

Pantheon Report

Generated at 2019-02-13 00:18:37 (UTC).

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

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

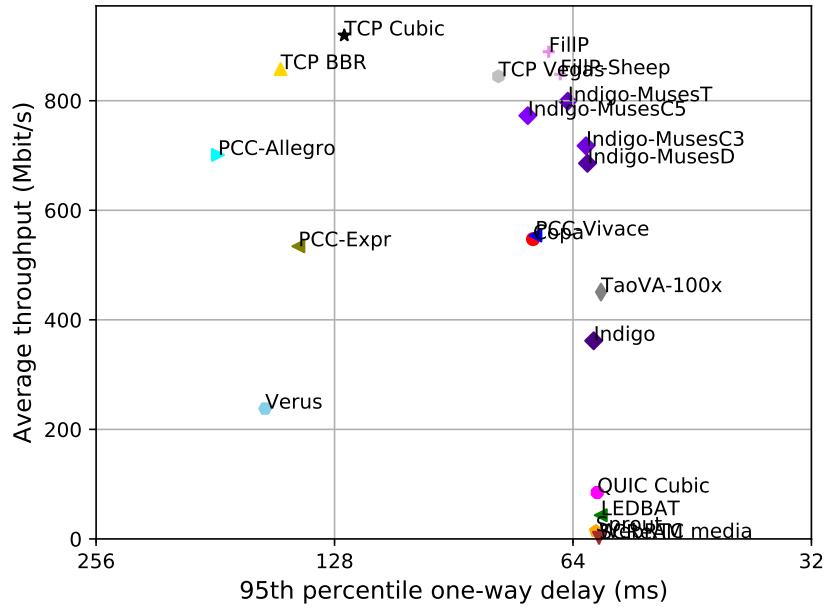
```
Linux 4.15.0-1026-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

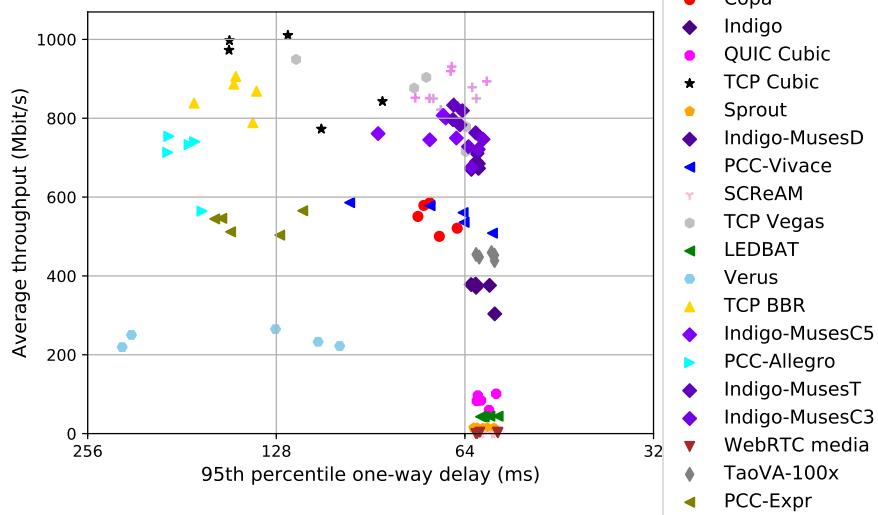
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 GCE Sydney to GCE Tokyo, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



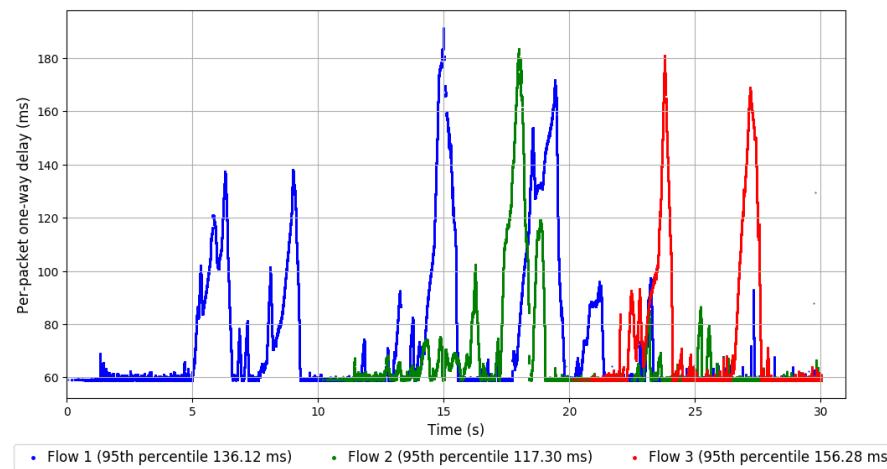
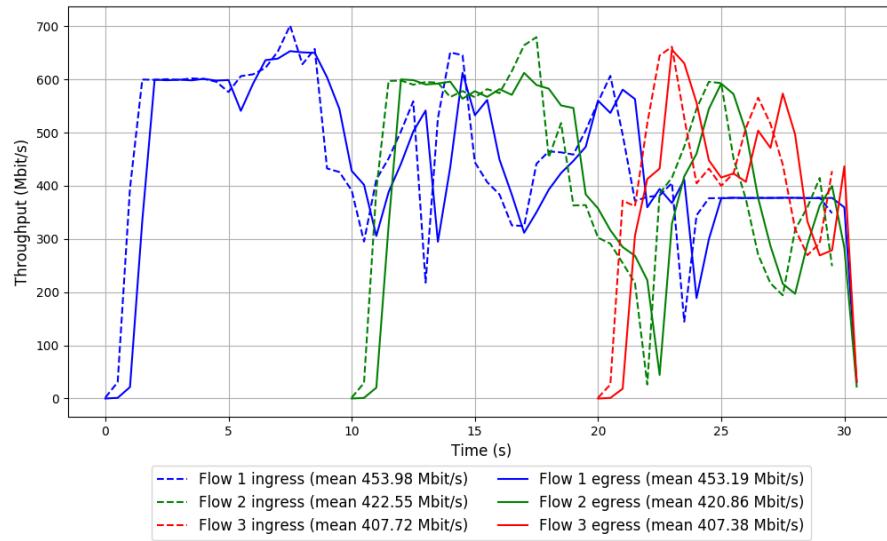
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	5	435.48	436.91	395.58	146.73	143.59	154.99	0.45	0.40	0.54
Copa		284.44	271.33	247.45	69.59	70.65	77.10	0.01	0.01	0.02
TCP Cubic		481.72	437.53	439.38	83.40	129.90	97.50	0.03	0.22	0.37
FillP		576.56	347.29	247.54	74.46	63.03	62.28	0.13	0.03	0.00
FillP-Sheep		546.52	325.18	257.84	66.97	63.57	62.28	0.02	0.02	0.00
Indigo		187.37	183.88	161.49	59.72	59.49	59.54	0.20	0.00	0.00
Indigo-MusesC3		426.97	362.10	237.39	61.24	61.19	61.02	0.00	0.01	0.04
Indigo-MusesC5		477.73	398.19	140.61	73.12	71.28	60.29	0.01	0.03	0.08
Indigo-MusesD		403.93	331.88	260.94	61.67	62.22	60.17	0.00	0.00	0.02
Indigo-MusesT		474.62	387.28	275.60	65.92	65.34	59.58	0.01	0.01	0.04
LEDBAT		28.09	18.21	9.39	58.12	58.61	57.14	0.00	0.04	0.00
PCC-Allegro		401.71	316.09	271.13	184.56	122.40	135.17	3.35	1.23	1.73
PCC-Expr		294.71	278.63	164.17	132.43	161.99	81.07	0.46	1.27	0.08
QUIC Cubic		36.76	51.22	43.34	58.24	58.94	58.85	0.01	0.01	0.01
SCReAM		0.22	0.22	0.22	57.42	58.03	58.60	0.00	0.00	0.07
Sprout		7.44	7.11	6.66	57.92	59.86	59.93	0.00	0.00	0.00
TaoVA-100x		228.44	225.45	216.69	58.22	57.73	59.39	0.00	0.00	0.01
TCP Vegas		400.82	467.94	397.46	64.94	81.91	82.36	0.01	0.01	0.03
Verus		144.51	101.47	80.48	142.84	110.60	115.50	0.93	0.31	1.74
PCC-Vivace		322.71	265.80	164.48	78.74	90.57	59.75	0.01	0.09	0.00
WebRTC media		1.23	0.53	0.22	58.73	58.75	58.68	0.00	0.04	0.09

Run 1: Statistics of TCP BBR

```
Start at: 2019-02-12 17:27:51
End at: 2019-02-12 17:28:21
Local clock offset: 0.106 ms
Remote clock offset: -1.325 ms

# Below is generated by plot.py at 2019-02-12 20:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 868.65 Mbit/s
95th percentile per-packet one-way delay: 137.647 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 453.19 Mbit/s
95th percentile per-packet one-way delay: 136.122 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 420.86 Mbit/s
95th percentile per-packet one-way delay: 117.296 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 407.38 Mbit/s
95th percentile per-packet one-way delay: 156.282 ms
Loss rate: 0.12%
```

Run 1: Report of TCP BBR — Data Link

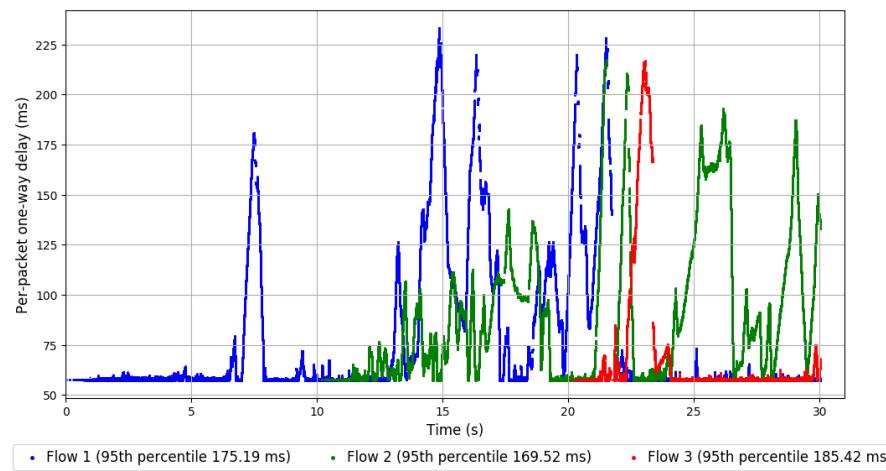
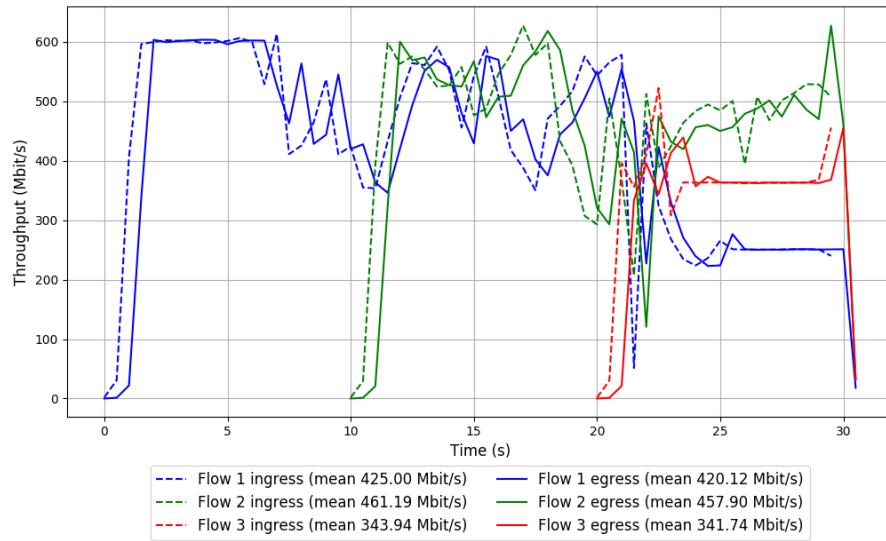


Run 2: Statistics of TCP BBR

```
Start at: 2019-02-12 18:09:29
End at: 2019-02-12 18:09:59
Local clock offset: 0.28 ms
Remote clock offset: 0.8 ms

# Below is generated by plot.py at 2019-02-12 20:56:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 838.49 Mbit/s
95th percentile per-packet one-way delay: 173.183 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 420.12 Mbit/s
95th percentile per-packet one-way delay: 175.187 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 457.90 Mbit/s
95th percentile per-packet one-way delay: 169.519 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 341.74 Mbit/s
95th percentile per-packet one-way delay: 185.421 ms
Loss rate: 0.64%
```

Run 2: Report of TCP BBR — Data Link

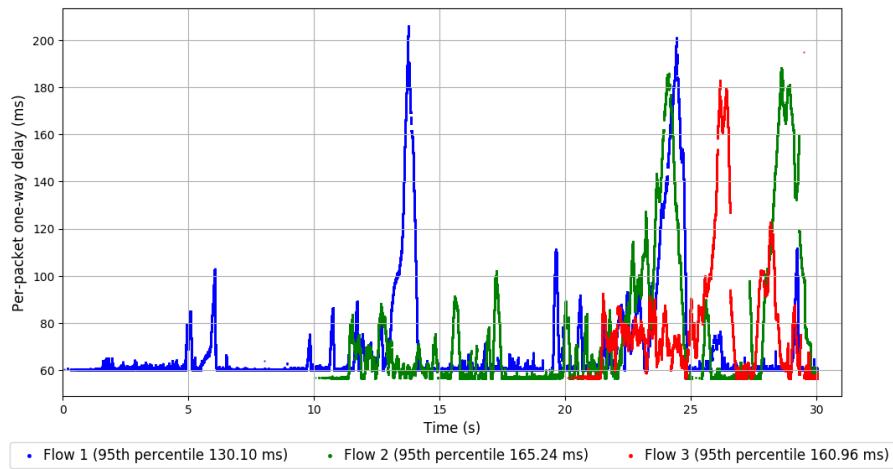
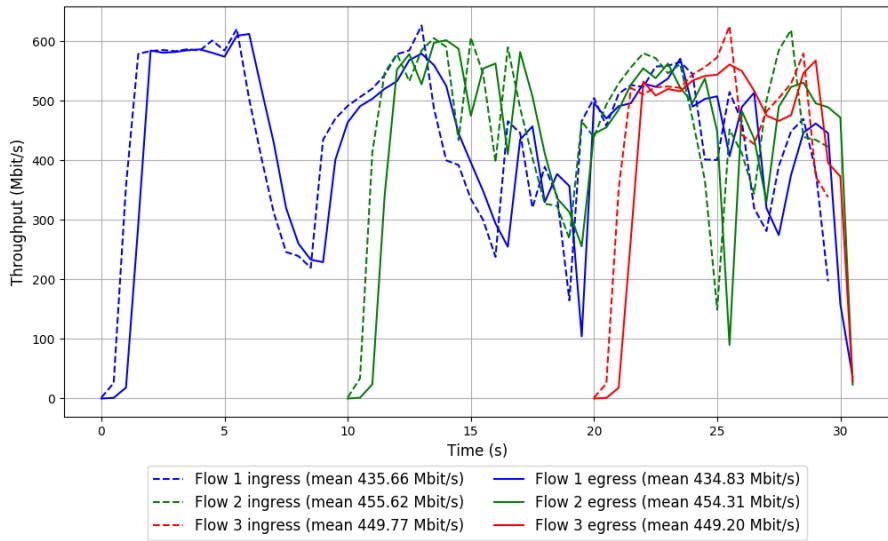


Run 3: Statistics of TCP BBR

```
Start at: 2019-02-12 18:49:47
End at: 2019-02-12 18:50:17
Local clock offset: 0.227 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2019-02-12 20:56:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 886.52 Mbit/s
95th percentile per-packet one-way delay: 149.629 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 434.83 Mbit/s
95th percentile per-packet one-way delay: 130.097 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 454.31 Mbit/s
95th percentile per-packet one-way delay: 165.242 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 449.20 Mbit/s
95th percentile per-packet one-way delay: 160.956 ms
Loss rate: 0.12%
```

Run 3: Report of TCP BBR — Data Link

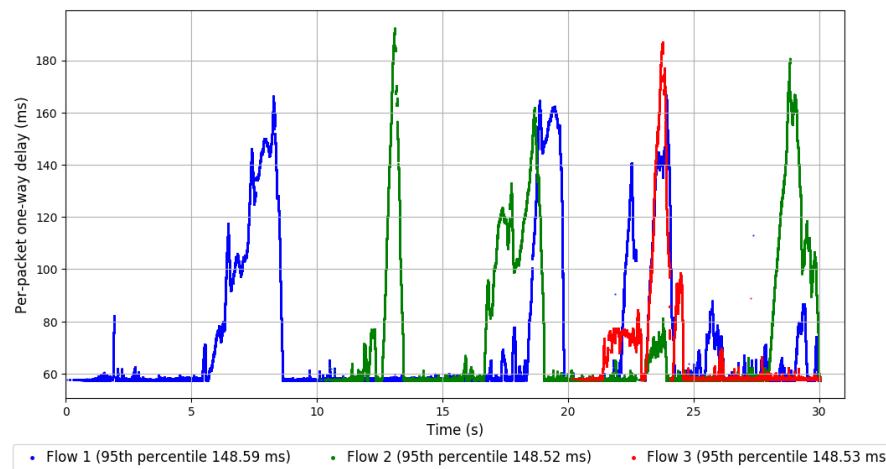
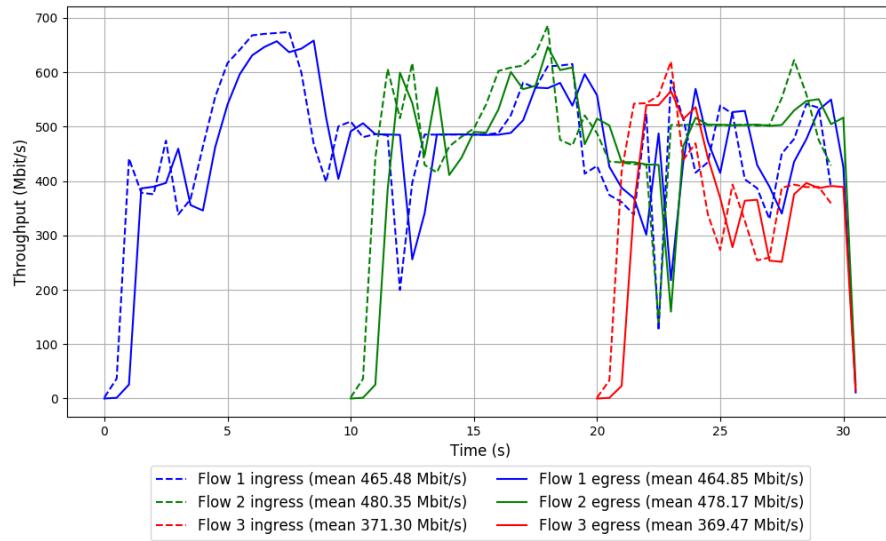


Run 4: Statistics of TCP BBR

```
Start at: 2019-02-12 19:31:34
End at: 2019-02-12 19:32:04
Local clock offset: -0.037 ms
Remote clock offset: 0.615 ms

# Below is generated by plot.py at 2019-02-12 20:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 906.01 Mbit/s
95th percentile per-packet one-way delay: 148.566 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 464.85 Mbit/s
95th percentile per-packet one-way delay: 148.592 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 478.17 Mbit/s
95th percentile per-packet one-way delay: 148.520 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 369.47 Mbit/s
95th percentile per-packet one-way delay: 148.532 ms
Loss rate: 0.49%
```

Run 4: Report of TCP BBR — Data Link

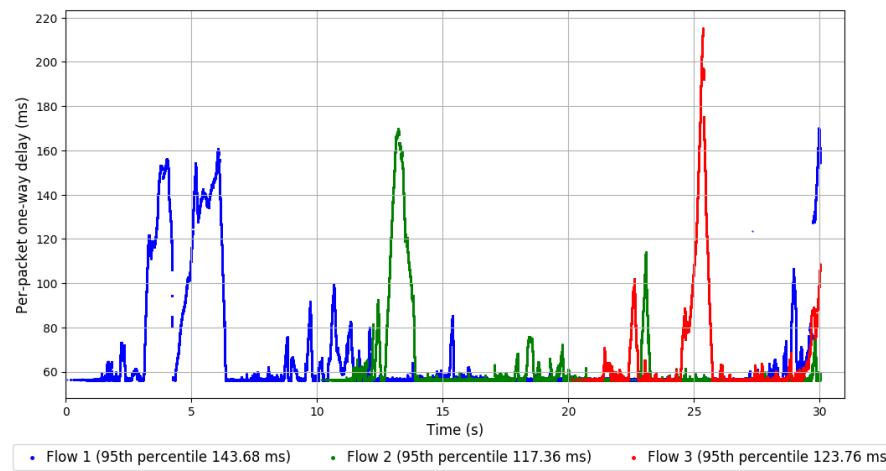
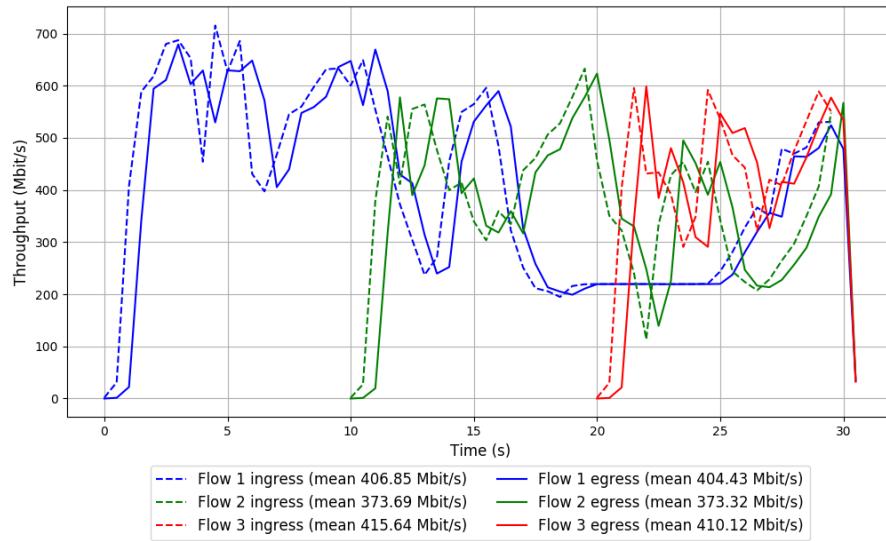


Run 5: Statistics of TCP BBR

```
Start at: 2019-02-12 20:12:42
End at: 2019-02-12 20:13:12
Local clock offset: -0.182 ms
Remote clock offset: -0.846 ms

# Below is generated by plot.py at 2019-02-12 20:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 788.93 Mbit/s
95th percentile per-packet one-way delay: 139.518 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 404.43 Mbit/s
95th percentile per-packet one-way delay: 143.676 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 373.32 Mbit/s
95th percentile per-packet one-way delay: 117.363 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 410.12 Mbit/s
95th percentile per-packet one-way delay: 123.759 ms
Loss rate: 1.32%
```

Run 5: Report of TCP BBR — Data Link

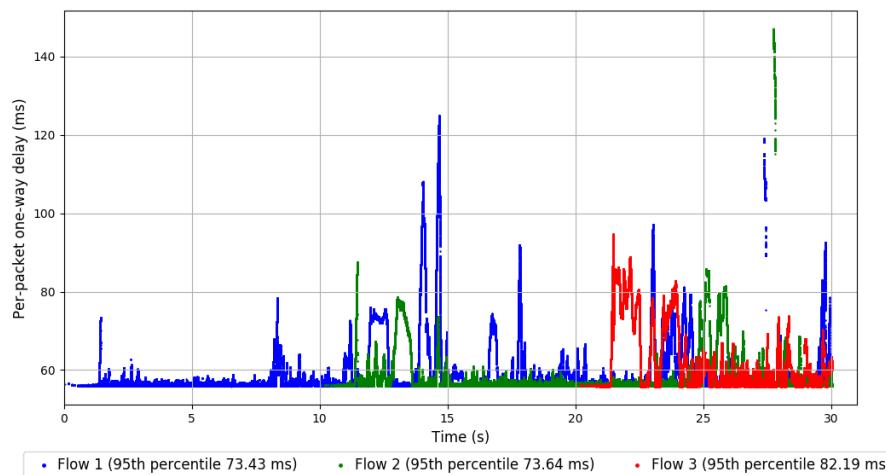
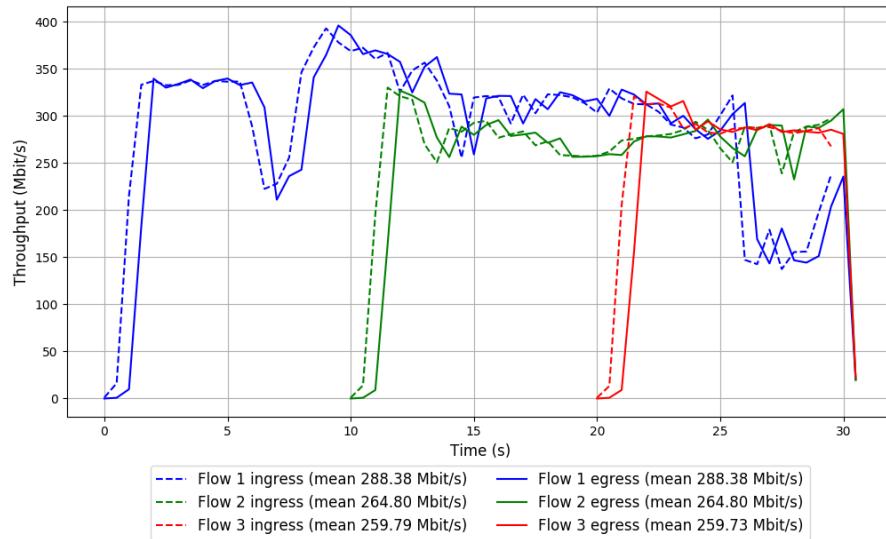


Run 1: Statistics of Copa

```
Start at: 2019-02-12 17:25:17
End at: 2019-02-12 17:25:47
Local clock offset: 0.448 ms
Remote clock offset: -0.841 ms

# Below is generated by plot.py at 2019-02-12 21:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.84 Mbit/s
95th percentile per-packet one-way delay: 76.062 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 288.38 Mbit/s
95th percentile per-packet one-way delay: 73.433 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 264.80 Mbit/s
95th percentile per-packet one-way delay: 73.638 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 259.73 Mbit/s
95th percentile per-packet one-way delay: 82.189 ms
Loss rate: 0.02%
```

Run 1: Report of Copa — Data Link

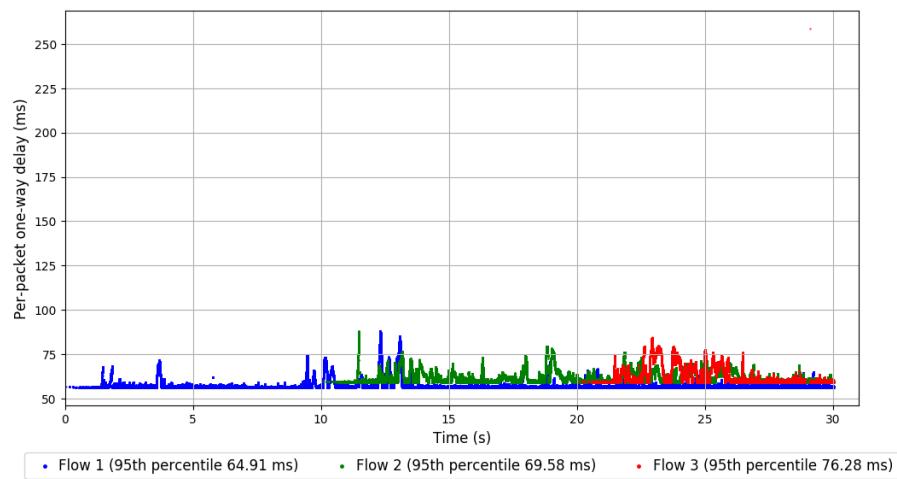
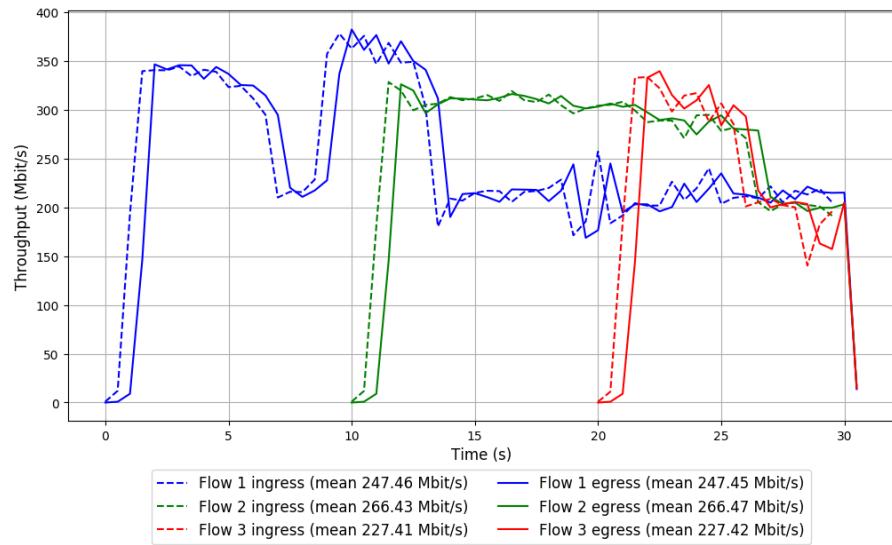


Run 2: Statistics of Copa

```
Start at: 2019-02-12 18:06:46
End at: 2019-02-12 18:07:16
Local clock offset: -0.386 ms
Remote clock offset: -1.17 ms

# Below is generated by plot.py at 2019-02-12 21:00:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.41 Mbit/s
95th percentile per-packet one-way delay: 70.307 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 247.45 Mbit/s
95th percentile per-packet one-way delay: 64.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 266.47 Mbit/s
95th percentile per-packet one-way delay: 69.583 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 227.42 Mbit/s
95th percentile per-packet one-way delay: 76.284 ms
Loss rate: 0.03%
```

Run 2: Report of Copa — Data Link

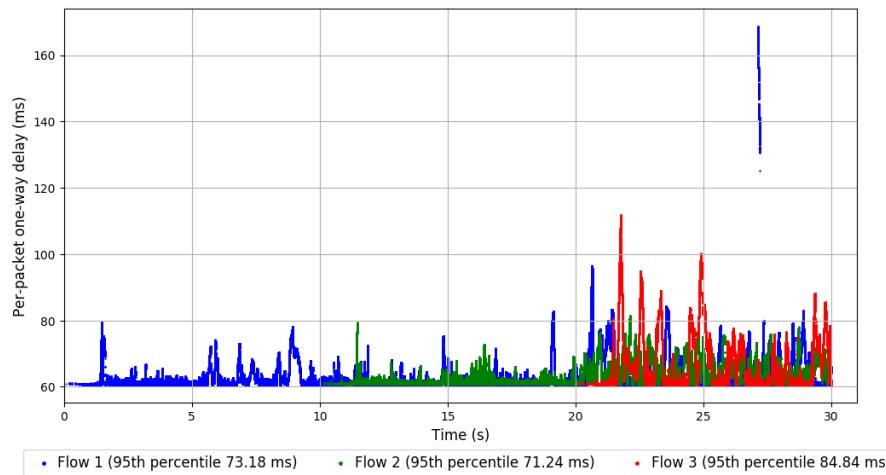
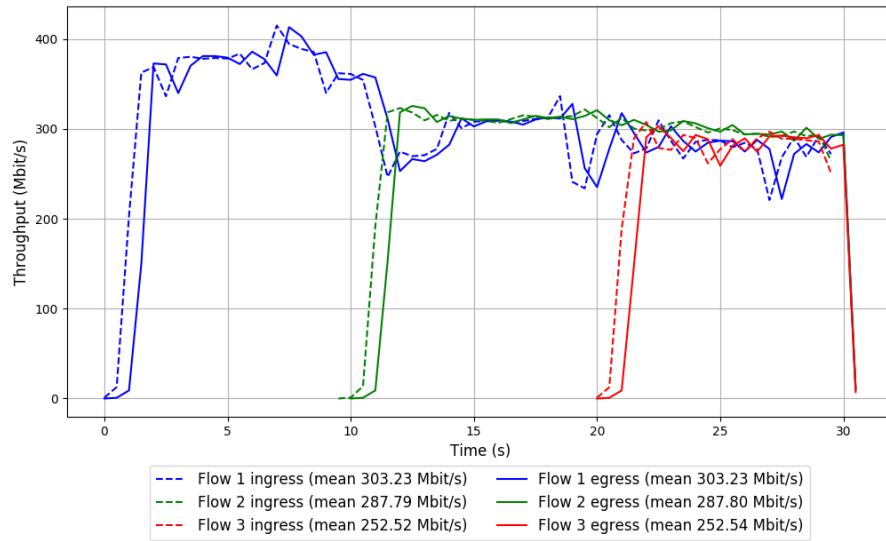


Run 3: Statistics of Copa

```
Start at: 2019-02-12 18:47:14
End at: 2019-02-12 18:47:44
Local clock offset: -0.029 ms
Remote clock offset: 0.546 ms

# Below is generated by plot.py at 2019-02-12 21:02:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.95 Mbit/s
95th percentile per-packet one-way delay: 74.430 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 303.23 Mbit/s
95th percentile per-packet one-way delay: 73.183 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 287.80 Mbit/s
95th percentile per-packet one-way delay: 71.242 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 252.54 Mbit/s
95th percentile per-packet one-way delay: 84.840 ms
Loss rate: 0.02%
```

Run 3: Report of Copa — Data Link

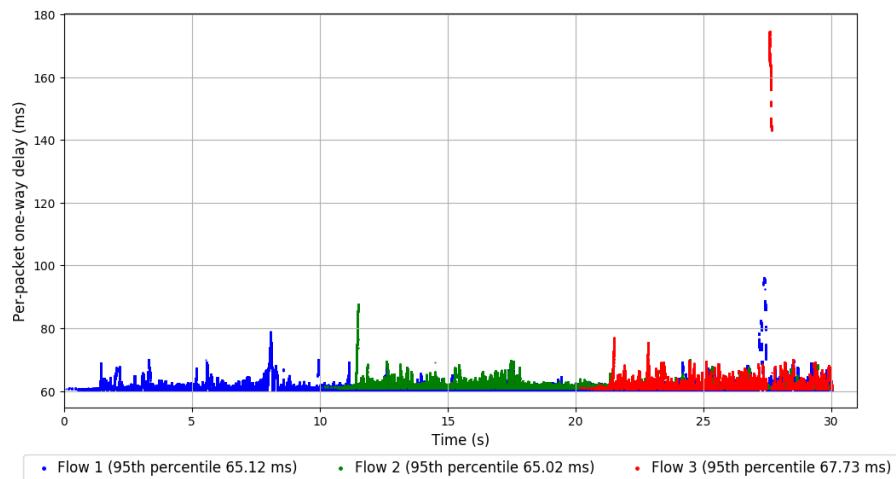
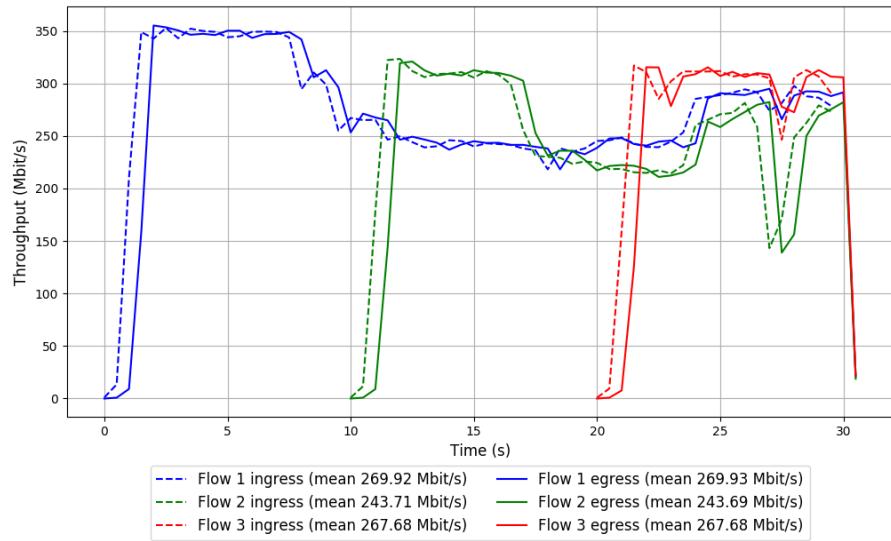


Run 4: Statistics of Copa

```
Start at: 2019-02-12 19:29:10
End at: 2019-02-12 19:29:40
Local clock offset: -0.352 ms
Remote clock offset: 0.233 ms

# Below is generated by plot.py at 2019-02-12 21:19:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.99 Mbit/s
95th percentile per-packet one-way delay: 65.839 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 269.93 Mbit/s
95th percentile per-packet one-way delay: 65.124 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 243.69 Mbit/s
95th percentile per-packet one-way delay: 65.022 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 267.68 Mbit/s
95th percentile per-packet one-way delay: 67.733 ms
Loss rate: 0.03%
```

Run 4: Report of Copa — Data Link

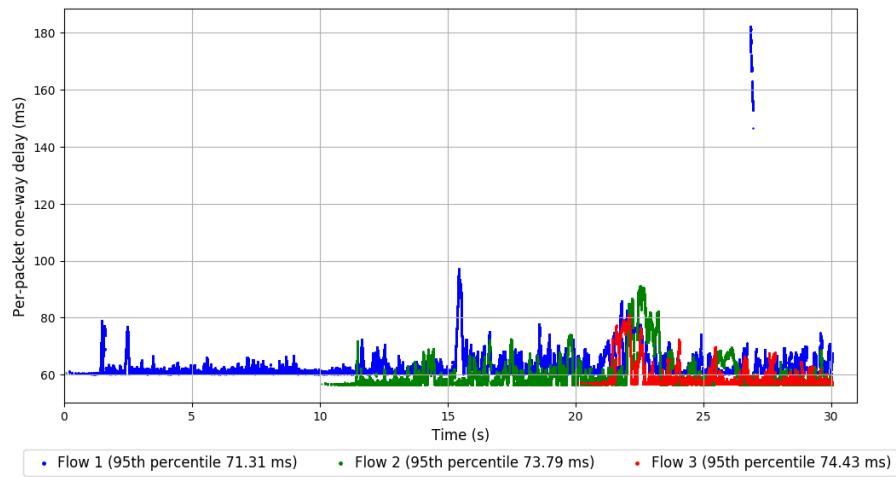
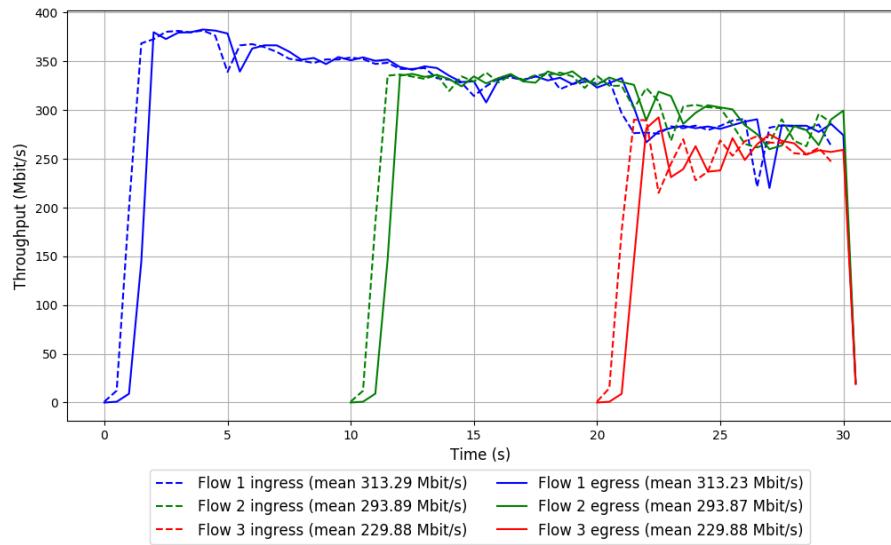


Run 5: Statistics of Copa

```
Start at: 2019-02-12 20:10:12
End at: 2019-02-12 20:10:42
Local clock offset: -0.172 ms
Remote clock offset: -0.186 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.40 Mbit/s
95th percentile per-packet one-way delay: 72.822 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 313.23 Mbit/s
95th percentile per-packet one-way delay: 71.309 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 293.87 Mbit/s
95th percentile per-packet one-way delay: 73.787 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 74.430 ms
Loss rate: 0.00%
```

Run 5: Report of Copa — Data Link

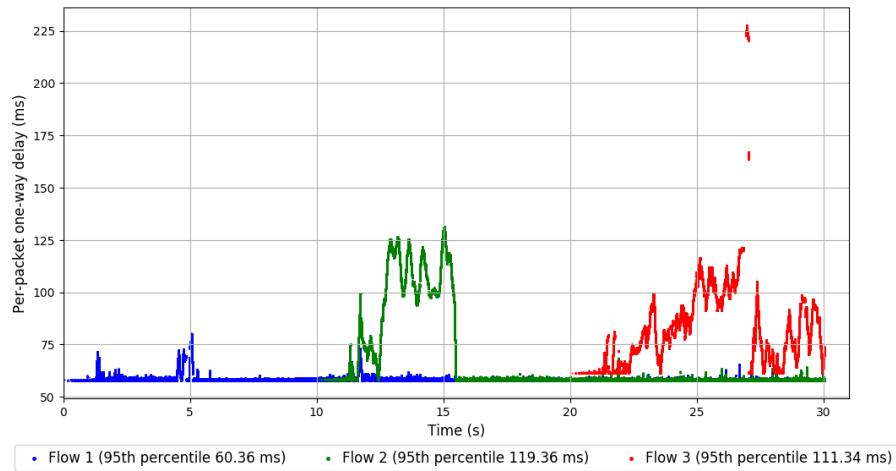
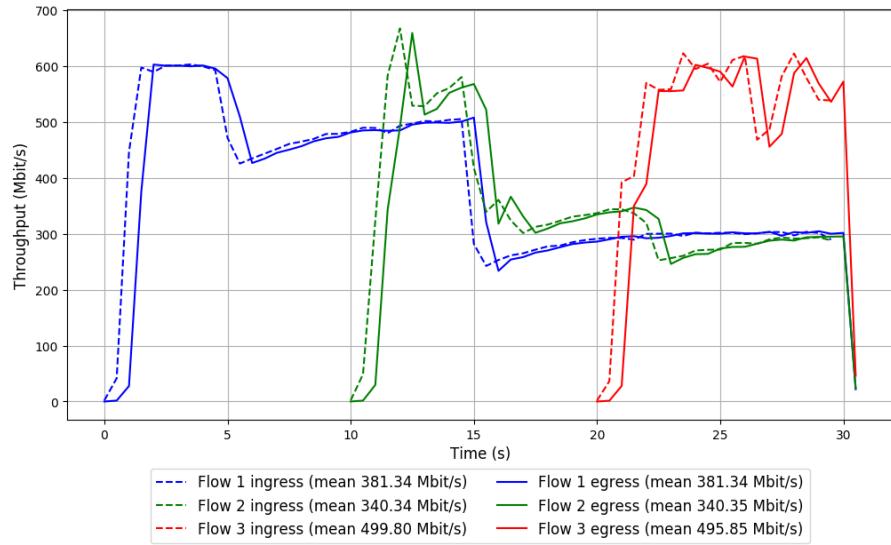


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-02-12 17:14:22
End at: 2019-02-12 17:14:52
Local clock offset: -0.074 ms
Remote clock offset: 0.621 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 772.74 Mbit/s
95th percentile per-packet one-way delay: 108.466 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 381.34 Mbit/s
95th percentile per-packet one-way delay: 60.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 340.35 Mbit/s
95th percentile per-packet one-way delay: 119.355 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 495.85 Mbit/s
95th percentile per-packet one-way delay: 111.342 ms
Loss rate: 0.82%
```

