

Pantheon Report

Generated at 2018-02-13 13:15:20 (UTC).

Data path: Colombia ppp0 (*remote*) → AWS Brazil 2 Ethernet (*local*).

Repeated the test of 17 congestion control schemes 3 times.

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

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

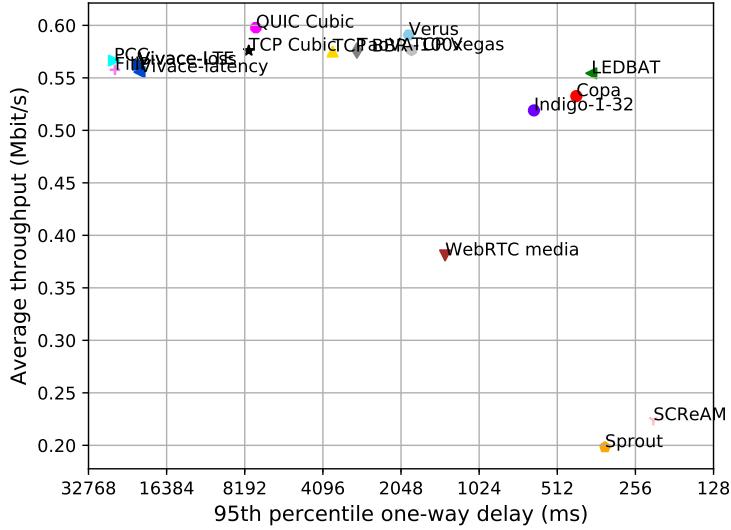
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

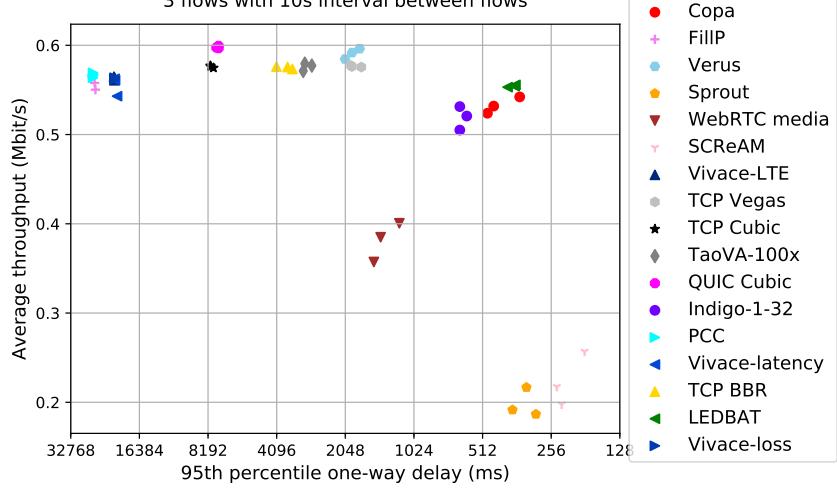
Git summary:

```
branch: master @ 2efdadc57c2c56a9458b0d01ff33345e11732665
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179aab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  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 @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



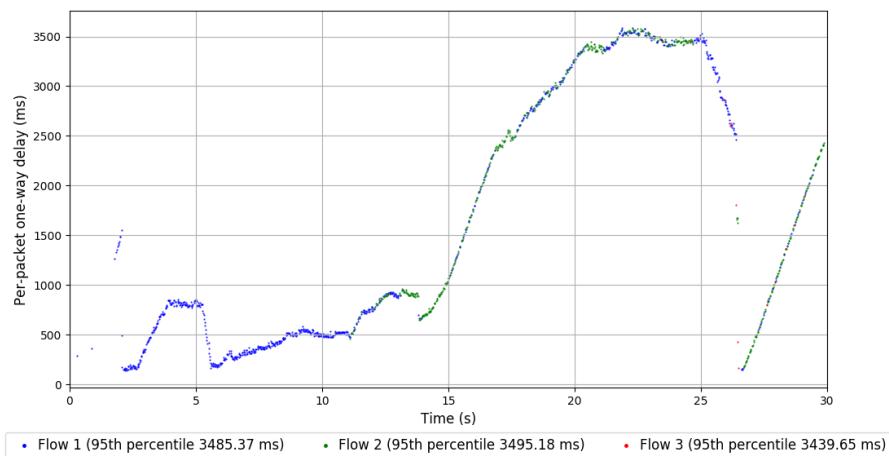
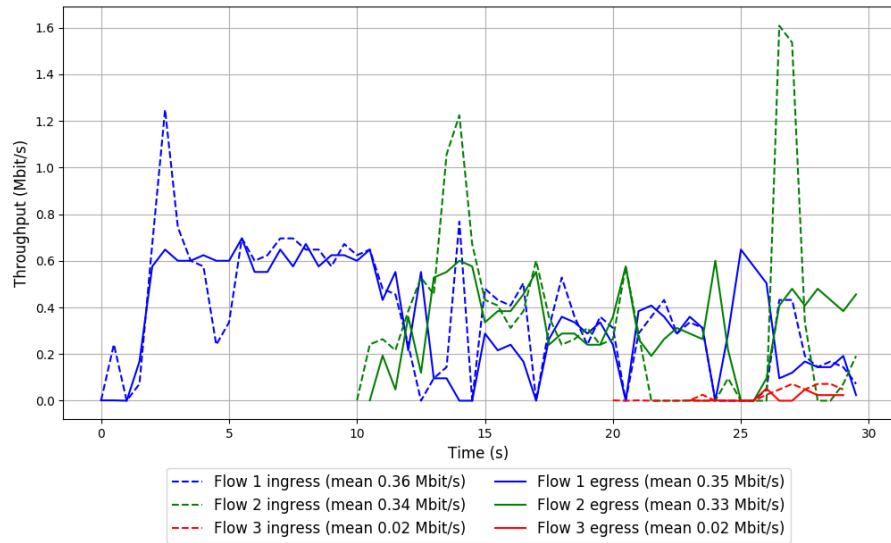
| scheme | # runs | mean avg tput (Mbit/s) | | | mean 95th-%ile delay (ms) | | | mean loss rate (%) | | |
|----------------|--------|------------------------|--------|--------|---------------------------|---------|---------|--------------------|--------|--------|
| | | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 | flow 1 | flow 2 | flow 3 |
| TCP BBR | 3 | 0.36 | 0.33 | 0.02 | 3734.56 | 3760.70 | 3777.16 | 3.54 | 7.59 | 58.33 |
| TCP Cubic | 3 | 0.56 | 0.04 | 0.00 | 7939.63 | 6745.55 | 8110.27 | 30.99 | 49.94 | 91.06 |
| LEDBAT | 3 | 0.25 | 0.35 | 0.22 | 331.62 | 388.82 | 405.32 | 0.05 | 1.27 | 6.36 |
| PCC | 3 | 0.57 | 0.00 | N/A | 26131.71 | N/A | N/A | 98.53 | N/A | N/A |
| QUIC Cubic | 3 | 0.56 | 0.06 | 0.00 | 7375.84 | 7668.61 | 7479.11 | 28.67 | 32.00 | 33.33 |
| SCReAM | 3 | 0.08 | 0.15 | 0.13 | 201.04 | 207.67 | 362.40 | 0.85 | 0.85 | 1.79 |
| WebRTC media | 3 | 0.19 | 0.13 | 0.06 | 1316.60 | 1482.76 | 1322.71 | 0.81 | 3.21 | 10.51 |
| Sprout | 3 | 0.09 | 0.10 | 0.10 | 685.98 | 222.15 | 268.07 | 1.27 | 3.16 | 2.56 |
| TaoVA-100x | 3 | 0.35 | 0.28 | 0.21 | 2574.33 | 3144.93 | 3031.93 | 4.31 | 12.54 | 23.02 |
| TCP Vegas | 3 | 0.39 | 0.22 | 0.17 | 1787.03 | 1937.68 | 1894.17 | 3.39 | 6.80 | 22.41 |
| Verus | 3 | 0.58 | 0.01 | 0.01 | 1912.97 | 1882.96 | 1811.94 | 5.93 | 6.23 | 12.73 |
| Copa | 3 | 0.30 | 0.24 | 0.23 | 386.87 | 464.95 | 458.96 | 4.75 | 6.26 | 12.80 |
| FillP | 3 | 0.56 | 0.00 | N/A | 25911.19 | N/A | N/A | 98.29 | N/A | N/A |
| Indigo-1-32 | 3 | 0.30 | 0.21 | 0.24 | 544.91 | 659.66 | 697.03 | 0.94 | 1.91 | 5.90 |
| Vivace-latency | 3 | 0.55 | 0.00 | N/A | 20846.01 | N/A | N/A | 72.35 | N/A | N/A |
| Vivace-loss | 3 | 0.56 | 0.00 | N/A | 21073.12 | N/A | N/A | 89.10 | N/A | N/A |
| Vivace-LTE | 3 | 0.56 | 0.00 | N/A | 21107.40 | N/A | N/A | 71.62 | N/A | N/A |

Run 1: Statistics of TCP BBR

```
Start at: 2018-02-13 11:11:04
End at: 2018-02-13 11:11:34
Local clock offset: -8.186 ms
Remote clock offset: 0.698 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 3495.176 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 3485.370 ms
Loss rate: 3.44%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 3495.176 ms
Loss rate: 5.13%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 3439.652 ms
Loss rate: 57.58%
```

Run 1: Report of TCP BBR — Data Link

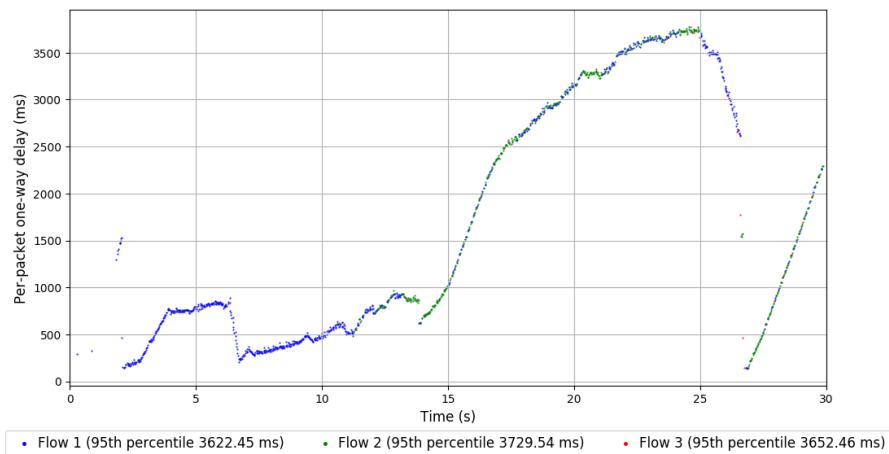
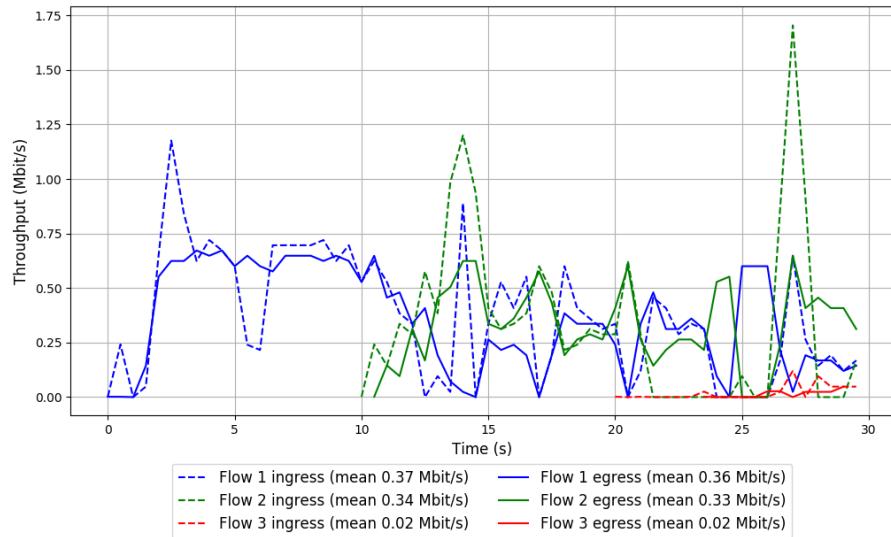


Run 2: Statistics of TCP BBR

```
Start at: 2018-02-13 11:33:35
End at: 2018-02-13 11:34:05
Local clock offset: -8.626 ms
Remote clock offset: 0.544 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 3670.154 ms
Loss rate: 5.28%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 3622.454 ms
Loss rate: 3.61%
-- Flow 2:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 3729.538 ms
Loss rate: 6.35%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 3652.460 ms
Loss rate: 57.58%
```

Run 2: Report of TCP BBR — Data Link

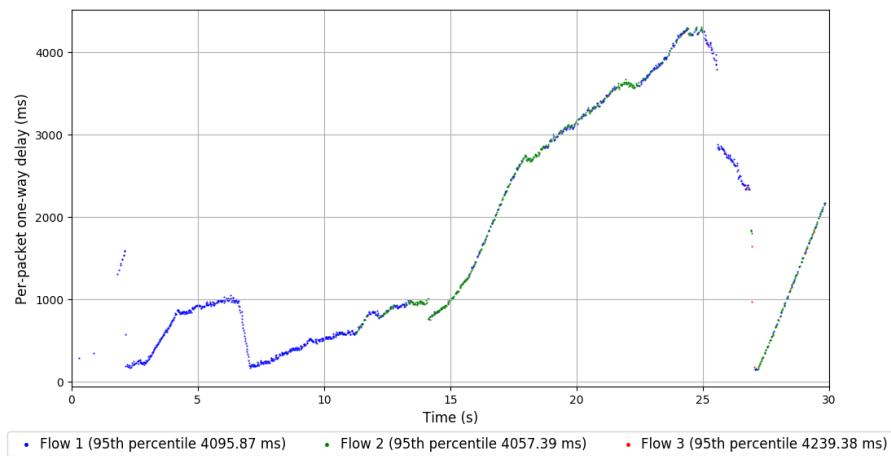
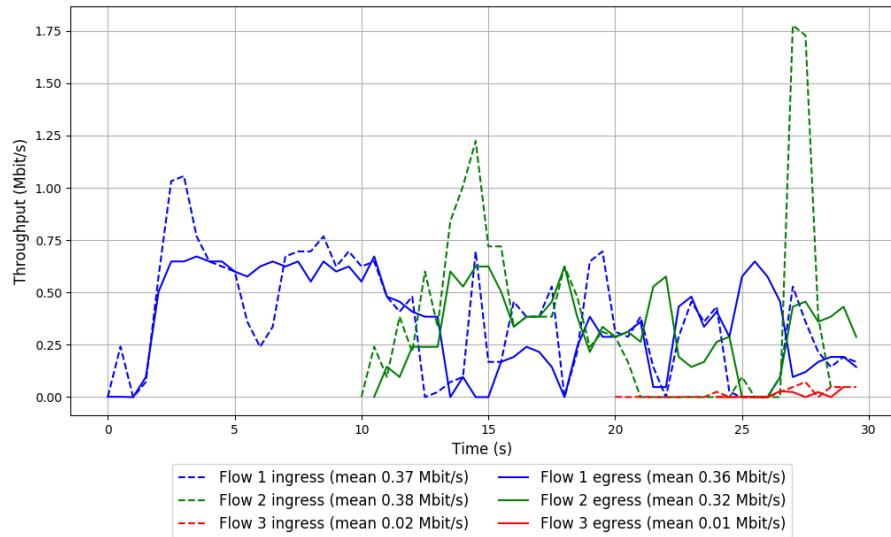


Run 3: Statistics of TCP BBR

```
Start at: 2018-02-13 11:56:07
End at: 2018-02-13 11:56:37
Local clock offset: -2.805 ms
Remote clock offset: -4.448 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 4106.066 ms
Loss rate: 7.01%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 4095.868 ms
Loss rate: 3.56%
-- Flow 2:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 4057.389 ms
Loss rate: 11.30%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4239.380 ms
Loss rate: 59.84%
```

Run 3: Report of TCP BBR — Data Link

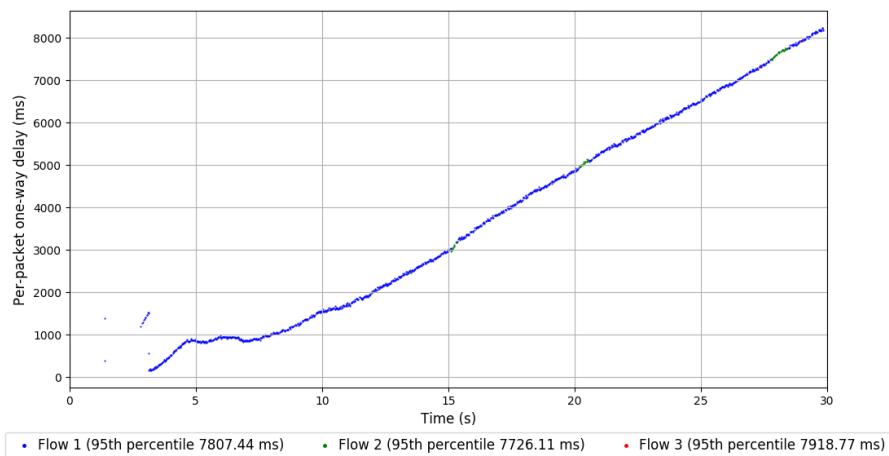
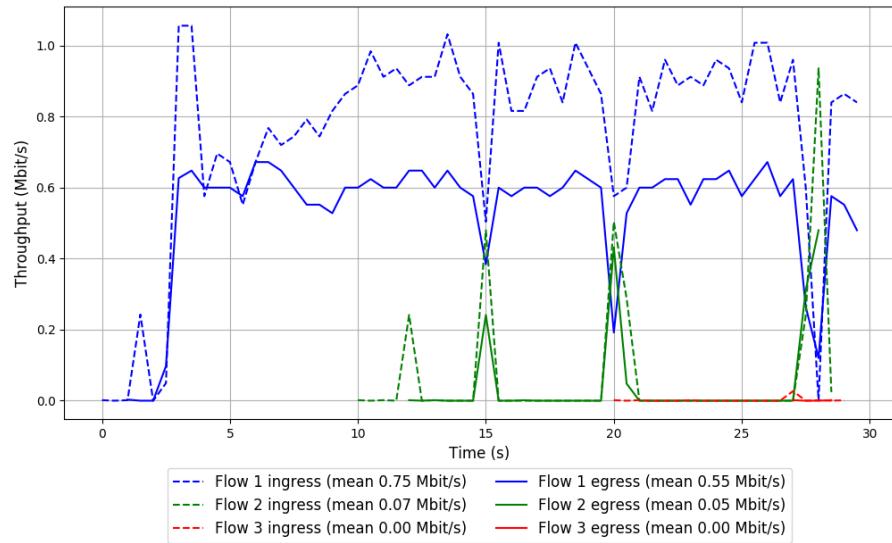


Run 1: Statistics of TCP Cubic

```
Start at: 2018-02-13 11:12:19
End at: 2018-02-13 11:12:49
Local clock offset: -8.152 ms
Remote clock offset: 1.49 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 7757.525 ms
Loss rate: 31.68%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 7807.440 ms
Loss rate: 30.88%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7726.113 ms
Loss rate: 44.15%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7918.771 ms
Loss rate: 91.06%
```

Run 1: Report of TCP Cubic — Data Link

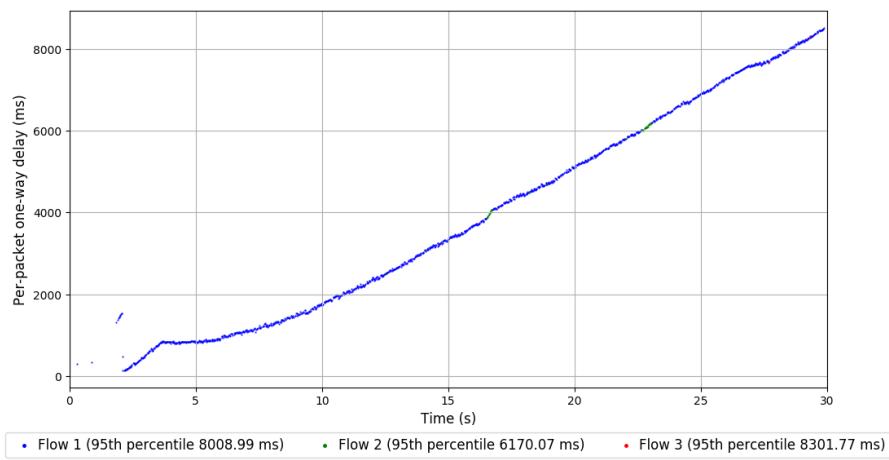
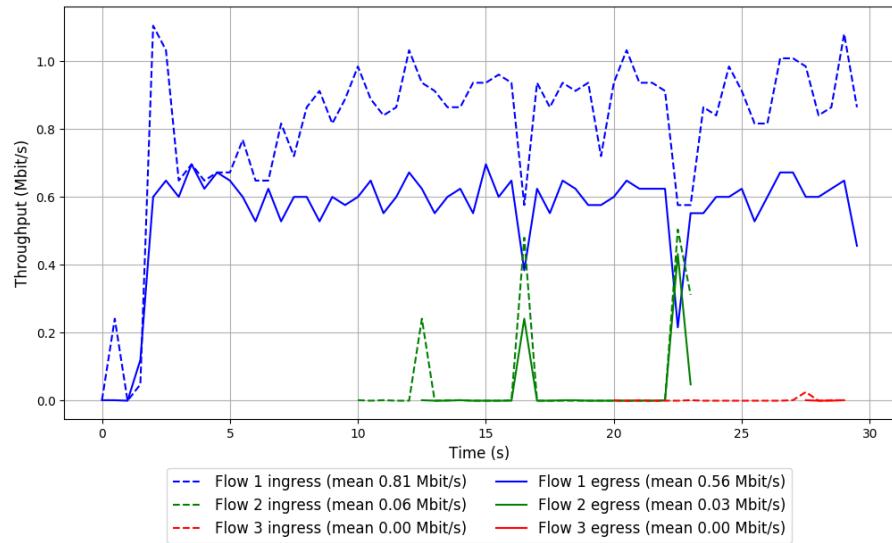


Run 2: Statistics of TCP Cubic

