

Pantheon Report

Generated at 2019-03-09 16:27:40 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

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

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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

Scatter plot showing the 95th percentile one-way delay (ms) for various network configurations. The x-axis is logarithmic, ranging from 256 to 32 ms. The y-axis represents a performance metric from 0 to 1000. Data points are labeled with configuration names and colored markers.

Configuration	95th percentile one-way delay (ms)	Performance Metric (approx.)
TCP Cubic	180	950
TCP BBR	200	900
Indigo-MusesT	150	850
Indigo-MusesC	150	820
TCP Vegas	150	850
Indigo-MusesC3	150	800
Indigo-MusesD	120	680
PCC-Allegro	180	580
Copa	120	520
PCC-Expr	150	450
PCC-Virage	100	450
Verus	220	280
Indigo	100	400
66A-100x	100	420
QUIC Cubic	60	80
EDBAT	60	40
CC-BAT	60	20
CC-BAT media	60	10



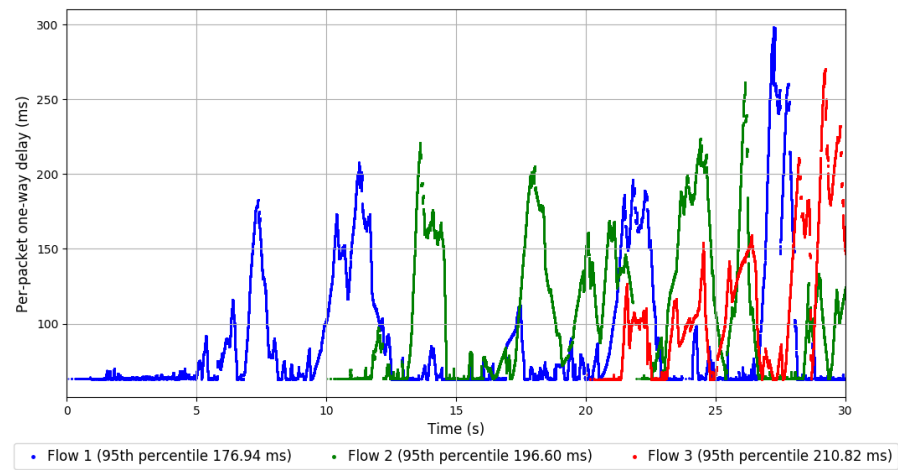
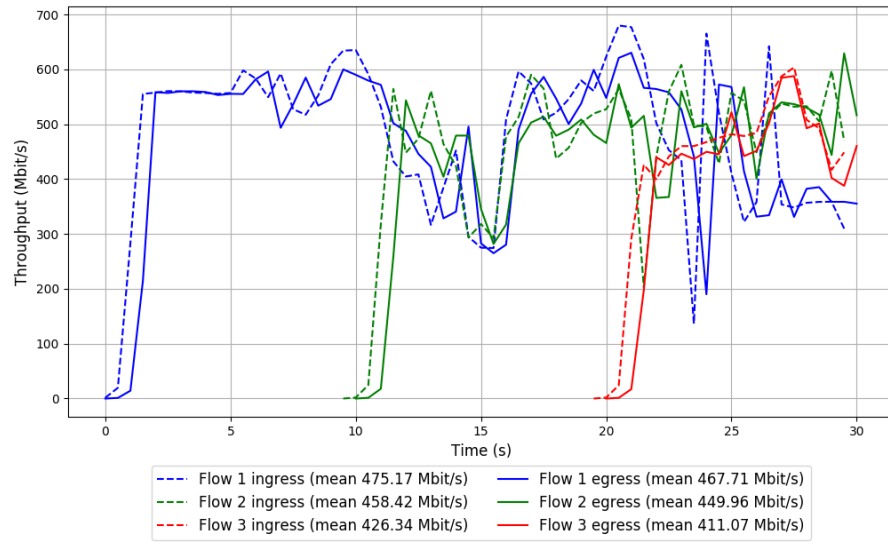
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	487.66	443.36	414.90	171.78	198.69	179.36	0.90	2.28	2.30
Copa	5	281.67	255.78	241.10	84.18	93.02	88.42	0.01	0.04	0.05
TCP Cubic	5	497.53	477.92	445.78	103.62	134.73	149.58	0.08	0.20	0.65
FillP	5	537.06	345.40	241.00	107.60	67.85	66.41	0.35	0.00	0.00
FillP-Sheep	5	505.31	330.41	246.14	97.99	67.36	66.62	0.17	0.00	0.01
Indigo	5	215.20	206.84	175.89	68.19	69.70	68.87	0.00	0.00	0.00
Indigo-MusesC3	5	473.71	388.99	274.67	97.51	76.31	68.88	0.00	0.00	0.20
Indigo-MusesC5	4	491.03	424.89	256.04	111.61	110.28	68.30	0.02	0.03	0.03
Indigo-MusesD	5	412.66	298.72	263.24	89.46	95.66	66.20	0.00	0.00	0.01
Indigo-MusesT	5	516.66	433.56	253.79	122.82	94.03	69.98	0.01	0.01	0.01
LEDBAT	5	22.97	15.60	7.69	64.43	64.18	63.94	0.00	0.00	0.00
PCC-Allegro	5	321.94	279.08	245.30	186.99	131.04	148.94	1.91	0.22	0.35
PCC-Expr	5	279.79	201.64	162.31	154.19	123.98	98.47	2.24	0.05	0.01
QUIC Cubic	5	43.58	40.96	20.96	63.03	63.02	63.17	0.00	0.00	0.00
SCReAM	5	0.22	0.22	0.22	63.00	62.82	62.90	0.00	0.00	0.00
Sprout	5	6.75	6.69	6.40	63.80	63.80	63.92	0.00	0.00	0.00
TaoVA-100x	5	234.10	226.68	218.00	67.69	67.47	67.97	0.00	0.00	0.01
TCP Vegas	5	436.22	419.97	393.98	73.80	81.73	85.65	0.01	0.04	0.01
Verus	5	172.90	125.66	85.03	209.91	162.77	96.44	2.49	1.33	0.81
PCC-Vivace	5	316.35	180.68	97.33	94.82	65.25	63.75	0.13	0.00	0.00
WebRTC media	5	0.03	0.70	0.29	62.95	63.12	63.14	0.01	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-03-09 10:44:09
End at: 2019-03-09 10:44:39
Local clock offset: -0.09 ms
Remote clock offset: -0.102 ms

Below is generated by plot.py at 2019-03-09 14:16:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 904.80 Mbit/s
95th percentile per-packet one-way delay: 190.596 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 467.71 Mbit/s
95th percentile per-packet one-way delay: 176.943 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 449.96 Mbit/s
95th percentile per-packet one-way delay: 196.597 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 411.07 Mbit/s
95th percentile per-packet one-way delay: 210.816 ms
Loss rate: 3.60%

Run 1: Report of TCP BBR — Data Link

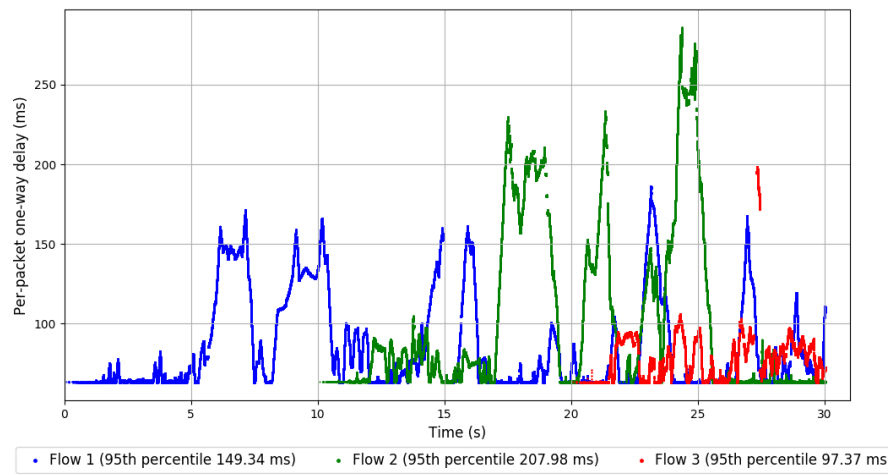
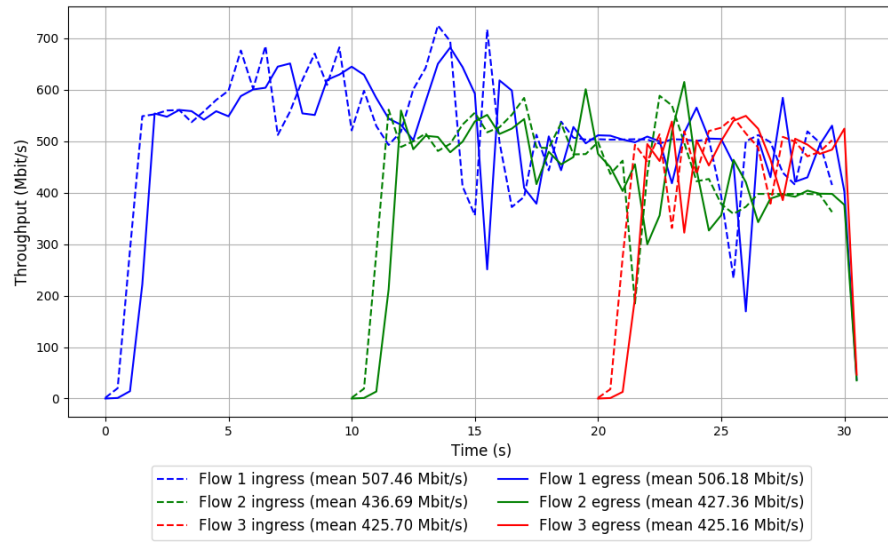


Run 2: Statistics of TCP BBR

Start at: 2019-03-09 11:20:33
End at: 2019-03-09 11:21:03
Local clock offset: 0.021 ms
Remote clock offset: -0.031 ms

Below is generated by plot.py at 2019-03-09 14:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 932.09 Mbit/s
95th percentile per-packet one-way delay: 172.462 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 506.18 Mbit/s
95th percentile per-packet one-way delay: 149.336 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 427.36 Mbit/s
95th percentile per-packet one-way delay: 207.978 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 425.16 Mbit/s
95th percentile per-packet one-way delay: 97.369 ms
Loss rate: 0.12%

Run 2: Report of TCP BBR — Data Link

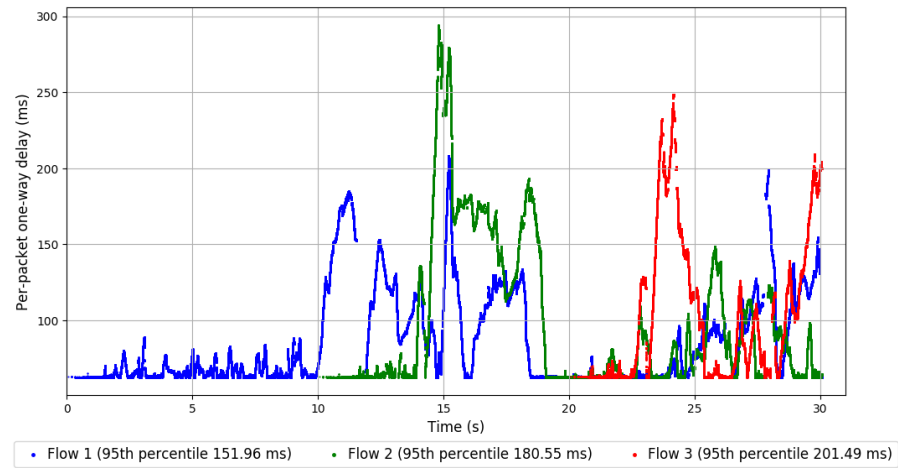
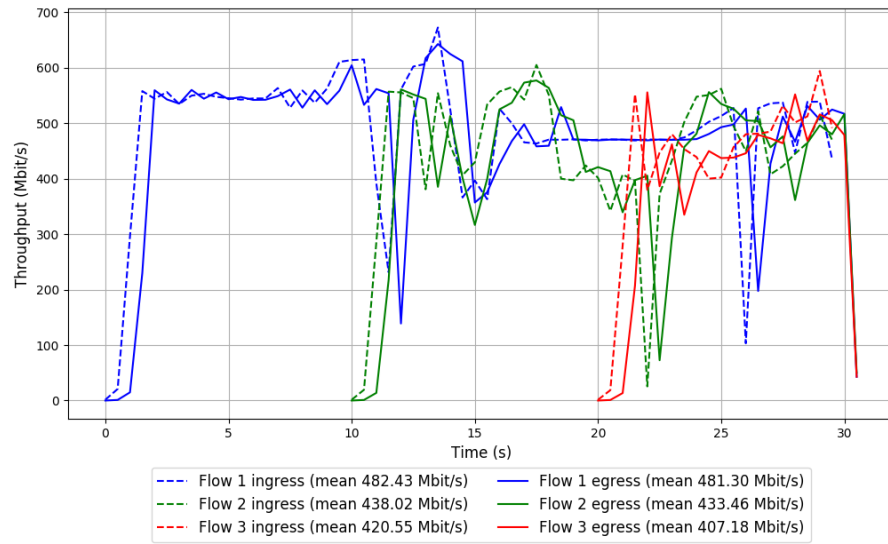


Run 3: Statistics of TCP BBR

Start at: 2019-03-09 11:56:57
End at: 2019-03-09 11:57:27
Local clock offset: 0.068 ms
Remote clock offset: -0.242 ms

Below is generated by plot.py at 2019-03-09 14:16:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 905.42 Mbit/s
95th percentile per-packet one-way delay: 178.389 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 481.30 Mbit/s
95th percentile per-packet one-way delay: 151.957 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 433.46 Mbit/s
95th percentile per-packet one-way delay: 180.549 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 407.18 Mbit/s
95th percentile per-packet one-way delay: 201.485 ms
Loss rate: 3.17%

Run 3: Report of TCP BBR — Data Link

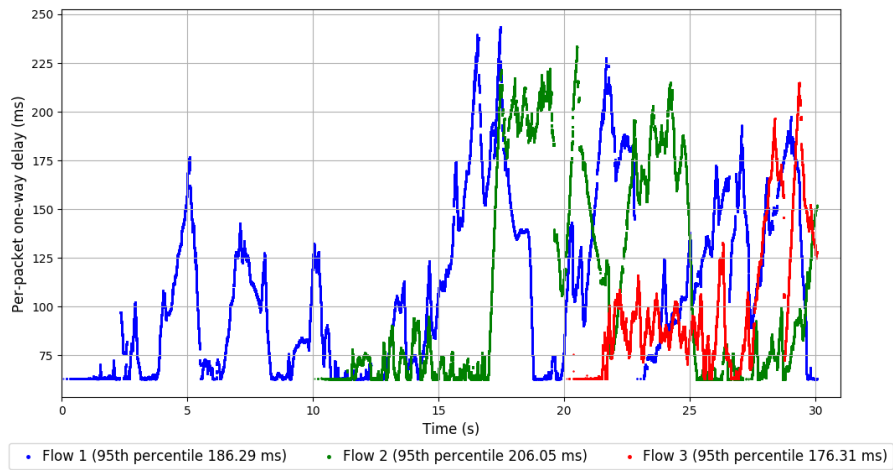
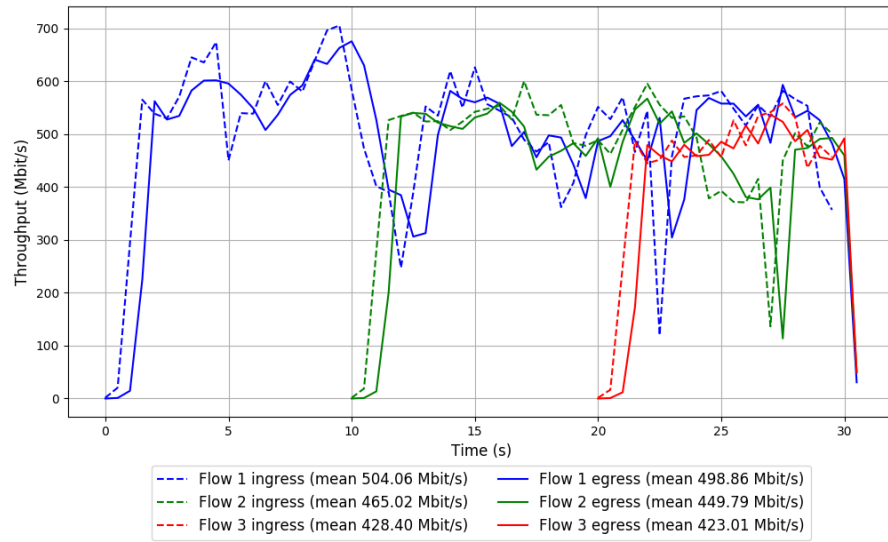


Run 4: Statistics of TCP BBR

Start at: 2019-03-09 12:33:38
End at: 2019-03-09 12:34:08
Local clock offset: -0.124 ms
Remote clock offset: -0.033 ms

Below is generated by plot.py at 2019-03-09 14:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 939.10 Mbit/s
95th percentile per-packet one-way delay: 194.726 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 498.86 Mbit/s
95th percentile per-packet one-way delay: 186.286 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 449.79 Mbit/s
95th percentile per-packet one-way delay: 206.048 ms
Loss rate: 3.27%
-- Flow 3:
Average throughput: 423.01 Mbit/s
95th percentile per-packet one-way delay: 176.308 ms
Loss rate: 1.26%

Run 4: Report of TCP BBR — Data Link

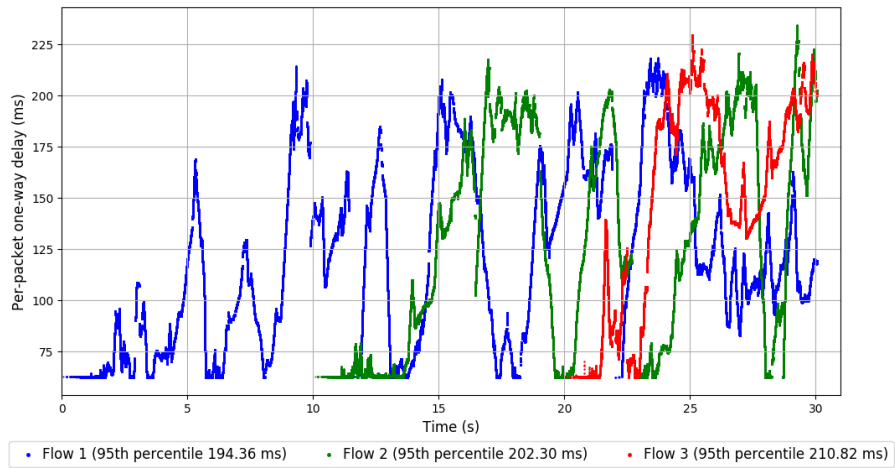
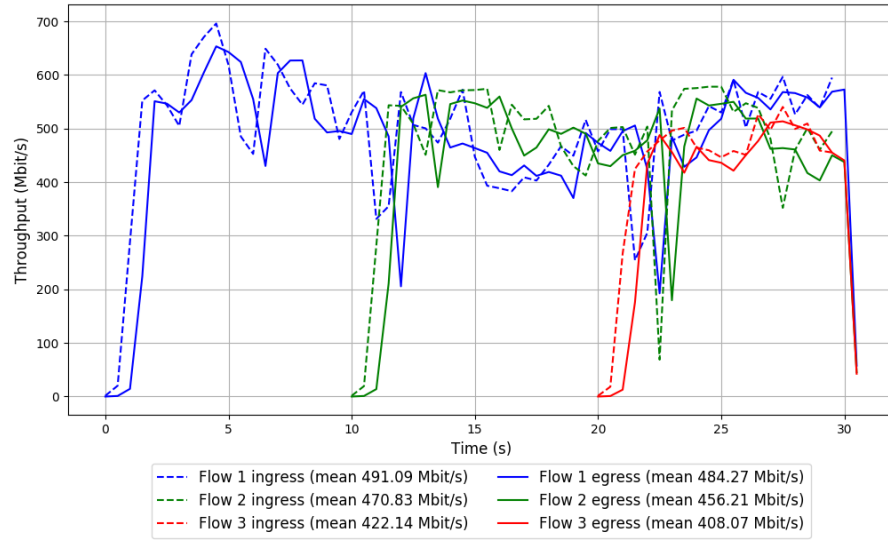


Run 5: Statistics of TCP BBR

Start at: 2019-03-09 13:10:29
End at: 2019-03-09 13:10:59
Local clock offset: -0.108 ms
Remote clock offset: -0.213 ms

Below is generated by plot.py at 2019-03-09 14:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 923.76 Mbit/s
95th percentile per-packet one-way delay: 203.068 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 484.27 Mbit/s
95th percentile per-packet one-way delay: 194.357 ms
Loss rate: 1.39%
-- Flow 2:
Average throughput: 456.21 Mbit/s
95th percentile per-packet one-way delay: 202.302 ms
Loss rate: 3.10%
-- Flow 3:
Average throughput: 408.07 Mbit/s
95th percentile per-packet one-way delay: 210.816 ms
Loss rate: 3.33%

Run 5: Report of TCP BBR — Data Link

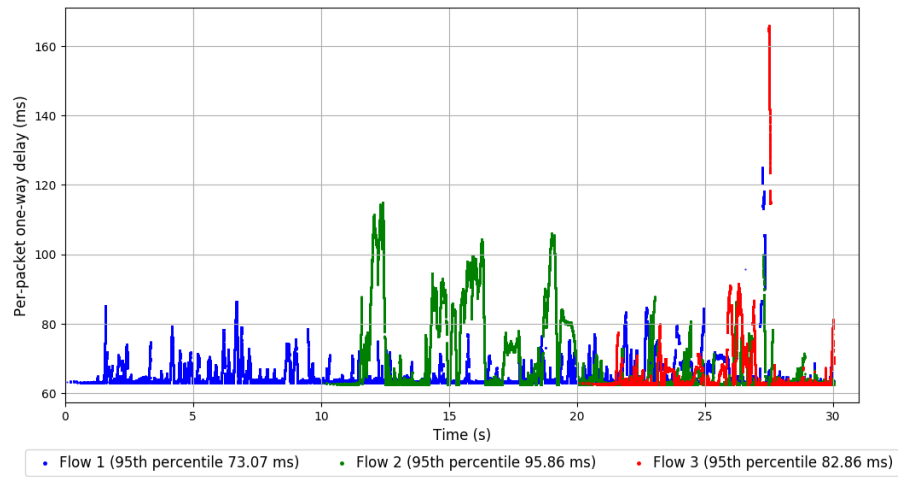
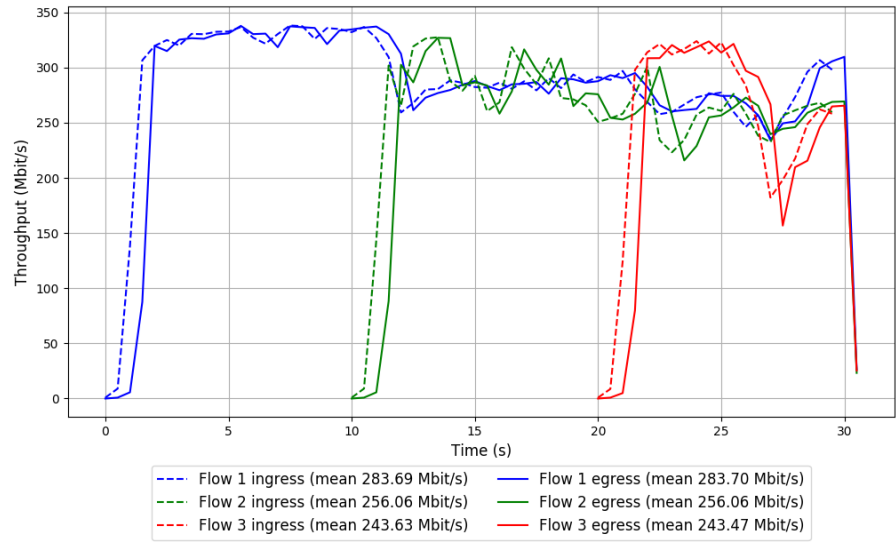


Run 1: Statistics of Copa

Start at: 2019-03-09 10:51:43
End at: 2019-03-09 10:52:13
Local clock offset: -0.073 ms
Remote clock offset: -0.212 ms

Below is generated by plot.py at 2019-03-09 14:17:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 535.18 Mbit/s
95th percentile per-packet one-way delay: 84.055 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 283.70 Mbit/s
95th percentile per-packet one-way delay: 73.073 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 256.06 Mbit/s
95th percentile per-packet one-way delay: 95.858 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 243.47 Mbit/s
95th percentile per-packet one-way delay: 82.861 ms
Loss rate: 0.05%

Run 1: Report of Copa — Data Link

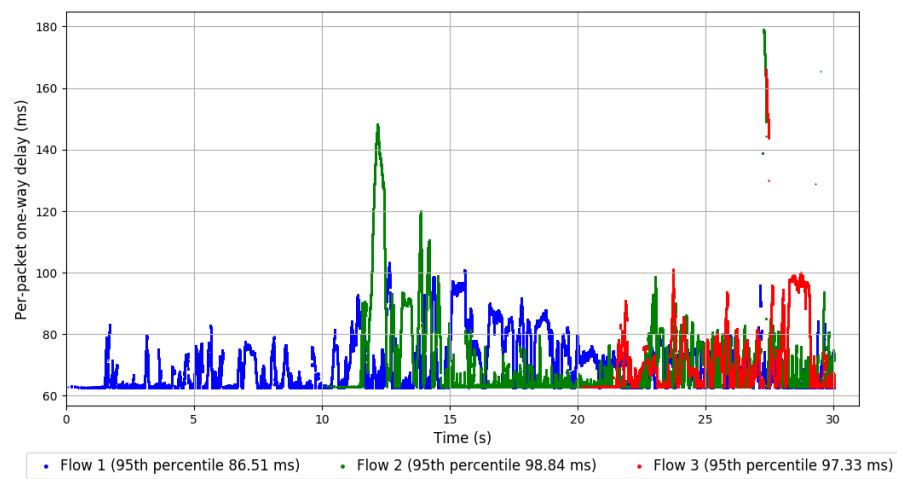
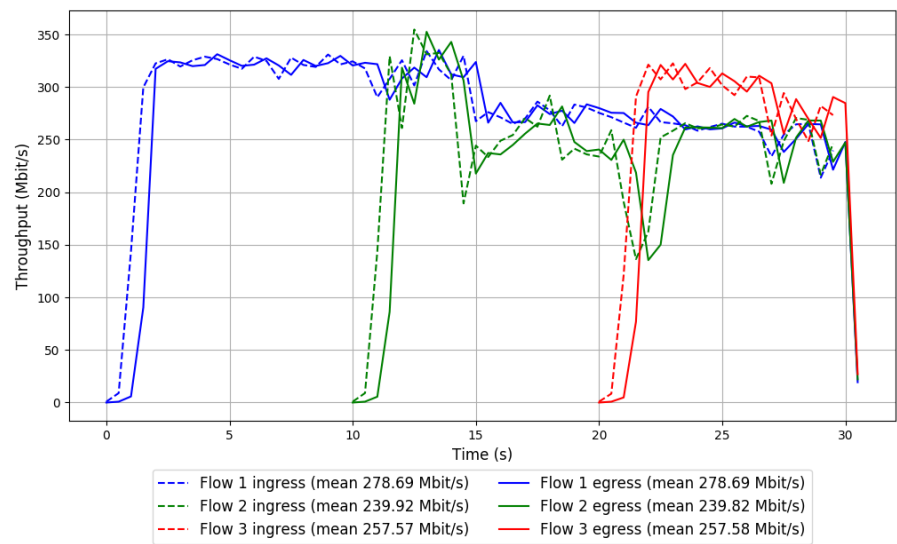


Run 2: Statistics of Copa

Start at: 2019-03-09 11:28:10
End at: 2019-03-09 11:28:40
Local clock offset: 0.059 ms
Remote clock offset: -0.257 ms

Below is generated by plot.py at 2019-03-09 14:17:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 523.98 Mbit/s
95th percentile per-packet one-way delay: 92.600 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 278.69 Mbit/s
95th percentile per-packet one-way delay: 86.511 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.82 Mbit/s
95th percentile per-packet one-way delay: 98.840 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 257.58 Mbit/s
95th percentile per-packet one-way delay: 97.325 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-03-09 12:04:41

End at: 2019-03-09 12:05:11

Local clock offset: 0.088 ms

Remote clock offset: 0.172 ms

Below is generated by plot.py at 2019-03-09 14:17:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 538.04 Mbit/s

95th percentile per-packet one-way delay: 84.840 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 286.75 Mbit/s

95th percentile per-packet one-way delay: 80.875 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 260.62 Mbit/s

95th percentile per-packet one-way delay: 87.348 ms

Loss rate: 0.01%

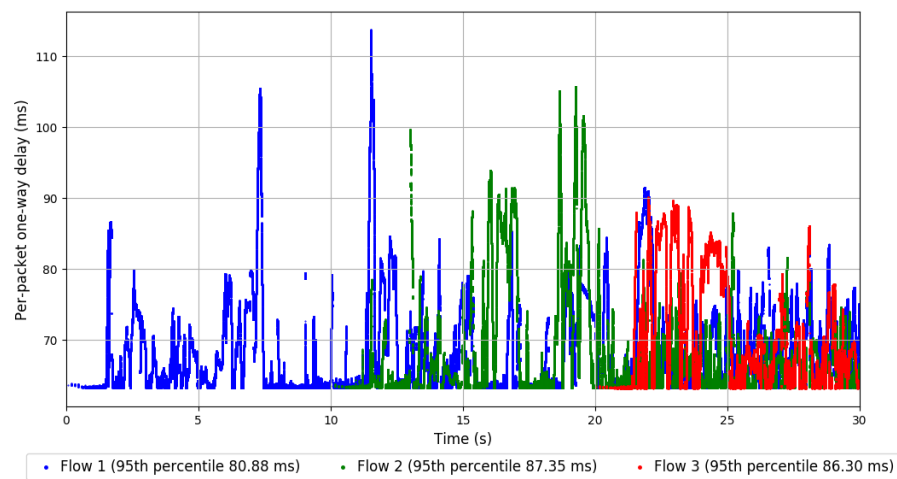
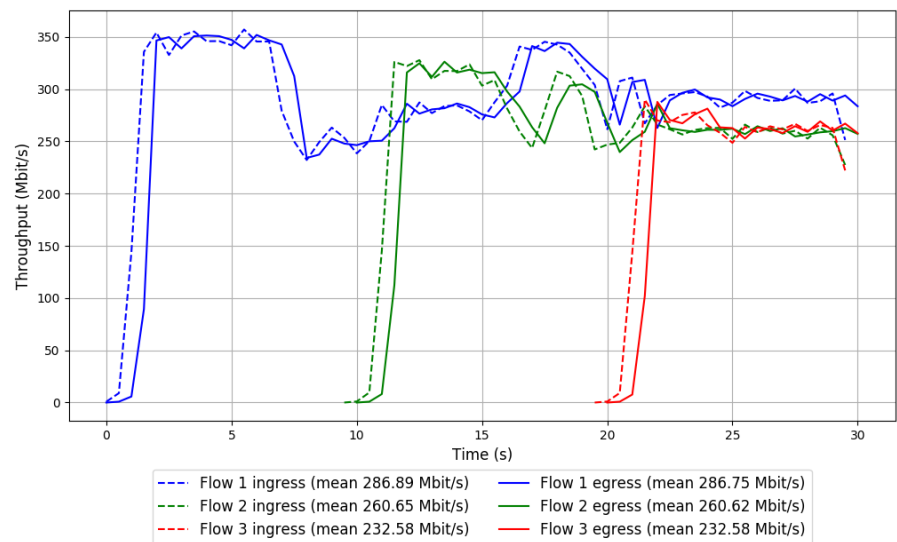
-- Flow 3:

Average throughput: 232.58 Mbit/s

95th percentile per-packet one-way delay: 86.295 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link

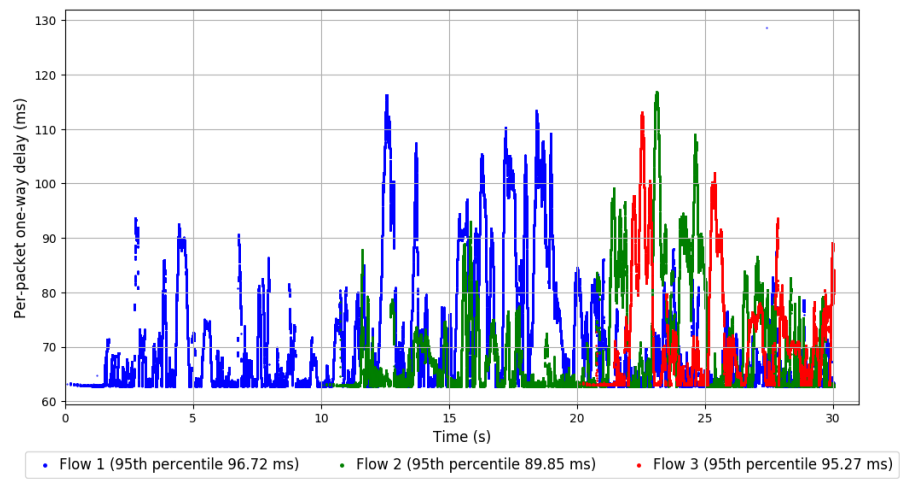
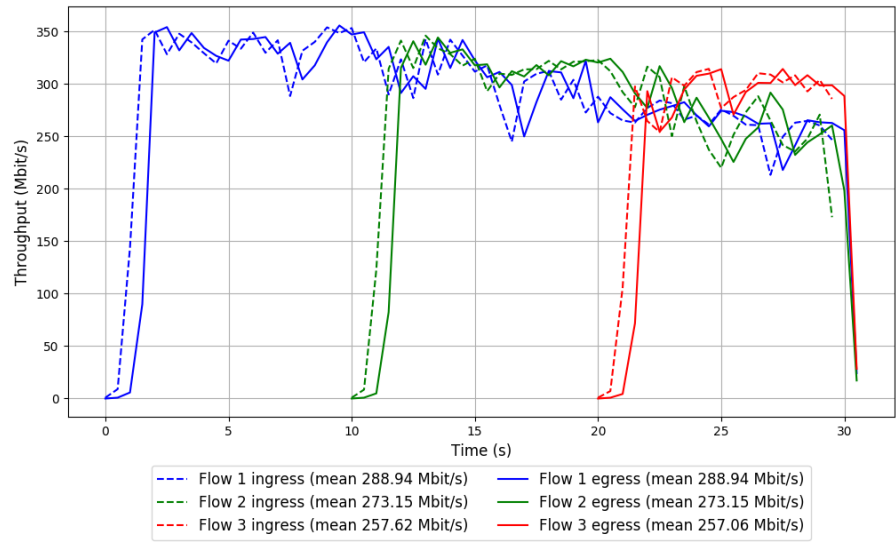


Run 4: Statistics of Copa

Start at: 2019-03-09 12:41:26
End at: 2019-03-09 12:41:56
Local clock offset: -0.163 ms
Remote clock offset: -0.037 ms

Below is generated by plot.py at 2019-03-09 14:34:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 556.22 Mbit/s
95th percentile per-packet one-way delay: 93.541 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 288.94 Mbit/s
95th percentile per-packet one-way delay: 96.721 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 273.15 Mbit/s
95th percentile per-packet one-way delay: 89.850 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 257.06 Mbit/s
95th percentile per-packet one-way delay: 95.270 ms
Loss rate: 0.21%

Run 4: Report of Copa — Data Link

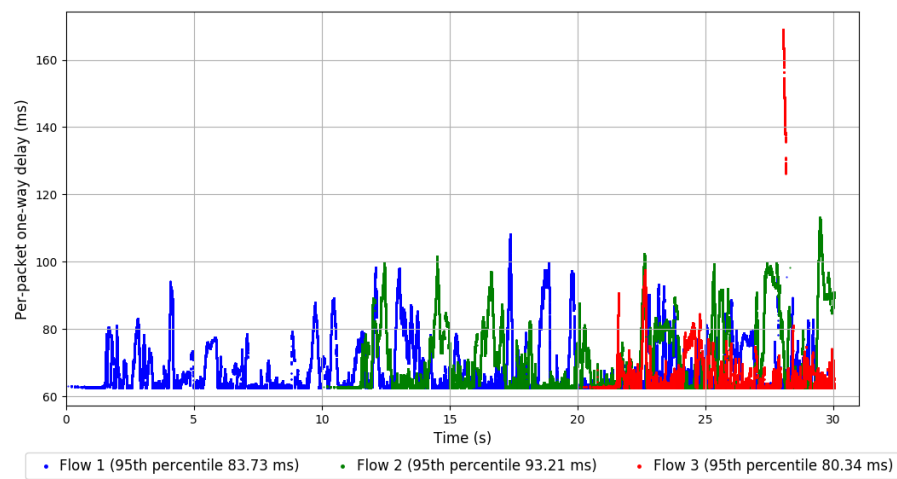
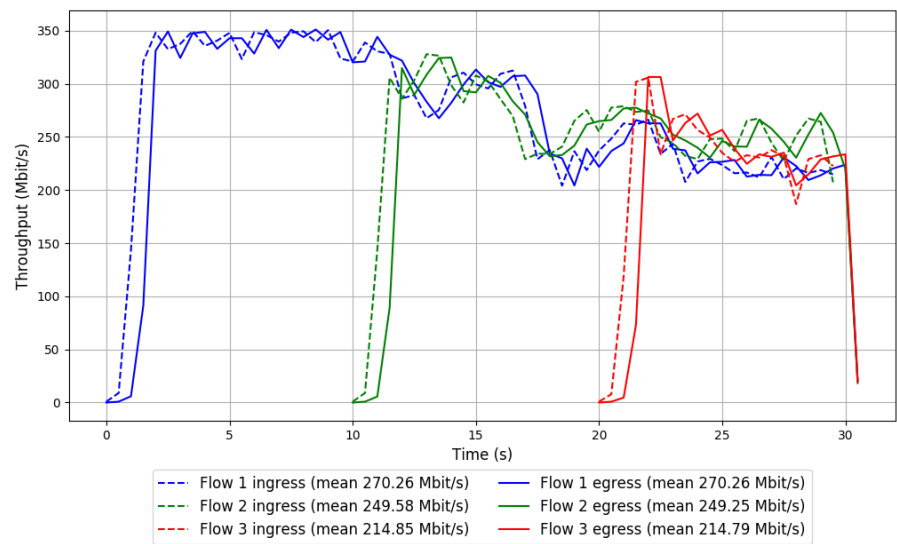


Run 5: Statistics of Copa

Start at: 2019-03-09 13:18:00
End at: 2019-03-09 13:18:30
Local clock offset: -0.113 ms
Remote clock offset: -0.234 ms

Below is generated by plot.py at 2019-03-09 14:34:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 507.59 Mbit/s
95th percentile per-packet one-way delay: 88.562 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 270.26 Mbit/s
95th percentile per-packet one-way delay: 83.735 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 249.25 Mbit/s
95th percentile per-packet one-way delay: 93.211 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 214.79 Mbit/s
95th percentile per-packet one-way delay: 80.337 ms
Loss rate: 0.01%

Run 5: Report of Copa — Data Link

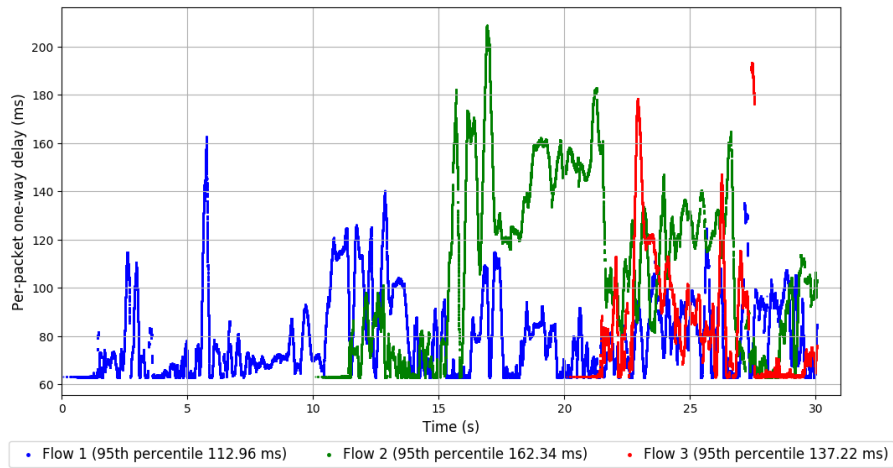
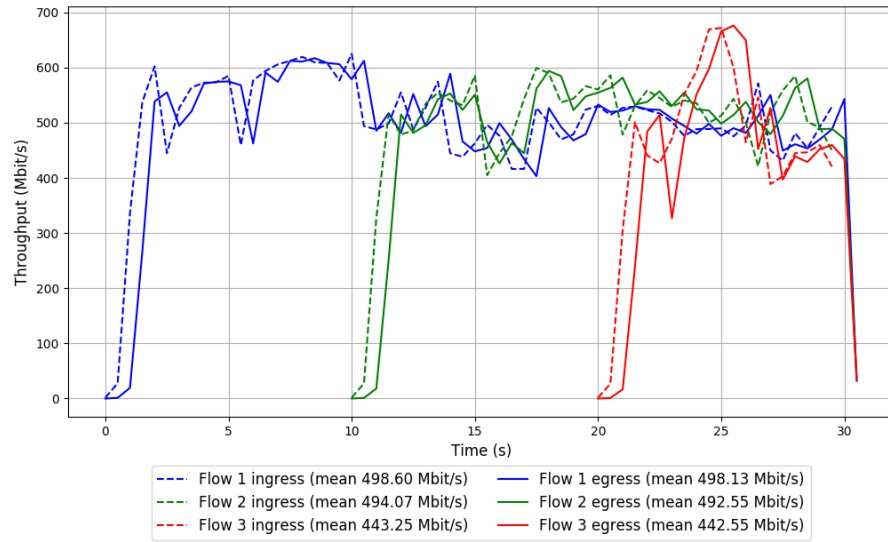


Run 1: Statistics of TCP Cubic

Start at: 2019-03-09 11:05:02
End at: 2019-03-09 11:05:32
Local clock offset: -0.058 ms
Remote clock offset: -0.141 ms

Below is generated by plot.py at 2019-03-09 14:34:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 973.28 Mbit/s
95th percentile per-packet one-way delay: 153.818 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 498.13 Mbit/s
95th percentile per-packet one-way delay: 112.961 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 492.55 Mbit/s
95th percentile per-packet one-way delay: 162.344 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 442.55 Mbit/s
95th percentile per-packet one-way delay: 137.223 ms
Loss rate: 0.15%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-03-09 11:41:26

End at: 2019-03-09 11:41:56

Local clock offset: 0.063 ms

Remote clock offset: 0.055 ms

Below is generated by plot.py at 2019-03-09 14:34:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 961.67 Mbit/s

95th percentile per-packet one-way delay: 147.055 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 486.31 Mbit/s

95th percentile per-packet one-way delay: 101.357 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 485.89 Mbit/s

95th percentile per-packet one-way delay: 112.616 ms

Loss rate: 0.09%

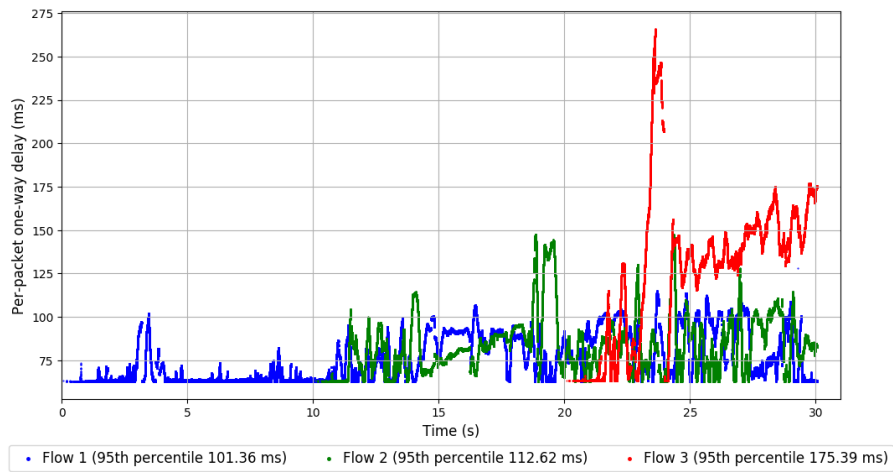
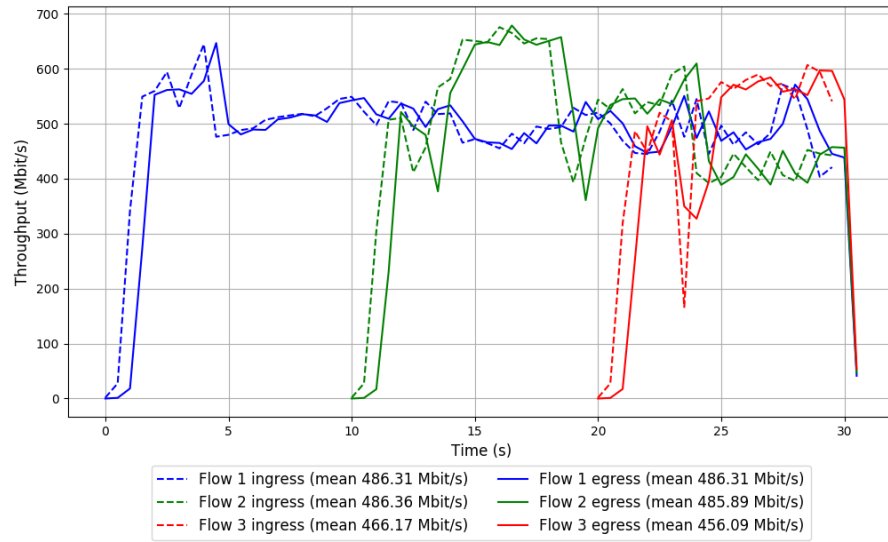
-- Flow 3:

Average throughput: 456.09 Mbit/s

95th percentile per-packet one-way delay: 175.393 ms

Loss rate: 2.16%

Run 2: Report of TCP Cubic — Data Link

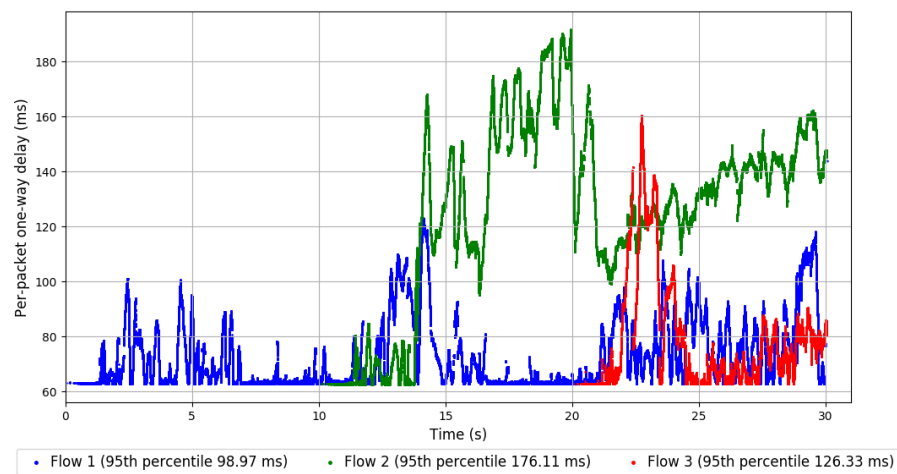
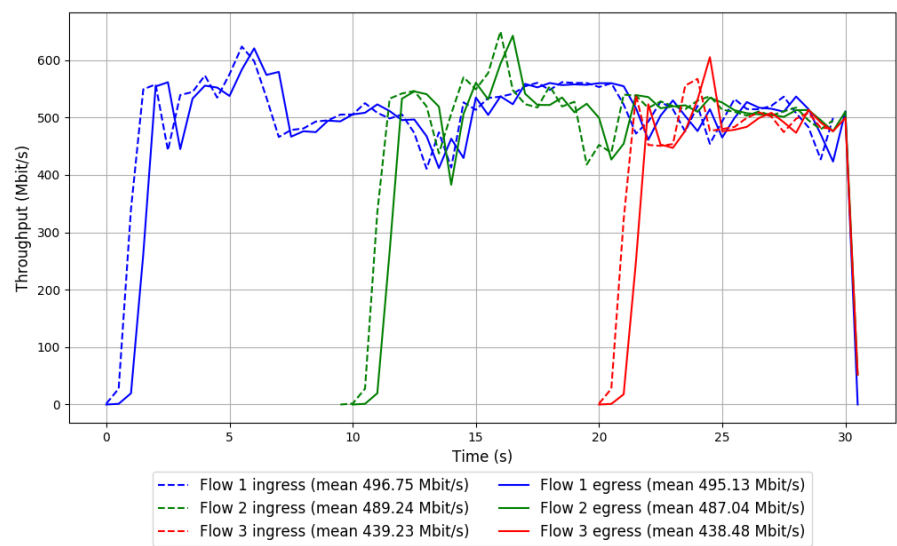


Run 3: Statistics of TCP Cubic

Start at: 2019-03-09 12:18:12
End at: 2019-03-09 12:18:42
Local clock offset: 0.084 ms
Remote clock offset: -0.261 ms

Below is generated by plot.py at 2019-03-09 14:34:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 965.44 Mbit/s
95th percentile per-packet one-way delay: 158.480 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 495.13 Mbit/s
95th percentile per-packet one-way delay: 98.968 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 487.04 Mbit/s
95th percentile per-packet one-way delay: 176.112 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 438.48 Mbit/s
95th percentile per-packet one-way delay: 126.325 ms
Loss rate: 0.17%

Run 3: Report of TCP Cubic — Data Link

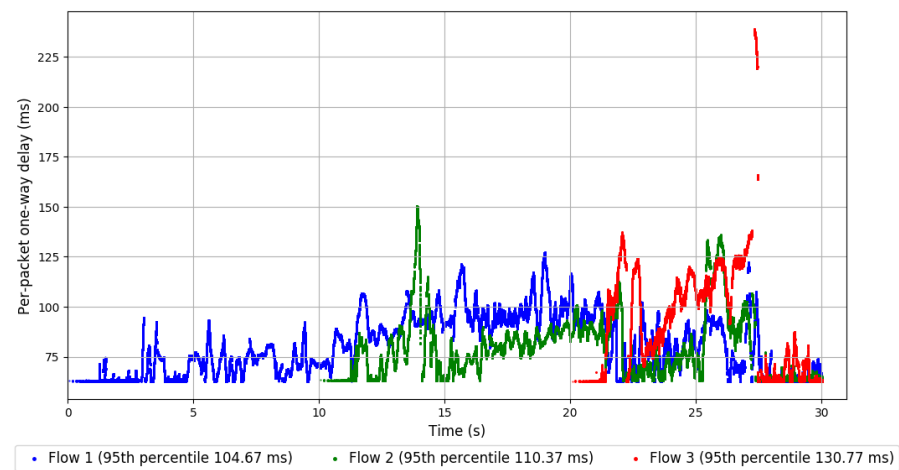
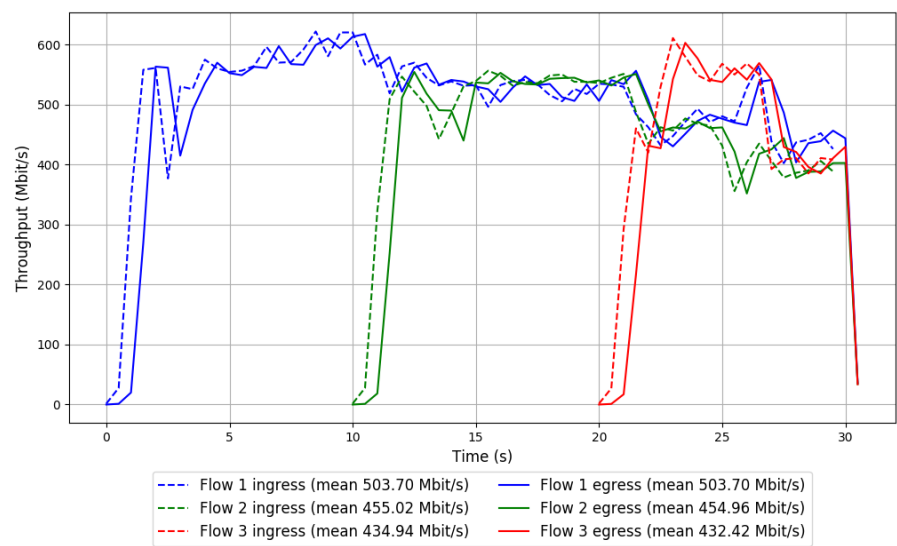


Run 4: Statistics of TCP Cubic

Start at: 2019-03-09 12:54:58
End at: 2019-03-09 12:55:28
Local clock offset: -0.188 ms
Remote clock offset: -0.139 ms

Below is generated by plot.py at 2019-03-09 14:34:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 950.39 Mbit/s
95th percentile per-packet one-way delay: 118.119 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 503.70 Mbit/s
95th percentile per-packet one-way delay: 104.675 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 454.96 Mbit/s
95th percentile per-packet one-way delay: 110.369 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 432.42 Mbit/s
95th percentile per-packet one-way delay: 130.767 ms
Loss rate: 0.58%

Run 4: Report of TCP Cubic — Data Link

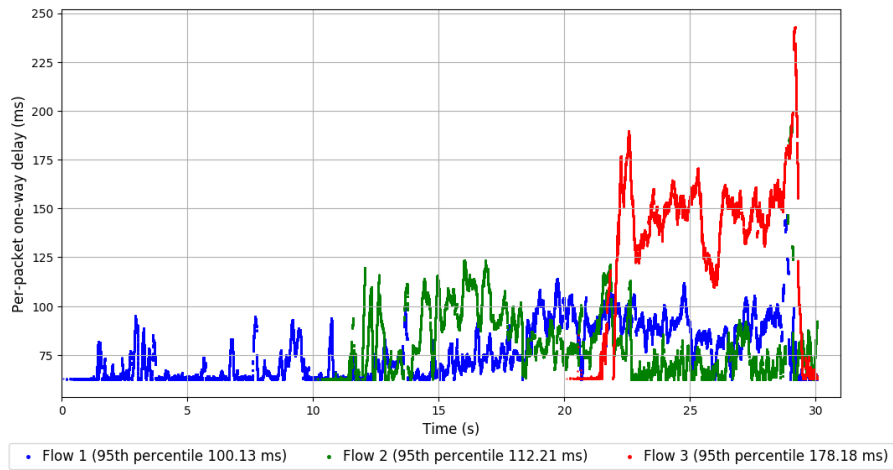
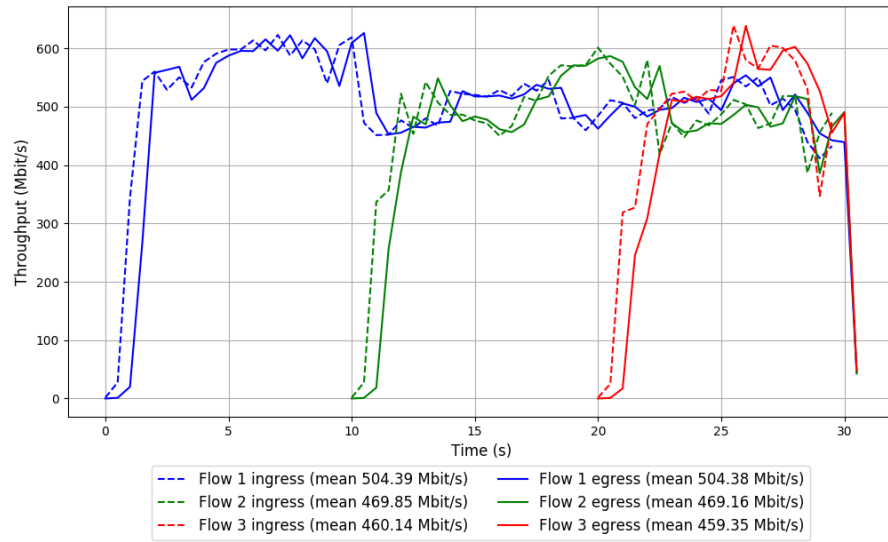


Run 5: Statistics of TCP Cubic

Start at: 2019-03-09 13:31:07
End at: 2019-03-09 13:31:37
Local clock offset: -0.074 ms
Remote clock offset: -0.197 ms

Below is generated by plot.py at 2019-03-09 14:34:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 969.66 Mbit/s
95th percentile per-packet one-way delay: 153.753 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 504.38 Mbit/s
95th percentile per-packet one-way delay: 100.126 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 469.16 Mbit/s
95th percentile per-packet one-way delay: 112.211 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 459.35 Mbit/s
95th percentile per-packet one-way delay: 178.178 ms
Loss rate: 0.17%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-03-09 10:46:14

End at: 2019-03-09 10:46:44

Local clock offset: -0.085 ms

Remote clock offset: -0.07 ms

Below is generated by plot.py at 2019-03-09 14:35:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 832.17 Mbit/s

95th percentile per-packet one-way delay: 103.947 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 533.18 Mbit/s

95th percentile per-packet one-way delay: 108.129 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 328.54 Mbit/s

95th percentile per-packet one-way delay: 66.209 ms

Loss rate: 0.00%

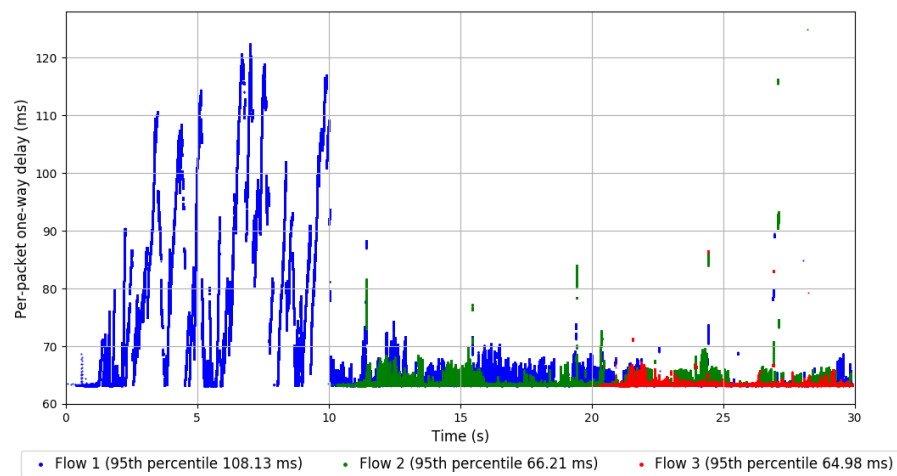
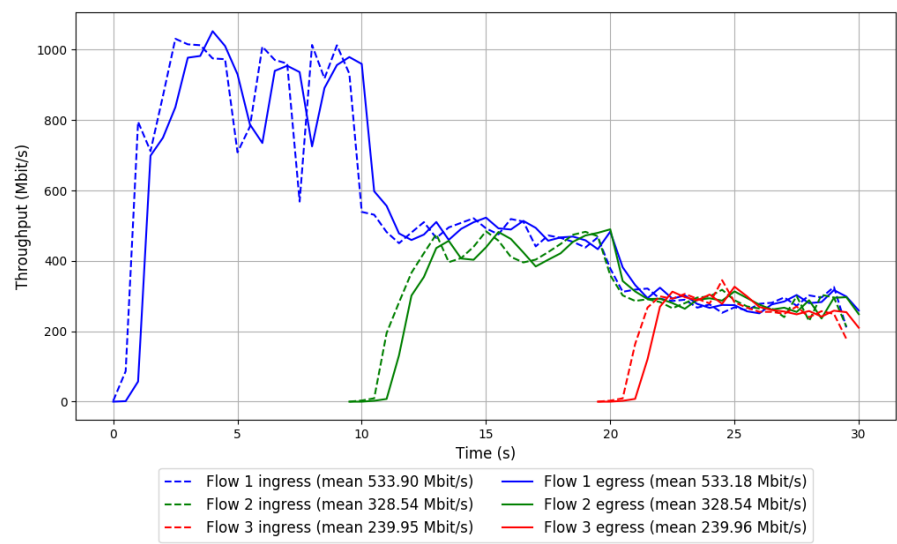
-- Flow 3:

Average throughput: 239.96 Mbit/s

95th percentile per-packet one-way delay: 64.980 ms

Loss rate: 0.00%

Run 1: Report of FillP — Data Link

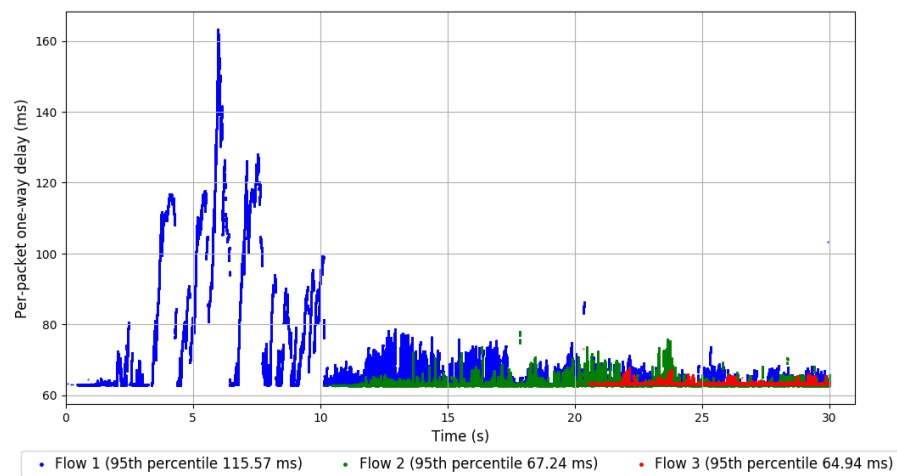
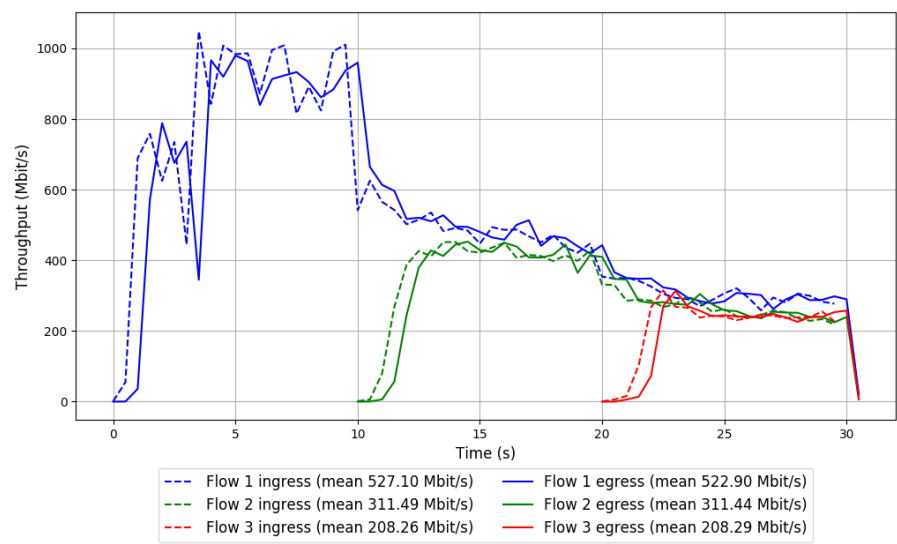


Run 2: Statistics of FillP

Start at: 2019-03-09 11:22:37
End at: 2019-03-09 11:23:07
Local clock offset: 0.036 ms
Remote clock offset: -0.066 ms

Below is generated by plot.py at 2019-03-09 14:49:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 798.72 Mbit/s
95th percentile per-packet one-way delay: 111.989 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 522.90 Mbit/s
95th percentile per-packet one-way delay: 115.568 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 311.44 Mbit/s
95th percentile per-packet one-way delay: 67.242 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.29 Mbit/s
95th percentile per-packet one-way delay: 64.945 ms
Loss rate: 0.00%

Run 2: Report of FillP — Data Link

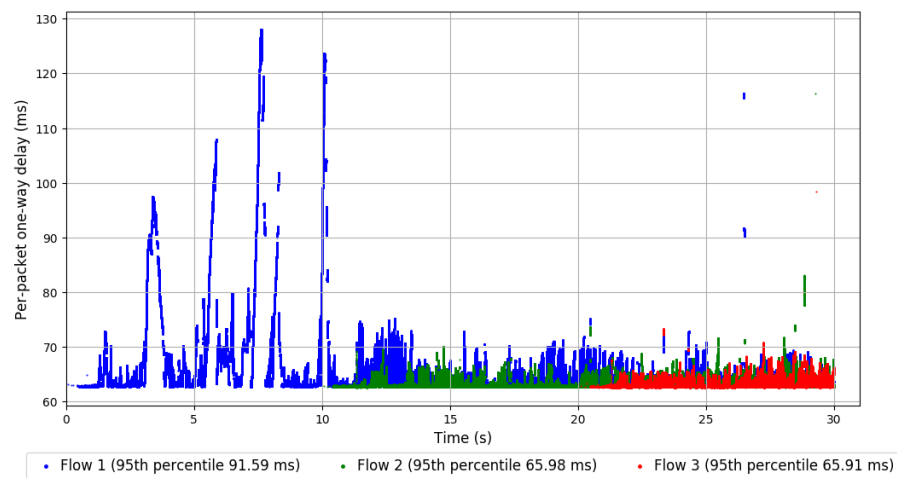
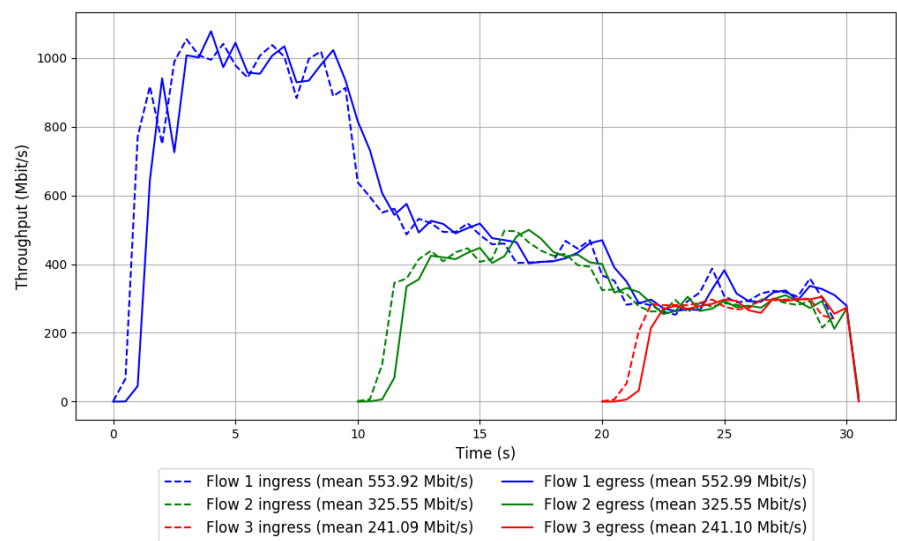


Run 3: Statistics of FillP

Start at: 2019-03-09 11:59:02
End at: 2019-03-09 11:59:32
Local clock offset: 0.092 ms
Remote clock offset: -0.145 ms

Below is generated by plot.py at 2019-03-09 14:50:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 849.21 Mbit/s
95th percentile per-packet one-way delay: 85.895 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 552.99 Mbit/s
95th percentile per-packet one-way delay: 91.593 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 325.55 Mbit/s
95th percentile per-packet one-way delay: 65.977 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 241.10 Mbit/s
95th percentile per-packet one-way delay: 65.906 ms
Loss rate: 0.00%

Run 3: Report of FillP — Data Link

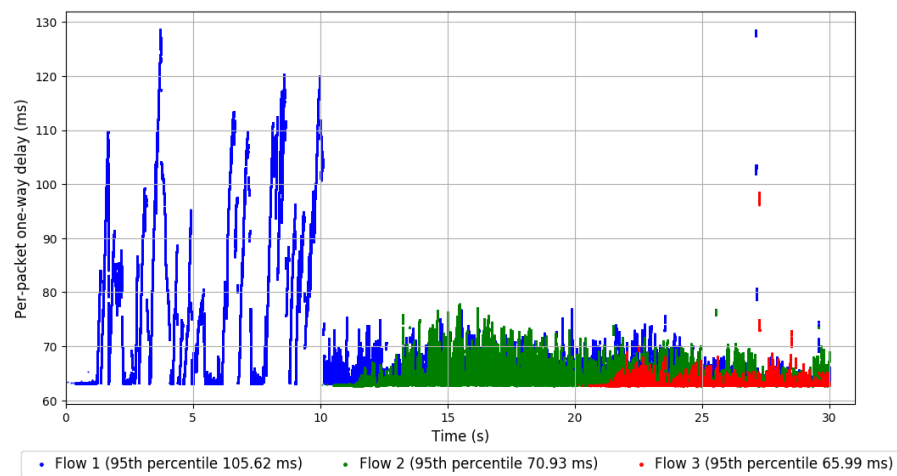
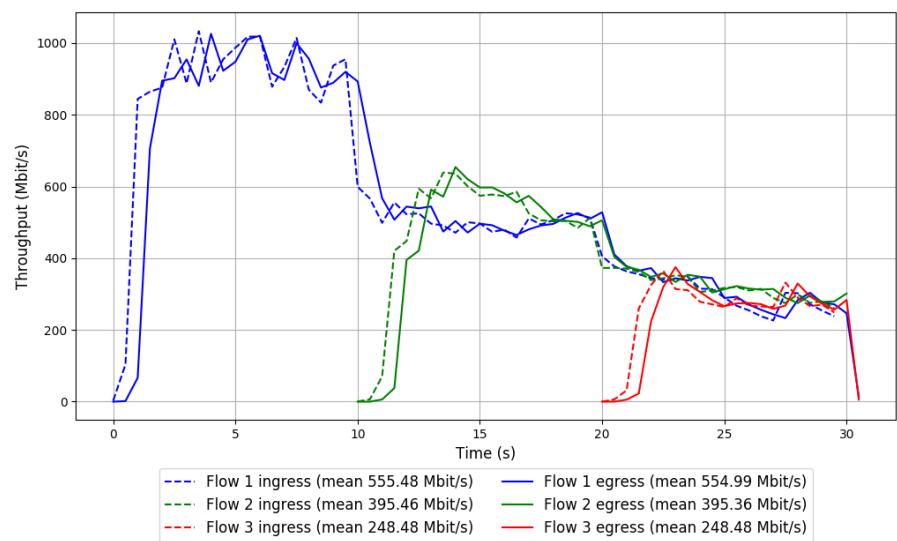


Run 4: Statistics of FillP

Start at: 2019-03-09 12:35:45
End at: 2019-03-09 12:36:15
Local clock offset: -0.098 ms
Remote clock offset: -0.067 ms

Below is generated by plot.py at 2019-03-09 14:51:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 900.00 Mbit/s
95th percentile per-packet one-way delay: 100.779 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 554.99 Mbit/s
95th percentile per-packet one-way delay: 105.618 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 395.36 Mbit/s
95th percentile per-packet one-way delay: 70.929 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.48 Mbit/s
95th percentile per-packet one-way delay: 65.992 ms
Loss rate: 0.00%

Run 4: Report of FillP — Data Link

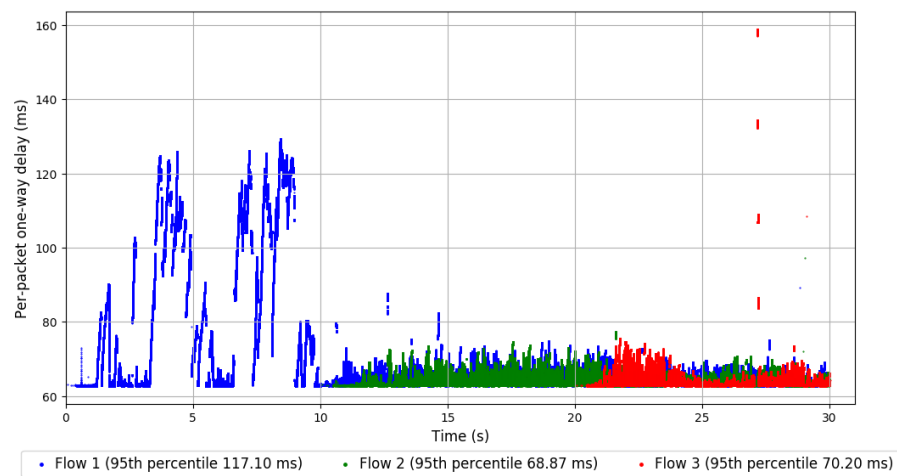
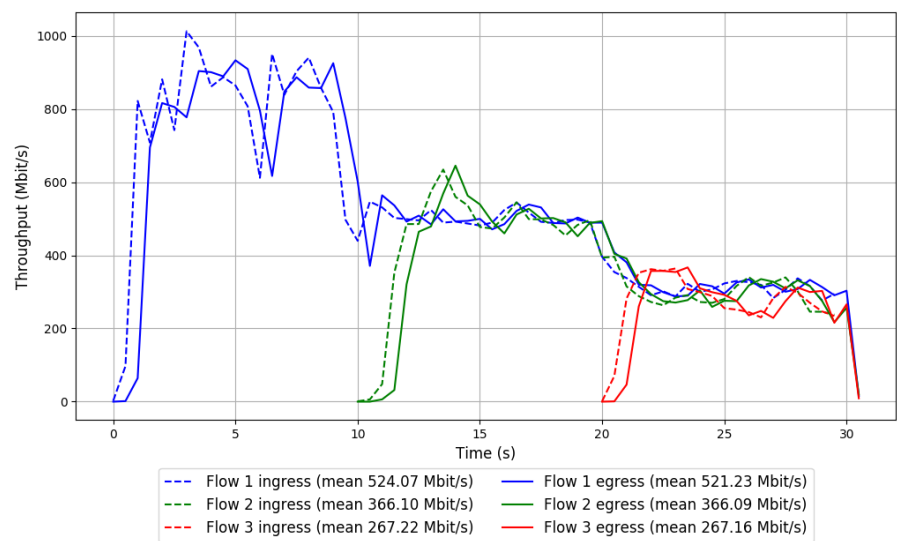


Run 5: Statistics of FillP

Start at: 2019-03-09 13:12:37
End at: 2019-03-09 13:13:07
Local clock offset: -0.126 ms
Remote clock offset: -0.007 ms

Below is generated by plot.py at 2019-03-09 14:51:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 853.06 Mbit/s
95th percentile per-packet one-way delay: 112.518 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 521.23 Mbit/s
95th percentile per-packet one-way delay: 117.099 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 366.09 Mbit/s
95th percentile per-packet one-way delay: 68.871 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 267.16 Mbit/s
95th percentile per-packet one-way delay: 70.204 ms
Loss rate: 0.01%

Run 5: Report of FillP — Data Link

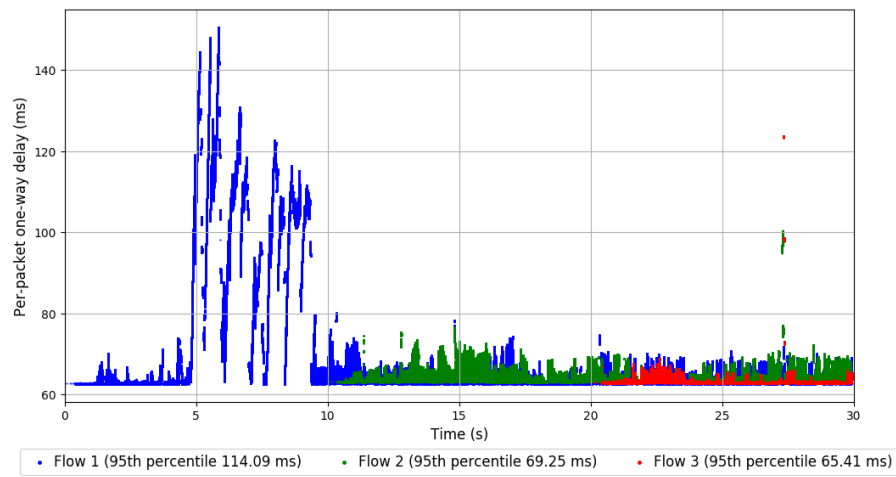
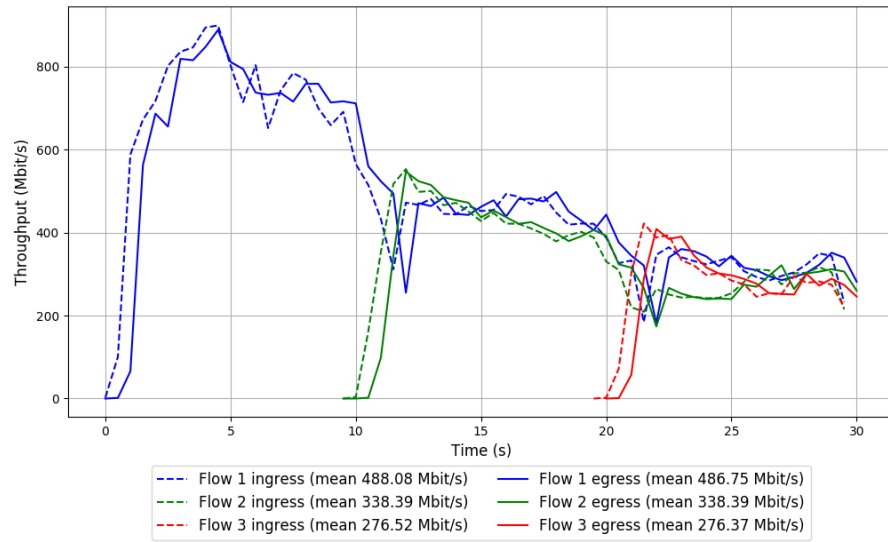


Run 1: Statistics of FillP-Sheep

Start at: 2019-03-09 10:59:28
End at: 2019-03-09 10:59:58
Local clock offset: -0.078 ms
Remote clock offset: -0.133 ms

Below is generated by plot.py at 2019-03-09 14:51:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 804.34 Mbit/s
95th percentile per-packet one-way delay: 108.472 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 486.75 Mbit/s
95th percentile per-packet one-way delay: 114.093 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 338.39 Mbit/s
95th percentile per-packet one-way delay: 69.249 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 276.37 Mbit/s
95th percentile per-packet one-way delay: 65.407 ms
Loss rate: 0.04%

Run 1: Report of FillP-Sheep — Data Link

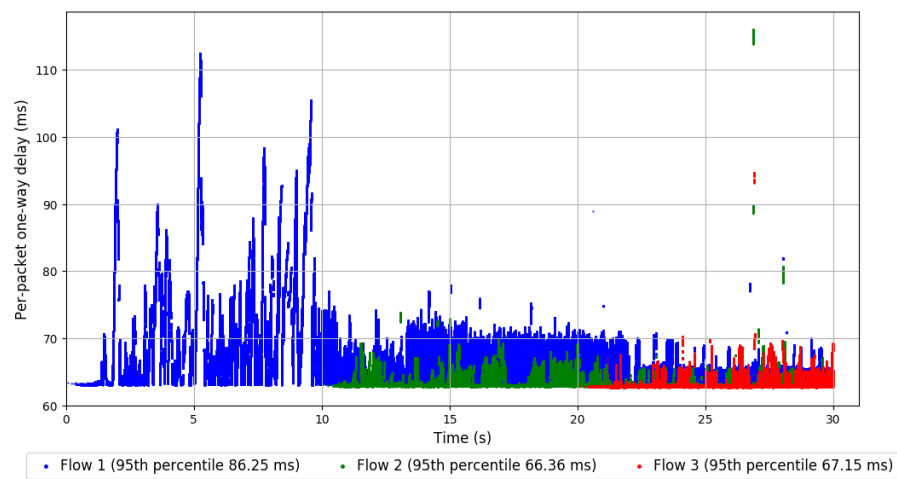
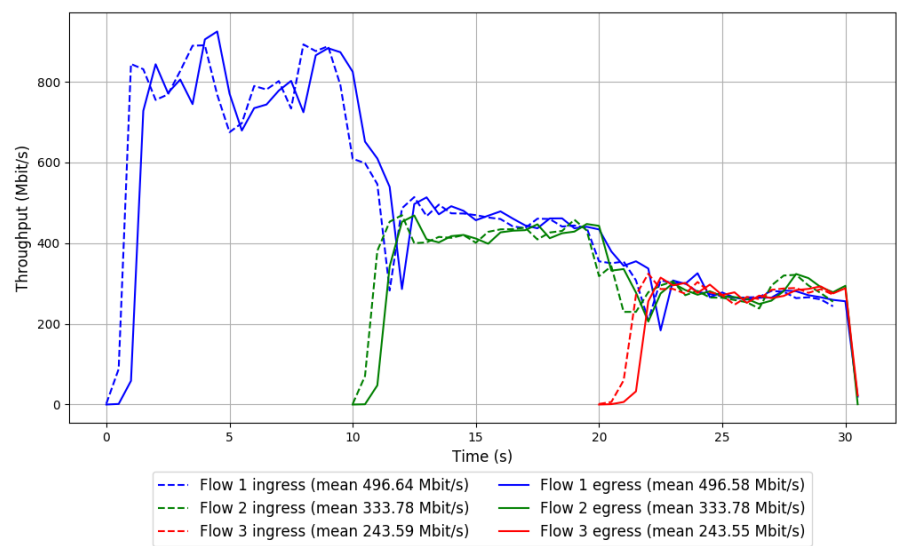


Run 2: Statistics of FillP-Sheep

Start at: 2019-03-09 11:35:58
End at: 2019-03-09 11:36:28
Local clock offset: 0.041 ms
Remote clock offset: -0.101 ms

Below is generated by plot.py at 2019-03-09 14:51:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 799.26 Mbit/s
95th percentile per-packet one-way delay: 81.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 496.58 Mbit/s
95th percentile per-packet one-way delay: 86.255 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 333.78 Mbit/s
95th percentile per-packet one-way delay: 66.358 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 243.55 Mbit/s
95th percentile per-packet one-way delay: 67.150 ms
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

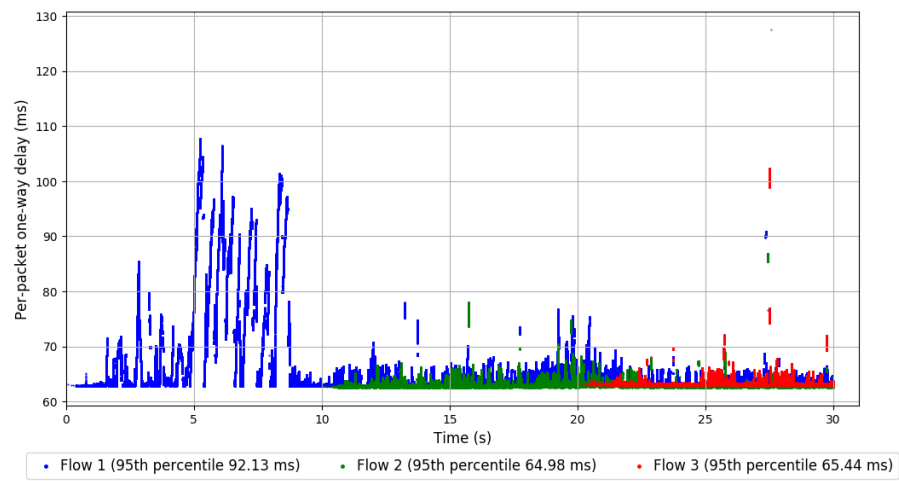
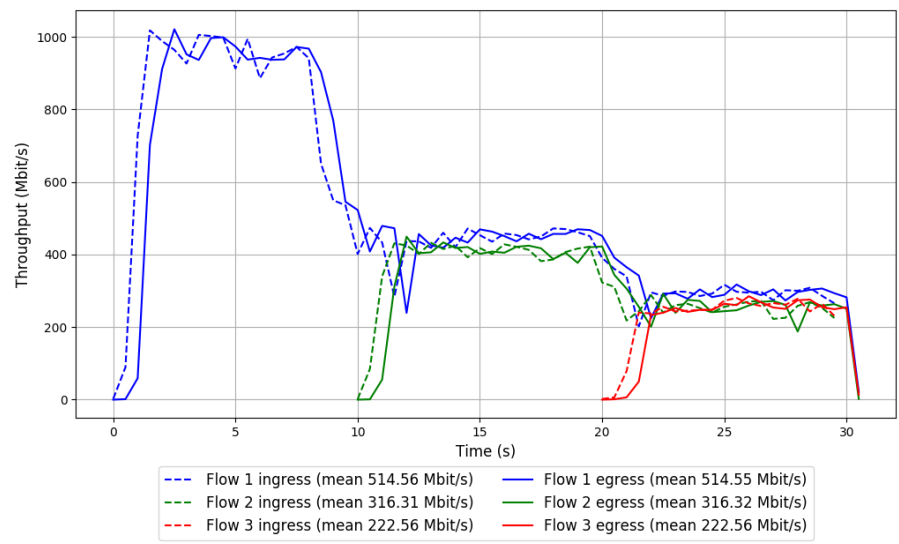


Run 3: Statistics of FillP-Sheep

Start at: 2019-03-09 12:12:42
End at: 2019-03-09 12:13:12
Local clock offset: 0.096 ms
Remote clock offset: -0.269 ms

Below is generated by plot.py at 2019-03-09 14:51:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 798.43 Mbit/s
95th percentile per-packet one-way delay: 88.398 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 514.55 Mbit/s
95th percentile per-packet one-way delay: 92.131 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 316.32 Mbit/s
95th percentile per-packet one-way delay: 64.978 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 222.56 Mbit/s
95th percentile per-packet one-way delay: 65.444 ms
Loss rate: 0.00%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-03-09 12:49:20

End at: 2019-03-09 12:49:50

Local clock offset: -0.186 ms

Remote clock offset: 0.041 ms

Below is generated by plot.py at 2019-03-09 14:52:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 823.04 Mbit/s

95th percentile per-packet one-way delay: 101.820 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 531.31 Mbit/s

95th percentile per-packet one-way delay: 111.689 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 316.65 Mbit/s

95th percentile per-packet one-way delay: 67.903 ms

Loss rate: 0.00%

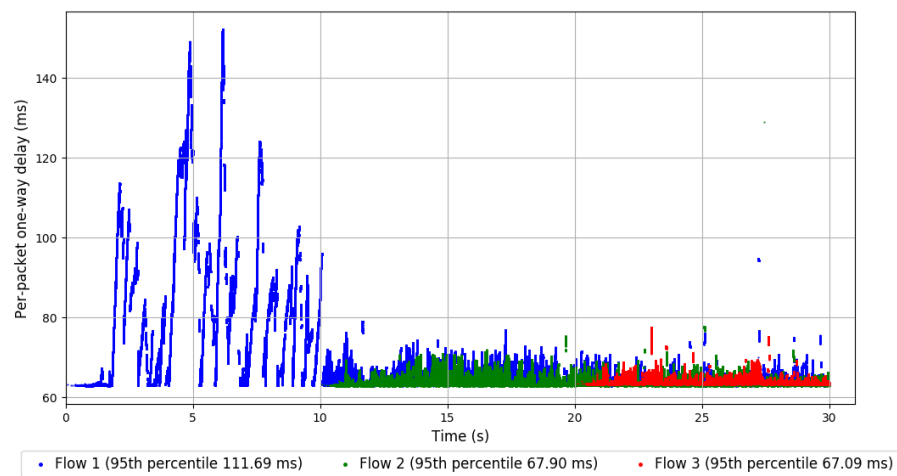
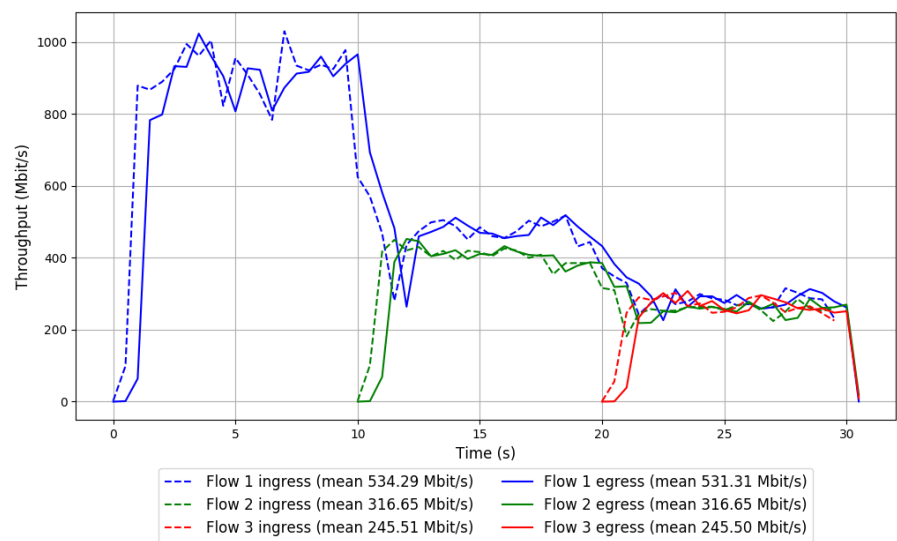
-- Flow 3:

Average throughput: 245.50 Mbit/s

95th percentile per-packet one-way delay: 67.093 ms

Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link

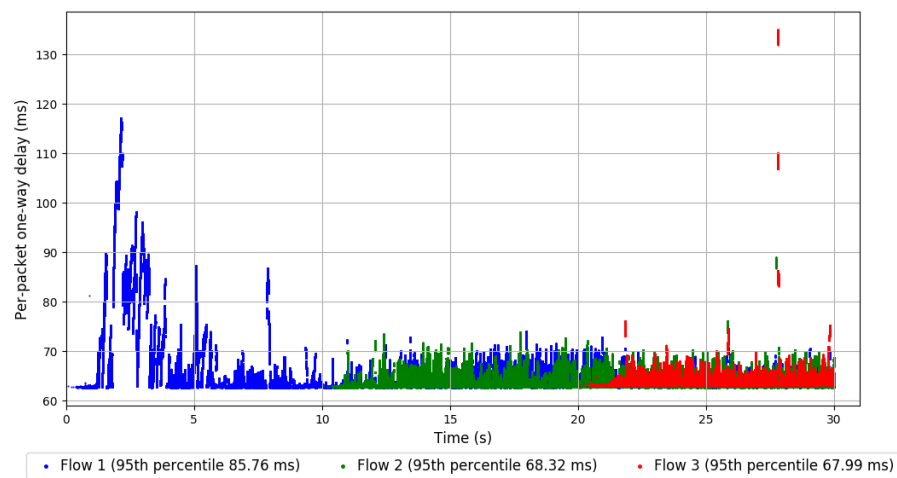
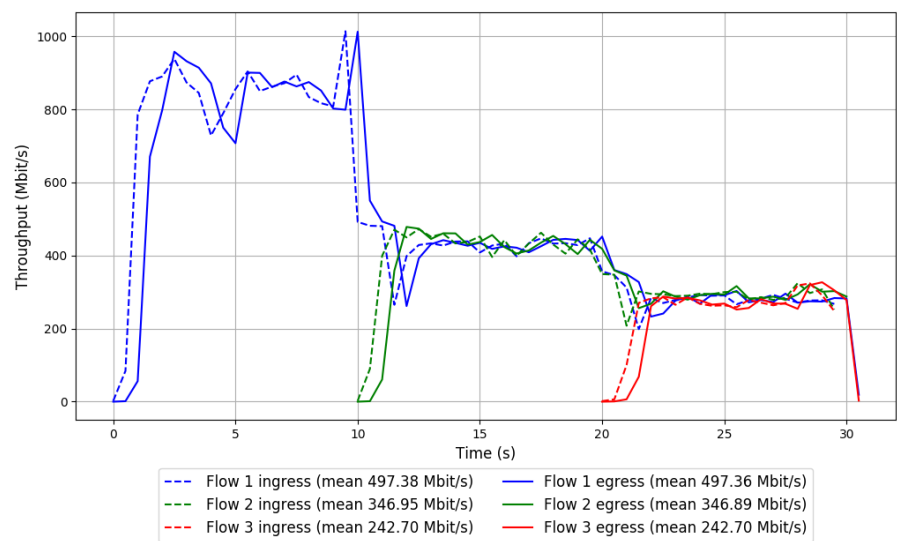


