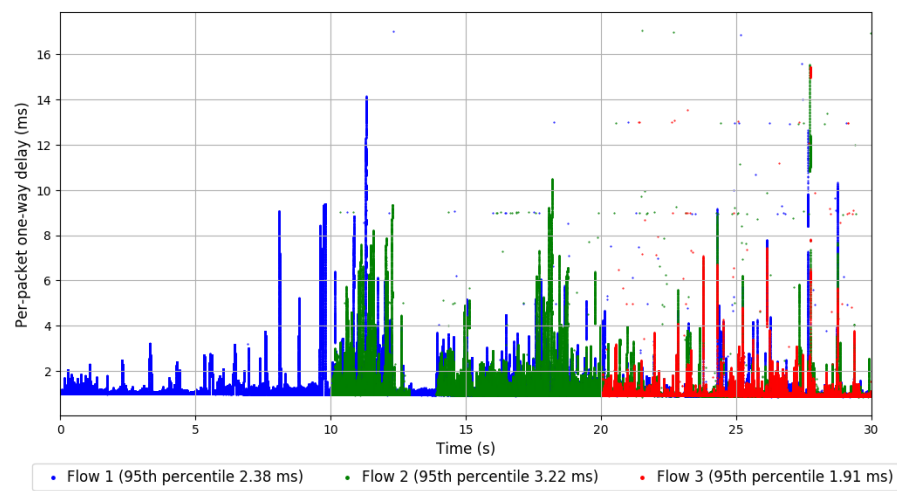
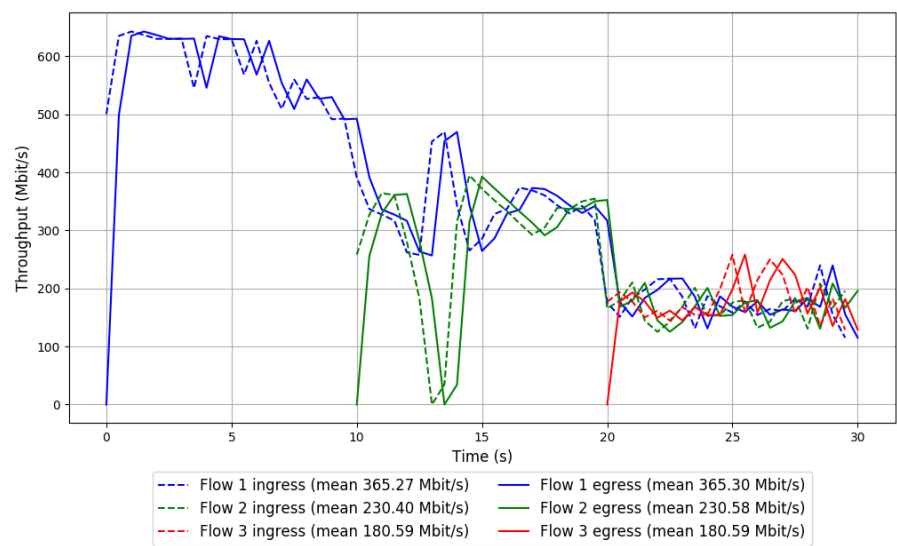


```
Run 1: Statistics of LEDBAT

Start at: 2019-02-20 10:08:54
End at: 2019-02-20 10:09:24
Local clock offset: -1.794 ms
Remote clock offset: 4.337 ms

# Below is generated by plot.py at 2019-02-20 13:16:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.62 Mbit/s
95th percentile per-packet one-way delay: 2.536 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 365.30 Mbit/s
95th percentile per-packet one-way delay: 2.377 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 230.58 Mbit/s
95th percentile per-packet one-way delay: 3.222 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 180.59 Mbit/s
95th percentile per-packet one-way delay: 1.909 ms
Loss rate: 0.02%
```

Run 1: Report of LEDBAT — Data Link

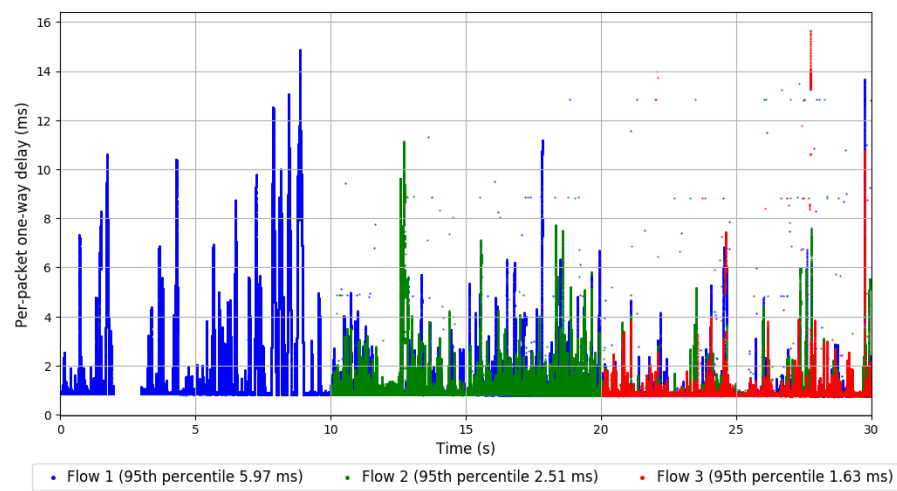
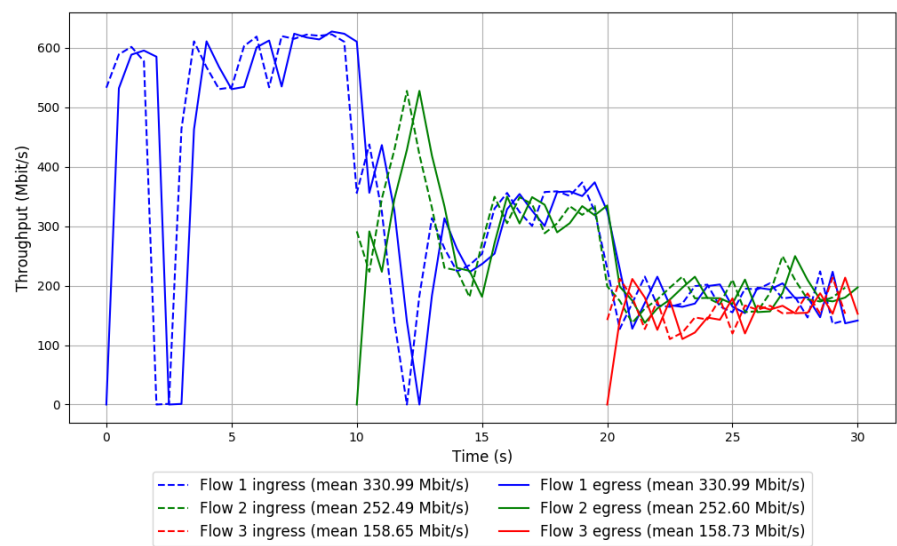


Run 2: Statistics of LEDBAT

Start at: 2019-02-20 10:39:23
End at: 2019-02-20 10:39:53
Local clock offset: -1.042 ms
Remote clock offset: -0.119 ms

Below is generated by plot.py at 2019-02-20 13:16:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 551.85 Mbit/s
95th percentile per-packet one-way delay: 4.646 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 330.99 Mbit/s
95th percentile per-packet one-way delay: 5.967 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 252.60 Mbit/s
95th percentile per-packet one-way delay: 2.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.73 Mbit/s
95th percentile per-packet one-way delay: 1.629 ms
Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link

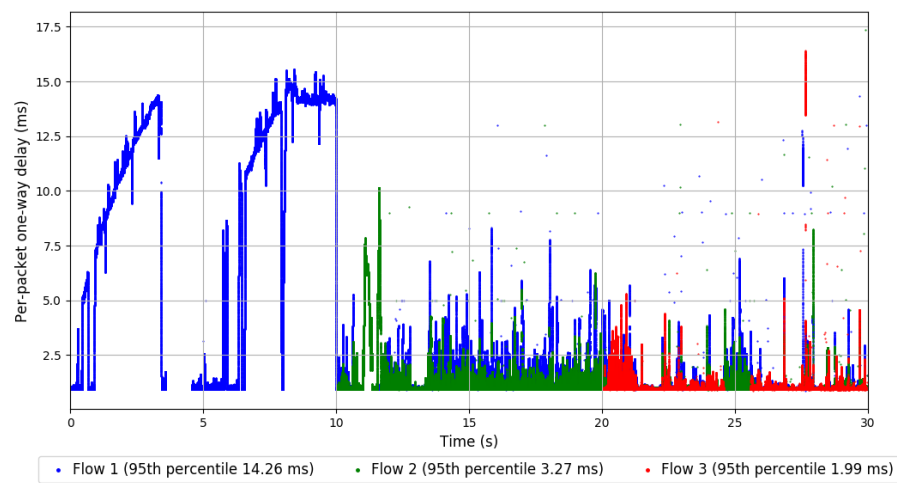
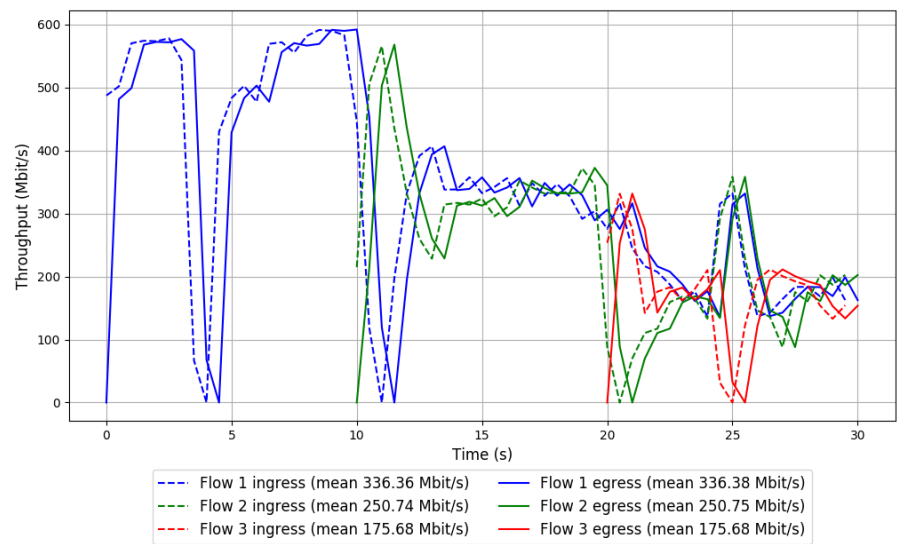


Run 3: Statistics of LEDBAT

Start at: 2019-02-20 11:09:32
End at: 2019-02-20 11:10:02
Local clock offset: 0.336 ms
Remote clock offset: -0.474 ms

Below is generated by plot.py at 2019-02-20 13:16:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 561.59 Mbit/s
95th percentile per-packet one-way delay: 14.138 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 336.38 Mbit/s
95th percentile per-packet one-way delay: 14.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.75 Mbit/s
95th percentile per-packet one-way delay: 3.273 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 175.68 Mbit/s
95th percentile per-packet one-way delay: 1.992 ms
Loss rate: 0.02%

Run 3: Report of LEDBAT — Data Link

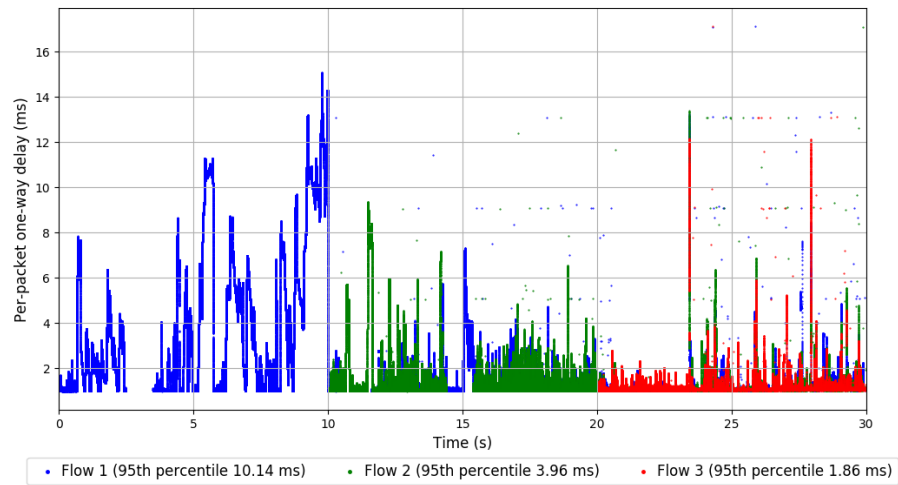
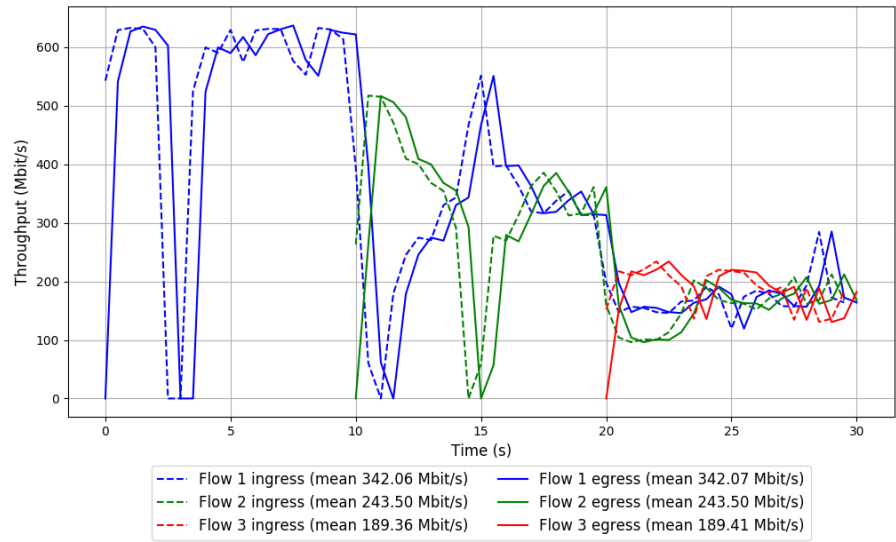


Run 4: Statistics of LEDBAT

Start at: 2019-02-20 11:40:04
End at: 2019-02-20 11:40:34
Local clock offset: -2.079 ms
Remote clock offset: -3.754 ms

Below is generated by plot.py at 2019-02-20 13:17:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 567.07 Mbit/s
95th percentile per-packet one-way delay: 8.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 342.07 Mbit/s
95th percentile per-packet one-way delay: 10.143 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 243.50 Mbit/s
95th percentile per-packet one-way delay: 3.963 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 189.41 Mbit/s
95th percentile per-packet one-way delay: 1.863 ms
Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-02-20 12:10:39

End at: 2019-02-20 12:11:09

Local clock offset: -0.713 ms

Remote clock offset: 4.839 ms

Below is generated by plot.py at 2019-02-20 13:18:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 577.71 Mbit/s

95th percentile per-packet one-way delay: 11.097 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 362.38 Mbit/s

95th percentile per-packet one-way delay: 11.796 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 243.53 Mbit/s

95th percentile per-packet one-way delay: 1.890 ms

Loss rate: 0.00%

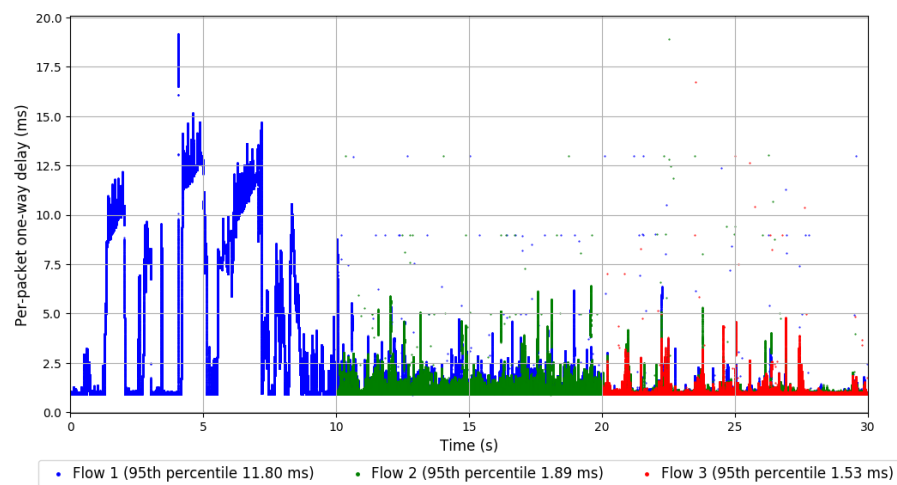
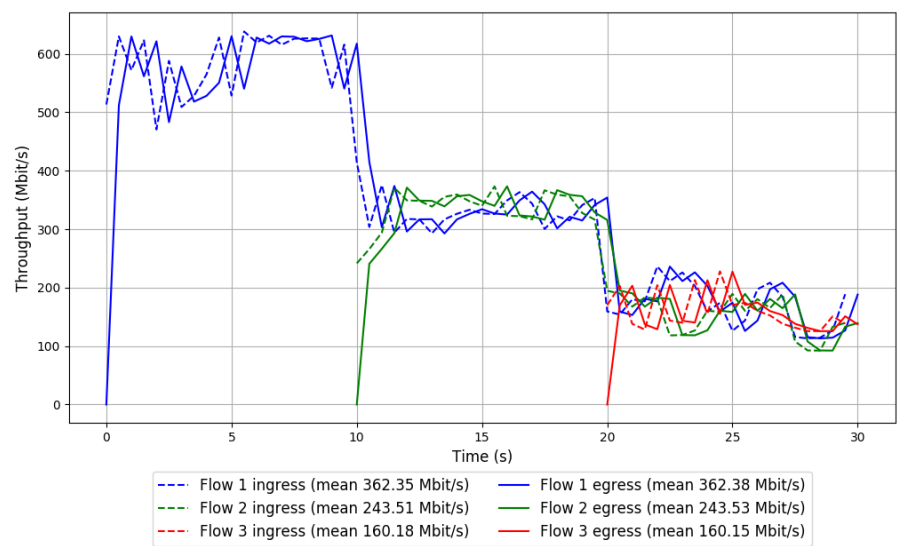
-- Flow 3:

Average throughput: 160.15 Mbit/s

95th percentile per-packet one-way delay: 1.531 ms

Loss rate: 0.03%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-02-20 09:56:52

End at: 2019-02-20 09:57:22

Local clock offset: 0.75 ms

Remote clock offset: 5.006 ms

Below is generated by plot.py at 2019-02-20 13:18:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 572.30 Mbit/s

95th percentile per-packet one-way delay: 1.693 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 381.33 Mbit/s

95th percentile per-packet one-way delay: 1.517 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 205.27 Mbit/s

95th percentile per-packet one-way delay: 1.722 ms

Loss rate: 0.00%

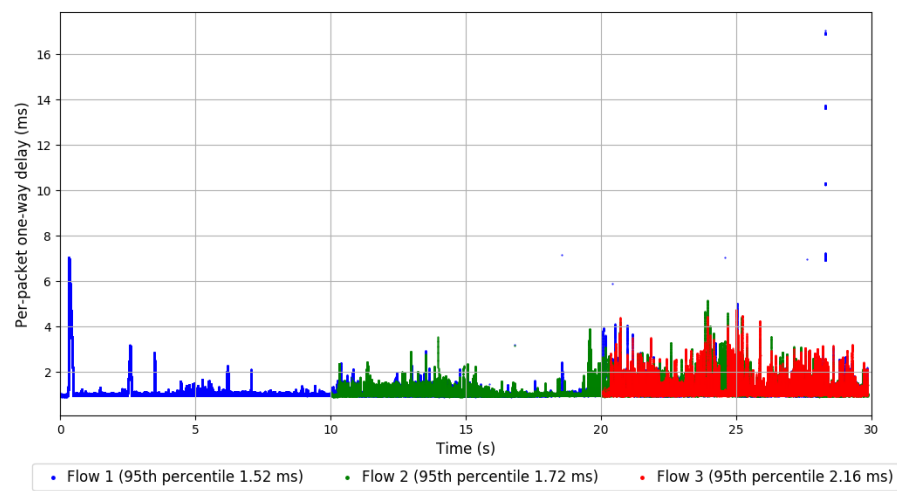
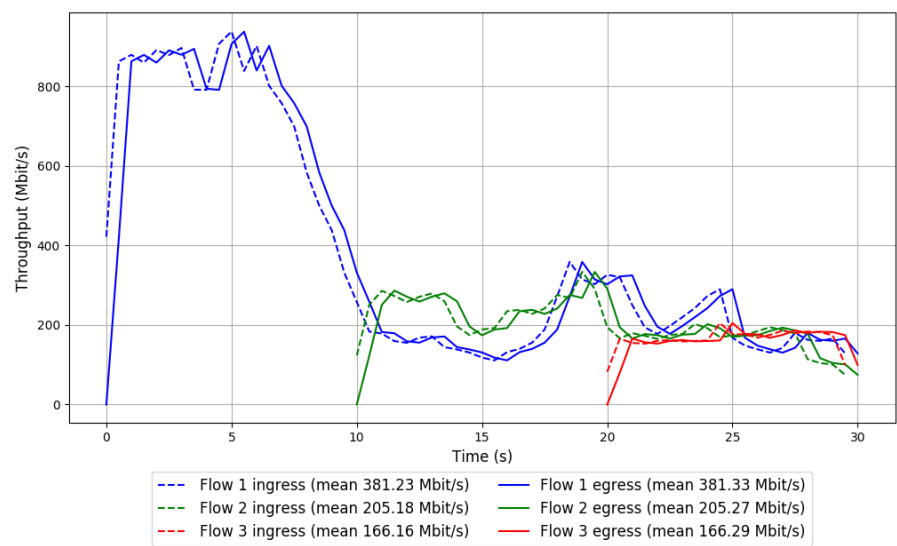
-- Flow 3:

Average throughput: 166.29 Mbit/s

95th percentile per-packet one-way delay: 2.162 ms

Loss rate: 0.02%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-02-20 10:27:02

End at: 2019-02-20 10:27:32

Local clock offset: -3.63 ms

Remote clock offset: 0.44 ms

Below is generated by plot.py at 2019-02-20 13:18:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 611.95 Mbit/s

95th percentile per-packet one-way delay: 2.234 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 478.87 Mbit/s

95th percentile per-packet one-way delay: 2.647 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 156.96 Mbit/s

95th percentile per-packet one-way delay: 1.853 ms

Loss rate: 0.01%

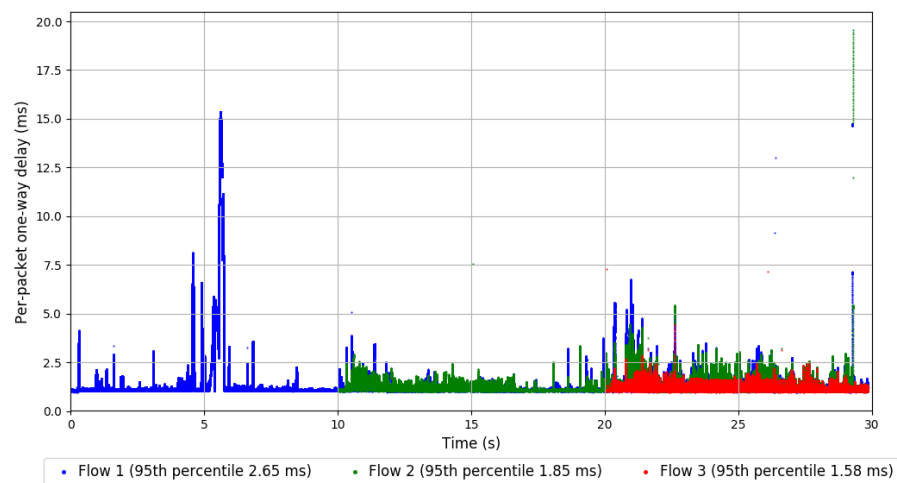
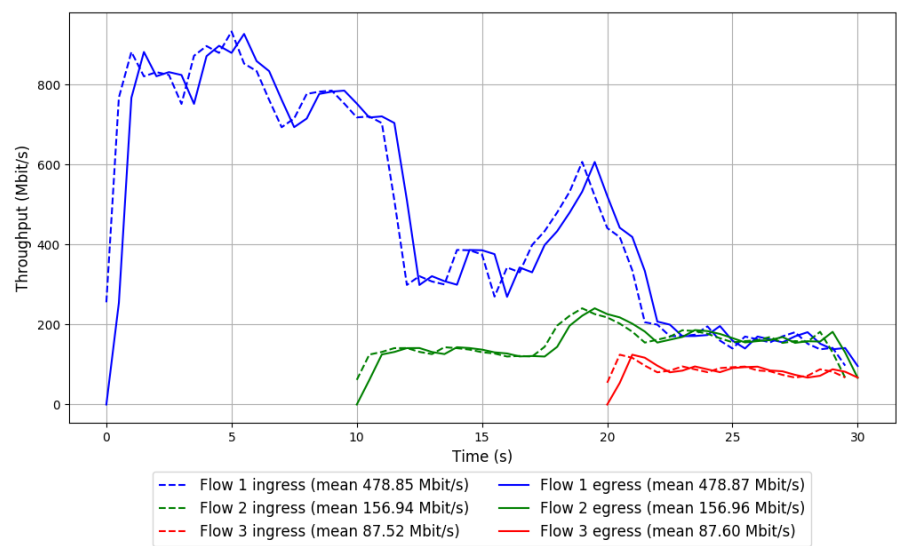
-- Flow 3:

Average throughput: 87.60 Mbit/s

95th percentile per-packet one-way delay: 1.582 ms

Loss rate: 0.03%

Run 2: Report of PCC-Allegro — Data Link

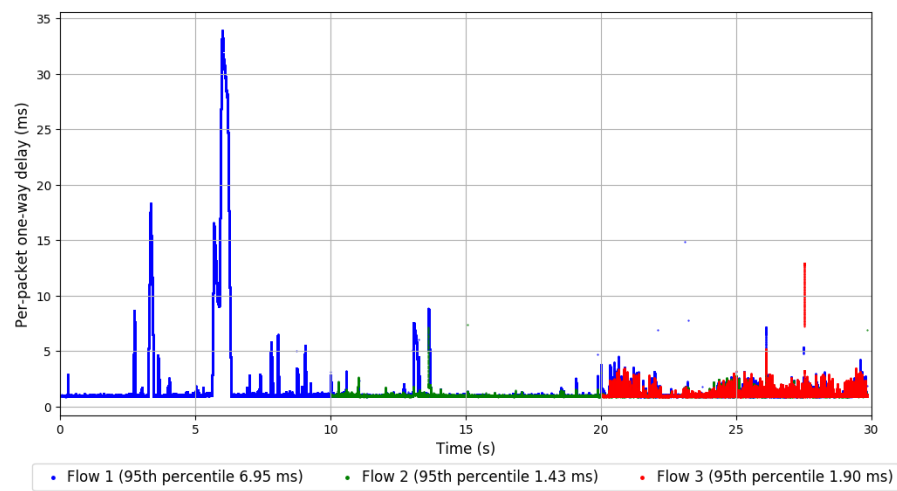
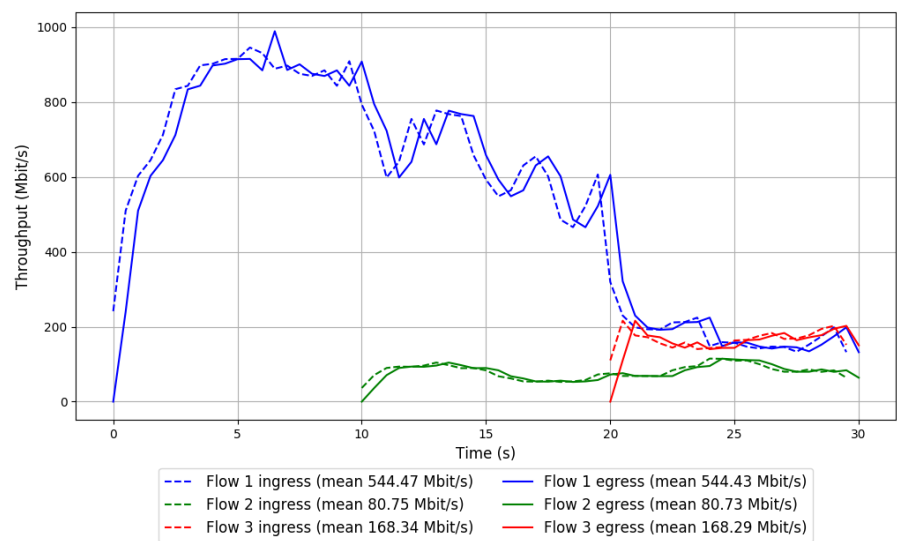


Run 3: Statistics of PCC-Allegro

Start at: 2019-02-20 10:57:28
End at: 2019-02-20 10:57:58
Local clock offset: 0.365 ms
Remote clock offset: -0.283 ms

Below is generated by plot.py at 2019-02-20 13:19:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 653.40 Mbit/s
95th percentile per-packet one-way delay: 5.399 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 544.43 Mbit/s
95th percentile per-packet one-way delay: 6.953 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 80.73 Mbit/s
95th percentile per-packet one-way delay: 1.432 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 168.29 Mbit/s
95th percentile per-packet one-way delay: 1.900 ms
Loss rate: 0.05%

Run 3: Report of PCC-Allegro — Data Link

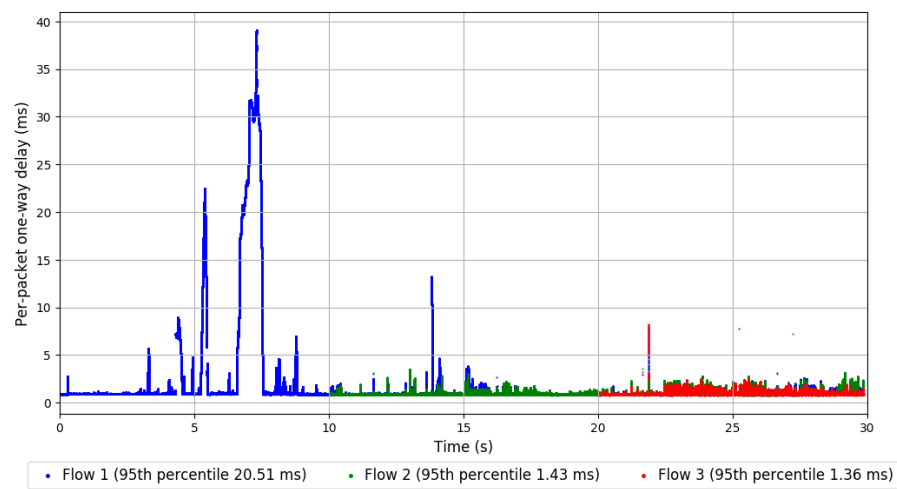
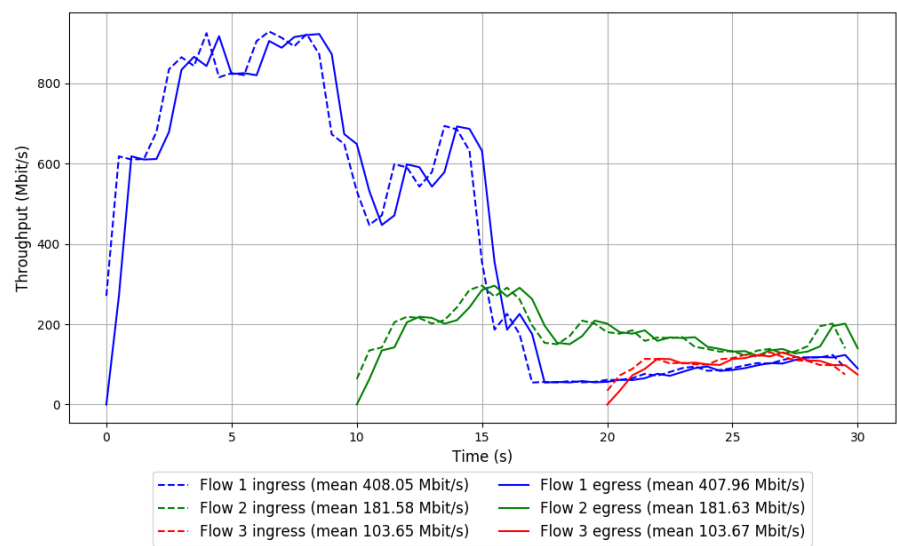


Run 4: Statistics of PCC-Allegro

Start at: 2019-02-20 11:27:50
End at: 2019-02-20 11:28:20
Local clock offset: 0.468 ms
Remote clock offset: -2.768 ms

Below is generated by plot.py at 2019-02-20 13:23:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 562.60 Mbit/s
95th percentile per-packet one-way delay: 14.696 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 407.96 Mbit/s
95th percentile per-packet one-way delay: 20.506 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 181.63 Mbit/s
95th percentile per-packet one-way delay: 1.434 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 103.67 Mbit/s
95th percentile per-packet one-way delay: 1.357 ms
Loss rate: 0.02%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-20 11:58:15

End at: 2019-02-20 11:58:45

Local clock offset: -3.565 ms

Remote clock offset: 1.616 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 741.15 Mbit/s

95th percentile per-packet one-way delay: 115.869 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 599.79 Mbit/s

95th percentile per-packet one-way delay: 117.149 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 196.84 Mbit/s

95th percentile per-packet one-way delay: 2.928 ms

Loss rate: 0.01%

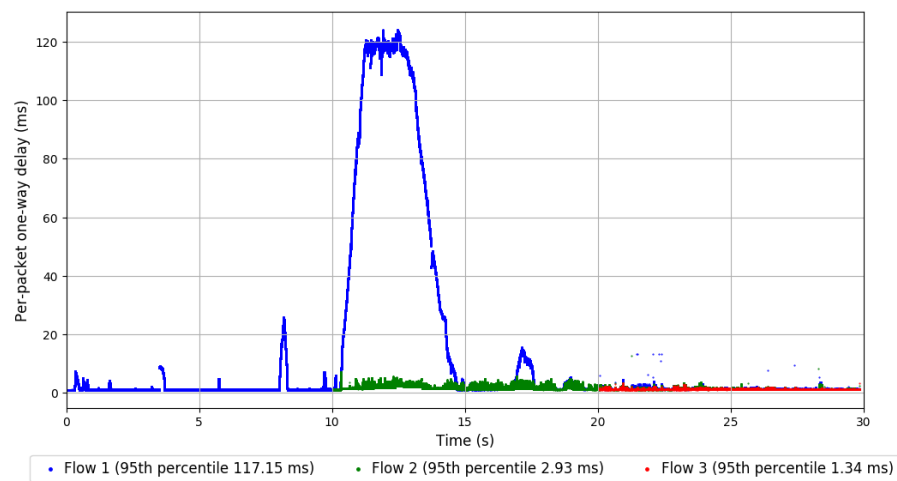
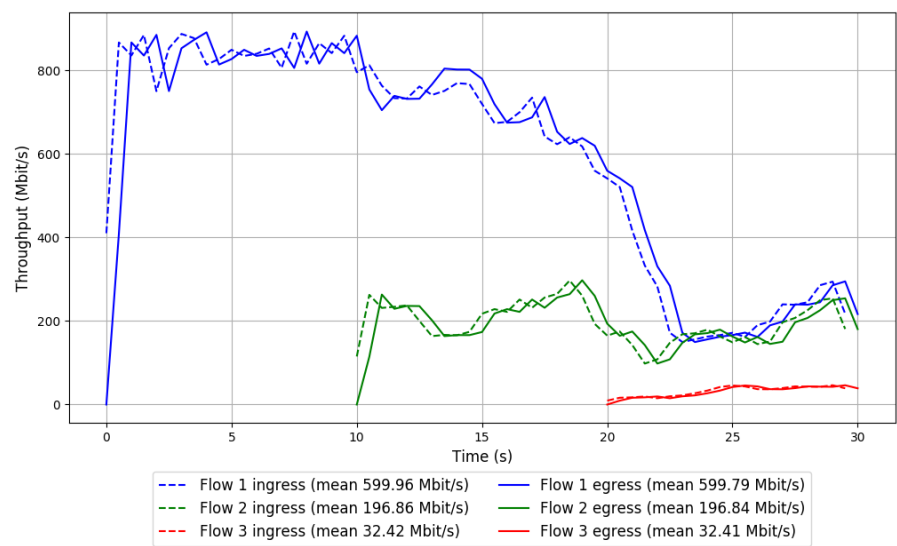
-- Flow 3:

Average throughput: 32.41 Mbit/s

95th percentile per-packet one-way delay: 1.343 ms

Loss rate: 0.03%

Run 5: Report of PCC-Allegro — Data Link

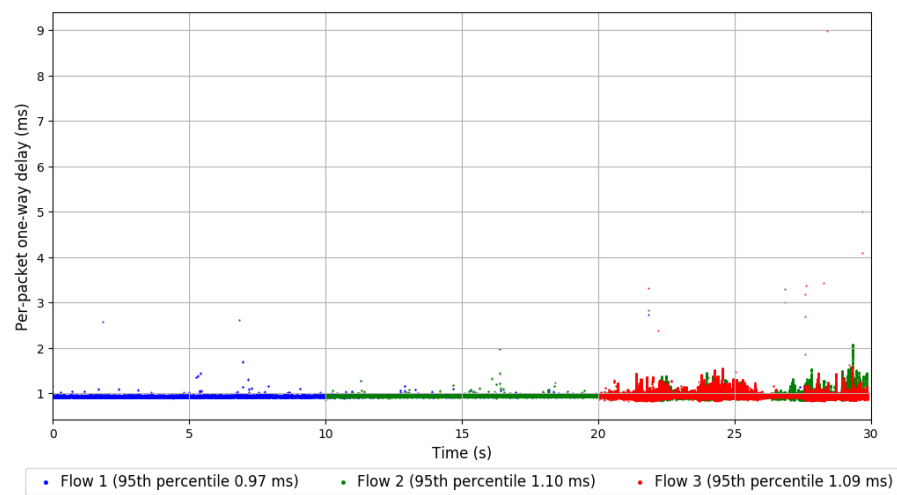
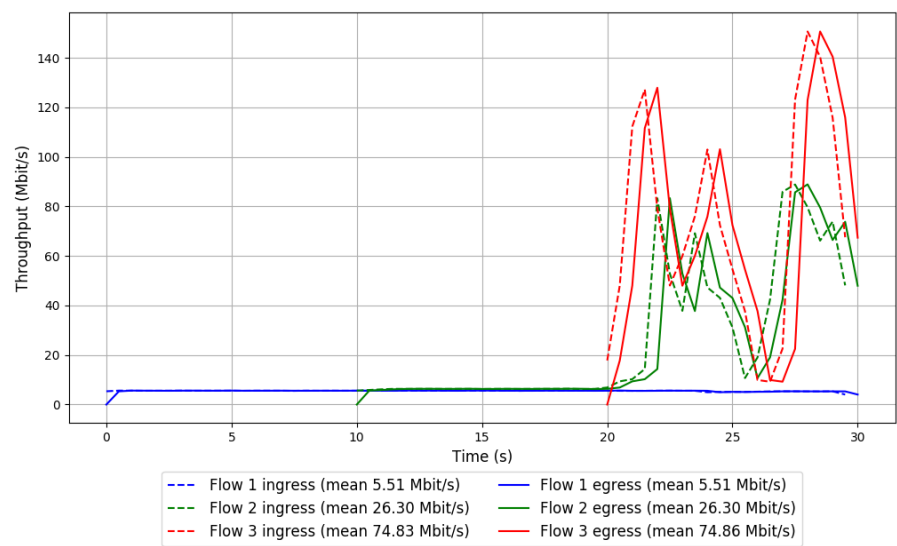


```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-20 09:58:20
End at: 2019-02-20 09:58:50
Local clock offset: 0.771 ms
Remote clock offset: 5.153 ms

# Below is generated by plot.py at 2019-02-20 13:25:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 1.075 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 0.967 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 1.099 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 74.86 Mbit/s
95th percentile per-packet one-way delay: 1.086 ms
Loss rate: 0.01%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-02-20 10:28:31

End at: 2019-02-20 10:29:01

Local clock offset: -3.708 ms

Remote clock offset: 0.393 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.26 Mbit/s

95th percentile per-packet one-way delay: 20.687 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 259.13 Mbit/s

95th percentile per-packet one-way delay: 20.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 1.060 ms

Loss rate: 0.02%

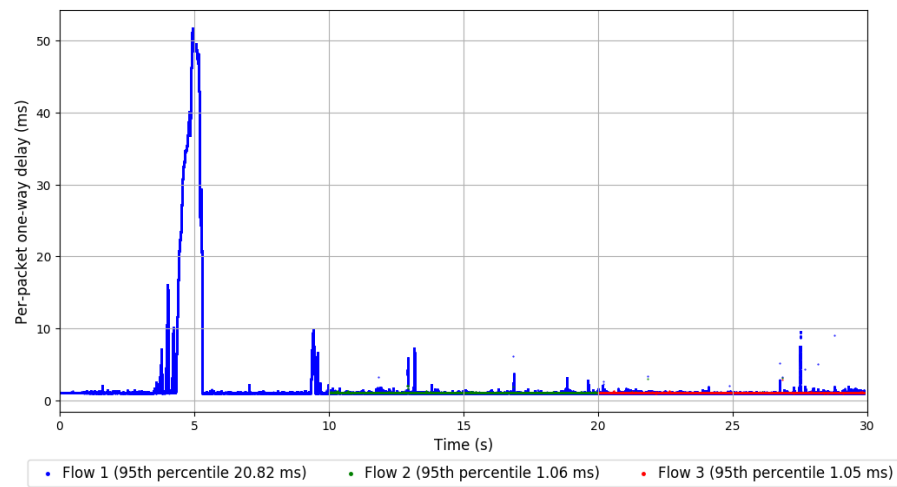
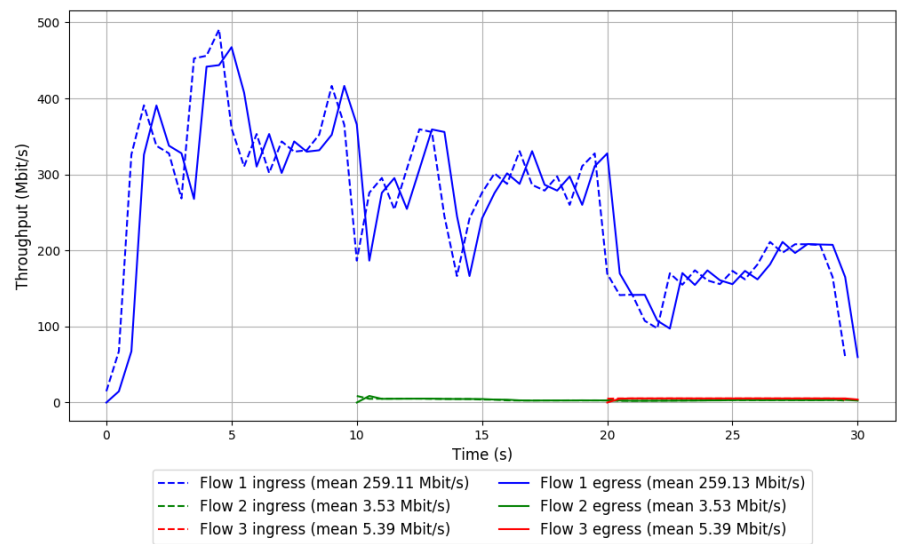
-- Flow 3:

Average throughput: 5.39 Mbit/s

95th percentile per-packet one-way delay: 1.052 ms

Loss rate: 0.02%

Run 2: Report of PCC-Expr — Data Link

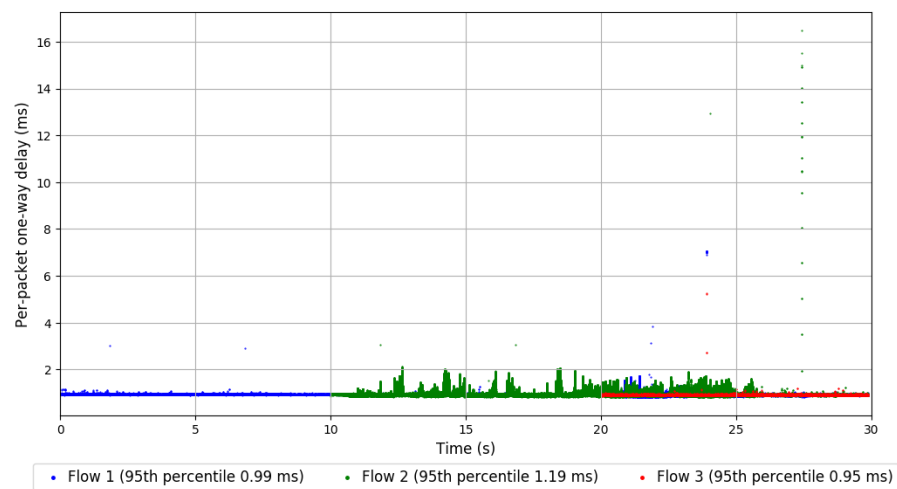
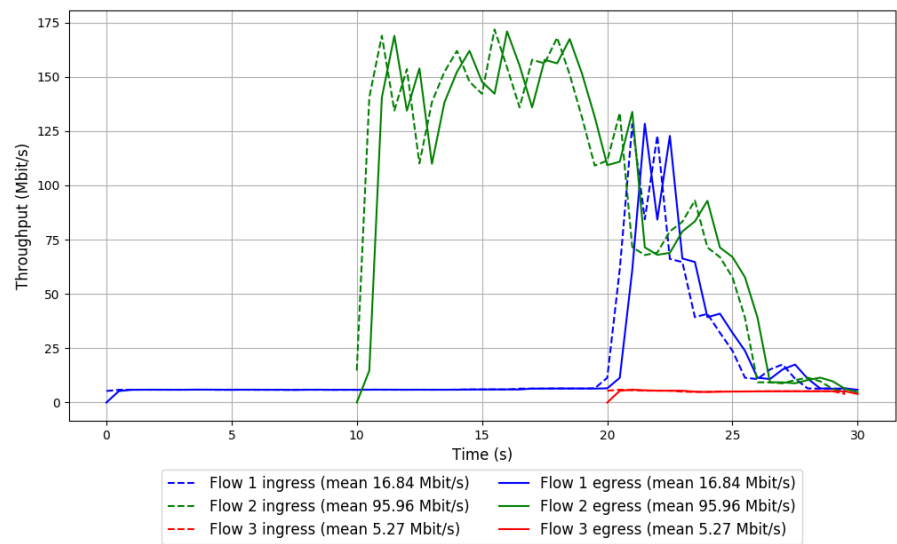


Run 3: Statistics of PCC-Expr

Start at: 2019-02-20 10:58:58
End at: 2019-02-20 10:59:28
Local clock offset: 0.406 ms
Remote clock offset: -0.272 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 82.40 Mbit/s
95th percentile per-packet one-way delay: 1.141 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.84 Mbit/s
95th percentile per-packet one-way delay: 0.991 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 1.185 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 0.952 ms
Loss rate: 0.02%

Run 3: Report of PCC-Expr — Data Link

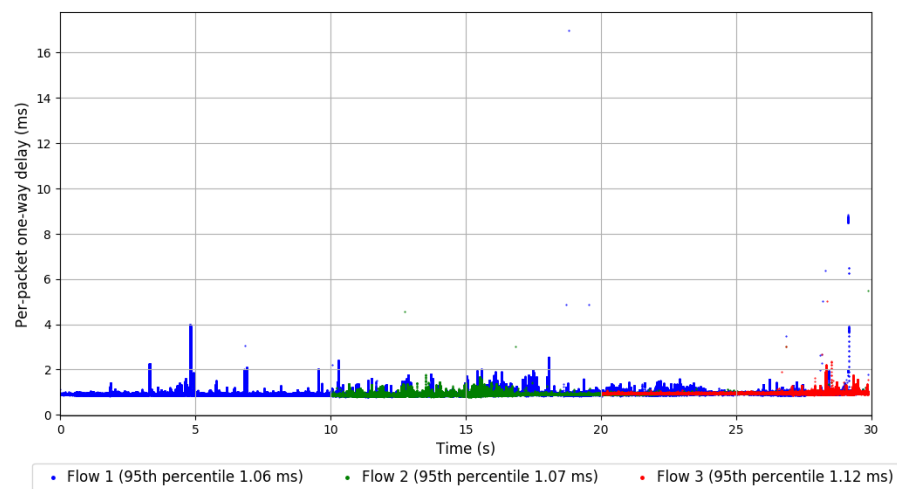
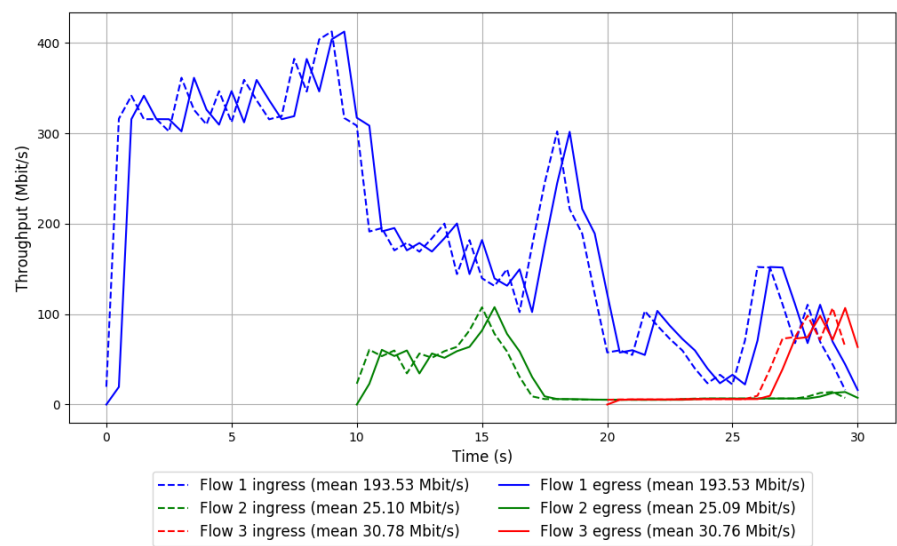


Run 4: Statistics of PCC-Expr

Start at: 2019-02-20 11:29:17
End at: 2019-02-20 11:29:47
Local clock offset: 0.478 ms
Remote clock offset: -2.902 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 220.33 Mbit/s
95th percentile per-packet one-way delay: 1.065 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.53 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.09 Mbit/s
95th percentile per-packet one-way delay: 1.074 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 30.76 Mbit/s
95th percentile per-packet one-way delay: 1.123 ms
Loss rate: 0.06%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-02-20 11:59:47

End at: 2019-02-20 12:00:17

Local clock offset: -3.62 ms

Remote clock offset: 2.156 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 236.07 Mbit/s

95th percentile per-packet one-way delay: 1.050 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 211.03 Mbit/s

95th percentile per-packet one-way delay: 1.039 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.78 Mbit/s

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

Loss rate: 0.02%

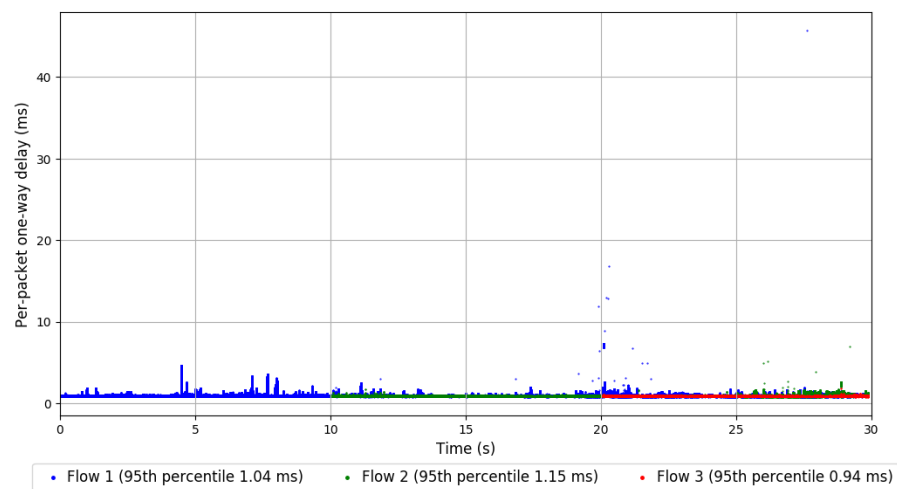
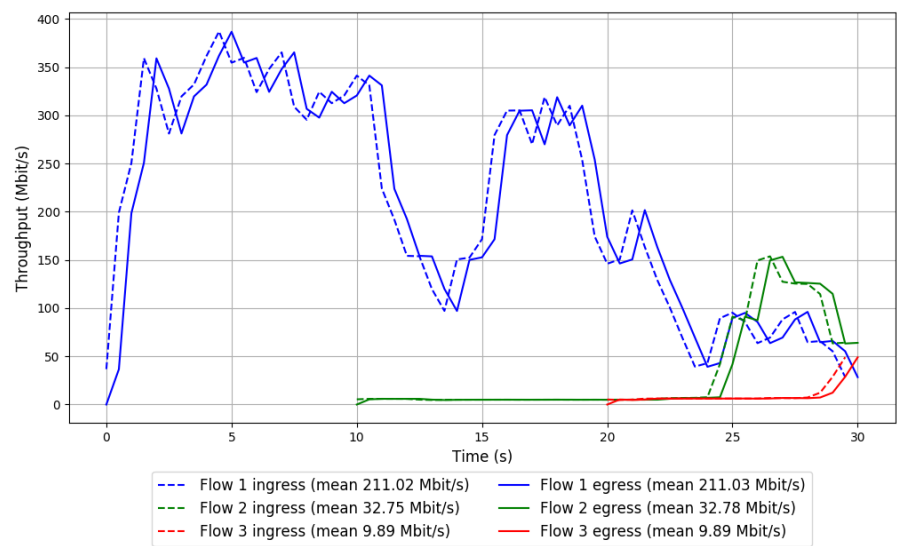
-- Flow 3:

Average throughput: 9.89 Mbit/s

95th percentile per-packet one-way delay: 0.941 ms

Loss rate: 0.05%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-02-20 10:10:33

End at: 2019-02-20 10:11:03

Local clock offset: -2.114 ms

Remote clock offset: 3.674 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.88 Mbit/s

95th percentile per-packet one-way delay: 0.940 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 74.82 Mbit/s

95th percentile per-packet one-way delay: 0.947 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 66.86 Mbit/s

95th percentile per-packet one-way delay: 0.928 ms

Loss rate: 0.01%

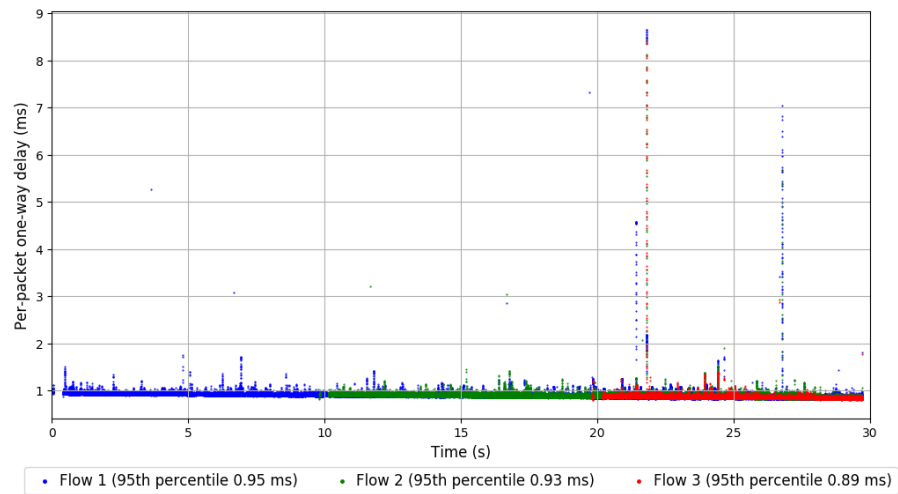
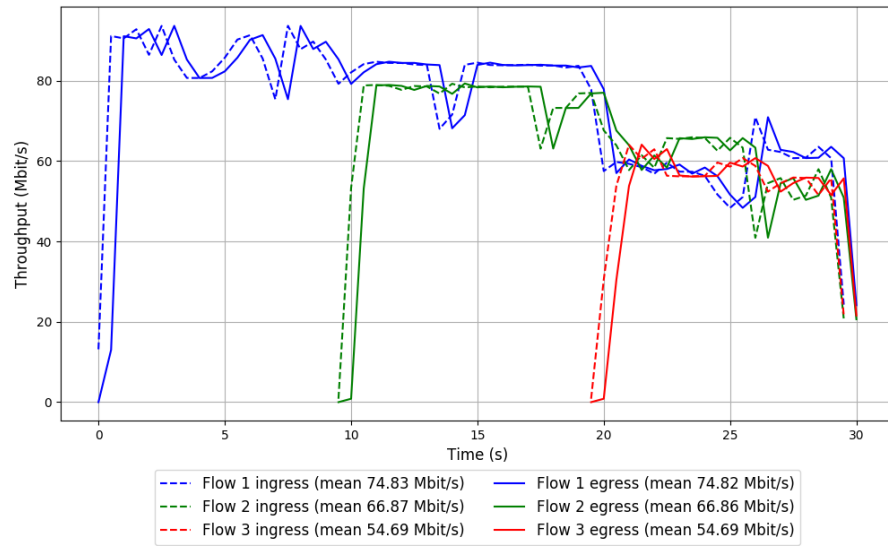
-- Flow 3:

Average throughput: 54.69 Mbit/s

95th percentile per-packet one-way delay: 0.894 ms

Loss rate: 0.01%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-02-20 10:41:01

End at: 2019-02-20 10:41:31

Local clock offset: -0.797 ms

Remote clock offset: -0.18 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.63 Mbit/s

95th percentile per-packet one-way delay: 0.922 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 75.00 Mbit/s

95th percentile per-packet one-way delay: 0.927 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 70.01 Mbit/s

95th percentile per-packet one-way delay: 0.916 ms

Loss rate: 0.01%

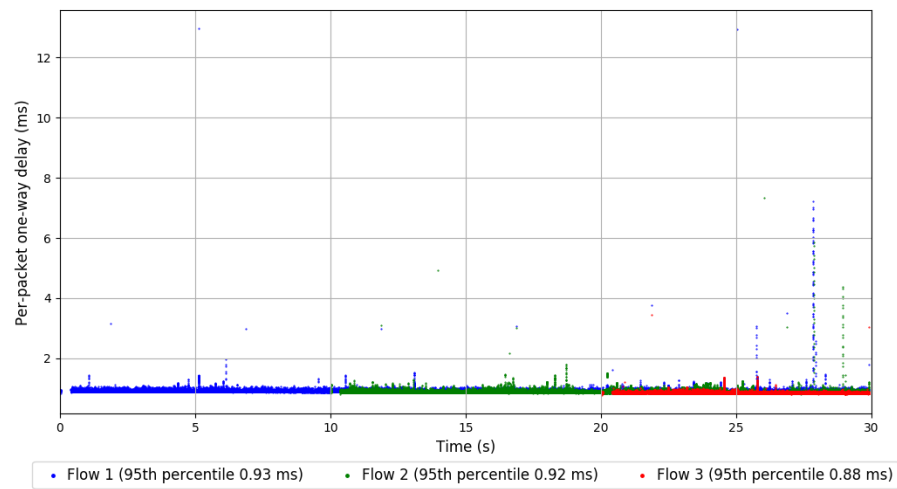
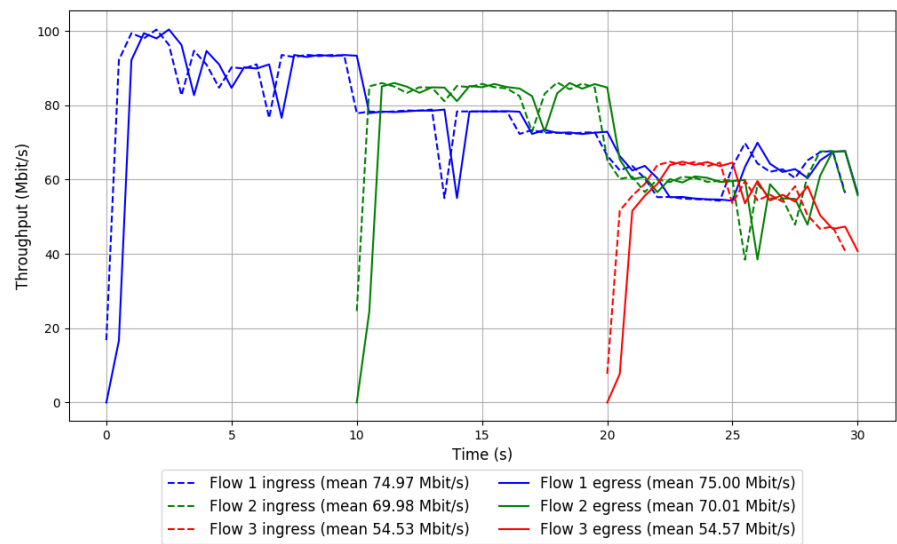
-- Flow 3:

Average throughput: 54.57 Mbit/s

95th percentile per-packet one-way delay: 0.878 ms

Loss rate: 0.01%

Run 2: Report of QUIC Cubic — Data Link

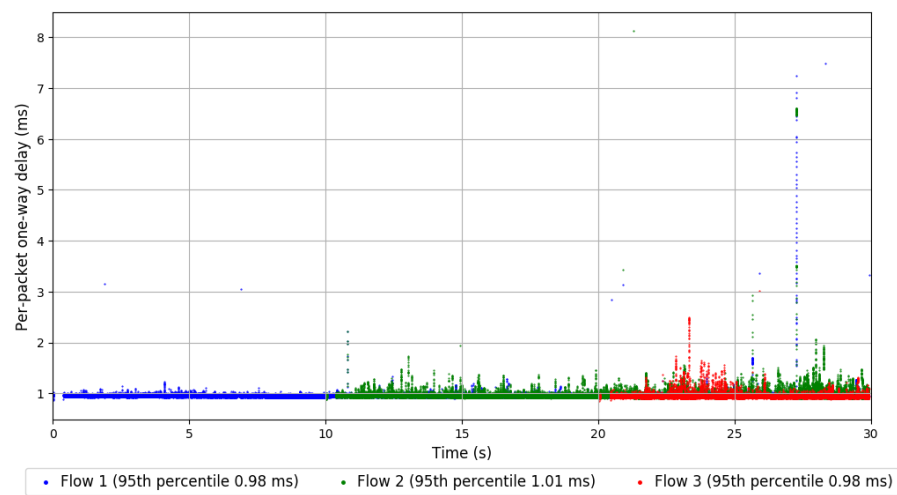
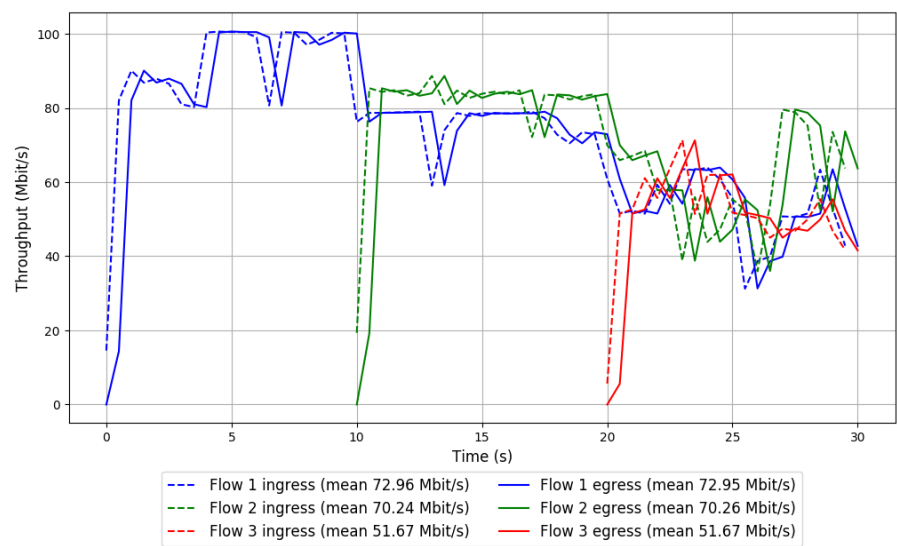


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-20 11:11:11
End at: 2019-02-20 11:11:41
Local clock offset: 0.335 ms
Remote clock offset: -0.501 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 136.78 Mbit/s
95th percentile per-packet one-way delay: 0.984 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 72.95 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 70.26 Mbit/s
95th percentile per-packet one-way delay: 1.013 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 51.67 Mbit/s
95th percentile per-packet one-way delay: 0.979 ms
Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link

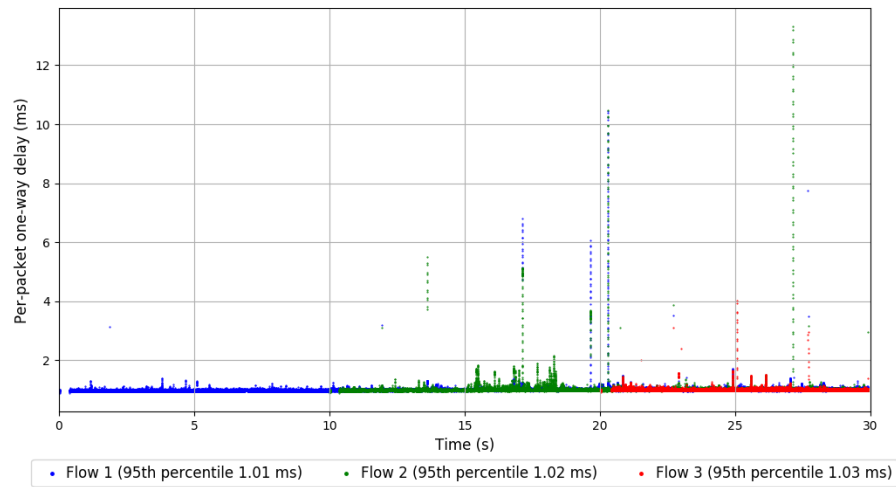
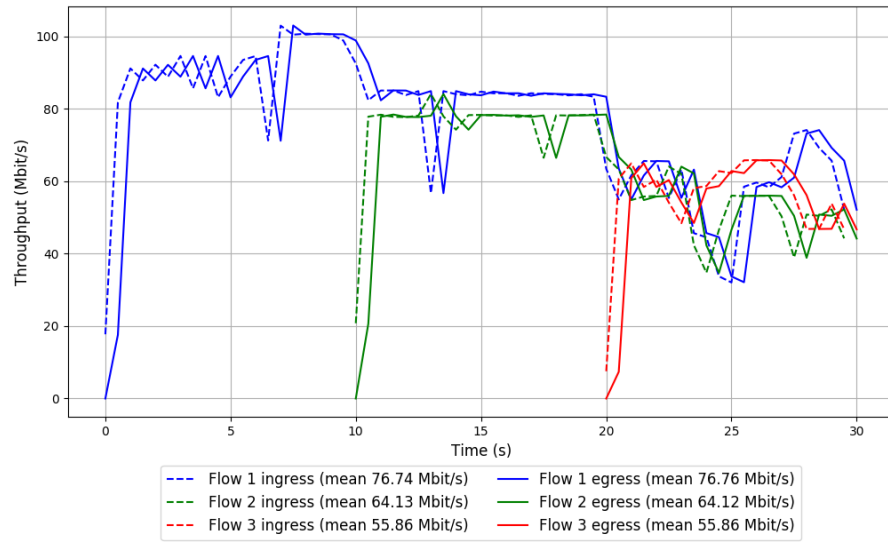


Run 4: Statistics of QUIC Cubic

Start at: 2019-02-20 11:41:43
End at: 2019-02-20 11:42:13
Local clock offset: -2.311 ms
Remote clock offset: -3.808 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 137.91 Mbit/s
95th percentile per-packet one-way delay: 1.018 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 76.76 Mbit/s
95th percentile per-packet one-way delay: 1.013 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 64.12 Mbit/s
95th percentile per-packet one-way delay: 1.019 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 55.86 Mbit/s
95th percentile per-packet one-way delay: 1.027 ms
Loss rate: 0.02%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-02-20 12:12:18

End at: 2019-02-20 12:12:48

Local clock offset: -0.513 ms

Remote clock offset: 5.166 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.49 Mbit/s

95th percentile per-packet one-way delay: 0.949 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 76.07 Mbit/s

95th percentile per-packet one-way delay: 0.934 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.94 Mbit/s

95th percentile per-packet one-way delay: 0.966 ms

Loss rate: 0.01%

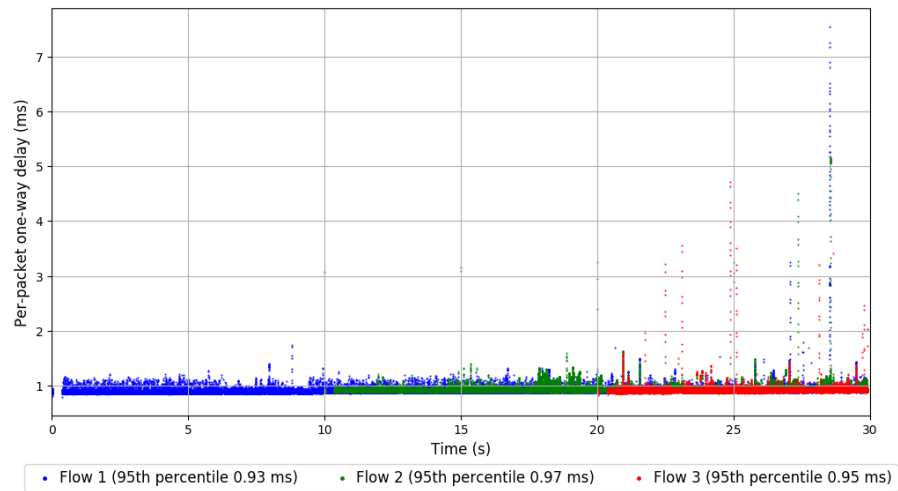
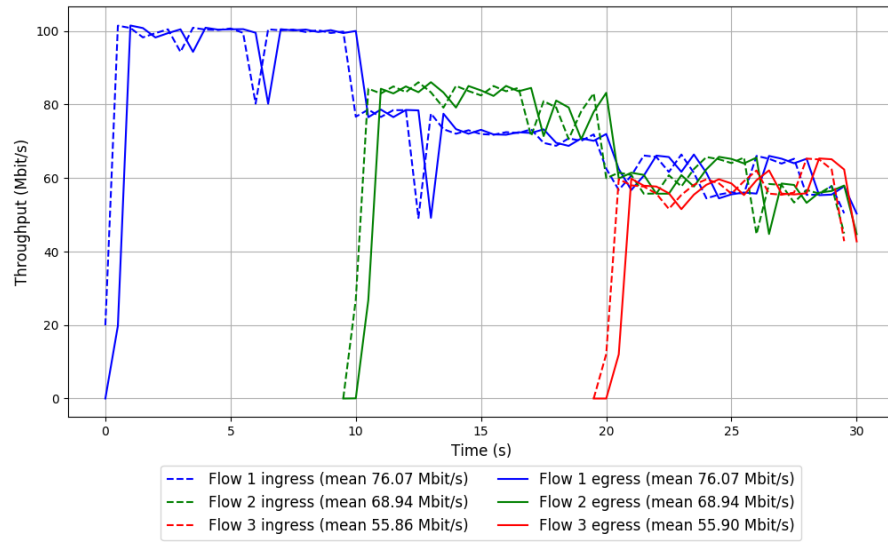
-- Flow 3:

Average throughput: 55.90 Mbit/s

95th percentile per-packet one-way delay: 0.948 ms

Loss rate: 0.02%

Run 5: Report of QUIC Cubic — Data Link

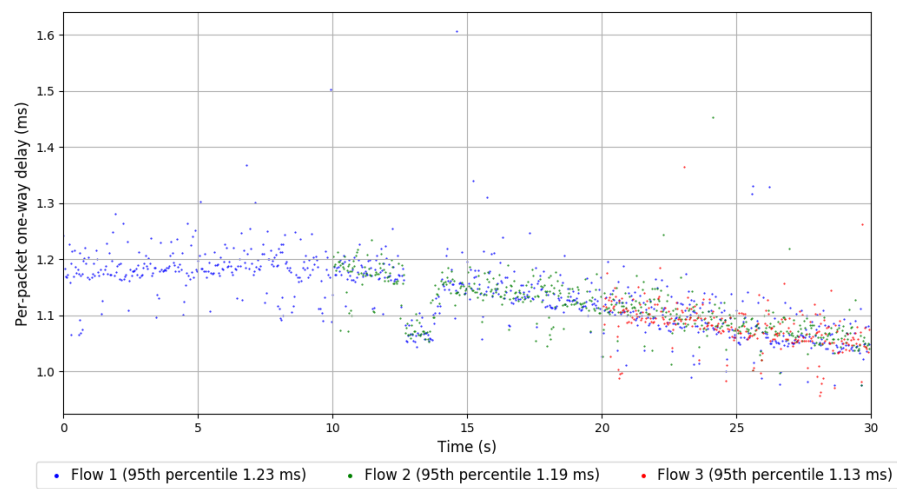
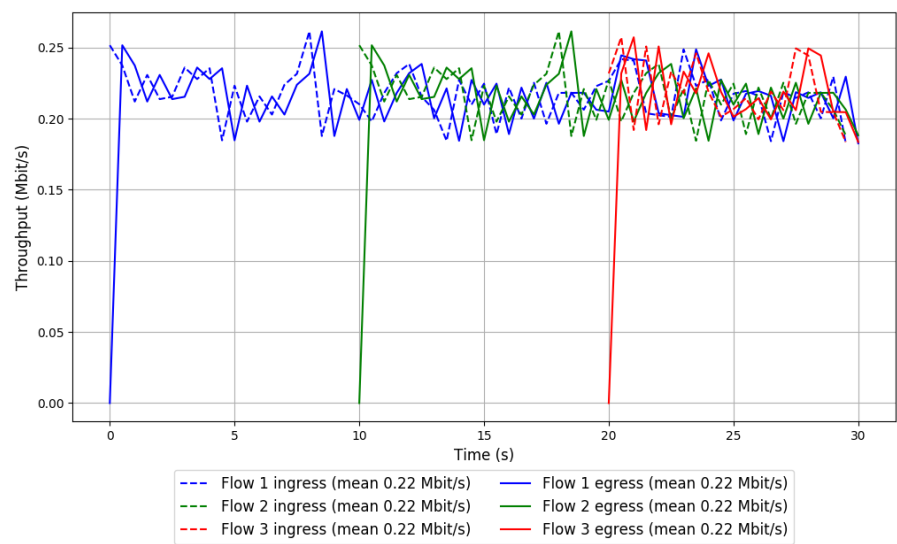