```
Start at: 2018-02-13 11:34:50
End at: 2018-02-13 11:35:20
Local clock offset: -8.594 ms
Remote clock offset: -3.463 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 7999.437 ms
Loss rate: 31.77%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 8008.991 ms
Loss rate: 31.05%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 6170.071 ms
Loss rate: 52.83%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 8301.769 ms
Loss rate: 91.06%
```

Run 2: Report of TCP Cubic — Data Link

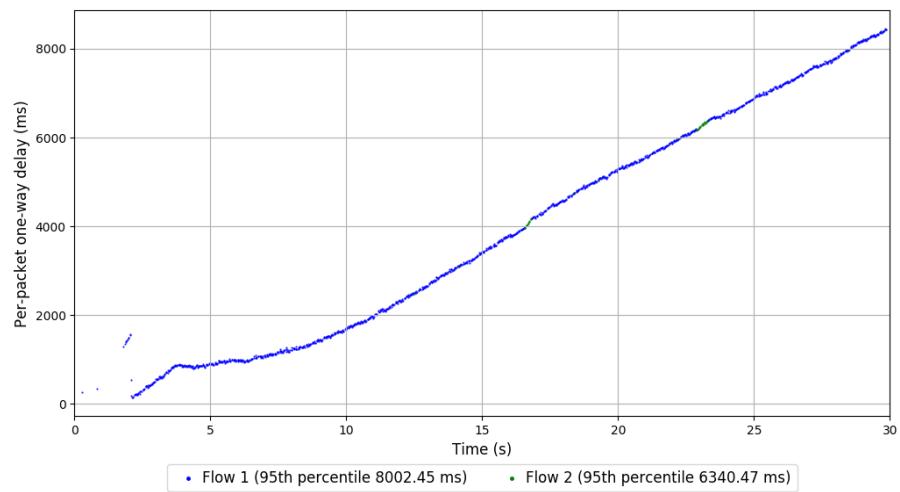
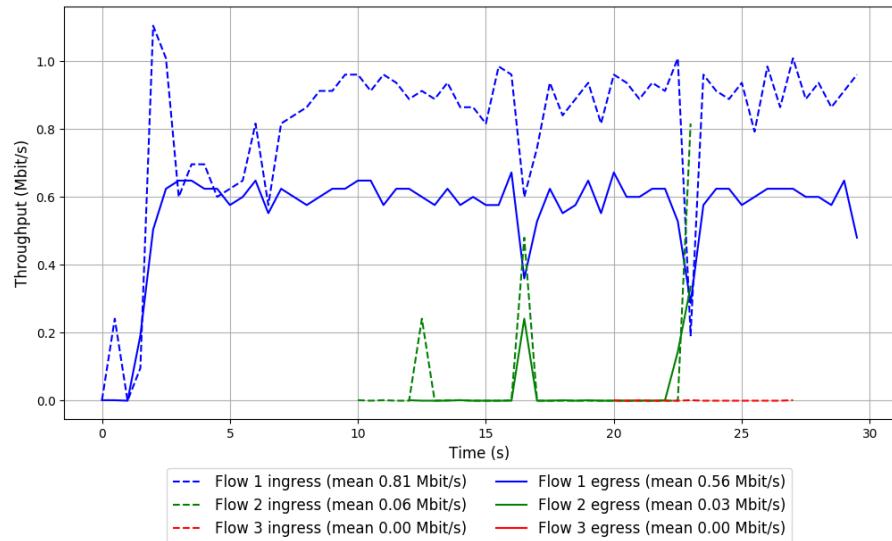


Run 3: Statistics of TCP Cubic

```
Start at: 2018-02-13 11:57:21
End at: 2018-02-13 11:57:51
Local clock offset: -2.72 ms
Remote clock offset: -3.654 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 7972.344 ms
Loss rate: 31.73%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 8002.450 ms
Loss rate: 31.05%
-- Flow 2:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 6340.468 ms
Loss rate: 52.83%
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of TCP Cubic — Data Link

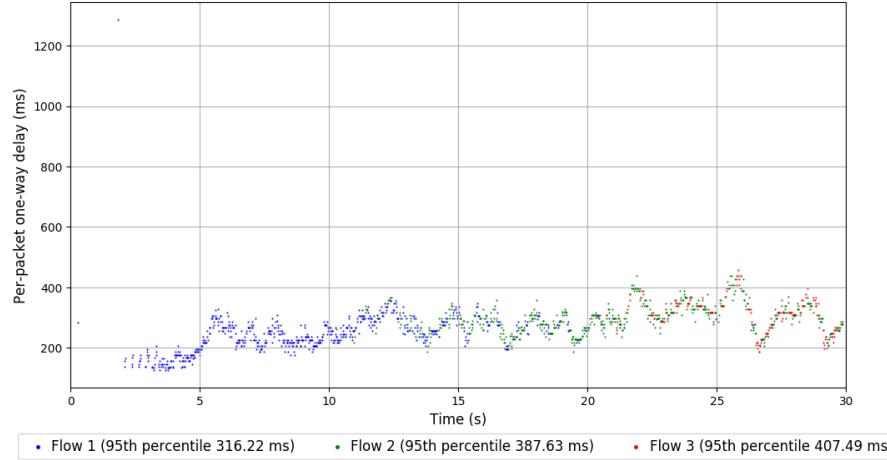
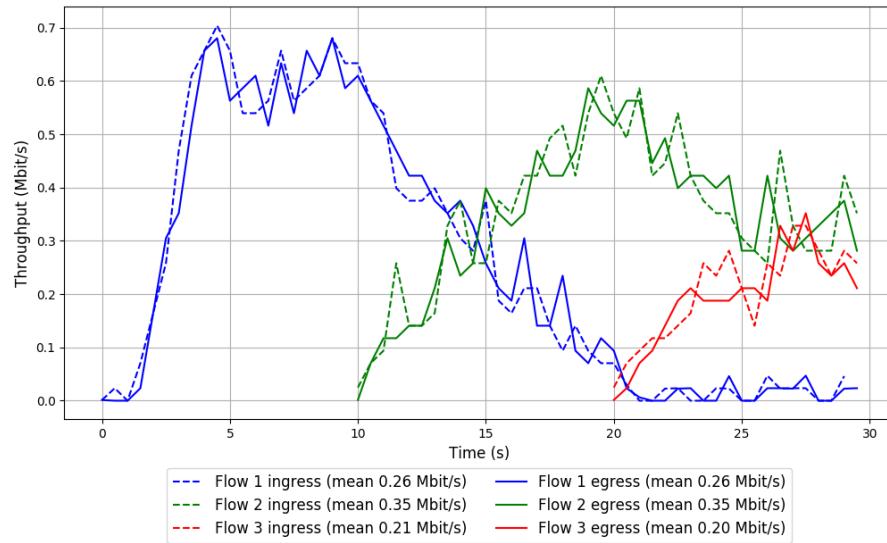


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-02-13 11:18:34
End at: 2018-02-13 11:19:04
Local clock offset: -8.18 ms
Remote clock offset: 1.506 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 367.502 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 316.217 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 387.627 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 407.490 ms
Loss rate: 5.78%
```

Run 1: Report of LEDBAT — Data Link

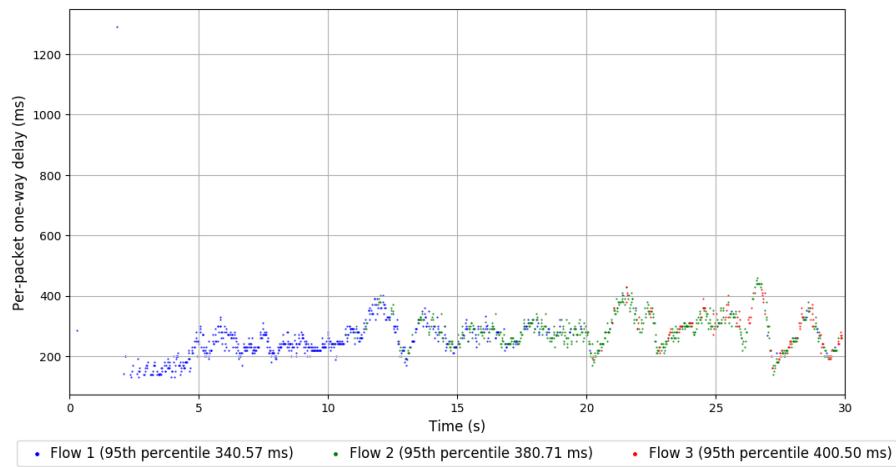
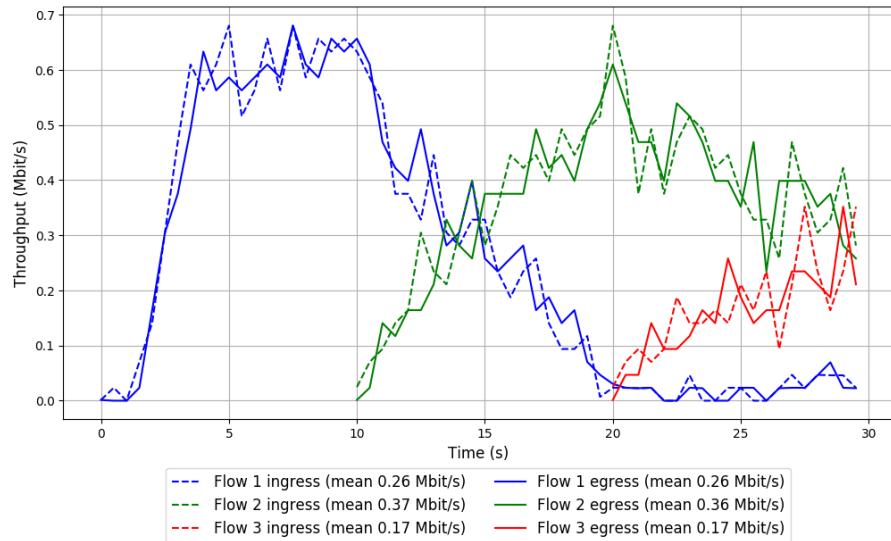


Run 2: Statistics of LEDBAT

```
Start at: 2018-02-13 11:41:06
End at: 2018-02-13 11:41:36
Local clock offset: -5.609 ms
Remote clock offset: 1.343 ms

# Below is generated by plot.py at 2018-02-13 13:14:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 370.566 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 340.570 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 380.708 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 400.504 ms
Loss rate: 5.55%
```

Run 2: Report of LEDBAT — Data Link

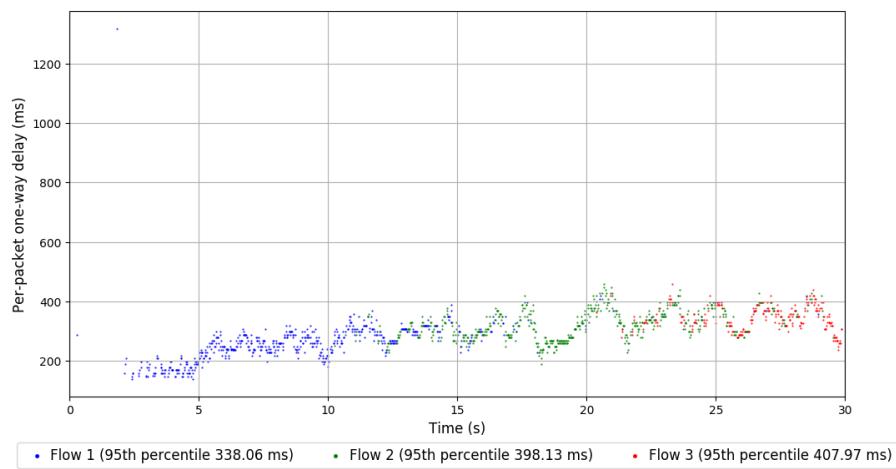
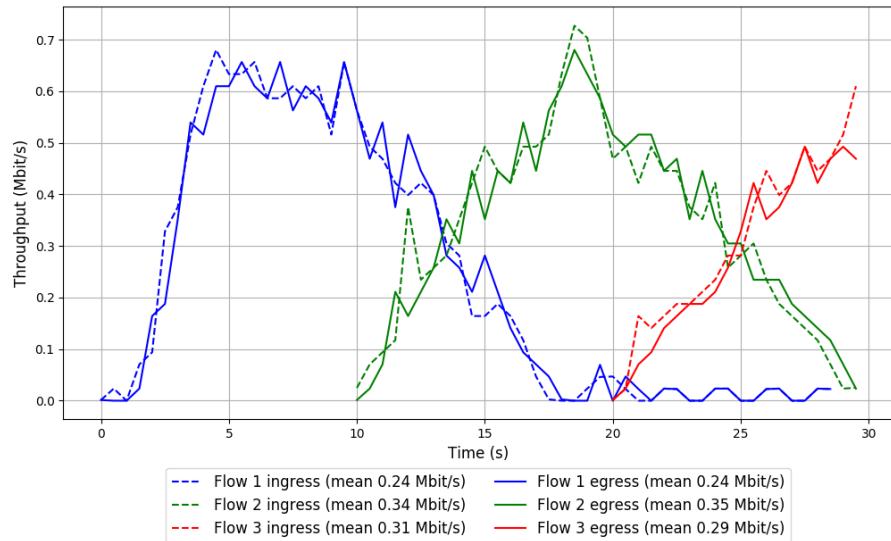


Run 3: Statistics of LEDBAT

```
Start at: 2018-02-13 12:03:36
End at: 2018-02-13 12:04:06
Local clock offset: -2.285 ms
Remote clock offset: -3.622 ms

# Below is generated by plot.py at 2018-02-13 13:14:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 397.947 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 338.063 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 398.131 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 407.972 ms
Loss rate: 7.75%
```

Run 3: Report of LEDBAT — Data Link

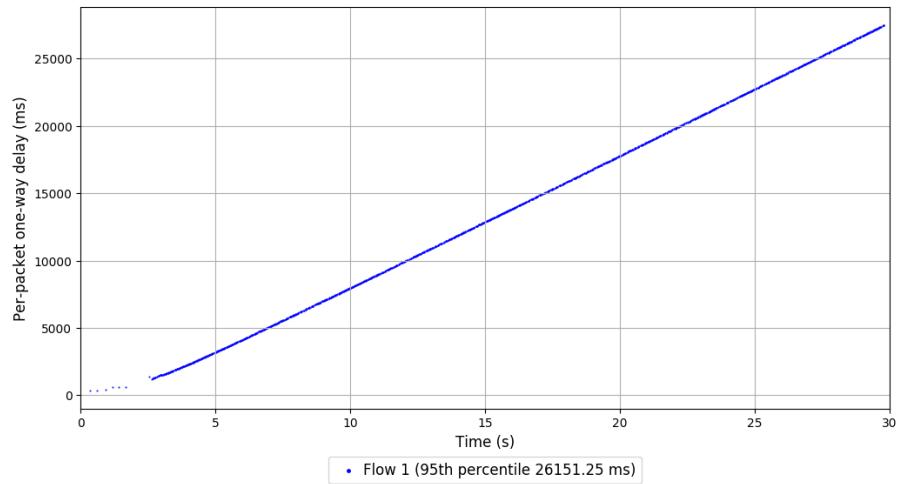
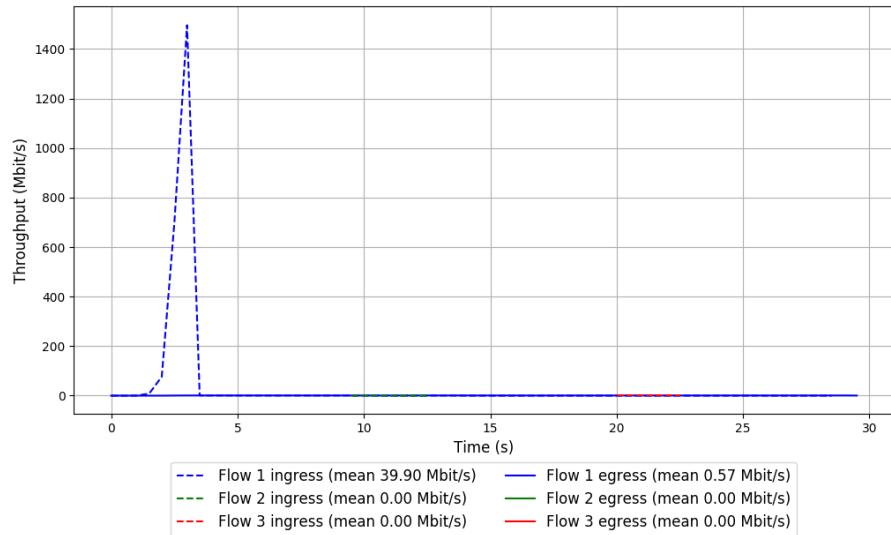


Run 1: Statistics of PCC

```
Start at: 2018-02-13 11:07:17
End at: 2018-02-13 11:07:47
Local clock offset: -8.398 ms
Remote clock offset: -4.242 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26151.249 ms
Loss rate: 98.54%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26151.249 ms
Loss rate: 98.54%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 1: Report of PCC — Data Link

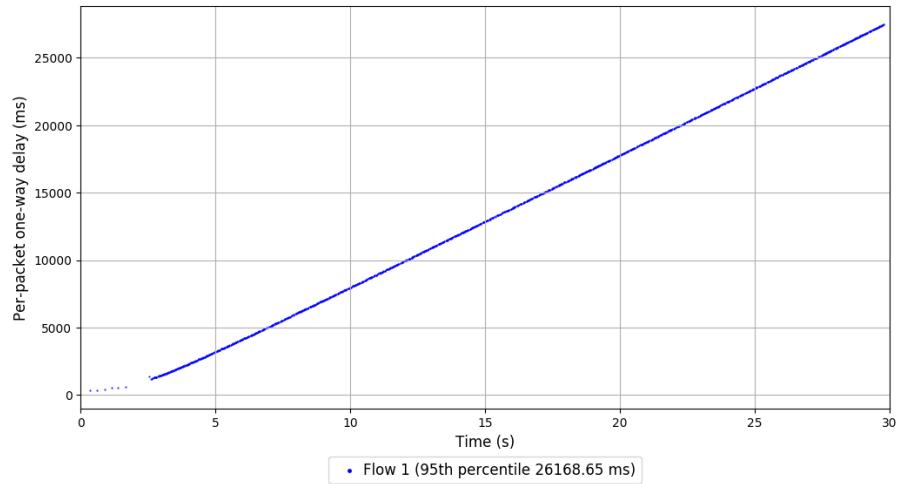
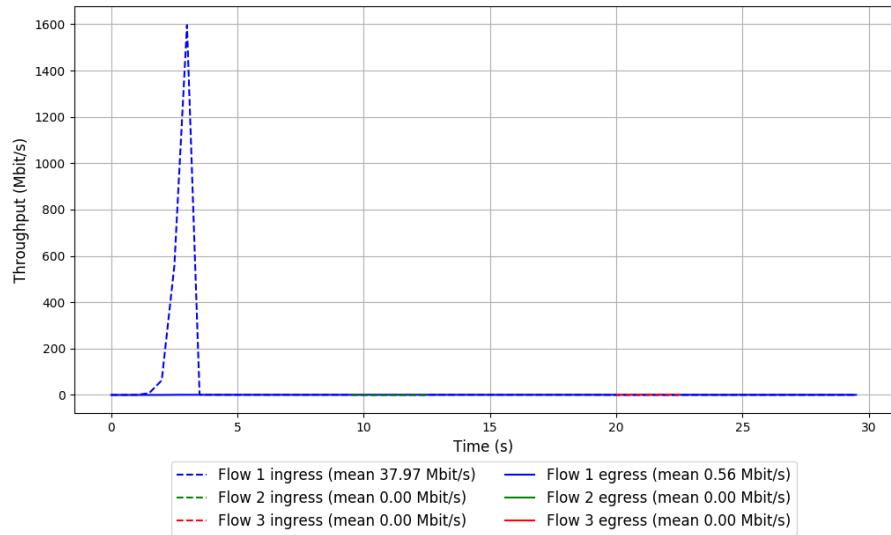


