

Pantheon Report

Generated at 2019-05-30 02:48:05 (UTC).

Data path: AWS California 2 on `ens5` (*local*) → Mexico on `em1` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

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

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

System info:

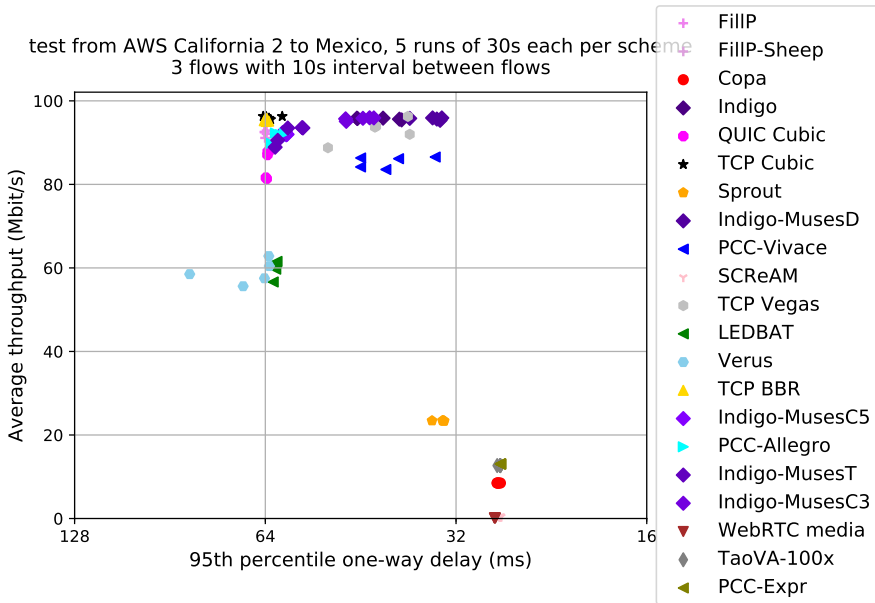
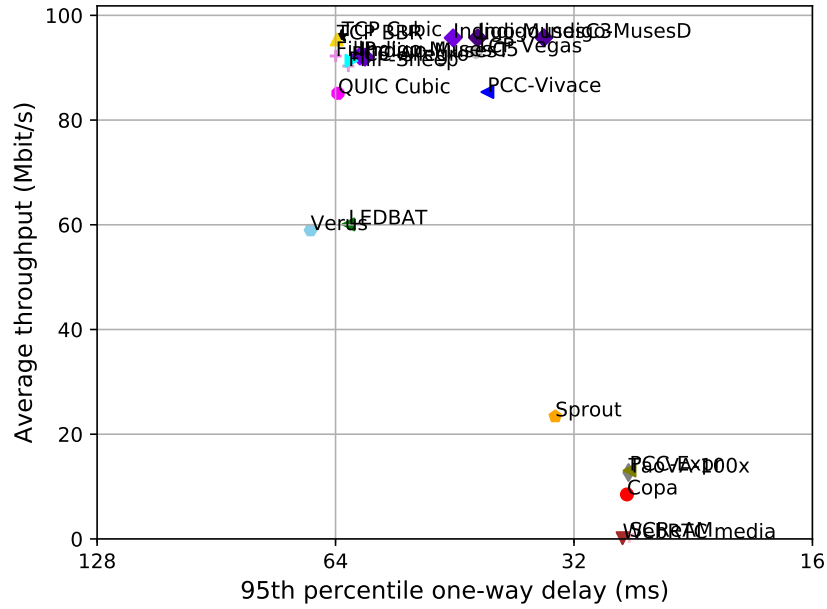
```
Linux 4.15.0-1035-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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 AWS California 2 to Mexico, 5 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



| 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 | 61.89 | 32.51 | 35.74 | 62.78 | 64.57 | 65.03 | 6.86 | 10.11 | 11.37 |
| Copa | 5 | 0.00 | 11.08 | 3.37 | 27.05 | 27.82 | 27.17 | 98.63 | 69.61 | 79.98 |
| TCP Cubic | 5 | 66.84 | 33.15 | 21.44 | 61.75 | 63.30 | 64.52 | 0.90 | 0.59 | 0.66 |
| FillP | 5 | 58.69 | 41.01 | 19.28 | 62.44 | 65.33 | 64.21 | 28.83 | 46.54 | 53.40 |
| FillP-Sheep | 5 | 54.41 | 42.49 | 23.15 | 59.61 | 63.50 | 62.10 | 9.18 | 16.96 | 16.10 |
| Indigo | 5 | 65.94 | 26.58 | 37.20 | 39.32 | 44.63 | 50.22 | 0.04 | 0.00 | 0.00 |
| Indigo-MusesC3 | 5 | 52.22 | 50.57 | 35.32 | 42.05 | 46.00 | 52.24 | 0.37 | 1.24 | 2.80 |
| Indigo-MusesC5 | 5 | 60.33 | 47.62 | 3.10 | 57.32 | 61.56 | 61.53 | 10.74 | 19.54 | 26.18 |
| Indigo-MusesD | 5 | 54.56 | 45.14 | 39.59 | 33.68 | 34.38 | 37.83 | 0.00 | 0.00 | 0.00 |
| Indigo-MusesT | 5 | 56.84 | 51.46 | 5.80 | 55.85 | 60.78 | 62.02 | 13.77 | 23.10 | 28.74 |
| LEDBAT | 5 | 39.89 | 19.94 | 20.87 | 61.66 | 63.00 | 44.75 | 0.19 | 0.38 | 0.05 |
| PCC-Allegro | 5 | 80.64 | 9.97 | 12.31 | 60.50 | 62.81 | 61.87 | 3.62 | 4.75 | 7.47 |
| PCC-Expr | 5 | 8.50 | 4.57 | 4.61 | 27.22 | 27.25 | 27.25 | 51.41 | 38.40 | 33.34 |
| QUIC Cubic | 5 | 61.49 | 26.32 | 18.70 | 63.42 | 63.75 | 63.94 | 2.25 | 1.14 | 1.15 |
| SCReAM | 5 | 0.21 | 0.21 | 0.22 | 27.22 | 27.24 | 27.25 | 0.00 | 0.00 | 0.00 |
| Sprout | 5 | 11.82 | 11.68 | 11.56 | 33.55 | 34.10 | 33.84 | 0.07 | 0.06 | 0.00 |
| TaoVA-100x | 5 | 6.85 | 7.25 | 3.29 | 28.29 | 27.23 | 27.12 | 86.17 | 62.16 | 74.88 |
| TCP Vegas | 5 | 67.98 | 26.58 | 21.78 | 41.90 | 42.13 | 38.81 | 0.59 | 0.13 | 0.01 |
| Verus | 5 | 42.19 | 22.02 | 8.82 | 69.23 | 63.79 | 57.24 | 51.19 | 44.18 | 37.09 |
| PCC-Vivace | 5 | 64.56 | 23.34 | 15.95 | 40.48 | 42.51 | 40.09 | 0.01 | 0.01 | 0.02 |
| WebRTC media | 5 | 0.05 | 0.05 | 0.05 | 27.73 | 27.78 | 27.84 | 0.01 | 0.01 | 0.00 |

Run 1: Statistics of TCP BBR

Start at: 2019-05-30 00:44:53
End at: 2019-05-30 00:45:23
Local clock offset: 1.379 ms
Remote clock offset: -3.558 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.88 Mbit/s
95th percentile per-packet one-way delay: 63.912 ms
Loss rate: 7.65%

-- Flow 1:

Average throughput: 63.97 Mbit/s
95th percentile per-packet one-way delay: 62.932 ms
Loss rate: 6.40%

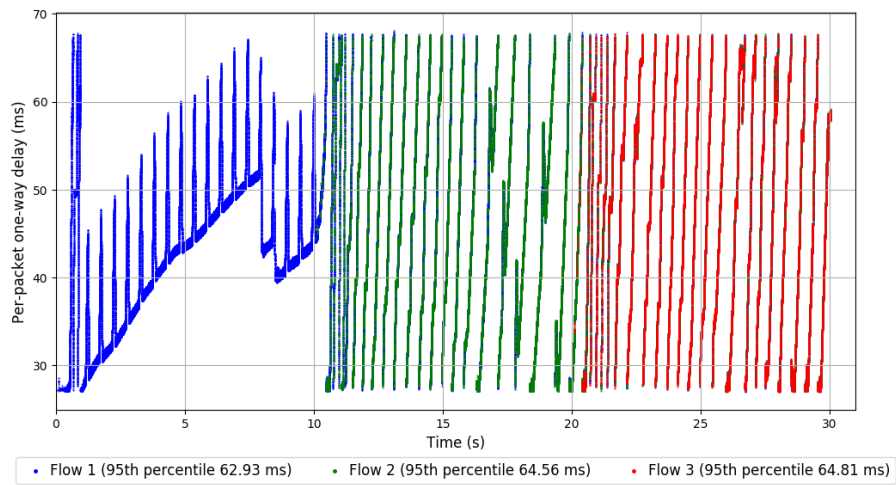
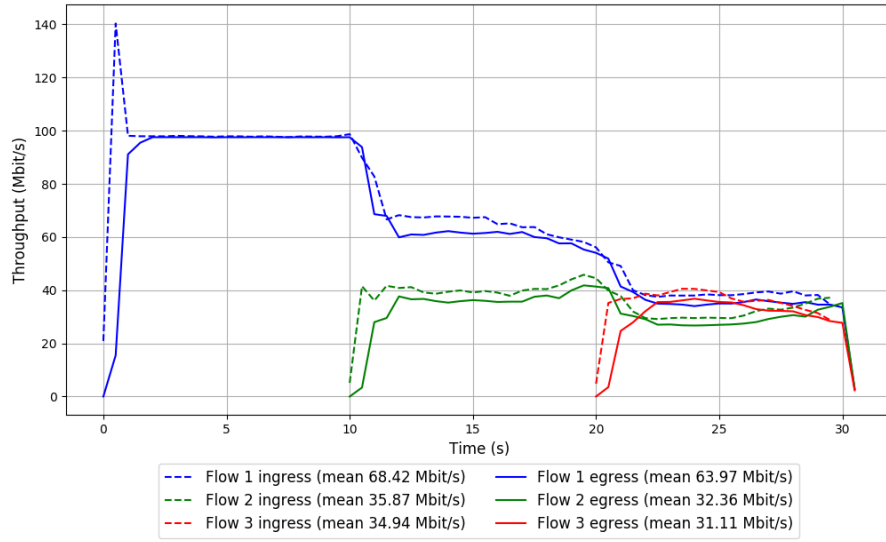
-- Flow 2:

Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 64.560 ms
Loss rate: 9.72%

-- Flow 3:

Average throughput: 31.11 Mbit/s
95th percentile per-packet one-way delay: 64.809 ms
Loss rate: 10.71%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-05-30 01:11:27
End at: 2019-05-30 01:11:57
Local clock offset: 0.944 ms
Remote clock offset: -3.092 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.15 Mbit/s
95th percentile per-packet one-way delay: 63.221 ms
Loss rate: 7.26%

-- Flow 1:

Average throughput: 64.38 Mbit/s
95th percentile per-packet one-way delay: 61.862 ms
Loss rate: 6.10%

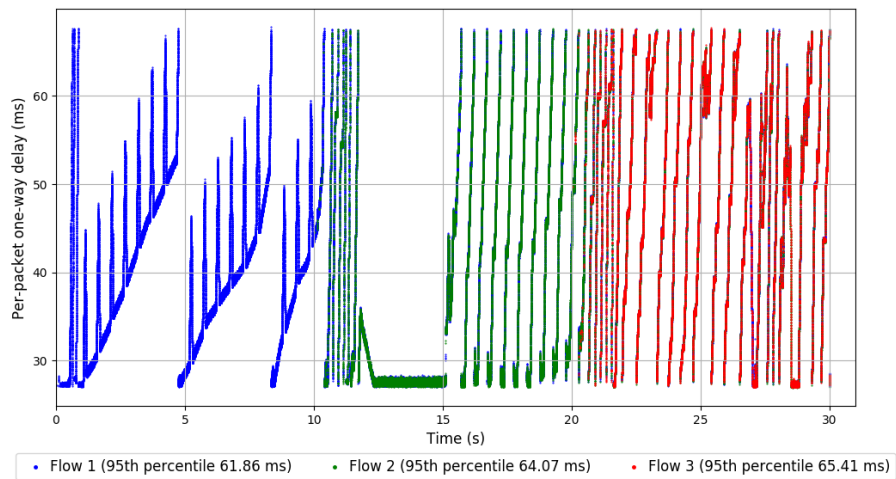
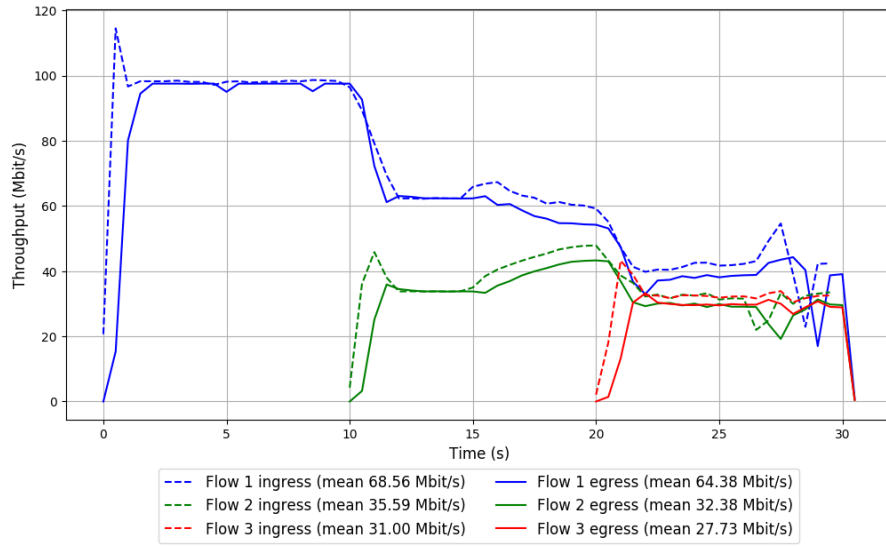
-- Flow 2:

Average throughput: 32.38 Mbit/s
95th percentile per-packet one-way delay: 64.071 ms
Loss rate: 9.11%

-- Flow 3:

Average throughput: 27.73 Mbit/s
95th percentile per-packet one-way delay: 65.414 ms
Loss rate: 10.75%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-05-30 01:37:04

