

Pantheon Report

Generated at 2019-01-19 15:56:42 (UTC).

Data path: GCE Tokyo on `ens4` (*remote*) → GCE Iowa on `ens4` (*local*).

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

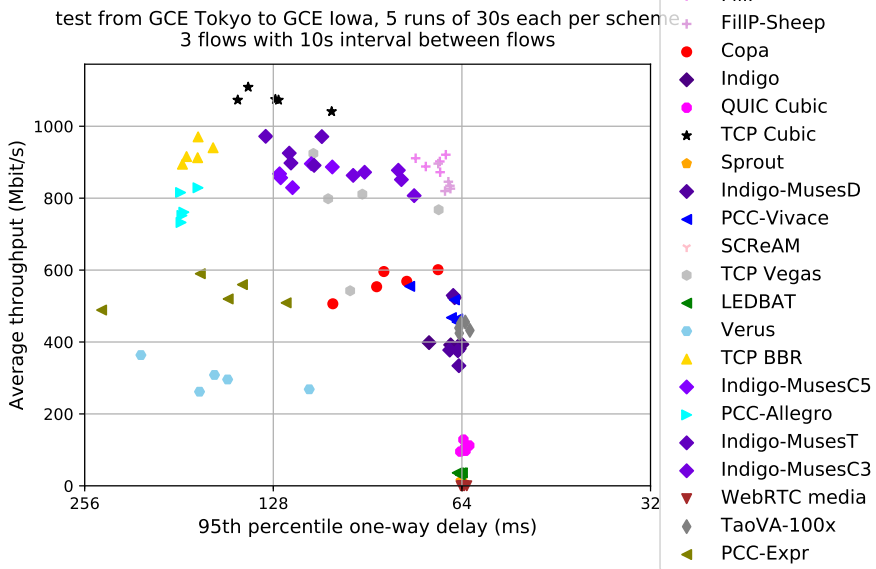
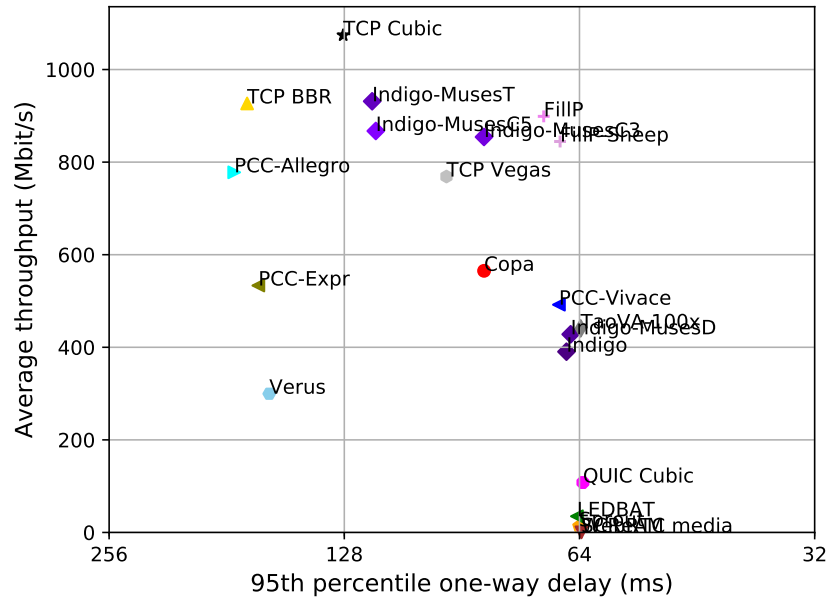
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ c80a283586bf7b0cc1fe08c69c8f60d56498f81c
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ c3eee875824760ec5b2fd207fefe166e1afe2170
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 Tokyo to GCE Iowa, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



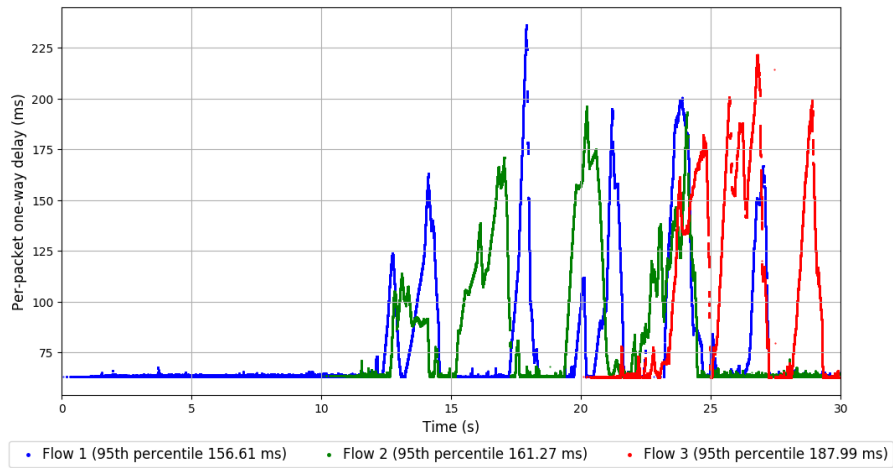
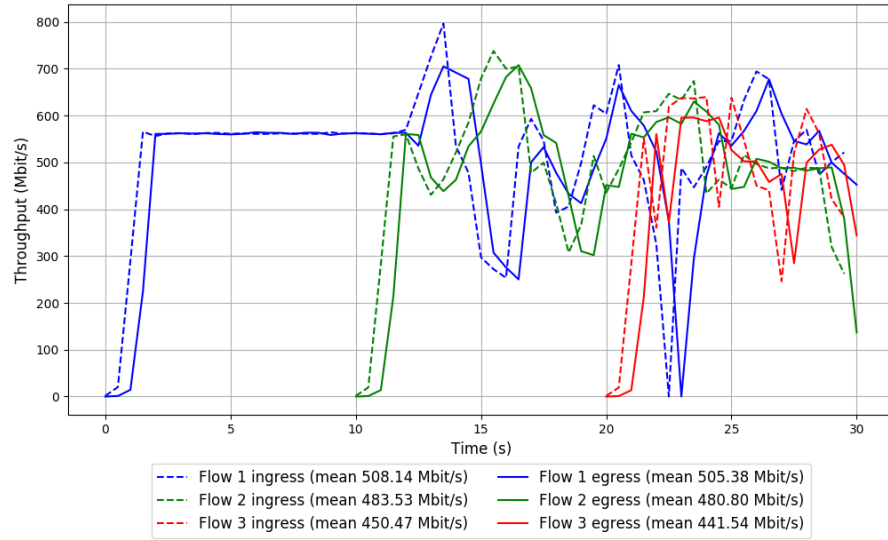
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	478.77	455.56	440.29	161.55	193.64	168.61	1.08	2.26	2.81
Copa	5	307.43	262.69	252.28	80.71	82.44	110.97	0.42	0.58	1.44
TCP Cubic	5	575.90	520.17	464.57	132.72	94.82	113.05	0.58	0.74	1.69
FillP	5	573.90	363.92	253.89	76.82	66.05	66.13	0.40	0.48	1.53
FillP-Sheep	5	538.42	339.77	245.95	70.29	66.32	64.50	0.25	0.45	1.44
Indigo	5	209.47	189.19	166.95	65.49	67.16	71.03	0.42	0.67	1.49
Indigo-MusesC3	5	517.24	430.59	225.34	88.08	72.46	67.15	0.35	0.69	3.14
Indigo-MusesC5	5	539.25	452.05	138.34	115.22	111.31	66.21	0.33	0.78	2.24
Indigo-MusesD	5	326.55	142.67	37.12	65.70	65.16	63.41	0.51	1.07	3.66
Indigo-MusesT	5	567.90	466.46	237.18	126.32	86.53	69.21	0.39	0.72	2.52
LEDBAT	5	22.24	15.49	7.59	64.50	64.45	64.29	0.84	1.27	2.57
PCC-Allegro	5	442.91	362.30	290.37	180.63	124.82	144.01	2.88	3.27	2.42
PCC-Expr	5	300.12	263.30	179.17	152.17	192.94	140.62	2.29	4.25	1.87
QUIC Cubic	5	51.43	54.30	57.19	63.21	63.23	63.22	0.52	0.73	1.10
SCReAM	5	0.22	0.22	0.22	63.53	63.57	63.64	0.38	0.61	1.24
Sprout	5	6.82	6.71	6.39	64.14	63.99	64.02	0.33	0.74	1.63
TaoVA-100x	5	228.63	217.27	205.83	63.75	63.99	64.12	0.44	0.71	1.34
TCP Vegas	5	381.49	373.88	421.20	78.93	81.78	81.45	0.29	0.50	1.55
Verus	5	172.66	144.10	95.88	148.42	145.85	127.82	0.92	1.24	1.75
PCC-Vivace	5	294.42	230.62	136.34	66.90	74.19	67.55	0.35	0.75	1.84
WebRTC media	5	0.05	0.05	0.05	63.60	63.54	63.46	0.00	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-01-19 10:05:47
End at: 2019-01-19 10:06:17
Local clock offset: -0.042 ms
Remote clock offset: -0.097 ms

Below is generated by plot.py at 2019-01-19 13:29:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 970.52 Mbit/s
95th percentile per-packet one-way delay: 168.730 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 505.38 Mbit/s
95th percentile per-packet one-way delay: 156.609 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 480.80 Mbit/s
95th percentile per-packet one-way delay: 161.274 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 441.54 Mbit/s
95th percentile per-packet one-way delay: 187.991 ms
Loss rate: 3.23%

Run 1: Report of TCP BBR — Data Link

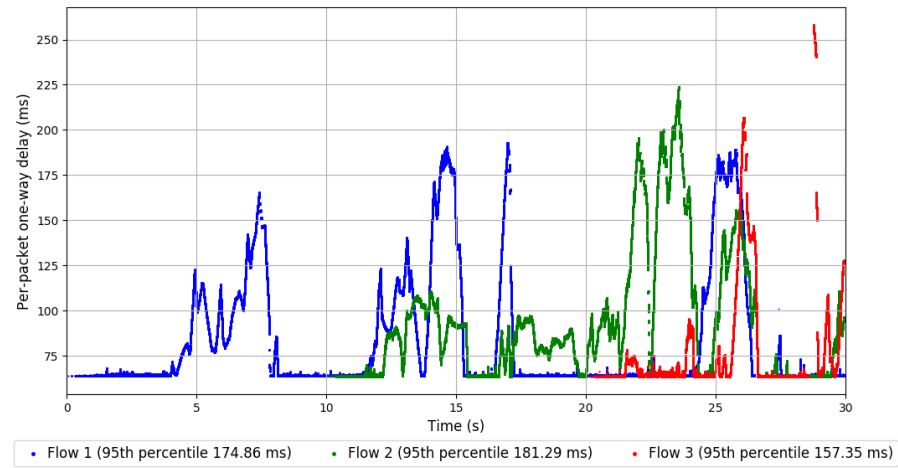
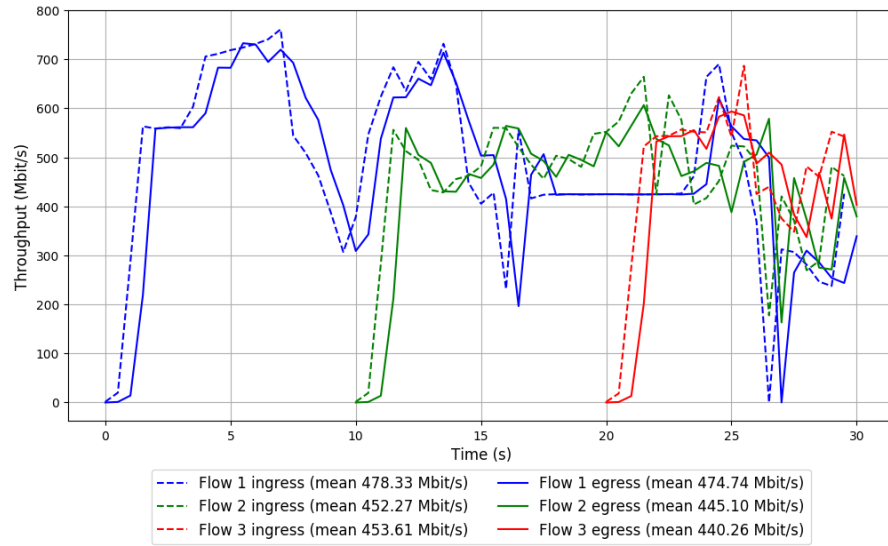


Run 2: Statistics of TCP BBR

Start at: 2019-01-19 10:42:48
End at: 2019-01-19 10:43:18
Local clock offset: -0.064 ms
Remote clock offset: -0.338 ms

Below is generated by plot.py at 2019-01-19 13:29:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 915.77 Mbit/s
95th percentile per-packet one-way delay: 176.063 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 474.74 Mbit/s
95th percentile per-packet one-way delay: 174.862 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 445.10 Mbit/s
95th percentile per-packet one-way delay: 181.289 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 440.26 Mbit/s
95th percentile per-packet one-way delay: 157.348 ms
Loss rate: 4.18%

Run 2: Report of TCP BBR — Data Link

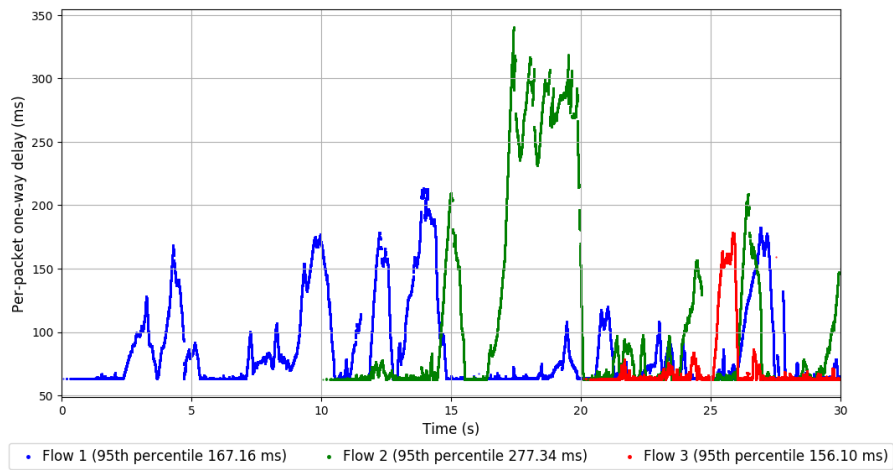
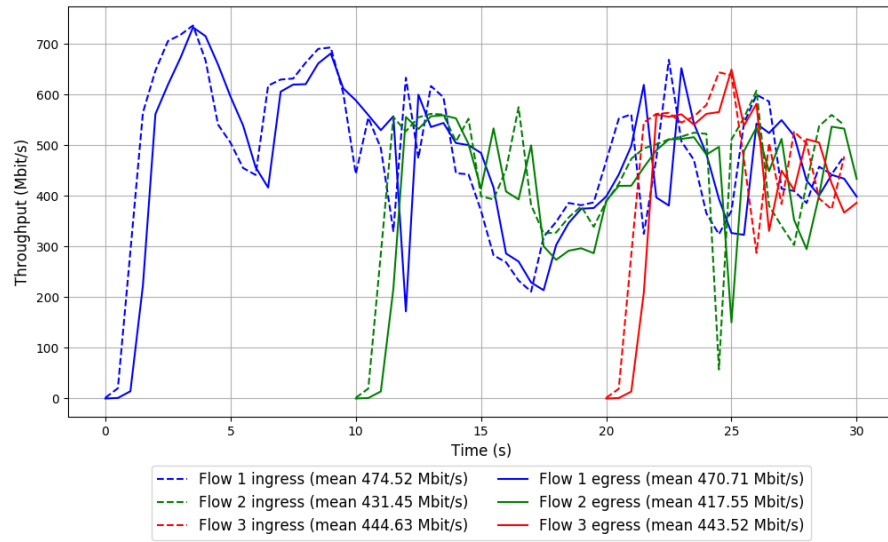


Run 3: Statistics of TCP BBR

Start at: 2019-01-19 11:19:41
End at: 2019-01-19 11:20:12
Local clock offset: -0.108 ms
Remote clock offset: -0.168 ms

Below is generated by plot.py at 2019-01-19 13:29:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 894.48 Mbit/s
95th percentile per-packet one-way delay: 178.732 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 470.71 Mbit/s
95th percentile per-packet one-way delay: 167.159 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 417.55 Mbit/s
95th percentile per-packet one-way delay: 277.340 ms
Loss rate: 3.84%
-- Flow 3:
Average throughput: 443.52 Mbit/s
95th percentile per-packet one-way delay: 156.101 ms
Loss rate: 1.52%

Run 3: Report of TCP BBR — Data Link

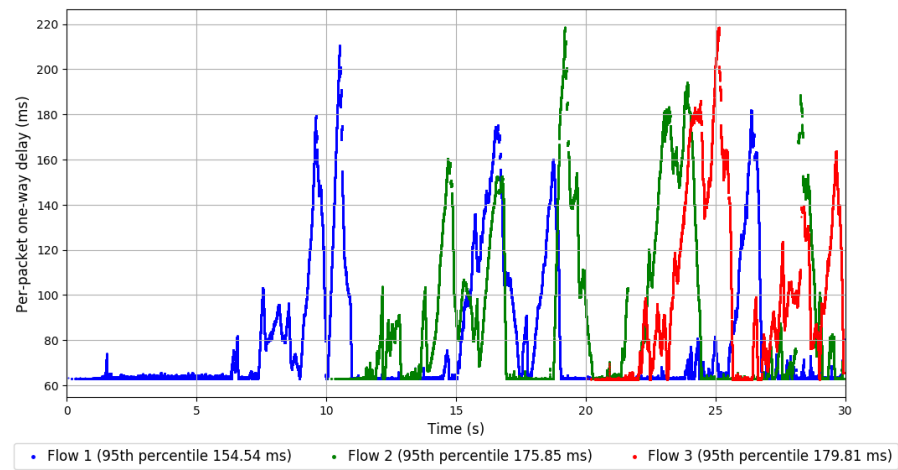
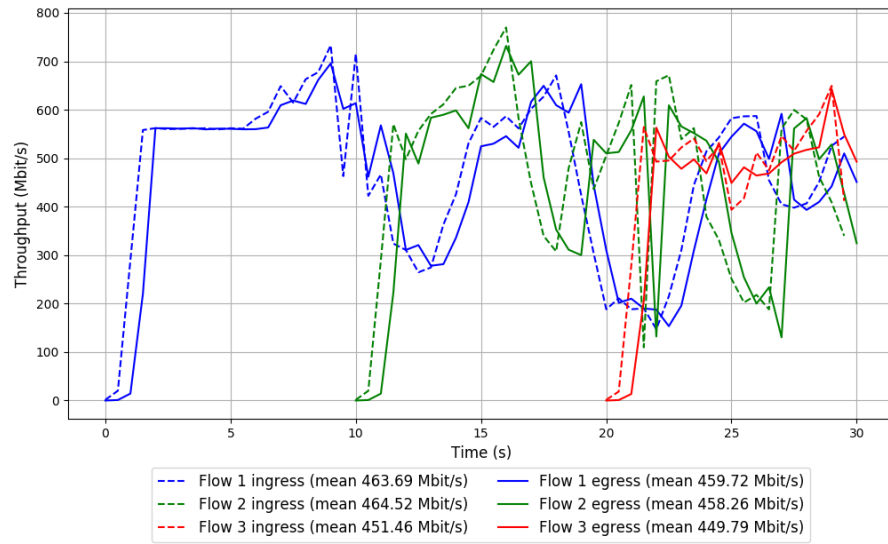


Run 4: Statistics of TCP BBR

Start at: 2019-01-19 11:56:26
End at: 2019-01-19 11:56:56
Local clock offset: -0.033 ms
Remote clock offset: -0.136 ms

Below is generated by plot.py at 2019-01-19 13:29:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 912.65 Mbit/s
95th percentile per-packet one-way delay: 169.036 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 459.72 Mbit/s
95th percentile per-packet one-way delay: 154.539 ms
Loss rate: 1.28%
-- Flow 2:
Average throughput: 458.26 Mbit/s
95th percentile per-packet one-way delay: 175.847 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 449.79 Mbit/s
95th percentile per-packet one-way delay: 179.811 ms
Loss rate: 1.64%

Run 4: Report of TCP BBR — Data Link

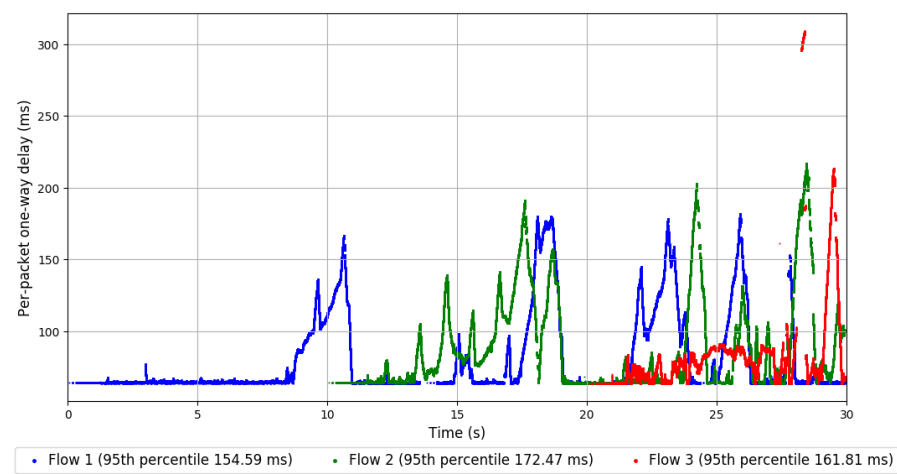
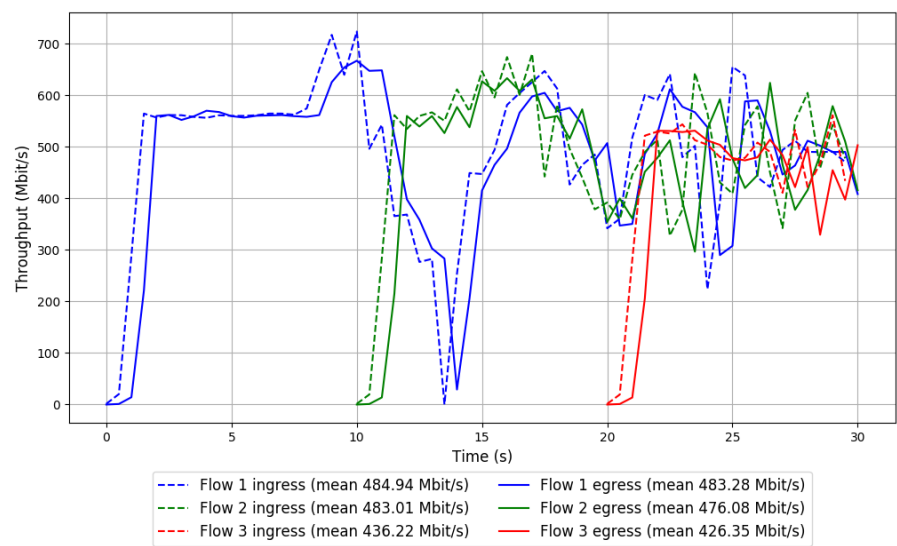


Run 5: Statistics of TCP BBR

Start at: 2019-01-19 12:33:06
End at: 2019-01-19 12:33:36
Local clock offset: 0.073 ms
Remote clock offset: -1.151 ms

Below is generated by plot.py at 2019-01-19 13:29:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 940.29 Mbit/s
95th percentile per-packet one-way delay: 159.687 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 483.28 Mbit/s
95th percentile per-packet one-way delay: 154.595 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 476.08 Mbit/s
95th percentile per-packet one-way delay: 172.467 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 426.35 Mbit/s
95th percentile per-packet one-way delay: 161.807 ms
Loss rate: 3.50%

Run 5: Report of TCP BBR — Data Link

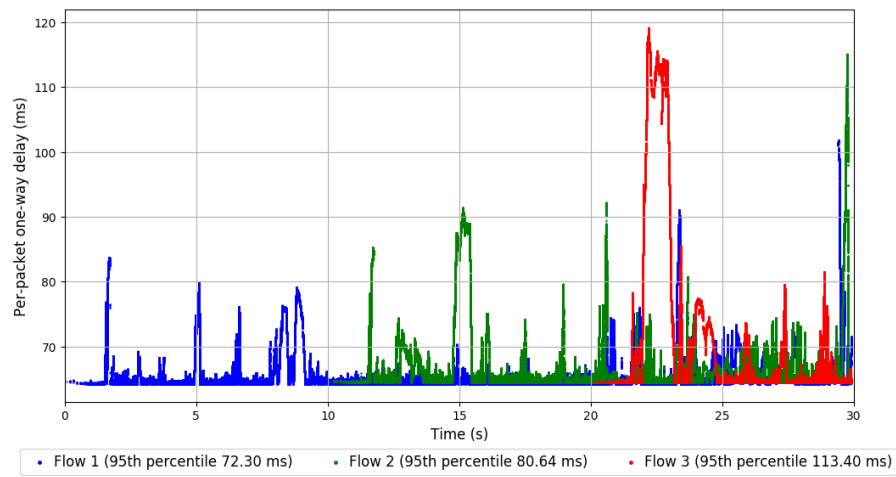
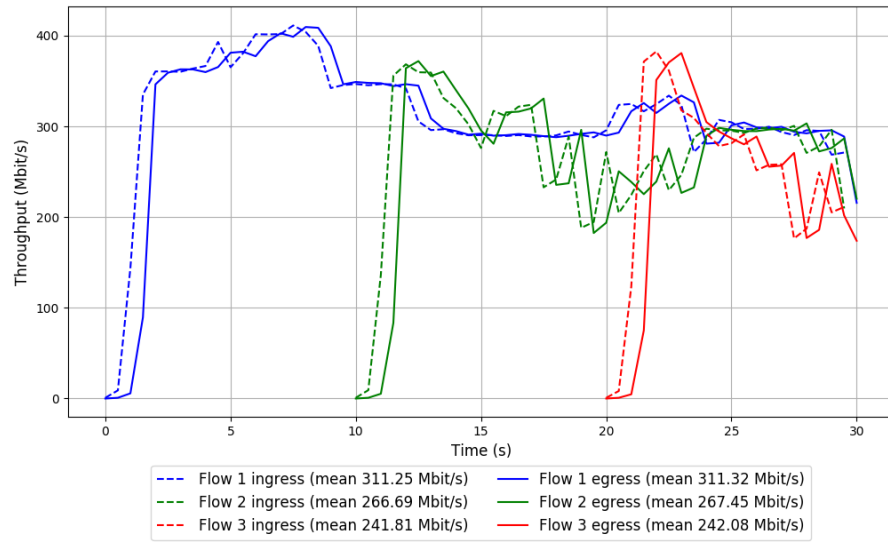


Run 1: Statistics of Copa

Start at: 2019-01-19 09:48:58
End at: 2019-01-19 09:49:28
Local clock offset: -0.07 ms
Remote clock offset: -1.495 ms

Below is generated by plot.py at 2019-01-19 13:31:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 568.78 Mbit/s
95th percentile per-packet one-way delay: 78.382 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 311.32 Mbit/s
95th percentile per-packet one-way delay: 72.298 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 267.45 Mbit/s
95th percentile per-packet one-way delay: 80.640 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 242.08 Mbit/s
95th percentile per-packet one-way delay: 113.401 ms
Loss rate: 1.14%

Run 1: Report of Copa — Data Link

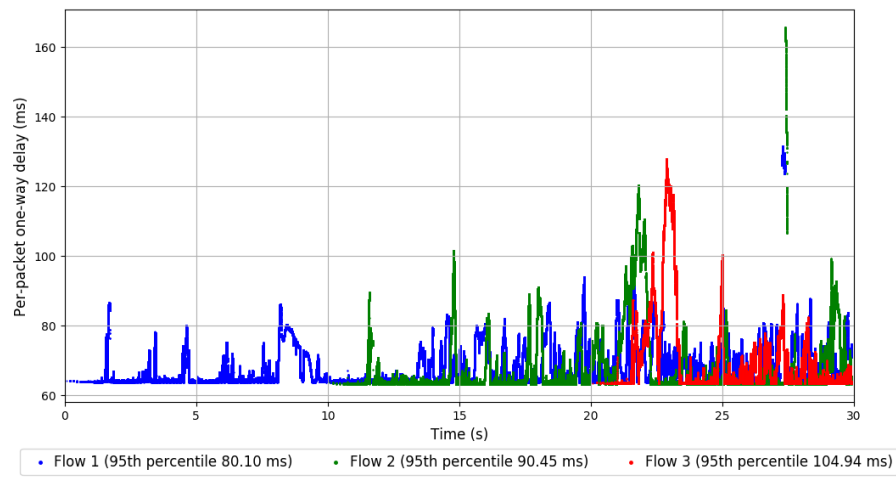
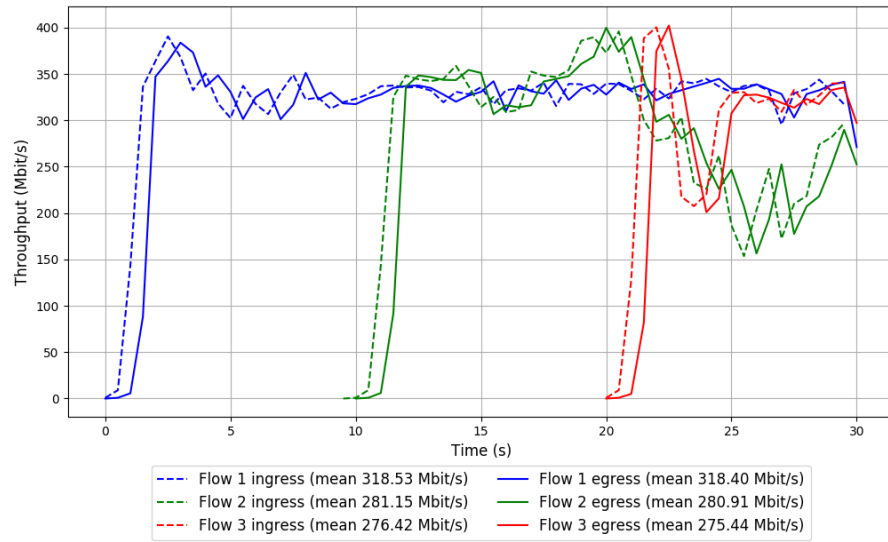


Run 2: Statistics of Copa

Start at: 2019-01-19 10:25:48
End at: 2019-01-19 10:26:18
Local clock offset: -0.121 ms
Remote clock offset: -0.728 ms

Below is generated by plot.py at 2019-01-19 13:32:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 595.95 Mbit/s
95th percentile per-packet one-way delay: 85.258 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 318.40 Mbit/s
95th percentile per-packet one-way delay: 80.102 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 280.91 Mbit/s
95th percentile per-packet one-way delay: 90.447 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 275.44 Mbit/s
95th percentile per-packet one-way delay: 104.938 ms
Loss rate: 1.61%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-01-19 11:02:33

End at: 2019-01-19 11:03:03

Local clock offset: -0.098 ms

Remote clock offset: -1.47 ms

Below is generated by plot.py at 2019-01-19 13:32:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 601.11 Mbit/s

95th percentile per-packet one-way delay: 69.870 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 318.01 Mbit/s

95th percentile per-packet one-way delay: 68.802 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 288.26 Mbit/s

95th percentile per-packet one-way delay: 67.674 ms

Loss rate: 0.68%

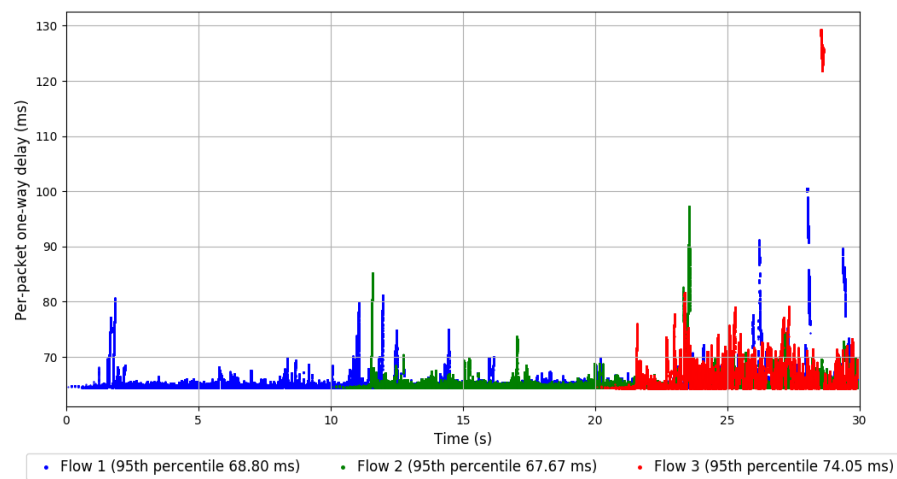
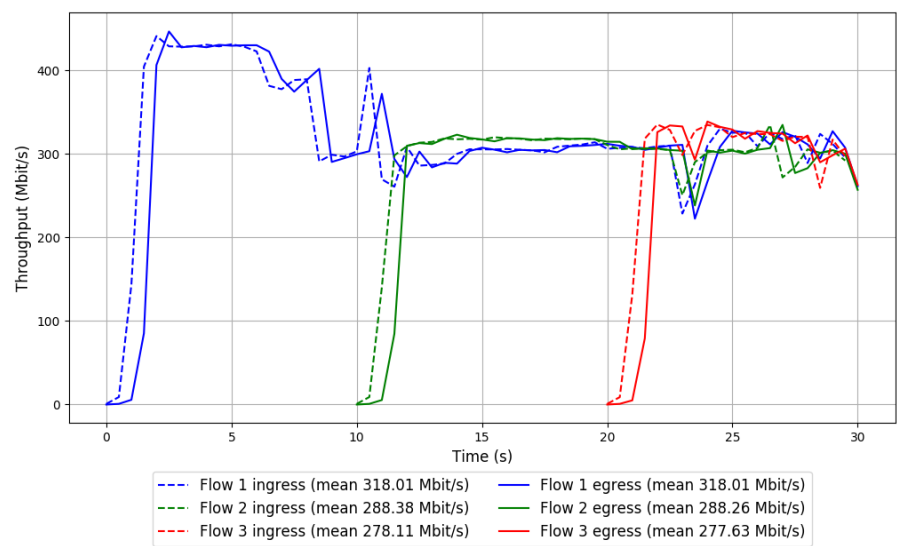
-- Flow 3:

Average throughput: 277.63 Mbit/s

95th percentile per-packet one-way delay: 74.049 ms

Loss rate: 1.44%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2019-01-19 11:39:43

End at: 2019-01-19 11:40:13

Local clock offset: -0.083 ms

Remote clock offset: 0.438 ms

Below is generated by plot.py at 2019-01-19 13:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 506.30 Mbit/s

95th percentile per-packet one-way delay: 102.851 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 271.86 Mbit/s

95th percentile per-packet one-way delay: 96.809 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 245.98 Mbit/s

95th percentile per-packet one-way delay: 100.119 ms

Loss rate: 0.52%

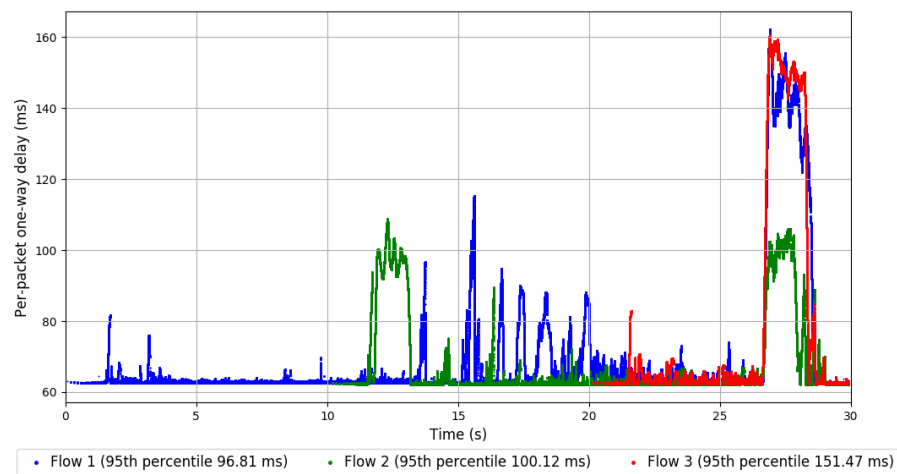
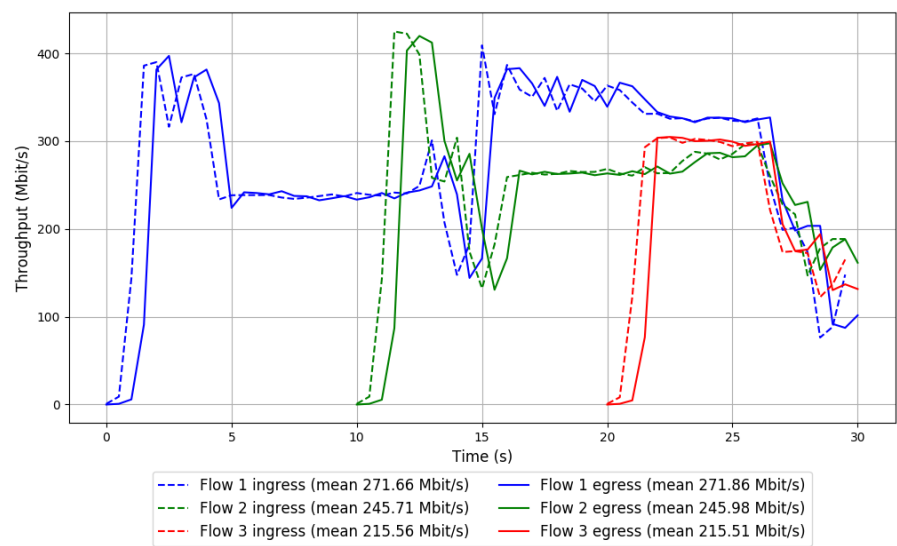
-- Flow 3:

Average throughput: 215.51 Mbit/s

95th percentile per-packet one-way delay: 151.469 ms

Loss rate: 1.27%

Run 4: Report of Copa — Data Link

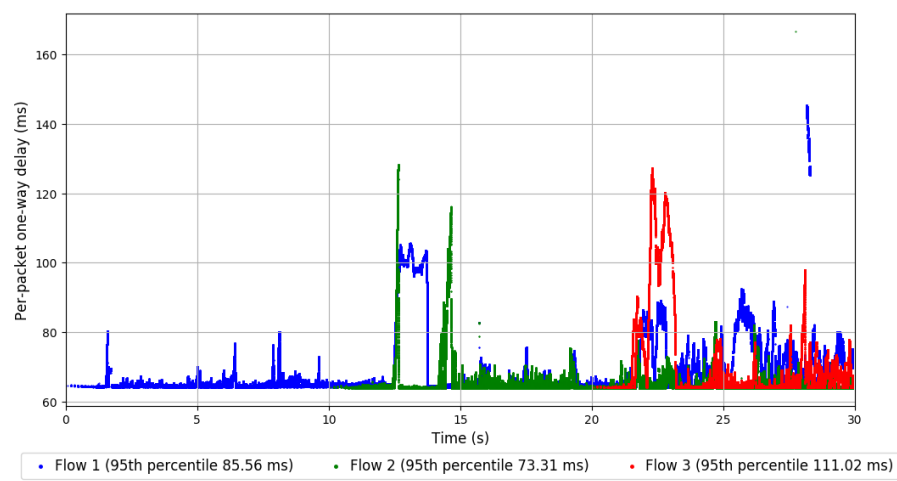
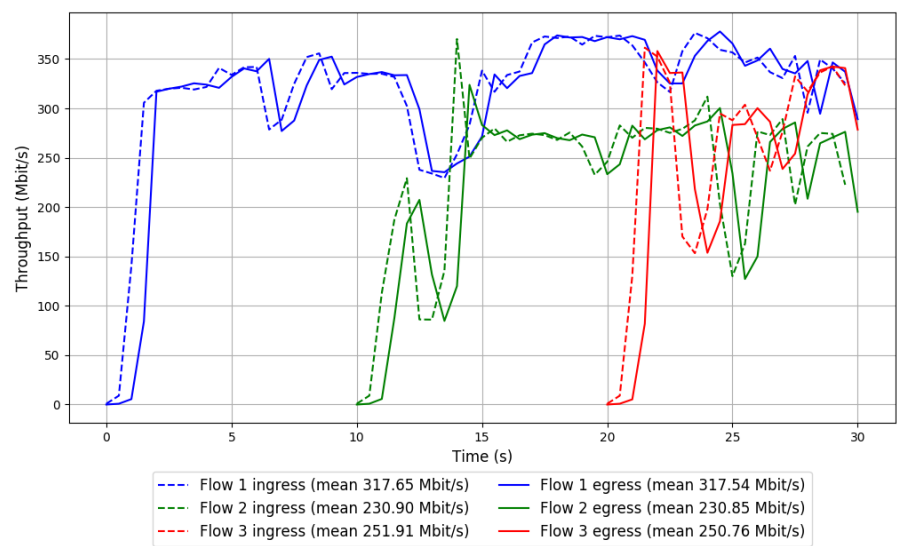


Run 5: Statistics of Copa

Start at: 2019-01-19 12:16:09
End at: 2019-01-19 12:16:39
Local clock offset: -0.017 ms
Remote clock offset: -1.179 ms

Below is generated by plot.py at 2019-01-19 13:47:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 553.72 Mbit/s
95th percentile per-packet one-way delay: 87.555 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 317.54 Mbit/s
95th percentile per-packet one-way delay: 85.557 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 230.85 Mbit/s
95th percentile per-packet one-way delay: 73.312 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 250.76 Mbit/s
95th percentile per-packet one-way delay: 111.016 ms
Loss rate: 1.72%

Run 5: Report of Copa — Data Link

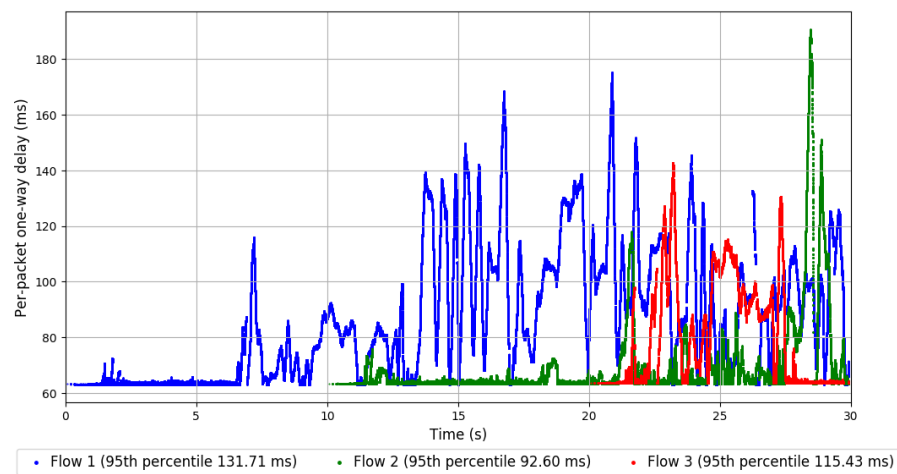
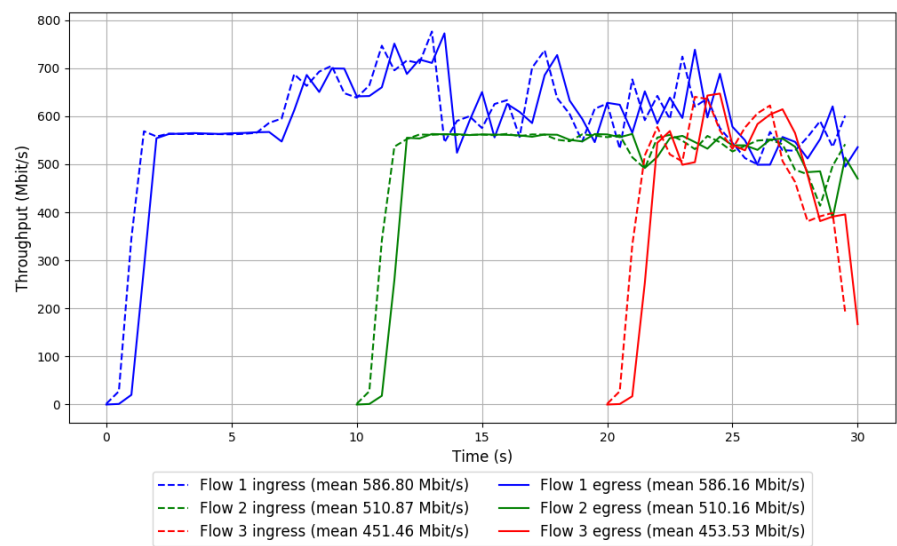


Run 1: Statistics of TCP Cubic

Start at: 2019-01-19 09:59:51
End at: 2019-01-19 10:00:21
Local clock offset: -0.034 ms
Remote clock offset: -0.352 ms

Below is generated by plot.py at 2019-01-19 13:48:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 1074.74 Mbit/s
95th percentile per-packet one-way delay: 127.012 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 586.16 Mbit/s
95th percentile per-packet one-way delay: 131.710 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 510.16 Mbit/s
95th percentile per-packet one-way delay: 92.601 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 453.53 Mbit/s
95th percentile per-packet one-way delay: 115.427 ms
Loss rate: 0.82%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-01-19 10:36:45

End at: 2019-01-19 10:37:15

Local clock offset: -0.179 ms

Remote clock offset: 0.44 ms

Below is generated by plot.py at 2019-01-19 13:48:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1041.01 Mbit/s

95th percentile per-packet one-way delay: 103.298 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 561.99 Mbit/s

95th percentile per-packet one-way delay: 106.982 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 497.76 Mbit/s

95th percentile per-packet one-way delay: 85.891 ms

Loss rate: 0.72%

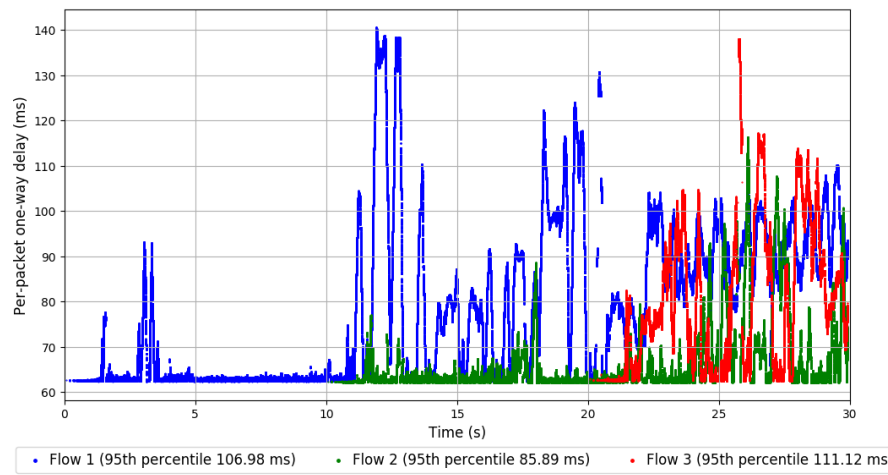
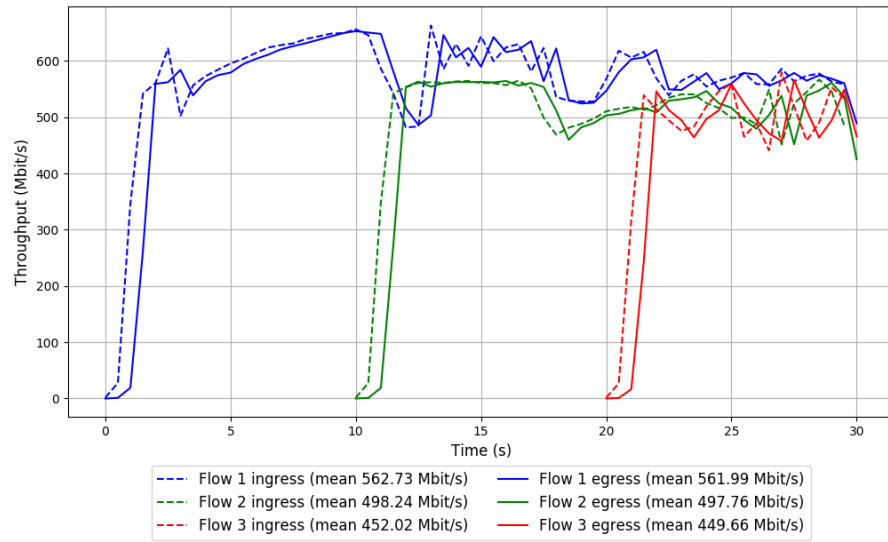
-- Flow 3:

Average throughput: 449.66 Mbit/s

95th percentile per-packet one-way delay: 111.119 ms

Loss rate: 1.79%

Run 2: Report of TCP Cubic — Data Link

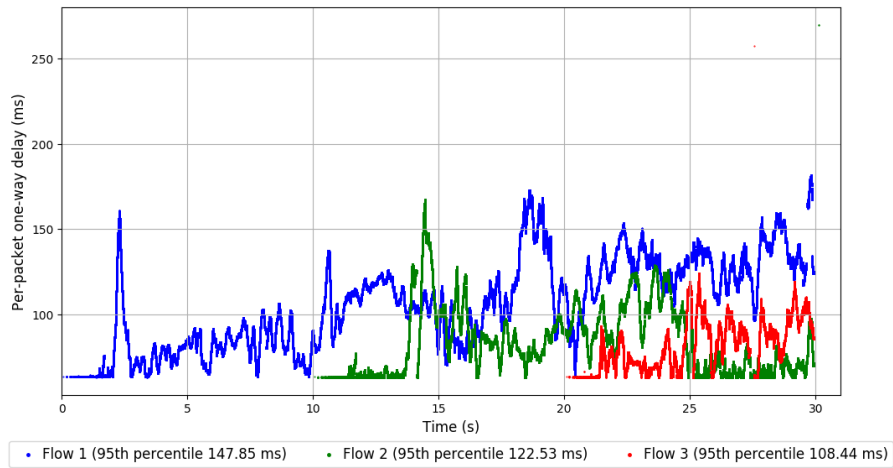
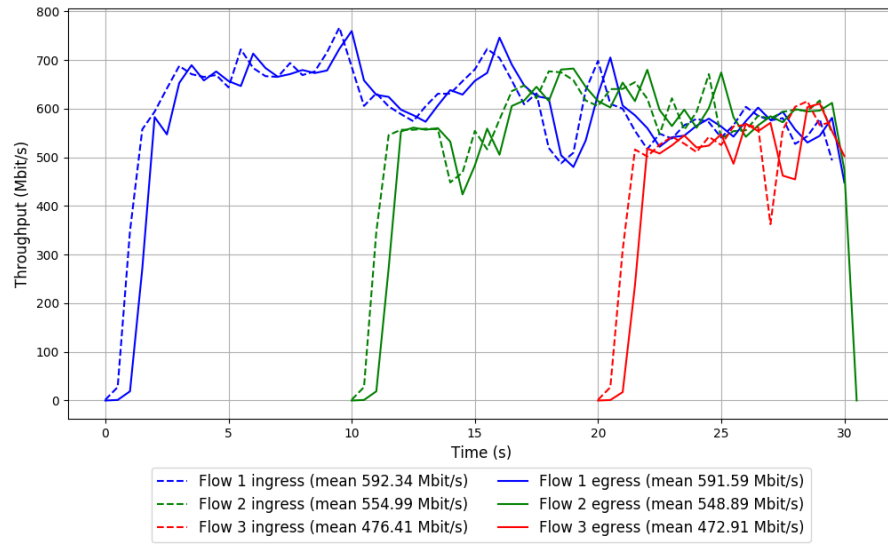


Run 3: Statistics of TCP Cubic

Start at: 2019-01-19 11:13:38
End at: 2019-01-19 11:14:08
Local clock offset: -0.11 ms
Remote clock offset: -0.082 ms

Below is generated by plot.py at 2019-01-19 13:49:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 1108.84 Mbit/s
95th percentile per-packet one-way delay: 140.369 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 591.59 Mbit/s
95th percentile per-packet one-way delay: 147.849 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 548.89 Mbit/s
95th percentile per-packet one-way delay: 122.534 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 472.91 Mbit/s
95th percentile per-packet one-way delay: 108.445 ms
Loss rate: 2.00%

Run 3: Report of TCP Cubic — Data Link

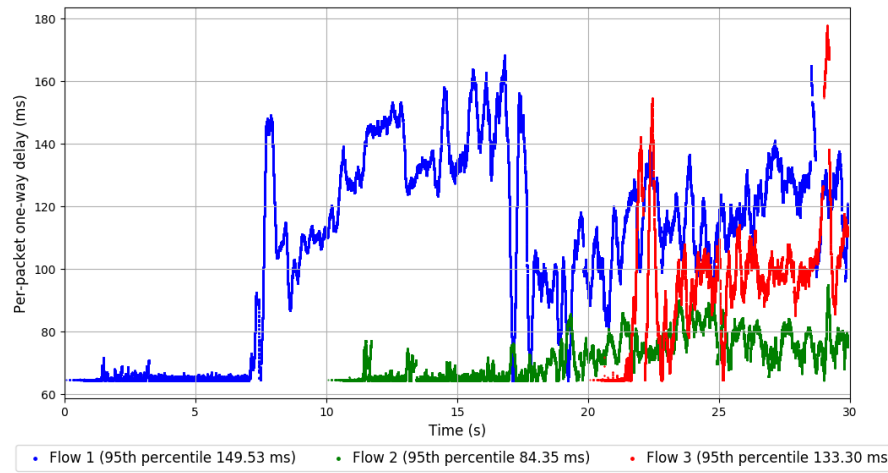
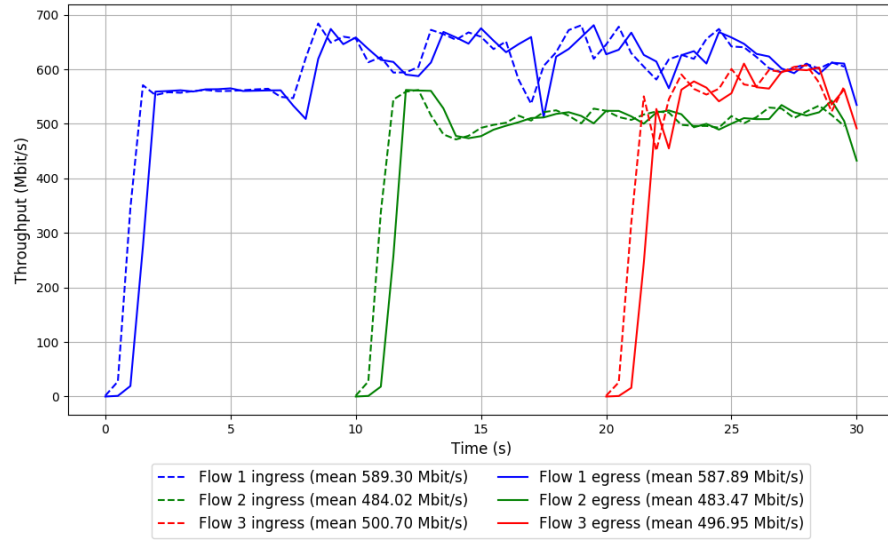


Run 4: Statistics of TCP Cubic

Start at: 2019-01-19 11:50:23
End at: 2019-01-19 11:50:53
Local clock offset: -0.078 ms
Remote clock offset: -1.486 ms

Below is generated by plot.py at 2019-01-19 13:50:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 1073.02 Mbit/s
95th percentile per-packet one-way delay: 145.881 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 587.89 Mbit/s
95th percentile per-packet one-way delay: 149.533 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 483.47 Mbit/s
95th percentile per-packet one-way delay: 84.349 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 496.95 Mbit/s
95th percentile per-packet one-way delay: 133.303 ms
Loss rate: 2.01%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-01-19 12:27:07

End at: 2019-01-19 12:27:37

Local clock offset: -0.029 ms

Remote clock offset: -0.31 ms

Below is generated by plot.py at 2019-01-19 13:51:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 1072.84 Mbit/s

95th percentile per-packet one-way delay: 125.566 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 551.89 Mbit/s

95th percentile per-packet one-way delay: 127.526 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 560.58 Mbit/s

95th percentile per-packet one-way delay: 88.744 ms

Loss rate: 0.76%

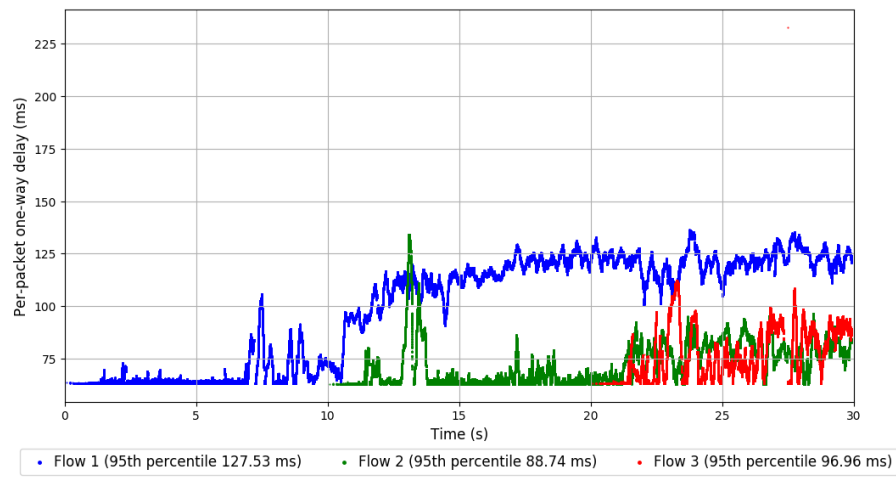
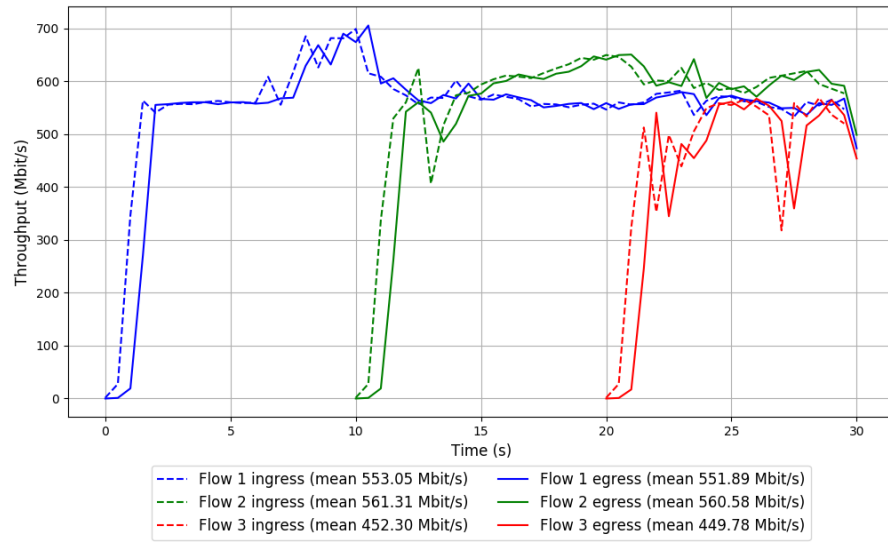
-- Flow 3:

Average throughput: 449.78 Mbit/s

95th percentile per-packet one-way delay: 96.963 ms

Loss rate: 1.81%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-01-19 10:15:17

End at: 2019-01-19 10:15:47

Local clock offset: -0.11 ms

Remote clock offset: -0.82 ms

Below is generated by plot.py at 2019-01-19 13:52:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 902.07 Mbit/s

95th percentile per-packet one-way delay: 69.406 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 575.94 Mbit/s

95th percentile per-packet one-way delay: 70.180 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 359.79 Mbit/s

95th percentile per-packet one-way delay: 65.776 ms

Loss rate: 0.46%

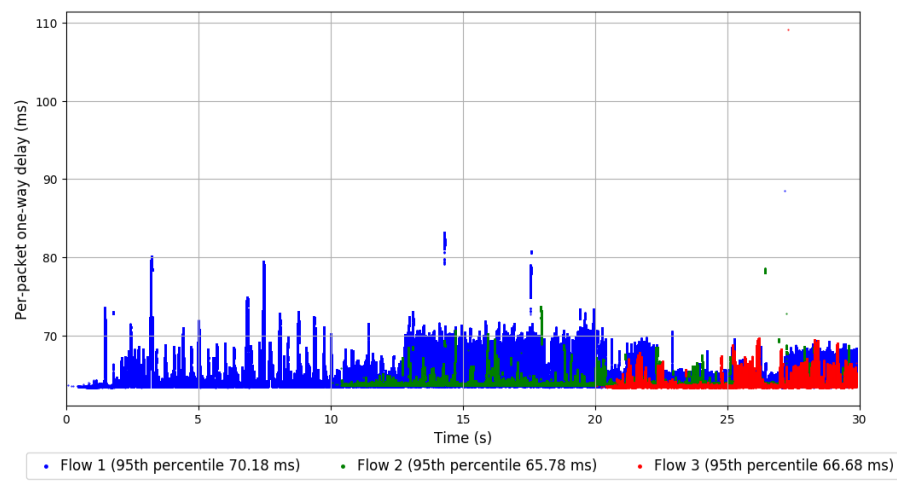
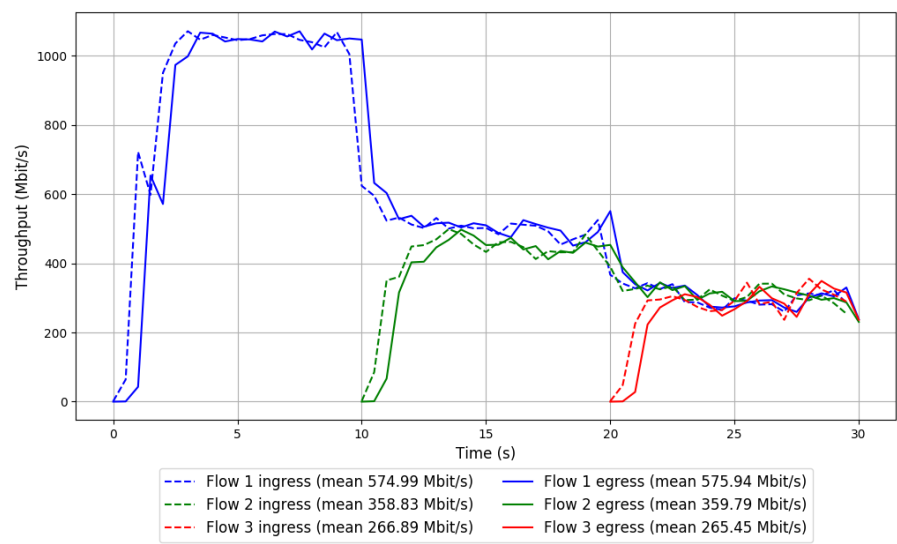
-- Flow 3:

Average throughput: 265.45 Mbit/s

95th percentile per-packet one-way delay: 66.676 ms

Loss rate: 1.57%

Run 1: Report of FillP — Data Link

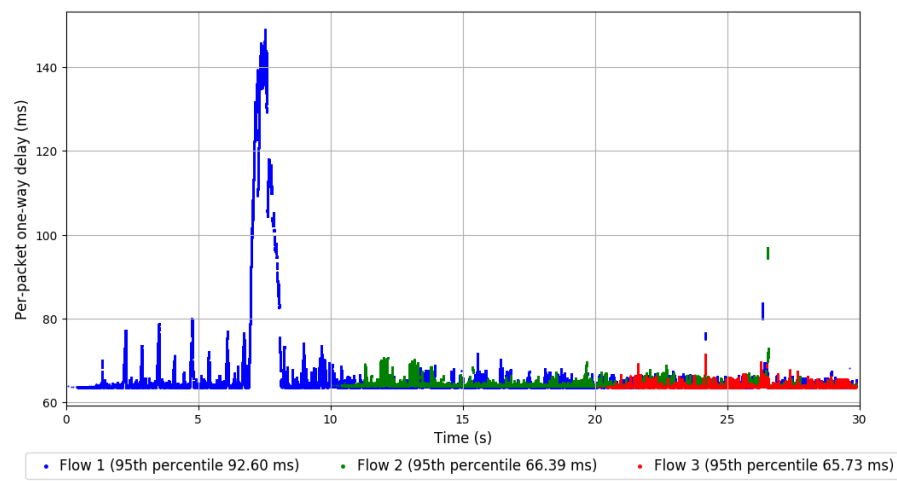
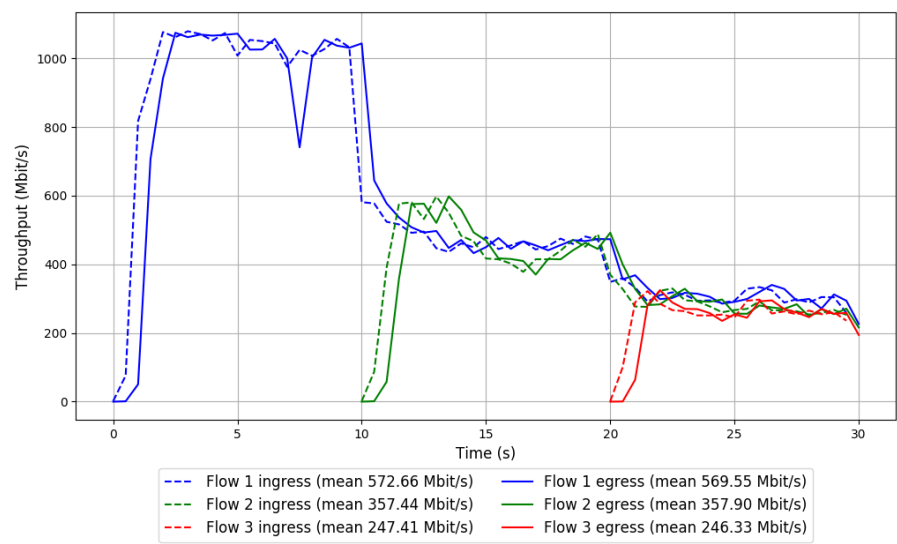


Run 2: Statistics of FillP

Start at: 2019-01-19 10:52:14
End at: 2019-01-19 10:52:44
Local clock offset: -0.06 ms
Remote clock offset: -0.888 ms

Below is generated by plot.py at 2019-01-19 14:03:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 888.03 Mbit/s
95th percentile per-packet one-way delay: 73.079 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 569.55 Mbit/s
95th percentile per-packet one-way delay: 92.604 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 357.90 Mbit/s
95th percentile per-packet one-way delay: 66.387 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 246.33 Mbit/s
95th percentile per-packet one-way delay: 65.727 ms
Loss rate: 1.62%

Run 2: Report of FillP — Data Link

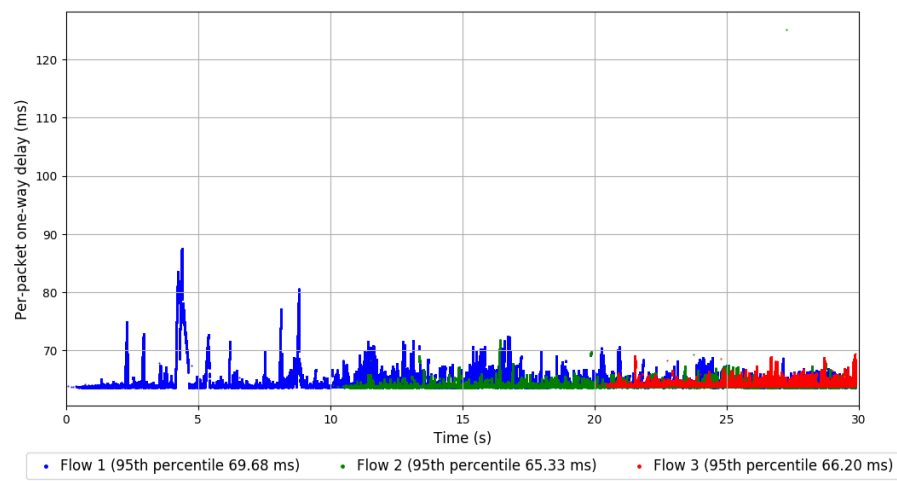
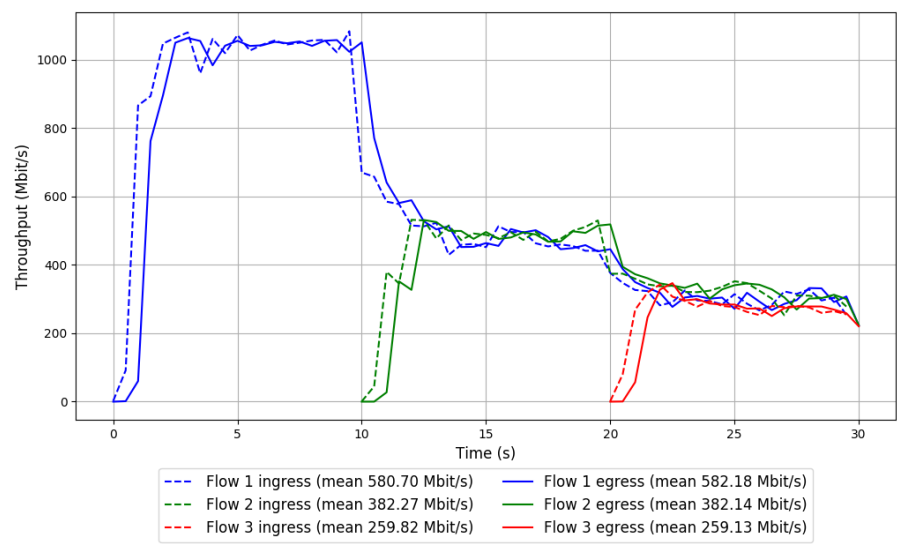


Run 3: Statistics of FillP

Start at: 2019-01-19 11:29:07
End at: 2019-01-19 11:29:37
Local clock offset: -0.088 ms
Remote clock offset: -0.656 ms

Below is generated by plot.py at 2019-01-19 14:07:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 920.81 Mbit/s
95th percentile per-packet one-way delay: 67.896 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 582.18 Mbit/s
95th percentile per-packet one-way delay: 69.681 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 382.14 Mbit/s
95th percentile per-packet one-way delay: 65.334 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 259.13 Mbit/s
95th percentile per-packet one-way delay: 66.201 ms
Loss rate: 1.35%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-01-19 12:05:51

End at: 2019-01-19 12:06:21

Local clock offset: -0.049 ms

Remote clock offset: 1.021 ms

Below is generated by plot.py at 2019-01-19 14:08:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 911.00 Mbit/s

95th percentile per-packet one-way delay: 75.860 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 576.19 Mbit/s

95th percentile per-packet one-way delay: 81.444 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 383.06 Mbit/s

95th percentile per-packet one-way delay: 66.641 ms

Loss rate: 0.45%

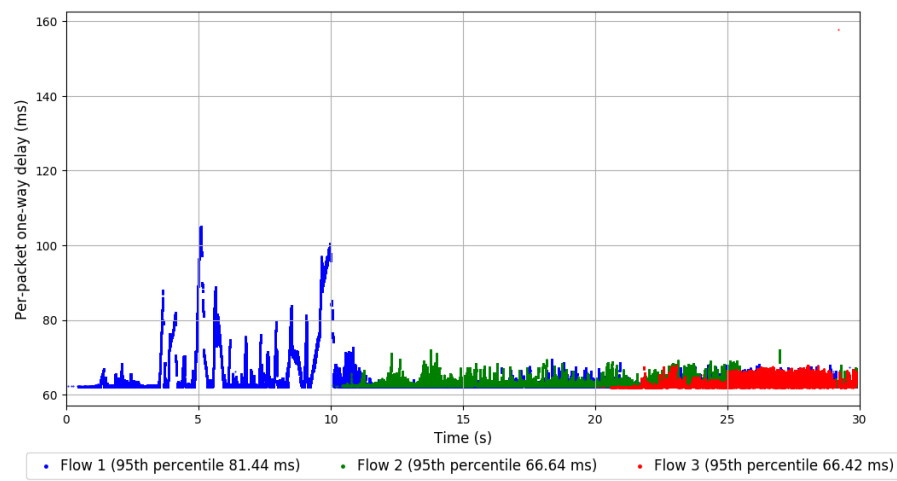
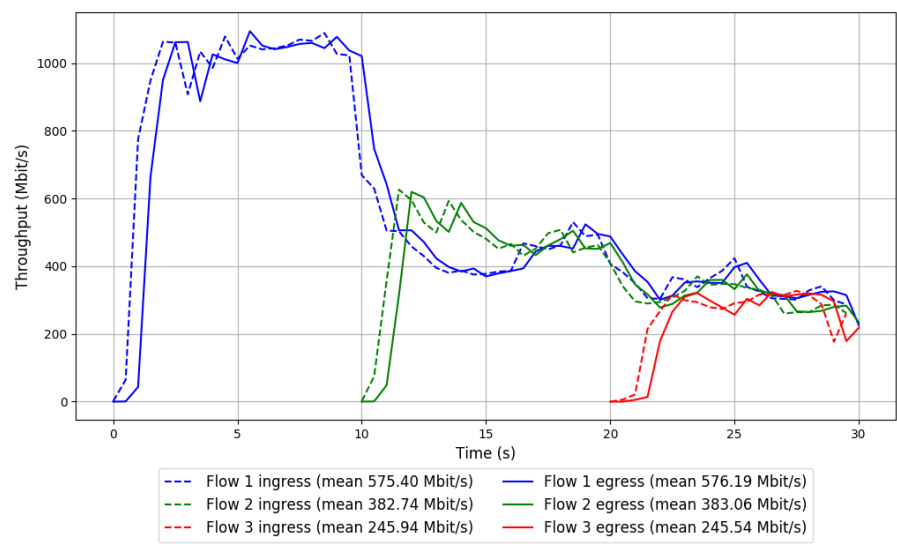
-- Flow 3:

Average throughput: 245.54 Mbit/s

95th percentile per-packet one-way delay: 66.420 ms

Loss rate: 1.58%

Run 4: Report of FillP — Data Link

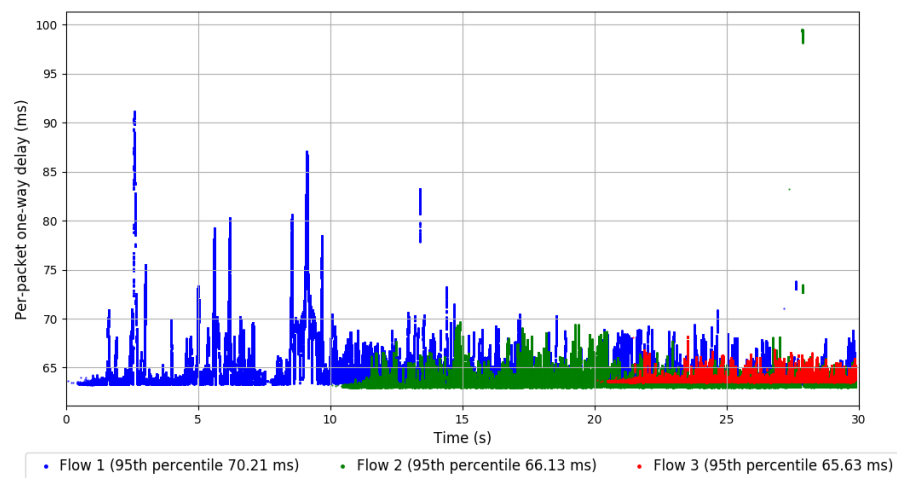
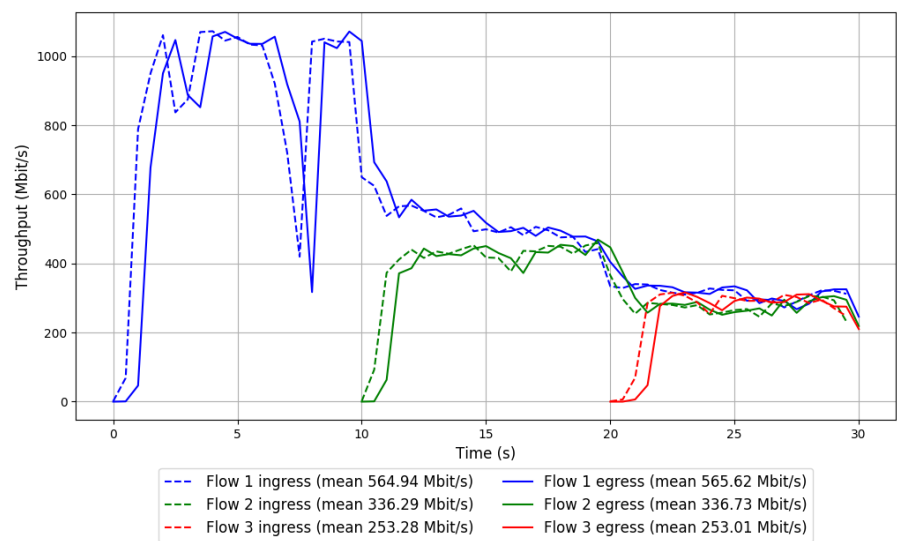


Run 5: Statistics of FillP

Start at: 2019-01-19 12:42:29
End at: 2019-01-19 12:42:59
Local clock offset: -0.031 ms
Remote clock offset: -0.469 ms

Below is generated by plot.py at 2019-01-19 14:08:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 872.25 Mbit/s
95th percentile per-packet one-way delay: 69.331 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 565.62 Mbit/s
95th percentile per-packet one-way delay: 70.213 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 336.73 Mbit/s
95th percentile per-packet one-way delay: 66.127 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 253.01 Mbit/s
95th percentile per-packet one-way delay: 65.630 ms
Loss rate: 1.54%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-01-19 09:52:19

End at: 2019-01-19 09:52:49

Local clock offset: -0.061 ms

Remote clock offset: 0.853 ms

Below is generated by plot.py at 2019-01-19 14:08:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 826.45 Mbit/s

95th percentile per-packet one-way delay: 66.762 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 510.42 Mbit/s

95th percentile per-packet one-way delay: 65.941 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 360.21 Mbit/s

95th percentile per-packet one-way delay: 68.242 ms

Loss rate: 0.44%

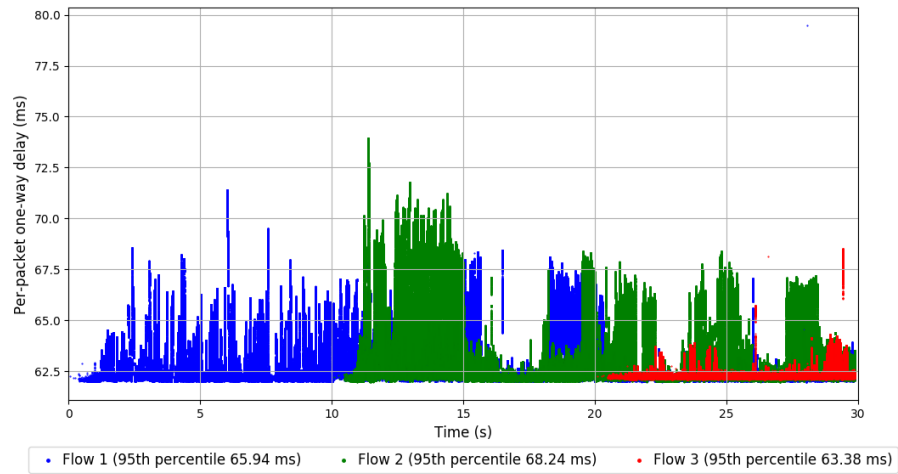
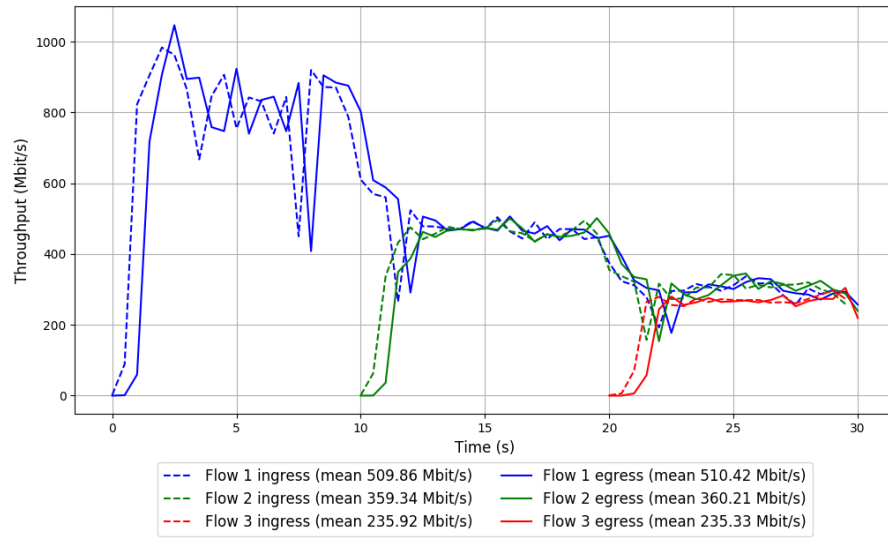
-- Flow 3:

Average throughput: 235.33 Mbit/s

95th percentile per-packet one-way delay: 63.377 ms

Loss rate: 1.70%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-01-19 10:29:13

End at: 2019-01-19 10:29:43

Local clock offset: -0.151 ms

Remote clock offset: 0.539 ms

Below is generated by plot.py at 2019-01-19 14:08:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 819.71 Mbit/s

95th percentile per-packet one-way delay: 68.101 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 528.15 Mbit/s

95th percentile per-packet one-way delay: 77.959 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 318.60 Mbit/s

95th percentile per-packet one-way delay: 63.764 ms

Loss rate: 0.53%

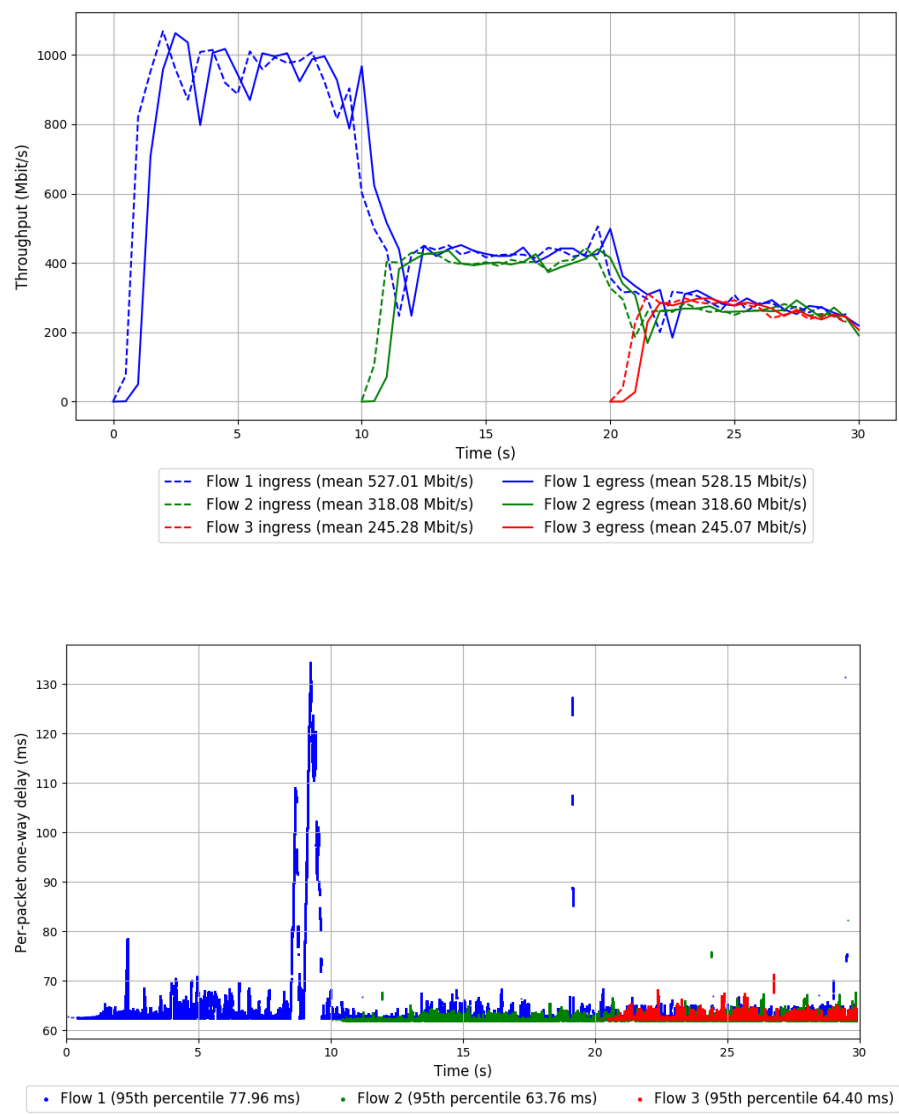
-- Flow 3:

Average throughput: 245.07 Mbit/s

95th percentile per-packet one-way delay: 64.400 ms

Loss rate: 1.19%

Run 2: Report of FillP-Sheep — Data Link

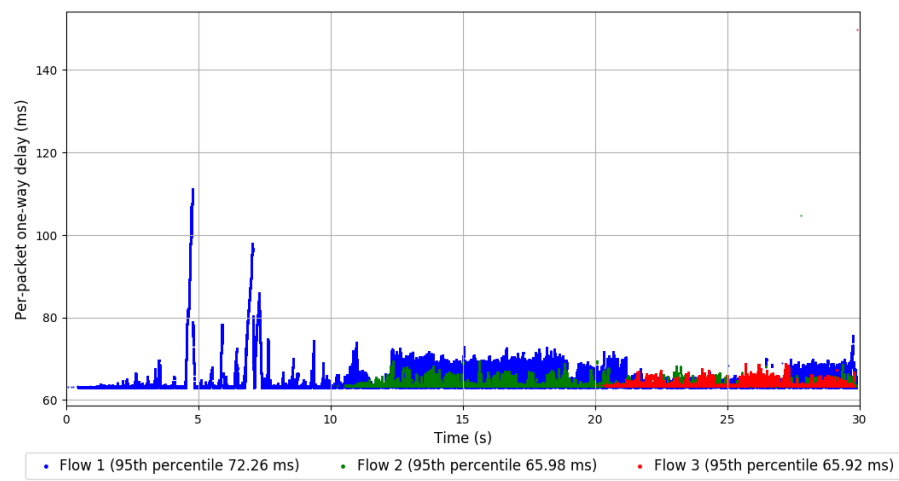
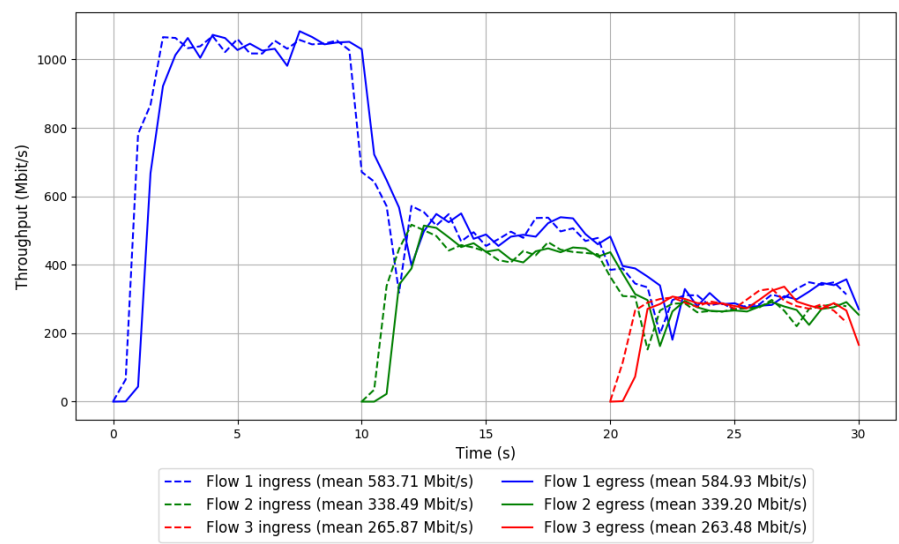


Run 3: Statistics of FillP-Sheep

Start at: 2019-01-19 11:05:59
End at: 2019-01-19 11:06:29
Local clock offset: -0.117 ms
Remote clock offset: -0.228 ms

Below is generated by plot.py at 2019-01-19 14:11:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 896.11 Mbit/s
95th percentile per-packet one-way delay: 69.830 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 584.93 Mbit/s
95th percentile per-packet one-way delay: 72.262 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 339.20 Mbit/s
95th percentile per-packet one-way delay: 65.976 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 263.48 Mbit/s
95th percentile per-packet one-way delay: 65.925 ms
Loss rate: 1.94%

Run 3: Report of FillP-Sheep — Data Link

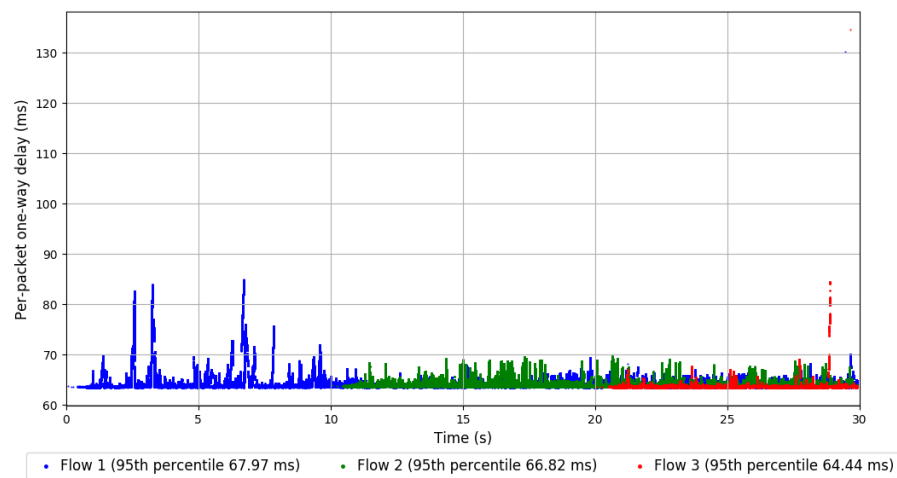
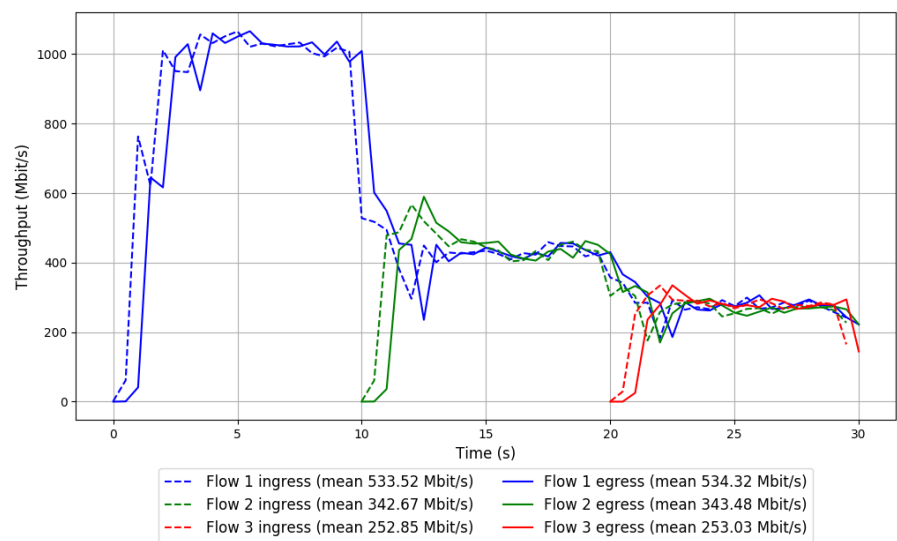


Run 4: Statistics of FillP-Sheep

Start at: 2019-01-19 11:43:00
End at: 2019-01-19 11:43:30
Local clock offset: 0.021 ms
Remote clock offset: -0.498 ms

Below is generated by plot.py at 2019-01-19 14:11:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 845.72 Mbit/s
95th percentile per-packet one-way delay: 67.265 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 534.32 Mbit/s
95th percentile per-packet one-way delay: 67.968 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 343.48 Mbit/s
95th percentile per-packet one-way delay: 66.822 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 253.03 Mbit/s
95th percentile per-packet one-way delay: 64.439 ms
Loss rate: 0.94%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-01-19 12:19:30

End at: 2019-01-19 12:20:00

Local clock offset: 0.003 ms

Remote clock offset: -0.16 ms

Below is generated by plot.py at 2019-01-19 14:23:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 834.53 Mbit/s

95th percentile per-packet one-way delay: 66.878 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 534.27 Mbit/s

95th percentile per-packet one-way delay: 67.324 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 337.38 Mbit/s

95th percentile per-packet one-way delay: 66.796 ms

Loss rate: 0.54%

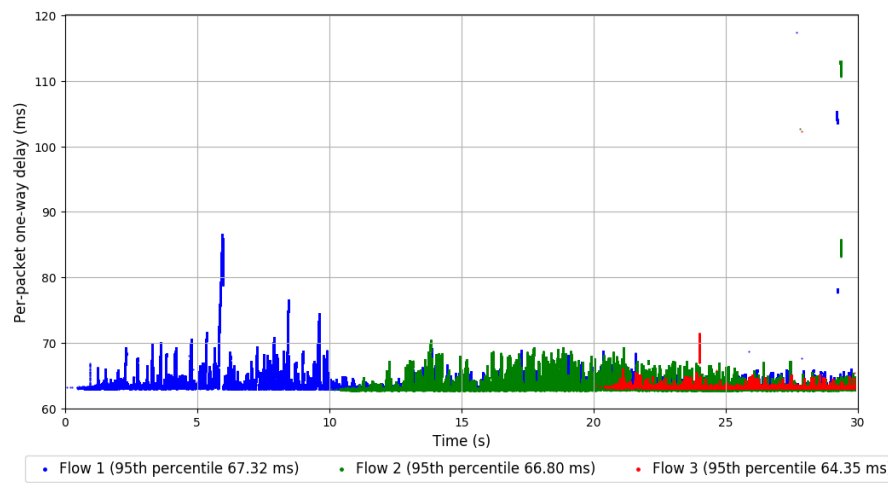
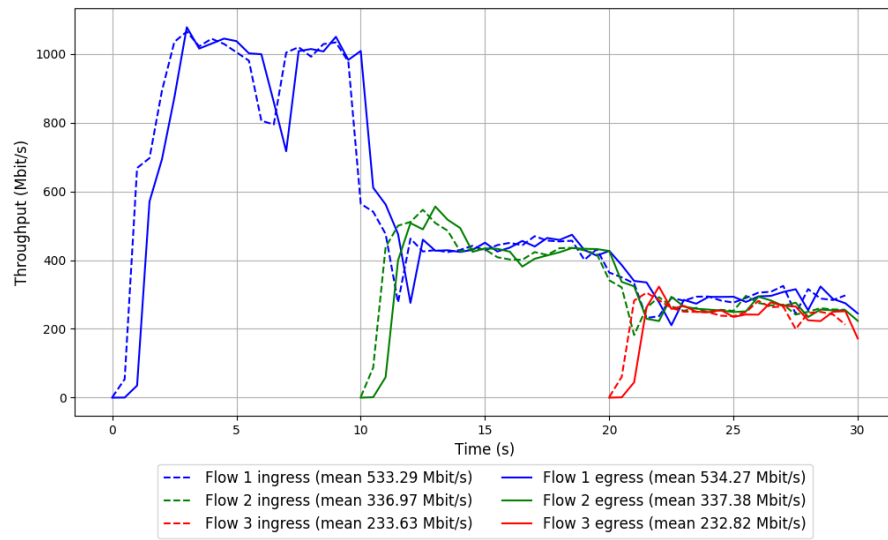
-- Flow 3:

Average throughput: 232.82 Mbit/s

95th percentile per-packet one-way delay: 64.352 ms

Loss rate: 1.45%

Run 5: Report of FillP-Sheep — Data Link

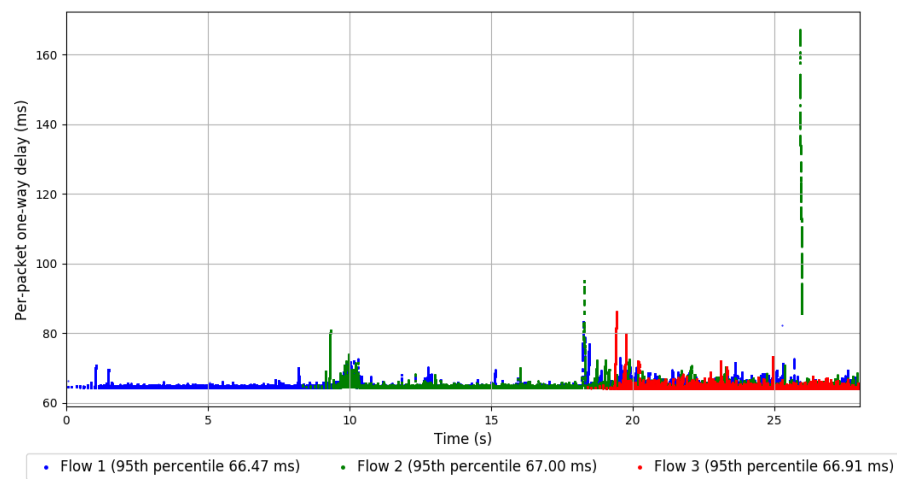
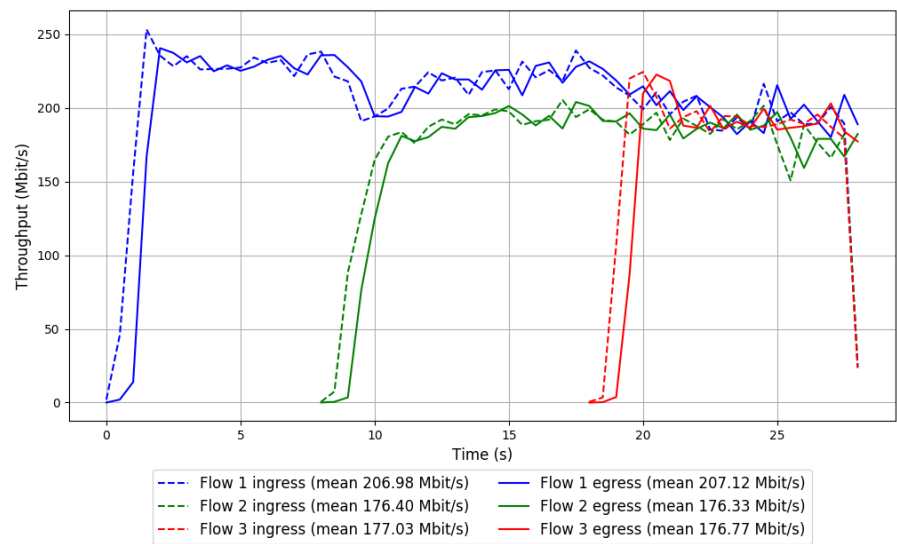


Run 1: Statistics of Indigo

Start at: 2019-01-19 10:09:49
End at: 2019-01-19 10:10:19
Local clock offset: -0.091 ms
Remote clock offset: -1.376 ms

Below is generated by plot.py at 2019-01-19 14:23:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 392.00 Mbit/s
95th percentile per-packet one-way delay: 66.702 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 207.12 Mbit/s
95th percentile per-packet one-way delay: 66.474 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 176.33 Mbit/s
95th percentile per-packet one-way delay: 67.005 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 176.77 Mbit/s
95th percentile per-packet one-way delay: 66.913 ms
Loss rate: 1.45%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-01-19 10:46:48

End at: 2019-01-19 10:47:18

Local clock offset: -0.15 ms

Remote clock offset: 0.089 ms

Below is generated by plot.py at 2019-01-19 14:23:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 393.37 Mbit/s

95th percentile per-packet one-way delay: 64.004 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 209.93 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 197.23 Mbit/s

95th percentile per-packet one-way delay: 64.196 ms

Loss rate: 0.66%

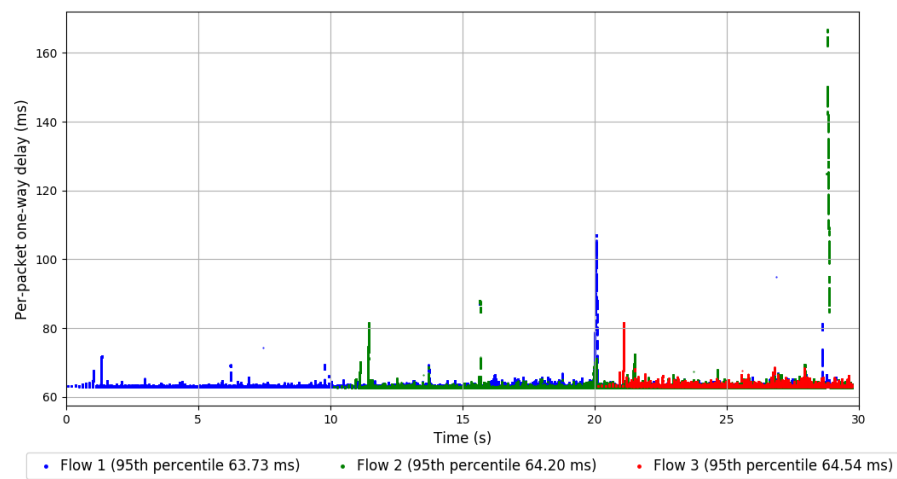
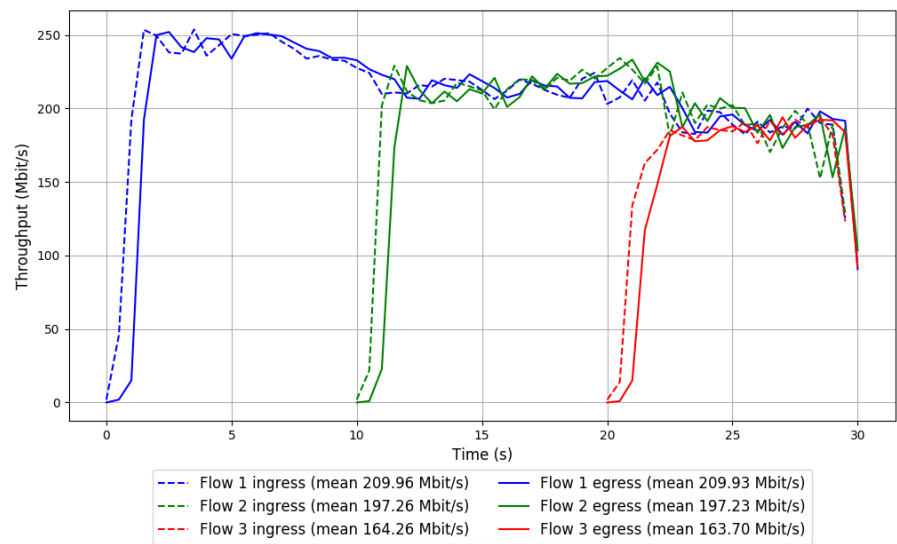
-- Flow 3:

Average throughput: 163.70 Mbit/s

95th percentile per-packet one-way delay: 64.544 ms

Loss rate: 1.64%

Run 2: Report of Indigo — Data Link

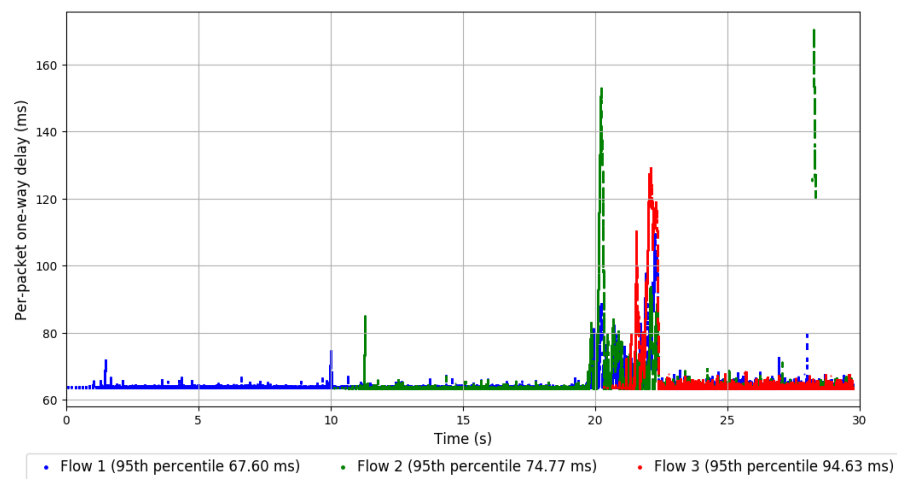
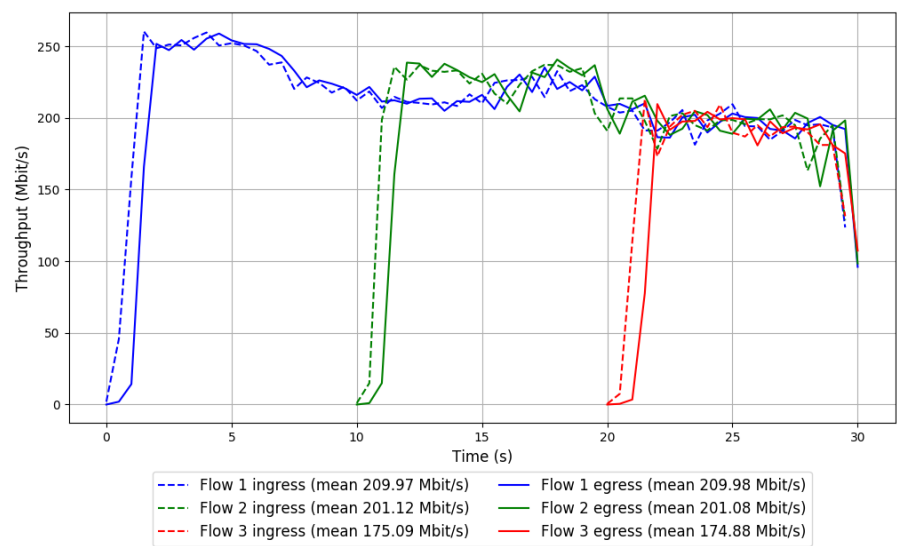


Run 3: Statistics of Indigo

Start at: 2019-01-19 11:23:42
End at: 2019-01-19 11:24:12
Local clock offset: -0.098 ms
Remote clock offset: -0.699 ms

Below is generated by plot.py at 2019-01-19 14:23:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 398.24 Mbit/s
95th percentile per-packet one-way delay: 72.215 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 209.98 Mbit/s
95th percentile per-packet one-way delay: 67.599 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 201.08 Mbit/s
95th percentile per-packet one-way delay: 74.773 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 174.88 Mbit/s
95th percentile per-packet one-way delay: 94.627 ms
Loss rate: 1.48%

Run 3: Report of Indigo — Data Link

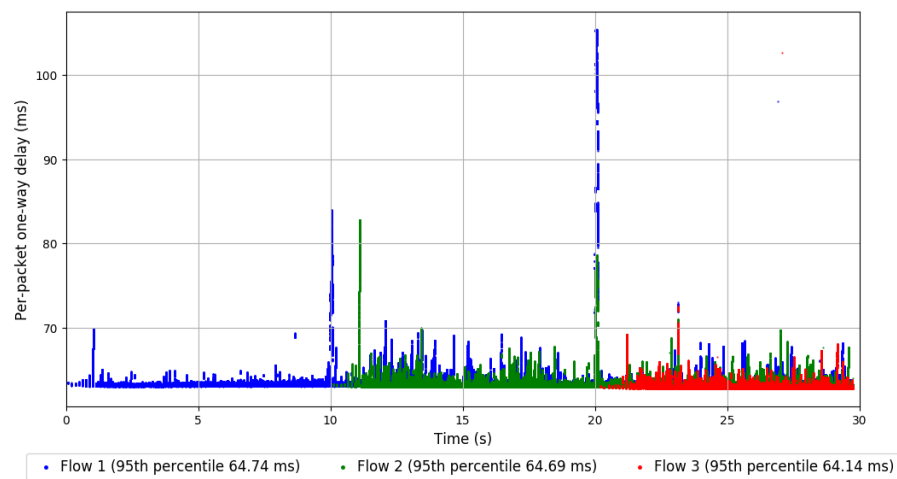
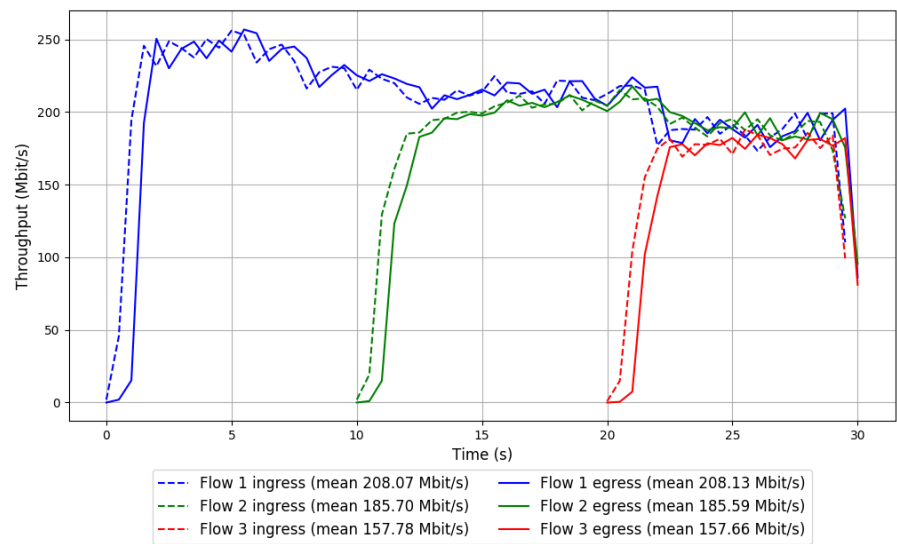


Run 4: Statistics of Indigo

Start at: 2019-01-19 12:00:23
End at: 2019-01-19 12:00:53
Local clock offset: -0.044 ms
Remote clock offset: -0.328 ms

Below is generated by plot.py at 2019-01-19 14:23:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 381.42 Mbit/s
95th percentile per-packet one-way delay: 64.632 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 208.13 Mbit/s
95th percentile per-packet one-way delay: 64.743 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 185.59 Mbit/s
95th percentile per-packet one-way delay: 64.689 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 157.66 Mbit/s
95th percentile per-packet one-way delay: 64.142 ms
Loss rate: 1.39%

Run 4: Report of Indigo — Data Link

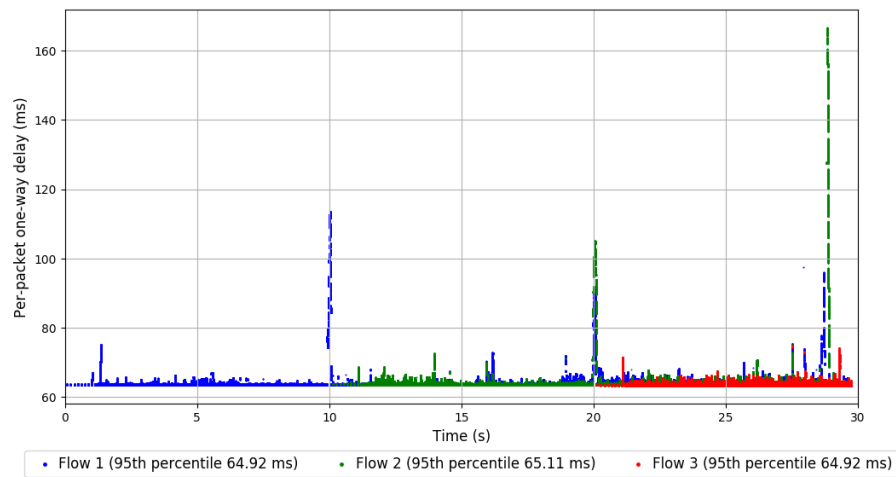
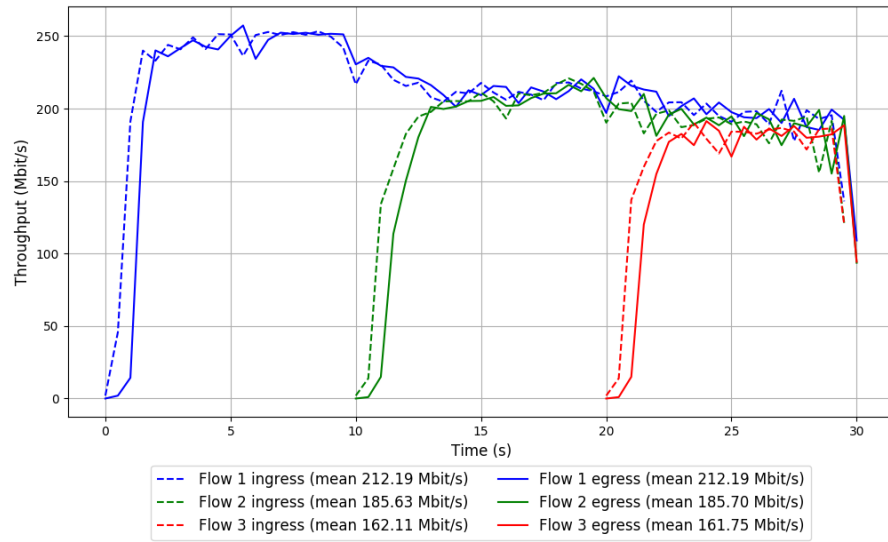


Run 5: Statistics of Indigo

Start at: 2019-01-19 12:37:05
End at: 2019-01-19 12:37:35
Local clock offset: -0.043 ms
Remote clock offset: -0.516 ms

Below is generated by plot.py at 2019-01-19 14:23:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 387.34 Mbit/s
95th percentile per-packet one-way delay: 64.980 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 212.19 Mbit/s
95th percentile per-packet one-way delay: 64.920 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 185.70 Mbit/s
95th percentile per-packet one-way delay: 65.112 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 161.75 Mbit/s
95th percentile per-packet one-way delay: 64.919 ms
Loss rate: 1.51%

Run 5: Report of Indigo — Data Link

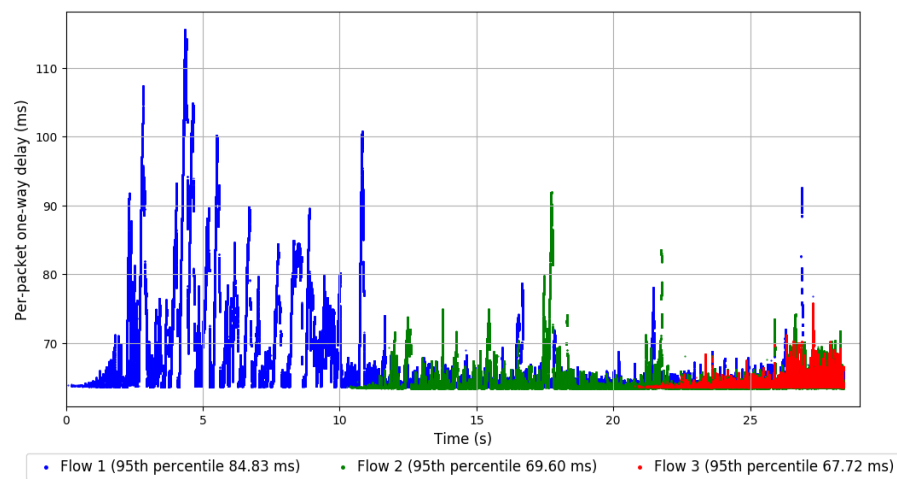
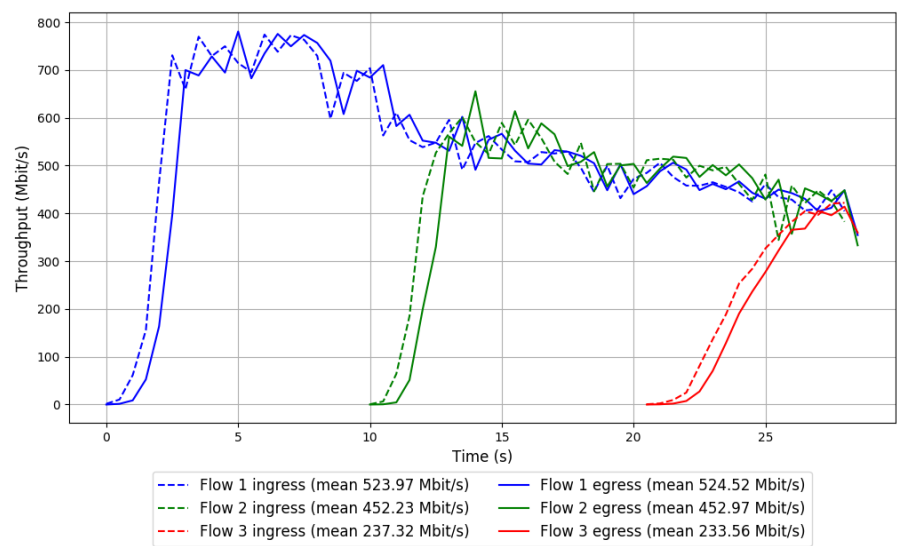


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-01-19 10:07:54
End at: 2019-01-19 10:08:24
Local clock offset: -0.025 ms
Remote clock offset: -0.391 ms

Below is generated by plot.py at 2019-01-19 14:26:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 877.68 Mbit/s
95th percentile per-packet one-way delay: 80.840 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 524.52 Mbit/s
95th percentile per-packet one-way delay: 84.826 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 452.97 Mbit/s
95th percentile per-packet one-way delay: 69.596 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 233.56 Mbit/s
95th percentile per-packet one-way delay: 67.722 ms
Loss rate: 3.19%

Run 1: Report of Indigo-MusesC3 — Data Link

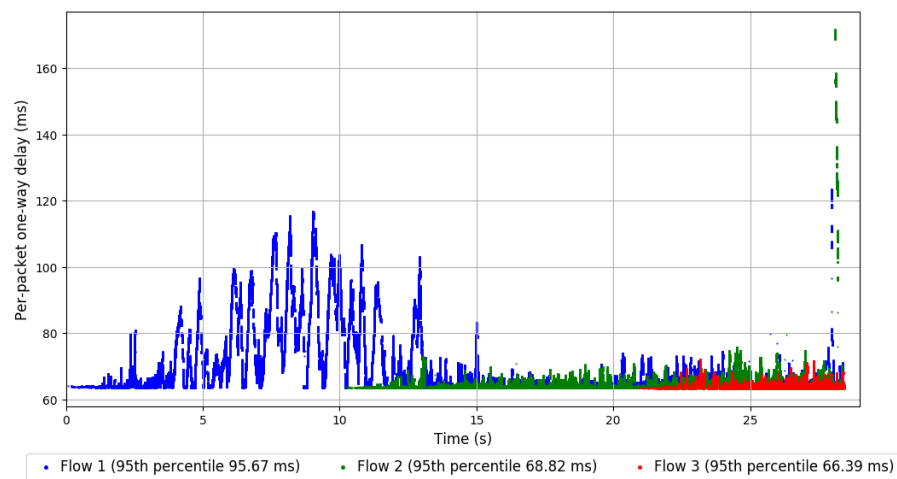
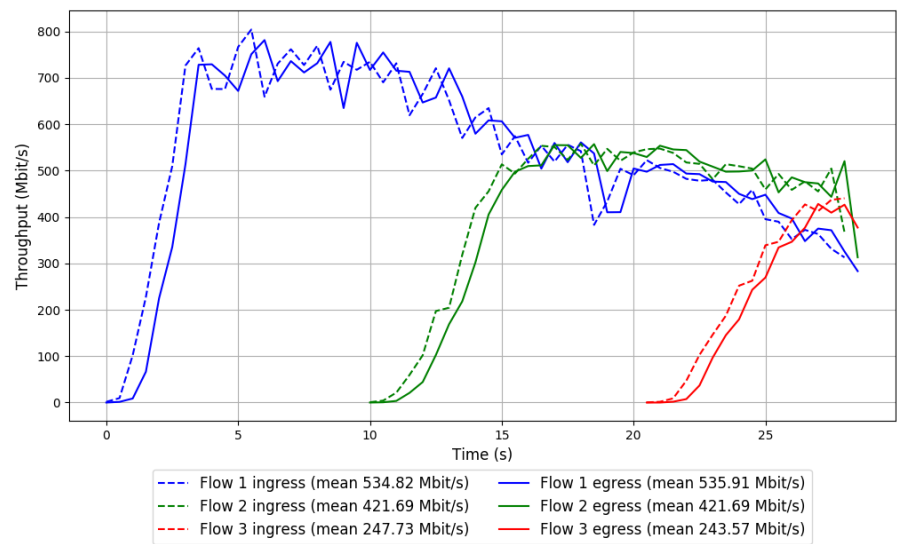


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-01-19 10:44:53
End at: 2019-01-19 10:45:23
Local clock offset: -0.11 ms
Remote clock offset: -0.713 ms

Below is generated by plot.py at 2019-01-19 14:27:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 872.06 Mbit/s
95th percentile per-packet one-way delay: 91.516 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 535.91 Mbit/s
95th percentile per-packet one-way delay: 95.668 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 421.69 Mbit/s
95th percentile per-packet one-way delay: 68.822 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 243.57 Mbit/s
95th percentile per-packet one-way delay: 66.388 ms
Loss rate: 3.30%

Run 2: Report of Indigo-MusesC3 — Data Link

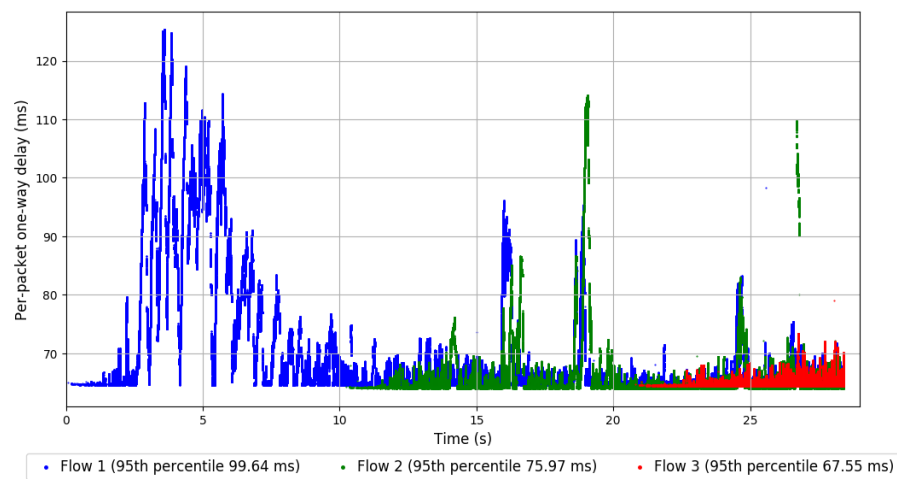
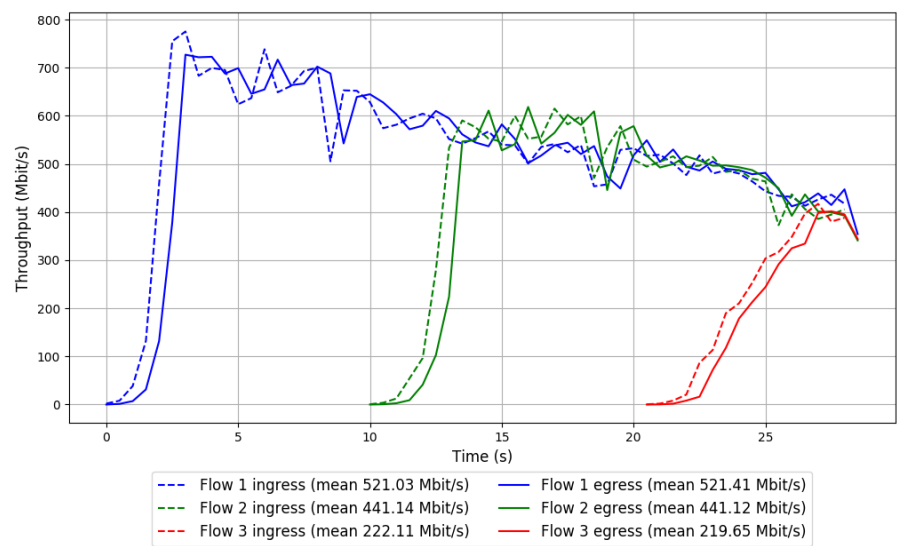


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-01-19 11:21:47
End at: 2019-01-19 11:22:17
Local clock offset: -0.073 ms
Remote clock offset: -1.417 ms

Below is generated by plot.py at 2019-01-19 14:35:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 863.32 Mbit/s
95th percentile per-packet one-way delay: 95.438 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 521.41 Mbit/s
95th percentile per-packet one-way delay: 99.641 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 441.12 Mbit/s
95th percentile per-packet one-way delay: 75.966 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 219.65 Mbit/s
95th percentile per-packet one-way delay: 67.553 ms
Loss rate: 2.73%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-01-19 11:58:30

End at: 2019-01-19 11:59:00

Local clock offset: 0.064 ms

Remote clock offset: -1.63 ms

Below is generated by plot.py at 2019-01-19 14:35:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 807.01 Mbit/s

95th percentile per-packet one-way delay: 76.277 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 486.57 Mbit/s

95th percentile per-packet one-way delay: 76.294 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 418.14 Mbit/s

95th percentile per-packet one-way delay: 80.445 ms

Loss rate: 0.68%

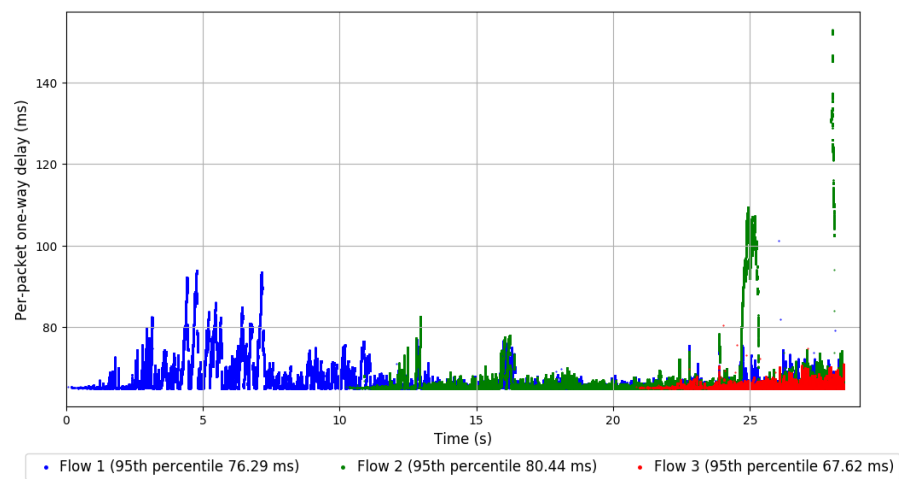
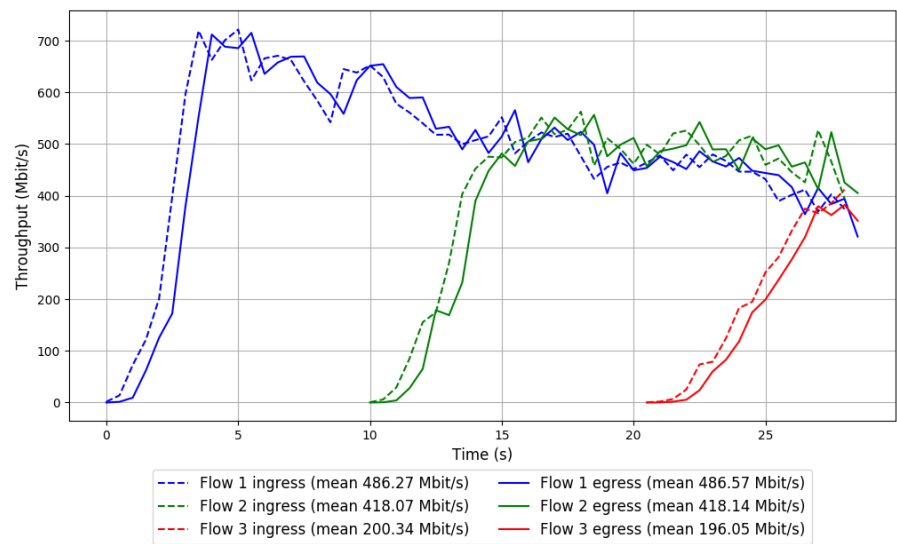
-- Flow 3:

Average throughput: 196.05 Mbit/s

95th percentile per-packet one-way delay: 67.623 ms

Loss rate: 3.75%

Run 4: Report of Indigo-MusesC3 — Data Link

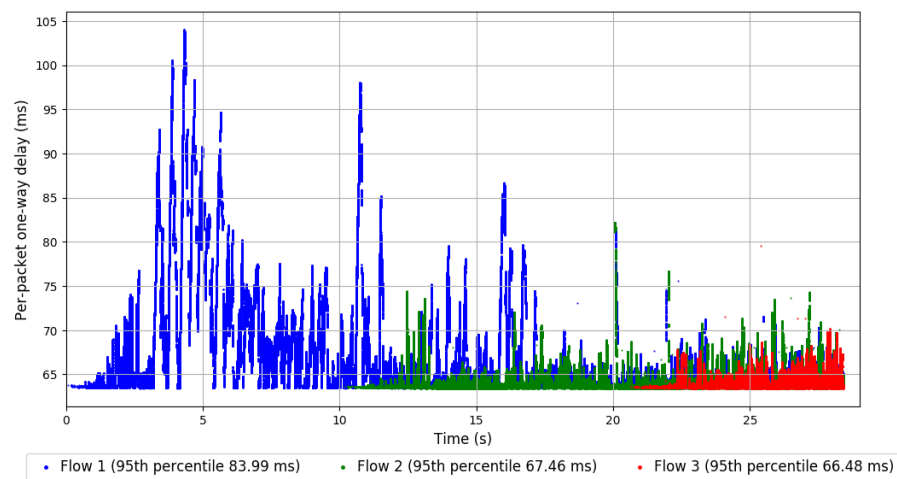
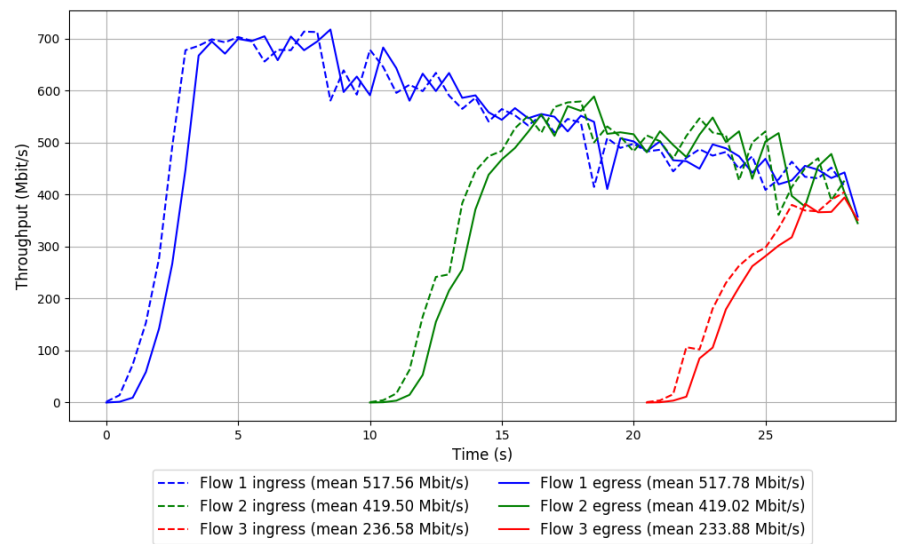


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-01-19 12:35:11
End at: 2019-01-19 12:35:41
Local clock offset: -0.015 ms
Remote clock offset: -0.507 ms

Below is generated by plot.py at 2019-01-19 14:36:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 851.58 Mbit/s
95th percentile per-packet one-way delay: 79.941 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 517.78 Mbit/s
95th percentile per-packet one-way delay: 83.990 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 419.02 Mbit/s
95th percentile per-packet one-way delay: 67.458 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 233.88 Mbit/s
95th percentile per-packet one-way delay: 66.484 ms
Loss rate: 2.73%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-01-19 10:11:37

End at: 2019-01-19 10:12:07

Local clock offset: -0.095 ms

Remote clock offset: 0.747 ms

Below is generated by plot.py at 2019-01-19 14:36:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 829.24 Mbit/s

95th percentile per-packet one-way delay: 119.266 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 528.48 Mbit/s

95th percentile per-packet one-way delay: 122.613 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 428.41 Mbit/s

95th percentile per-packet one-way delay: 88.261 ms

Loss rate: 0.96%

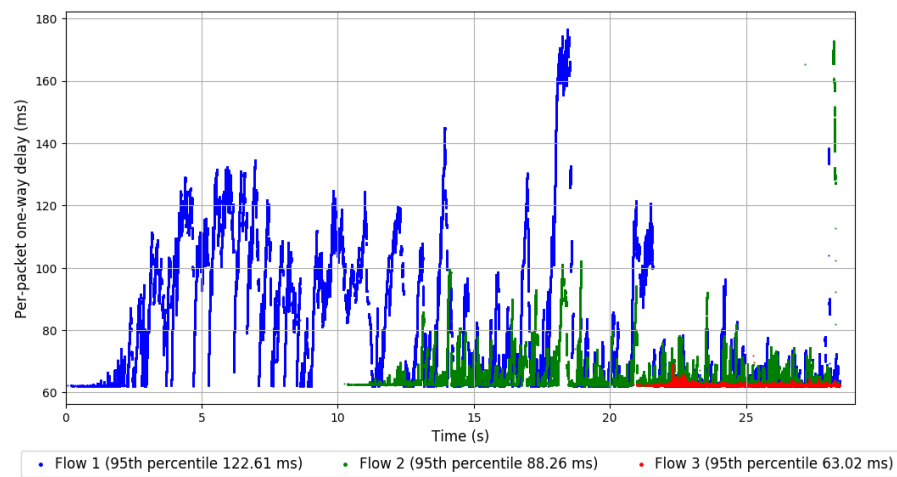
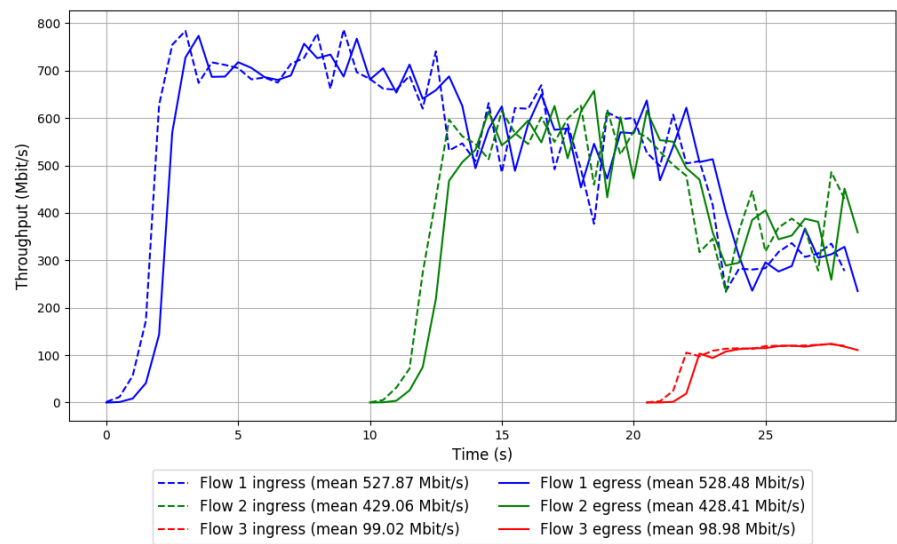
-- Flow 3:

Average throughput: 98.98 Mbit/s

95th percentile per-packet one-way delay: 63.020 ms

Loss rate: 1.70%

Run 1: Report of Indigo-MusesC5 — Data Link

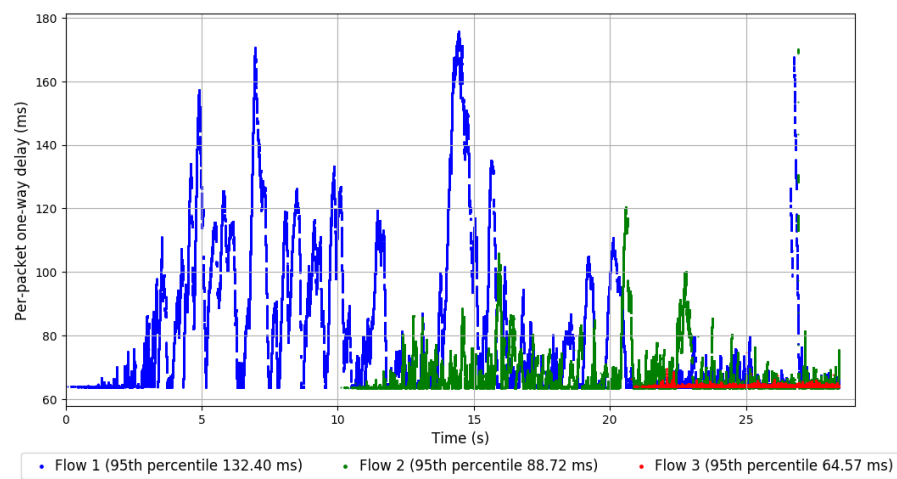
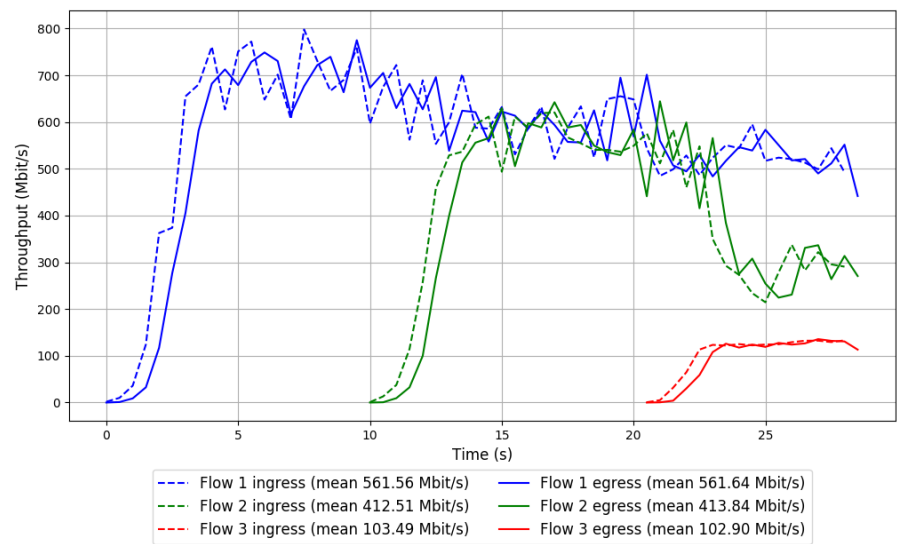


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-01-19 10:48:39
End at: 2019-01-19 10:49:09
Local clock offset: -0.119 ms
Remote clock offset: -0.861 ms

Below is generated by plot.py at 2019-01-19 14:37:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 856.76 Mbit/s
95th percentile per-packet one-way delay: 124.580 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 561.64 Mbit/s
95th percentile per-packet one-way delay: 132.404 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 413.84 Mbit/s
95th percentile per-packet one-way delay: 88.724 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 102.90 Mbit/s
95th percentile per-packet one-way delay: 64.572 ms
Loss rate: 2.21%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-01-19 11:25:32

End at: 2019-01-19 11:26:02

Local clock offset: -0.1 ms

Remote clock offset: 0.157 ms

Below is generated by plot.py at 2019-01-19 14:39:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 895.78 Mbit/s

95th percentile per-packet one-way delay: 111.320 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 547.36 Mbit/s

95th percentile per-packet one-way delay: 114.329 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 460.12 Mbit/s

95th percentile per-packet one-way delay: 95.487 ms

Loss rate: 0.89%

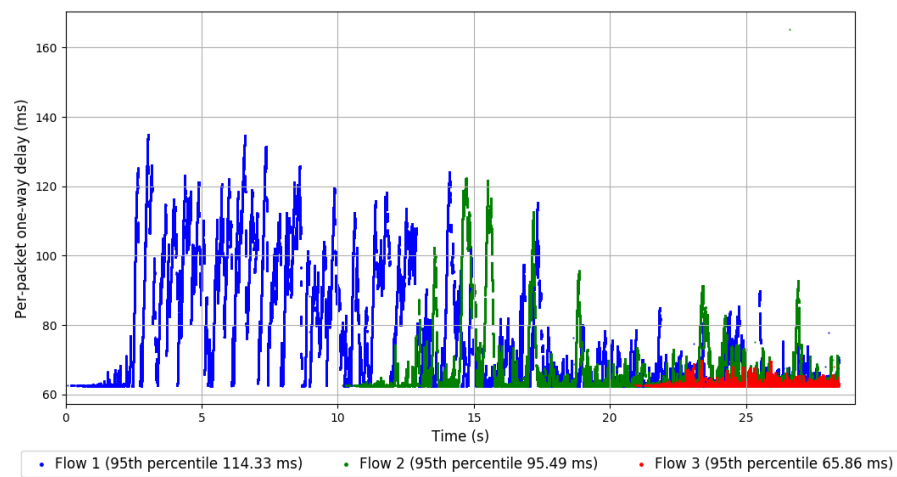
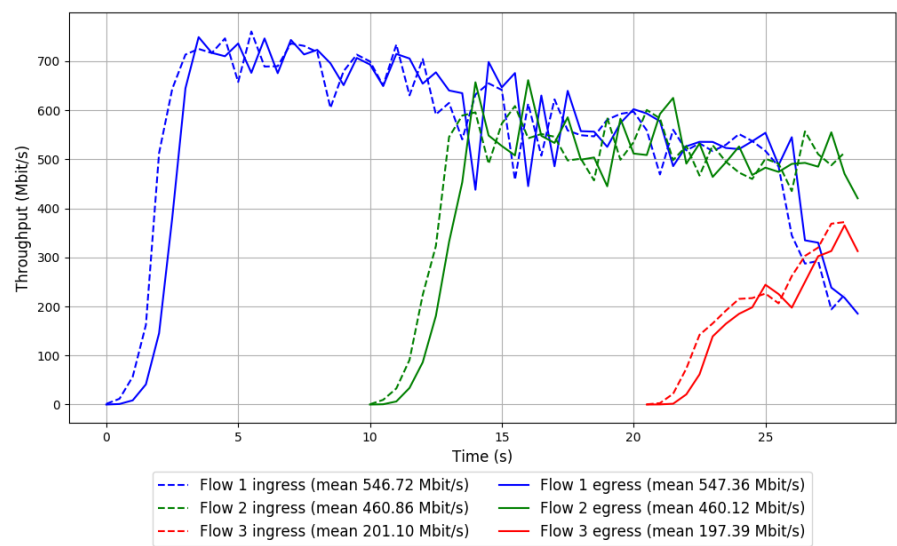
-- Flow 3:

Average throughput: 197.39 Mbit/s

95th percentile per-packet one-way delay: 65.861 ms

Loss rate: 3.47%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:02:12

End at: 2019-01-19 12:02:42

Local clock offset: -0.031 ms

Remote clock offset: -1.71 ms

Below is generated by plot.py at 2019-01-19 14:43:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 886.75 Mbit/s

95th percentile per-packet one-way delay: 103.043 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 527.63 Mbit/s

95th percentile per-packet one-way delay: 96.093 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 516.41 Mbit/s

95th percentile per-packet one-way delay: 127.234 ms

Loss rate: 0.71%

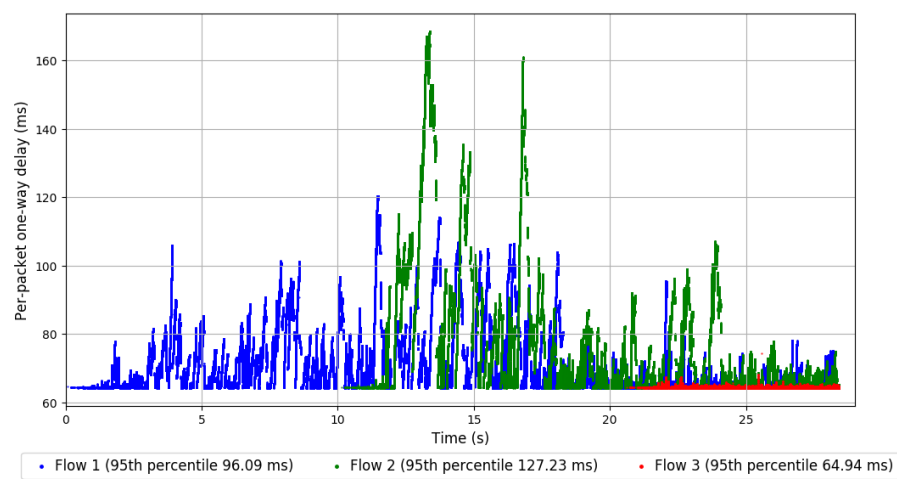
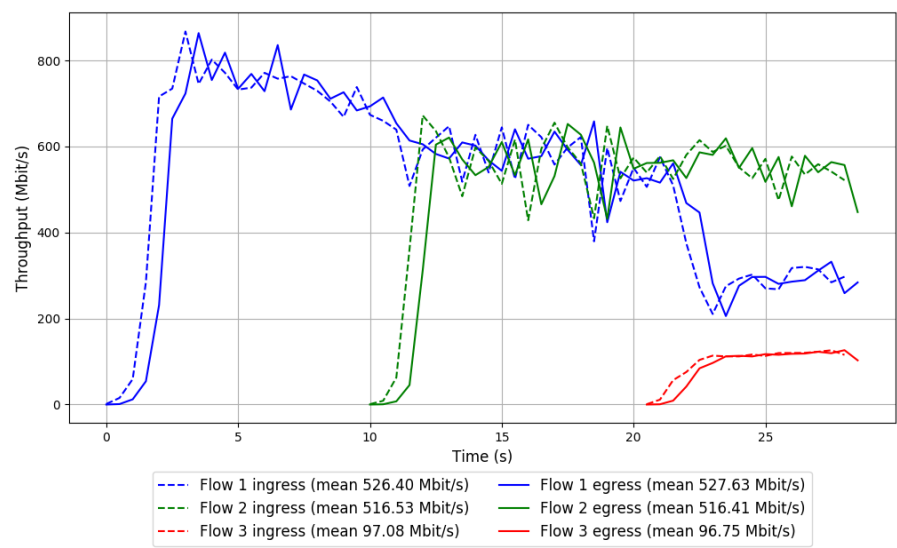
-- Flow 3:

Average throughput: 96.75 Mbit/s

95th percentile per-packet one-way delay: 64.945 ms

Loss rate: 1.91%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-01-19 12:38:55

End at: 2019-01-19 12:39:25

Local clock offset: 0.146 ms

Remote clock offset: 0.953 ms

Below is generated by plot.py at 2019-01-19 14:44:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 867.78 Mbit/s

95th percentile per-packet one-way delay: 125.083 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 531.13 Mbit/s

95th percentile per-packet one-way delay: 110.643 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 441.45 Mbit/s

95th percentile per-packet one-way delay: 156.834 ms

Loss rate: 0.95%

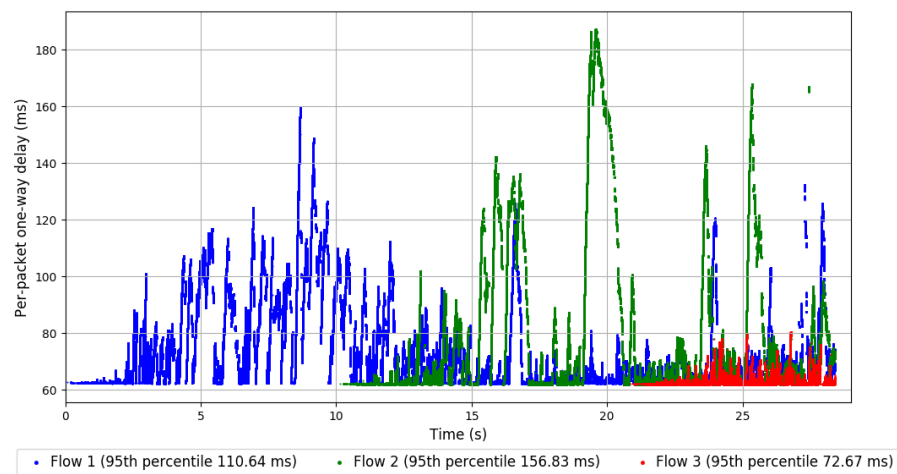
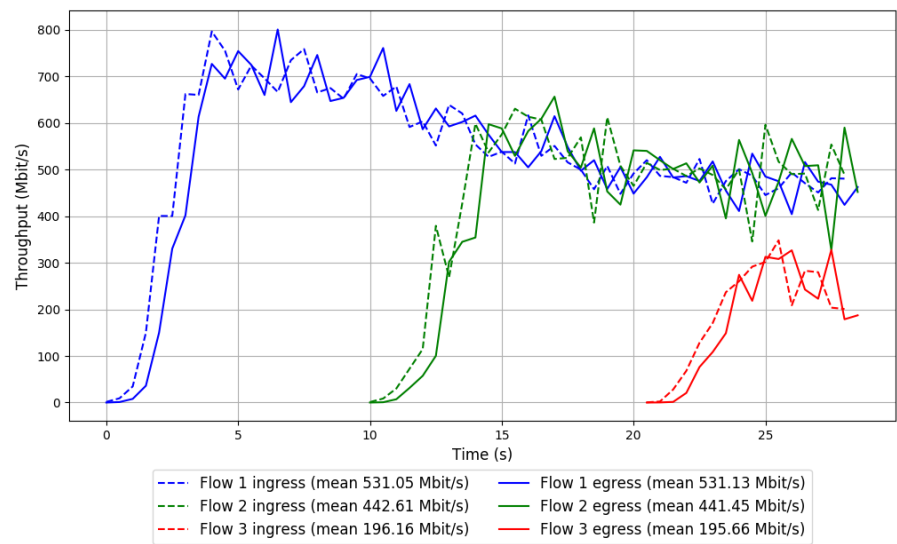
-- Flow 3:

Average throughput: 195.66 Mbit/s

95th percentile per-packet one-way delay: 72.672 ms

Loss rate: 1.90%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-19 10:21:44

End at: 2019-01-19 10:22:14

Local clock offset: -0.133 ms

Remote clock offset: 0.036 ms

Below is generated by plot.py at 2019-01-19 14:44:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 523.30 Mbit/s

95th percentile per-packet one-way delay: 65.743 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 350.52 Mbit/s

95th percentile per-packet one-way delay: 65.160 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 248.77 Mbit/s

95th percentile per-packet one-way delay: 68.270 ms

Loss rate: 1.15%

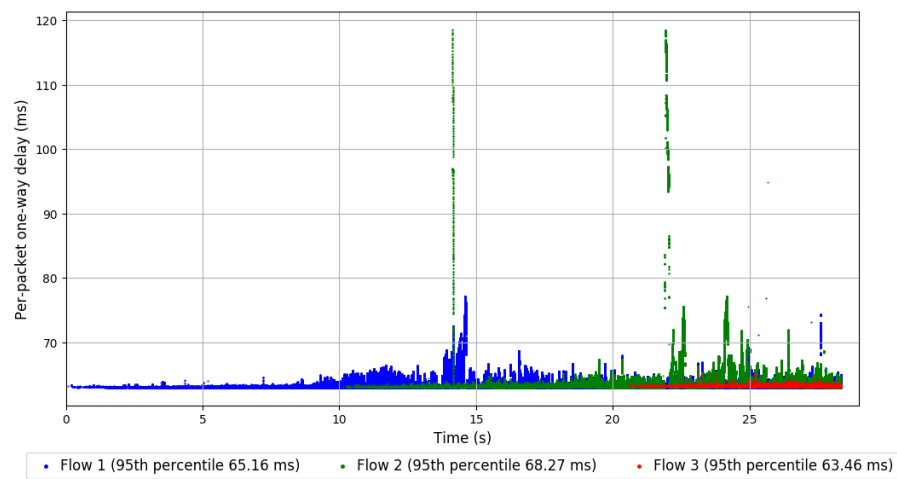
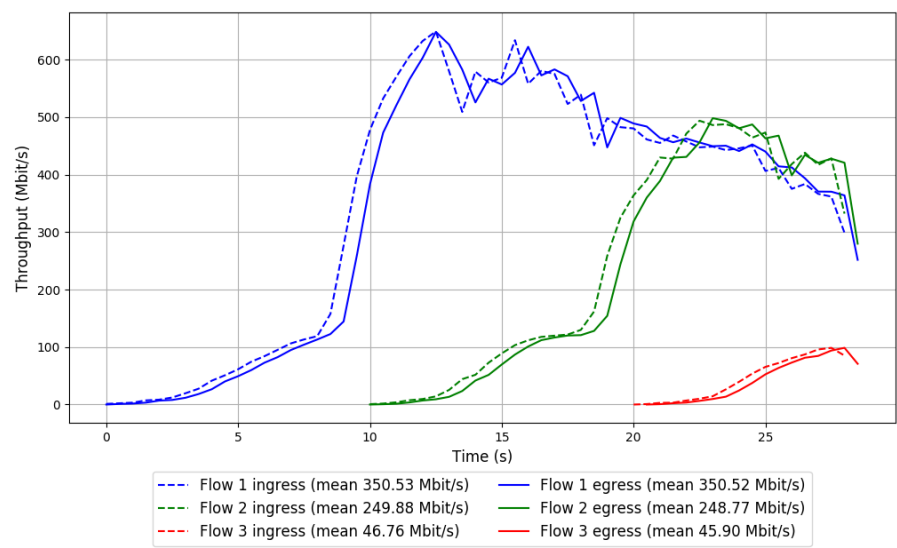
-- Flow 3:

Average throughput: 45.90 Mbit/s

95th percentile per-packet one-way delay: 63.456 ms

Loss rate: 3.57%

Run 1: Report of Indigo-MusesD — Data Link

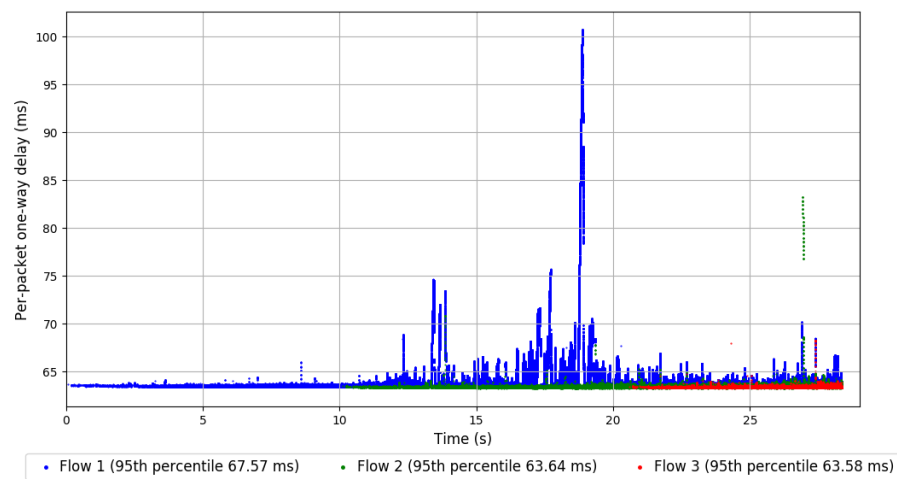
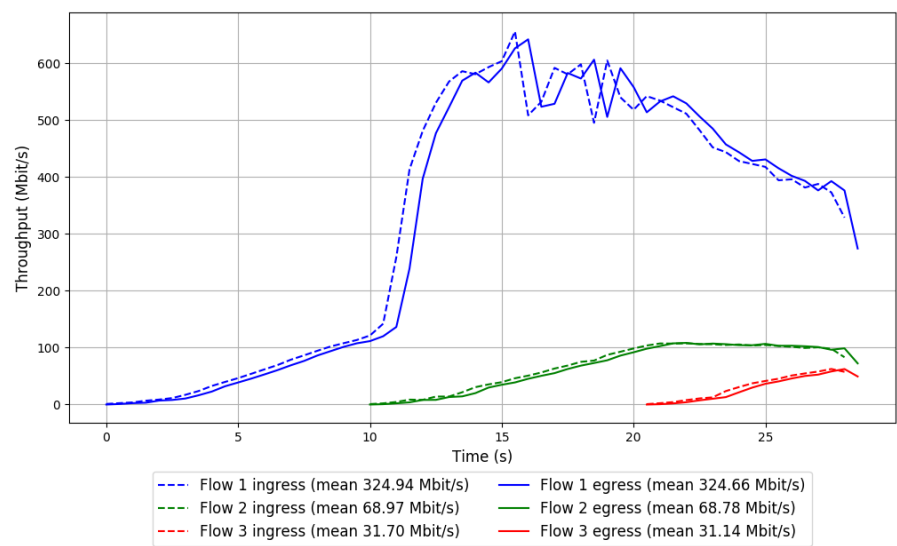


Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-19 10:58:36
End at: 2019-01-19 10:59:06
Local clock offset: -0.121 ms
Remote clock offset: -0.402 ms

Below is generated by plot.py at 2019-01-19 14:44:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 377.58 Mbit/s
95th percentile per-packet one-way delay: 66.931 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 324.66 Mbit/s
95th percentile per-packet one-way delay: 67.571 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 68.78 Mbit/s
95th percentile per-packet one-way delay: 63.638 ms
Loss rate: 0.96%
-- Flow 3:
Average throughput: 31.14 Mbit/s
95th percentile per-packet one-way delay: 63.576 ms
Loss rate: 3.32%

Run 2: Report of Indigo-MusesD — Data Link

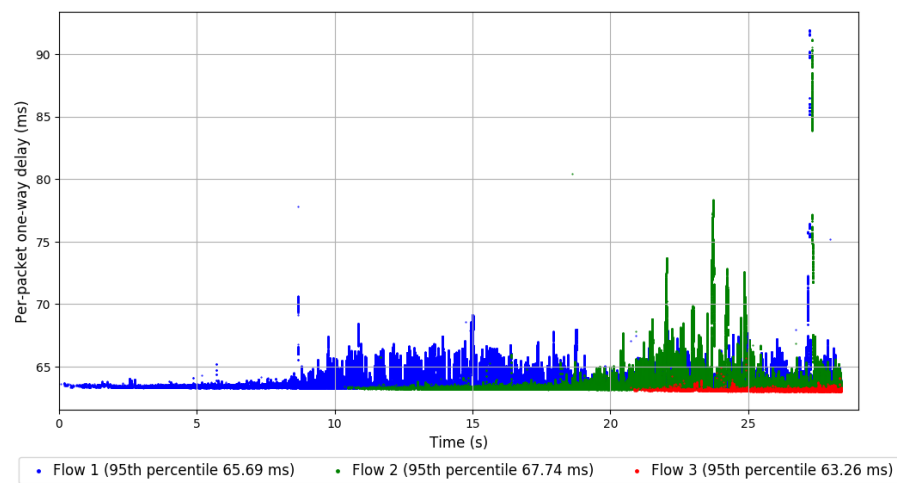
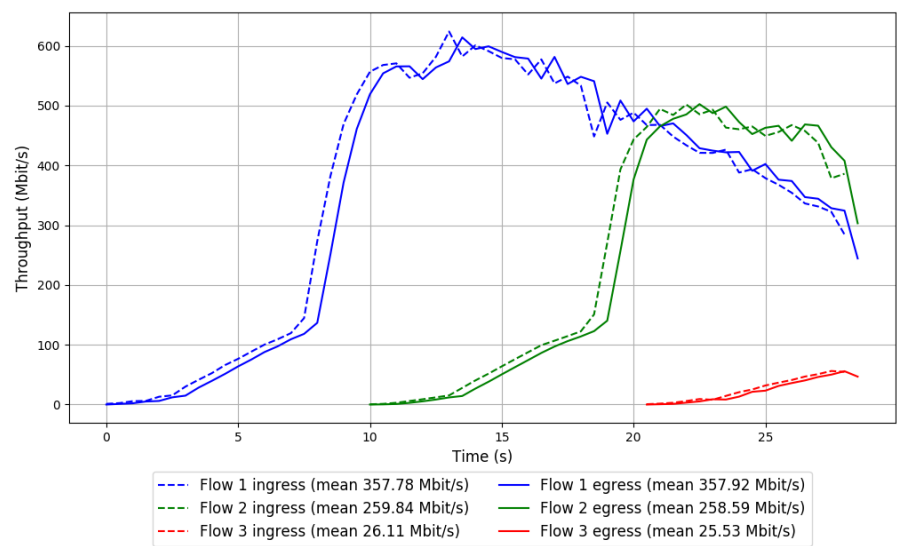


Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-19 11:35:37
End at: 2019-01-19 11:36:07
Local clock offset: -0.086 ms
Remote clock offset: -0.218 ms

Below is generated by plot.py at 2019-01-19 14:45:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 529.49 Mbit/s
95th percentile per-packet one-way delay: 66.076 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 357.92 Mbit/s
95th percentile per-packet one-way delay: 65.695 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 258.59 Mbit/s
95th percentile per-packet one-way delay: 67.743 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 25.53 Mbit/s
95th percentile per-packet one-way delay: 63.258 ms
Loss rate: 3.79%

Run 3: Report of Indigo-MusesD — Data Link

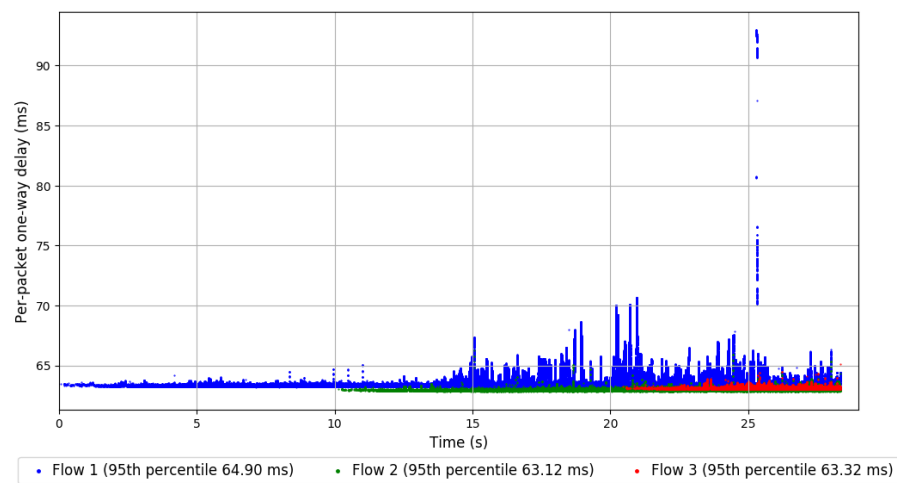
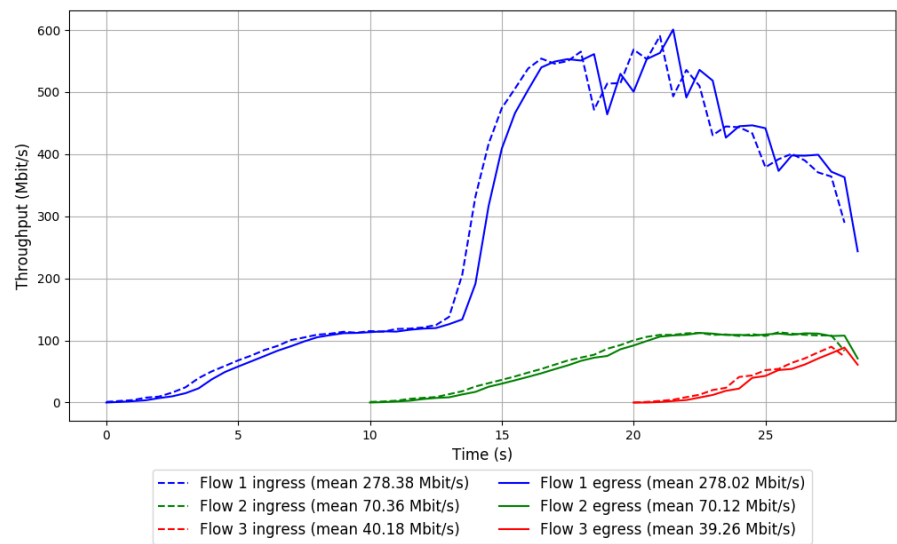


Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:12:13
End at: 2019-01-19 12:12:43
Local clock offset: 0.09 ms
Remote clock offset: -0.184 ms

Below is generated by plot.py at 2019-01-19 14:45:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 334.08 Mbit/s
95th percentile per-packet one-way delay: 64.713 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 278.02 Mbit/s
95th percentile per-packet one-way delay: 64.902 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 70.12 Mbit/s
95th percentile per-packet one-way delay: 63.125 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 39.26 Mbit/s
95th percentile per-packet one-way delay: 63.316 ms
Loss rate: 3.89%

Run 4: Report of Indigo-MusesD — Data Link

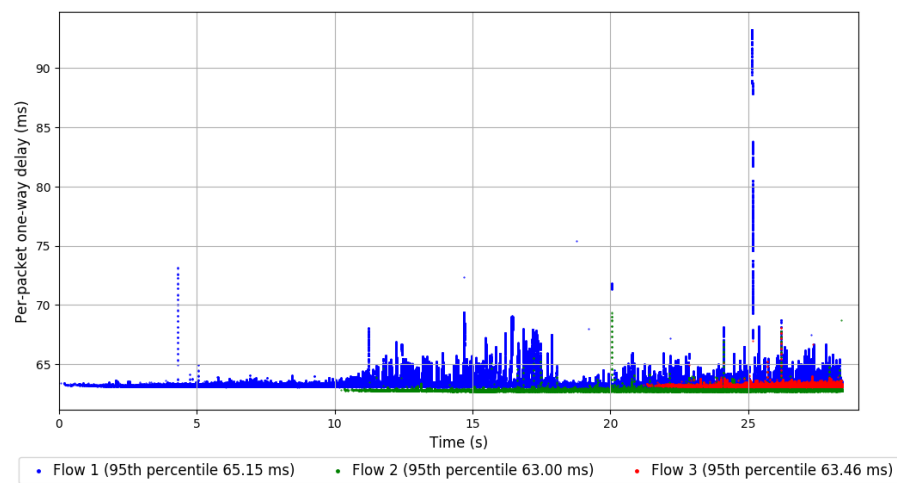
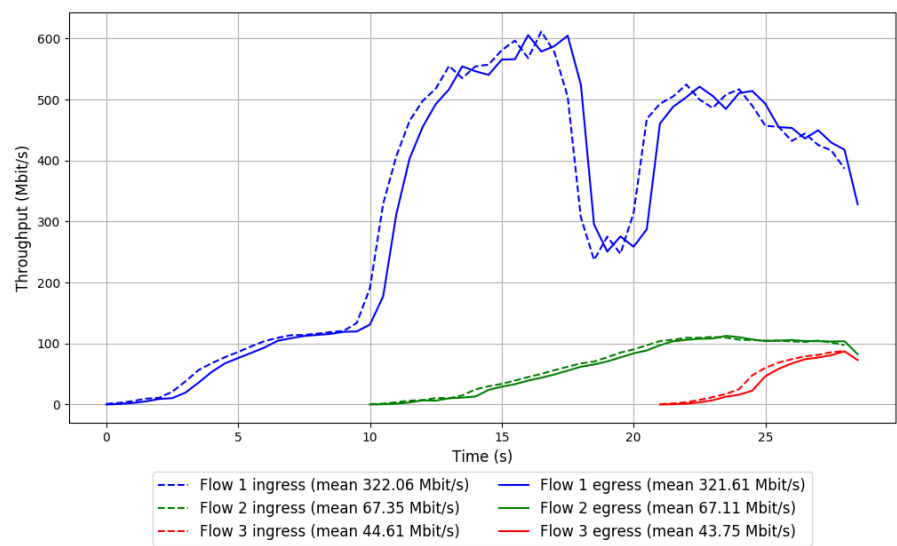


Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-19 12:48:48
End at: 2019-01-19 12:49:18
Local clock offset: -0.03 ms
Remote clock offset: -0.195 ms

Below is generated by plot.py at 2019-01-19 14:45:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 375.76 Mbit/s
95th percentile per-packet one-way delay: 64.962 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 321.61 Mbit/s
95th percentile per-packet one-way delay: 65.151 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 67.11 Mbit/s
95th percentile per-packet one-way delay: 62.999 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 43.75 Mbit/s
95th percentile per-packet one-way delay: 63.460 ms
Loss rate: 3.73%

Run 5: Report of Indigo-MusesD — Data Link

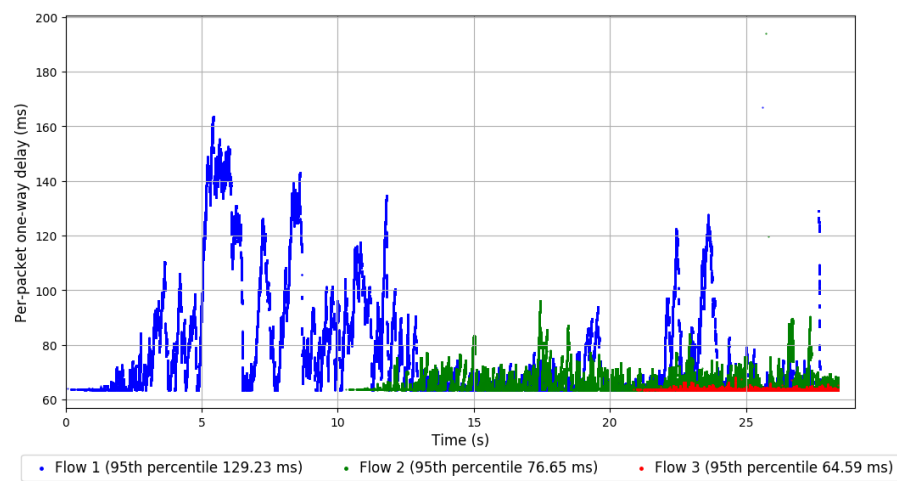
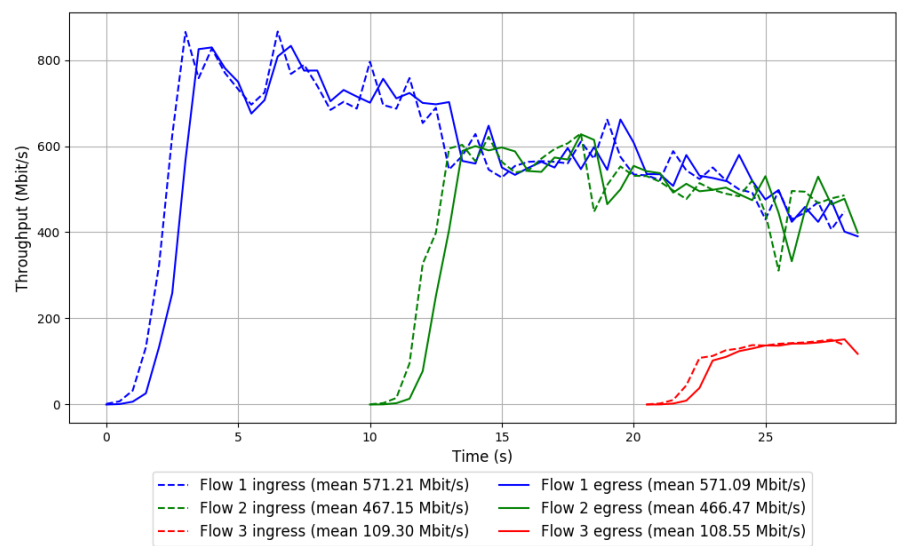


Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-19 09:55:59
End at: 2019-01-19 09:56:29
Local clock offset: -0.053 ms
Remote clock offset: -0.701 ms

Below is generated by plot.py at 2019-01-19 14:55:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 897.70 Mbit/s
95th percentile per-packet one-way delay: 119.969 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 571.09 Mbit/s
95th percentile per-packet one-way delay: 129.230 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 466.47 Mbit/s
95th percentile per-packet one-way delay: 76.649 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 108.55 Mbit/s
95th percentile per-packet one-way delay: 64.595 ms
Loss rate: 2.31%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-19 10:32:54

End at: 2019-01-19 10:33:24

Local clock offset: -0.154 ms

Remote clock offset: -0.69 ms

Below is generated by plot.py at 2019-01-19 14:57:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 925.22 Mbit/s

95th percentile per-packet one-way delay: 120.707 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 557.21 Mbit/s

95th percentile per-packet one-way delay: 130.479 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 460.33 Mbit/s

95th percentile per-packet one-way delay: 74.189 ms

Loss rate: 0.69%

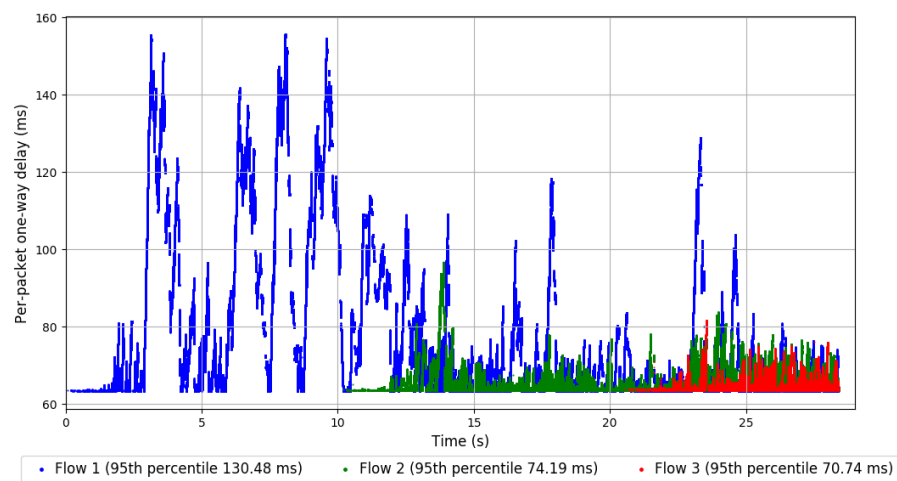
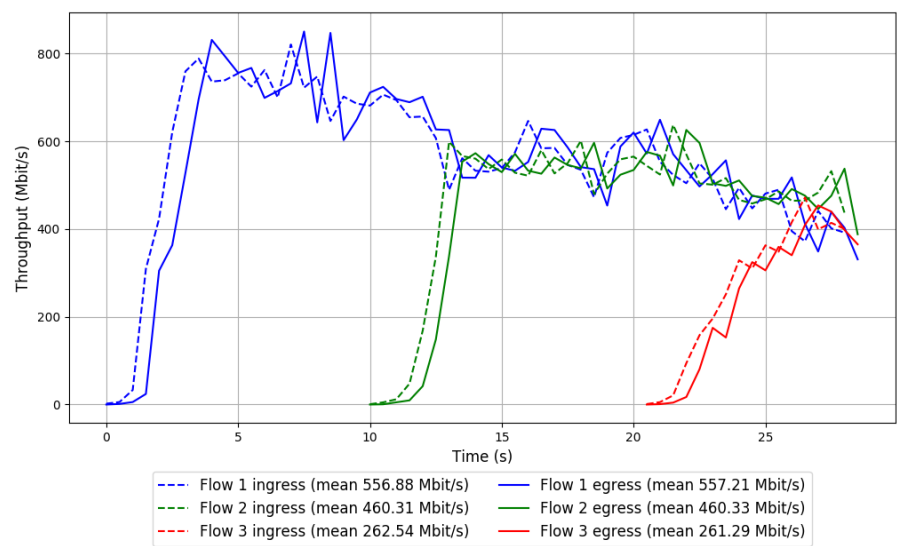
-- Flow 3:

Average throughput: 261.29 Mbit/s

95th percentile per-packet one-way delay: 70.738 ms

Loss rate: 2.08%

Run 2: Report of Indigo-MusesT — Data Link

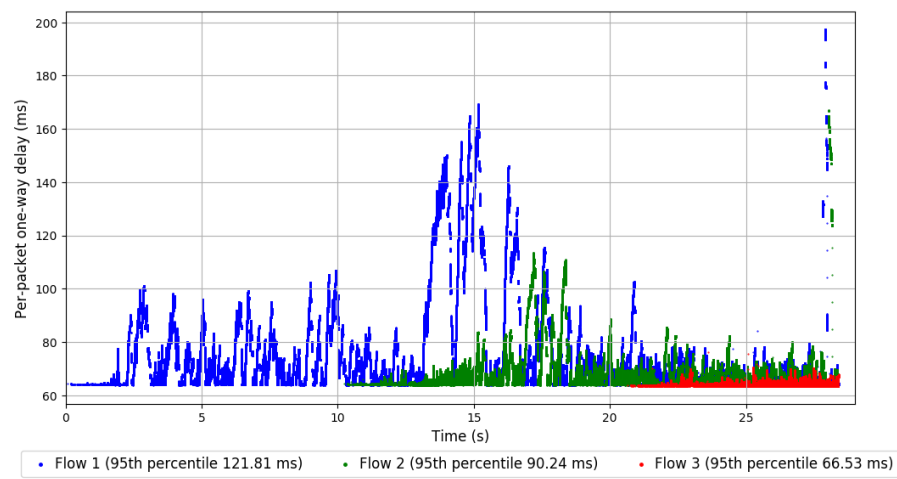
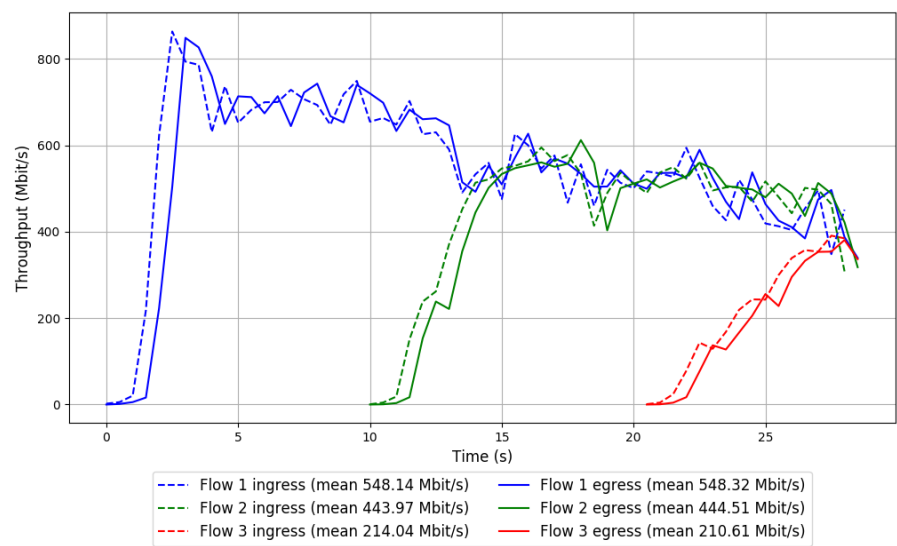


Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-19 11:09:49
End at: 2019-01-19 11:10:19
Local clock offset: -0.091 ms
Remote clock offset: -0.849 ms

Below is generated by plot.py at 2019-01-19 14:57:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 891.16 Mbit/s
95th percentile per-packet one-way delay: 110.175 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 548.32 Mbit/s
95th percentile per-packet one-way delay: 121.811 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 444.51 Mbit/s
95th percentile per-packet one-way delay: 90.237 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 210.61 Mbit/s
95th percentile per-packet one-way delay: 66.527 ms
Loss rate: 3.18%

Run 3: Report of Indigo-MusesT — Data Link

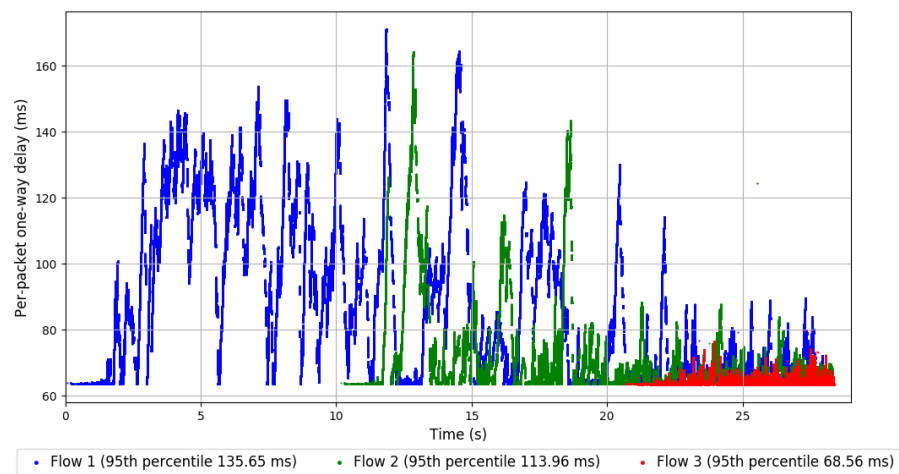
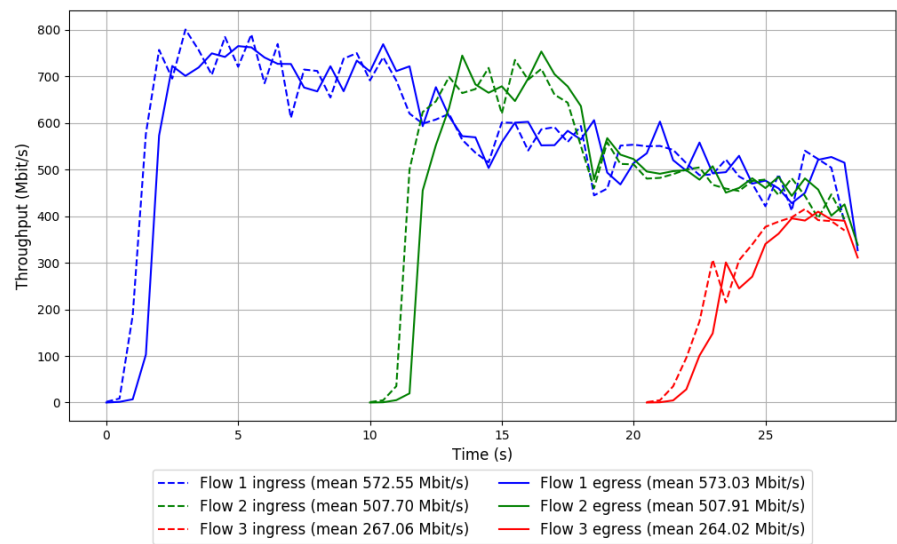


Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-19 11:46:29
End at: 2019-01-19 11:47:00
Local clock offset: -0.077 ms
Remote clock offset: -0.627 ms

Below is generated by plot.py at 2019-01-19 14:59:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 971.94 Mbit/s
95th percentile per-packet one-way delay: 131.629 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 573.03 Mbit/s
95th percentile per-packet one-way delay: 135.649 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 507.91 Mbit/s
95th percentile per-packet one-way delay: 113.964 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 264.02 Mbit/s
95th percentile per-packet one-way delay: 68.562 ms
Loss rate: 2.73%

Run 4: Report of Indigo-MusesT — Data Link

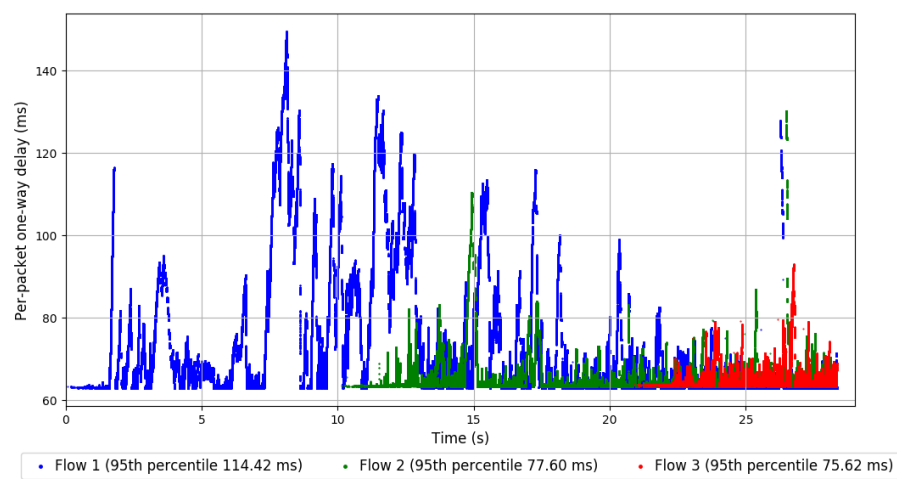
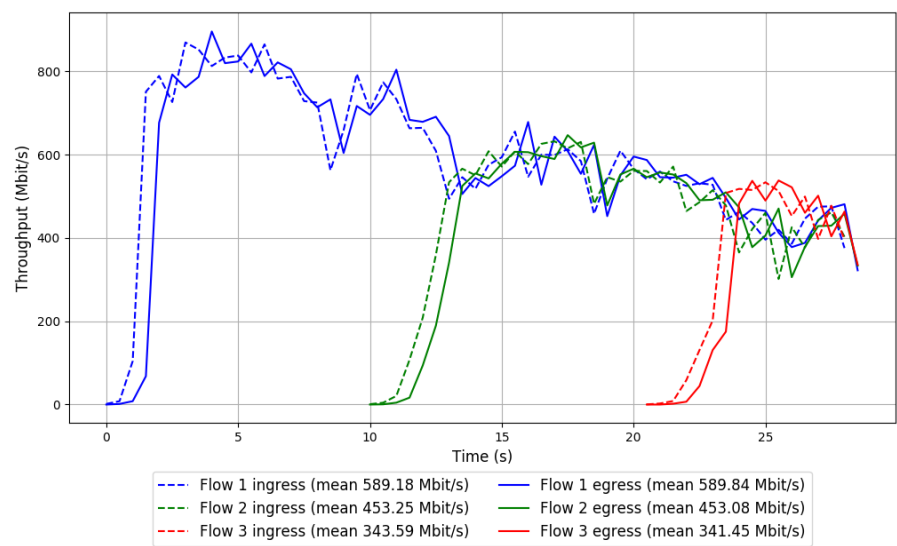


Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-19 12:23:10
End at: 2019-01-19 12:23:40
Local clock offset: -0.016 ms
Remote clock offset: -0.401 ms

Below is generated by plot.py at 2019-01-19 14:59:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 971.14 Mbit/s
95th percentile per-packet one-way delay: 107.082 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 589.84 Mbit/s
95th percentile per-packet one-way delay: 114.419 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 453.08 Mbit/s
95th percentile per-packet one-way delay: 77.604 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 341.45 Mbit/s
95th percentile per-packet one-way delay: 75.618 ms
Loss rate: 2.31%

Run 5: Report of Indigo-MusesT — Data Link

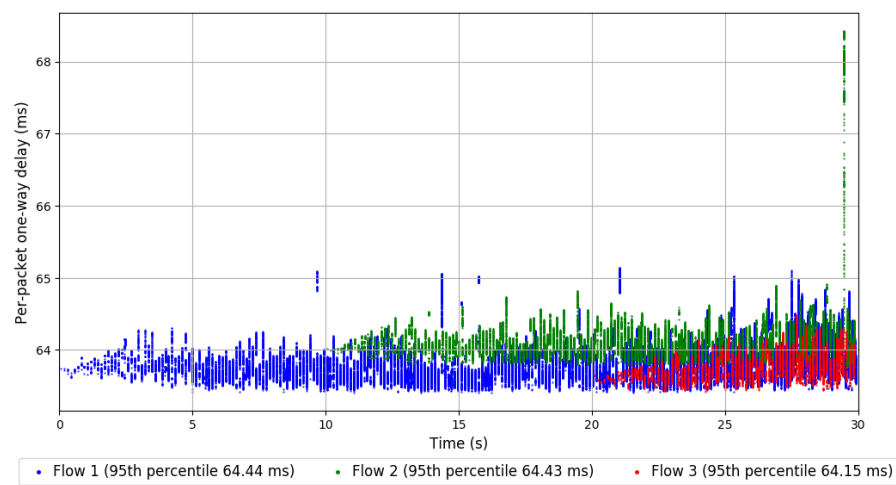
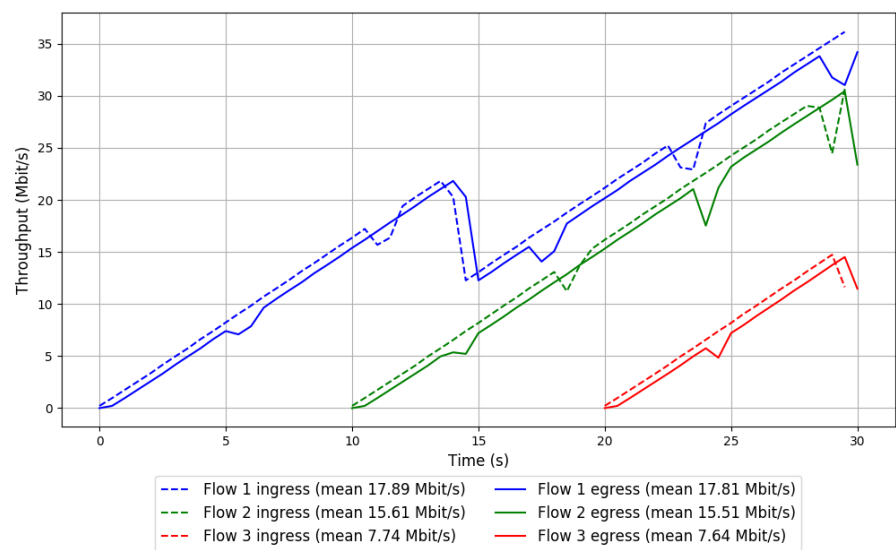


```
Run 1: Statistics of LEDBAT

Start at: 2019-01-19 09:51:04
End at: 2019-01-19 09:51:34
Local clock offset: 0.061 ms
Remote clock offset: -0.71 ms

# Below is generated by plot.py at 2019-01-19 14:59:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 30.57 Mbit/s
95th percentile per-packet one-way delay: 64.414 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 17.81 Mbit/s
95th percentile per-packet one-way delay: 64.437 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 15.51 Mbit/s
95th percentile per-packet one-way delay: 64.432 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 64.149 ms
Loss rate: 2.57%
```

