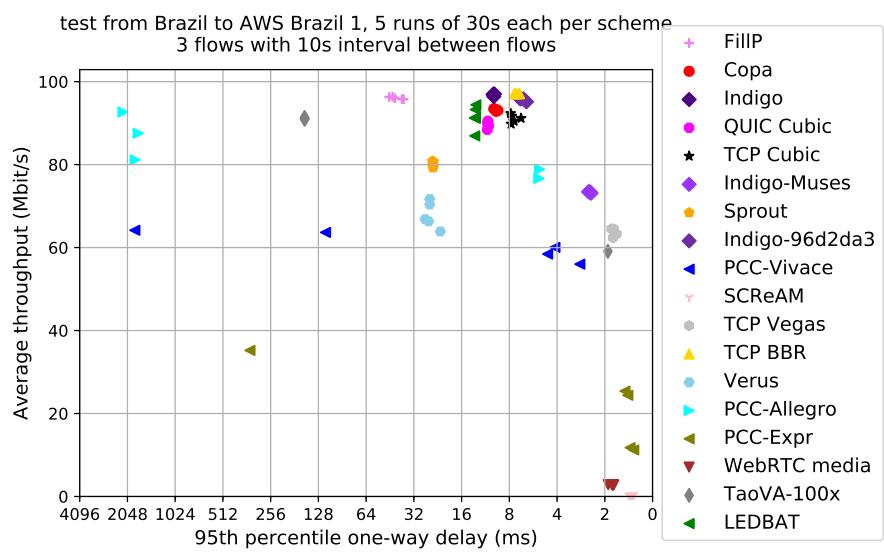
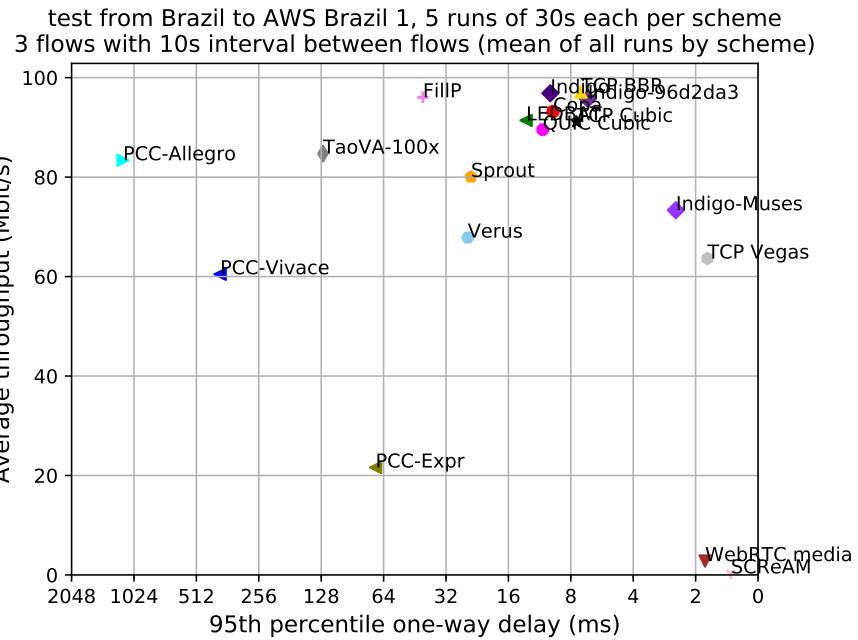


Pantheon Report

Generated at 2018-10-26 11:32:38 (UTC).
Data path: Brazil on p4p1 (*remote*) → AWS Brazil 1 on `ens5` (*local*).
Repeated the test of 18 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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
System info:  
Linux 4.15.0-1023-aws  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be  
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6  
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4  
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d  
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95  
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf  
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a  
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



↳

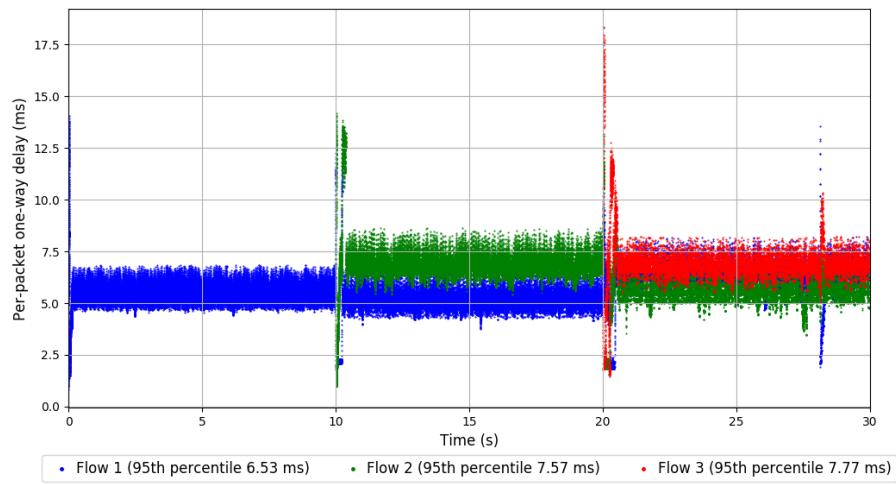
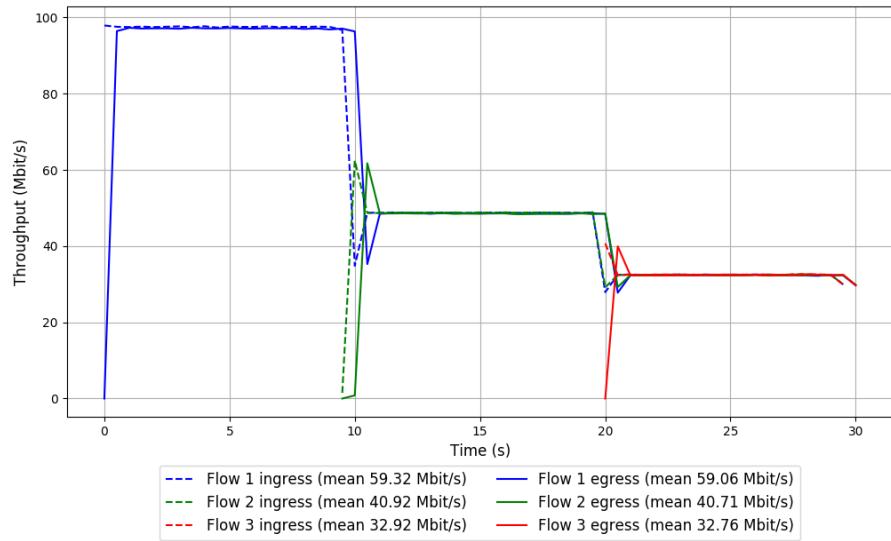
| scheme | # runs | mean avg tput (Mbit/s) | | | mean 95th-%ile delay (ms) | | | mean loss rate (%) | | |
|----------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
| | | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 |
| TCP BBR | 5 | 59.10 | 40.70 | 32.76 | 6.70 | 7.16 | 7.69 | 0.42 | 0.47 | 0.54 |
| Copa | 5 | 56.27 | 40.16 | 30.62 | 8.97 | 10.21 | 11.09 | 0.44 | 0.45 | 0.55 |
| TCP Cubic | 5 | 53.52 | 40.23 | 32.45 | 6.98 | 7.60 | 8.49 | 0.43 | 0.46 | 0.50 |
| FillP | 5 | 58.89 | 40.00 | 31.81 | 34.61 | 44.98 | 78.15 | 1.86 | 1.88 | 1.32 |
| Indigo | 5 | 59.35 | 40.45 | 32.21 | 10.01 | 10.11 | 8.41 | 1.01 | 2.10 | 0.56 |
| Indigo-96d2da3 | 5 | 56.51 | 43.00 | 32.05 | 5.71 | 7.16 | 6.57 | 0.43 | 0.44 | 0.44 |
| LEDBAT | 5 | 55.87 | 37.60 | 32.10 | 12.72 | 13.28 | 13.50 | 0.51 | 0.63 | 0.73 |
| Indigo-Muses | 5 | 39.34 | 35.51 | 31.34 | 2.36 | 2.50 | 2.76 | 0.41 | 0.42 | 0.40 |
| PCC-Allegro | 5 | 57.14 | 30.29 | 18.57 | 1197.96 | 239.16 | 26.06 | 7.38 | 3.05 | 0.53 |
| PCC-Expr | 5 | 15.52 | 6.45 | 5.44 | 70.55 | 0.92 | 0.93 | 0.57 | 0.43 | 0.36 |
| QUIC Cubic | 5 | 52.73 | 39.94 | 31.02 | 10.30 | 11.07 | 11.86 | 0.48 | 0.59 | 0.76 |
| SCReAM | 5 | 0.14 | 0.16 | 0.21 | 0.86 | 0.86 | 0.88 | 0.44 | 0.34 | 0.44 |
| Sprout | 5 | 43.09 | 39.65 | 32.04 | 22.71 | 24.16 | 25.85 | 0.95 | 1.44 | 2.44 |
| TaoVA-100x | 5 | 45.36 | 42.47 | 33.31 | 124.89 | 125.66 | 125.65 | 0.82 | 1.29 | 2.51 |
| TCP Vegas | 5 | 32.94 | 31.57 | 29.08 | 1.57 | 1.61 | 1.73 | 0.42 | 0.42 | 0.45 |
| Verus | 5 | 36.57 | 31.92 | 30.32 | 21.86 | 24.12 | 75.95 | 0.45 | 0.52 | 0.77 |
| PCC-Vivace | 5 | 30.38 | 32.79 | 25.06 | 12.12 | 46.51 | 432.78 | 0.44 | 0.53 | 4.76 |
| WebRTC media | 5 | 1.56 | 0.83 | 0.41 | 1.63 | 1.75 | 1.84 | 0.39 | 0.26 | 0.52 |

Run 1: Statistics of TCP BBR

```
Start at: 2018-10-26 09:54:00
End at: 2018-10-26 09:54:30
Local clock offset: -5.941 ms
Remote clock offset: -0.33 ms

# Below is generated by plot.py at 2018-10-26 11:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.08 Mbit/s
95th percentile per-packet one-way delay: 7.295 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 59.06 Mbit/s
95th percentile per-packet one-way delay: 6.532 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 40.71 Mbit/s
95th percentile per-packet one-way delay: 7.570 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 32.76 Mbit/s
95th percentile per-packet one-way delay: 7.769 ms
Loss rate: 0.49%
```

Run 1: Report of TCP BBR — Data Link

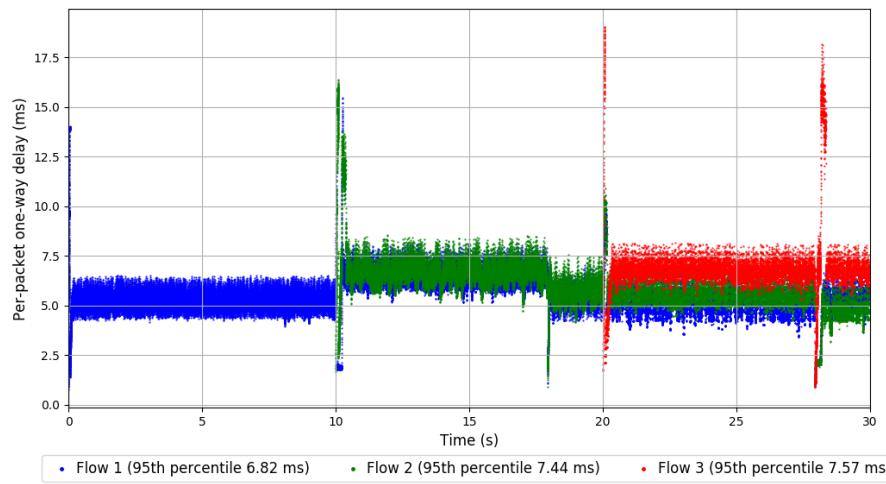
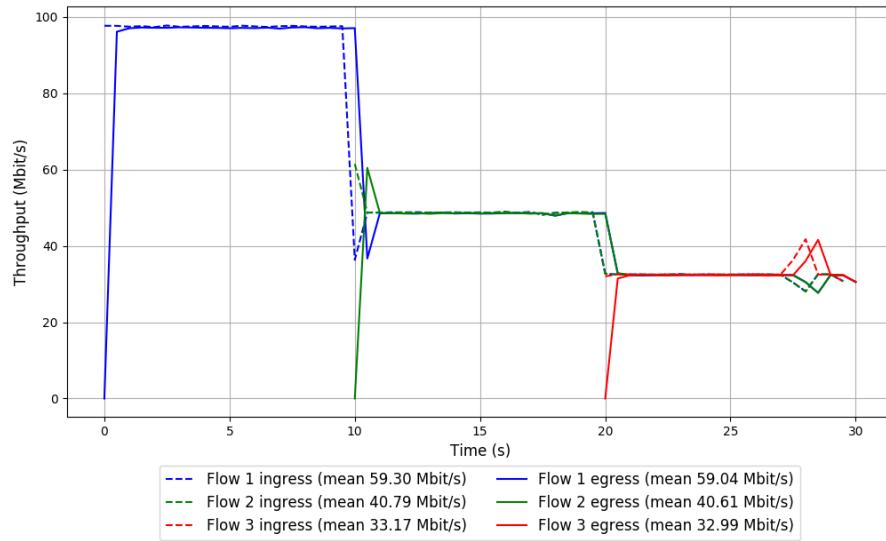


Run 2: Statistics of TCP BBR

```
Start at: 2018-10-26 10:14:45
End at: 2018-10-26 10:15:15
Local clock offset: -6.036 ms
Remote clock offset: -0.013 ms

# Below is generated by plot.py at 2018-10-26 11:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.06 Mbit/s
95th percentile per-packet one-way delay: 7.198 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 6.815 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 7.442 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 32.99 Mbit/s
95th percentile per-packet one-way delay: 7.566 ms
Loss rate: 0.57%
```

Run 2: Report of TCP BBR — Data Link

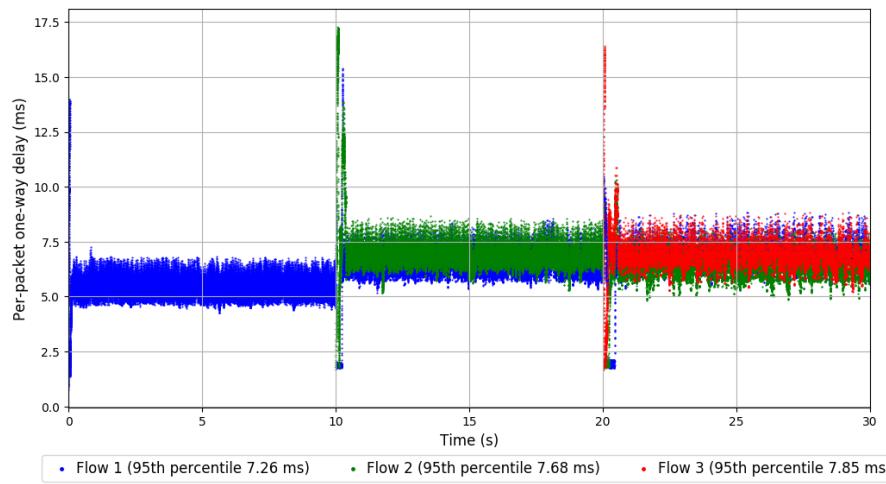
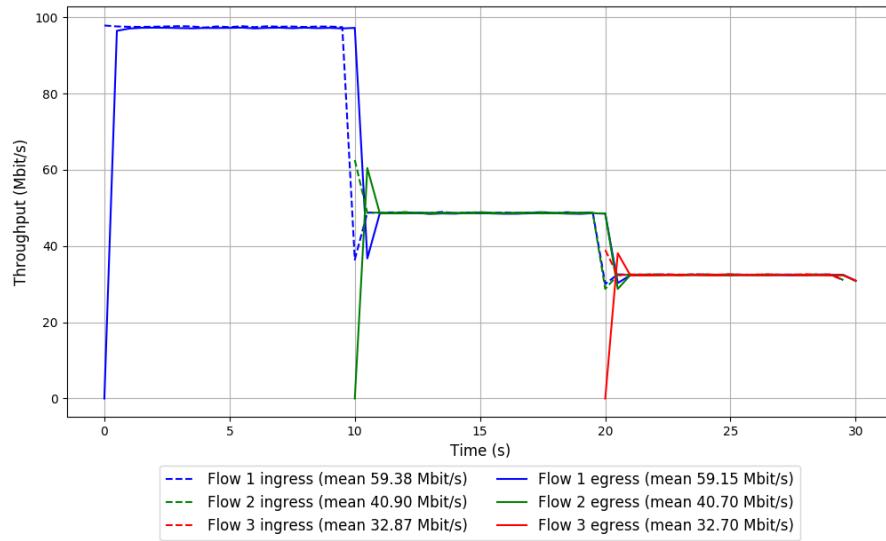


Run 3: Statistics of TCP BBR

```
Start at: 2018-10-26 10:35:24
End at: 2018-10-26 10:35:54
Local clock offset: -6.015 ms
Remote clock offset: 0.133 ms

# Below is generated by plot.py at 2018-10-26 11:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 7.439 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 59.15 Mbit/s
95th percentile per-packet one-way delay: 7.261 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 40.70 Mbit/s
95th percentile per-packet one-way delay: 7.676 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 32.70 Mbit/s
95th percentile per-packet one-way delay: 7.853 ms
Loss rate: 0.54%
```

Run 3: Report of TCP BBR — Data Link

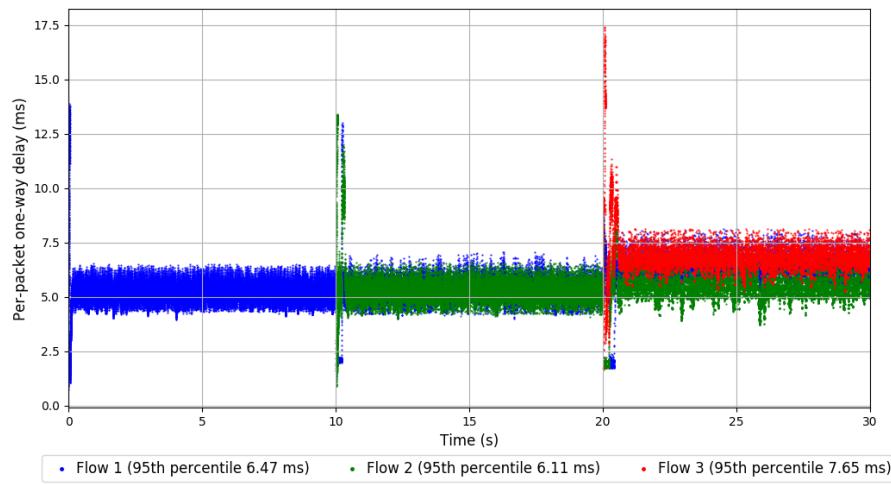
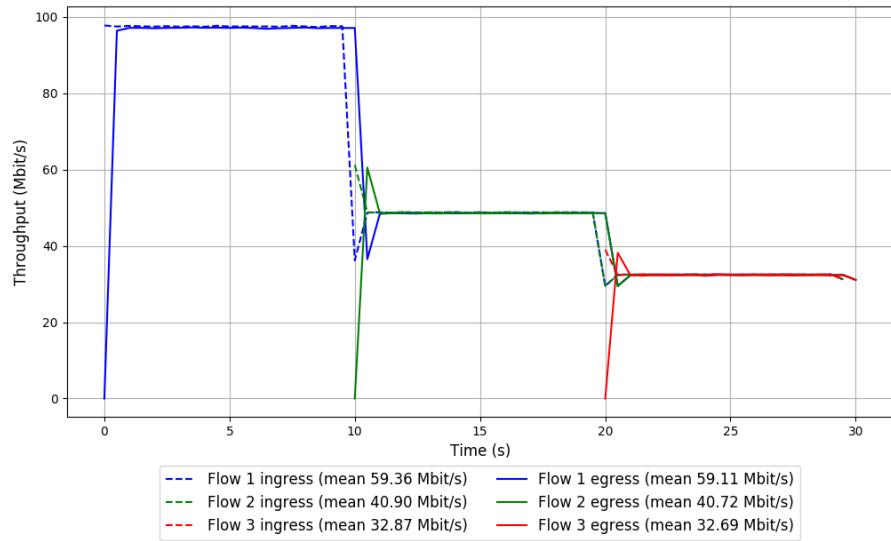


Run 4: Statistics of TCP BBR

```
Start at: 2018-10-26 10:56:02
End at: 2018-10-26 10:56:32
Local clock offset: -5.869 ms
Remote clock offset: 0.317 ms

# Below is generated by plot.py at 2018-10-26 11:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.10 Mbit/s
95th percentile per-packet one-way delay: 6.908 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 59.11 Mbit/s
95th percentile per-packet one-way delay: 6.466 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 40.72 Mbit/s
95th percentile per-packet one-way delay: 6.108 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 32.69 Mbit/s
95th percentile per-packet one-way delay: 7.648 ms
Loss rate: 0.56%
```

Run 4: Report of TCP BBR — Data Link

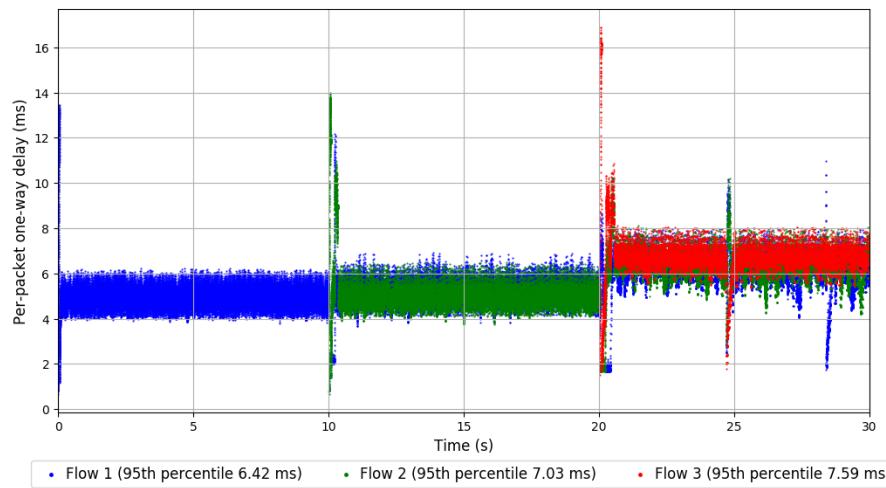
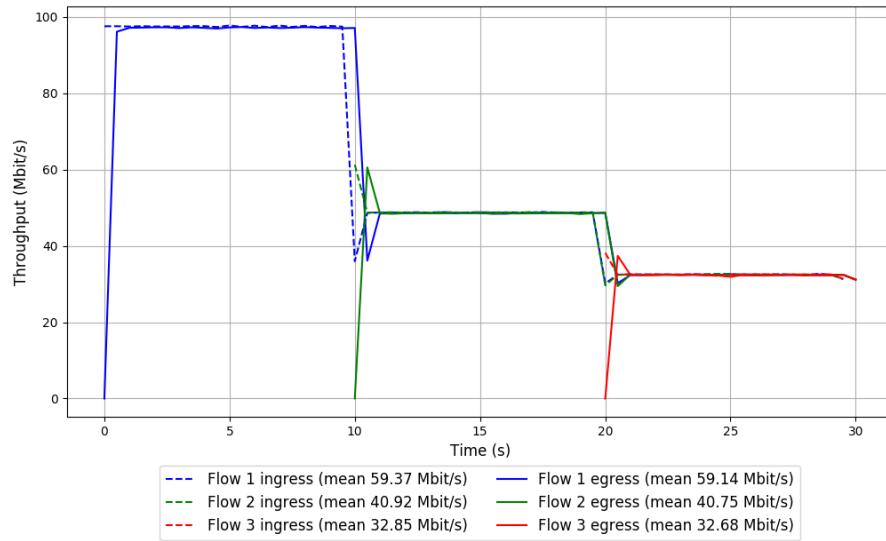


Run 5: Statistics of TCP BBR

```
Start at: 2018-10-26 11:16:39
End at: 2018-10-26 11:17:09
Local clock offset: -5.744 ms
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2018-10-26 11:22:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.13 Mbit/s
95th percentile per-packet one-way delay: 6.948 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 59.14 Mbit/s
95th percentile per-packet one-way delay: 6.424 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 40.75 Mbit/s
95th percentile per-packet one-way delay: 7.027 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 32.68 Mbit/s
95th percentile per-packet one-way delay: 7.591 ms
Loss rate: 0.52%
```

Run 5: Report of TCP BBR — Data Link

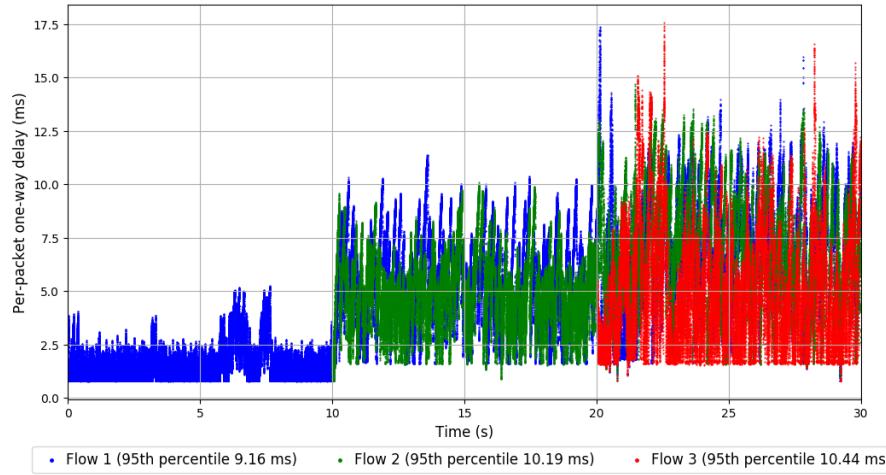
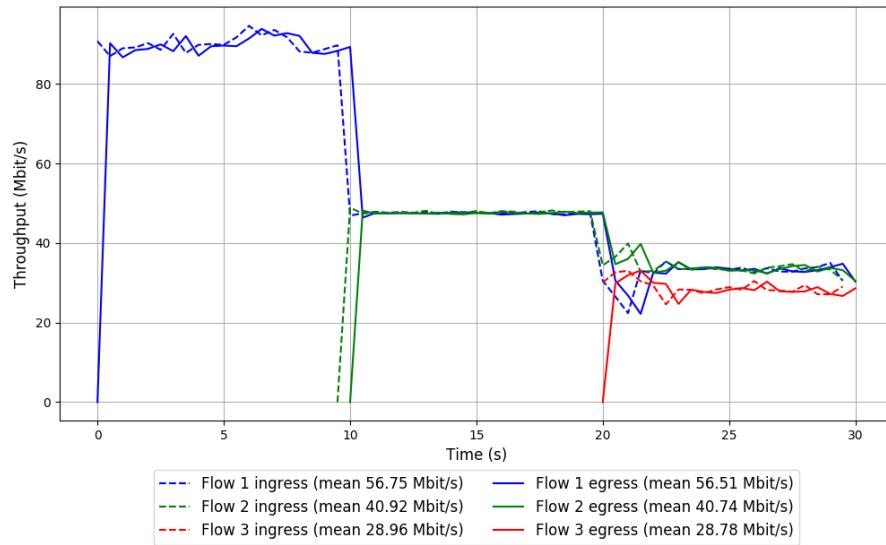


Run 1: Statistics of Copa

```
Start at: 2018-10-26 09:44:52
End at: 2018-10-26 09:45:22
Local clock offset: -6.07 ms
Remote clock offset: -0.419 ms

# Below is generated by plot.py at 2018-10-26 11:23:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.21 Mbit/s
95th percentile per-packet one-way delay: 9.615 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 56.51 Mbit/s
95th percentile per-packet one-way delay: 9.163 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 10.188 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 28.78 Mbit/s
95th percentile per-packet one-way delay: 10.444 ms
Loss rate: 0.65%
```

Run 1: Report of Copa — Data Link

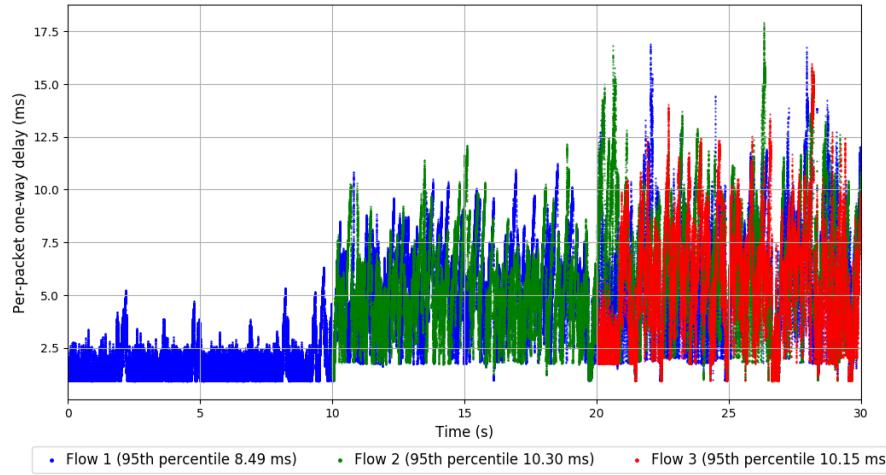
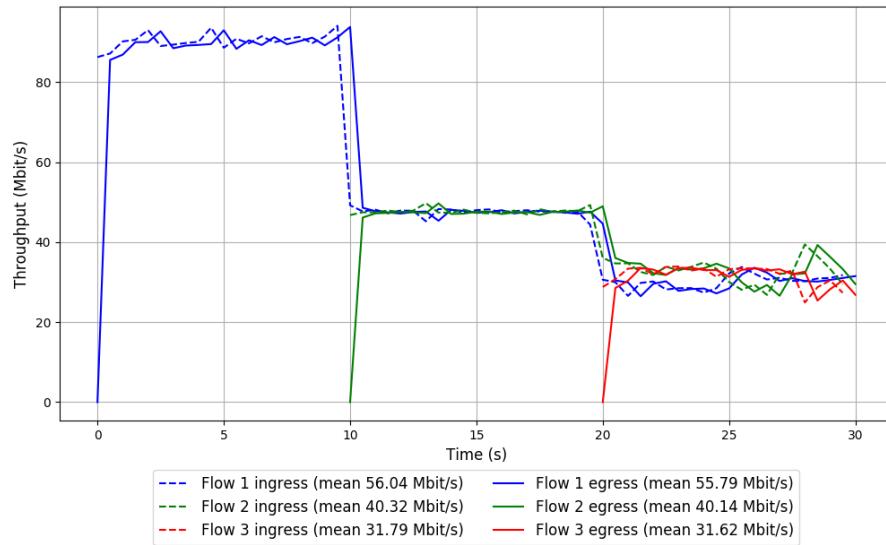


Run 2: Statistics of Copa

```
Start at: 2018-10-26 10:05:36
End at: 2018-10-26 10:06:06
Local clock offset: -6.031 ms
Remote clock offset: -0.261 ms

# Below is generated by plot.py at 2018-10-26 11:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.04 Mbit/s
95th percentile per-packet one-way delay: 9.438 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 55.79 Mbit/s
95th percentile per-packet one-way delay: 8.491 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 40.14 Mbit/s
95th percentile per-packet one-way delay: 10.301 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 31.62 Mbit/s
95th percentile per-packet one-way delay: 10.149 ms
Loss rate: 0.55%
```

Run 2: Report of Copa — Data Link

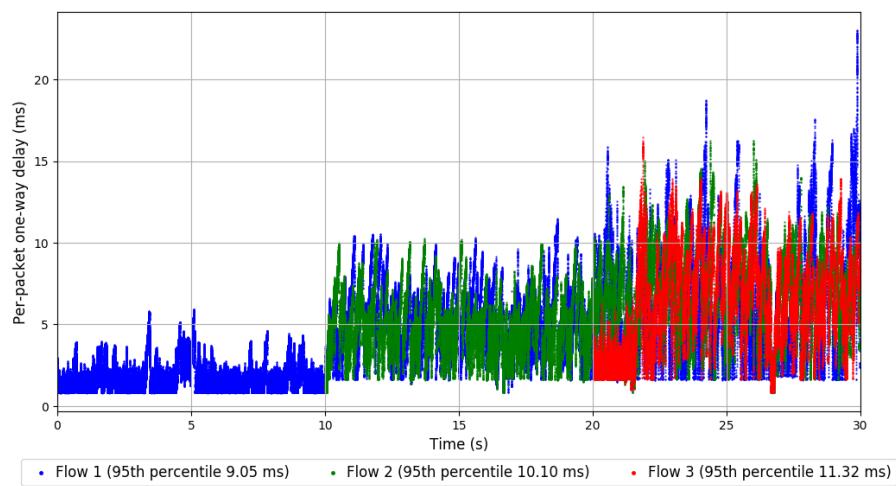
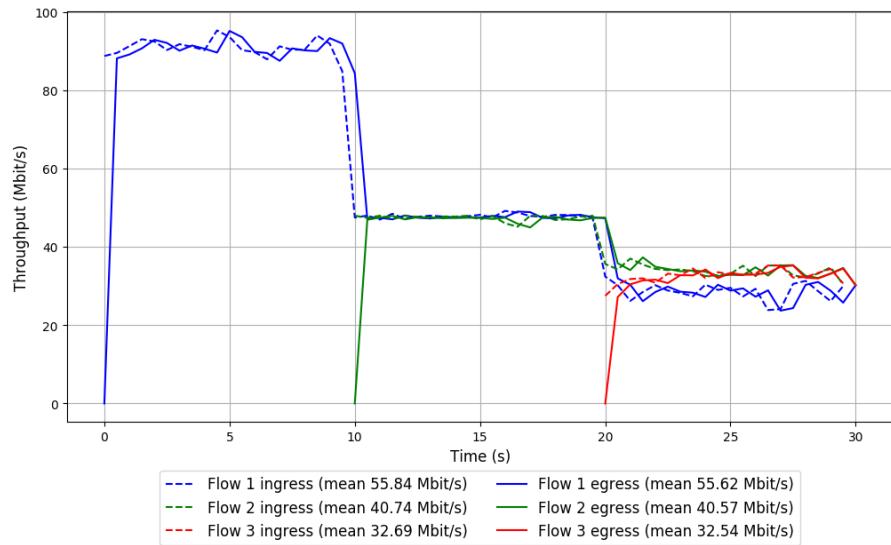


Run 3: Statistics of Copa

```
Start at: 2018-10-26 10:26:14
End at: 2018-10-26 10:26:44
Local clock offset: -6.199 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2018-10-26 11:23:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.45 Mbit/s
95th percentile per-packet one-way delay: 10.024 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 9.049 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 40.57 Mbit/s
95th percentile per-packet one-way delay: 10.104 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 32.54 Mbit/s
95th percentile per-packet one-way delay: 11.318 ms
Loss rate: 0.49%
```

Run 3: Report of Copa — Data Link

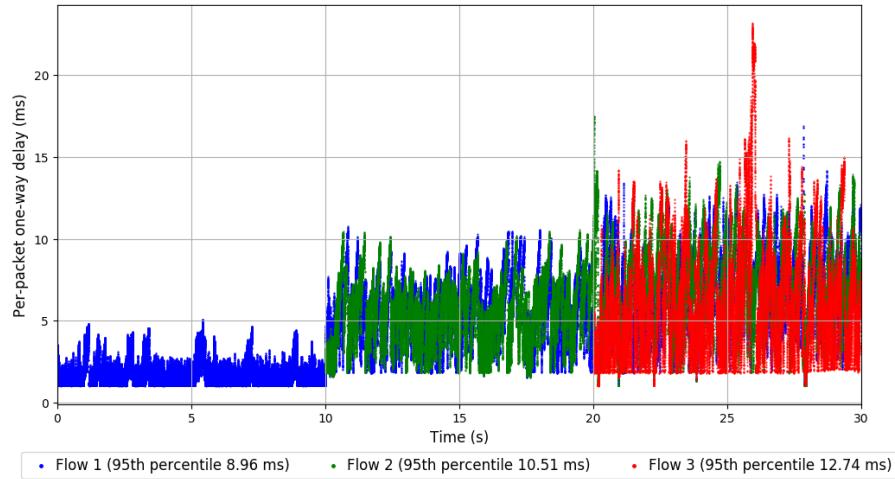
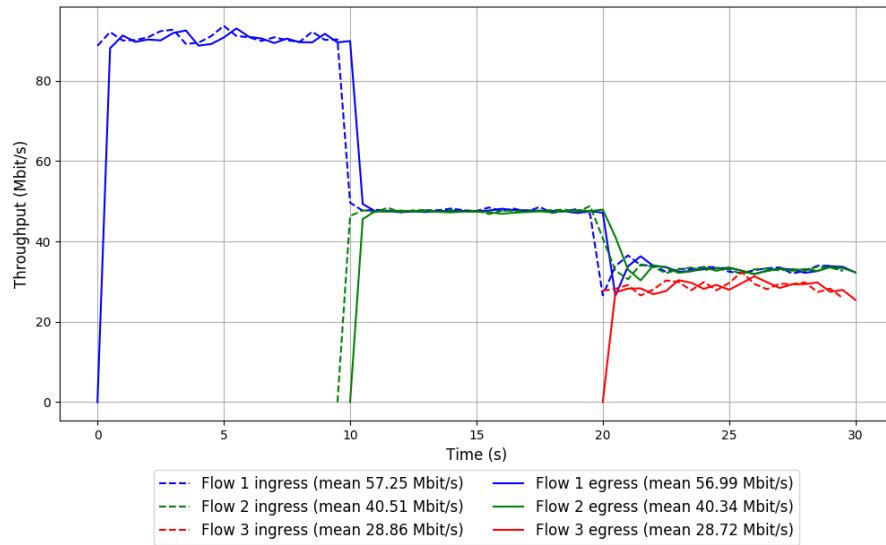


Run 4: Statistics of Copa

```
Start at: 2018-10-26 10:46:54
End at: 2018-10-26 10:47:24
Local clock offset: -5.803 ms
Remote clock offset: 0.182 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 9.946 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 8.964 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 40.34 Mbit/s
95th percentile per-packet one-way delay: 10.510 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 28.72 Mbit/s
95th percentile per-packet one-way delay: 12.742 ms
Loss rate: 0.50%
```