```
Run 1: Statistics of SReAM

Start at: 2019-02-20 10:06:24
End at: 2019-02-20 10:06:54
Local clock offset: -1.287 ms
Remote clock offset: 5.658 ms

# Below is generated by plot.py at 2019-02-20 13:25:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.188 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.132 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

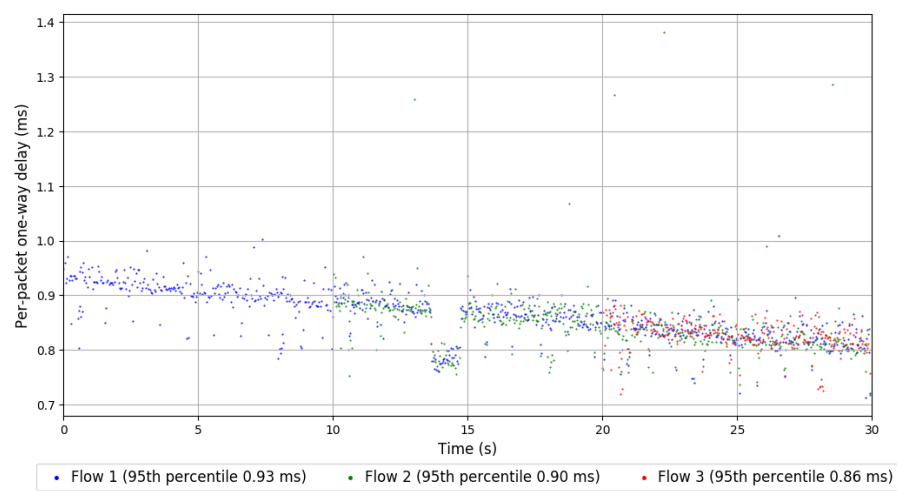
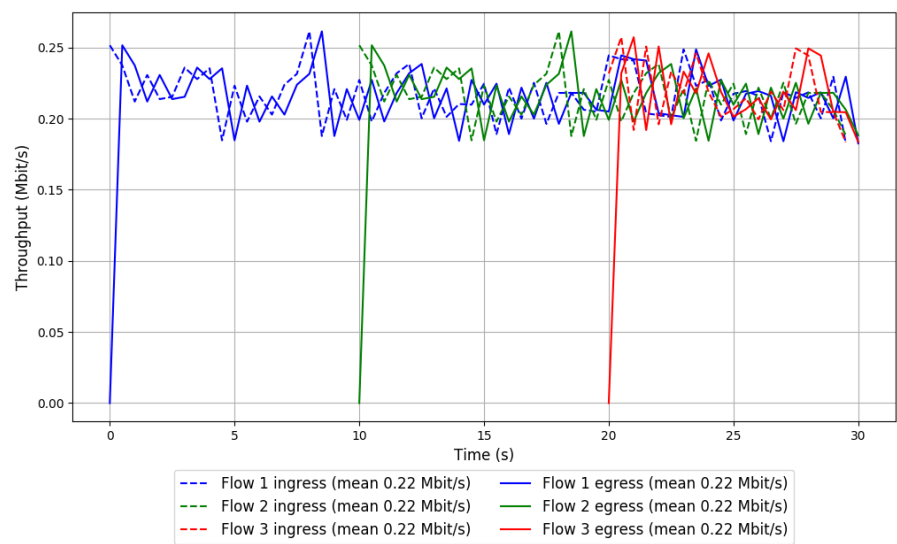


Run 2: Statistics of SReAM

Start at: 2019-02-20 10:36:53
End at: 2019-02-20 10:37:23
Local clock offset: -1.515 ms
Remote clock offset: 0.046 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 0.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.934 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.865 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

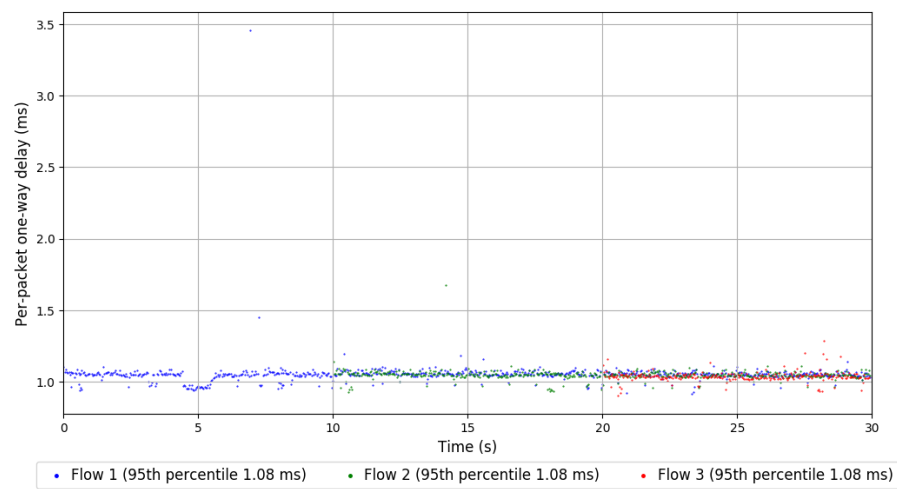
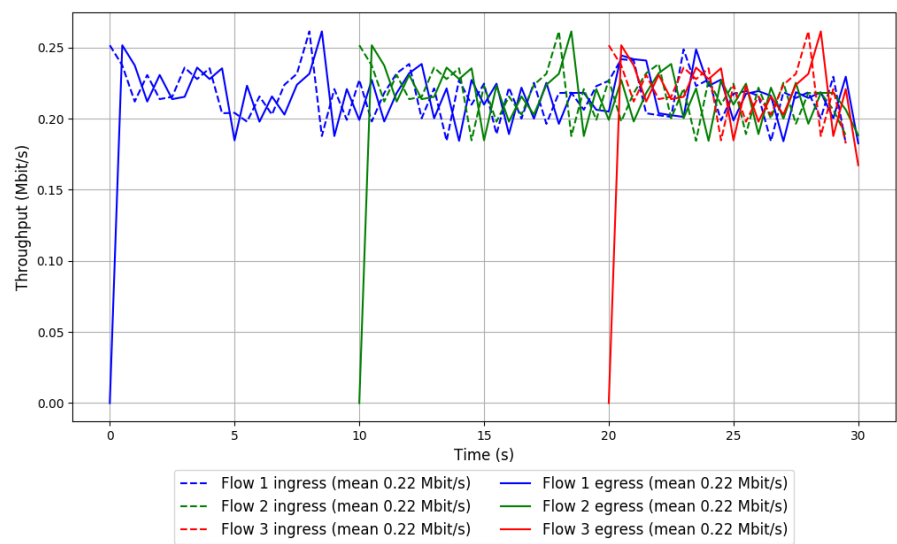


Run 3: Statistics of SCReAM

Start at: 2019-02-20 11:07:02
End at: 2019-02-20 11:07:32
Local clock offset: 0.35 ms
Remote clock offset: -0.381 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.083 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.084 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.081 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.077 ms
Loss rate: 0.35%

Run 3: Report of SReAM — Data Link

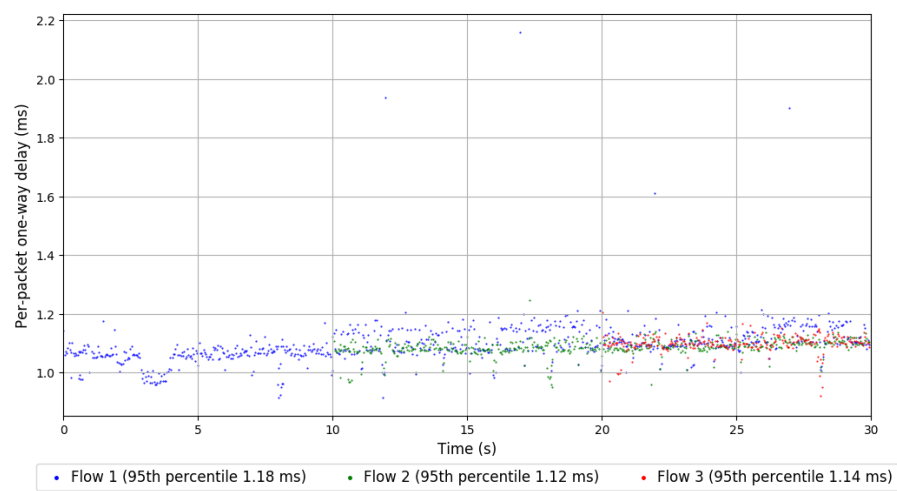
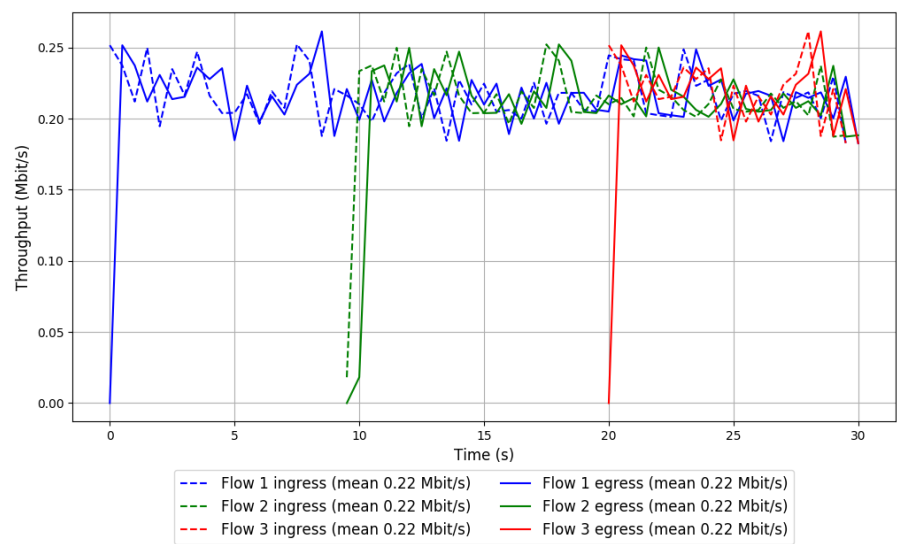


Run 4: Statistics of SCReAM

Start at: 2019-02-20 11:37:33
End at: 2019-02-20 11:38:03
Local clock offset: -1.677 ms
Remote clock offset: -3.489 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 1.162 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.175 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.136 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-02-20 12:08:08

End at: 2019-02-20 12:08:38

Local clock offset: -1.142 ms

Remote clock offset: 4.341 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 1.097 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.100 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.095 ms

Loss rate: 0.19%

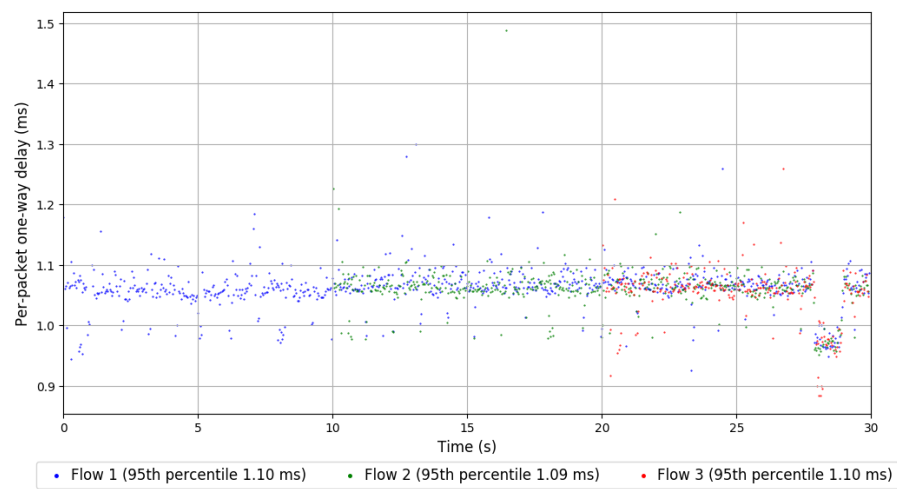
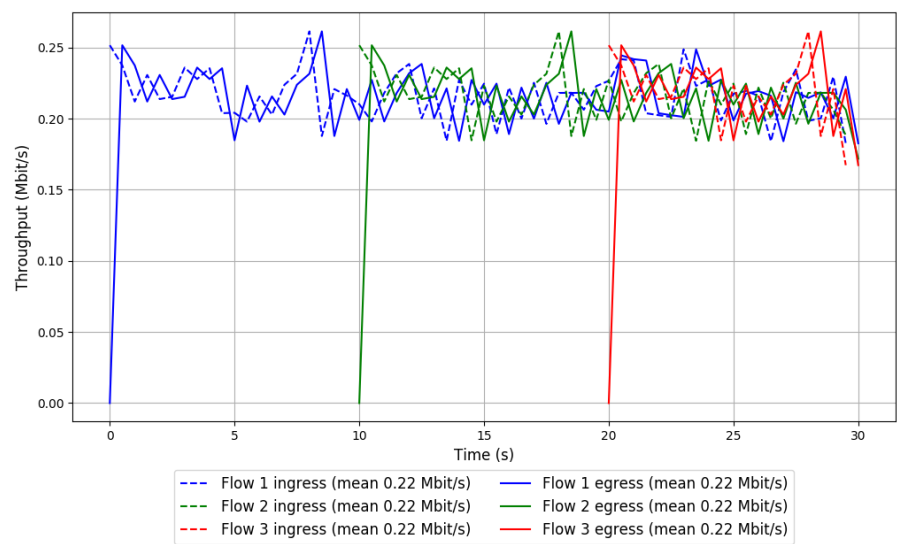
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.098 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-02-20 10:07:38

End at: 2019-02-20 10:08:08

Local clock offset: -1.526 ms

Remote clock offset: 5.132 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.05 Mbit/s

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

Loss rate: 0.02%

-- Flow 1:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 1.011 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 50.14 Mbit/s

95th percentile per-packet one-way delay: 0.937 ms

Loss rate: 0.00%

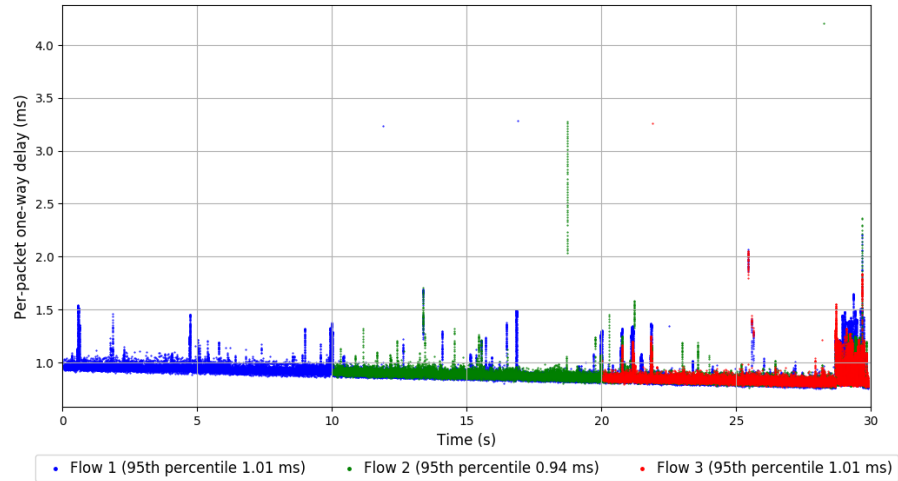
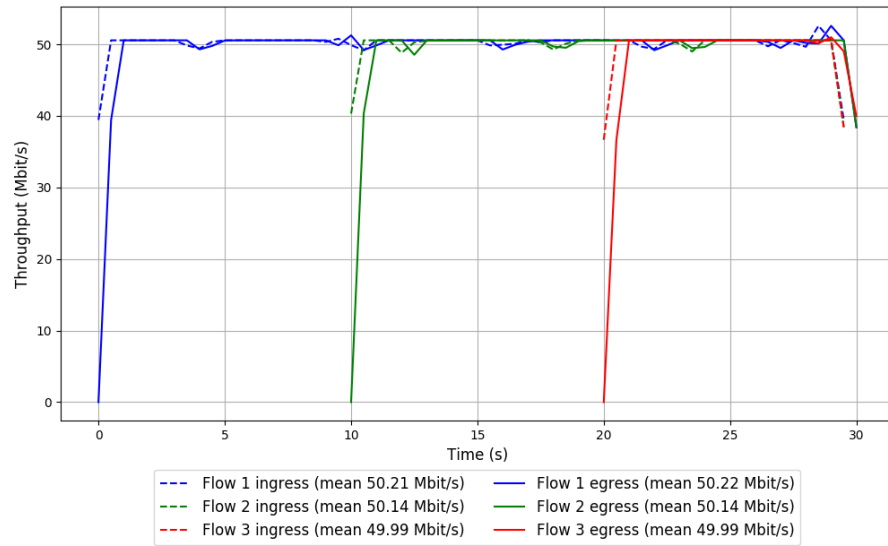
-- Flow 3:

Average throughput: 49.99 Mbit/s

95th percentile per-packet one-way delay: 1.006 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

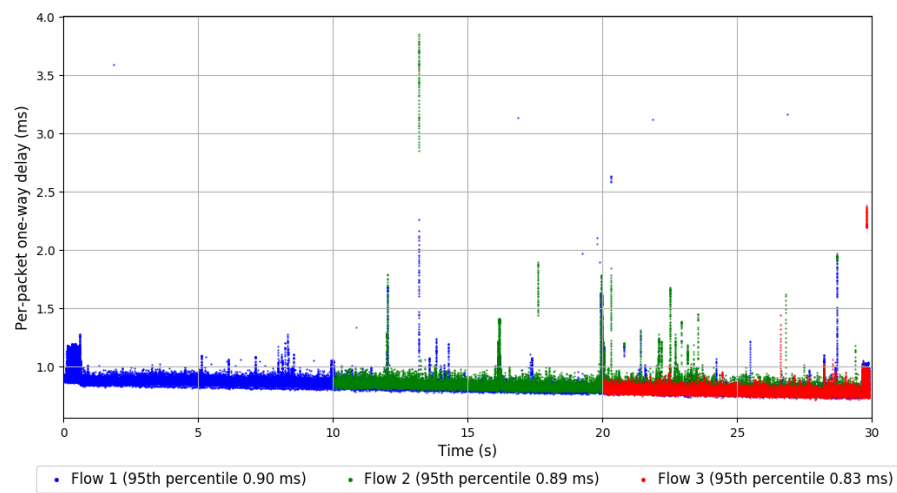
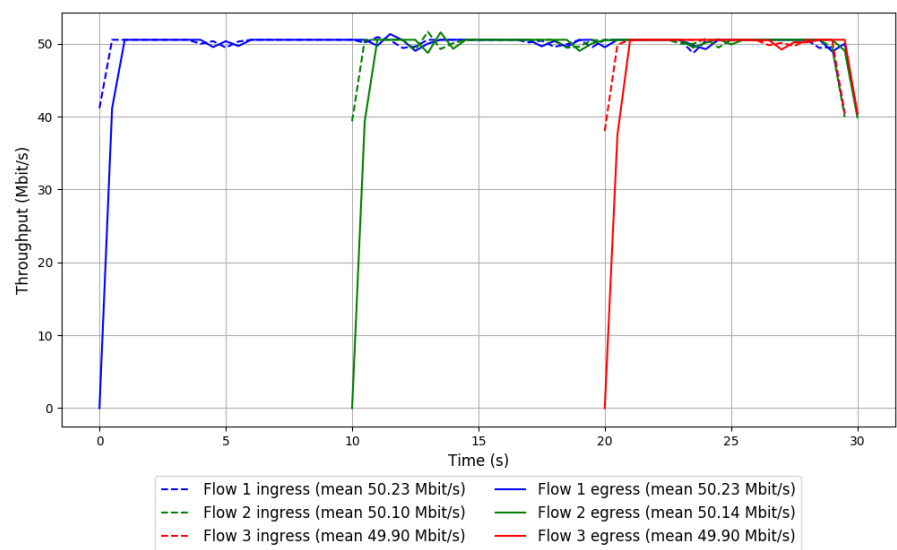


Run 2: Statistics of Sprout

Start at: 2019-02-20 10:38:07
End at: 2019-02-20 10:38:37
Local clock offset: -1.295 ms
Remote clock offset: -0.077 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 100.04 Mbit/s
95th percentile per-packet one-way delay: 0.894 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.14 Mbit/s
95th percentile per-packet one-way delay: 0.885 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 49.90 Mbit/s
95th percentile per-packet one-way delay: 0.828 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