Run 1: Report of LEDBAT — Data Link

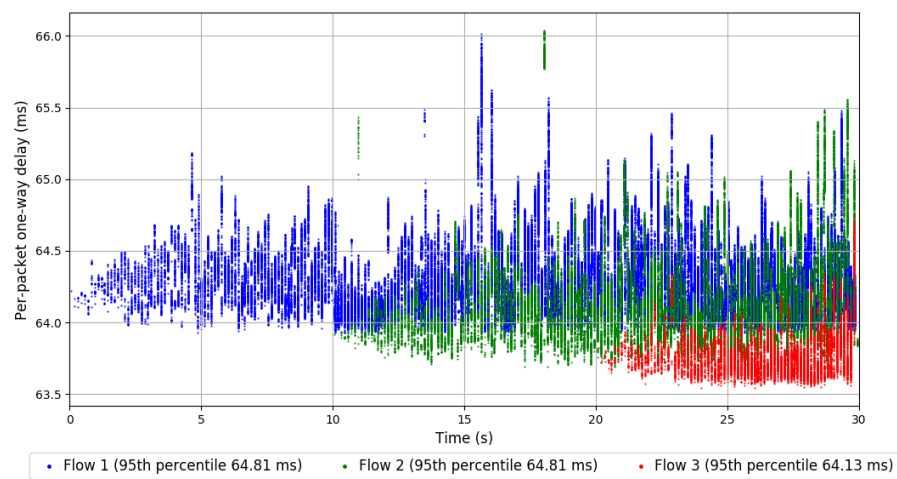
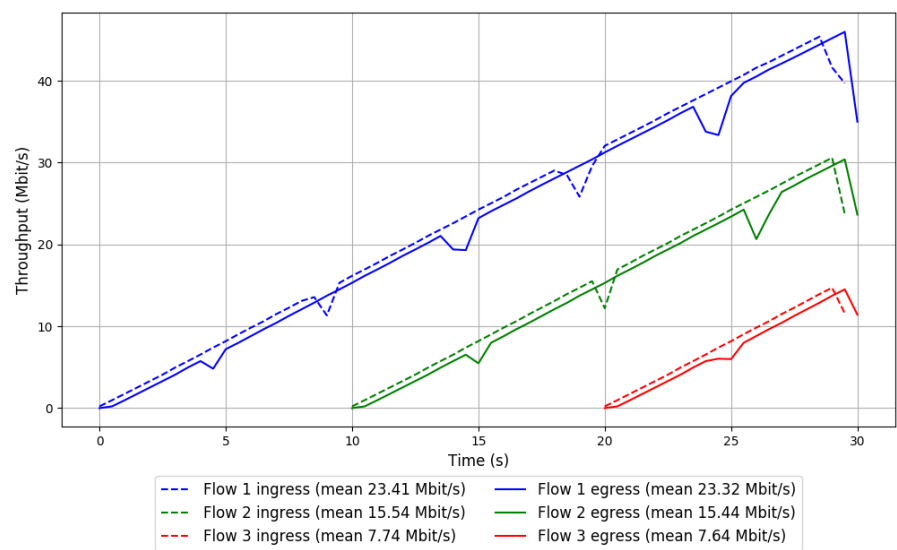


Run 2: Statistics of LEDBAT

Start at: 2019-01-19 10:27:57
End at: 2019-01-19 10:28:27
Local clock offset: -0.163 ms
Remote clock offset: -0.993 ms

Below is generated by plot.py at 2019-01-19 14:59:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 35.99 Mbit/s
95th percentile per-packet one-way delay: 64.798 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 64.815 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 15.44 Mbit/s
95th percentile per-packet one-way delay: 64.809 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 64.126 ms
Loss rate: 2.57%

Run 2: Report of LEDBAT — Data Link

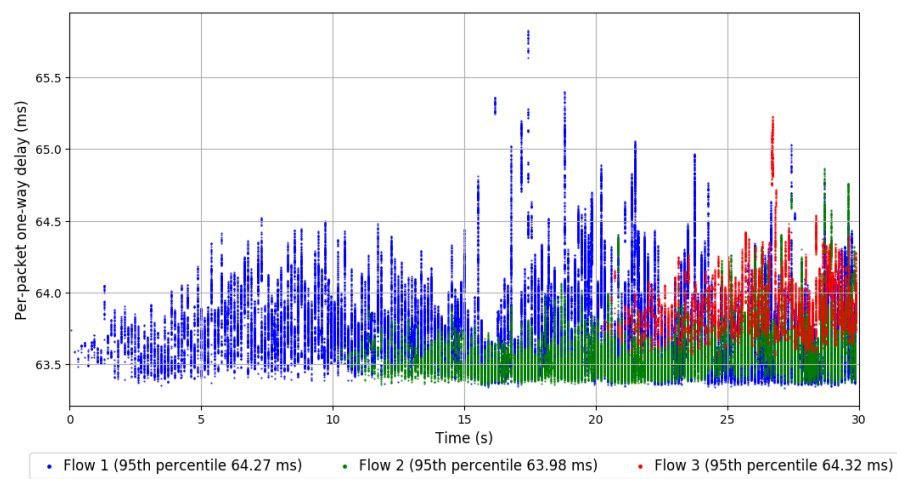
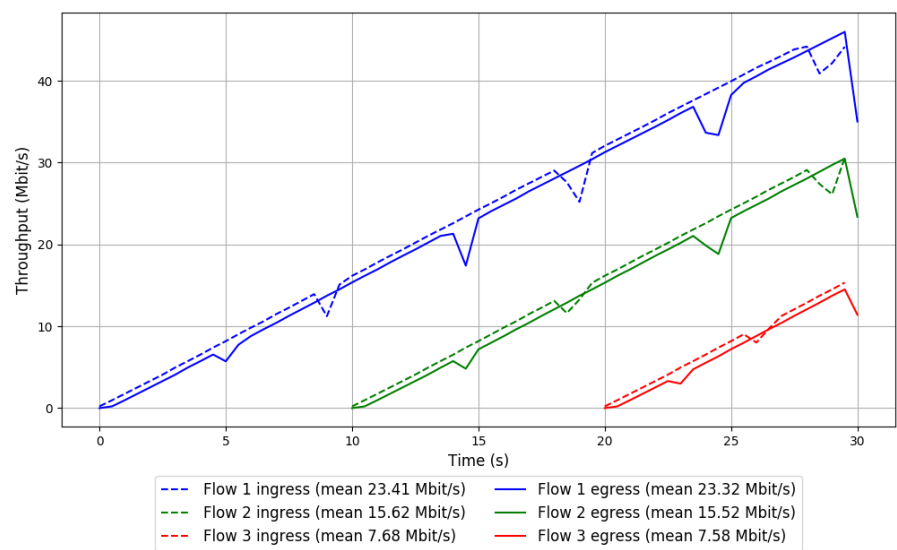


Run 3: Statistics of LEDBAT

Start at: 2019-01-19 11:04:43
End at: 2019-01-19 11:05:13
Local clock offset: -0.105 ms
Remote clock offset: -0.511 ms

Below is generated by plot.py at 2019-01-19 14:59:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.05 Mbit/s
95th percentile per-packet one-way delay: 64.232 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 23.32 Mbit/s
95th percentile per-packet one-way delay: 64.271 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 63.983 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 64.320 ms
Loss rate: 2.57%

Run 3: Report of LEDBAT — Data Link

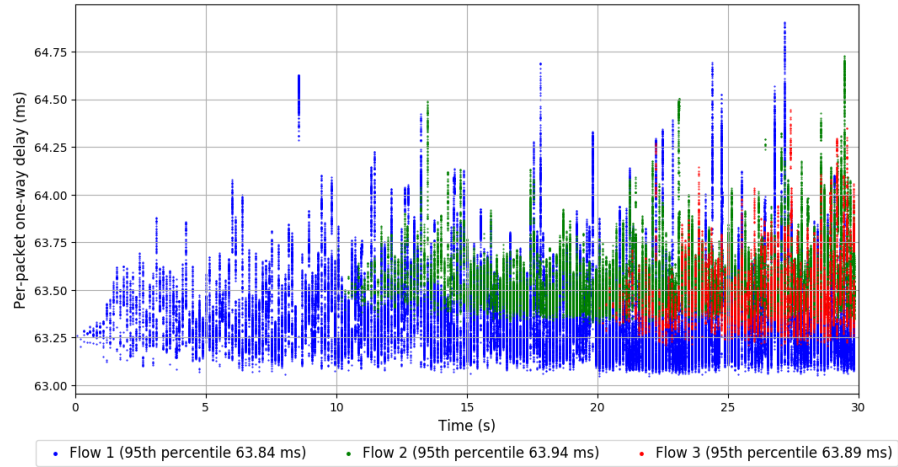
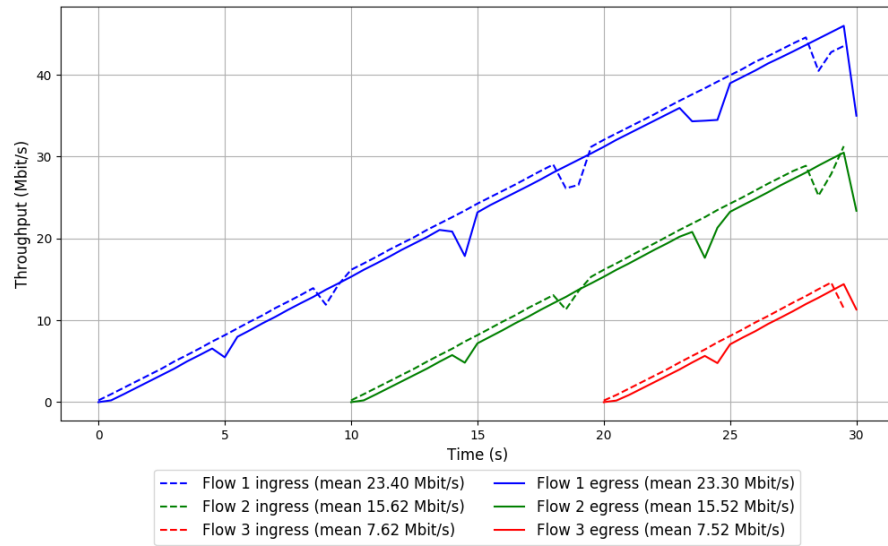


Run 4: Statistics of LEDBAT

Start at: 2019-01-19 11:41:44
End at: 2019-01-19 11:42:14
Local clock offset: -0.061 ms
Remote clock offset: -0.481 ms

Below is generated by plot.py at 2019-01-19 14:59:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.06 Mbit/s
95th percentile per-packet one-way delay: 63.893 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 63.836 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 15.52 Mbit/s
95th percentile per-packet one-way delay: 63.944 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 63.891 ms
Loss rate: 2.58%

Run 4: Report of LEDBAT — Data Link

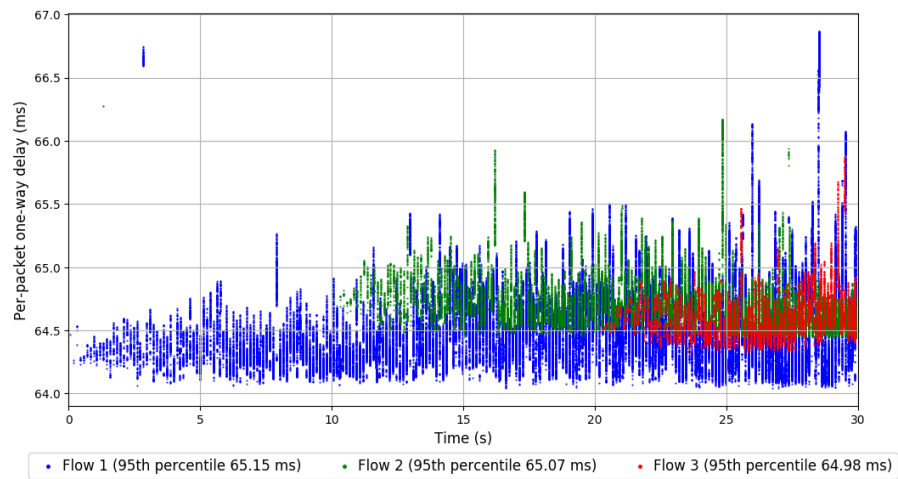
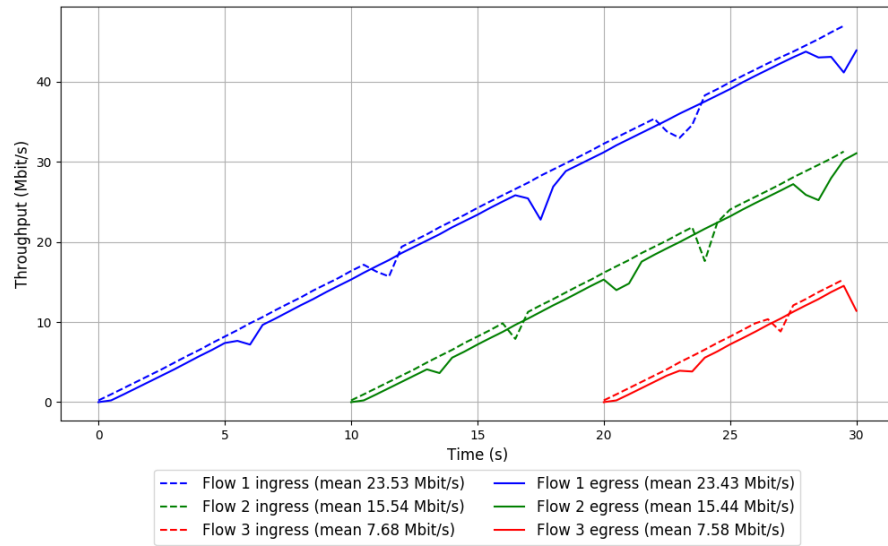


Run 5: Statistics of LEDBAT

Start at: 2019-01-19 12:18:14
End at: 2019-01-19 12:18:44
Local clock offset: 0.005 ms
Remote clock offset: -1.494 ms

Below is generated by plot.py at 2019-01-19 14:59:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 65.116 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 65.148 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 15.44 Mbit/s
95th percentile per-packet one-way delay: 65.068 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 64.978 ms
Loss rate: 2.58%

Run 5: Report of LEDBAT — Data Link

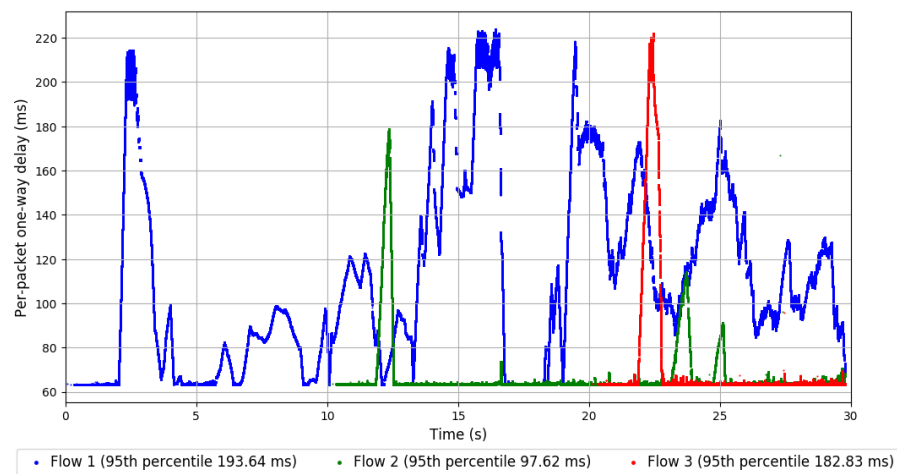
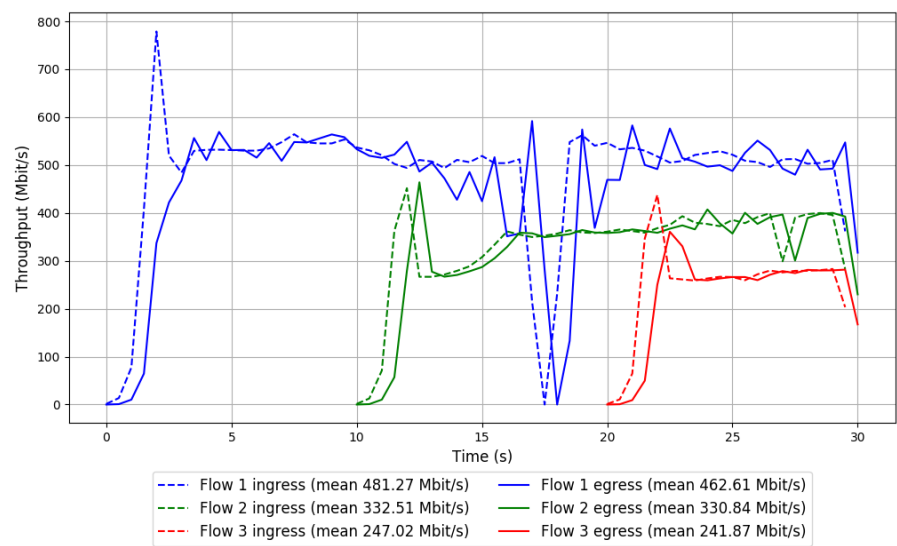


Run 1: Statistics of PCC-Allegro

Start at: 2019-01-19 10:03:43
End at: 2019-01-19 10:04:13
Local clock offset: -0.059 ms
Remote clock offset: -0.692 ms

Below is generated by plot.py at 2019-01-19 15:12:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 760.97 Mbit/s
95th percentile per-packet one-way delay: 177.801 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 462.61 Mbit/s
95th percentile per-packet one-way delay: 193.643 ms
Loss rate: 4.29%
-- Flow 2:
Average throughput: 330.84 Mbit/s
95th percentile per-packet one-way delay: 97.623 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 241.87 Mbit/s
95th percentile per-packet one-way delay: 182.827 ms
Loss rate: 3.35%

Run 1: Report of PCC-Allegro — Data Link

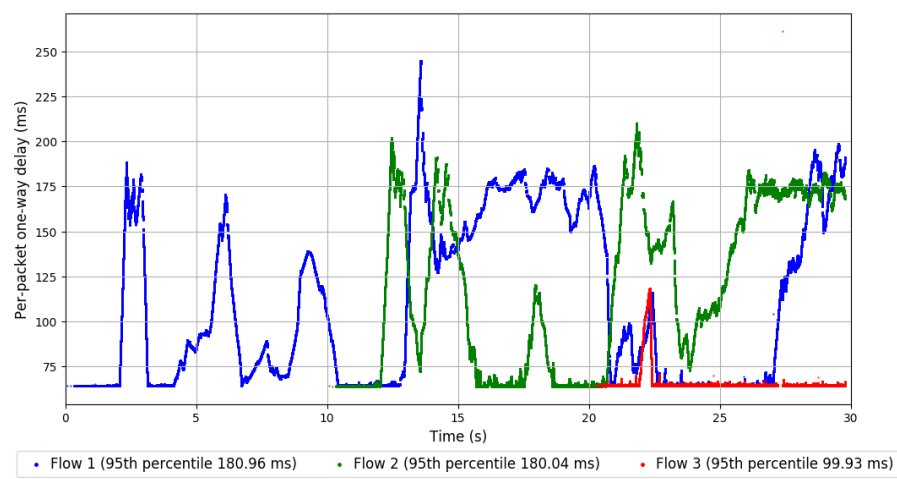
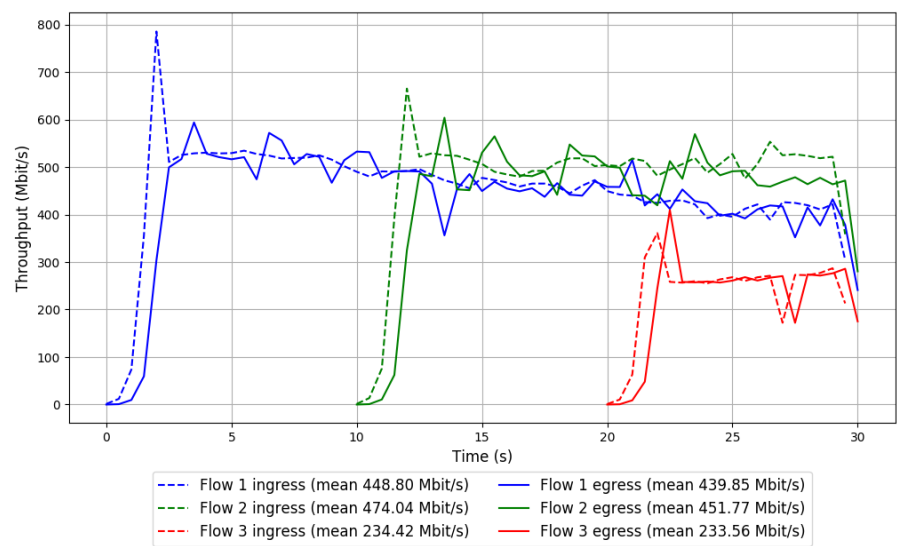


Run 2: Statistics of PCC-Allegro

Start at: 2019-01-19 10:40:41
End at: 2019-01-19 10:41:11
Local clock offset: -0.143 ms
Remote clock offset: -1.285 ms

Below is generated by plot.py at 2019-01-19 15:15:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 815.65 Mbit/s
95th percentile per-packet one-way delay: 179.971 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 439.85 Mbit/s
95th percentile per-packet one-way delay: 180.962 ms
Loss rate: 2.41%
-- Flow 2:
Average throughput: 451.77 Mbit/s
95th percentile per-packet one-way delay: 180.040 ms
Loss rate: 5.31%
-- Flow 3:
Average throughput: 233.56 Mbit/s
95th percentile per-packet one-way delay: 99.930 ms
Loss rate: 1.64%

Run 2: Report of PCC-Allegro — Data Link

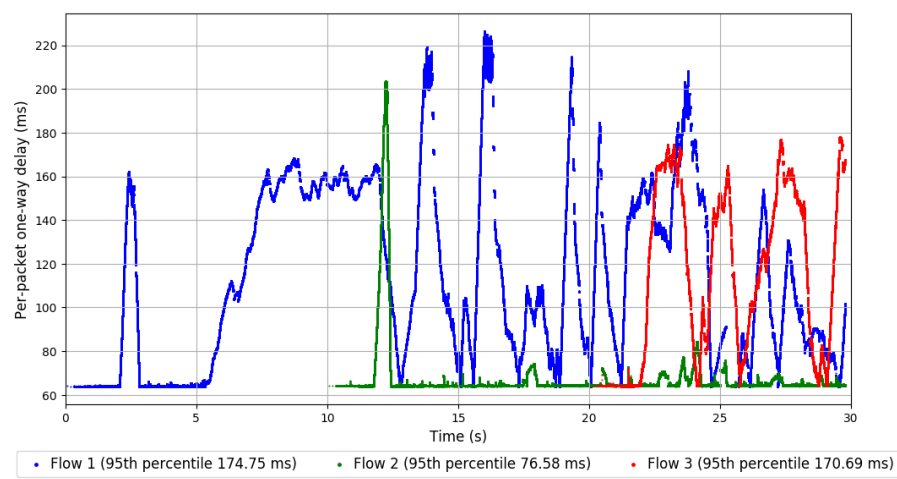
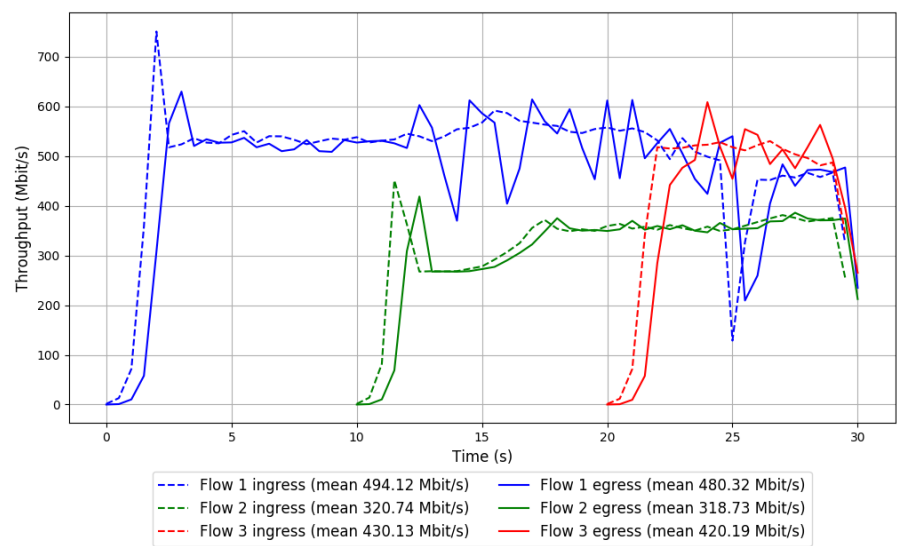


Run 3: Statistics of PCC-Allegro

Start at: 2019-01-19 11:17:32
End at: 2019-01-19 11:18:02
Local clock offset: -0.09 ms
Remote clock offset: -0.997 ms

Below is generated by plot.py at 2019-01-19 15:15:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 828.91 Mbit/s
95th percentile per-packet one-way delay: 168.803 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 480.32 Mbit/s
95th percentile per-packet one-way delay: 174.755 ms
Loss rate: 3.21%
-- Flow 2:
Average throughput: 318.73 Mbit/s
95th percentile per-packet one-way delay: 76.585 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 420.19 Mbit/s
95th percentile per-packet one-way delay: 170.695 ms
Loss rate: 3.58%

Run 3: Report of PCC-Allegro — Data Link

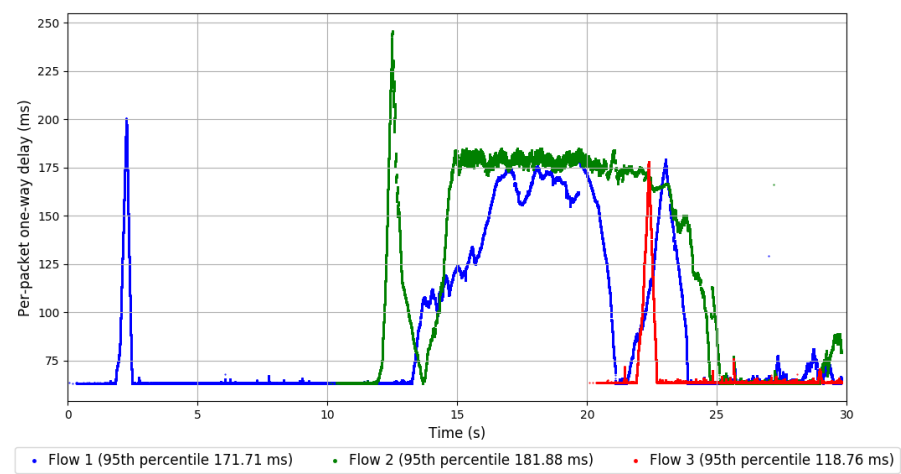
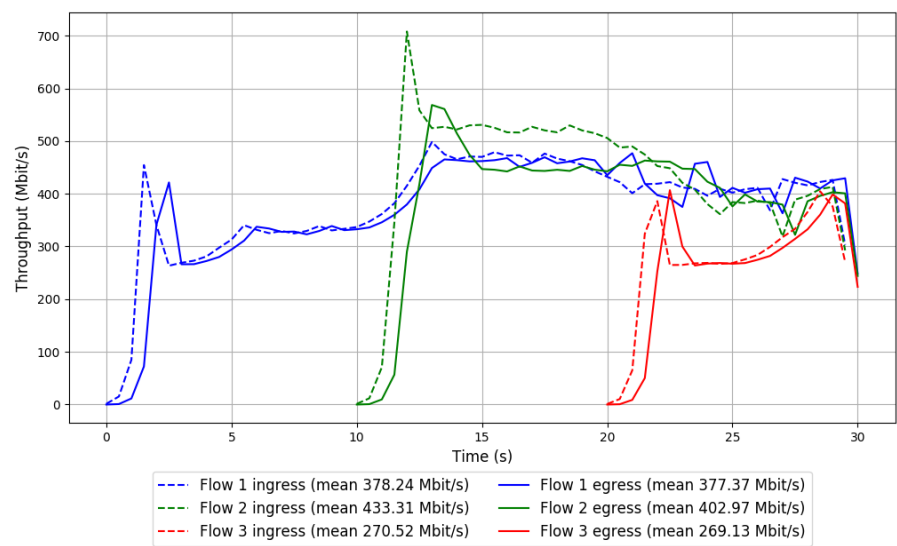


Run 4: Statistics of PCC-Allegro

Start at: 2019-01-19 11:54:23
End at: 2019-01-19 11:54:53
Local clock offset: -0.067 ms
Remote clock offset: -0.266 ms

Below is generated by plot.py at 2019-01-19 15:22:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 732.43 Mbit/s
95th percentile per-packet one-way delay: 179.646 ms
Loss rate: 3.44%
-- Flow 1:
Average throughput: 377.37 Mbit/s
95th percentile per-packet one-way delay: 171.706 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 402.97 Mbit/s
95th percentile per-packet one-way delay: 181.881 ms
Loss rate: 7.59%
-- Flow 3:
Average throughput: 269.13 Mbit/s
95th percentile per-packet one-way delay: 118.761 ms
Loss rate: 1.80%

Run 4: Report of PCC-Allegro — Data Link

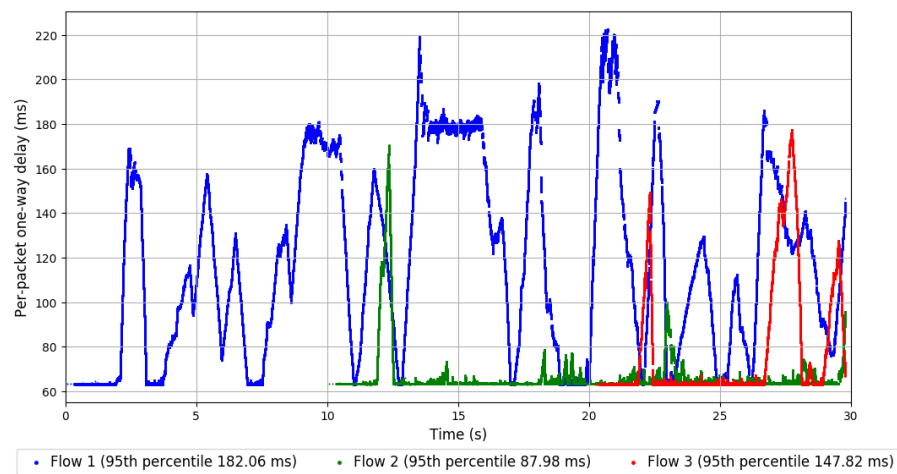
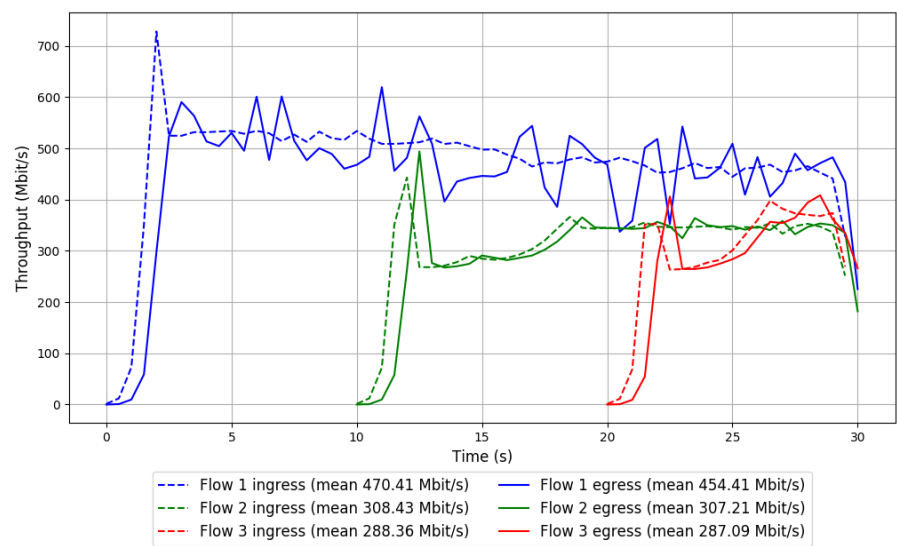


Run 5: Statistics of PCC-Allegro

Start at: 2019-01-19 12:31:02
End at: 2019-01-19 12:31:32
Local clock offset: 0.017 ms
Remote clock offset: -0.399 ms

Below is generated by plot.py at 2019-01-19 15:24:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 751.83 Mbit/s
95th percentile per-packet one-way delay: 179.059 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 454.41 Mbit/s
95th percentile per-packet one-way delay: 182.061 ms
Loss rate: 3.81%
-- Flow 2:
Average throughput: 307.21 Mbit/s
95th percentile per-packet one-way delay: 87.982 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 287.09 Mbit/s
95th percentile per-packet one-way delay: 147.825 ms
Loss rate: 1.74%

