

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:

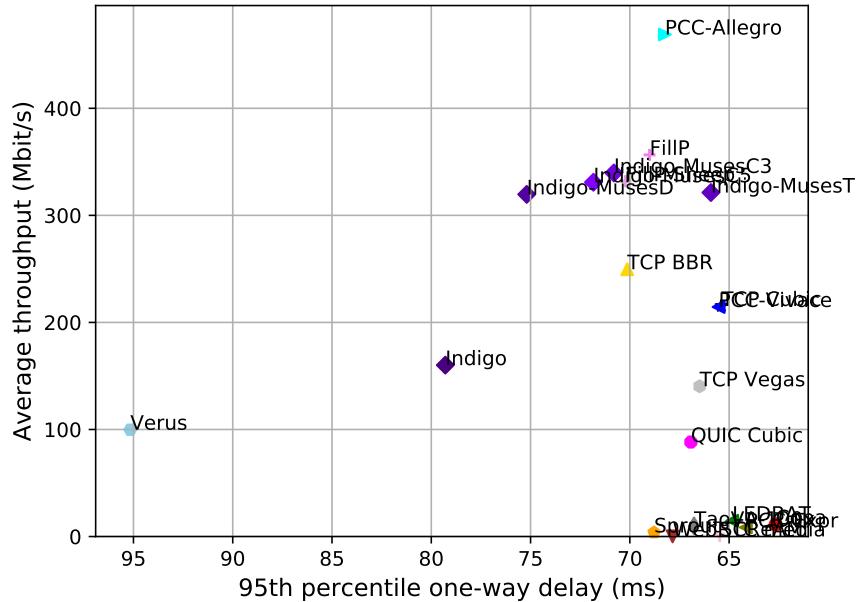
```
Linux 4.15.0-1031-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

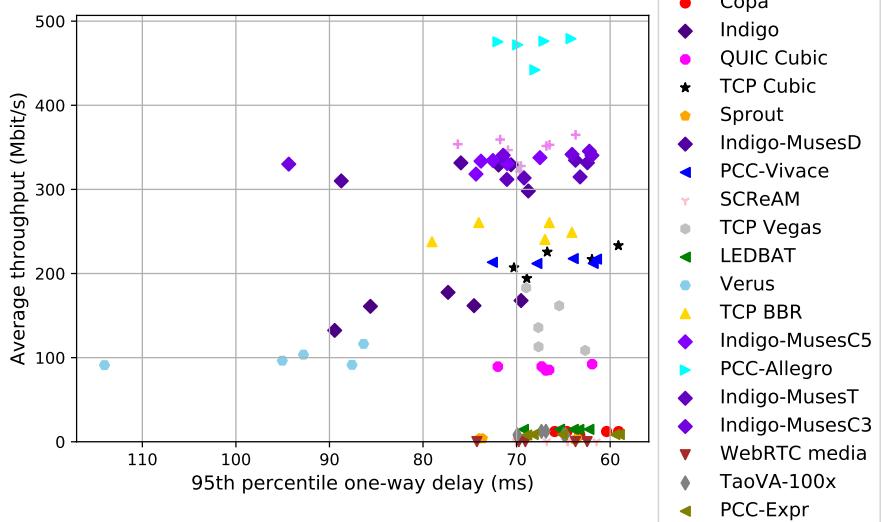
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
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-quic @ 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



4

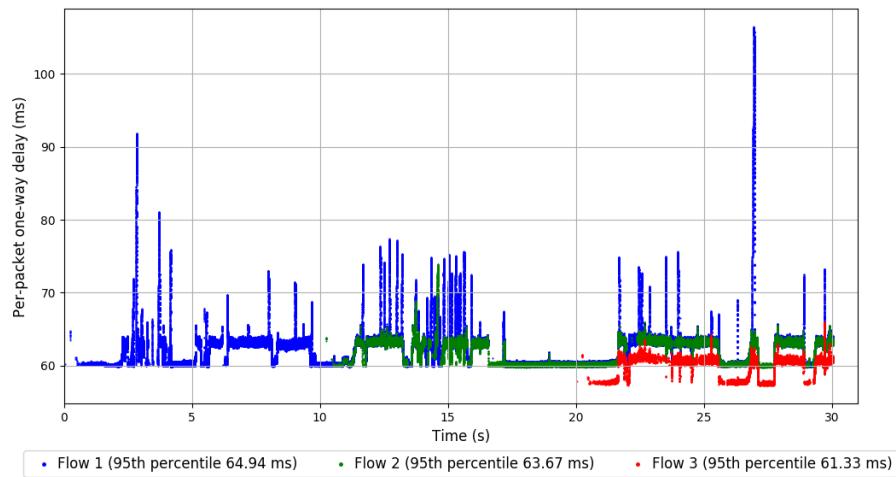
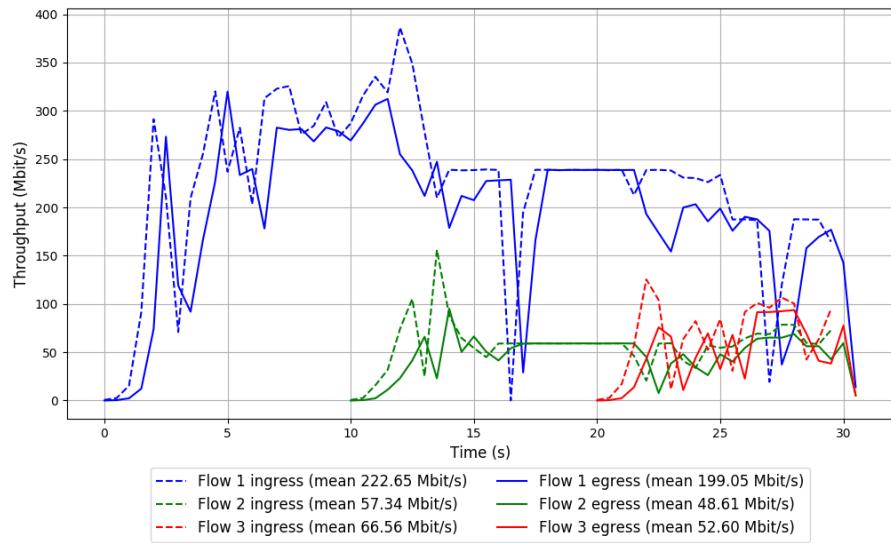
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	190.59	68.14	41.15	70.85	68.20	65.54	10.64	16.36	18.28
Copa	5	7.05	6.20	0.69	62.84	62.16	63.16	72.96	70.56	84.41
TCP Cubic	5	131.73	78.38	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

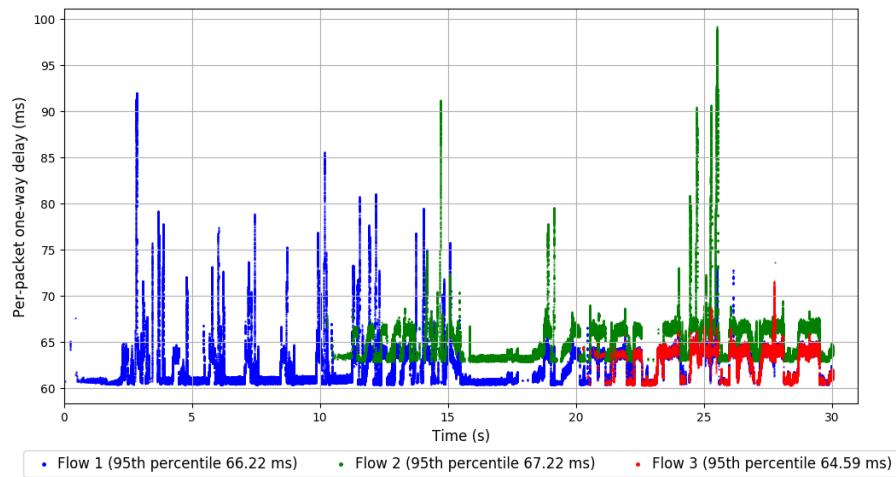
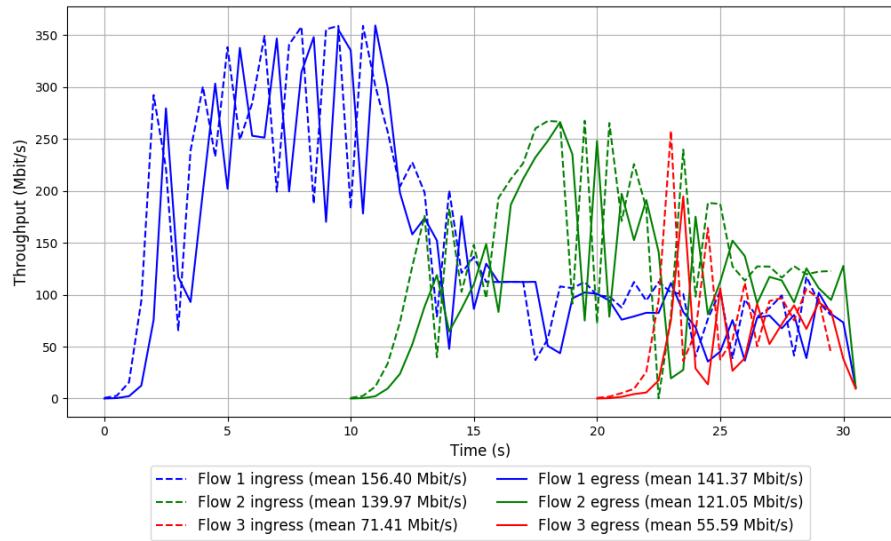


Run 2: Statistics of TCP BBR

```
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

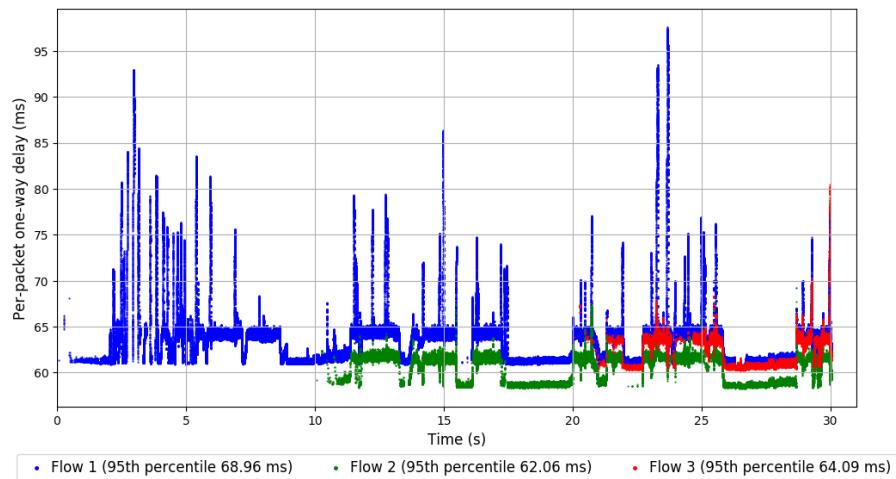
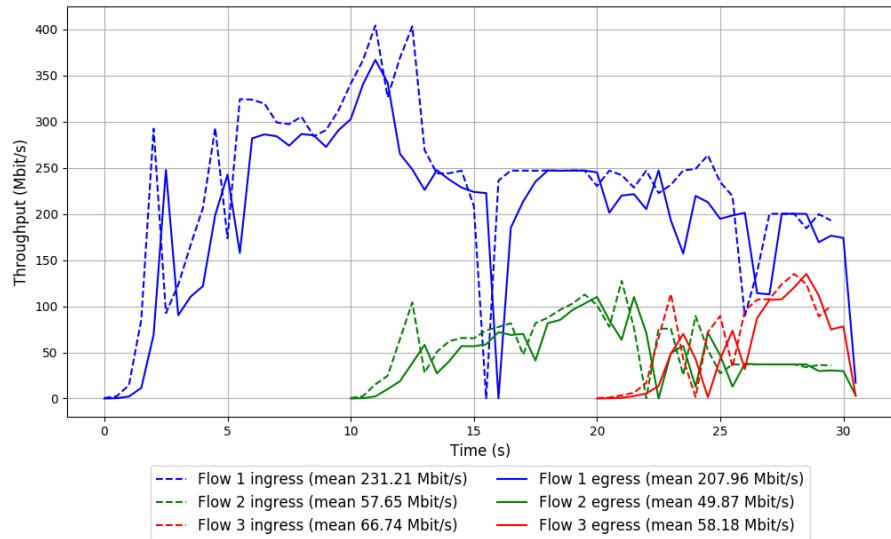


Run 3: Statistics of TCP BBR

```
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

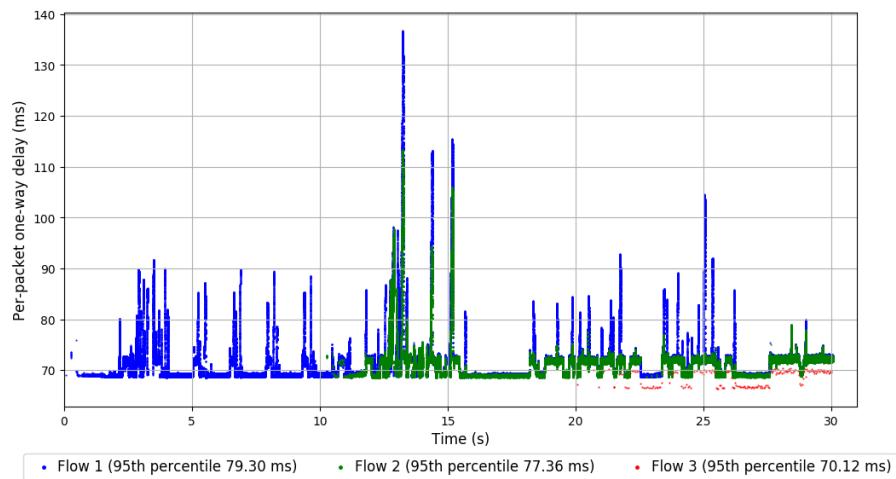
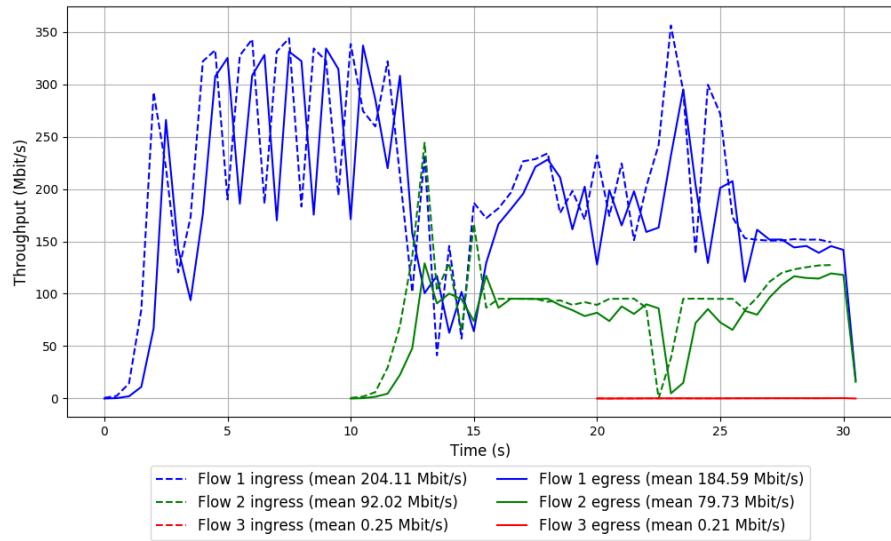


Run 4: Statistics of TCP BBR

```
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

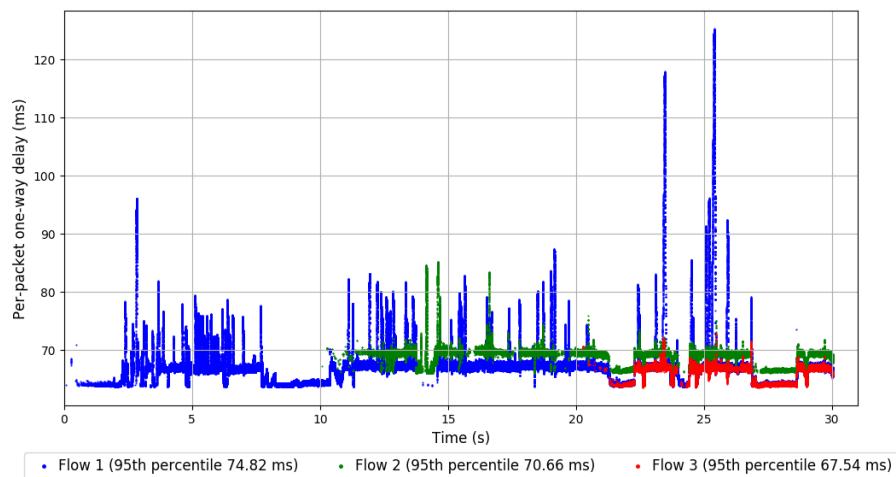
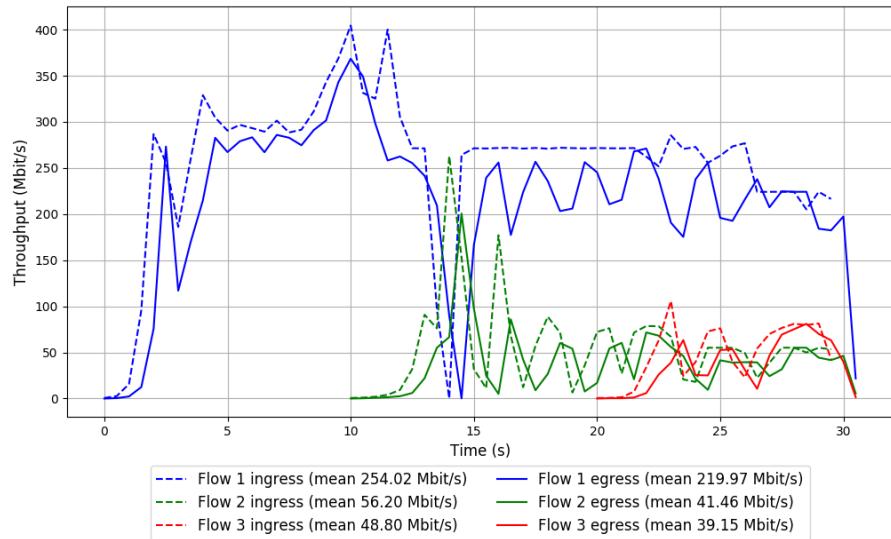


Run 5: Statistics of TCP BBR

```
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

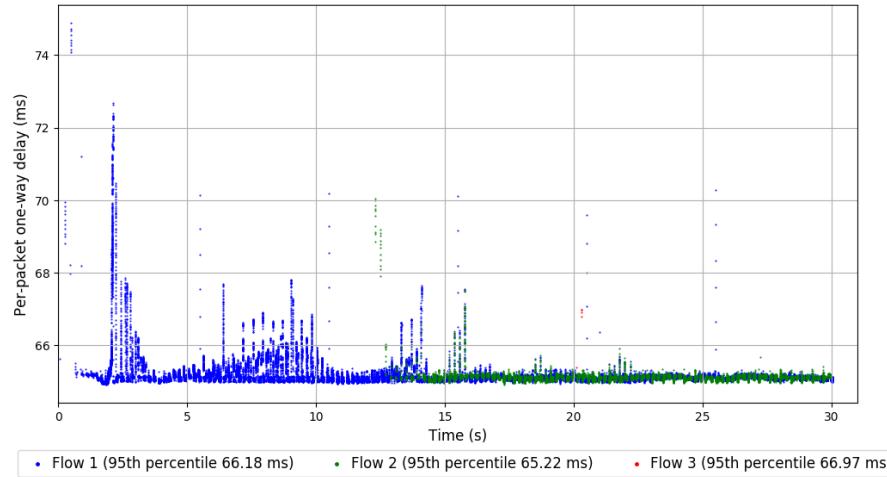
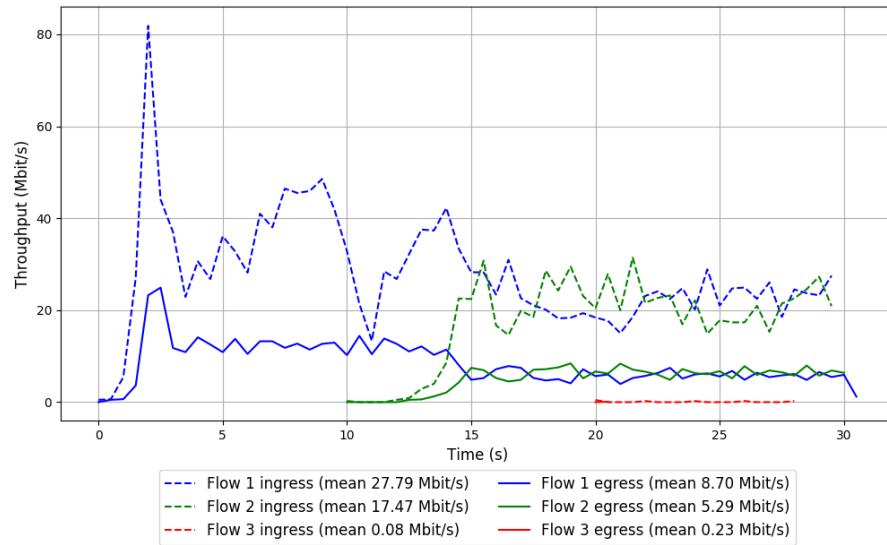


Run 1: Statistics of Copa

```
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

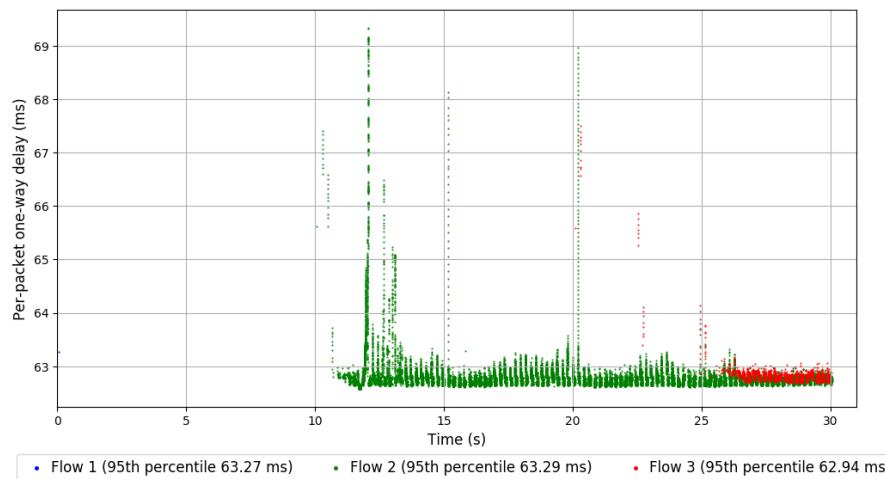
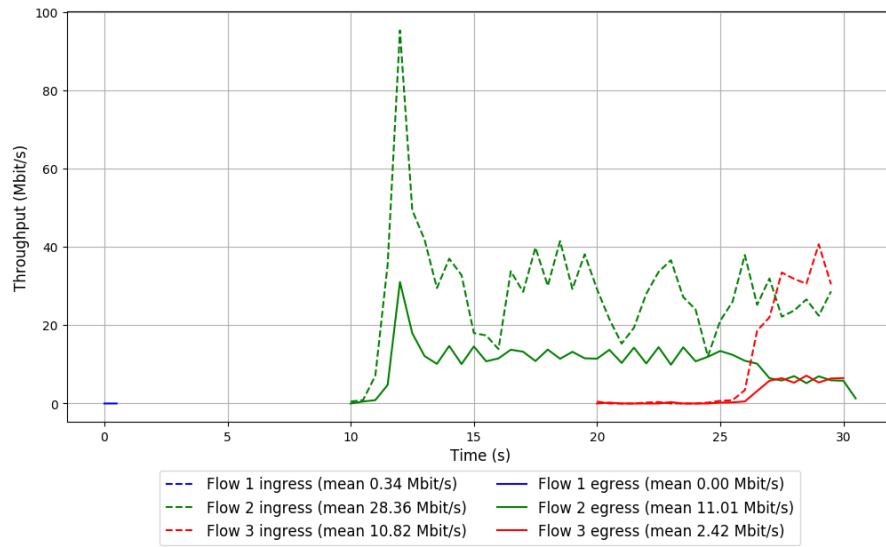


Run 2: Statistics of Copa

```
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

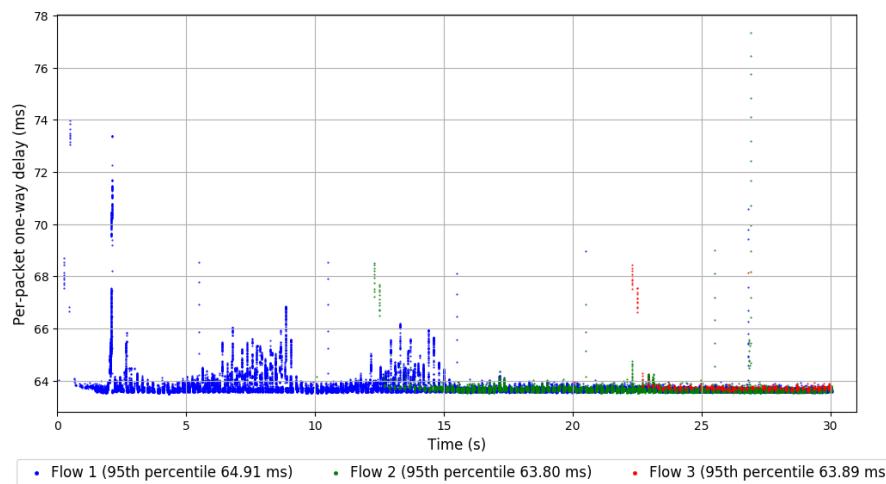
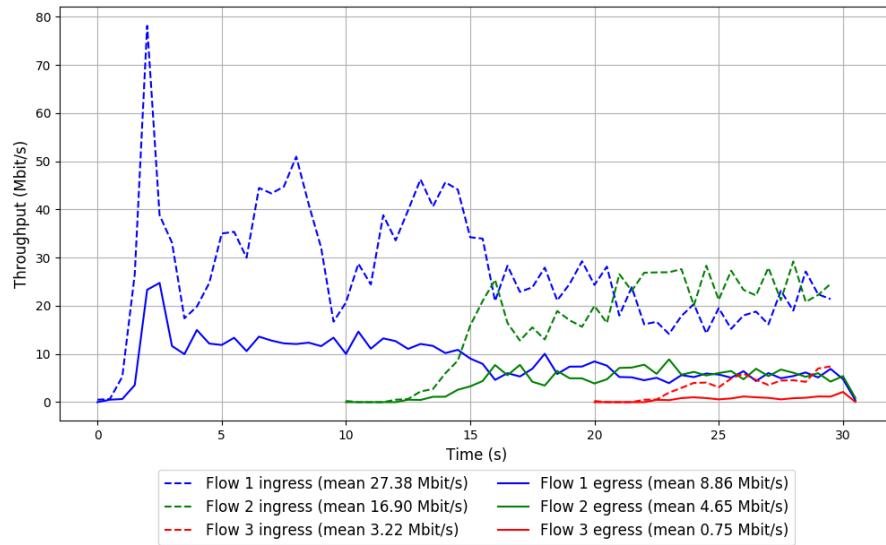


Run 3: Statistics of Copa

```
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

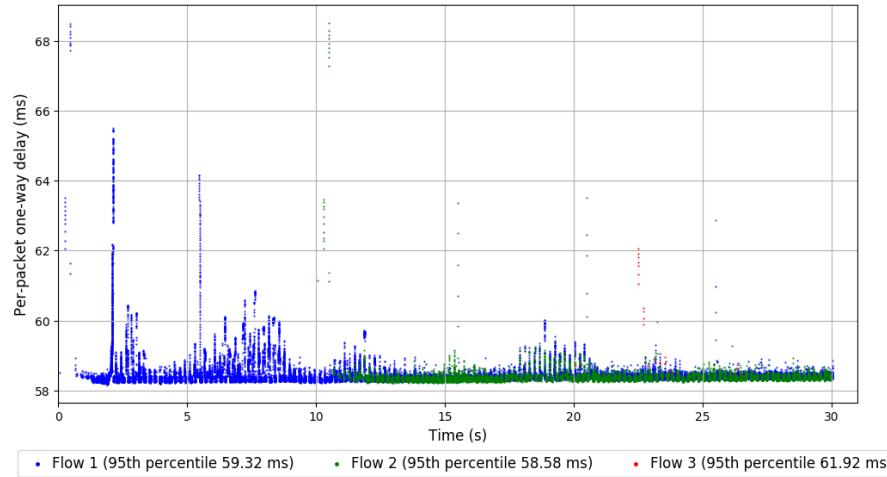
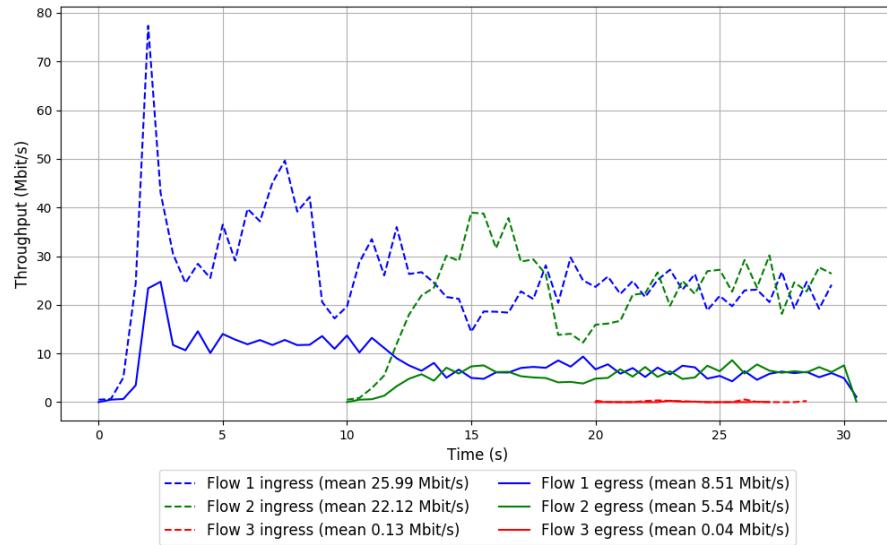


Run 4: Statistics of Copa

```
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

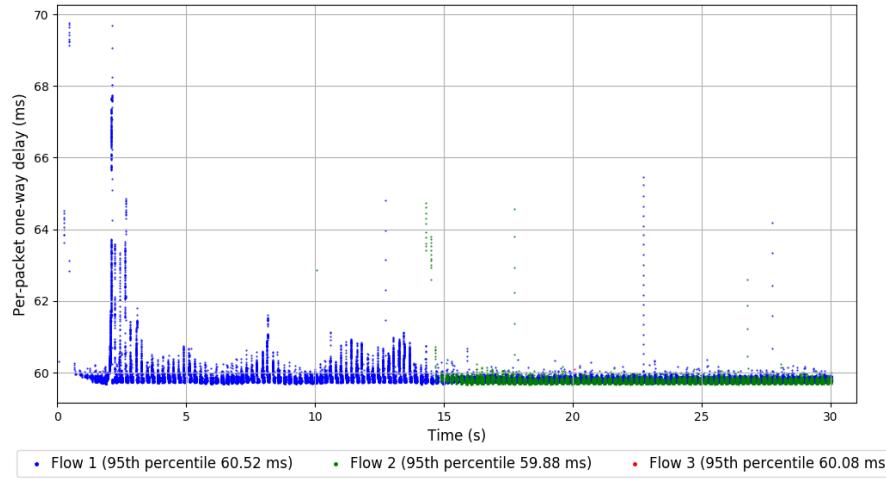
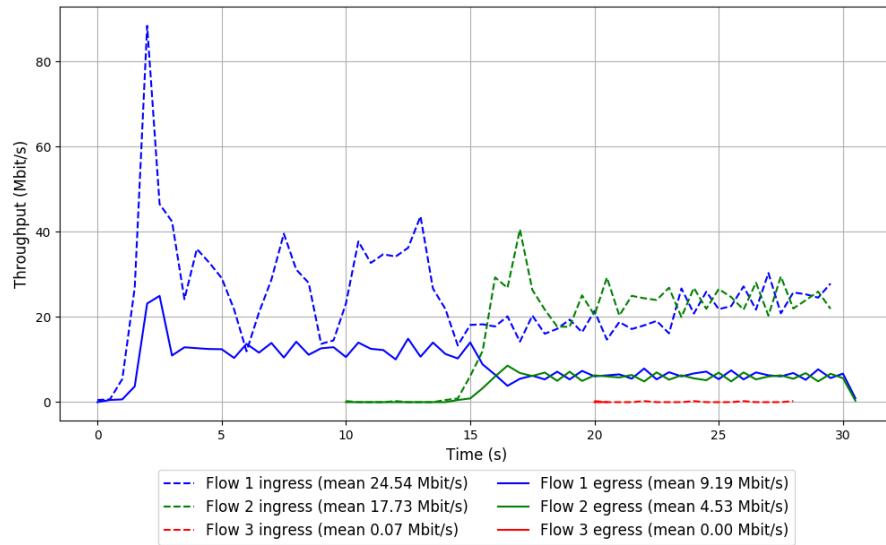


Run 5: Statistics of Copa

```
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

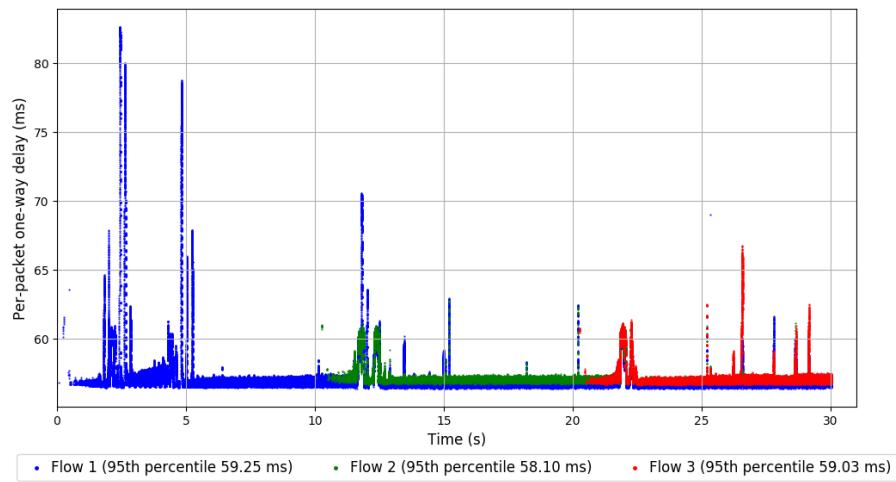
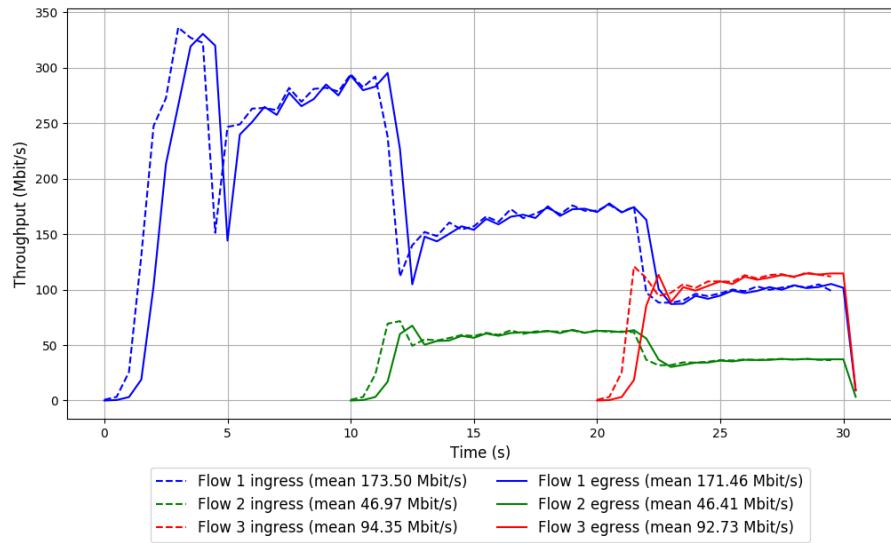


```
Run 1: Statistics of TCP Cubic

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

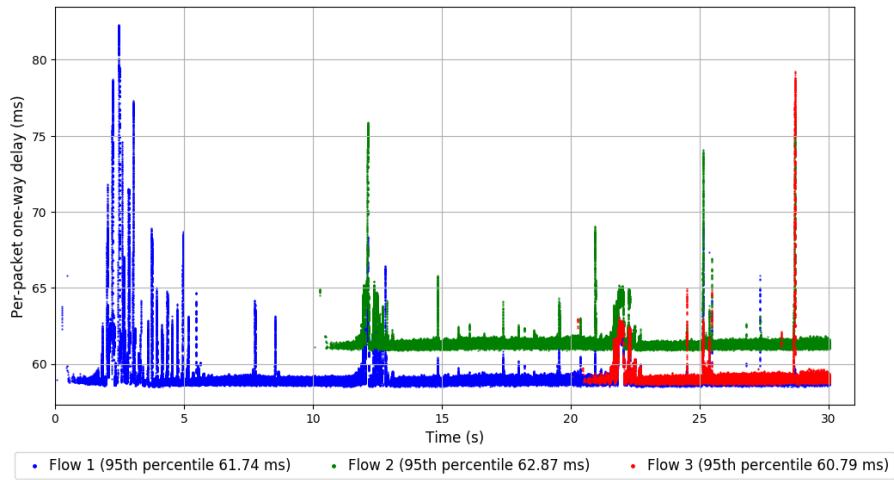
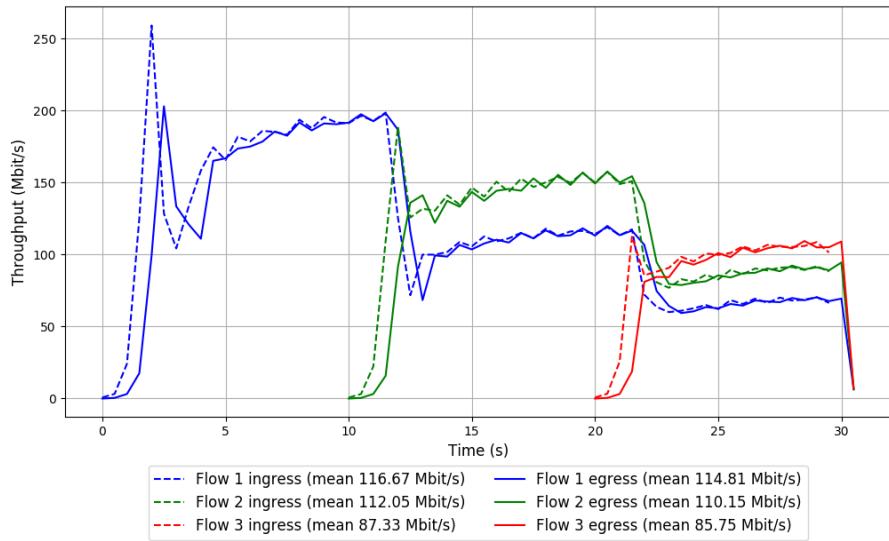


Run 2: Statistics of TCP Cubic