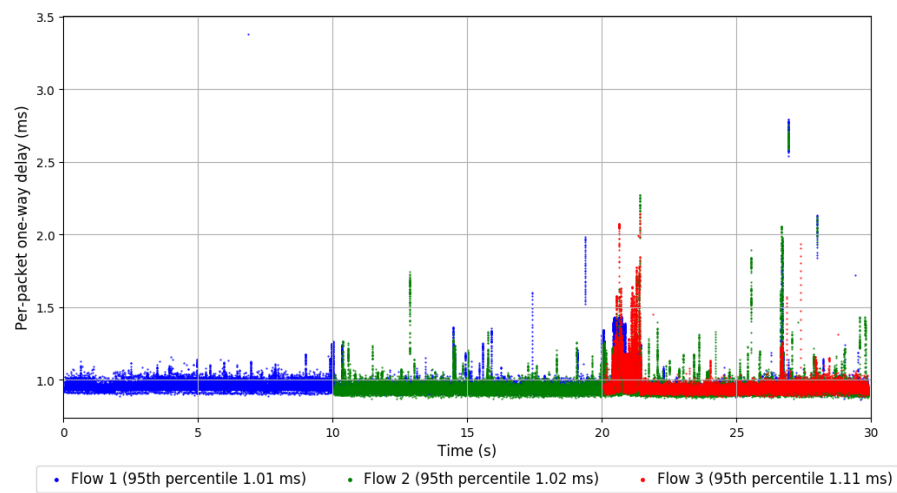
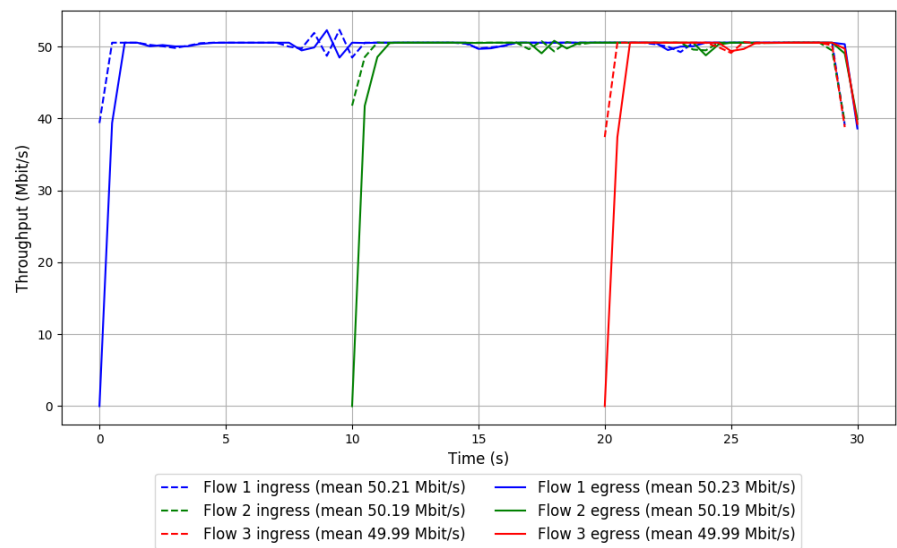


Run 3: Statistics of Sprout

Start at: 2019-02-20 11:08:16
End at: 2019-02-20 11:08:46
Local clock offset: 0.343 ms
Remote clock offset: -0.397 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 100.06 Mbit/s
95th percentile per-packet one-way delay: 1.025 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 50.19 Mbit/s
95th percentile per-packet one-way delay: 1.024 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.99 Mbit/s
95th percentile per-packet one-way delay: 1.108 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

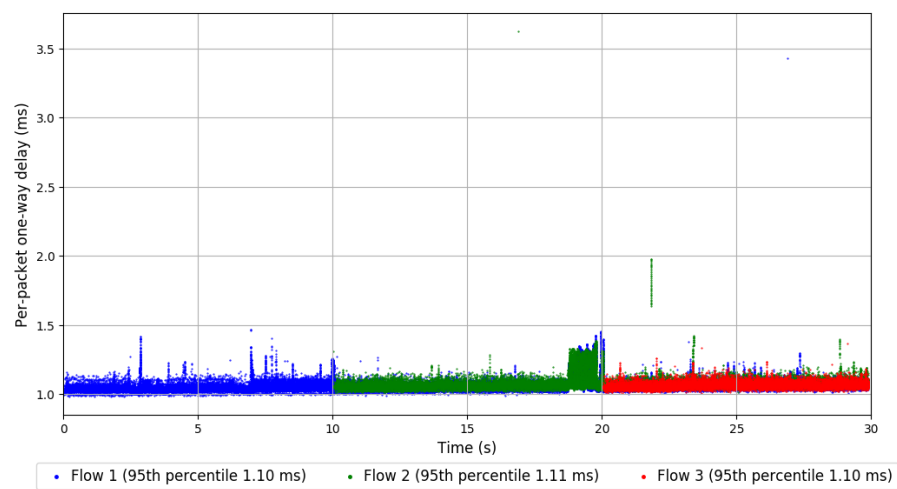
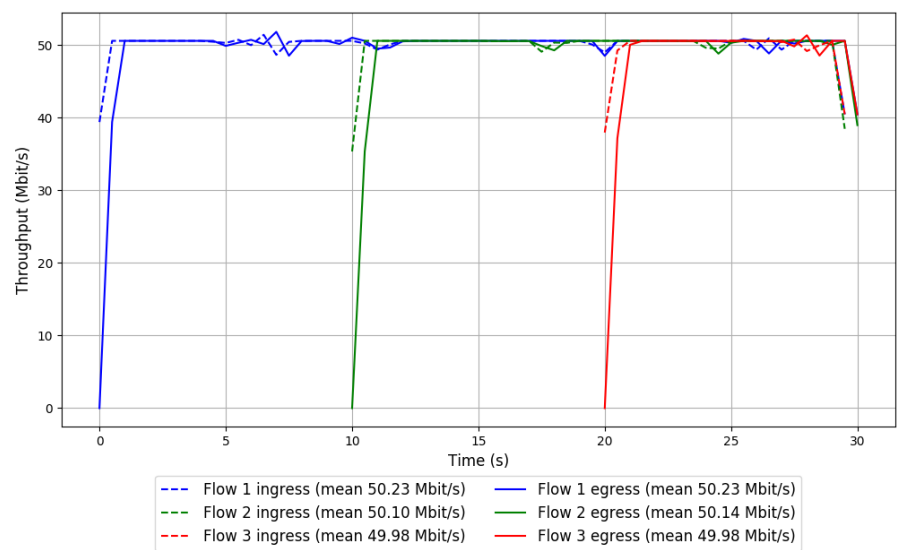