End at: 2019-05-30 01:37:34

Local clock offset: 0.62 ms

Remote clock offset: -2.74 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.24 Mbit/s

95th percentile per-packet one-way delay: 64.248 ms

Loss rate: 8.52%

-- Flow 1:

Average throughput: 57.38 Mbit/s

95th percentile per-packet one-way delay: 63.271 ms

Loss rate: 6.92%

-- Flow 2:

Average throughput: 39.69 Mbit/s

95th percentile per-packet one-way delay: 65.071 ms

Loss rate: 10.59%

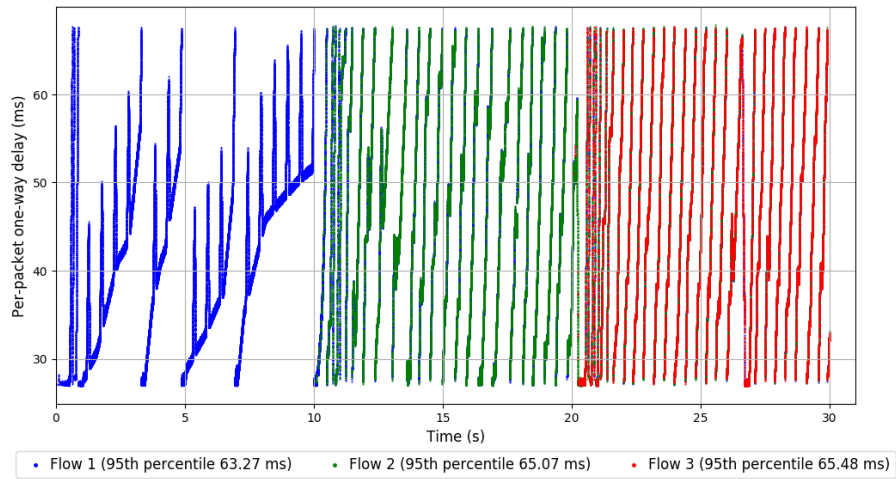
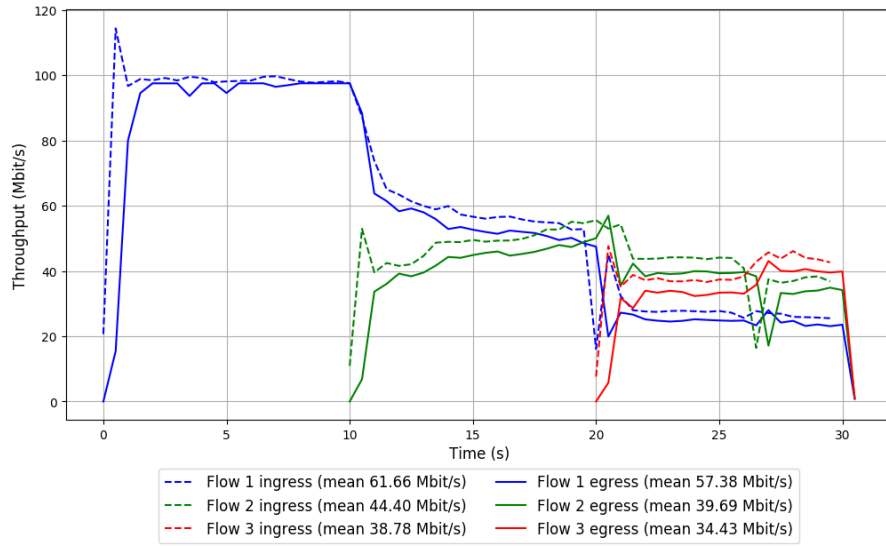
-- Flow 3:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 65.476 ms

Loss rate: 11.40%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-05-30 02:02:48

End at: 2019-05-30 02:03:18

Local clock offset: 0.4 ms

Remote clock offset: -2.35 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.69 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 8.09%

-- Flow 1:

Average throughput: 60.76 Mbit/s

95th percentile per-packet one-way delay: 62.602 ms

Loss rate: 6.39%

-- Flow 2:

Average throughput: 31.64 Mbit/s

95th percentile per-packet one-way delay: 64.645 ms

Loss rate: 10.04%

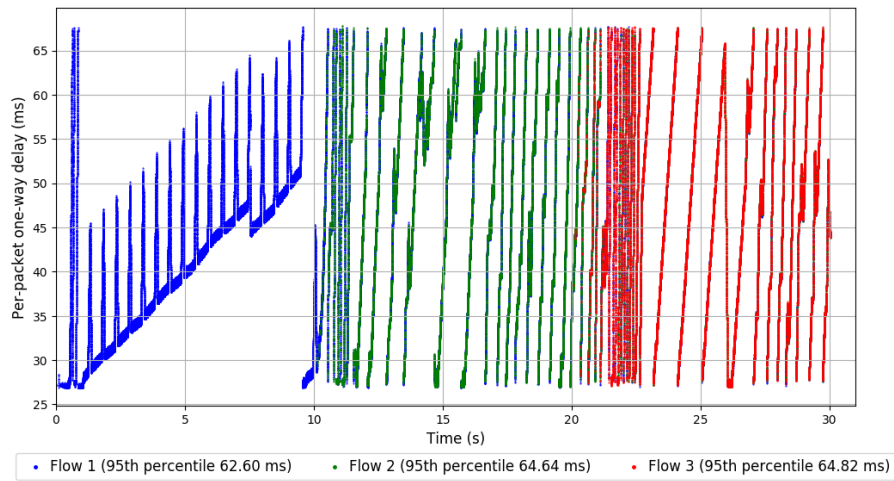
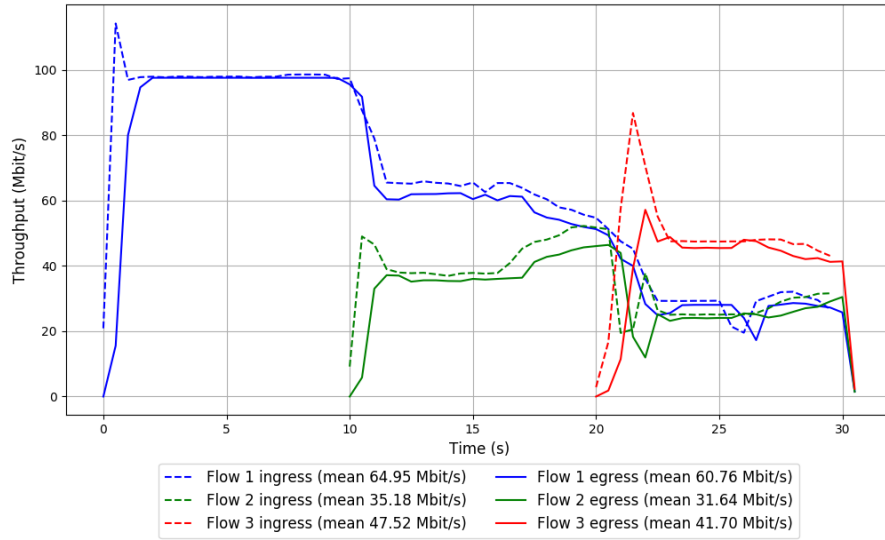
-- Flow 3:

Average throughput: 41.70 Mbit/s

95th percentile per-packet one-way delay: 64.824 ms

Loss rate: 12.20%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-05-30 02:28:38

End at: 2019-05-30 02:29:08

Local clock offset: 0.512 ms

Remote clock offset: -1.89 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.07 Mbit/s

95th percentile per-packet one-way delay: 63.786 ms

Loss rate: 9.50%

-- Flow 1:

Average throughput: 62.95 Mbit/s

95th percentile per-packet one-way delay: 63.244 ms

Loss rate: 8.50%

-- Flow 2:

Average throughput: 26.47 Mbit/s

95th percentile per-packet one-way delay: 64.498 ms

Loss rate: 11.07%

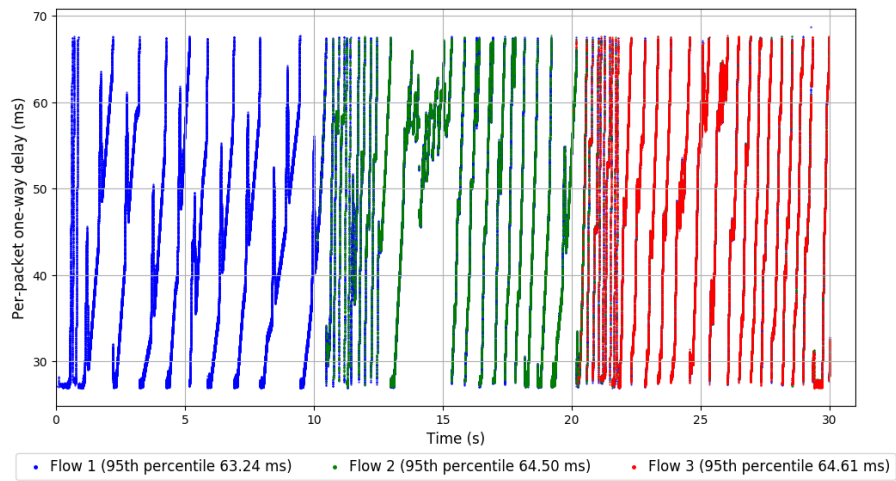
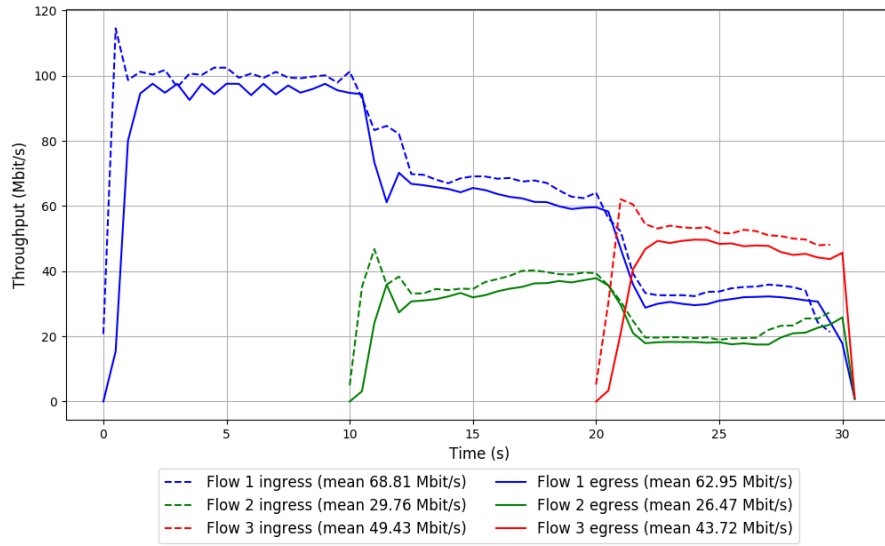
-- Flow 3:

Average throughput: 43.72 Mbit/s

95th percentile per-packet one-way delay: 64.608 ms

Loss rate: 11.79%

Run 5: Report of TCP BBR — Data Link

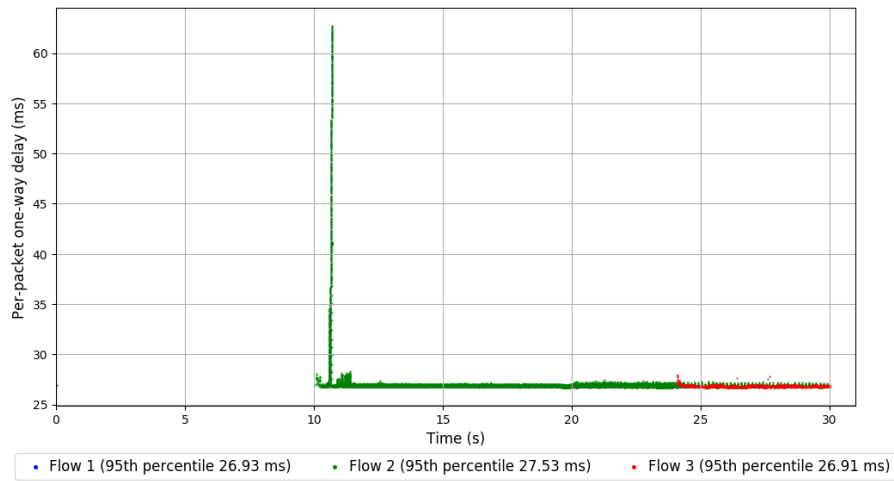
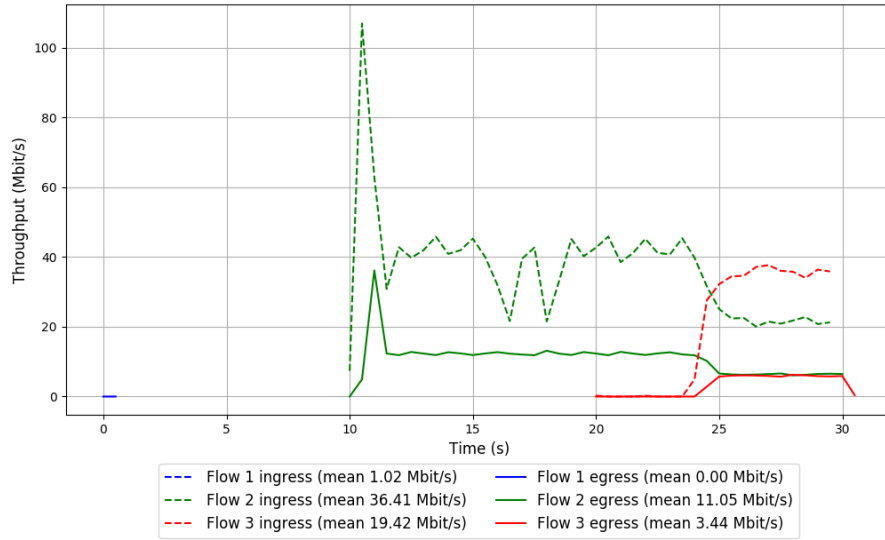


Run 1: Statistics of Copa

Start at: 2019-05-30 00:38:42
End at: 2019-05-30 00:39:12
Local clock offset: 2.205 ms
Remote clock offset: -3.919 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 27.234 ms
Loss rate: 72.31%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 26.925 ms
Loss rate: 98.60%
-- Flow 2:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 27.531 ms
Loss rate: 69.65%
-- Flow 3:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 26.905 ms
Loss rate: 82.31%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2019-05-30 01:05:16
End at: 2019-05-30 01:05:46
Local clock offset: 1.285 ms
Remote clock offset: -3.118 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 27.569 ms
Loss rate: 74.38%

-- Flow 1:

Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 27.064 ms
Loss rate: 98.80%

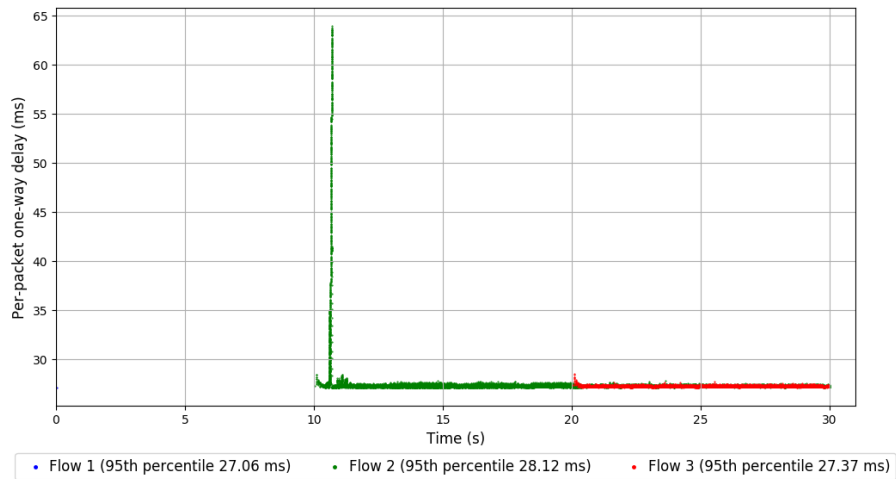
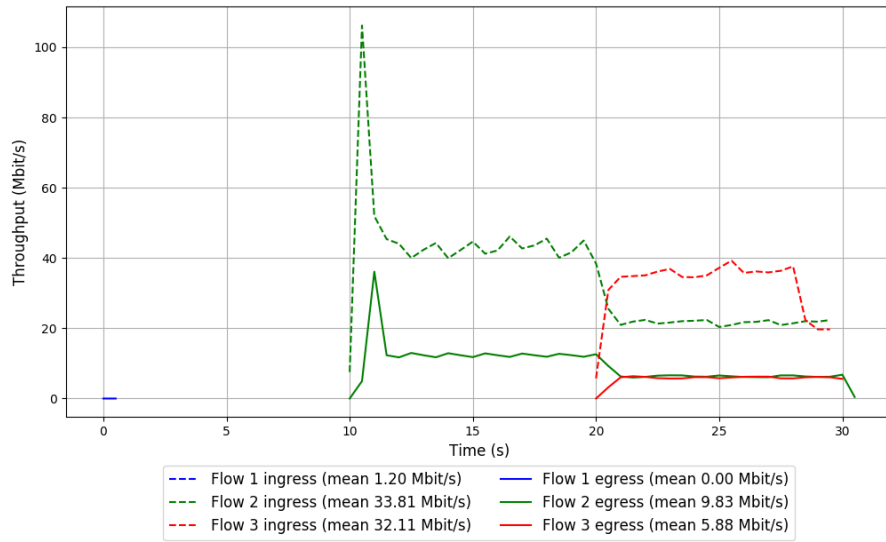
-- Flow 2:

Average throughput: 9.83 Mbit/s
95th percentile per-packet one-way delay: 28.122 ms
Loss rate: 70.92%

-- Flow 3:

Average throughput: 5.88 Mbit/s
95th percentile per-packet one-way delay: 27.374 ms
Loss rate: 81.69%

Run 2: Report of Copa — Data Link

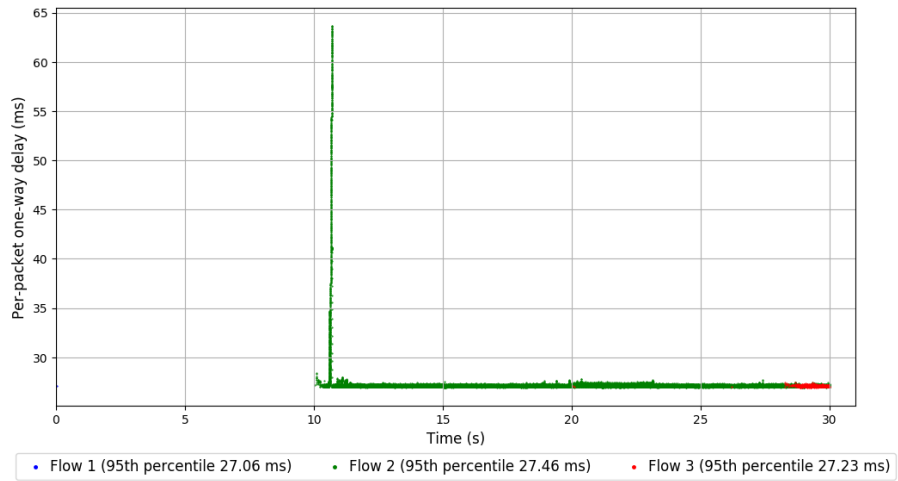
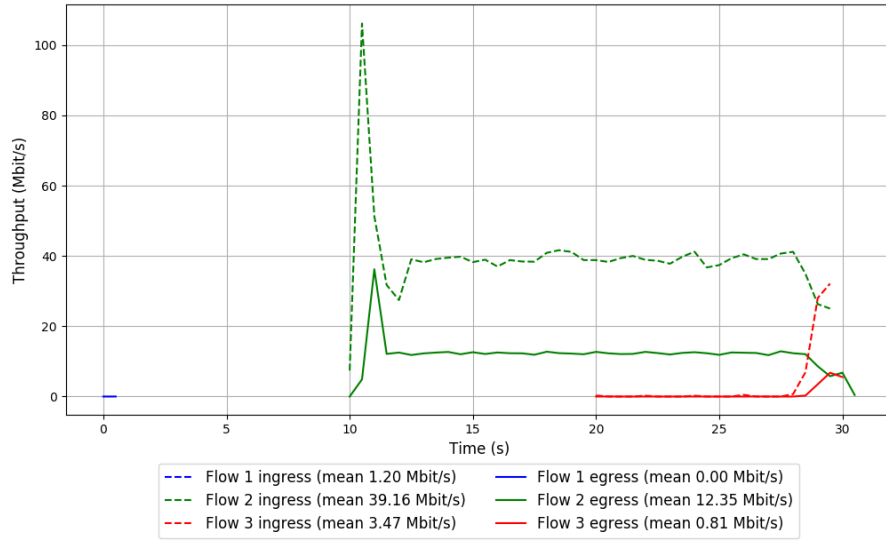


Run 3: Statistics of Copa

Start at: 2019-05-30 01:31:00
End at: 2019-05-30 01:31:30
Local clock offset: 0.579 ms
Remote clock offset: -2.876 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 27.440 ms
Loss rate: 68.80%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 27.061 ms
Loss rate: 98.80%
-- Flow 2:
Average throughput: 12.35 Mbit/s
95th percentile per-packet one-way delay: 27.458 ms
Loss rate: 68.45%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 27.229 ms
Loss rate: 76.66%
```