Run 1: Report of TCP Cubic — Data Link

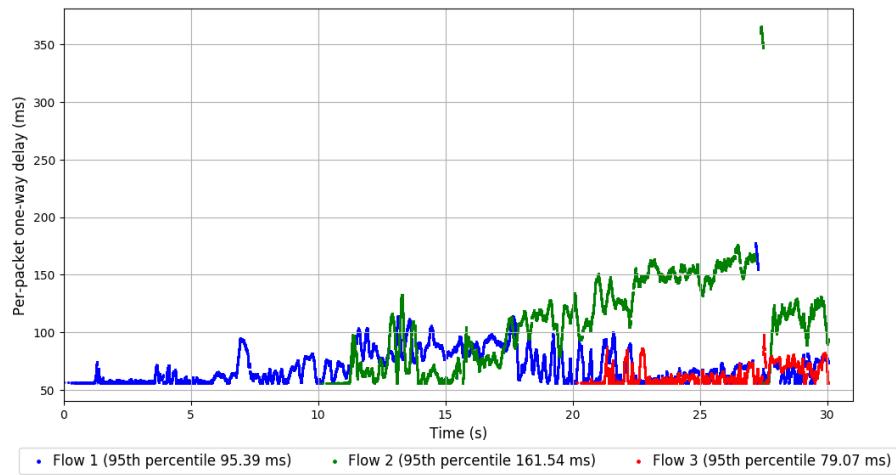
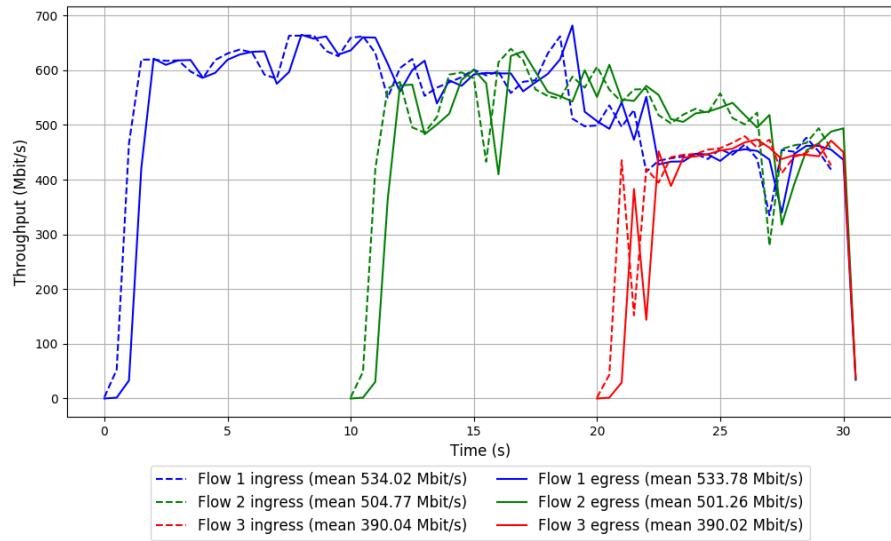


Run 2: Statistics of TCP Cubic

```
Start at: 2019-02-12 17:55:18
End at: 2019-02-12 17:55:48
Local clock offset: -0.037 ms
Remote clock offset: -1.297 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 997.22 Mbit/s
95th percentile per-packet one-way delay: 152.046 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 533.78 Mbit/s
95th percentile per-packet one-way delay: 95.395 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 501.26 Mbit/s
95th percentile per-packet one-way delay: 161.537 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 390.02 Mbit/s
95th percentile per-packet one-way delay: 79.073 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Cubic — Data Link

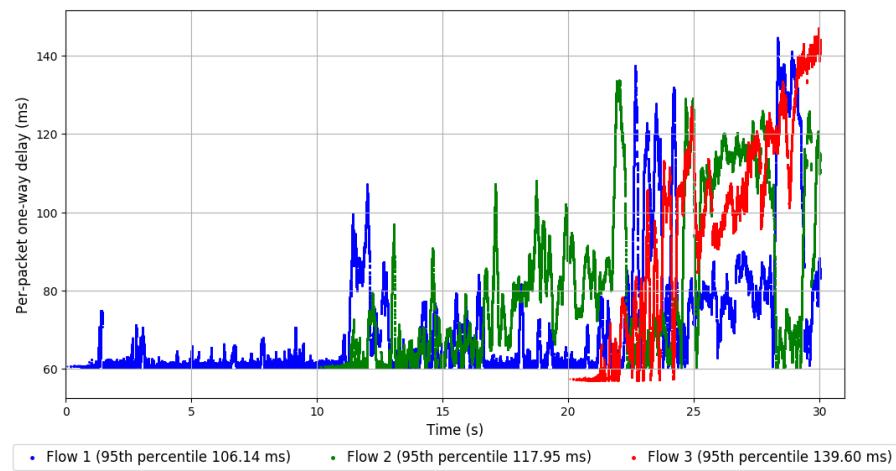
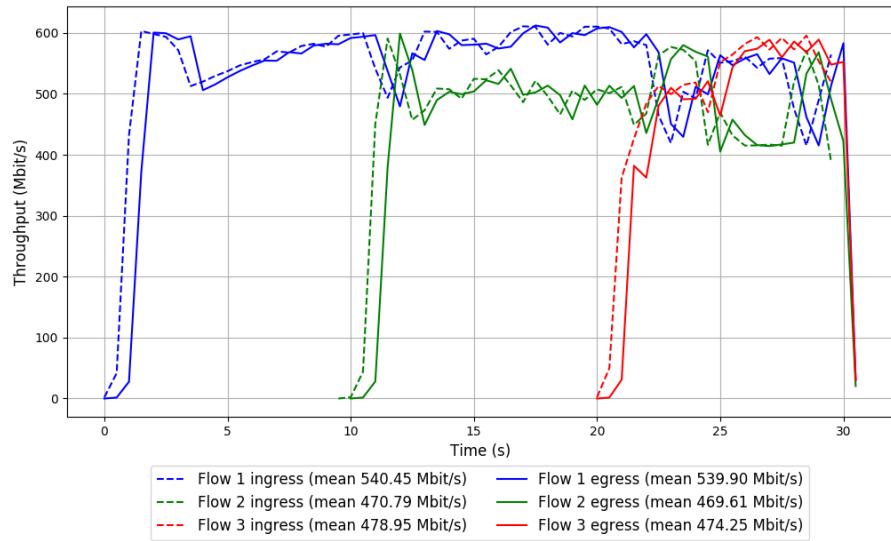


Run 3: Statistics of TCP Cubic

```
Start at: 2019-02-12 18:36:28
End at: 2019-02-12 18:36:58
Local clock offset: -0.248 ms
Remote clock offset: 0.259 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1010.45 Mbit/s
95th percentile per-packet one-way delay: 122.665 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 539.90 Mbit/s
95th percentile per-packet one-way delay: 106.143 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 469.61 Mbit/s
95th percentile per-packet one-way delay: 117.947 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 474.25 Mbit/s
95th percentile per-packet one-way delay: 139.596 ms
Loss rate: 0.98%
```

Run 3: Report of TCP Cubic — Data Link

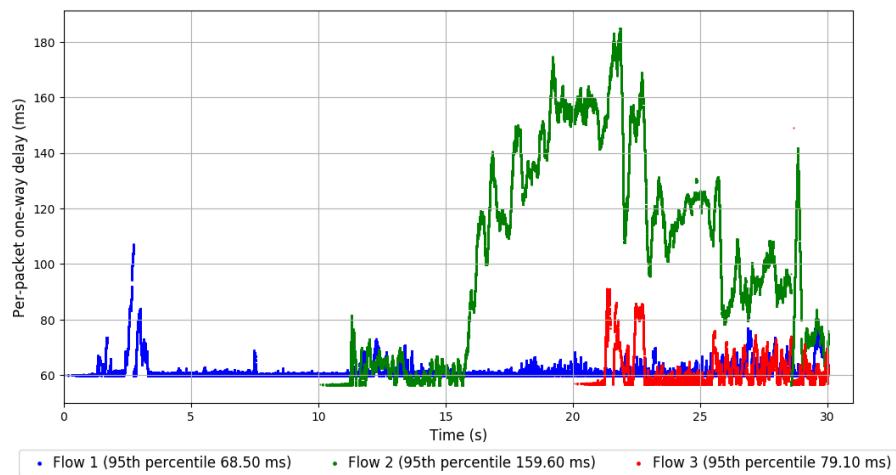
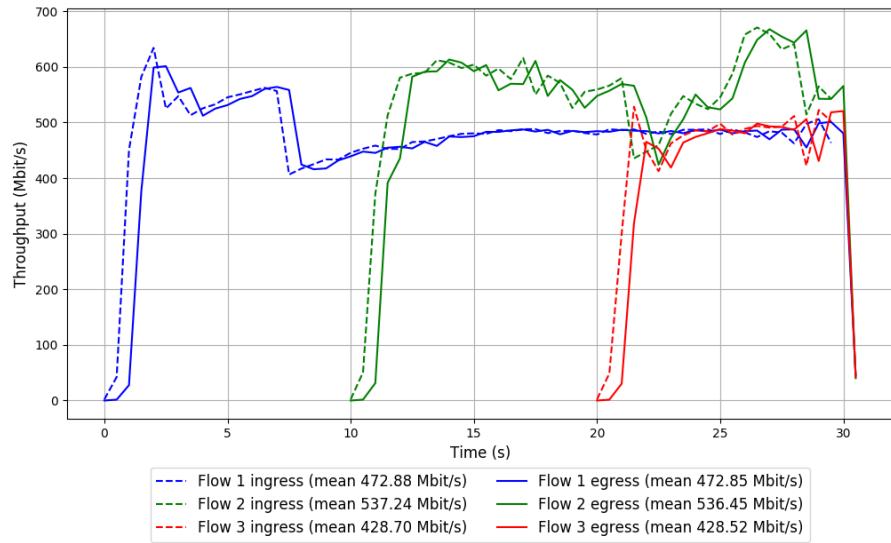


Run 4: Statistics of TCP Cubic

```
Start at: 2019-02-12 19:17:48
End at: 2019-02-12 19:18:18
Local clock offset: 0.227 ms
Remote clock offset: -0.157 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 972.78 Mbit/s
95th percentile per-packet one-way delay: 152.287 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 472.85 Mbit/s
95th percentile per-packet one-way delay: 68.499 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 536.45 Mbit/s
95th percentile per-packet one-way delay: 159.602 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 428.52 Mbit/s
95th percentile per-packet one-way delay: 79.100 ms
Loss rate: 0.04%
```

Run 4: Report of TCP Cubic — Data Link

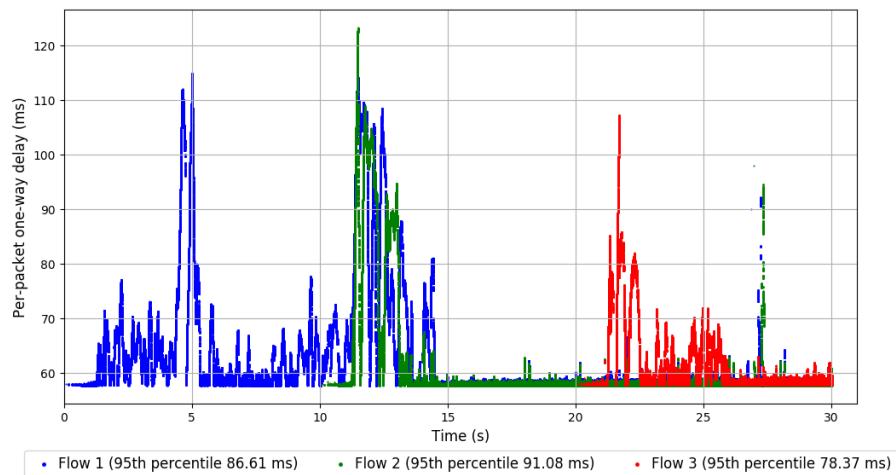
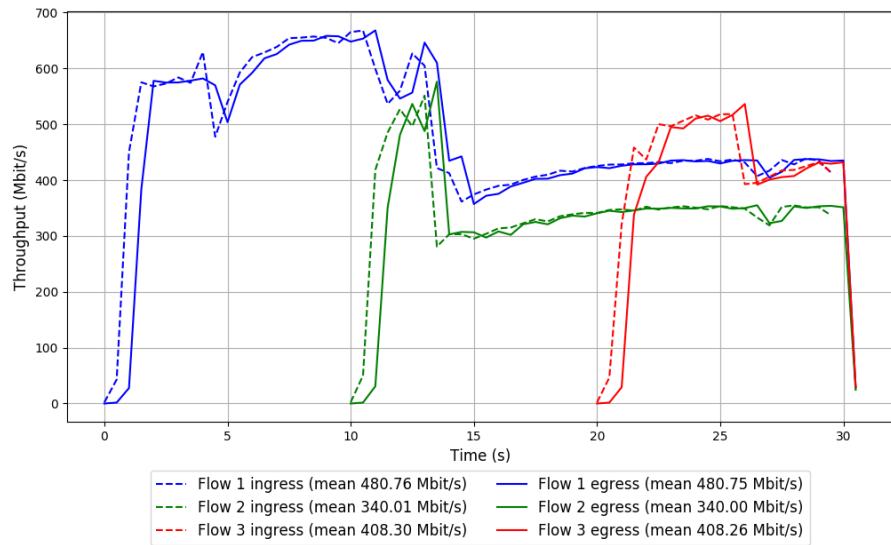


Run 5: Statistics of TCP Cubic

```
Start at: 2019-02-12 19:59:25
End at: 2019-02-12 19:59:55
Local clock offset: -0.61 ms
Remote clock offset: 0.232 ms

# Below is generated by plot.py at 2019-02-12 21:25:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 842.80 Mbit/s
95th percentile per-packet one-way delay: 86.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 480.75 Mbit/s
95th percentile per-packet one-way delay: 86.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 340.00 Mbit/s
95th percentile per-packet one-way delay: 91.082 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 408.26 Mbit/s
95th percentile per-packet one-way delay: 78.371 ms
Loss rate: 0.01%
```

Run 5: Report of TCP Cubic — Data Link

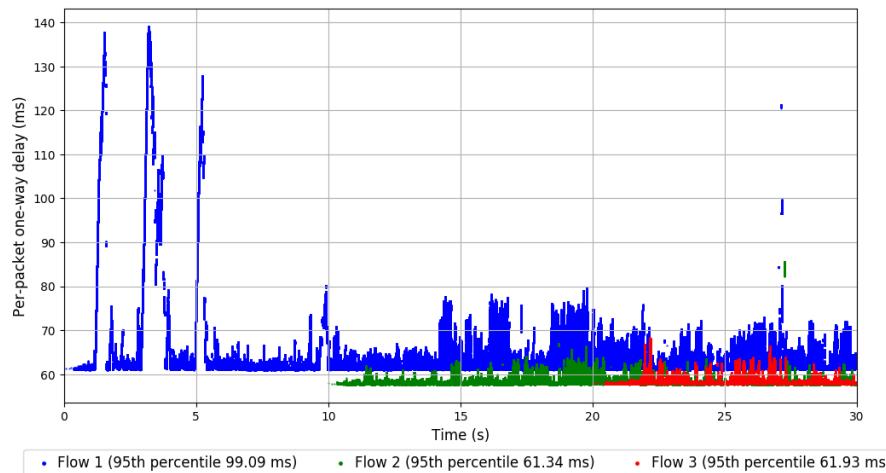
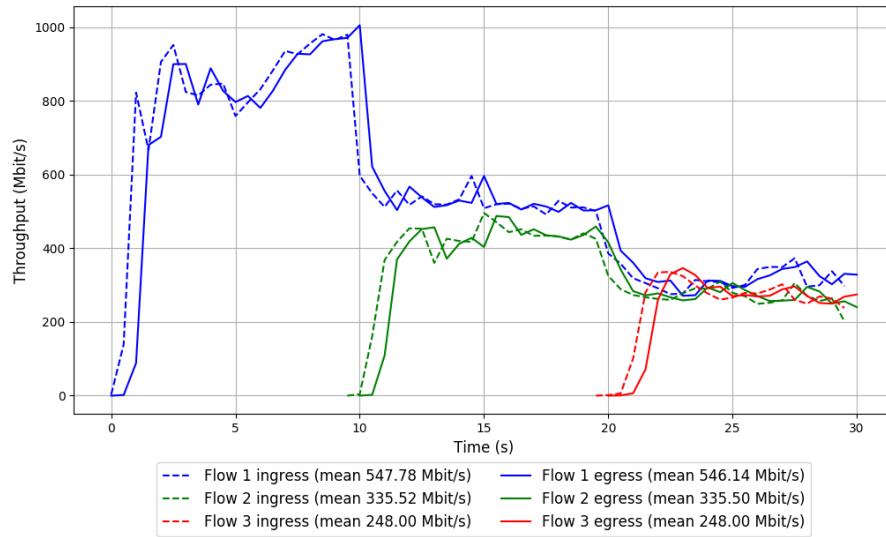


```
Run 1: Statistics of FillP

Start at: 2019-02-12 17:21:52
End at: 2019-02-12 17:22:22
Local clock offset: -0.214 ms
Remote clock offset: 0.272 ms

# Below is generated by plot.py at 2019-02-12 21:28:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 852.05 Mbit/s
95th percentile per-packet one-way delay: 76.799 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 546.14 Mbit/s
95th percentile per-packet one-way delay: 99.091 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 335.50 Mbit/s
95th percentile per-packet one-way delay: 61.335 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 248.00 Mbit/s
95th percentile per-packet one-way delay: 61.930 ms
Loss rate: 0.00%
```

Run 1: Report of FillP — Data Link

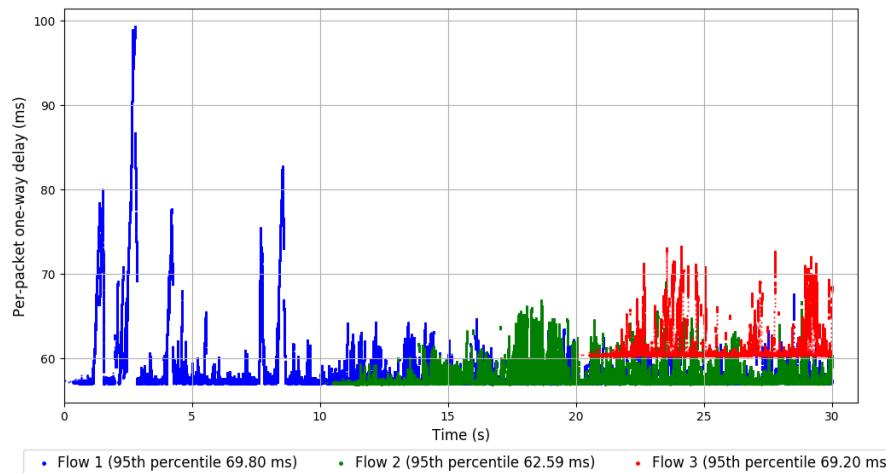
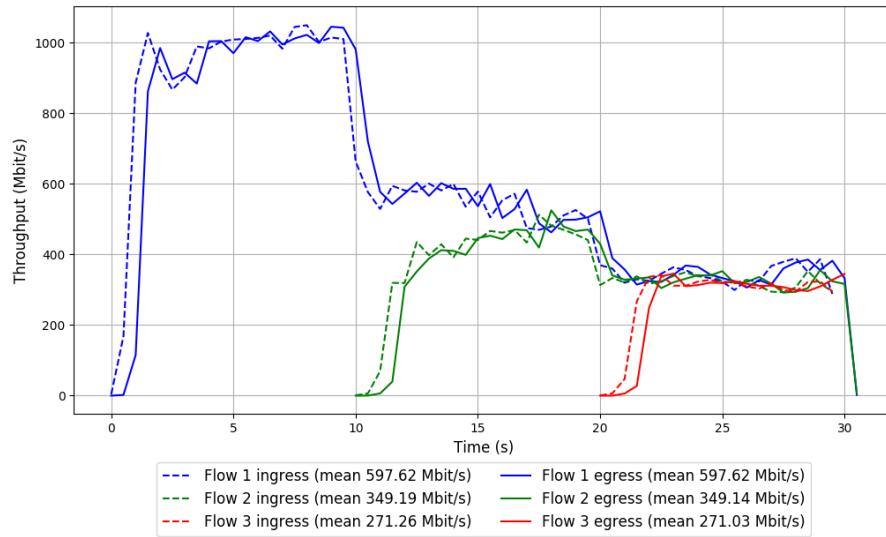


Run 2: Statistics of FillP

```
Start at: 2019-02-12 18:03:28
End at: 2019-02-12 18:03:58
Local clock offset: -0.107 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2019-02-12 21:45:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 919.51 Mbit/s
95th percentile per-packet one-way delay: 67.441 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 597.62 Mbit/s
95th percentile per-packet one-way delay: 69.801 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 349.14 Mbit/s
95th percentile per-packet one-way delay: 62.585 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 271.03 Mbit/s
95th percentile per-packet one-way delay: 69.197 ms
Loss rate: 0.01%
```

Run 2: Report of FillP — Data Link

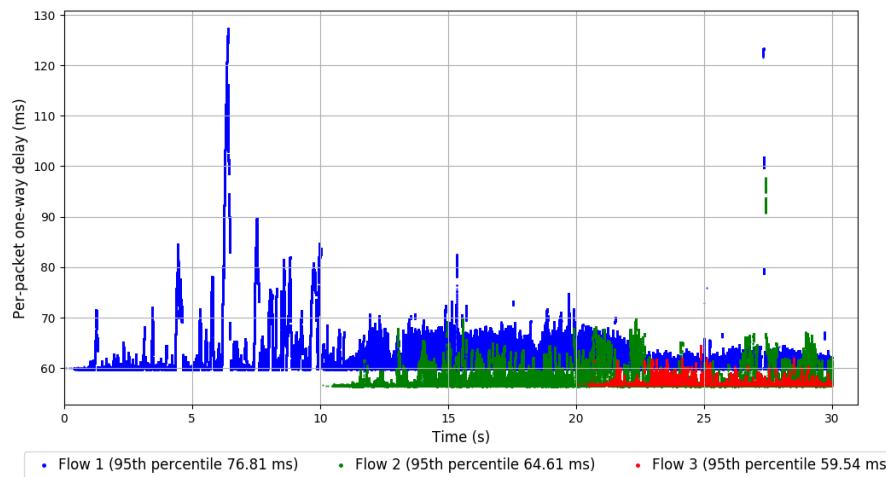
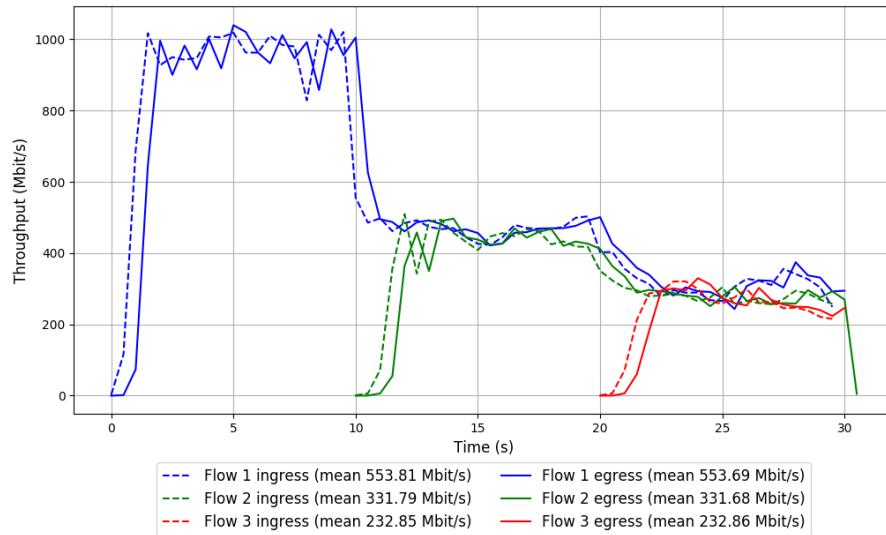


Run 3: Statistics of FillP

```
Start at: 2019-02-12 18:43:53
End at: 2019-02-12 18:44:23
Local clock offset: -0.185 ms
Remote clock offset: -0.632 ms

# Below is generated by plot.py at 2019-02-12 21:46:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.44 Mbit/s
95th percentile per-packet one-way delay: 72.880 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 553.69 Mbit/s
95th percentile per-packet one-way delay: 76.805 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 331.68 Mbit/s
95th percentile per-packet one-way delay: 64.613 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 232.86 Mbit/s
95th percentile per-packet one-way delay: 59.538 ms
Loss rate: 0.00%
```

Run 3: Report of FillP — Data Link

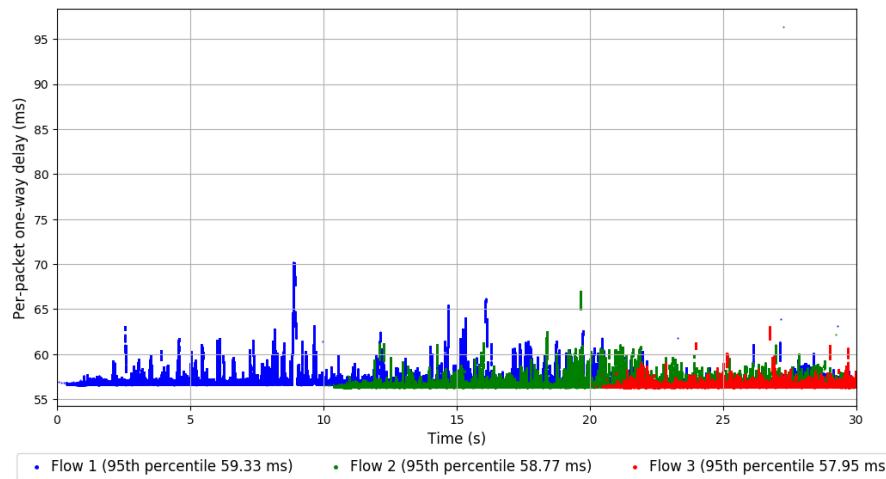
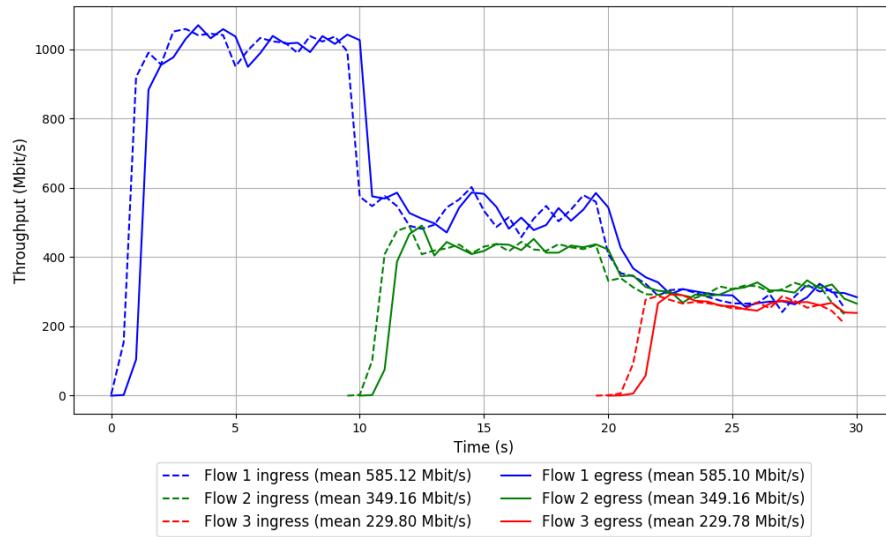


Run 4: Statistics of FillP

```
Start at: 2019-02-12 19:25:52
End at: 2019-02-12 19:26:22
Local clock offset: -0.222 ms
Remote clock offset: -0.742 ms

# Below is generated by plot.py at 2019-02-12 21:51:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 893.72 Mbit/s
95th percentile per-packet one-way delay: 59.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 585.10 Mbit/s
95th percentile per-packet one-way delay: 59.334 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 349.16 Mbit/s
95th percentile per-packet one-way delay: 58.766 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 229.78 Mbit/s
95th percentile per-packet one-way delay: 57.945 ms
Loss rate: 0.00%
```

Run 4: Report of FillP — Data Link

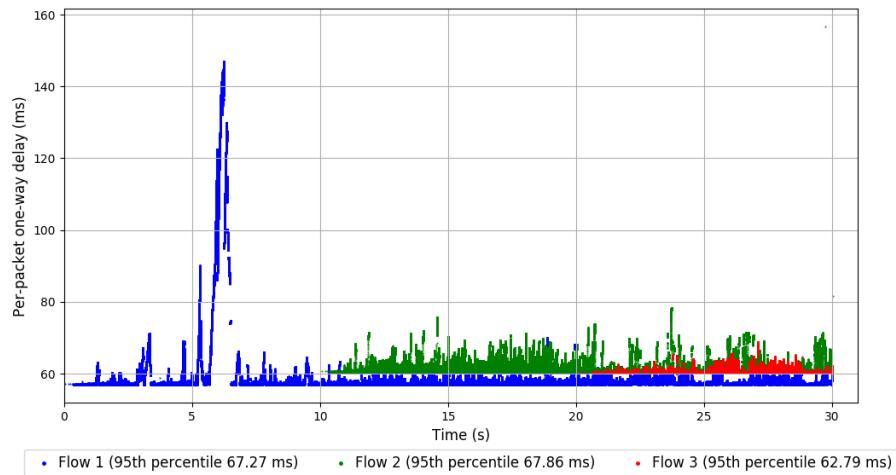
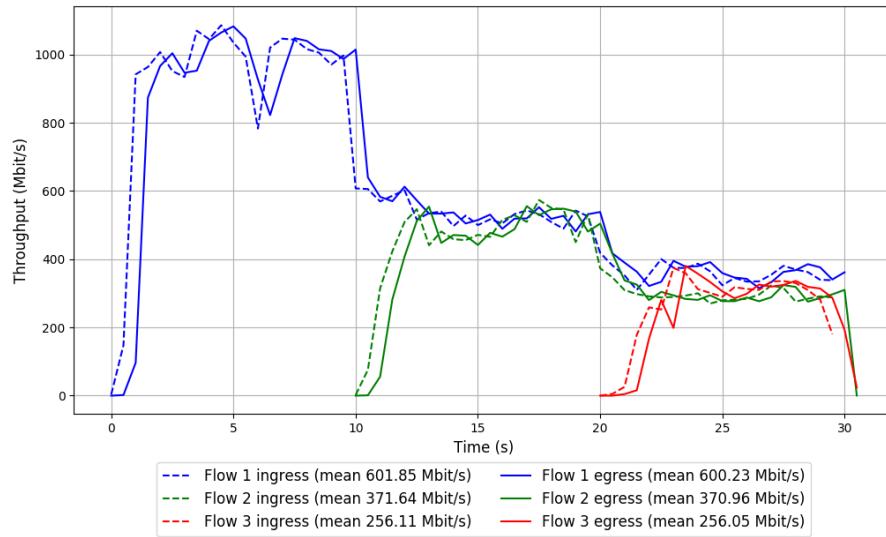


```
Run 5: Statistics of FillP
```

```
Start at: 2019-02-12 20:06:46
End at: 2019-02-12 20:07:16
Local clock offset: 0.079 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2019-02-12 21:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 931.10 Mbit/s
95th percentile per-packet one-way delay: 67.177 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 600.23 Mbit/s
95th percentile per-packet one-way delay: 67.266 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 370.96 Mbit/s
95th percentile per-packet one-way delay: 67.856 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 256.05 Mbit/s
95th percentile per-packet one-way delay: 62.794 ms
Loss rate: 0.00%
```

Run 5: Report of FillP — Data Link

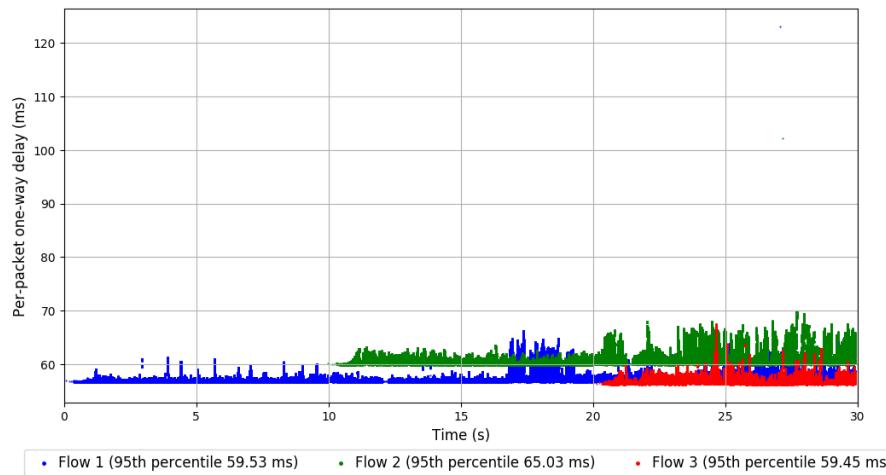
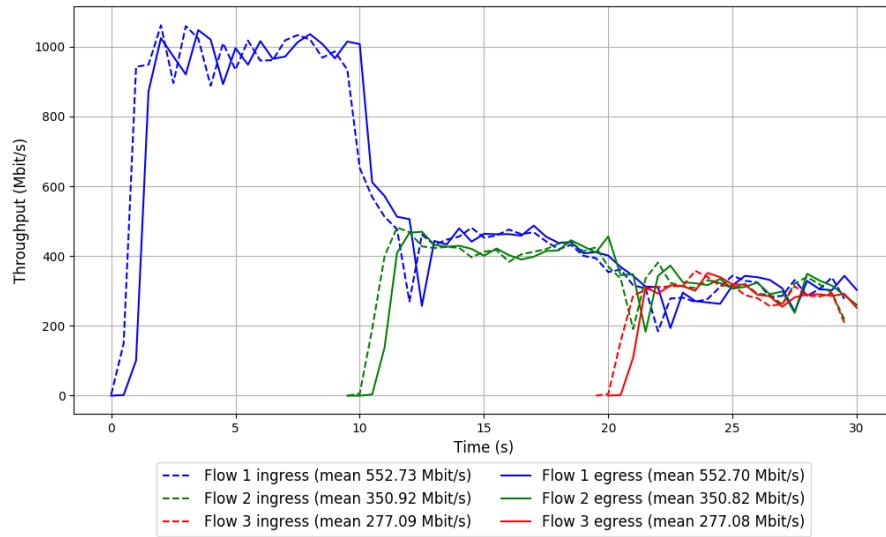


Run 1: Statistics of FillP-Sheep

```
Start at: 2019-02-12 17:02:29
End at: 2019-02-12 17:02:59
Local clock offset: 0.594 ms
Remote clock offset: -0.152 ms

# Below is generated by plot.py at 2019-02-12 21:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 878.60 Mbit/s
95th percentile per-packet one-way delay: 62.306 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 552.70 Mbit/s
95th percentile per-packet one-way delay: 59.533 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 350.82 Mbit/s
95th percentile per-packet one-way delay: 65.025 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 277.08 Mbit/s
95th percentile per-packet one-way delay: 59.454 ms
Loss rate: 0.00%
```

Run 1: Report of FillP-Sheep — Data Link

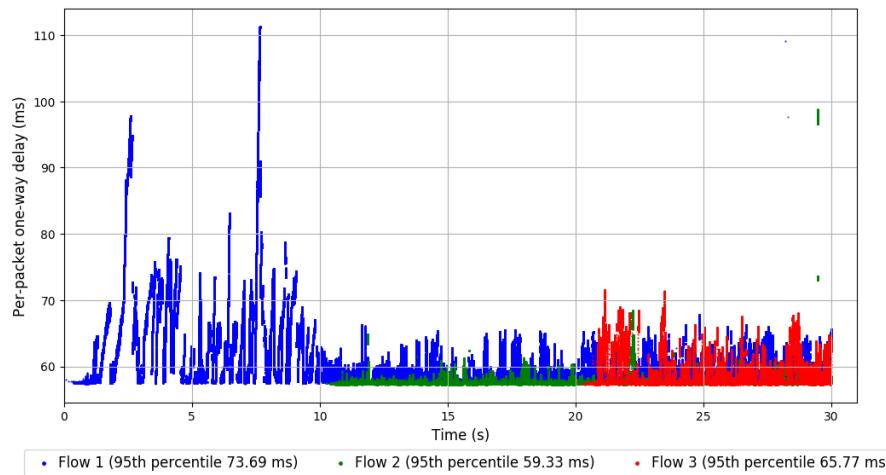
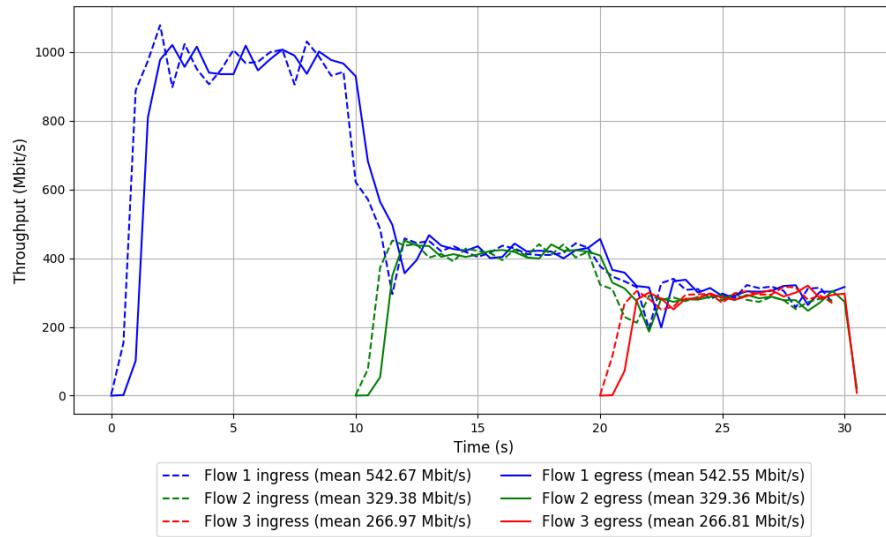


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-02-12 17:44:24
End at: 2019-02-12 17:44:54
Local clock offset: -0.195 ms
Remote clock offset: 0.405 ms

# Below is generated by plot.py at 2019-02-12 21:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 849.91 Mbit/s
95th percentile per-packet one-way delay: 71.870 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 542.55 Mbit/s
95th percentile per-packet one-way delay: 73.691 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 329.36 Mbit/s
95th percentile per-packet one-way delay: 59.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 266.81 Mbit/s
95th percentile per-packet one-way delay: 65.768 ms
Loss rate: 0.01%
```

Run 2: Report of FillP-Sheep — Data Link

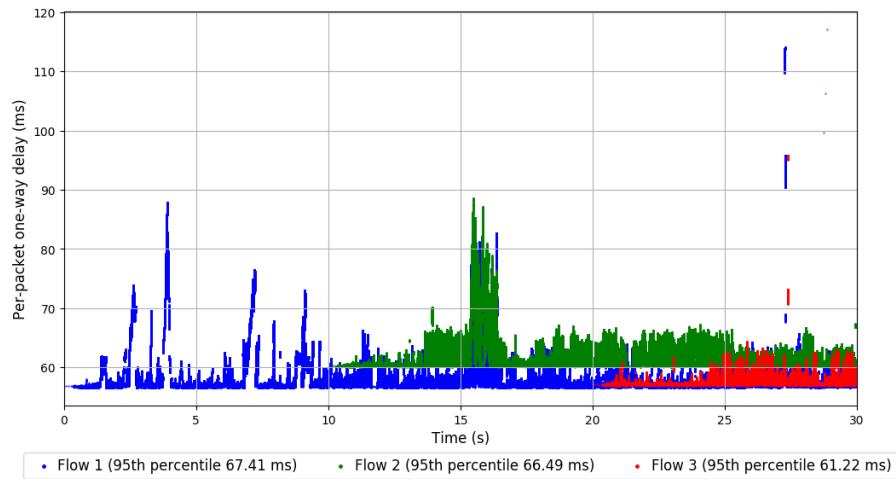
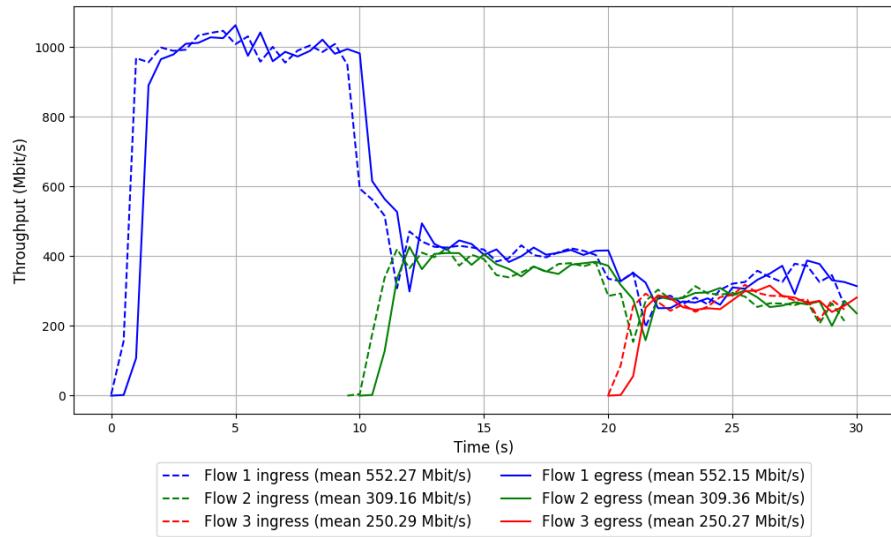


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-02-12 18:25:18
End at: 2019-02-12 18:25:48
Local clock offset: -0.218 ms
Remote clock offset: -0.07 ms

# Below is generated by plot.py at 2019-02-12 21:52:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 840.84 Mbit/s
95th percentile per-packet one-way delay: 66.586 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 552.15 Mbit/s
95th percentile per-packet one-way delay: 67.410 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 309.36 Mbit/s
95th percentile per-packet one-way delay: 66.491 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 250.27 Mbit/s
95th percentile per-packet one-way delay: 61.220 ms
Loss rate: 0.00%
```

Run 3: Report of FillP-Sheep — Data Link

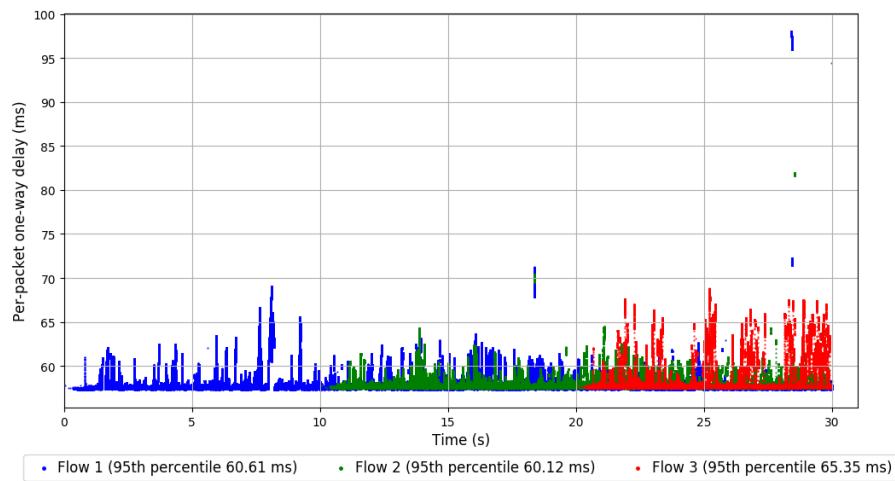
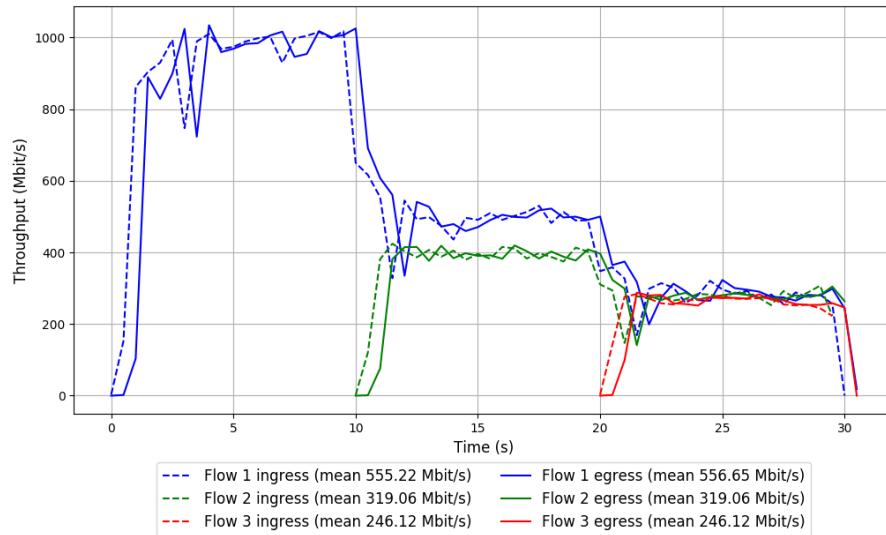


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-02-12 19:06:19
End at: 2019-02-12 19:06:49
Local clock offset: -0.461 ms
Remote clock offset: 0.075 ms

# Below is generated by plot.py at 2019-02-12 21:55:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 850.16 Mbit/s
95th percentile per-packet one-way delay: 61.369 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 556.65 Mbit/s
95th percentile per-packet one-way delay: 60.606 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 319.06 Mbit/s
95th percentile per-packet one-way delay: 60.117 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 246.12 Mbit/s
95th percentile per-packet one-way delay: 65.348 ms
Loss rate: 0.00%
```

