

## Pantheon Report

Generated at 2019-03-19 06:50:02 (UTC).

Data path: AWS India 2 on **ens5** (*local*) → Saudi Arabia on **enp2s0** (*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 **nets.org.sg** and have been applied to correct the timestamps in logs.

### System info:

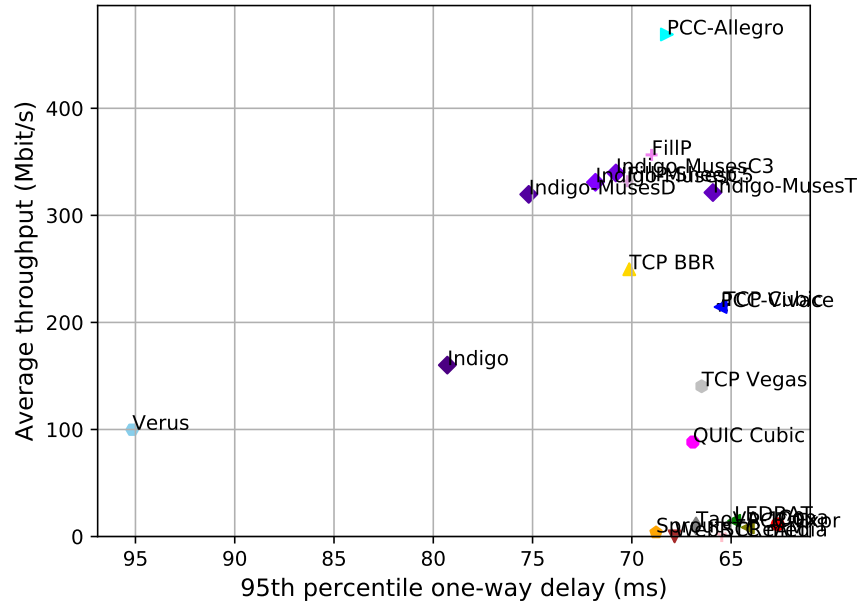
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

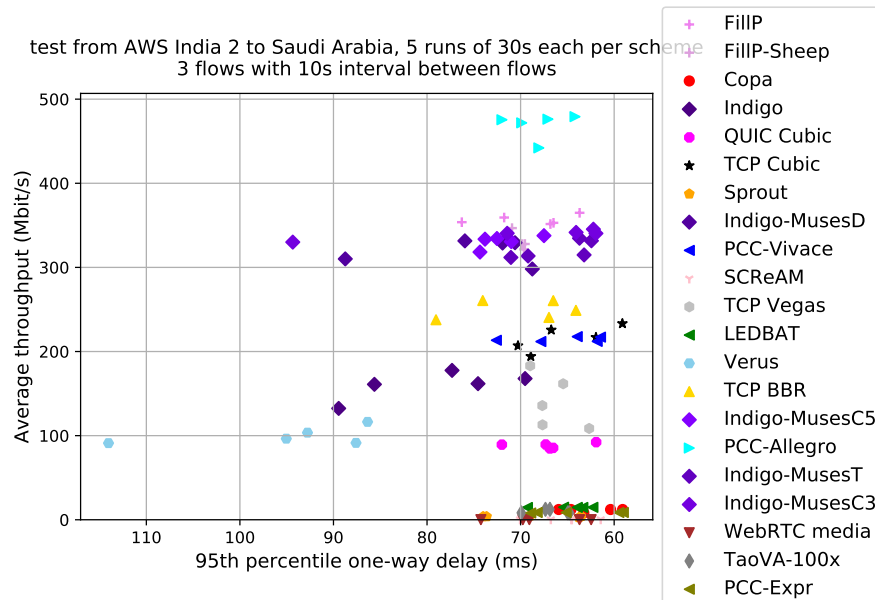
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d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

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme  
 3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	190.59	68.14	41.15	70.85	68.20	65.54	10.64	16.36	18.28
Copa	5	7.05	6.20	0.69	62.84	62.16	63.16	72.96	70.56	84.41
TCP Cubic	5	131.73	78.38	94.38	65.44	64.63	65.31	1.48	1.47	1.83
FillP	5	243.33	124.55	91.47	68.36	69.12	69.51	22.79	23.42	22.13
FillP-Sheep	5	227.66	104.13	105.42	69.82	70.10	69.36	13.80	12.44	15.55
Indigo	5	76.04	91.59	73.56	75.84	85.08	81.12	9.92	16.54	24.38
Indigo-MusesC3	5	324.86	15.87	15.18	71.04	64.75	64.96	13.42	10.67	10.60
Indigo-MusesC5	5	329.04	2.10	1.80	71.81	72.15	72.11	26.73	29.55	28.01
Indigo-MusesD	5	284.32	40.33	31.46	75.99	68.78	69.67	12.53	8.79	9.46
Indigo-MusesT	5	287.63	39.03	29.93	65.75	66.90	66.53	10.87	8.72	6.98
LEDBAT	5	9.52	6.32	3.11	65.07	63.92	63.03	0.00	0.00	0.00
PCC-Allegro	5	437.94	34.16	25.19	68.23	67.12	68.25	4.71	2.09	2.80
PCC-Expr	5	0.01	10.66	4.40	65.90	64.15	64.17	83.43	32.26	47.83
QUIC Cubic	5	51.85	41.23	27.84	65.53	67.65	69.30	0.00	0.02	0.04
SCReAM	5	0.22	0.22	0.22	64.92	65.02	64.55	0.00	0.00	0.00
Sprout	5	1.76	2.59	1.06	67.62	68.61	66.91	0.00	0.00	0.00
TaoVA-100x	5	2.87	7.52	6.19	65.46	66.82	62.55	71.14	31.02	41.38
TCP Vegas	5	68.16	68.47	79.98	66.55	65.84	67.12	1.96	2.67	3.12
Verus	5	59.40	54.02	20.99	91.16	94.41	79.11	58.12	52.72	41.03
PCC-Vivace	5	188.08	34.36	10.57	65.39	66.25	66.29	1.36	0.89	1.46
WebRTC media	5	0.05	0.05	0.05	67.93	68.42	68.17	0.00	0.00	0.00

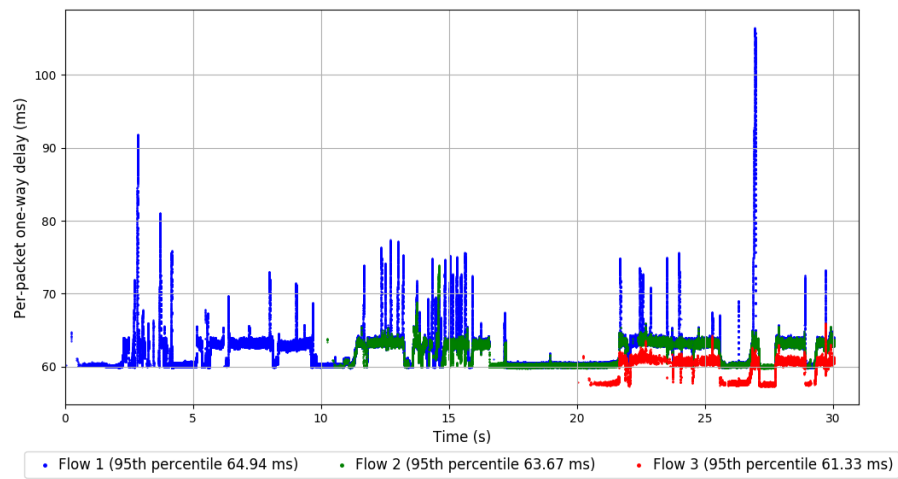
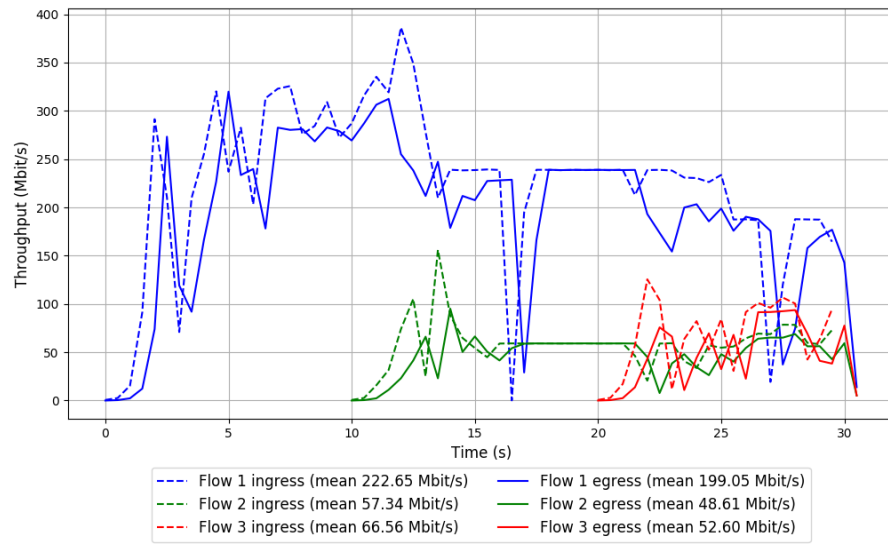


Run 1: Statistics of TCP BBR

Start at: 2019-03-19 03:08:21  
End at: 2019-03-19 03:08:51  
Local clock offset: 1.476 ms  
Remote clock offset: -39.836 ms

# Below is generated by plot.py at 2019-03-19 06:23:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 248.96 Mbit/s  
95th percentile per-packet one-way delay: 64.087 ms  
Loss rate: 12.03%  
-- Flow 1:  
Average throughput: 199.05 Mbit/s  
95th percentile per-packet one-way delay: 64.939 ms  
Loss rate: 10.60%  
-- Flow 2:  
Average throughput: 48.61 Mbit/s  
95th percentile per-packet one-way delay: 63.673 ms  
Loss rate: 15.23%  
-- Flow 3:  
Average throughput: 52.60 Mbit/s  
95th percentile per-packet one-way delay: 61.332 ms  
Loss rate: 20.97%

# Run 1: Report of TCP BBR — Data Link

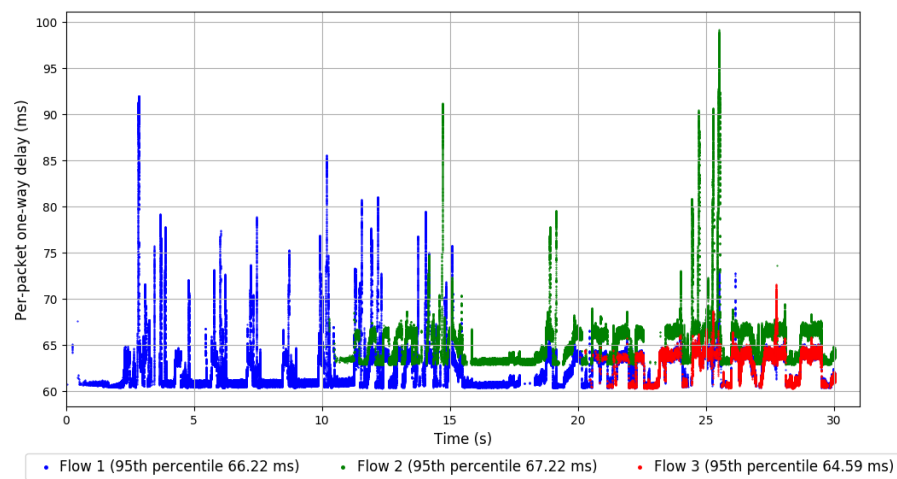
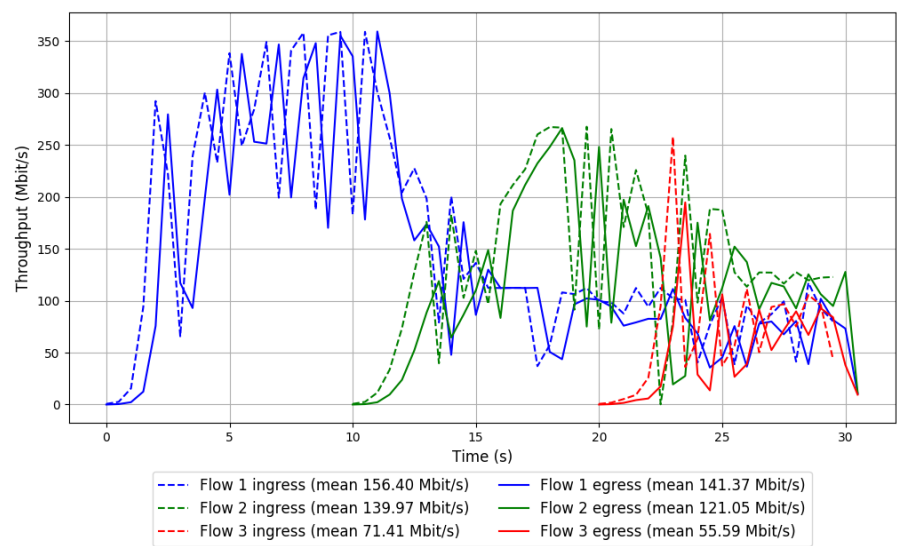


Run 2: Statistics of TCP BBR

Start at: 2019-03-19 03:44:31  
End at: 2019-03-19 03:45:01  
Local clock offset: 2.113 ms  
Remote clock offset: -36.327 ms

# Below is generated by plot.py at 2019-03-19 06:23:25  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 240.53 Mbit/s  
95th percentile per-packet one-way delay: 66.968 ms  
Loss rate: 12.03%  
-- Flow 1:  
Average throughput: 141.37 Mbit/s  
95th percentile per-packet one-way delay: 66.217 ms  
Loss rate: 9.60%  
-- Flow 2:  
Average throughput: 121.05 Mbit/s  
95th percentile per-packet one-way delay: 67.218 ms  
Loss rate: 13.52%  
-- Flow 3:  
Average throughput: 55.59 Mbit/s  
95th percentile per-packet one-way delay: 64.594 ms  
Loss rate: 22.16%

Run 2: Report of TCP BBR — Data Link

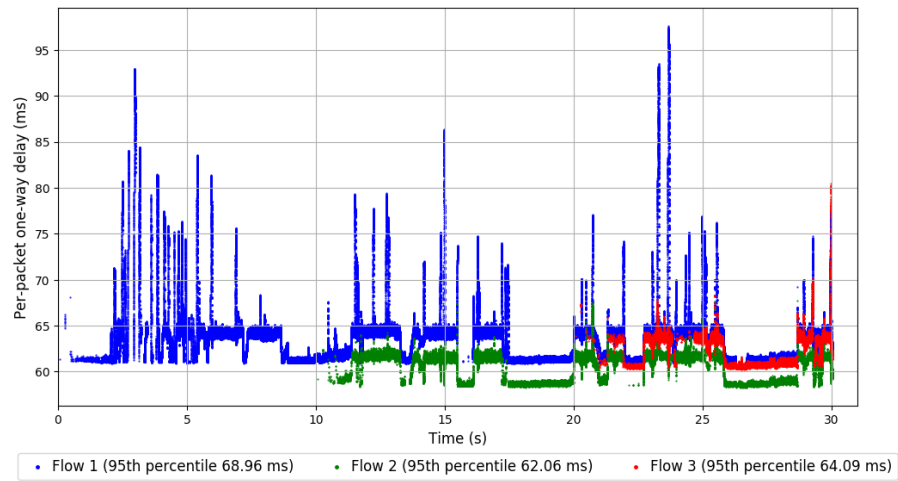
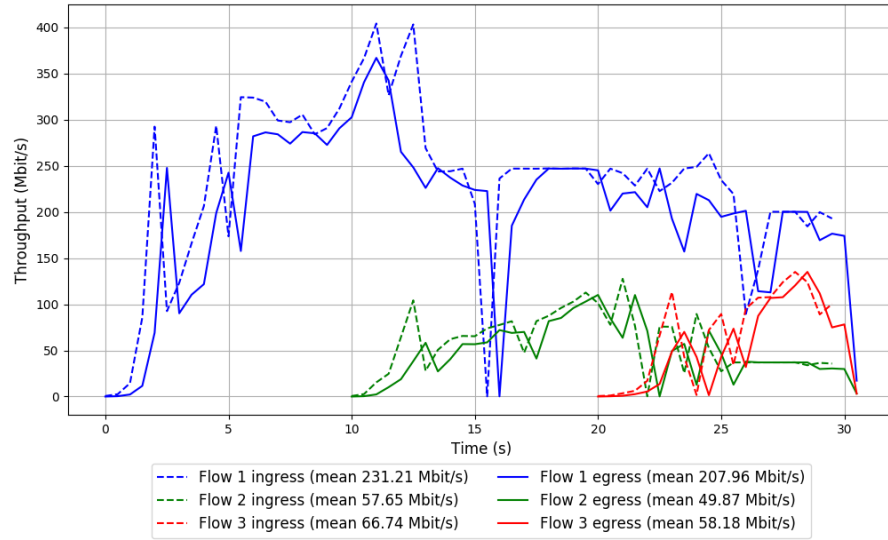


Run 3: Statistics of TCP BBR

Start at: 2019-03-19 04:37:50  
End at: 2019-03-19 04:38:20  
Local clock offset: 0.567 ms  
Remote clock offset: -39.107 ms

# Below is generated by plot.py at 2019-03-19 06:23:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 260.52 Mbit/s  
95th percentile per-packet one-way delay: 66.506 ms  
Loss rate: 10.72%  
-- Flow 1:  
Average throughput: 207.96 Mbit/s  
95th percentile per-packet one-way delay: 68.964 ms  
Loss rate: 10.06%  
-- Flow 2:  
Average throughput: 49.87 Mbit/s  
95th percentile per-packet one-way delay: 62.057 ms  
Loss rate: 13.48%  
-- Flow 3:  
Average throughput: 58.18 Mbit/s  
95th percentile per-packet one-way delay: 64.095 ms  
Loss rate: 12.84%

### Run 3: Report of TCP BBR — Data Link

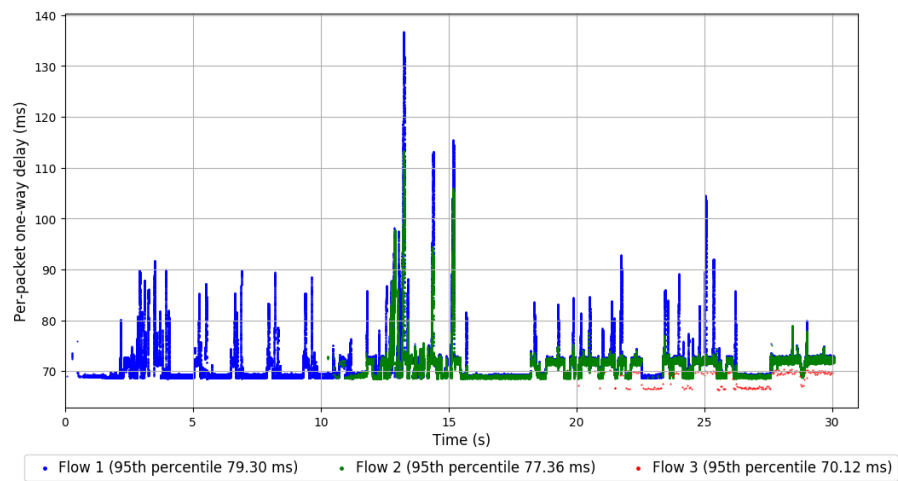
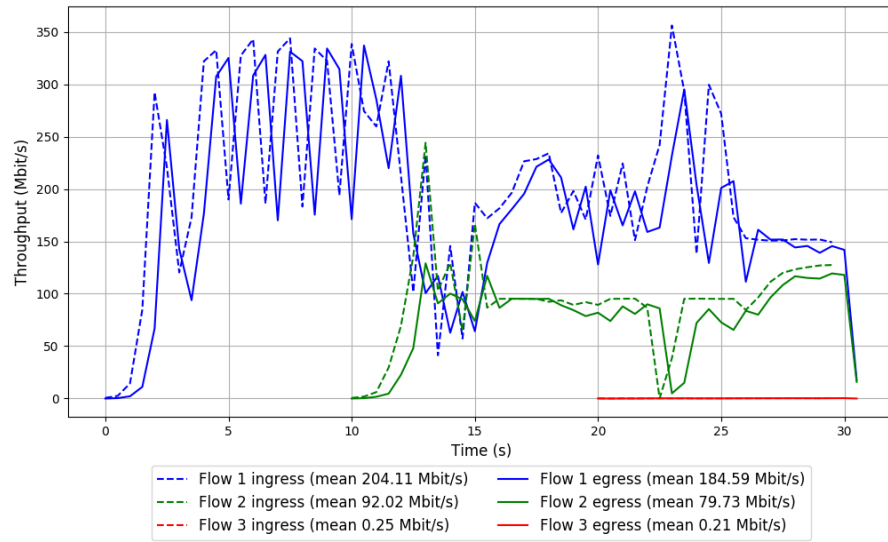


Run 4: Statistics of TCP BBR

Start at: 2019-03-19 05:25:05  
End at: 2019-03-19 05:25:35  
Local clock offset: -0.135 ms  
Remote clock offset: -35.541 ms

# Below is generated by plot.py at 2019-03-19 06:23:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 237.78 Mbit/s  
95th percentile per-packet one-way delay: 79.042 ms  
Loss rate: 10.43%  
-- Flow 1:  
Average throughput: 184.59 Mbit/s  
95th percentile per-packet one-way delay: 79.297 ms  
Loss rate: 9.56%  
-- Flow 2:  
Average throughput: 79.73 Mbit/s  
95th percentile per-packet one-way delay: 77.365 ms  
Loss rate: 13.34%  
-- Flow 3:  
Average throughput: 0.21 Mbit/s  
95th percentile per-packet one-way delay: 70.123 ms  
Loss rate: 15.63%

#### Run 4: Report of TCP BBR — Data Link



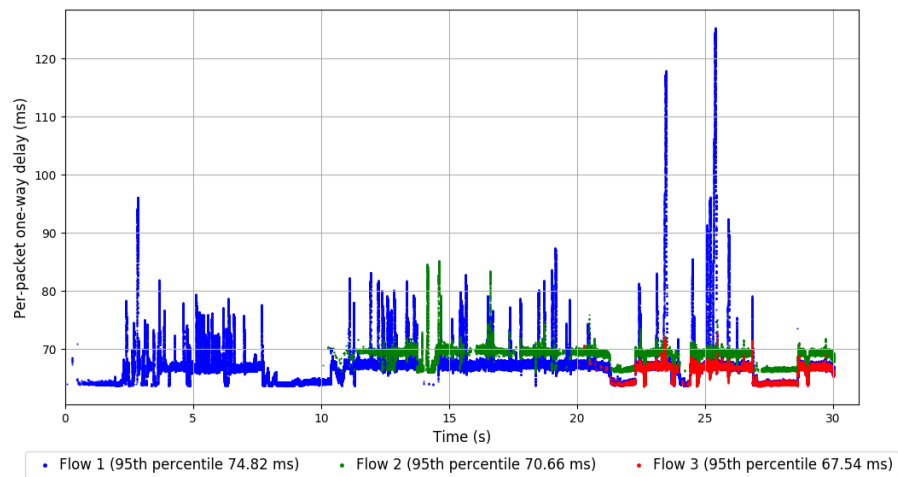
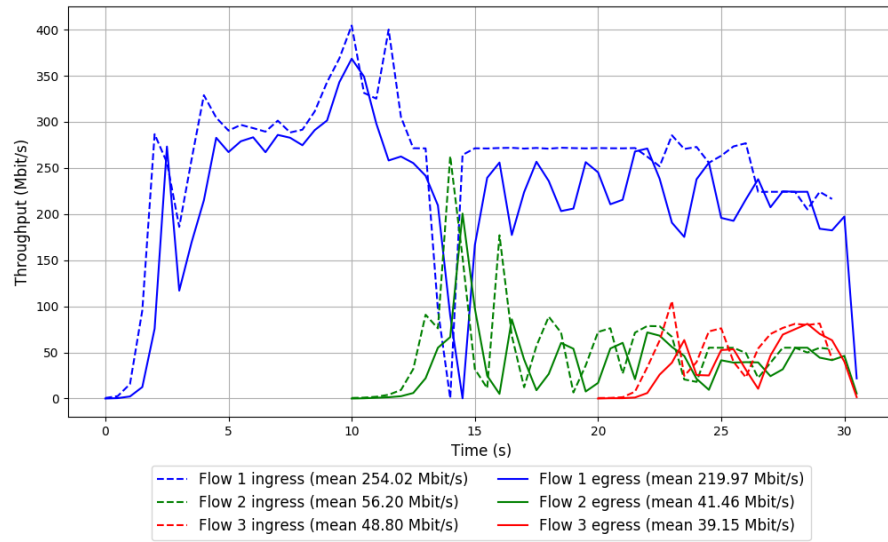


Run 5: Statistics of TCP BBR

Start at: 2019-03-19 06:06:50  
End at: 2019-03-19 06:07:20  
Local clock offset: 0.061 ms  
Remote clock offset: -39.157 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 260.62 Mbit/s  
95th percentile per-packet one-way delay: 74.043 ms  
Loss rate: 15.30%  
-- Flow 1:  
Average throughput: 219.97 Mbit/s  
95th percentile per-packet one-way delay: 74.817 ms  
Loss rate: 13.40%  
-- Flow 2:  
Average throughput: 41.46 Mbit/s  
95th percentile per-packet one-way delay: 70.663 ms  
Loss rate: 26.23%  
-- Flow 3:  
Average throughput: 39.15 Mbit/s  
95th percentile per-packet one-way delay: 67.539 ms  
Loss rate: 19.79%

## Run 5: Report of TCP BBR — Data Link

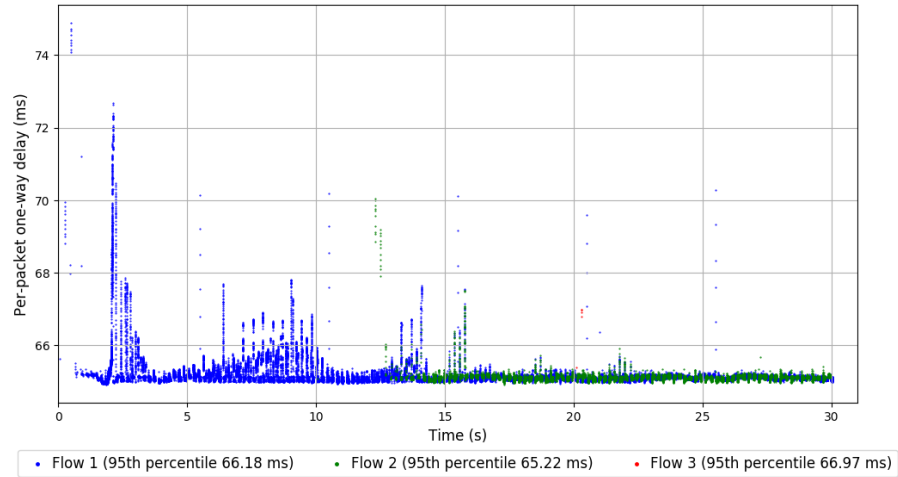
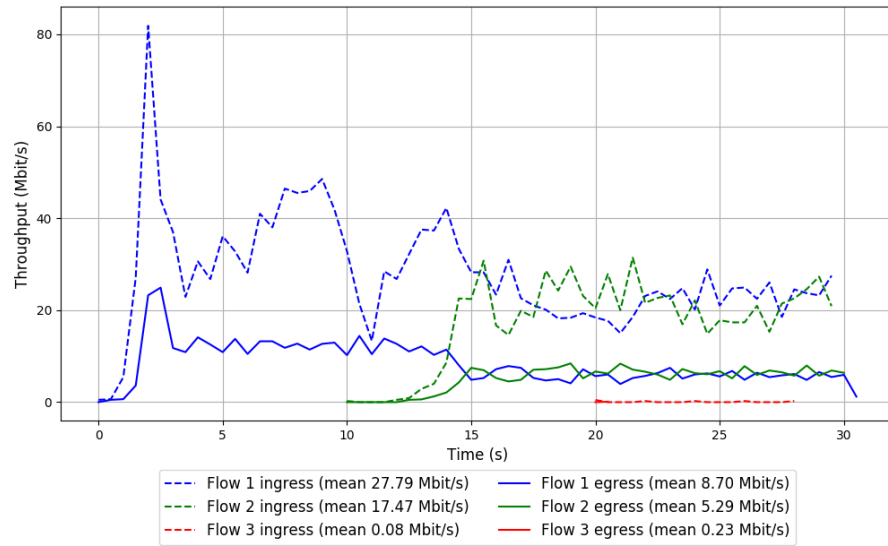


Run 1: Statistics of Copa

Start at: 2019-03-19 03:03:50  
End at: 2019-03-19 03:04:20  
Local clock offset: 0.883 ms  
Remote clock offset: -32.992 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 65.930 ms  
Loss rate: 69.03%  
-- Flow 1:  
Average throughput: 8.70 Mbit/s  
95th percentile per-packet one-way delay: 66.177 ms  
Loss rate: 68.71%  
-- Flow 2:  
Average throughput: 5.29 Mbit/s  
95th percentile per-packet one-way delay: 65.219 ms  
Loss rate: 69.73%  
-- Flow 3:  
Average throughput: 0.23 Mbit/s  
95th percentile per-packet one-way delay: 66.975 ms  
Loss rate: 93.09%

## Run 1: Report of Copa — Data Link

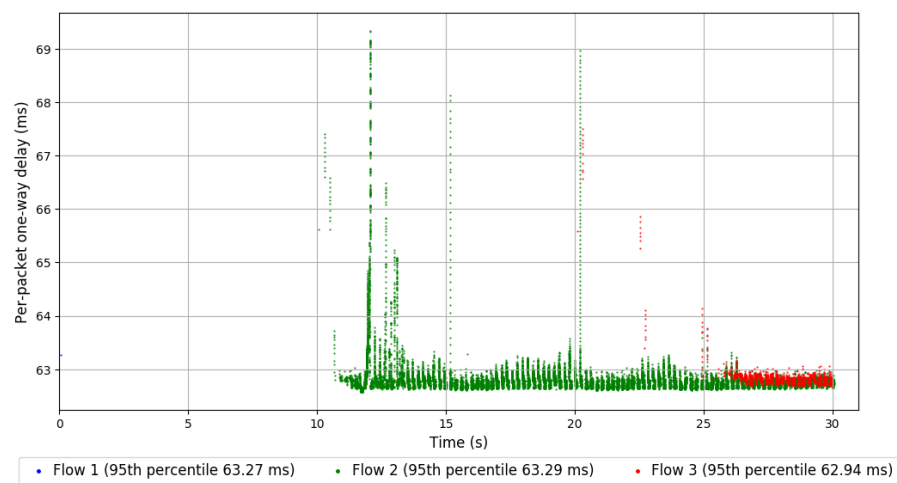
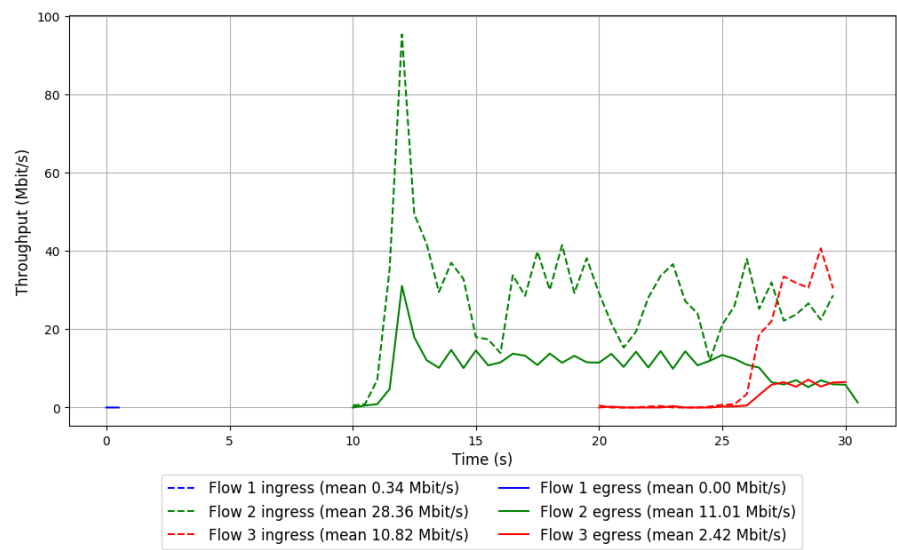


Run 2: Statistics of Copa

Start at: 2019-03-19 03:40:01  
End at: 2019-03-19 03:40:31  
Local clock offset: 0.649 ms  
Remote clock offset: -35.63 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.13 Mbit/s  
95th percentile per-packet one-way delay: 63.246 ms  
Loss rate: 63.81%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 63.267 ms  
Loss rate: 98.60%  
-- Flow 2:  
Average throughput: 11.01 Mbit/s  
95th percentile per-packet one-way delay: 63.293 ms  
Loss rate: 61.19%  
-- Flow 3:  
Average throughput: 2.42 Mbit/s  
95th percentile per-packet one-way delay: 62.942 ms  
Loss rate: 77.64%

Run 2: Report of Copa — Data Link

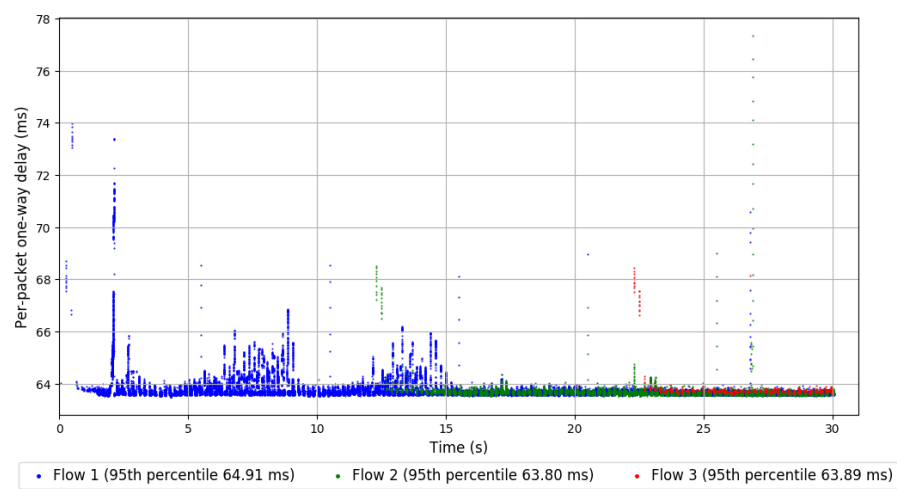
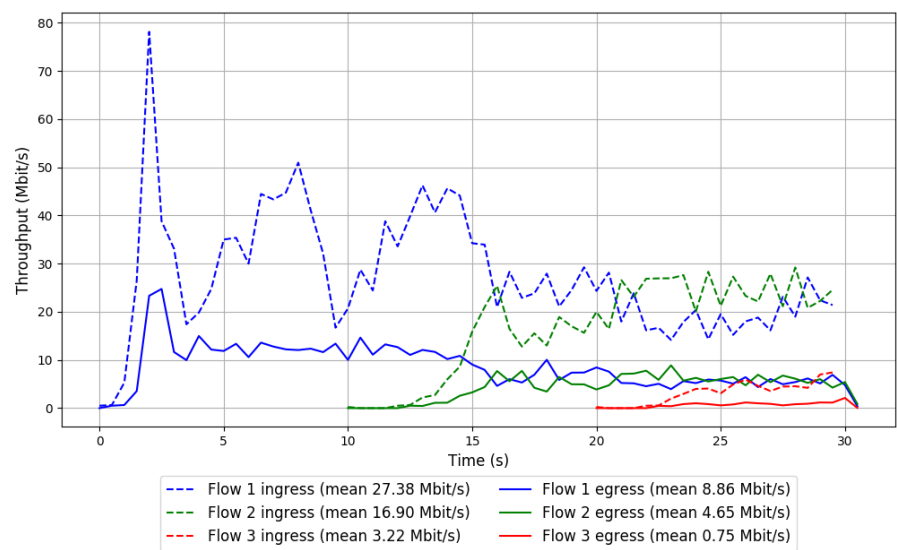


Run 3: Statistics of Copa

Start at: 2019-03-19 04:33:20  
End at: 2019-03-19 04:33:50  
Local clock offset: 0.332 ms  
Remote clock offset: -34.054 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 64.618 ms  
Loss rate: 69.27%  
-- Flow 1:  
Average throughput: 8.86 Mbit/s  
95th percentile per-packet one-way delay: 64.911 ms  
Loss rate: 67.65%  
-- Flow 2:  
Average throughput: 4.65 Mbit/s  
95th percentile per-packet one-way delay: 63.805 ms  
Loss rate: 72.50%  
-- Flow 3:  
Average throughput: 0.75 Mbit/s  
95th percentile per-packet one-way delay: 63.887 ms  
Loss rate: 76.84%

Run 3: Report of Copa — Data Link



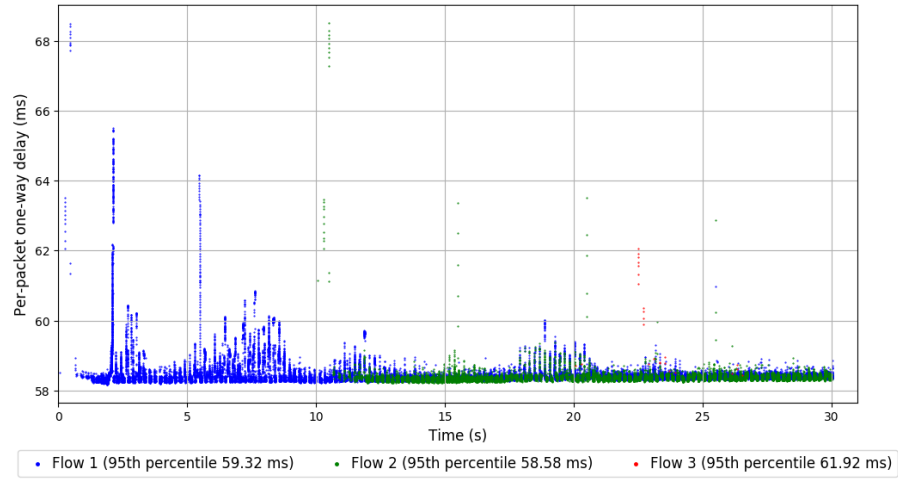
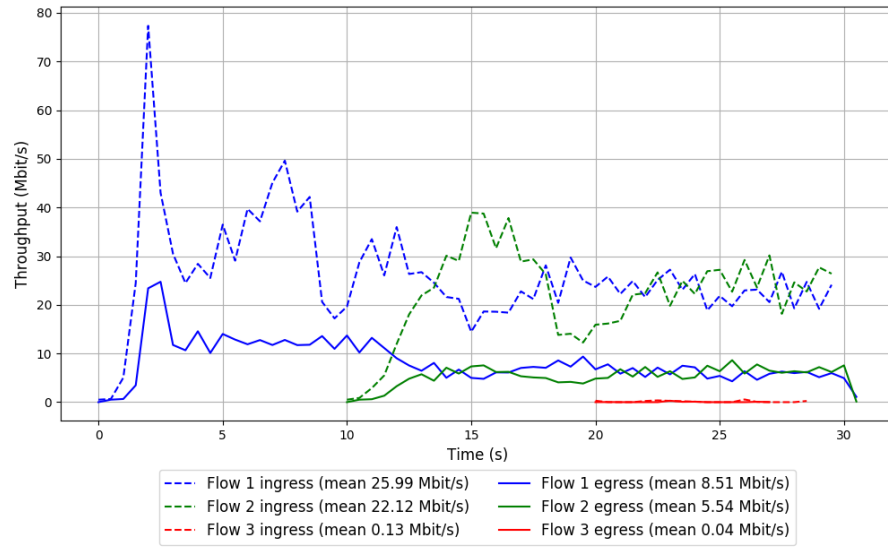


Run 4: Statistics of Copa

Start at: 2019-03-19 05:20:35  
End at: 2019-03-19 05:21:05  
Local clock offset: 0.69 ms  
Remote clock offset: -41.714 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 59.096 ms  
Loss rate: 70.05%  
-- Flow 1:  
Average throughput: 8.51 Mbit/s  
95th percentile per-packet one-way delay: 59.322 ms  
Loss rate: 67.27%  
-- Flow 2:  
Average throughput: 5.54 Mbit/s  
95th percentile per-packet one-way delay: 58.581 ms  
Loss rate: 74.96%  
-- Flow 3:  
Average throughput: 0.04 Mbit/s  
95th percentile per-packet one-way delay: 61.918 ms  
Loss rate: 74.67%

#### Run 4: Report of Copa — Data Link

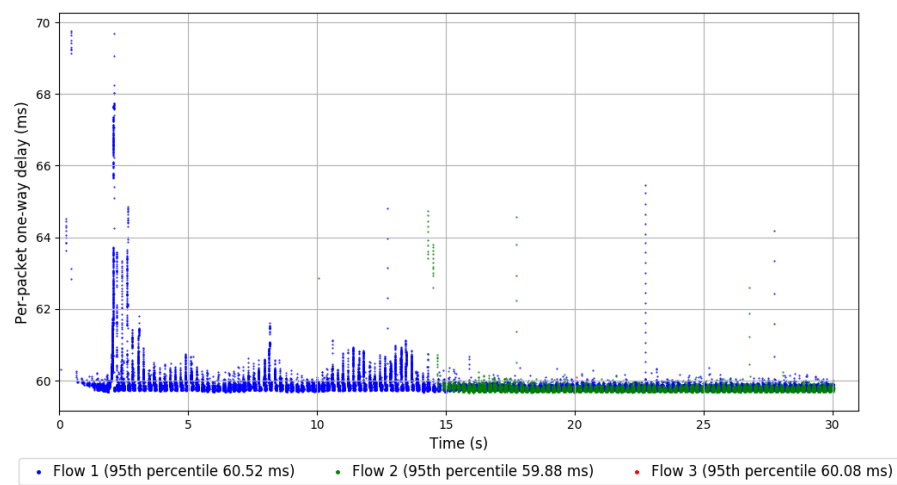
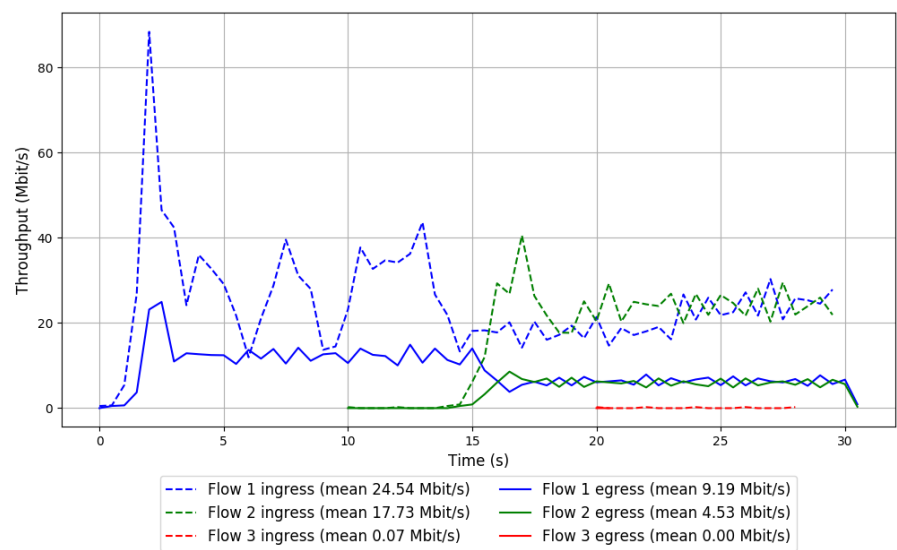


Run 5: Statistics of Copa

Start at: 2019-03-19 06:02:20  
End at: 2019-03-19 06:02:50  
Local clock offset: 0.207 ms  
Remote clock offset: -42.943 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.20 Mbit/s  
95th percentile per-packet one-way delay: 60.383 ms  
Loss rate: 66.44%  
-- Flow 1:  
Average throughput: 9.19 Mbit/s  
95th percentile per-packet one-way delay: 60.525 ms  
Loss rate: 62.57%  
-- Flow 2:  
Average throughput: 4.53 Mbit/s  
95th percentile per-packet one-way delay: 59.881 ms  
Loss rate: 74.43%  
-- Flow 3:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 60.078 ms  
Loss rate: 99.83%

Run 5: Report of Copa — Data Link

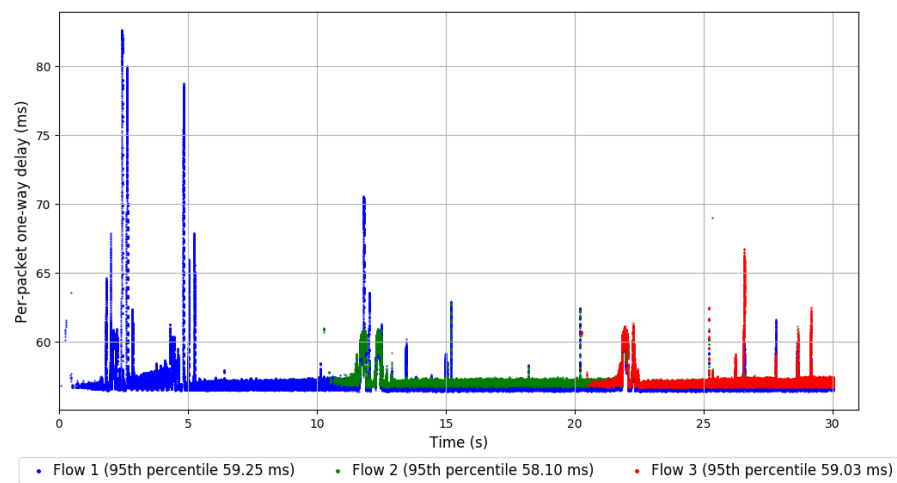
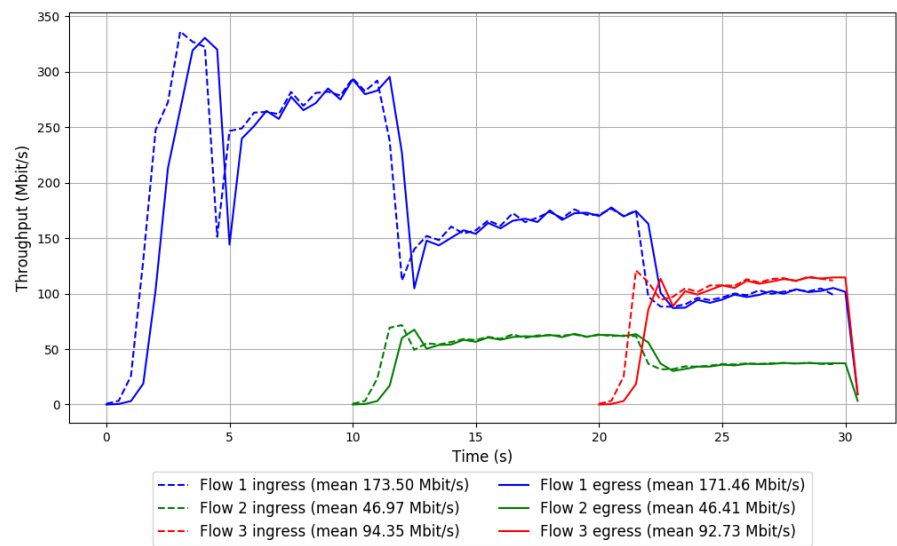


Run 1: Statistics of TCP Cubic

Start at: 2019-03-19 02:40:59  
End at: 2019-03-19 02:41:29  
Local clock offset: 0.285 ms  
Remote clock offset: -41.851 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 233.24 Mbit/s  
95th percentile per-packet one-way delay: 59.119 ms  
Loss rate: 1.25%  
-- Flow 1:  
Average throughput: 171.46 Mbit/s  
95th percentile per-packet one-way delay: 59.254 ms  
Loss rate: 1.17%  
-- Flow 2:  
Average throughput: 46.41 Mbit/s  
95th percentile per-packet one-way delay: 58.104 ms  
Loss rate: 1.20%  
-- Flow 3:  
Average throughput: 92.73 Mbit/s  
95th percentile per-packet one-way delay: 59.026 ms  
Loss rate: 1.72%

Run 1: Report of TCP Cubic — Data Link

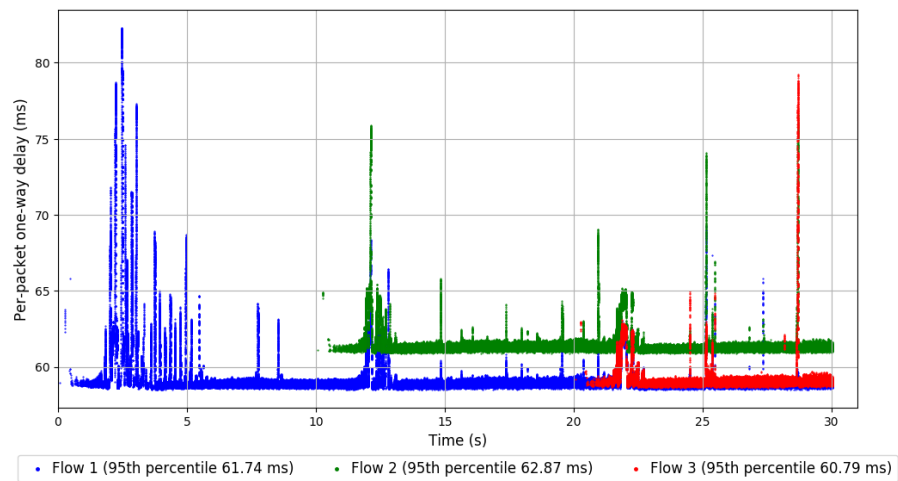
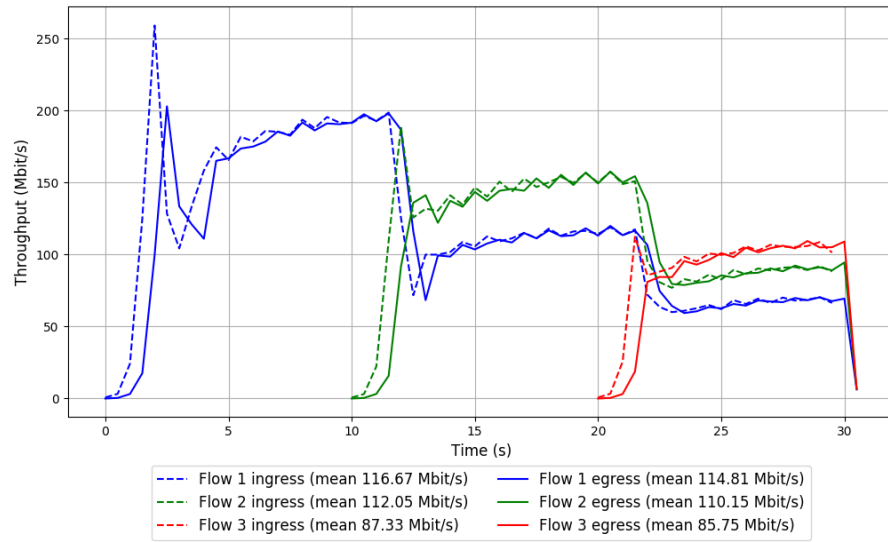