Run 4: Report of Copa — Data Link

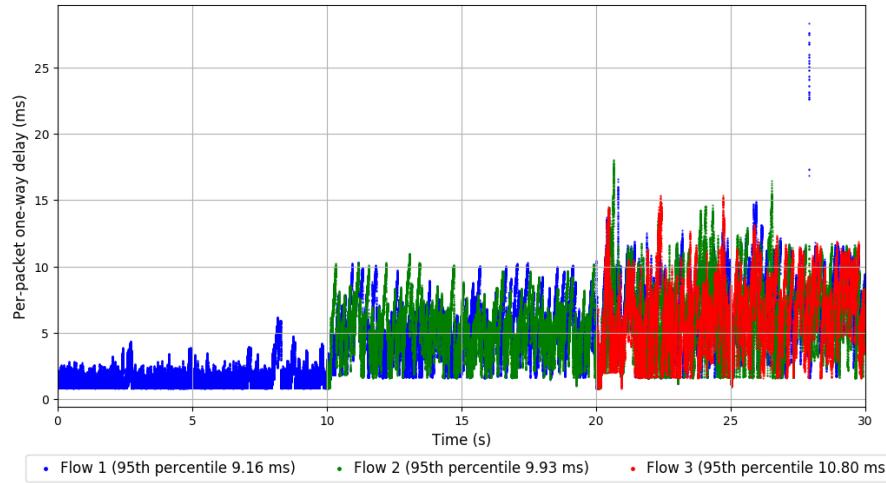
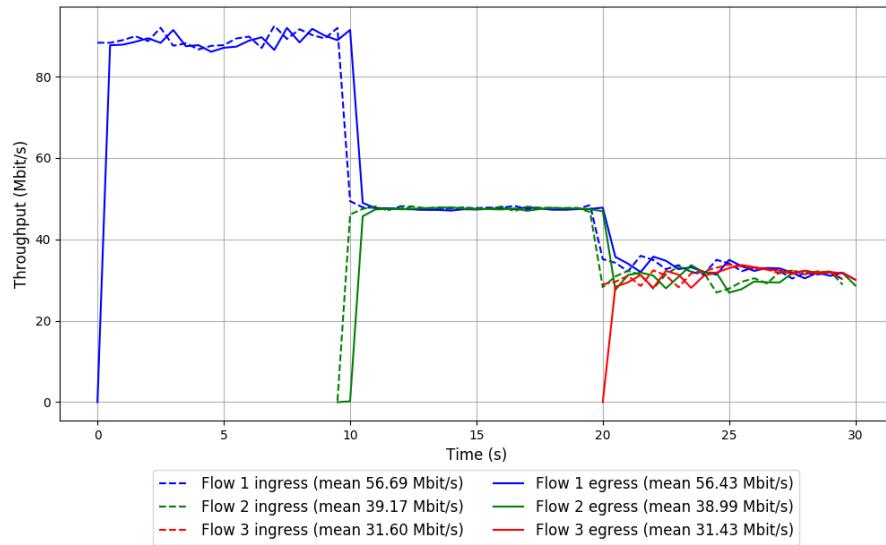


Run 5: Statistics of Copa

```
Start at: 2018-10-26 11:07:32
End at: 2018-10-26 11:08:02
Local clock offset: -5.689 ms
Remote clock offset: 0.488 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.85 Mbit/s
95th percentile per-packet one-way delay: 9.700 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 56.43 Mbit/s
95th percentile per-packet one-way delay: 9.162 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 38.99 Mbit/s
95th percentile per-packet one-way delay: 9.934 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 10.805 ms
Loss rate: 0.55%
```

Run 5: Report of Copa — Data Link

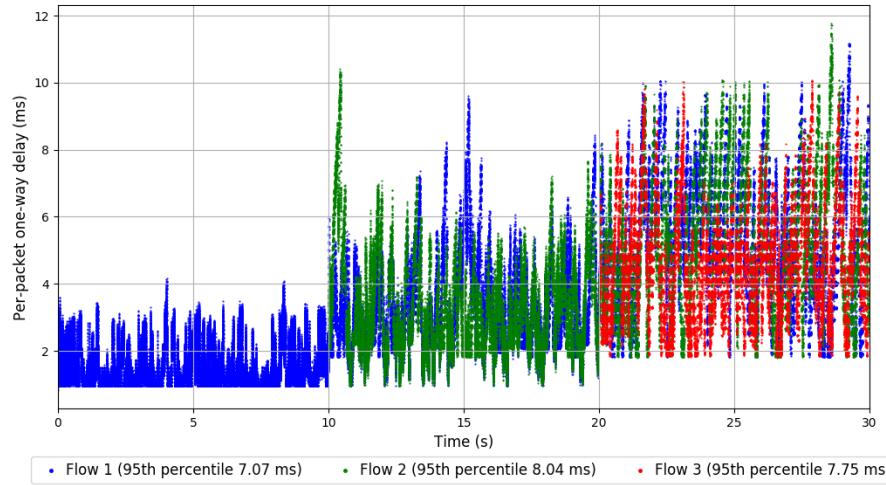
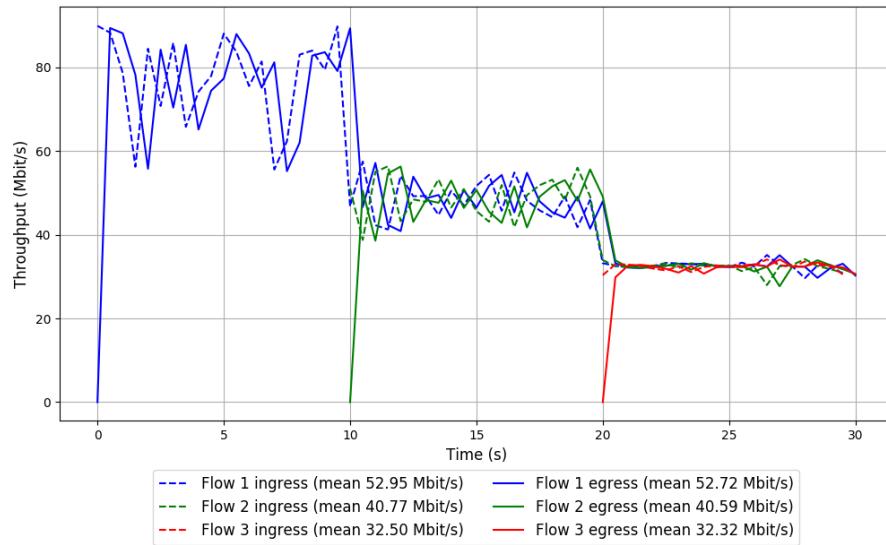


```
Run 1: Statistics of TCP Cubic

Start at: 2018-10-26 09:52:51
End at: 2018-10-26 09:53:21
Local clock offset: -5.945 ms
Remote clock offset: -0.366 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.50 Mbit/s
95th percentile per-packet one-way delay: 7.466 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 52.72 Mbit/s
95th percentile per-packet one-way delay: 7.073 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 40.59 Mbit/s
95th percentile per-packet one-way delay: 8.044 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 32.32 Mbit/s
95th percentile per-packet one-way delay: 7.746 ms
Loss rate: 0.57%
```

Run 1: Report of TCP Cubic — Data Link

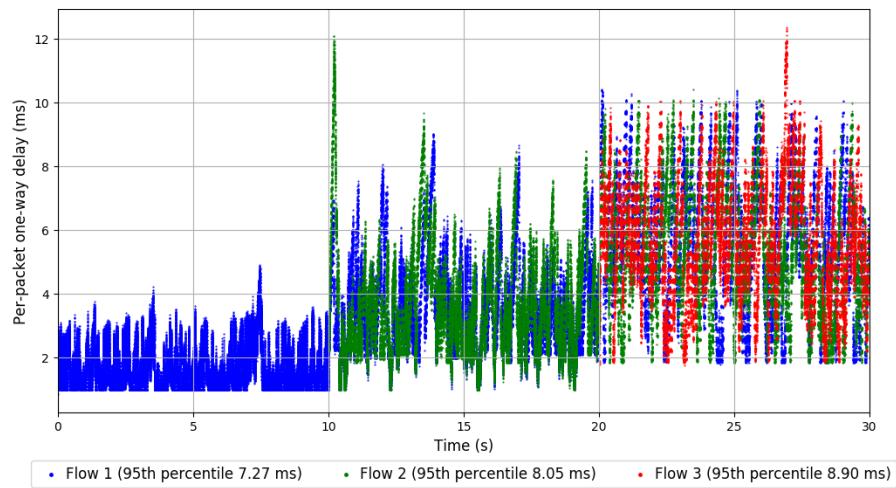
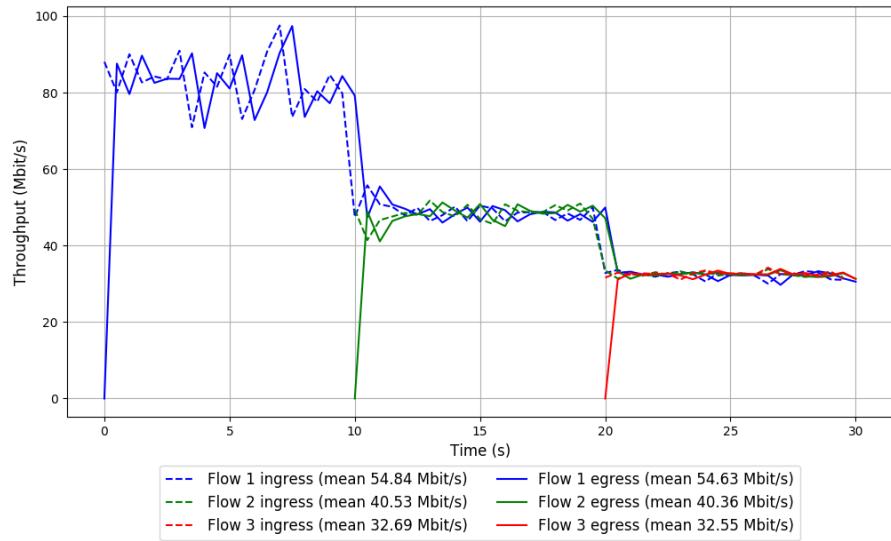


Run 2: Statistics of TCP Cubic

```
Start at: 2018-10-26 10:13:36
End at: 2018-10-26 10:14:06
Local clock offset: -6.016 ms
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.32 Mbit/s
95th percentile per-packet one-way delay: 7.852 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 54.63 Mbit/s
95th percentile per-packet one-way delay: 7.268 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 40.36 Mbit/s
95th percentile per-packet one-way delay: 8.051 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 32.55 Mbit/s
95th percentile per-packet one-way delay: 8.898 ms
Loss rate: 0.45%
```

Run 2: Report of TCP Cubic — Data Link

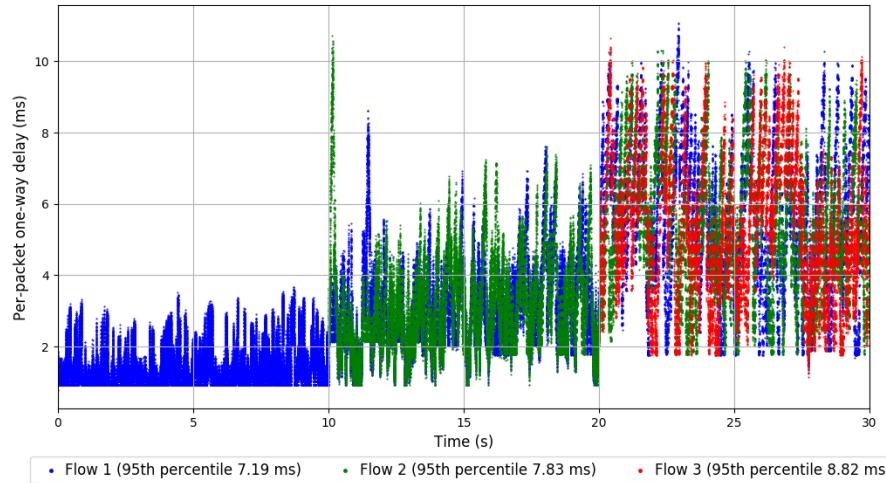
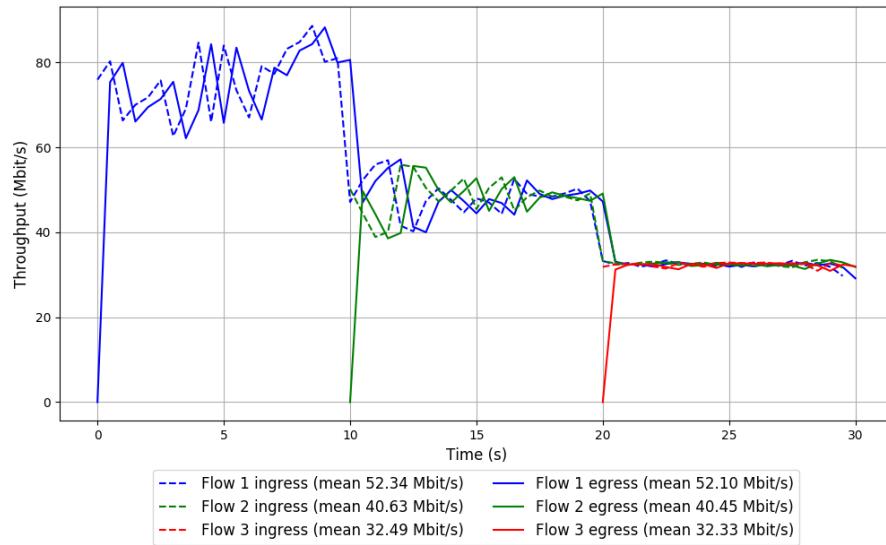


Run 3: Statistics of TCP Cubic

```
Start at: 2018-10-26 10:34:15
End at: 2018-10-26 10:34:45
Local clock offset: -5.981 ms
Remote clock offset: 0.167 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.79 Mbit/s
95th percentile per-packet one-way delay: 7.799 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 52.10 Mbit/s
95th percentile per-packet one-way delay: 7.194 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 40.45 Mbit/s
95th percentile per-packet one-way delay: 7.828 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 8.819 ms
Loss rate: 0.50%
```

Run 3: Report of TCP Cubic — Data Link

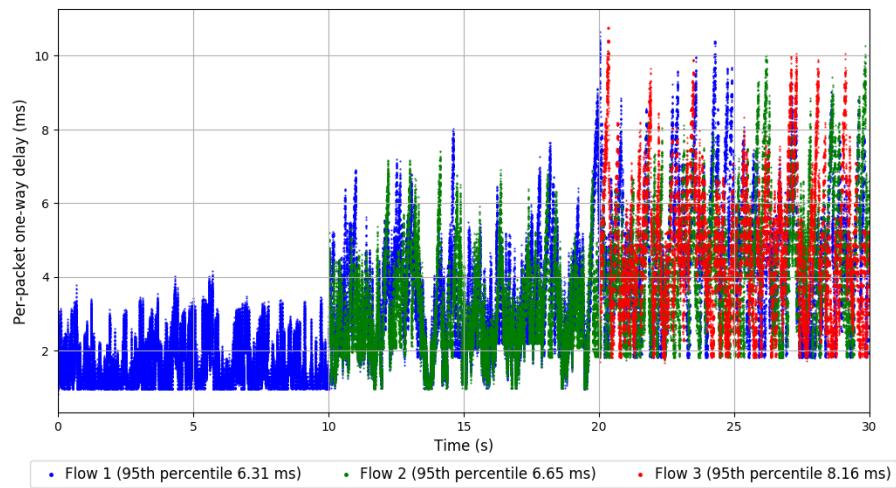
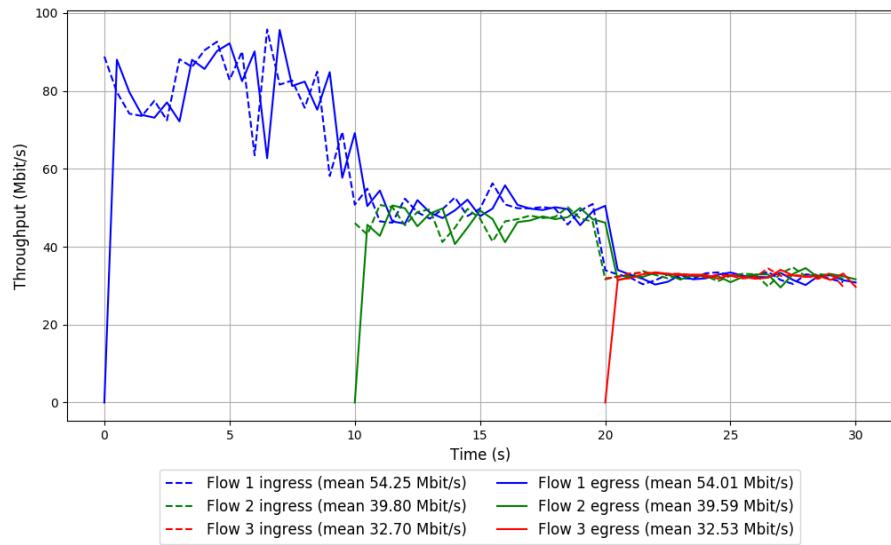


Run 4: Statistics of TCP Cubic

```
Start at: 2018-10-26 10:54:53
End at: 2018-10-26 10:55:23
Local clock offset: -5.761 ms
Remote clock offset: 0.342 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.18 Mbit/s
95th percentile per-packet one-way delay: 6.749 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 54.01 Mbit/s
95th percentile per-packet one-way delay: 6.311 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 39.59 Mbit/s
95th percentile per-packet one-way delay: 6.650 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 32.53 Mbit/s
95th percentile per-packet one-way delay: 8.158 ms
Loss rate: 0.54%
```

Run 4: Report of TCP Cubic — Data Link

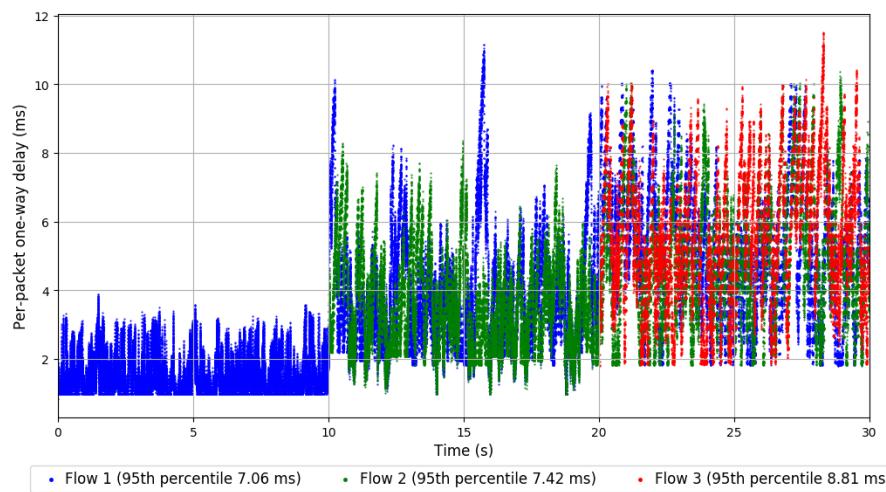
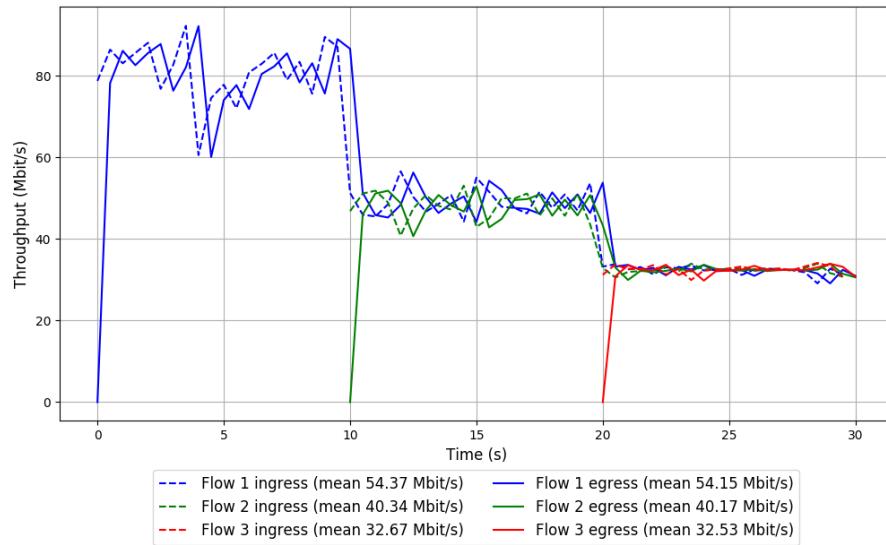


Run 5: Statistics of TCP Cubic

```
Start at: 2018-10-26 11:15:30
End at: 2018-10-26 11:16:00
Local clock offset: -5.633 ms
Remote clock offset: 0.323 ms

# Below is generated by plot.py at 2018-10-26 11:24:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 7.709 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 54.15 Mbit/s
95th percentile per-packet one-way delay: 7.056 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 40.17 Mbit/s
95th percentile per-packet one-way delay: 7.424 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 32.53 Mbit/s
95th percentile per-packet one-way delay: 8.808 ms
Loss rate: 0.45%
```

Run 5: Report of TCP Cubic — Data Link

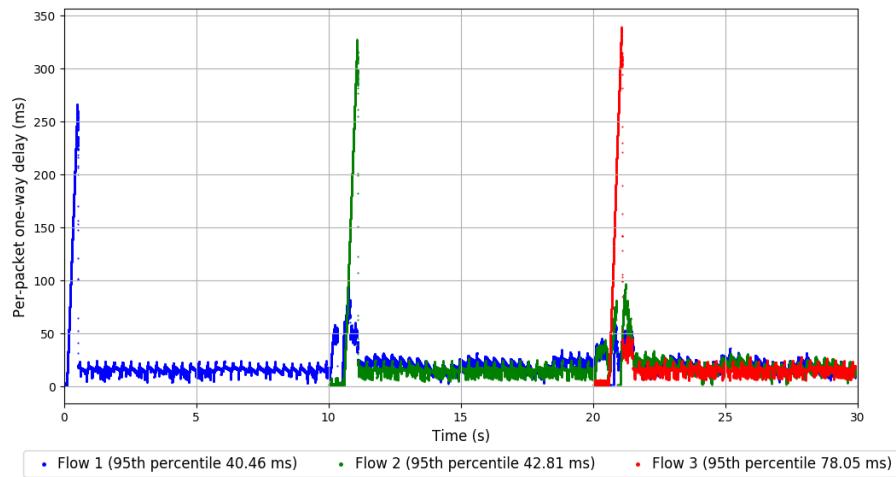
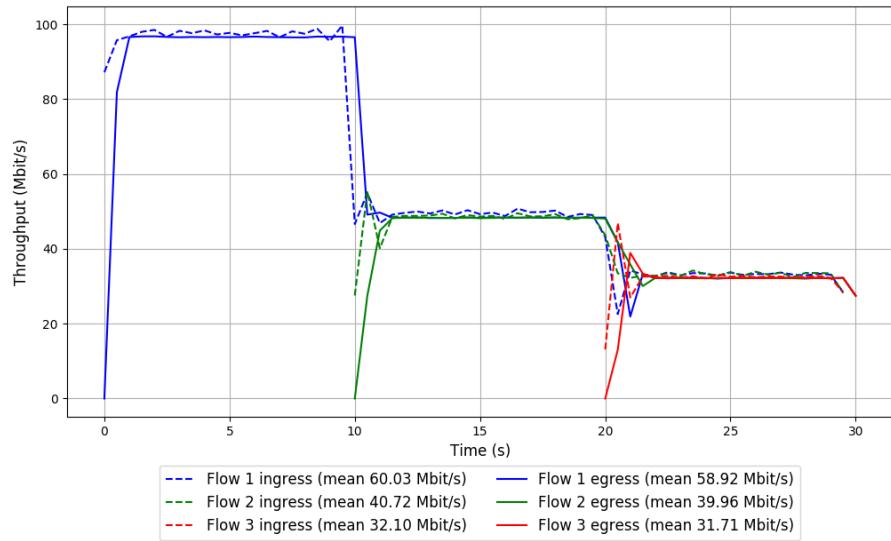


```
Run 1: Statistics of FillP

Start at: 2018-10-26 09:41:25
End at: 2018-10-26 09:41:55
Local clock offset: -5.918 ms
Remote clock offset: -0.485 ms

# Below is generated by plot.py at 2018-10-26 11:24:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.99 Mbit/s
95th percentile per-packet one-way delay: 42.231 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 58.92 Mbit/s
95th percentile per-packet one-way delay: 40.464 ms
Loss rate: 1.85%
-- Flow 2:
Average throughput: 39.96 Mbit/s
95th percentile per-packet one-way delay: 42.812 ms
Loss rate: 1.85%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 78.048 ms
Loss rate: 1.25%
```

Run 1: Report of FillP — Data Link

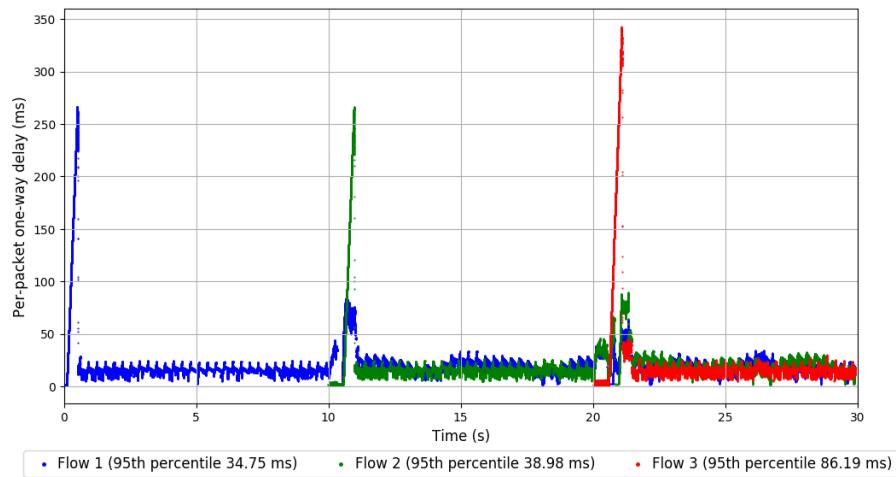
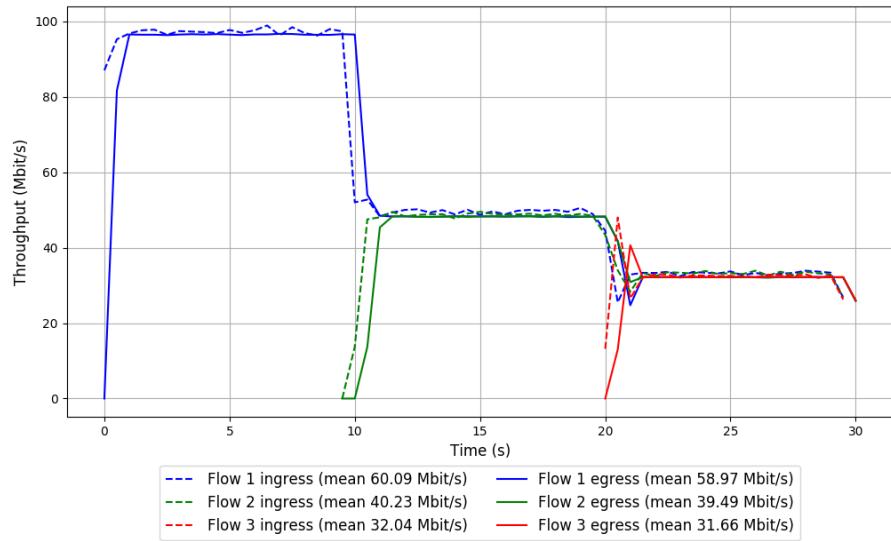


Run 2: Statistics of FillP

```
Start at: 2018-10-26 10:02:09
End at: 2018-10-26 10:02:39
Local clock offset: -6.001 ms
Remote clock offset: -0.298 ms

# Below is generated by plot.py at 2018-10-26 11:24:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 37.139 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 58.97 Mbit/s
95th percentile per-packet one-way delay: 34.747 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 39.49 Mbit/s
95th percentile per-packet one-way delay: 38.977 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 31.66 Mbit/s
95th percentile per-packet one-way delay: 86.189 ms
Loss rate: 1.20%
```

Run 2: Report of FillP — Data Link

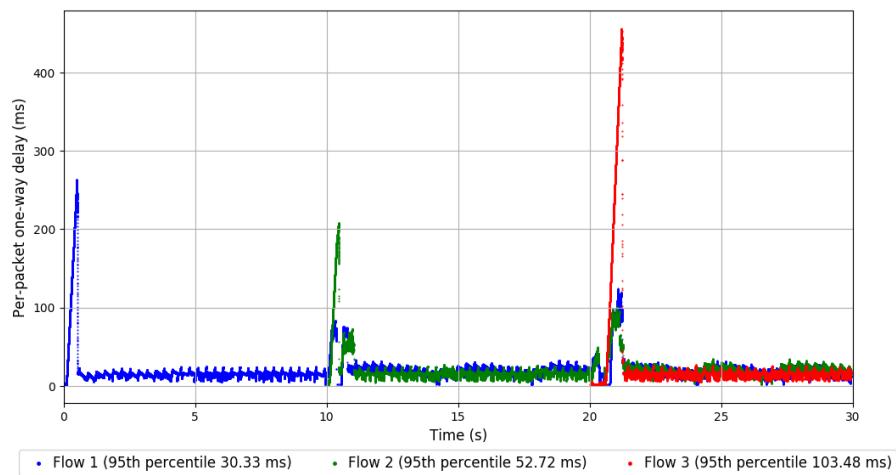
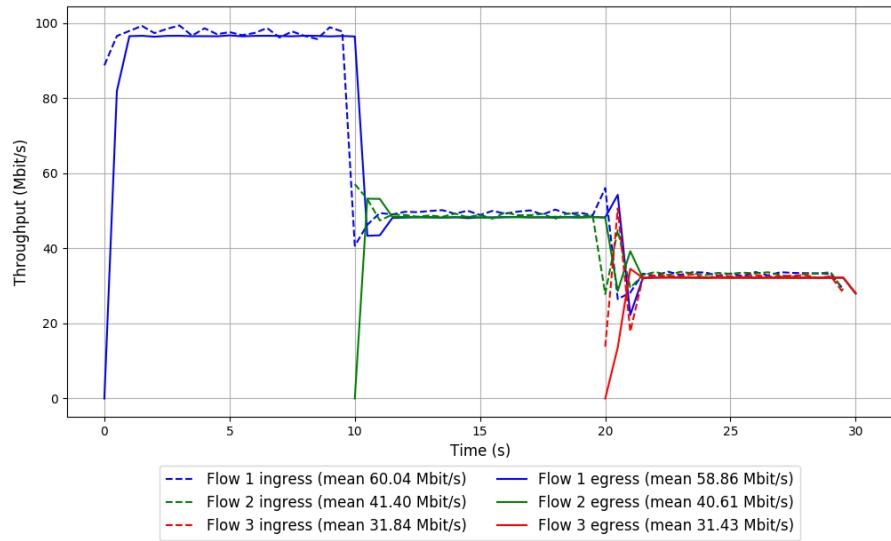


Run 3: Statistics of FillP

```
Start at: 2018-10-26 10:22:47
End at: 2018-10-26 10:23:17
Local clock offset: -6.177 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-10-26 11:24:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 45.808 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 58.86 Mbit/s
95th percentile per-packet one-way delay: 30.327 ms
Loss rate: 1.98%
-- Flow 2:
Average throughput: 40.61 Mbit/s
95th percentile per-packet one-way delay: 52.715 ms
Loss rate: 1.91%
-- Flow 3:
Average throughput: 31.43 Mbit/s
95th percentile per-packet one-way delay: 103.484 ms
Loss rate: 1.27%
```

Run 3: Report of FillP — Data Link

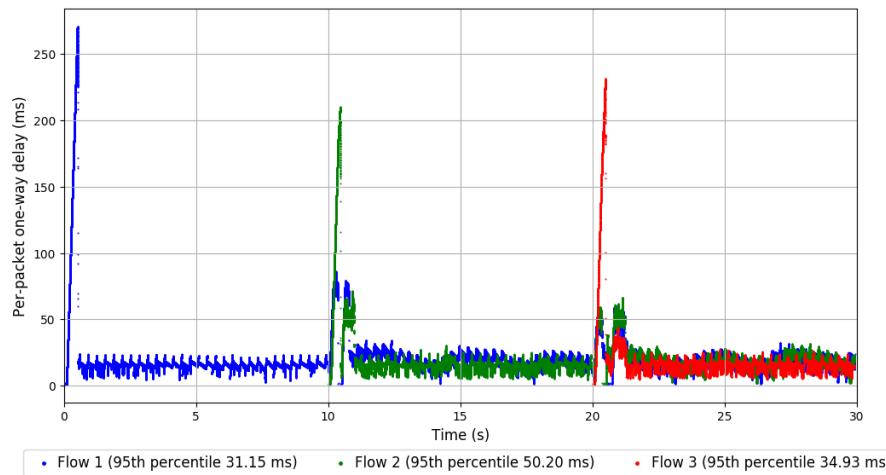
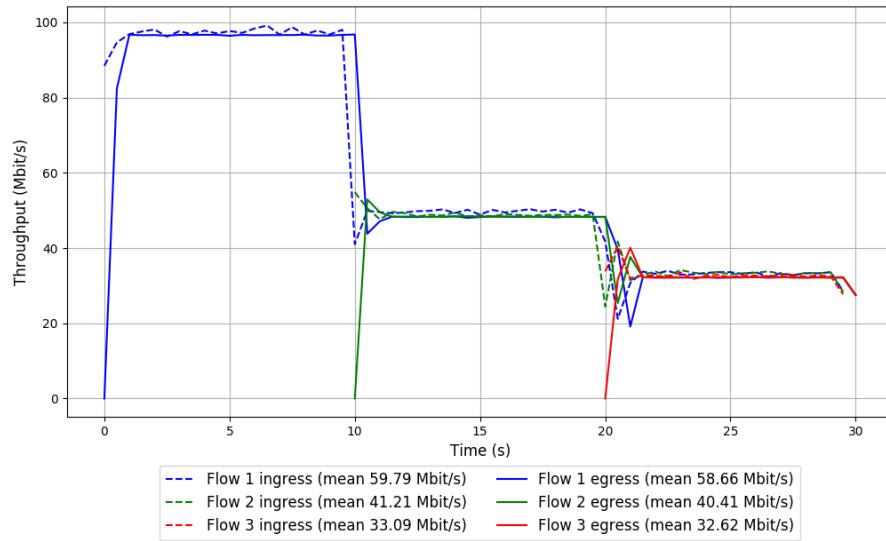


Run 4: Statistics of FillP

```
Start at: 2018-10-26 10:43:27
End at: 2018-10-26 10:43:57
Local clock offset: -5.94 ms
Remote clock offset: 0.213 ms

# Below is generated by plot.py at 2018-10-26 11:24:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 43.579 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 58.66 Mbit/s
95th percentile per-packet one-way delay: 31.154 ms
Loss rate: 1.89%
-- Flow 2:
Average throughput: 40.41 Mbit/s
95th percentile per-packet one-way delay: 50.202 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 32.62 Mbit/s
95th percentile per-packet one-way delay: 34.933 ms
Loss rate: 1.39%
```

Run 4: Report of FillP — Data Link

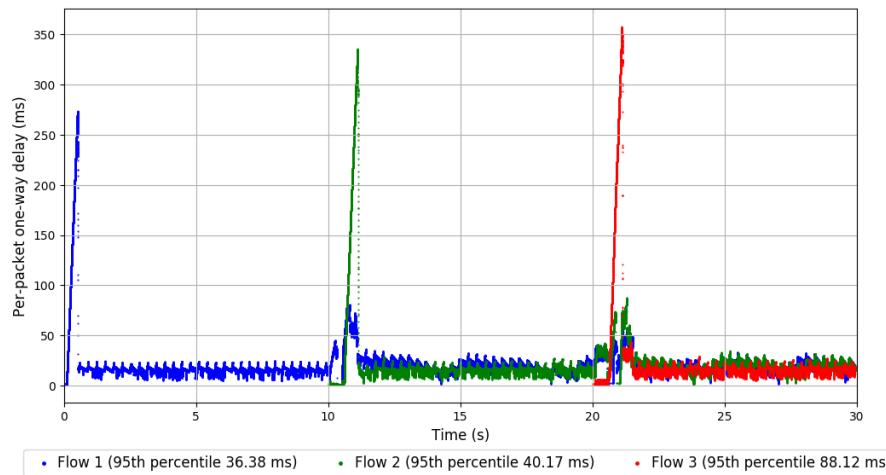
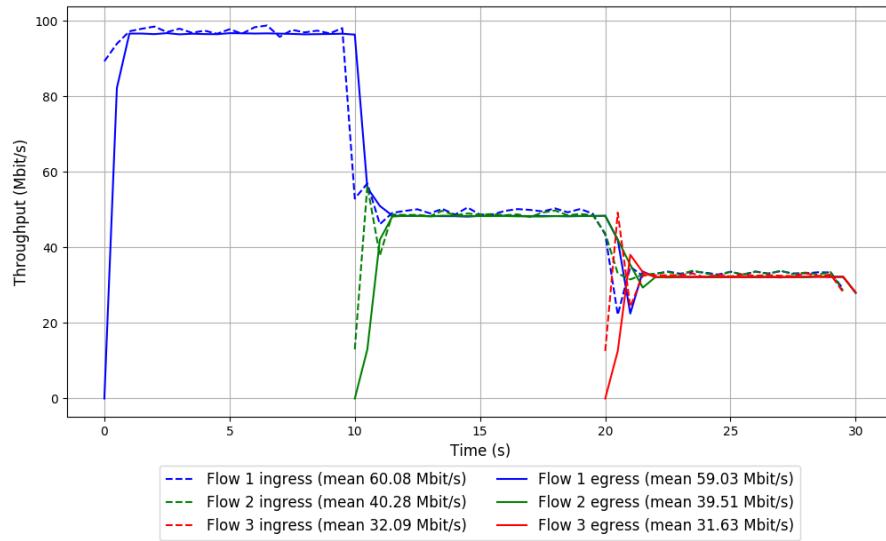


Run 5: Statistics of FillP

```
Start at: 2018-10-26 11:04:05
End at: 2018-10-26 11:04:35
Local clock offset: -5.699 ms
Remote clock offset: 0.262 ms

# Below is generated by plot.py at 2018-10-26 11:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 38.046 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 59.03 Mbit/s
95th percentile per-packet one-way delay: 36.379 ms
Loss rate: 1.73%
-- Flow 2:
Average throughput: 39.51 Mbit/s
95th percentile per-packet one-way delay: 40.173 ms
Loss rate: 1.89%
-- Flow 3:
Average throughput: 31.63 Mbit/s
95th percentile per-packet one-way delay: 88.116 ms
Loss rate: 1.47%
```

Run 5: Report of FillP — Data Link

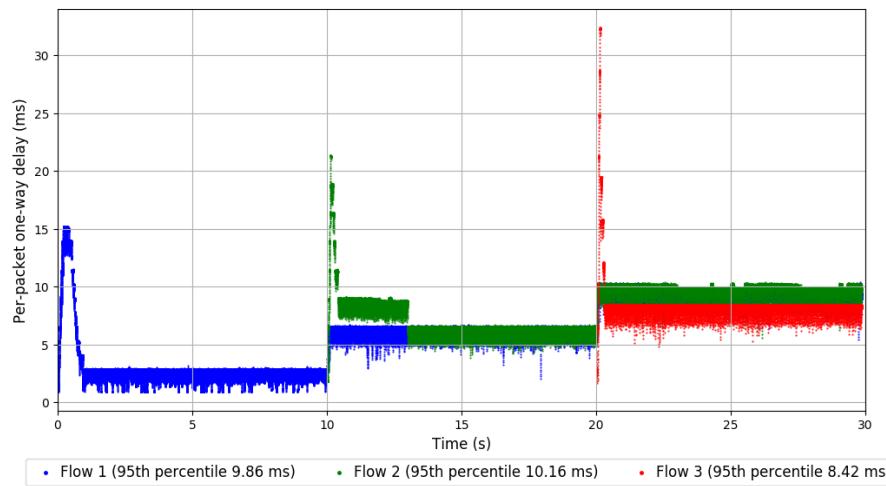
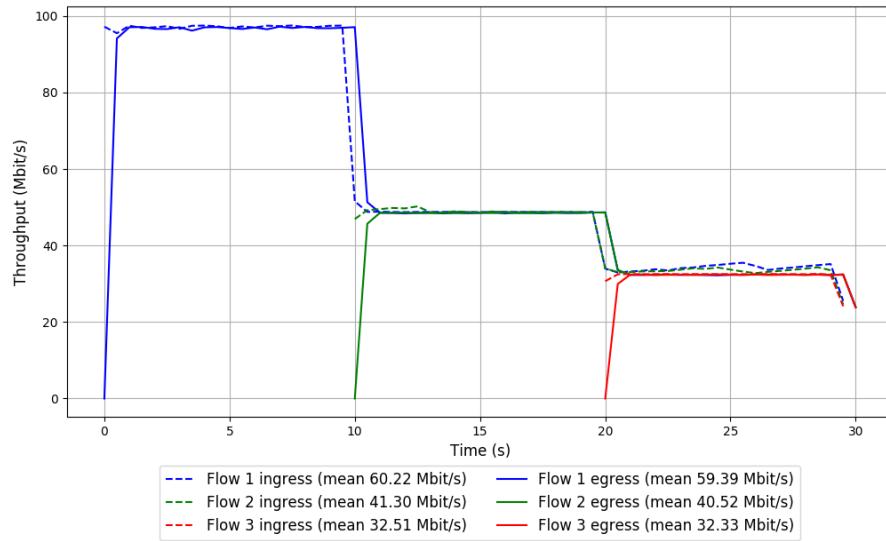