Run 2: Statistics of PCC

```
Start at: 2018-02-13 11:29:48
End at: 2018-02-13 11:30:18
Local clock offset: -8.502 ms
Remote clock offset: 1.48 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 26168.646 ms
Loss rate: 98.52%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 26168.646 ms
Loss rate: 98.52%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 2: Report of PCC — Data Link

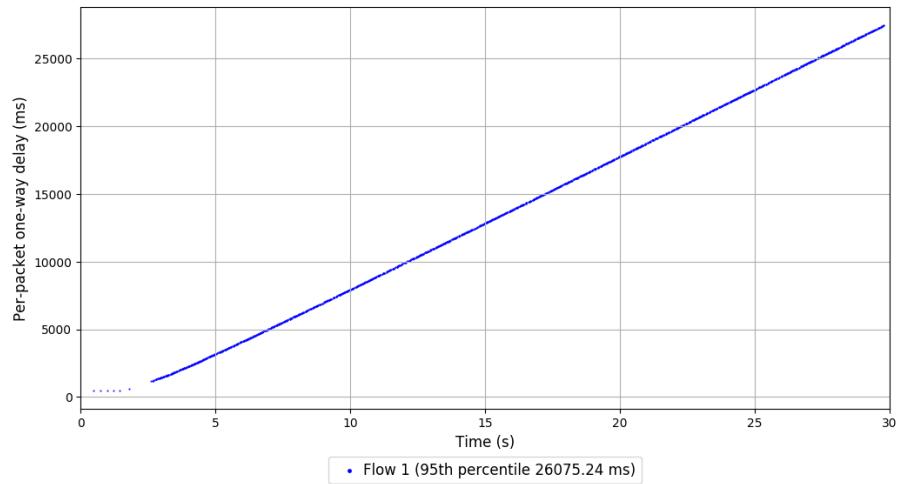
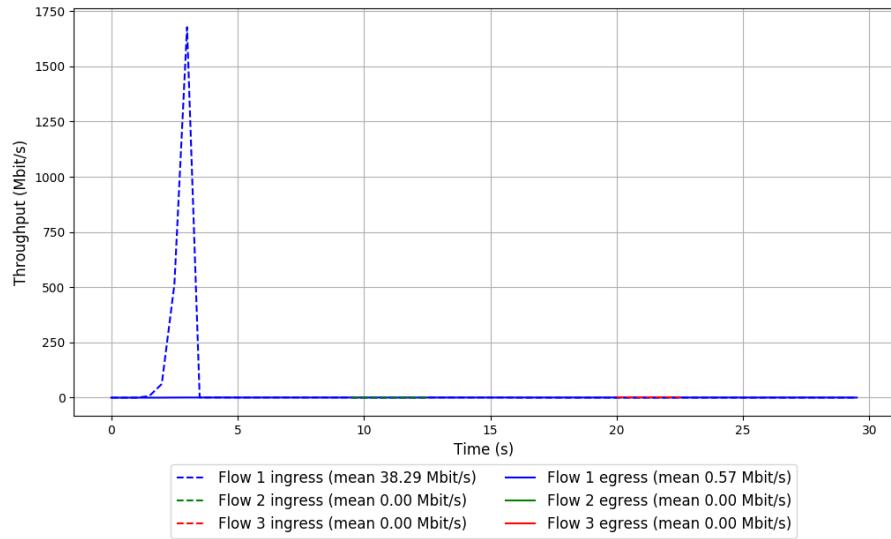


```
Run 3: Statistics of PCC
```

```
Start at: 2018-02-13 11:52:19
End at: 2018-02-13 11:52:49
Local clock offset: -3.197 ms
Remote clock offset: 1.226 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26075.235 ms
Loss rate: 98.54%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26075.235 ms
Loss rate: 98.54%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of PCC — Data Link

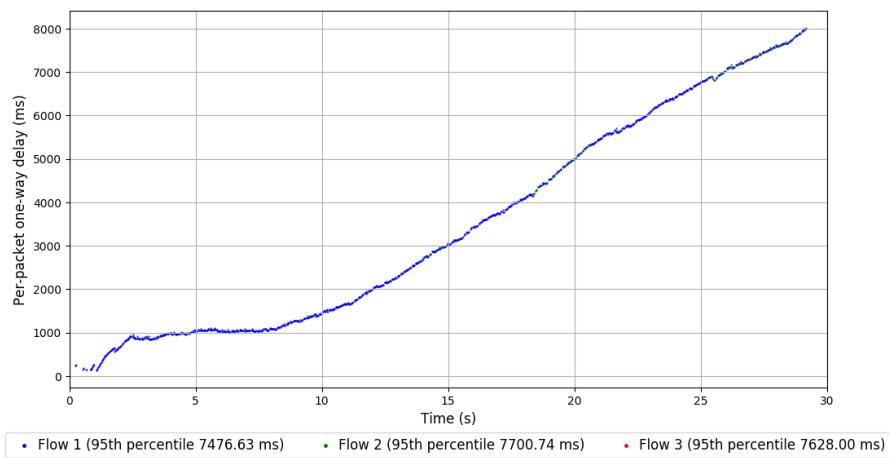
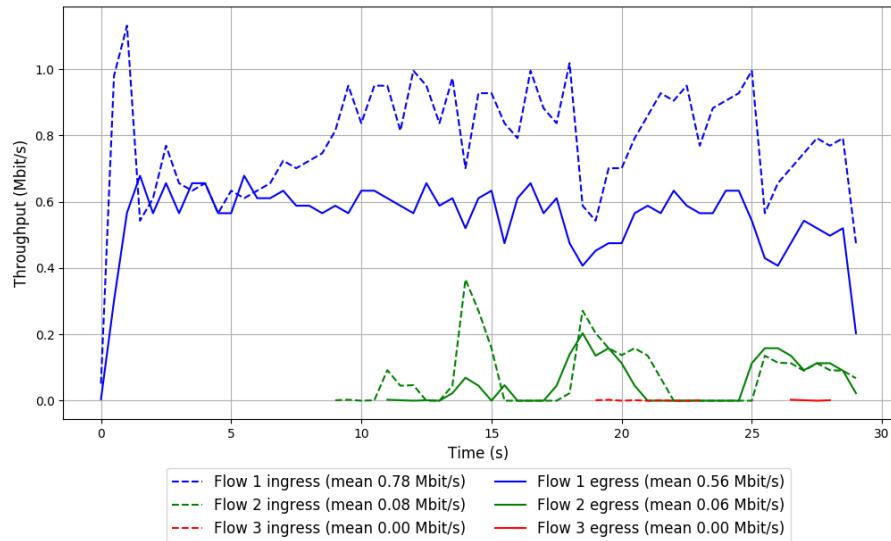


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-02-13 11:03:33
End at: 2018-02-13 11:04:03
Local clock offset: -8.742 ms
Remote clock offset: 1.373 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 7535.040 ms
Loss rate: 29.39%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 7476.632 ms
Loss rate: 29.19%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 7700.739 ms
Loss rate: 32.49%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7628.000 ms
Loss rate: 33.33%
```

Run 1: Report of QUIC Cubic — Data Link

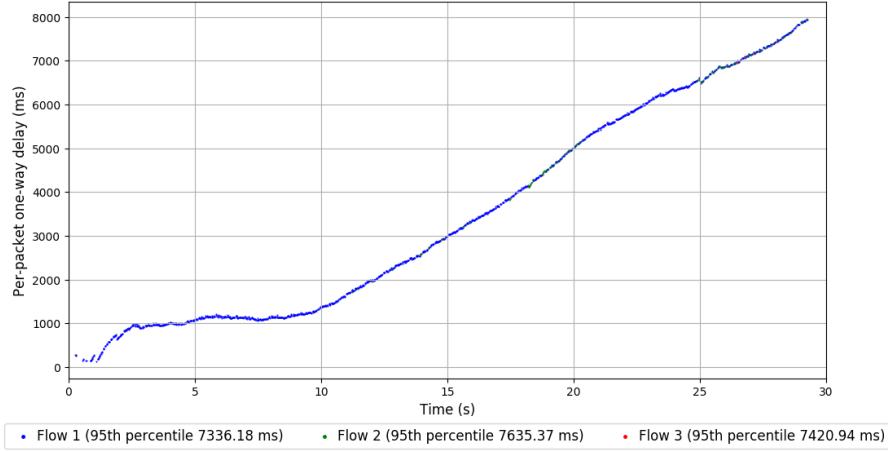
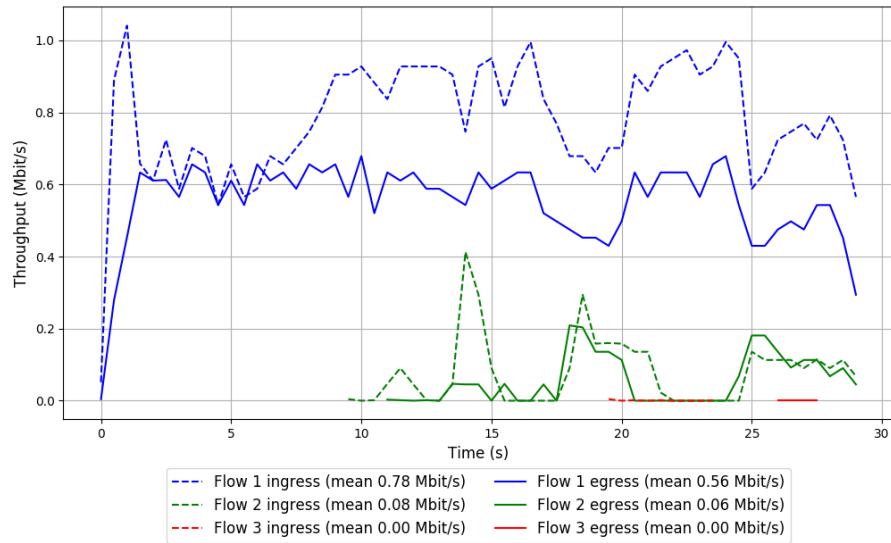


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-02-13 11:26:03
End at: 2018-02-13 11:26:33
Local clock offset: -8.343 ms
Remote clock offset: -4.049 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 7367.406 ms
Loss rate: 29.29%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 7336.182 ms
Loss rate: 29.08%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 7635.371 ms
Loss rate: 32.48%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7420.943 ms
Loss rate: 33.33%
```

Run 2: Report of QUIC Cubic — Data Link

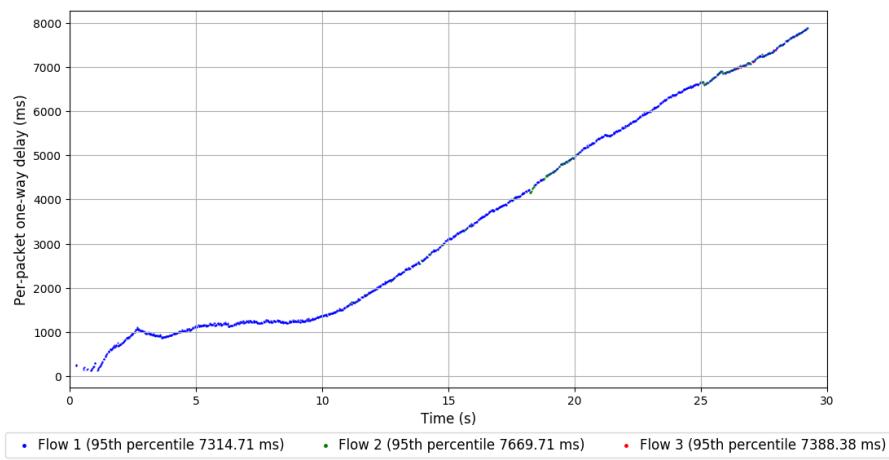
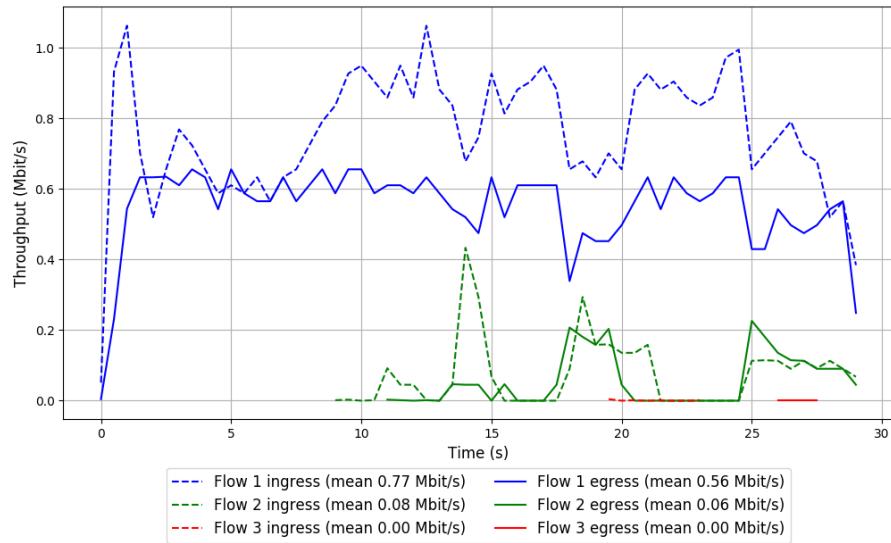


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-02-13 11:48:35
End at: 2018-02-13 11:49:05
Local clock offset: -3.776 ms
Remote clock offset: -3.67 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 7359.759 ms
Loss rate: 27.96%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 7314.708 ms
Loss rate: 27.75%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 7669.710 ms
Loss rate: 31.04%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 7388.377 ms
Loss rate: 33.33%
```

Run 3: Report of QUIC Cubic — Data Link

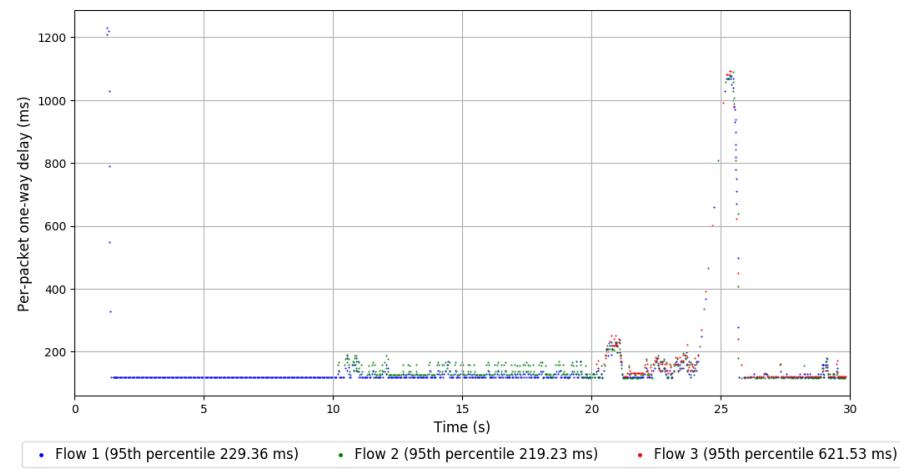
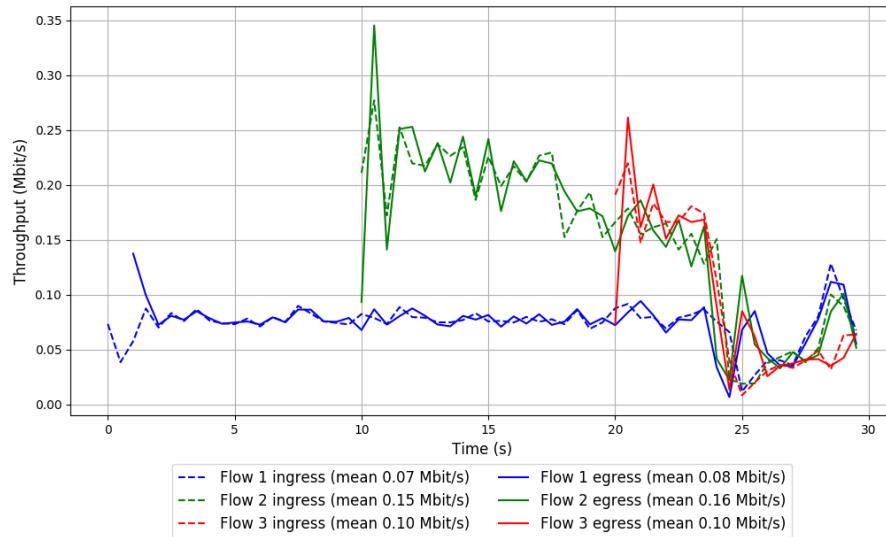


```
Run 1: Statistics of SCReAM
```

```
Start at: 2018-02-13 11:13:34
End at: 2018-02-13 11:14:04
Local clock offset: -8.208 ms
Remote clock offset: 1.447 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 241.878 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 229.362 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 219.234 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 621.532 ms
Loss rate: 1.60%
```

Run 1: Report of SCReAM — Data Link

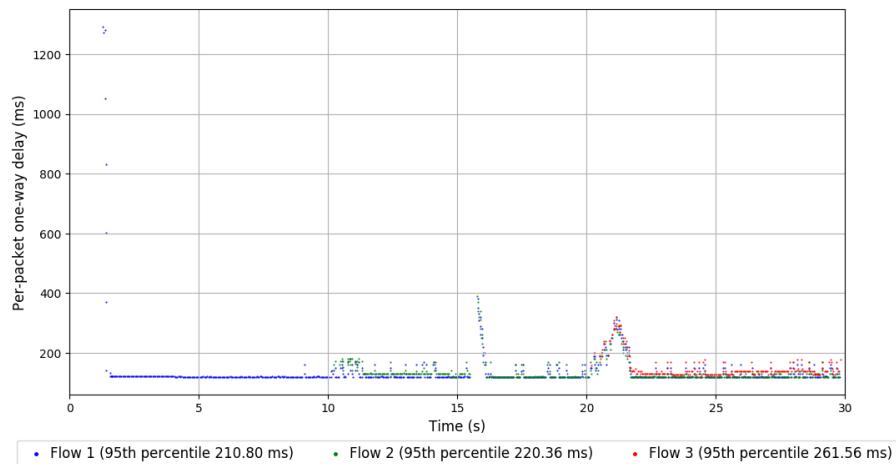
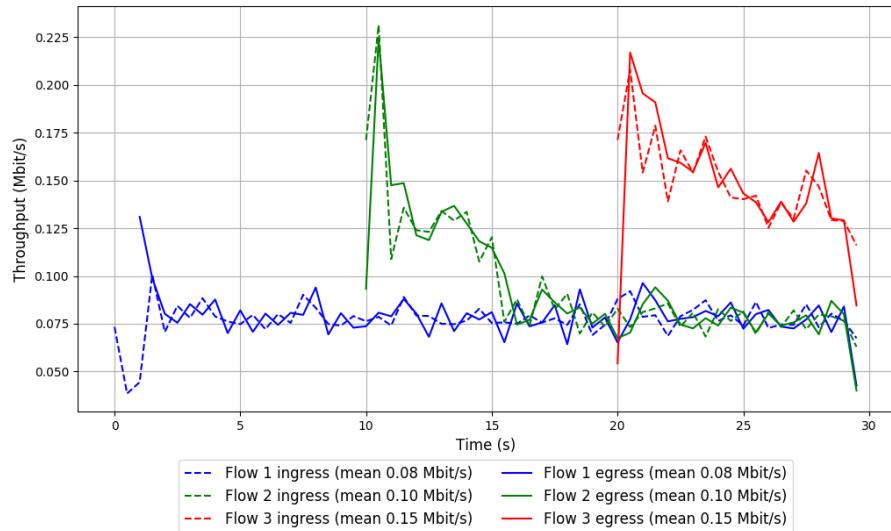


Run 2: Statistics of SCReAM

```
Start at: 2018-02-13 11:36:05
End at: 2018-02-13 11:36:35
Local clock offset: -7.843 ms
Remote clock offset: -3.511 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 230.435 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 210.803 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 220.356 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 261.563 ms
Loss rate: 2.10%
```

Run 2: Report of SCReAM — Data Link

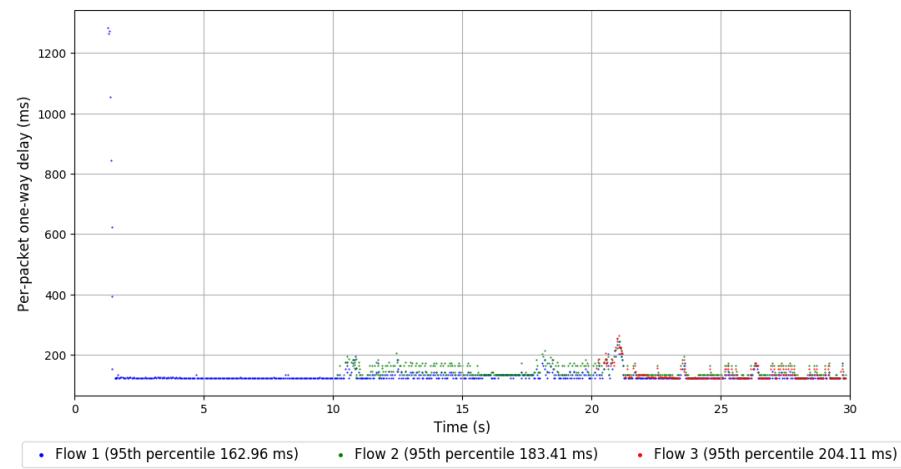
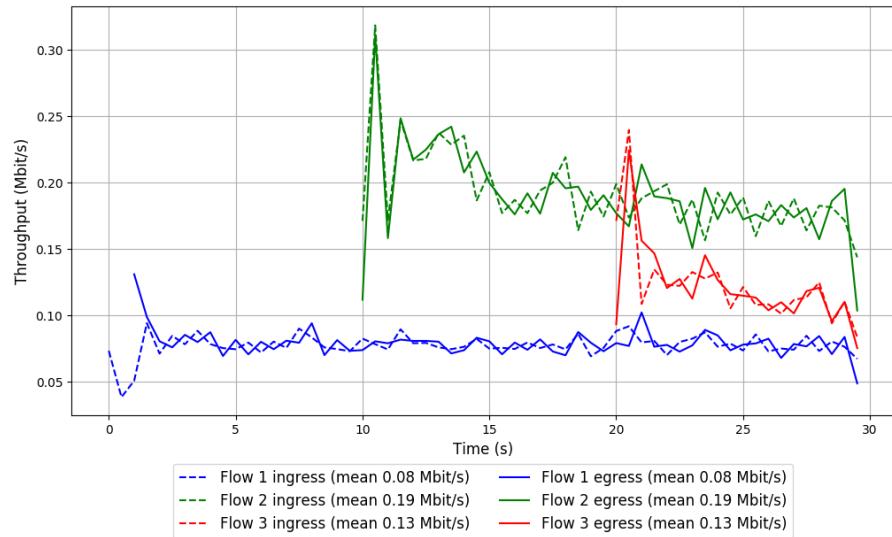


Run 3: Statistics of SCReAM