Run 2: Statistics of TCP Cubic

Start at: 2019-03-19 03:22:40  
End at: 2019-03-19 03:23:10  
Local clock offset: 0.642 ms  
Remote clock offset: -39.409 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 216.76 Mbit/s  
95th percentile per-packet one-way delay: 61.944 ms  
Loss rate: 1.66%  
-- Flow 1:  
Average throughput: 114.81 Mbit/s  
95th percentile per-packet one-way delay: 61.736 ms  
Loss rate: 1.59%  
-- Flow 2:  
Average throughput: 110.15 Mbit/s  
95th percentile per-packet one-way delay: 62.865 ms  
Loss rate: 1.70%  
-- Flow 3:  
Average throughput: 85.75 Mbit/s  
95th percentile per-packet one-way delay: 60.791 ms  
Loss rate: 1.81%

## Run 2: Report of TCP Cubic — Data Link



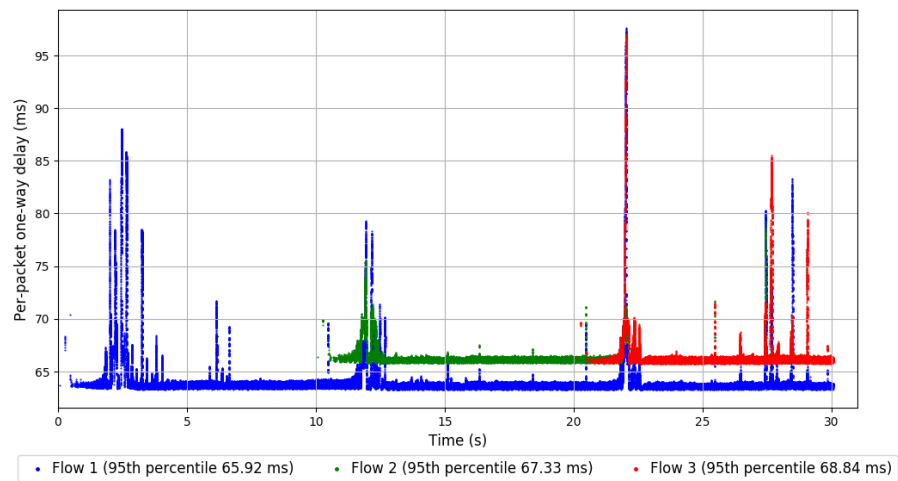
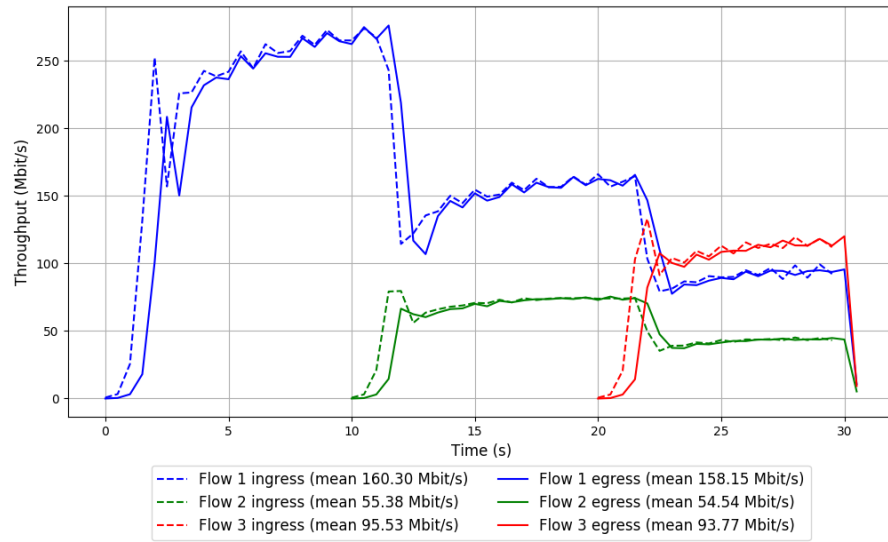


Run 3: Statistics of TCP Cubic

Start at: 2019-03-19 04:04:30  
End at: 2019-03-19 04:05:00  
Local clock offset: 1.136 ms  
Remote clock offset: -34.822 ms

# Below is generated by plot.py at 2019-03-19 06:23:37  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 225.66 Mbit/s  
95th percentile per-packet one-way delay: 66.723 ms  
Loss rate: 1.45%  
-- Flow 1:  
Average throughput: 158.15 Mbit/s  
95th percentile per-packet one-way delay: 65.915 ms  
Loss rate: 1.34%  
-- Flow 2:  
Average throughput: 54.54 Mbit/s  
95th percentile per-packet one-way delay: 67.331 ms  
Loss rate: 1.54%  
-- Flow 3:  
Average throughput: 93.77 Mbit/s  
95th percentile per-packet one-way delay: 68.840 ms  
Loss rate: 1.87%

### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-03-19 05:08:51

End at: 2019-03-19 05:09:21

Local clock offset: 0.736 ms

Remote clock offset: -34.1 ms

# Below is generated by plot.py at 2019-03-19 06:25:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 194.20 Mbit/s

95th percentile per-packet one-way delay: 68.907 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 99.97 Mbit/s

95th percentile per-packet one-way delay: 69.430 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 90.70 Mbit/s

95th percentile per-packet one-way delay: 65.403 ms

Loss rate: 1.53%

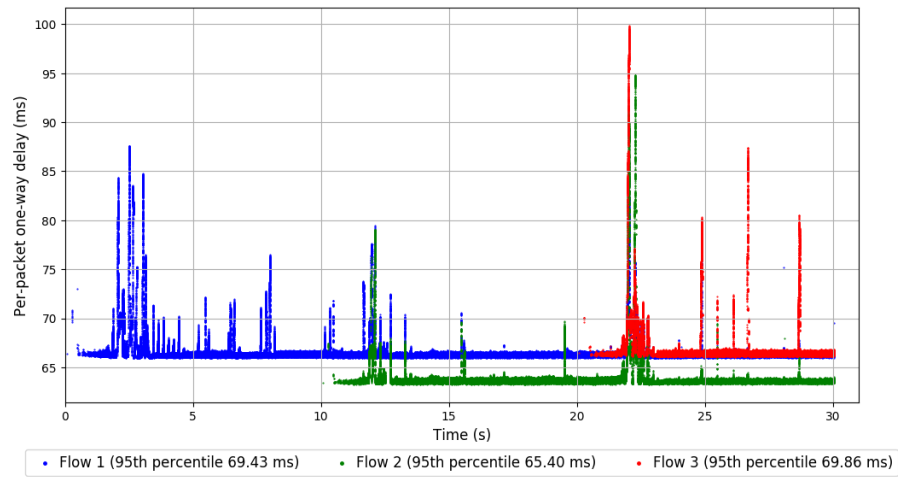
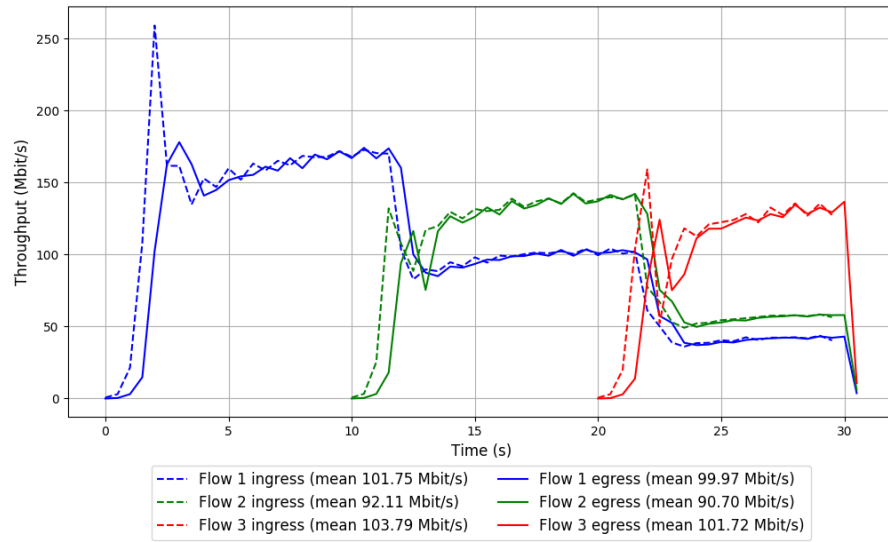
-- Flow 3:

Average throughput: 101.72 Mbit/s

95th percentile per-packet one-way delay: 69.856 ms

Loss rate: 2.00%

# Run 4: Report of TCP Cubic — Data Link

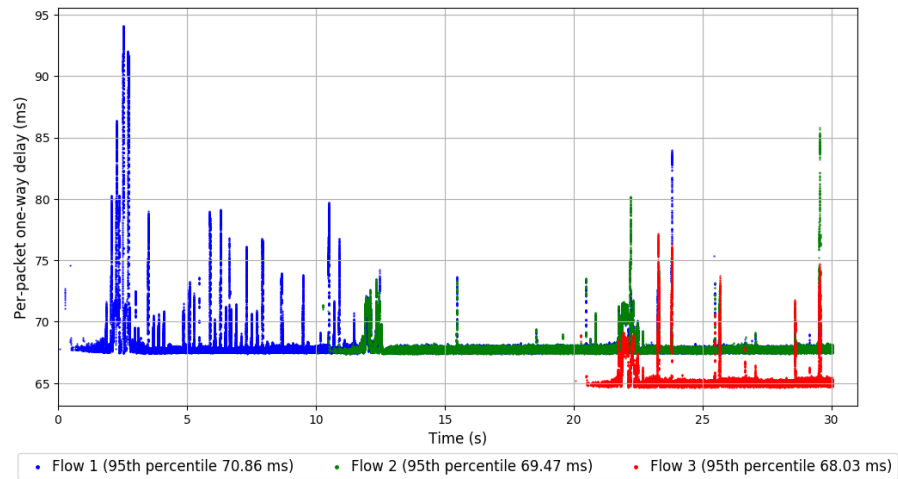
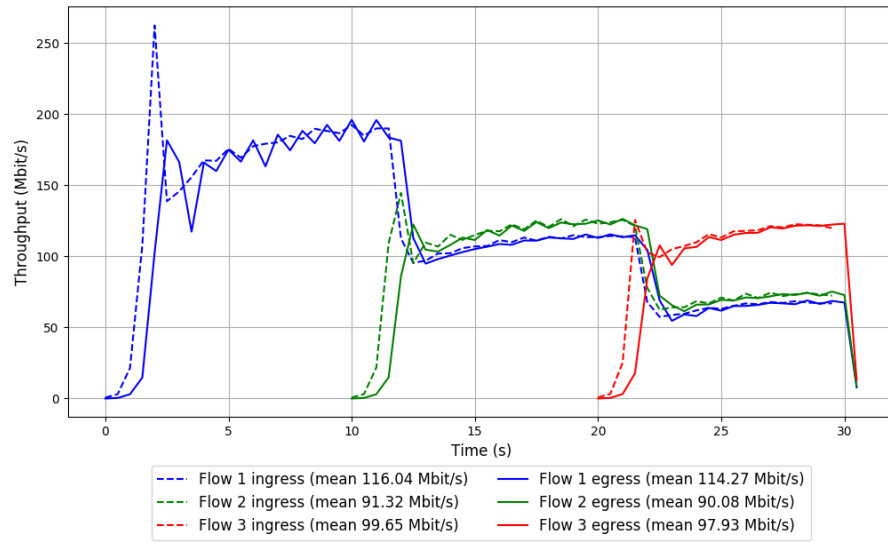


Run 5: Statistics of TCP Cubic

Start at: 2019-03-19 05:45:02  
End at: 2019-03-19 05:45:32  
Local clock offset: 2.545 ms  
Remote clock offset: -36.066 ms

# Below is generated by plot.py at 2019-03-19 06:25:19  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 206.90 Mbit/s  
95th percentile per-packet one-way delay: 70.278 ms  
Loss rate: 1.52%  
-- Flow 1:  
Average throughput: 114.27 Mbit/s  
95th percentile per-packet one-way delay: 70.862 ms  
Loss rate: 1.53%  
-- Flow 2:  
Average throughput: 90.08 Mbit/s  
95th percentile per-packet one-way delay: 69.465 ms  
Loss rate: 1.37%  
-- Flow 3:  
Average throughput: 97.93 Mbit/s  
95th percentile per-packet one-way delay: 68.026 ms  
Loss rate: 1.73%

# Run 5: Report of TCP Cubic — Data Link

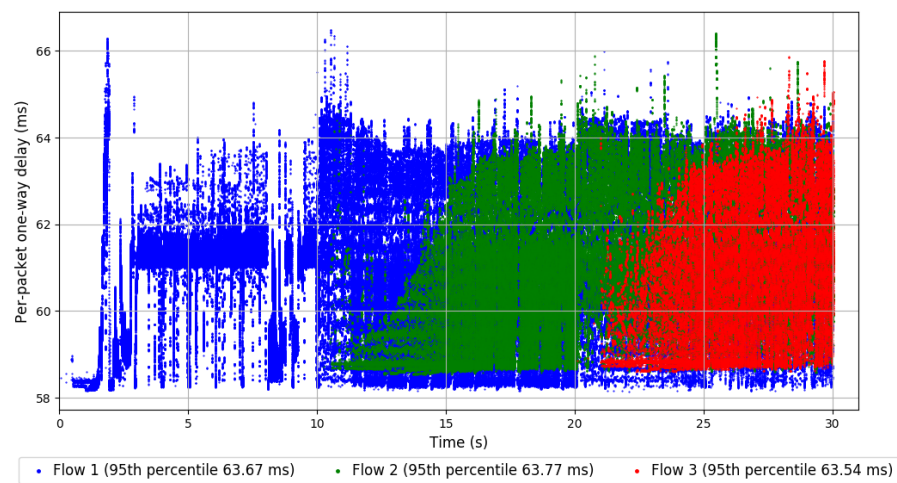
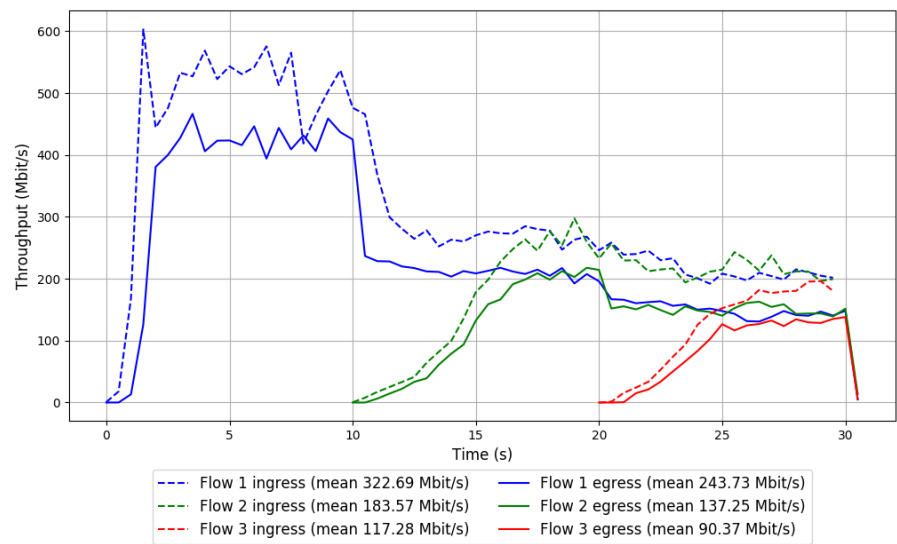


Run 1: Statistics of FillP

Start at: 2019-03-19 03:05:09  
End at: 2019-03-19 03:05:39  
Local clock offset: 0.334 ms  
Remote clock offset: -39.915 ms

# Below is generated by plot.py at 2019-03-19 06:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 364.89 Mbit/s  
95th percentile per-packet one-way delay: 63.691 ms  
Loss rate: 24.54%  
-- Flow 1:  
Average throughput: 243.73 Mbit/s  
95th percentile per-packet one-way delay: 63.667 ms  
Loss rate: 24.46%  
-- Flow 2:  
Average throughput: 137.25 Mbit/s  
95th percentile per-packet one-way delay: 63.769 ms  
Loss rate: 25.24%  
-- Flow 3:  
Average throughput: 90.37 Mbit/s  
95th percentile per-packet one-way delay: 63.542 ms  
Loss rate: 22.94%

Run 1: Report of FillP — Data Link



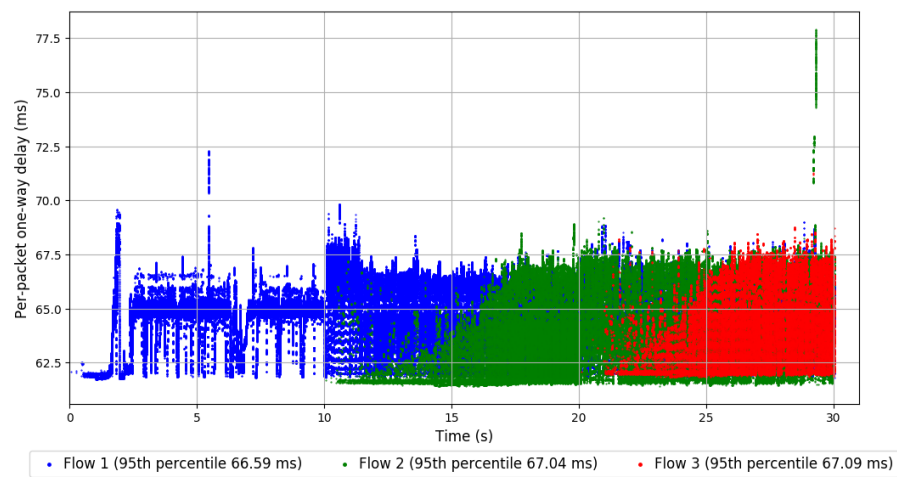
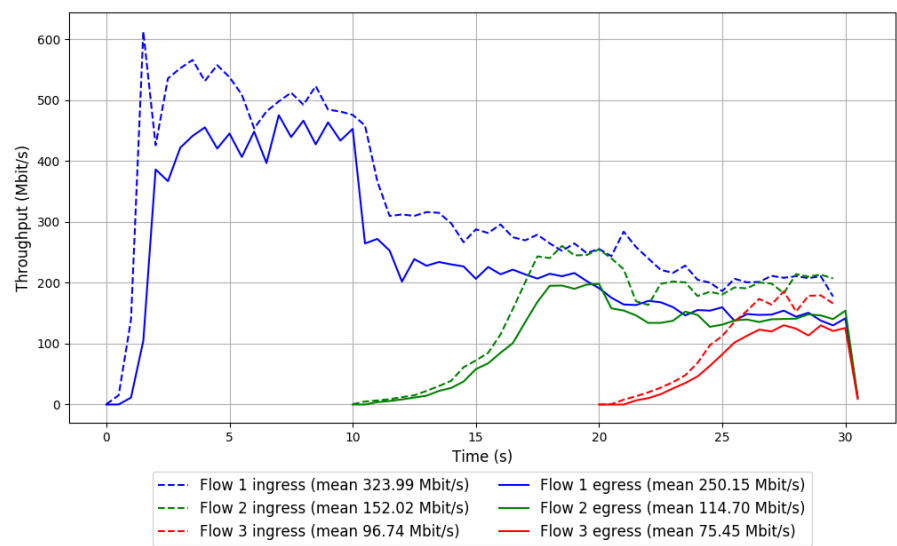


Run 2: Statistics of FillP

Start at: 2019-03-19 03:41:20  
End at: 2019-03-19 03:41:50  
Local clock offset: 1.153 ms  
Remote clock offset: -35.878 ms

# Below is generated by plot.py at 2019-03-19 06:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 351.55 Mbit/s  
95th percentile per-packet one-way delay: 66.816 ms  
Loss rate: 23.11%  
-- Flow 1:  
Average throughput: 250.15 Mbit/s  
95th percentile per-packet one-way delay: 66.594 ms  
Loss rate: 22.78%  
-- Flow 2:  
Average throughput: 114.70 Mbit/s  
95th percentile per-packet one-way delay: 67.039 ms  
Loss rate: 24.53%  
-- Flow 3:  
Average throughput: 75.45 Mbit/s  
95th percentile per-packet one-way delay: 67.090 ms  
Loss rate: 22.01%

Run 2: Report of FillP — Data Link

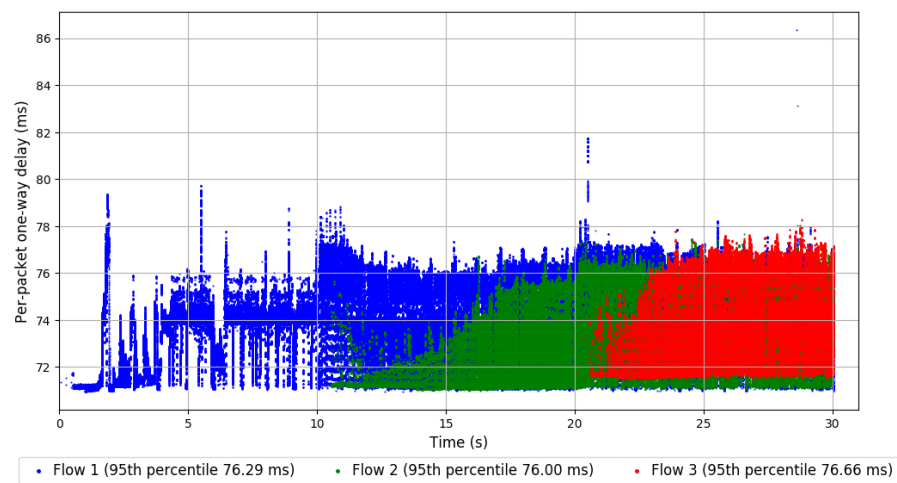
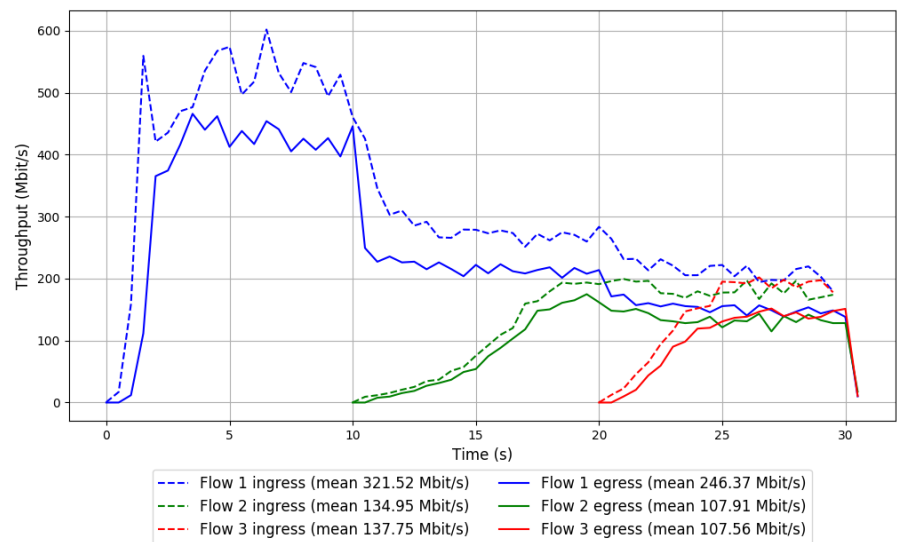


Run 3: Statistics of FillP

Start at: 2019-03-19 04:34:40  
End at: 2019-03-19 04:35:10  
Local clock offset: -1.121 ms  
Remote clock offset: -27.88 ms

# Below is generated by plot.py at 2019-03-19 06:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 353.75 Mbit/s  
95th percentile per-packet one-way delay: 76.283 ms  
Loss rate: 22.57%  
-- Flow 1:  
Average throughput: 246.37 Mbit/s  
95th percentile per-packet one-way delay: 76.288 ms  
Loss rate: 23.37%  
-- Flow 2:  
Average throughput: 107.91 Mbit/s  
95th percentile per-packet one-way delay: 76.000 ms  
Loss rate: 20.03%  
-- Flow 3:  
Average throughput: 107.56 Mbit/s  
95th percentile per-packet one-way delay: 76.659 ms  
Loss rate: 21.92%

Run 3: Report of FillP — Data Link

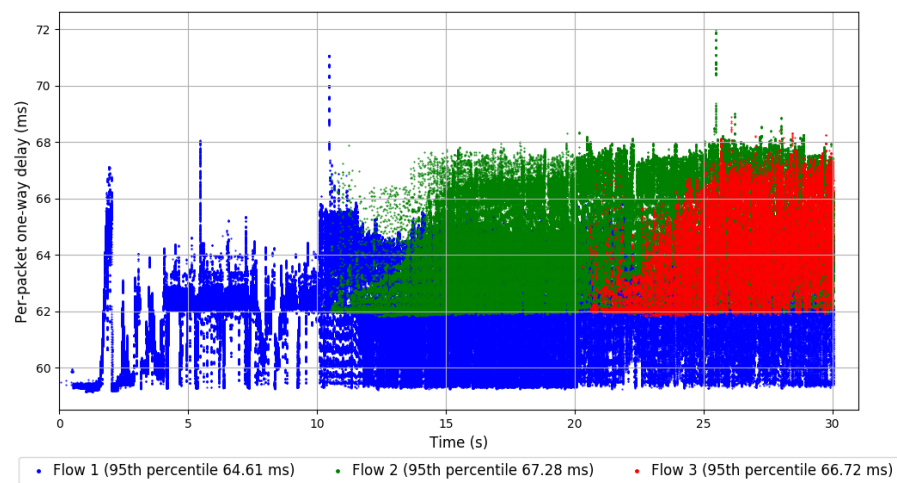
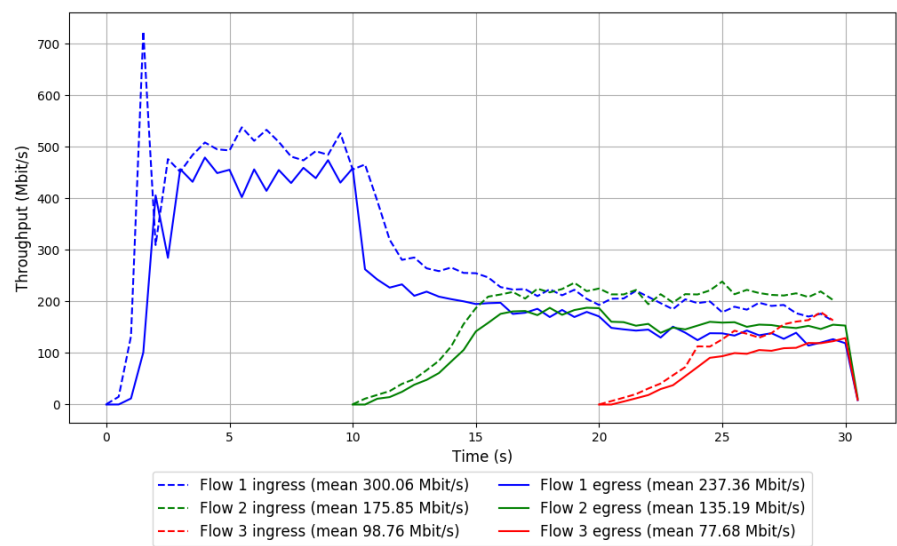


Run 4: Statistics of FillP

Start at: 2019-03-19 05:21:55  
End at: 2019-03-19 05:22:25  
Local clock offset: -0.195 ms  
Remote clock offset: -41.658 ms

# Below is generated by plot.py at 2019-03-19 06:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 352.98 Mbit/s  
95th percentile per-packet one-way delay: 66.483 ms  
Loss rate: 21.52%  
-- Flow 1:  
Average throughput: 237.36 Mbit/s  
95th percentile per-packet one-way delay: 64.607 ms  
Loss rate: 20.90%  
-- Flow 2:  
Average throughput: 135.19 Mbit/s  
95th percentile per-packet one-way delay: 67.281 ms  
Loss rate: 23.12%  
-- Flow 3:  
Average throughput: 77.68 Mbit/s  
95th percentile per-packet one-way delay: 66.724 ms  
Loss rate: 21.50%

Run 4: Report of FillP — Data Link

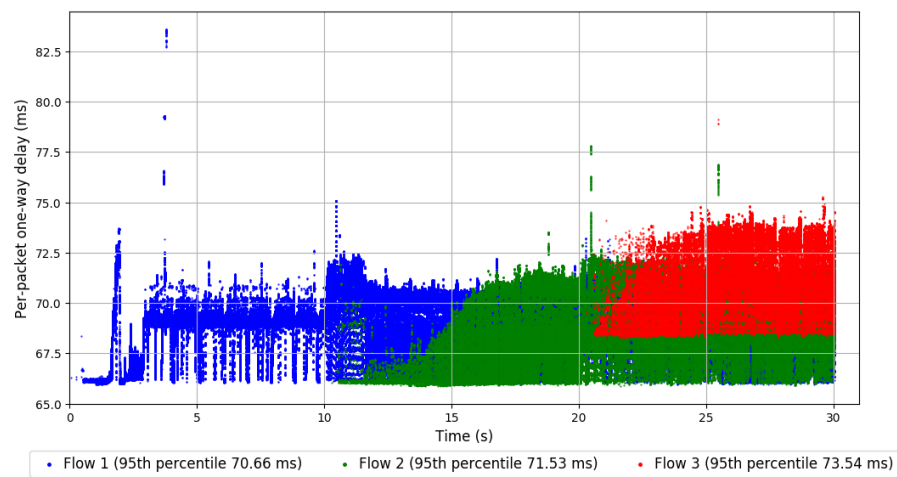
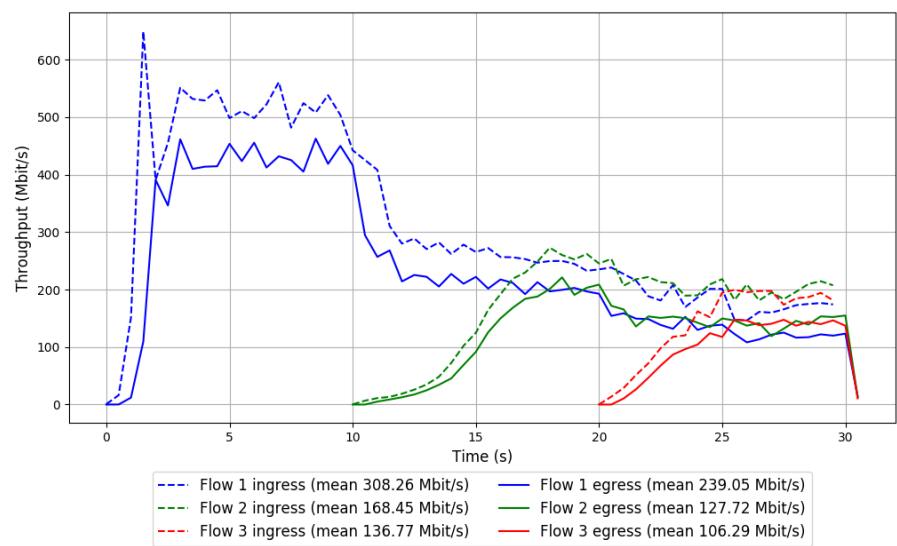


Run 5: Statistics of FillP

Start at: 2019-03-19 06:03:39  
End at: 2019-03-19 06:04:09  
Local clock offset: -0.215 ms  
Remote clock offset: -36.992 ms

# Below is generated by plot.py at 2019-03-19 06:28:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 359.27 Mbit/s  
95th percentile per-packet one-way delay: 71.755 ms  
Loss rate: 22.85%  
-- Flow 1:  
Average throughput: 239.05 Mbit/s  
95th percentile per-packet one-way delay: 70.663 ms  
Loss rate: 22.44%  
-- Flow 2:  
Average throughput: 127.72 Mbit/s  
95th percentile per-packet one-way delay: 71.530 ms  
Loss rate: 24.18%  
-- Flow 3:  
Average throughput: 106.29 Mbit/s  
95th percentile per-packet one-way delay: 73.544 ms  
Loss rate: 22.28%

Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-03-19 02:38:06

End at: 2019-03-19 02:38:36

Local clock offset: 1.404 ms

Remote clock offset: -34.303 ms

# Below is generated by plot.py at 2019-03-19 06:28:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 327.72 Mbit/s

95th percentile per-packet one-way delay: 69.824 ms

Loss rate: 13.25%

-- Flow 1:

Average throughput: 231.13 Mbit/s

95th percentile per-packet one-way delay: 69.769 ms

Loss rate: 12.98%

-- Flow 2:

Average throughput: 87.16 Mbit/s

95th percentile per-packet one-way delay: 66.844 ms

Loss rate: 11.67%

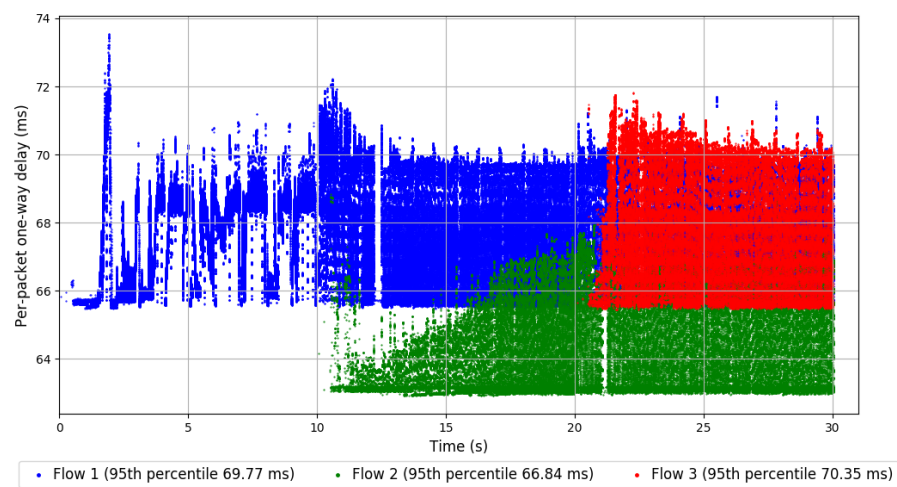
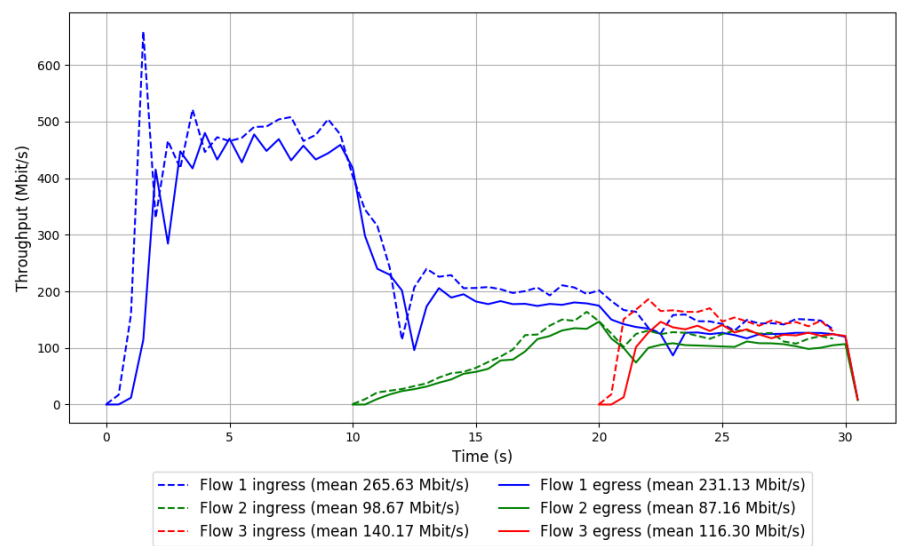
-- Flow 3:

Average throughput: 116.30 Mbit/s

95th percentile per-packet one-way delay: 70.348 ms

Loss rate: 17.01%

Run 1: Report of FillP-Sheep — Data Link

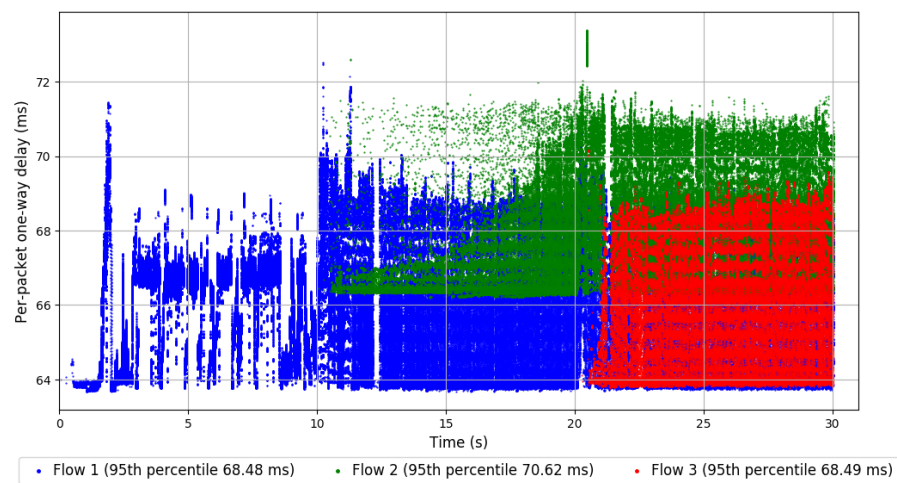
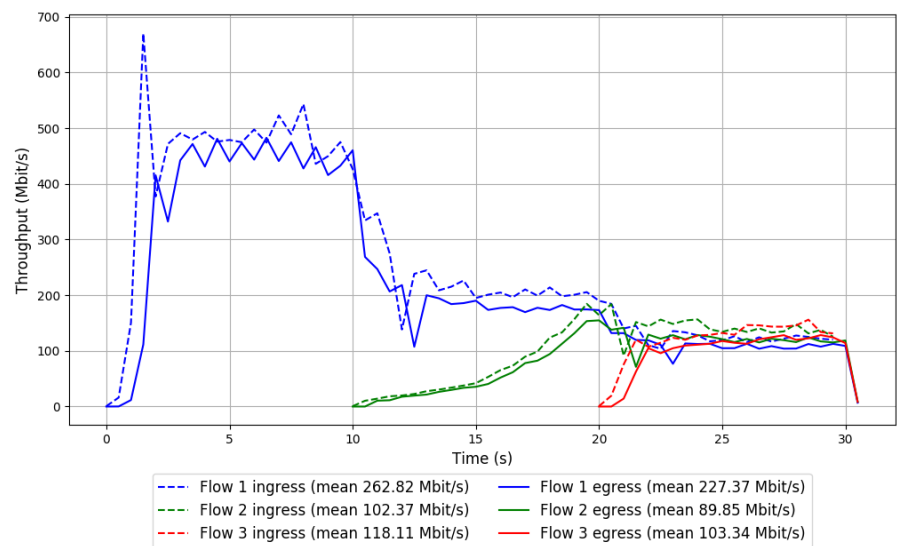


Run 2: Statistics of FillP-Sheep

Start at: 2019-03-19 03:19:51  
End at: 2019-03-19 03:20:21  
Local clock offset: 0.534 ms  
Remote clock offset: -34.132 ms

# Below is generated by plot.py at 2019-03-19 06:30:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 321.42 Mbit/s  
95th percentile per-packet one-way delay: 69.643 ms  
Loss rate: 13.15%  
-- Flow 1:  
Average throughput: 227.37 Mbit/s  
95th percentile per-packet one-way delay: 68.484 ms  
Loss rate: 13.48%  
-- Flow 2:  
Average throughput: 89.85 Mbit/s  
95th percentile per-packet one-way delay: 70.619 ms  
Loss rate: 12.22%  
-- Flow 3:  
Average throughput: 103.34 Mbit/s  
95th percentile per-packet one-way delay: 68.493 ms  
Loss rate: 12.51%

Run 2: Report of FillP-Sheep — Data Link

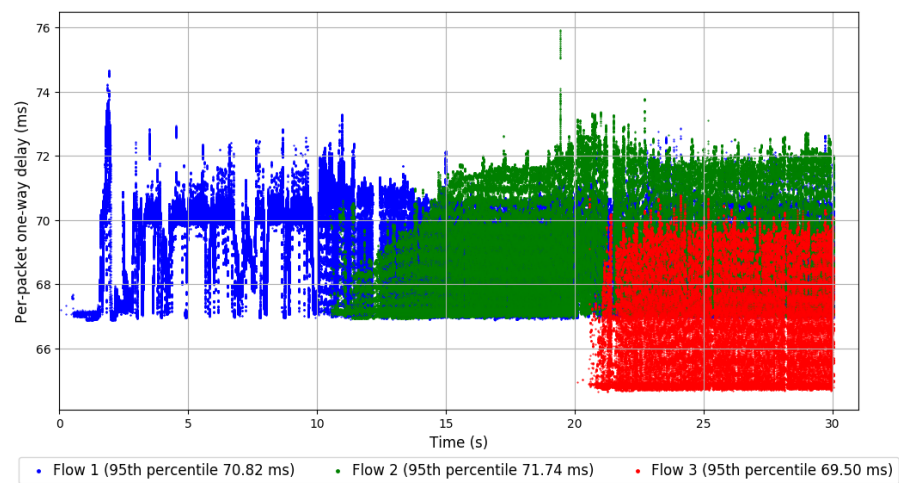
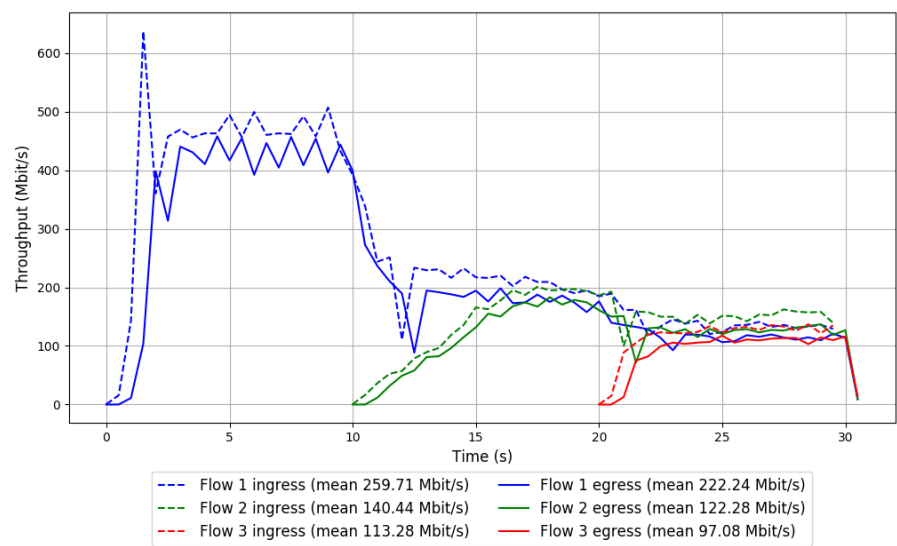


Run 3: Statistics of FillP-Sheep

Start at: 2019-03-19 03:56:06  
End at: 2019-03-19 03:56:36  
Local clock offset: 1.729 ms  
Remote clock offset: -32.622 ms

# Below is generated by plot.py at 2019-03-19 06:30:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 335.87 Mbit/s  
95th percentile per-packet one-way delay: 71.220 ms  
Loss rate: 14.05%  
-- Flow 1:  
Average throughput: 222.24 Mbit/s  
95th percentile per-packet one-way delay: 70.817 ms  
Loss rate: 14.42%  
-- Flow 2:  
Average throughput: 122.28 Mbit/s  
95th percentile per-packet one-way delay: 71.744 ms  
Loss rate: 12.93%  
-- Flow 3:  
Average throughput: 97.08 Mbit/s  
95th percentile per-packet one-way delay: 69.504 ms  
Loss rate: 14.28%

Run 3: Report of FillP-Sheep — Data Link

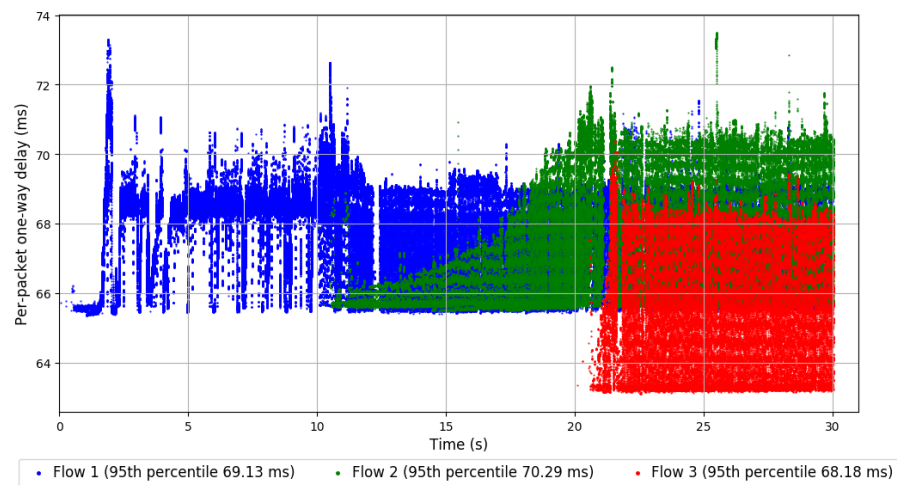
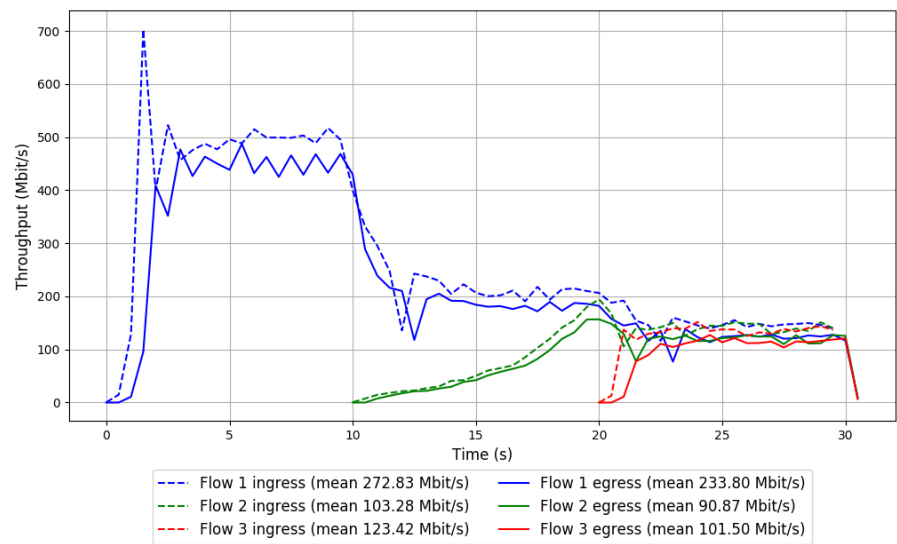


Run 4: Statistics of FillP-Sheep

Start at: 2019-03-19 05:00:34  
End at: 2019-03-19 05:01:04  
Local clock offset: -0.234 ms  
Remote clock offset: -34.069 ms

# Below is generated by plot.py at 2019-03-19 06:32:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 327.81 Mbit/s  
95th percentile per-packet one-way delay: 69.537 ms  
Loss rate: 14.26%  
-- Flow 1:  
Average throughput: 233.80 Mbit/s  
95th percentile per-packet one-way delay: 69.126 ms  
Loss rate: 14.31%  
-- Flow 2:  
Average throughput: 90.87 Mbit/s  
95th percentile per-packet one-way delay: 70.291 ms  
Loss rate: 12.00%  
-- Flow 3:  
Average throughput: 101.50 Mbit/s  
95th percentile per-packet one-way delay: 68.183 ms  
Loss rate: 17.74%

