

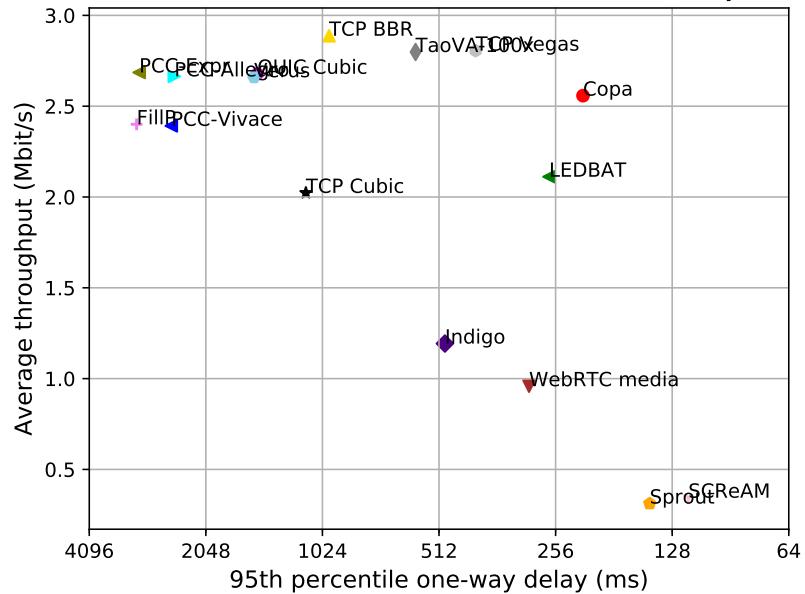
## Pantheon Report

Generated at 2018-06-05 10:58:51 (UTC).  
Data path: AWS Brazil 2 Ethernet (*local*) → Colombia ppp0 ppp0 (*remote*).  
Repeated the test of 16 congestion control schemes 3 times.  
Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

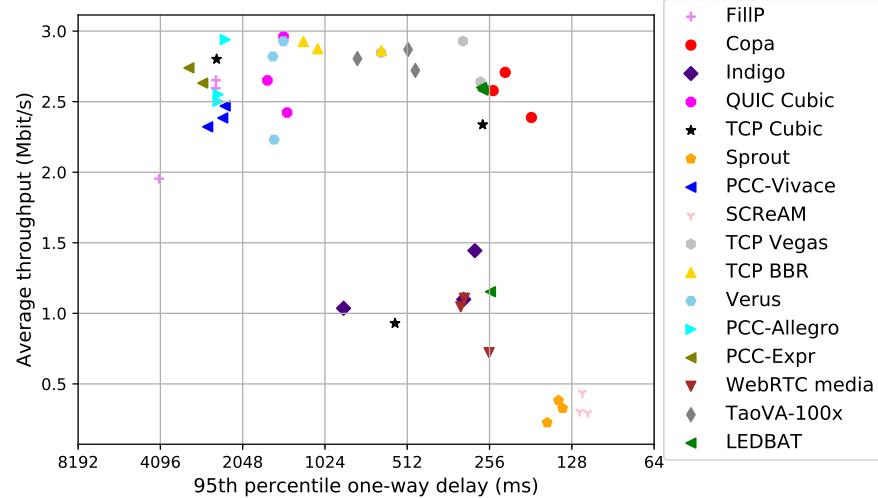
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).  
NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:  
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2  
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834  
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5  
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39  
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 @ c838669682f0c19f6baf92afc9a596a406d48c1f  
  M src/examples/cellsim.cc  
  M src/examples/sproutbt2.cc  
  M src/network/sproutconn.cc  
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494  
  M src/verus.hpp  
  M tools/plot.py  
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS Brazil 2 to Colombia ppp0, 3 runs of 30s each per scheme  
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 2 to Colombia ppp0, 3 runs of 30s each per scheme  
 3 flows with 10s interval between flows



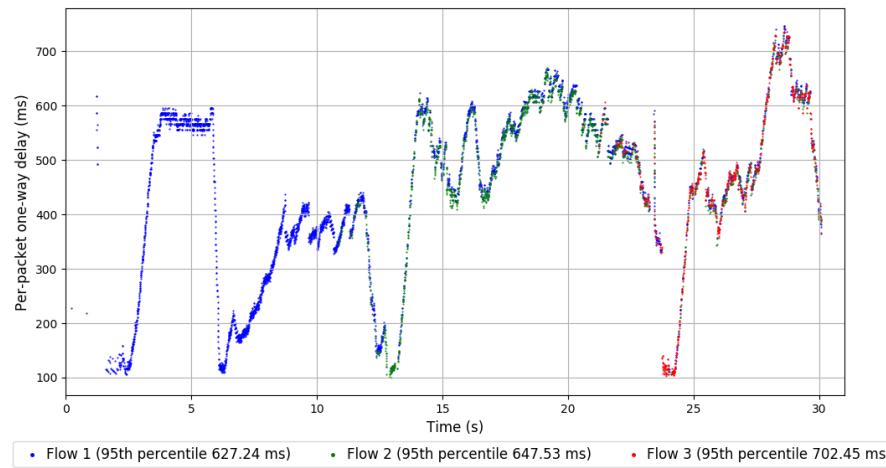
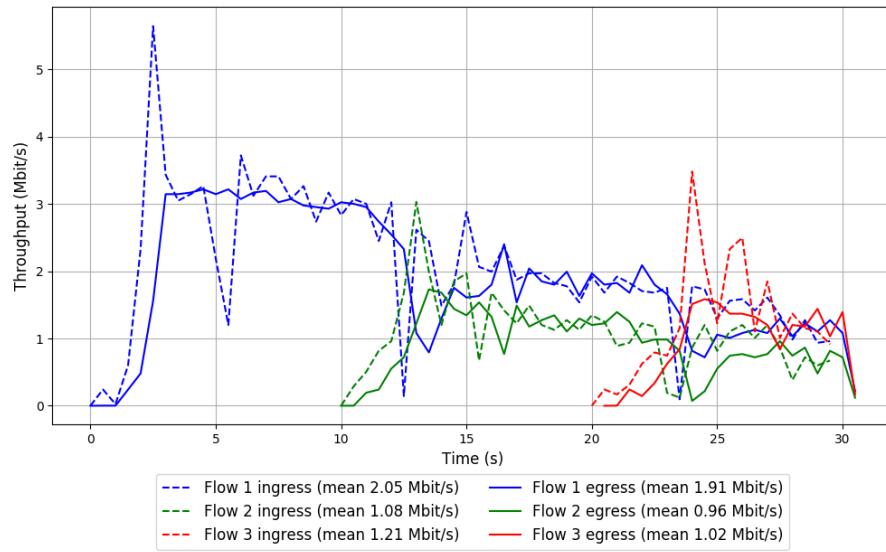
| scheme       | # runs | mean avg tput (Mbit/s) |        |        | mean 95th-%ile delay (ms) |         |         | mean loss rate (%) |        |        |
|--------------|--------|------------------------|--------|--------|---------------------------|---------|---------|--------------------|--------|--------|
|              |        | flow 1                 | flow 2 | flow 3 | flow 1                    | flow 2  | flow 3  | flow 1             | flow 2 | flow 3 |
| TCP BBR      | 3      | 1.86                   | 1.18   | 0.79   | 971.20                    | 1000.46 | 856.97  | 3.33               | 5.96   | 9.53   |
| Copa         |        | 1.37                   | 1.26   | 1.05   | 218.05                    | 197.12  | 204.38  | 0.04               | 0.12   | 0.52   |
| TCP Cubic    |        | 1.66                   | 0.21   | 0.66   | 1093.55                   | 883.40  | 1116.78 | 10.75              | 36.71  | 43.78  |
| FillP        |        | 1.58                   | 1.29   | 0.05   | 3021.04                   | 3134.49 | 3161.98 | 61.33              | 66.03  | 76.21  |
| Indigo       |        | 0.78                   | 0.47   | 0.32   | 511.70                    | 365.23  | 264.89  | 37.81              | 57.73  | 57.42  |
| LEDBAT       |        | 1.92                   | 0.43   | 0.35   | 262.86                    | 282.52  | 229.42  | 1.23               | 8.03   | 13.80  |
| PCC-Allegro  |        | 1.57                   | 1.63   | 0.00   | 2459.17                   | 2481.14 | 2491.00 | 39.38              | 29.61  | 15.80  |
| PCC-Expr     |        | 2.69                   | 0.00   | 0.00   | 3046.26                   | 2706.49 | 2700.89 | 55.05              | 40.81  | 71.59  |
| QUIC Cubic   |        | 2.06                   | 0.75   | 0.34   | 1449.07                   | 1569.37 | 1688.06 | 4.06               | 7.13   | 21.08  |
| SCReAM       |        | 0.13                   | 0.22   | 0.22   | 112.80                    | 116.34  | 123.10  | 0.04               | 0.05   | 0.23   |
| Sprout       |        | 0.14                   | 0.16   | 0.18   | 149.50                    | 143.89  | 145.65  | 8.88               | 6.56   | 2.69   |
| TaoVA-100x   |        | 1.57                   | 1.30   | 1.16   | 472.02                    | 755.02  | 626.90  | 1.01               | 1.72   | 4.37   |
| TCP Vegas    |        | 1.80                   | 0.98   | 1.08   | 391.44                    | 421.82  | 440.23  | 1.12               | 0.48   | 2.12   |
| Verus        |        | 2.65                   | 0.01   | 0.01   | 1537.06                   | 1506.71 | 1520.40 | 3.61               | 3.10   | 9.70   |
| PCC-Vivace   |        | 1.19                   | 1.20   | 1.25   | 2479.76                   | 2495.75 | 2567.09 | 14.06              | 16.83  | 32.32  |
| WebRTC media |        | 0.47                   | 0.39   | 0.10   | 342.52                    | 272.73  | 270.20  | 0.05               | 0.07   | 0.52   |

Run 1: Statistics of TCP BBR

```
Start at: 2018-06-05 10:07:52
End at: 2018-06-05 10:08:22
Local clock offset: -5.559 ms
Remote clock offset: 8.453 ms

# Below is generated by plot.py at 2018-06-05 10:58:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 636.330 ms
Loss rate: 10.35%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 627.238 ms
Loss rate: 7.62%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 647.532 ms
Loss rate: 12.71%
-- Flow 3:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 702.447 ms
Loss rate: 20.06%
```

## Run 1: Report of TCP BBR — Data Link

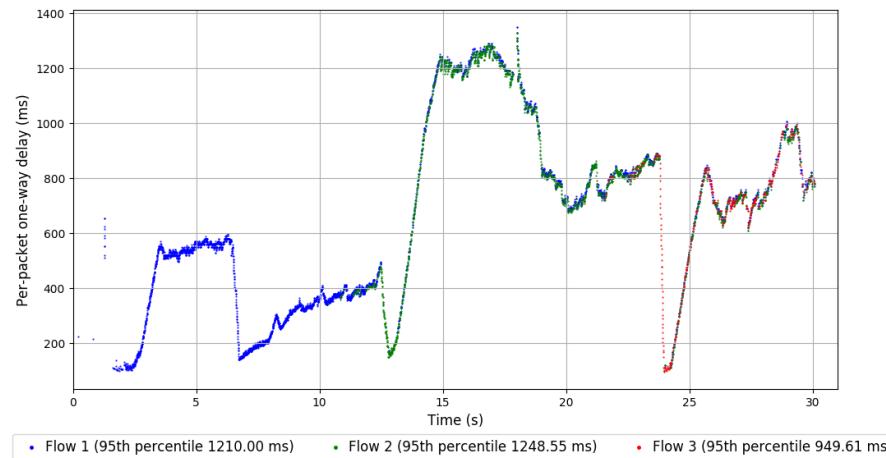
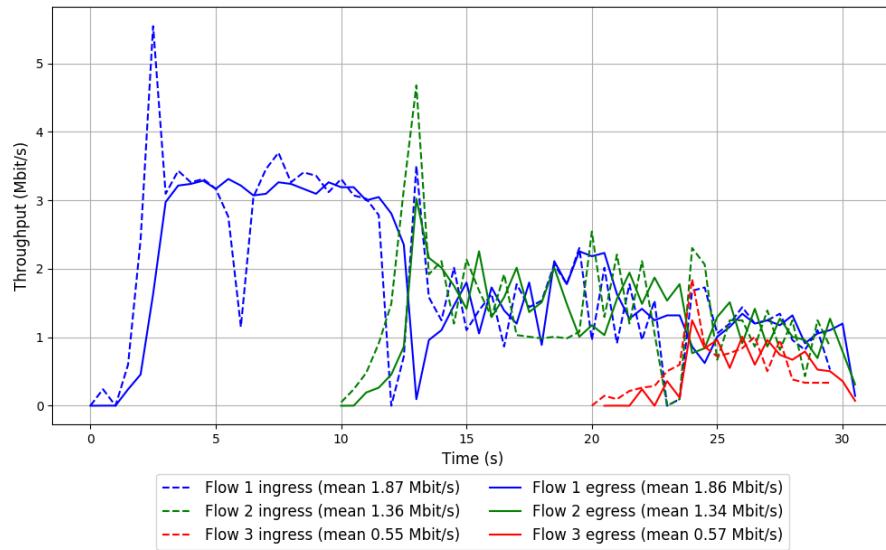


Run 2: Statistics of TCP BBR

```
Start at: 2018-06-05 10:27:07
End at: 2018-06-05 10:27:37
Local clock offset: -7.359 ms
Remote clock offset: 4.632 ms

# Below is generated by plot.py at 2018-06-05 10:58:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 1228.194 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 1209.997 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 1248.547 ms
Loss rate: 2.39%
-- Flow 3:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 949.611 ms
Loss rate: 4.14%
```

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

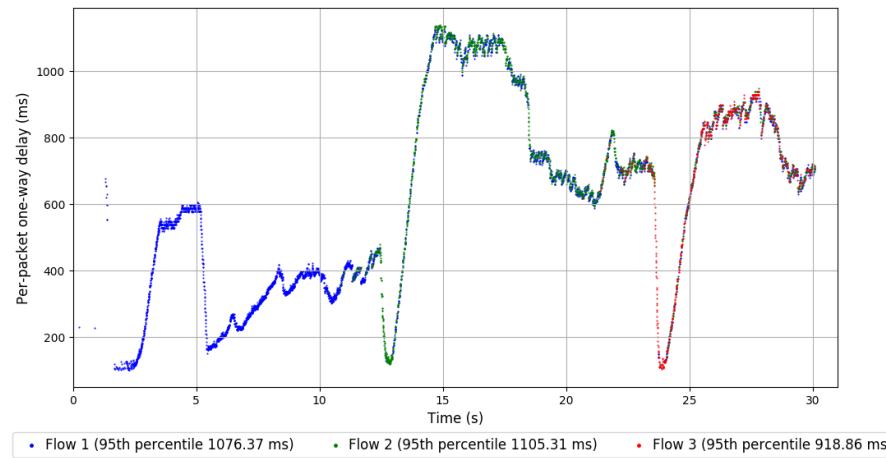
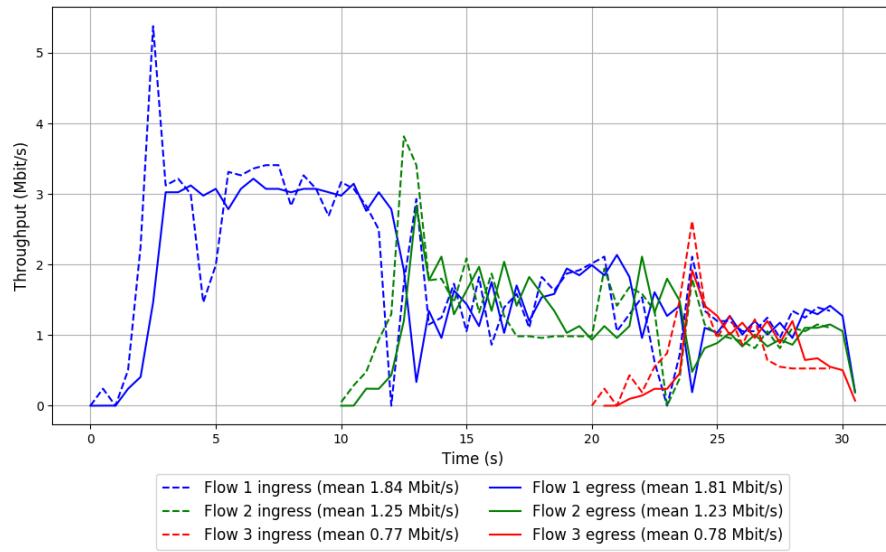


Run 3: Statistics of TCP BBR

```
Start at: 2018-06-05 10:46:25
End at: 2018-06-05 10:46:55
Local clock offset: -6.437 ms
Remote clock offset: 14.101 ms

# Below is generated by plot.py at 2018-06-05 10:58:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 1088.246 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 1076.371 ms
Loss rate: 1.57%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 1105.305 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 918.859 ms
Loss rate: 4.38%
```

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

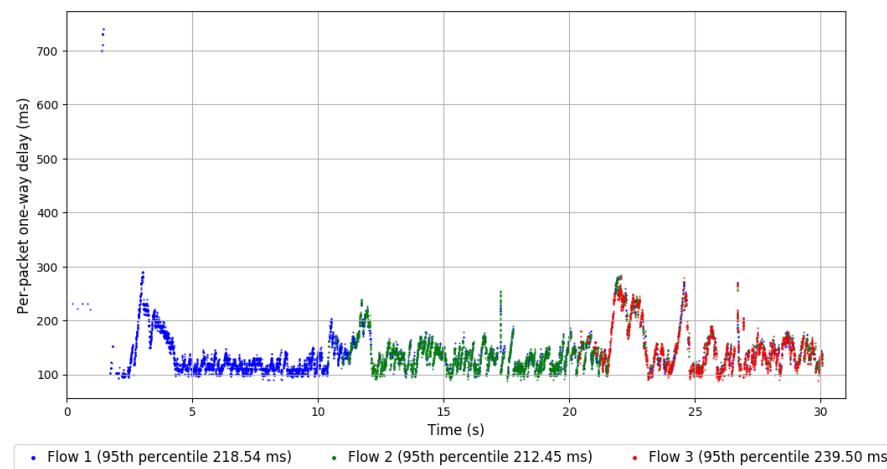
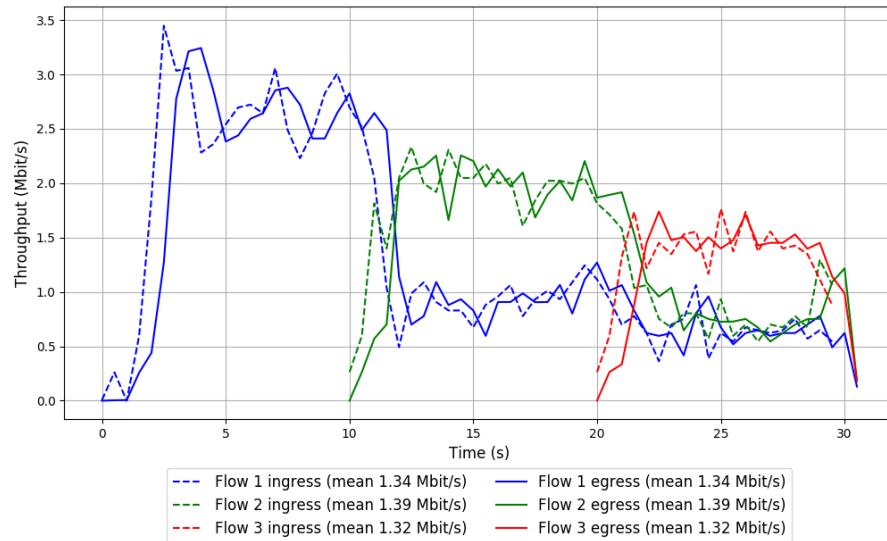


Run 1: Statistics of Copa

```
Start at: 2018-06-05 10:16:18
End at: 2018-06-05 10:16:48
Local clock offset: -7.304 ms
Remote clock offset: 1.293 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.71 Mbit/s
95th percentile per-packet one-way delay: 224.309 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 218.541 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 212.452 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 239.497 ms
Loss rate: 0.09%
```