```
Start at: 2018-02-13 11:58:36
End at: 2018-02-13 11:59:06
Local clock offset: -2.596 ms
Remote clock offset: 1.172 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 182.766 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 162.957 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 183.406 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 204.110 ms
Loss rate: 1.66%
```

Run 3: Report of SCReAM — Data Link

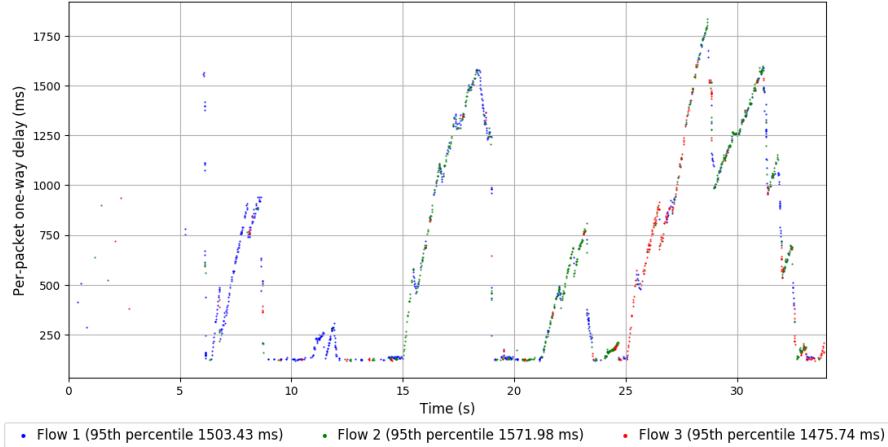
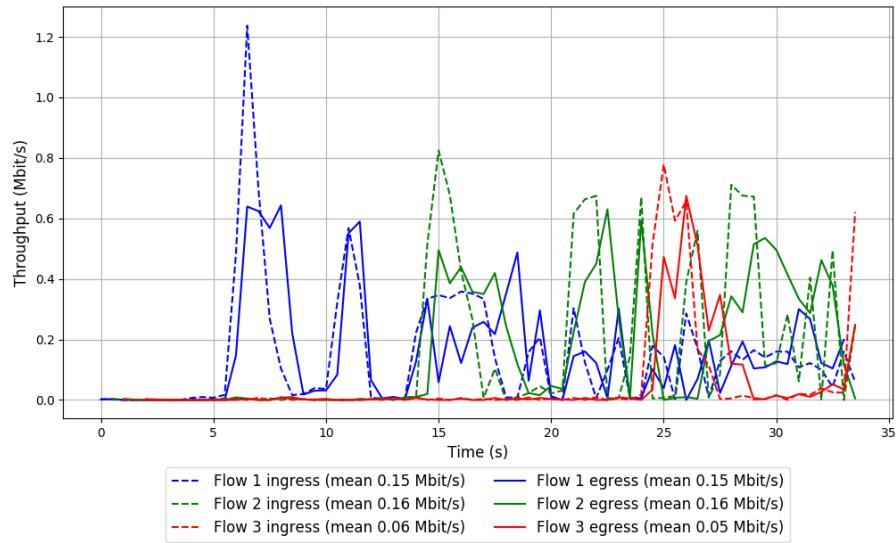


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-13 11:08:33
End at: 2018-02-13 11:09:03
Local clock offset: -8.269 ms
Remote clock offset: -4.206 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 1535.150 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1503.433 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 1571.984 ms
Loss rate: 2.25%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1475.736 ms
Loss rate: 10.02%
```

Run 1: Report of WebRTC media — Data Link

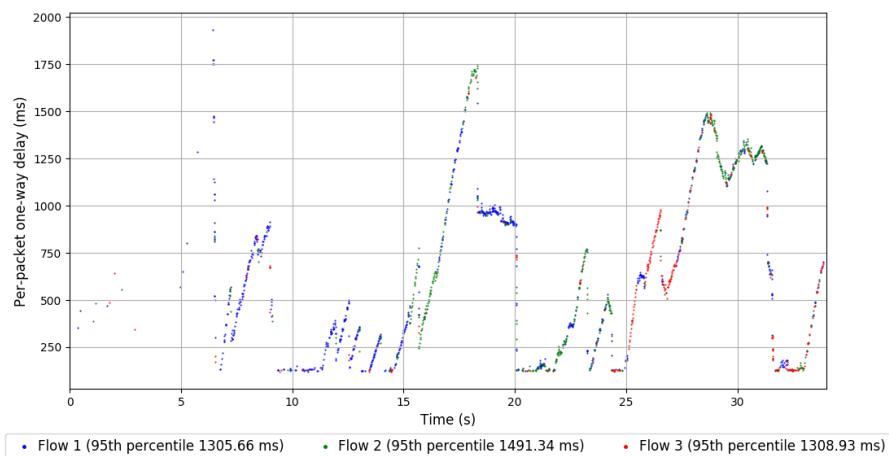
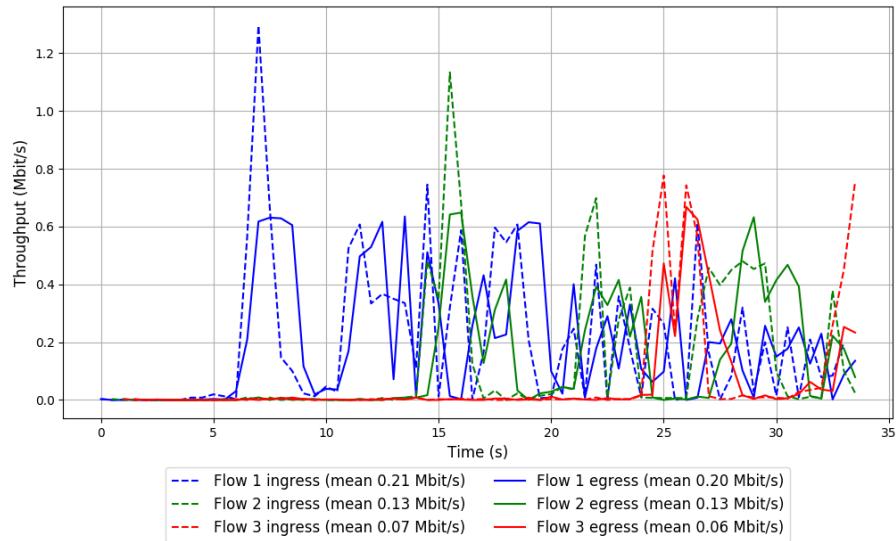


Run 2: Statistics of WebRTC media

```
Start at: 2018-02-13 11:31:04
End at: 2018-02-13 11:31:34
Local clock offset: -8.53 ms
Remote clock offset: -4.194 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1433.583 ms
Loss rate: 3.96%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 1305.663 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 1491.336 ms
Loss rate: 0.31%
-- Flow 3:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 1308.935 ms
Loss rate: 21.31%
```

Run 2: Report of WebRTC media — Data Link

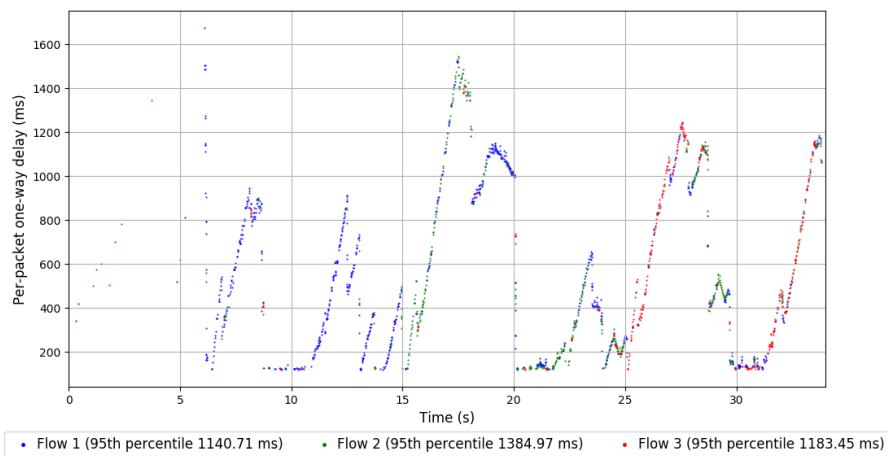
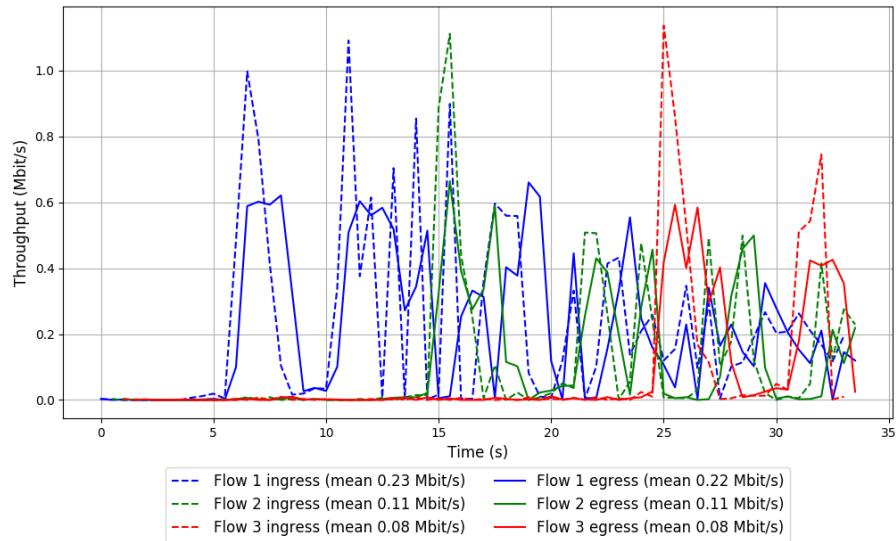


Run 3: Statistics of WebRTC media

```
Start at: 2018-02-13 11:53:36
End at: 2018-02-13 11:54:06
Local clock offset: -3.138 ms
Remote clock offset: -3.626 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 1186.635 ms
Loss rate: 2.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1140.715 ms
Loss rate: 1.42%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 1384.973 ms
Loss rate: 7.06%
-- Flow 3:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 1183.449 ms
Loss rate: 0.20%
```

Run 3: Report of WebRTC media — Data Link

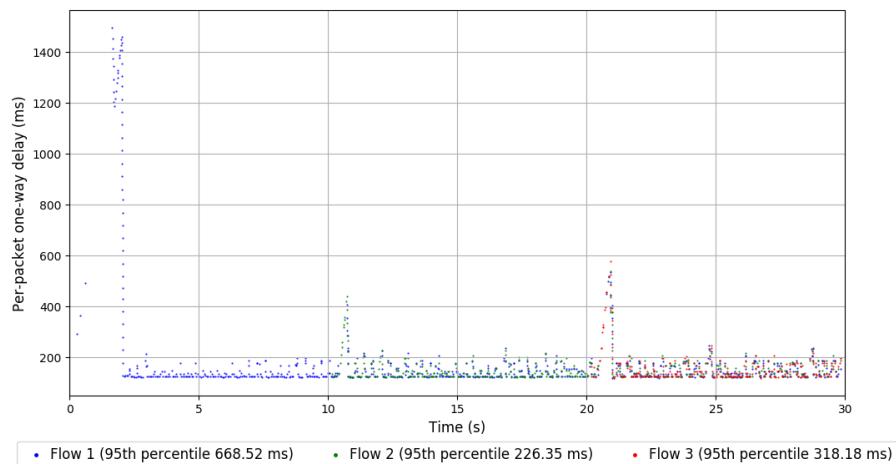
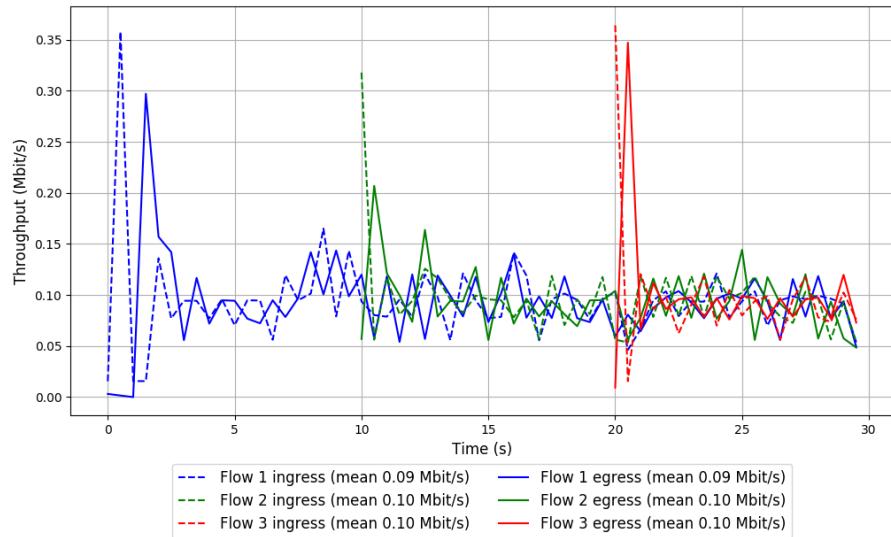


Run 1: Statistics of Sprout

```
Start at: 2018-02-13 11:19:48
End at: 2018-02-13 11:20:18
Local clock offset: -8.198 ms
Remote clock offset: -3.25 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 378.535 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 668.518 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 226.352 ms
Loss rate: 2.92%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 318.184 ms
Loss rate: 1.32%
```

Run 1: Report of Sprout — Data Link

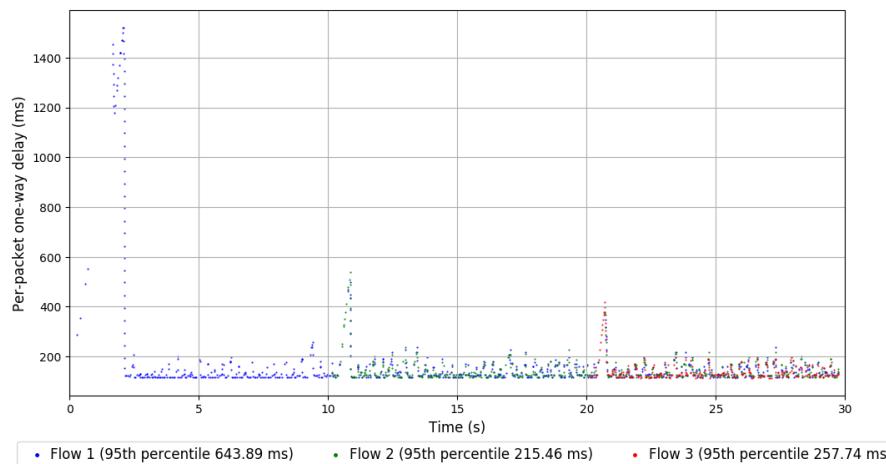
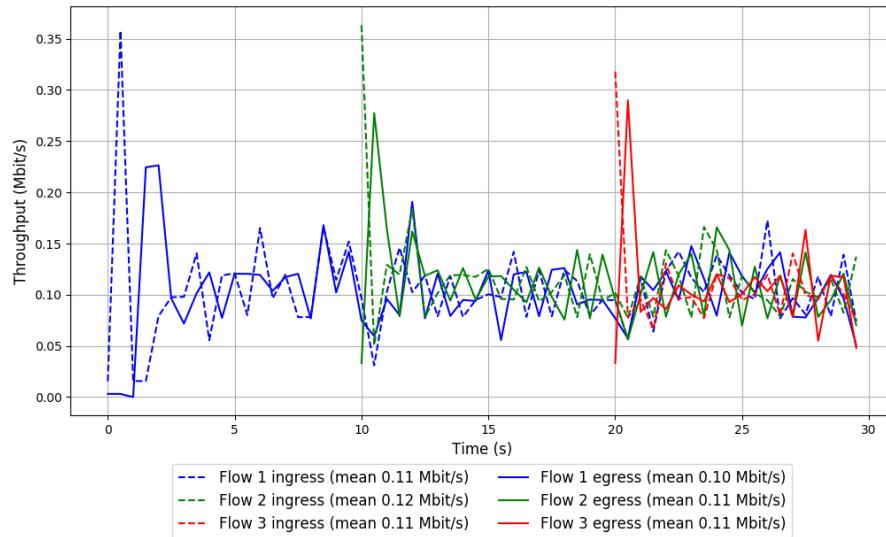


Run 2: Statistics of Sprout

```
Start at: 2018-02-13 11:42:20
End at: 2018-02-13 11:42:50
Local clock offset: -5.125 ms
Remote clock offset: 1.17 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 328.801 ms
Loss rate: 2.49%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 643.895 ms
Loss rate: 1.50%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 215.455 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 257.735 ms
Loss rate: 4.28%
```

Run 2: Report of Sprout — Data Link

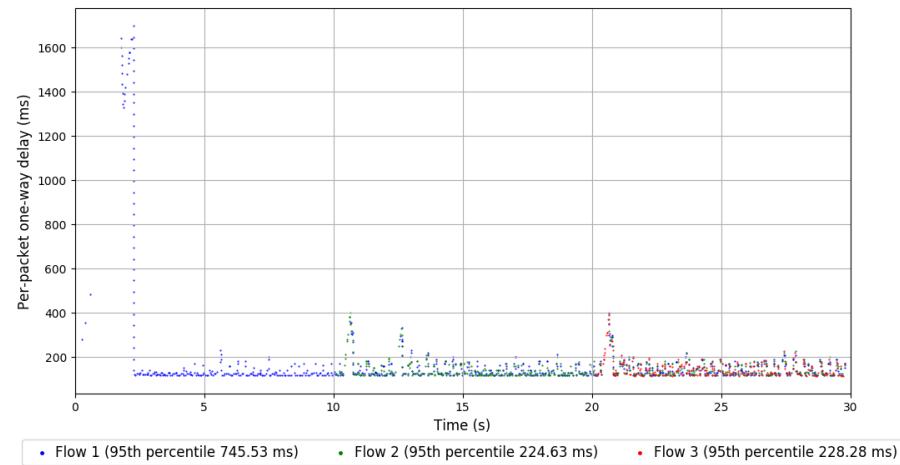
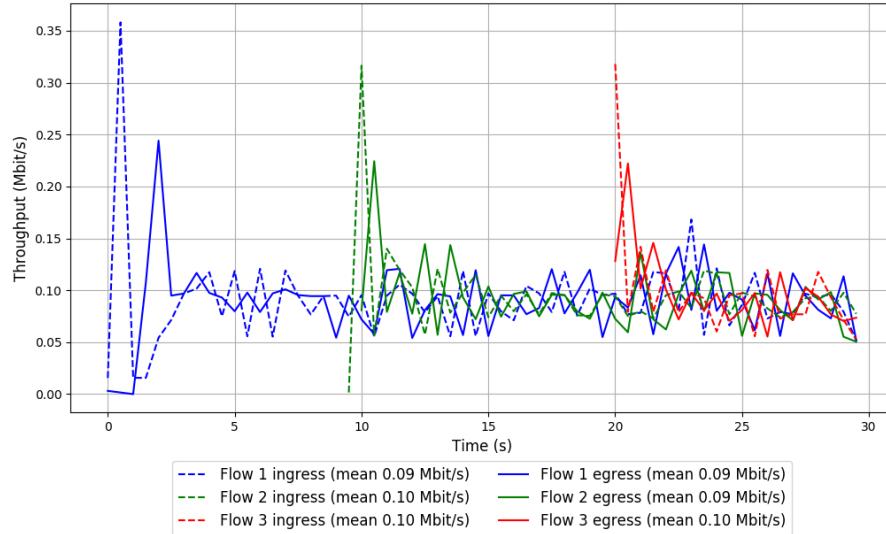


Run 3: Statistics of Sprout

```
Start at: 2018-02-13 12:04:51
End at: 2018-02-13 12:05:21
Local clock offset: -2.188 ms
Remote clock offset: 0.264 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 298.840 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 745.533 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 224.630 ms
Loss rate: 3.58%
-- Flow 3:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 228.278 ms
Loss rate: 2.08%
```

