

Pantheon Report

Generated at 2019-02-05 23:28:03 (UTC).

Data path: GCE Sydney on `ens4` (*local*) → GCE London on `ens4` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

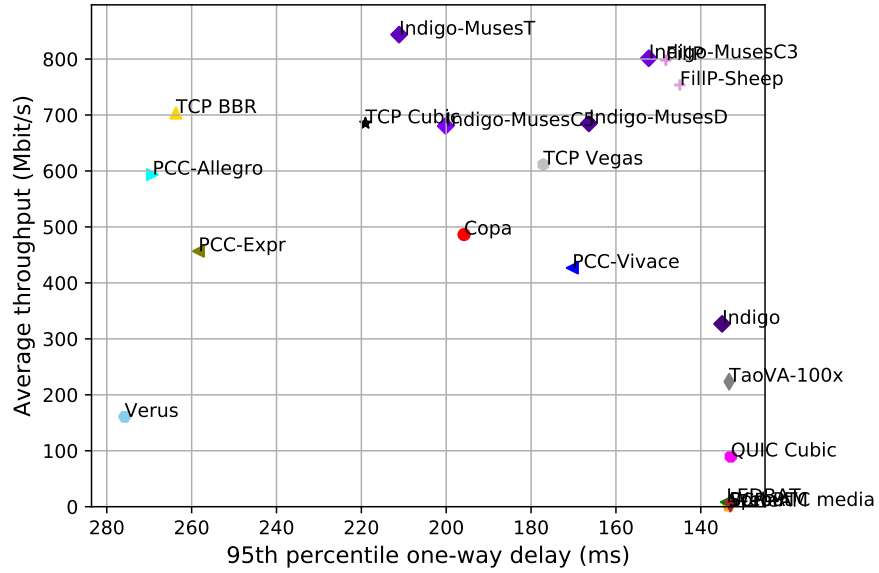
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

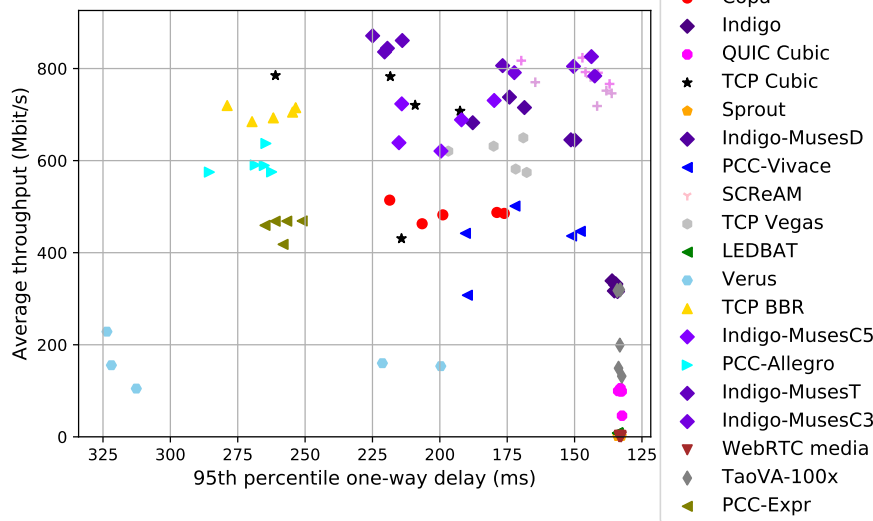
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 GCE Sydney to GCE London, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Sydney to GCE London, 5 runs of 30s each per scheme
3 flows with 10s interval between flows



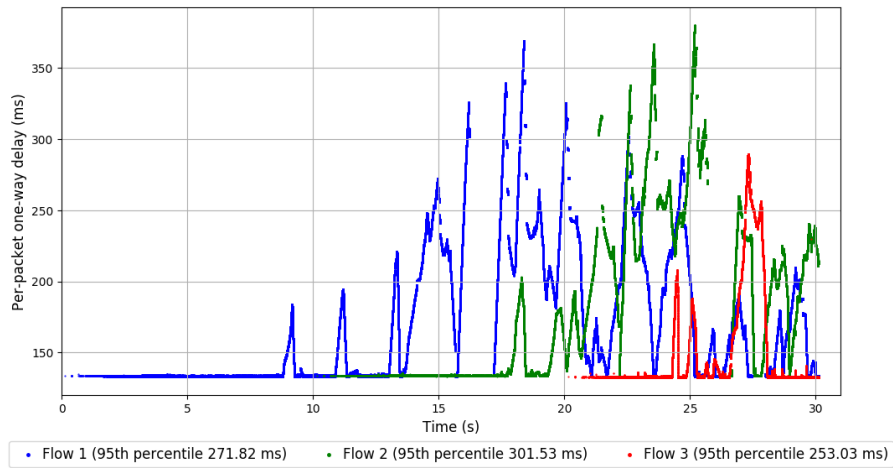
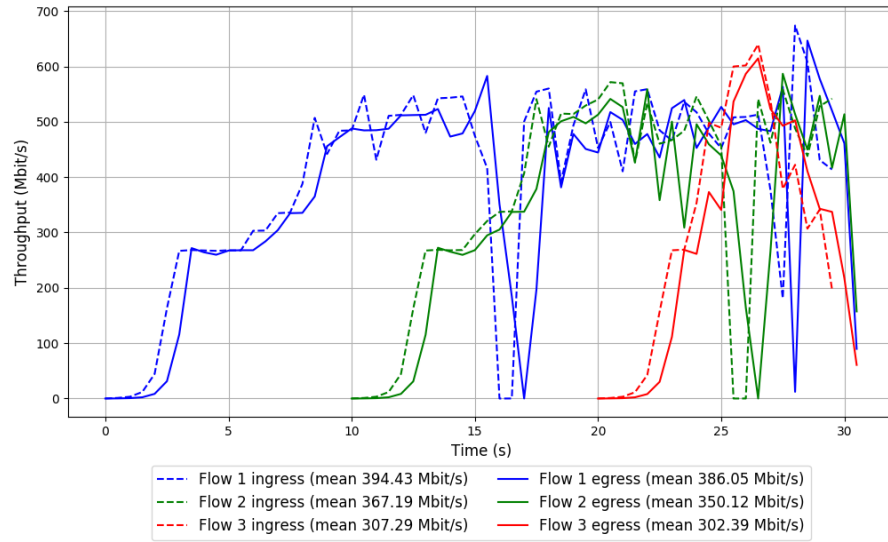
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	402.03	332.29	241.47	266.93	265.97	195.13	2.27	2.32	0.85
Copa	5	260.92	242.21	192.57	192.31	200.42	182.24	0.02	0.10	0.16
TCP Cubic	5	372.26	329.78	280.44	189.33	191.37	240.05	0.14	0.24	2.14
FillP	5	503.37	331.68	223.10	153.62	137.61	135.67	0.19	0.00	0.00
FillP-Sheep	5	467.35	312.52	236.86	148.74	135.58	135.78	0.08	0.02	0.00
Indigo	5	172.46	164.22	142.65	133.77	135.07	138.03	0.00	0.00	0.01
Indigo-MusesC3	4	470.35	397.06	279.36	159.18	146.35	138.74	0.05	0.00	0.03
Indigo-MusesC5	5	413.87	356.26	134.90	208.09	172.71	134.71	0.46	0.08	0.01
Indigo-MusesD	5	435.60	331.30	122.17	170.93	153.28	134.43	0.05	0.00	0.00
Indigo-MusesT	5	506.55	414.76	252.68	217.13	173.69	156.56	1.13	0.07	0.08
LEDBAT	5	5.29	3.48	1.71	133.88	134.04	133.49	0.00	0.00	0.00
PCC-Allegro	5	338.73	272.29	226.24	269.41	267.01	263.69	5.08	2.37	3.86
PCC-Expr	5	291.29	176.94	144.49	259.96	199.28	272.50	6.34	0.63	3.14
QUIC Cubic	5	41.47	47.66	51.81	132.84	132.68	132.69	0.00	0.00	0.00
SCReAM	5	0.15	0.15	0.16	133.00	132.76	133.09	0.00	0.00	0.00
Sprout	5	0.66	0.71	0.63	133.13	133.08	133.25	0.00	0.00	0.00
TaoVA-100x	5	85.81	184.52	44.30	132.89	133.54	132.84	0.00	0.00	0.00
TCP Vegas	5	337.29	295.14	233.46	168.65	182.94	202.81	0.72	0.23	0.14
Verus	5	83.63	92.28	49.12	241.47	218.42	228.29	2.14	4.91	1.87
PCC-Vivace	5	253.17	200.92	120.84	166.85	175.08	157.83	0.16	0.56	0.01
WebRTC media	5	0.82	0.49	0.11	132.67	132.88	132.89	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-02-05 17:43:56
End at: 2019-02-05 17:44:26
Local clock offset: -0.248 ms
Remote clock offset: -0.024 ms

Below is generated by plot.py at 2019-02-05 20:55:53
Datalink statistics
-- Total of 3 flows:
Average throughput: 719.68 Mbit/s
95th percentile per-packet one-way delay: 278.914 ms
Loss rate: 2.88%
-- Flow 1:
Average throughput: 386.05 Mbit/s
95th percentile per-packet one-way delay: 271.822 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 350.12 Mbit/s
95th percentile per-packet one-way delay: 301.533 ms
Loss rate: 4.65%
-- Flow 3:
Average throughput: 302.39 Mbit/s
95th percentile per-packet one-way delay: 253.025 ms
Loss rate: 1.60%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-02-05 18:22:47

End at: 2019-02-05 18:23:17

Local clock offset: -0.441 ms

Remote clock offset: 0.072 ms

Below is generated by plot.py at 2019-02-05 20:55:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 705.34 Mbit/s

95th percentile per-packet one-way delay: 254.643 ms

Loss rate: 2.20%

-- Flow 1:

Average throughput: 399.73 Mbit/s

95th percentile per-packet one-way delay: 252.571 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 341.86 Mbit/s

95th percentile per-packet one-way delay: 261.557 ms

Loss rate: 3.41%

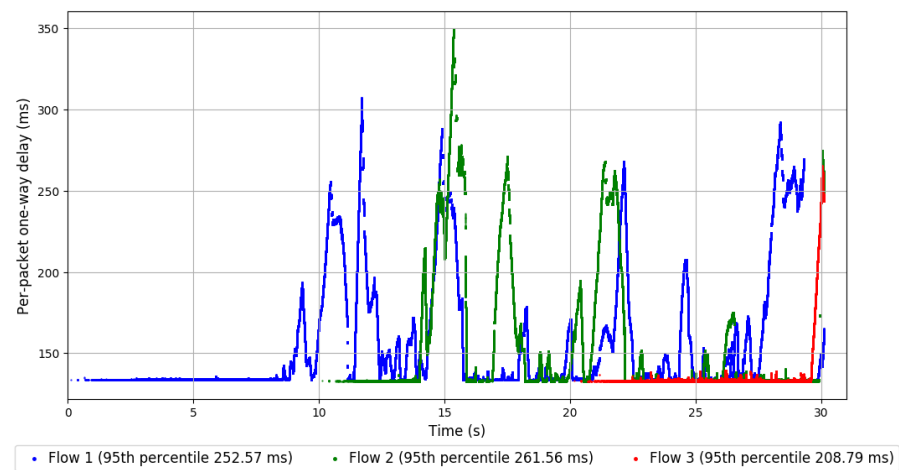
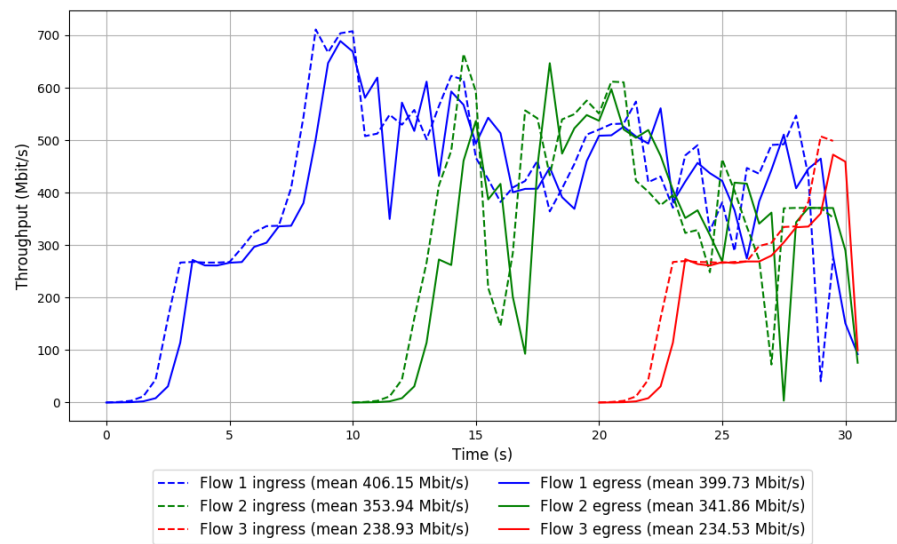
-- Flow 3:

Average throughput: 234.53 Mbit/s

95th percentile per-packet one-way delay: 208.787 ms

Loss rate: 1.83%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-02-05 19:02:07

End at: 2019-02-05 19:02:37

Local clock offset: 0.297 ms

Remote clock offset: 0.169 ms

Below is generated by plot.py at 2019-02-05 20:55:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 692.87 Mbit/s

95th percentile per-packet one-way delay: 261.786 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 390.36 Mbit/s

95th percentile per-packet one-way delay: 282.177 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 343.05 Mbit/s

95th percentile per-packet one-way delay: 246.229 ms

Loss rate: 1.17%

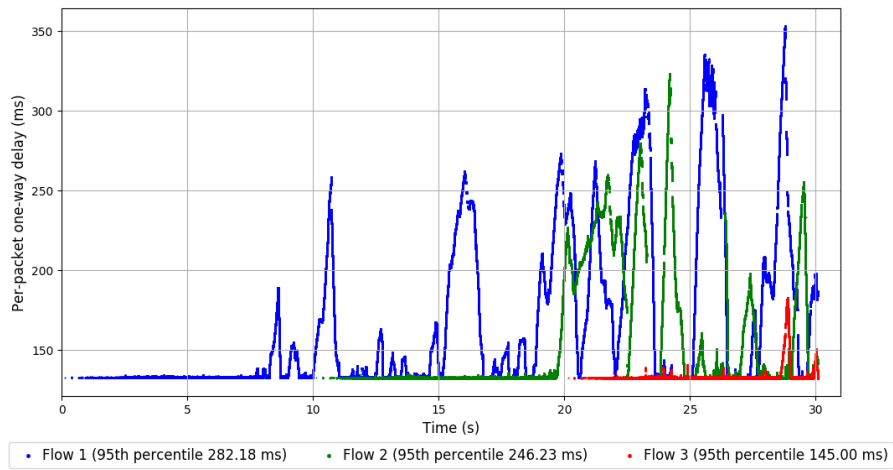
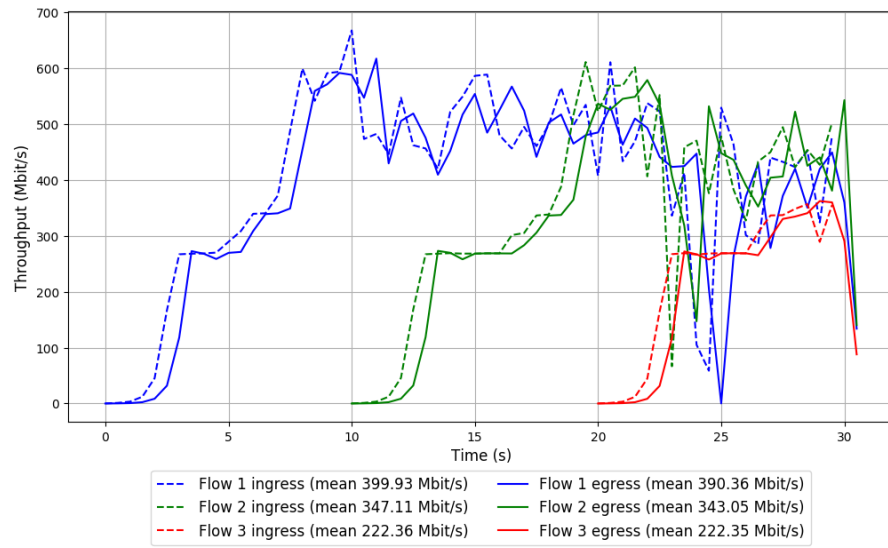
-- Flow 3:

Average throughput: 222.35 Mbit/s

95th percentile per-packet one-way delay: 145.000 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link

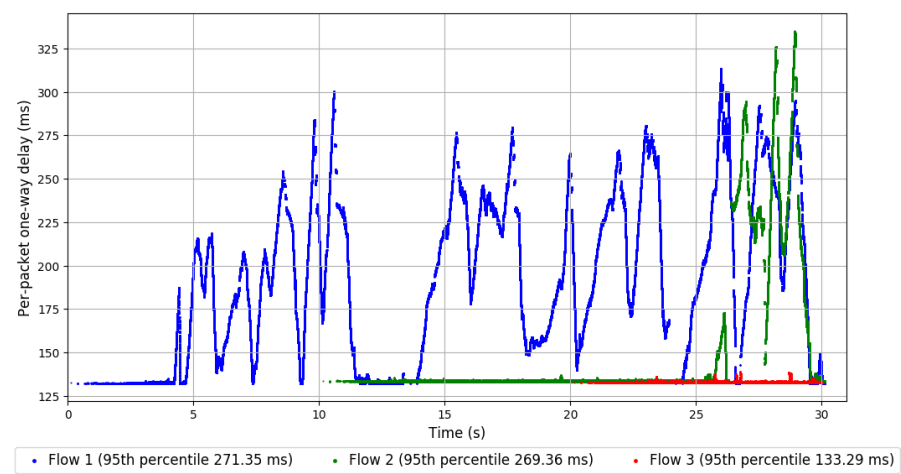
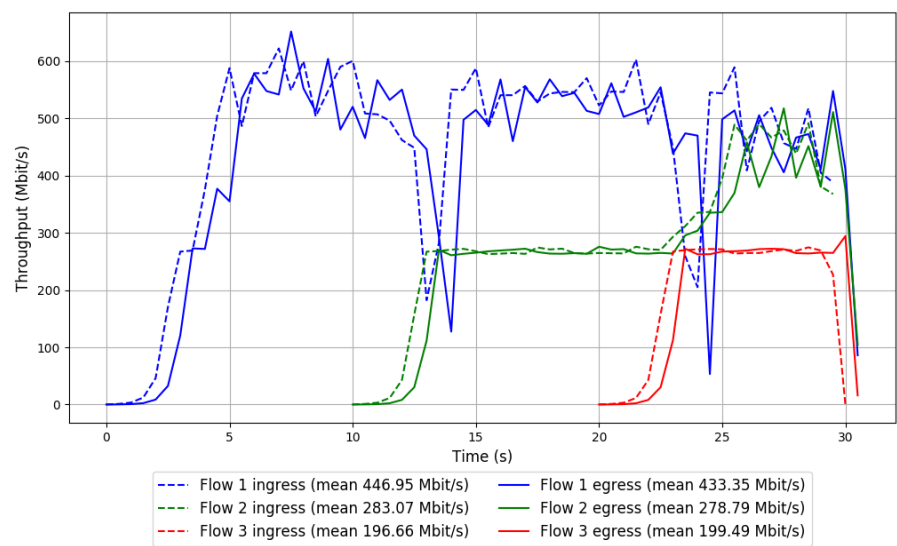


Run 4: Statistics of TCP BBR

Start at: 2019-02-05 19:41:21
End at: 2019-02-05 19:41:51
Local clock offset: -0.137 ms
Remote clock offset: -0.018 ms

Below is generated by plot.py at 2019-02-05 20:55:53
Datalink statistics
-- Total of 3 flows:
Average throughput: 684.70 Mbit/s
95th percentile per-packet one-way delay: 269.690 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 433.35 Mbit/s
95th percentile per-packet one-way delay: 271.346 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 278.79 Mbit/s
95th percentile per-packet one-way delay: 269.357 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 199.49 Mbit/s
95th percentile per-packet one-way delay: 133.295 ms
Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-02-05 20:19:35

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

Local clock offset: -0.425 ms

Remote clock offset: 0.0 ms

Below is generated by plot.py at 2019-02-05 20:55:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 714.99 Mbit/s

95th percentile per-packet one-way delay: 253.506 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 400.66 Mbit/s

95th percentile per-packet one-way delay: 256.716 ms

Loss rate: 2.22%

-- Flow 2:

Average throughput: 347.65 Mbit/s

95th percentile per-packet one-way delay: 251.174 ms

Loss rate: 0.88%

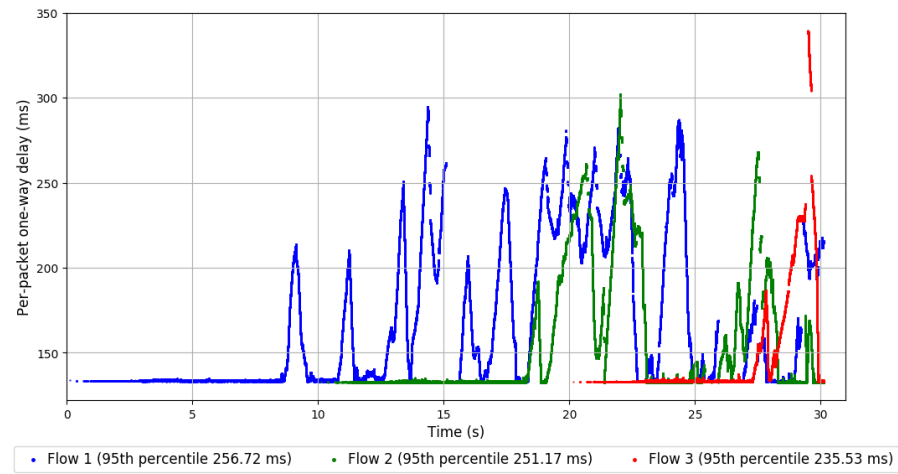
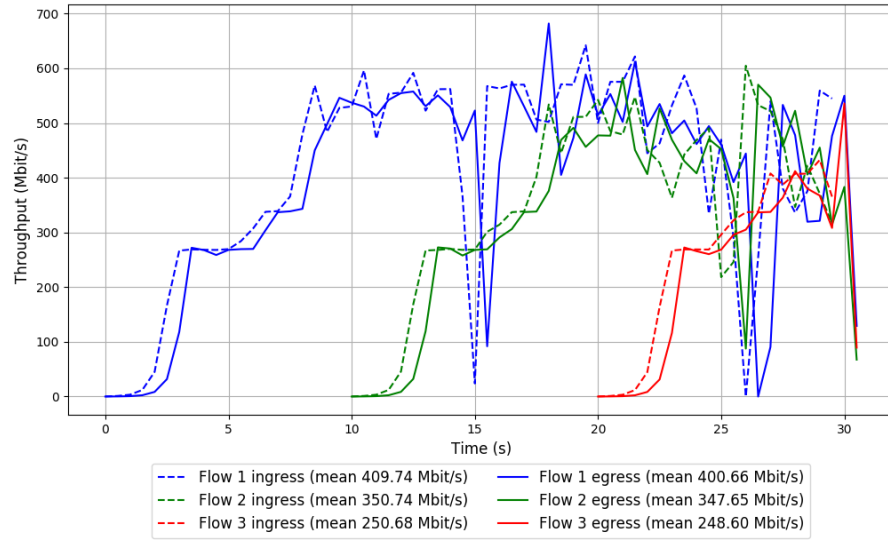
-- Flow 3:

Average throughput: 248.60 Mbit/s

95th percentile per-packet one-way delay: 235.526 ms

Loss rate: 0.83%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-02-05 17:30:51

End at: 2019-02-05 17:31:21

Local clock offset: -0.252 ms

Remote clock offset: 0.004 ms

Below is generated by plot.py at 2019-02-05 21:00:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.13 Mbit/s

95th percentile per-packet one-way delay: 218.608 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 289.35 Mbit/s

95th percentile per-packet one-way delay: 215.886 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 240.62 Mbit/s

95th percentile per-packet one-way delay: 226.922 ms

Loss rate: 0.09%

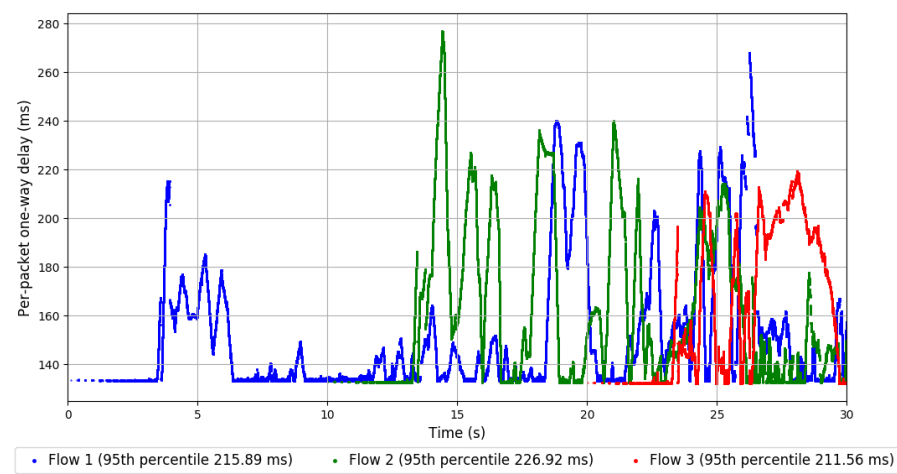
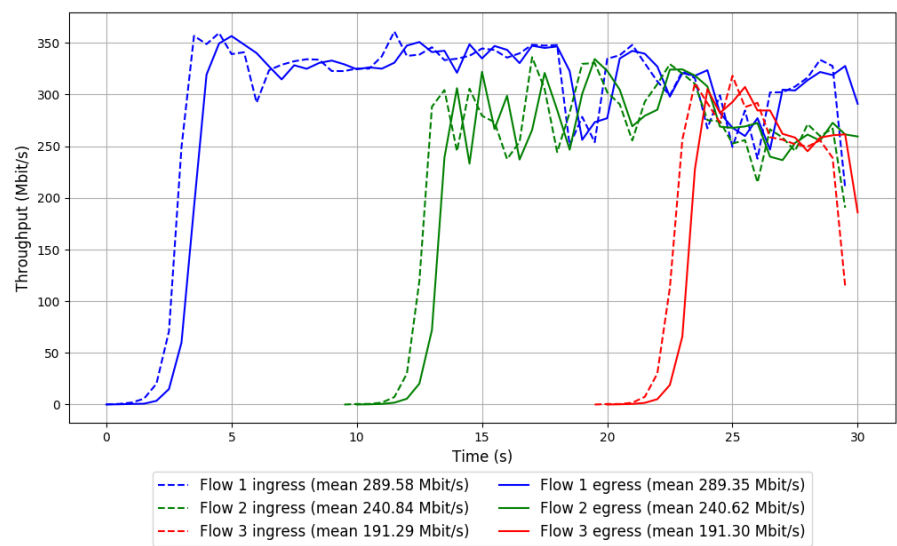
-- Flow 3:

Average throughput: 191.30 Mbit/s

95th percentile per-packet one-way delay: 211.555 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-02-05 18:09:40

End at: 2019-02-05 18:10:10

Local clock offset: -0.25 ms

Remote clock offset: 0.094 ms

Below is generated by plot.py at 2019-02-05 21:00:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 482.19 Mbit/s

95th percentile per-packet one-way delay: 198.891 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 260.98 Mbit/s

95th percentile per-packet one-way delay: 190.680 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 233.78 Mbit/s

95th percentile per-packet one-way delay: 227.210 ms

Loss rate: 0.22%

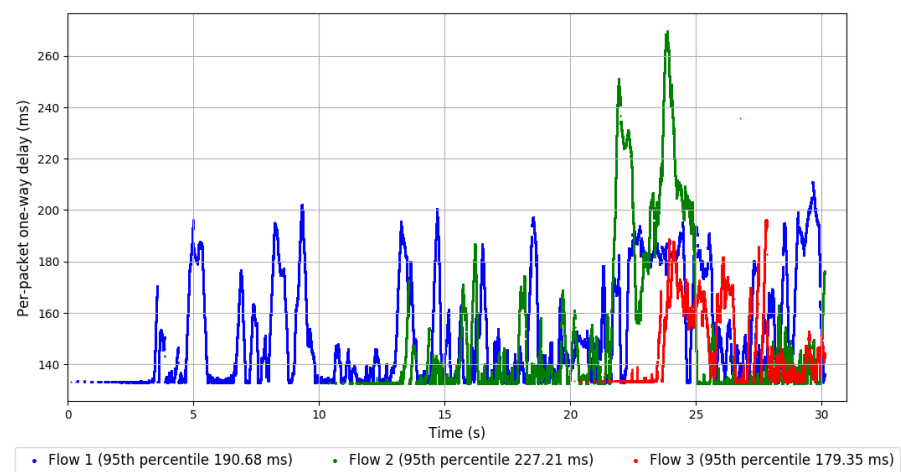
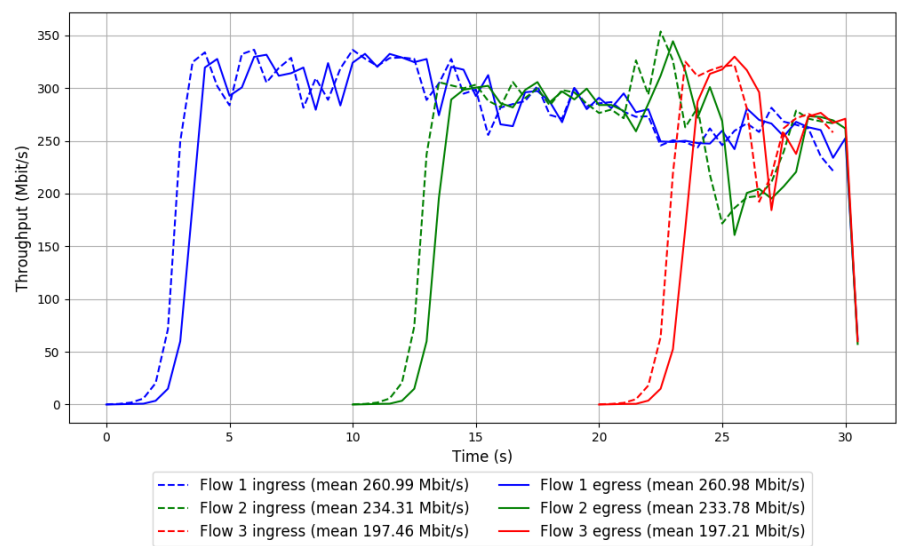
-- Flow 3:

Average throughput: 197.21 Mbit/s

95th percentile per-packet one-way delay: 179.347 ms

Loss rate: 0.12%

Run 2: Report of Copa — Data Link

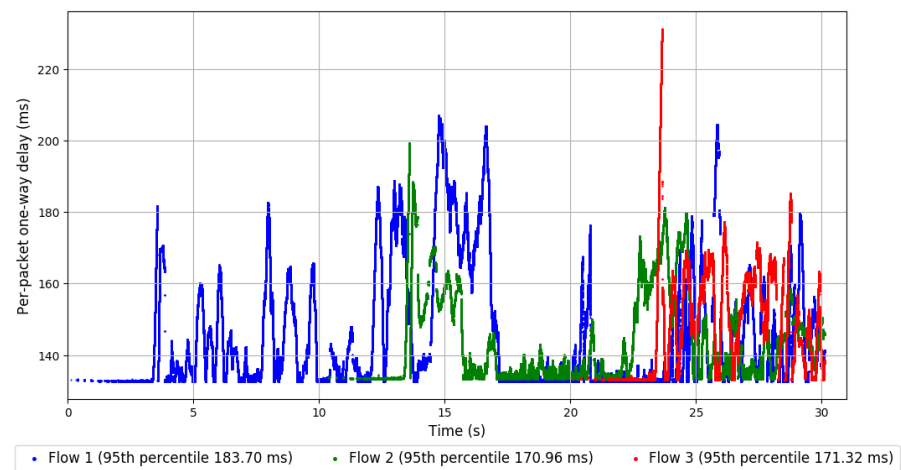
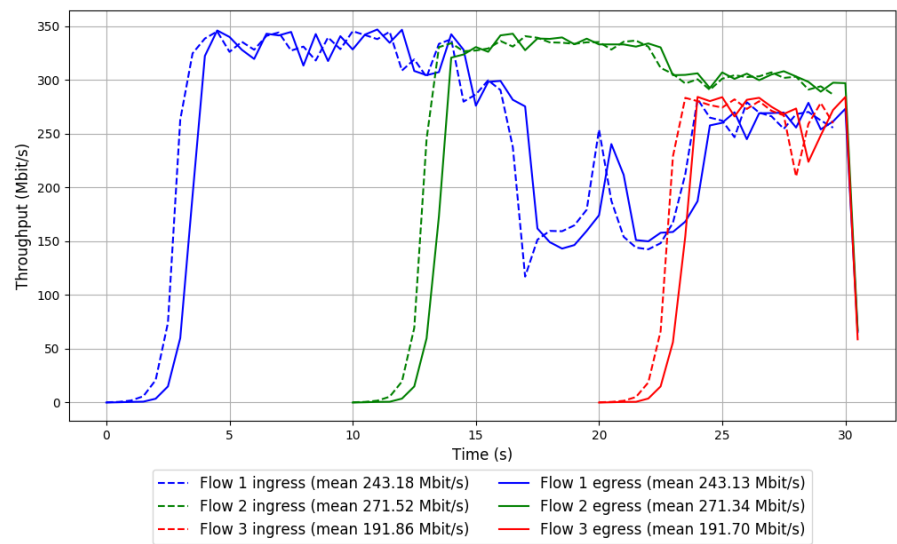


Run 3: Statistics of Copa

Start at: 2019-02-05 18:49:02
End at: 2019-02-05 18:49:32
Local clock offset: -0.394 ms
Remote clock offset: -0.034 ms

Below is generated by plot.py at 2019-02-05 21:00:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 487.38 Mbit/s
95th percentile per-packet one-way delay: 178.834 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 243.13 Mbit/s
95th percentile per-packet one-way delay: 183.702 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 271.34 Mbit/s
95th percentile per-packet one-way delay: 170.955 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 191.70 Mbit/s
95th percentile per-packet one-way delay: 171.317 ms
Loss rate: 0.08%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-02-05 19:28:28

End at: 2019-02-05 19:28:58

Local clock offset: 0.003 ms

Remote clock offset: 0.016 ms

Below is generated by plot.py at 2019-02-05 21:14:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 462.87 Mbit/s

95th percentile per-packet one-way delay: 206.569 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 243.68 Mbit/s

95th percentile per-packet one-way delay: 196.735 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 231.39 Mbit/s

95th percentile per-packet one-way delay: 226.512 ms

Loss rate: 0.00%

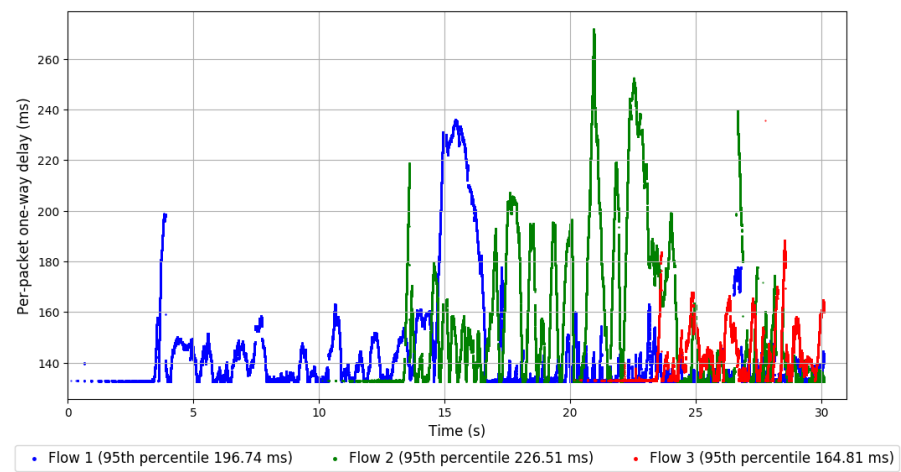
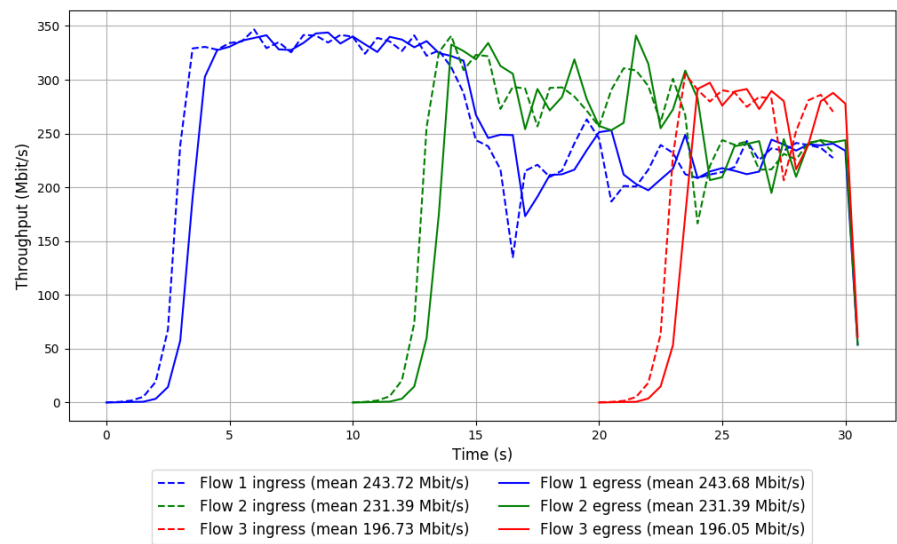
-- Flow 3:

Average throughput: 196.05 Mbit/s

95th percentile per-packet one-way delay: 164.807 ms

Loss rate: 0.32%

Run 4: Report of Copa — Data Link

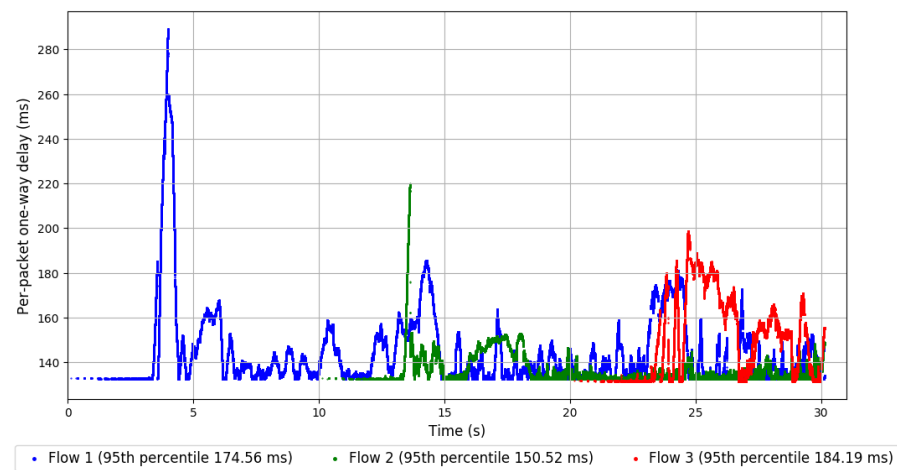
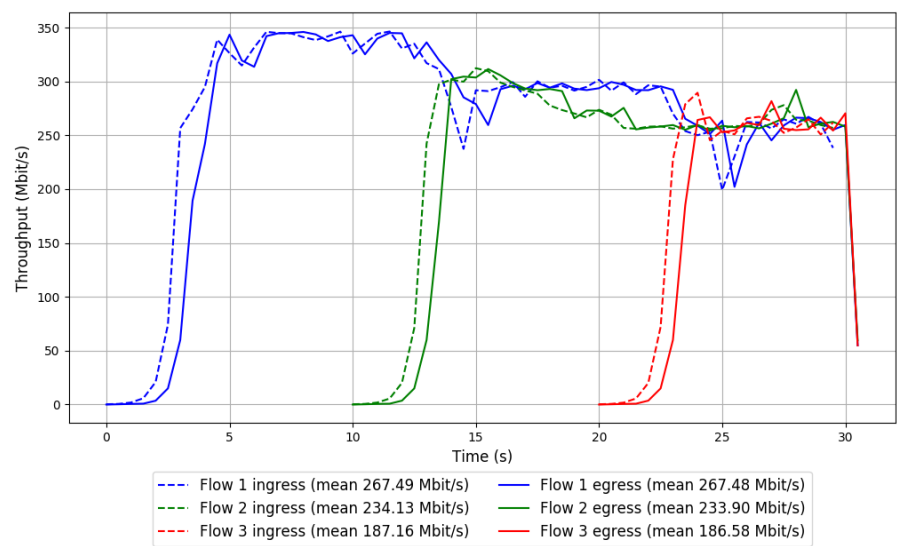


Run 5: Statistics of Copa

Start at: 2019-02-05 20:06:40
End at: 2019-02-05 20:07:10
Local clock offset: 0.437 ms
Remote clock offset: -0.065 ms

```
# Below is generated by plot.py at 2019-02-05 21:15:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 485.31 Mbit/s
95th percentile per-packet one-way delay: 176.091 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 267.48 Mbit/s
95th percentile per-packet one-way delay: 174.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 233.90 Mbit/s
95th percentile per-packet one-way delay: 150.520 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 186.58 Mbit/s
95th percentile per-packet one-way delay: 184.192 ms
Loss rate: 0.30%
```

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 17:14:52

End at: 2019-02-05 17:15:22

Local clock offset: -0.407 ms

Remote clock offset: 0.47 ms

Below is generated by plot.py at 2019-02-05 21:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 430.64 Mbit/s

95th percentile per-packet one-way delay: 214.229 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 173.45 Mbit/s

95th percentile per-packet one-way delay: 134.450 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 225.50 Mbit/s

95th percentile per-packet one-way delay: 134.053 ms

Loss rate: 0.00%

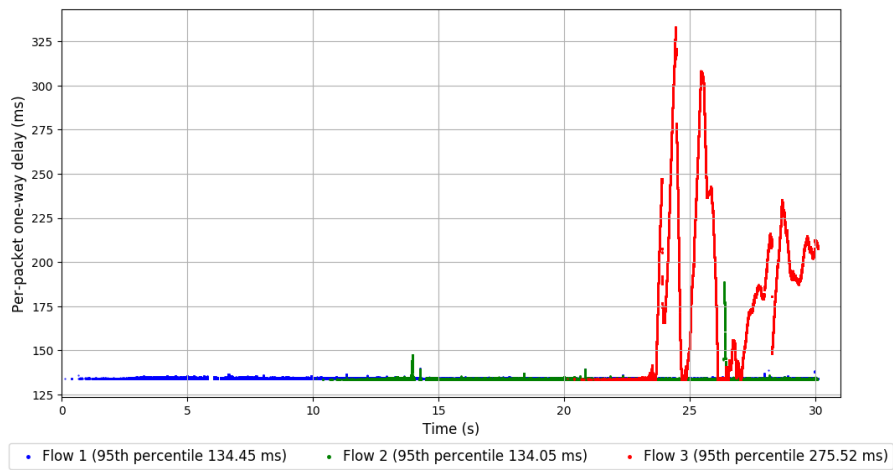
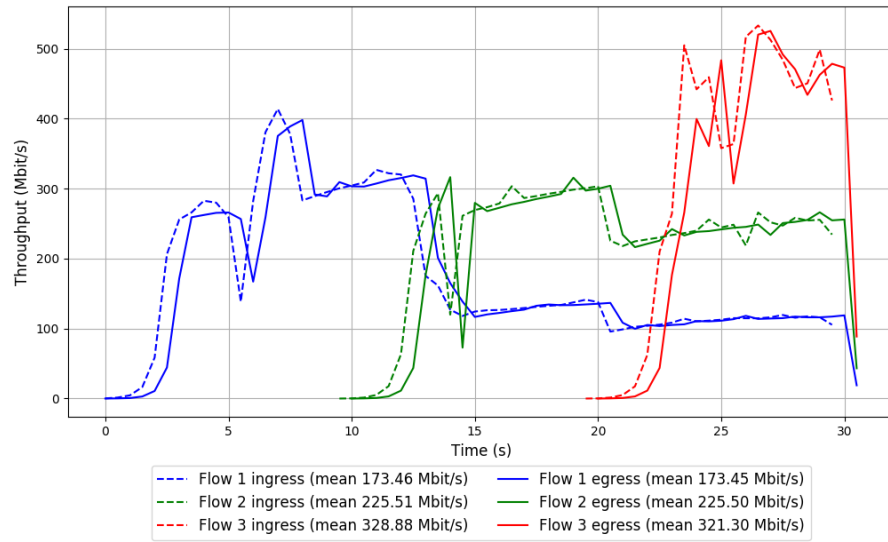
-- Flow 3:

Average throughput: 321.30 Mbit/s

95th percentile per-packet one-way delay: 275.520 ms

Loss rate: 2.30%

Run 1: Report of TCP Cubic — Data Link

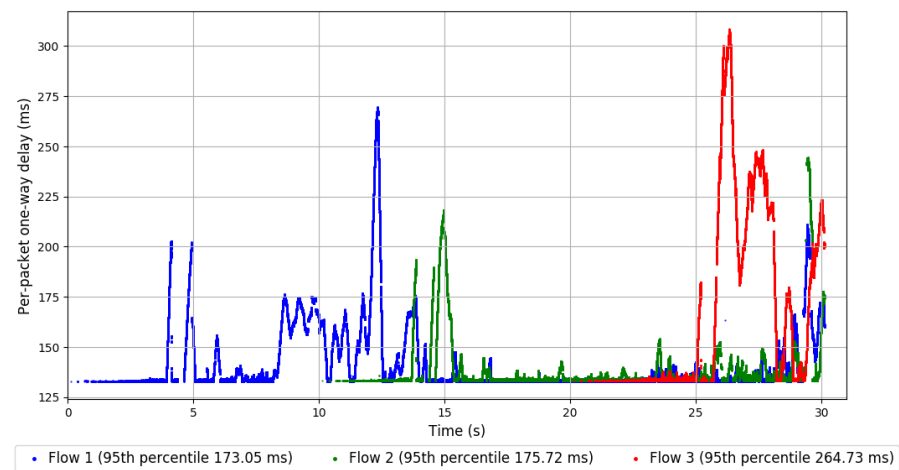
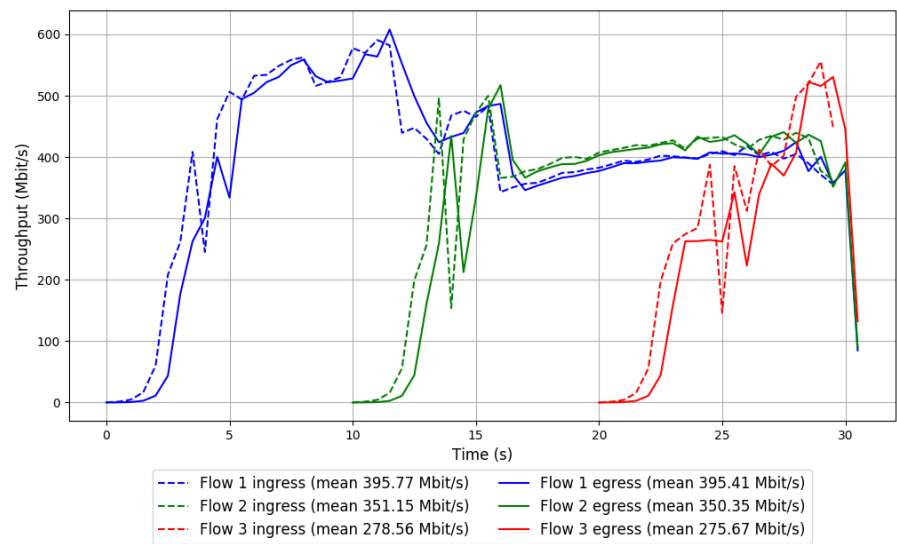


Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 17:53:12
End at: 2019-02-05 17:53:42
Local clock offset: 0.023 ms
Remote clock offset: -0.045 ms

Below is generated by plot.py at 2019-02-05 21:15:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 720.33 Mbit/s
95th percentile per-packet one-way delay: 209.142 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 395.41 Mbit/s
95th percentile per-packet one-way delay: 173.048 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 350.35 Mbit/s
95th percentile per-packet one-way delay: 175.718 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 275.67 Mbit/s
95th percentile per-packet one-way delay: 264.726 ms
Loss rate: 1.03%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 18:32:27

End at: 2019-02-05 18:32:57

Local clock offset: -0.0 ms

Remote clock offset: 0.058 ms

Below is generated by plot.py at 2019-02-05 21:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 784.89 Mbit/s

95th percentile per-packet one-way delay: 260.983 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 438.86 Mbit/s

95th percentile per-packet one-way delay: 214.130 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 377.61 Mbit/s

95th percentile per-packet one-way delay: 267.666 ms

Loss rate: 0.48%

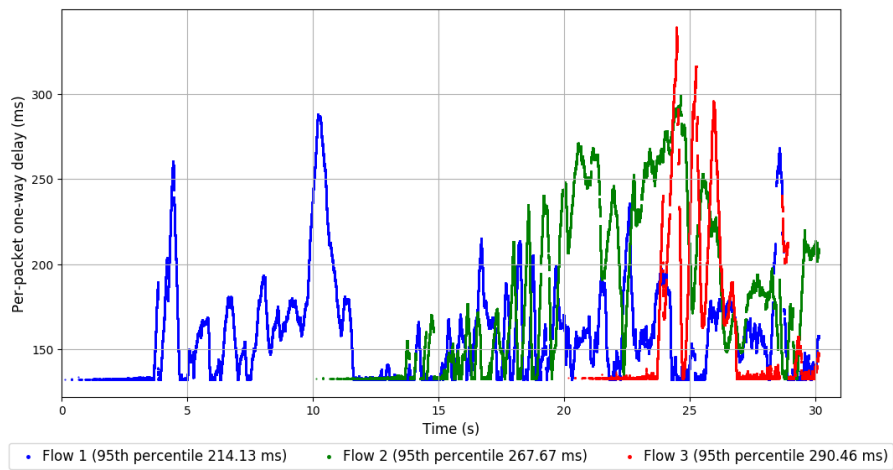
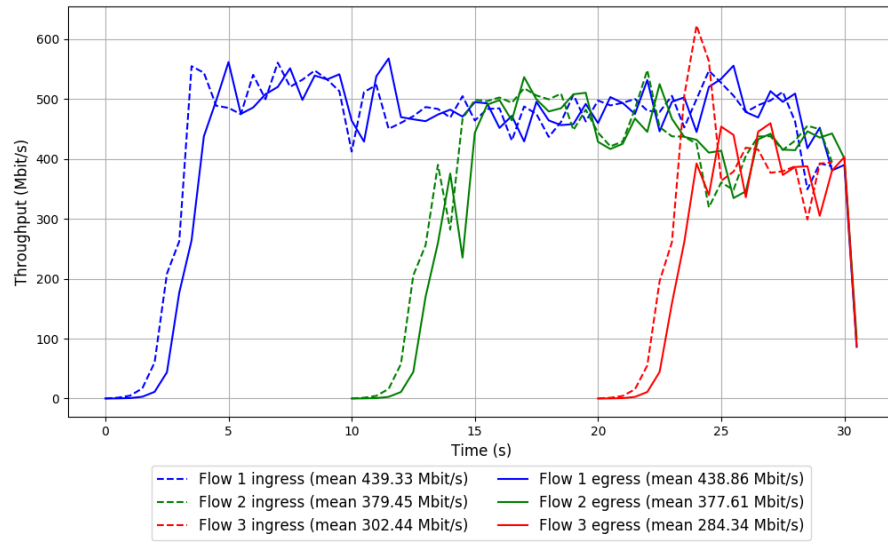
-- Flow 3:

Average throughput: 284.34 Mbit/s

95th percentile per-packet one-way delay: 290.462 ms

Loss rate: 5.98%

Run 3: Report of TCP Cubic — Data Link

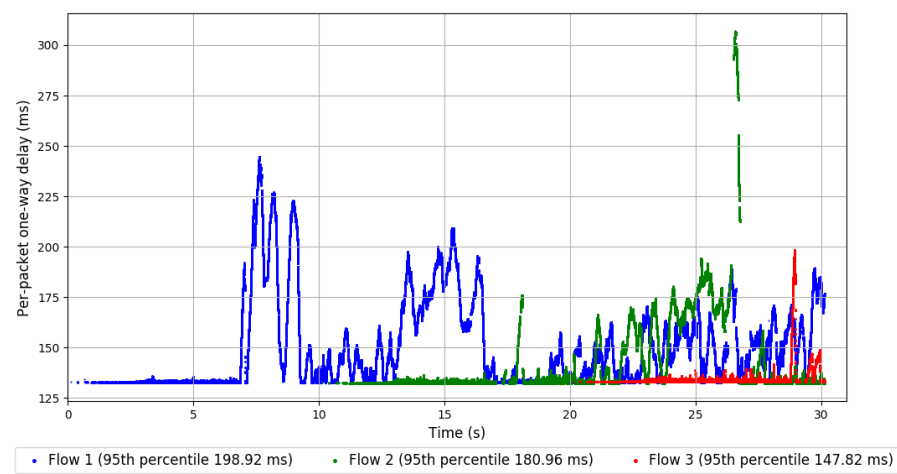
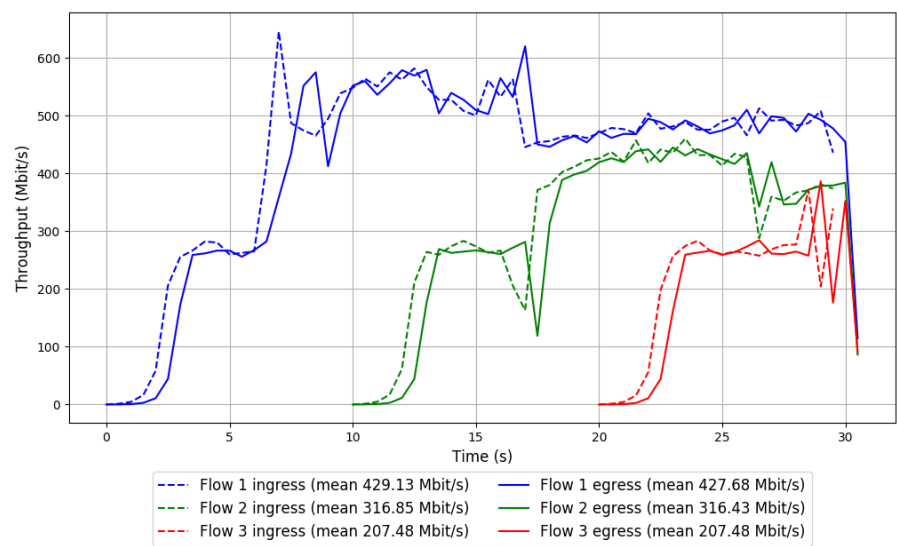


Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 19:11:39
End at: 2019-02-05 19:12:09
Local clock offset: 0.022 ms
Remote clock offset: -0.004 ms

Below is generated by plot.py at 2019-02-05 21:15:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 707.58 Mbit/s
95th percentile per-packet one-way delay: 192.496 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 427.68 Mbit/s
95th percentile per-packet one-way delay: 198.920 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 316.43 Mbit/s
95th percentile per-packet one-way delay: 180.963 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 207.48 Mbit/s
95th percentile per-packet one-way delay: 147.819 ms
Loss rate: 0.01%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 19:50:25

End at: 2019-02-05 19:50:55

Local clock offset: 0.133 ms

Remote clock offset: 0.291 ms

Below is generated by plot.py at 2019-02-05 21:17:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 782.64 Mbit/s

95th percentile per-packet one-way delay: 218.374 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 425.89 Mbit/s

95th percentile per-packet one-way delay: 226.083 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 379.01 Mbit/s

95th percentile per-packet one-way delay: 198.432 ms

Loss rate: 0.34%

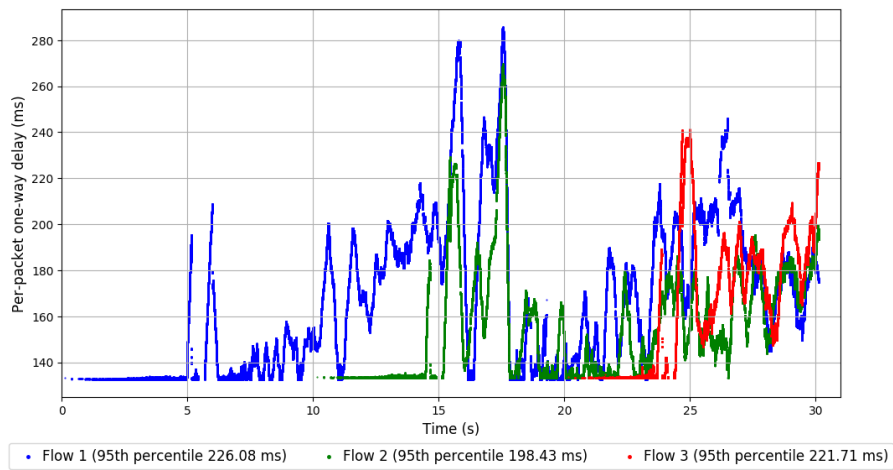
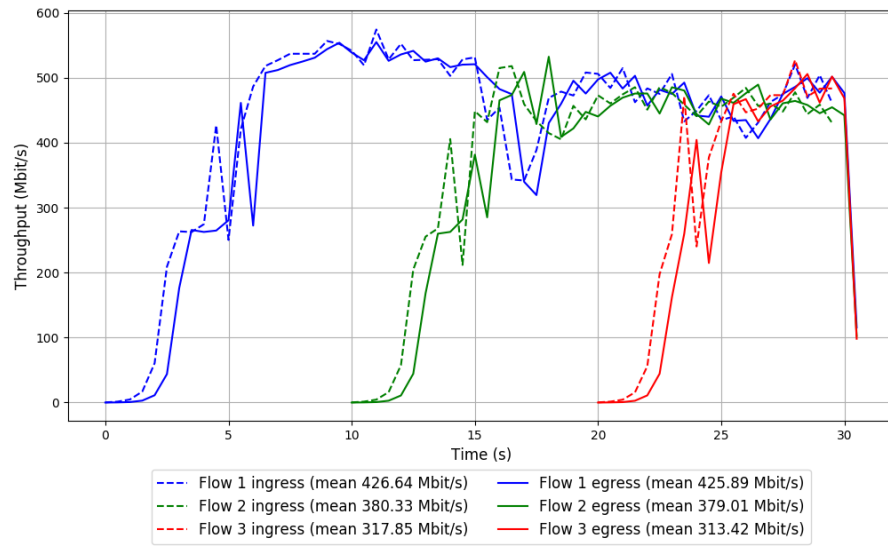
-- Flow 3:

Average throughput: 313.42 Mbit/s

95th percentile per-packet one-way delay: 221.714 ms

Loss rate: 1.40%

Run 5: Report of TCP Cubic — Data Link

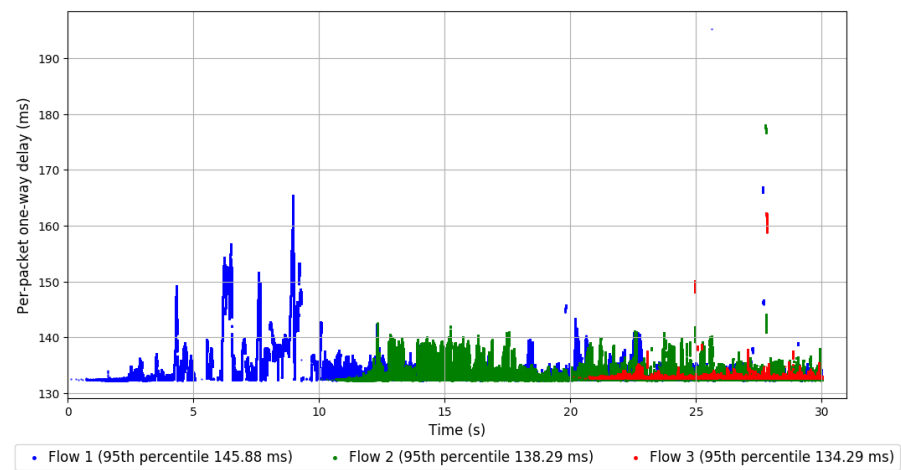
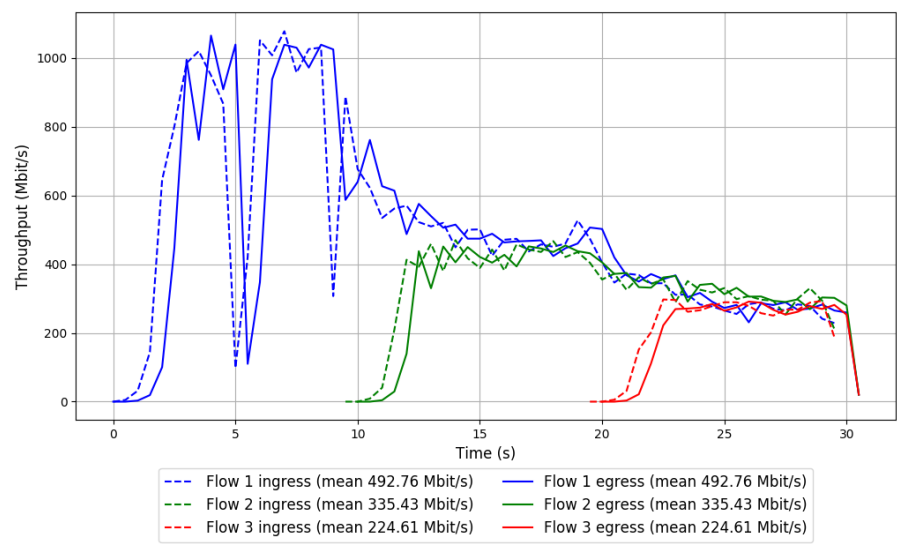


Run 1: Statistics of FillP

Start at: 2019-02-05 17:39:51
End at: 2019-02-05 17:40:21
Local clock offset: 0.053 ms
Remote clock offset: -0.054 ms

Below is generated by plot.py at 2019-02-05 21:22:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 790.86 Mbit/s
95th percentile per-packet one-way delay: 141.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 492.76 Mbit/s
95th percentile per-packet one-way delay: 145.877 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 335.43 Mbit/s
95th percentile per-packet one-way delay: 138.293 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 224.61 Mbit/s
95th percentile per-packet one-way delay: 134.292 ms
Loss rate: 0.00%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-02-05 18:18:37

End at: 2019-02-05 18:19:07

Local clock offset: 0.06 ms

Remote clock offset: 0.067 ms

Below is generated by plot.py at 2019-02-05 21:25:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 817.15 Mbit/s

95th percentile per-packet one-way delay: 169.787 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 513.02 Mbit/s

95th percentile per-packet one-way delay: 176.579 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 340.75 Mbit/s

95th percentile per-packet one-way delay: 136.232 ms

Loss rate: 0.00%

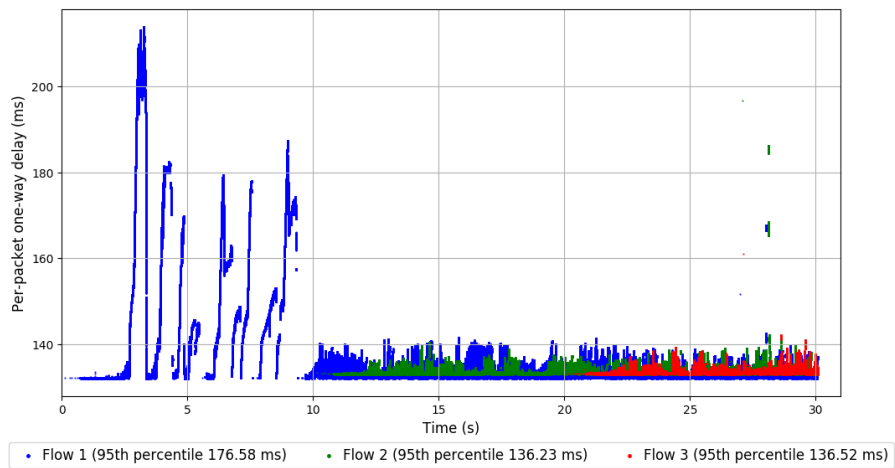
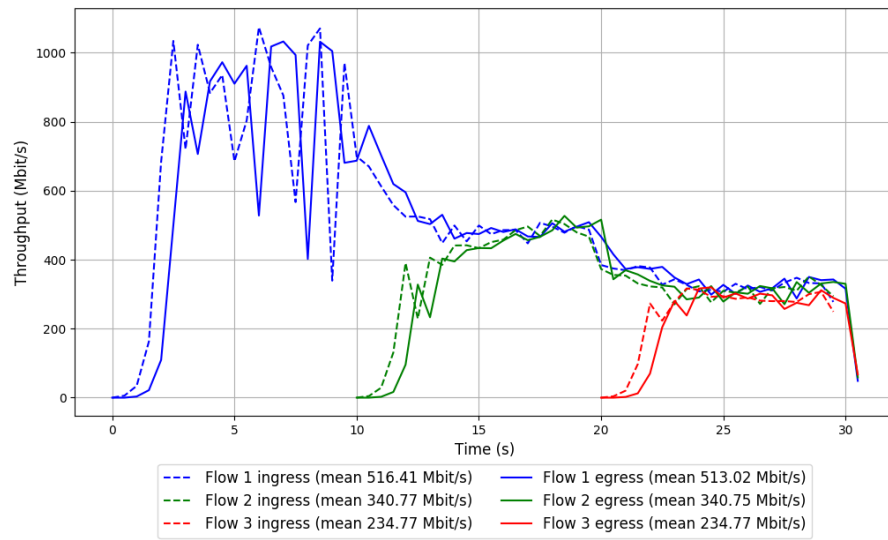
-- Flow 3:

Average throughput: 234.77 Mbit/s

95th percentile per-packet one-way delay: 136.520 ms

Loss rate: 0.00%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-02-05 18:57:57

End at: 2019-02-05 18:58:27

Local clock offset: 0.001 ms

Remote clock offset: 0.016 ms

Below is generated by plot.py at 2019-02-05 21:34:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 823.47 Mbit/s

95th percentile per-packet one-way delay: 147.097 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 520.88 Mbit/s

95th percentile per-packet one-way delay: 154.517 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 342.28 Mbit/s

95th percentile per-packet one-way delay: 139.315 ms

Loss rate: 0.02%

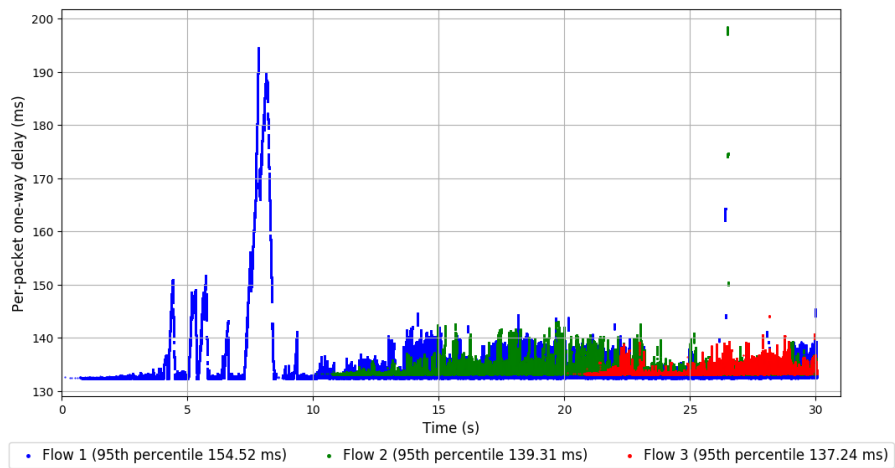
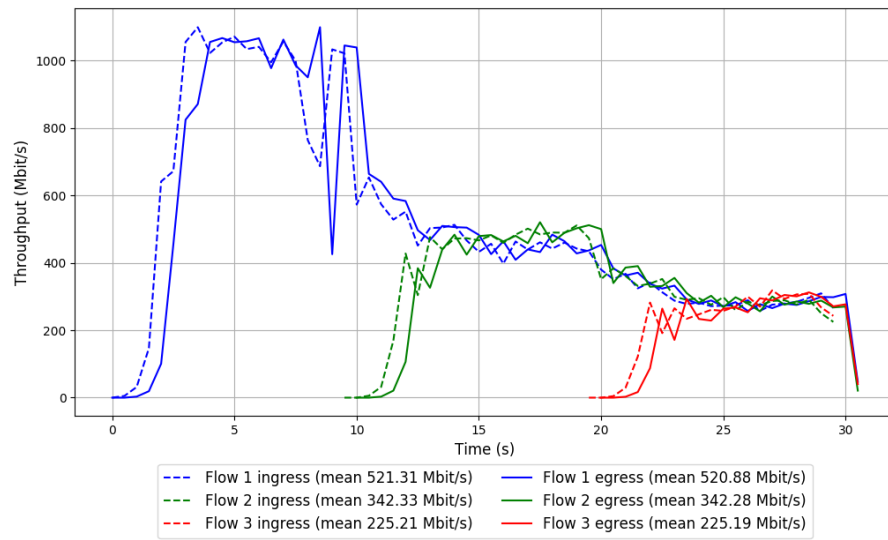
-- Flow 3:

Average throughput: 225.19 Mbit/s

95th percentile per-packet one-way delay: 137.237 ms

Loss rate: 0.01%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-02-05 19:37:14

End at: 2019-02-05 19:37:44

Local clock offset: -0.019 ms

Remote clock offset: 0.009 ms

Below is generated by plot.py at 2019-02-05 21:35:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 792.38 Mbit/s

95th percentile per-packet one-way delay: 145.945 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 508.65 Mbit/s

95th percentile per-packet one-way delay: 152.668 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 319.94 Mbit/s

95th percentile per-packet one-way delay: 138.553 ms

Loss rate: 0.00%

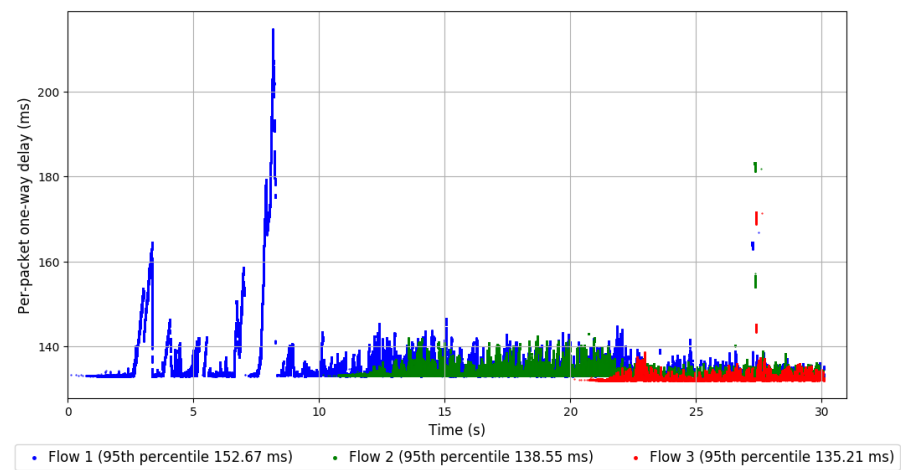
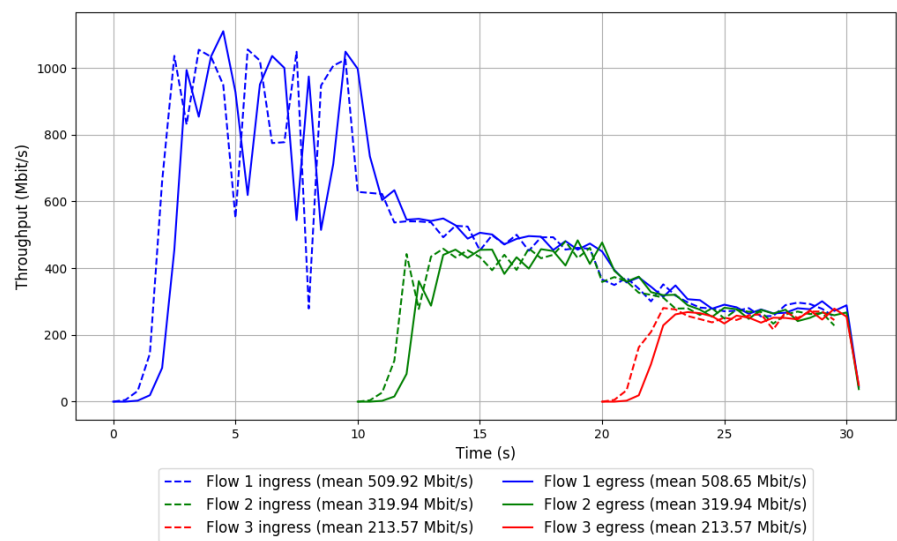
-- Flow 3:

Average throughput: 213.57 Mbit/s

95th percentile per-packet one-way delay: 135.210 ms

Loss rate: 0.00%

Run 4: Report of FillP — Data Link

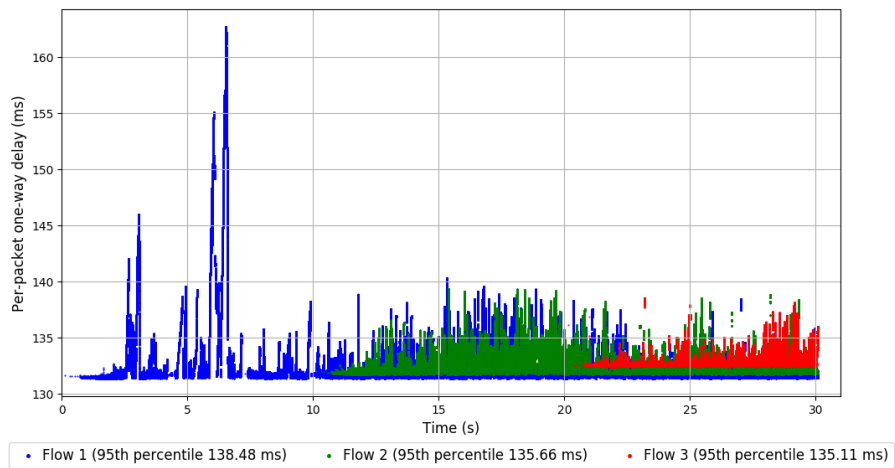
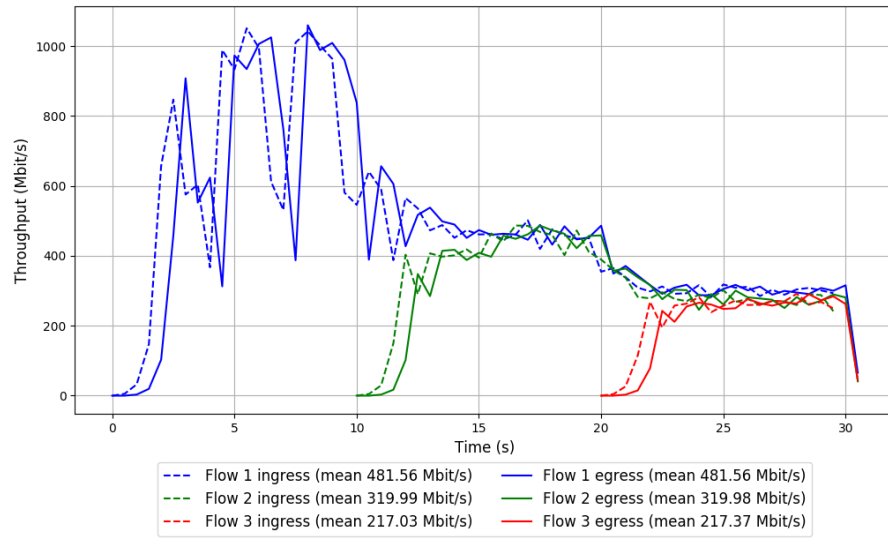


Run 5: Statistics of FillP

Start at: 2019-02-05 20:15:33
End at: 2019-02-05 20:16:03
Local clock offset: 0.258 ms
Remote clock offset: -0.382 ms

Below is generated by plot.py at 2019-02-05 21:35:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 766.57 Mbit/s
95th percentile per-packet one-way delay: 137.014 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 481.56 Mbit/s
95th percentile per-packet one-way delay: 138.476 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 319.98 Mbit/s
95th percentile per-packet one-way delay: 135.660 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.37 Mbit/s
95th percentile per-packet one-way delay: 135.109 ms
Loss rate: 0.00%

Run 5: Report of FillP — Data Link

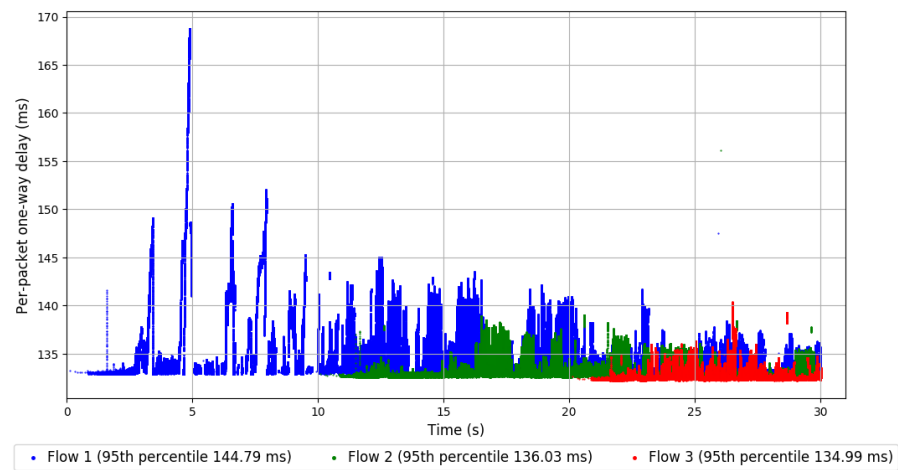
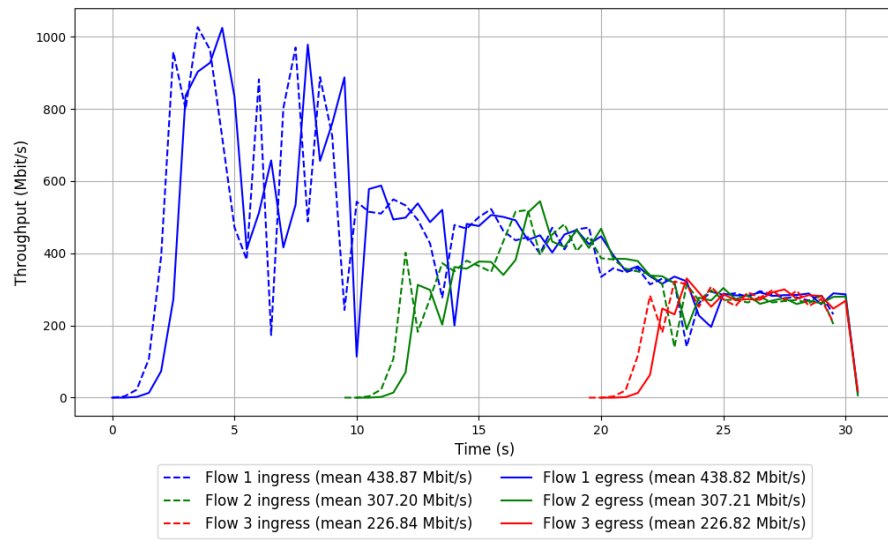


Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 17:10:50
End at: 2019-02-05 17:11:20
Local clock offset: -0.222 ms
Remote clock offset: -0.247 ms

Below is generated by plot.py at 2019-02-05 21:35:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 718.56 Mbit/s
95th percentile per-packet one-way delay: 141.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 438.82 Mbit/s
95th percentile per-packet one-way delay: 144.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 307.21 Mbit/s
95th percentile per-packet one-way delay: 136.031 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 226.82 Mbit/s
95th percentile per-packet one-way delay: 134.990 ms
Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link

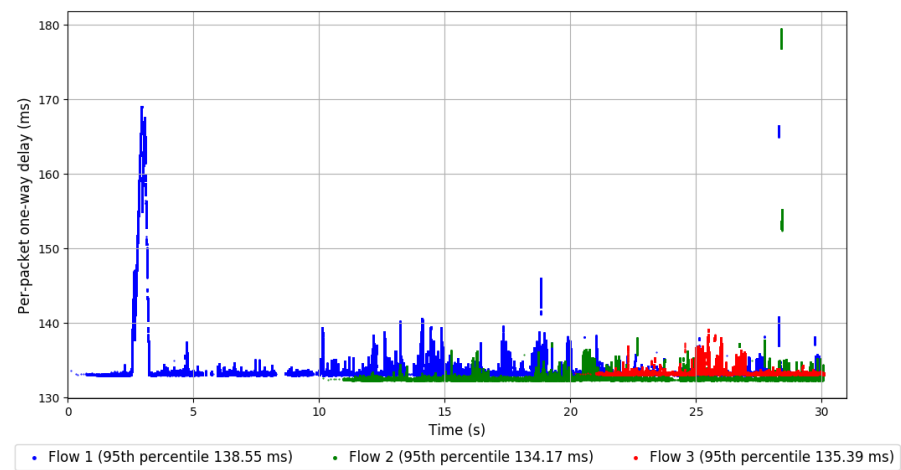
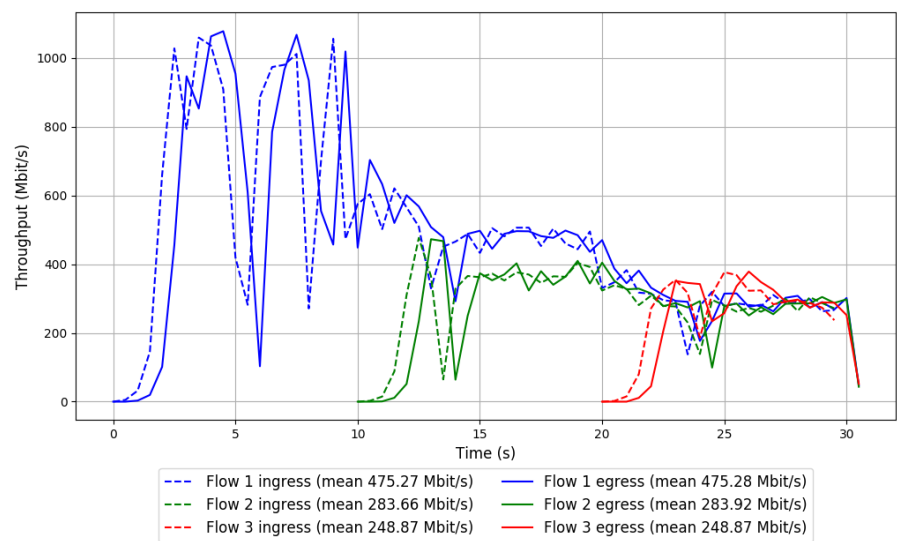


Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 17:48:59
End at: 2019-02-05 17:49:29
Local clock offset: 0.008 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-02-05 21:36:36
Datalink statistics
-- Total of 3 flows:
Average throughput: 746.08 Mbit/s
95th percentile per-packet one-way delay: 136.225 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 475.28 Mbit/s
95th percentile per-packet one-way delay: 138.550 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 283.92 Mbit/s
95th percentile per-packet one-way delay: 134.173 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.87 Mbit/s
95th percentile per-packet one-way delay: 135.394 ms
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 18:28:11

End at: 2019-02-05 18:28:41

Local clock offset: 0.413 ms

Remote clock offset: 0.051 ms

Below is generated by plot.py at 2019-02-05 21:39:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 770.25 Mbit/s

95th percentile per-packet one-way delay: 164.581 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 473.98 Mbit/s

95th percentile per-packet one-way delay: 174.155 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 330.01 Mbit/s

95th percentile per-packet one-way delay: 136.841 ms

Loss rate: 0.07%

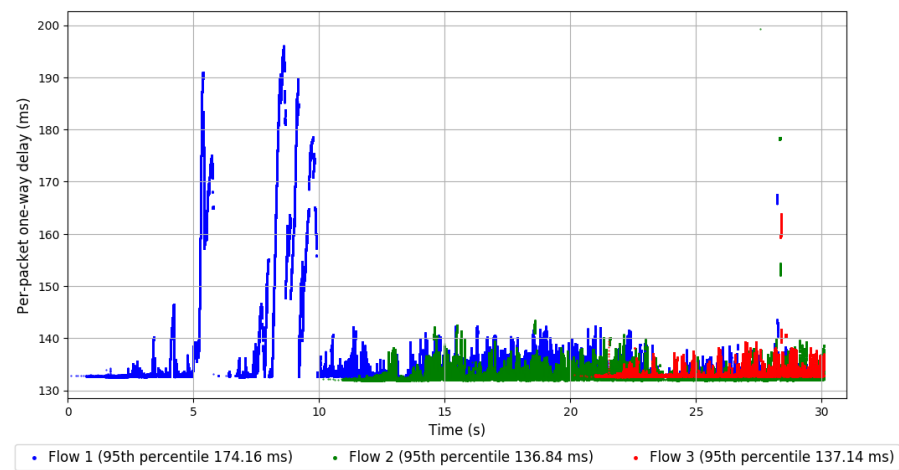
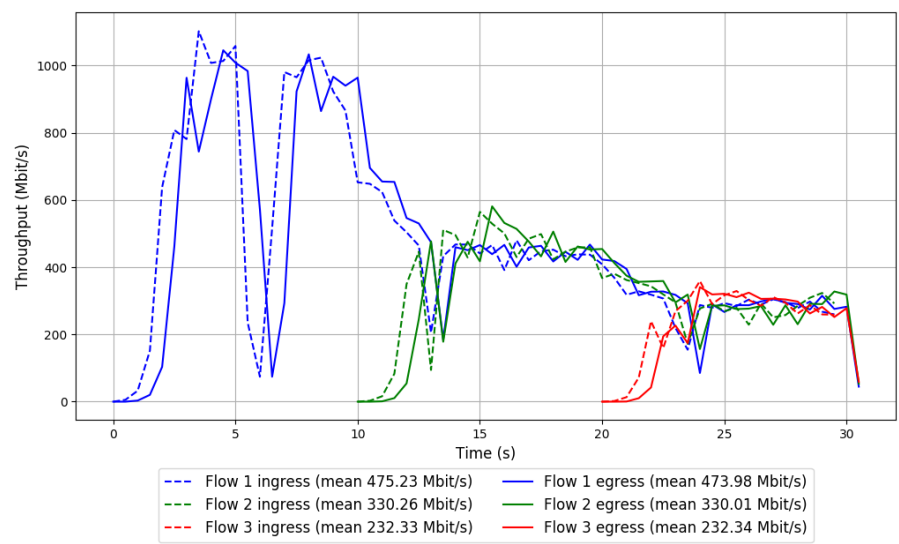
-- Flow 3:

Average throughput: 232.34 Mbit/s

95th percentile per-packet one-way delay: 137.143 ms

Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 19:07:29

End at: 2019-02-05 19:07:59

Local clock offset: -0.007 ms

Remote clock offset: 0.005 ms

Below is generated by plot.py at 2019-02-05 21:43:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 751.94 Mbit/s

95th percentile per-packet one-way delay: 138.217 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 459.93 Mbit/s

95th percentile per-packet one-way delay: 139.271 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 326.52 Mbit/s

95th percentile per-packet one-way delay: 136.611 ms

Loss rate: 0.00%

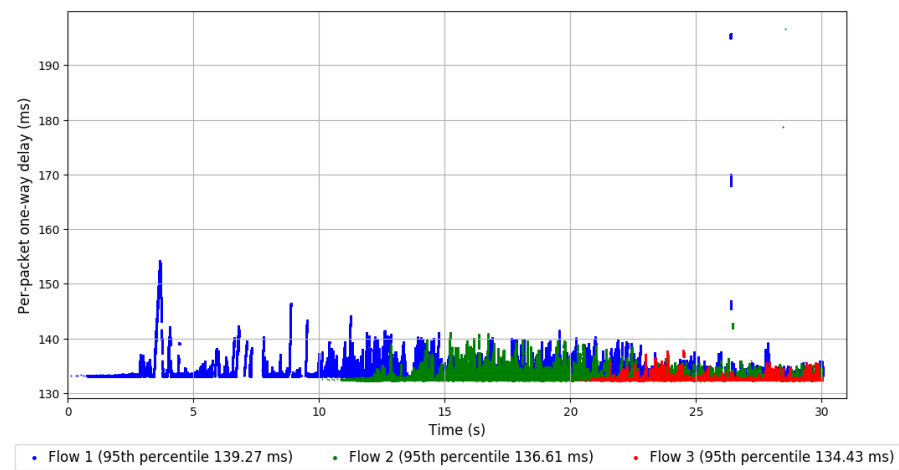
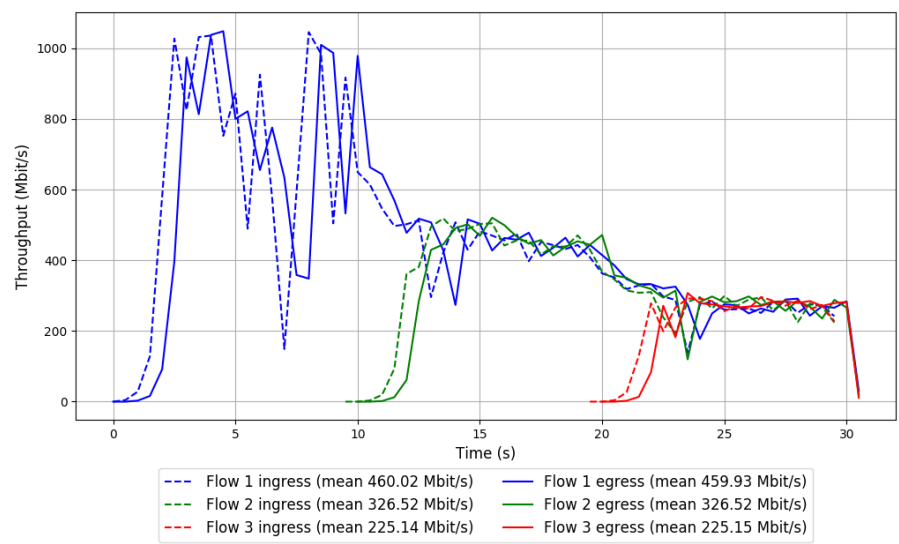
-- Flow 3:

Average throughput: 225.15 Mbit/s

95th percentile per-packet one-way delay: 134.428 ms

Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link

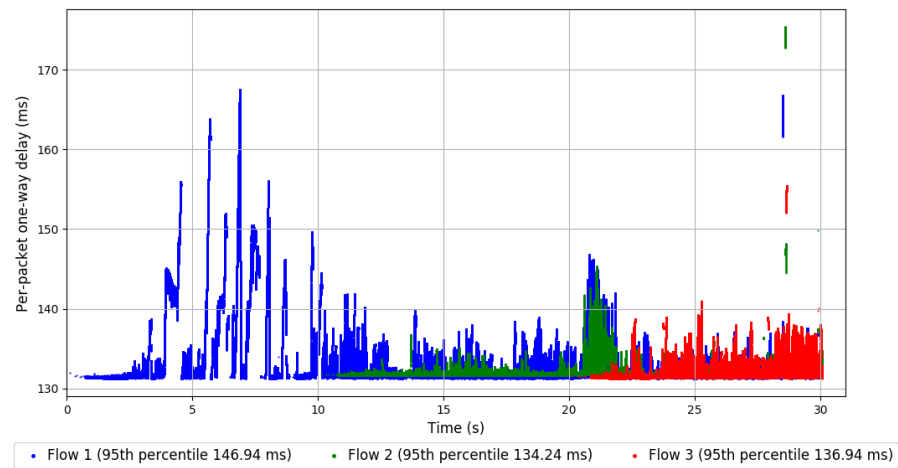
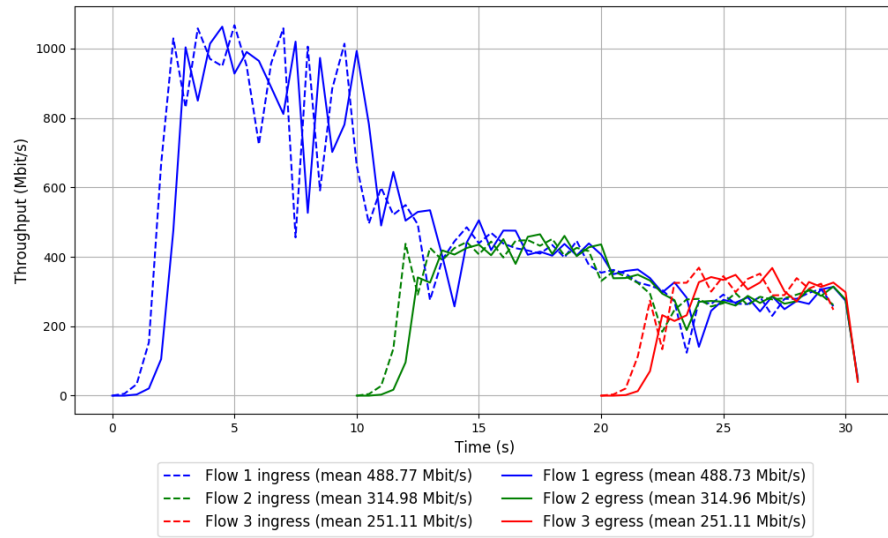


Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 19:46:20
End at: 2019-02-05 19:46:50
Local clock offset: 0.413 ms
Remote clock offset: -0.348 ms

```
# Below is generated by plot.py at 2019-02-05 21:50:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 781.65 Mbit/s
95th percentile per-packet one-way delay: 144.052 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 488.73 Mbit/s
95th percentile per-packet one-way delay: 146.937 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 314.96 Mbit/s
95th percentile per-packet one-way delay: 134.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 251.11 Mbit/s
95th percentile per-packet one-way delay: 136.941 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

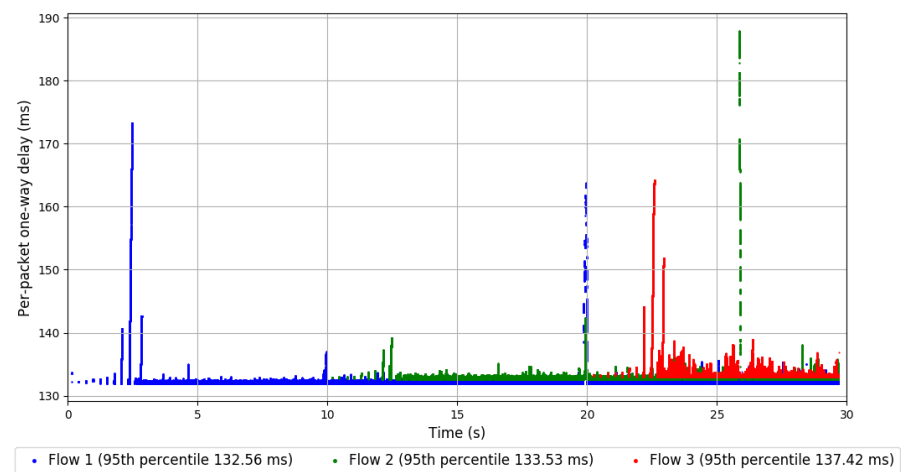
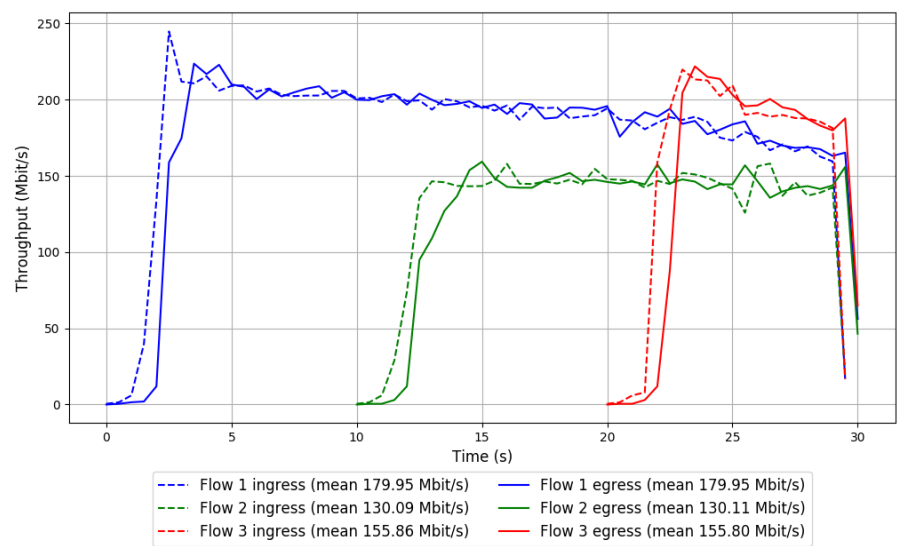


Run 1: Statistics of Indigo

Start at: 2019-02-05 17:36:37
End at: 2019-02-05 17:37:07
Local clock offset: -0.006 ms
Remote clock offset: -0.087 ms

Below is generated by plot.py at 2019-02-05 21:50:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 315.62 Mbit/s
95th percentile per-packet one-way delay: 134.067 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 179.95 Mbit/s
95th percentile per-packet one-way delay: 132.559 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 130.11 Mbit/s
95th percentile per-packet one-way delay: 133.535 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 155.80 Mbit/s
95th percentile per-packet one-way delay: 137.421 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-02-05 18:15:21

End at: 2019-02-05 18:15:51

Local clock offset: -0.428 ms

Remote clock offset: 0.077 ms

Below is generated by plot.py at 2019-02-05 21:50:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.91 Mbit/s

95th percentile per-packet one-way delay: 136.087 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 182.12 Mbit/s

95th percentile per-packet one-way delay: 134.685 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 166.63 Mbit/s

95th percentile per-packet one-way delay: 135.164 ms

Loss rate: 0.00%

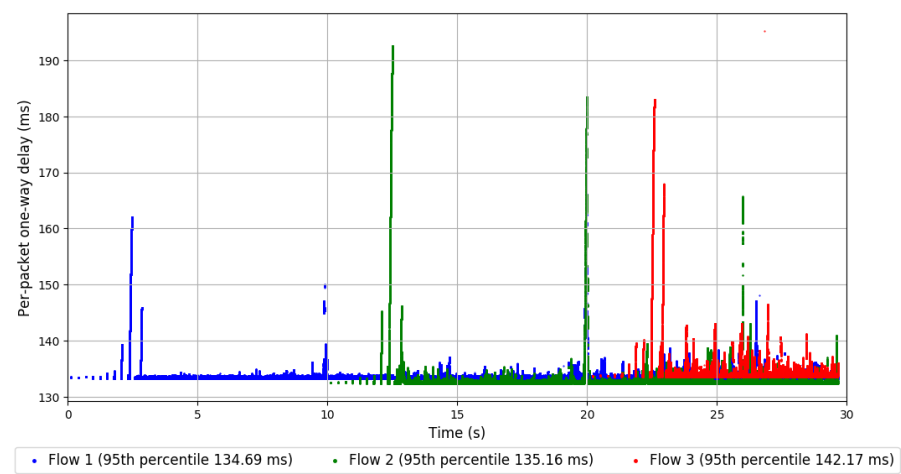
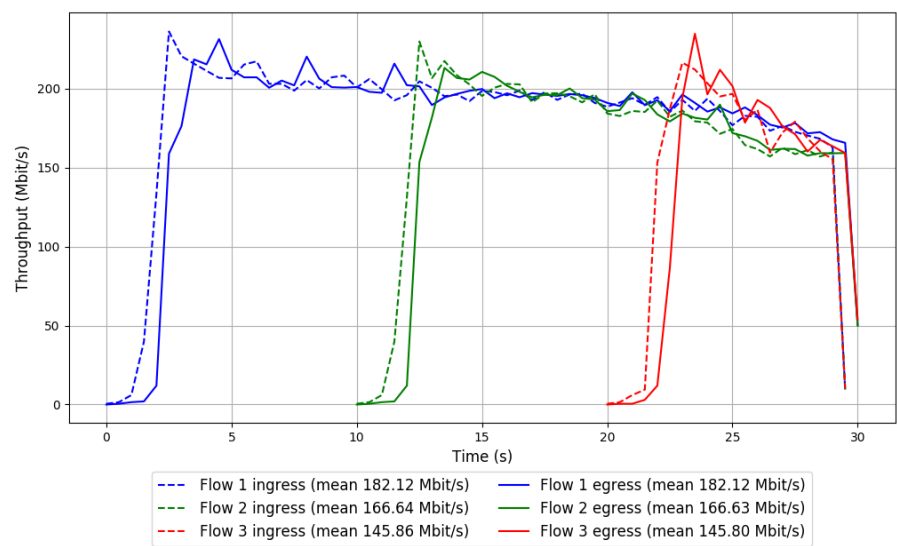
-- Flow 3:

Average throughput: 145.80 Mbit/s

95th percentile per-packet one-way delay: 142.172 ms

Loss rate: 0.04%

Run 2: Report of Indigo — Data Link

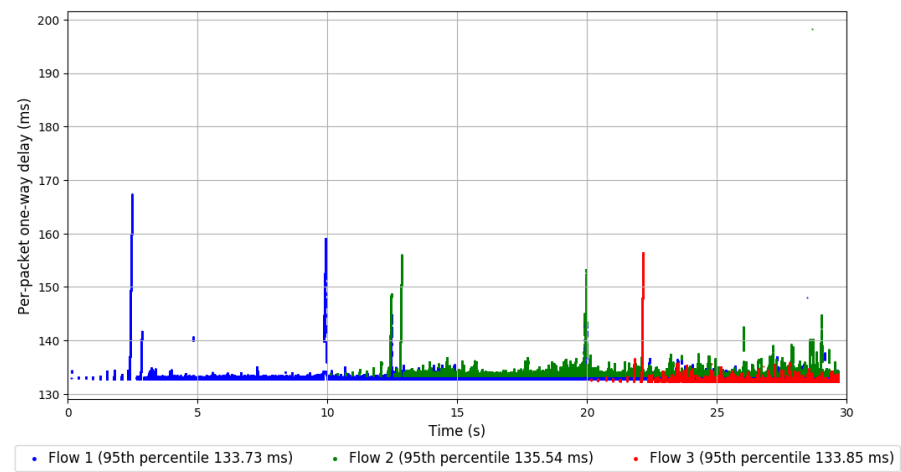
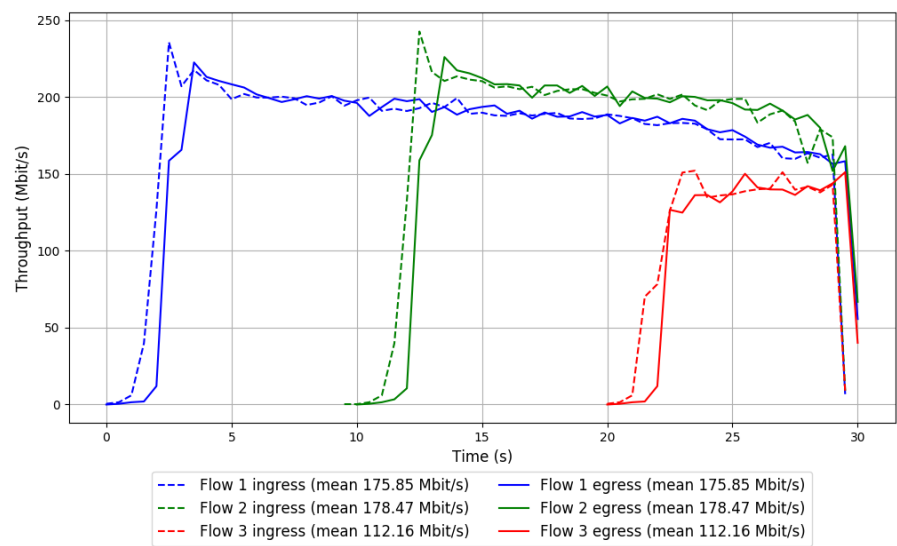


Run 3: Statistics of Indigo

Start at: 2019-02-05 18:54:42
End at: 2019-02-05 18:55:12
Local clock offset: -0.405 ms
Remote clock offset: -0.042 ms

Below is generated by plot.py at 2019-02-05 21:50:53
Datalink statistics
-- Total of 3 flows:
Average throughput: 330.08 Mbit/s
95th percentile per-packet one-way delay: 134.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 175.85 Mbit/s
95th percentile per-packet one-way delay: 133.731 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 178.47 Mbit/s
95th percentile per-packet one-way delay: 135.543 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 112.16 Mbit/s
95th percentile per-packet one-way delay: 133.849 ms
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

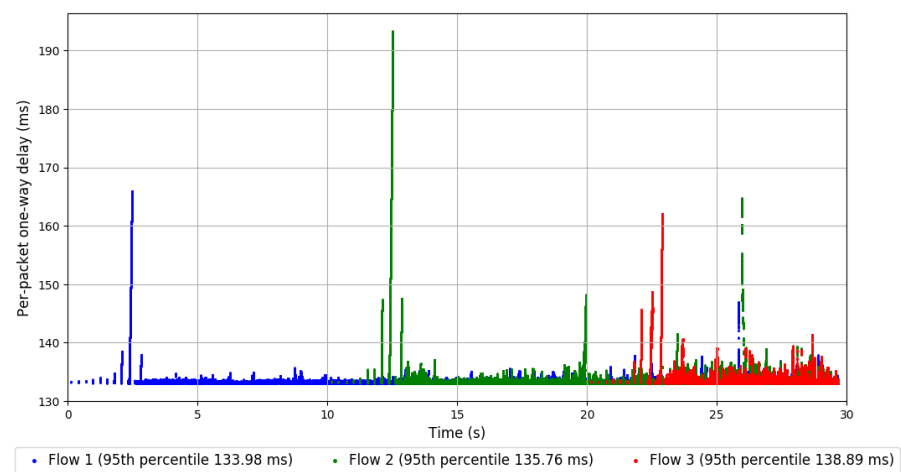
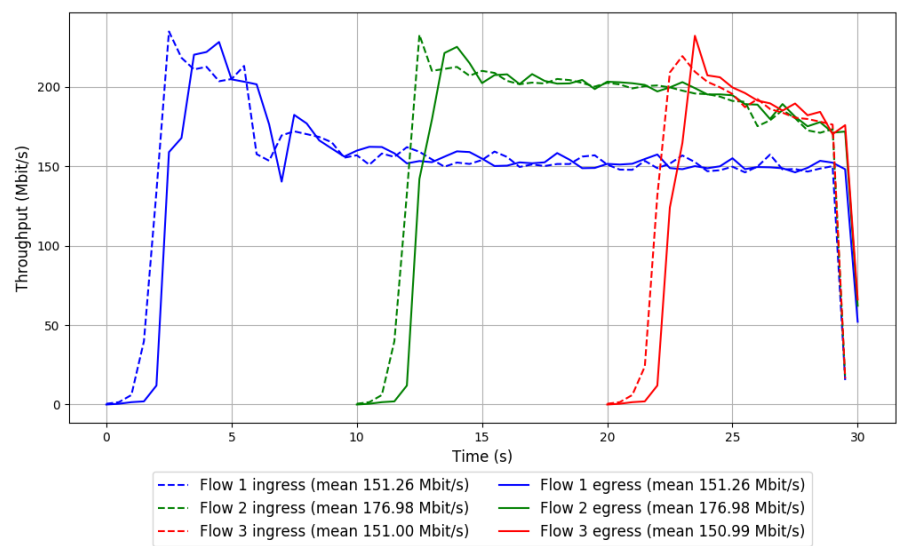


Run 4: Statistics of Indigo

Start at: 2019-02-05 19:34:00
End at: 2019-02-05 19:34:30
Local clock offset: -0.009 ms
Remote clock offset: 0.013 ms

```
# Below is generated by plot.py at 2019-02-05 21:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 316.95 Mbit/s
95th percentile per-packet one-way delay: 135.245 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.26 Mbit/s
95th percentile per-packet one-way delay: 133.982 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 176.98 Mbit/s
95th percentile per-packet one-way delay: 135.761 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.99 Mbit/s
95th percentile per-packet one-way delay: 138.894 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo — Data Link

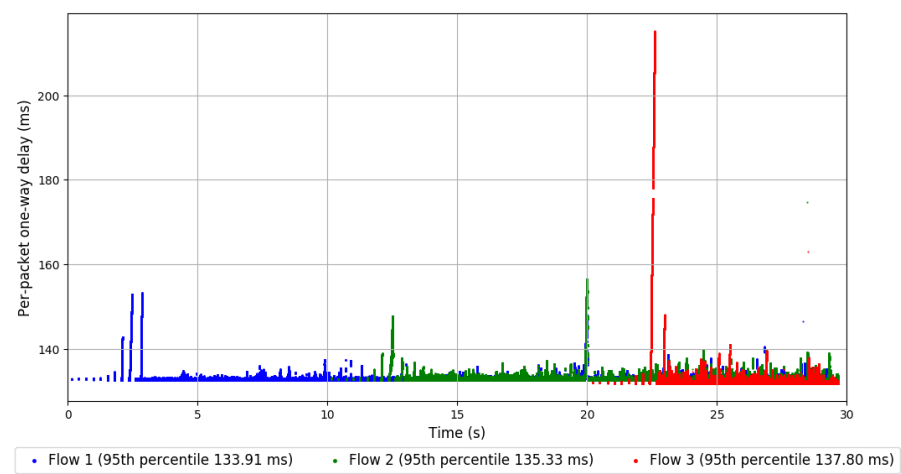
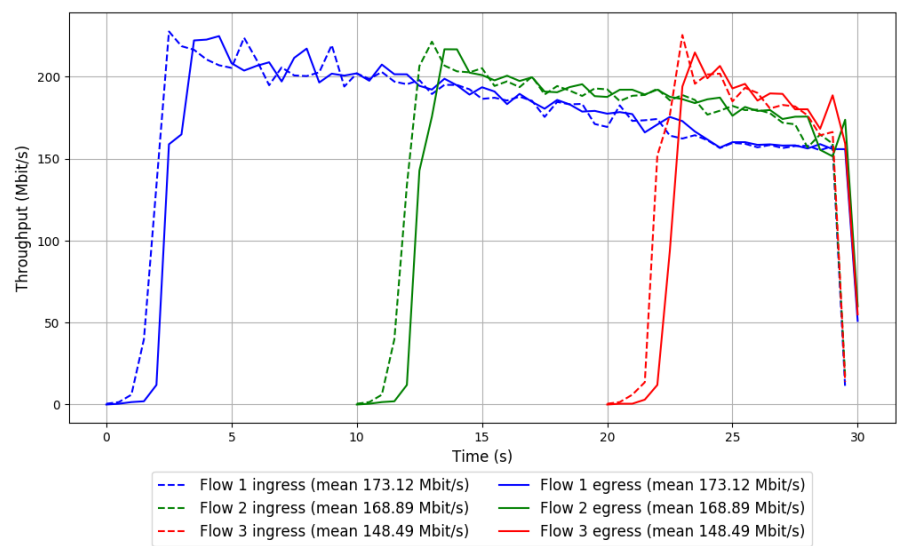


Run 5: Statistics of Indigo

Start at: 2019-02-05 20:12:17
End at: 2019-02-05 20:12:47
Local clock offset: 0.476 ms
Remote clock offset: -0.044 ms

Below is generated by plot.py at 2019-02-05 21:51:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 332.29 Mbit/s
95th percentile per-packet one-way delay: 134.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 173.12 Mbit/s
95th percentile per-packet one-way delay: 133.909 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 168.89 Mbit/s
95th percentile per-packet one-way delay: 135.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 148.49 Mbit/s
95th percentile per-packet one-way delay: 137.797 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

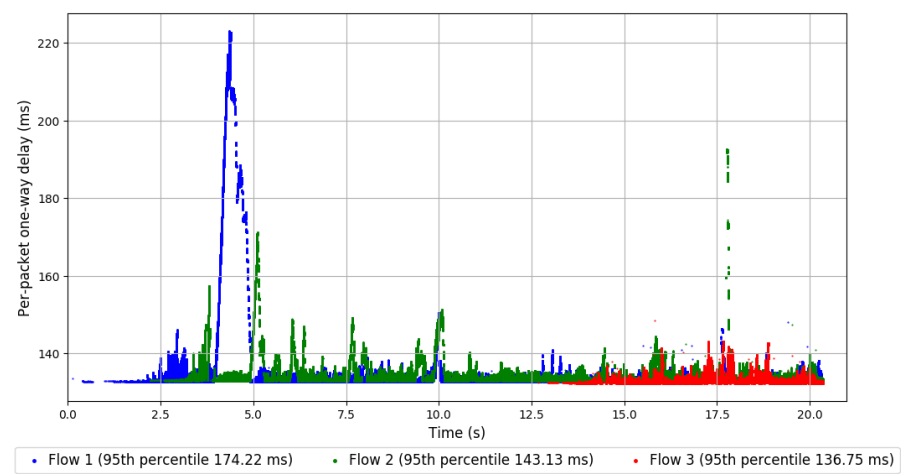
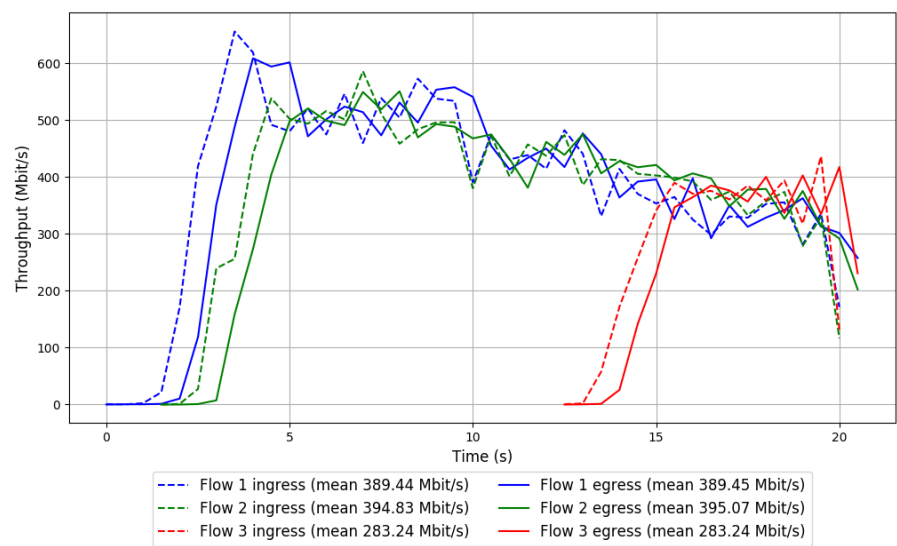
Start at: 2019-02-05 17:22:50

End at: 2019-02-05 17:23:20

Local clock offset: 0.032 ms

Remote clock offset: 0.079 ms

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 18:01:28

End at: 2019-02-05 18:01:58

Local clock offset: -0.435 ms

Remote clock offset: 0.033 ms

Below is generated by plot.py at 2019-02-05 22:01:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 791.11 Mbit/s

95th percentile per-packet one-way delay: 172.364 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 457.71 Mbit/s

95th percentile per-packet one-way delay: 194.622 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 403.61 Mbit/s

95th percentile per-packet one-way delay: 148.560 ms

Loss rate: 0.00%

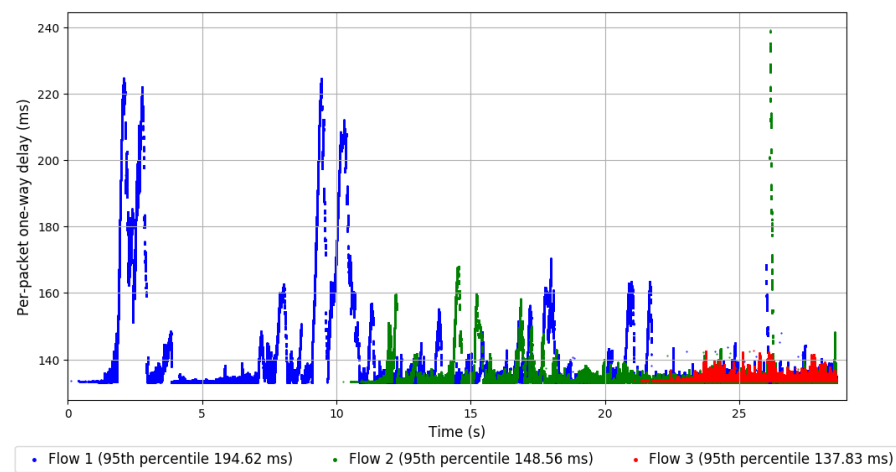
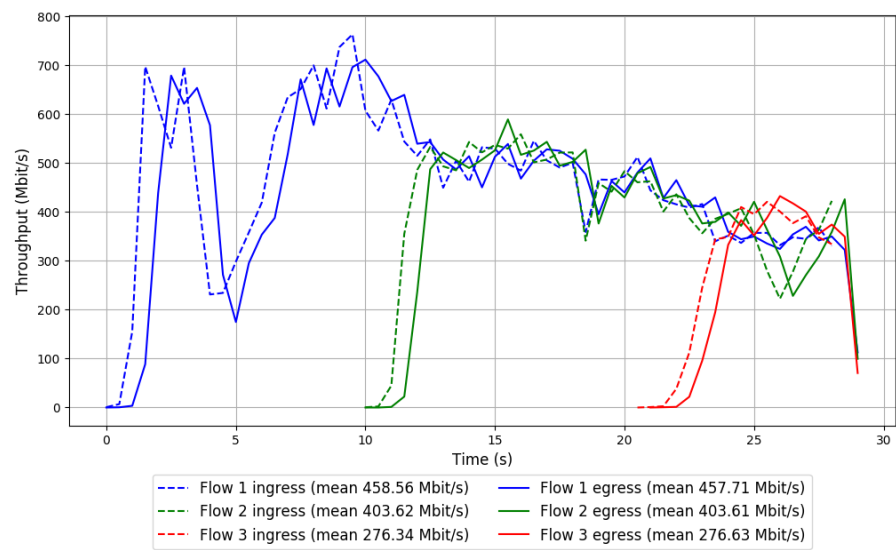
-- Flow 3:

Average throughput: 276.63 Mbit/s

95th percentile per-packet one-way delay: 137.828 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 18:40:47

End at: 2019-02-05 18:41:17

Local clock offset: -0.421 ms

Remote clock offset: 0.01 ms

Below is generated by plot.py at 2019-02-05 22:07:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 825.88 Mbit/s

95th percentile per-packet one-way delay: 143.747 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 492.60 Mbit/s

95th percentile per-packet one-way delay: 146.646 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 403.45 Mbit/s

95th percentile per-packet one-way delay: 141.779 ms

Loss rate: 0.00%

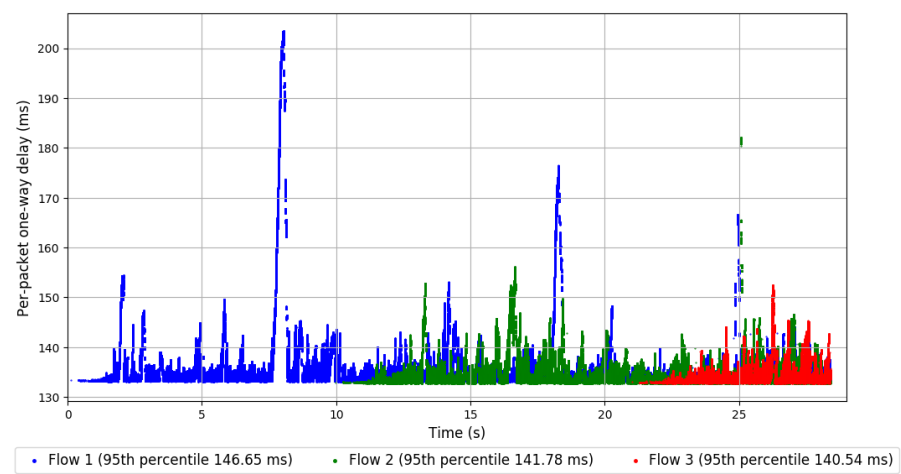
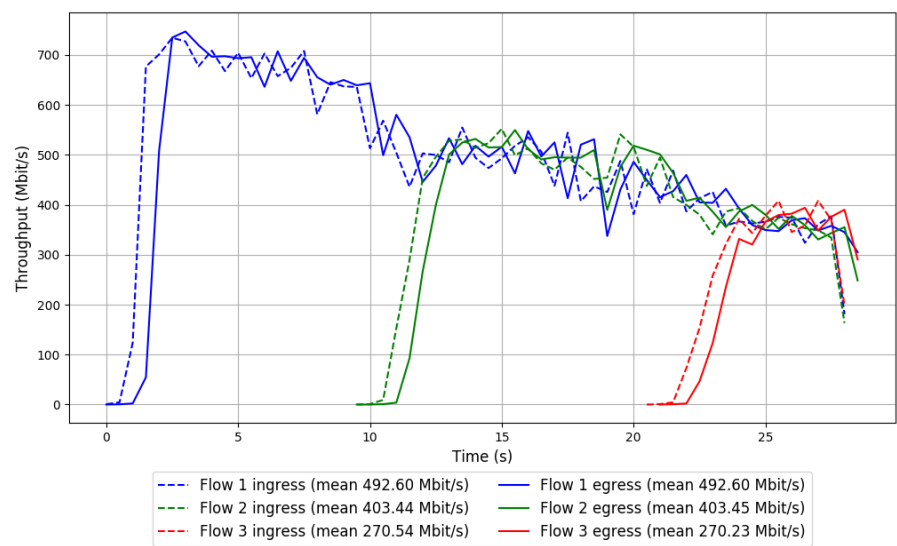
-- Flow 3:

Average throughput: 270.23 Mbit/s

95th percentile per-packet one-way delay: 140.544 ms

Loss rate: 0.13%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 19:20:19

End at: 2019-02-05 19:20:49

Local clock offset: -0.274 ms

Remote clock offset: 0.394 ms

Below is generated by plot.py at 2019-02-05 22:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 783.96 Mbit/s

95th percentile per-packet one-way delay: 142.525 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 455.23 Mbit/s

95th percentile per-packet one-way delay: 142.998 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 396.45 Mbit/s

95th percentile per-packet one-way delay: 142.926 ms

Loss rate: 0.00%

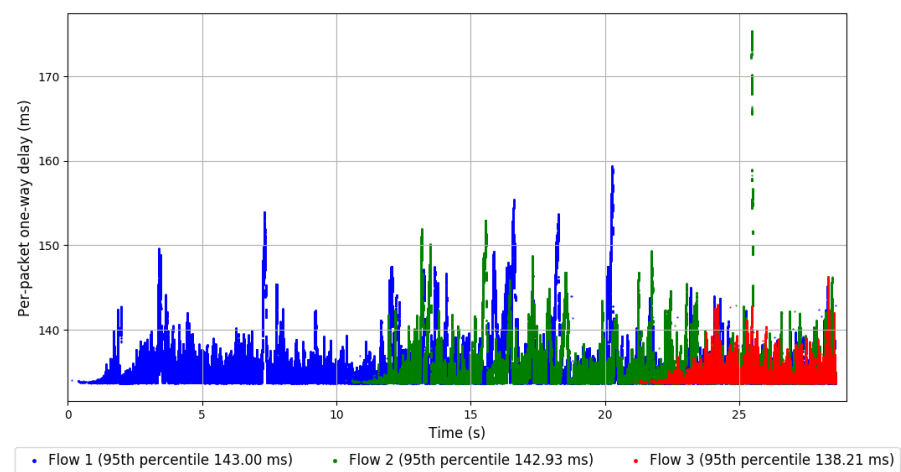
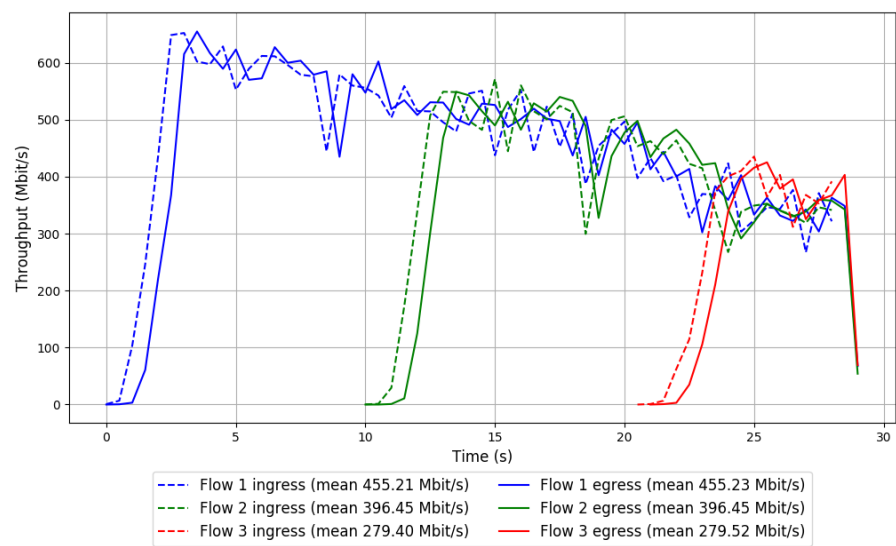
-- Flow 3:

Average throughput: 279.52 Mbit/s

95th percentile per-packet one-way delay: 138.205 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link

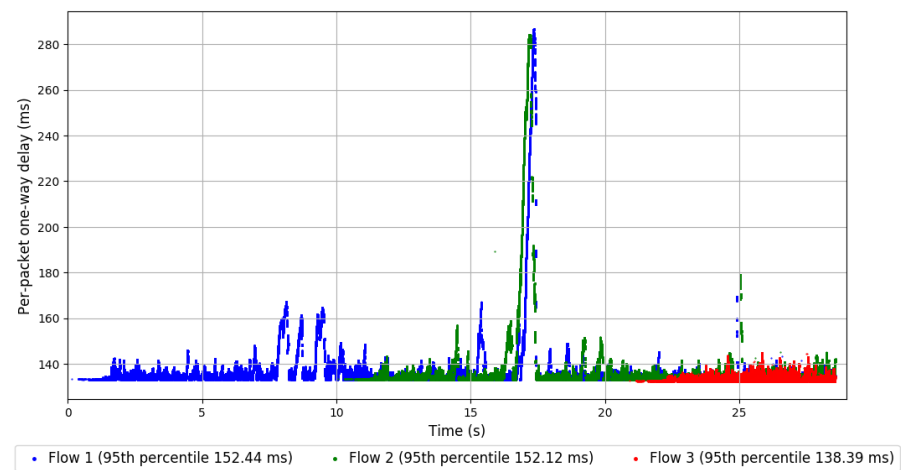
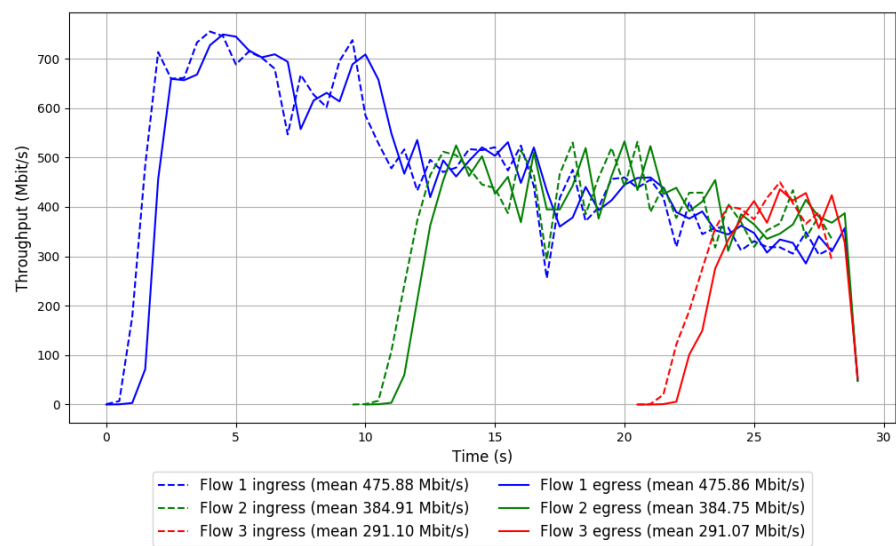


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 19:58:25
End at: 2019-02-05 19:58:55
Local clock offset: 0.011 ms
Remote clock offset: -0.001 ms

Below is generated by plot.py at 2019-02-05 22:08:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 804.76 Mbit/s
95th percentile per-packet one-way delay: 150.394 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 475.86 Mbit/s
95th percentile per-packet one-way delay: 152.438 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 384.75 Mbit/s
95th percentile per-packet one-way delay: 152.123 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 291.07 Mbit/s
95th percentile per-packet one-way delay: 138.387 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 17:26:54

End at: 2019-02-05 17:27:24

Local clock offset: 0.264 ms

Remote clock offset: 0.047 ms

Below is generated by plot.py at 2019-02-05 22:08:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 723.30 Mbit/s

95th percentile per-packet one-way delay: 214.132 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 421.35 Mbit/s

95th percentile per-packet one-way delay: 219.647 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 343.09 Mbit/s

95th percentile per-packet one-way delay: 204.932 ms

Loss rate: 0.17%

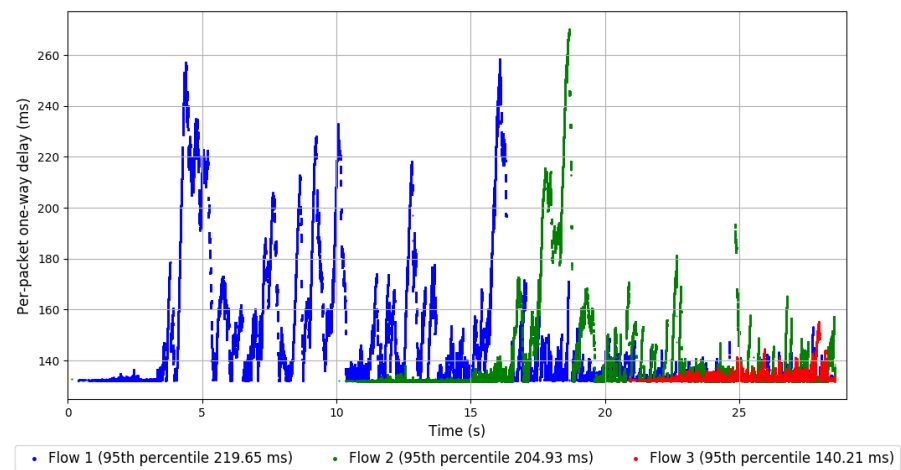
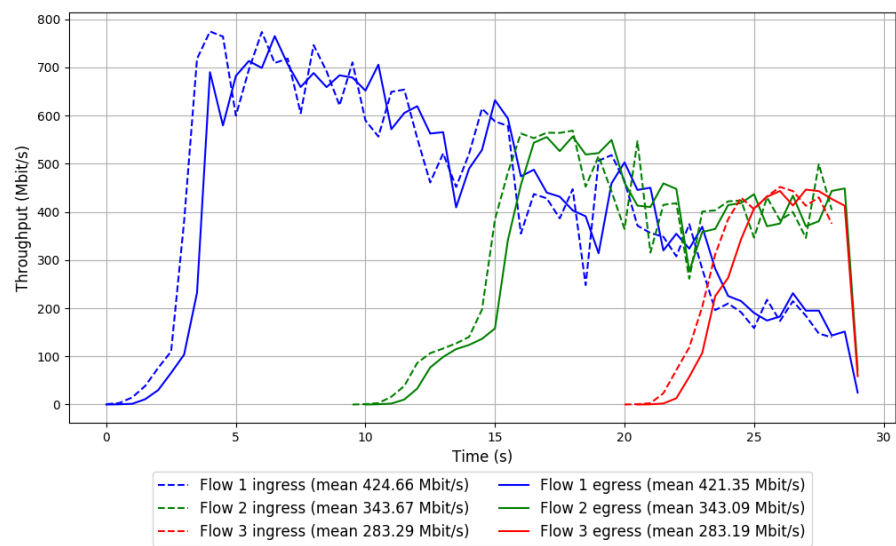
-- Flow 3:

Average throughput: 283.19 Mbit/s

95th percentile per-packet one-way delay: 140.212 ms

Loss rate: 0.06%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 18:05:44

End at: 2019-02-05 18:06:14

Local clock offset: 0.413 ms

Remote clock offset: 0.062 ms

Below is generated by plot.py at 2019-02-05 22:08:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 688.64 Mbit/s

95th percentile per-packet one-way delay: 191.969 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 415.27 Mbit/s

95th percentile per-packet one-way delay: 199.941 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 379.94 Mbit/s

95th percentile per-packet one-way delay: 150.783 ms

Loss rate: 0.00%

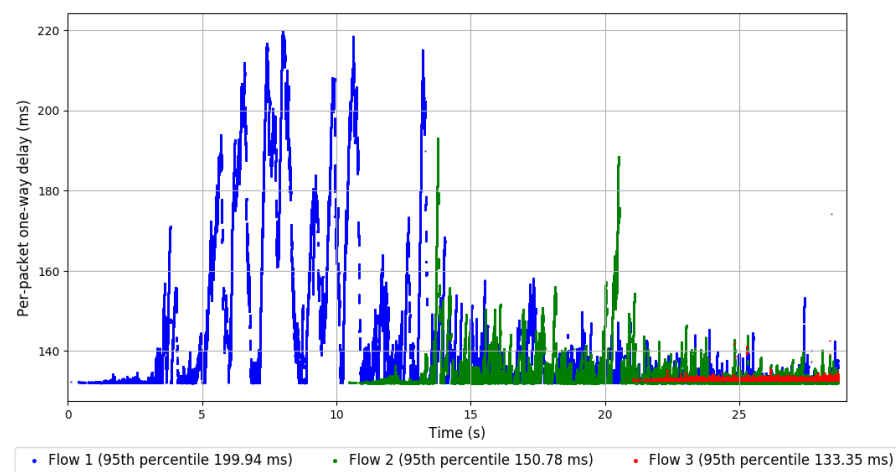
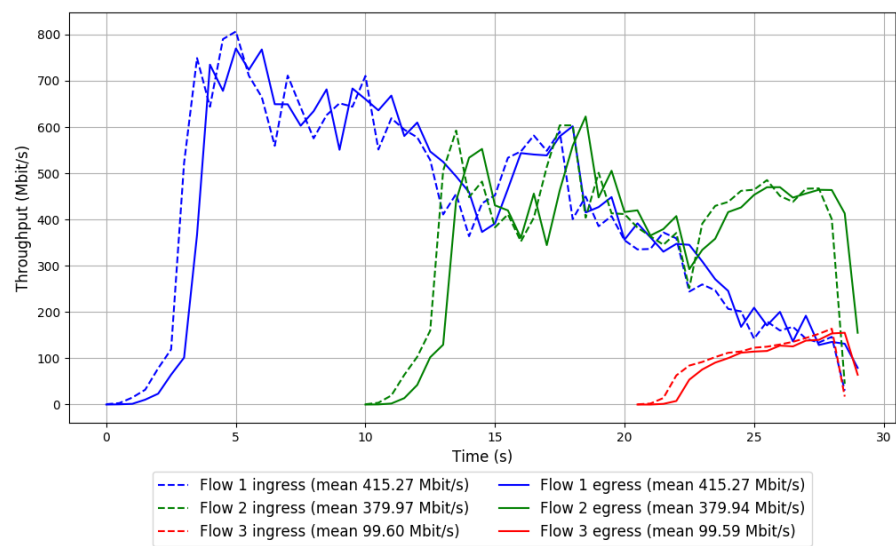
-- Flow 3:

Average throughput: 99.59 Mbit/s

95th percentile per-packet one-way delay: 133.352 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

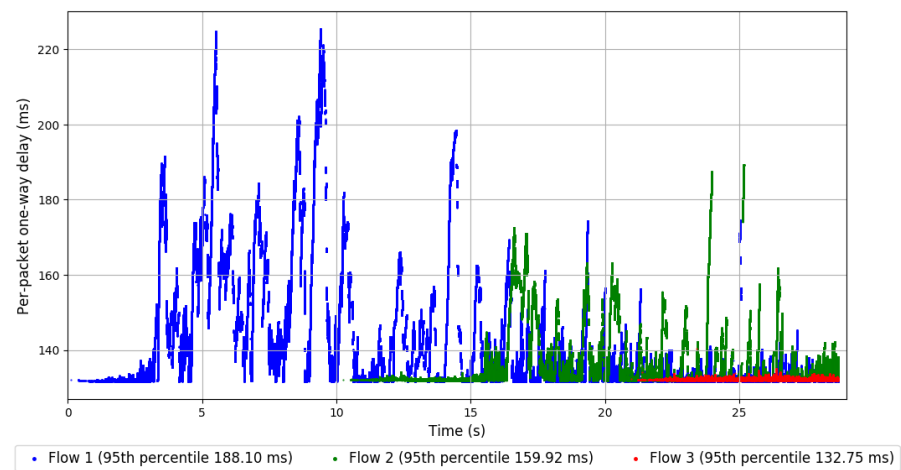
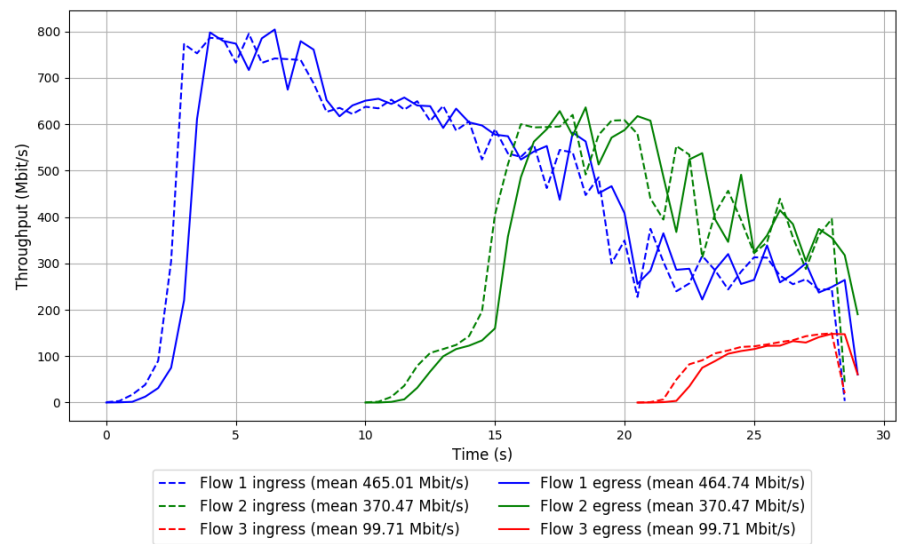