## Run 1: Report of Copa — Data Link

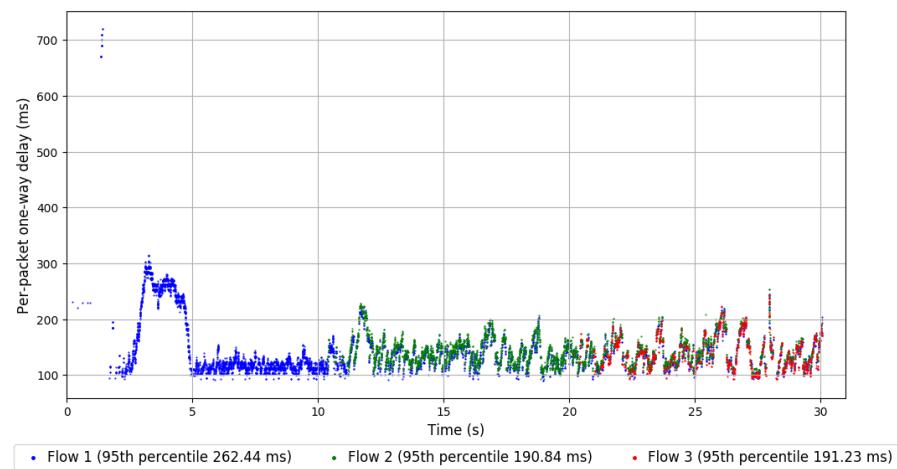
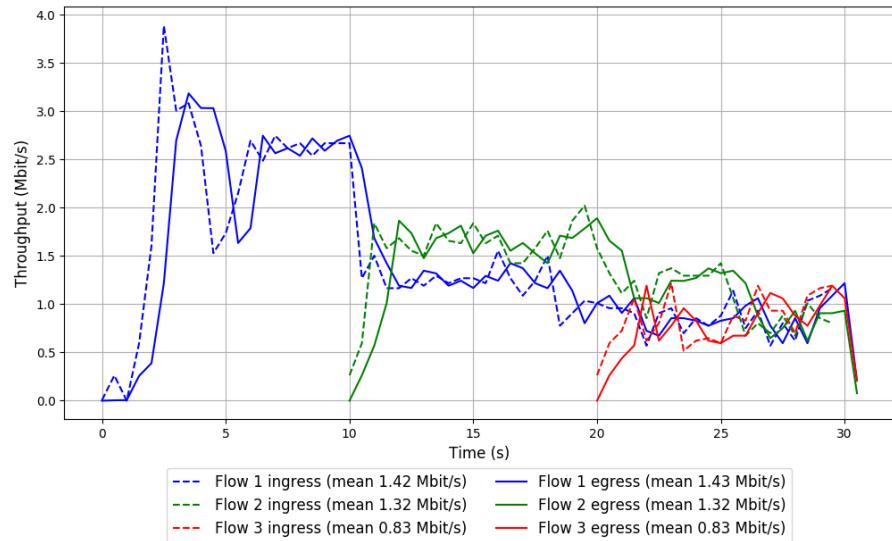


Run 2: Statistics of Copa

```
Start at: 2018-06-05 10:35:34
End at: 2018-06-05 10:36:04
Local clock offset: -6.521 ms
Remote clock offset: 6.803 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 248.295 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 262.444 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 190.844 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 191.231 ms
Loss rate: 1.09%
```

## Run 2: Report of Copa — Data Link

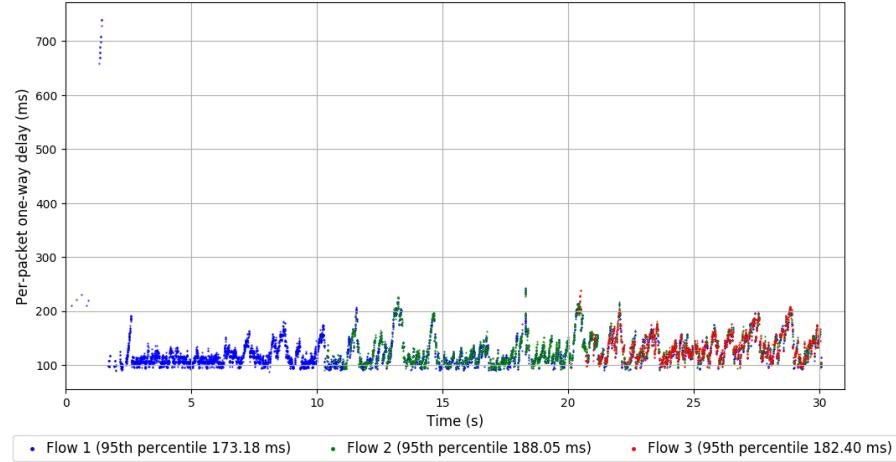
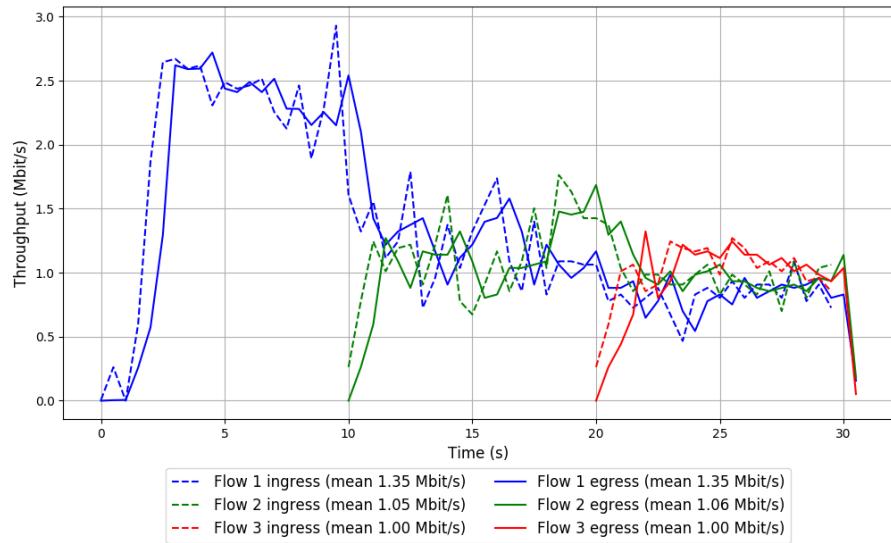


Run 3: Statistics of Copa

```
Start at: 2018-06-05 10:54:53
End at: 2018-06-05 10:55:23
Local clock offset: -5.638 ms
Remote clock offset: 9.368 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 179.931 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 173.179 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 188.049 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 182.398 ms
Loss rate: 0.39%
```

### Run 3: Report of Copa — Data Link

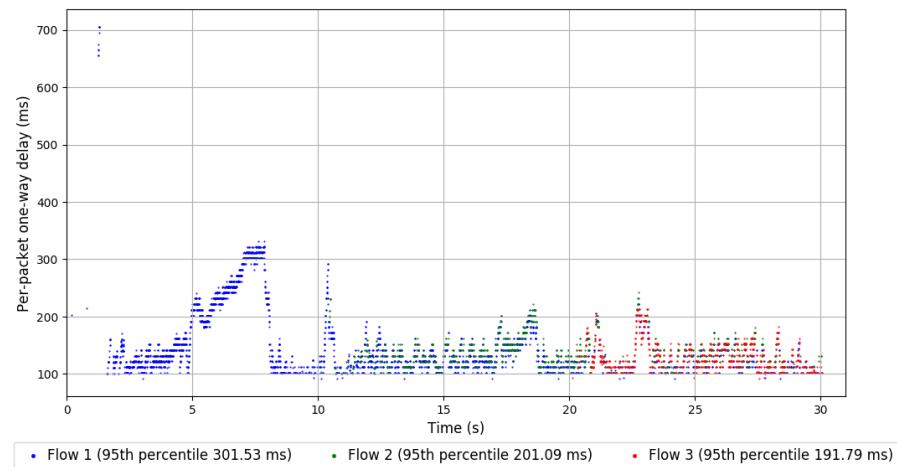
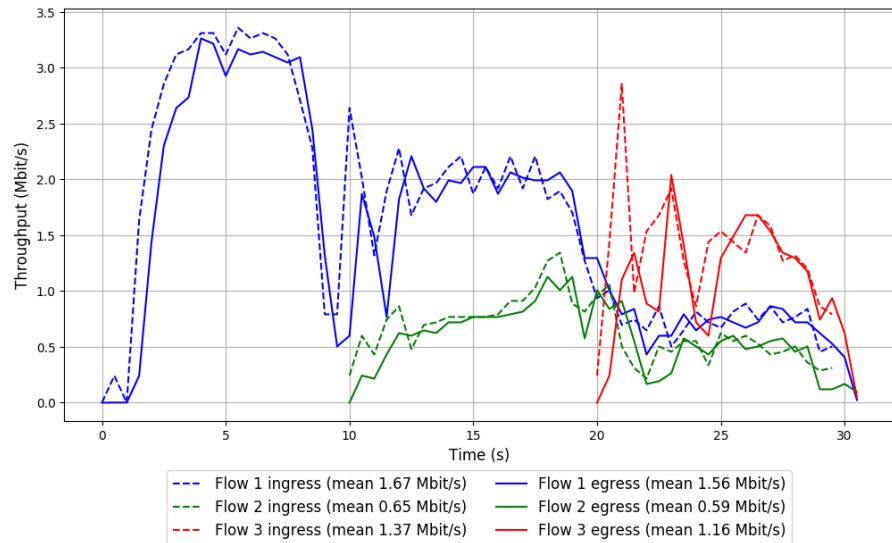


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-06-05 10:09:04
End at: 2018-06-05 10:09:34
Local clock offset: -6.351 ms
Remote clock offset: 3.207 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 271.175 ms
Loss rate: 8.82%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 301.528 ms
Loss rate: 7.01%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 201.094 ms
Loss rate: 8.70%
-- Flow 3:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 191.786 ms
Loss rate: 15.58%
```

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

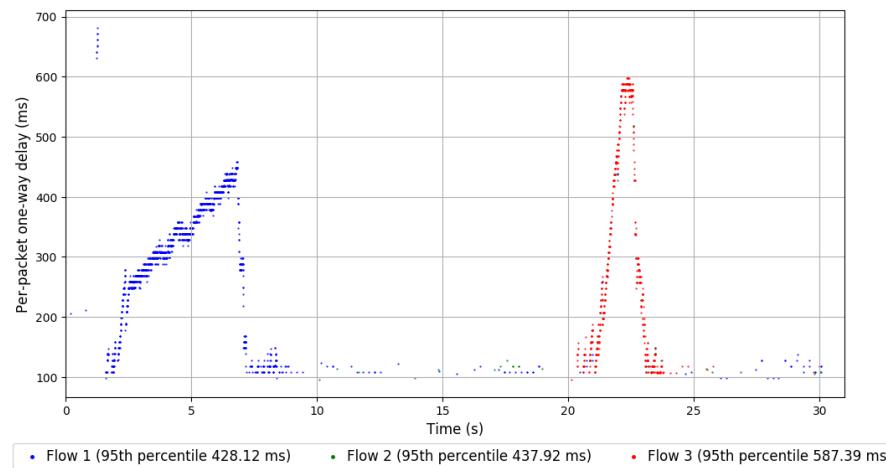
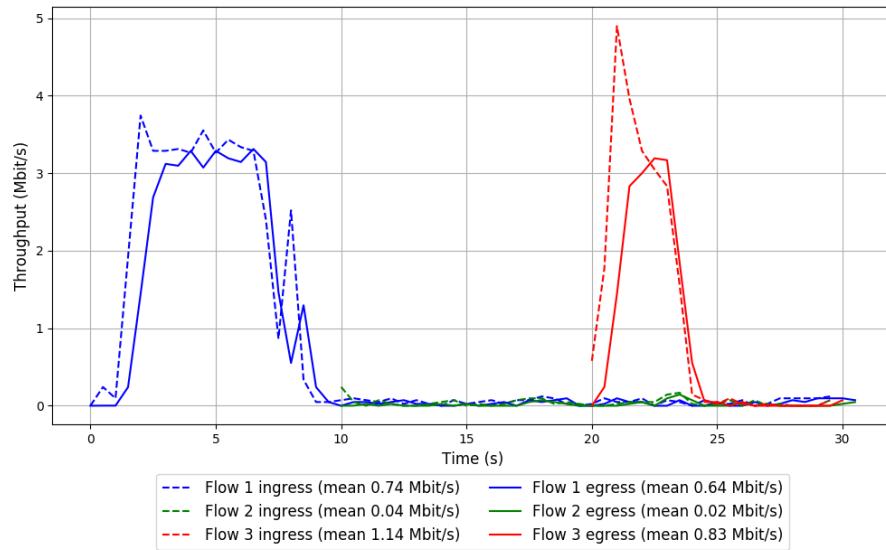


Run 2: Statistics of TCP Cubic

```
Start at: 2018-06-05 10:28:20
End at: 2018-06-05 10:28:50
Local clock offset: -5.832 ms
Remote clock offset: 9.017 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 567.554 ms
Loss rate: 19.13%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 428.122 ms
Loss rate: 14.23%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 437.918 ms
Loss rate: 52.11%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 587.393 ms
Loss rate: 26.36%
```

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

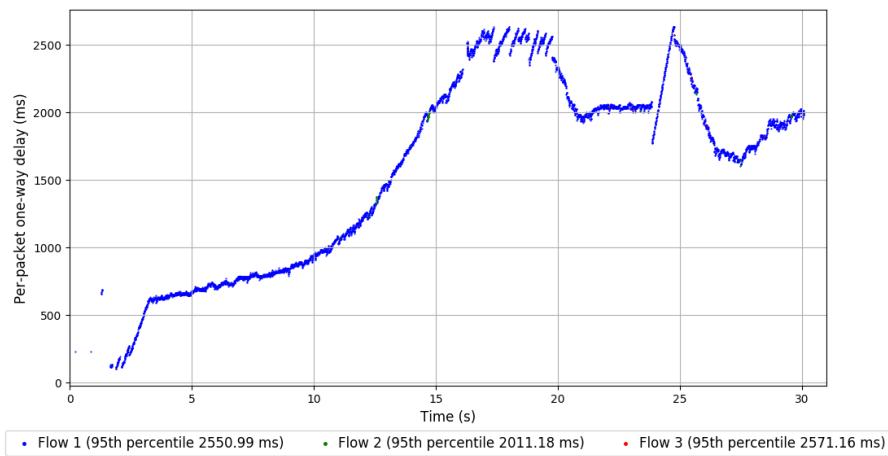
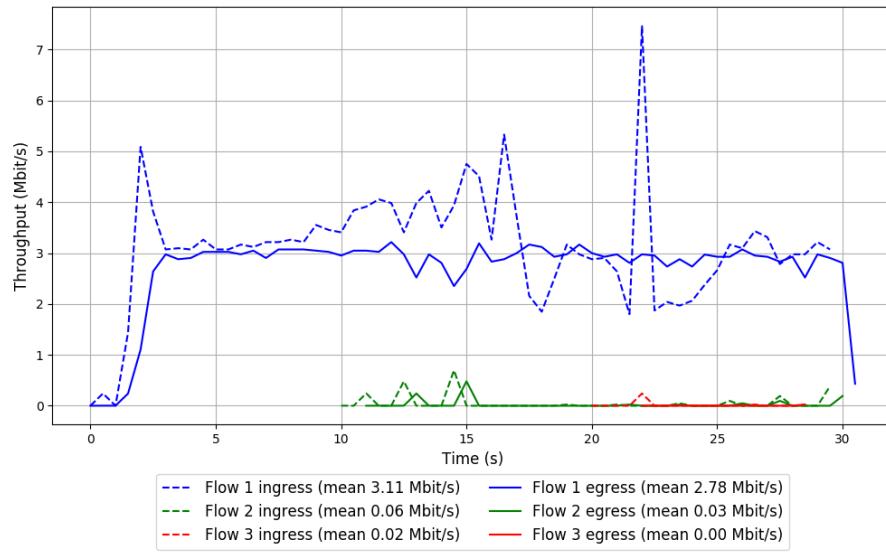


Run 3: Statistics of TCP Cubic

```
Start at: 2018-06-05 10:47:37
End at: 2018-06-05 10:48:07
Local clock offset: -6.414 ms
Remote clock offset: 14.169 ms

# Below is generated by plot.py at 2018-06-05 10:58:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 2550.966 ms
Loss rate: 11.57%
-- Flow 1:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 2550.989 ms
Loss rate: 11.01%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 2011.185 ms
Loss rate: 49.32%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2571.160 ms
Loss rate: 89.40%
```

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

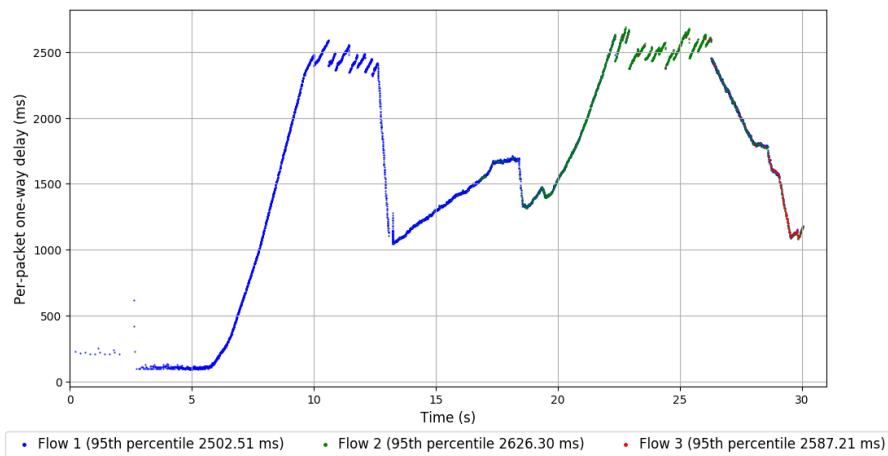
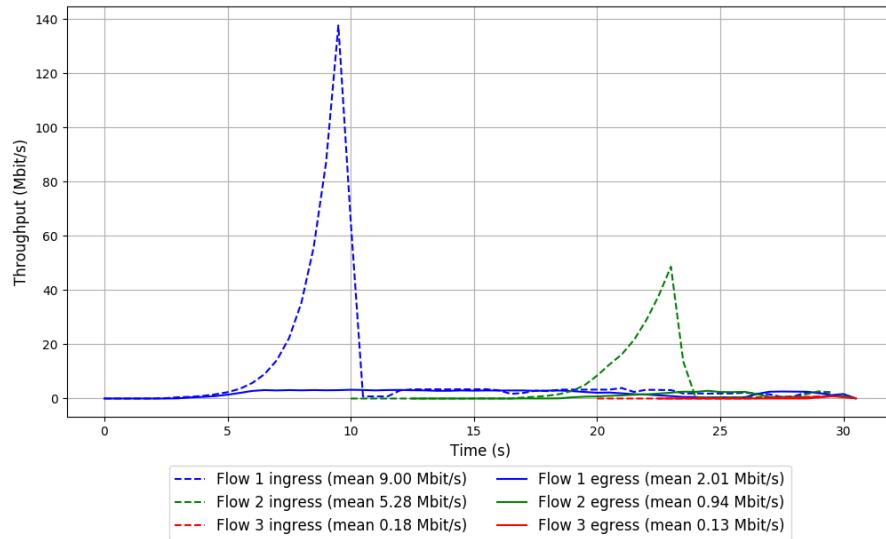


```
Run 1: Statistics of FillP

Start at: 2018-06-05 10:18:42
End at: 2018-06-05 10:19:12
Local clock offset: -6.486 ms
Remote clock offset: 0.963 ms