Run 1: Statistics of Indigo

```
Start at: 2018-10-26 09:43:41
End at: 2018-10-26 09:44:11
Local clock offset: -5.935 ms
Remote clock offset: -0.406 ms

# Below is generated by plot.py at 2018-10-26 11:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 10.050 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 59.39 Mbit/s
95th percentile per-packet one-way delay: 9.858 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 10.162 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 32.33 Mbit/s
95th percentile per-packet one-way delay: 8.421 ms
Loss rate: 0.56%
```

Run 1: Report of Indigo — Data Link

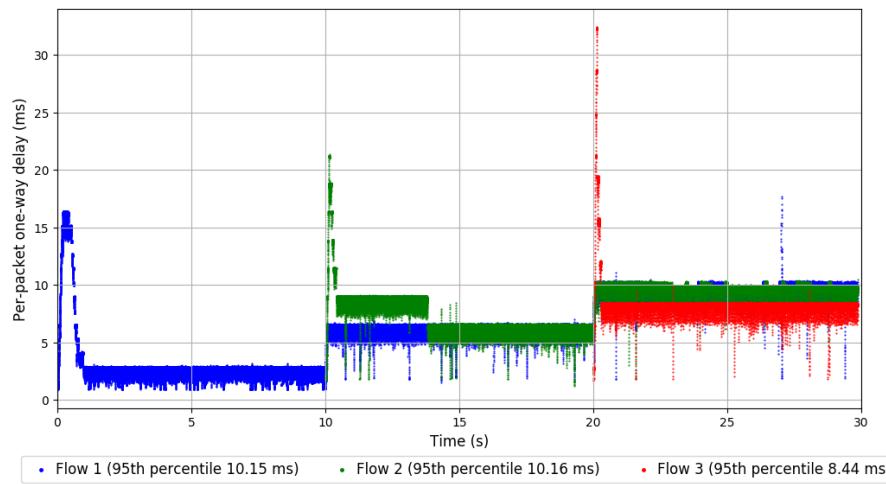
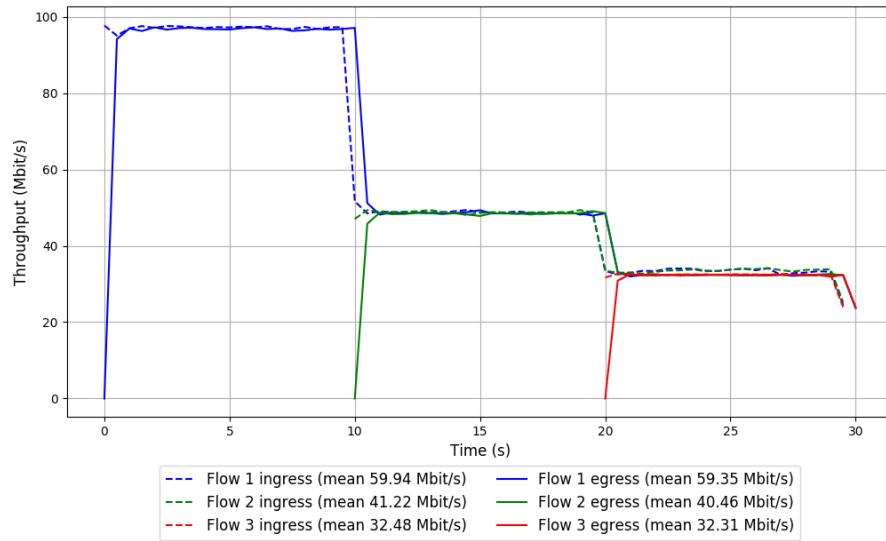


Run 2: Statistics of Indigo

```
Start at: 2018-10-26 10:04:25
End at: 2018-10-26 10:04:55
Local clock offset: -5.963 ms
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2018-10-26 11:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.91 Mbit/s
95th percentile per-packet one-way delay: 10.136 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 59.35 Mbit/s
95th percentile per-packet one-way delay: 10.146 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 10.163 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 8.437 ms
Loss rate: 0.54%
```

Run 2: Report of Indigo — Data Link

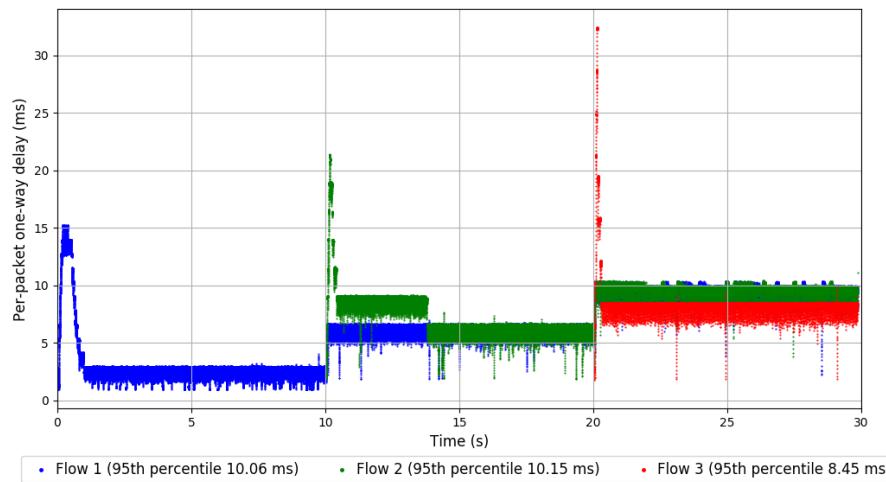
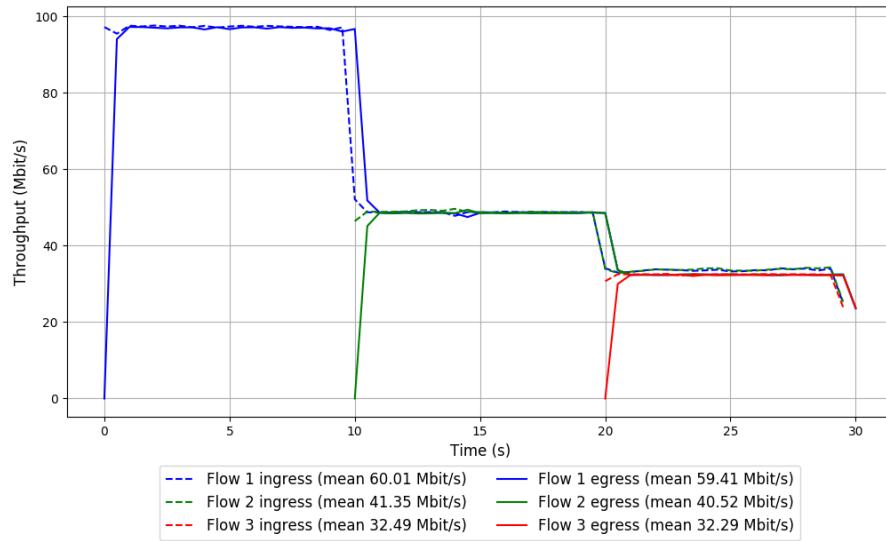


Run 3: Statistics of Indigo

```
Start at: 2018-10-26 10:25:04
End at: 2018-10-26 10:25:34
Local clock offset: -6.06 ms
Remote clock offset: 0.052 ms

# Below is generated by plot.py at 2018-10-26 11:25:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.97 Mbit/s
95th percentile per-packet one-way delay: 10.082 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 10.065 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 40.52 Mbit/s
95th percentile per-packet one-way delay: 10.148 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 32.29 Mbit/s
95th percentile per-packet one-way delay: 8.451 ms
Loss rate: 0.64%
```

Run 3: Report of Indigo — Data Link

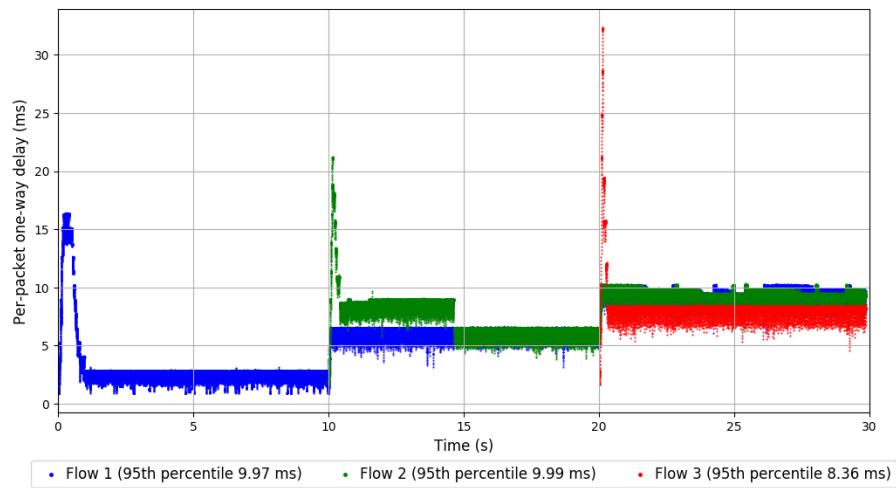
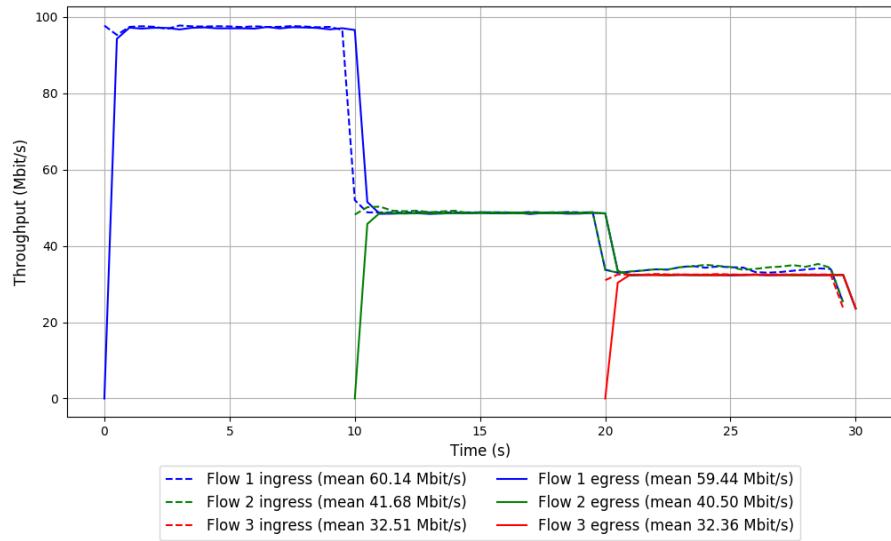


Run 4: Statistics of Indigo

```
Start at: 2018-10-26 10:45:43
End at: 2018-10-26 10:46:13
Local clock offset: -5.857 ms
Remote clock offset: 0.29 ms

# Below is generated by plot.py at 2018-10-26 11:25:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 97.02 Mbit/s
95th percentile per-packet one-way delay: 9.933 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 59.44 Mbit/s
95th percentile per-packet one-way delay: 9.966 ms
Loss rate: 1.16%
-- Flow 2:
Average throughput: 40.50 Mbit/s
95th percentile per-packet one-way delay: 9.987 ms
Loss rate: 2.84%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 8.362 ms
Loss rate: 0.50%
```

Run 4: Report of Indigo — Data Link

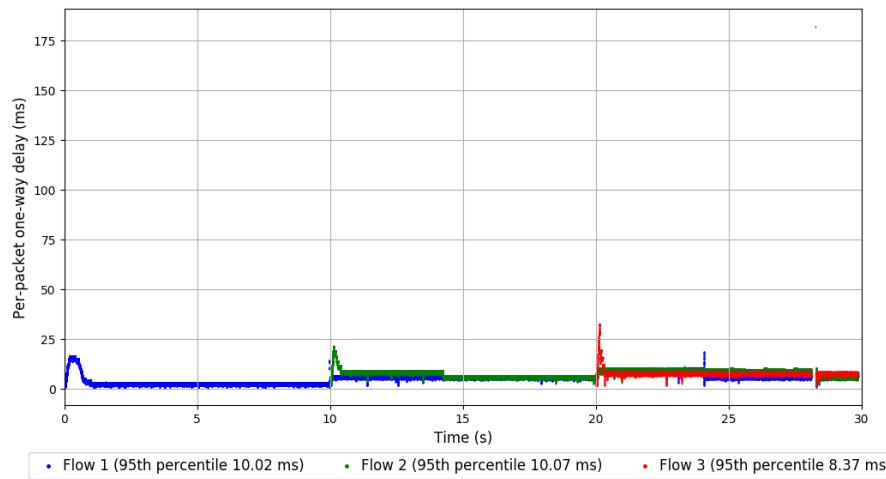
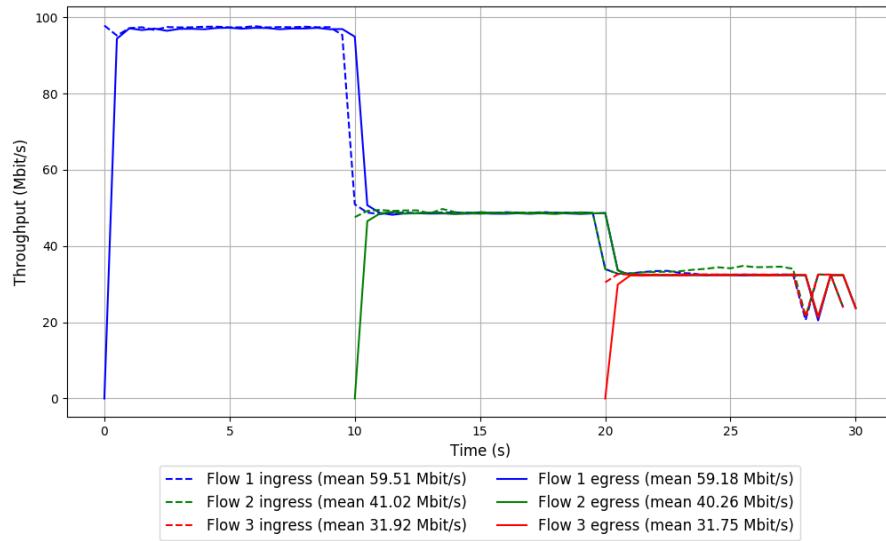


Run 5: Statistics of Indigo

```
Start at: 2018-10-26 11:06:22
End at: 2018-10-26 11:06:52
Local clock offset: -5.735 ms
Remote clock offset: 0.383 ms

# Below is generated by plot.py at 2018-10-26 11:25:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.41 Mbit/s
95th percentile per-packet one-way delay: 10.024 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 59.18 Mbit/s
95th percentile per-packet one-way delay: 10.020 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 10.072 ms
Loss rate: 1.88%
-- Flow 3:
Average throughput: 31.75 Mbit/s
95th percentile per-packet one-way delay: 8.369 ms
Loss rate: 0.54%
```

Run 5: Report of Indigo — Data Link

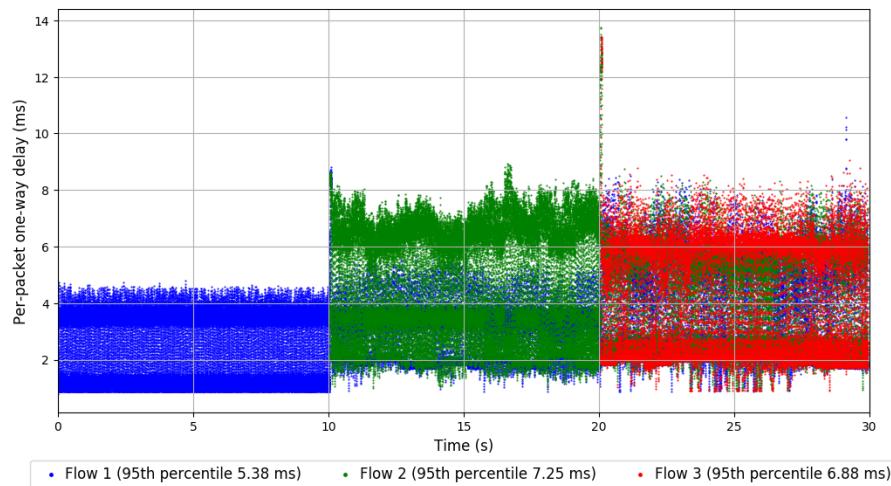
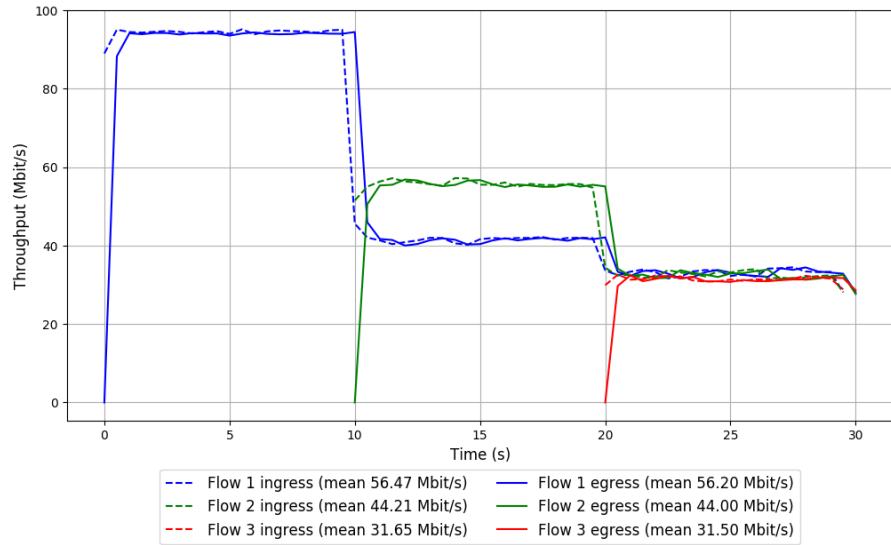


```
Run 1: Statistics of Indigo-96d2da3
```

```
Start at: 2018-10-26 09:48:21
End at: 2018-10-26 09:48:51
Local clock offset: -6.015 ms
Remote clock offset: -0.387 ms

# Below is generated by plot.py at 2018-10-26 11:25:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 6.751 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 56.20 Mbit/s
95th percentile per-packet one-way delay: 5.378 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 44.00 Mbit/s
95th percentile per-packet one-way delay: 7.247 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 31.50 Mbit/s
95th percentile per-packet one-way delay: 6.876 ms
Loss rate: 0.49%
```

Run 1: Report of Indigo-96d2da3 — Data Link

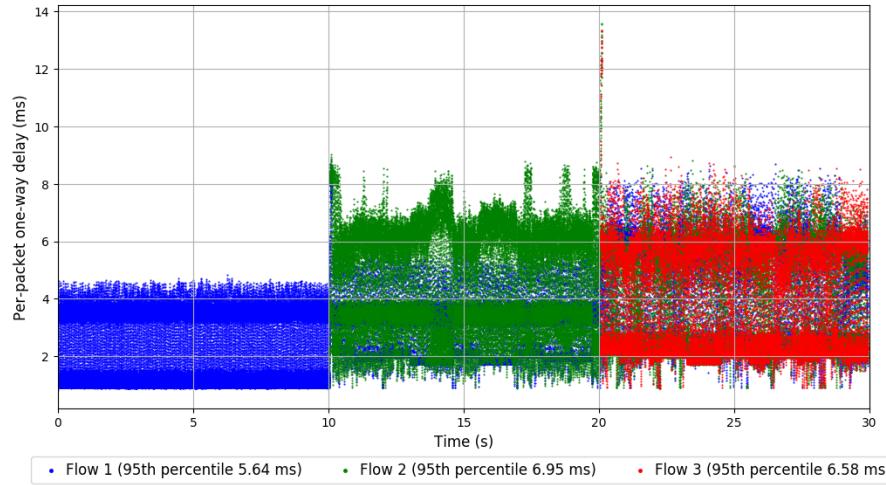
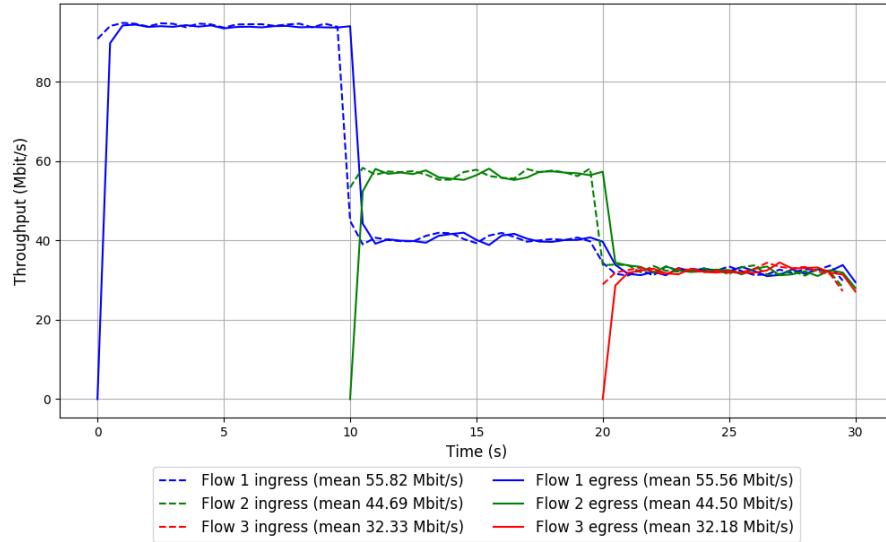


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 10:09:05
End at: 2018-10-26 10:09:35
Local clock offset: -6.005 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-10-26 11:26:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 6.517 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 55.56 Mbit/s
95th percentile per-packet one-way delay: 5.639 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 44.50 Mbit/s
95th percentile per-packet one-way delay: 6.954 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 32.18 Mbit/s
95th percentile per-packet one-way delay: 6.584 ms
Loss rate: 0.49%
```

Run 2: Report of Indigo-96d2da3 — Data Link

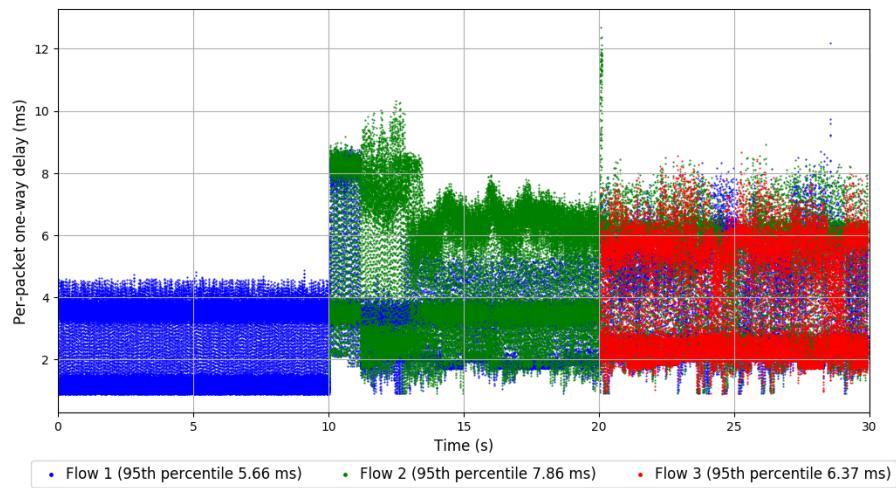
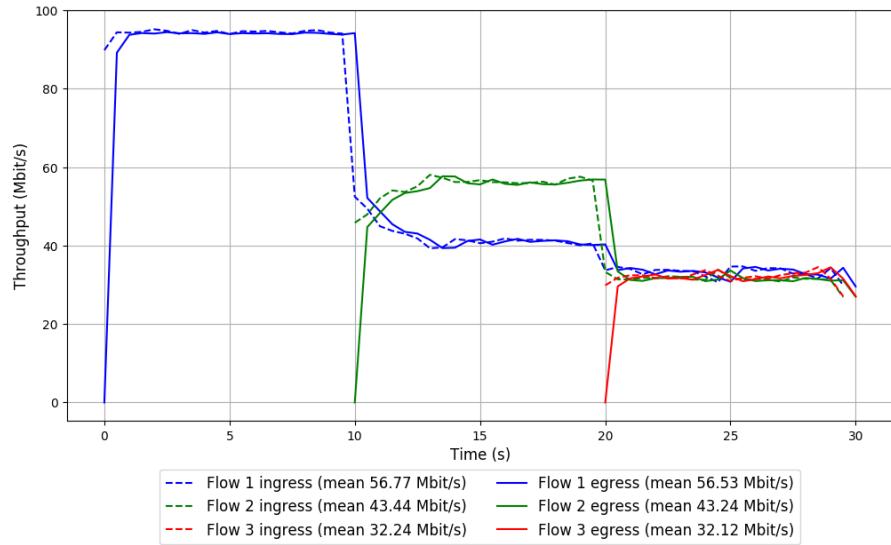


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 10:29:43
End at: 2018-10-26 10:30:13
Local clock offset: -6.117 ms
Remote clock offset: 0.128 ms

# Below is generated by plot.py at 2018-10-26 11:26:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 6.882 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 56.53 Mbit/s
95th percentile per-packet one-way delay: 5.663 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 43.24 Mbit/s
95th percentile per-packet one-way delay: 7.862 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 32.12 Mbit/s
95th percentile per-packet one-way delay: 6.369 ms
Loss rate: 0.39%
```

Run 3: Report of Indigo-96d2da3 — Data Link

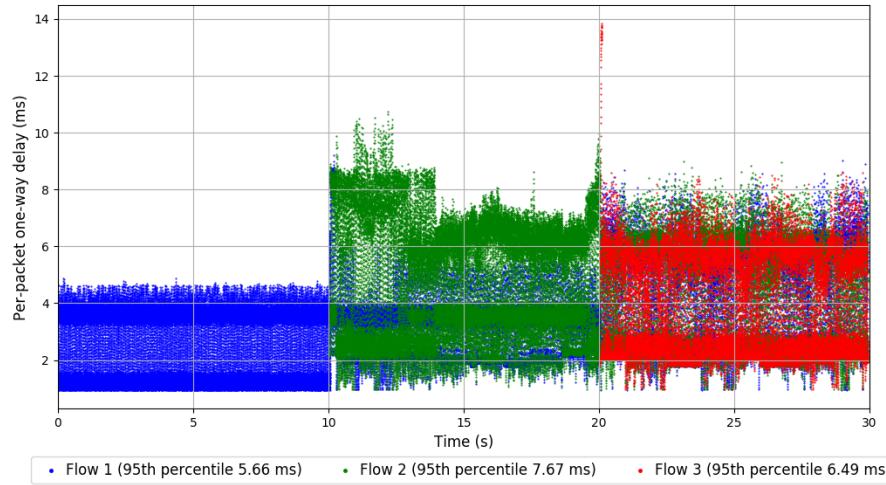
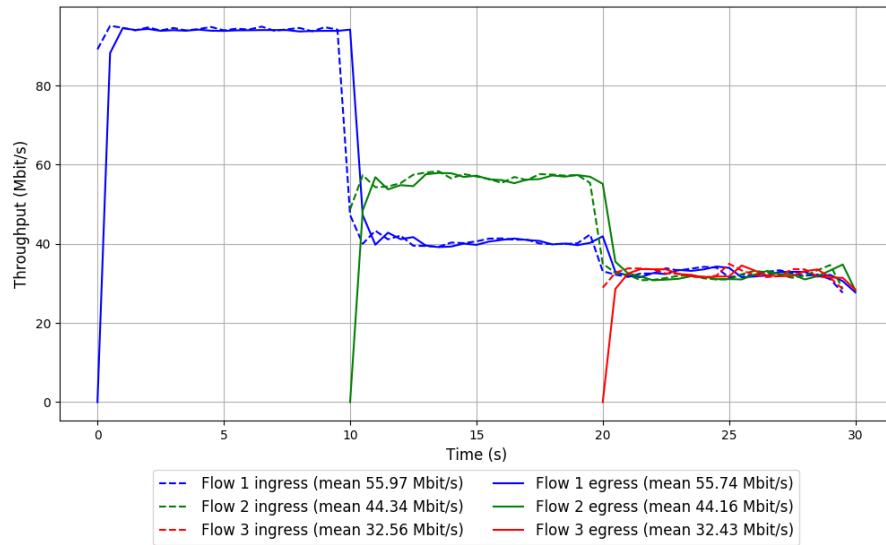


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 10:50:22
End at: 2018-10-26 10:50:52
Local clock offset: -5.792 ms
Remote clock offset: 0.294 ms

# Below is generated by plot.py at 2018-10-26 11:26:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 6.765 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 55.74 Mbit/s
95th percentile per-packet one-way delay: 5.660 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 44.16 Mbit/s
95th percentile per-packet one-way delay: 7.669 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 32.43 Mbit/s
95th percentile per-packet one-way delay: 6.490 ms
Loss rate: 0.41%
```

Run 4: Report of Indigo-96d2da3 — Data Link

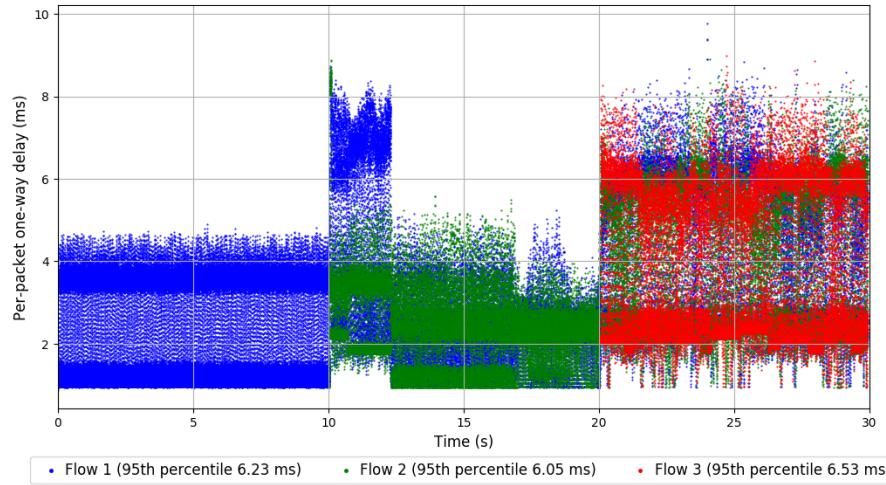
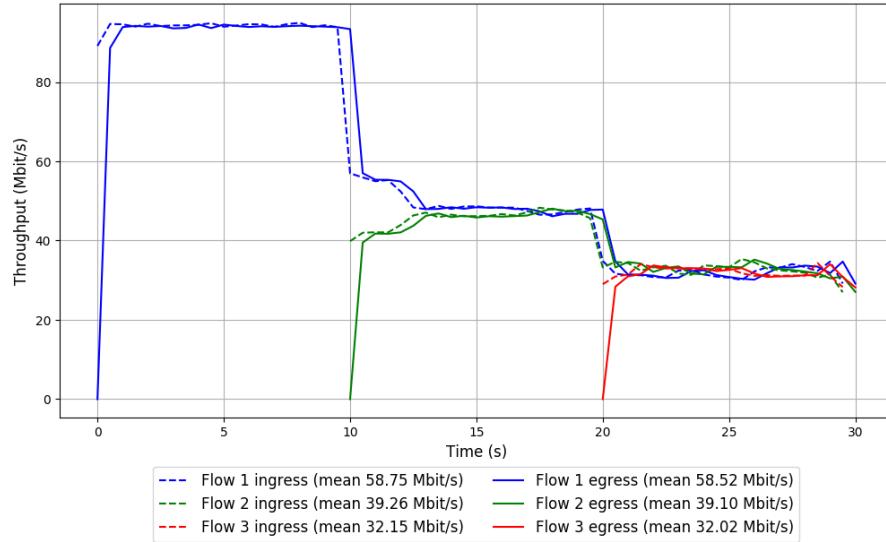


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-10-26 11:11:01
End at: 2018-10-26 11:11:31
Local clock offset: -5.714 ms
Remote clock offset: 0.31 ms

# Below is generated by plot.py at 2018-10-26 11:26:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.14 Mbit/s
95th percentile per-packet one-way delay: 6.237 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 58.52 Mbit/s
95th percentile per-packet one-way delay: 6.230 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 6.048 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 6.529 ms
Loss rate: 0.41%
```

Run 5: Report of Indigo-96d2da3 — Data Link

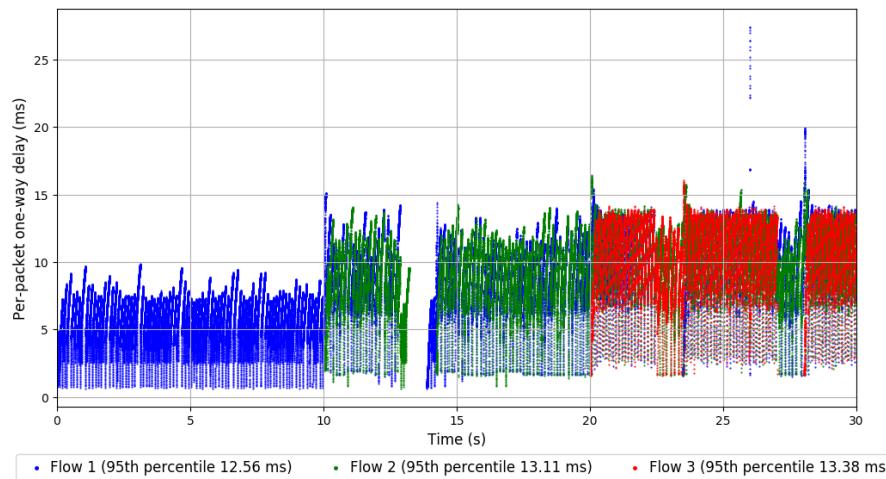
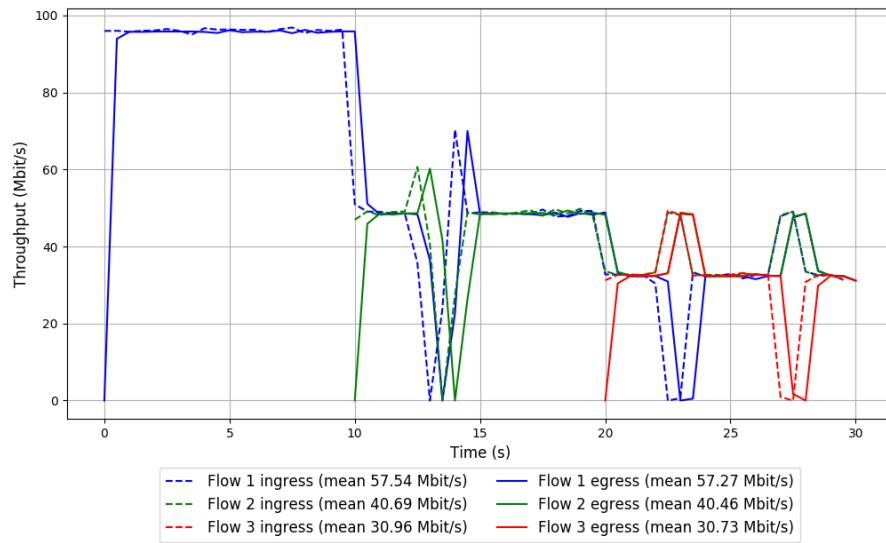


Run 1: Statistics of LEDBAT

```
Start at: 2018-10-26 09:37:59
End at: 2018-10-26 09:38:29
Local clock offset: -6.013 ms
Remote clock offset: -0.402 ms

# Below is generated by plot.py at 2018-10-26 11:26:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 13.013 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 57.27 Mbit/s
95th percentile per-packet one-way delay: 12.564 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 40.46 Mbit/s
95th percentile per-packet one-way delay: 13.112 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 30.73 Mbit/s
95th percentile per-packet one-way delay: 13.382 ms
Loss rate: 0.76%
```

Run 1: Report of LEDBAT — Data Link

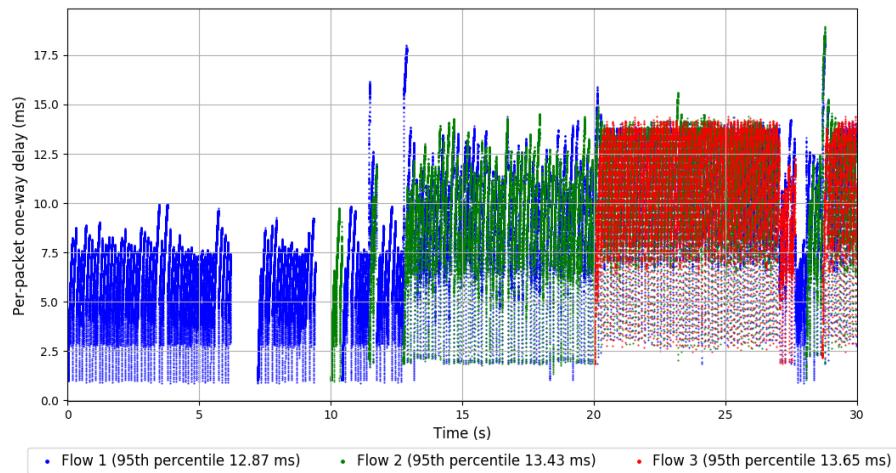
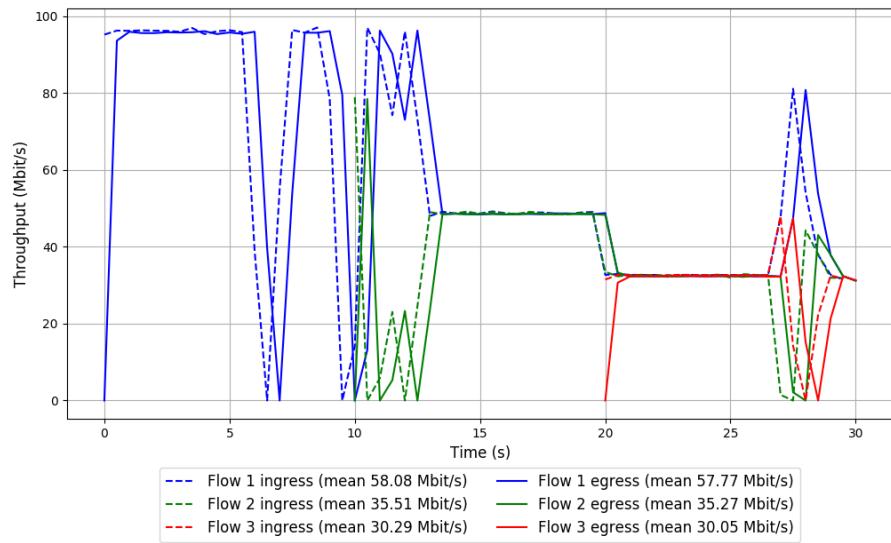