Run 4: Statistics of Sprout

Start at: 2019-02-20 11:38:47
End at: 2019-02-20 11:39:17
Local clock offset: -1.894 ms
Remote clock offset: -3.654 ms

```
# Below is generated by plot.py at 2019-02-20 13:25:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.00 Mbit/s
95th percentile per-packet one-way delay: 1.105 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.102 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.14 Mbit/s
95th percentile per-packet one-way delay: 1.115 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.98 Mbit/s
95th percentile per-packet one-way delay: 1.097 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

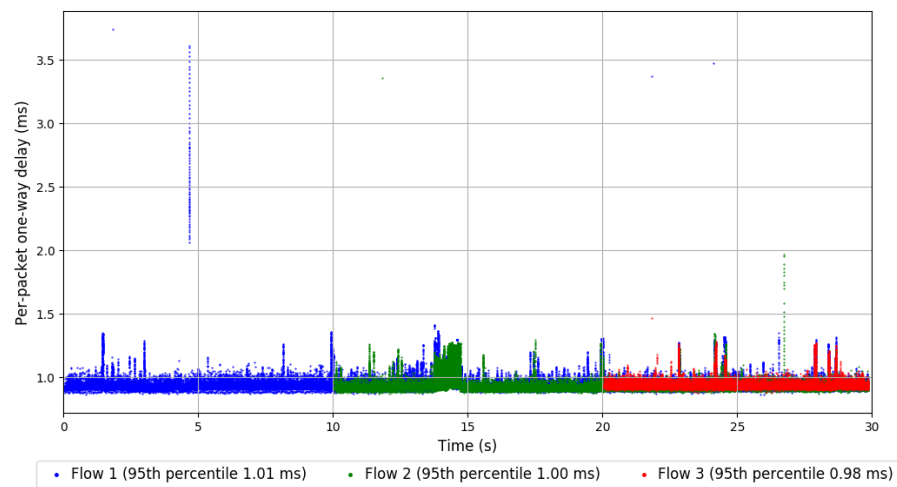
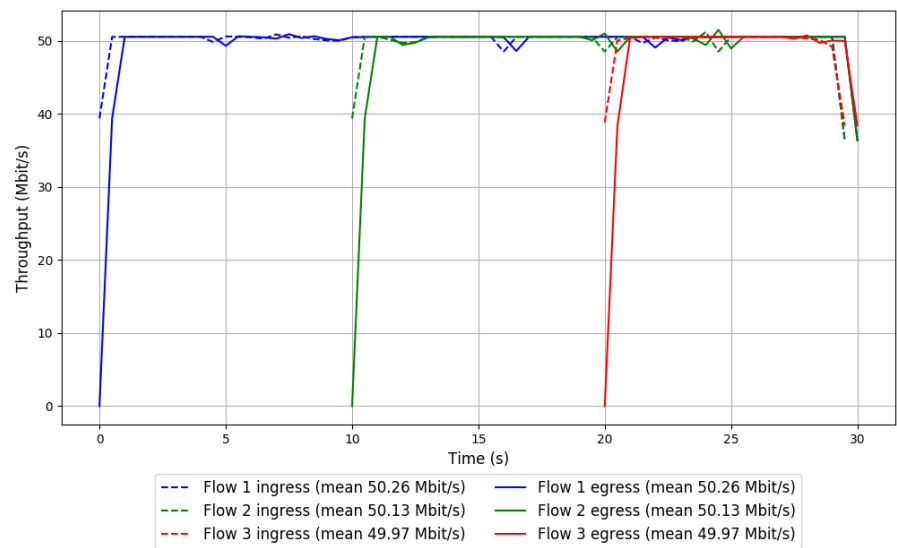


Run 5: Statistics of Sprout

Start at: 2019-02-20 12:09:22
End at: 2019-02-20 12:09:52
Local clock offset: -0.918 ms
Remote clock offset: 4.643 ms

Below is generated by plot.py at 2019-02-20 13:25:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 100.06 Mbit/s
95th percentile per-packet one-way delay: 0.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 1.009 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 50.13 Mbit/s
95th percentile per-packet one-way delay: 0.996 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 49.97 Mbit/s
95th percentile per-packet one-way delay: 0.976 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-02-20 09:59:37

End at: 2019-02-20 10:00:07

Local clock offset: 0.793 ms

Remote clock offset: 5.226 ms

Below is generated by plot.py at 2019-02-20 13:25:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.67 Mbit/s

95th percentile per-packet one-way delay: 1.193 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 82.58 Mbit/s

95th percentile per-packet one-way delay: 1.146 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.47 Mbit/s

95th percentile per-packet one-way delay: 1.235 ms

Loss rate: 0.01%

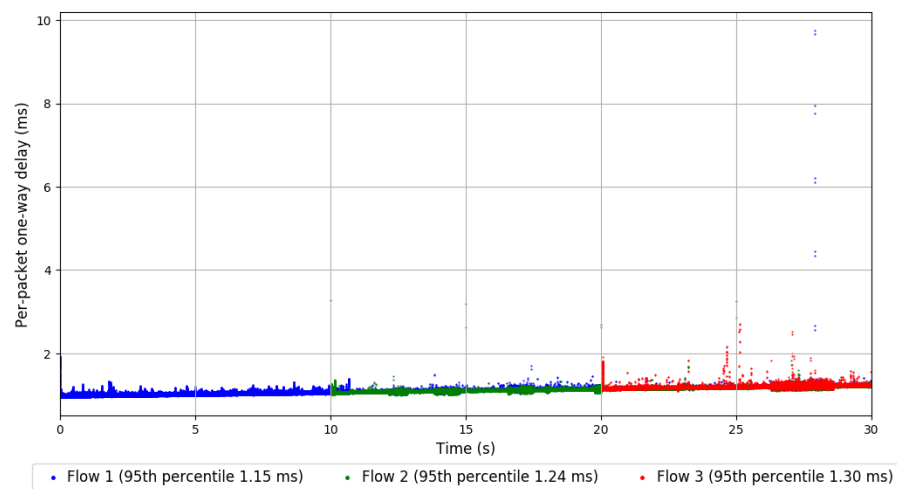
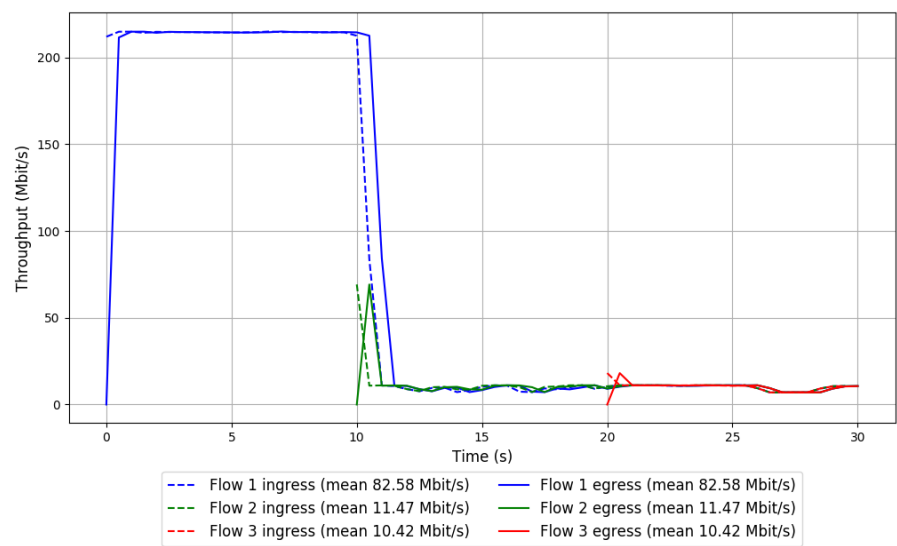
-- Flow 3:

Average throughput: 10.42 Mbit/s

95th percentile per-packet one-way delay: 1.297 ms

Loss rate: 0.01%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-02-20 10:30:01

End at: 2019-02-20 10:30:31

Local clock offset: -3.795 ms

Remote clock offset: 0.355 ms

Below is generated by plot.py at 2019-02-20 13:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.11 Mbit/s

95th percentile per-packet one-way delay: 0.690 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 84.57 Mbit/s

95th percentile per-packet one-way delay: 0.697 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 82.50 Mbit/s

95th percentile per-packet one-way delay: 0.640 ms

Loss rate: 0.01%

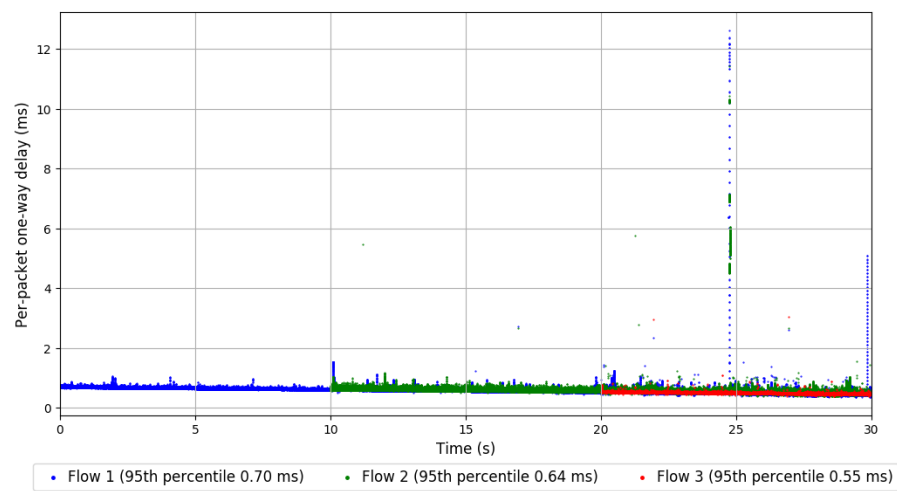
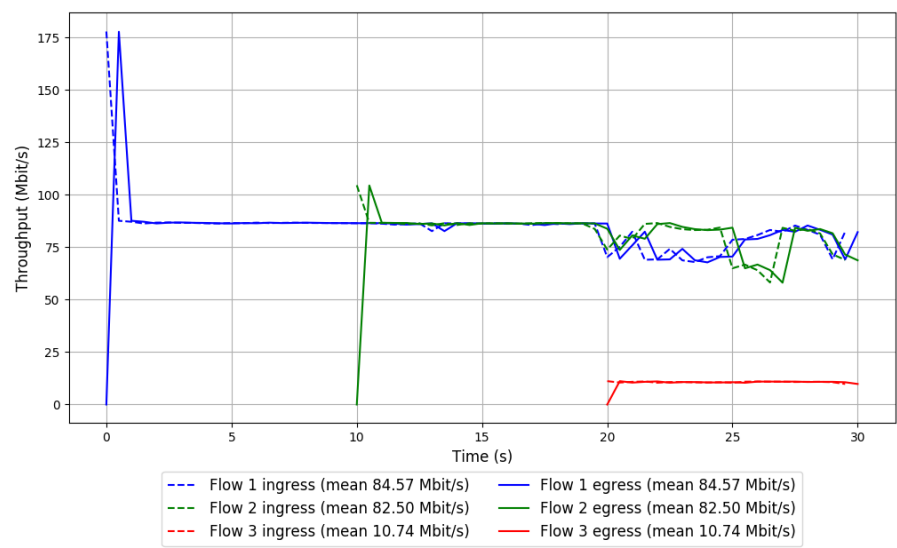
-- Flow 3:

Average throughput: 10.74 Mbit/s

95th percentile per-packet one-way delay: 0.545 ms

Loss rate: 0.01%

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

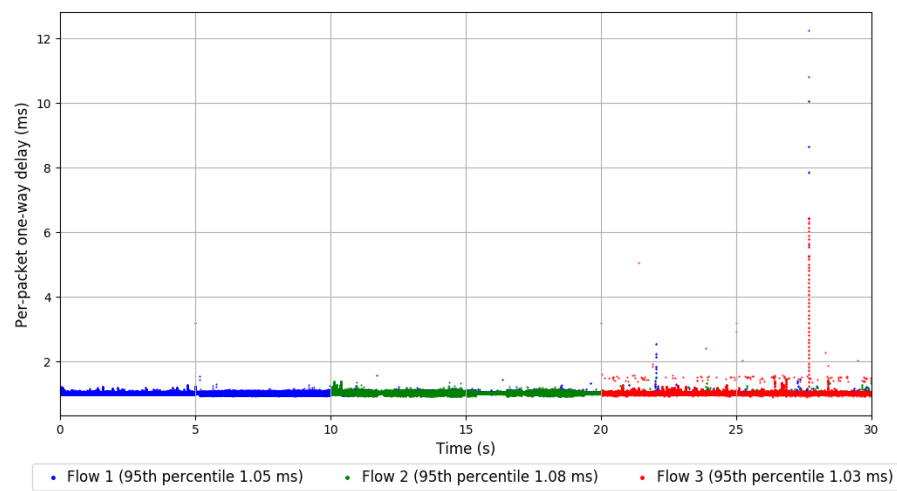
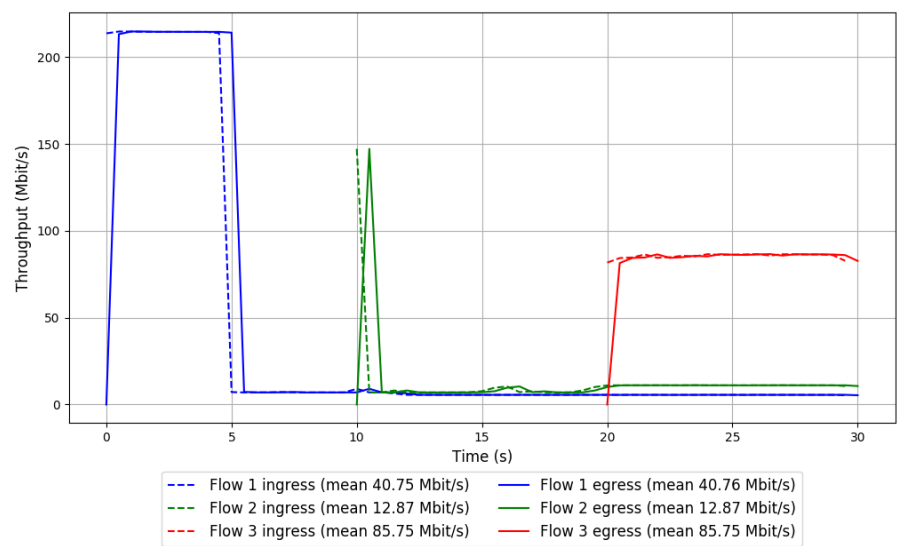


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-20 11:00:17
End at: 2019-02-20 11:00:47
Local clock offset: 0.435 ms
Remote clock offset: -0.331 ms

Below is generated by plot.py at 2019-02-20 13:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 77.82 Mbit/s
95th percentile per-packet one-way delay: 1.048 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 40.76 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 1.082 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 1.035 ms
Loss rate: 0.02%

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

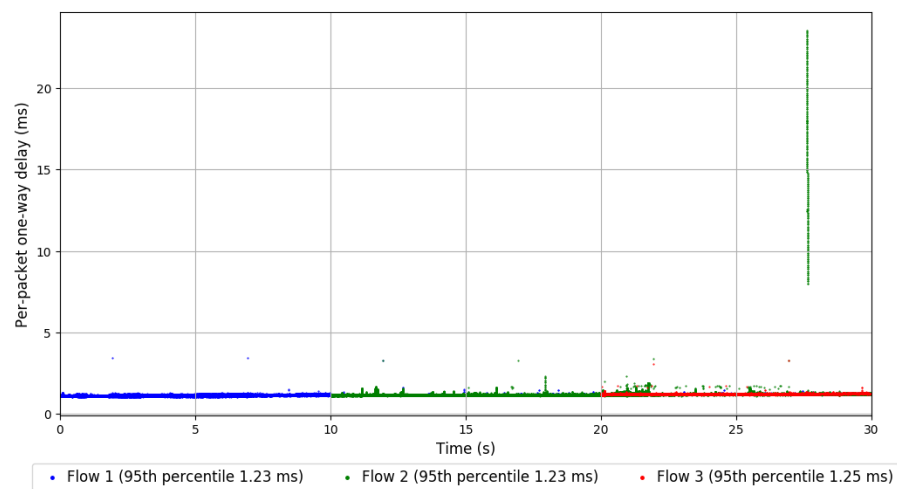
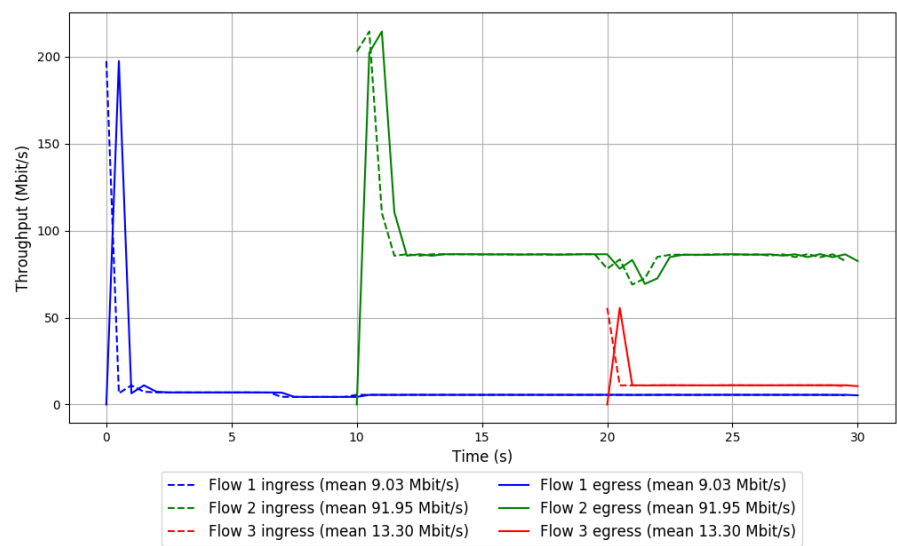


Run 4: Statistics of TaoVA-100x

Start at: 2019-02-20 11:30:45
End at: 2019-02-20 11:31:15
Local clock offset: 0.243 ms
Remote clock offset: -2.976 ms

Below is generated by plot.py at 2019-02-20 13:26:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 74.65 Mbit/s
95th percentile per-packet one-way delay: 1.234 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.03 Mbit/s
95th percentile per-packet one-way delay: 1.229 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 91.95 Mbit/s
95th percentile per-packet one-way delay: 1.230 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 13.30 Mbit/s
95th percentile per-packet one-way delay: 1.255 ms
Loss rate: 0.01%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-02-20 12:01:15

End at: 2019-02-20 12:01:45

Local clock offset: -3.159 ms

Remote clock offset: 2.733 ms

Below is generated by plot.py at 2019-02-20 13:26:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.78 Mbit/s

95th percentile per-packet one-way delay: 0.683 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 113.98 Mbit/s

95th percentile per-packet one-way delay: 0.683 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.71 Mbit/s

95th percentile per-packet one-way delay: 0.681 ms

Loss rate: 0.00%

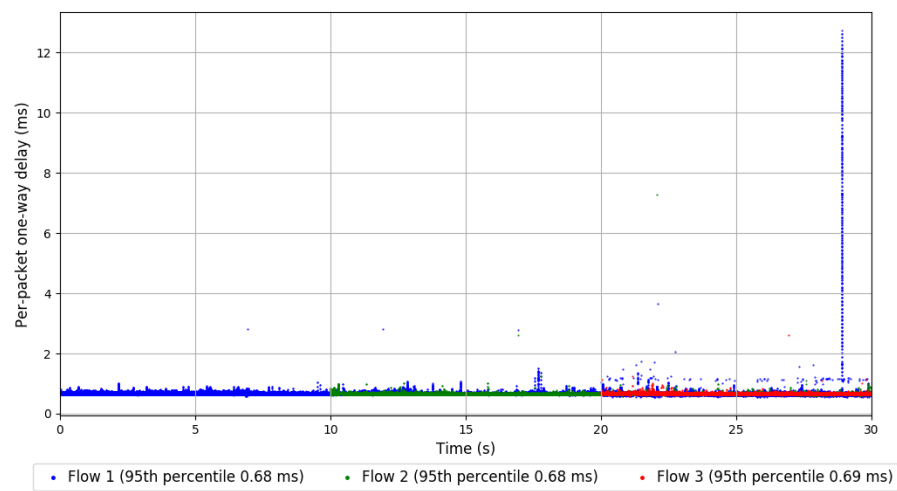
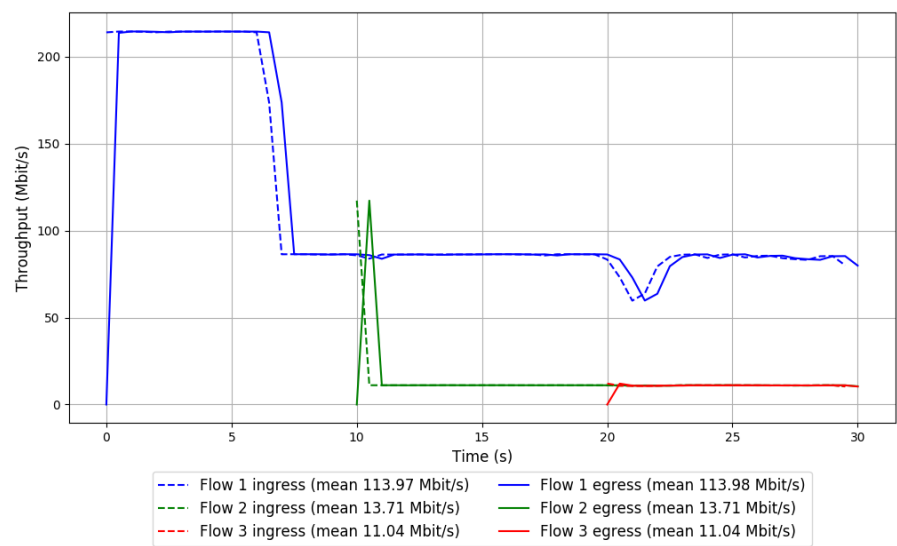
-- Flow 3:

Average throughput: 11.04 Mbit/s

95th percentile per-packet one-way delay: 0.686 ms

Loss rate: 0.01%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-02-20 10:11:52

End at: 2019-02-20 10:12:22

Local clock offset: -2.274 ms

Remote clock offset: 3.252 ms

Below is generated by plot.py at 2019-02-20 13:30:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 558.03 Mbit/s

95th percentile per-packet one-way delay: 1.186 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 265.57 Mbit/s

95th percentile per-packet one-way delay: 1.156 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 301.10 Mbit/s

95th percentile per-packet one-way delay: 1.661 ms

Loss rate: 0.01%

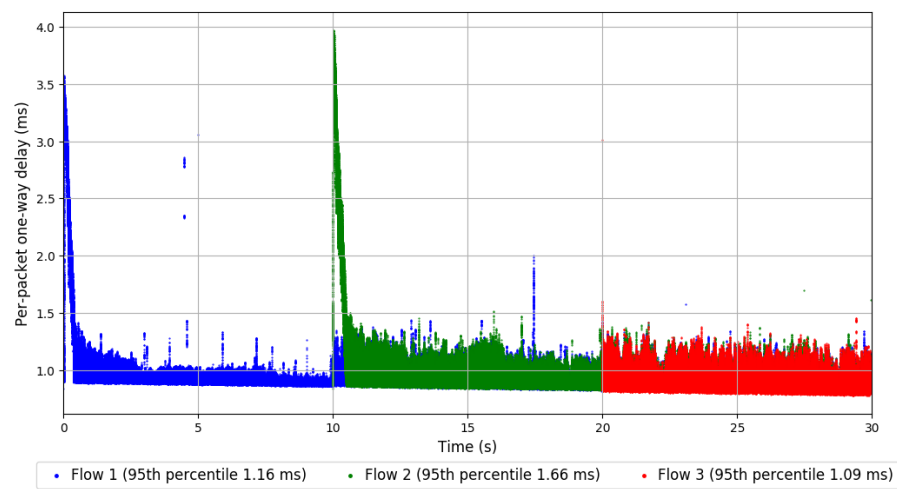
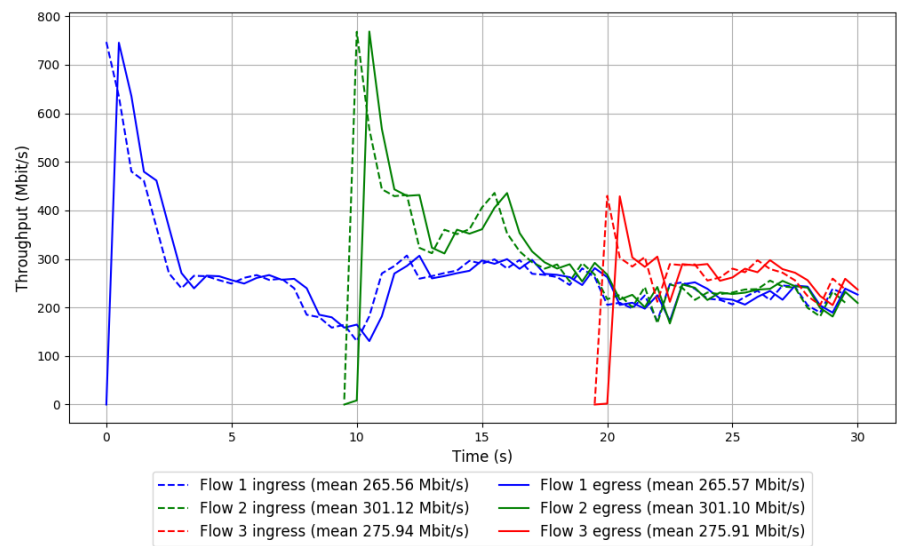
-- Flow 3:

Average throughput: 275.91 Mbit/s

95th percentile per-packet one-way delay: 1.092 ms

Loss rate: 0.02%

Run 1: Report of TCP Vegas — Data Link

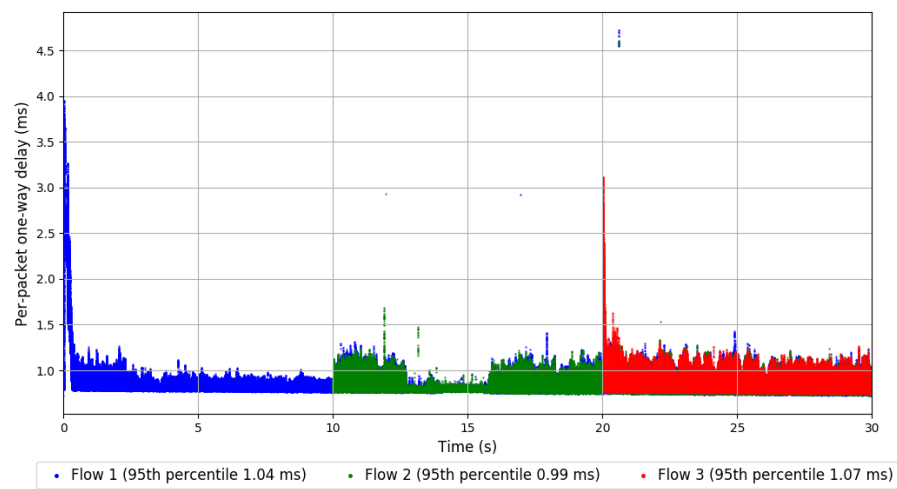
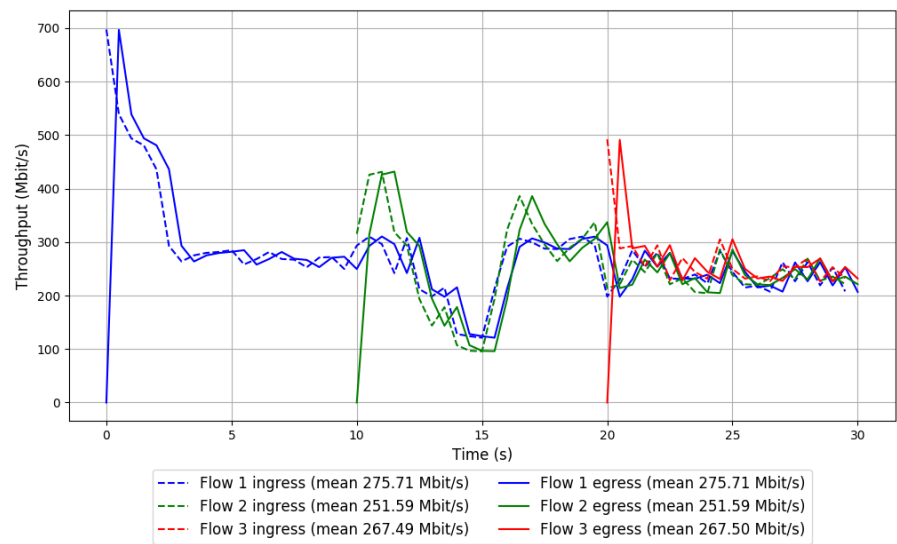


Run 2: Statistics of TCP Vegas

Start at: 2019-02-20 10:42:20
End at: 2019-02-20 10:42:50
Local clock offset: -0.632 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-02-20 13:30:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 532.29 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 275.71 Mbit/s
95th percentile per-packet one-way delay: 1.040 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 251.59 Mbit/s