Run 3: Report of Sprout — Data Link

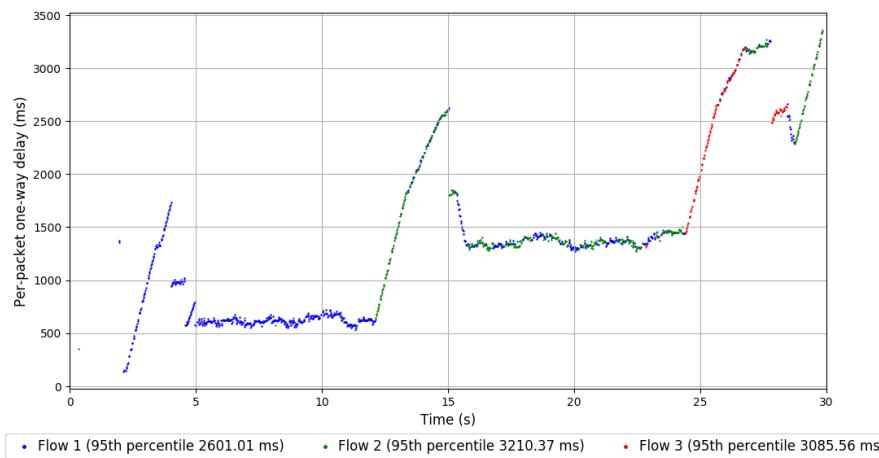
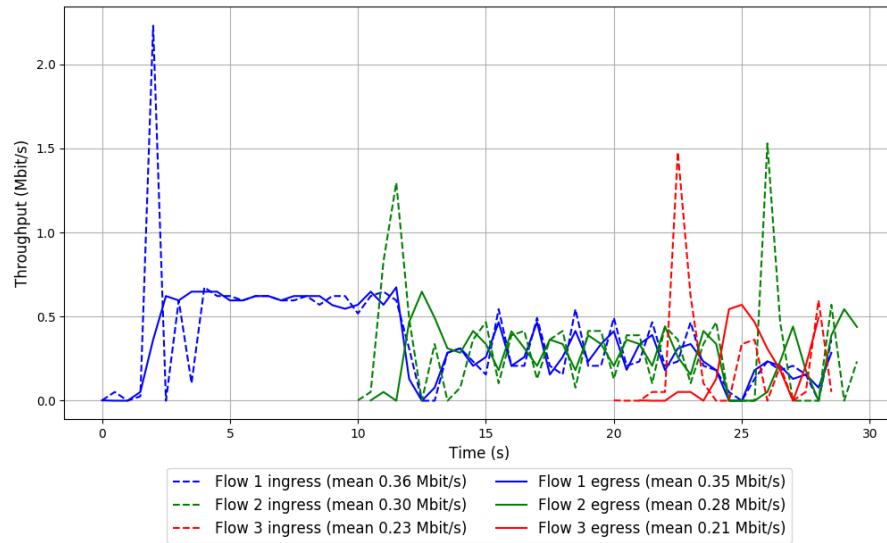


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-02-13 11:01:03
End at: 2018-02-13 11:01:33
Local clock offset: -9.04 ms
Remote clock offset: 2.064 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 3132.647 ms
Loss rate: 8.78%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 2601.014 ms
Loss rate: 4.35%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 3210.373 ms
Loss rate: 11.74%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 3085.556 ms
Loss rate: 23.17%
```

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

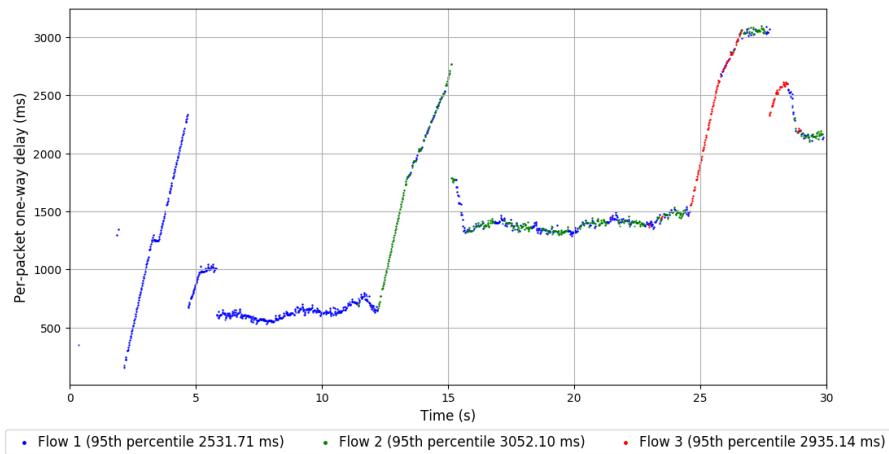
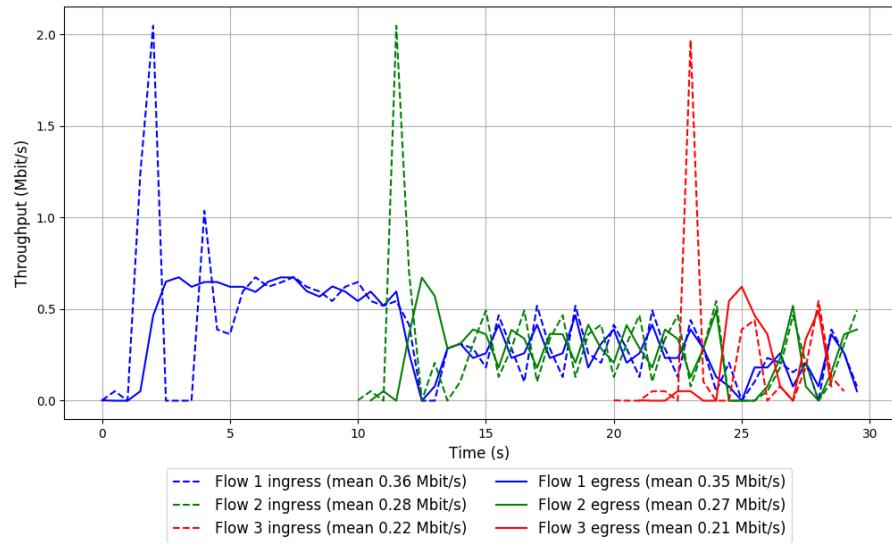


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-02-13 11:23:33
End at: 2018-02-13 11:24:03
Local clock offset: -8.276 ms
Remote clock offset: -3.193 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 2871.929 ms
Loss rate: 7.33%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 2531.708 ms
Loss rate: 4.08%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 3052.098 ms
Loss rate: 8.12%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 2935.138 ms
Loss rate: 22.72%
```

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

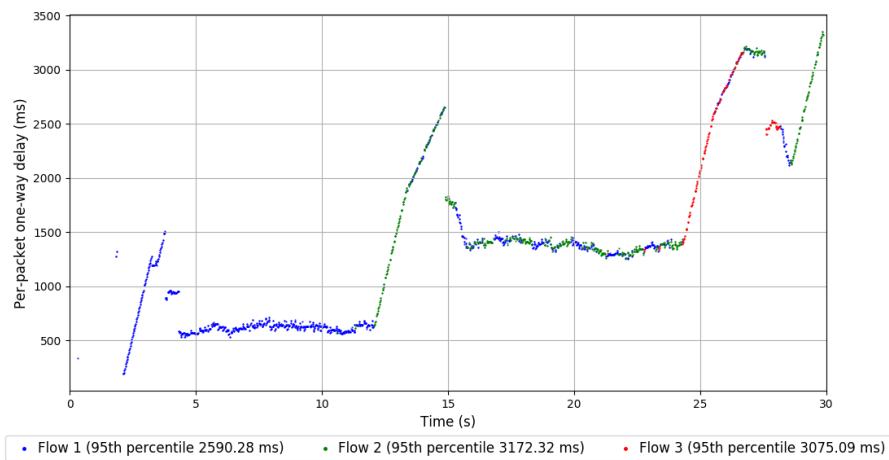
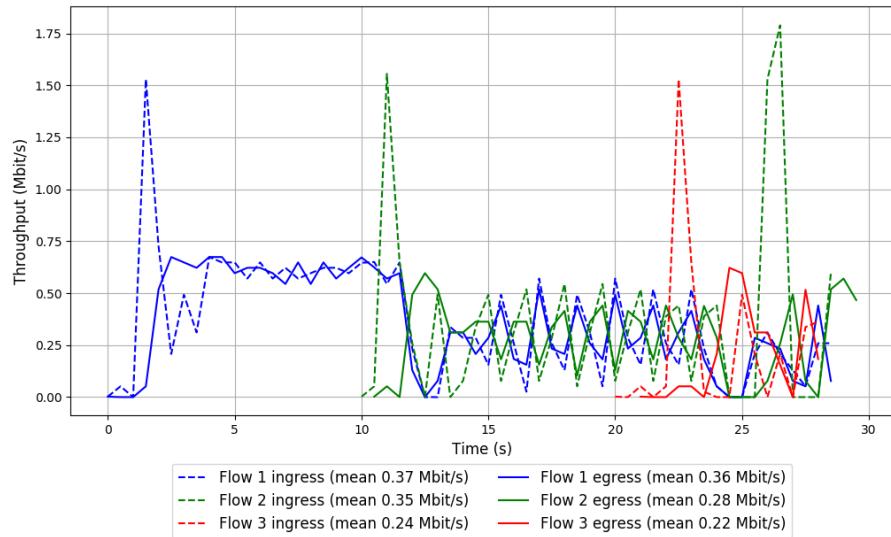


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-02-13 11:46:06
End at: 2018-02-13 11:46:36
Local clock offset: -4.164 ms
Remote clock offset: 1.205 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 3082.311 ms
Loss rate: 10.99%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 2590.281 ms
Loss rate: 4.51%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 3172.320 ms
Loss rate: 17.77%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3075.091 ms
Loss rate: 23.17%
```

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

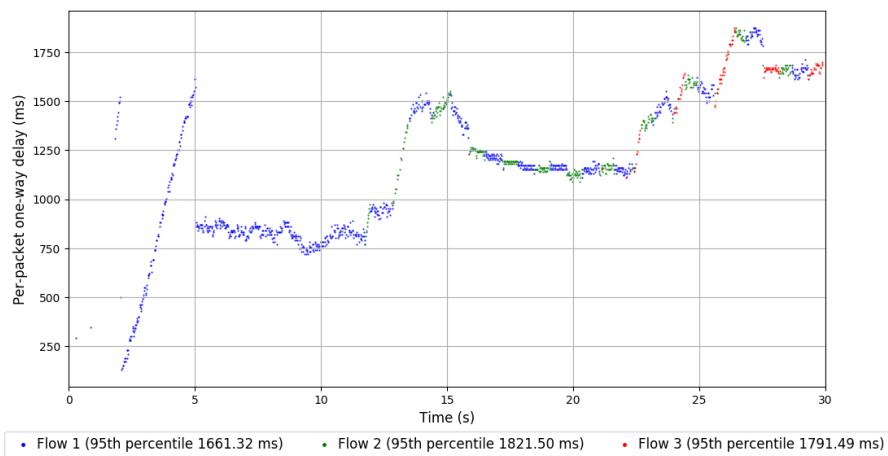
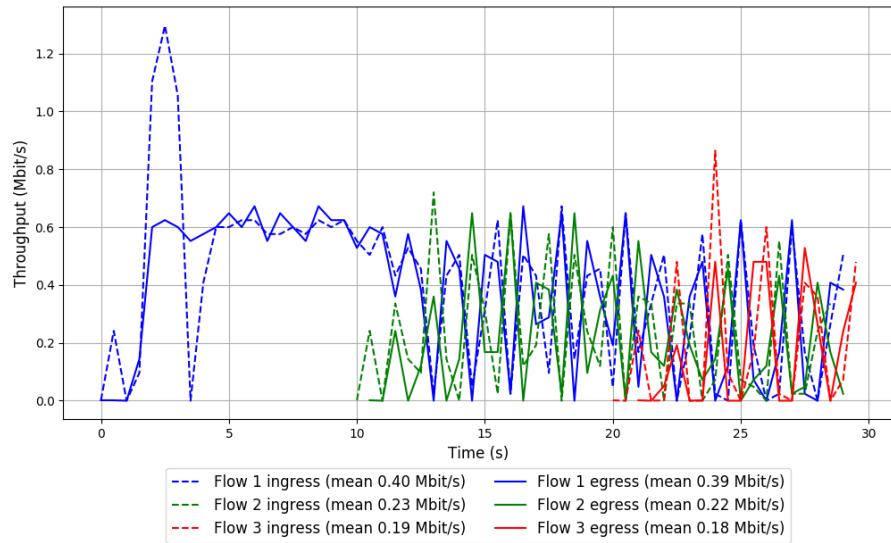


Run 1: Statistics of TCP Vegas

```
Start at: 2018-02-13 11:02:18
End at: 2018-02-13 11:02:48
Local clock offset: -8.817 ms
Remote clock offset: -3.52 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1741.720 ms
Loss rate: 5.59%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 1661.323 ms
Loss rate: 3.27%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1821.504 ms
Loss rate: 6.57%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 1791.493 ms
Loss rate: 17.69%
```

Run 1: Report of TCP Vegas — Data Link

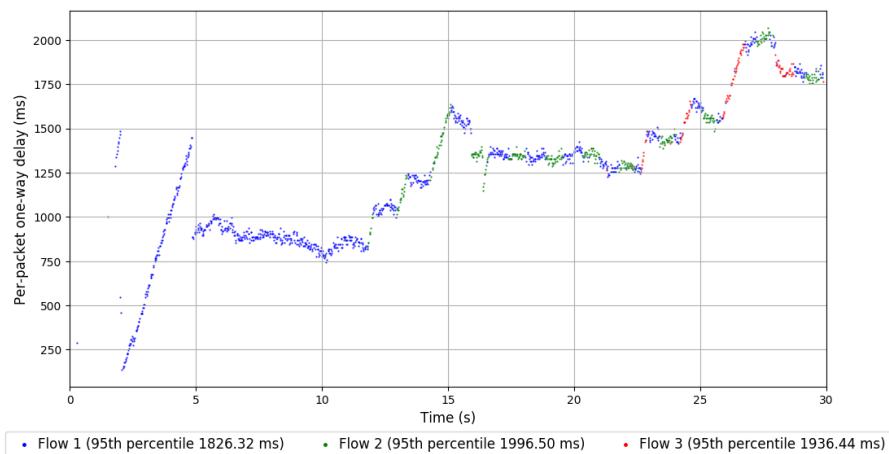
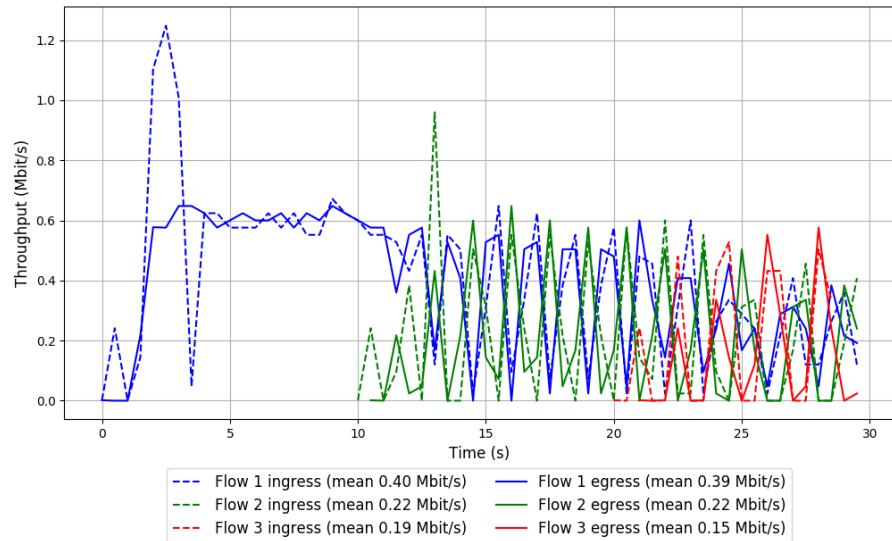


Run 2: Statistics of TCP Vegas

```
Start at: 2018-02-13 11:24:48
End at: 2018-02-13 11:25:18
Local clock offset: -8.326 ms
Remote clock offset: 0.741 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1916.391 ms
Loss rate: 6.08%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 1826.317 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1996.504 ms
Loss rate: 6.85%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 1936.442 ms
Loss rate: 24.07%
```

Run 2: Report of TCP Vegas — Data Link

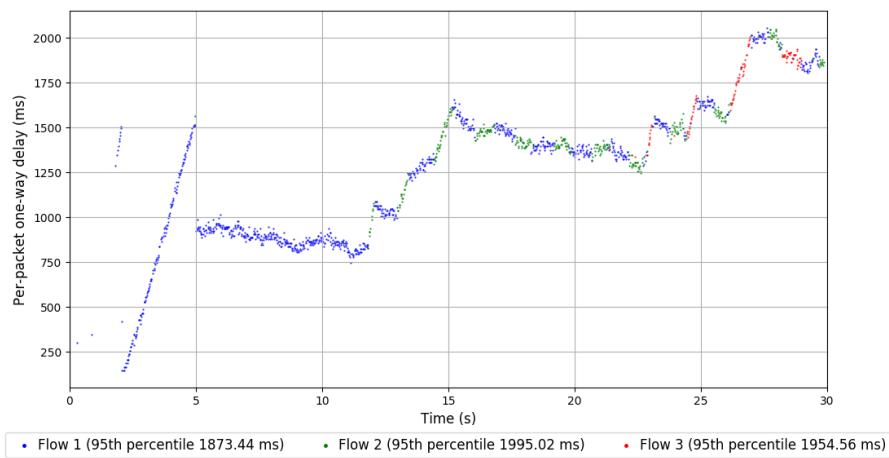
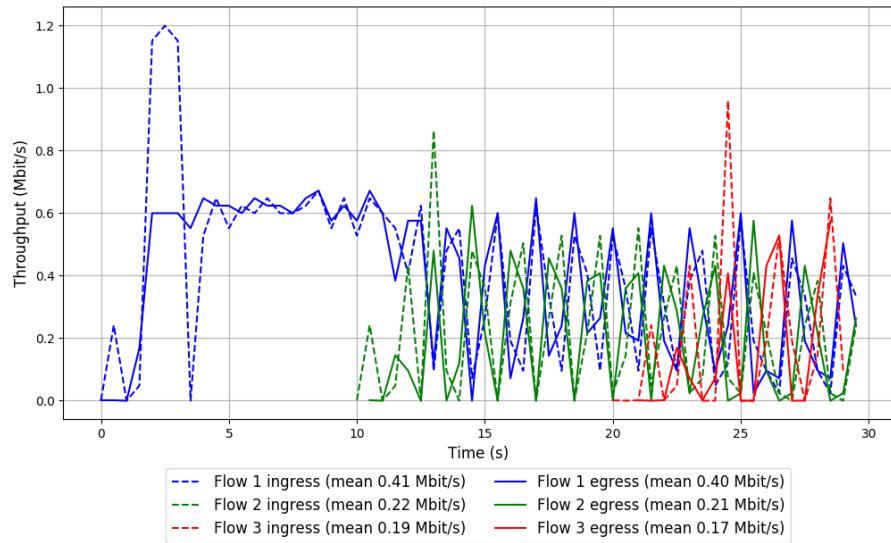


Run 3: Statistics of TCP Vegas

```
Start at: 2018-02-13 11:47:20
End at: 2018-02-13 11:47:50
Local clock offset: -4.042 ms
Remote clock offset: -3.591 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1933.760 ms
Loss rate: 6.51%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 1873.438 ms
Loss rate: 3.63%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 1995.020 ms
Loss rate: 6.98%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 1954.563 ms
Loss rate: 25.47%
```

Run 3: Report of TCP Vegas — Data Link

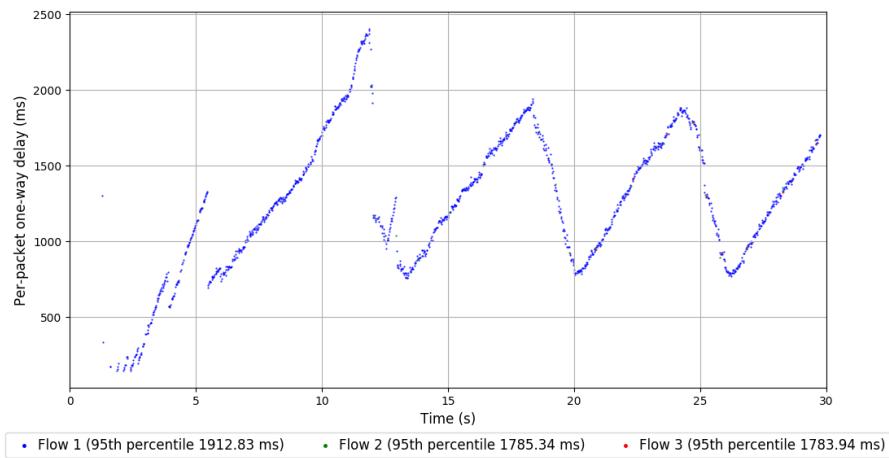
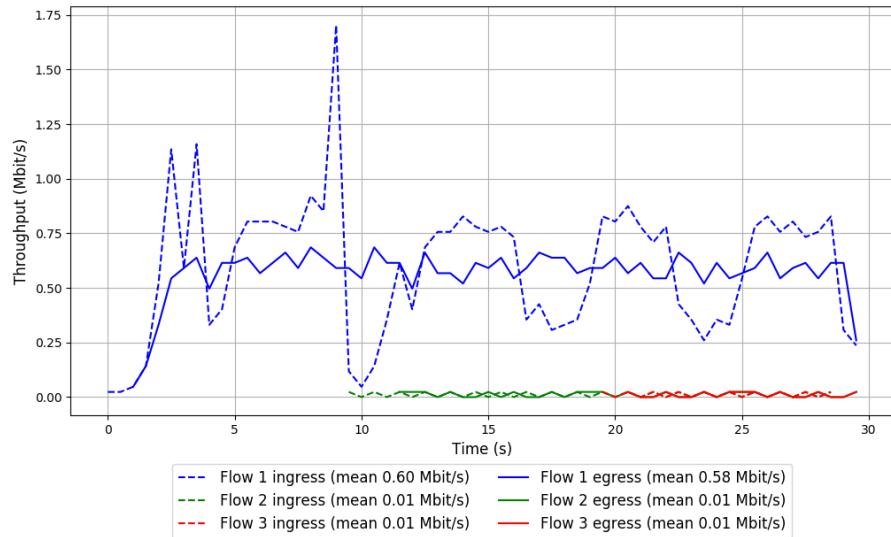


Run 1: Statistics of Verus