Run 2: Statistics of LEDBAT

```
Start at: 2018-10-26 09:58:36
End at: 2018-10-26 09:59:06
Local clock offset: -5.932 ms
Remote clock offset: -0.34 ms

# Below is generated by plot.py at 2018-10-26 11:26:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 13.290 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 57.77 Mbit/s
95th percentile per-packet one-way delay: 12.869 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 13.432 ms
Loss rate: 0.68%
-- Flow 3:
Average throughput: 30.05 Mbit/s
95th percentile per-packet one-way delay: 13.646 ms
Loss rate: 0.81%
```

Run 2: Report of LEDBAT — Data Link

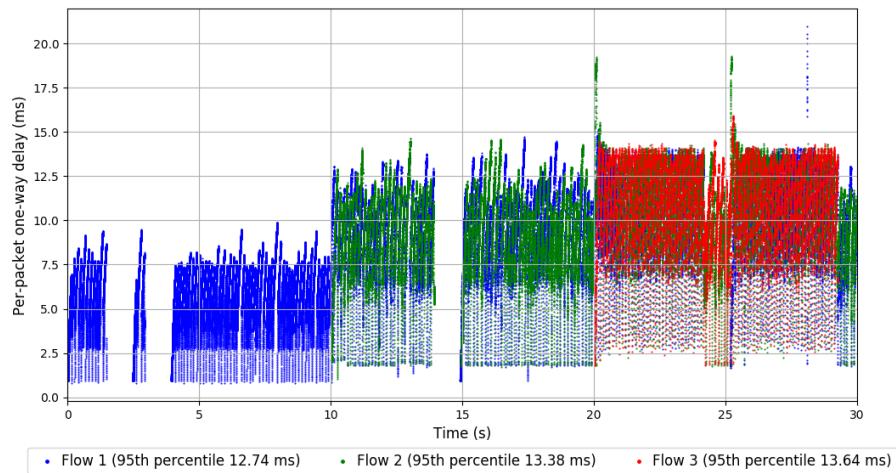
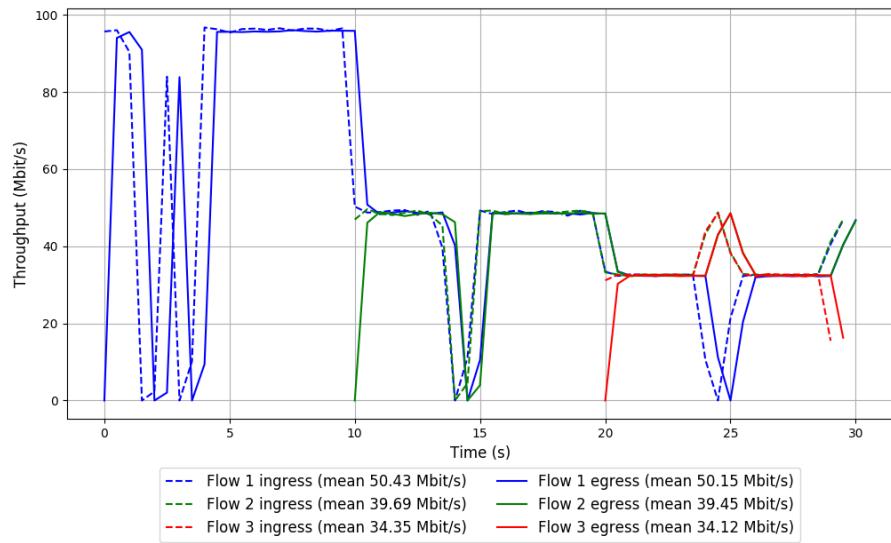


Run 3: Statistics of LEDBAT

```
Start at: 2018-10-26 10:19:19
End at: 2018-10-26 10:19:49
Local clock offset: -6.045 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-10-26 11:27:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.92 Mbit/s
95th percentile per-packet one-way delay: 13.224 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 50.15 Mbit/s
95th percentile per-packet one-way delay: 12.738 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 39.45 Mbit/s
95th percentile per-packet one-way delay: 13.376 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 34.12 Mbit/s
95th percentile per-packet one-way delay: 13.642 ms
Loss rate: 0.63%
```

Run 3: Report of LEDBAT — Data Link

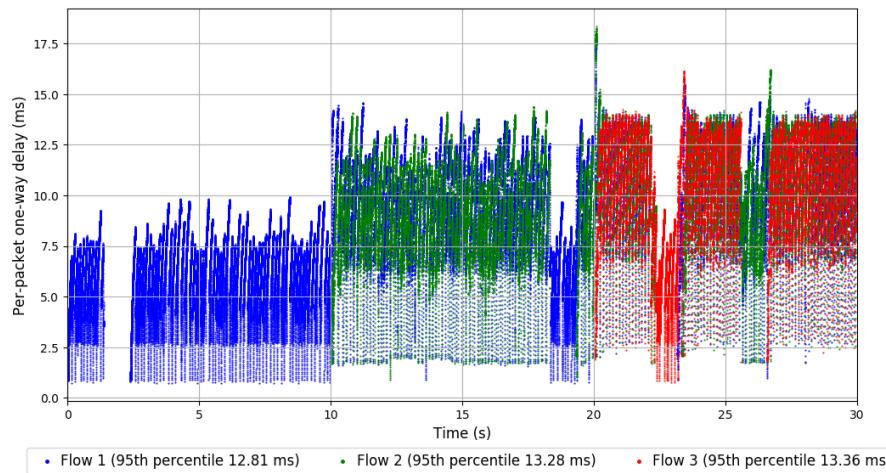
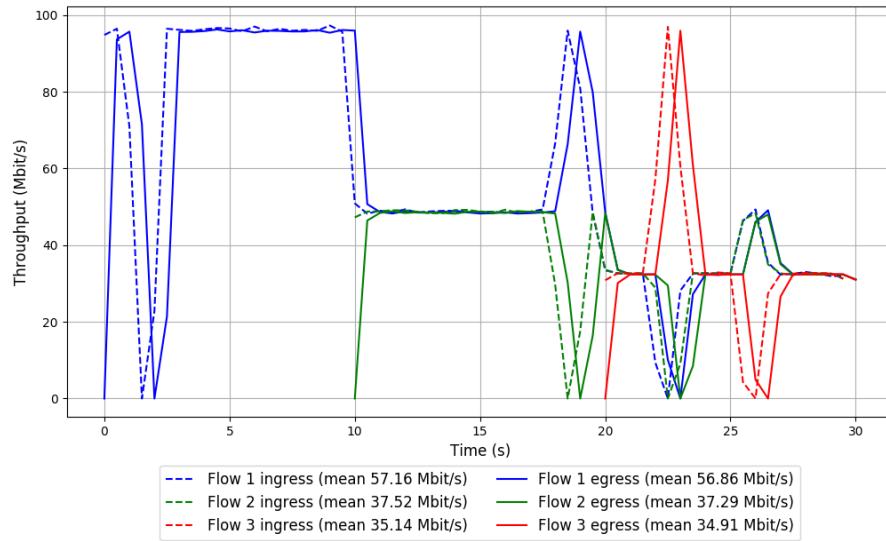


Run 4: Statistics of LEDBAT

```
Start at: 2018-10-26 10:39:58
End at: 2018-10-26 10:40:28
Local clock offset: -5.933 ms
Remote clock offset: 0.215 ms

# Below is generated by plot.py at 2018-10-26 11:27:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.28 Mbit/s
95th percentile per-packet one-way delay: 13.121 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 56.86 Mbit/s
95th percentile per-packet one-way delay: 12.811 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 37.29 Mbit/s
95th percentile per-packet one-way delay: 13.279 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 34.91 Mbit/s
95th percentile per-packet one-way delay: 13.364 ms
Loss rate: 0.69%
```

Run 4: Report of LEDBAT — Data Link

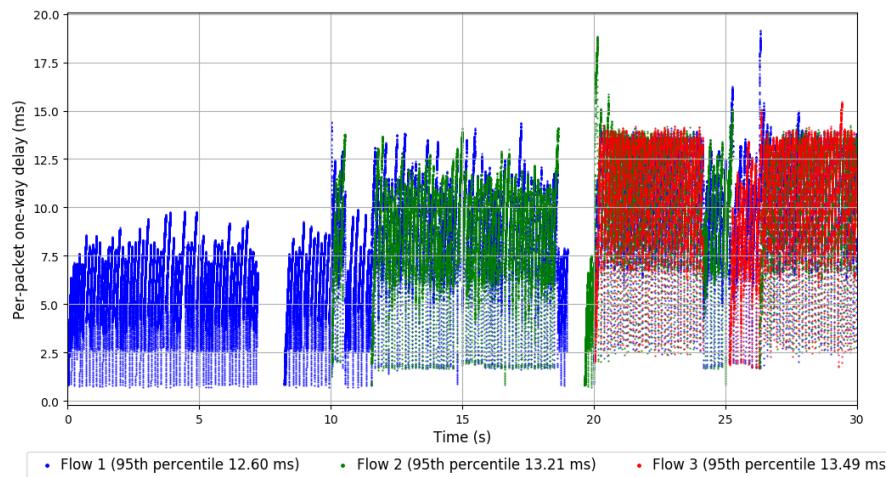
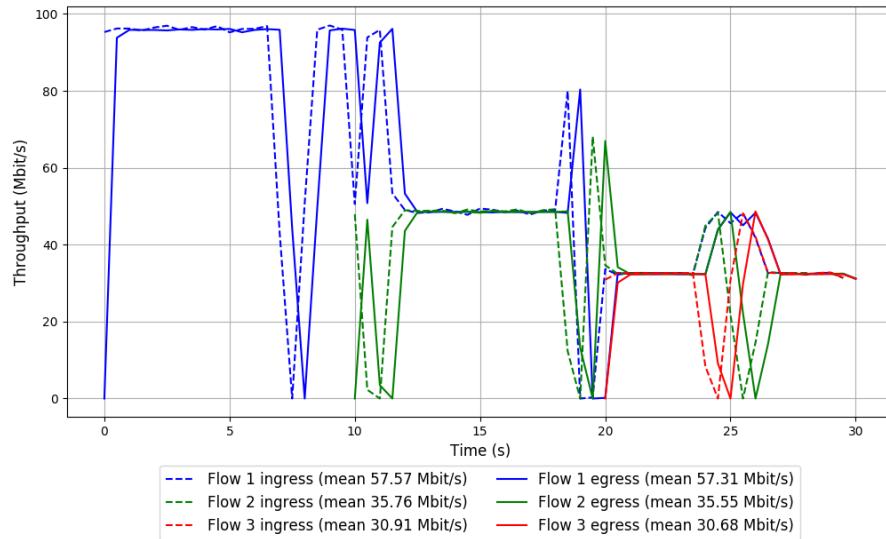


Run 5: Statistics of LEDBAT

```
Start at: 2018-10-26 11:00:37
End at: 2018-10-26 11:01:07
Local clock offset: -5.804 ms
Remote clock offset: 0.402 ms

# Below is generated by plot.py at 2018-10-26 11:27:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.17 Mbit/s
95th percentile per-packet one-way delay: 13.086 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 12.603 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 35.55 Mbit/s
95th percentile per-packet one-way delay: 13.211 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 30.68 Mbit/s
95th percentile per-packet one-way delay: 13.490 ms
Loss rate: 0.77%
```

Run 5: Report of LEDBAT — Data Link

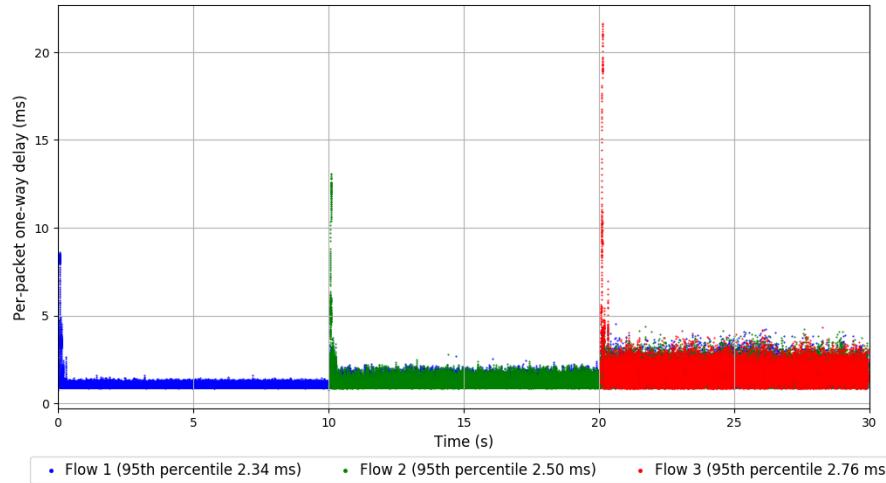
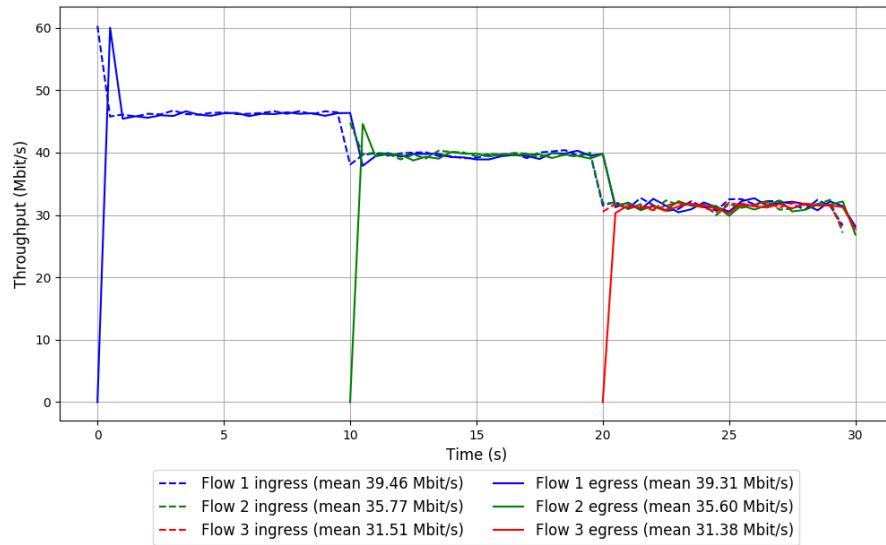


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-10-26 09:55:09
End at: 2018-10-26 09:55:39
Local clock offset: -5.953 ms
Remote clock offset: -0.241 ms

# Below is generated by plot.py at 2018-10-26 11:27:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.38 Mbit/s
95th percentile per-packet one-way delay: 2.479 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 39.31 Mbit/s
95th percentile per-packet one-way delay: 2.336 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 2.501 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 2.756 ms
Loss rate: 0.44%
```

Run 1: Report of Indigo-Muses — Data Link

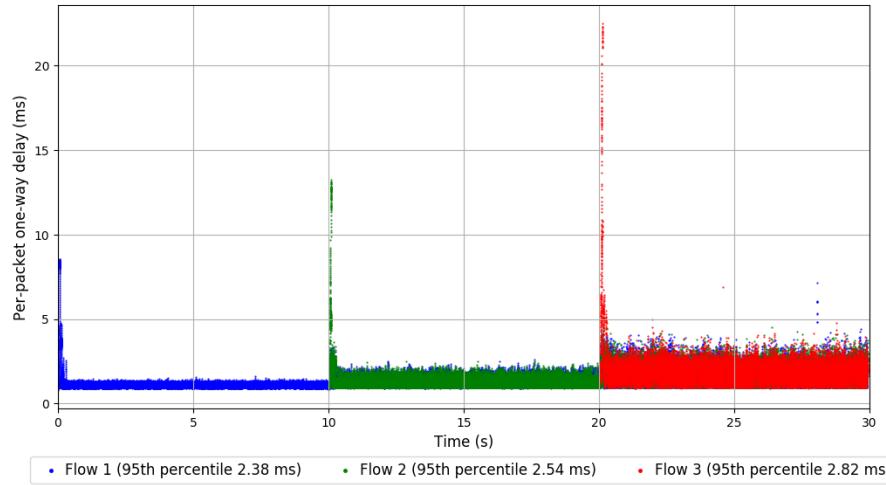
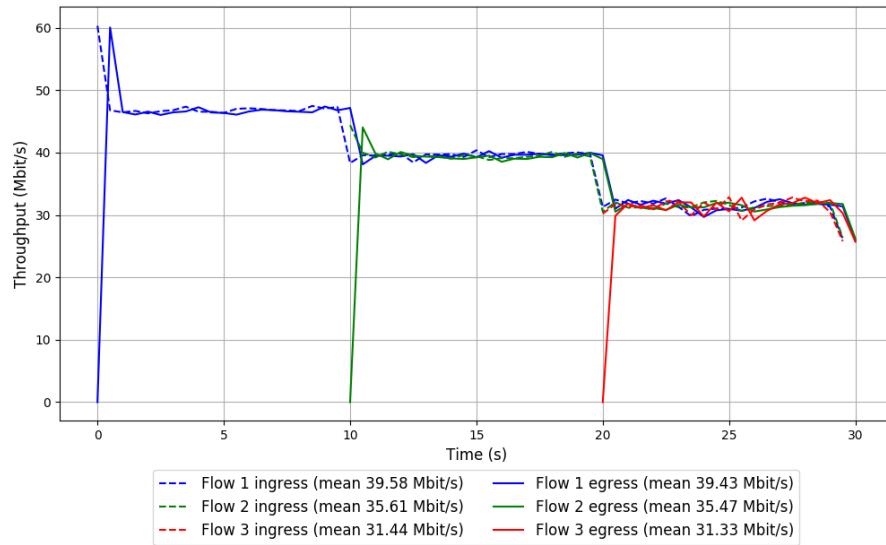


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-10-26 10:15:54
End at: 2018-10-26 10:16:24
Local clock offset: -6.108 ms
Remote clock offset: -0.1 ms

# Below is generated by plot.py at 2018-10-26 11:27:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.41 Mbit/s
95th percentile per-packet one-way delay: 2.523 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 2.382 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 35.47 Mbit/s
95th percentile per-packet one-way delay: 2.539 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 31.33 Mbit/s
95th percentile per-packet one-way delay: 2.819 ms
Loss rate: 0.35%
```

Run 2: Report of Indigo-Muses — Data Link

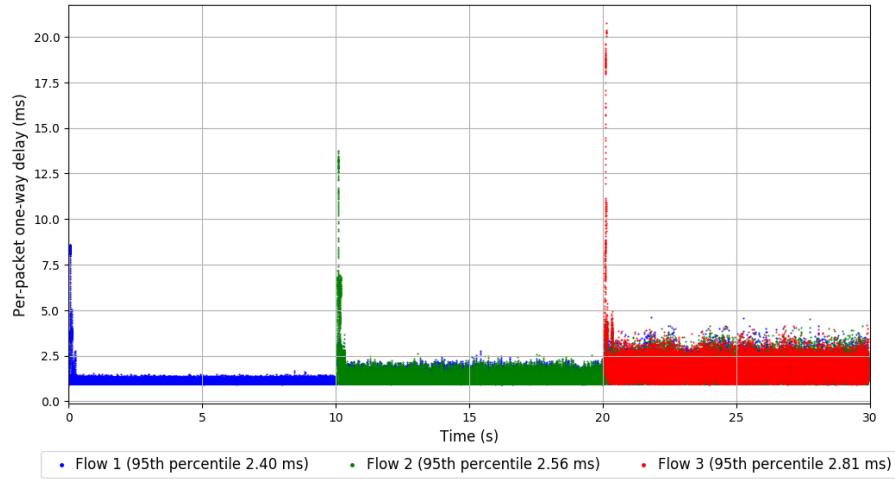
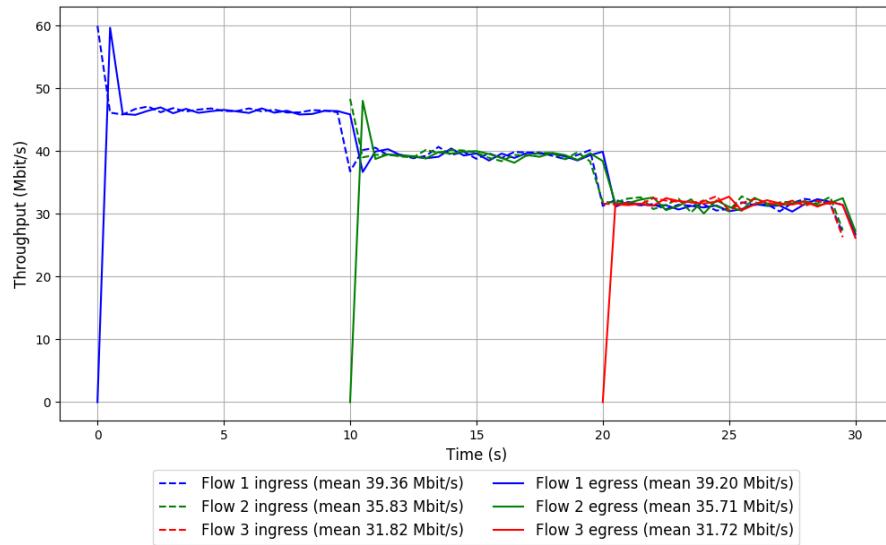


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-10-26 10:36:34
End at: 2018-10-26 10:37:04
Local clock offset: -5.921 ms
Remote clock offset: 0.185 ms

# Below is generated by plot.py at 2018-10-26 11:27:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.47 Mbit/s
95th percentile per-packet one-way delay: 2.530 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 39.20 Mbit/s
95th percentile per-packet one-way delay: 2.395 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 35.71 Mbit/s
95th percentile per-packet one-way delay: 2.559 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 31.72 Mbit/s
95th percentile per-packet one-way delay: 2.807 ms
Loss rate: 0.34%
```

Run 3: Report of Indigo-Muses — Data Link

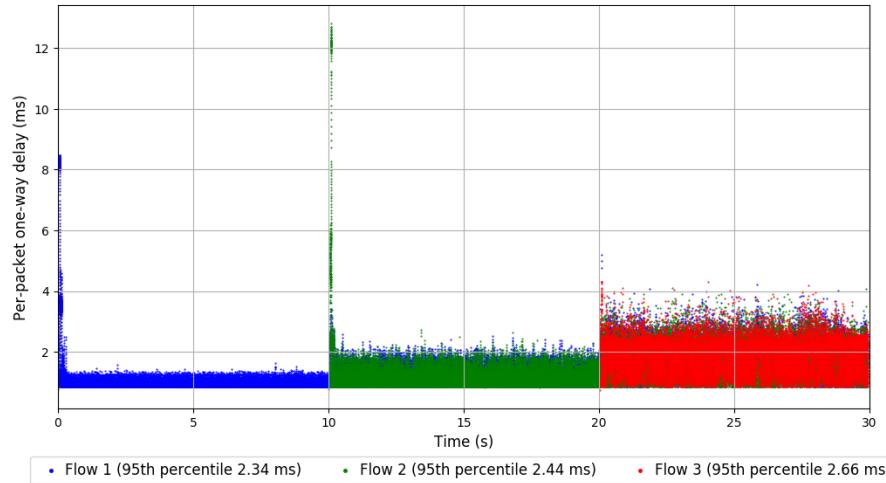
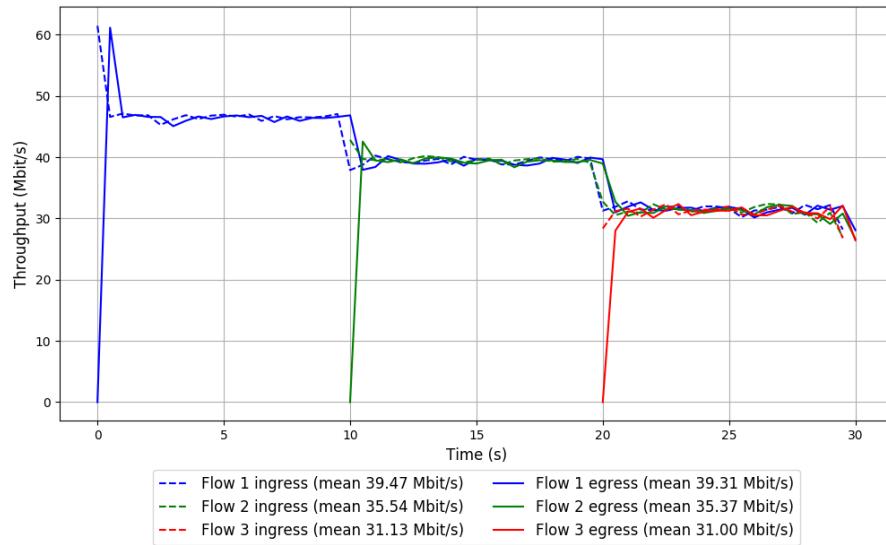


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-10-26 10:57:12
End at: 2018-10-26 10:57:42
Local clock offset: -5.814 ms
Remote clock offset: 0.395 ms

# Below is generated by plot.py at 2018-10-26 11:27:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.11 Mbit/s
95th percentile per-packet one-way delay: 2.441 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 39.31 Mbit/s
95th percentile per-packet one-way delay: 2.338 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 2.439 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 31.00 Mbit/s
95th percentile per-packet one-way delay: 2.660 ms
Loss rate: 0.44%
```

Run 4: Report of Indigo-Muses — Data Link

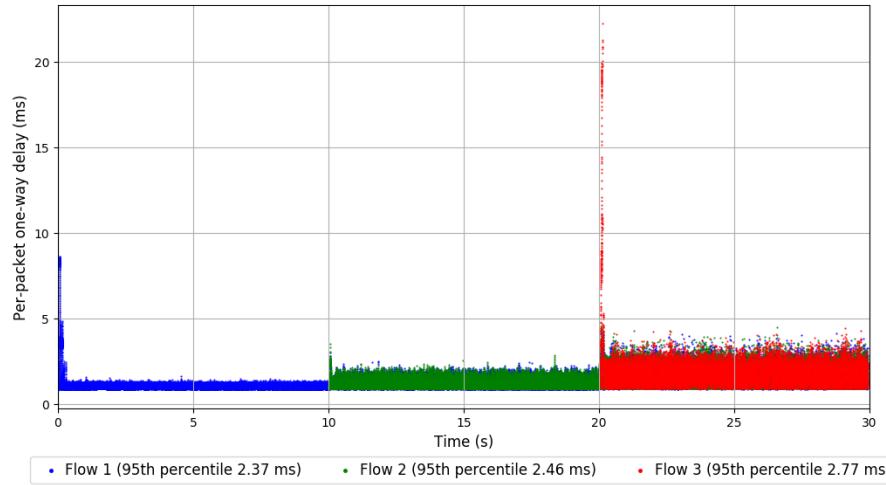
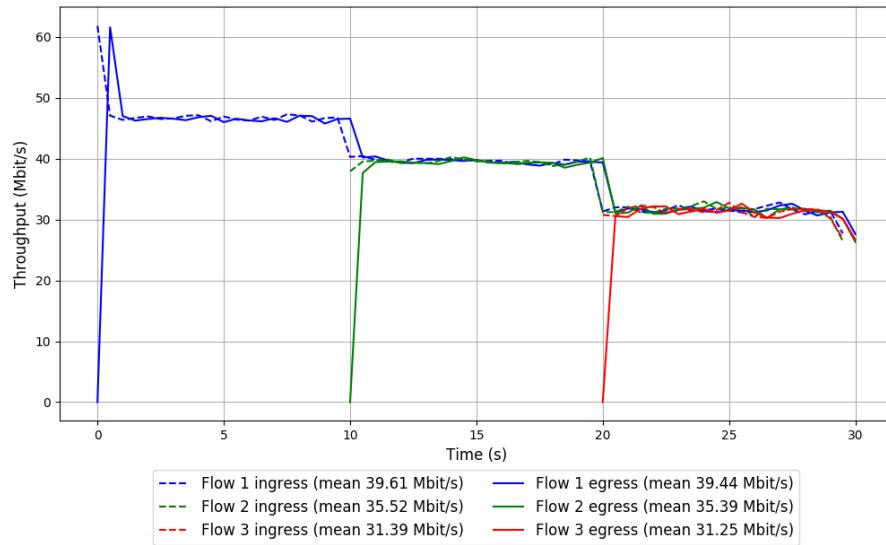


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-10-26 11:17:49
End at: 2018-10-26 11:18:19
Local clock offset: -5.676 ms
Remote clock offset: 0.331 ms

# Below is generated by plot.py at 2018-10-26 11:27:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 73.35 Mbit/s
95th percentile per-packet one-way delay: 2.481 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 39.44 Mbit/s
95th percentile per-packet one-way delay: 2.365 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 35.39 Mbit/s
95th percentile per-packet one-way delay: 2.458 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 31.25 Mbit/s
95th percentile per-packet one-way delay: 2.774 ms
Loss rate: 0.45%
```

Run 5: Report of Indigo-Muses — Data Link

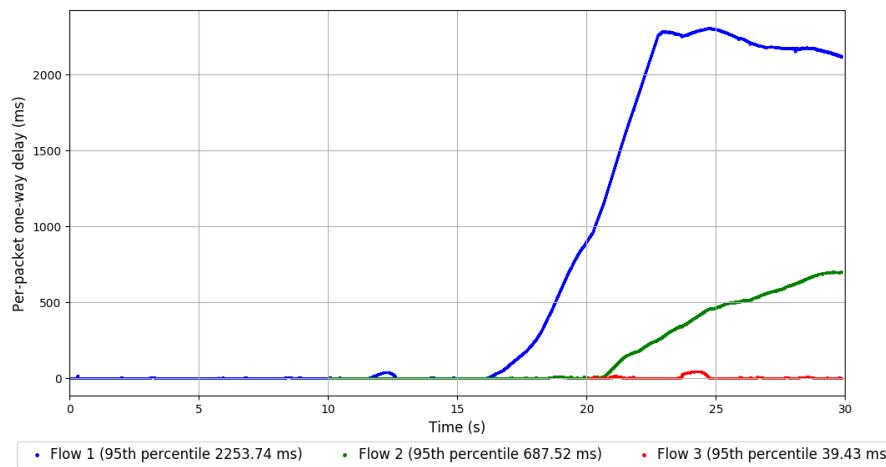
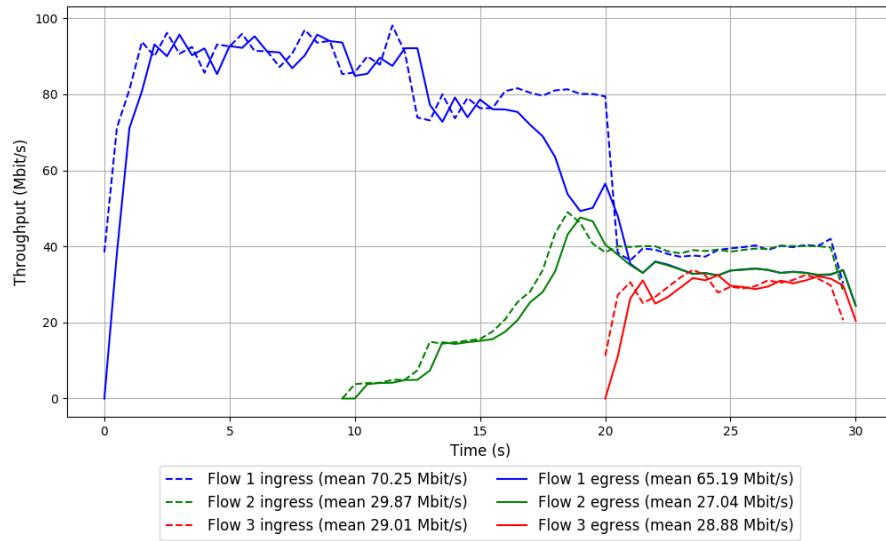


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-10-26 09:56:18
End at: 2018-10-26 09:56:48
Local clock offset: -5.943 ms
Remote clock offset: -0.33 ms

# Below is generated by plot.py at 2018-10-26 11:28:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 2185.469 ms
Loss rate: 7.03%
-- Flow 1:
Average throughput: 65.19 Mbit/s
95th percentile per-packet one-way delay: 2253.745 ms
Loss rate: 7.21%
-- Flow 2:
Average throughput: 27.04 Mbit/s
95th percentile per-packet one-way delay: 687.520 ms
Loss rate: 9.48%
-- Flow 3:
Average throughput: 28.88 Mbit/s
95th percentile per-packet one-way delay: 39.427 ms
Loss rate: 0.55%
```

Run 1: Report of PCC-Allegro — Data Link

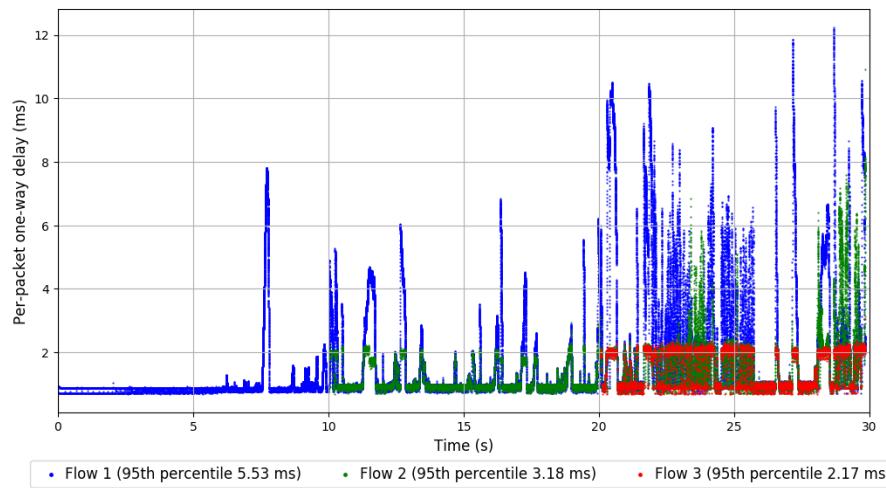
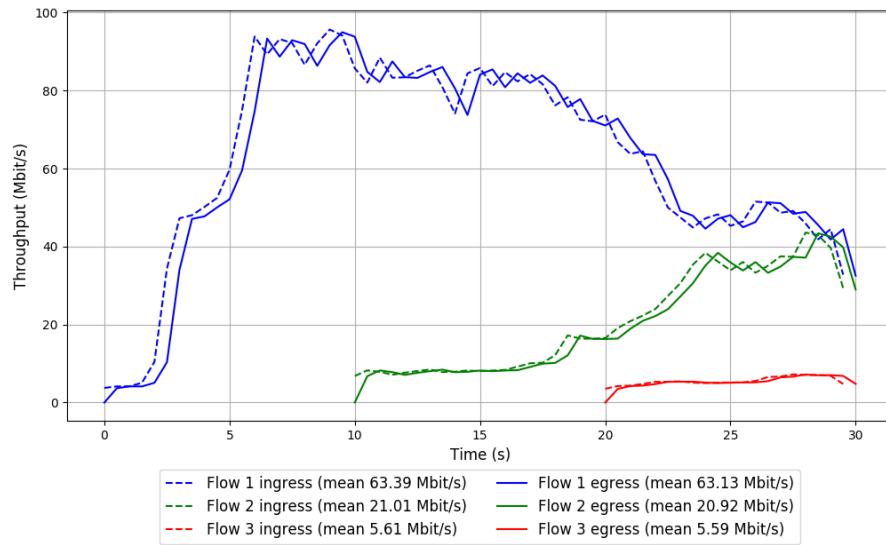


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-10-26 10:17:02
End at: 2018-10-26 10:17:32
Local clock offset: -6.158 ms
Remote clock offset: -0.059 ms

# Below is generated by plot.py at 2018-10-26 11:28:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 78.87 Mbit/s
95th percentile per-packet one-way delay: 5.155 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 63.13 Mbit/s
95th percentile per-packet one-way delay: 5.530 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 20.92 Mbit/s
95th percentile per-packet one-way delay: 3.182 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 5.59 Mbit/s
95th percentile per-packet one-way delay: 2.174 ms
Loss rate: 0.41%
```

Run 2: Report of PCC-Allegro — Data Link

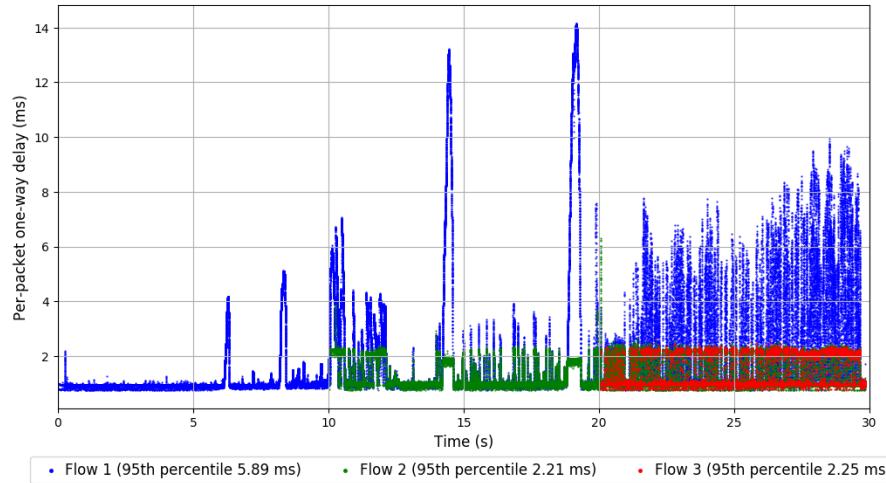
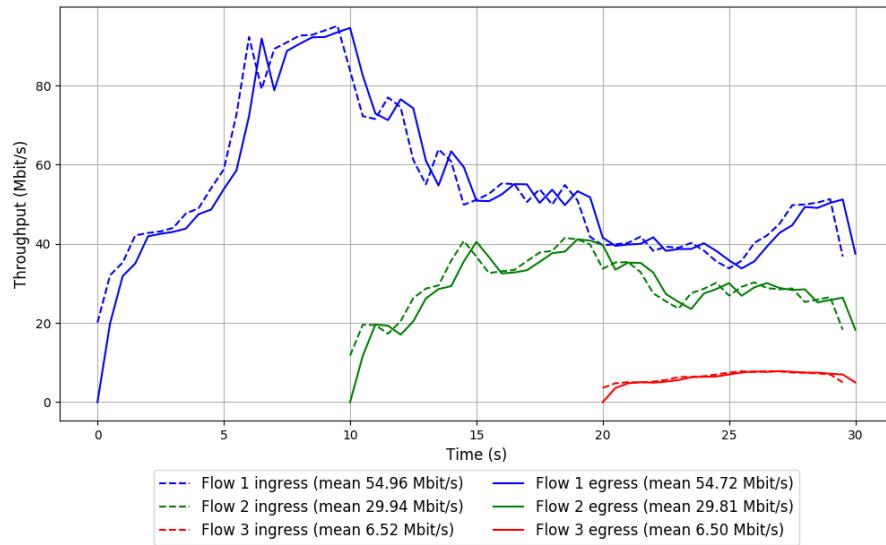


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-10-26 10:37:42
End at: 2018-10-26 10:38:12
Local clock offset: -5.898 ms
Remote clock offset: 0.211 ms

# Below is generated by plot.py at 2018-10-26 11:28:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 76.67 Mbit/s
95th percentile per-packet one-way delay: 5.212 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 54.72 Mbit/s
95th percentile per-packet one-way delay: 5.889 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 29.81 Mbit/s
95th percentile per-packet one-way delay: 2.214 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 2.250 ms
Loss rate: 0.36%
```