```
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

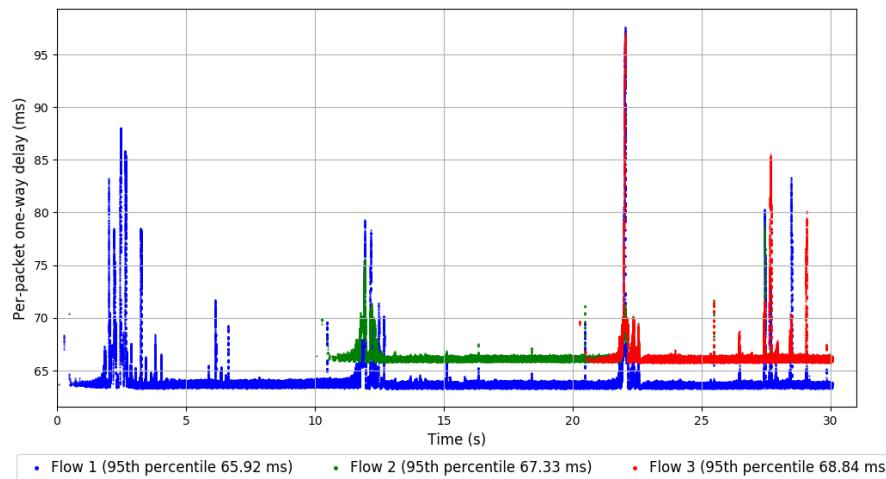
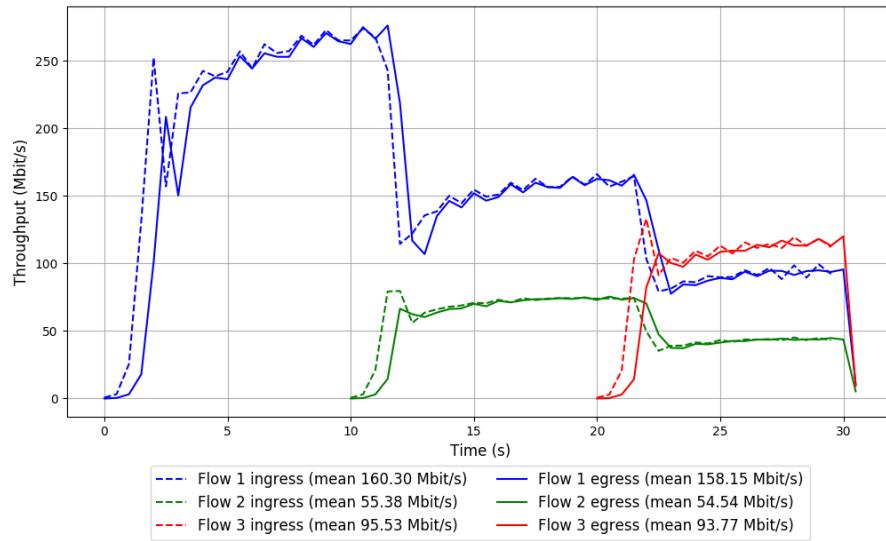


Run 3: Statistics of TCP Cubic

```
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

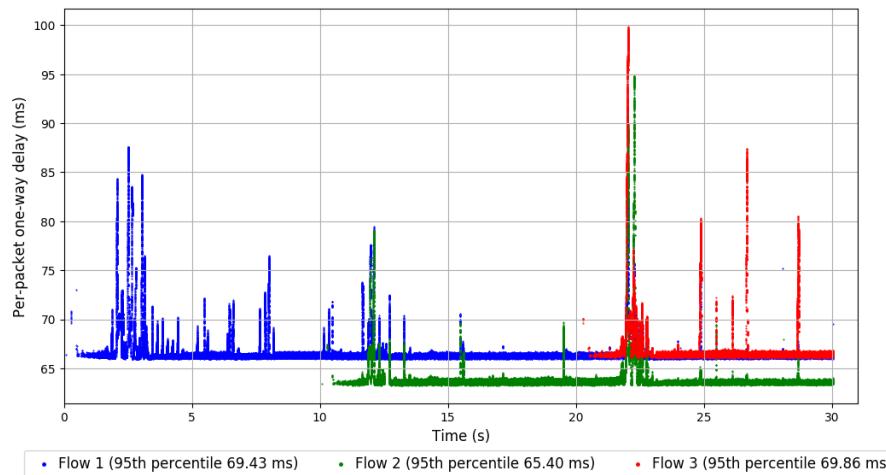
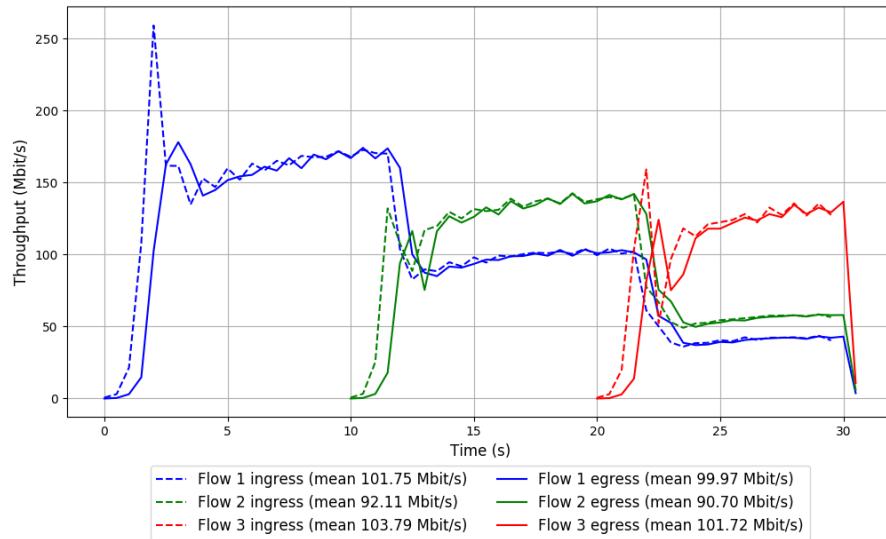


Run 4: Statistics of TCP Cubic

```
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

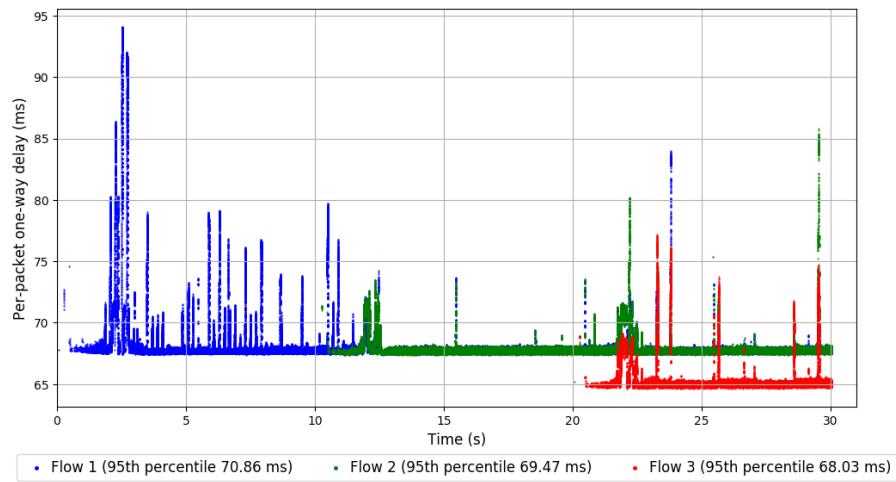
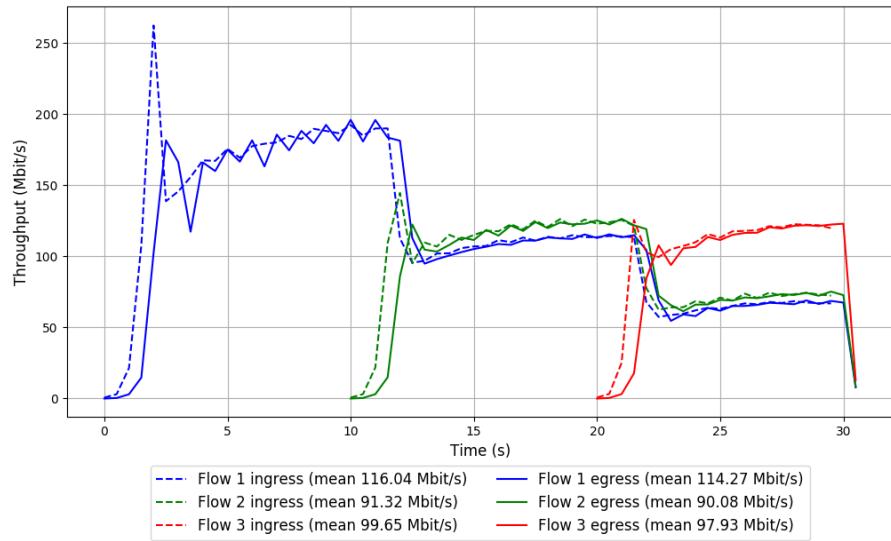


Run 5: Statistics of TCP Cubic

```
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

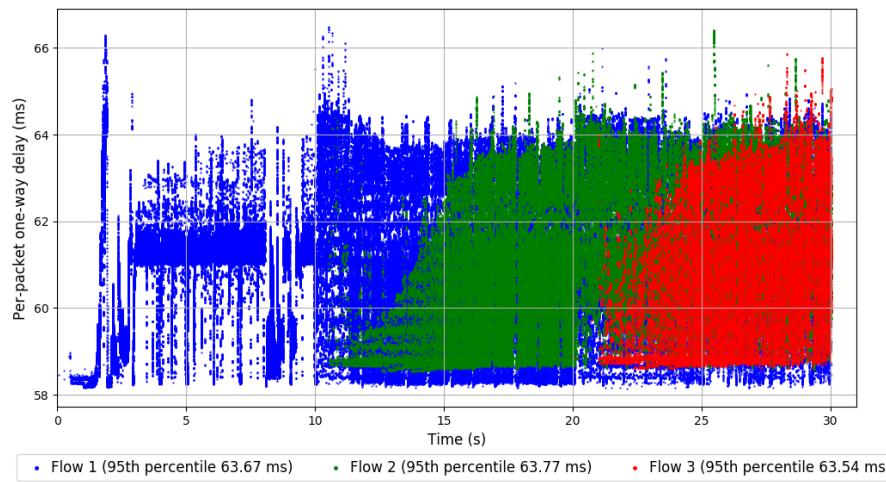
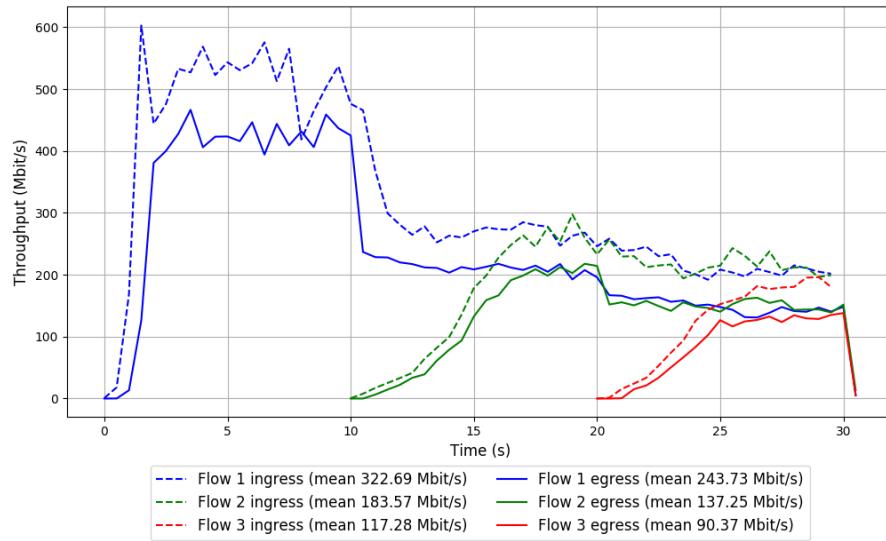


```
Run 1: Statistics of FillP

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

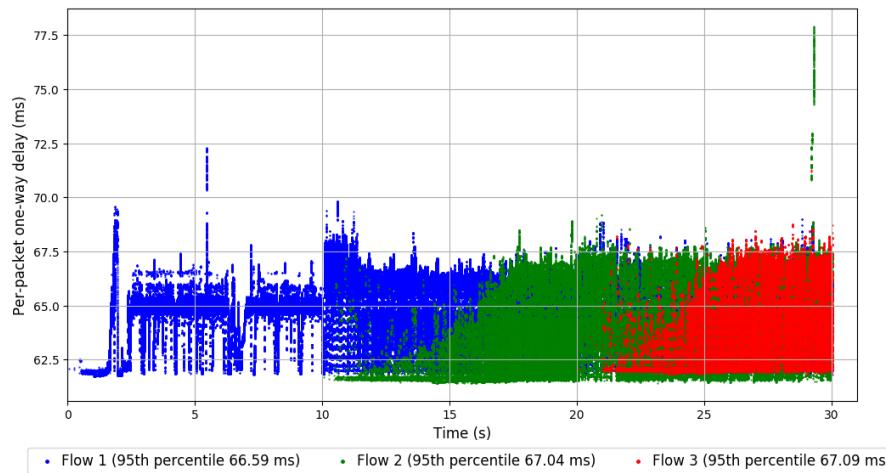
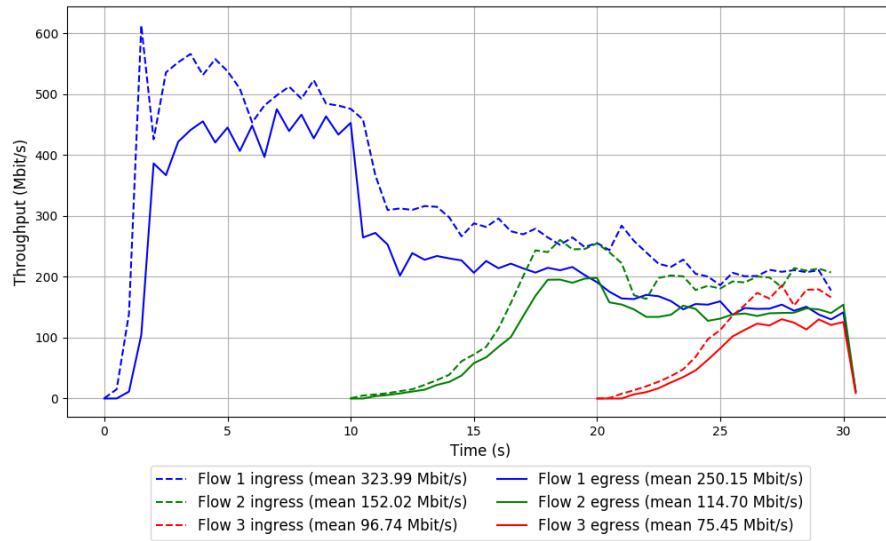


Run 2: Statistics of FillP

```
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

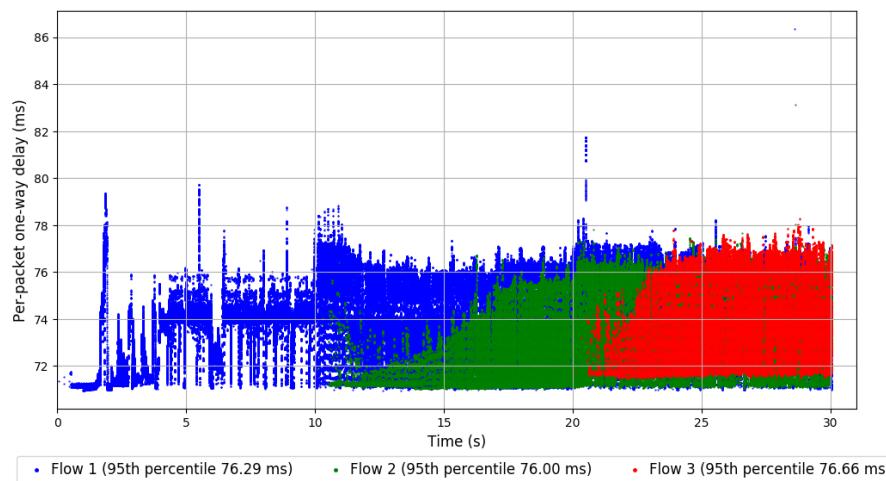
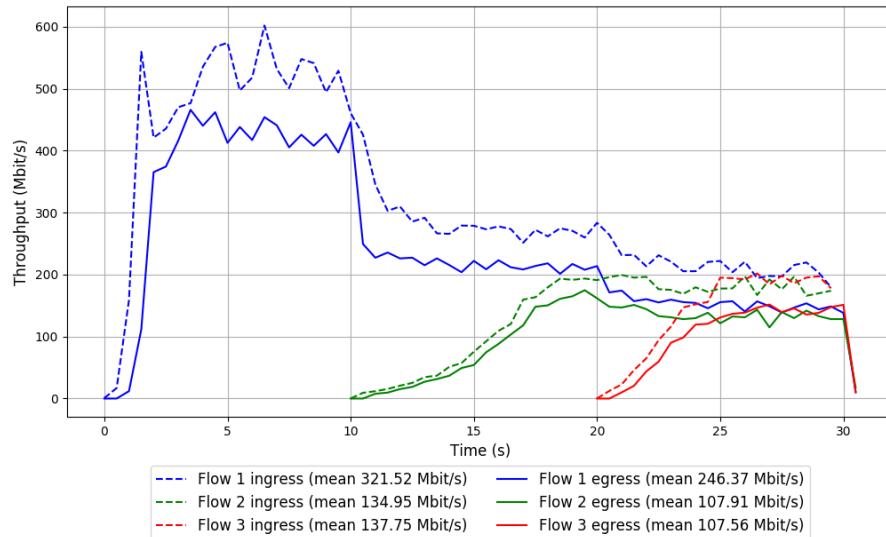


```
Run 3: Statistics of FillP

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

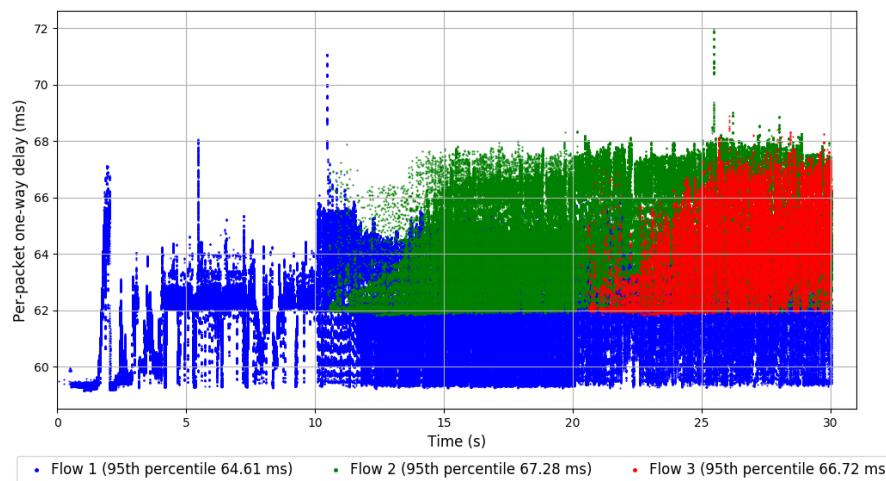
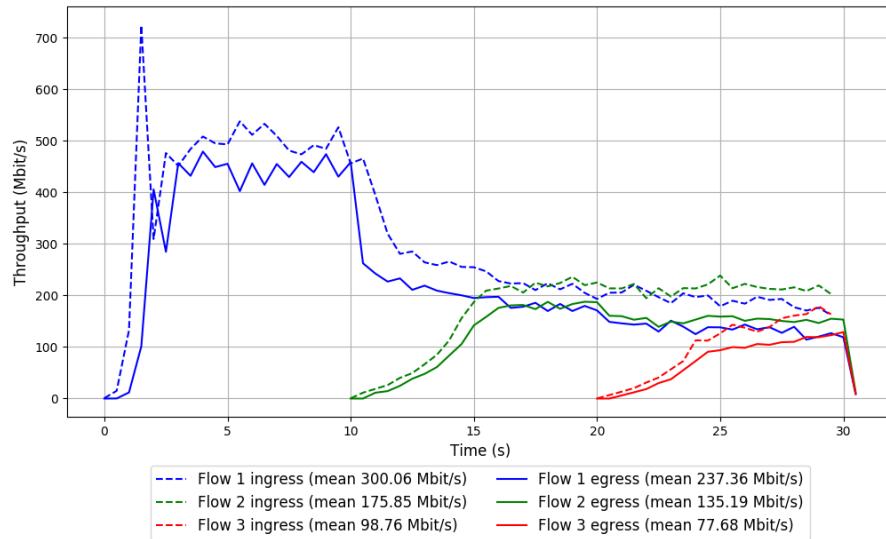


```
Run 4: Statistics of FillP
```

```
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

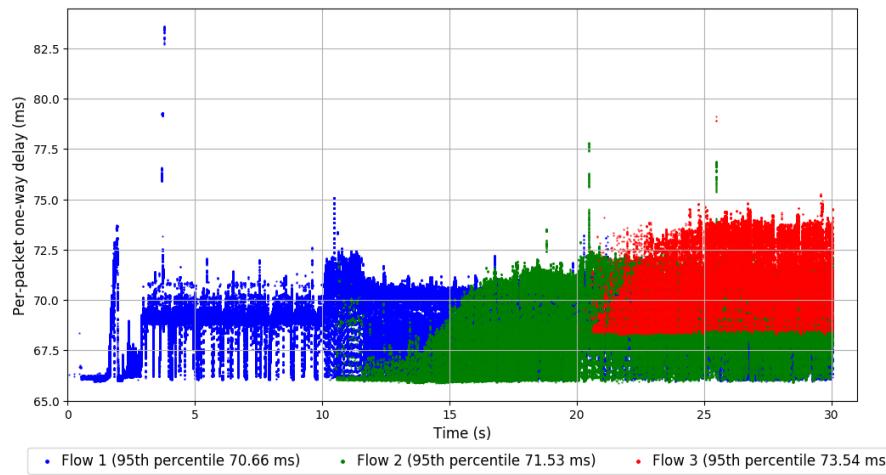
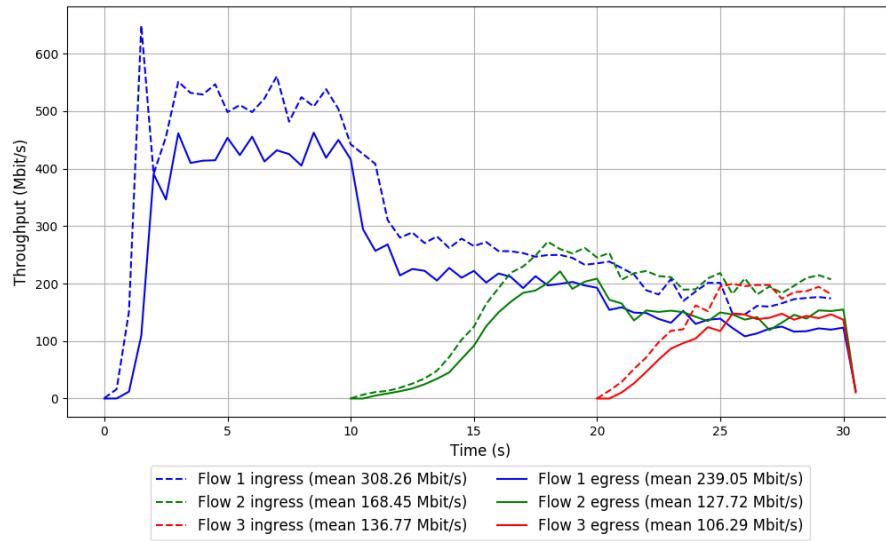


```
Run 5: Statistics of FillP
```

```
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

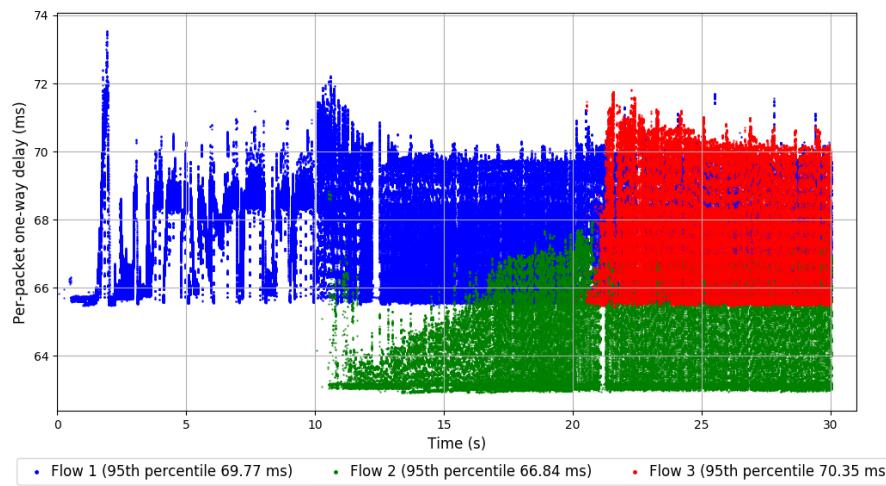
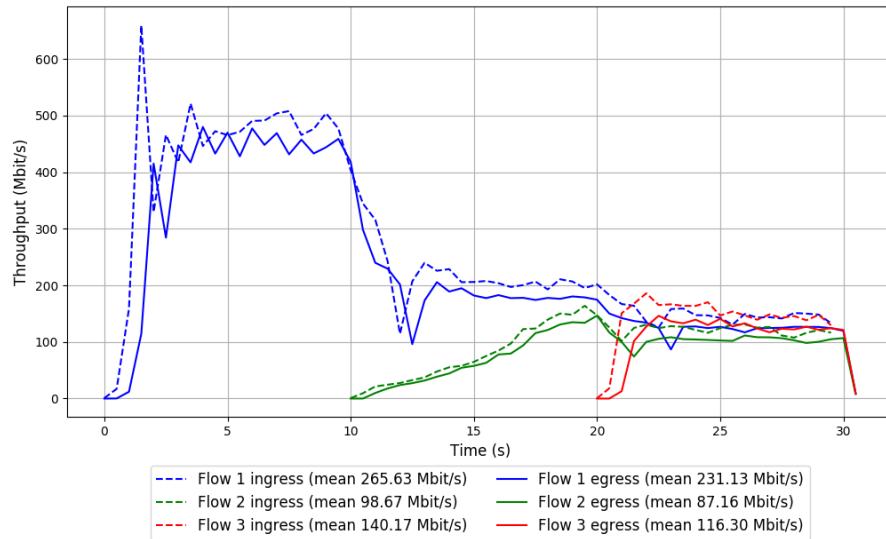


Run 1: Statistics of FillP-Sheep

```
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

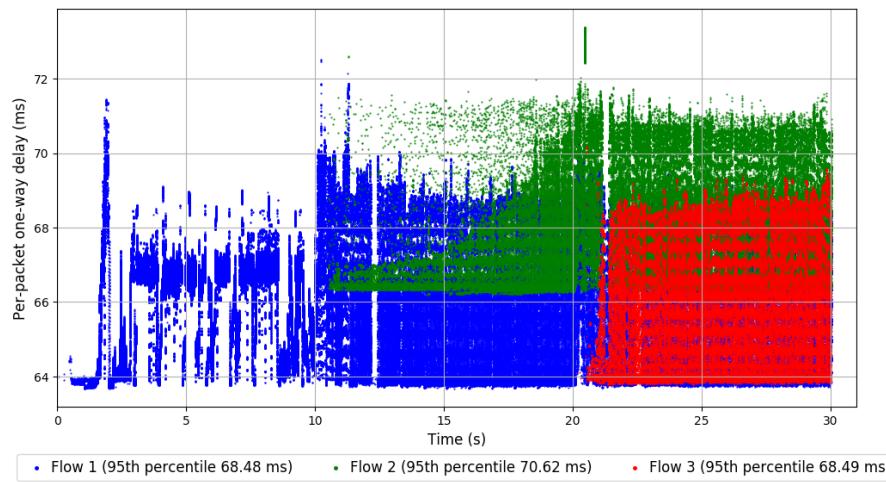
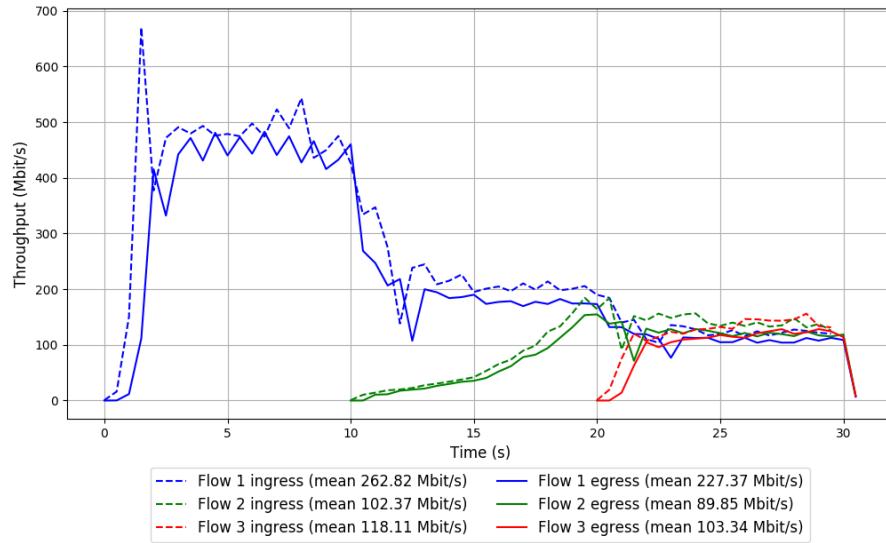


Run 2: Statistics of FillP-Sheep

```
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

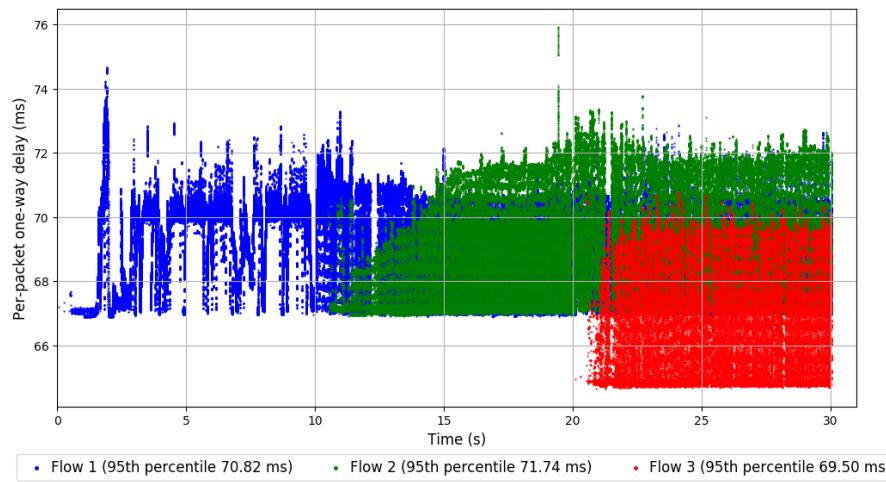
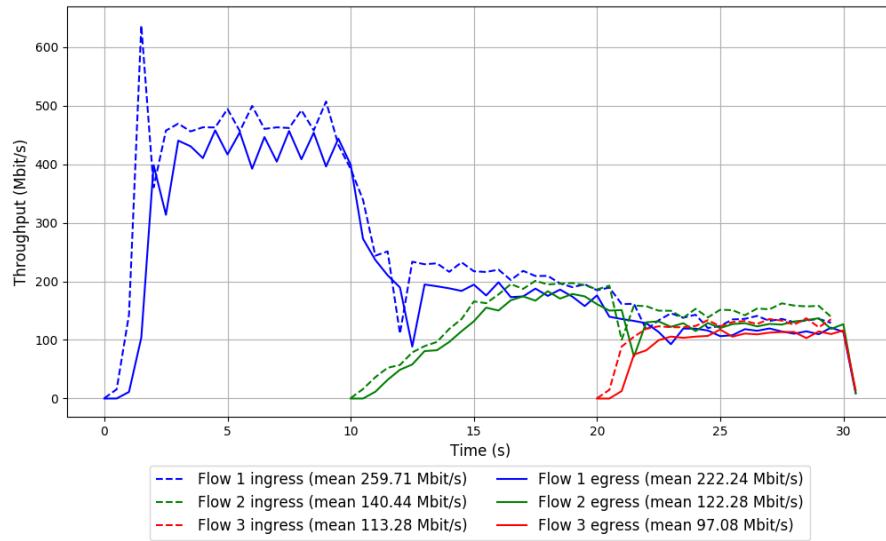


Run 3: Statistics of FillP-Sheep

```
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

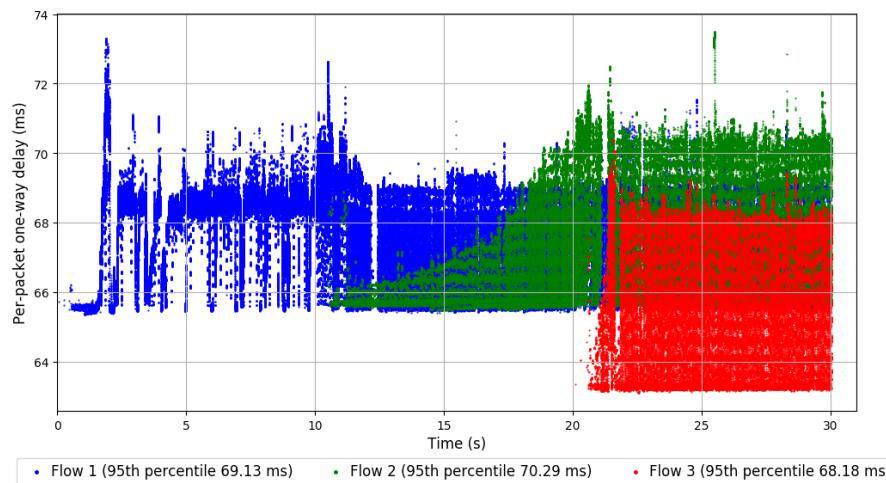
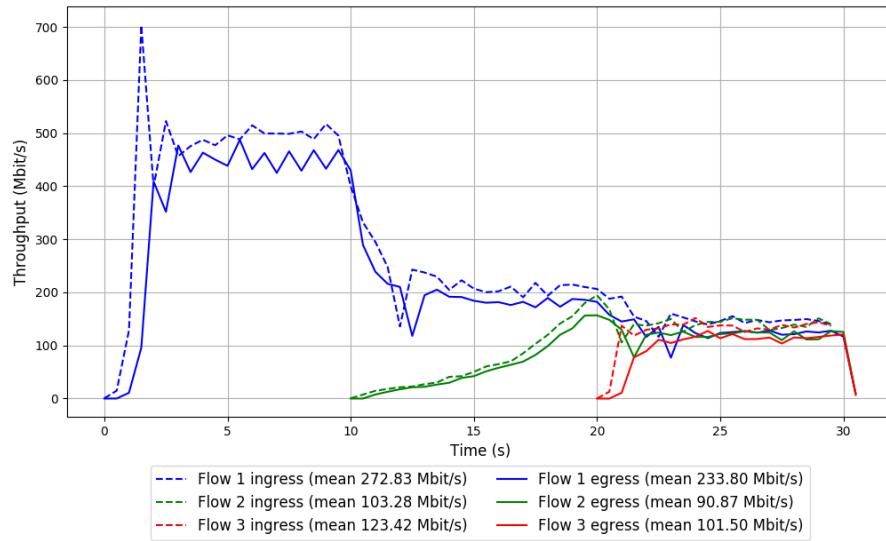


Run 4: Statistics of FillP-Sheep

```
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

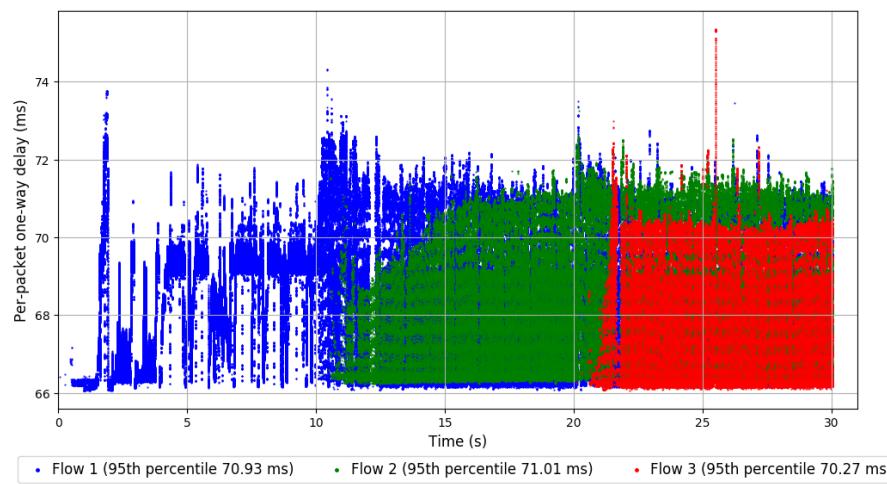
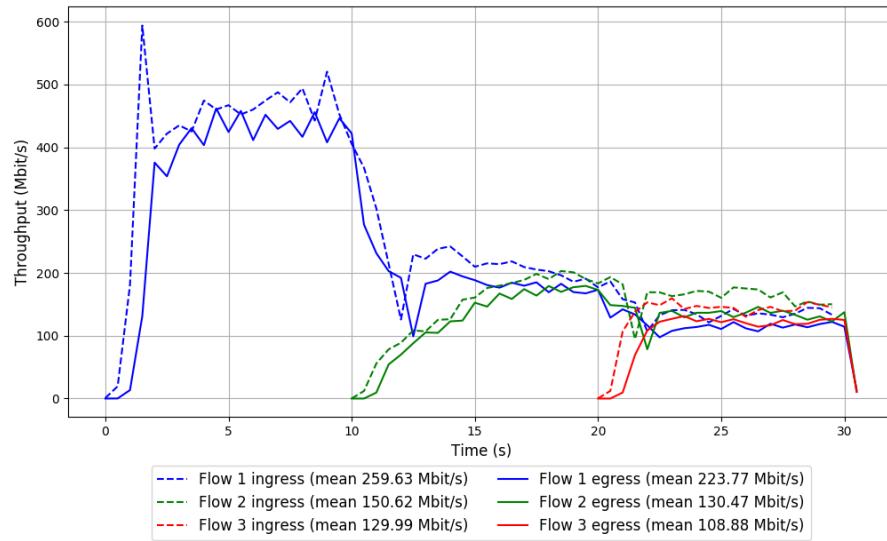