Run 4: Report of FillP-Sheep — Data Link



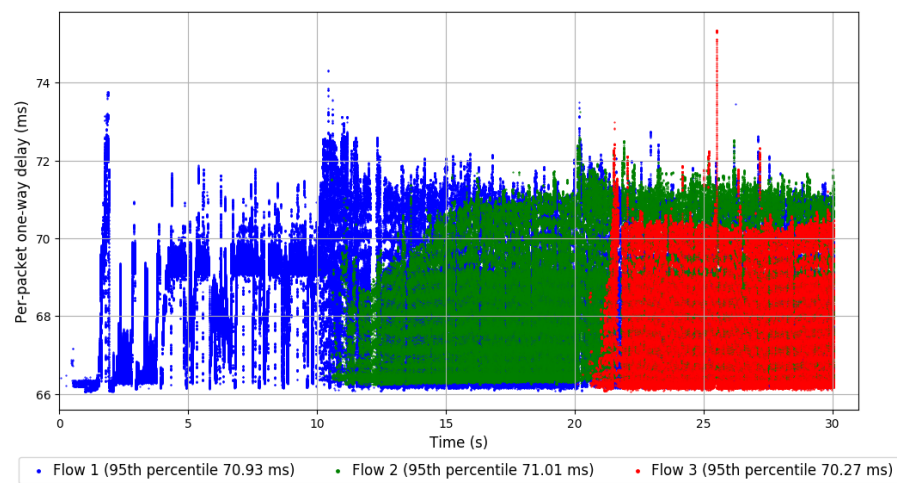
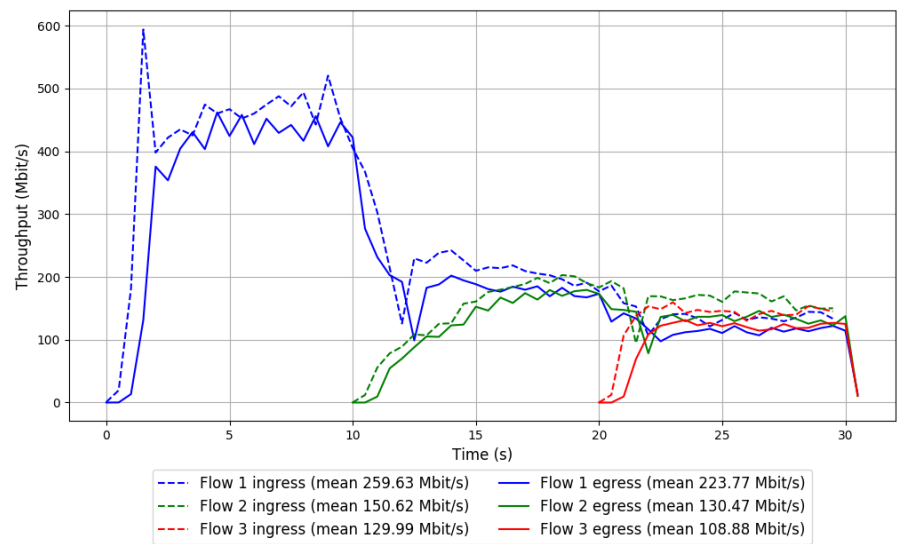


Run 5: Statistics of FillP-Sheep

Start at: 2019-03-19 05:42:12  
End at: 2019-03-19 05:42:42  
Local clock offset: 1.275 ms  
Remote clock offset: -35.909 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 346.70 Mbit/s  
95th percentile per-packet one-way delay: 70.915 ms  
Loss rate: 13.96%  
-- Flow 1:  
Average throughput: 223.77 Mbit/s  
95th percentile per-packet one-way delay: 70.926 ms  
Loss rate: 13.80%  
-- Flow 2:  
Average throughput: 130.47 Mbit/s  
95th percentile per-packet one-way delay: 71.007 ms  
Loss rate: 13.40%  
-- Flow 3:  
Average throughput: 108.88 Mbit/s  
95th percentile per-packet one-way delay: 70.270 ms  
Loss rate: 16.23%

Run 5: Report of FillP-Sheep — Data Link

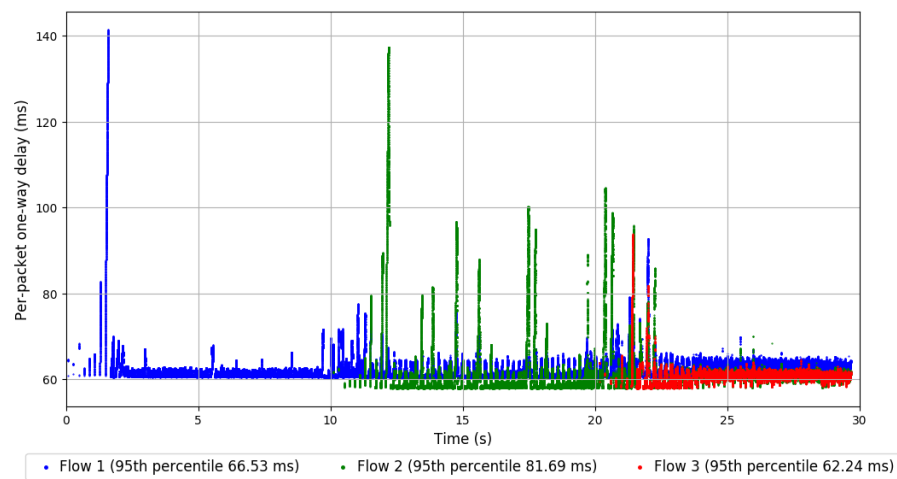
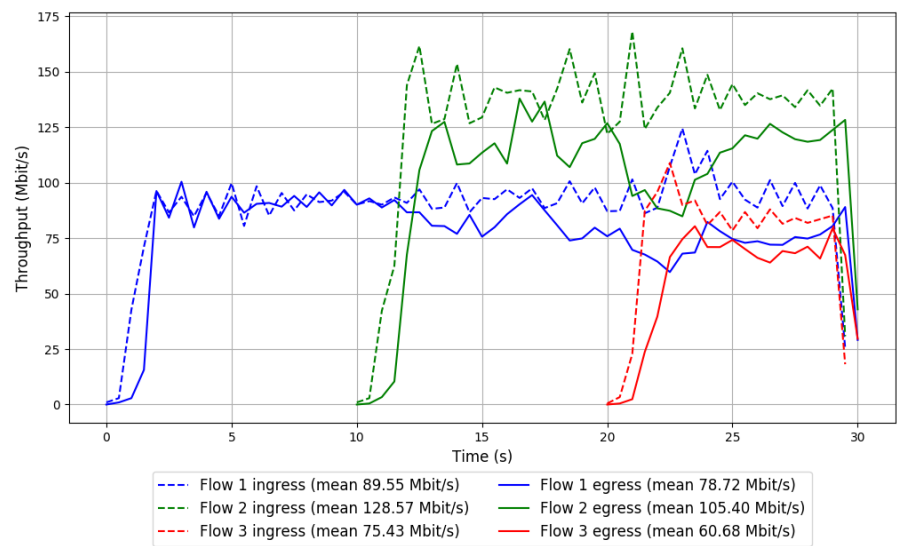


Run 1: Statistics of Indigo

Start at: 2019-03-19 02:59:40  
End at: 2019-03-19 03:00:10  
Local clock offset: 1.673 ms  
Remote clock offset: -39.27 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 167.85 Mbit/s  
95th percentile per-packet one-way delay: 69.521 ms  
Loss rate: 15.54%  
-- Flow 1:  
Average throughput: 78.72 Mbit/s  
95th percentile per-packet one-way delay: 66.529 ms  
Loss rate: 12.09%  
-- Flow 2:  
Average throughput: 105.40 Mbit/s  
95th percentile per-packet one-way delay: 81.685 ms  
Loss rate: 18.02%  
-- Flow 3:  
Average throughput: 60.68 Mbit/s  
95th percentile per-packet one-way delay: 62.242 ms  
Loss rate: 19.55%

Run 1: Report of Indigo — Data Link

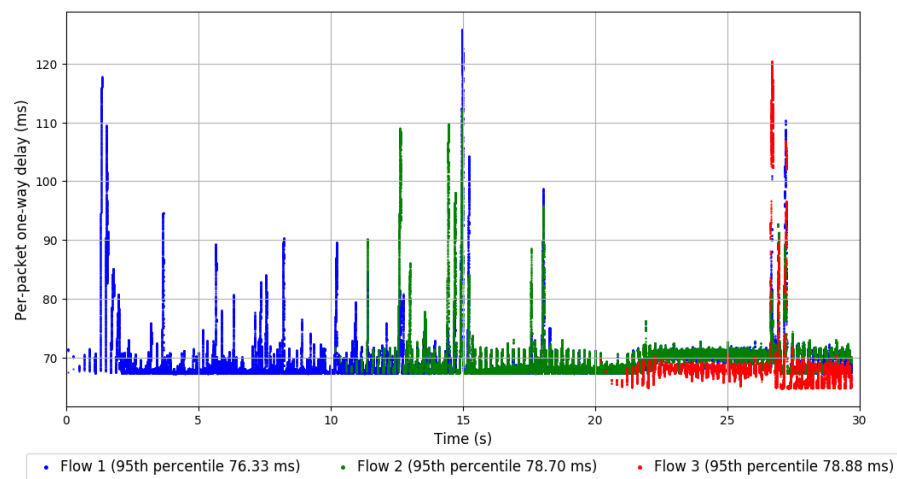
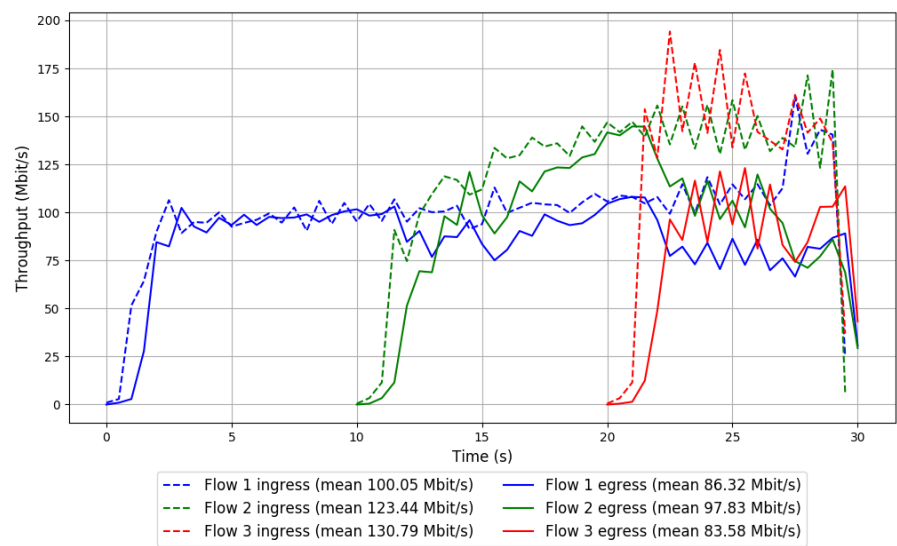


Run 2: Statistics of Indigo

Start at: 2019-03-19 03:30:10  
End at: 2019-03-19 03:30:40  
Local clock offset: -4.905 ms  
Remote clock offset: -38.796 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 177.58 Mbit/s  
95th percentile per-packet one-way delay: 77.327 ms  
Loss rate: 20.48%  
-- Flow 1:  
Average throughput: 86.32 Mbit/s  
95th percentile per-packet one-way delay: 76.331 ms  
Loss rate: 13.72%  
-- Flow 2:  
Average throughput: 97.83 Mbit/s  
95th percentile per-packet one-way delay: 78.703 ms  
Loss rate: 20.75%  
-- Flow 3:  
Average throughput: 83.58 Mbit/s  
95th percentile per-packet one-way delay: 78.876 ms  
Loss rate: 36.11%

Run 2: Report of Indigo — Data Link

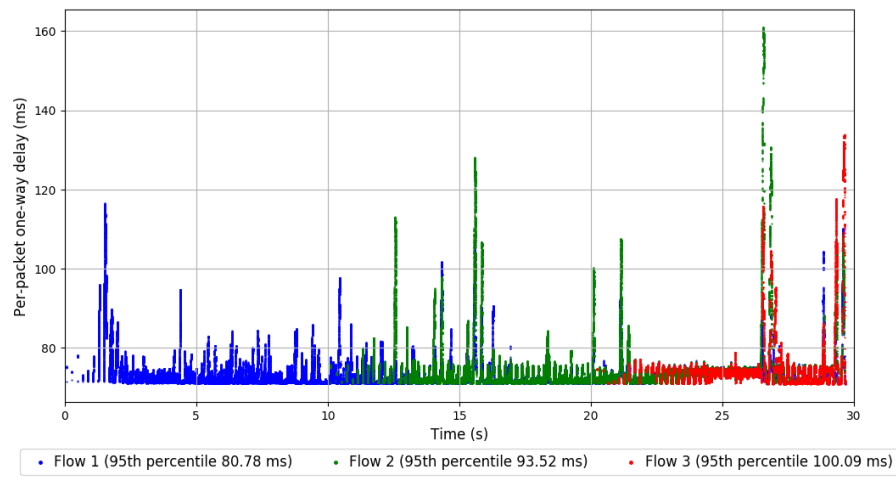
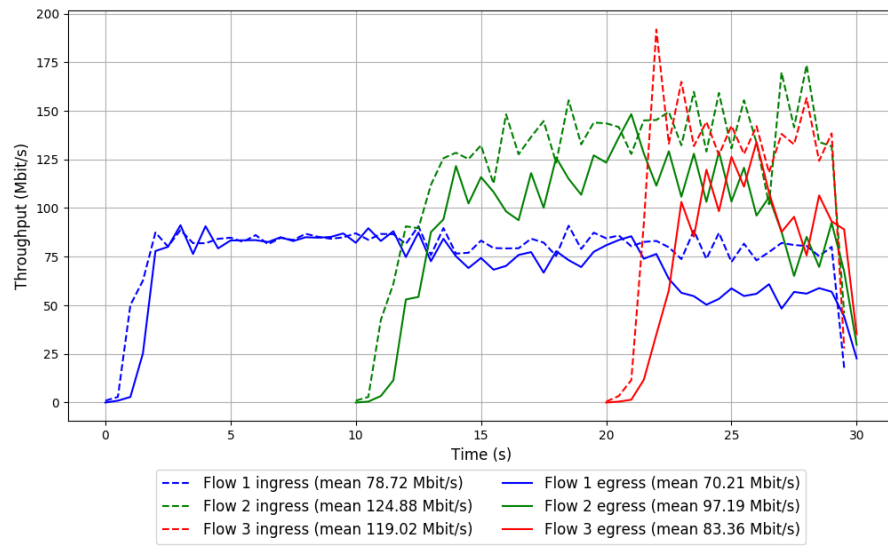


Run 3: Statistics of Indigo

Start at: 2019-03-19 04:29:12  
End at: 2019-03-19 04:29:42  
Local clock offset: 0.327 ms  
Remote clock offset: -29.166 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 160.99 Mbit/s  
95th percentile per-packet one-way delay: 85.624 ms  
Loss rate: 19.17%  
-- Flow 1:  
Average throughput: 70.21 Mbit/s  
95th percentile per-packet one-way delay: 80.775 ms  
Loss rate: 10.81%  
-- Flow 2:  
Average throughput: 97.19 Mbit/s  
95th percentile per-packet one-way delay: 93.522 ms  
Loss rate: 22.18%  
-- Flow 3:  
Average throughput: 83.36 Mbit/s  
95th percentile per-packet one-way delay: 100.087 ms  
Loss rate: 29.98%

### Run 3: Report of Indigo — Data Link



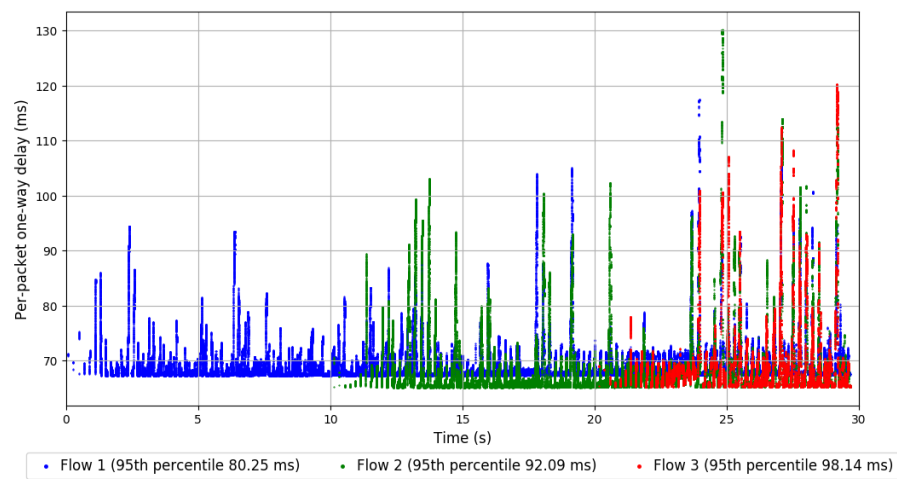
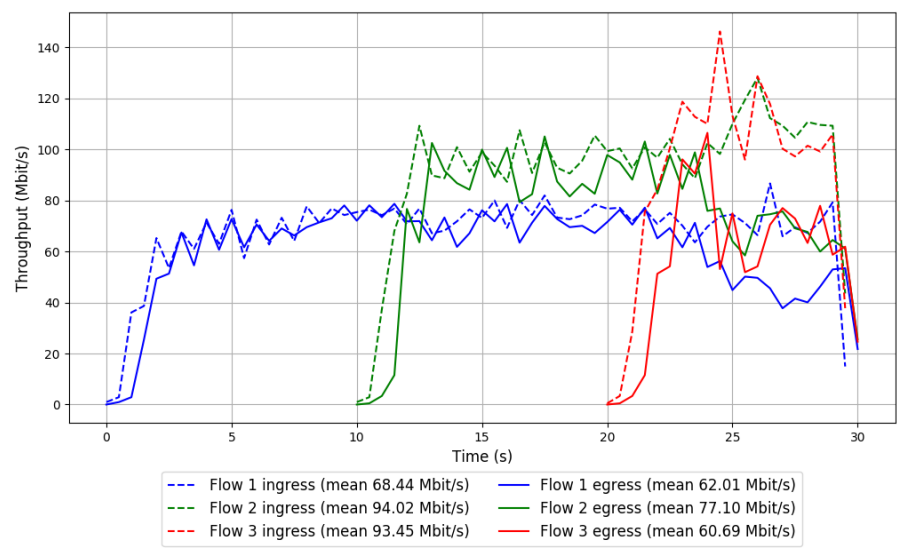


Run 4: Statistics of Indigo

Start at: 2019-03-19 05:16:28  
End at: 2019-03-19 05:16:58  
Local clock offset: -0.623 ms  
Remote clock offset: -34.989 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 132.39 Mbit/s  
95th percentile per-packet one-way delay: 89.443 ms  
Loss rate: 17.52%  
-- Flow 1:  
Average throughput: 62.01 Mbit/s  
95th percentile per-packet one-way delay: 80.255 ms  
Loss rate: 9.40%  
-- Flow 2:  
Average throughput: 77.10 Mbit/s  
95th percentile per-packet one-way delay: 92.095 ms  
Loss rate: 18.00%  
-- Flow 3:  
Average throughput: 60.69 Mbit/s  
95th percentile per-packet one-way delay: 98.139 ms  
Loss rate: 35.05%

Run 4: Report of Indigo — Data Link

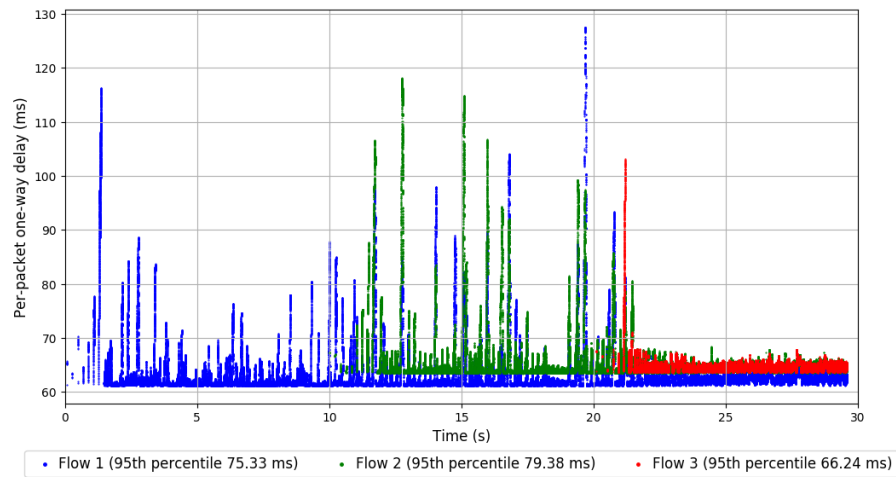
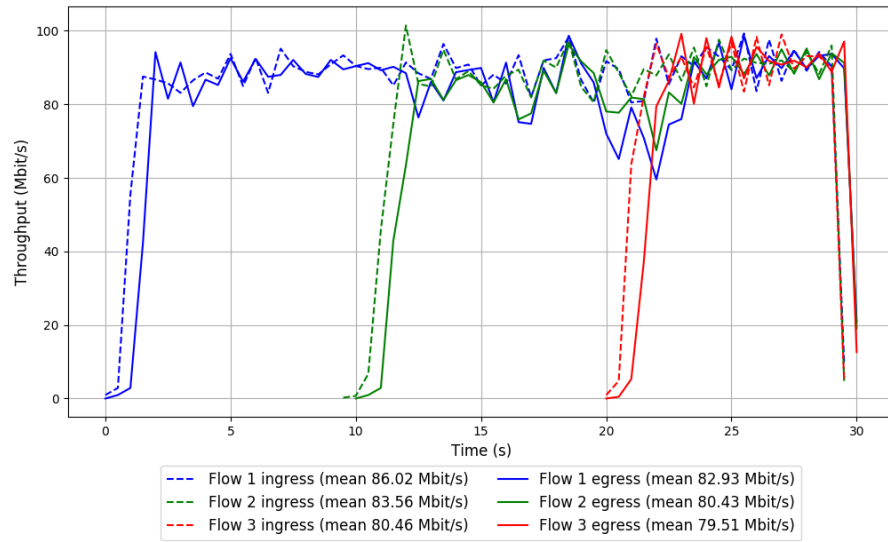


Run 5: Statistics of Indigo

Start at: 2019-03-19 05:58:09  
End at: 2019-03-19 05:58:39  
Local clock offset: -3.478 ms  
Remote clock offset: -45.148 ms

# Below is generated by plot.py at 2019-03-19 06:33:52  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 161.78 Mbit/s  
95th percentile per-packet one-way delay: 74.551 ms  
Loss rate: 3.27%  
-- Flow 1:  
Average throughput: 82.93 Mbit/s  
95th percentile per-packet one-way delay: 75.326 ms  
Loss rate: 3.58%  
-- Flow 2:  
Average throughput: 80.43 Mbit/s  
95th percentile per-packet one-way delay: 79.382 ms  
Loss rate: 3.77%  
-- Flow 3:  
Average throughput: 79.51 Mbit/s  
95th percentile per-packet one-way delay: 66.243 ms  
Loss rate: 1.19%

## Run 5: Report of Indigo — Data Link

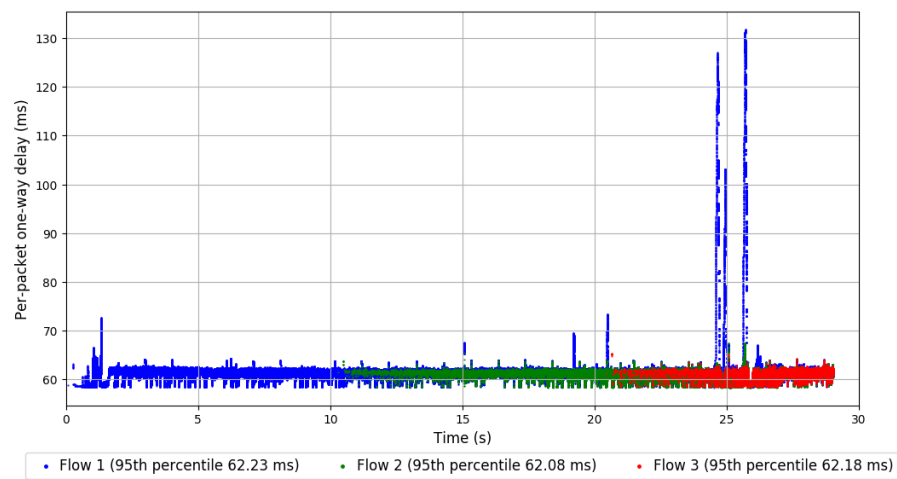
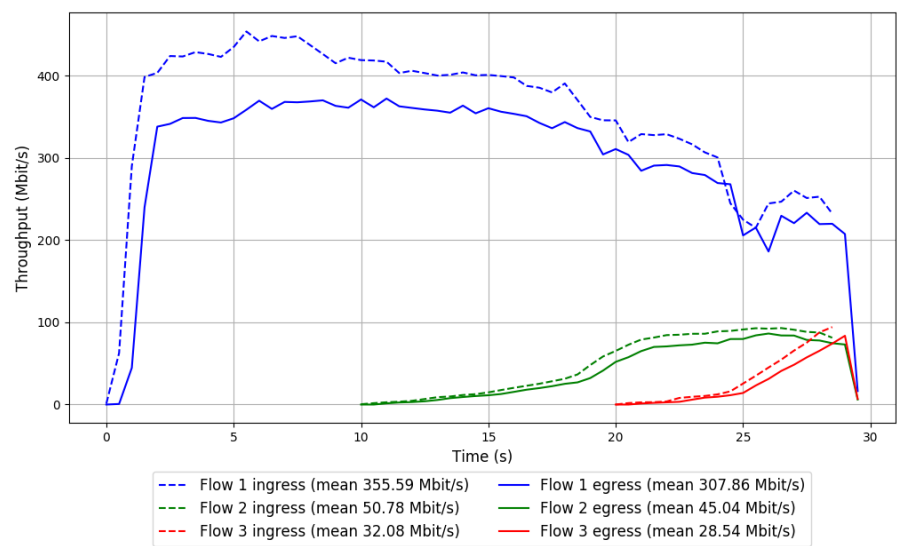


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-19 03:06:45  
End at: 2019-03-19 03:07:15  
Local clock offset: 0.629 ms  
Remote clock offset: -39.641 ms

# Below is generated by plot.py at 2019-03-19 06:34:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 345.42 Mbit/s  
95th percentile per-packet one-way delay: 62.221 ms  
Loss rate: 13.18%  
-- Flow 1:  
Average throughput: 307.86 Mbit/s  
95th percentile per-packet one-way delay: 62.232 ms  
Loss rate: 13.41%  
-- Flow 2:  
Average throughput: 45.04 Mbit/s  
95th percentile per-packet one-way delay: 62.077 ms  
Loss rate: 11.30%  
-- Flow 3:  
Average throughput: 28.54 Mbit/s  
95th percentile per-packet one-way delay: 62.181 ms  
Loss rate: 11.05%

Run 1: Report of Indigo-MusesC3 — Data Link

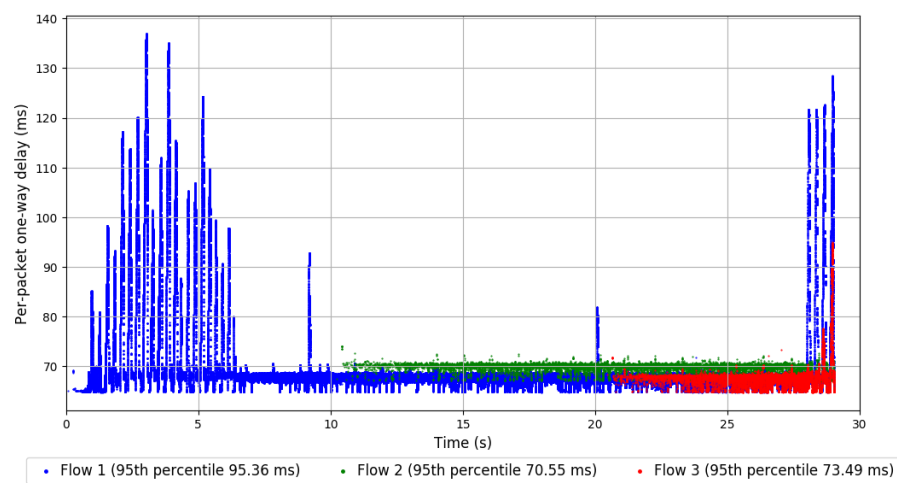
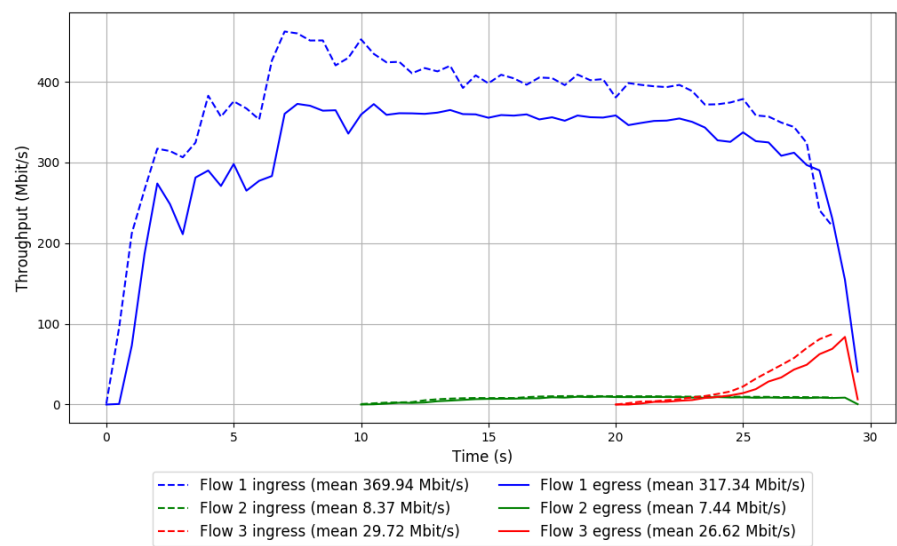


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-19 03:42:55  
End at: 2019-03-19 03:43:25  
Local clock offset: 1.493 ms  
Remote clock offset: -32.805 ms

# Below is generated by plot.py at 2019-03-19 06:34:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 330.05 Mbit/s  
95th percentile per-packet one-way delay: 94.351 ms  
Loss rate: 14.08%  
-- Flow 1:  
Average throughput: 317.34 Mbit/s  
95th percentile per-packet one-way delay: 95.357 ms  
Loss rate: 14.21%  
-- Flow 2:  
Average throughput: 7.44 Mbit/s  
95th percentile per-packet one-way delay: 70.552 ms  
Loss rate: 11.14%  
-- Flow 3:  
Average throughput: 26.62 Mbit/s  
95th percentile per-packet one-way delay: 73.488 ms  
Loss rate: 10.44%

Run 2: Report of Indigo-MusesC3 — Data Link



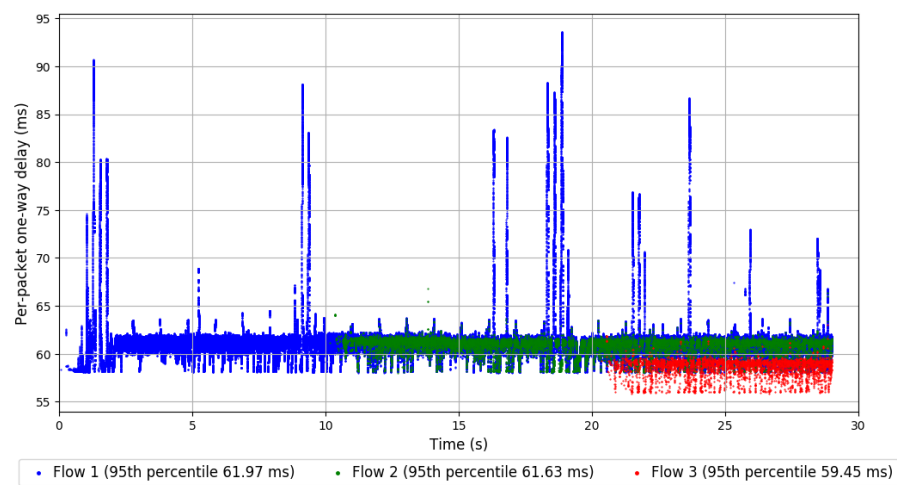
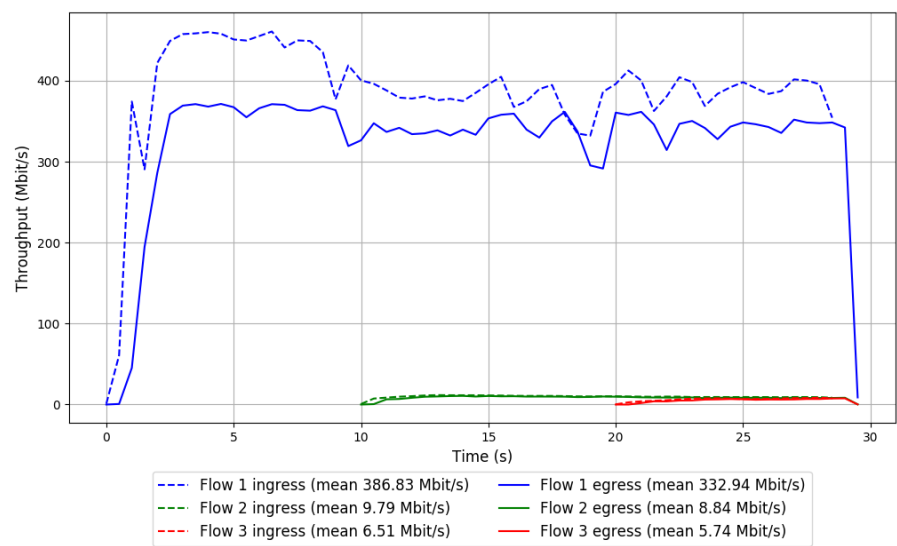


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-19 04:36:15  
End at: 2019-03-19 04:36:45  
Local clock offset: 0.712 ms  
Remote clock offset: -41.335 ms

# Below is generated by plot.py at 2019-03-19 06:34:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 340.41 Mbit/s  
95th percentile per-packet one-way delay: 61.948 ms  
Loss rate: 13.86%  
-- Flow 1:  
Average throughput: 332.94 Mbit/s  
95th percentile per-packet one-way delay: 61.965 ms  
Loss rate: 13.93%  
-- Flow 2:  
Average throughput: 8.84 Mbit/s  
95th percentile per-packet one-way delay: 61.626 ms  
Loss rate: 9.69%  
-- Flow 3:  
Average throughput: 5.74 Mbit/s  
95th percentile per-packet one-way delay: 59.445 ms  
Loss rate: 11.91%

Run 3: Report of Indigo-MusesC3 — Data Link

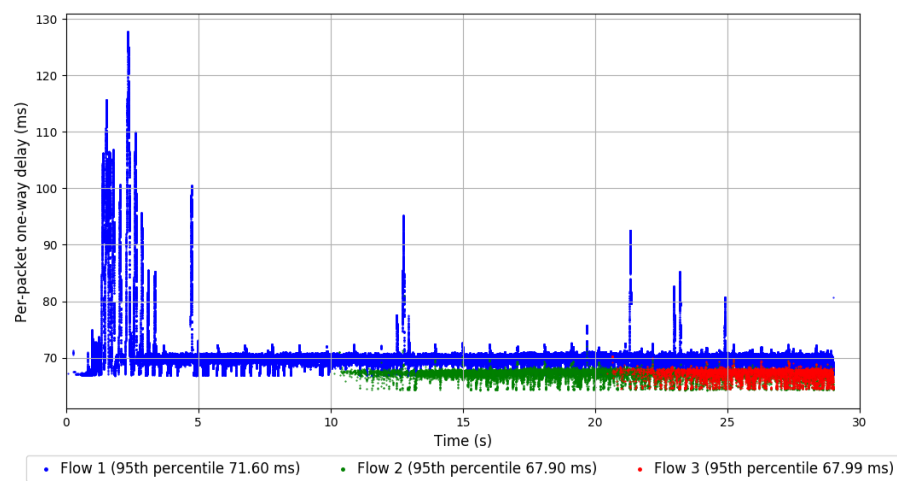
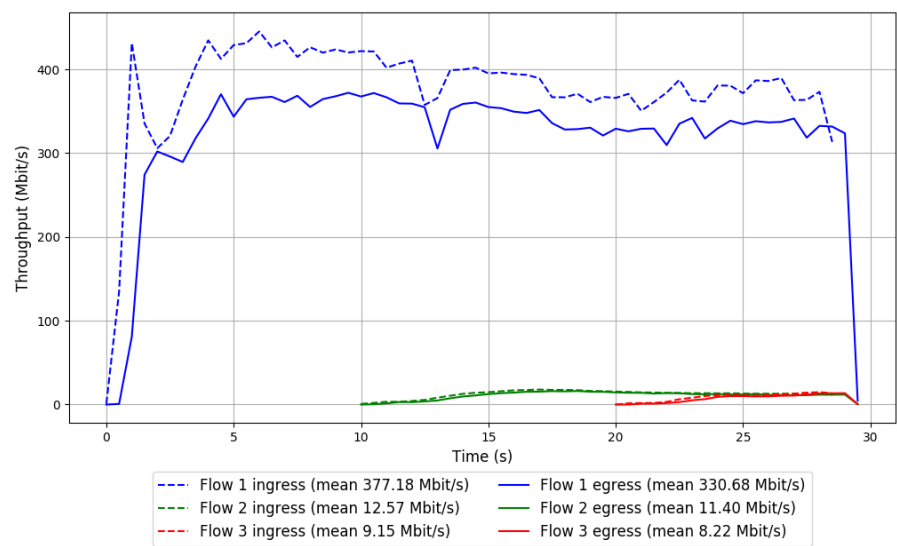


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-19 05:23:31  
End at: 2019-03-19 05:24:01  
Local clock offset: 0.88 ms  
Remote clock offset: -36.021 ms

# Below is generated by plot.py at 2019-03-19 06:34:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 340.53 Mbit/s  
95th percentile per-packet one-way delay: 71.431 ms  
Loss rate: 12.27%  
-- Flow 1:  
Average throughput: 330.68 Mbit/s  
95th percentile per-packet one-way delay: 71.596 ms  
Loss rate: 12.35%  
-- Flow 2:  
Average throughput: 11.40 Mbit/s  
95th percentile per-packet one-way delay: 67.899 ms  
Loss rate: 9.28%  
-- Flow 3:  
Average throughput: 8.22 Mbit/s  
95th percentile per-packet one-way delay: 67.989 ms  
Loss rate: 10.11%

Run 4: Report of Indigo-MusesC3 — Data Link

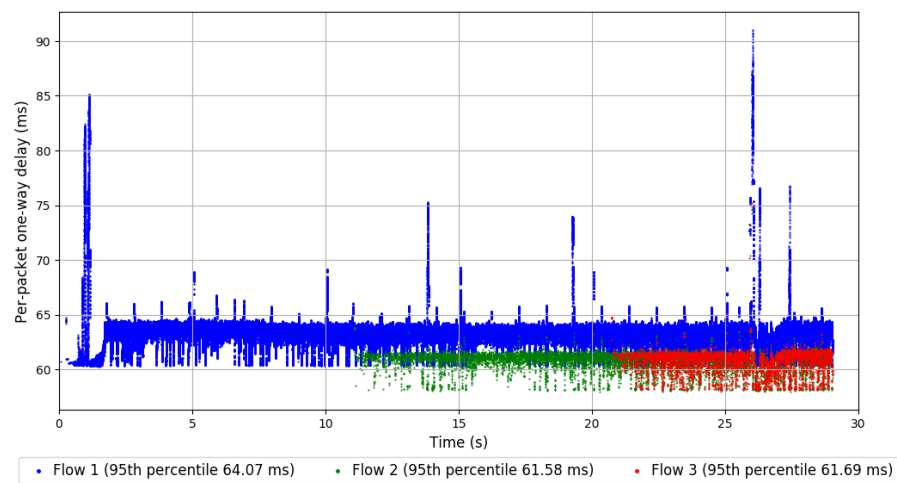
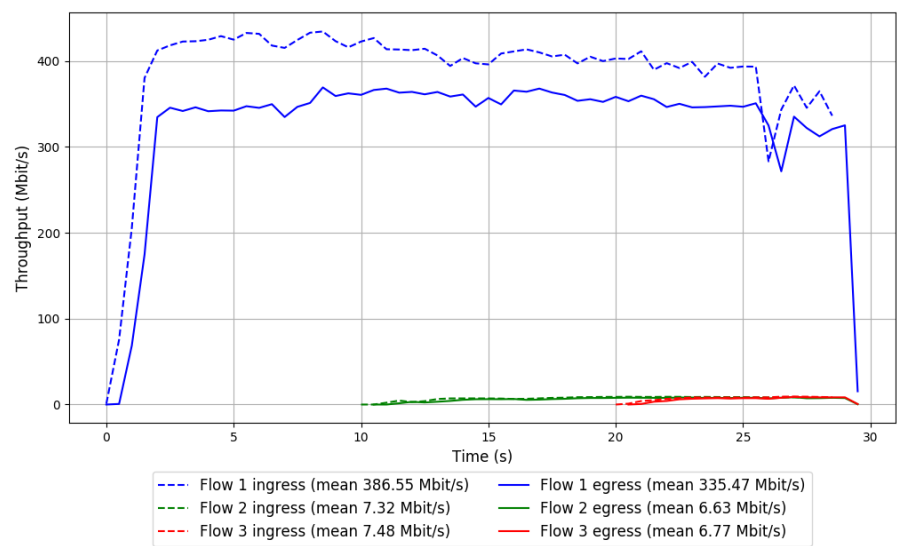


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-19 06:05:16  
End at: 2019-03-19 06:05:46  
Local clock offset: 1.234 ms  
Remote clock offset: -43.616 ms

# Below is generated by plot.py at 2019-03-19 06:34:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 341.60 Mbit/s  
95th percentile per-packet one-way delay: 64.068 ms  
Loss rate: 13.18%  
-- Flow 1:  
Average throughput: 335.47 Mbit/s  
95th percentile per-packet one-way delay: 64.072 ms  
Loss rate: 13.21%  
-- Flow 2:  
Average throughput: 6.63 Mbit/s  
95th percentile per-packet one-way delay: 61.576 ms  
Loss rate: 11.96%  
-- Flow 3:  
Average throughput: 6.77 Mbit/s  
95th percentile per-packet one-way delay: 61.685 ms  
Loss rate: 9.48%

Run 5: Report of Indigo-MusesC3 — Data Link

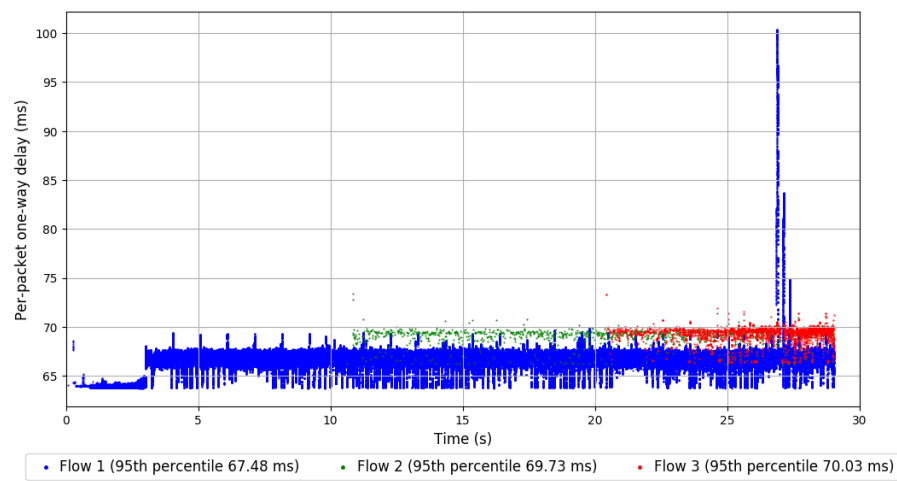
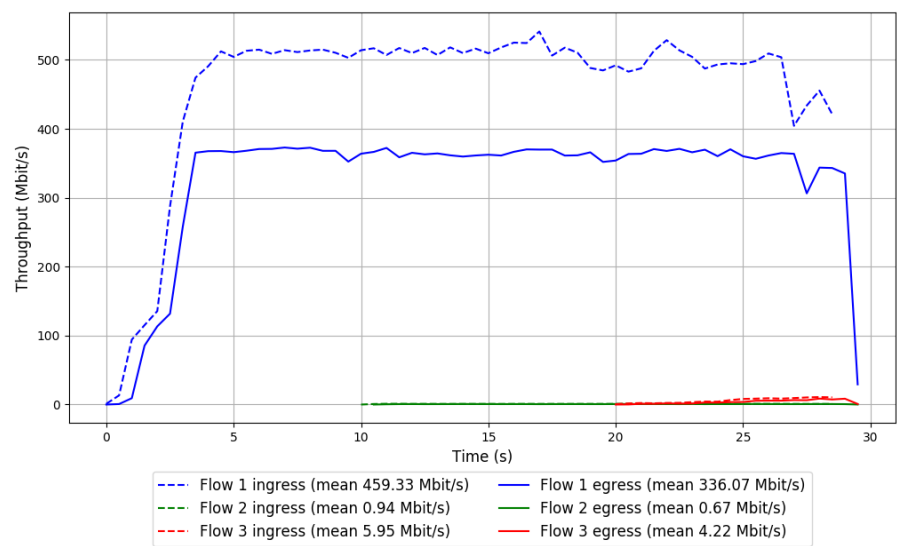


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-19 02:50:57  
End at: 2019-03-19 02:51:27  
Local clock offset: 0.746 ms  
Remote clock offset: -34.388 ms

# Below is generated by plot.py at 2019-03-19 06:36:13  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 337.73 Mbit/s  
95th percentile per-packet one-way delay: 67.502 ms  
Loss rate: 26.84%  
-- Flow 1:  
Average throughput: 336.07 Mbit/s  
95th percentile per-packet one-way delay: 67.481 ms  
Loss rate: 26.83%  
-- Flow 2:  
Average throughput: 0.67 Mbit/s  
95th percentile per-packet one-way delay: 69.735 ms  
Loss rate: 30.38%  
-- Flow 3:  
Average throughput: 4.22 Mbit/s  
95th percentile per-packet one-way delay: 70.035 ms  
Loss rate: 29.05%

Run 1: Report of Indigo-MusesC5 — Data Link



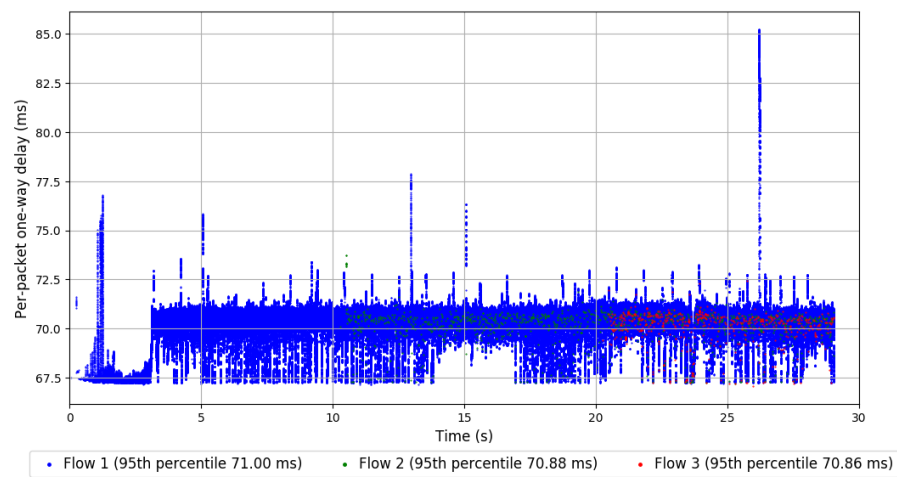
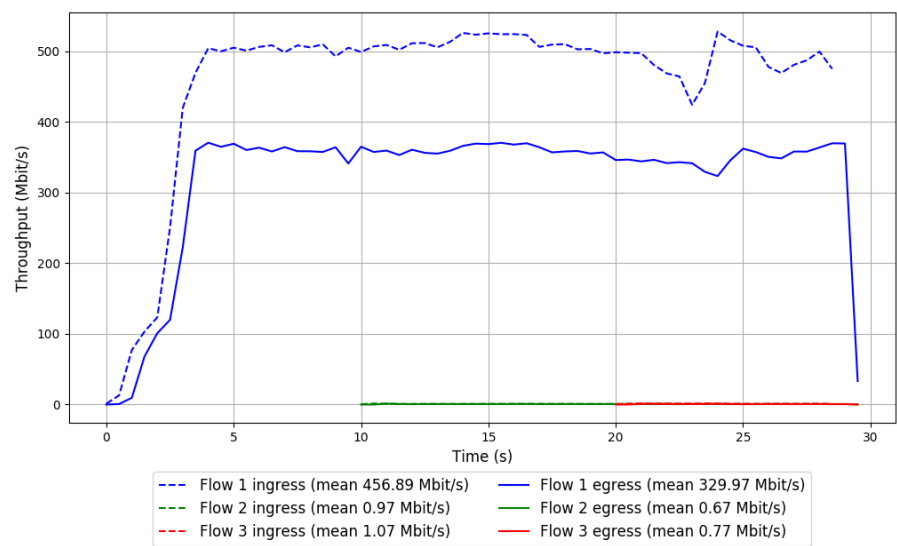


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-19 03:27:01  
End at: 2019-03-19 03:27:31  
Local clock offset: 2.989 ms  
Remote clock offset: -28.651 ms

# Below is generated by plot.py at 2019-03-19 06:37:11  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 330.64 Mbit/s  
95th percentile per-packet one-way delay: 70.995 ms  
Loss rate: 27.78%  
-- Flow 1:  
Average throughput: 329.97 Mbit/s  
95th percentile per-packet one-way delay: 70.995 ms  
Loss rate: 27.77%  
-- Flow 2:  
Average throughput: 0.67 Mbit/s  
95th percentile per-packet one-way delay: 70.876 ms  
Loss rate: 30.80%  
-- Flow 3:  
Average throughput: 0.77 Mbit/s  
95th percentile per-packet one-way delay: 70.858 ms  
Loss rate: 28.32%