Run 3: Report of PCC-Allegro — Data Link

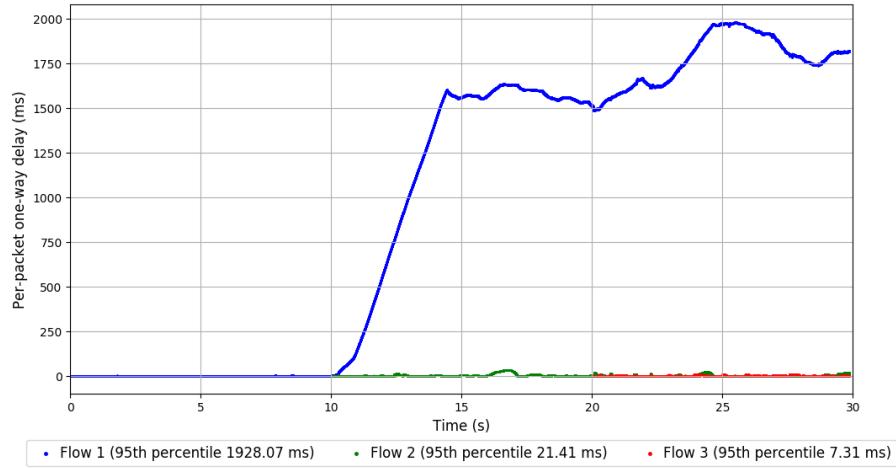
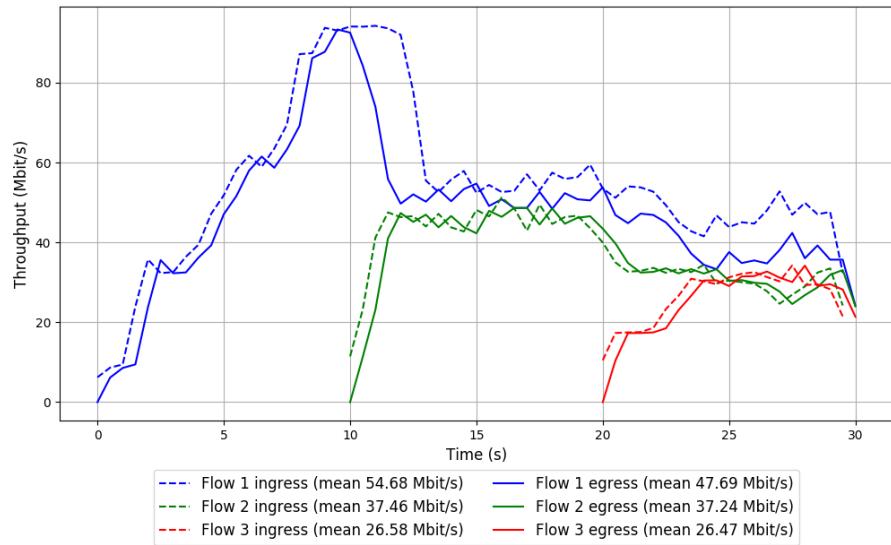


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-10-26 10:58:20
End at: 2018-10-26 10:58:50
Local clock offset: -5.806 ms
Remote clock offset: 0.383 ms

# Below is generated by plot.py at 2018-10-26 11:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 1832.338 ms
Loss rate: 8.13%
-- Flow 1:
Average throughput: 47.69 Mbit/s
95th percentile per-packet one-way delay: 1928.069 ms
Loss rate: 12.79%
-- Flow 2:
Average throughput: 37.24 Mbit/s
95th percentile per-packet one-way delay: 21.407 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 26.47 Mbit/s
95th percentile per-packet one-way delay: 7.312 ms
Loss rate: 0.43%
```

Run 4: Report of PCC-Allegro — Data Link

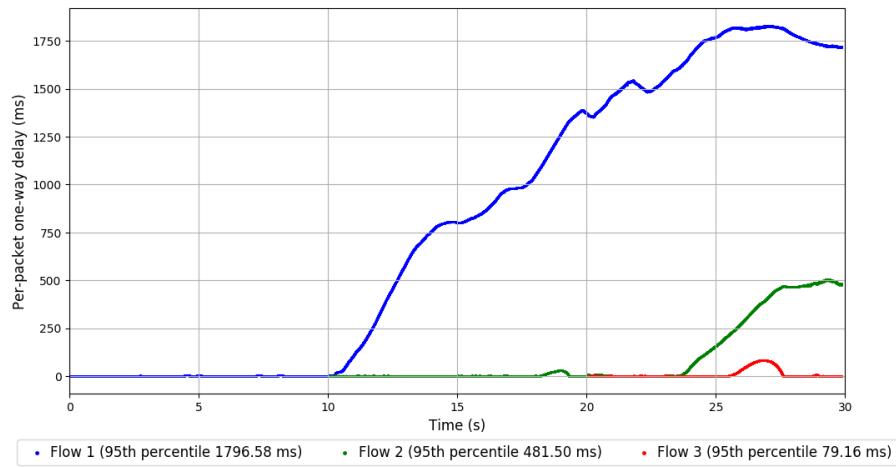
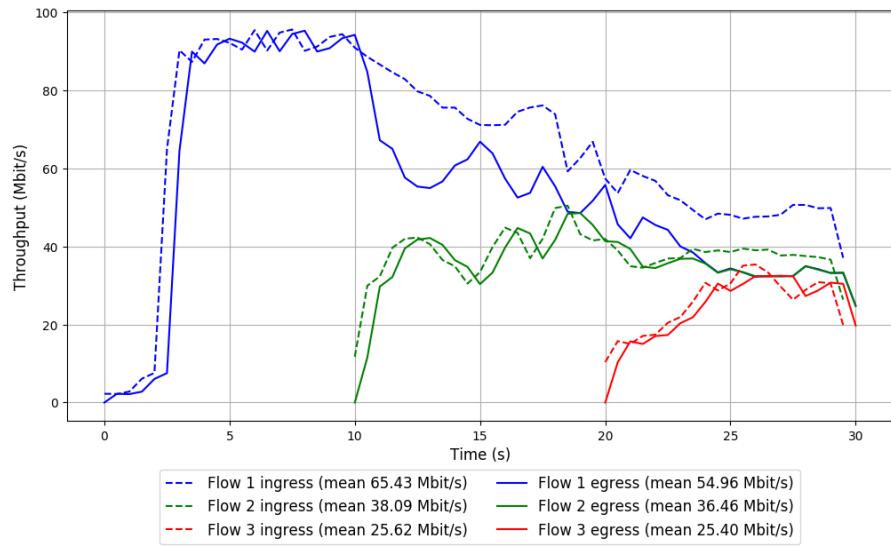


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-10-26 11:18:57
End at: 2018-10-26 11:19:27
Local clock offset: -5.609 ms
Remote clock offset: 0.426 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.56 Mbit/s
95th percentile per-packet one-way delay: 1751.327 ms
Loss rate: 11.73%
-- Flow 1:
Average throughput: 54.96 Mbit/s
95th percentile per-packet one-way delay: 1796.583 ms
Loss rate: 16.01%
-- Flow 2:
Average throughput: 36.46 Mbit/s
95th percentile per-packet one-way delay: 481.495 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 25.40 Mbit/s
95th percentile per-packet one-way delay: 79.157 ms
Loss rate: 0.89%
```

Run 5: Report of PCC-Allegro — Data Link

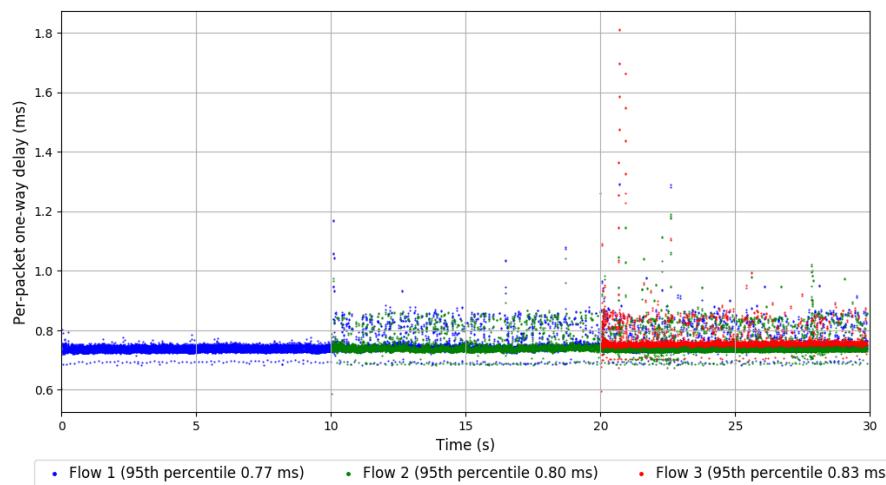
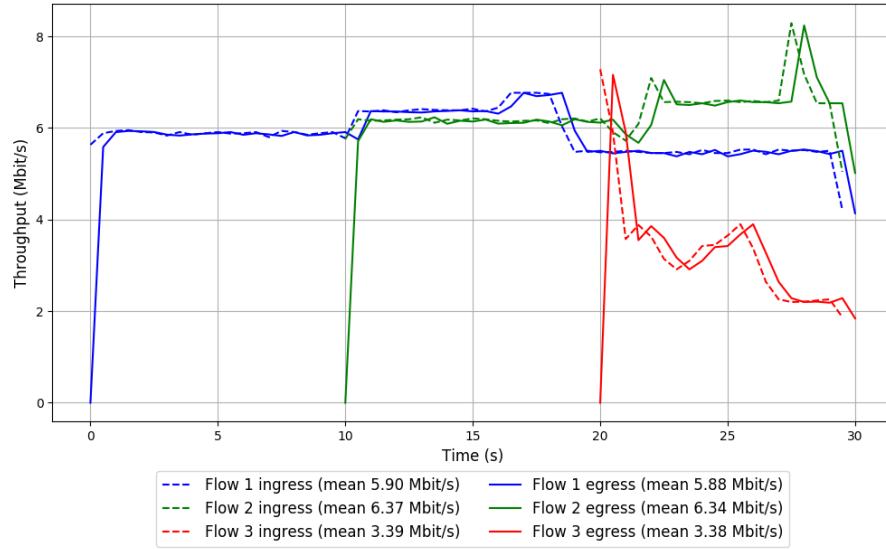


Run 1: Statistics of PCC-Expr

```
Start at: 2018-10-26 09:49:30
End at: 2018-10-26 09:50:00
Local clock offset: -6.066 ms
Remote clock offset: -0.273 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 0.789 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 0.767 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 6.34 Mbit/s
95th percentile per-packet one-way delay: 0.796 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 0.835 ms
Loss rate: 0.47%
```

Run 1: Report of PCC-Expr — Data Link

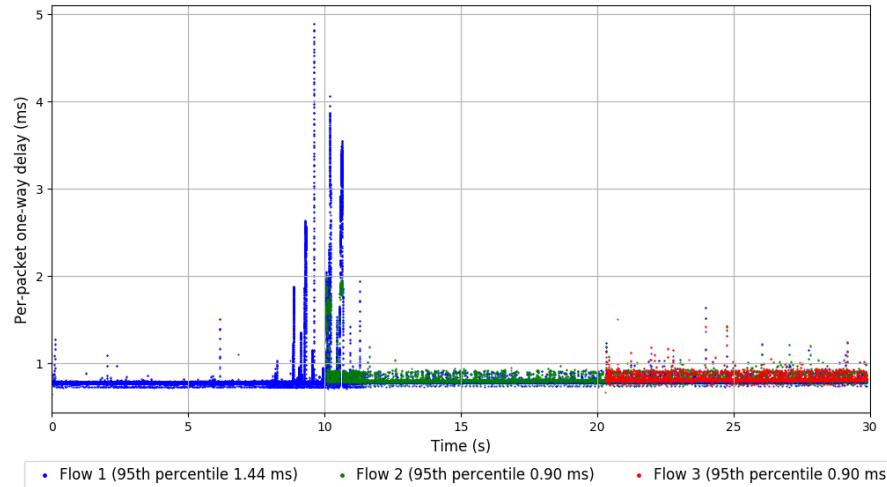
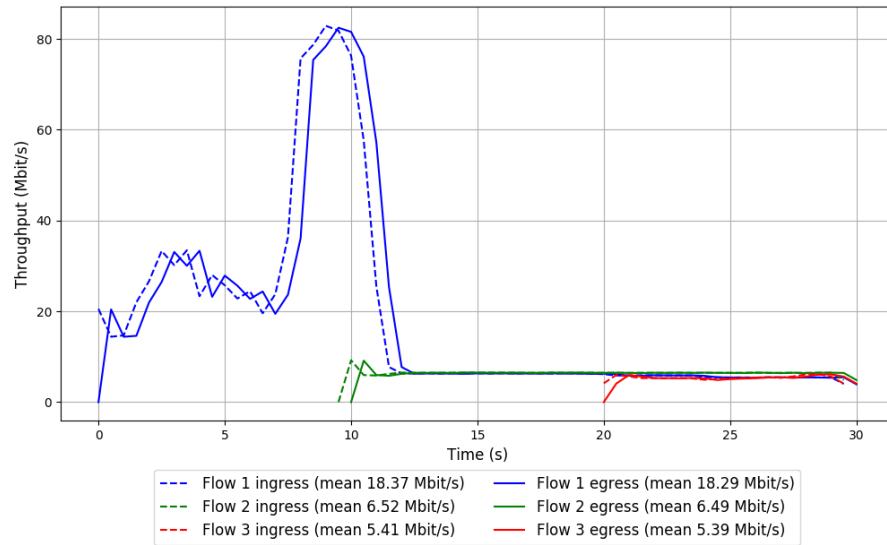


Run 2: Statistics of PCC-Expr

```
Start at: 2018-10-26 10:10:15
End at: 2018-10-26 10:10:45
Local clock offset: -6.15 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 1.036 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 18.29 Mbit/s
95th percentile per-packet one-way delay: 1.436 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 0.902 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 5.39 Mbit/s
95th percentile per-packet one-way delay: 0.903 ms
Loss rate: 0.34%
```

Run 2: Report of PCC-Expr — Data Link

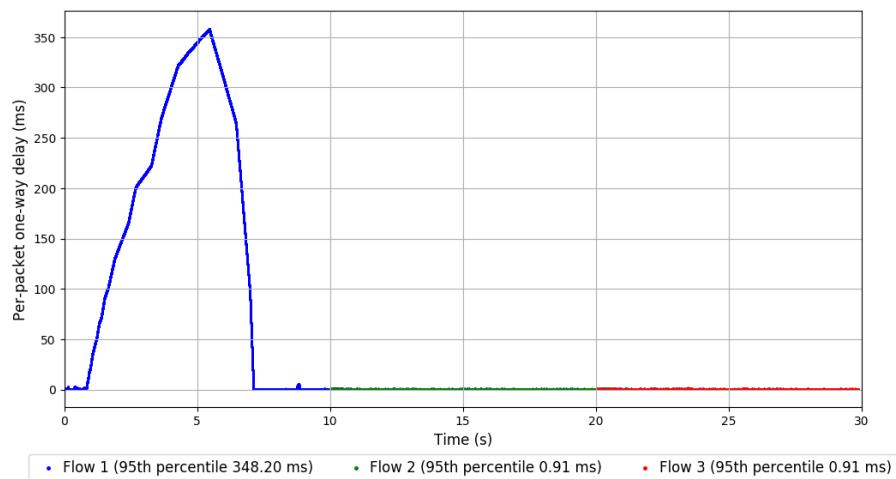
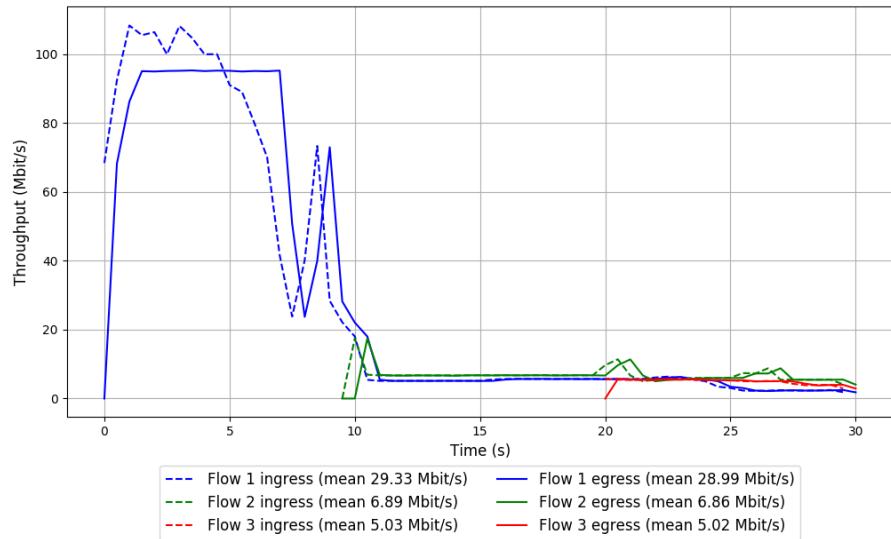


Run 3: Statistics of PCC-Expr

```
Start at: 2018-10-26 10:30:53
End at: 2018-10-26 10:31:23
Local clock offset: -6.135 ms
Remote clock offset: 0.184 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 35.21 Mbit/s
95th percentile per-packet one-way delay: 345.971 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 348.205 ms
Loss rate: 1.18%
-- Flow 2:
Average throughput: 6.86 Mbit/s
95th percentile per-packet one-way delay: 0.906 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 0.914 ms
Loss rate: 0.25%
```

Run 3: Report of PCC-Expr — Data Link

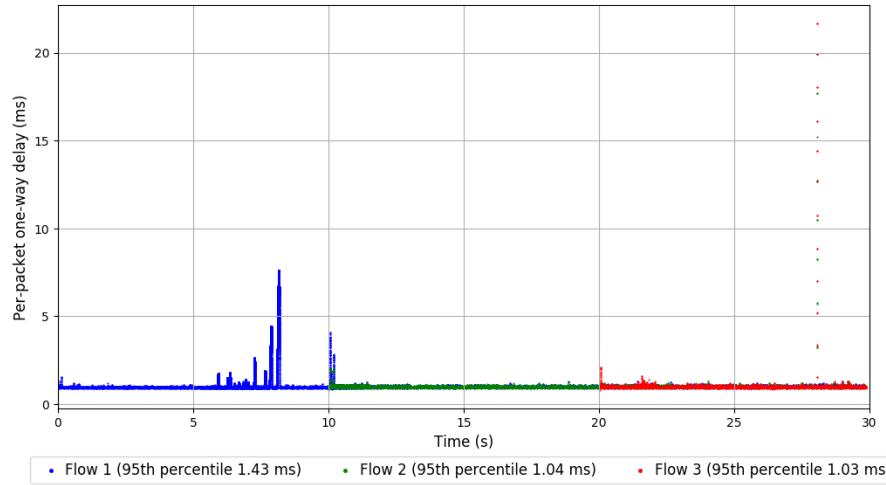
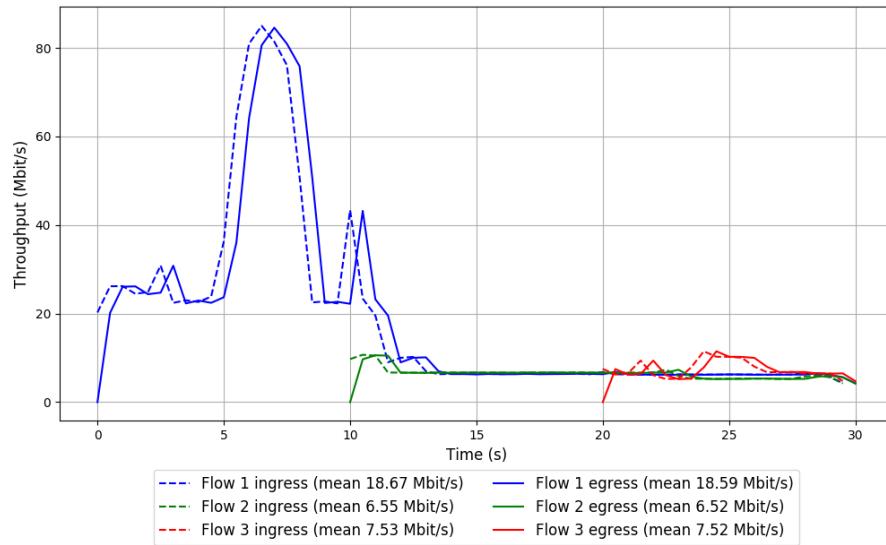


Run 4: Statistics of PCC-Expr

```
Start at: 2018-10-26 10:51:32
End at: 2018-10-26 10:52:02
Local clock offset: -5.83 ms
Remote clock offset: 0.284 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 1.158 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 18.59 Mbit/s
95th percentile per-packet one-way delay: 1.427 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 6.52 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 1.031 ms
Loss rate: 0.28%
```

Run 4: Report of PCC-Expr — Data Link

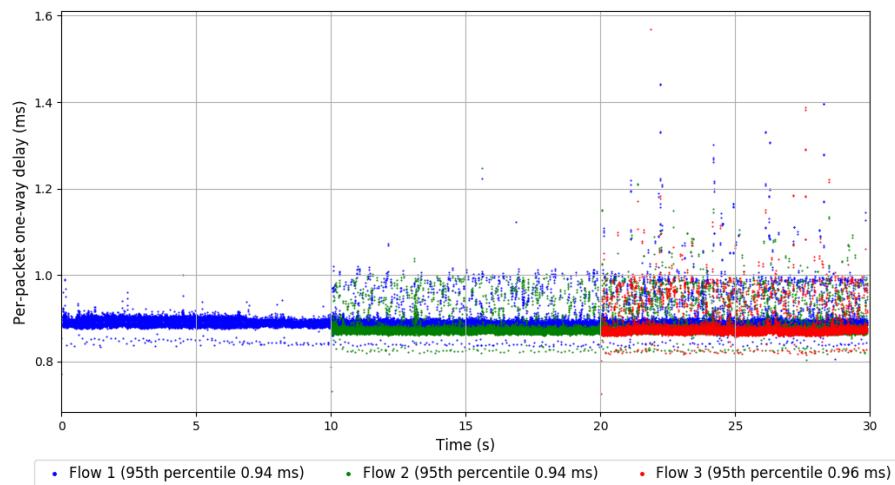
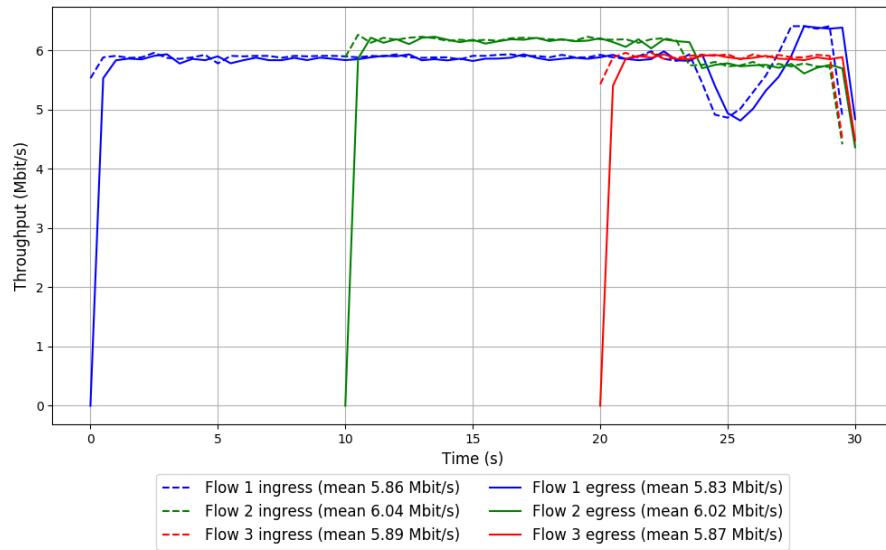


Run 5: Statistics of PCC-Expr

```
Start at: 2018-10-26 11:12:10
End at: 2018-10-26 11:12:40
Local clock offset: -5.649 ms
Remote clock offset: 0.428 ms

# Below is generated by plot.py at 2018-10-26 11:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 5.83 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 6.02 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 5.87 Mbit/s
95th percentile per-packet one-way delay: 0.958 ms
Loss rate: 0.44%
```

Run 5: Report of PCC-Expr — Data Link

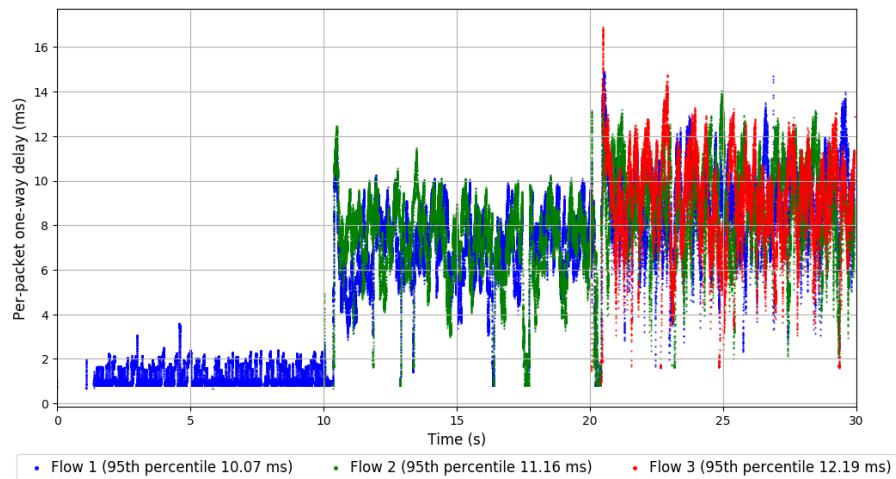
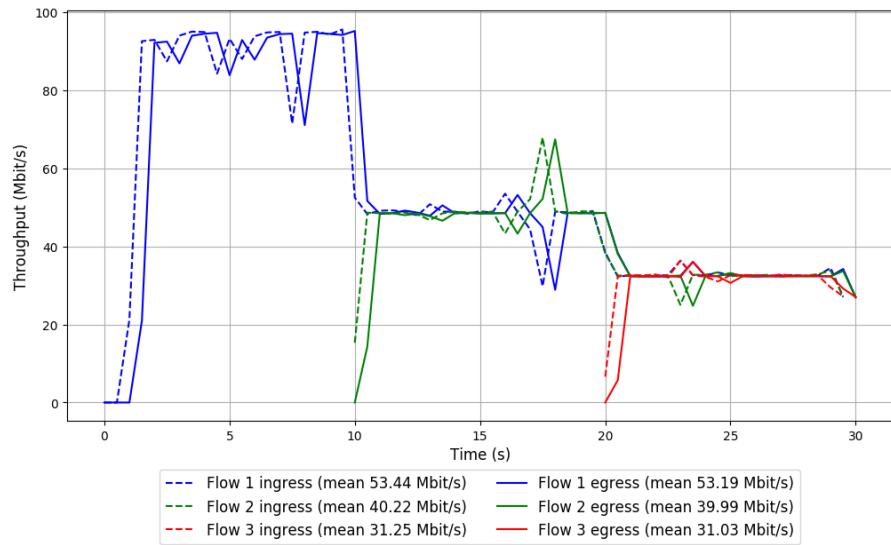


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-26 09:50:36
End at: 2018-10-26 09:51:06
Local clock offset: -6.071 ms
Remote clock offset: -0.343 ms

# Below is generated by plot.py at 2018-10-26 11:29:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.05 Mbit/s
95th percentile per-packet one-way delay: 11.008 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 53.19 Mbit/s
95th percentile per-packet one-way delay: 10.073 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 39.99 Mbit/s
95th percentile per-packet one-way delay: 11.159 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 12.194 ms
Loss rate: 0.70%
```

Run 1: Report of QUIC Cubic — Data Link

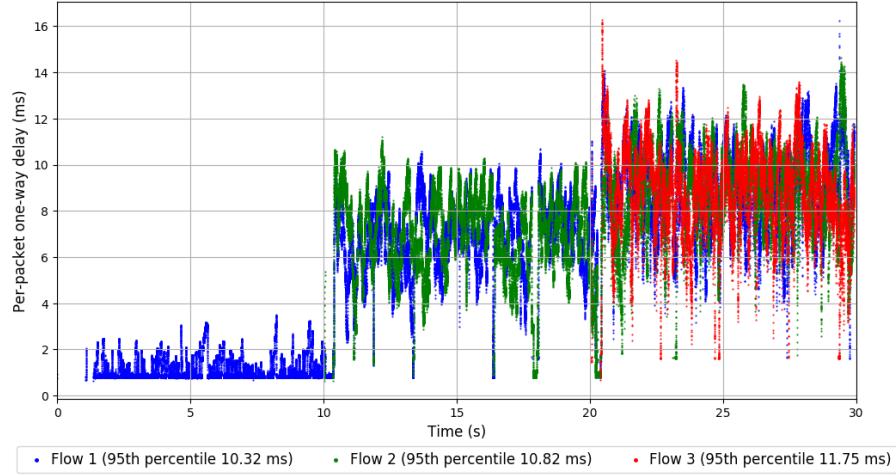
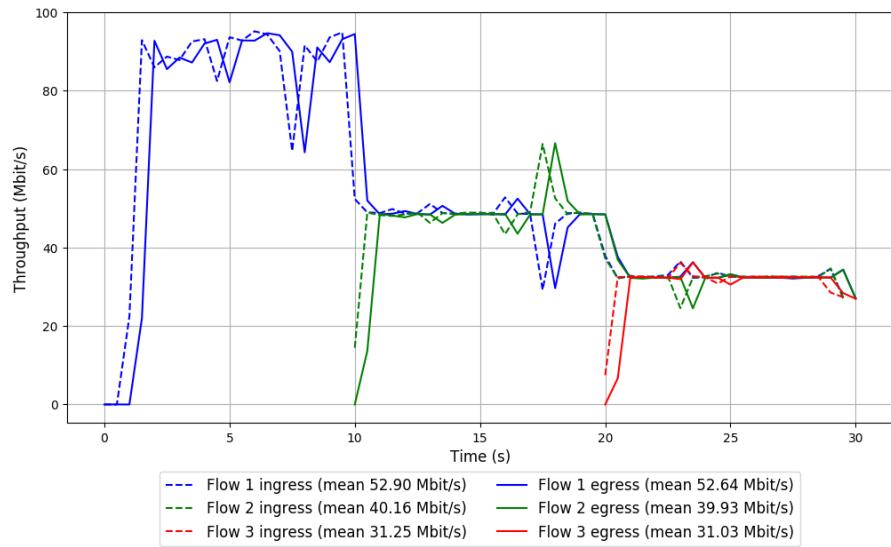


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-10-26 10:11:22
End at: 2018-10-26 10:11:52
Local clock offset: -6.139 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-10-26 11:29:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 10.827 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 52.64 Mbit/s
95th percentile per-packet one-way delay: 10.324 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 39.93 Mbit/s
95th percentile per-packet one-way delay: 10.816 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 11.747 ms
Loss rate: 0.71%
```

Run 2: Report of QUIC Cubic — Data Link

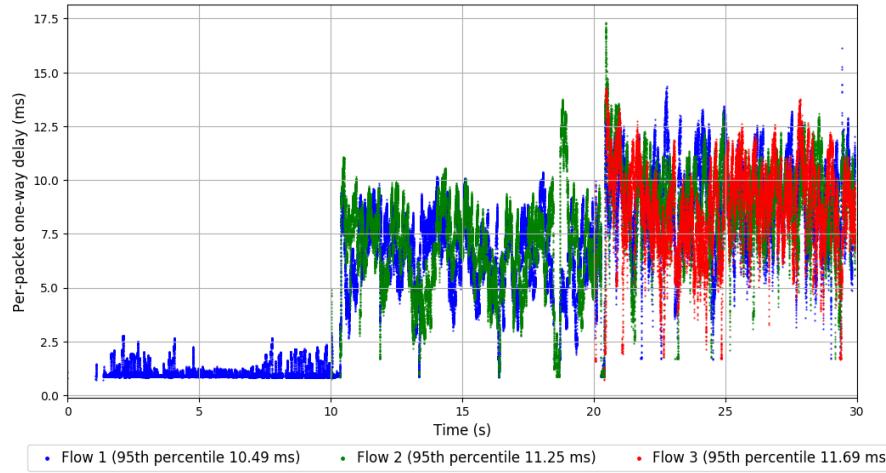
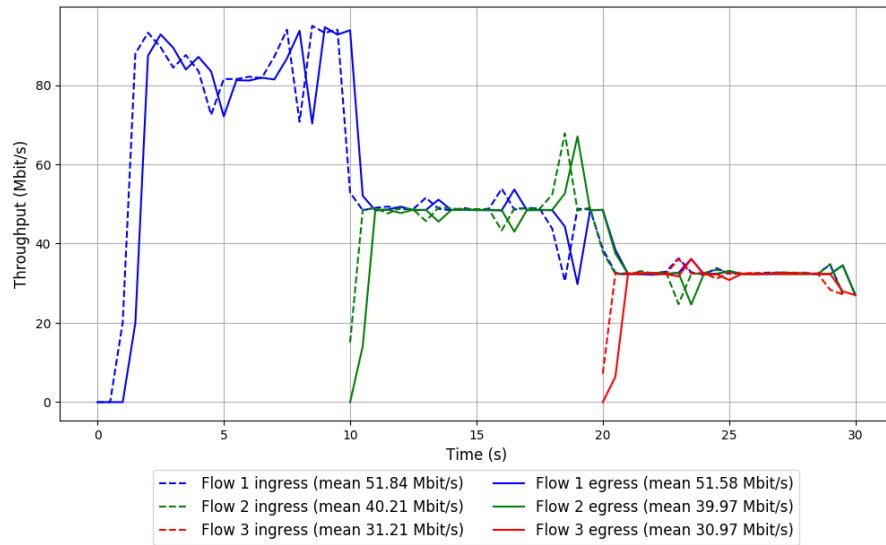


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-10-26 10:32:01
End at: 2018-10-26 10:32:31
Local clock offset: -6.08 ms
Remote clock offset: 0.17 ms

# Below is generated by plot.py at 2018-10-26 11:29:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.41 Mbit/s
95th percentile per-packet one-way delay: 11.027 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 51.58 Mbit/s
95th percentile per-packet one-way delay: 10.487 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 39.97 Mbit/s
95th percentile per-packet one-way delay: 11.253 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 30.97 Mbit/s
95th percentile per-packet one-way delay: 11.691 ms
Loss rate: 0.78%
```

Run 3: Report of QUIC Cubic — Data Link

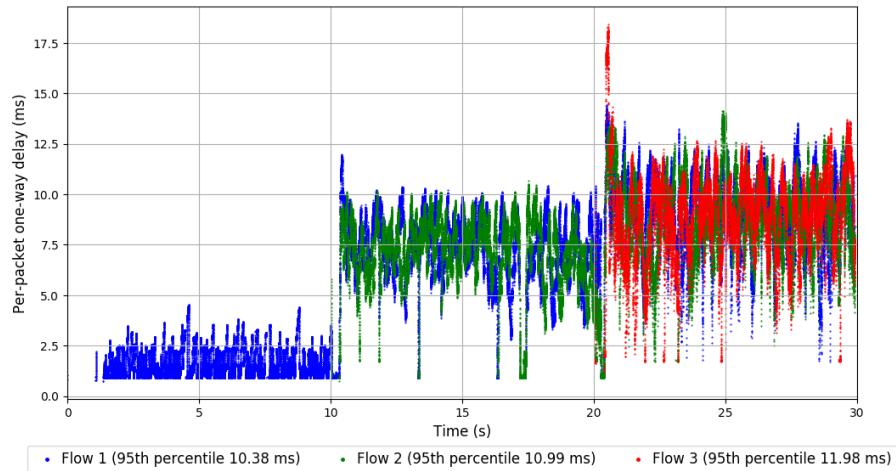
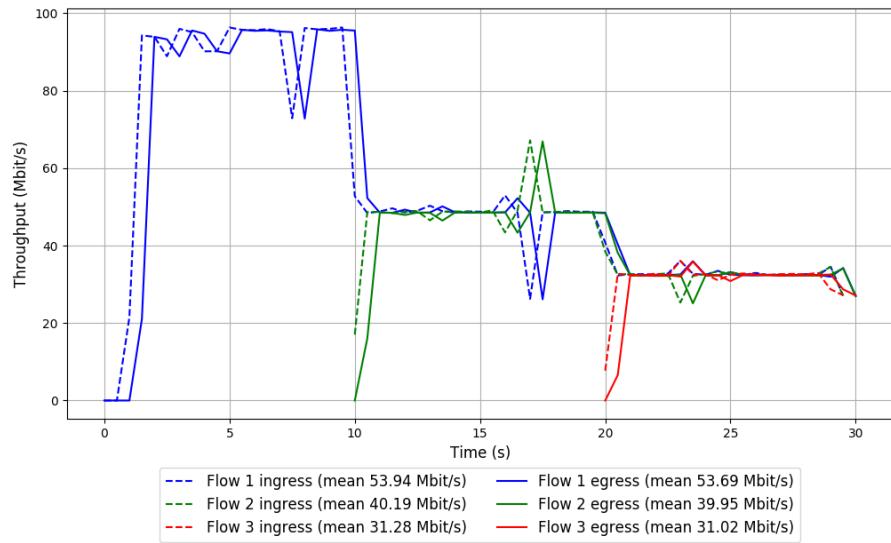


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-10-26 10:52:39
End at: 2018-10-26 10:53:09
Local clock offset: -5.763 ms
Remote clock offset: 0.395 ms

# Below is generated by plot.py at 2018-10-26 11:29:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.53 Mbit/s
95th percentile per-packet one-way delay: 10.944 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 53.69 Mbit/s
95th percentile per-packet one-way delay: 10.385 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 39.95 Mbit/s
95th percentile per-packet one-way delay: 10.986 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 31.02 Mbit/s
95th percentile per-packet one-way delay: 11.983 ms
Loss rate: 0.83%
```

Run 4: Report of QUIC Cubic — Data Link

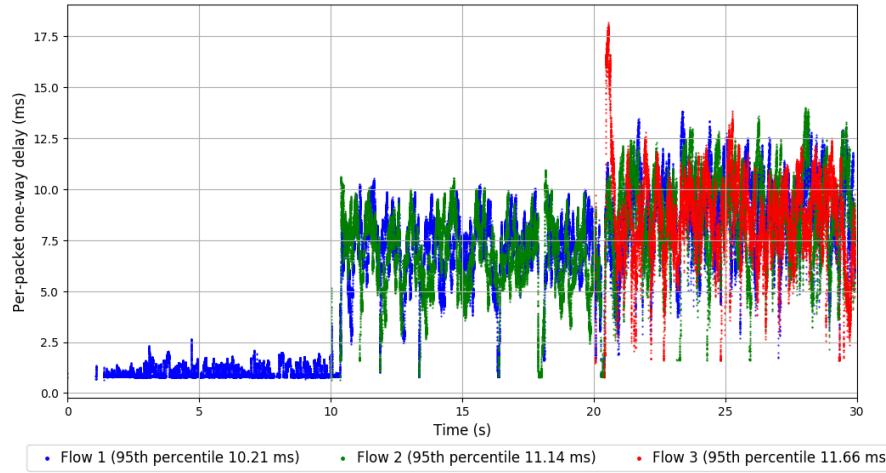
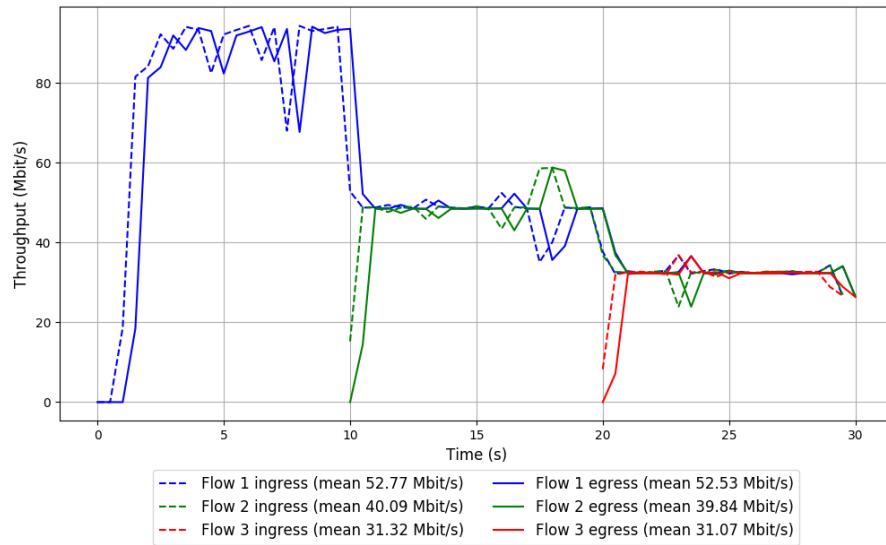