# Below is generated by plot.py at 2018-06-05 10:58:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.59 Mbit/s
95th percentile per-packet one-way delay: 2569.676 ms
Loss rate: 79.47%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 2502.511 ms
Loss rate: 77.74%
-- Flow 2:
Average throughput: 0.94 Mbit/s
95th percentile per-packet one-way delay: 2626.301 ms
Loss rate: 84.43%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 2587.211 ms
Loss rate: 48.22%
```

## Run 1: Report of FillP — Data Link

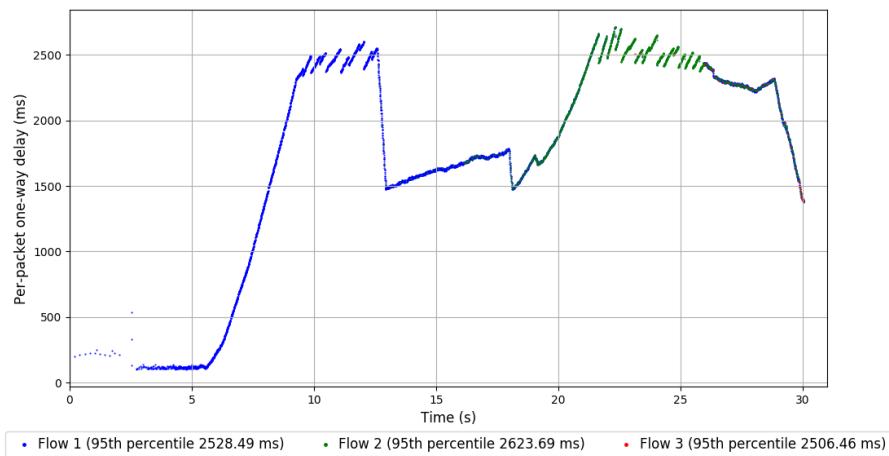
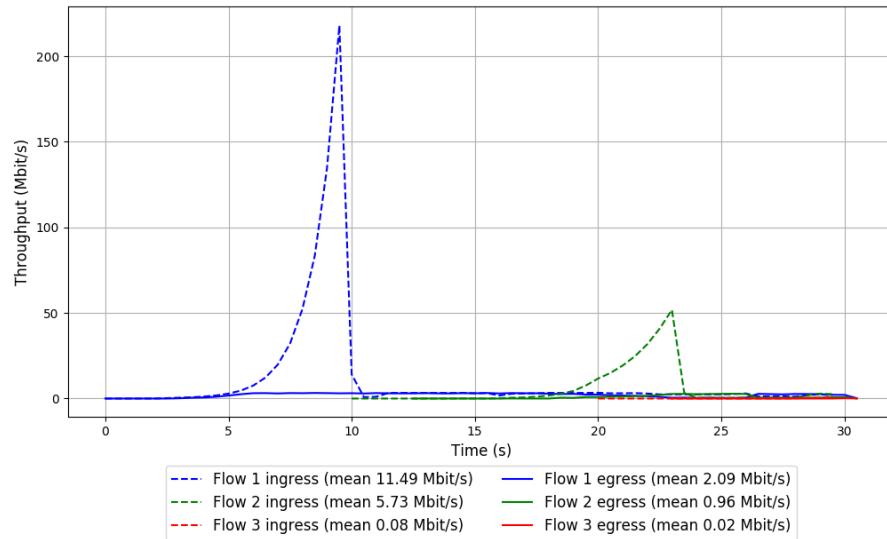


Run 2: Statistics of FillP

```
Start at: 2018-06-05 10:38:00
End at: 2018-06-05 10:38:30
Local clock offset: -5.787 ms
Remote clock offset: 13.467 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 2564.529 ms
Loss rate: 82.76%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 2528.486 ms
Loss rate: 81.88%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 2623.687 ms
Loss rate: 85.41%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 2506.464 ms
Loss rate: 81.39%
```

## Run 2: Report of FillP — Data Link

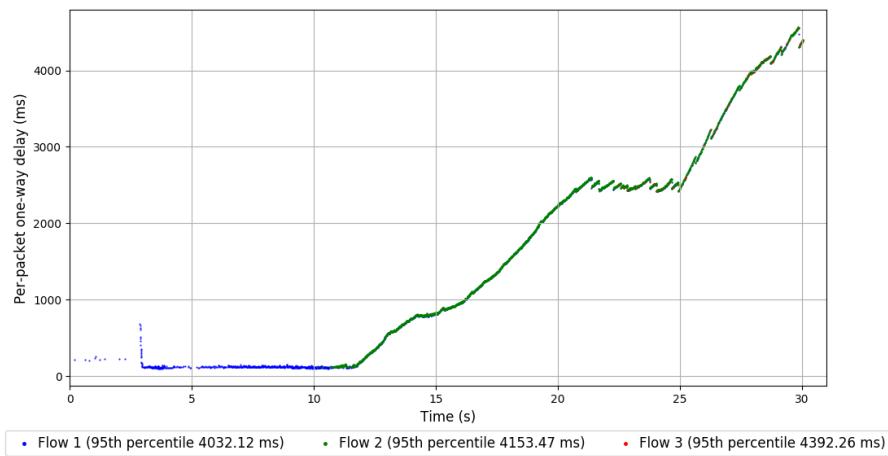
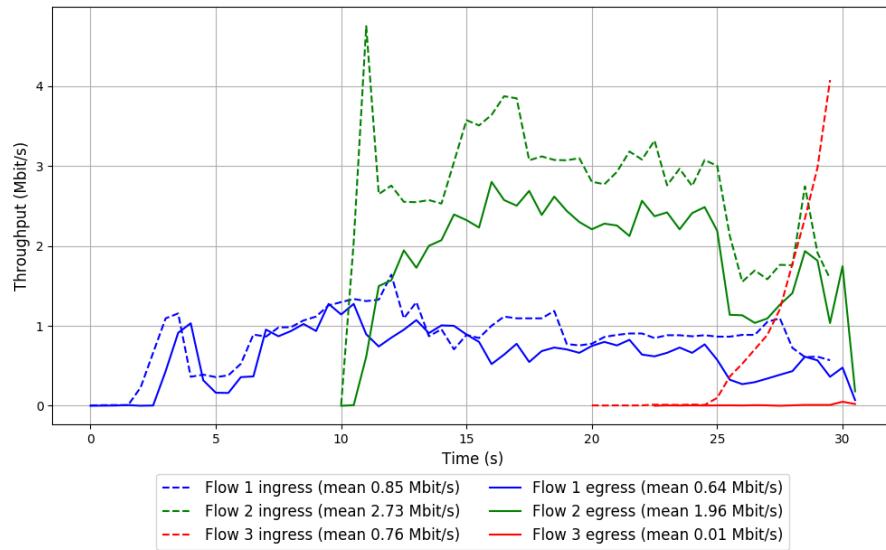


Run 3: Statistics of FillP

```
Start at: 2018-06-05 10:57:17
End at: 2018-06-05 10:57:47
Local clock offset: -6.447 ms
Remote clock offset: 13.163 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 4137.773 ms
Loss rate: 33.23%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 4032.116 ms
Loss rate: 24.38%
-- Flow 2:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 4153.468 ms
Loss rate: 28.26%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4392.257 ms
Loss rate: 99.01%
```

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

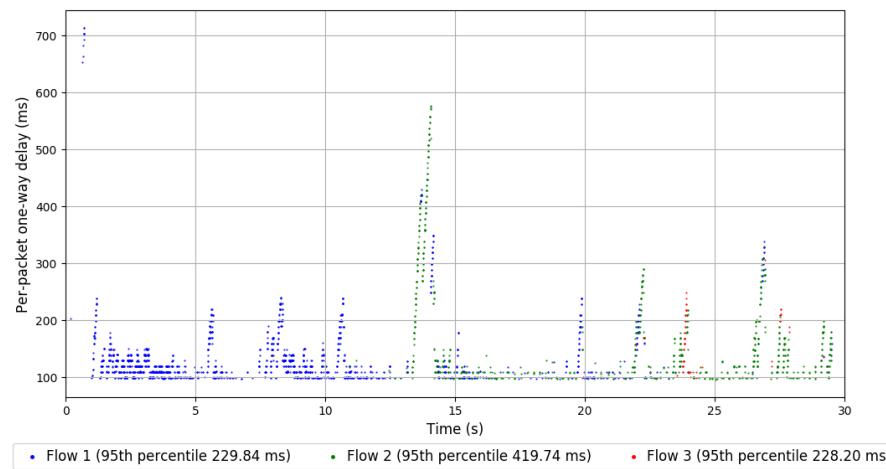
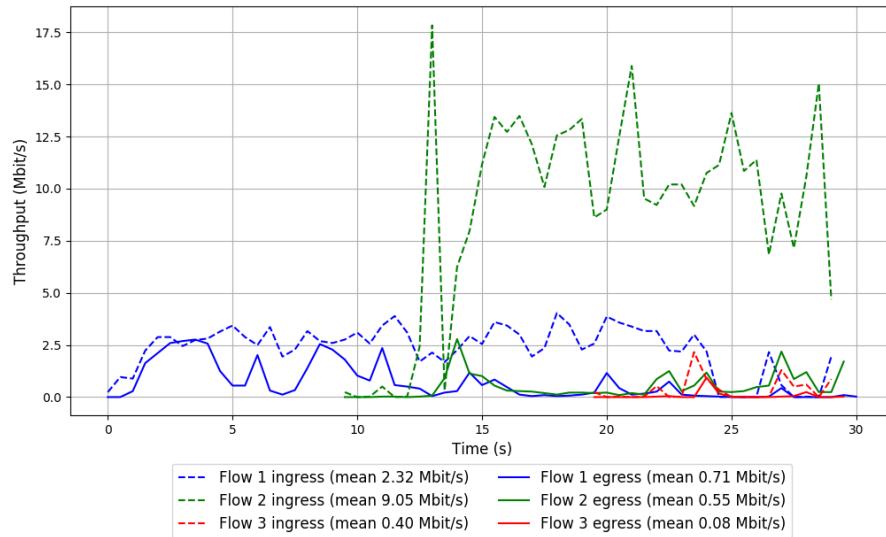


Run 1: Statistics of Indigo

```
Start at: 2018-06-05 10:11:29
End at: 2018-06-05 10:11:59
Local clock offset: -6.406 ms
Remote clock offset: 1.829 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 318.234 ms
Loss rate: 87.05%
-- Flow 1:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 229.839 ms
Loss rate: 69.55%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 419.744 ms
Loss rate: 93.96%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 228.203 ms
Loss rate: 79.60%
```

## Run 1: Report of Indigo — Data Link

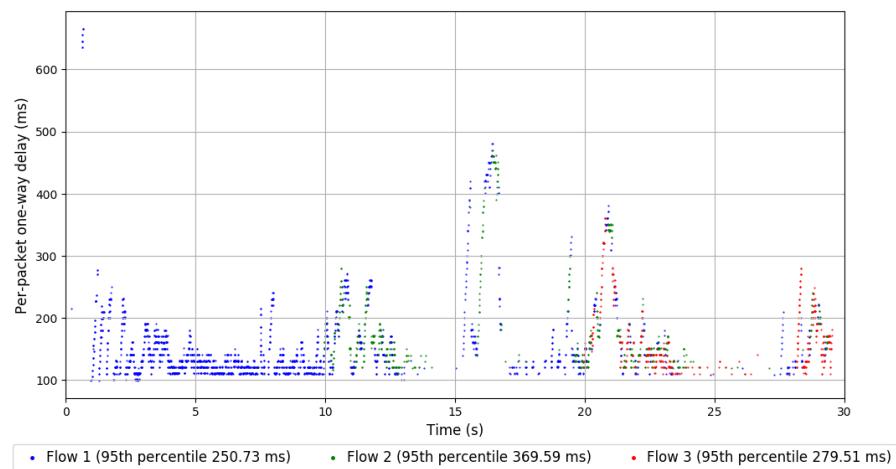
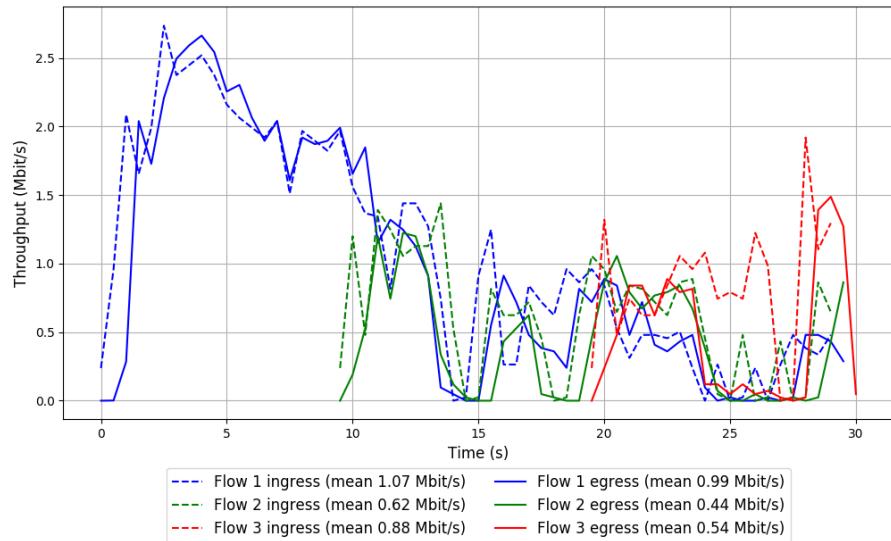


Run 2: Statistics of Indigo

```
Start at: 2018-06-05 10:30:44
End at: 2018-06-05 10:31:14
Local clock offset: -5.784 ms
Remote clock offset: 12.005 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 289.679 ms
Loss rate: 18.34%
-- Flow 1:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 250.729 ms
Loss rate: 8.38%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 369.593 ms
Loss rate: 30.02%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 279.514 ms
Loss rate: 38.72%
```

## Run 2: Report of Indigo — Data Link

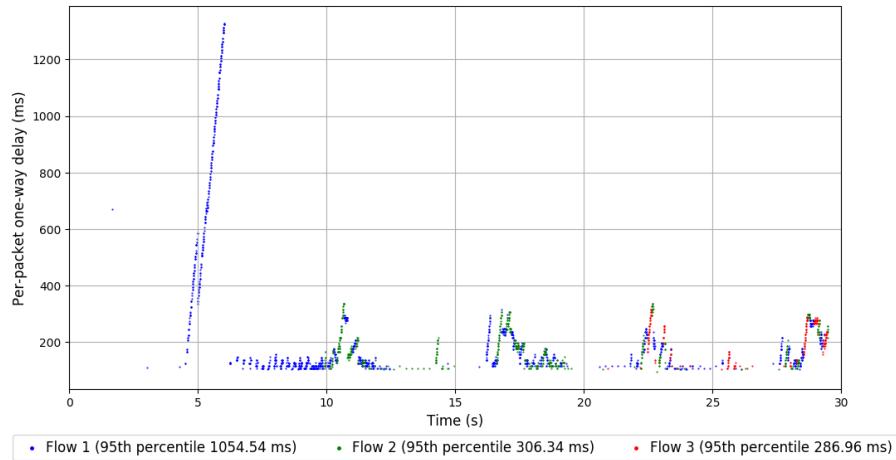
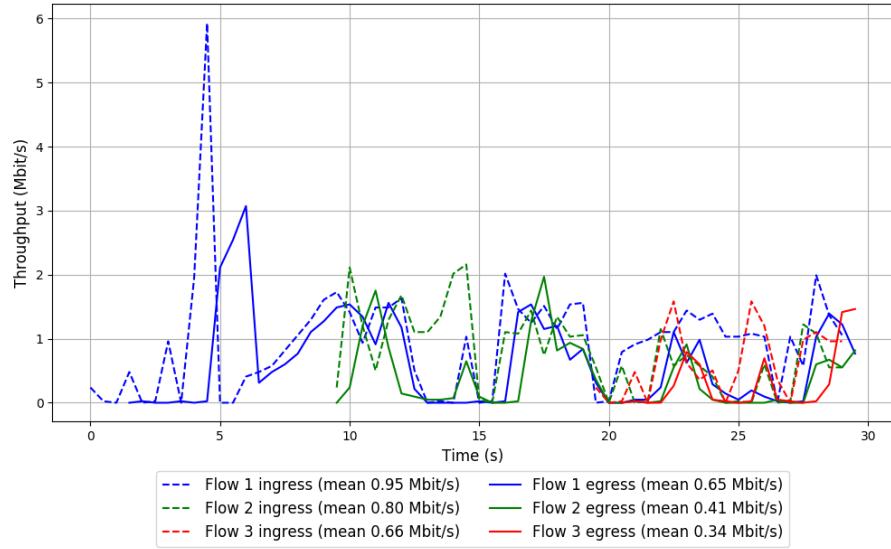


Run 3: Statistics of Indigo

```
Start at: 2018-06-05 10:50:02
End at: 2018-06-05 10:50:32
Local clock offset: -6.412 ms
Remote clock offset: 12.019 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 875.371 ms
Loss rate: 42.11%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 1054.540 ms
Loss rate: 35.49%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 306.343 ms
Loss rate: 49.20%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 286.963 ms
Loss rate: 53.94%
```

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

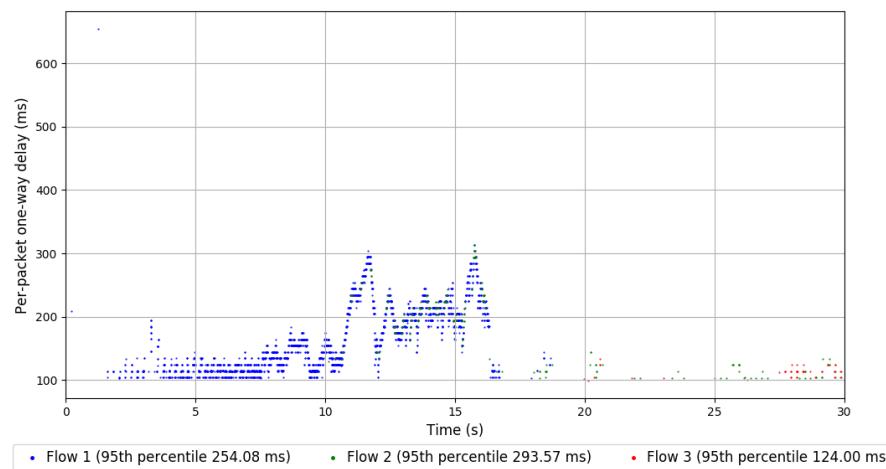
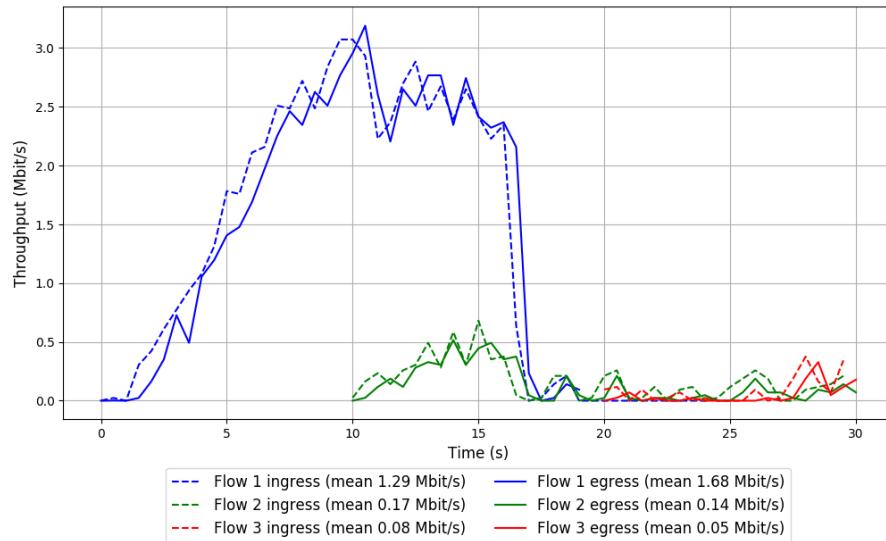


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-06-05 10:04:15
End at: 2018-06-05 10:04:45
Local clock offset: -6.19 ms
Remote clock offset: 9.151 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 254.090 ms
Loss rate: 5.45%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 254.080 ms
Loss rate: 2.76%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 293.566 ms
Loss rate: 22.52%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 124.001 ms
Loss rate: 37.67%
```