Run 5: Statistics of FillP-Sheep

Start at: 2019-03-09 13:25:44
End at: 2019-03-09 13:26:14
Local clock offset: -0.103 ms
Remote clock offset: -0.009 ms

```
# Below is generated by plot.py at 2019-03-09 15:06:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 808.42 Mbit/s
95th percentile per-packet one-way delay: 81.630 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 497.36 Mbit/s
95th percentile per-packet one-way delay: 85.761 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 346.89 Mbit/s
95th percentile per-packet one-way delay: 68.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 242.70 Mbit/s
95th percentile per-packet one-way delay: 67.987 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

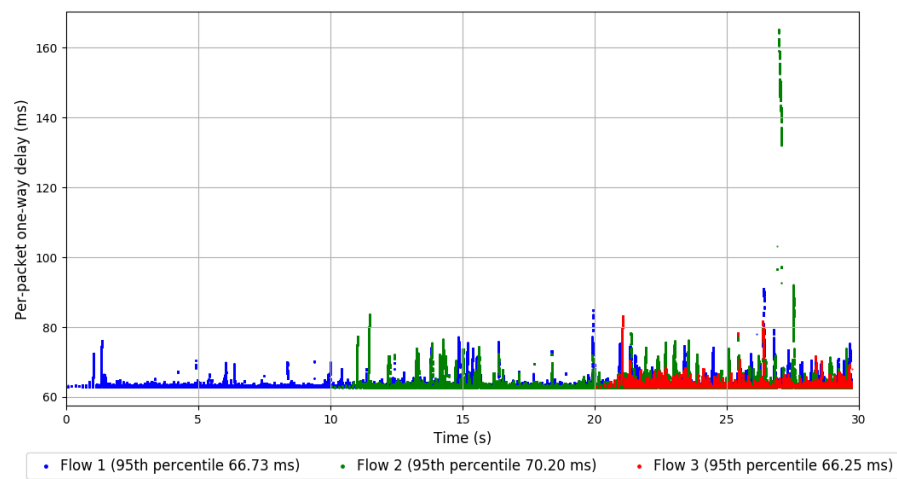
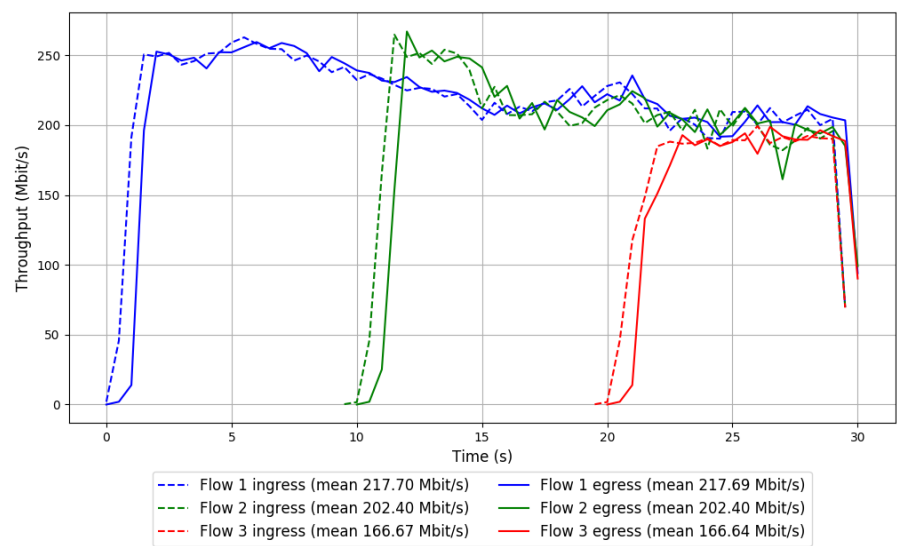


Run 1: Statistics of Indigo

Start at: 2019-03-09 11:08:47
End at: 2019-03-09 11:09:17
Local clock offset: -0.036 ms
Remote clock offset: -0.223 ms

Below is generated by plot.py at 2019-03-09 15:06:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 406.21 Mbit/s
95th percentile per-packet one-way delay: 67.972 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 217.69 Mbit/s
95th percentile per-packet one-way delay: 66.734 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 202.40 Mbit/s
95th percentile per-packet one-way delay: 70.203 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 166.64 Mbit/s
95th percentile per-packet one-way delay: 66.245 ms
Loss rate: 0.01%

Run 1: Report of Indigo — Data Link

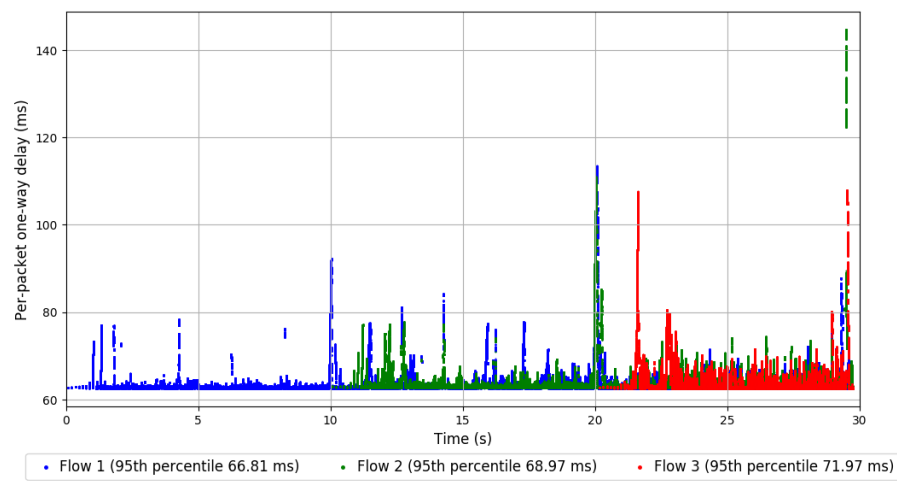
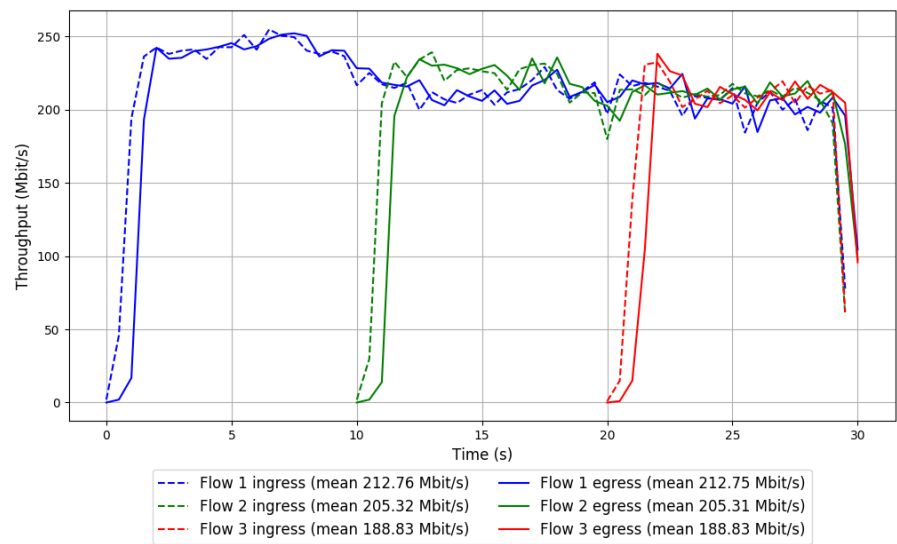


Run 2: Statistics of Indigo

Start at: 2019-03-09 11:45:08
End at: 2019-03-09 11:45:38
Local clock offset: 0.08 ms
Remote clock offset: -0.201 ms

Below is generated by plot.py at 2019-03-09 15:06:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 409.77 Mbit/s
95th percentile per-packet one-way delay: 68.612 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 212.75 Mbit/s
95th percentile per-packet one-way delay: 66.808 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 205.31 Mbit/s
95th percentile per-packet one-way delay: 68.968 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 188.83 Mbit/s
95th percentile per-packet one-way delay: 71.973 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-03-09 12:21:56

End at: 2019-03-09 12:22:26

Local clock offset: 0.058 ms

Remote clock offset: 0.057 ms

Below is generated by plot.py at 2019-03-09 15:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 415.92 Mbit/s

95th percentile per-packet one-way delay: 68.475 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 218.21 Mbit/s

95th percentile per-packet one-way delay: 67.596 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.82 Mbit/s

95th percentile per-packet one-way delay: 69.887 ms

Loss rate: 0.00%

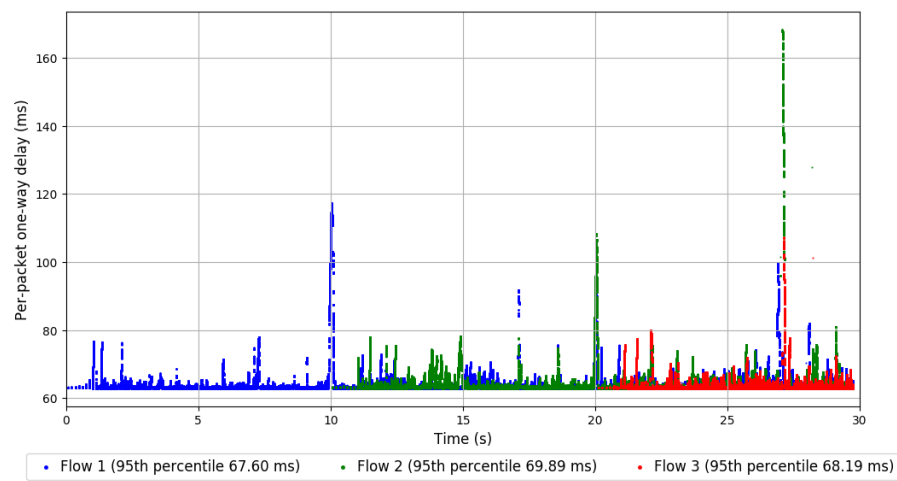
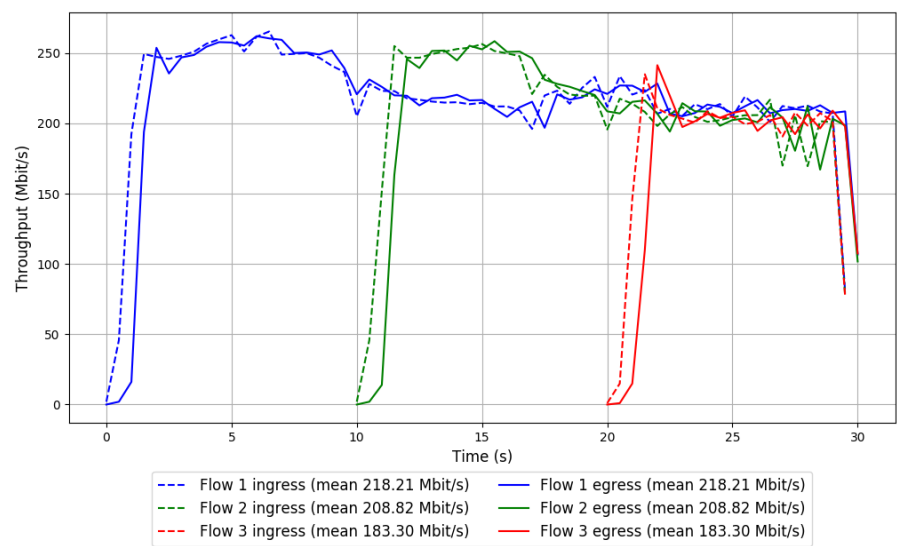
-- Flow 3:

Average throughput: 183.30 Mbit/s

95th percentile per-packet one-way delay: 68.187 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-03-09 12:58:42

End at: 2019-03-09 12:59:12

Local clock offset: -0.133 ms

Remote clock offset: 0.078 ms

Below is generated by plot.py at 2019-03-09 15:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.31 Mbit/s

95th percentile per-packet one-way delay: 68.998 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 213.87 Mbit/s

95th percentile per-packet one-way delay: 69.864 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 209.20 Mbit/s

95th percentile per-packet one-way delay: 67.690 ms

Loss rate: 0.00%

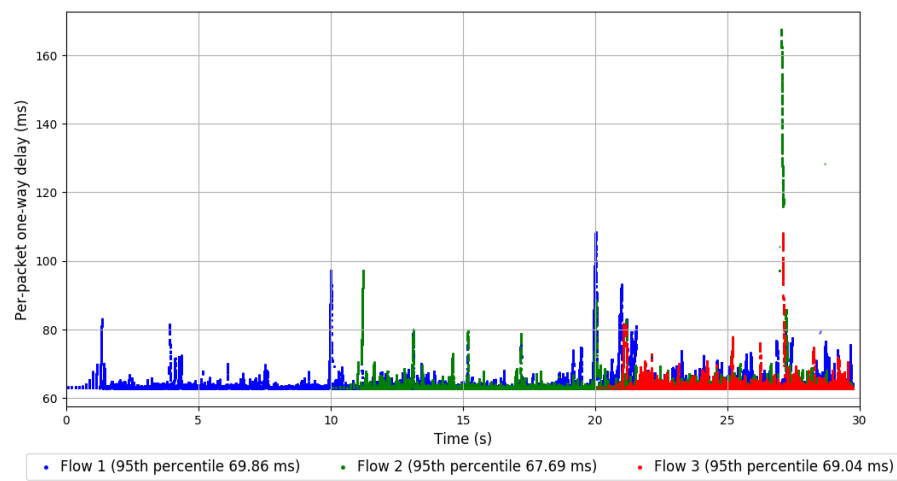
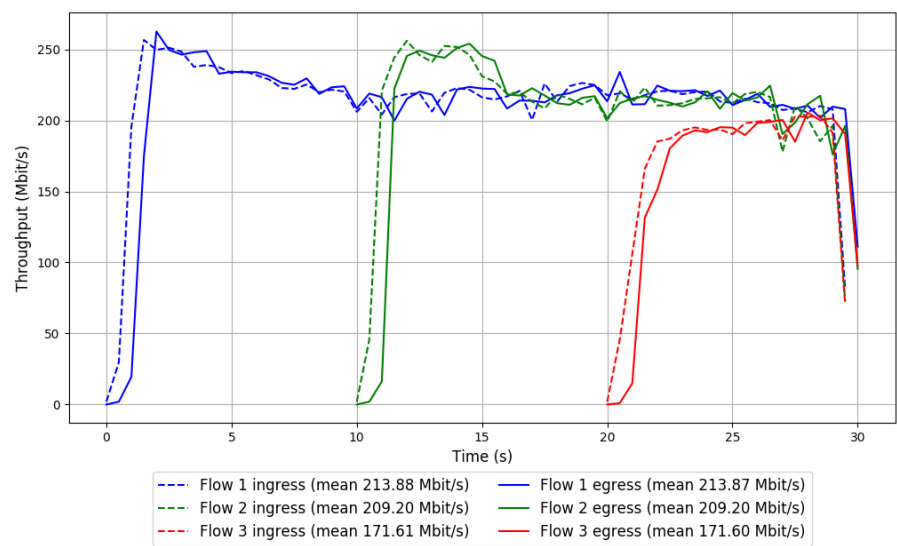
-- Flow 3:

Average throughput: 171.60 Mbit/s

95th percentile per-packet one-way delay: 69.039 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-03-09 13:34:48

End at: 2019-03-09 13:35:18

Local clock offset: -0.086 ms

Remote clock offset: 0.094 ms

Below is generated by plot.py at 2019-03-09 15:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 406.12 Mbit/s

95th percentile per-packet one-way delay: 70.316 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 213.47 Mbit/s

95th percentile per-packet one-way delay: 69.933 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.45 Mbit/s

95th percentile per-packet one-way delay: 71.766 ms

Loss rate: 0.00%

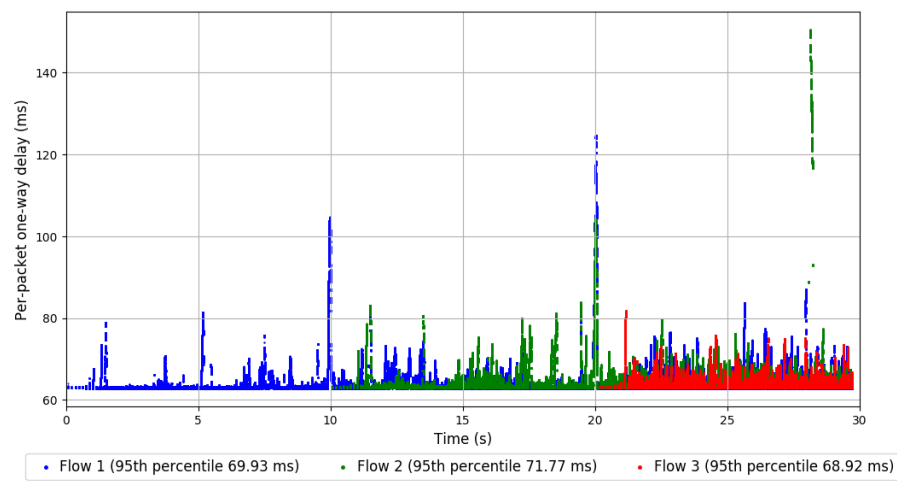
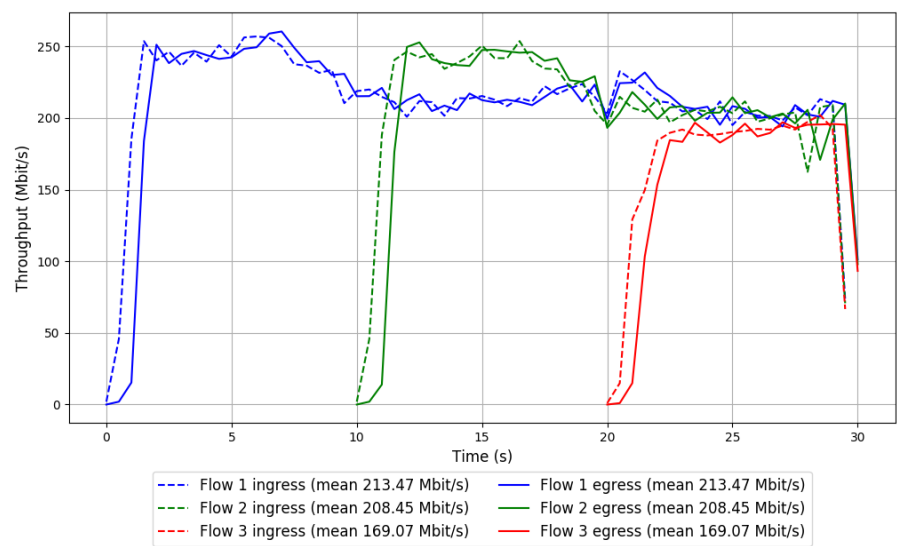
-- Flow 3:

Average throughput: 169.07 Mbit/s

95th percentile per-packet one-way delay: 68.925 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

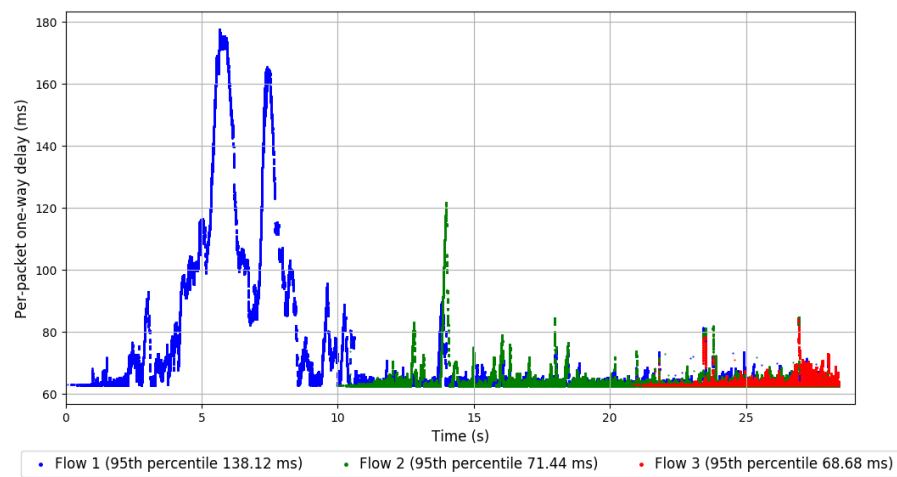
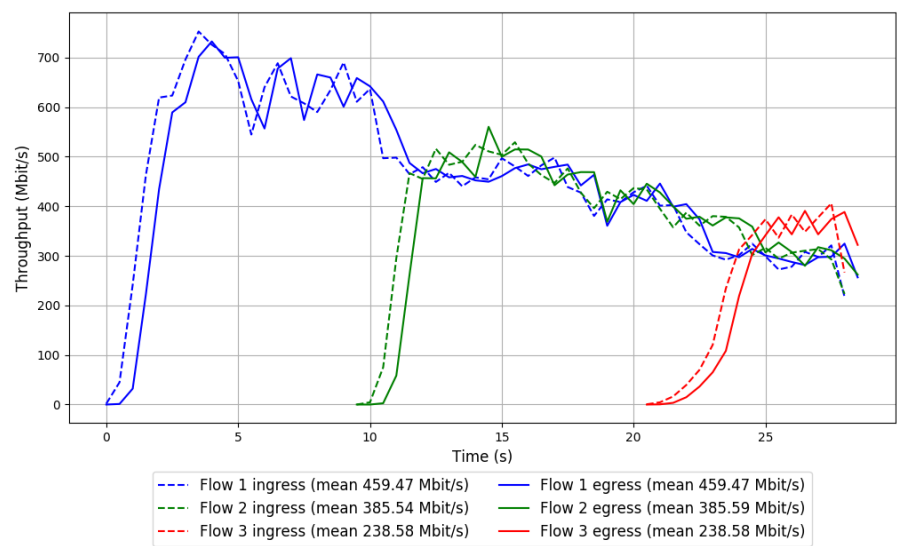


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-09 10:49:53
End at: 2019-03-09 10:50:23
Local clock offset: -0.035 ms
Remote clock offset: -0.299 ms

Below is generated by plot.py at 2019-03-09 15:06:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 774.55 Mbit/s
95th percentile per-packet one-way delay: 111.631 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 459.47 Mbit/s
95th percentile per-packet one-way delay: 138.125 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 385.59 Mbit/s
95th percentile per-packet one-way delay: 71.438 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 238.58 Mbit/s
95th percentile per-packet one-way delay: 68.680 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-09 11:26:18

End at: 2019-03-09 11:26:48

Local clock offset: 0.034 ms

Remote clock offset: -0.08 ms

Below is generated by plot.py at 2019-03-09 15:06:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 817.35 Mbit/s

95th percentile per-packet one-way delay: 85.222 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 485.51 Mbit/s

95th percentile per-packet one-way delay: 86.416 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 403.66 Mbit/s

95th percentile per-packet one-way delay: 82.809 ms

Loss rate: 0.00%

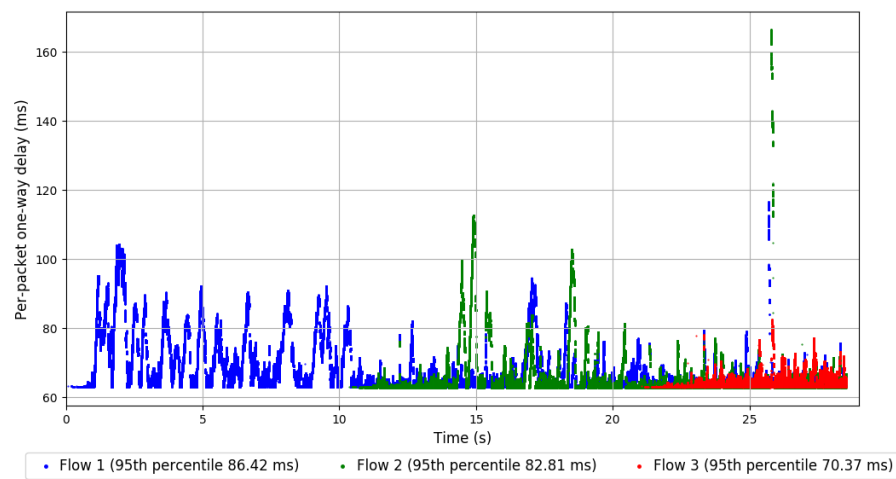
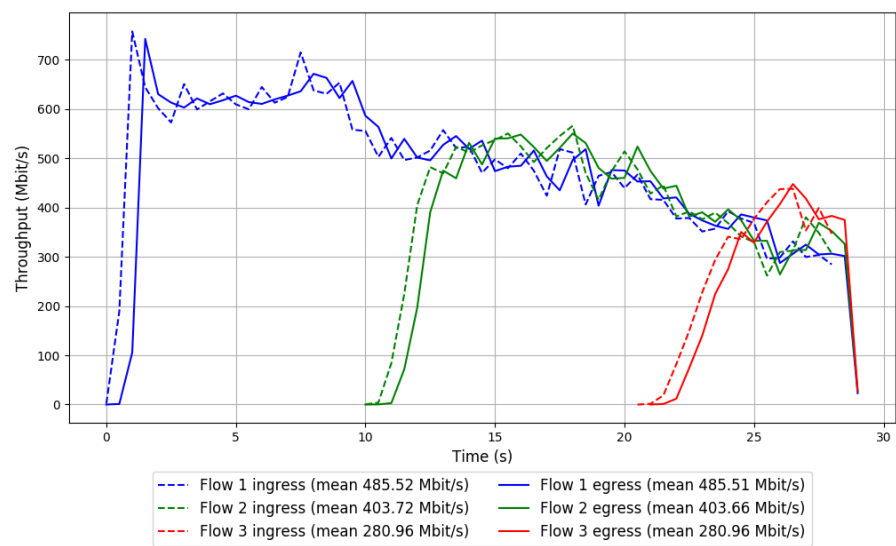
-- Flow 3:

Average throughput: 280.96 Mbit/s

95th percentile per-packet one-way delay: 70.368 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link

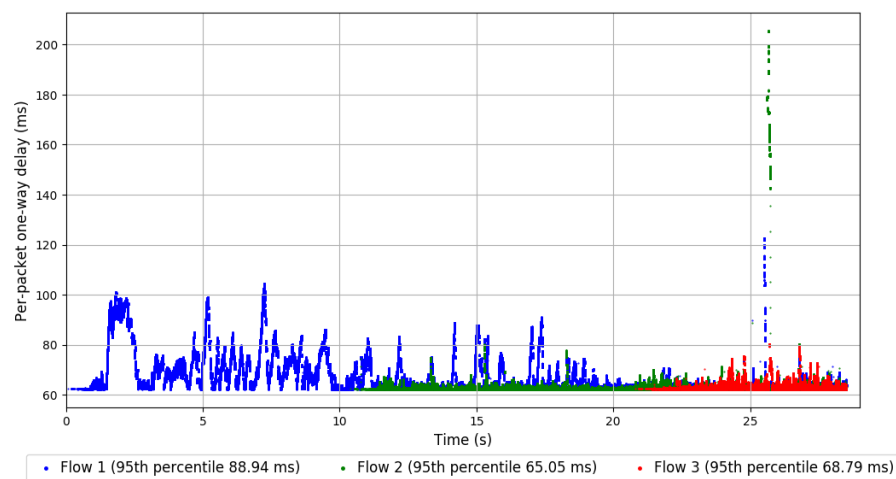
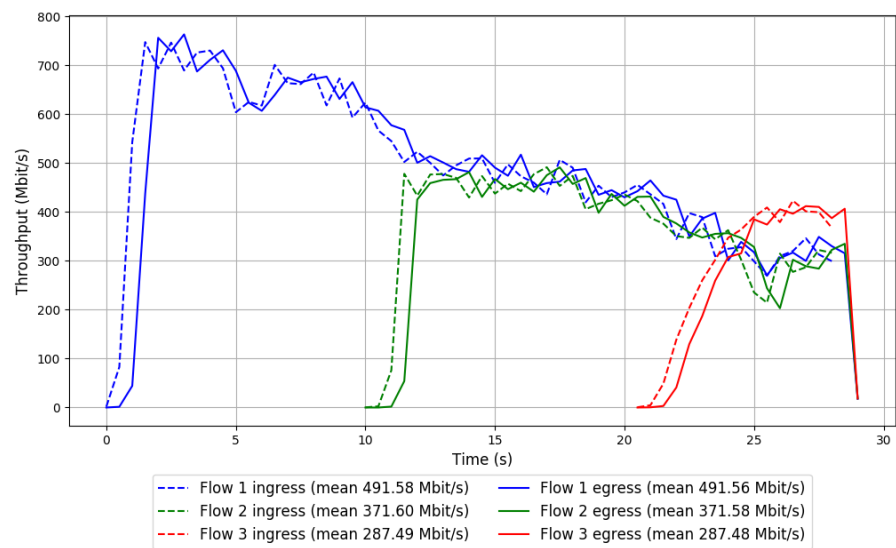


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-09 12:02:49
End at: 2019-03-09 12:03:19
Local clock offset: 0.074 ms
Remote clock offset: -0.839 ms

Below is generated by plot.py at 2019-03-09 15:17:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 806.09 Mbit/s
95th percentile per-packet one-way delay: 82.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 491.56 Mbit/s
95th percentile per-packet one-way delay: 88.939 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 371.58 Mbit/s
95th percentile per-packet one-way delay: 65.047 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 287.48 Mbit/s
95th percentile per-packet one-way delay: 68.790 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

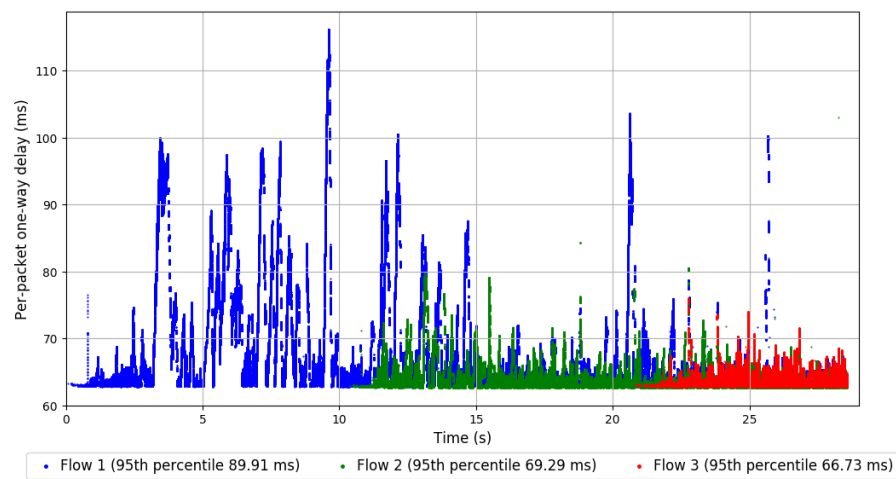
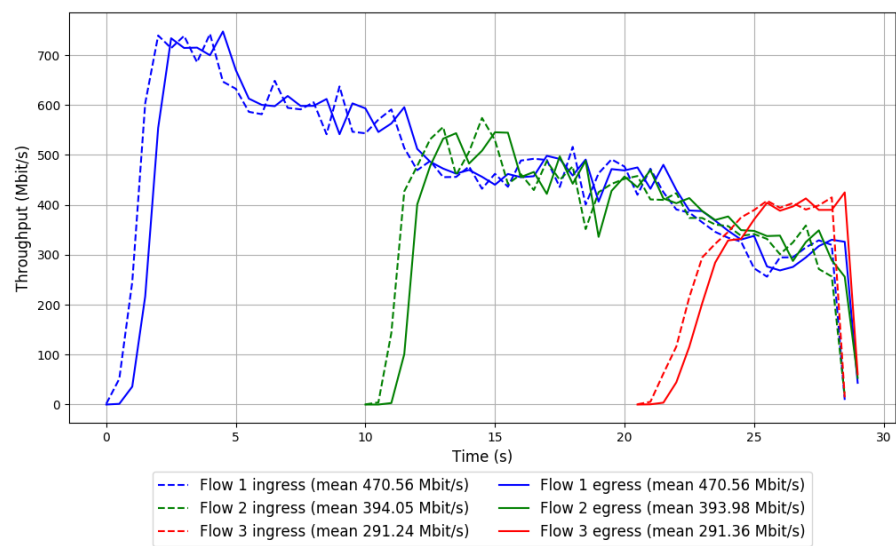


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-09 12:39:35
End at: 2019-03-09 12:40:05
Local clock offset: -0.127 ms
Remote clock offset: -0.274 ms

Below is generated by plot.py at 2019-03-09 15:17:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 801.62 Mbit/s
95th percentile per-packet one-way delay: 82.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 470.56 Mbit/s
95th percentile per-packet one-way delay: 89.906 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 393.98 Mbit/s
95th percentile per-packet one-way delay: 69.288 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 291.36 Mbit/s
95th percentile per-packet one-way delay: 66.729 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link

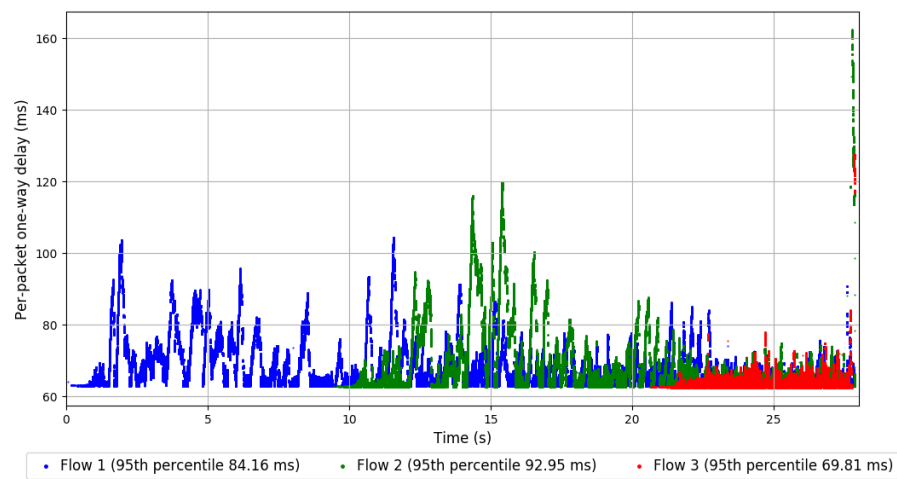
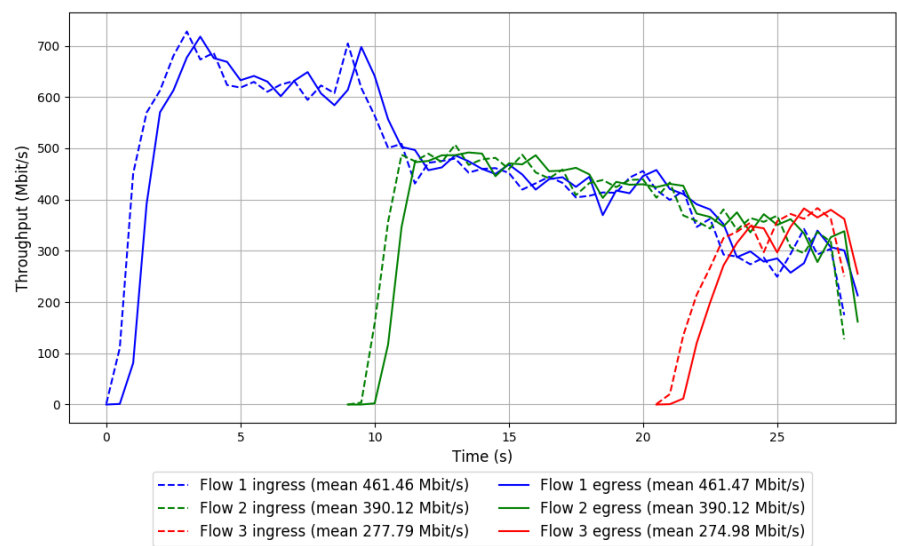


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-09 13:16:09
End at: 2019-03-09 13:16:39
Local clock offset: -0.103 ms
Remote clock offset: -0.248 ms

Below is generated by plot.py at 2019-03-09 15:17:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 791.53 Mbit/s
95th percentile per-packet one-way delay: 86.311 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 461.47 Mbit/s
95th percentile per-packet one-way delay: 84.162 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 390.12 Mbit/s
95th percentile per-packet one-way delay: 92.952 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 274.98 Mbit/s
95th percentile per-packet one-way delay: 69.809 ms
Loss rate: 0.99%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

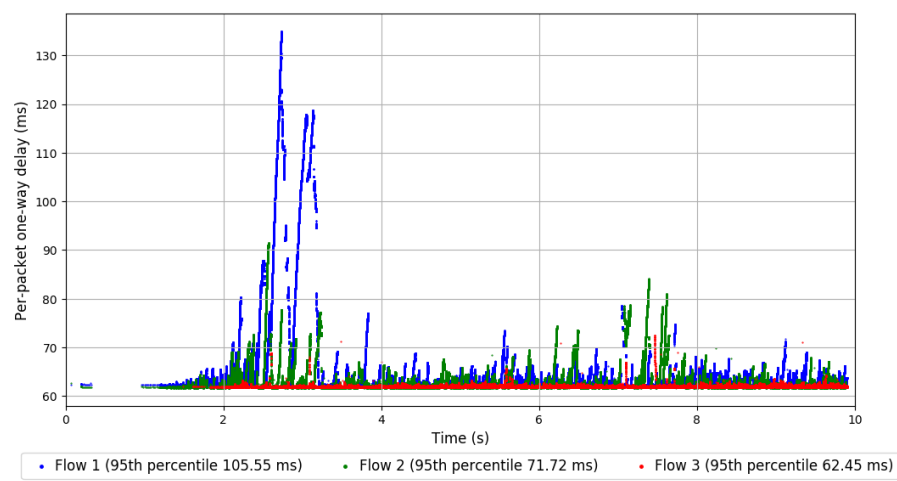
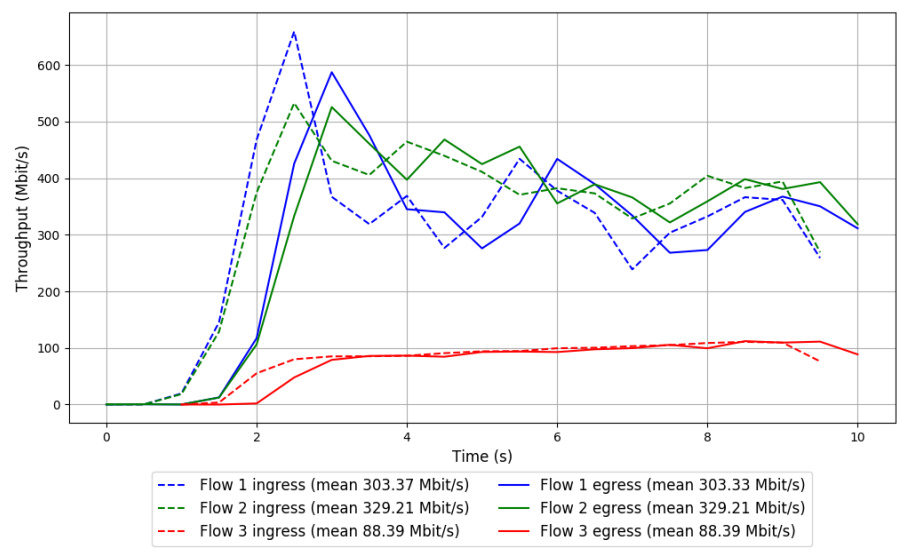
Start at: 2019-03-09 10:42:43

End at: 2019-03-09 10:43:13

Local clock offset: -0.064 ms

Remote clock offset: -0.999 ms

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-09 11:18:42

End at: 2019-03-09 11:19:12

Local clock offset: -0.001 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2019-03-09 15:17:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 795.44 Mbit/s

95th percentile per-packet one-way delay: 106.039 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 500.74 Mbit/s

95th percentile per-packet one-way delay: 105.913 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 410.88 Mbit/s

95th percentile per-packet one-way delay: 107.044 ms

Loss rate: 0.00%

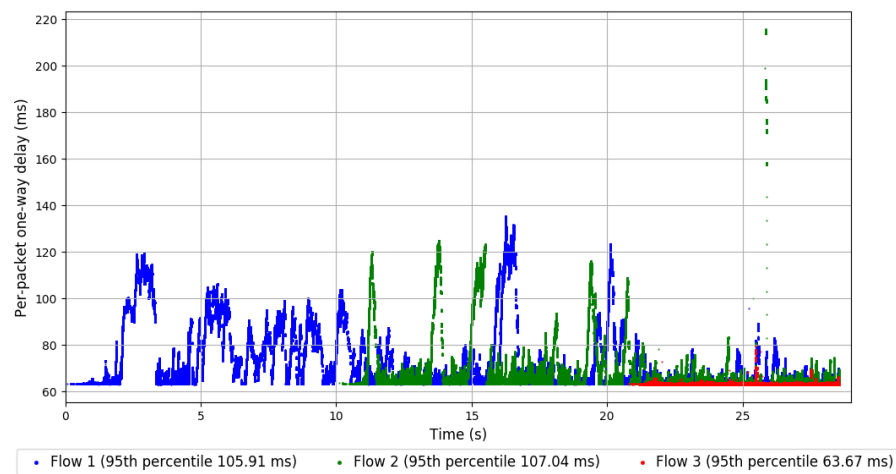
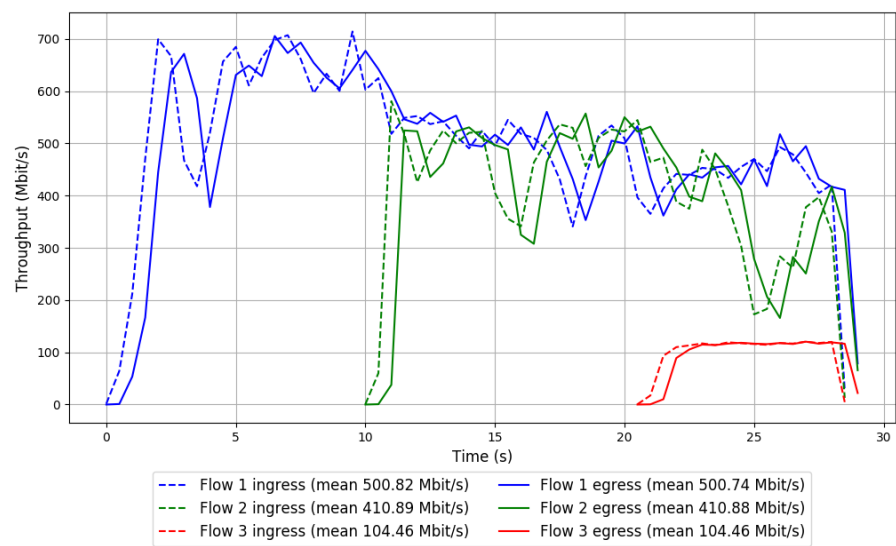
-- Flow 3:

Average throughput: 104.46 Mbit/s

95th percentile per-packet one-way delay: 63.674 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link

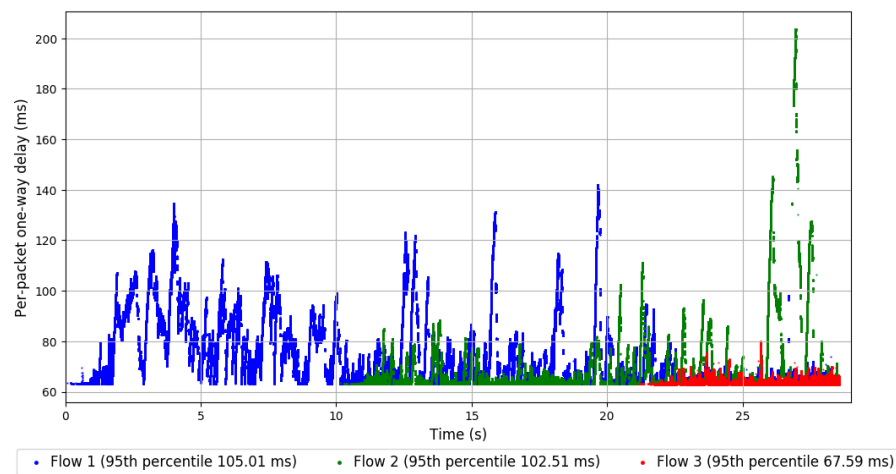
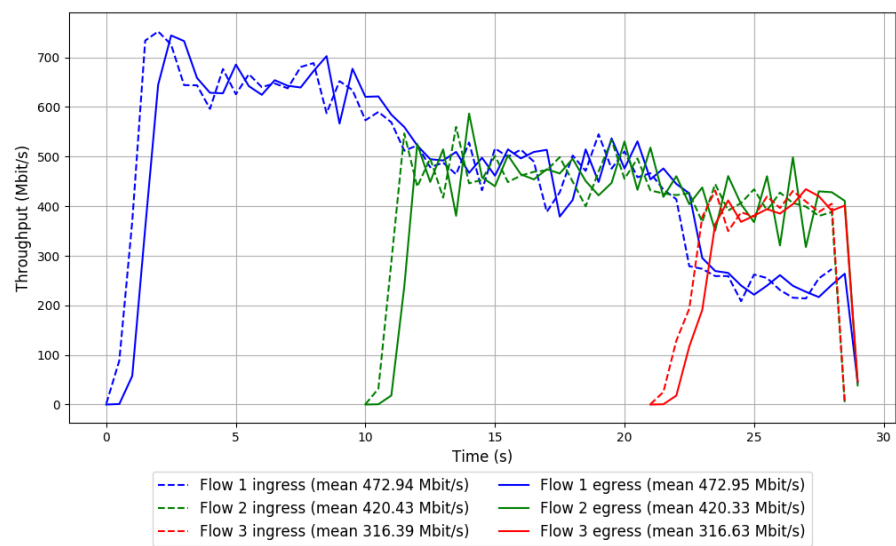


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-09 11:55:04
End at: 2019-03-09 11:55:34
Local clock offset: 0.088 ms
Remote clock offset: -0.062 ms

Below is generated by plot.py at 2019-03-09 15:18:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 827.12 Mbit/s
95th percentile per-packet one-way delay: 103.333 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 472.95 Mbit/s