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-10-26 11:13:16
End at: 2018-10-26 11:13:46
Local clock offset: -5.703 ms
Remote clock offset: 0.432 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.30 Mbit/s
95th percentile per-packet one-way delay: 10.845 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 10.210 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 39.84 Mbit/s
95th percentile per-packet one-way delay: 11.140 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 31.07 Mbit/s
95th percentile per-packet one-way delay: 11.664 ms
Loss rate: 0.76%
```

Run 5: Report of QUIC Cubic — Data Link

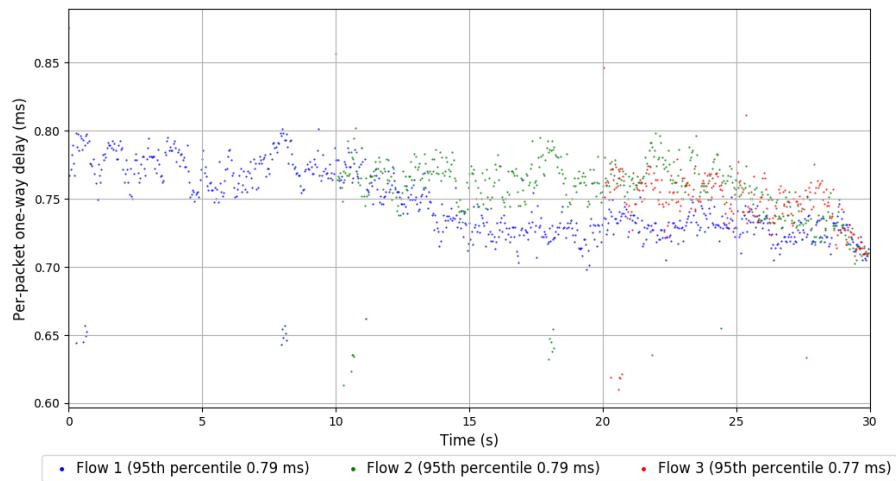
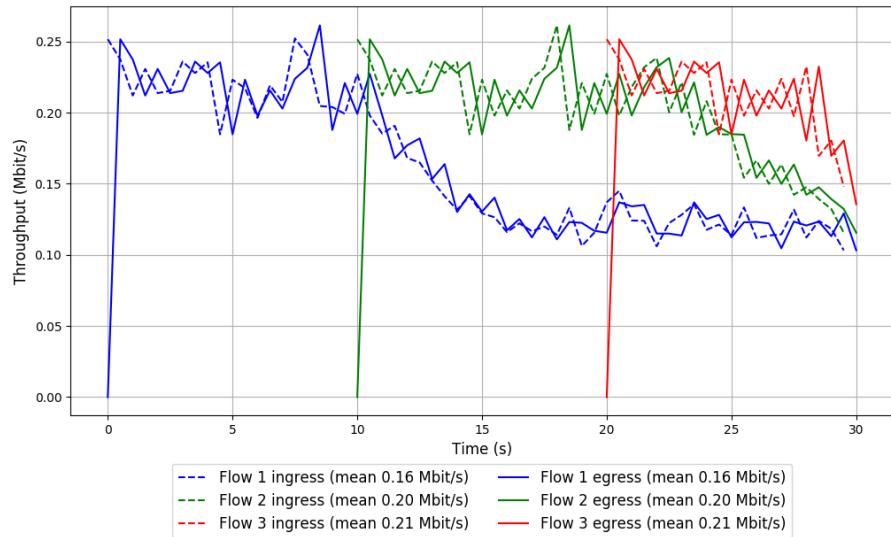


```
Run 1: Statistics of SCReAM

Start at: 2018-10-26 09:51:45
End at: 2018-10-26 09:52:15
Local clock offset: -6.068 ms
Remote clock offset: -0.282 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 0.786 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 0.789 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 0.785 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 0.771 ms
Loss rate: 0.70%
```

Run 1: Report of SCReAM — Data Link

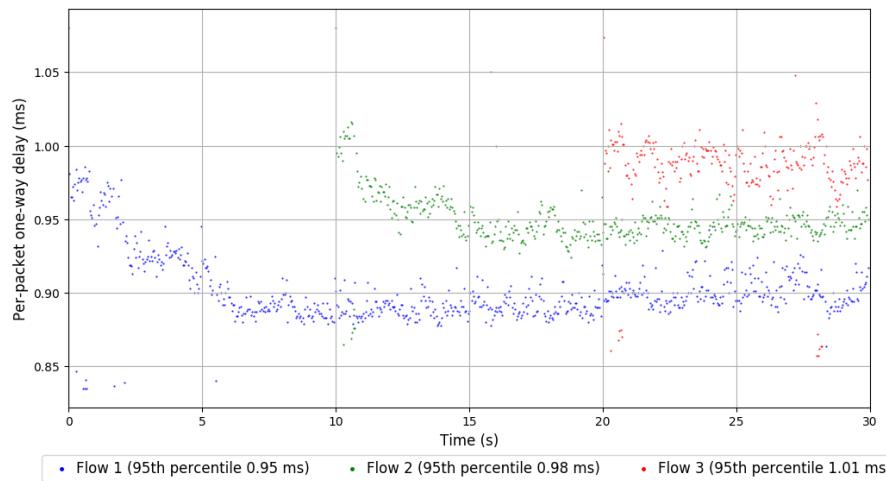
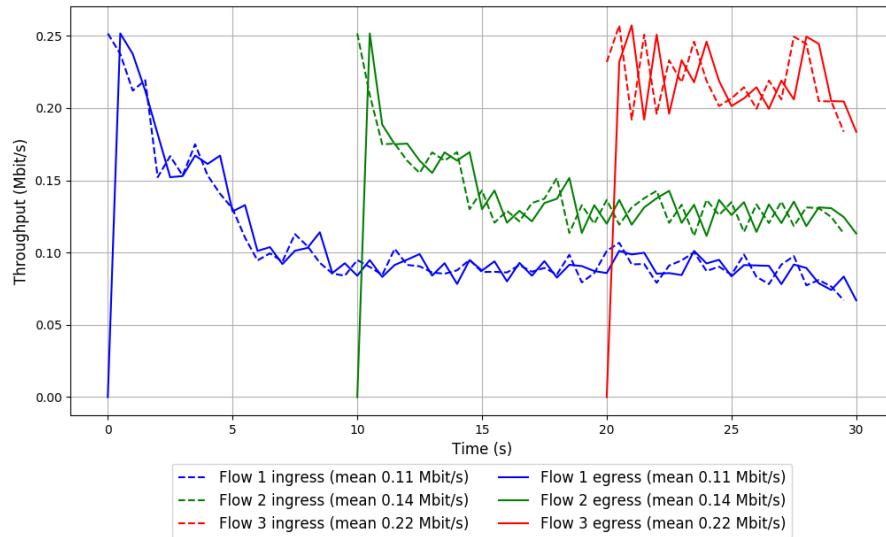


Run 2: Statistics of SCReAM

```
Start at: 2018-10-26 10:12:31
End at: 2018-10-26 10:13:01
Local clock offset: -6.037 ms
Remote clock offset: -0.144 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 0.998 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 0.953 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 0.977 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

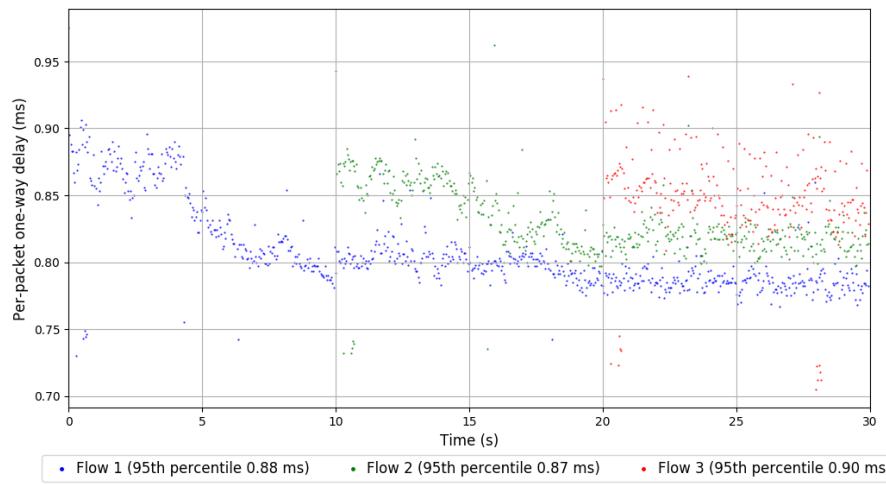
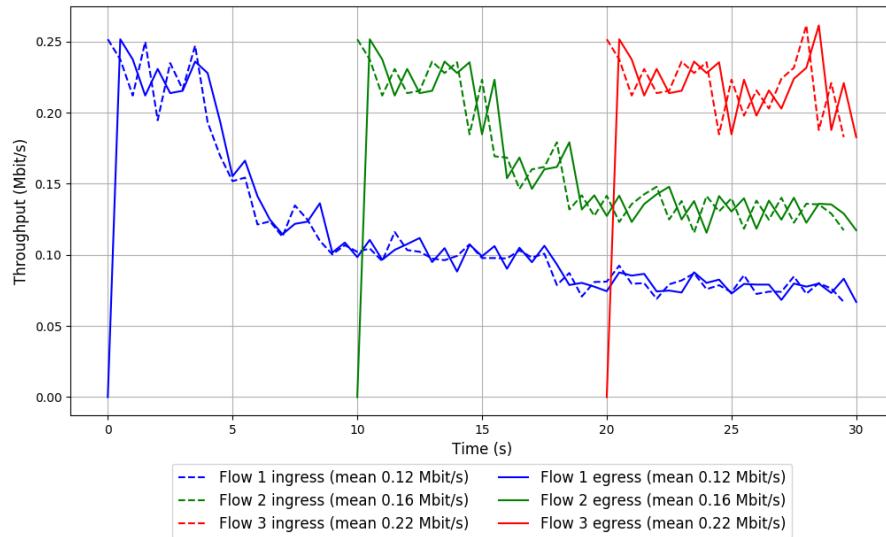


Run 3: Statistics of SCReAM

```
Start at: 2018-10-26 10:33:10
End at: 2018-10-26 10:33:40
Local clock offset: -6.026 ms
Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 0.881 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 0.880 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 0.873 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.900 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

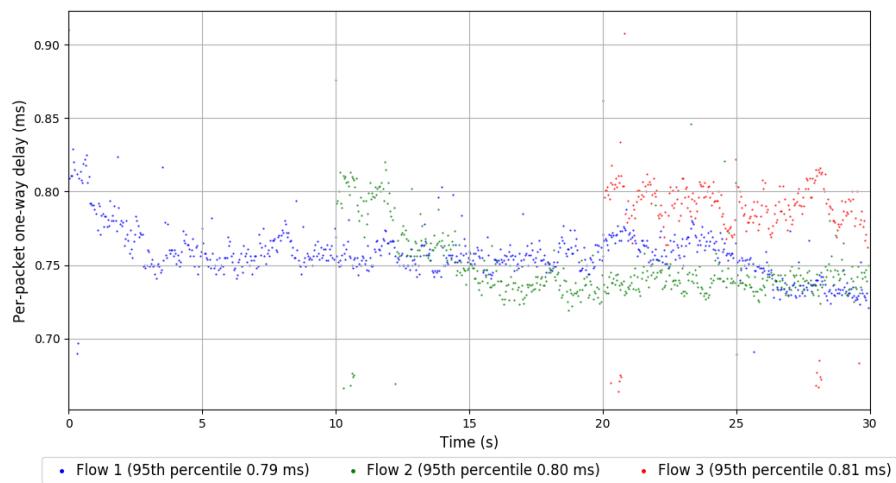
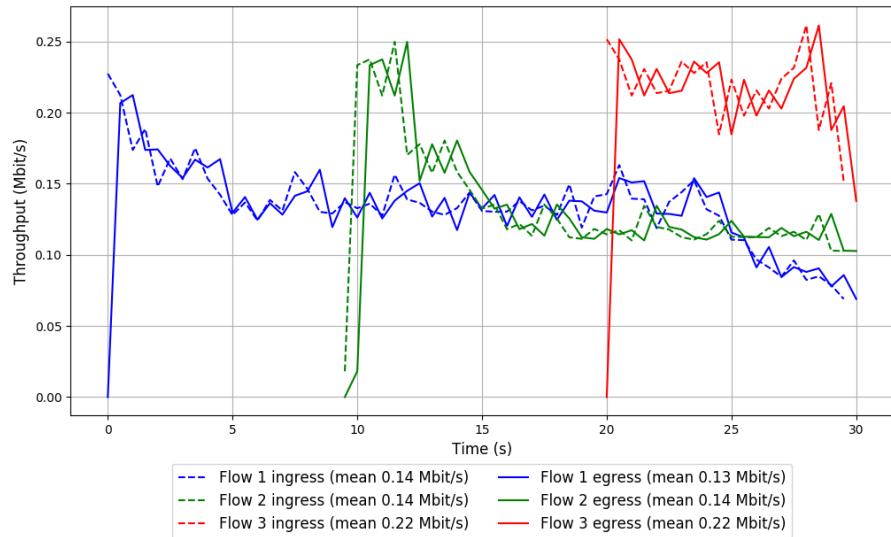


Run 4: Statistics of SCReAM

```
Start at: 2018-10-26 10:53:48
End at: 2018-10-26 10:54:18
Local clock offset: -5.896 ms
Remote clock offset: 0.361 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 0.805 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 0.785 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 0.802 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 0.811 ms
Loss rate: 0.68%
```

Run 4: Report of SCReAM — Data Link

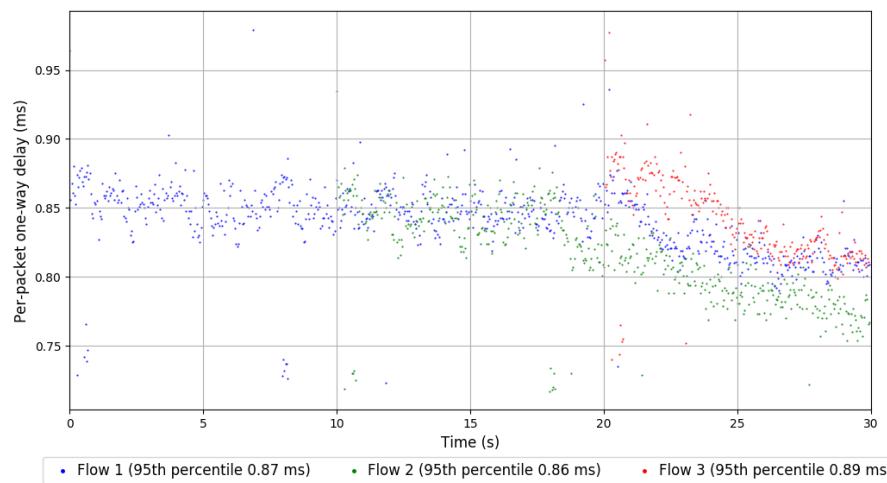
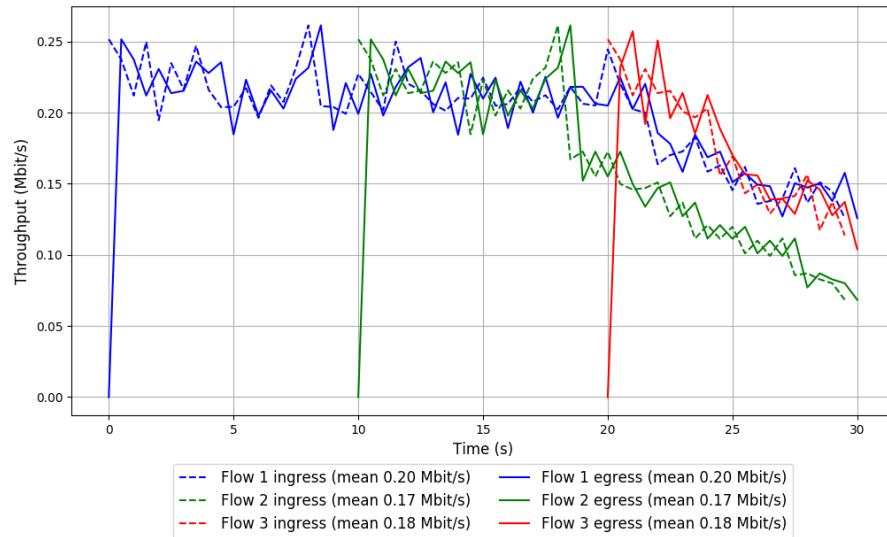


Run 5: Statistics of SCReAM

```
Start at: 2018-10-26 11:14:25
End at: 2018-10-26 11:14:55
Local clock offset: -5.754 ms
Remote clock offset: 0.325 ms

# Below is generated by plot.py at 2018-10-26 11:29:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 0.873 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 0.871 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 0.863 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 0.887 ms
Loss rate: 0.82%
```

Run 5: Report of SCReAM — Data Link

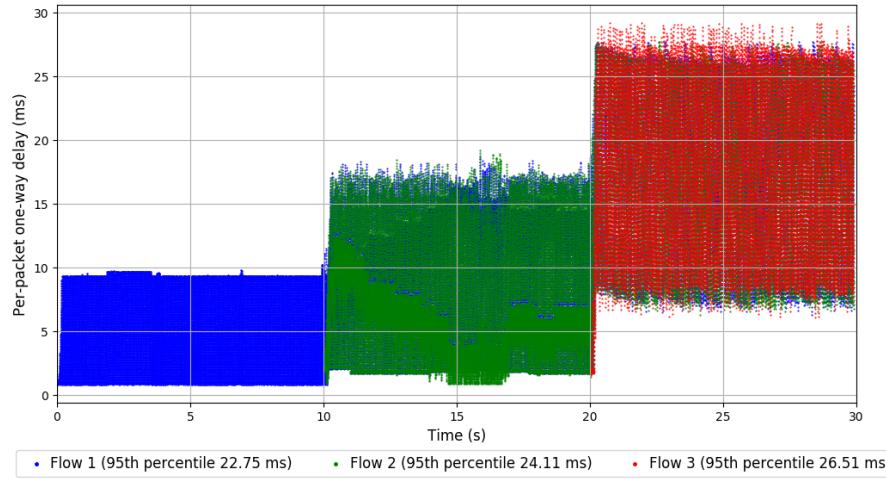
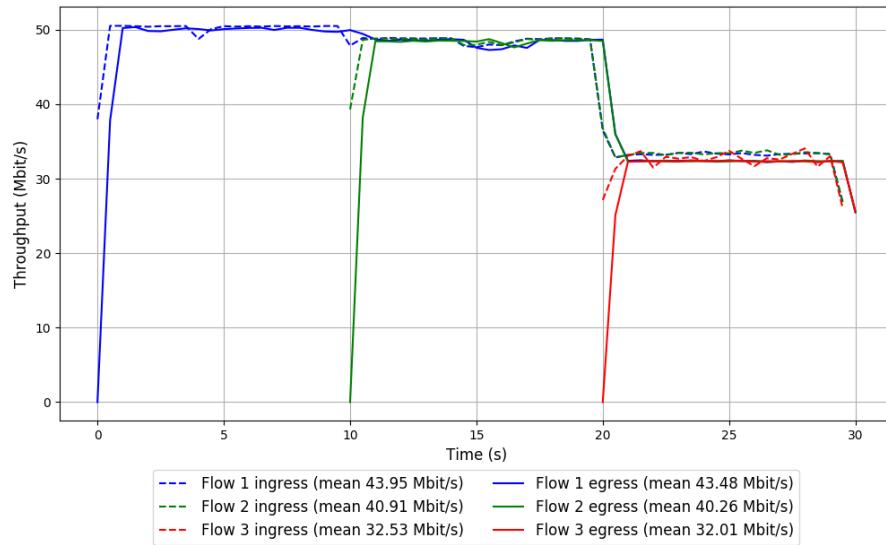


Run 1: Statistics of Sprout

```
Start at: 2018-10-26 09:47:13
End at: 2018-10-26 09:47:43
Local clock offset: -6.068 ms
Remote clock offset: -0.386 ms

# Below is generated by plot.py at 2018-10-26 11:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.85 Mbit/s
95th percentile per-packet one-way delay: 24.442 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 43.48 Mbit/s
95th percentile per-packet one-way delay: 22.746 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 40.26 Mbit/s
95th percentile per-packet one-way delay: 24.108 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 32.01 Mbit/s
95th percentile per-packet one-way delay: 26.507 ms
Loss rate: 1.45%
```

Run 1: Report of Sprout — Data Link

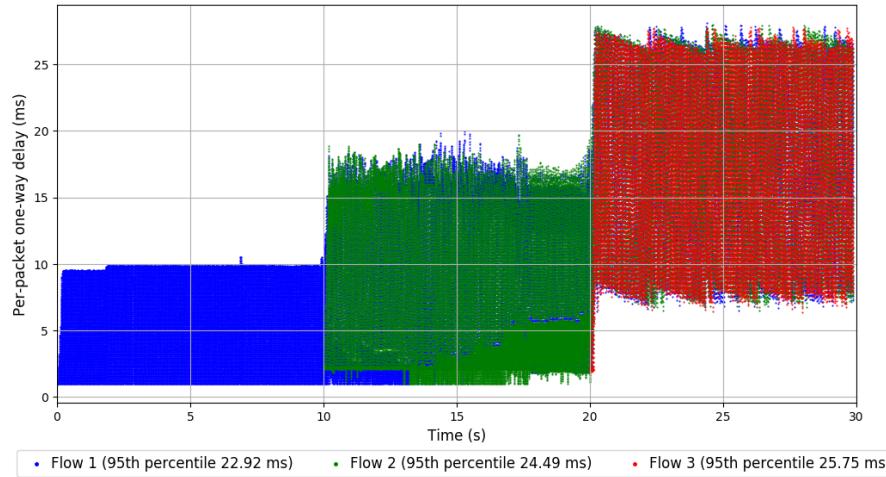
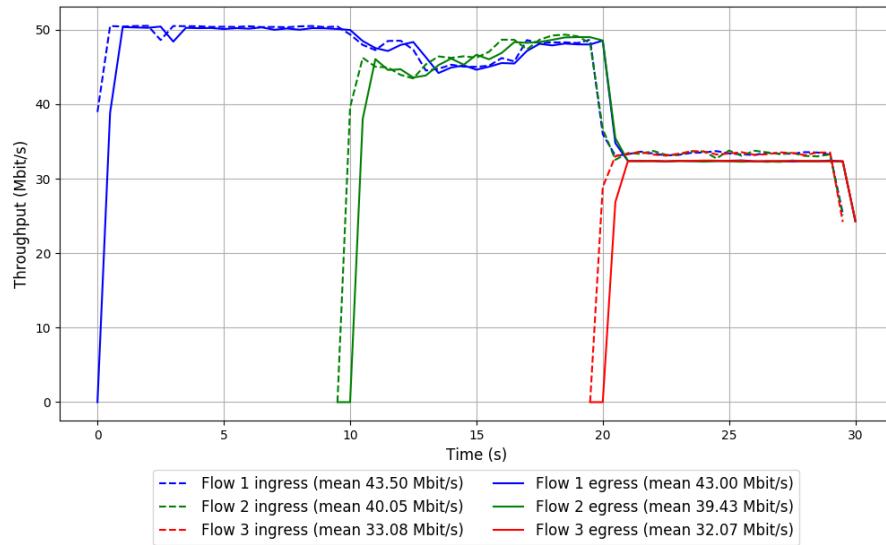


Run 2: Statistics of Sprout

```
Start at: 2018-10-26 10:07:58
End at: 2018-10-26 10:08:28
Local clock offset: -6.007 ms
Remote clock offset: -0.184 ms

# Below is generated by plot.py at 2018-10-26 11:29:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.85 Mbit/s
95th percentile per-packet one-way delay: 24.401 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 22.923 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 24.494 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 32.07 Mbit/s
95th percentile per-packet one-way delay: 25.755 ms
Loss rate: 3.06%
```

Run 2: Report of Sprout — Data Link

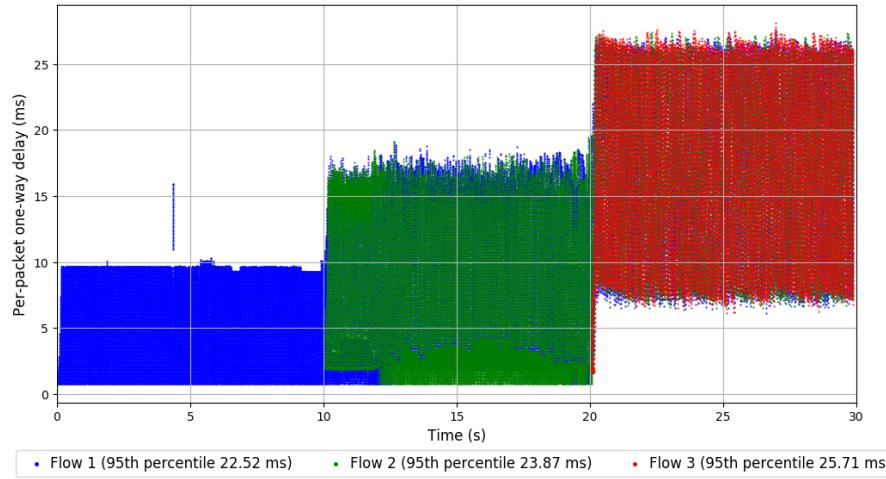
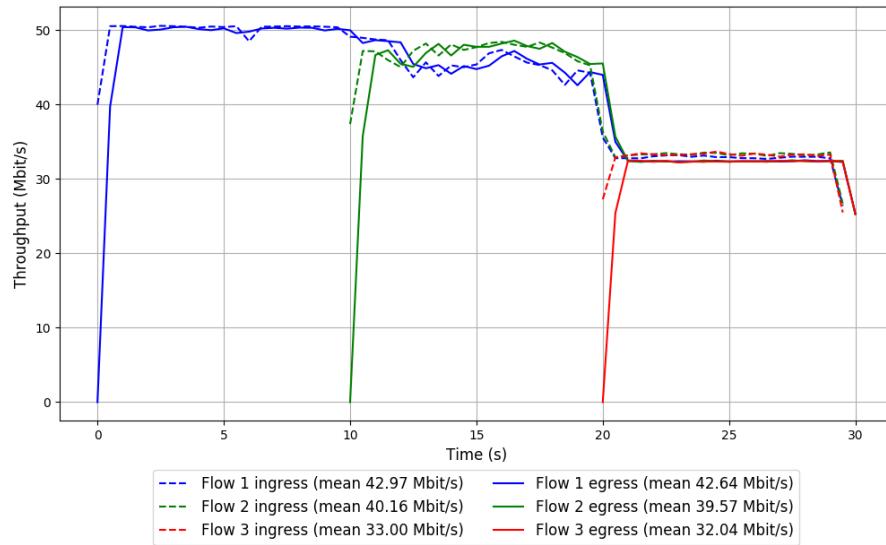


Run 3: Statistics of Sprout

```
Start at: 2018-10-26 10:28:36
End at: 2018-10-26 10:29:06
Local clock offset: -6.201 ms
Remote clock offset: 0.154 ms

# Below is generated by plot.py at 2018-10-26 11:29:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.55 Mbit/s
95th percentile per-packet one-way delay: 24.032 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 42.64 Mbit/s
95th percentile per-packet one-way delay: 22.515 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 39.57 Mbit/s
95th percentile per-packet one-way delay: 23.874 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 32.04 Mbit/s
95th percentile per-packet one-way delay: 25.706 ms
Loss rate: 2.79%
```

Run 3: Report of Sprout — Data Link

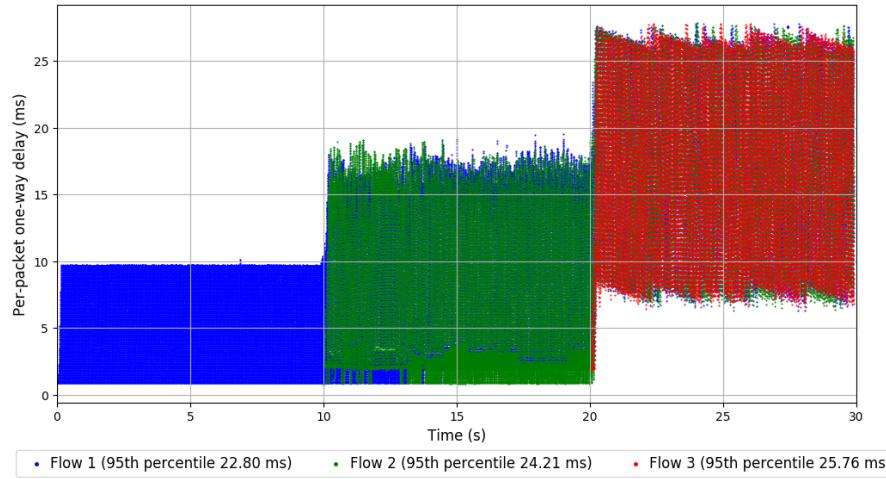
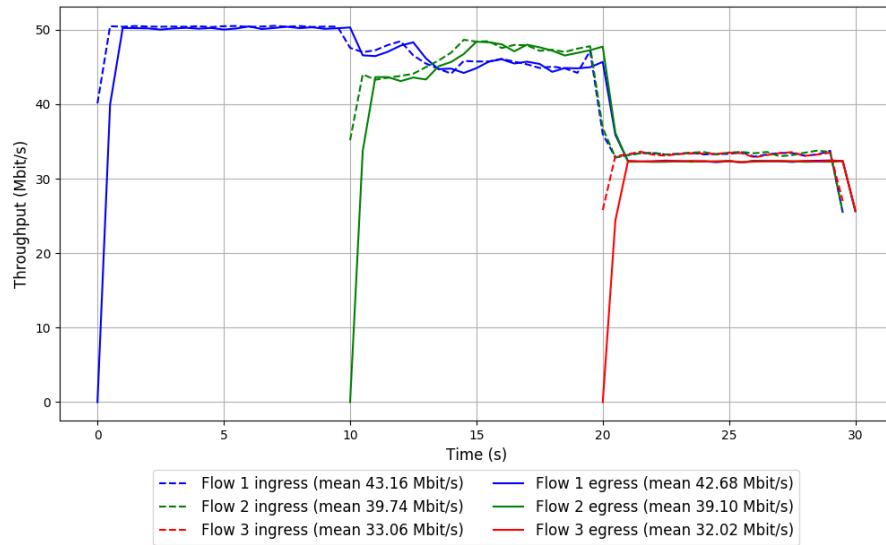


Run 4: Statistics of Sprout

```
Start at: 2018-10-26 10:49:15
End at: 2018-10-26 10:49:45
Local clock offset: -5.85 ms
Remote clock offset: 0.356 ms

# Below is generated by plot.py at 2018-10-26 11:30:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 79.26 Mbit/s
95th percentile per-packet one-way delay: 24.258 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 42.68 Mbit/s
95th percentile per-packet one-way delay: 22.795 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 39.10 Mbit/s
95th percentile per-packet one-way delay: 24.209 ms
Loss rate: 1.62%
-- Flow 3:
Average throughput: 32.02 Mbit/s
95th percentile per-packet one-way delay: 25.758 ms
Loss rate: 3.06%
```

Run 4: Report of Sprout — Data Link

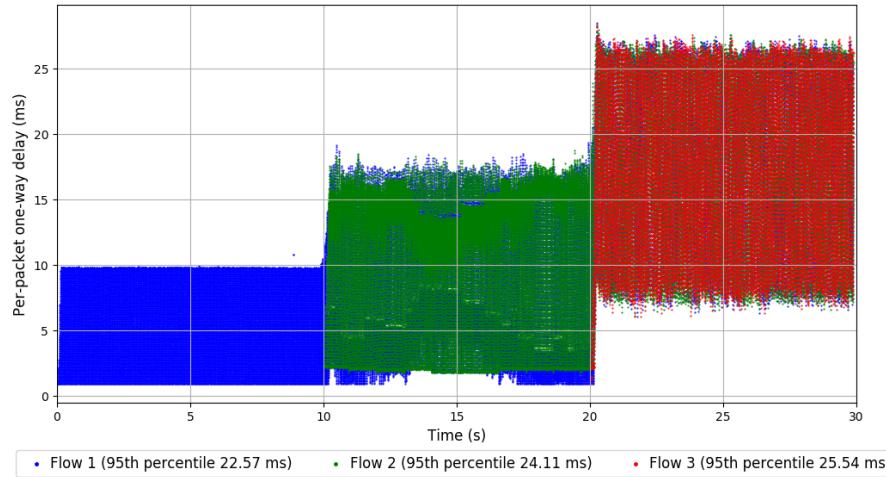
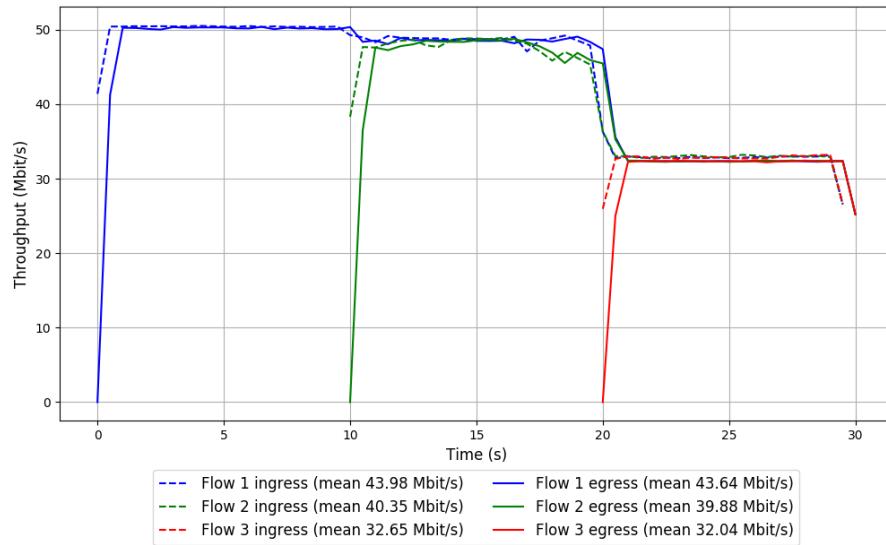


Run 5: Statistics of Sprout

```
Start at: 2018-10-26 11:09:53
End at: 2018-10-26 11:10:23
Local clock offset: -5.725 ms
Remote clock offset: 0.333 ms

# Below is generated by plot.py at 2018-10-26 11:30:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.74 Mbit/s
95th percentile per-packet one-way delay: 24.080 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 43.64 Mbit/s
95th percentile per-packet one-way delay: 22.569 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 39.88 Mbit/s
95th percentile per-packet one-way delay: 24.107 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 32.04 Mbit/s
95th percentile per-packet one-way delay: 25.538 ms
Loss rate: 1.85%
```

Run 5: Report of Sprout — Data Link

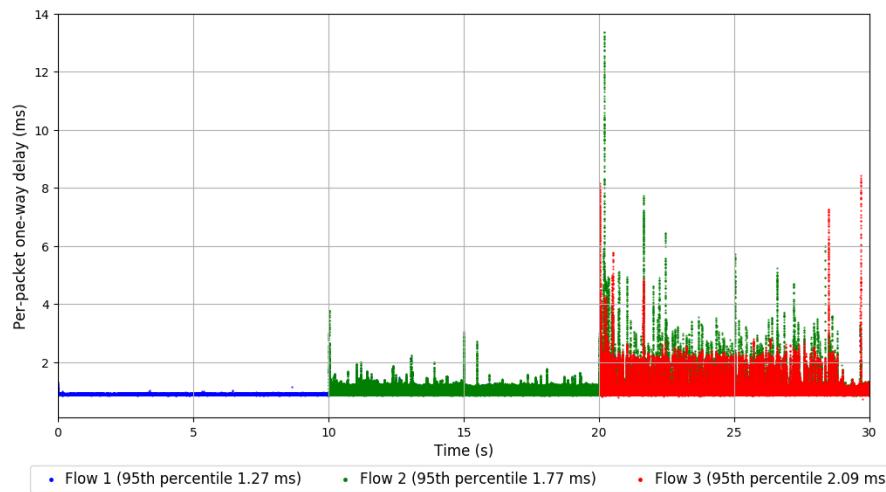
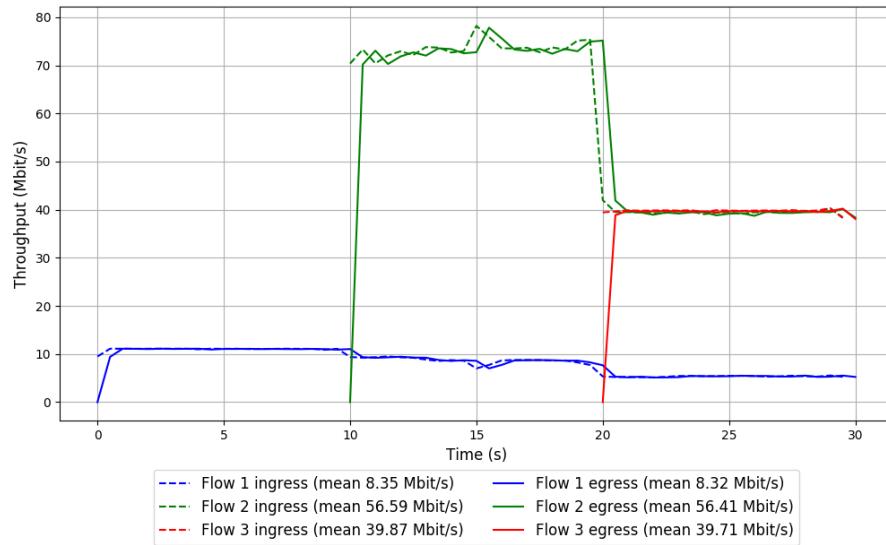


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-10-26 09:40:15
End at: 2018-10-26 09:40:45
Local clock offset: -5.91 ms
Remote clock offset: -0.389 ms

# Below is generated by plot.py at 2018-10-26 11:30:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 59.09 Mbit/s
95th percentile per-packet one-way delay: 1.871 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 8.32 Mbit/s
95th percentile per-packet one-way delay: 1.269 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 56.41 Mbit/s
95th percentile per-packet one-way delay: 1.768 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 39.71 Mbit/s
95th percentile per-packet one-way delay: 2.087 ms
Loss rate: 0.43%
```

