

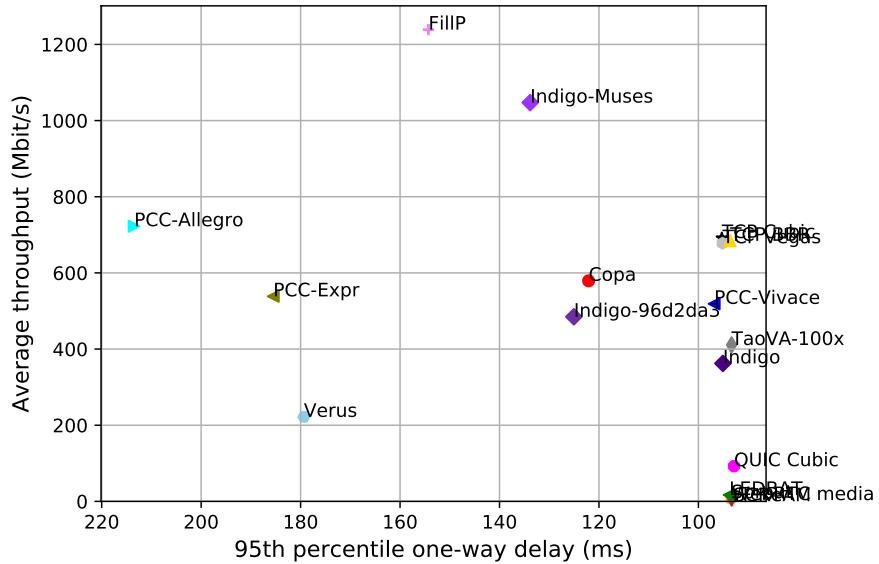
Pantheon Report

Generated at 2018-10-10 02:20:49 (UTC).
Data path: GCE Sydney on `ens4 (local)` → GCE Iowa on `ens4 (remote)`.
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 `time.google.com` and have been applied to correct the timestamps in logs.

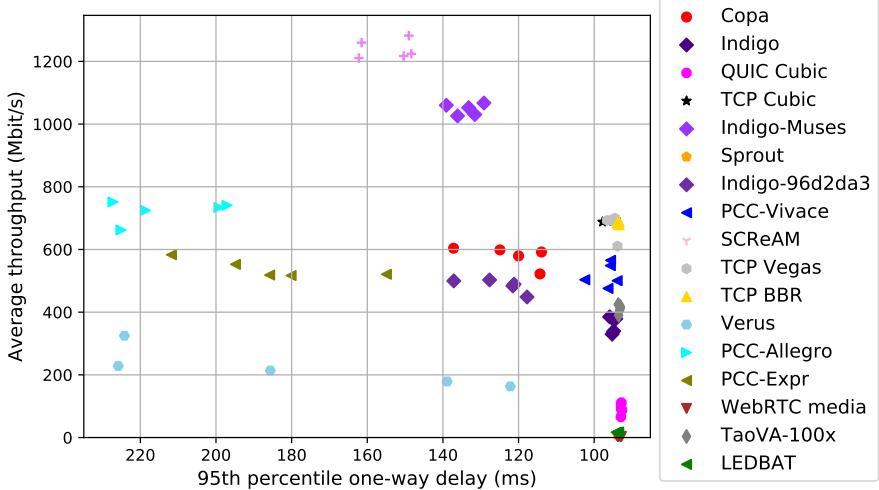
```
System info:  
Linux 4.15.0-1021-gcp  
net.core.default_qdisc = fq  
net.core.rmem_default = 16777216  
net.core.rmem_max = 536870912  
net.core.wmem_default = 16777216  
net.core.wmem_max = 536870912  
net.ipv4.tcp_rmem = 4096 16777216 536870912  
net.ipv4.tcp_wmem = 4096 16777216 536870912  
  
Git summary:  
branch: muses @ 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

test from GCE Sydney to GCE Iowa, 5 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



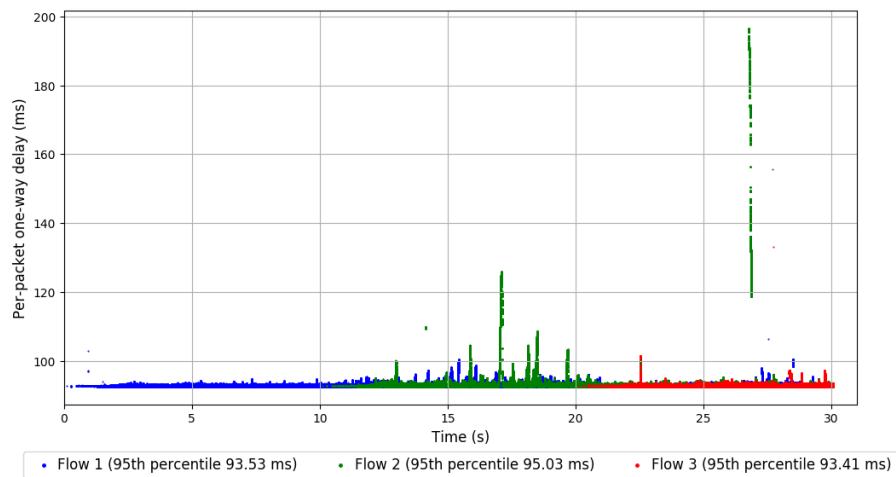
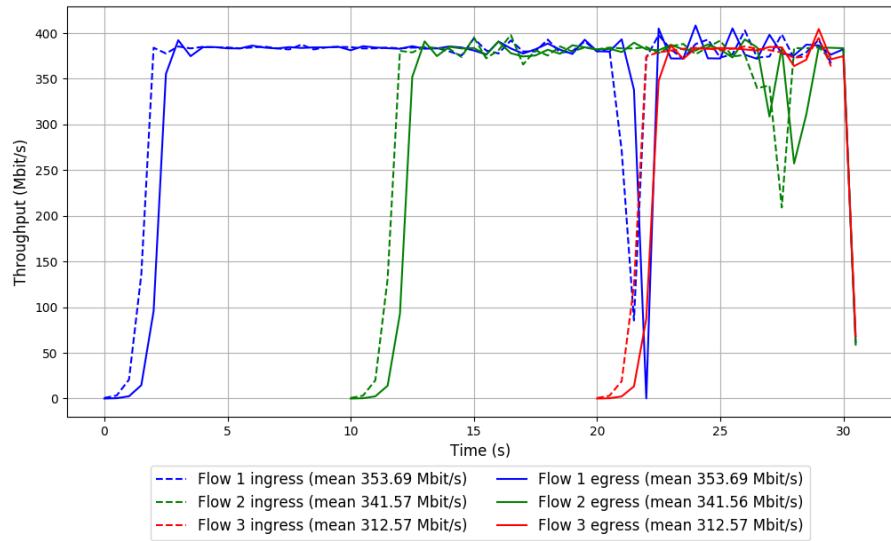
| scheme | # runs | mean avg tput (Mbit/s) | | | mean 95th-%ile delay (ms) | | | mean loss rate (%) | | |
|----------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
| | | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 |
| TCP BBR | 5 | 353.40 | 340.35 | 313.51 | 93.51 | 93.92 | 93.52 | 0.00 | 0.00 | 0.00 |
| Copa | 5 | 305.07 | 290.32 | 242.92 | 117.45 | 118.90 | 142.81 | 0.01 | 0.02 | 0.04 |
| TCP Cubic | 5 | 358.67 | 345.07 | 309.87 | 94.69 | 95.73 | 97.02 | 0.00 | 0.00 | 0.07 |
| FillP | 5 | 678.86 | 605.93 | 472.61 | 158.74 | 138.37 | 104.82 | 1.72 | 0.65 | 0.08 |
| Indigo | 5 | 187.82 | 186.34 | 158.65 | 94.90 | 95.14 | 95.00 | 0.00 | 0.00 | 0.00 |
| Indigo-96d2da3 | 5 | 257.94 | 246.00 | 196.74 | 128.14 | 126.71 | 112.51 | 0.30 | 0.12 | 0.19 |
| LEDBAT | 5 | 10.87 | 7.22 | 3.54 | 93.88 | 93.69 | 93.66 | 0.00 | 0.00 | 0.00 |
| Indigo-Muses | 5 | 591.23 | 509.64 | 363.79 | 134.53 | 137.03 | 128.91 | 0.11 | 0.09 | 0.15 |
| PCC-Allegro | 5 | 415.88 | 340.64 | 243.85 | 213.39 | 180.52 | 180.67 | 3.32 | 2.69 | 1.05 |
| PCC-Expr | 5 | 312.41 | 249.14 | 182.39 | 173.61 | 172.35 | 130.23 | 1.34 | 2.59 | 0.08 |
| QUIC Cubic | 5 | 52.80 | 46.31 | 27.65 | 92.82 | 92.62 | 92.73 | 0.00 | 0.00 | 0.00 |
| SCReAM | 5 | 0.21 | 0.21 | 0.22 | 92.93 | 92.93 | 92.95 | 0.00 | 0.00 | 0.00 |
| Sprout | 5 | 4.34 | 4.06 | 3.55 | 93.46 | 93.33 | 93.32 | 0.00 | 0.00 | 0.00 |
| TaoVA-100x | 5 | 210.94 | 199.63 | 201.22 | 93.11 | 93.56 | 93.75 | 0.00 | 0.00 | 0.00 |
| TCP Vegas | 5 | 355.91 | 326.67 | 314.49 | 94.56 | 95.24 | 97.12 | 0.00 | 0.03 | 0.00 |
| Verus | 5 | 132.59 | 106.57 | 58.20 | 178.55 | 135.23 | 125.97 | 1.86 | 0.04 | 0.00 |
| PCC-Vivace | 5 | 319.35 | 229.01 | 142.45 | 101.15 | 95.06 | 94.23 | 0.06 | 0.00 | 0.00 |
| WebRTC media | 5 | 1.91 | 1.14 | 0.41 | 93.32 | 93.29 | 92.92 | 0.00 | 0.00 | 0.00 |

Run 1: Statistics of TCP BBR

```
Start at: 2018-10-09 21:43:34
End at: 2018-10-09 21:44:04
Local clock offset: 0.345 ms
Remote clock offset: -0.27 ms

# Below is generated by plot.py at 2018-10-10 00:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 685.07 Mbit/s
95th percentile per-packet one-way delay: 93.792 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 353.69 Mbit/s
95th percentile per-packet one-way delay: 93.528 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 341.56 Mbit/s
95th percentile per-packet one-way delay: 95.034 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 312.57 Mbit/s
95th percentile per-packet one-way delay: 93.408 ms
Loss rate: 0.00%
```

Run 1: Report of TCP BBR — Data Link

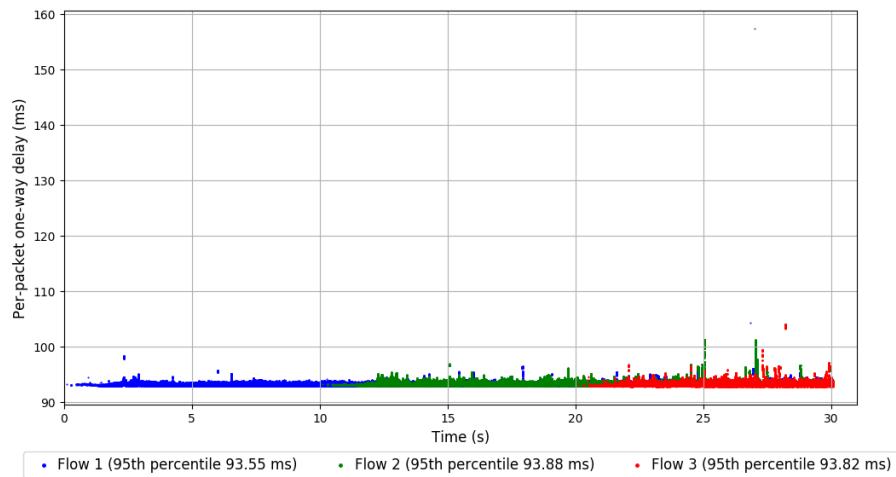
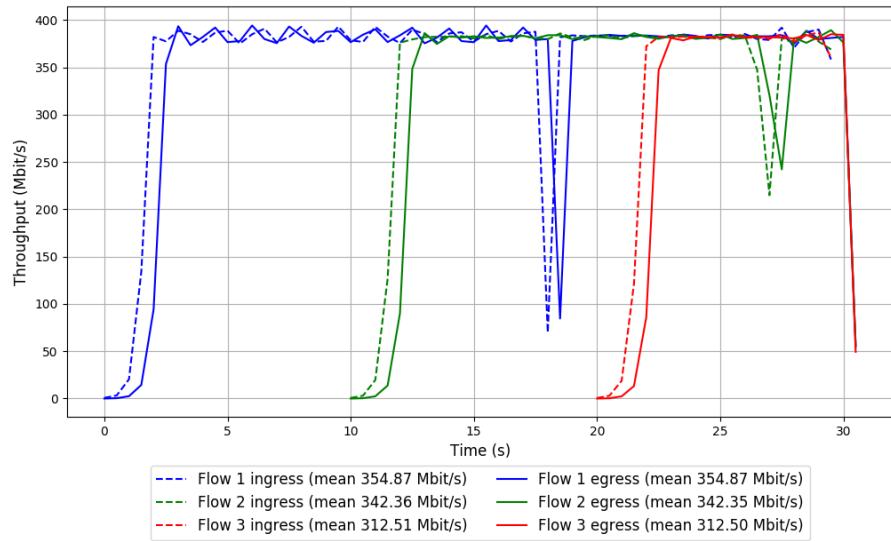


Run 2: Statistics of TCP BBR

```
Start at: 2018-10-09 22:15:14
End at: 2018-10-09 22:15:44
Local clock offset: 0.718 ms
Remote clock offset: -0.97 ms

# Below is generated by plot.py at 2018-10-10 00:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 686.75 Mbit/s
95th percentile per-packet one-way delay: 93.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 354.87 Mbit/s
95th percentile per-packet one-way delay: 93.553 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 342.35 Mbit/s
95th percentile per-packet one-way delay: 93.875 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 312.50 Mbit/s
95th percentile per-packet one-way delay: 93.823 ms
Loss rate: 0.00%
```

Run 2: Report of TCP BBR — Data Link

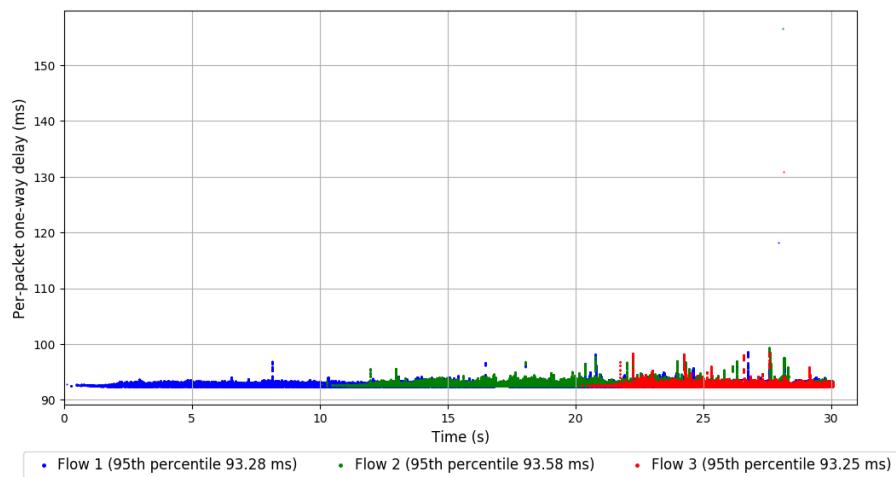
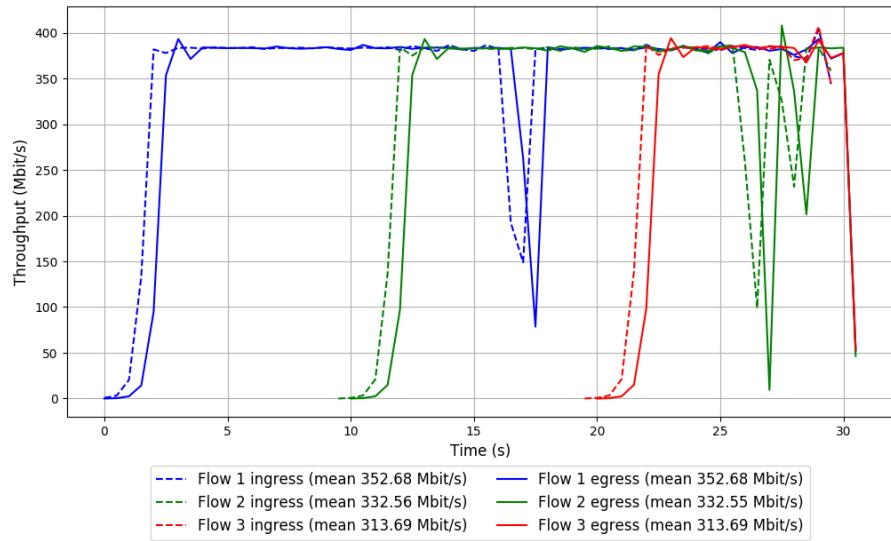


Run 3: Statistics of TCP BBR

```
Start at: 2018-10-09 22:47:02
End at: 2018-10-09 22:47:32
Local clock offset: 0.011 ms
Remote clock offset: -0.057 ms

# Below is generated by plot.py at 2018-10-10 00:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 678.70 Mbit/s
95th percentile per-packet one-way delay: 93.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.68 Mbit/s
95th percentile per-packet one-way delay: 93.285 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 332.55 Mbit/s
95th percentile per-packet one-way delay: 93.575 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 313.69 Mbit/s
95th percentile per-packet one-way delay: 93.255 ms
Loss rate: 0.00%
```

Run 3: Report of TCP BBR — Data Link

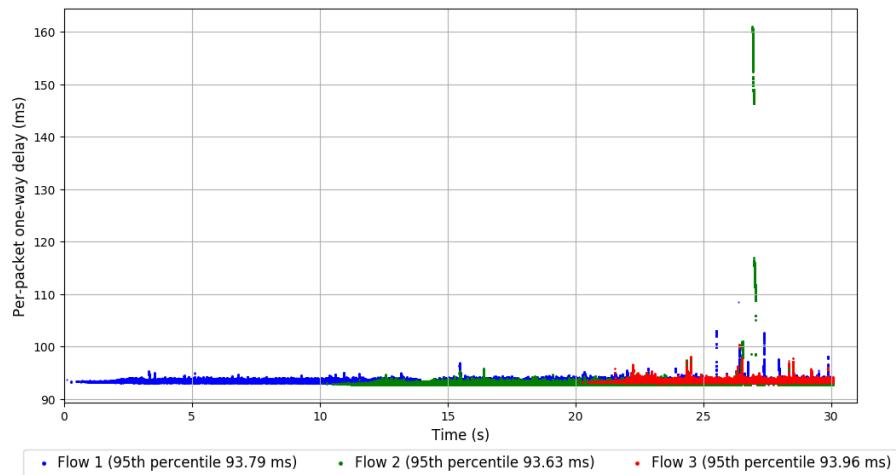
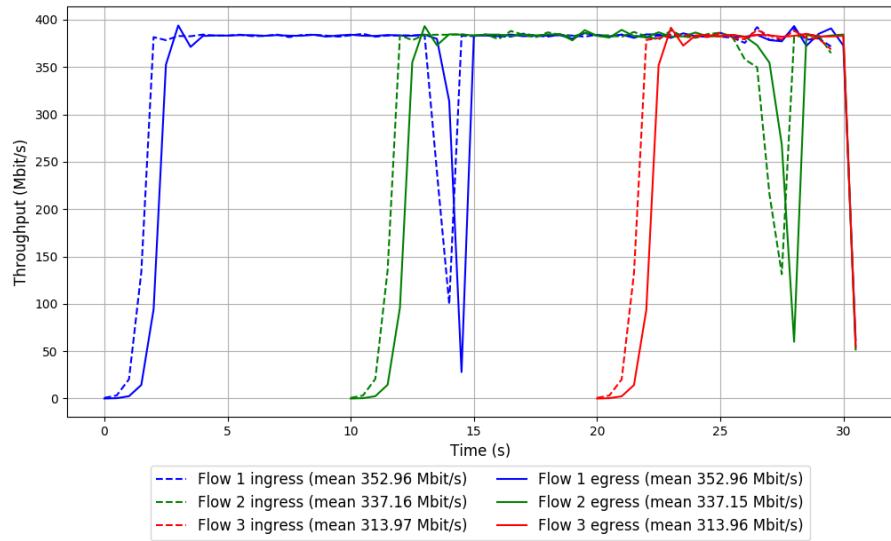


Run 4: Statistics of TCP BBR

```
Start at: 2018-10-09 23:18:31
End at: 2018-10-09 23:19:01
Local clock offset: -0.324 ms
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2018-10-10 00:28:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 682.03 Mbit/s
95th percentile per-packet one-way delay: 93.808 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.96 Mbit/s
95th percentile per-packet one-way delay: 93.792 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 337.15 Mbit/s
95th percentile per-packet one-way delay: 93.630 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 313.96 Mbit/s
95th percentile per-packet one-way delay: 93.962 ms
Loss rate: 0.00%
```

Run 4: Report of TCP BBR — Data Link

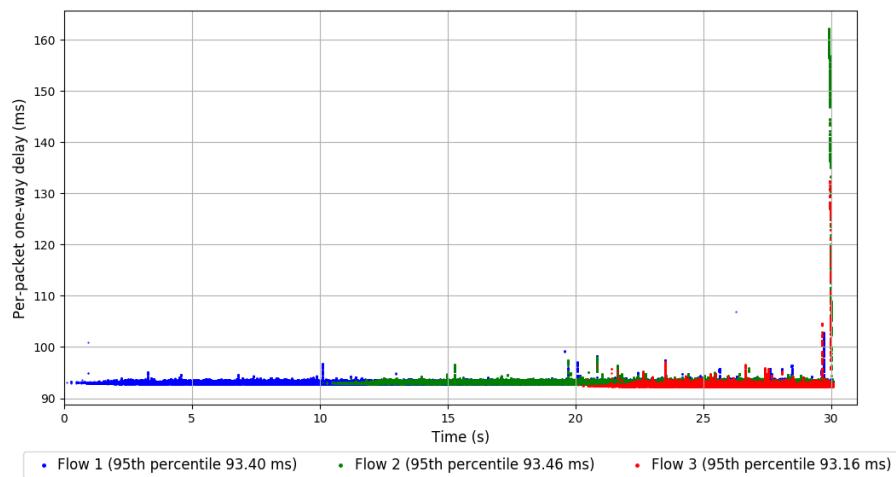
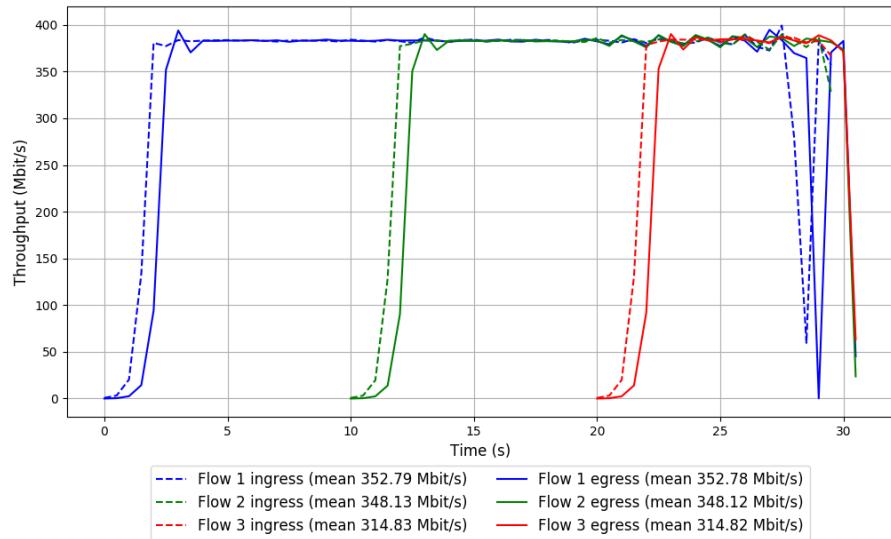


Run 5: Statistics of TCP BBR

```
Start at: 2018-10-09 23:50:23
End at: 2018-10-09 23:50:53
Local clock offset: 0.019 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-10-10 00:28:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 688.79 Mbit/s
95th percentile per-packet one-way delay: 93.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 352.78 Mbit/s
95th percentile per-packet one-way delay: 93.398 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 348.12 Mbit/s
95th percentile per-packet one-way delay: 93.463 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 314.82 Mbit/s
95th percentile per-packet one-way delay: 93.156 ms
Loss rate: 0.00%
```

Run 5: Report of TCP BBR — Data Link

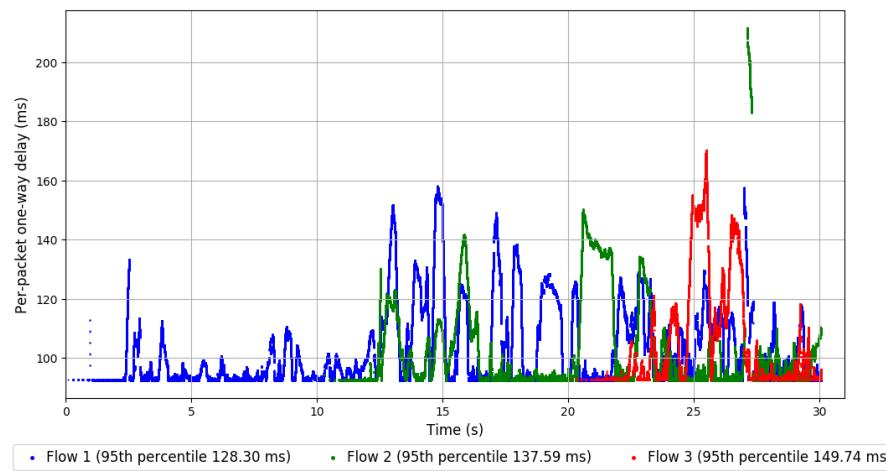
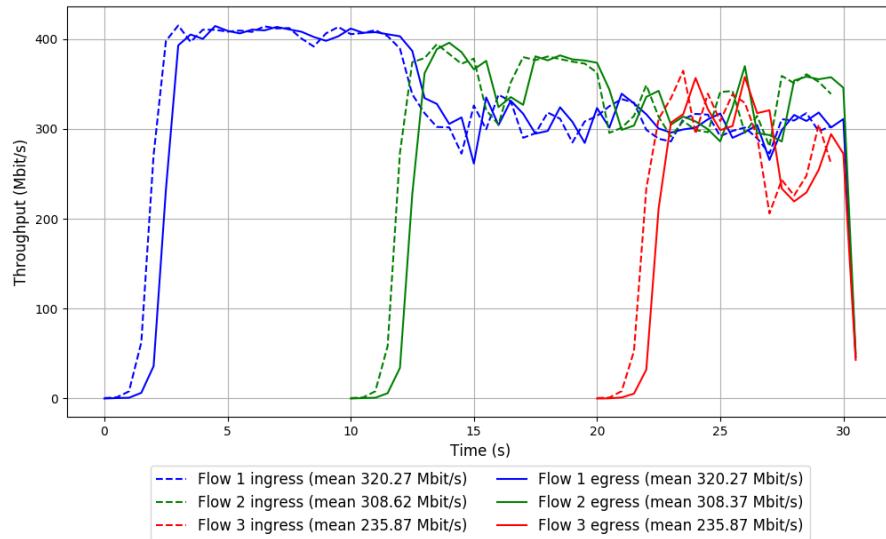


Run 1: Statistics of Copa

```
Start at: 2018-10-09 21:47:34
End at: 2018-10-09 21:48:04
Local clock offset: 0.456 ms
Remote clock offset: -0.405 ms

# Below is generated by plot.py at 2018-10-10 00:36:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 603.97 Mbit/s
95th percentile per-packet one-way delay: 137.186 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 320.27 Mbit/s
95th percentile per-packet one-way delay: 128.303 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 308.37 Mbit/s
95th percentile per-packet one-way delay: 137.594 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 235.87 Mbit/s
95th percentile per-packet one-way delay: 149.743 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link

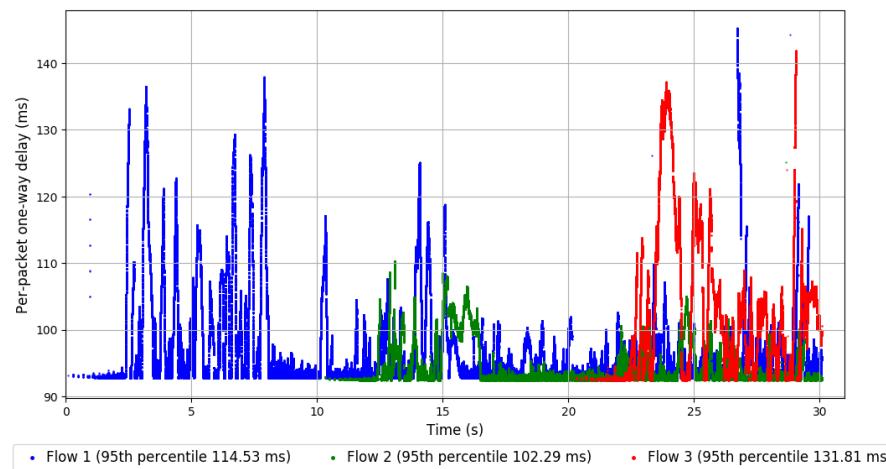
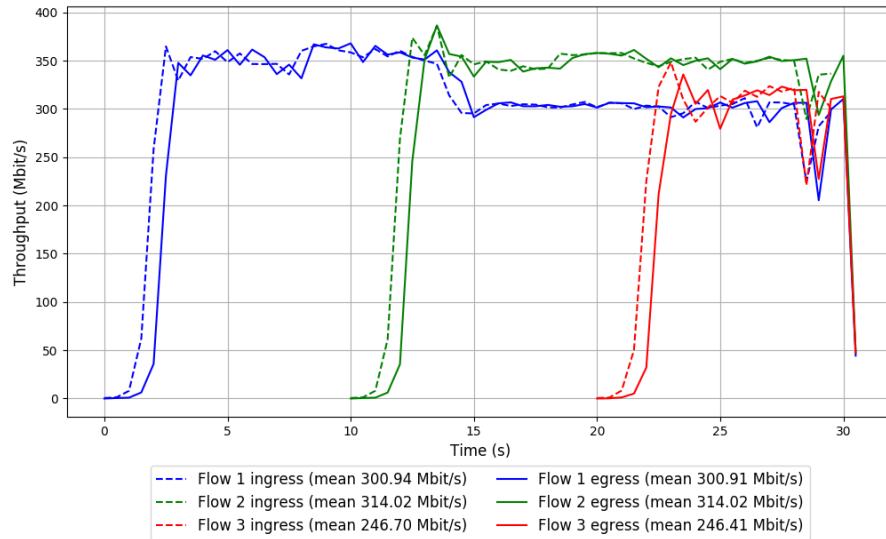


Run 2: Statistics of Copa

```
Start at: 2018-10-09 22:19:16
End at: 2018-10-09 22:19:46
Local clock offset: 0.876 ms
Remote clock offset: -1.051 ms

# Below is generated by plot.py at 2018-10-10 00:36:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 591.86 Mbit/s
95th percentile per-packet one-way delay: 113.942 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 300.91 Mbit/s
95th percentile per-packet one-way delay: 114.531 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 314.02 Mbit/s
95th percentile per-packet one-way delay: 102.292 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 246.41 Mbit/s
95th percentile per-packet one-way delay: 131.815 ms
Loss rate: 0.10%
```

Run 2: Report of Copa — Data Link

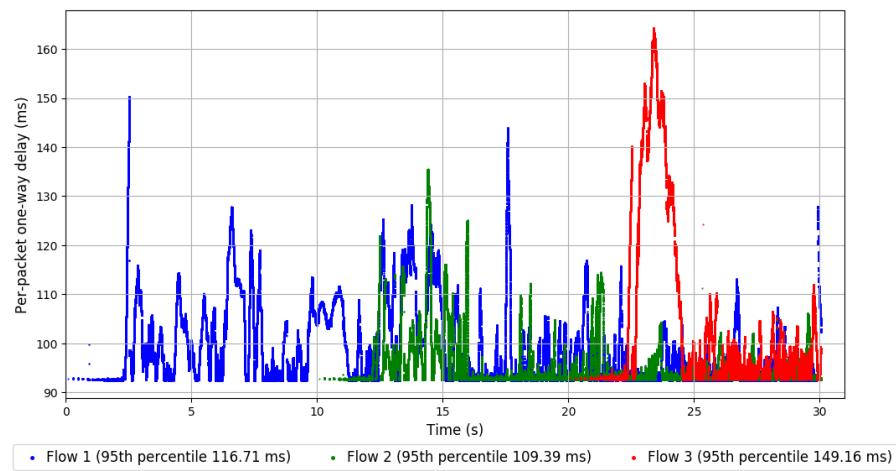
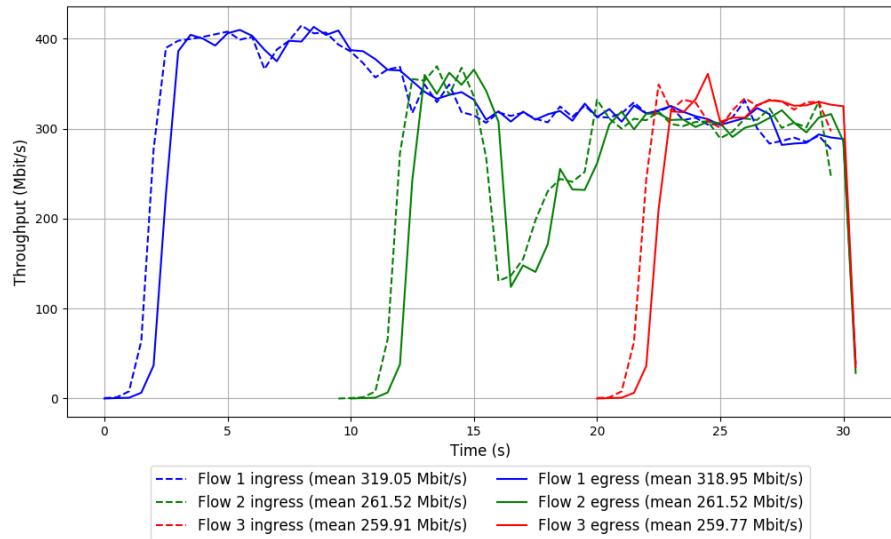


Run 3: Statistics of Copa

```
Start at: 2018-10-09 22:50:59
End at: 2018-10-09 22:51:29
Local clock offset: -0.05 ms
Remote clock offset: -0.007 ms

# Below is generated by plot.py at 2018-10-10 00:36:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 579.59 Mbit/s
95th percentile per-packet one-way delay: 119.997 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 318.95 Mbit/s
95th percentile per-packet one-way delay: 116.713 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 261.52 Mbit/s
95th percentile per-packet one-way delay: 109.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 259.77 Mbit/s
95th percentile per-packet one-way delay: 149.158 ms
Loss rate: 0.06%
```

Run 3: Report of Copa — Data Link

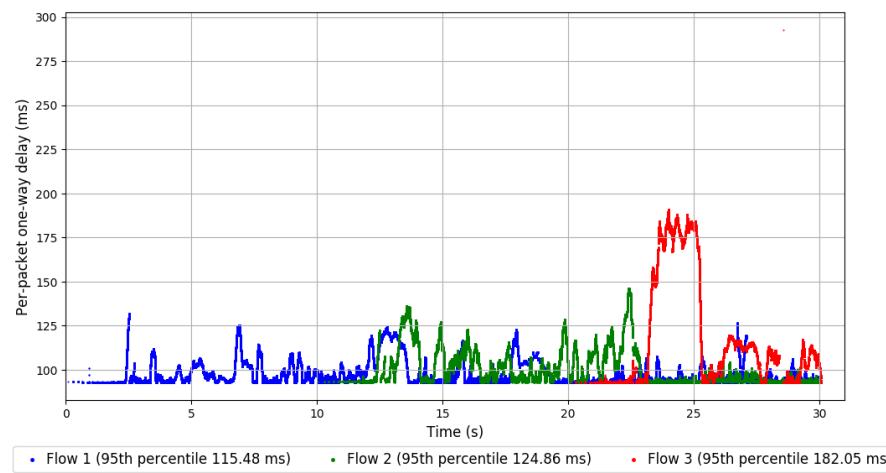
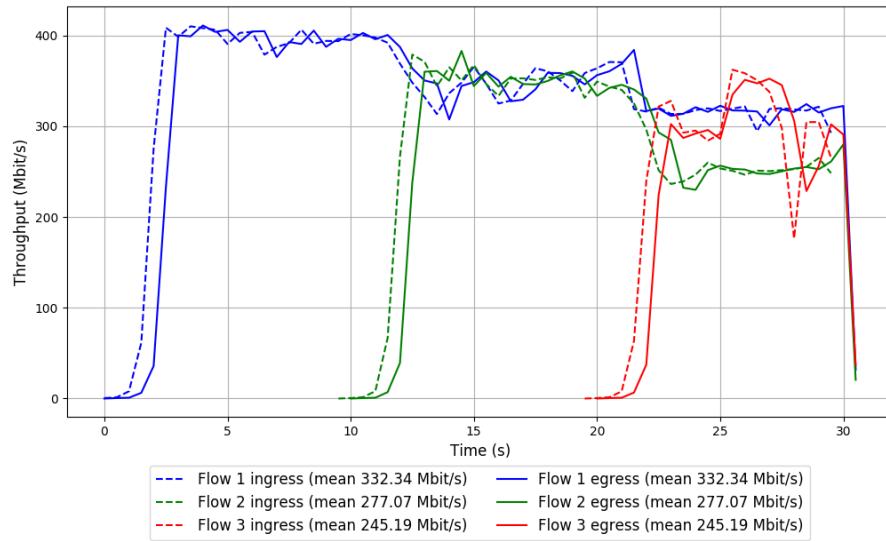


Run 4: Statistics of Copa

```
Start at: 2018-10-09 23:22:29
End at: 2018-10-09 23:22:59
Local clock offset: -0.104 ms
Remote clock offset: -0.026 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 598.62 Mbit/s
95th percentile per-packet one-way delay: 124.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 332.34 Mbit/s
95th percentile per-packet one-way delay: 115.481 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 277.07 Mbit/s
95th percentile per-packet one-way delay: 124.857 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 245.19 Mbit/s
95th percentile per-packet one-way delay: 182.048 ms
Loss rate: 0.00%
```