Run 3: Report of Copa — Data Link

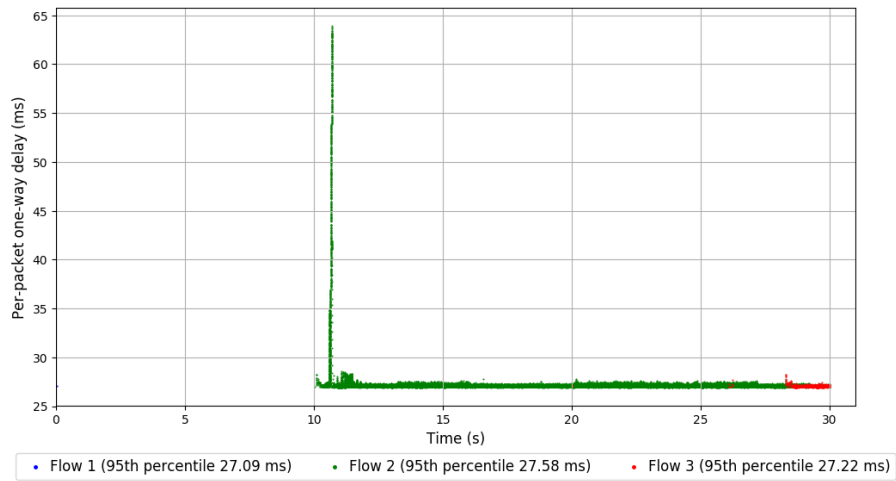
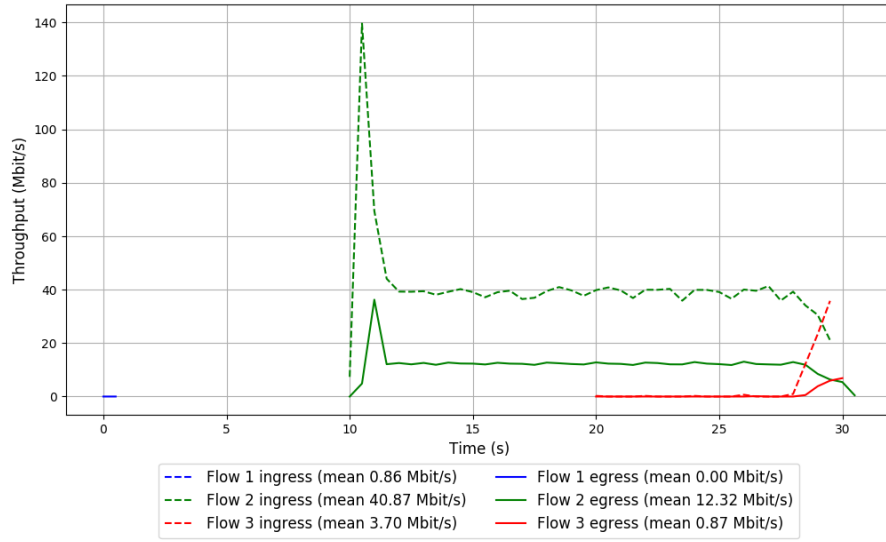