95th percentile per-packet one-way delay: 105.011 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 420.33 Mbit/s
95th percentile per-packet one-way delay: 102.512 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 316.63 Mbit/s
95th percentile per-packet one-way delay: 67.590 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC5 — Data Link

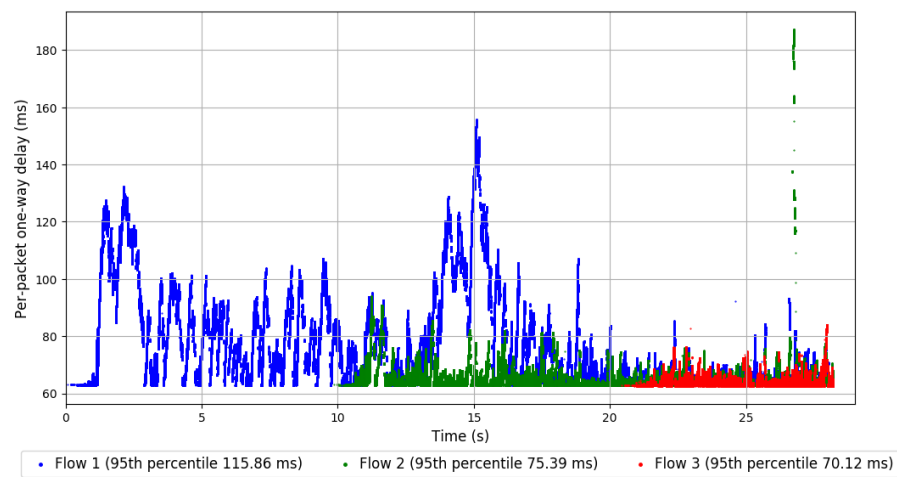
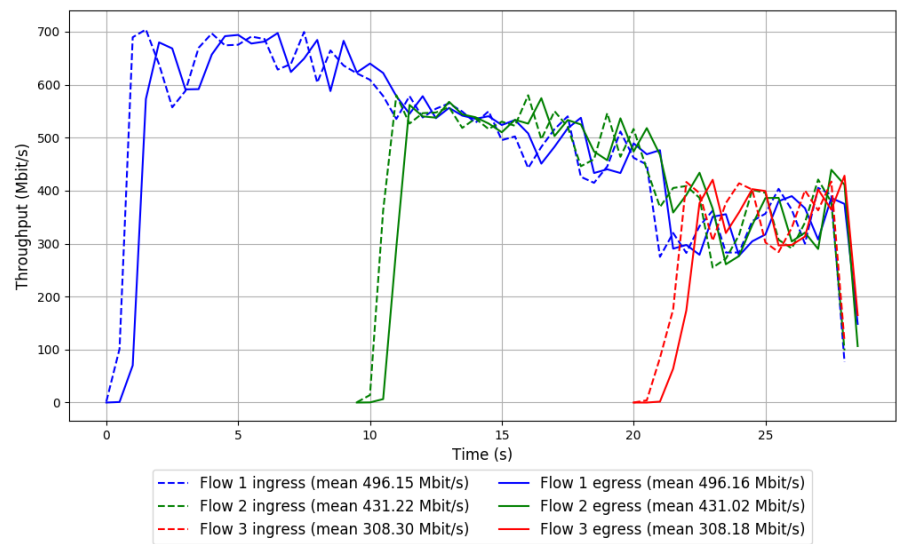


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-09 12:31:44
End at: 2019-03-09 12:32:14
Local clock offset: -0.107 ms
Remote clock offset: -0.159 ms

Below is generated by plot.py at 2019-03-09 15:20:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 862.19 Mbit/s
95th percentile per-packet one-way delay: 108.375 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 496.16 Mbit/s
95th percentile per-packet one-way delay: 115.860 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 431.02 Mbit/s
95th percentile per-packet one-way delay: 75.388 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 308.18 Mbit/s
95th percentile per-packet one-way delay: 70.125 ms
Loss rate: 0.02%

Run 4: Report of Indigo-MusesC5 — Data Link

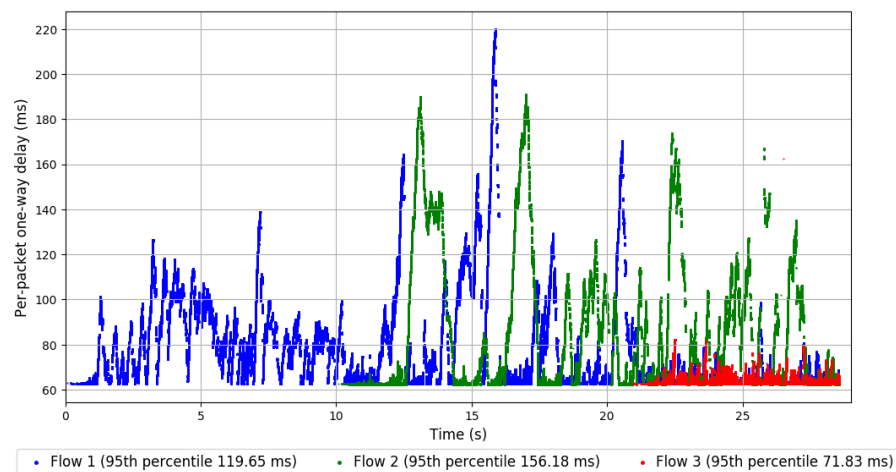
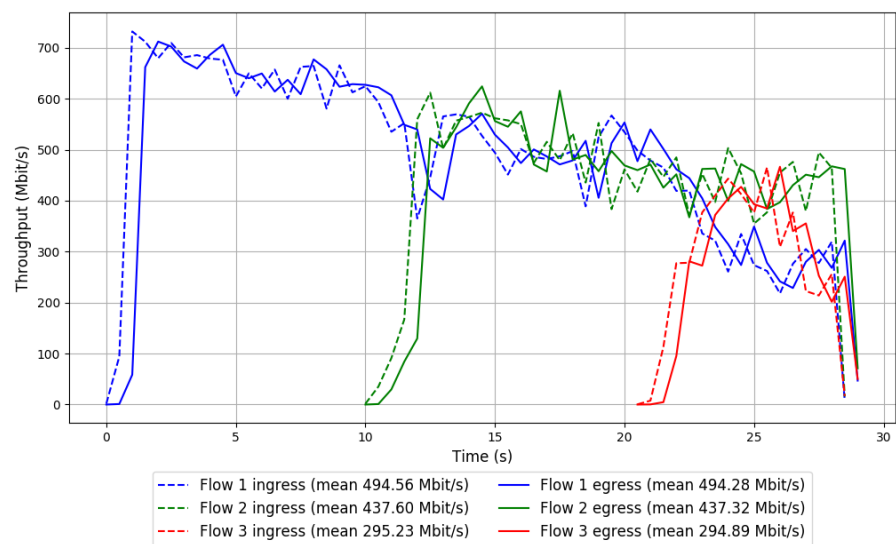


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-09 13:08:34
End at: 2019-03-09 13:09:04
Local clock offset: -0.118 ms
Remote clock offset: -0.411 ms

Below is generated by plot.py at 2019-03-09 15:20:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 857.73 Mbit/s
95th percentile per-packet one-way delay: 139.904 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 494.28 Mbit/s
95th percentile per-packet one-way delay: 119.654 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 437.32 Mbit/s
95th percentile per-packet one-way delay: 156.177 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 294.89 Mbit/s
95th percentile per-packet one-way delay: 71.829 ms
Loss rate: 0.12%

Run 5: Report of Indigo-MusesC5 — Data Link

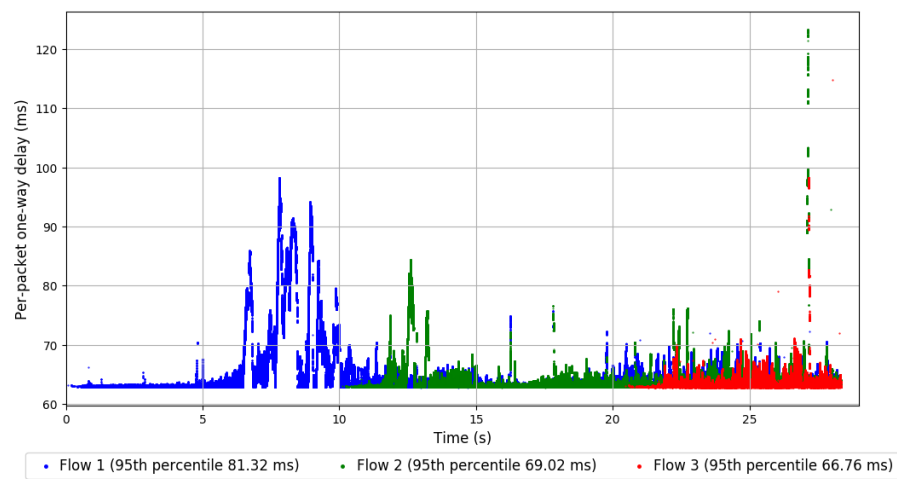
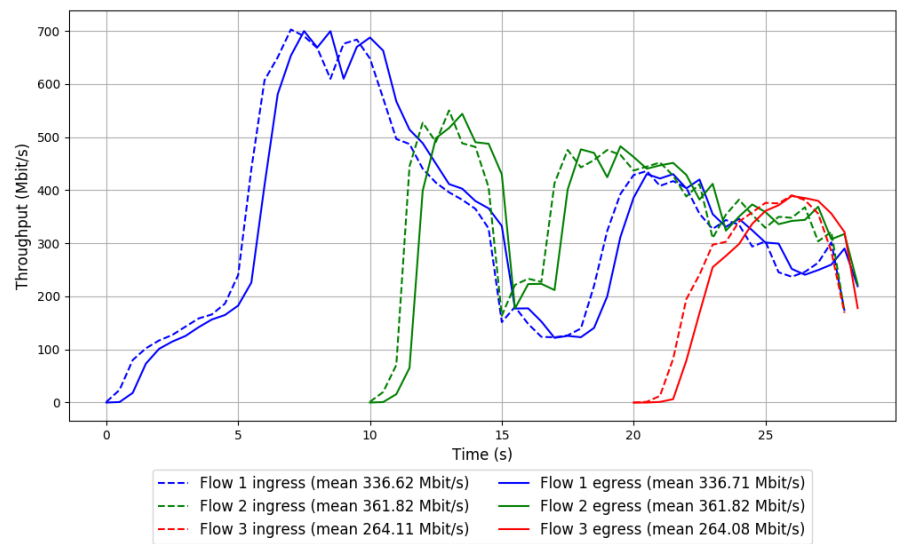


Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-09 11:03:17
End at: 2019-03-09 11:03:47
Local clock offset: -0.038 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2019-03-09 15:20:47
Datalink statistics
-- Total of 3 flows:
Average throughput: 643.75 Mbit/s
95th percentile per-packet one-way delay: 76.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 336.71 Mbit/s
95th percentile per-packet one-way delay: 81.324 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 361.82 Mbit/s
95th percentile per-packet one-way delay: 69.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 264.08 Mbit/s
95th percentile per-packet one-way delay: 66.756 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

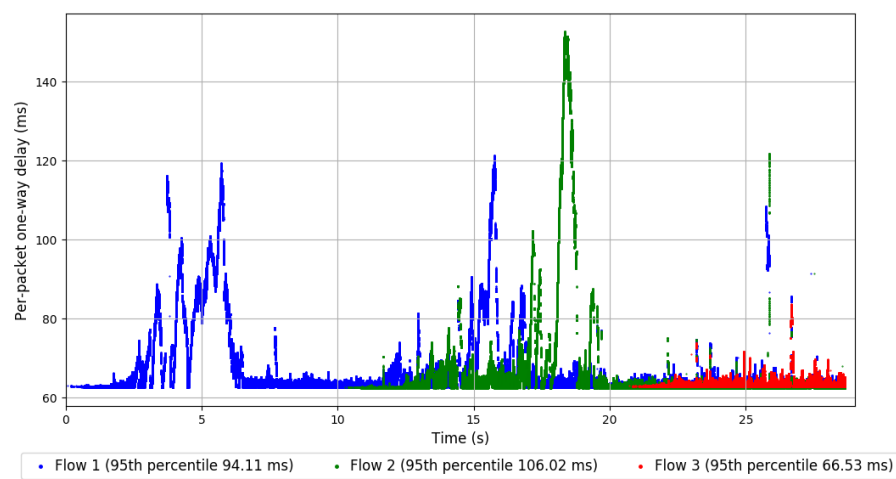
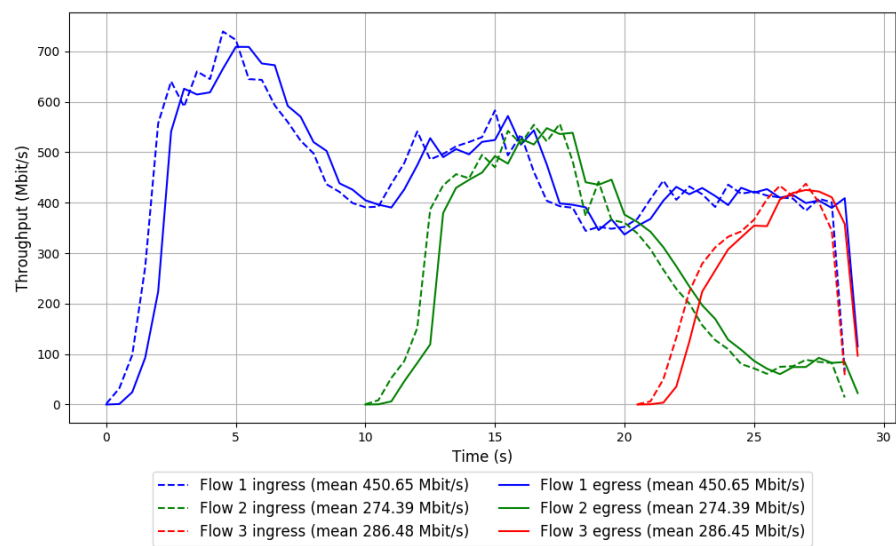


Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-09 11:39:38
End at: 2019-03-09 11:40:08
Local clock offset: 0.088 ms
Remote clock offset: -0.292 ms

Below is generated by plot.py at 2019-03-09 15:27:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 706.43 Mbit/s
95th percentile per-packet one-way delay: 93.960 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 450.65 Mbit/s
95th percentile per-packet one-way delay: 94.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 274.39 Mbit/s
95th percentile per-packet one-way delay: 106.017 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 286.45 Mbit/s
95th percentile per-packet one-way delay: 66.525 ms
Loss rate: 0.03%

Run 2: Report of Indigo-MusesD — Data Link

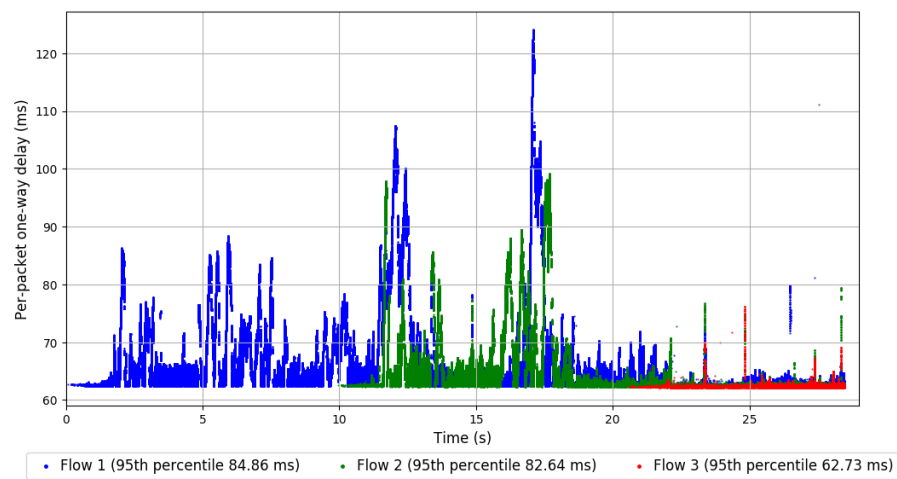
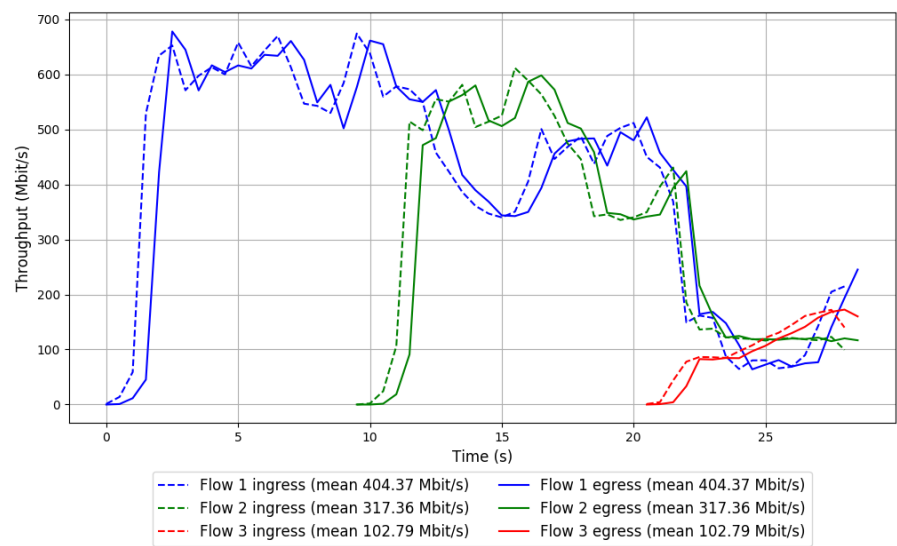


Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-09 12:16:29
End at: 2019-03-09 12:16:59
Local clock offset: 0.101 ms
Remote clock offset: -0.639 ms

Below is generated by plot.py at 2019-03-09 15:27:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 639.75 Mbit/s
95th percentile per-packet one-way delay: 83.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 404.37 Mbit/s
95th percentile per-packet one-way delay: 84.856 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 317.36 Mbit/s
95th percentile per-packet one-way delay: 82.645 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 102.79 Mbit/s
95th percentile per-packet one-way delay: 62.733 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

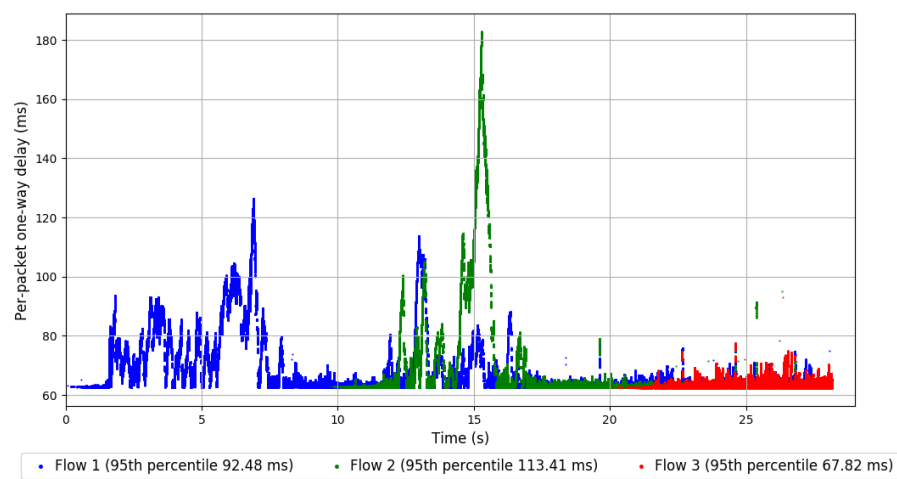
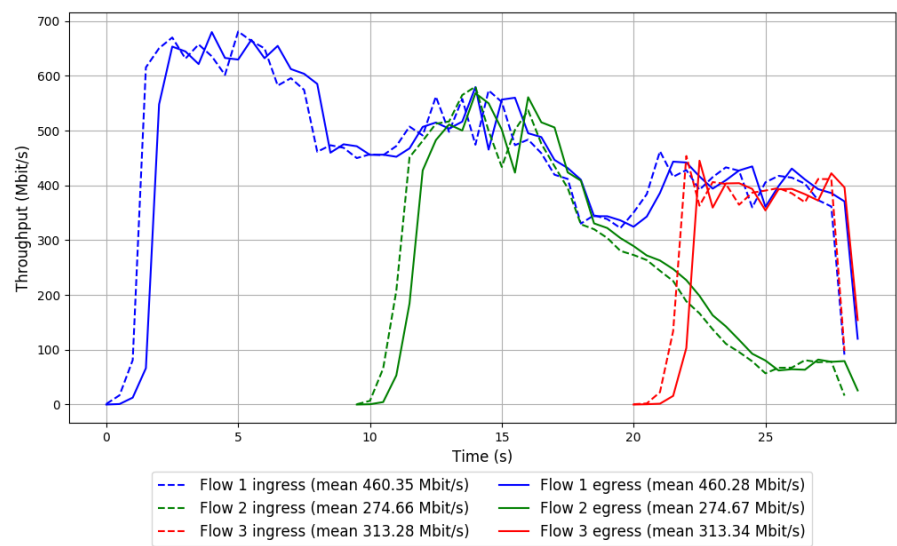


Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-09 12:53:07
End at: 2019-03-09 12:53:37
Local clock offset: -0.205 ms
Remote clock offset: -0.445 ms

Below is generated by plot.py at 2019-03-09 15:28:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 729.36 Mbit/s
95th percentile per-packet one-way delay: 95.577 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 460.28 Mbit/s
95th percentile per-packet one-way delay: 92.484 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 274.67 Mbit/s
95th percentile per-packet one-way delay: 113.406 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 313.34 Mbit/s
95th percentile per-packet one-way delay: 67.820 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link

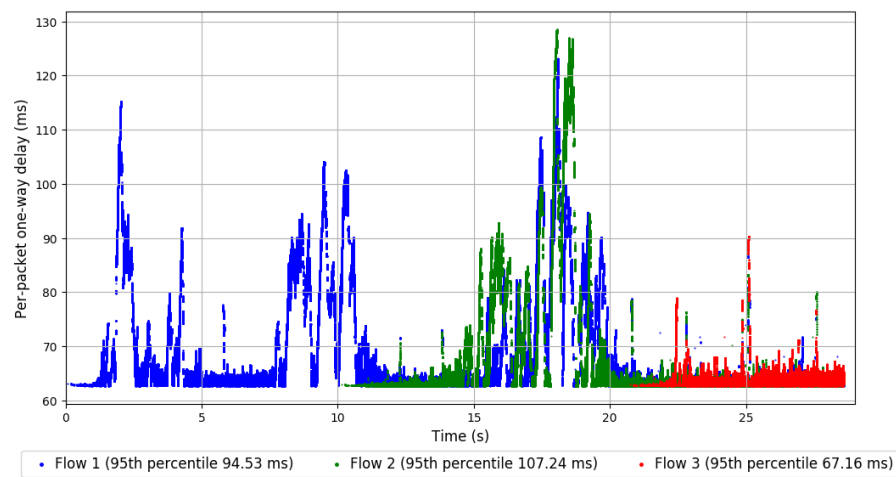
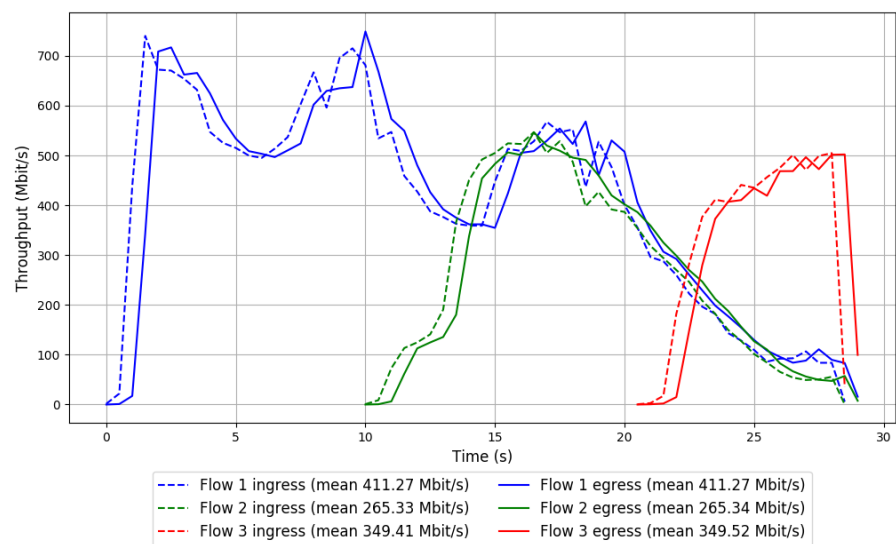


Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-09 13:29:22
End at: 2019-03-09 13:29:52
Local clock offset: -0.12 ms
Remote clock offset: -0.039 ms

Below is generated by plot.py at 2019-03-09 15:28:54
Datalink statistics
-- Total of 3 flows:
Average throughput: 679.22 Mbit/s
95th percentile per-packet one-way delay: 94.493 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 411.27 Mbit/s
95th percentile per-packet one-way delay: 94.529 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 265.34 Mbit/s
95th percentile per-packet one-way delay: 107.237 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 349.52 Mbit/s
95th percentile per-packet one-way delay: 67.161 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link

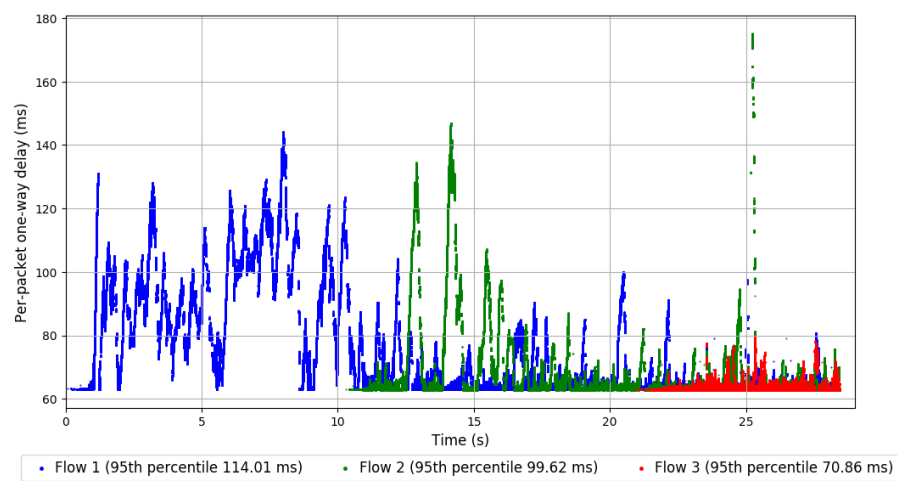
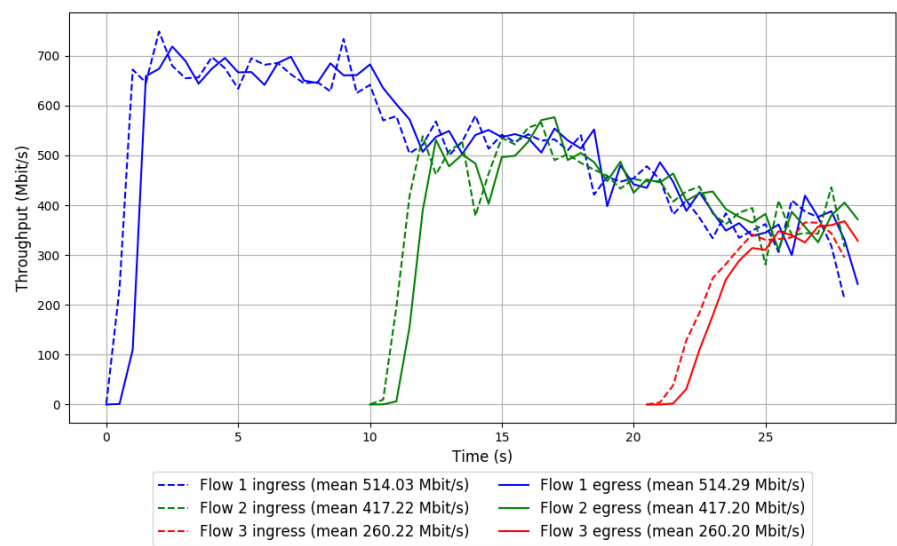


Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-09 11:13:38
End at: 2019-03-09 11:14:08
Local clock offset: -0.028 ms
Remote clock offset: -0.069 ms

Below is generated by plot.py at 2019-03-09 15:33:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 849.58 Mbit/s
95th percentile per-packet one-way delay: 112.014 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 514.29 Mbit/s
95th percentile per-packet one-way delay: 114.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 417.20 Mbit/s
95th percentile per-packet one-way delay: 99.622 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 260.20 Mbit/s
95th percentile per-packet one-way delay: 70.864 ms
Loss rate: 0.02%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-09 11:49:58

End at: 2019-03-09 11:50:28

Local clock offset: 0.058 ms

Remote clock offset: 0.186 ms

Below is generated by plot.py at 2019-03-09 15:34:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 897.78 Mbit/s

95th percentile per-packet one-way delay: 116.917 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 528.87 Mbit/s

95th percentile per-packet one-way delay: 121.836 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 446.68 Mbit/s

95th percentile per-packet one-way delay: 92.884 ms

Loss rate: 0.00%

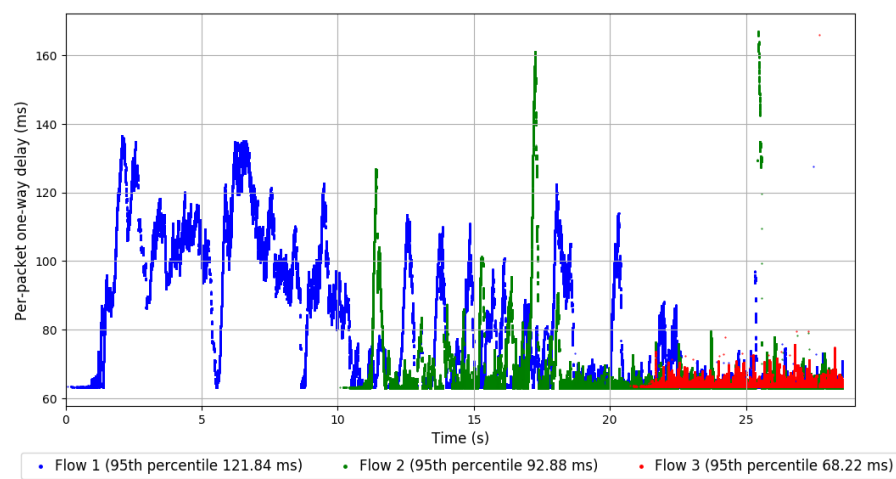
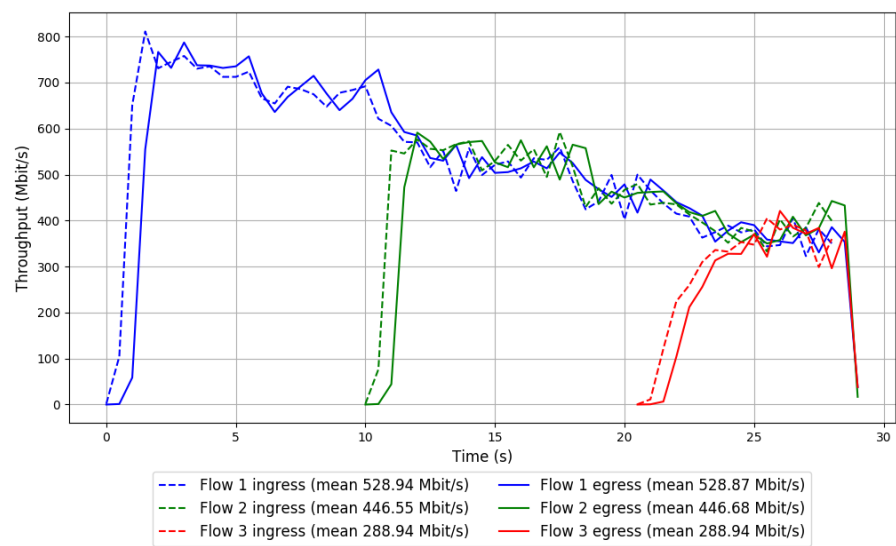
-- Flow 3:

Average throughput: 288.94 Mbit/s

95th percentile per-packet one-way delay: 68.215 ms

Loss rate: 0.01%

Run 2: Report of Indigo-MusesT — Data Link

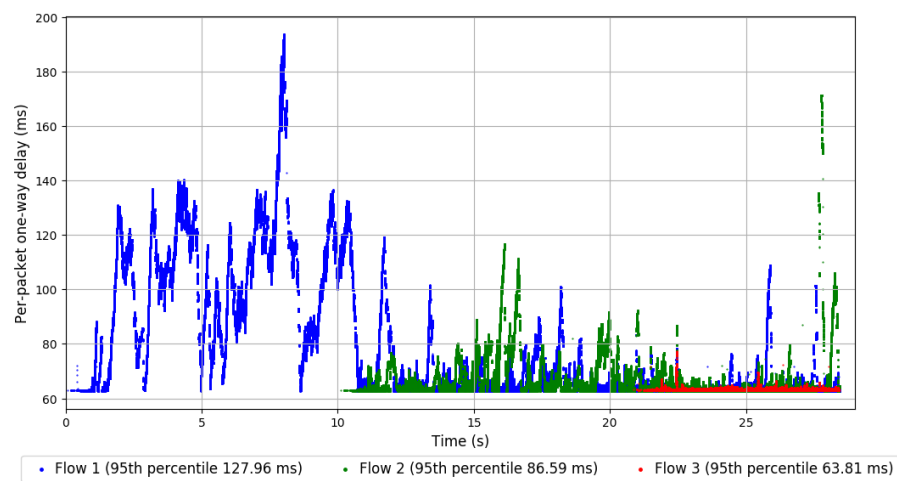
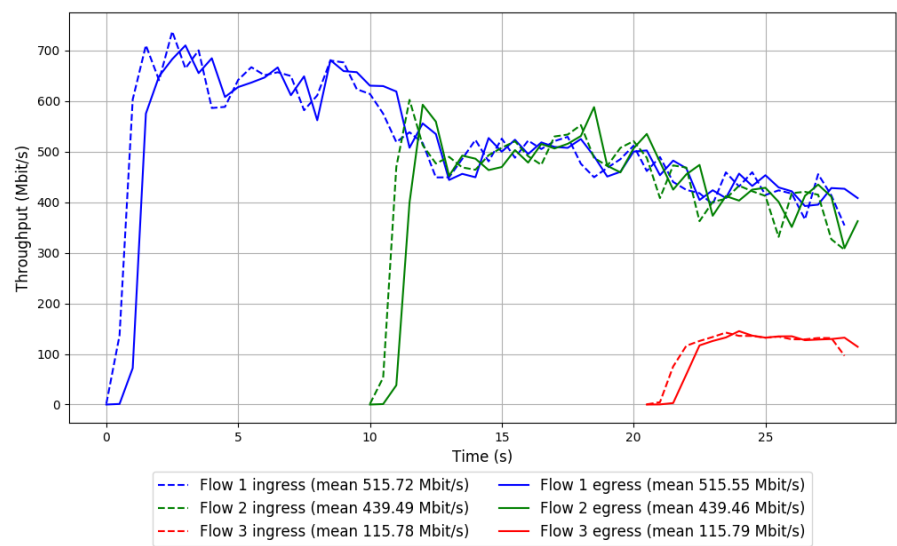


Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-09 12:26:42
End at: 2019-03-09 12:27:12
Local clock offset: -0.028 ms
Remote clock offset: -0.025 ms

Below is generated by plot.py at 2019-03-09 15:34:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 830.51 Mbit/s
95th percentile per-packet one-way delay: 123.787 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 515.55 Mbit/s
95th percentile per-packet one-way delay: 127.964 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 439.46 Mbit/s
95th percentile per-packet one-way delay: 86.590 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 115.79 Mbit/s
95th percentile per-packet one-way delay: 63.811 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link

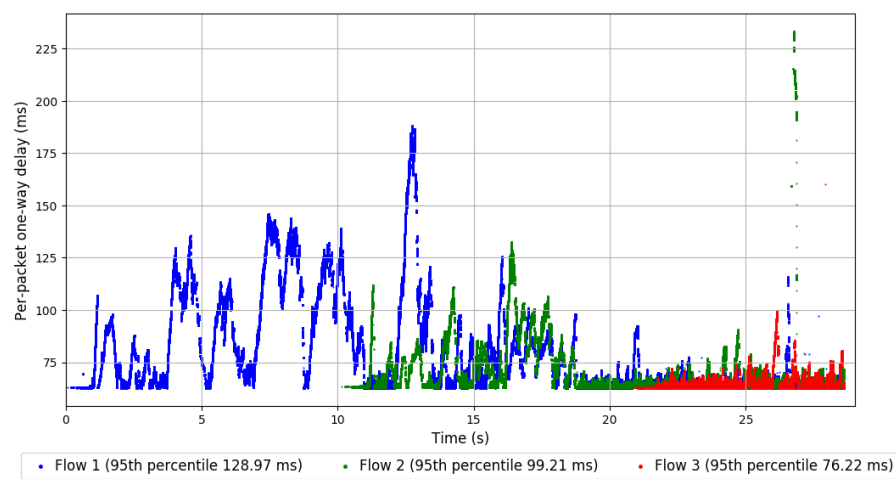
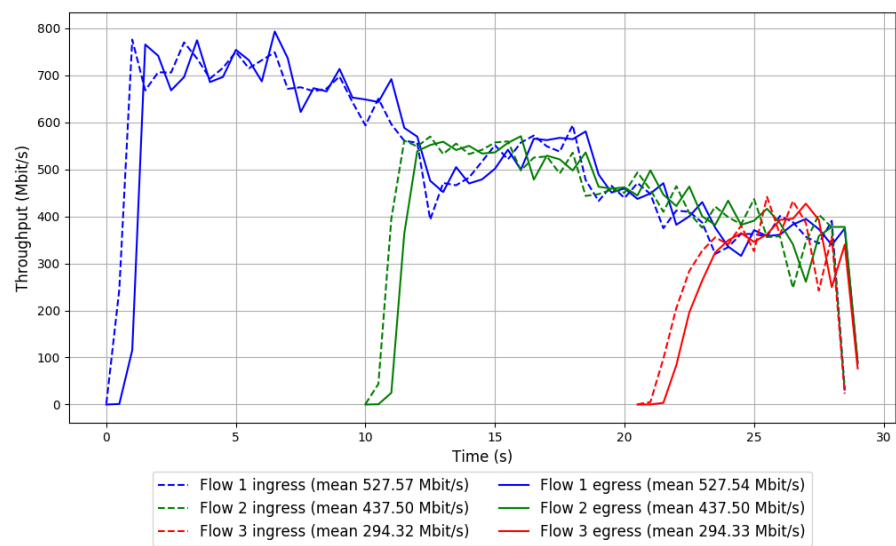


Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-09 13:03:32
End at: 2019-03-09 13:04:02
Local clock offset: -0.122 ms
Remote clock offset: -0.018 ms

Below is generated by plot.py at 2019-03-09 15:35:45
Datalink statistics
-- Total of 3 flows:
Average throughput: 890.26 Mbit/s
95th percentile per-packet one-way delay: 122.347 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 527.54 Mbit/s
95th percentile per-packet one-way delay: 128.975 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 437.50 Mbit/s
95th percentile per-packet one-way delay: 99.207 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 294.33 Mbit/s
95th percentile per-packet one-way delay: 76.218 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link

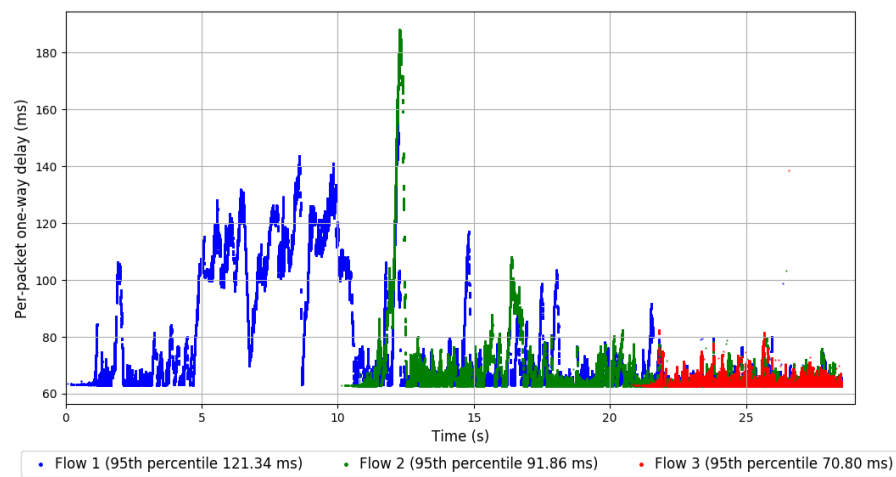
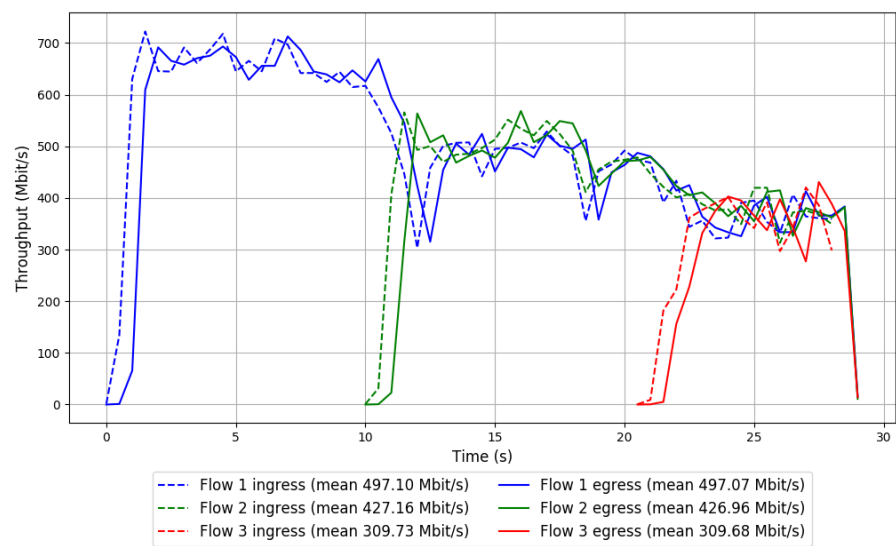


Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-09 13:39:40
End at: 2019-03-09 13:40:11
Local clock offset: -0.09 ms
Remote clock offset: -0.069 ms

Below is generated by plot.py at 2019-03-09 15:40:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 856.71 Mbit/s
95th percentile per-packet one-way delay: 117.332 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 497.07 Mbit/s
95th percentile per-packet one-way delay: 121.336 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 426.96 Mbit/s
95th percentile per-packet one-way delay: 91.864 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 309.68 Mbit/s
95th percentile per-packet one-way delay: 70.802 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesT — Data Link

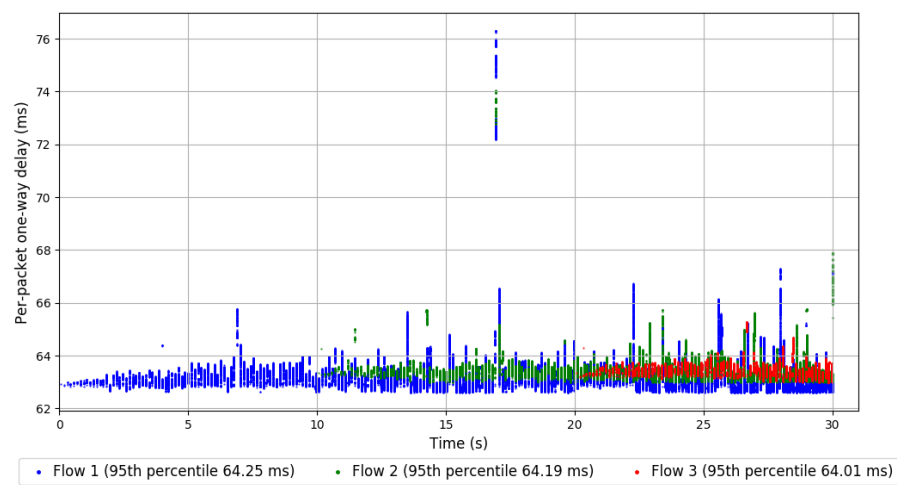
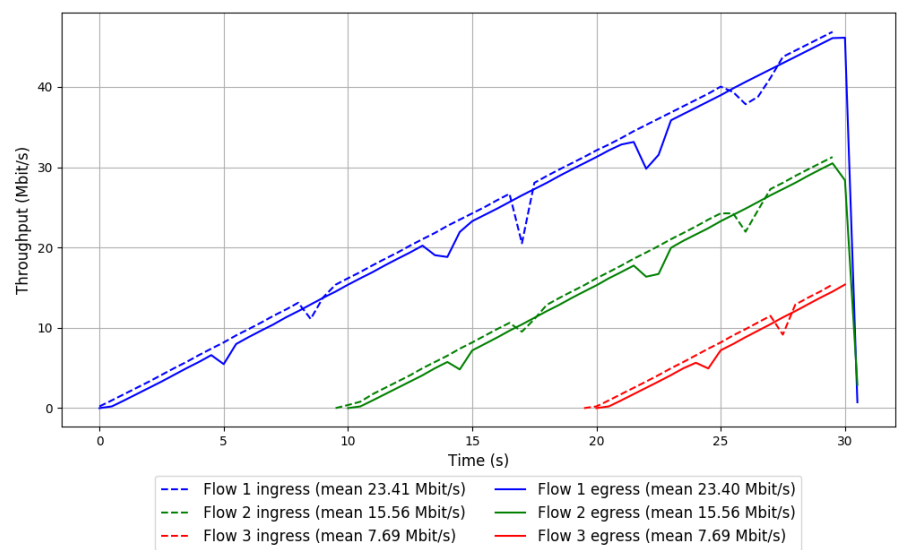