Run 2: Report of Indigo-MusesC5 — Data Link

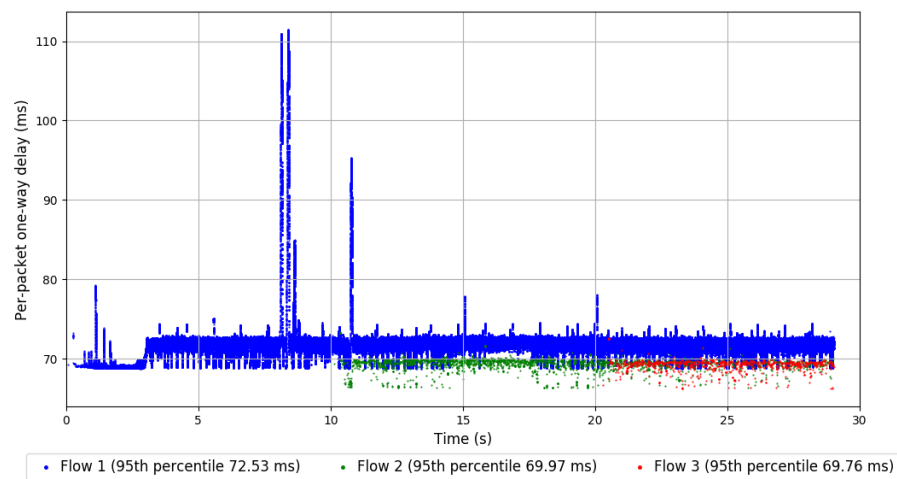
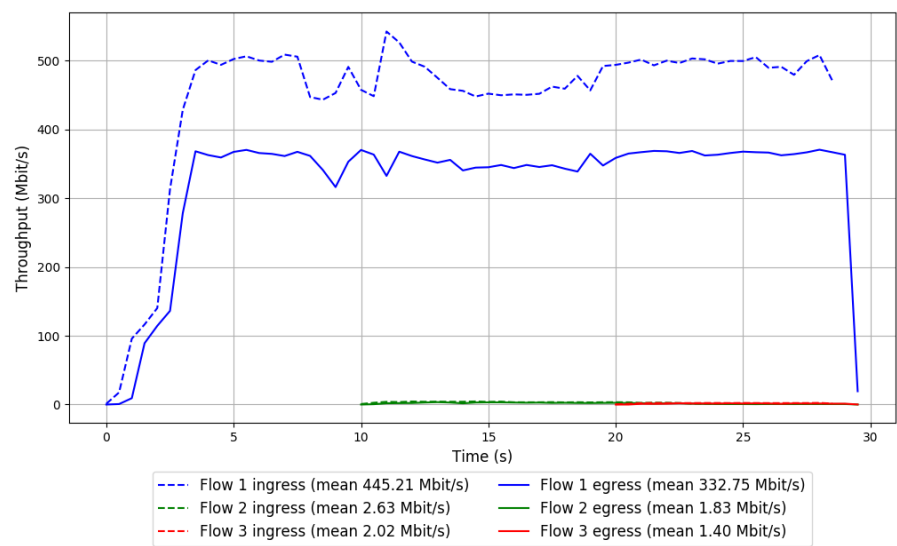


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-19 04:20:22  
End at: 2019-03-19 04:20:52  
Local clock offset: 0.725 ms  
Remote clock offset: -31.885 ms

# Below is generated by plot.py at 2019-03-19 06:38:06  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 334.36 Mbit/s  
95th percentile per-packet one-way delay: 72.528 ms  
Loss rate: 25.28%  
-- Flow 1:  
Average throughput: 332.75 Mbit/s  
95th percentile per-packet one-way delay: 72.529 ms  
Loss rate: 25.26%  
-- Flow 2:  
Average throughput: 1.83 Mbit/s  
95th percentile per-packet one-way delay: 69.973 ms  
Loss rate: 30.44%  
-- Flow 3:  
Average throughput: 1.40 Mbit/s  
95th percentile per-packet one-way delay: 69.756 ms  
Loss rate: 30.90%

Run 3: Report of Indigo-MusesC5 — Data Link

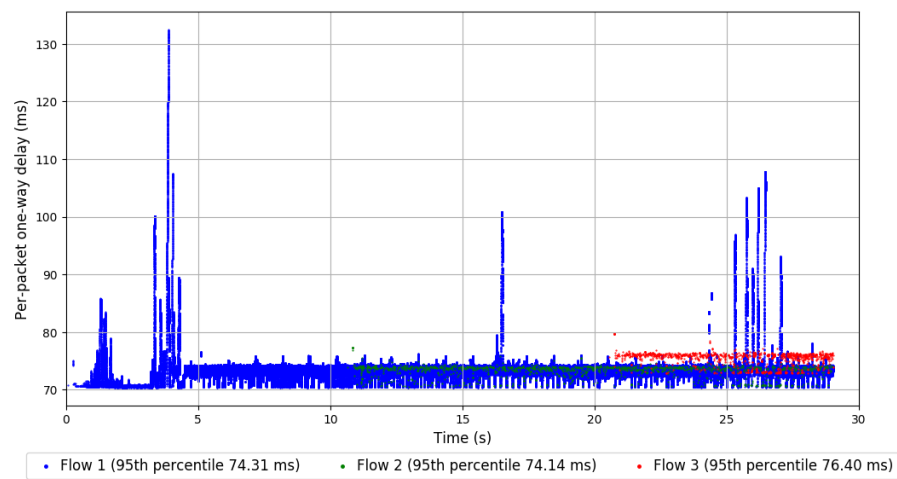
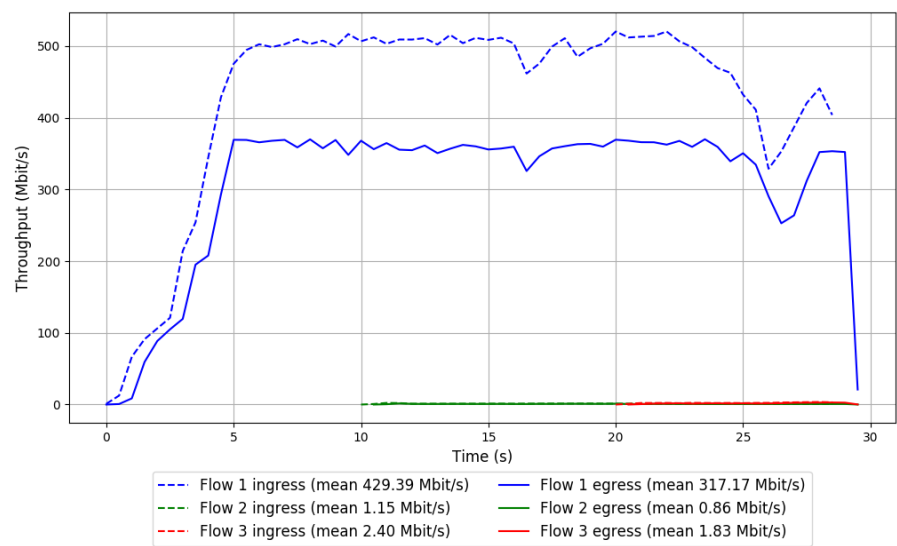


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-19 05:13:19  
End at: 2019-03-19 05:13:49  
Local clock offset: -0.871 ms  
Remote clock offset: -29.494 ms

# Below is generated by plot.py at 2019-03-19 06:38:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 318.23 Mbit/s  
95th percentile per-packet one-way delay: 74.341 ms  
Loss rate: 26.13%  
-- Flow 1:  
Average throughput: 317.17 Mbit/s  
95th percentile per-packet one-way delay: 74.305 ms  
Loss rate: 26.13%  
-- Flow 2:  
Average throughput: 0.86 Mbit/s  
95th percentile per-packet one-way delay: 74.139 ms  
Loss rate: 27.15%  
-- Flow 3:  
Average throughput: 1.83 Mbit/s  
95th percentile per-packet one-way delay: 76.397 ms  
Loss rate: 23.61%

Run 4: Report of Indigo-MusesC5 — Data Link

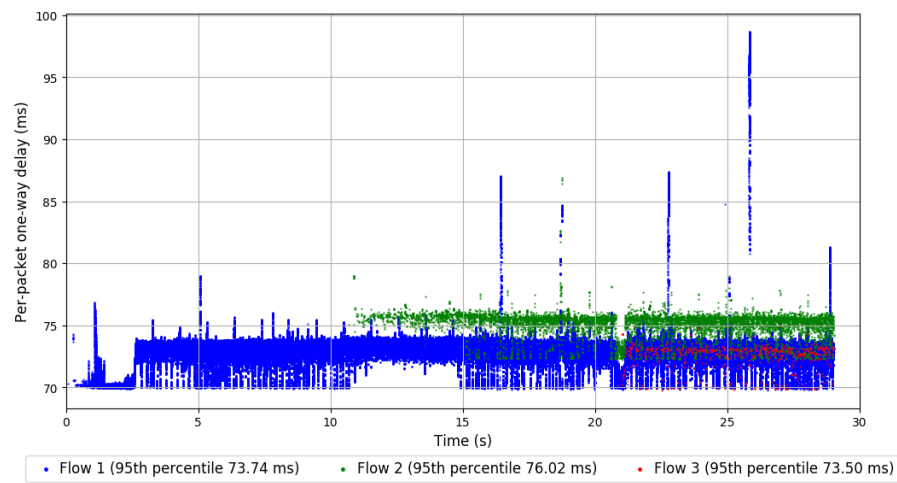
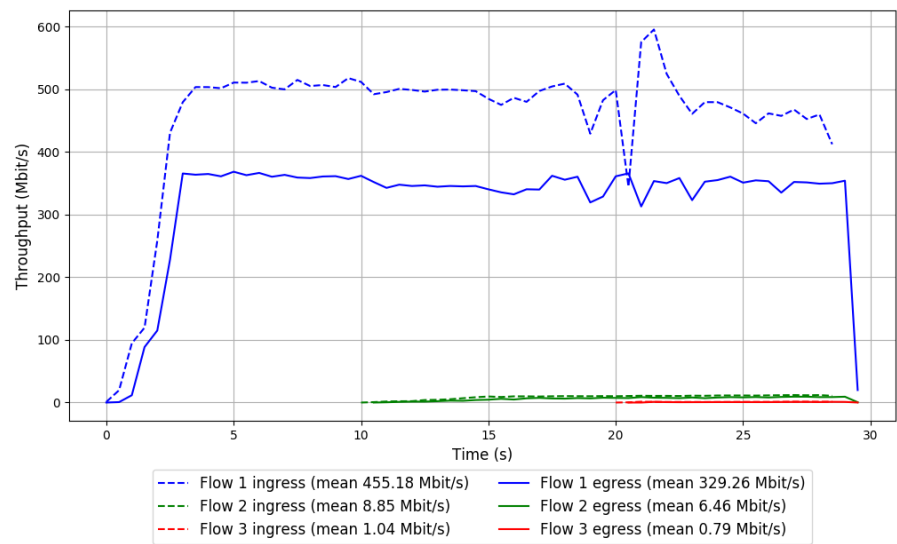


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-19 05:49:24  
End at: 2019-03-19 05:49:54  
Local clock offset: 0.493 ms  
Remote clock offset: -32.827 ms

# Below is generated by plot.py at 2019-03-19 06:38:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 333.57 Mbit/s  
95th percentile per-packet one-way delay: 73.803 ms  
Loss rate: 27.67%  
-- Flow 1:  
Average throughput: 329.26 Mbit/s  
95th percentile per-packet one-way delay: 73.738 ms  
Loss rate: 27.66%  
-- Flow 2:  
Average throughput: 6.46 Mbit/s  
95th percentile per-packet one-way delay: 76.018 ms  
Loss rate: 28.97%  
-- Flow 3:  
Average throughput: 0.79 Mbit/s  
95th percentile per-packet one-way delay: 73.503 ms  
Loss rate: 28.15%

Run 5: Report of Indigo-MusesC5 — Data Link



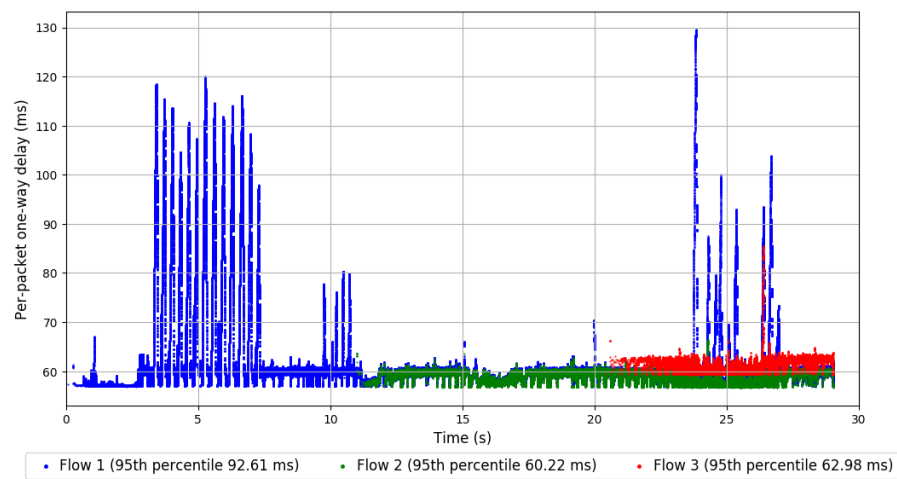
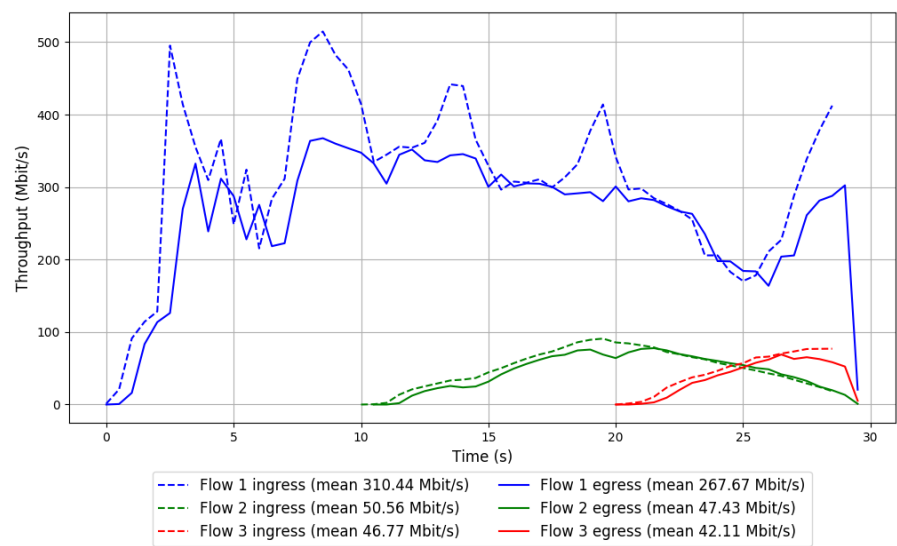


Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-19 02:58:00  
End at: 2019-03-19 02:58:30  
Local clock offset: 2.004 ms  
Remote clock offset: -40.103 ms

# Below is generated by plot.py at 2019-03-19 06:38:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 310.09 Mbit/s  
95th percentile per-packet one-way delay: 88.738 ms  
Loss rate: 13.15%  
-- Flow 1:  
Average throughput: 267.67 Mbit/s  
95th percentile per-packet one-way delay: 92.611 ms  
Loss rate: 13.77%  
-- Flow 2:  
Average throughput: 47.43 Mbit/s  
95th percentile per-packet one-way delay: 60.217 ms  
Loss rate: 8.71%  
-- Flow 3:  
Average throughput: 42.11 Mbit/s  
95th percentile per-packet one-way delay: 62.981 ms  
Loss rate: 9.97%

Run 1: Report of Indigo-MusesD — Data Link

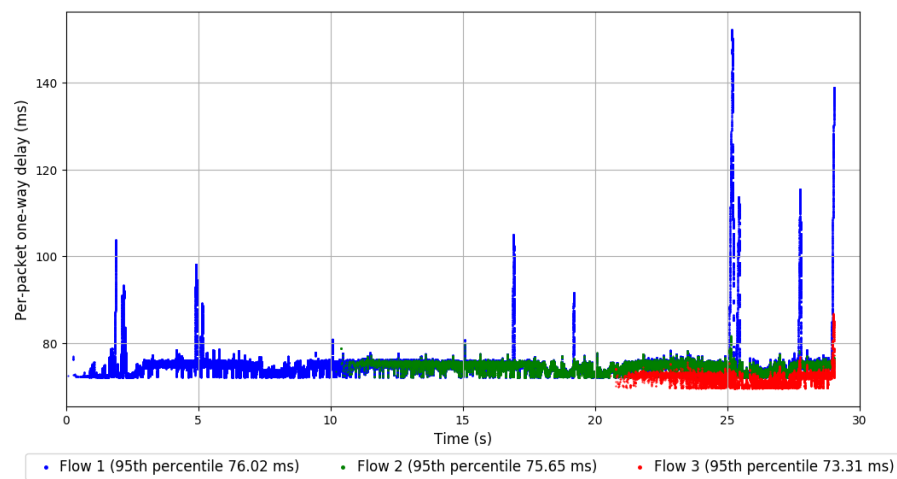
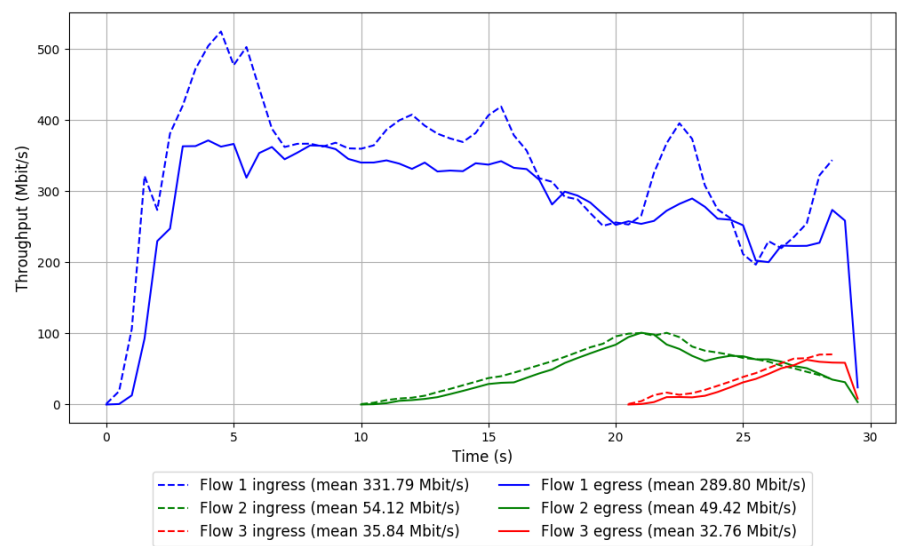


Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-19 03:28:35  
End at: 2019-03-19 03:29:05  
Local clock offset: 0.261 ms  
Remote clock offset: -28.921 ms

# Below is generated by plot.py at 2019-03-19 06:38:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 331.53 Mbit/s  
95th percentile per-packet one-way delay: 75.955 ms  
Loss rate: 12.17%  
-- Flow 1:  
Average throughput: 289.80 Mbit/s  
95th percentile per-packet one-way delay: 76.016 ms  
Loss rate: 12.65%  
-- Flow 2:  
Average throughput: 49.42 Mbit/s  
95th percentile per-packet one-way delay: 75.646 ms  
Loss rate: 8.66%  
-- Flow 3:  
Average throughput: 32.76 Mbit/s  
95th percentile per-packet one-way delay: 73.307 ms  
Loss rate: 8.59%

Run 2: Report of Indigo-MusesD — Data Link

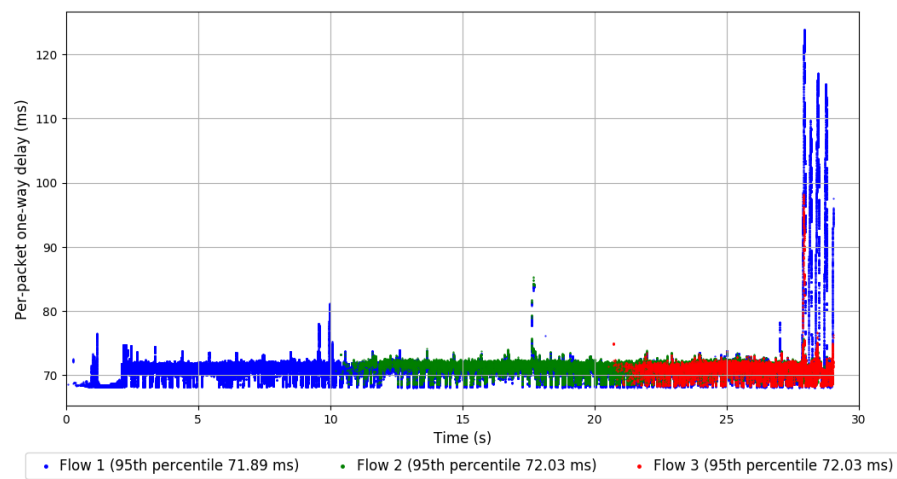
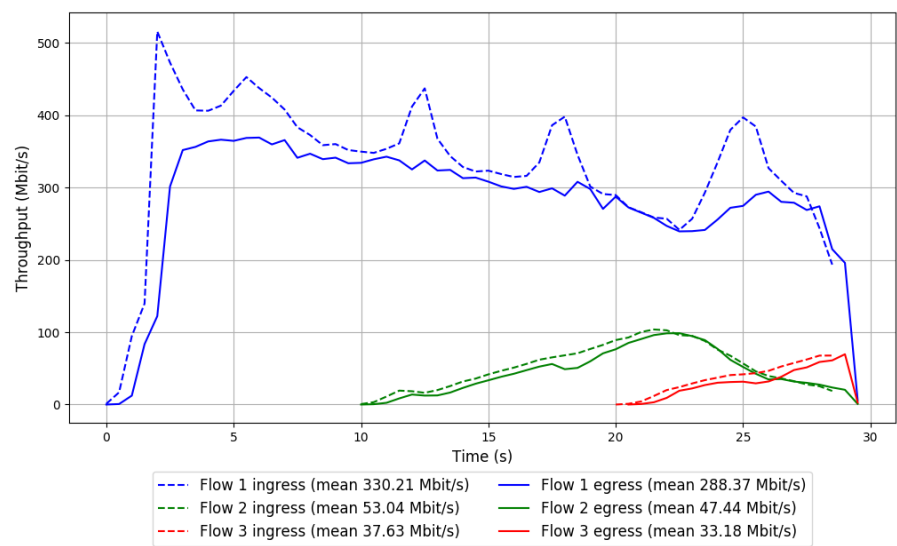


Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-19 04:27:28  
End at: 2019-03-19 04:27:58  
Local clock offset: 1.753 ms  
Remote clock offset: -28.408 ms

# Below is generated by plot.py at 2019-03-19 06:38:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 328.95 Mbit/s  
95th percentile per-packet one-way delay: 71.929 ms  
Loss rate: 12.44%  
-- Flow 1:  
Average throughput: 288.37 Mbit/s  
95th percentile per-packet one-way delay: 71.891 ms  
Loss rate: 12.66%  
-- Flow 2:  
Average throughput: 47.44 Mbit/s  
95th percentile per-packet one-way delay: 72.028 ms  
Loss rate: 10.56%  
-- Flow 3:  
Average throughput: 33.18 Mbit/s  
95th percentile per-packet one-way delay: 72.027 ms  
Loss rate: 11.91%

Run 3: Report of Indigo-MusesD — Data Link

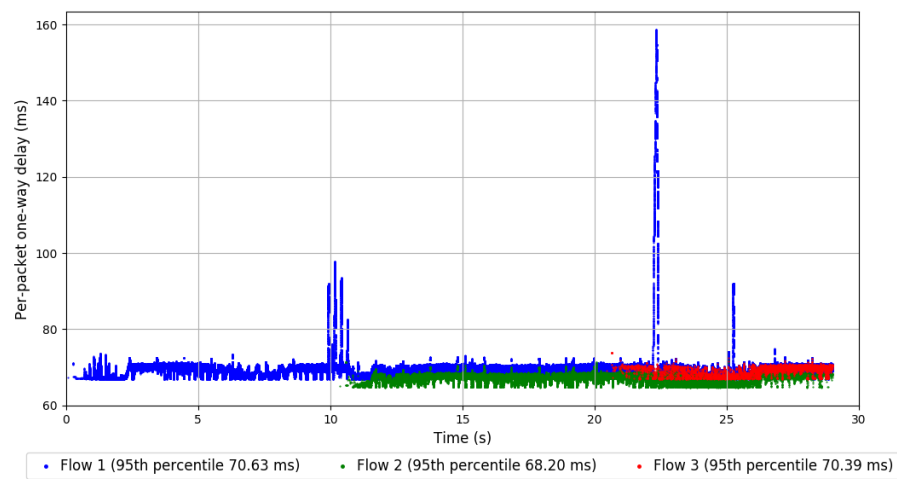
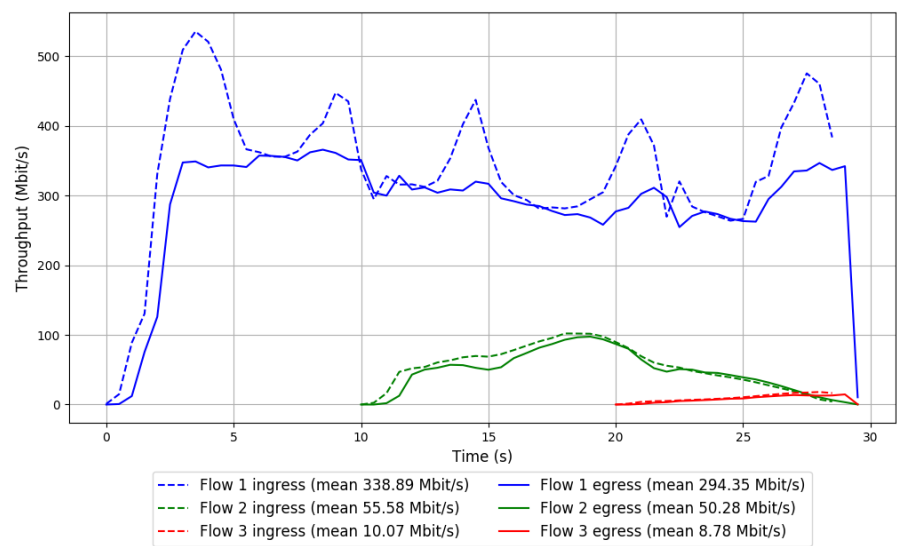


Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-19 05:14:53  
End at: 2019-03-19 05:15:23  
Local clock offset: -1.455 ms  
Remote clock offset: -36.046 ms

# Below is generated by plot.py at 2019-03-19 06:40:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 329.32 Mbit/s  
95th percentile per-packet one-way delay: 70.598 ms  
Loss rate: 12.79%  
-- Flow 1:  
Average throughput: 294.35 Mbit/s  
95th percentile per-packet one-way delay: 70.630 ms  
Loss rate: 13.13%  
-- Flow 2:  
Average throughput: 50.28 Mbit/s  
95th percentile per-packet one-way delay: 68.204 ms  
Loss rate: 9.52%  
-- Flow 3:  
Average throughput: 8.78 Mbit/s  
95th percentile per-packet one-way delay: 70.394 ms  
Loss rate: 12.82%

Run 4: Report of Indigo-MusesD — Data Link



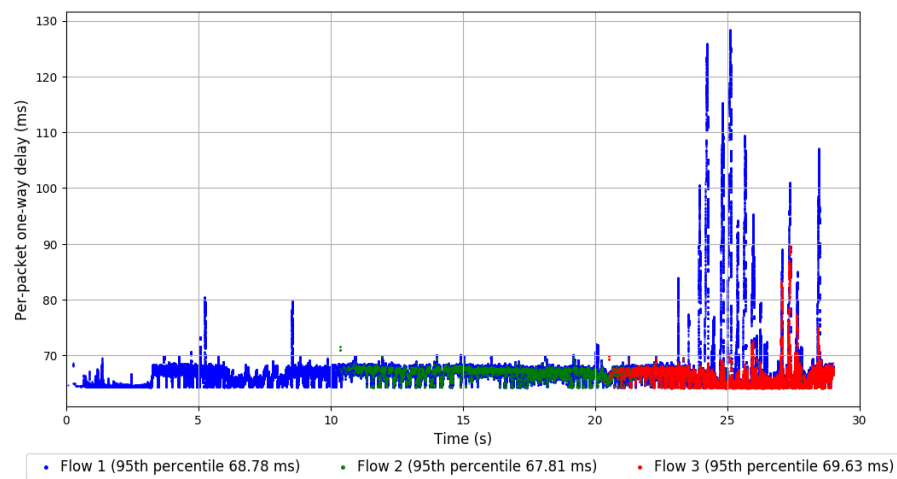
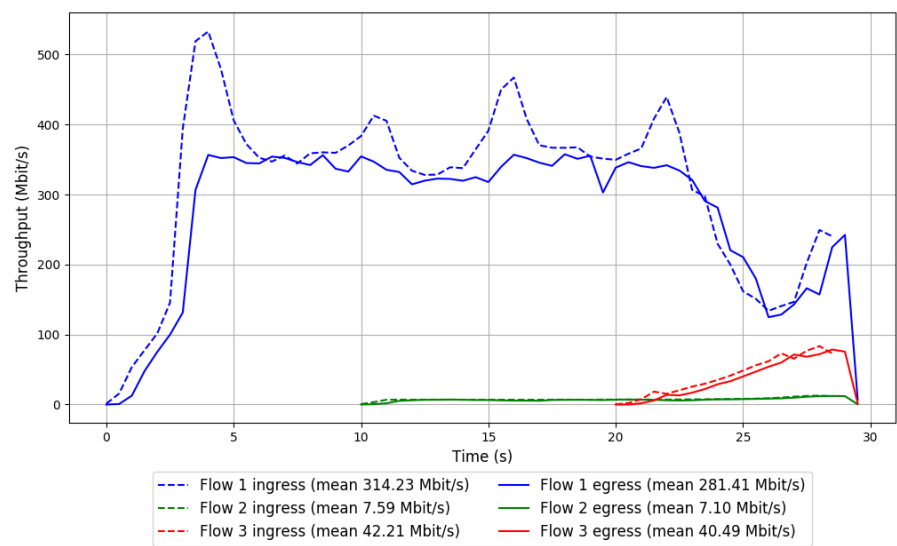


Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-19 05:50:59  
End at: 2019-03-19 05:51:29  
Local clock offset: 1.62 ms  
Remote clock offset: -37.095 ms

# Below is generated by plot.py at 2019-03-19 06:40:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 298.12 Mbit/s  
95th percentile per-packet one-way delay: 68.747 ms  
Loss rate: 10.13%  
-- Flow 1:  
Average throughput: 281.41 Mbit/s  
95th percentile per-packet one-way delay: 68.779 ms  
Loss rate: 10.43%  
-- Flow 2:  
Average throughput: 7.10 Mbit/s  
95th percentile per-packet one-way delay: 67.813 ms  
Loss rate: 6.51%  
-- Flow 3:  
Average throughput: 40.49 Mbit/s  
95th percentile per-packet one-way delay: 69.630 ms  
Loss rate: 4.03%

Run 5: Report of Indigo-MusesD — Data Link

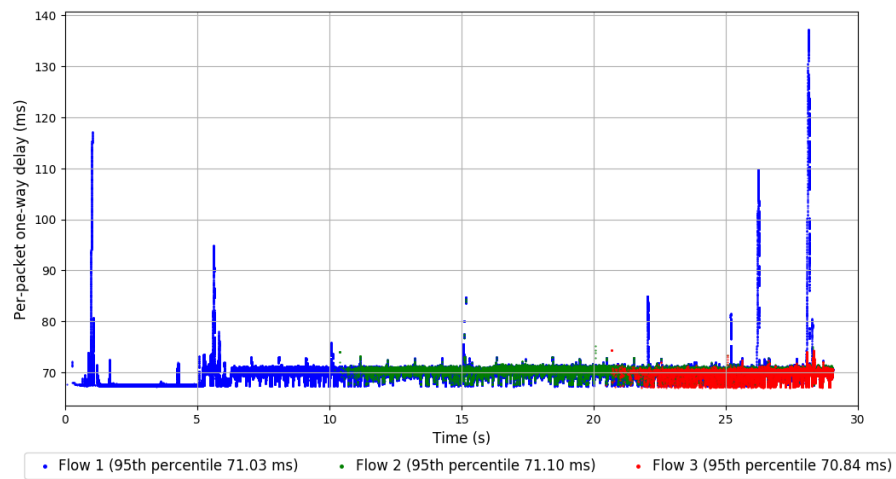
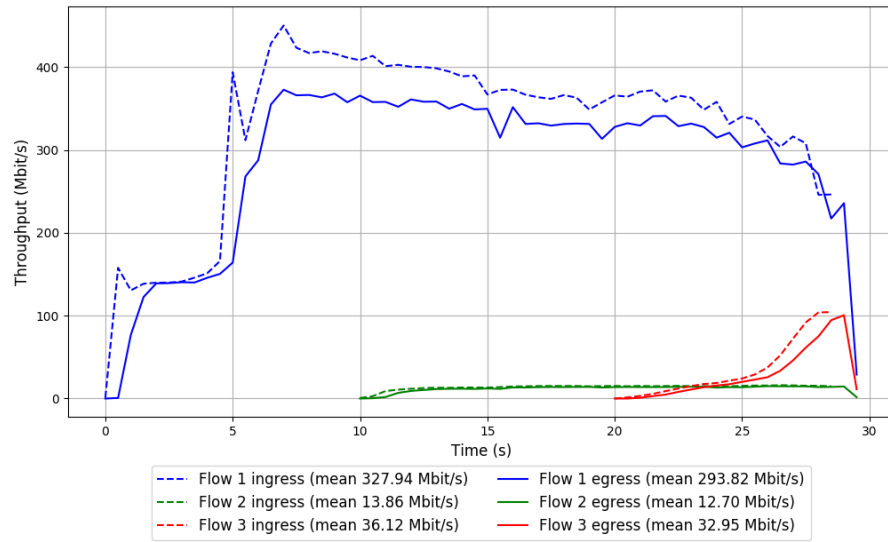


Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-19 03:15:34  
End at: 2019-03-19 03:16:04  
Local clock offset: 0.026 ms  
Remote clock offset: -31.242 ms

# Below is generated by plot.py at 2019-03-19 06:41:45  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 311.84 Mbit/s  
95th percentile per-packet one-way delay: 71.037 ms  
Loss rate: 10.29%  
-- Flow 1:  
Average throughput: 293.82 Mbit/s  
95th percentile per-packet one-way delay: 71.035 ms  
Loss rate: 10.40%  
-- Flow 2:  
Average throughput: 12.70 Mbit/s  
95th percentile per-packet one-way delay: 71.100 ms  
Loss rate: 8.38%  
-- Flow 3:  
Average throughput: 32.95 Mbit/s  
95th percentile per-packet one-way delay: 70.843 ms  
Loss rate: 8.73%

## Run 1: Report of Indigo-MusesT — Data Link

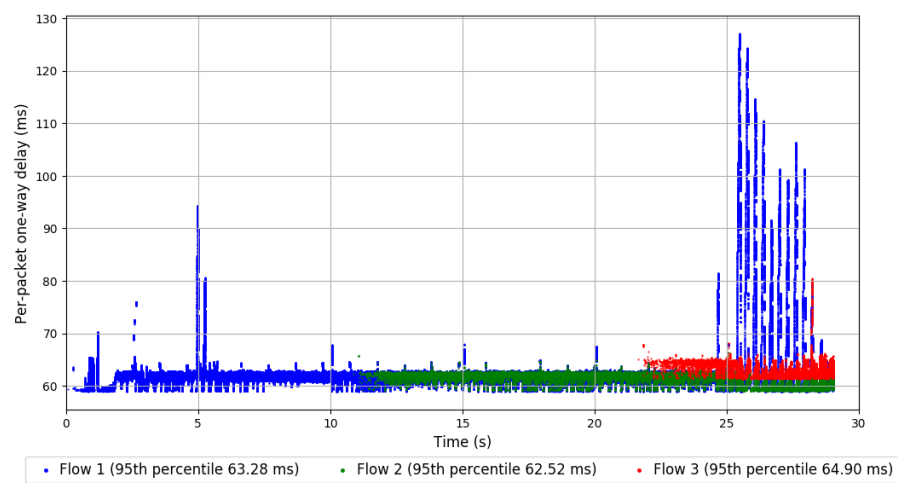
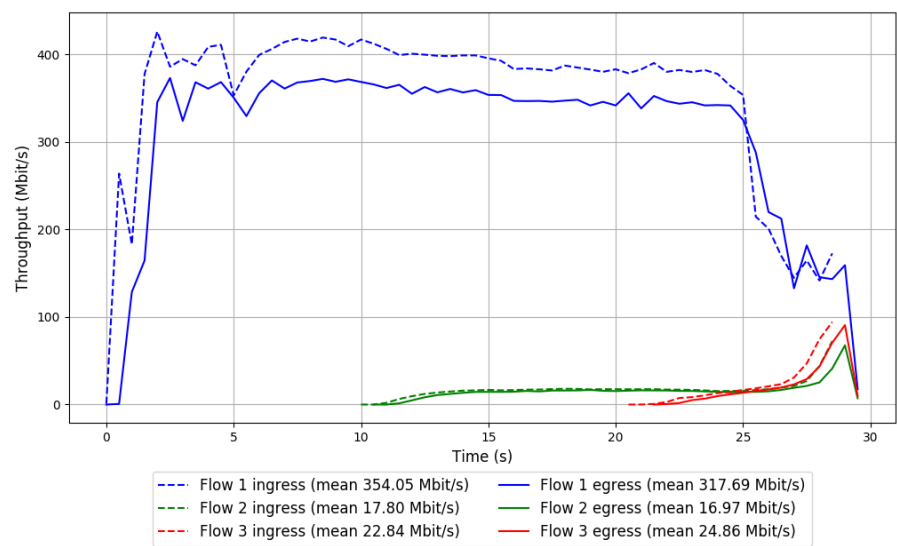


Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-19 03:51:45  
End at: 2019-03-19 03:52:15  
Local clock offset: 1.473 ms  
Remote clock offset: -38.383 ms

# Below is generated by plot.py at 2019-03-19 06:42:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 334.64 Mbit/s  
95th percentile per-packet one-way delay: 63.704 ms  
Loss rate: 10.06%  
-- Flow 1:  
Average throughput: 317.69 Mbit/s  
95th percentile per-packet one-way delay: 63.279 ms  
Loss rate: 10.26%  
-- Flow 2:  
Average throughput: 16.97 Mbit/s  
95th percentile per-packet one-way delay: 62.525 ms  
Loss rate: 7.19%  
-- Flow 3:  
Average throughput: 24.86 Mbit/s  
95th percentile per-packet one-way delay: 64.902 ms  
Loss rate: 4.14%

Run 2: Report of Indigo-MusesT — Data Link

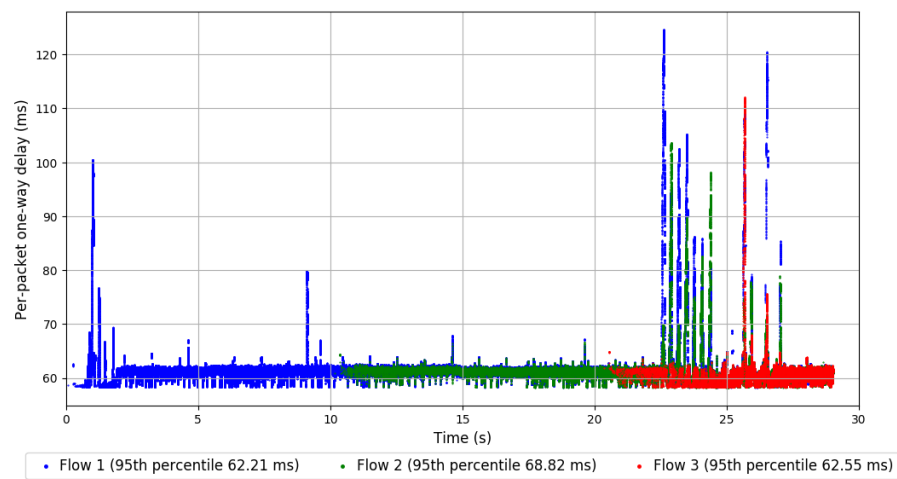
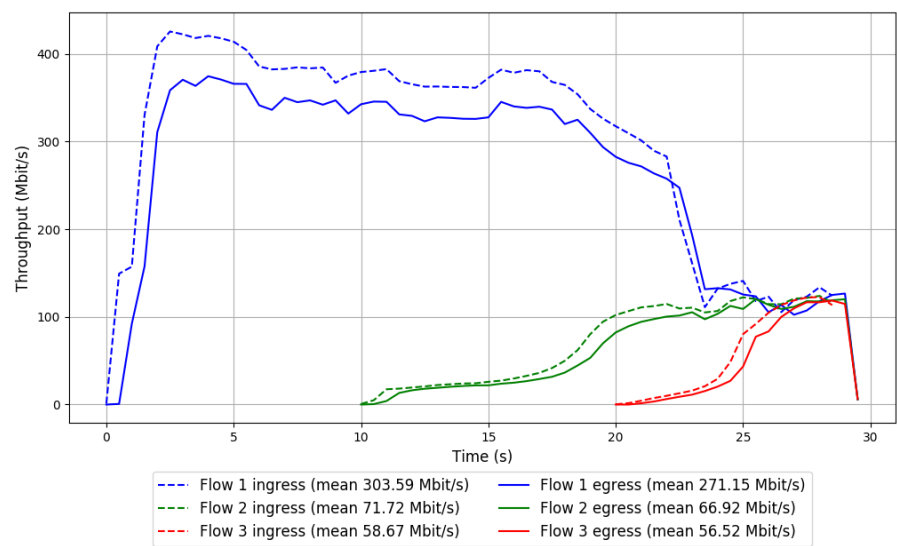


Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-19 04:50:39  
End at: 2019-03-19 04:51:09  
Local clock offset: -0.729 ms  
Remote clock offset: -39.496 ms

# Below is generated by plot.py at 2019-03-19 06:42:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 331.65 Mbit/s  
95th percentile per-packet one-way delay: 62.432 ms  
Loss rate: 9.84%  
-- Flow 1:  
Average throughput: 271.15 Mbit/s  
95th percentile per-packet one-way delay: 62.214 ms  
Loss rate: 10.68%  
-- Flow 2:  
Average throughput: 66.92 Mbit/s  
95th percentile per-packet one-way delay: 68.816 ms  
Loss rate: 6.68%  
-- Flow 3:  
Average throughput: 56.52 Mbit/s  
95th percentile per-packet one-way delay: 62.555 ms  
Loss rate: 3.69%

Run 3: Report of Indigo-MusesT — Data Link



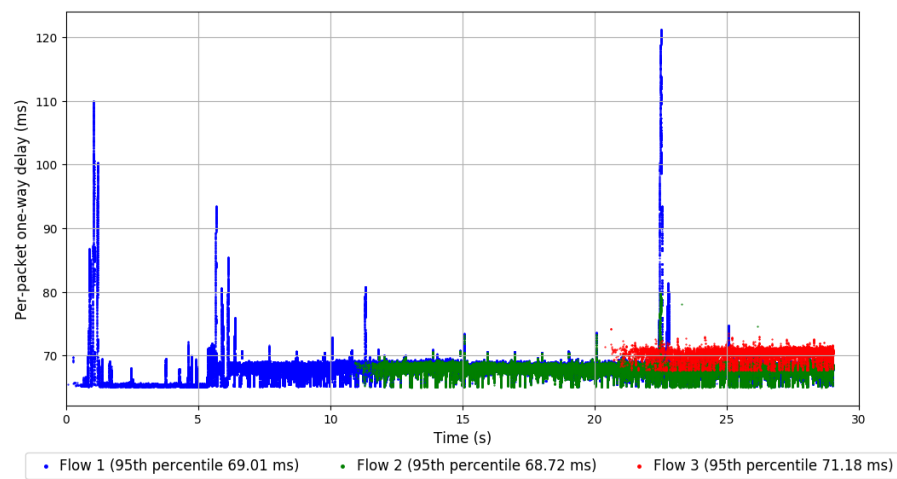
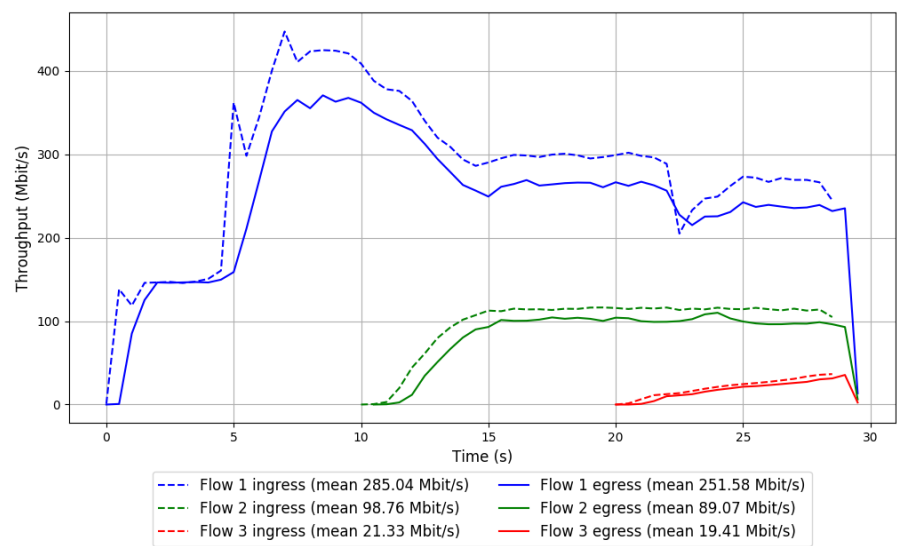


Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-19 05:37:54  
End at: 2019-03-19 05:38:24  
Local clock offset: 2.161 ms  
Remote clock offset: -35.785 ms

# Below is generated by plot.py at 2019-03-19 06:42:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 313.56 Mbit/s  
95th percentile per-packet one-way delay: 69.199 ms  
Loss rate: 11.77%  
-- Flow 1:  
Average throughput: 251.58 Mbit/s  
95th percentile per-packet one-way delay: 69.010 ms  
Loss rate: 11.73%  
-- Flow 2:  
Average throughput: 89.07 Mbit/s  
95th percentile per-packet one-way delay: 68.724 ms  
Loss rate: 12.20%  
-- Flow 3:  
Average throughput: 19.41 Mbit/s  
95th percentile per-packet one-way delay: 71.182 ms  
Loss rate: 9.03%

Run 4: Report of Indigo-MusesT — Data Link

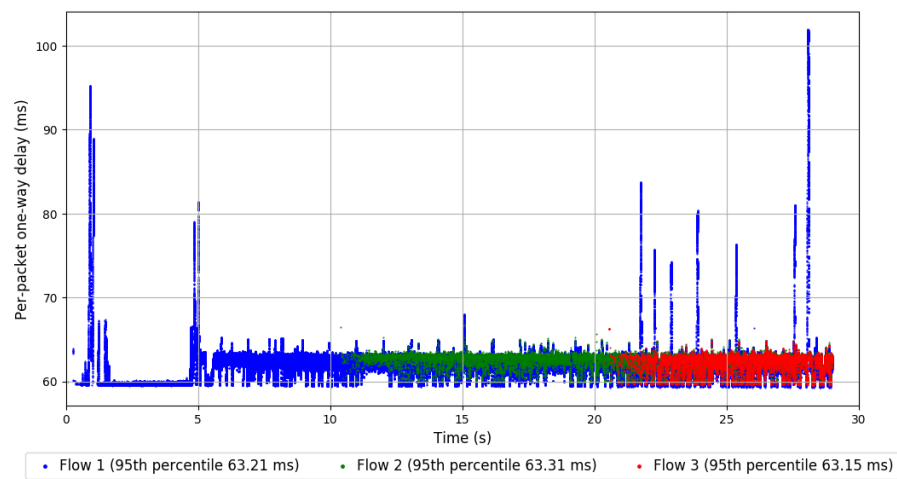
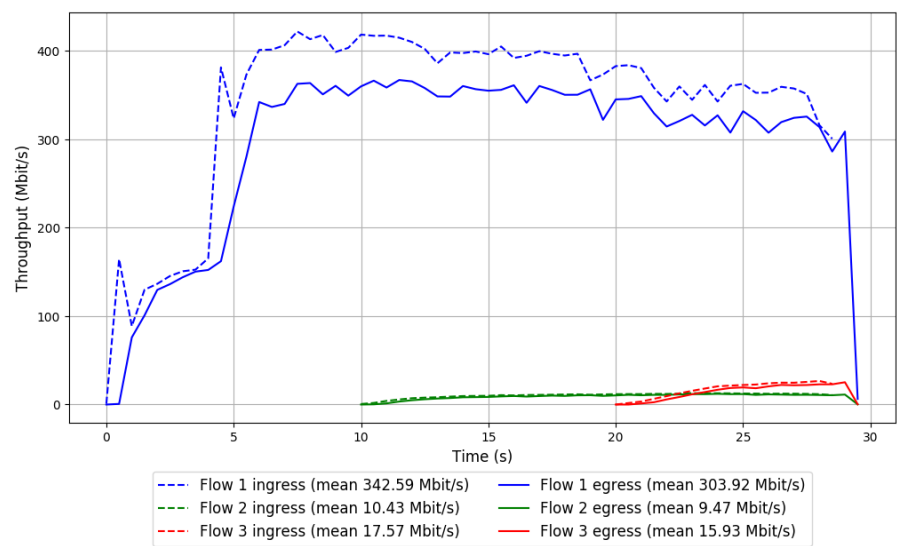


Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-19 06:14:05  
End at: 2019-03-19 06:14:35  
Local clock offset: 0.013 ms  
Remote clock offset: -41.726 ms