Run 4: Report of FillP-Sheep — Data Link

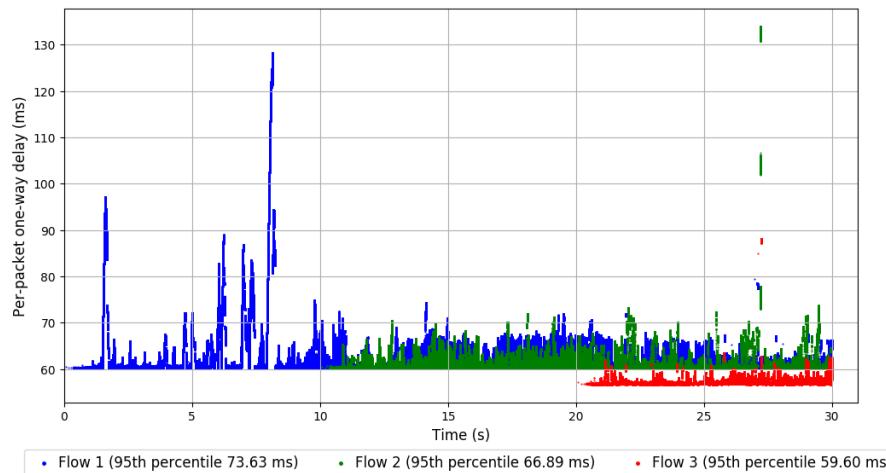
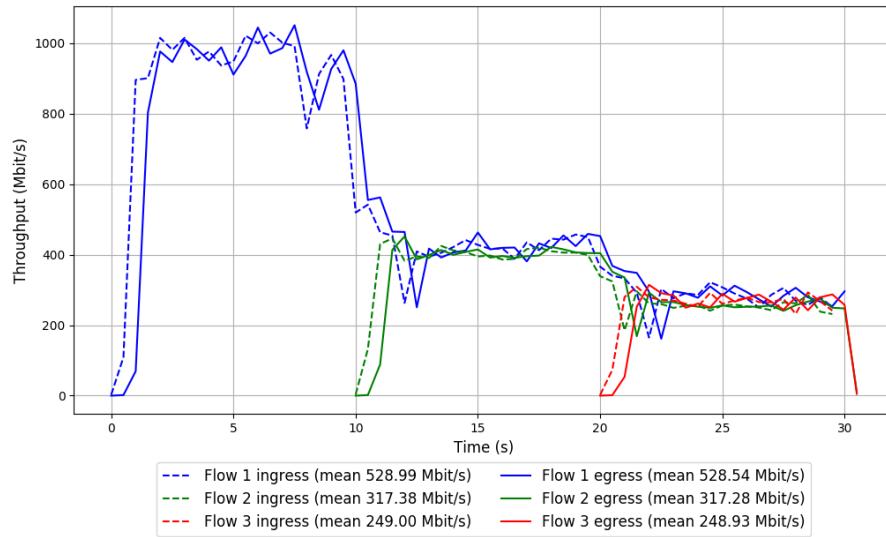


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-02-12 19:48:18
End at: 2019-02-12 19:48:48
Local clock offset: -0.054 ms
Remote clock offset: -0.119 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 821.97 Mbit/s
95th percentile per-packet one-way delay: 69.939 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 528.54 Mbit/s
95th percentile per-packet one-way delay: 73.628 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 317.28 Mbit/s
95th percentile per-packet one-way delay: 66.893 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 248.93 Mbit/s
95th percentile per-packet one-way delay: 59.601 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

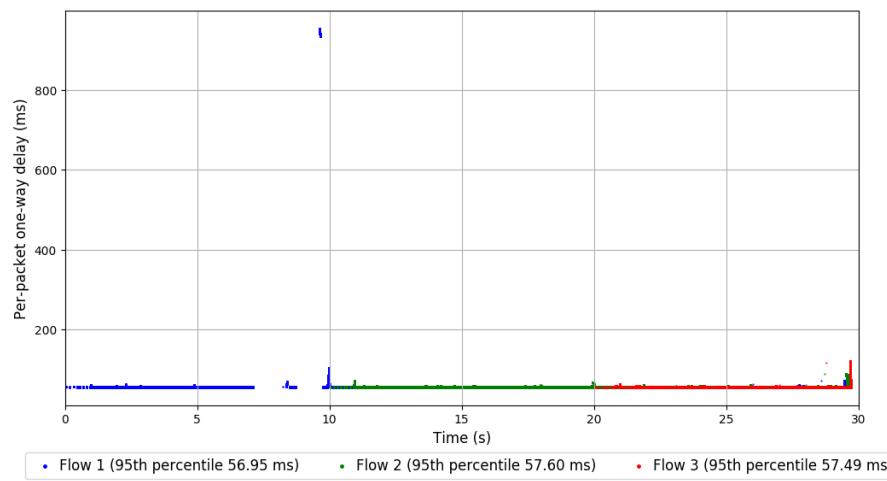
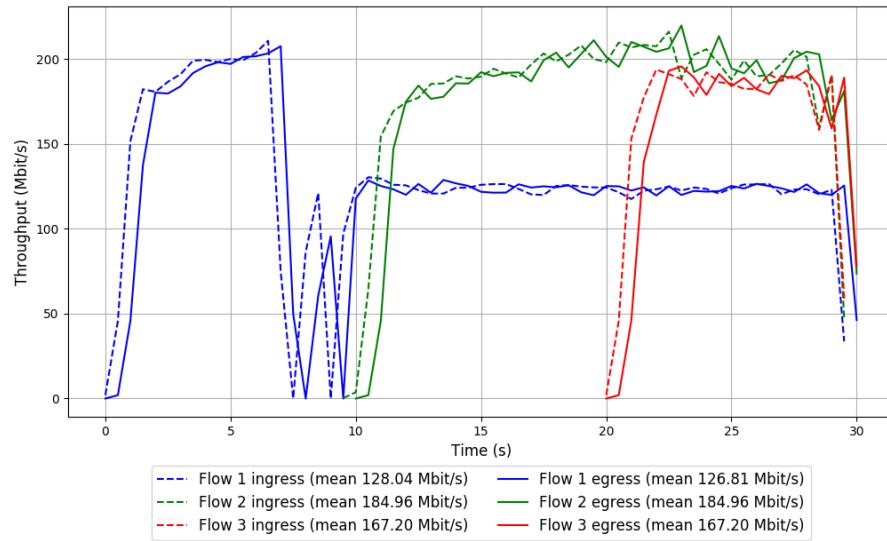


Run 1: Statistics of Indigo

```
Start at: 2019-02-12 17:20:00
End at: 2019-02-12 17:20:30
Local clock offset: -0.077 ms
Remote clock offset: -1.427 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 303.77 Mbit/s
95th percentile per-packet one-way delay: 57.359 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 126.81 Mbit/s
95th percentile per-packet one-way delay: 56.952 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 184.96 Mbit/s
95th percentile per-packet one-way delay: 57.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 167.20 Mbit/s
95th percentile per-packet one-way delay: 57.486 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

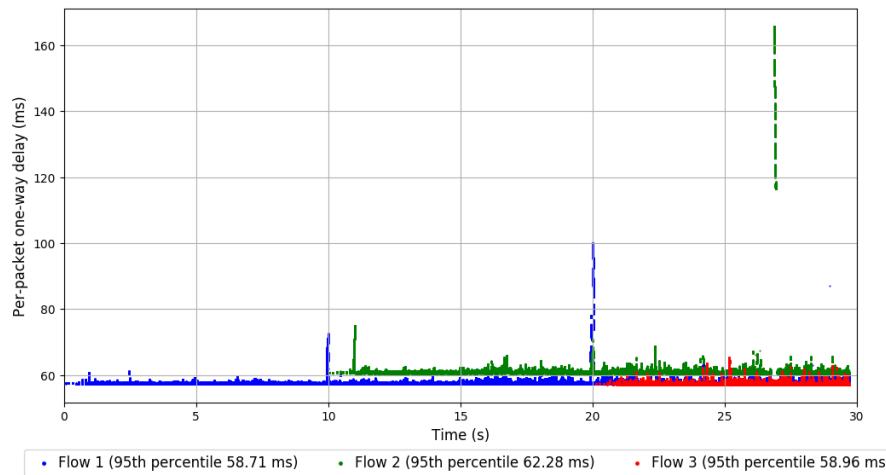
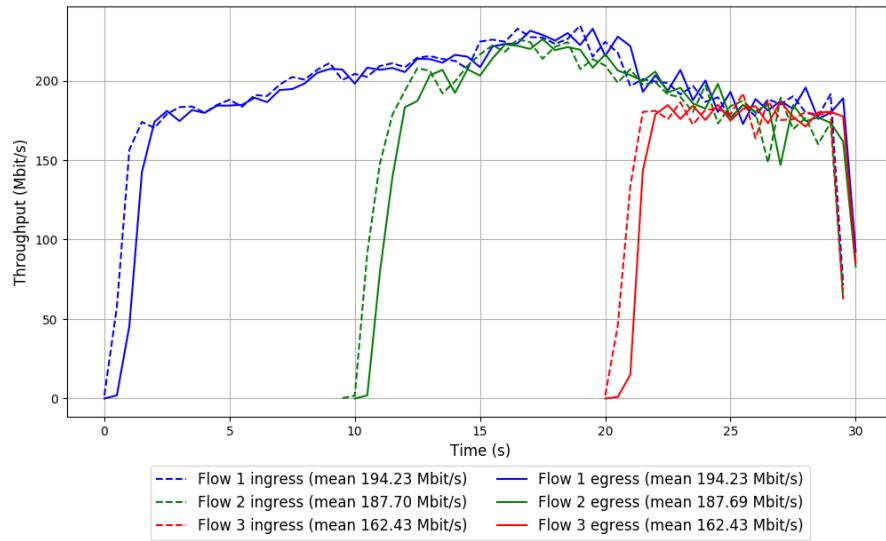


Run 2: Statistics of Indigo

```
Start at: 2019-02-12 18:01:25
End at: 2019-02-12 18:01:55
Local clock offset: -0.519 ms
Remote clock offset: -0.127 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.21 Mbit/s
95th percentile per-packet one-way delay: 61.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 194.23 Mbit/s
95th percentile per-packet one-way delay: 58.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.69 Mbit/s
95th percentile per-packet one-way delay: 62.276 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 162.43 Mbit/s
95th percentile per-packet one-way delay: 58.959 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

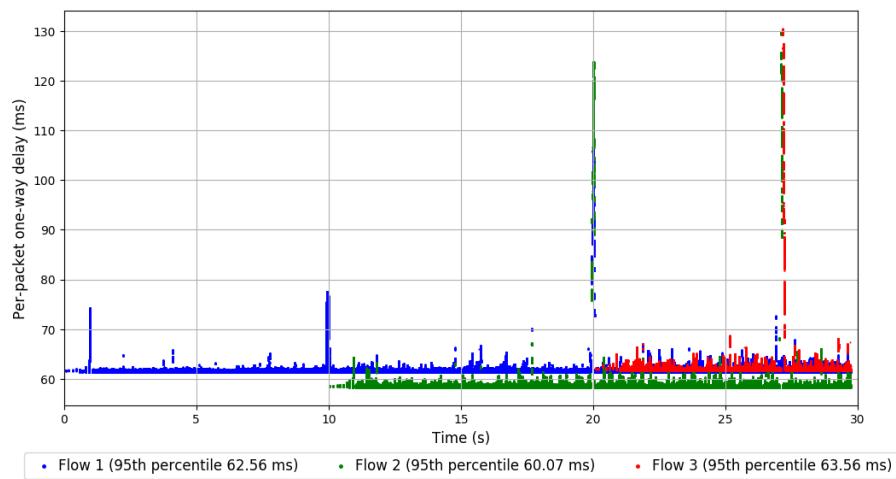
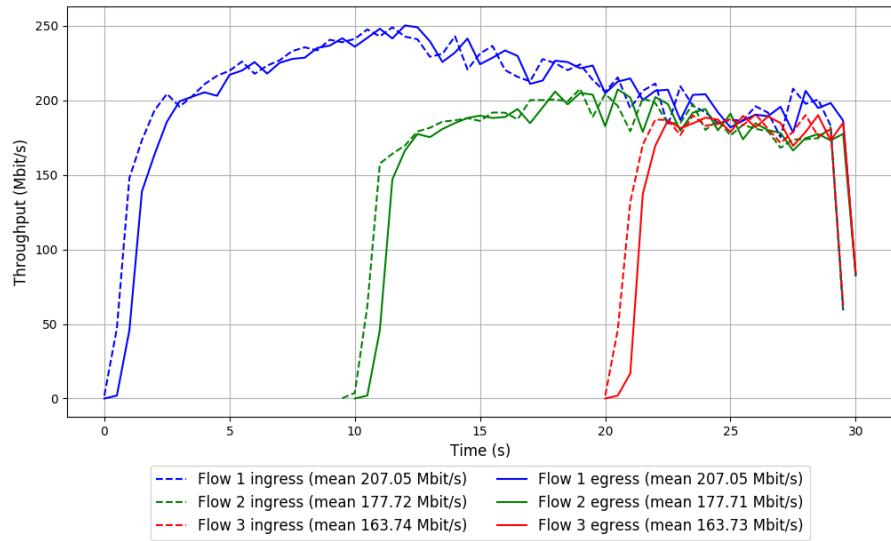


Run 3: Statistics of Indigo

```
Start at: 2019-02-12 18:41:52
End at: 2019-02-12 18:42:22
Local clock offset: -0.252 ms
Remote clock offset: 1.288 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 378.15 Mbit/s
95th percentile per-packet one-way delay: 62.548 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 207.05 Mbit/s
95th percentile per-packet one-way delay: 62.557 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 177.71 Mbit/s
95th percentile per-packet one-way delay: 60.071 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 163.73 Mbit/s
95th percentile per-packet one-way delay: 63.564 ms
Loss rate: 0.02%
```

Run 3: Report of Indigo — Data Link

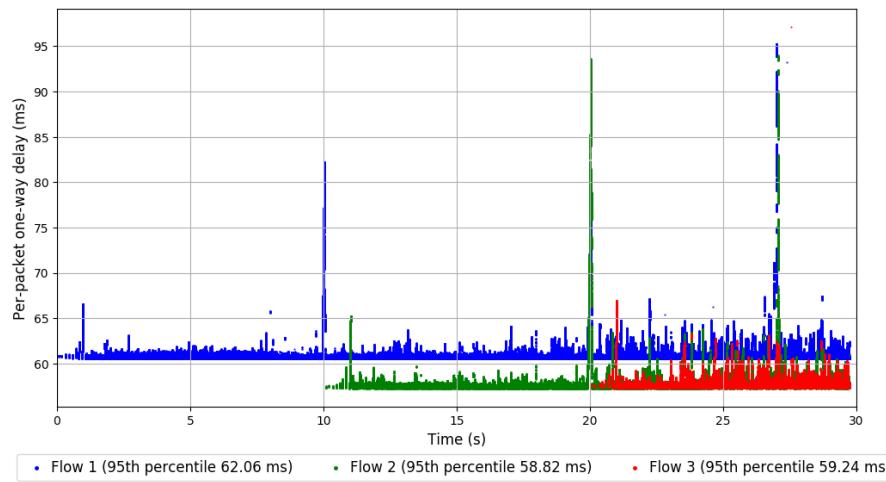
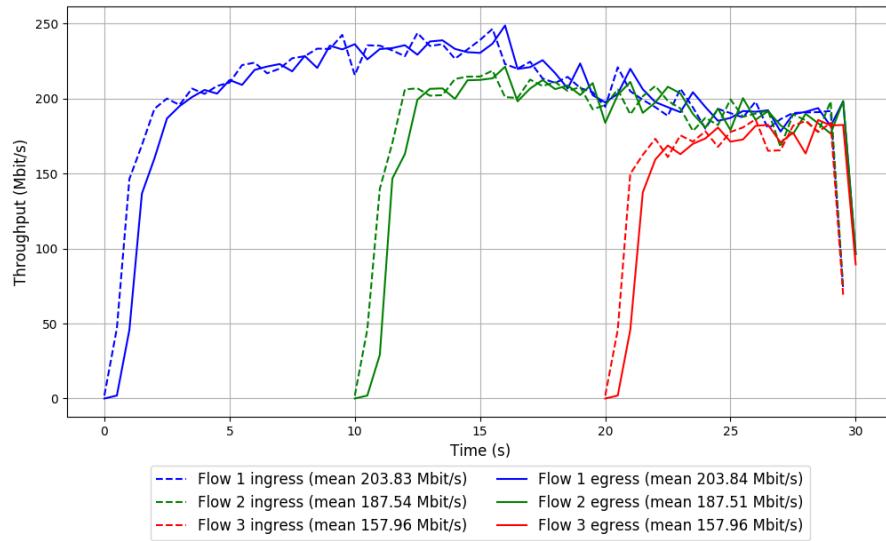


Run 4: Statistics of Indigo

```
Start at: 2019-02-12 19:23:42
End at: 2019-02-12 19:24:12
Local clock offset: -0.455 ms
Remote clock offset: 0.025 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.53 Mbit/s
95th percentile per-packet one-way delay: 61.528 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 203.84 Mbit/s
95th percentile per-packet one-way delay: 62.064 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 187.51 Mbit/s
95th percentile per-packet one-way delay: 58.822 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 157.96 Mbit/s
95th percentile per-packet one-way delay: 59.244 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

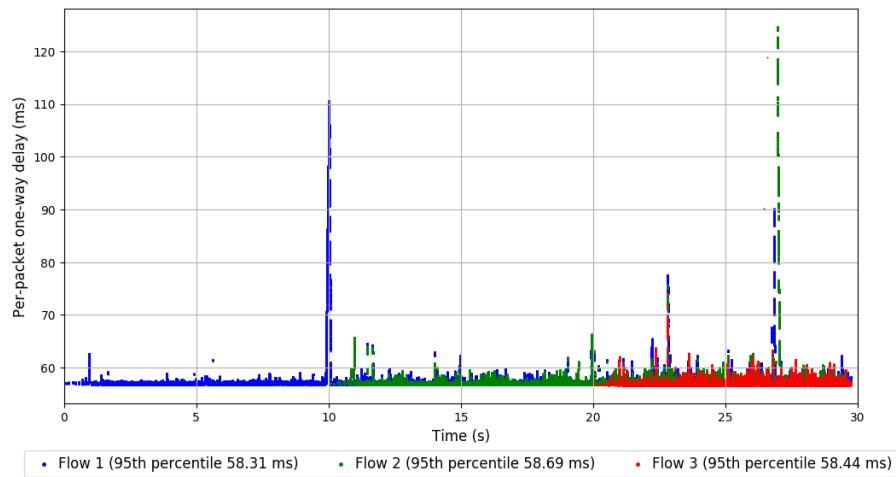
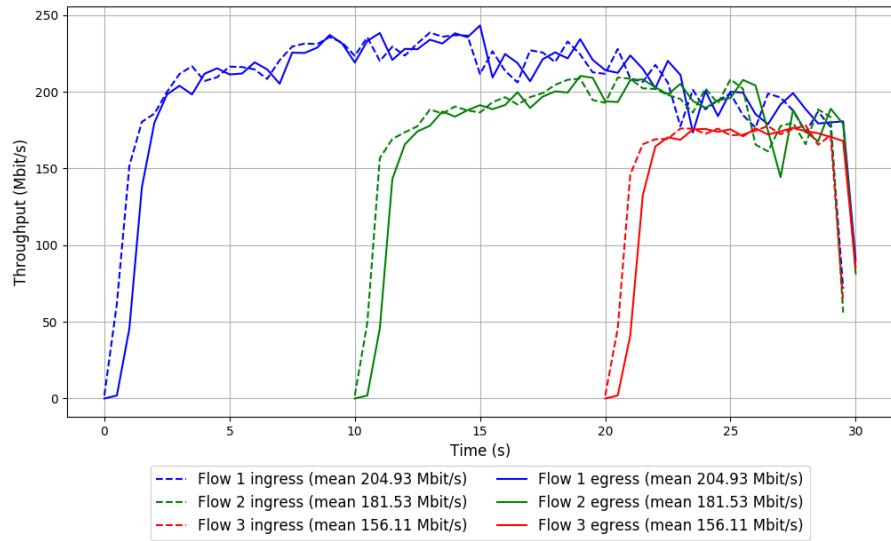


Run 5: Statistics of Indigo

```
Start at: 2019-02-12 20:04:45
End at: 2019-02-12 20:05:15
Local clock offset: -0.6 ms
Remote clock offset: -0.727 ms

# Below is generated by plot.py at 2019-02-12 22:11:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.03 Mbit/s
95th percentile per-packet one-way delay: 58.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.93 Mbit/s
95th percentile per-packet one-way delay: 58.307 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.53 Mbit/s
95th percentile per-packet one-way delay: 58.689 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 156.11 Mbit/s
95th percentile per-packet one-way delay: 58.435 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

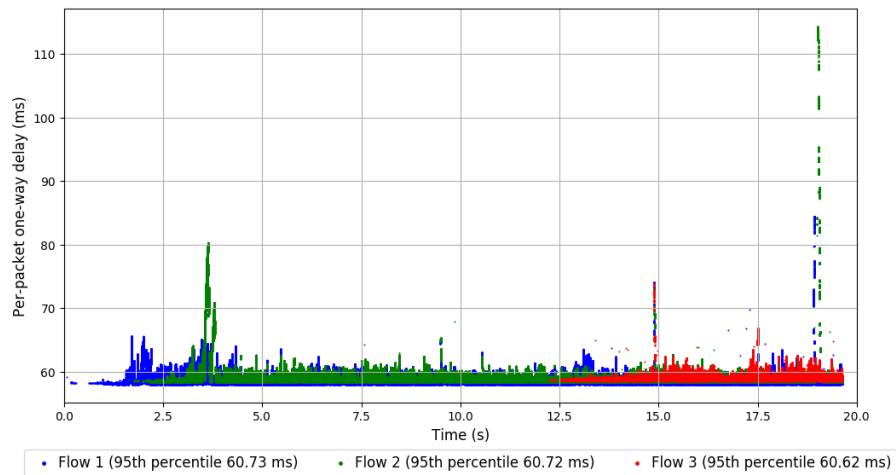
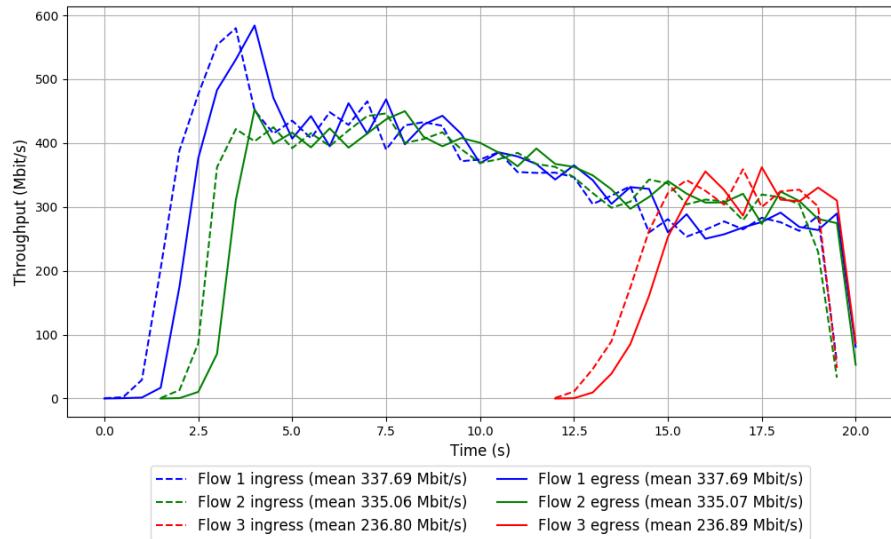
Start at: 2019-02-12 16:51:50

End at: 2019-02-12 16:52:20

Local clock offset: 0.248 ms

Remote clock offset: 1.295 ms

Run 1: Report of Indigo-MusesC3 — Data Link

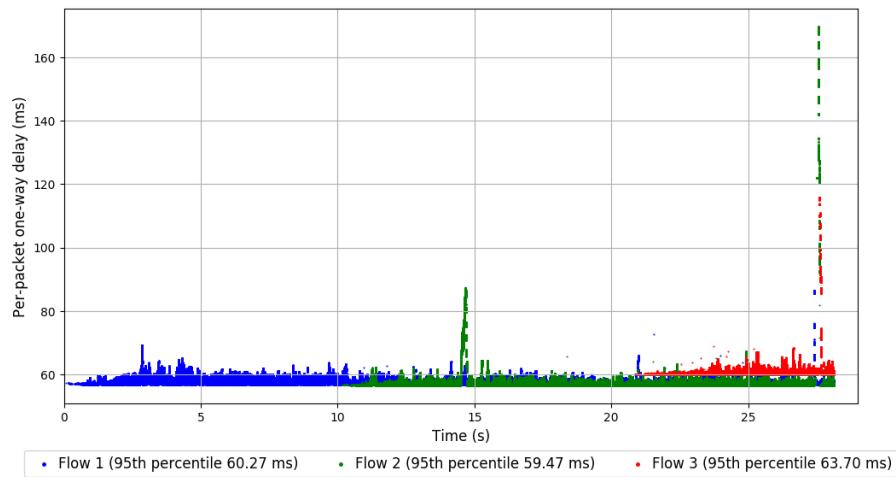
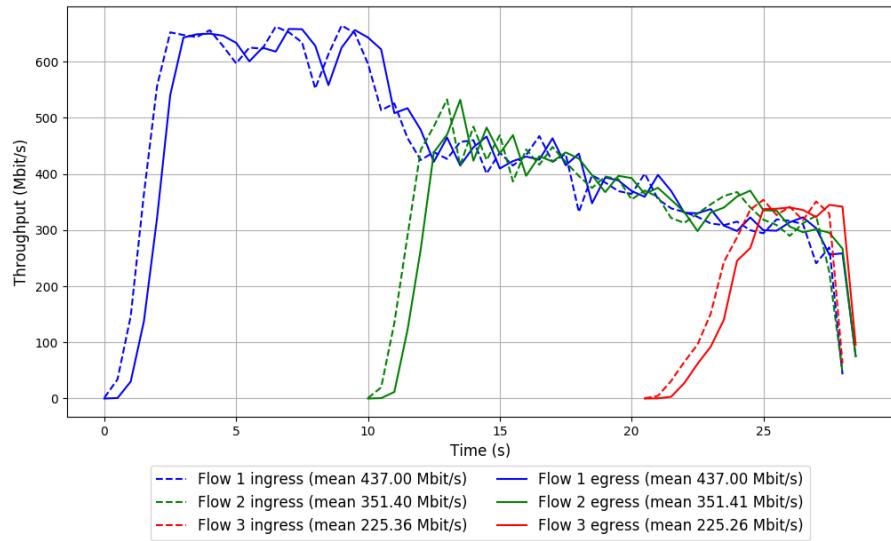


Run 2: Statistics of Indigo-MusesC3

```
Start at: 2019-02-12 17:33:15
End at: 2019-02-12 17:33:45
Local clock offset: 0.22 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2019-02-12 22:14:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 720.99 Mbit/s
95th percentile per-packet one-way delay: 60.942 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 437.00 Mbit/s
95th percentile per-packet one-way delay: 60.270 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 351.41 Mbit/s
95th percentile per-packet one-way delay: 59.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 225.26 Mbit/s
95th percentile per-packet one-way delay: 63.700 ms
Loss rate: 0.07%
```

Run 2: Report of Indigo-MusesC3 — Data Link

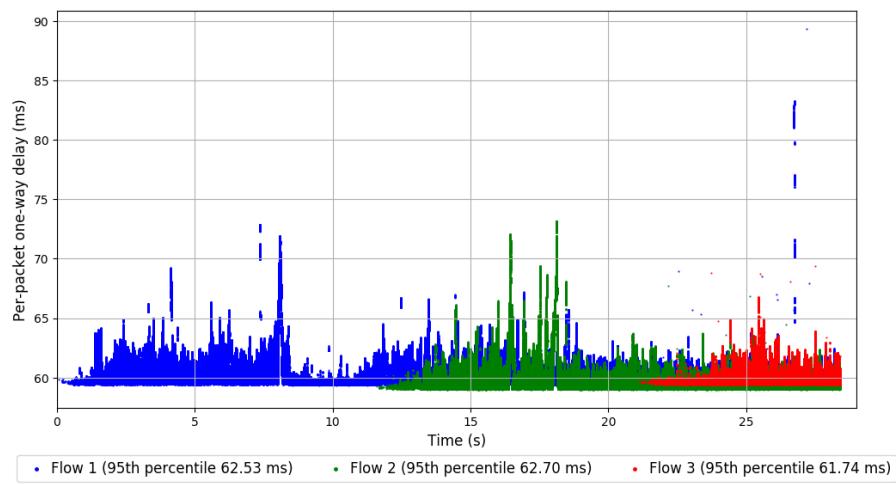
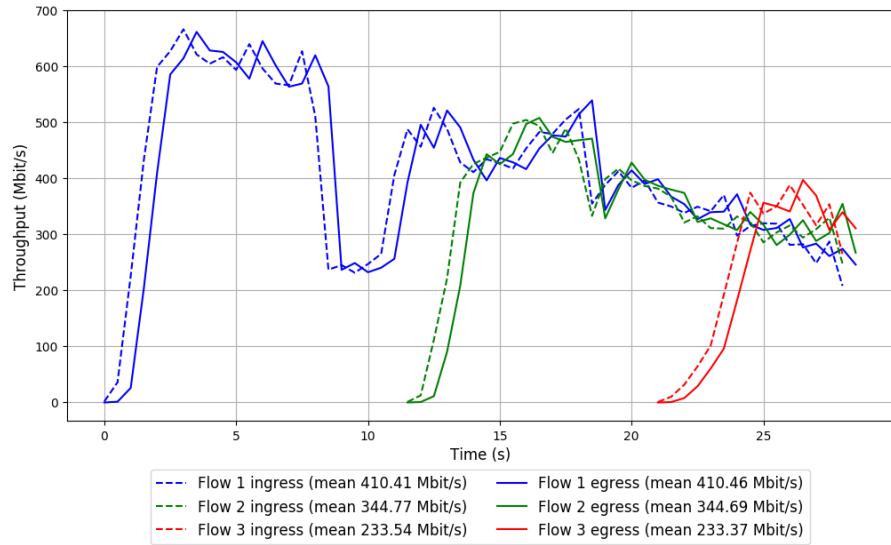


Run 3: Statistics of Indigo-MusesC3

```
Start at: 2019-02-12 18:14:47
End at: 2019-02-12 18:15:17
Local clock offset: 0.238 ms
Remote clock offset: -0.706 ms

# Below is generated by plot.py at 2019-02-12 22:18:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 675.23 Mbit/s
95th percentile per-packet one-way delay: 62.482 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 410.46 Mbit/s
95th percentile per-packet one-way delay: 62.535 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 344.69 Mbit/s
95th percentile per-packet one-way delay: 62.697 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 233.37 Mbit/s
95th percentile per-packet one-way delay: 61.745 ms
Loss rate: 0.11%
```

Run 3: Report of Indigo-MusesC3 — Data Link

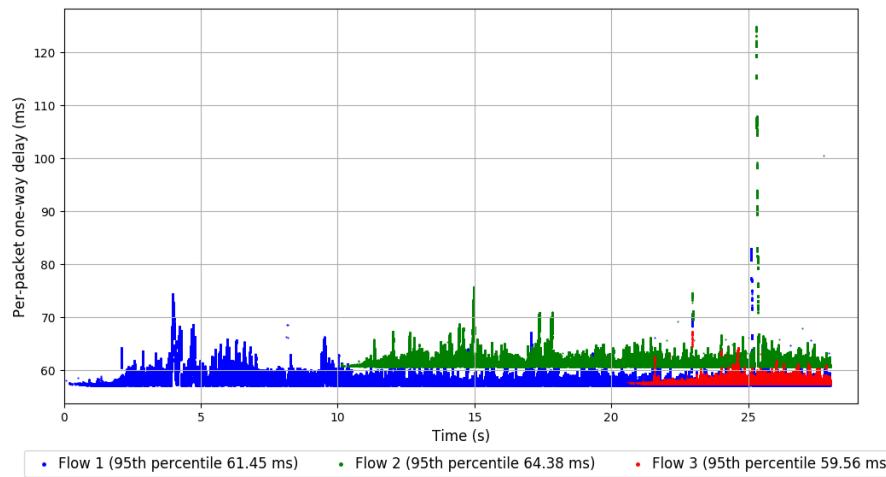
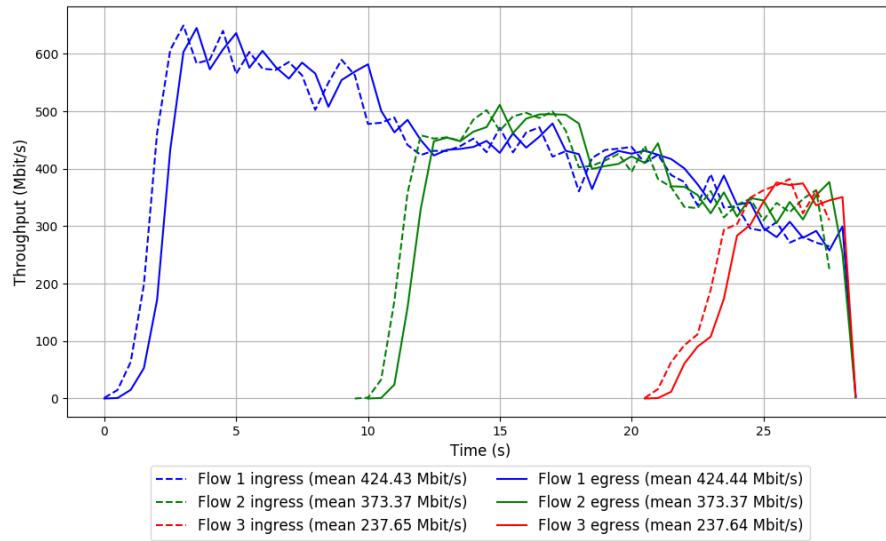


Run 4: Statistics of Indigo-MusesC3

```
Start at: 2019-02-12 18:55:17
End at: 2019-02-12 18:55:47
Local clock offset: 0.037 ms
Remote clock offset: 0.371 ms

# Below is generated by plot.py at 2019-02-12 22:23:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 728.07 Mbit/s
95th percentile per-packet one-way delay: 63.178 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 424.44 Mbit/s
95th percentile per-packet one-way delay: 61.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 373.37 Mbit/s
95th percentile per-packet one-way delay: 64.380 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 237.64 Mbit/s
95th percentile per-packet one-way delay: 59.557 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC3 — Data Link

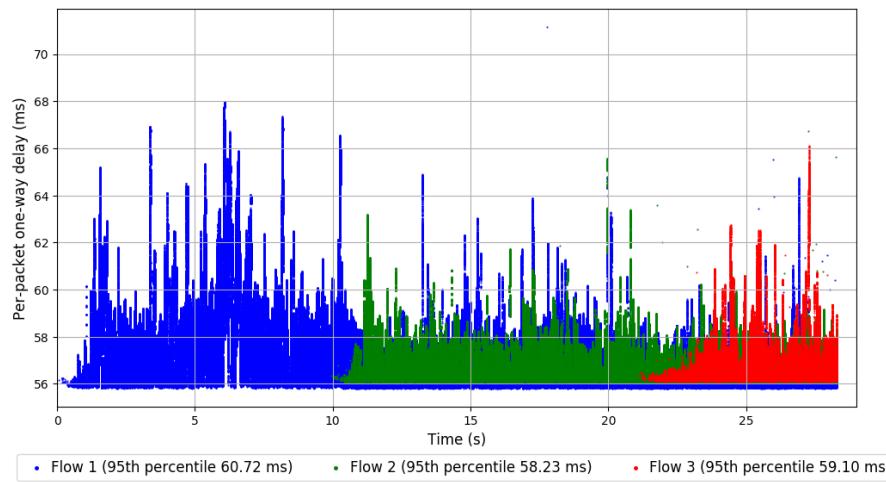
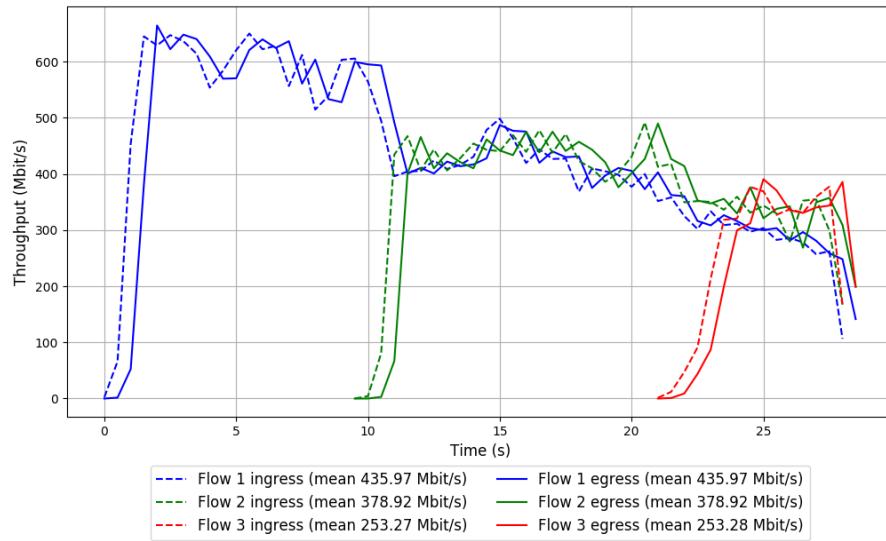


Run 5: Statistics of Indigo-MusesC3

```
Start at: 2019-02-12 19:36:52
End at: 2019-02-12 19:37:22
Local clock offset: -0.218 ms
Remote clock offset: -0.957 ms

# Below is generated by plot.py at 2019-02-12 22:27:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 746.58 Mbit/s
95th percentile per-packet one-way delay: 59.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 435.97 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 378.92 Mbit/s
95th percentile per-packet one-way delay: 58.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 253.28 Mbit/s
95th percentile per-packet one-way delay: 59.096 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC3 — Data Link

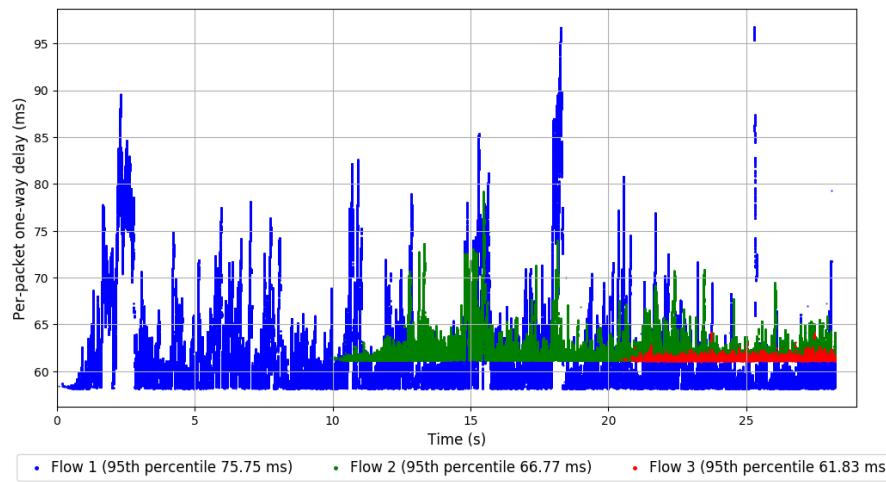
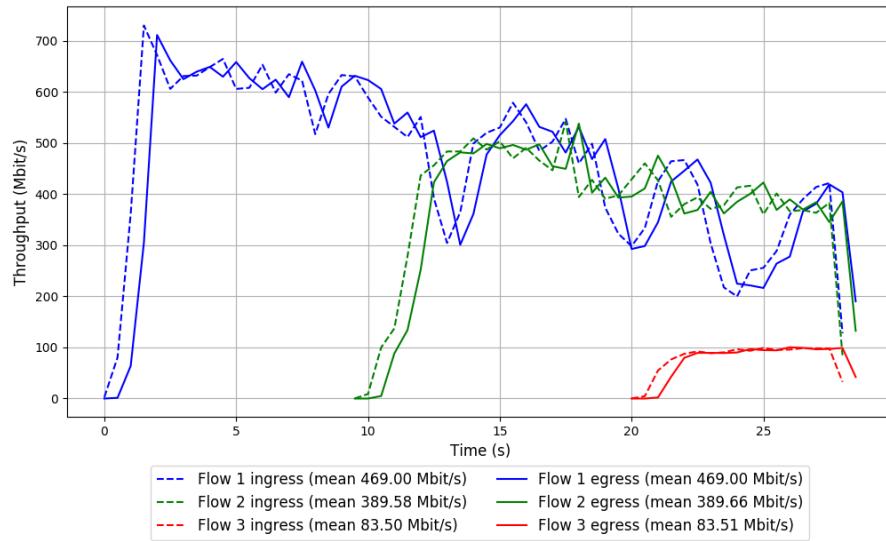


Run 1: Statistics of Indigo-MusesC5

```
Start at: 2019-02-12 17:17:49
End at: 2019-02-12 17:18:19
Local clock offset: 0.187 ms
Remote clock offset: 0.779 ms

# Below is generated by plot.py at 2019-02-12 22:28:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 745.29 Mbit/s
95th percentile per-packet one-way delay: 72.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 469.00 Mbit/s
95th percentile per-packet one-way delay: 75.751 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 389.66 Mbit/s
95th percentile per-packet one-way delay: 66.772 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.51 Mbit/s
95th percentile per-packet one-way delay: 61.833 ms
Loss rate: 0.02%
```

Run 1: Report of Indigo-MusesC5 — Data Link

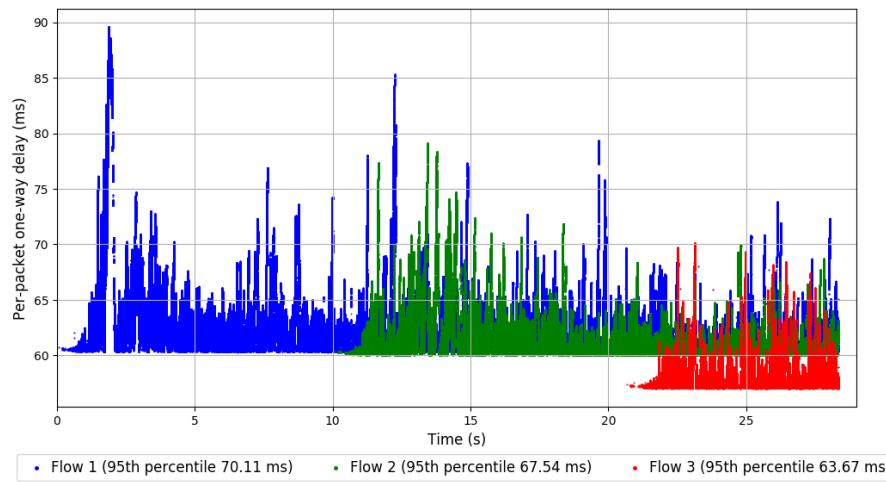
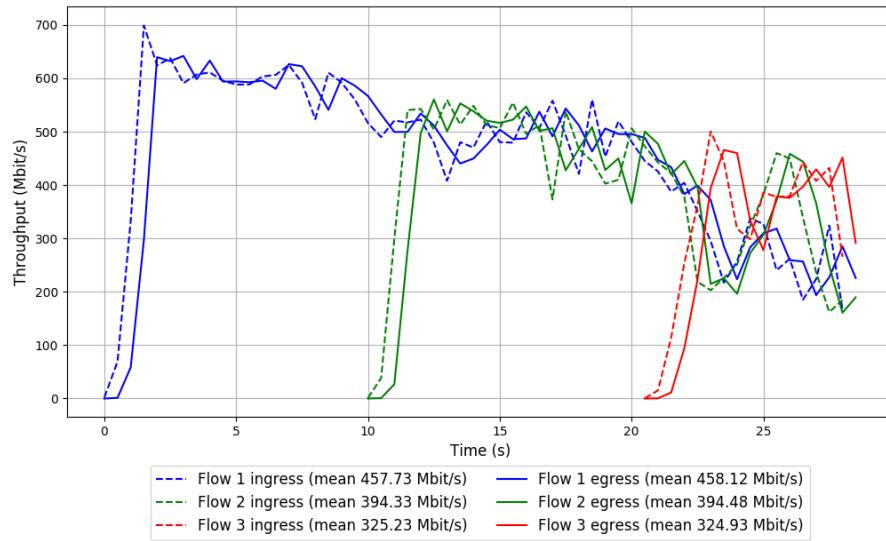


Run 2: Statistics of Indigo-MusesC5

```
Start at: 2019-02-12 17:59:14
End at: 2019-02-12 17:59:44
Local clock offset: -0.114 ms
Remote clock offset: 0.004 ms

# Below is generated by plot.py at 2019-02-12 22:30:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 800.69 Mbit/s
95th percentile per-packet one-way delay: 68.694 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 458.12 Mbit/s
95th percentile per-packet one-way delay: 70.105 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 394.48 Mbit/s
95th percentile per-packet one-way delay: 67.542 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 324.93 Mbit/s
95th percentile per-packet one-way delay: 63.669 ms
Loss rate: 0.33%
```

Run 2: Report of Indigo-MusesC5 — Data Link

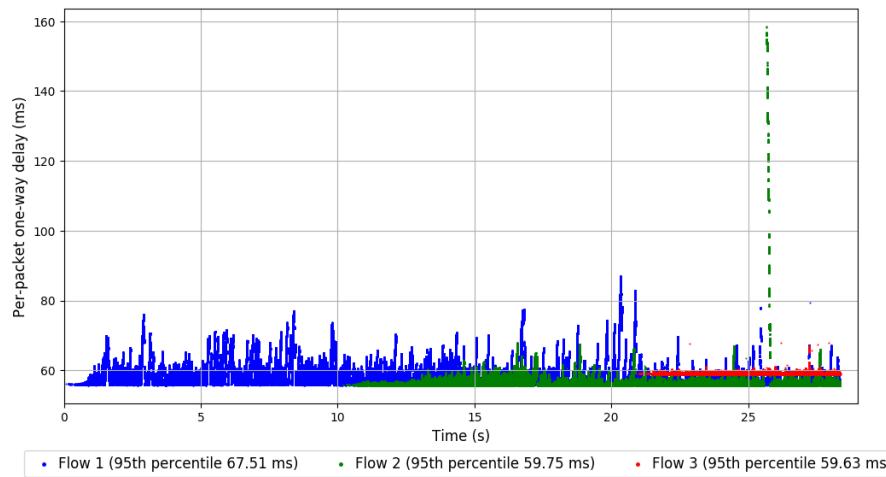
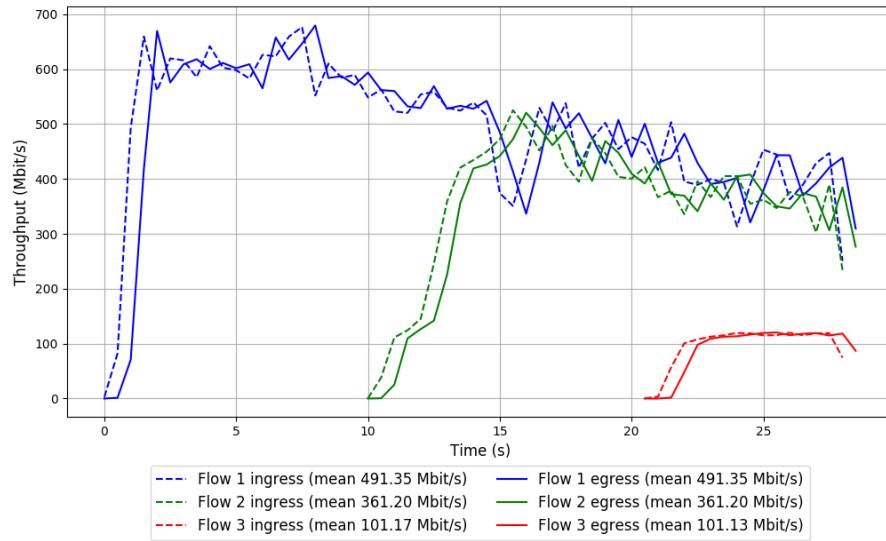