Run 4: Report of Copa — Data Link

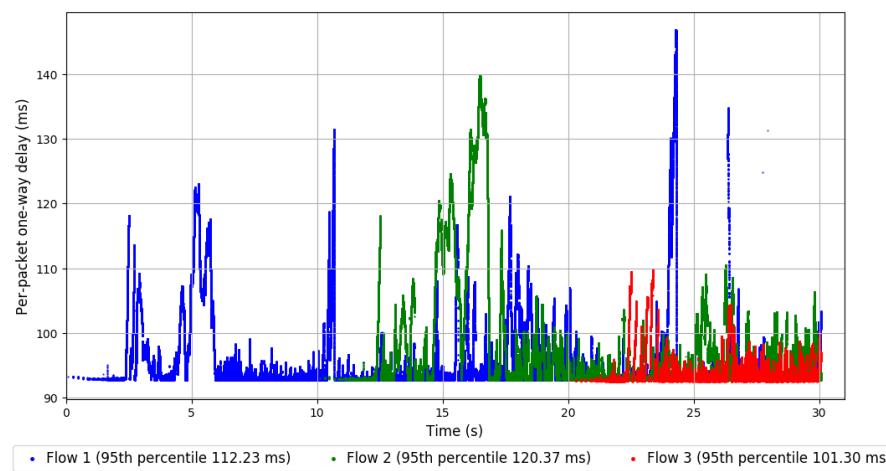
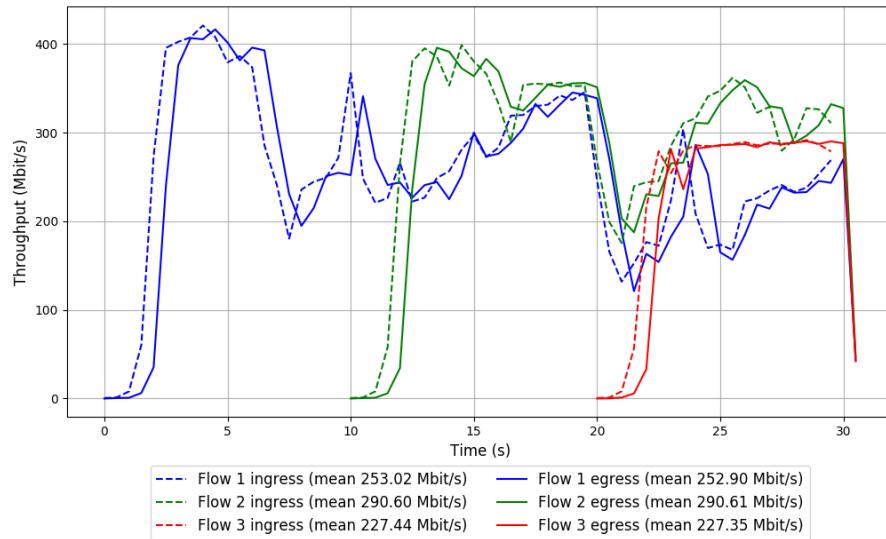


Run 5: Statistics of Copa

```
Start at: 2018-10-09 23:54:21
End at: 2018-10-09 23:54:51
Local clock offset: 0.022 ms
Remote clock offset: -0.078 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.04 Mbit/s
95th percentile per-packet one-way delay: 114.328 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 252.90 Mbit/s
95th percentile per-packet one-way delay: 112.233 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 290.61 Mbit/s
95th percentile per-packet one-way delay: 120.369 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 227.35 Mbit/s
95th percentile per-packet one-way delay: 101.303 ms
Loss rate: 0.03%
```

Run 5: Report of Copa — Data Link

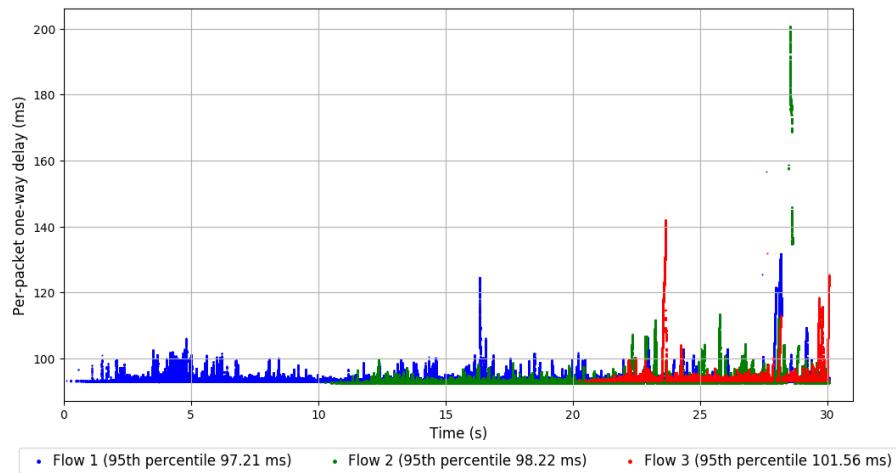
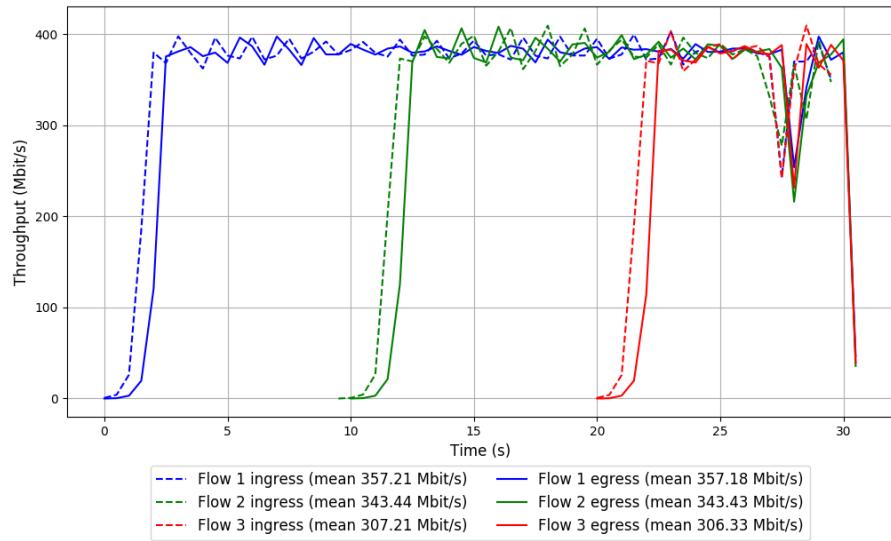


Run 1: Statistics of TCP Cubic

```
Start at: 2018-10-09 21:28:00
End at: 2018-10-09 21:28:30
Local clock offset: 0.447 ms
Remote clock offset: 1.068 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 687.90 Mbit/s
95th percentile per-packet one-way delay: 97.784 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 357.18 Mbit/s
95th percentile per-packet one-way delay: 97.211 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 343.43 Mbit/s
95th percentile per-packet one-way delay: 98.224 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 306.33 Mbit/s
95th percentile per-packet one-way delay: 101.561 ms
Loss rate: 0.28%
```

Run 1: Report of TCP Cubic — Data Link

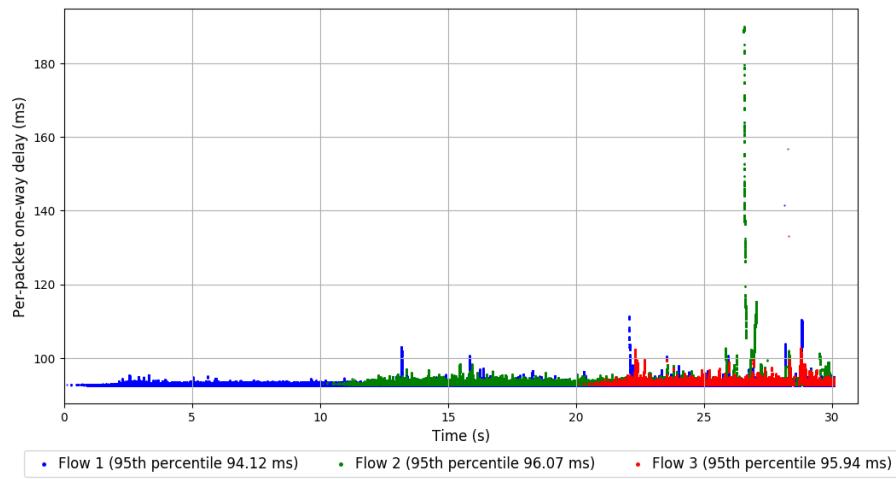
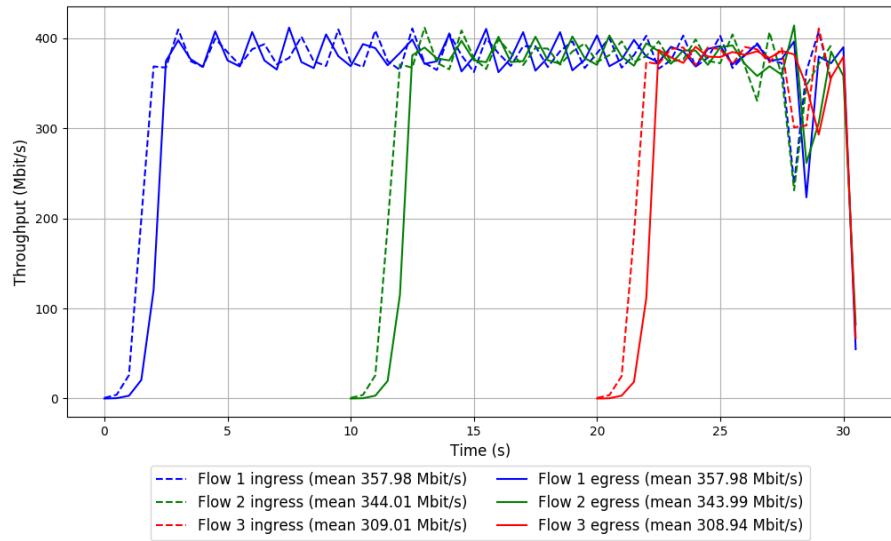


Run 2: Statistics of TCP Cubic

```
Start at: 2018-10-09 21:59:50
End at: 2018-10-09 22:00:20
Local clock offset: 0.538 ms
Remote clock offset: -0.714 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 689.82 Mbit/s
95th percentile per-packet one-way delay: 95.076 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 357.98 Mbit/s
95th percentile per-packet one-way delay: 94.119 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 343.99 Mbit/s
95th percentile per-packet one-way delay: 96.066 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 308.94 Mbit/s
95th percentile per-packet one-way delay: 95.943 ms
Loss rate: 0.02%
```

Run 2: Report of TCP Cubic — Data Link

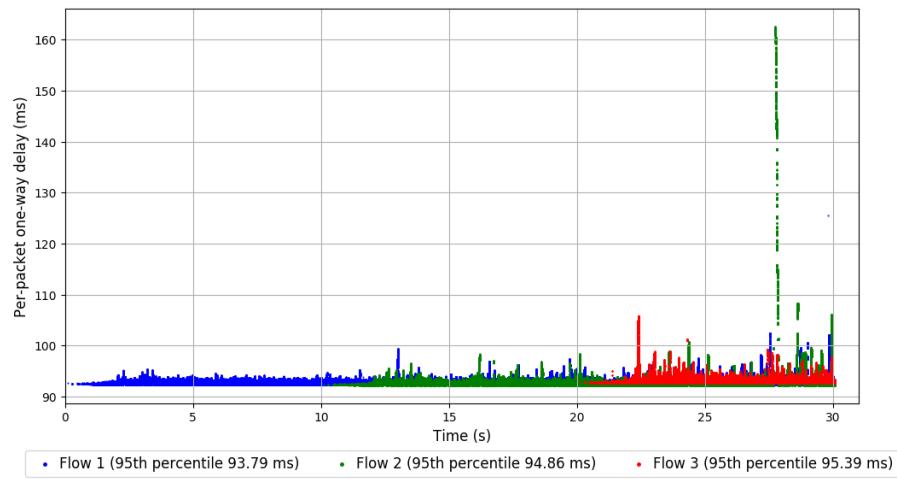
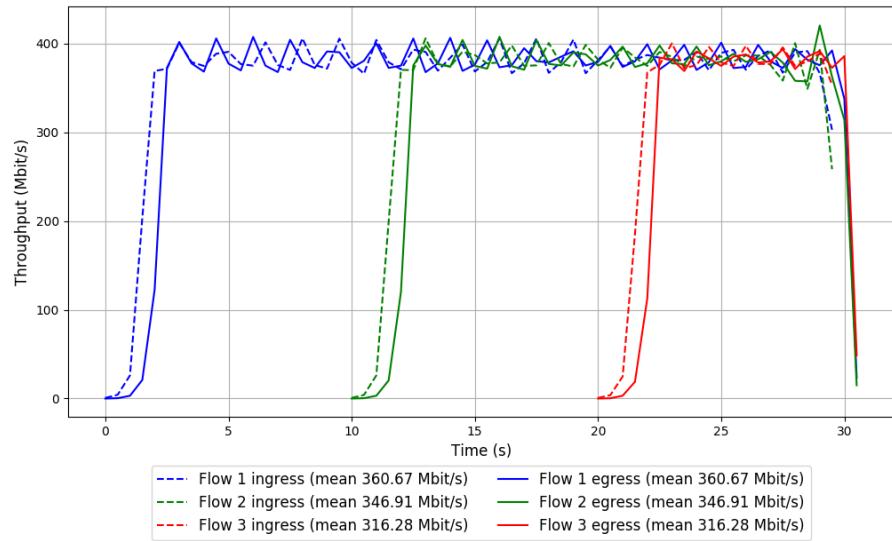


Run 3: Statistics of TCP Cubic

```
Start at: 2018-10-09 22:31:37
End at: 2018-10-09 22:32:07
Local clock offset: 0.523 ms
Remote clock offset: -0.582 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 696.34 Mbit/s
95th percentile per-packet one-way delay: 94.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 360.67 Mbit/s
95th percentile per-packet one-way delay: 93.790 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 346.91 Mbit/s
95th percentile per-packet one-way delay: 94.861 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 316.28 Mbit/s
95th percentile per-packet one-way delay: 95.387 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Cubic — Data Link

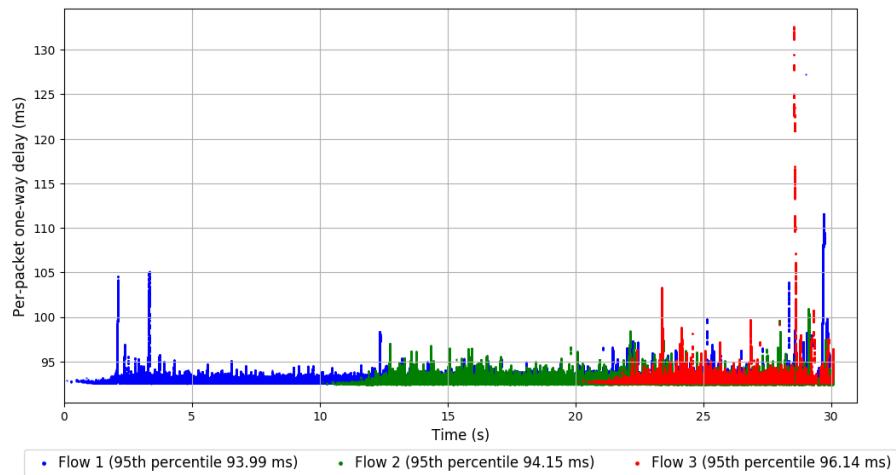
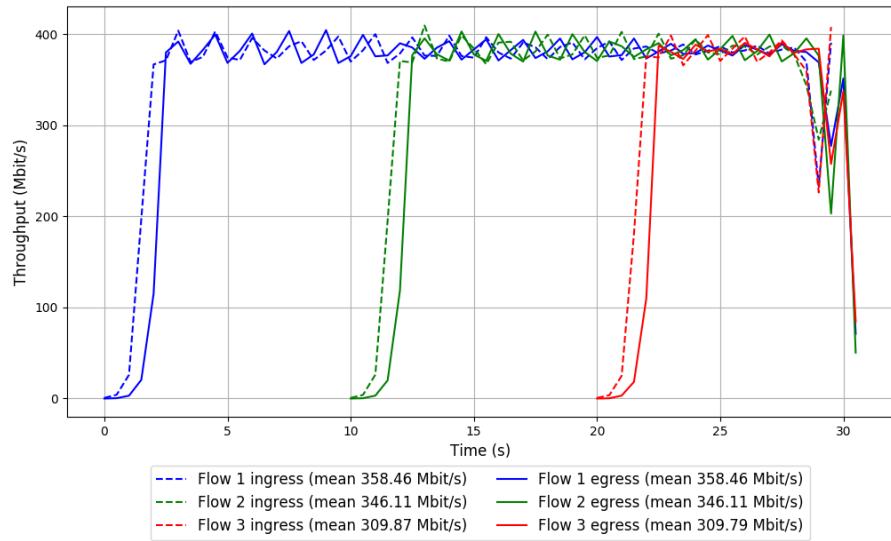


Run 4: Statistics of TCP Cubic

```
Start at: 2018-10-09 23:03:06
End at: 2018-10-09 23:03:36
Local clock offset: -0.149 ms
Remote clock offset: 0.038 ms

# Below is generated by plot.py at 2018-10-10 00:48:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 691.94 Mbit/s
95th percentile per-packet one-way delay: 94.304 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 358.46 Mbit/s
95th percentile per-packet one-way delay: 93.989 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 346.11 Mbit/s
95th percentile per-packet one-way delay: 94.146 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 309.79 Mbit/s
95th percentile per-packet one-way delay: 96.136 ms
Loss rate: 0.03%
```

Run 4: Report of TCP Cubic — Data Link

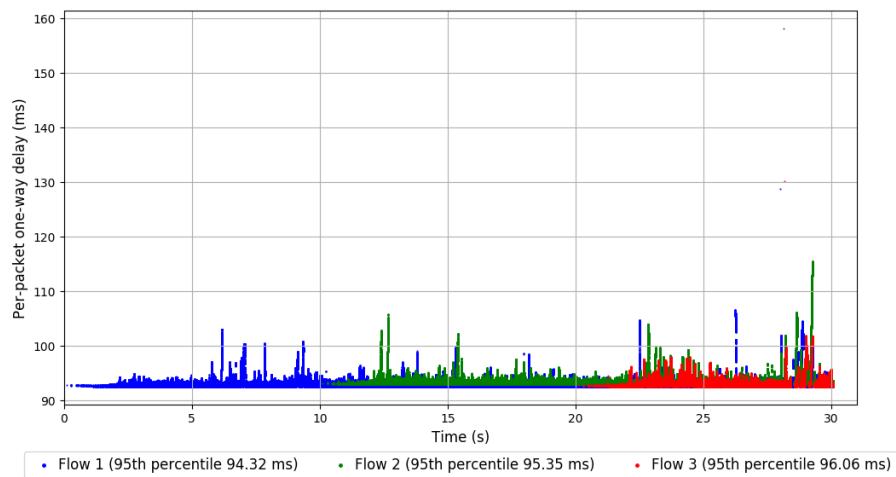
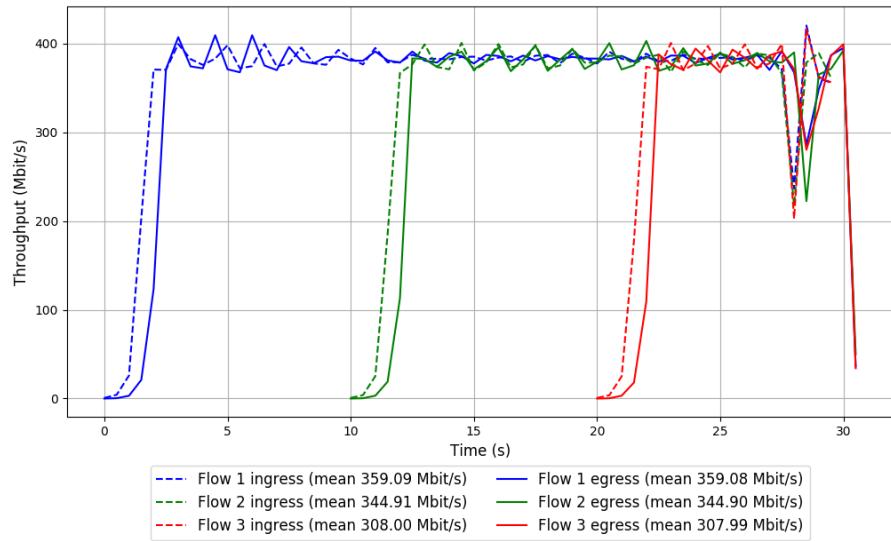


Run 5: Statistics of TCP Cubic

```
Start at: 2018-10-09 23:34:48
End at: 2018-10-09 23:35:18
Local clock offset: -0.079 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-10-10 00:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 691.13 Mbit/s
95th percentile per-packet one-way delay: 94.942 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 359.08 Mbit/s
95th percentile per-packet one-way delay: 94.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 344.90 Mbit/s
95th percentile per-packet one-way delay: 95.352 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 307.99 Mbit/s
95th percentile per-packet one-way delay: 96.058 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Cubic — Data Link

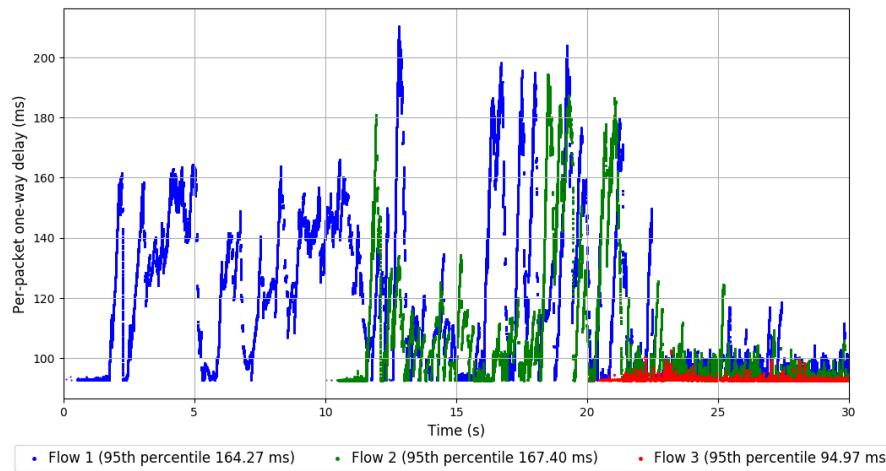
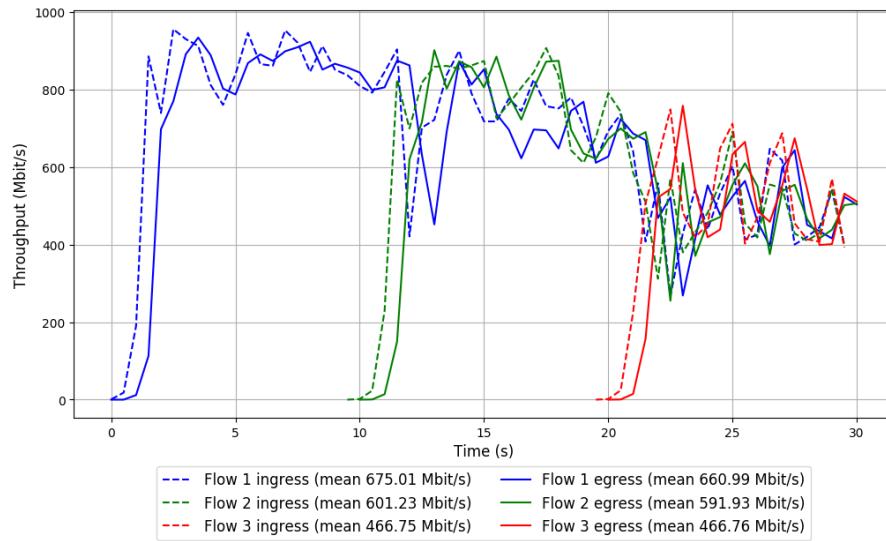


Run 1: Statistics of FillP

```
Start at: 2018-10-09 21:36:09
End at: 2018-10-09 21:36:39
Local clock offset: 0.316 ms
Remote clock offset: 0.127 ms

# Below is generated by plot.py at 2018-10-10 01:01:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1210.75 Mbit/s
95th percentile per-packet one-way delay: 162.216 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 660.99 Mbit/s
95th percentile per-packet one-way delay: 164.267 ms
Loss rate: 2.06%
-- Flow 2:
Average throughput: 591.93 Mbit/s
95th percentile per-packet one-way delay: 167.403 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 466.76 Mbit/s
95th percentile per-packet one-way delay: 94.968 ms
Loss rate: 0.00%
```

Run 1: Report of FillP — Data Link

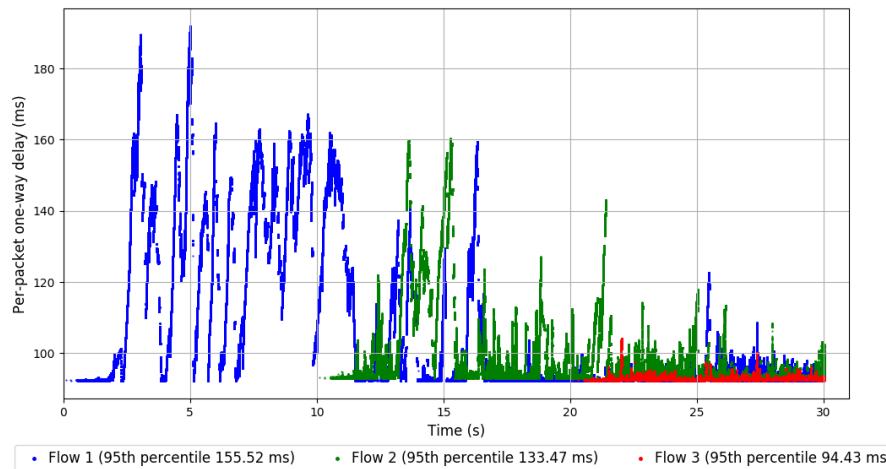
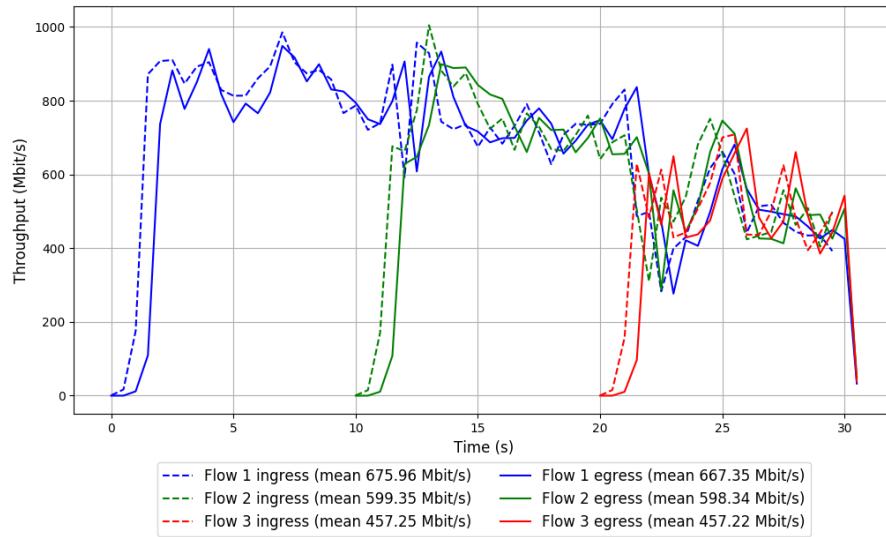


Run 2: Statistics of FillP

```
Start at: 2018-10-09 22:07:59
End at: 2018-10-09 22:08:29
Local clock offset: 0.904 ms
Remote clock offset: -0.858 ms

# Below is generated by plot.py at 2018-10-10 01:06:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1217.00 Mbit/s
95th percentile per-packet one-way delay: 150.378 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 667.35 Mbit/s
95th percentile per-packet one-way delay: 155.516 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 598.34 Mbit/s
95th percentile per-packet one-way delay: 133.466 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 457.22 Mbit/s
95th percentile per-packet one-way delay: 94.427 ms
Loss rate: 0.00%
```

Run 2: Report of FillP — Data Link

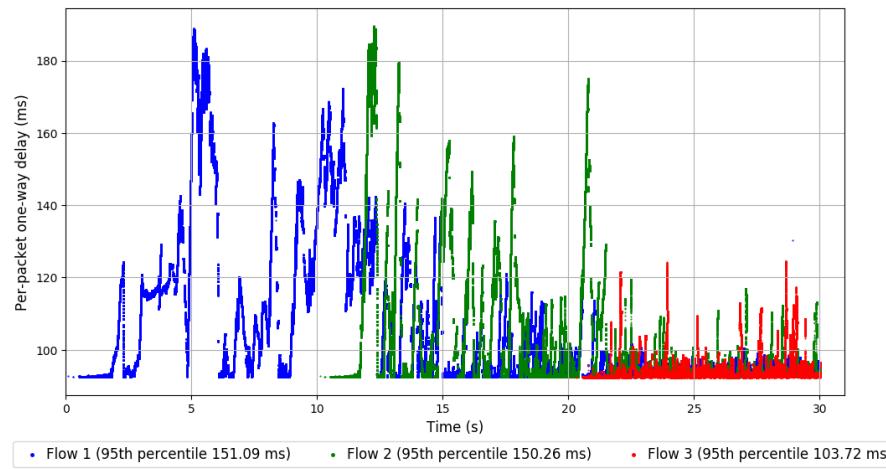
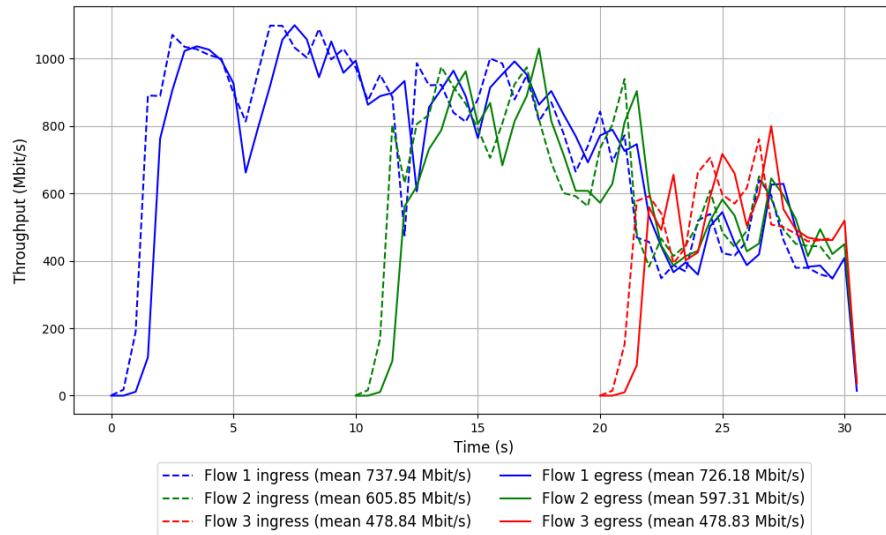


Run 3: Statistics of FillP

```
Start at: 2018-10-09 22:39:49
End at: 2018-10-09 22:40:19
Local clock offset: 0.131 ms
Remote clock offset: -0.206 ms

# Below is generated by plot.py at 2018-10-10 01:08:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1282.10 Mbit/s
95th percentile per-packet one-way delay: 149.007 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 726.18 Mbit/s
95th percentile per-packet one-way delay: 151.093 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 597.31 Mbit/s
95th percentile per-packet one-way delay: 150.264 ms
Loss rate: 1.39%
-- Flow 3:
Average throughput: 478.83 Mbit/s
95th percentile per-packet one-way delay: 103.718 ms
Loss rate: 0.00%
```

Run 3: Report of FillP — Data Link

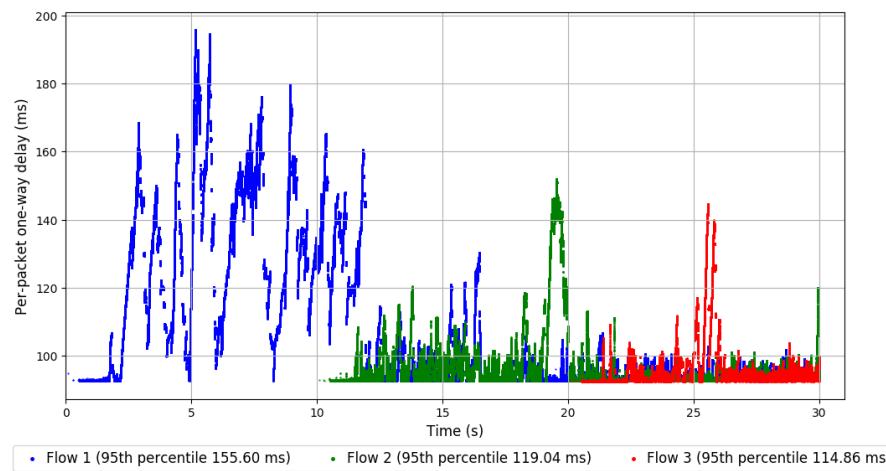
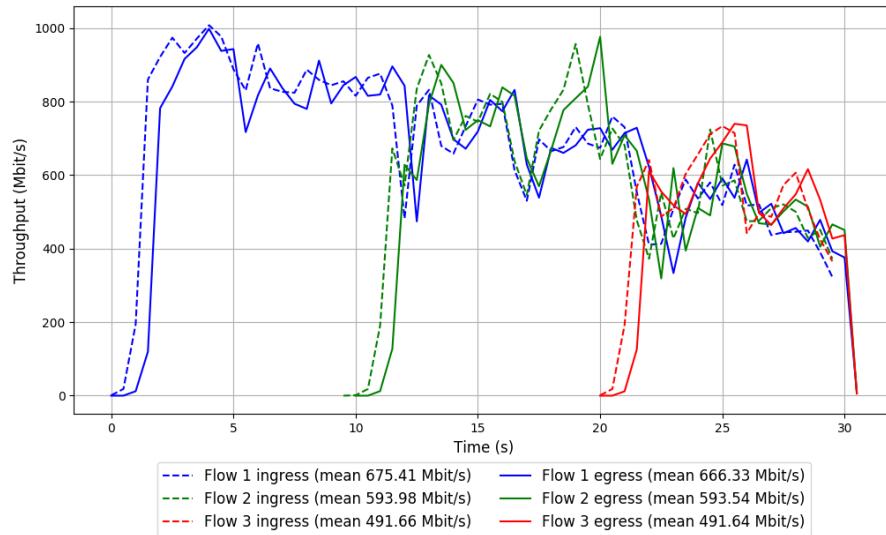


Run 4: Statistics of FillP

```
Start at: 2018-10-09 23:11:15
End at: 2018-10-09 23:11:45
Local clock offset: -0.208 ms
Remote clock offset: 0.029 ms

# Below is generated by plot.py at 2018-10-10 01:08:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1224.38 Mbit/s
95th percentile per-packet one-way delay: 148.344 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 666.33 Mbit/s
95th percentile per-packet one-way delay: 155.596 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 593.54 Mbit/s
95th percentile per-packet one-way delay: 119.040 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 491.64 Mbit/s
95th percentile per-packet one-way delay: 114.857 ms
Loss rate: 0.00%
```

Run 4: Report of FillP — Data Link

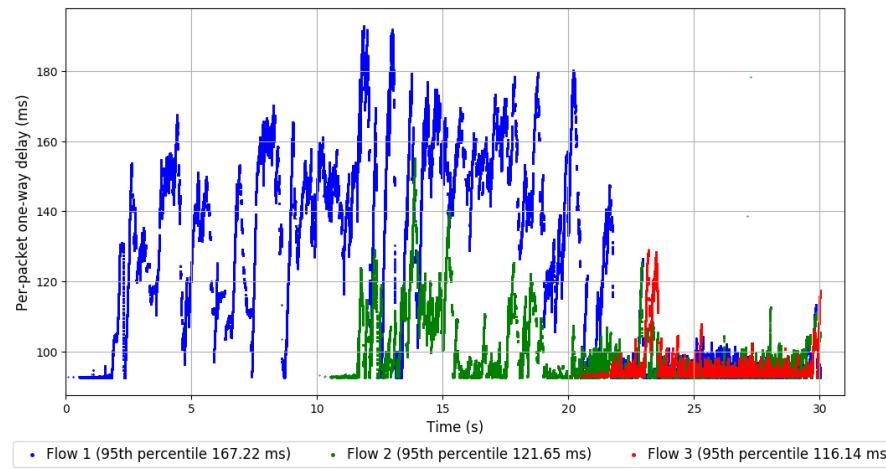
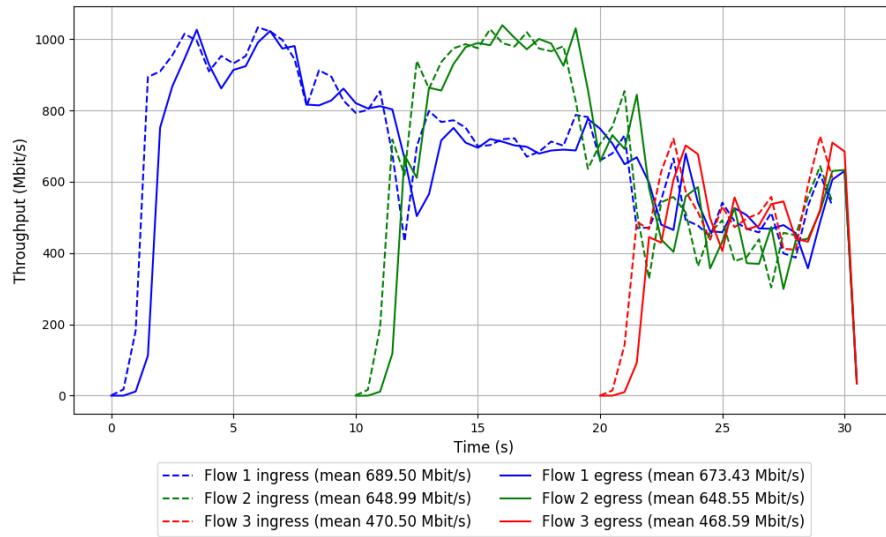


Run 5: Statistics of FillP

```
Start at: 2018-10-09 23:43:01
End at: 2018-10-09 23:43:31
Local clock offset: -0.193 ms
Remote clock offset: -0.056 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1259.95 Mbit/s
95th percentile per-packet one-way delay: 161.500 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 673.43 Mbit/s
95th percentile per-packet one-way delay: 167.222 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 648.55 Mbit/s
95th percentile per-packet one-way delay: 121.652 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 468.59 Mbit/s
95th percentile per-packet one-way delay: 116.141 ms
Loss rate: 0.41%
```