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 18:45:04
End at: 2019-02-05 18:45:34
Local clock offset: 0.384 ms
Remote clock offset: -0.004 ms

Below is generated by plot.py at 2019-02-05 22:08:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 730.64 Mbit/s
95th percentile per-packet one-way delay: 179.832 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 464.74 Mbit/s
95th percentile per-packet one-way delay: 188.096 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 370.47 Mbit/s
95th percentile per-packet one-way delay: 159.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 99.71 Mbit/s
95th percentile per-packet one-way delay: 132.747 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC5 — Data Link

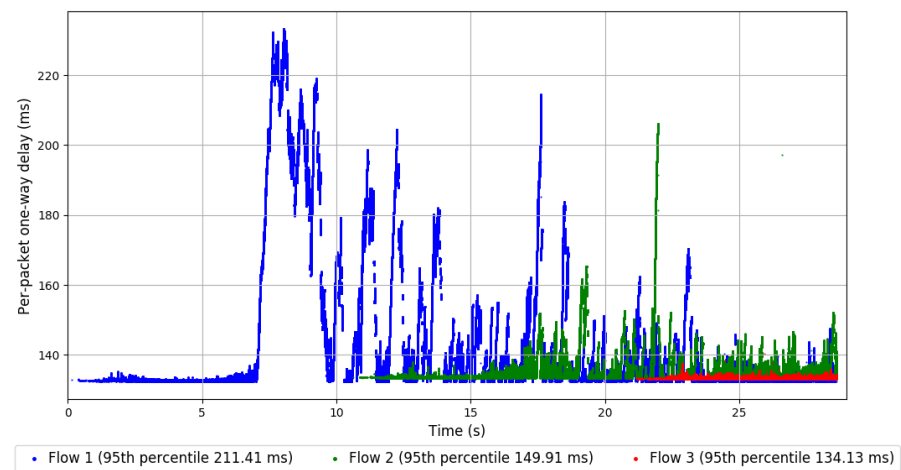
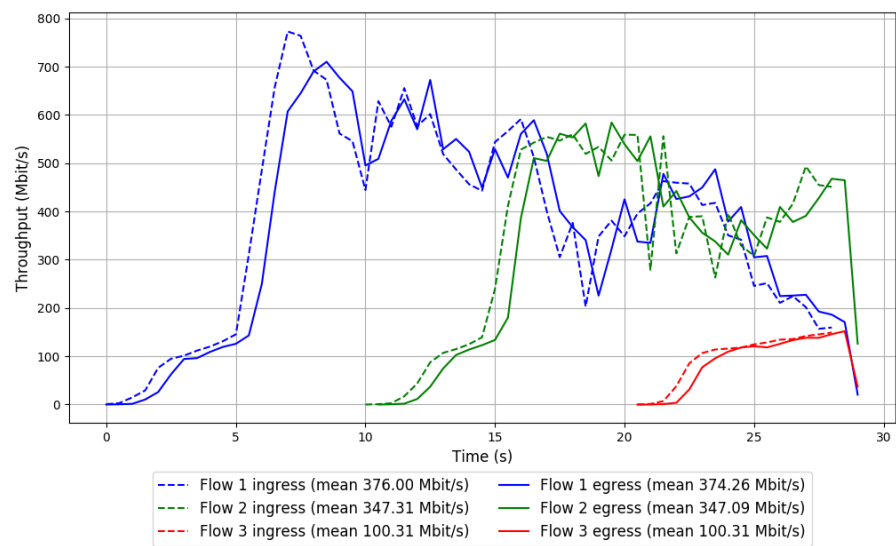


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 19:24:34
End at: 2019-02-05 19:25:04
Local clock offset: -0.403 ms
Remote clock offset: -0.021 ms

Below is generated by plot.py at 2019-02-05 22:08:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 620.74 Mbit/s
95th percentile per-packet one-way delay: 199.577 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 374.26 Mbit/s
95th percentile per-packet one-way delay: 211.415 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 347.09 Mbit/s
95th percentile per-packet one-way delay: 149.911 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 100.31 Mbit/s
95th percentile per-packet one-way delay: 134.126 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link

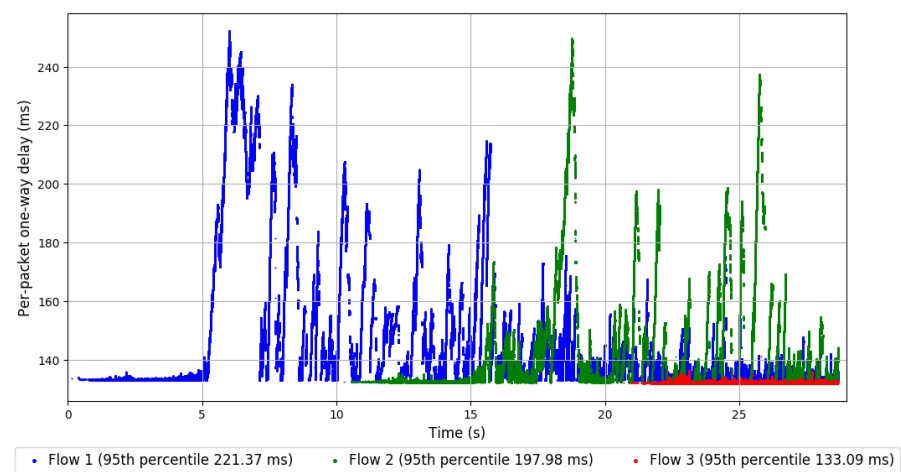
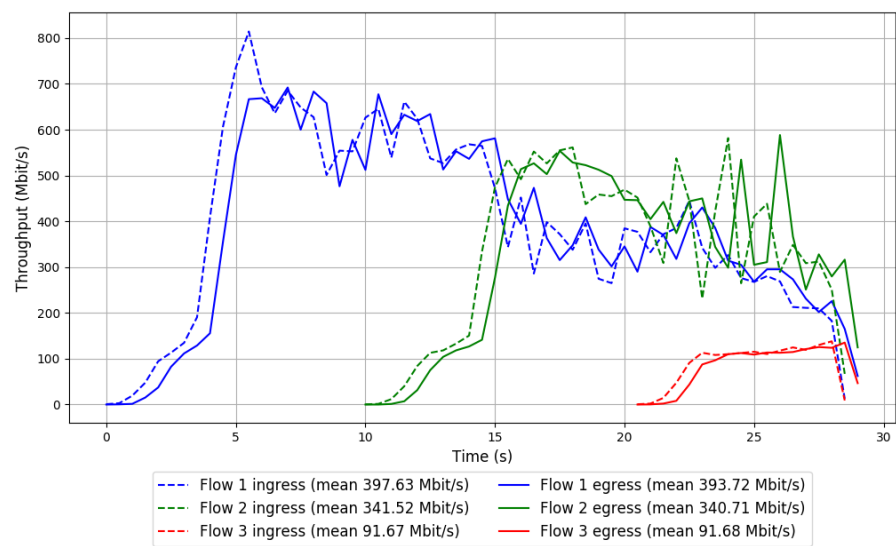


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 20:02:38
End at: 2019-02-05 20:03:08
Local clock offset: -0.003 ms
Remote clock offset: -0.047 ms

Below is generated by plot.py at 2019-02-05 22:14:56
Datalink statistics
-- Total of 3 flows:
Average throughput: 638.87 Mbit/s
95th percentile per-packet one-way delay: 215.174 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 393.72 Mbit/s
95th percentile per-packet one-way delay: 221.370 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 340.71 Mbit/s
95th percentile per-packet one-way delay: 197.978 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 133.090 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 17:34:37

End at: 2019-02-05 17:35:07

Local clock offset: -0.22 ms

Remote clock offset: -0.01 ms

Below is generated by plot.py at 2019-02-05 22:21:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 715.24 Mbit/s

95th percentile per-packet one-way delay: 168.603 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 452.90 Mbit/s

95th percentile per-packet one-way delay: 175.415 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 368.47 Mbit/s

95th percentile per-packet one-way delay: 137.098 ms

Loss rate: 0.00%

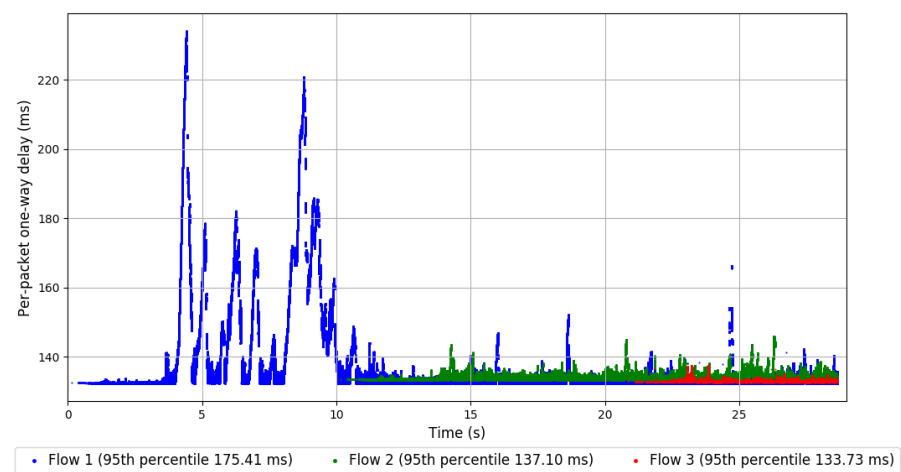
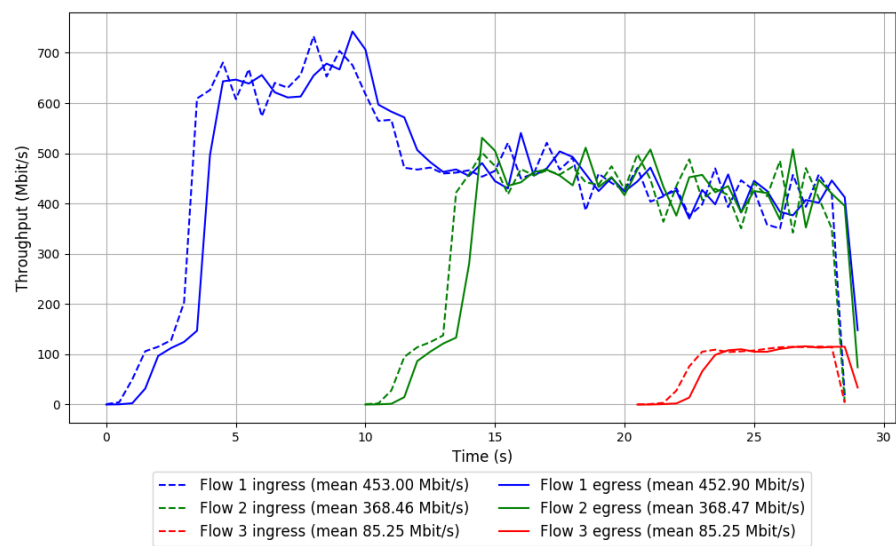
-- Flow 3:

Average throughput: 85.25 Mbit/s

95th percentile per-packet one-way delay: 133.734 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 18:13:22

End at: 2019-02-05 18:13:52

Local clock offset: -0.07 ms

Remote clock offset: 0.079 ms

Below is generated by plot.py at 2019-02-05 22:21:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 682.30 Mbit/s

95th percentile per-packet one-way delay: 187.797 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 438.40 Mbit/s

95th percentile per-packet one-way delay: 183.482 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 335.66 Mbit/s

95th percentile per-packet one-way delay: 192.736 ms

Loss rate: 0.00%

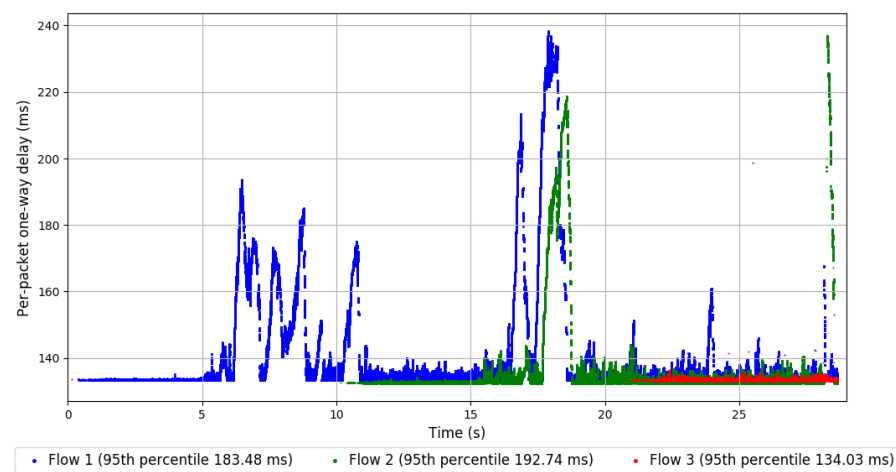
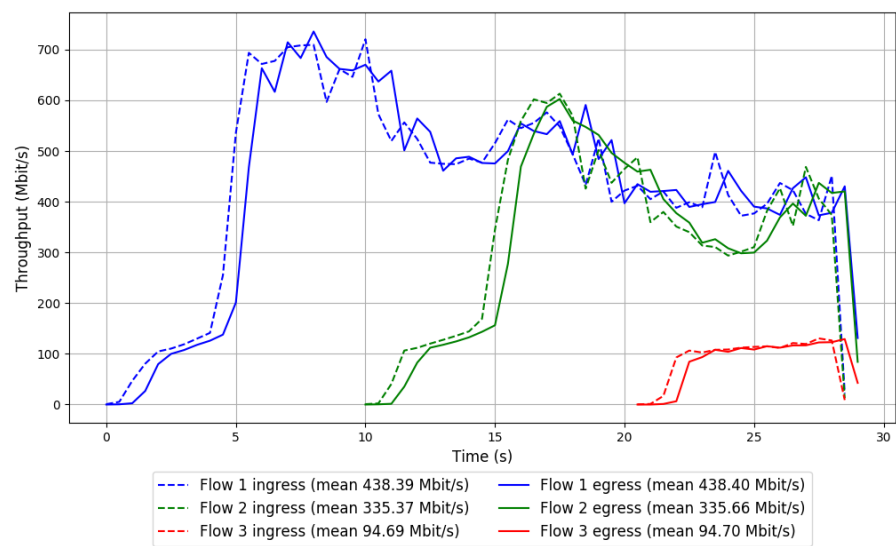
-- Flow 3:

Average throughput: 94.70 Mbit/s

95th percentile per-packet one-way delay: 134.026 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

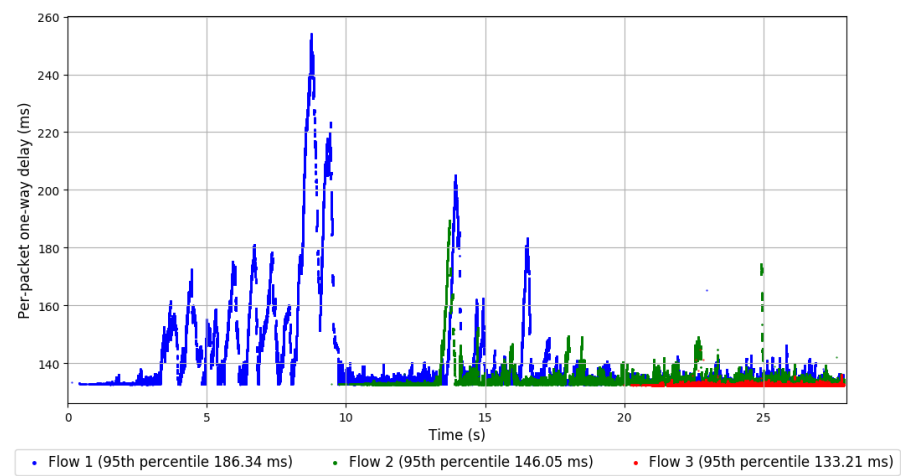
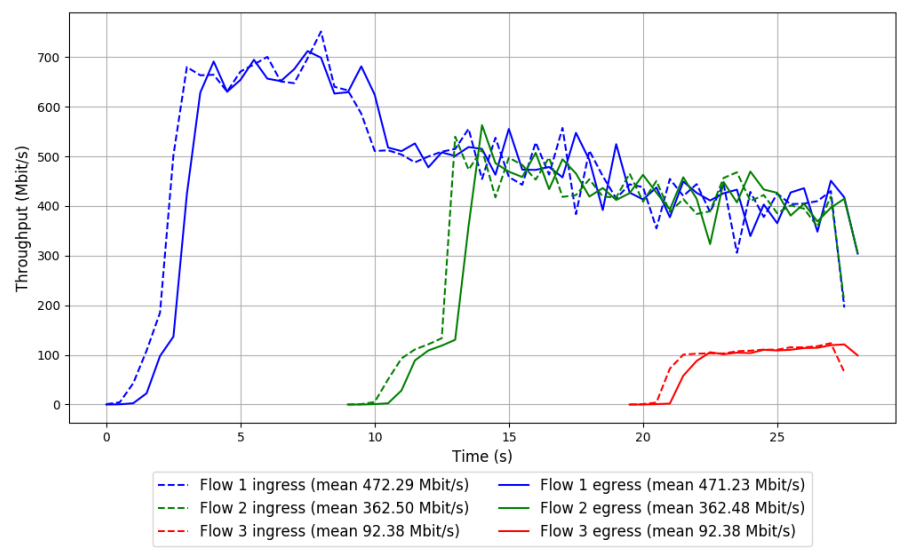


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 18:52:41
End at: 2019-02-05 18:53:11
Local clock offset: 0.01 ms
Remote clock offset: -0.017 ms

Below is generated by plot.py at 2019-02-05 22:23:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 737.87 Mbit/s
95th percentile per-packet one-way delay: 174.160 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 471.23 Mbit/s
95th percentile per-packet one-way delay: 186.341 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 362.48 Mbit/s
95th percentile per-packet one-way delay: 146.052 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.38 Mbit/s
95th percentile per-packet one-way delay: 133.208 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 19:32:04

End at: 2019-02-05 19:32:34

Local clock offset: 0.426 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-02-05 22:23:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 645.18 Mbit/s

95th percentile per-packet one-way delay: 151.370 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 435.75 Mbit/s

95th percentile per-packet one-way delay: 157.745 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 294.35 Mbit/s

95th percentile per-packet one-way delay: 138.680 ms

Loss rate: 0.01%

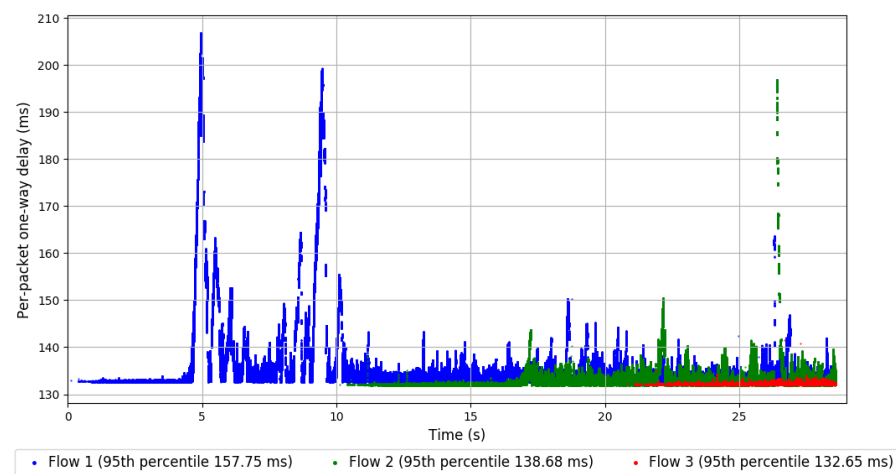
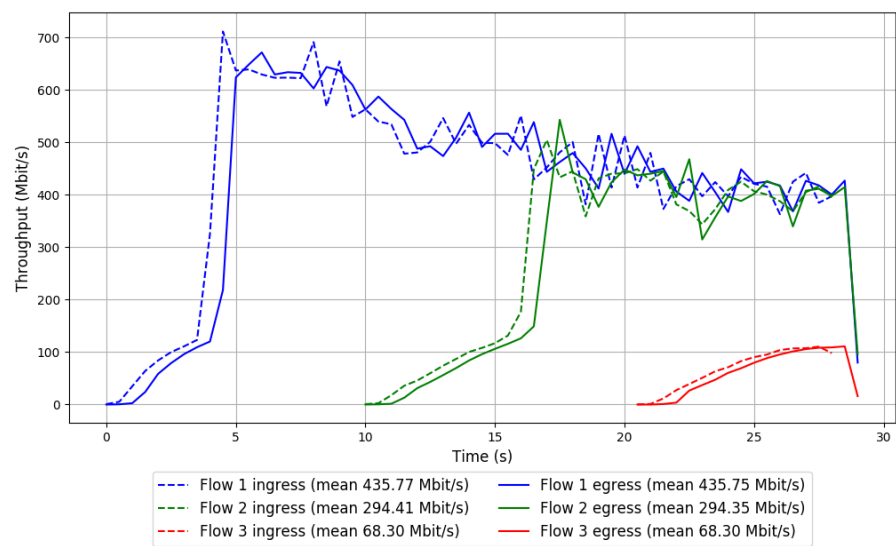
-- Flow 3:

Average throughput: 68.30 Mbit/s

95th percentile per-packet one-way delay: 132.653 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link

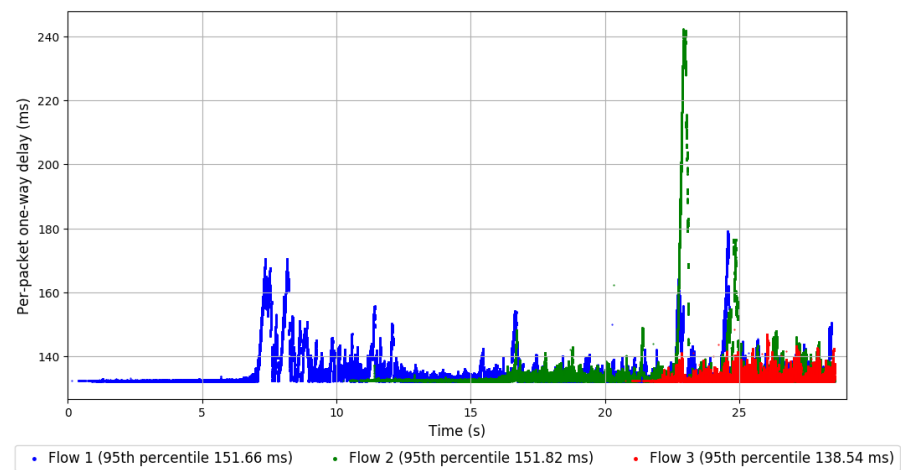
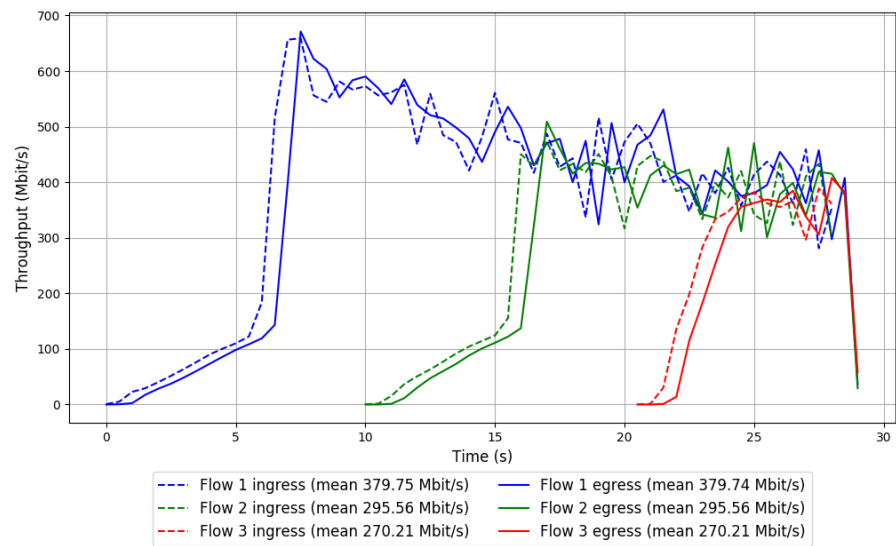


Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 20:10:20
End at: 2019-02-05 20:10:50
Local clock offset: 0.13 ms
Remote clock offset: -0.032 ms

Below is generated by plot.py at 2019-02-05 22:23:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 644.32 Mbit/s
95th percentile per-packet one-way delay: 149.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 379.74 Mbit/s
95th percentile per-packet one-way delay: 151.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 295.56 Mbit/s
95th percentile per-packet one-way delay: 151.824 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 270.21 Mbit/s
95th percentile per-packet one-way delay: 138.536 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

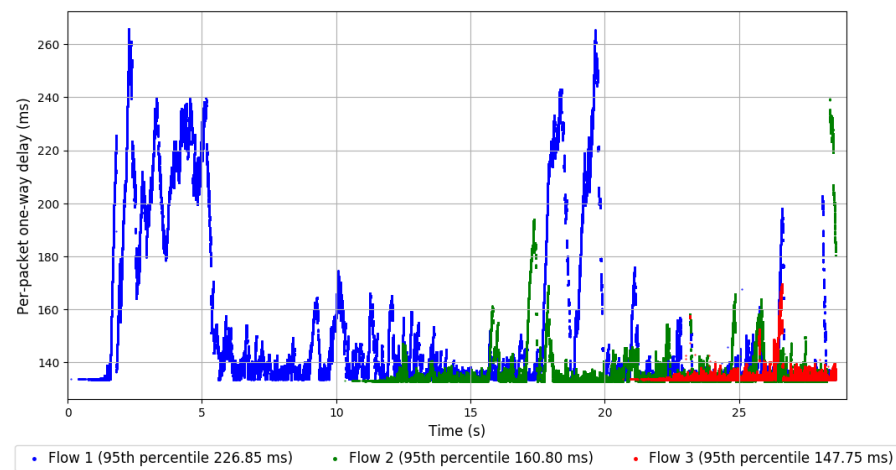
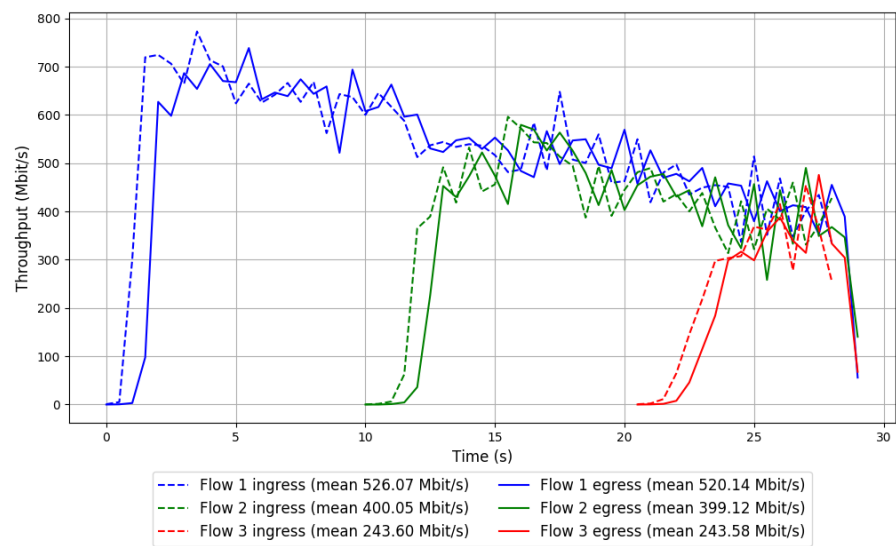


Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 17:41:49
End at: 2019-02-05 17:42:19
Local clock offset: -0.408 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-02-05 22:26:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 844.00 Mbit/s
95th percentile per-packet one-way delay: 219.458 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 520.14 Mbit/s
95th percentile per-packet one-way delay: 226.850 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 399.12 Mbit/s
95th percentile per-packet one-way delay: 160.801 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 243.58 Mbit/s
95th percentile per-packet one-way delay: 147.749 ms
Loss rate: 0.01%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 18:20:37

End at: 2019-02-05 18:21:07

Local clock offset: 0.377 ms

Remote clock offset: 0.074 ms

Below is generated by plot.py at 2019-02-05 22:27:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 871.14 Mbit/s

95th percentile per-packet one-way delay: 224.934 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 512.74 Mbit/s

95th percentile per-packet one-way delay: 235.671 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 430.66 Mbit/s

95th percentile per-packet one-way delay: 194.985 ms

Loss rate: 0.01%

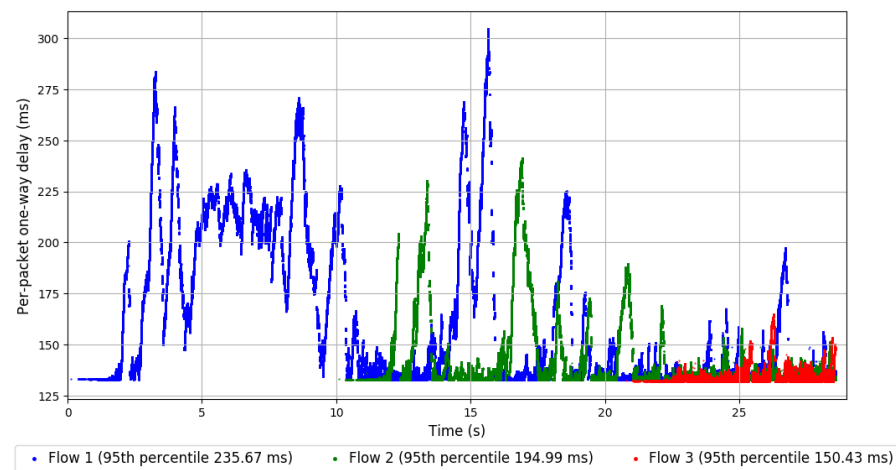
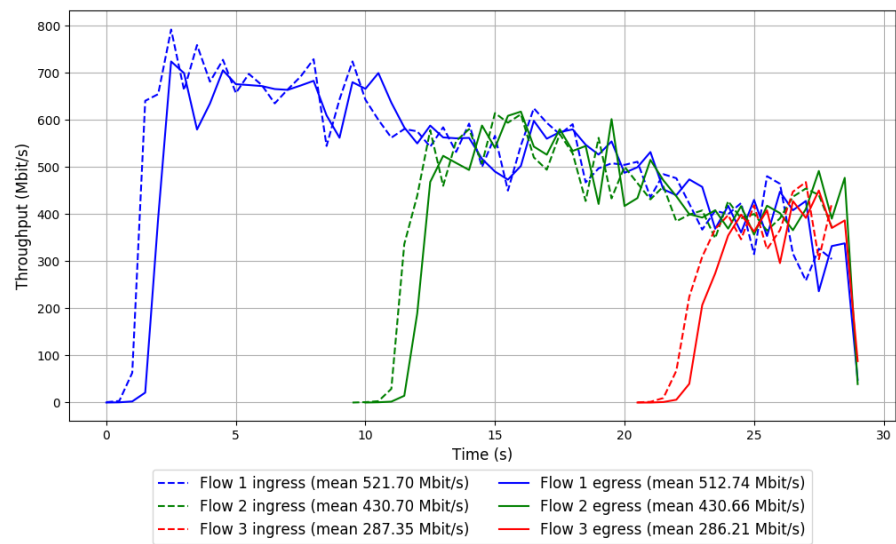
-- Flow 3:

Average throughput: 286.21 Mbit/s

95th percentile per-packet one-way delay: 150.432 ms

Loss rate: 0.33%

Run 2: Report of Indigo-MusesT — Data Link

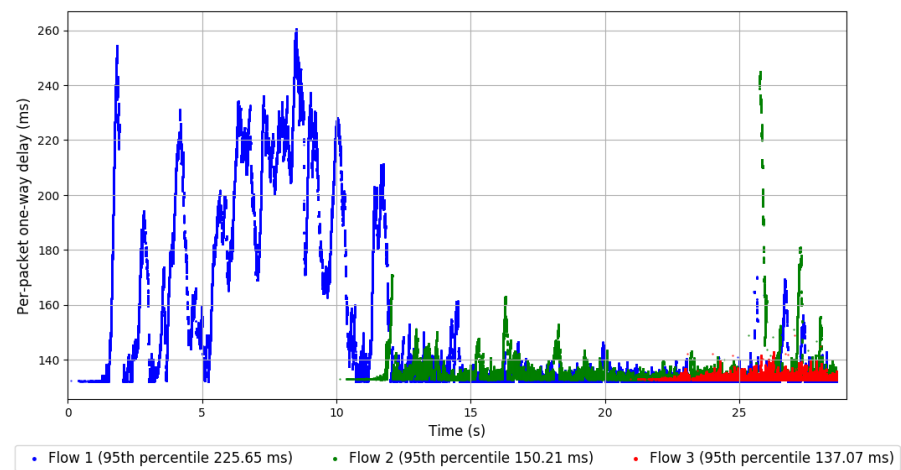
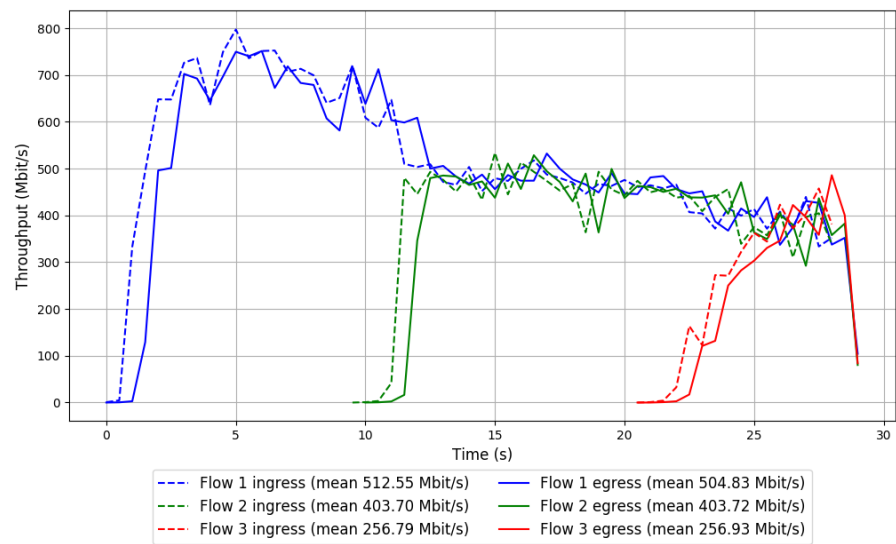


Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 18:59:59
End at: 2019-02-05 19:00:29
Local clock offset: -0.016 ms
Remote clock offset: -0.331 ms

Below is generated by plot.py at 2019-02-05 22:34:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 836.08 Mbit/s
95th percentile per-packet one-way delay: 220.510 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 504.83 Mbit/s
95th percentile per-packet one-way delay: 225.646 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 403.72 Mbit/s
95th percentile per-packet one-way delay: 150.214 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 256.93 Mbit/s
95th percentile per-packet one-way delay: 137.075 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link

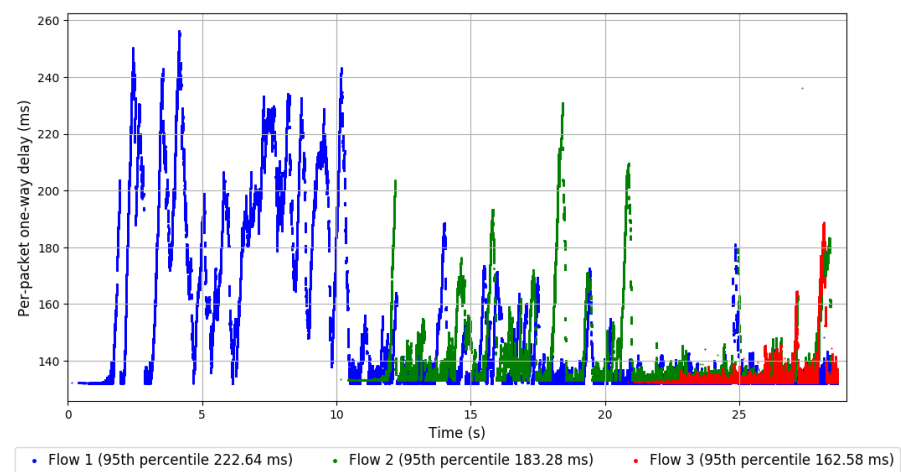
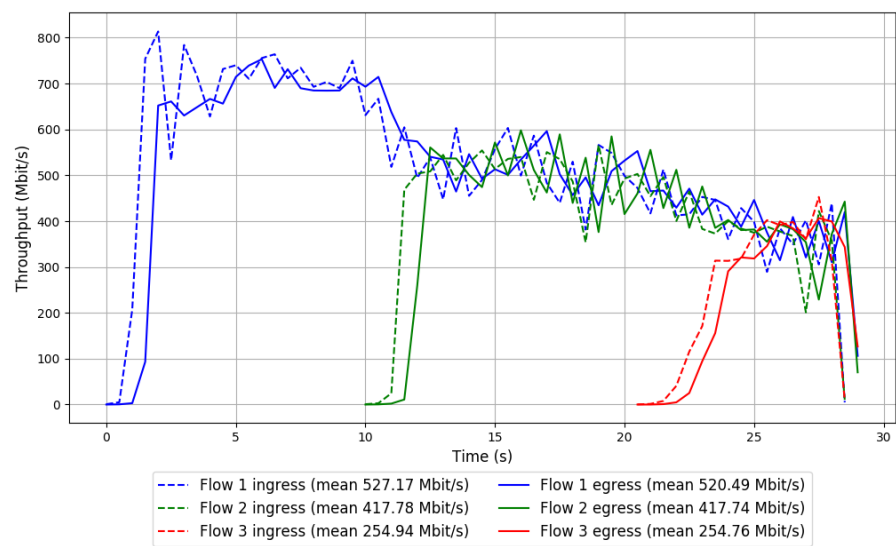


Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 19:39:13
End at: 2019-02-05 19:39:43
Local clock offset: -0.009 ms
Remote clock offset: -0.003 ms

Below is generated by plot.py at 2019-02-05 22:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 860.88 Mbit/s
95th percentile per-packet one-way delay: 213.939 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 520.49 Mbit/s
95th percentile per-packet one-way delay: 222.639 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 417.74 Mbit/s
95th percentile per-packet one-way delay: 183.276 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 254.76 Mbit/s
95th percentile per-packet one-way delay: 162.583 ms
Loss rate: 0.06%

Run 4: Report of Indigo-MusesT — Data Link

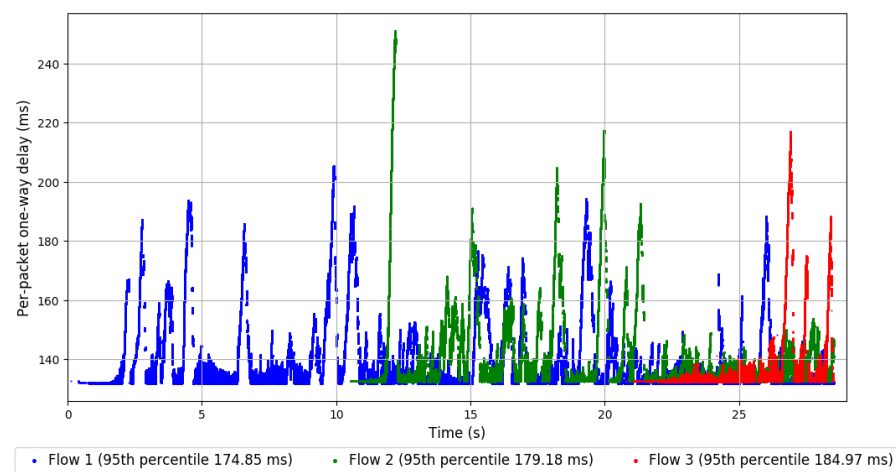
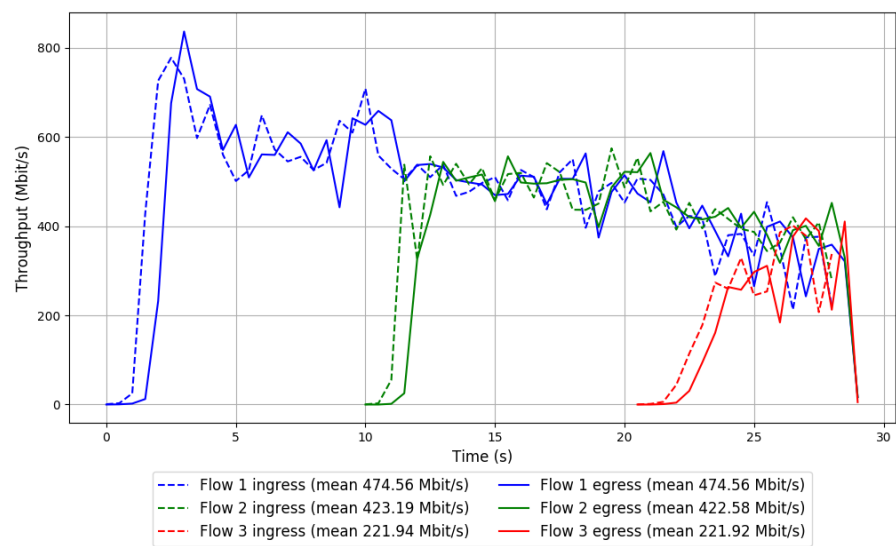


Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 20:17:30
End at: 2019-02-05 20:18:00
Local clock offset: 0.512 ms
Remote clock offset: -0.025 ms

Below is generated by plot.py at 2019-02-05 22:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 806.33 Mbit/s
95th percentile per-packet one-way delay: 176.703 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 474.56 Mbit/s
95th percentile per-packet one-way delay: 174.855 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 422.58 Mbit/s
95th percentile per-packet one-way delay: 179.180 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 221.92 Mbit/s
95th percentile per-packet one-way delay: 184.974 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