Run 3: Statistics of Indigo-MusesC5

```
Start at: 2019-02-12 18:39:56
End at: 2019-02-12 18:40:26
Local clock offset: -0.236 ms
Remote clock offset: -1.41 ms

# Below is generated by plot.py at 2019-02-12 22:30:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 749.84 Mbit/s
95th percentile per-packet one-way delay: 66.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 491.35 Mbit/s
95th percentile per-packet one-way delay: 67.509 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 361.20 Mbit/s
95th percentile per-packet one-way delay: 59.749 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 101.13 Mbit/s
95th percentile per-packet one-way delay: 59.626 ms
Loss rate: 0.07%
```

Run 3: Report of Indigo-MusesC5 — Data Link

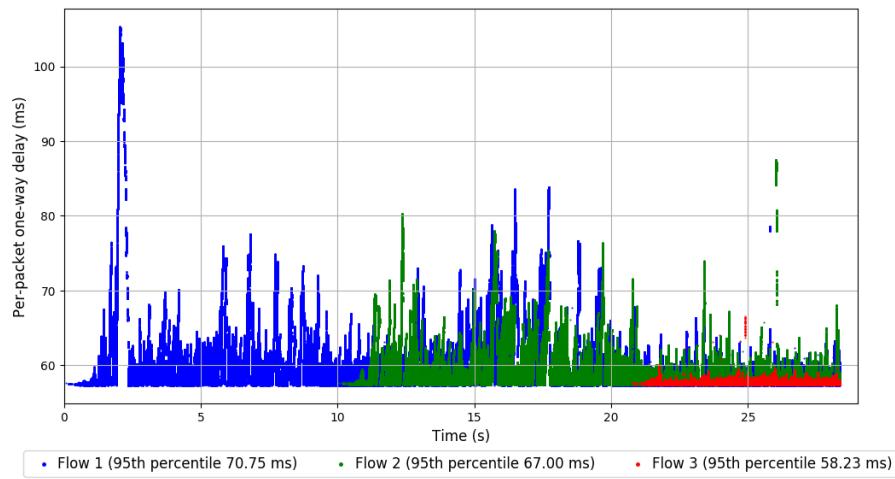
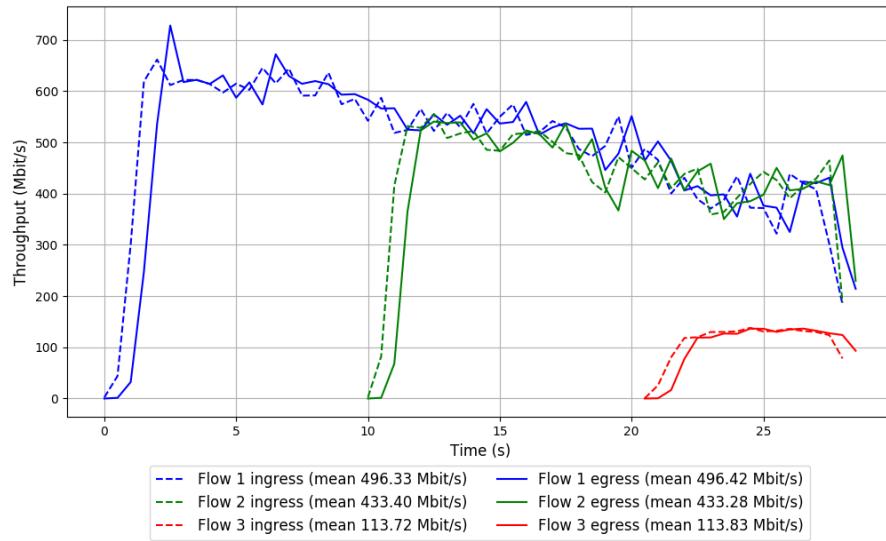


Run 4: Statistics of Indigo-MusesC5

```
Start at: 2019-02-12 19:21:35
End at: 2019-02-12 19:22:05
Local clock offset: 0.023 ms
Remote clock offset: 0.559 ms

# Below is generated by plot.py at 2019-02-12 22:32:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 807.10 Mbit/s
95th percentile per-packet one-way delay: 69.331 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 496.42 Mbit/s
95th percentile per-packet one-way delay: 70.745 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 433.28 Mbit/s
95th percentile per-packet one-way delay: 66.997 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 113.83 Mbit/s
95th percentile per-packet one-way delay: 58.231 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesC5 — Data Link

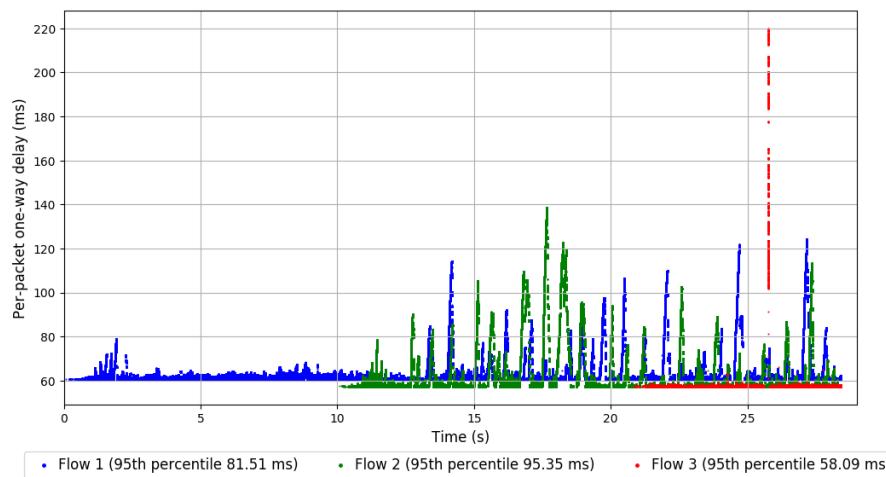
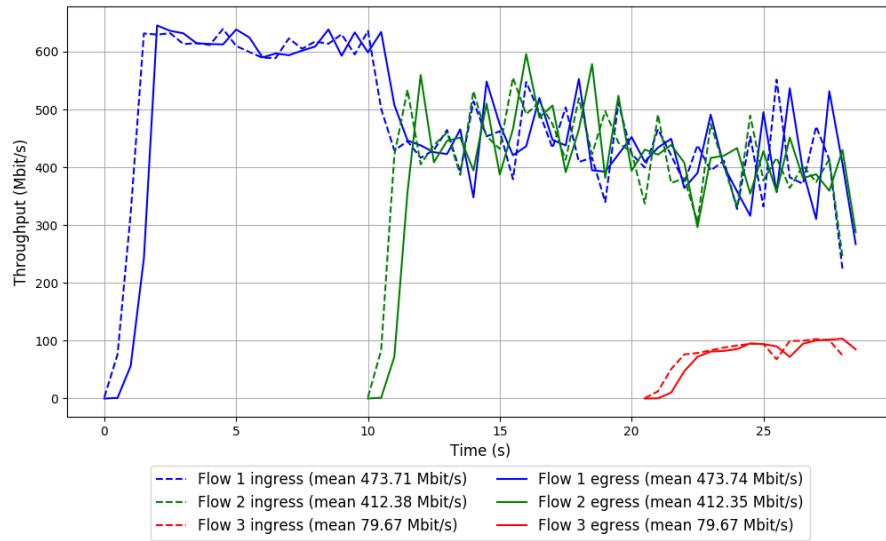


Run 5: Statistics of Indigo-MusesC5

```
Start at: 2019-02-12 20:02:45
End at: 2019-02-12 20:03:15
Local clock offset: -0.609 ms
Remote clock offset: -0.16 ms

# Below is generated by plot.py at 2019-02-12 22:34:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 761.06 Mbit/s
95th percentile per-packet one-way delay: 88.052 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 473.74 Mbit/s
95th percentile per-packet one-way delay: 81.508 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 412.35 Mbit/s
95th percentile per-packet one-way delay: 95.350 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 58.085 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC5 — Data Link

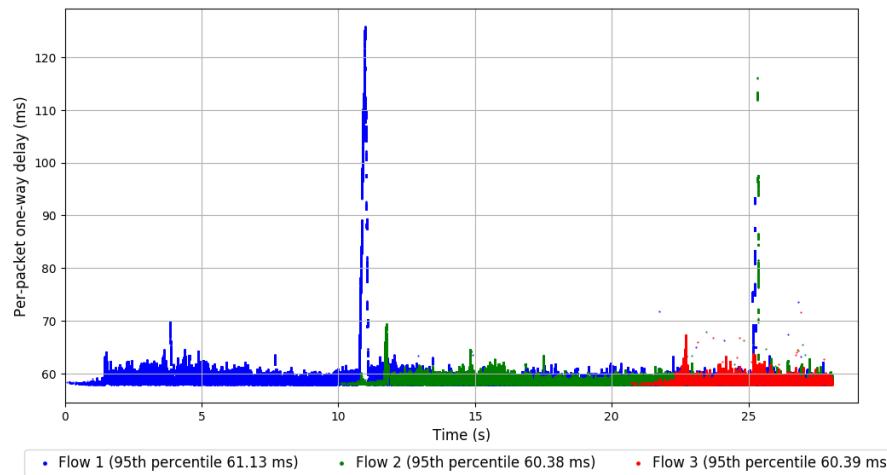
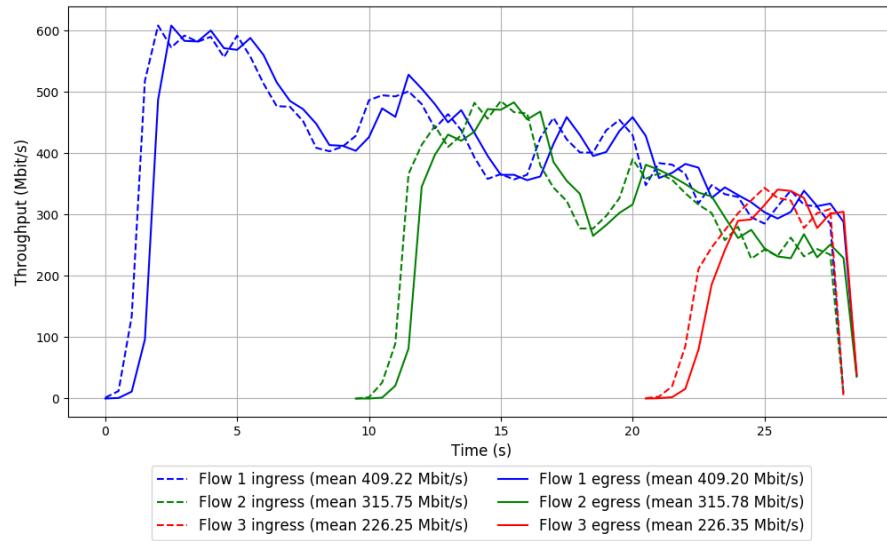


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-02-12 16:57:17
End at: 2019-02-12 16:57:47
Local clock offset: 0.348 ms
Remote clock offset: 1.168 ms

# Below is generated by plot.py at 2019-02-12 22:35:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 672.85 Mbit/s
95th percentile per-packet one-way delay: 60.879 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 409.20 Mbit/s
95th percentile per-packet one-way delay: 61.133 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 315.78 Mbit/s
95th percentile per-packet one-way delay: 60.385 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 226.35 Mbit/s
95th percentile per-packet one-way delay: 60.389 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

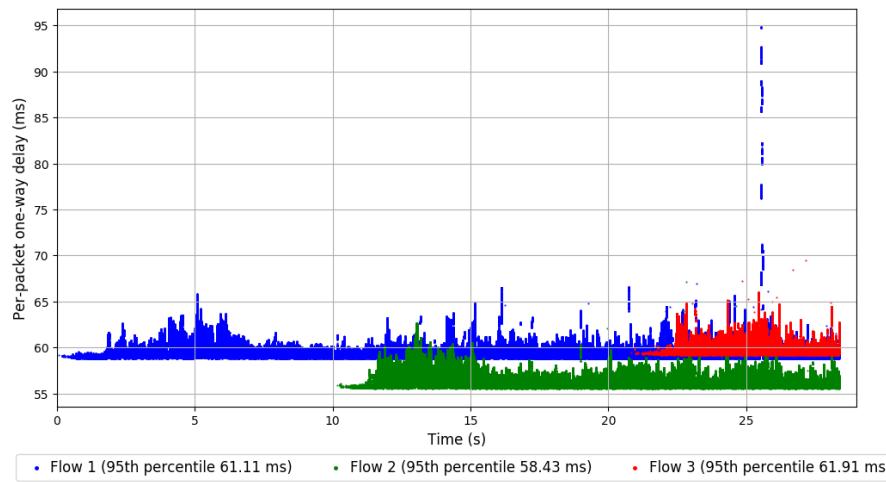
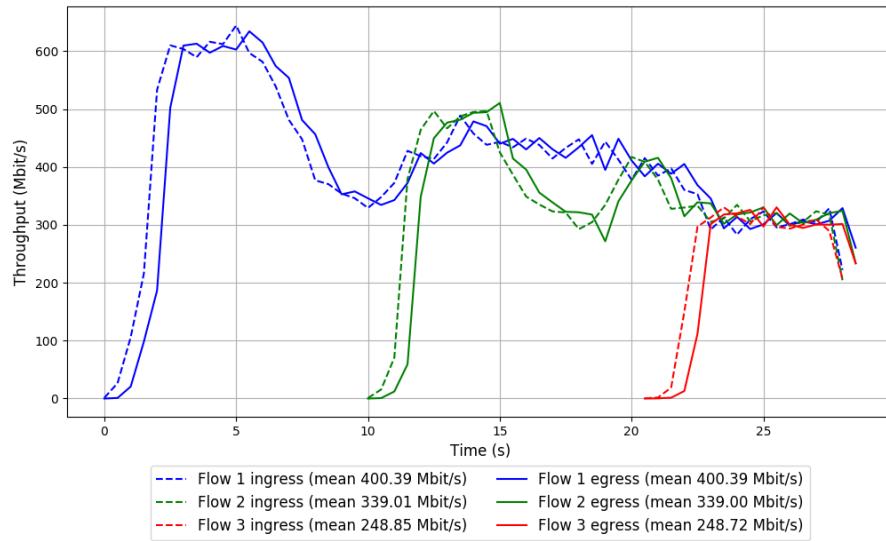


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-02-12 17:38:55
End at: 2019-02-12 17:39:25
Local clock offset: 0.242 ms
Remote clock offset: -1.112 ms

# Below is generated by plot.py at 2019-02-12 22:41:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 684.73 Mbit/s
95th percentile per-packet one-way delay: 60.930 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 400.39 Mbit/s
95th percentile per-packet one-way delay: 61.109 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 339.00 Mbit/s
95th percentile per-packet one-way delay: 58.427 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 248.72 Mbit/s
95th percentile per-packet one-way delay: 61.915 ms
Loss rate: 0.08%
```

Run 2: Report of Indigo-MusesD — Data Link

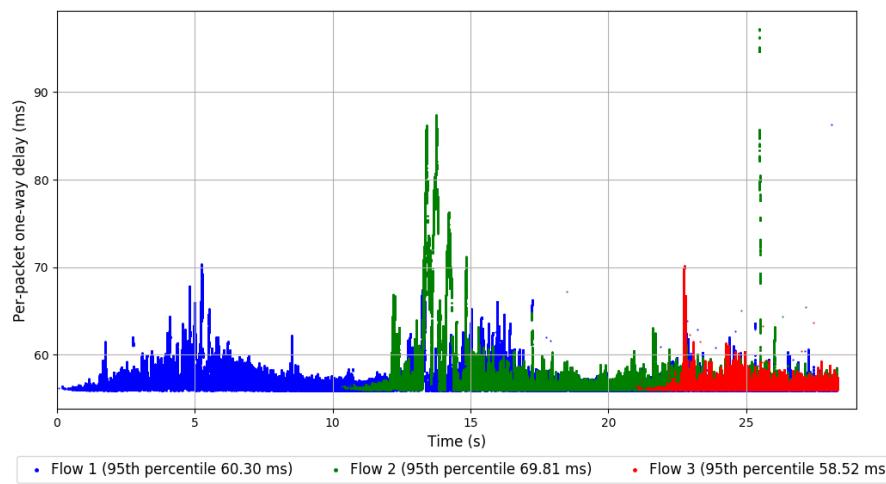
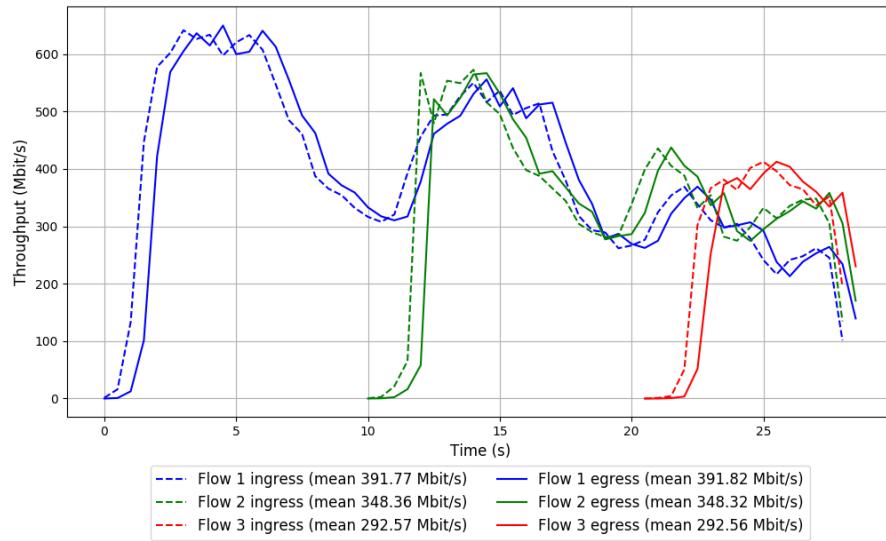


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-02-12 18:20:07
End at: 2019-02-12 18:20:37
Local clock offset: -0.426 ms
Remote clock offset: -1.164 ms

# Below is generated by plot.py at 2019-02-12 22:44:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 689.72 Mbit/s
95th percentile per-packet one-way delay: 61.332 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 391.82 Mbit/s
95th percentile per-packet one-way delay: 60.296 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.32 Mbit/s
95th percentile per-packet one-way delay: 69.806 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 292.56 Mbit/s
95th percentile per-packet one-way delay: 58.516 ms
Loss rate: 0.01%
```

Run 3: Report of Indigo-MusesD — Data Link

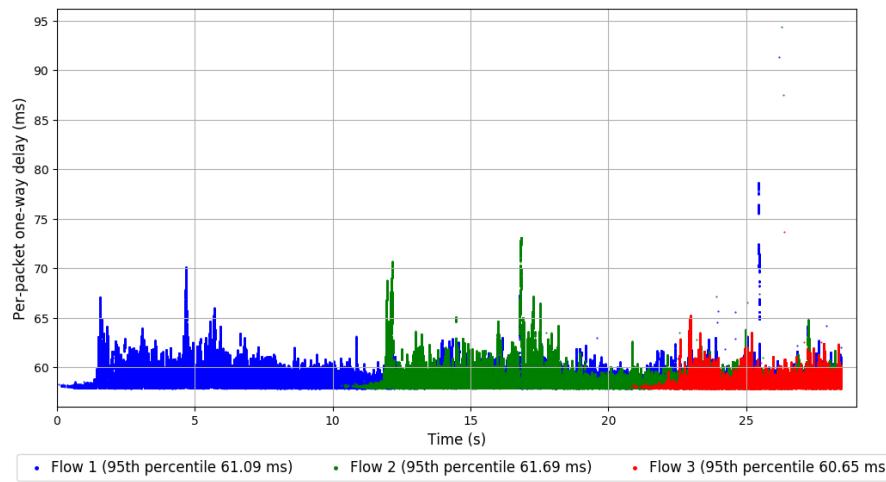
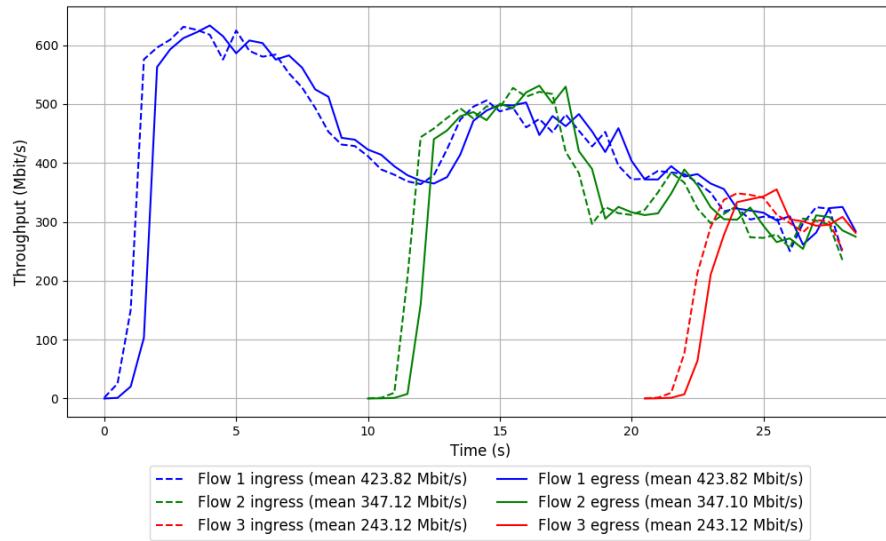


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-02-12 19:00:50
End at: 2019-02-12 19:01:20
Local clock offset: -0.167 ms
Remote clock offset: 1.131 ms

# Below is generated by plot.py at 2019-02-12 22:46:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 710.84 Mbit/s
95th percentile per-packet one-way delay: 61.197 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 423.82 Mbit/s
95th percentile per-packet one-way delay: 61.092 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 347.10 Mbit/s
95th percentile per-packet one-way delay: 61.687 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 243.12 Mbit/s
95th percentile per-packet one-way delay: 60.653 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo-MusesD — Data Link

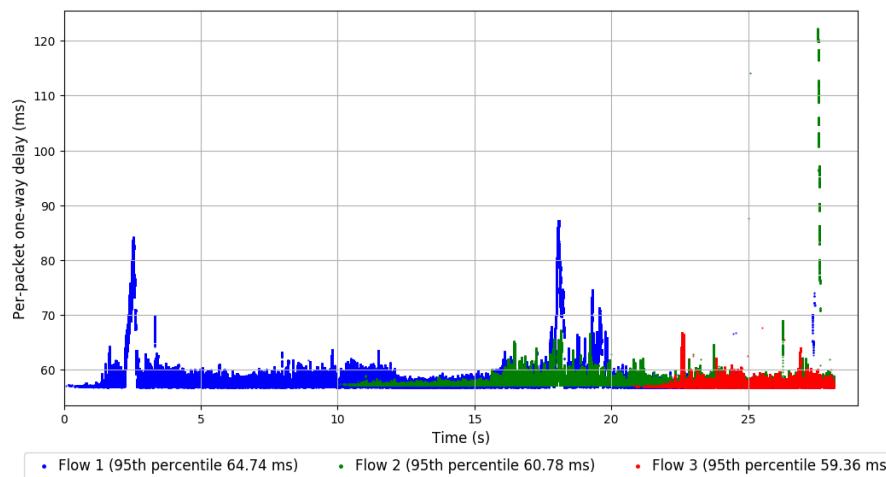
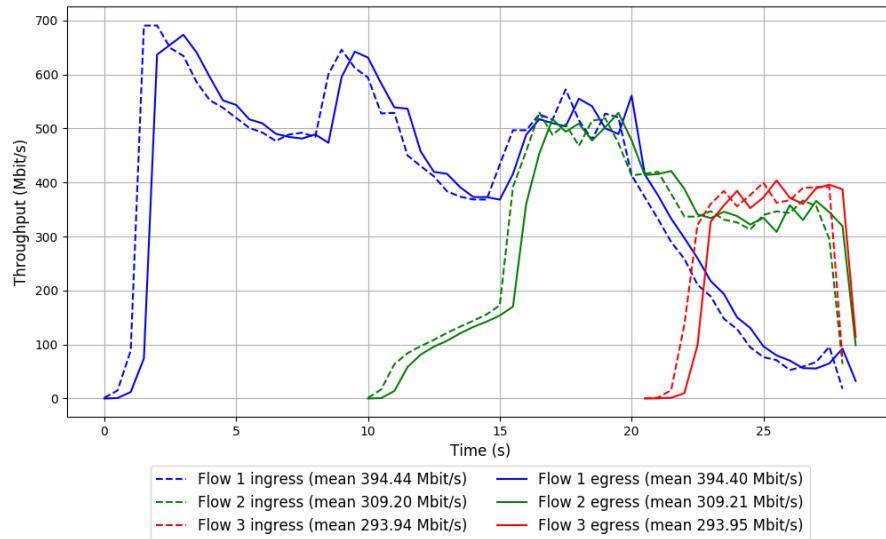


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-02-12 19:42:41
End at: 2019-02-12 19:43:11
Local clock offset: 0.18 ms
Remote clock offset: 0.204 ms

# Below is generated by plot.py at 2019-02-12 22:46:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 670.35 Mbit/s
95th percentile per-packet one-way delay: 62.489 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 394.40 Mbit/s
95th percentile per-packet one-way delay: 64.744 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 309.21 Mbit/s
95th percentile per-packet one-way delay: 60.780 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 293.95 Mbit/s
95th percentile per-packet one-way delay: 59.361 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

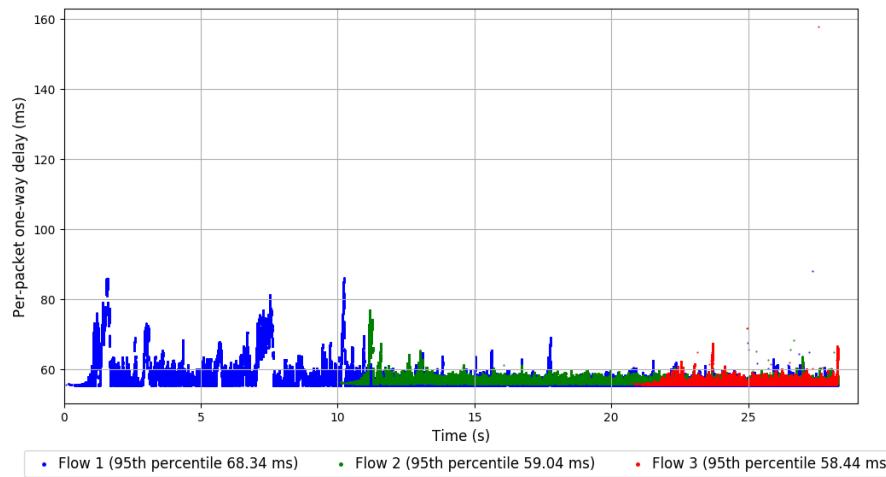
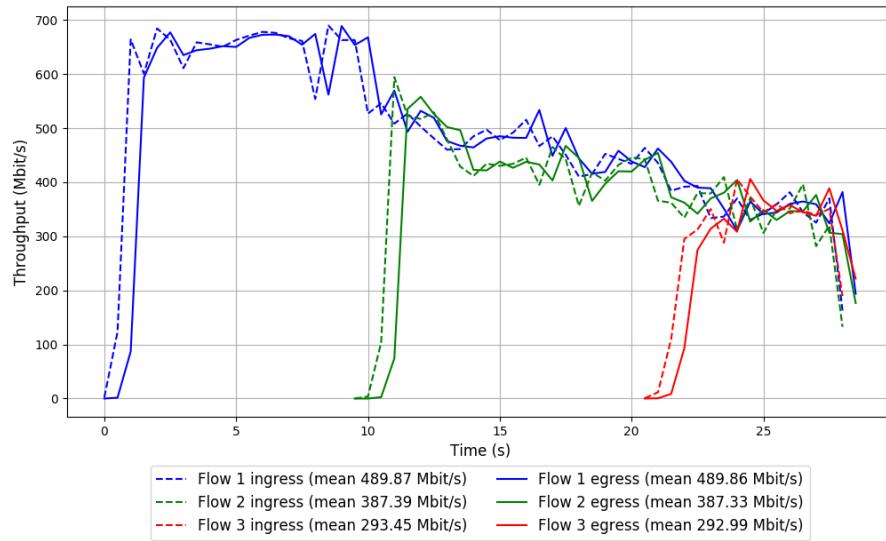


Run 1: Statistics of Indigo-MusesT

```
Start at: 2019-02-12 17:06:57
End at: 2019-02-12 17:07:27
Local clock offset: 0.133 ms
Remote clock offset: -1.459 ms

# Below is generated by plot.py at 2019-02-12 22:51:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 819.16 Mbit/s
95th percentile per-packet one-way delay: 64.581 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 489.86 Mbit/s
95th percentile per-packet one-way delay: 68.345 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 387.33 Mbit/s
95th percentile per-packet one-way delay: 59.040 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 292.99 Mbit/s
95th percentile per-packet one-way delay: 58.442 ms
Loss rate: 0.17%
```

Run 1: Report of Indigo-MusesT — Data Link

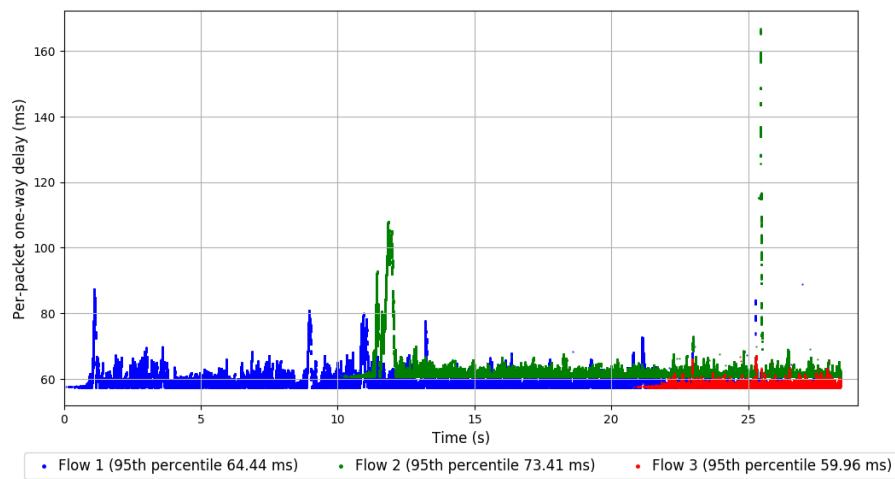
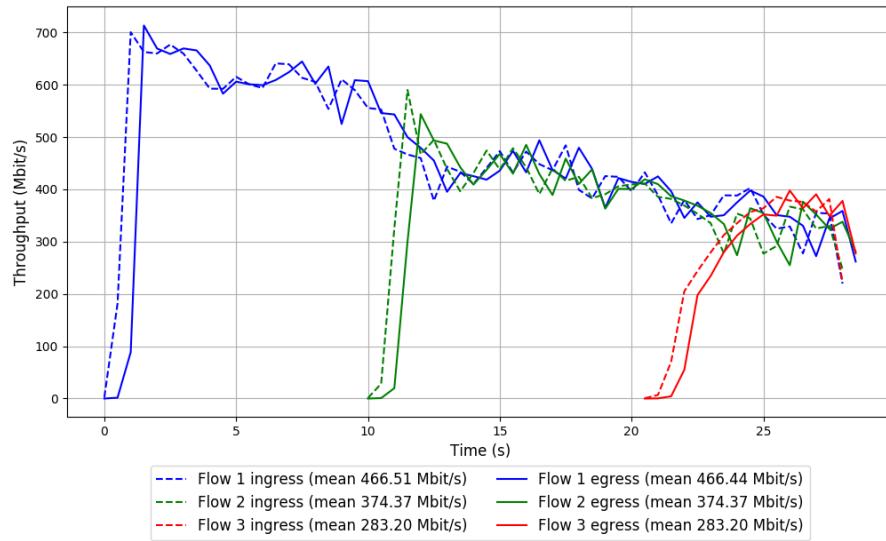


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-02-12 17:48:38
End at: 2019-02-12 17:49:08
Local clock offset: -0.465 ms
Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-02-12 22:52:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 783.33 Mbit/s
95th percentile per-packet one-way delay: 65.181 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 466.44 Mbit/s
95th percentile per-packet one-way delay: 64.437 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 374.37 Mbit/s
95th percentile per-packet one-way delay: 73.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 283.20 Mbit/s
95th percentile per-packet one-way delay: 59.960 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesT — Data Link

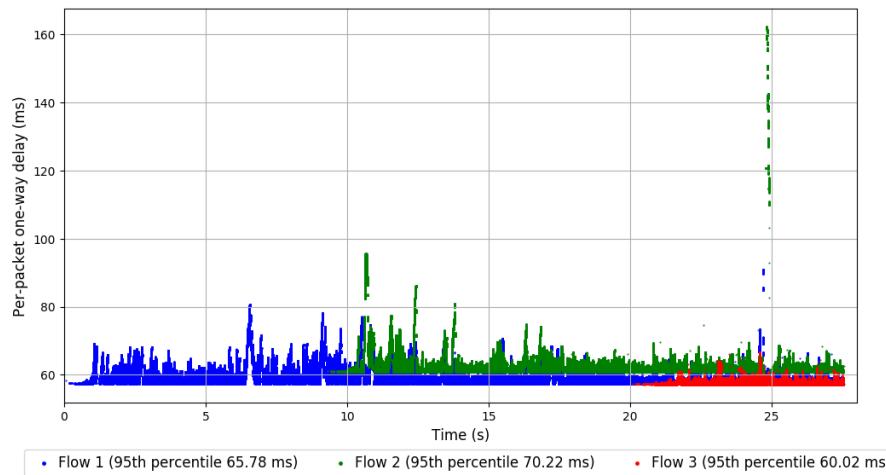
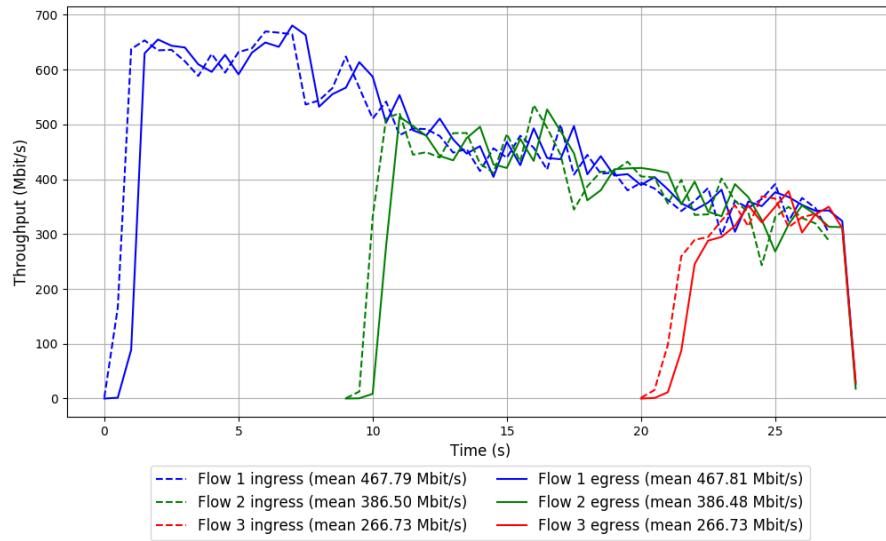


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-02-12 18:29:31
End at: 2019-02-12 18:30:01
Local clock offset: 0.01 ms
Remote clock offset: 0.517 ms

# Below is generated by plot.py at 2019-02-12 22:54:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 796.46 Mbit/s
95th percentile per-packet one-way delay: 66.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 467.81 Mbit/s
95th percentile per-packet one-way delay: 65.776 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 386.48 Mbit/s
95th percentile per-packet one-way delay: 70.222 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 266.73 Mbit/s
95th percentile per-packet one-way delay: 60.021 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesT — Data Link

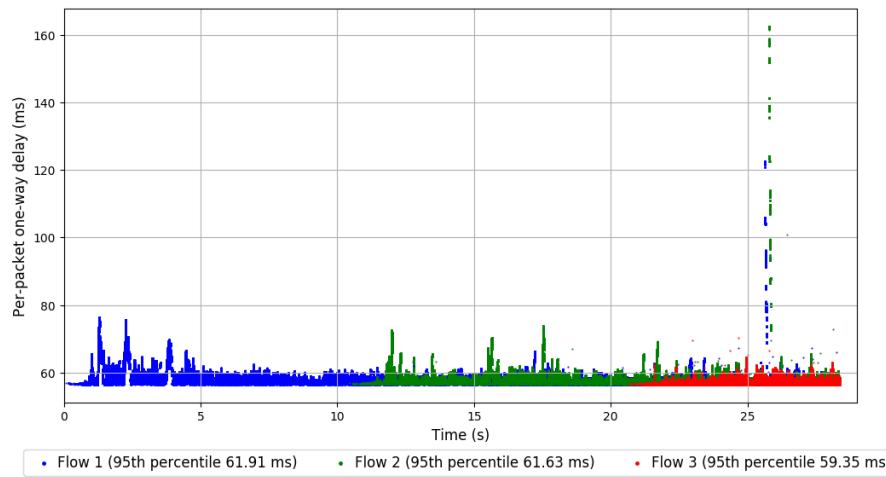
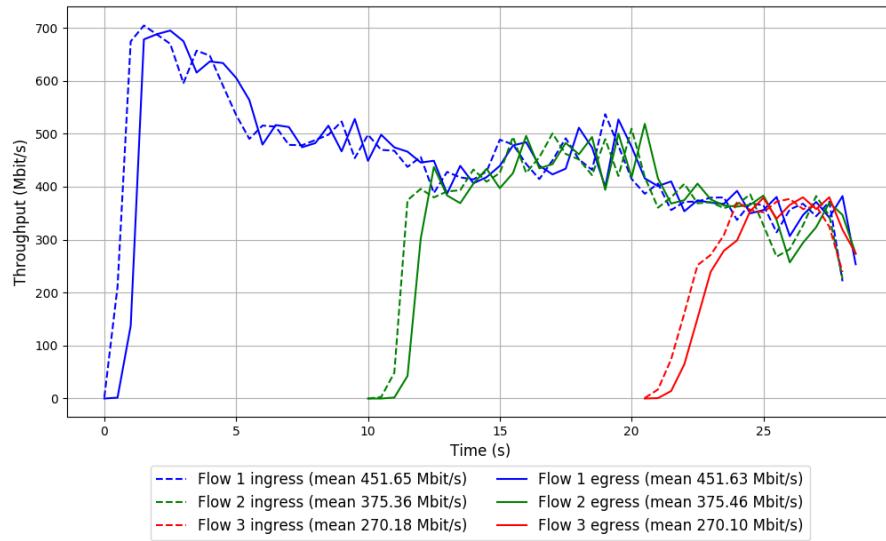


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-02-12 19:10:36
End at: 2019-02-12 19:11:06
Local clock offset: 0.207 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2019-02-12 22:55:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 763.13 Mbit/s
95th percentile per-packet one-way delay: 61.516 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 451.63 Mbit/s
95th percentile per-packet one-way delay: 61.910 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 375.46 Mbit/s
95th percentile per-packet one-way delay: 61.629 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 270.10 Mbit/s
95th percentile per-packet one-way delay: 59.351 ms
Loss rate: 0.03%
```

Run 4: Report of Indigo-MusesT — Data Link

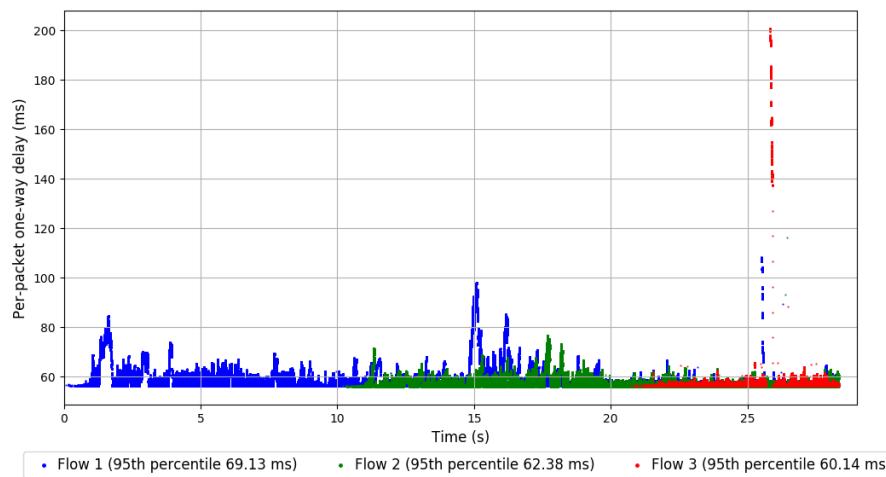
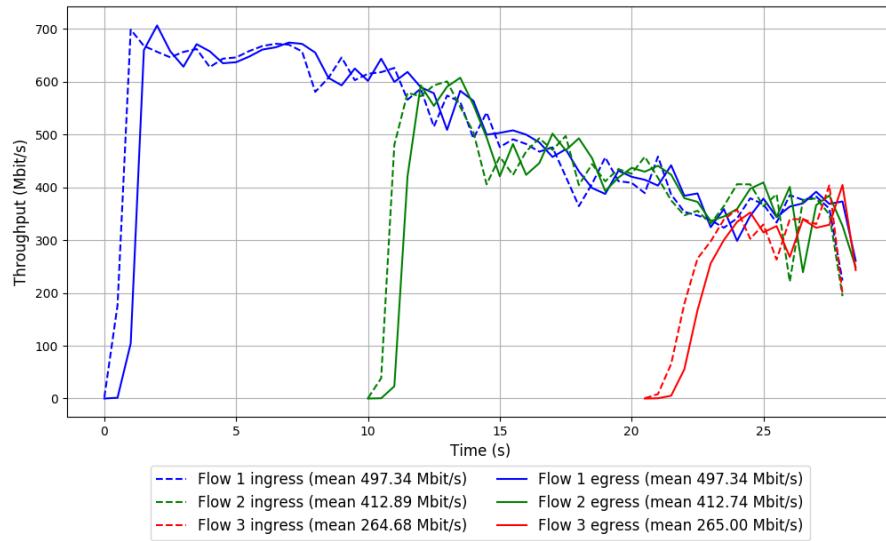


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-02-12 19:52:27
End at: 2019-02-12 19:52:57
Local clock offset: -0.255 ms
Remote clock offset: -0.806 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 833.06 Mbit/s
95th percentile per-packet one-way delay: 66.708 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 497.34 Mbit/s
95th percentile per-packet one-way delay: 69.126 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 412.74 Mbit/s
95th percentile per-packet one-way delay: 62.381 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 265.00 Mbit/s
95th percentile per-packet one-way delay: 60.141 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesT — Data Link

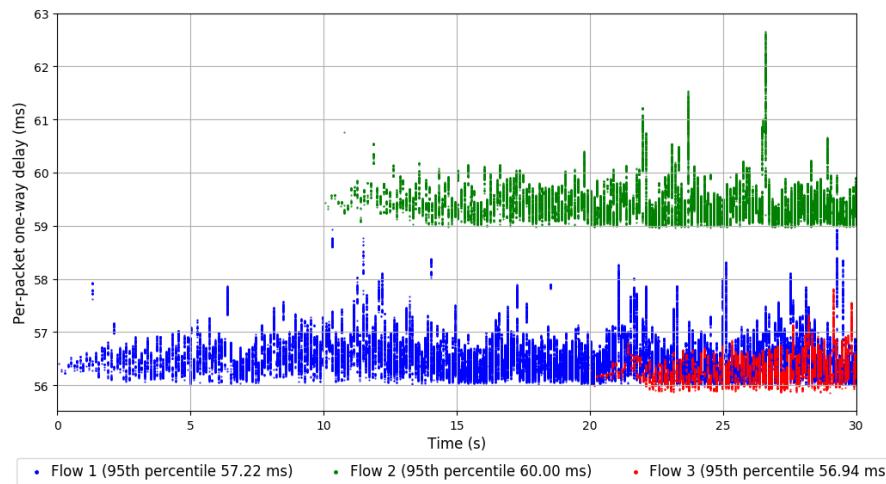
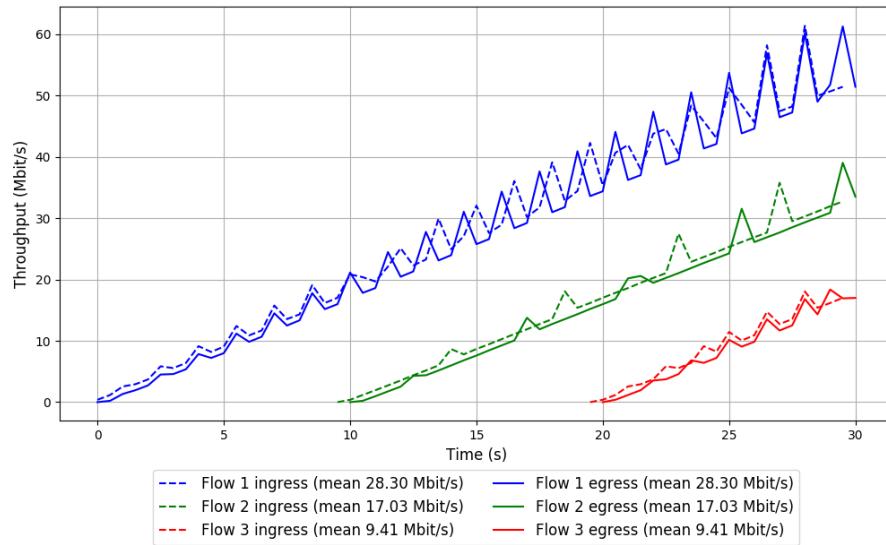


Run 1: Statistics of LEDBAT