Run 5: Report of FillP — Data Link

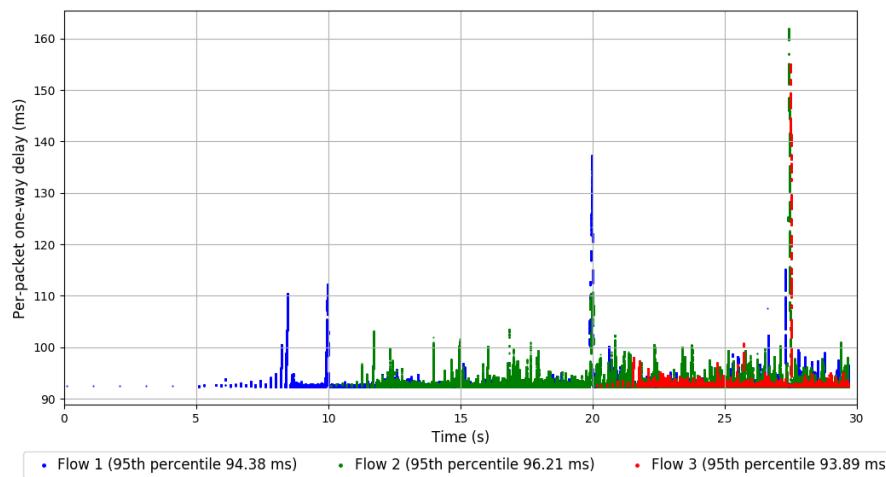
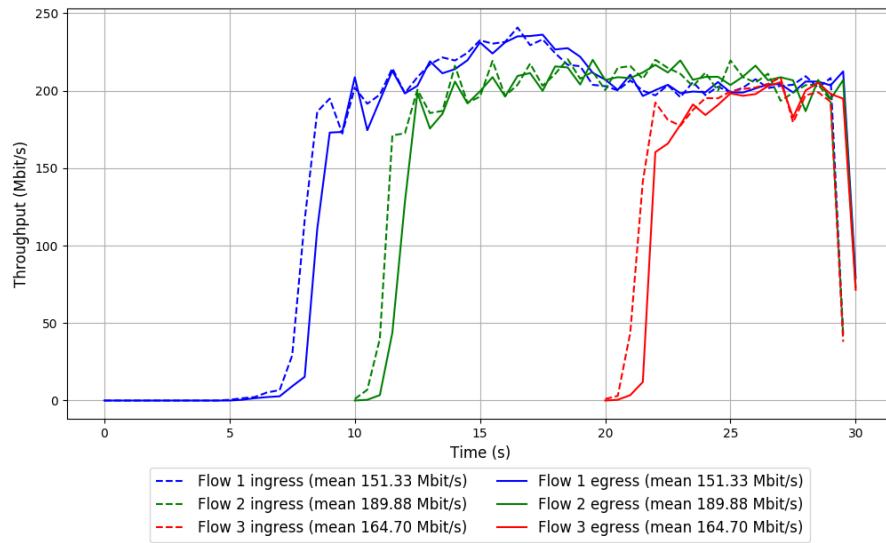


Run 1: Statistics of Indigo

```
Start at: 2018-10-09 21:33:06
End at: 2018-10-09 21:38:36
Local clock offset: 0.495 ms
Remote clock offset: 0.377 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.07 Mbit/s
95th percentile per-packet one-way delay: 95.259 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 151.33 Mbit/s
95th percentile per-packet one-way delay: 94.383 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.88 Mbit/s
95th percentile per-packet one-way delay: 96.214 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.70 Mbit/s
95th percentile per-packet one-way delay: 93.894 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

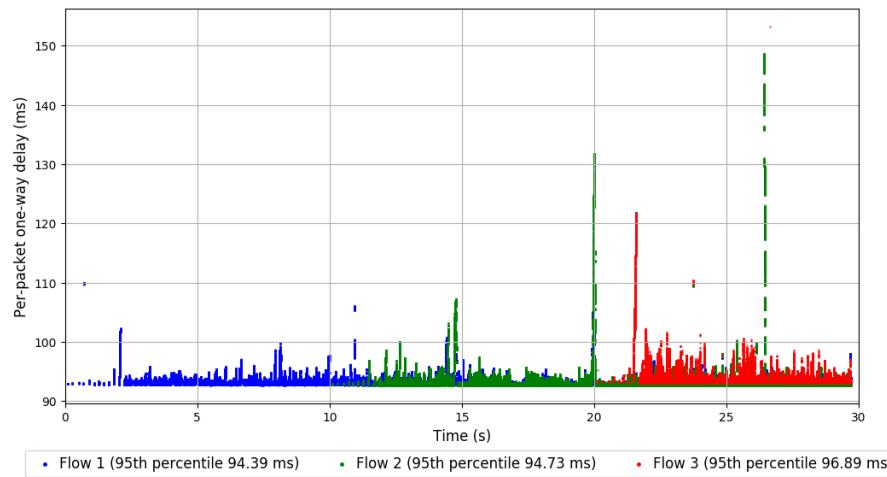
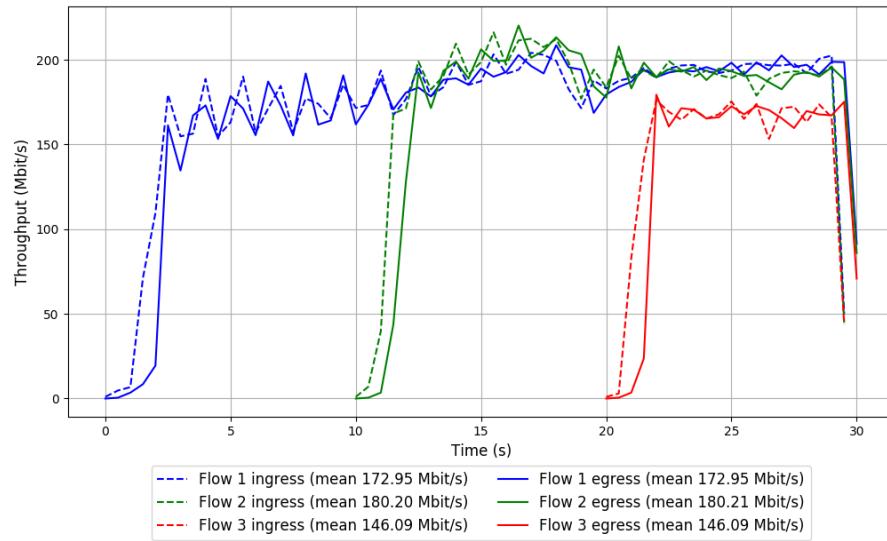


Run 2: Statistics of Indigo

```
Start at: 2018-10-09 22:04:56
End at: 2018-10-09 22:05:26
Local clock offset: 0.367 ms
Remote clock offset: -0.81 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 339.54 Mbit/s
95th percentile per-packet one-way delay: 94.839 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 172.95 Mbit/s
95th percentile per-packet one-way delay: 94.394 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.21 Mbit/s
95th percentile per-packet one-way delay: 94.732 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 146.09 Mbit/s
95th percentile per-packet one-way delay: 96.885 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

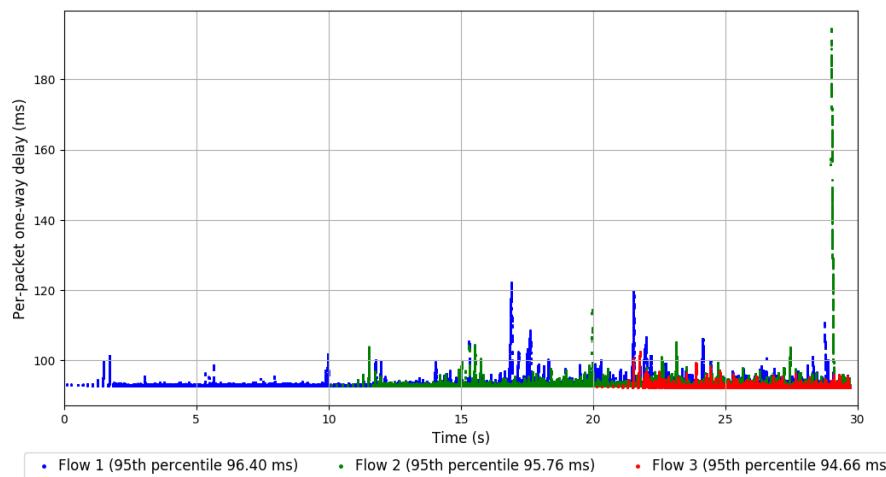
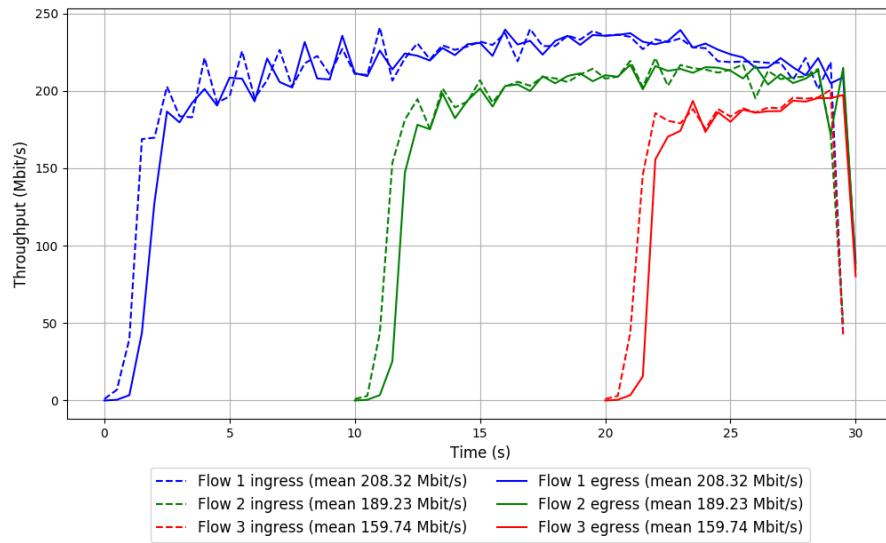


Run 3: Statistics of Indigo

```
Start at: 2018-10-09 22:36:42
End at: 2018-10-09 22:37:12
Local clock offset: 0.277 ms
Remote clock offset: -0.292 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.10 Mbit/s
95th percentile per-packet one-way delay: 95.918 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.32 Mbit/s
95th percentile per-packet one-way delay: 96.399 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.23 Mbit/s
95th percentile per-packet one-way delay: 95.756 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 159.74 Mbit/s
95th percentile per-packet one-way delay: 94.655 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link

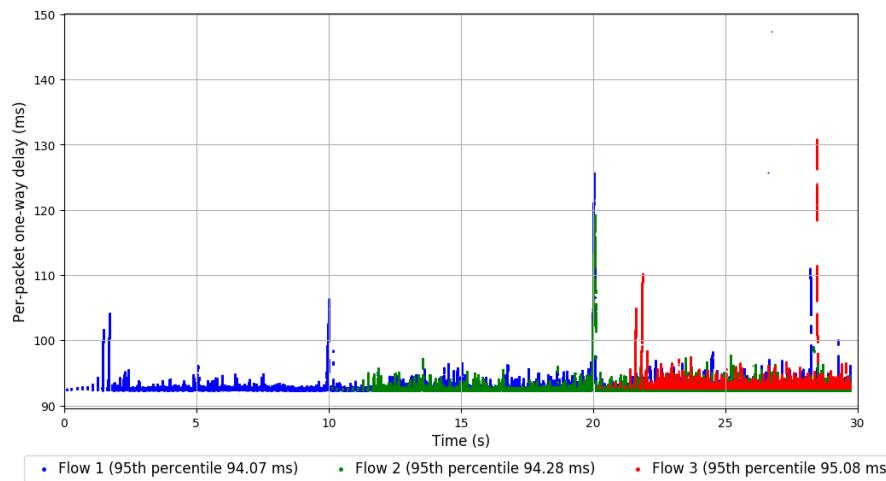
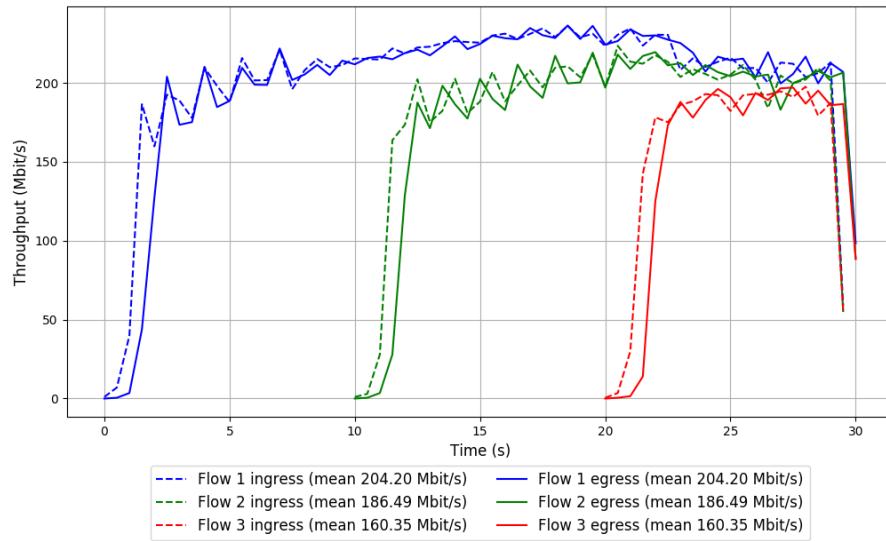


Run 4: Statistics of Indigo

```
Start at: 2018-10-09 23:08:09
End at: 2018-10-09 23:08:39
Local clock offset: -0.064 ms
Remote clock offset: -0.005 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 379.10 Mbit/s
95th percentile per-packet one-way delay: 94.279 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.20 Mbit/s
95th percentile per-packet one-way delay: 94.071 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 186.49 Mbit/s
95th percentile per-packet one-way delay: 94.278 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 160.35 Mbit/s
95th percentile per-packet one-way delay: 95.078 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

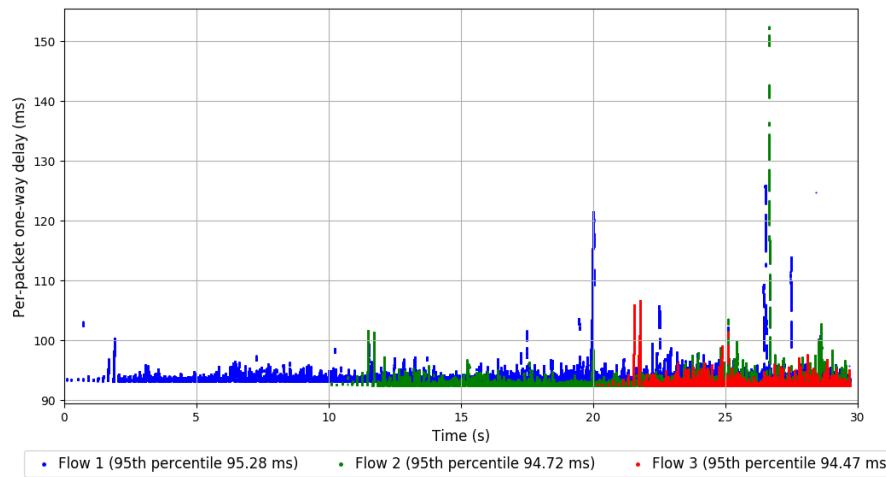
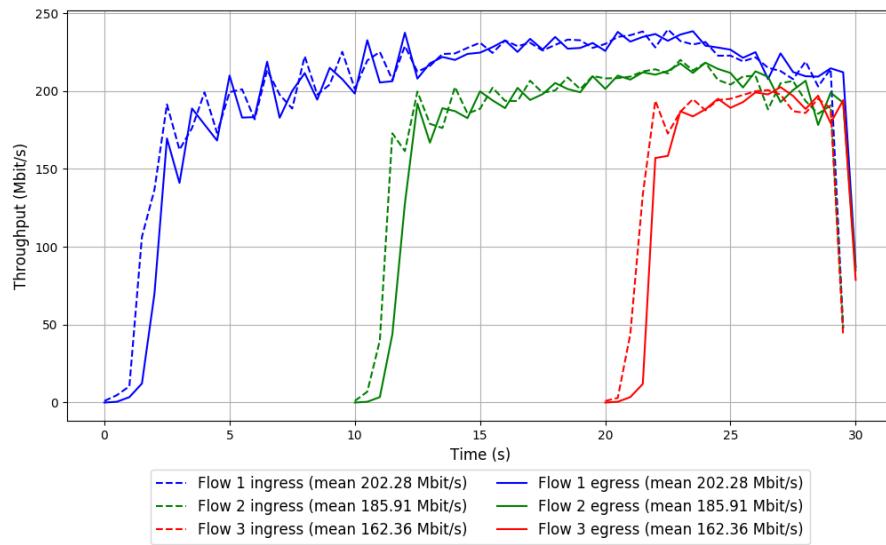


Run 5: Statistics of Indigo

```
Start at: 2018-10-09 23:39:53
End at: 2018-10-09 23:40:23
Local clock offset: -0.083 ms
Remote clock offset: -0.032 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 377.75 Mbit/s
95th percentile per-packet one-way delay: 95.072 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.28 Mbit/s
95th percentile per-packet one-way delay: 95.276 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 185.91 Mbit/s
95th percentile per-packet one-way delay: 94.720 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 162.36 Mbit/s
95th percentile per-packet one-way delay: 94.467 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

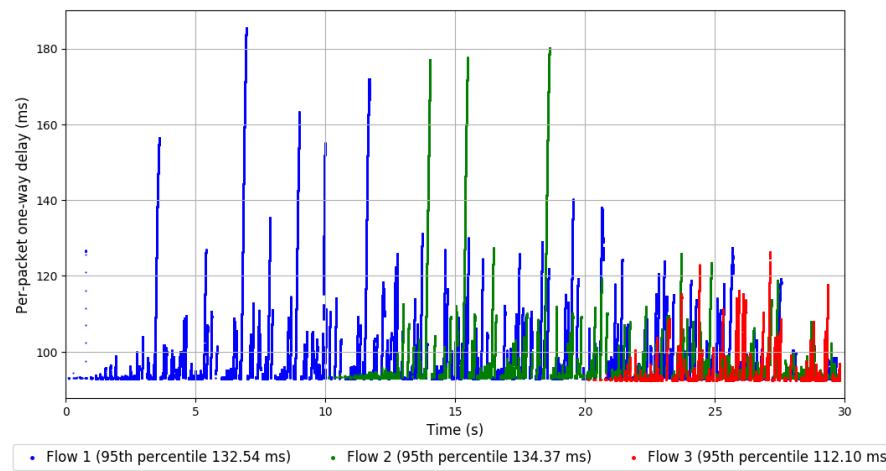
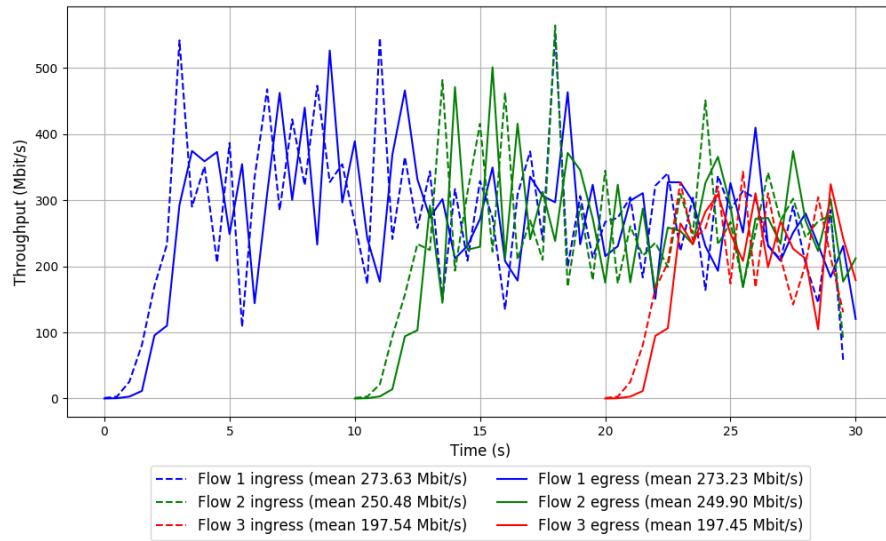


```
Run 1: Statistics of Indigo-96d2da3

Start at: 2018-10-09 21:55:39
End at: 2018-10-09 21:56:09
Local clock offset: 0.503 ms
Remote clock offset: -0.614 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 502.89 Mbit/s
95th percentile per-packet one-way delay: 127.662 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 273.23 Mbit/s
95th percentile per-packet one-way delay: 132.537 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 249.90 Mbit/s
95th percentile per-packet one-way delay: 134.374 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 197.45 Mbit/s
95th percentile per-packet one-way delay: 112.100 ms
Loss rate: 0.04%
```

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

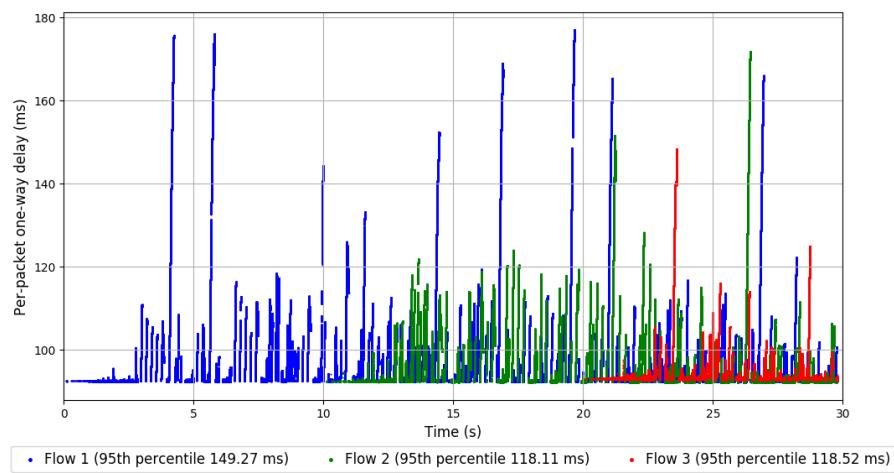
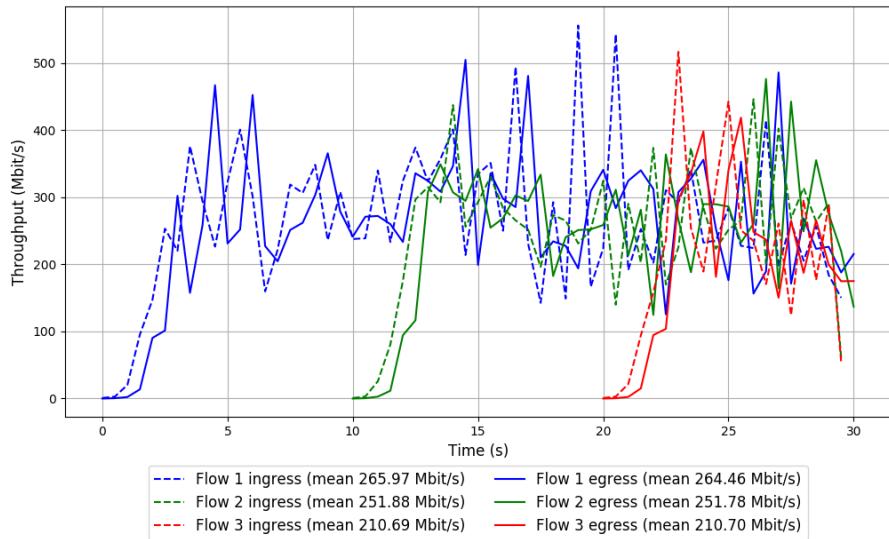


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-10-09 22:27:26
End at: 2018-10-09 22:27:56
Local clock offset: 0.841 ms
Remote clock offset: -0.915 ms

# Below is generated by plot.py at 2018-10-10 01:14:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.75 Mbit/s
95th percentile per-packet one-way delay: 137.126 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 264.46 Mbit/s
95th percentile per-packet one-way delay: 149.274 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 251.78 Mbit/s
95th percentile per-packet one-way delay: 118.109 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 210.70 Mbit/s
95th percentile per-packet one-way delay: 118.521 ms
Loss rate: 0.00%
```

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

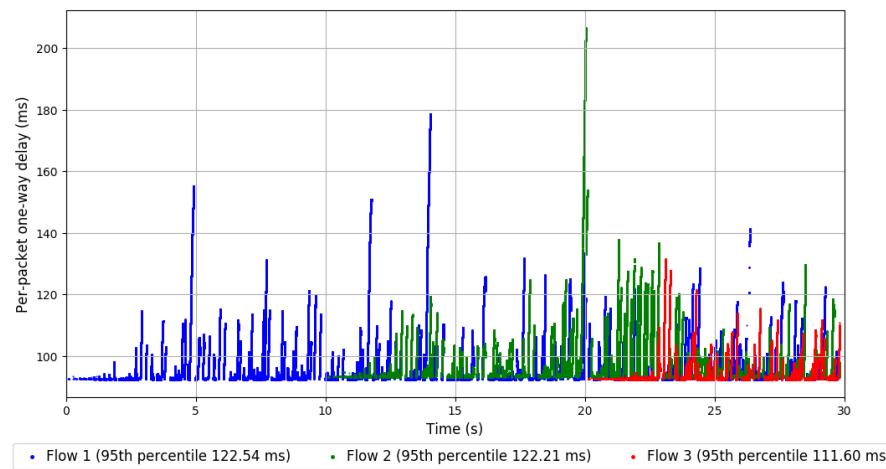
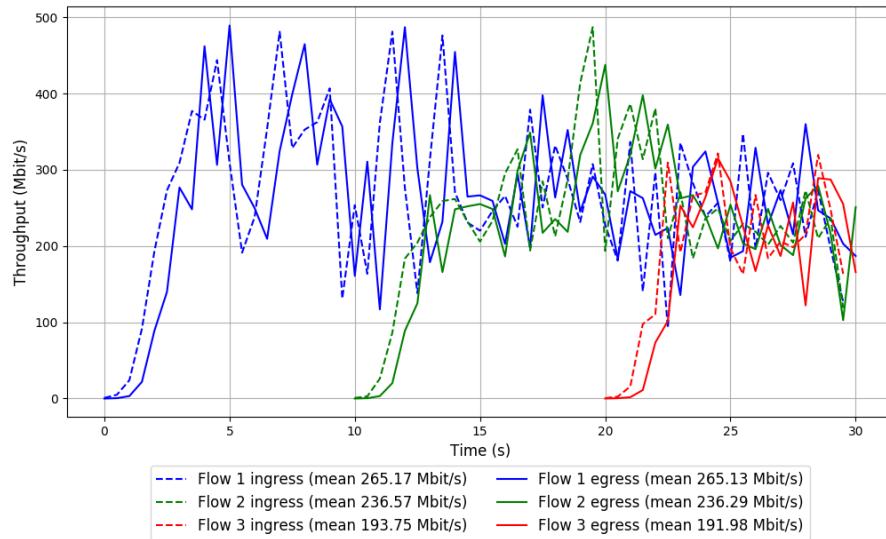


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-10-09 22:58:56
End at: 2018-10-09 22:59:26
Local clock offset: -0.102 ms
Remote clock offset: 0.084 ms

# Below is generated by plot.py at 2018-10-10 01:16:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.74 Mbit/s
95th percentile per-packet one-way delay: 121.499 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 265.13 Mbit/s
95th percentile per-packet one-way delay: 122.536 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 236.29 Mbit/s
95th percentile per-packet one-way delay: 122.207 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 191.98 Mbit/s
95th percentile per-packet one-way delay: 111.604 ms
Loss rate: 0.91%
```

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

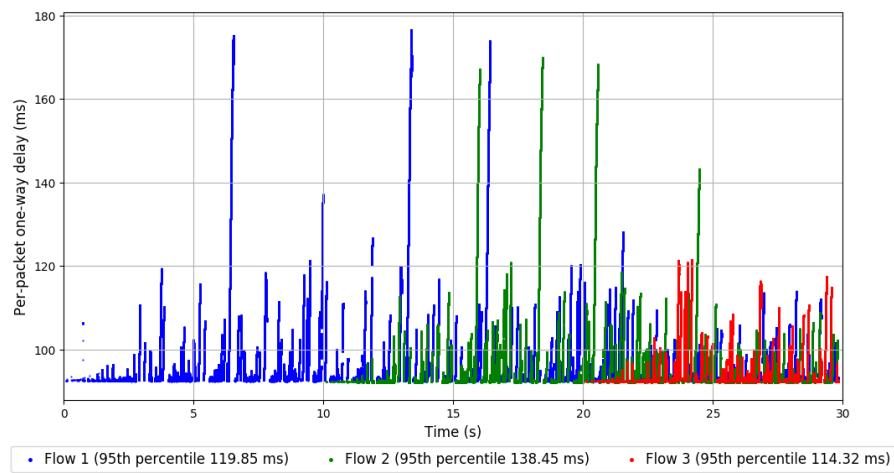
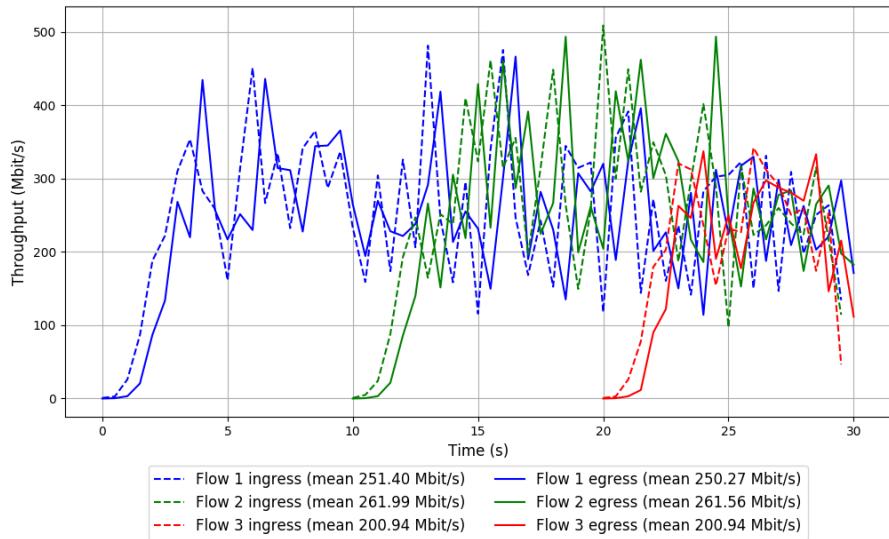


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-10-09 23:30:37
End at: 2018-10-09 23:31:07
Local clock offset: 0.086 ms
Remote clock offset: -0.039 ms

# Below is generated by plot.py at 2018-10-10 01:16:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 489.21 Mbit/s
95th percentile per-packet one-way delay: 121.187 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 250.27 Mbit/s
95th percentile per-packet one-way delay: 119.852 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 261.56 Mbit/s
95th percentile per-packet one-way delay: 138.454 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 200.94 Mbit/s
95th percentile per-packet one-way delay: 114.316 ms
Loss rate: 0.00%
```

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

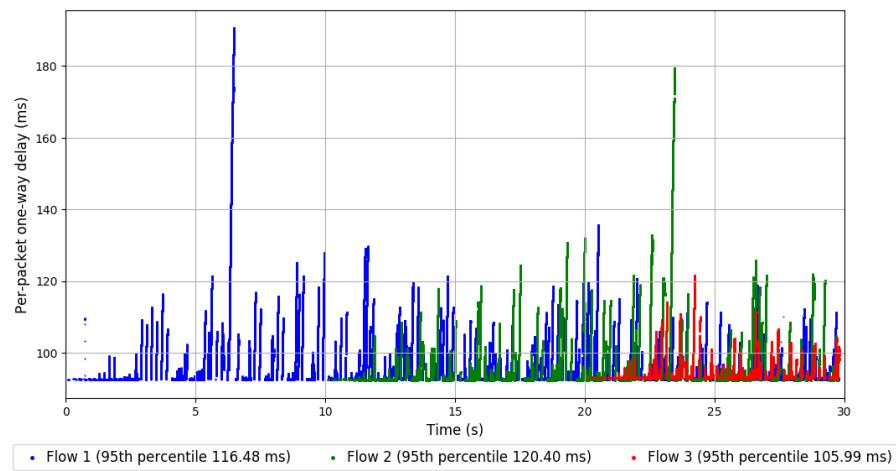
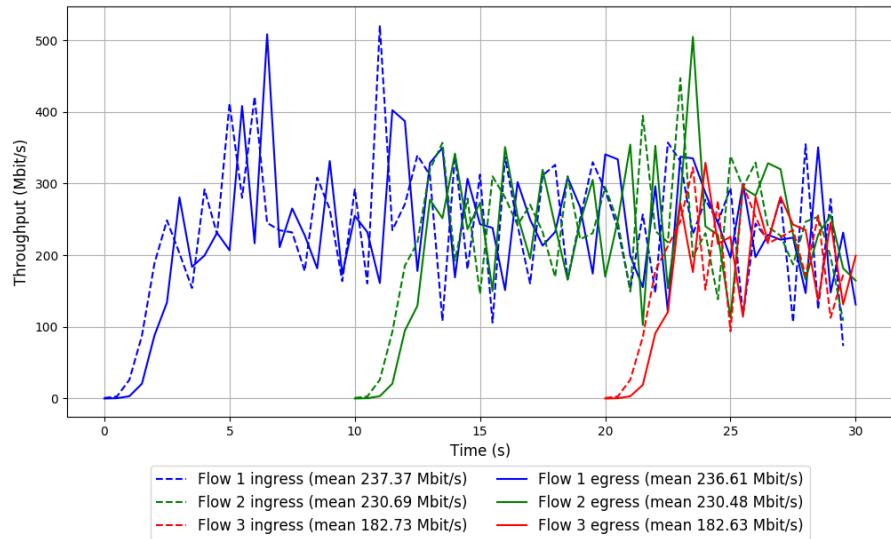


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-10-10 00:02:20
End at: 2018-10-10 00:02:50
Local clock offset: -0.095 ms
Remote clock offset: -0.077 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.46 Mbit/s
95th percentile per-packet one-way delay: 117.761 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 236.61 Mbit/s
95th percentile per-packet one-way delay: 116.483 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 230.48 Mbit/s
95th percentile per-packet one-way delay: 120.396 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 182.63 Mbit/s
95th percentile per-packet one-way delay: 105.988 ms
Loss rate: 0.00%
```

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

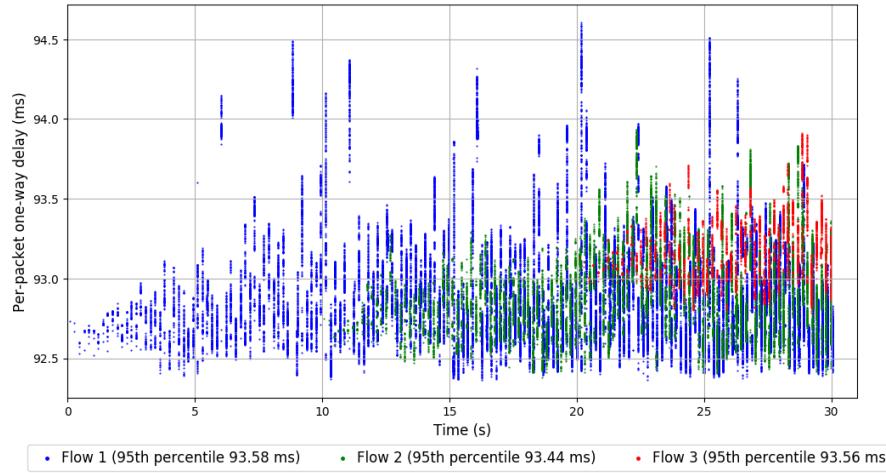
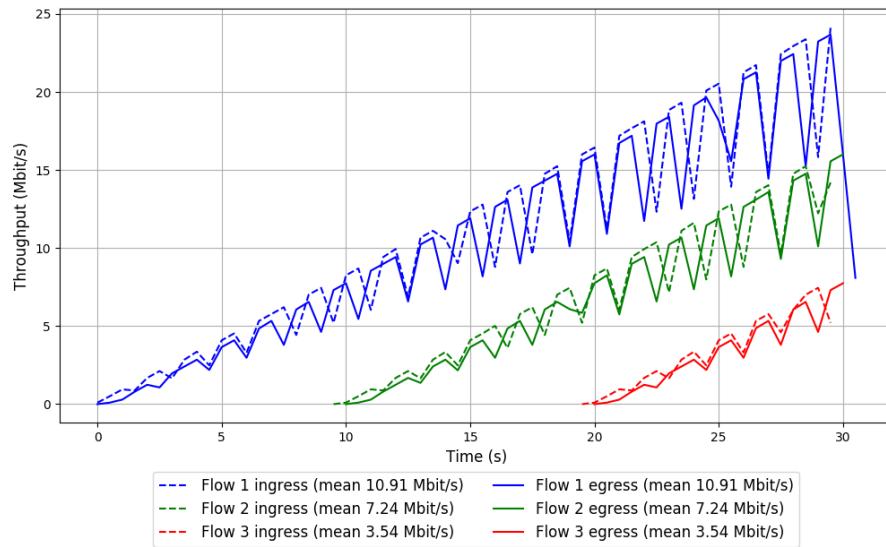


Run 1: Statistics of LEDBAT

```
Start at: 2018-10-09 21:29:53
End at: 2018-10-09 21:30:23
Local clock offset: 0.521 ms
Remote clock offset: 0.741 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.89 Mbit/s
95th percentile per-packet one-way delay: 93.525 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 93.579 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 93.435 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 93.559 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

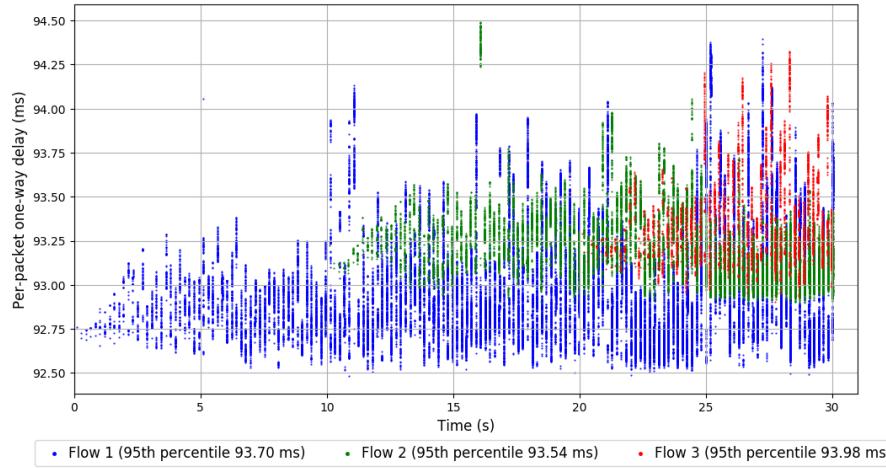
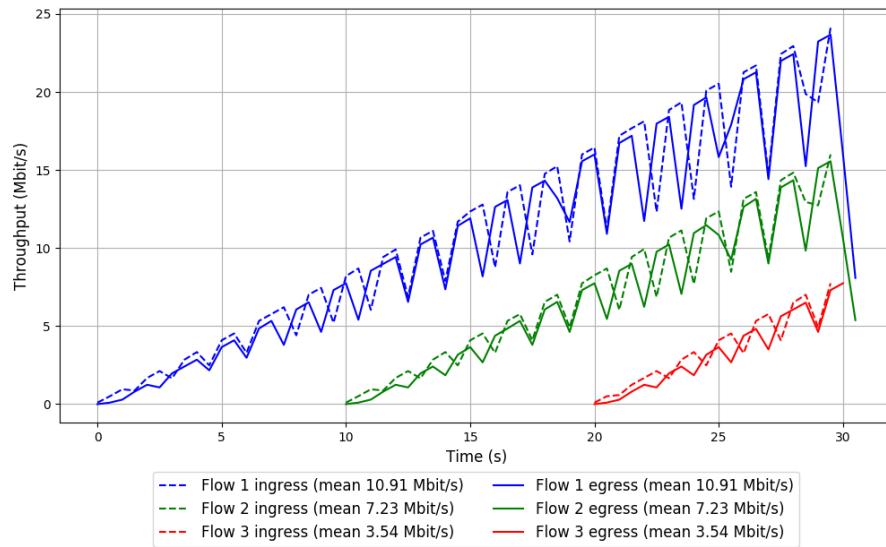