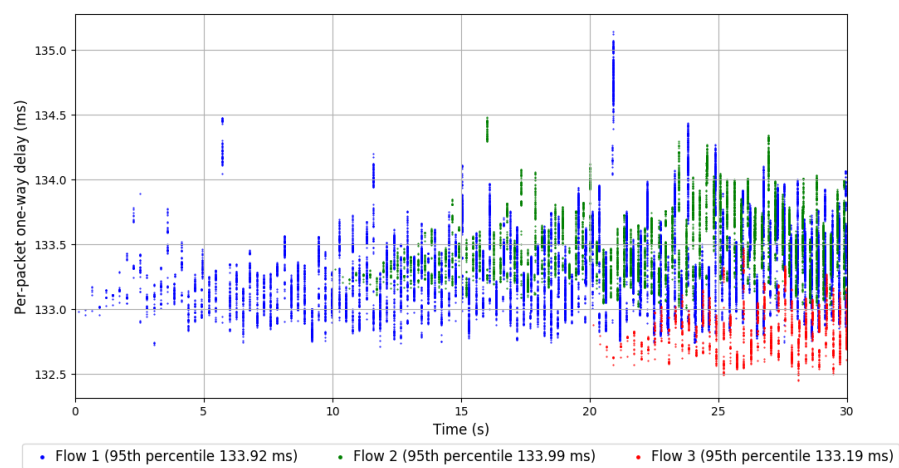
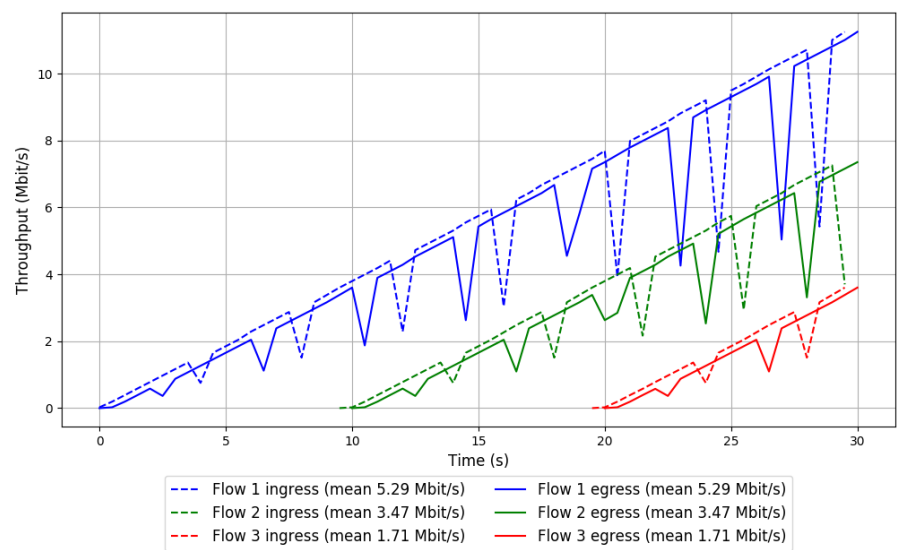


```
Run 1: Statistics of LEDBAT

Start at: 2019-02-05 17:47:39
End at: 2019-02-05 17:48:09
Local clock offset: 0.012 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-02-05 22:38:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 133.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.29 Mbit/s
95th percentile per-packet one-way delay: 133.924 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 133.989 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 133.187 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-02-05 18:26:51

End at: 2019-02-05 18:27:21

Local clock offset: -0.223 ms

Remote clock offset: 0.103 ms

Below is generated by plot.py at 2019-02-05 22:38:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 134.143 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.29 Mbit/s

95th percentile per-packet one-way delay: 134.186 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 133.842 ms

Loss rate: 0.00%

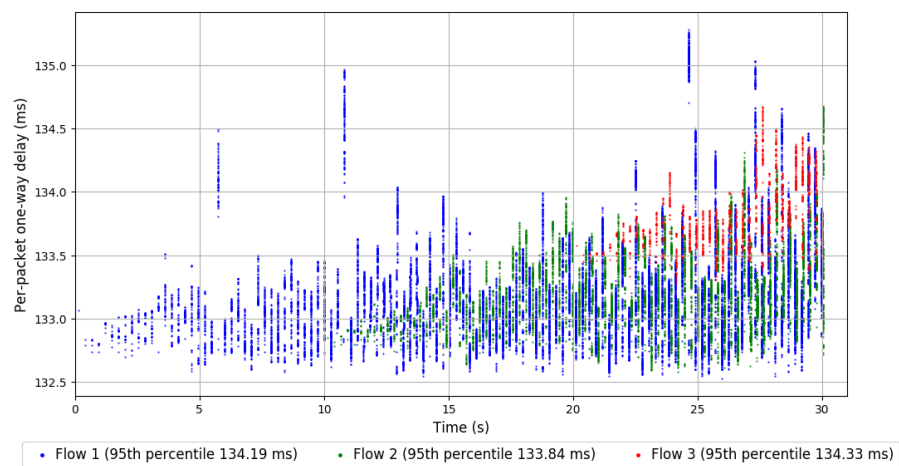
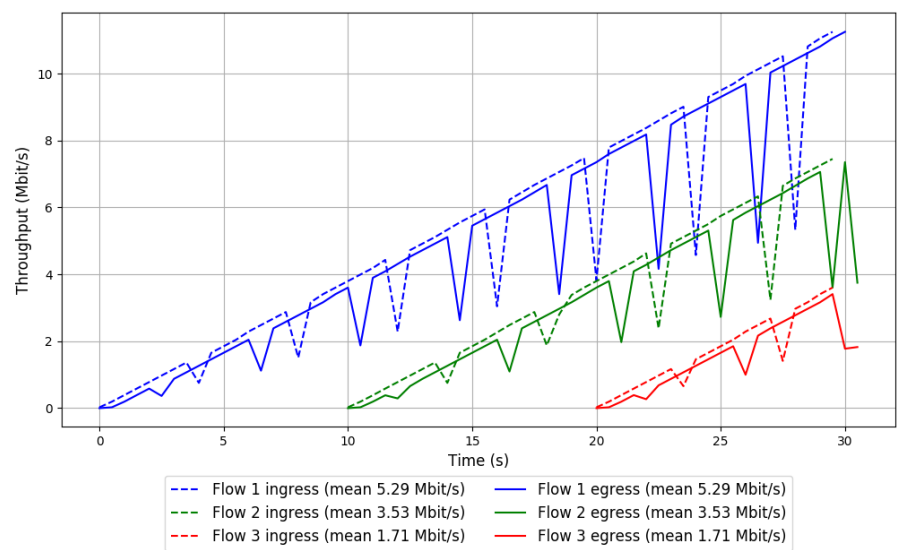
-- Flow 3:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 134.326 ms

Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

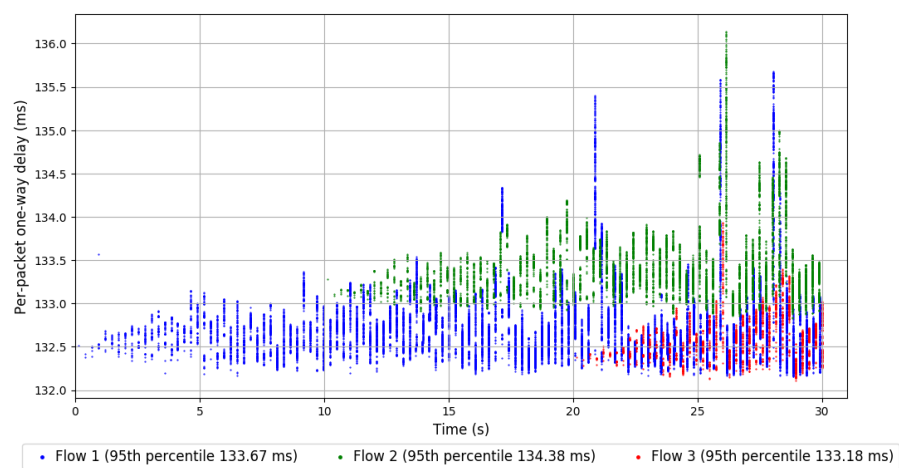
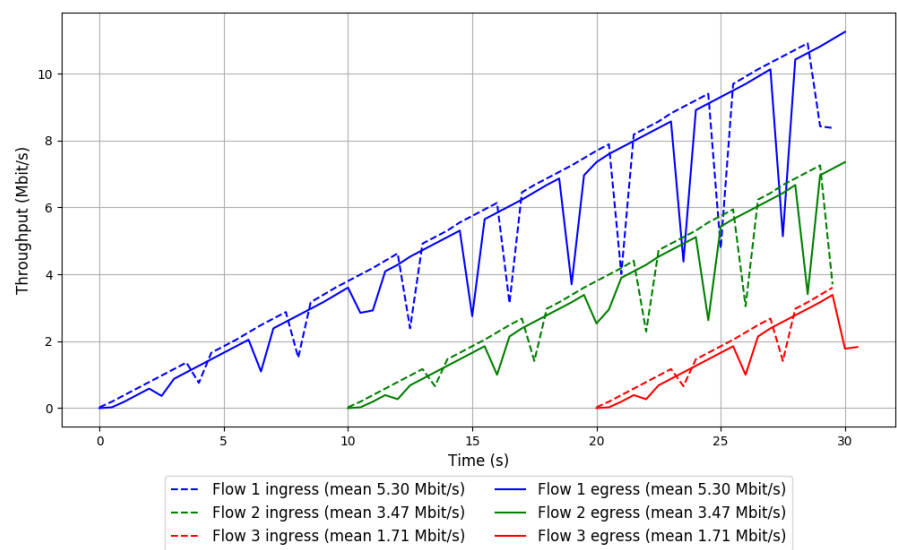


Run 3: Statistics of LEDBAT

Start at: 2019-02-05 19:06:09
End at: 2019-02-05 19:06:39
Local clock offset: -0.188 ms
Remote clock offset: -0.365 ms

Below is generated by plot.py at 2019-02-05 22:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.14 Mbit/s
95th percentile per-packet one-way delay: 133.976 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 133.671 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 134.380 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 133.176 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

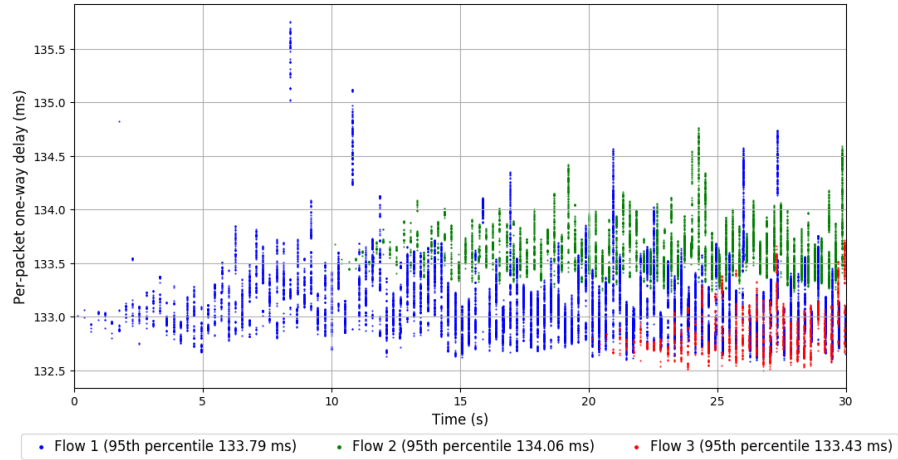
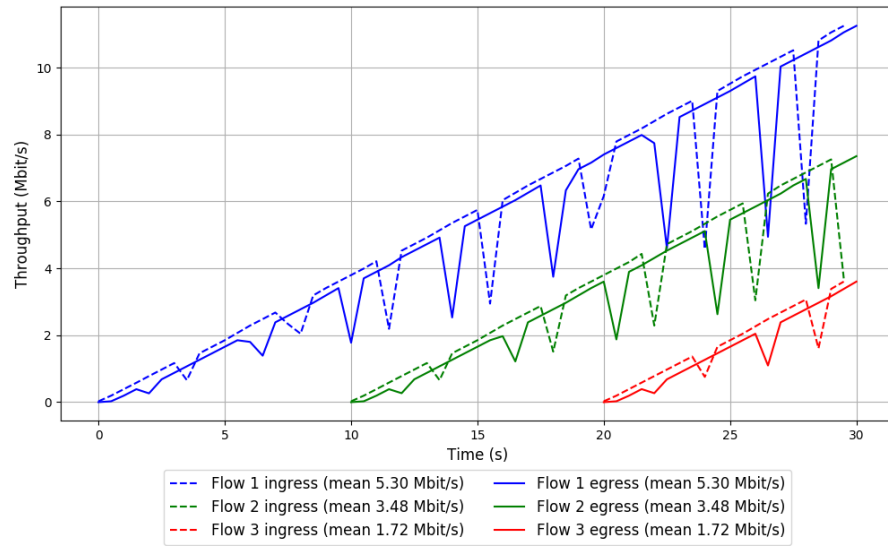


Run 4: Statistics of LEDBAT

Start at: 2019-02-05 19:45:00
End at: 2019-02-05 19:45:30
Local clock offset: -0.156 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2019-02-05 22:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 133.971 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 133.795 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 134.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 133.432 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

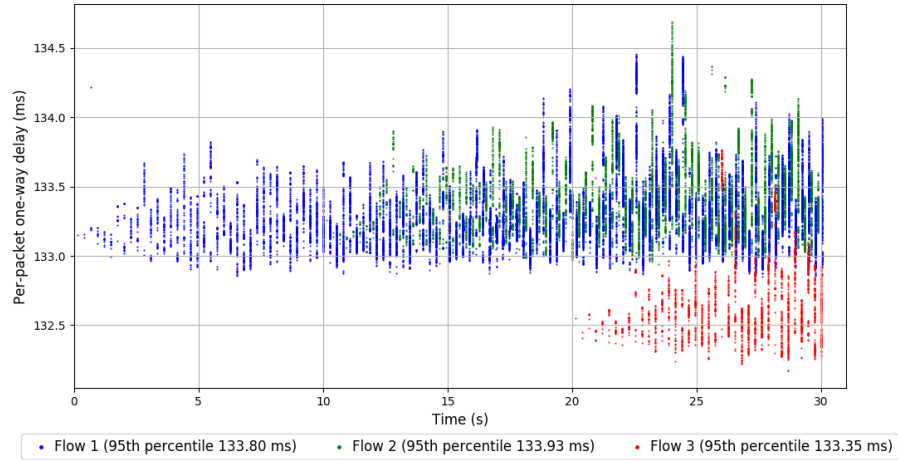
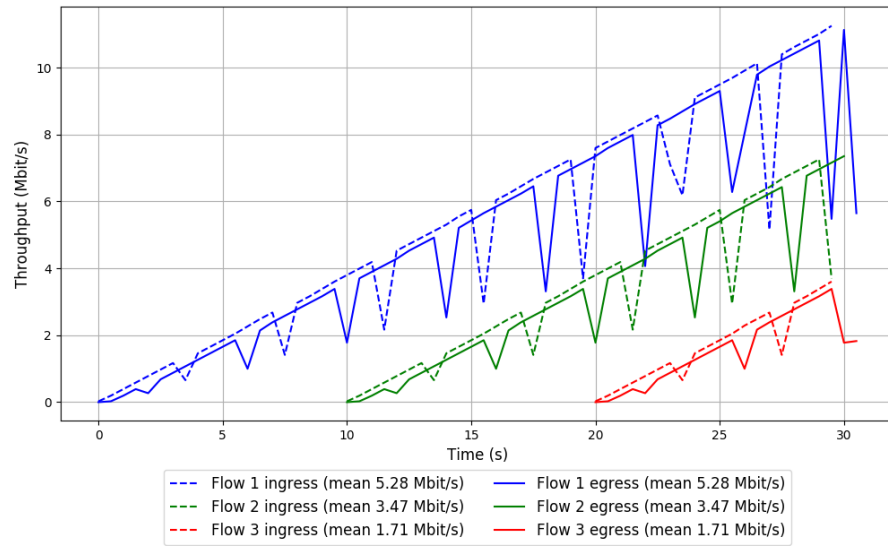


Run 5: Statistics of LEDBAT

Start at: 2019-02-05 20:23:40
End at: 2019-02-05 20:24:10
Local clock offset: 0.157 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2019-02-05 22:38:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 133.845 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 133.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.47 Mbit/s
95th percentile per-packet one-way delay: 133.927 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.71 Mbit/s
95th percentile per-packet one-way delay: 133.352 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

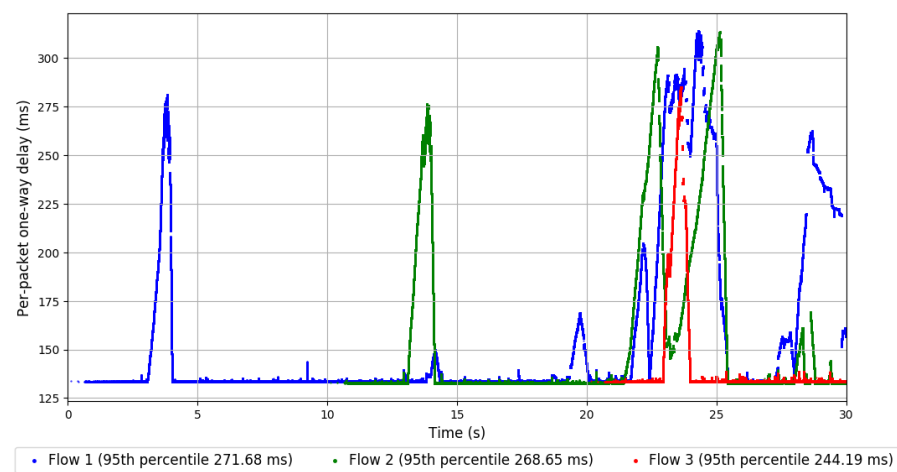
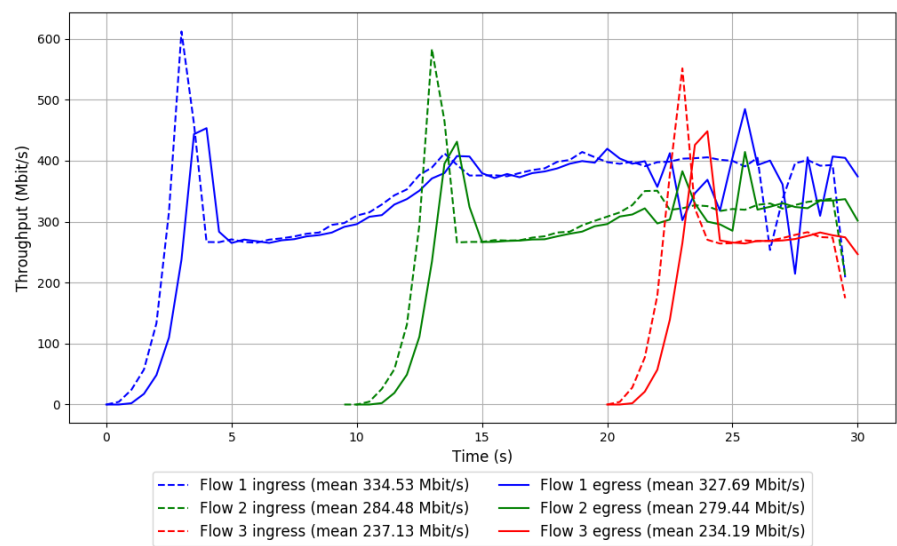


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 17:12:46
End at: 2019-02-05 17:13:16
Local clock offset: -0.007 ms
Remote clock offset: 0.426 ms

# Below is generated by plot.py at 2019-02-05 22:48:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 590.45 Mbit/s
95th percentile per-packet one-way delay: 268.501 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 327.69 Mbit/s
95th percentile per-packet one-way delay: 271.678 ms
Loss rate: 2.13%
-- Flow 2:
Average throughput: 279.44 Mbit/s
95th percentile per-packet one-way delay: 268.654 ms
Loss rate: 1.96%
-- Flow 3:
Average throughput: 234.19 Mbit/s
95th percentile per-packet one-way delay: 244.189 ms
Loss rate: 2.32%
```

Run 1: Report of PCC-Allegro — Data Link

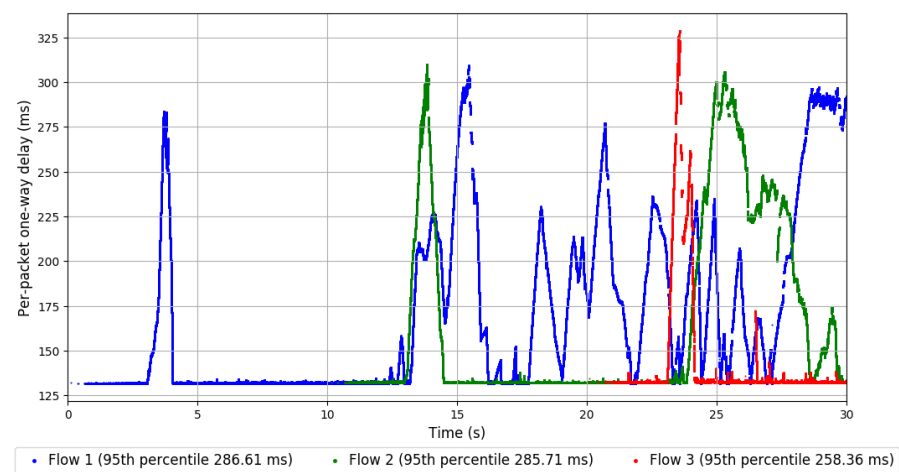
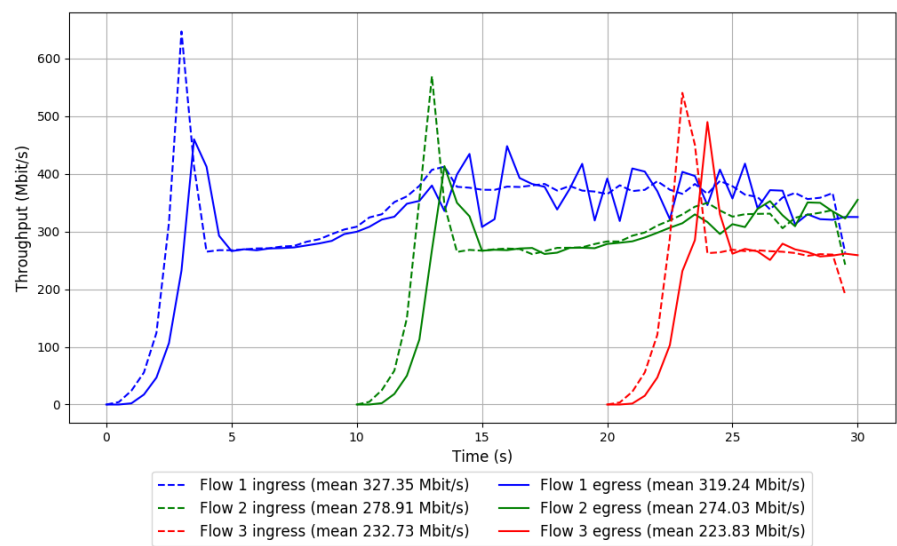


Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 17:50:56
End at: 2019-02-05 17:51:26
Local clock offset: -0.009 ms
Remote clock offset: -0.405 ms

Below is generated by plot.py at 2019-02-05 22:48:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 575.04 Mbit/s
95th percentile per-packet one-way delay: 285.529 ms
Loss rate: 2.42%
-- Flow 1:
Average throughput: 319.24 Mbit/s
95th percentile per-packet one-way delay: 286.609 ms
Loss rate: 2.48%
-- Flow 2:
Average throughput: 274.03 Mbit/s
95th percentile per-packet one-way delay: 285.712 ms
Loss rate: 1.75%
-- Flow 3:
Average throughput: 223.83 Mbit/s
95th percentile per-packet one-way delay: 258.357 ms
Loss rate: 3.81%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 18:30:19

End at: 2019-02-05 18:30:49

Local clock offset: -0.181 ms

Remote clock offset: 0.014 ms

Below is generated by plot.py at 2019-02-05 22:48:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 589.37 Mbit/s

95th percentile per-packet one-way delay: 265.145 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 333.97 Mbit/s

95th percentile per-packet one-way delay: 259.109 ms

Loss rate: 1.86%

-- Flow 2:

Average throughput: 280.29 Mbit/s

95th percentile per-packet one-way delay: 278.672 ms

Loss rate: 1.72%

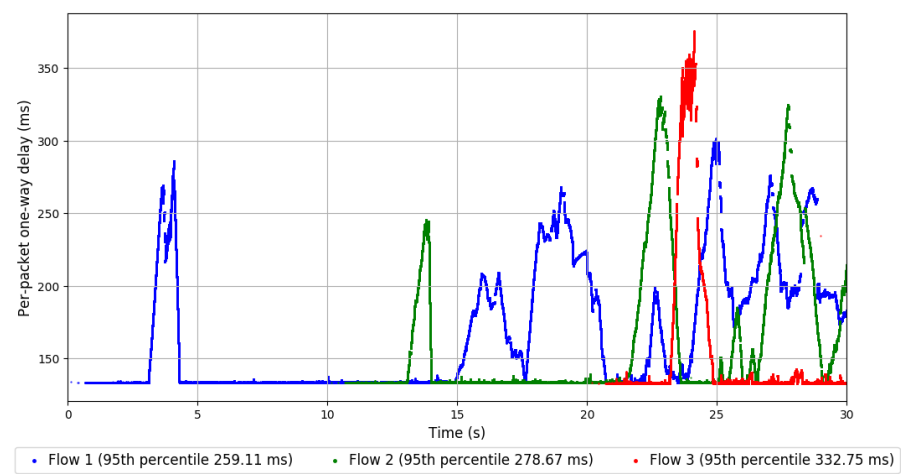
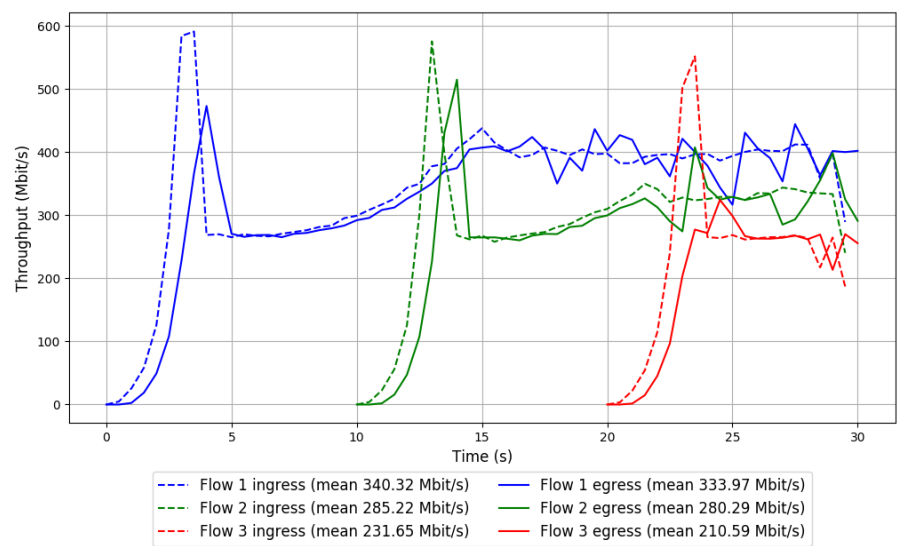
-- Flow 3:

Average throughput: 210.59 Mbit/s

95th percentile per-packet one-way delay: 332.753 ms

Loss rate: 9.09%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 19:09:27

End at: 2019-02-05 19:09:57

Local clock offset: 0.009 ms

Remote clock offset: 0.04 ms

Below is generated by plot.py at 2019-02-05 22:55:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 637.21 Mbit/s

95th percentile per-packet one-way delay: 264.538 ms

Loss rate: 6.82%

-- Flow 1:

Average throughput: 382.07 Mbit/s

95th percentile per-packet one-way delay: 266.951 ms

Loss rate: 9.57%

-- Flow 2:

Average throughput: 269.56 Mbit/s

95th percentile per-packet one-way delay: 232.891 ms

Loss rate: 2.32%

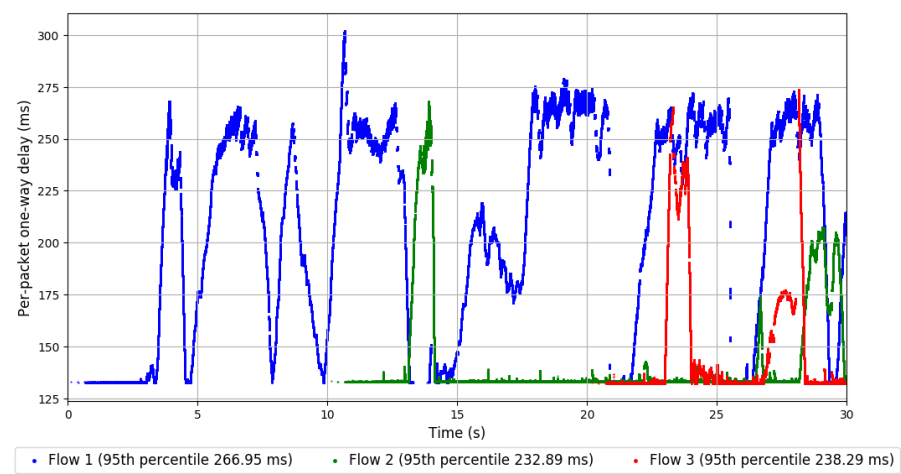
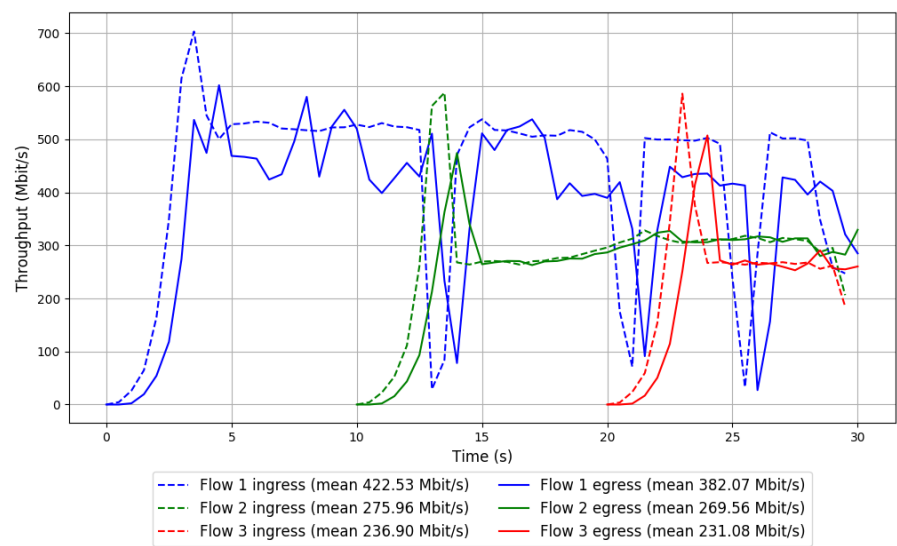
-- Flow 3:

Average throughput: 231.08 Mbit/s

95th percentile per-packet one-way delay: 238.295 ms

Loss rate: 2.46%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 19:48:19

End at: 2019-02-05 19:48:49

Local clock offset: -0.417 ms

Remote clock offset: 0.023 ms

Below is generated by plot.py at 2019-02-05 22:55:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.40 Mbit/s

95th percentile per-packet one-way delay: 262.432 ms

Loss rate: 6.88%

-- Flow 1:

Average throughput: 330.68 Mbit/s

95th percentile per-packet one-way delay: 262.721 ms

Loss rate: 9.37%

-- Flow 2:

Average throughput: 258.14 Mbit/s

95th percentile per-packet one-way delay: 269.109 ms

Loss rate: 4.12%

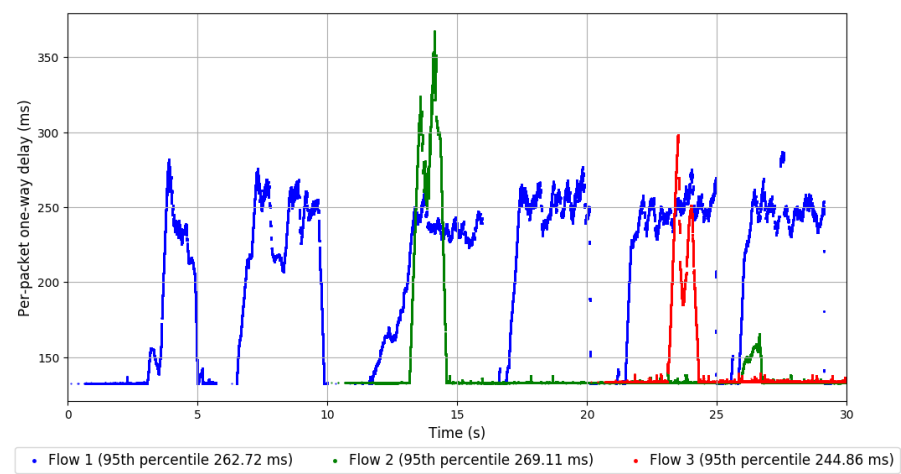
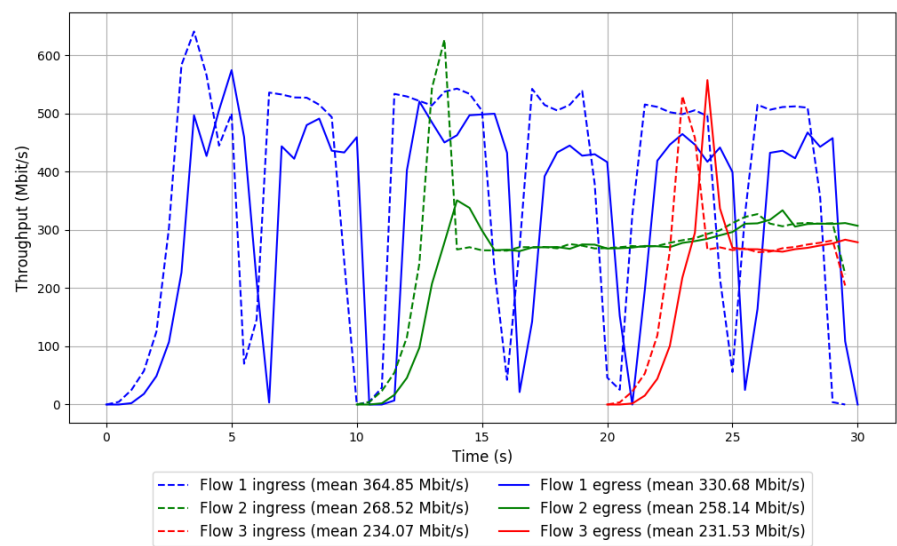
-- Flow 3:

Average throughput: 231.53 Mbit/s

95th percentile per-packet one-way delay: 244.857 ms

Loss rate: 1.62%

Run 5: Report of PCC-Allegro — Data Link

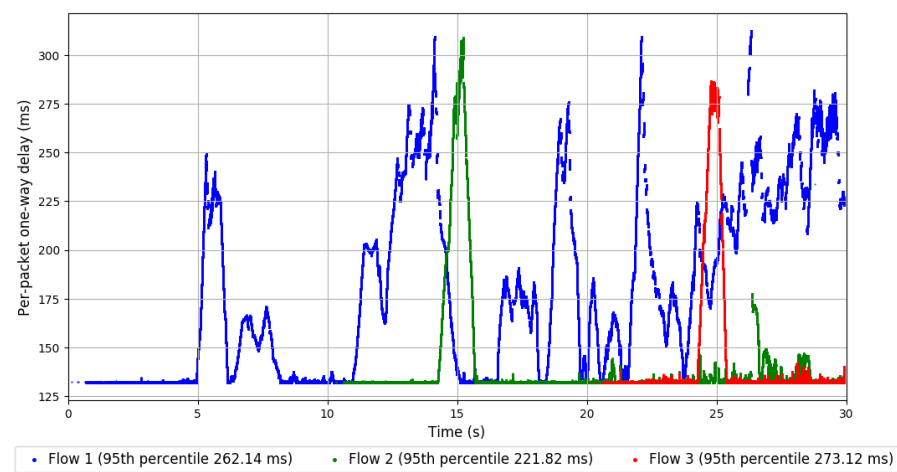
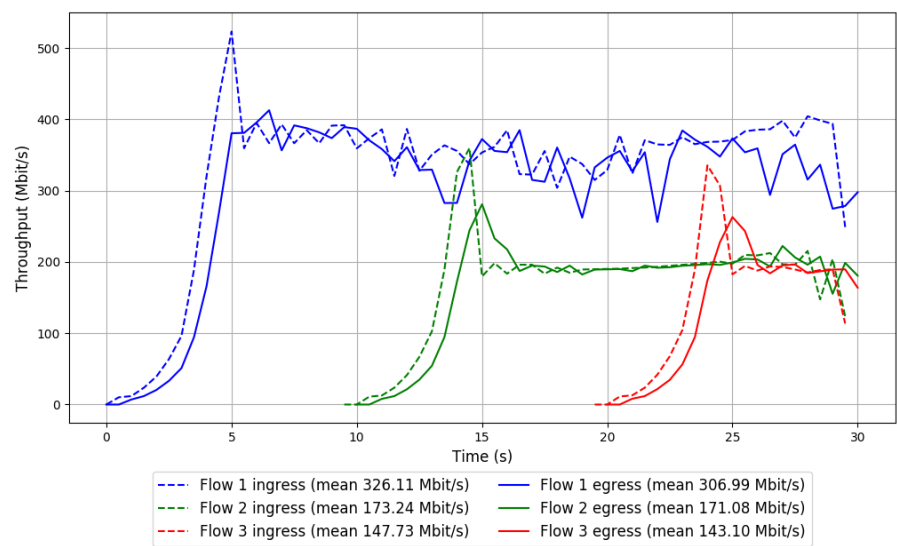



```
Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 17:24:44
End at: 2019-02-05 17:25:14
Local clock offset: 0.486 ms
Remote clock offset: 0.202 ms

# Below is generated by plot.py at 2019-02-05 22:56:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.32 Mbit/s
95th percentile per-packet one-way delay: 261.119 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 306.99 Mbit/s
95th percentile per-packet one-way delay: 262.138 ms
Loss rate: 5.86%
-- Flow 2:
Average throughput: 171.08 Mbit/s
95th percentile per-packet one-way delay: 221.818 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 143.10 Mbit/s
95th percentile per-packet one-way delay: 273.121 ms
Loss rate: 3.13%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 18:03:33

End at: 2019-02-05 18:04:03

Local clock offset: -0.269 ms

Remote clock offset: 0.054 ms

Below is generated by plot.py at 2019-02-05 23:00:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 468.94 Mbit/s

95th percentile per-packet one-way delay: 251.094 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 303.18 Mbit/s

95th percentile per-packet one-way delay: 252.045 ms

Loss rate: 2.40%

-- Flow 2:

Average throughput: 175.51 Mbit/s

95th percentile per-packet one-way delay: 203.801 ms

Loss rate: 0.75%

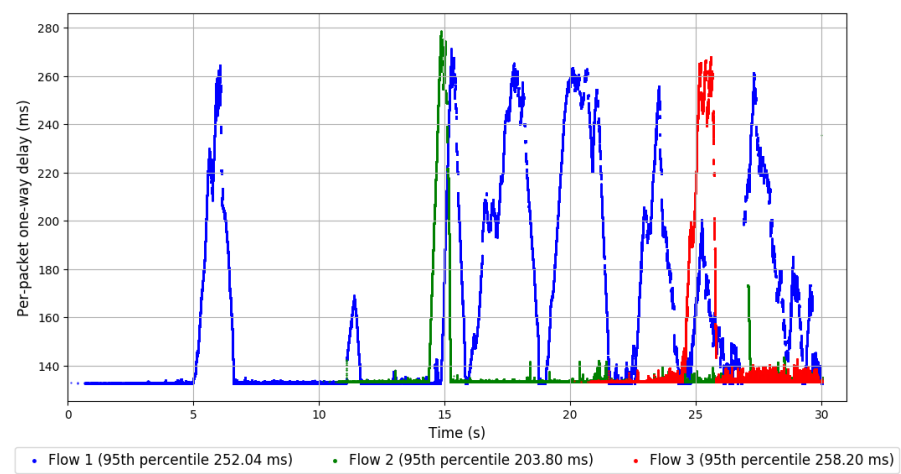
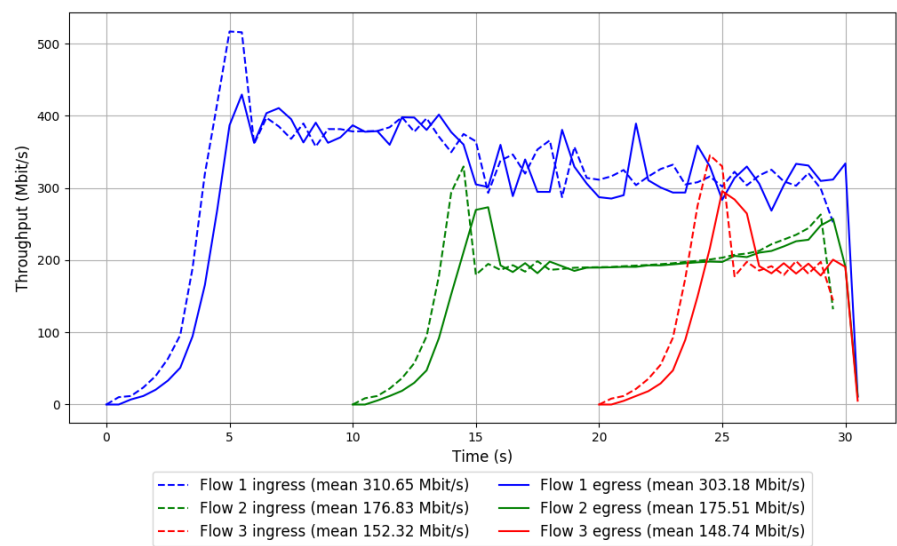
-- Flow 3:

Average throughput: 148.74 Mbit/s

95th percentile per-packet one-way delay: 258.196 ms

Loss rate: 2.35%

Run 2: Report of PCC-Expr — Data Link

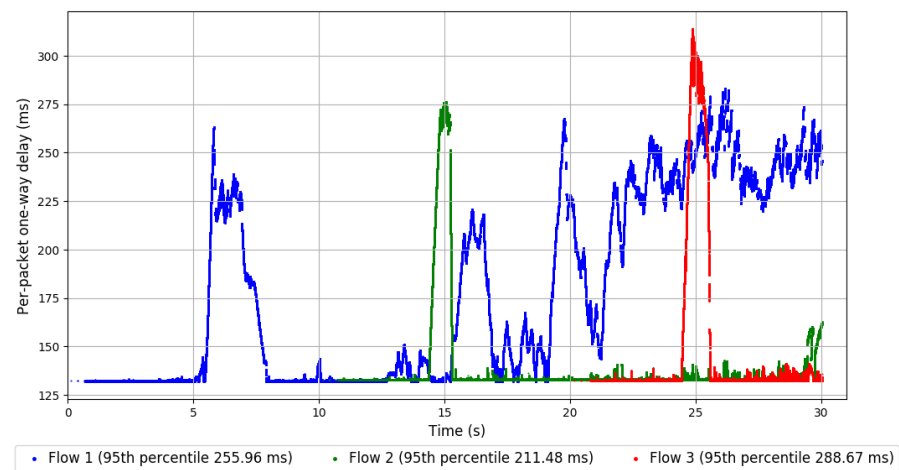
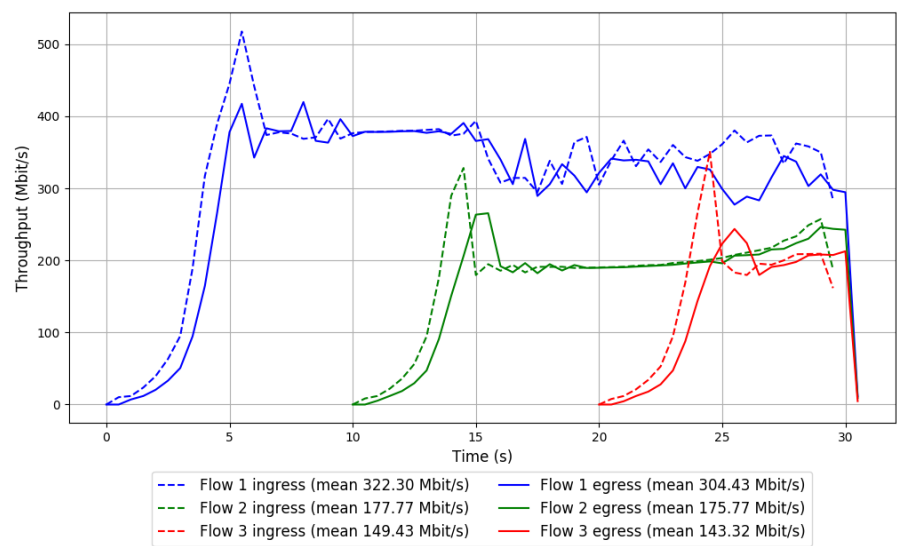


Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 18:42:53
End at: 2019-02-05 18:43:23
Local clock offset: 0.012 ms
Remote clock offset: -0.332 ms

Below is generated by plot.py at 2019-02-05 23:01:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 468.51 Mbit/s
95th percentile per-packet one-way delay: 256.812 ms
Loss rate: 4.34%
-- Flow 1:
Average throughput: 304.43 Mbit/s
95th percentile per-packet one-way delay: 255.961 ms
Loss rate: 5.55%
-- Flow 2:
Average throughput: 175.77 Mbit/s
95th percentile per-packet one-way delay: 211.481 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 143.32 Mbit/s
95th percentile per-packet one-way delay: 288.669 ms
Loss rate: 4.11%

Run 3: Report of PCC-Expr — Data Link

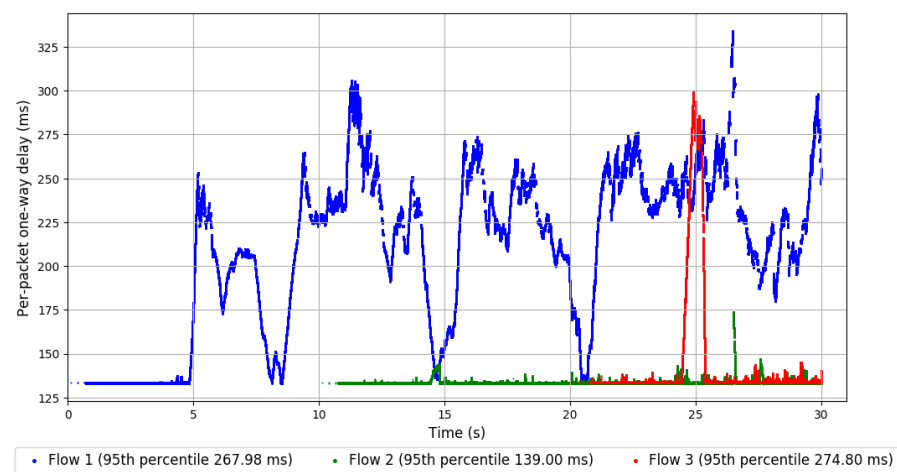
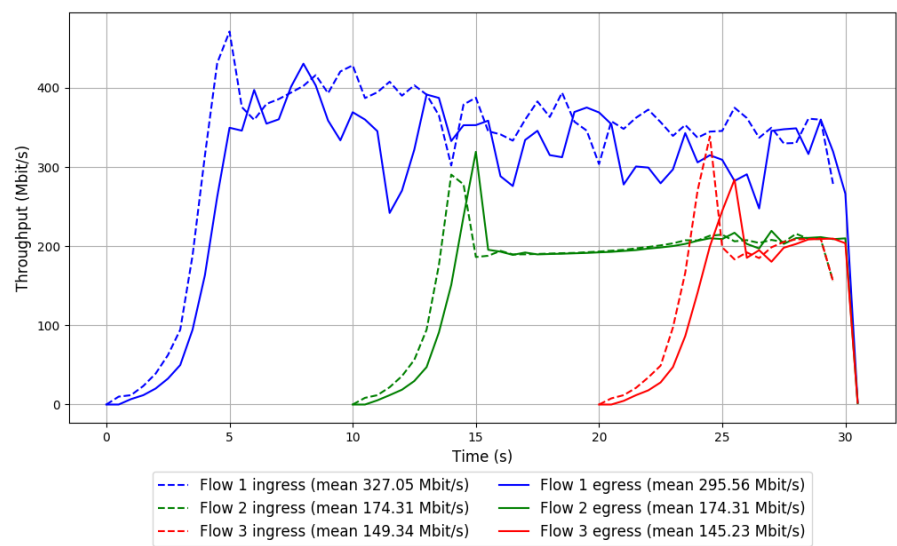