```
Start at: 2018-02-13 11:06:02
End at: 2018-02-13 11:06:32
Local clock offset: -8.411 ms
Remote clock offset: -4.35 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1912.830 ms
Loss rate: 7.29%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1912.830 ms
Loss rate: 7.30%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1785.343 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1783.936 ms
Loss rate: 10.00%
```

Run 1: Report of Verus — Data Link

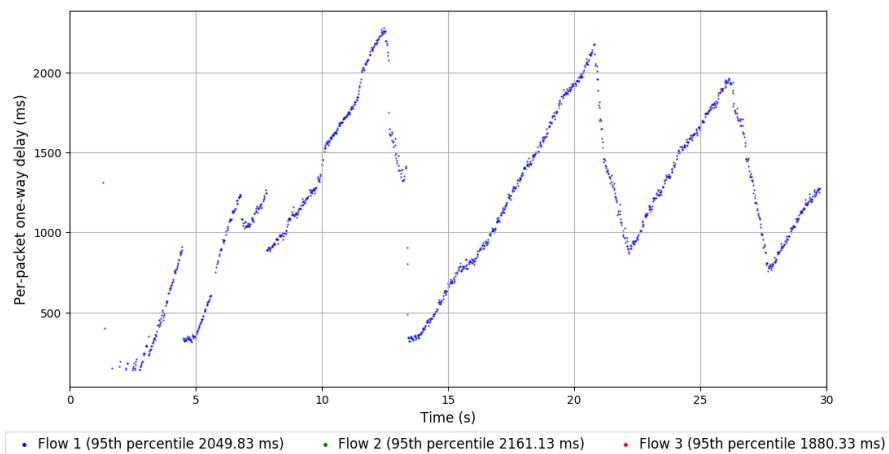
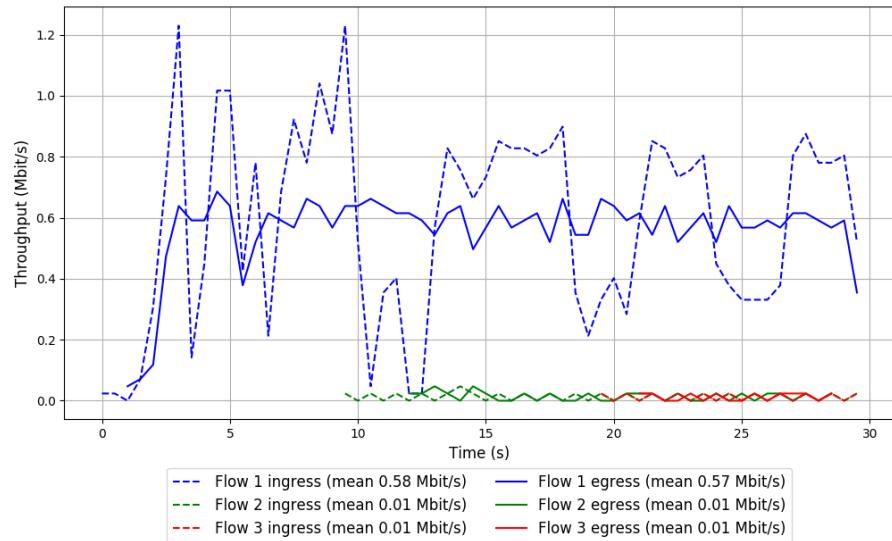


Run 2: Statistics of Verus

```
Start at: 2018-02-13 11:28:33
End at: 2018-02-13 11:29:03
Local clock offset: -8.507 ms
Remote clock offset: 2.352 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 2054.494 ms
Loss rate: 6.77%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 2049.833 ms
Loss rate: 6.65%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2161.132 ms
Loss rate: 8.70%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1880.332 ms
Loss rate: 18.18%
```

Run 2: Report of Verus — Data Link

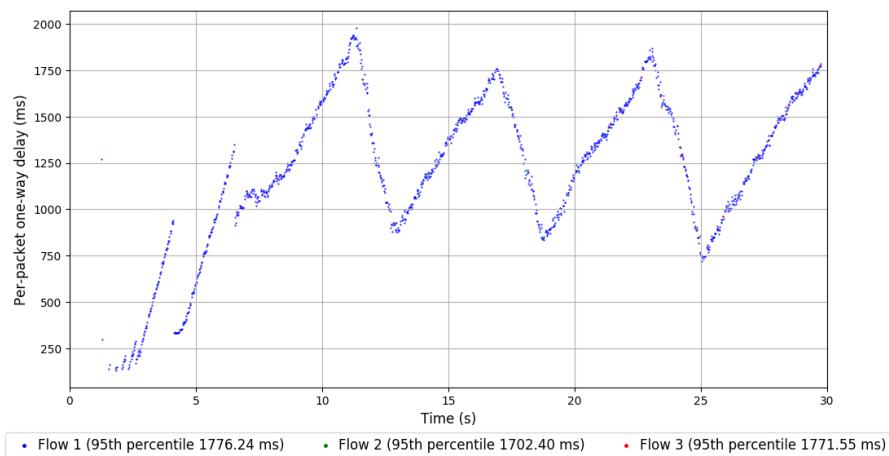
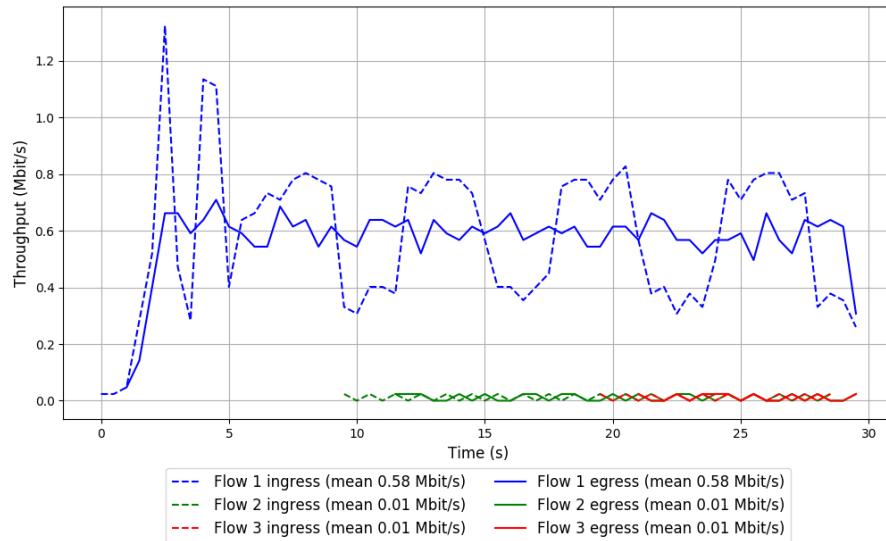


Run 3: Statistics of Verus

```
Start at: 2018-02-13 11:51:04
End at: 2018-02-13 11:51:34
Local clock offset: -3.346 ms
Remote clock offset: 0.359 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1771.547 ms
Loss rate: 3.88%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1776.245 ms
Loss rate: 3.83%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1702.404 ms
Loss rate: 5.00%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1771.547 ms
Loss rate: 10.00%
```

Run 3: Report of Verus — Data Link

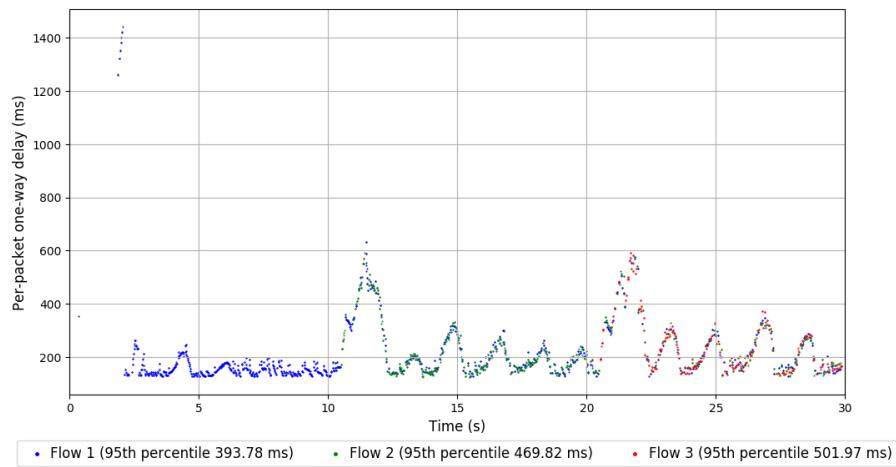
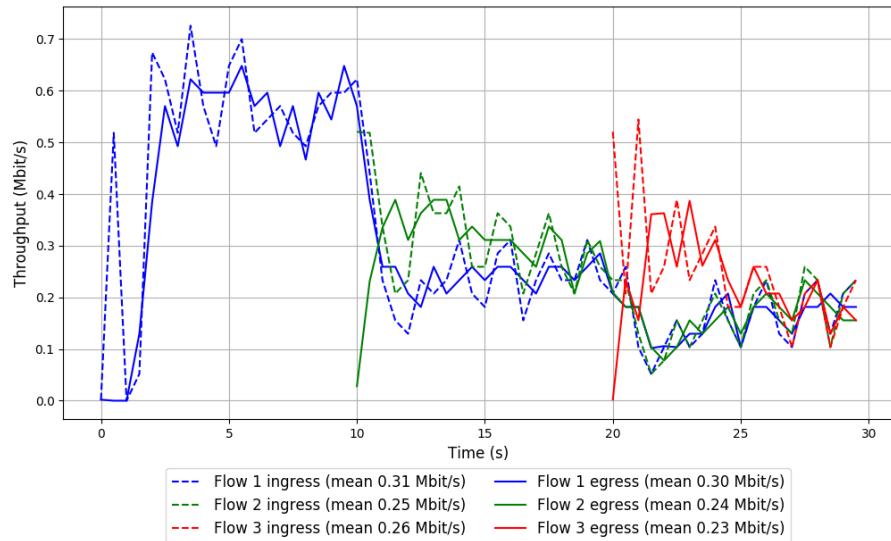


Run 1: Statistics of Copa

```
Start at: 2018-02-13 11:21:03
End at: 2018-02-13 11:21:33
Local clock offset: -8.208 ms
Remote clock offset: 1.567 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 457.653 ms
Loss rate: 6.07%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 393.778 ms
Loss rate: 4.24%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 469.820 ms
Loss rate: 6.08%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 501.970 ms
Loss rate: 12.69%
```

Run 1: Report of Copa — Data Link

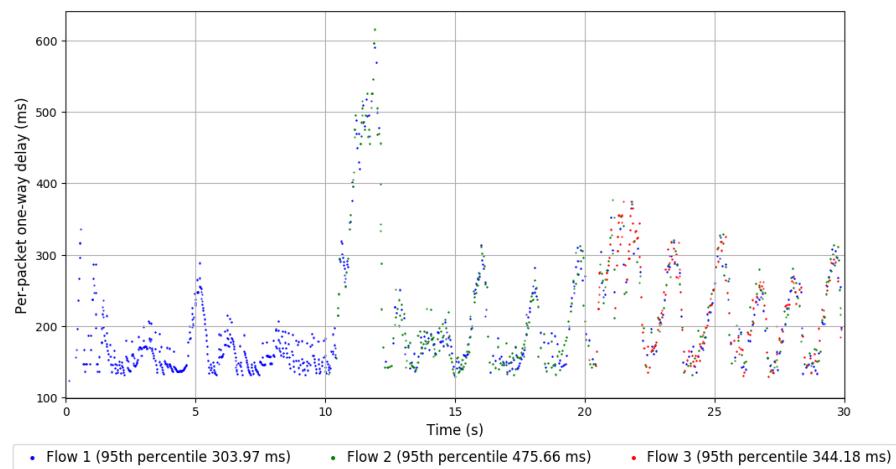
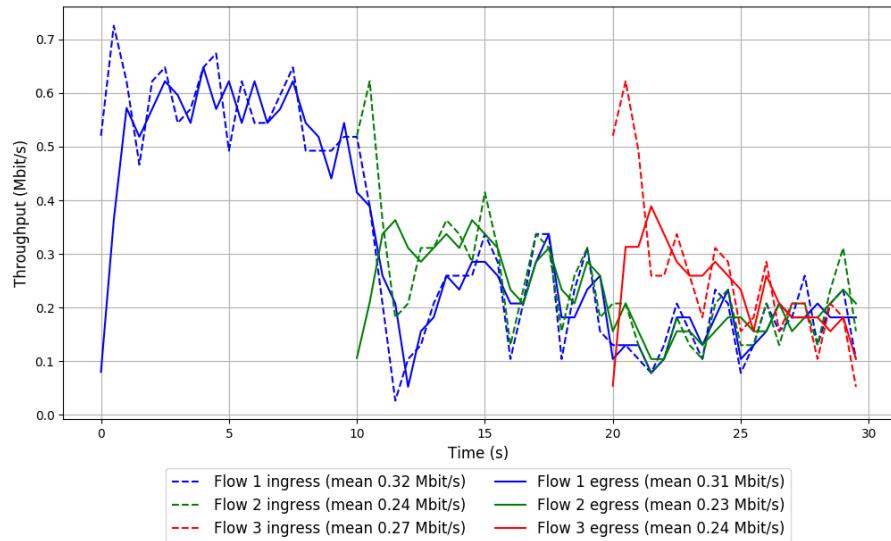


Run 2: Statistics of Copa

```
Start at: 2018-02-13 11:43:35
End at: 2018-02-13 11:44:05
Local clock offset: -4.759 ms
Remote clock offset: -4.395 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 351.961 ms
Loss rate: 5.80%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 303.973 ms
Loss rate: 3.73%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 475.659 ms
Loss rate: 6.21%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 344.177 ms
Loss rate: 12.73%
```

Run 2: Report of Copa — Data Link

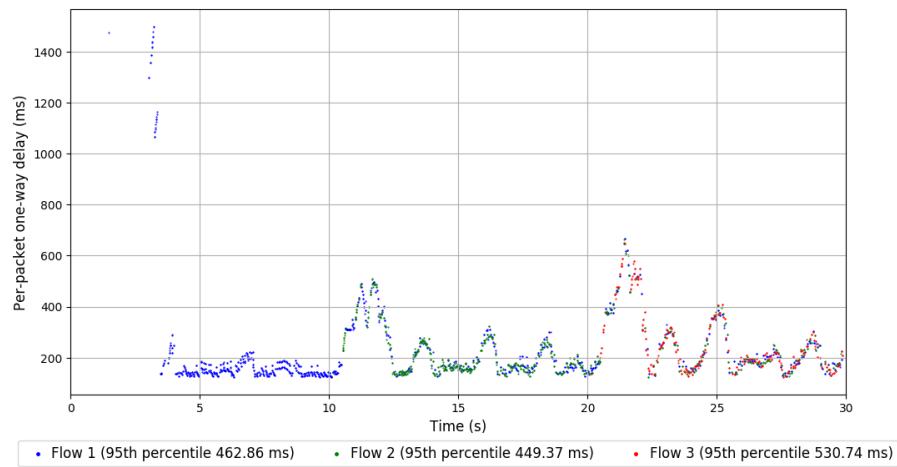
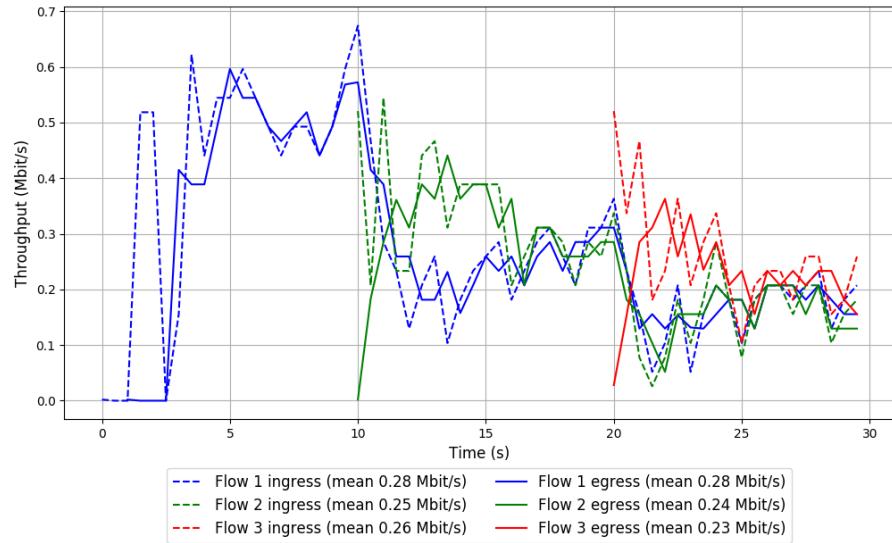


Run 3: Statistics of Copa

```
Start at: 2018-02-13 12:06:06
End at: 2018-02-13 12:06:36
Local clock offset: -2.152 ms
Remote clock offset: 1.165 ms

# Below is generated by plot.py at 2018-02-13 13:15:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 487.522 ms
Loss rate: 7.43%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 462.860 ms
Loss rate: 6.29%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 449.370 ms
Loss rate: 6.48%
-- Flow 3:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 530.736 ms
Loss rate: 12.97%
```

Run 3: Report of Copa — Data Link

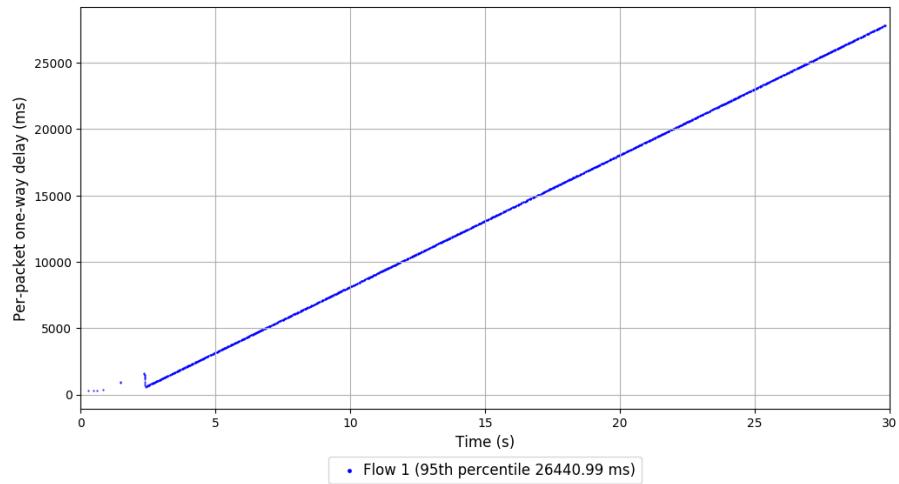
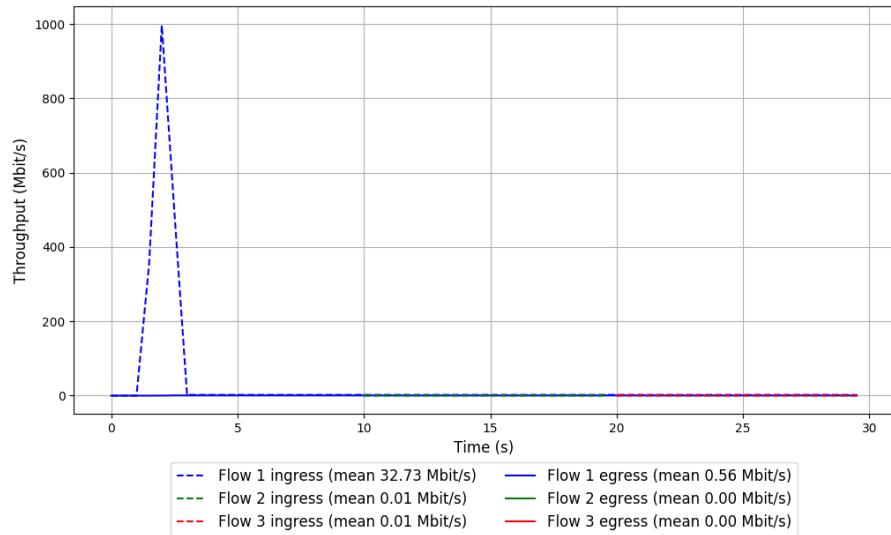


```
Run 1: Statistics of FillP
```

```
Start at: 2018-02-13 11:09:48
End at: 2018-02-13 11:10:18
Local clock offset: -8.223 ms
Remote clock offset: 2.227 ms

# Below is generated by plot.py at 2018-02-13 13:15:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 26440.985 ms
Loss rate: 98.30%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 26440.985 ms
Loss rate: 98.30%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 1: Report of FillP — Data Link