Run 5: Statistics of FillP-Sheep

```
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

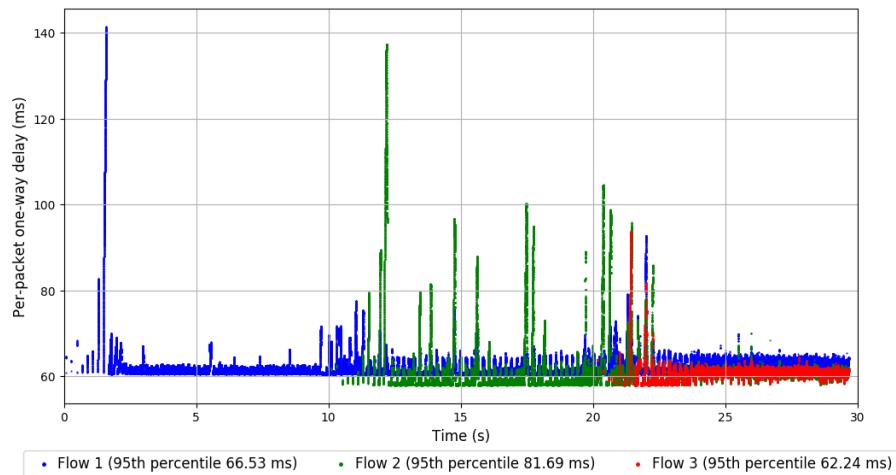
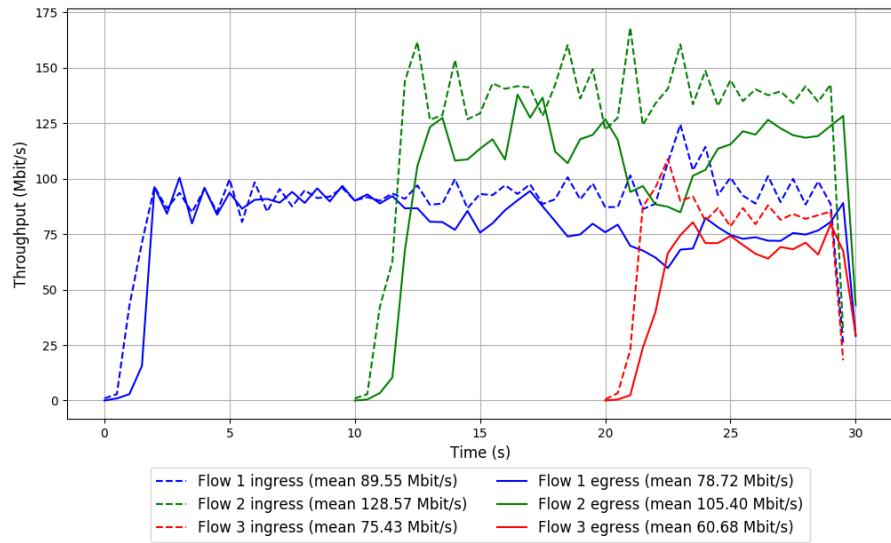


Run 1: Statistics of Indigo

```
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

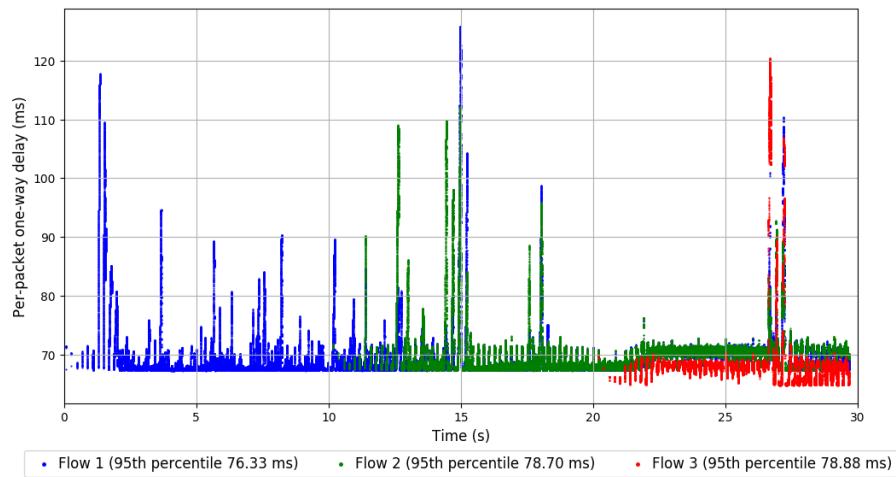
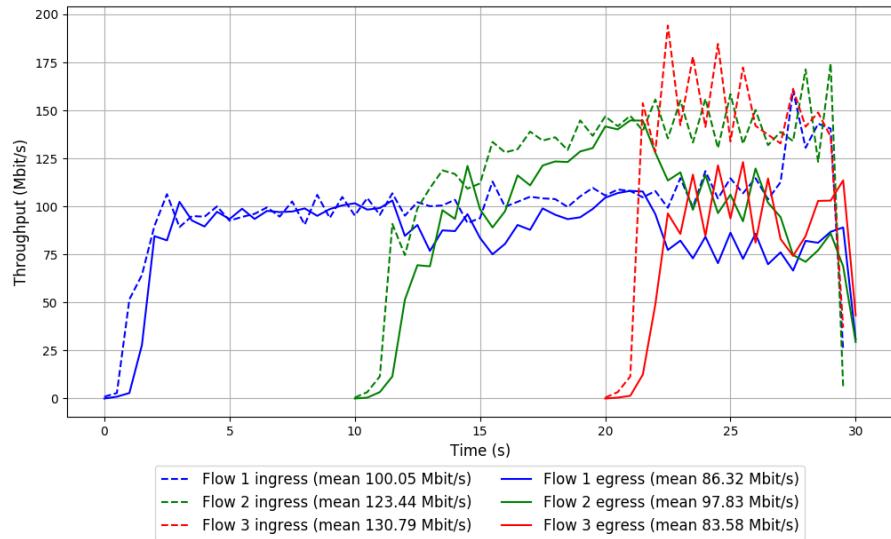


Run 2: Statistics of Indigo

```
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

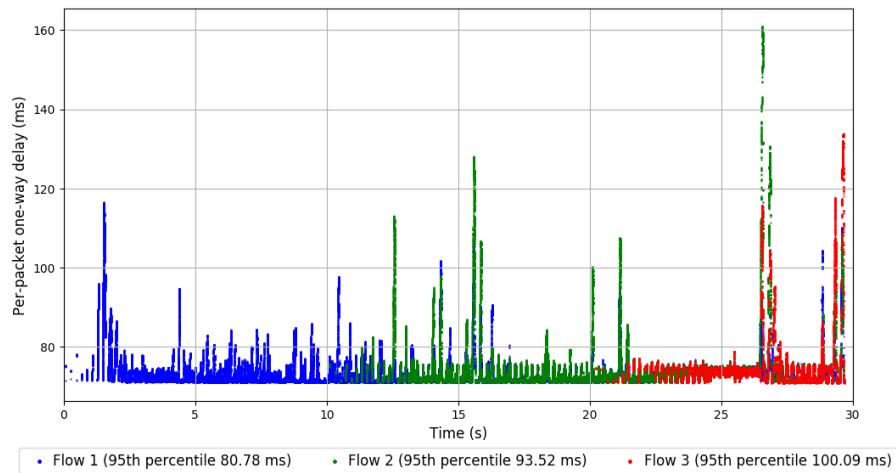
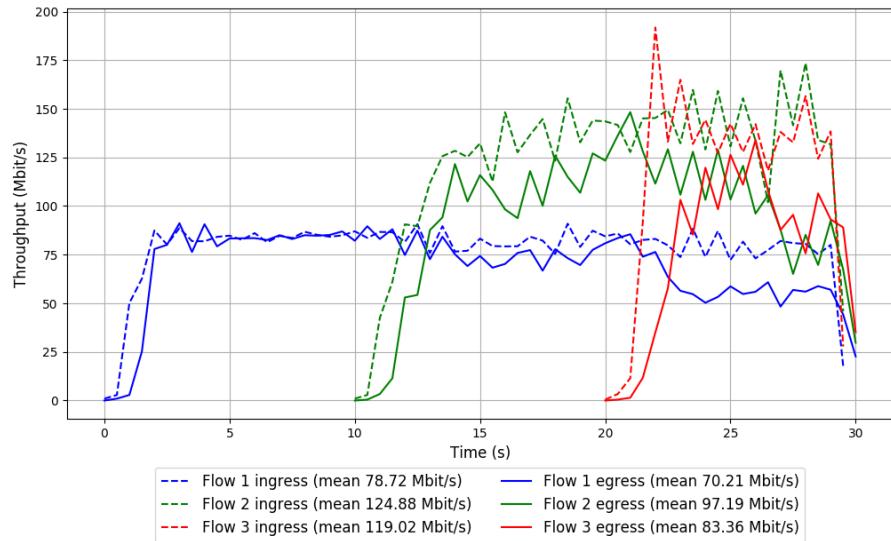


Run 3: Statistics of Indigo

```
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

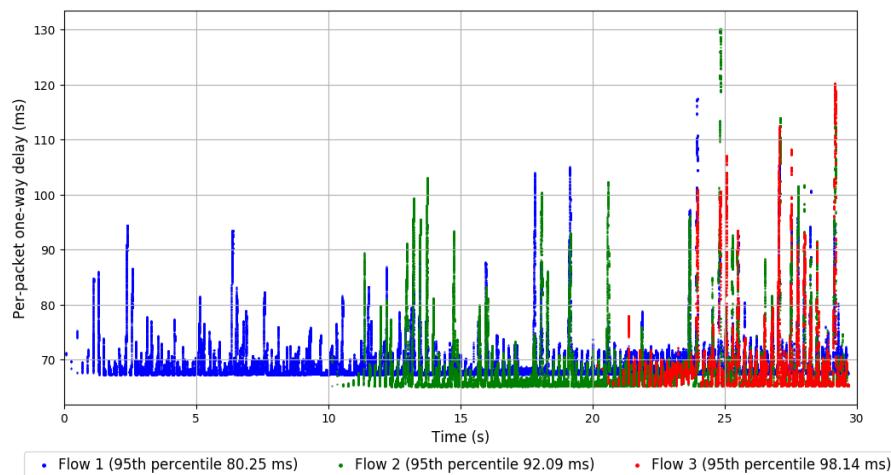
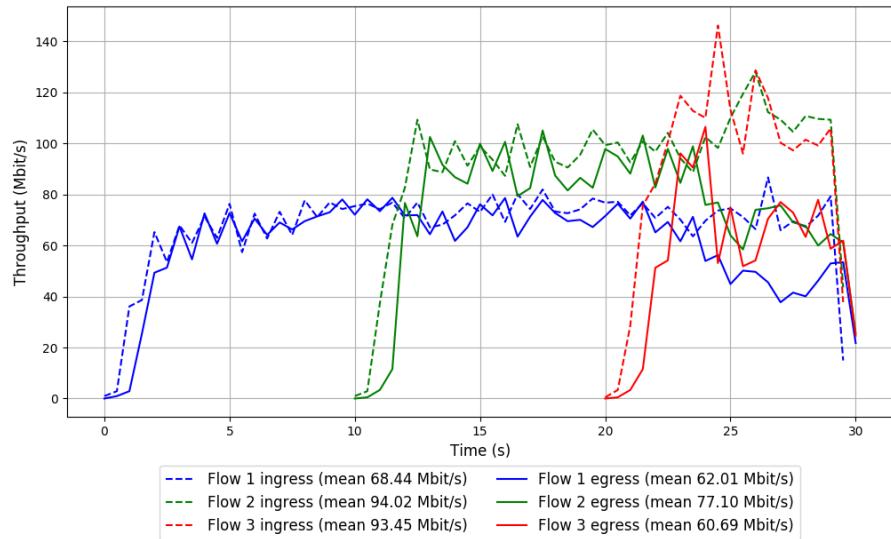


Run 4: Statistics of Indigo

```
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

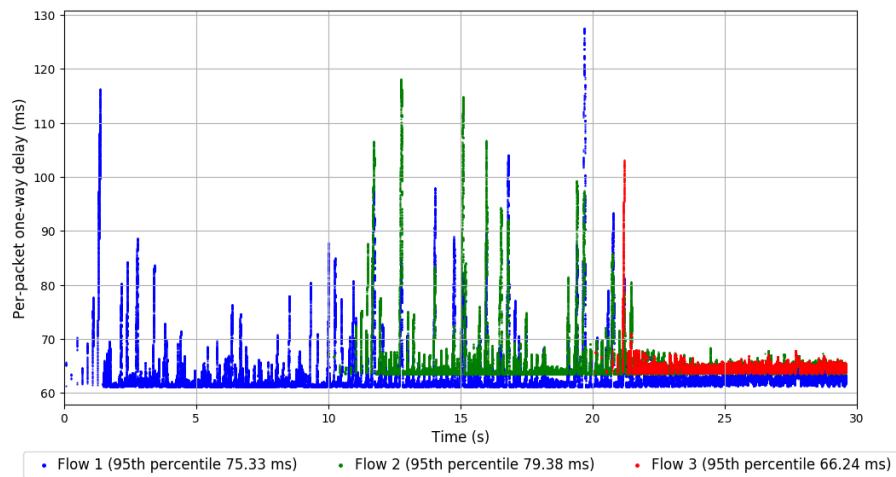
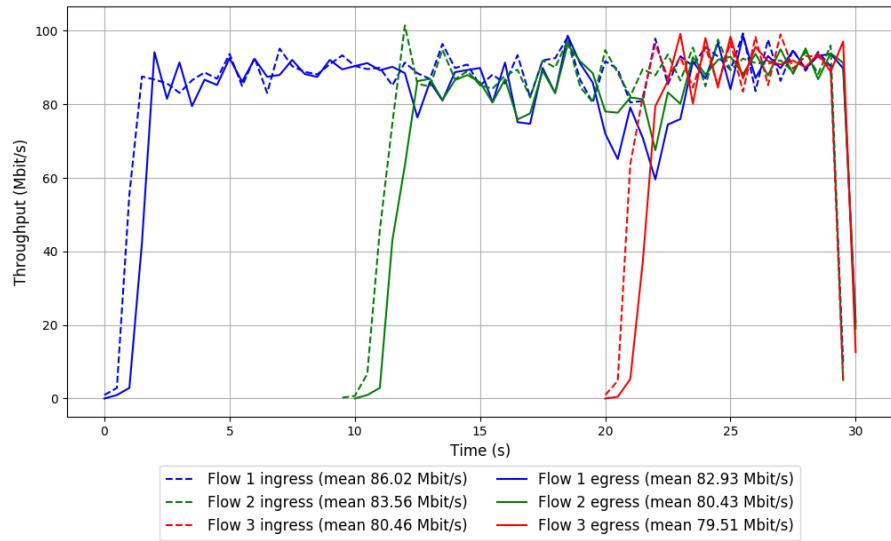


Run 5: Statistics of Indigo

```
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

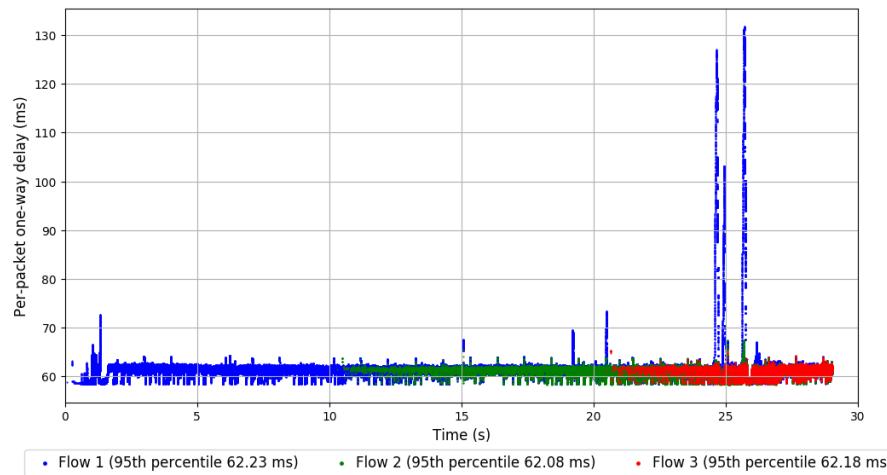
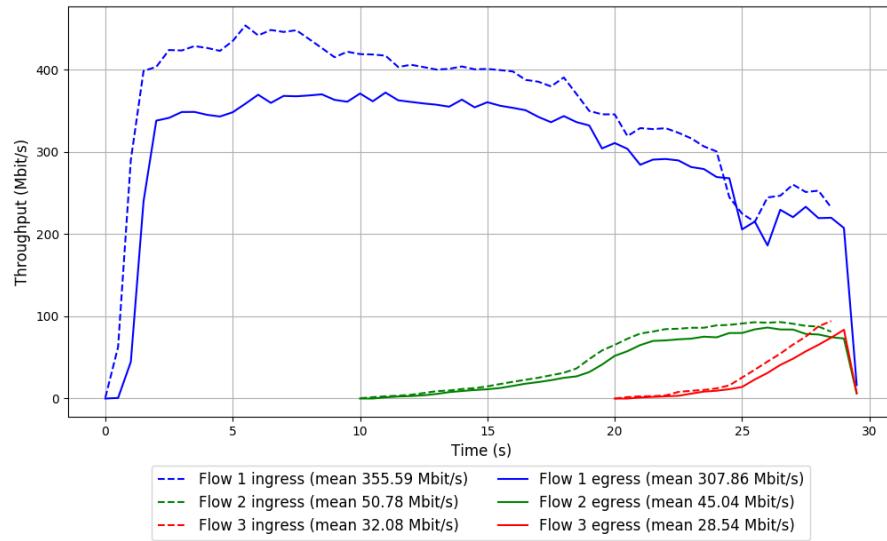


Run 1: Statistics of Indigo-MusesC3

```
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

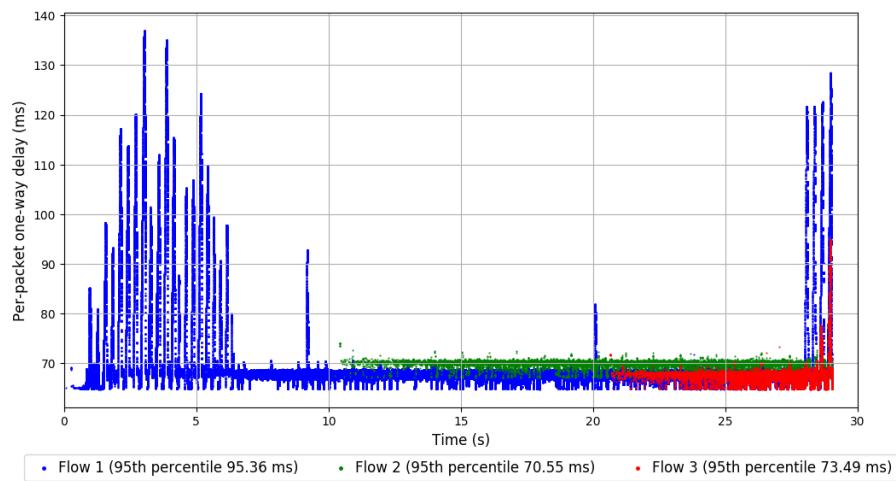
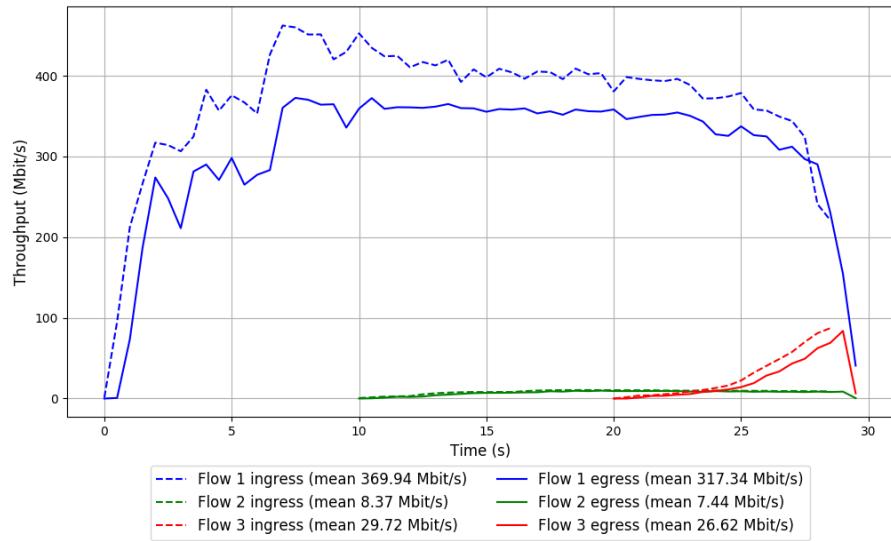


Run 2: Statistics of Indigo-MusesC3

```
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

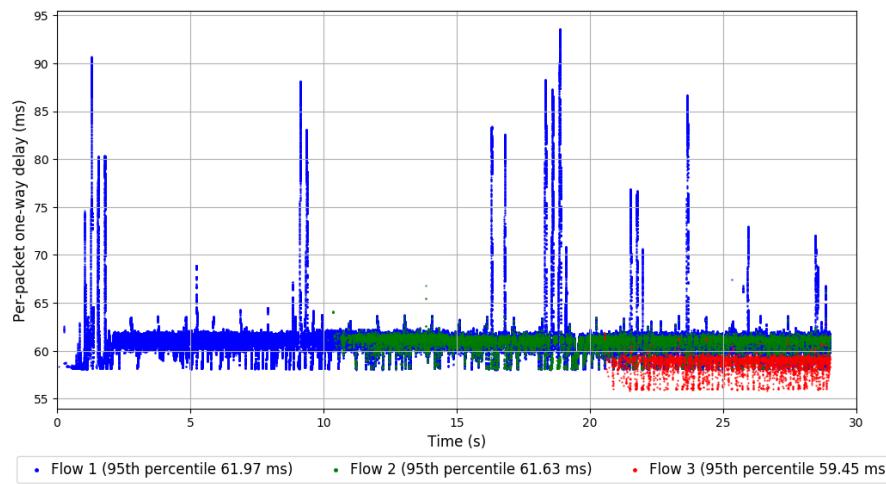
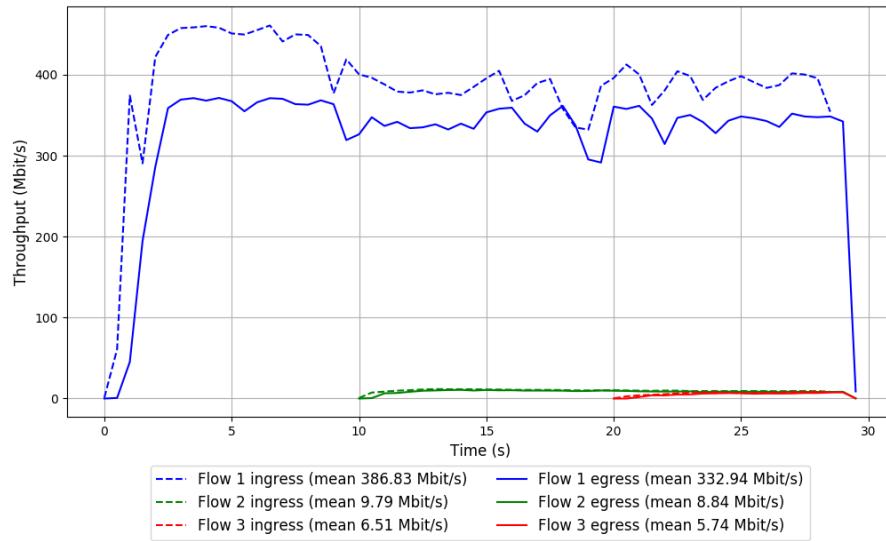


Run 3: Statistics of Indigo-MusesC3

```
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

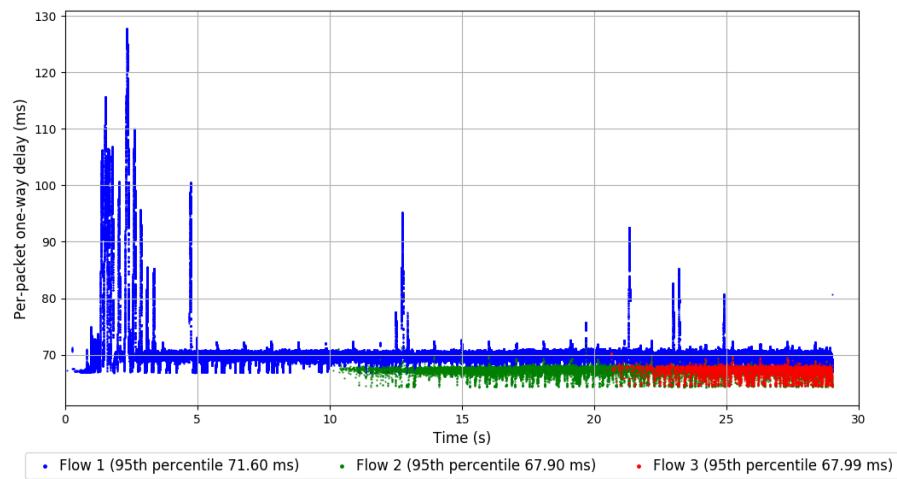
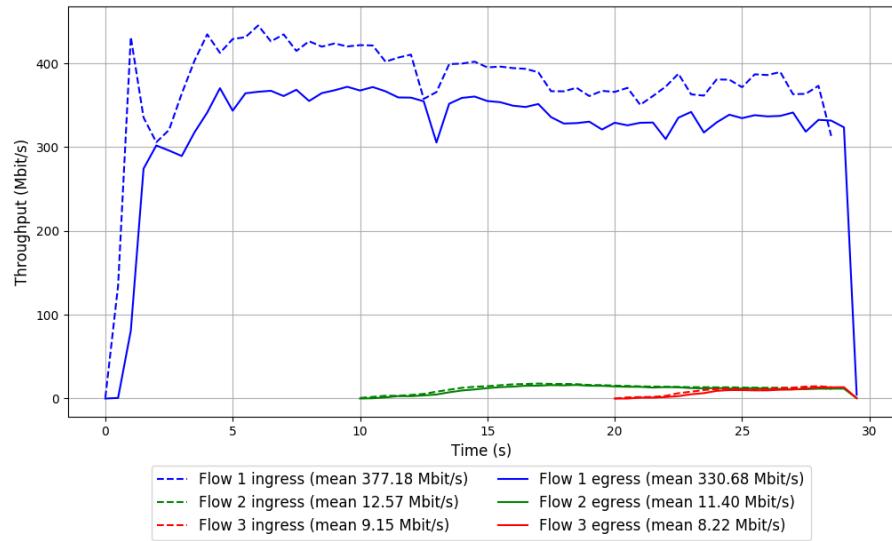


Run 4: Statistics of Indigo-MusesC3

```
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

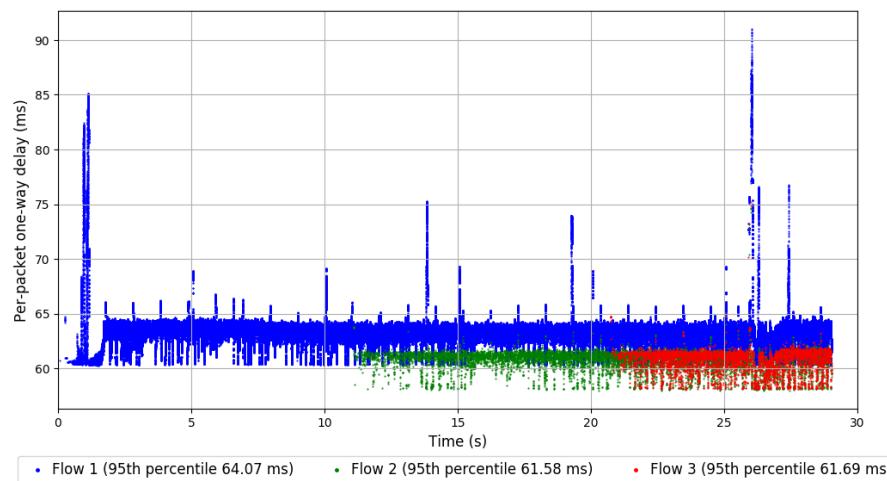
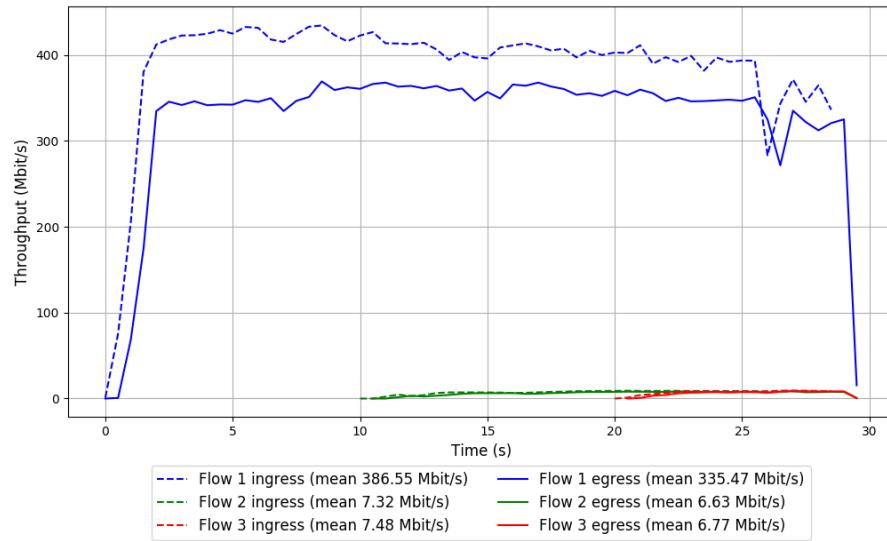


Run 5: Statistics of Indigo-MusesC3

```
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

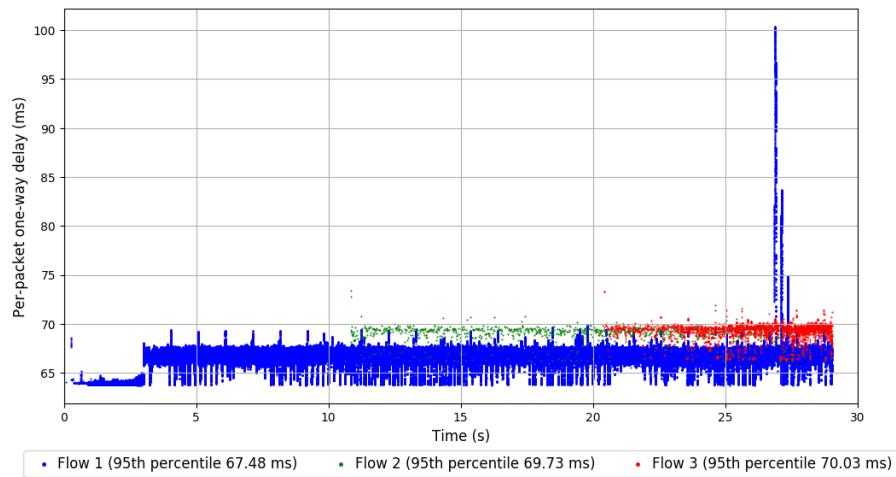
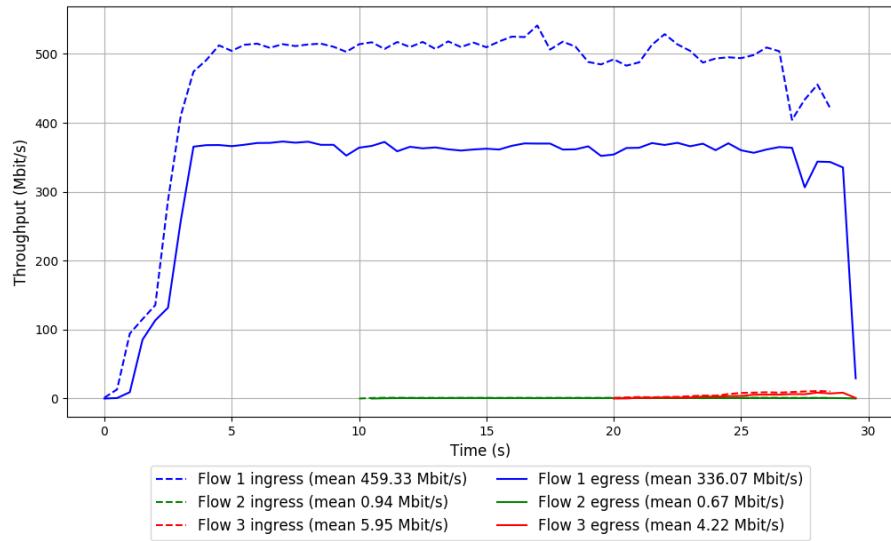


Run 1: Statistics of Indigo-MusesC5

```
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

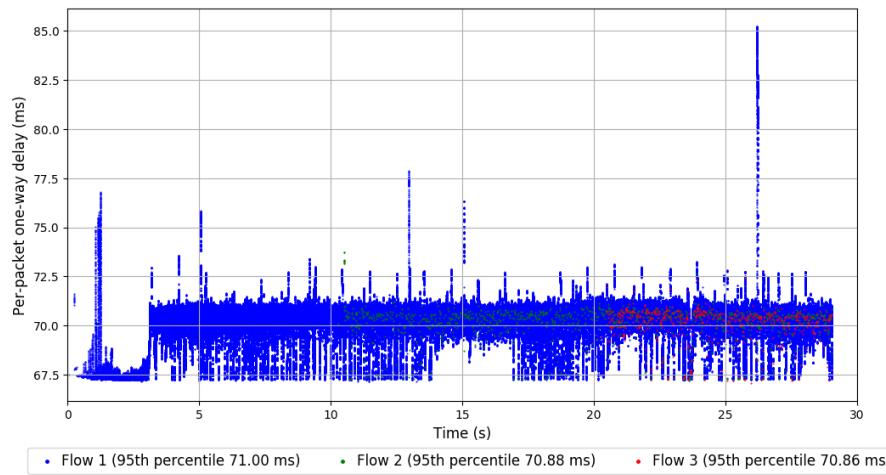
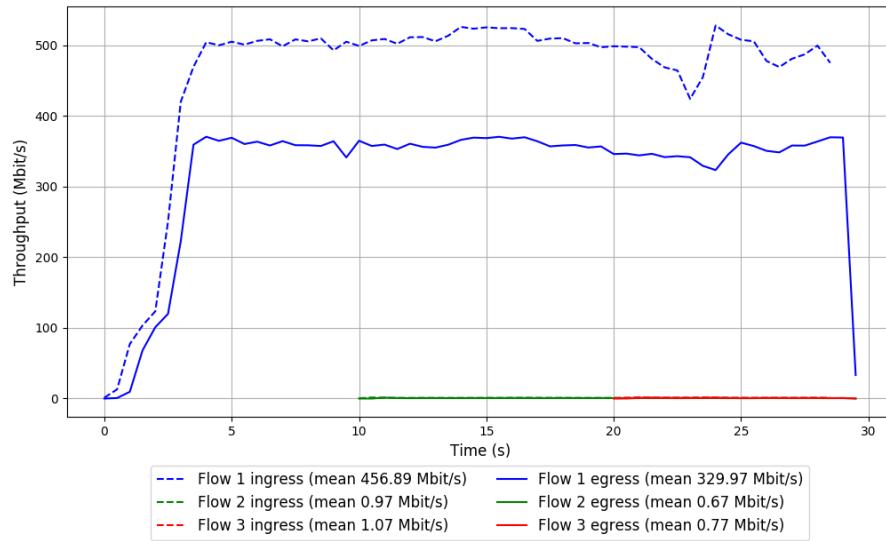


Run 2: Statistics of Indigo-MusesC5

```
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

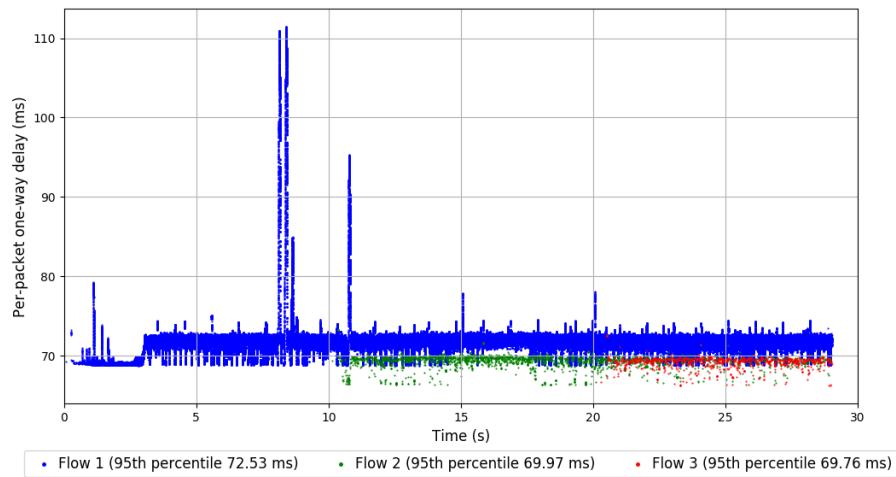
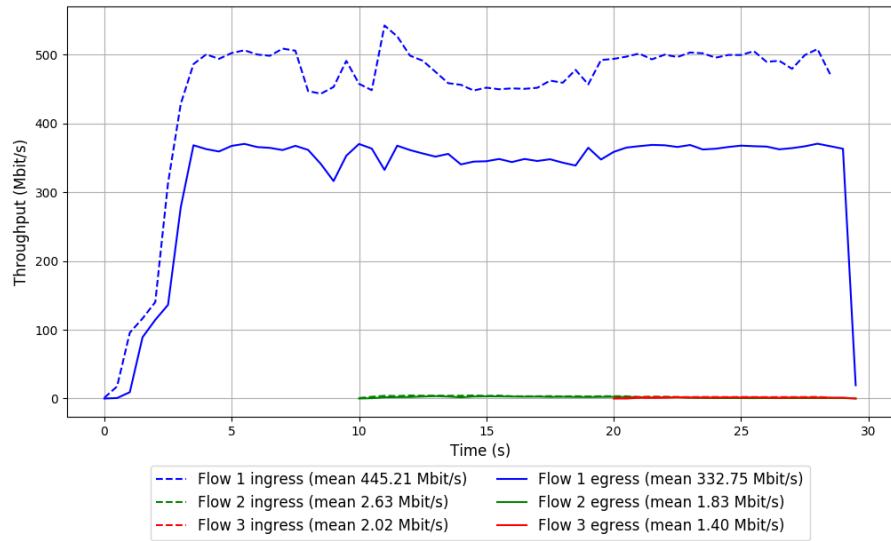


Run 3: Statistics of Indigo-MusesC5