## Run 1: Report of LEDBAT — Data Link

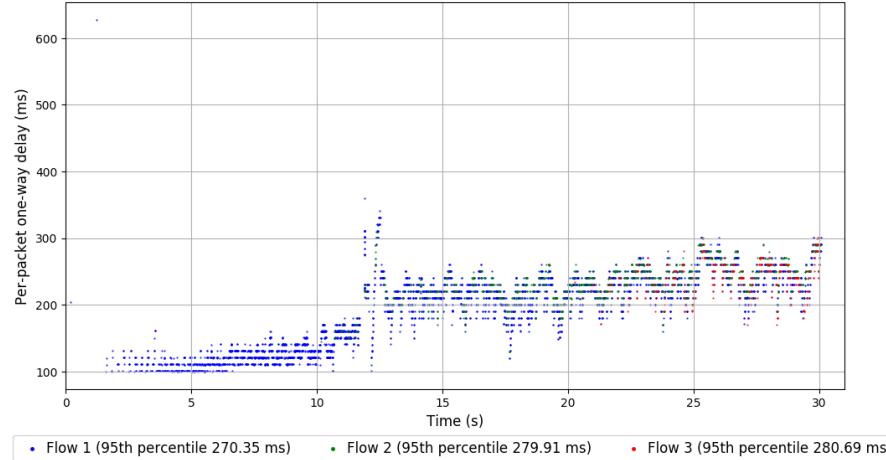
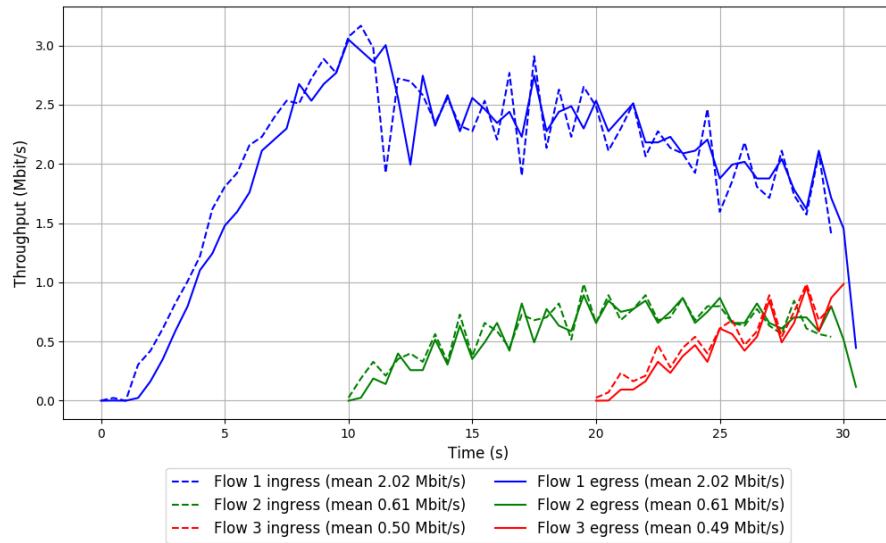


Run 2: Statistics of LEDBAT

```
Start at: 2018-06-05 10:23:31
End at: 2018-06-05 10:24:01
Local clock offset: -6.583 ms
Remote clock offset: 3.829 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 270.503 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 270.347 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 279.914 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 280.688 ms
Loss rate: 2.15%
```

Run 2: Report of LEDBAT — Data Link

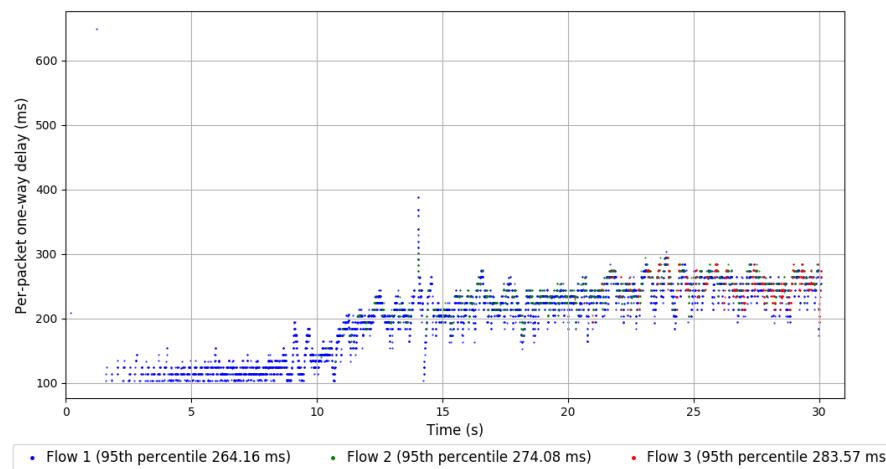
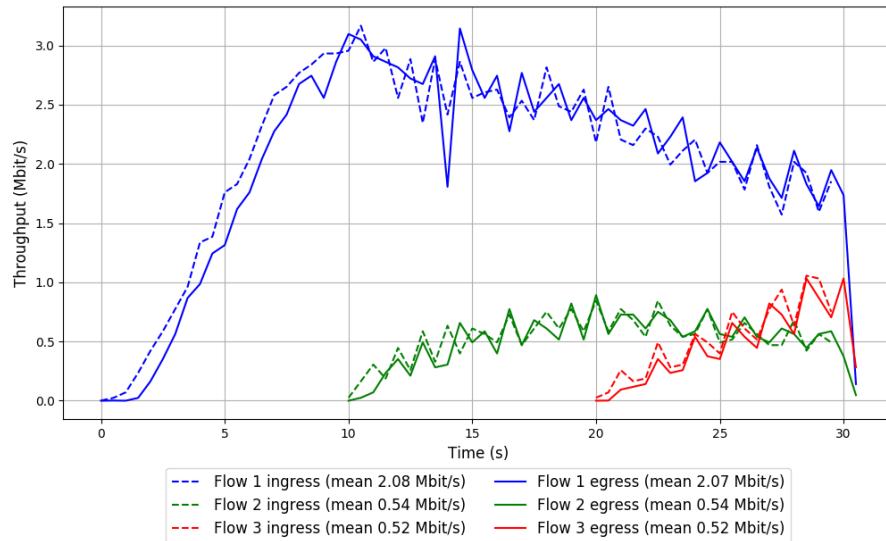


Run 3: Statistics of LEDBAT

```
Start at: 2018-06-05 10:42:49
End at: 2018-06-05 10:43:19
Local clock offset: -6.456 ms
Remote clock offset: 13.842 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 273.892 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 264.156 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 274.077 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 283.566 ms
Loss rate: 1.59%
```

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

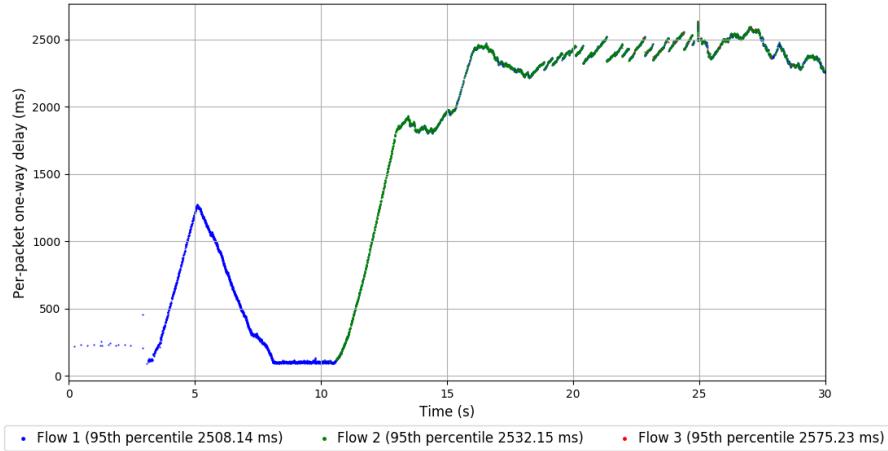
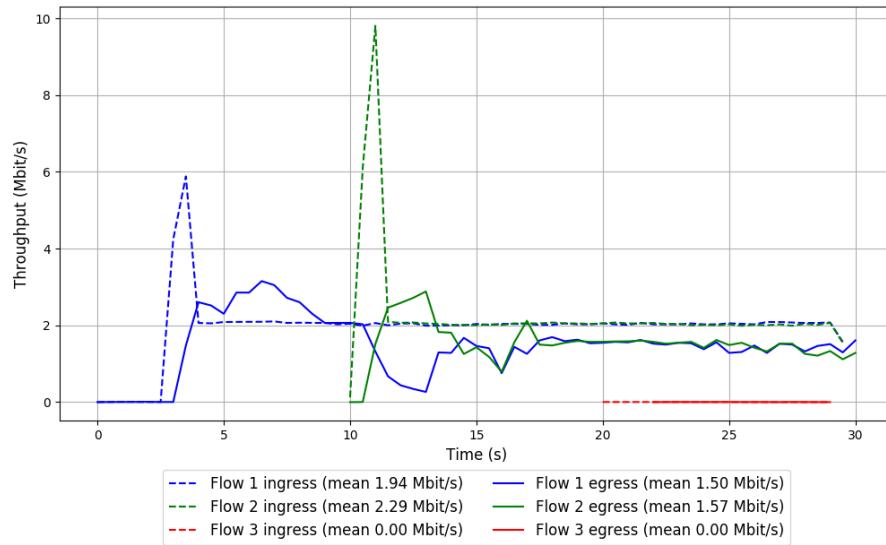


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-06-05 10:10:17
End at: 2018-06-05 10:10:47
Local clock offset: -6.391 ms
Remote clock offset: 2.056 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 2517.614 ms
Loss rate: 26.69%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 2508.141 ms
Loss rate: 23.06%
-- Flow 2:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 2532.146 ms
Loss rate: 31.32%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2575.232 ms
Loss rate: 28.84%
```

## Run 1: Report of PCC-Allegro — Data Link

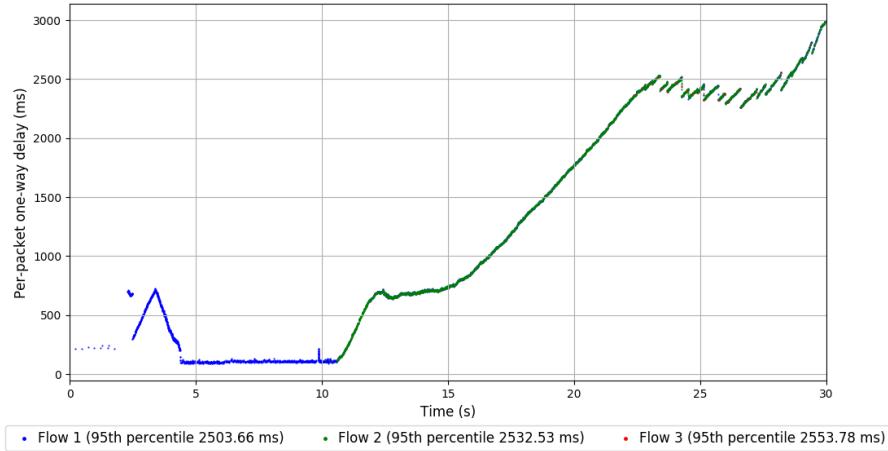
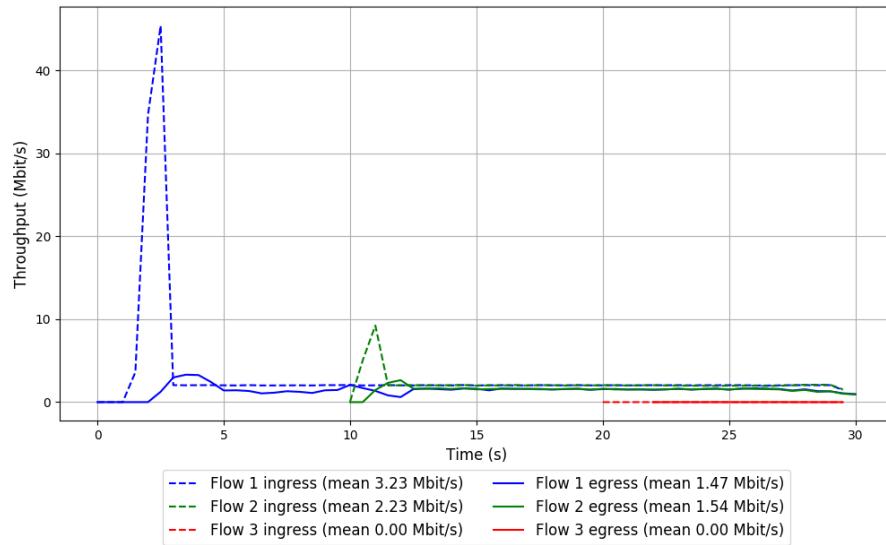


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-06-05 10:29:32
End at: 2018-06-05 10:30:02
Local clock offset: -6.537 ms
Remote clock offset: 5.478 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 2520.319 ms
Loss rate: 47.21%
-- Flow 1:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 2503.659 ms
Loss rate: 54.64%
-- Flow 2:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 2532.533 ms
Loss rate: 31.07%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2553.776 ms
Loss rate: 11.07%
```

## Run 2: Report of PCC-Allegro — Data Link

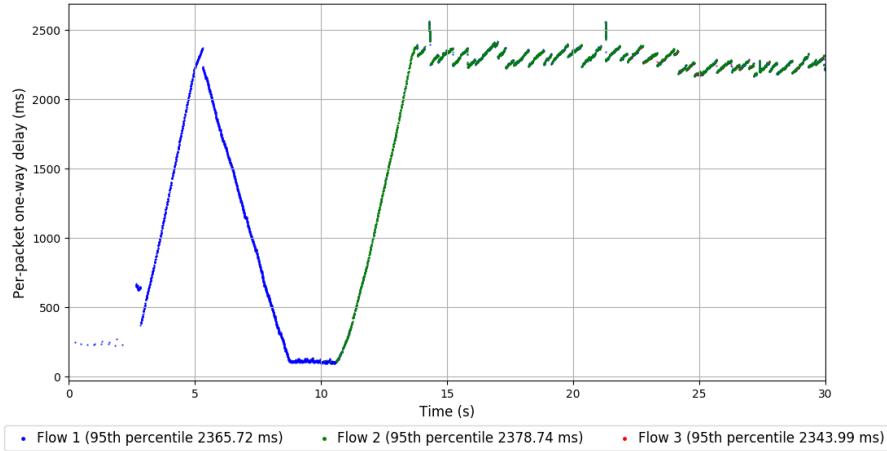
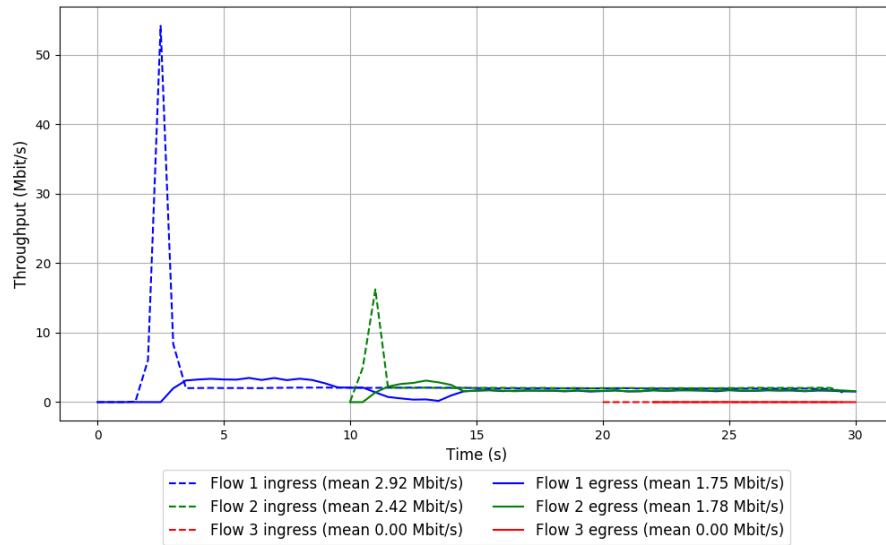


```
Run 3: Statistics of PCC-Allegro
```

```
Start at: 2018-06-05 10:48:50
End at: 2018-06-05 10:49:20
Local clock offset: -6.429 ms
Remote clock offset: 13.086 ms

# Below is generated by plot.py at 2018-06-05 10:58:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 2372.133 ms
Loss rate: 35.47%
-- Flow 1:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 2365.722 ms
Loss rate: 40.45%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 2378.745 ms
Loss rate: 26.45%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2343.992 ms
Loss rate: 7.49%
```

Run 3: Report of PCC-Allegro — Data Link

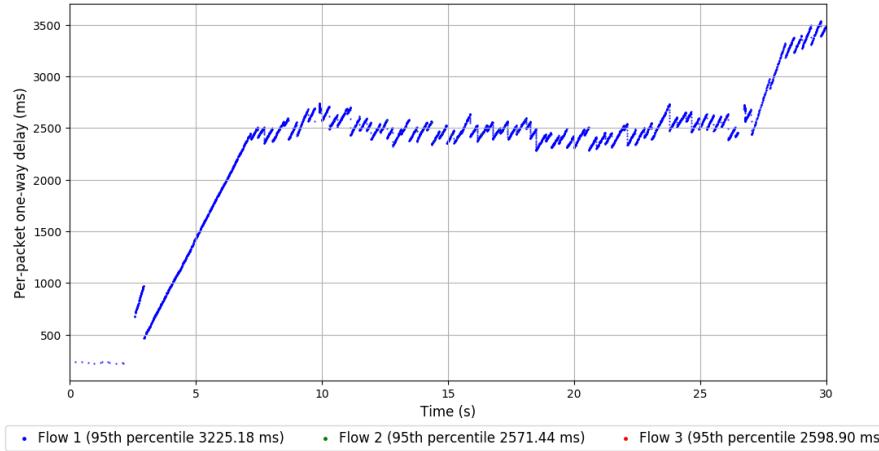
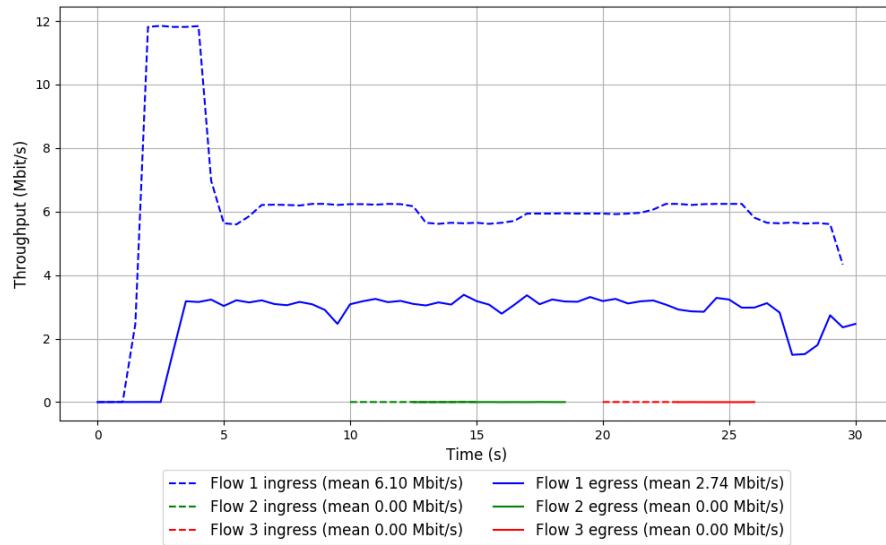


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-06-05 10:13:53
End at: 2018-06-05 10:14:23
Local clock offset: -5.672 ms
Remote clock offset: 6.565 ms