```
Start at: 2019-02-12 16:50:33
End at: 2019-02-12 16:51:03
Local clock offset: 0.479 ms
Remote clock offset: -0.736 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.70 Mbit/s
95th percentile per-packet one-way delay: 59.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.30 Mbit/s
95th percentile per-packet one-way delay: 57.216 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.03 Mbit/s
95th percentile per-packet one-way delay: 60.003 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 56.938 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

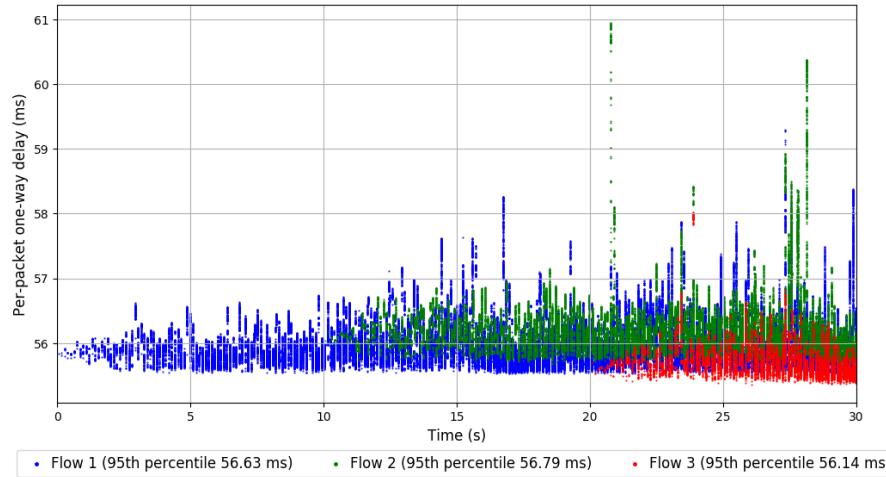
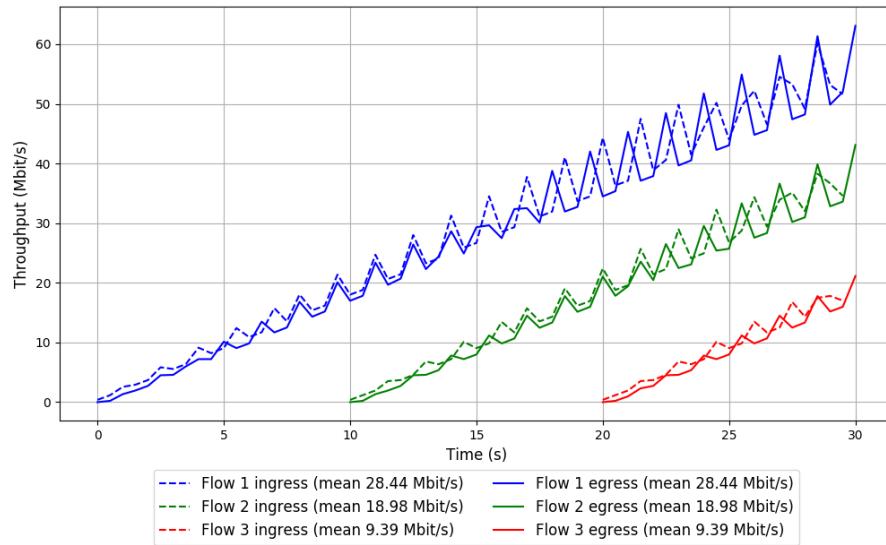


Run 2: Statistics of LEDBAT

```
Start at: 2019-02-12 17:31:55
End at: 2019-02-12 17:32:25
Local clock offset: 0.019 ms
Remote clock offset: -1.391 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.18 Mbit/s
95th percentile per-packet one-way delay: 56.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.44 Mbit/s
95th percentile per-packet one-way delay: 56.629 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.98 Mbit/s
95th percentile per-packet one-way delay: 56.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 56.137 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

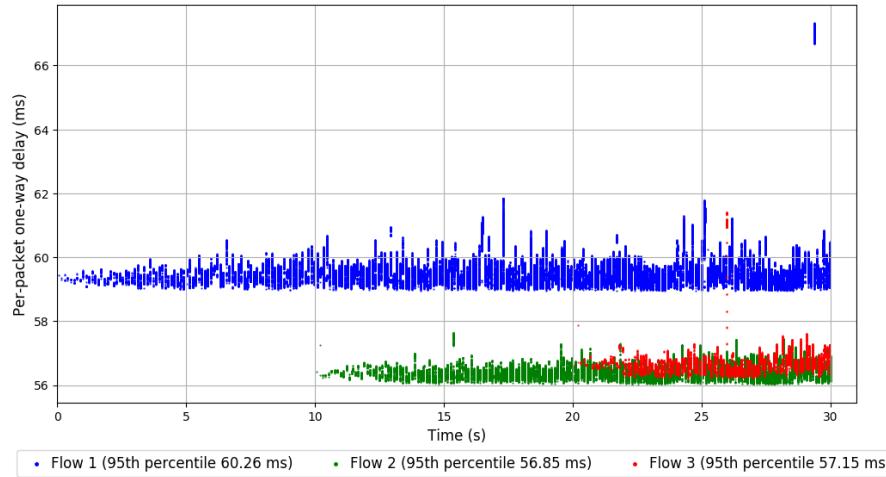
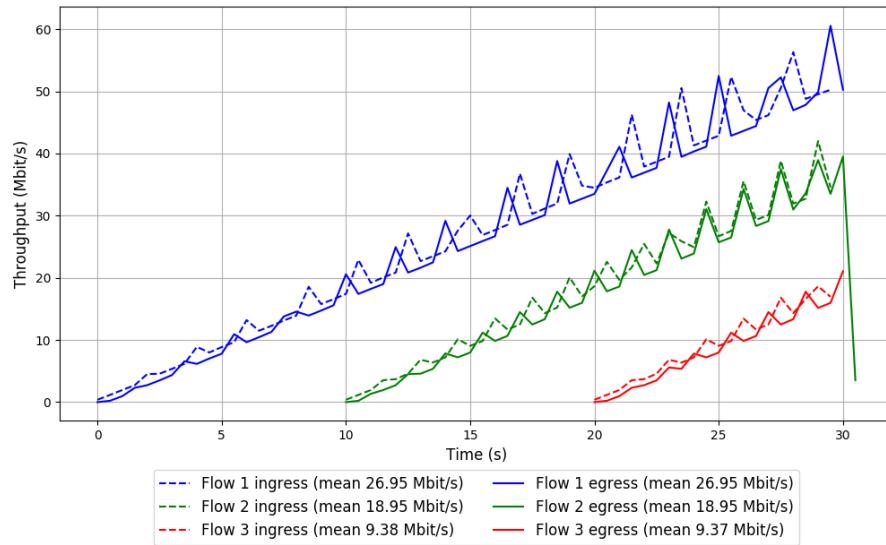


Run 3: Statistics of LEDBAT

```
Start at: 2019-02-12 18:13:29
End at: 2019-02-12 18:13:59
Local clock offset: 0.255 ms
Remote clock offset: -0.561 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.64 Mbit/s
95th percentile per-packet one-way delay: 60.078 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 26.95 Mbit/s
95th percentile per-packet one-way delay: 60.258 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.95 Mbit/s
95th percentile per-packet one-way delay: 56.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 57.145 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

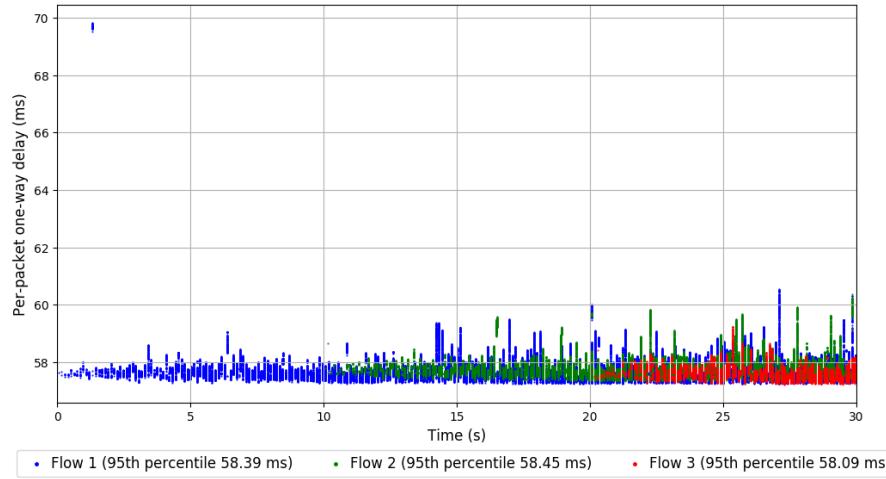
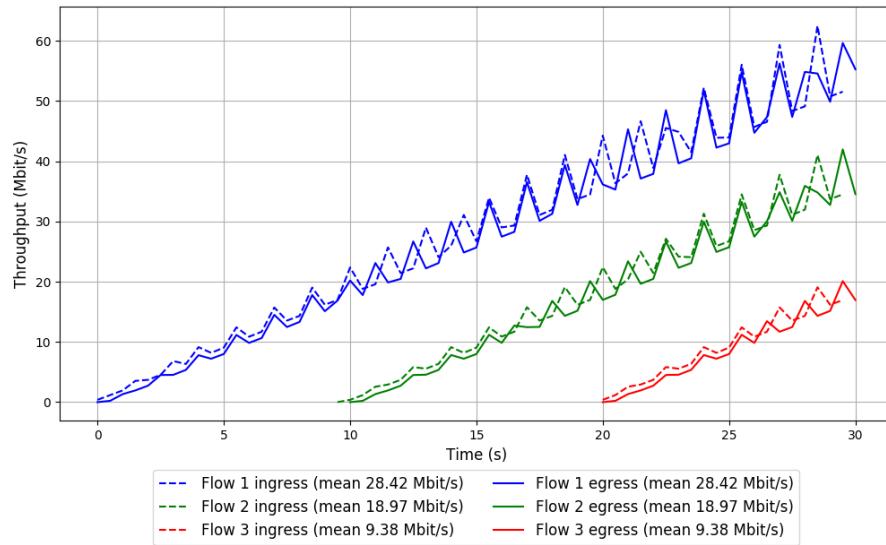


Run 4: Statistics of LEDBAT

```
Start at: 2019-02-12 18:53:59
End at: 2019-02-12 18:54:29
Local clock offset: -0.458 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 44.15 Mbit/s
95th percentile per-packet one-way delay: 58.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 28.42 Mbit/s
95th percentile per-packet one-way delay: 58.393 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 18.97 Mbit/s
95th percentile per-packet one-way delay: 58.454 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.38 Mbit/s
95th percentile per-packet one-way delay: 58.095 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

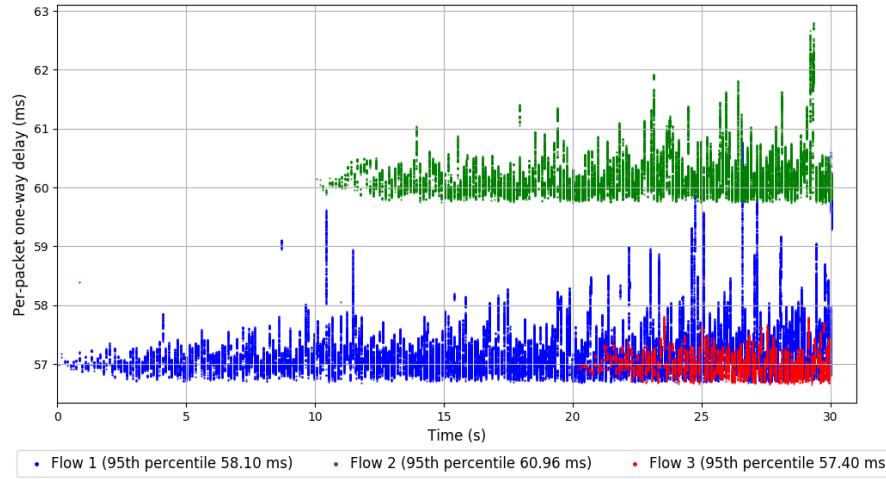
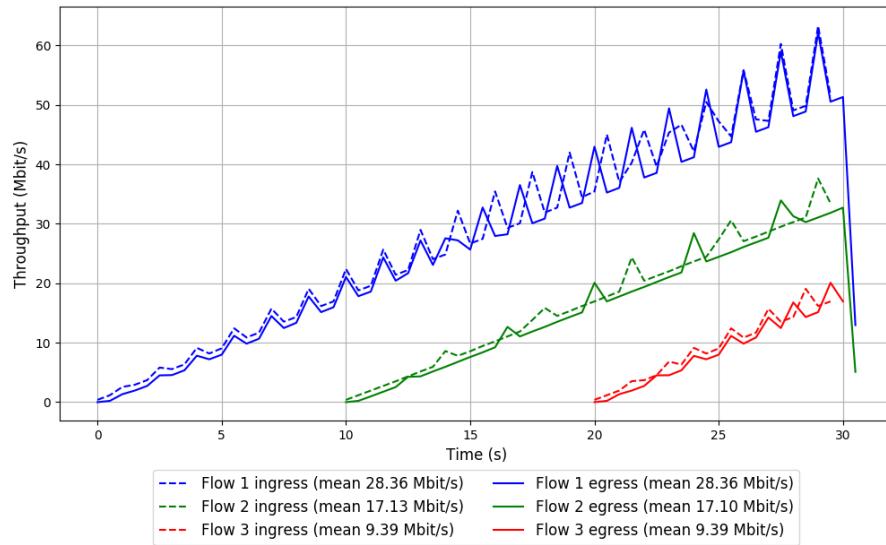


Run 5: Statistics of LEDBAT

```
Start at: 2019-02-12 19:35:33
End at: 2019-02-12 19:36:03
Local clock offset: 0.031 ms
Remote clock offset: -0.064 ms

# Below is generated by plot.py at 2019-02-12 23:01:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 42.82 Mbit/s
95th percentile per-packet one-way delay: 60.428 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 28.36 Mbit/s
95th percentile per-packet one-way delay: 58.105 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 17.10 Mbit/s
95th percentile per-packet one-way delay: 60.963 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 57.400 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

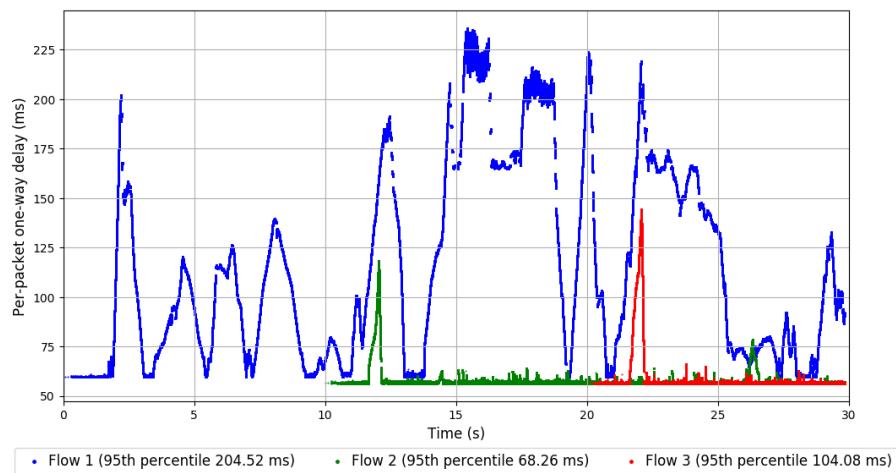
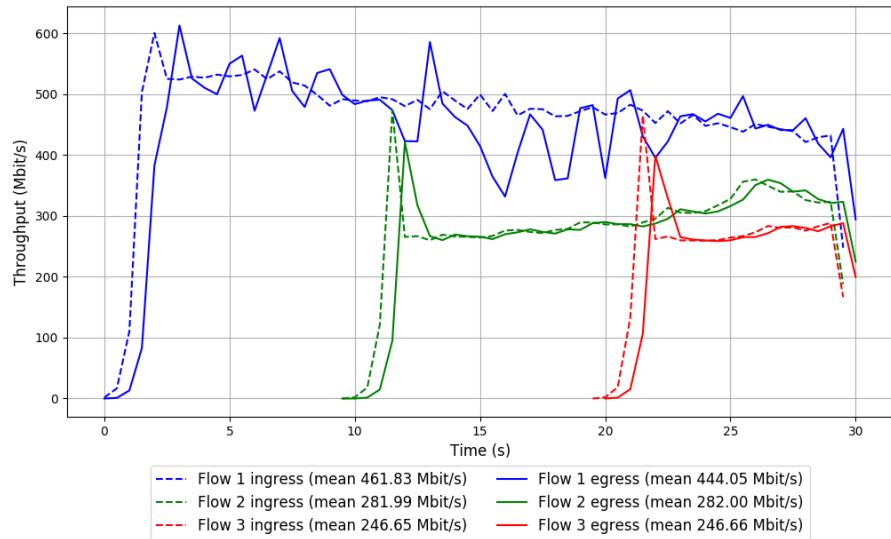


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-02-12 17:09:11
End at: 2019-02-12 17:09:41
Local clock offset: 0.184 ms
Remote clock offset: -0.68 ms

# Below is generated by plot.py at 2019-02-12 23:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 713.32 Mbit/s
95th percentile per-packet one-way delay: 190.758 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 444.05 Mbit/s
95th percentile per-packet one-way delay: 204.522 ms
Loss rate: 3.85%
-- Flow 2:
Average throughput: 282.00 Mbit/s
95th percentile per-packet one-way delay: 68.263 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 246.66 Mbit/s
95th percentile per-packet one-way delay: 104.075 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link

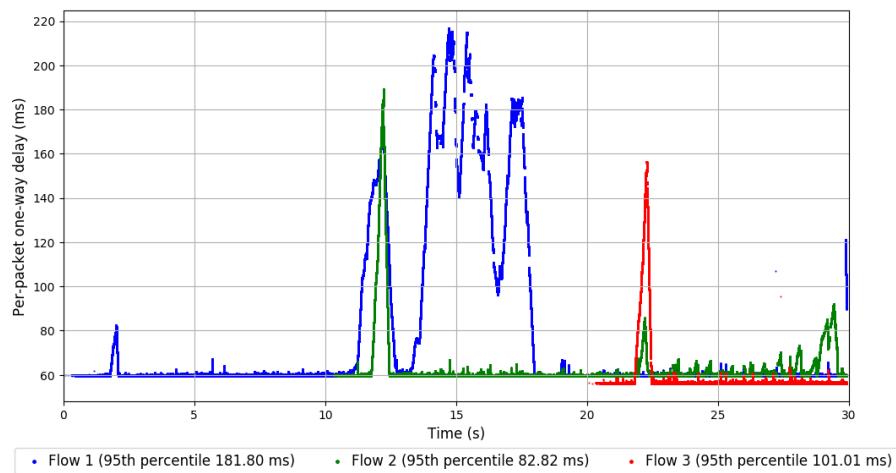
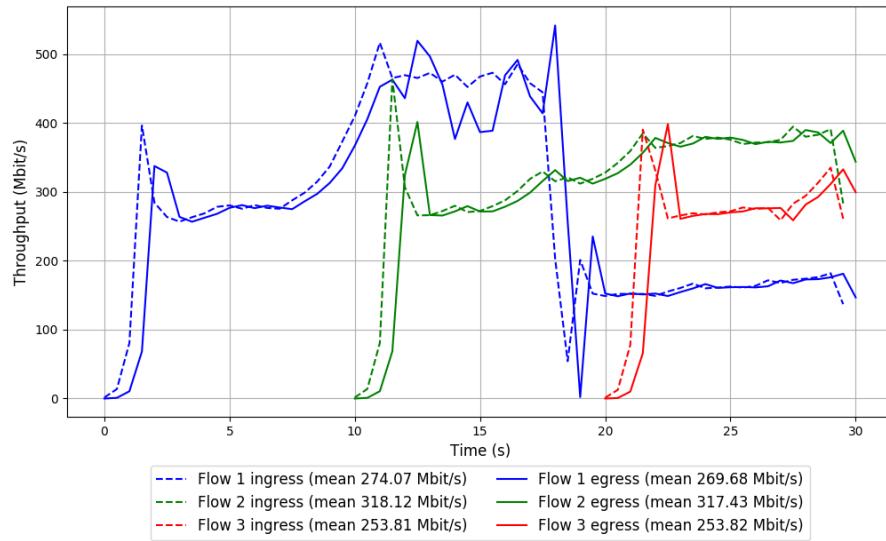


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-02-12 17:50:44
End at: 2019-02-12 17:51:14
Local clock offset: -0.042 ms
Remote clock offset: -0.758 ms

# Below is generated by plot.py at 2019-02-12 23:23:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 564.27 Mbit/s
95th percentile per-packet one-way delay: 168.166 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 269.68 Mbit/s
95th percentile per-packet one-way delay: 181.803 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 317.43 Mbit/s
95th percentile per-packet one-way delay: 82.817 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 253.82 Mbit/s
95th percentile per-packet one-way delay: 101.008 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Allegro — Data Link

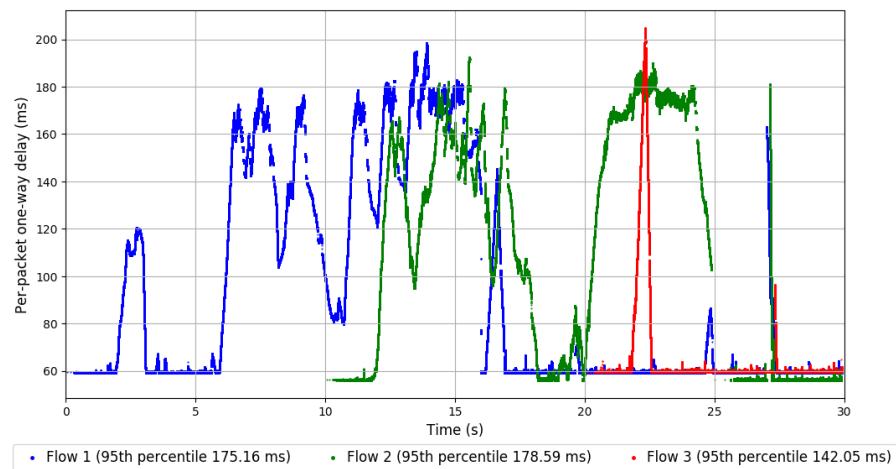
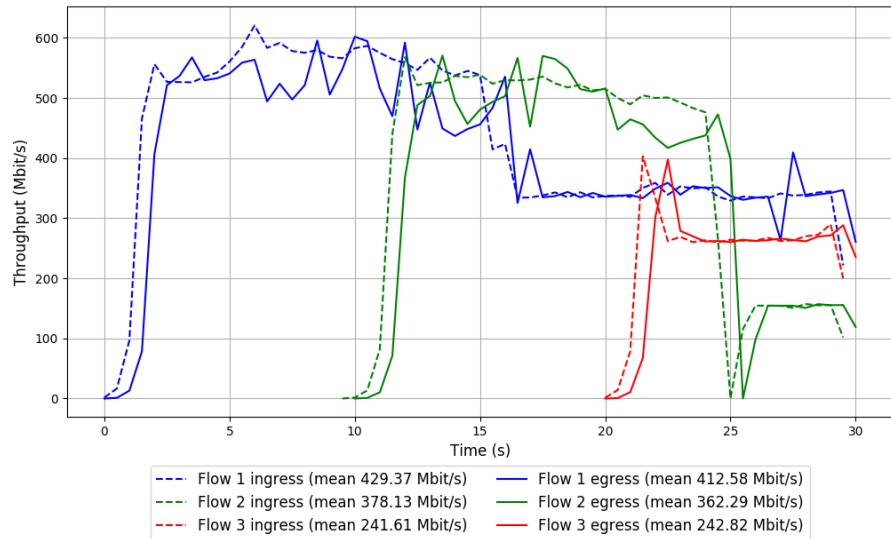


Run 3: Statistics of PCC-Allegro

```
Start at: 2019-02-12 18:31:41
End at: 2019-02-12 18:32:11
Local clock offset: -0.227 ms
Remote clock offset: -0.831 ms

# Below is generated by plot.py at 2019-02-12 23:27:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 733.21 Mbit/s
95th percentile per-packet one-way delay: 176.352 ms
Loss rate: 3.80%
-- Flow 1:
Average throughput: 412.58 Mbit/s
95th percentile per-packet one-way delay: 175.159 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 362.29 Mbit/s
95th percentile per-packet one-way delay: 178.587 ms
Loss rate: 4.47%
-- Flow 3:
Average throughput: 242.82 Mbit/s
95th percentile per-packet one-way delay: 142.048 ms
Loss rate: 0.08%
```

Run 3: Report of PCC-Allegro — Data Link

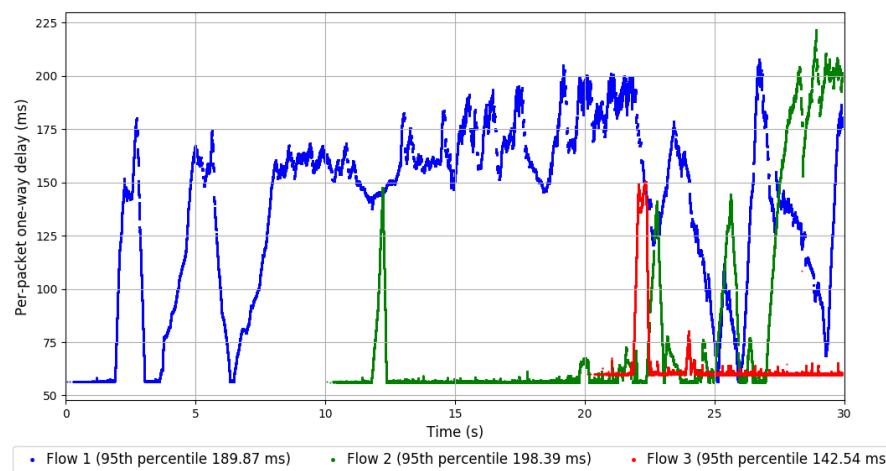
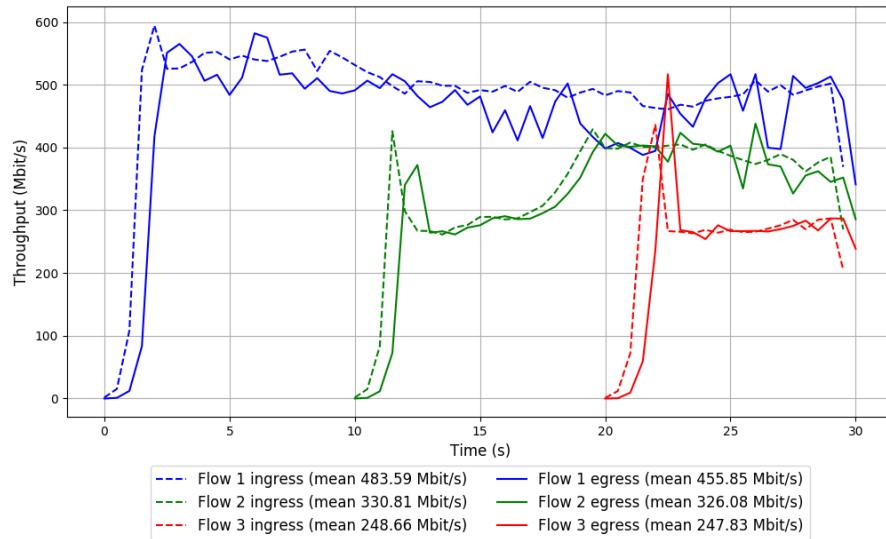


Run 4: Statistics of PCC-Allegro

```
Start at: 2019-02-12 19:12:50
End at: 2019-02-12 19:13:20
Local clock offset: -0.396 ms
Remote clock offset: -1.0 ms

# Below is generated by plot.py at 2019-02-12 23:29:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 754.01 Mbit/s
95th percentile per-packet one-way delay: 190.012 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 455.85 Mbit/s
95th percentile per-packet one-way delay: 189.868 ms
Loss rate: 5.73%
-- Flow 2:
Average throughput: 326.08 Mbit/s
95th percentile per-packet one-way delay: 198.392 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 247.83 Mbit/s
95th percentile per-packet one-way delay: 142.542 ms
Loss rate: 0.36%
```

Run 4: Report of PCC-Allegro — Data Link

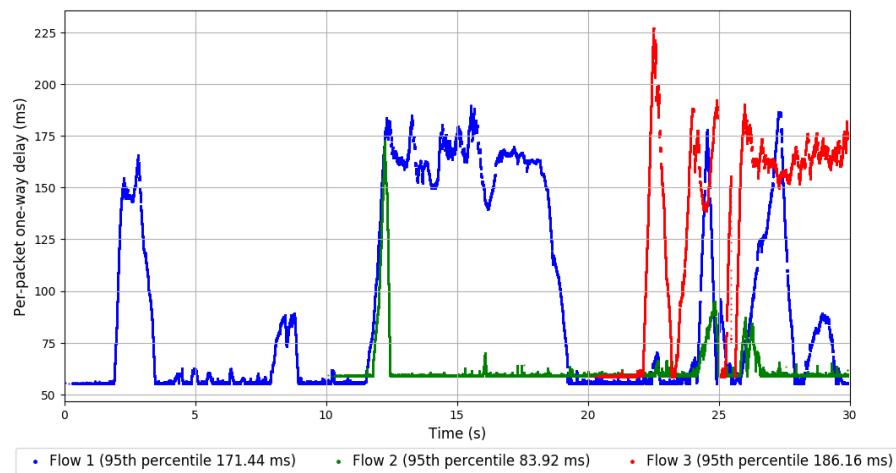
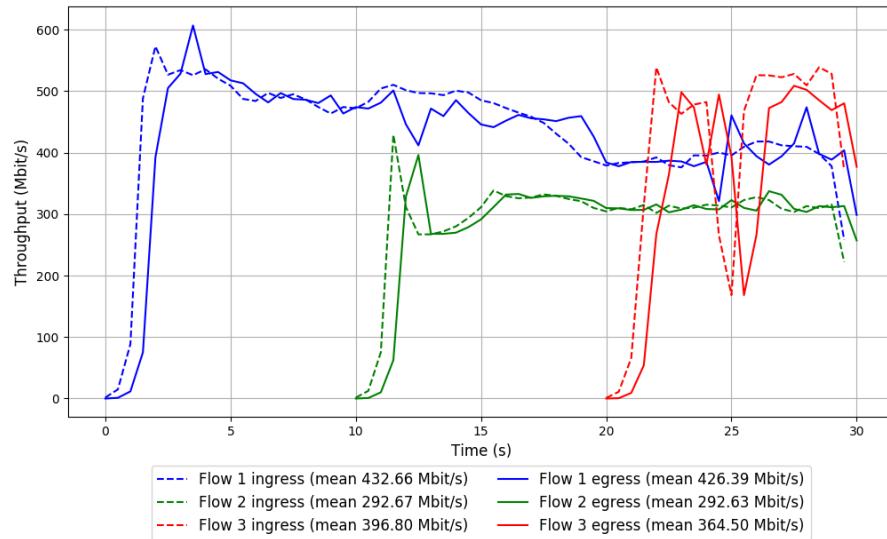


Run 5: Statistics of PCC-Allegro

```
Start at: 2019-02-12 19:54:38
End at: 2019-02-12 19:55:08
Local clock offset: 0.088 ms
Remote clock offset: -1.39 ms

# Below is generated by plot.py at 2019-02-12 23:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 740.52 Mbit/s
95th percentile per-packet one-way delay: 172.788 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 426.39 Mbit/s
95th percentile per-packet one-way delay: 171.441 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 292.63 Mbit/s
95th percentile per-packet one-way delay: 83.917 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 364.50 Mbit/s
95th percentile per-packet one-way delay: 186.165 ms
Loss rate: 8.22%
```

Run 5: Report of PCC-Allegro — Data Link

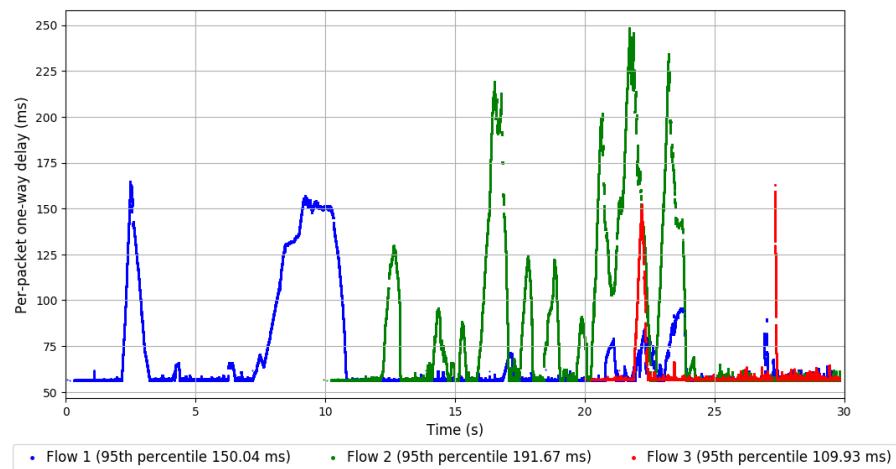
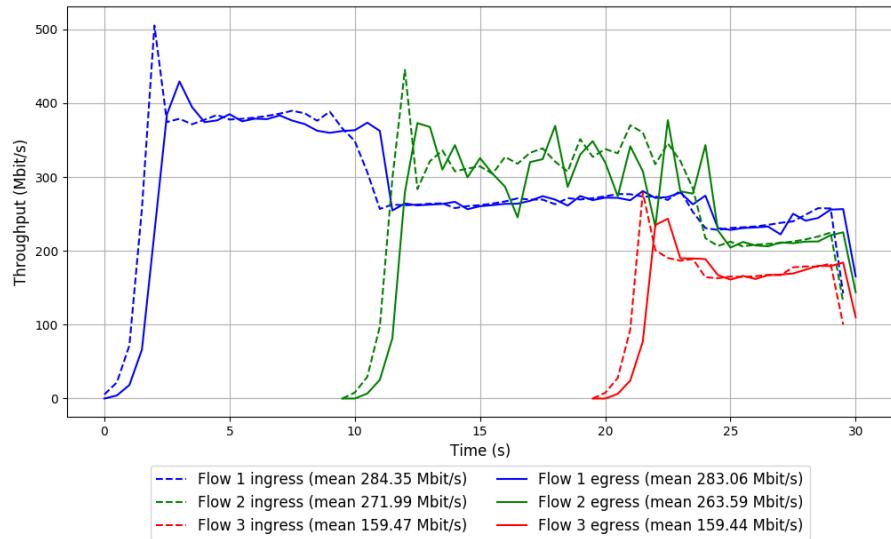


Run 1: Statistics of PCC-Expr

```
Start at: 2019-02-12 17:11:47
End at: 2019-02-12 17:12:17
Local clock offset: 0.562 ms
Remote clock offset: -0.104 ms

# Below is generated by plot.py at 2019-02-12 23:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.90 Mbit/s
95th percentile per-packet one-way delay: 151.440 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 283.06 Mbit/s
95th percentile per-packet one-way delay: 150.043 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 263.59 Mbit/s
95th percentile per-packet one-way delay: 191.669 ms
Loss rate: 3.20%
-- Flow 3:
Average throughput: 159.44 Mbit/s
95th percentile per-packet one-way delay: 109.931 ms
Loss rate: 0.24%
```

Run 1: Report of PCC-Expr — Data Link

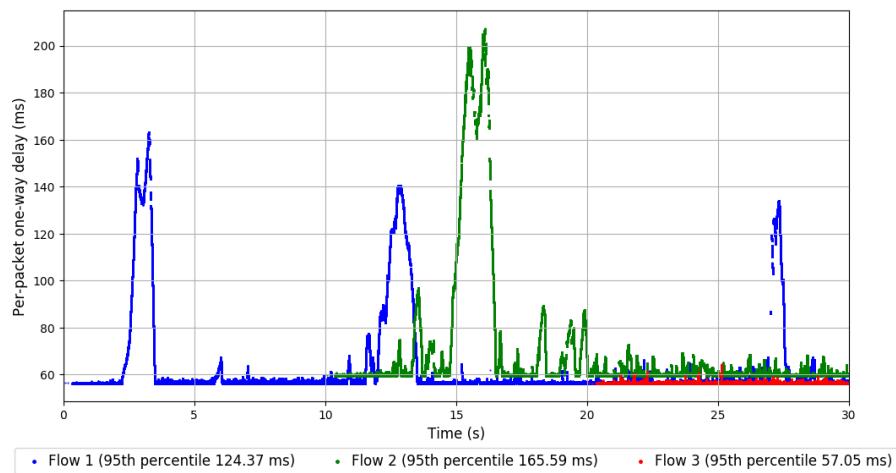
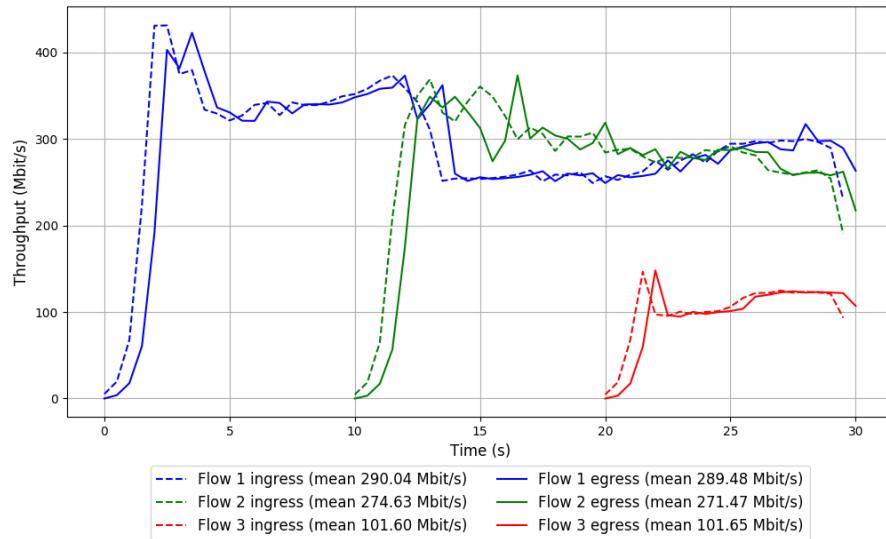


Run 2: Statistics of PCC-Expr

```
Start at: 2019-02-12 17:52:54
End at: 2019-02-12 17:53:24
Local clock offset: 0.122 ms
Remote clock offset: -0.584 ms

# Below is generated by plot.py at 2019-02-12 23:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.41 Mbit/s
95th percentile per-packet one-way delay: 126.415 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 289.48 Mbit/s
95th percentile per-packet one-way delay: 124.371 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 271.47 Mbit/s
95th percentile per-packet one-way delay: 165.593 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 101.65 Mbit/s
95th percentile per-packet one-way delay: 57.053 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Expr — Data Link

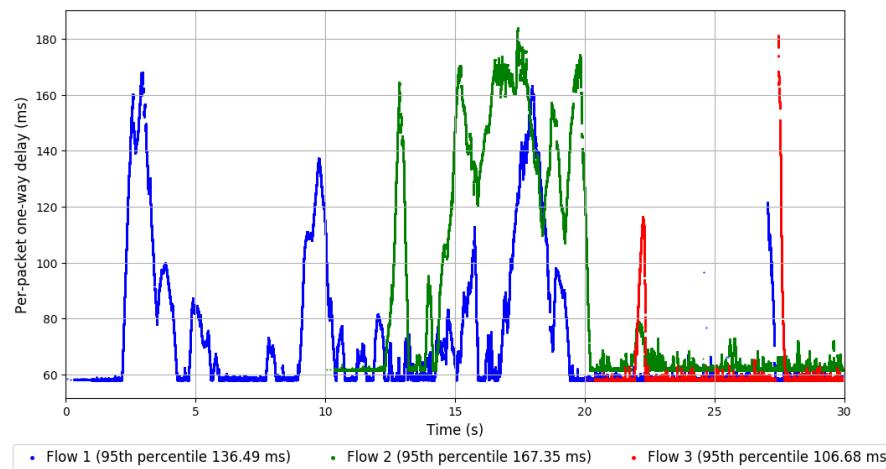
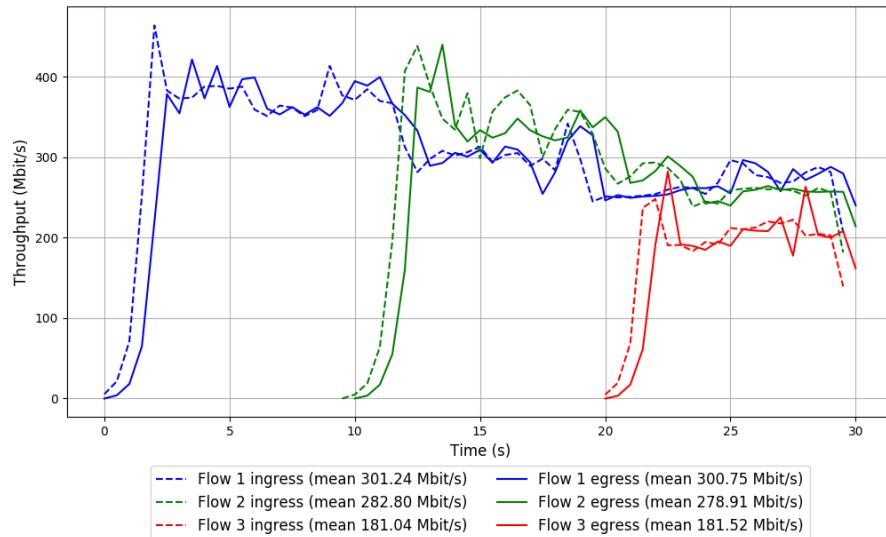


Run 3: Statistics of PCC-Expr

```
Start at: 2019-02-12 18:33:57
End at: 2019-02-12 18:34:27
Local clock offset: -0.2 ms
Remote clock offset: 1.056 ms

# Below is generated by plot.py at 2019-02-12 23:30:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.07 Mbit/s
95th percentile per-packet one-way delay: 156.422 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 300.75 Mbit/s
95th percentile per-packet one-way delay: 136.487 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 278.91 Mbit/s
95th percentile per-packet one-way delay: 167.355 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 181.52 Mbit/s
95th percentile per-packet one-way delay: 106.679 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Expr — Data Link

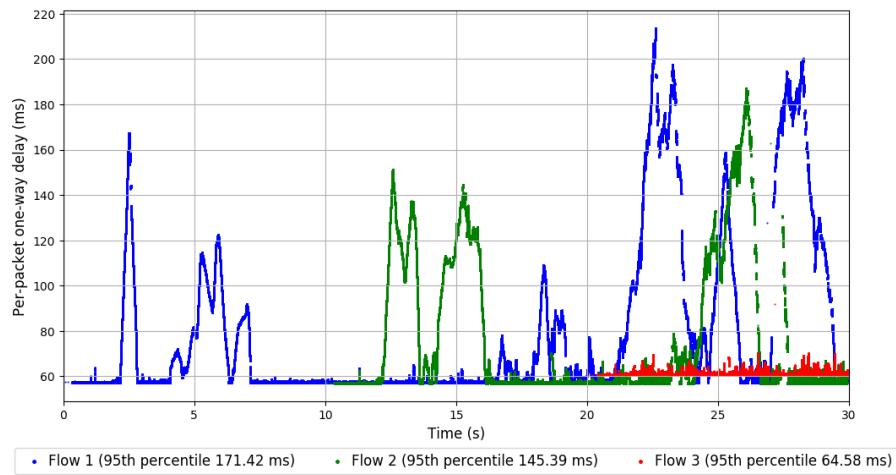
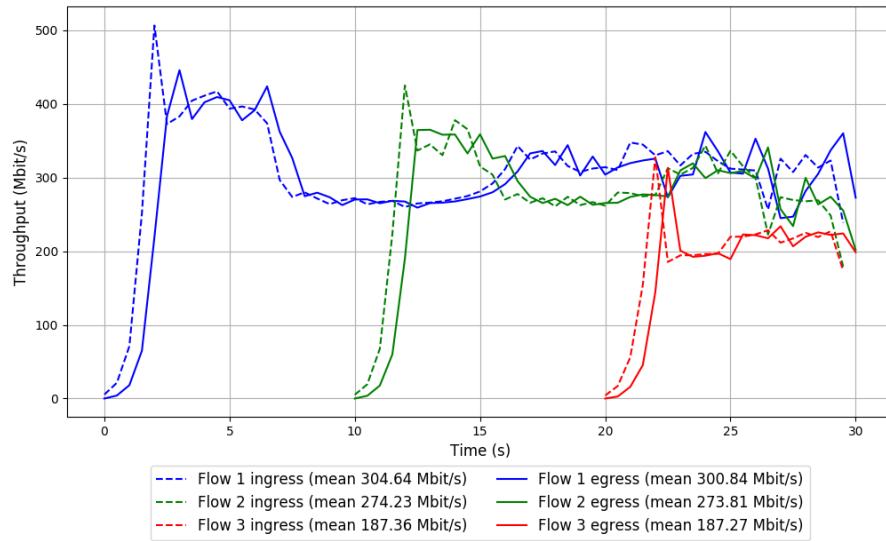