```
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

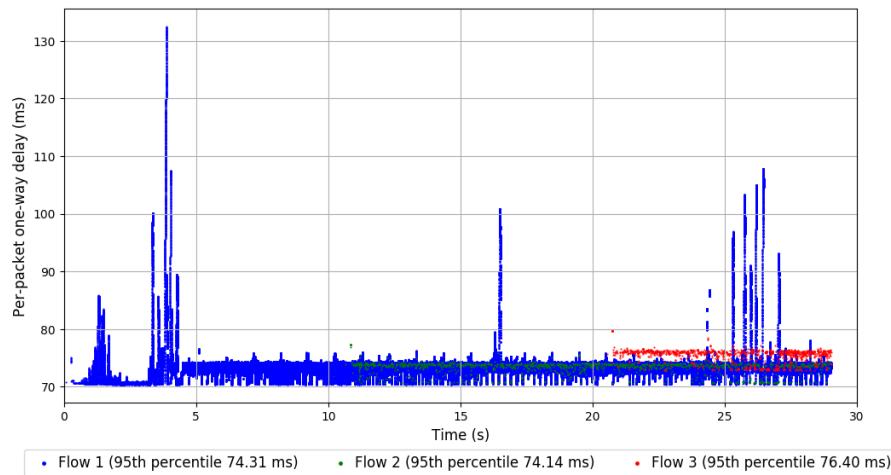
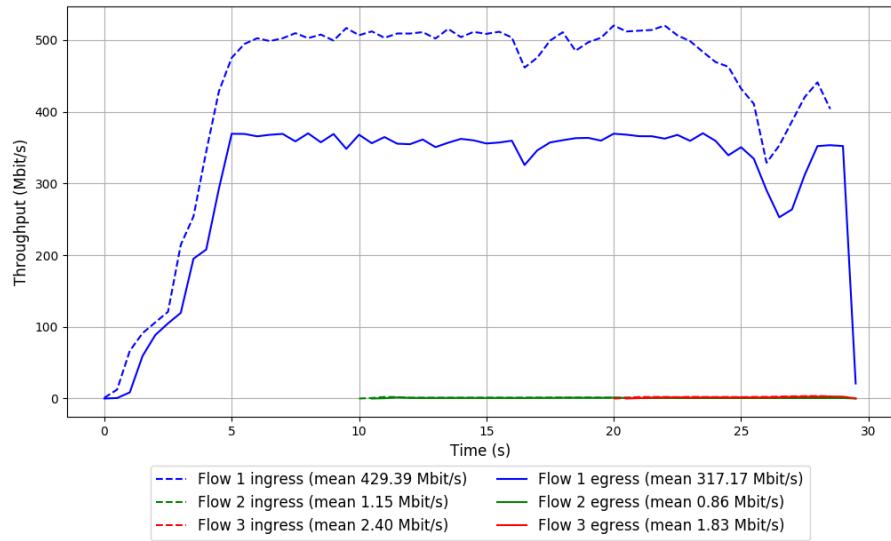


Run 4: Statistics of Indigo-MusesC5

```
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

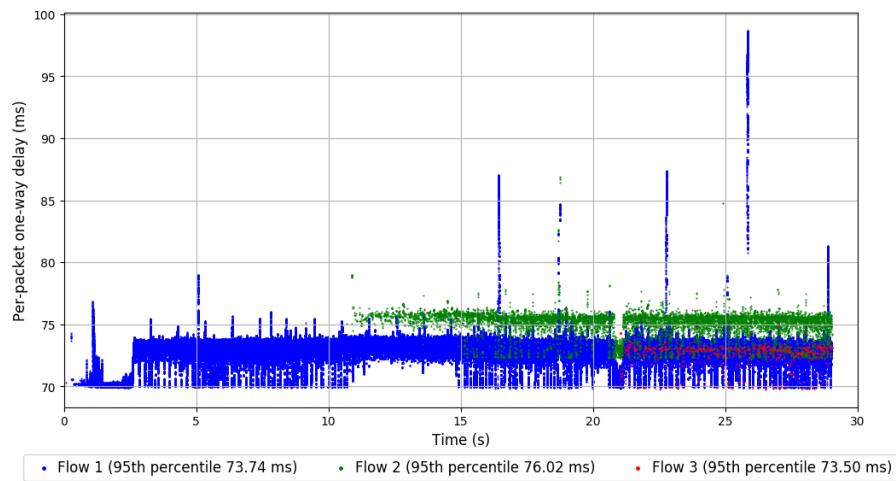
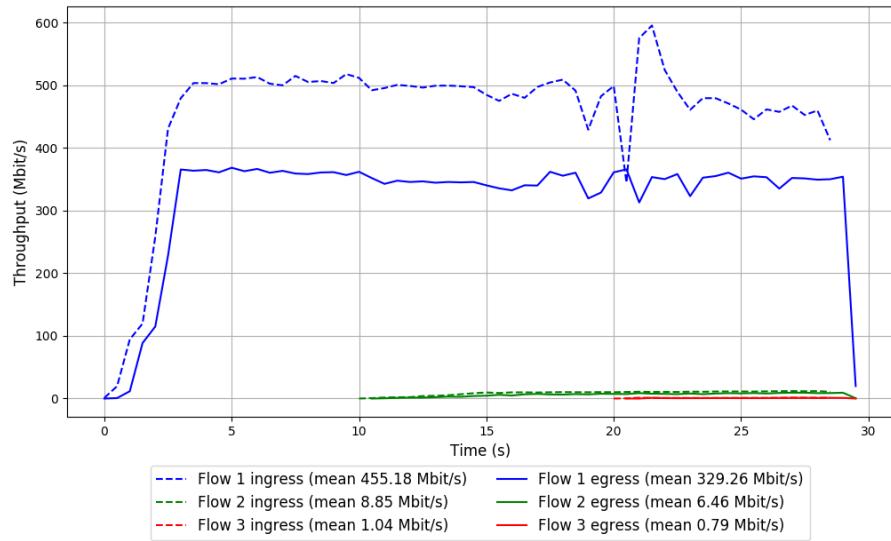


Run 5: Statistics of Indigo-MusesC5

```
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

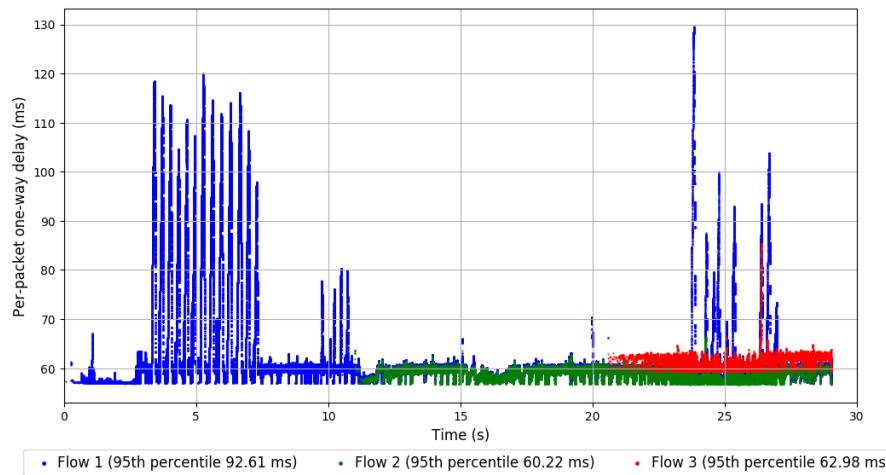
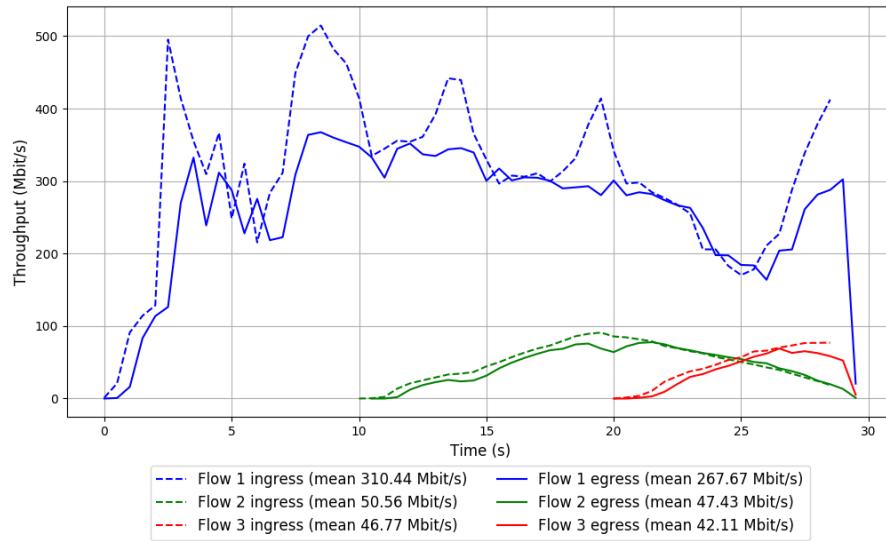


Run 1: Statistics of Indigo-MusesD

```
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

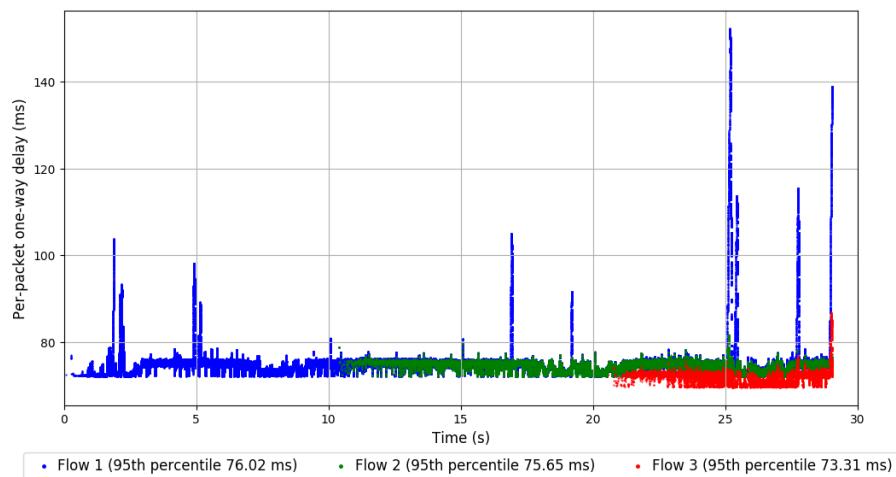
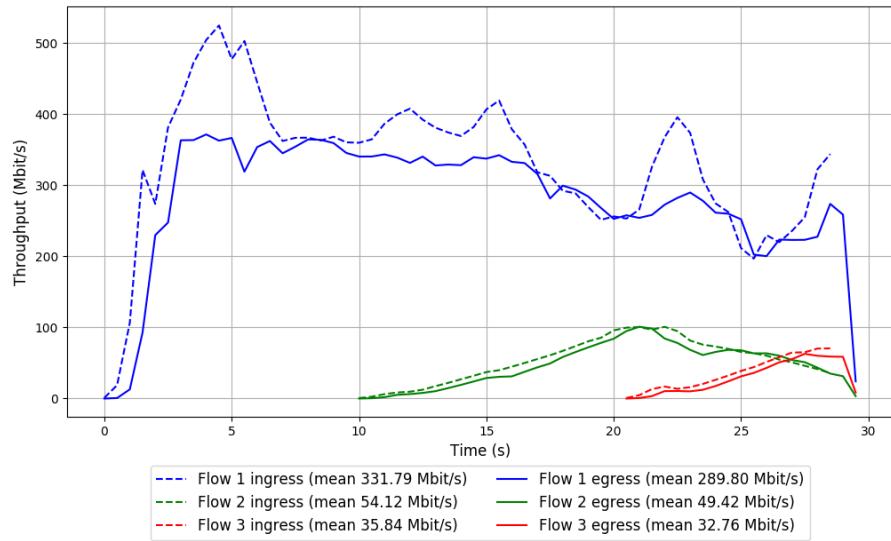


Run 2: Statistics of Indigo-MusesD

```
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

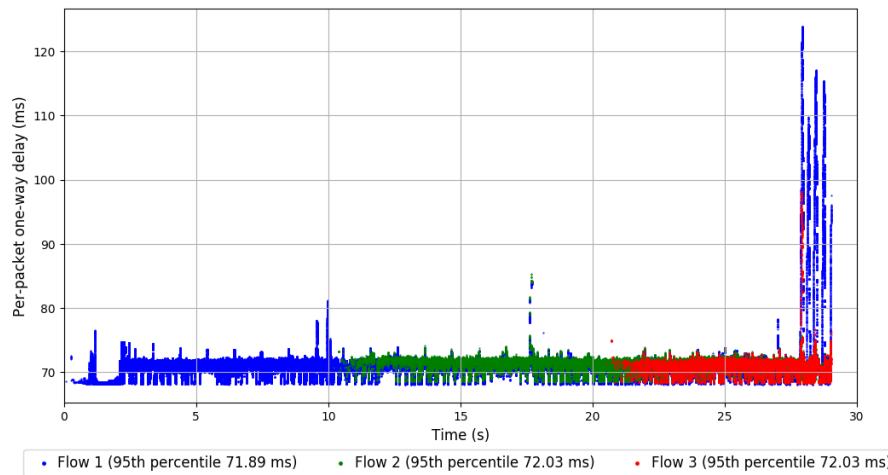
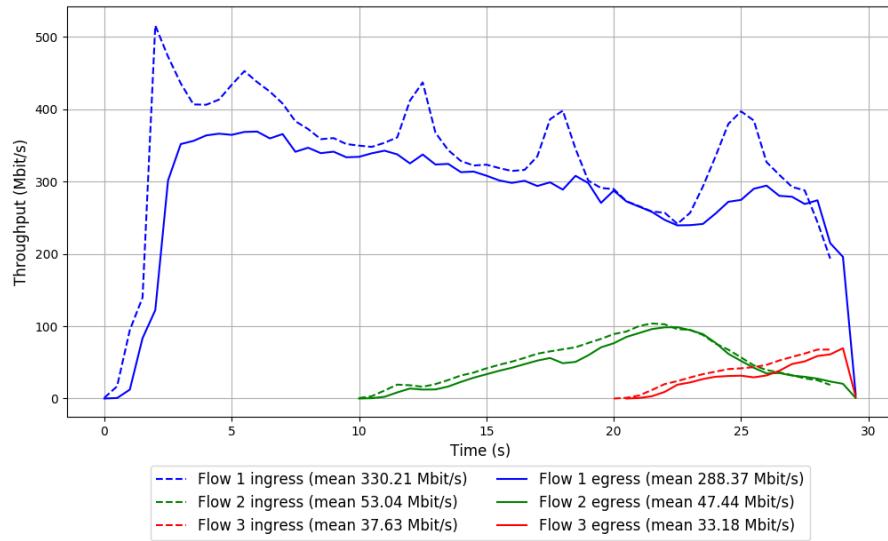


Run 3: Statistics of Indigo-MusesD

```
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

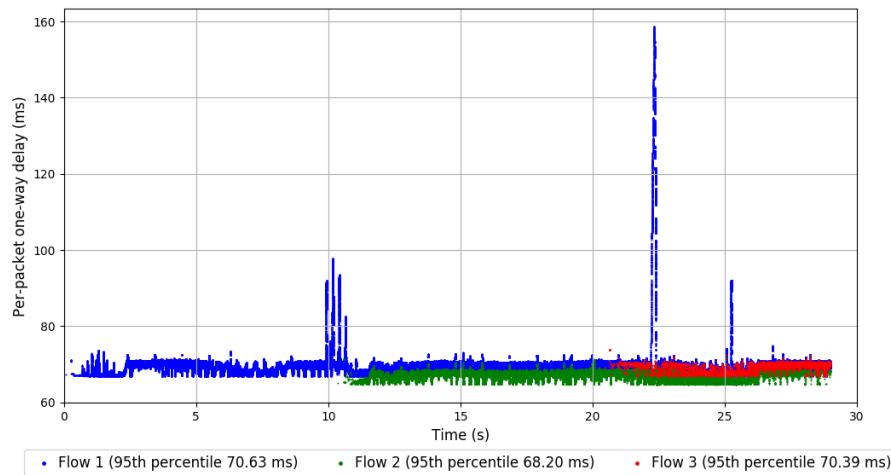
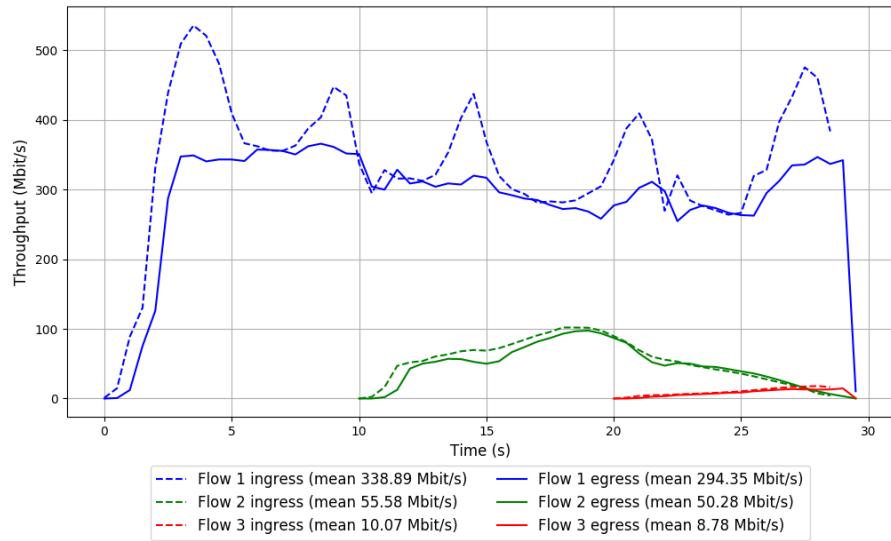


Run 4: Statistics of Indigo-MusesD

```
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

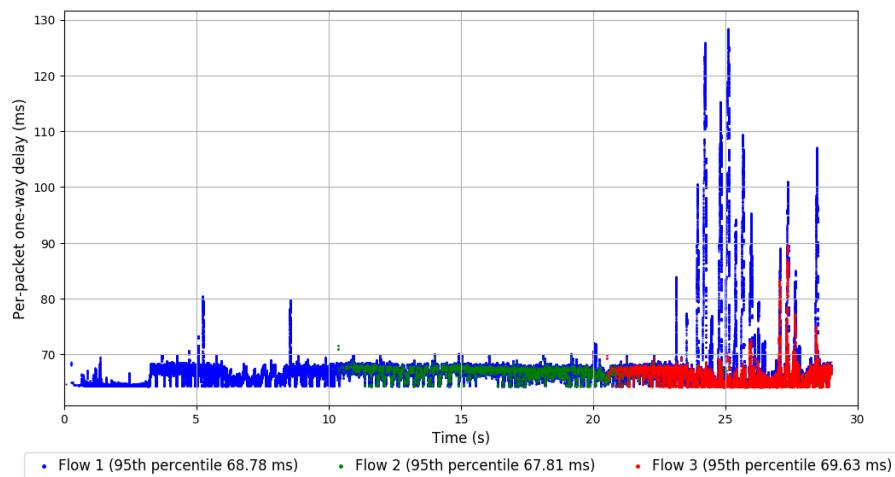
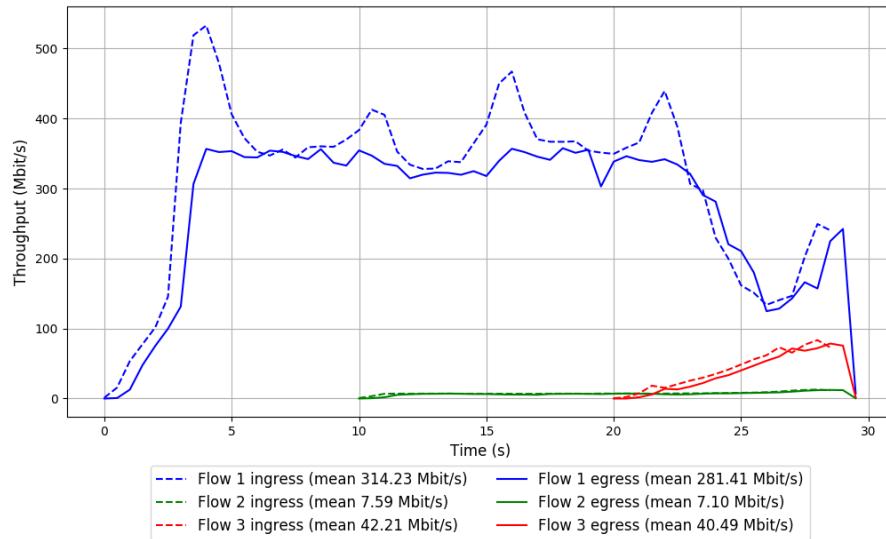


Run 5: Statistics of Indigo-MusesD

```
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

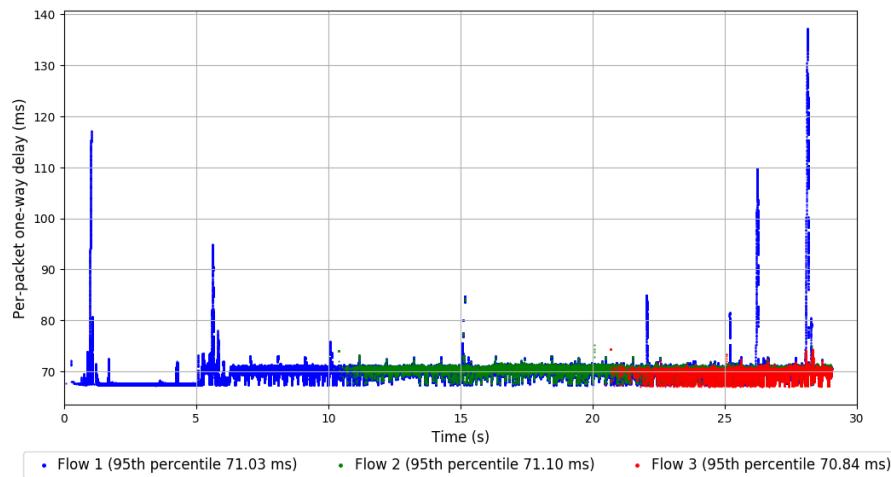
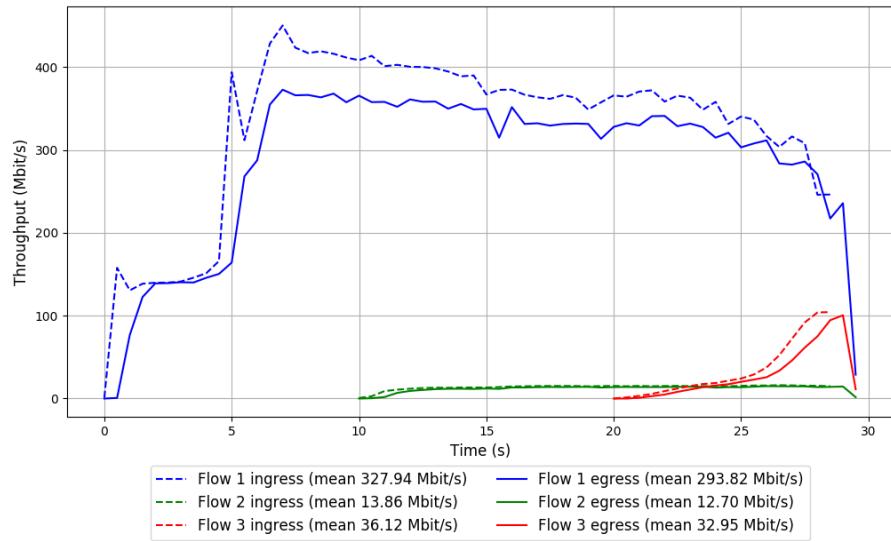


Run 1: Statistics of Indigo-MusesT

```
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

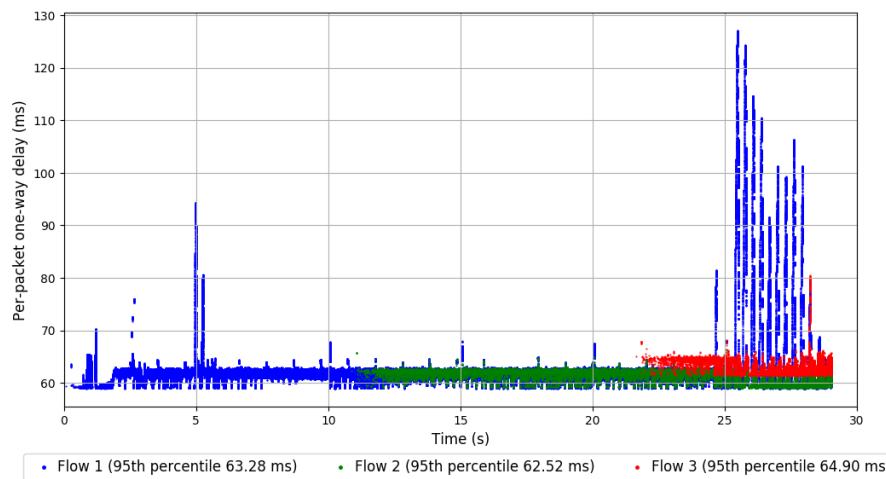
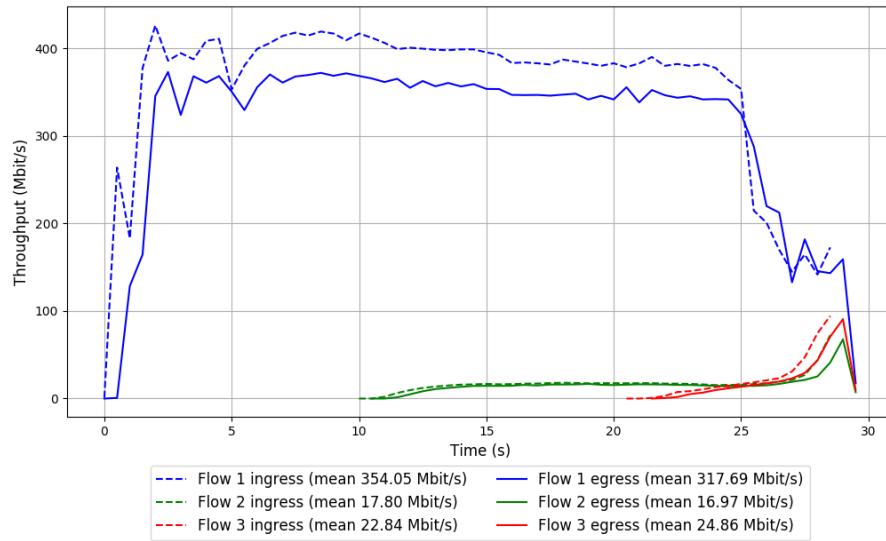


Run 2: Statistics of Indigo-MusesT

```
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

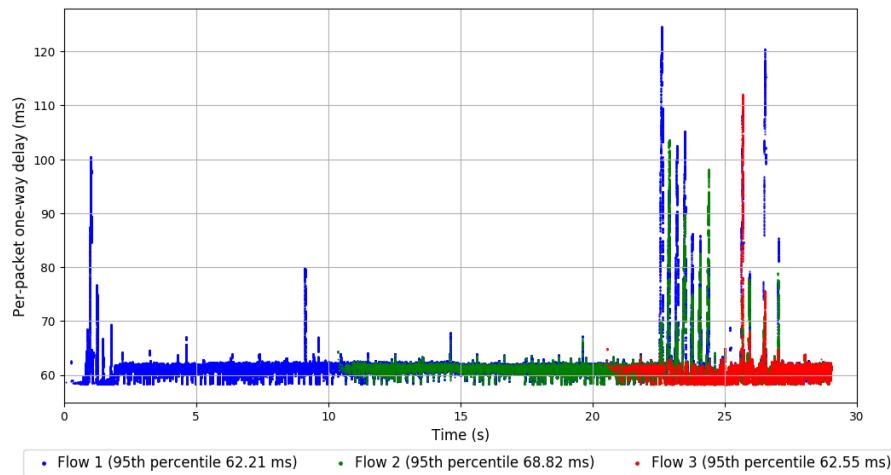
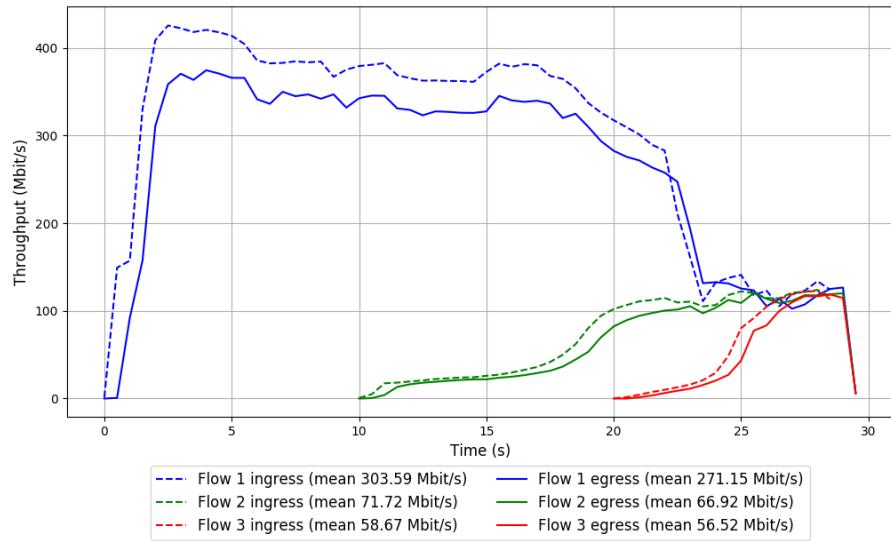


Run 3: Statistics of Indigo-MusesT

```
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

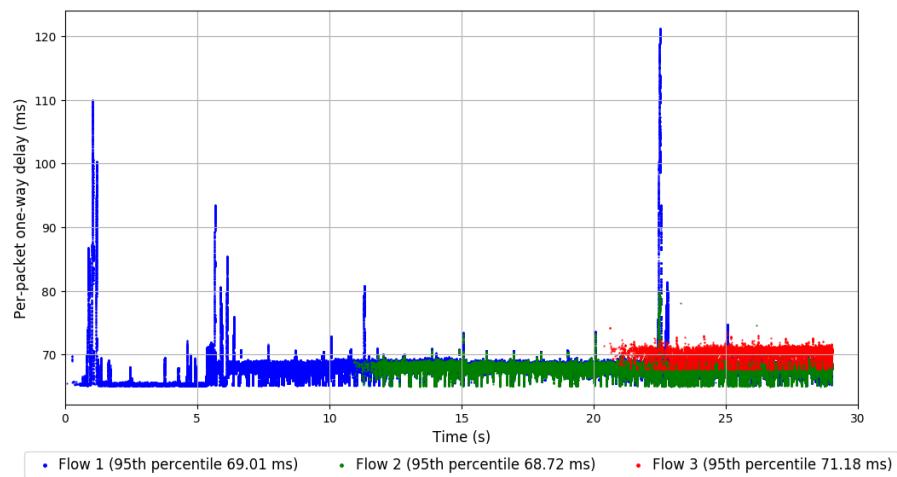
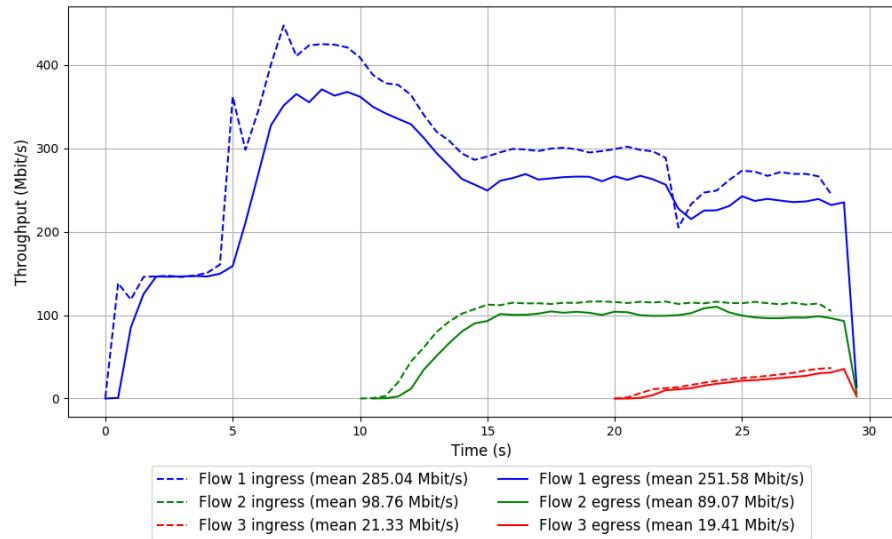


Run 4: Statistics of Indigo-MusesT

```
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

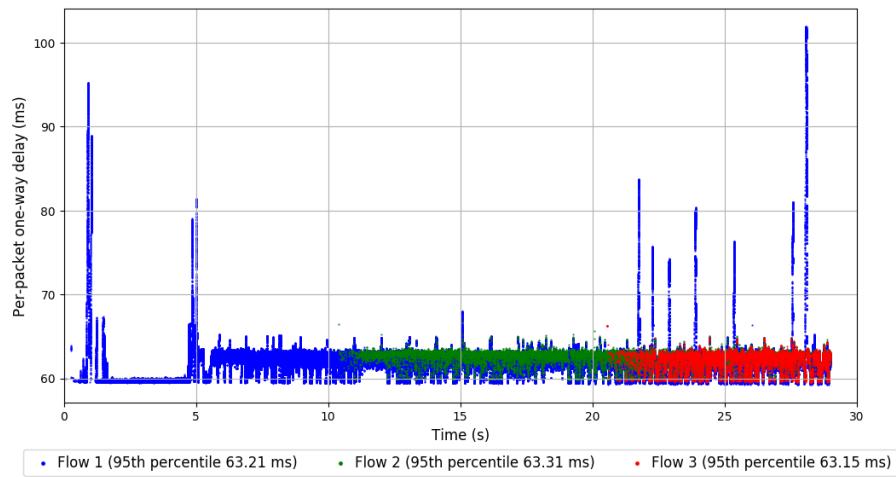
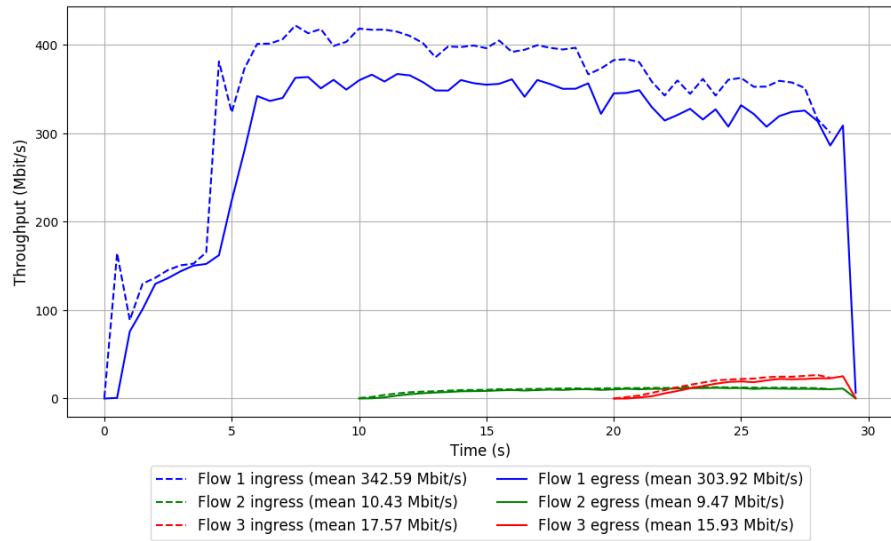


Run 5: Statistics of Indigo-MusesT

```
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

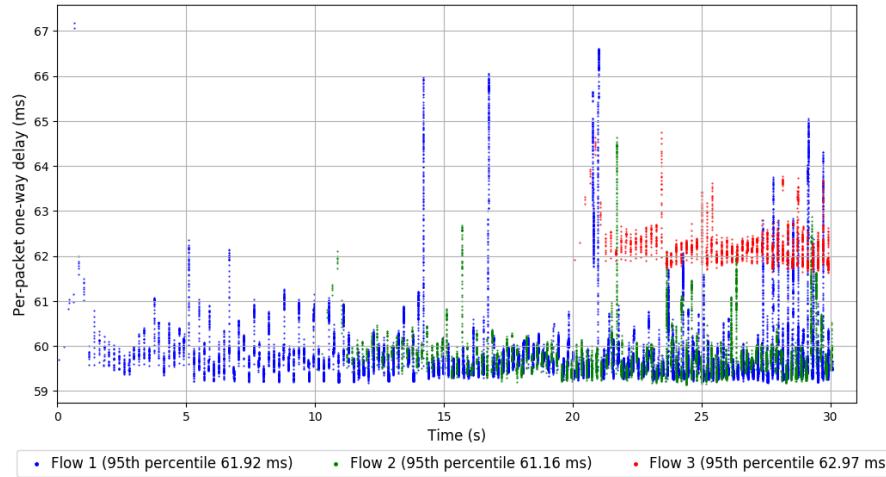
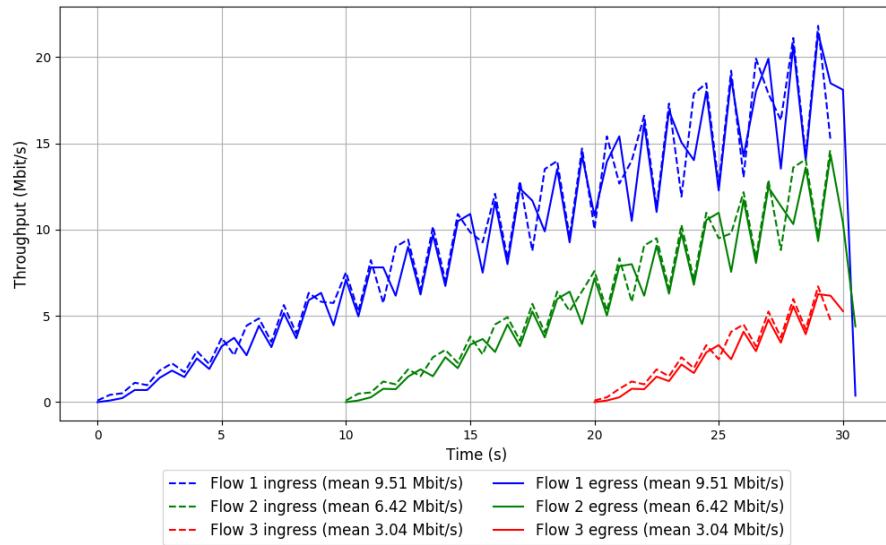