# Below is generated by plot.py at 2018-06-05 10:58:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 3221.262 ms
Loss rate: 55.34%
-- Flow 1:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 3225.177 ms
Loss rate: 55.34%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2571.437 ms
Loss rate: 29.90%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2598.900 ms
Loss rate: 83.22%
```

## Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

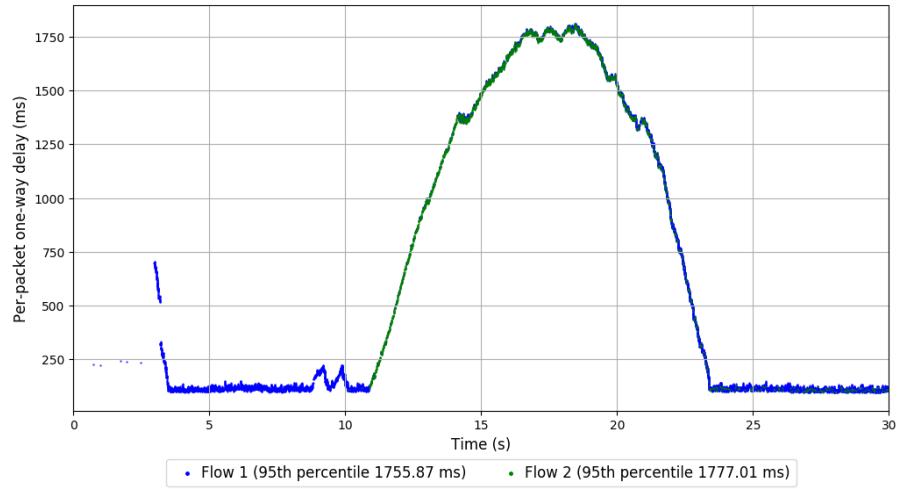
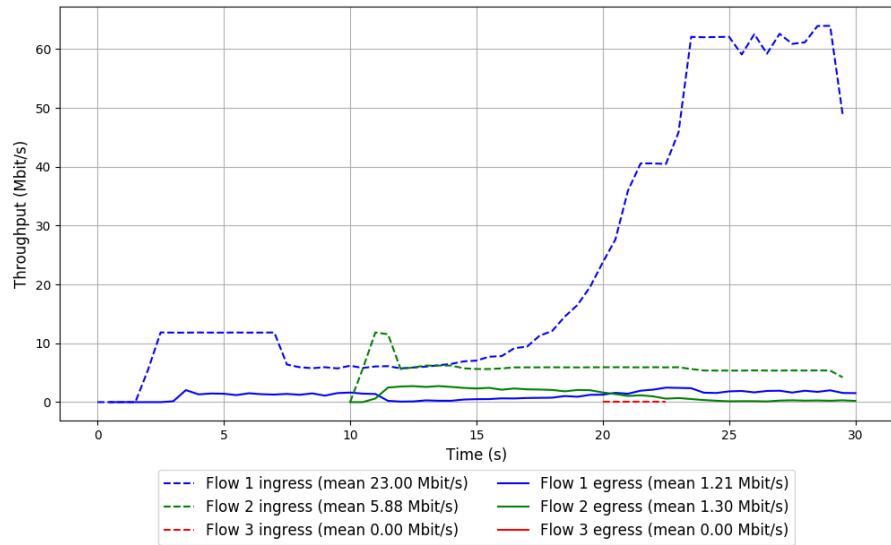
Start at: 2018-06-05 10:33:09

End at: 2018-06-05 10:33:39

Local clock offset: -6.603 ms

Remote clock offset: 11.5 ms

Run 2: Report of PCC-Expr — Data Link

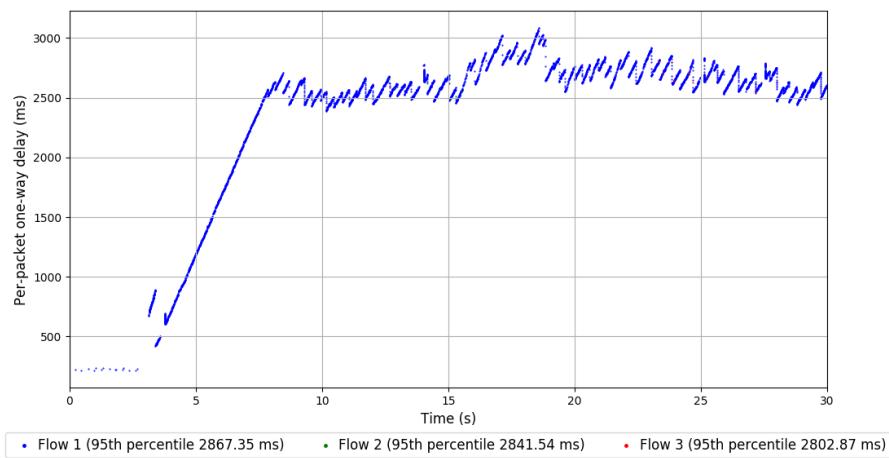
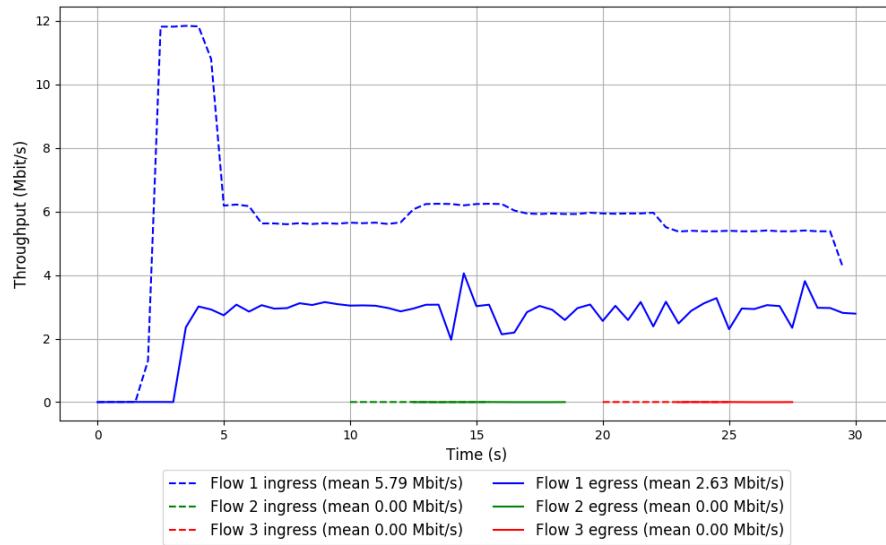


Run 3: Statistics of PCC-Expr

```
Start at: 2018-06-05 10:52:29
End at: 2018-06-05 10:52:59
Local clock offset: -7.15 ms
Remote clock offset: 12.184 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 2867.339 ms
Loss rate: 54.76%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 2867.349 ms
Loss rate: 54.76%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2841.539 ms
Loss rate: 51.72%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 2802.871 ms
Loss rate: 59.97%
```

### Run 3: Report of PCC-Expr — Data Link

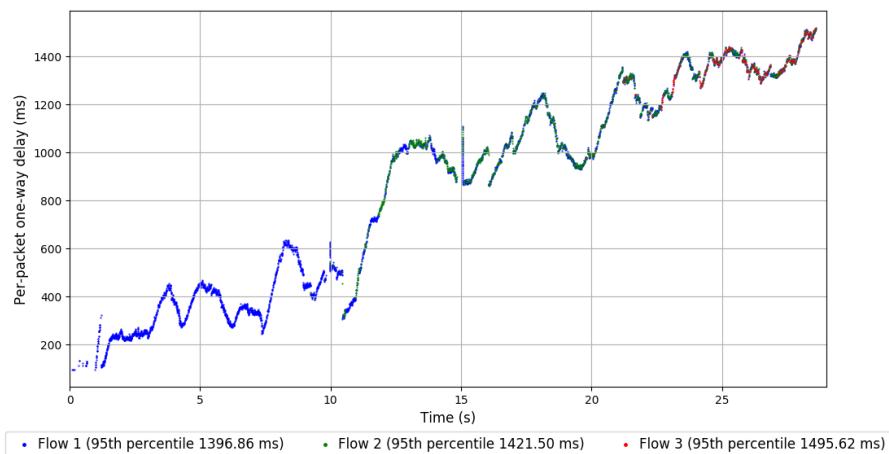
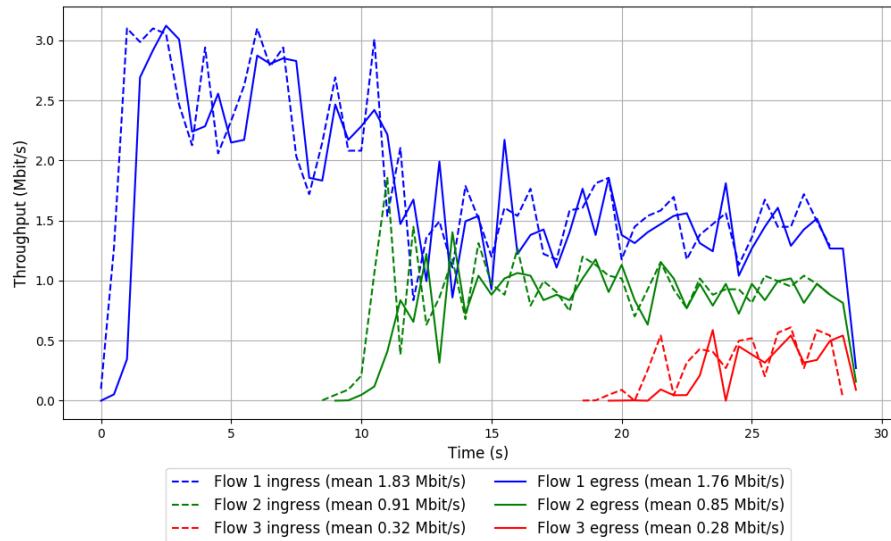


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-06-05 10:15:05
End at: 2018-06-05 10:15:35
Local clock offset: -6.458 ms
Remote clock offset: 2.465 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 1408.836 ms
Loss rate: 5.66%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1396.860 ms
Loss rate: 4.03%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 1421.502 ms
Loss rate: 7.68%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 1495.619 ms
Loss rate: 21.40%
```

Run 1: Report of QUIC Cubic — Data Link

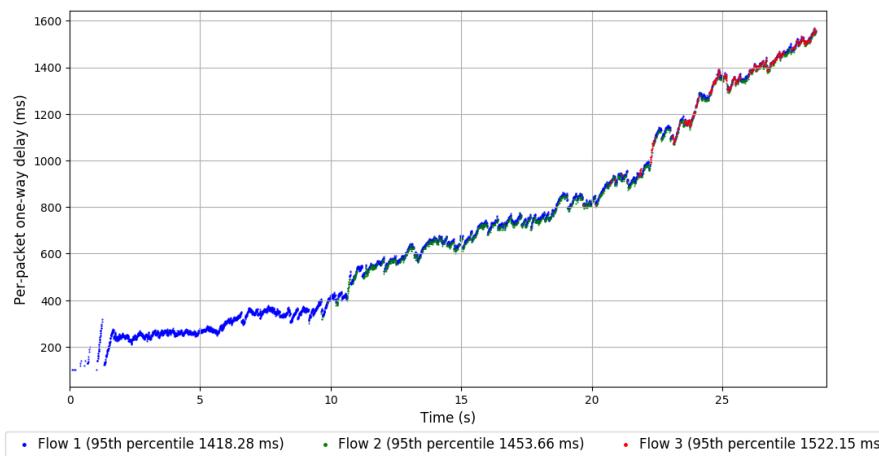
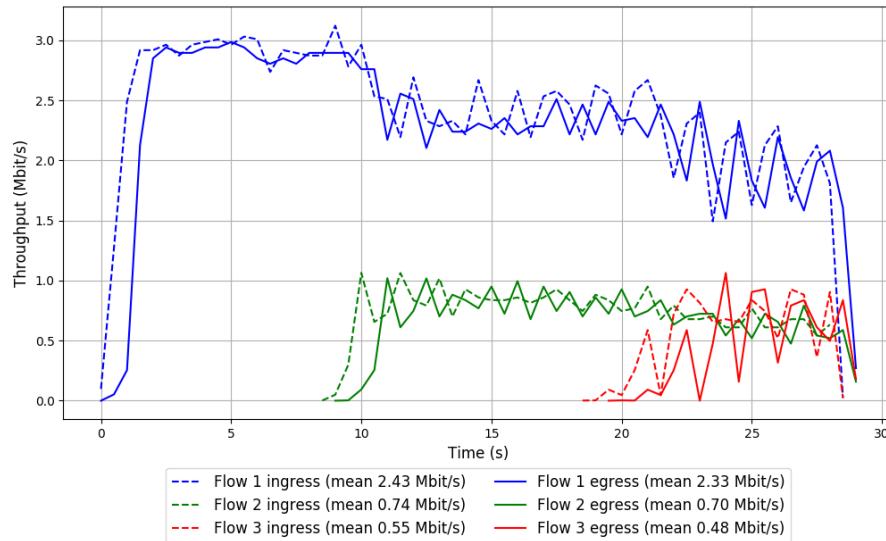


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-06-05 10:34:22
End at: 2018-06-05 10:34:52
Local clock offset: -5.77 ms
Remote clock offset: 10.593 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 1451.313 ms
Loss rate: 5.41%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 1418.275 ms
Loss rate: 4.15%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 1453.658 ms
Loss rate: 6.20%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 1522.152 ms
Loss rate: 19.68%
```

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

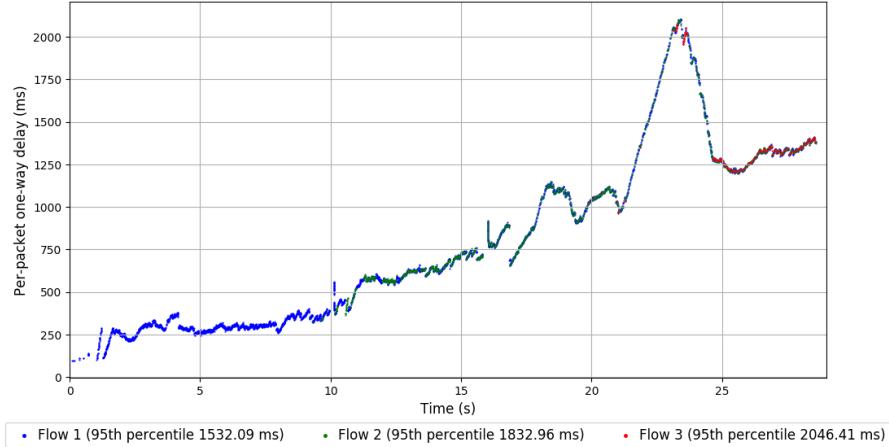
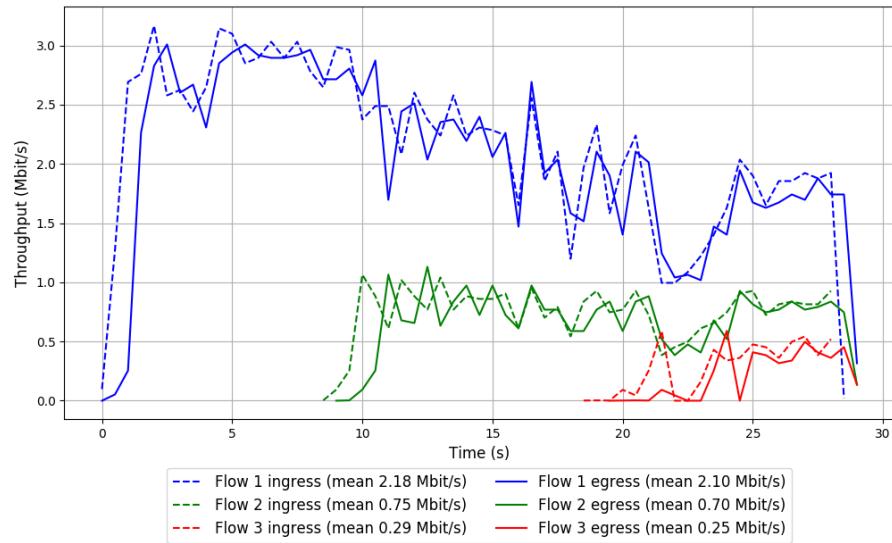


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-06-05 10:53:41
End at: 2018-06-05 10:54:11
Local clock offset: -5.621 ms
Remote clock offset: 8.228 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 1662.687 ms
Loss rate: 5.28%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1532.089 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 1832.956 ms
Loss rate: 7.51%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 2046.414 ms
Loss rate: 22.16%
```

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

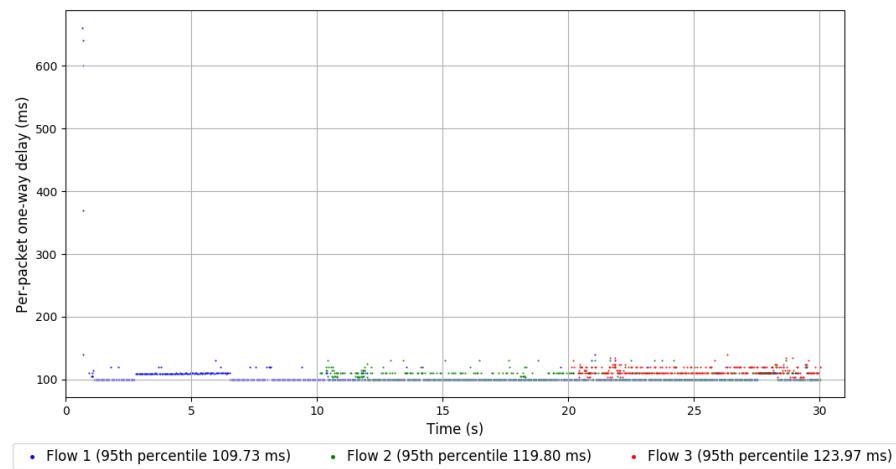
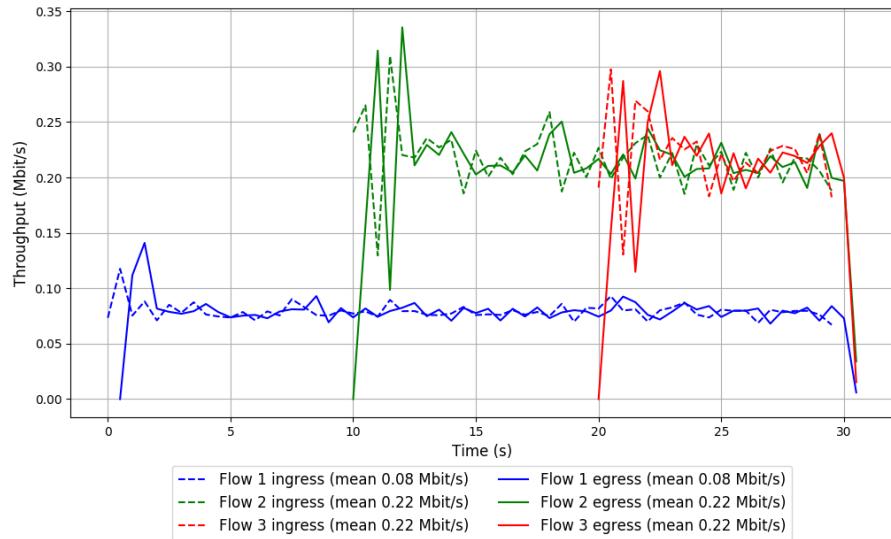


```
Run 1: Statistics of SCReAM

Start at: 2018-06-05 10:17:30
End at: 2018-06-05 10:18:00
Local clock offset: -7.253 ms
Remote clock offset: 7.122 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 119.803 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 109.727 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 119.803 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 123.965 ms
Loss rate: 0.35%
```

## Run 1: Report of SCReAM — Data Link

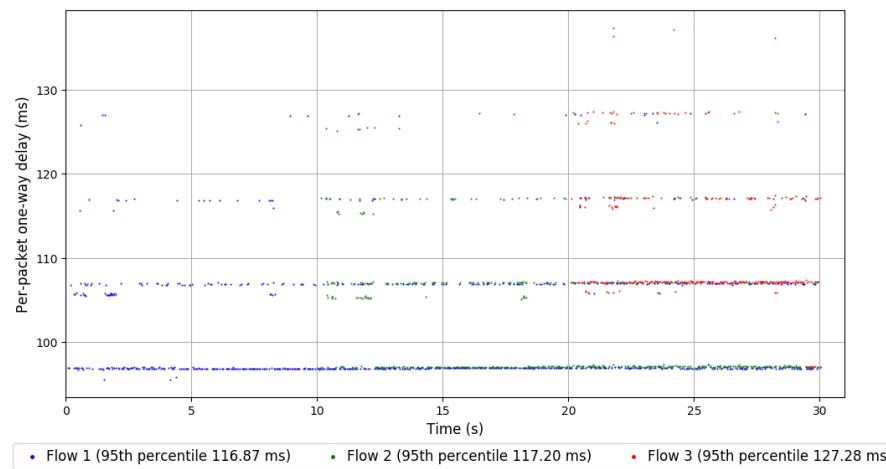
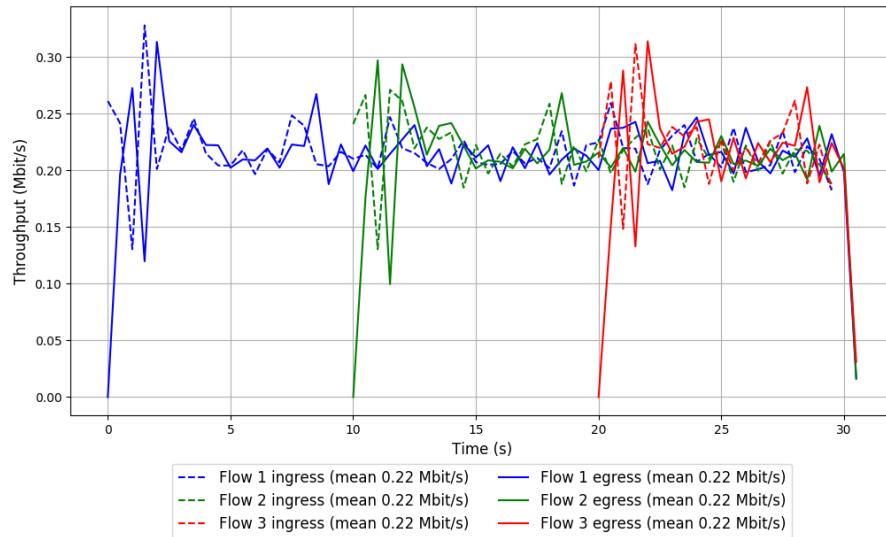