Run 5: Report of PCC-Allegro — Data Link

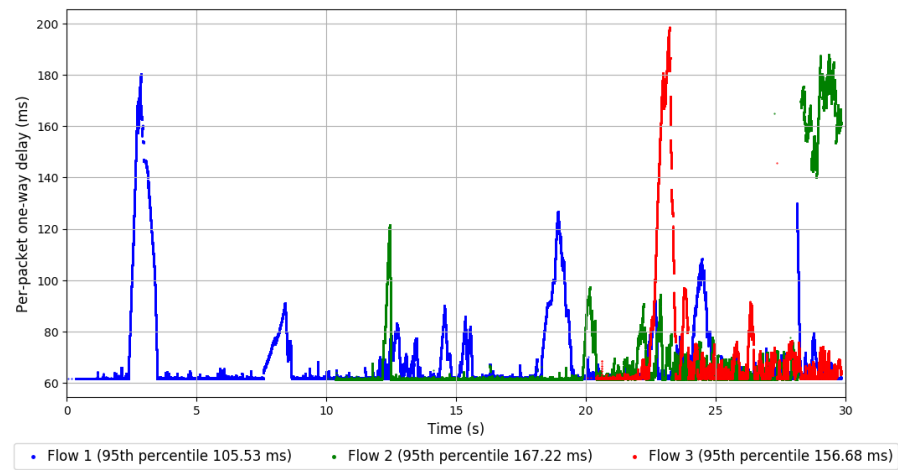
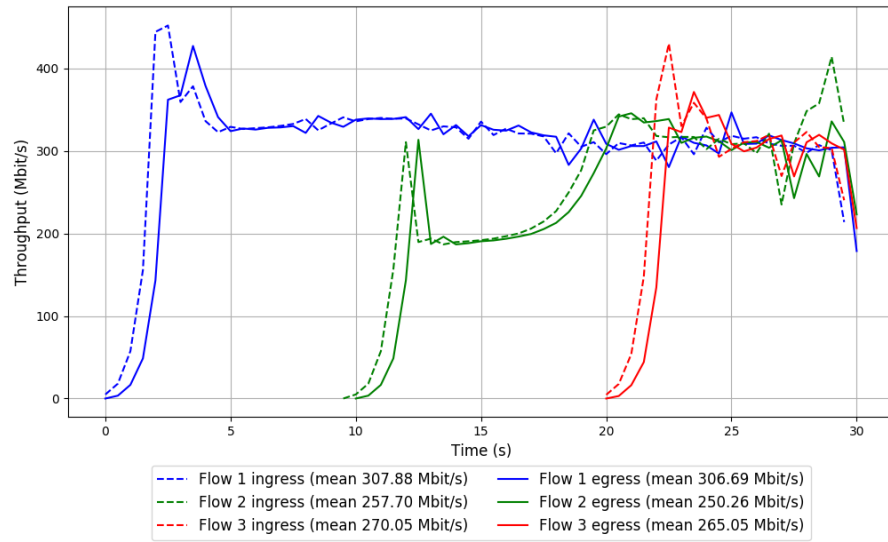



```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-19 10:19:39
End at: 2019-01-19 10:20:09
Local clock offset: -0.114 ms
Remote clock offset: 1.205 ms

# Below is generated by plot.py at 2019-01-19 15:24:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.65 Mbit/s
95th percentile per-packet one-way delay: 143.388 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 306.69 Mbit/s
95th percentile per-packet one-way delay: 105.525 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 250.26 Mbit/s
95th percentile per-packet one-way delay: 167.217 ms
Loss rate: 3.51%
-- Flow 3:
Average throughput: 265.05 Mbit/s
95th percentile per-packet one-way delay: 156.680 ms
Loss rate: 3.12%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-01-19 10:56:36

End at: 2019-01-19 10:57:06

Local clock offset: -0.094 ms

Remote clock offset: 0.483 ms

Below is generated by plot.py at 2019-01-19 15:24:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 488.86 Mbit/s

95th percentile per-packet one-way delay: 240.584 ms

Loss rate: 8.22%

-- Flow 1:

Average throughput: 289.73 Mbit/s

95th percentile per-packet one-way delay: 208.047 ms

Loss rate: 7.27%

-- Flow 2:

Average throughput: 254.70 Mbit/s

95th percentile per-packet one-way delay: 351.265 ms

Loss rate: 10.88%

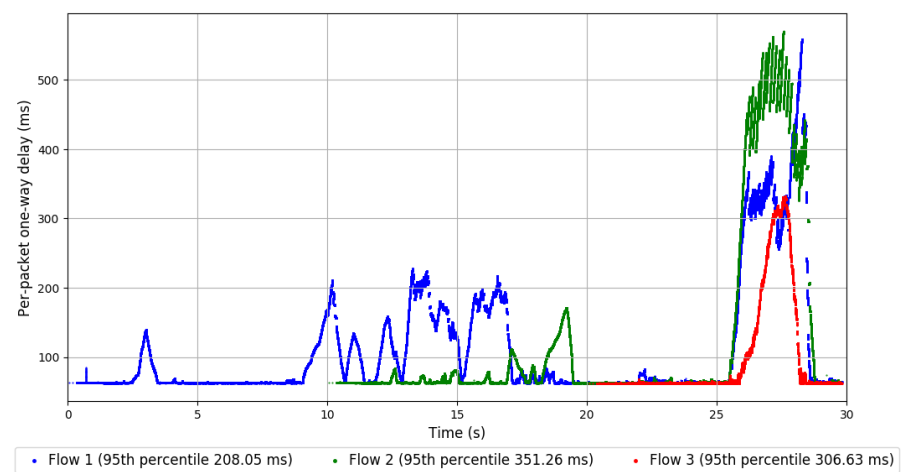
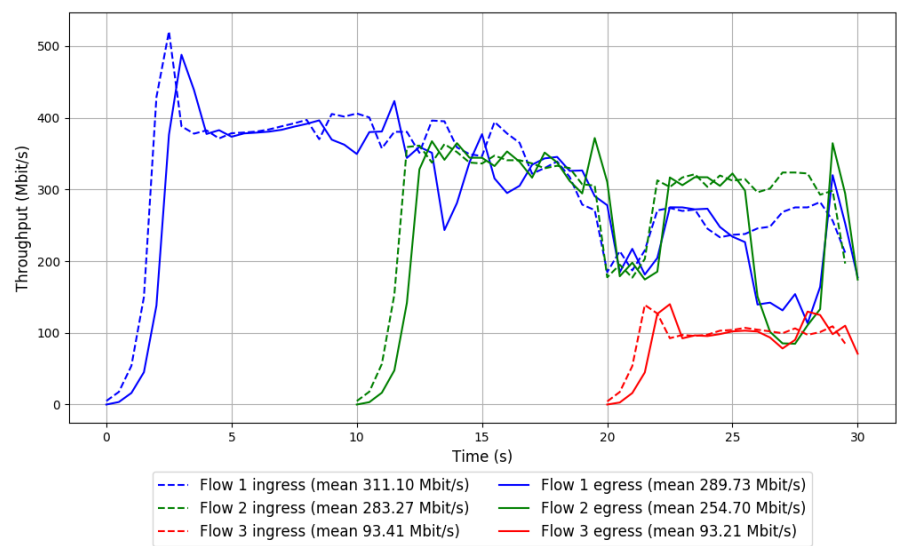
-- Flow 3:

Average throughput: 93.21 Mbit/s

95th percentile per-packet one-way delay: 306.633 ms

Loss rate: 1.50%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-01-19 11:33:29

End at: 2019-01-19 11:33:59

Local clock offset: -0.102 ms

Remote clock offset: 0.386 ms

Below is generated by plot.py at 2019-01-19 15:24:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 589.90 Mbit/s

95th percentile per-packet one-way delay: 167.400 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 319.99 Mbit/s

95th percentile per-packet one-way delay: 162.842 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 317.96 Mbit/s

95th percentile per-packet one-way delay: 175.132 ms

Loss rate: 3.97%

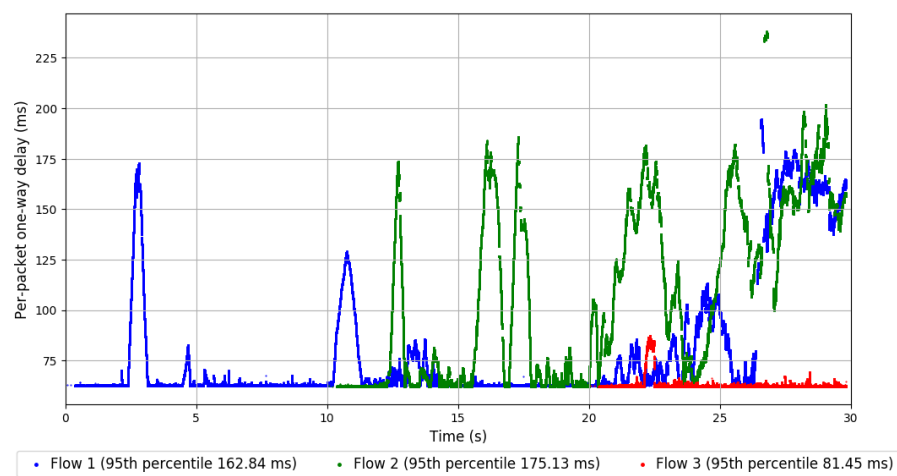
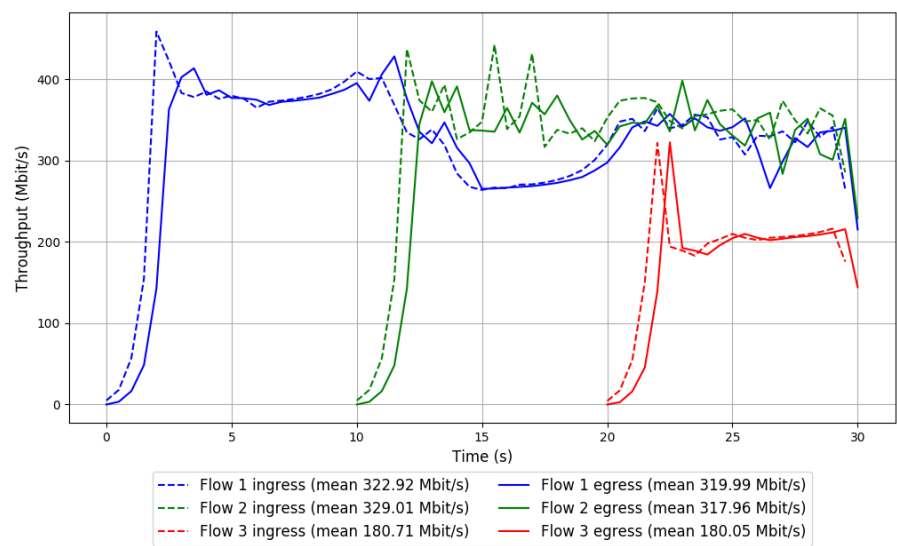
-- Flow 3:

Average throughput: 180.05 Mbit/s

95th percentile per-packet one-way delay: 81.452 ms

Loss rate: 1.65%

Run 3: Report of PCC-Expr — Data Link

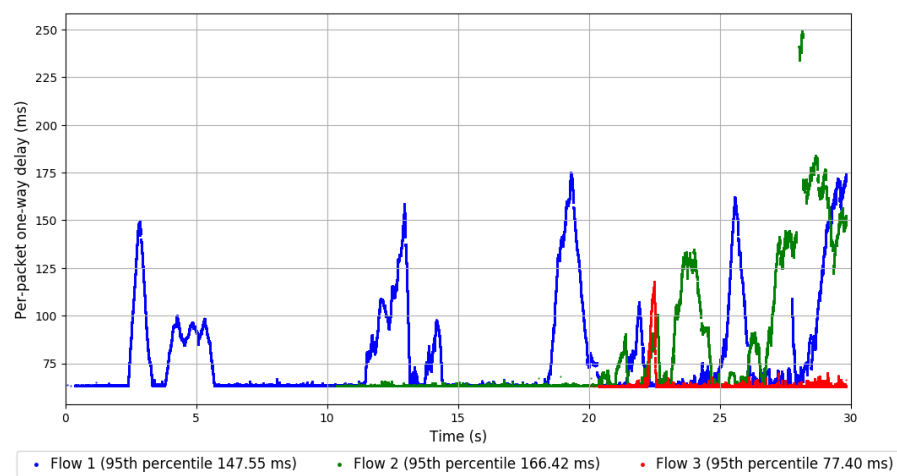
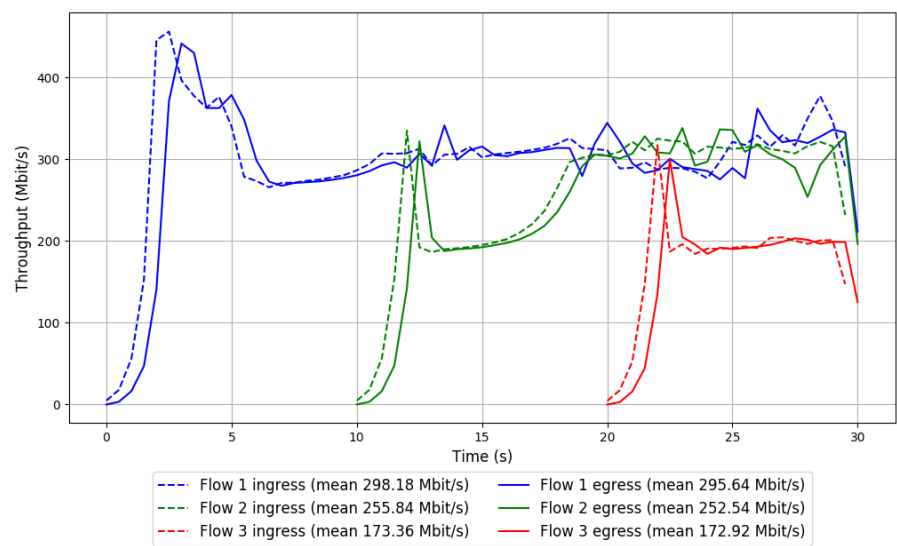


Run 4: Statistics of PCC-Expr

Start at: 2019-01-19 12:10:13
End at: 2019-01-19 12:10:43
Local clock offset: -0.026 ms
Remote clock offset: -0.409 ms

Below is generated by plot.py at 2019-01-19 15:30:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 519.78 Mbit/s
95th percentile per-packet one-way delay: 151.099 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 295.64 Mbit/s
95th percentile per-packet one-way delay: 147.548 ms
Loss rate: 1.27%
-- Flow 2:
Average throughput: 252.54 Mbit/s
95th percentile per-packet one-way delay: 166.418 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 172.92 Mbit/s
95th percentile per-packet one-way delay: 77.403 ms
Loss rate: 1.50%

Run 4: Report of PCC-Expr — Data Link

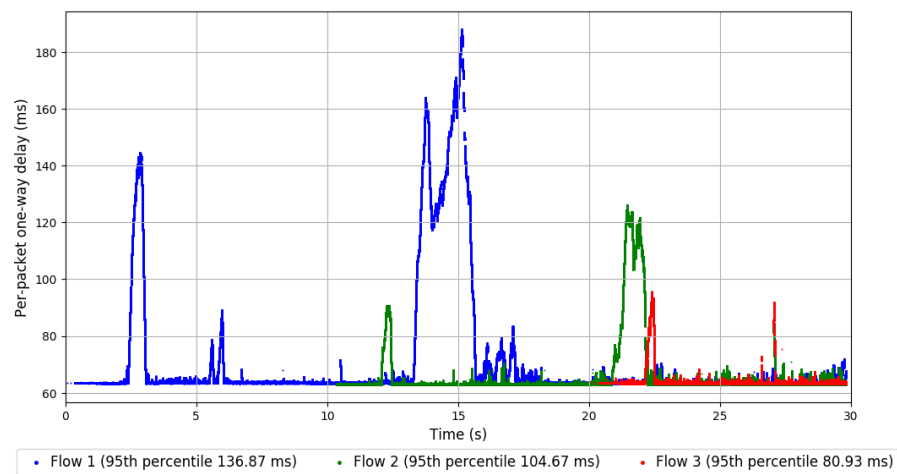
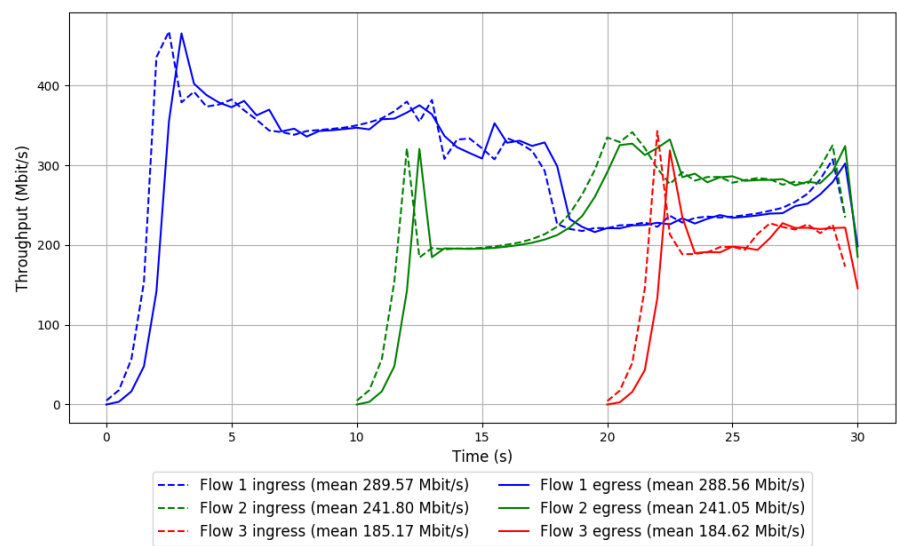


Run 5: Statistics of PCC-Expr

Start at: 2019-01-19 12:46:48
End at: 2019-01-19 12:47:18
Local clock offset: -0.005 ms
Remote clock offset: -0.422 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 508.95 Mbit/s
95th percentile per-packet one-way delay: 122.107 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 288.56 Mbit/s
95th percentile per-packet one-way delay: 136.874 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 241.05 Mbit/s
95th percentile per-packet one-way delay: 104.673 ms
Loss rate: 0.95%
-- Flow 3:
Average throughput: 184.62 Mbit/s
95th percentile per-packet one-way delay: 80.930 ms
Loss rate: 1.58%

Run 5: Report of PCC-Expr — Data Link

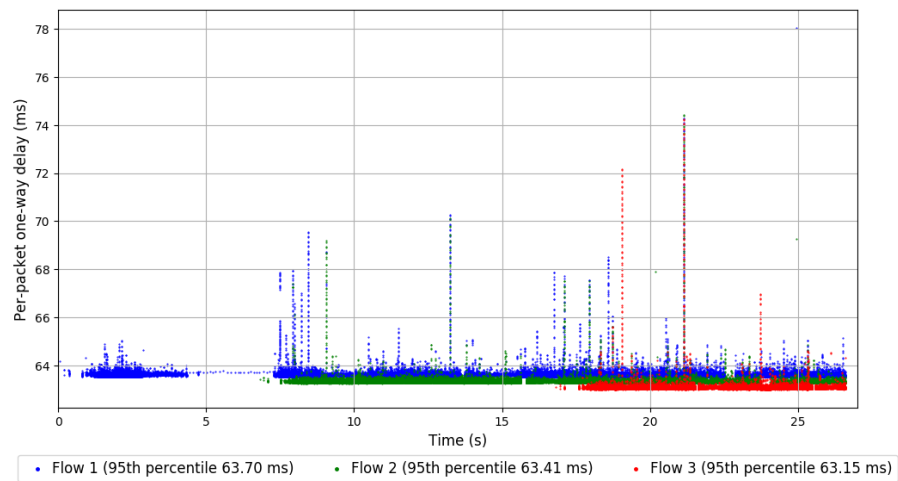
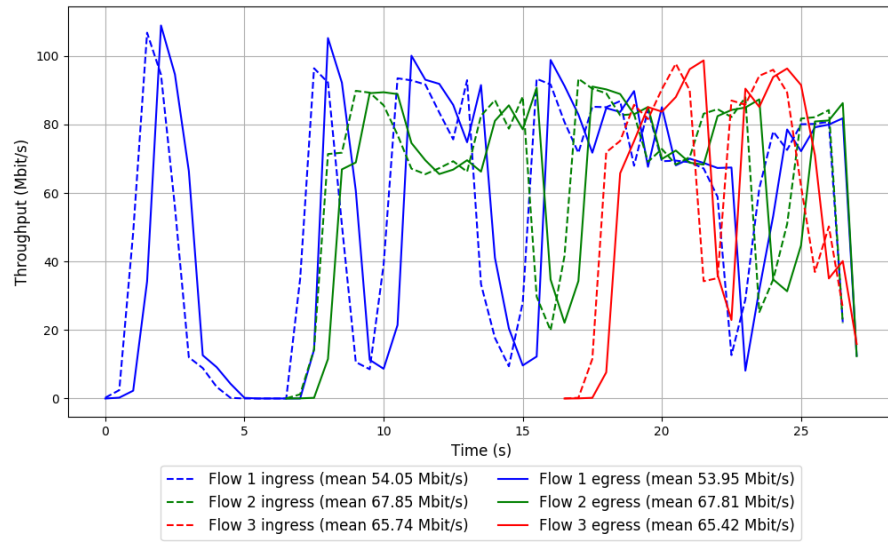


Run 1: Statistics of QUIC Cubic

Start at: 2019-01-19 10:18:20
End at: 2019-01-19 10:18:50
Local clock offset: -0.135 ms
Remote clock offset: -0.313 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 128.62 Mbit/s
95th percentile per-packet one-way delay: 63.648 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 53.95 Mbit/s
95th percentile per-packet one-way delay: 63.701 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 67.81 Mbit/s
95th percentile per-packet one-way delay: 63.405 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 65.42 Mbit/s
95th percentile per-packet one-way delay: 63.150 ms
Loss rate: 1.74%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-01-19 10:55:17

End at: 2019-01-19 10:55:47

Local clock offset: -0.101 ms

Remote clock offset: 0.789 ms

Below is generated by plot.py at 2019-01-19 15:33:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.31 Mbit/s

95th percentile per-packet one-way delay: 62.295 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 52.93 Mbit/s

95th percentile per-packet one-way delay: 62.110 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 67.98 Mbit/s

95th percentile per-packet one-way delay: 62.240 ms

Loss rate: 0.47%

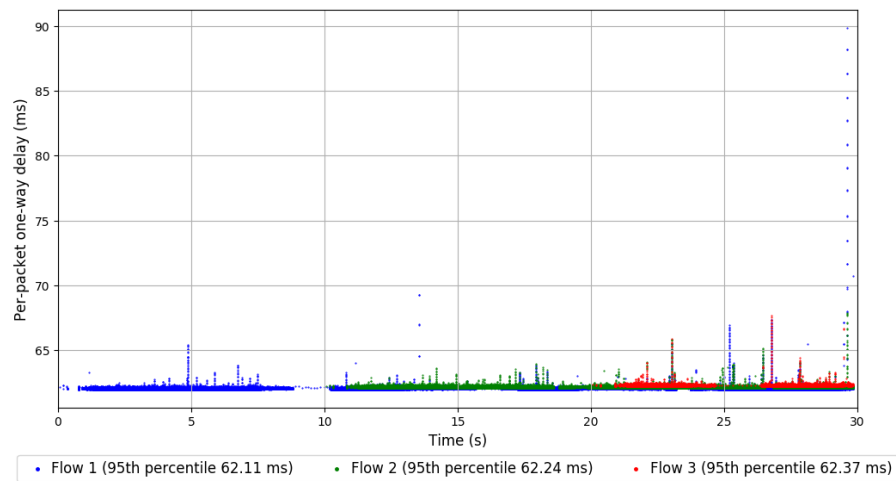
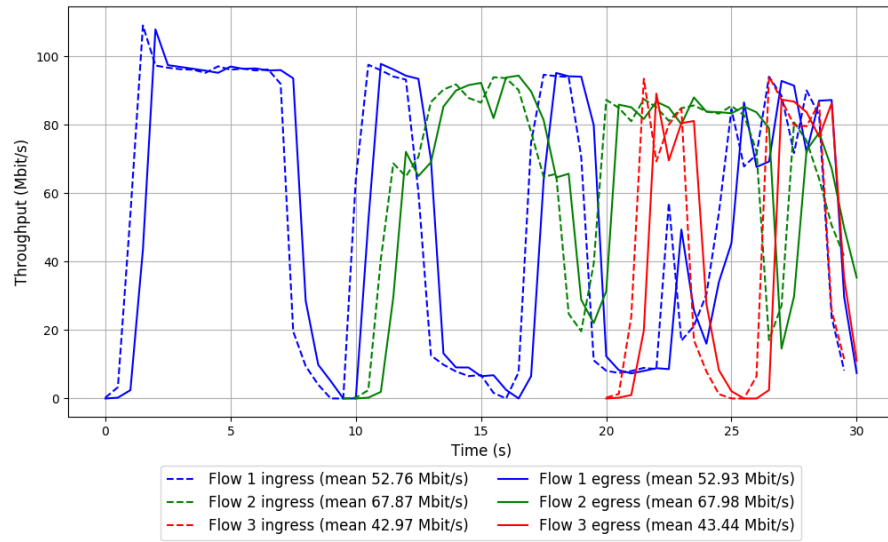
-- Flow 3:

Average throughput: 43.44 Mbit/s

95th percentile per-packet one-way delay: 62.365 ms

Loss rate: 0.21%

Run 2: Report of QUIC Cubic — Data Link

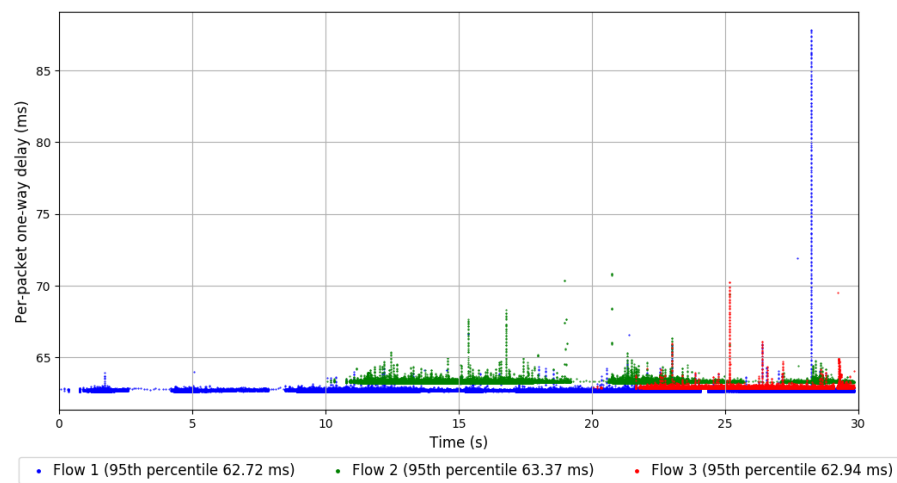
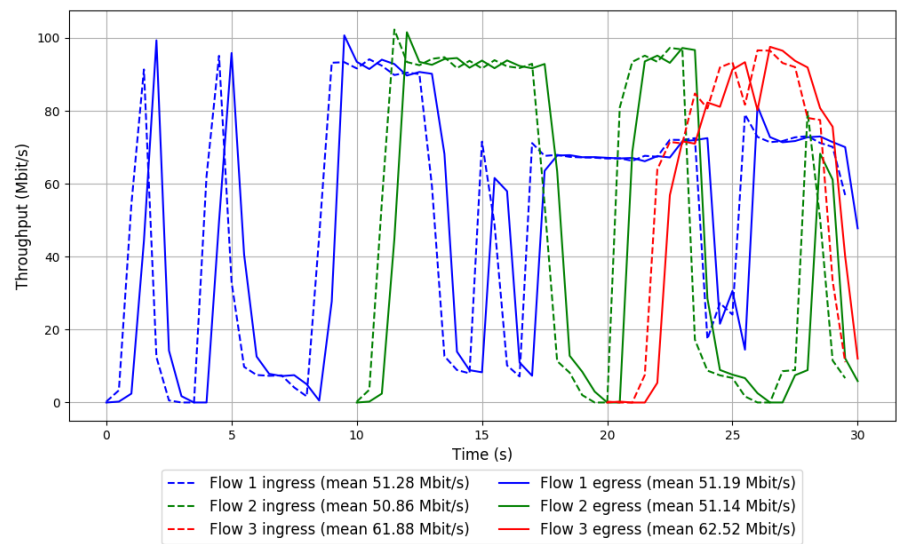


Run 3: Statistics of QUIC Cubic

Start at: 2019-01-19 11:32:10
End at: 2019-01-19 11:32:40
Local clock offset: -0.081 ms
Remote clock offset: -0.018 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 105.66 Mbit/s
95th percentile per-packet one-way delay: 63.308 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 51.19 Mbit/s
95th percentile per-packet one-way delay: 62.724 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 51.14 Mbit/s
95th percentile per-packet one-way delay: 63.365 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 62.52 Mbit/s
95th percentile per-packet one-way delay: 62.937 ms
Loss rate: 0.26%

Run 3: Report of QUIC Cubic — Data Link

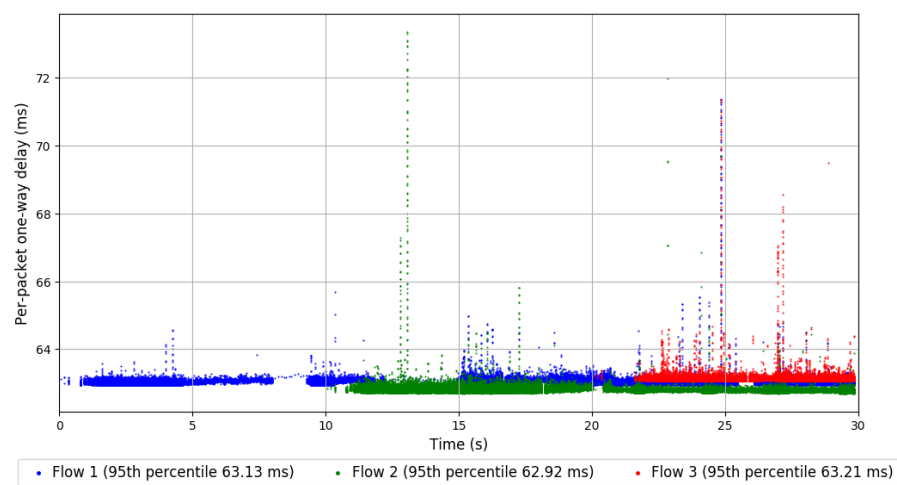
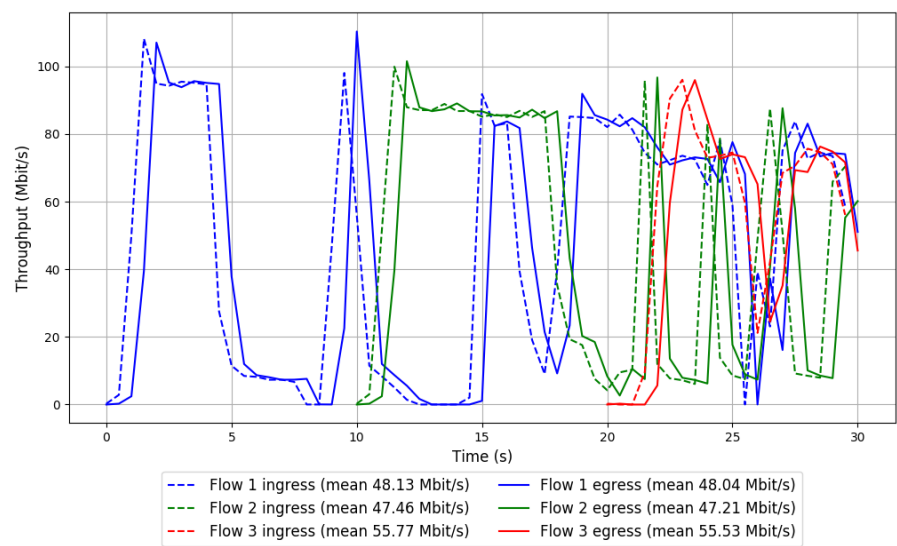


Run 4: Statistics of QUIC Cubic

Start at: 2019-01-19 12:08:54
End at: 2019-01-19 12:09:24
Local clock offset: -0.061 ms
Remote clock offset: -0.199 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.58 Mbit/s
95th percentile per-packet one-way delay: 63.154 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 48.04 Mbit/s
95th percentile per-packet one-way delay: 63.129 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 47.21 Mbit/s
95th percentile per-packet one-way delay: 62.920 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 55.53 Mbit/s
95th percentile per-packet one-way delay: 63.209 ms
Loss rate: 1.70%

Run 4: Report of QUIC Cubic — Data Link

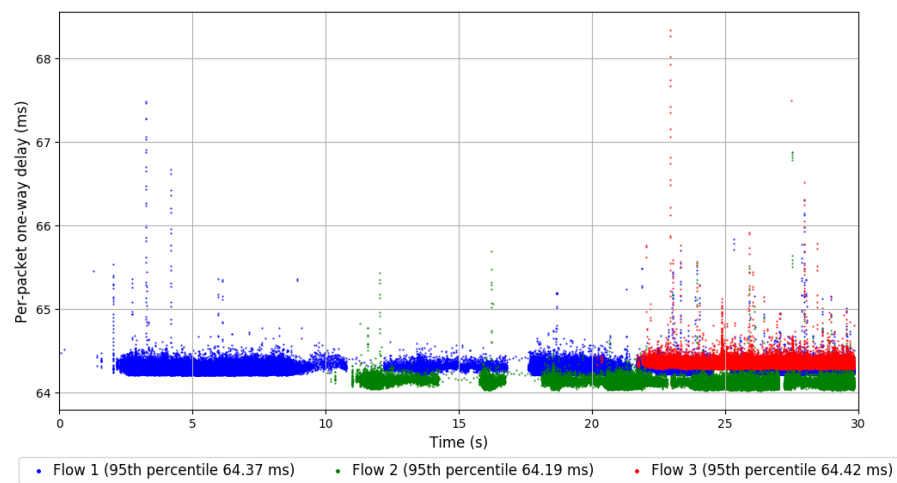
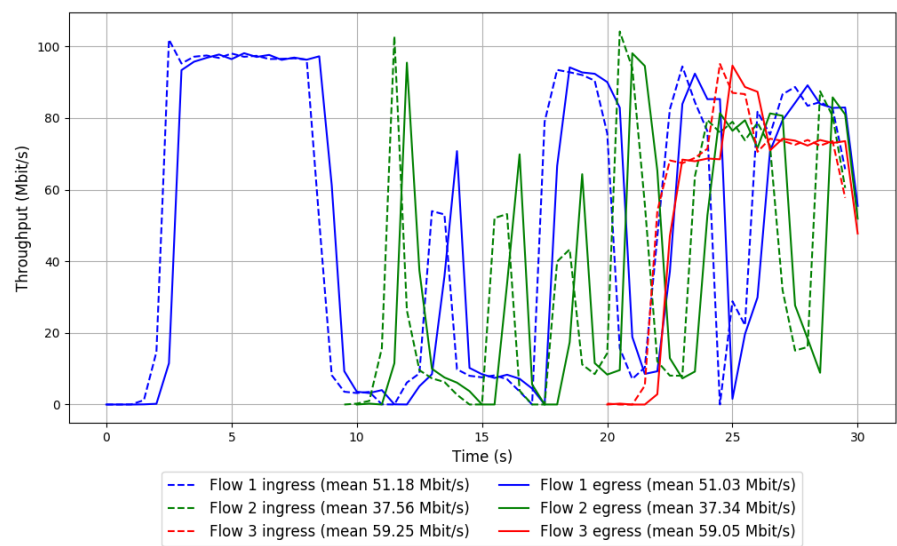


Run 5: Statistics of QUIC Cubic

Start at: 2019-01-19 12:45:30
End at: 2019-01-19 12:46:00
Local clock offset: -0.006 ms
Remote clock offset: -1.491 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 95.22 Mbit/s
95th percentile per-packet one-way delay: 64.379 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 64.367 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 37.34 Mbit/s
95th percentile per-packet one-way delay: 64.195 ms
Loss rate: 1.21%
-- Flow 3:
Average throughput: 59.05 Mbit/s
95th percentile per-packet one-way delay: 64.422 ms
Loss rate: 1.61%

Run 5: Report of QUIC Cubic — Data Link

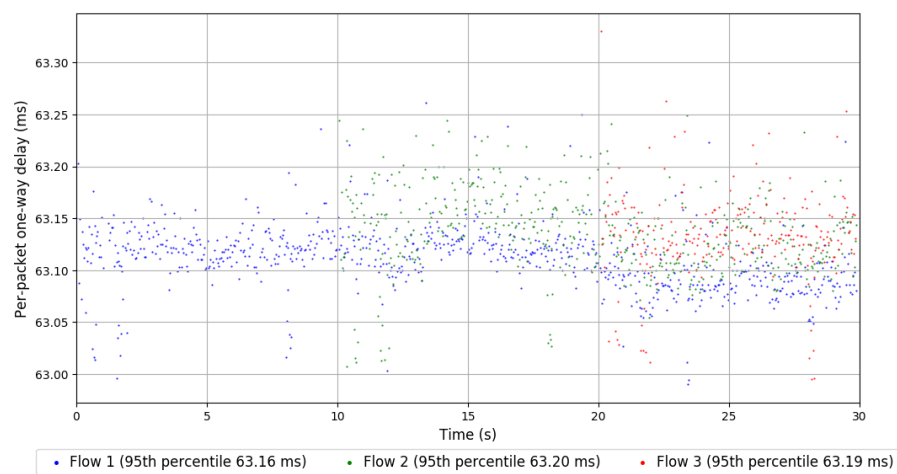
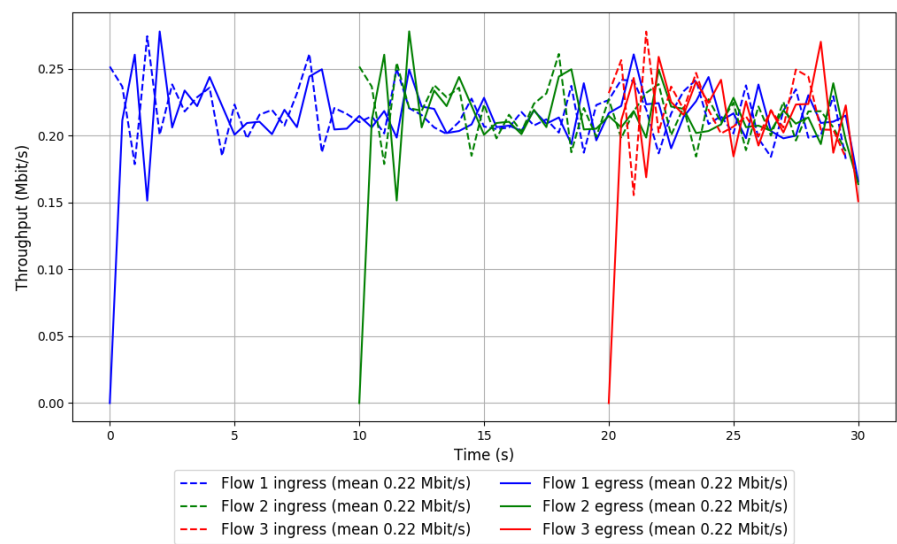


Run 1: Statistics of SReAM

Start at: 2019-01-19 09:47:45
End at: 2019-01-19 09:48:16
Local clock offset: -0.053 ms
Remote clock offset: -0.077 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.187 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.156 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.198 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.189 ms
Loss rate: 1.10%

Run 1: Report of SReAM — Data Link

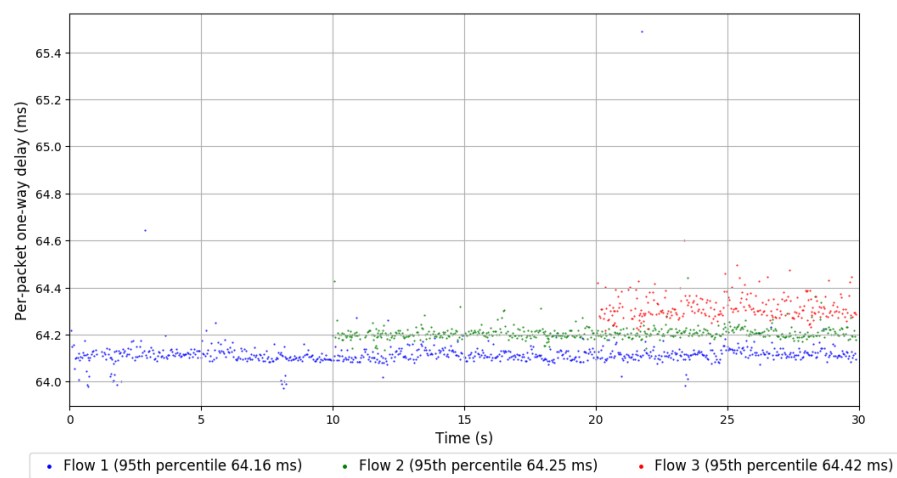
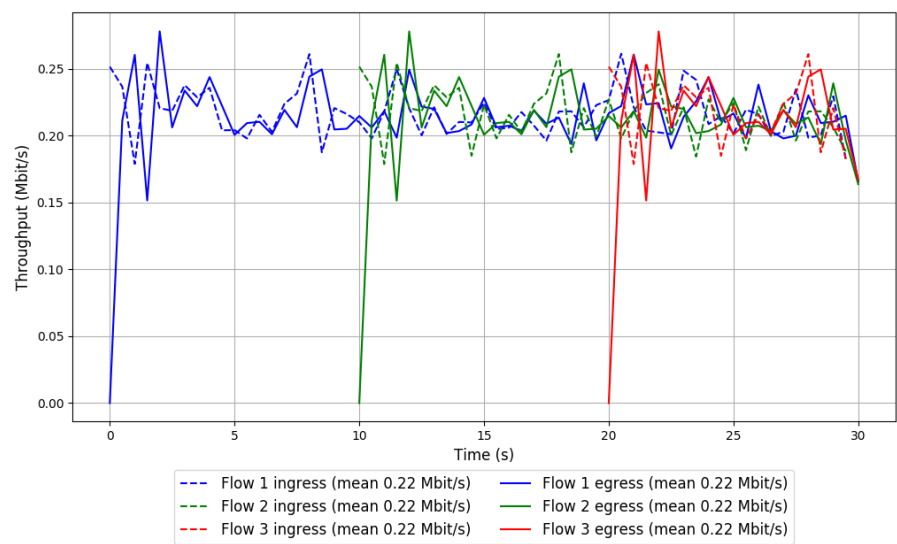


Run 2: Statistics of SReAM

Start at: 2019-01-19 10:24:36
End at: 2019-01-19 10:25:06
Local clock offset: -0.158 ms
Remote clock offset: -1.347 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 64.338 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.164 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.245 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.415 ms
Loss rate: 1.08%

Run 2: Report of SReAM — Data Link

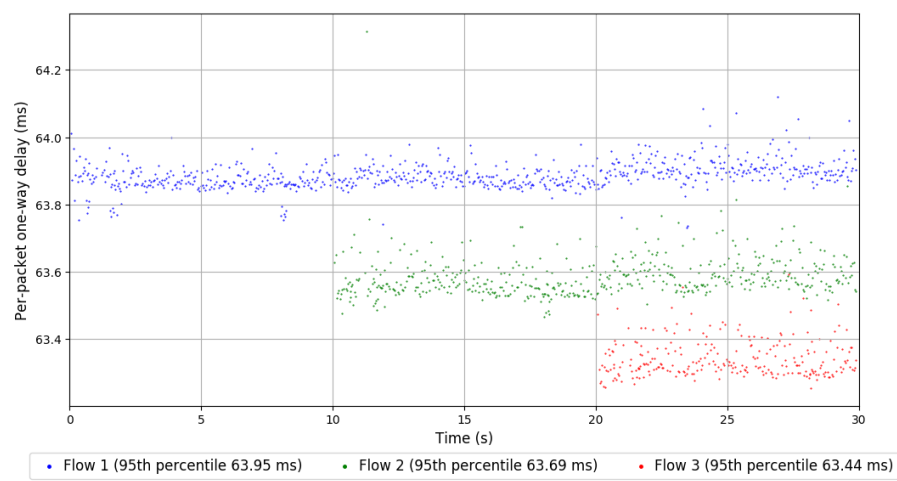
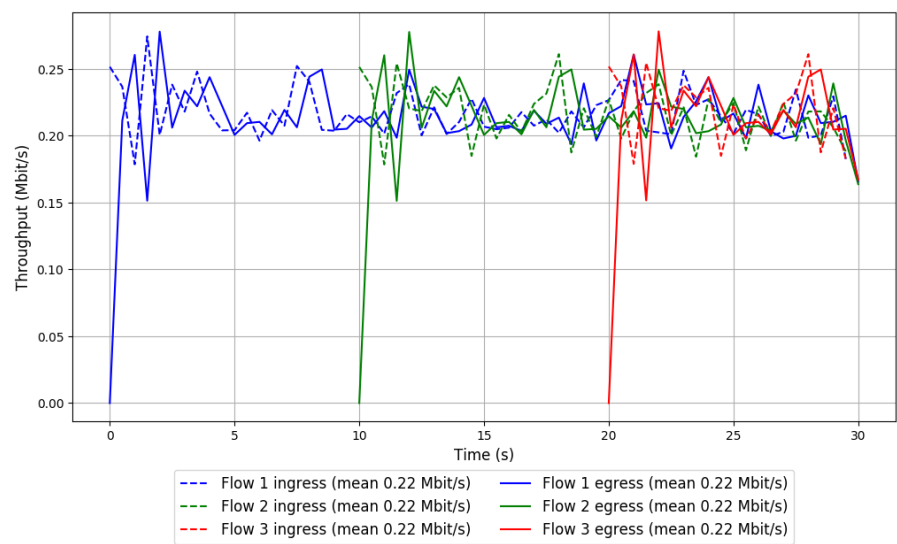


Run 3: Statistics of SReAM

Start at: 2019-01-19 11:01:20
End at: 2019-01-19 11:01:50
Local clock offset: -0.069 ms
Remote clock offset: -0.514 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.933 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.953 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.689 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.443 ms
Loss rate: 1.08%

Run 3: Report of SReAM — Data Link

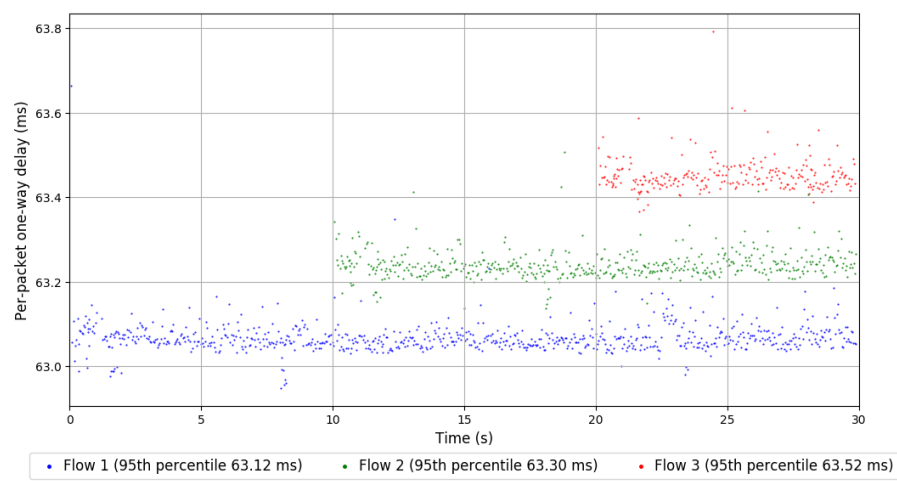
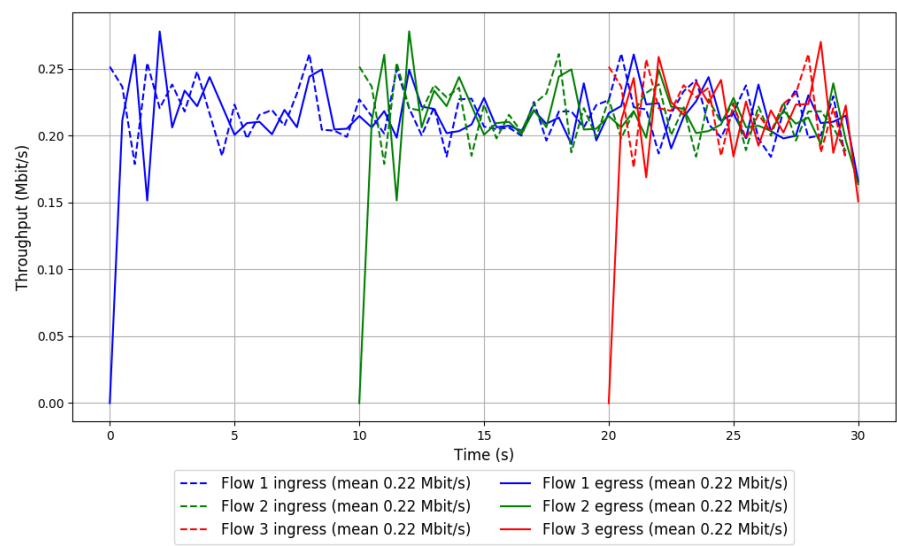


Run 4: Statistics of SCReAM

Start at: 2019-01-19 11:38:30
End at: 2019-01-19 11:39:00
Local clock offset: -0.079 ms
Remote clock offset: -0.343 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.460 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.122 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.299 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.518 ms
Loss rate: 1.45%

Run 4: Report of SReAM — Data Link

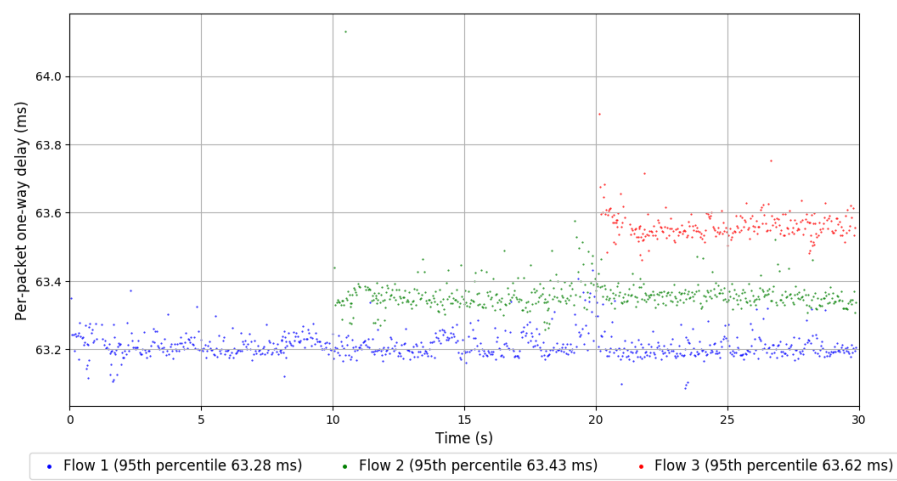
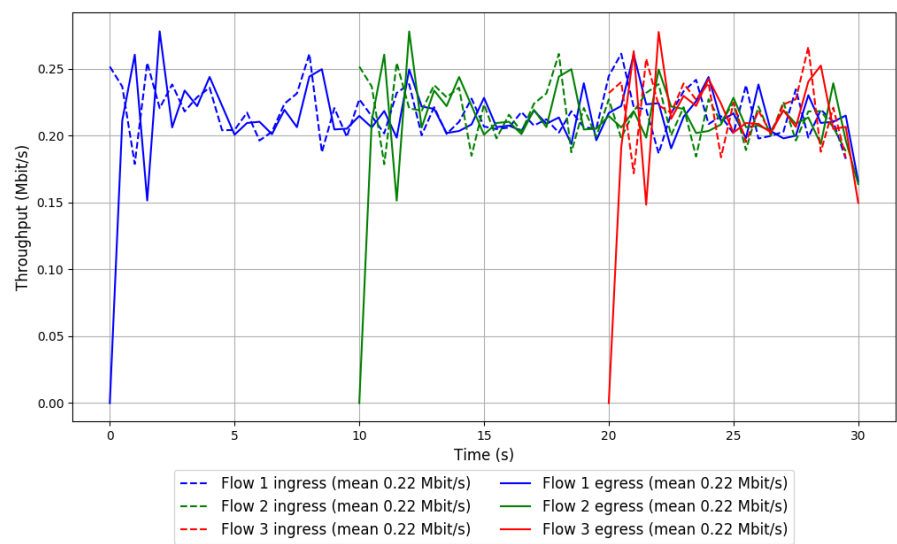


Run 5: Statistics of SReAM

Start at: 2019-01-19 12:14:56
End at: 2019-01-19 12:15:26
Local clock offset: -0.015 ms
Remote clock offset: -0.481 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.575 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.276 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.428 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.618 ms
Loss rate: 1.50%

Run 5: Report of SCReAM — Data Link

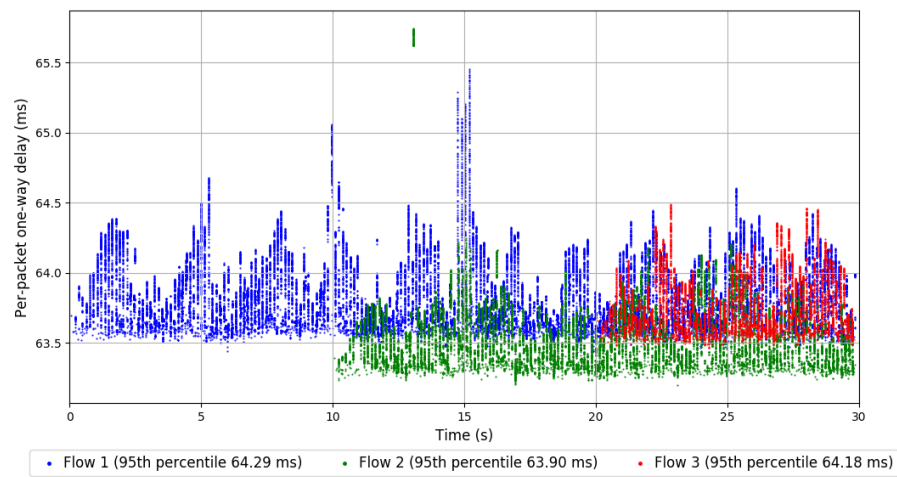
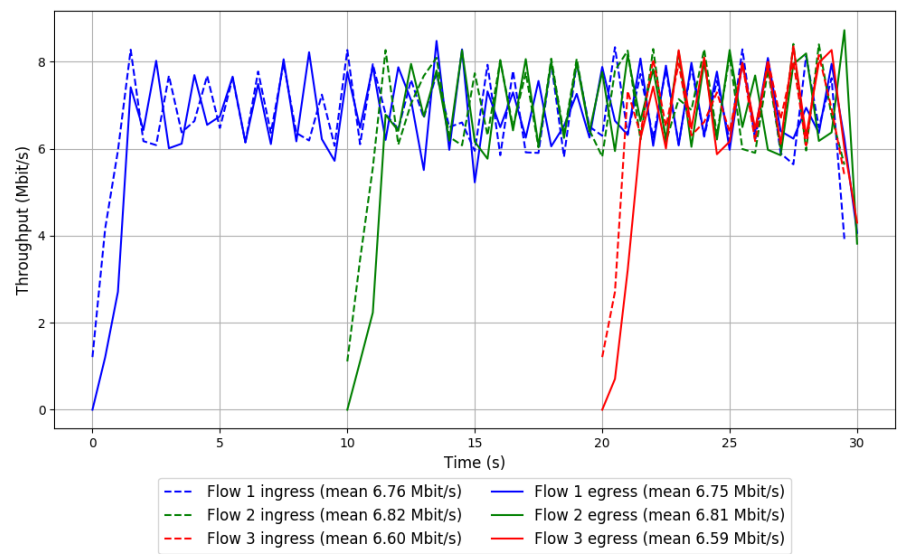


Run 1: Statistics of Sprout

Start at: 2019-01-19 10:23:22
End at: 2019-01-19 10:23:52
Local clock offset: -0.121 ms
Remote clock offset: -0.579 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 64.218 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 64.287 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 6.81 Mbit/s
95th percentile per-packet one-way delay: 63.900 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 64.182 ms
Loss rate: 1.54%

Run 1: Report of Sprout — Data Link

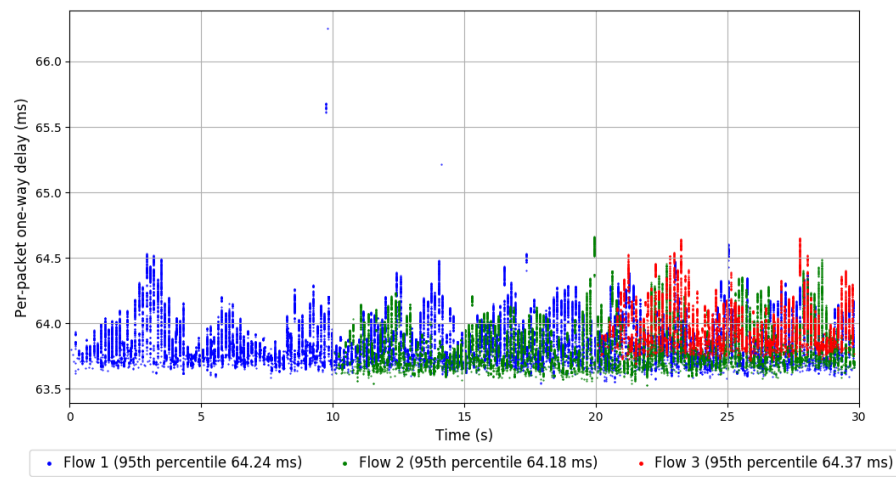
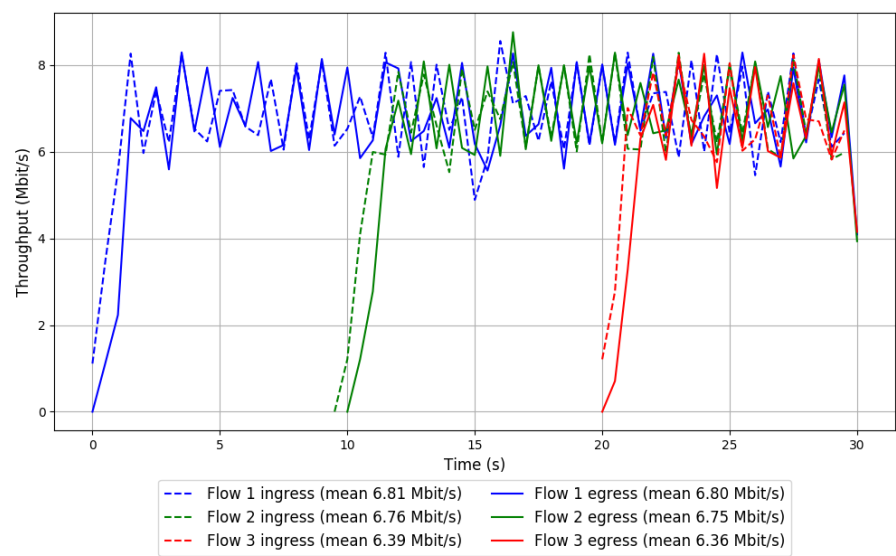


Run 2: Statistics of Sprout

Start at: 2019-01-19 11:00:07
End at: 2019-01-19 11:00:37
Local clock offset: -0.105 ms
Remote clock offset: -0.632 ms

Below is generated by plot.py at 2019-01-19 15:33:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.36 Mbit/s
95th percentile per-packet one-way delay: 64.244 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 64.237 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 64.184 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 64.373 ms
Loss rate: 1.86%

Run 2: Report of Sprout — Data Link

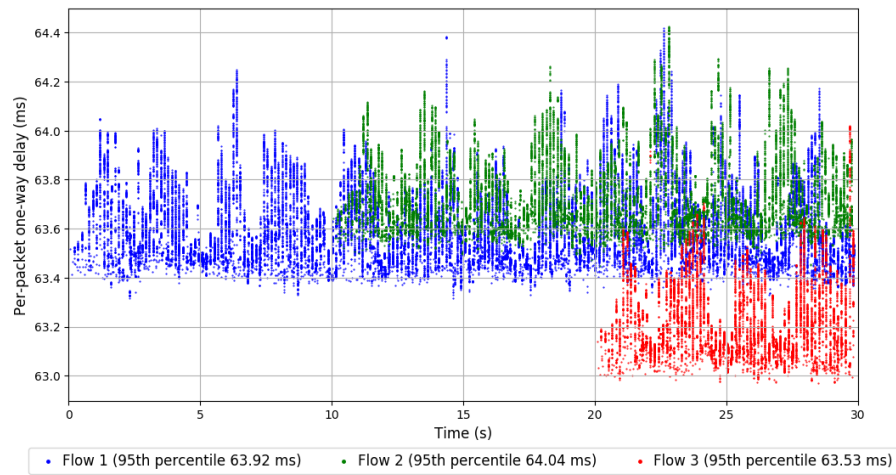
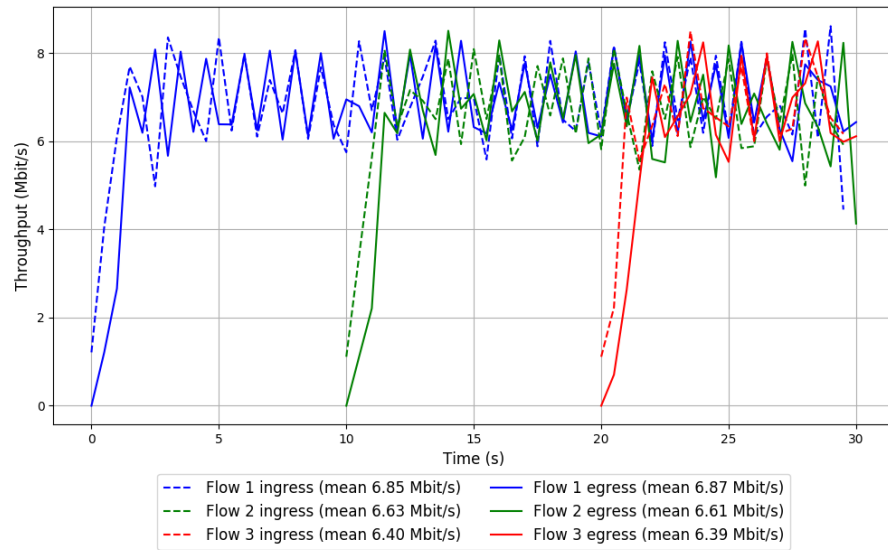


Run 3: Statistics of Sprout

Start at: 2019-01-19 11:37:16
End at: 2019-01-19 11:37:46
Local clock offset: -0.103 ms
Remote clock offset: -0.367 ms