Run 1: Statistics of LEDBAT

```
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

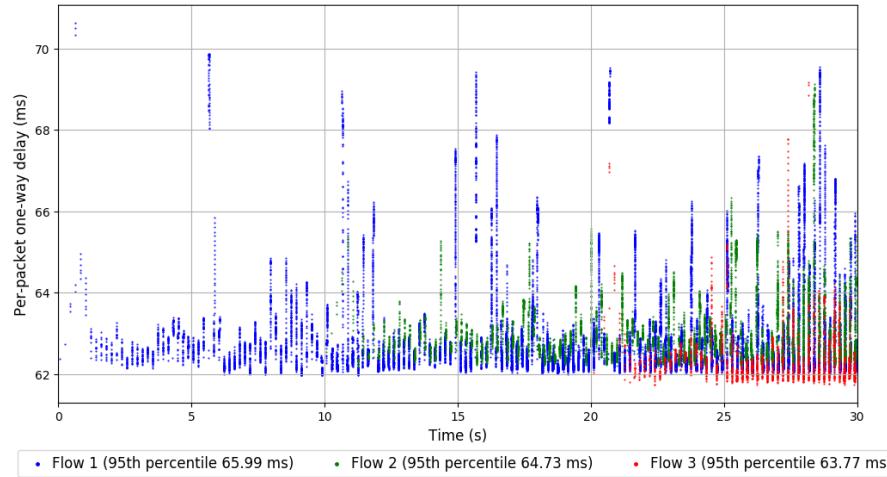
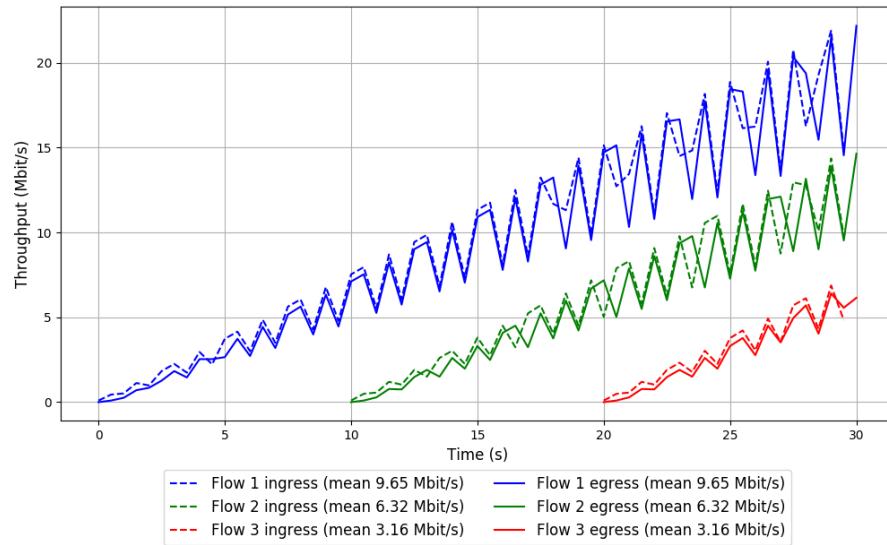


Run 2: Statistics of LEDBAT

```
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

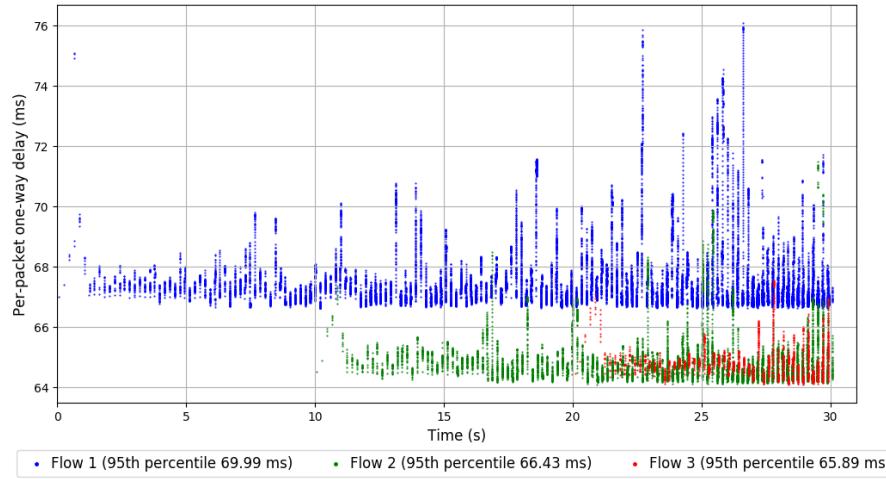
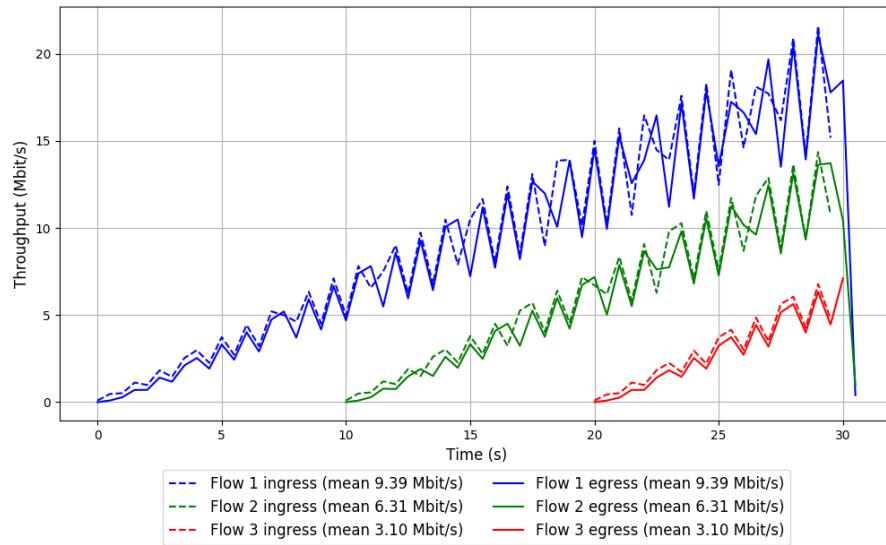


Run 3: Statistics of LEDBAT

```
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

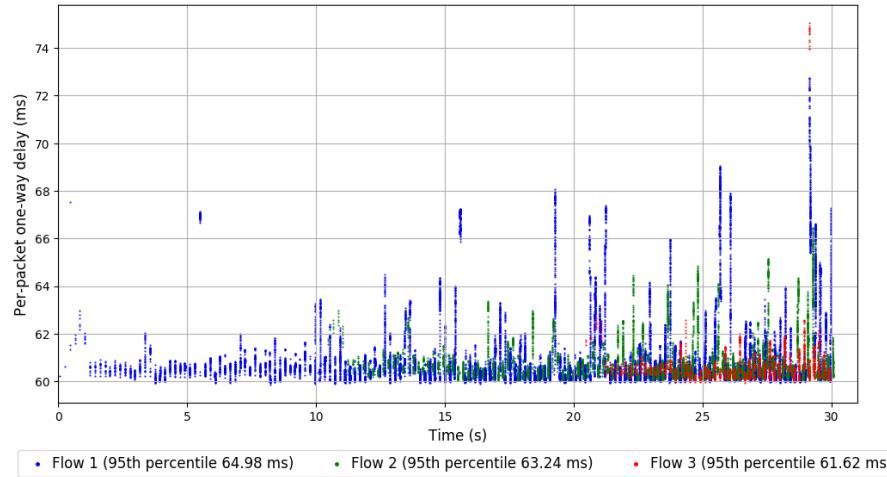
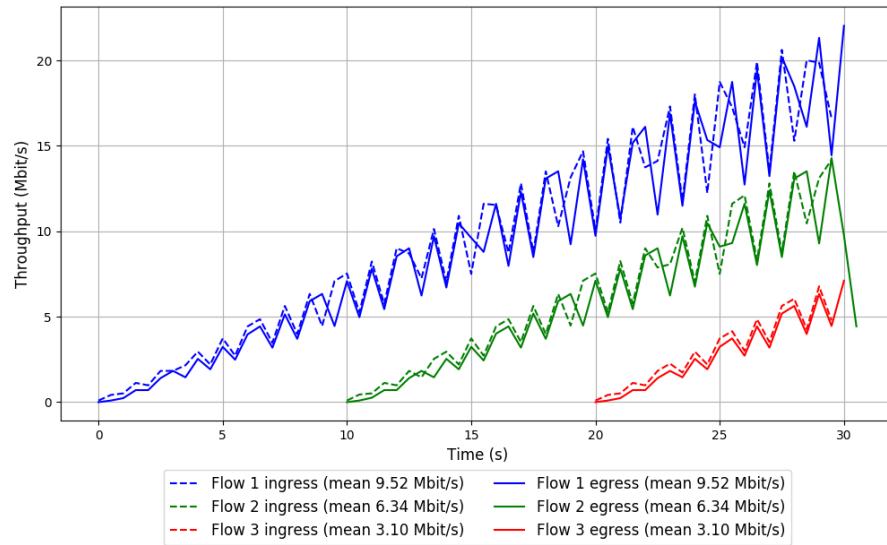


Run 4: Statistics of LEDBAT

```
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

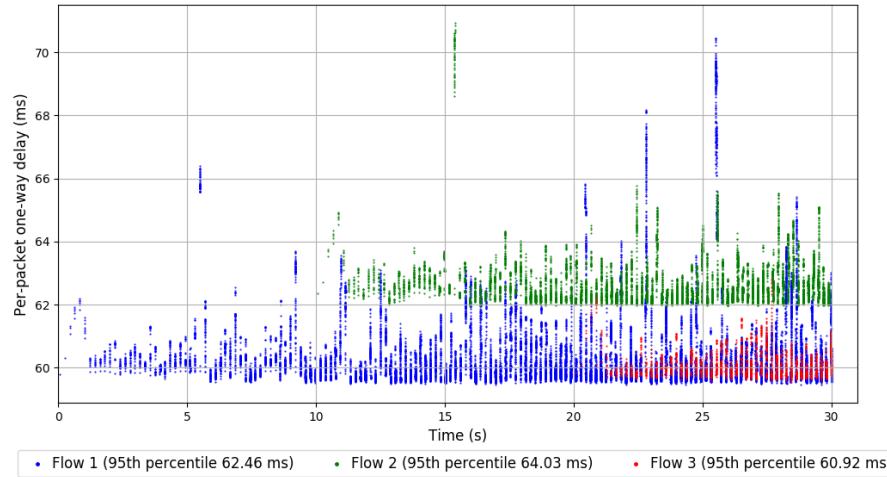
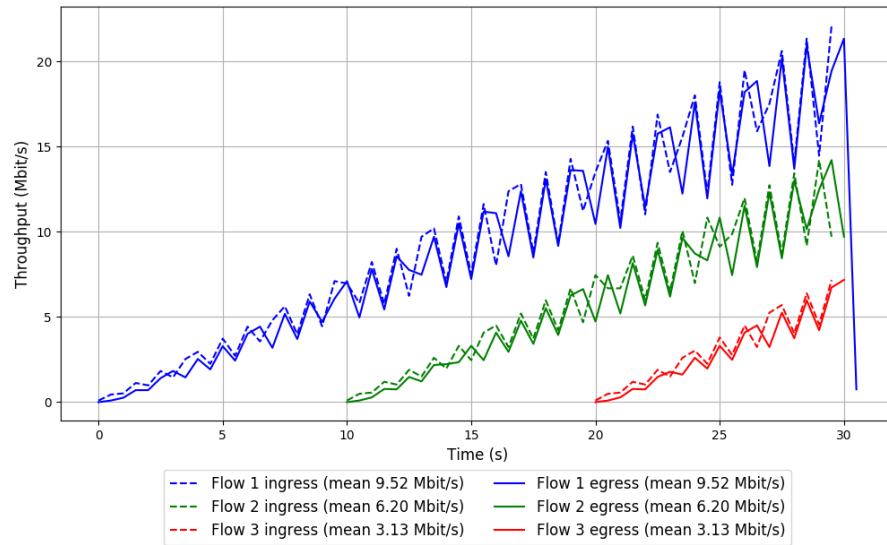


Run 5: Statistics of LEDBAT

```
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

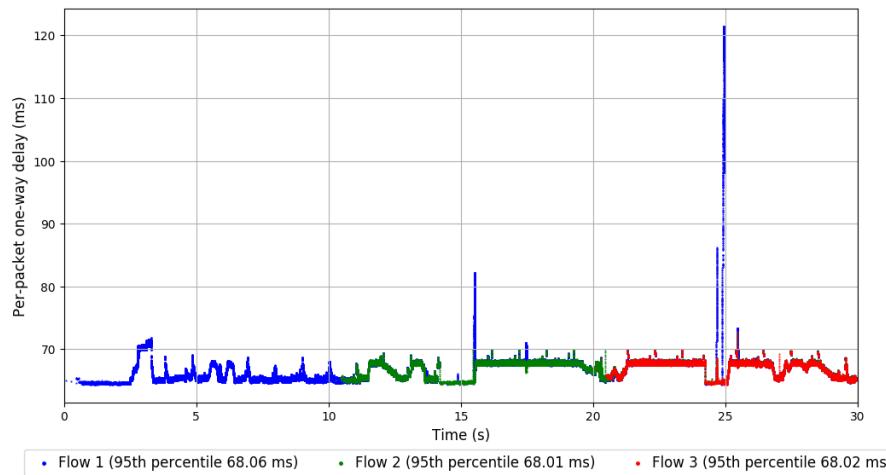
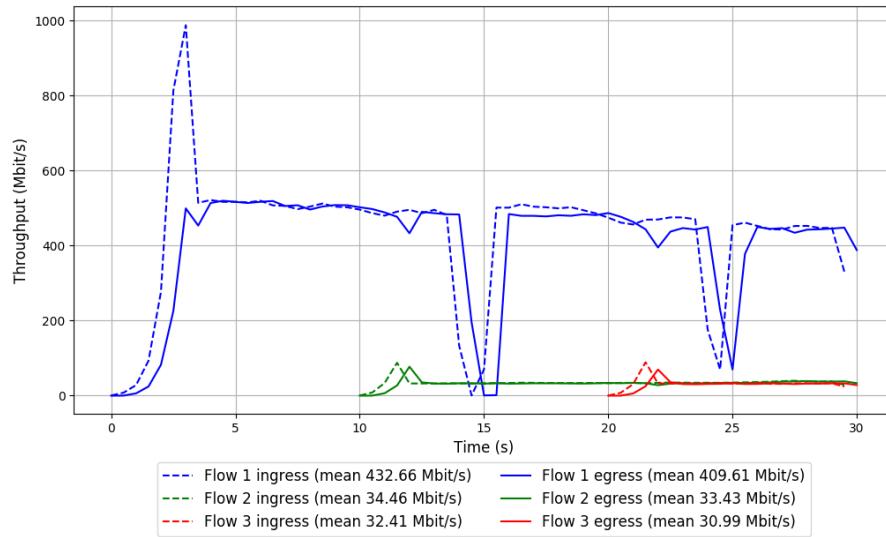


Run 1: Statistics of PCC-Allegro

```
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

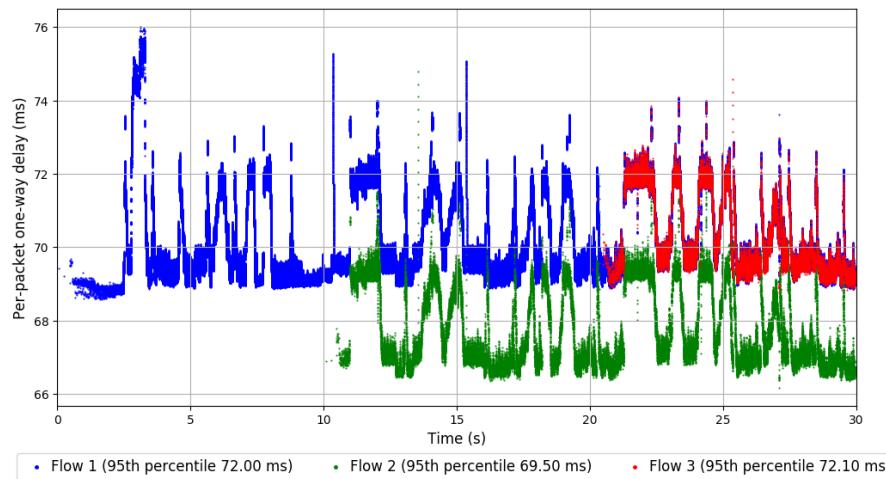
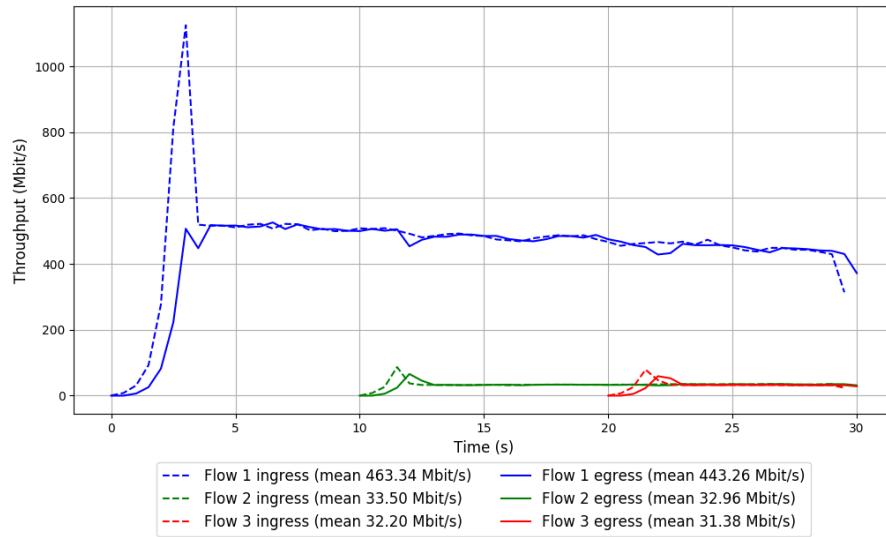


Run 2: Statistics of PCC-Allegro

```
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

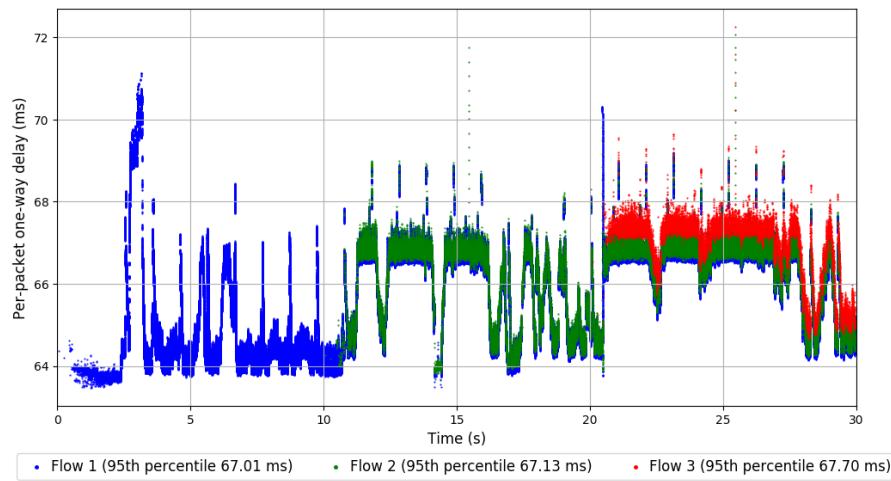
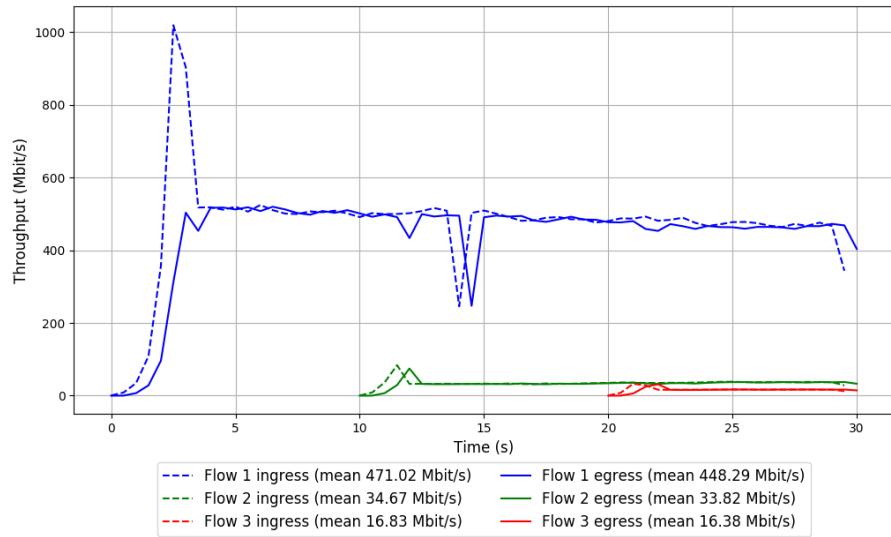


Run 3: Statistics of PCC-Allegro

```
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

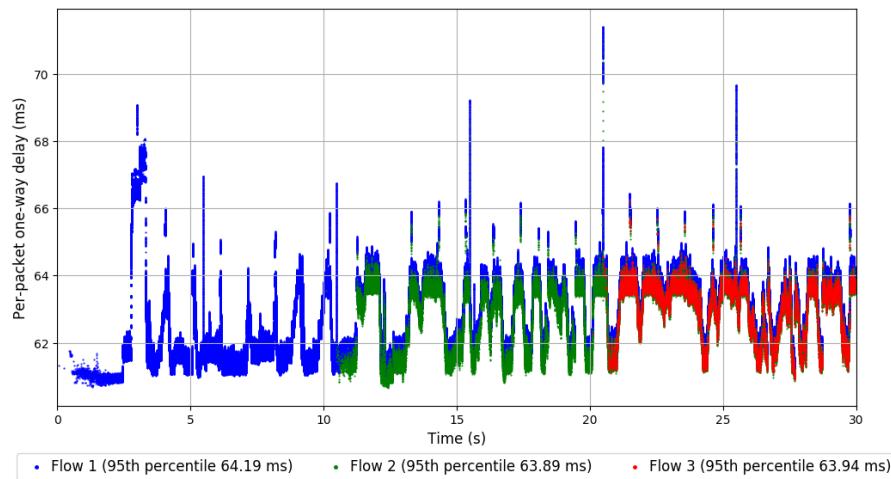
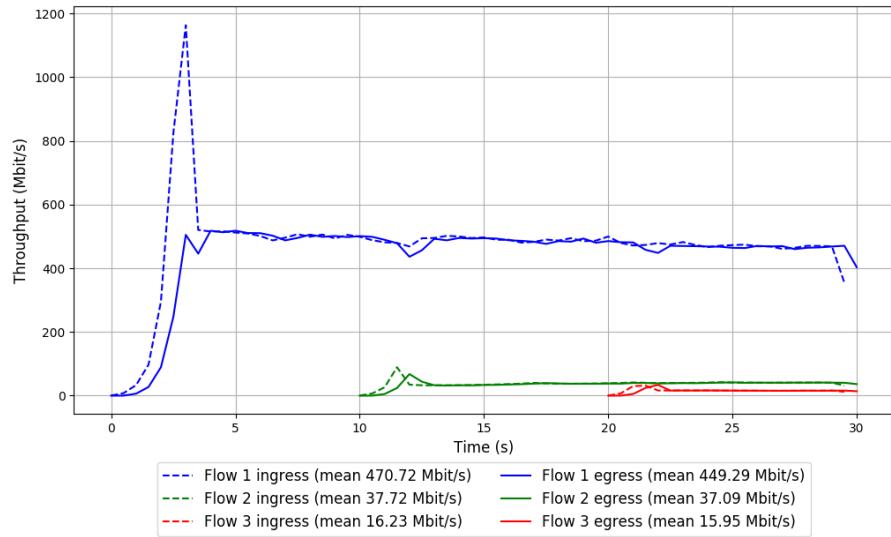


Run 4: Statistics of PCC-Allegro

```
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

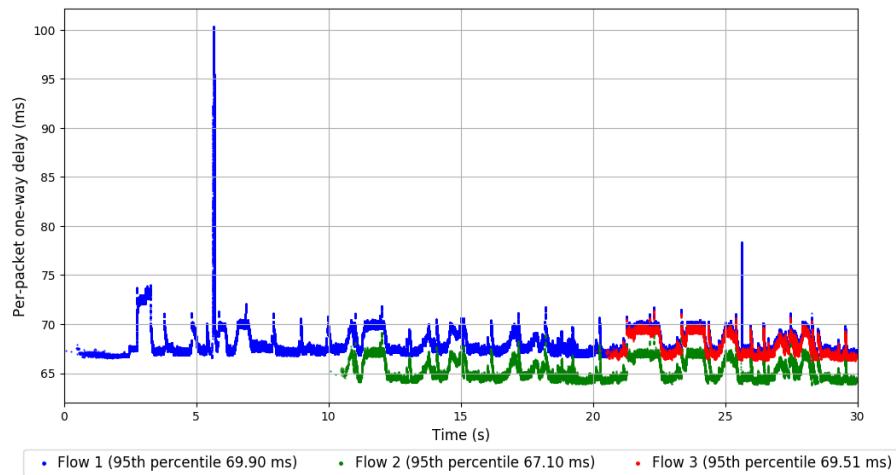
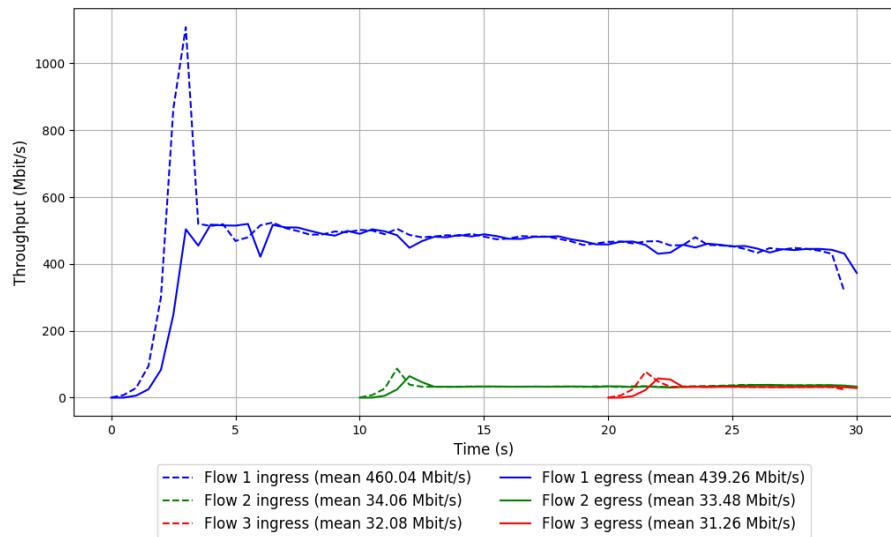


Run 5: Statistics of PCC-Allegro

```
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

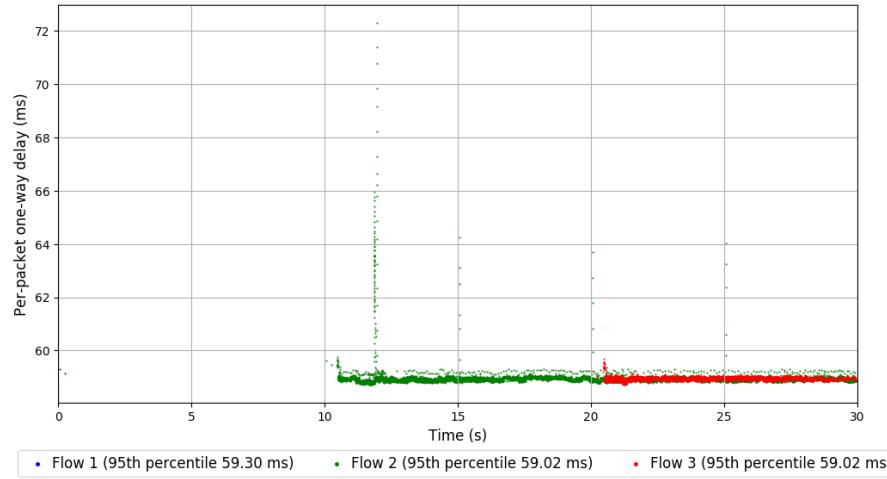
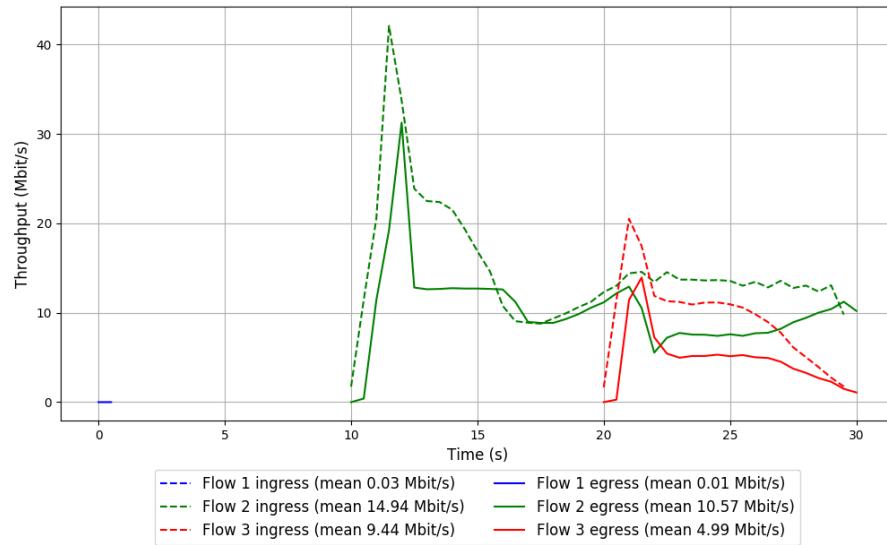


```
Run 1: Statistics of PCC-Expr
```

```
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

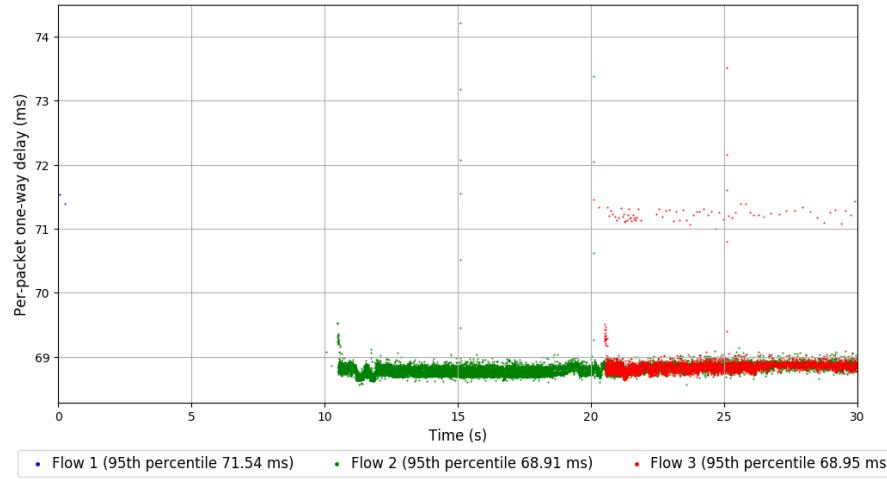
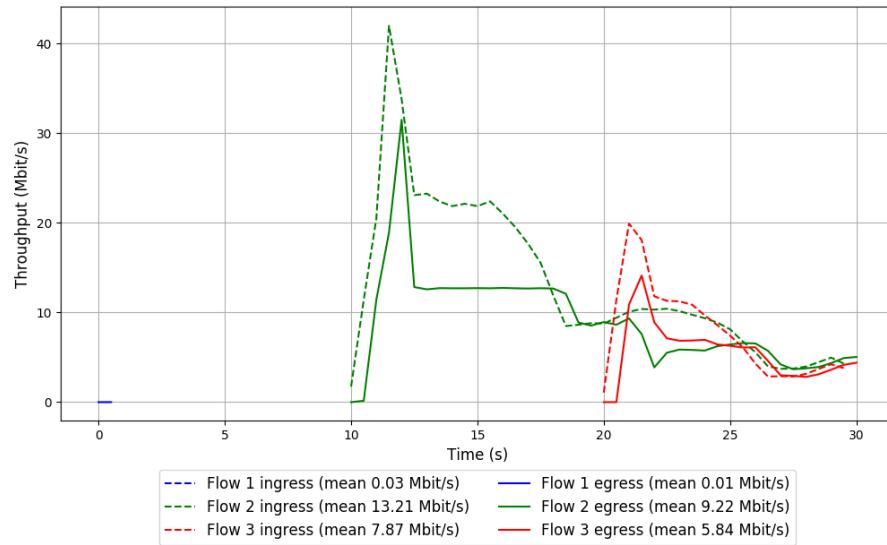


Run 2: Statistics of PCC-Expr

```
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

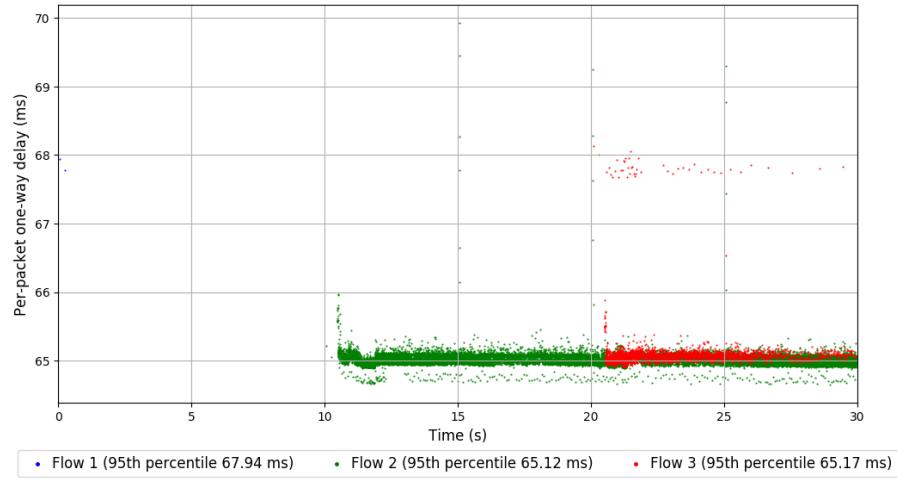
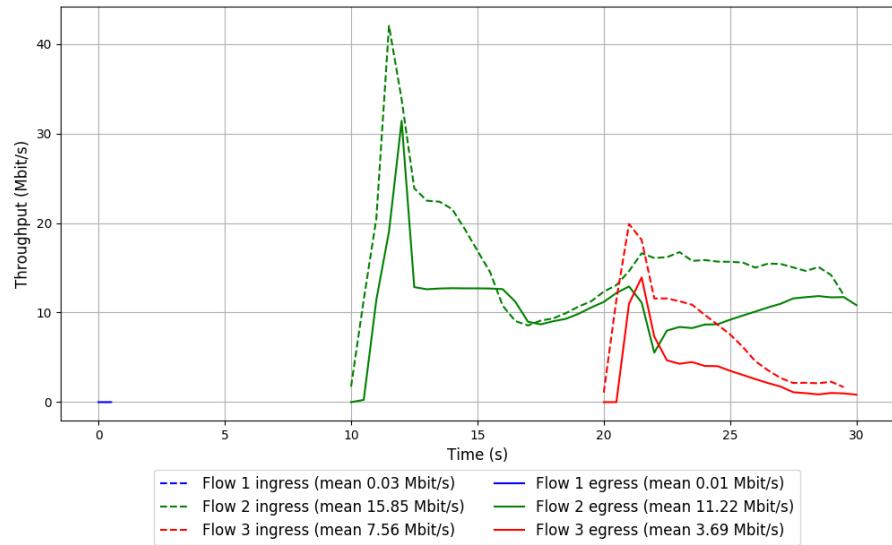


Run 3: Statistics of PCC-Expr

```
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

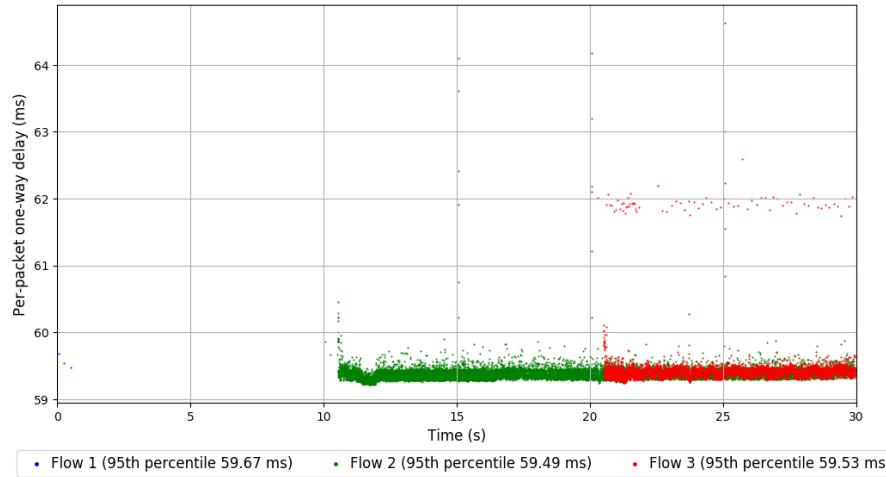
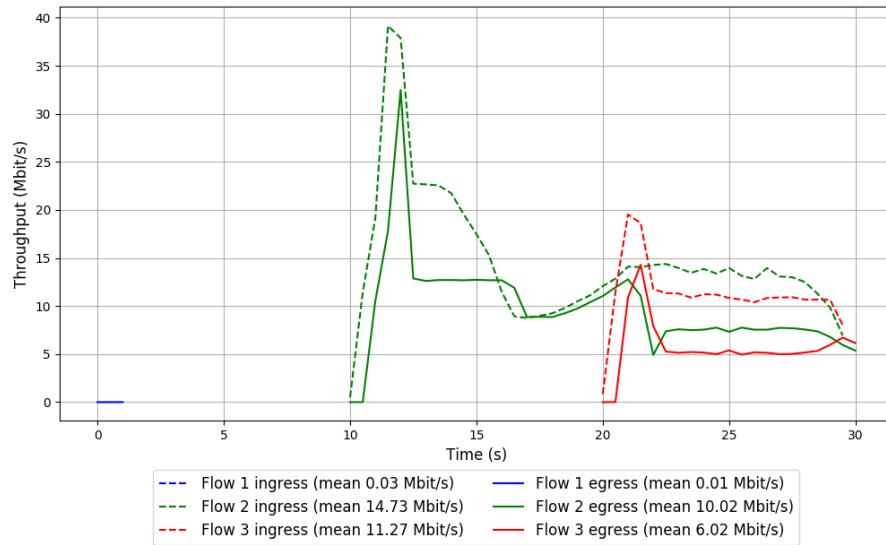


Run 4: Statistics of PCC-Expr

```
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

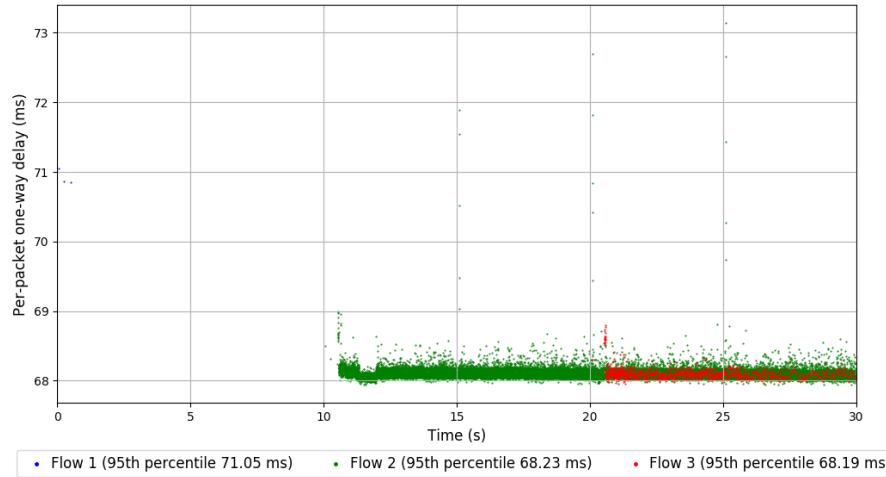
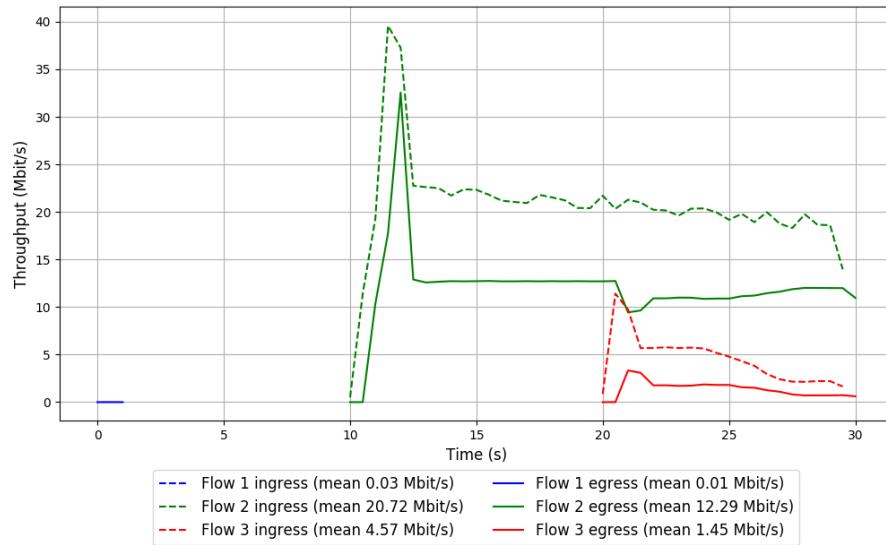