Run 2: Statistics of SCReAM

```
Start at: 2018-06-05 10:36:48
End at: 2018-06-05 10:37:18
Local clock offset: -7.28 ms
Remote clock offset: 10.913 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 117.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 116.870 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 117.201 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 127.278 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

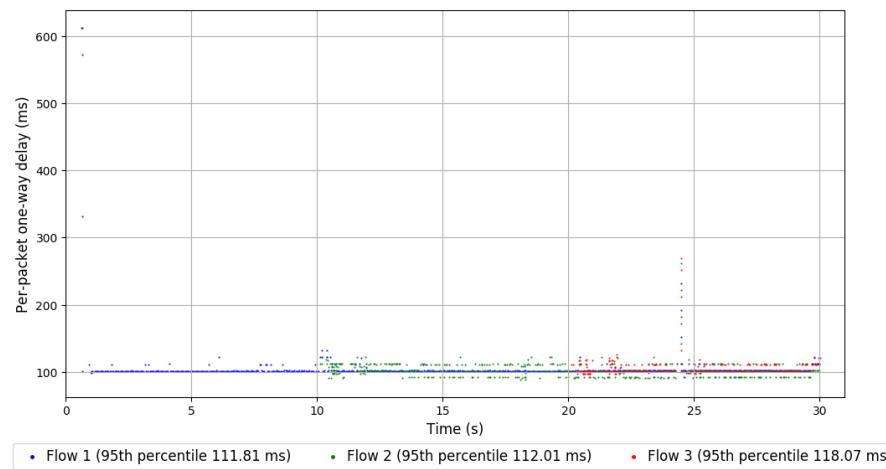
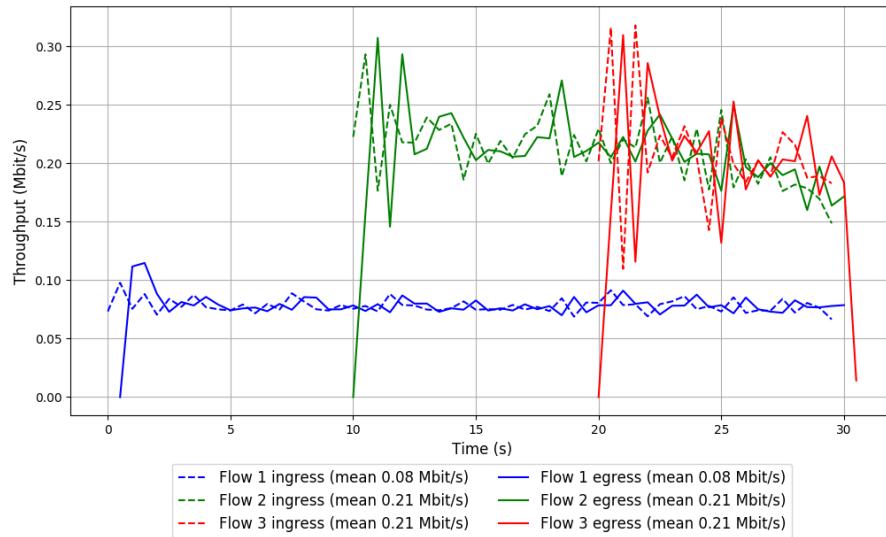


Run 3: Statistics of SCReAM

```
Start at: 2018-06-05 10:56:06
End at: 2018-06-05 10:56:36
Local clock offset: -5.608 ms
Remote clock offset: 8.216 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 111.984 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 111.814 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.013 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 118.068 ms
Loss rate: 0.34%
```

Run 3: Report of SCReAM — Data Link

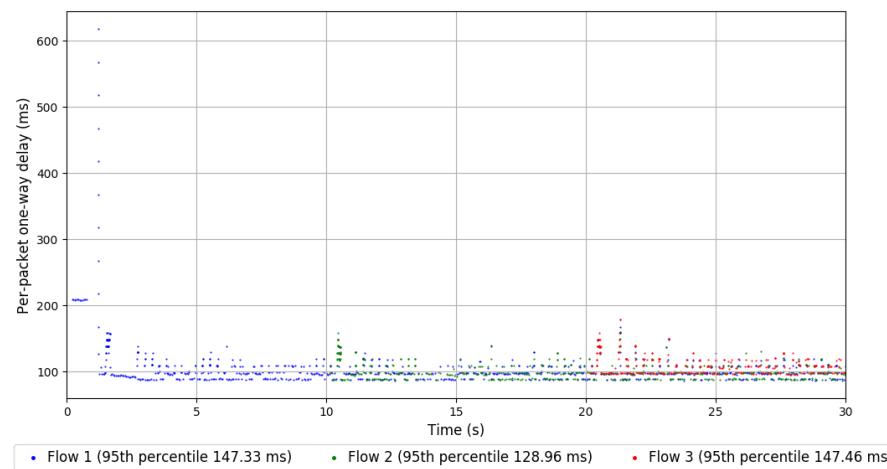
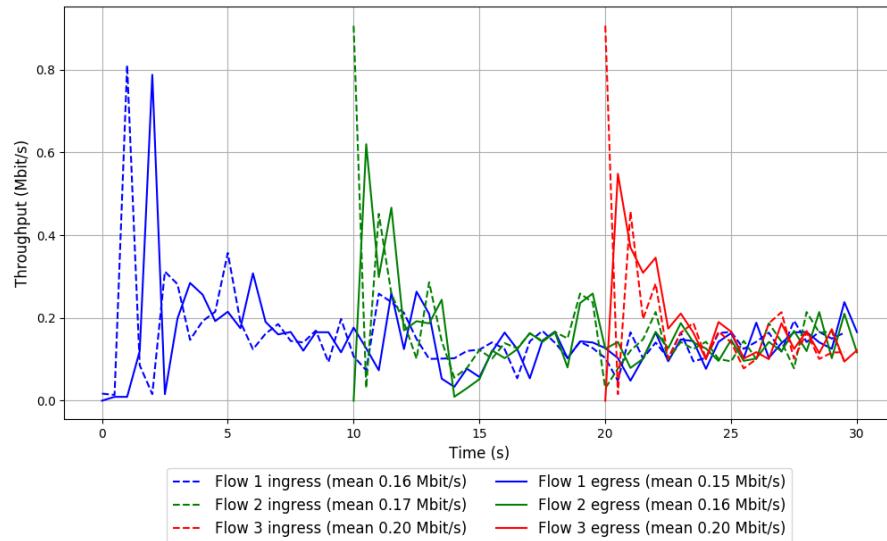


Run 1: Statistics of Sprout

```
Start at: 2018-06-05 10:12:41
End at: 2018-06-05 10:13:11
Local clock offset: -5.66 ms
Remote clock offset: 1.647 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 138.284 ms
Loss rate: 2.07%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 147.330 ms
Loss rate: 1.99%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 128.958 ms
Loss rate: 3.09%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 147.458 ms
Loss rate: 0.52%
```

## Run 1: Report of Sprout — Data Link

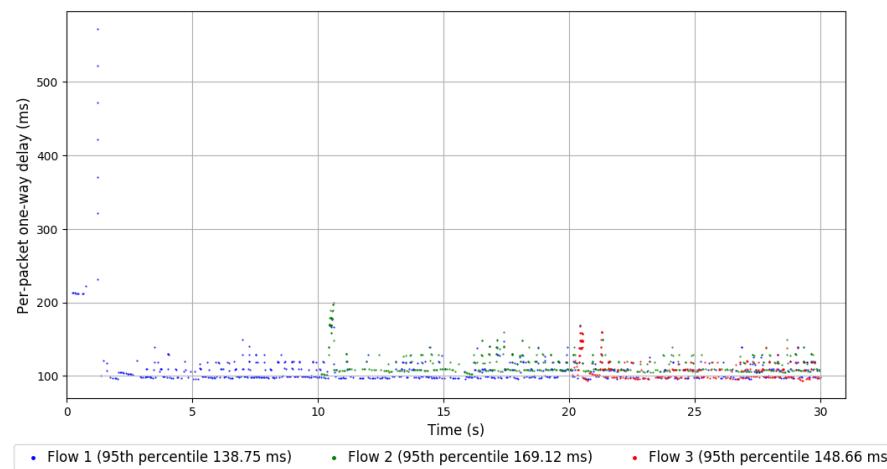
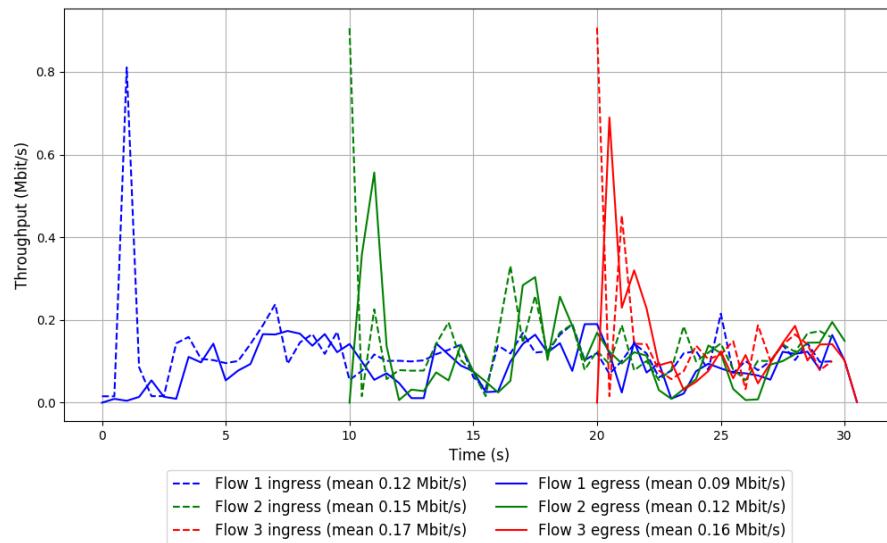


Run 2: Statistics of Sprout

```
Start at: 2018-06-05 10:31:57
End at: 2018-06-05 10:32:27
Local clock offset: -6.536 ms
Remote clock offset: 10.129 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 157.510 ms
Loss rate: 18.37%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 138.755 ms
Loss rate: 24.65%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 169.116 ms
Loss rate: 16.60%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 148.665 ms
Loss rate: 7.54%
```

## Run 2: Report of Sprout — Data Link

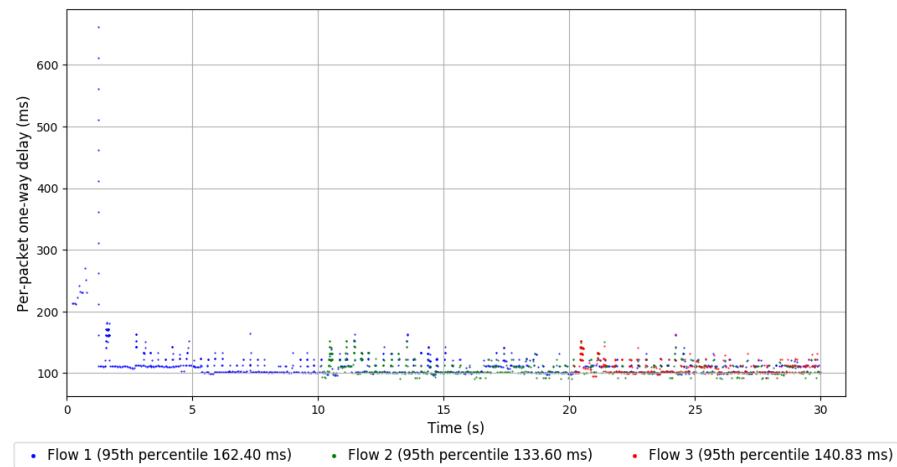
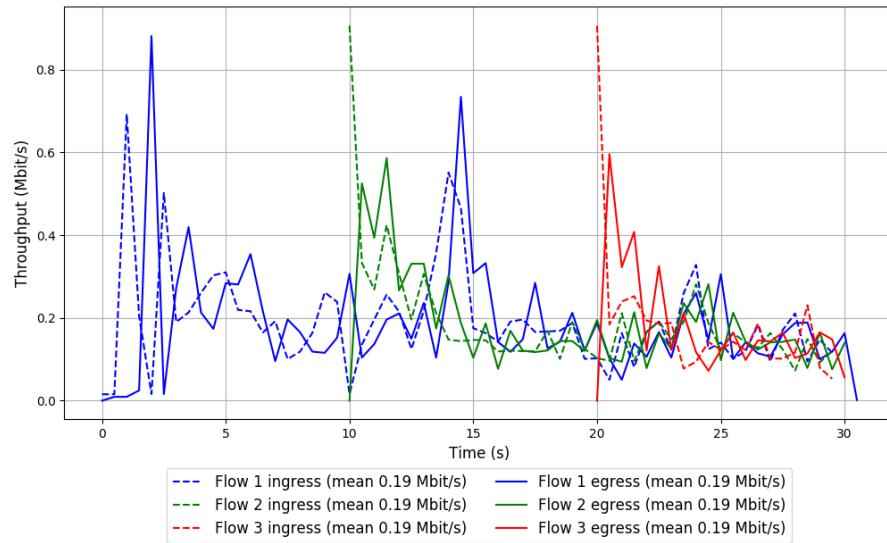


Run 3: Statistics of Sprout

```
Start at: 2018-06-05 10:51:14
End at: 2018-06-05 10:51:44
Local clock offset: -6.392 ms
Remote clock offset: 13.192 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 143.212 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 162.403 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 133.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 140.834 ms
Loss rate: 0.00%
```

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

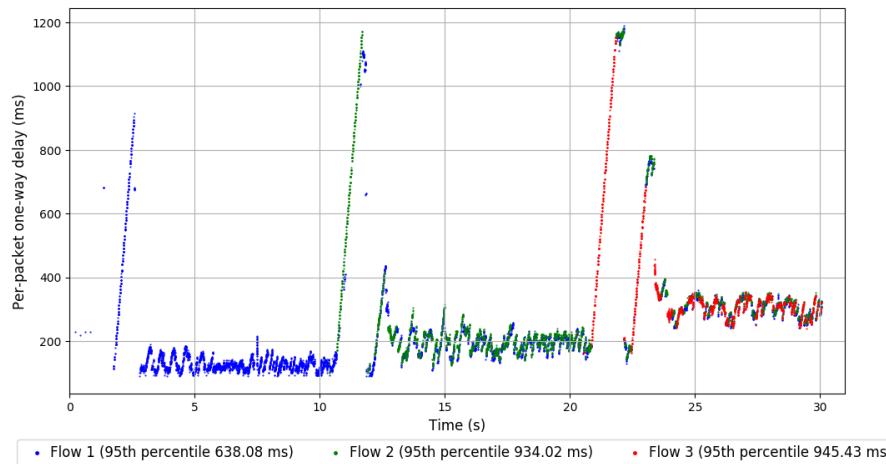
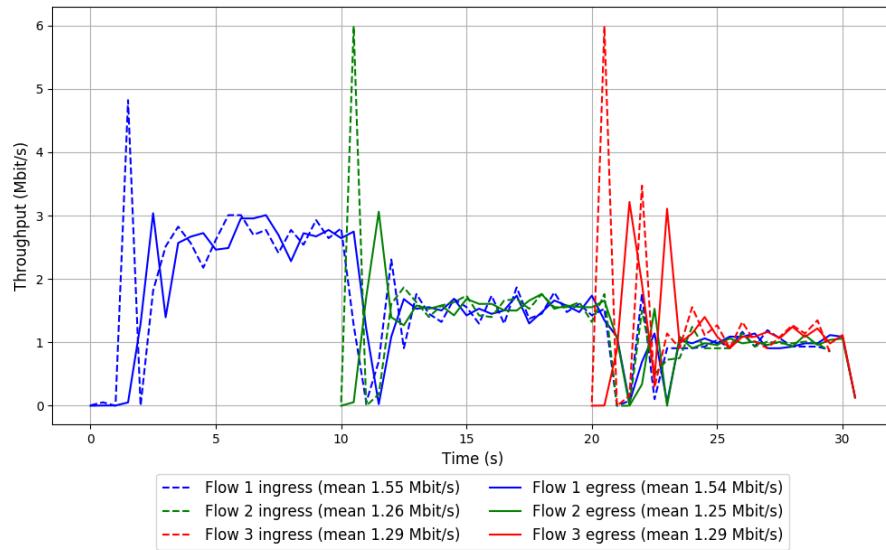


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:01:51
End at: 2018-06-05 10:02:21
Local clock offset: -5.434 ms
Remote clock offset: 3.369 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 779.252 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 638.084 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 934.018 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 945.433 ms
Loss rate: 2.01%
```

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

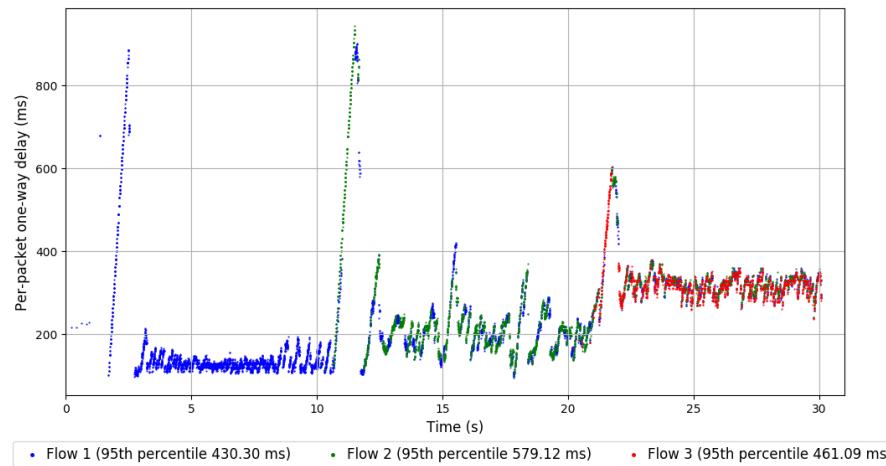
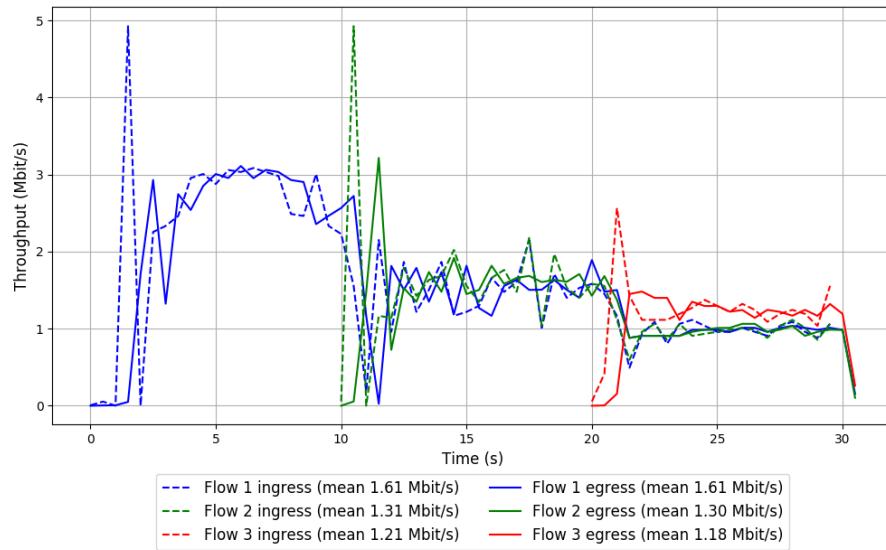