Run 4: Statistics of PCC-Expr

```
Start at: 2019-02-12 19:15:14
End at: 2019-02-12 19:15:44
Local clock offset: 0.174 ms
Remote clock offset: 0.496 ms

# Below is generated by plot.py at 2019-02-12 23:41:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 544.63 Mbit/s
95th percentile per-packet one-way delay: 160.529 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 300.84 Mbit/s
95th percentile per-packet one-way delay: 171.420 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 273.81 Mbit/s
95th percentile per-packet one-way delay: 145.392 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 187.27 Mbit/s
95th percentile per-packet one-way delay: 64.581 ms
Loss rate: 0.07%
```

Run 4: Report of PCC-Expr — Data Link

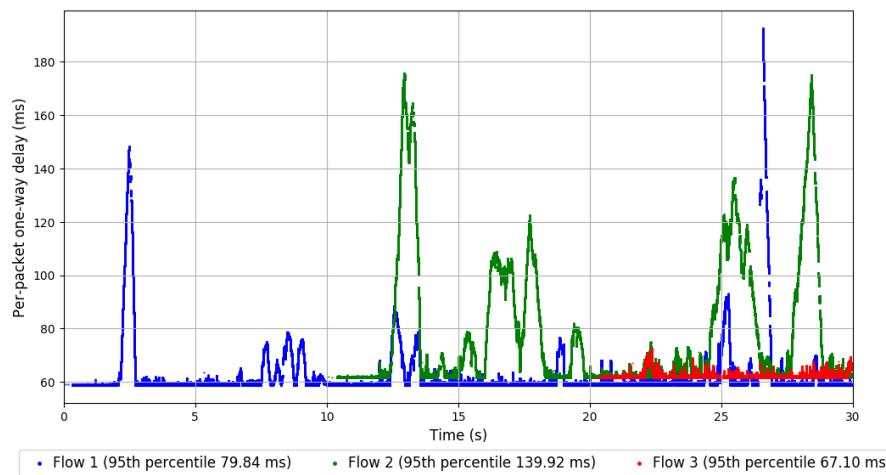
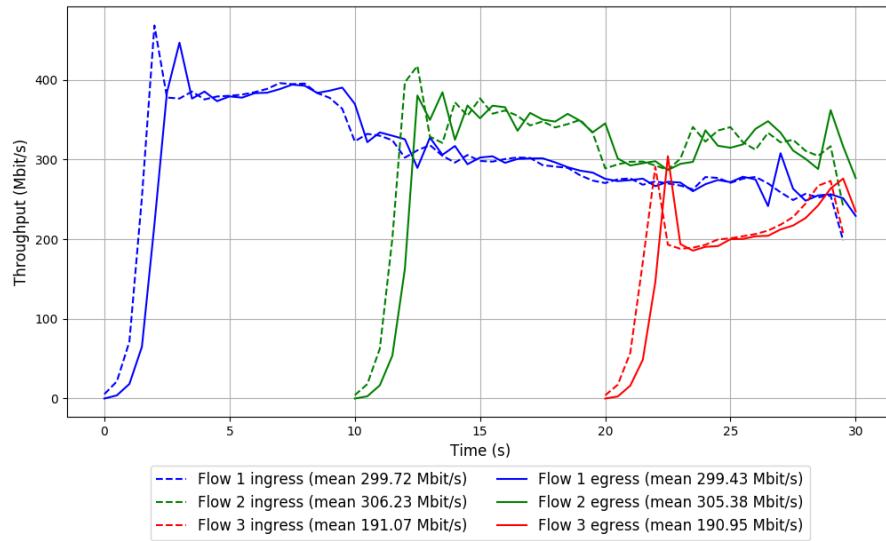


Run 5: Statistics of PCC-Expr

```
Start at: 2019-02-12 19:57:04
End at: 2019-02-12 19:57:34
Local clock offset: -0.321 ms
Remote clock offset: 1.277 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.32 Mbit/s
95th percentile per-packet one-way delay: 116.176 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 299.43 Mbit/s
95th percentile per-packet one-way delay: 79.838 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 305.38 Mbit/s
95th percentile per-packet one-way delay: 139.917 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 190.95 Mbit/s
95th percentile per-packet one-way delay: 67.101 ms
Loss rate: 0.11%
```

Run 5: Report of PCC-Expr — Data Link

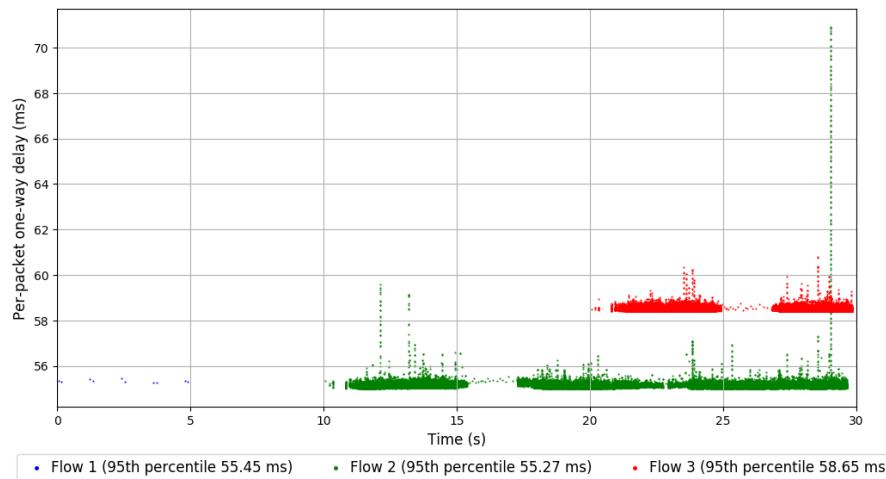
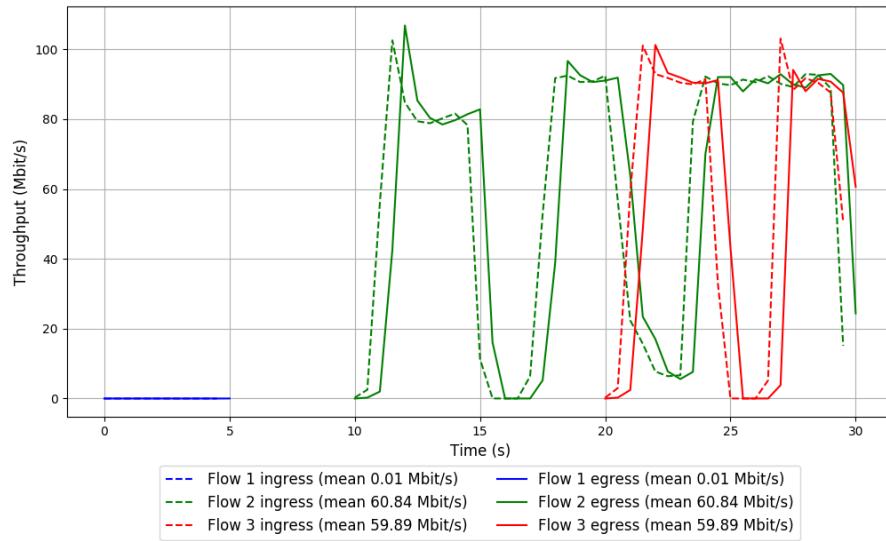


```
Run 1: Statistics of QUIC Cubic

Start at: 2019-02-12 17:01:13
End at: 2019-02-12 17:01:43
Local clock offset: 0.549 ms
Remote clock offset: -1.572 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.64 Mbit/s
95th percentile per-packet one-way delay: 58.577 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 55.449 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.84 Mbit/s
95th percentile per-packet one-way delay: 55.275 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 59.89 Mbit/s
95th percentile per-packet one-way delay: 58.654 ms
Loss rate: 0.04%
```

Run 1: Report of QUIC Cubic — Data Link

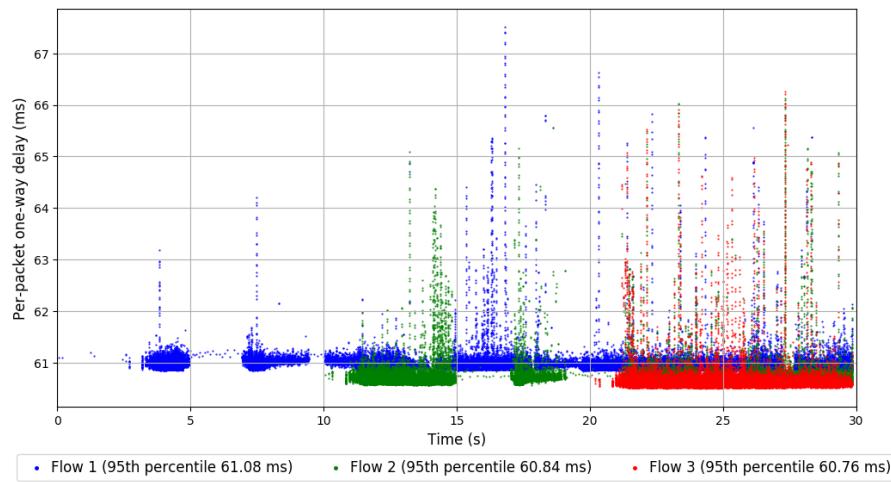
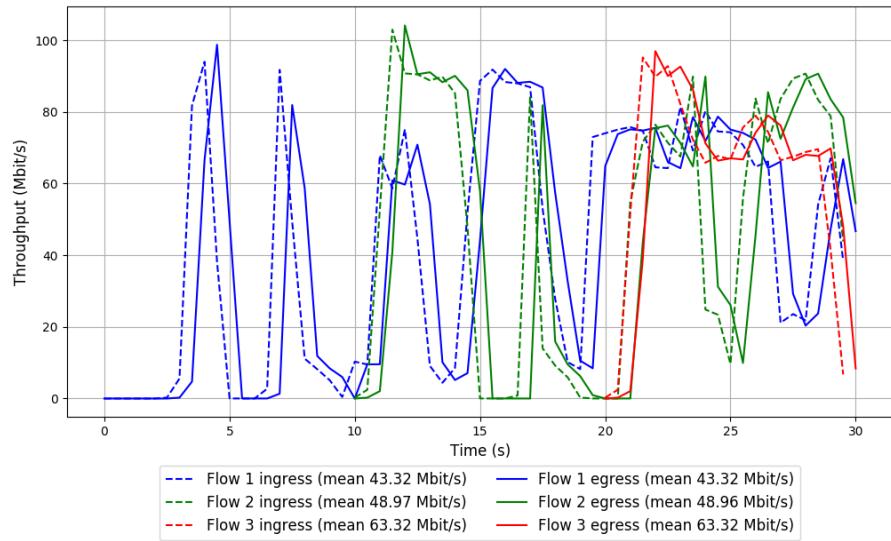


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-02-12 17:43:05
End at: 2019-02-12 17:43:35
Local clock offset: 0.156 ms
Remote clock offset: 0.502 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 61.042 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 43.32 Mbit/s
95th percentile per-packet one-way delay: 61.082 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 48.96 Mbit/s
95th percentile per-packet one-way delay: 60.835 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 63.32 Mbit/s
95th percentile per-packet one-way delay: 60.759 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

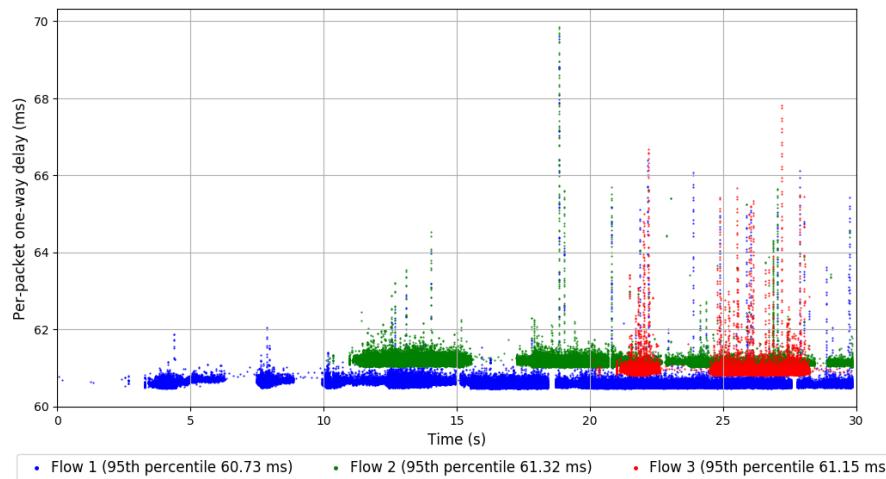
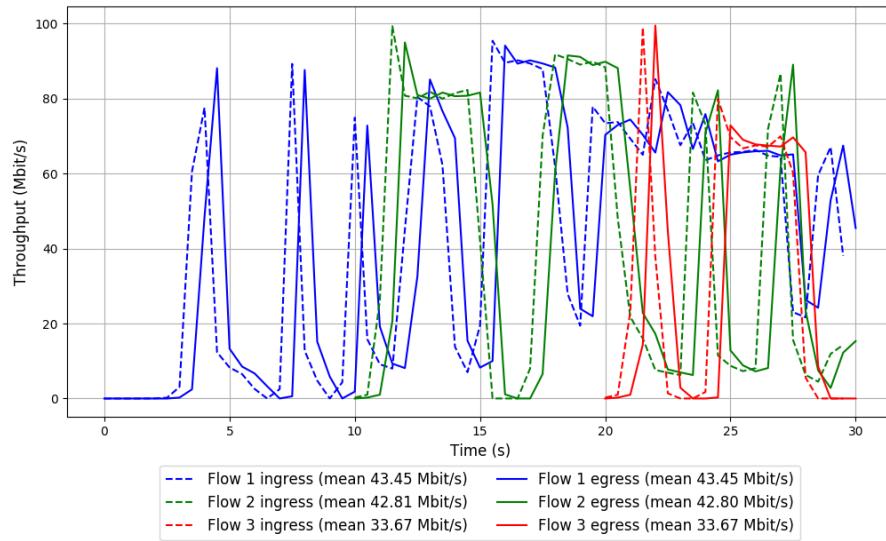


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-02-12 18:23:59
End at: 2019-02-12 18:24:29
Local clock offset: -0.221 ms
Remote clock offset: 0.529 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 82.78 Mbit/s
95th percentile per-packet one-way delay: 61.249 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 43.45 Mbit/s
95th percentile per-packet one-way delay: 60.735 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 42.80 Mbit/s
95th percentile per-packet one-way delay: 61.319 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 33.67 Mbit/s
95th percentile per-packet one-way delay: 61.145 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

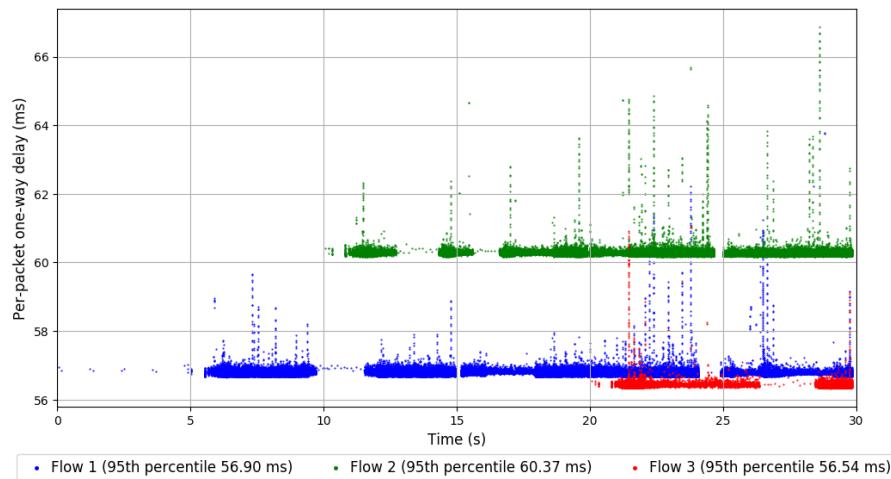
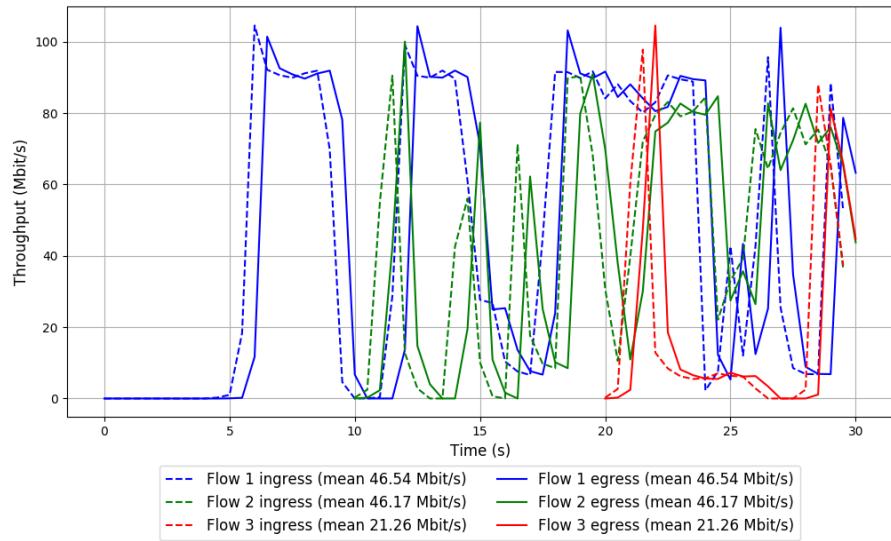


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-02-12 19:04:58
End at: 2019-02-12 19:05:28
Local clock offset: -0.196 ms
Remote clock offset: -0.427 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.16 Mbit/s
95th percentile per-packet one-way delay: 60.312 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 46.54 Mbit/s
95th percentile per-packet one-way delay: 56.895 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 46.17 Mbit/s
95th percentile per-packet one-way delay: 60.368 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 21.26 Mbit/s
95th percentile per-packet one-way delay: 56.537 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

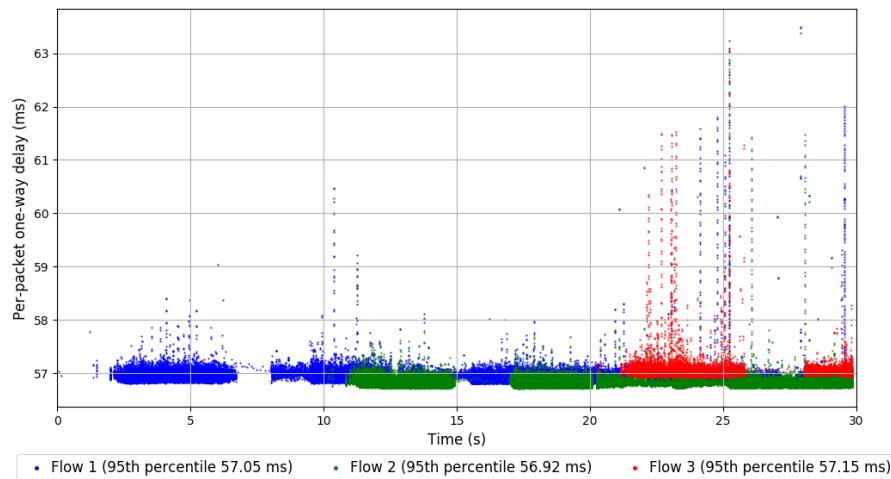
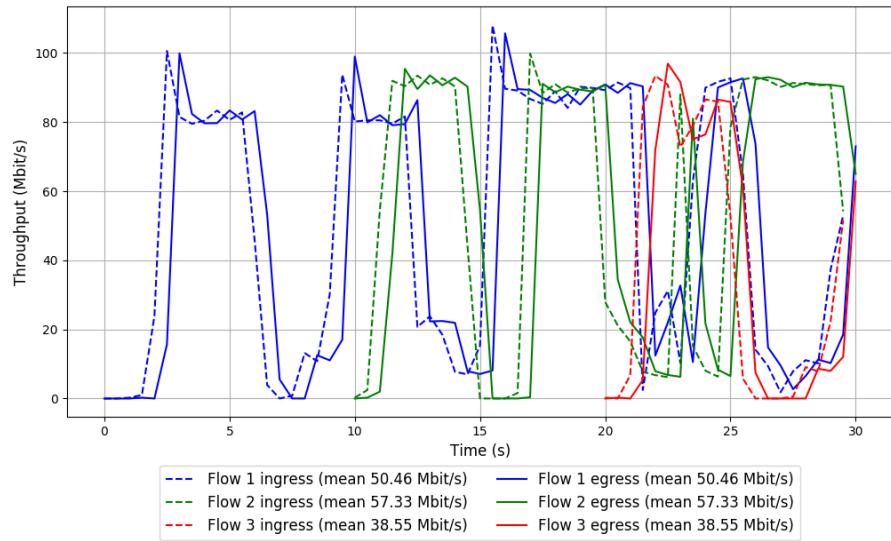


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-02-12 19:46:58
End at: 2019-02-12 19:47:28
Local clock offset: -0.25 ms
Remote clock offset: -0.252 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.12 Mbit/s
95th percentile per-packet one-way delay: 57.056 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.46 Mbit/s
95th percentile per-packet one-way delay: 57.054 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 56.923 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 38.55 Mbit/s
95th percentile per-packet one-way delay: 57.145 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

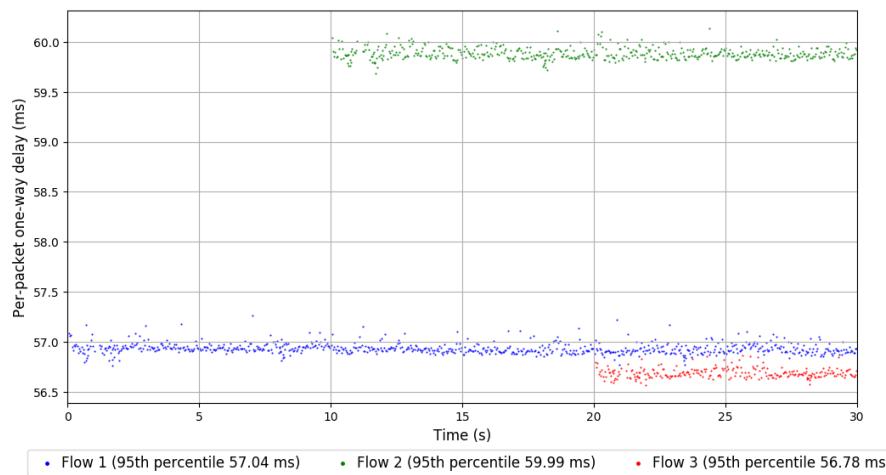
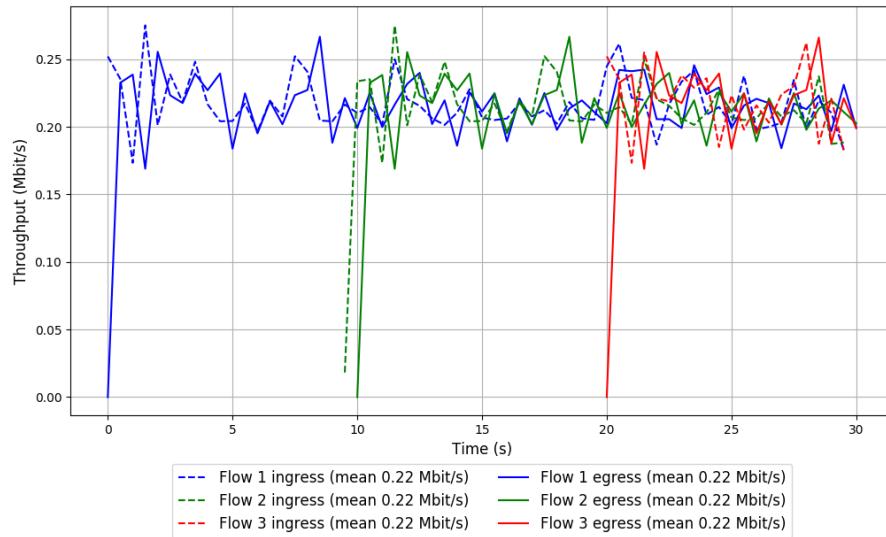


```
Run 1: Statistics of SCReAM
```

```
Start at: 2019-02-12 17:24:05
End at: 2019-02-12 17:24:35
Local clock offset: 0.179 ms
Remote clock offset: -0.649 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 59.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.988 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.782 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

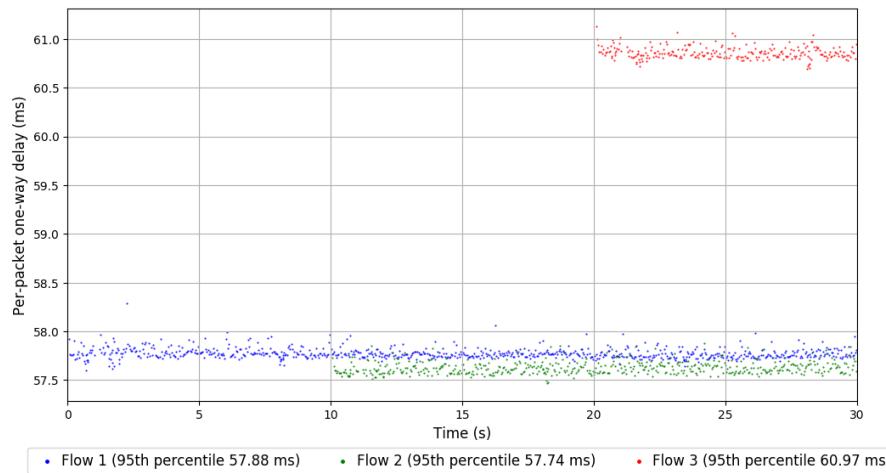
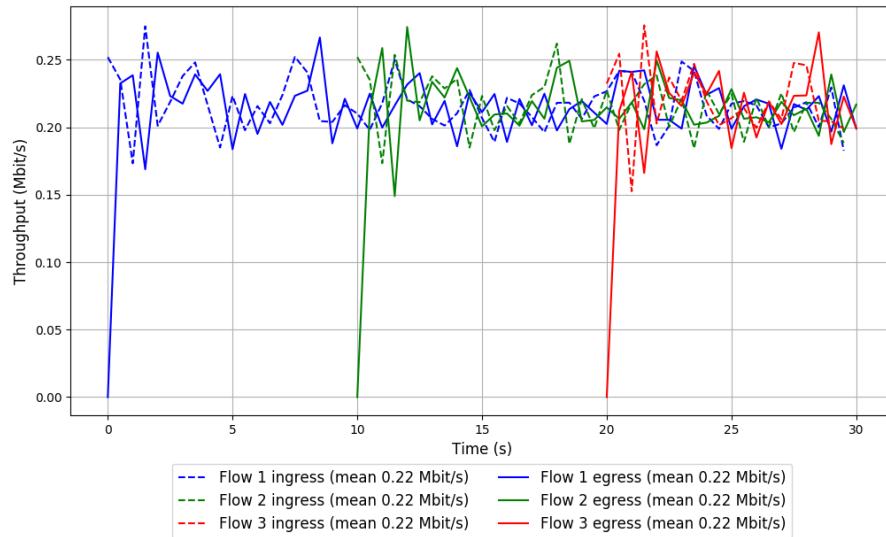


Run 2: Statistics of SCReAM

```
Start at: 2019-02-12 18:05:34
End at: 2019-02-12 18:06:04
Local clock offset: -0.371 ms
Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 60.881 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.880 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.742 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.971 ms
Loss rate: 0.35%
```

Run 2: Report of SCReAM — Data Link

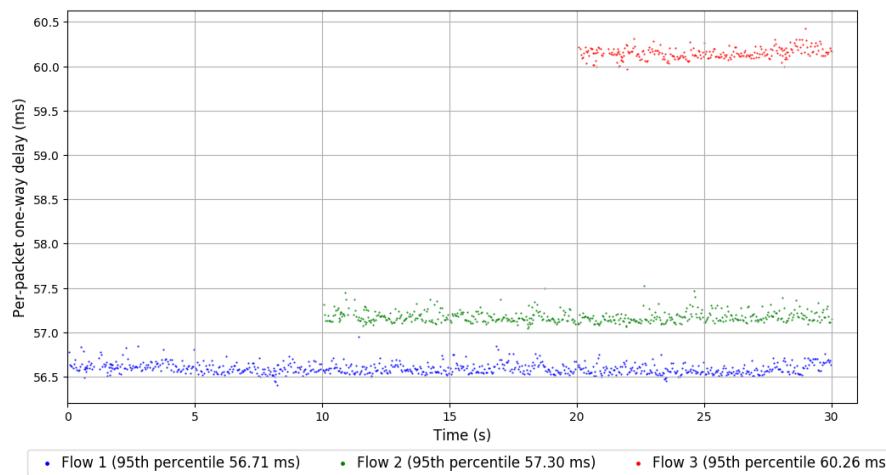
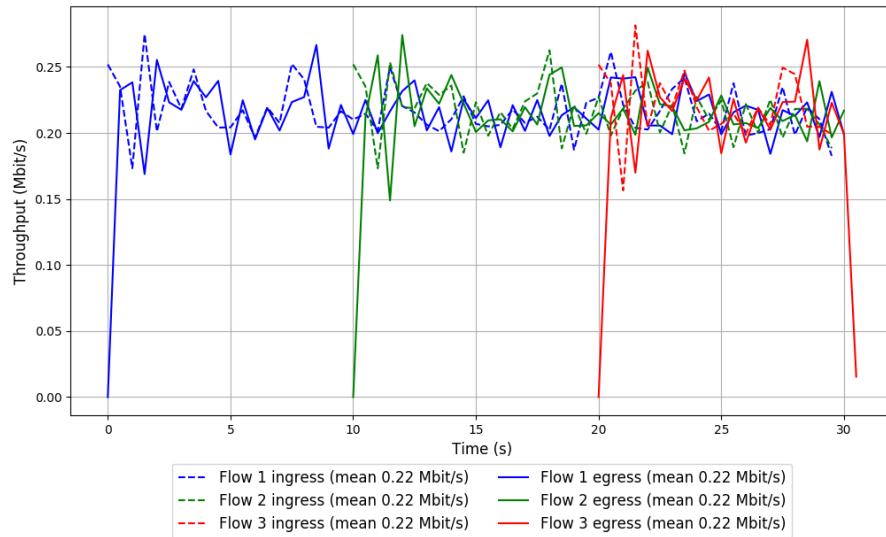


Run 3: Statistics of SCReAM

```
Start at: 2019-02-12 18:46:02
End at: 2019-02-12 18:46:32
Local clock offset: -0.576 ms
Remote clock offset: -0.76 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 60.180 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.297 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.263 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

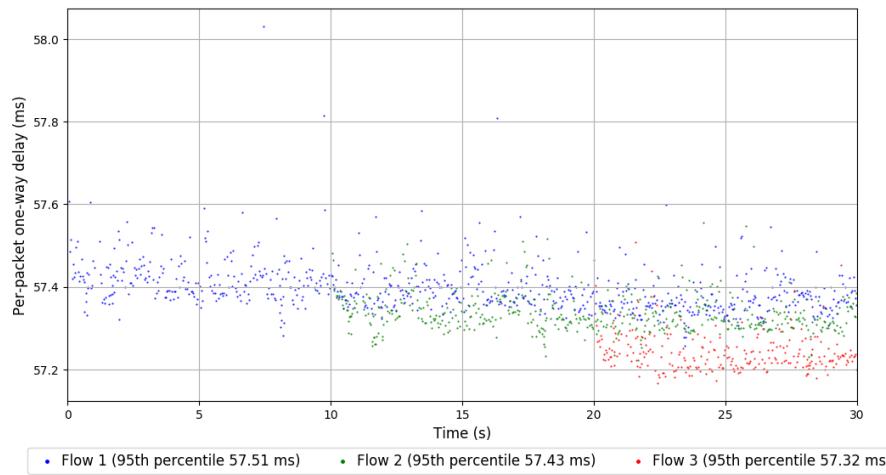
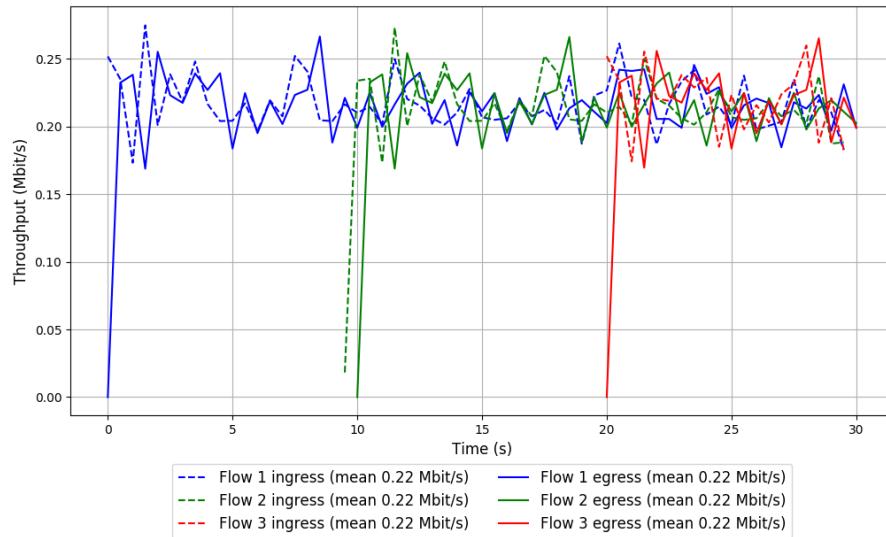


Run 4: Statistics of SCReAM

```
Start at: 2019-02-12 19:27:58
End at: 2019-02-12 19:28:28
Local clock offset: 0.045 ms
Remote clock offset: 0.355 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 57.473 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.508 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.426 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.321 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

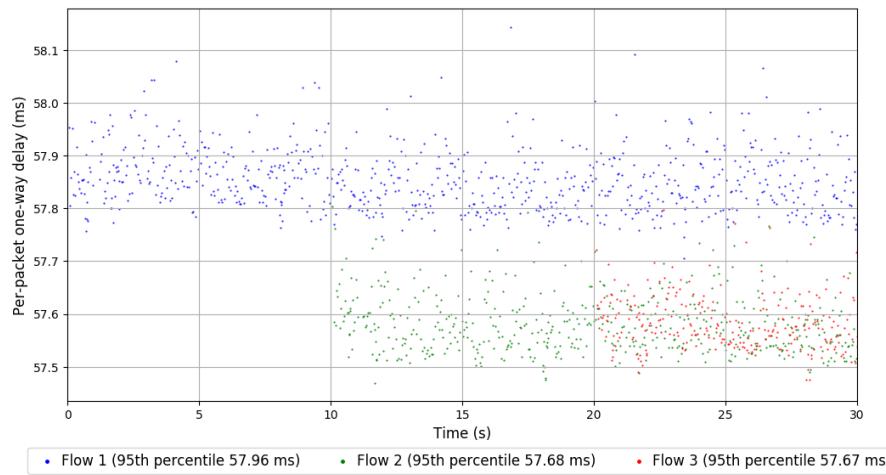
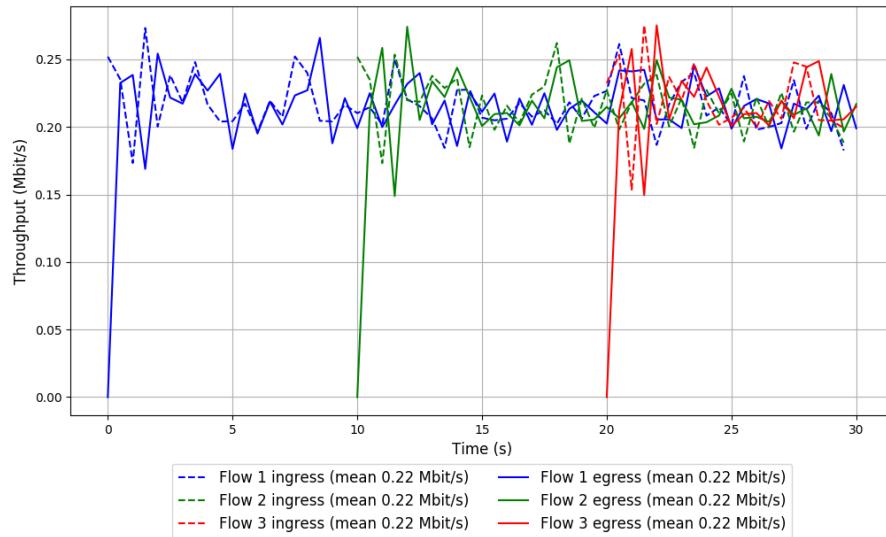


Run 5: Statistics of SCReAM

```
Start at: 2019-02-12 20:09:00
End at: 2019-02-12 20:09:30
Local clock offset: -0.248 ms
Remote clock offset: 0.498 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 57.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.962 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.684 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 57.669 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

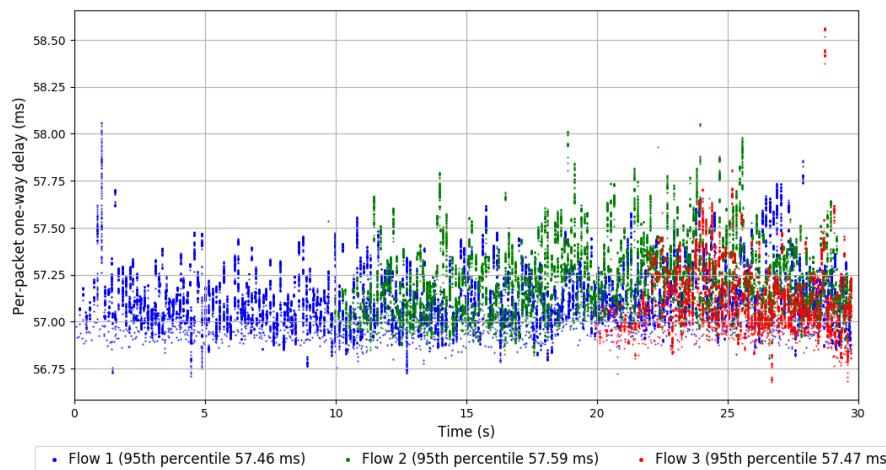
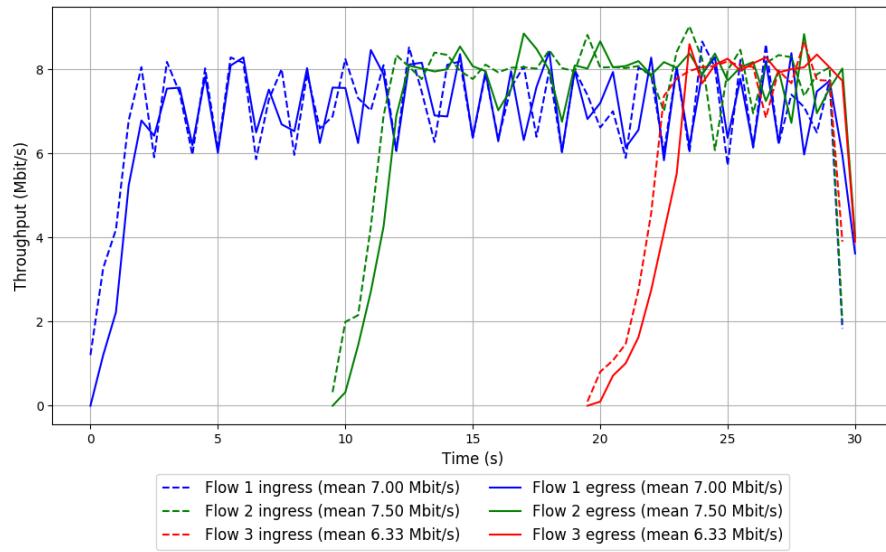


Run 1: Statistics of Sprout

```
Start at: 2019-02-12 16:53:29
End at: 2019-02-12 16:53:59
Local clock offset: -0.282 ms
Remote clock offset: -0.747 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 57.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 57.463 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 57.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.33 Mbit/s
95th percentile per-packet one-way delay: 57.469 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

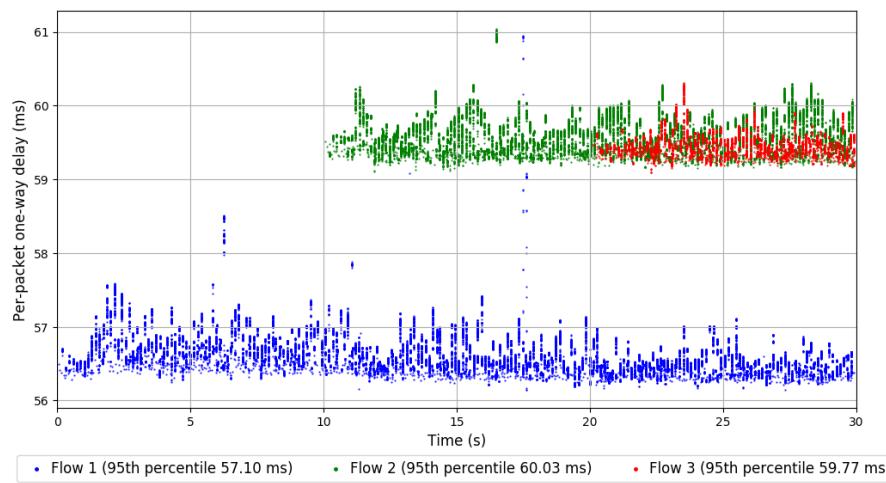
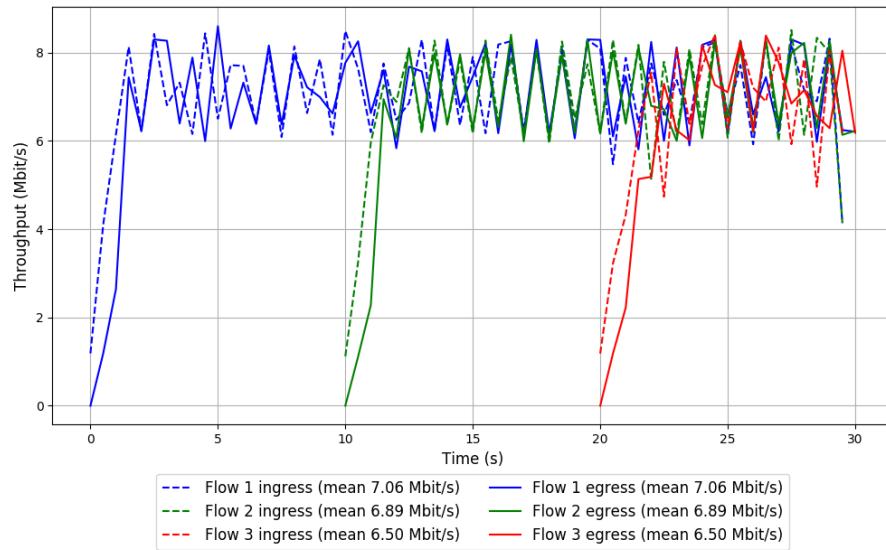


Run 2: Statistics of Sprout

```
Start at: 2019-02-12 17:35:14
End at: 2019-02-12 17:35:44
Local clock offset: -0.252 ms
Remote clock offset: -1.444 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.77 Mbit/s
95th percentile per-packet one-way delay: 59.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.06 Mbit/s
95th percentile per-packet one-way delay: 57.098 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 60.028 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 59.765 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