Run 5: Statistics of PCC-Expr

```
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

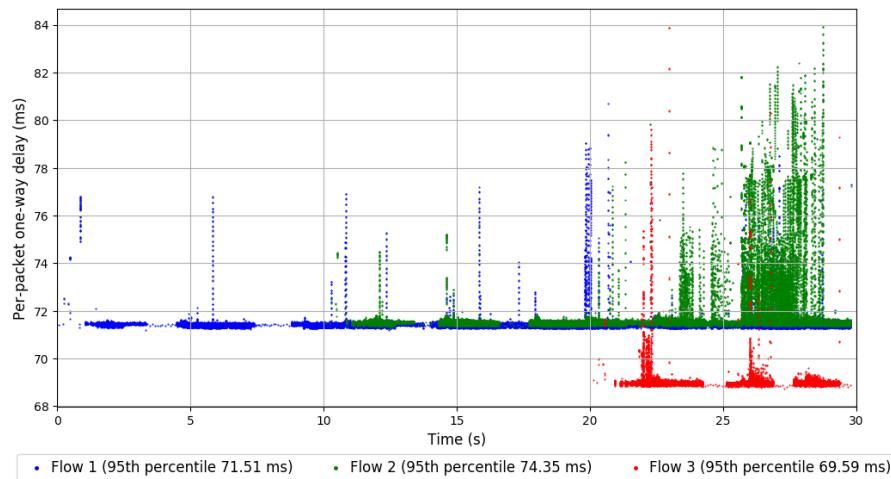
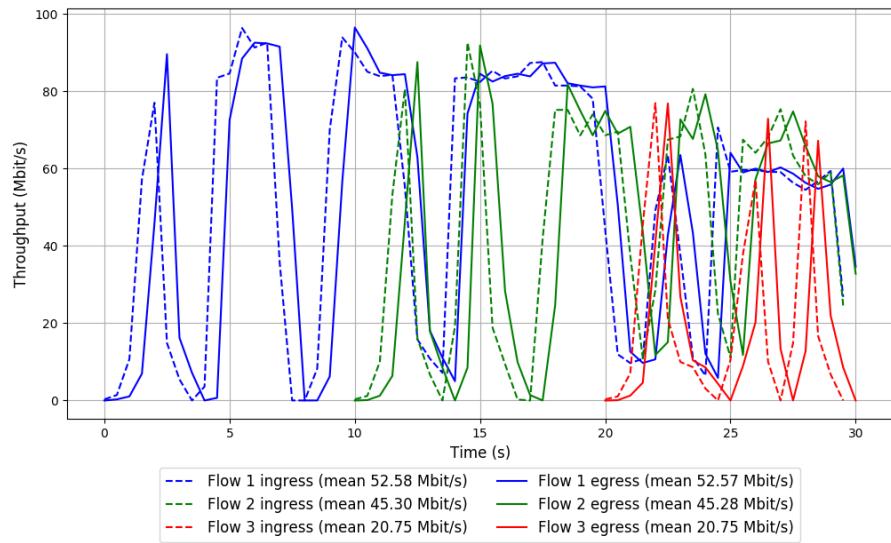


```
Run 1: Statistics of QUIC Cubic

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

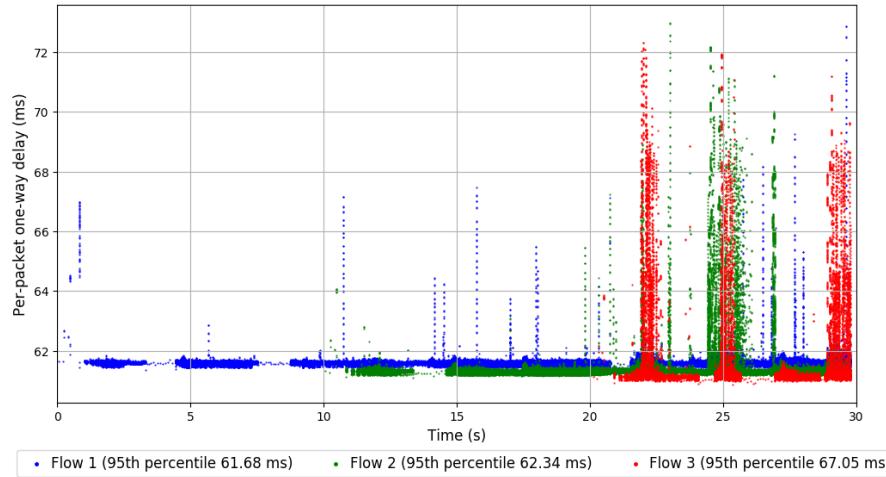
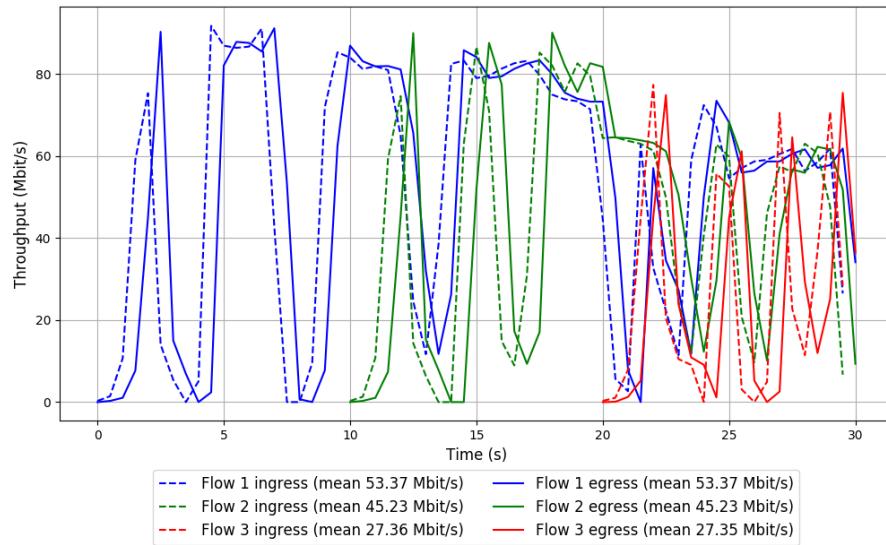


Run 2: Statistics of QUIC Cubic

```
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

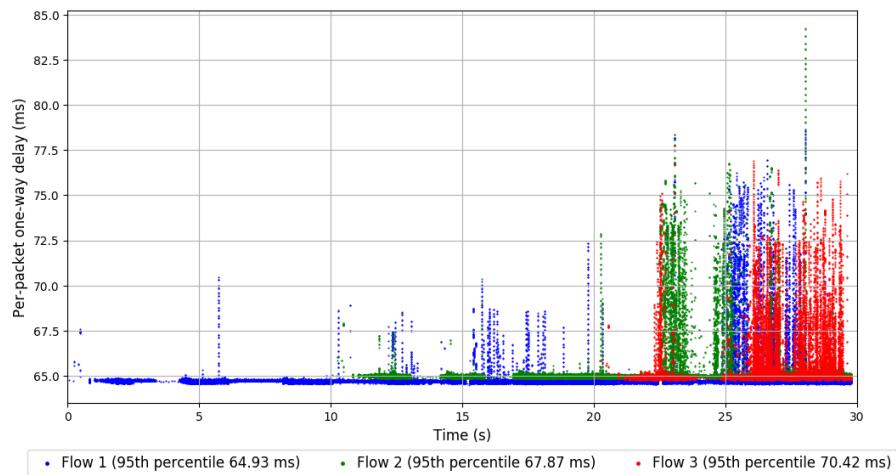
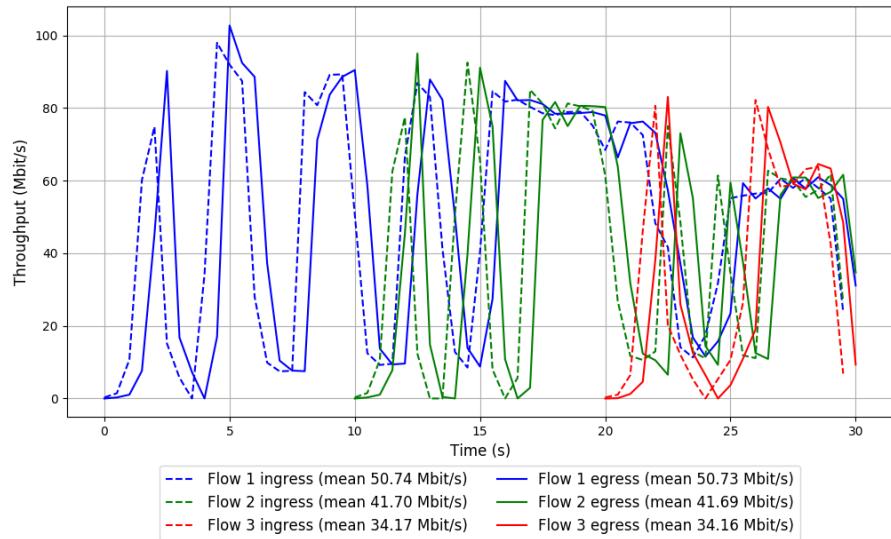


Run 3: Statistics of QUIC Cubic

```
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

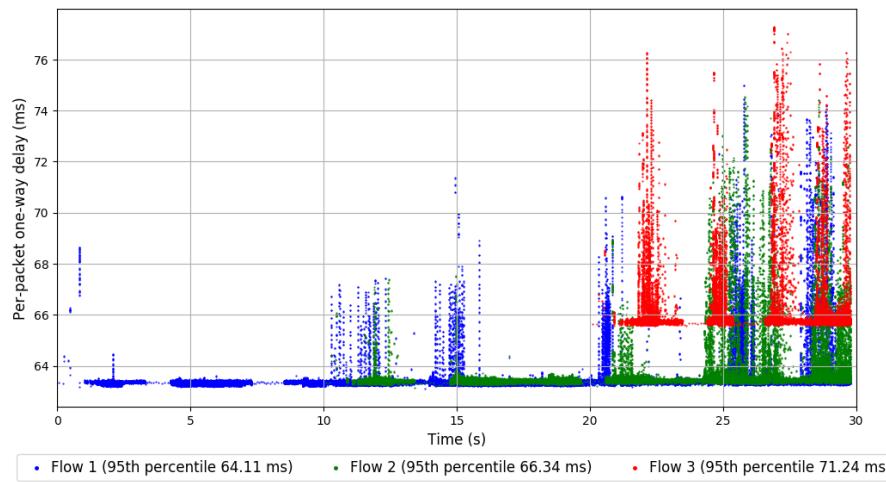
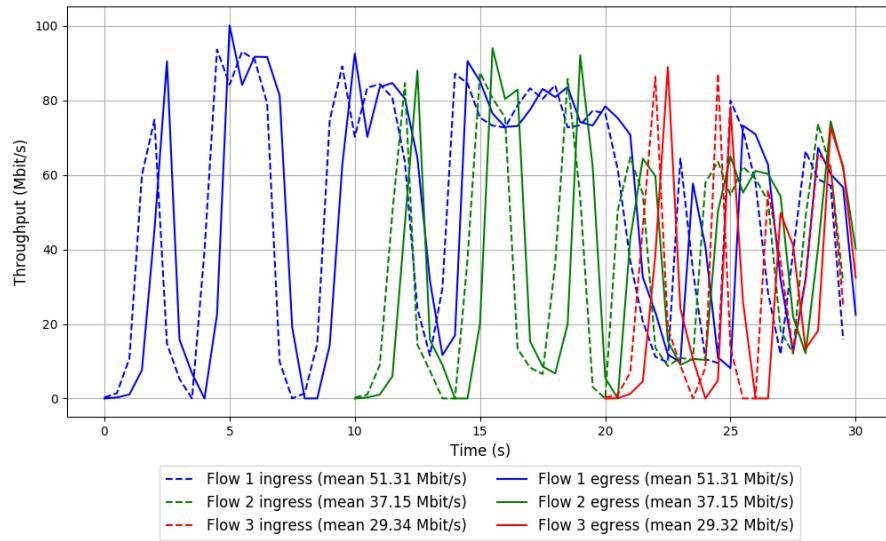


Run 4: Statistics of QUIC Cubic

```
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

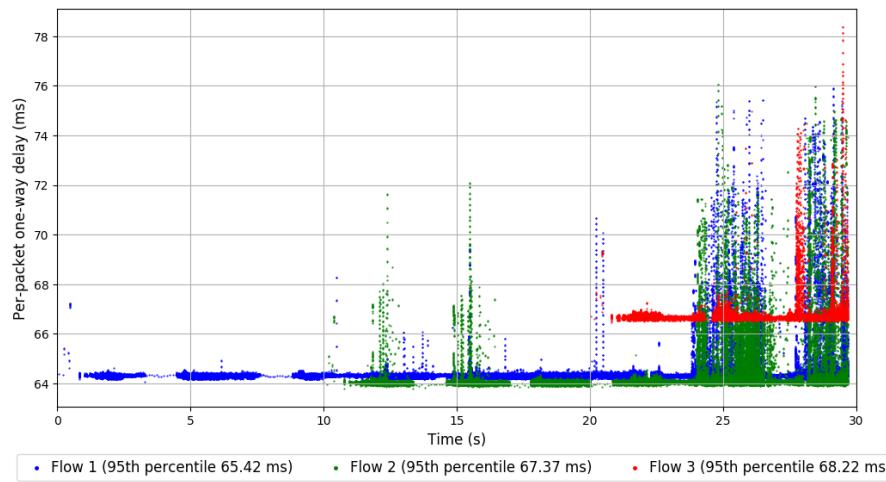
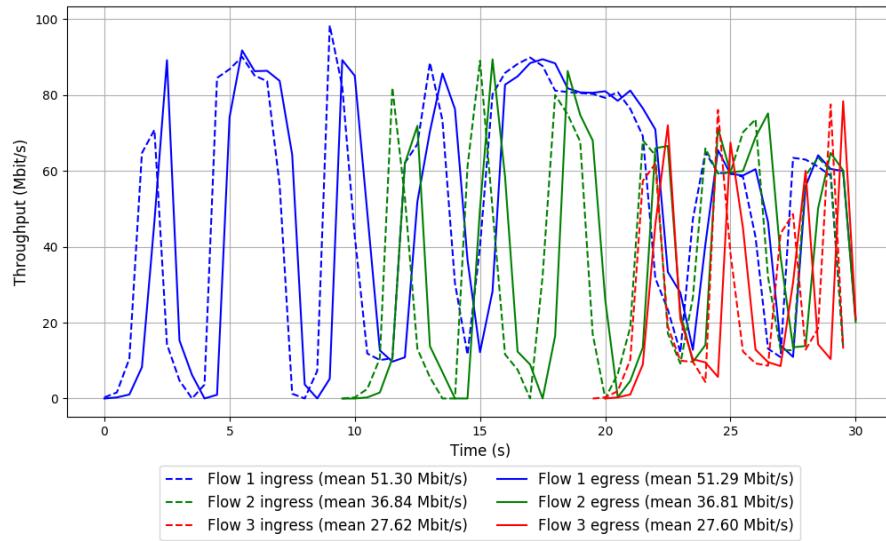


Run 5: Statistics of QUIC Cubic

```
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

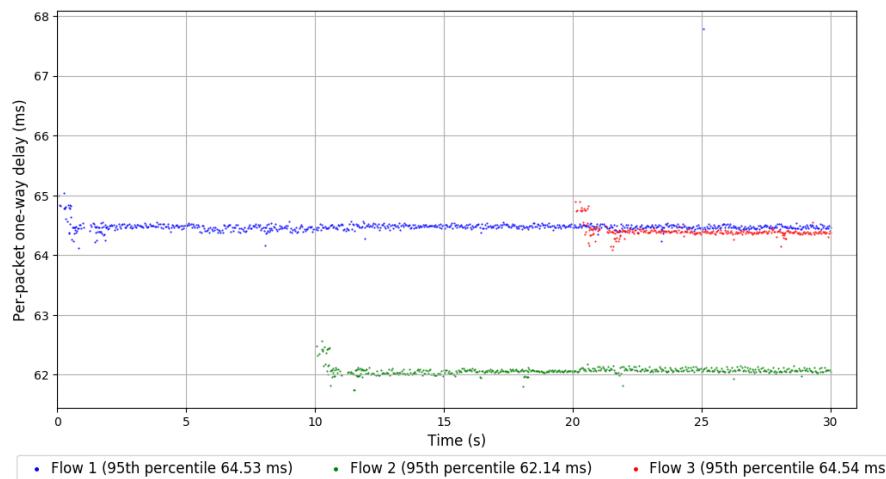
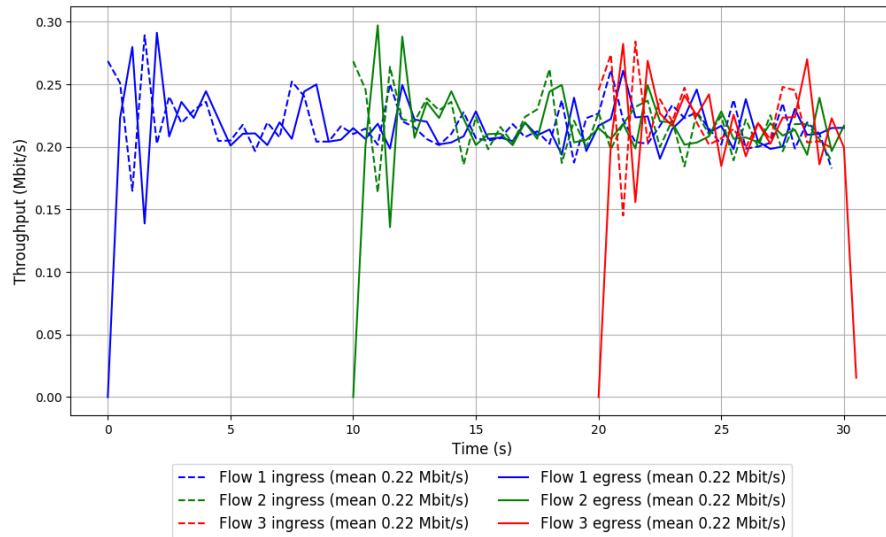


```
Run 1: Statistics of SCReAM
```

```
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 SCReAM — Data Link

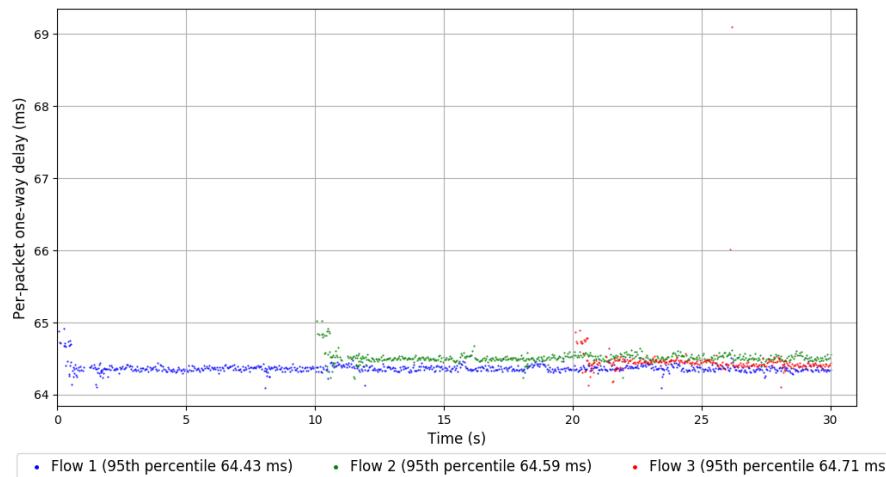
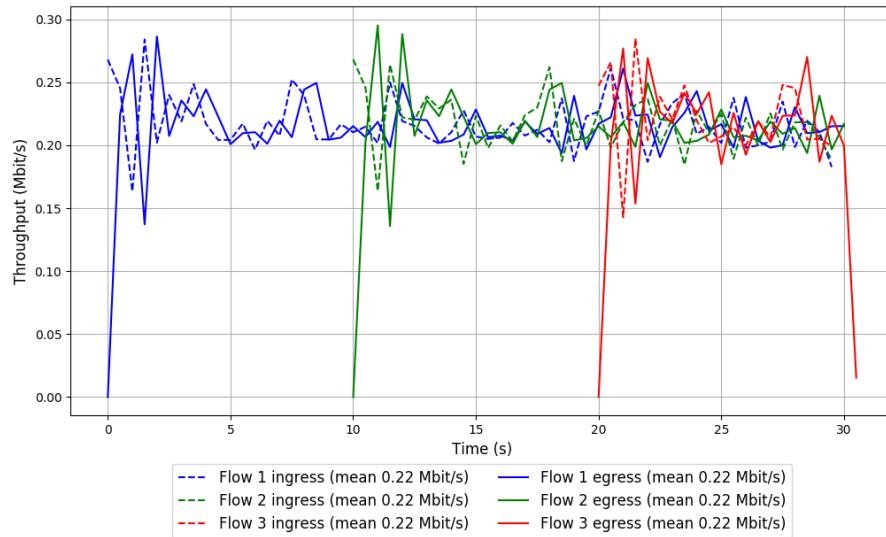


Run 2: Statistics of SCReAM

```
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 SCReAM — Data Link

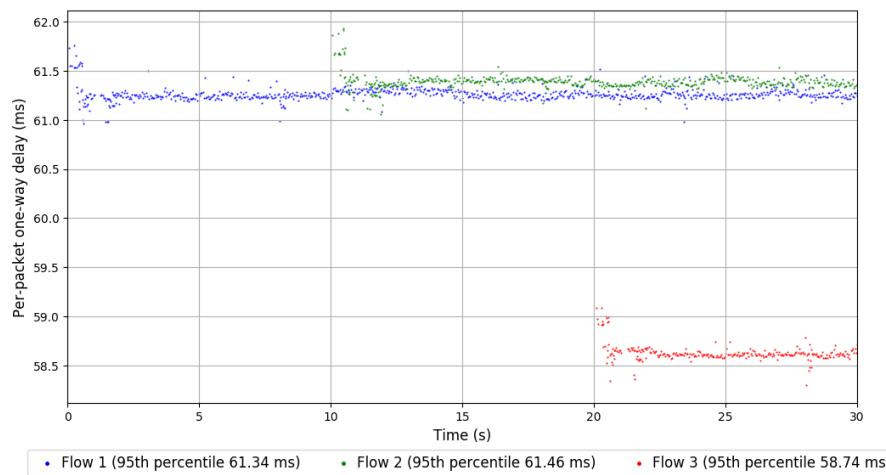
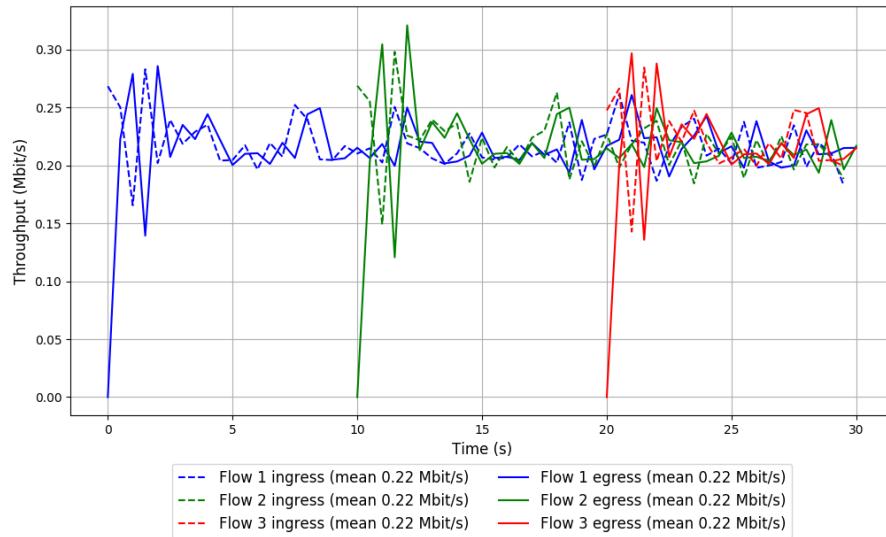


Run 3: Statistics of SCReAM

```
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 SCReAM — Data Link

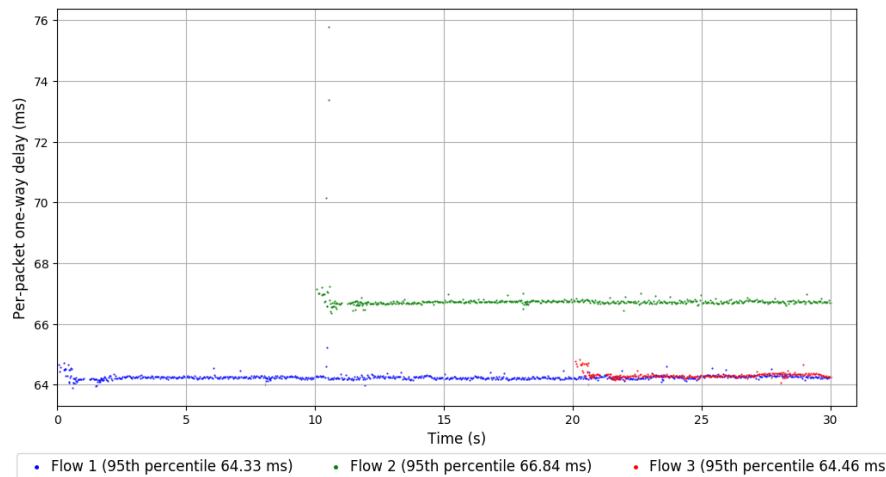
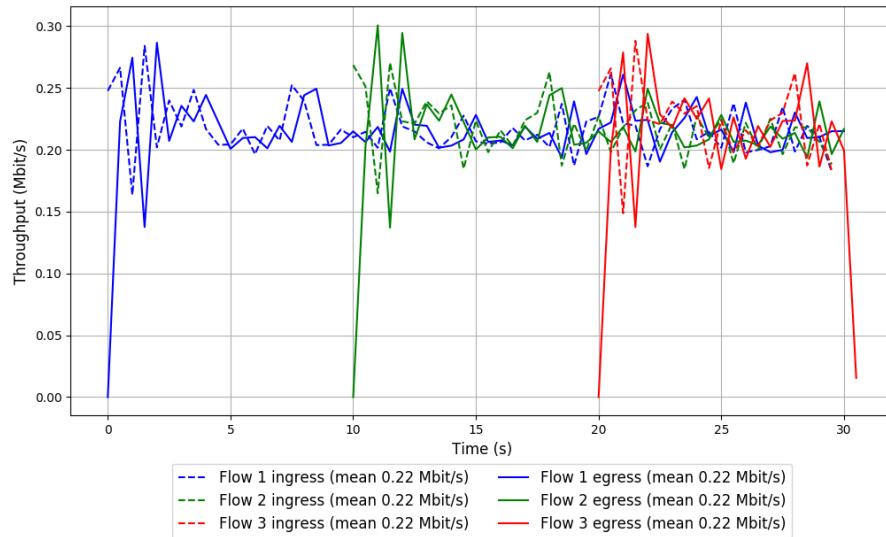


Run 4: Statistics of SCReAM

```
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 SCReAM — Data Link

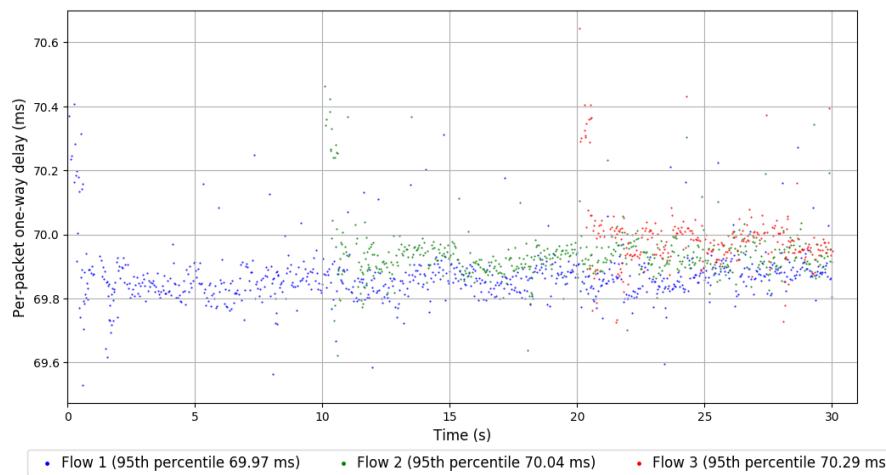
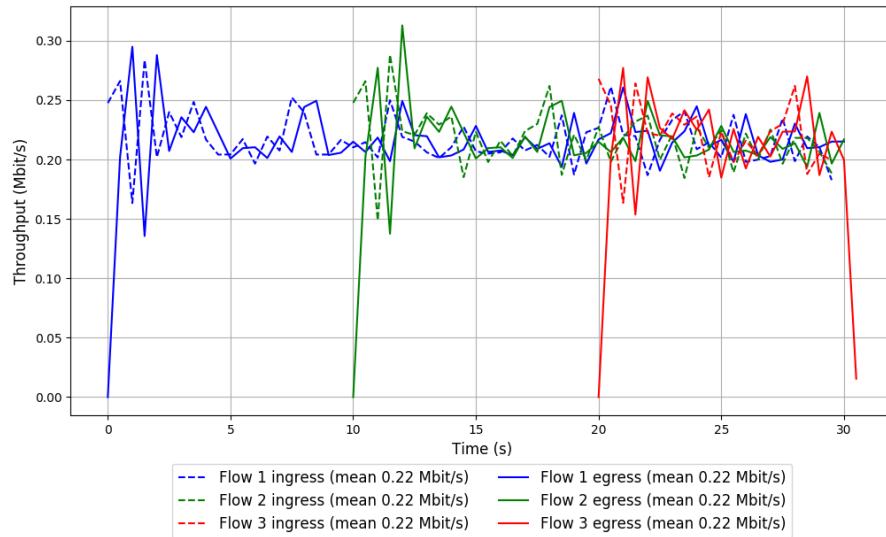


Run 5: Statistics of SCReAM

```
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 SCReAM — Data Link

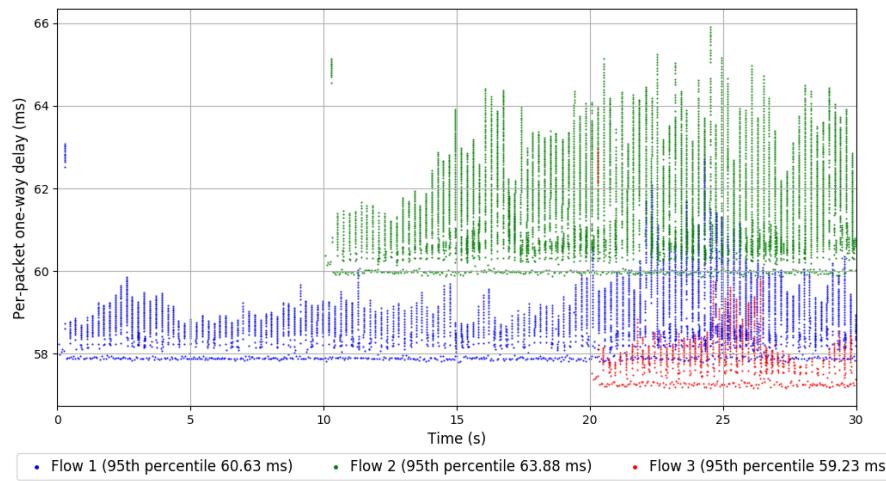
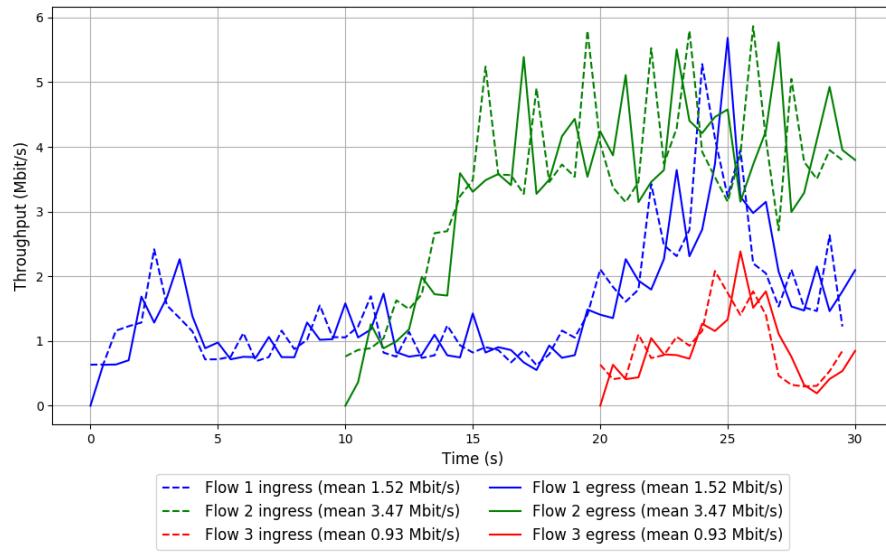


Run 1: Statistics of Sprout

```
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

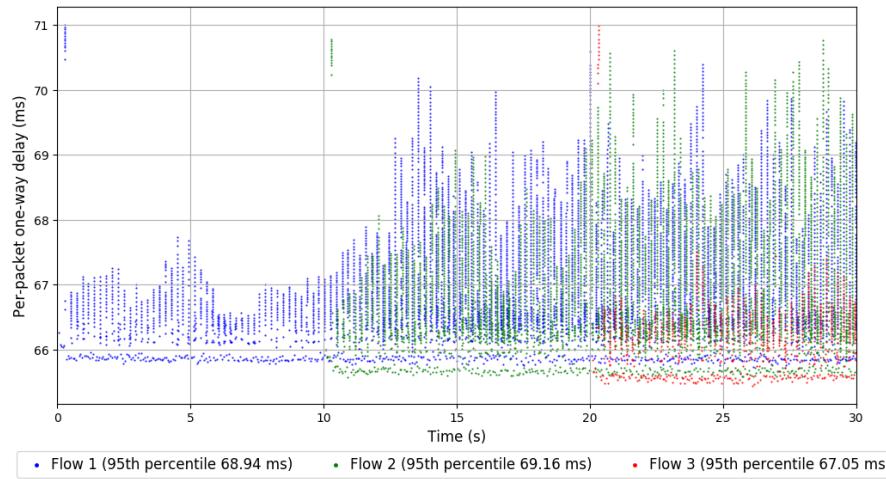
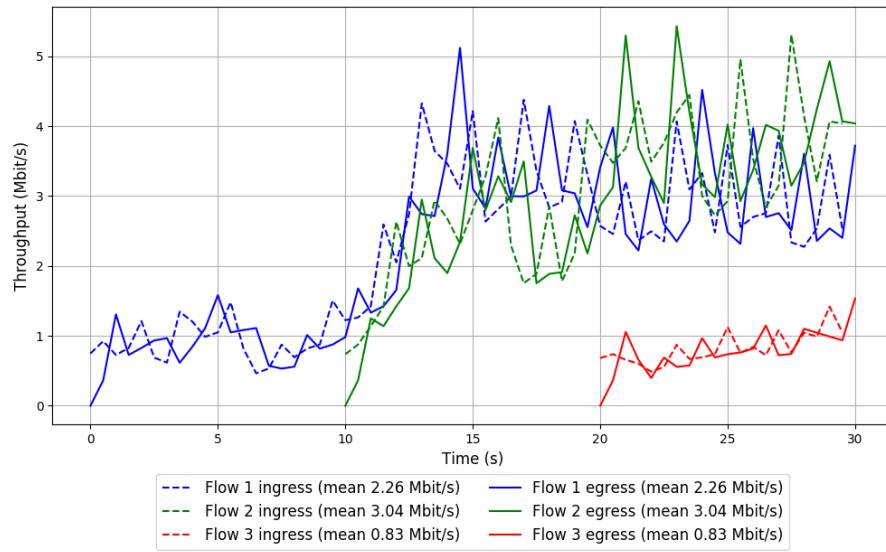


Run 2: Statistics of Sprout

```
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

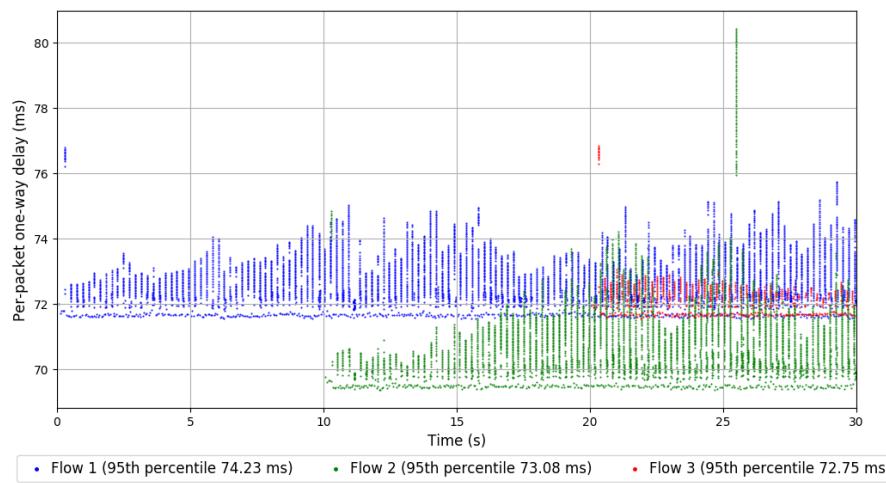
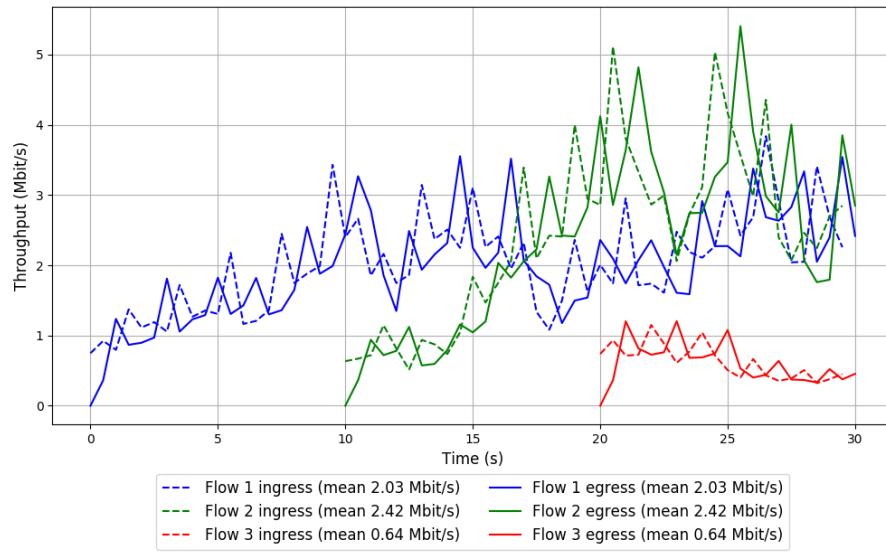


Run 3: Statistics of Sprout