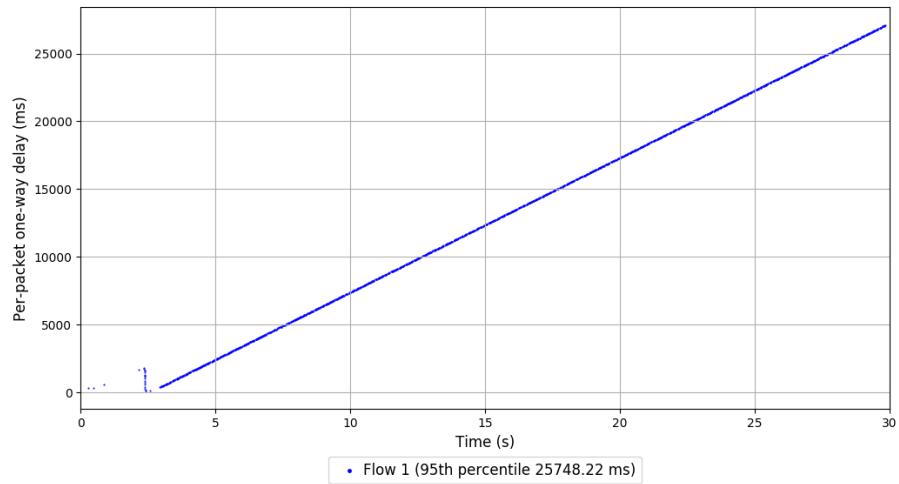
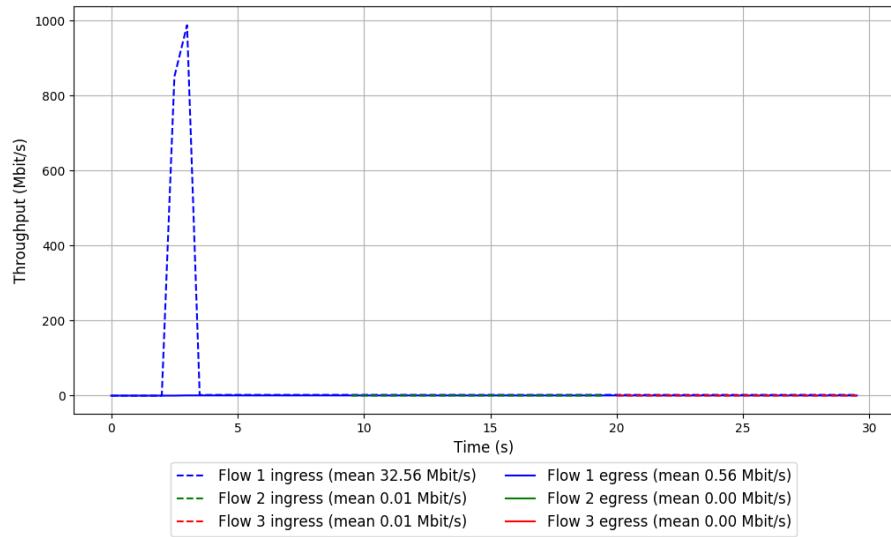


Run 2: Statistics of FillP

```
Start at: 2018-02-13 11:32:19
End at: 2018-02-13 11:32:49
Local clock offset: -8.647 ms
Remote clock offset: -4.22 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 25748.219 ms
Loss rate: 98.31%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 25748.219 ms
Loss rate: 98.31%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 2: Report of FillP — Data Link

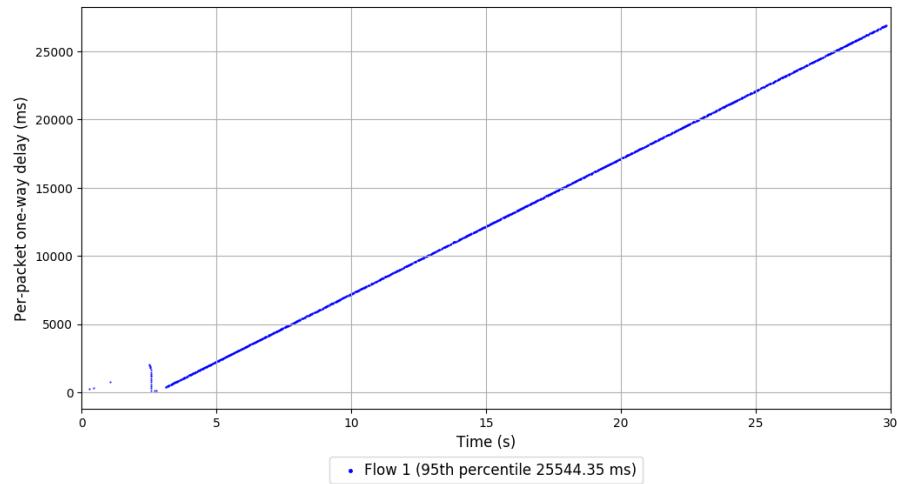
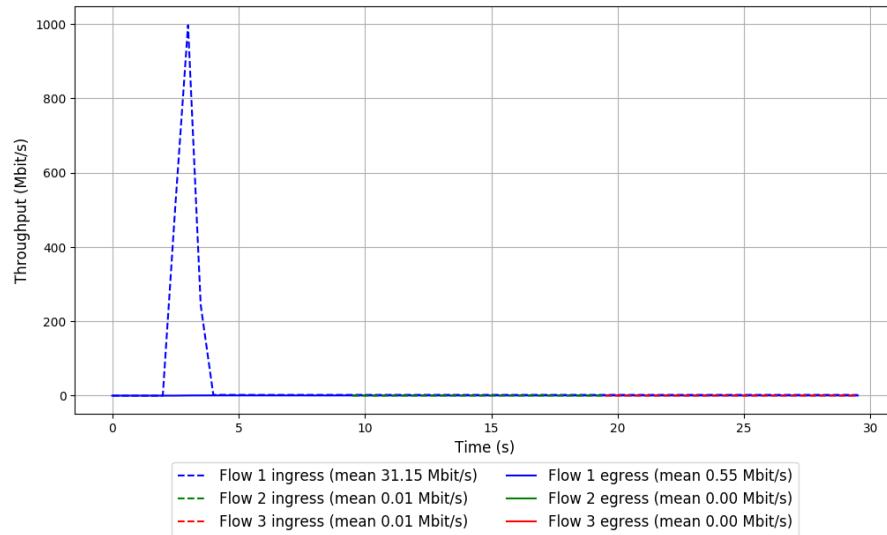


```
Run 3: Statistics of FillP
```

```
Start at: 2018-02-13 11:54:50
End at: 2018-02-13 11:55:20
Local clock offset: -3.015 ms
Remote clock offset: 1.254 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 25544.353 ms
Loss rate: 98.26%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 25544.353 ms
Loss rate: 98.26%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of FillP — Data Link

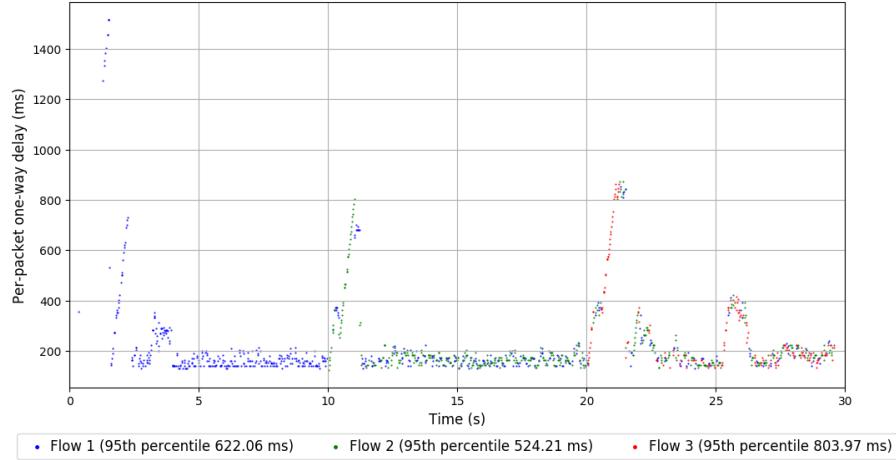
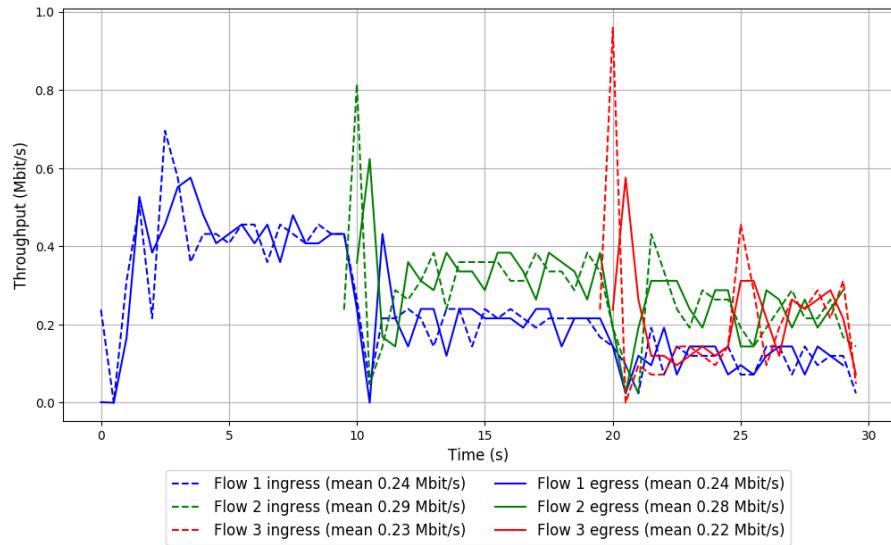


Run 1: Statistics of Indigo-1-32

```
Start at: 2018-02-13 11:14:48
End at: 2018-02-13 11:15:18
Local clock offset: -8.128 ms
Remote clock offset: 1.48 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 644.345 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 622.062 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 524.213 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 803.974 ms
Loss rate: 5.35%
```

Run 1: Report of Indigo-1-32 — Data Link

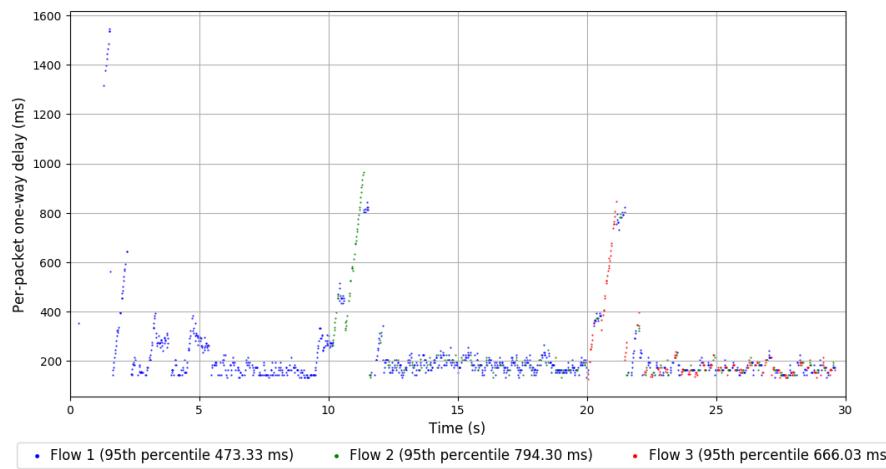
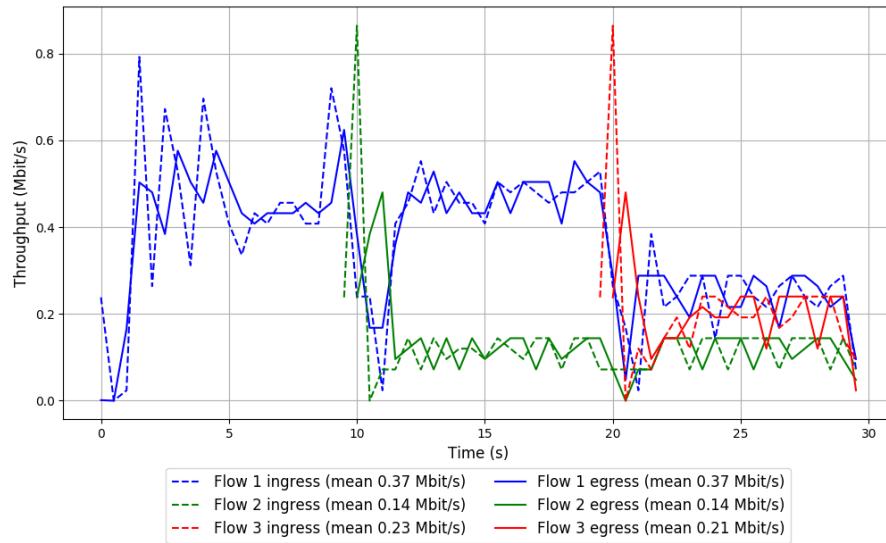


Run 2: Statistics of Indigo-1-32

```
Start at: 2018-02-13 11:37:19
End at: 2018-02-13 11:37:49
Local clock offset: -7.132 ms
Remote clock offset: -4.323 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 644.287 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 473.330 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 794.300 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 666.029 ms
Loss rate: 7.11%
```

Run 2: Report of Indigo-1-32 — Data Link

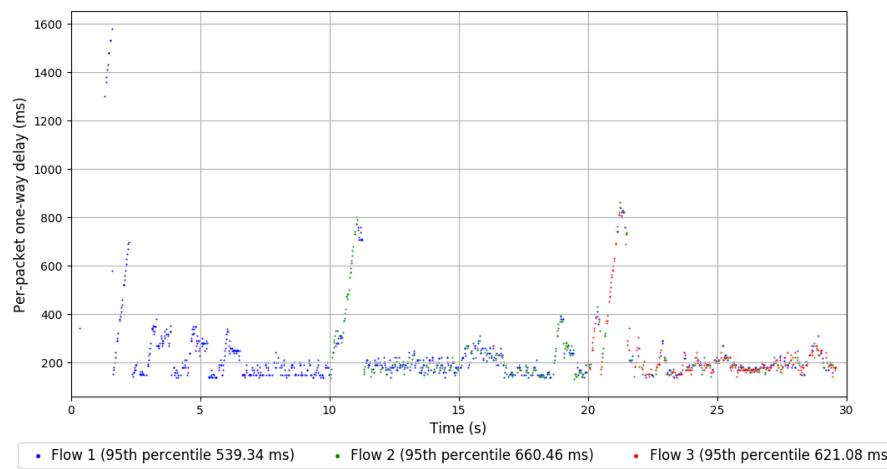
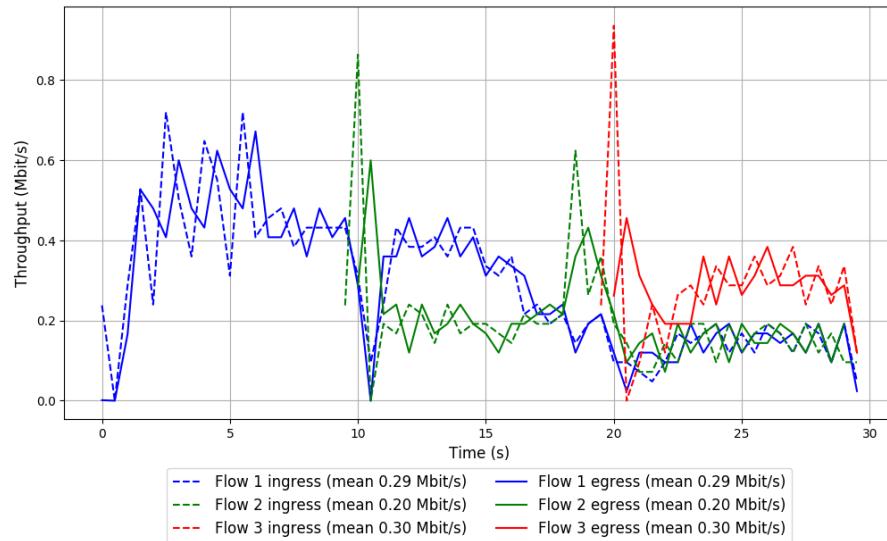


Run 3: Statistics of Indigo-1-32

```
Start at: 2018-02-13 11:59:51
End at: 2018-02-13 12:00:21
Local clock offset: -2.52 ms
Remote clock offset: -3.722 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 600.704 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 539.339 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 660.463 ms
Loss rate: 2.68%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 621.076 ms
Loss rate: 5.24%
```

Run 3: Report of Indigo-1-32 — Data Link

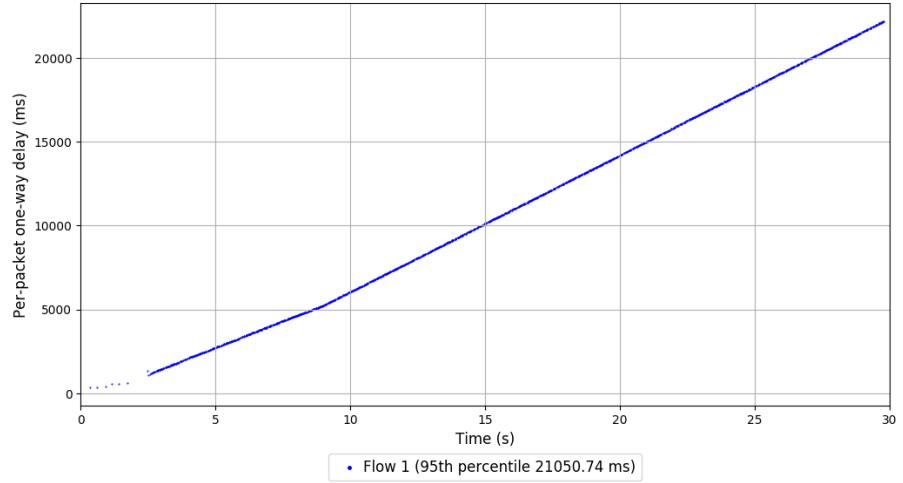
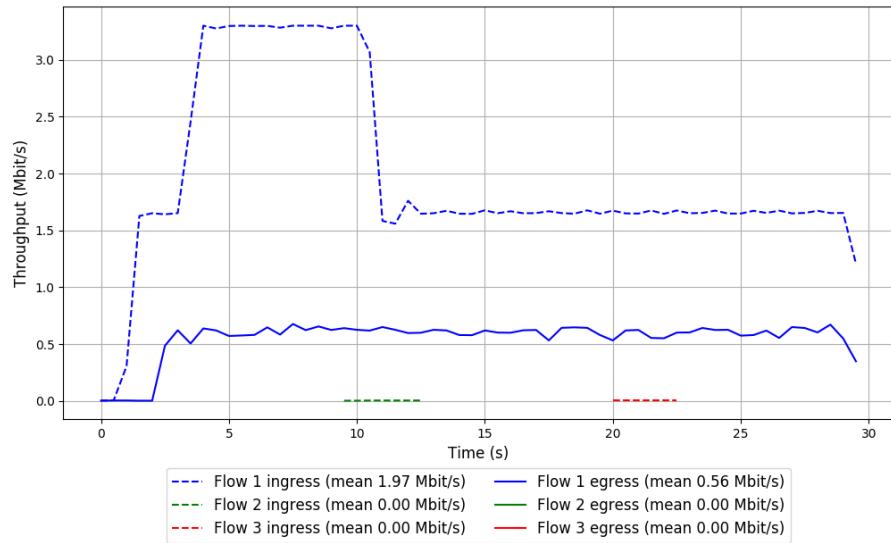


Run 1: Statistics of Vivace-latency

```
Start at: 2018-02-13 11:17:18
End at: 2018-02-13 11:17:48
Local clock offset: -8.155 ms
Remote clock offset: -4.181 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21050.742 ms
Loss rate: 71.93%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21050.742 ms
Loss rate: 71.92%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 1: Report of Vivace-latency — Data Link

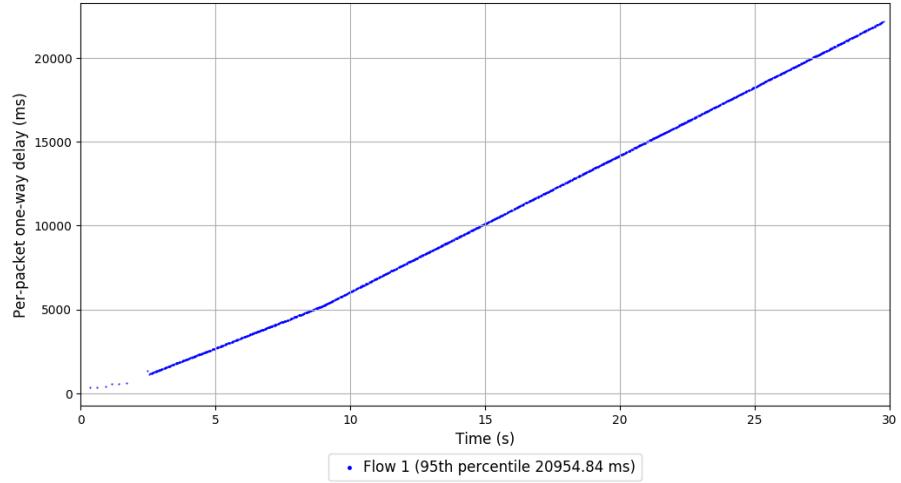
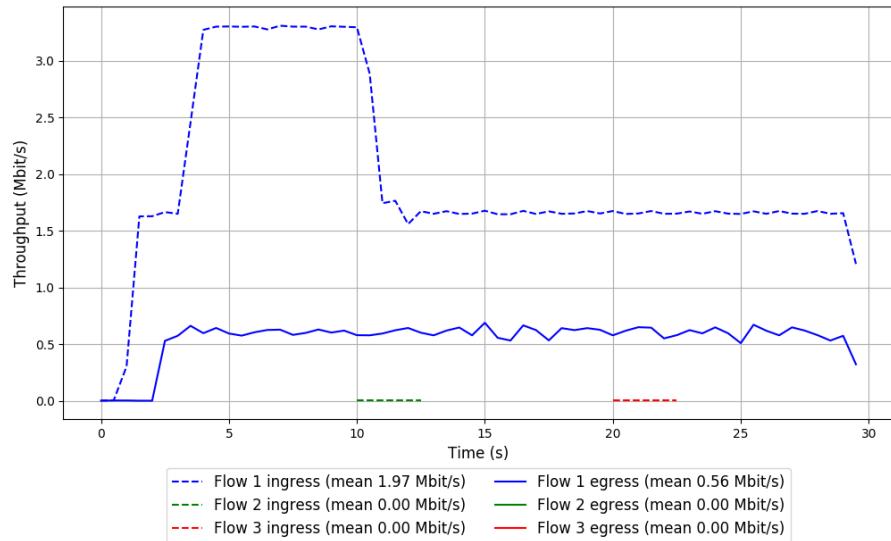


Run 2: Statistics of Vivace-latency