```
# Below is generated by plot.py at 2019-01-19 15:33:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 63.962 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 63.916 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 64.039 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 6.39 Mbit/s
95th percentile per-packet one-way delay: 63.531 ms
Loss rate: 1.64%
```

Run 3: Report of Sprout — Data Link

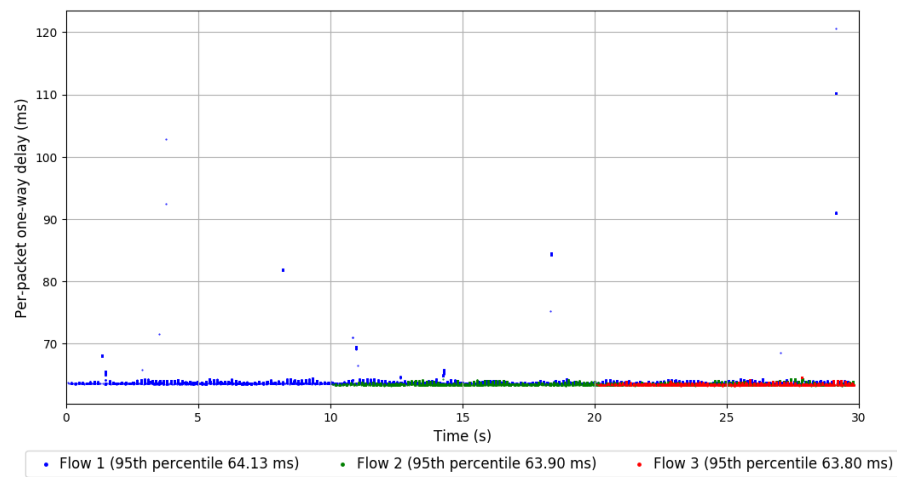
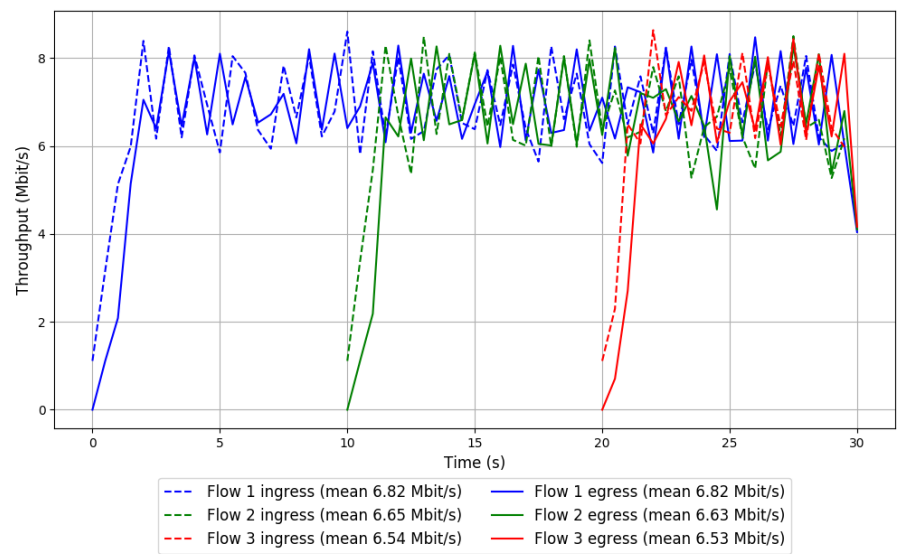


Run 4: Statistics of Sprout

Start at: 2019-01-19 12:13:43
End at: 2019-01-19 12:14:13
Local clock offset: 0.001 ms
Remote clock offset: -0.244 ms

Below is generated by plot.py at 2019-01-19 15:33:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 64.035 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 6.82 Mbit/s
95th percentile per-packet one-way delay: 64.134 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 63.897 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 6.53 Mbit/s
95th percentile per-packet one-way delay: 63.799 ms
Loss rate: 1.56%

Run 4: Report of Sprout — Data Link

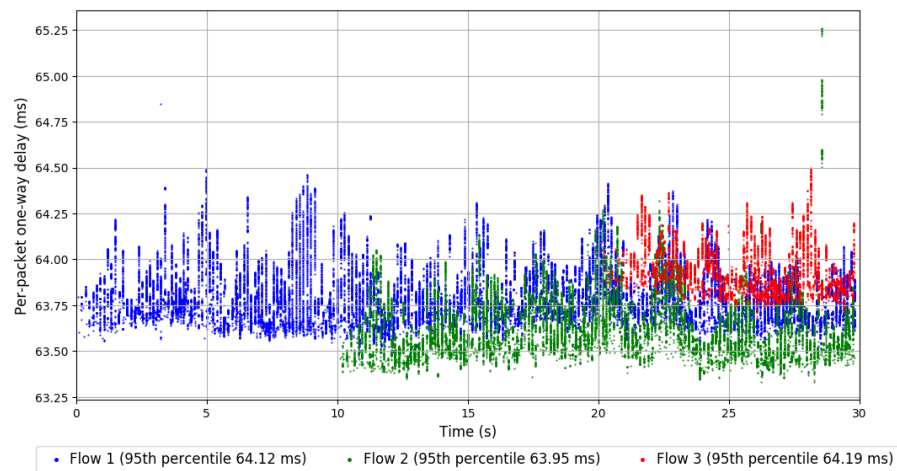
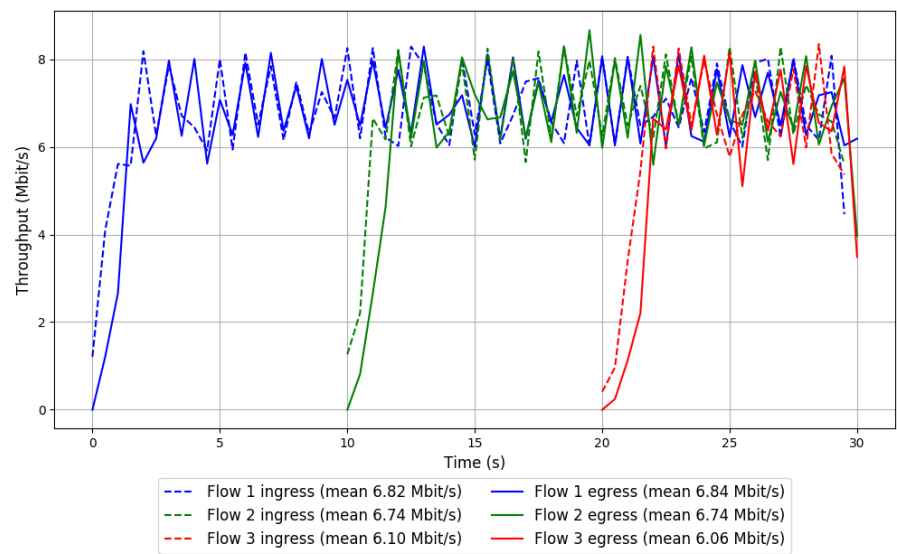


Run 5: Statistics of Sprout

Start at: 2019-01-19 12:50:20
End at: 2019-01-19 12:50:50
Local clock offset: -0.024 ms
Remote clock offset: -0.759 ms

Below is generated by plot.py at 2019-01-19 15:33:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 64.114 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 6.84 Mbit/s
95th percentile per-packet one-way delay: 64.117 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 63.948 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 6.06 Mbit/s
95th percentile per-packet one-way delay: 64.194 ms
Loss rate: 1.57%

Run 5: Report of Sprout — Data Link

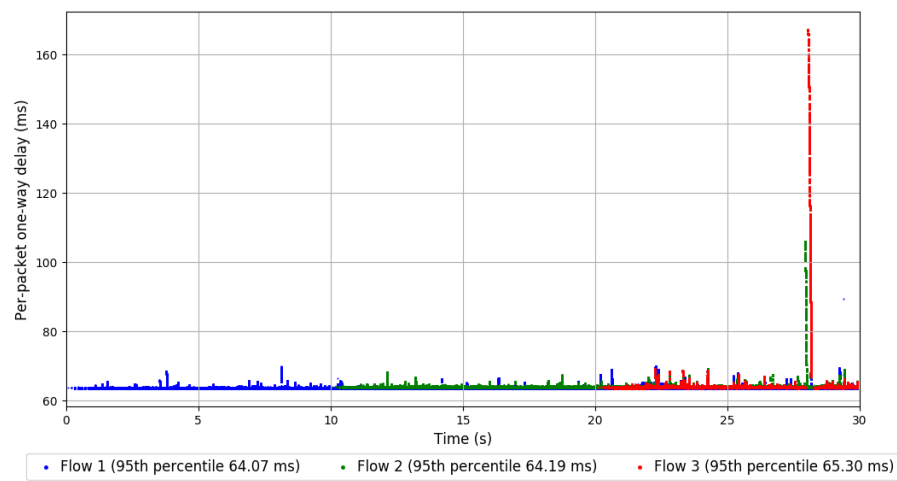
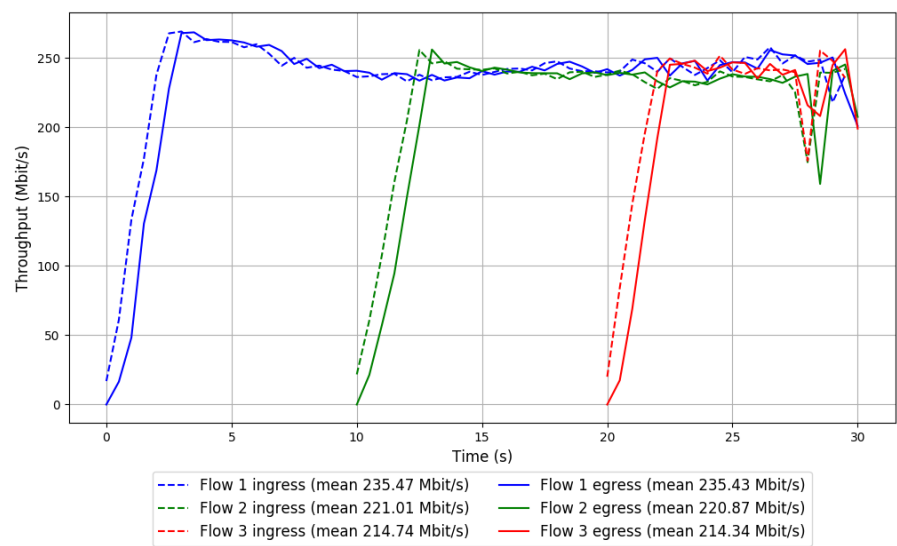


Run 1: Statistics of TaoVA-100x

Start at: 2019-01-19 09:57:55
End at: 2019-01-19 09:58:25
Local clock offset: -0.047 ms
Remote clock offset: -0.644 ms

Below is generated by plot.py at 2019-01-19 15:37:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 452.78 Mbit/s
95th percentile per-packet one-way delay: 64.257 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 235.43 Mbit/s
95th percentile per-packet one-way delay: 64.066 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 220.87 Mbit/s
95th percentile per-packet one-way delay: 64.191 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 214.34 Mbit/s
95th percentile per-packet one-way delay: 65.295 ms
Loss rate: 1.45%

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

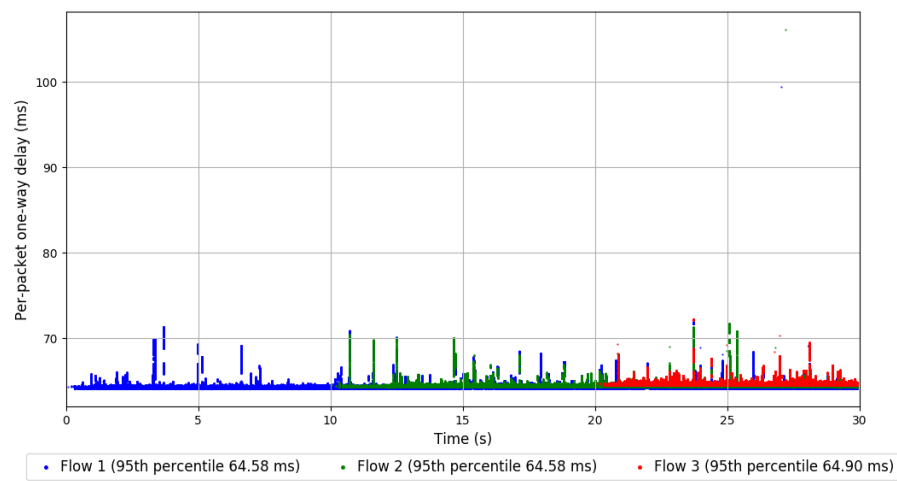
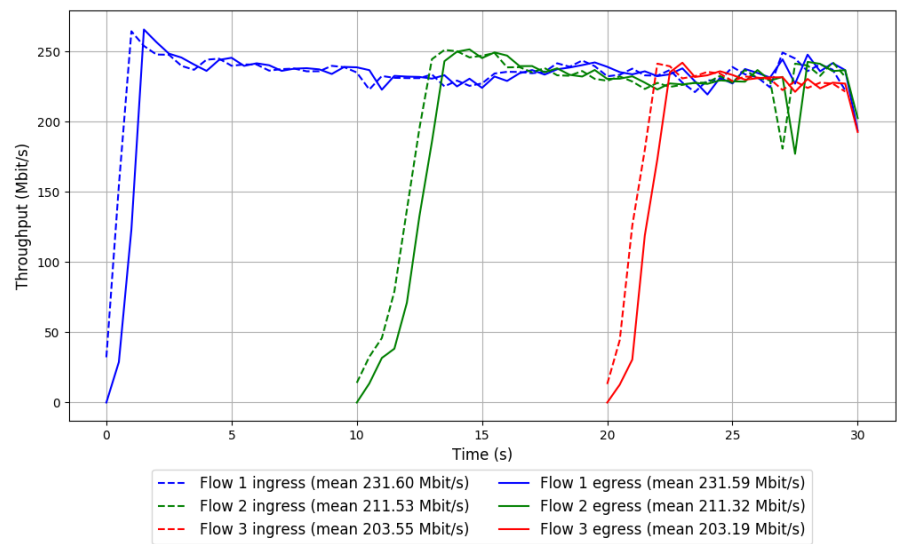


Run 2: Statistics of TaoVA-100x

Start at: 2019-01-19 10:34:51
End at: 2019-01-19 10:35:21
Local clock offset: -0.159 ms
Remote clock offset: -1.552 ms

Below is generated by plot.py at 2019-01-19 15:37:29
Datalink statistics
-- Total of 3 flows:
Average throughput: 438.96 Mbit/s
95th percentile per-packet one-way delay: 64.717 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 231.59 Mbit/s
95th percentile per-packet one-way delay: 64.581 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 211.32 Mbit/s
95th percentile per-packet one-way delay: 64.579 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 203.19 Mbit/s
95th percentile per-packet one-way delay: 64.900 ms
Loss rate: 1.44%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-01-19 11:11:45

End at: 2019-01-19 11:12:15

Local clock offset: -0.118 ms

Remote clock offset: 1.014 ms

Below is generated by plot.py at 2019-01-19 15:37:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 424.46 Mbit/s

95th percentile per-packet one-way delay: 64.622 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 218.65 Mbit/s

95th percentile per-packet one-way delay: 64.907 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 211.45 Mbit/s

95th percentile per-packet one-way delay: 65.990 ms

Loss rate: 0.71%

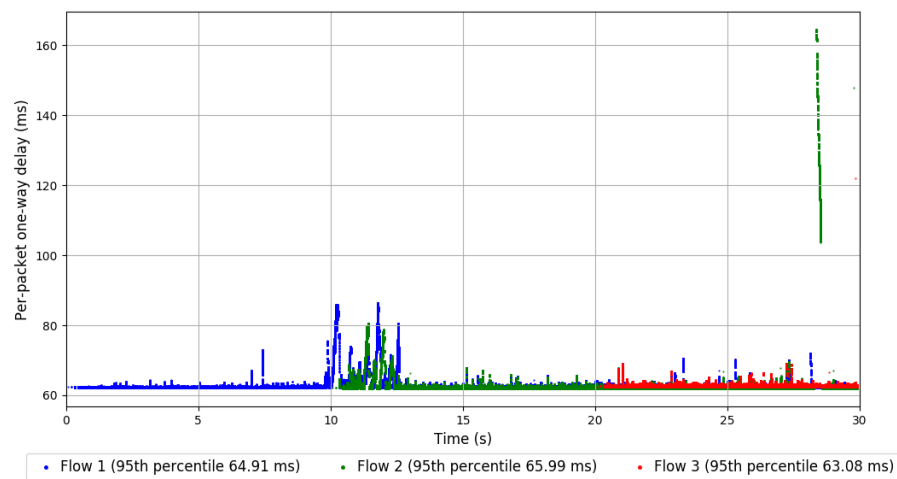
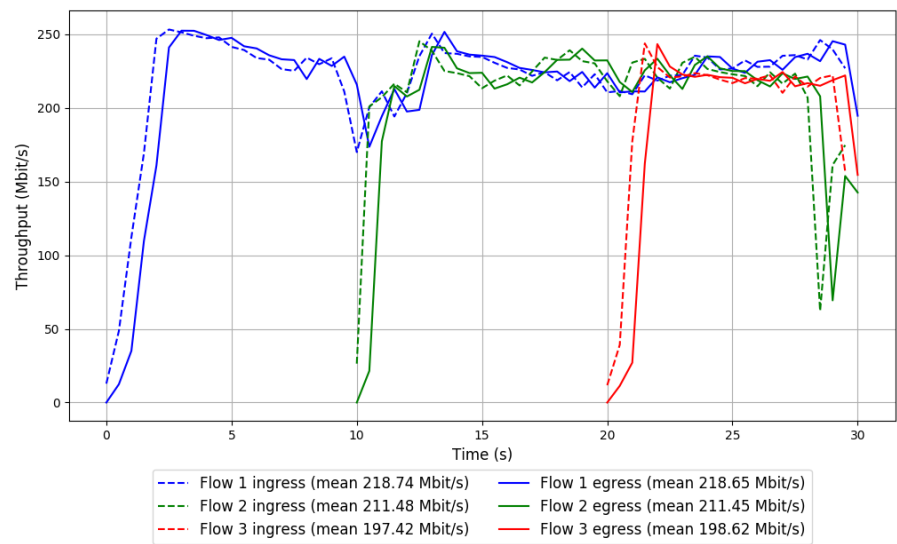
-- Flow 3:

Average throughput: 198.62 Mbit/s

95th percentile per-packet one-way delay: 63.078 ms

Loss rate: 0.78%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-01-19 11:48:29

End at: 2019-01-19 11:48:59

Local clock offset: -0.096 ms

Remote clock offset: 0.877 ms

Below is generated by plot.py at 2019-01-19 15:37:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 432.28 Mbit/s

95th percentile per-packet one-way delay: 62.152 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 223.82 Mbit/s

95th percentile per-packet one-way delay: 61.993 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 211.13 Mbit/s

95th percentile per-packet one-way delay: 62.103 ms

Loss rate: 0.71%

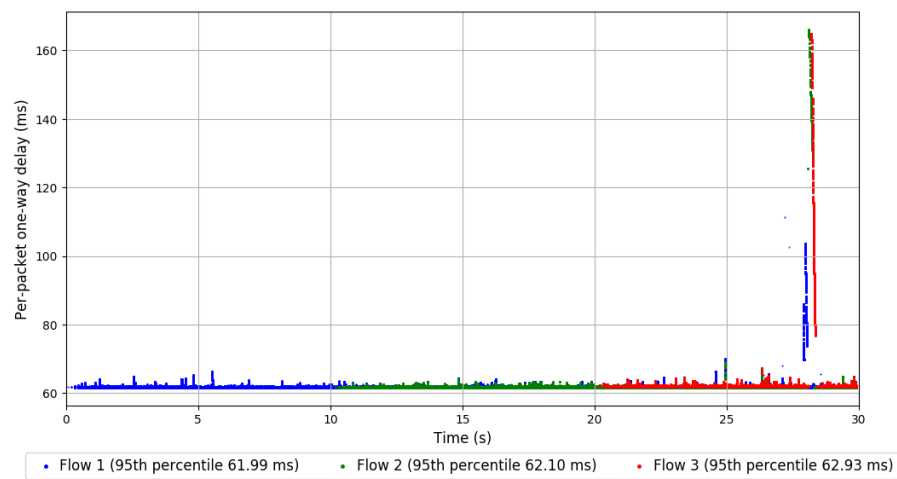
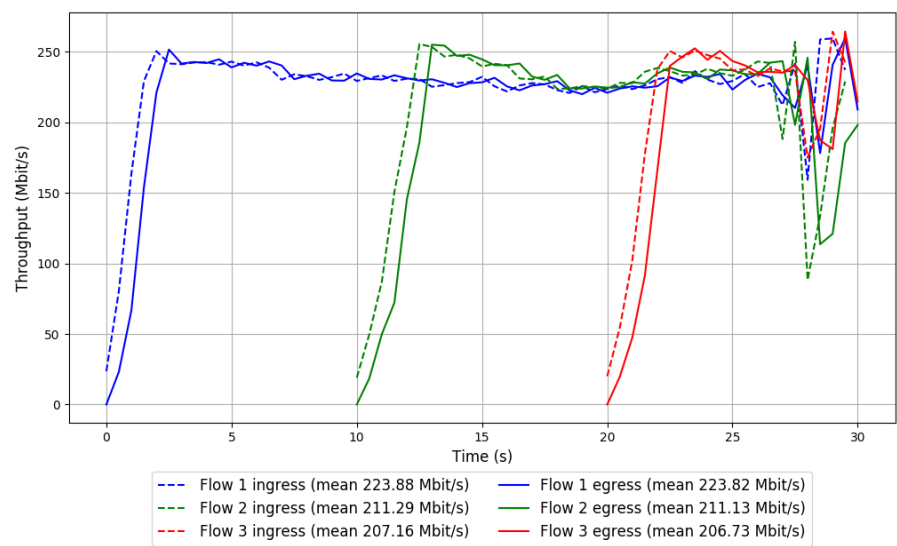
-- Flow 3:

Average throughput: 206.73 Mbit/s

95th percentile per-packet one-way delay: 62.933 ms

Loss rate: 1.47%

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

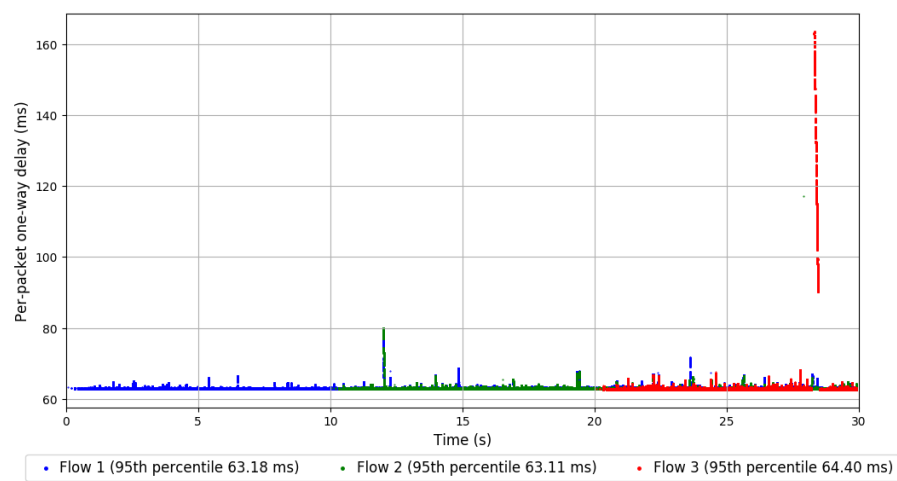
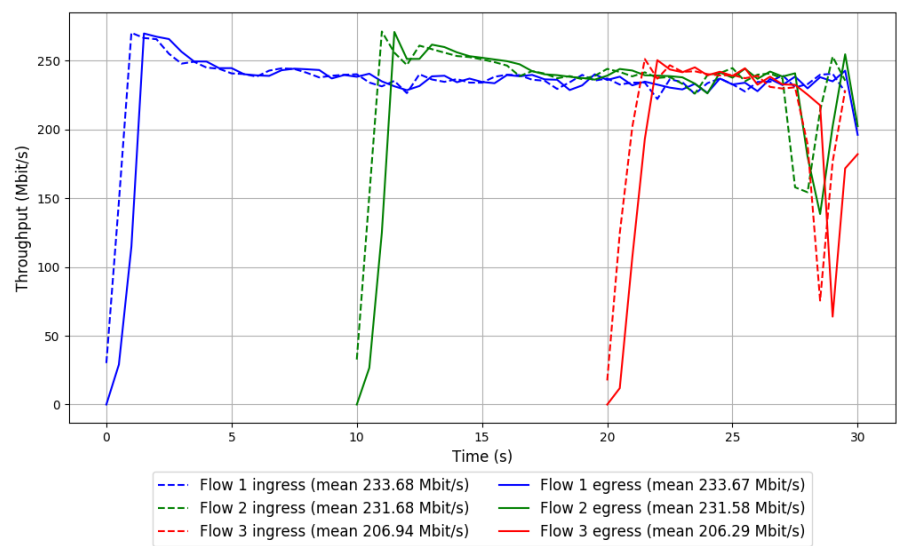


Run 5: Statistics of TaoVA-100x

Start at: 2019-01-19 12:25:10
End at: 2019-01-19 12:25:40
Local clock offset: 0.019 ms
Remote clock offset: -0.074 ms

Below is generated by plot.py at 2019-01-19 15:38:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 455.53 Mbit/s
95th percentile per-packet one-way delay: 63.208 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 233.67 Mbit/s
95th percentile per-packet one-way delay: 63.180 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 231.58 Mbit/s
95th percentile per-packet one-way delay: 63.110 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 206.29 Mbit/s
95th percentile per-packet one-way delay: 64.396 ms
Loss rate: 1.58%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-01-19 09:54:06

End at: 2019-01-19 09:54:36

Local clock offset: -0.056 ms

Remote clock offset: -0.29 ms

Below is generated by plot.py at 2019-01-19 15:39:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 798.38 Mbit/s

95th percentile per-packet one-way delay: 104.630 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 374.87 Mbit/s

95th percentile per-packet one-way delay: 66.275 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 403.08 Mbit/s

95th percentile per-packet one-way delay: 68.736 ms

Loss rate: 0.37%

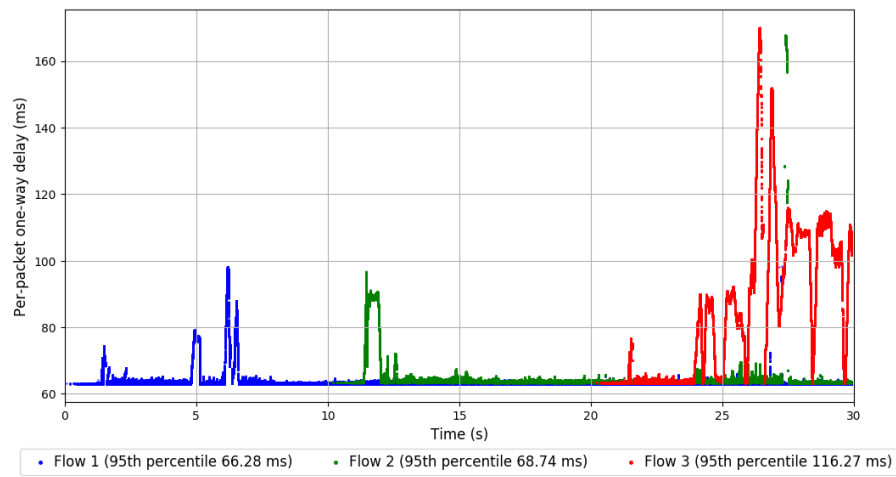
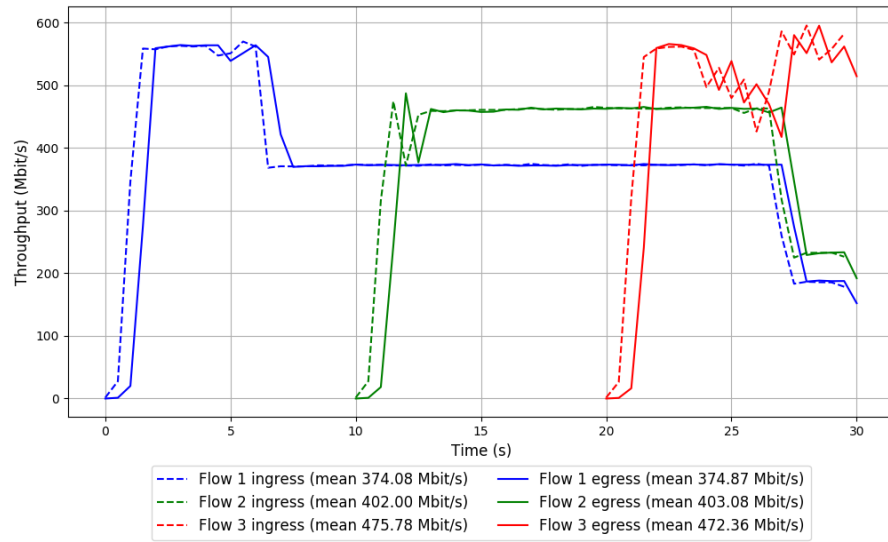
-- Flow 3:

Average throughput: 472.36 Mbit/s

95th percentile per-packet one-way delay: 116.266 ms

Loss rate: 1.97%

Run 1: Report of TCP Vegas — Data Link

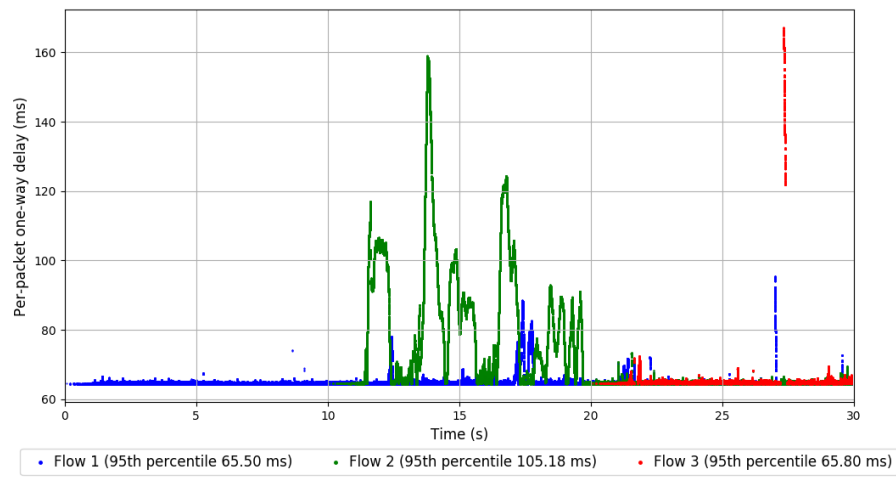
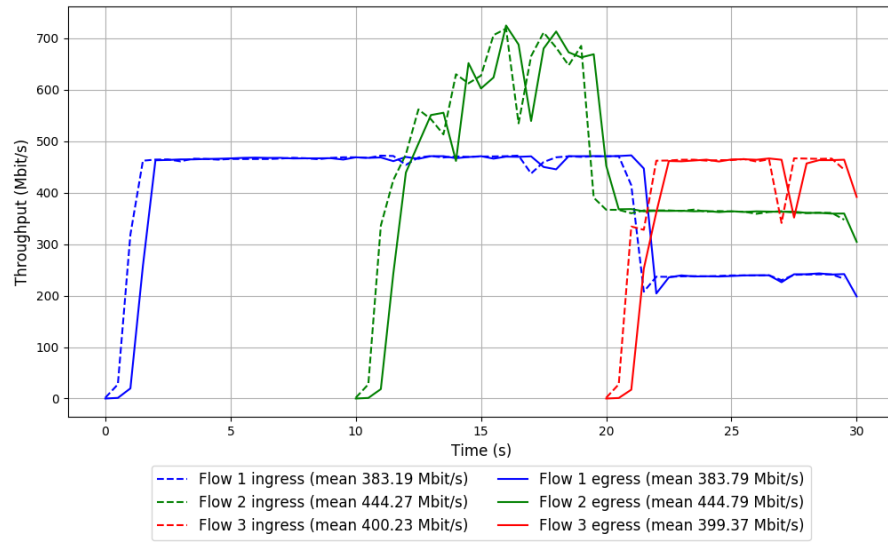


Run 2: Statistics of TCP Vegas

Start at: 2019-01-19 10:31:00
End at: 2019-01-19 10:31:30
Local clock offset: -0.124 ms
Remote clock offset: -1.536 ms

Below is generated by plot.py at 2019-01-19 15:46:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 811.09 Mbit/s
95th percentile per-packet one-way delay: 92.277 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 383.79 Mbit/s
95th percentile per-packet one-way delay: 65.501 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 444.79 Mbit/s
95th percentile per-packet one-way delay: 105.179 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 399.37 Mbit/s
95th percentile per-packet one-way delay: 65.802 ms
Loss rate: 1.48%

Run 2: Report of TCP Vegas — Data Link

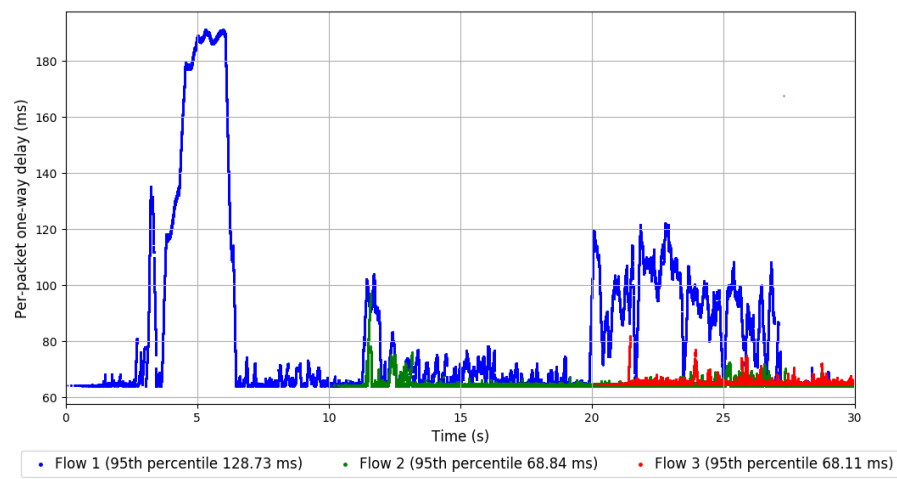
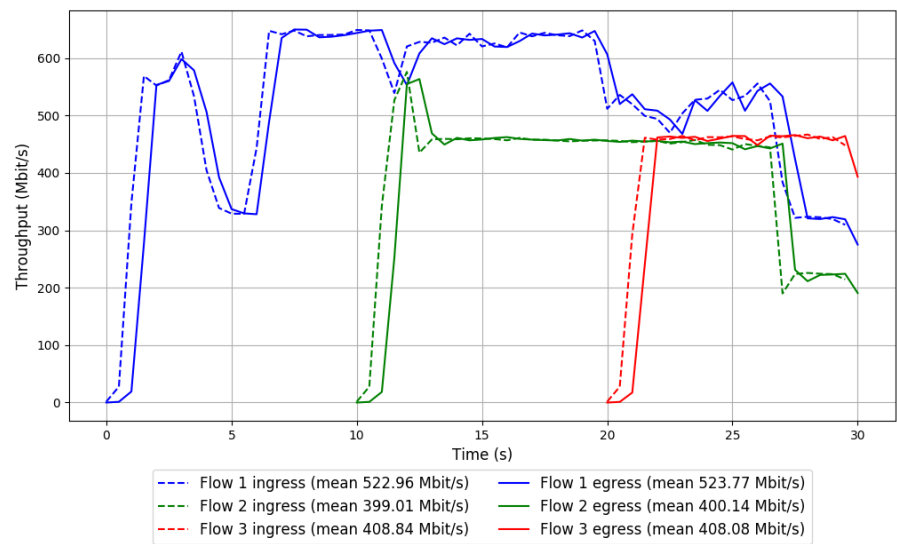


Run 3: Statistics of TCP Vegas

Start at: 2019-01-19 11:07:48
End at: 2019-01-19 11:08:18
Local clock offset: -0.105 ms
Remote clock offset: -1.306 ms

Below is generated by plot.py at 2019-01-19 15:51:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 924.31 Mbit/s
95th percentile per-packet one-way delay: 110.467 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 523.77 Mbit/s
95th percentile per-packet one-way delay: 128.732 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 400.14 Mbit/s
95th percentile per-packet one-way delay: 68.839 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 408.08 Mbit/s
95th percentile per-packet one-way delay: 68.115 ms
Loss rate: 1.45%

Run 3: Report of TCP Vegas — Data Link

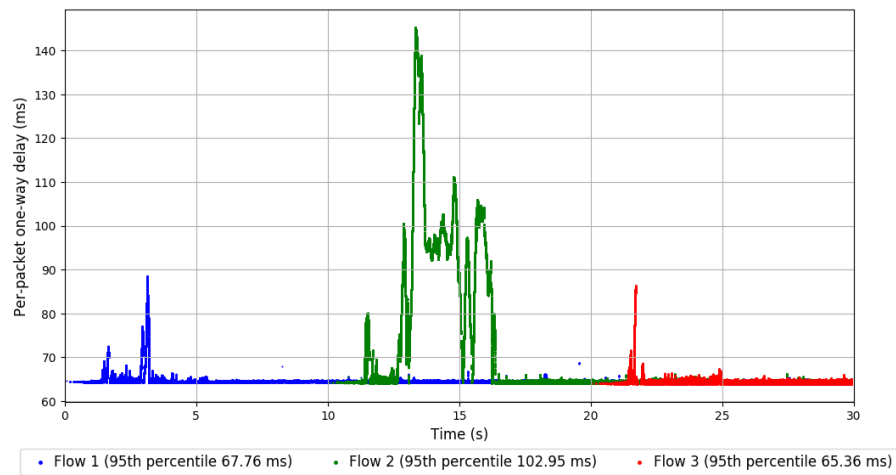
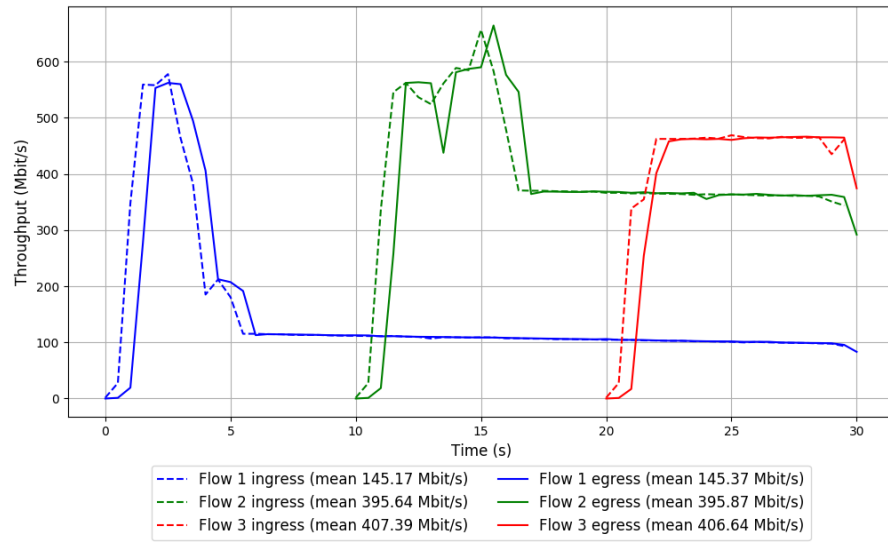


Run 4: Statistics of TCP Vegas

Start at: 2019-01-19 11:44:48
End at: 2019-01-19 11:45:18
Local clock offset: -0.114 ms
Remote clock offset: -1.362 ms

Below is generated by plot.py at 2019-01-19 15:51:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 542.49 Mbit/s
95th percentile per-packet one-way delay: 96.507 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 145.37 Mbit/s
95th percentile per-packet one-way delay: 67.762 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 395.87 Mbit/s
95th percentile per-packet one-way delay: 102.953 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 406.64 Mbit/s
95th percentile per-packet one-way delay: 65.356 ms
Loss rate: 1.45%

Run 4: Report of TCP Vegas — Data Link

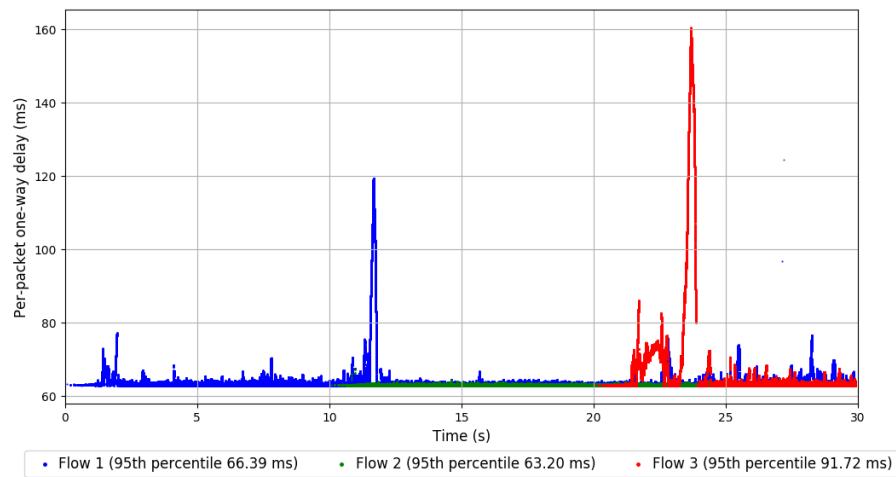
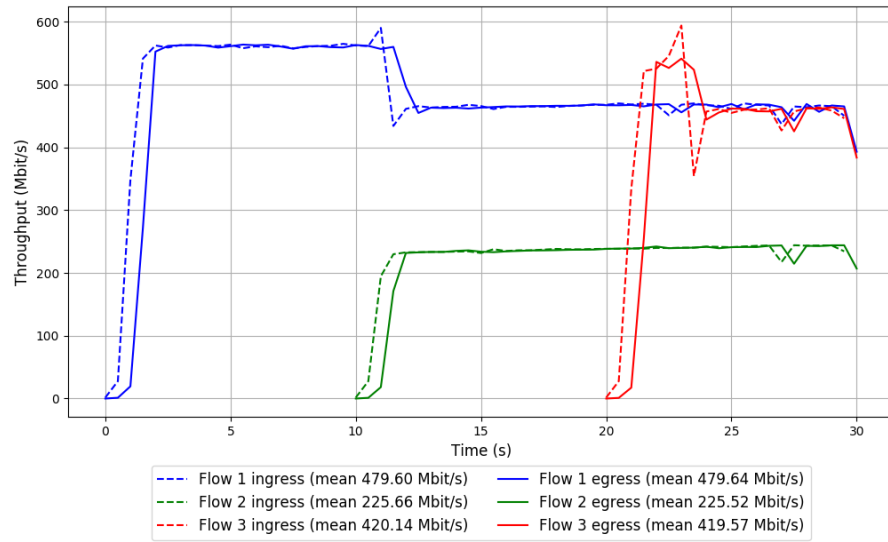


Run 5: Statistics of TCP Vegas

Start at: 2019-01-19 12:21:18
End at: 2019-01-19 12:21:48
Local clock offset: -0.021 ms
Remote clock offset: -0.261 ms

Below is generated by plot.py at 2019-01-19 15:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 767.81 Mbit/s
95th percentile per-packet one-way delay: 69.713 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 479.64 Mbit/s
95th percentile per-packet one-way delay: 66.391 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 225.52 Mbit/s
95th percentile per-packet one-way delay: 63.196 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 419.57 Mbit/s
95th percentile per-packet one-way delay: 91.715 ms
Loss rate: 1.40%

Run 5: Report of TCP Vegas — Data Link

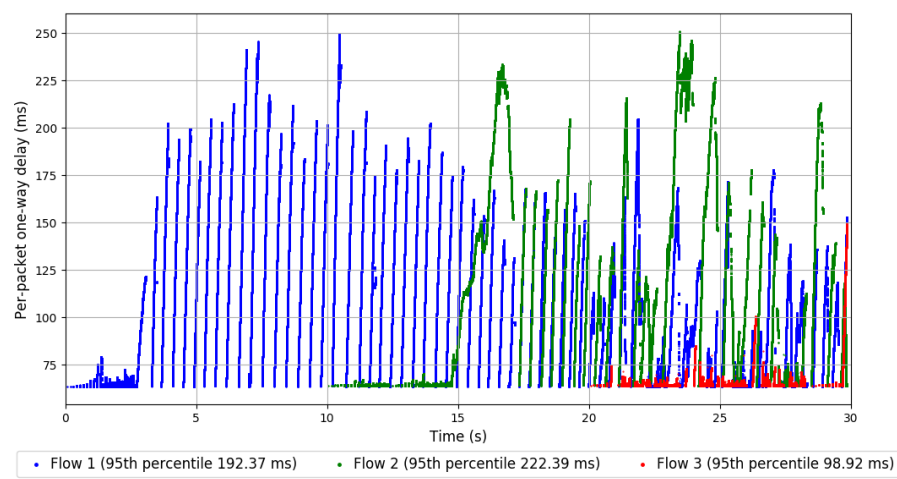
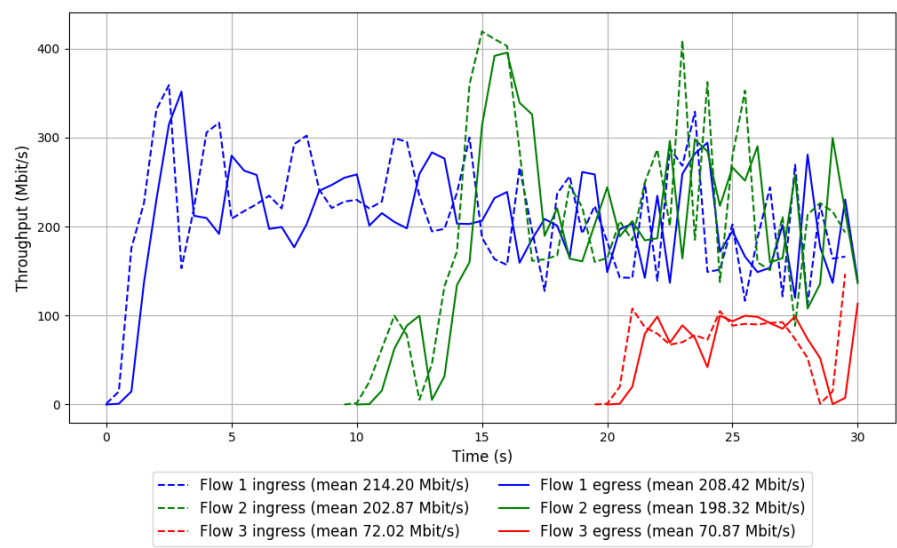


Run 1: Statistics of Verus

Start at: 2019-01-19 10:13:29
End at: 2019-01-19 10:13:59
Local clock offset: -0.107 ms
Remote clock offset: -0.735 ms