```
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

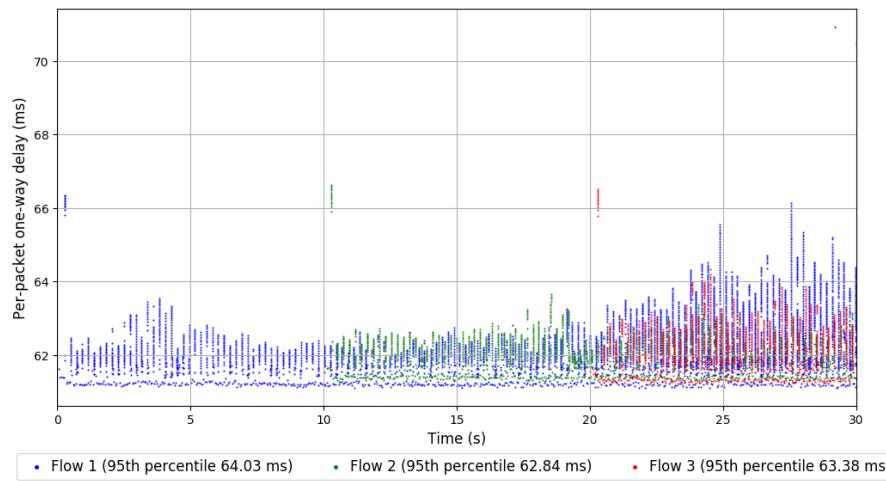
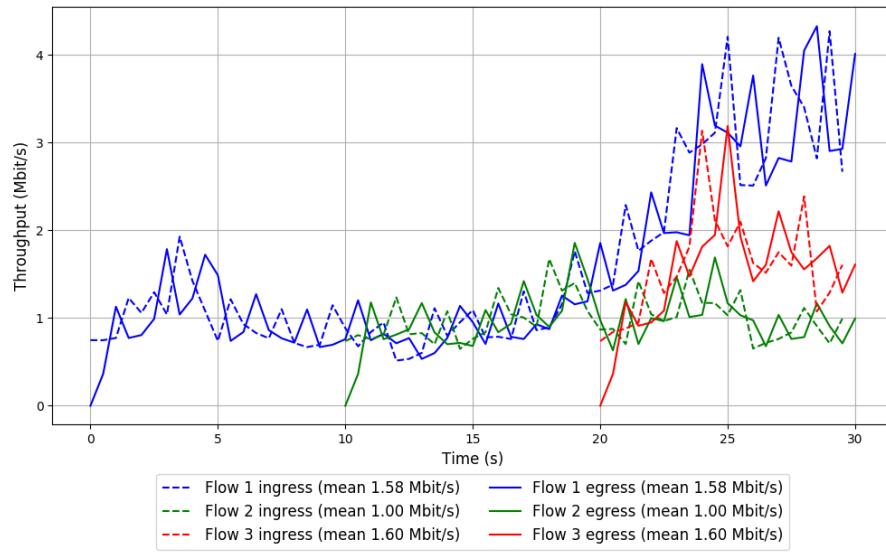


Run 4: Statistics of Sprout

```
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

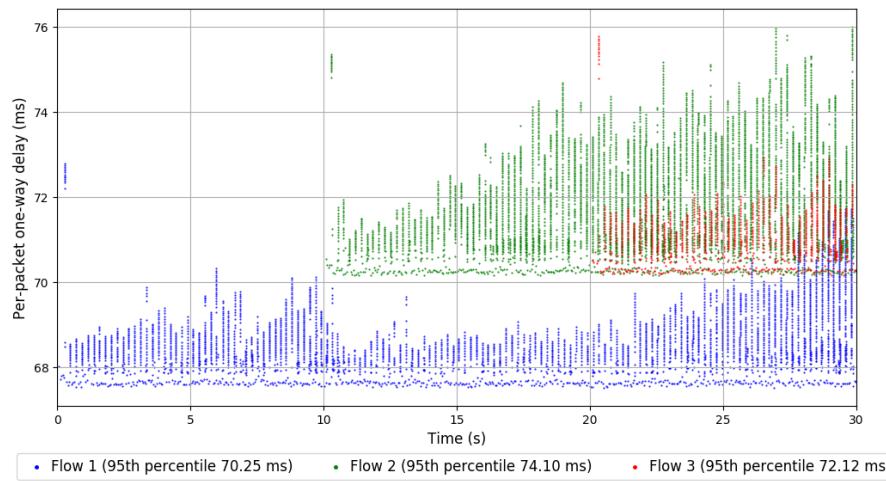
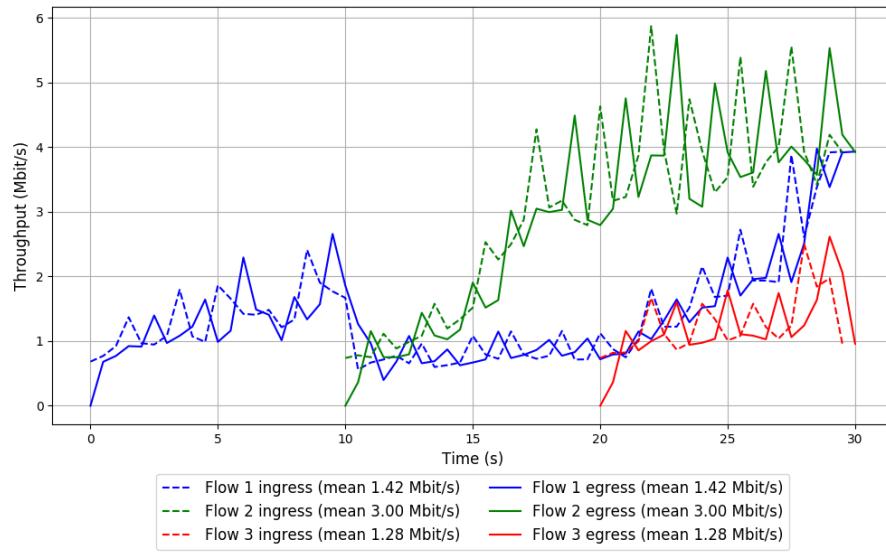


Run 5: Statistics of Sprout

```
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

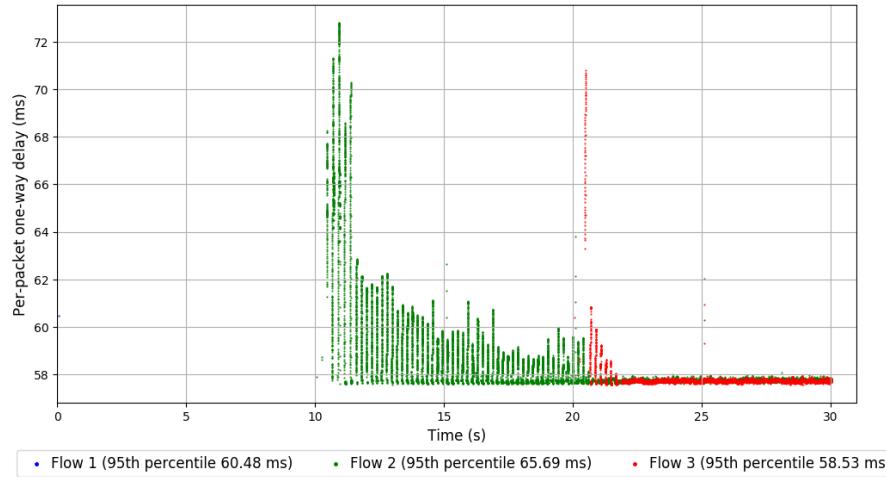
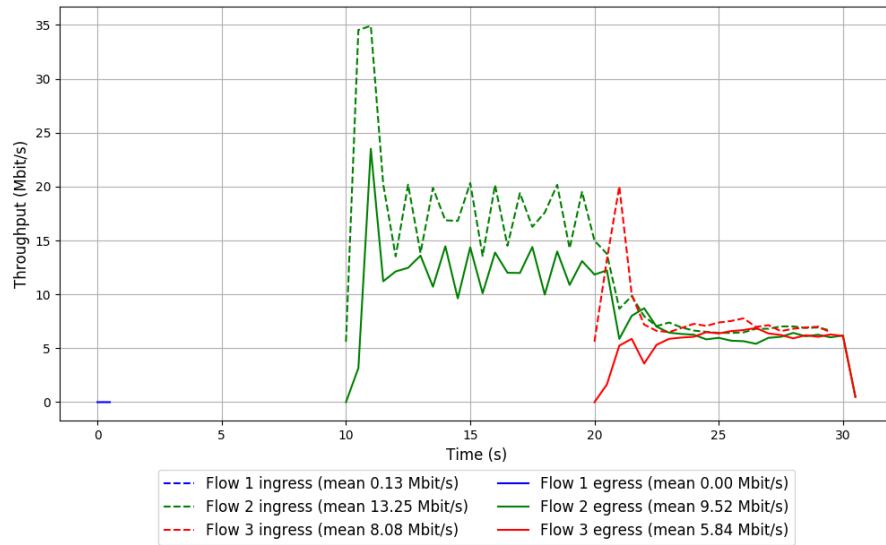


Run 1: Statistics of TaoVA-100x

```
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

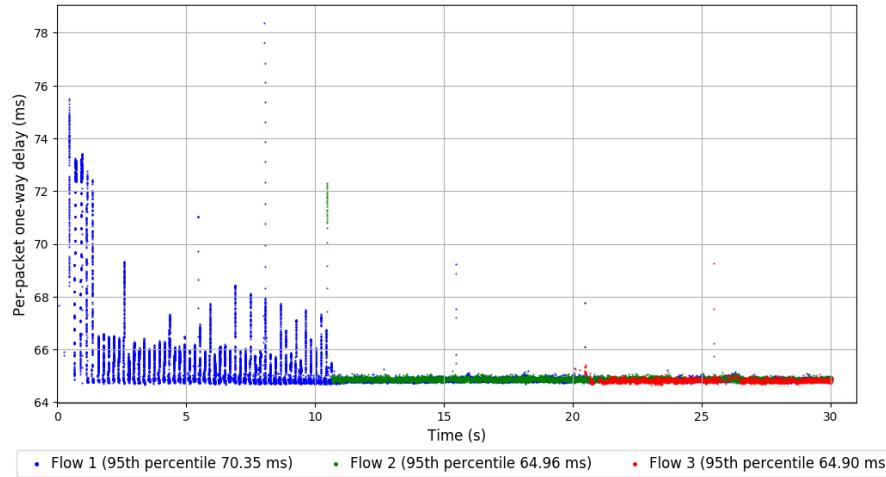
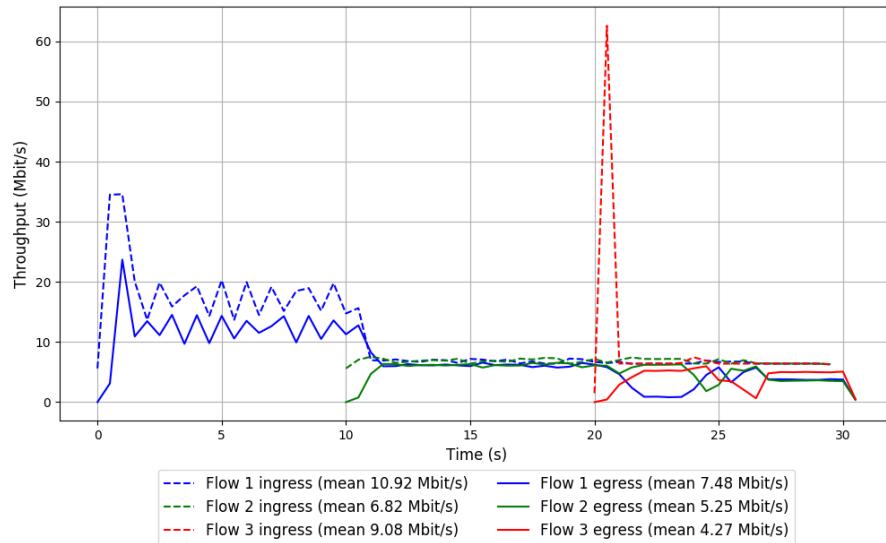


Run 2: Statistics of TaoVA-100x

```
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

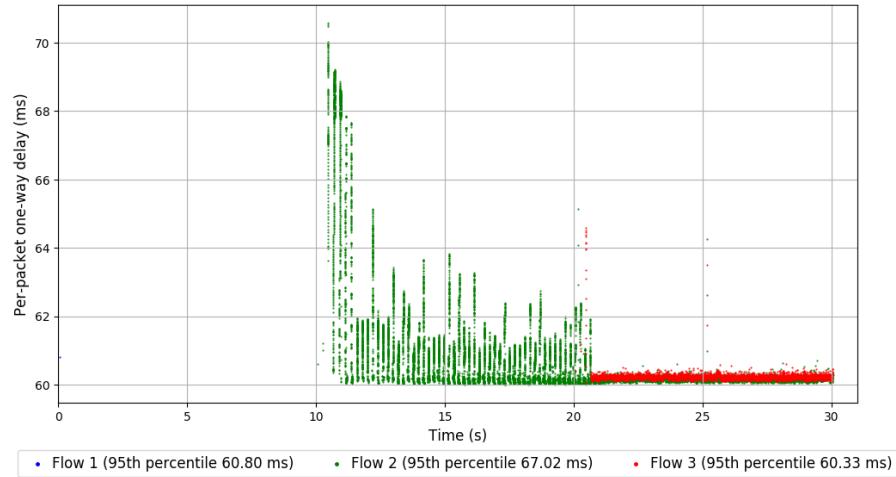
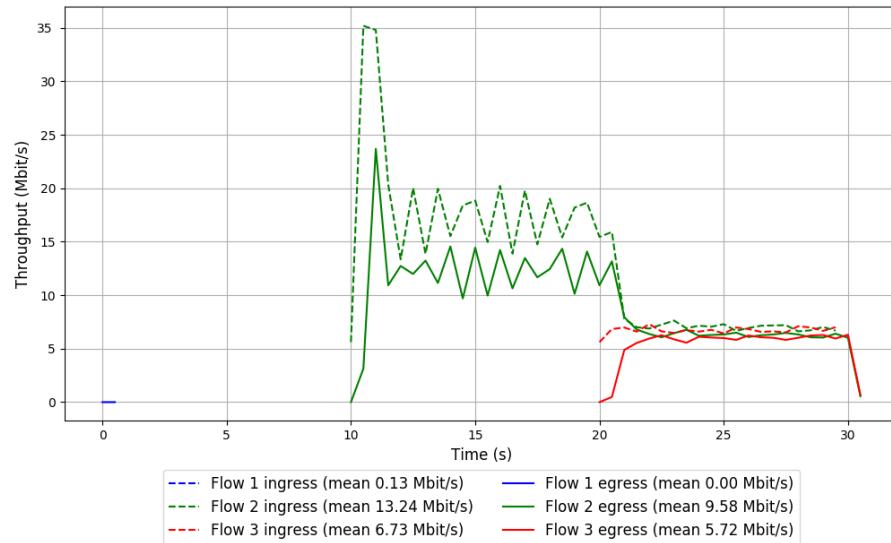


Run 3: Statistics of TaoVA-100x

```
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

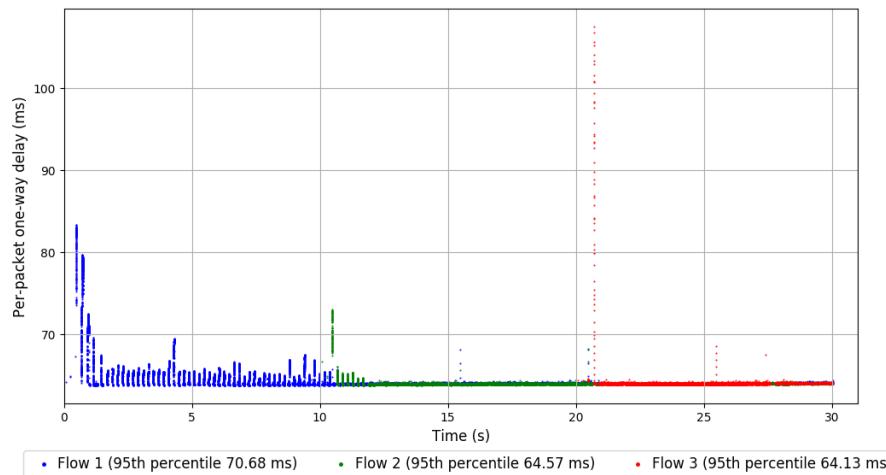
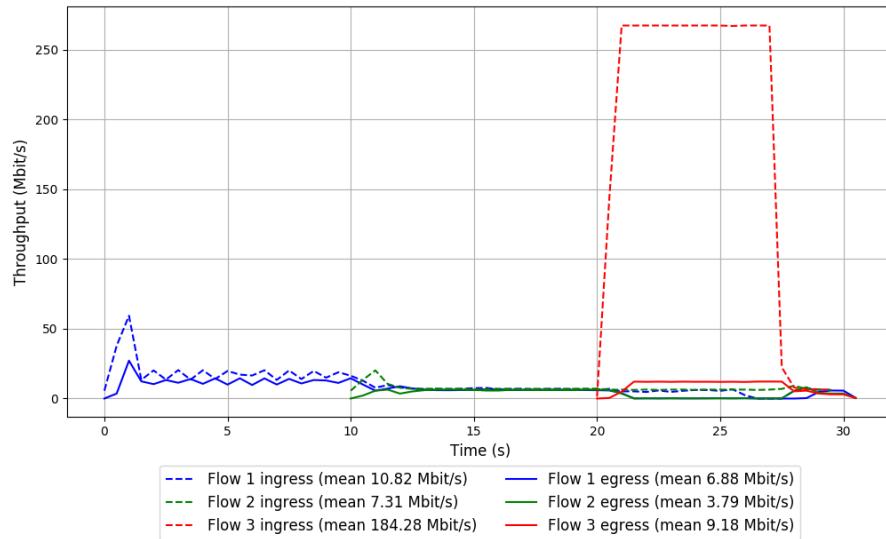


Run 4: Statistics of TaoVA-100x

```
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

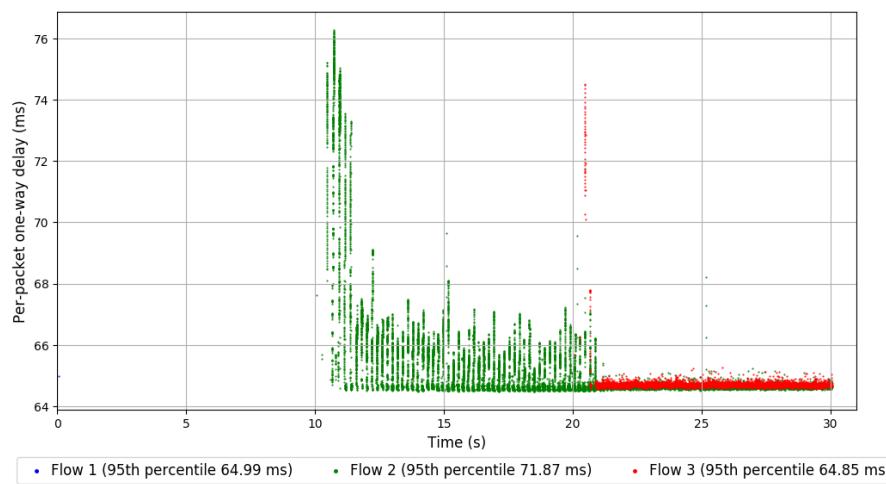
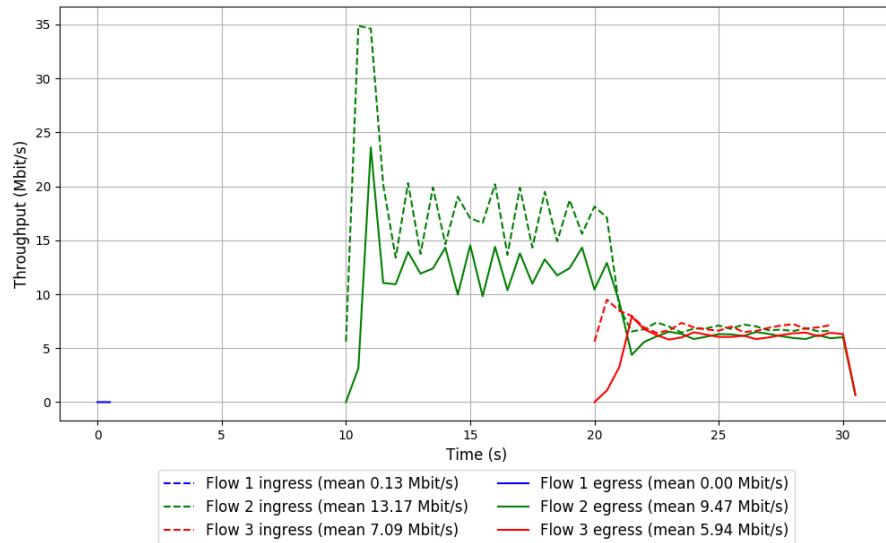


Run 5: Statistics of TaoVA-100x

```
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

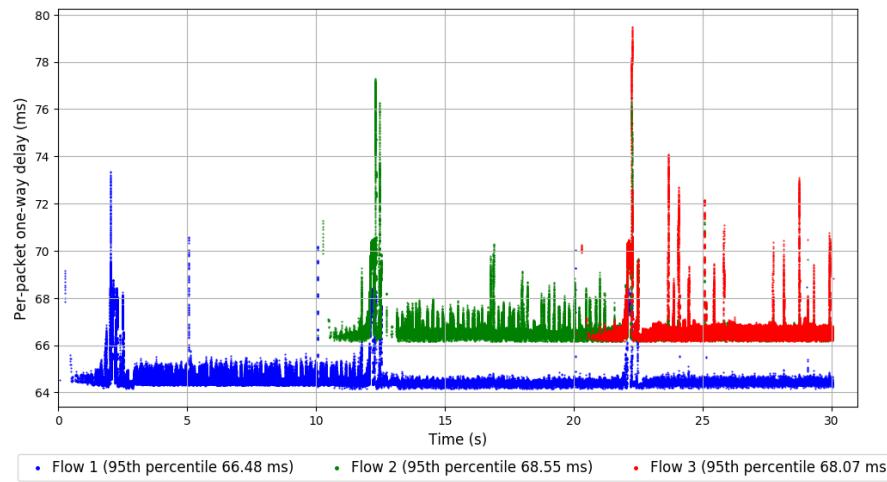
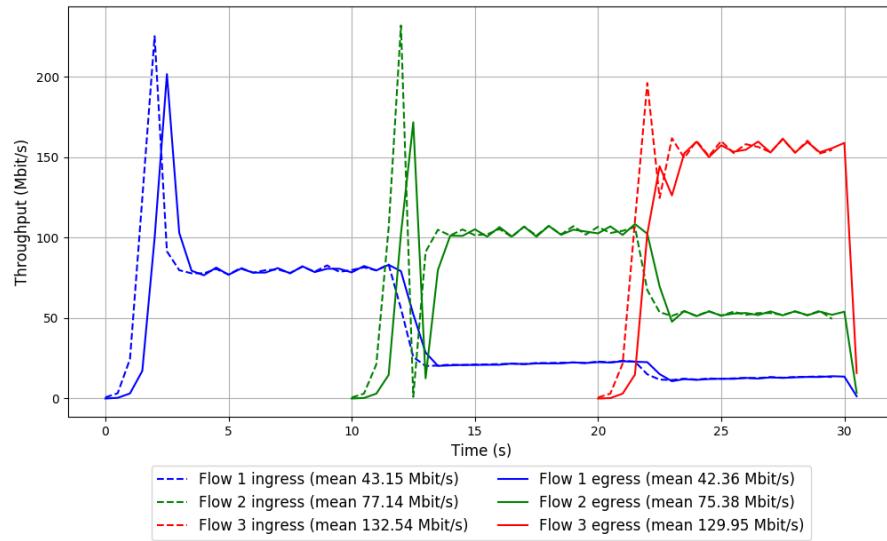


Run 1: Statistics of TCP Vegas

```
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

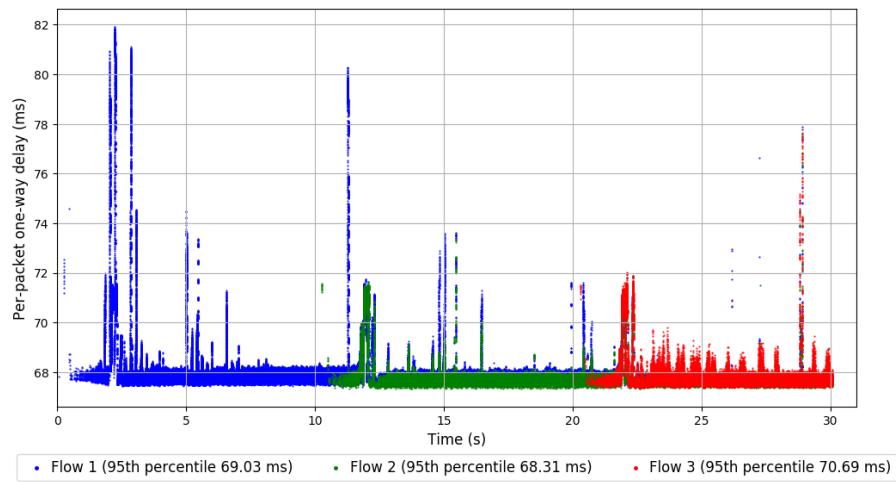
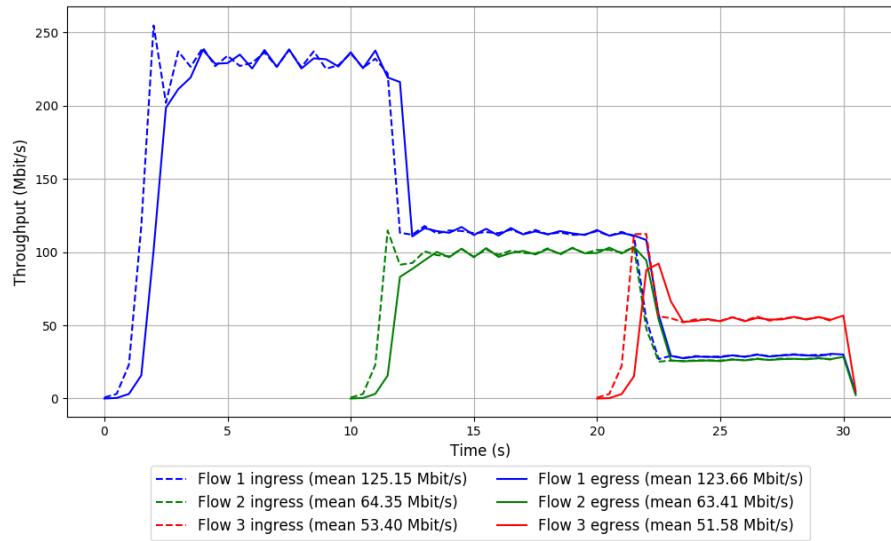


Run 2: Statistics of TCP Vegas

```
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

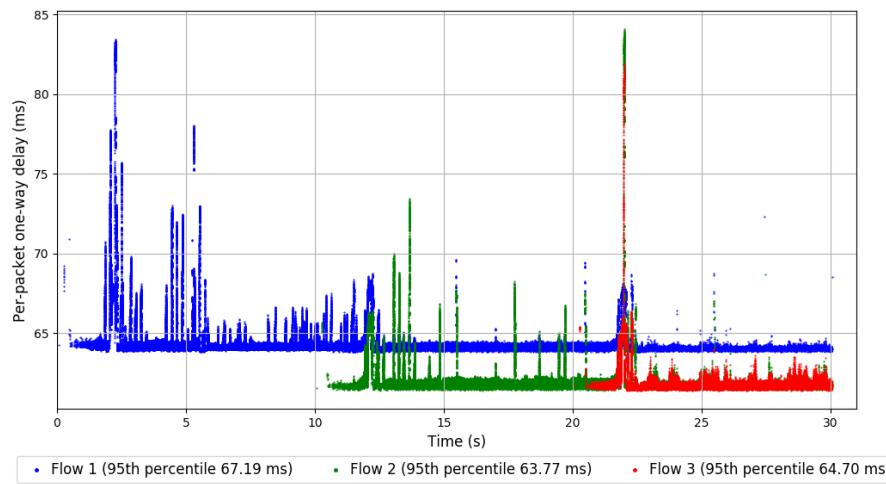
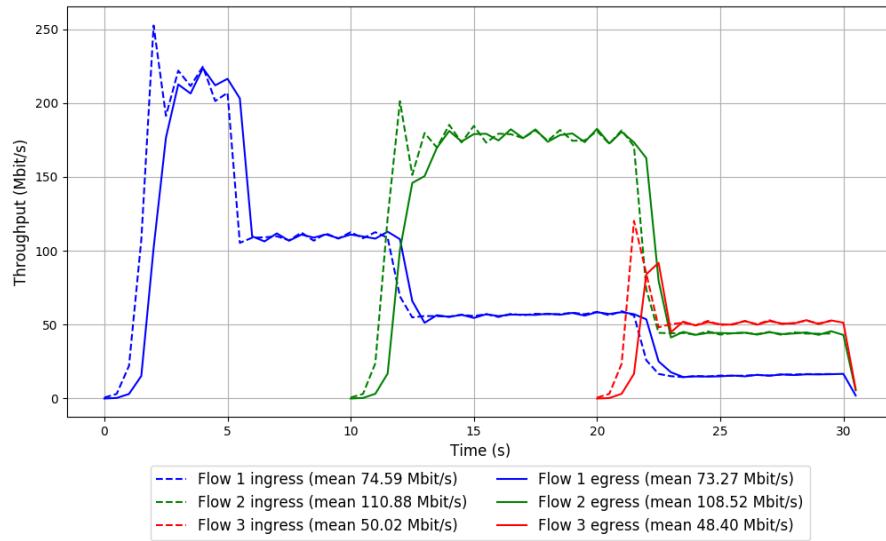


Run 3: Statistics of TCP Vegas

```
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

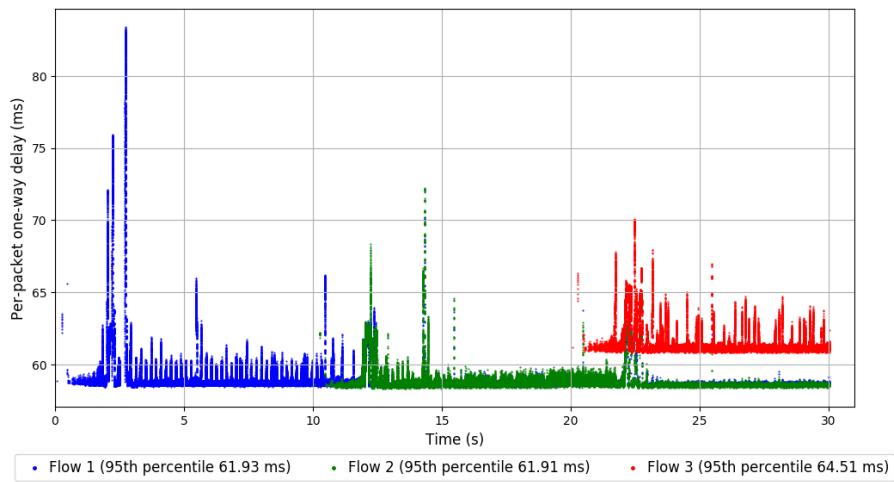
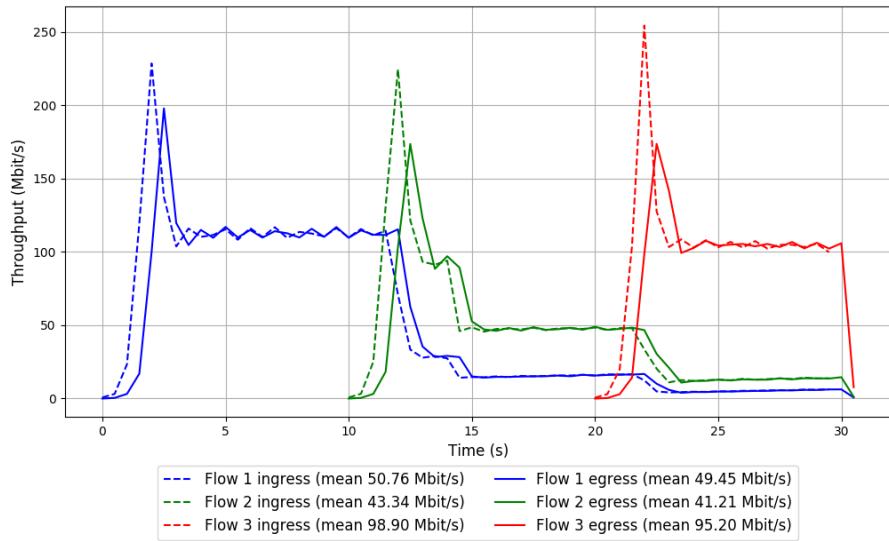


Run 4: Statistics of TCP Vegas

```
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

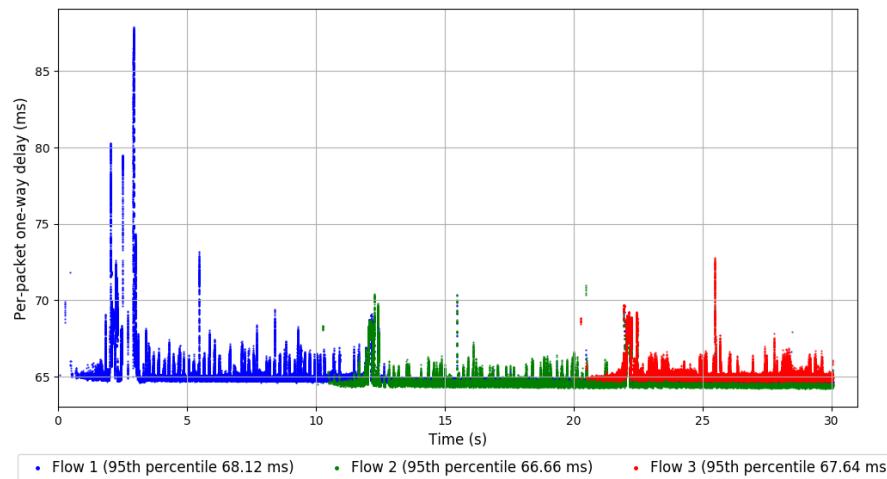
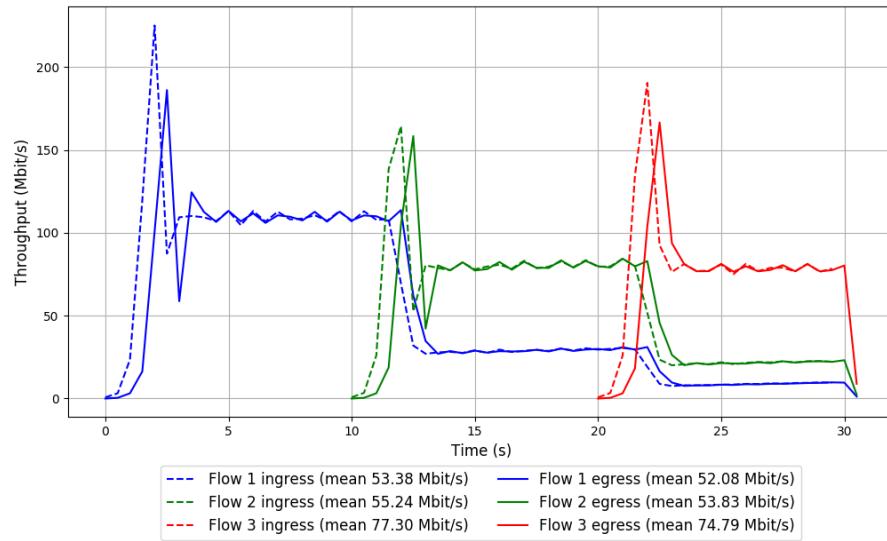


Run 5: Statistics of TCP Vegas

```
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

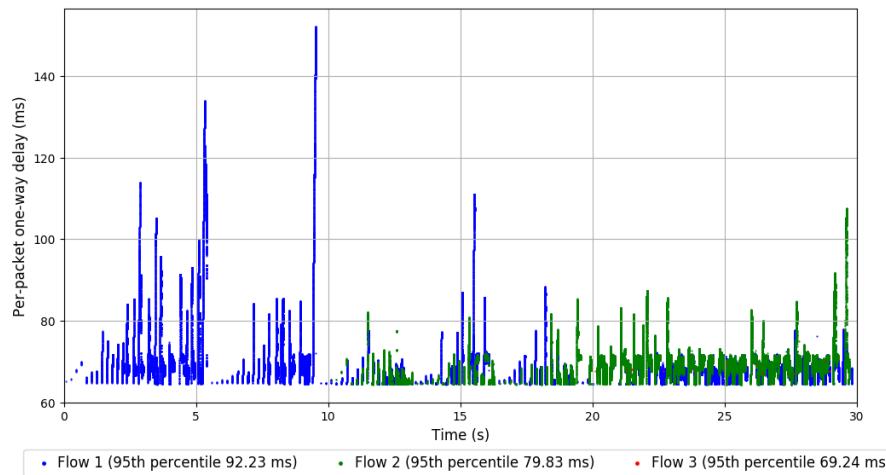
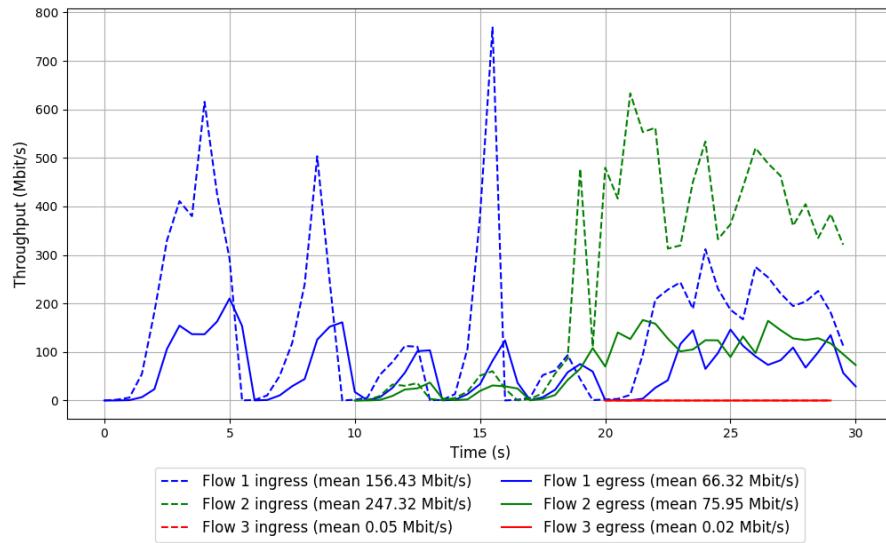