```
Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 19:22:24
End at: 2019-02-05 19:22:54
Local clock offset: -0.421 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.35 Mbit/s
95th percentile per-packet one-way delay: 264.888 ms
Loss rate: 6.68%
-- Flow 1:
Average throughput: 295.56 Mbit/s
95th percentile per-packet one-way delay: 267.982 ms
Loss rate: 9.63%
-- Flow 2:
Average throughput: 174.31 Mbit/s
95th percentile per-packet one-way delay: 139.000 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 145.23 Mbit/s
95th percentile per-packet one-way delay: 274.796 ms
Loss rate: 2.80%
```

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 20:00:29

End at: 2019-02-05 20:00:59

Local clock offset: 0.007 ms

Remote clock offset: -0.42 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.08 Mbit/s

95th percentile per-packet one-way delay: 258.179 ms

Loss rate: 5.37%

-- Flow 1:

Average throughput: 246.29 Mbit/s

95th percentile per-packet one-way delay: 261.681 ms

Loss rate: 8.24%

-- Flow 2:

Average throughput: 188.02 Mbit/s

95th percentile per-packet one-way delay: 220.311 ms

Loss rate: 0.00%

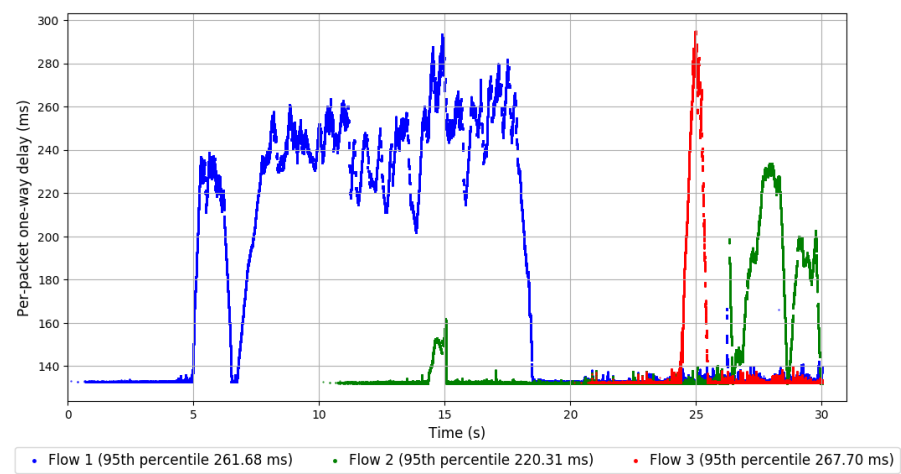
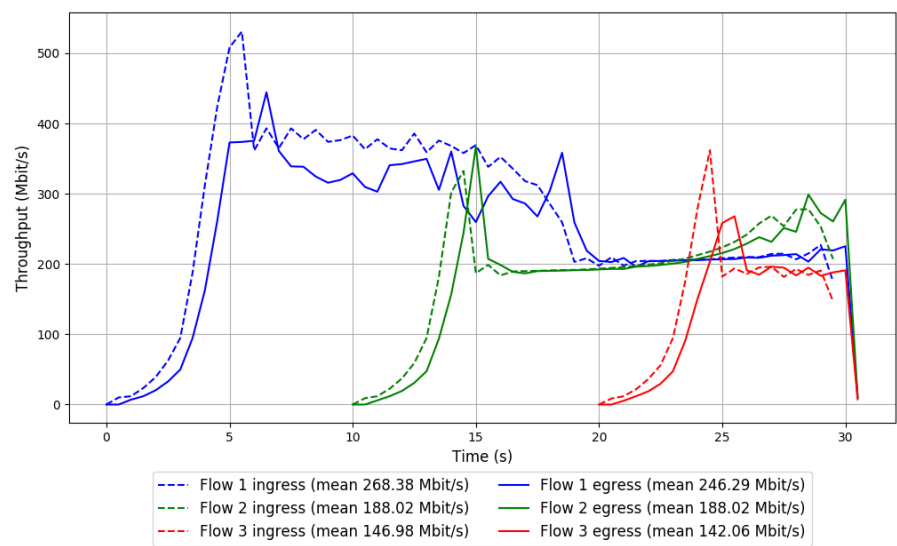
-- Flow 3:

Average throughput: 142.06 Mbit/s

95th percentile per-packet one-way delay: 267.698 ms

Loss rate: 3.33%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 17:33:15

End at: 2019-02-05 17:33:45

Local clock offset: 0.239 ms

Remote clock offset: 0.121 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.95 Mbit/s

95th percentile per-packet one-way delay: 132.397 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 132.439 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.24 Mbit/s

95th percentile per-packet one-way delay: 132.423 ms

Loss rate: 0.00%

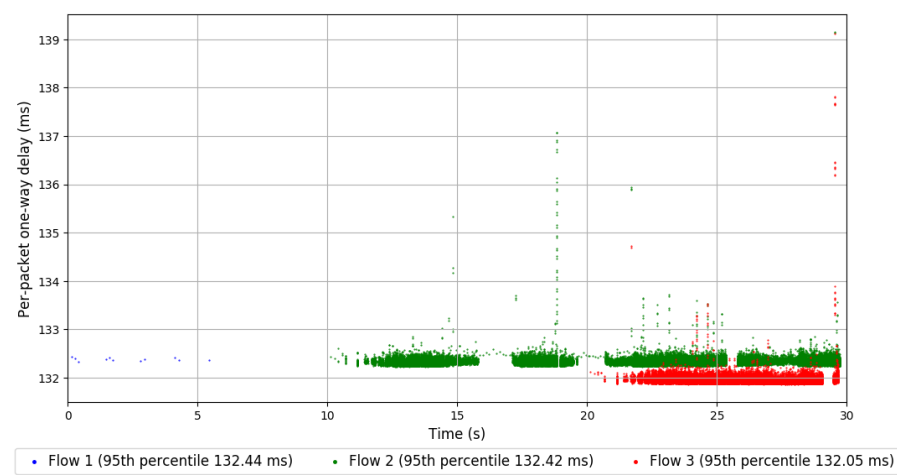
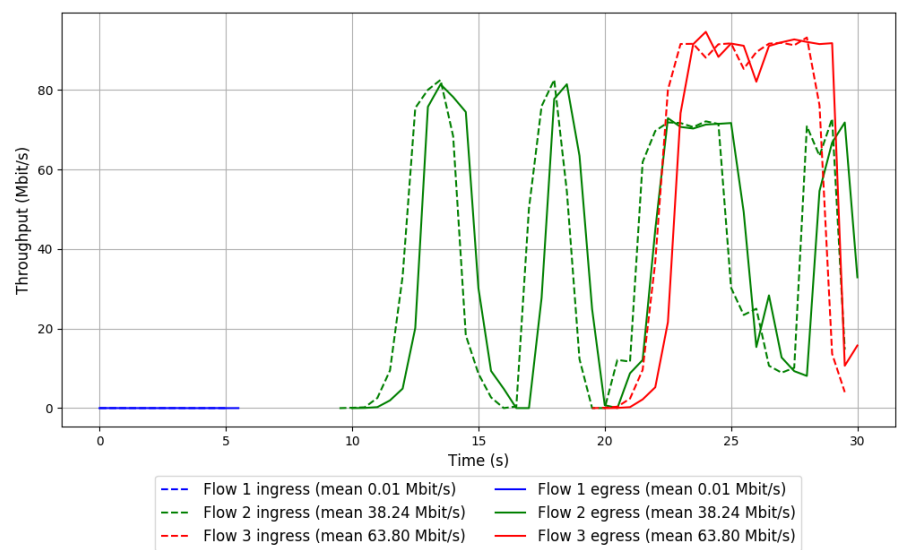
-- Flow 3:

Average throughput: 63.80 Mbit/s

95th percentile per-packet one-way delay: 132.046 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 18:11:56

End at: 2019-02-05 18:12:26

Local clock offset: -0.247 ms

Remote clock offset: 0.415 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.67 Mbit/s

95th percentile per-packet one-way delay: 133.824 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.90 Mbit/s

95th percentile per-packet one-way delay: 133.854 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 133.106 ms

Loss rate: 0.00%

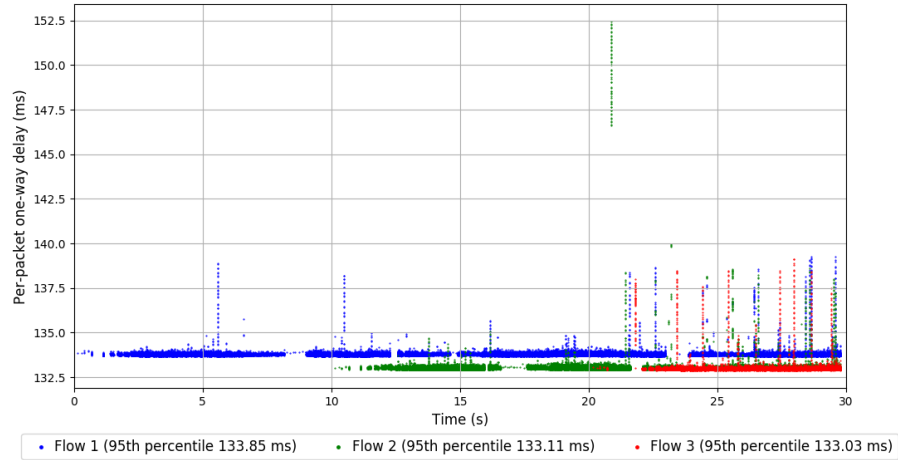
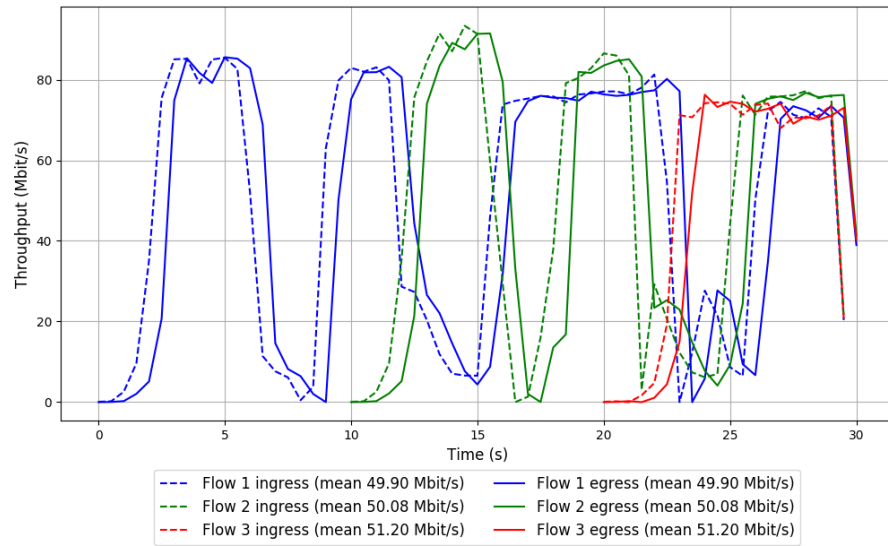
-- Flow 3:

Average throughput: 51.20 Mbit/s

95th percentile per-packet one-way delay: 133.026 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 18:51:15

End at: 2019-02-05 18:51:45

Local clock offset: 0.246 ms

Remote clock offset: 0.023 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.57 Mbit/s

95th percentile per-packet one-way delay: 132.977 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.58 Mbit/s

95th percentile per-packet one-way delay: 132.968 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.39 Mbit/s

95th percentile per-packet one-way delay: 132.995 ms

Loss rate: 0.00%

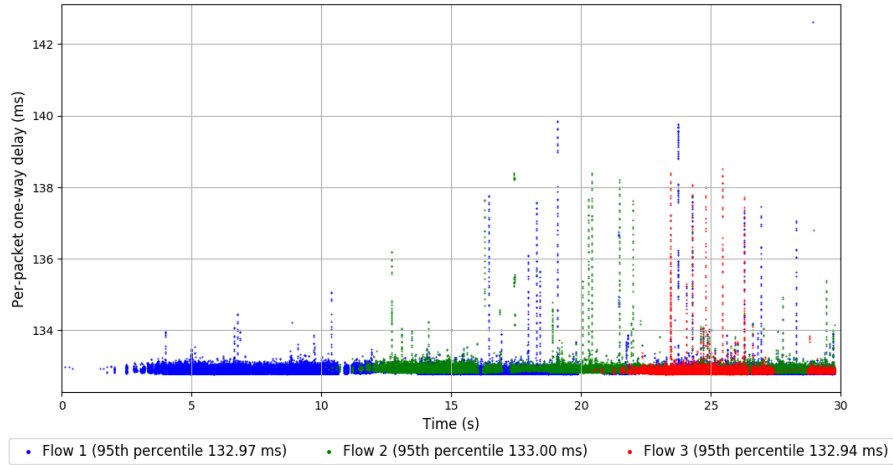
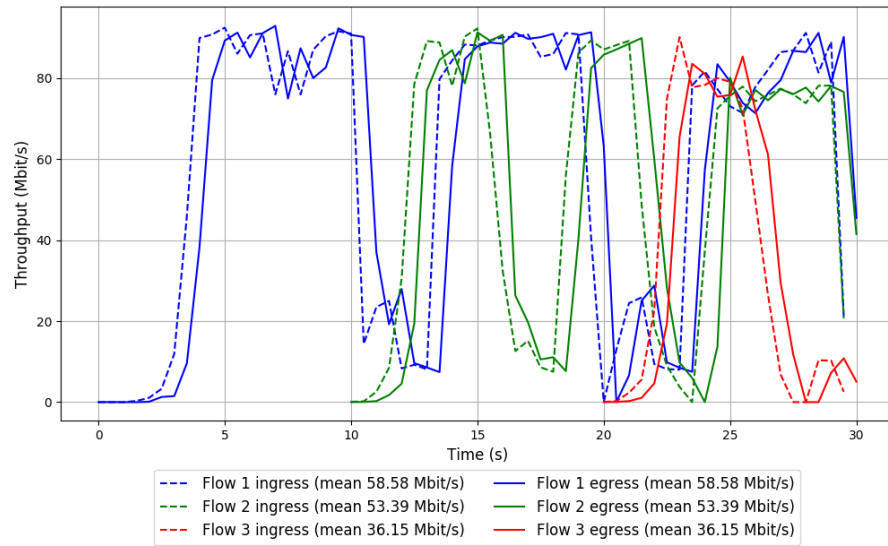
-- Flow 3:

Average throughput: 36.15 Mbit/s

95th percentile per-packet one-way delay: 132.941 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 19:30:38

End at: 2019-02-05 19:31:08

Local clock offset: 0.016 ms

Remote clock offset: 0.009 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.98 Mbit/s

95th percentile per-packet one-way delay: 132.520 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.00 Mbit/s

95th percentile per-packet one-way delay: 132.535 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.29 Mbit/s

95th percentile per-packet one-way delay: 132.522 ms

Loss rate: 0.00%

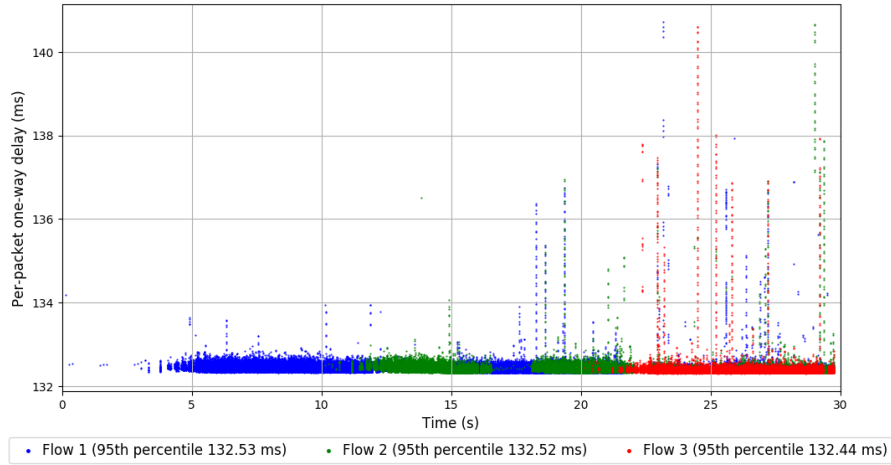
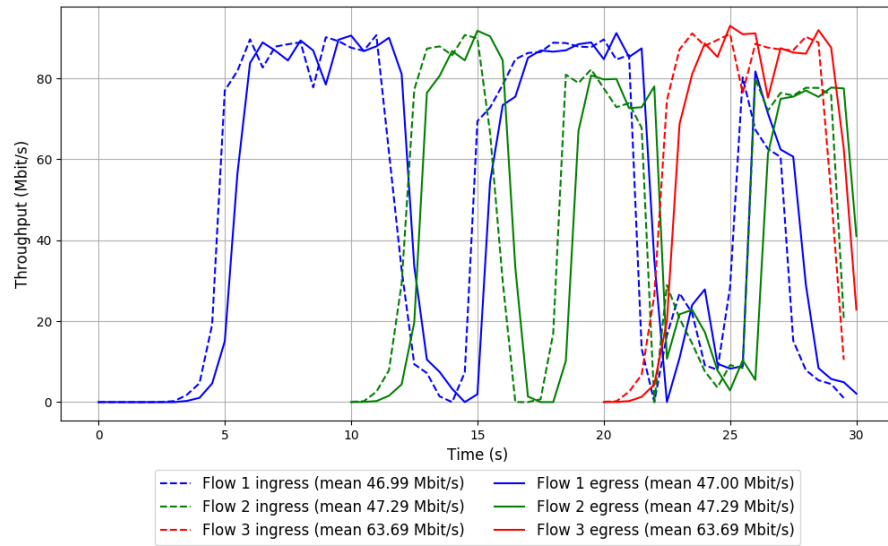
-- Flow 3:

Average throughput: 63.69 Mbit/s

95th percentile per-packet one-way delay: 132.439 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 20:08:54

End at: 2019-02-05 20:09:24

Local clock offset: 0.203 ms

Remote clock offset: -0.05 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.90 Mbit/s

95th percentile per-packet one-way delay: 132.931 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.86 Mbit/s

95th percentile per-packet one-way delay: 132.391 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.30 Mbit/s

95th percentile per-packet one-way delay: 132.330 ms

Loss rate: 0.00%

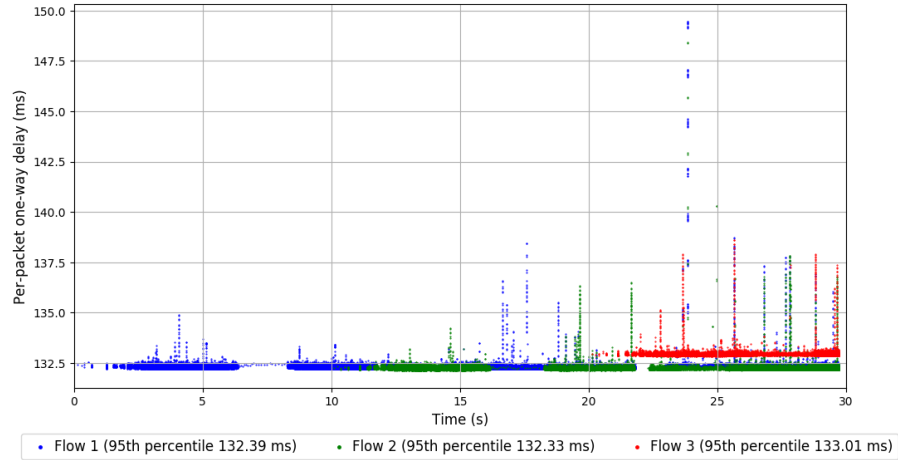
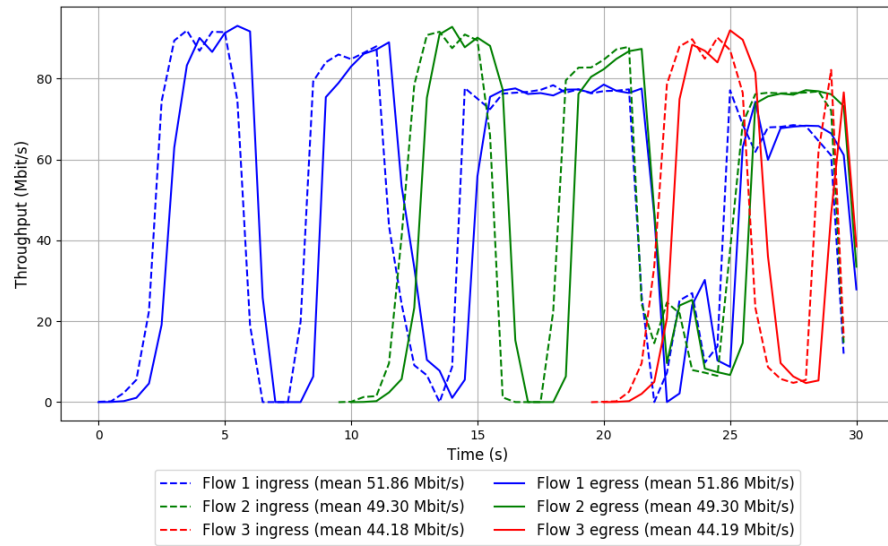
-- Flow 3:

Average throughput: 44.19 Mbit/s

95th percentile per-packet one-way delay: 133.011 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

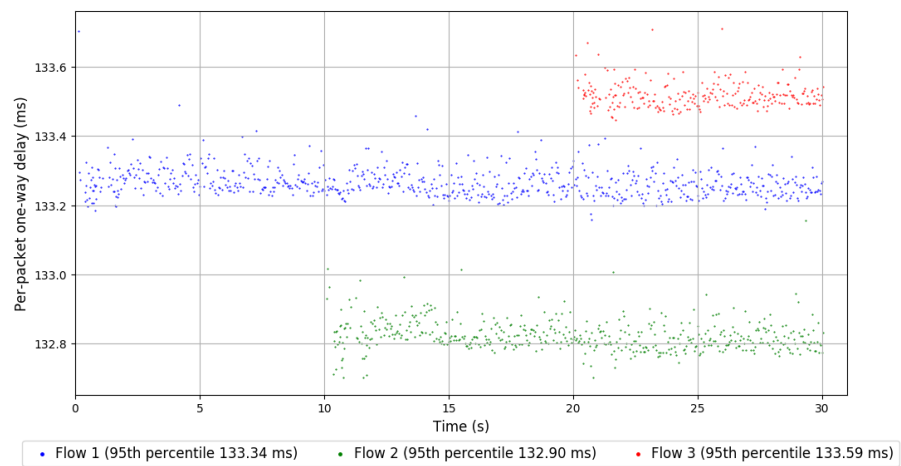
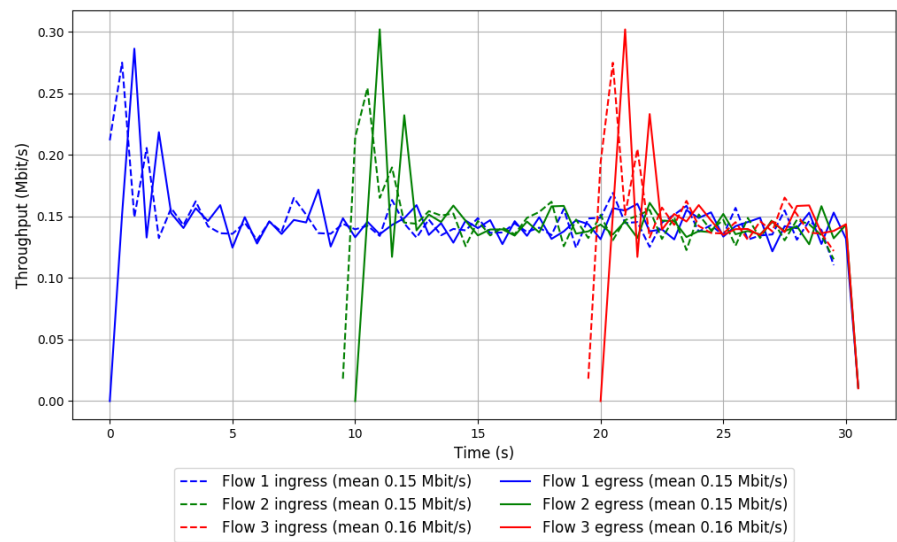


```
Run 1: Statistics of SCReAM

Start at: 2019-02-05 17:21:32
End at: 2019-02-05 17:22:02
Local clock offset: -0.301 ms
Remote clock offset: 0.061 ms

# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.337 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.898 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 133.587 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

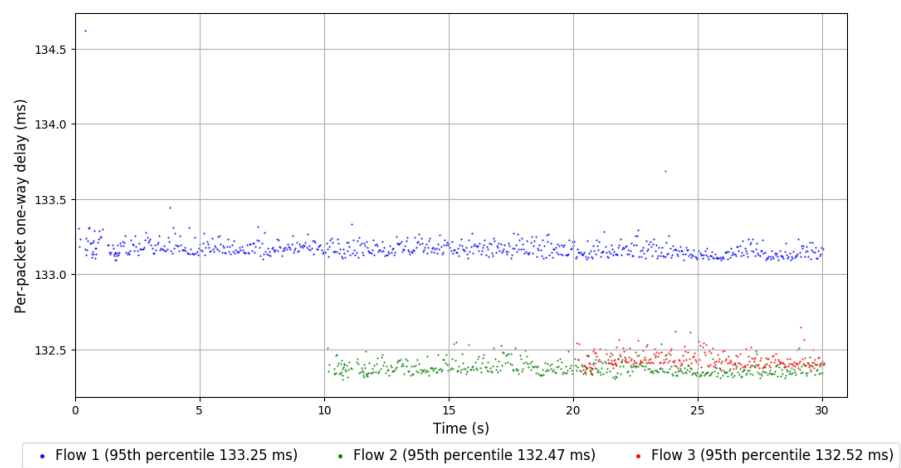
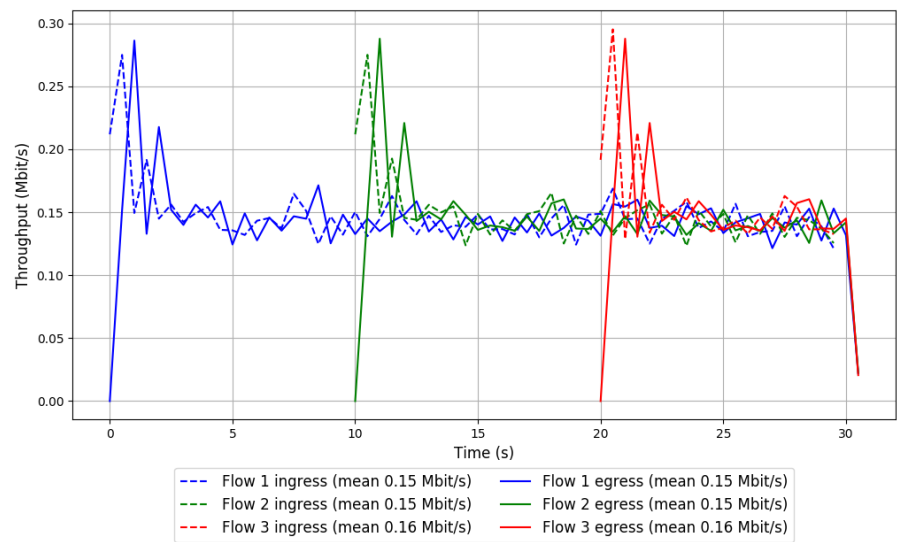


```
Run 2: Statistics of SCReAM

Start at: 2019-02-05 18:00:10
End at: 2019-02-05 18:00:40
Local clock offset: -0.251 ms
Remote clock offset: 0.003 ms

# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.251 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.465 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 132.520 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-02-05 18:39:28

End at: 2019-02-05 18:39:58

Local clock offset: -0.031 ms

Remote clock offset: 0.035 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 133.273 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.664 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.717 ms

Loss rate: 0.00%

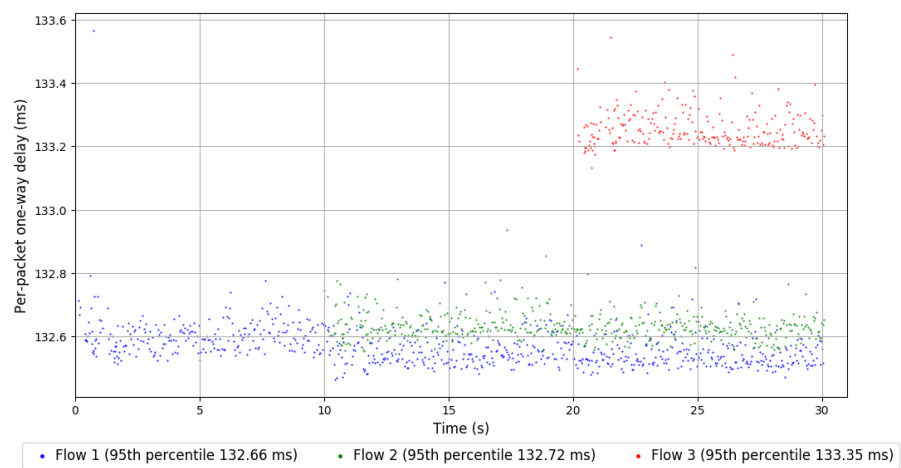
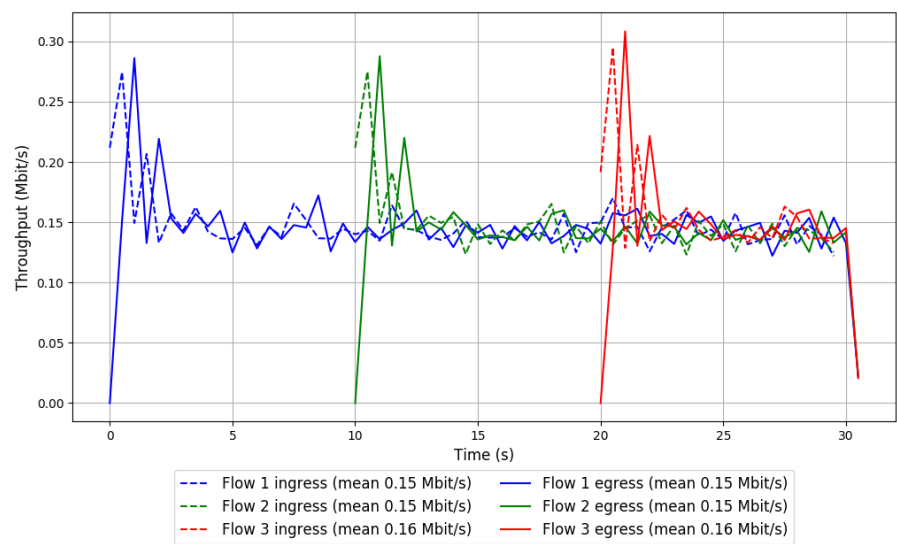
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 133.353 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2019-02-05 19:19:01

End at: 2019-02-05 19:19:31

Local clock offset: 0.378 ms

Remote clock offset: 0.42 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 133.341 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.383 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 132.787 ms

Loss rate: 0.00%

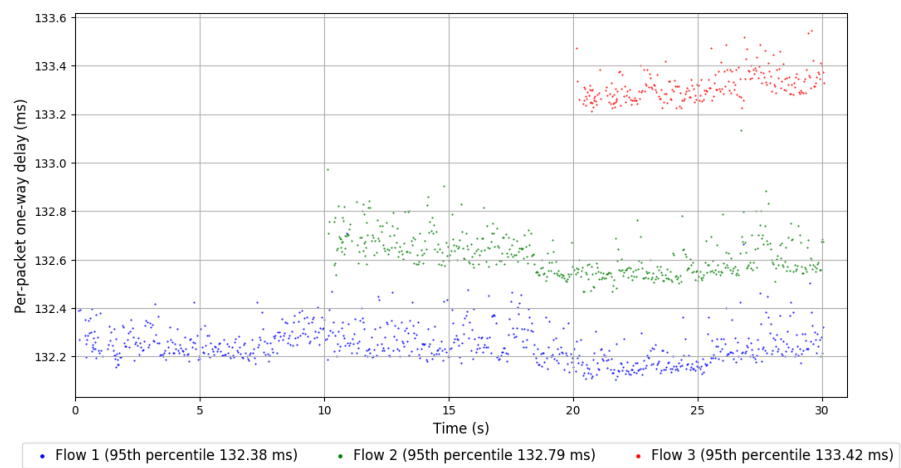
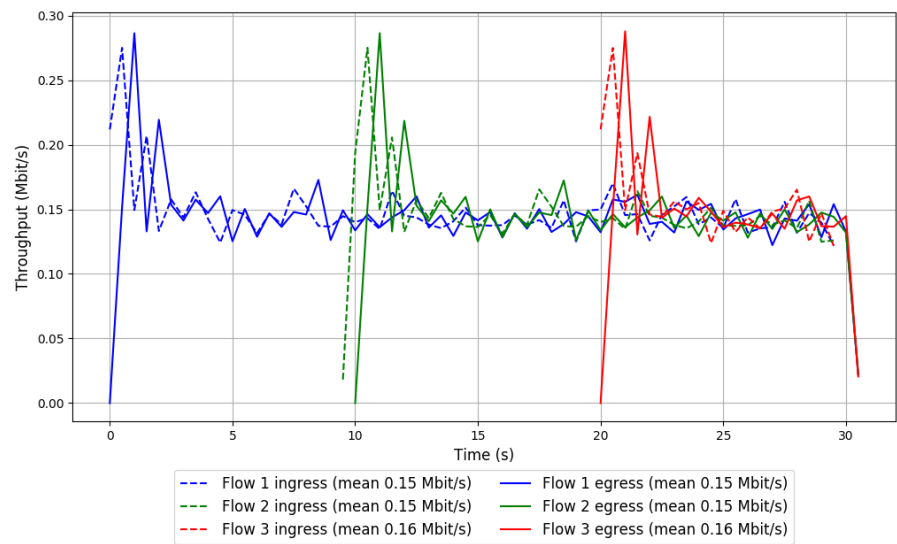
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 133.420 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

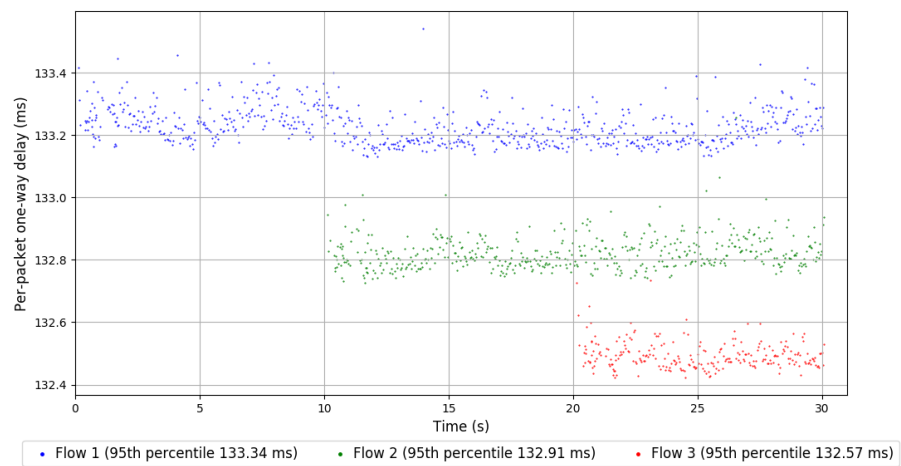
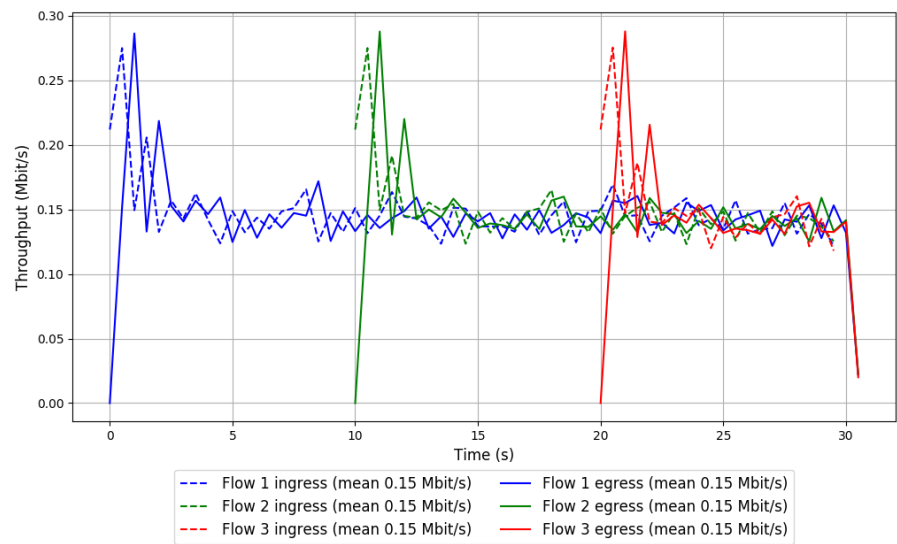


Run 5: Statistics of SCReAM

Start at: 2019-02-05 19:57:07
End at: 2019-02-05 19:57:37
Local clock offset: -0.351 ms
Remote clock offset: -0.094 ms

Below is generated by plot.py at 2019-02-05 23:09:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 133.303 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.341 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.908 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.566 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

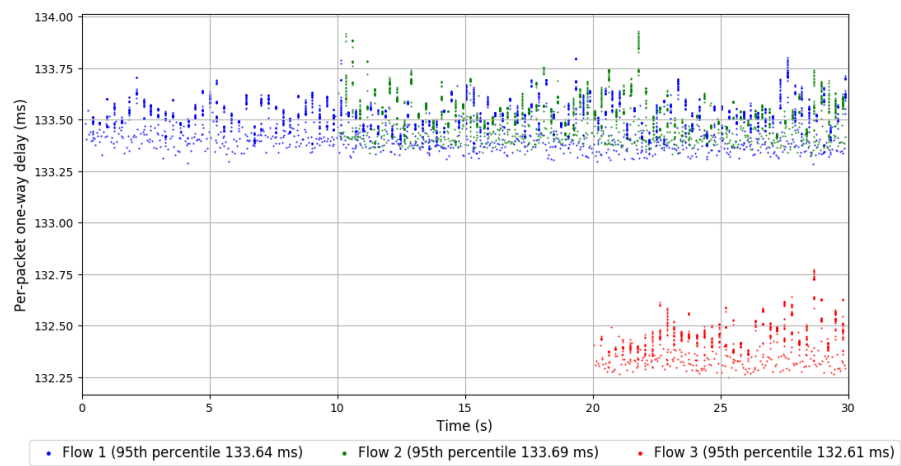
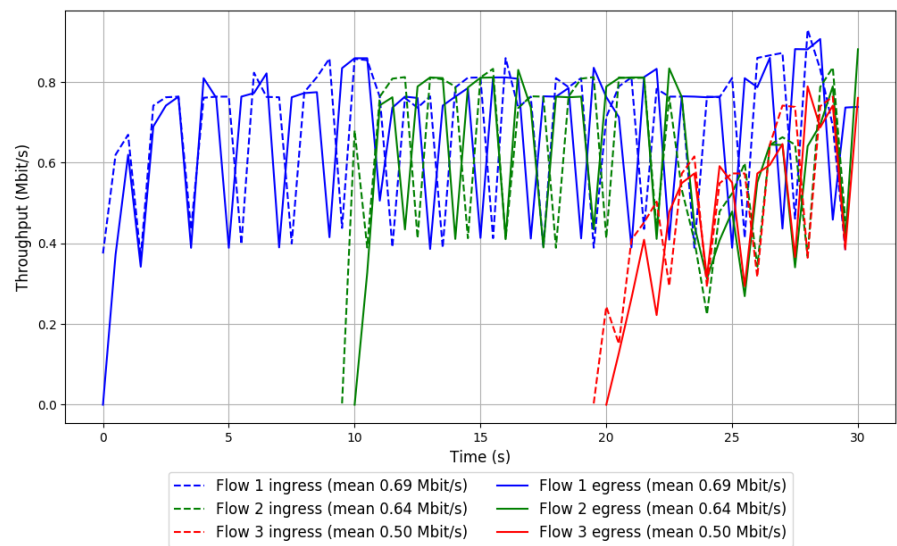


Run 1: Statistics of Sprout

Start at: 2019-02-05 17:38:32
End at: 2019-02-05 17:39:02
Local clock offset: -0.145 ms
Remote clock offset: -0.012 ms

Below is generated by plot.py at 2019-02-05 23:09:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 133.666 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 133.643 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.695 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 132.608 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

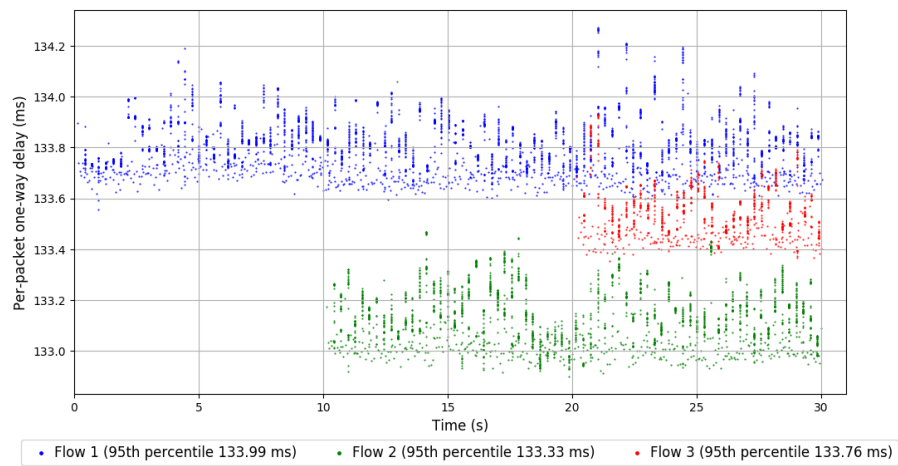
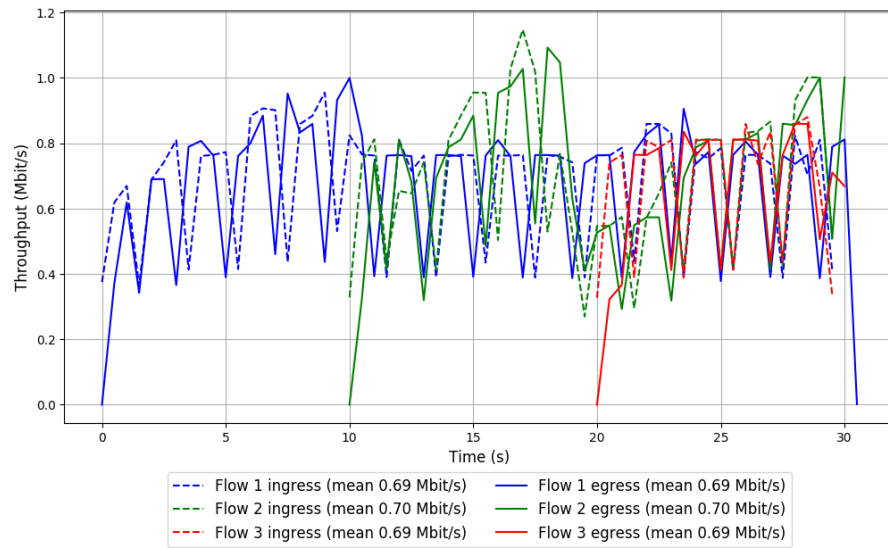


Run 2: Statistics of Sprout

Start at: 2019-02-05 18:17:19
End at: 2019-02-05 18:17:49
Local clock offset: -0.092 ms
Remote clock offset: 0.45 ms

```
# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 133.946 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 133.988 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 133.333 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 133.756 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

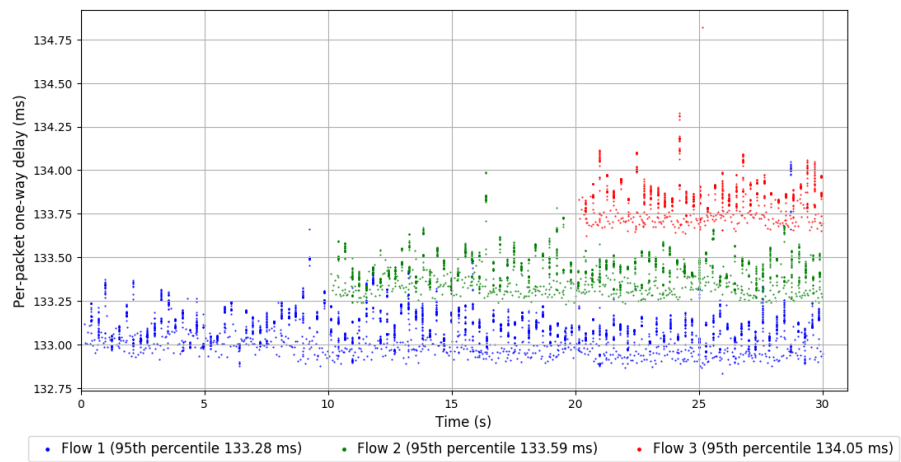
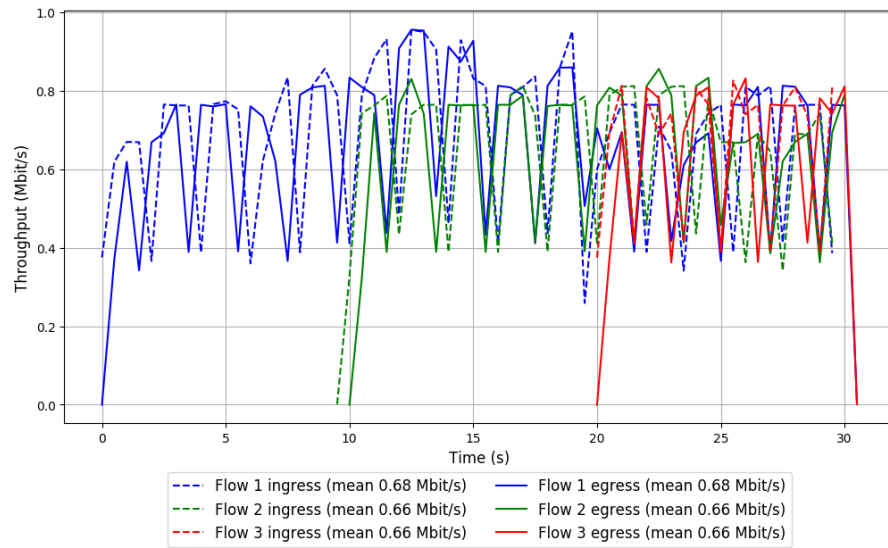