# Below is generated by plot.py at 2019-03-19 06:42:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 314.82 Mbit/s  
95th percentile per-packet one-way delay: 63.214 ms  
Loss rate: 11.21%  
-- Flow 1:  
Average throughput: 303.92 Mbit/s  
95th percentile per-packet one-way delay: 63.209 ms  
Loss rate: 11.28%  
-- Flow 2:  
Average throughput: 9.47 Mbit/s  
95th percentile per-packet one-way delay: 63.310 ms  
Loss rate: 9.16%  
-- Flow 3:  
Average throughput: 15.93 Mbit/s  
95th percentile per-packet one-way delay: 63.150 ms  
Loss rate: 9.32%

Run 5: Report of Indigo-MusesT — Data Link

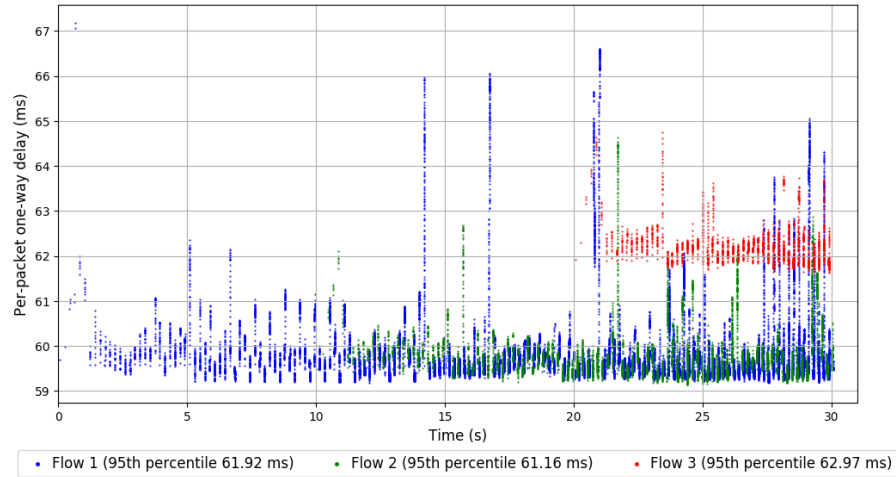
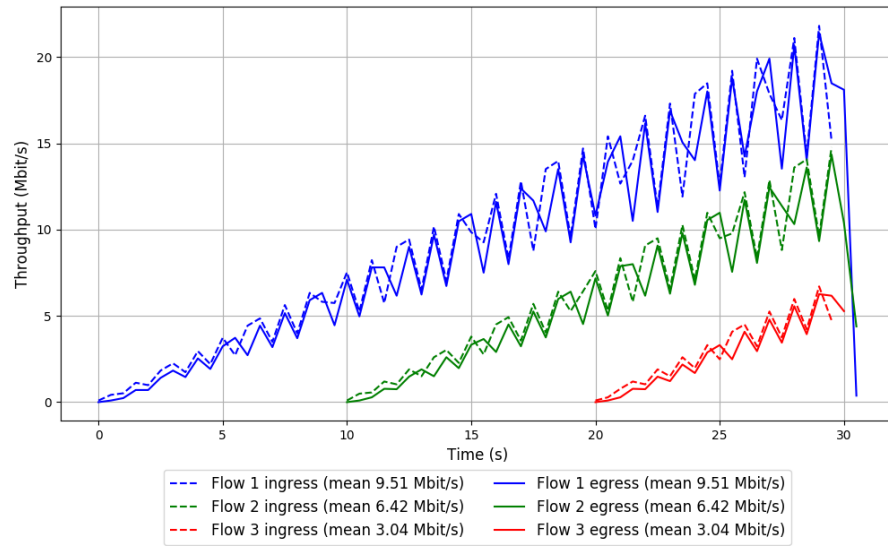


```
Run 1: Statistics of LEDBAT

Start at: 2019-03-19 03:02:30
End at: 2019-03-19 03:03:00
Local clock offset: 0.446 ms
Remote clock offset: -39.231 ms

# Below is generated by plot.py at 2019-03-19 06:42:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 62.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 61.920 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 61.165 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 62.974 ms
Loss rate: 0.00%
```

## Run 1: Report of LEDBAT — Data Link

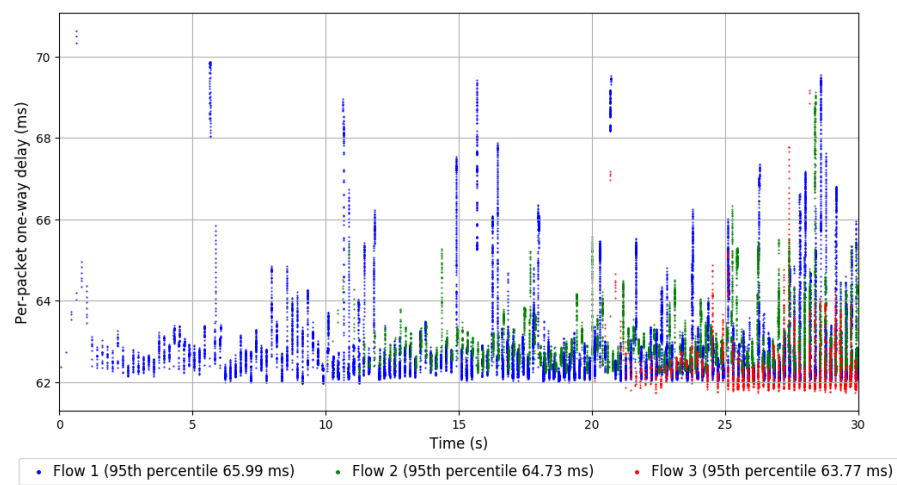
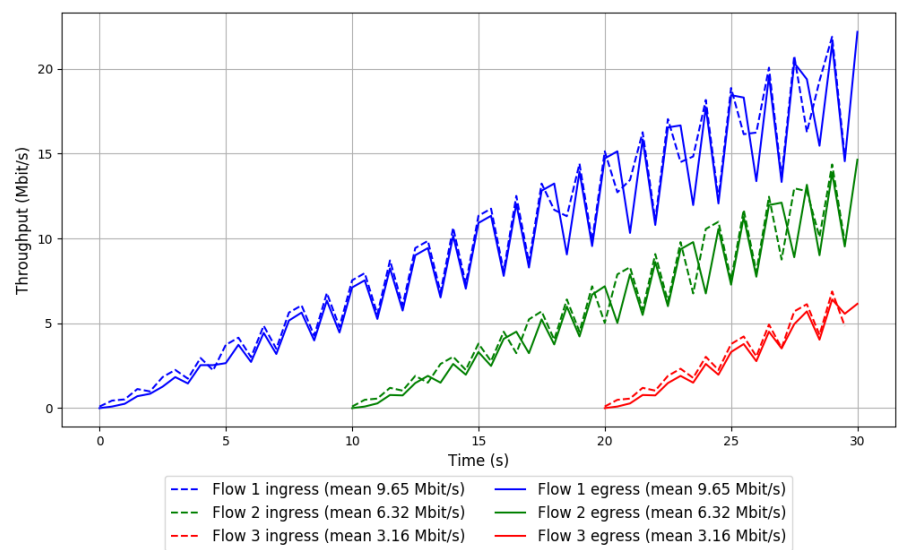


Run 2: Statistics of LEDBAT

Start at: 2019-03-19 03:38:41  
End at: 2019-03-19 03:39:11  
Local clock offset: 1.883 ms  
Remote clock offset: -35.054 ms

# Below is generated by plot.py at 2019-03-19 06:42:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.89 Mbit/s  
95th percentile per-packet one-way delay: 65.404 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 9.65 Mbit/s  
95th percentile per-packet one-way delay: 65.987 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.32 Mbit/s  
95th percentile per-packet one-way delay: 64.732 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.16 Mbit/s  
95th percentile per-packet one-way delay: 63.767 ms  
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



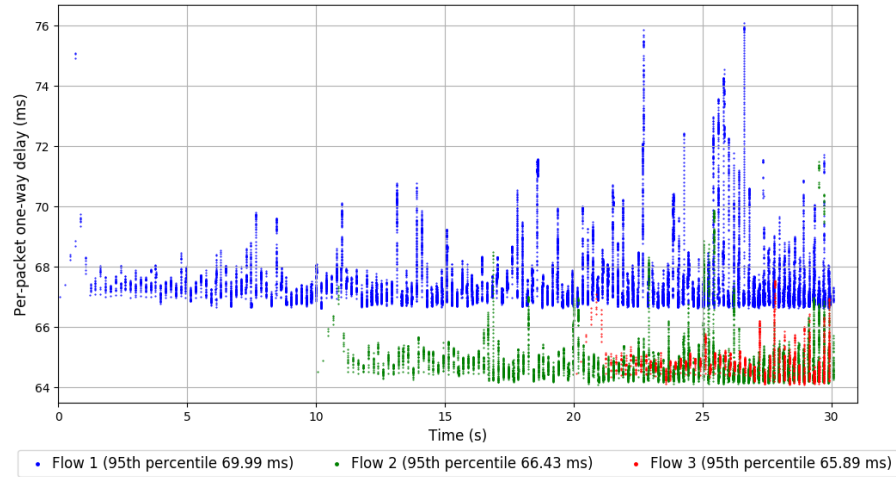
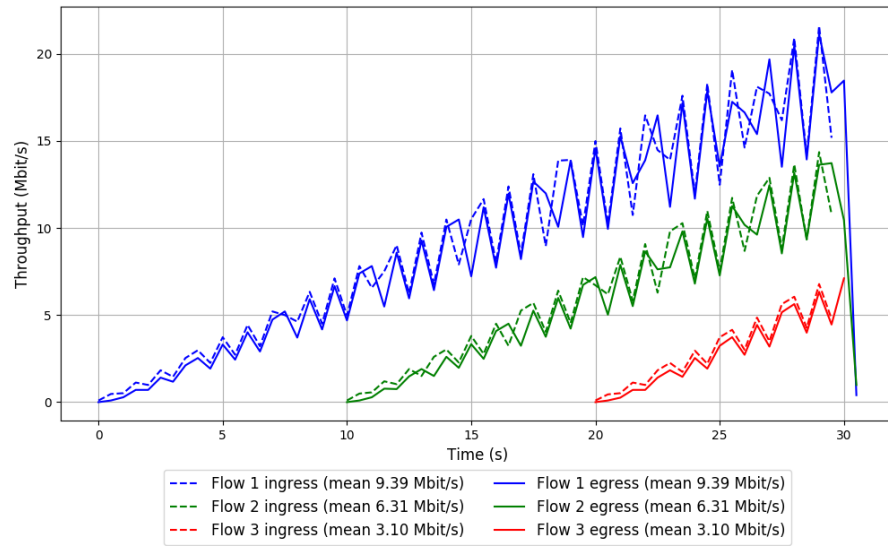


Run 3: Statistics of LEDBAT

Start at: 2019-03-19 04:32:00  
End at: 2019-03-19 04:32:30  
Local clock offset: -1.26 ms  
Remote clock offset: -35.02 ms

# Below is generated by plot.py at 2019-03-19 06:42:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.61 Mbit/s  
95th percentile per-packet one-way delay: 69.271 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 9.39 Mbit/s  
95th percentile per-packet one-way delay: 69.991 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 6.31 Mbit/s  
95th percentile per-packet one-way delay: 66.432 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.10 Mbit/s  
95th percentile per-packet one-way delay: 65.885 ms  
Loss rate: 0.00%

### Run 3: Report of LEDBAT — Data Link

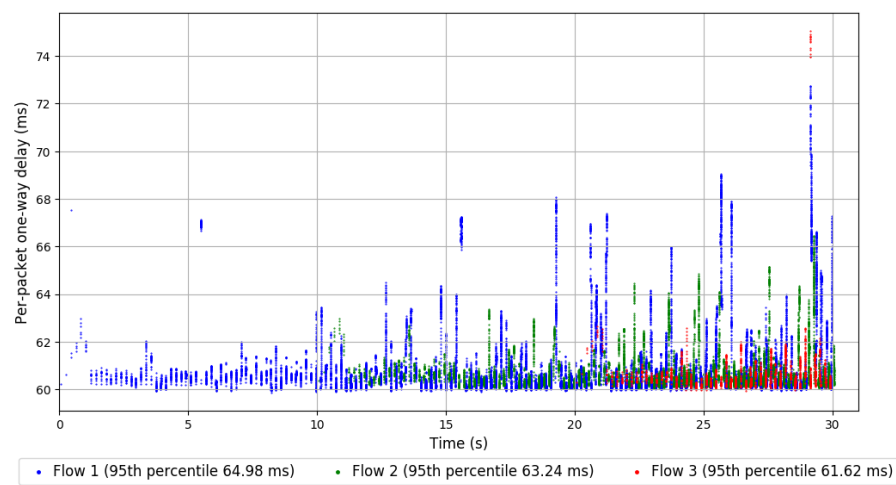
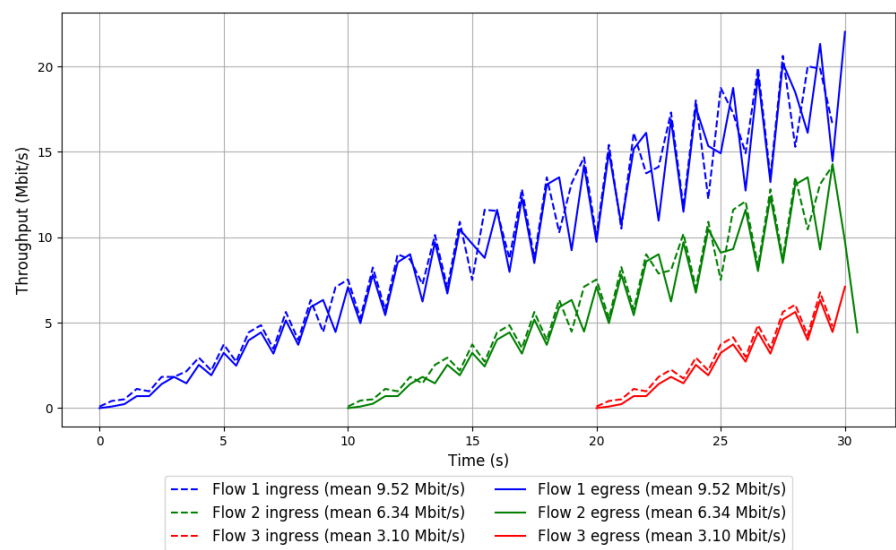


Run 4: Statistics of LEDBAT

Start at: 2019-03-19 05:19:16  
End at: 2019-03-19 05:19:46  
Local clock offset: -1.562 ms  
Remote clock offset: -42.023 ms

# Below is generated by plot.py at 2019-03-19 06:42:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.73 Mbit/s  
95th percentile per-packet one-way delay: 63.941 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 9.52 Mbit/s  
95th percentile per-packet one-way delay: 64.980 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.34 Mbit/s  
95th percentile per-packet one-way delay: 63.242 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.10 Mbit/s  
95th percentile per-packet one-way delay: 61.625 ms  
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

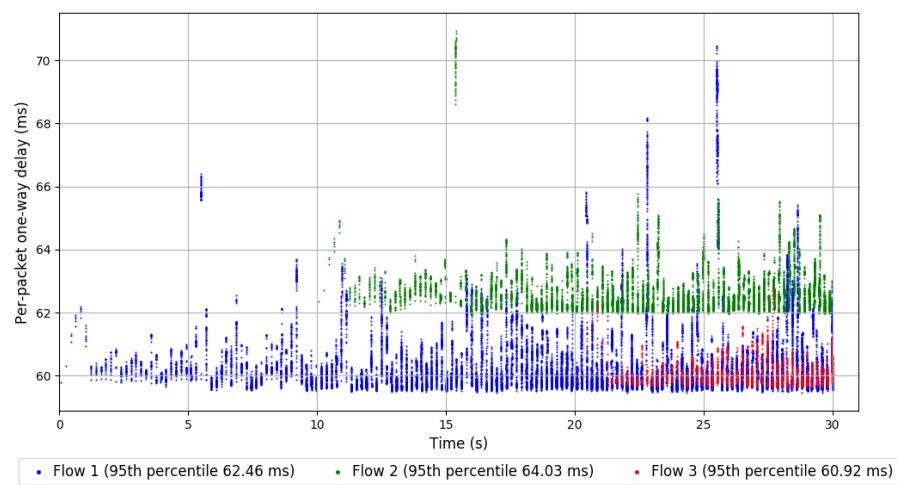
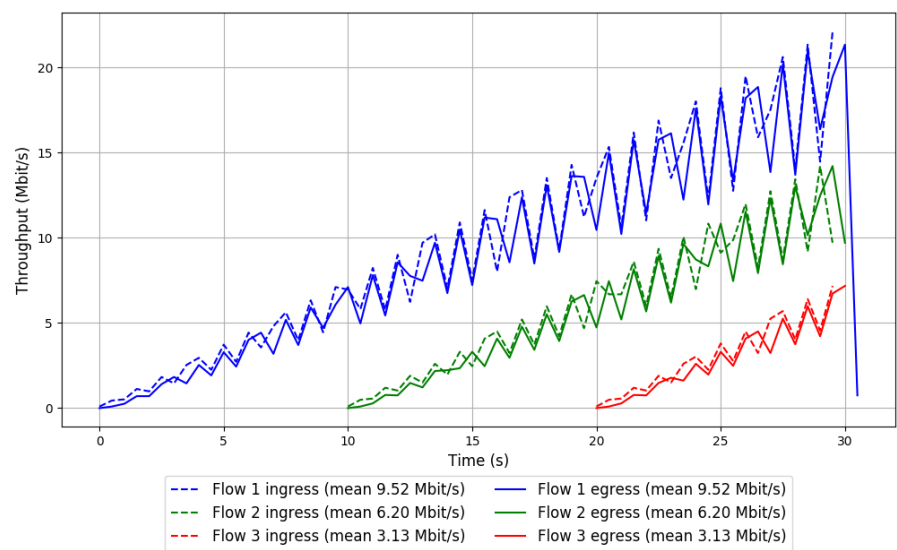


Run 5: Statistics of LEDBAT

Start at: 2019-03-19 06:01:00  
End at: 2019-03-19 06:01:30  
Local clock offset: 0.014 ms  
Remote clock offset: -43.257 ms

# Below is generated by plot.py at 2019-03-19 06:42:24  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 14.66 Mbit/s  
95th percentile per-packet one-way delay: 63.348 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 9.52 Mbit/s  
95th percentile per-packet one-way delay: 62.462 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.20 Mbit/s  
95th percentile per-packet one-way delay: 64.031 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 3.13 Mbit/s  
95th percentile per-packet one-way delay: 60.917 ms  
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

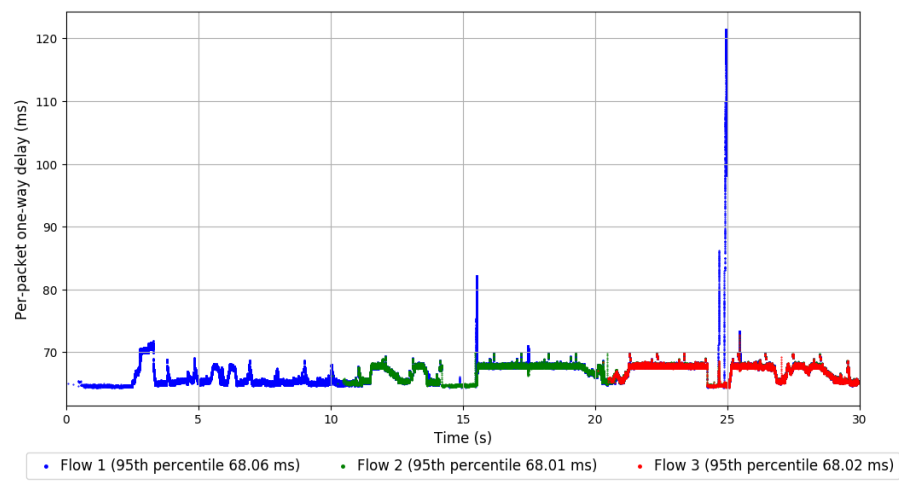
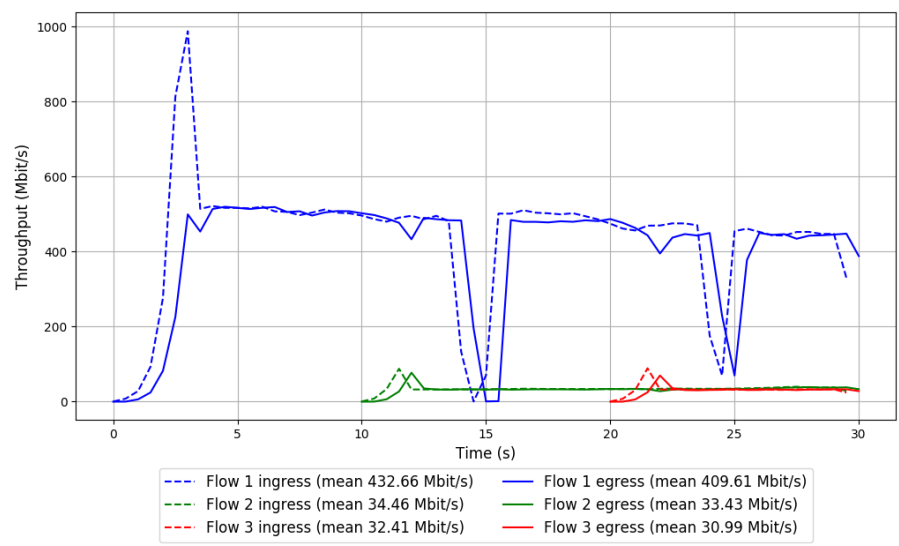


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-19 03:14:00
End at: 2019-03-19 03:14:30
Local clock offset: 0.102 ms
Remote clock offset: -33.848 ms

# Below is generated by plot.py at 2019-03-19 06:45:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 442.06 Mbit/s
95th percentile per-packet one-way delay: 68.048 ms
Loss rate: 5.19%
-- Flow 1:
Average throughput: 409.61 Mbit/s
95th percentile per-packet one-way delay: 68.056 ms
Loss rate: 5.33%
-- Flow 2:
Average throughput: 33.43 Mbit/s
95th percentile per-packet one-way delay: 68.012 ms
Loss rate: 3.01%
-- Flow 3:
Average throughput: 30.99 Mbit/s
95th percentile per-packet one-way delay: 68.019 ms
Loss rate: 4.41%
```

Run 1: Report of PCC-Allegro — Data Link



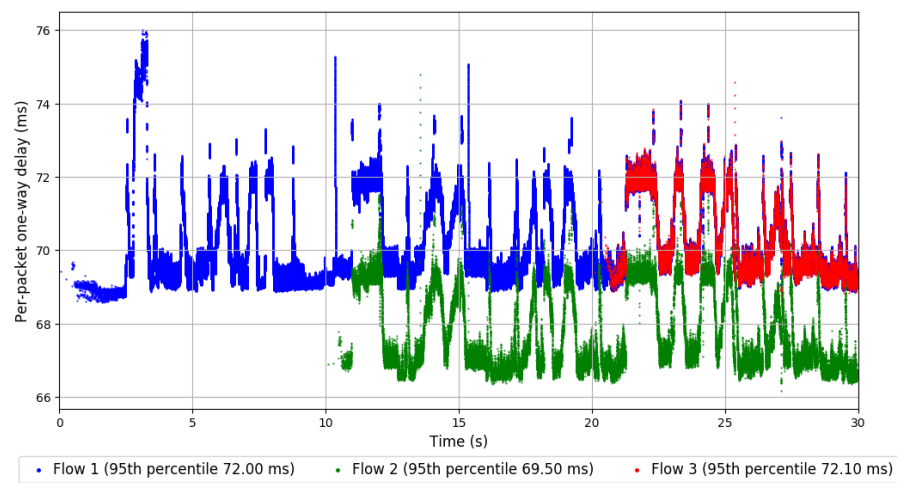
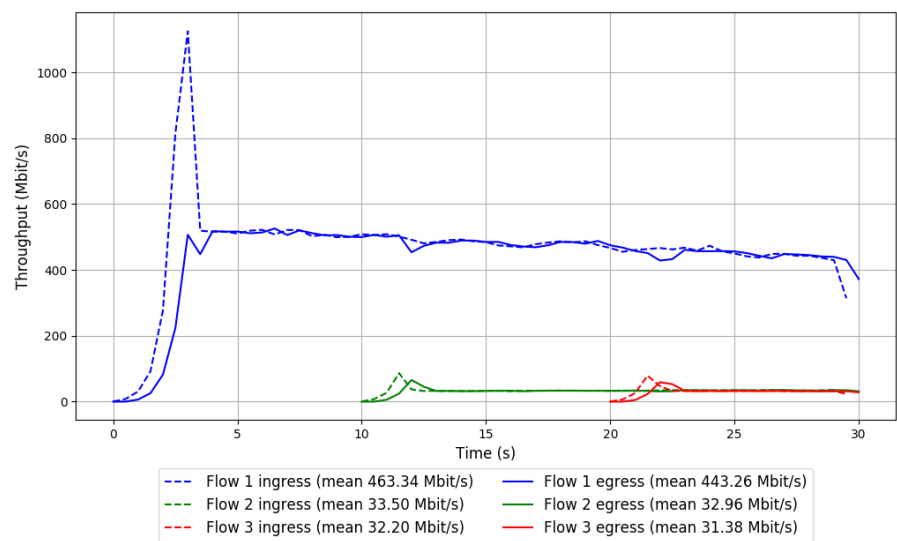


Run 2: Statistics of PCC-Allegro

Start at: 2019-03-19 03:50:09  
End at: 2019-03-19 03:50:39  
Local clock offset: 1.13 ms  
Remote clock offset: -31.308 ms

# Below is generated by plot.py at 2019-03-19 06:46:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 475.52 Mbit/s  
95th percentile per-packet one-way delay: 71.993 ms  
Loss rate: 4.18%  
-- Flow 1:  
Average throughput: 443.26 Mbit/s  
95th percentile per-packet one-way delay: 71.997 ms  
Loss rate: 4.34%  
-- Flow 2:  
Average throughput: 32.96 Mbit/s  
95th percentile per-packet one-way delay: 69.495 ms  
Loss rate: 1.61%  
-- Flow 3:  
Average throughput: 31.38 Mbit/s  
95th percentile per-packet one-way delay: 72.102 ms  
Loss rate: 2.57%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-03-19 04:48:56

End at: 2019-03-19 04:49:26

Local clock offset: -0.345 ms

Remote clock offset: -33.829 ms

# Below is generated by plot.py at 2019-03-19 06:47:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 476.18 Mbit/s

95th percentile per-packet one-way delay: 67.075 ms

Loss rate: 4.69%

-- Flow 1:

Average throughput: 448.29 Mbit/s

95th percentile per-packet one-way delay: 67.009 ms

Loss rate: 4.82%

-- Flow 2:

Average throughput: 33.82 Mbit/s

95th percentile per-packet one-way delay: 67.131 ms

Loss rate: 2.44%

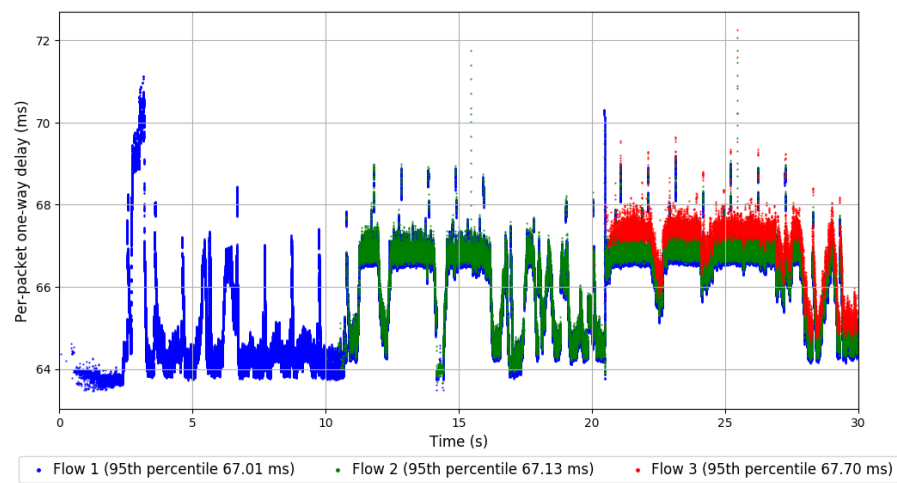
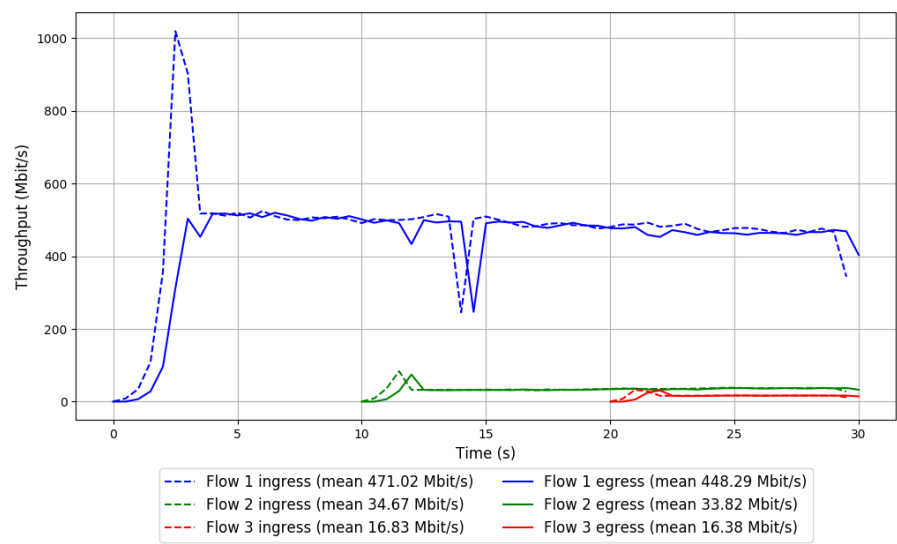
-- Flow 3:

Average throughput: 16.38 Mbit/s

95th percentile per-packet one-way delay: 67.700 ms

Loss rate: 2.72%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-03-19 05:30:51

End at: 2019-03-19 05:31:21

Local clock offset: 0.882 ms

Remote clock offset: -40.715 ms

# Below is generated by plot.py at 2019-03-19 06:47:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 479.20 Mbit/s

95th percentile per-packet one-way delay: 64.182 ms

Loss rate: 4.37%

-- Flow 1:

Average throughput: 449.29 Mbit/s

95th percentile per-packet one-way delay: 64.194 ms

Loss rate: 4.54%

-- Flow 2:

Average throughput: 37.09 Mbit/s

95th percentile per-packet one-way delay: 63.890 ms

Loss rate: 1.68%

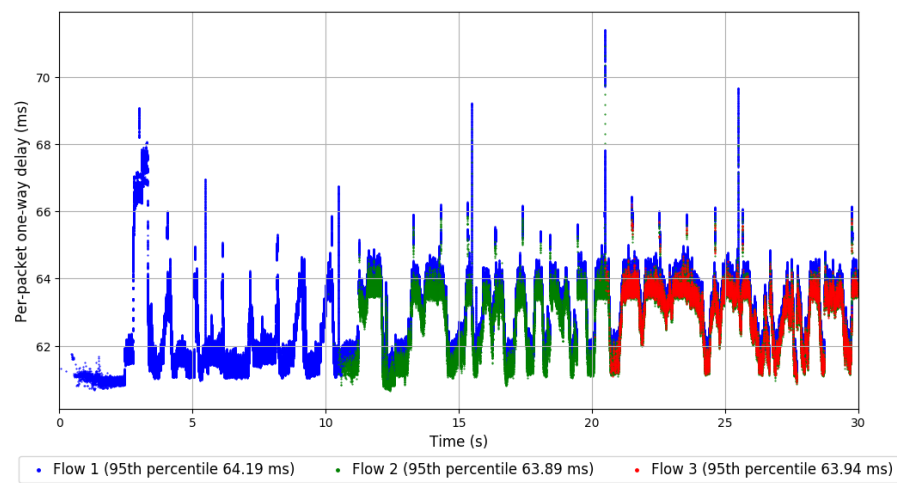
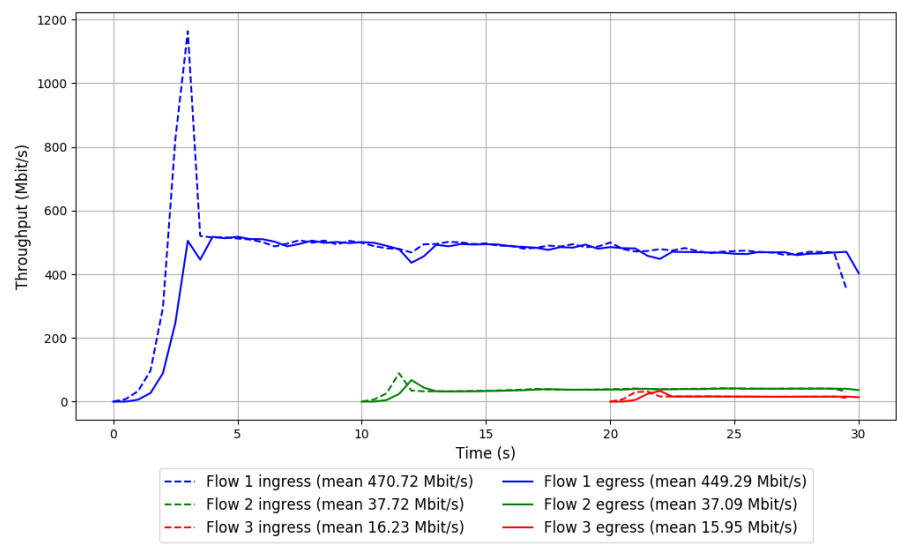
-- Flow 3:

Average throughput: 15.95 Mbit/s

95th percentile per-packet one-way delay: 63.935 ms

Loss rate: 1.72%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-03-19 06:12:29

End at: 2019-03-19 06:12:59

Local clock offset: 0.128 ms

Remote clock offset: -37.679 ms

# Below is generated by plot.py at 2019-03-19 06:48:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 471.82 Mbit/s

95th percentile per-packet one-way delay: 69.878 ms

Loss rate: 4.35%

-- Flow 1:

Average throughput: 439.26 Mbit/s

95th percentile per-packet one-way delay: 69.896 ms

Loss rate: 4.52%

-- Flow 2:

Average throughput: 33.48 Mbit/s

95th percentile per-packet one-way delay: 67.097 ms

Loss rate: 1.69%

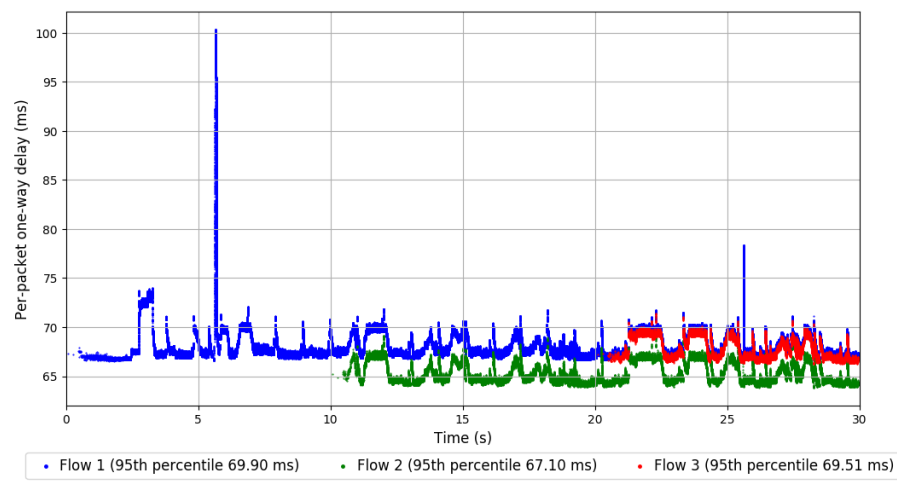
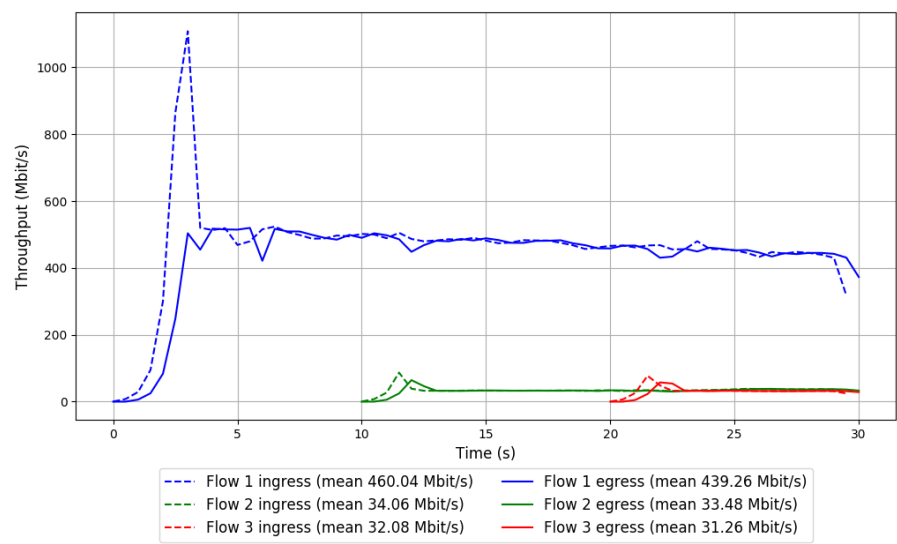
-- Flow 3:

Average throughput: 31.26 Mbit/s

95th percentile per-packet one-way delay: 69.511 ms

Loss rate: 2.58%

Run 5: Report of PCC-Allegro — Data Link



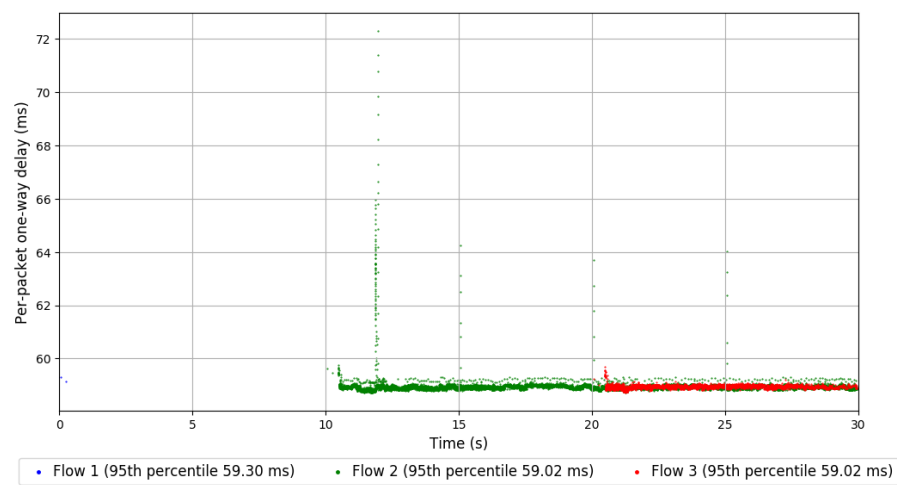
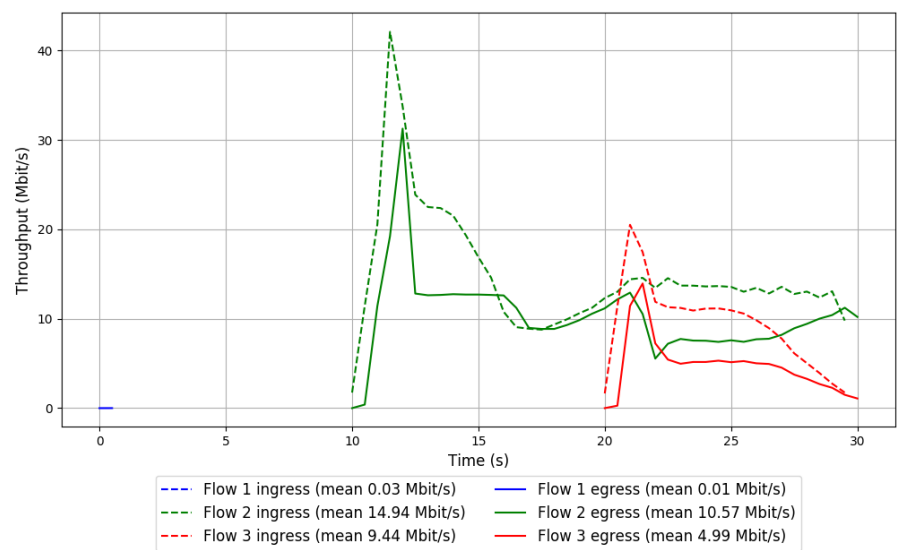


```
Run 1: Statistics of PCC-Expr

Start at: 2019-03-19 02:49:39
End at: 2019-03-19 02:50:09
Local clock offset: 0.923 ms
Remote clock offset: -39.143 ms