Run 1: Statistics of Verus

```
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

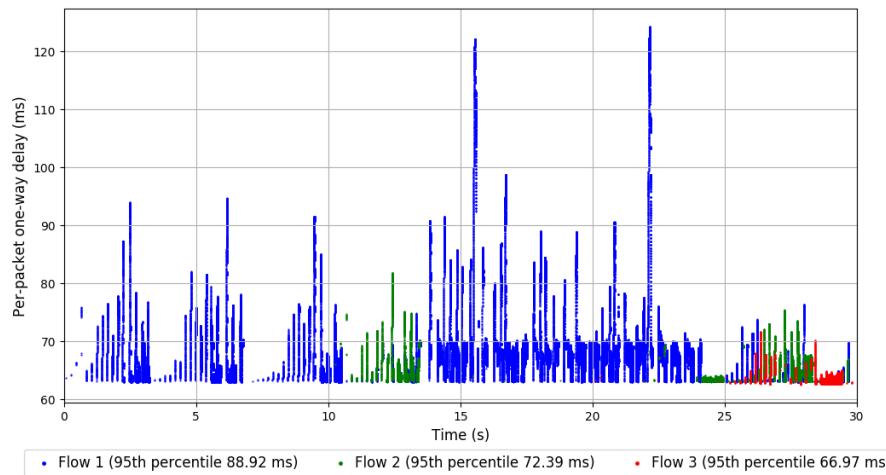
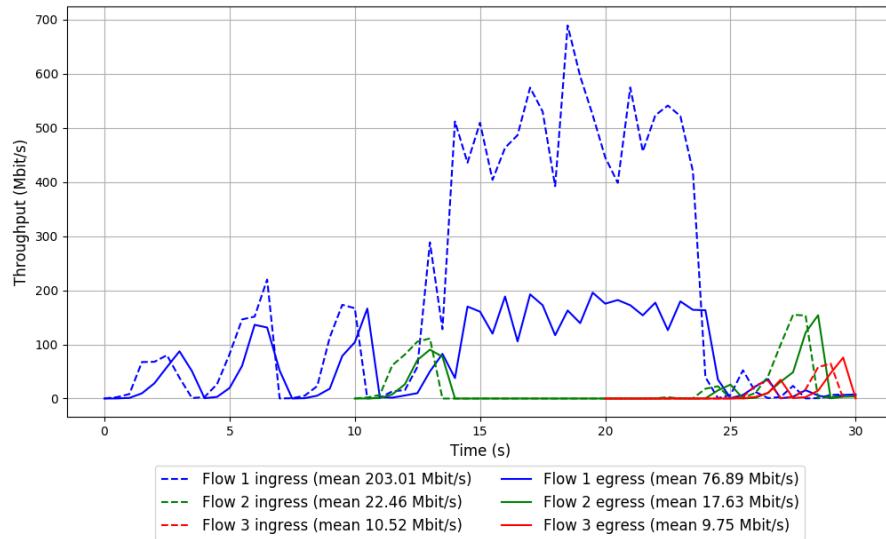


Run 2: Statistics of Verus

```
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

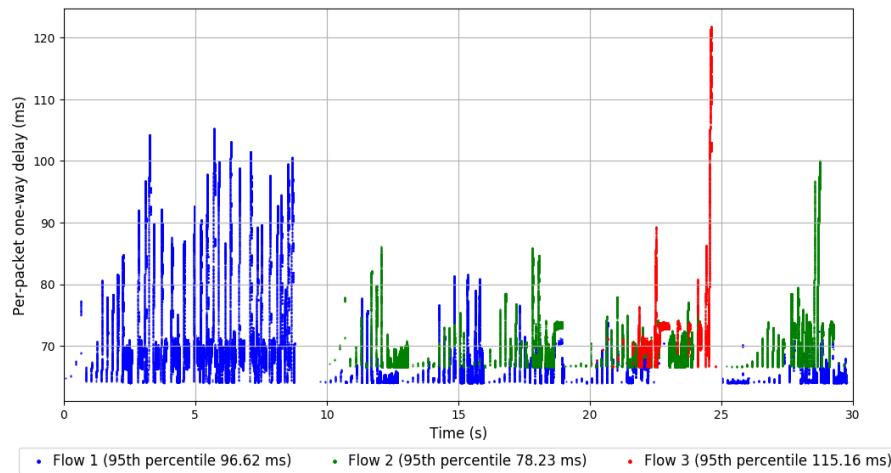
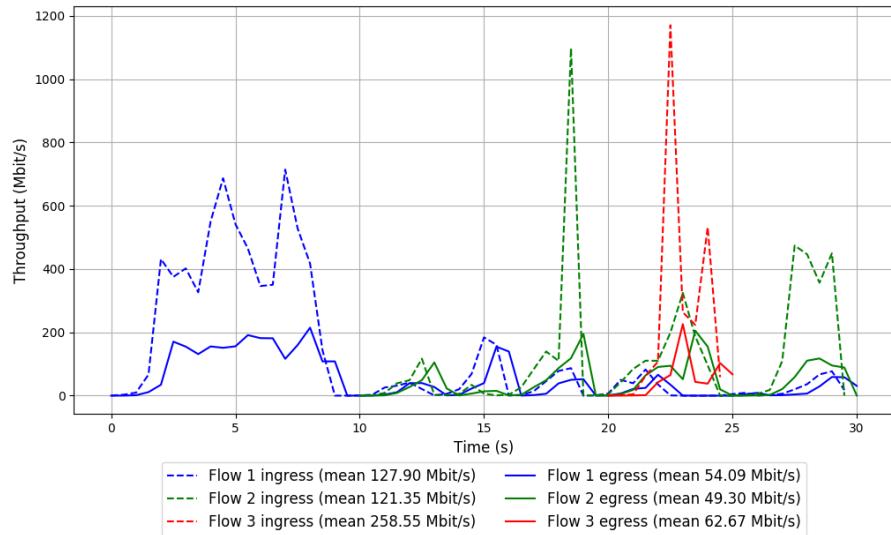


Run 3: Statistics of Verus

```
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

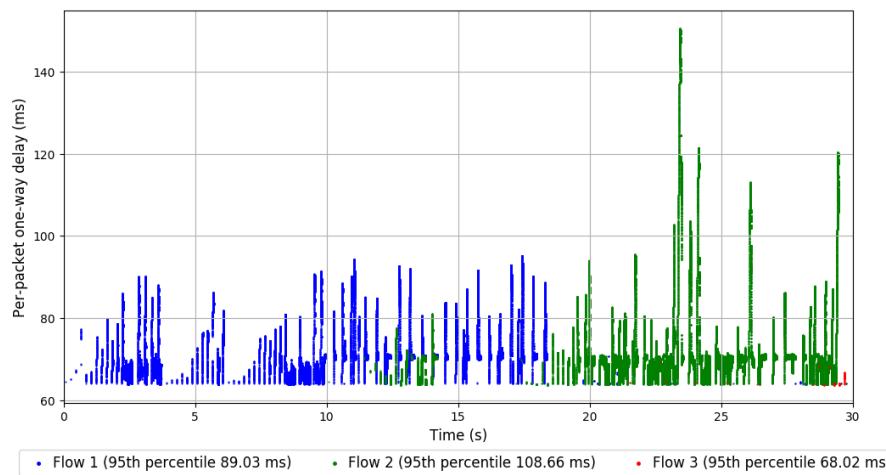
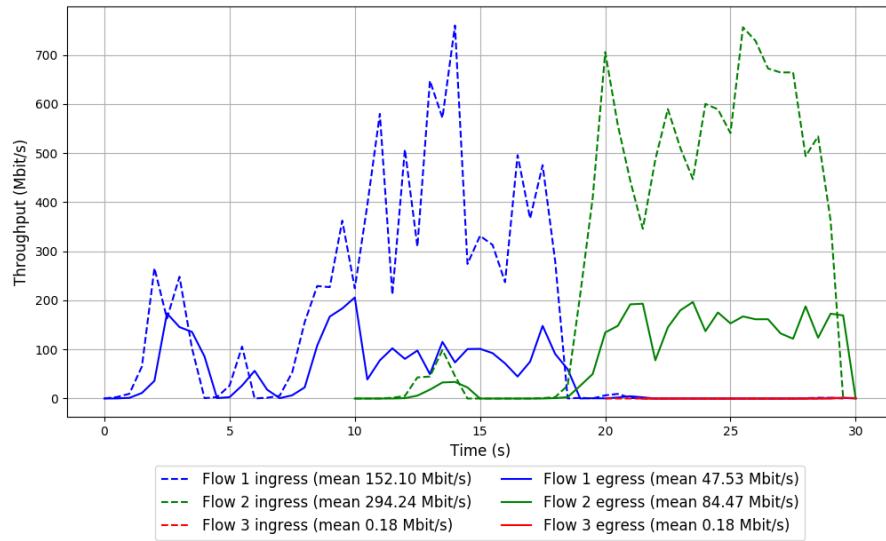


Run 4: Statistics of Verus

```
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

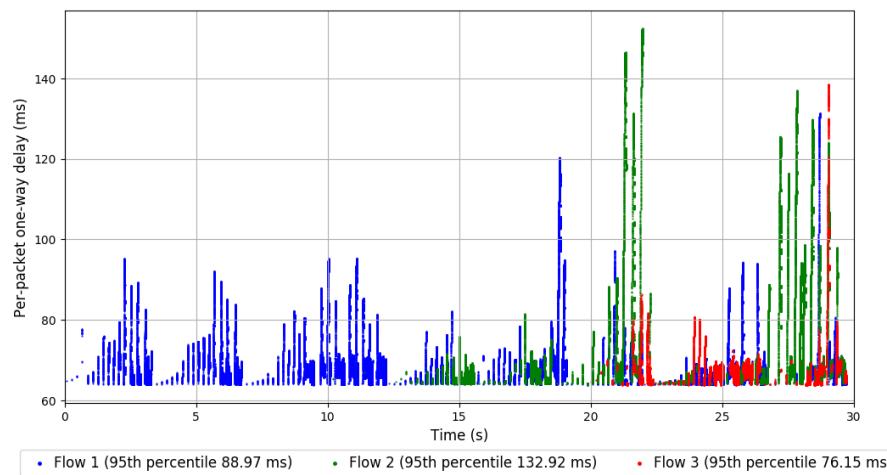
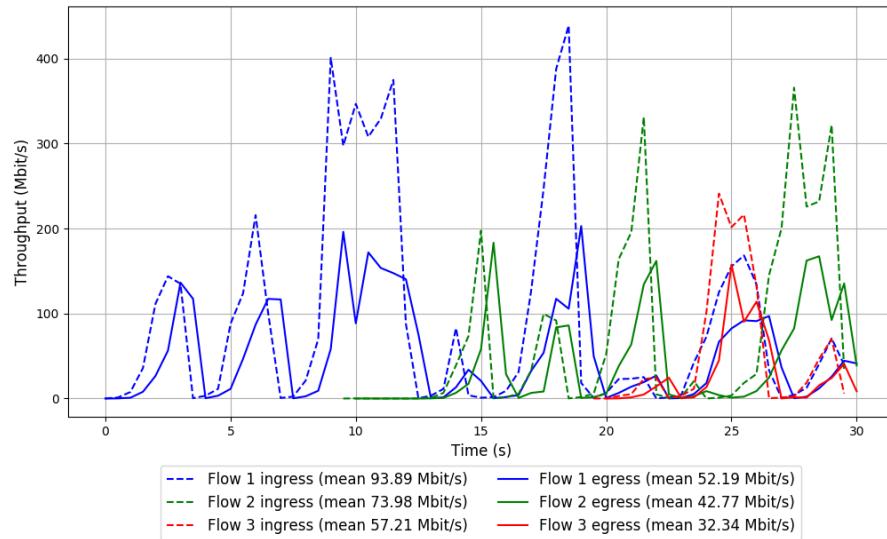


Run 5: Statistics of Verus

```
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

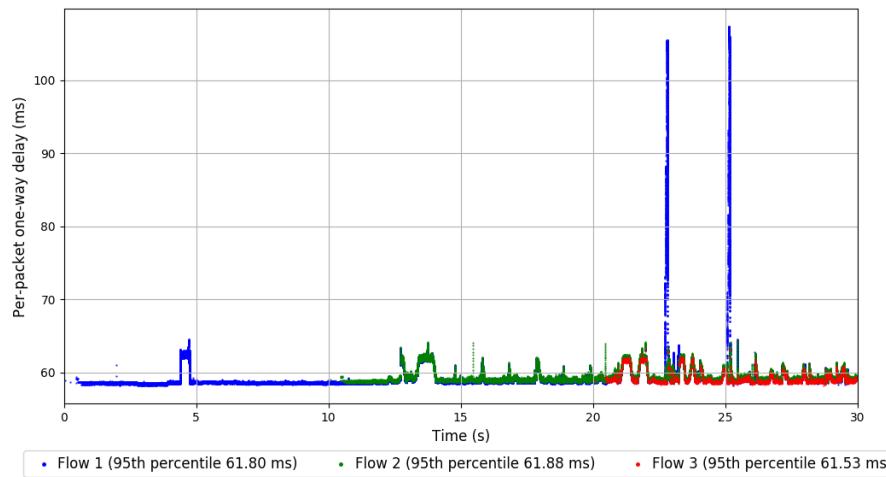
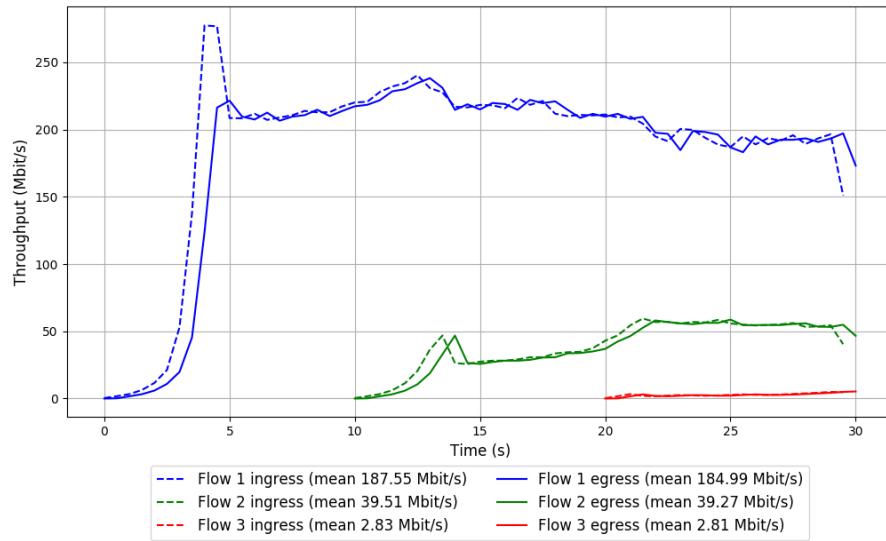


```
Run 1: Statistics of PCC-Vivace
```

```
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

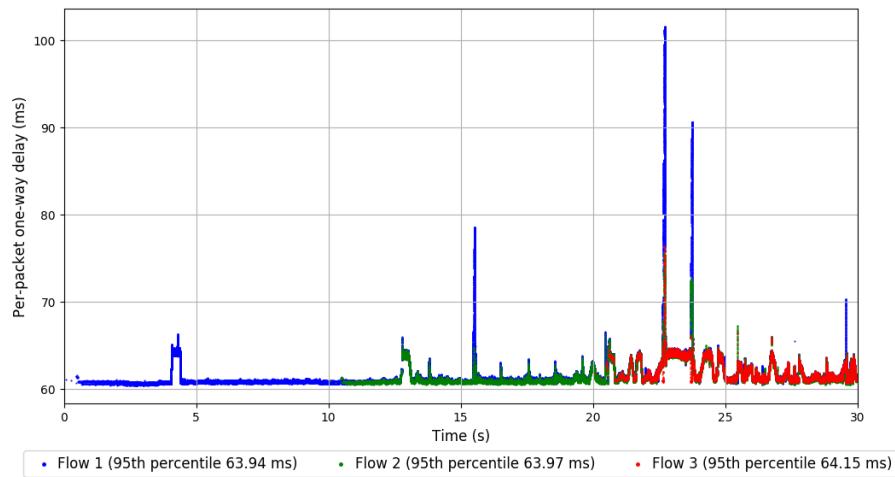
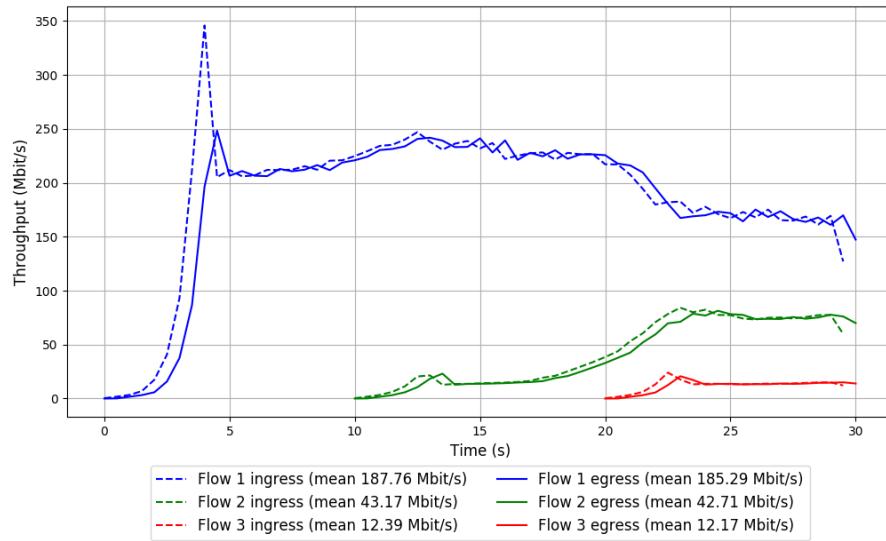


Run 2: Statistics of PCC-Vivace

```
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

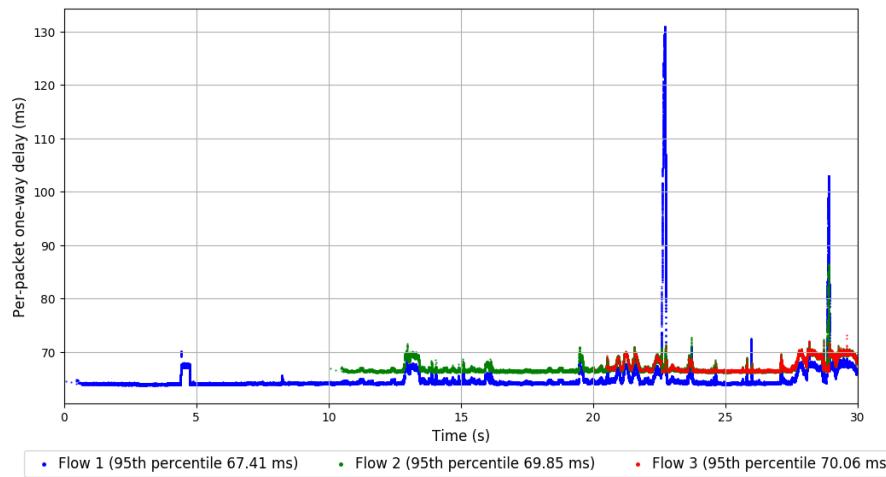
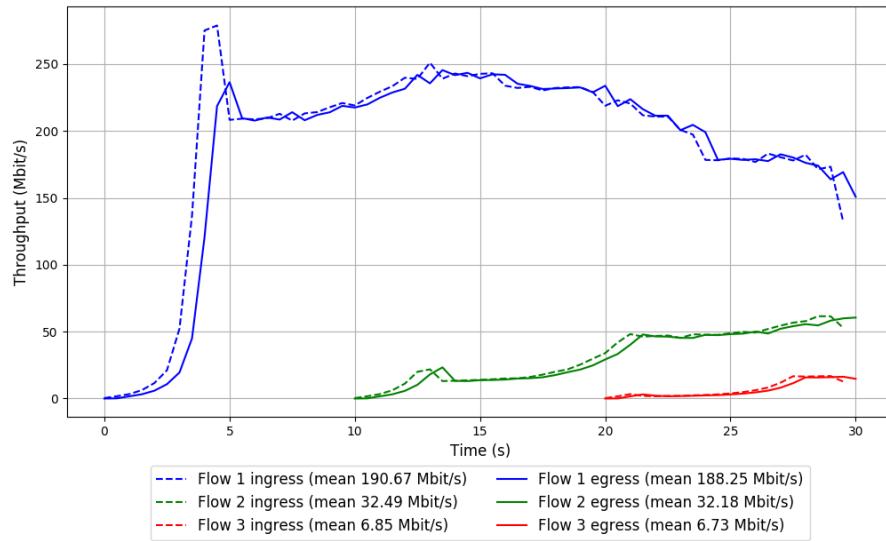


Run 3: Statistics of PCC-Vivace

```
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

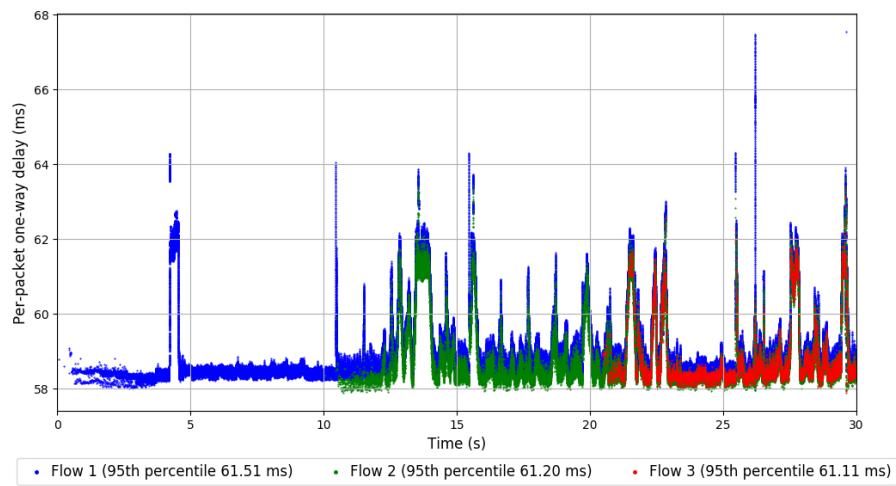
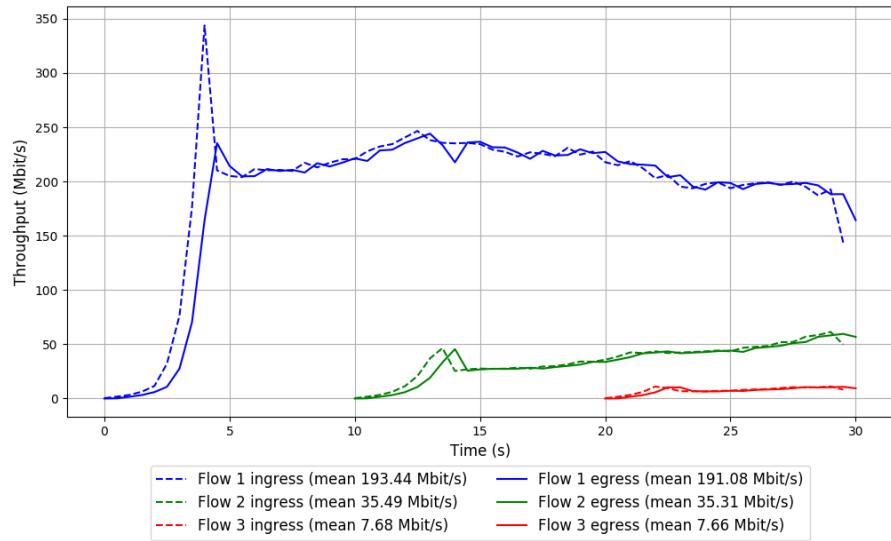


Run 4: Statistics of PCC-Vivace

```
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

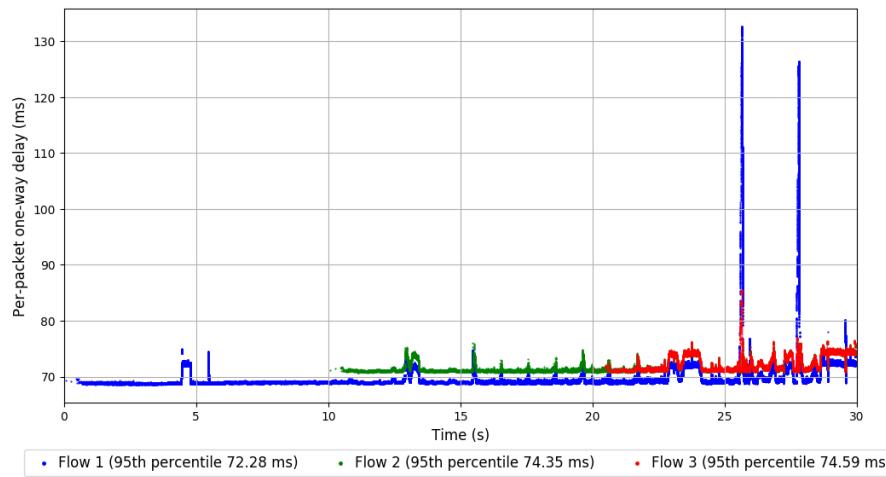
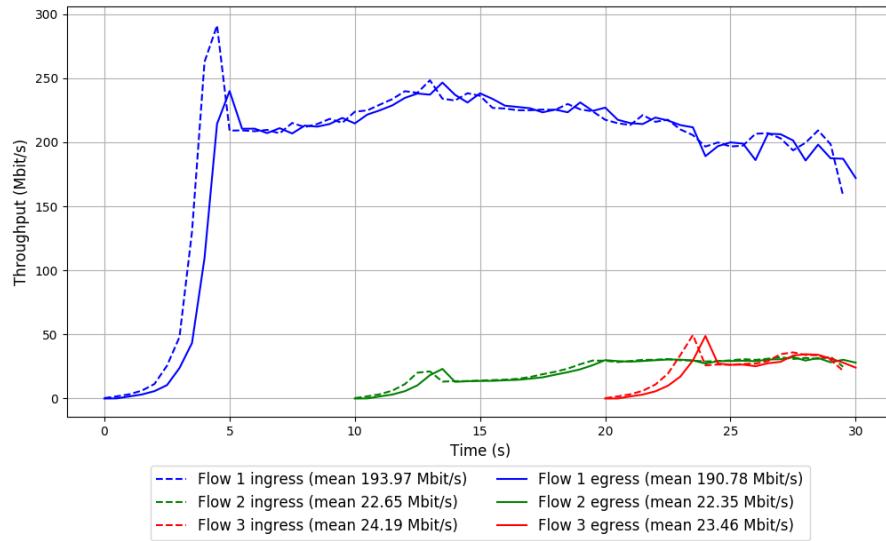


Run 5: Statistics of PCC-Vivace

```
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

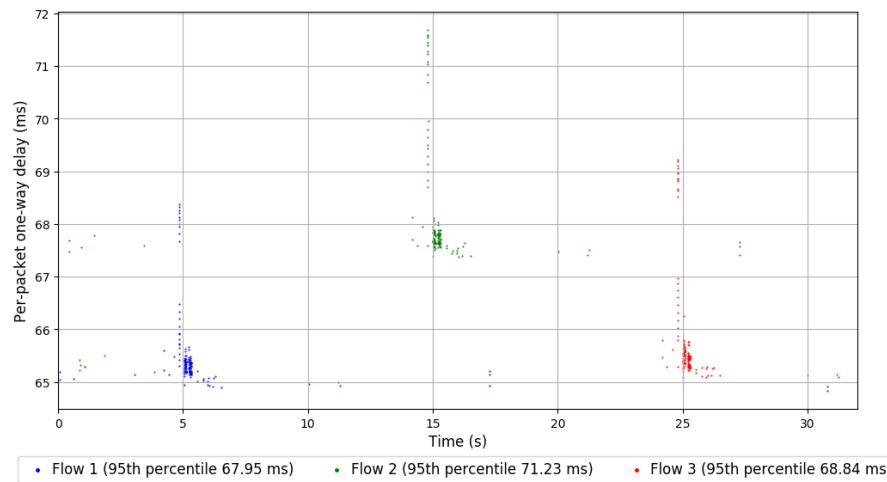
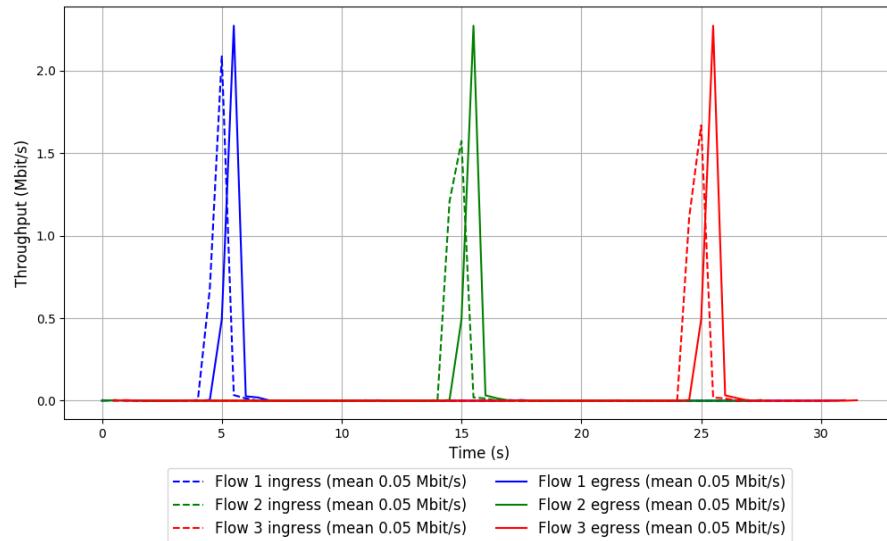


```
Run 1: Statistics of WebRTC media

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

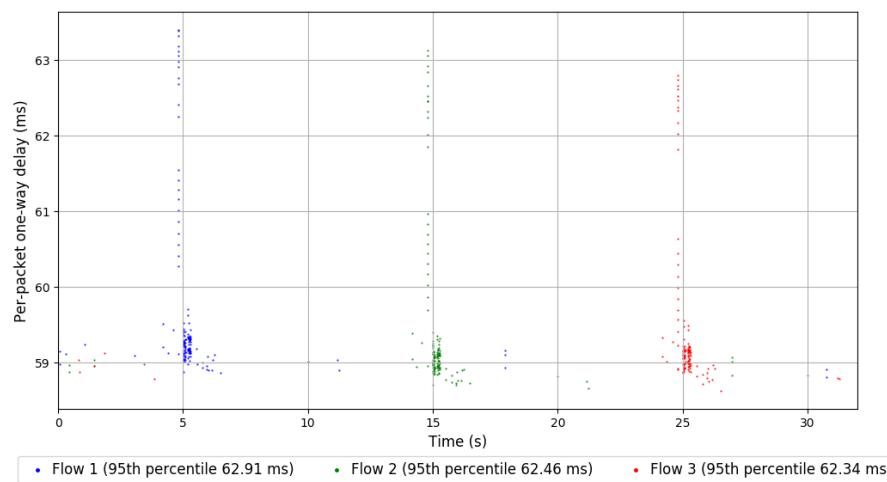
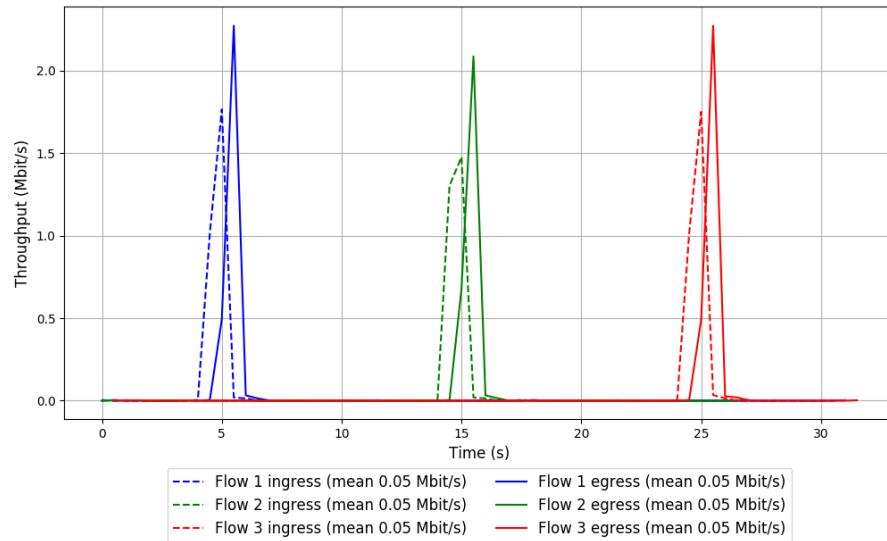


Run 2: Statistics of WebRTC media

```
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

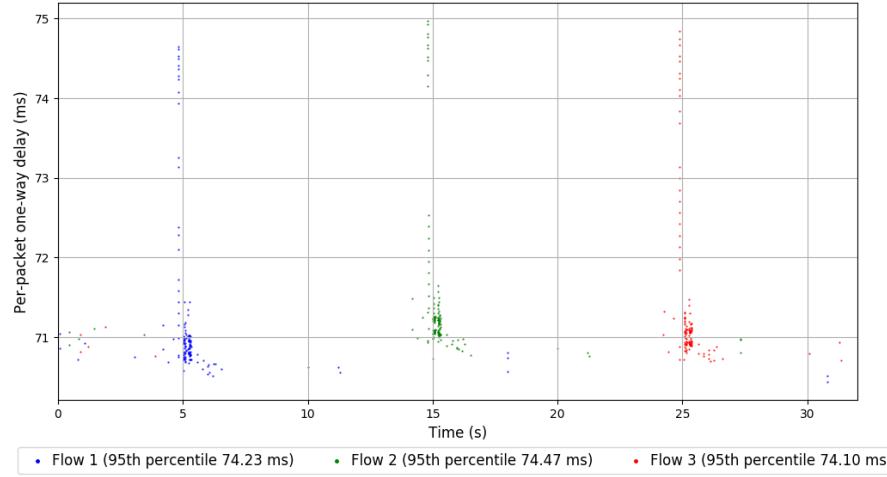
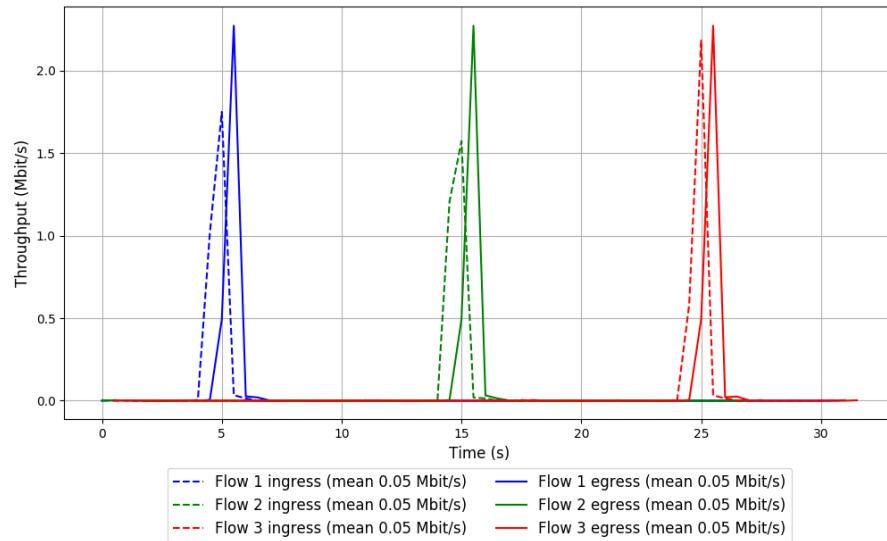


Run 3: Statistics of WebRTC media

```
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

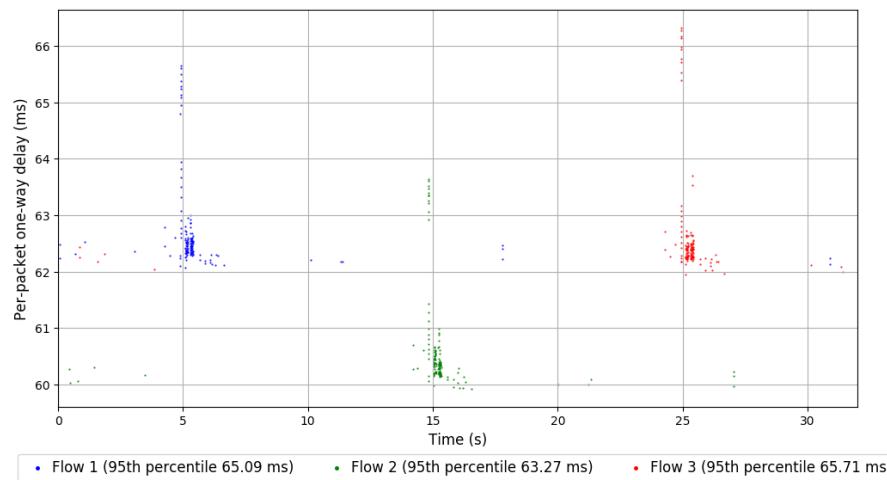
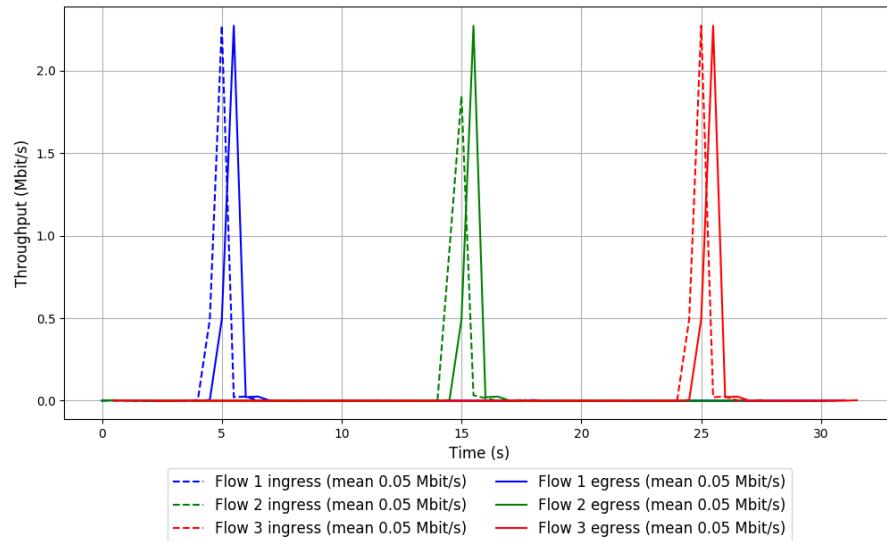


Run 4: Statistics of WebRTC media

```
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