Run 3: Statistics of Sprout

Start at: 2019-02-05 18:56:38
End at: 2019-02-05 18:57:08
Local clock offset: -0.43 ms
Remote clock offset: 0.025 ms

```
# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 133.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 133.283 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 133.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 134.054 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

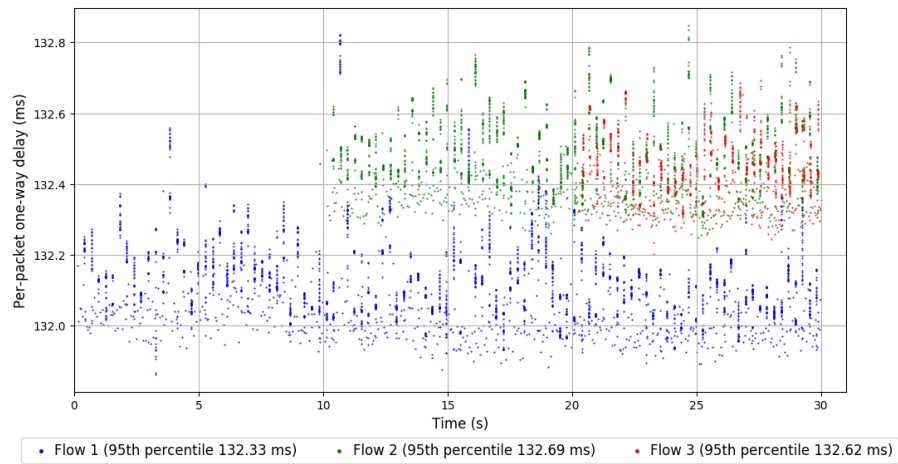
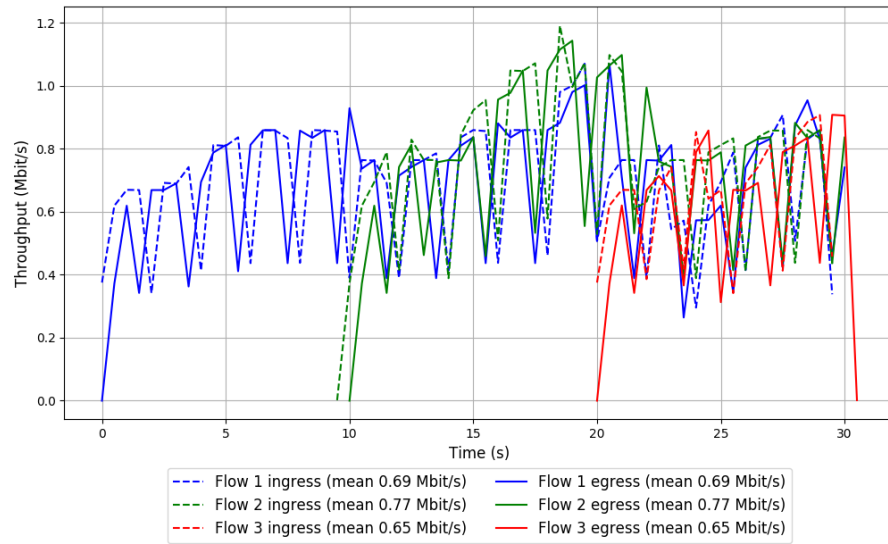


Run 4: Statistics of Sprout

Start at: 2019-02-05 19:35:56
End at: 2019-02-05 19:36:26
Local clock offset: 0.206 ms
Remote clock offset: 0.023 ms

```
# Below is generated by plot.py at 2019-02-05 23:09:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 132.620 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 132.329 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 132.689 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 132.621 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

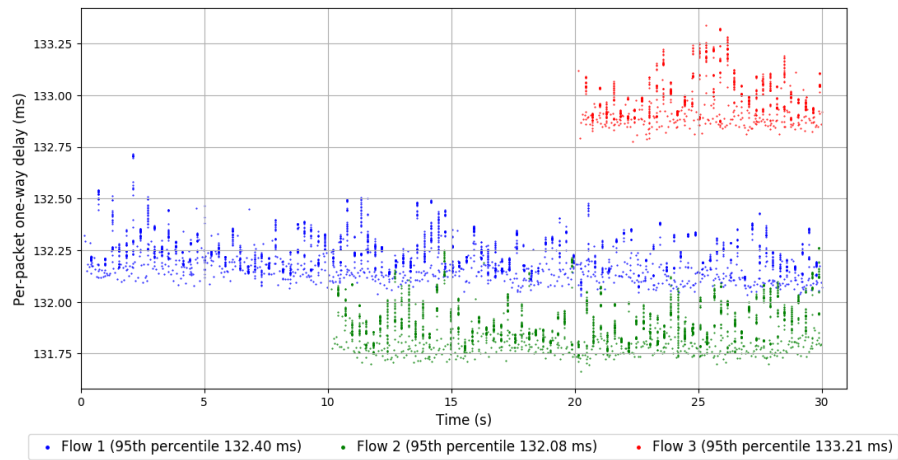
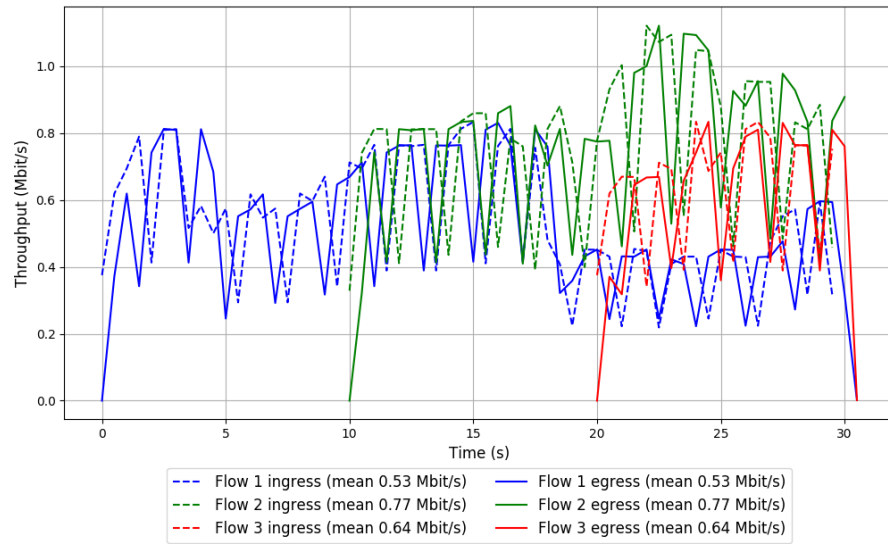


Run 5: Statistics of Sprout

Start at: 2019-02-05 20:14:14
End at: 2019-02-05 20:14:44
Local clock offset: 0.394 ms
Remote clock offset: -0.028 ms

Below is generated by plot.py at 2019-02-05 23:09:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 133.033 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 132.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 132.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 133.214 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

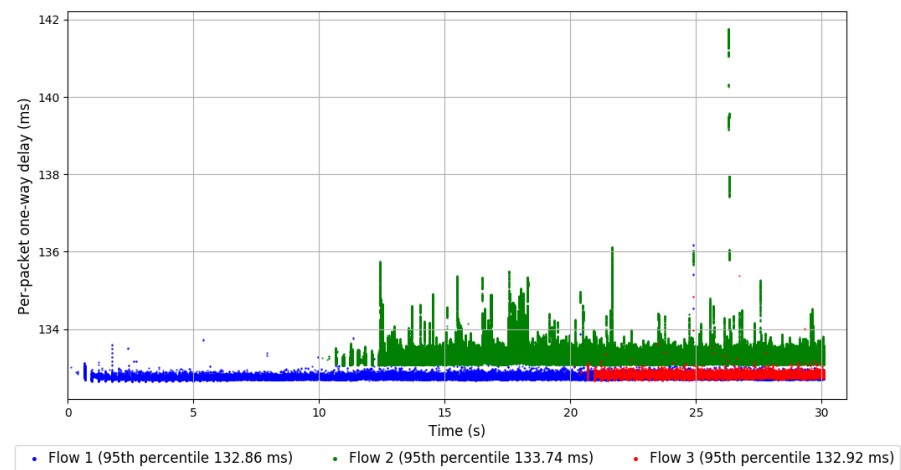
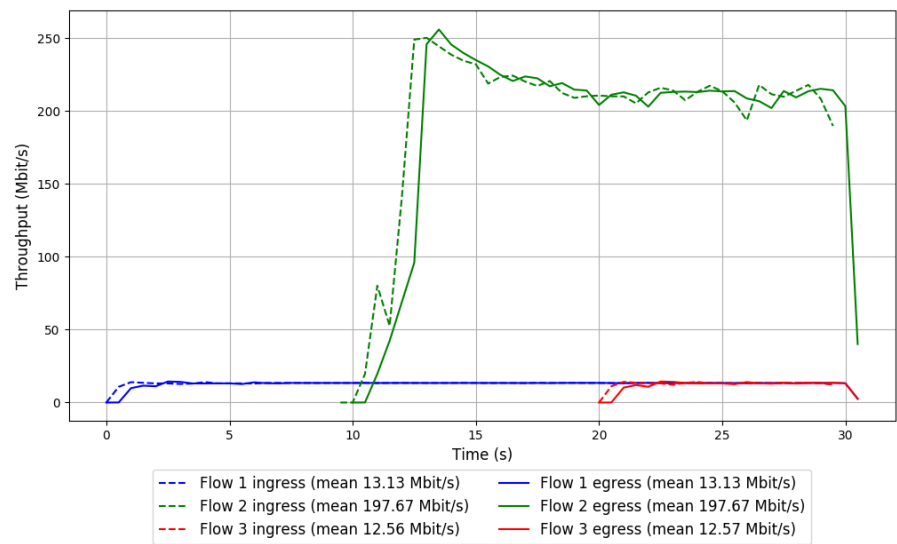


Run 1: Statistics of TaoVA-100x

Start at: 2019-02-05 17:46:03
End at: 2019-02-05 17:46:33
Local clock offset: 0.005 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-02-05 23:09:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 149.02 Mbit/s
95th percentile per-packet one-way delay: 133.692 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 132.864 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 197.67 Mbit/s
95th percentile per-packet one-way delay: 133.744 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.57 Mbit/s
95th percentile per-packet one-way delay: 132.916 ms
Loss rate: 0.00%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-02-05 18:24:56

End at: 2019-02-05 18:25:26

Local clock offset: 0.331 ms

Remote clock offset: 0.086 ms

Below is generated by plot.py at 2019-02-05 23:09:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 199.21 Mbit/s

95th percentile per-packet one-way delay: 133.210 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.12 Mbit/s

95th percentile per-packet one-way delay: 132.946 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.14 Mbit/s

95th percentile per-packet one-way delay: 133.315 ms

Loss rate: 0.00%

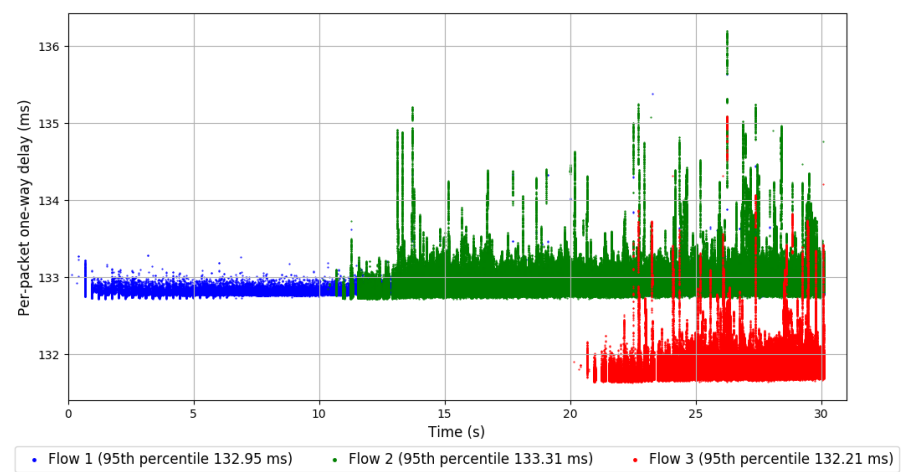
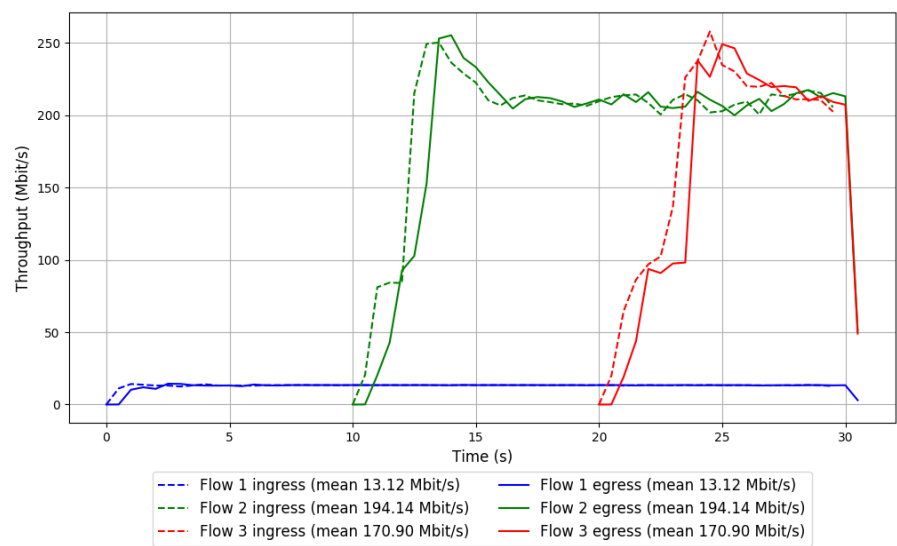
-- Flow 3:

Average throughput: 170.90 Mbit/s

95th percentile per-packet one-way delay: 132.210 ms

Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-02-05 19:04:13

End at: 2019-02-05 19:04:43

Local clock offset: -0.014 ms

Remote clock offset: 0.013 ms

Below is generated by plot.py at 2019-02-05 23:10:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 317.86 Mbit/s

95th percentile per-packet one-way delay: 134.156 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 196.02 Mbit/s

95th percentile per-packet one-way delay: 133.420 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 176.51 Mbit/s

95th percentile per-packet one-way delay: 135.280 ms

Loss rate: 0.00%

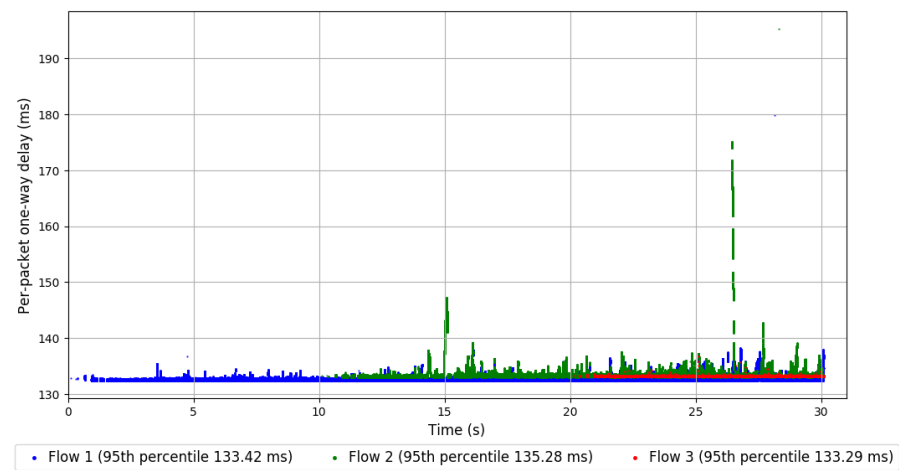
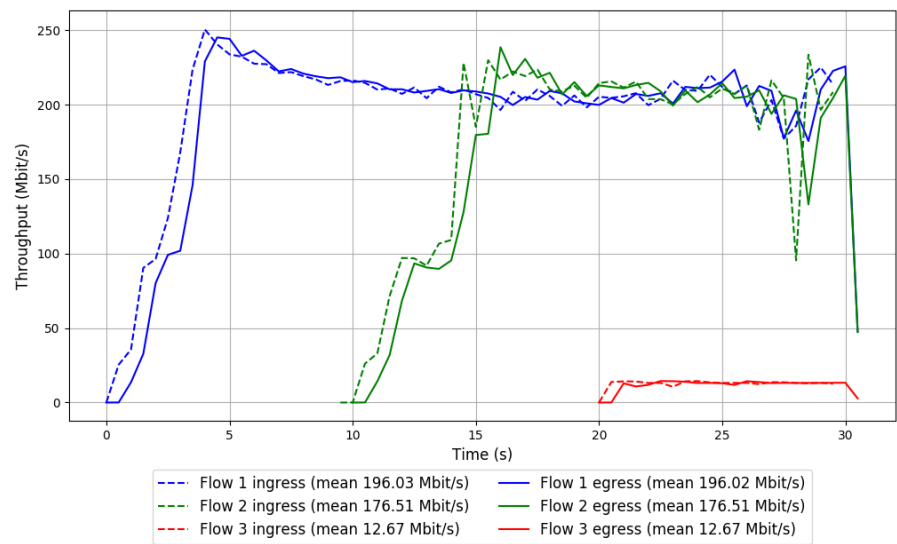
-- Flow 3:

Average throughput: 12.67 Mbit/s

95th percentile per-packet one-way delay: 133.291 ms

Loss rate: 0.00%

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

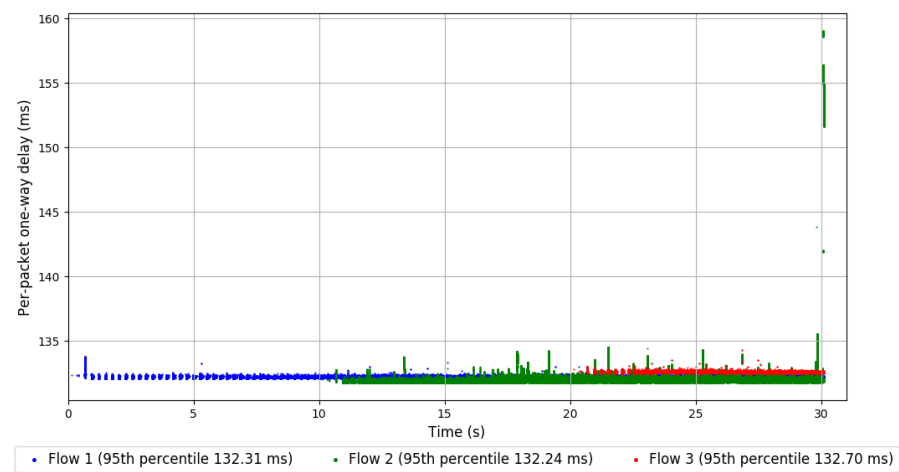
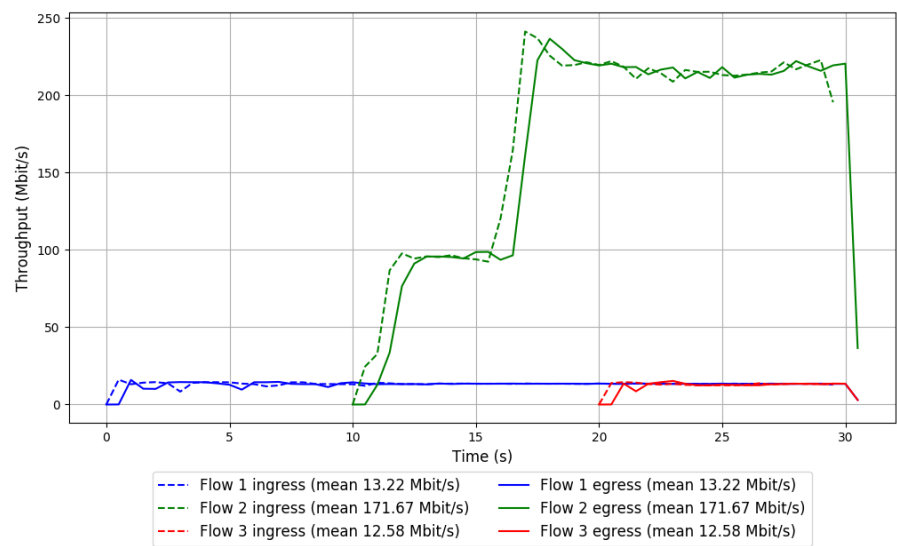


Run 4: Statistics of TaoVA-100x

Start at: 2019-02-05 19:43:26
End at: 2019-02-05 19:43:56
Local clock offset: -0.167 ms
Remote clock offset: -0.397 ms

Below is generated by plot.py at 2019-02-05 23:10:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 131.75 Mbit/s
95th percentile per-packet one-way delay: 132.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.22 Mbit/s
95th percentile per-packet one-way delay: 132.311 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 171.67 Mbit/s
95th percentile per-packet one-way delay: 132.243 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.58 Mbit/s
95th percentile per-packet one-way delay: 132.697 ms
Loss rate: 0.00%

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

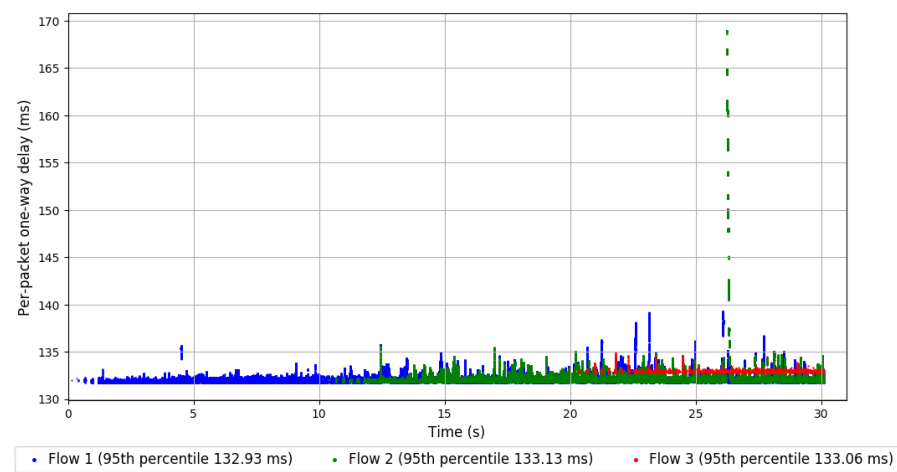
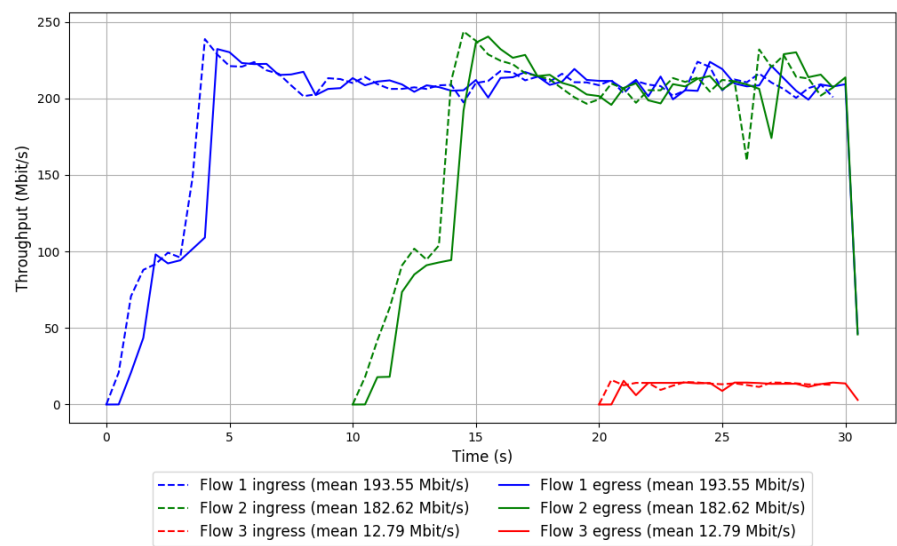


Run 5: Statistics of TaoVA-100x

Start at: 2019-02-05 20:21:42
End at: 2019-02-05 20:22:12
Local clock offset: 0.235 ms
Remote clock offset: -0.006 ms

Below is generated by plot.py at 2019-02-05 23:14:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 319.44 Mbit/s
95th percentile per-packet one-way delay: 133.020 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 193.55 Mbit/s
95th percentile per-packet one-way delay: 132.932 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 182.62 Mbit/s
95th percentile per-packet one-way delay: 133.135 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.79 Mbit/s
95th percentile per-packet one-way delay: 133.064 ms
Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 17:28:55

End at: 2019-02-05 17:29:25

Local clock offset: -0.236 ms

Remote clock offset: 0.141 ms

Below is generated by plot.py at 2019-02-05 23:15:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 581.68 Mbit/s

95th percentile per-packet one-way delay: 171.859 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 291.80 Mbit/s

95th percentile per-packet one-way delay: 180.770 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 312.15 Mbit/s

95th percentile per-packet one-way delay: 166.003 ms

Loss rate: 0.40%

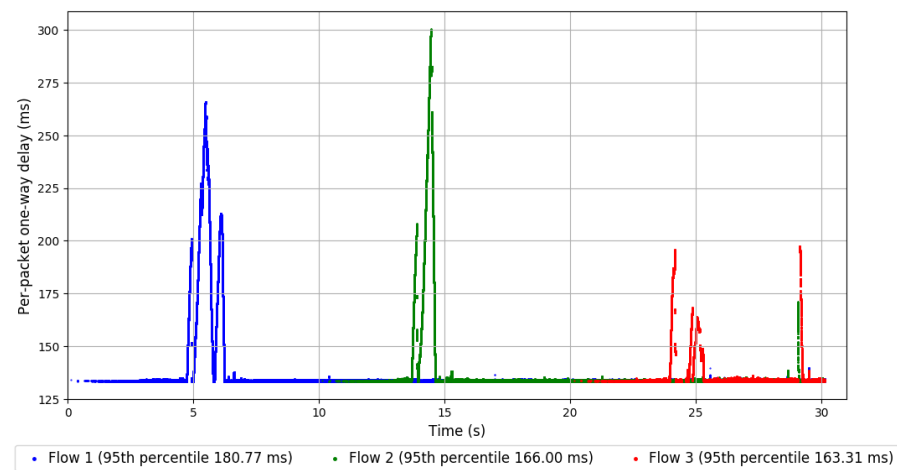
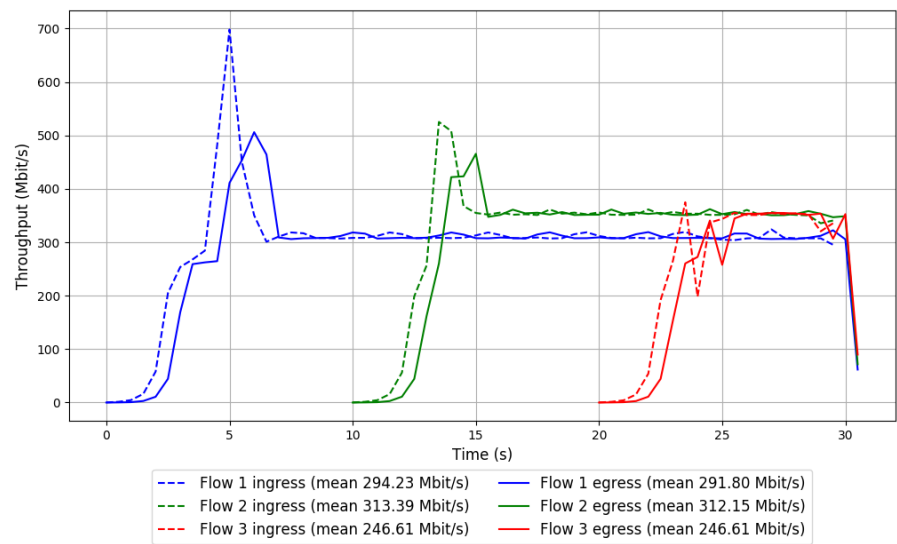
-- Flow 3:

Average throughput: 246.61 Mbit/s

95th percentile per-packet one-way delay: 163.309 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 18:07:42

End at: 2019-02-05 18:08:12

Local clock offset: -0.035 ms

Remote clock offset: 0.077 ms

Below is generated by plot.py at 2019-02-05 23:18:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 631.33 Mbit/s

95th percentile per-packet one-way delay: 180.043 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 339.59 Mbit/s

95th percentile per-packet one-way delay: 184.692 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 314.49 Mbit/s

95th percentile per-packet one-way delay: 178.444 ms

Loss rate: 0.06%

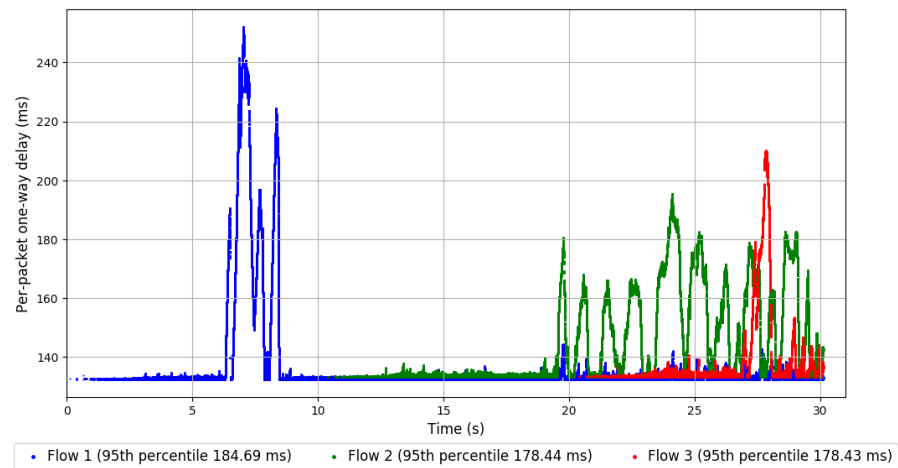
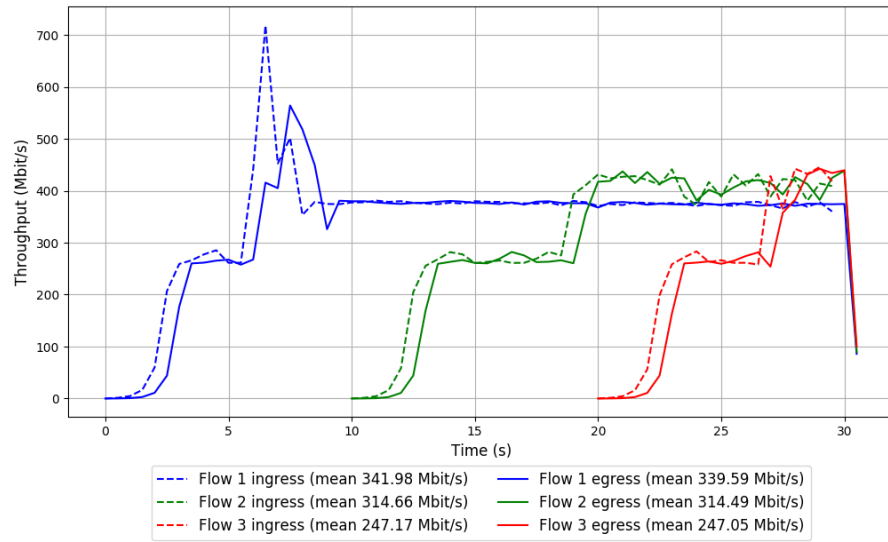
-- Flow 3:

Average throughput: 247.05 Mbit/s

95th percentile per-packet one-way delay: 178.430 ms

Loss rate: 0.05%

Run 2: Report of TCP Vegas — Data Link

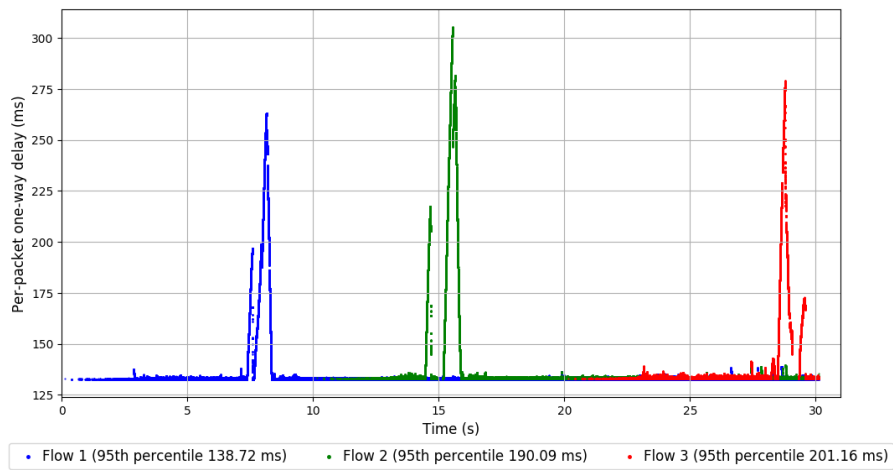
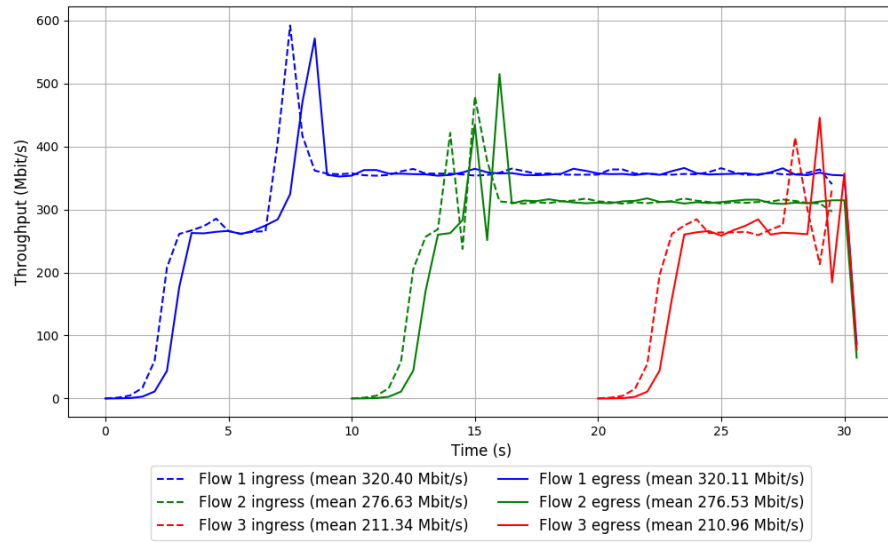


Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 18:47:05
End at: 2019-02-05 18:47:35
Local clock offset: -0.17 ms
Remote clock offset: -0.013 ms

Below is generated by plot.py at 2019-02-05 23:18:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 574.35 Mbit/s
95th percentile per-packet one-way delay: 167.770 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 320.11 Mbit/s
95th percentile per-packet one-way delay: 138.715 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 276.53 Mbit/s
95th percentile per-packet one-way delay: 190.086 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 210.96 Mbit/s
95th percentile per-packet one-way delay: 201.158 ms
Loss rate: 0.17%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 19:26:30

End at: 2019-02-05 19:27:00

Local clock offset: -0.421 ms

Remote clock offset: 0.134 ms

Below is generated by plot.py at 2019-02-05 23:21:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 620.58 Mbit/s

95th percentile per-packet one-way delay: 196.872 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 335.63 Mbit/s

95th percentile per-packet one-way delay: 182.689 ms

Loss rate: 1.95%

-- Flow 2:

Average throughput: 311.06 Mbit/s

95th percentile per-packet one-way delay: 177.383 ms

Loss rate: 0.17%

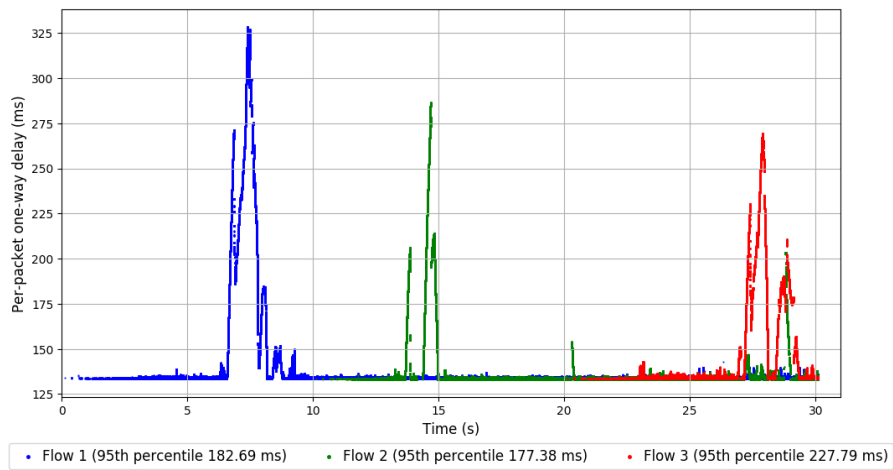
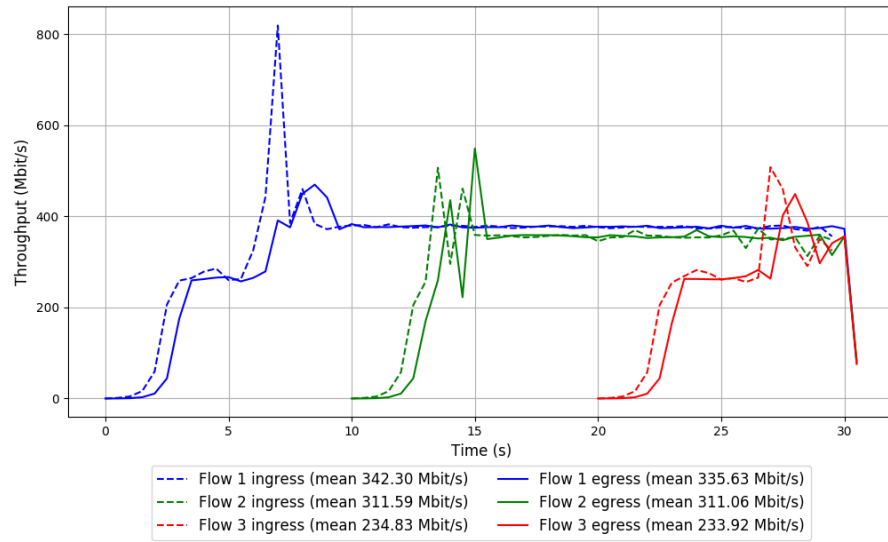
-- Flow 3:

Average throughput: 233.92 Mbit/s

95th percentile per-packet one-way delay: 227.794 ms

Loss rate: 0.38%

Run 4: Report of TCP Vegas — Data Link

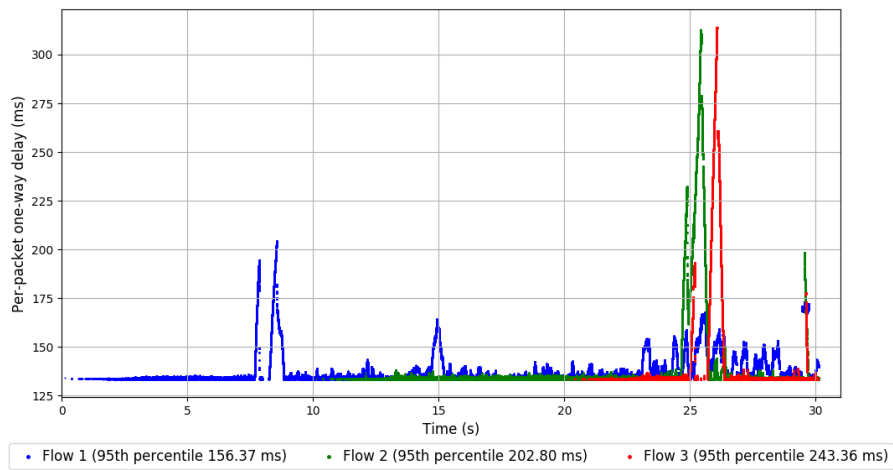
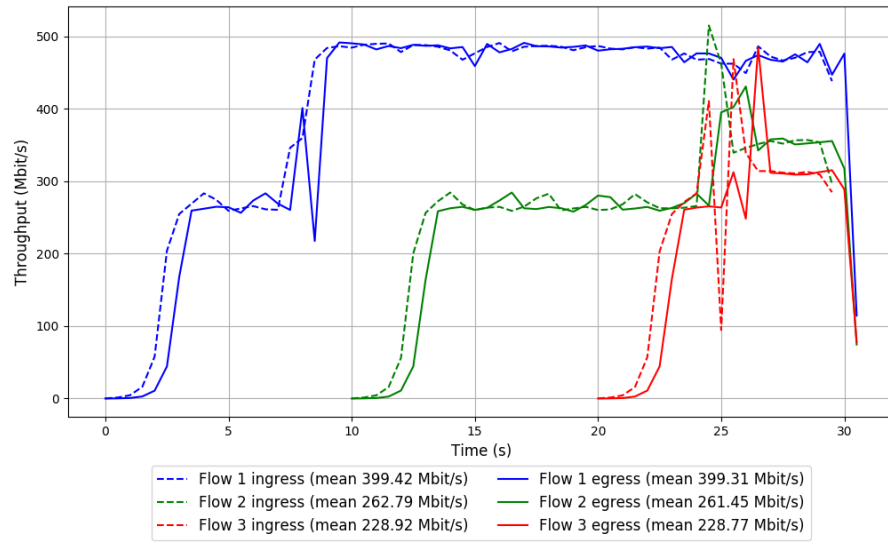


Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 20:04:41
End at: 2019-02-05 20:05:11
Local clock offset: -0.38 ms
Remote clock offset: -0.046 ms

Below is generated by plot.py at 2019-02-05 23:23:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 649.51 Mbit/s
95th percentile per-packet one-way delay: 169.020 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 399.31 Mbit/s
95th percentile per-packet one-way delay: 156.365 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 261.45 Mbit/s
95th percentile per-packet one-way delay: 202.797 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 228.77 Mbit/s
95th percentile per-packet one-way delay: 243.364 ms
Loss rate: 0.07%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-02-05 17:17:58

End at: 2019-02-05 17:18:28

Local clock offset: 0.144 ms

Remote clock offset: 0.145 ms

Below is generated by plot.py at 2019-02-05 23:23:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 159.97 Mbit/s

95th percentile per-packet one-way delay: 221.322 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 132.15 Mbit/s

95th percentile per-packet one-way delay: 225.585 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 27.38 Mbit/s

95th percentile per-packet one-way delay: 138.287 ms

Loss rate: 0.00%

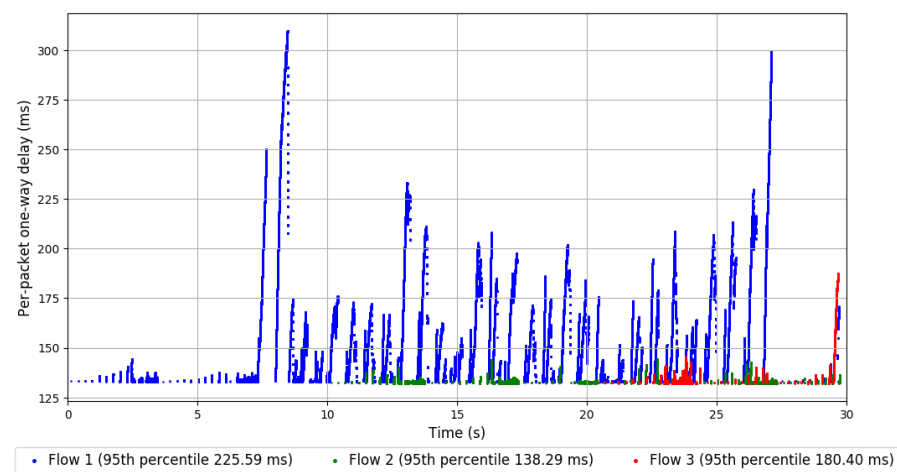
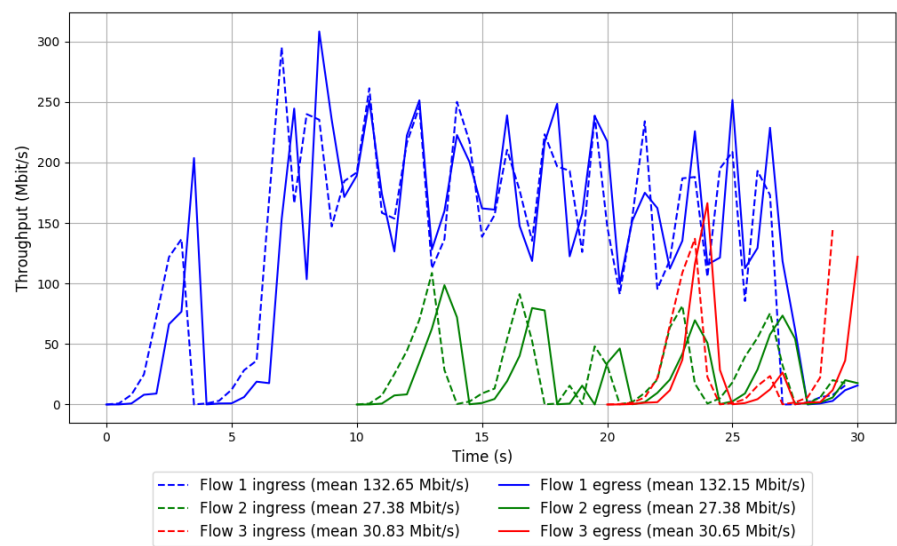
-- Flow 3:

Average throughput: 30.65 Mbit/s

95th percentile per-packet one-way delay: 180.399 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-02-05 17:56:34

End at: 2019-02-05 17:57:04

Local clock offset: -0.42 ms

Remote clock offset: 0.008 ms

Below is generated by plot.py at 2019-02-05 23:23:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.56 Mbit/s

95th percentile per-packet one-way delay: 321.879 ms

Loss rate: 8.24%

-- Flow 1:

Average throughput: 39.50 Mbit/s

95th percentile per-packet one-way delay: 242.595 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 138.10 Mbit/s

95th percentile per-packet one-way delay: 322.505 ms

Loss rate: 10.86%

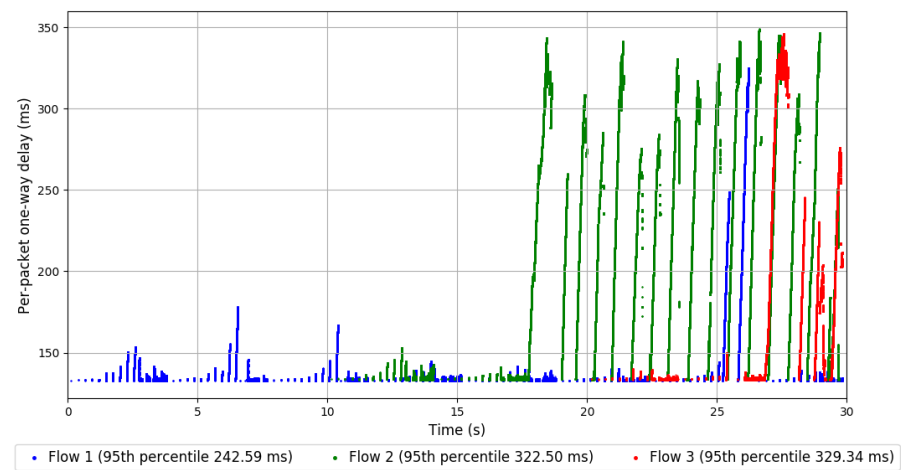
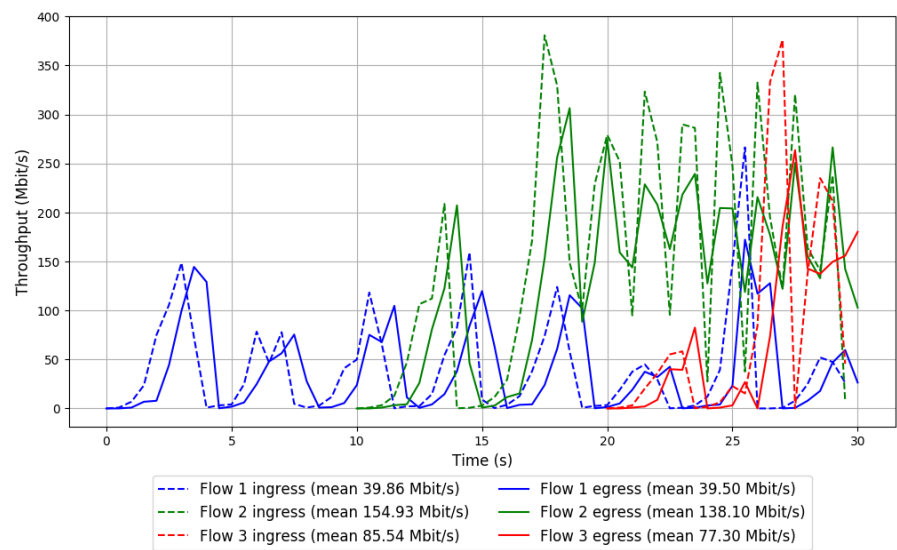
-- Flow 3:

Average throughput: 77.30 Mbit/s

95th percentile per-packet one-way delay: 329.343 ms

Loss rate: 9.12%

Run 2: Report of Verus — Data Link

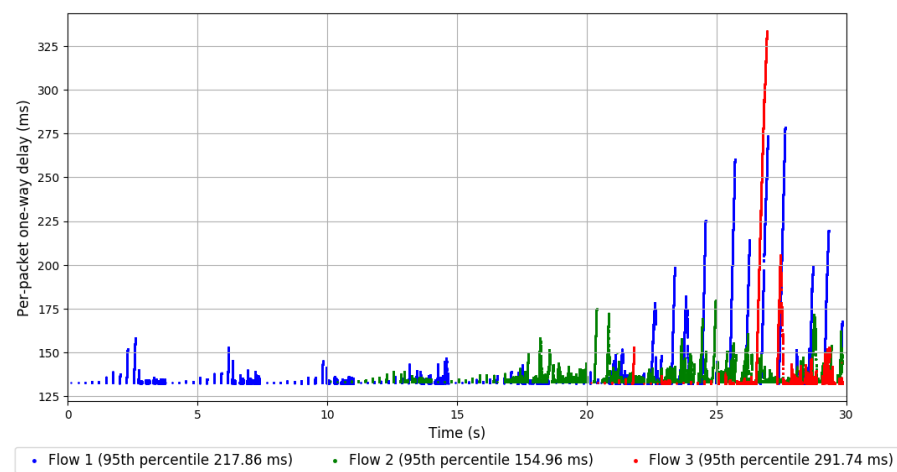
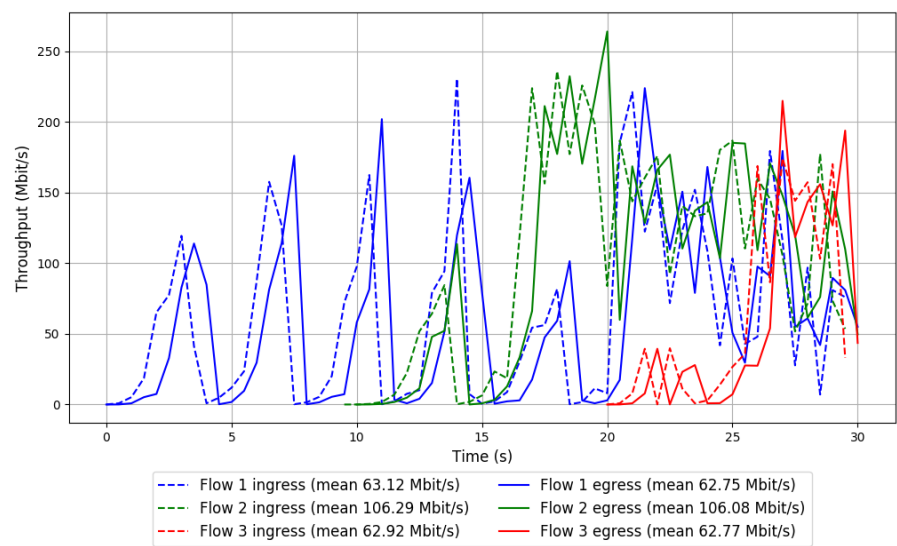


Run 3: Statistics of Verus

Start at: 2019-02-05 18:35:55
End at: 2019-02-05 18:36:25
Local clock offset: -0.014 ms
Remote clock offset: 0.003 ms

Below is generated by plot.py at 2019-02-05 23:23:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 153.55 Mbit/s
95th percentile per-packet one-way delay: 199.655 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 62.75 Mbit/s
95th percentile per-packet one-way delay: 217.863 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 106.08 Mbit/s
95th percentile per-packet one-way delay: 154.963 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 62.77 Mbit/s
95th percentile per-packet one-way delay: 291.737 ms
Loss rate: 0.24%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-02-05 19:15:02

End at: 2019-02-05 19:15:32

Local clock offset: 0.215 ms

Remote clock offset: 0.134 ms

Below is generated by plot.py at 2019-02-05 23:26:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 228.52 Mbit/s

95th percentile per-packet one-way delay: 323.538 ms

Loss rate: 6.32%

-- Flow 1:

Average throughput: 123.12 Mbit/s

95th percentile per-packet one-way delay: 201.797 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 149.66 Mbit/s

95th percentile per-packet one-way delay: 336.696 ms

Loss rate: 13.48%

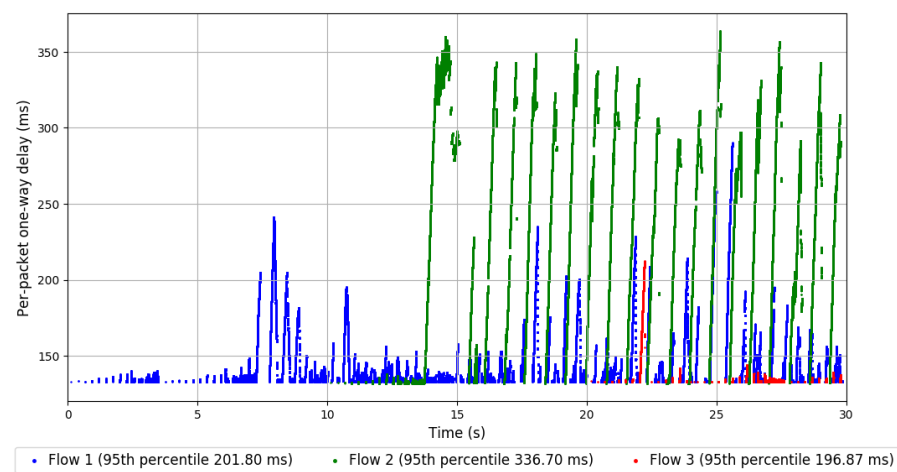
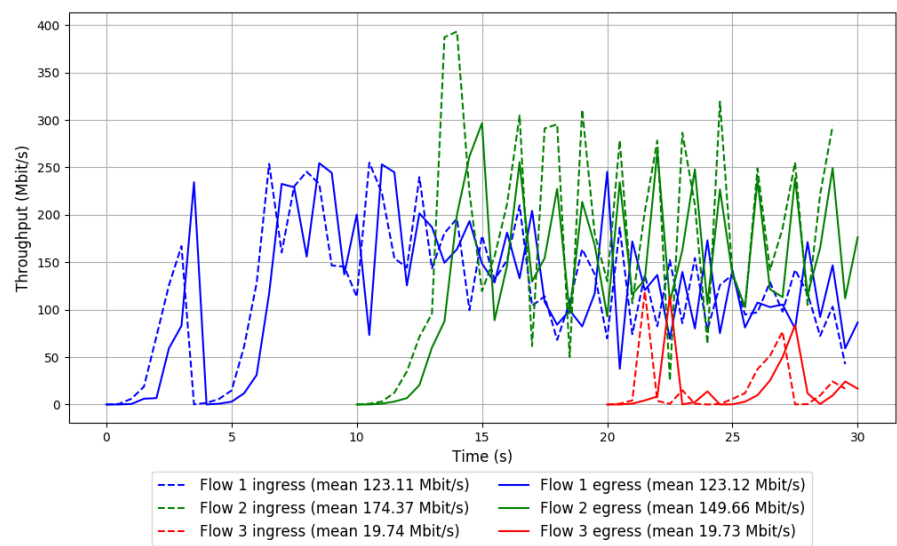
-- Flow 3:

Average throughput: 19.73 Mbit/s

95th percentile per-packet one-way delay: 196.871 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link

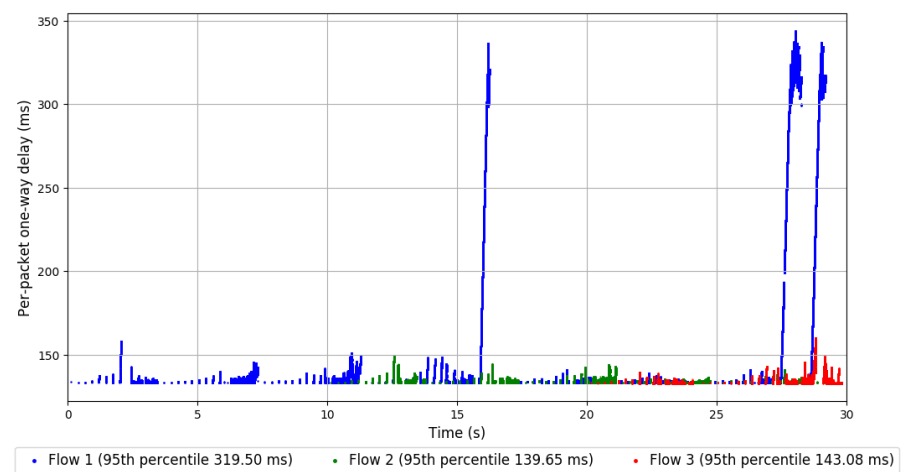
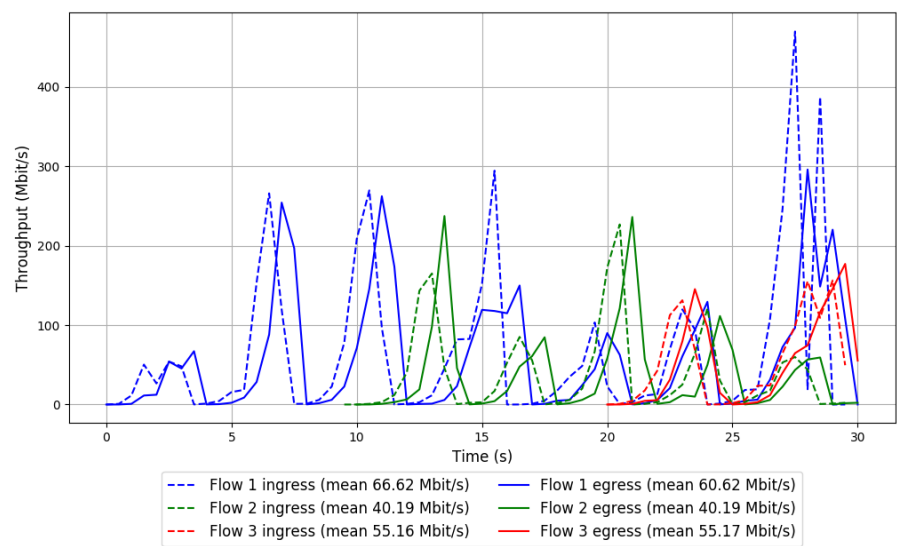


Run 5: Statistics of Verus

Start at: 2019-02-05 19:53:49
End at: 2019-02-05 19:54:19
Local clock offset: -0.177 ms
Remote clock offset: -0.061 ms

Below is generated by plot.py at 2019-02-05 23:26:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 104.86 Mbit/s
95th percentile per-packet one-way delay: 312.634 ms
Loss rate: 5.40%
-- Flow 1:
Average throughput: 60.62 Mbit/s
95th percentile per-packet one-way delay: 319.499 ms
Loss rate: 9.01%
-- Flow 2:
Average throughput: 40.19 Mbit/s
95th percentile per-packet one-way delay: 139.650 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 55.17 Mbit/s
95th percentile per-packet one-way delay: 143.076 ms
Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 17:19:36

End at: 2019-02-05 17:20:06

Local clock offset: -0.069 ms

Remote clock offset: 0.075 ms

Below is generated by plot.py at 2019-02-05 23:27:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 442.05 Mbit/s

95th percentile per-packet one-way delay: 190.514 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 283.84 Mbit/s

95th percentile per-packet one-way delay: 227.223 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 178.86 Mbit/s

95th percentile per-packet one-way delay: 134.090 ms

Loss rate: 0.00%

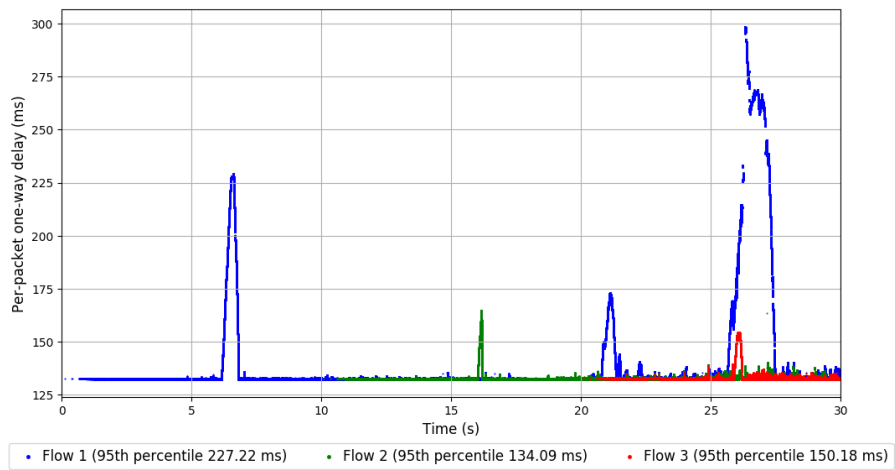
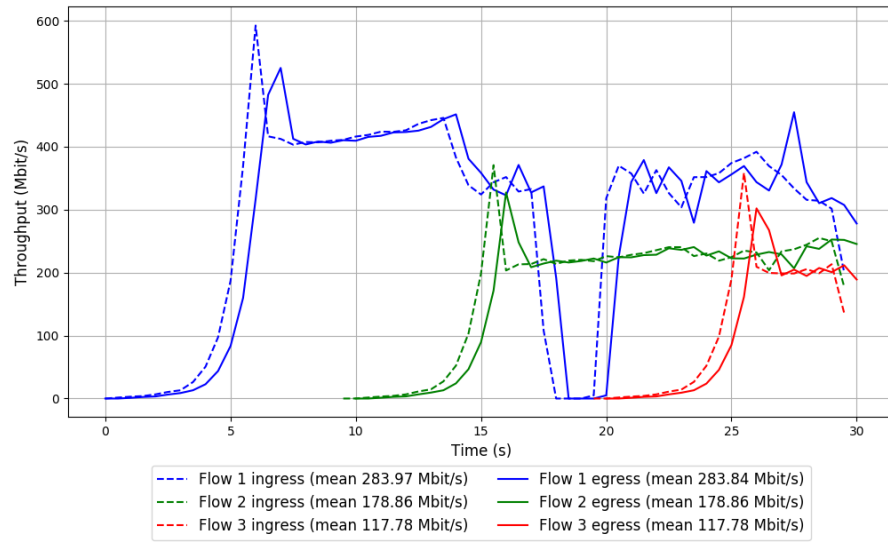
-- Flow 3:

Average throughput: 117.78 Mbit/s

95th percentile per-packet one-way delay: 150.182 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 17:58:15

End at: 2019-02-05 17:58:45

Local clock offset: -0.409 ms

Remote clock offset: 0.017 ms

Below is generated by plot.py at 2019-02-05 23:27:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.32 Mbit/s

95th percentile per-packet one-way delay: 151.120 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 280.83 Mbit/s

95th percentile per-packet one-way delay: 157.685 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 171.70 Mbit/s

95th percentile per-packet one-way delay: 135.452 ms

Loss rate: 0.00%

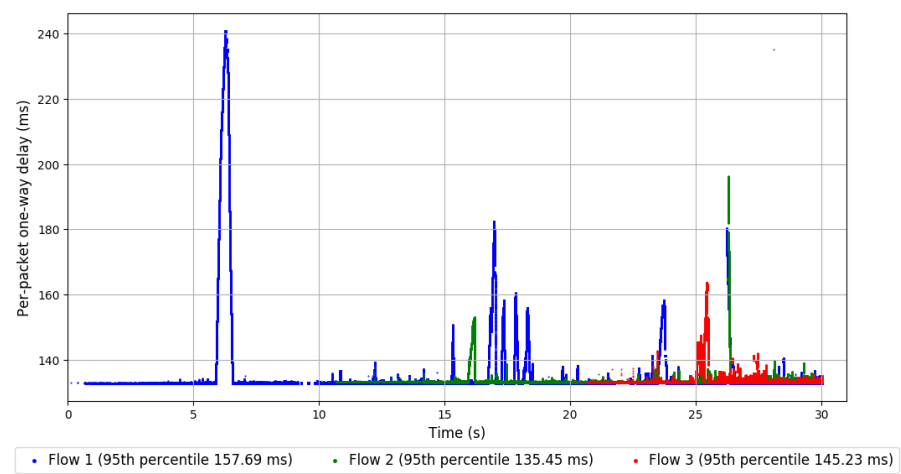
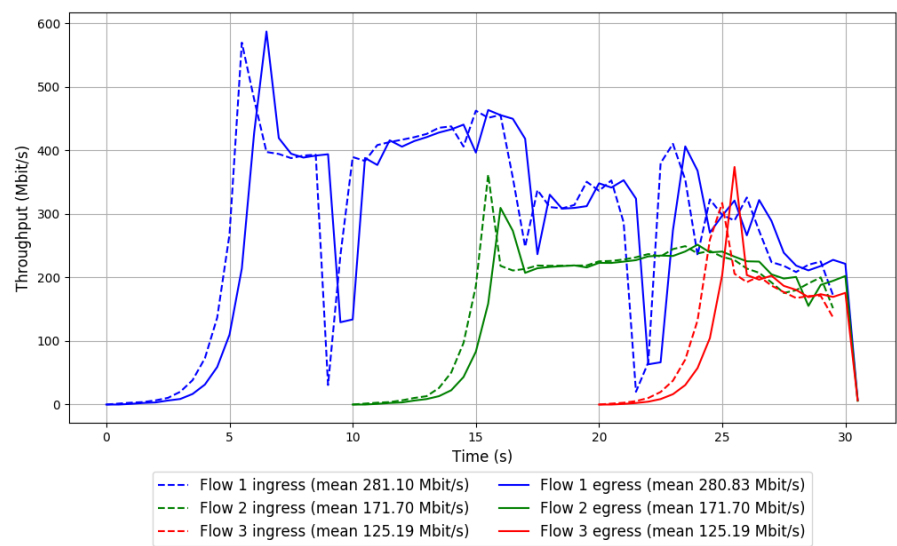
-- Flow 3:

Average throughput: 125.19 Mbit/s

95th percentile per-packet one-way delay: 145.231 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 18:37:32

End at: 2019-02-05 18:38:02

Local clock offset: -0.451 ms

Remote clock offset: 0.019 ms

Below is generated by plot.py at 2019-02-05 23:27:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.50 Mbit/s

95th percentile per-packet one-way delay: 147.883 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 273.25 Mbit/s

95th percentile per-packet one-way delay: 161.569 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 201.91 Mbit/s

95th percentile per-packet one-way delay: 138.315 ms

Loss rate: 0.00%

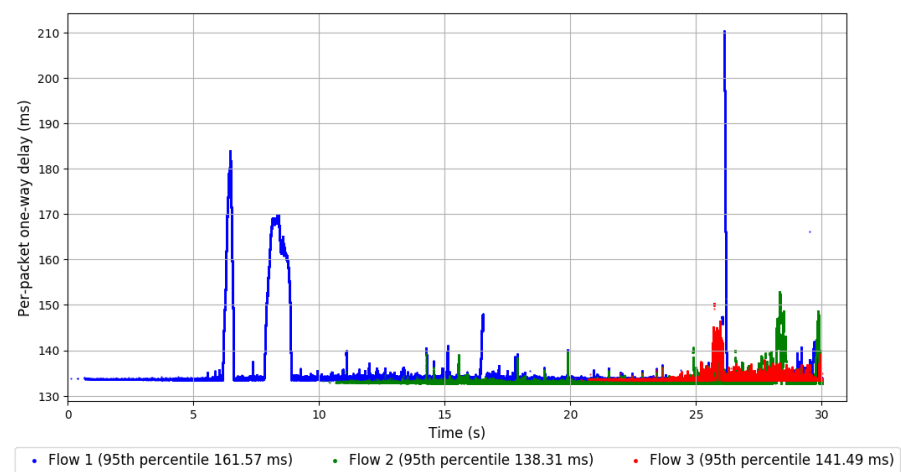
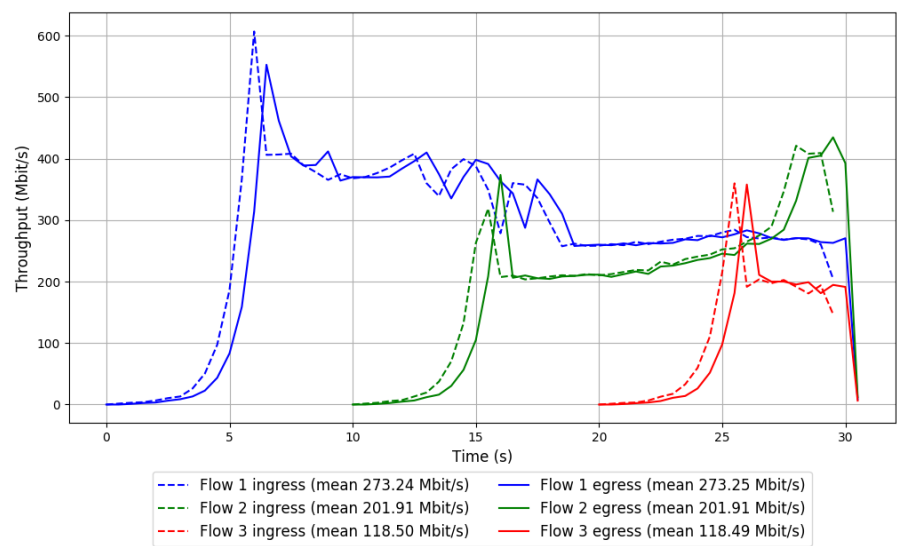
-- Flow 3:

Average throughput: 118.49 Mbit/s

95th percentile per-packet one-way delay: 141.488 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 19:17:00

End at: 2019-02-05 19:17:30

Local clock offset: 0.088 ms

Remote clock offset: -0.21 ms

Below is generated by plot.py at 2019-02-05 23:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 501.27 Mbit/s

95th percentile per-packet one-way delay: 172.124 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 286.72 Mbit/s

95th percentile per-packet one-way delay: 152.611 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 261.36 Mbit/s

95th percentile per-packet one-way delay: 180.748 ms

Loss rate: 0.02%

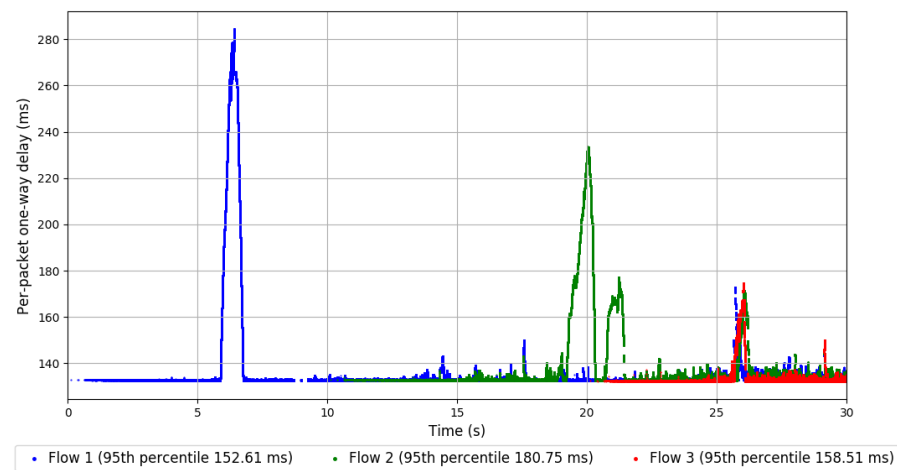
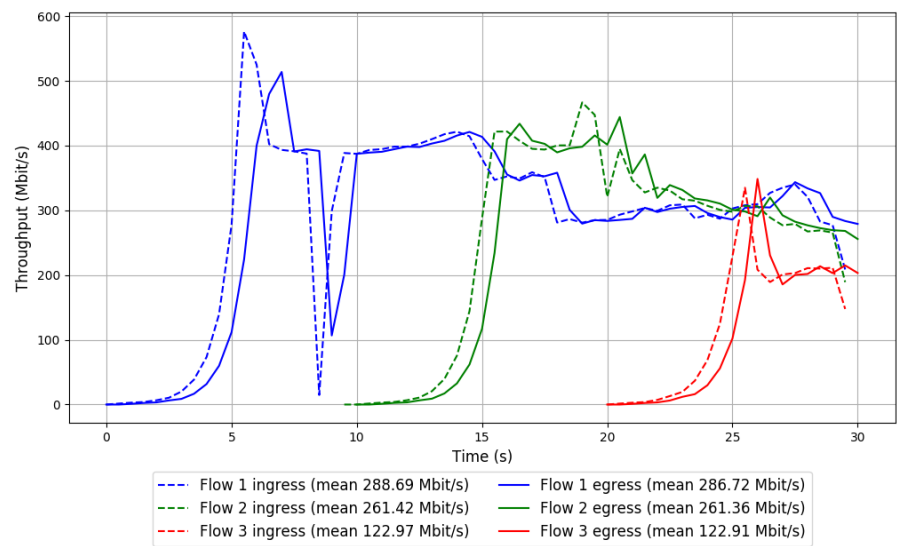
-- Flow 3:

Average throughput: 122.91 Mbit/s

95th percentile per-packet one-way delay: 158.508 ms

Loss rate: 0.04%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 19:55:21

End at: 2019-02-05 19:55:51

Local clock offset: 0.413 ms

Remote clock offset: 0.319 ms

Below is generated by plot.py at 2019-02-05 23:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 307.59 Mbit/s

95th percentile per-packet one-way delay: 189.784 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 141.22 Mbit/s

95th percentile per-packet one-way delay: 135.147 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 190.76 Mbit/s

95th percentile per-packet one-way delay: 286.789 ms

Loss rate: 2.79%

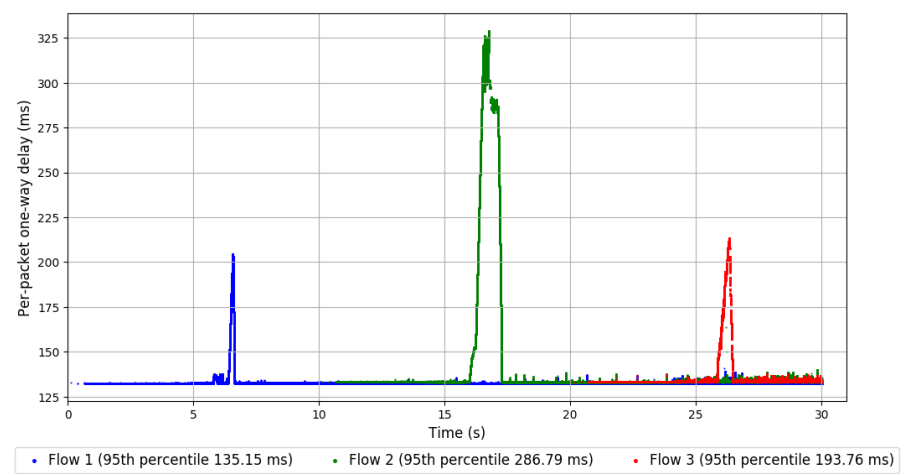
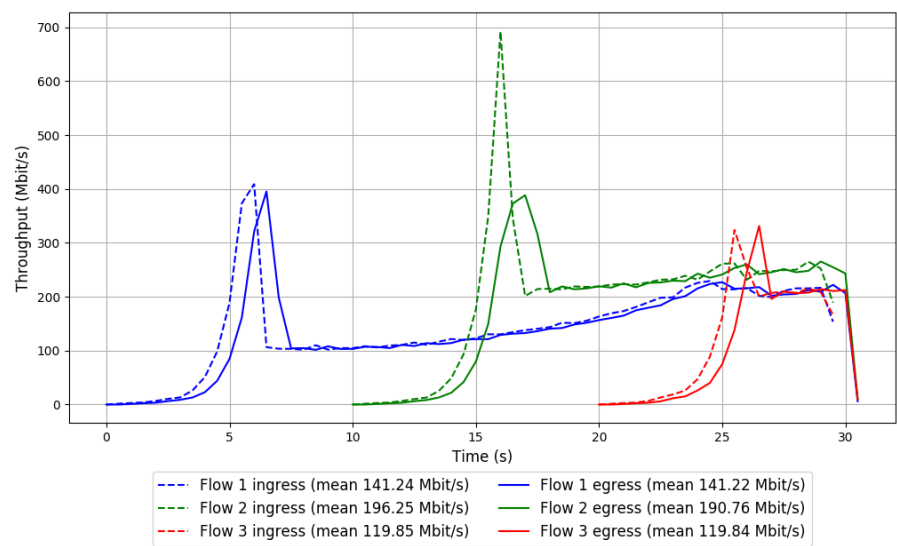
-- Flow 3:

Average throughput: 119.84 Mbit/s

95th percentile per-packet one-way delay: 193.759 ms

Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-02-05 17:16:39

End at: 2019-02-05 17:17:09

Local clock offset: -0.043 ms

Remote clock offset: 0.138 ms

Below is generated by plot.py at 2019-02-05 23:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.45 Mbit/s

95th percentile per-packet one-way delay: 133.347 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 132.829 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 132.849 ms

Loss rate: 0.00%

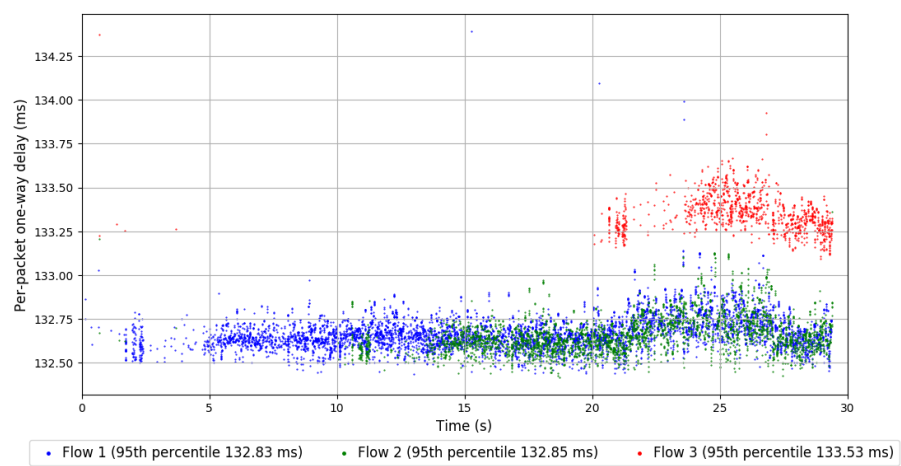
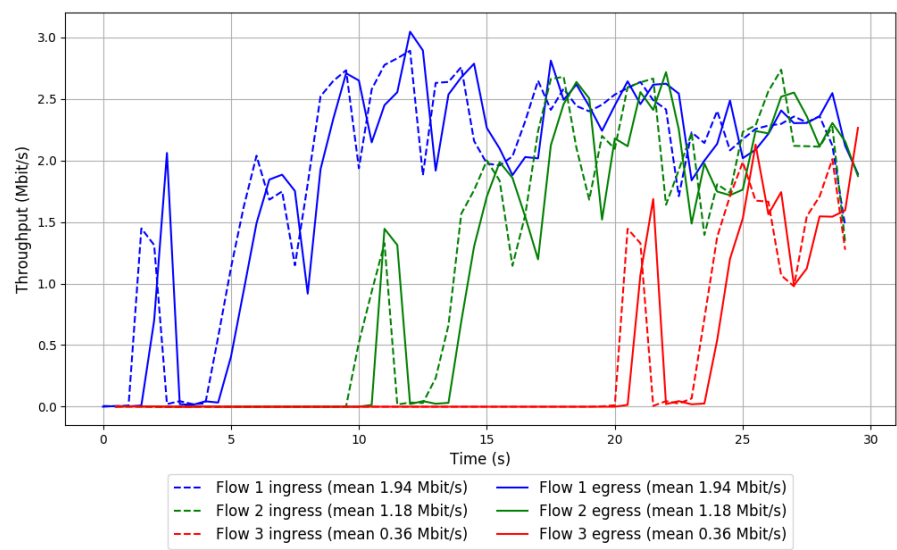
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 133.533 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

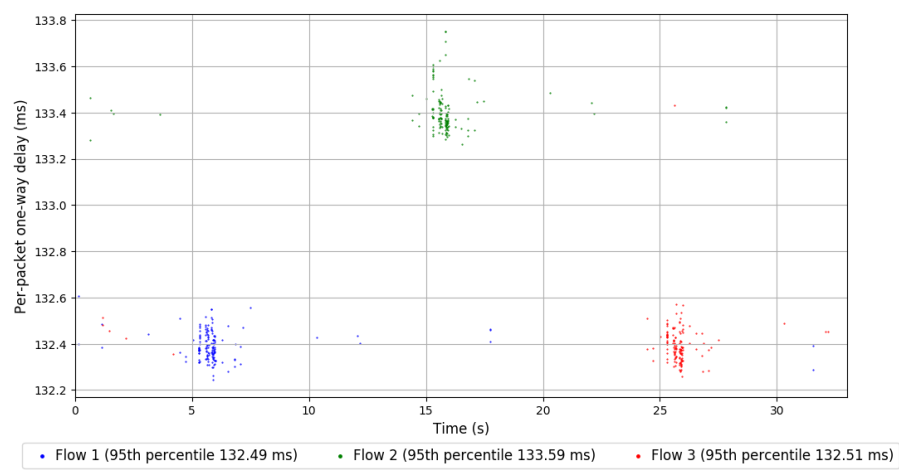
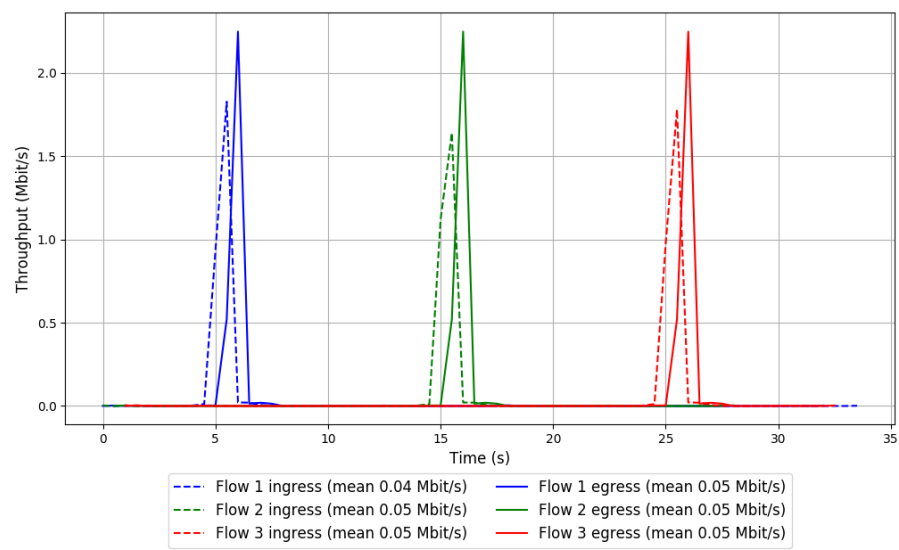


Run 2: Statistics of WebRTC media

Start at: 2019-02-05 17:55:16
End at: 2019-02-05 17:55:46
Local clock offset: -0.164 ms
Remote clock offset: -0.008 ms

Below is generated by plot.py at 2019-02-05 23:28:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 133.459 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.493 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.509 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-02-05 18:34:37

End at: 2019-02-05 18:35:07

Local clock offset: 0.214 ms

Remote clock offset: -0.37 ms

Below is generated by plot.py at 2019-02-05 23:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 132.664 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 132.363 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 132.395 ms

Loss rate: 0.00%

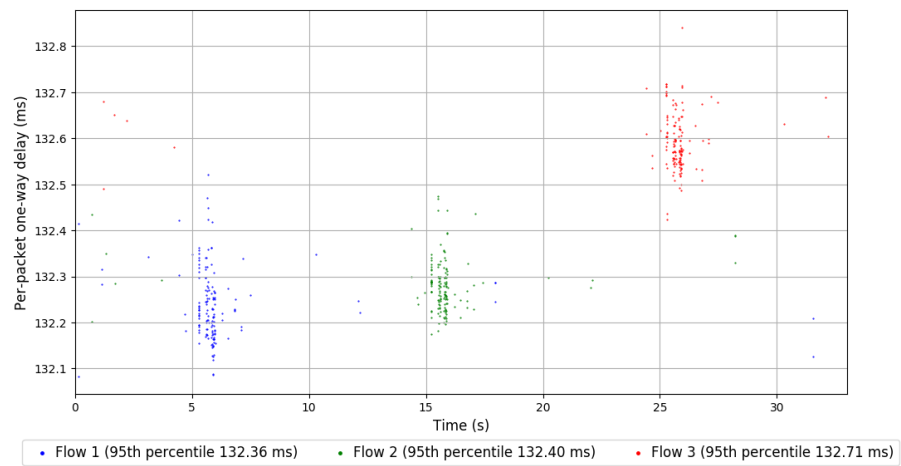
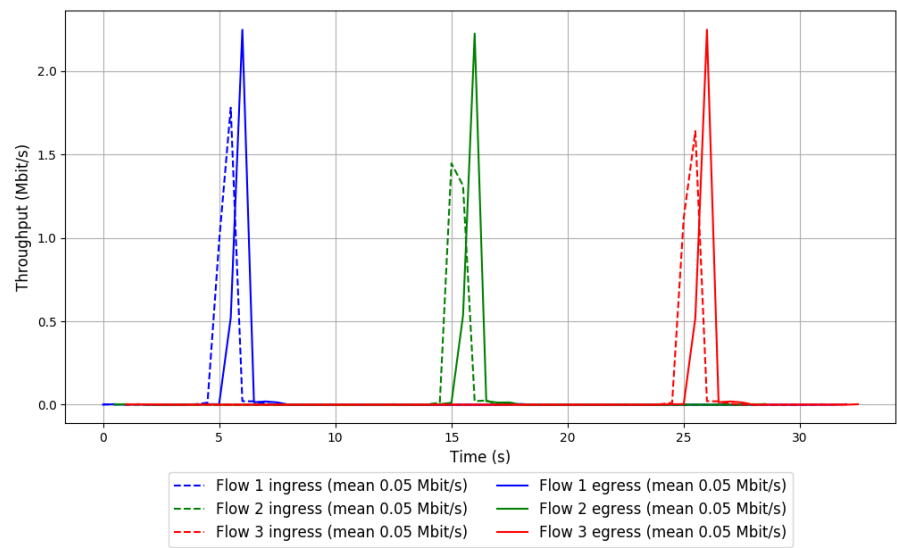
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 132.708 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-02-05 19:13:43

End at: 2019-02-05 19:14:13

Local clock offset: -0.032 ms

Remote clock offset: 0.007 ms

Below is generated by plot.py at 2019-02-05 23:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 132.833 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 132.840 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 132.819 ms

Loss rate: 0.02%

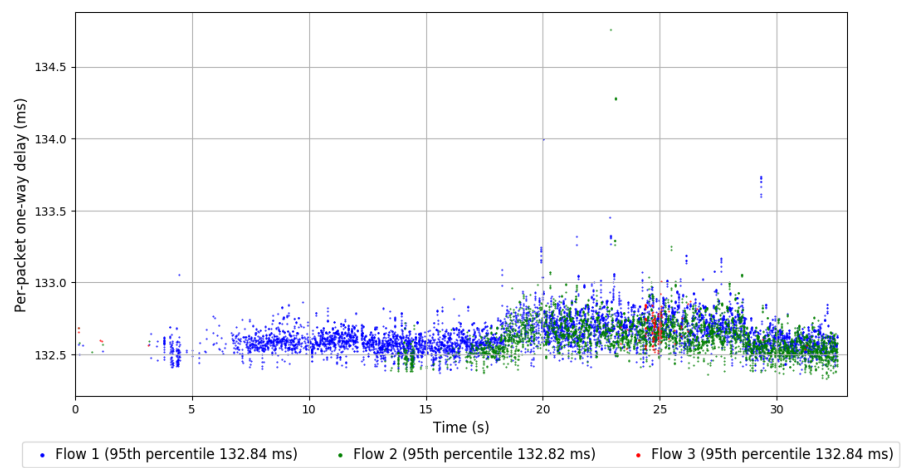
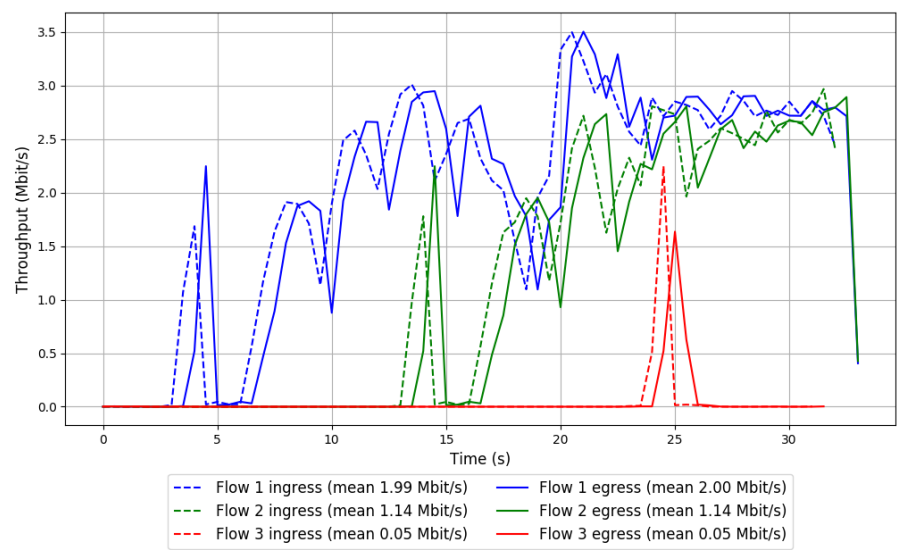
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 132.840 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-02-05 19:52:32
End at: 2019-02-05 19:53:02
Local clock offset: -0.034 ms
Remote clock offset: -0.029 ms

Below is generated by plot.py at 2019-02-05 23:28:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 132.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.826 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.742 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.878 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