Run 4: Statistics of Copa

Start at: 2019-05-30 01:56:39
End at: 2019-05-30 01:57:09
Local clock offset: 0.367 ms
Remote clock offset: -2.432 ms

```
# Below is generated by plot.py at 2019-05-30 02:37:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 27.542 ms
Loss rate: 70.13%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 27.094 ms
Loss rate: 98.33%
-- Flow 2:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 27.578 ms
Loss rate: 69.85%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 27.218 ms
Loss rate: 76.43%
```

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-05-30 02:22:29
End at: 2019-05-30 02:22:59
Local clock offset: 0.456 ms
Remote clock offset: -2.077 ms

Below is generated by plot.py at 2019-05-30 02:37:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 27.385 ms
Loss rate: 73.92%

-- Flow 1:

Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 27.122 ms
Loss rate: 98.60%

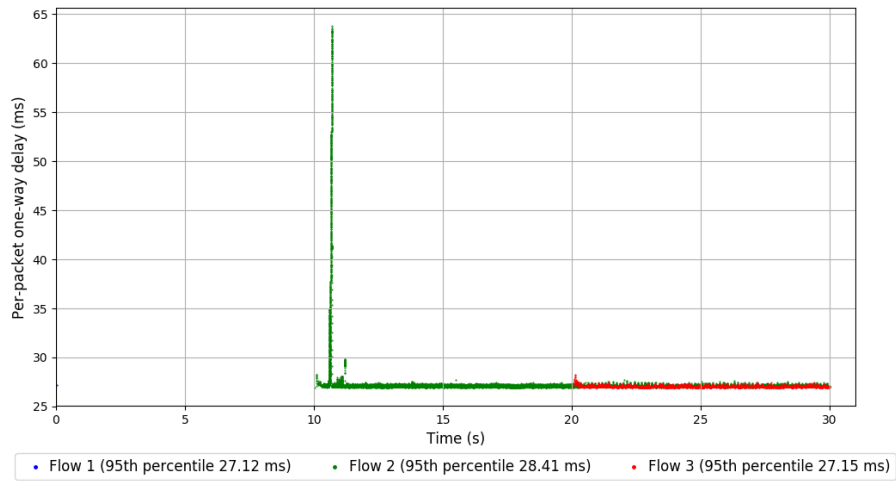
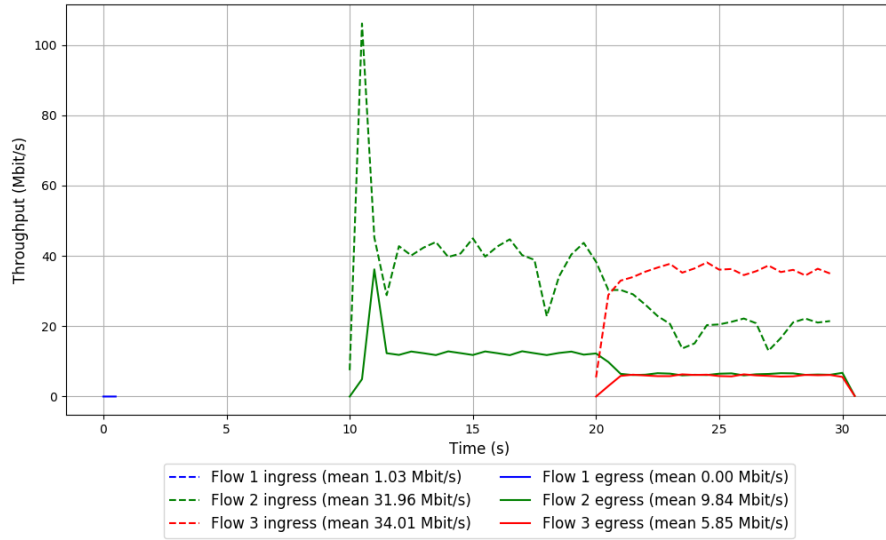
-- Flow 2:

Average throughput: 9.84 Mbit/s
95th percentile per-packet one-way delay: 28.415 ms
Loss rate: 69.20%

-- Flow 3:

Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 27.147 ms
Loss rate: 82.80%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-05-30 00:35:03
End at: 2019-05-30 00:35:33
Local clock offset: 2.088 ms
Remote clock offset: -3.938 ms

Below is generated by plot.py at 2019-05-30 02:37:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 63.808 ms
Loss rate: 0.73%

-- Flow 1:

Average throughput: 72.54 Mbit/s
95th percentile per-packet one-way delay: 63.670 ms
Loss rate: 0.75%

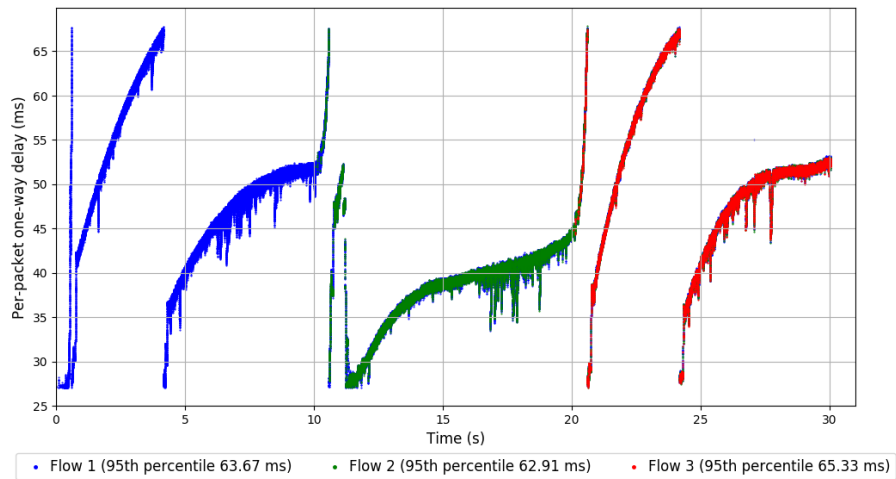
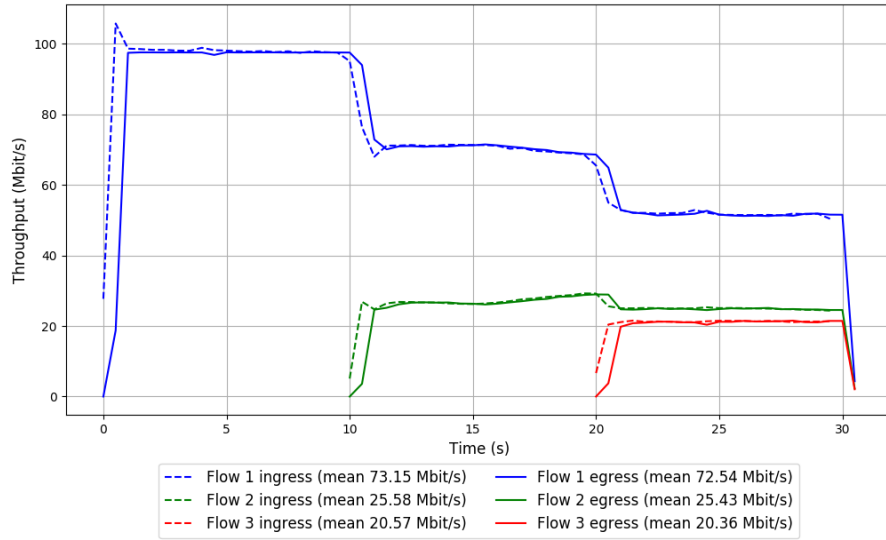
-- Flow 2:

Average throughput: 25.43 Mbit/s
95th percentile per-packet one-way delay: 62.906 ms
Loss rate: 0.57%

-- Flow 3:

Average throughput: 20.36 Mbit/s
95th percentile per-packet one-way delay: 65.327 ms
Loss rate: 0.94%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-05-30 01:01:20
End at: 2019-05-30 01:01:50
Local clock offset: 1.191 ms
Remote clock offset: -3.195 ms

Below is generated by plot.py at 2019-05-30 02:37:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 60.185 ms
Loss rate: 0.88%

-- Flow 1:

Average throughput: 74.52 Mbit/s
95th percentile per-packet one-way delay: 58.936 ms
Loss rate: 0.94%

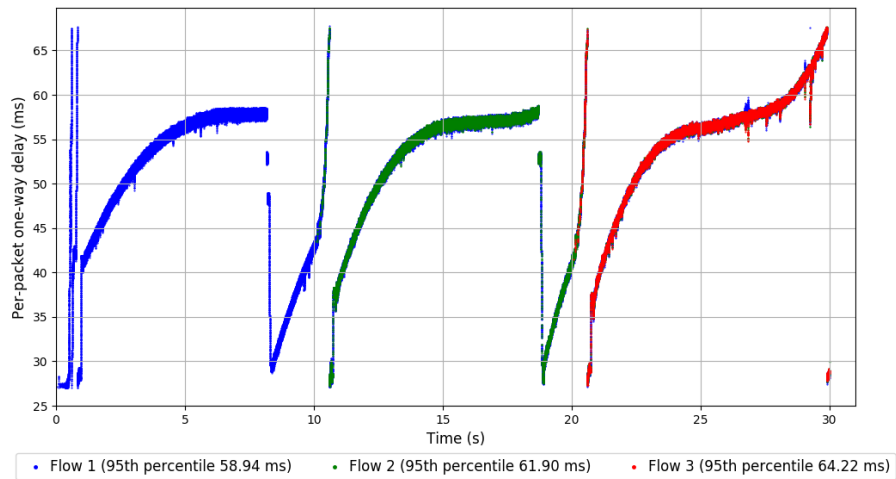
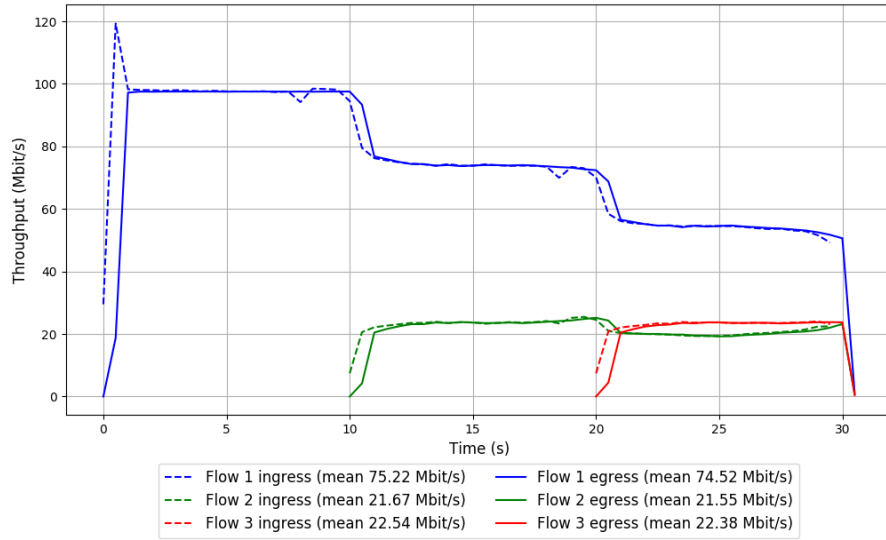
-- Flow 2:

Average throughput: 21.55 Mbit/s
95th percentile per-packet one-way delay: 61.896 ms
Loss rate: 0.60%

-- Flow 3:

Average throughput: 22.38 Mbit/s
95th percentile per-packet one-way delay: 64.223 ms
Loss rate: 0.87%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-05-30 01:27:20

End at: 2019-05-30 01:27:51

Local clock offset: 0.565 ms

Remote clock offset: -2.86 ms

Below is generated by plot.py at 2019-05-30 02:37:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.29 Mbit/s

95th percentile per-packet one-way delay: 64.494 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 71.08 Mbit/s

95th percentile per-packet one-way delay: 64.732 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 25.36 Mbit/s

95th percentile per-packet one-way delay: 63.864 ms

Loss rate: 0.59%

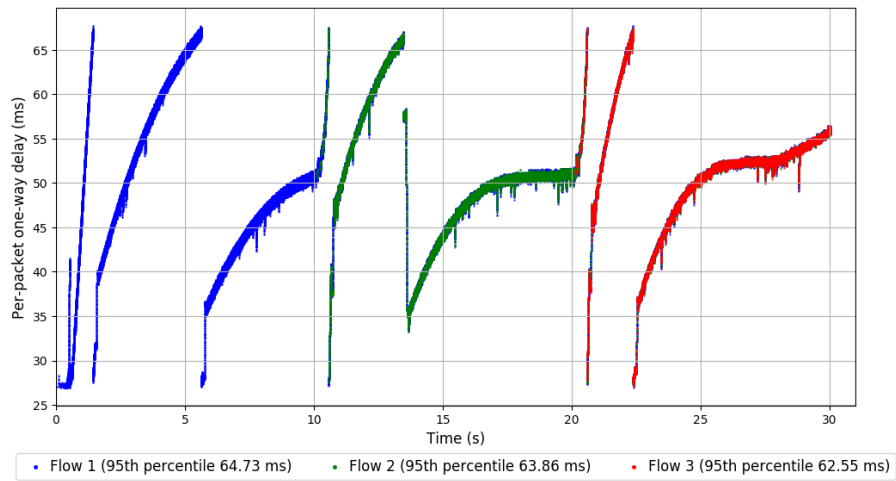
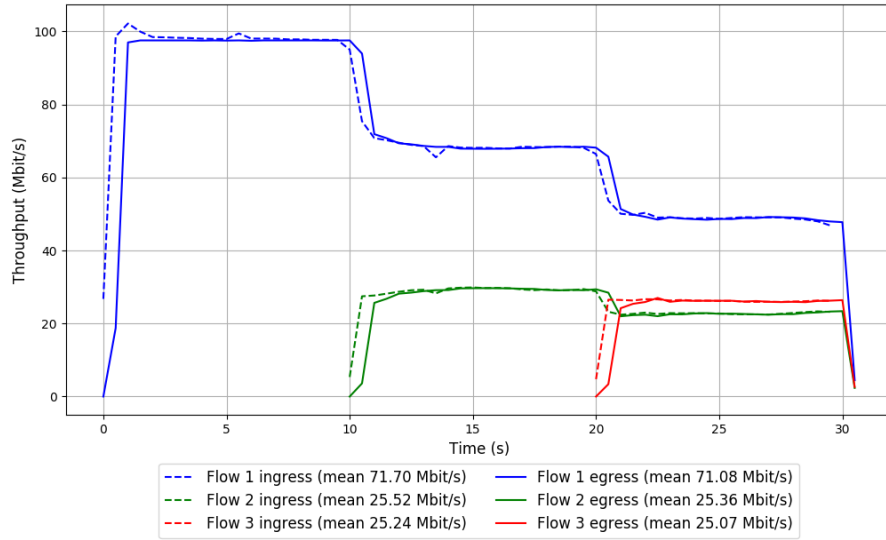
-- Flow 3:

Average throughput: 25.07 Mbit/s

95th percentile per-packet one-way delay: 62.551 ms

Loss rate: 0.62%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-05-30 01:52:57
End at: 2019-05-30 01:53:27
Local clock offset: 0.378 ms
Remote clock offset: -2.528 ms

Below is generated by plot.py at 2019-05-30 02:38:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 63.145 ms
Loss rate: 0.76%

-- Flow 1:

Average throughput: 52.06 Mbit/s
95th percentile per-packet one-way delay: 59.601 ms
Loss rate: 1.02%

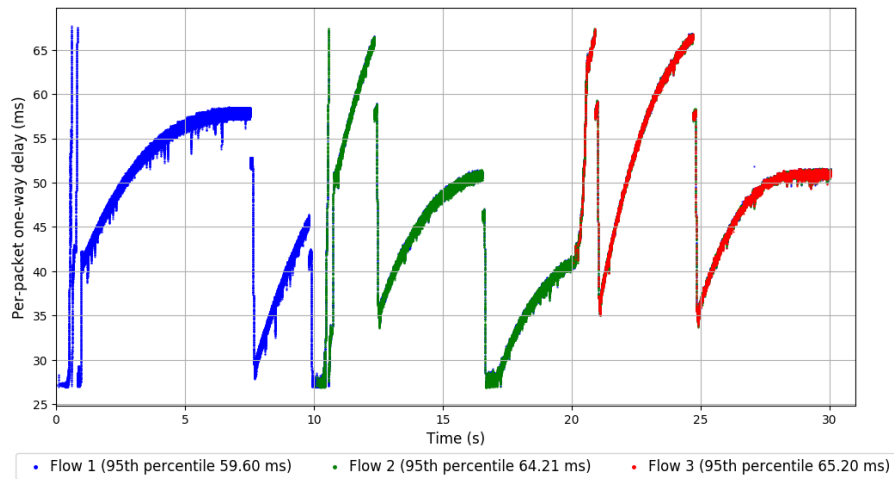
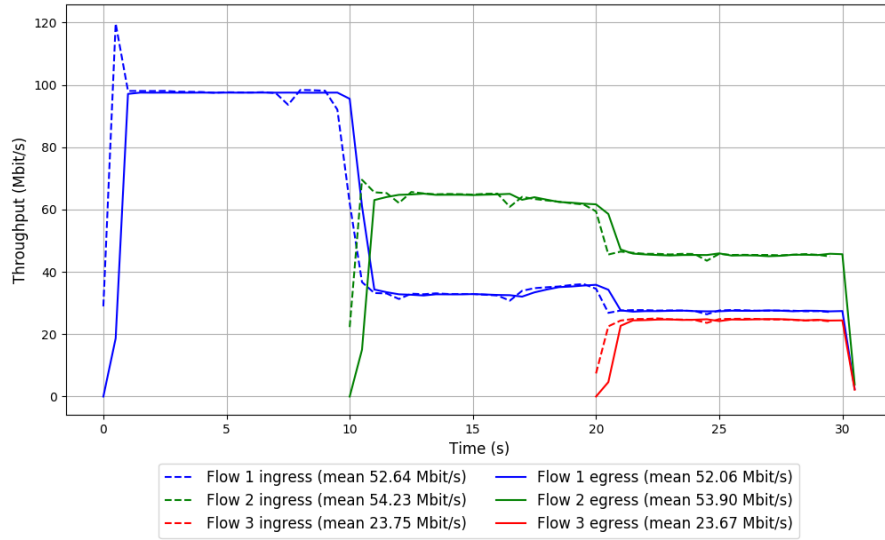
-- Flow 2:

Average throughput: 53.90 Mbit/s
95th percentile per-packet one-way delay: 64.209 ms
Loss rate: 0.49%

-- Flow 3:

Average throughput: 23.67 Mbit/s
95th percentile per-packet one-way delay: 65.205 ms
Loss rate: 0.22%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-05-30 02:18:41
End at: 2019-05-30 02:19:11
Local clock offset: 0.409 ms
Remote clock offset: -2.049 ms

Below is generated by plot.py at 2019-05-30 02:38:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.54 Mbit/s
95th percentile per-packet one-way delay: 62.769 ms
Loss rate: 0.90%

-- Flow 1:

Average throughput: 63.99 Mbit/s
95th percentile per-packet one-way delay: 61.803 ms
Loss rate: 1.00%

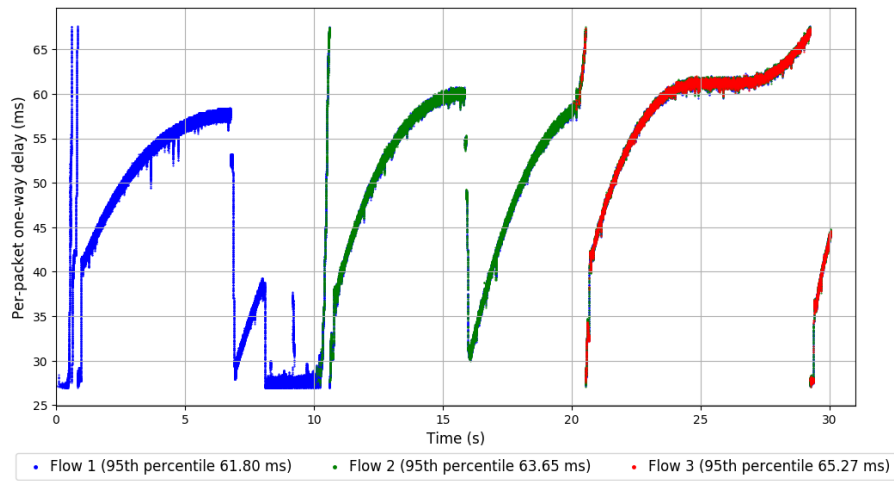
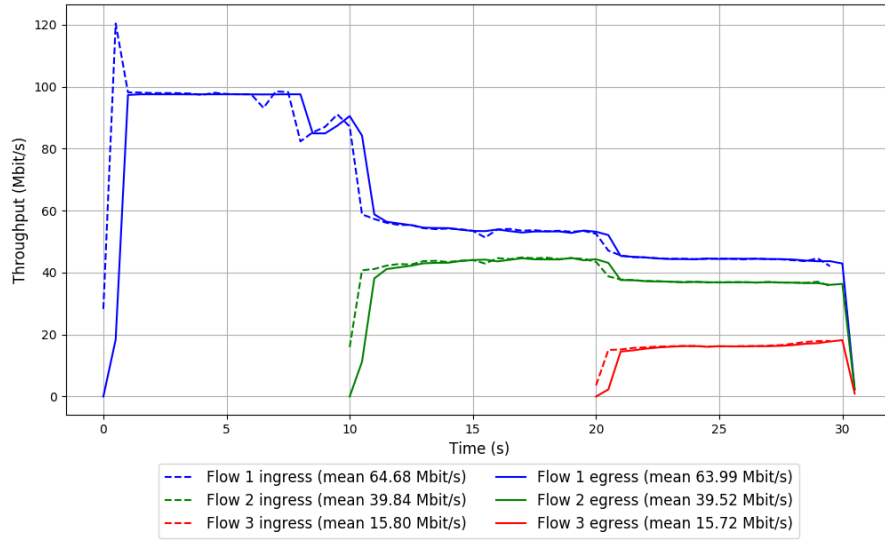
-- Flow 2:

Average throughput: 39.52 Mbit/s
95th percentile per-packet one-way delay: 63.649 ms
Loss rate: 0.71%

-- Flow 3:

Average throughput: 15.72 Mbit/s
95th percentile per-packet one-way delay: 65.273 ms
Loss rate: 0.66%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2019-05-30 00:42:17
End at: 2019-05-30 00:42:47
Local clock offset: 1.661 ms
Remote clock offset: -3.624 ms

Below is generated by plot.py at 2019-05-30 02:38:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 64.171 ms
Loss rate: 37.95%

-- Flow 1:

Average throughput: 59.23 Mbit/s
95th percentile per-packet one-way delay: 62.730 ms
Loss rate: 28.52%