```
Run 1: Statistics of LEDBAT

Start at: 2019-03-09 10:58:12
End at: 2019-03-09 10:58:42
Local clock offset: -0.077 ms
Remote clock offset: -0.207 ms

# Below is generated by plot.py at 2019-03-09 15:40:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.32 Mbit/s
95th percentile per-packet one-way delay: 64.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 64.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.56 Mbit/s
95th percentile per-packet one-way delay: 64.192 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 64.010 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

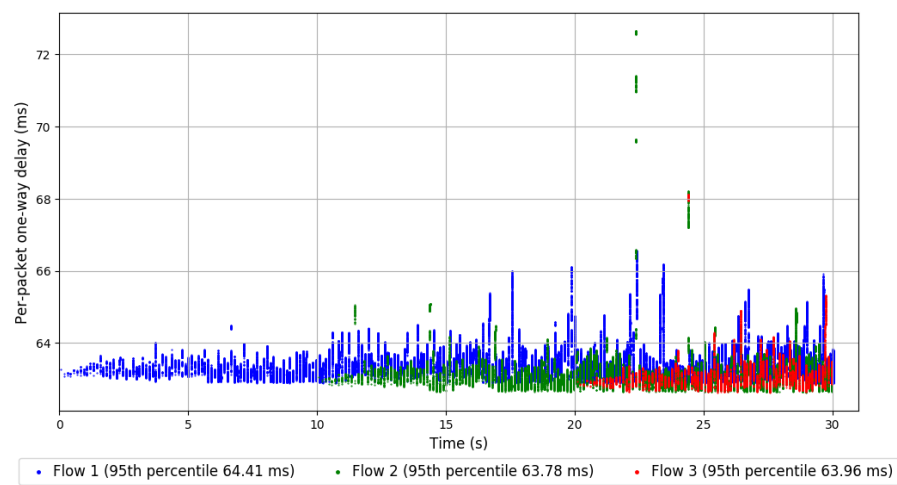
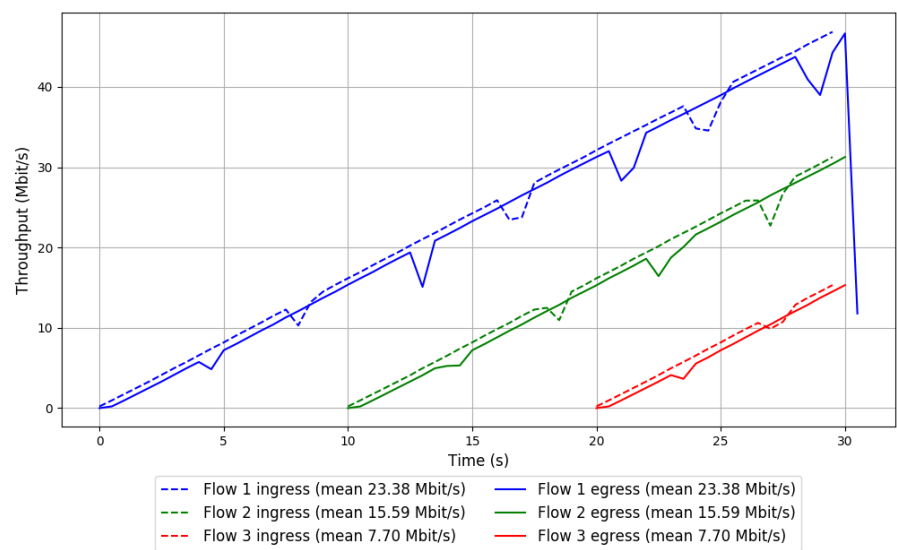


Run 2: Statistics of LEDBAT

Start at: 2019-03-09 11:34:41
End at: 2019-03-09 11:35:11
Local clock offset: 0.051 ms
Remote clock offset: -0.105 ms

Below is generated by plot.py at 2019-03-09 15:40:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.28 Mbit/s
95th percentile per-packet one-way delay: 64.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.38 Mbit/s
95th percentile per-packet one-way delay: 64.411 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.59 Mbit/s
95th percentile per-packet one-way delay: 63.784 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 63.956 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

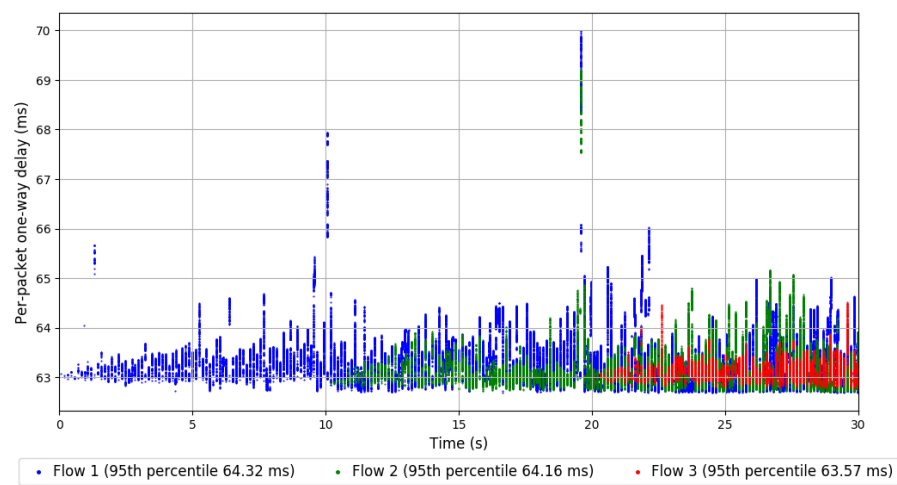
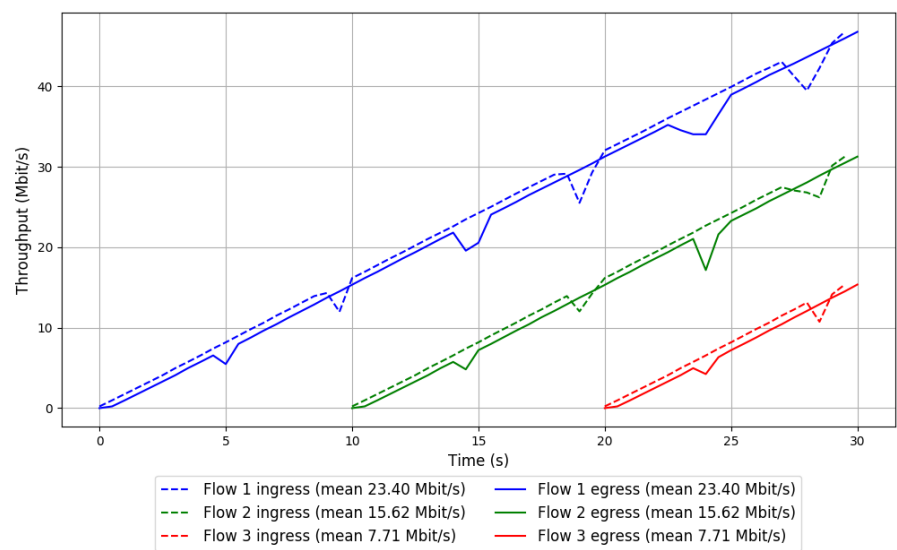


Run 3: Statistics of LEDBAT

Start at: 2019-03-09 12:11:26
End at: 2019-03-09 12:11:56
Local clock offset: 0.099 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2019-03-09 15:40:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.34 Mbit/s
95th percentile per-packet one-way delay: 64.258 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 64.319 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.62 Mbit/s
95th percentile per-packet one-way delay: 64.164 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 63.572 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

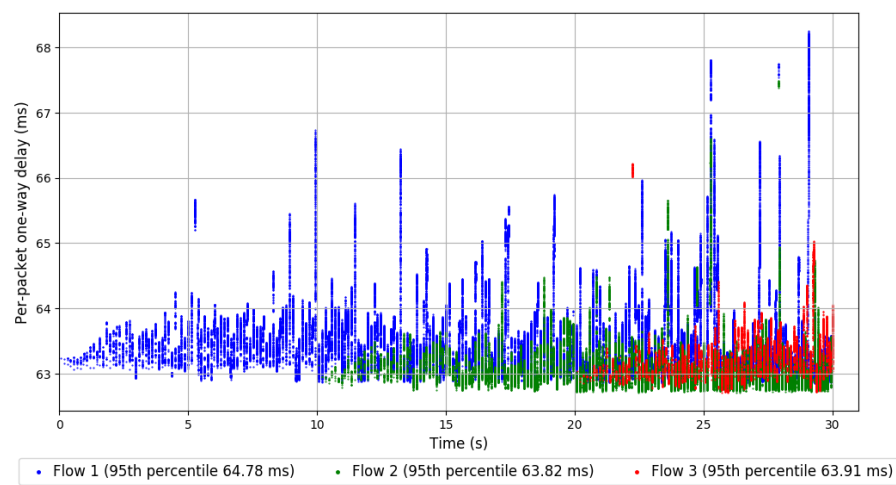
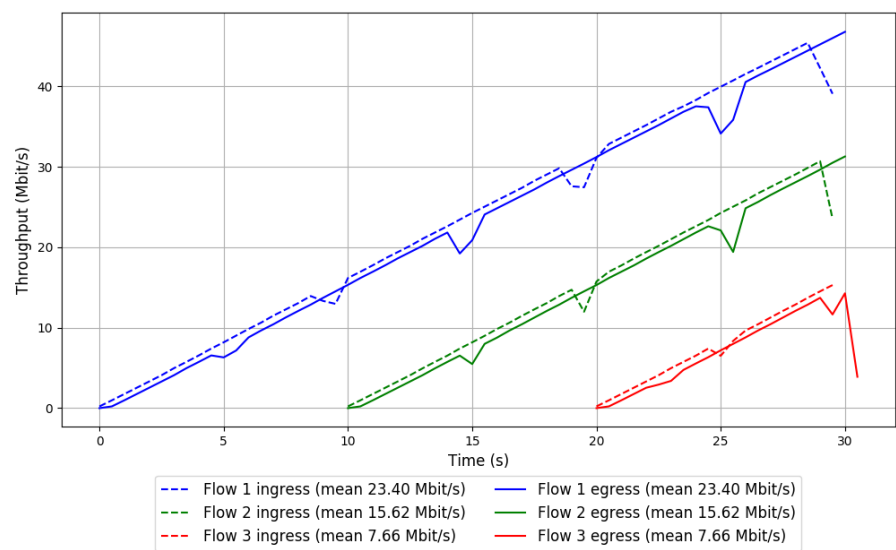


Run 4: Statistics of LEDBAT

Start at: 2019-03-09 12:48:04
End at: 2019-03-09 12:48:34
Local clock offset: -0.191 ms
Remote clock offset: -0.066 ms

Below is generated by plot.py at 2019-03-09 15:40:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 36.25 Mbit/s
95th percentile per-packet one-way delay: 64.530 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.40 Mbit/s
95th percentile per-packet one-way delay: 64.778 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.62 Mbit/s
95th percentile per-packet one-way delay: 63.820 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 63.908 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

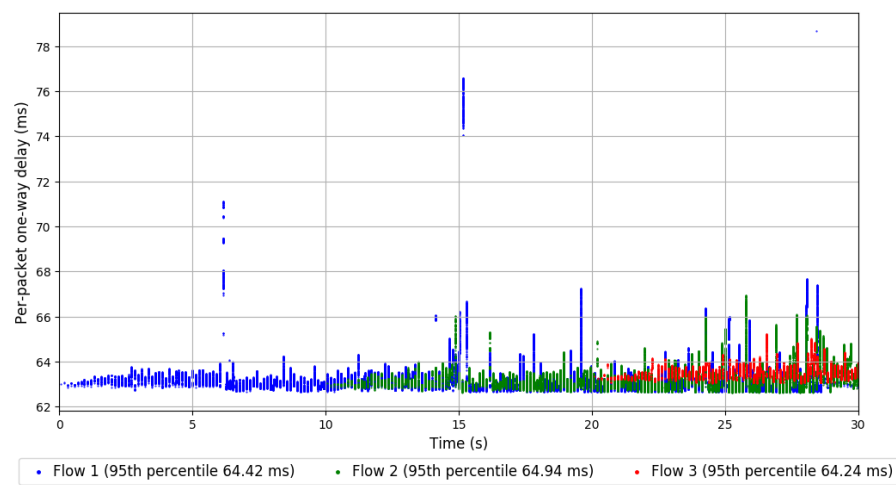
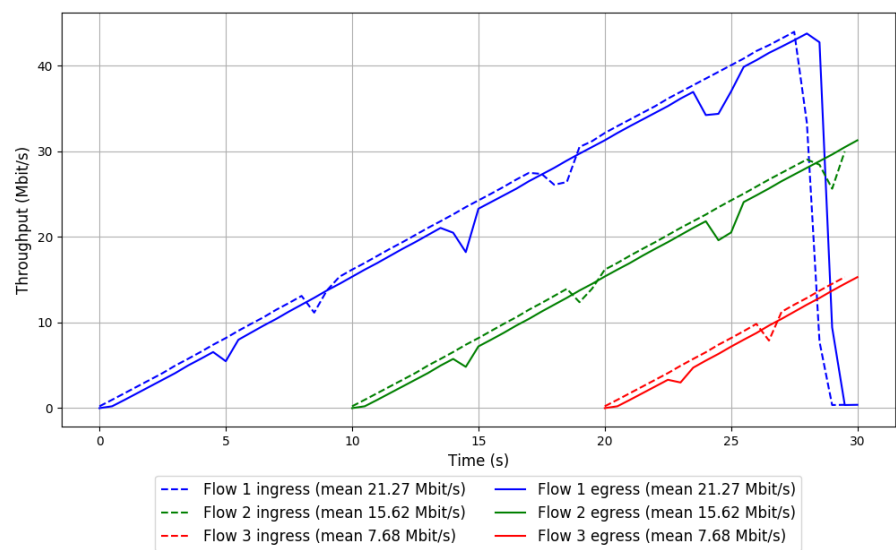


Run 5: Statistics of LEDBAT

Start at: 2019-03-09 13:24:28
End at: 2019-03-09 13:24:58
Local clock offset: -0.086 ms
Remote clock offset: -0.032 ms

Below is generated by plot.py at 2019-03-09 15:40:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 34.17 Mbit/s
95th percentile per-packet one-way delay: 64.630 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.27 Mbit/s
95th percentile per-packet one-way delay: 64.417 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.62 Mbit/s
95th percentile per-packet one-way delay: 64.943 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.68 Mbit/s
95th percentile per-packet one-way delay: 64.238 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

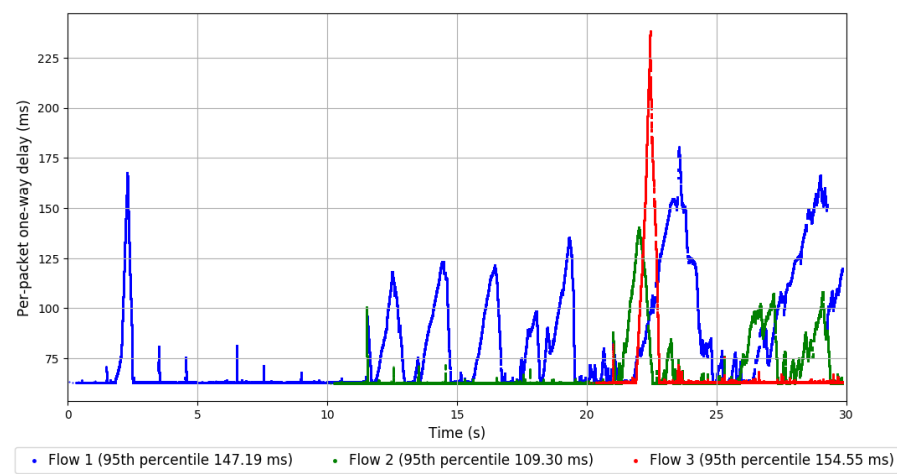
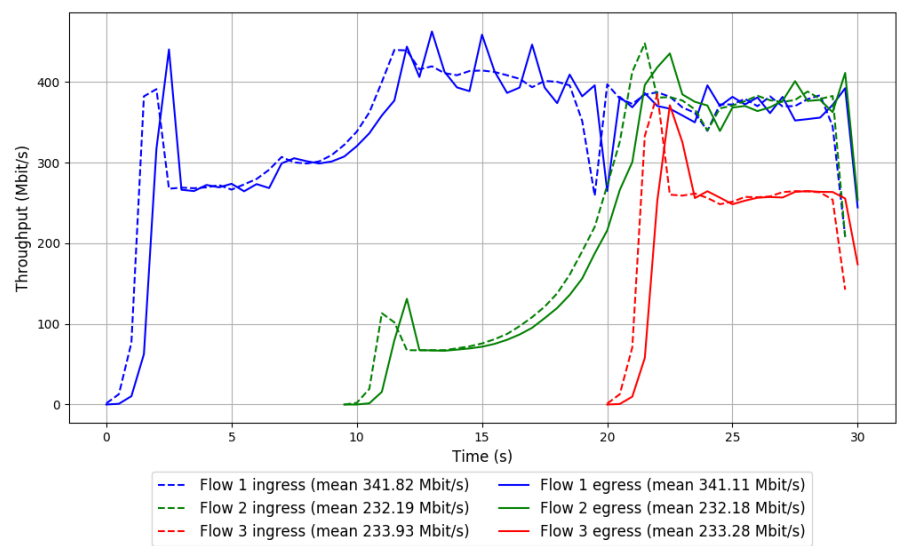


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-09 10:48:02
End at: 2019-03-09 10:48:32
Local clock offset: -0.05 ms
Remote clock offset: -0.268 ms

# Below is generated by plot.py at 2019-03-09 15:49:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 572.33 Mbit/s
95th percentile per-packet one-way delay: 138.322 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 341.11 Mbit/s
95th percentile per-packet one-way delay: 147.194 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 232.18 Mbit/s
95th percentile per-packet one-way delay: 109.295 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 233.28 Mbit/s
95th percentile per-packet one-way delay: 154.547 ms
Loss rate: 0.28%
```

Run 1: Report of PCC-Allegro — Data Link

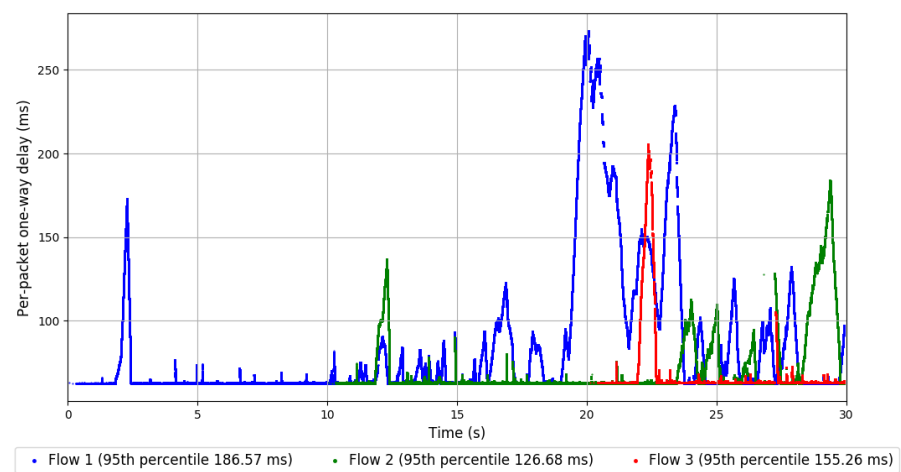
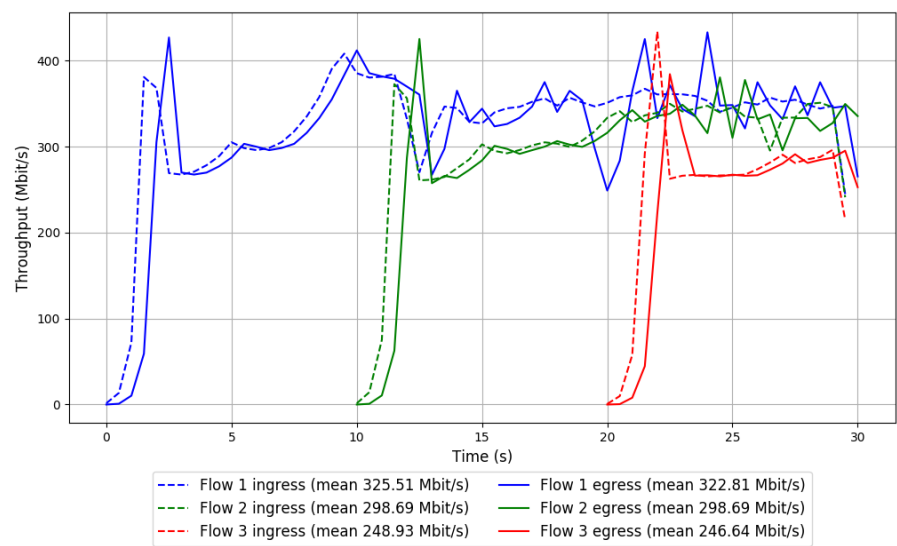


Run 2: Statistics of PCC-Allegro

Start at: 2019-03-09 11:24:25
End at: 2019-03-09 11:24:55
Local clock offset: 0.003 ms
Remote clock offset: -0.133 ms

Below is generated by plot.py at 2019-03-09 15:50:55
Datalink statistics
-- Total of 3 flows:
Average throughput: 602.24 Mbit/s
95th percentile per-packet one-way delay: 159.796 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 322.81 Mbit/s
95th percentile per-packet one-way delay: 186.568 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 298.69 Mbit/s
95th percentile per-packet one-way delay: 126.681 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 246.64 Mbit/s
95th percentile per-packet one-way delay: 155.257 ms
Loss rate: 0.92%

Run 2: Report of PCC-Allegro — Data Link

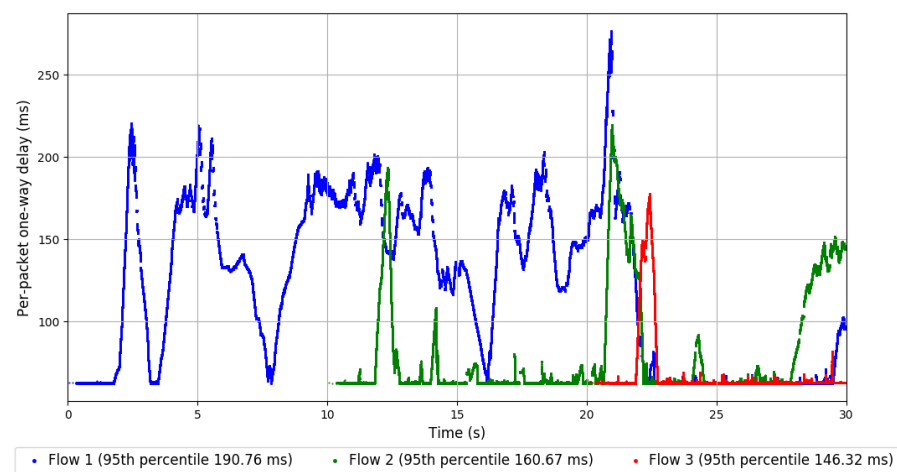
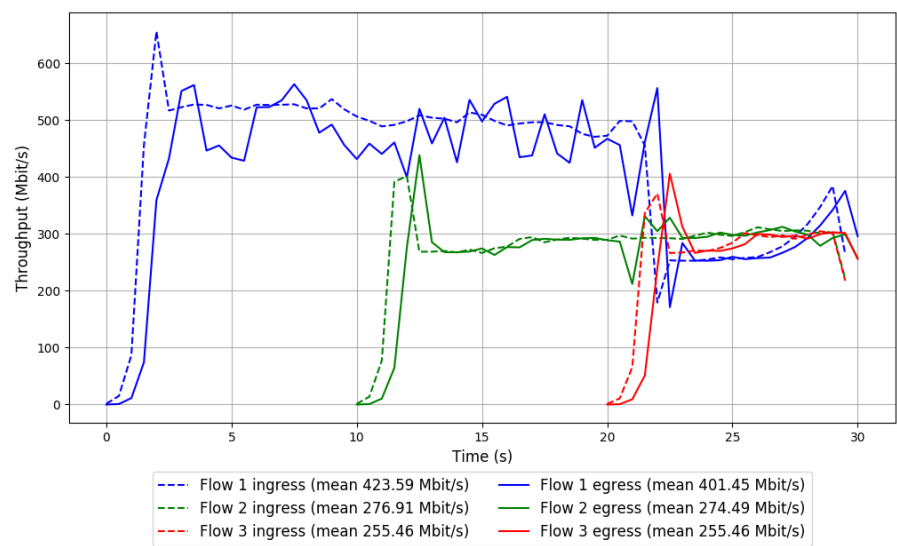


Run 3: Statistics of PCC-Allegro

Start at: 2019-03-09 12:00:51
End at: 2019-03-09 12:01:21
Local clock offset: 0.117 ms
Remote clock offset: -0.241 ms

Below is generated by plot.py at 2019-03-09 15:53:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 667.98 Mbit/s
95th percentile per-packet one-way delay: 186.633 ms
Loss rate: 3.43%
-- Flow 1:
Average throughput: 401.45 Mbit/s
95th percentile per-packet one-way delay: 190.761 ms
Loss rate: 5.22%
-- Flow 2:
Average throughput: 274.49 Mbit/s
95th percentile per-packet one-way delay: 160.674 ms
Loss rate: 0.87%
-- Flow 3:
Average throughput: 255.46 Mbit/s
95th percentile per-packet one-way delay: 146.317 ms
Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-03-09 12:37:36

End at: 2019-03-09 12:38:06

Local clock offset: -0.122 ms

Remote clock offset: 0.204 ms

Below is generated by plot.py at 2019-03-09 15:55:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 663.33 Mbit/s

95th percentile per-packet one-way delay: 170.328 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 373.86 Mbit/s

95th percentile per-packet one-way delay: 173.314 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 311.67 Mbit/s

95th percentile per-packet one-way delay: 79.810 ms

Loss rate: 0.08%

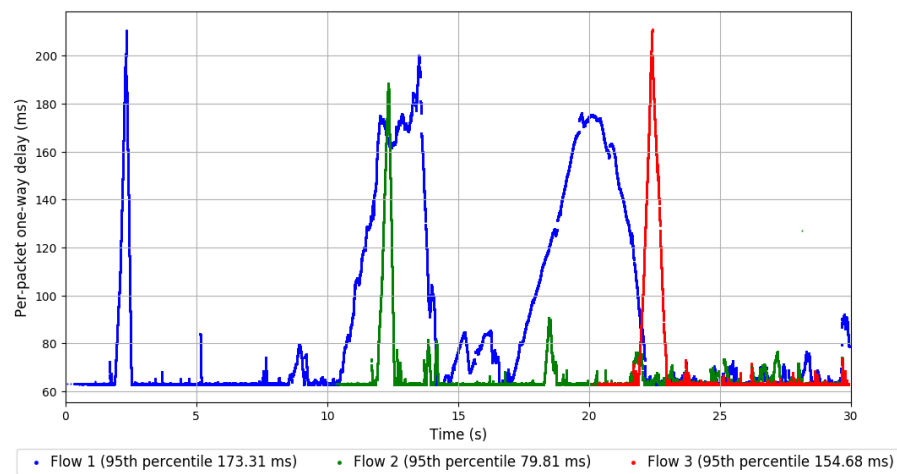
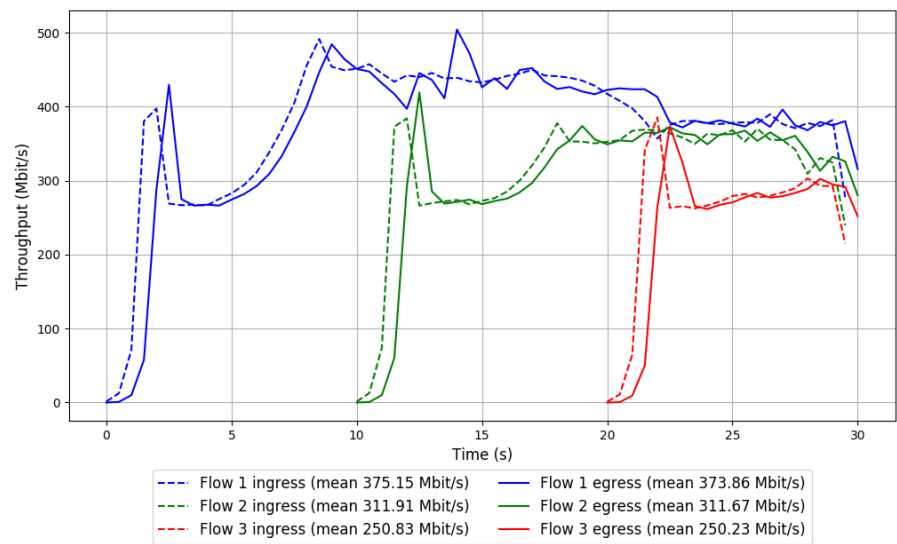
-- Flow 3:

Average throughput: 250.23 Mbit/s

95th percentile per-packet one-way delay: 154.684 ms

Loss rate: 0.24%

Run 4: Report of PCC-Allegro — Data Link

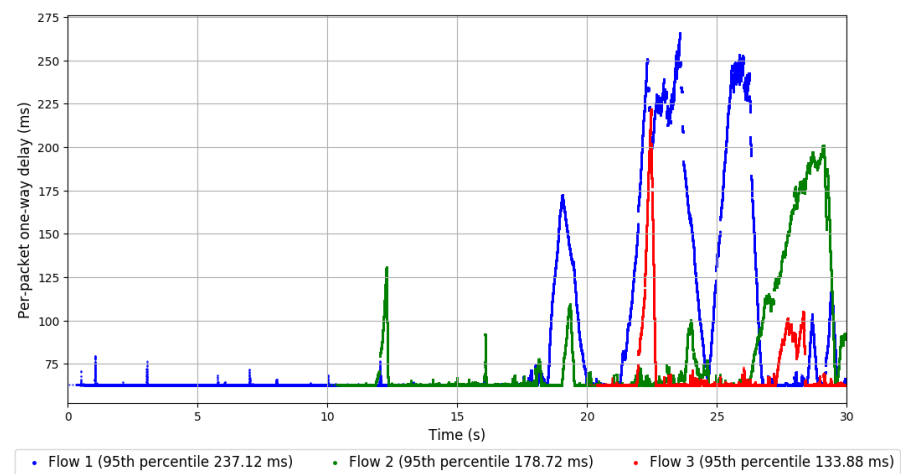
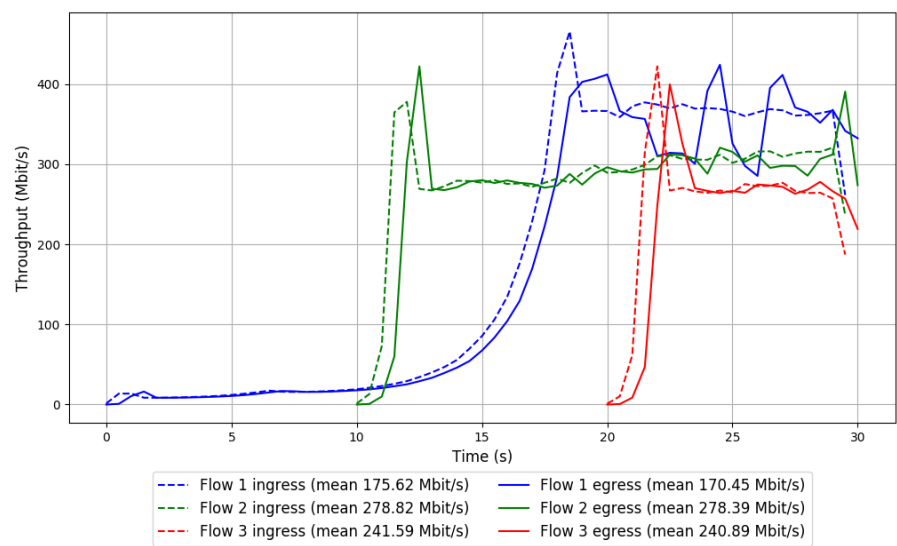


Run 5: Statistics of PCC-Allegro

Start at: 2019-03-09 13:14:27
End at: 2019-03-09 13:14:57
Local clock offset: -0.121 ms
Remote clock offset: -0.092 ms

Below is generated by plot.py at 2019-03-09 15:55:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 434.72 Mbit/s
95th percentile per-packet one-way delay: 218.202 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 170.45 Mbit/s
95th percentile per-packet one-way delay: 237.117 ms
Loss rate: 2.94%
-- Flow 2:
Average throughput: 278.39 Mbit/s
95th percentile per-packet one-way delay: 178.724 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 240.89 Mbit/s
95th percentile per-packet one-way delay: 133.881 ms
Loss rate: 0.29%

Run 5: Report of PCC-Allegro — Data Link

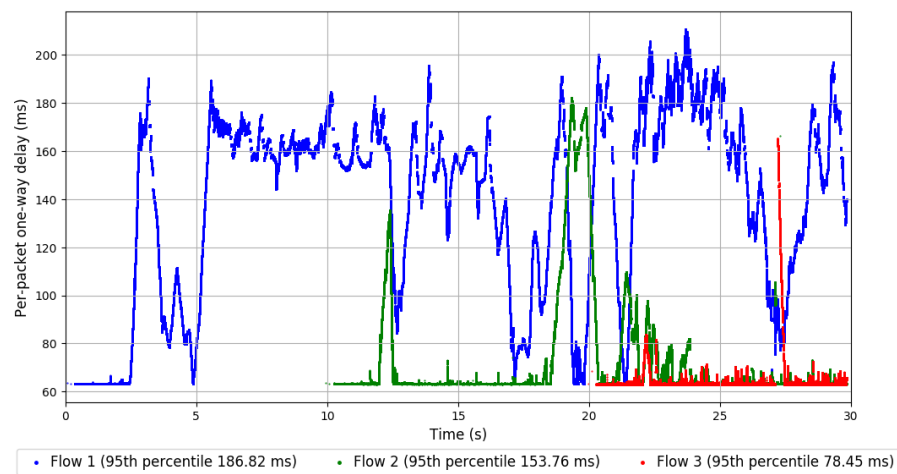
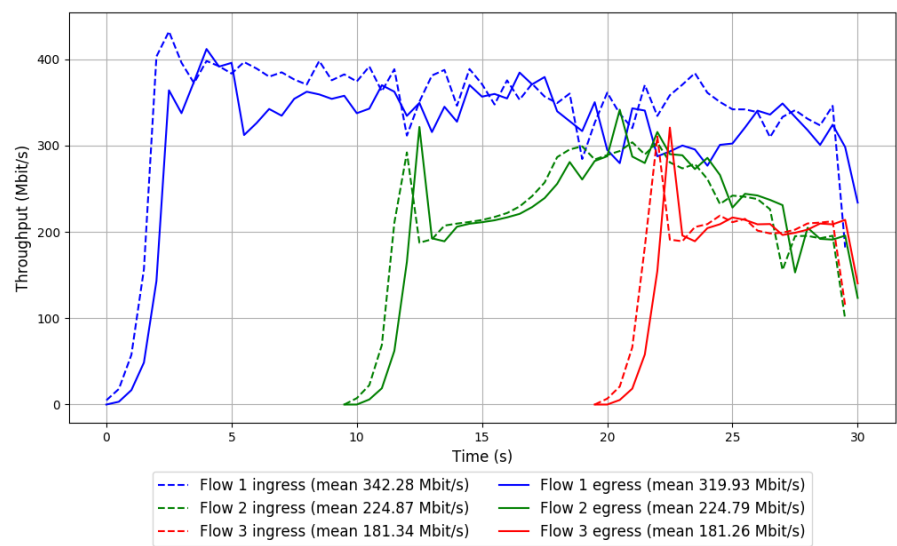



```
Run 1: Statistics of PCC-Expr

Start at: 2019-03-09 11:01:15
End at: 2019-03-09 11:01:45
Local clock offset: -0.043 ms
Remote clock offset: 0.081 ms