# Below is generated by plot.py at 2019-03-19 06:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 59.022 ms
Loss rate: 33.53%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 59.303 ms
Loss rate: 85.71%
-- Flow 2:
Average throughput: 10.57 Mbit/s
95th percentile per-packet one-way delay: 59.021 ms
Loss rate: 29.25%
-- Flow 3:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 59.024 ms
Loss rate: 47.17%
```

Run 1: Report of PCC-Expr — Data Link

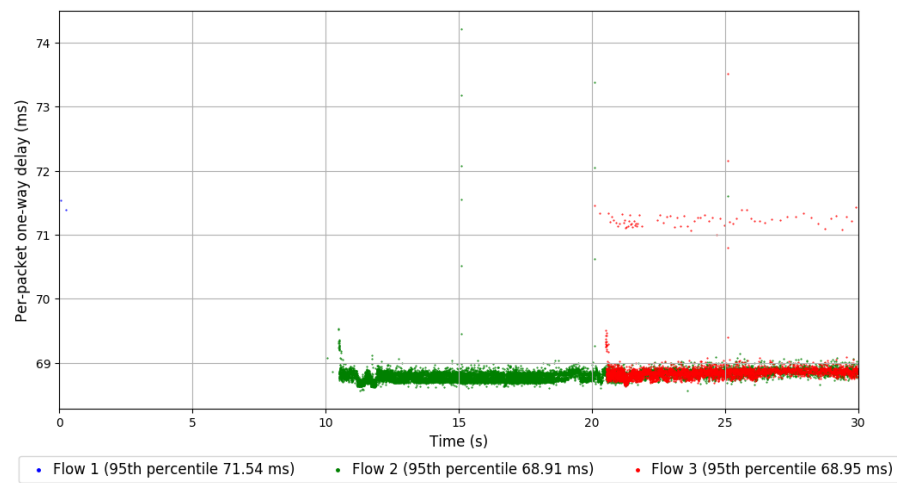
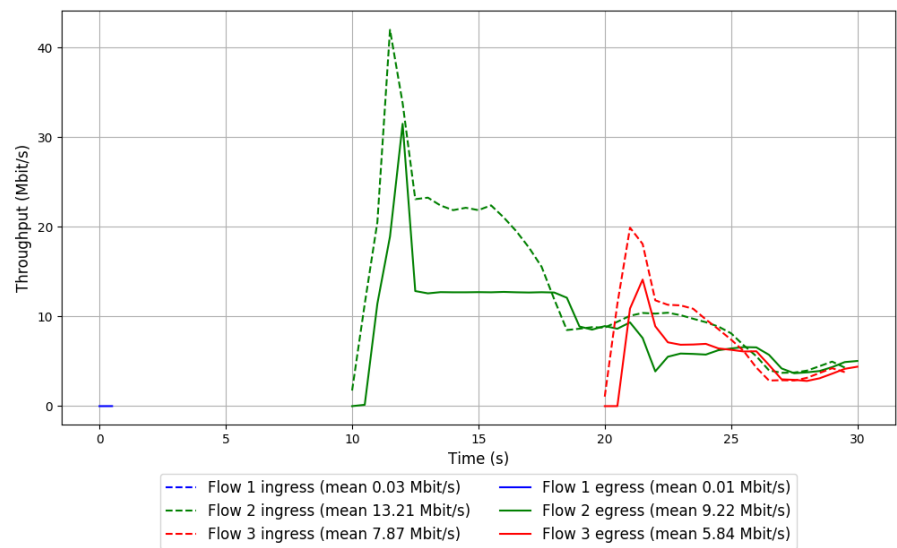


Run 2: Statistics of PCC-Expr

Start at: 2019-03-19 03:25:43  
End at: 2019-03-19 03:26:13  
Local clock offset: 2.282 ms  
Remote clock offset: -27.836 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.06 Mbit/s  
95th percentile per-packet one-way delay: 68.916 ms  
Loss rate: 29.17%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 71.538 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 9.22 Mbit/s  
95th percentile per-packet one-way delay: 68.906 ms  
Loss rate: 30.18%  
-- Flow 3:  
Average throughput: 5.84 Mbit/s  
95th percentile per-packet one-way delay: 68.950 ms  
Loss rate: 25.77%

Run 2: Report of PCC-Expr — Data Link

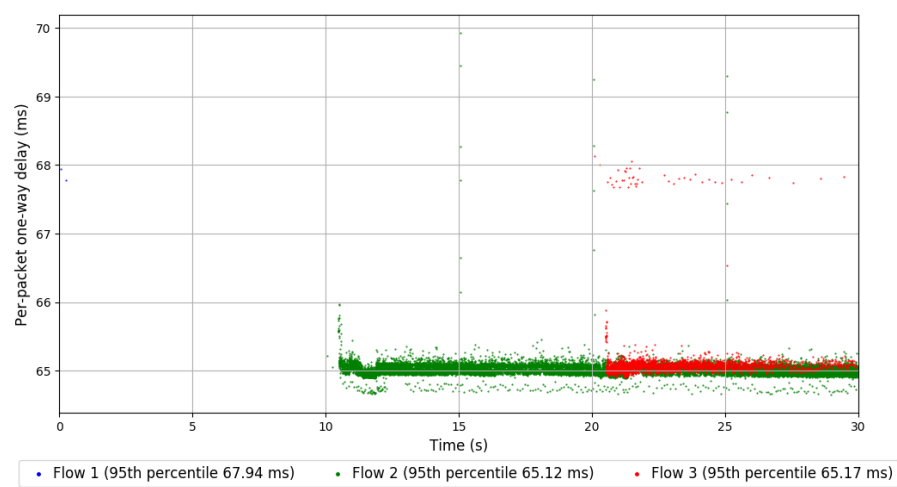
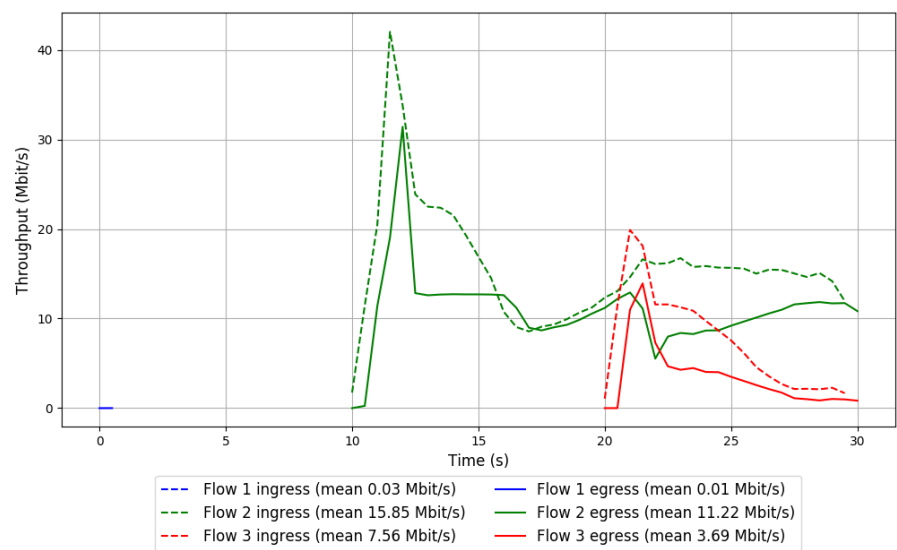


Run 3: Statistics of PCC-Expr

Start at: 2019-03-19 04:19:04  
End at: 2019-03-19 04:19:34  
Local clock offset: 1.53 ms  
Remote clock offset: -32.548 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.68 Mbit/s  
95th percentile per-packet one-way delay: 65.130 ms  
Loss rate: 33.45%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 67.943 ms  
Loss rate: 85.71%  
-- Flow 2:  
Average throughput: 11.22 Mbit/s  
95th percentile per-packet one-way delay: 65.117 ms  
Loss rate: 29.21%  
-- Flow 3:  
Average throughput: 3.69 Mbit/s  
95th percentile per-packet one-way delay: 65.171 ms  
Loss rate: 51.37%

Run 3: Report of PCC-Expr — Data Link

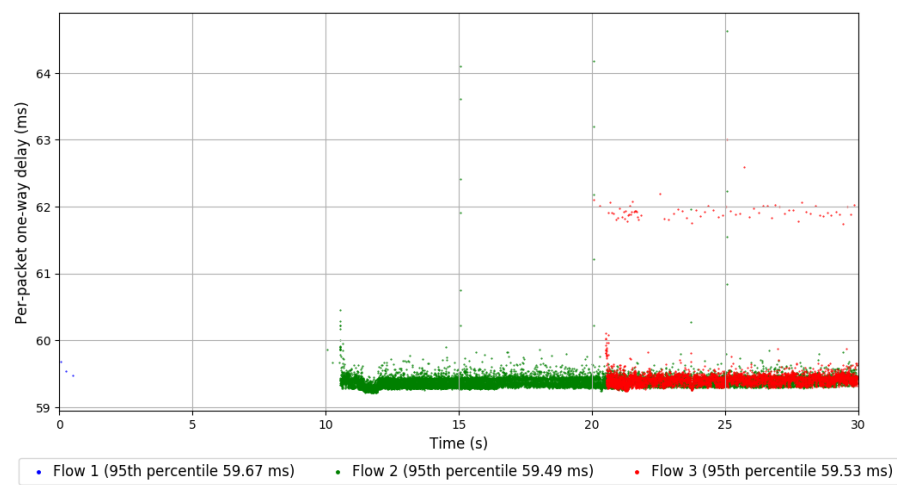
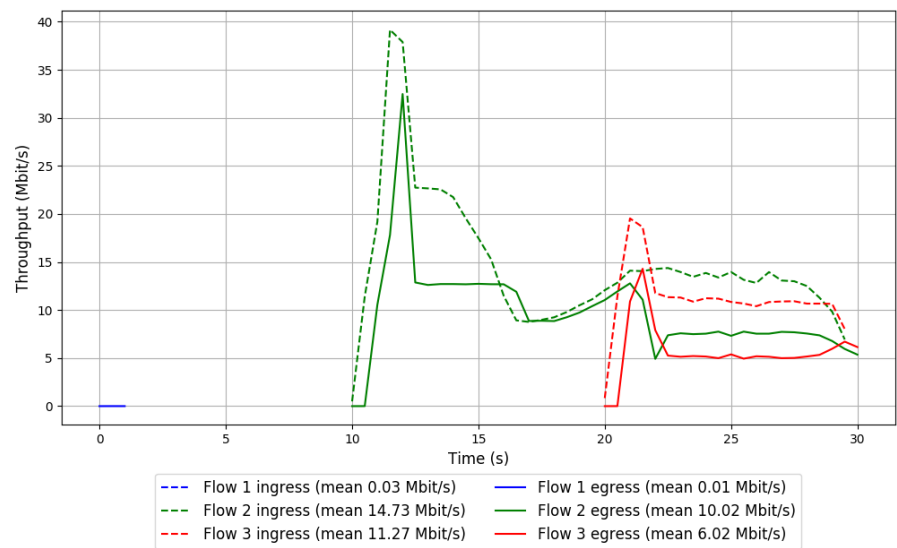


Run 4: Statistics of PCC-Expr

Start at: 2019-03-19 05:12:01  
End at: 2019-03-19 05:12:31  
Local clock offset: -1.613 ms  
Remote clock offset: -41.204 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.65 Mbit/s  
95th percentile per-packet one-way delay: 59.498 ms  
Loss rate: 36.01%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 59.674 ms  
Loss rate: 80.00%  
-- Flow 2:  
Average throughput: 10.02 Mbit/s  
95th percentile per-packet one-way delay: 59.486 ms  
Loss rate: 31.97%  
-- Flow 3:  
Average throughput: 6.02 Mbit/s  
95th percentile per-packet one-way delay: 59.529 ms  
Loss rate: 46.62%

Run 4: Report of PCC-Expr — Data Link



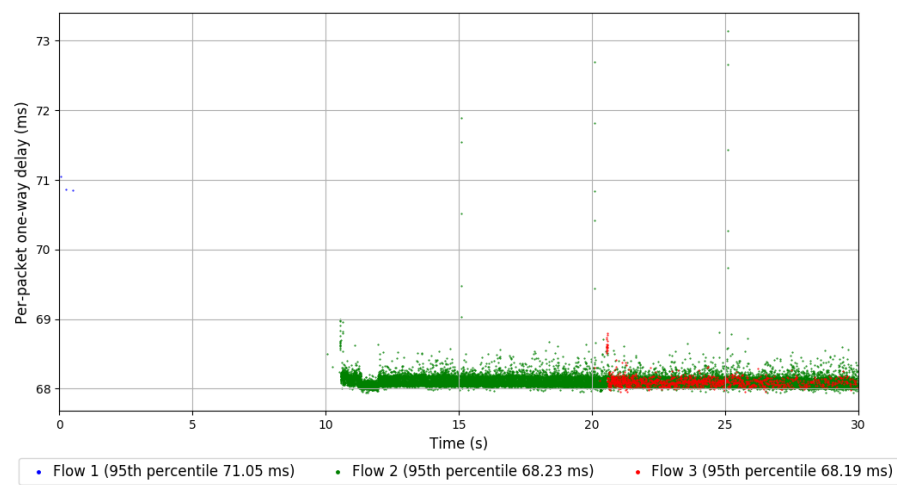
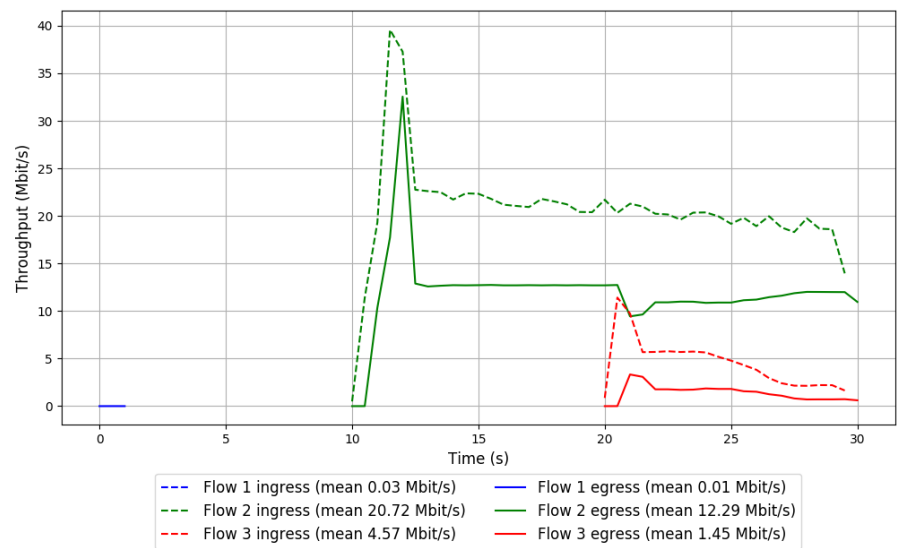


Run 5: Statistics of PCC-Expr

Start at: 2019-03-19 05:48:05  
End at: 2019-03-19 05:48:35  
Local clock offset: 3.099 ms  
Remote clock offset: -32.245 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.65 Mbit/s  
95th percentile per-packet one-way delay: 68.226 ms  
Loss rate: 43.40%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 71.048 ms  
Loss rate: 80.00%  
-- Flow 2:  
Average throughput: 12.29 Mbit/s  
95th percentile per-packet one-way delay: 68.227 ms  
Loss rate: 40.68%  
-- Flow 3:  
Average throughput: 1.45 Mbit/s  
95th percentile per-packet one-way delay: 68.194 ms  
Loss rate: 68.24%

Run 5: Report of PCC-Expr — Data Link

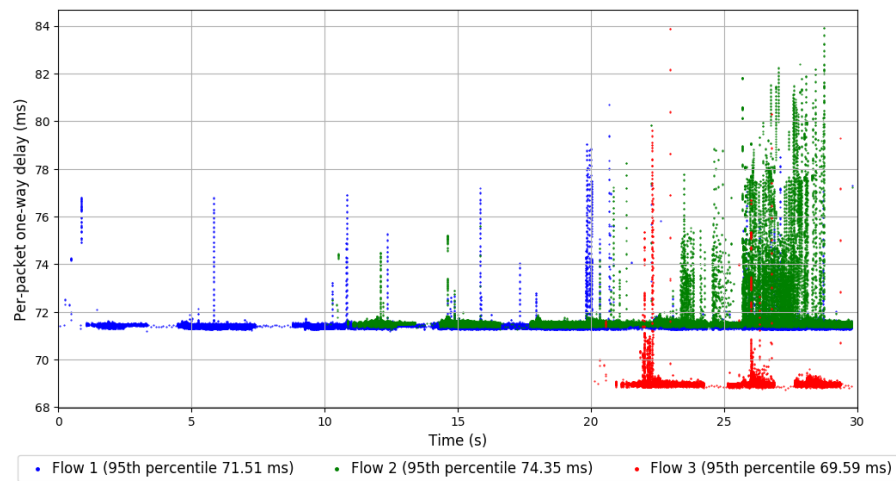
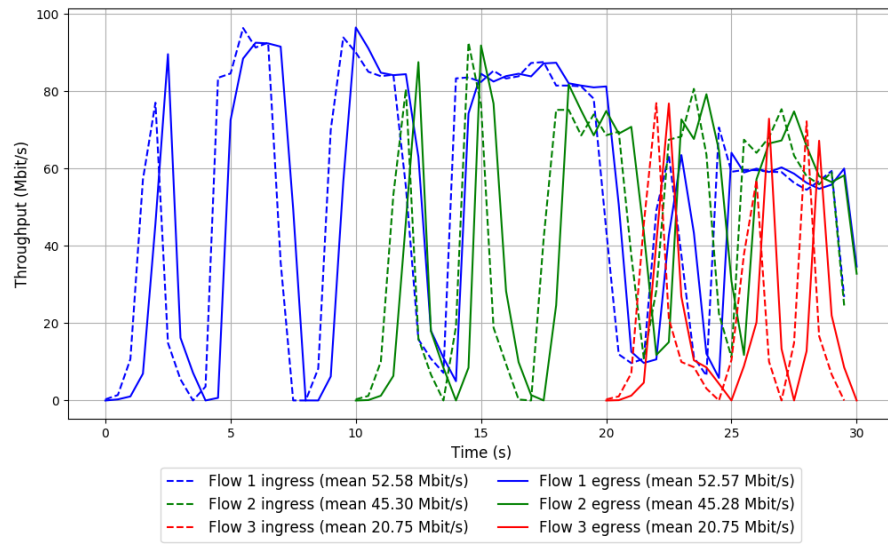


Run 1: Statistics of QUIC Cubic

Start at: 2019-03-19 03:09:54  
End at: 2019-03-19 03:10:24  
Local clock offset: 1.093 ms  
Remote clock offset: -28.642 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.32 Mbit/s  
95th percentile per-packet one-way delay: 72.003 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 52.57 Mbit/s  
95th percentile per-packet one-way delay: 71.509 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 45.28 Mbit/s  
95th percentile per-packet one-way delay: 74.350 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 20.75 Mbit/s  
95th percentile per-packet one-way delay: 69.591 ms  
Loss rate: 0.00%

## Run 1: Report of QUIC Cubic — Data Link

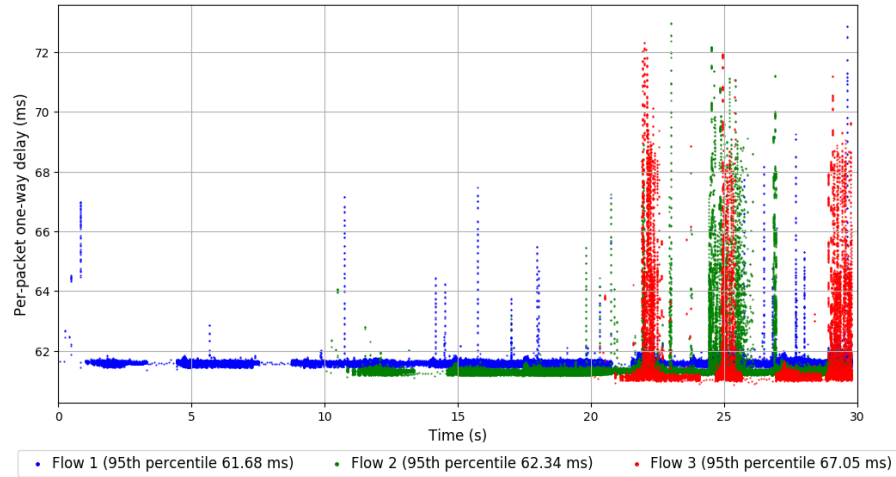
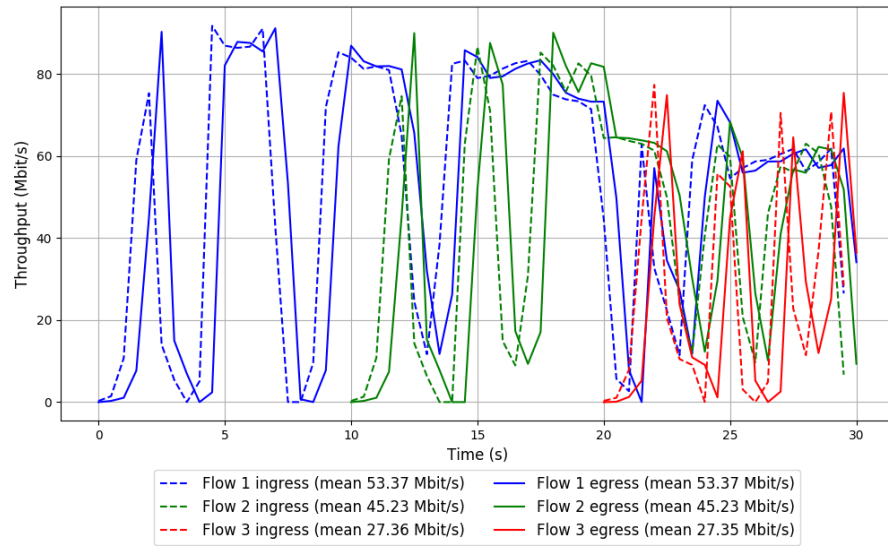


Run 2: Statistics of QUIC Cubic

Start at: 2019-03-19 03:46:04  
End at: 2019-03-19 03:46:34  
Local clock offset: 1.703 ms  
Remote clock offset: -35.845 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 92.26 Mbit/s  
95th percentile per-packet one-way delay: 61.924 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 53.37 Mbit/s  
95th percentile per-packet one-way delay: 61.679 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 45.23 Mbit/s  
95th percentile per-packet one-way delay: 62.343 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 27.35 Mbit/s  
95th percentile per-packet one-way delay: 67.053 ms  
Loss rate: 0.03%

## Run 2: Report of QUIC Cubic — Data Link

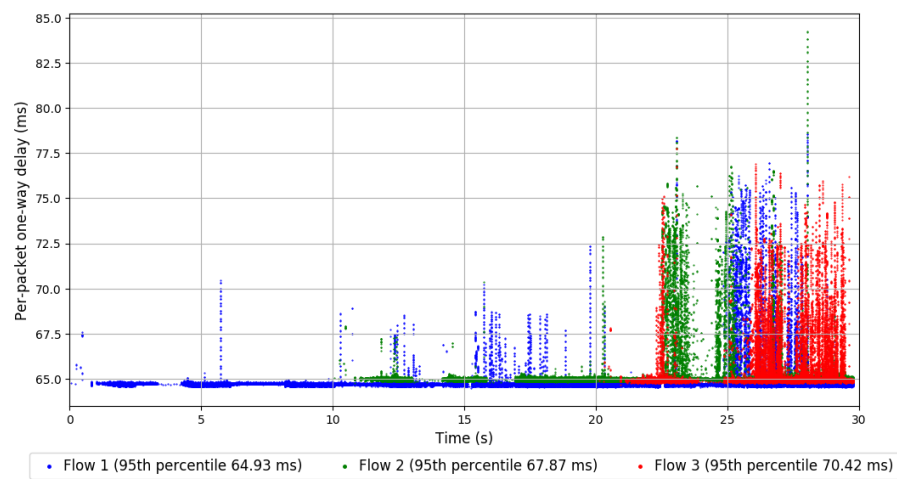
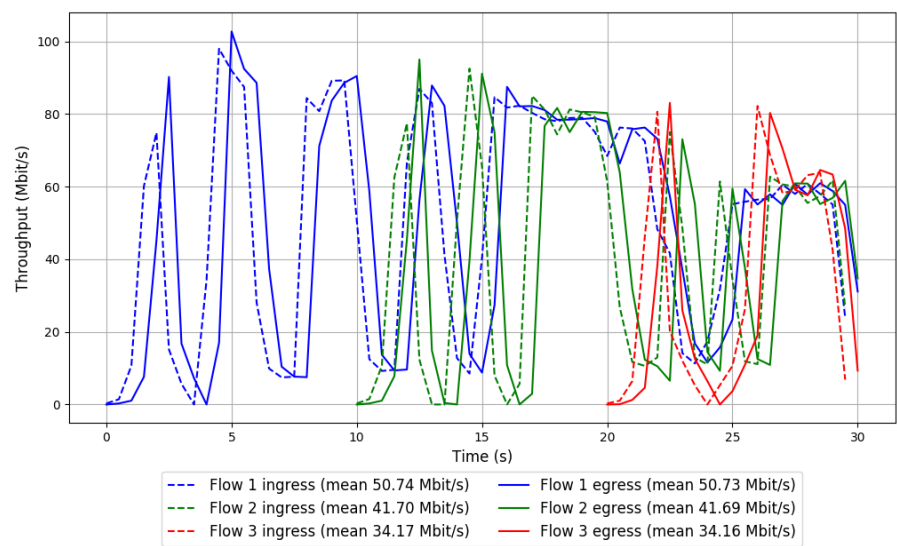


Run 3: Statistics of QUIC Cubic

Start at: 2019-03-19 04:39:23  
End at: 2019-03-19 04:39:53  
Local clock offset: 0.596 ms  
Remote clock offset: -32.301 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 89.48 Mbit/s  
95th percentile per-packet one-way delay: 67.316 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 50.73 Mbit/s  
95th percentile per-packet one-way delay: 64.931 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 41.69 Mbit/s  
95th percentile per-packet one-way delay: 67.869 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 34.16 Mbit/s  
95th percentile per-packet one-way delay: 70.419 ms  
Loss rate: 0.01%

Run 3: Report of QUIC Cubic — Data Link



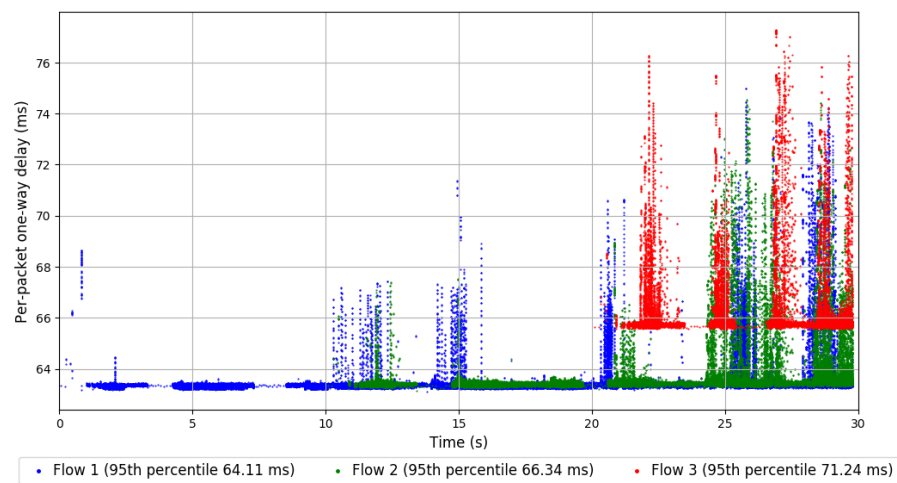
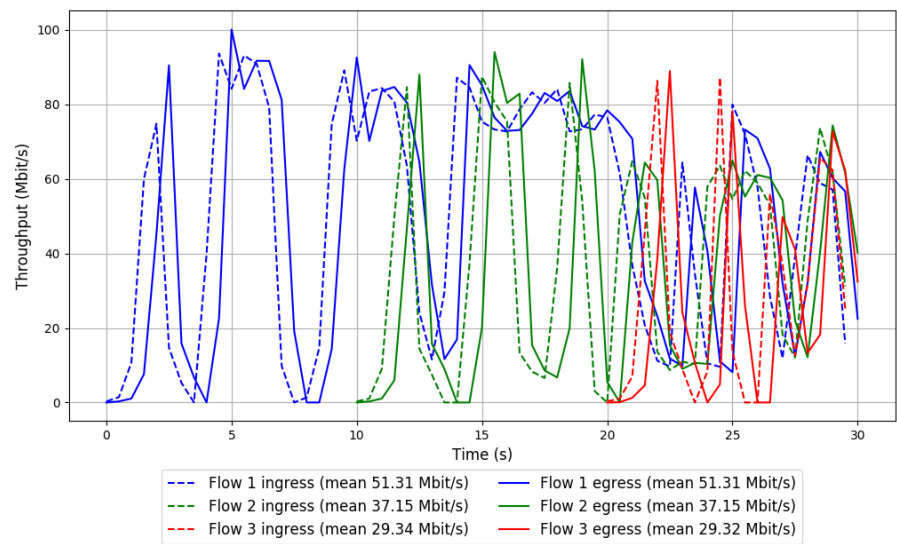


Run 4: Statistics of QUIC Cubic

Start at: 2019-03-19 05:26:37  
End at: 2019-03-19 05:27:07  
Local clock offset: 1.517 ms  
Remote clock offset: -37.163 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 85.47 Mbit/s  
95th percentile per-packet one-way delay: 66.523 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 51.31 Mbit/s  
95th percentile per-packet one-way delay: 64.109 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 37.15 Mbit/s  
95th percentile per-packet one-way delay: 66.341 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 29.32 Mbit/s  
95th percentile per-packet one-way delay: 71.240 ms  
Loss rate: 0.09%

Run 4: Report of QUIC Cubic — Data Link

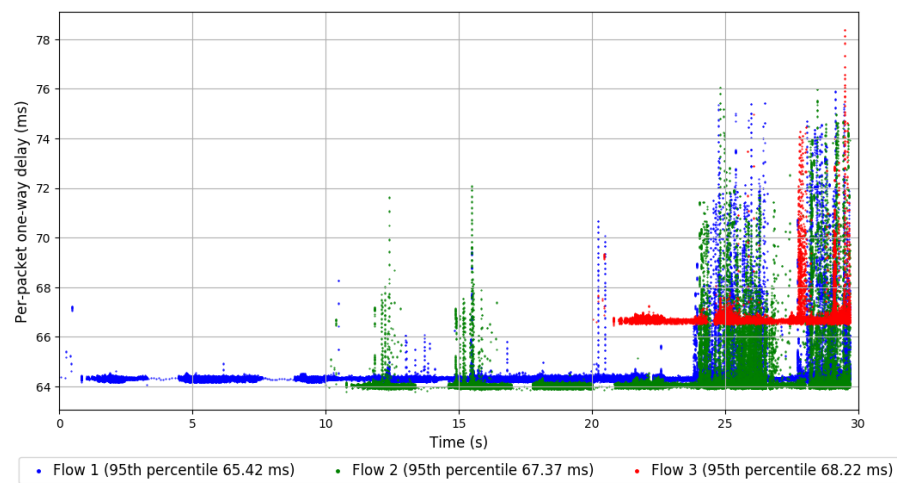
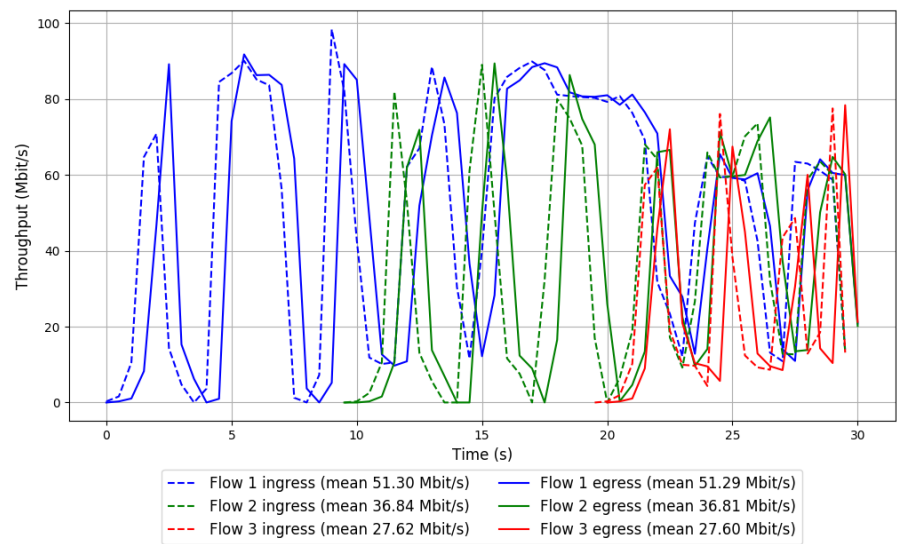


Run 5: Statistics of QUIC Cubic

Start at: 2019-03-19 06:08:25  
End at: 2019-03-19 06:08:55  
Local clock offset: -0.023 ms  
Remote clock offset: -38.995 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 84.77 Mbit/s  
95th percentile per-packet one-way delay: 66.869 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 51.29 Mbit/s  
95th percentile per-packet one-way delay: 65.419 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 36.81 Mbit/s  
95th percentile per-packet one-way delay: 67.367 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 27.60 Mbit/s  
95th percentile per-packet one-way delay: 68.216 ms  
Loss rate: 0.09%

Run 5: Report of QUIC Cubic — Data Link

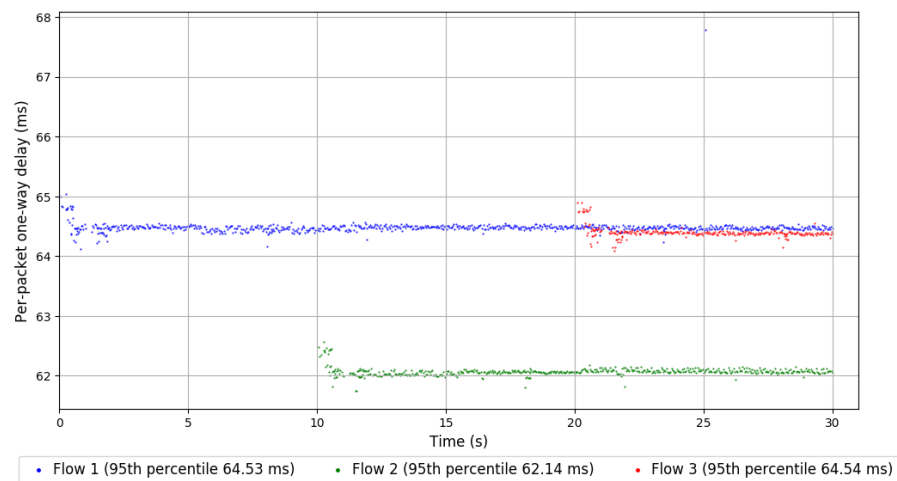
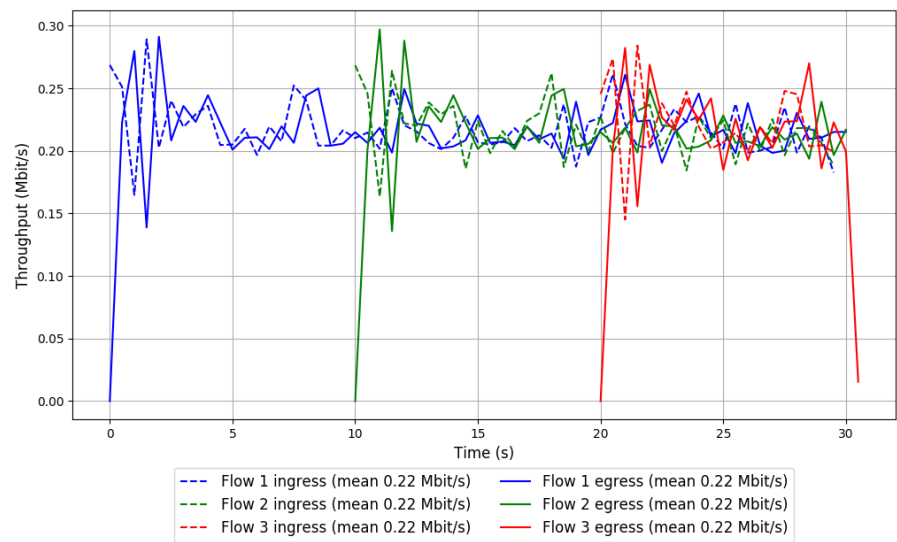


```
Run 1: Statistics of SReAM

Start at: 2019-03-19 02:39:43
End at: 2019-03-19 02:40:13
Local clock offset: -0.231 ms
Remote clock offset: -37.231 ms

# Below is generated by plot.py at 2019-03-19 06:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 64.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.531 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.544 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

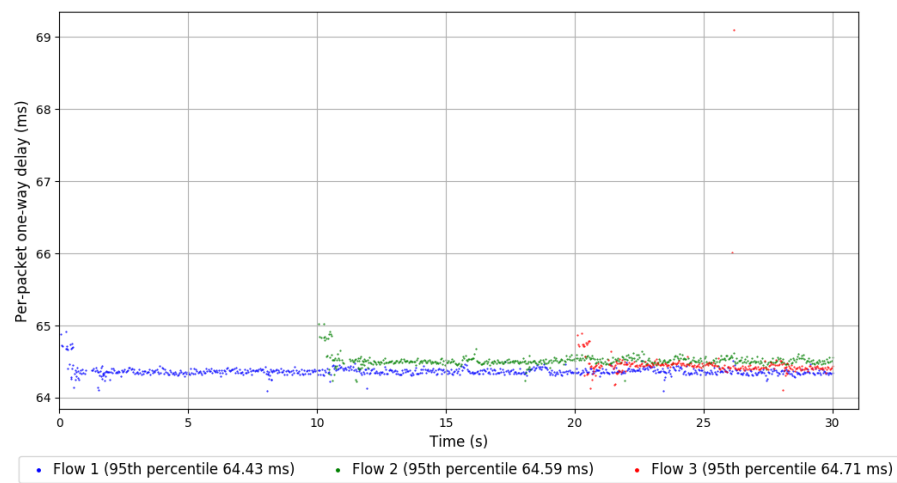
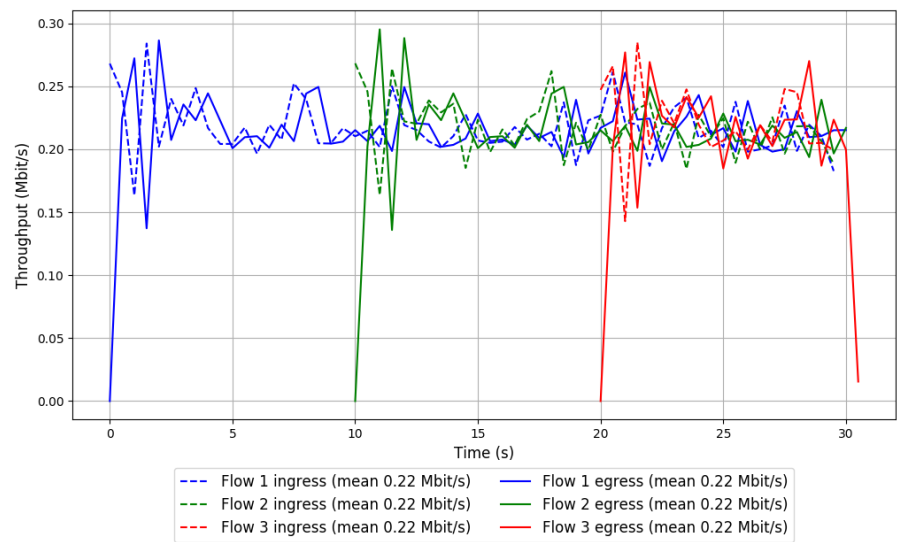


Run 2: Statistics of SReAM

Start at: 2019-03-19 03:21:24  
End at: 2019-03-19 03:21:54  
Local clock offset: 0.633 ms  
Remote clock offset: -33.815 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 64.569 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.431 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.594 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.706 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



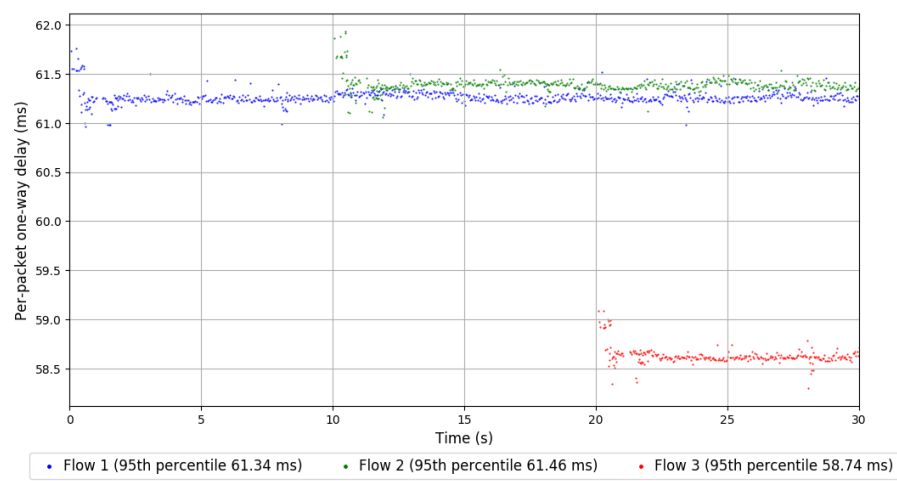
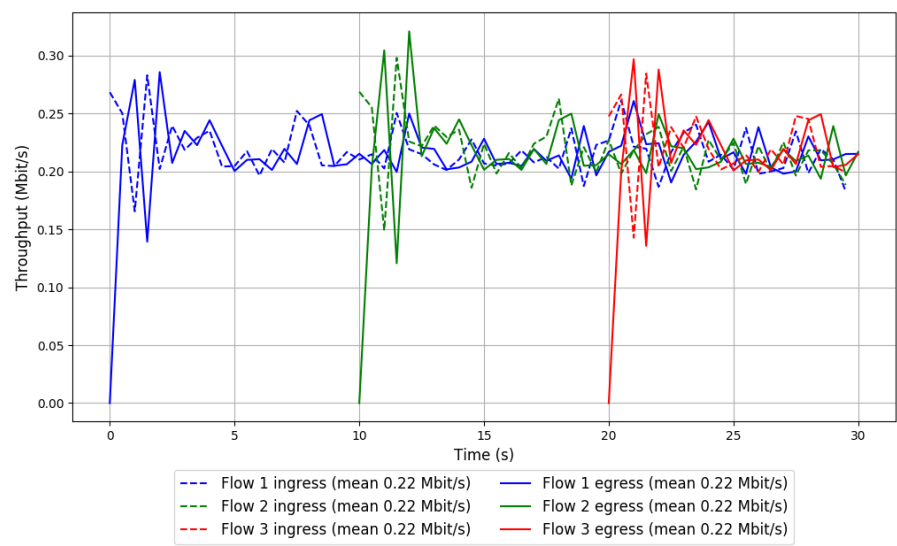


Run 3: Statistics of SReAM

Start at: 2019-03-19 04:03:14  
End at: 2019-03-19 04:03:44  
Local clock offset: 1.21 ms  
Remote clock offset: -39.532 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 61.437 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 61.341 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 61.458 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 58.744 ms  
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

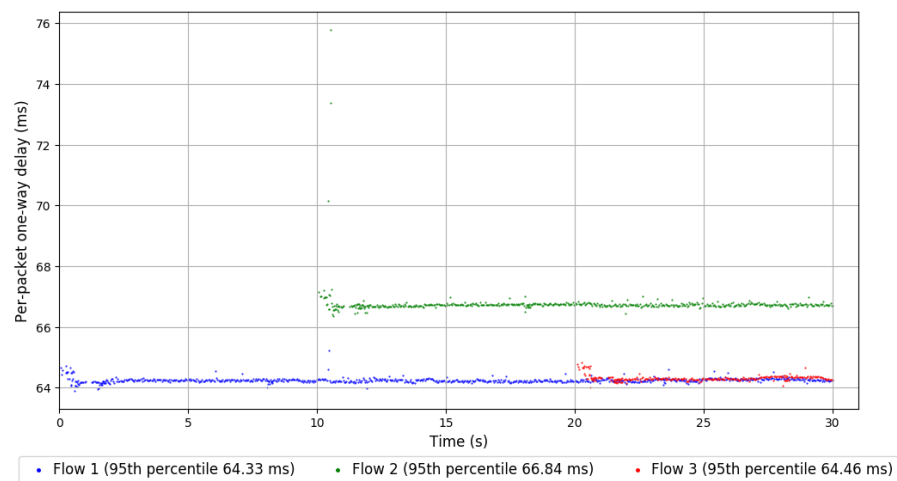
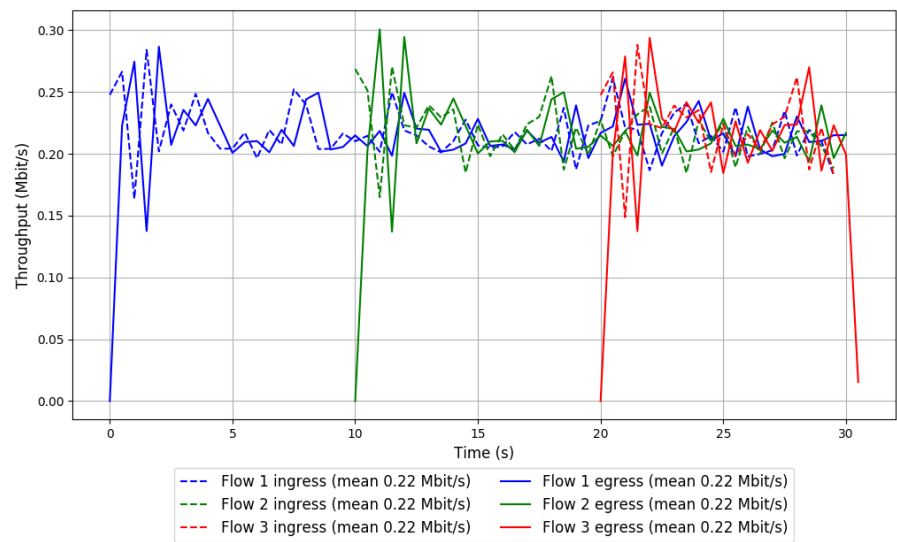


Run 4: Statistics of SReAM

Start at: 2019-03-19 05:07:35  
End at: 2019-03-19 05:08:05  
Local clock offset: -1.335 ms  
Remote clock offset: -35.685 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 66.769 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.330 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 66.844 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.463 ms  
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

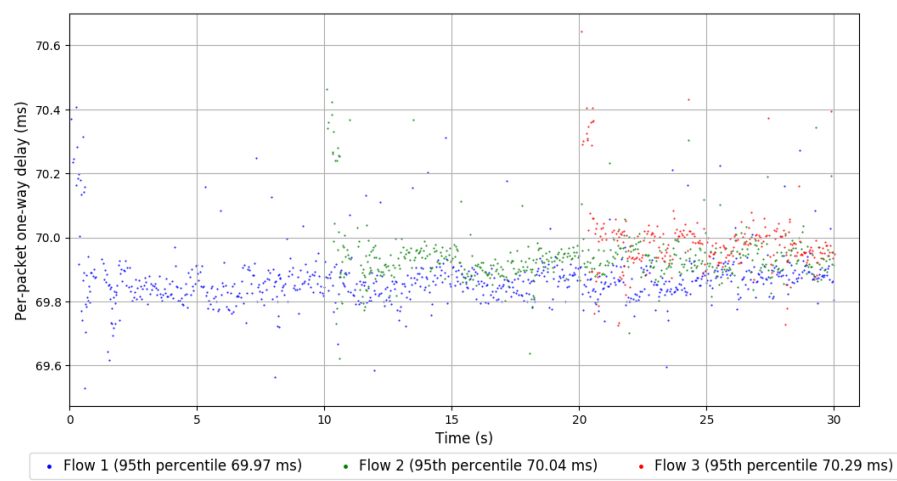
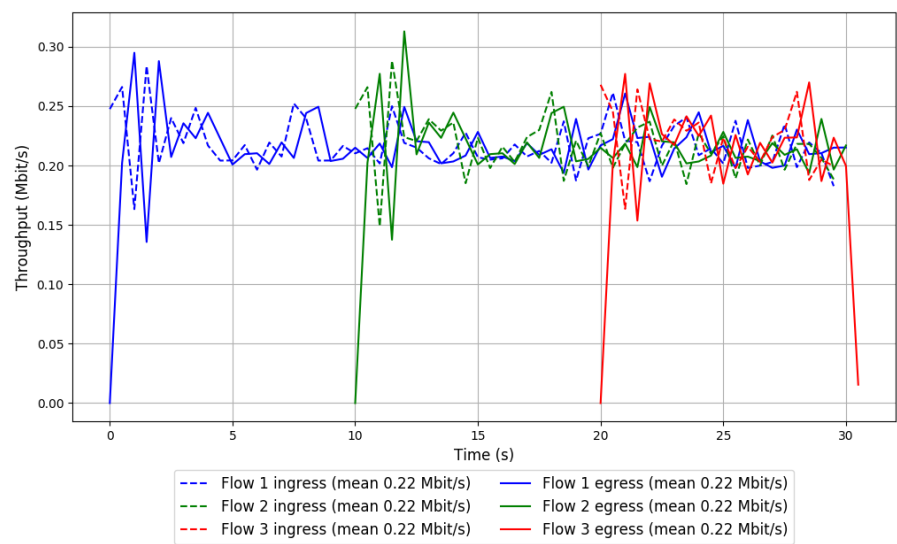


Run 5: Statistics of SReAM

Start at: 2019-03-19 05:43:45  
End at: 2019-03-19 05:44:15  
Local clock offset: 1.529 ms  
Remote clock offset: -32.456 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 70.059 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 69.969 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.044 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.290 ms  
Loss rate: 0.00%

Run 5: Report of SCRaM — Data Link

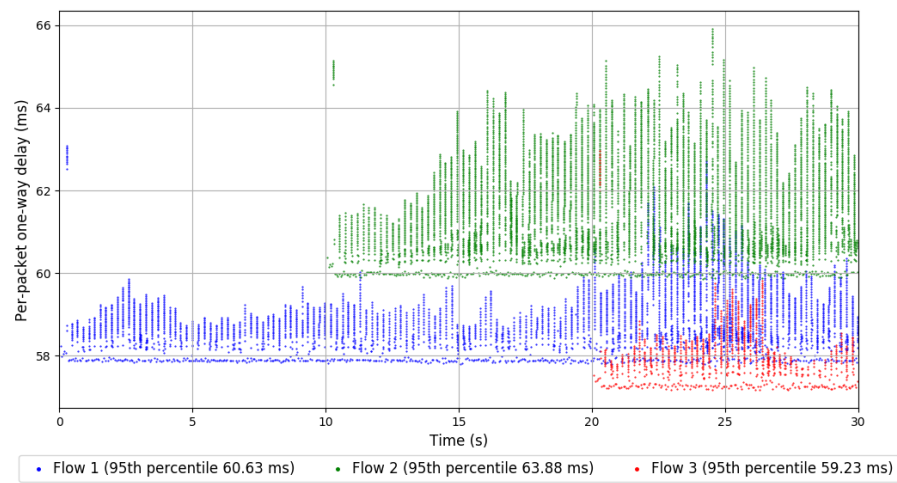
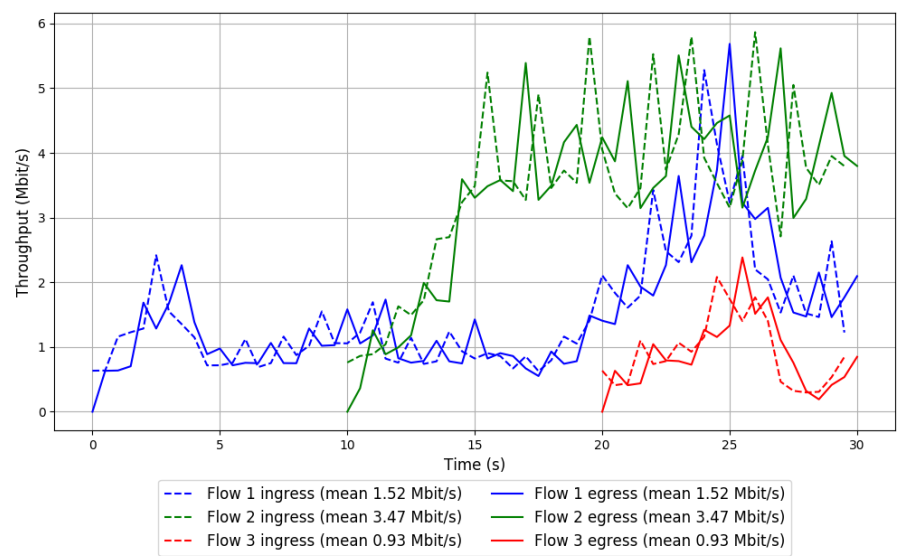


Run 1: Statistics of Sprout

Start at: 2019-03-19 02:31:14  
End at: 2019-03-19 02:31:44  
Local clock offset: 1.405 ms  
Remote clock offset: -40.008 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.14 Mbit/s  
95th percentile per-packet one-way delay: 63.517 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.52 Mbit/s  
95th percentile per-packet one-way delay: 60.632 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.47 Mbit/s  
95th percentile per-packet one-way delay: 63.885 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.93 Mbit/s  
95th percentile per-packet one-way delay: 59.229 ms  
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



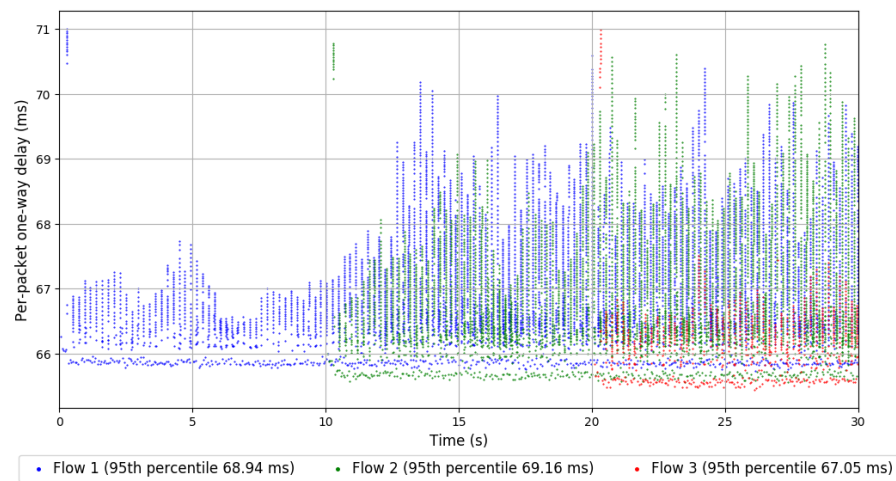
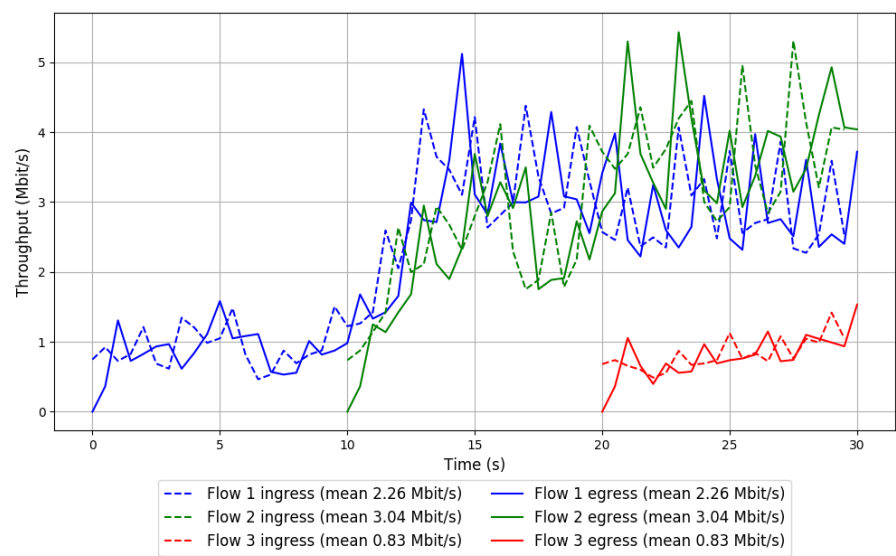


## Run 2: Statistics of Sprout

Start at: 2019-03-19 03:18:33  
End at: 2019-03-19 03:19:03  
Local clock offset: 1.21 ms  
Remote clock offset: -34.16 ms

```
# Below is generated by plot.py at 2019-03-19 06:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 68.990 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 68.942 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 69.162 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 67.051 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

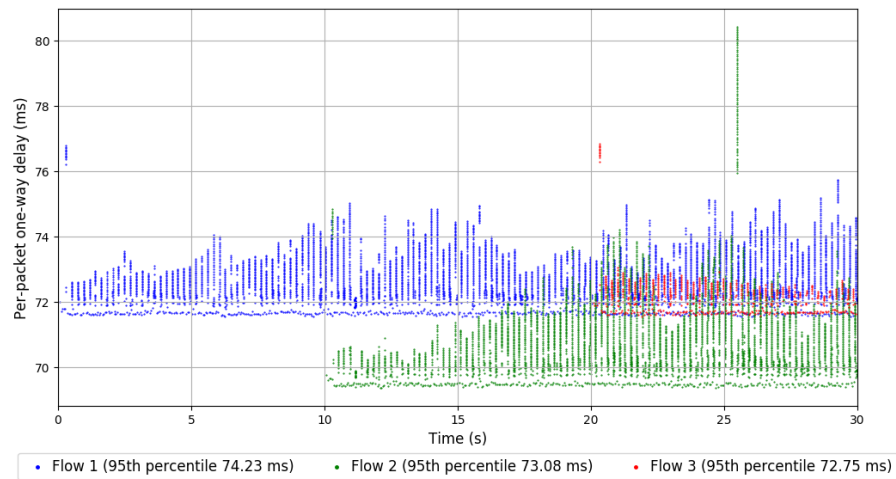
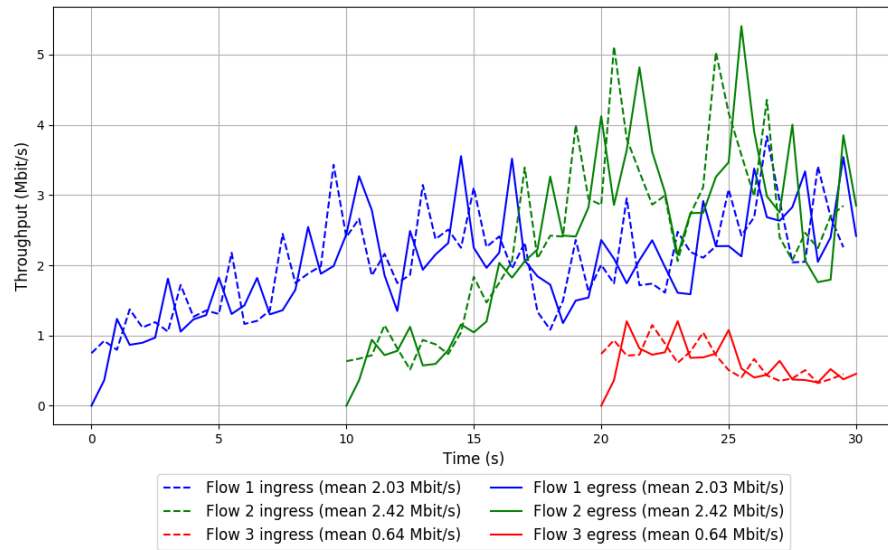


### Run 3: Statistics of Sprout

Start at: 2019-03-19 03:54:48  
End at: 2019-03-19 03:55:18  
Local clock offset: 1.025 ms  
Remote clock offset: -28.665 ms