95th percentile per-packet one-way delay: 0.994 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 267.50 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-02-20 11:12:30

End at: 2019-02-20 11:13:00

Local clock offset: 0.355 ms

Remote clock offset: -0.58 ms

Below is generated by plot.py at 2019-02-20 13:31:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 555.67 Mbit/s

95th percentile per-packet one-way delay: 1.281 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 276.38 Mbit/s

95th percentile per-packet one-way delay: 1.261 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 285.53 Mbit/s

95th percentile per-packet one-way delay: 1.296 ms

Loss rate: 0.01%

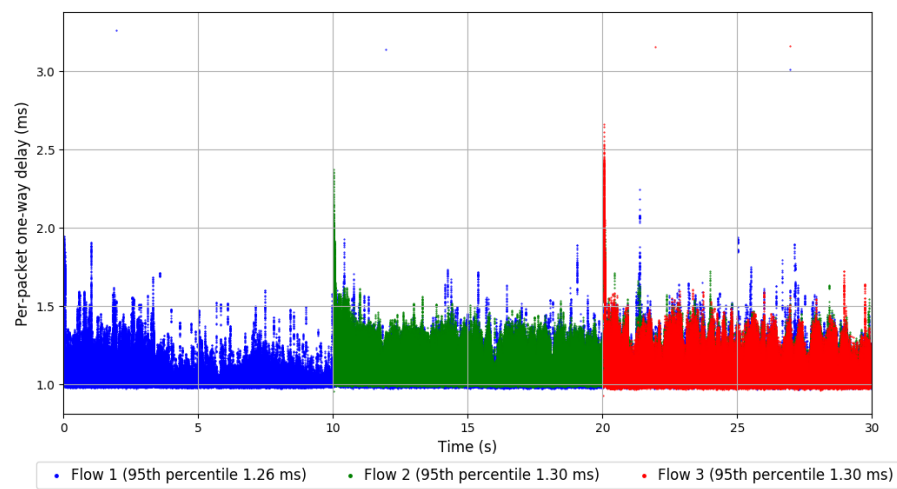
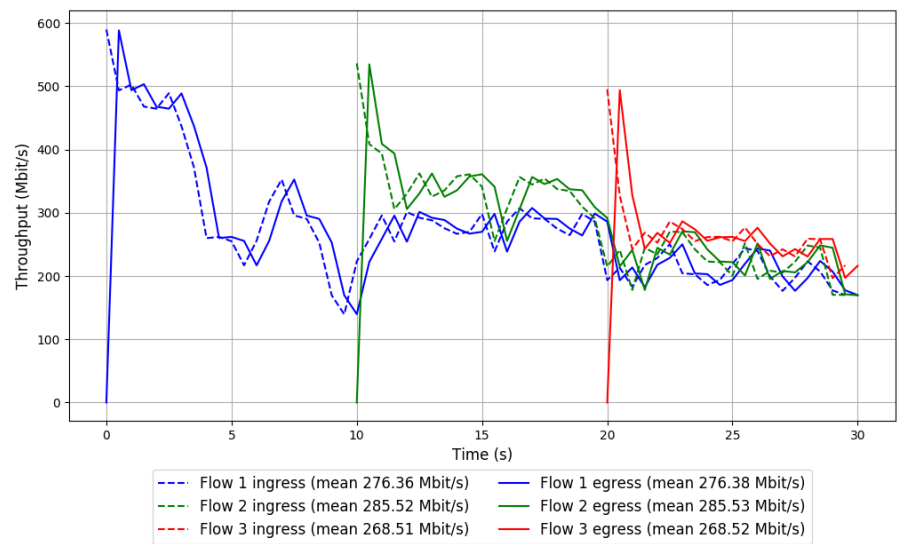
-- Flow 3:

Average throughput: 268.52 Mbit/s

95th percentile per-packet one-way delay: 1.297 ms

Loss rate: 0.01%

Run 3: Report of TCP Vegas — Data Link

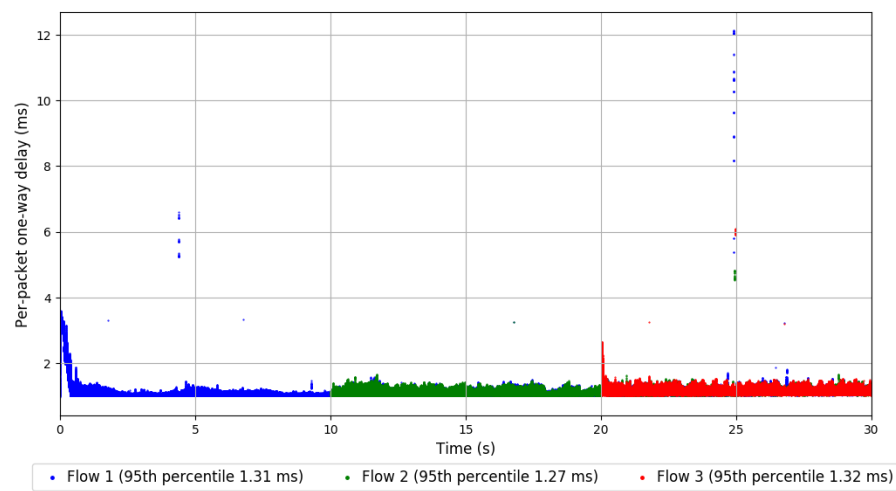
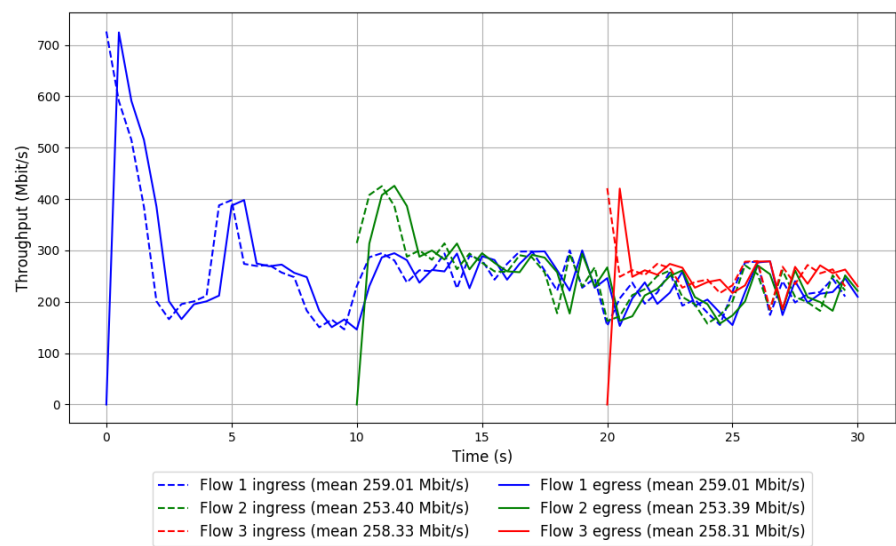


Run 4: Statistics of TCP Vegas

Start at: 2019-02-20 11:43:02
End at: 2019-02-20 11:43:32
Local clock offset: -2.457 ms
Remote clock offset: -3.935 ms

Below is generated by plot.py at 2019-02-20 13:31:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 513.67 Mbit/s
95th percentile per-packet one-way delay: 1.293 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 259.01 Mbit/s
95th percentile per-packet one-way delay: 1.312 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 253.39 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 258.31 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 0.02%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-02-20 12:13:37

End at: 2019-02-20 12:14:07

Local clock offset: -0.367 ms

Remote clock offset: 5.32 ms

Below is generated by plot.py at 2019-02-20 13:32:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 609.01 Mbit/s

95th percentile per-packet one-way delay: 1.259 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 300.16 Mbit/s

95th percentile per-packet one-way delay: 1.241 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 314.18 Mbit/s

95th percentile per-packet one-way delay: 1.266 ms

Loss rate: 0.01%

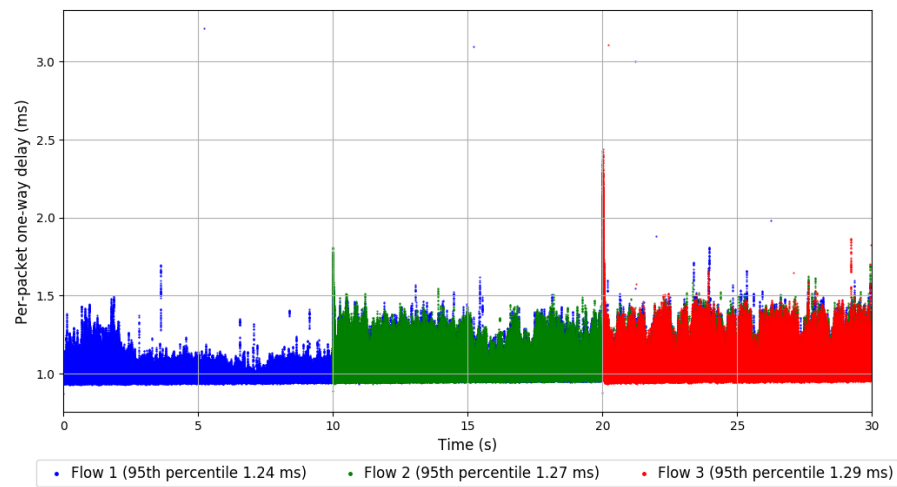
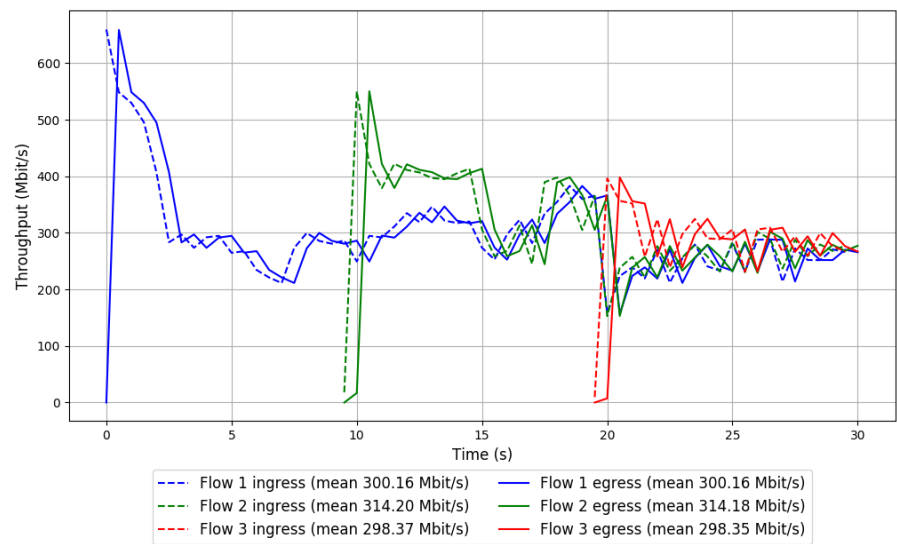
-- Flow 3:

Average throughput: 298.35 Mbit/s

95th percentile per-packet one-way delay: 1.290 ms

Loss rate: 0.02%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-02-20 10:00:57

End at: 2019-02-20 10:01:27

Local clock offset: 0.401 ms

Remote clock offset: 5.286 ms

Below is generated by plot.py at 2019-02-20 13:32:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 201.16 Mbit/s

95th percentile per-packet one-way delay: 2.518 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 117.23 Mbit/s

95th percentile per-packet one-way delay: 2.690 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.50 Mbit/s

95th percentile per-packet one-way delay: 2.454 ms

Loss rate: 0.03%

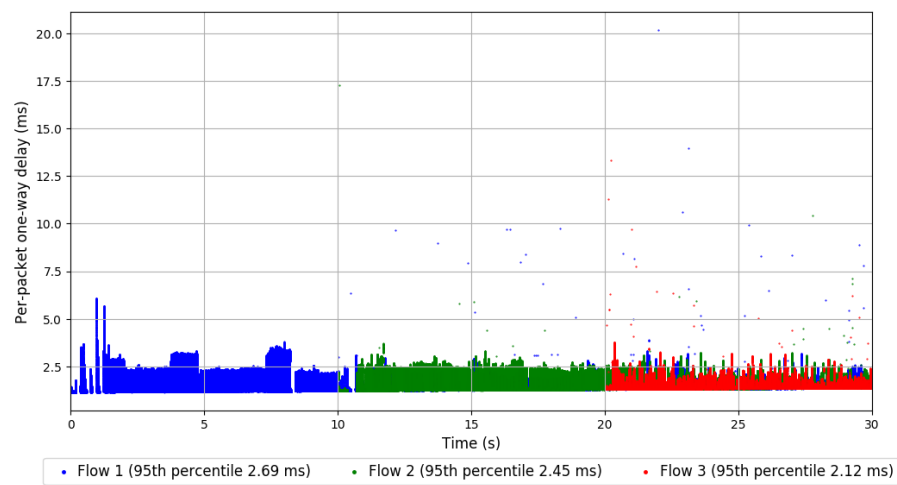
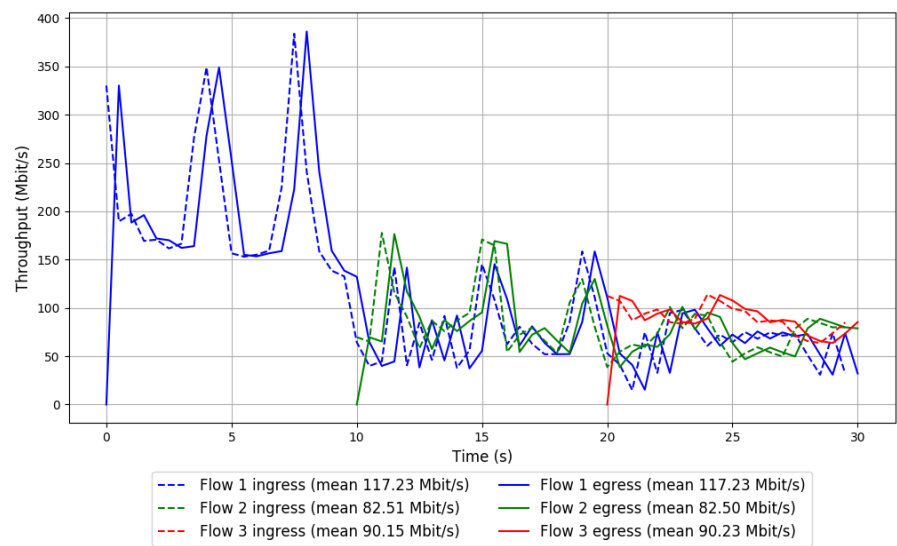
-- Flow 3:

Average throughput: 90.23 Mbit/s

95th percentile per-packet one-way delay: 2.123 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link

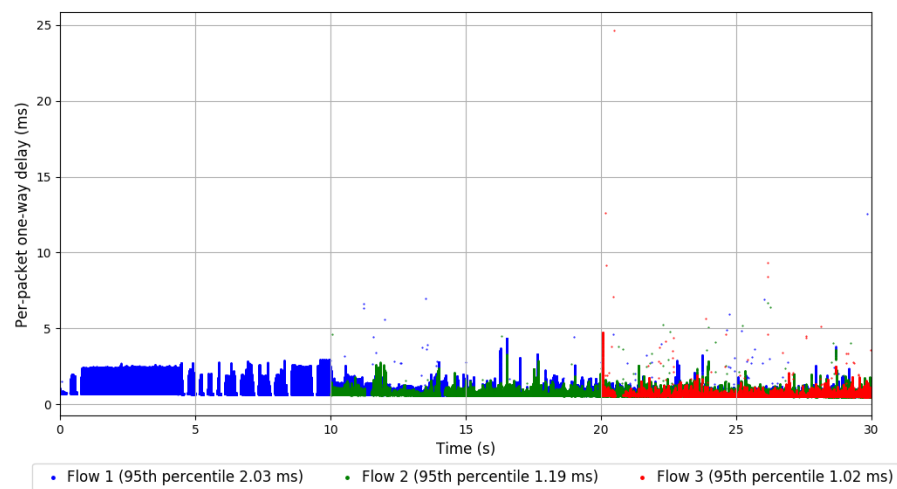
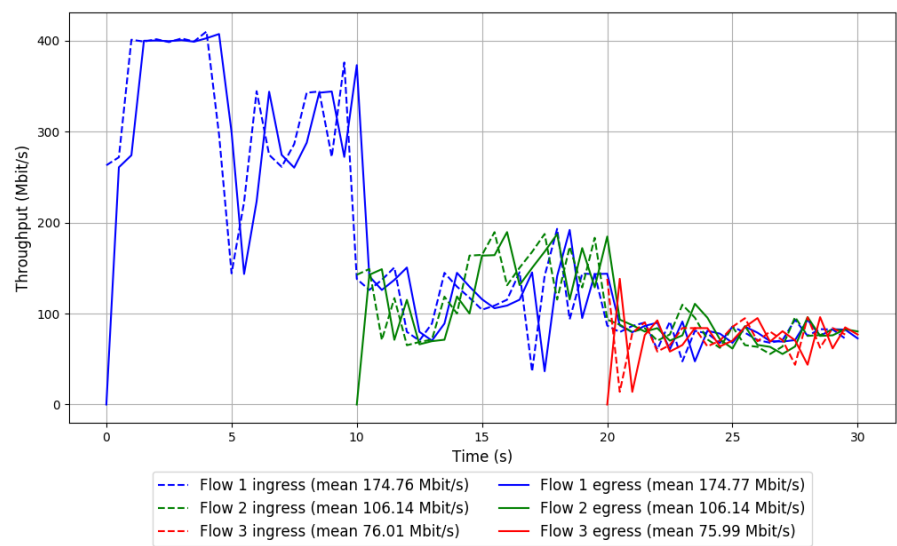


Run 2: Statistics of Verus

Start at: 2019-02-20 10:31:24
End at: 2019-02-20 10:31:54
Local clock offset: -3.243 ms
Remote clock offset: 0.225 ms

Below is generated by plot.py at 2019-02-20 13:32:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 270.60 Mbit/s
95th percentile per-packet one-way delay: 1.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.77 Mbit/s
95th percentile per-packet one-way delay: 2.029 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 106.14 Mbit/s
95th percentile per-packet one-way delay: 1.193 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 1.023 ms
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

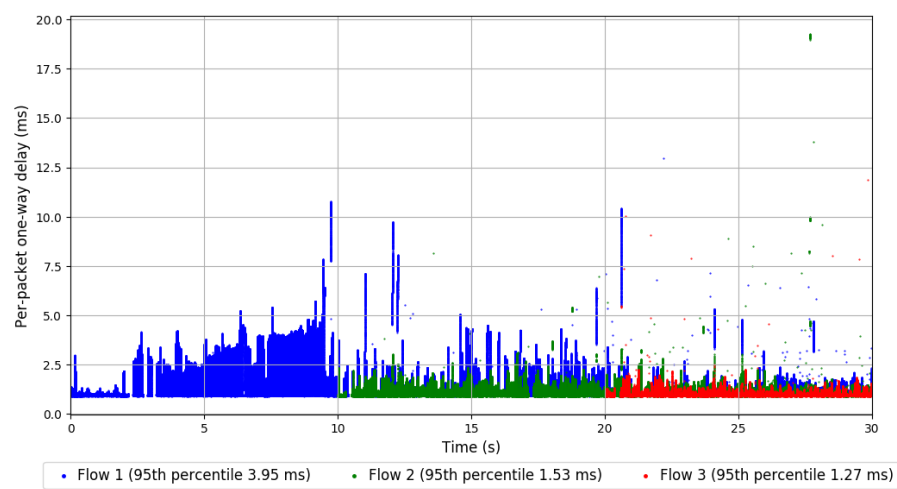
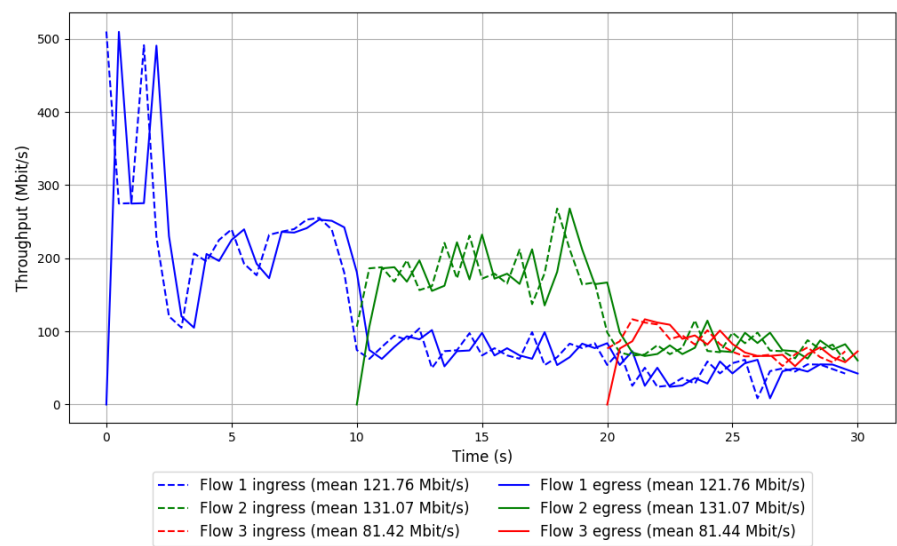


Run 3: Statistics of Verus

Start at: 2019-02-20 11:01:36
End at: 2019-02-20 11:02:06
Local clock offset: 0.404 ms
Remote clock offset: -0.285 ms

Below is generated by plot.py at 2019-02-20 13:32:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 236.04 Mbit/s
95th percentile per-packet one-way delay: 3.401 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 121.76 Mbit/s
95th percentile per-packet one-way delay: 3.952 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 131.07 Mbit/s
95th percentile per-packet one-way delay: 1.529 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 81.44 Mbit/s
95th percentile per-packet one-way delay: 1.268 ms
Loss rate: 0.00%

Run 3: Report of Verus — Data Link

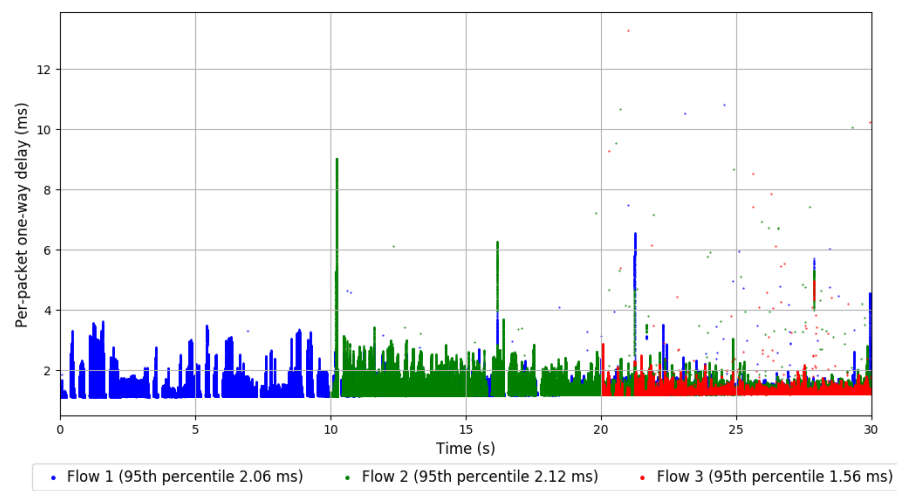
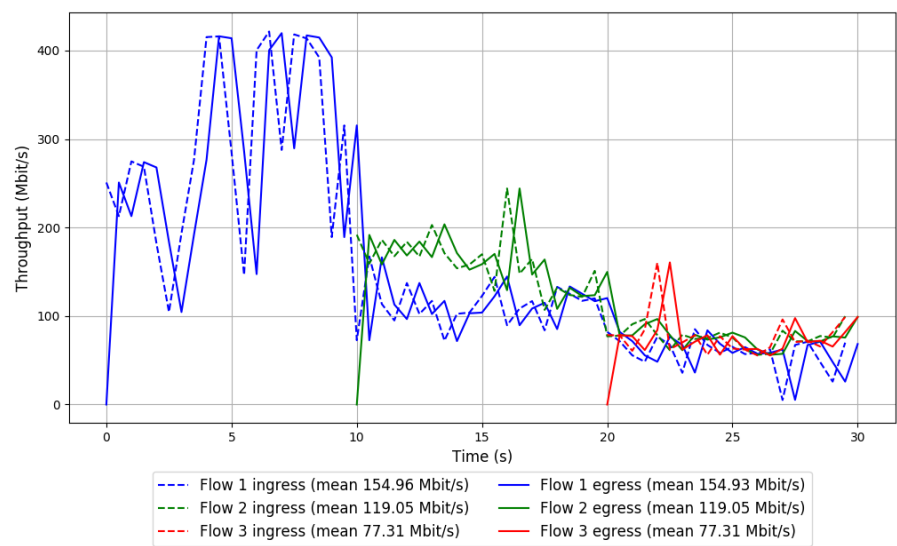


Run 4: Statistics of Verus

Start at: 2019-02-20 11:32:04
End at: 2019-02-20 11:32:34
Local clock offset: -0.294 ms
Remote clock offset: -3.213 ms

Below is generated by plot.py at 2019-02-20 13:32:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 259.88 Mbit/s
95th percentile per-packet one-way delay: 2.043 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 154.93 Mbit/s
95th percentile per-packet one-way delay: 2.062 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 119.05 Mbit/s
95th percentile per-packet one-way delay: 2.115 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 77.31 Mbit/s
95th percentile per-packet one-way delay: 1.565 ms
Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-02-20 12:02:38

End at: 2019-02-20 12:03:08

Local clock offset: -2.549 ms

Remote clock offset: 3.011 ms

Below is generated by plot.py at 2019-02-20 13:32:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 276.49 Mbit/s

95th percentile per-packet one-way delay: 2.393 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 173.05 Mbit/s

95th percentile per-packet one-way delay: 2.555 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 113.78 Mbit/s

95th percentile per-packet one-way delay: 1.856 ms

Loss rate: 0.00%

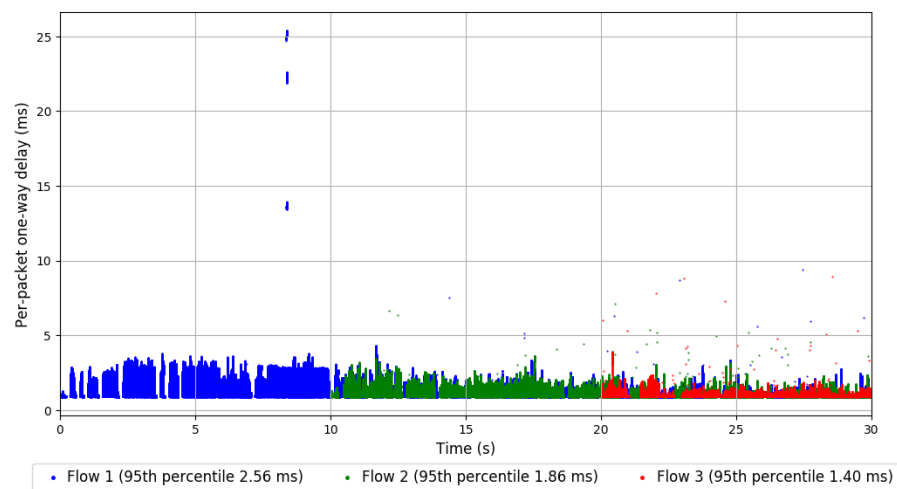
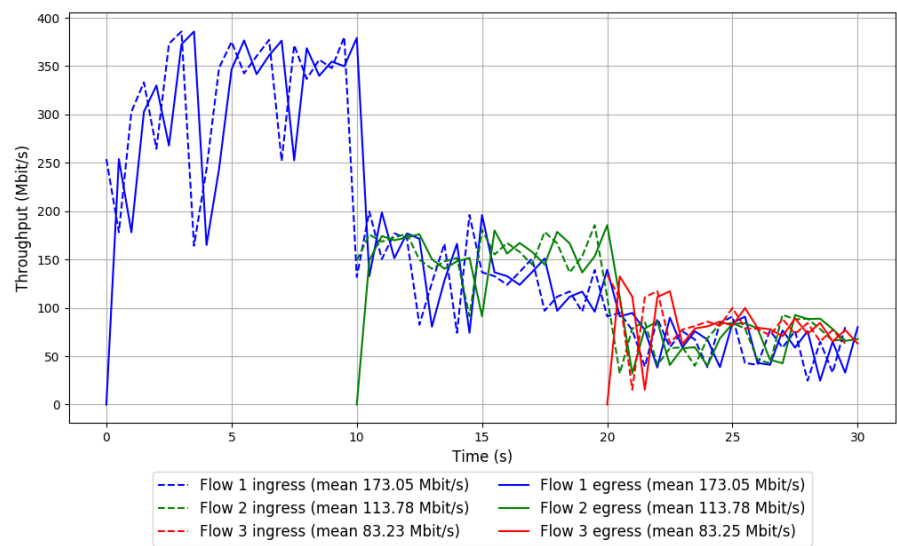
-- Flow 3:

Average throughput: 83.25 Mbit/s

95th percentile per-packet one-way delay: 1.399 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-02-20 10:02:20

End at: 2019-02-20 10:02:50

Local clock offset: -0.091 ms