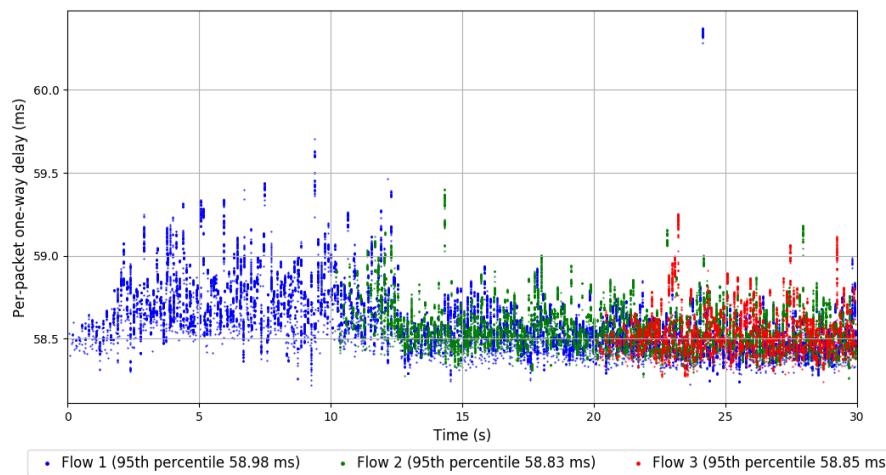
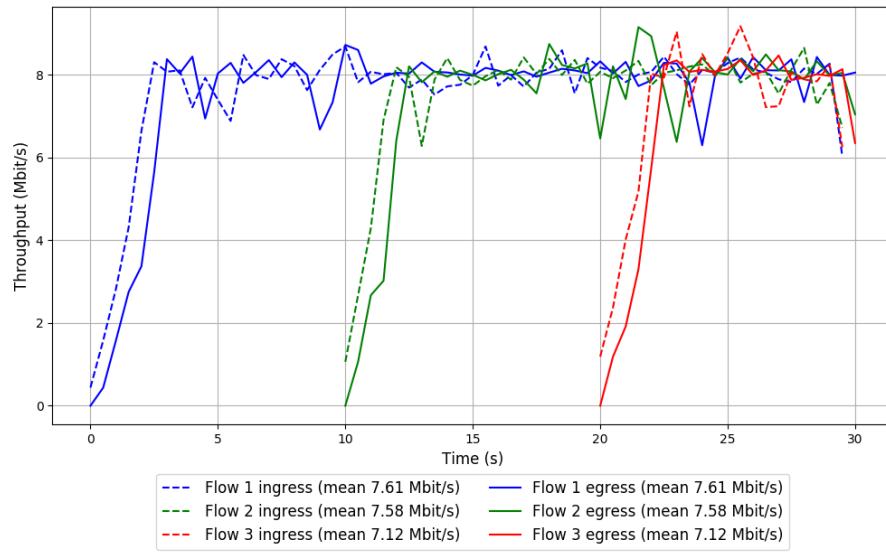


Run 3: Statistics of Sprout

```
Start at: 2019-02-12 18:16:41
End at: 2019-02-12 18:17:11
Local clock offset: -0.152 ms
Remote clock offset: 1.191 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.99 Mbit/s
95th percentile per-packet one-way delay: 58.932 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 58.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.58 Mbit/s
95th percentile per-packet one-way delay: 58.828 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.12 Mbit/s
95th percentile per-packet one-way delay: 58.849 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

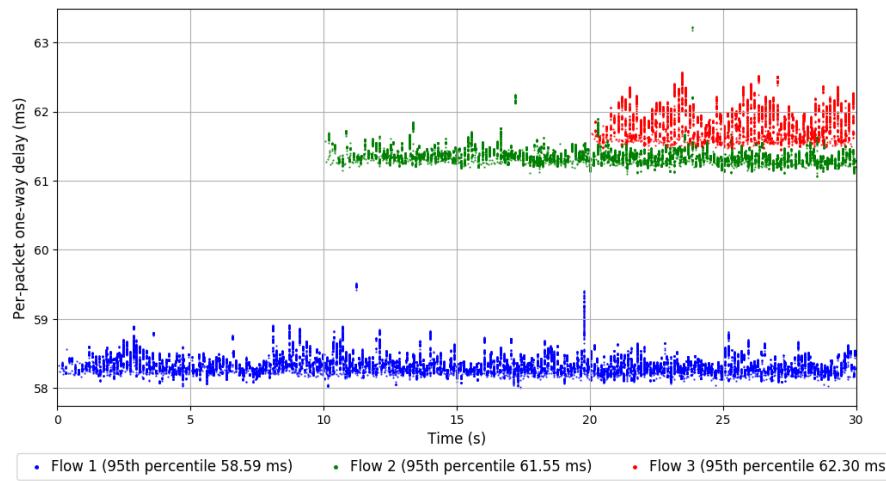
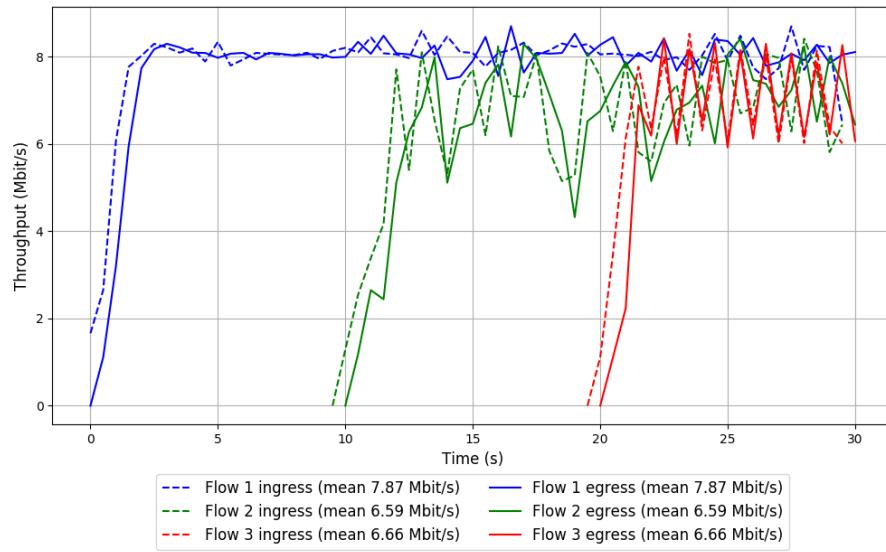


Run 4: Statistics of Sprout

```
Start at: 2019-02-12 18:57:15
End at: 2019-02-12 18:57:45
Local clock offset: -0.408 ms
Remote clock offset: 0.766 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.45 Mbit/s
95th percentile per-packet one-way delay: 61.983 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.87 Mbit/s
95th percentile per-packet one-way delay: 58.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.59 Mbit/s
95th percentile per-packet one-way delay: 61.546 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.66 Mbit/s
95th percentile per-packet one-way delay: 62.299 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

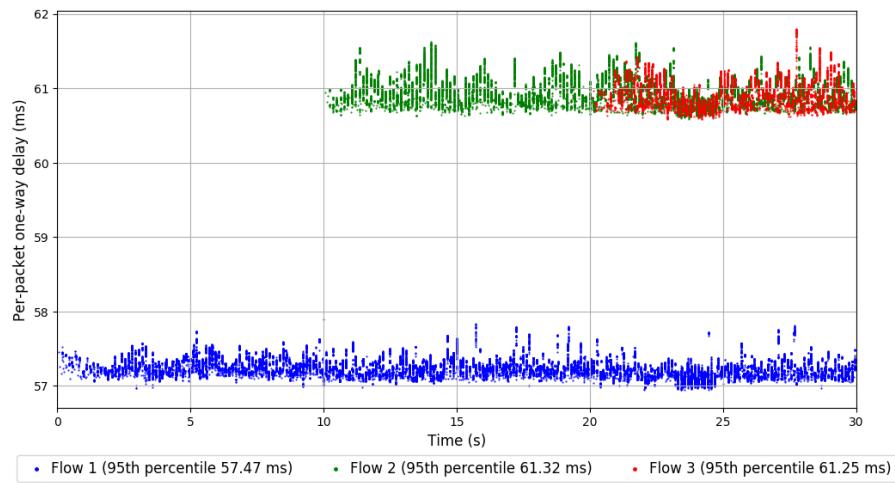
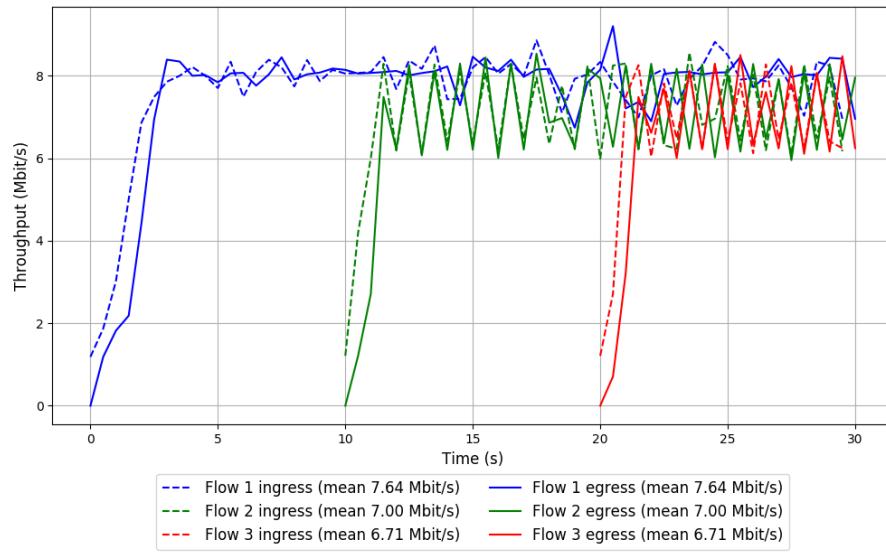


Run 5: Statistics of Sprout

```
Start at: 2019-02-12 19:39:07
End at: 2019-02-12 19:39:37
Local clock offset: -0.213 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-02-12 23:46:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 61.194 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 57.466 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.00 Mbit/s
95th percentile per-packet one-way delay: 61.323 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 61.248 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

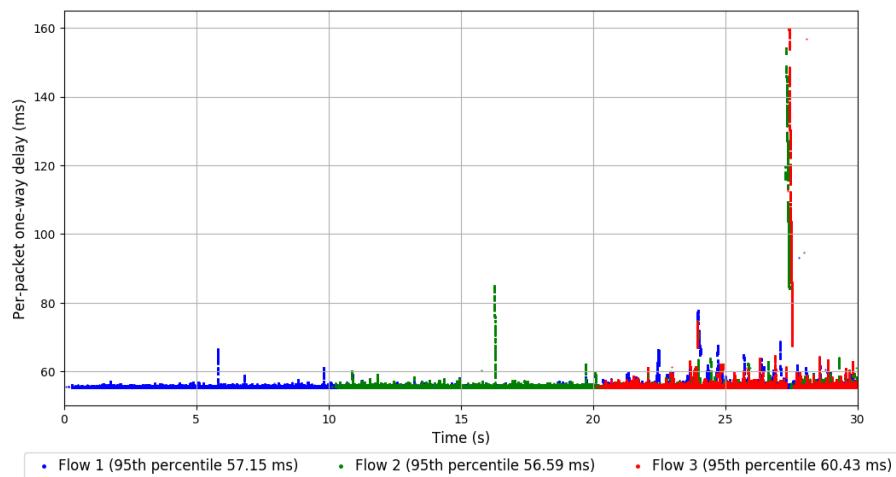
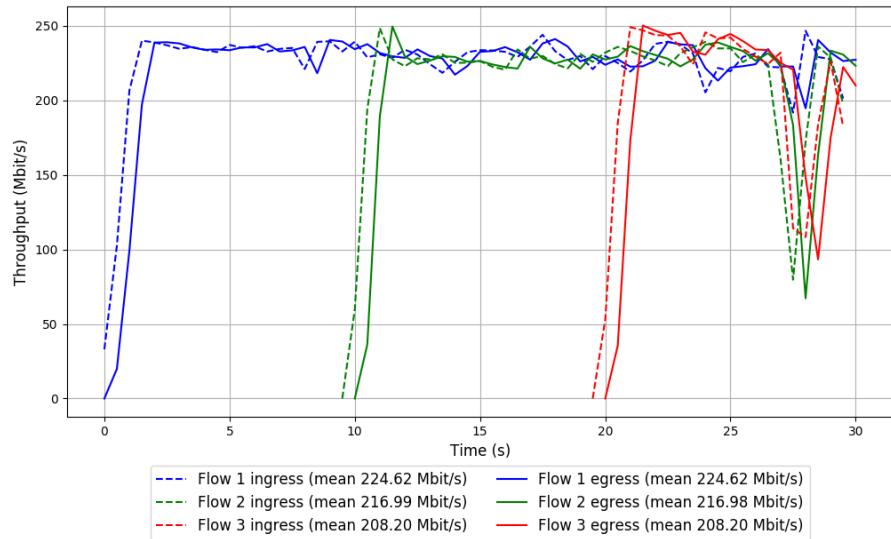


Run 1: Statistics of TaoVA-100x

```
Start at: 2019-02-12 16:54:43
End at: 2019-02-12 16:55:13
Local clock offset: 0.28 ms
Remote clock offset: -1.398 ms

# Below is generated by plot.py at 2019-02-12 23:50:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.62 Mbit/s
95th percentile per-packet one-way delay: 57.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.62 Mbit/s
95th percentile per-packet one-way delay: 57.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 216.98 Mbit/s
95th percentile per-packet one-way delay: 56.587 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 208.20 Mbit/s
95th percentile per-packet one-way delay: 60.433 ms
Loss rate: 0.00%
```

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

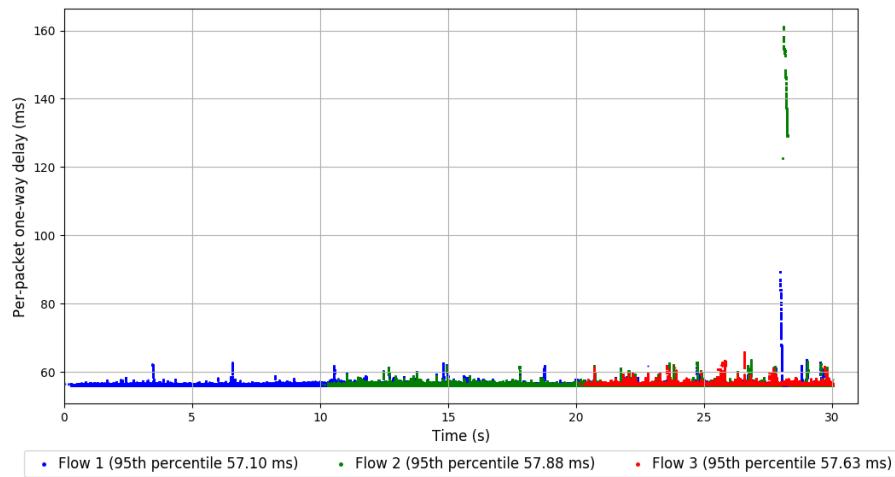
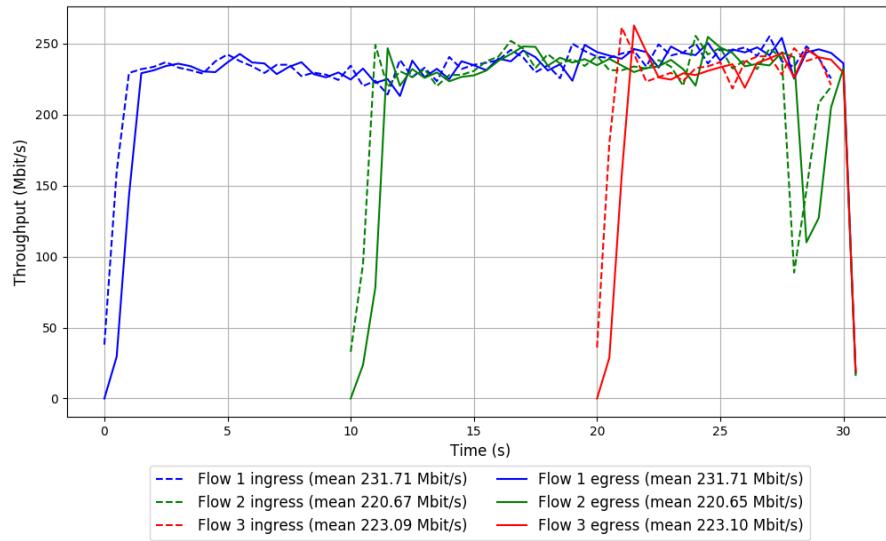


Run 2: Statistics of TaoVA-100x

```
Start at: 2019-02-12 17:36:27
End at: 2019-02-12 17:36:57
Local clock offset: 0.267 ms
Remote clock offset: -0.739 ms

# Below is generated by plot.py at 2019-02-12 23:51:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.69 Mbit/s
95th percentile per-packet one-way delay: 57.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.71 Mbit/s
95th percentile per-packet one-way delay: 57.099 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 220.65 Mbit/s
95th percentile per-packet one-way delay: 57.885 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.10 Mbit/s
95th percentile per-packet one-way delay: 57.628 ms
Loss rate: 0.00%
```

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

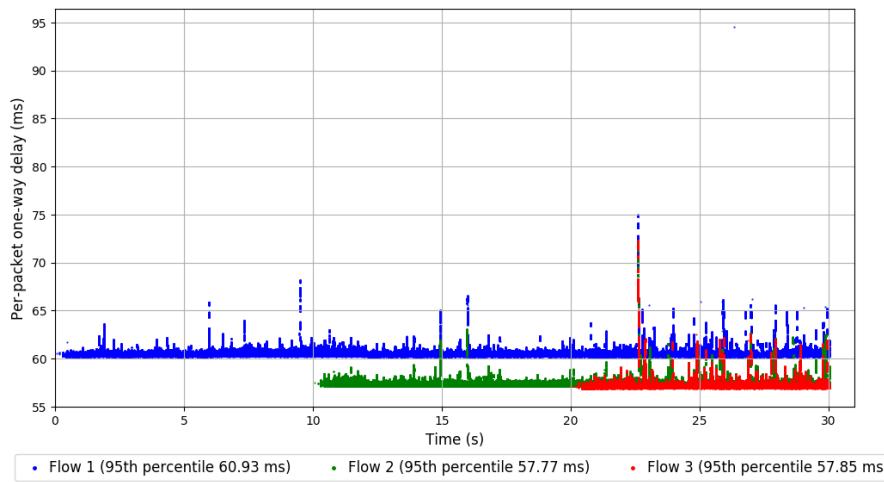
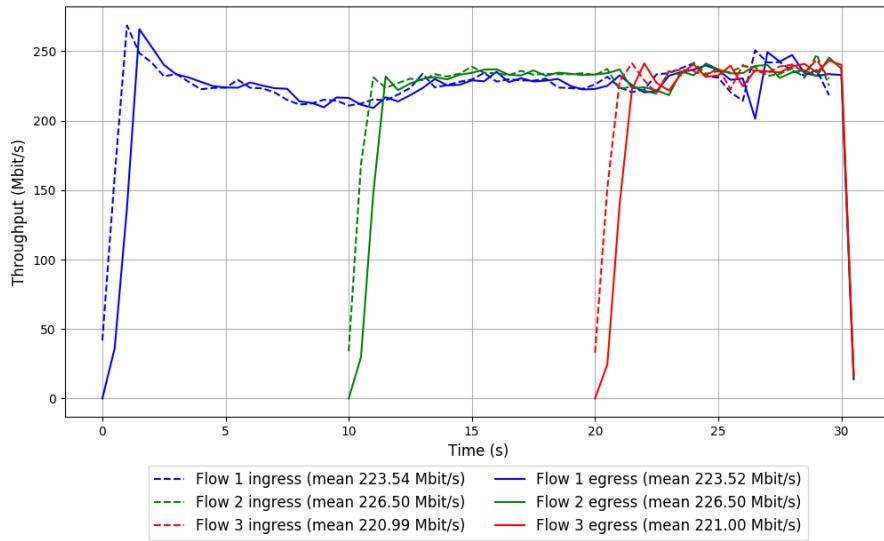


Run 3: Statistics of TaoVA-100x

```
Start at: 2019-02-12 18:17:55
End at: 2019-02-12 18:18:25
Local clock offset: -0.189 ms
Remote clock offset: -0.073 ms

# Below is generated by plot.py at 2019-02-12 23:51:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.79 Mbit/s
95th percentile per-packet one-way delay: 60.720 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 223.52 Mbit/s
95th percentile per-packet one-way delay: 60.926 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 226.50 Mbit/s
95th percentile per-packet one-way delay: 57.769 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 221.00 Mbit/s
95th percentile per-packet one-way delay: 57.855 ms
Loss rate: 0.00%
```

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

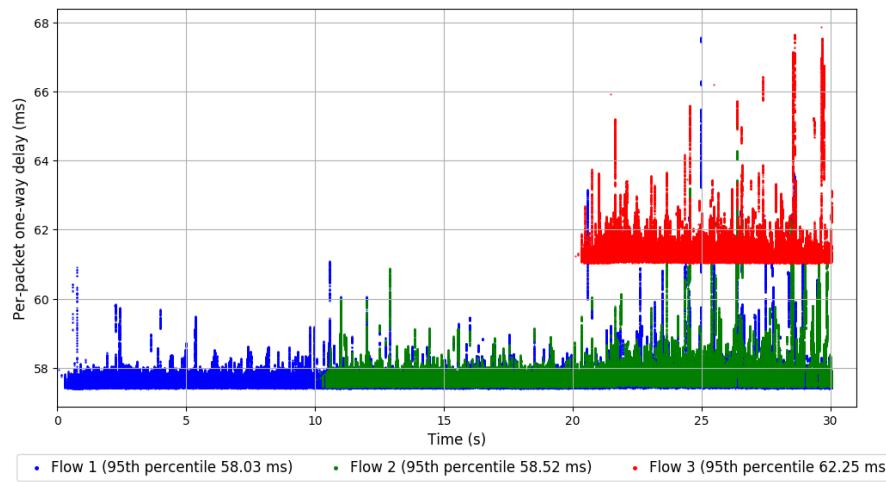
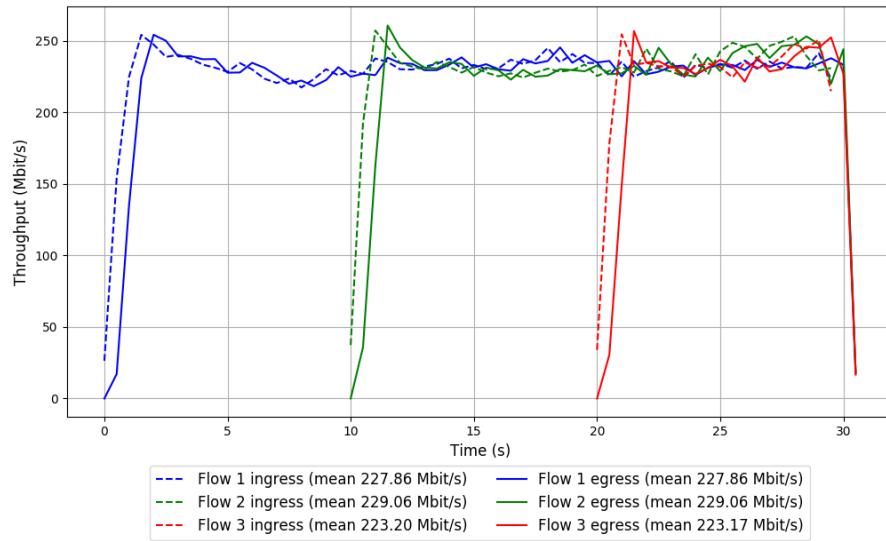


Run 4: Statistics of TaoVA-100x

```
Start at: 2019-02-12 18:58:29
End at: 2019-02-12 18:58:59
Local clock offset: -0.205 ms
Remote clock offset: 0.425 ms

# Below is generated by plot.py at 2019-02-12 23:52:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 454.51 Mbit/s
95th percentile per-packet one-way delay: 61.412 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 227.86 Mbit/s
95th percentile per-packet one-way delay: 58.028 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 229.06 Mbit/s
95th percentile per-packet one-way delay: 58.523 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 223.17 Mbit/s
95th percentile per-packet one-way delay: 62.252 ms
Loss rate: 0.04%
```

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

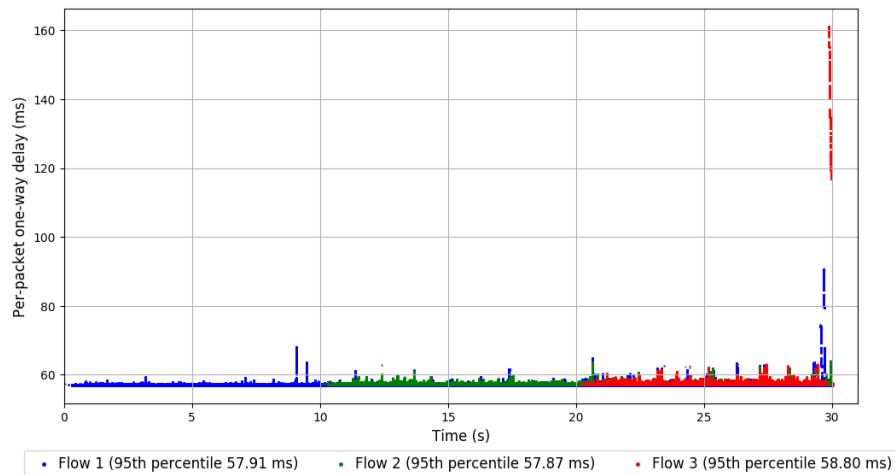
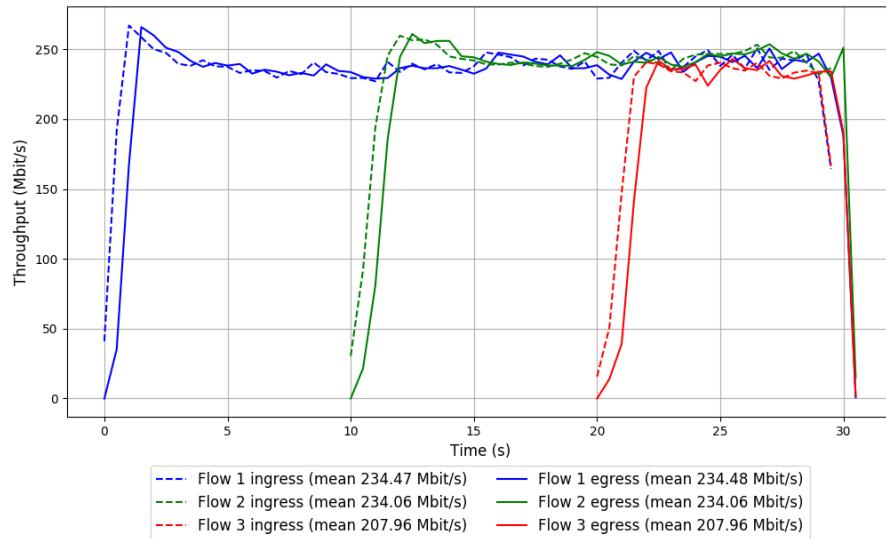


Run 5: Statistics of TaoVA-100x

```
Start at: 2019-02-12 19:40:22
End at: 2019-02-12 19:40:52
Local clock offset: -0.051 ms
Remote clock offset: 0.23 ms

# Below is generated by plot.py at 2019-02-12 23:52:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.24 Mbit/s
95th percentile per-packet one-way delay: 58.042 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.48 Mbit/s
95th percentile per-packet one-way delay: 57.909 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 234.06 Mbit/s
95th percentile per-packet one-way delay: 57.869 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 207.96 Mbit/s
95th percentile per-packet one-way delay: 58.805 ms
Loss rate: 0.00%
```

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

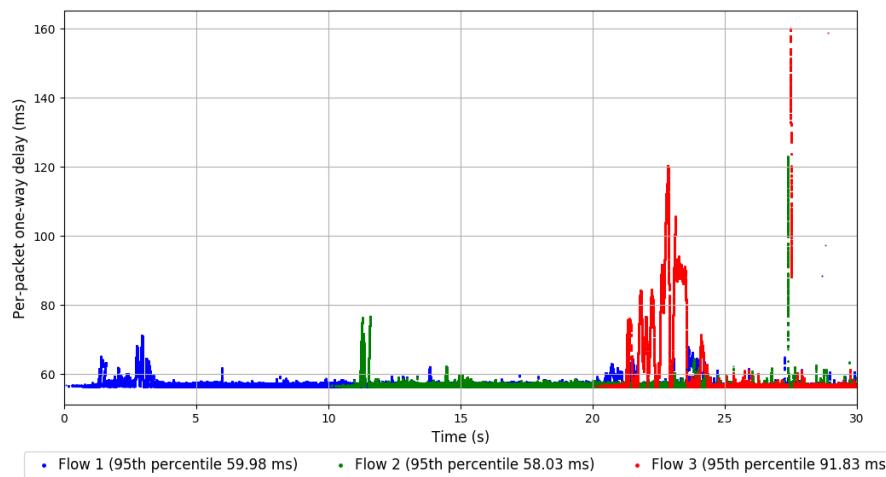
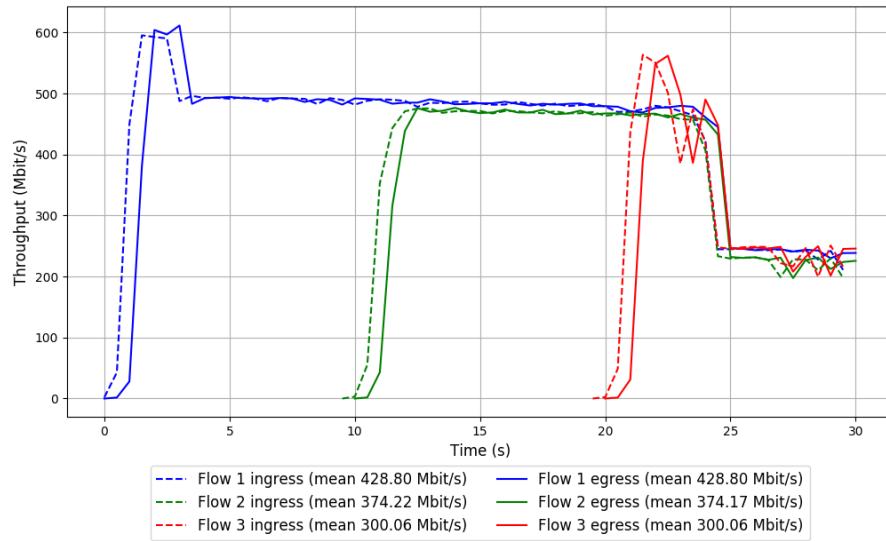


Run 1: Statistics of TCP Vegas

```
Start at: 2019-02-12 16:59:11
End at: 2019-02-12 16:59:41
Local clock offset: -0.316 ms
Remote clock offset: -1.122 ms

# Below is generated by plot.py at 2019-02-12 23:52:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 778.09 Mbit/s
95th percentile per-packet one-way delay: 63.710 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 428.80 Mbit/s
95th percentile per-packet one-way delay: 59.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 374.17 Mbit/s
95th percentile per-packet one-way delay: 58.029 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 300.06 Mbit/s
95th percentile per-packet one-way delay: 91.829 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

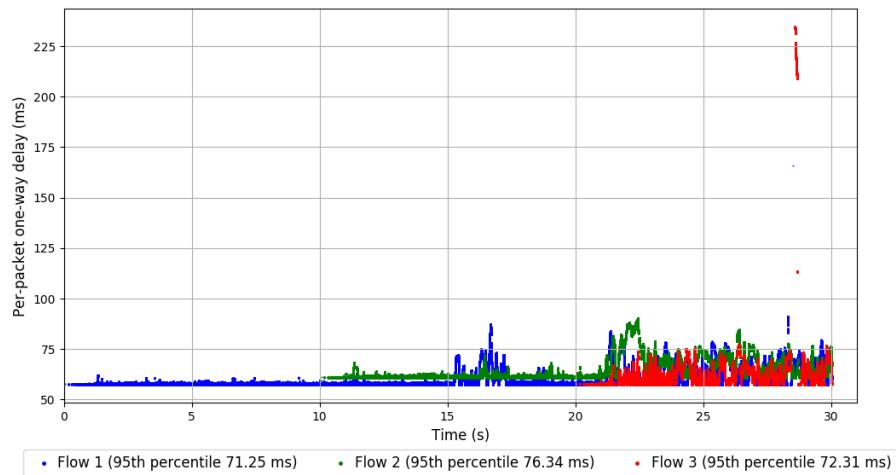
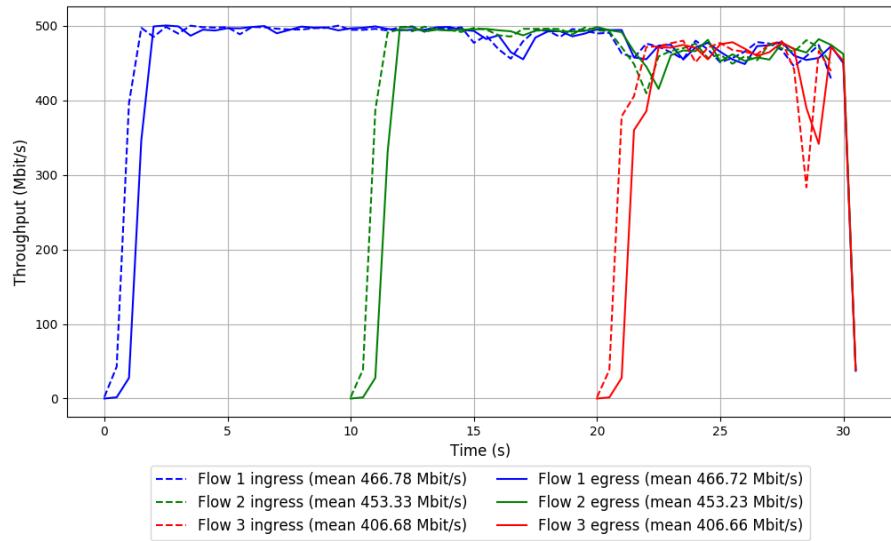


Run 2: Statistics of TCP Vegas

```
Start at: 2019-02-12 17:40:55
End at: 2019-02-12 17:41:25
Local clock offset: -0.38 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2019-02-13 00:07:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 903.77 Mbit/s
95th percentile per-packet one-way delay: 73.759 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 466.72 Mbit/s
95th percentile per-packet one-way delay: 71.246 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 453.23 Mbit/s
95th percentile per-packet one-way delay: 76.339 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 406.66 Mbit/s
95th percentile per-packet one-way delay: 72.312 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

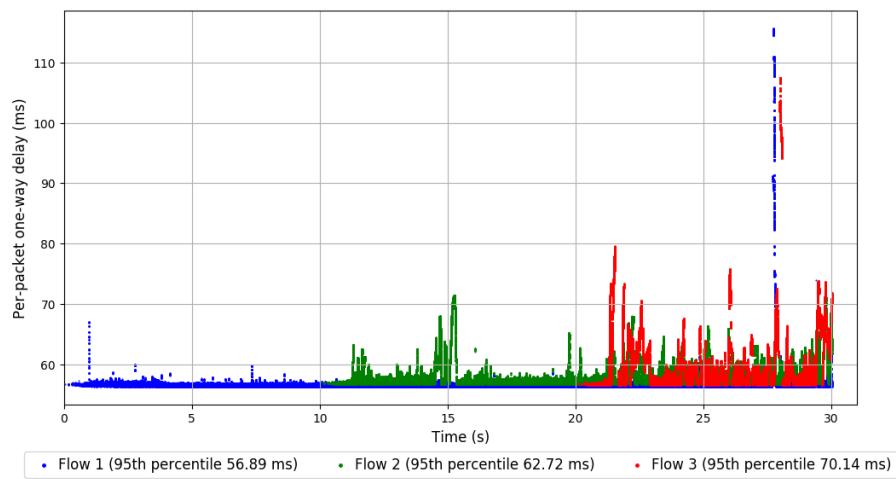
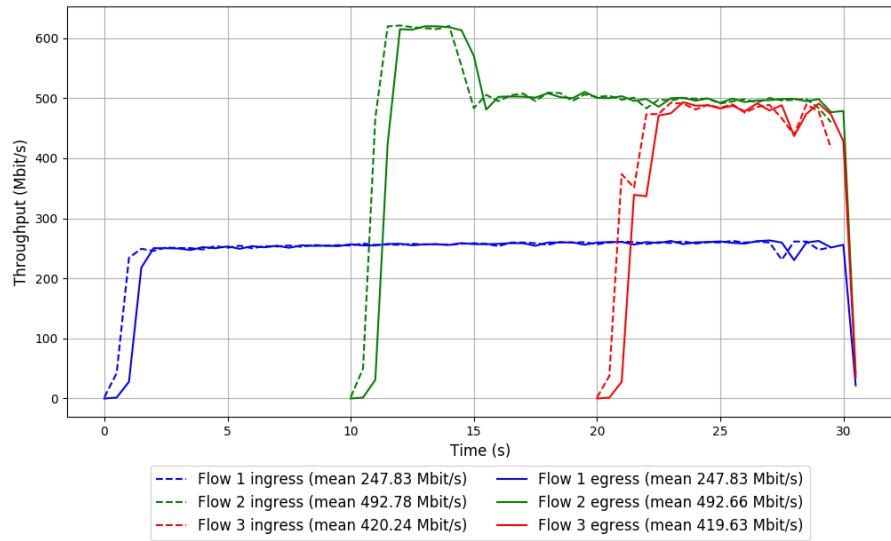


Run 3: Statistics of TCP Vegas

```
Start at: 2019-02-12 18:22:01
End at: 2019-02-12 18:22:31
Local clock offset: 0.052 ms
Remote clock offset: -0.087 ms

# Below is generated by plot.py at 2019-02-13 00:07:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 715.48 Mbit/s
95th percentile per-packet one-way delay: 63.820 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 247.83 Mbit/s
95th percentile per-packet one-way delay: 56.892 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 492.66 Mbit/s
95th percentile per-packet one-way delay: 62.723 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 419.63 Mbit/s
95th percentile per-packet one-way delay: 70.141 ms
Loss rate: 0.14%
```

Run 3: Report of TCP Vegas — Data Link

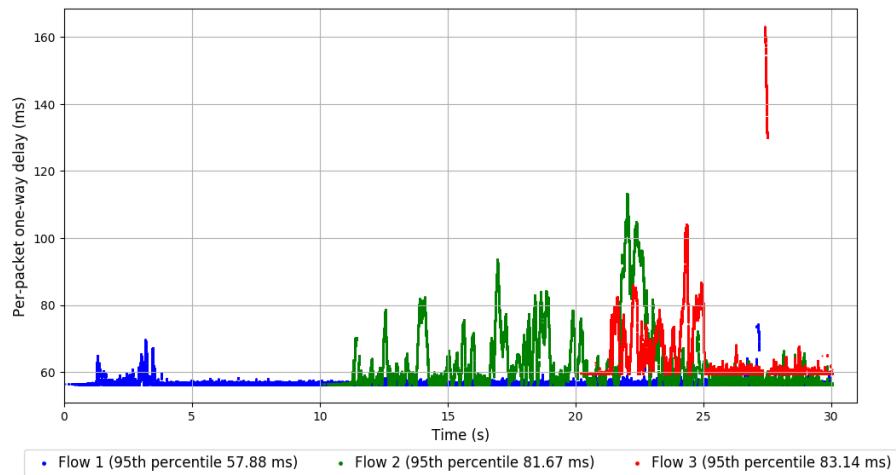
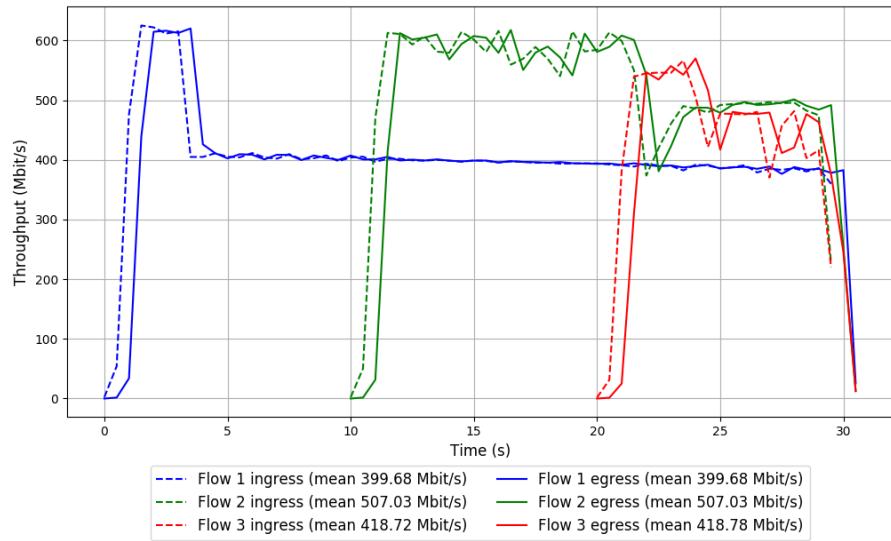


Run 4: Statistics of TCP Vegas

```
Start at: 2019-02-12 19:02:48
End at: 2019-02-12 19:03:18
Local clock offset: -0.199 ms
Remote clock offset: -0.754 ms

# Below is generated by plot.py at 2019-02-13 00:13:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 876.49 Mbit/s
95th percentile per-packet one-way delay: 77.128 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 399.68 Mbit/s
95th percentile per-packet one-way delay: 57.882 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 507.03 Mbit/s
95th percentile per-packet one-way delay: 81.667 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 418.78 Mbit/s
95th percentile per-packet one-way delay: 83.141 ms
Loss rate: 0.02%
```

Run 4: Report of TCP Vegas — Data Link

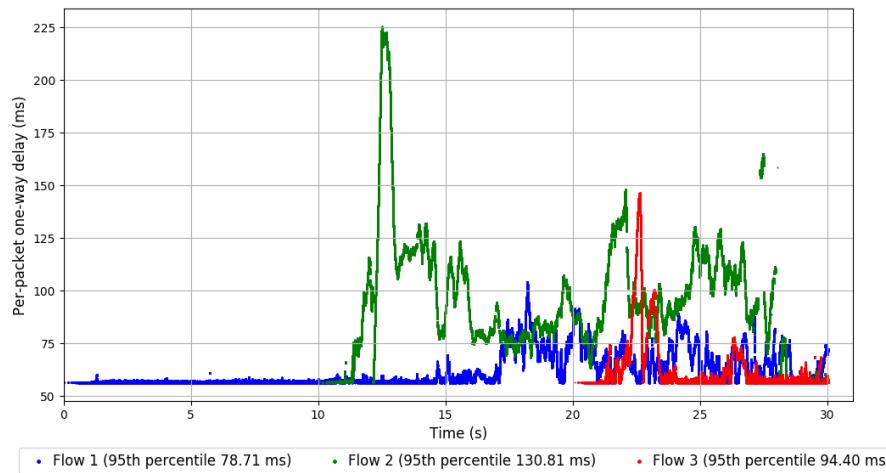
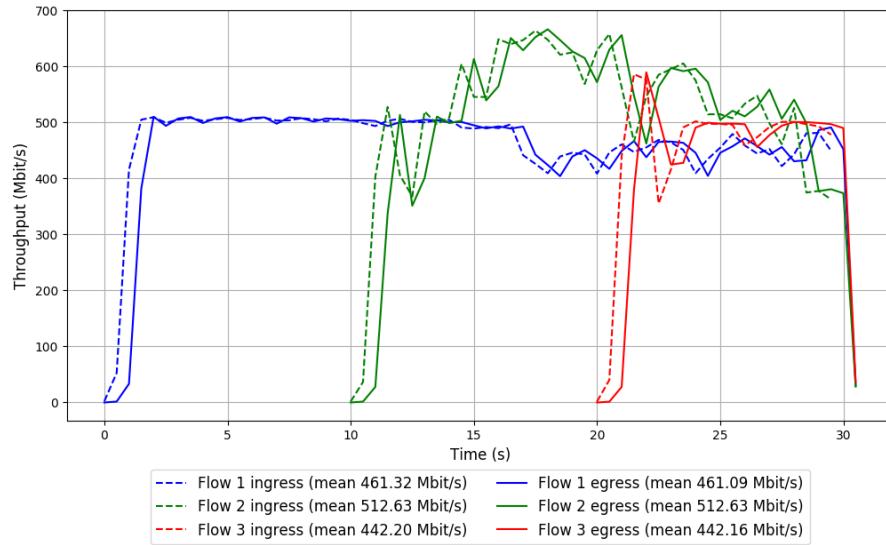


Run 5: Statistics of TCP Vegas

```
Start at: 2019-02-12 19:44:40
End at: 2019-02-12 19:45:10
Local clock offset: 0.043 ms
Remote clock offset: -0.685 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 949.17 Mbit/s
95th percentile per-packet one-way delay: 119.030 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 461.09 Mbit/s
95th percentile per-packet one-way delay: 78.711 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 512.63 Mbit/s
95th percentile per-packet one-way delay: 130.807 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 442.16 Mbit/s
95th percentile per-packet one-way delay: 94.398 ms
Loss rate: 0.01%
```

Run 5: Report of TCP Vegas — Data Link

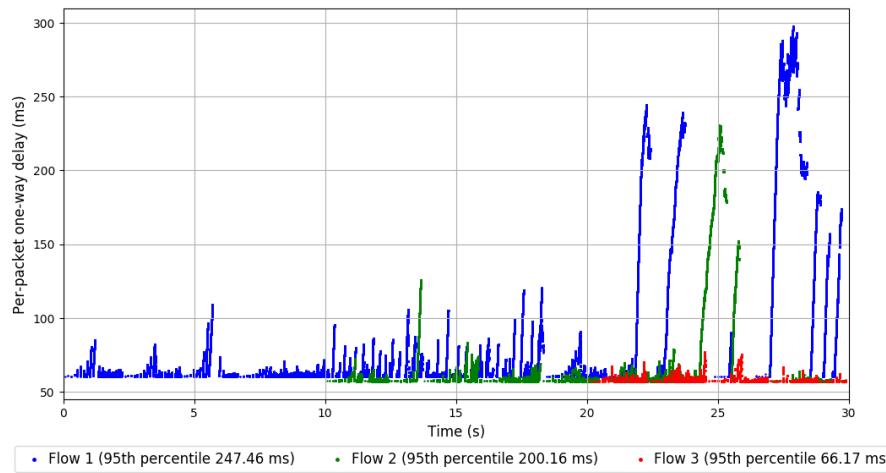
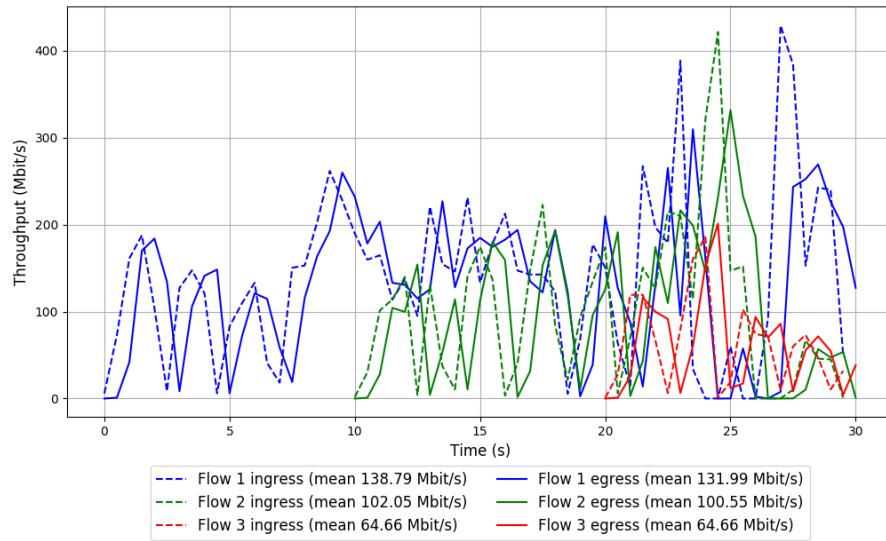


Run 1: Statistics of Verus