```
# Below is generated by plot.py at 2019-03-19 06:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.85 Mbit/s
95th percentile per-packet one-way delay: 73.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 74.228 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 73.080 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 72.754 ms
Loss rate: 0.00%
```

### Run 3: Report of Sprout — Data Link

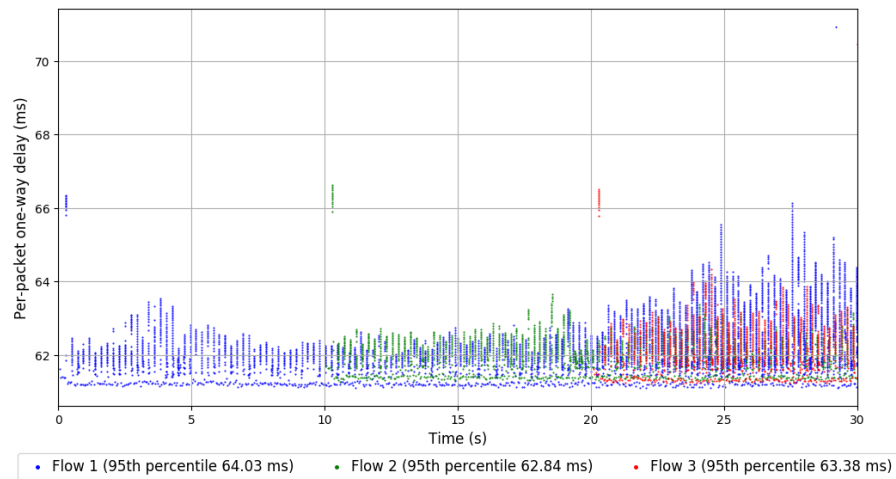
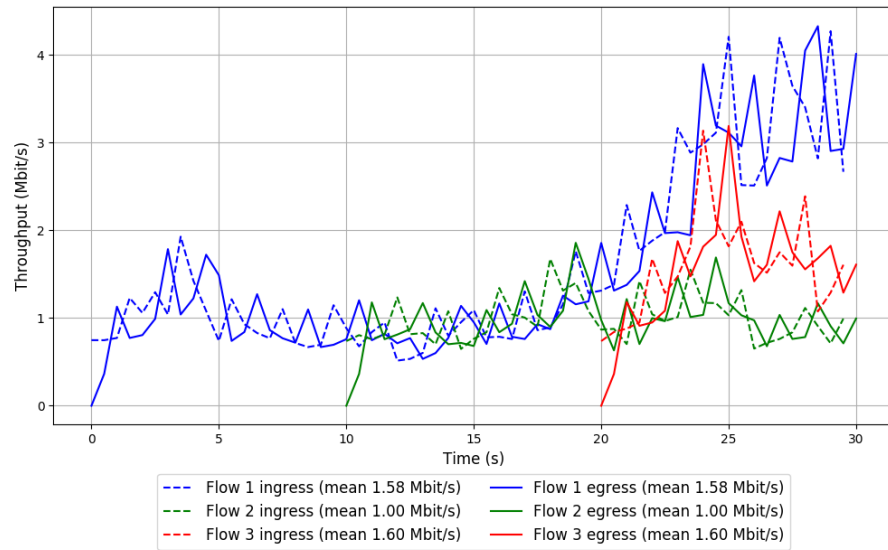


#### Run 4: Statistics of Sprout

Start at: 2019-03-19 04:59:16  
End at: 2019-03-19 04:59:46  
Local clock offset: -1.188 ms  
Remote clock offset: -39.369 ms