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:21:06
End at: 2018-06-05 10:21:36
Local clock offset: -6.525 ms
Remote clock offset: 5.883 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 508.539 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 430.300 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 579.124 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 461.091 ms
Loss rate: 2.80%
```

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

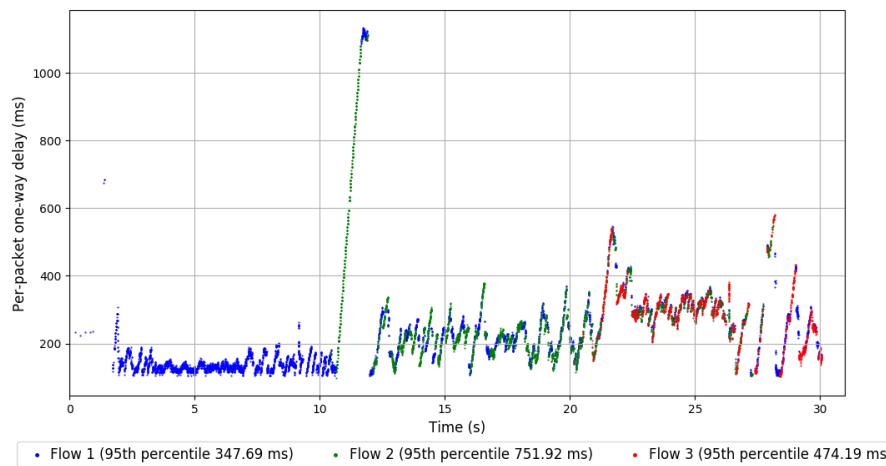
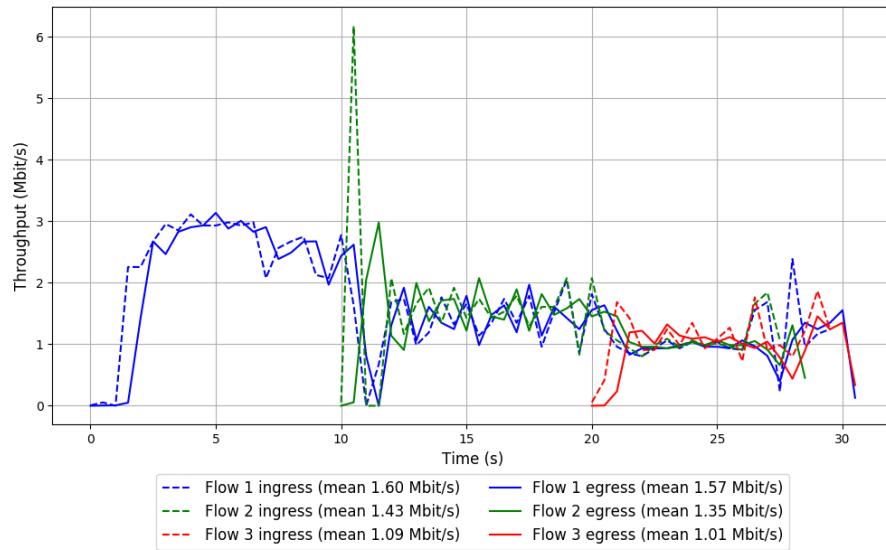


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-06-05 10:40:24
End at: 2018-06-05 10:40:54
Local clock offset: -6.532 ms
Remote clock offset: 11.439 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 478.228 ms
Loss rate: 3.41%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 347.686 ms
Loss rate: 2.30%
-- Flow 2:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 751.925 ms
Loss rate: 3.40%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 474.187 ms
Loss rate: 8.31%
```

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

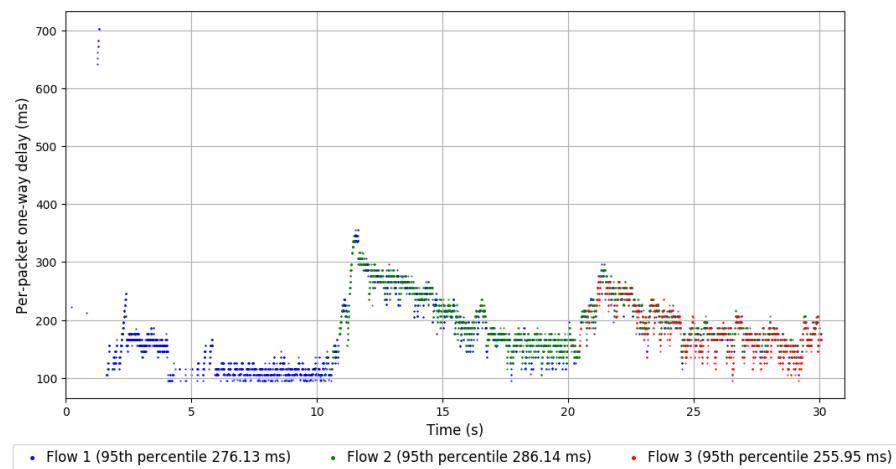
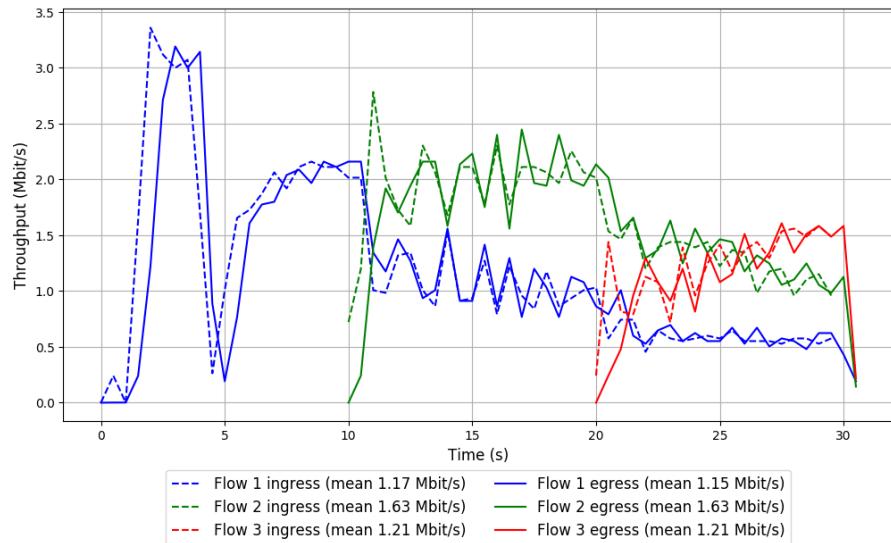


Run 1: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:05:27
End at: 2018-06-05 10:05:57
Local clock offset: -6.24 ms
Remote clock offset: 2.771 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 276.192 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 276.128 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 286.138 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 255.950 ms
Loss rate: 0.89%
```

## Run 1: Report of TCP Vegas — Data Link

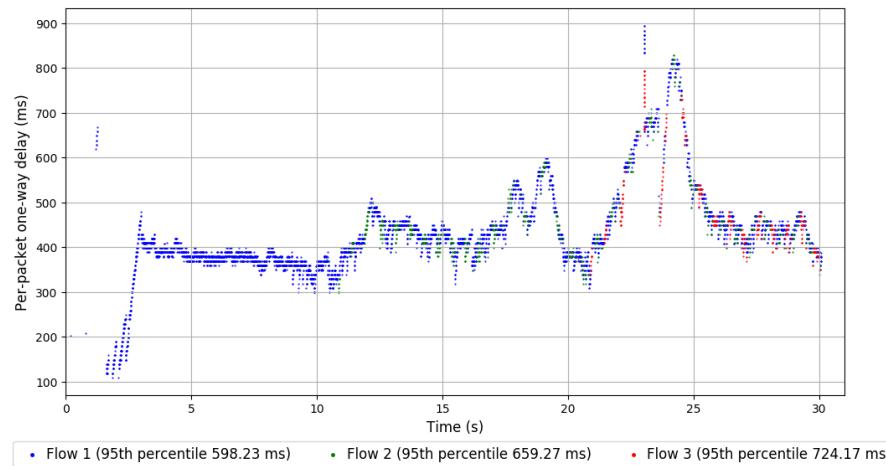
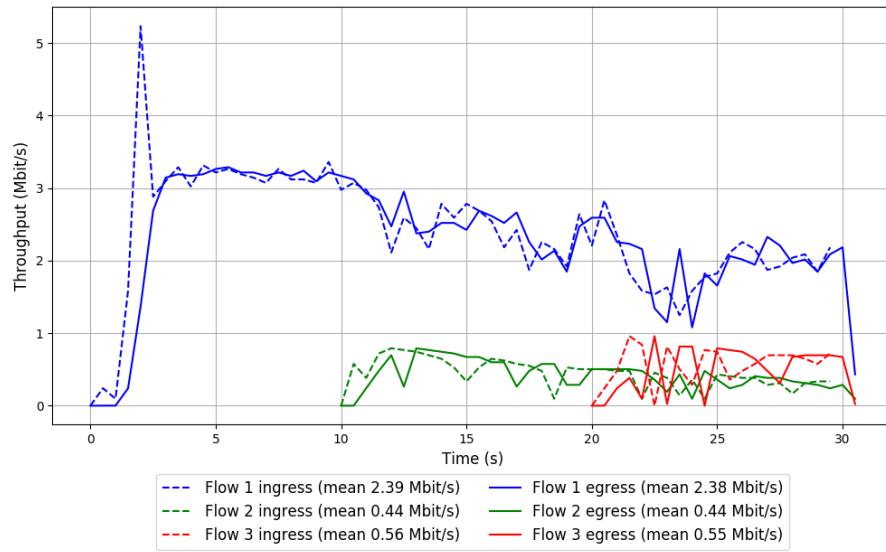


Run 2: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:24:43
End at: 2018-06-05 10:25:13
Local clock offset: -5.758 ms
Remote clock offset: 3.52 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 638.895 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 598.225 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 659.275 ms
Loss rate: 1.09%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 724.168 ms
Loss rate: 4.98%
```

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

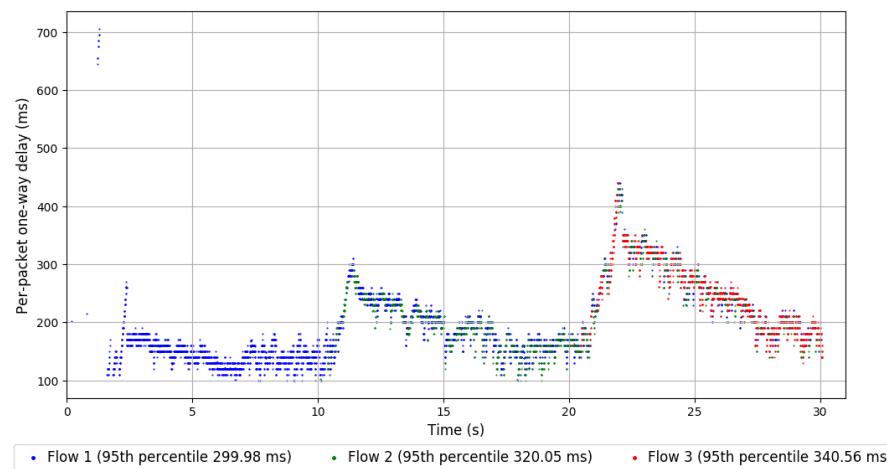
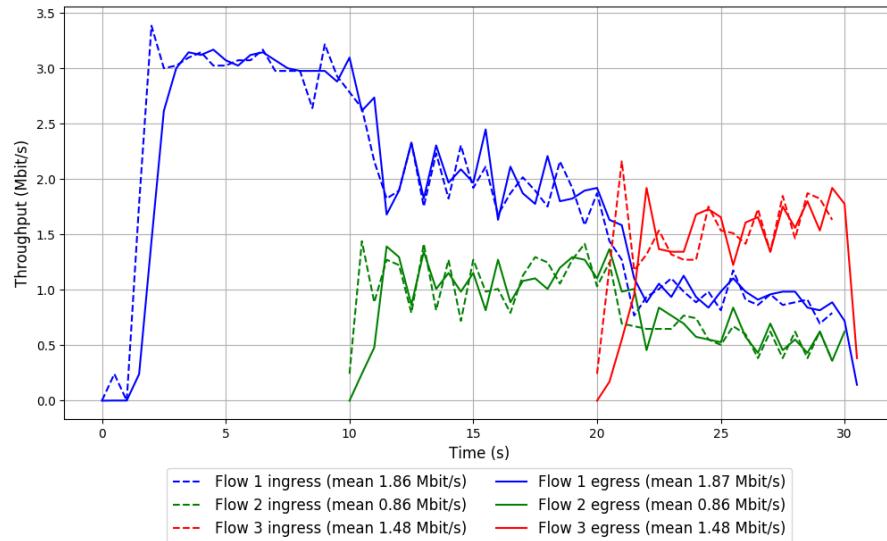


Run 3: Statistics of TCP Vegas

```
Start at: 2018-06-05 10:44:01
End at: 2018-06-05 10:44:31
Local clock offset: -5.676 ms
Remote clock offset: 8.928 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 320.301 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 299.976 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 320.054 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 340.558 ms
Loss rate: 0.49%
```

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

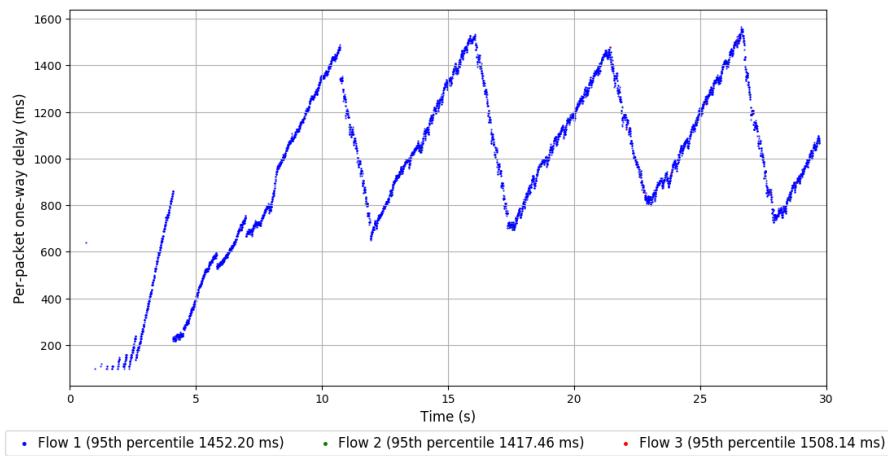
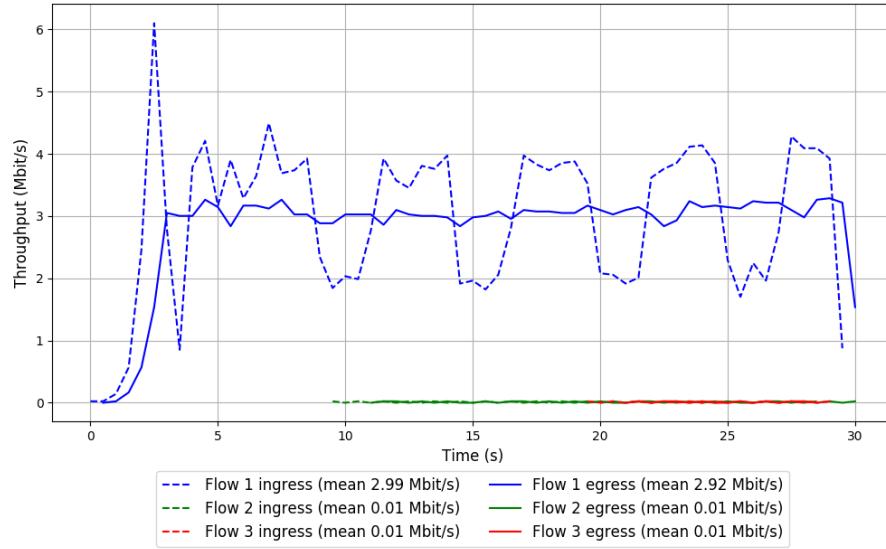


Run 1: Statistics of Verus

```
Start at: 2018-06-05 10:06:39
End at: 2018-06-05 10:07:09
Local clock offset: -7.101 ms
Remote clock offset: 2.55 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 1453.613 ms
Loss rate: 4.31%
-- Flow 1:
Average throughput: 2.92 Mbit/s
95th percentile per-packet one-way delay: 1452.197 ms
Loss rate: 4.31%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1417.460 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1508.139 ms
Loss rate: 10.00%
```

## Run 1: Report of Verus — Data Link

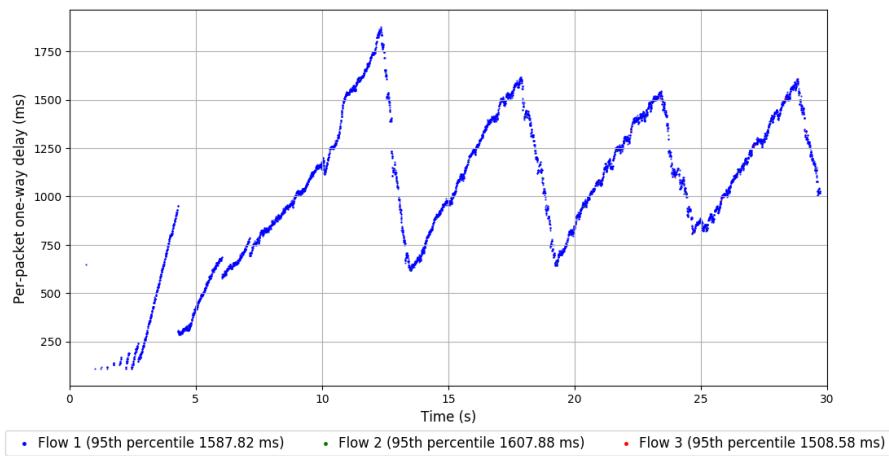
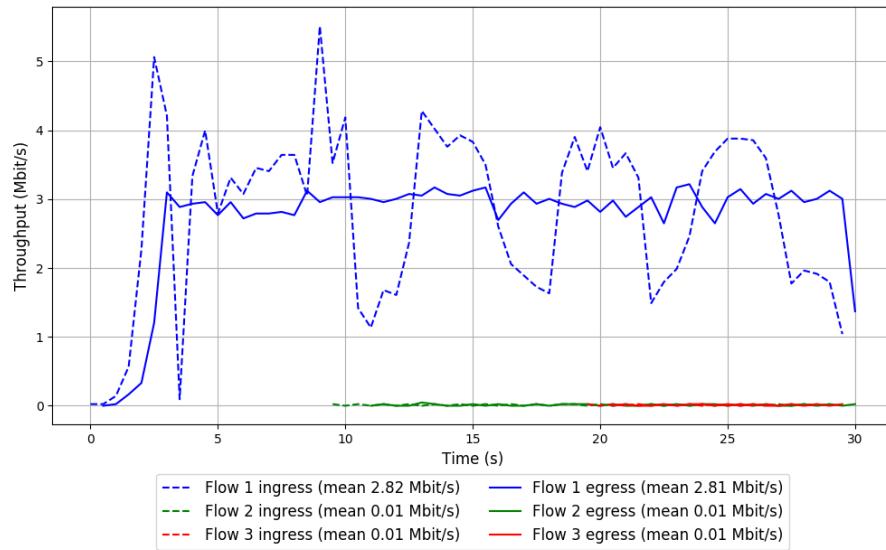


Run 2: Statistics of Verus

```
Start at: 2018-06-05 10:25:55
End at: 2018-06-05 10:26:25
Local clock offset: -6.583 ms
Remote clock offset: 9.093 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 1587.818 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 1587.818 ms
Loss rate: 2.35%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1607.877 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1508.584 ms
Loss rate: 10.00%
```