Run 2: Statistics of LEDBAT

```
Start at: 2018-10-09 22:01:42
End at: 2018-10-09 22:02:12
Local clock offset: 0.583 ms
Remote clock offset: -0.73 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.89 Mbit/s
95th percentile per-packet one-way delay: 93.692 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.91 Mbit/s
95th percentile per-packet one-way delay: 93.698 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 93.543 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 93.980 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

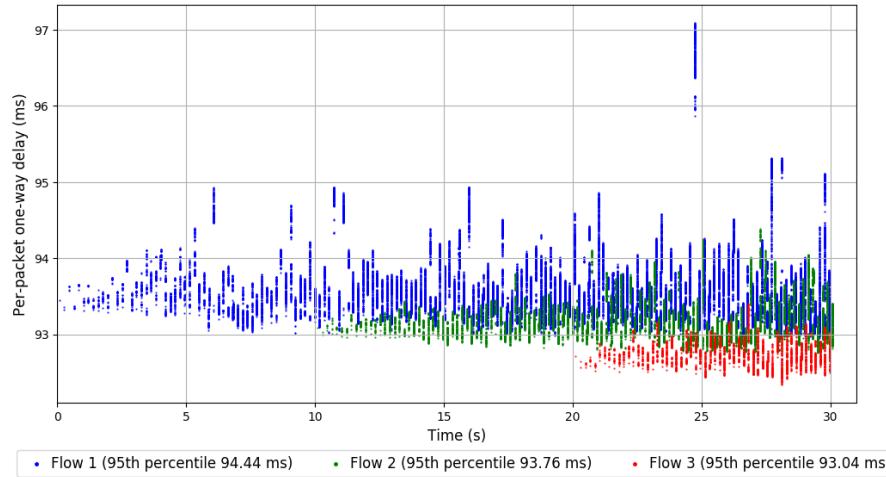
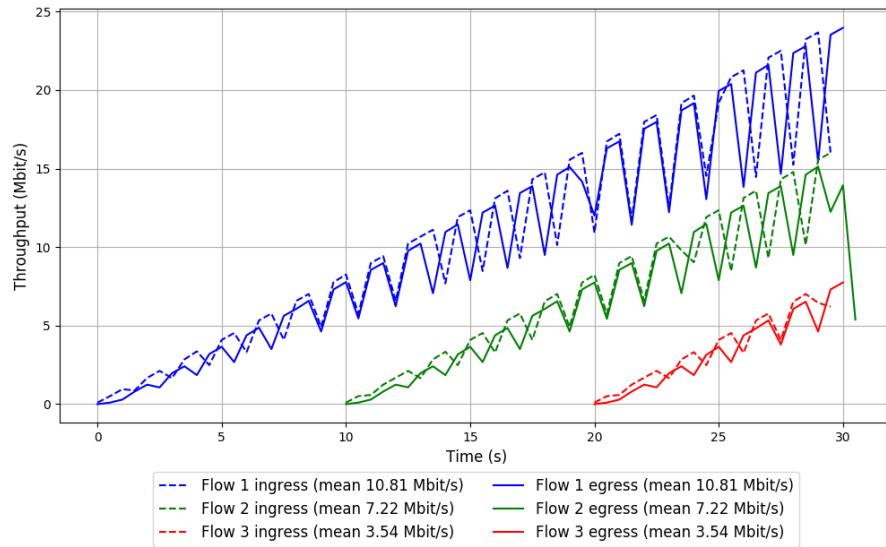


Run 3: Statistics of LEDBAT

```
Start at: 2018-10-09 22:33:29
End at: 2018-10-09 22:33:59
Local clock offset: 0.365 ms
Remote clock offset: -0.493 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.74 Mbit/s
95th percentile per-packet one-way delay: 94.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.81 Mbit/s
95th percentile per-packet one-way delay: 94.440 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.22 Mbit/s
95th percentile per-packet one-way delay: 93.763 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 93.038 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

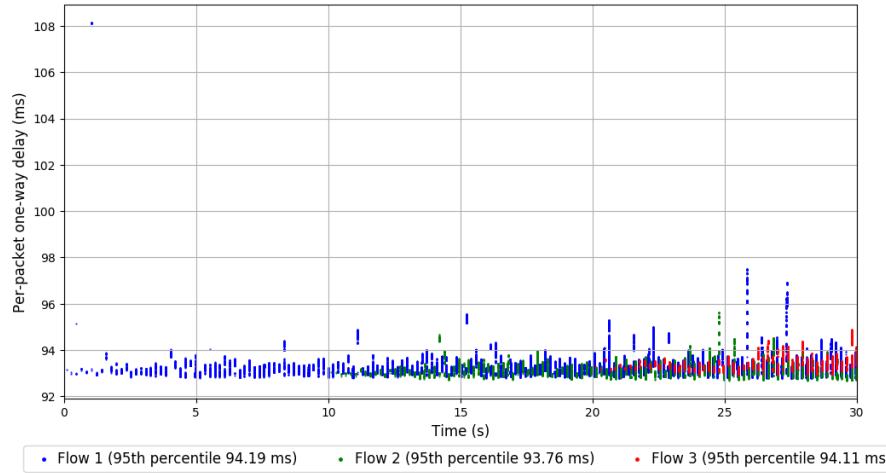
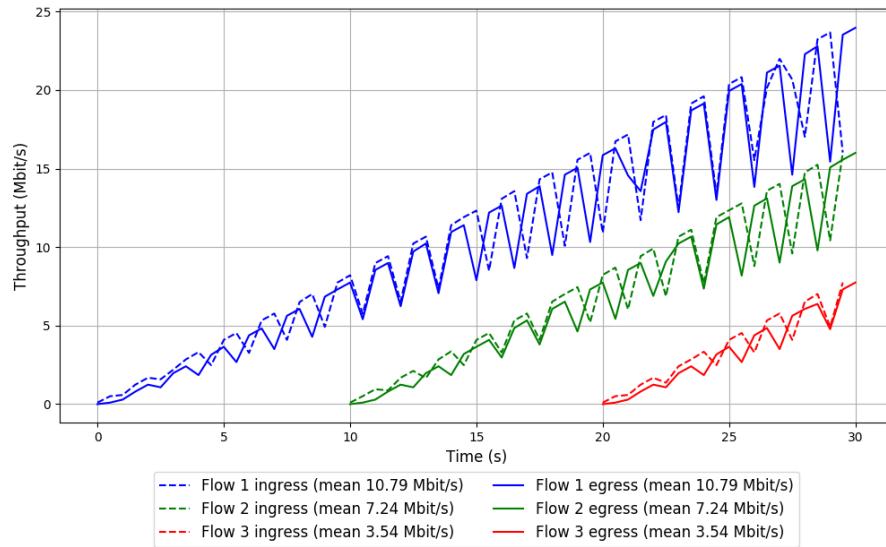


Run 4: Statistics of LEDBAT

```
Start at: 2018-10-09 23:04:58
End at: 2018-10-09 23:05:28
Local clock offset: -0.216 ms
Remote clock offset: 0.026 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.76 Mbit/s
95th percentile per-packet one-way delay: 94.074 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.79 Mbit/s
95th percentile per-packet one-way delay: 94.192 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 93.764 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 94.105 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

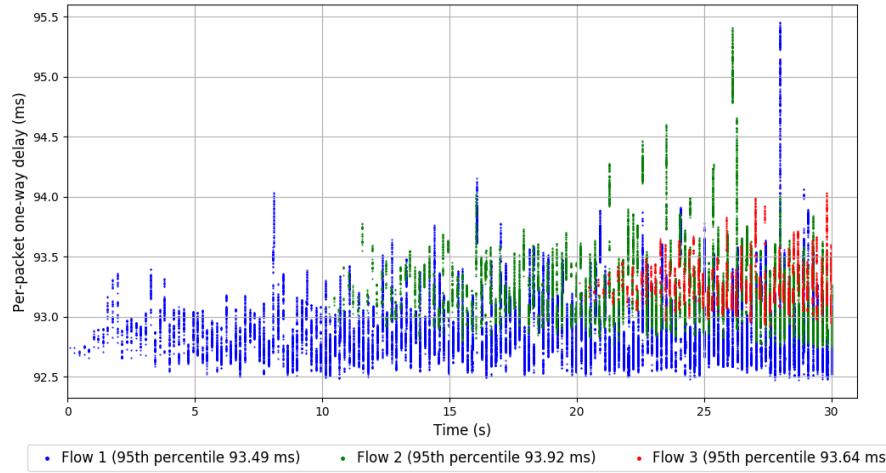
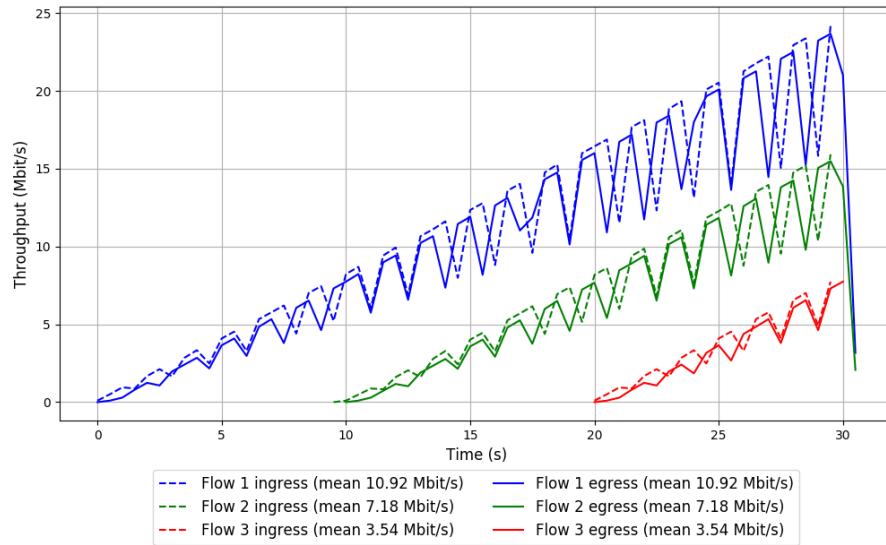


Run 5: Statistics of LEDBAT

```
Start at: 2018-10-09 23:36:40
End at: 2018-10-09 23:37:10
Local clock offset: -0.173 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-10-10 01:17:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 16.87 Mbit/s
95th percentile per-packet one-way delay: 93.629 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.92 Mbit/s
95th percentile per-packet one-way delay: 93.491 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 93.922 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.54 Mbit/s
95th percentile per-packet one-way delay: 93.636 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

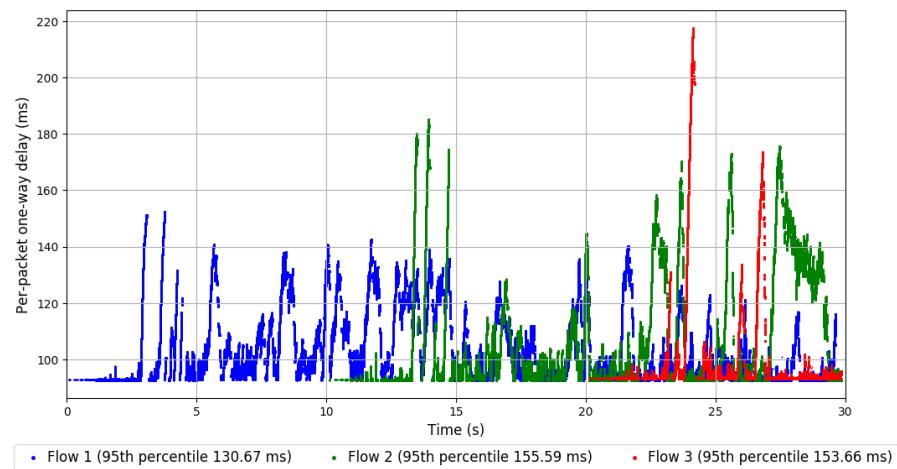
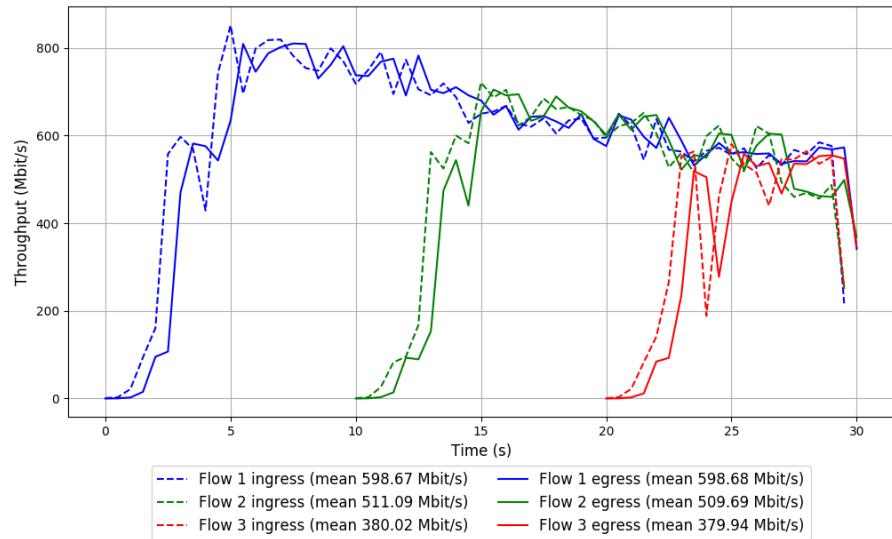


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-10-09 21:41:24
End at: 2018-10-09 21:41:54
Local clock offset: 0.21 ms
Remote clock offset: -0.175 ms

# Below is generated by plot.py at 2018-10-10 01:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1060.09 Mbit/s
95th percentile per-packet one-way delay: 139.095 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 598.68 Mbit/s
95th percentile per-packet one-way delay: 130.670 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 509.69 Mbit/s
95th percentile per-packet one-way delay: 155.586 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 379.94 Mbit/s
95th percentile per-packet one-way delay: 153.662 ms
Loss rate: 0.03%
```

Run 1: Report of Indigo-Muses — Data Link

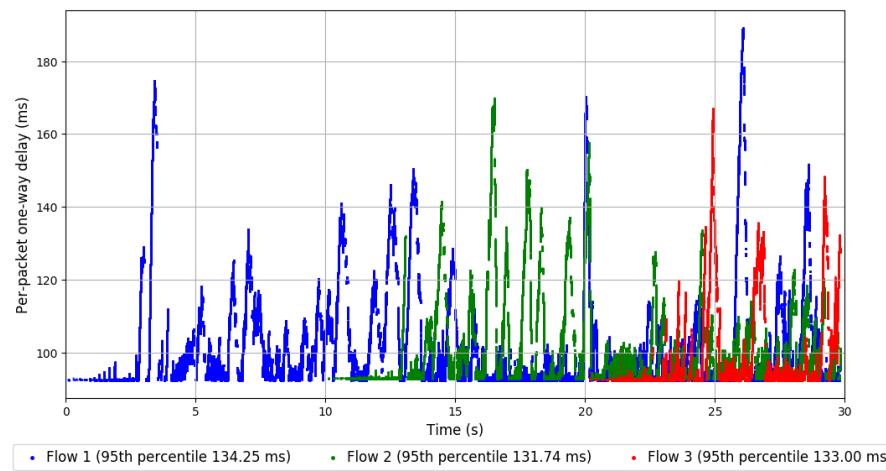
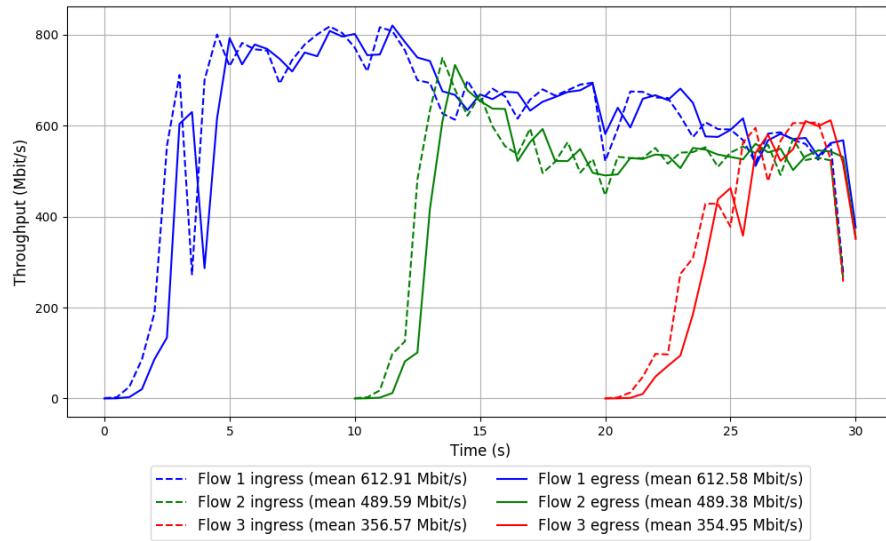


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-10-09 22:13:02
End at: 2018-10-09 22:13:32
Local clock offset: 0.784 ms
Remote clock offset: -0.958 ms

# Below is generated by plot.py at 2018-10-10 01:30:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1052.40 Mbit/s
95th percentile per-packet one-way delay: 133.194 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 612.58 Mbit/s
95th percentile per-packet one-way delay: 134.248 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 489.38 Mbit/s
95th percentile per-packet one-way delay: 131.742 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 354.95 Mbit/s
95th percentile per-packet one-way delay: 132.997 ms
Loss rate: 0.41%
```

Run 2: Report of Indigo-Muses — Data Link

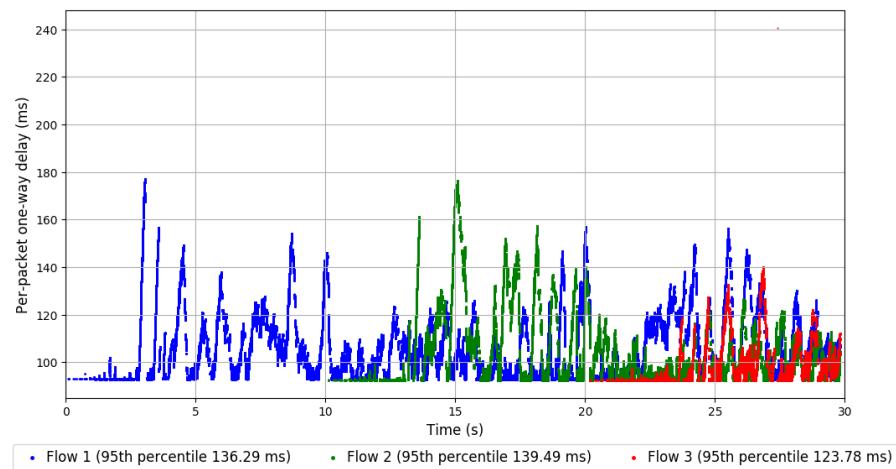
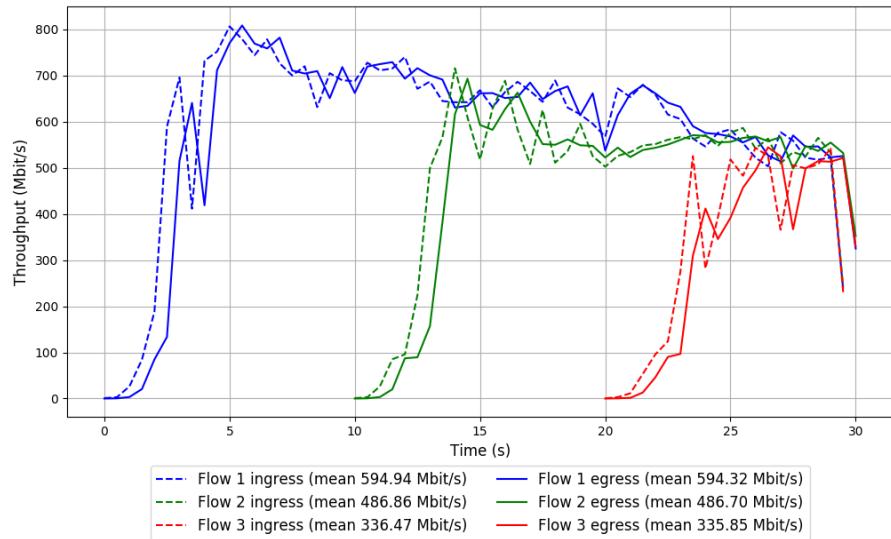


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-10-09 22:44:52
End at: 2018-10-09 22:45:22
Local clock offset: -0.014 ms
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2018-10-10 01:30:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1026.01 Mbit/s
95th percentile per-packet one-way delay: 136.128 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 594.32 Mbit/s
95th percentile per-packet one-way delay: 136.289 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 486.70 Mbit/s
95th percentile per-packet one-way delay: 139.489 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 335.85 Mbit/s
95th percentile per-packet one-way delay: 123.777 ms
Loss rate: 0.18%
```

Run 3: Report of Indigo-Muses — Data Link

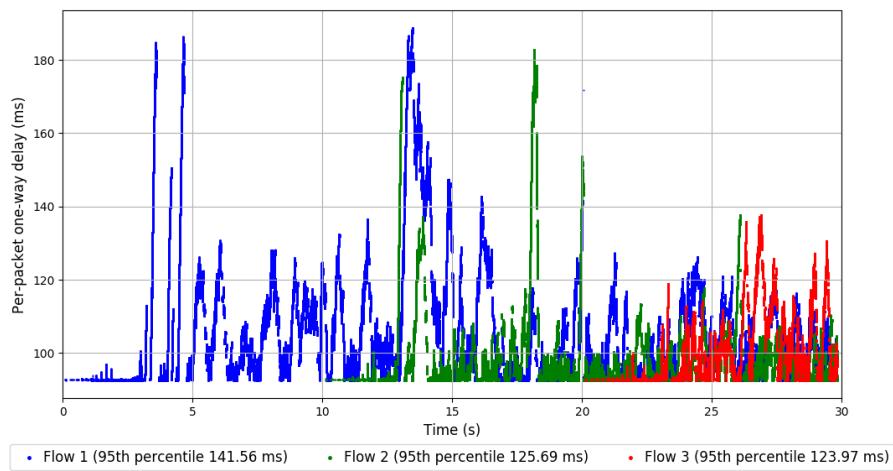
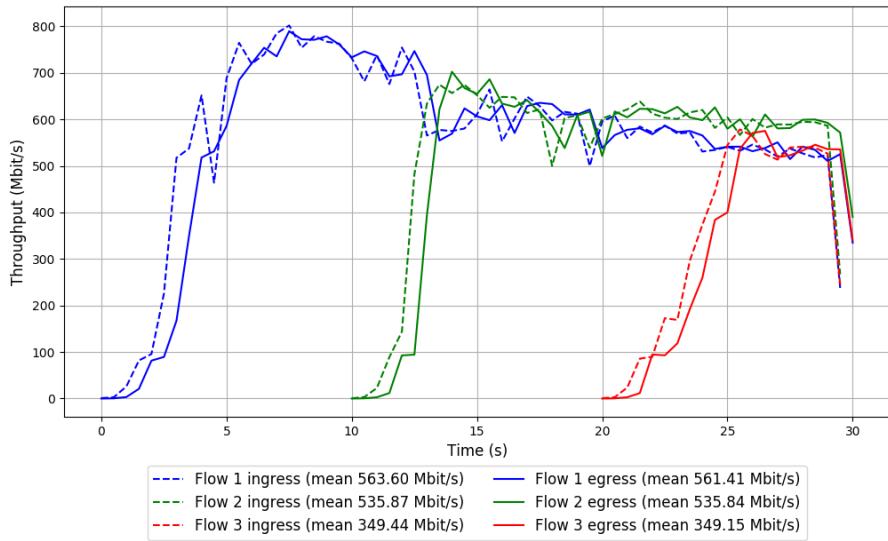


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-10-09 23:16:22
End at: 2018-10-09 23:16:52
Local clock offset: -0.101 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-10-10 01:30:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1030.40 Mbit/s
95th percentile per-packet one-way delay: 131.571 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 561.41 Mbit/s
95th percentile per-packet one-way delay: 141.561 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 535.84 Mbit/s
95th percentile per-packet one-way delay: 125.691 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 349.15 Mbit/s
95th percentile per-packet one-way delay: 123.968 ms
Loss rate: 0.08%
```

Run 4: Report of Indigo-Muses — Data Link

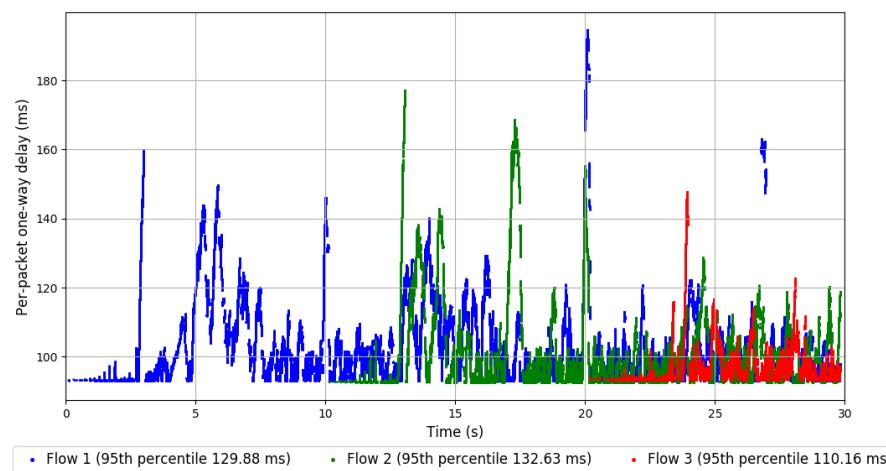
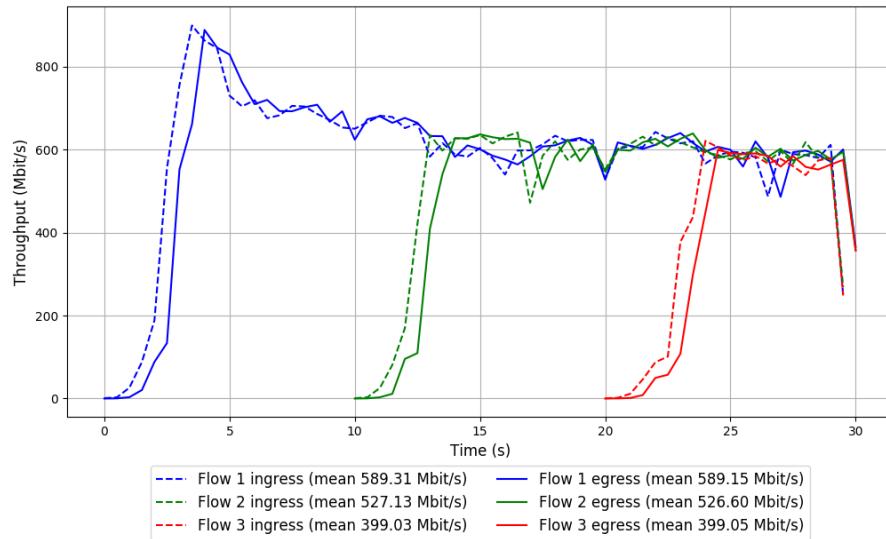


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-10-09 23:48:12
End at: 2018-10-09 23:48:42
Local clock offset: -0.261 ms
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2018-10-10 01:32:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1067.17 Mbit/s
95th percentile per-packet one-way delay: 129.153 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 589.15 Mbit/s
95th percentile per-packet one-way delay: 129.877 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 526.60 Mbit/s
95th percentile per-packet one-way delay: 132.629 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 399.05 Mbit/s
95th percentile per-packet one-way delay: 110.157 ms
Loss rate: 0.04%
```

Run 5: Report of Indigo-Muses — Data Link

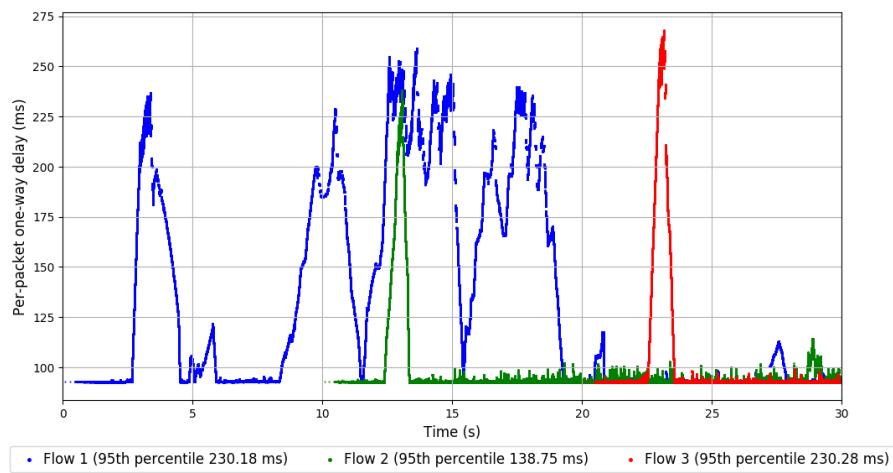
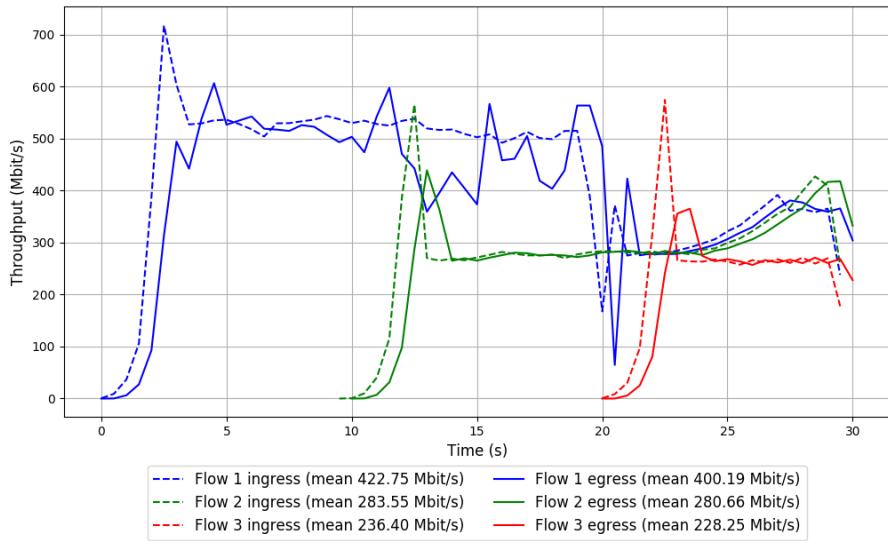


Run 1: Statistics of PCC-Allegro

```
Start at: 2018-10-09 21:51:42
End at: 2018-10-09 21:52:12
Local clock offset: 0.466 ms
Remote clock offset: -0.54 ms

# Below is generated by plot.py at 2018-10-10 01:37:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 662.10 Mbit/s
95th percentile per-packet one-way delay: 225.135 ms
Loss rate: 3.94%
-- Flow 1:
Average throughput: 400.19 Mbit/s
95th percentile per-packet one-way delay: 230.178 ms
Loss rate: 5.34%
-- Flow 2:
Average throughput: 280.66 Mbit/s
95th percentile per-packet one-way delay: 138.755 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 228.25 Mbit/s
95th percentile per-packet one-way delay: 230.282 ms
Loss rate: 3.45%
```

Run 1: Report of PCC-Allegro — Data Link

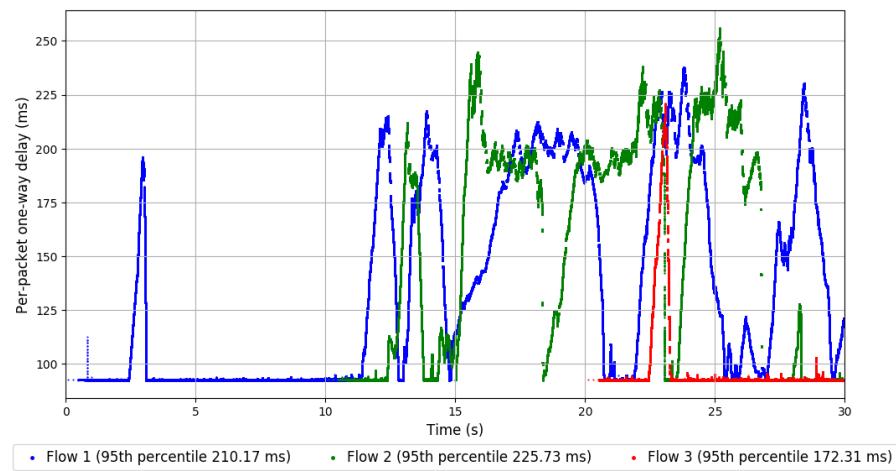
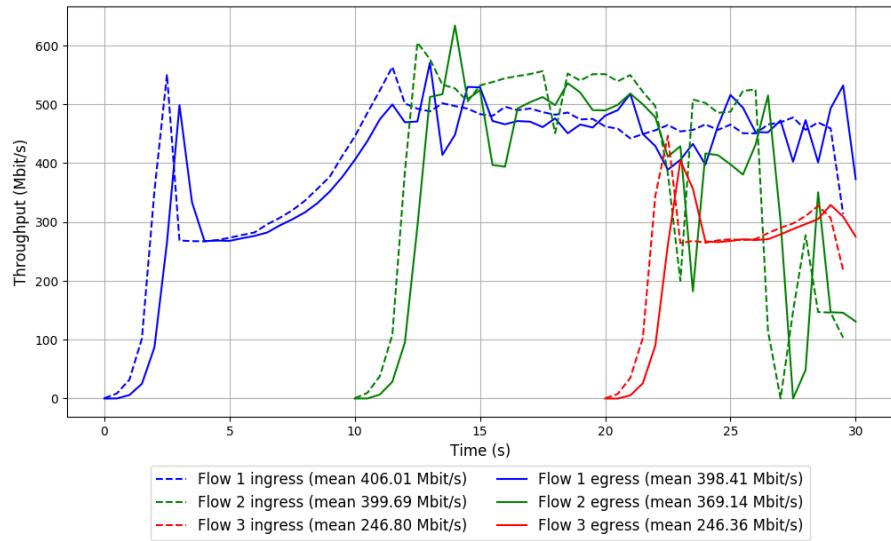


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-10-09 22:23:22
End at: 2018-10-09 22:23:52
Local clock offset: 0.892 ms
Remote clock offset: -1.134 ms

# Below is generated by plot.py at 2018-10-10 01:39:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 724.79 Mbit/s
95th percentile per-packet one-way delay: 218.669 ms
Loss rate: 3.72%
-- Flow 1:
Average throughput: 398.41 Mbit/s
95th percentile per-packet one-way delay: 210.171 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 369.14 Mbit/s
95th percentile per-packet one-way delay: 225.730 ms
Loss rate: 7.64%
-- Flow 3:
Average throughput: 246.36 Mbit/s
95th percentile per-packet one-way delay: 172.314 ms
Loss rate: 0.18%
```

Run 2: Report of PCC-Allegro — Data Link

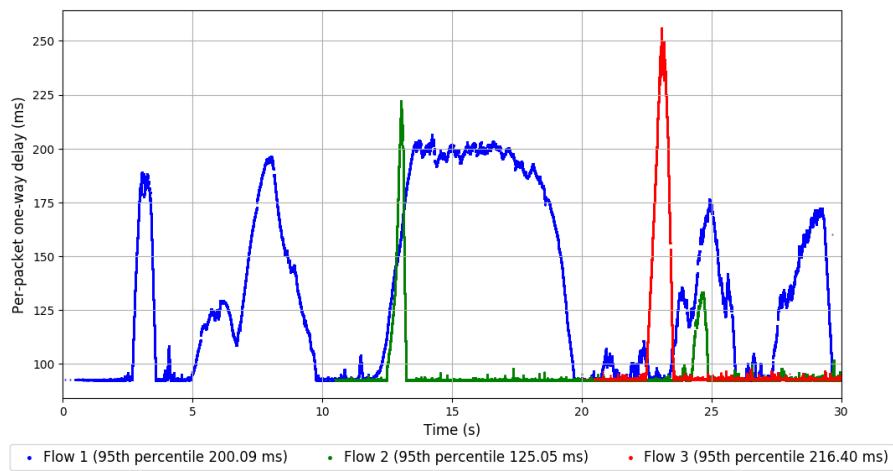
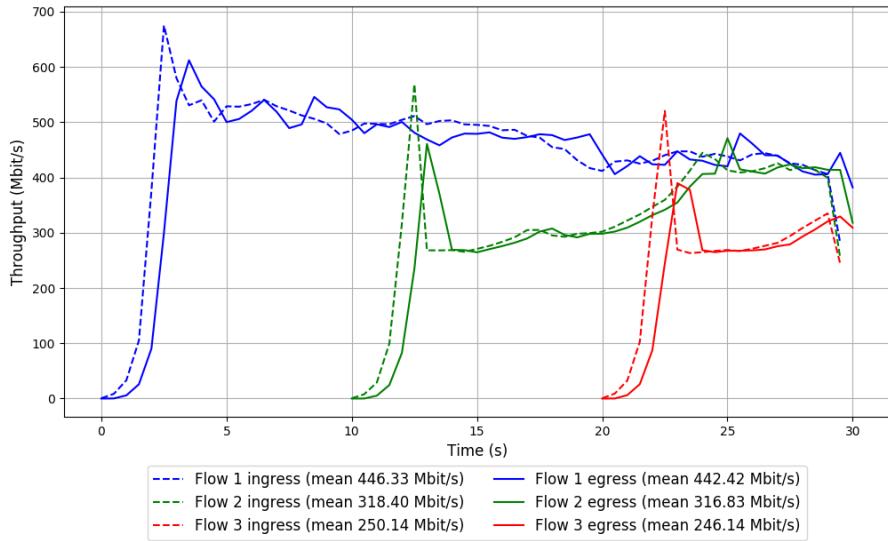


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-10-09 22:54:59
End at: 2018-10-09 22:55:29
Local clock offset: -0.098 ms
Remote clock offset: 0.016 ms