```
# Below is generated by plot.py at 2019-03-19 06:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 63.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 64.031 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 62.835 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 63.380 ms
Loss rate: 0.00%
```

# Run 4: Report of Sprout — Data Link

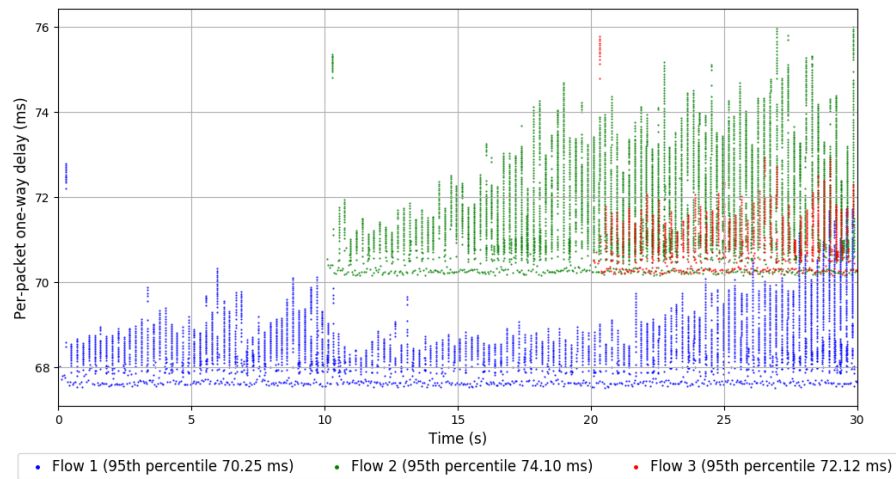
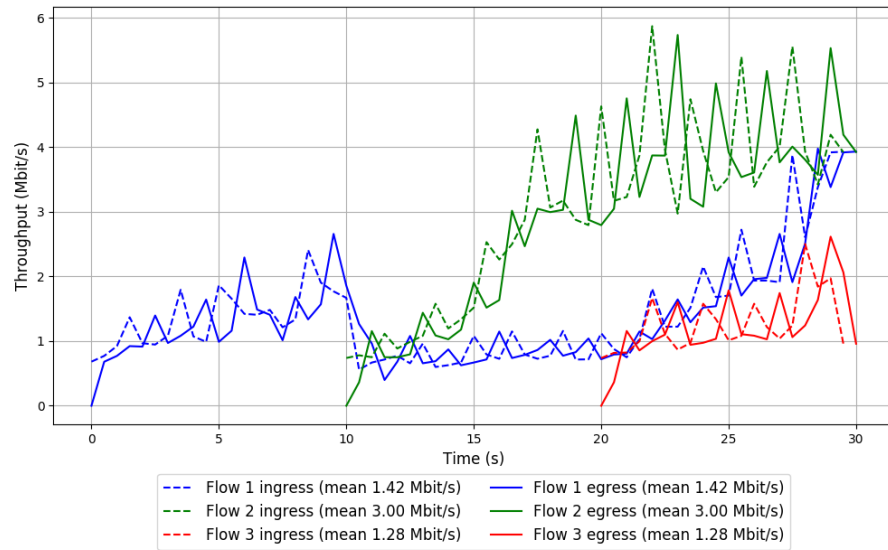


Run 5: Statistics of Sprout

Start at: 2019-03-19 05:40:54  
End at: 2019-03-19 05:41:24  
Local clock offset: 3.315 ms  
Remote clock offset: -32.16 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 3.83 Mbit/s  
95th percentile per-packet one-way delay: 73.637 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 1.42 Mbit/s  
95th percentile per-packet one-way delay: 70.250 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 3.00 Mbit/s  
95th percentile per-packet one-way delay: 74.101 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 1.28 Mbit/s  
95th percentile per-packet one-way delay: 72.122 ms  
Loss rate: 0.00%

## Run 5: Report of Sprout — Data Link



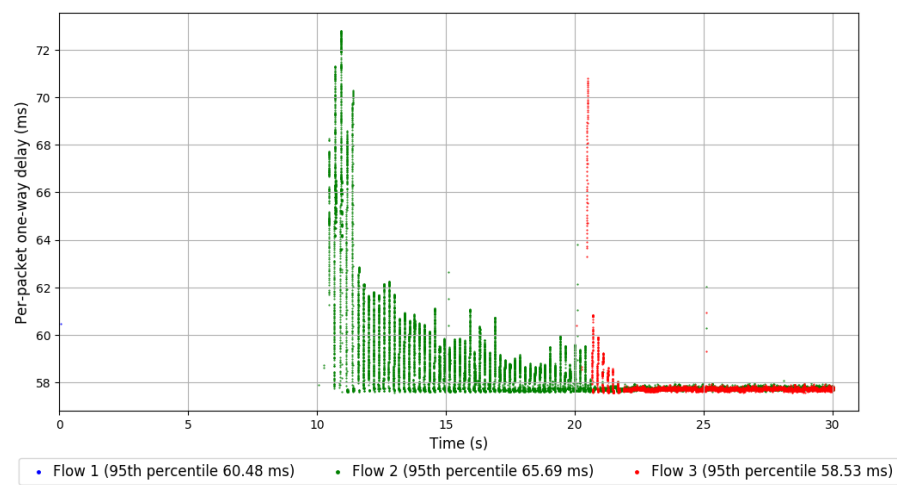
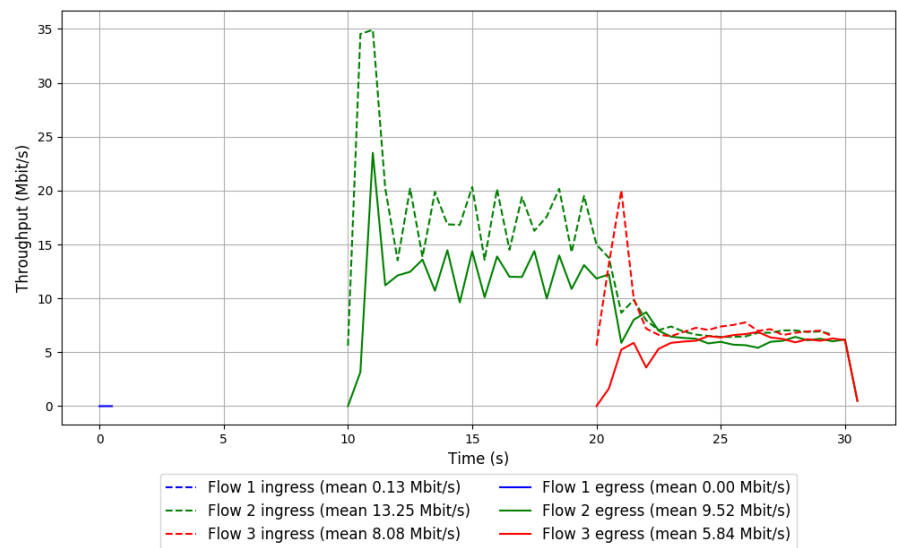


Run 1: Statistics of TaoVA-100x

Start at: 2019-03-19 03:01:11  
End at: 2019-03-19 03:01:41  
Local clock offset: 0.283 ms  
Remote clock offset: -40.995 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.28 Mbit/s  
95th percentile per-packet one-way delay: 64.767 ms  
Loss rate: 28.06%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 60.485 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.52 Mbit/s  
95th percentile per-packet one-way delay: 65.685 ms  
Loss rate: 28.15%  
-- Flow 3:  
Average throughput: 5.84 Mbit/s  
95th percentile per-packet one-way delay: 58.535 ms  
Loss rate: 27.73%

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

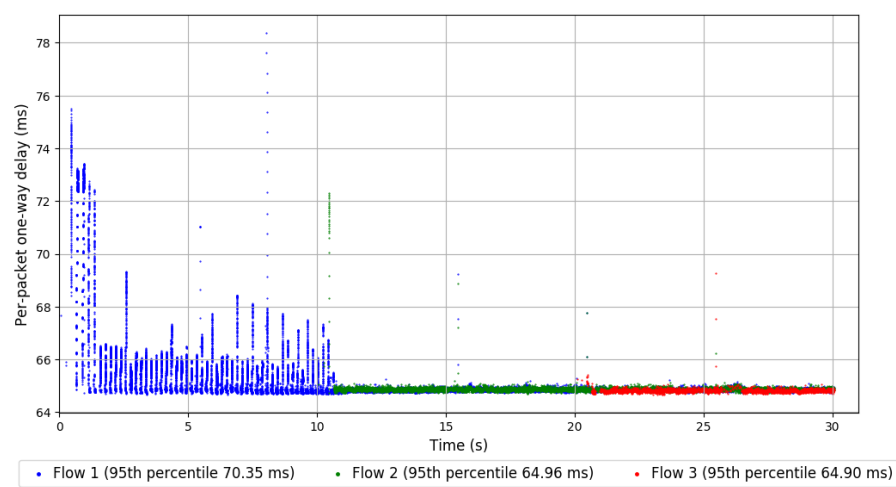
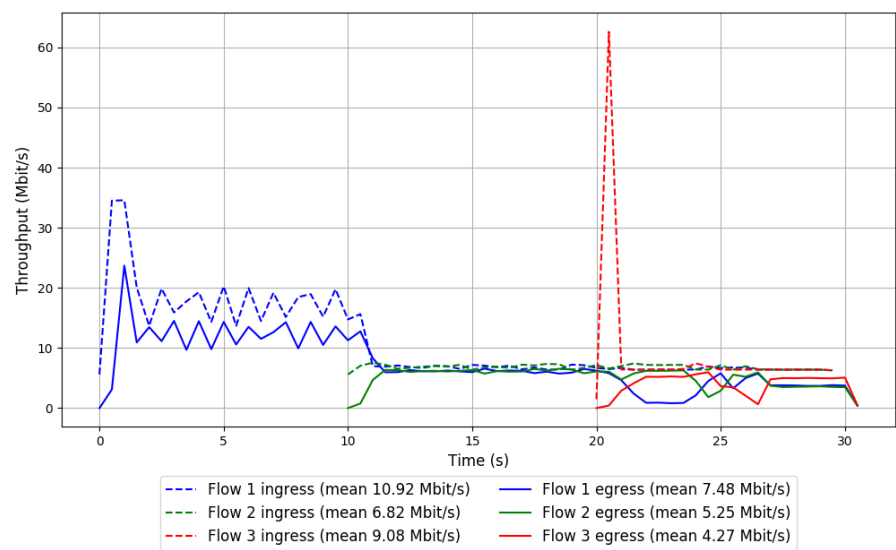


Run 2: Statistics of TaoVA-100x

Start at: 2019-03-19 03:31:41  
End at: 2019-03-19 03:32:11  
Local clock offset: 1.258 ms  
Remote clock offset: -32.888 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.40 Mbit/s  
95th percentile per-packet one-way delay: 67.341 ms  
Loss rate: 32.93%  
-- Flow 1:  
Average throughput: 7.48 Mbit/s  
95th percentile per-packet one-way delay: 70.346 ms  
Loss rate: 31.52%  
-- Flow 2:  
Average throughput: 5.25 Mbit/s  
95th percentile per-packet one-way delay: 64.961 ms  
Loss rate: 23.04%  
-- Flow 3:  
Average throughput: 4.27 Mbit/s  
95th percentile per-packet one-way delay: 64.902 ms  
Loss rate: 52.94%

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

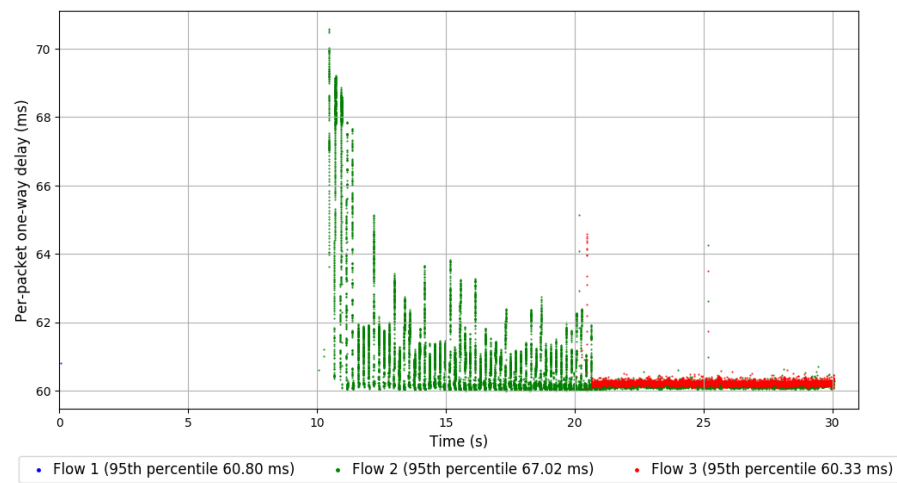
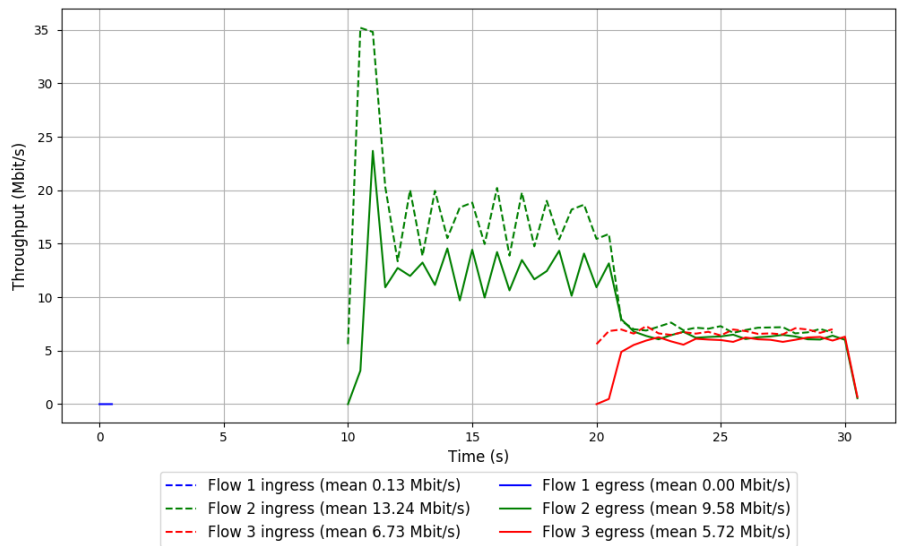


Run 3: Statistics of TaoVA-100x

Start at: 2019-03-19 04:30:41  
End at: 2019-03-19 04:31:11  
Local clock offset: -0.023 ms  
Remote clock offset: -38.017 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.28 Mbit/s  
95th percentile per-packet one-way delay: 64.939 ms  
Loss rate: 25.10%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 60.799 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.58 Mbit/s  
95th percentile per-packet one-way delay: 67.024 ms  
Loss rate: 27.66%  
-- Flow 3:  
Average throughput: 5.72 Mbit/s  
95th percentile per-packet one-way delay: 60.329 ms  
Loss rate: 14.97%

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

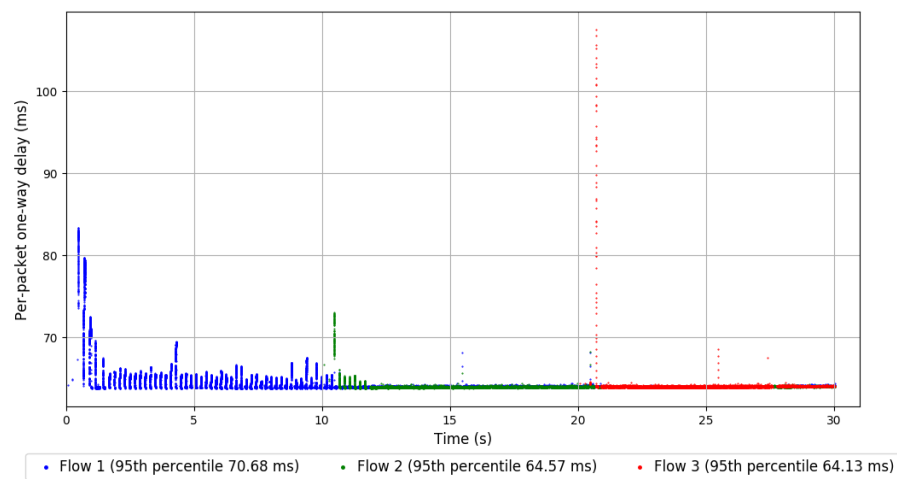
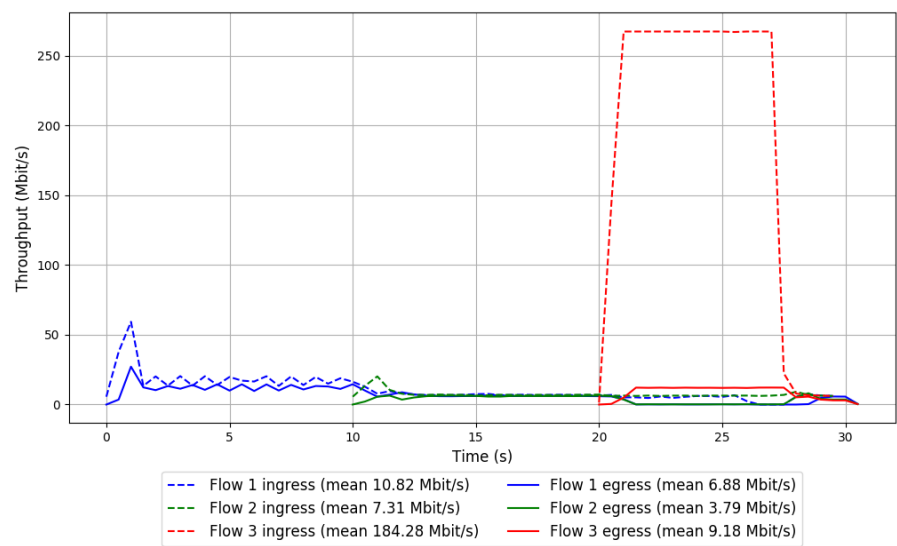


Run 4: Statistics of TaoVA-100x

Start at: 2019-03-19 05:17:55  
End at: 2019-03-19 05:18:25  
Local clock offset: -0.446 ms  
Remote clock offset: -36.503 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 12.45 Mbit/s  
95th percentile per-packet one-way delay: 66.864 ms  
Loss rate: 83.81%  
-- Flow 1:  
Average throughput: 6.88 Mbit/s  
95th percentile per-packet one-way delay: 70.681 ms  
Loss rate: 36.43%  
-- Flow 2:  
Average throughput: 3.79 Mbit/s  
95th percentile per-packet one-way delay: 64.570 ms  
Loss rate: 48.17%  
-- Flow 3:  
Average throughput: 9.18 Mbit/s  
95th percentile per-packet one-way delay: 64.129 ms  
Loss rate: 95.02%

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



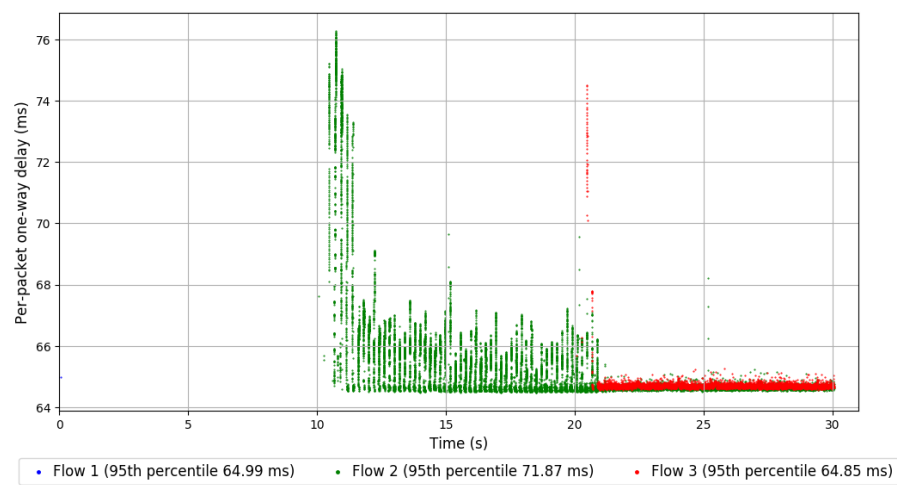
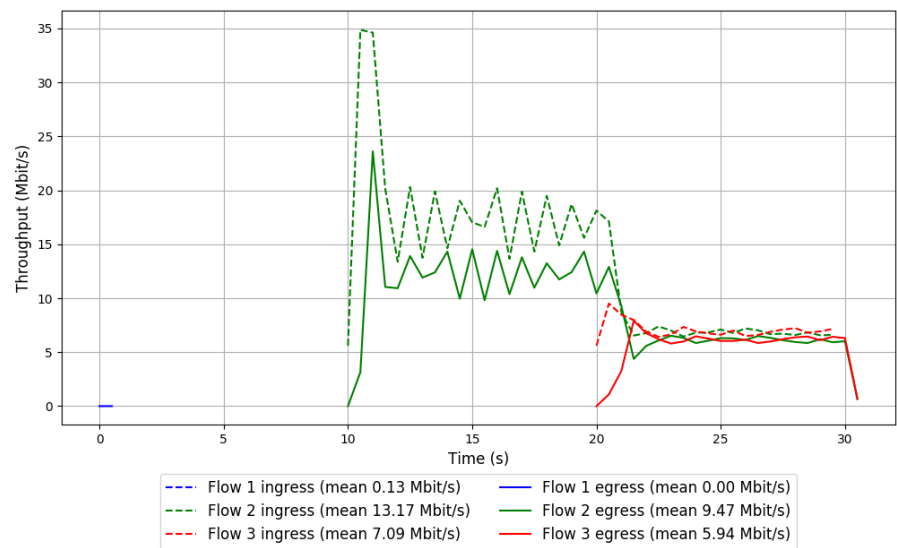


Run 5: Statistics of TaoVA-100x

Start at: 2019-03-19 05:59:41  
End at: 2019-03-19 06:00:11  
Local clock offset: 1.734 ms  
Remote clock offset: -36.534 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 8.28 Mbit/s  
95th percentile per-packet one-way delay: 69.926 ms  
Loss rate: 25.59%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 64.988 ms  
Loss rate: 95.92%  
-- Flow 2:  
Average throughput: 9.47 Mbit/s  
95th percentile per-packet one-way delay: 71.867 ms  
Loss rate: 28.10%  
-- Flow 3:  
Average throughput: 5.94 Mbit/s  
95th percentile per-packet one-way delay: 64.849 ms  
Loss rate: 16.24%

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

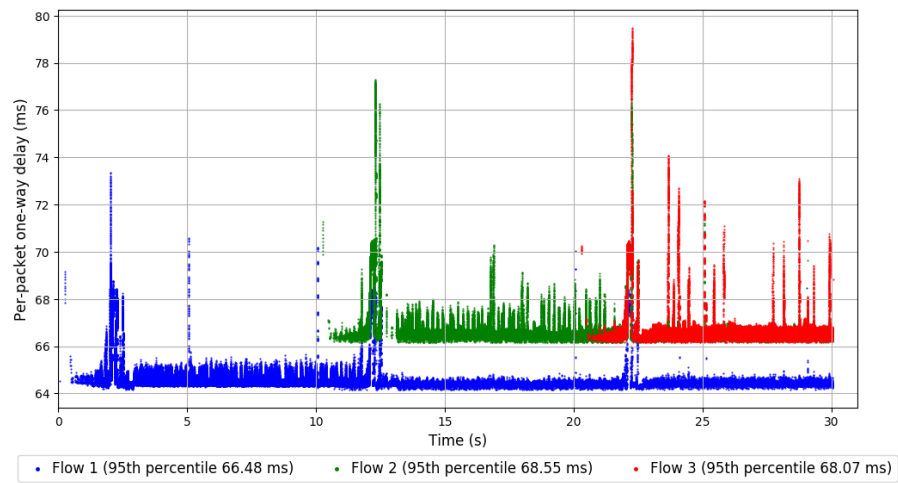
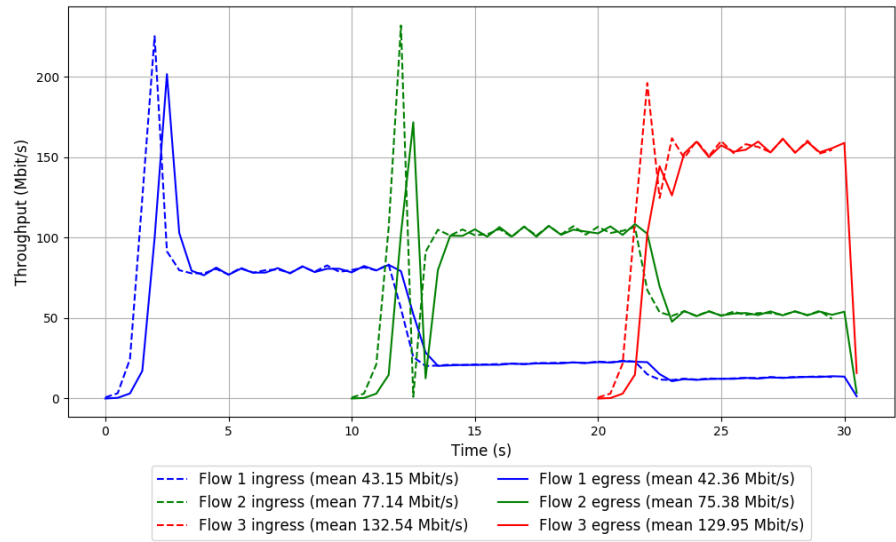


Run 1: Statistics of TCP Vegas

Start at: 2019-03-19 03:17:08  
End at: 2019-03-19 03:17:38  
Local clock offset: 0.899 ms  
Remote clock offset: -33.771 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 135.74 Mbit/s  
95th percentile per-packet one-way delay: 67.678 ms  
Loss rate: 2.04%  
-- Flow 1:  
Average throughput: 42.36 Mbit/s  
95th percentile per-packet one-way delay: 66.480 ms  
Loss rate: 1.82%  
-- Flow 2:  
Average throughput: 75.38 Mbit/s  
95th percentile per-packet one-way delay: 68.554 ms  
Loss rate: 2.30%  
-- Flow 3:  
Average throughput: 129.95 Mbit/s  
95th percentile per-packet one-way delay: 68.074 ms  
Loss rate: 1.95%

# Run 1: Report of TCP Vegas — Data Link

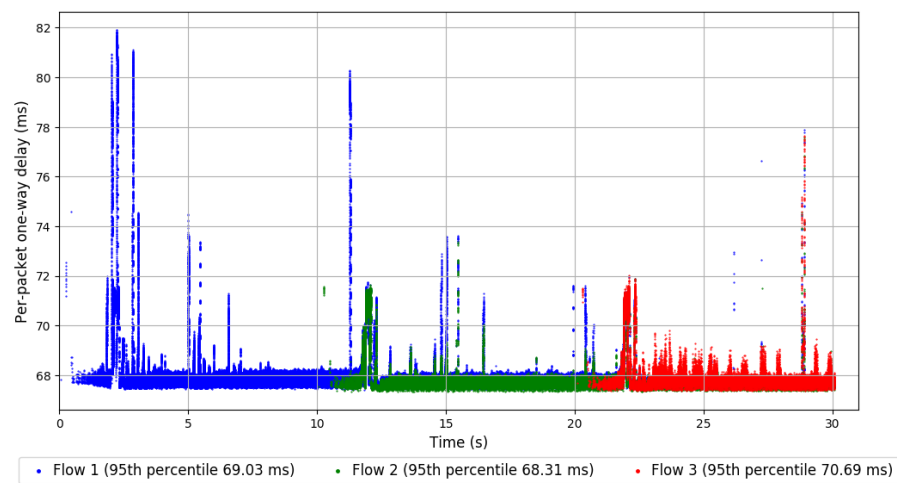
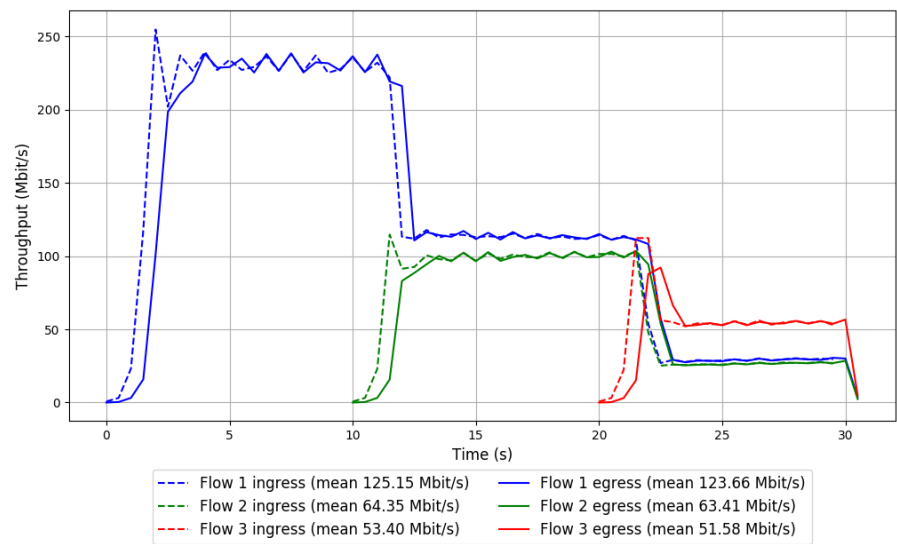


Run 2: Statistics of TCP Vegas

Start at: 2019-03-19 03:53:20  
End at: 2019-03-19 03:53:50  
Local clock offset: 1.006 ms  
Remote clock offset: -30.807 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 183.06 Mbit/s  
95th percentile per-packet one-way delay: 68.975 ms  
Loss rate: 1.47%  
-- Flow 1:  
Average throughput: 123.66 Mbit/s  
95th percentile per-packet one-way delay: 69.028 ms  
Loss rate: 1.20%  
-- Flow 2:  
Average throughput: 63.41 Mbit/s  
95th percentile per-packet one-way delay: 68.307 ms  
Loss rate: 1.45%  
-- Flow 3:  
Average throughput: 51.58 Mbit/s  
95th percentile per-packet one-way delay: 70.689 ms  
Loss rate: 3.42%

Run 2: Report of TCP Vegas — Data Link

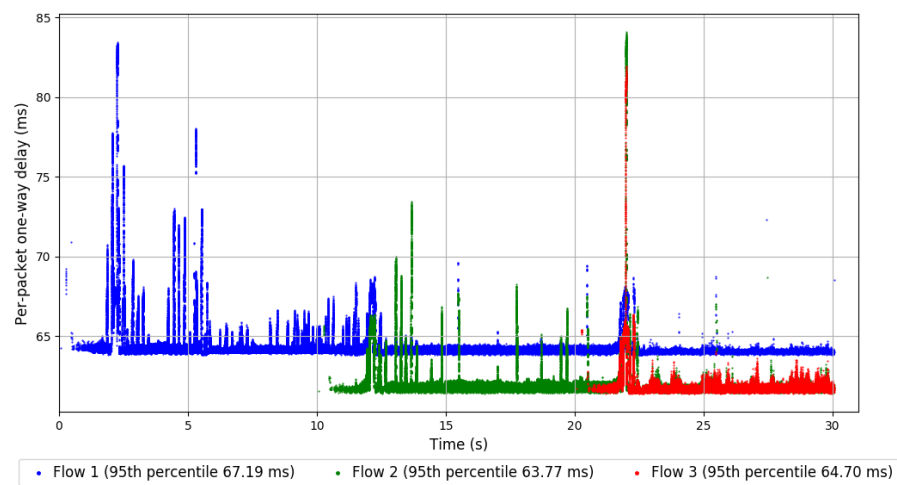
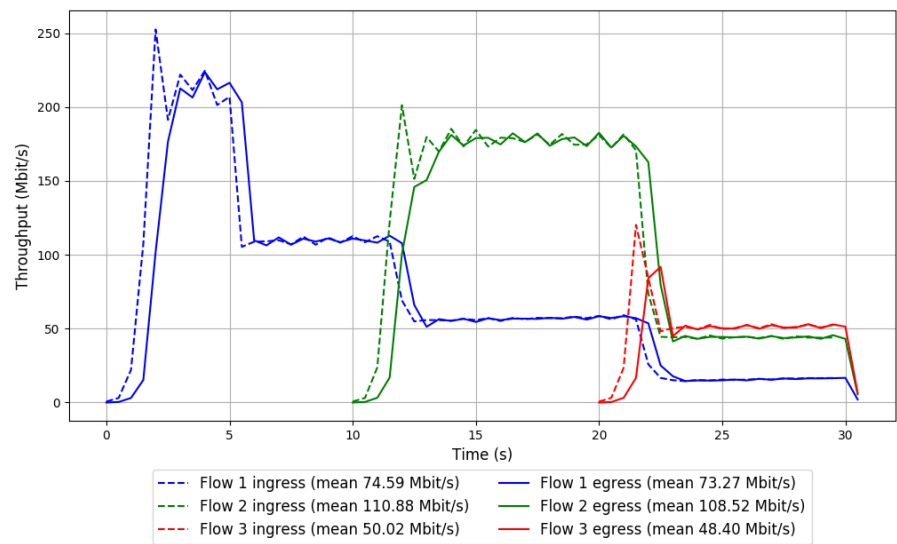


Run 3: Statistics of TCP Vegas

Start at: 2019-03-19 04:57:40  
End at: 2019-03-19 04:58:10  
Local clock offset: -0.595 ms  
Remote clock offset: -36.28 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 161.66 Mbit/s  
95th percentile per-packet one-way delay: 65.448 ms  
Loss rate: 2.07%  
-- Flow 1:  
Average throughput: 73.27 Mbit/s  
95th percentile per-packet one-way delay: 67.187 ms  
Loss rate: 1.76%  
-- Flow 2:  
Average throughput: 108.52 Mbit/s  
95th percentile per-packet one-way delay: 63.765 ms  
Loss rate: 2.12%  
-- Flow 3:  
Average throughput: 48.40 Mbit/s  
95th percentile per-packet one-way delay: 64.696 ms  
Loss rate: 3.24%

Run 3: Report of TCP Vegas — Data Link



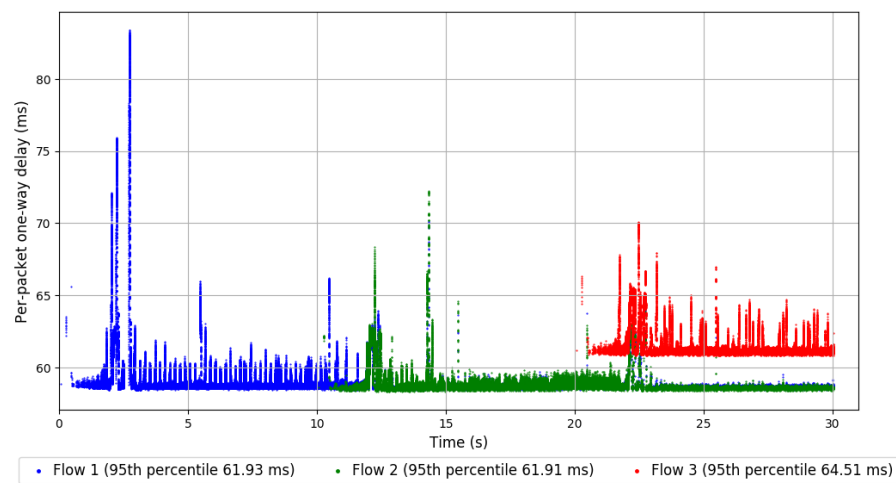
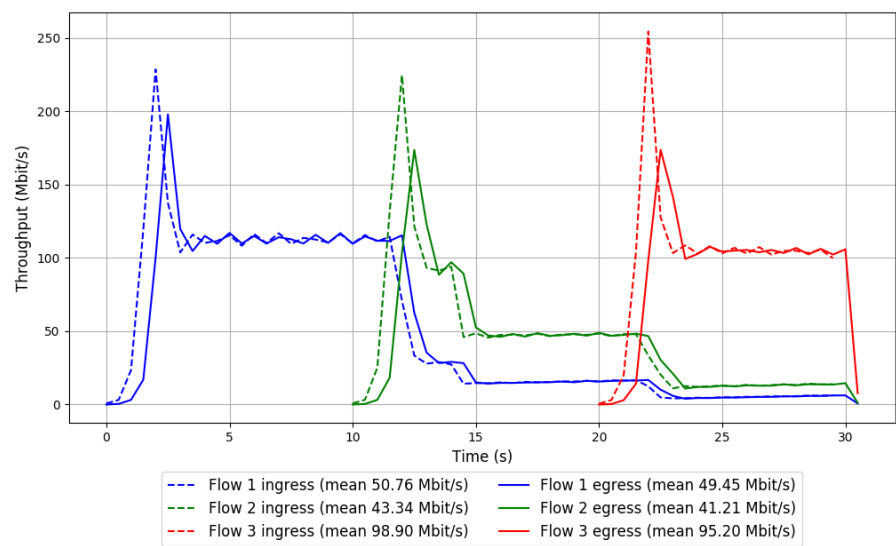


Run 4: Statistics of TCP Vegas

Start at: 2019-03-19 05:39:29  
End at: 2019-03-19 05:39:59  
Local clock offset: 2.363 ms  
Remote clock offset: -42.582 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 108.55 Mbit/s  
95th percentile per-packet one-way delay: 62.671 ms  
Loss rate: 3.51%  
-- Flow 1:  
Average throughput: 49.45 Mbit/s  
95th percentile per-packet one-way delay: 61.930 ms  
Loss rate: 2.57%  
-- Flow 2:  
Average throughput: 41.21 Mbit/s  
95th percentile per-packet one-way delay: 61.907 ms  
Loss rate: 4.91%  
-- Flow 3:  
Average throughput: 95.20 Mbit/s  
95th percentile per-packet one-way delay: 64.511 ms  
Loss rate: 3.74%

Run 4: Report of TCP Vegas — Data Link

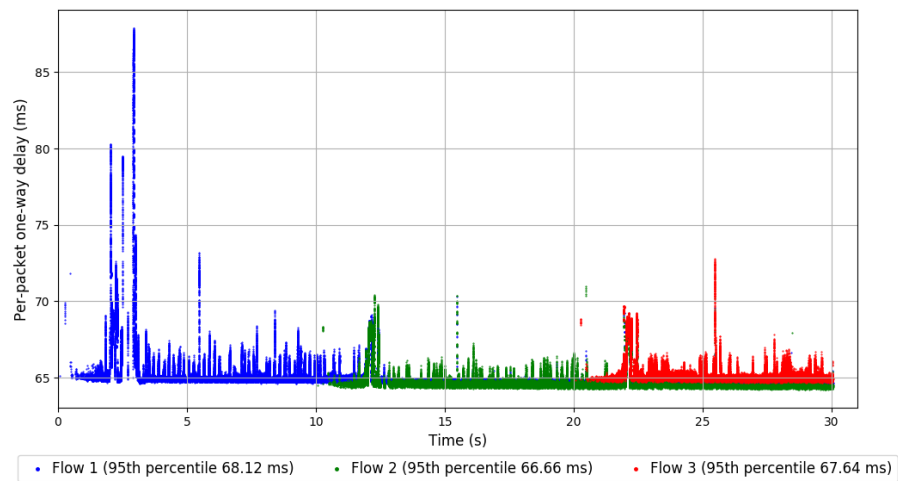
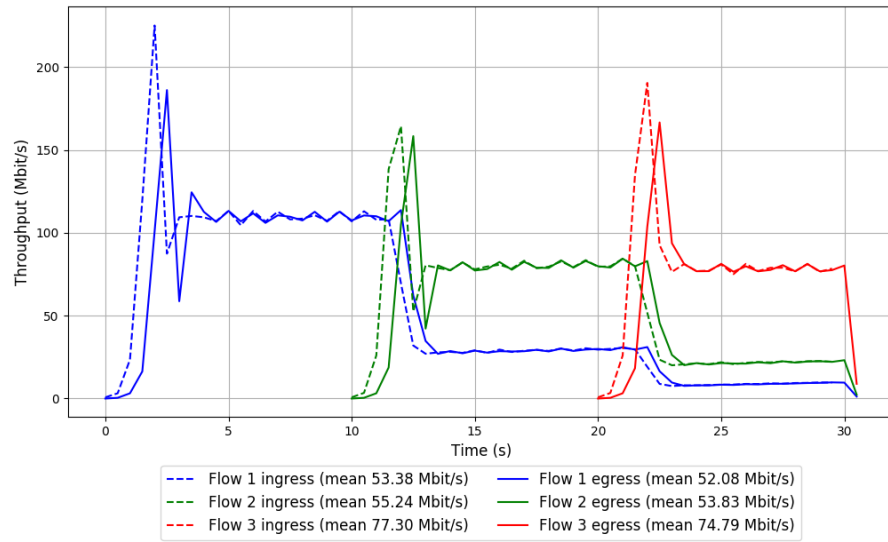


Run 5: Statistics of TCP Vegas

Start at: 2019-03-19 06:15:39  
End at: 2019-03-19 06:16:09  
Local clock offset: -0.087 ms  
Remote clock offset: -36.193 ms

# Below is generated by plot.py at 2019-03-19 06:48:09  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 112.86 Mbit/s  
95th percentile per-packet one-way delay: 67.657 ms  
Loss rate: 2.66%  
-- Flow 1:  
Average throughput: 52.08 Mbit/s  
95th percentile per-packet one-way delay: 68.123 ms  
Loss rate: 2.44%  
-- Flow 2:  
Average throughput: 53.83 Mbit/s  
95th percentile per-packet one-way delay: 66.659 ms  
Loss rate: 2.57%  
-- Flow 3:  
Average throughput: 74.79 Mbit/s  
95th percentile per-packet one-way delay: 67.643 ms  
Loss rate: 3.24%

## Run 5: Report of TCP Vegas — Data Link

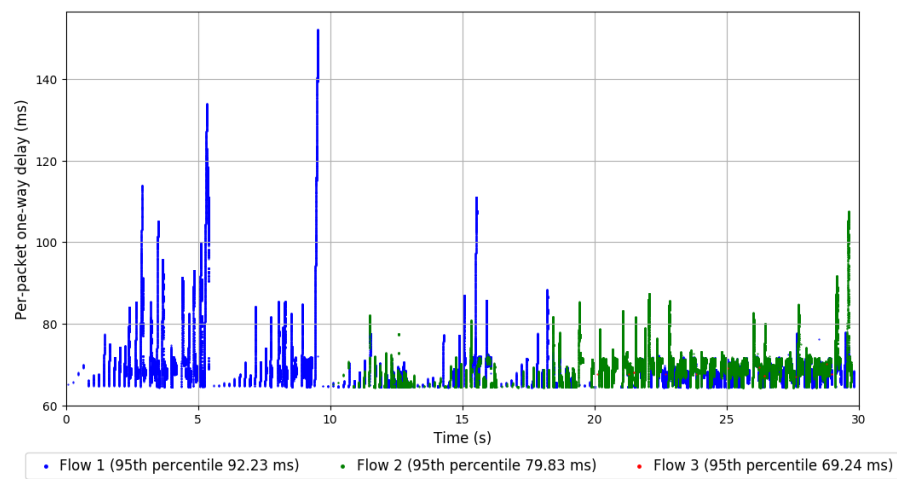
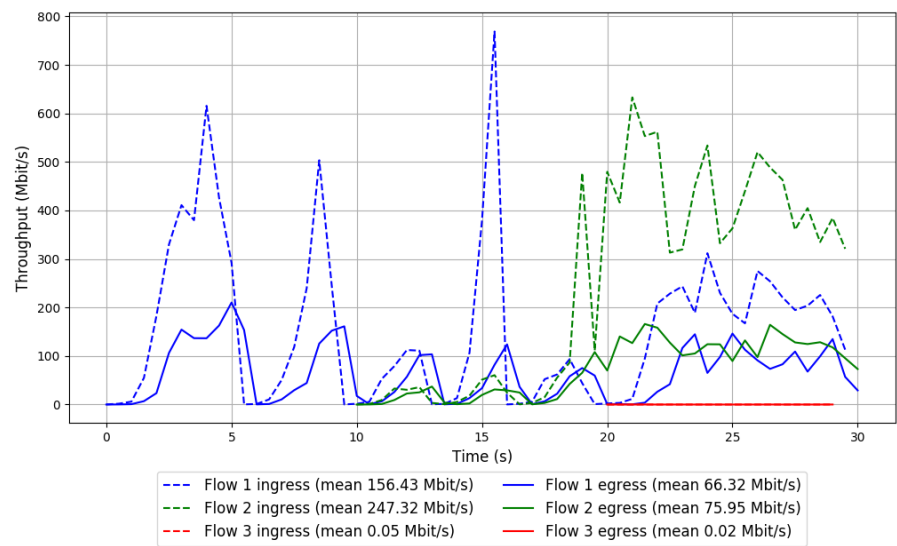


Run 1: Statistics of Verus

Start at: 2019-03-19 03:11:16  
End at: 2019-03-19 03:11:46  
Local clock offset: 0.698 ms  
Remote clock offset: -33.542 ms

# Below is generated by plot.py at 2019-03-19 06:48:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 116.37 Mbit/s  
95th percentile per-packet one-way delay: 86.354 ms  
Loss rate: 63.56%  
-- Flow 1:  
Average throughput: 66.32 Mbit/s  
95th percentile per-packet one-way delay: 92.227 ms  
Loss rate: 57.60%  
-- Flow 2:  
Average throughput: 75.95 Mbit/s  
95th percentile per-packet one-way delay: 79.835 ms  
Loss rate: 69.28%  
-- Flow 3:  
Average throughput: 0.02 Mbit/s  
95th percentile per-packet one-way delay: 69.237 ms  
Loss rate: 65.00%

Run 1: Report of Verus — Data Link

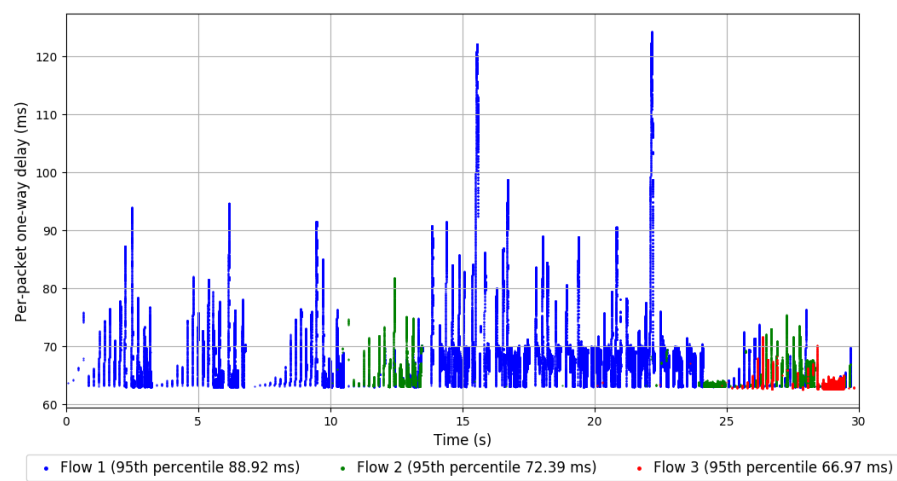
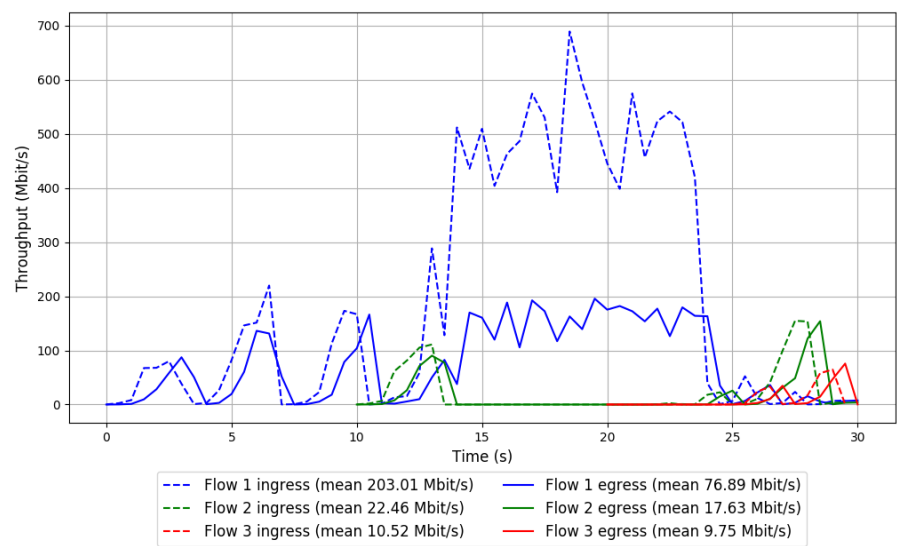


Run 2: Statistics of Verus

Start at: 2019-03-19 03:47:27  
End at: 2019-03-19 03:47:57  
Local clock offset: 1.445 ms  
Remote clock offset: -34.454 ms

# Below is generated by plot.py at 2019-03-19 06:48:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.40 Mbit/s  
95th percentile per-packet one-way delay: 87.590 ms  
Loss rate: 58.54%  
-- Flow 1:  
Average throughput: 76.89 Mbit/s  
95th percentile per-packet one-way delay: 88.921 ms  
Loss rate: 62.12%  
-- Flow 2:  
Average throughput: 17.63 Mbit/s  
95th percentile per-packet one-way delay: 72.387 ms  
Loss rate: 21.47%  
-- Flow 3:  
Average throughput: 9.75 Mbit/s  
95th percentile per-packet one-way delay: 66.968 ms  
Loss rate: 7.34%

Run 2: Report of Verus — Data Link



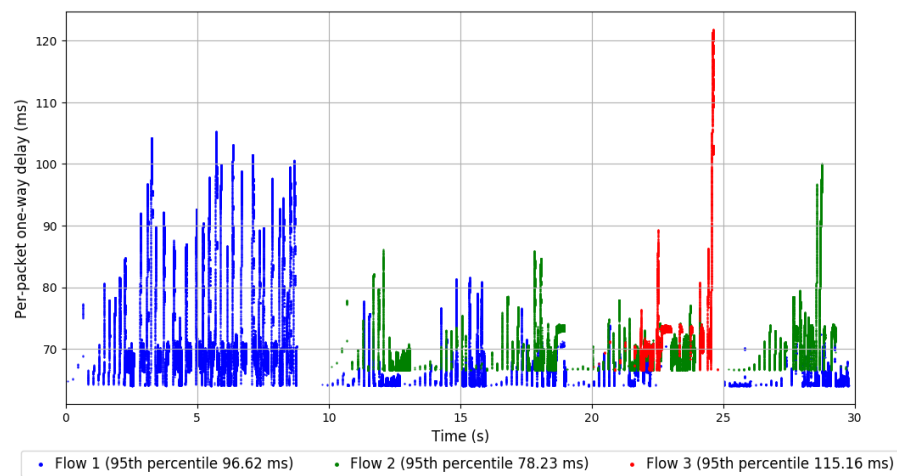
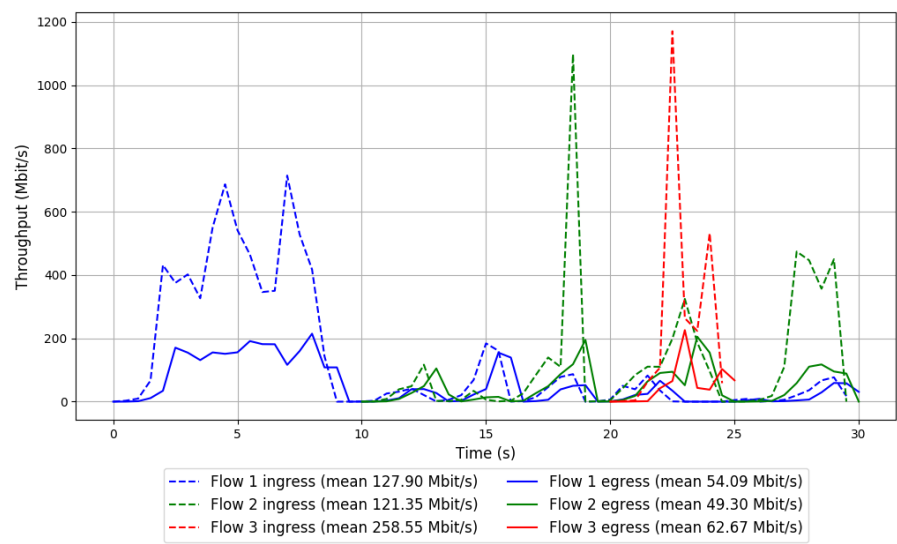


Run 3: Statistics of Verus

Start at: 2019-03-19 04:40:46  
End at: 2019-03-19 04:41:16  
Local clock offset: -0.44 ms  
Remote clock offset: -33.983 ms

# Below is generated by plot.py at 2019-03-19 06:48:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 96.41 Mbit/s  
95th percentile per-packet one-way delay: 95.041 ms  
Loss rate: 61.21%  
-- Flow 1:  
Average throughput: 54.09 Mbit/s  
95th percentile per-packet one-way delay: 96.623 ms  
Loss rate: 57.71%  
-- Flow 2:  
Average throughput: 49.30 Mbit/s  
95th percentile per-packet one-way delay: 78.226 ms  
Loss rate: 59.38%  
-- Flow 3:  
Average throughput: 62.67 Mbit/s  
95th percentile per-packet one-way delay: 115.158 ms  
Loss rate: 75.76%

Run 3: Report of Verus — Data Link

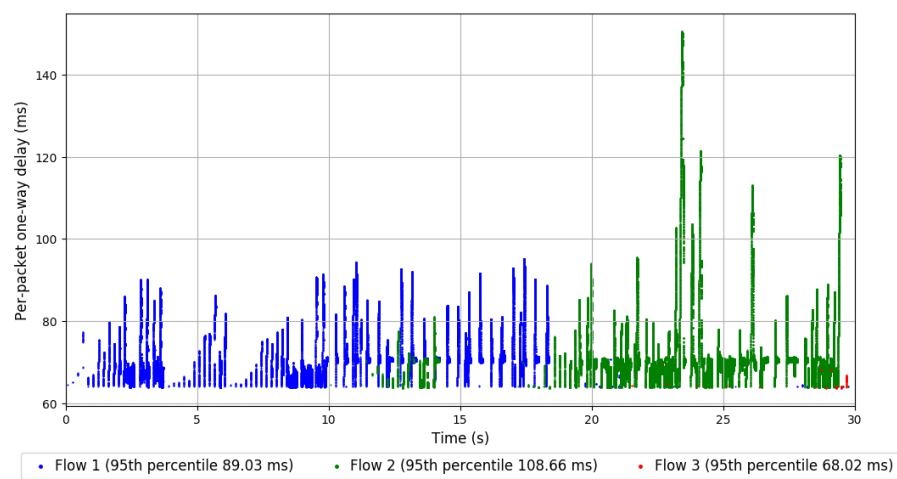
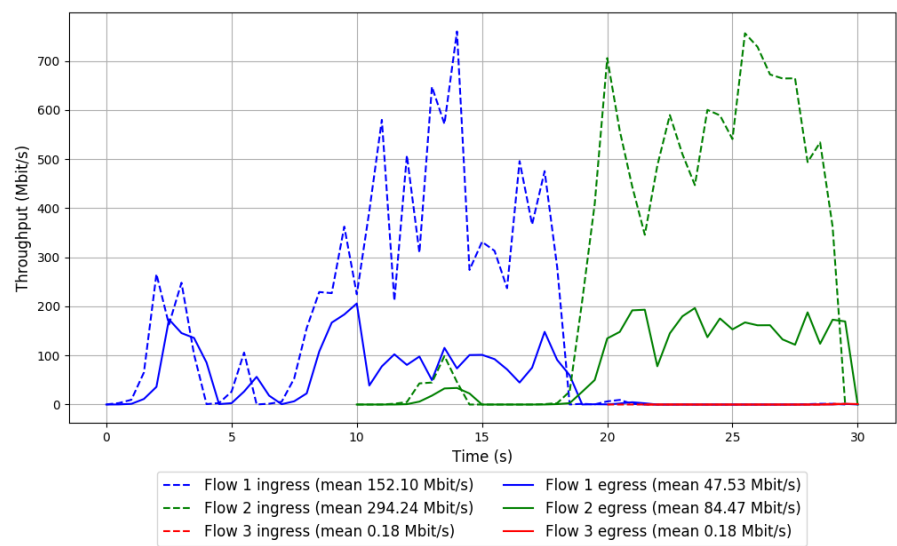


Run 4: Statistics of Verus

Start at: 2019-03-19 05:27:59  
End at: 2019-03-19 05:28:29  
Local clock offset: 1.74 ms  
Remote clock offset: -36.72 ms

# Below is generated by plot.py at 2019-03-19 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 103.57 Mbit/s  
95th percentile per-packet one-way delay: 92.777 ms  
Loss rate: 70.17%  
-- Flow 1:  
Average throughput: 47.53 Mbit/s  
95th percentile per-packet one-way delay: 89.035 ms  
Loss rate: 68.75%  
-- Flow 2:  
Average throughput: 84.47 Mbit/s  
95th percentile per-packet one-way delay: 108.663 ms  
Loss rate: 71.29%  
-- Flow 3:  
Average throughput: 0.18 Mbit/s  
95th percentile per-packet one-way delay: 68.021 ms  
Loss rate: 13.57%

Run 4: Report of Verus — Data Link

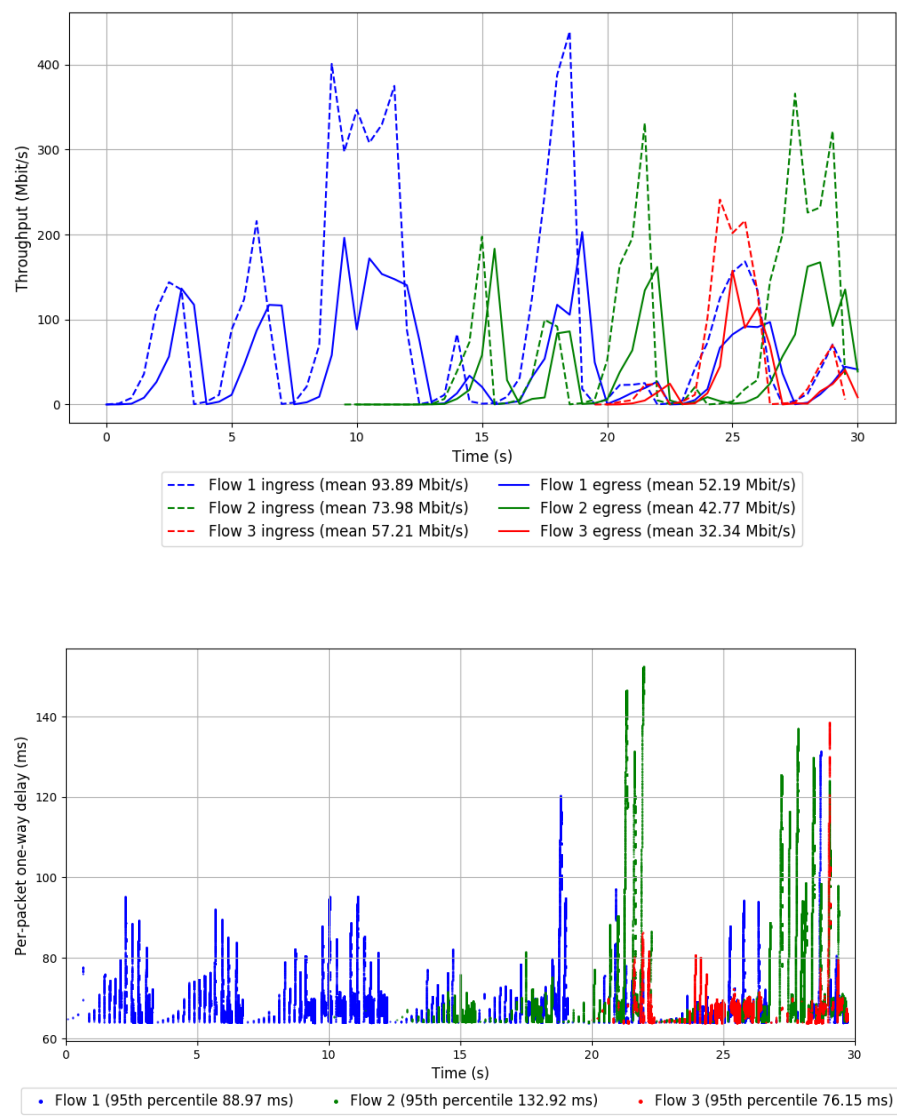


Run 5: Statistics of Verus

Start at: 2019-03-19 06:09:48  
End at: 2019-03-19 06:10:18  
Local clock offset: 0.968 ms  
Remote clock offset: -40.532 ms

# Below is generated by plot.py at 2019-03-19 06:48:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.10 Mbit/s  
95th percentile per-packet one-way delay: 114.043 ms  
Loss rate: 43.62%  
-- Flow 1:  
Average throughput: 52.19 Mbit/s  
95th percentile per-packet one-way delay: 88.970 ms  
Loss rate: 44.40%  
-- Flow 2:  
Average throughput: 42.77 Mbit/s  
95th percentile per-packet one-way delay: 132.924 ms  
Loss rate: 42.19%  
-- Flow 3:  
Average throughput: 32.34 Mbit/s  
95th percentile per-packet one-way delay: 76.151 ms  
Loss rate: 43.46%

Run 5: Report of Verus — Data Link

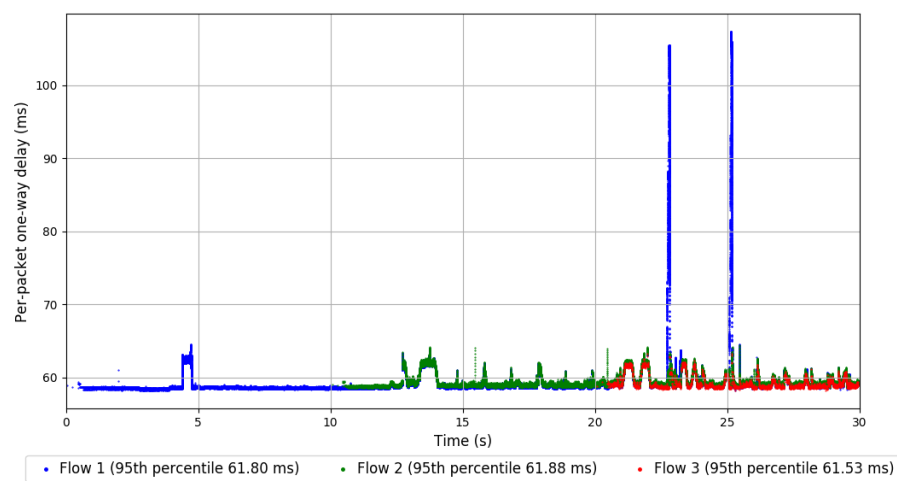
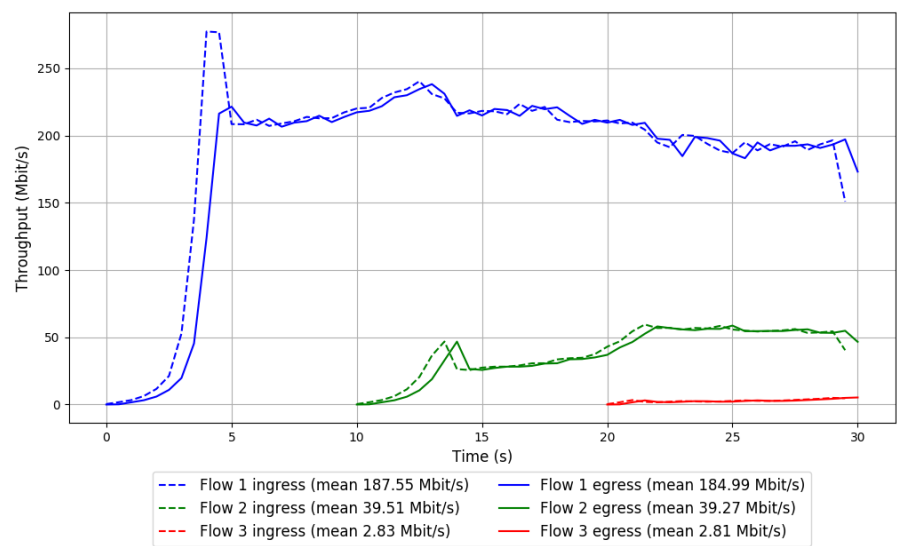


Run 1: Statistics of PCC-Vivace

Start at: 2019-03-19 02:48:06  
End at: 2019-03-19 02:48:36  
Local clock offset: 0.136 ms  
Remote clock offset: -40.316 ms

# Below is generated by plot.py at 2019-03-19 06:49:44  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 212.04 Mbit/s  
95th percentile per-packet one-way delay: 61.816 ms  
Loss rate: 1.27%  
-- Flow 1:  
Average throughput: 184.99 Mbit/s  
95th percentile per-packet one-way delay: 61.804 ms  
Loss rate: 1.36%  
-- Flow 2:  
Average throughput: 39.27 Mbit/s  
95th percentile per-packet one-way delay: 61.881 ms  
Loss rate: 0.61%  
-- Flow 3:  
Average throughput: 2.81 Mbit/s  
95th percentile per-packet one-way delay: 61.534 ms  
Loss rate: 0.51%

Run 1: Report of PCC-Vivace — Data Link



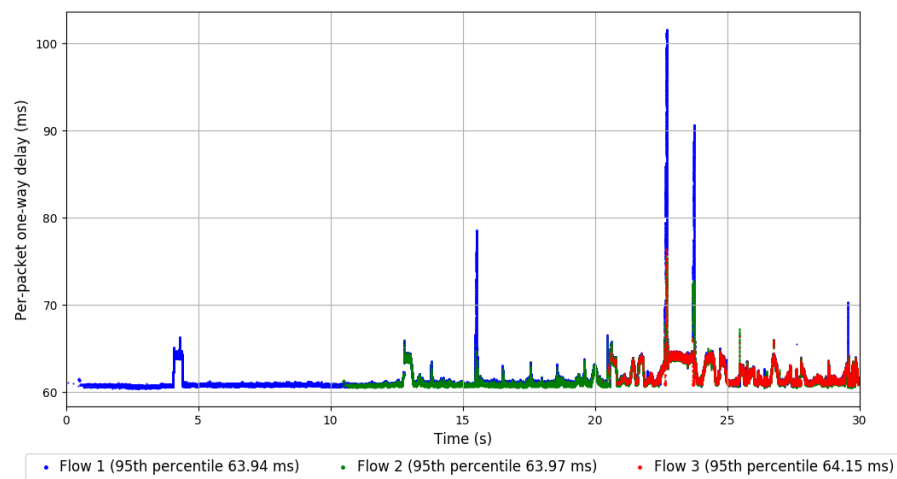
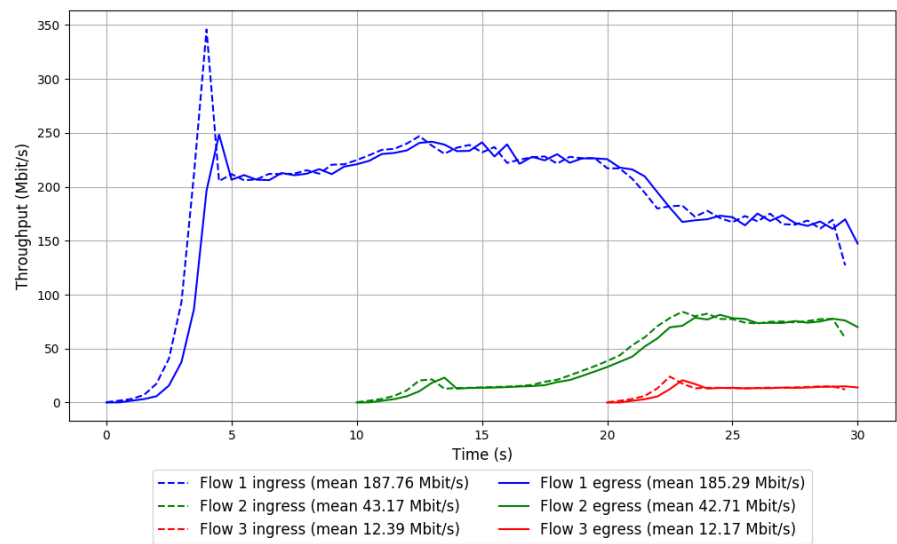


Run 2: Statistics of PCC-Vivace

Start at: 2019-03-19 03:24:10  
End at: 2019-03-19 03:24:40  
Local clock offset: 1.715 ms  
Remote clock offset: -38.847 ms

# Below is generated by plot.py at 2019-03-19 06:49:47  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 217.72 Mbit/s  
95th percentile per-packet one-way delay: 63.949 ms  
Loss rate: 1.30%  
-- Flow 1:  
Average throughput: 185.29 Mbit/s  
95th percentile per-packet one-way delay: 63.939 ms  
Loss rate: 1.32%  
-- Flow 2:  
Average throughput: 42.71 Mbit/s  
95th percentile per-packet one-way delay: 63.970 ms  
Loss rate: 1.07%  
-- Flow 3:  
Average throughput: 12.17 Mbit/s  
95th percentile per-packet one-way delay: 64.151 ms  
Loss rate: 1.76%

Run 2: Report of PCC-Vivace — Data Link

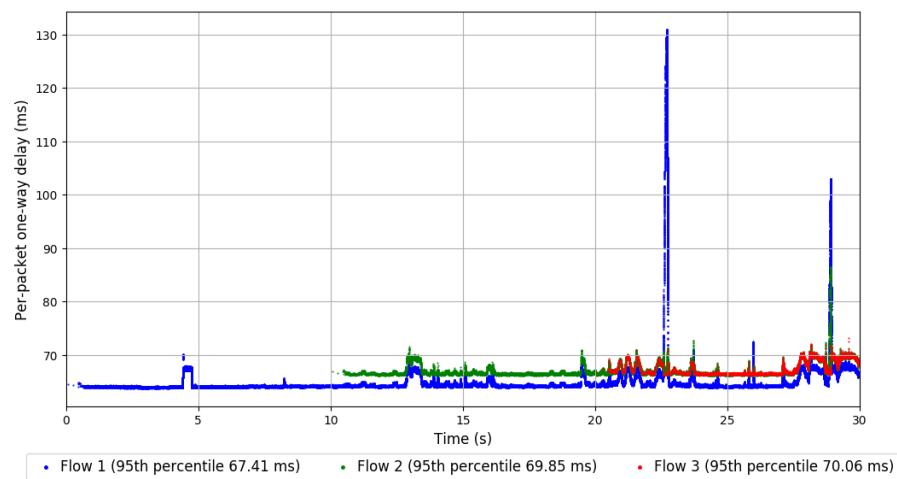
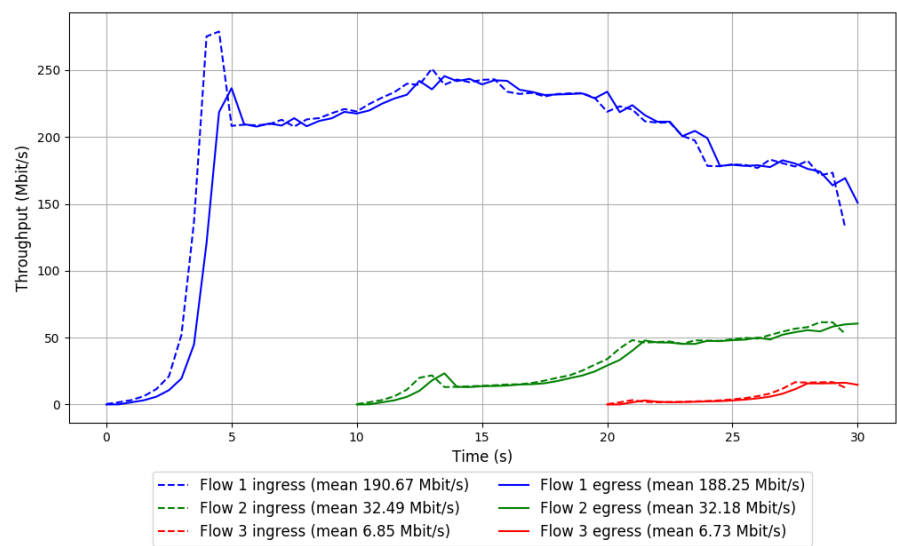


Run 3: Statistics of PCC-Vivace

Start at: 2019-03-19 04:06:01  
End at: 2019-03-19 04:06:31  
Local clock offset: 1.561 ms  
Remote clock offset: -34.007 ms

# Below is generated by plot.py at 2019-03-19 06:49:57  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 211.86 Mbit/s  
95th percentile per-packet one-way delay: 67.836 ms  
Loss rate: 1.24%  
-- Flow 1:  
Average throughput: 188.25 Mbit/s  
95th percentile per-packet one-way delay: 67.409 ms  
Loss rate: 1.26%  
-- Flow 2:  
Average throughput: 32.18 Mbit/s  
95th percentile per-packet one-way delay: 69.853 ms  
Loss rate: 0.93%  
-- Flow 3:  
Average throughput: 6.73 Mbit/s  
95th percentile per-packet one-way delay: 70.057 ms  
Loss rate: 1.75%

Run 3: Report of PCC-Vivace — Data Link

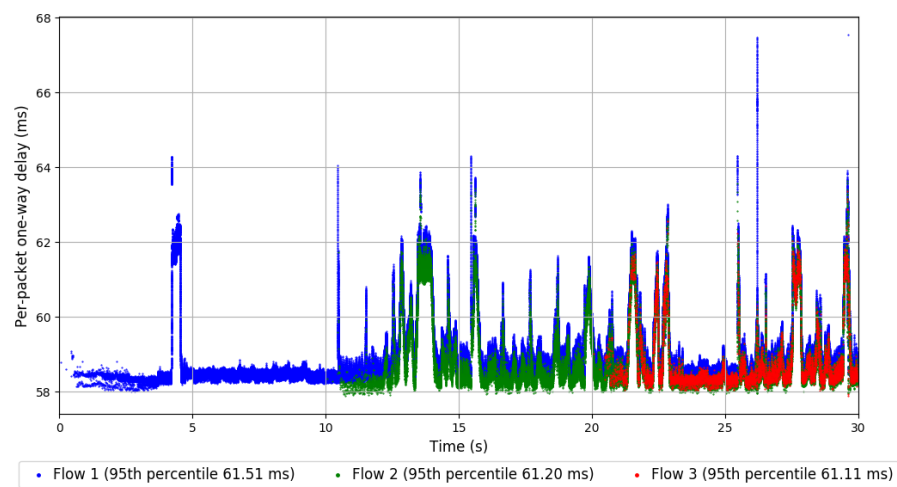
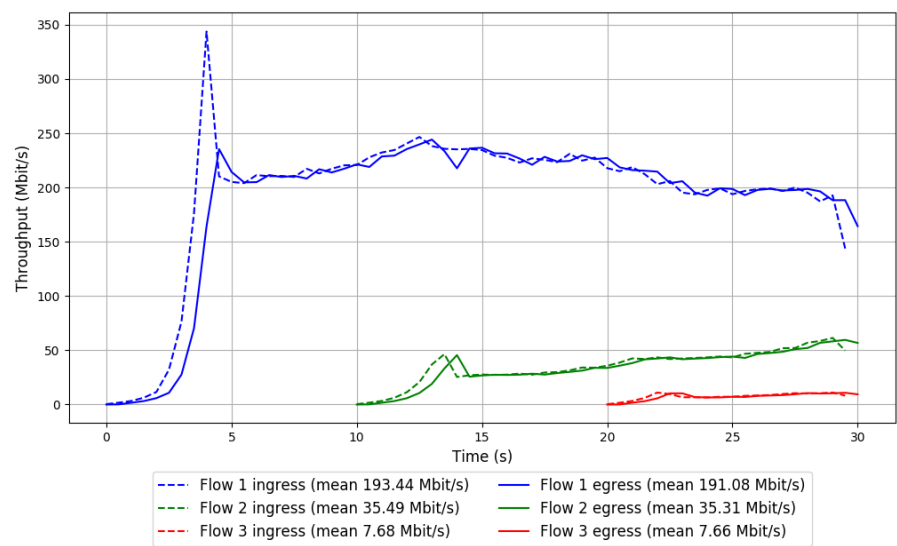


Run 4: Statistics of PCC-Vivace

Start at: 2019-03-19 05:10:27  
End at: 2019-03-19 05:10:57  
Local clock offset: -0.711 ms  
Remote clock offset: -41.276 ms

# Below is generated by plot.py at 2019-03-19 06:49:59  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 217.10 Mbit/s  
95th percentile per-packet one-way delay: 61.461 ms  
Loss rate: 1.13%  
-- Flow 1:  
Average throughput: 191.08 Mbit/s  
95th percentile per-packet one-way delay: 61.511 ms  
Loss rate: 1.22%  
-- Flow 2:  
Average throughput: 35.31 Mbit/s  
95th percentile per-packet one-way delay: 61.199 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 7.66 Mbit/s  
95th percentile per-packet one-way delay: 61.110 ms  
Loss rate: 0.25%

Run 4: Report of PCC-Vivace — Data Link

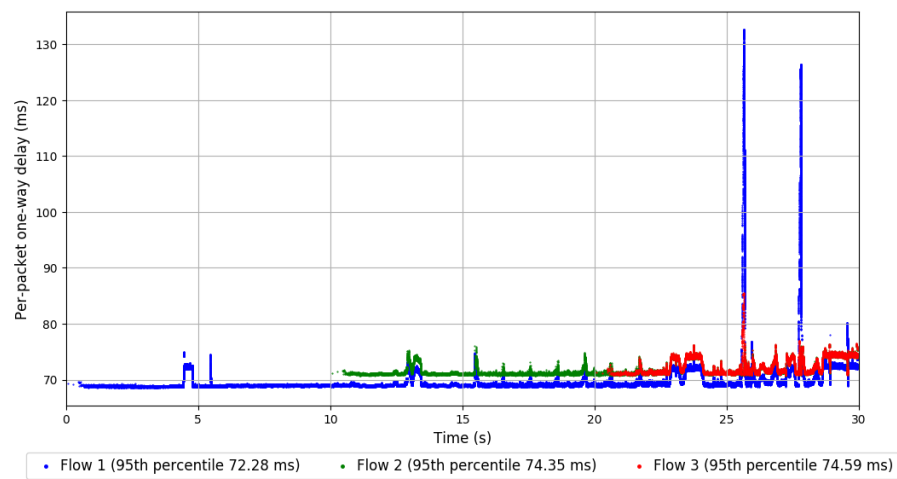
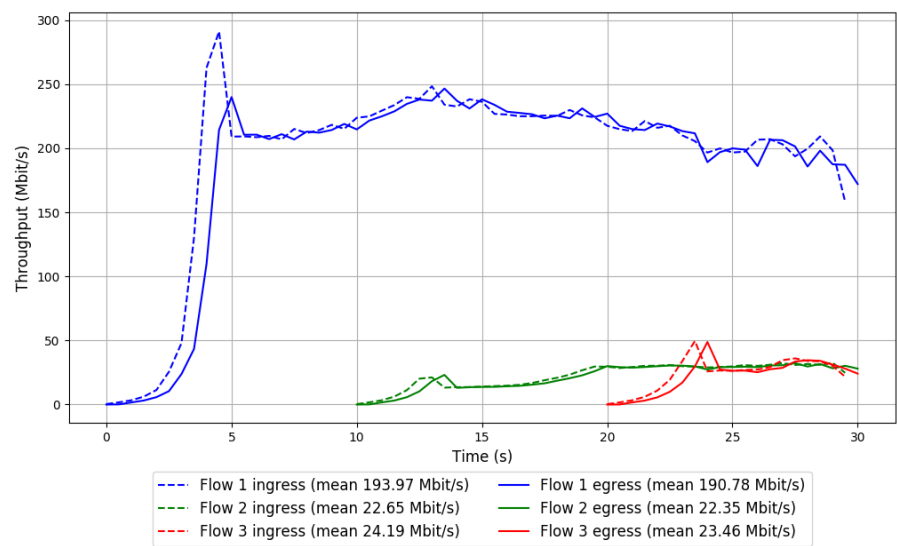


Run 5: Statistics of PCC-Vivace

Start at: 2019-03-19 05:46:31  
End at: 2019-03-19 05:47:01  
Local clock offset: 1.135 ms  
Remote clock offset: -33.996 ms

# Below is generated by plot.py at 2019-03-19 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 213.39 Mbit/s  
95th percentile per-packet one-way delay: 72.593 ms  
Loss rate: 1.67%  
-- Flow 1:  
Average throughput: 190.78 Mbit/s  
95th percentile per-packet one-way delay: 72.275 ms  
Loss rate: 1.64%  
-- Flow 2:  
Average throughput: 22.35 Mbit/s  
95th percentile per-packet one-way delay: 74.348 ms  
Loss rate: 1.35%  
-- Flow 3:  
Average throughput: 23.46 Mbit/s  
95th percentile per-packet one-way delay: 74.590 ms  
Loss rate: 3.03%

Run 5: Report of PCC-Vivace — Data Link



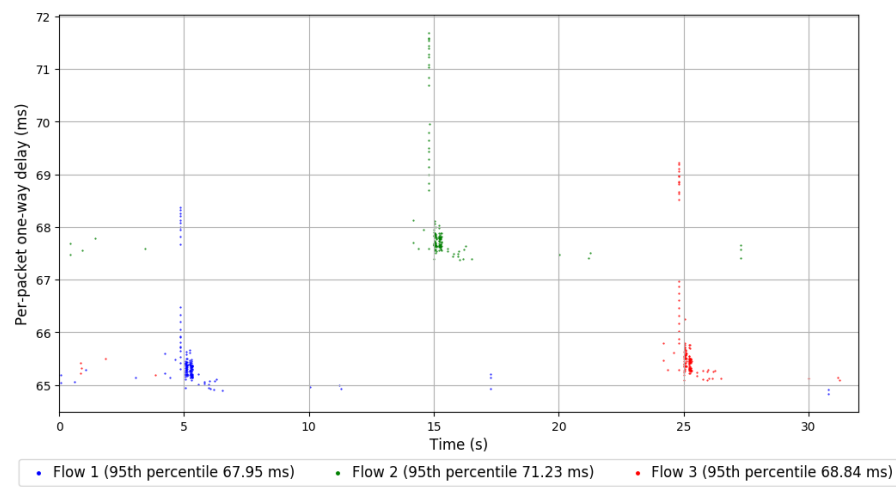
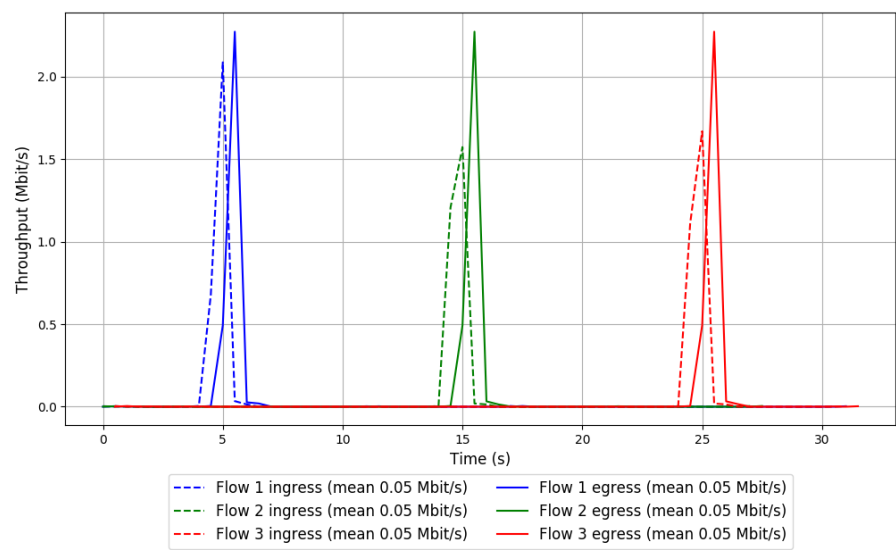


Run 1: Statistics of WebRTC media

Start at: 2019-03-19 03:12:44  
End at: 2019-03-19 03:13:14  
Local clock offset: 0.576 ms  
Remote clock offset: -33.021 ms

# Below is generated by plot.py at 2019-03-19 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 69.065 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 67.951 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 71.235 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 68.841 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

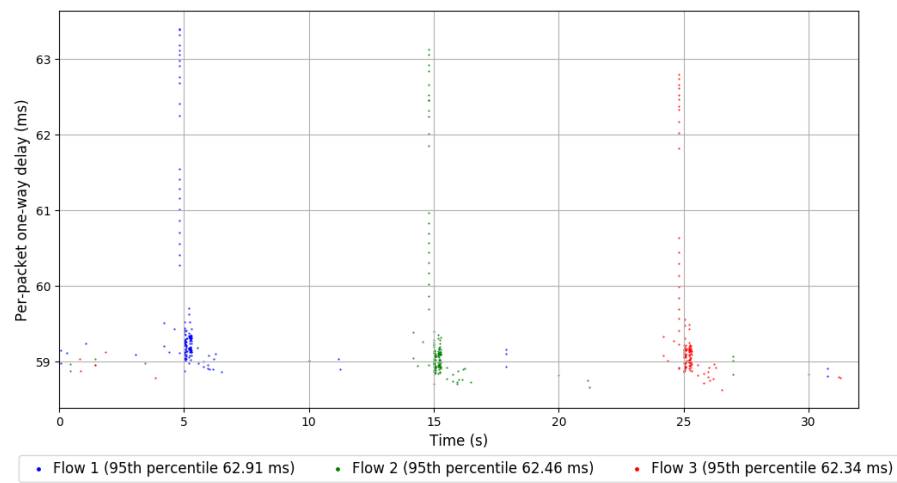
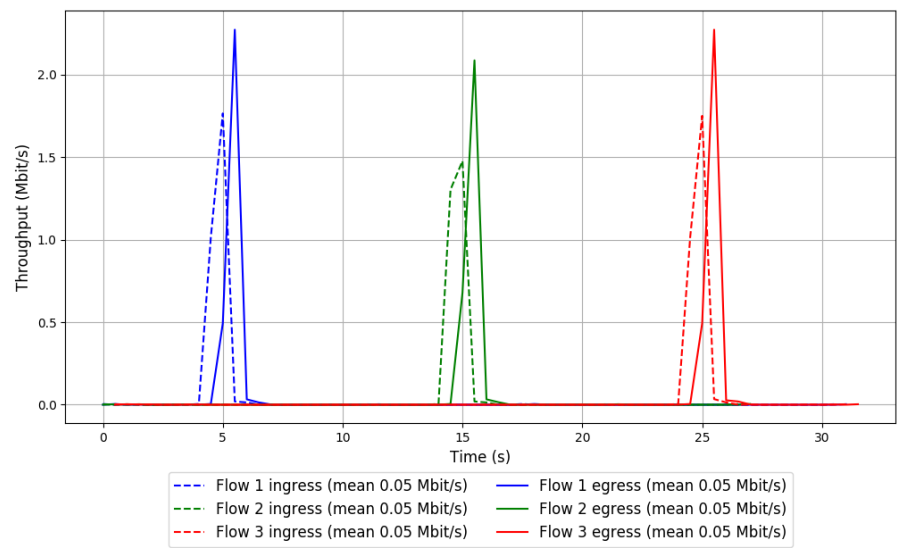


Run 2: Statistics of WebRTC media

Start at: 2019-03-19 03:48:54  
End at: 2019-03-19 03:49:24  
Local clock offset: 1.843 ms  
Remote clock offset: -38.346 ms

# Below is generated by plot.py at 2019-03-19 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 62.460 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.907 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.456 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.337 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

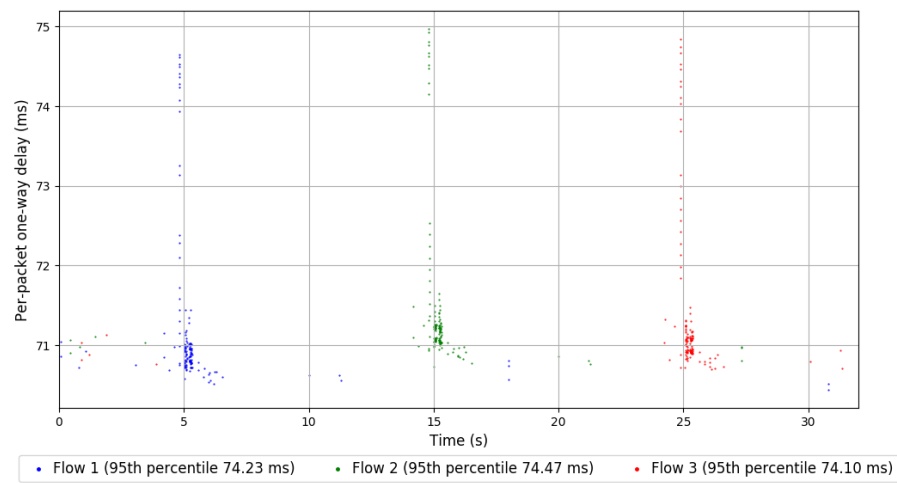
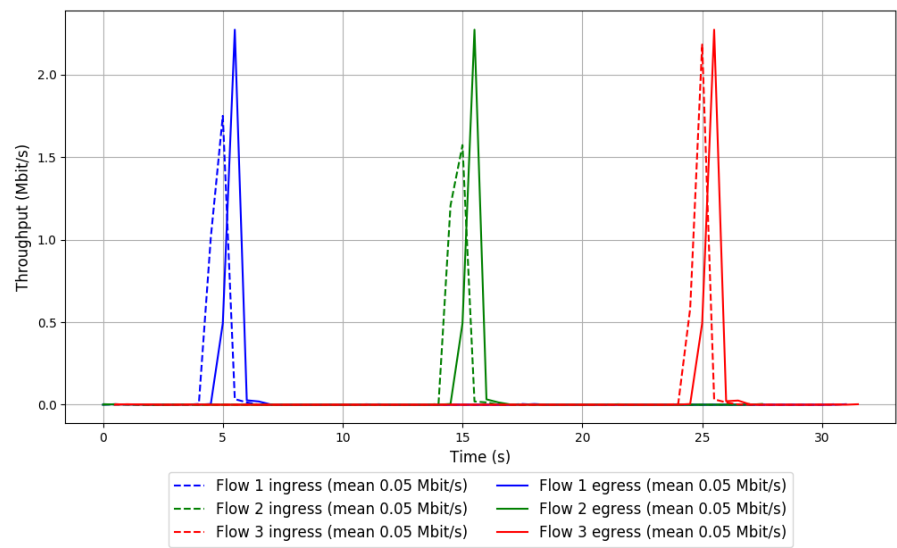


Run 3: Statistics of WebRTC media

Start at: 2019-03-19 04:47:40  
End at: 2019-03-19 04:48:10  
Local clock offset: -0.803 ms  
Remote clock offset: -27.396 ms

# Below is generated by plot.py at 2019-03-19 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 74.245 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 74.234 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 74.468 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 74.100 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

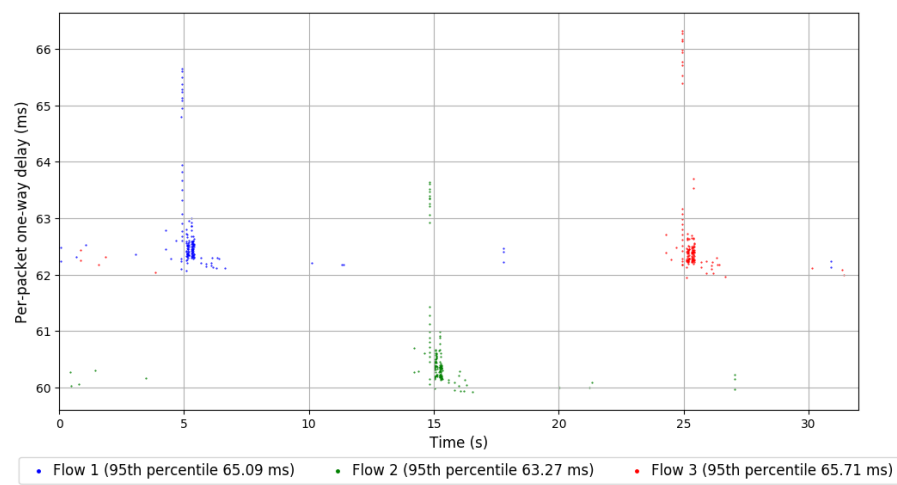
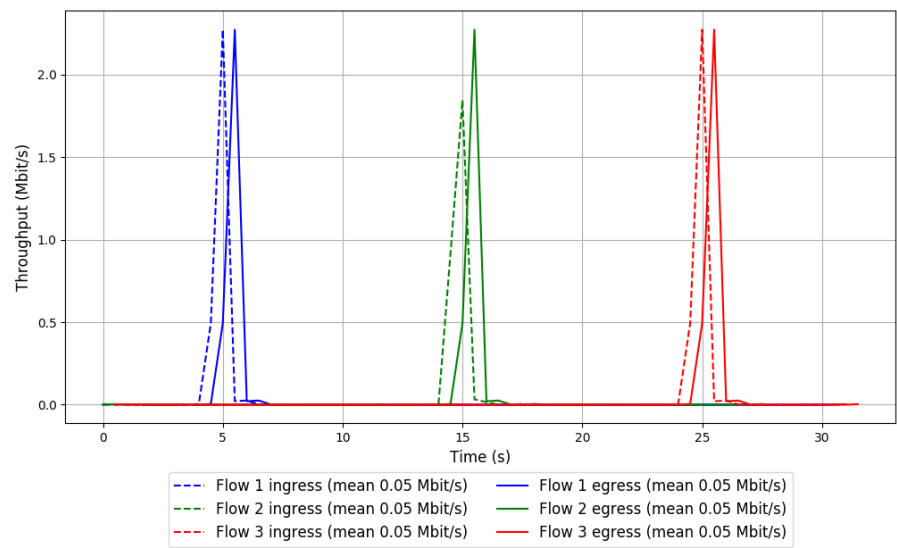


Run 4: Statistics of WebRTC media

Start at: 2019-03-19 05:29:36  
End at: 2019-03-19 05:30:06  
Local clock offset: 0.656 ms  
Remote clock offset: -41.892 ms

```
# Below is generated by plot.py at 2019-03-19 06:50:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 63.704 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.093 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 65.710 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-03-19 06:11:13  
End at: 2019-03-19 06:11:43  
Local clock offset: -0.14 ms  
Remote clock offset: -36.451 ms

# Below is generated by plot.py at 2019-03-19 06:50:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 69.758 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 69.479 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 70.698 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 69.864 ms  
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