## Run 2: Report of Verus — Data Link

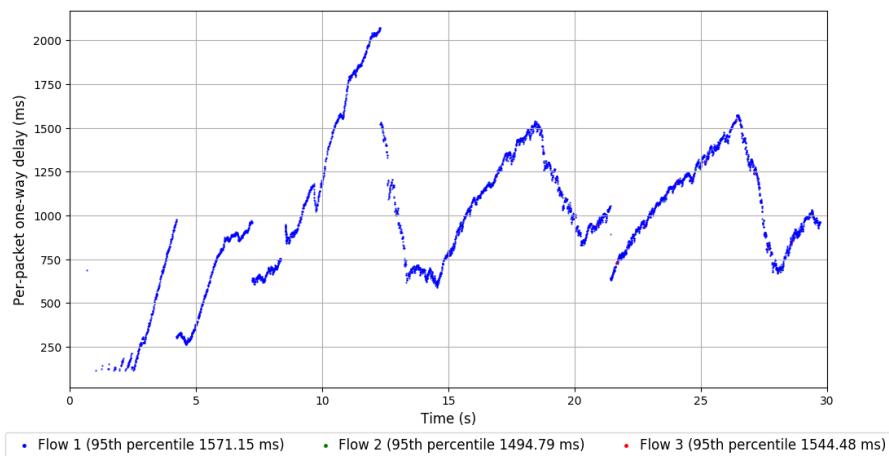
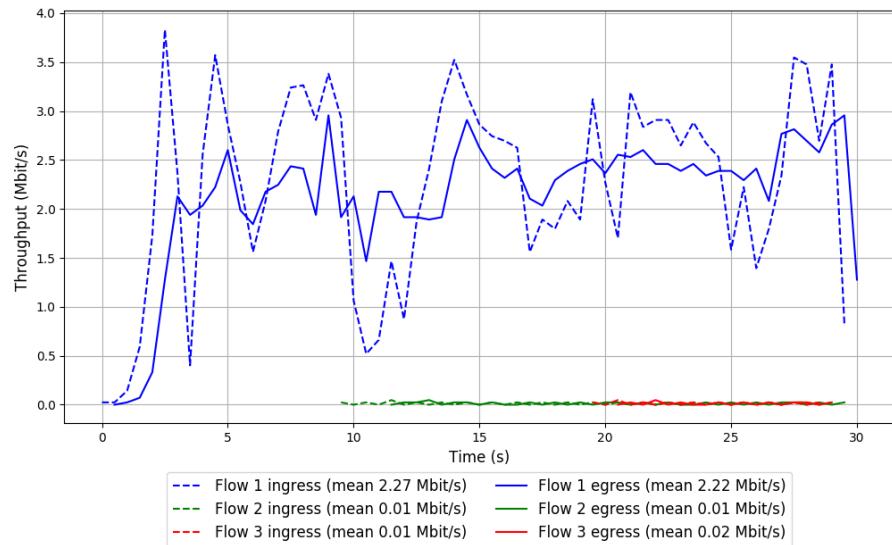


Run 3: Statistics of Verus

```
Start at: 2018-06-05 10:45:13
End at: 2018-06-05 10:45:43
Local clock offset: -6.43 ms
Remote clock offset: 12.998 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 1570.982 ms
Loss rate: 4.18%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 1571.151 ms
Loss rate: 4.17%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1494.789 ms
Loss rate: 4.55%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1544.476 ms
Loss rate: 9.09%
```

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

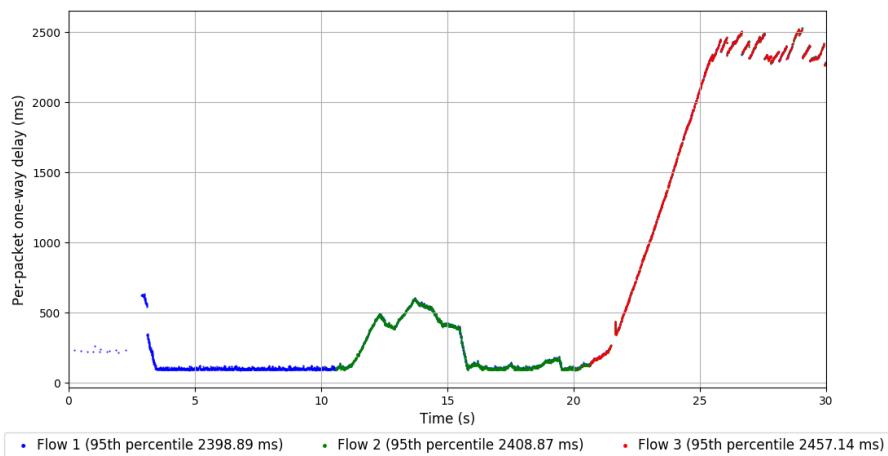
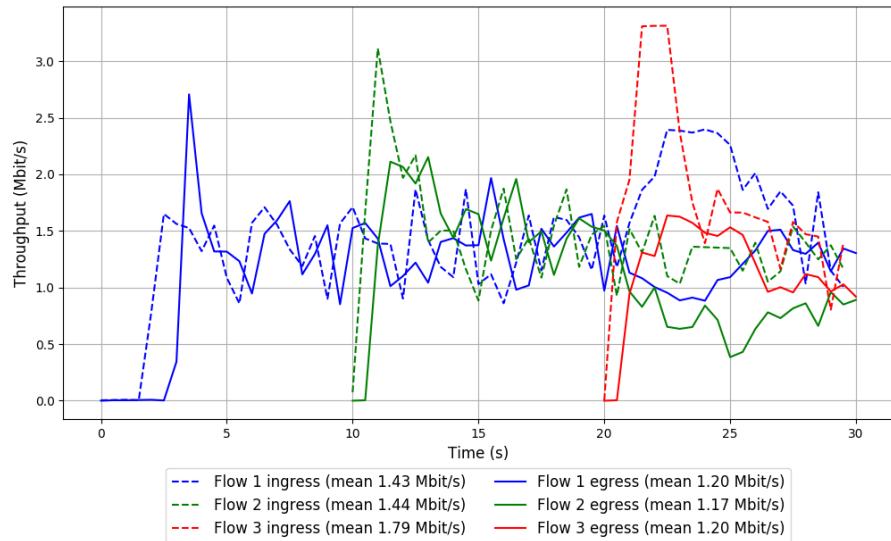


```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-05 10:03:03
End at: 2018-06-05 10:03:33
Local clock offset: -5.476 ms
Remote clock offset: 4.23 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 2423.041 ms
Loss rate: 20.18%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 2398.889 ms
Loss rate: 16.06%
-- Flow 2:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 2408.873 ms
Loss rate: 18.34%
-- Flow 3:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 2457.141 ms
Loss rate: 33.15%
```

Run 1: Report of PCC-Vivace — Data Link

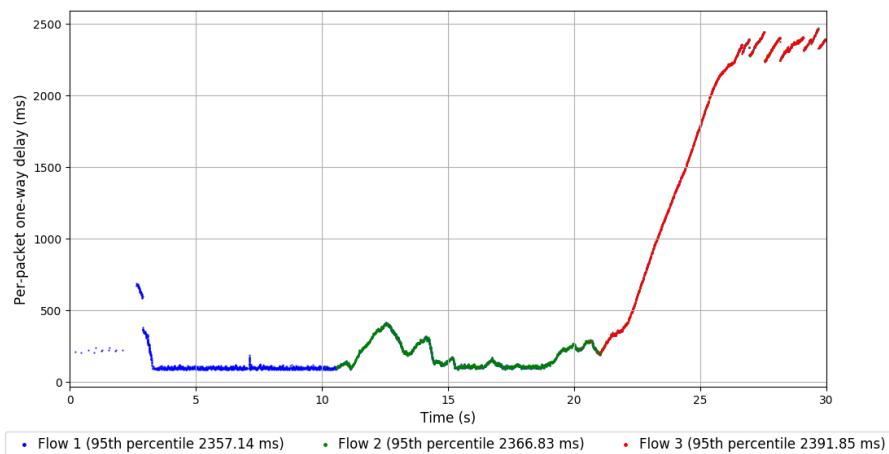
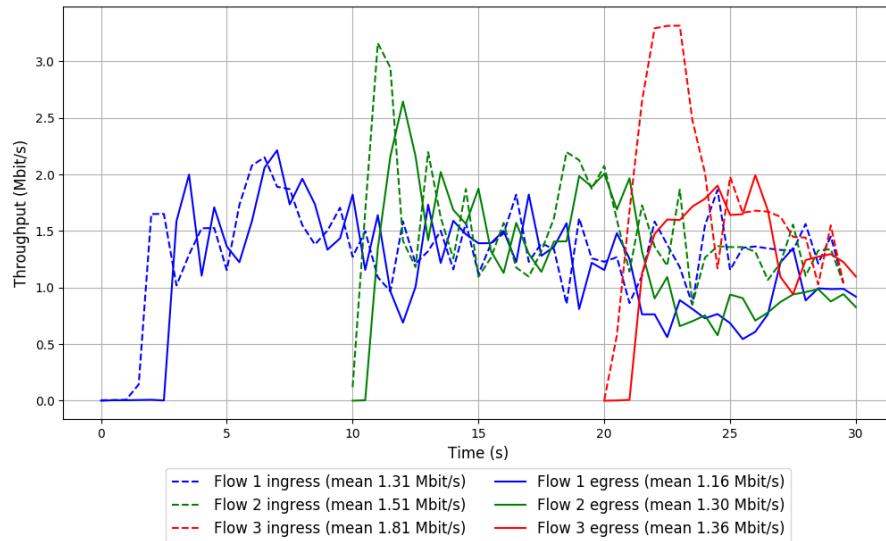


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-06-05 10:22:18
End at: 2018-06-05 10:22:48
Local clock offset: -6.516 ms
Remote clock offset: 1.643 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 2373.396 ms
Loss rate: 15.62%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 2357.138 ms
Loss rate: 12.06%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 2366.830 ms
Loss rate: 14.12%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 2391.846 ms
Loss rate: 26.01%
```

## Run 2: Report of PCC-Vivace — Data Link

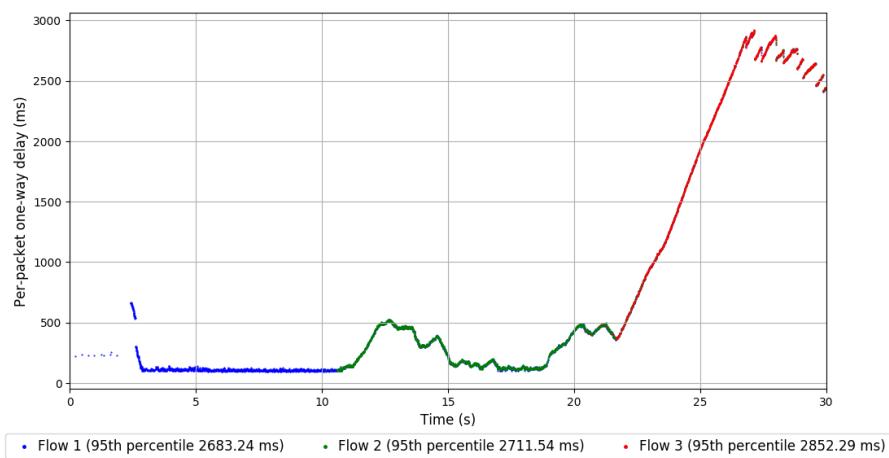
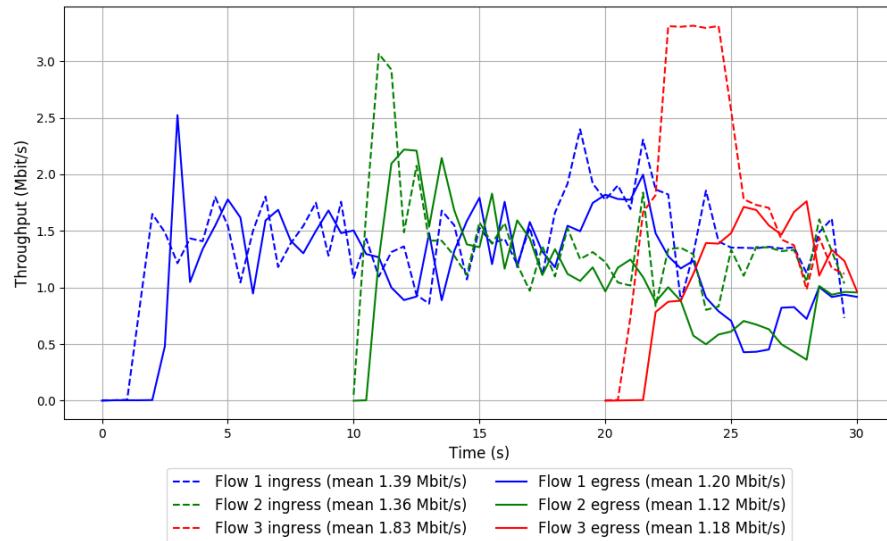


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-06-05 10:41:36
End at: 2018-06-05 10:42:06
Local clock offset: -5.69 ms
Remote clock offset: 13.675 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 2750.096 ms
Loss rate: 20.24%
-- Flow 1:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 2683.241 ms
Loss rate: 14.05%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 2711.538 ms
Loss rate: 18.03%
-- Flow 3:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 2852.287 ms
Loss rate: 37.81%
```

### Run 3: Report of PCC-Vivace — Data Link

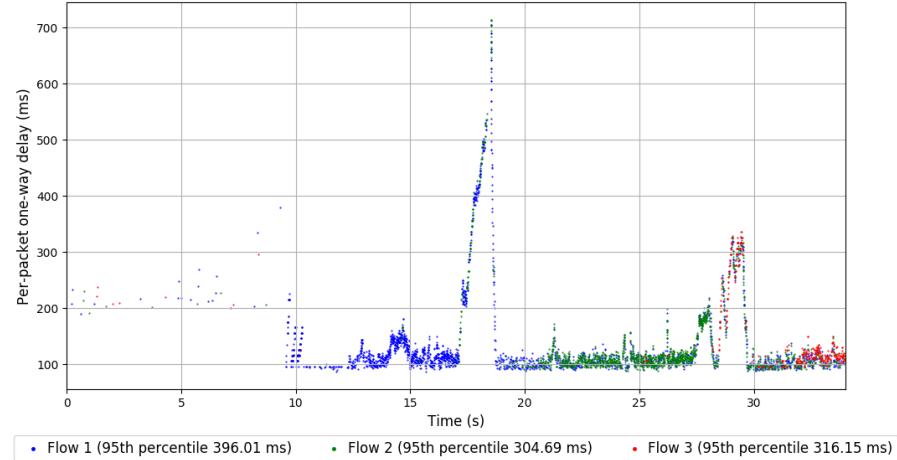
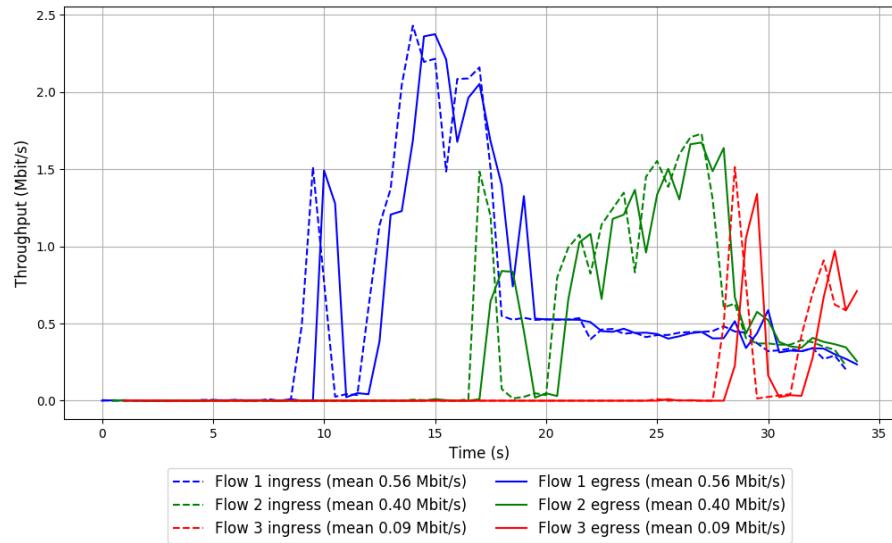


```
Run 1: Statistics of WebRTC media

Start at: 2018-06-05 10:00:39
End at: 2018-06-05 10:01:09
Local clock offset: -6.229 ms
Remote clock offset: 3.655 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 326.326 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 396.007 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 304.686 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 316.155 ms
Loss rate: 0.54%
```

Run 1: Report of WebRTC media — Data Link

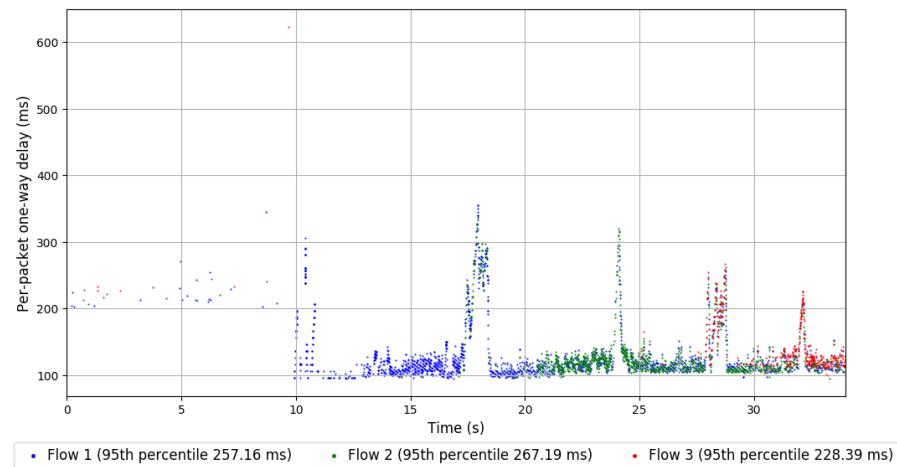
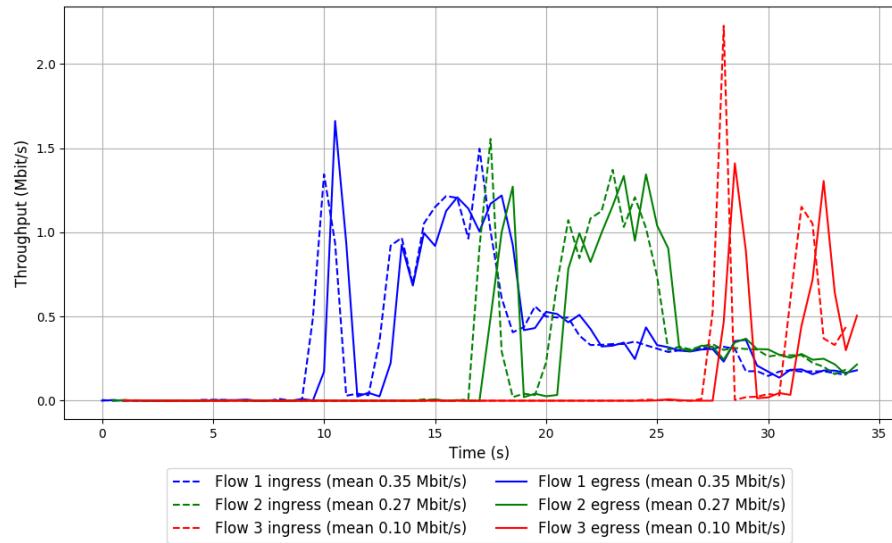


```
Run 2: Statistics of WebRTC media

Start at: 2018-06-05 10:19:54
End at: 2018-06-05 10:20:24
Local clock offset: -6.502 ms
Remote clock offset: 5.862 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 256.928 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 257.160 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 267.187 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 228.386 ms
Loss rate: 0.39%
```

Run 2: Report of WebRTC media — Data Link



```
Run 3: Statistics of WebRTC media

Start at: 2018-06-05 10:39:12
End at: 2018-06-05 10:39:42
Local clock offset: -6.487 ms
Remote clock offset: 11.342 ms

# Below is generated by plot.py at 2018-06-05 10:58:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 316.210 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 374.406 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 246.312 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 266.064 ms
Loss rate: 0.64%
```

### Run 3: Report of WebRTC media — Data Link