# Below is generated by plot.py at 2018-10-10 01:40:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 734.08 Mbit/s
95th percentile per-packet one-way delay: 199.225 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 442.42 Mbit/s
95th percentile per-packet one-way delay: 200.090 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 316.83 Mbit/s
95th percentile per-packet one-way delay: 125.050 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 246.14 Mbit/s
95th percentile per-packet one-way delay: 216.402 ms
Loss rate: 1.60%
```

Run 3: Report of PCC-Allegro — Data Link

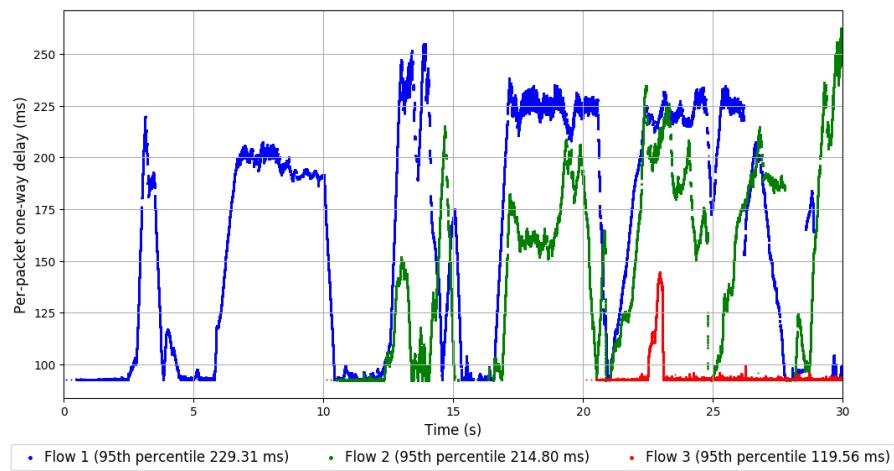
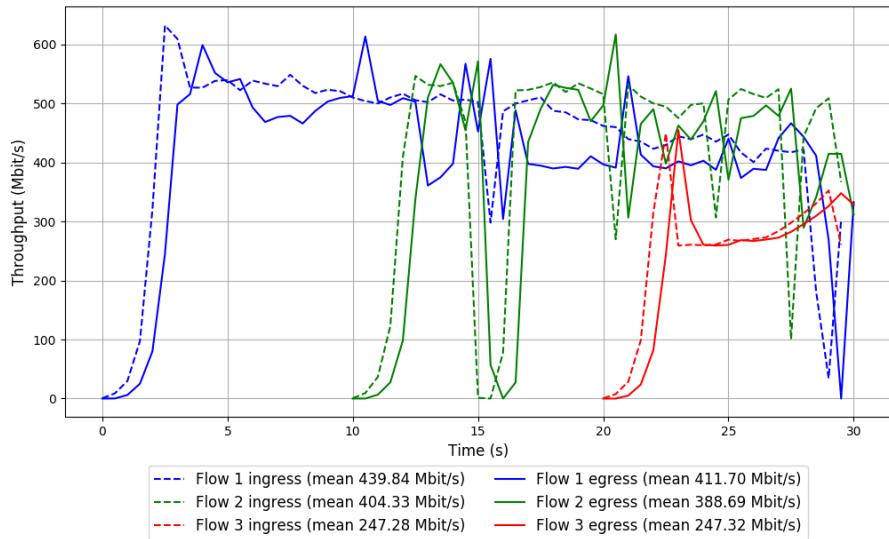


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-10-09 23:26:36
End at: 2018-10-09 23:27:06
Local clock offset: -0.157 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 751.42 Mbit/s
95th percentile per-packet one-way delay: 227.246 ms
Loss rate: 4.88%
-- Flow 1:
Average throughput: 411.70 Mbit/s
95th percentile per-packet one-way delay: 229.308 ms
Loss rate: 6.40%
-- Flow 2:
Average throughput: 388.69 Mbit/s
95th percentile per-packet one-way delay: 214.798 ms
Loss rate: 3.86%
-- Flow 3:
Average throughput: 247.32 Mbit/s
95th percentile per-packet one-way delay: 119.564 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Allegro — Data Link

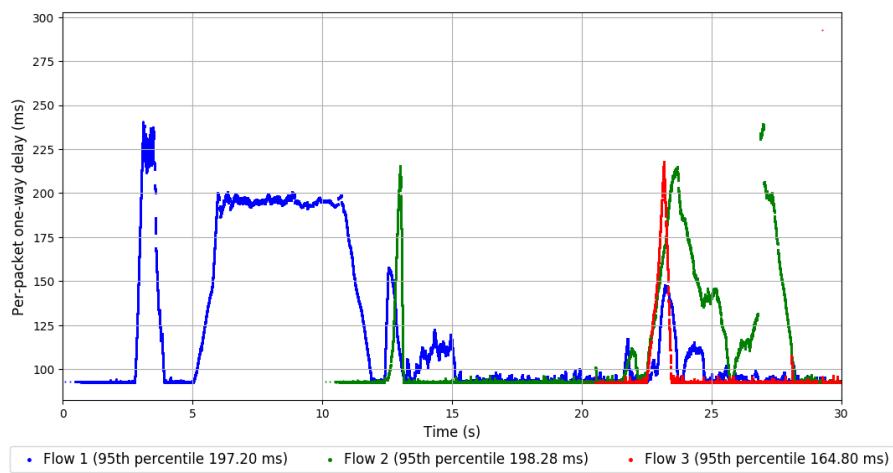
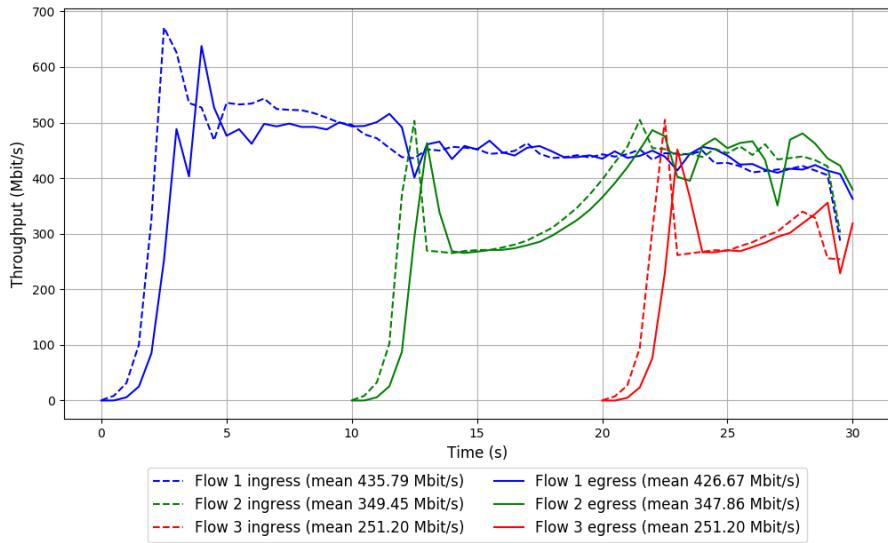


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-10-09 23:58:20
End at: 2018-10-09 23:58:50
Local clock offset: -0.154 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 740.50 Mbit/s
95th percentile per-packet one-way delay: 197.094 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 426.67 Mbit/s
95th percentile per-packet one-way delay: 197.202 ms
Loss rate: 2.09%
-- Flow 2:
Average throughput: 347.86 Mbit/s
95th percentile per-packet one-way delay: 198.279 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 251.20 Mbit/s
95th percentile per-packet one-way delay: 164.801 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

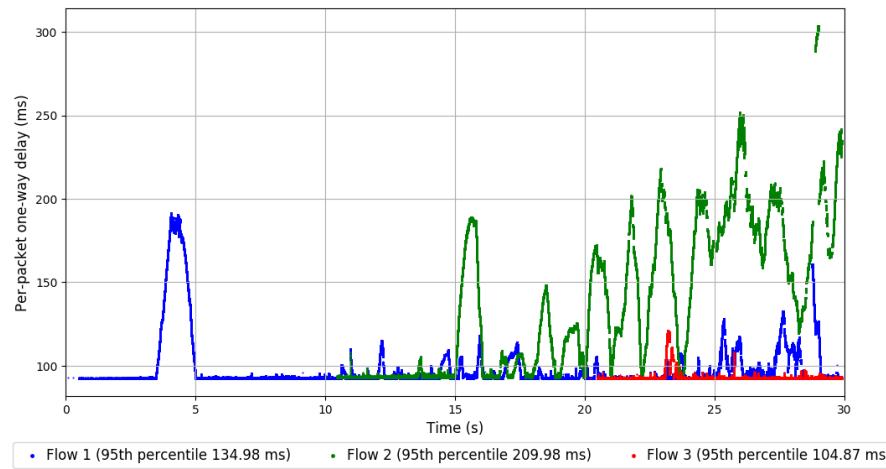
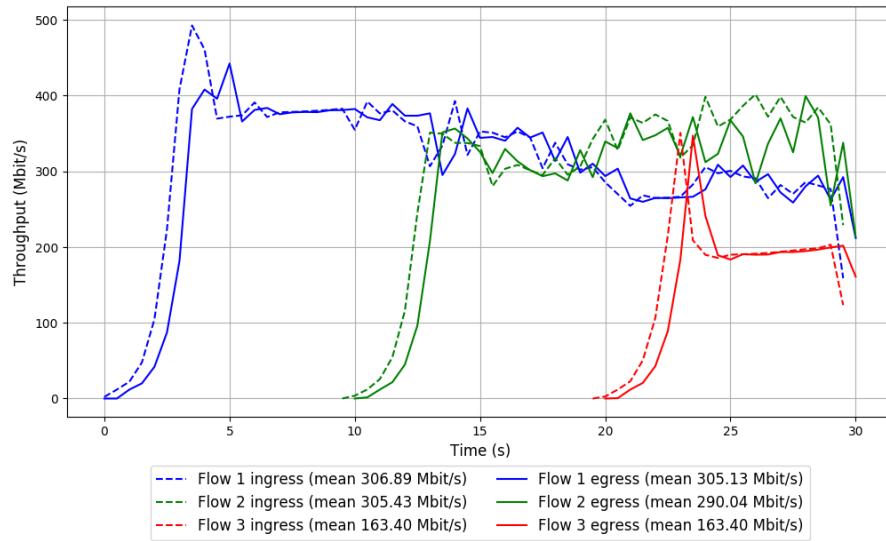


Run 1: Statistics of PCC-Expr

```
Start at: 2018-10-09 21:45:26
End at: 2018-10-09 21:45:56
Local clock offset: 0.439 ms
Remote clock offset: -0.353 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 552.61 Mbit/s
95th percentile per-packet one-way delay: 194.852 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 305.13 Mbit/s
95th percentile per-packet one-way delay: 134.977 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 290.04 Mbit/s
95th percentile per-packet one-way delay: 209.976 ms
Loss rate: 5.03%
-- Flow 3:
Average throughput: 163.40 Mbit/s
95th percentile per-packet one-way delay: 104.872 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

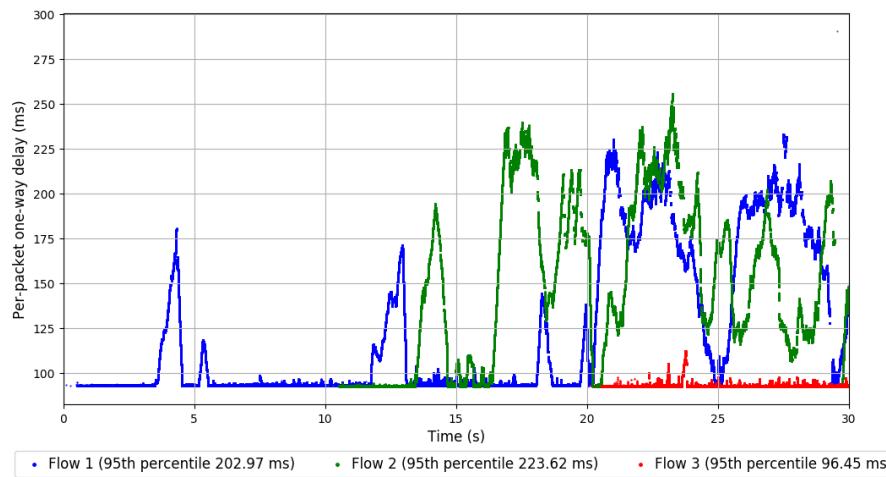
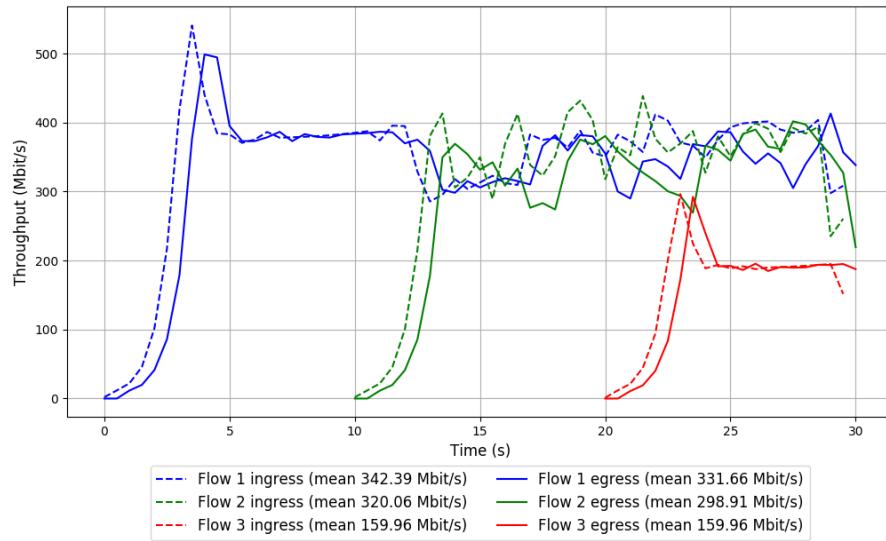


Run 2: Statistics of PCC-Expr

```
Start at: 2018-10-09 22:17:05
End at: 2018-10-09 22:17:35
Local clock offset: 0.799 ms
Remote clock offset: -1.0 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.13 Mbit/s
95th percentile per-packet one-way delay: 211.774 ms
Loss rate: 4.08%
-- Flow 1:
Average throughput: 331.66 Mbit/s
95th percentile per-packet one-way delay: 202.970 ms
Loss rate: 3.14%
-- Flow 2:
Average throughput: 298.91 Mbit/s
95th percentile per-packet one-way delay: 223.615 ms
Loss rate: 6.61%
-- Flow 3:
Average throughput: 159.96 Mbit/s
95th percentile per-packet one-way delay: 96.452 ms
Loss rate: 0.01%
```

Run 2: Report of PCC-Expr — Data Link

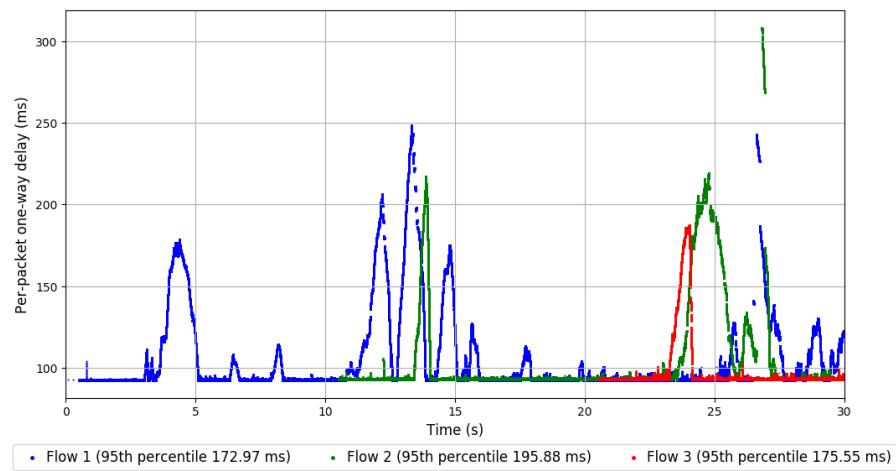
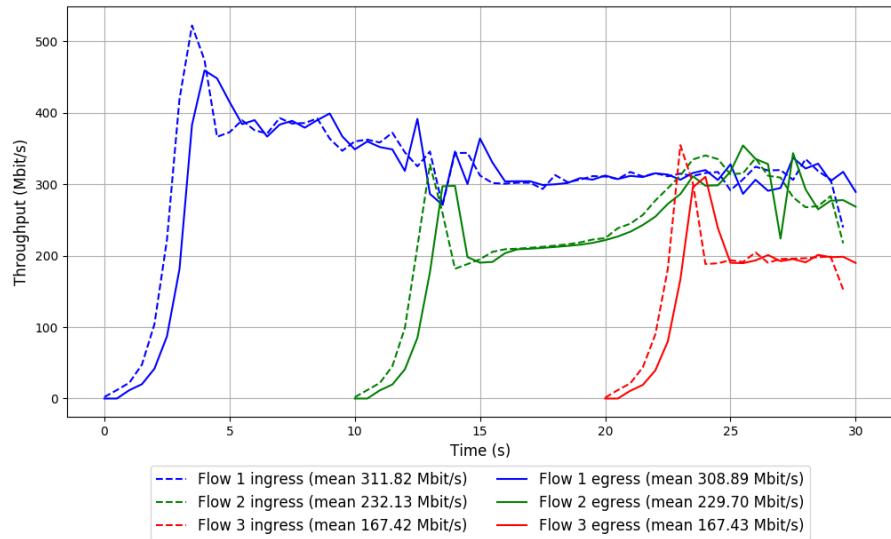


Run 3: Statistics of PCC-Expr

```
Start at: 2018-10-09 22:48:53
End at: 2018-10-09 22:49:23
Local clock offset: 0.029 ms
Remote clock offset: -0.042 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 516.84 Mbit/s
95th percentile per-packet one-way delay: 180.144 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 308.89 Mbit/s
95th percentile per-packet one-way delay: 172.967 ms
Loss rate: 0.94%
-- Flow 2:
Average throughput: 229.70 Mbit/s
95th percentile per-packet one-way delay: 195.883 ms
Loss rate: 1.07%
-- Flow 3:
Average throughput: 167.43 Mbit/s
95th percentile per-packet one-way delay: 175.553 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Expr — Data Link

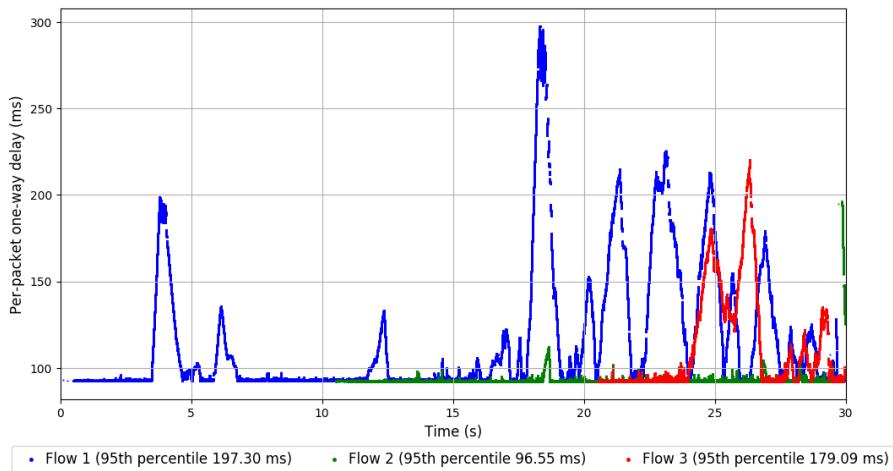
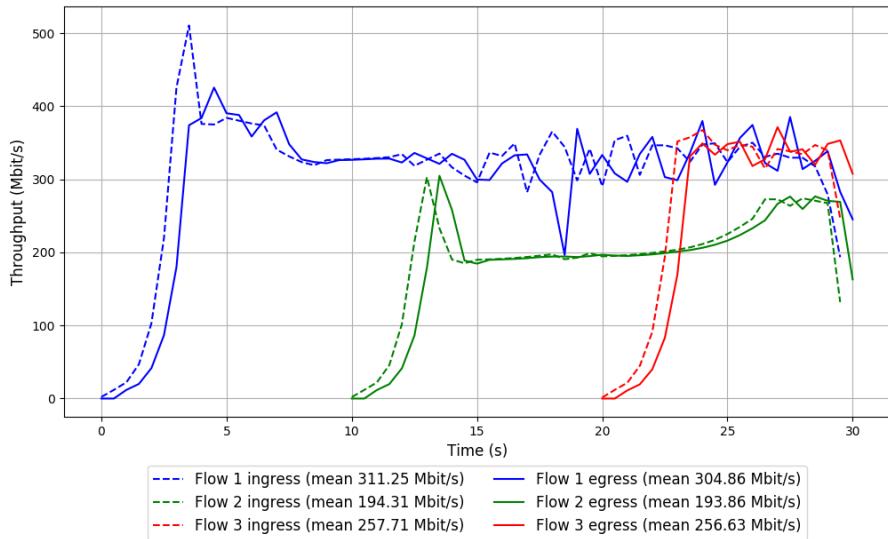


Run 4: Statistics of PCC-Expr

```
Start at: 2018-10-09 23:20:22
End at: 2018-10-09 23:20:52
Local clock offset: 0.046 ms
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2018-10-10 01:55:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 518.46 Mbit/s
95th percentile per-packet one-way delay: 185.813 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 304.86 Mbit/s
95th percentile per-packet one-way delay: 197.299 ms
Loss rate: 2.05%
-- Flow 2:
Average throughput: 193.86 Mbit/s
95th percentile per-packet one-way delay: 96.545 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 256.63 Mbit/s
95th percentile per-packet one-way delay: 179.095 ms
Loss rate: 0.40%
```

Run 4: Report of PCC-Expr — Data Link

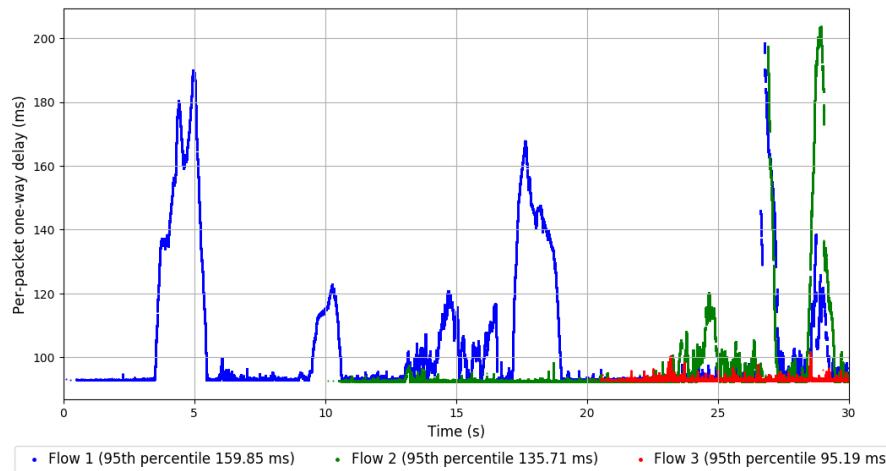
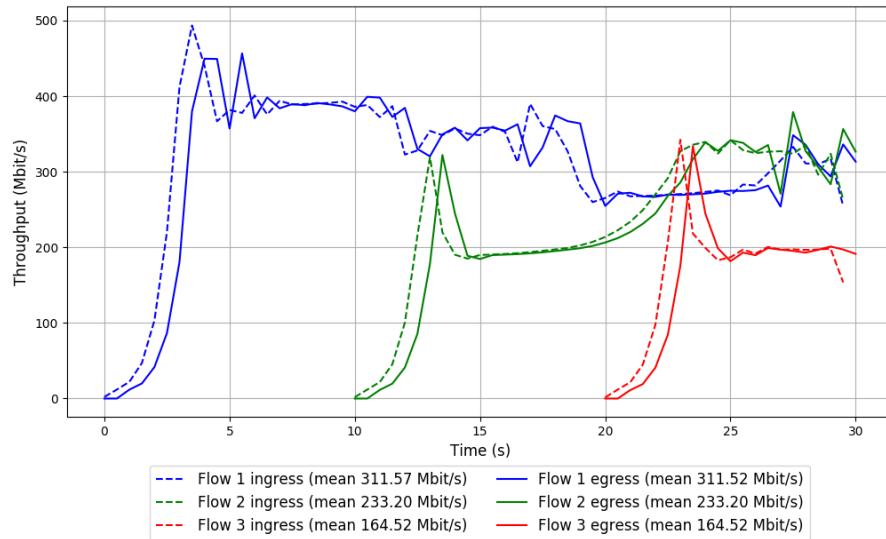


Run 5: Statistics of PCC-Expr

```
Start at: 2018-10-09 23:52:15
End at: 2018-10-09 23:52:45
Local clock offset: -0.025 ms
Remote clock offset: -0.063 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.87 Mbit/s
95th percentile per-packet one-way delay: 154.945 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 311.52 Mbit/s
95th percentile per-packet one-way delay: 159.846 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 233.20 Mbit/s
95th percentile per-packet one-way delay: 135.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 164.52 Mbit/s
95th percentile per-packet one-way delay: 95.186 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Expr — Data Link

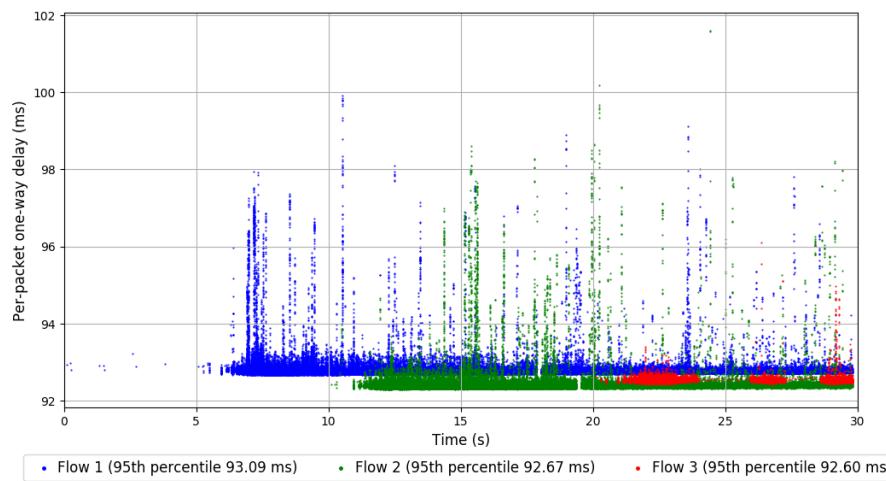
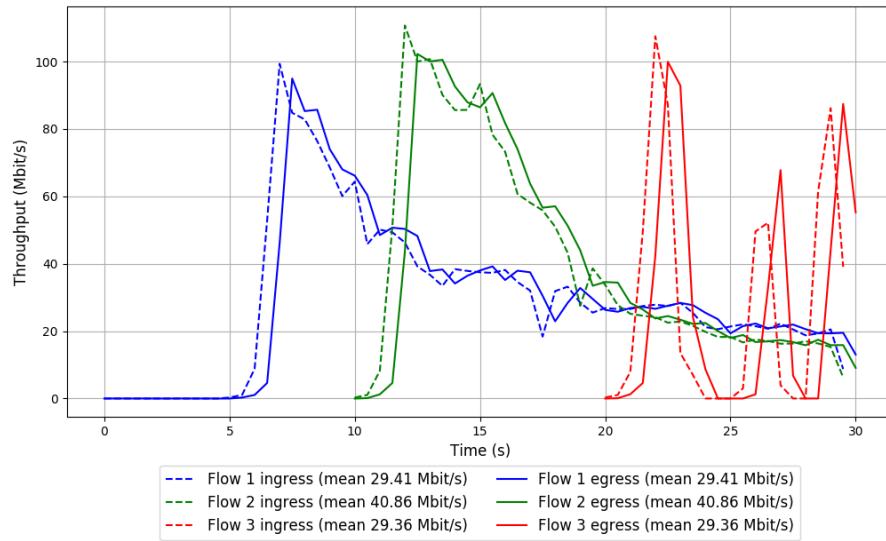


Run 1: Statistics of QUIC Cubic

```
Start at: 2018-10-09 21:40:05
End at: 2018-10-09 21:40:35
Local clock offset: 0.474 ms
Remote clock offset: -0.13 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 66.09 Mbit/s
95th percentile per-packet one-way delay: 92.937 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.41 Mbit/s
95th percentile per-packet one-way delay: 93.091 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 40.86 Mbit/s
95th percentile per-packet one-way delay: 92.665 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 92.603 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

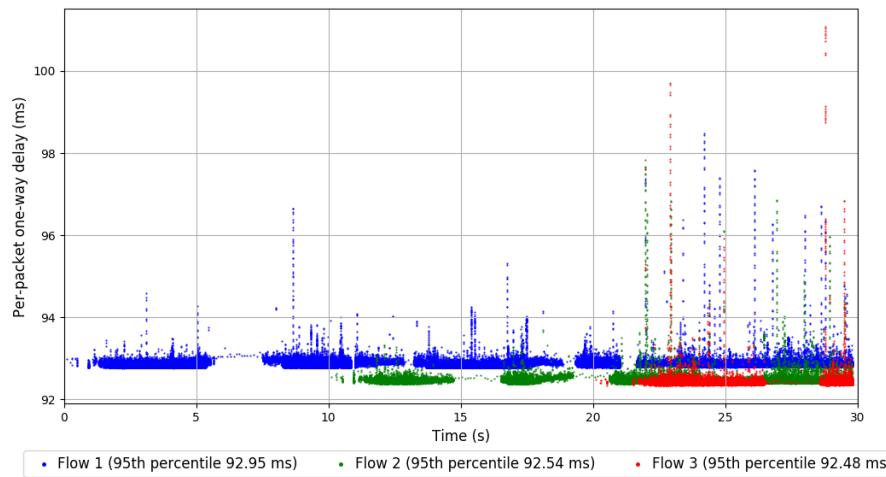
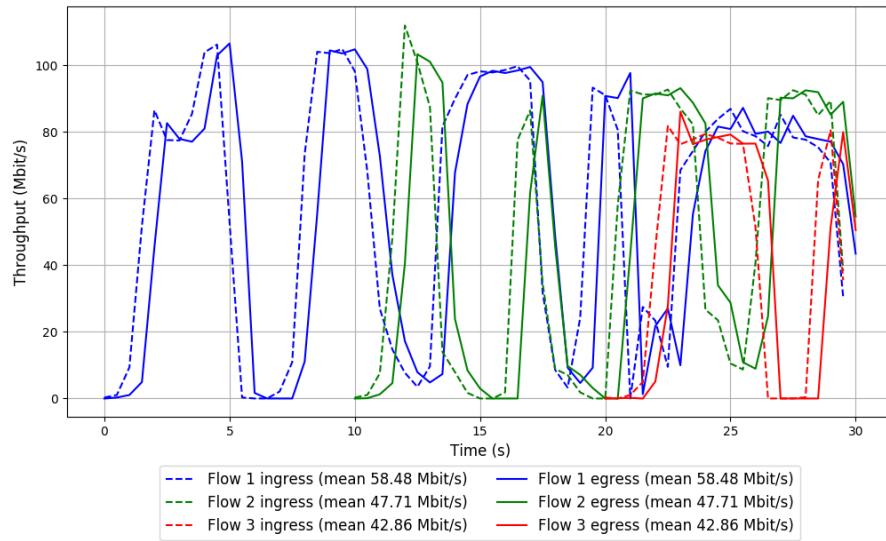


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-10-09 22:11:41
End at: 2018-10-09 22:12:11
Local clock offset: 0.855 ms
Remote clock offset: -0.914 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 104.08 Mbit/s
95th percentile per-packet one-way delay: 92.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.48 Mbit/s
95th percentile per-packet one-way delay: 92.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.71 Mbit/s
95th percentile per-packet one-way delay: 92.544 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.86 Mbit/s
95th percentile per-packet one-way delay: 92.481 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

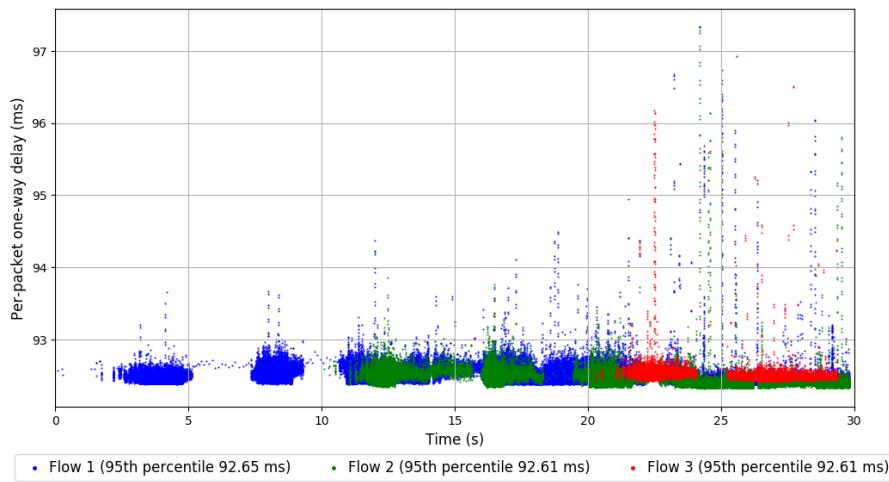
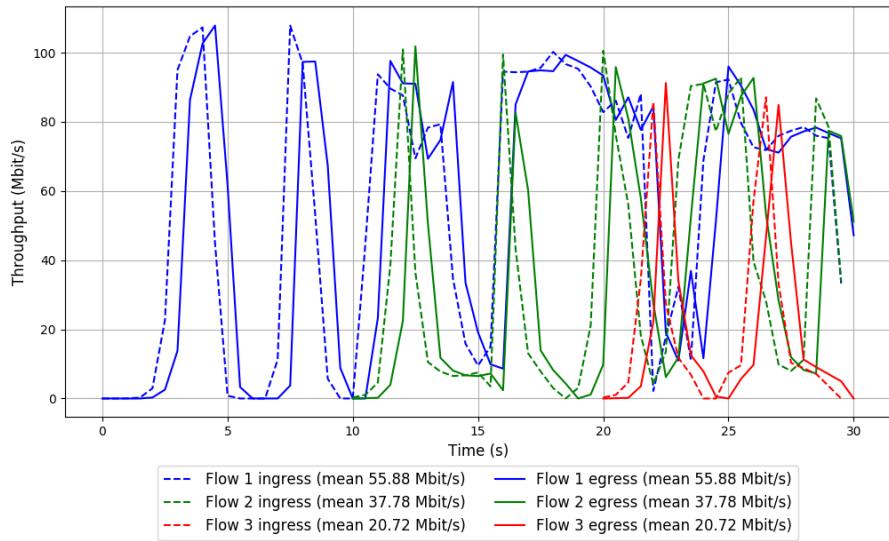


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-10-09 22:43:32
End at: 2018-10-09 22:44:02
Local clock offset: 0.041 ms
Remote clock offset: -0.145 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 92.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.88 Mbit/s
95th percentile per-packet one-way delay: 92.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 37.78 Mbit/s
95th percentile per-packet one-way delay: 92.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.72 Mbit/s
95th percentile per-packet one-way delay: 92.605 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

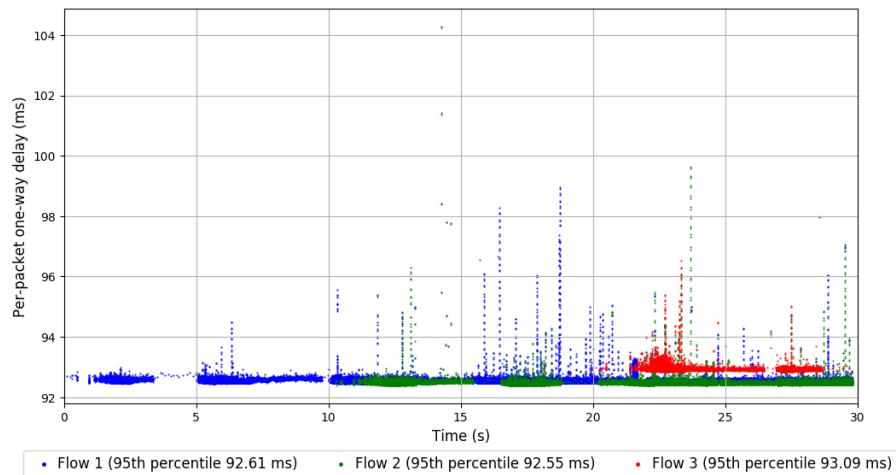
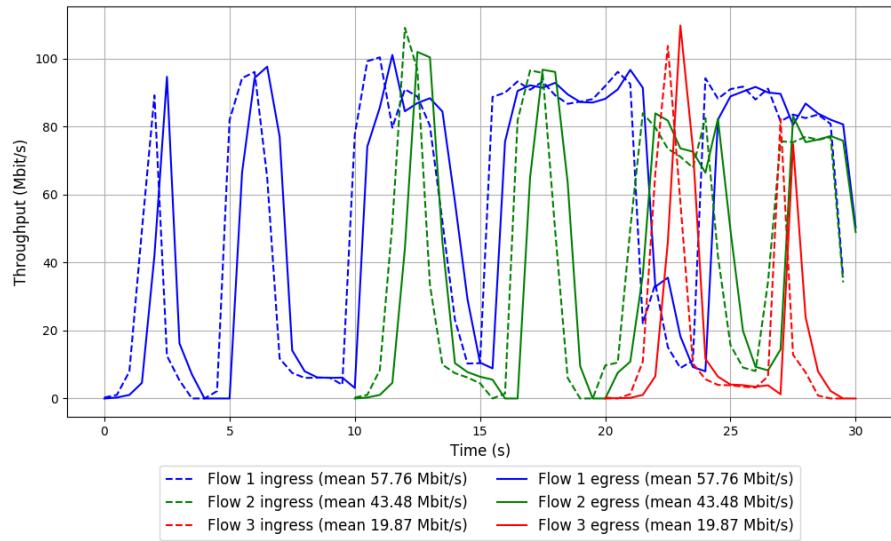


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-10-09 23:15:01
End at: 2018-10-09 23:15:31
Local clock offset: -0.114 ms
Remote clock offset: -0.0 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.02 Mbit/s
95th percentile per-packet one-way delay: 92.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.76 Mbit/s
95th percentile per-packet one-way delay: 92.608 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 43.48 Mbit/s
95th percentile per-packet one-way delay: 92.547 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 19.87 Mbit/s
95th percentile per-packet one-way delay: 93.094 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

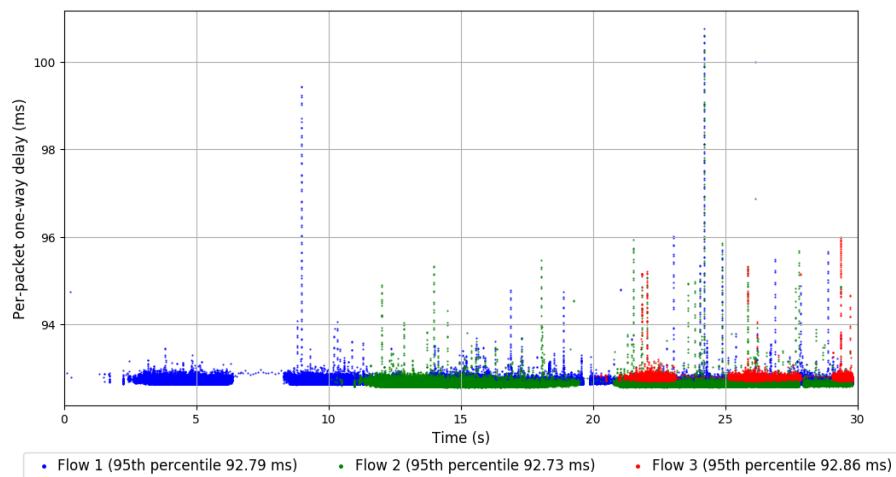
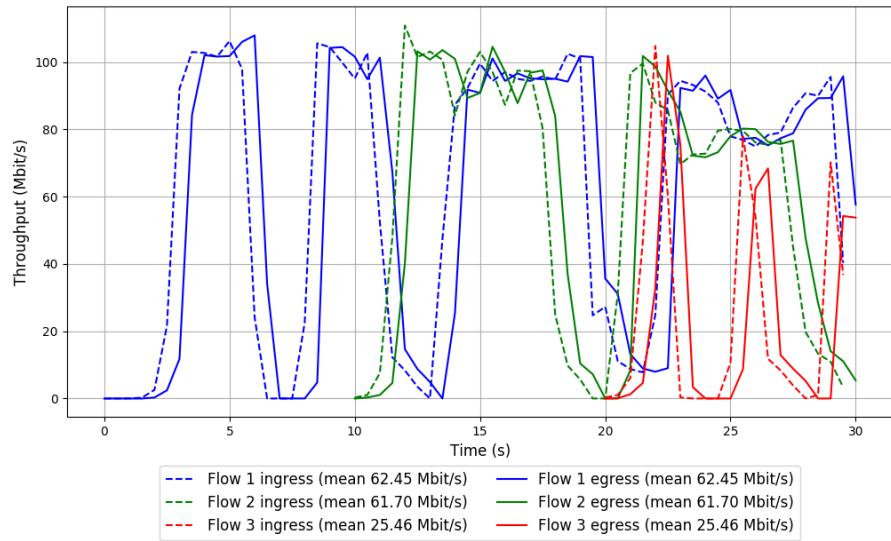


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-10-09 23:46:50
End at: 2018-10-09 23:47:20
Local clock offset: -0.247 ms
Remote clock offset: -0.027 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.68 Mbit/s
95th percentile per-packet one-way delay: 92.800 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.45 Mbit/s
95th percentile per-packet one-way delay: 92.793 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.70 Mbit/s
95th percentile per-packet one-way delay: 92.726 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 25.46 Mbit/s
95th percentile per-packet one-way delay: 92.858 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

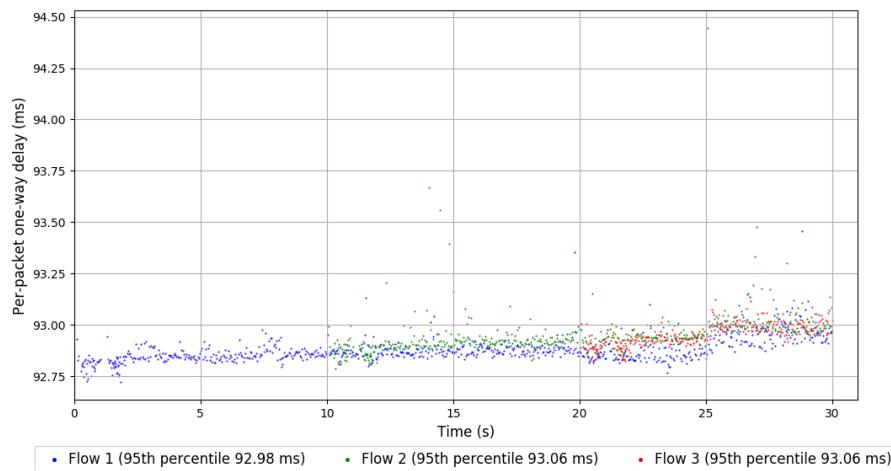
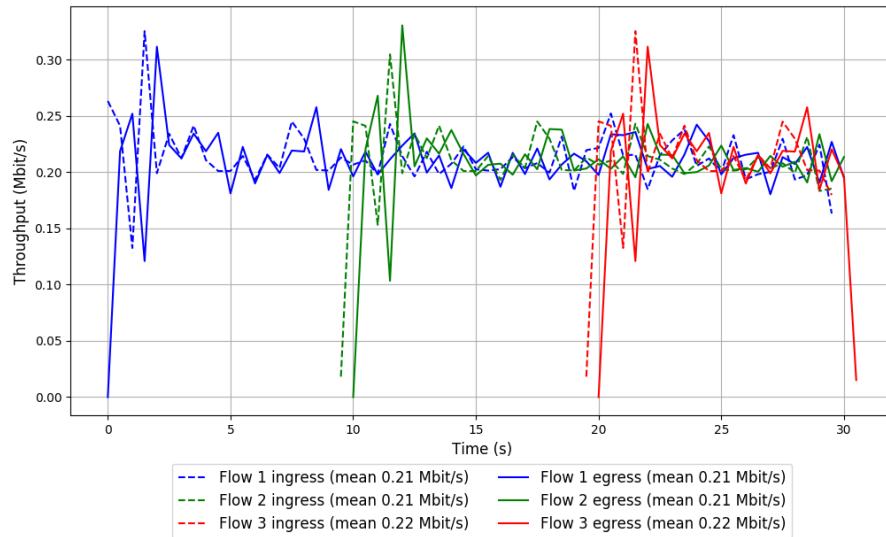


Run 1: Statistics of SCReAM