# Below is generated by plot.py at 2019-03-09 15:55:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.02 Mbit/s
95th percentile per-packet one-way delay: 181.657 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 319.93 Mbit/s
95th percentile per-packet one-way delay: 186.823 ms
Loss rate: 6.53%
-- Flow 2:
Average throughput: 224.79 Mbit/s
95th percentile per-packet one-way delay: 153.762 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 181.26 Mbit/s
95th percentile per-packet one-way delay: 78.447 ms
Loss rate: 0.03%
```

Run 1: Report of PCC-Expr — Data Link

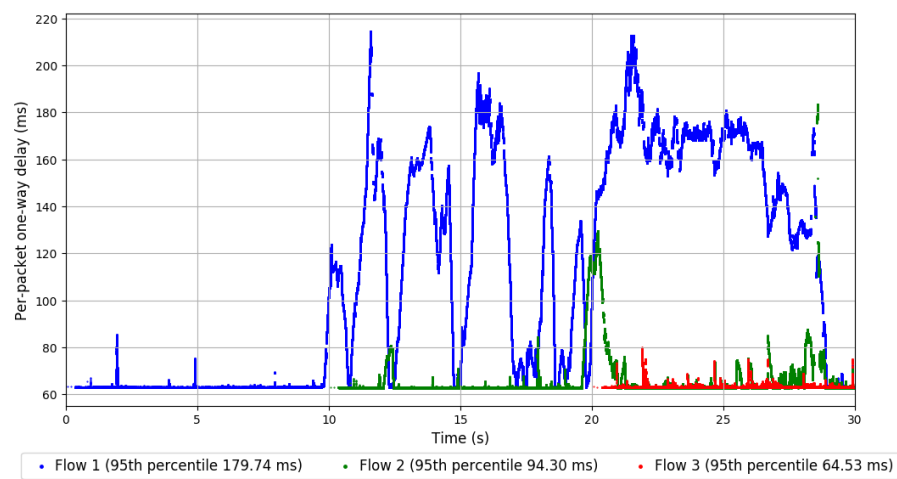
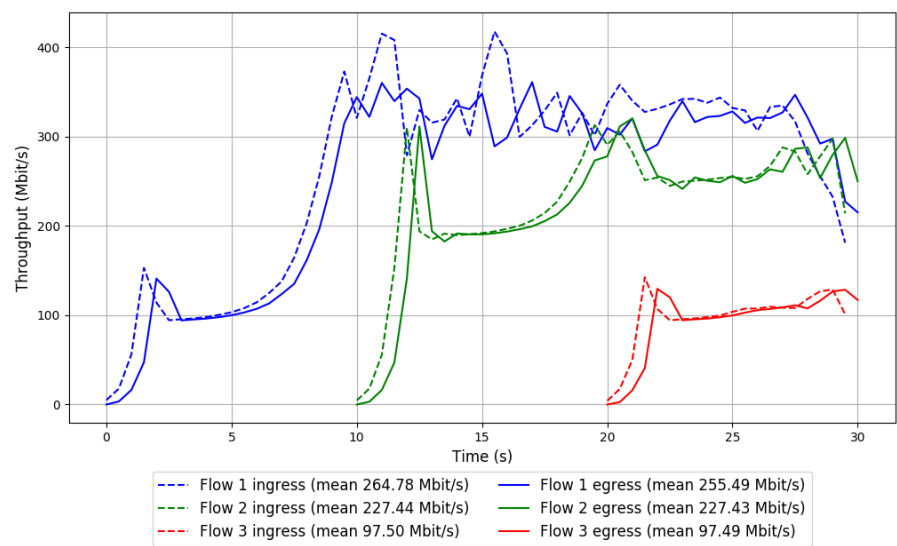


Run 2: Statistics of PCC-Expr

Start at: 2019-03-09 11:37:44
End at: 2019-03-09 11:38:14
Local clock offset: 0.058 ms
Remote clock offset: -0.012 ms

Below is generated by plot.py at 2019-03-09 15:55:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 438.93 Mbit/s
95th percentile per-packet one-way delay: 174.721 ms
Loss rate: 2.08%
-- Flow 1:
Average throughput: 255.49 Mbit/s
95th percentile per-packet one-way delay: 179.740 ms
Loss rate: 3.51%
-- Flow 2:
Average throughput: 227.43 Mbit/s
95th percentile per-packet one-way delay: 94.295 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 64.526 ms
Loss rate: 0.01%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-03-09 12:14:28

End at: 2019-03-09 12:14:58

Local clock offset: 0.107 ms

Remote clock offset: 0.013 ms

Below is generated by plot.py at 2019-03-09 15:58:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.89 Mbit/s

95th percentile per-packet one-way delay: 145.215 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 297.01 Mbit/s

95th percentile per-packet one-way delay: 144.237 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 231.71 Mbit/s

95th percentile per-packet one-way delay: 153.716 ms

Loss rate: 0.20%

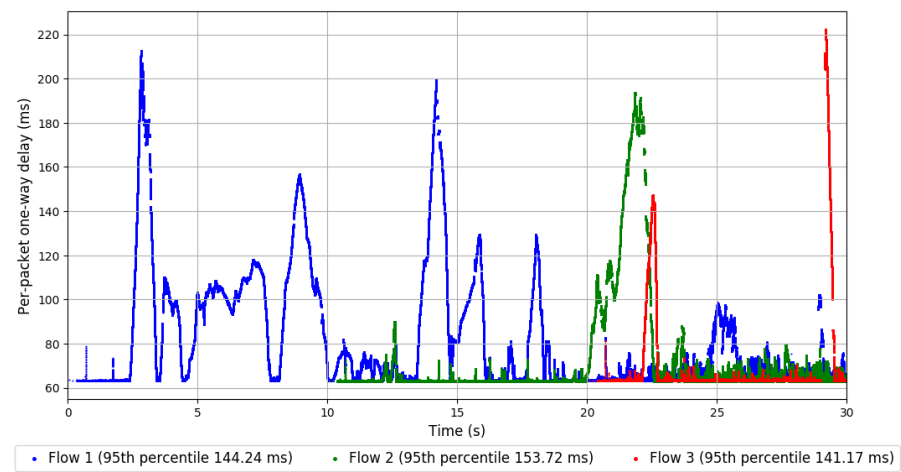
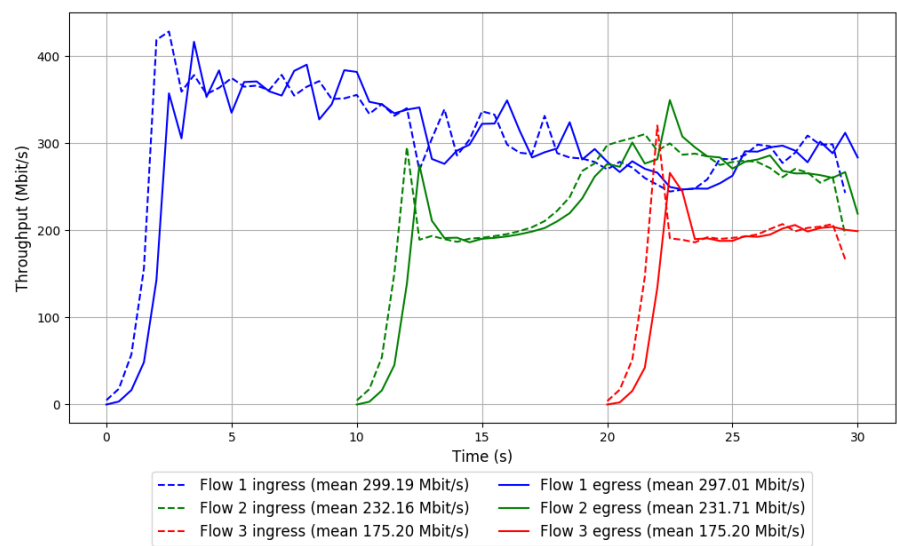
-- Flow 3:

Average throughput: 175.20 Mbit/s

95th percentile per-packet one-way delay: 141.168 ms

Loss rate: 0.01%

Run 3: Report of PCC-Expr — Data Link

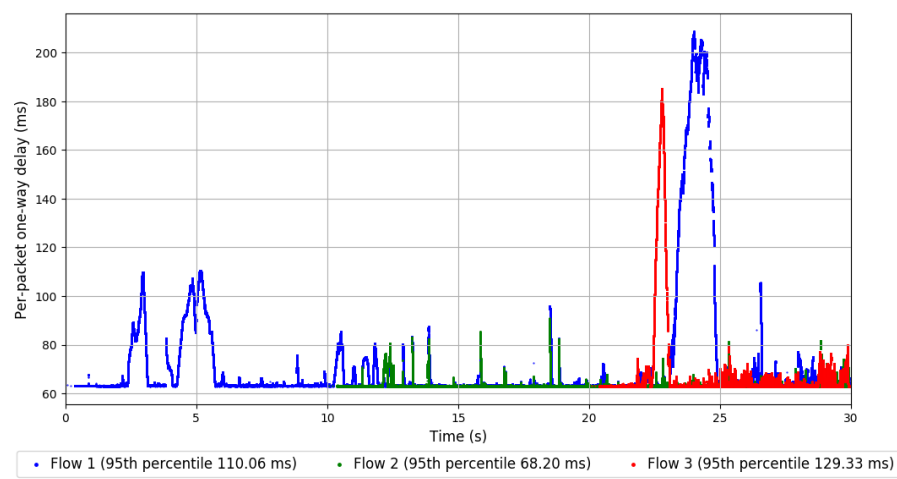
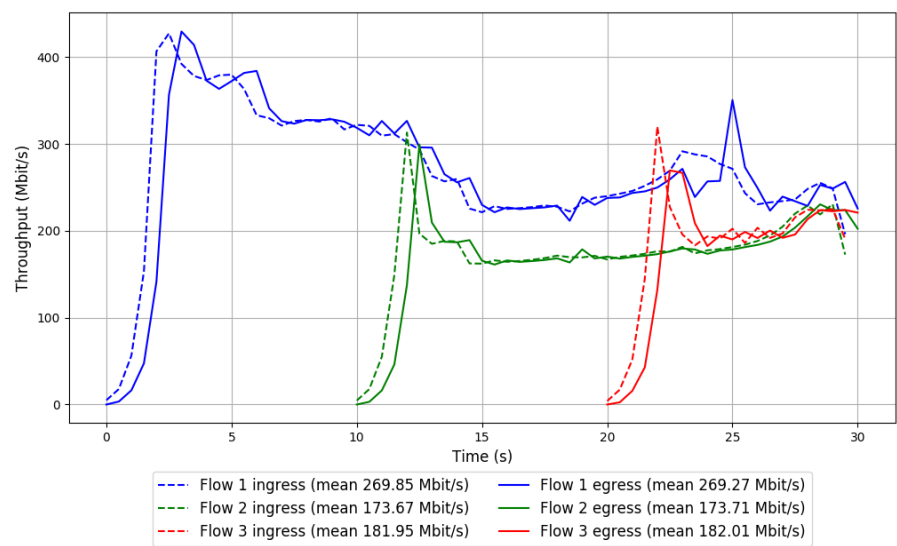


Run 4: Statistics of PCC-Expr

Start at: 2019-03-09 12:51:10
End at: 2019-03-09 12:51:40
Local clock offset: -0.21 ms
Remote clock offset: -0.054 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 444.82 Mbit/s
95th percentile per-packet one-way delay: 103.153 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 269.27 Mbit/s
95th percentile per-packet one-way delay: 110.064 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 173.71 Mbit/s
95th percentile per-packet one-way delay: 68.205 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 182.01 Mbit/s
95th percentile per-packet one-way delay: 129.332 ms
Loss rate: 0.01%

Run 4: Report of PCC-Expr — Data Link

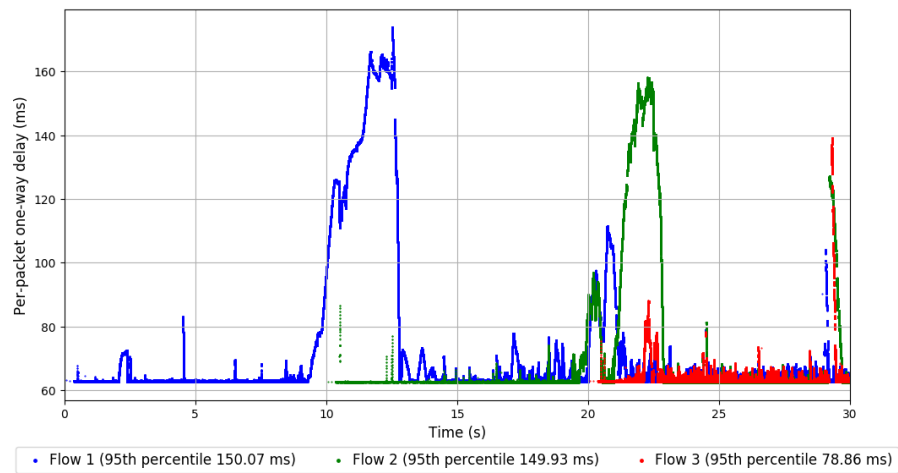
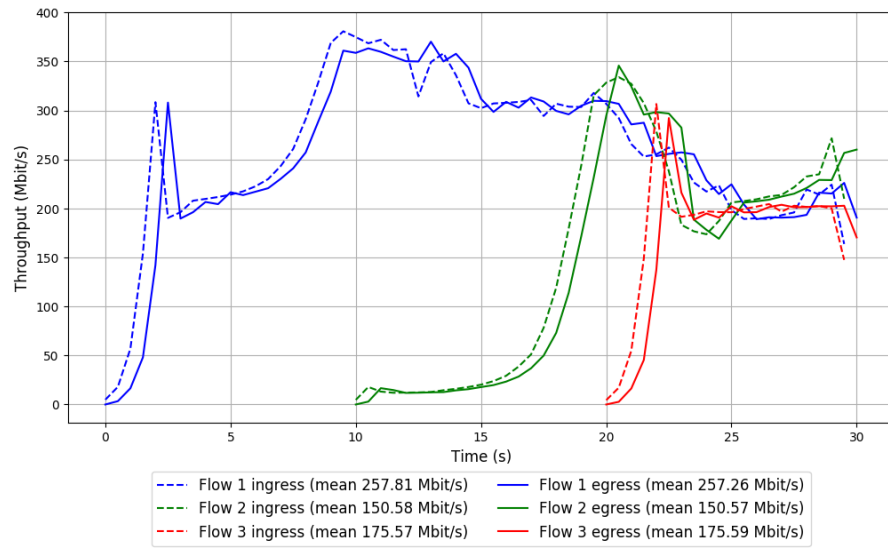


Run 5: Statistics of PCC-Expr

Start at: 2019-03-09 13:27:30
End at: 2019-03-09 13:28:00
Local clock offset: -0.126 ms
Remote clock offset: -0.201 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 415.32 Mbit/s
95th percentile per-packet one-way delay: 143.474 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 257.26 Mbit/s
95th percentile per-packet one-way delay: 150.067 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 150.57 Mbit/s
95th percentile per-packet one-way delay: 149.928 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 175.59 Mbit/s
95th percentile per-packet one-way delay: 78.859 ms
Loss rate: 0.00%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-03-09 10:53:47

End at: 2019-03-09 10:54:17

Local clock offset: -0.053 ms

Remote clock offset: 0.07 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.52 Mbit/s

95th percentile per-packet one-way delay: 63.334 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 63.125 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.13 Mbit/s

95th percentile per-packet one-way delay: 63.251 ms

Loss rate: 0.00%

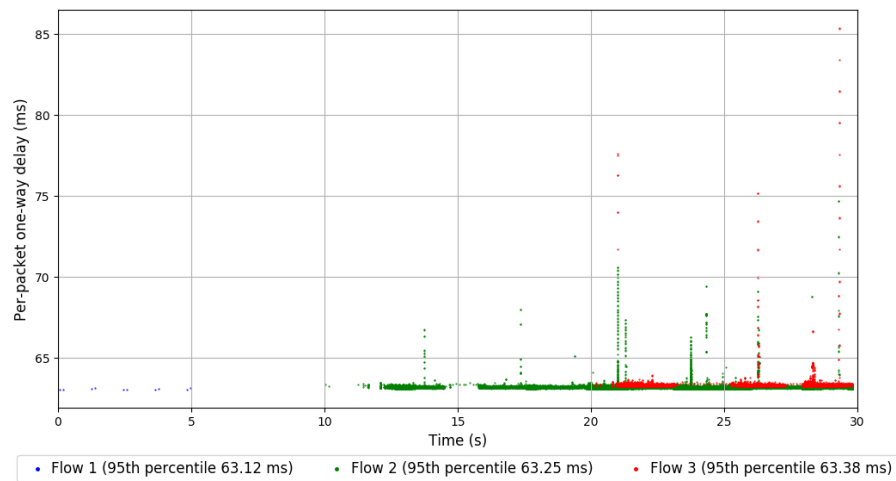
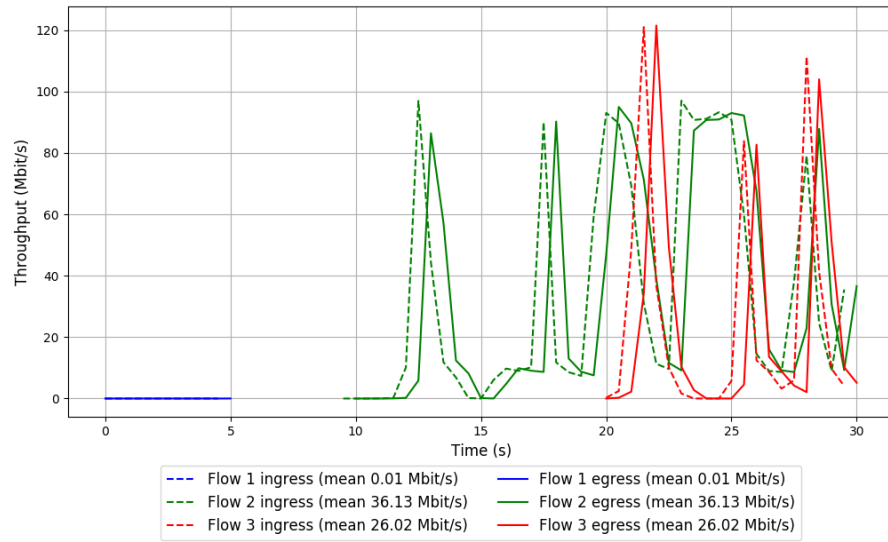
-- Flow 3:

Average throughput: 26.02 Mbit/s

95th percentile per-packet one-way delay: 63.383 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link

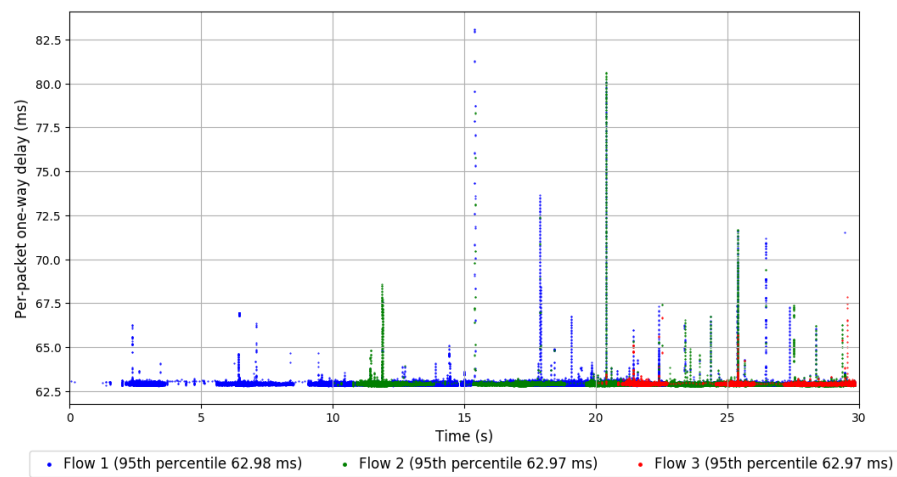
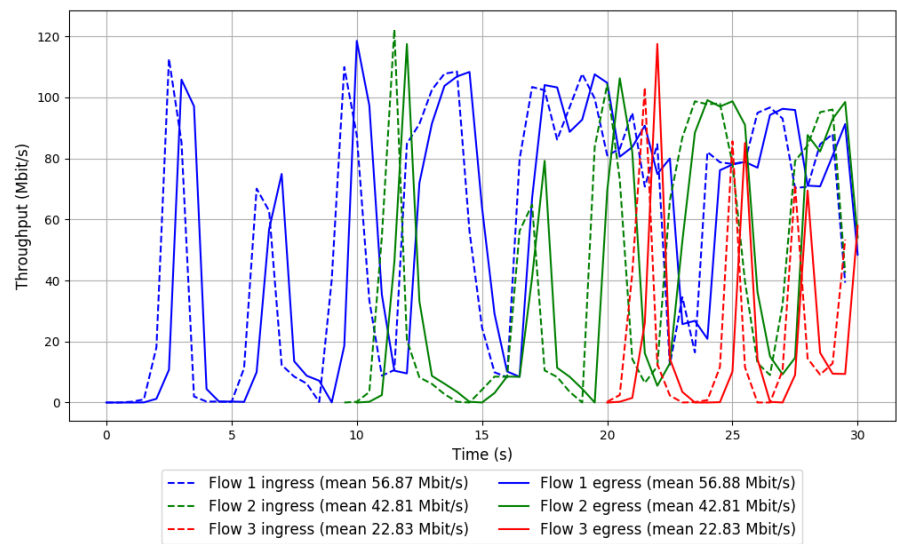


Run 2: Statistics of QUIC Cubic

Start at: 2019-03-09 11:30:13
End at: 2019-03-09 11:30:43
Local clock offset: 0.08 ms
Remote clock offset: -0.053 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 92.78 Mbit/s
95th percentile per-packet one-way delay: 62.978 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.88 Mbit/s
95th percentile per-packet one-way delay: 62.984 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 42.81 Mbit/s
95th percentile per-packet one-way delay: 62.968 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.83 Mbit/s
95th percentile per-packet one-way delay: 62.971 ms
Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

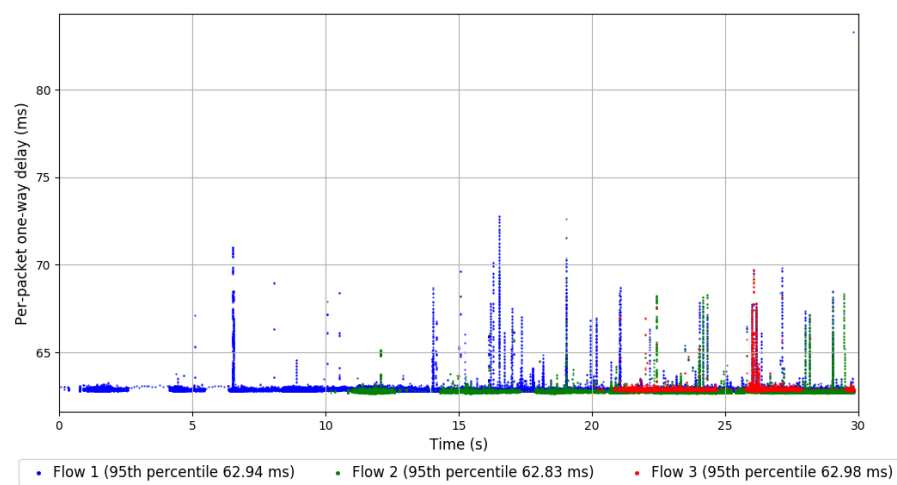
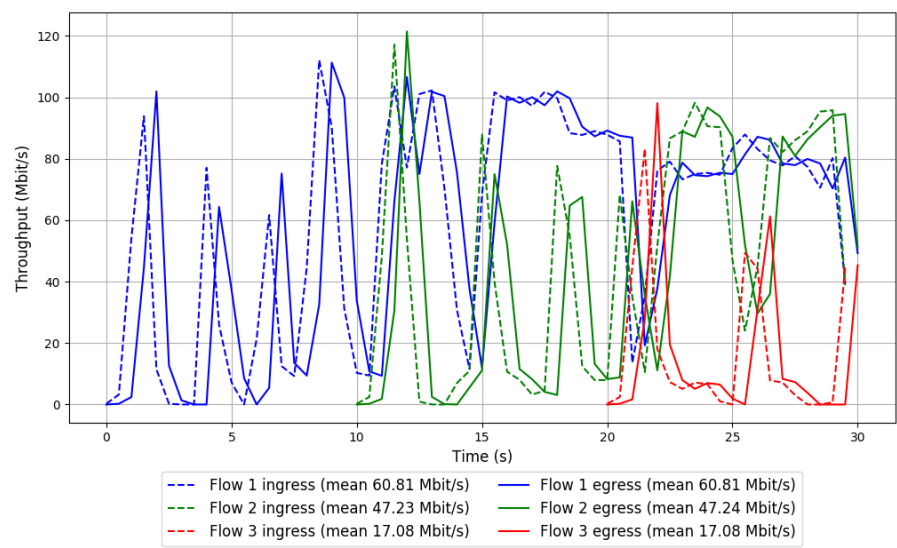


Run 3: Statistics of QUIC Cubic

Start at: 2019-03-09 12:06:45
End at: 2019-03-09 12:07:15
Local clock offset: 0.108 ms
Remote clock offset: -0.119 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 97.76 Mbit/s
95th percentile per-packet one-way delay: 62.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 60.81 Mbit/s
95th percentile per-packet one-way delay: 62.937 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.24 Mbit/s
95th percentile per-packet one-way delay: 62.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.08 Mbit/s
95th percentile per-packet one-way delay: 62.983 ms
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-03-09 12:43:33

End at: 2019-03-09 12:44:03

Local clock offset: -0.154 ms

Remote clock offset: 0.009 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.33 Mbit/s

95th percentile per-packet one-way delay: 63.093 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.90 Mbit/s

95th percentile per-packet one-way delay: 63.110 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.03 Mbit/s

95th percentile per-packet one-way delay: 63.009 ms

Loss rate: 0.00%

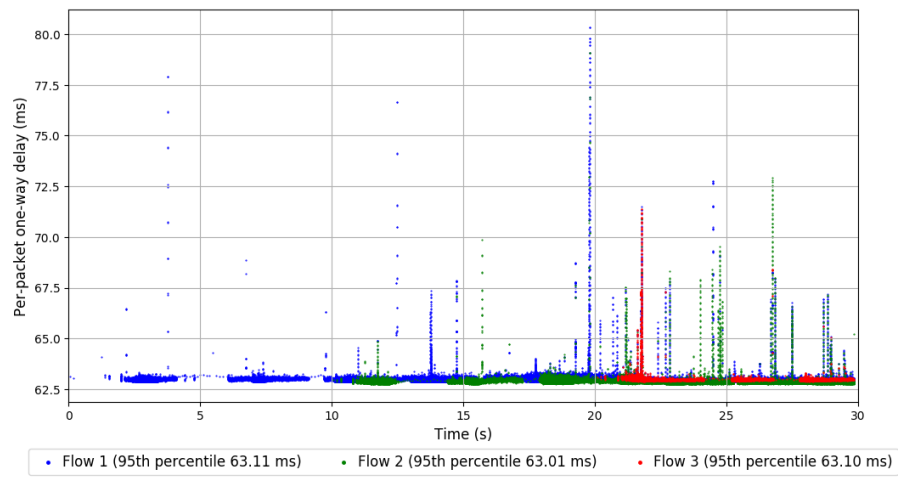
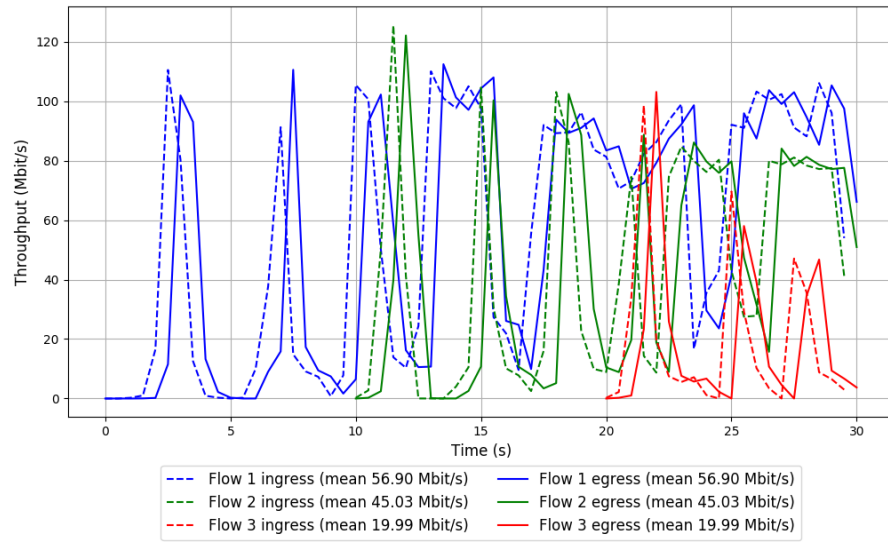
-- Flow 3:

Average throughput: 19.99 Mbit/s

95th percentile per-packet one-way delay: 63.098 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-03-09 13:20:02

End at: 2019-03-09 13:20:32

Local clock offset: -0.138 ms

Remote clock offset: 0.099 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.80 Mbit/s

95th percentile per-packet one-way delay: 63.299 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.30 Mbit/s

95th percentile per-packet one-way delay: 63.018 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.61 Mbit/s

95th percentile per-packet one-way delay: 63.033 ms

Loss rate: 0.00%

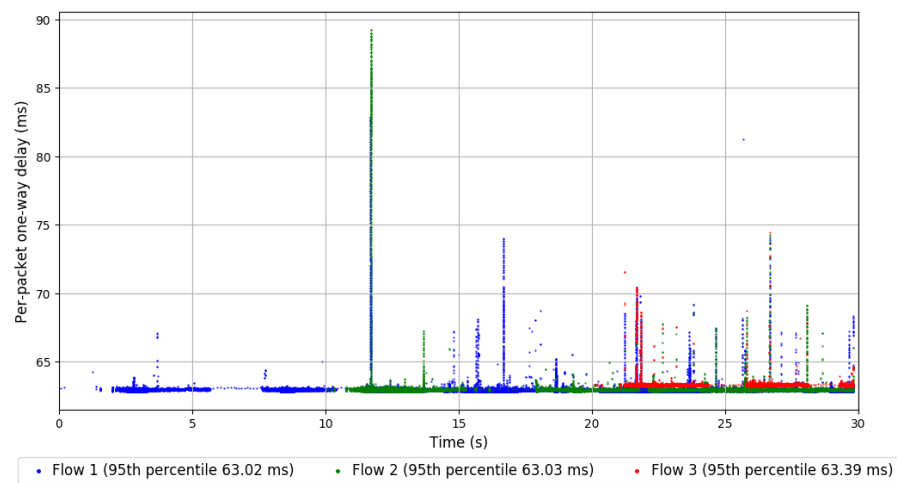
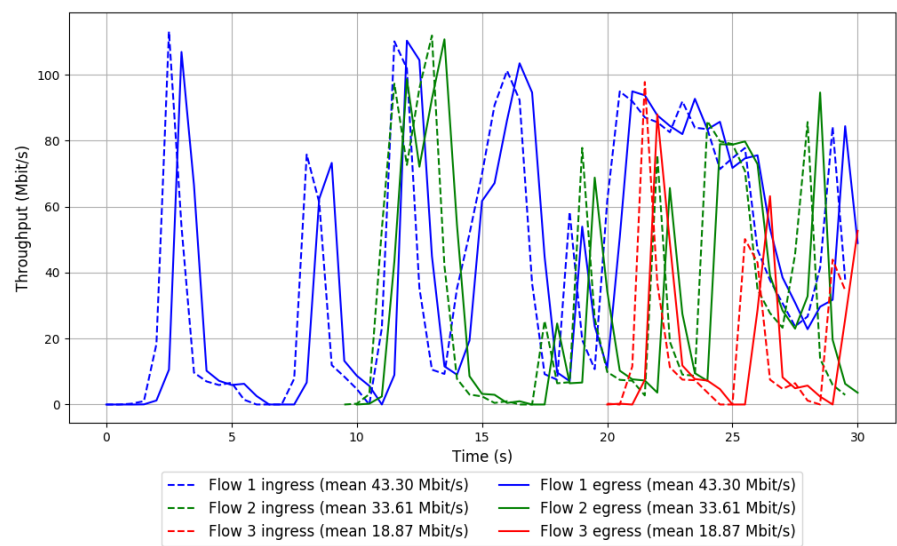
-- Flow 3:

Average throughput: 18.87 Mbit/s

95th percentile per-packet one-way delay: 63.393 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

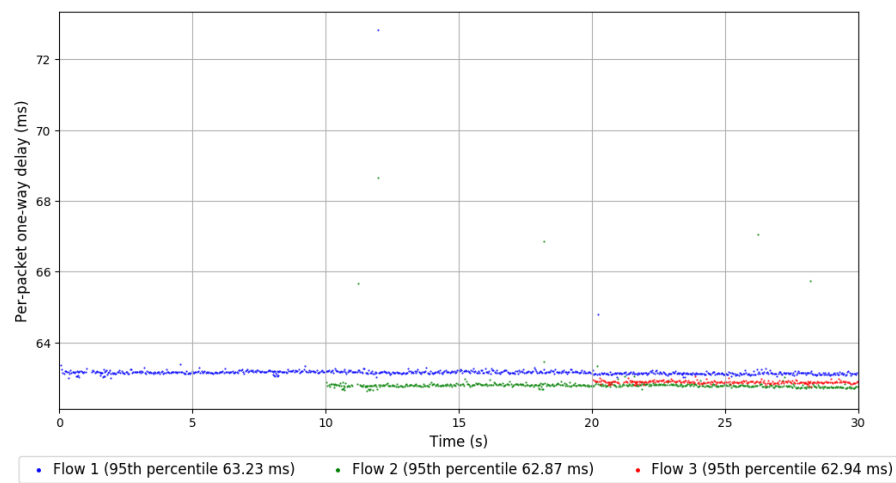
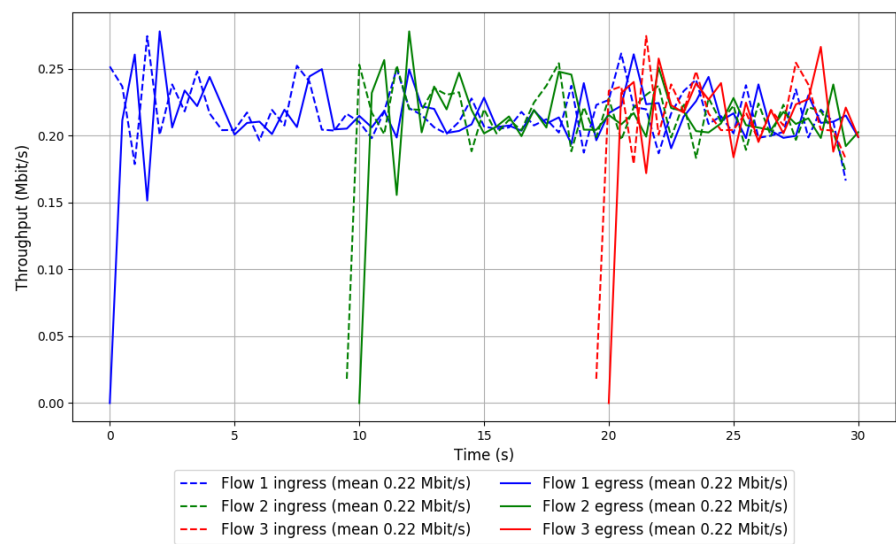


```
Run 1: Statistics of SReAM

Start at: 2019-03-09 11:12:26
End at: 2019-03-09 11:12:56
Local clock offset: -0.018 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2019-03-09 16:02:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.211 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.230 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.866 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.936 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

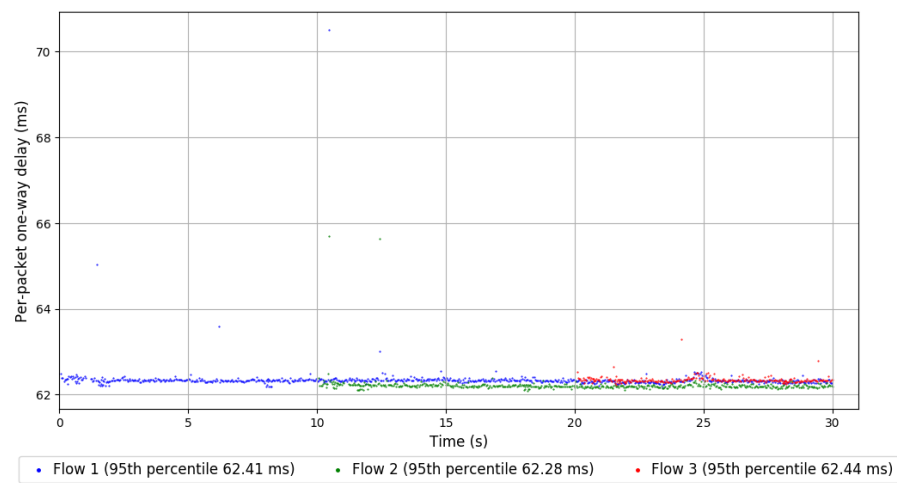
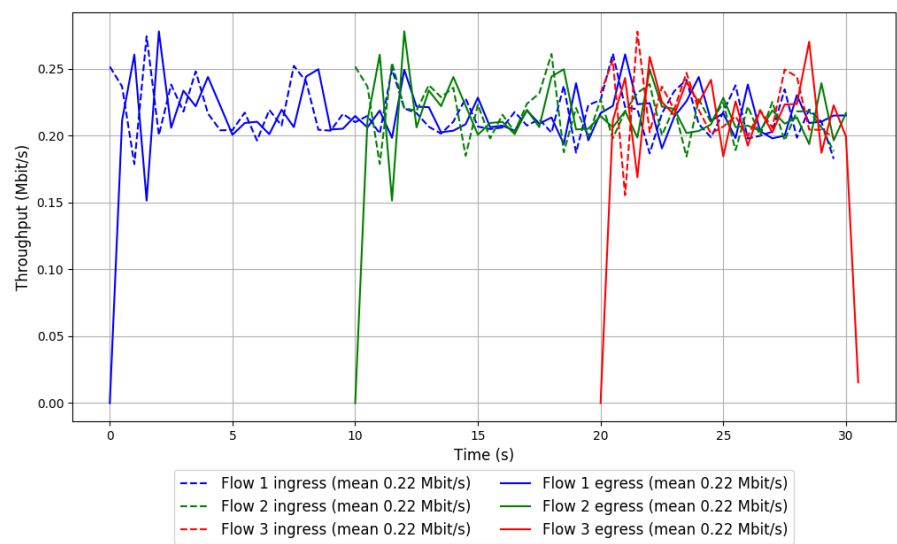


Run 2: Statistics of SReAM

Start at: 2019-03-09 11:48:46
End at: 2019-03-09 11:49:16
Local clock offset: 0.044 ms
Remote clock offset: -0.814 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 62.399 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.408 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.280 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.437 ms
Loss rate: 0.00%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2019-03-09 12:25:29

End at: 2019-03-09 12:25:59

Local clock offset: 0.001 ms

Remote clock offset: -0.29 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 62.894 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.796 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.919 ms

Loss rate: 0.00%

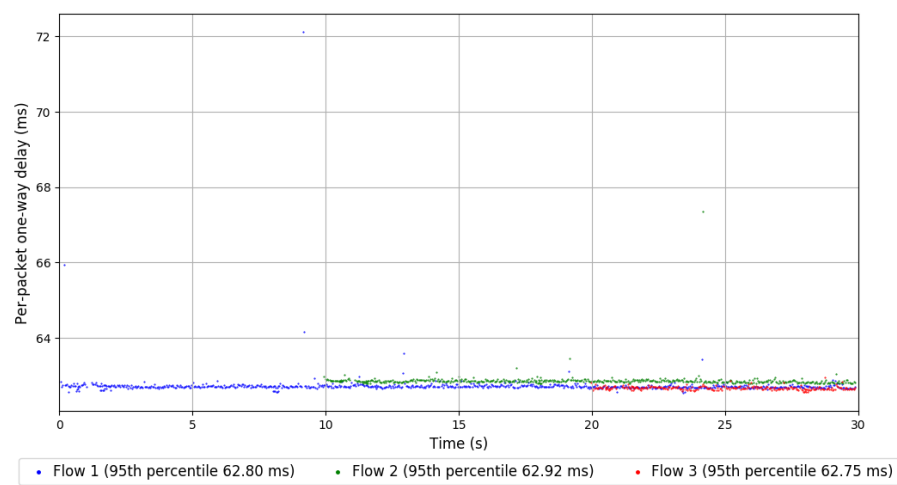
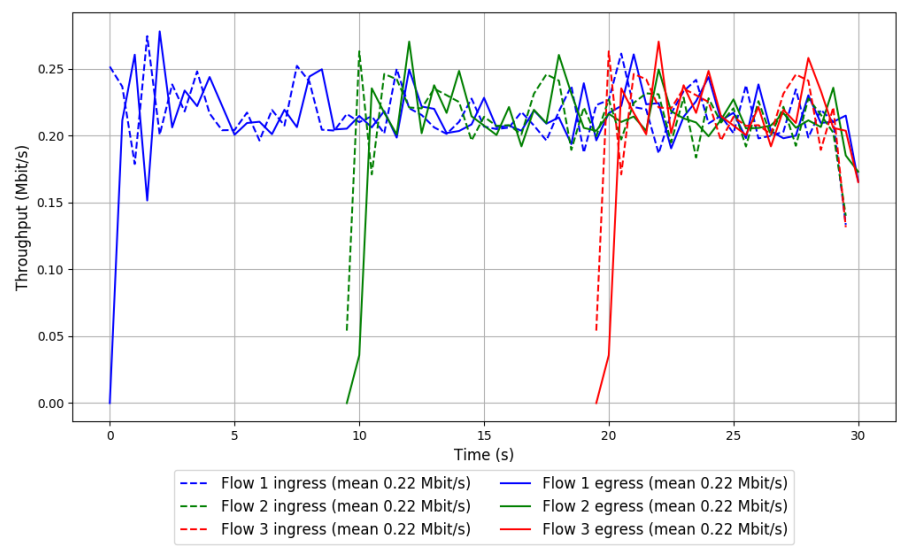
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.749 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

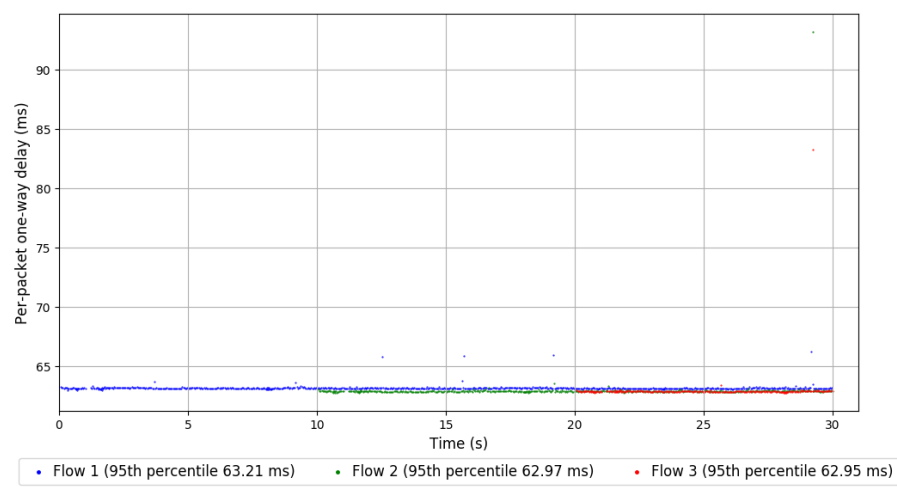
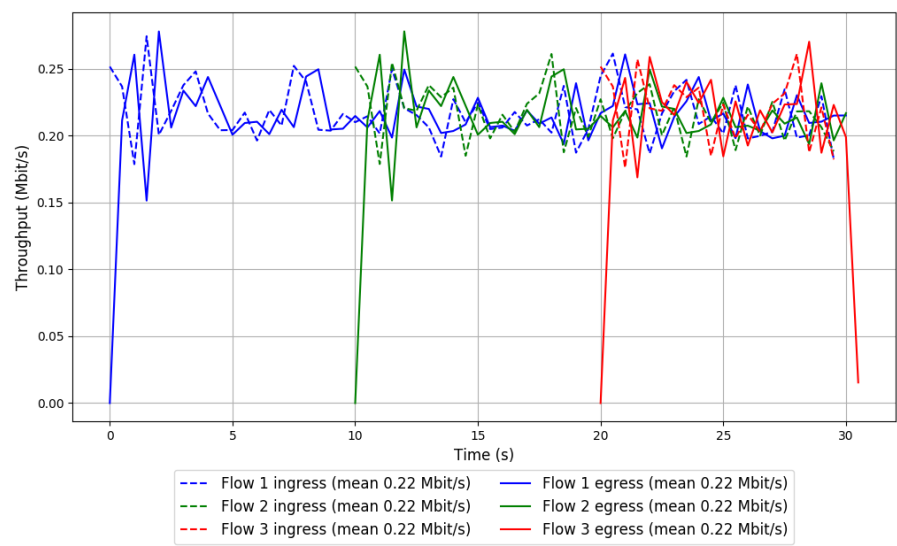


Run 4: Statistics of SReAM

Start at: 2019-03-09 13:02:20
End at: 2019-03-09 13:02:50
Local clock offset: -0.151 ms
Remote clock offset: -0.114 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 63.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.214 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.949 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2019-03-09 13:38:28

End at: 2019-03-09 13:38:58

Local clock offset: -0.092 ms

Remote clock offset: 0.058 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 63.358 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.328 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.089 ms

Loss rate: 0.00%

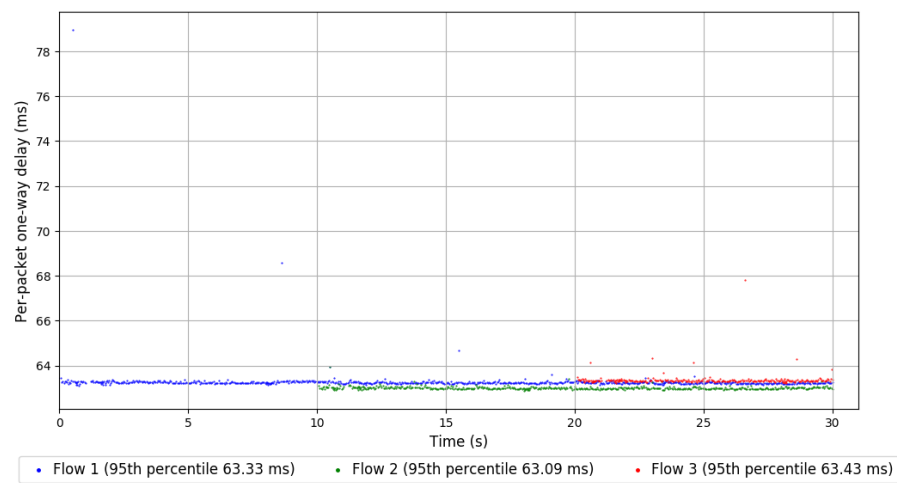
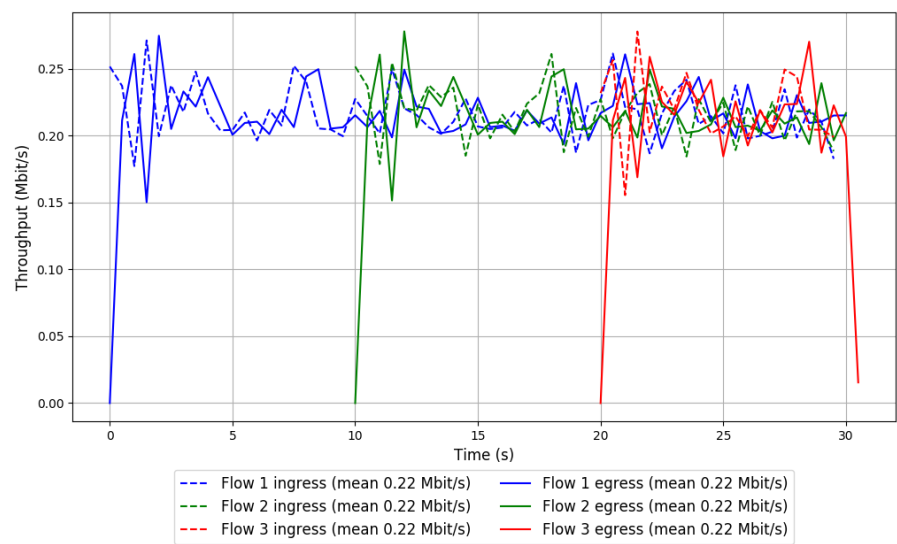
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.434 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-03-09 10:55:02

End at: 2019-03-09 10:55:32

Local clock offset: -0.05 ms

Remote clock offset: -0.11 ms

Below is generated by plot.py at 2019-03-09 16:02:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.40 Mbit/s

95th percentile per-packet one-way delay: 64.056 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.80 Mbit/s

95th percentile per-packet one-way delay: 64.179 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.71 Mbit/s

95th percentile per-packet one-way delay: 63.759 ms

Loss rate: 0.00%

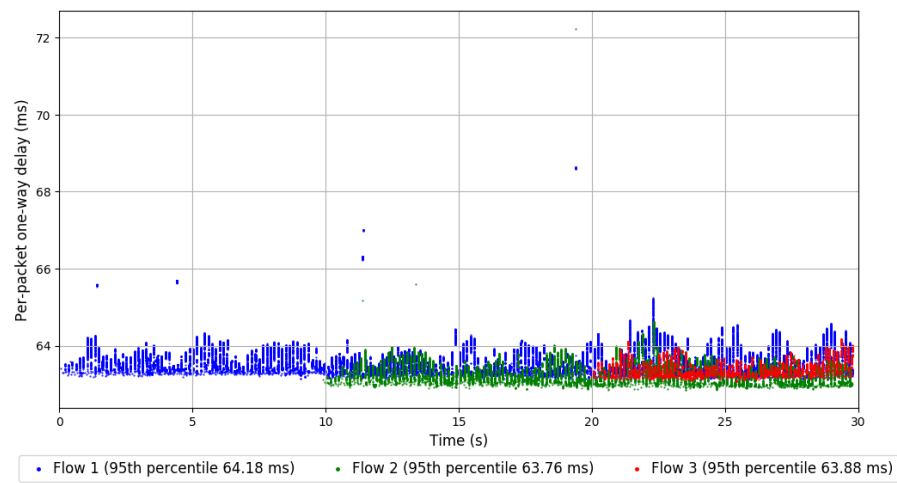
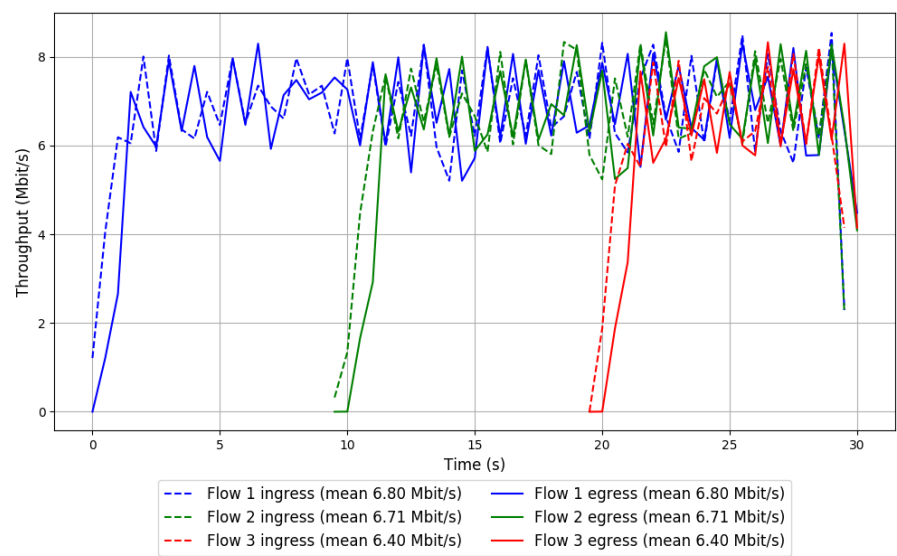
-- Flow 3:

Average throughput: 6.40 Mbit/s

95th percentile per-packet one-way delay: 63.876 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

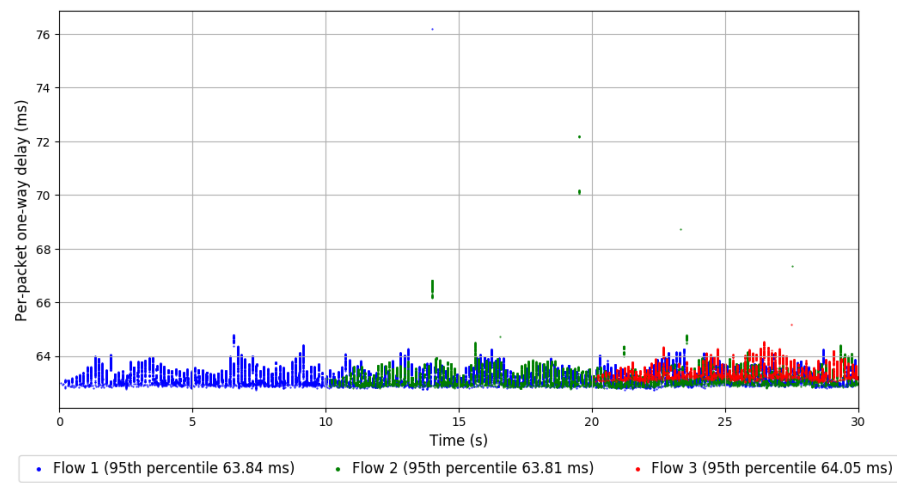
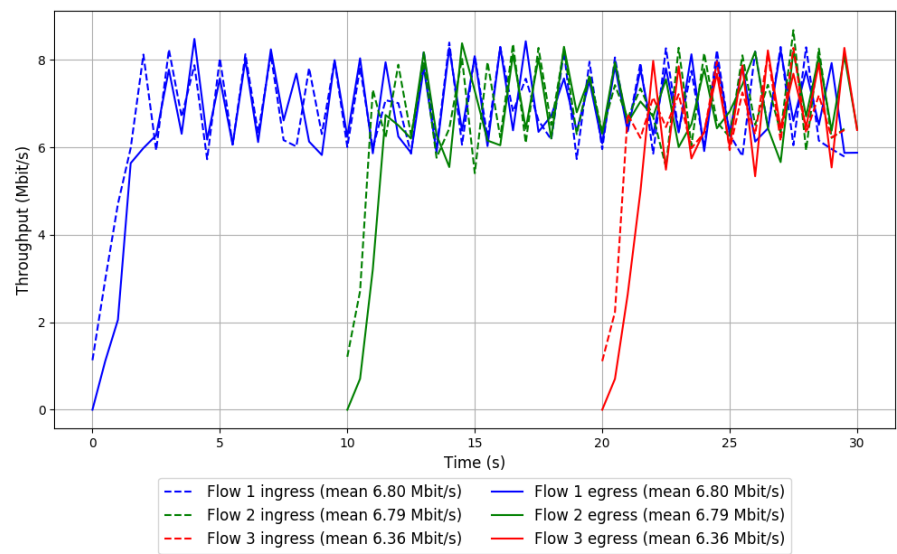


Run 2: Statistics of Sprout

Start at: 2019-03-09 11:31:31
End at: 2019-03-09 11:32:01
Local clock offset: 0.06 ms
Remote clock offset: -0.156 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.41 Mbit/s
95th percentile per-packet one-way delay: 63.884 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 63.838 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.79 Mbit/s
95th percentile per-packet one-way delay: 63.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 64.047 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

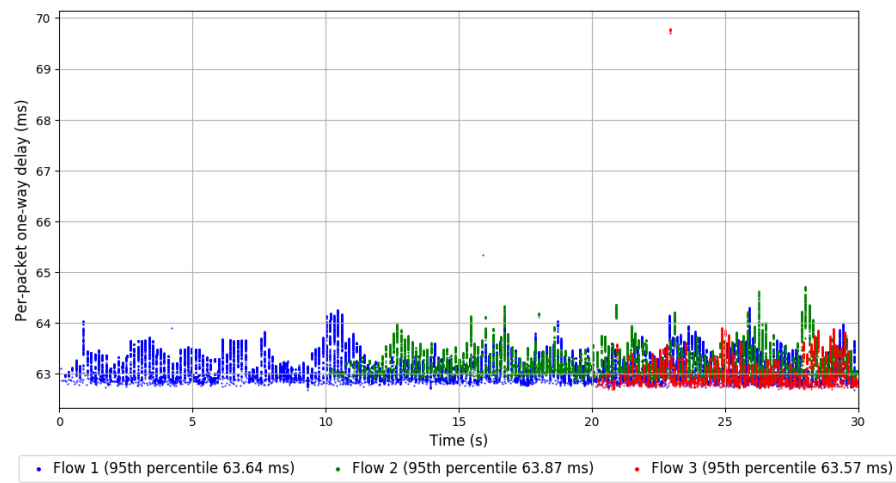
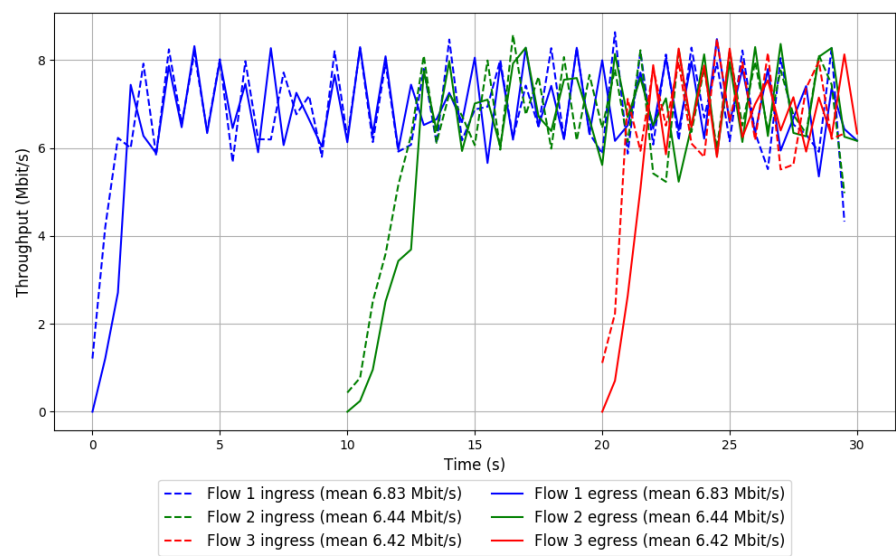