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

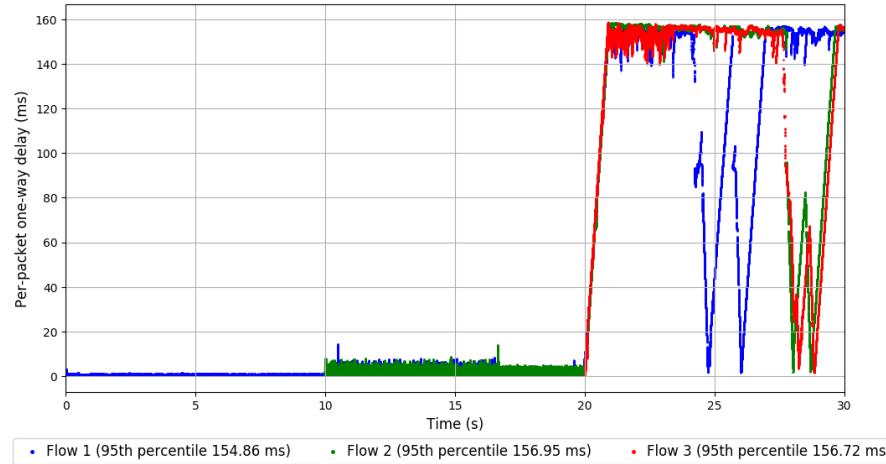
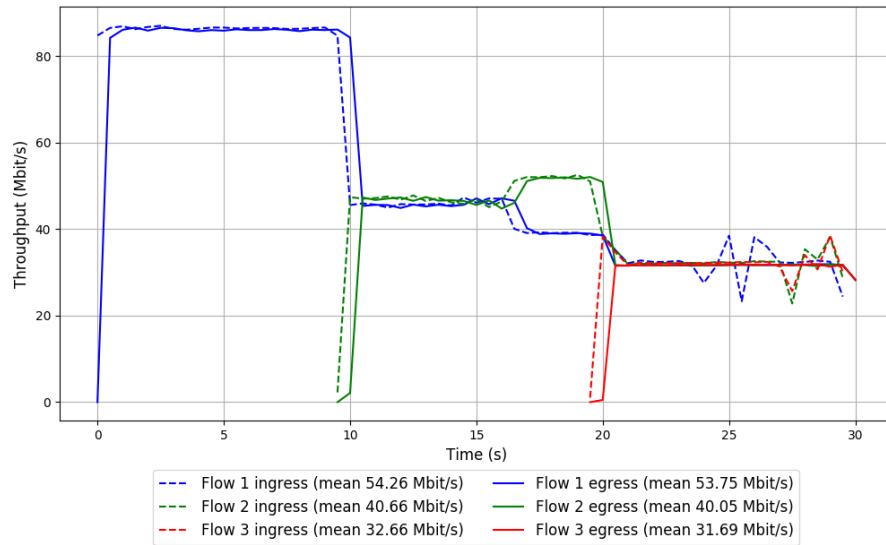


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-10-26 10:00:56
End at: 2018-10-26 10:01:26
Local clock offset: -5.942 ms
Remote clock offset: -0.253 ms

# Below is generated by plot.py at 2018-10-26 11:31:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 156.304 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 53.75 Mbit/s
95th percentile per-packet one-way delay: 154.859 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 40.05 Mbit/s
95th percentile per-packet one-way delay: 156.950 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 31.69 Mbit/s
95th percentile per-packet one-way delay: 156.720 ms
Loss rate: 3.06%
```

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

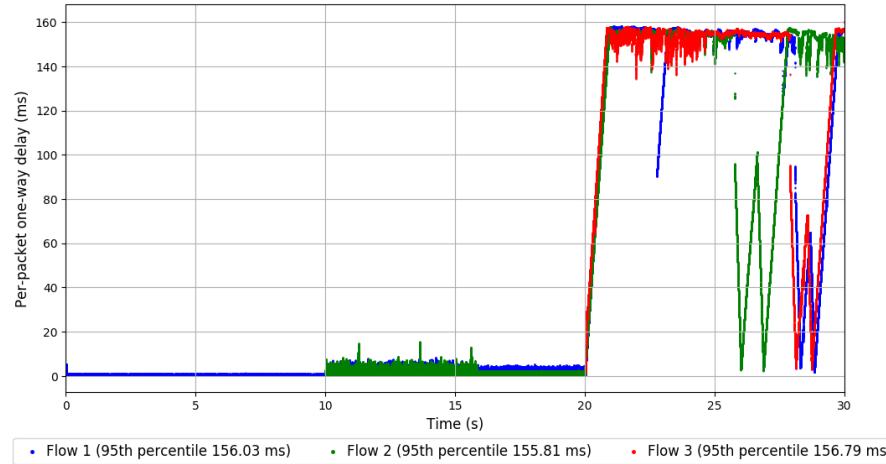
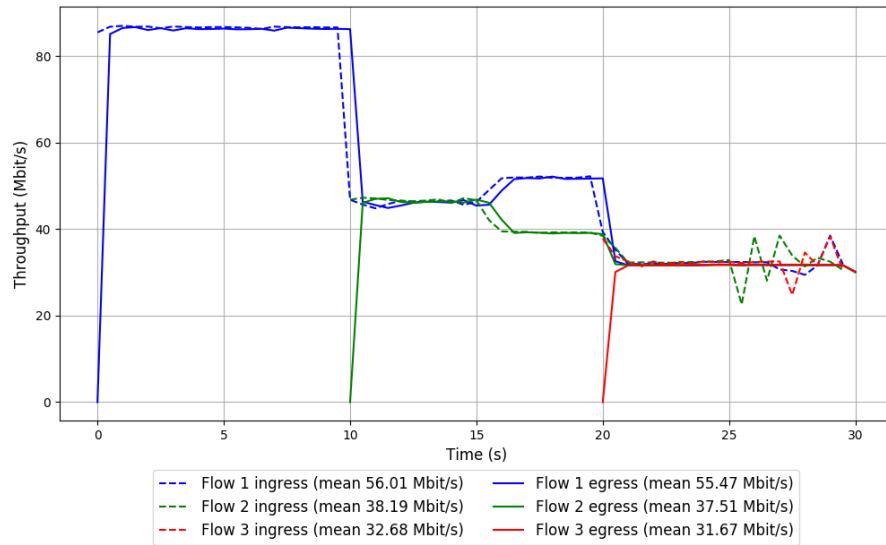


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-10-26 10:21:35
End at: 2018-10-26 10:22:05
Local clock offset: -6.151 ms
Remote clock offset: 0.09 ms

# Below is generated by plot.py at 2018-10-26 11:31:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.97 Mbit/s
95th percentile per-packet one-way delay: 156.173 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 55.47 Mbit/s
95th percentile per-packet one-way delay: 156.029 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 37.51 Mbit/s
95th percentile per-packet one-way delay: 155.809 ms
Loss rate: 1.80%
-- Flow 3:
Average throughput: 31.67 Mbit/s
95th percentile per-packet one-way delay: 156.794 ms
Loss rate: 3.07%
```

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

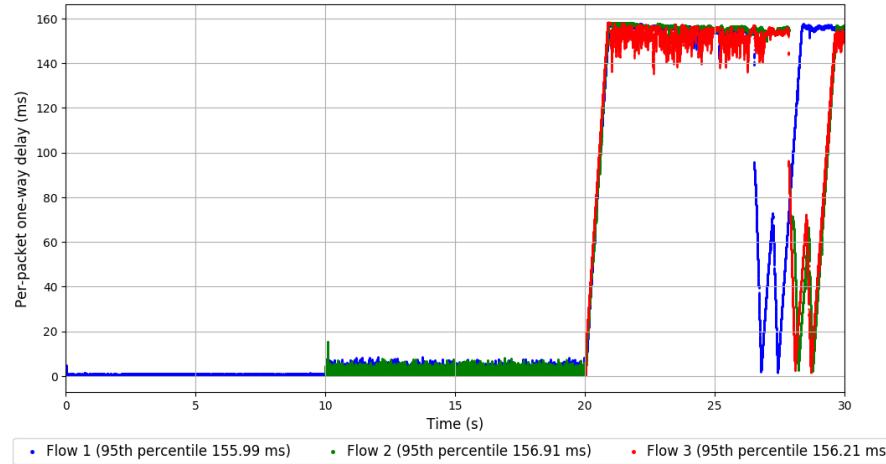
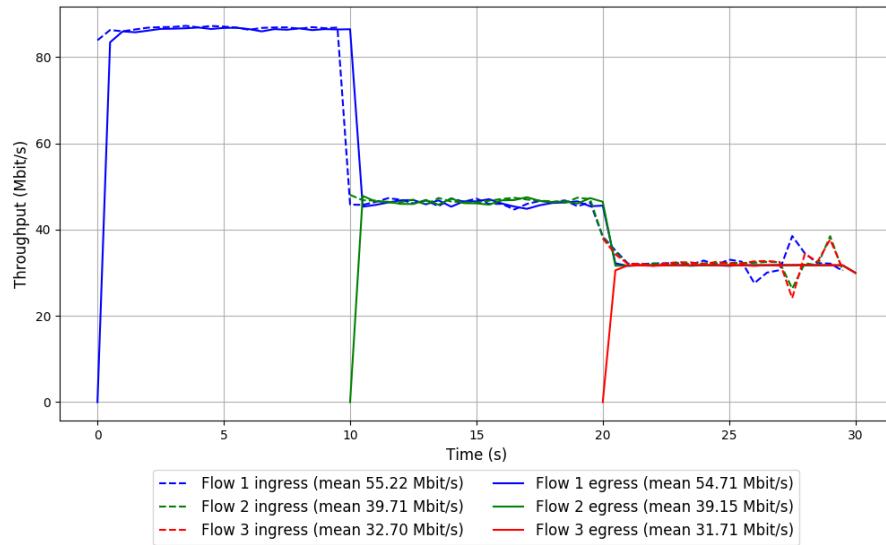


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-10-26 10:42:14
End at: 2018-10-26 10:42:44
Local clock offset: -5.962 ms
Remote clock offset: 0.243 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.33 Mbit/s
95th percentile per-packet one-way delay: 156.363 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 54.71 Mbit/s
95th percentile per-packet one-way delay: 155.986 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 39.15 Mbit/s
95th percentile per-packet one-way delay: 156.913 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 156.205 ms
Loss rate: 3.05%
```

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

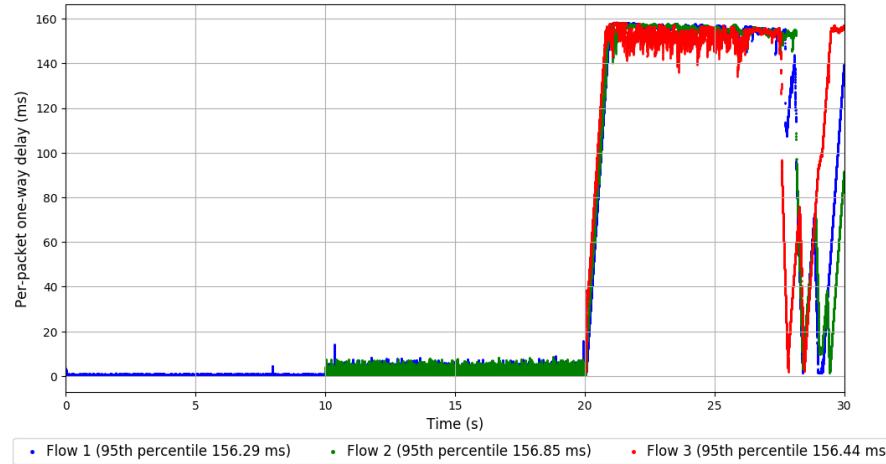
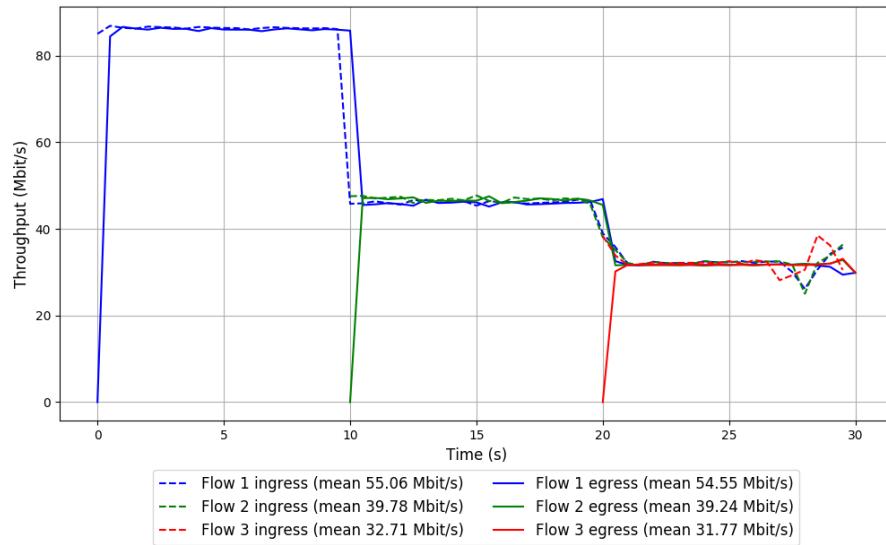


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-10-26 11:02:53
End at: 2018-10-26 11:03:23
Local clock offset: -5.735 ms
Remote clock offset: 0.437 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 91.24 Mbit/s
95th percentile per-packet one-way delay: 156.575 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 54.55 Mbit/s
95th percentile per-packet one-way delay: 156.295 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 156.852 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 31.77 Mbit/s
95th percentile per-packet one-way delay: 156.444 ms
Loss rate: 2.94%
```

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

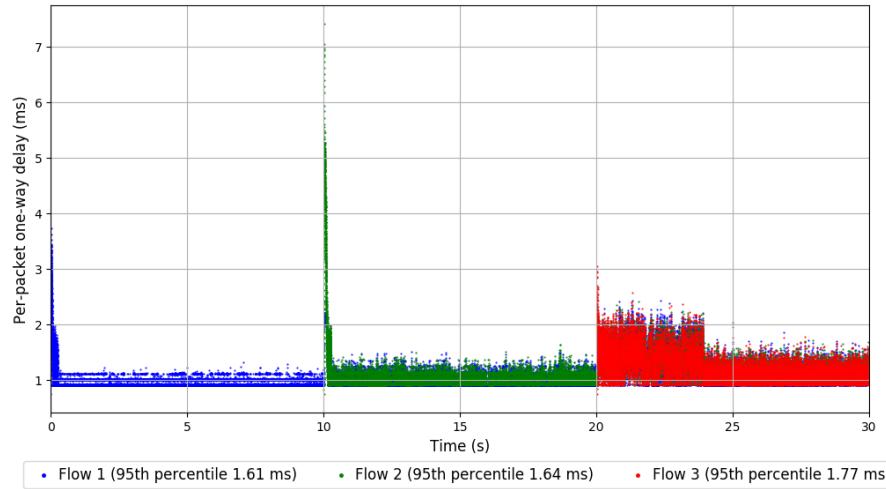
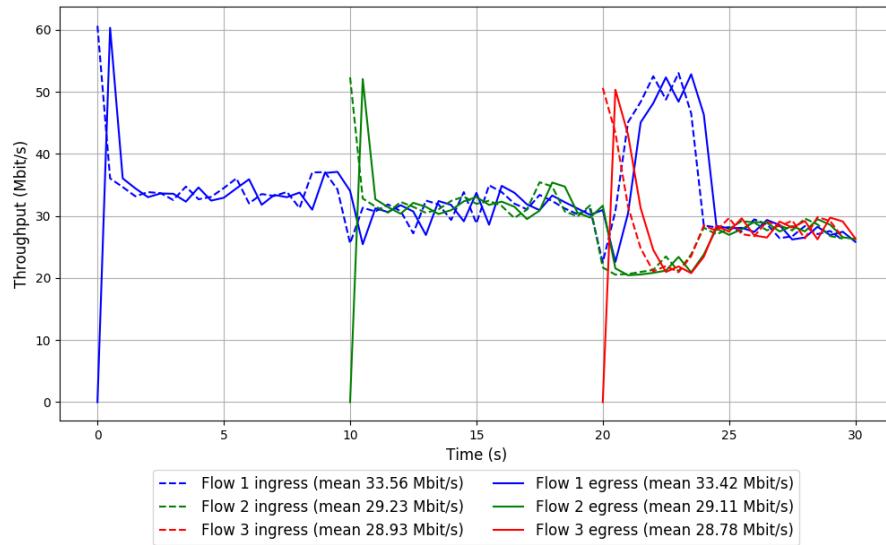


Run 1: Statistics of TCP Vegas

```
Start at: 2018-10-26 09:42:33
End at: 2018-10-26 09:43:03
Local clock offset: -5.931 ms
Remote clock offset: -0.385 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 1.660 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 33.42 Mbit/s
95th percentile per-packet one-way delay: 1.614 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 29.11 Mbit/s
95th percentile per-packet one-way delay: 1.636 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 28.78 Mbit/s
95th percentile per-packet one-way delay: 1.771 ms
Loss rate: 0.51%
```

Run 1: Report of TCP Vegas — Data Link

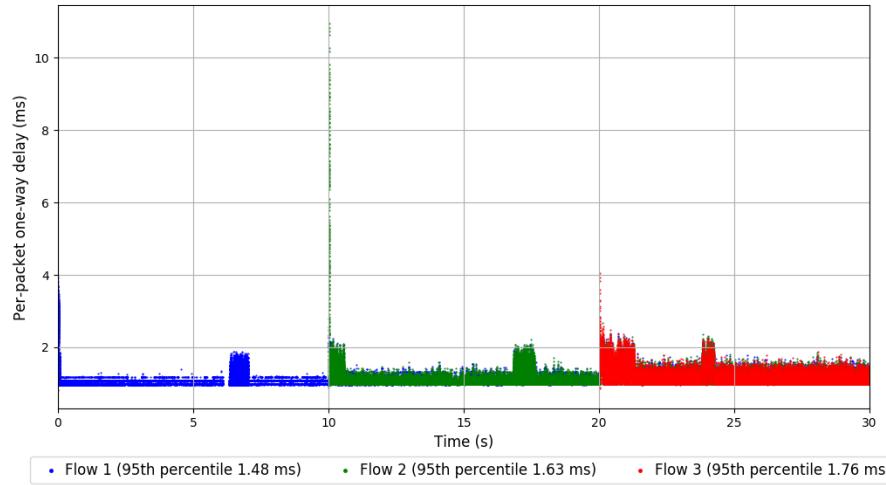
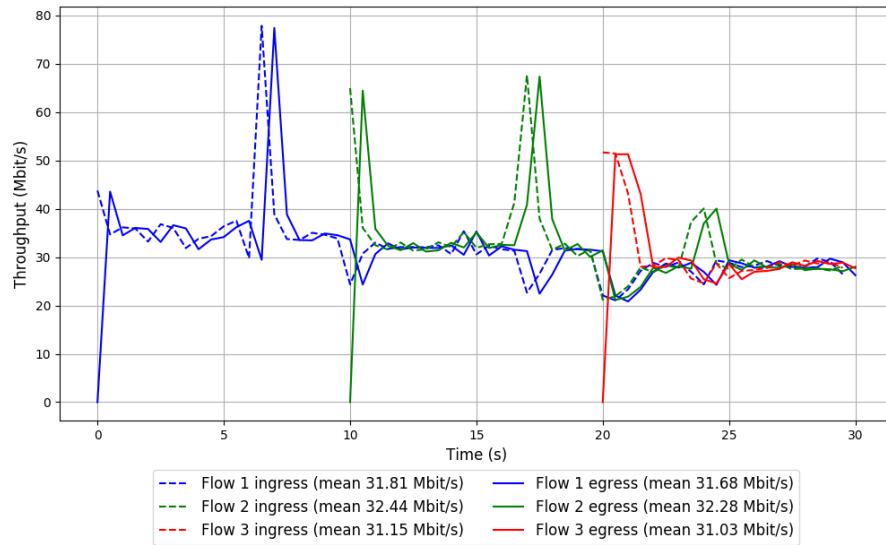


Run 2: Statistics of TCP Vegas

```
Start at: 2018-10-26 10:03:17
End at: 2018-10-26 10:03:47
Local clock offset: -5.957 ms
Remote clock offset: -0.237 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.49 Mbit/s
95th percentile per-packet one-way delay: 1.600 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 31.68 Mbit/s
95th percentile per-packet one-way delay: 1.477 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 32.28 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 31.03 Mbit/s
95th percentile per-packet one-way delay: 1.759 ms
Loss rate: 0.39%
```

Run 2: Report of TCP Vegas — Data Link

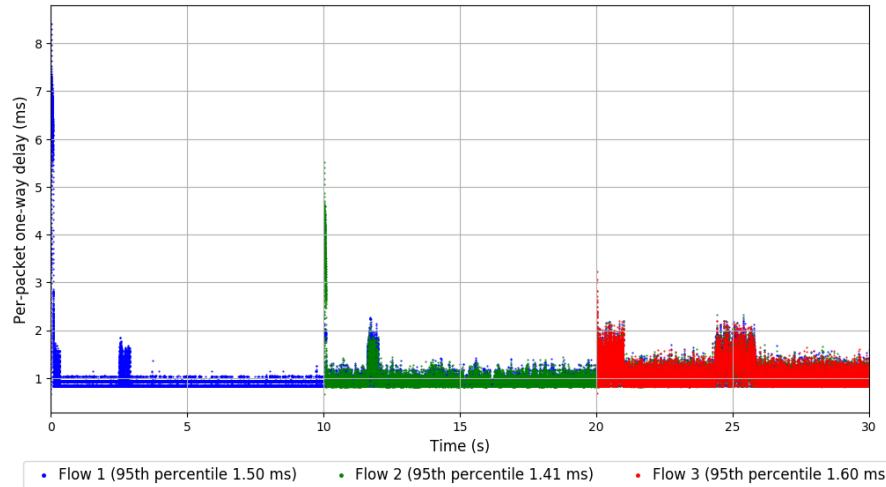
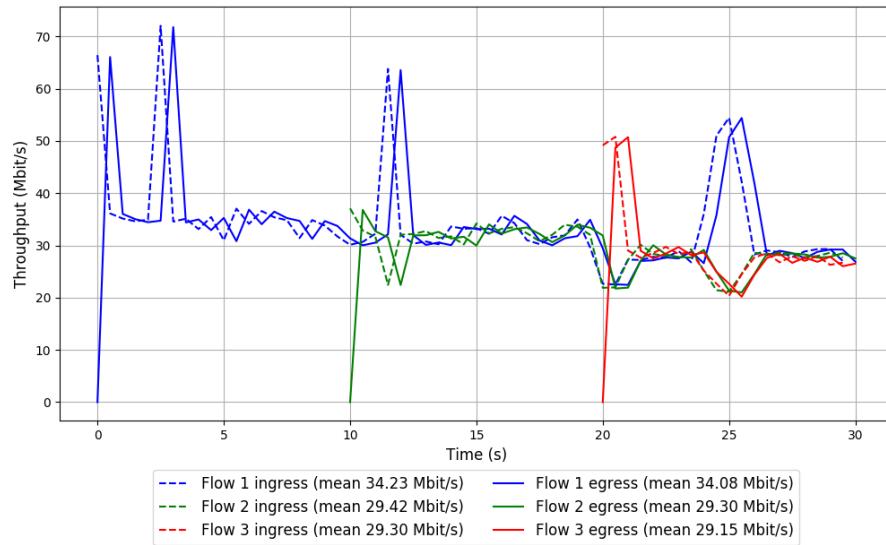


Run 3: Statistics of TCP Vegas

```
Start at: 2018-10-26 10:23:56
End at: 2018-10-26 10:24:26
Local clock offset: -6.172 ms
Remote clock offset: 0.061 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.27 Mbit/s
95th percentile per-packet one-way delay: 1.504 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 34.08 Mbit/s
95th percentile per-packet one-way delay: 1.503 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 29.30 Mbit/s
95th percentile per-packet one-way delay: 1.408 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 29.15 Mbit/s
95th percentile per-packet one-way delay: 1.602 ms
Loss rate: 0.51%
```

Run 3: Report of TCP Vegas — Data Link

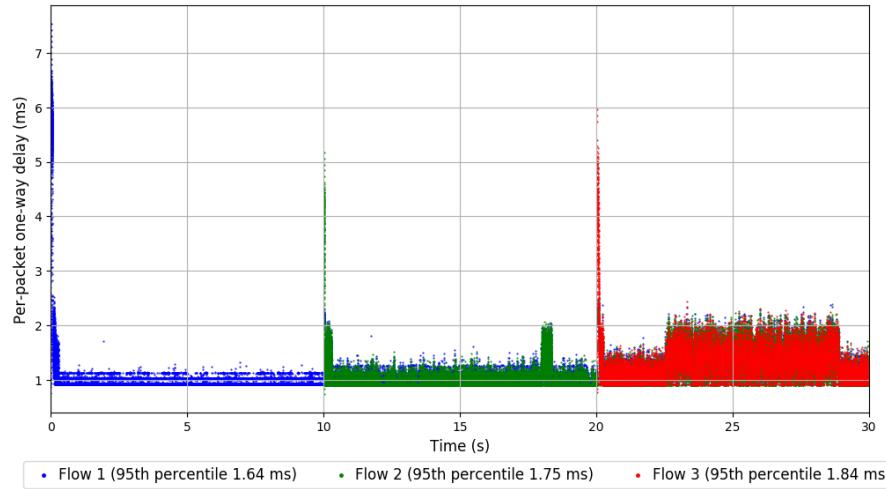
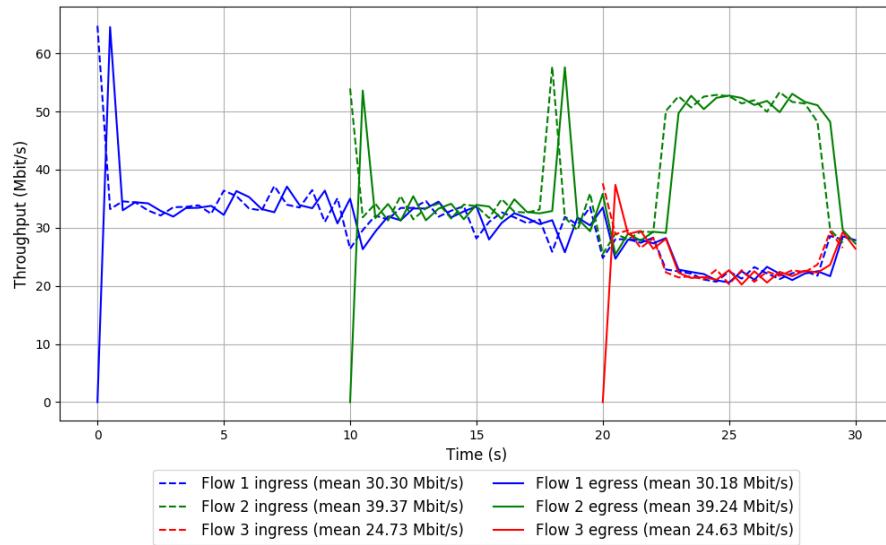


Run 4: Statistics of TCP Vegas

```
Start at: 2018-10-26 10:44:35
End at: 2018-10-26 10:45:05
Local clock offset: -5.815 ms
Remote clock offset: 0.313 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.50 Mbit/s
95th percentile per-packet one-way delay: 1.726 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 30.18 Mbit/s
95th percentile per-packet one-way delay: 1.635 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 39.24 Mbit/s
95th percentile per-packet one-way delay: 1.747 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 1.845 ms
Loss rate: 0.39%
```

Run 4: Report of TCP Vegas — Data Link

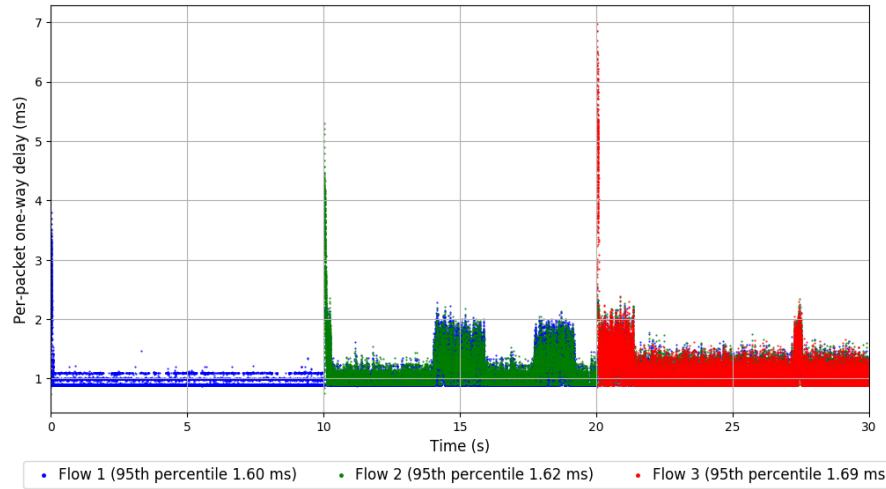
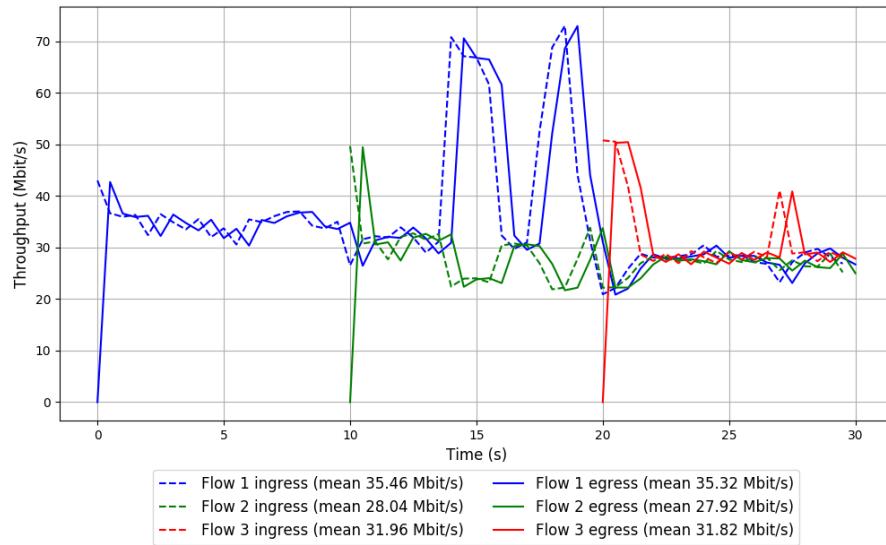


Run 5: Statistics of TCP Vegas

```
Start at: 2018-10-26 11:05:14
End at: 2018-10-26 11:05:44
Local clock offset: -5.766 ms
Remote clock offset: 0.36 ms

# Below is generated by plot.py at 2018-10-26 11:31:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.48 Mbit/s
95th percentile per-packet one-way delay: 1.622 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 1.603 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 27.92 Mbit/s
95th percentile per-packet one-way delay: 1.618 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 31.82 Mbit/s
95th percentile per-packet one-way delay: 1.685 ms
Loss rate: 0.44%
```

Run 5: Report of TCP Vegas — Data Link

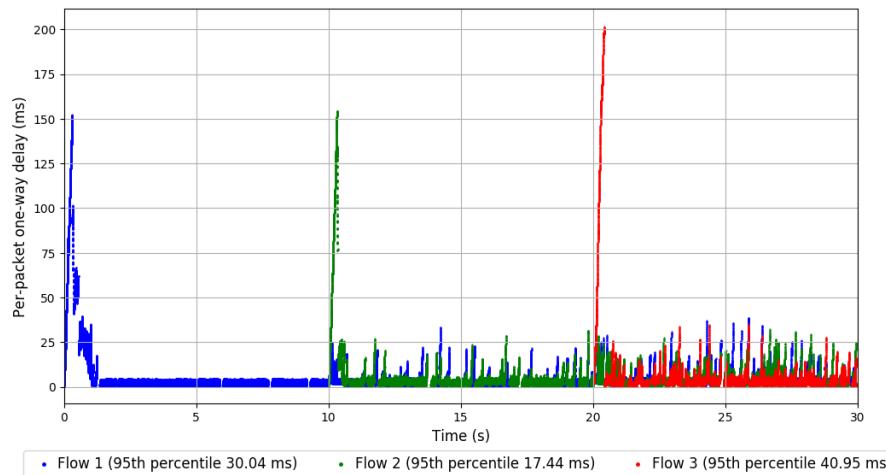
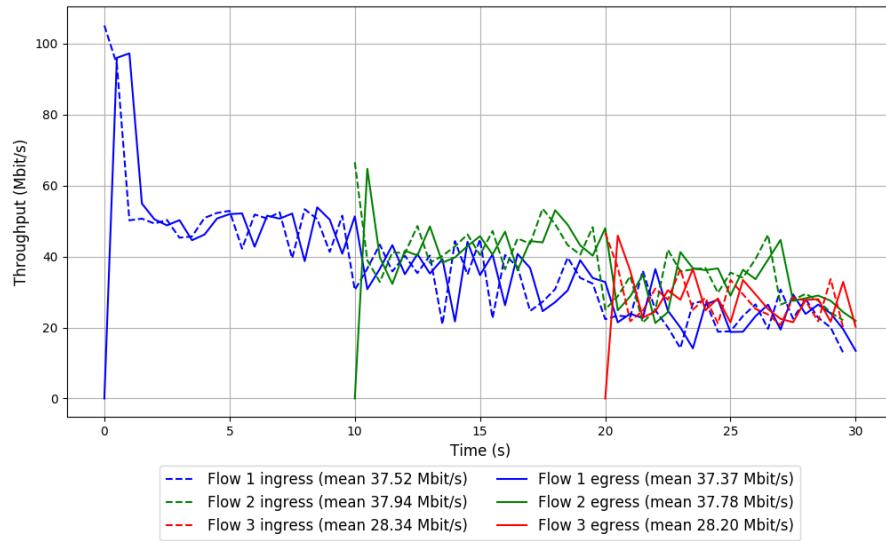


Run 1: Statistics of Verus

```
Start at: 2018-10-26 09:36:50
End at: 2018-10-26 09:37:20
Local clock offset: -6.003 ms
Remote clock offset: -0.445 ms

# Below is generated by plot.py at 2018-10-26 11:31:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.69 Mbit/s
95th percentile per-packet one-way delay: 25.416 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 37.37 Mbit/s
95th percentile per-packet one-way delay: 30.041 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 37.78 Mbit/s
95th percentile per-packet one-way delay: 17.443 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 28.20 Mbit/s
95th percentile per-packet one-way delay: 40.949 ms
Loss rate: 0.50%
```

Run 1: Report of Verus — Data Link

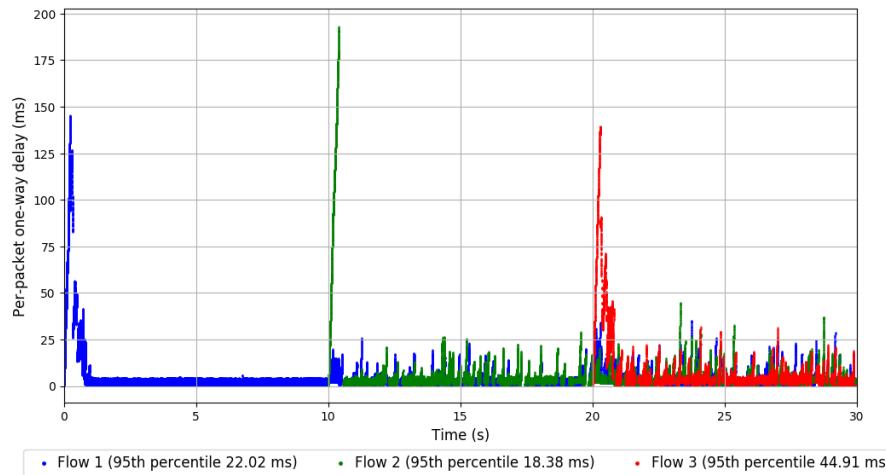
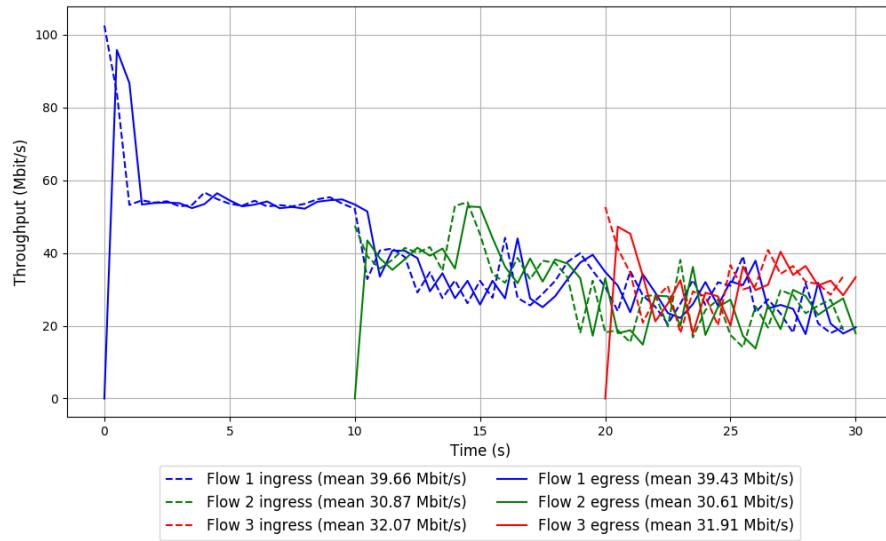


Run 2: Statistics of Verus

```
Start at: 2018-10-26 09:57:26
End at: 2018-10-26 09:57:56
Local clock offset: -6.071 ms
Remote clock offset: -0.279 ms

# Below is generated by plot.py at 2018-10-26 11:31:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.40 Mbit/s
95th percentile per-packet one-way delay: 25.419 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 39.43 Mbit/s
95th percentile per-packet one-way delay: 22.016 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 30.61 Mbit/s
95th percentile per-packet one-way delay: 18.378 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 31.91 Mbit/s
95th percentile per-packet one-way delay: 44.911 ms
Loss rate: 0.55%
```

Run 2: Report of Verus — Data Link

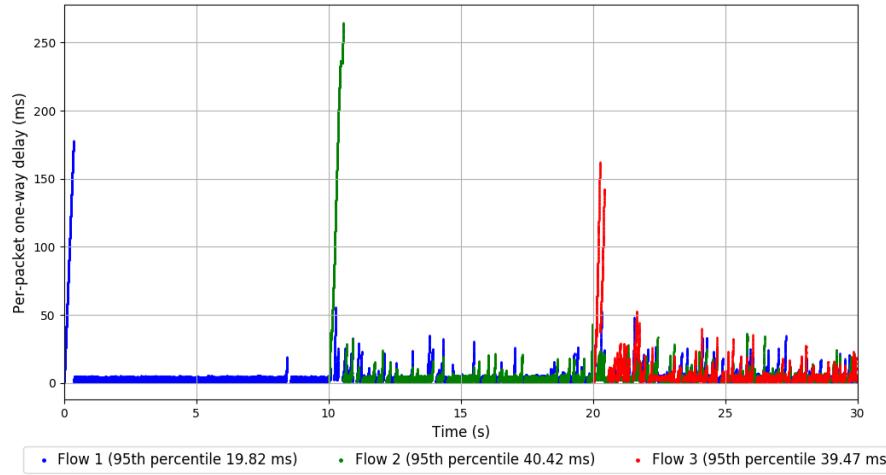
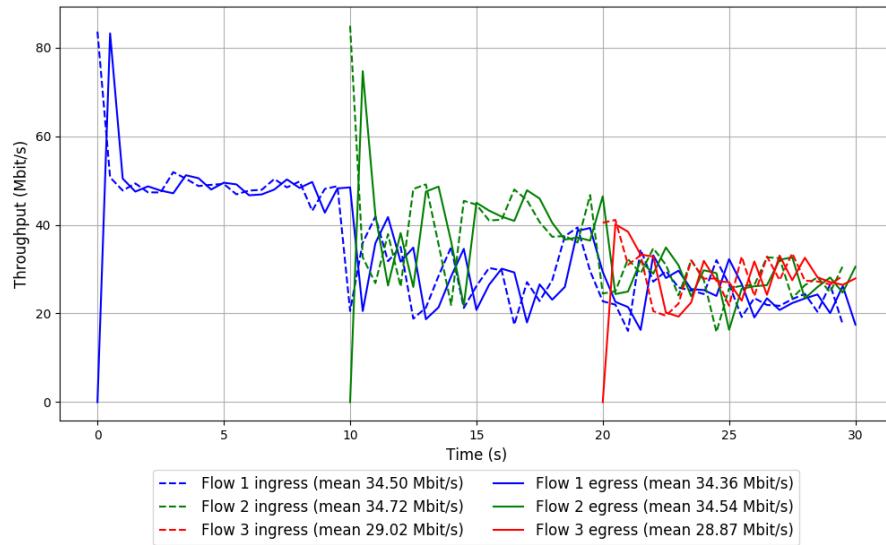