```
Start at: 2018-10-09 21:25:31
End at: 2018-10-09 21:26:01
Local clock offset: 0.458 ms
Remote clock offset: 1.458 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 93.035 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.985 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 93.057 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.058 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

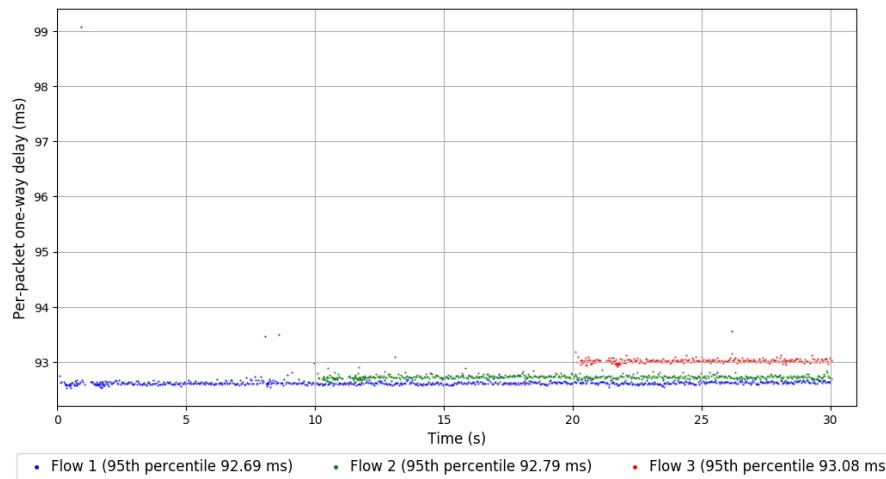
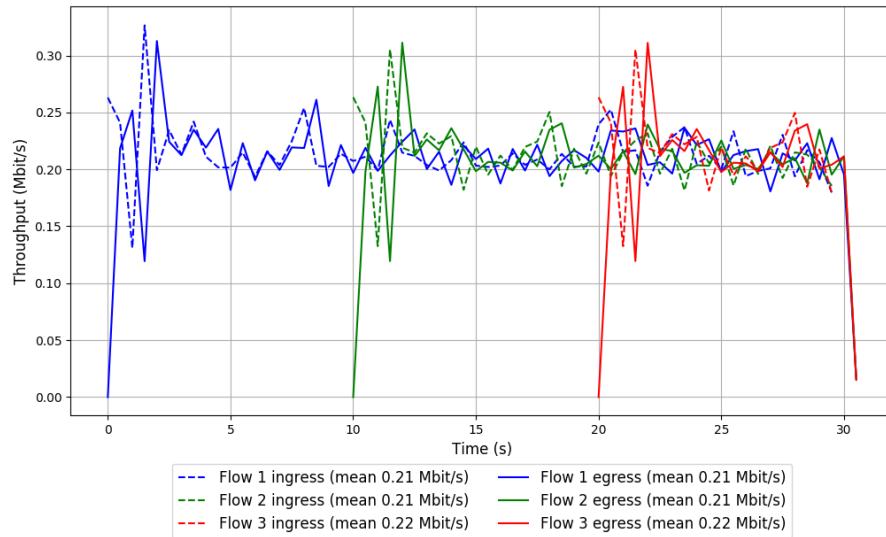


Run 2: Statistics of SCReAM

```
Start at: 2018-10-09 21:57:21
End at: 2018-10-09 21:57:51
Local clock offset: 0.548 ms
Remote clock offset: -0.68 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 93.040 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.689 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.794 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.084 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

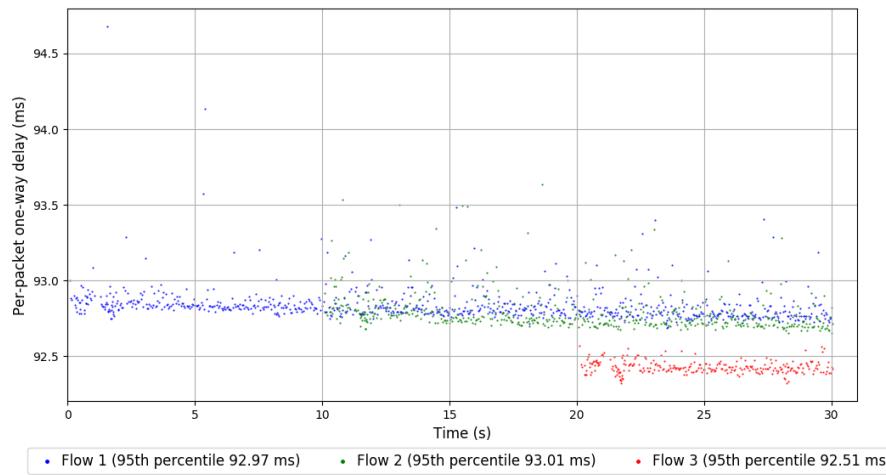
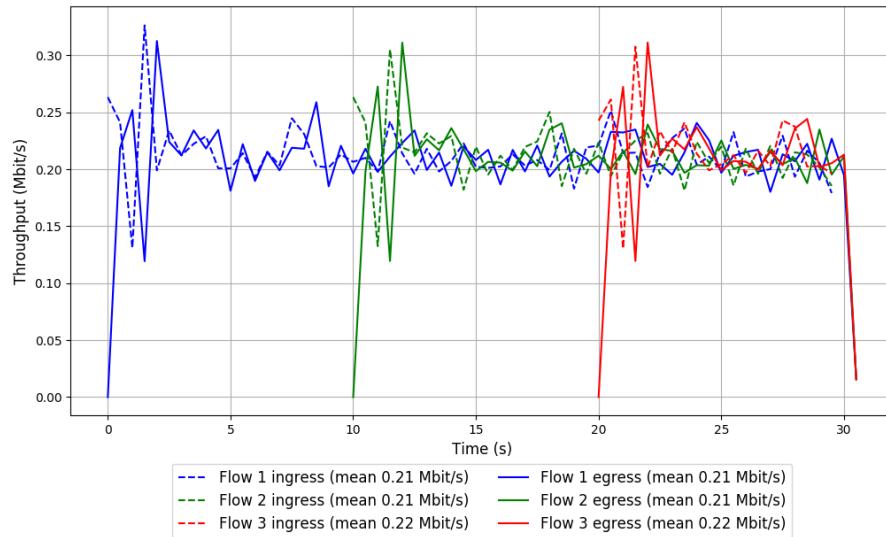


Run 3: Statistics of SCReAM

```
Start at: 2018-10-09 22:29:08
End at: 2018-10-09 22:29:38
Local clock offset: 0.668 ms
Remote clock offset: -0.776 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 92.971 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.975 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 93.012 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.506 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

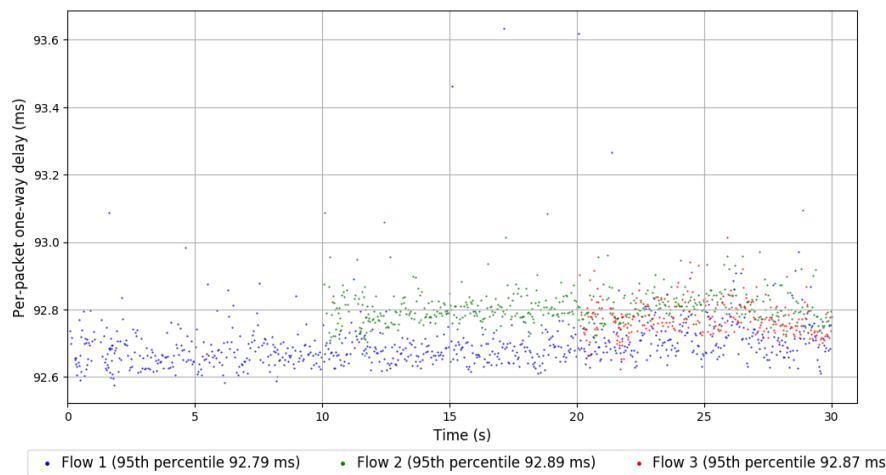
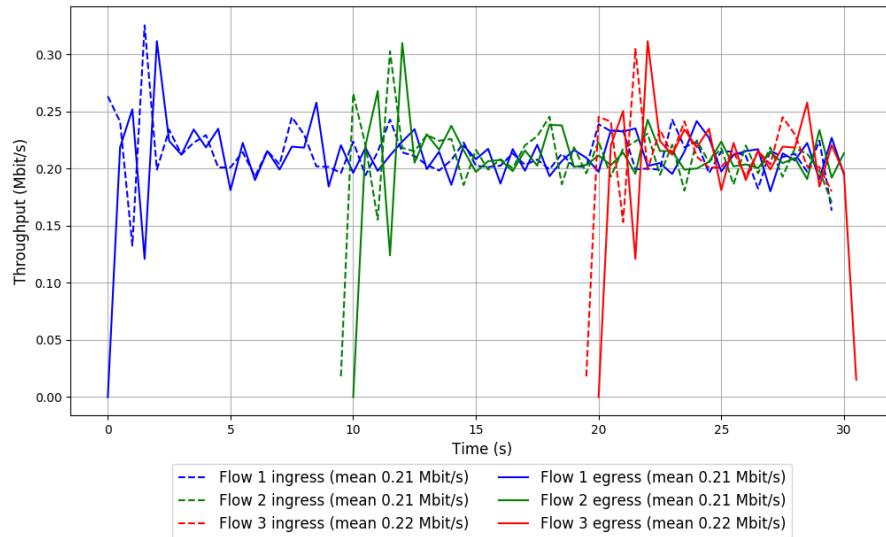


Run 4: Statistics of SCReAM

```
Start at: 2018-10-09 23:00:37
End at: 2018-10-09 23:01:07
Local clock offset: -0.182 ms
Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2018-10-10 01:57:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 92.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.794 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.868 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

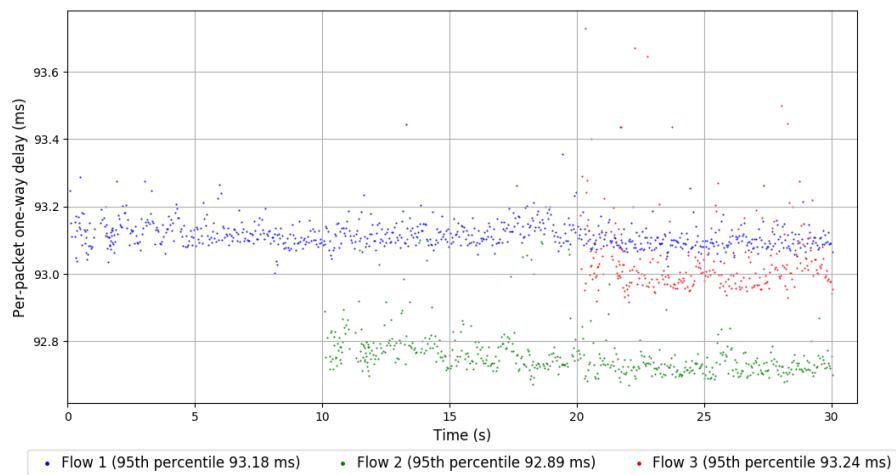
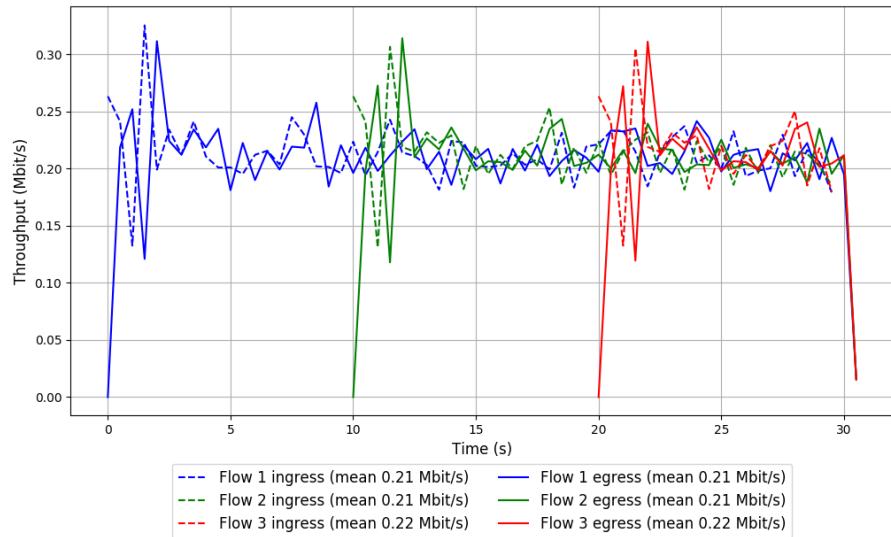


Run 5: Statistics of SCReAM

```
Start at: 2018-10-09 23:32:19
End at: 2018-10-09 23:32:49
Local clock offset: -0.121 ms
Remote clock offset: 0.039 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 93.176 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 93.184 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 92.891 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.243 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

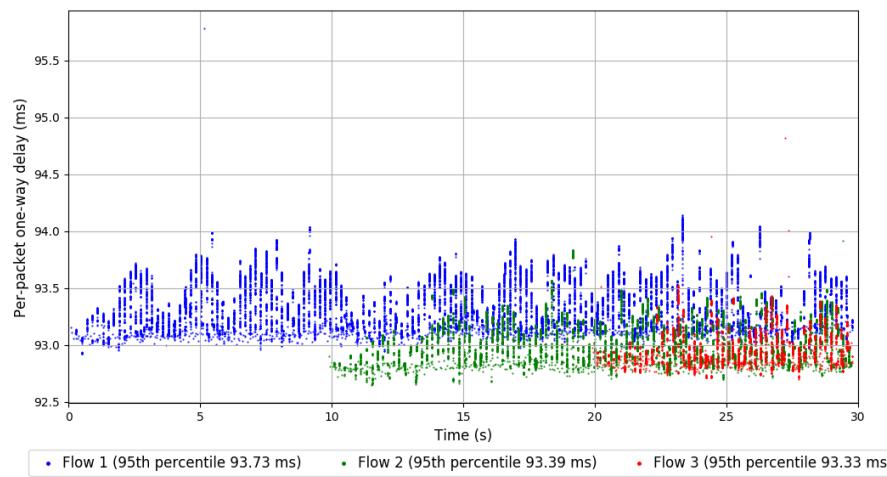
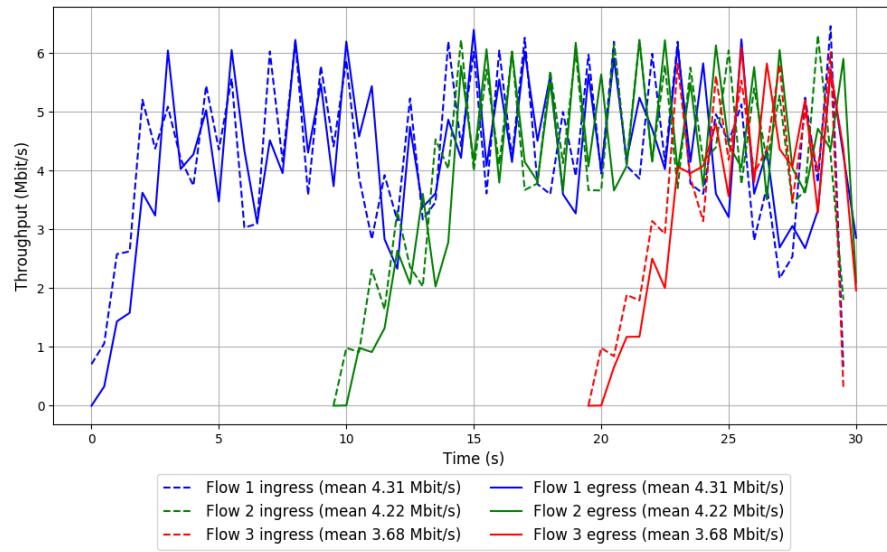


Run 1: Statistics of Sprout

```
Start at: 2018-10-09 21:26:45
End at: 2018-10-09 21:27:15
Local clock offset: 0.479 ms
Remote clock offset: 1.227 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.35 Mbit/s
95th percentile per-packet one-way delay: 93.645 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 93.732 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 93.385 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 93.335 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

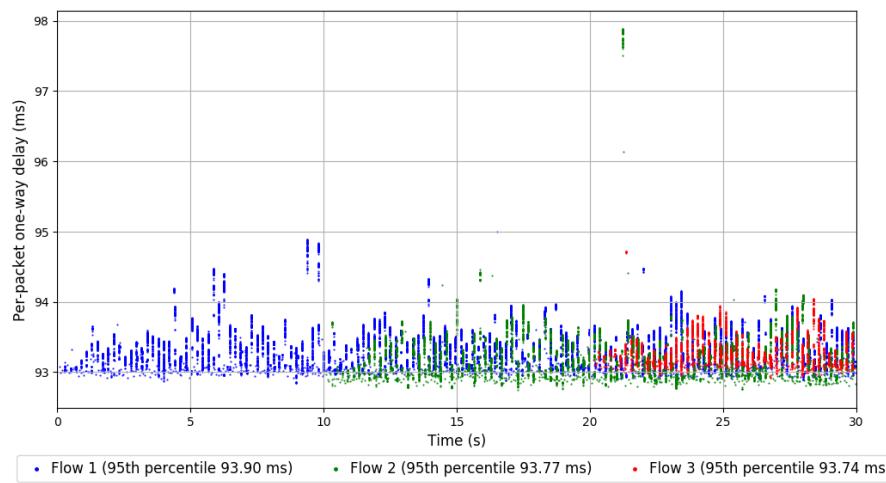
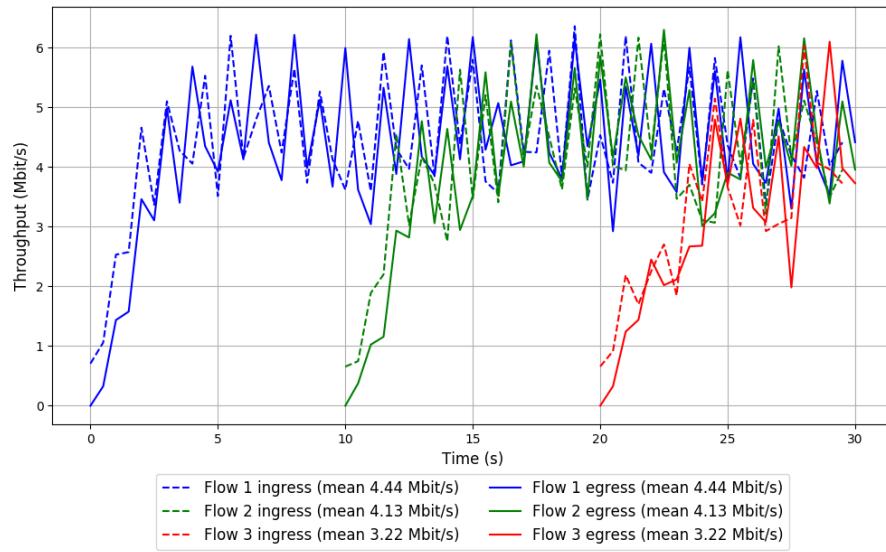


Run 2: Statistics of Sprout

```
Start at: 2018-10-09 21:58:35
End at: 2018-10-09 21:59:05
Local clock offset: 0.552 ms
Remote clock offset: -0.652 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 93.836 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.44 Mbit/s
95th percentile per-packet one-way delay: 93.901 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 93.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 93.742 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

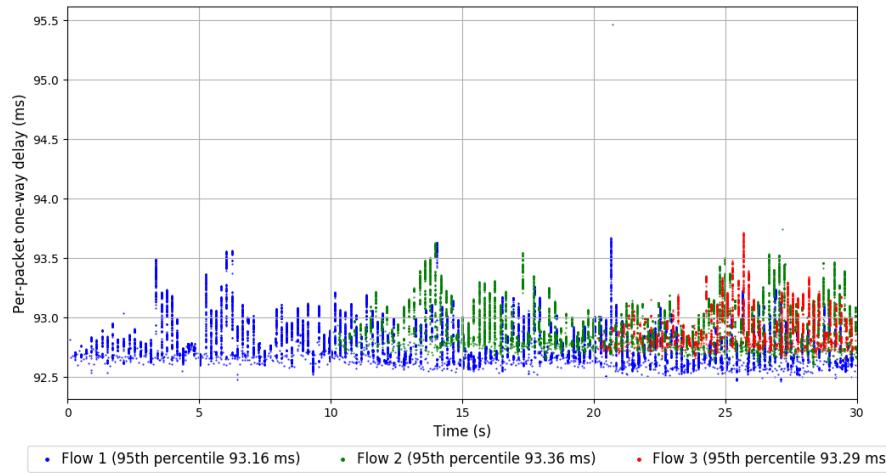
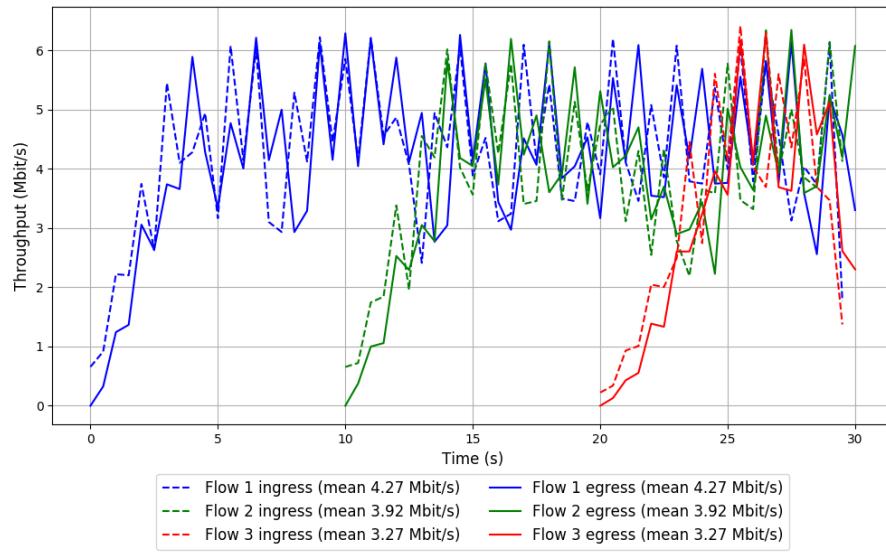


Run 3: Statistics of Sprout

```
Start at: 2018-10-09 22:30:22
End at: 2018-10-09 22:30:52
Local clock offset: 0.333 ms
Remote clock offset: -0.687 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.95 Mbit/s
95th percentile per-packet one-way delay: 93.276 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.27 Mbit/s
95th percentile per-packet one-way delay: 93.156 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 93.356 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 93.289 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

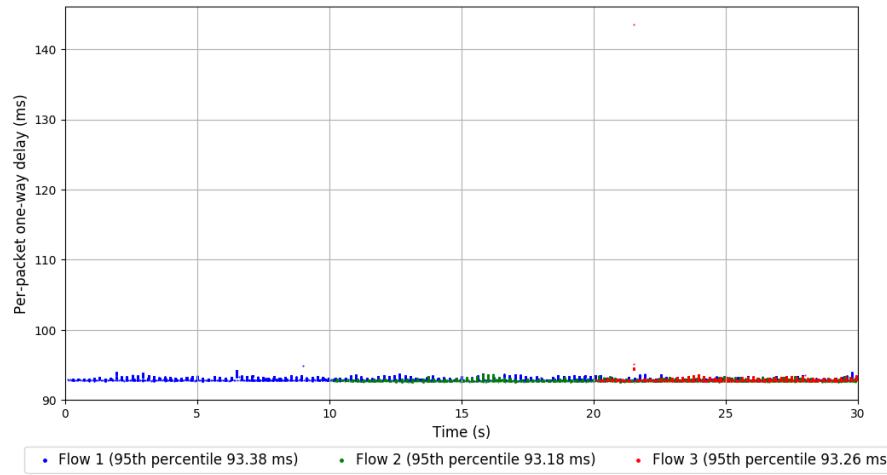
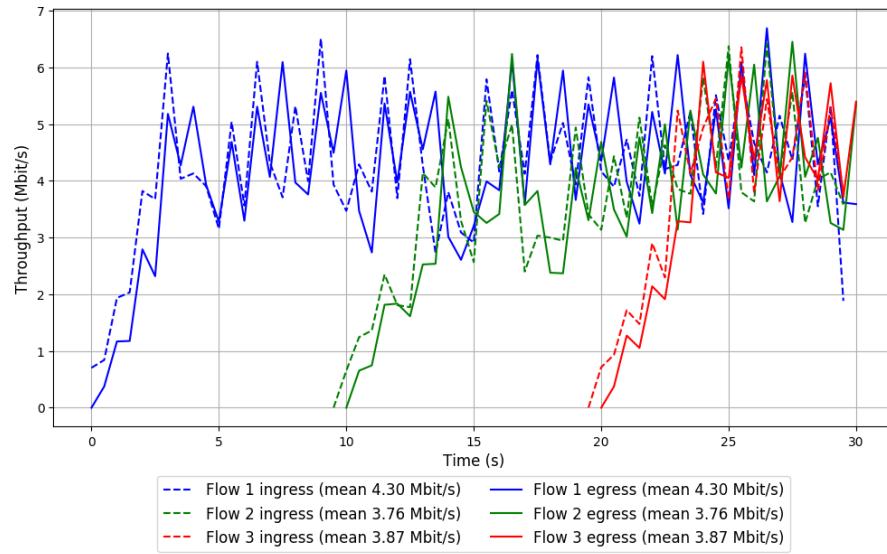


Run 4: Statistics of Sprout

```
Start at: 2018-10-09 23:01:51
End at: 2018-10-09 23:02:21
Local clock offset: -0.151 ms
Remote clock offset: 0.051 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.07 Mbit/s
95th percentile per-packet one-way delay: 93.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 93.382 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 93.177 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 93.262 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

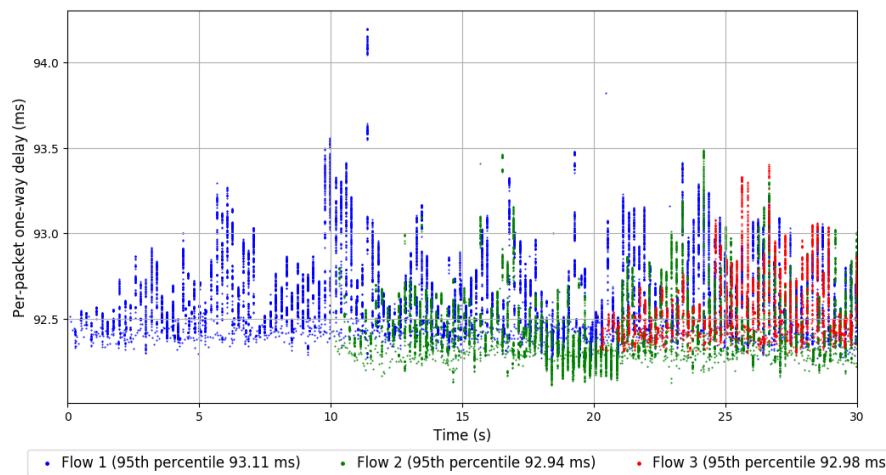
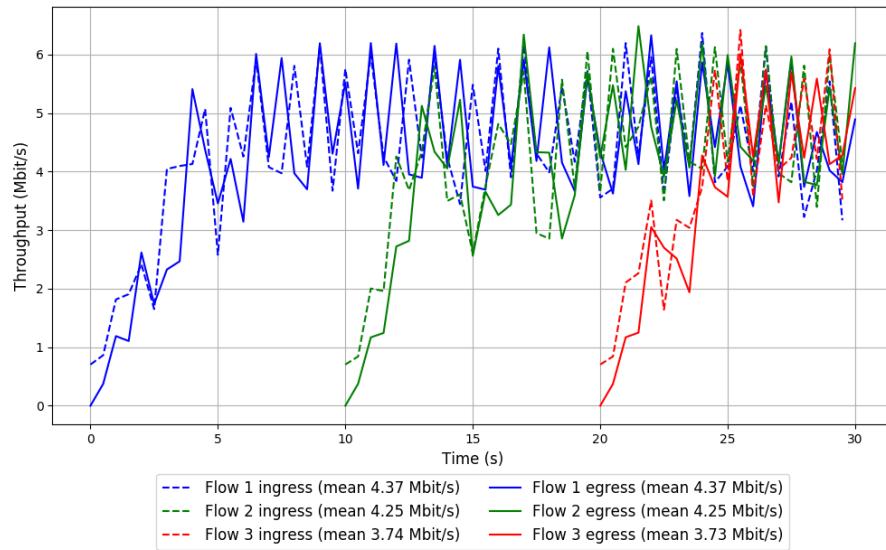


Run 5: Statistics of Sprout

```
Start at: 2018-10-09 23:33:33
End at: 2018-10-09 23:34:03
Local clock offset: 0.197 ms
Remote clock offset: 0.023 ms

# Below is generated by plot.py at 2018-10-10 01:57:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 93.059 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 93.110 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 92.938 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 92.983 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

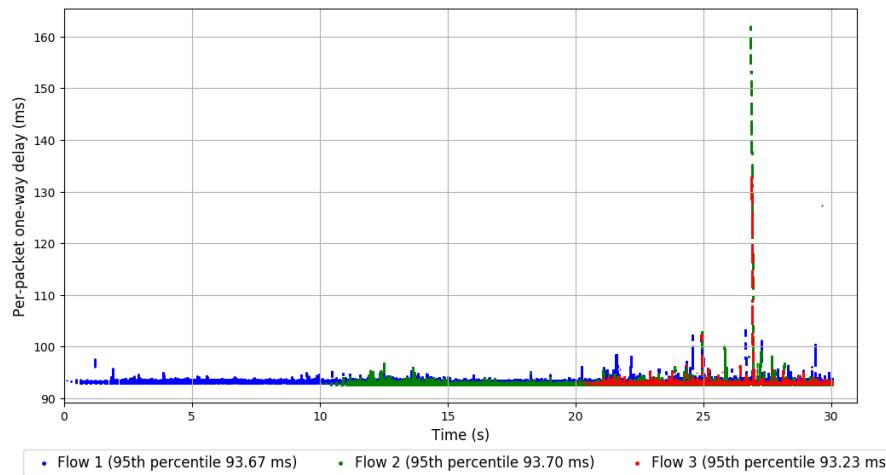
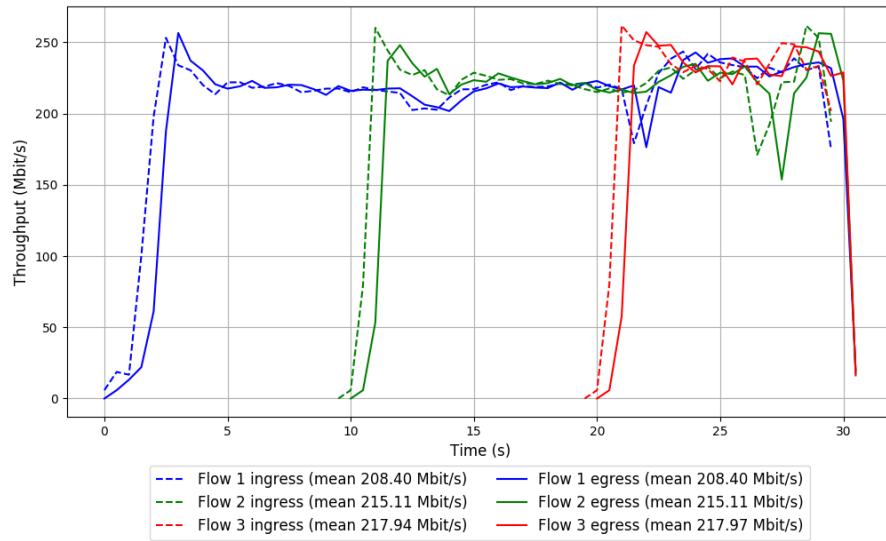


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-10-09 21:31:09
End at: 2018-10-09 21:31:39
Local clock offset: 0.257 ms
Remote clock offset: 0.582 ms

# Below is generated by plot.py at 2018-10-10 02:03:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 424.33 Mbit/s
95th percentile per-packet one-way delay: 93.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.40 Mbit/s
95th percentile per-packet one-way delay: 93.675 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 215.11 Mbit/s
95th percentile per-packet one-way delay: 93.697 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 217.97 Mbit/s
95th percentile per-packet one-way delay: 93.233 ms
Loss rate: 0.00%
```