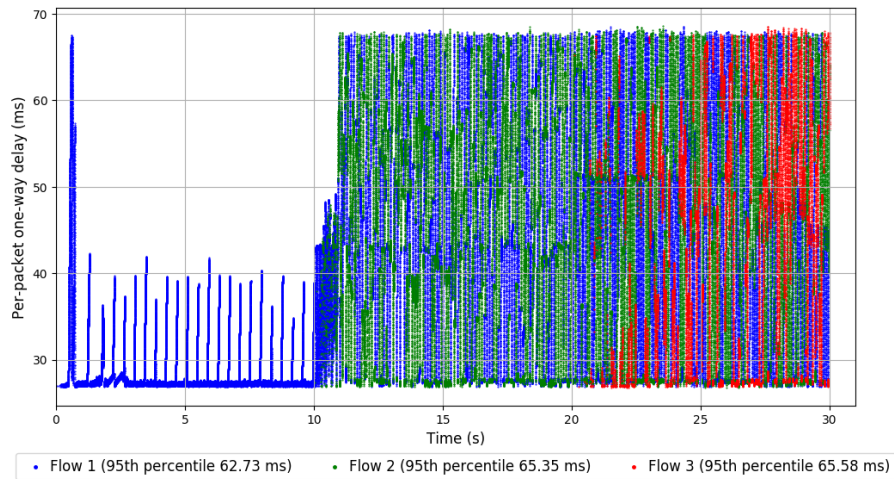
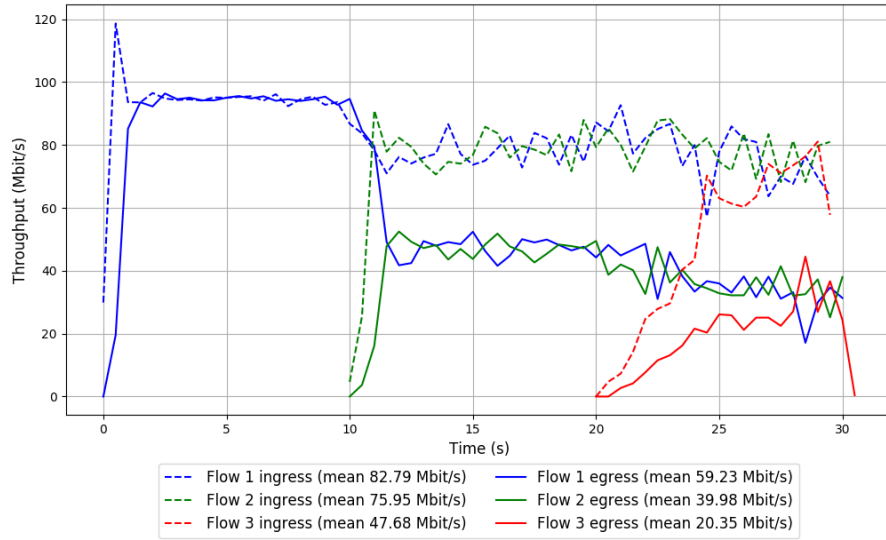
-- Flow 2:

Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 65.347 ms
Loss rate: 47.36%

-- Flow 3:

Average throughput: 20.35 Mbit/s
95th percentile per-packet one-way delay: 65.578 ms
Loss rate: 57.31%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-05-30 01:08:56
End at: 2019-05-30 01:09:26
Local clock offset: 1.197 ms
Remote clock offset: -3.134 ms

Below is generated by plot.py at 2019-05-30 02:38:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.13 Mbit/s
95th percentile per-packet one-way delay: 64.066 ms
Loss rate: 35.83%

-- Flow 1:

Average throughput: 58.73 Mbit/s
95th percentile per-packet one-way delay: 62.684 ms
Loss rate: 29.13%

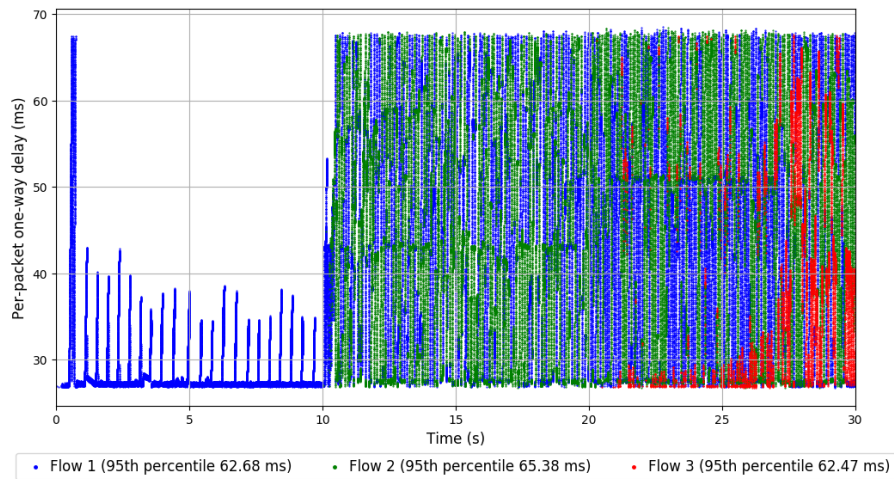
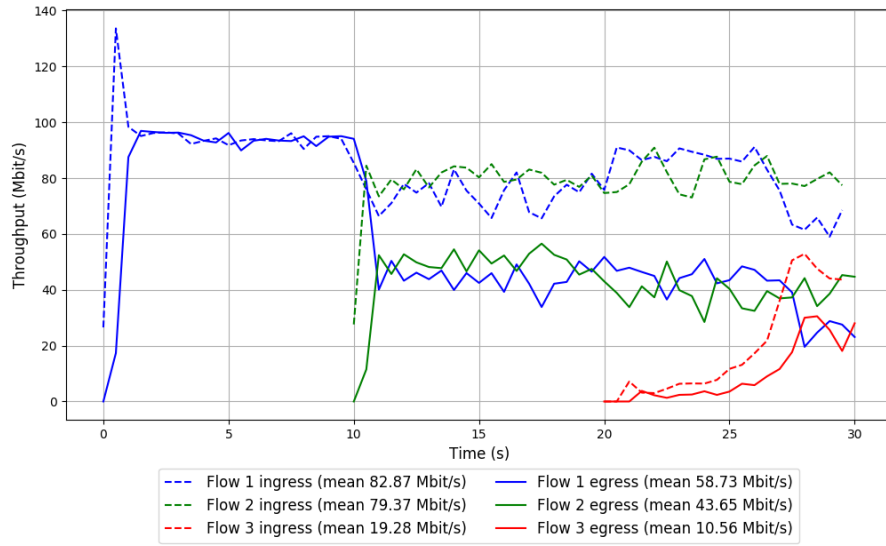
-- Flow 2:

Average throughput: 43.65 Mbit/s
95th percentile per-packet one-way delay: 65.380 ms
Loss rate: 45.03%

-- Flow 3:

Average throughput: 10.56 Mbit/s
95th percentile per-packet one-way delay: 62.466 ms
Loss rate: 46.64%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-05-30 01:34:33
End at: 2019-05-30 01:35:03
Local clock offset: 0.624 ms
Remote clock offset: -2.777 ms

Below is generated by plot.py at 2019-05-30 02:38:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 63.711 ms
Loss rate: 37.40%

-- Flow 1:

Average throughput: 58.46 Mbit/s
95th percentile per-packet one-way delay: 62.520 ms
Loss rate: 28.70%

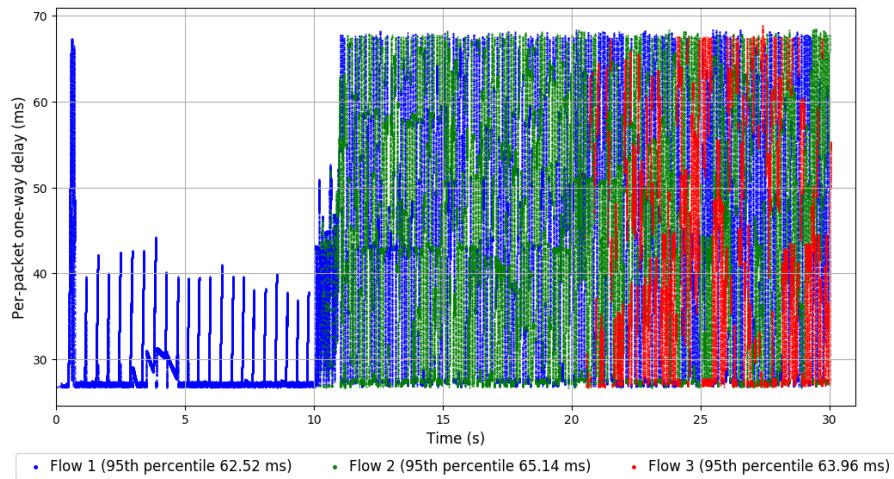
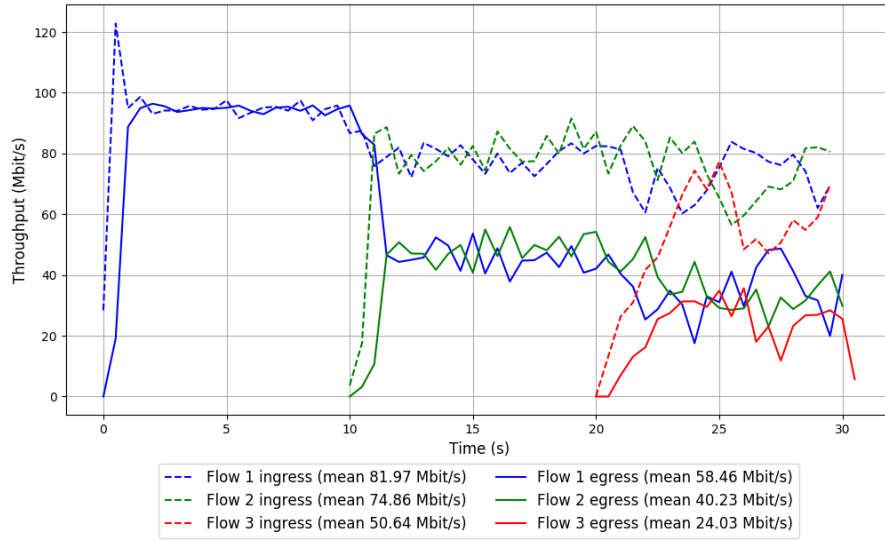
-- Flow 2:

Average throughput: 40.23 Mbit/s
95th percentile per-packet one-way delay: 65.143 ms
Loss rate: 46.25%

-- Flow 3:

Average throughput: 24.03 Mbit/s
95th percentile per-packet one-way delay: 63.963 ms
Loss rate: 53.55%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-05-30 02:00:16
End at: 2019-05-30 02:00:46
Local clock offset: 0.39 ms
Remote clock offset: -2.379 ms

Below is generated by plot.py at 2019-05-30 02:38:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 64.200 ms
Loss rate: 38.19%

-- Flow 1:

Average throughput: 58.19 Mbit/s
95th percentile per-packet one-way delay: 61.980 ms
Loss rate: 28.91%

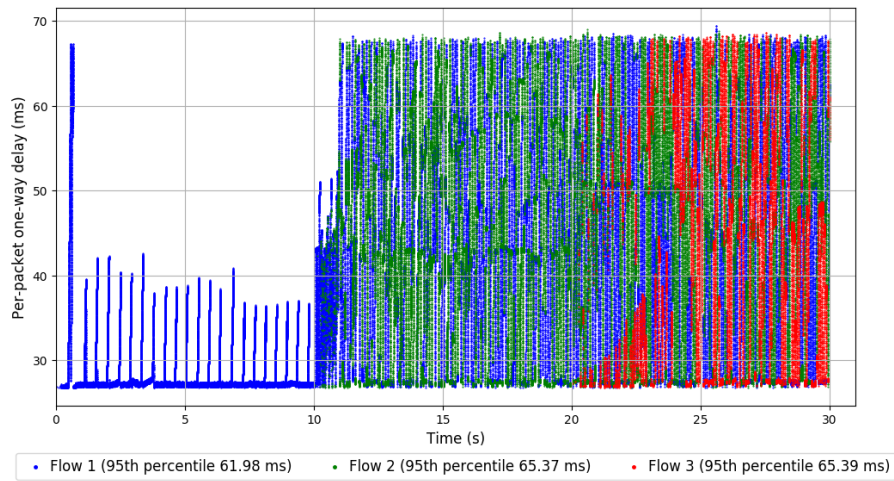
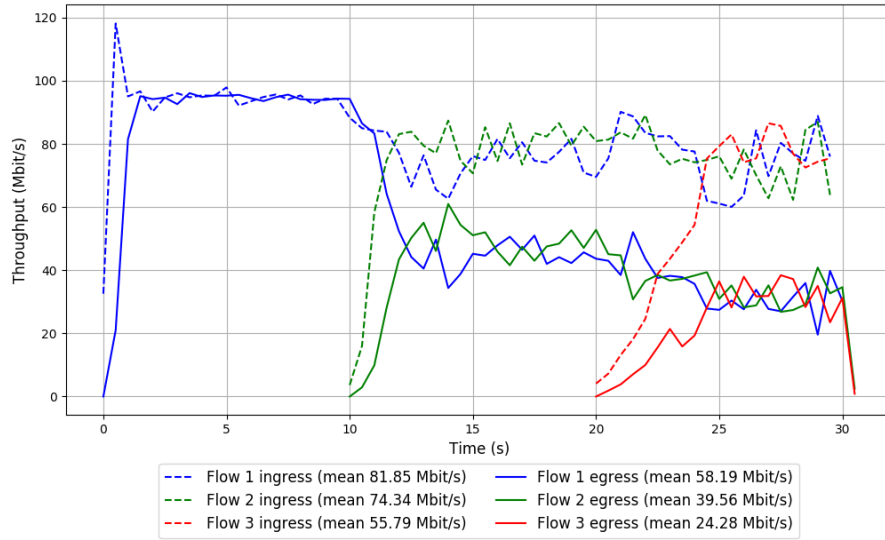
-- Flow 2:

Average throughput: 39.56 Mbit/s
95th percentile per-packet one-way delay: 65.371 ms
Loss rate: 46.70%

-- Flow 3:

Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 65.390 ms
Loss rate: 56.47%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-05-30 02:26:06
End at: 2019-05-30 02:26:36
Local clock offset: 0.506 ms
Remote clock offset: -2.018 ms

Below is generated by plot.py at 2019-05-30 02:38:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.08 Mbit/s
95th percentile per-packet one-way delay: 63.722 ms
Loss rate: 37.44%

-- Flow 1:

Average throughput: 58.84 Mbit/s
95th percentile per-packet one-way delay: 62.284 ms
Loss rate: 28.89%

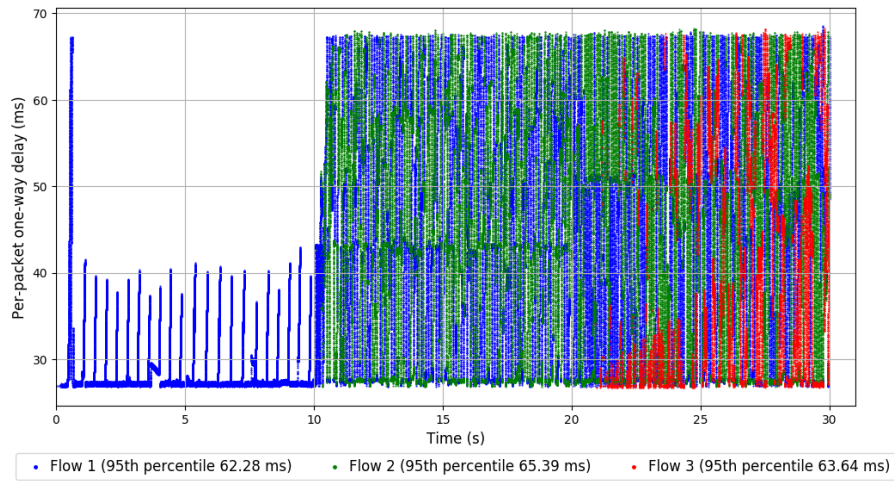
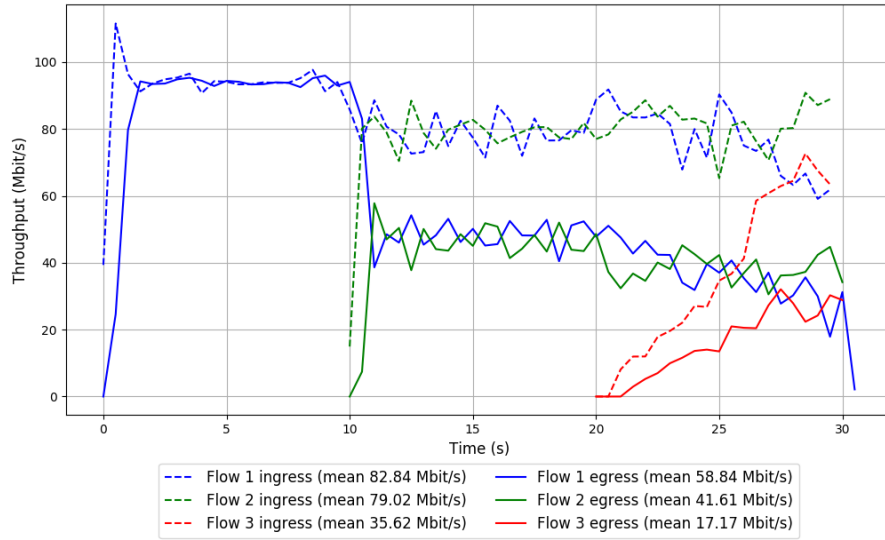
-- Flow 2:

Average throughput: 41.61 Mbit/s
95th percentile per-packet one-way delay: 65.390 ms
Loss rate: 47.37%

-- Flow 3:

Average throughput: 17.17 Mbit/s
95th percentile per-packet one-way delay: 63.636 ms
Loss rate: 53.02%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-05-30 00:37:30
End at: 2019-05-30 00:38:00
Local clock offset: 2.338 ms
Remote clock offset: -3.981 ms

Below is generated by plot.py at 2019-05-30 02:38:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.10 Mbit/s
95th percentile per-packet one-way delay: 61.453 ms
Loss rate: 12.78%

-- Flow 1:

Average throughput: 51.36 Mbit/s
95th percentile per-packet one-way delay: 59.113 ms
Loss rate: 9.41%

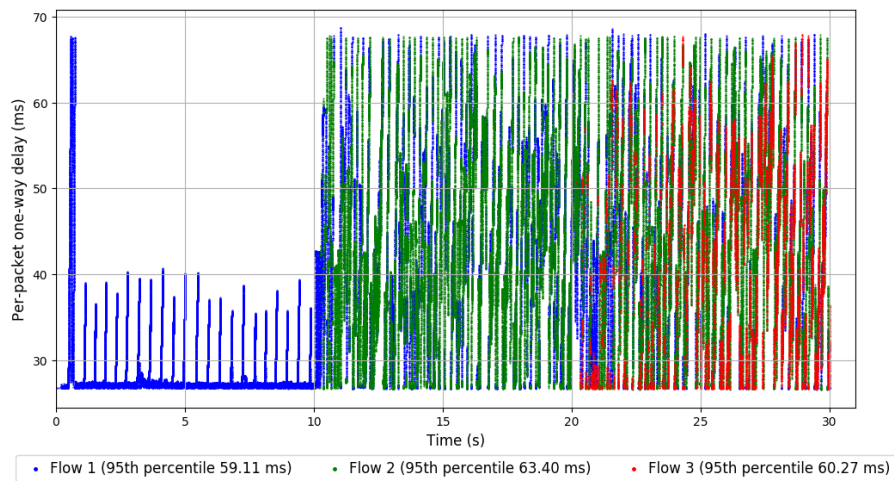
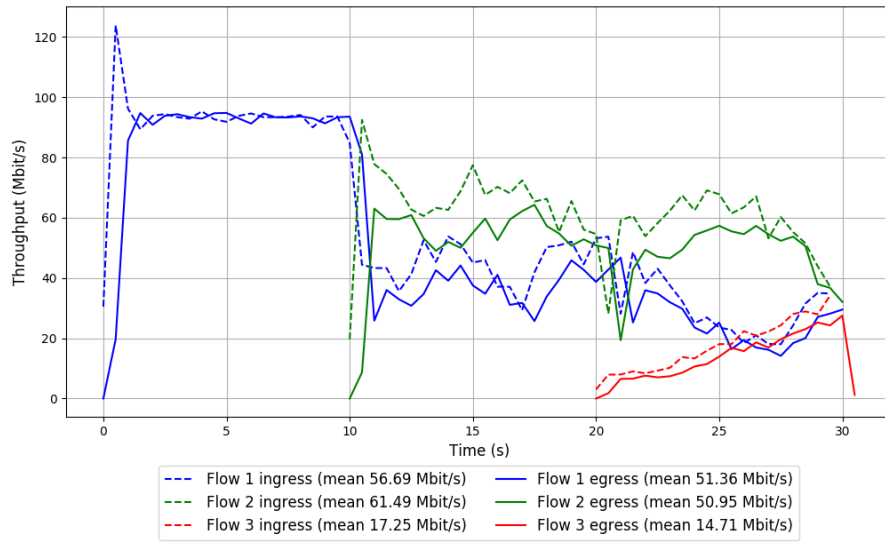
-- Flow 2:

Average throughput: 50.95 Mbit/s
95th percentile per-packet one-way delay: 63.404 ms
Loss rate: 17.14%

-- Flow 3:

Average throughput: 14.71 Mbit/s
95th percentile per-packet one-way delay: 60.267 ms
Loss rate: 15.01%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-05-30 01:03:55
End at: 2019-05-30 01:04:25
Local clock offset: 1.239 ms
Remote clock offset: -3.178 ms

Below is generated by plot.py at 2019-05-30 02:39:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.23 Mbit/s
95th percentile per-packet one-way delay: 61.598 ms
Loss rate: 12.40%

-- Flow 1:

Average throughput: 51.34 Mbit/s
95th percentile per-packet one-way delay: 59.281 ms
Loss rate: 8.77%

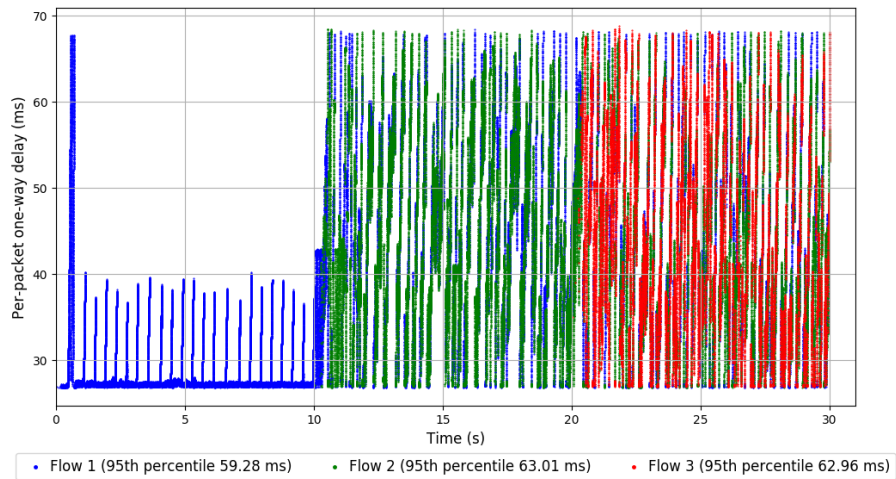
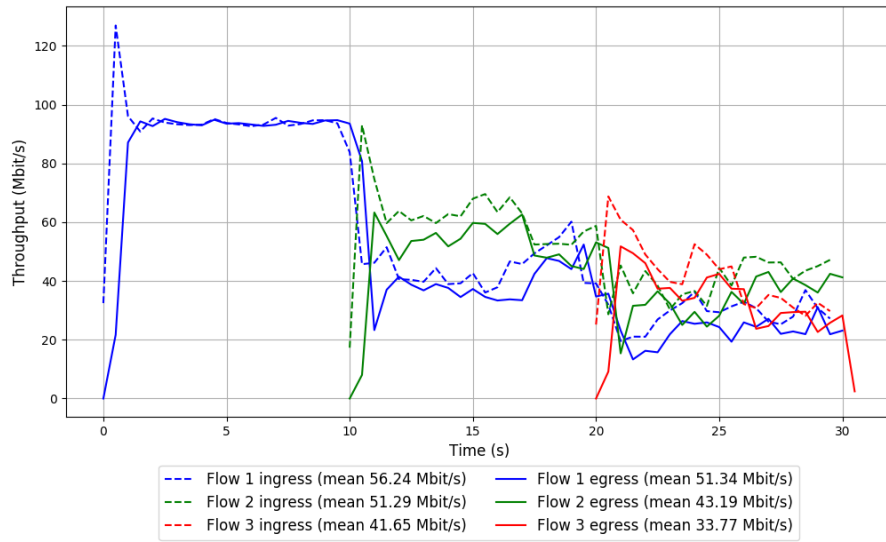
-- Flow 2:

Average throughput: 43.19 Mbit/s
95th percentile per-packet one-way delay: 63.012 ms
Loss rate: 15.82%

-- Flow 3:

Average throughput: 33.77 Mbit/s
95th percentile per-packet one-way delay: 62.959 ms
Loss rate: 18.74%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-05-30 01:29:47
End at: 2019-05-30 01:30:17
Local clock offset: 0.568 ms
Remote clock offset: -2.885 ms

Below is generated by plot.py at 2019-05-30 02:39:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.65 Mbit/s
95th percentile per-packet one-way delay: 61.932 ms
Loss rate: 12.03%