```
Start at: 2019-02-12 17:30:09
End at: 2019-02-12 17:30:39
Local clock offset: 0.093 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.28 Mbit/s
95th percentile per-packet one-way delay: 225.520 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 131.99 Mbit/s
95th percentile per-packet one-way delay: 247.461 ms
Loss rate: 4.53%
-- Flow 2:
Average throughput: 100.55 Mbit/s
95th percentile per-packet one-way delay: 200.160 ms
Loss rate: 1.47%
-- Flow 3:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 66.174 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link

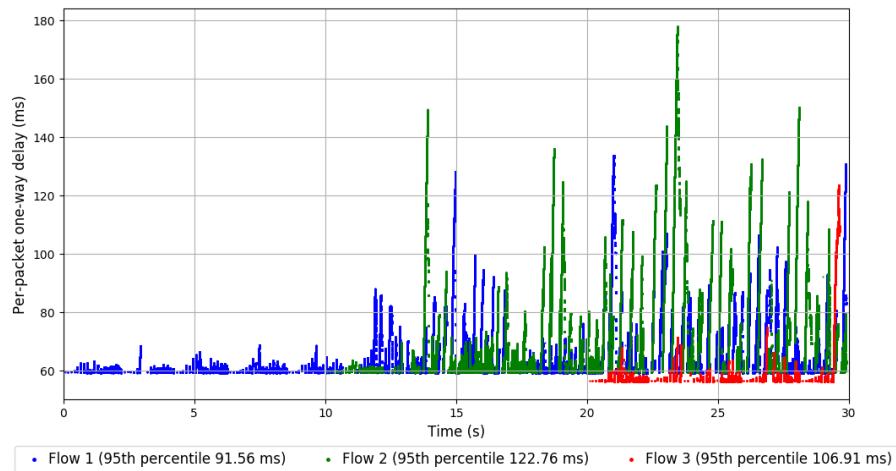
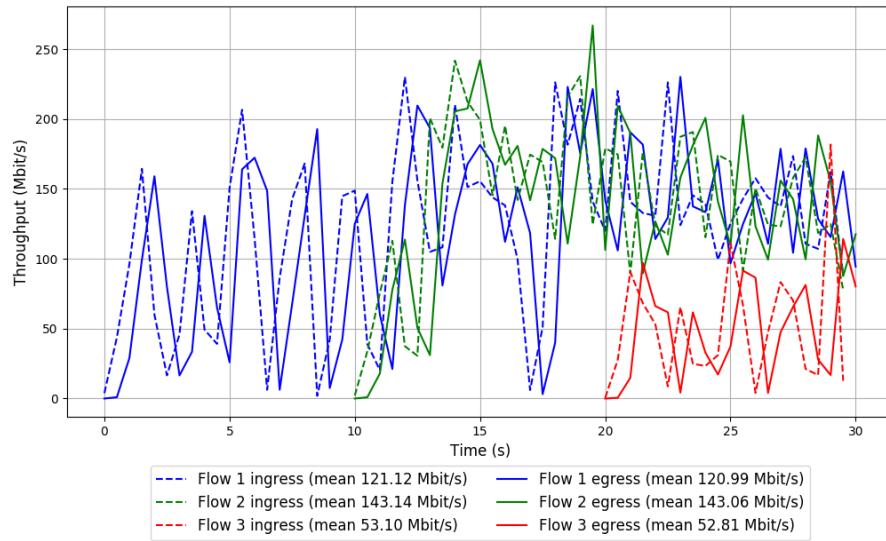


Run 2: Statistics of Verus

```
Start at: 2019-02-12 18:11:47
End at: 2019-02-12 18:12:17
Local clock offset: 0.258 ms
Remote clock offset: -0.189 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 232.98 Mbit/s
95th percentile per-packet one-way delay: 109.766 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 120.99 Mbit/s
95th percentile per-packet one-way delay: 91.565 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 143.06 Mbit/s
95th percentile per-packet one-way delay: 122.763 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 106.912 ms
Loss rate: 0.00%
```

Run 2: Report of Verus — Data Link

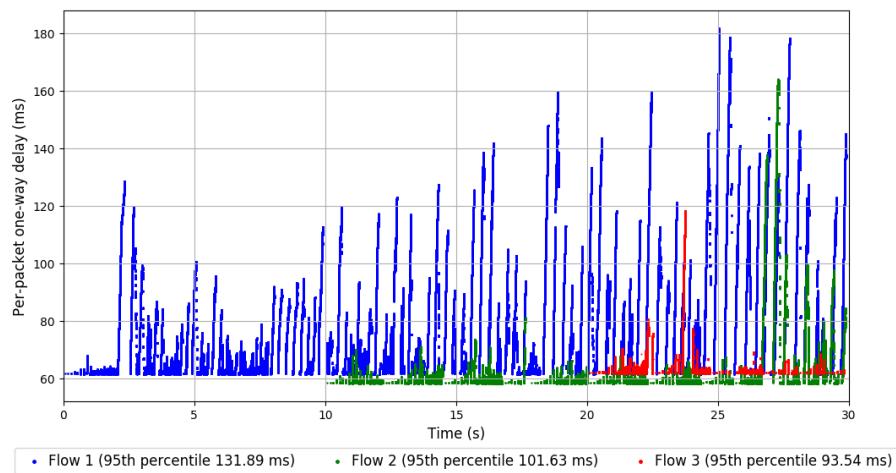
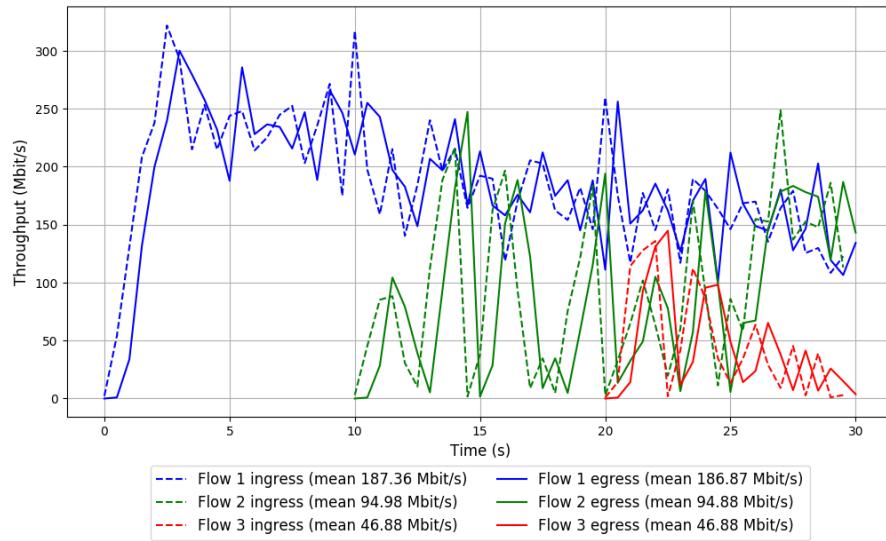


Run 3: Statistics of Verus

```
Start at: 2019-02-12 18:52:12
End at: 2019-02-12 18:52:42
Local clock offset: -0.211 ms
Remote clock offset: 1.281 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 265.10 Mbit/s
95th percentile per-packet one-way delay: 128.362 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 186.87 Mbit/s
95th percentile per-packet one-way delay: 131.893 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 101.633 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 46.88 Mbit/s
95th percentile per-packet one-way delay: 93.540 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

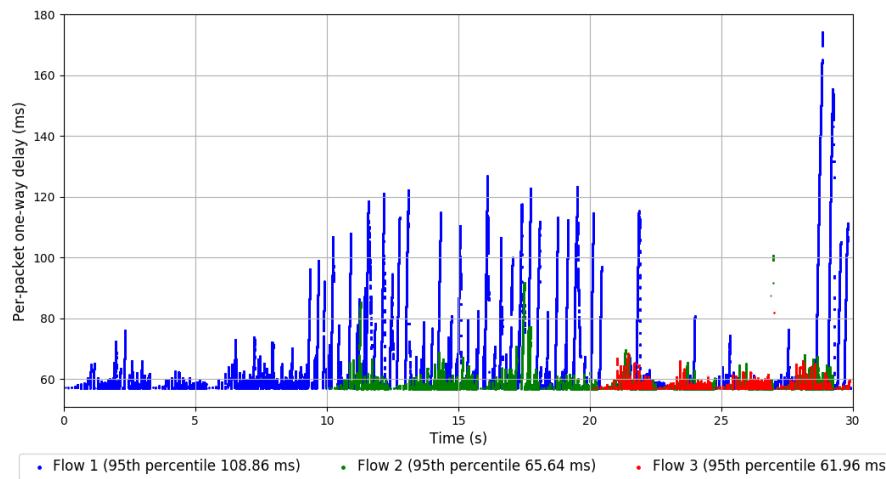
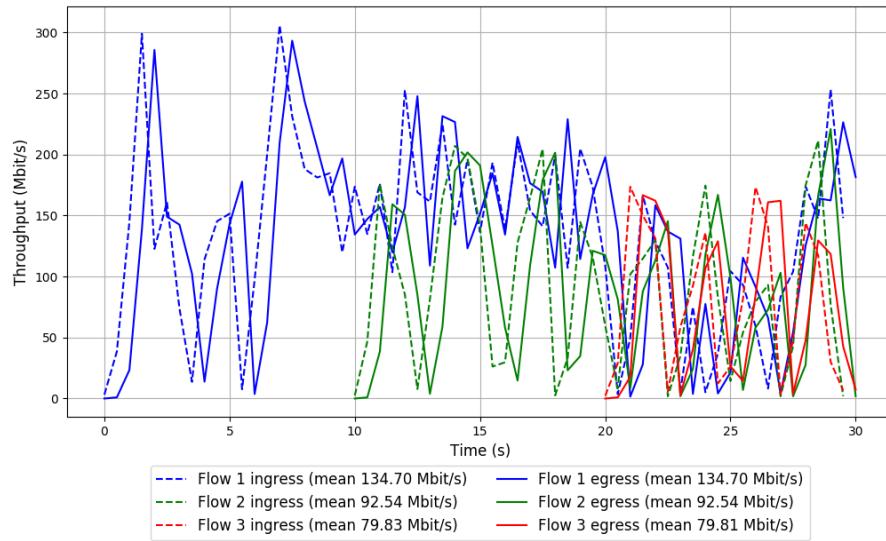


Run 4: Statistics of Verus

```
Start at: 2019-02-12 19:33:50
End at: 2019-02-12 19:34:20
Local clock offset: -0.271 ms
Remote clock offset: -0.333 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.18 Mbit/s
95th percentile per-packet one-way delay: 101.404 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 134.70 Mbit/s
95th percentile per-packet one-way delay: 108.859 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 65.636 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 79.81 Mbit/s
95th percentile per-packet one-way delay: 61.963 ms
Loss rate: 0.00%
```

Run 4: Report of Verus — Data Link

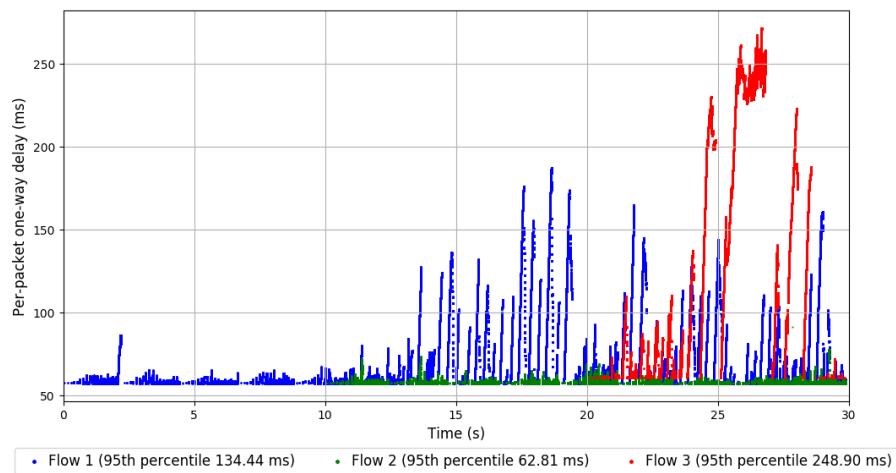
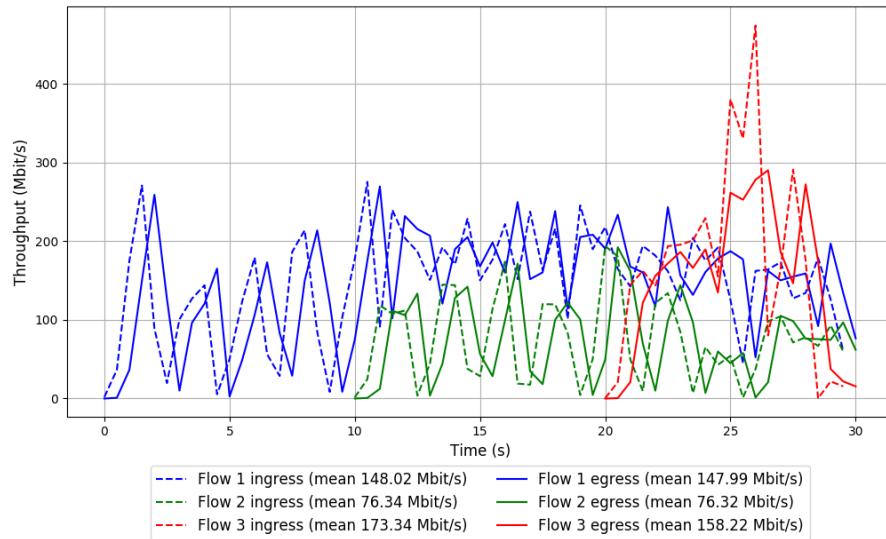


Run 5: Statistics of Verus

```
Start at: 2019-02-12 20:14:46
End at: 2019-02-12 20:15:16
Local clock offset: -0.638 ms
Remote clock offset: -0.212 ms

# Below is generated by plot.py at 2019-02-13 00:15:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.36 Mbit/s
95th percentile per-packet one-way delay: 217.953 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 147.99 Mbit/s
95th percentile per-packet one-way delay: 134.440 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 76.32 Mbit/s
95th percentile per-packet one-way delay: 62.808 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 158.22 Mbit/s
95th percentile per-packet one-way delay: 248.903 ms
Loss rate: 8.72%
```

Run 5: Report of Verus — Data Link

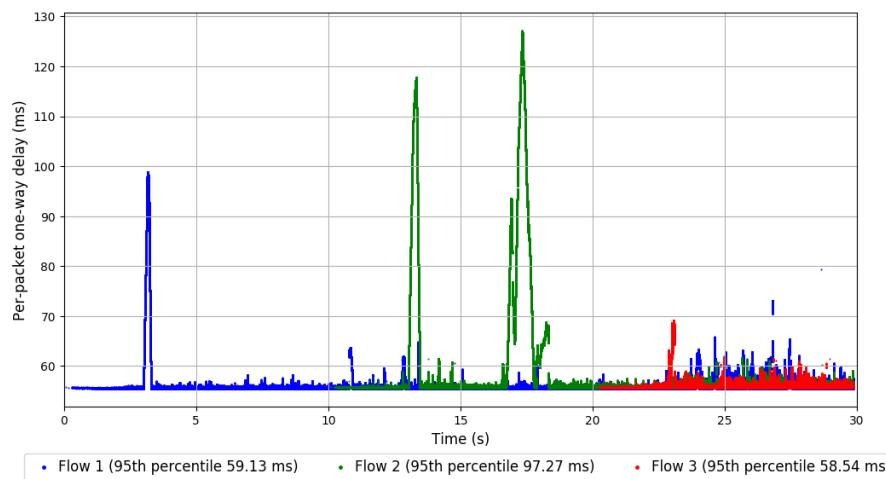
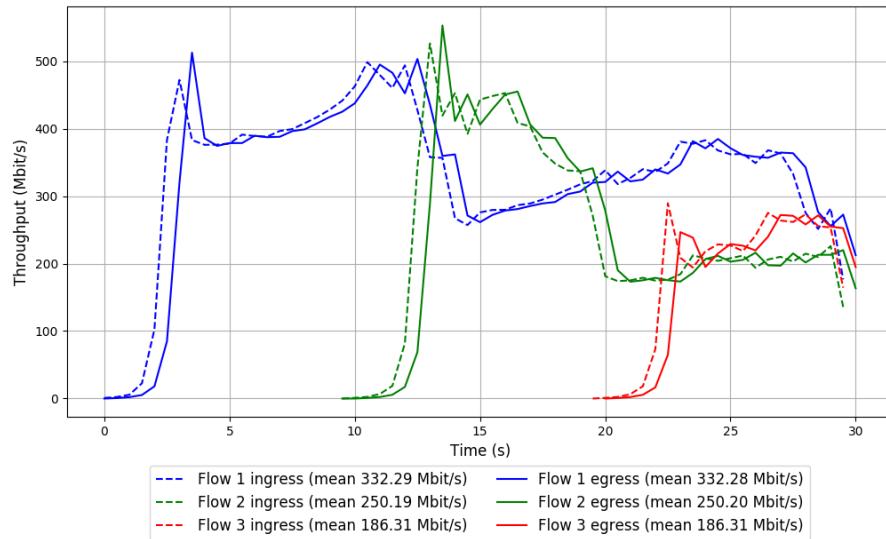


Run 1: Statistics of PCC-Vivace

```
Start at: 2019-02-12 17:04:42
End at: 2019-02-12 17:05:12
Local clock offset: 0.147 ms
Remote clock offset: -1.556 ms

# Below is generated by plot.py at 2019-02-13 00:17:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 560.64 Mbit/s
95th percentile per-packet one-way delay: 64.439 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 332.28 Mbit/s
95th percentile per-packet one-way delay: 59.133 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 250.20 Mbit/s
95th percentile per-packet one-way delay: 97.265 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 186.31 Mbit/s
95th percentile per-packet one-way delay: 58.538 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

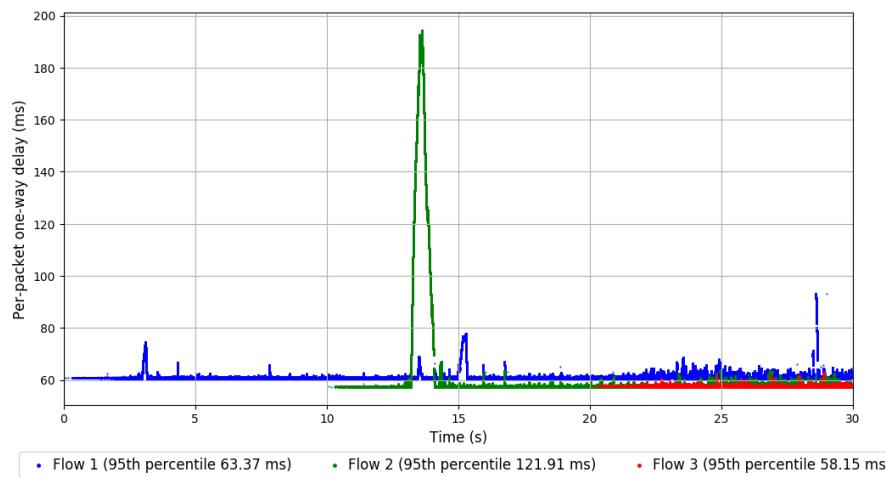
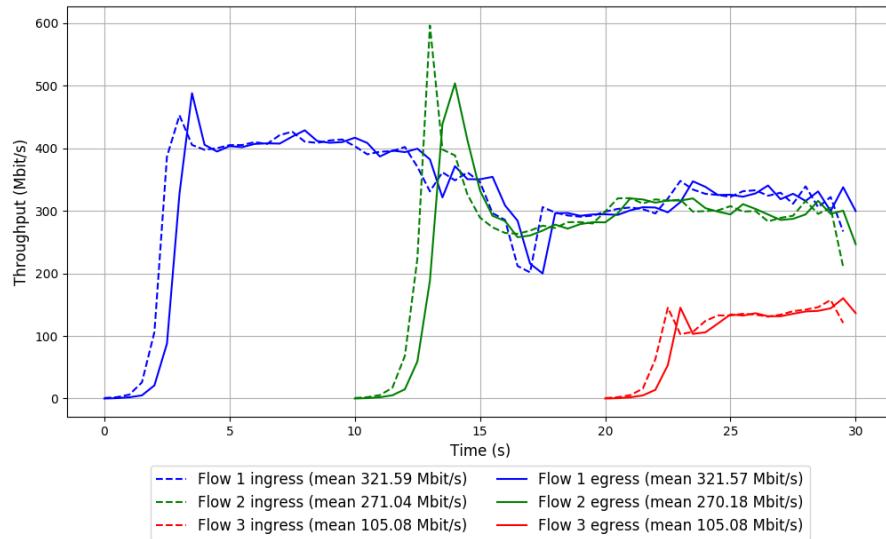


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-02-12 17:46:28
End at: 2019-02-12 17:46:58
Local clock offset: 0.006 ms
Remote clock offset: 0.371 ms

# Below is generated by plot.py at 2019-02-13 00:17:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 535.90 Mbit/s
95th percentile per-packet one-way delay: 64.194 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 321.57 Mbit/s
95th percentile per-packet one-way delay: 63.372 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 270.18 Mbit/s
95th percentile per-packet one-way delay: 121.908 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 105.08 Mbit/s
95th percentile per-packet one-way delay: 58.152 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

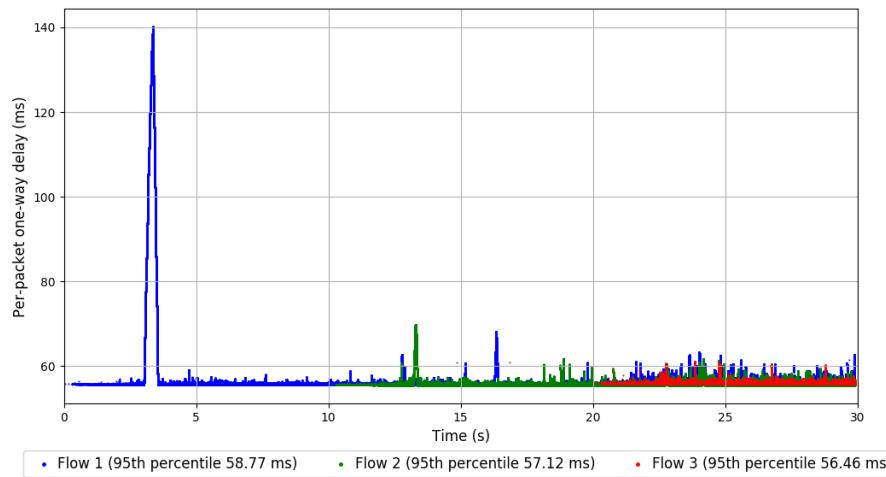
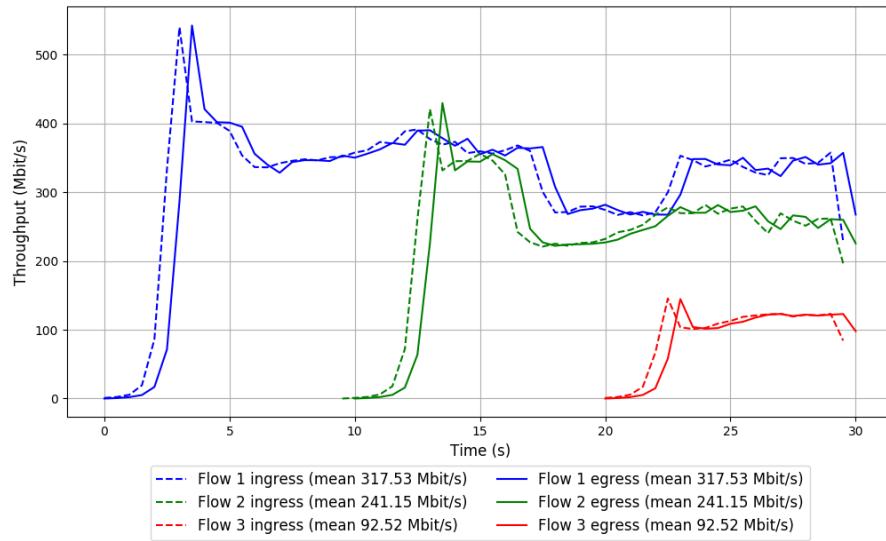


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-02-12 18:27:17
End at: 2019-02-12 18:27:47
Local clock offset: -0.212 ms
Remote clock offset: -1.359 ms

# Below is generated by plot.py at 2019-02-13 00:17:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 508.56 Mbit/s
95th percentile per-packet one-way delay: 57.852 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 317.53 Mbit/s
95th percentile per-packet one-way delay: 58.769 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 241.15 Mbit/s
95th percentile per-packet one-way delay: 57.121 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 92.52 Mbit/s
95th percentile per-packet one-way delay: 56.461 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

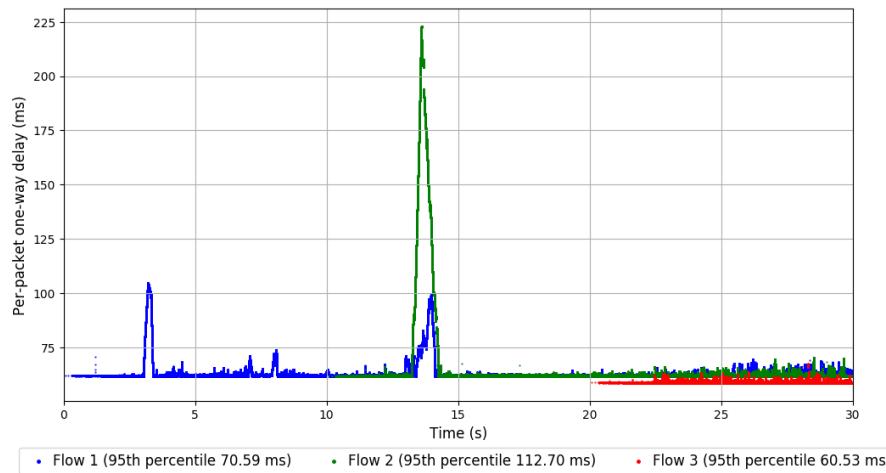
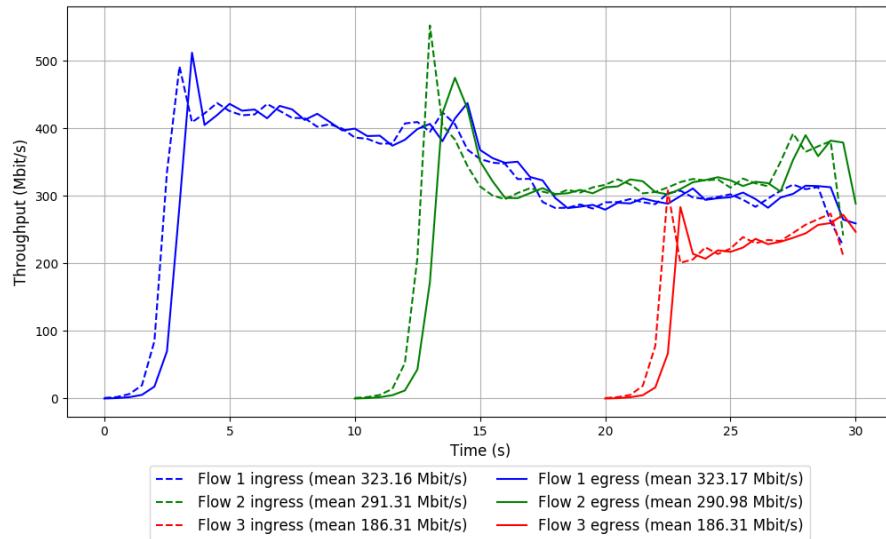


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-02-12 19:08:23
End at: 2019-02-12 19:08:53
Local clock offset: -0.494 ms
Remote clock offset: 1.226 ms

# Below is generated by plot.py at 2019-02-13 00:18:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 578.12 Mbit/s
95th percentile per-packet one-way delay: 72.744 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 323.17 Mbit/s
95th percentile per-packet one-way delay: 70.589 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 290.98 Mbit/s
95th percentile per-packet one-way delay: 112.705 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 186.31 Mbit/s
95th percentile per-packet one-way delay: 60.531 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

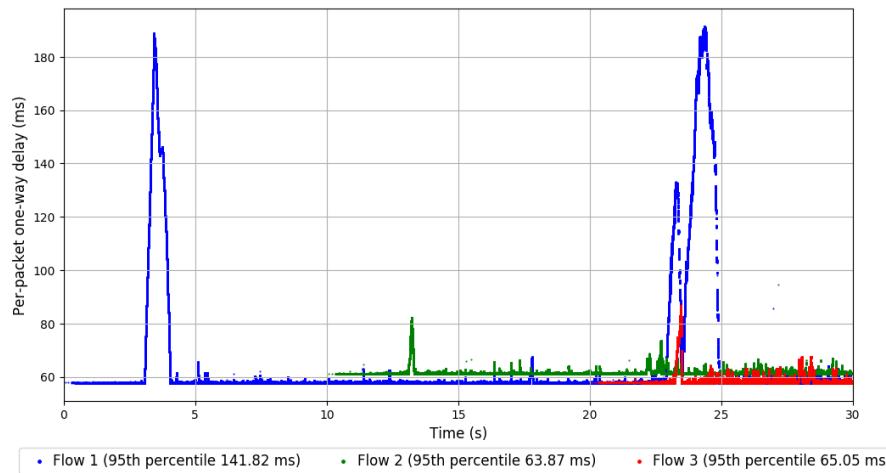
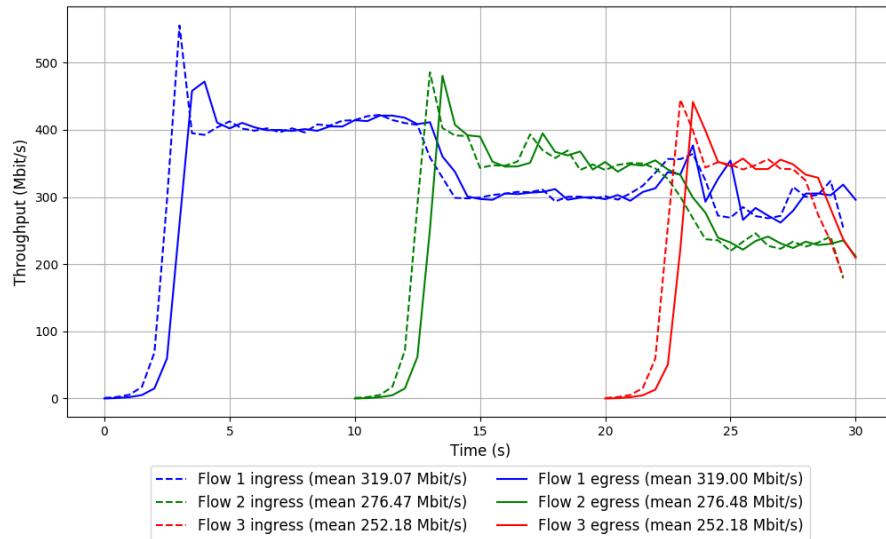


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-02-12 19:50:18
End at: 2019-02-12 19:50:48
Local clock offset: -0.547 ms
Remote clock offset: 0.261 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 585.95 Mbit/s
95th percentile per-packet one-way delay: 97.759 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 319.00 Mbit/s
95th percentile per-packet one-way delay: 141.820 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 276.48 Mbit/s
95th percentile per-packet one-way delay: 63.868 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 252.18 Mbit/s
95th percentile per-packet one-way delay: 65.046 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

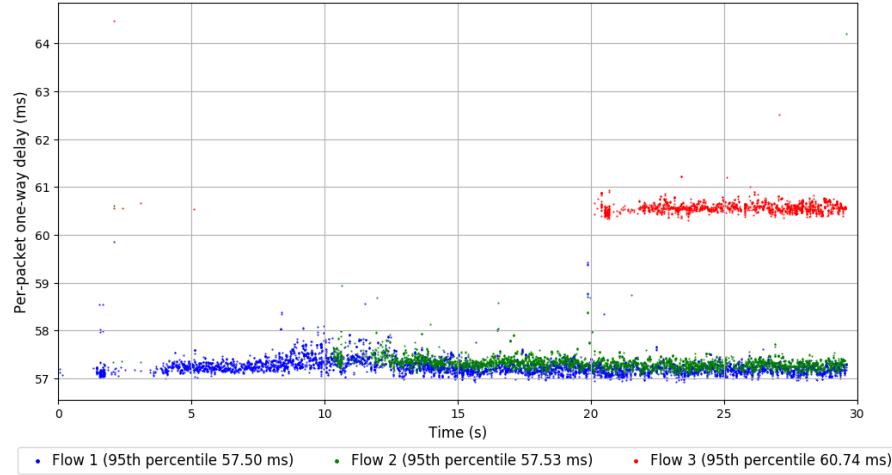
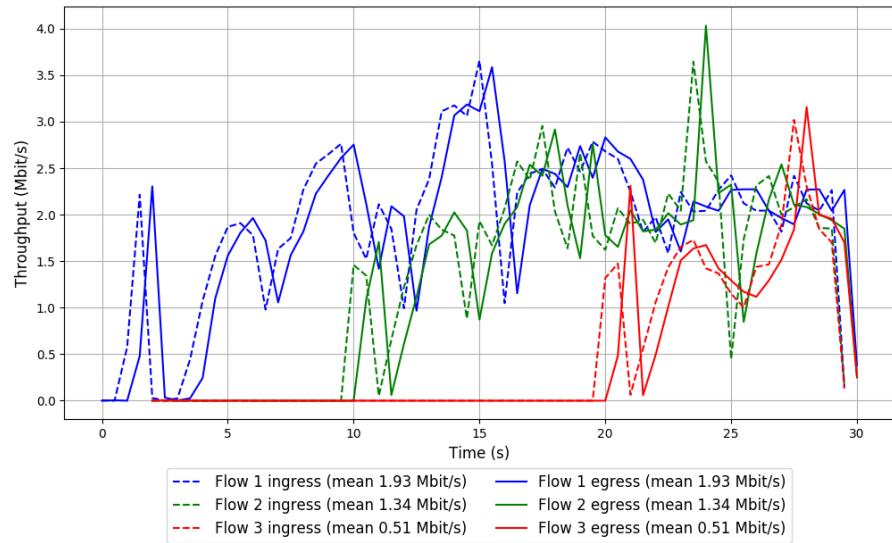


```
Run 1: Statistics of WebRTC media

Start at: 2019-02-12 17:16:36
End at: 2019-02-12 17:17:06
Local clock offset: 0.041 ms
Remote clock offset: -0.22 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 60.590 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 57.502 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 57.526 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 60.737 ms
Loss rate: 0.47%
```

Run 1: Report of WebRTC media — Data Link

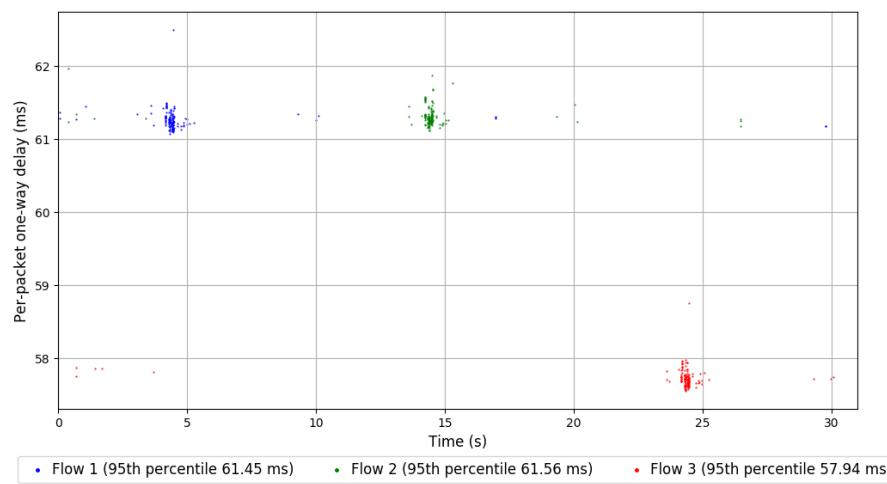
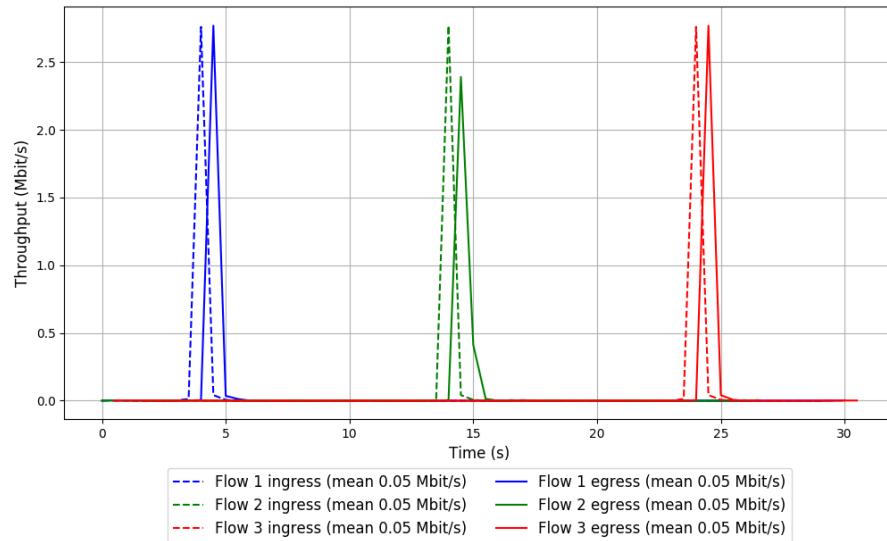


Run 2: Statistics of WebRTC media

```
Start at: 2019-02-12 17:58:02
End at: 2019-02-12 17:58:32
Local clock offset: -0.453 ms
Remote clock offset: 0.097 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 61.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.450 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.564 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.936 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

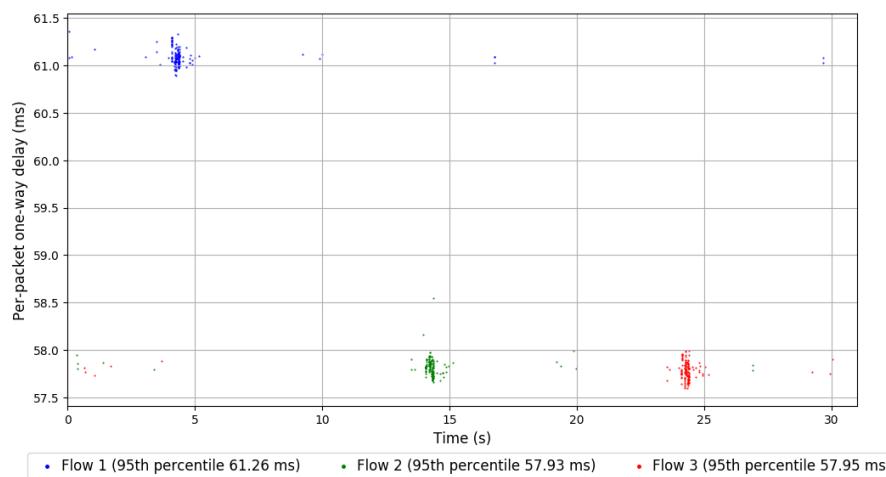
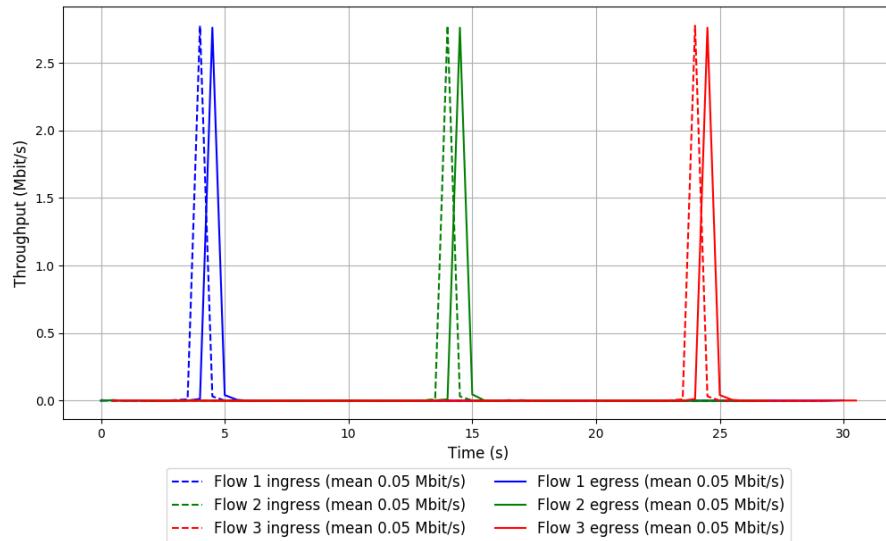


Run 3: Statistics of WebRTC media

```
Start at: 2019-02-12 18:38:44
End at: 2019-02-12 18:39:14
Local clock offset: -0.634 ms
Remote clock offset: 0.136 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 61.176 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.256 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.934 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.946 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

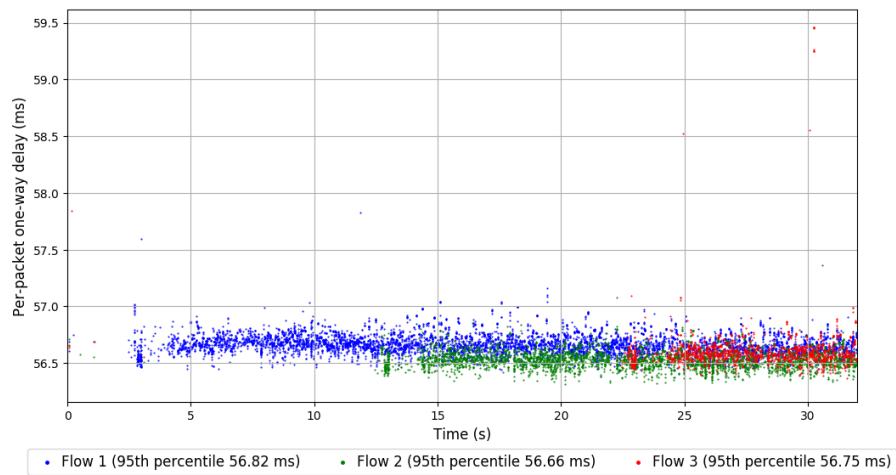
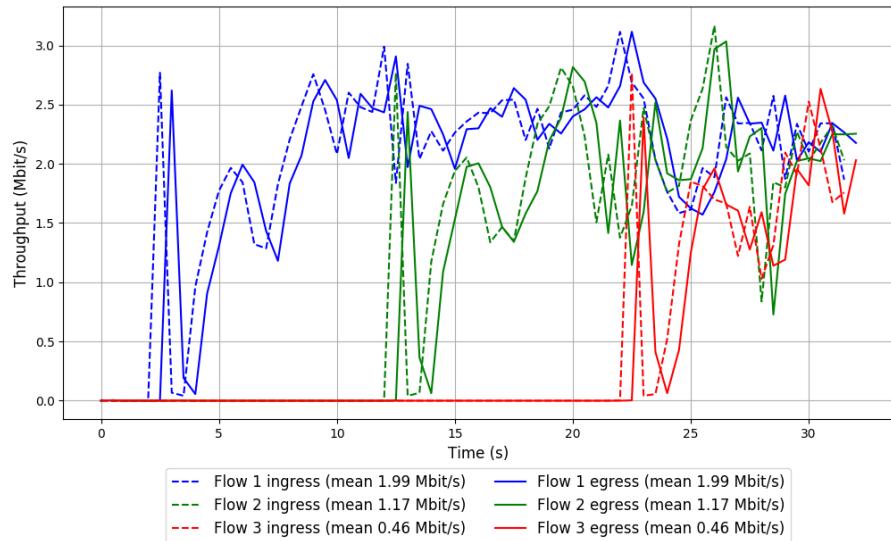


Run 4: Statistics of WebRTC media

```
Start at: 2019-02-12 19:20:22
End at: 2019-02-12 19:20:52
Local clock offset: -0.494 ms
Remote clock offset: -0.938 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 56.781 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 56.816 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 56.664 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 56.750 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



```
Run 5: Statistics of WebRTC media

Start at: 2019-02-12 20:01:33
End at: 2019-02-12 20:02:03
Local clock offset: 0.212 ms
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2019-02-13 00:18:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 56.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 56.618 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.042 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.049 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