Run 3: Statistics of Verus

```
Start at: 2018-10-26 10:18:10
End at: 2018-10-26 10:18:40
Local clock offset: -6.045 ms
Remote clock offset: -0.131 ms

# Below is generated by plot.py at 2018-10-26 11:32:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.86 Mbit/s
95th percentile per-packet one-way delay: 27.214 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 34.36 Mbit/s
95th percentile per-packet one-way delay: 19.817 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 34.54 Mbit/s
95th percentile per-packet one-way delay: 40.422 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 28.87 Mbit/s
95th percentile per-packet one-way delay: 39.472 ms
Loss rate: 0.56%
```

Run 3: Report of Verus — Data Link

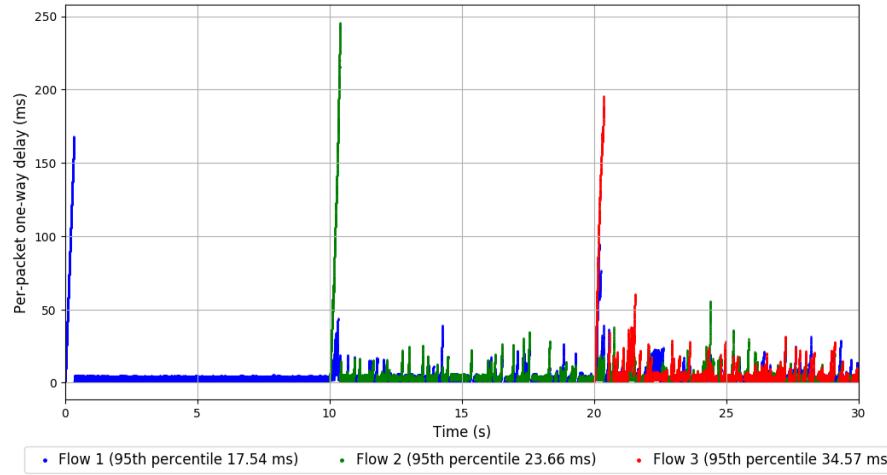
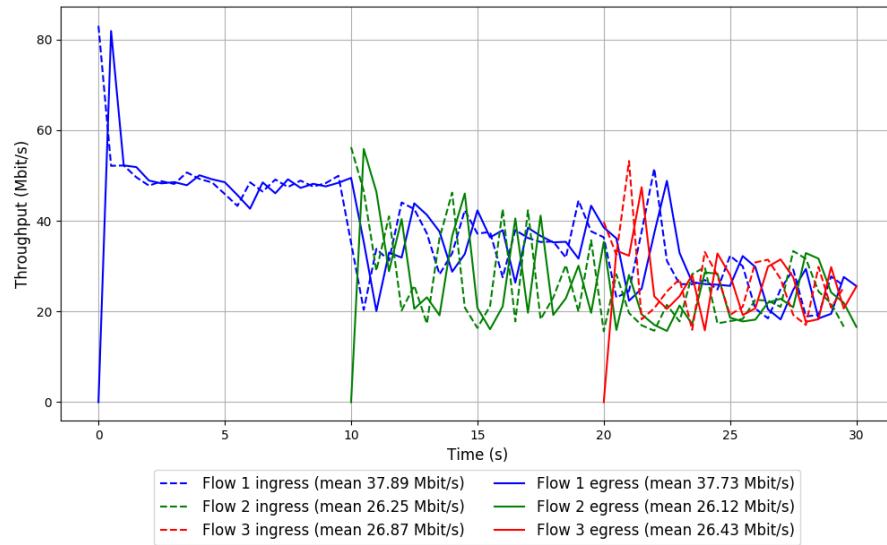


Run 4: Statistics of Verus

```
Start at: 2018-10-26 10:38:50
End at: 2018-10-26 10:39:20
Local clock offset: -5.889 ms
Remote clock offset: 0.163 ms

# Below is generated by plot.py at 2018-10-26 11:32:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.88 Mbit/s
95th percentile per-packet one-way delay: 21.795 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 37.73 Mbit/s
95th percentile per-packet one-way delay: 17.537 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 26.12 Mbit/s
95th percentile per-packet one-way delay: 23.657 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 26.43 Mbit/s
95th percentile per-packet one-way delay: 34.570 ms
Loss rate: 1.70%
```

Run 4: Report of Verus — Data Link

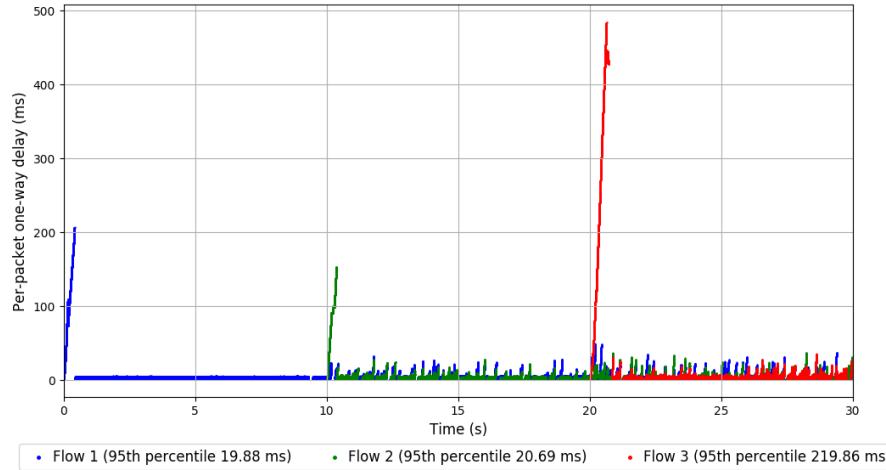
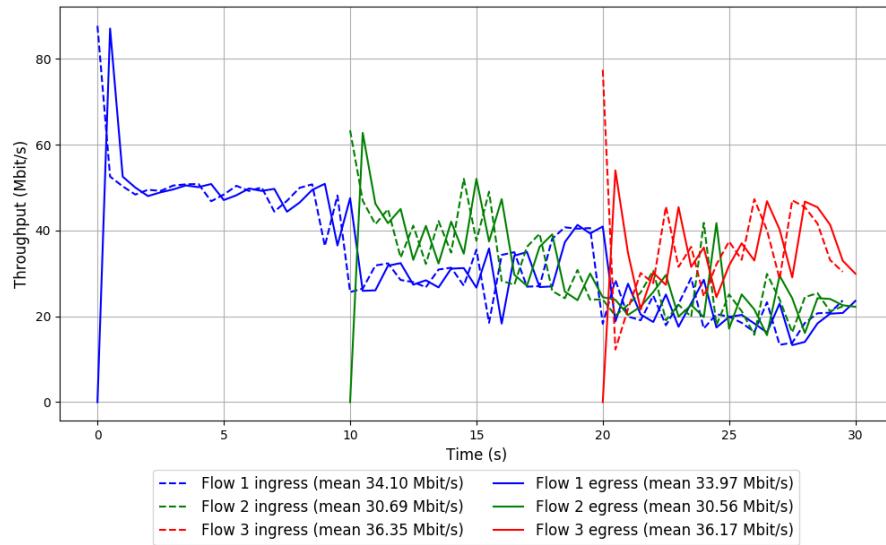


Run 5: Statistics of Verus

```
Start at: 2018-10-26 10:59:28
End at: 2018-10-26 10:59:58
Local clock offset: -5.733 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-10-26 11:32:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.33 Mbit/s
95th percentile per-packet one-way delay: 25.821 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 33.97 Mbit/s
95th percentile per-packet one-way delay: 19.883 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 30.56 Mbit/s
95th percentile per-packet one-way delay: 20.686 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 219.860 ms
Loss rate: 0.55%
```

Run 5: Report of Verus — Data Link

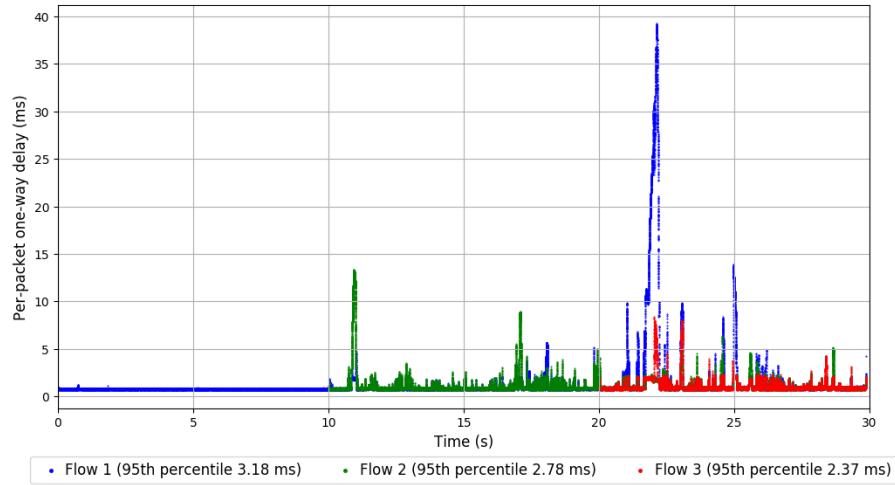
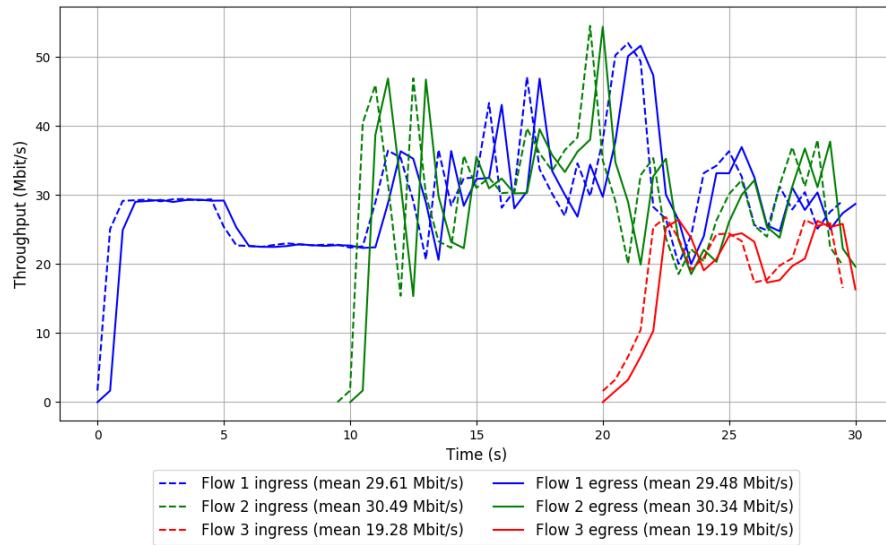


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-10-26 09:46:05
End at: 2018-10-26 09:46:35
Local clock offset: -6.059 ms
Remote clock offset: -0.421 ms

# Below is generated by plot.py at 2018-10-26 11:32:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 56.00 Mbit/s
95th percentile per-packet one-way delay: 2.875 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 29.48 Mbit/s
95th percentile per-packet one-way delay: 3.183 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 30.34 Mbit/s
95th percentile per-packet one-way delay: 2.776 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 19.19 Mbit/s
95th percentile per-packet one-way delay: 2.369 ms
Loss rate: 0.49%
```

Run 1: Report of PCC-Vivace — Data Link

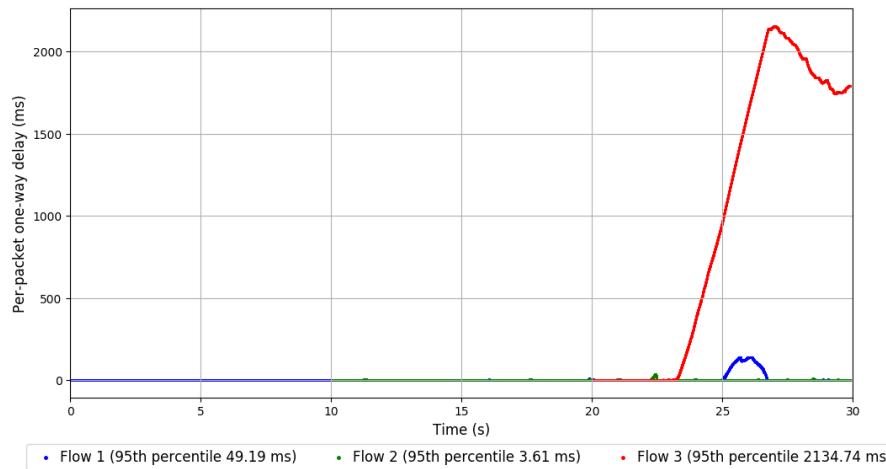
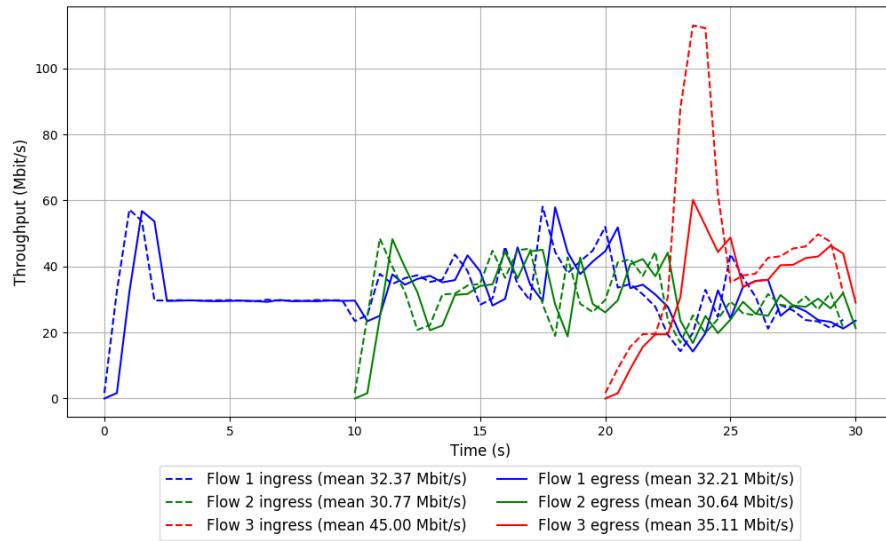


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-10-26 10:06:48
End at: 2018-10-26 10:07:18
Local clock offset: -6.003 ms
Remote clock offset: -0.116 ms

# Below is generated by plot.py at 2018-10-26 11:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.17 Mbit/s
95th percentile per-packet one-way delay: 1839.988 ms
Loss rate: 5.23%
-- Flow 1:
Average throughput: 32.21 Mbit/s
95th percentile per-packet one-way delay: 49.190 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 30.64 Mbit/s
95th percentile per-packet one-way delay: 3.611 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 2134.740 ms
Loss rate: 22.00%
```

Run 2: Report of PCC-Vivace — Data Link

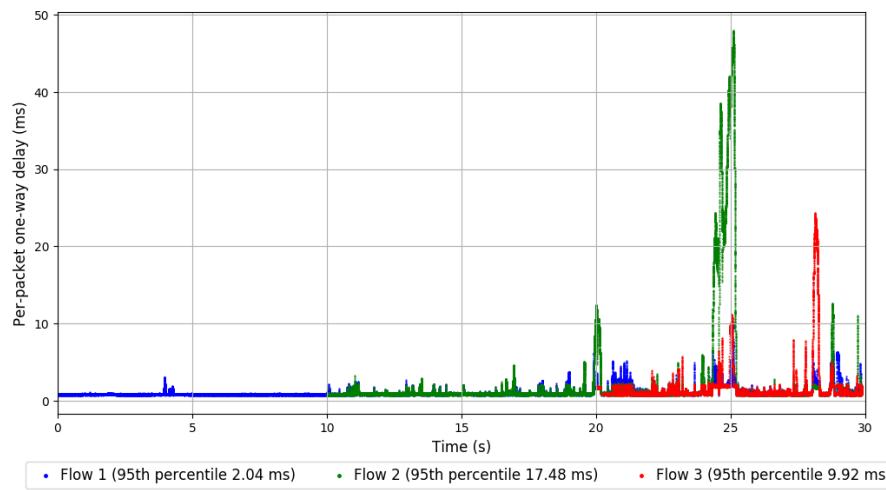
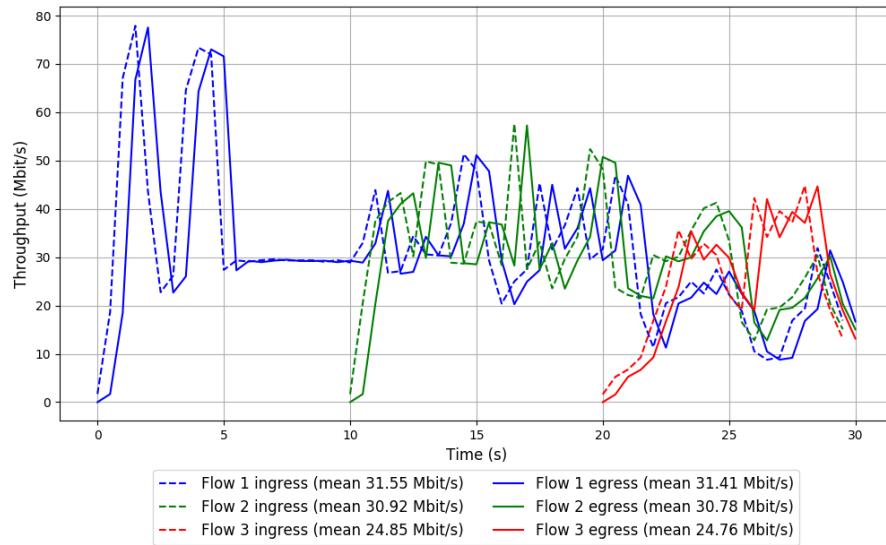


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-10-26 10:27:27
End at: 2018-10-26 10:27:57
Local clock offset: -6.066 ms
Remote clock offset: 0.144 ms

# Below is generated by plot.py at 2018-10-26 11:32:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 60.05 Mbit/s
95th percentile per-packet one-way delay: 4.130 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 31.41 Mbit/s
95th percentile per-packet one-way delay: 2.040 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 30.78 Mbit/s
95th percentile per-packet one-way delay: 17.482 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 24.76 Mbit/s
95th percentile per-packet one-way delay: 9.923 ms
Loss rate: 0.40%
```

Run 3: Report of PCC-Vivace — Data Link

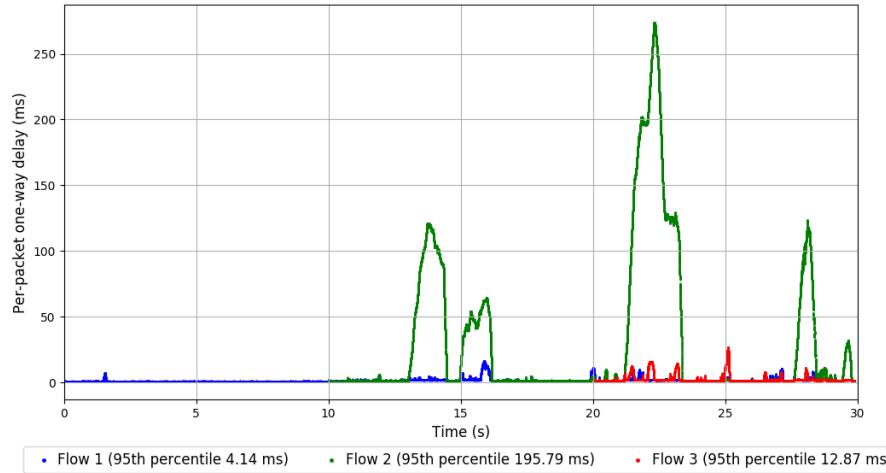
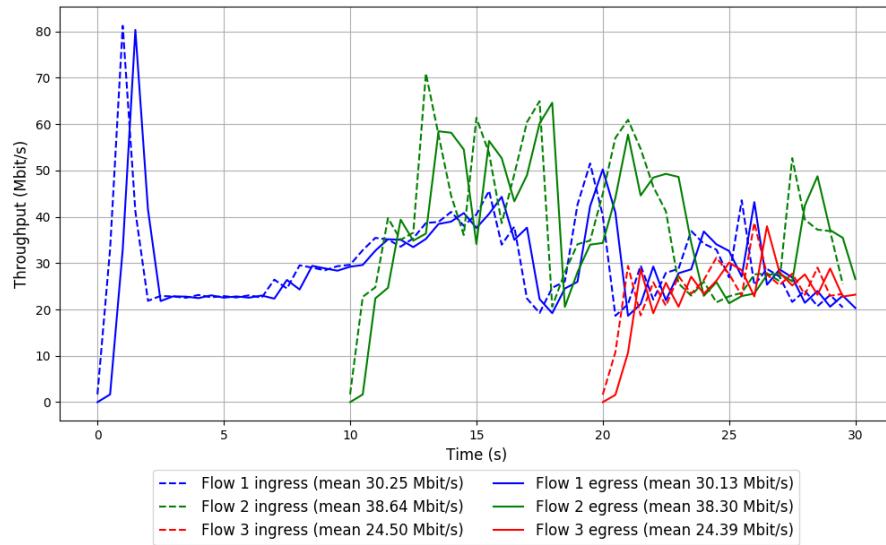


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-10-26 10:48:06
End at: 2018-10-26 10:48:36
Local clock offset: -5.897 ms
Remote clock offset: 0.305 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.65 Mbit/s
95th percentile per-packet one-way delay: 115.511 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 30.13 Mbit/s
95th percentile per-packet one-way delay: 4.140 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 38.30 Mbit/s
95th percentile per-packet one-way delay: 195.787 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 12.874 ms
Loss rate: 0.52%
```

Run 4: Report of PCC-Vivace — Data Link

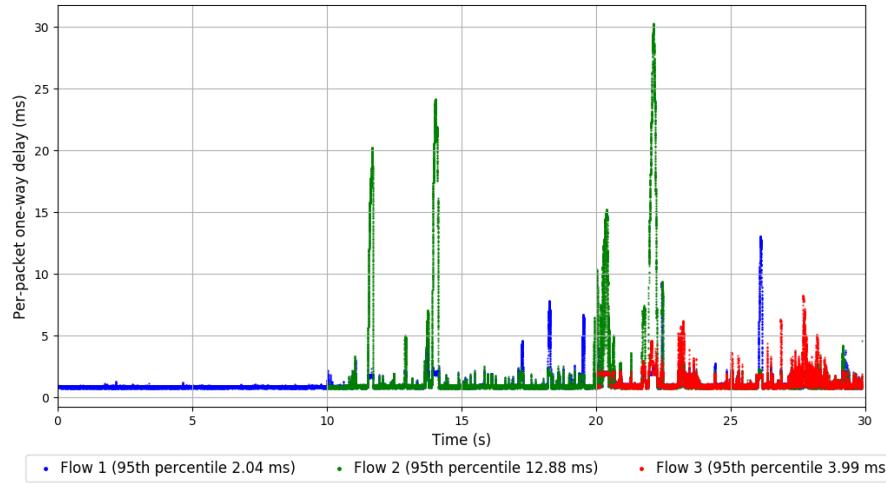
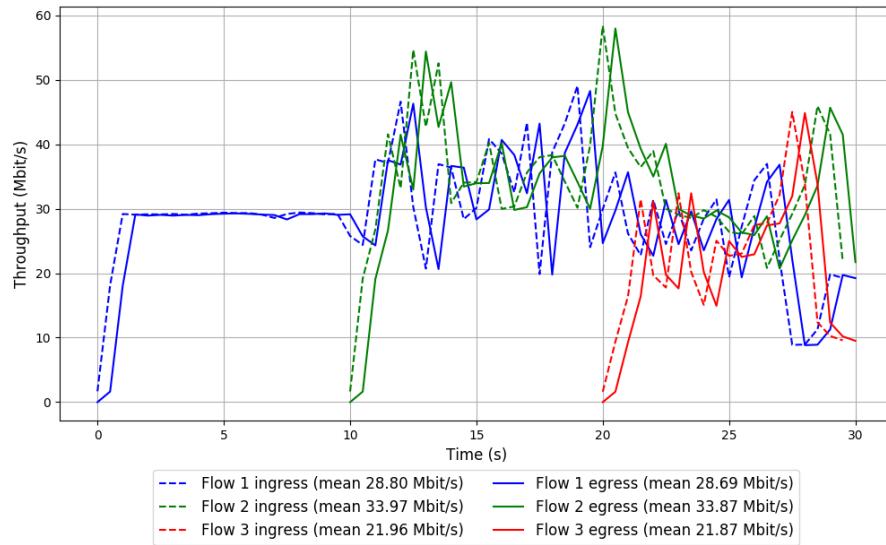


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-10-26 11:08:45
End at: 2018-10-26 11:09:15
Local clock offset: -5.734 ms
Remote clock offset: 0.35 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 58.44 Mbit/s
95th percentile per-packet one-way delay: 4.589 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 28.69 Mbit/s
95th percentile per-packet one-way delay: 2.044 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 33.87 Mbit/s
95th percentile per-packet one-way delay: 12.877 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 21.87 Mbit/s
95th percentile per-packet one-way delay: 3.987 ms
Loss rate: 0.40%
```

Run 5: Report of PCC-Vivace — Data Link

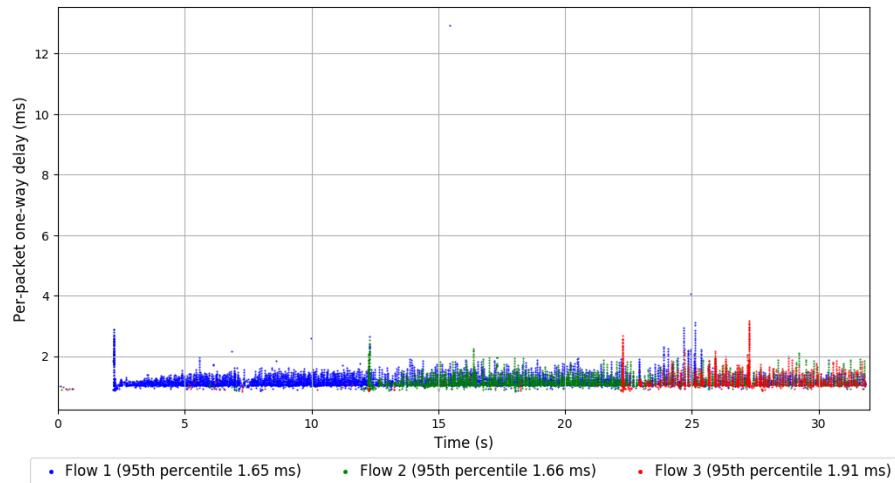
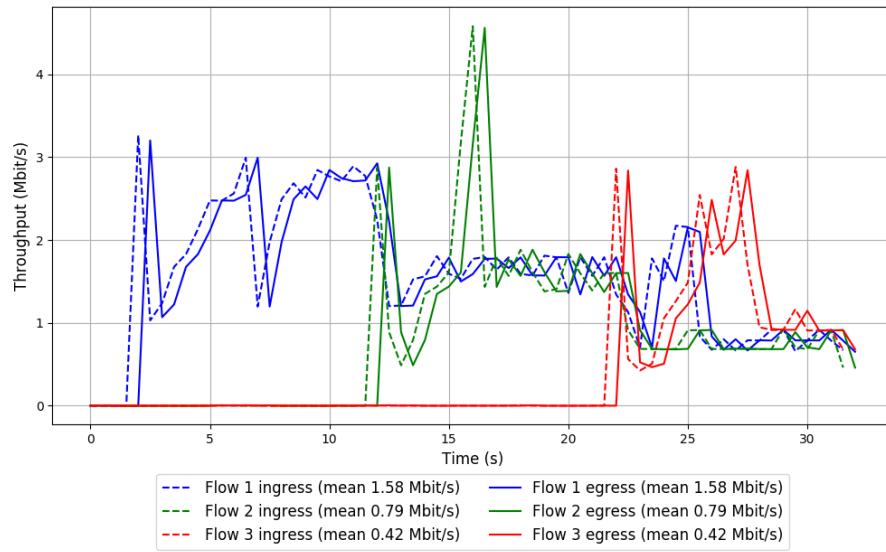


```
Run 1: Statistics of WebRTC media
```

```
Start at: 2018-10-26 09:39:09
End at: 2018-10-26 09:39:39
Local clock offset: -5.899 ms
Remote clock offset: -0.508 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 1.699 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 1.653 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 1.661 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 1.910 ms
Loss rate: 0.83%
```

Run 1: Report of WebRTC media — Data Link

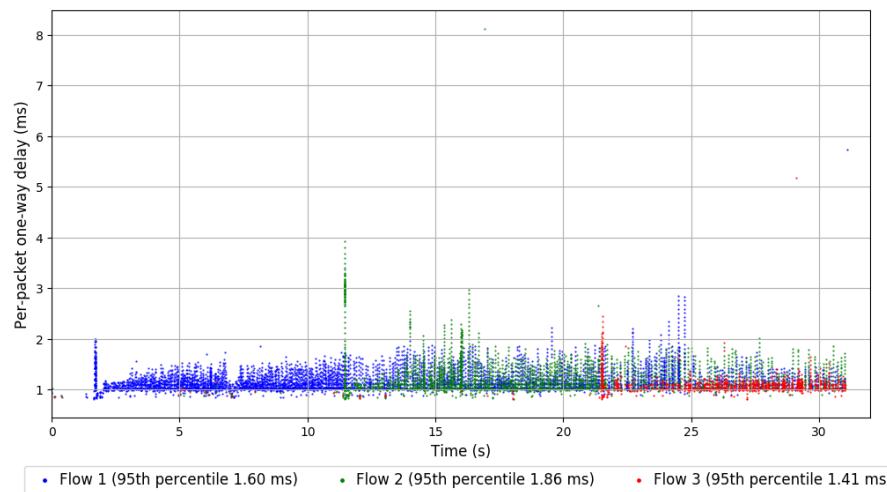
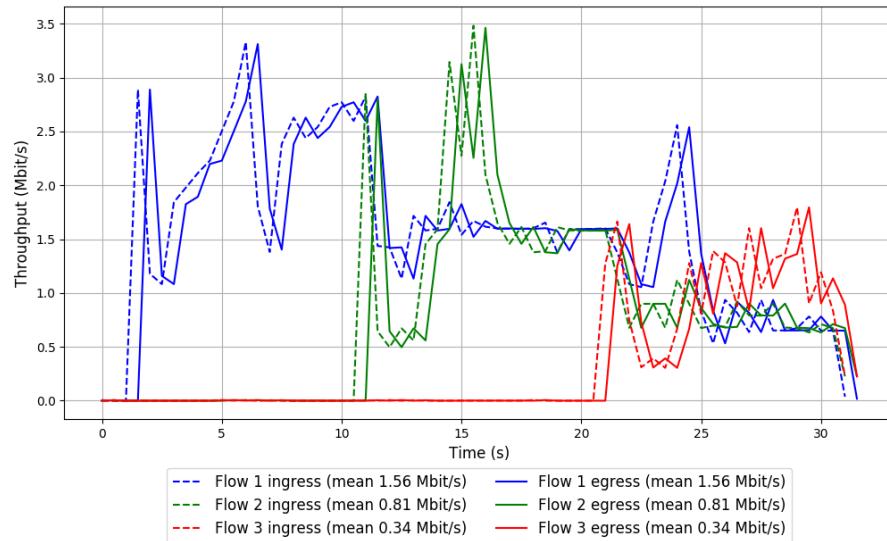


Run 2: Statistics of WebRTC media

```
Start at: 2018-10-26 09:59:46
End at: 2018-10-26 10:00:16
Local clock offset: -5.939 ms
Remote clock offset: -0.3 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.70 Mbit/s
95th percentile per-packet one-way delay: 1.669 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 1.600 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1.865 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 1.410 ms
Loss rate: 0.59%
```

Run 2: Report of WebRTC media — Data Link

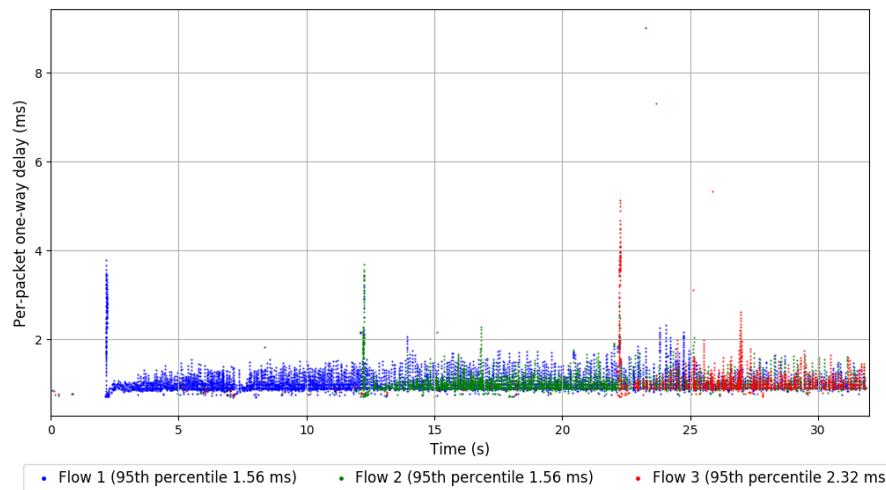
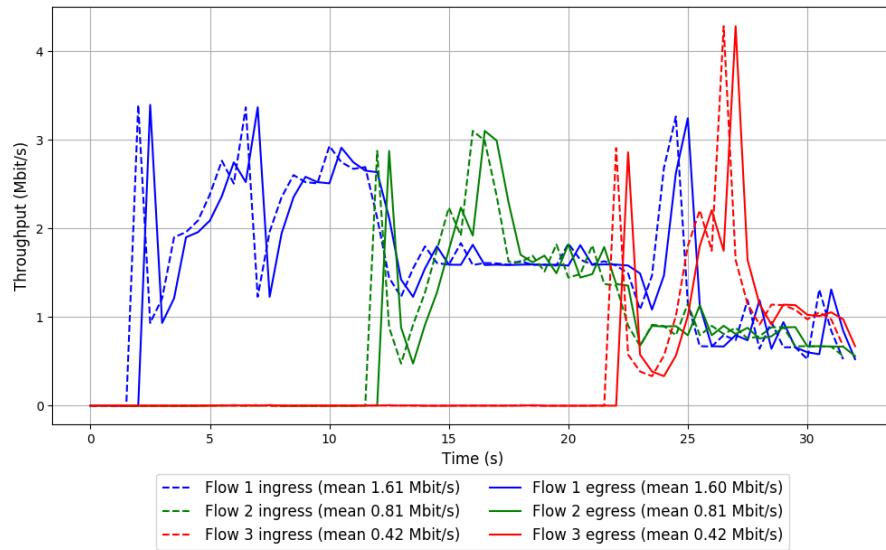


Run 3: Statistics of WebRTC media

```
Start at: 2018-10-26 10:20:29
End at: 2018-10-26 10:20:59
Local clock offset: -6.098 ms
Remote clock offset: 0.042 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 1.632 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 1.557 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 1.564 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 2.324 ms
Loss rate: 0.25%
```

Run 3: Report of WebRTC media — Data Link

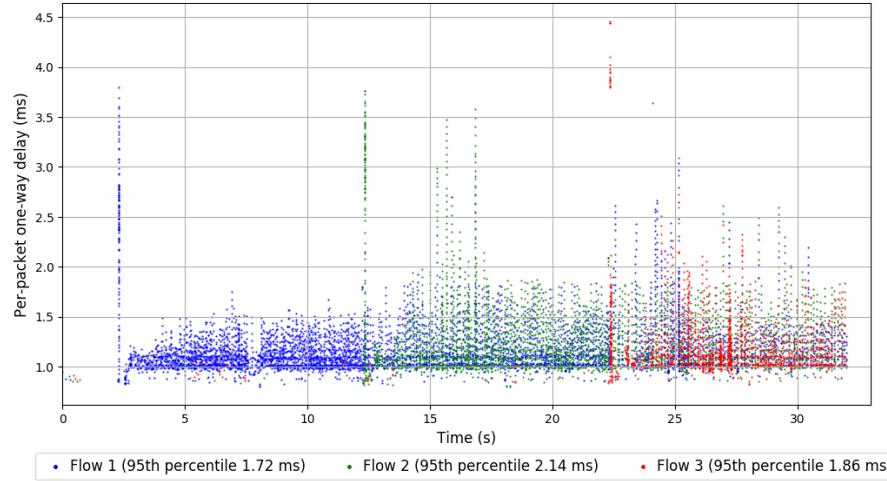
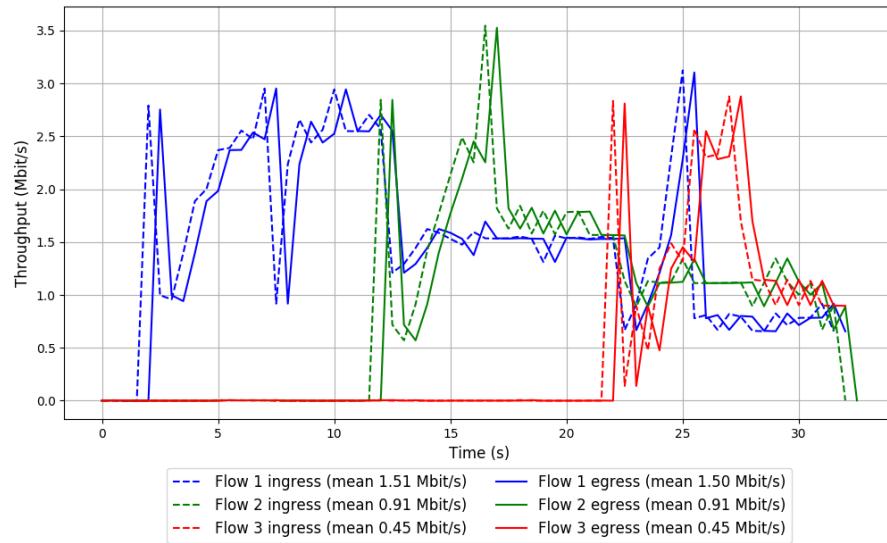


Run 4: Statistics of WebRTC media

```
Start at: 2018-10-26 10:41:09
End at: 2018-10-26 10:41:39
Local clock offset: -5.875 ms
Remote clock offset: 0.179 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 1.858 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 1.716 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 2.138 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 1.858 ms
Loss rate: 0.43%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-10-26 11:01:47
End at: 2018-10-26 11:02:17
Local clock offset: -5.738 ms
Remote clock offset: 0.431 ms

# Below is generated by plot.py at 2018-10-26 11:32:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 1.633 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 1.641 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 1.507 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 1.696 ms
Loss rate: 0.52%
```

Run 5: Report of WebRTC media — Data Link