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

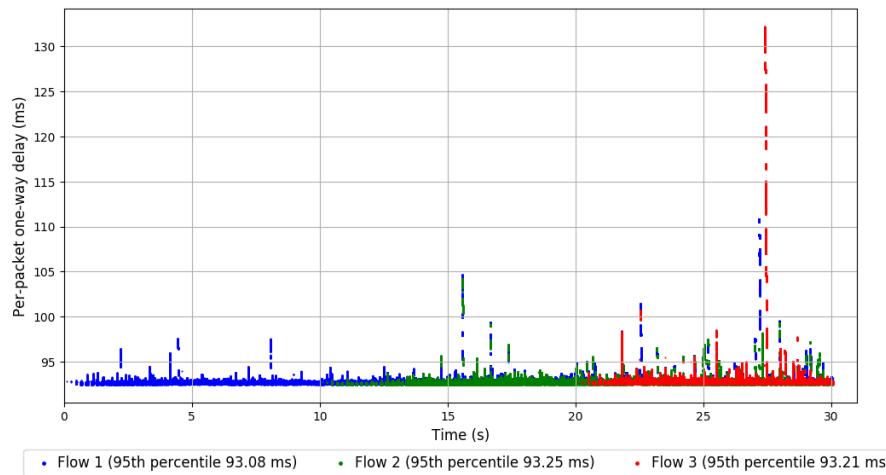
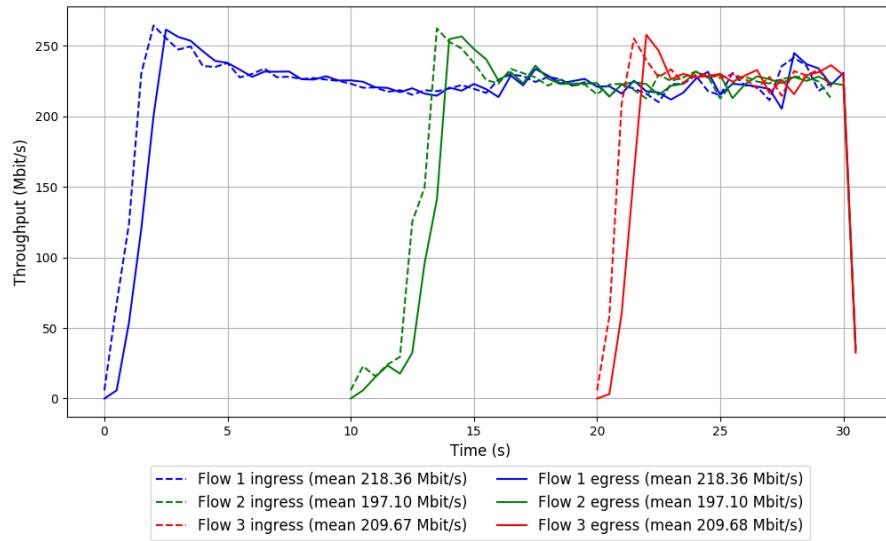


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-10-09 22:02:58
End at: 2018-10-09 22:03:28
Local clock offset: 0.52 ms
Remote clock offset: -0.773 ms

# Below is generated by plot.py at 2018-10-10 02:03:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 419.23 Mbit/s
95th percentile per-packet one-way delay: 93.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.36 Mbit/s
95th percentile per-packet one-way delay: 93.078 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 197.10 Mbit/s
95th percentile per-packet one-way delay: 93.254 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 209.68 Mbit/s
95th percentile per-packet one-way delay: 93.210 ms
Loss rate: 0.00%
```

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

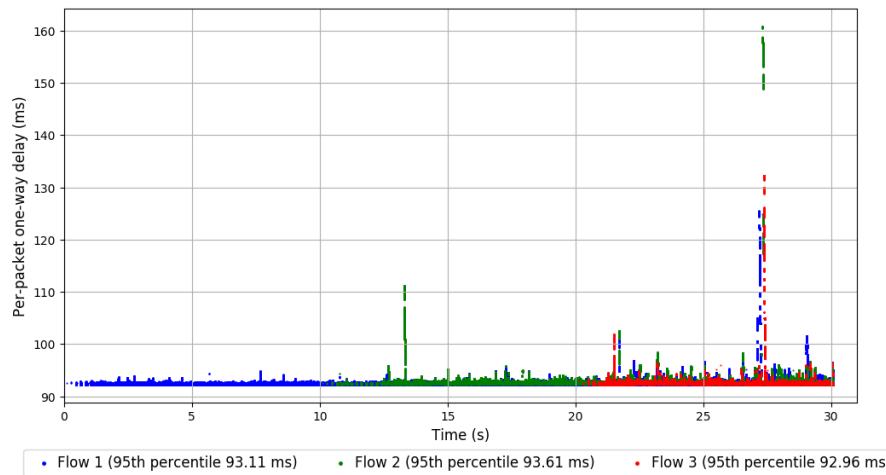
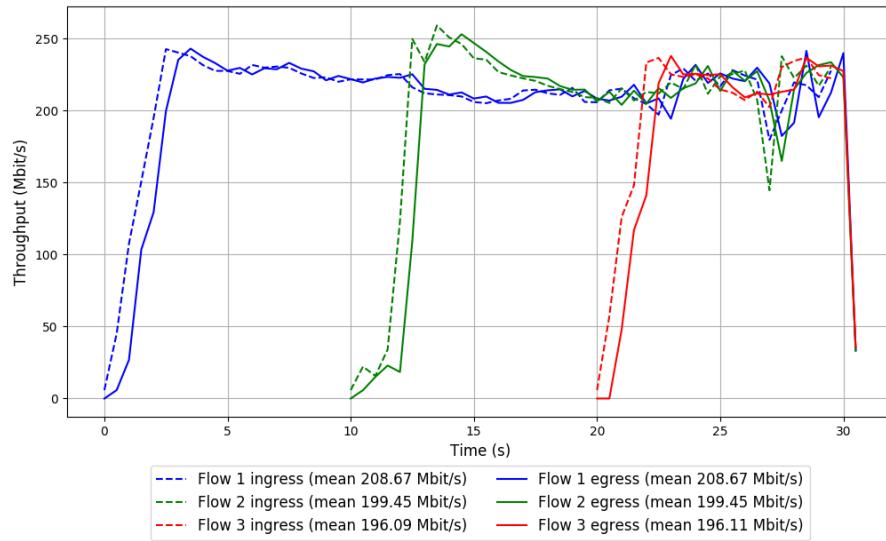


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-10-09 22:34:45
End at: 2018-10-09 22:35:15
Local clock offset: 0.4 ms
Remote clock offset: -0.373 ms

# Below is generated by plot.py at 2018-10-10 02:03:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 406.58 Mbit/s
95th percentile per-packet one-way delay: 93.270 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.67 Mbit/s
95th percentile per-packet one-way delay: 93.113 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 199.45 Mbit/s
95th percentile per-packet one-way delay: 93.612 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 196.11 Mbit/s
95th percentile per-packet one-way delay: 92.964 ms
Loss rate: 0.00%
```

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

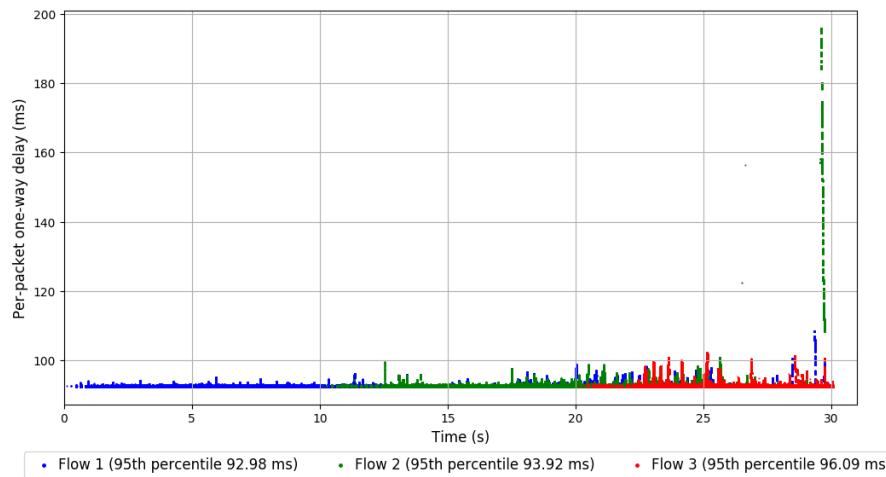
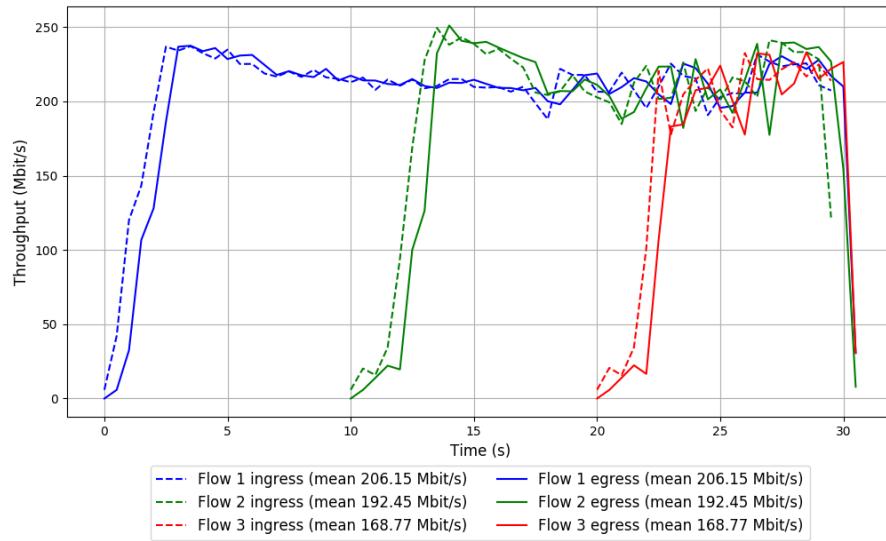


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-10-09 23:06:15
End at: 2018-10-09 23:06:45
Local clock offset: -0.11 ms
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2018-10-10 02:03:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 390.36 Mbit/s
95th percentile per-packet one-way delay: 93.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.15 Mbit/s
95th percentile per-packet one-way delay: 92.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 192.45 Mbit/s
95th percentile per-packet one-way delay: 93.919 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 168.77 Mbit/s
95th percentile per-packet one-way delay: 96.090 ms
Loss rate: 0.00%
```

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

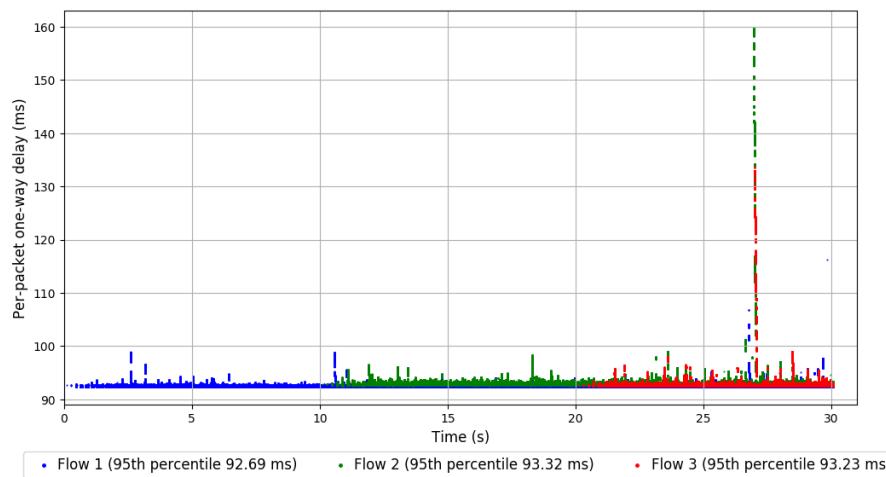
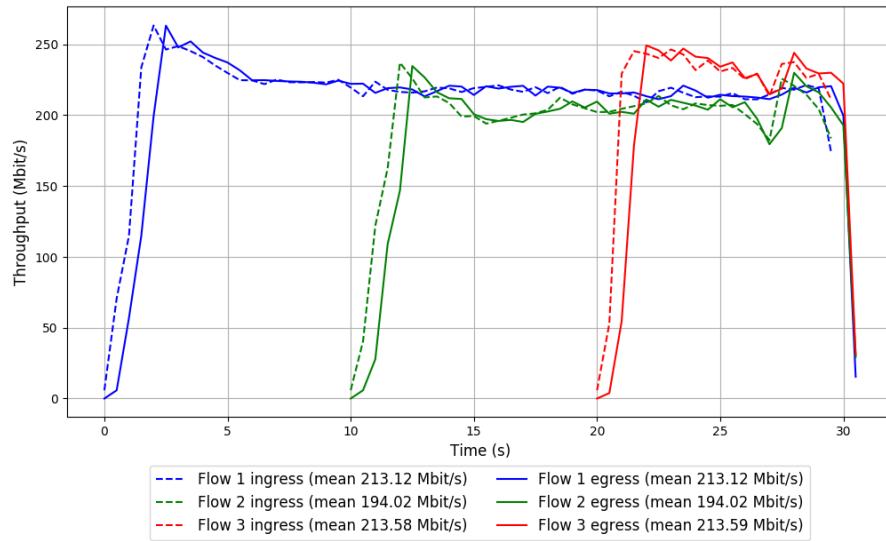


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-10-09 23:37:57
End at: 2018-10-09 23:38:27
Local clock offset: -0.051 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-10-10 02:09:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 413.24 Mbit/s
95th percentile per-packet one-way delay: 93.088 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 213.12 Mbit/s
95th percentile per-packet one-way delay: 92.686 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 194.02 Mbit/s
95th percentile per-packet one-way delay: 93.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 213.59 Mbit/s
95th percentile per-packet one-way delay: 93.233 ms
Loss rate: 0.00%
```

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

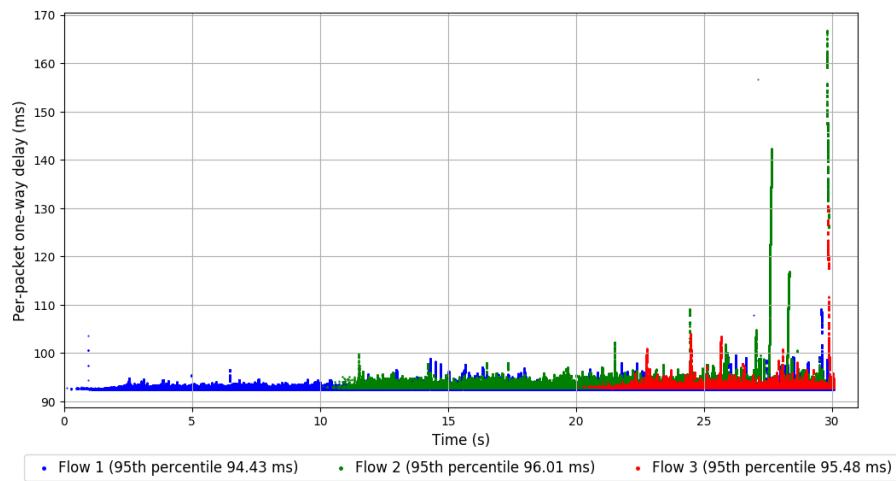
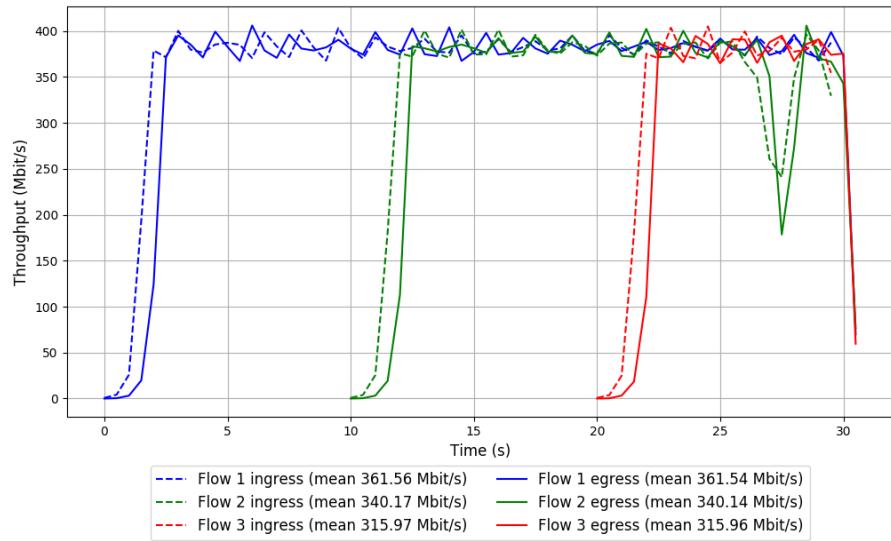


Run 1: Statistics of TCP Vegas

```
Start at: 2018-10-09 21:49:50
End at: 2018-10-09 21:50:20
Local clock offset: 0.444 ms
Remote clock offset: -0.487 ms

# Below is generated by plot.py at 2018-10-10 02:09:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.09 Mbit/s
95th percentile per-packet one-way delay: 95.114 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 361.54 Mbit/s
95th percentile per-packet one-way delay: 94.428 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 340.14 Mbit/s
95th percentile per-packet one-way delay: 96.009 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 315.96 Mbit/s
95th percentile per-packet one-way delay: 95.481 ms
Loss rate: 0.01%
```

Run 1: Report of TCP Vegas — Data Link

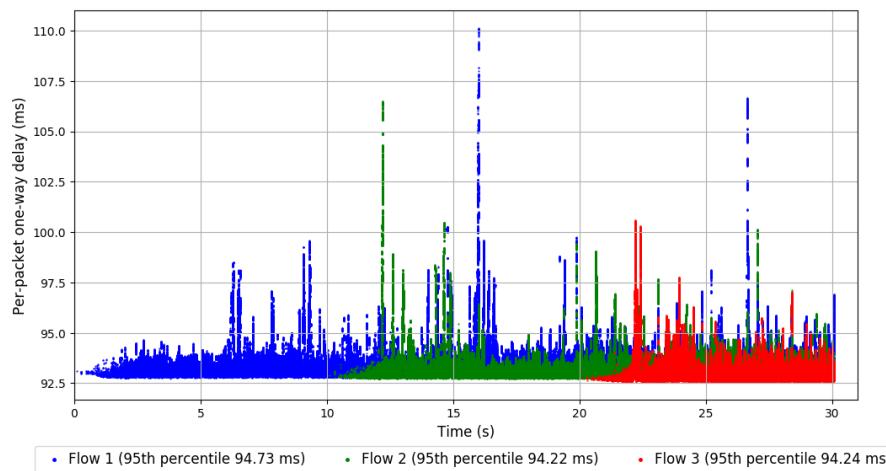
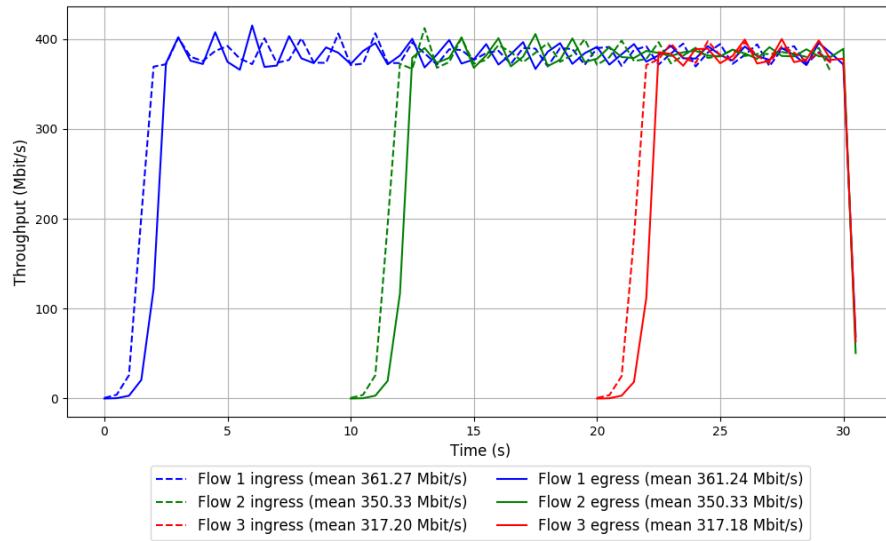


Run 2: Statistics of TCP Vegas

```
Start at: 2018-10-09 22:21:30
End at: 2018-10-09 22:22:00
Local clock offset: 0.7 ms
Remote clock offset: -1.087 ms

# Below is generated by plot.py at 2018-10-10 02:09:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 699.97 Mbit/s
95th percentile per-packet one-way delay: 94.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 361.24 Mbit/s
95th percentile per-packet one-way delay: 94.734 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 350.33 Mbit/s
95th percentile per-packet one-way delay: 94.221 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 317.18 Mbit/s
95th percentile per-packet one-way delay: 94.237 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

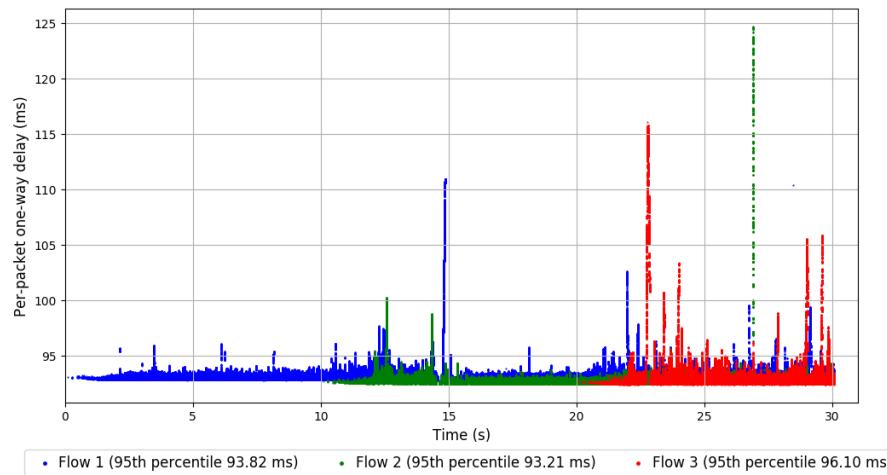
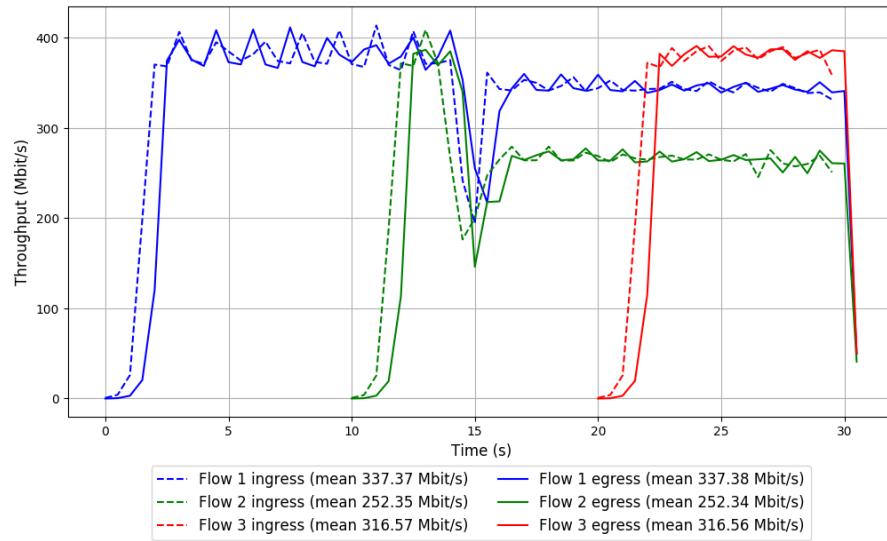


Run 3: Statistics of TCP Vegas

```
Start at: 2018-10-09 22:53:11
End at: 2018-10-09 22:53:41
Local clock offset: -0.107 ms
Remote clock offset: -0.016 ms

# Below is generated by plot.py at 2018-10-10 02:09:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 610.68 Mbit/s
95th percentile per-packet one-way delay: 93.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 337.38 Mbit/s
95th percentile per-packet one-way delay: 93.820 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 252.34 Mbit/s
95th percentile per-packet one-way delay: 93.208 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 316.56 Mbit/s
95th percentile per-packet one-way delay: 96.099 ms
Loss rate: 0.00%
```

Run 3: Report of TCP Vegas — Data Link

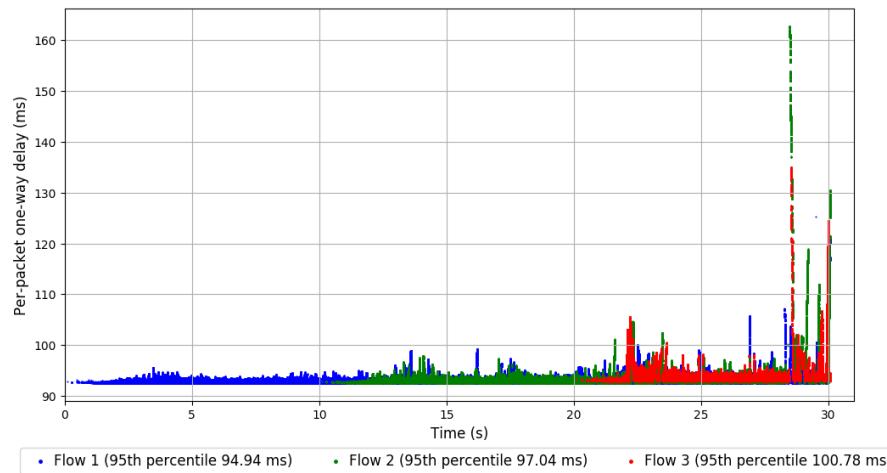
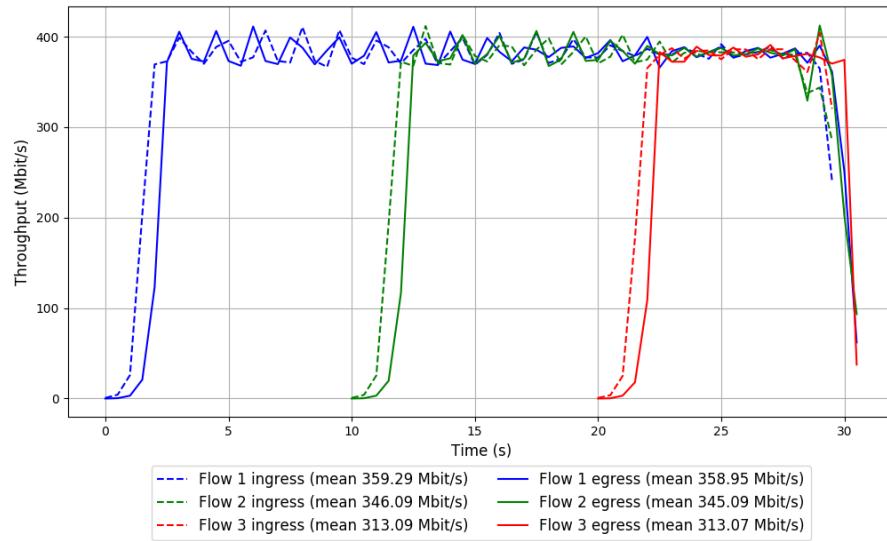


Run 4: Statistics of TCP Vegas

```
Start at: 2018-10-09 23:24:43
End at: 2018-10-09 23:25:13
Local clock offset: -0.103 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-10-10 02:16:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 692.70 Mbit/s
95th percentile per-packet one-way delay: 96.636 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 358.95 Mbit/s
95th percentile per-packet one-way delay: 94.944 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 345.09 Mbit/s
95th percentile per-packet one-way delay: 97.044 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 313.07 Mbit/s
95th percentile per-packet one-way delay: 100.776 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Vegas — Data Link

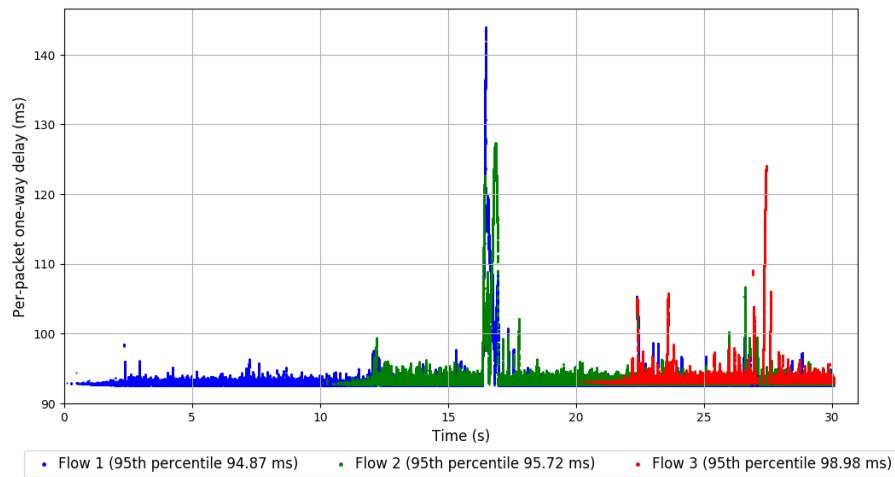
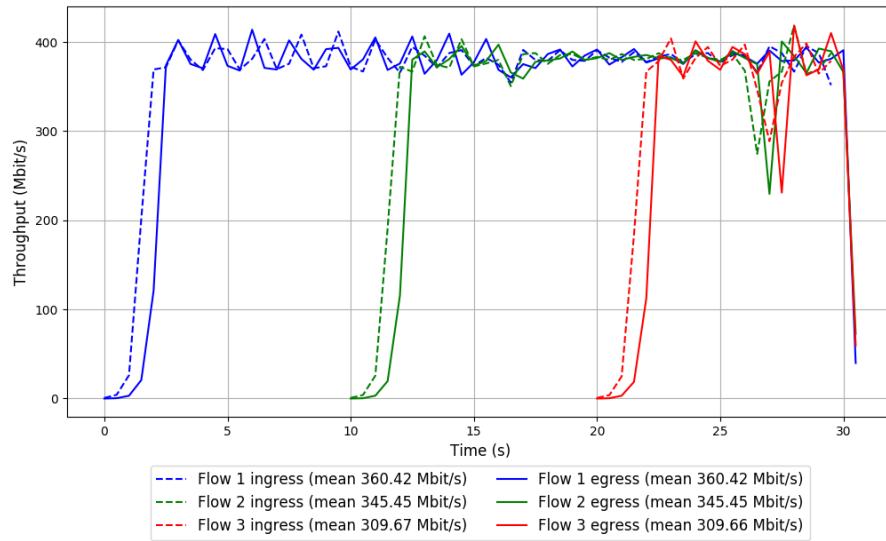


Run 5: Statistics of TCP Vegas

```
Start at: 2018-10-09 23:56:27
End at: 2018-10-09 23:56:57
Local clock offset: -0.131 ms
Remote clock offset: -0.068 ms

# Below is generated by plot.py at 2018-10-10 02:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 693.30 Mbit/s
95th percentile per-packet one-way delay: 95.729 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 360.42 Mbit/s
95th percentile per-packet one-way delay: 94.869 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 345.45 Mbit/s
95th percentile per-packet one-way delay: 95.722 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 309.66 Mbit/s
95th percentile per-packet one-way delay: 98.982 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

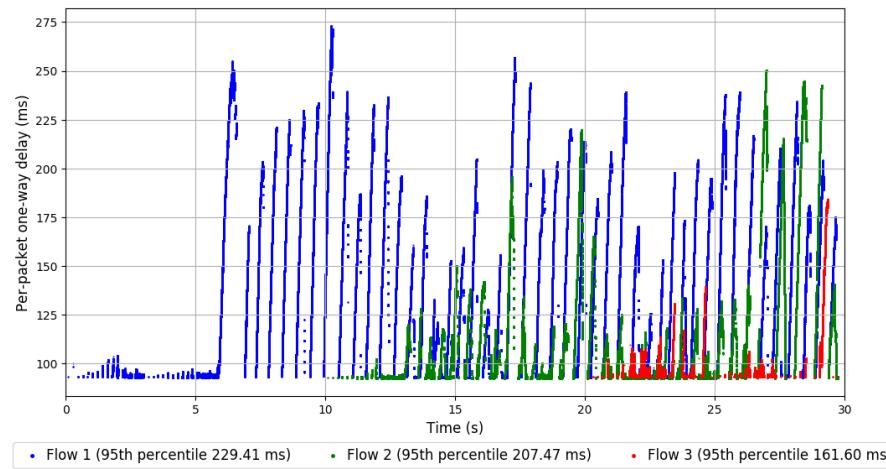
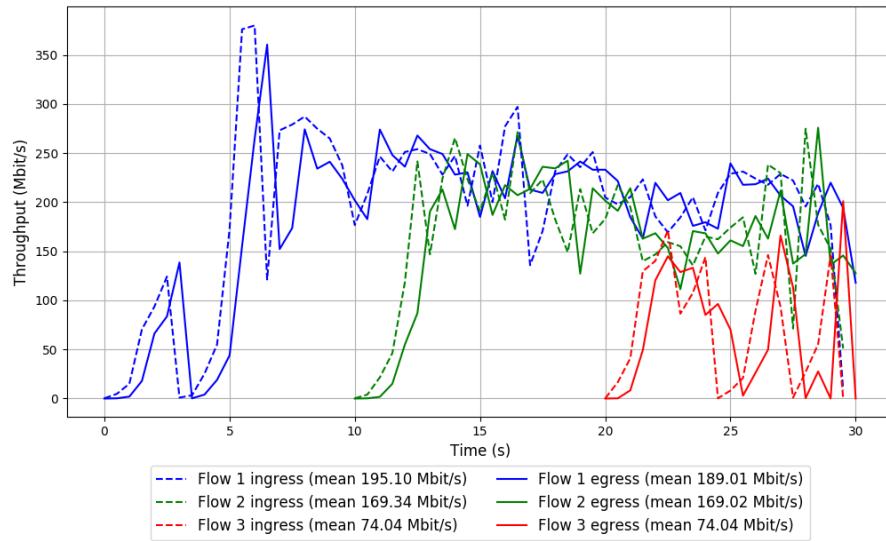


Run 1: Statistics of Verus

```
Start at: 2018-10-09 21:38:17
End at: 2018-10-09 21:38:47
Local clock offset: 0.424 ms
Remote clock offset: -0.044 ms

# Below is generated by plot.py at 2018-10-10 02:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 324.94 Mbit/s
95th percentile per-packet one-way delay: 224.206 ms
Loss rate: 1.90%
-- Flow 1:
Average throughput: 189.01 Mbit/s
95th percentile per-packet one-way delay: 229.410 ms
Loss rate: 3.12%
-- Flow 2:
Average throughput: 169.02 Mbit/s
95th percentile per-packet one-way delay: 207.474 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 74.04 Mbit/s
95th percentile per-packet one-way delay: 161.596 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link

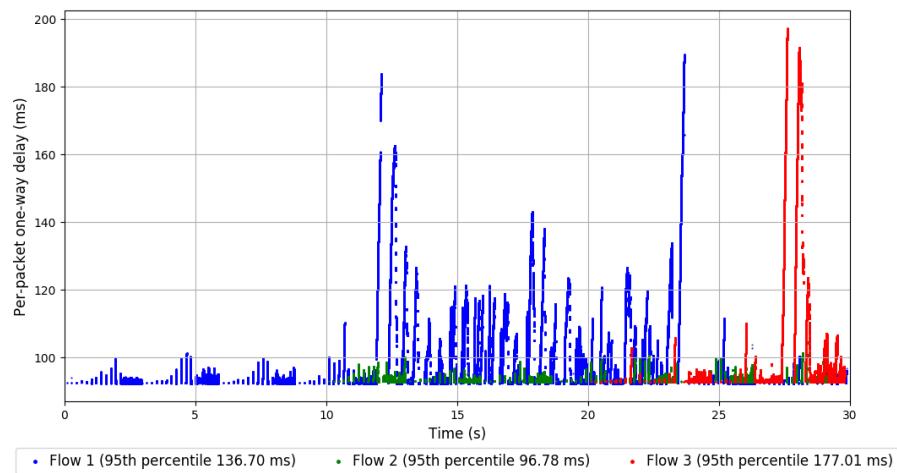
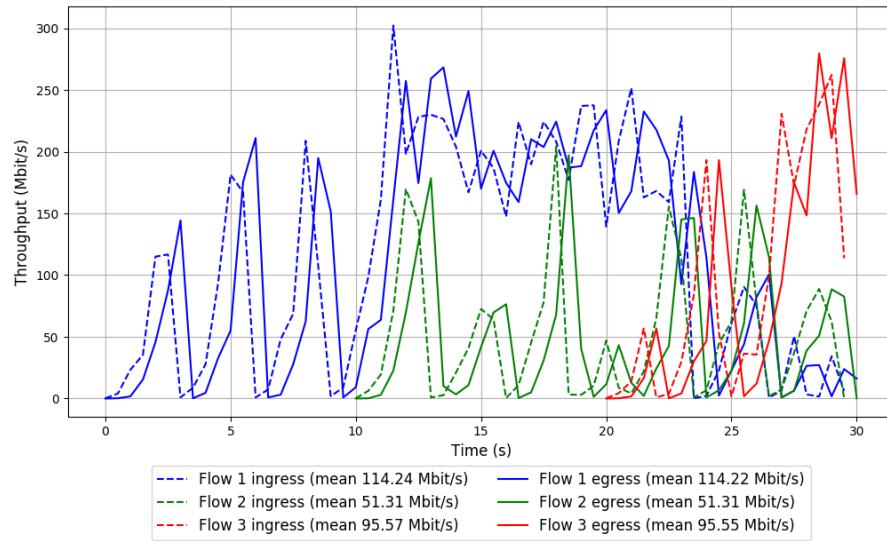


Run 2: Statistics of Verus

```
Start at: 2018-10-09 22:10:08
End at: 2018-10-09 22:10:38
Local clock offset: 0.742 ms
Remote clock offset: -0.885 ms

# Below is generated by plot.py at 2018-10-10 02:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.08 Mbit/s
95th percentile per-packet one-way delay: 138.880 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 114.22 Mbit/s
95th percentile per-packet one-way delay: 136.701 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 51.31 Mbit/s
95th percentile per-packet one-way delay: 96.783 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 95.55 Mbit/s
95th percentile per-packet one-way delay: 177.008 ms
Loss rate: 0.00%
```

Run 2: Report of Verus — Data Link

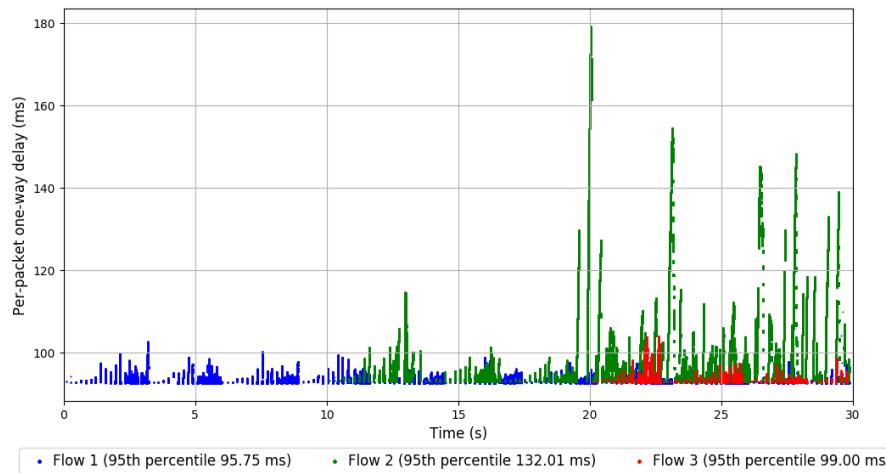
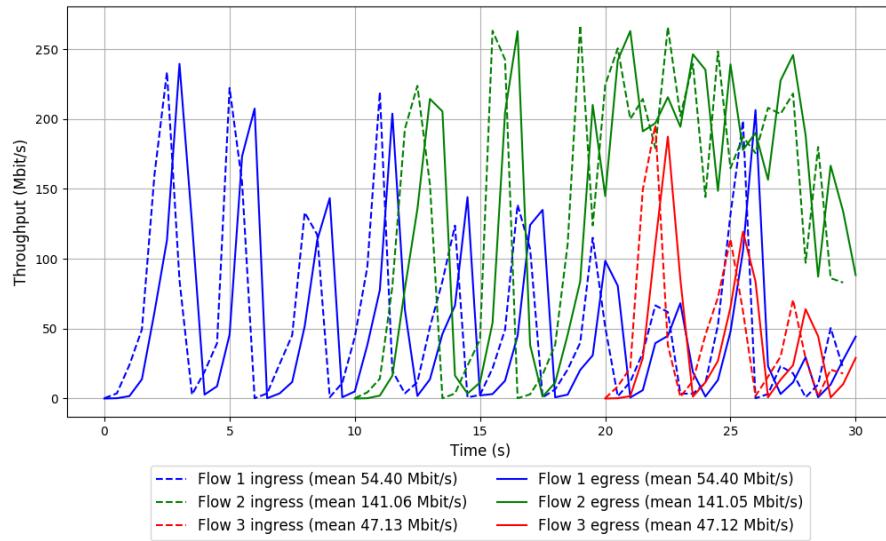