Below is generated by plot.py at 2019-01-19 15:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 363.69 Mbit/s
95th percentile per-packet one-way delay: 208.213 ms
Loss rate: 2.88%
-- Flow 1:
Average throughput: 208.42 Mbit/s
95th percentile per-packet one-way delay: 192.370 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 198.32 Mbit/s
95th percentile per-packet one-way delay: 222.393 ms
Loss rate: 2.88%
-- Flow 3:
Average throughput: 70.87 Mbit/s
95th percentile per-packet one-way delay: 98.925 ms
Loss rate: 2.90%

Run 1: Report of Verus — Data Link

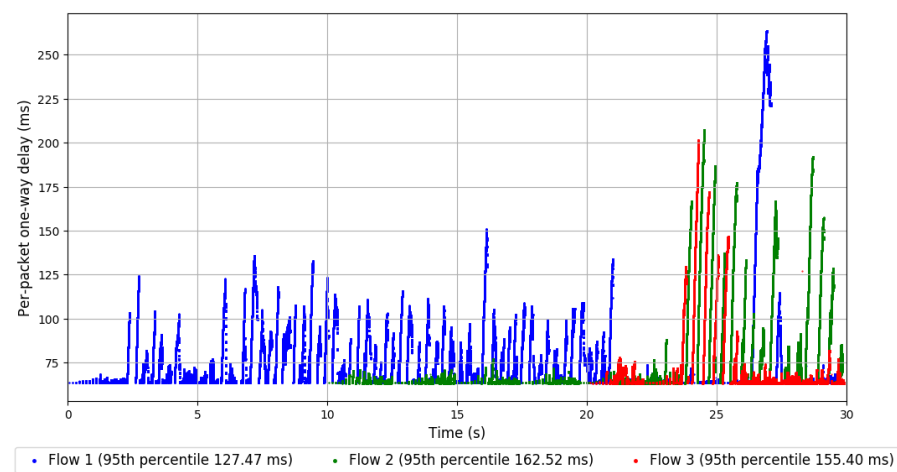
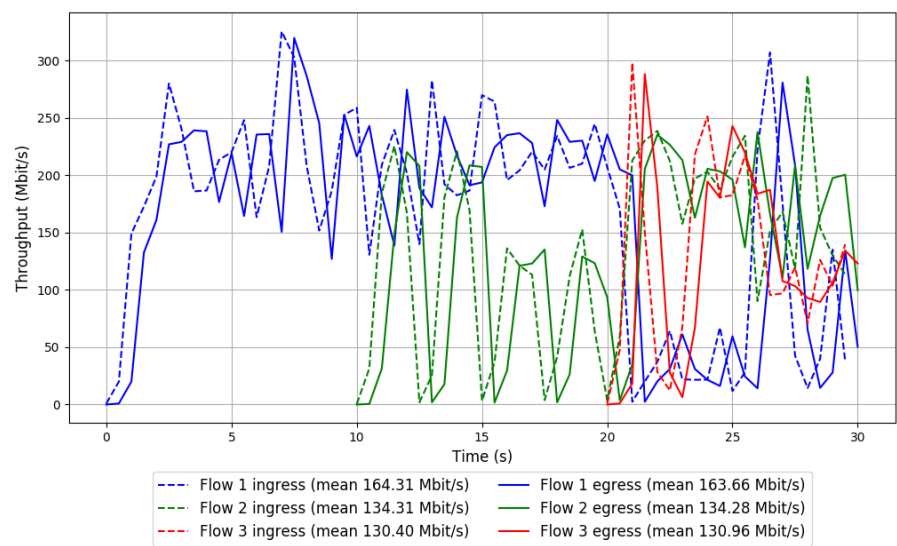


Run 2: Statistics of Verus

Start at: 2019-01-19 10:50:33
End at: 2019-01-19 10:51:03
Local clock offset: -0.119 ms
Remote clock offset: -0.576 ms

Below is generated by plot.py at 2019-01-19 15:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 295.83 Mbit/s
95th percentile per-packet one-way delay: 151.384 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 163.66 Mbit/s
95th percentile per-packet one-way delay: 127.467 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 134.28 Mbit/s
95th percentile per-packet one-way delay: 162.522 ms
Loss rate: 0.71%
-- Flow 3:
Average throughput: 130.96 Mbit/s
95th percentile per-packet one-way delay: 155.399 ms
Loss rate: 0.87%

Run 2: Report of Verus — Data Link

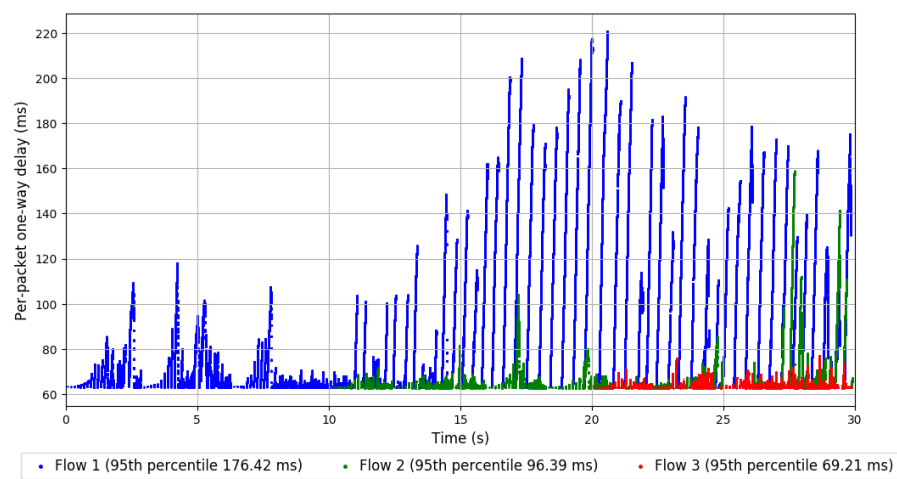
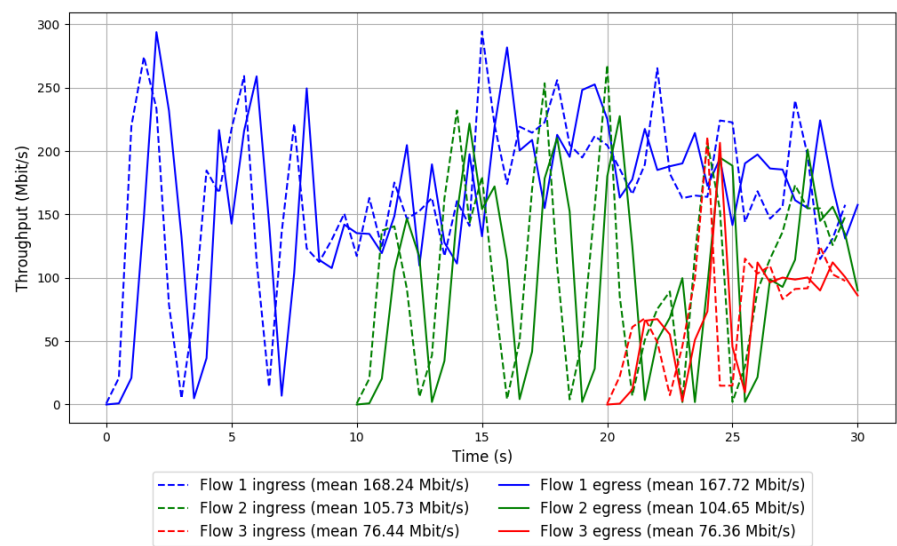


Run 3: Statistics of Verus

Start at: 2019-01-19 11:27:28
End at: 2019-01-19 11:27:58
Local clock offset: -0.095 ms
Remote clock offset: -0.213 ms

Below is generated by plot.py at 2019-01-19 15:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 261.83 Mbit/s
95th percentile per-packet one-way delay: 167.859 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 167.72 Mbit/s
95th percentile per-packet one-way delay: 176.424 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 104.65 Mbit/s
95th percentile per-packet one-way delay: 96.395 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 76.36 Mbit/s
95th percentile per-packet one-way delay: 69.213 ms
Loss rate: 1.83%

Run 3: Report of Verus — Data Link

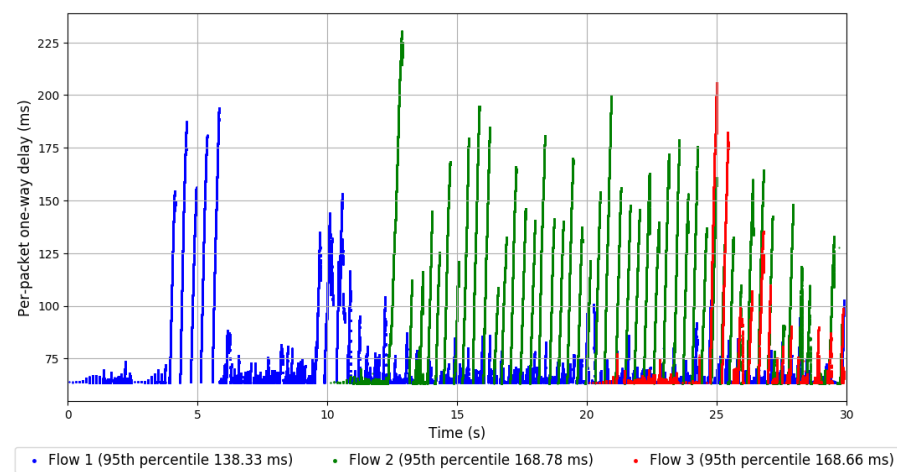
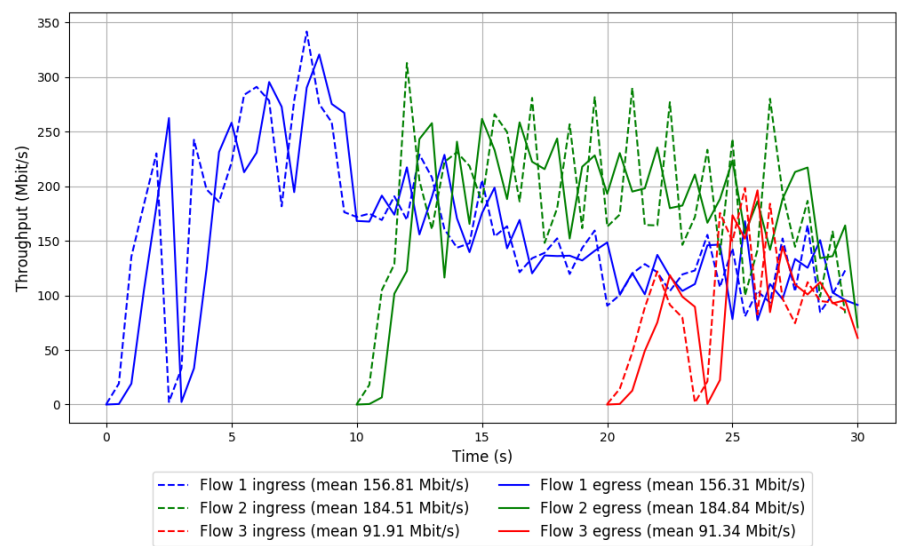


Run 4: Statistics of Verus

Start at: 2019-01-19 12:04:08
End at: 2019-01-19 12:04:38
Local clock offset: -0.05 ms
Remote clock offset: -0.691 ms

Below is generated by plot.py at 2019-01-19 15:51:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 308.38 Mbit/s
95th percentile per-packet one-way delay: 158.880 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 156.31 Mbit/s
95th percentile per-packet one-way delay: 138.333 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 184.84 Mbit/s
95th percentile per-packet one-way delay: 168.785 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 91.34 Mbit/s
95th percentile per-packet one-way delay: 168.658 ms
Loss rate: 1.40%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-01-19 12:40:50

End at: 2019-01-19 12:41:20

Local clock offset: 0.01 ms

Remote clock offset: 1.253 ms

Below is generated by plot.py at 2019-01-19 15:55:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.49 Mbit/s

95th percentile per-packet one-way delay: 112.157 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 167.19 Mbit/s

95th percentile per-packet one-way delay: 107.509 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 98.43 Mbit/s

95th percentile per-packet one-way delay: 79.164 ms

Loss rate: 0.00%

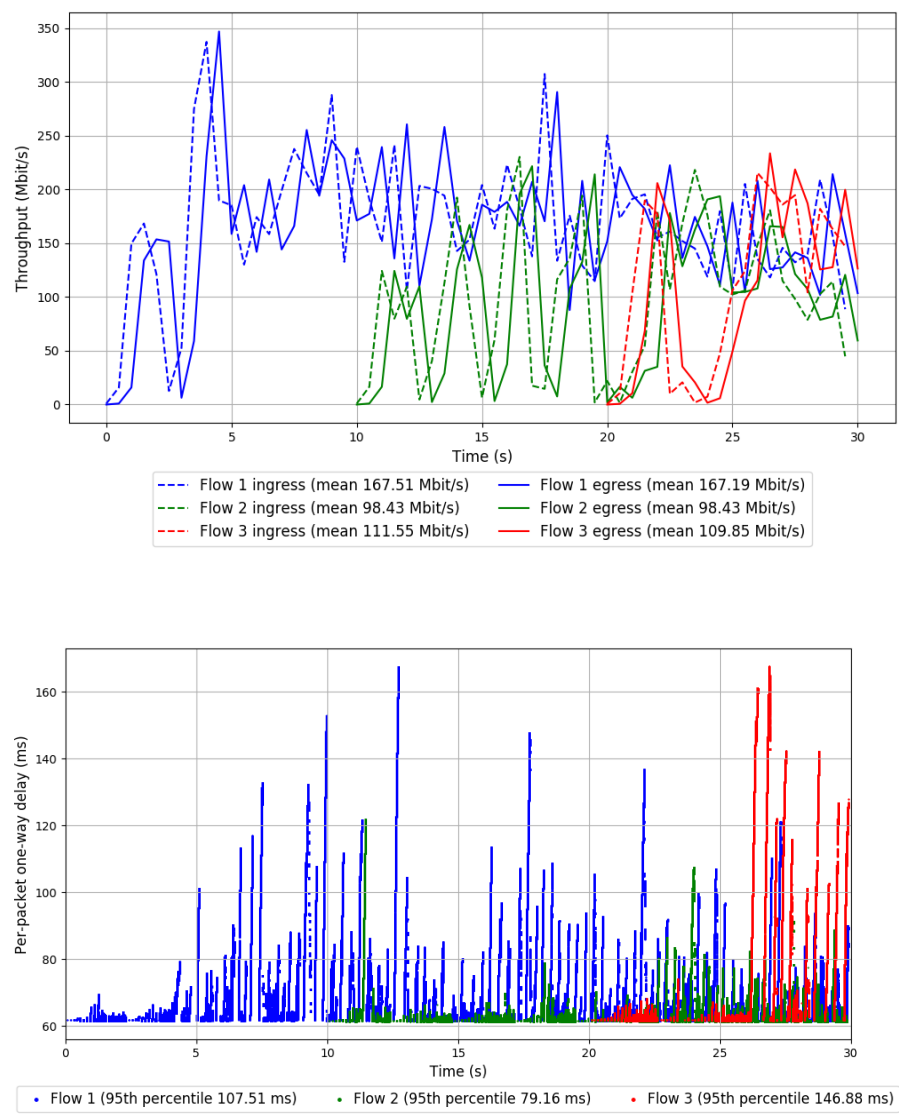
-- Flow 3:

Average throughput: 109.85 Mbit/s

95th percentile per-packet one-way delay: 146.882 ms

Loss rate: 1.74%

Run 5: Report of Verus — Data Link

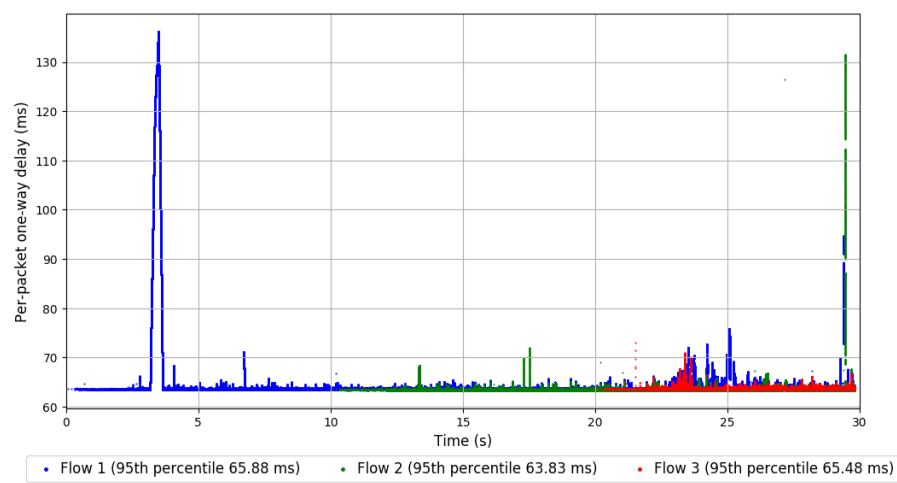
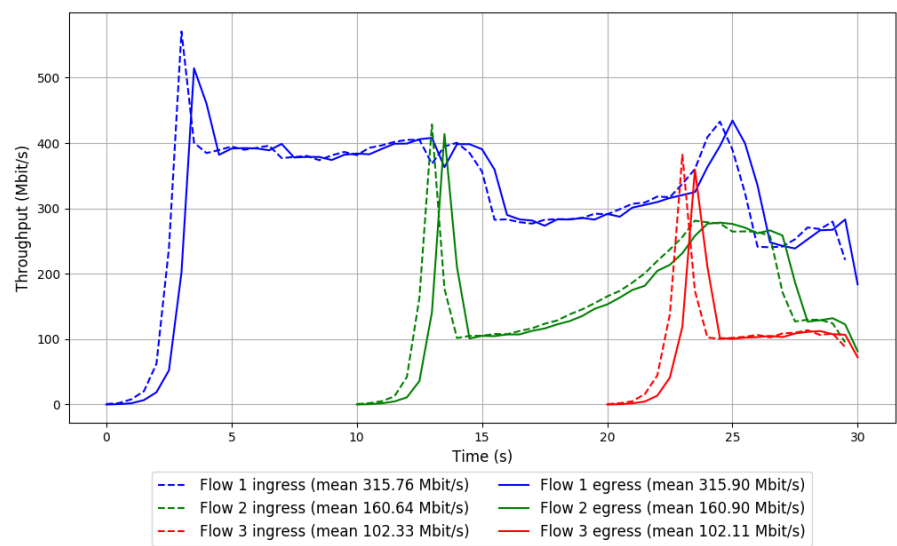


Run 1: Statistics of PCC-Vivace

Start at: 2019-01-19 10:01:58
End at: 2019-01-19 10:02:28
Local clock offset: -0.027 ms
Remote clock offset: -0.623 ms

Below is generated by plot.py at 2019-01-19 15:55:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 455.99 Mbit/s
95th percentile per-packet one-way delay: 65.179 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 315.90 Mbit/s
95th percentile per-packet one-way delay: 65.879 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 160.90 Mbit/s
95th percentile per-packet one-way delay: 63.827 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 102.11 Mbit/s
95th percentile per-packet one-way delay: 65.483 ms
Loss rate: 1.52%

Run 1: Report of PCC-Vivace — Data Link

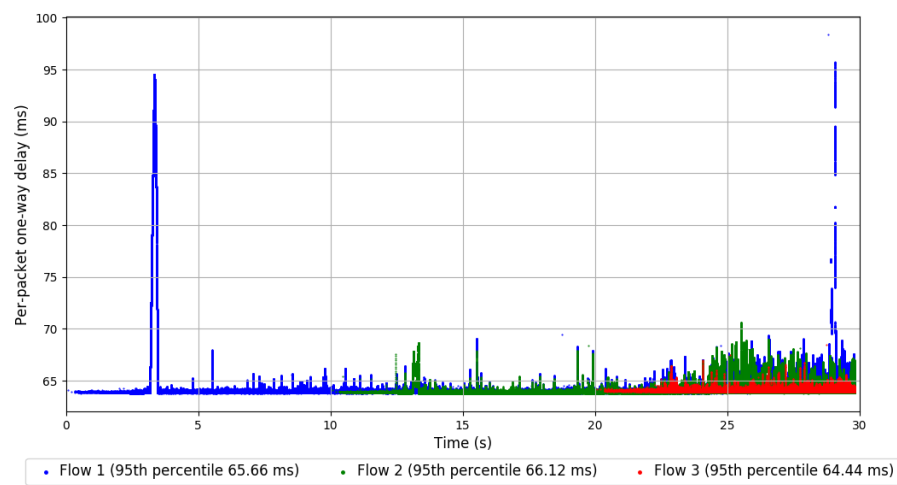
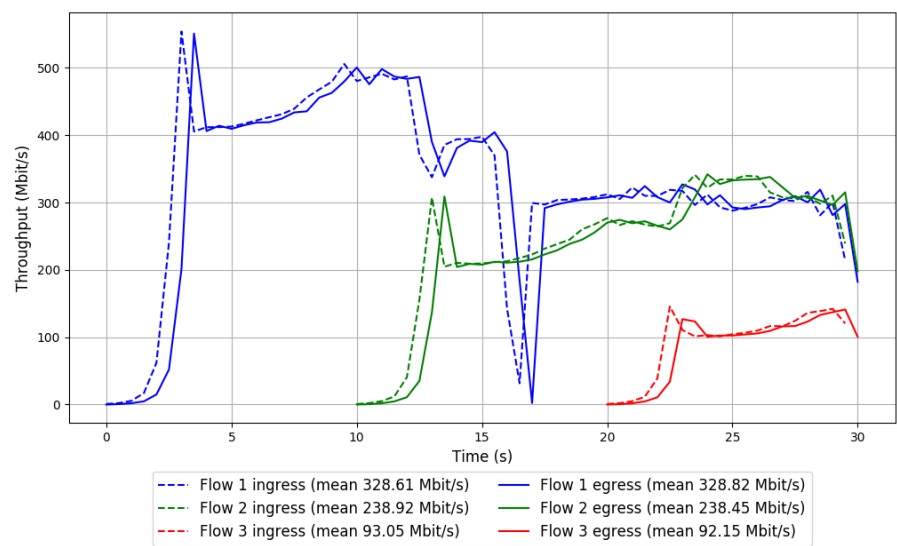


Run 2: Statistics of PCC-Vivace

Start at: 2019-01-19 10:38:52
End at: 2019-01-19 10:39:22
Local clock offset: -0.145 ms
Remote clock offset: -0.994 ms

Below is generated by plot.py at 2019-01-19 15:55:46
Datalink statistics
-- Total of 3 flows:
Average throughput: 517.21 Mbit/s
95th percentile per-packet one-way delay: 65.783 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 328.82 Mbit/s
95th percentile per-packet one-way delay: 65.660 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 238.45 Mbit/s
95th percentile per-packet one-way delay: 66.119 ms
Loss rate: 0.84%
-- Flow 3:
Average throughput: 92.15 Mbit/s
95th percentile per-packet one-way delay: 64.442 ms
Loss rate: 2.24%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-01-19 11:15:47

End at: 2019-01-19 11:16:17

Local clock offset: -0.1 ms

Remote clock offset: -0.74 ms

Below is generated by plot.py at 2019-01-19 15:55:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 464.37 Mbit/s

95th percentile per-packet one-way delay: 64.998 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 257.90 Mbit/s

95th percentile per-packet one-way delay: 64.669 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 232.93 Mbit/s

95th percentile per-packet one-way delay: 65.199 ms

Loss rate: 0.54%

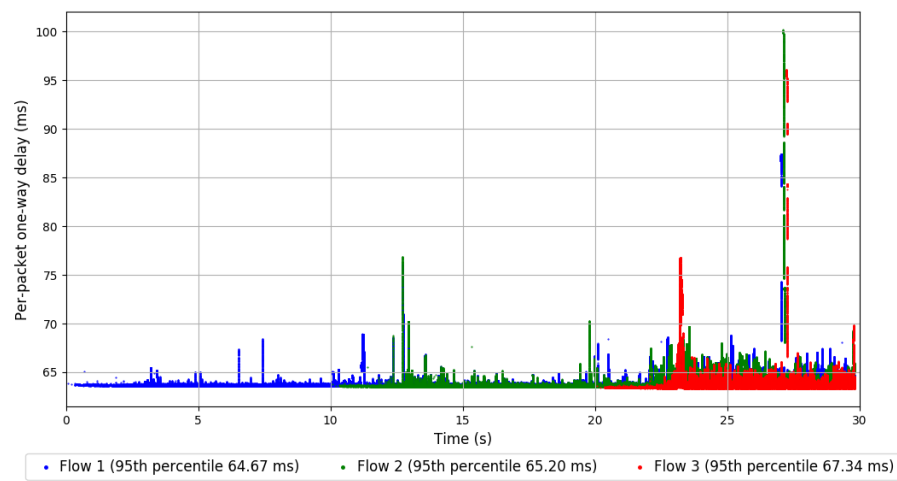
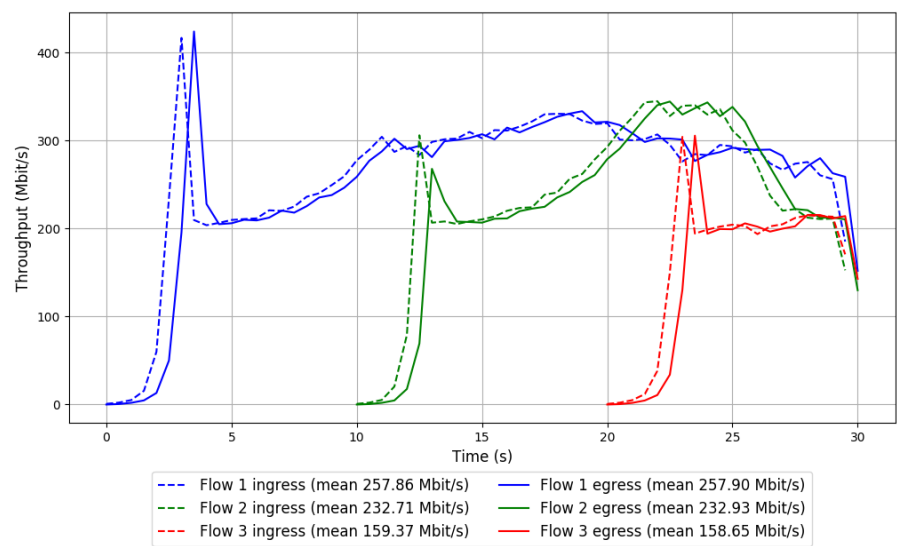
-- Flow 3:

Average throughput: 158.65 Mbit/s

95th percentile per-packet one-way delay: 67.337 ms

Loss rate: 1.75%

Run 3: Report of PCC-Vivace — Data Link

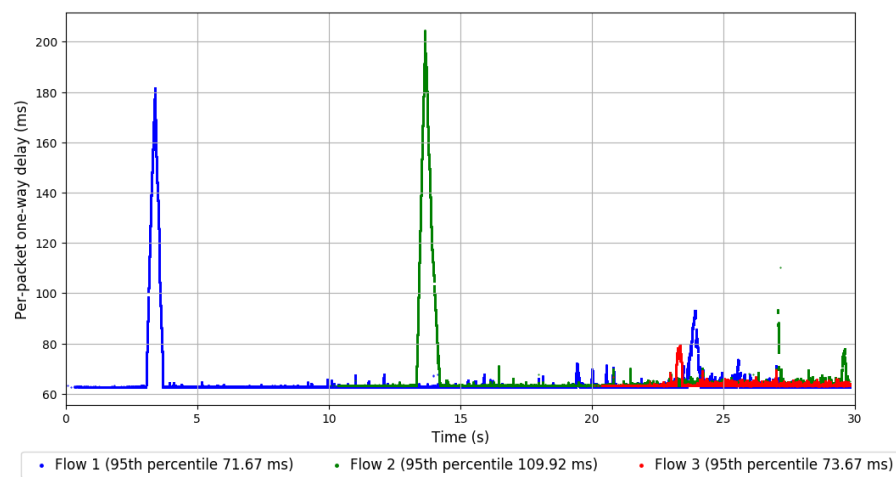
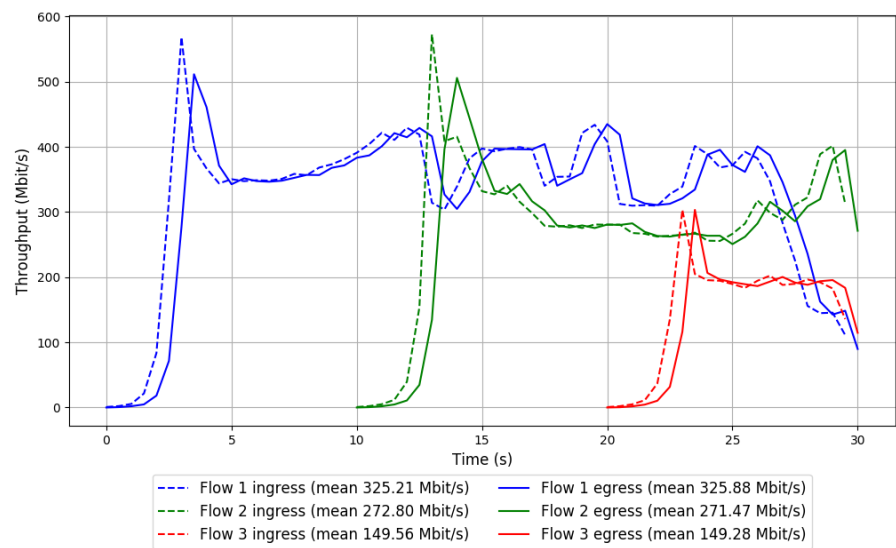


Run 4: Statistics of PCC-Vivace

Start at: 2019-01-19 11:52:32
End at: 2019-01-19 11:53:02
Local clock offset: -0.068 ms
Remote clock offset: -0.088 ms

Below is generated by plot.py at 2019-01-19 15:56:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 554.76 Mbit/s
95th percentile per-packet one-way delay: 77.539 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 325.88 Mbit/s
95th percentile per-packet one-way delay: 71.675 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 109.918 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 149.28 Mbit/s
95th percentile per-packet one-way delay: 73.665 ms
Loss rate: 1.48%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-01-19 12:29:16

End at: 2019-01-19 12:29:46

Local clock offset: 0.001 ms

Remote clock offset: -1.65 ms

Below is generated by plot.py at 2019-01-19 15:56:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 467.80 Mbit/s

95th percentile per-packet one-way delay: 66.520 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 243.60 Mbit/s

95th percentile per-packet one-way delay: 66.627 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 249.36 Mbit/s

95th percentile per-packet one-way delay: 65.878 ms

Loss rate: 0.77%

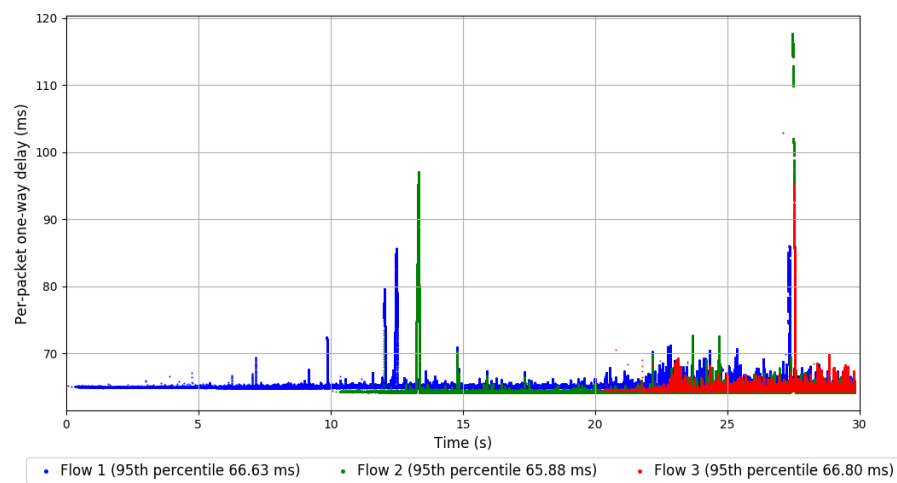
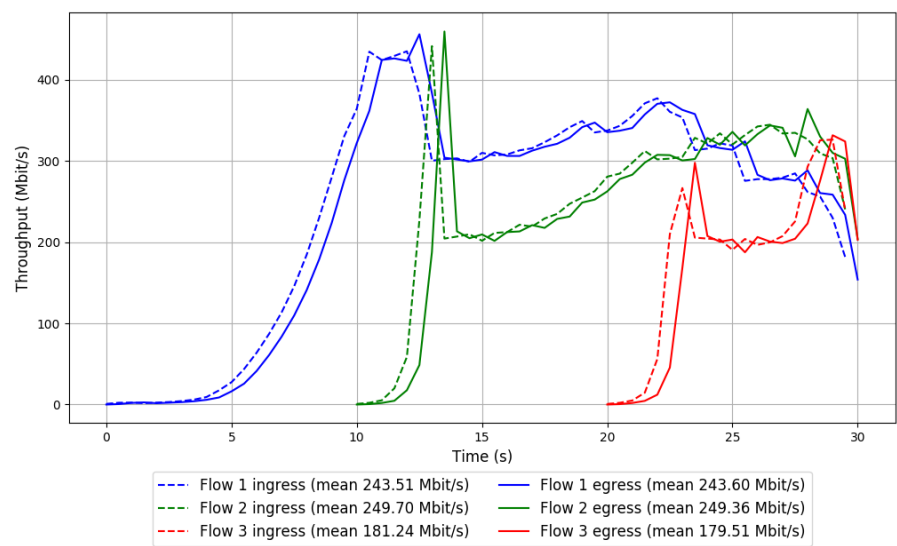
-- Flow 3:

Average throughput: 179.51 Mbit/s

95th percentile per-packet one-way delay: 66.804 ms

Loss rate: 2.22%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-01-19 10:17:08

End at: 2019-01-19 10:17:38

Local clock offset: -0.11 ms

Remote clock offset: 0.622 ms

Below is generated by plot.py at 2019-01-19 15:56:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 62.865 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.016 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 62.615 ms

Loss rate: 0.00%

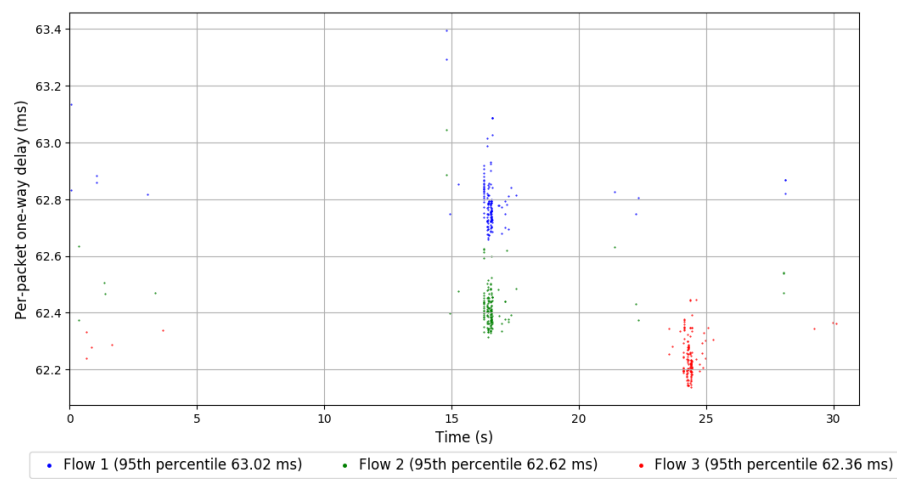
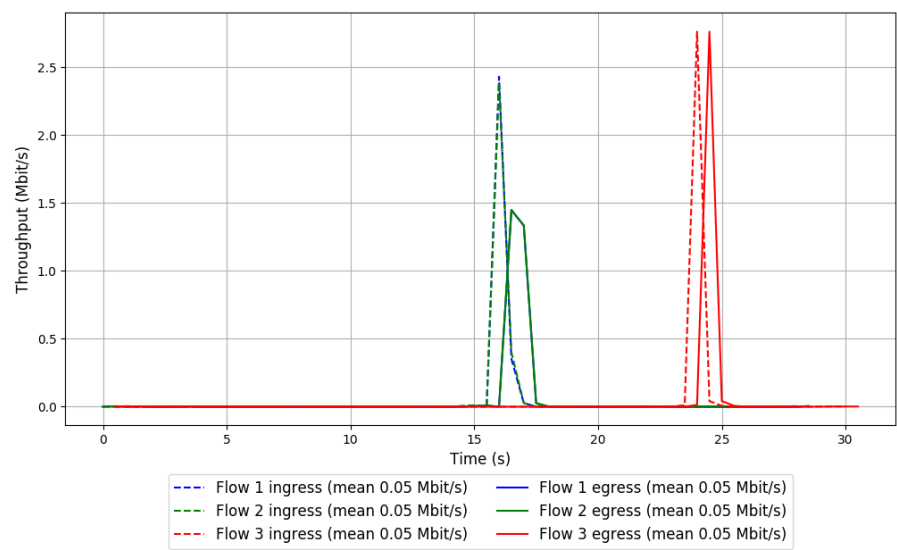
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 62.364 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

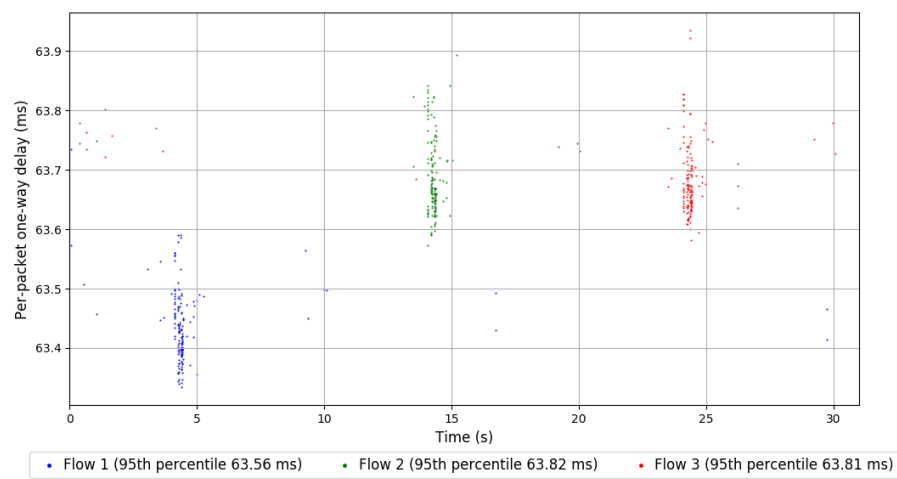
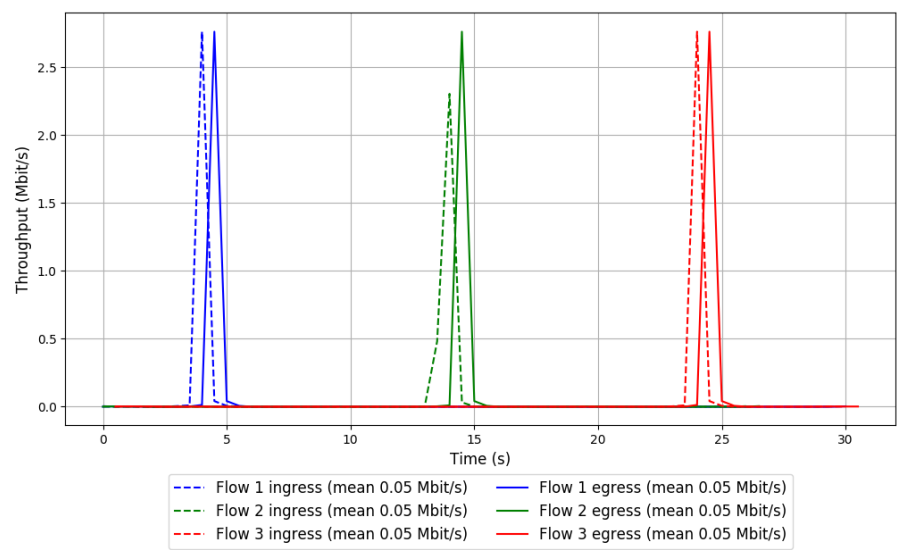


Run 2: Statistics of WebRTC media

Start at: 2019-01-19 10:54:05
End at: 2019-01-19 10:54:35
Local clock offset: -0.114 ms
Remote clock offset: -0.696 ms

Below is generated by plot.py at 2019-01-19 15:56:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.801 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.559 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.809 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

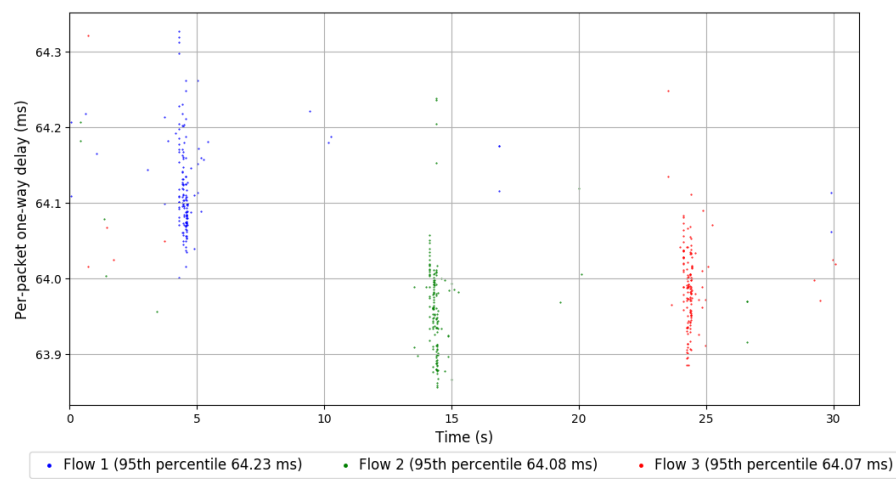
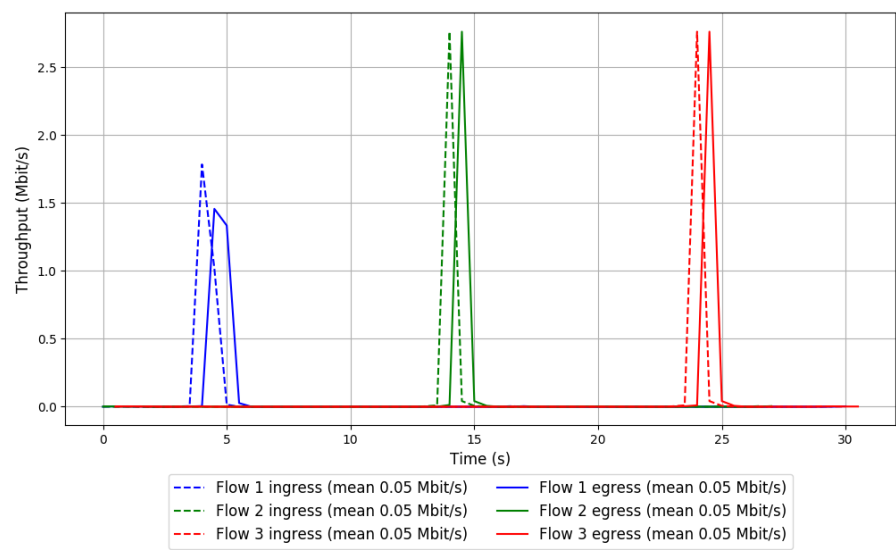


Run 3: Statistics of WebRTC media

Start at: 2019-01-19 11:30:58
End at: 2019-01-19 11:31:28
Local clock offset: -0.096 ms
Remote clock offset: -1.053 ms

Below is generated by plot.py at 2019-01-19 15:56:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 64.203 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.078 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 64.073 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

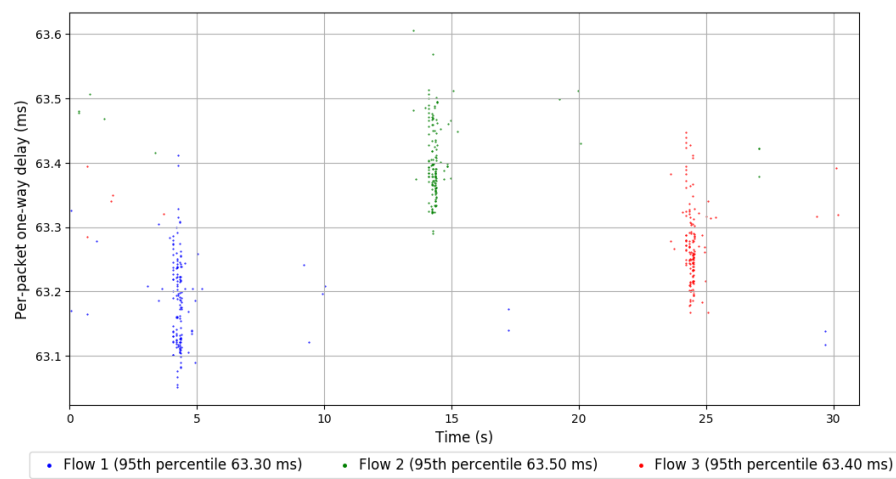
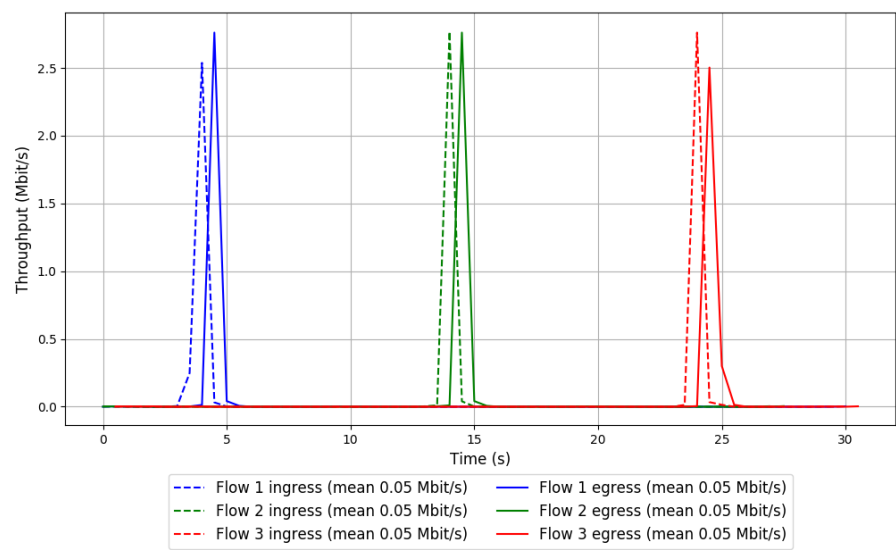


Run 4: Statistics of WebRTC media

Start at: 2019-01-19 12:07:42
End at: 2019-01-19 12:08:12
Local clock offset: -0.022 ms
Remote clock offset: -0.327 ms

Below is generated by plot.py at 2019-01-19 15:56:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.476 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.299 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.395 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-01-19 12:44:18
End at: 2019-01-19 12:44:48
Local clock offset: -0.029 ms
Remote clock offset: -0.722 ms

Below is generated by plot.py at 2019-01-19 15:56:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.685 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.647 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