Run 3: Statistics of Sprout

Start at: 2019-03-09 12:08:03
End at: 2019-03-09 12:08:33
Local clock offset: 0.102 ms
Remote clock offset: -0.164 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.23 Mbit/s
95th percentile per-packet one-way delay: 63.706 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.644 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 63.865 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 63.571 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

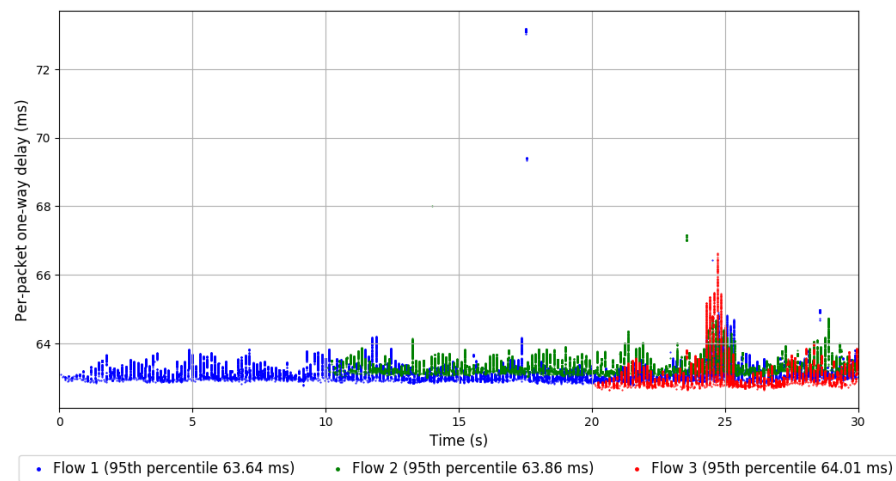
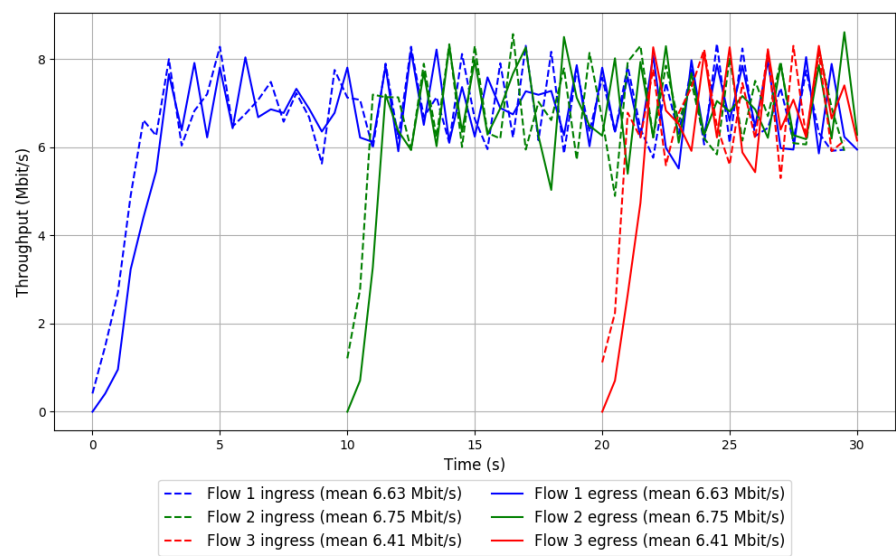


Run 4: Statistics of Sprout

Start at: 2019-03-09 12:44:51
End at: 2019-03-09 12:45:21
Local clock offset: -0.154 ms
Remote clock offset: -0.153 ms

```
# Below is generated by plot.py at 2019-03-09 16:02:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.22 Mbit/s
95th percentile per-packet one-way delay: 63.776 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 63.640 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 63.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 64.009 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

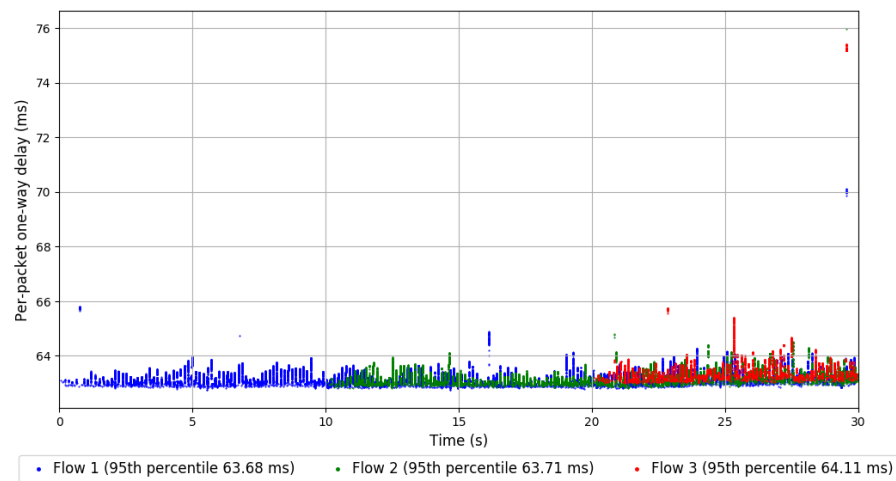
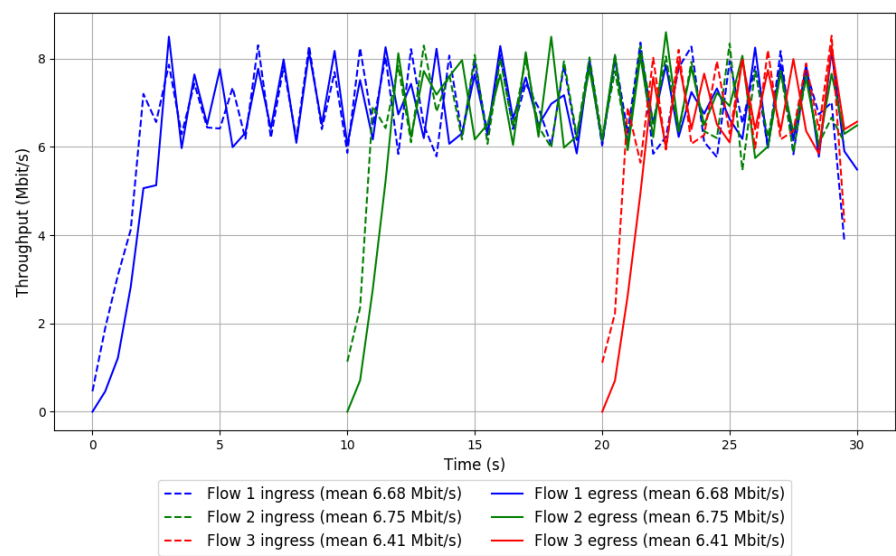


Run 5: Statistics of Sprout

Start at: 2019-03-09 13:21:19
End at: 2019-03-09 13:21:49
Local clock offset: -0.091 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2019-03-09 16:02:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.28 Mbit/s
95th percentile per-packet one-way delay: 63.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 63.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.75 Mbit/s
95th percentile per-packet one-way delay: 63.710 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 64.112 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

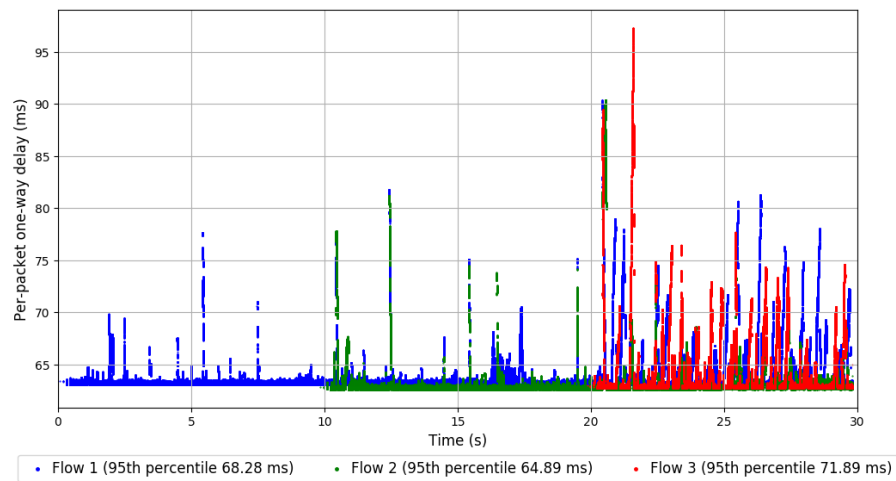
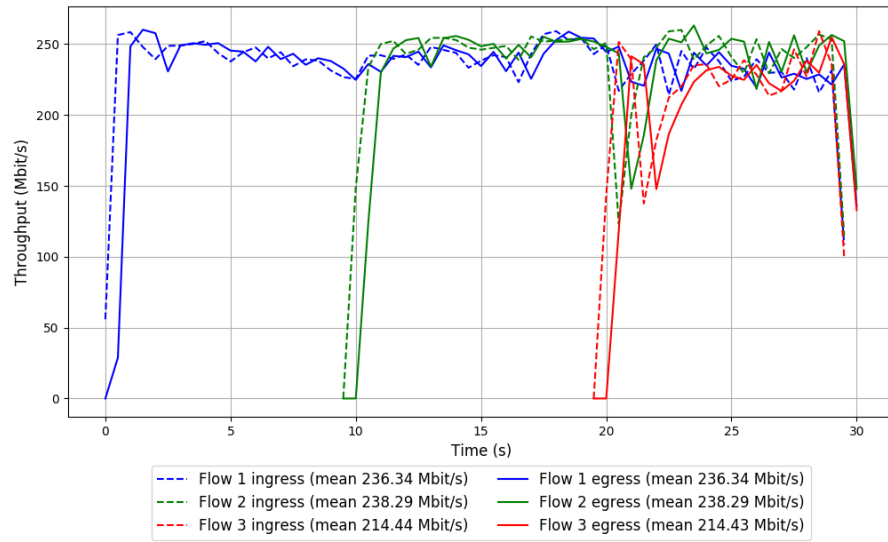



```
Run 1: Statistics of TaoVA-100x

Start at: 2019-03-09 10:39:33
End at: 2019-03-09 10:40:03
Local clock offset: -0.092 ms
Remote clock offset: -0.054 ms