```
Start at: 2018-02-13 11:39:49
End at: 2018-02-13 11:40:19
Local clock offset: -5.972 ms
Remote clock offset: -3.5 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 20954.844 ms
Loss rate: 71.97%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 20954.844 ms
Loss rate: 71.96%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 2: Report of Vivace-latency — Data Link

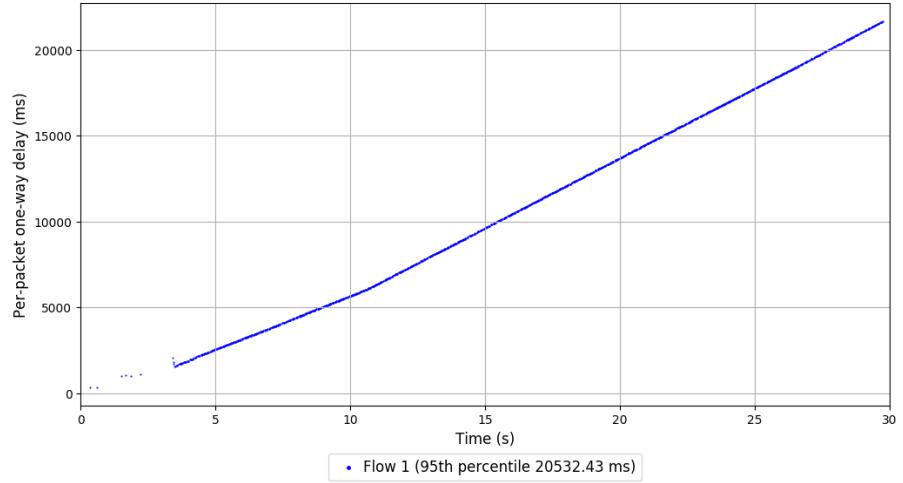
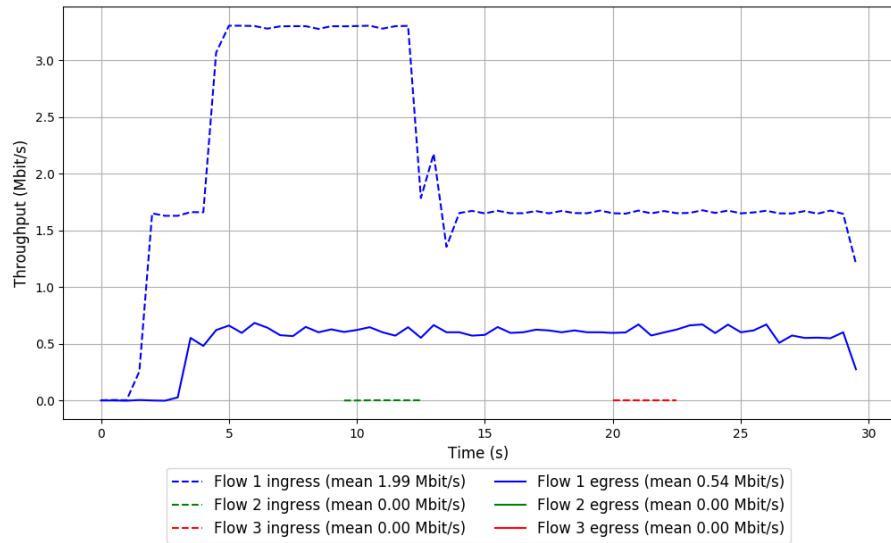


Run 3: Statistics of Vivace-latency

```
Start at: 2018-02-13 12:02:21
End at: 2018-02-13 12:02:51
Local clock offset: -2.352 ms
Remote clock offset: -3.683 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 20532.430 ms
Loss rate: 73.19%
-- Flow 1:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 20532.430 ms
Loss rate: 73.18%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of Vivace-latency — Data Link

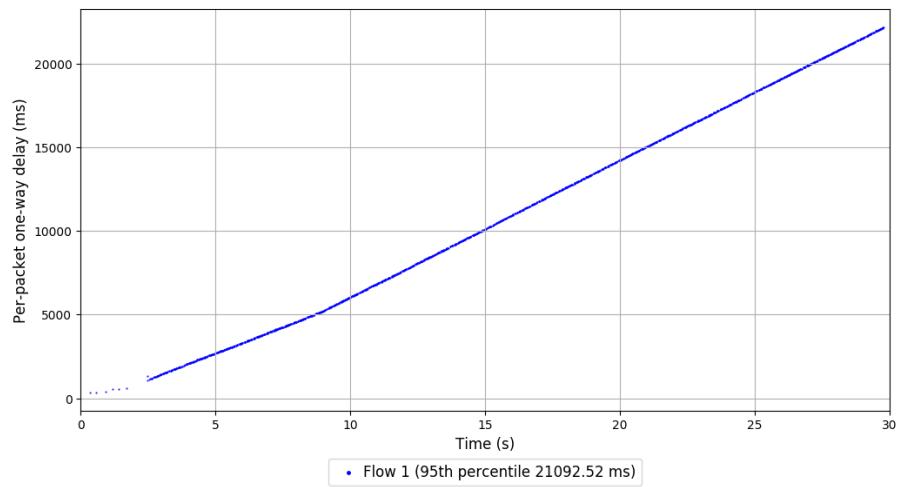
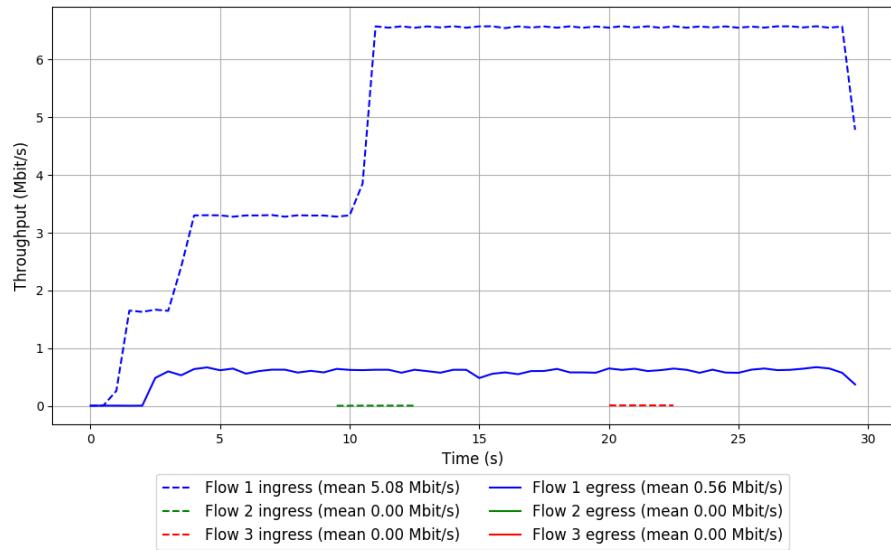


```
Run 1: Statistics of Vivace-loss
```

```
Start at: 2018-02-13 11:16:03
End at: 2018-02-13 11:16:33
Local clock offset: -8.132 ms
Remote clock offset: 1.461 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21092.517 ms
Loss rate: 89.11%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21092.517 ms
Loss rate: 89.11%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 1: Report of Vivace-loss — Data Link

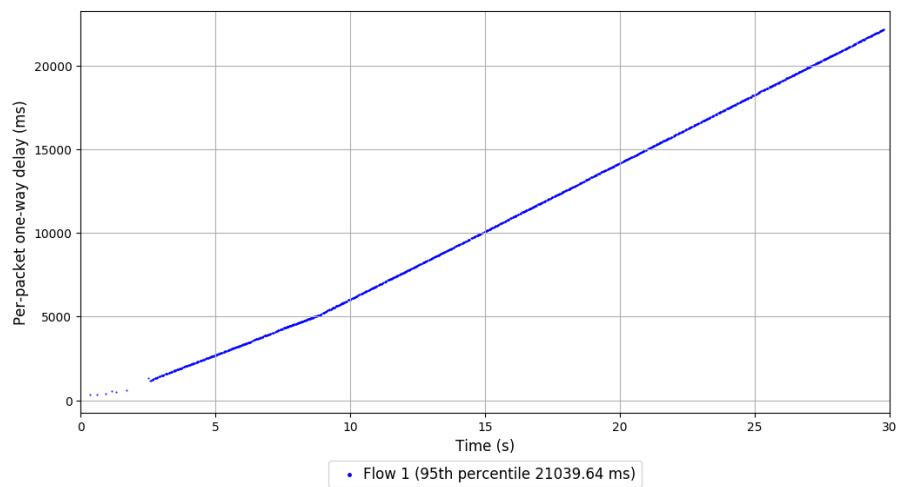
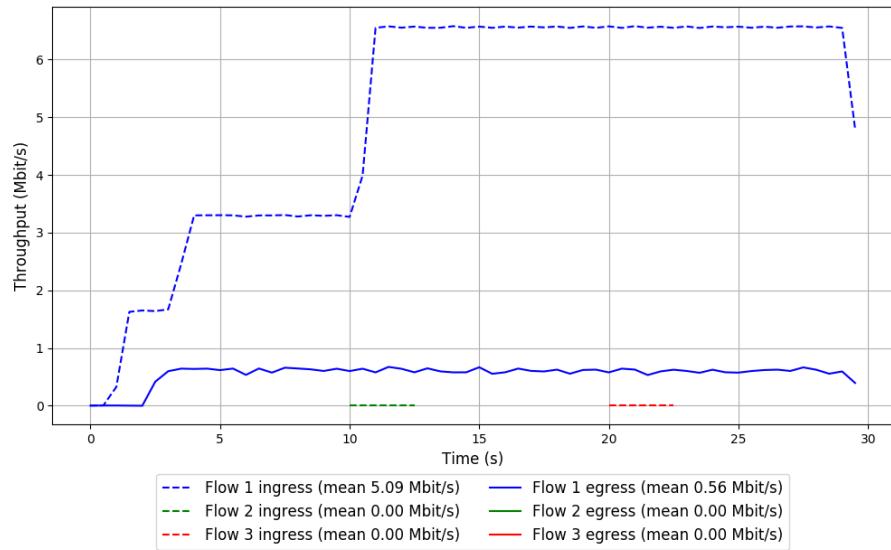


Run 2: Statistics of Vivace-loss

```
Start at: 2018-02-13 11:38:34
End at: 2018-02-13 11:39:04
Local clock offset: -6.503 ms
Remote clock offset: -3.482 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21039.643 ms
Loss rate: 89.08%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21039.643 ms
Loss rate: 89.08%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 2: Report of Vivace-loss — Data Link

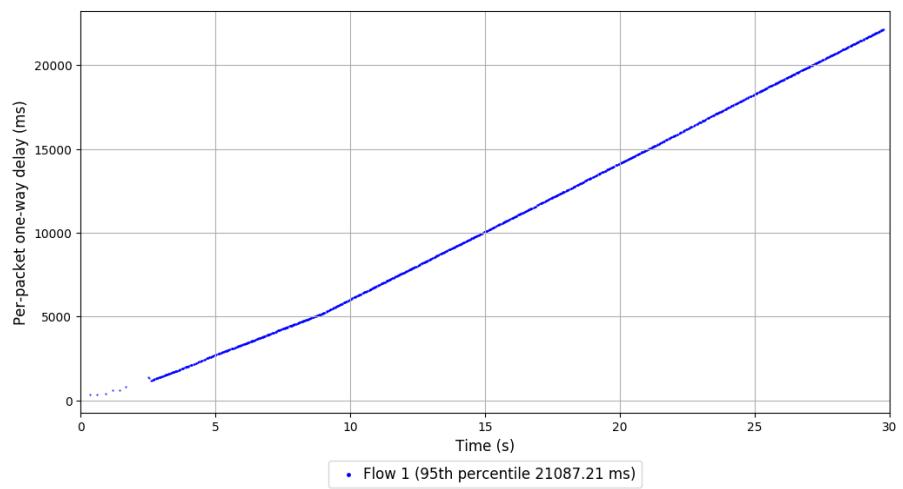
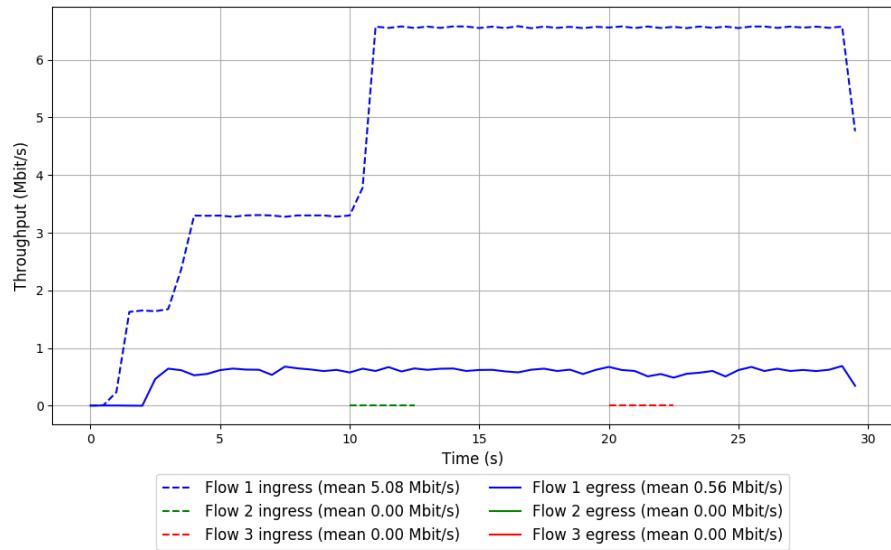


```
Run 3: Statistics of Vivace-loss
```

```
Start at: 2018-02-13 12:01:05
End at: 2018-02-13 12:01:35
Local clock offset: -2.412 ms
Remote clock offset: -3.742 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21087.213 ms
Loss rate: 89.10%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21087.213 ms
Loss rate: 89.10%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of Vivace-loss — Data Link

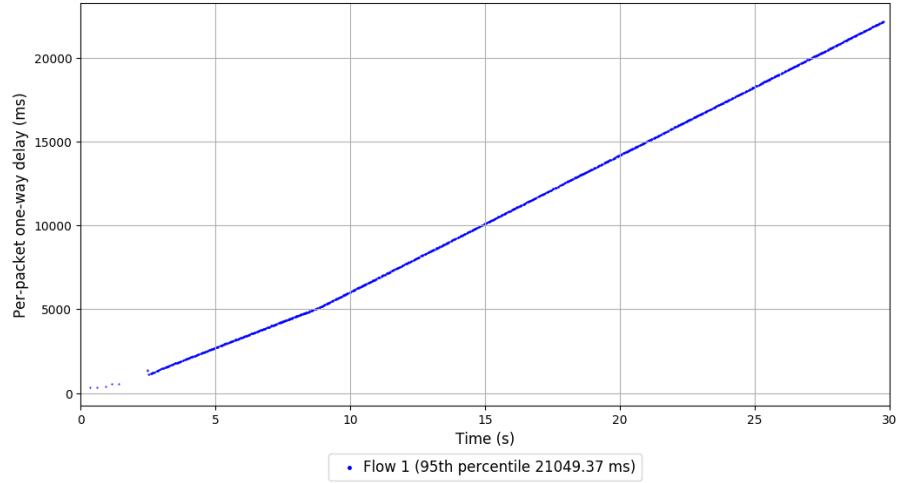
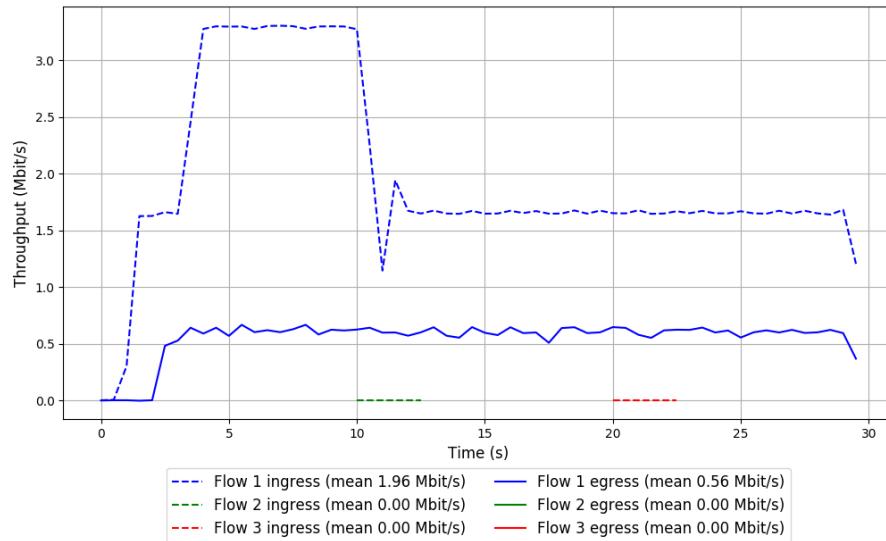


Run 1: Statistics of Vivace-LTE

```
Start at: 2018-02-13 10:59:48
End at: 2018-02-13 11:00:18
Local clock offset: -9.096 ms
Remote clock offset: 1.258 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21049.373 ms
Loss rate: 71.63%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21049.373 ms
Loss rate: 71.61%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 1: Report of Vivace-LTE — Data Link

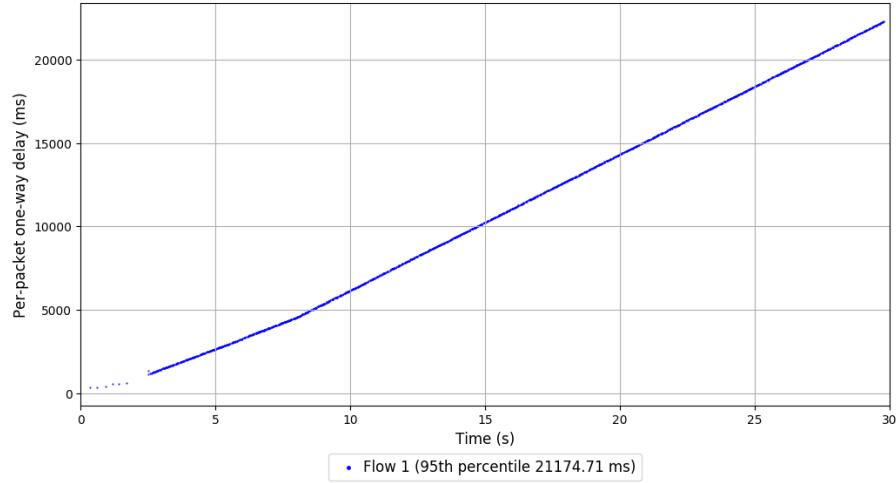
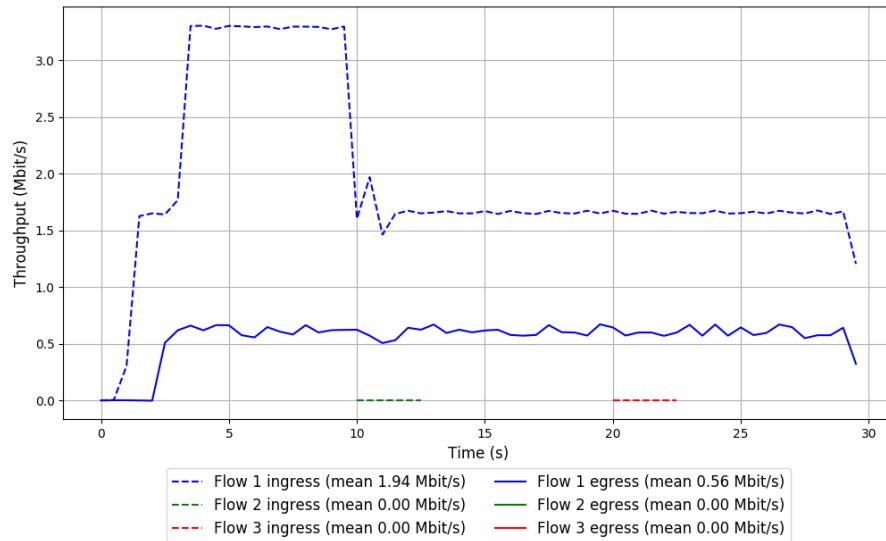


Run 2: Statistics of Vivace-LTE

```
Start at: 2018-02-13 11:22:18
End at: 2018-02-13 11:22:48
Local clock offset: -8.245 ms
Remote clock offset: -3.287 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21174.705 ms
Loss rate: 71.30%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21174.705 ms
Loss rate: 71.29%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

```
Start at: 2018-02-13 11:44:50
End at: 2018-02-13 11:45:20
Local clock offset: -4.489 ms
Remote clock offset: 1.169 ms

# Below is generated by plot.py at 2018-02-13 13:15:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21098.108 ms
Loss rate: 71.98%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 21098.108 ms
Loss rate: 71.97%
-- Flow 2:
Average throughput: 0.00 Mbit/s
-- Flow 3:
Average throughput: 0.00 Mbit/s
```

Run 3: Report of Vivace-LTE — Data Link