Remote clock offset: 5.428 ms

Below is generated by plot.py at 2019-02-20 13:32:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 287.69 Mbit/s

95th percentile per-packet one-way delay: 1.413 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 196.73 Mbit/s

95th percentile per-packet one-way delay: 1.311 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 96.68 Mbit/s

95th percentile per-packet one-way delay: 1.647 ms

Loss rate: 0.00%

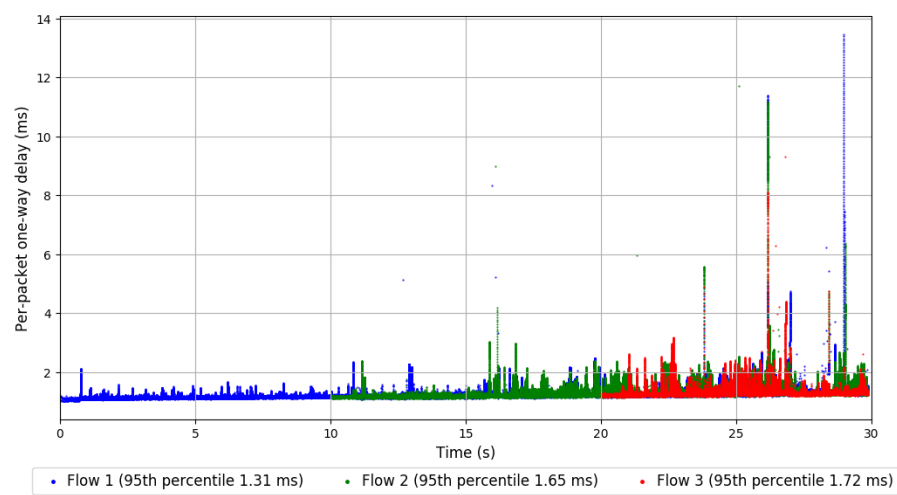
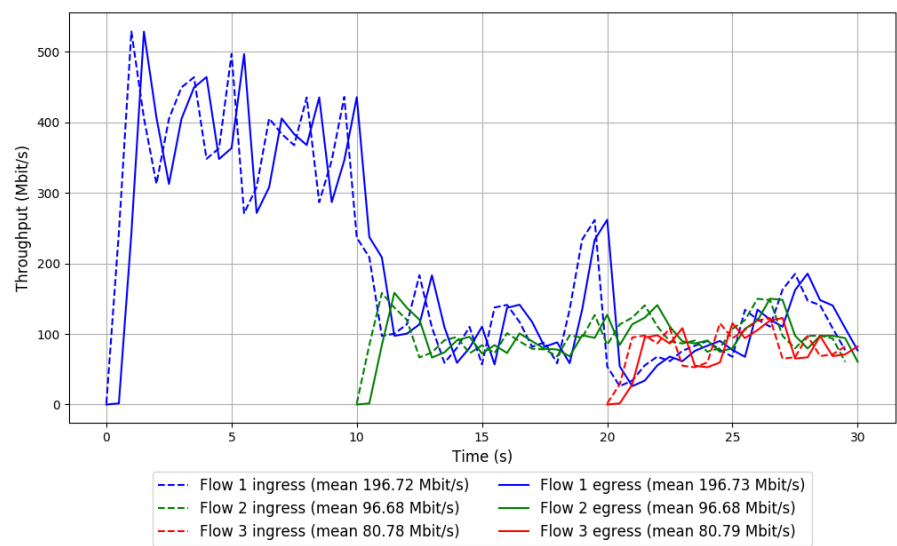
-- Flow 3:

Average throughput: 80.79 Mbit/s

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

Loss rate: 0.02%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-02-20 10:32:51

End at: 2019-02-20 10:33:21

Local clock offset: -2.69 ms

Remote clock offset: 0.24 ms

Below is generated by plot.py at 2019-02-20 13:33:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 276.60 Mbit/s

95th percentile per-packet one-way delay: 0.681 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 196.45 Mbit/s

95th percentile per-packet one-way delay: 0.675 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 103.52 Mbit/s

95th percentile per-packet one-way delay: 0.834 ms

Loss rate: 0.00%

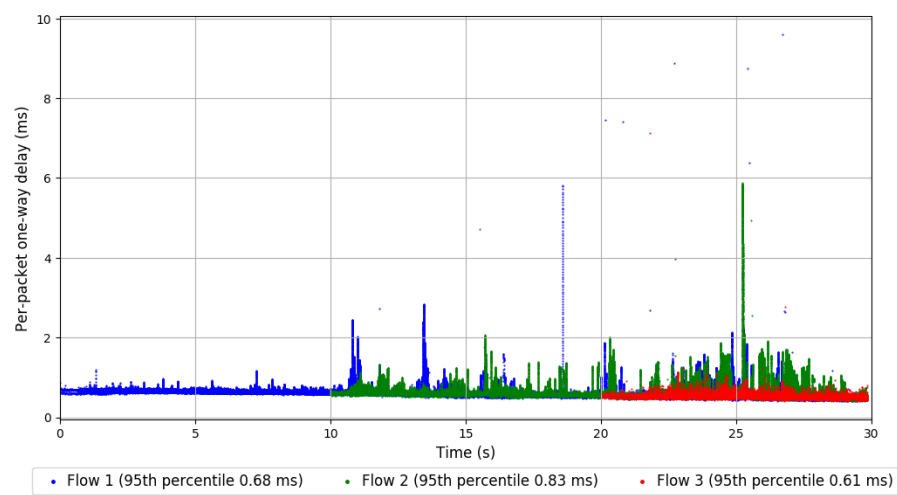
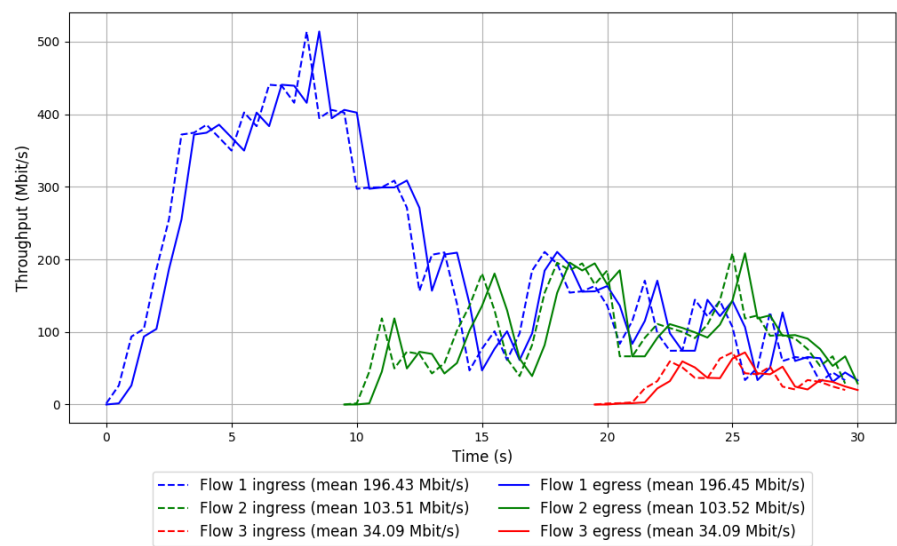
-- Flow 3:

Average throughput: 34.09 Mbit/s

95th percentile per-packet one-way delay: 0.609 ms

Loss rate: 0.01%

Run 2: Report of PCC-Vivace — Data Link

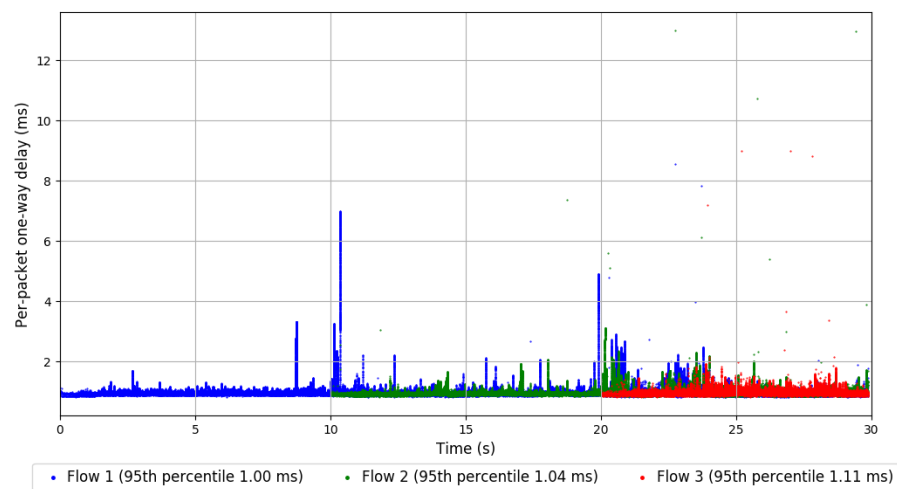
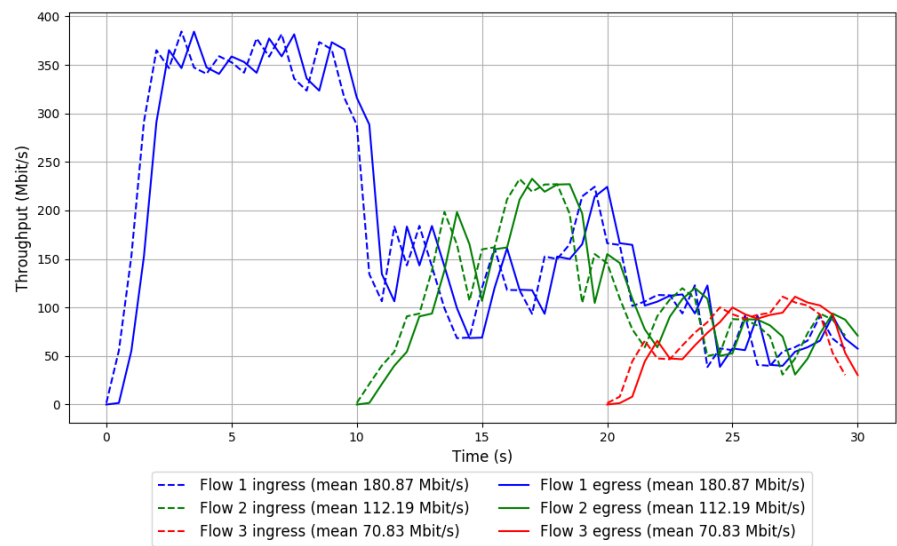


Run 3: Statistics of PCC-Vivace

Start at: 2019-02-20 11:03:01
End at: 2019-02-20 11:03:31
Local clock offset: 0.395 ms
Remote clock offset: -0.287 ms

Below is generated by plot.py at 2019-02-20 13:33:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 278.86 Mbit/s
95th percentile per-packet one-way delay: 1.027 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 180.87 Mbit/s
95th percentile per-packet one-way delay: 1.000 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.19 Mbit/s
95th percentile per-packet one-way delay: 1.043 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 70.83 Mbit/s
95th percentile per-packet one-way delay: 1.106 ms
Loss rate: 0.01%

Run 3: Report of PCC-Vivace — Data Link

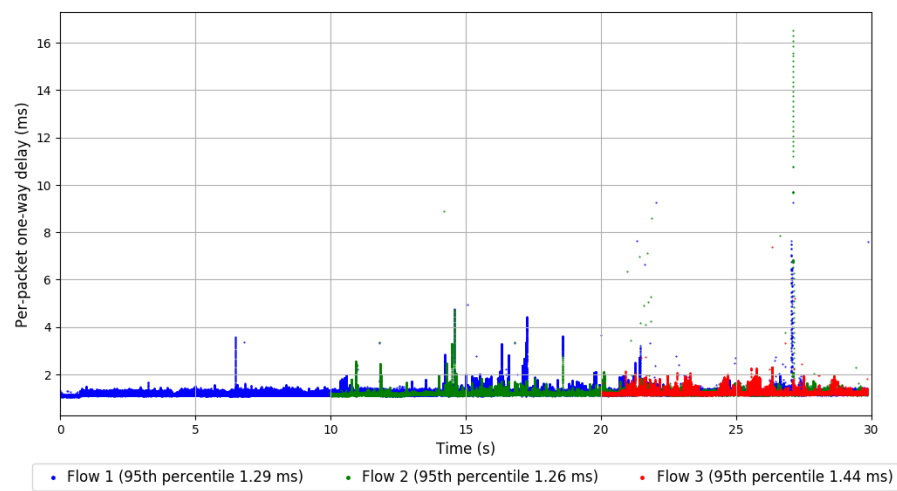
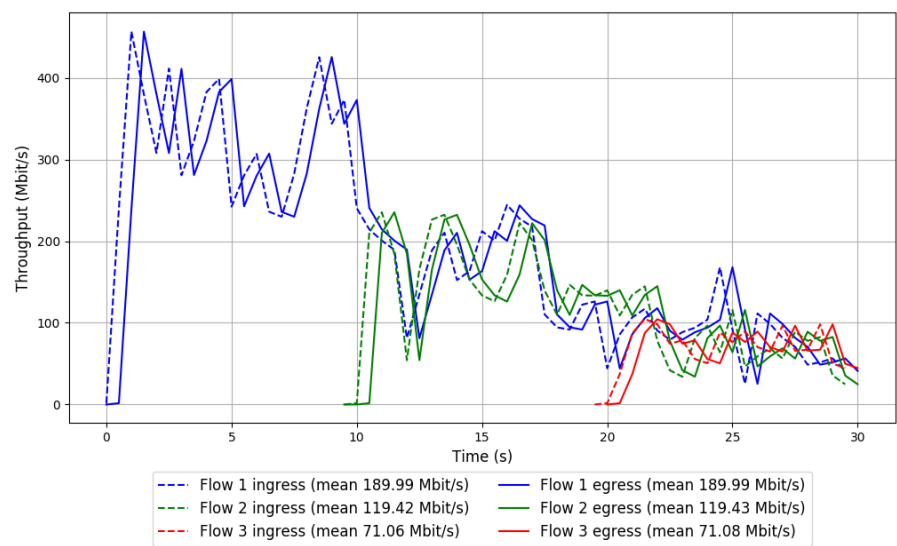


Run 4: Statistics of PCC-Vivace

Start at: 2019-02-20 11:33:30
End at: 2019-02-20 11:34:00
Local clock offset: -0.707 ms
Remote clock offset: -3.317 ms

Below is generated by plot.py at 2019-02-20 13:33:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 292.91 Mbit/s
95th percentile per-packet one-way delay: 1.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 189.99 Mbit/s
95th percentile per-packet one-way delay: 1.290 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 119.43 Mbit/s
95th percentile per-packet one-way delay: 1.256 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 71.08 Mbit/s
95th percentile per-packet one-way delay: 1.440 ms
Loss rate: 0.02%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-20 12:04:04

End at: 2019-02-20 12:04:34

Local clock offset: -2.093 ms

Remote clock offset: 3.42 ms

Below is generated by plot.py at 2019-02-20 13:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.76 Mbit/s

95th percentile per-packet one-way delay: 1.223 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 210.19 Mbit/s

95th percentile per-packet one-way delay: 1.141 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 128.74 Mbit/s

95th percentile per-packet one-way delay: 1.323 ms

Loss rate: 0.01%

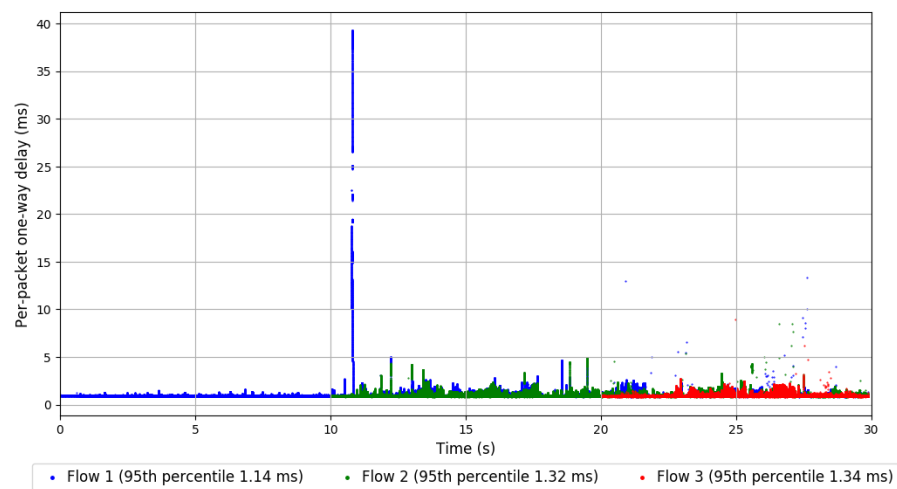
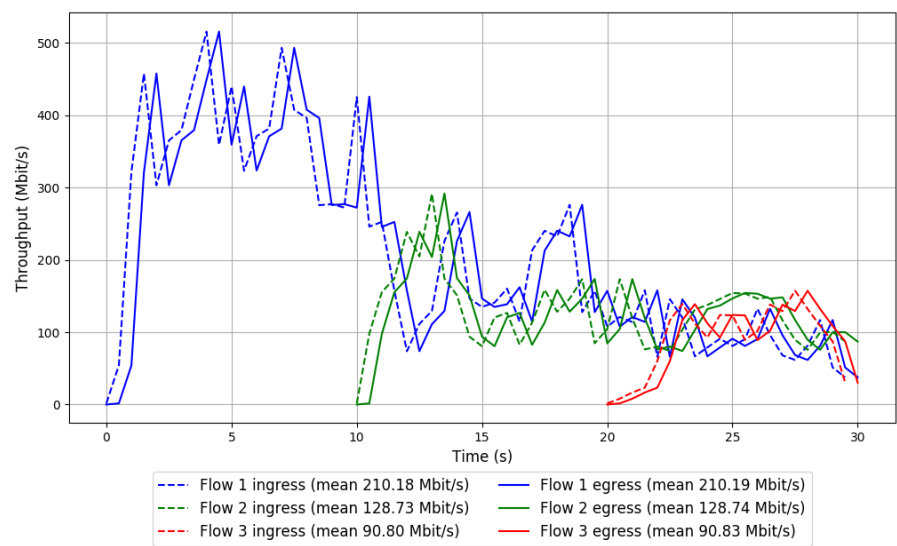
-- Flow 3:

Average throughput: 90.83 Mbit/s

95th percentile per-packet one-way delay: 1.338 ms

Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-02-20 10:05:10

End at: 2019-02-20 10:05:40

Local clock offset: -0.964 ms

Remote clock offset: 5.567 ms

Below is generated by plot.py at 2019-02-20 13:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.354 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.299 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.645 ms

Loss rate: 0.00%

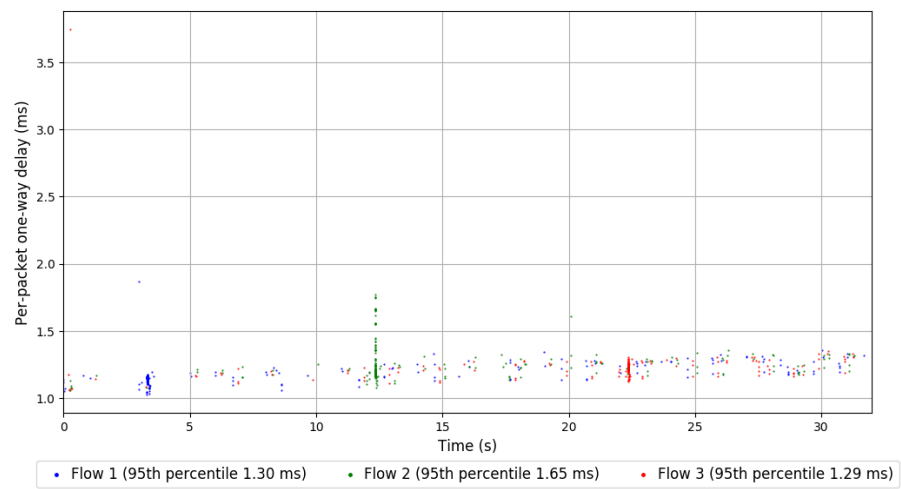
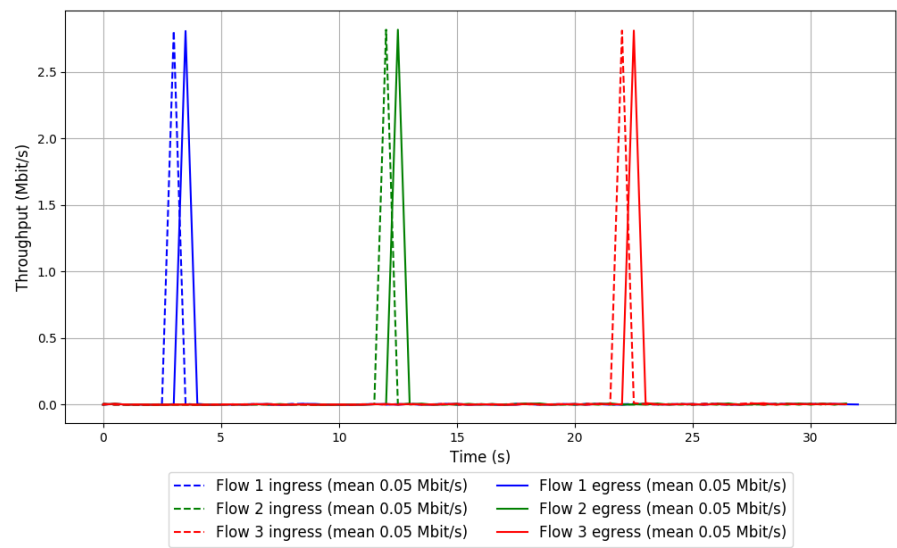
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.294 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-02-20 10:35:38

End at: 2019-02-20 10:36:08

Local clock offset: -1.804 ms

Remote clock offset: 0.024 ms

Below is generated by plot.py at 2019-02-20 13:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.956 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.221 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.009 ms

Loss rate: 0.05%

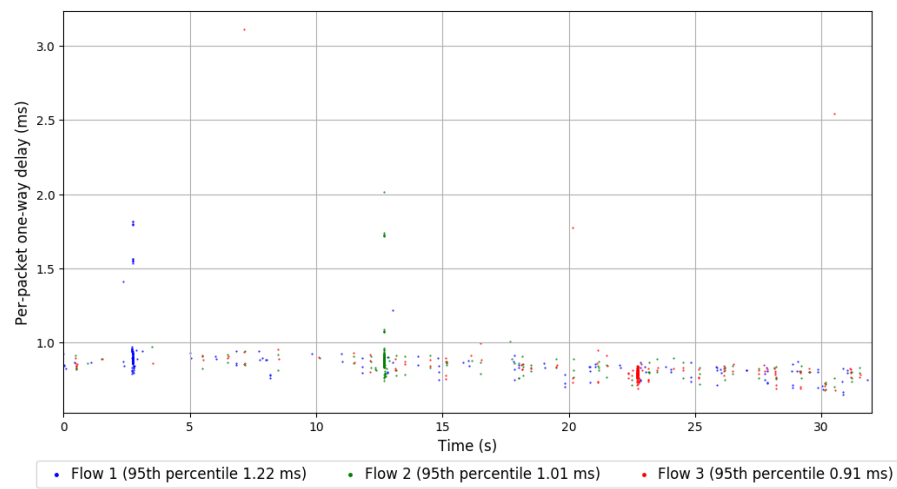
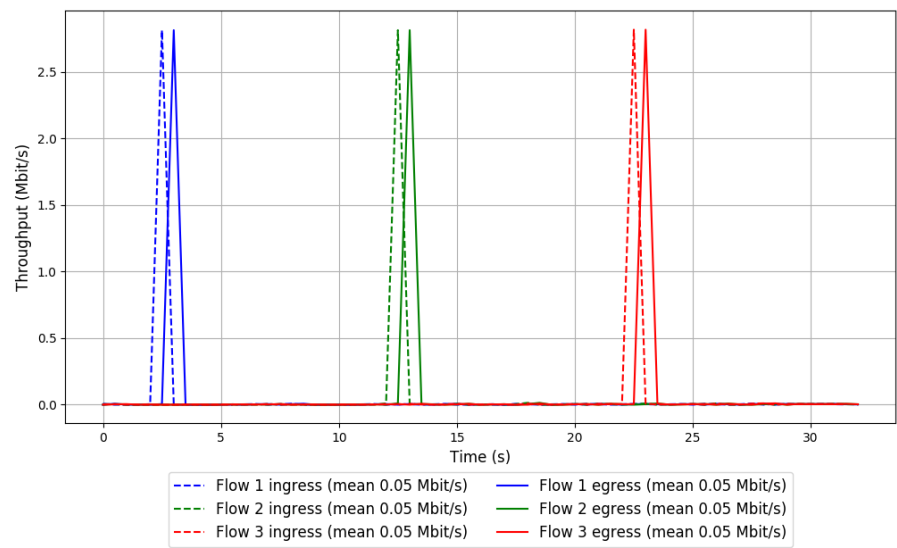
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.908 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-02-20 11:05:48

End at: 2019-02-20 11:06:18

Local clock offset: 0.352 ms

Remote clock offset: -0.39 ms

Below is generated by plot.py at 2019-02-20 13:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 1.090 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.124 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.057 ms

Loss rate: 0.05%

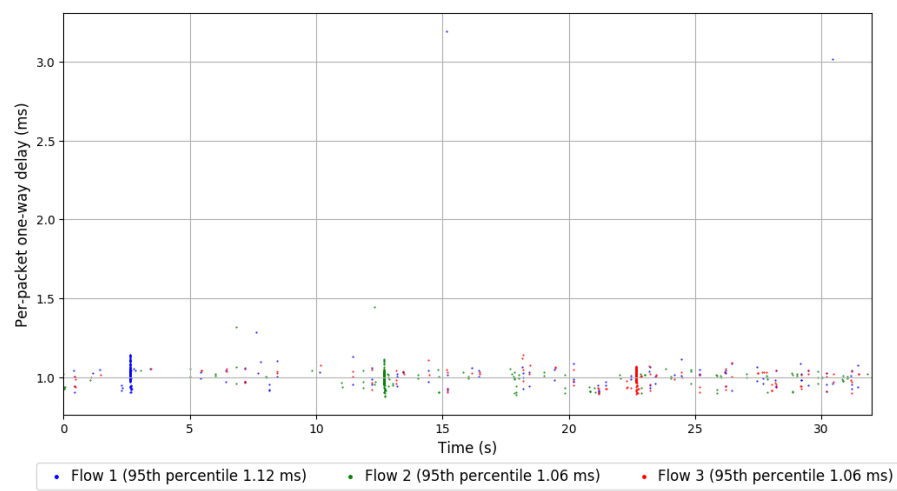
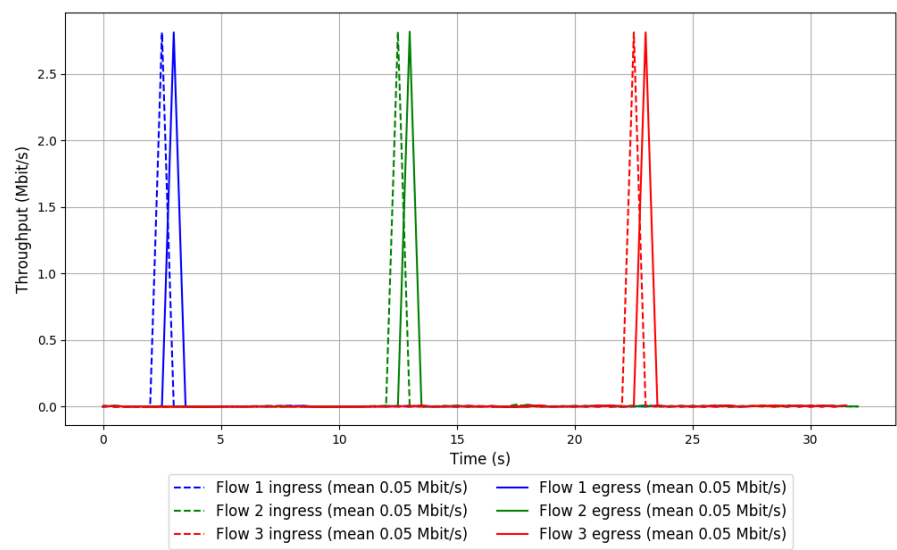
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 1.063 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

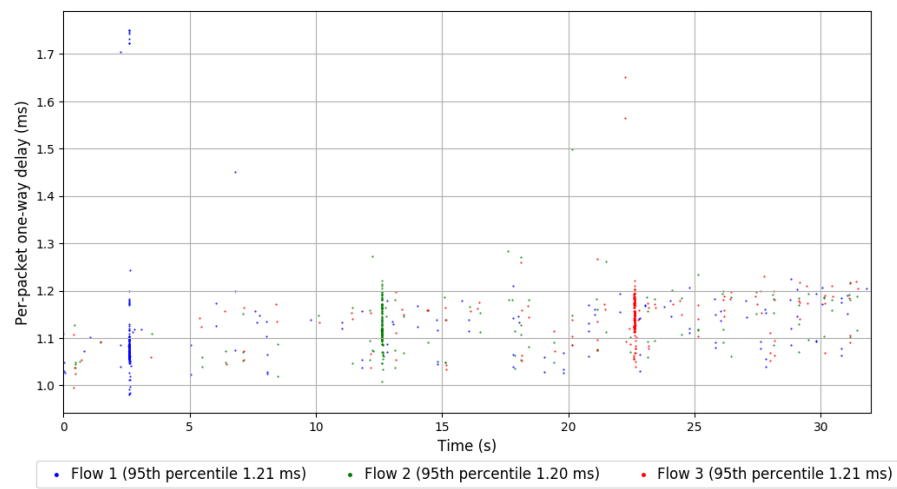
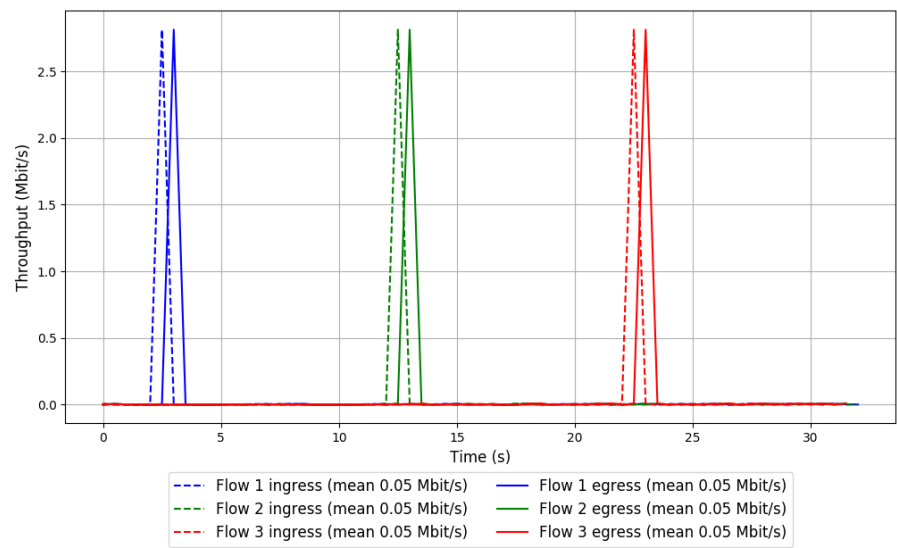


Run 4: Statistics of WebRTC media

Start at: 2019-02-20 11:36:19
End at: 2019-02-20 11:36:49
Local clock offset: -1.402 ms
Remote clock offset: -3.483 ms

Below is generated by plot.py at 2019-02-20 13:33:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.199 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.205 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-02-20 12:06:54

End at: 2019-02-20 12:07:24

Local clock offset: -1.383 ms

Remote clock offset: 4.19 ms

Below is generated by plot.py at 2019-02-20 13:33:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 0.958 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.963 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.947 ms

Loss rate: 0.06%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 0.961 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