# Below is generated by plot.py at 2019-03-09 16:09:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.00 Mbit/s
95th percentile per-packet one-way delay: 68.599 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.34 Mbit/s
95th percentile per-packet one-way delay: 68.275 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 238.29 Mbit/s
95th percentile per-packet one-way delay: 64.888 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.43 Mbit/s
95th percentile per-packet one-way delay: 71.887 ms
Loss rate: 0.00%
```

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

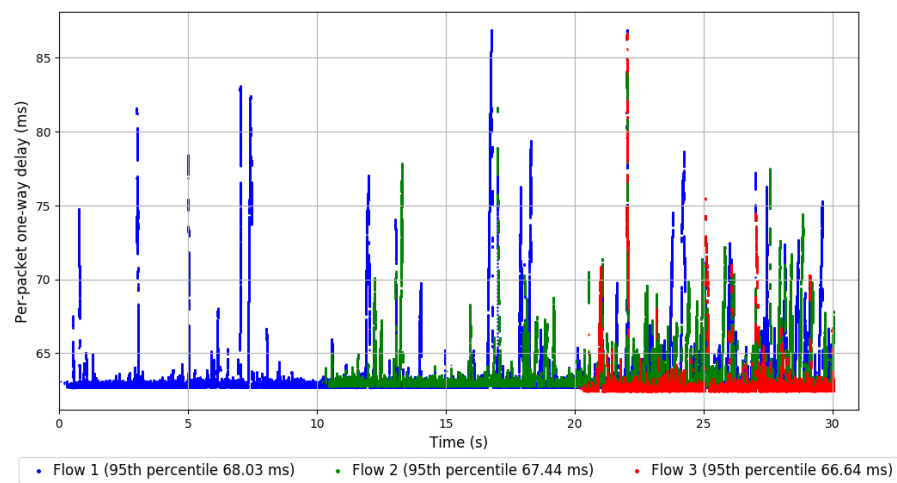
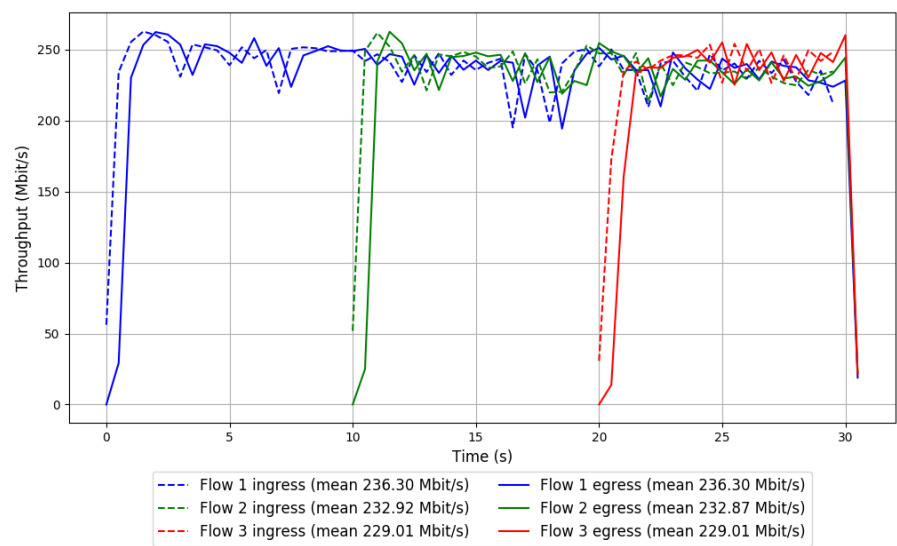


Run 2: Statistics of TaoVA-100x

Start at: 2019-03-09 11:15:32
End at: 2019-03-09 11:16:02
Local clock offset: -0.018 ms
Remote clock offset: -0.249 ms

Below is generated by plot.py at 2019-03-09 16:09:15
Datalink statistics
-- Total of 3 flows:
Average throughput: 467.35 Mbit/s
95th percentile per-packet one-way delay: 67.689 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.30 Mbit/s
95th percentile per-packet one-way delay: 68.031 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 232.87 Mbit/s
95th percentile per-packet one-way delay: 67.439 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 229.01 Mbit/s
95th percentile per-packet one-way delay: 66.639 ms
Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-03-09 11:51:55

End at: 2019-03-09 11:52:25

Local clock offset: 0.054 ms

Remote clock offset: -0.97 ms

Below is generated by plot.py at 2019-03-09 16:09:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.83 Mbit/s

95th percentile per-packet one-way delay: 67.377 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 234.95 Mbit/s

95th percentile per-packet one-way delay: 66.640 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 224.30 Mbit/s

95th percentile per-packet one-way delay: 67.982 ms

Loss rate: 0.01%

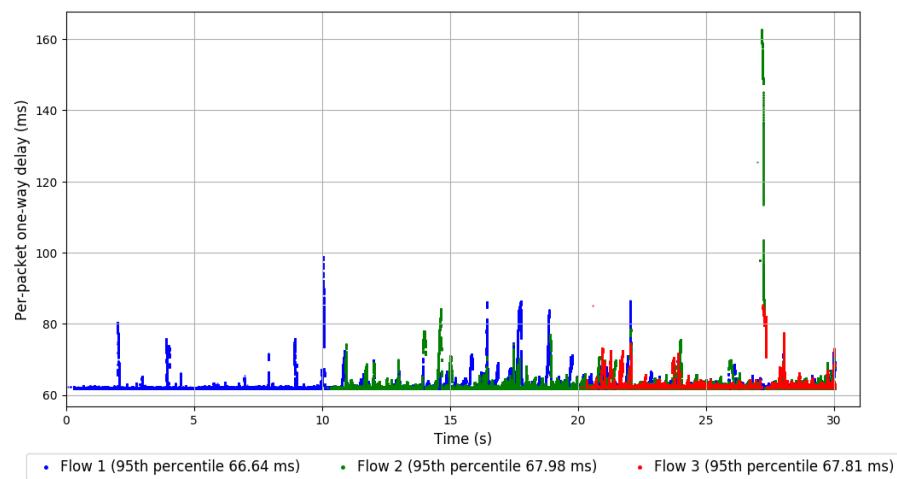
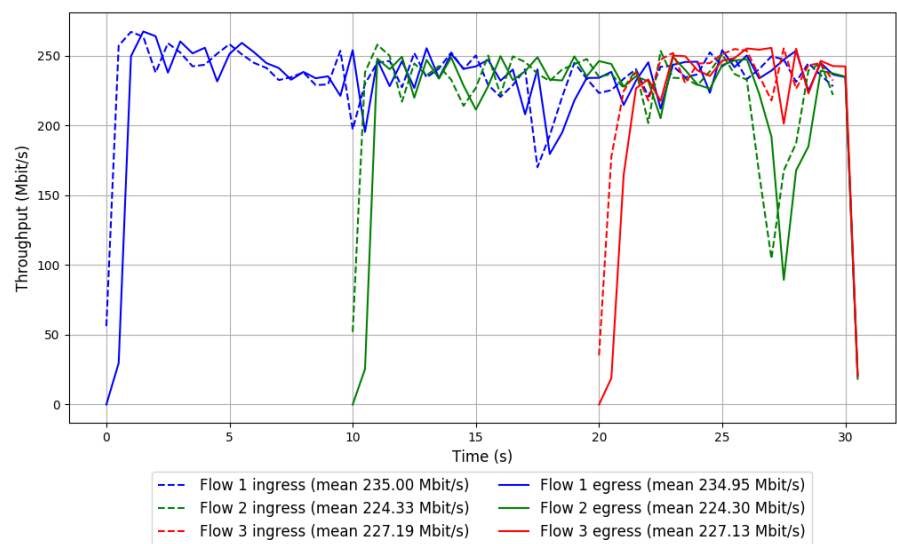
-- Flow 3:

Average throughput: 227.13 Mbit/s

95th percentile per-packet one-way delay: 67.815 ms

Loss rate: 0.02%

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

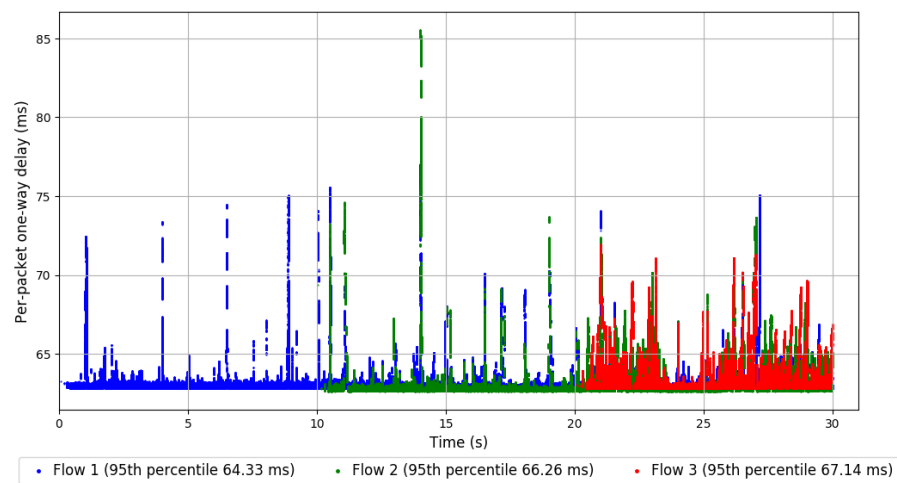
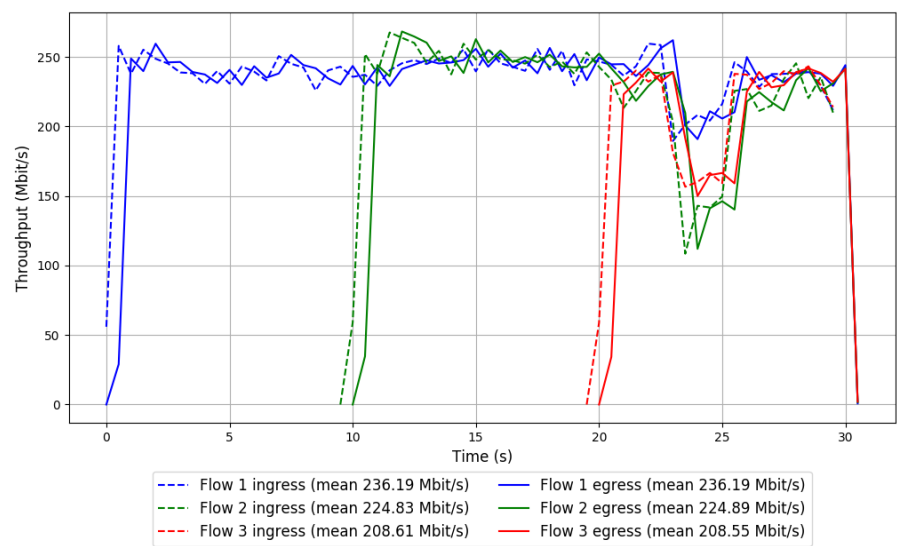


Run 4: Statistics of TaoVA-100x

Start at: 2019-03-09 12:28:35
End at: 2019-03-09 12:29:05
Local clock offset: -0.065 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2019-03-09 16:09:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 455.40 Mbit/s
95th percentile per-packet one-way delay: 65.661 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 236.19 Mbit/s
95th percentile per-packet one-way delay: 64.330 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 224.89 Mbit/s
95th percentile per-packet one-way delay: 66.259 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.55 Mbit/s
95th percentile per-packet one-way delay: 67.141 ms
Loss rate: 0.01%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-03-09 13:05:27

End at: 2019-03-09 13:05:57

Local clock offset: -0.099 ms

Remote clock offset: 0.005 ms

Below is generated by plot.py at 2019-03-09 16:10:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 438.62 Mbit/s

95th percentile per-packet one-way delay: 70.373 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 226.72 Mbit/s

95th percentile per-packet one-way delay: 71.171 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 213.04 Mbit/s

95th percentile per-packet one-way delay: 70.759 ms

Loss rate: 0.00%

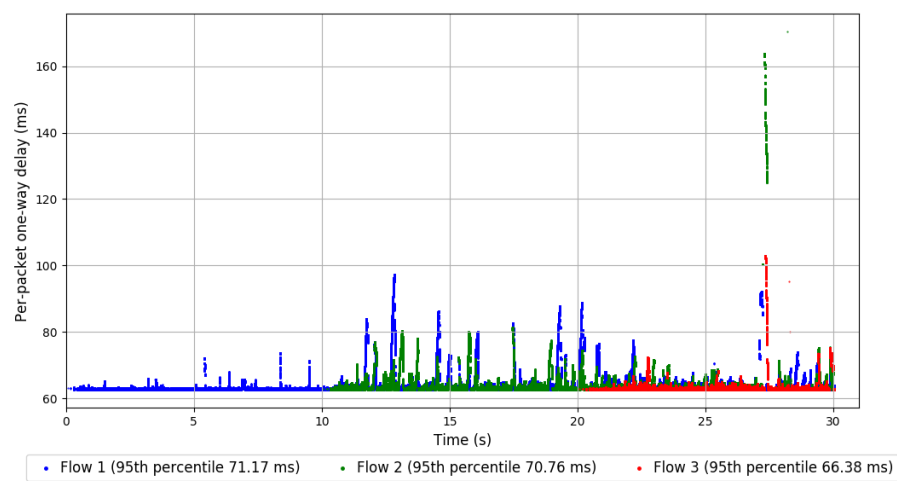
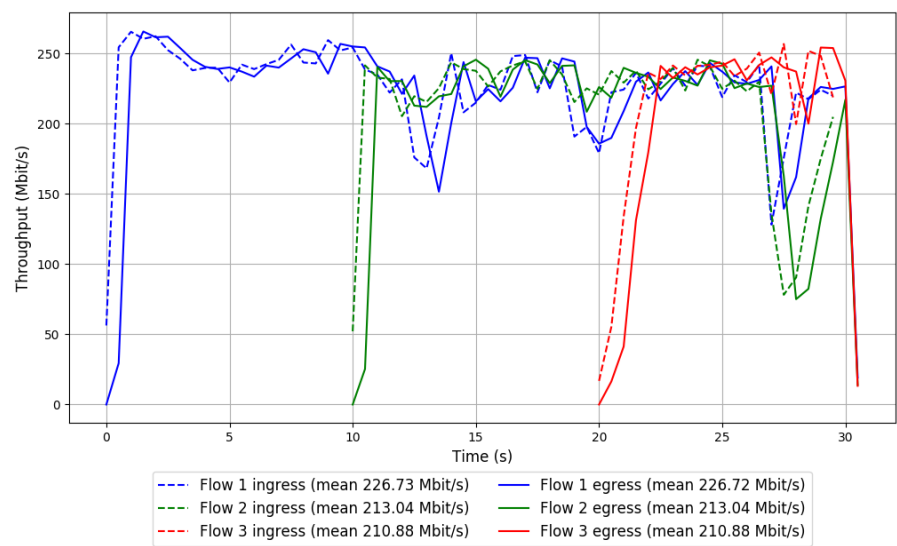
-- Flow 3:

Average throughput: 210.88 Mbit/s

95th percentile per-packet one-way delay: 66.382 ms

Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2019-03-09 10:56:16

End at: 2019-03-09 10:56:46

Local clock offset: -0.022 ms

Remote clock offset: -0.06 ms

Below is generated by plot.py at 2019-03-09 16:13:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 853.89 Mbit/s

95th percentile per-packet one-way delay: 74.159 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 440.96 Mbit/s

95th percentile per-packet one-way delay: 72.483 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 423.01 Mbit/s

95th percentile per-packet one-way delay: 75.109 ms

Loss rate: 0.20%

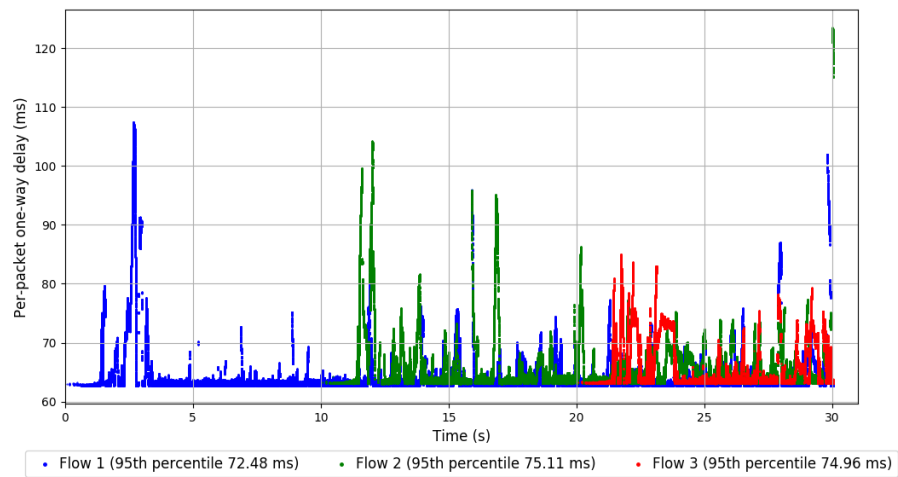
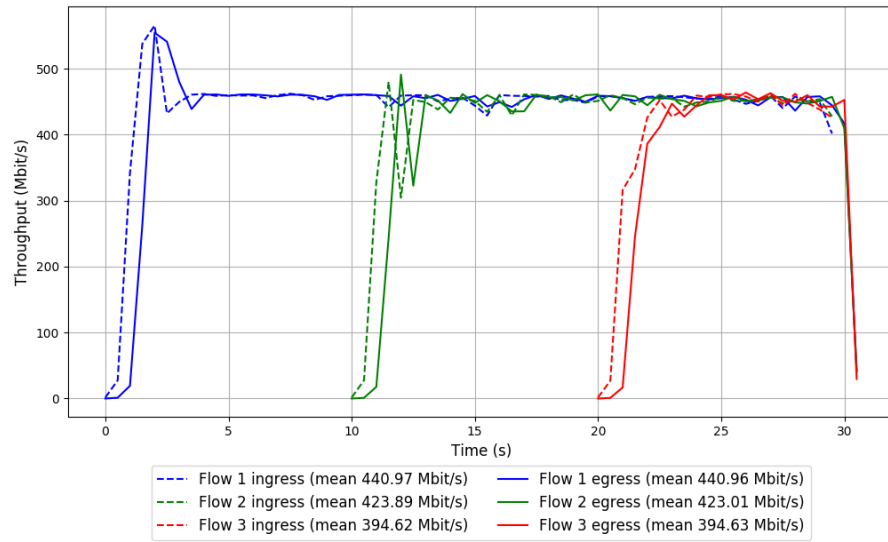
-- Flow 3:

Average throughput: 394.63 Mbit/s

95th percentile per-packet one-way delay: 74.960 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

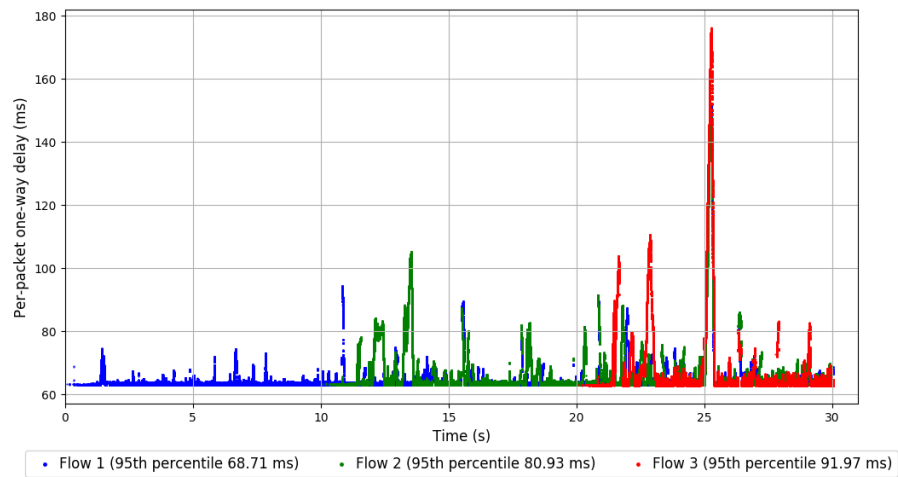
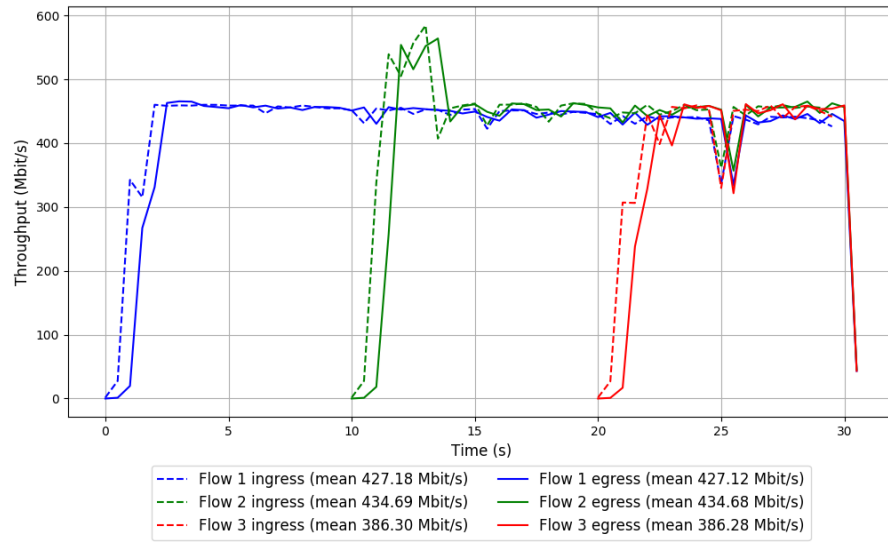


Run 2: Statistics of TCP Vegas

Start at: 2019-03-09 11:32:45
End at: 2019-03-09 11:33:15
Local clock offset: 0.03 ms
Remote clock offset: -0.091 ms

Below is generated by plot.py at 2019-03-09 16:18:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 845.07 Mbit/s
95th percentile per-packet one-way delay: 78.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 427.12 Mbit/s
95th percentile per-packet one-way delay: 68.710 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 434.68 Mbit/s
95th percentile per-packet one-way delay: 80.928 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 386.28 Mbit/s
95th percentile per-packet one-way delay: 91.967 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

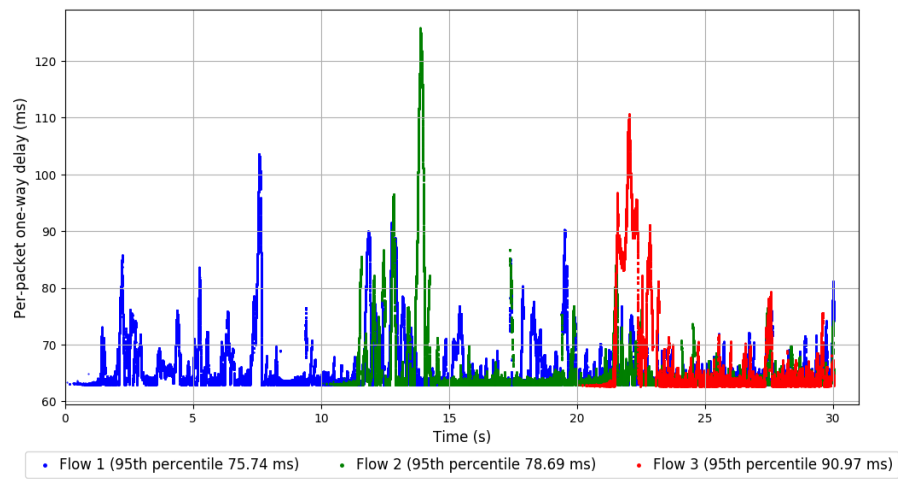
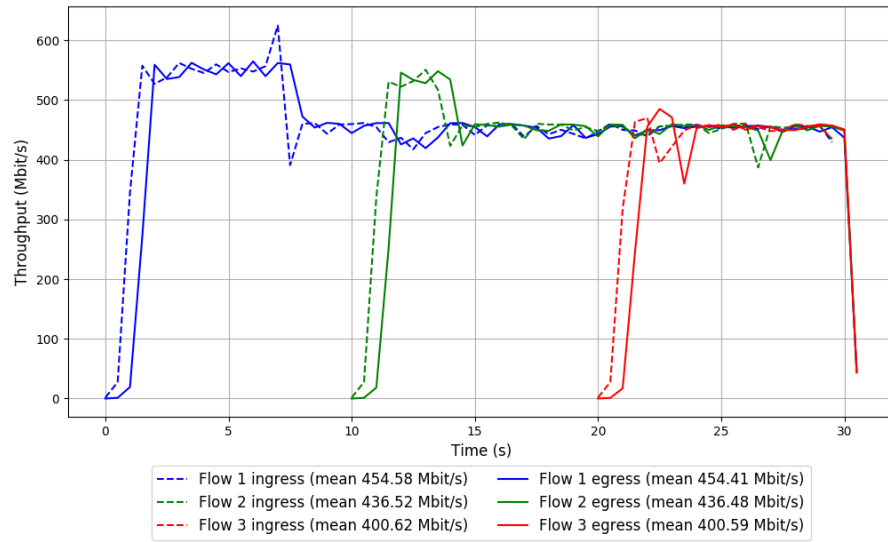


Run 3: Statistics of TCP Vegas

Start at: 2019-03-09 12:09:16
End at: 2019-03-09 12:09:46
Local clock offset: 0.068 ms
Remote clock offset: -0.142 ms

Below is generated by plot.py at 2019-03-09 16:18:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 878.33 Mbit/s
95th percentile per-packet one-way delay: 79.465 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 454.41 Mbit/s
95th percentile per-packet one-way delay: 75.736 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 436.48 Mbit/s
95th percentile per-packet one-way delay: 78.695 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 400.59 Mbit/s
95th percentile per-packet one-way delay: 90.968 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

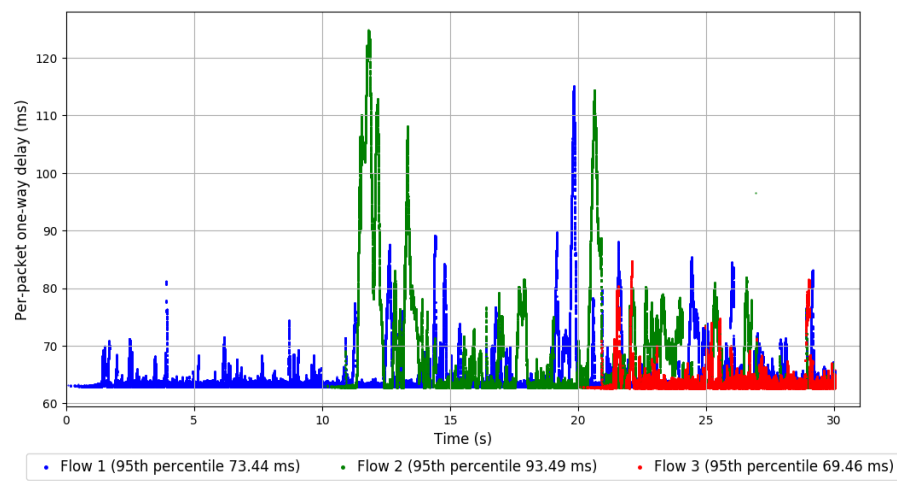
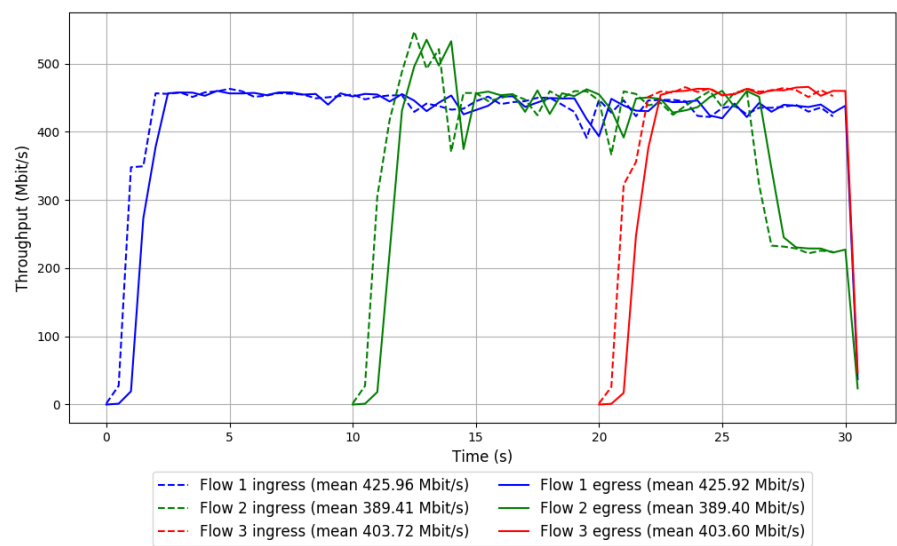


Run 4: Statistics of TCP Vegas

Start at: 2019-03-09 12:46:05
End at: 2019-03-09 12:46:35
Local clock offset: -0.174 ms
Remote clock offset: -0.172 ms

Below is generated by plot.py at 2019-03-09 16:23:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 819.41 Mbit/s
95th percentile per-packet one-way delay: 78.414 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 425.92 Mbit/s
95th percentile per-packet one-way delay: 73.437 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 389.40 Mbit/s
95th percentile per-packet one-way delay: 93.491 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 403.60 Mbit/s
95th percentile per-packet one-way delay: 69.458 ms
Loss rate: 0.02%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-03-09 13:22:33

End at: 2019-03-09 13:23:03

Local clock offset: -0.098 ms

Remote clock offset: -0.81 ms

Below is generated by plot.py at 2019-03-09 16:24:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 838.21 Mbit/s

95th percentile per-packet one-way delay: 82.627 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 432.67 Mbit/s

95th percentile per-packet one-way delay: 78.653 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 416.30 Mbit/s

95th percentile per-packet one-way delay: 80.411 ms

Loss rate: 0.00%

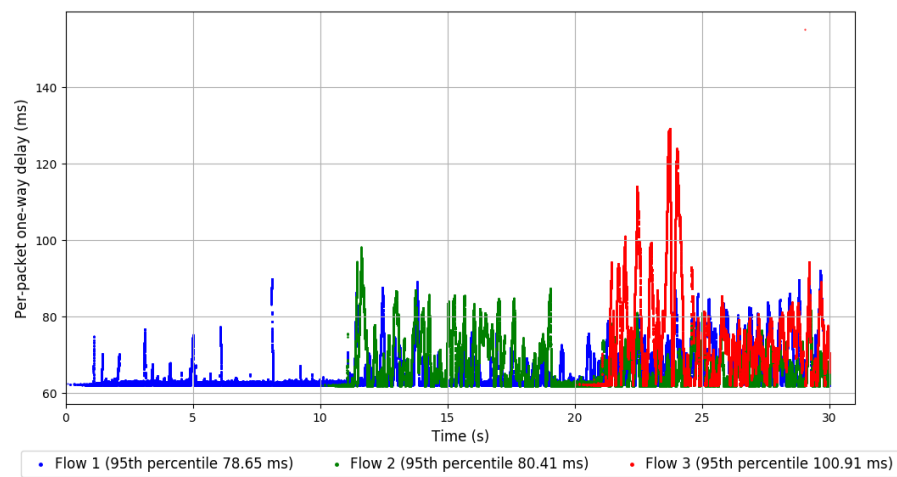
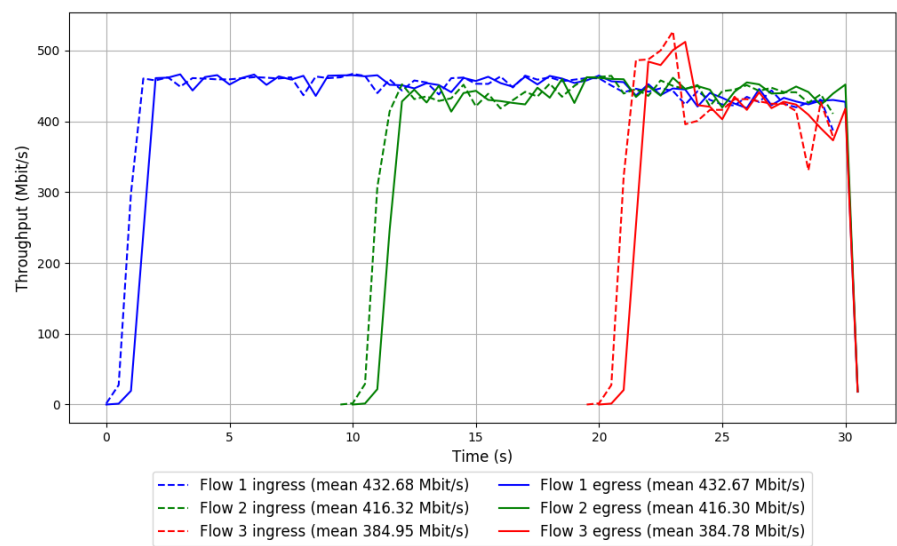
-- Flow 3:

Average throughput: 384.78 Mbit/s

95th percentile per-packet one-way delay: 100.907 ms

Loss rate: 0.03%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-03-09 11:07:05

End at: 2019-03-09 11:07:35

Local clock offset: -0.078 ms

Remote clock offset: 0.031 ms

Below is generated by plot.py at 2019-03-09 16:24:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 300.03 Mbit/s

95th percentile per-packet one-way delay: 178.441 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 169.86 Mbit/s

95th percentile per-packet one-way delay: 191.759 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 129.28 Mbit/s

95th percentile per-packet one-way delay: 128.640 ms

Loss rate: 0.00%

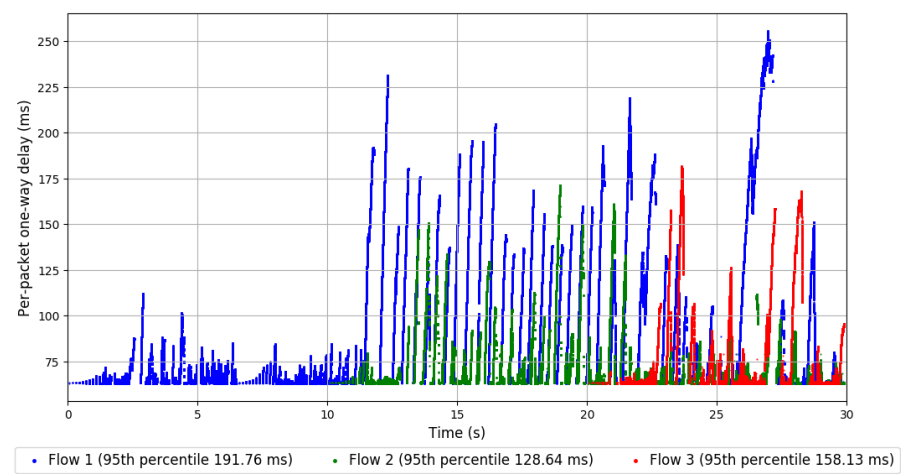
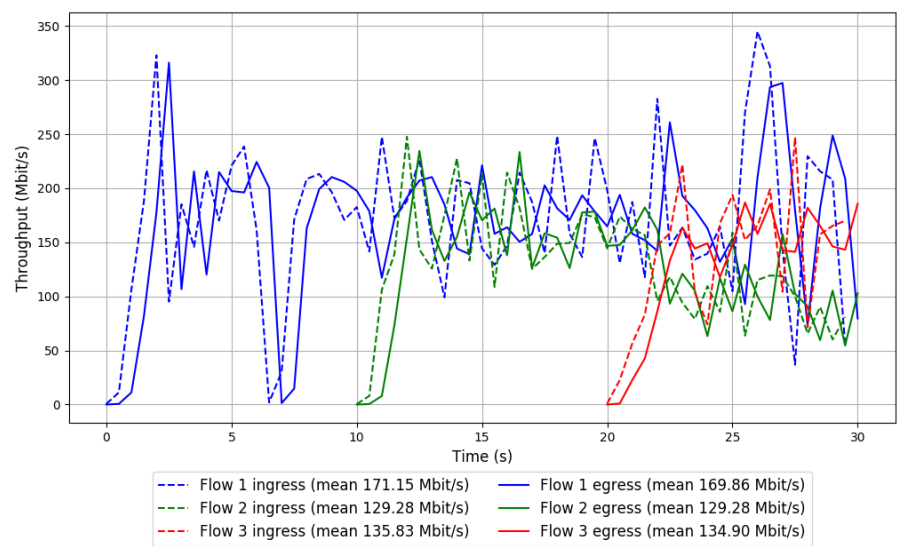
-- Flow 3:

Average throughput: 134.90 Mbit/s

95th percentile per-packet one-way delay: 158.126 ms

Loss rate: 0.67%

Run 1: Report of Verus — Data Link

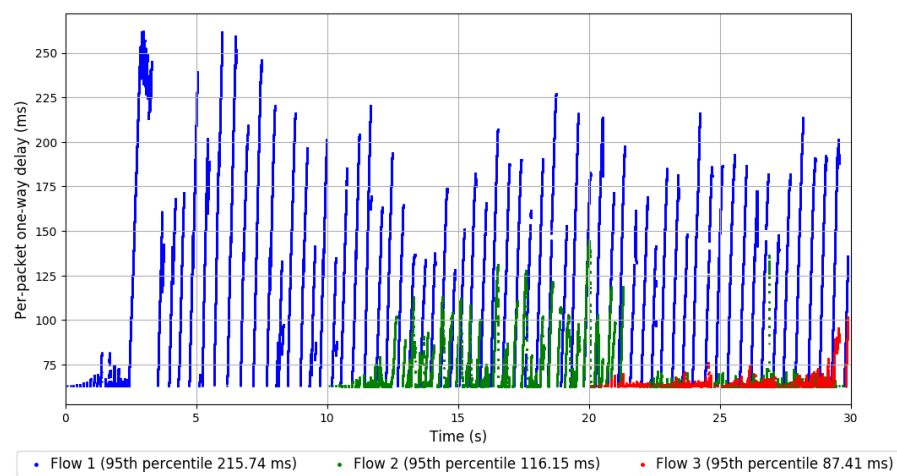
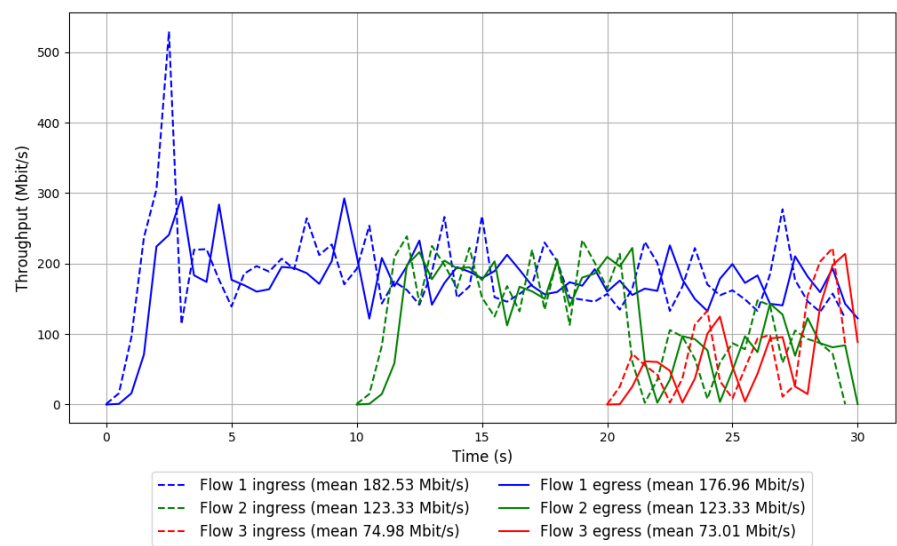


Run 2: Statistics of Verus

Start at: 2019-03-09 11:43:28
End at: 2019-03-09 11:43:58
Local clock offset: 0.07 ms
Remote clock offset: -0.066 ms

Below is generated by plot.py at 2019-03-09 16:24:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 282.58 Mbit/s
95th percentile per-packet one-way delay: 200.970 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 176.96 Mbit/s
95th percentile per-packet one-way delay: 215.744 ms
Loss rate: 3.05%
-- Flow 2:
Average throughput: 123.33 Mbit/s
95th percentile per-packet one-way delay: 116.150 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.01 Mbit/s
95th percentile per-packet one-way delay: 87.405 ms
Loss rate: 2.64%

Run 2: Report of Verus — Data Link

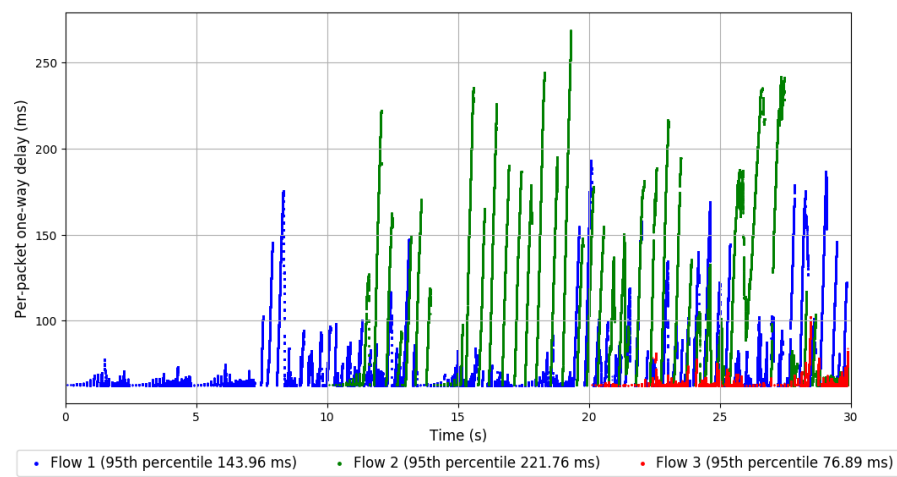
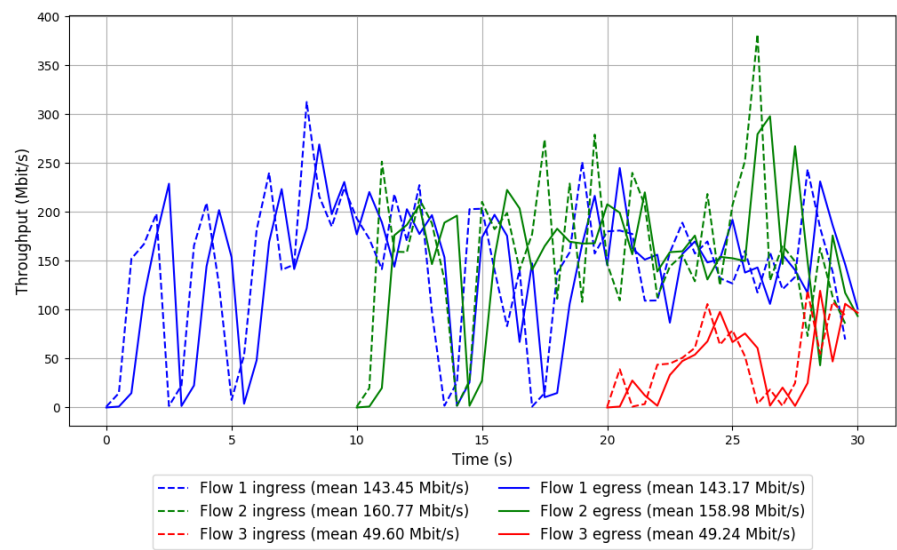


Run 3: Statistics of Verus

Start at: 2019-03-09 12:20:17
End at: 2019-03-09 12:20:47
Local clock offset: 0.101 ms
Remote clock offset: -0.362 ms

Below is generated by plot.py at 2019-03-09 16:24:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 264.70 Mbit/s
95th percentile per-packet one-way delay: 188.875 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 143.17 Mbit/s
95th percentile per-packet one-way delay: 143.956 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 158.98 Mbit/s
95th percentile per-packet one-way delay: 221.765 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 49.24 Mbit/s
95th percentile per-packet one-way delay: 76.888 ms
Loss rate: 0.71%

Run 3: Report of Verus — Data Link

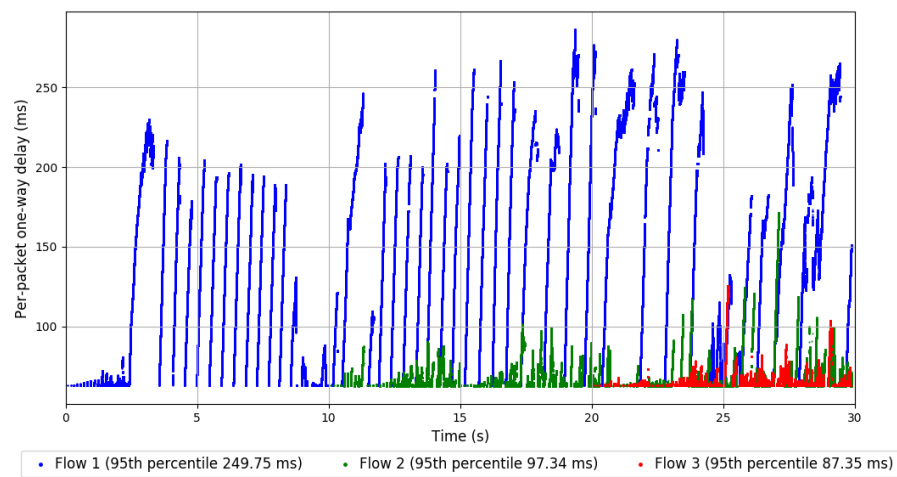
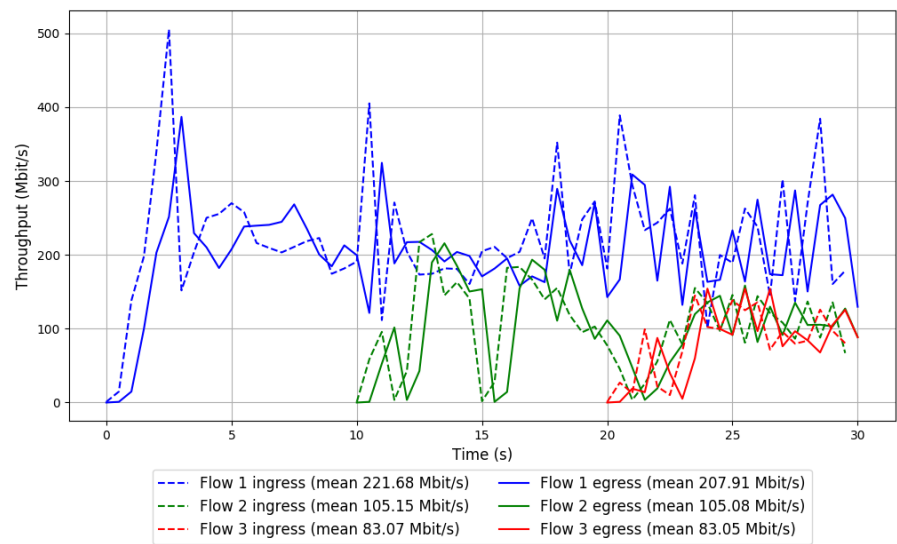


Run 4: Statistics of Verus

Start at: 2019-03-09 12:57:00
End at: 2019-03-09 12:57:30
Local clock offset: -0.164 ms
Remote clock offset: -0.097 ms

Below is generated by plot.py at 2019-03-09 16:24:39
Datalink statistics
-- Total of 3 flows:
Average throughput: 304.90 Mbit/s
95th percentile per-packet one-way delay: 243.505 ms
Loss rate: 4.34%
-- Flow 1:
Average throughput: 207.91 Mbit/s
95th percentile per-packet one-way delay: 249.750 ms
Loss rate: 6.21%
-- Flow 2:
Average throughput: 105.08 Mbit/s
95th percentile per-packet one-way delay: 97.344 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 83.05 Mbit/s
95th percentile per-packet one-way delay: 87.351 ms
Loss rate: 0.02%

Run 4: Report of Verus — Data Link

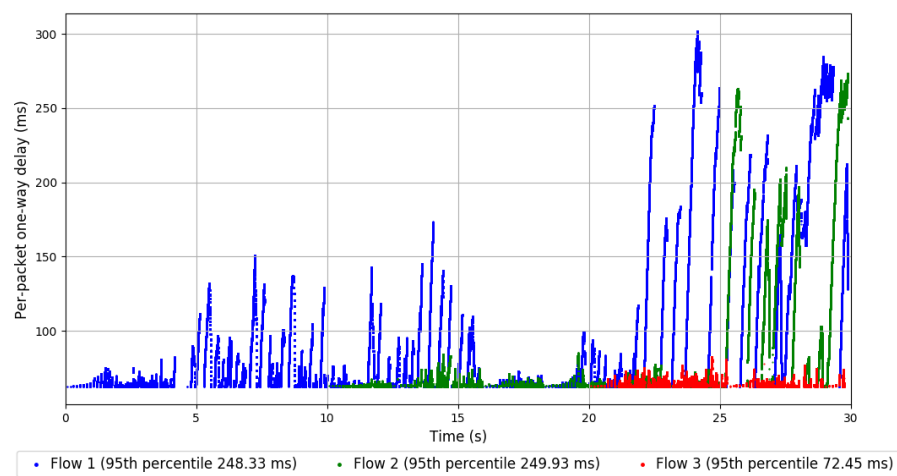
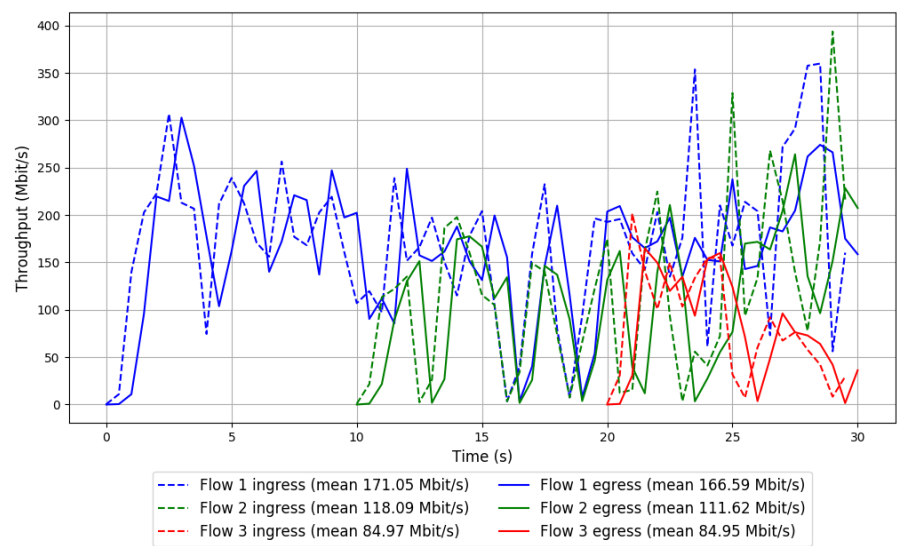


Run 5: Statistics of Verus

Start at: 2019-03-09 13:33:09
End at: 2019-03-09 13:33:39
Local clock offset: -0.053 ms
Remote clock offset: -0.054 ms

Below is generated by plot.py at 2019-03-09 16:27:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 268.32 Mbit/s
95th percentile per-packet one-way delay: 245.161 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 166.59 Mbit/s
95th percentile per-packet one-way delay: 248.331 ms
Loss rate: 2.42%
-- Flow 2:
Average throughput: 111.62 Mbit/s
95th percentile per-packet one-way delay: 249.934 ms
Loss rate: 5.47%
-- Flow 3:
Average throughput: 84.95 Mbit/s
95th percentile per-packet one-way delay: 72.452 ms
Loss rate: 0.00%

Run 5: Report of Verus — Data Link

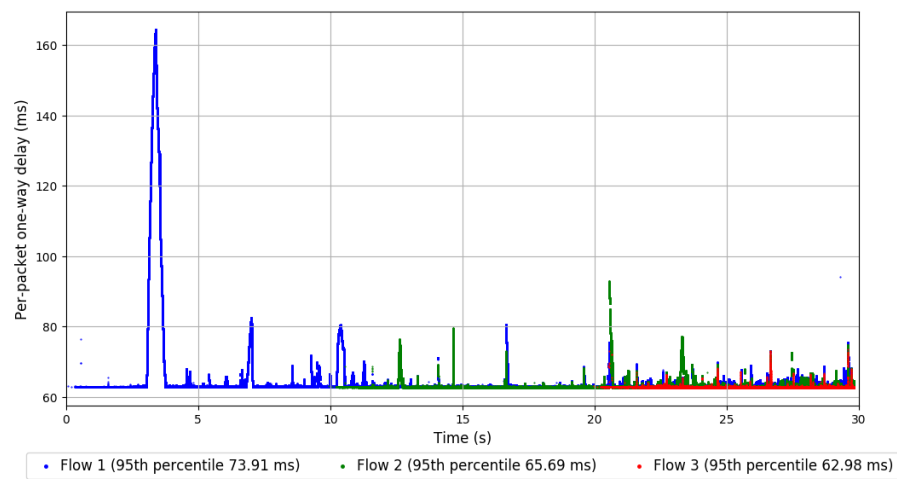
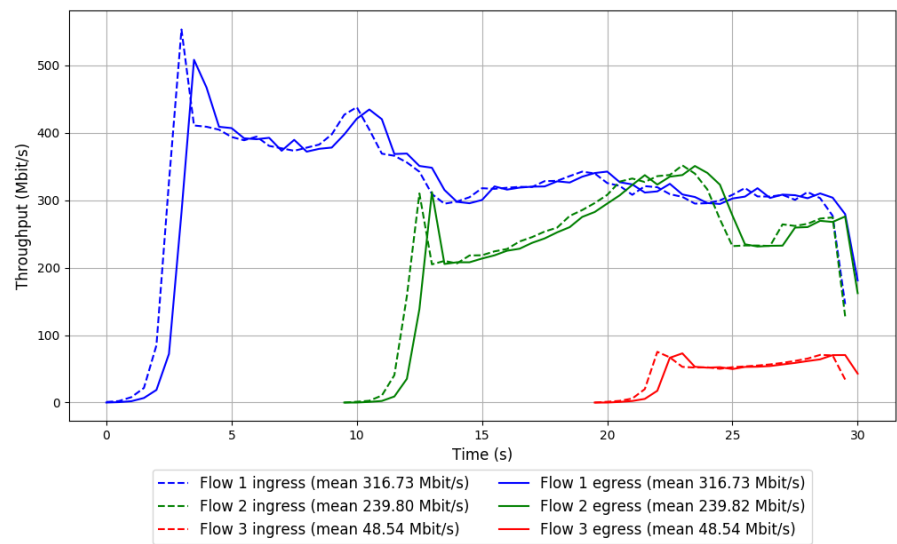


Run 1: Statistics of PCC-Vivace

Start at: 2019-03-09 11:10:38
End at: 2019-03-09 11:11:08
Local clock offset: -0.076 ms
Remote clock offset: -0.248 ms

Below is generated by plot.py at 2019-03-09 16:27:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 492.95 Mbit/s
95th percentile per-packet one-way delay: 68.430 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 316.73 Mbit/s
95th percentile per-packet one-way delay: 73.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 239.82 Mbit/s
95th percentile per-packet one-way delay: 65.685 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.54 Mbit/s
95th percentile per-packet one-way delay: 62.984 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

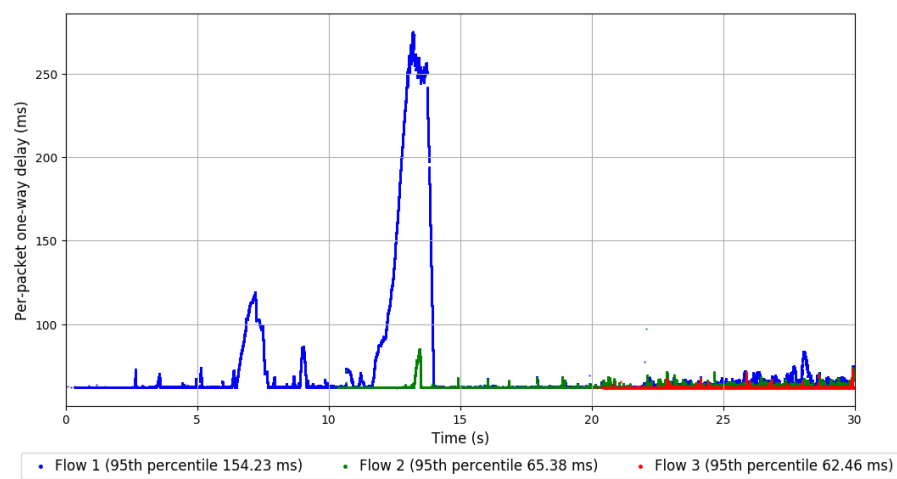
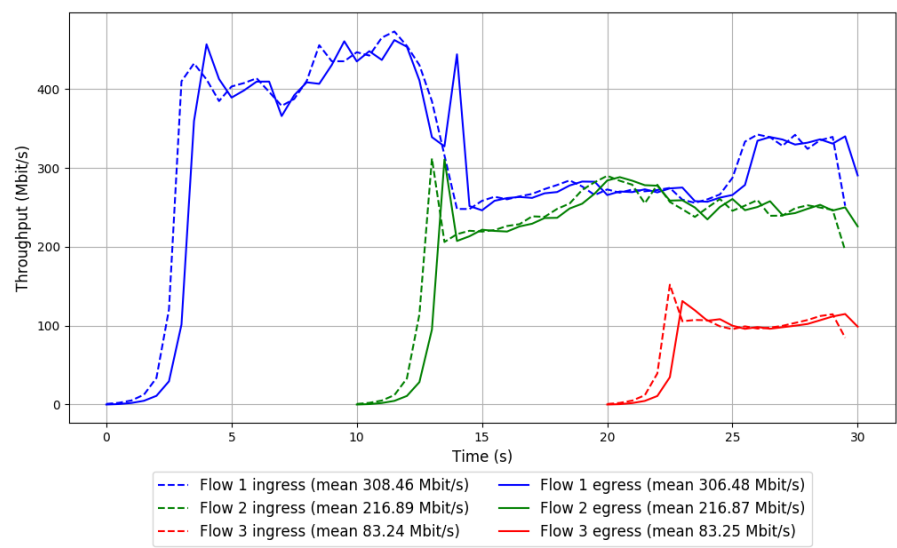


Run 2: Statistics of PCC-Vivace

Start at: 2019-03-09 11:47:00
End at: 2019-03-09 11:47:30
Local clock offset: 0.073 ms
Remote clock offset: -0.844 ms

Below is generated by plot.py at 2019-03-09 16:27:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 478.14 Mbit/s
95th percentile per-packet one-way delay: 107.921 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 306.48 Mbit/s
95th percentile per-packet one-way delay: 154.231 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 216.87 Mbit/s
95th percentile per-packet one-way delay: 65.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.25 Mbit/s
95th percentile per-packet one-way delay: 62.456 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

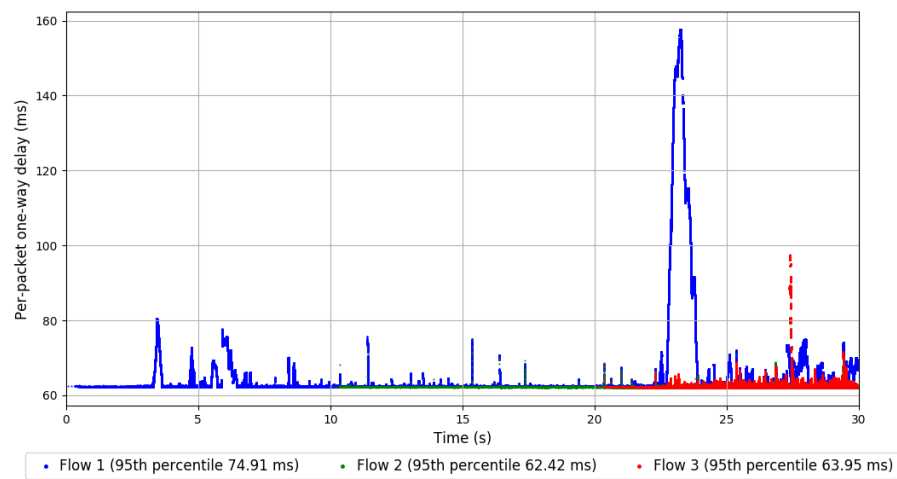
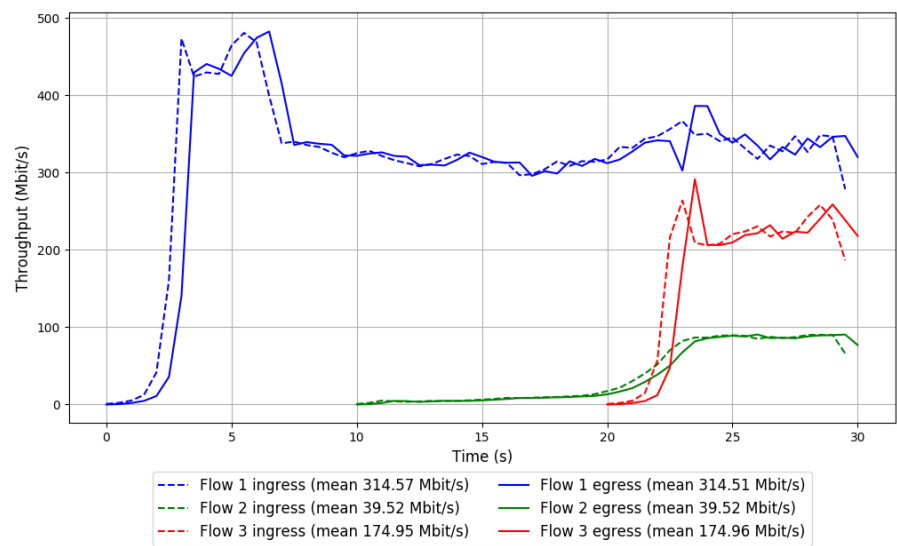


Run 3: Statistics of PCC-Vivace

Start at: 2019-03-09 12:23:48
End at: 2019-03-09 12:24:18
Local clock offset: -0.006 ms
Remote clock offset: -0.868 ms

Below is generated by plot.py at 2019-03-09 16:27:10
Datalink statistics
-- Total of 3 flows:
Average throughput: 398.49 Mbit/s
95th percentile per-packet one-way delay: 73.209 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 314.51 Mbit/s
95th percentile per-packet one-way delay: 74.908 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 39.52 Mbit/s
95th percentile per-packet one-way delay: 62.423 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 174.96 Mbit/s
95th percentile per-packet one-way delay: 63.945 ms
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

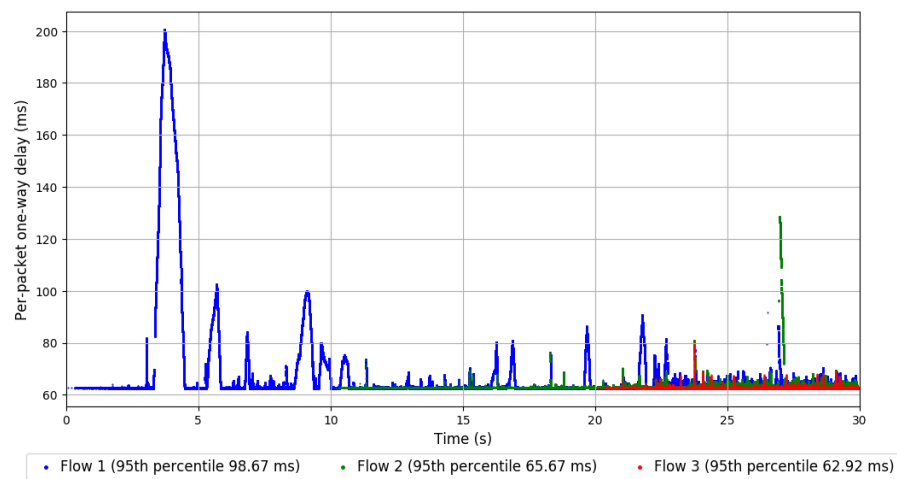
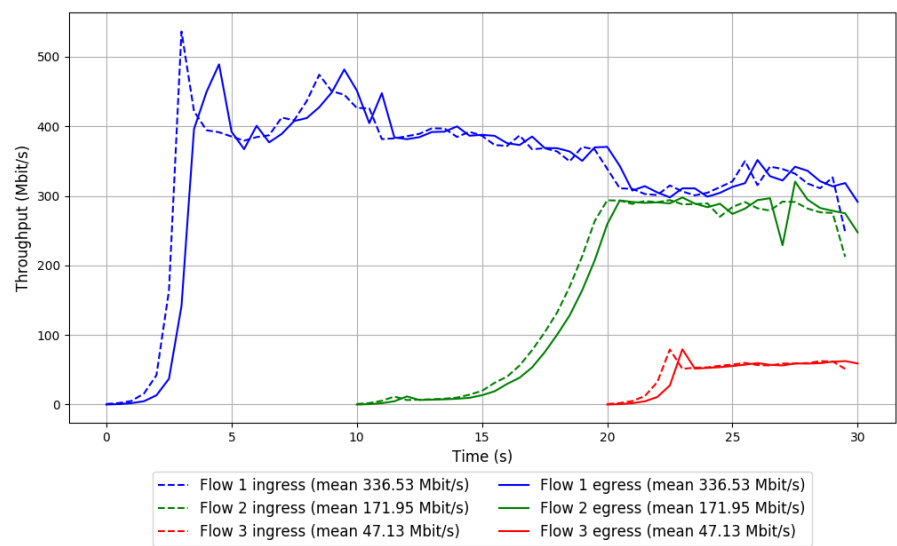


Run 4: Statistics of PCC-Vivace

Start at: 2019-03-09 13:00:33
End at: 2019-03-09 13:01:03
Local clock offset: -0.162 ms
Remote clock offset: -0.279 ms

Below is generated by plot.py at 2019-03-09 16:27:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 466.43 Mbit/s
95th percentile per-packet one-way delay: 90.077 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 336.53 Mbit/s
95th percentile per-packet one-way delay: 98.675 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 171.95 Mbit/s
95th percentile per-packet one-way delay: 65.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.13 Mbit/s
95th percentile per-packet one-way delay: 62.916 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

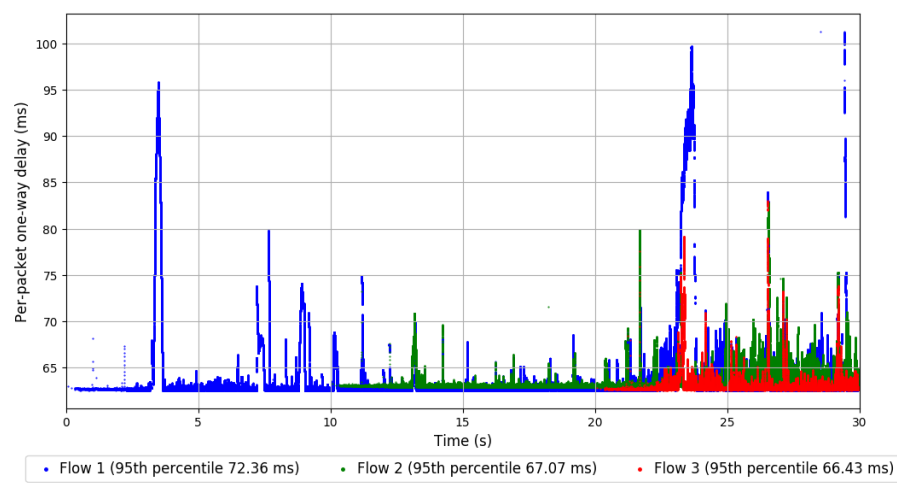
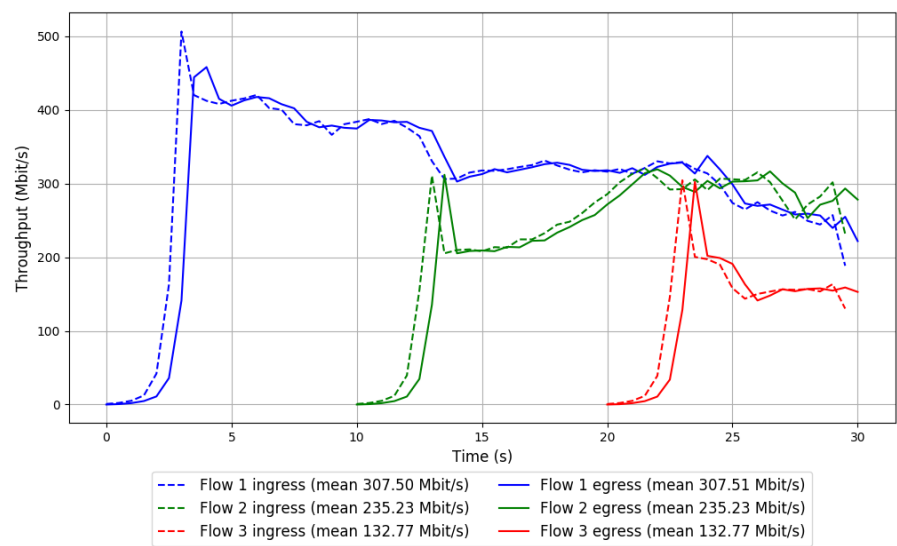


Run 5: Statistics of PCC-Vivace

Start at: 2019-03-09 13:36:40
End at: 2019-03-09 13:37:10
Local clock offset: -0.094 ms
Remote clock offset: -0.154 ms

Below is generated by plot.py at 2019-03-09 16:27:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 507.73 Mbit/s
95th percentile per-packet one-way delay: 69.019 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 307.51 Mbit/s
95th percentile per-packet one-way delay: 72.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 235.23 Mbit/s
95th percentile per-packet one-way delay: 67.071 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.77 Mbit/s
95th percentile per-packet one-way delay: 66.433 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-03-09 10:41:30

End at: 2019-03-09 10:42:00

Local clock offset: -0.065 ms

Remote clock offset: 0.022 ms

Below is generated by plot.py at 2019-03-09 16:27:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 63.502 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 63.448 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 63.503 ms

Loss rate: 0.00%

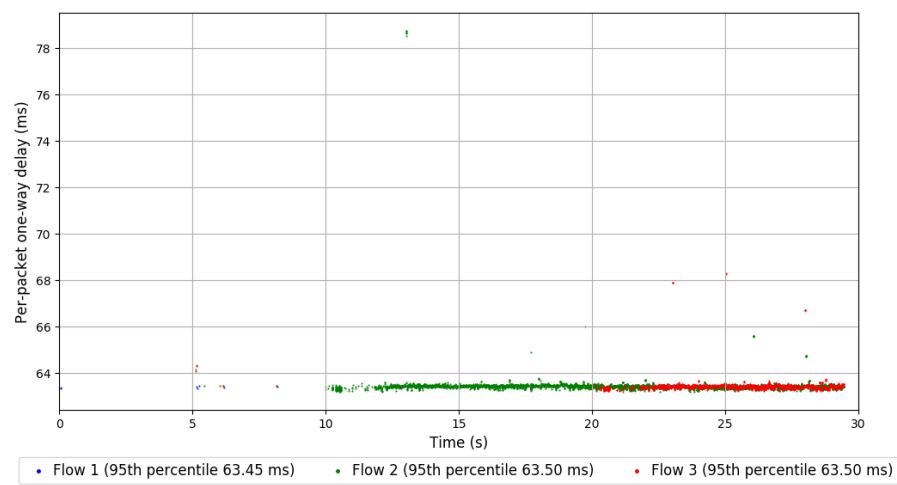
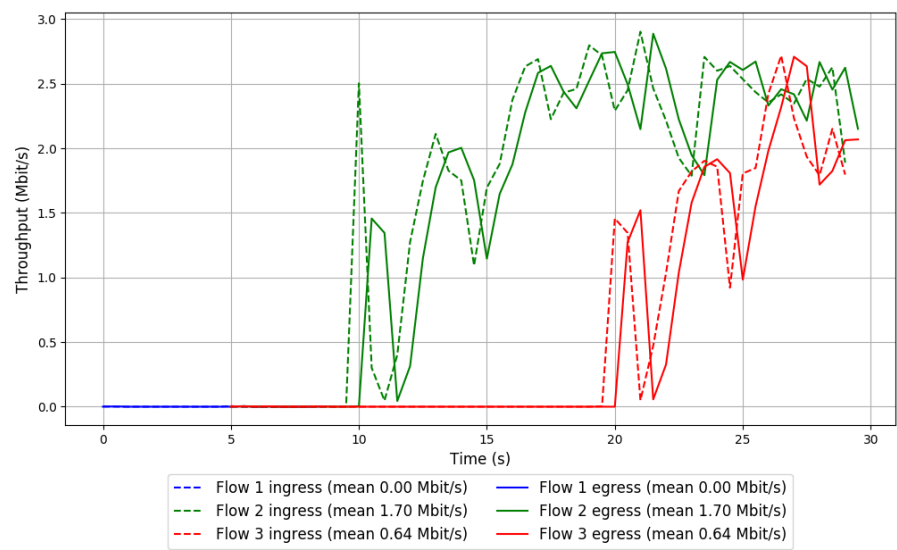
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 63.496 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

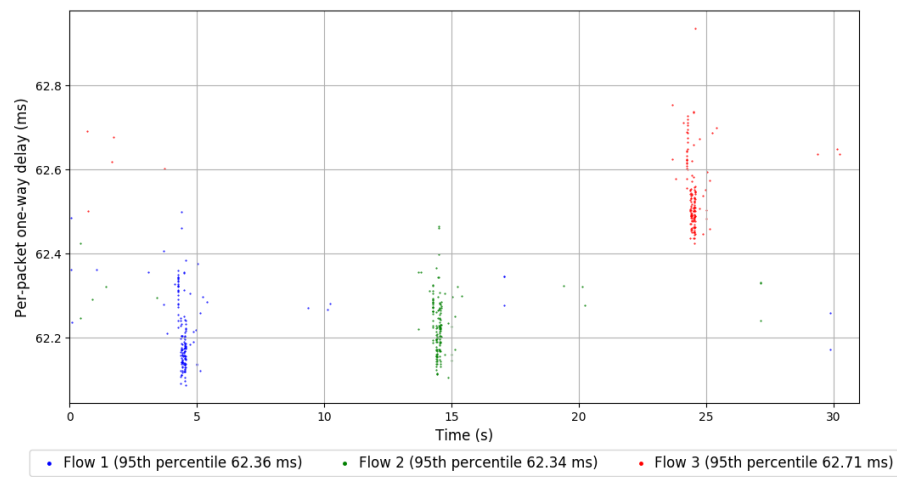
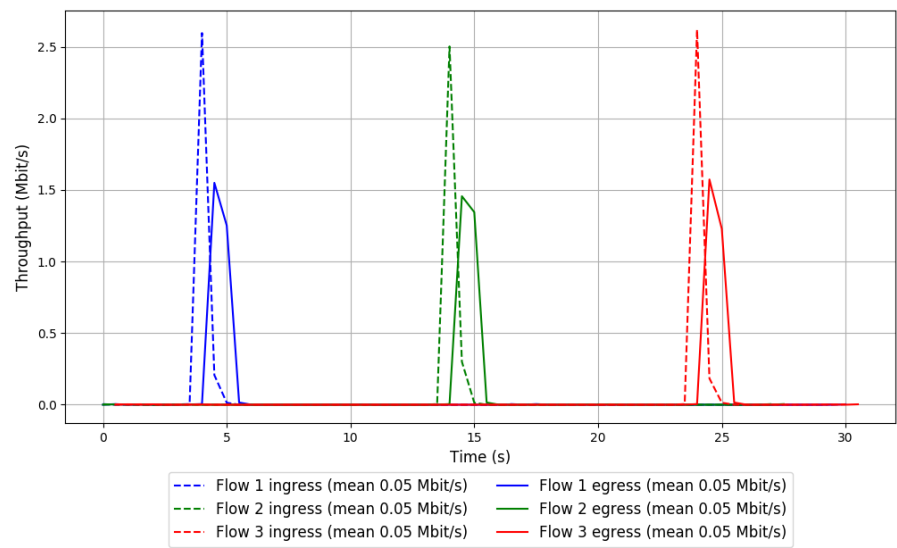


Run 2: Statistics of WebRTC media

Start at: 2019-03-09 11:17:30
End at: 2019-03-09 11:18:00
Local clock offset: -0.019 ms
Remote clock offset: -0.649 ms

Below is generated by plot.py at 2019-03-09 16:27:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 62.644 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.359 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.343 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 62.710 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

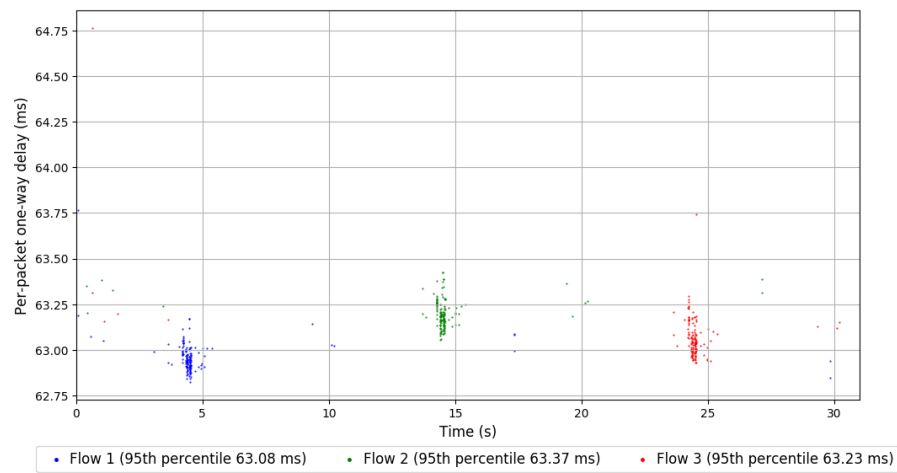
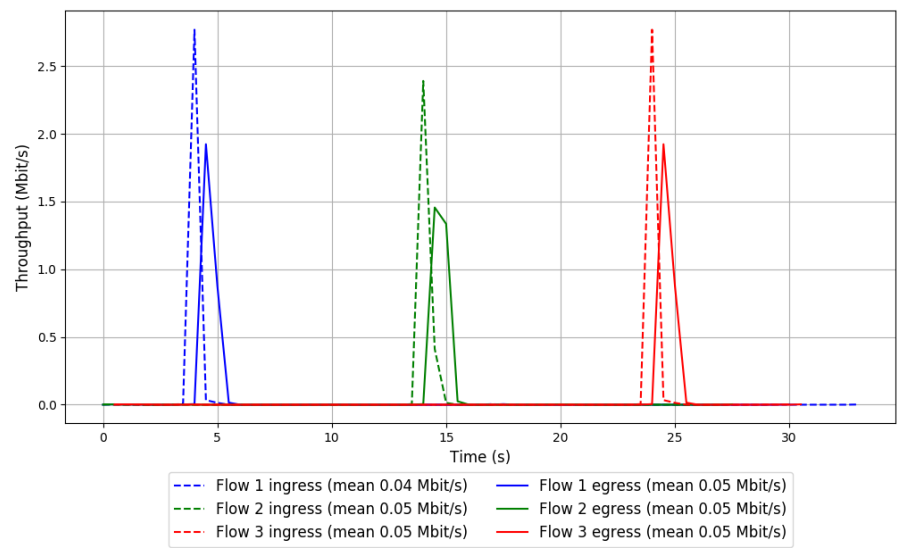


Run 3: Statistics of WebRTC media

Start at: 2019-03-09 11:53:52
End at: 2019-03-09 11:54:22
Local clock offset: 0.05 ms
Remote clock offset: -0.161 ms

Below is generated by plot.py at 2019-03-09 16:27:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.296 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.084 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.372 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.234 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

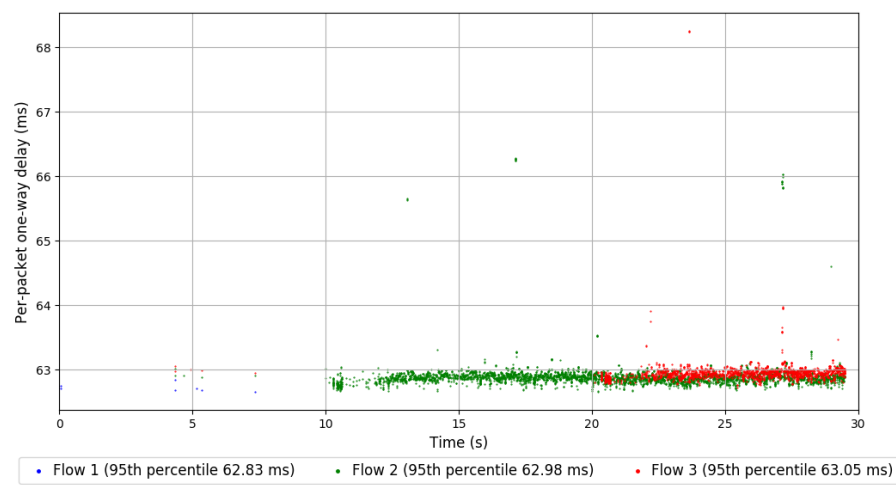
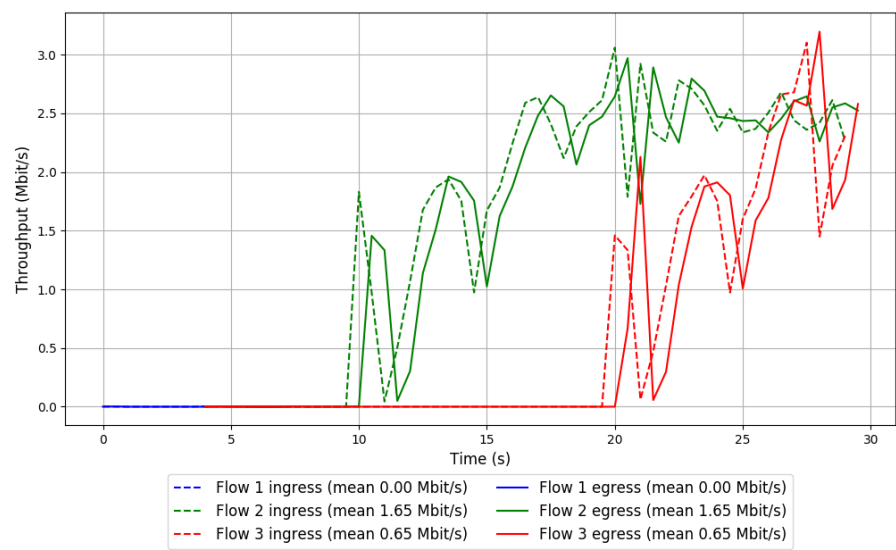


Run 4: Statistics of WebRTC media

Start at: 2019-03-09 12:30:31
End at: 2019-03-09 12:31:01
Local clock offset: -0.077 ms
Remote clock offset: -0.289 ms

Below is generated by plot.py at 2019-03-09 16:27:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 63.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 62.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 62.977 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 63.048 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-03-09 13:07:22
End at: 2019-03-09 13:07:52
Local clock offset: -0.113 ms
Remote clock offset: -0.008 ms

Below is generated by plot.py at 2019-03-09 16:27:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.373 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.005 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.405 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.193 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