Run 3: Statistics of Verus

```
Start at: 2018-10-09 22:42:00
End at: 2018-10-09 22:42:30
Local clock offset: -0.108 ms
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2018-10-10 02:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 163.28 Mbit/s
95th percentile per-packet one-way delay: 122.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 54.40 Mbit/s
95th percentile per-packet one-way delay: 95.753 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.05 Mbit/s
95th percentile per-packet one-way delay: 132.009 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.12 Mbit/s
95th percentile per-packet one-way delay: 99.002 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

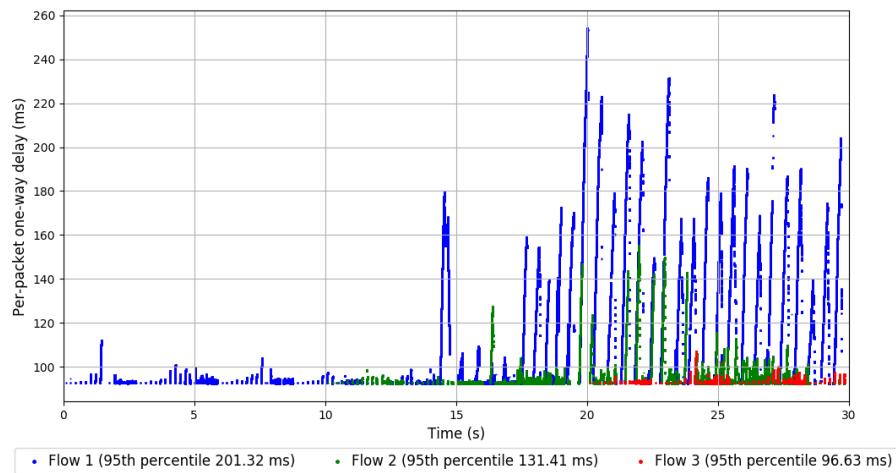
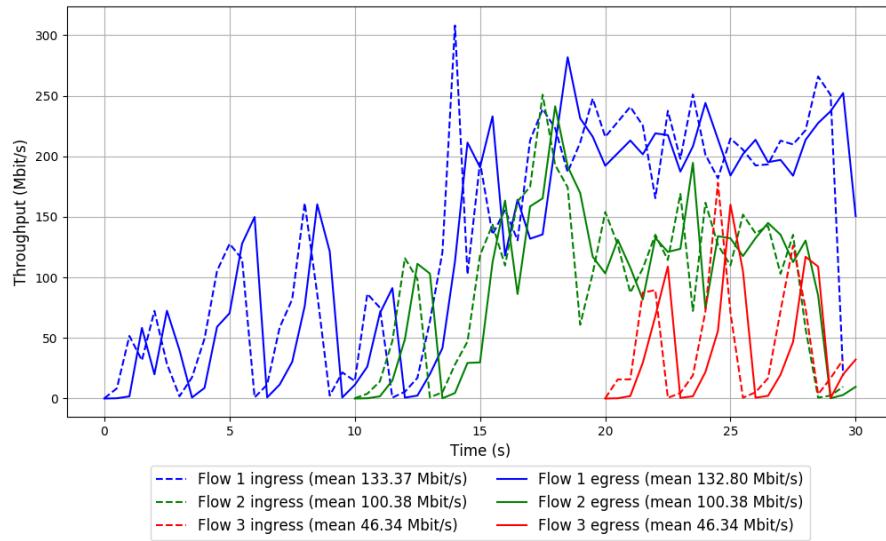


Run 4: Statistics of Verus

```
Start at: 2018-10-09 23:13:24
End at: 2018-10-09 23:13:54
Local clock offset: -0.183 ms
Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2018-10-10 02:16:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 213.82 Mbit/s
95th percentile per-packet one-way delay: 185.645 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 132.80 Mbit/s
95th percentile per-packet one-way delay: 201.318 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 100.38 Mbit/s
95th percentile per-packet one-way delay: 131.413 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.34 Mbit/s
95th percentile per-packet one-way delay: 96.629 ms
Loss rate: 0.00%
```

Run 4: Report of Verus — Data Link

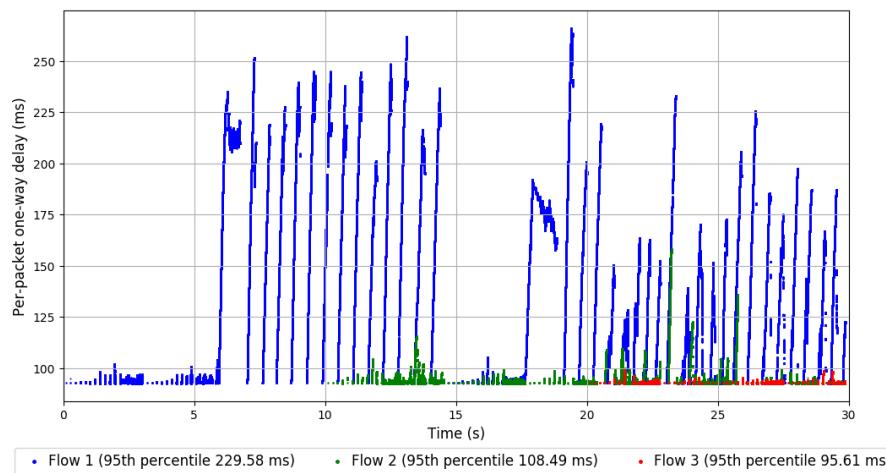
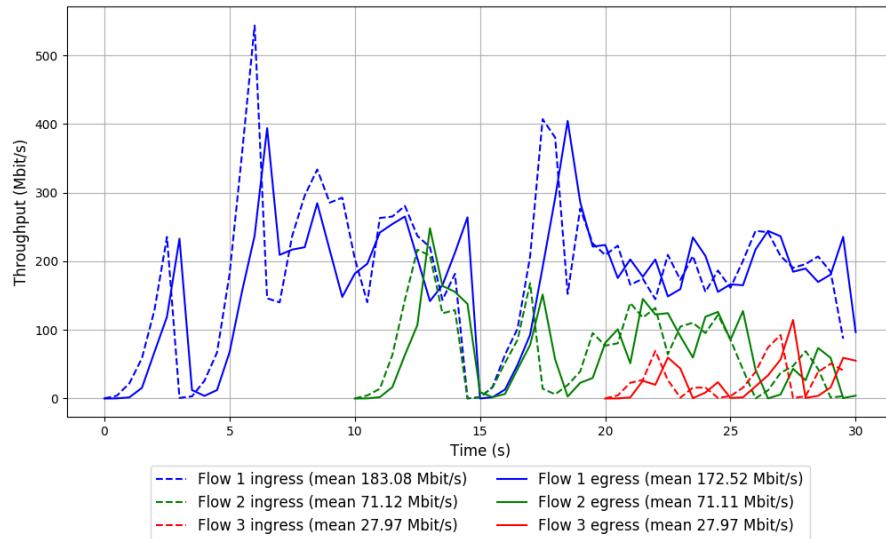


Run 5: Statistics of Verus

```
Start at: 2018-10-09 23:45:11
End at: 2018-10-09 23:45:41
Local clock offset: -0.231 ms
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2018-10-10 02:17:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 228.51 Mbit/s
95th percentile per-packet one-way delay: 225.859 ms
Loss rate: 4.42%
-- Flow 1:
Average throughput: 172.52 Mbit/s
95th percentile per-packet one-way delay: 229.581 ms
Loss rate: 5.77%
-- Flow 2:
Average throughput: 71.11 Mbit/s
95th percentile per-packet one-way delay: 108.487 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.97 Mbit/s
95th percentile per-packet one-way delay: 95.605 ms
Loss rate: 0.00%
```

Run 5: Report of Verus — Data Link

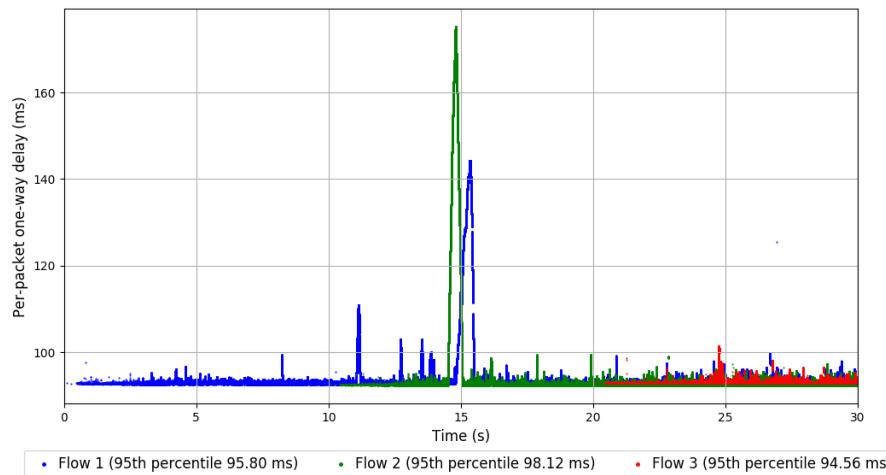
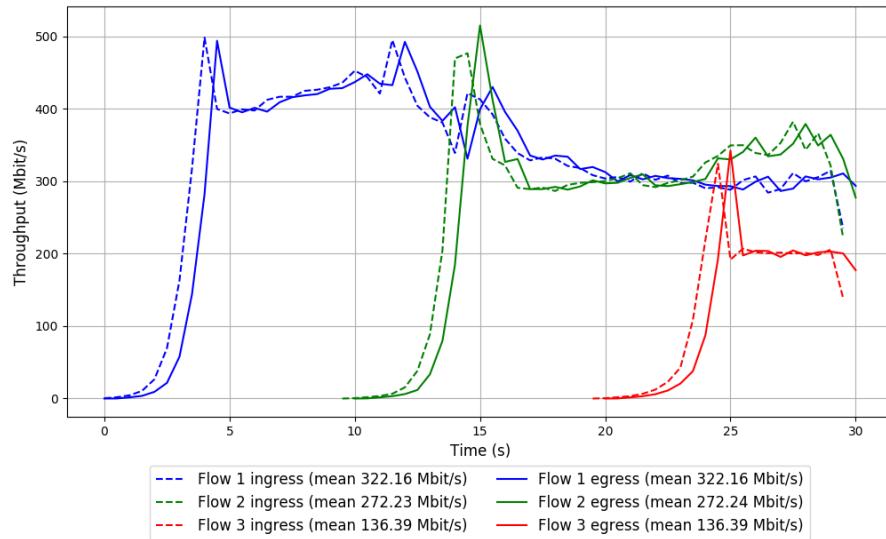


Run 1: Statistics of PCC-Vivace

```
Start at: 2018-10-09 21:53:44
End at: 2018-10-09 21:54:14
Local clock offset: 0.569 ms
Remote clock offset: -0.585 ms

# Below is generated by plot.py at 2018-10-10 02:19:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 548.52 Mbit/s
95th percentile per-packet one-way delay: 95.733 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.16 Mbit/s
95th percentile per-packet one-way delay: 95.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 272.24 Mbit/s
95th percentile per-packet one-way delay: 98.120 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 136.39 Mbit/s
95th percentile per-packet one-way delay: 94.555 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

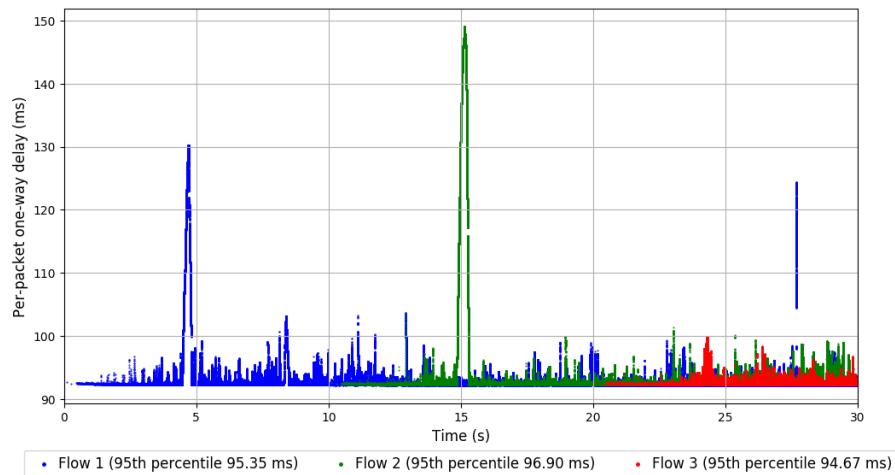
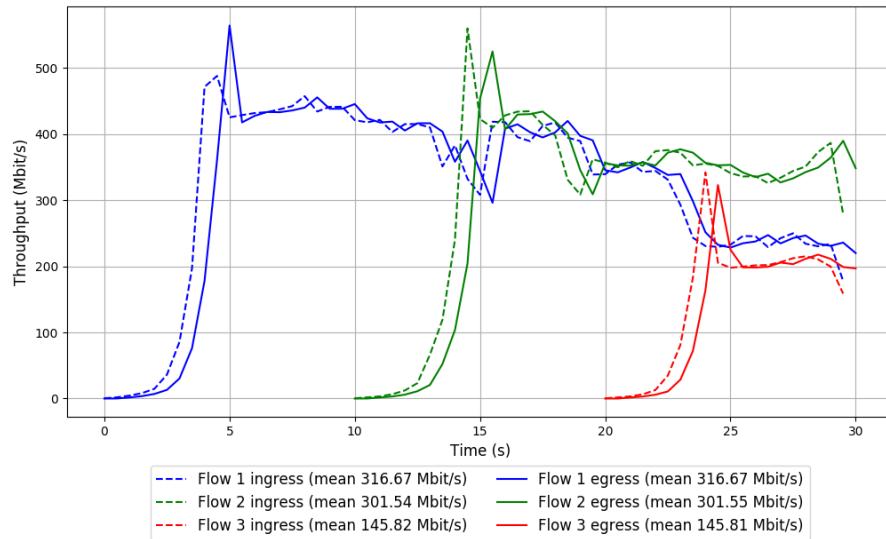


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-10-09 22:25:30
End at: 2018-10-09 22:26:00
Local clock offset: 1.051 ms
Remote clock offset: -1.145 ms

# Below is generated by plot.py at 2018-10-10 02:19:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 565.29 Mbit/s
95th percentile per-packet one-way delay: 95.674 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 316.67 Mbit/s
95th percentile per-packet one-way delay: 95.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 301.55 Mbit/s
95th percentile per-packet one-way delay: 96.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 145.81 Mbit/s
95th percentile per-packet one-way delay: 94.669 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

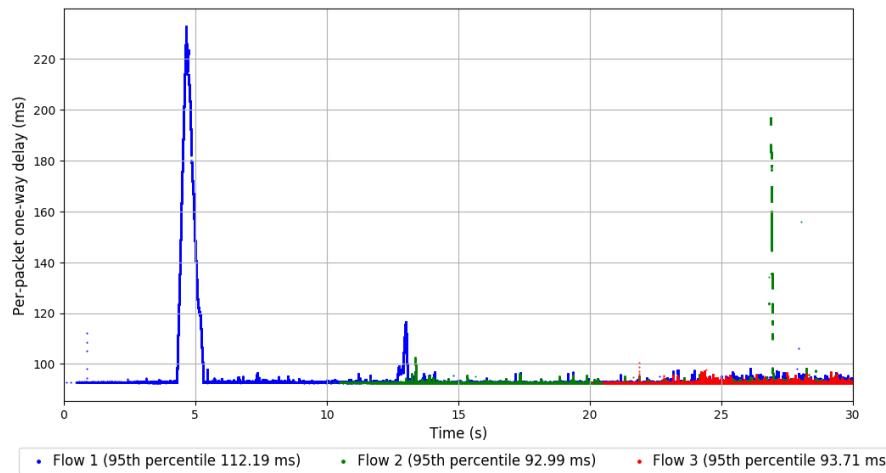
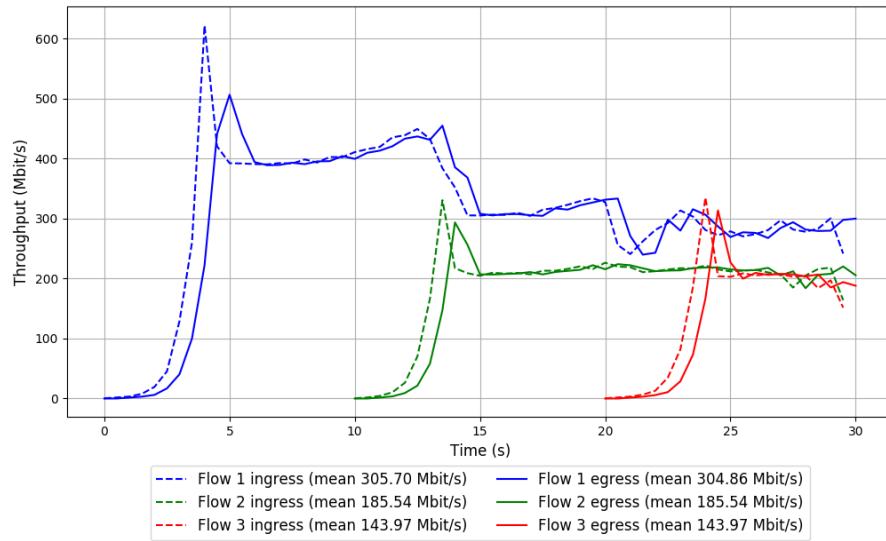


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-10-09 22:57:06
End at: 2018-10-09 22:57:36
Local clock offset: -0.224 ms
Remote clock offset: 0.072 ms

# Below is generated by plot.py at 2018-10-10 02:20:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 475.75 Mbit/s
95th percentile per-packet one-way delay: 96.357 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 304.86 Mbit/s
95th percentile per-packet one-way delay: 112.193 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 185.54 Mbit/s
95th percentile per-packet one-way delay: 92.991 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 143.97 Mbit/s
95th percentile per-packet one-way delay: 93.710 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

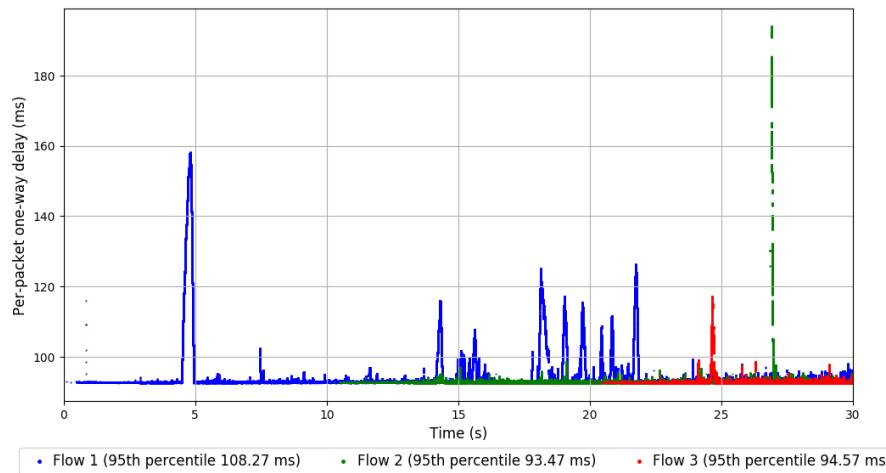
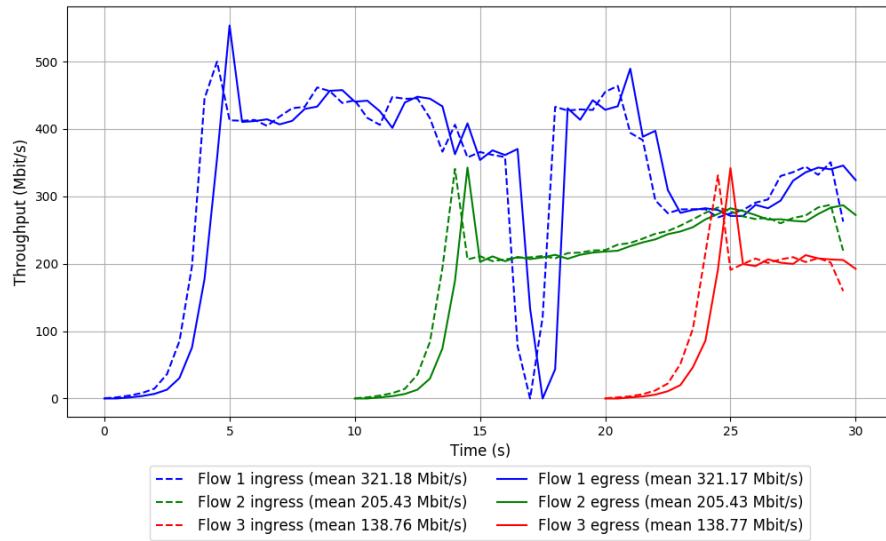


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-10-09 23:28:44
End at: 2018-10-09 23:29:14
Local clock offset: -0.12 ms
Remote clock offset: 0.037 ms

# Below is generated by plot.py at 2018-10-10 02:20:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 503.55 Mbit/s
95th percentile per-packet one-way delay: 102.491 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 321.17 Mbit/s
95th percentile per-packet one-way delay: 108.266 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 205.43 Mbit/s
95th percentile per-packet one-way delay: 93.467 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 138.77 Mbit/s
95th percentile per-packet one-way delay: 94.566 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

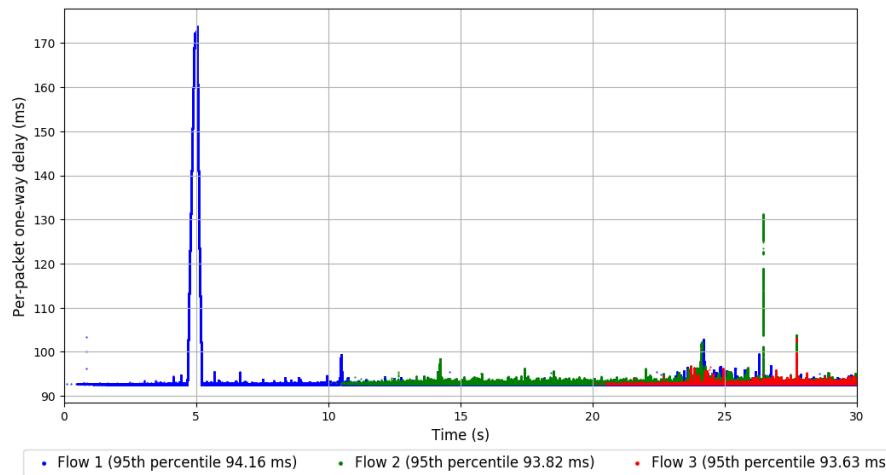
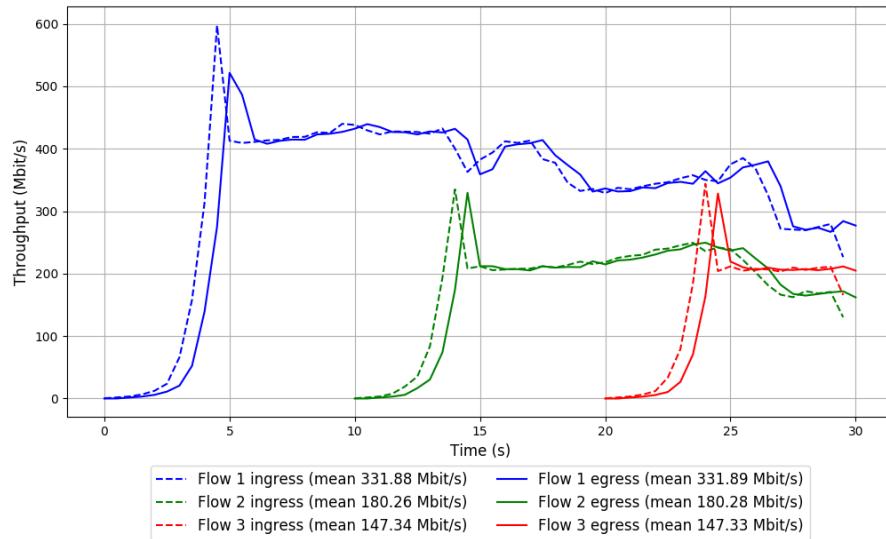


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-10-10 00:00:28
End at: 2018-10-10 00:00:58
Local clock offset: -0.206 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.34 Mbit/s
95th percentile per-packet one-way delay: 93.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 331.89 Mbit/s
95th percentile per-packet one-way delay: 94.156 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.28 Mbit/s
95th percentile per-packet one-way delay: 93.819 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 147.33 Mbit/s
95th percentile per-packet one-way delay: 93.626 ms
Loss rate: 0.01%
```

Run 5: Report of PCC-Vivace — Data Link

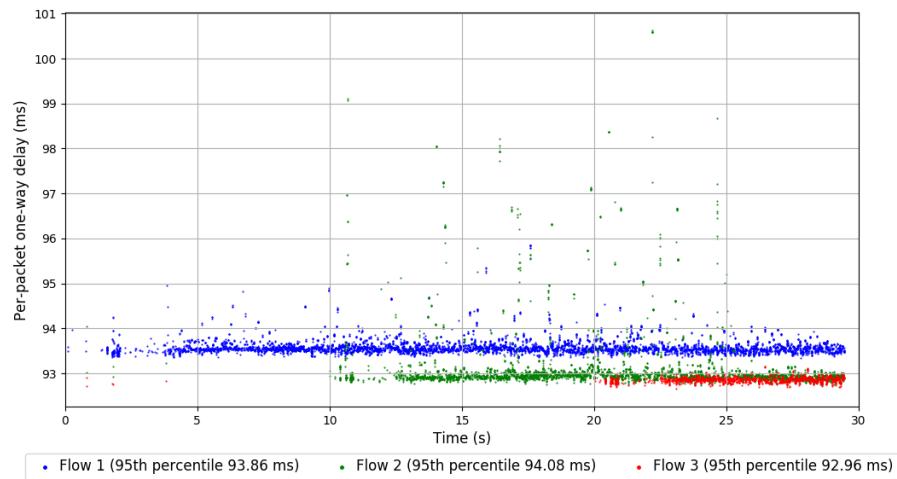
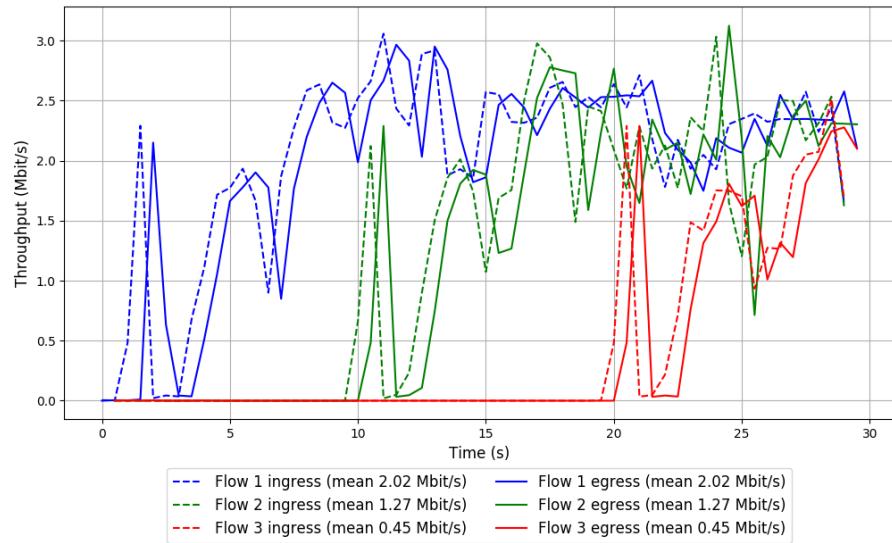


Run 1: Statistics of WebRTC media

```
Start at: 2018-10-09 21:34:54
End at: 2018-10-09 21:35:24
Local clock offset: 0.152 ms
Remote clock offset: 0.222 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 93.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 93.860 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 94.083 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 92.958 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

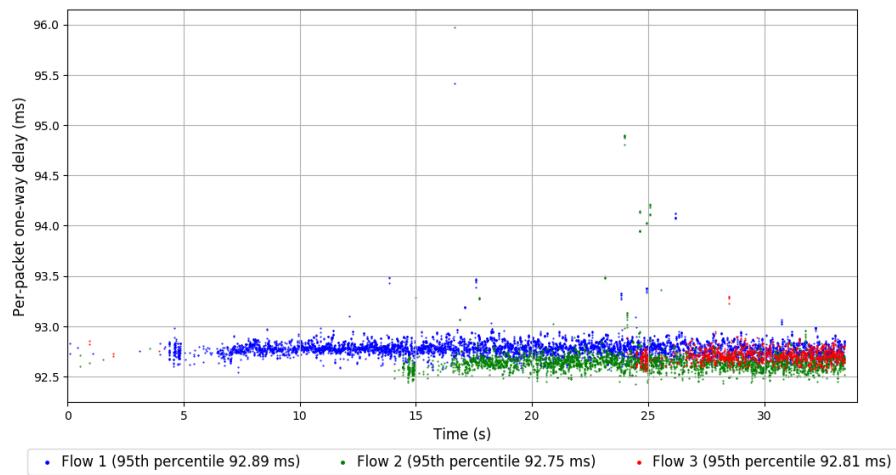
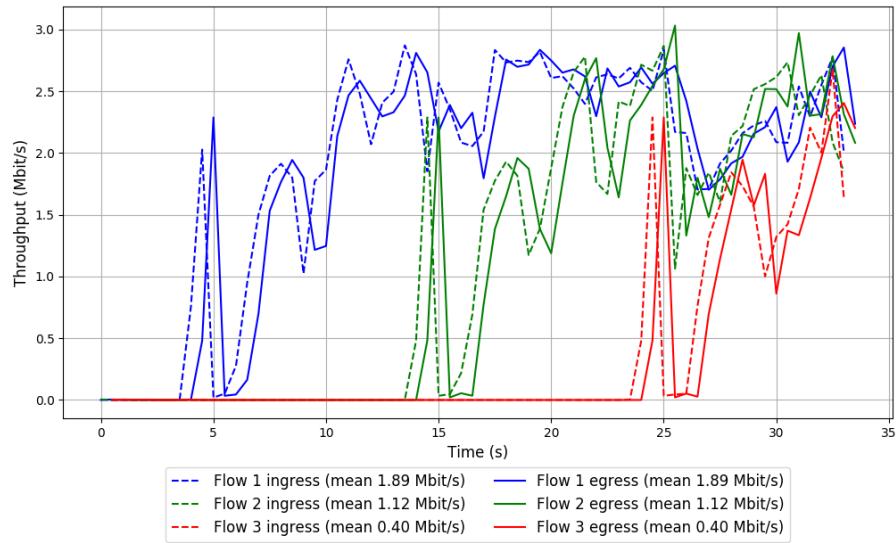


Run 2: Statistics of WebRTC media

```
Start at: 2018-10-09 22:06:45
End at: 2018-10-09 22:07:15
Local clock offset: 0.651 ms
Remote clock offset: -0.845 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 92.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 92.887 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 92.750 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 92.813 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

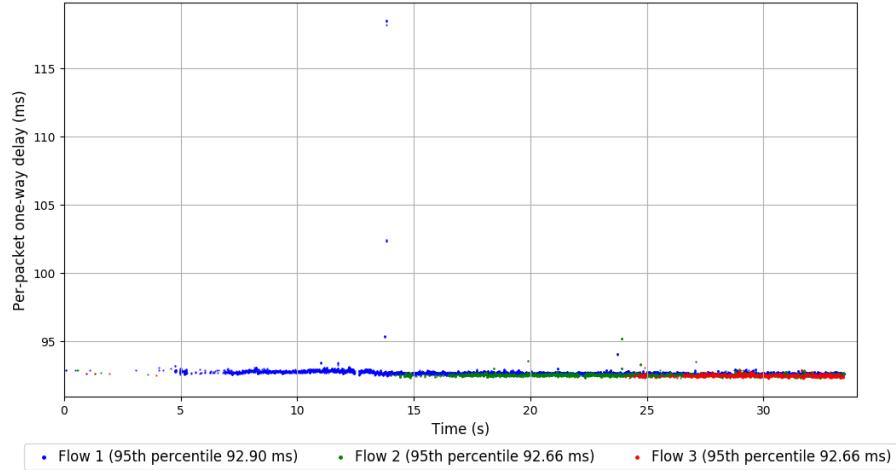
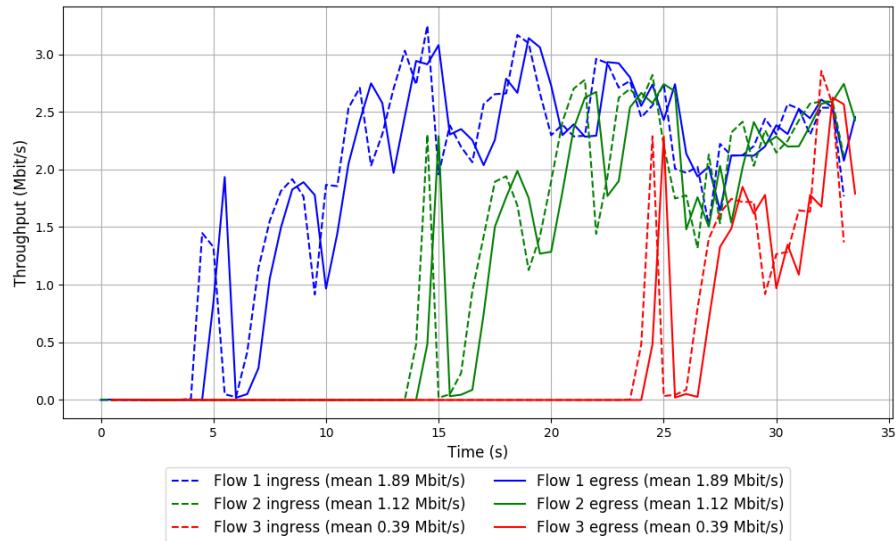


Run 3: Statistics of WebRTC media

```
Start at: 2018-10-09 22:38:35
End at: 2018-10-09 22:39:05
Local clock offset: 0.176 ms
Remote clock offset: -0.24 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 92.869 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 92.900 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 92.663 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 92.655 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

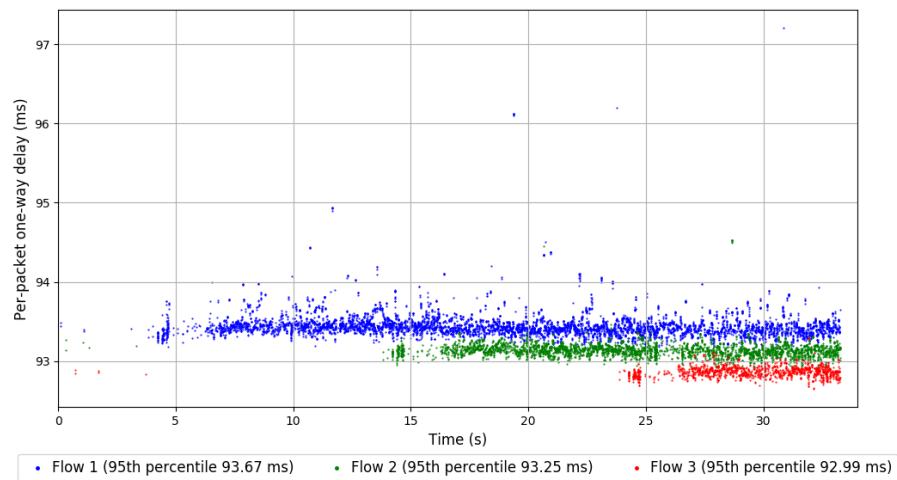
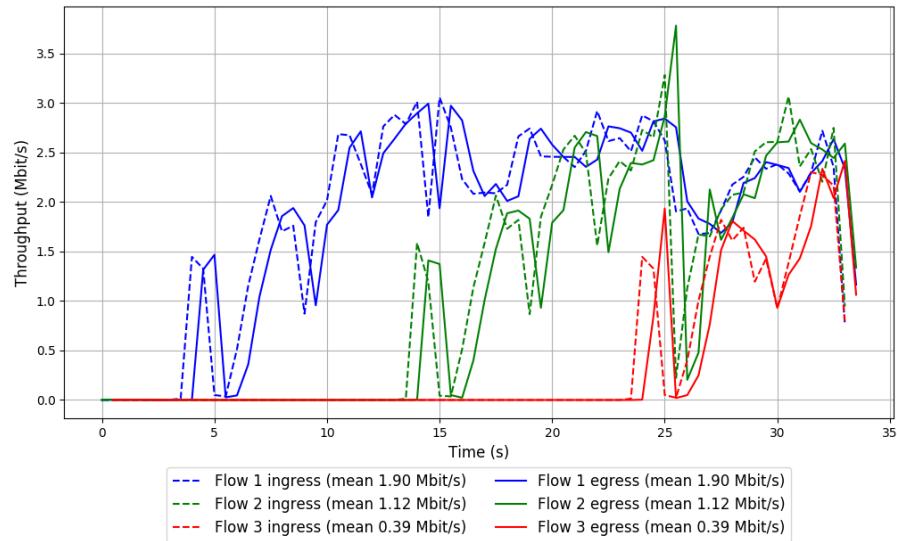


Run 4: Statistics of WebRTC media

```
Start at: 2018-10-09 23:10:01
End at: 2018-10-09 23:10:31
Local clock offset: -0.179 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 93.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 93.667 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 93.252 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 92.989 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-10-09 23:41:46
End at: 2018-10-09 23:42:16
Local clock offset: -0.174 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-10-10 02:20:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.32 Mbit/s
95th percentile per-packet one-way delay: 93.541 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 93.268 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 93.689 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 93.208 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