-- Flow 1:

Average throughput: 57.64 Mbit/s
95th percentile per-packet one-way delay: 60.271 ms
Loss rate: 9.16%

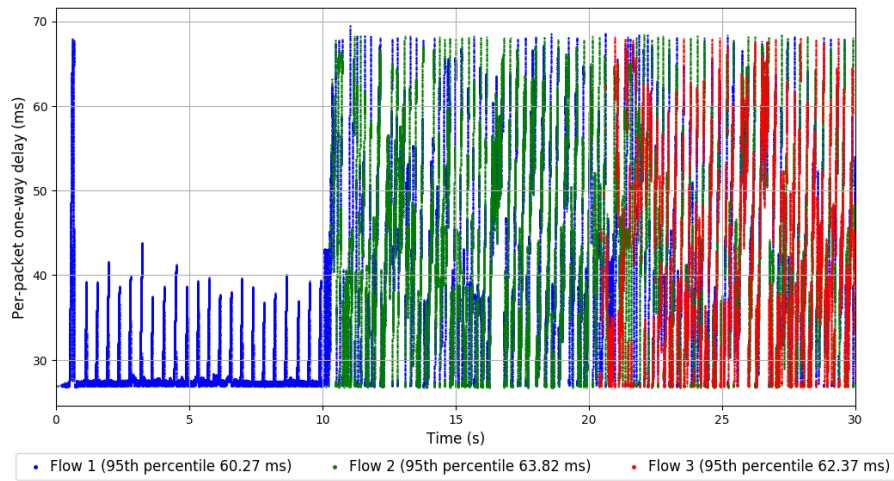
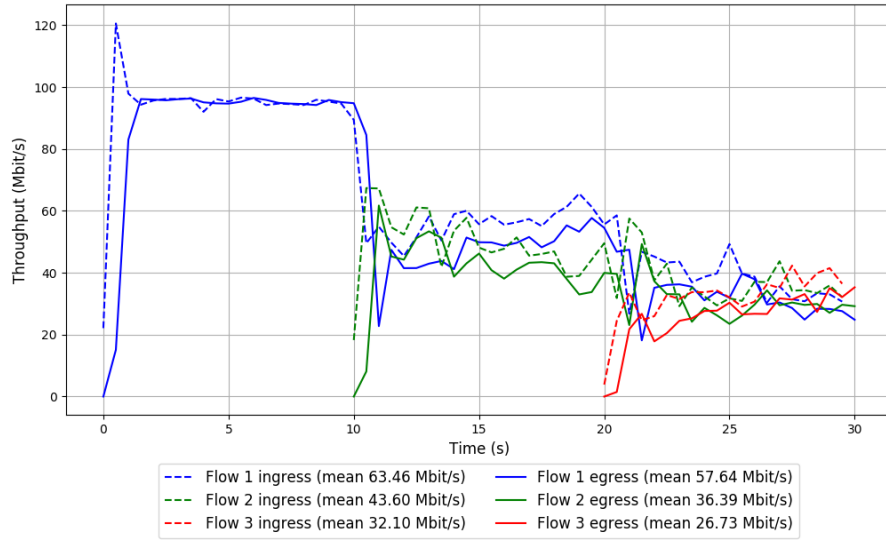
-- Flow 2:

Average throughput: 36.39 Mbit/s
95th percentile per-packet one-way delay: 63.818 ms
Loss rate: 16.54%

-- Flow 3:

Average throughput: 26.73 Mbit/s
95th percentile per-packet one-way delay: 62.367 ms
Loss rate: 16.90%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-05-30 01:55:26

End at: 2019-05-30 01:55:56

Local clock offset: 0.34 ms

Remote clock offset: -2.46 ms

Below is generated by plot.py at 2019-05-30 02:40:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.44 Mbit/s

95th percentile per-packet one-way delay: 61.926 ms

Loss rate: 12.98%

-- Flow 1:

Average throughput: 55.98 Mbit/s

95th percentile per-packet one-way delay: 59.741 ms

Loss rate: 9.40%

-- Flow 2:

Average throughput: 36.99 Mbit/s

95th percentile per-packet one-way delay: 63.721 ms

Loss rate: 18.55%

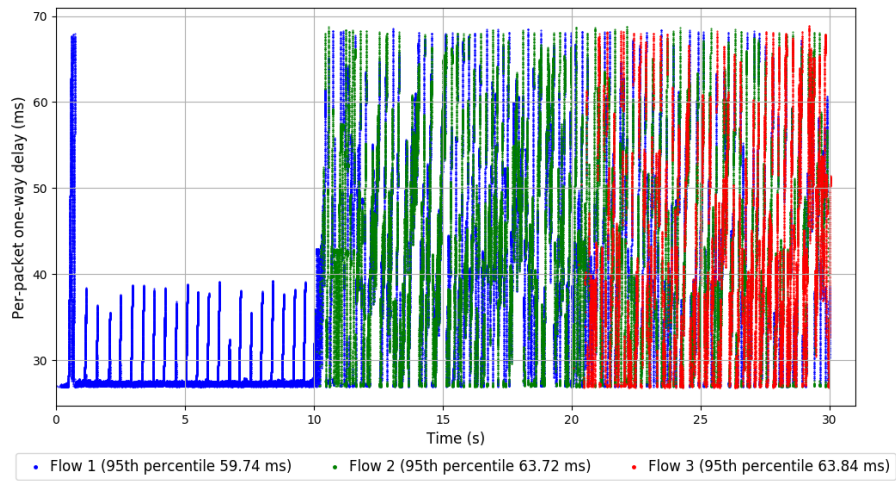
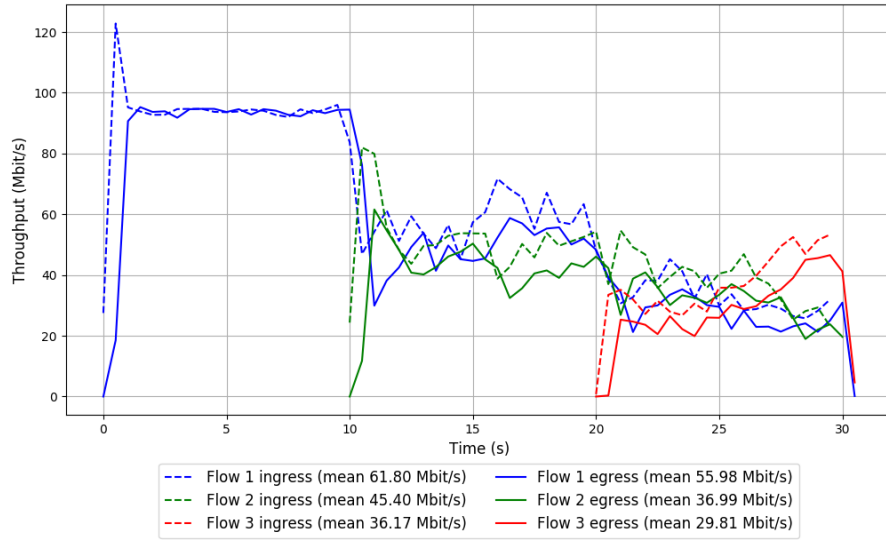
-- Flow 3:

Average throughput: 29.81 Mbit/s

95th percentile per-packet one-way delay: 63.843 ms

Loss rate: 17.40%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-05-30 02:21:13
End at: 2019-05-30 02:21:43
Local clock offset: 0.404 ms
Remote clock offset: -2.047 ms

Below is generated by plot.py at 2019-05-30 02:40:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.13 Mbit/s
95th percentile per-packet one-way delay: 61.431 ms
Loss rate: 11.98%

-- Flow 1:

Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 59.636 ms
Loss rate: 9.16%

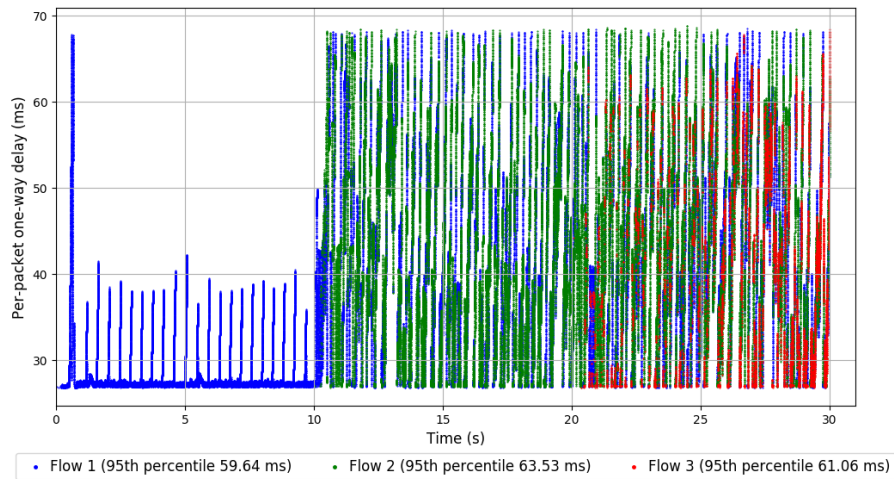
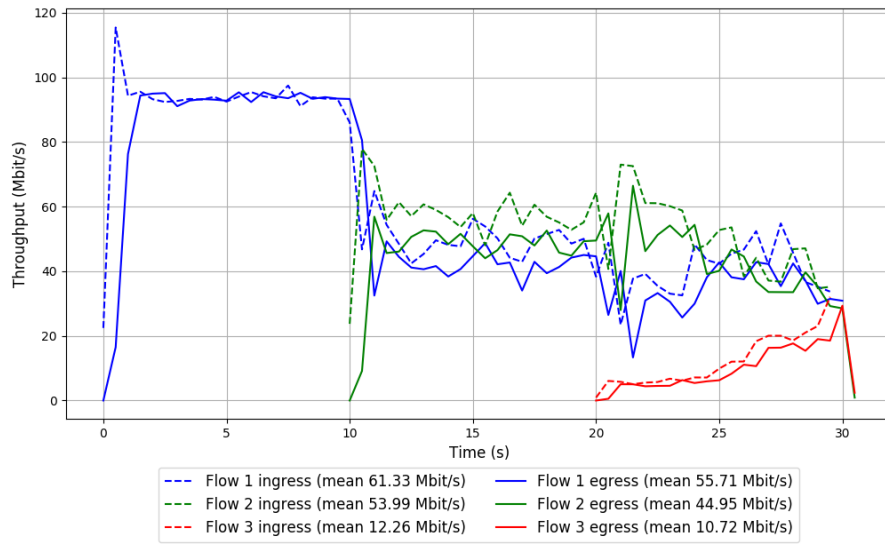
-- Flow 2:

Average throughput: 44.95 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 16.74%

-- Flow 3:

Average throughput: 10.72 Mbit/s
95th percentile per-packet one-way delay: 61.060 ms
Loss rate: 12.44%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-05-30 00:27:53
End at: 2019-05-30 00:28:23
Local clock offset: 1.057 ms
Remote clock offset: -3.986 ms

Below is generated by plot.py at 2019-05-30 02:40:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 45.794 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.84 Mbit/s
95th percentile per-packet one-way delay: 40.698 ms
Loss rate: 0.00%

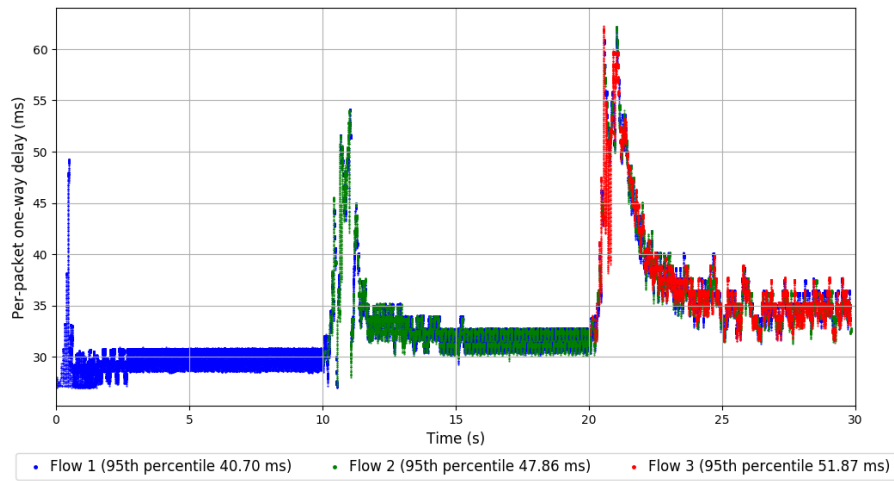
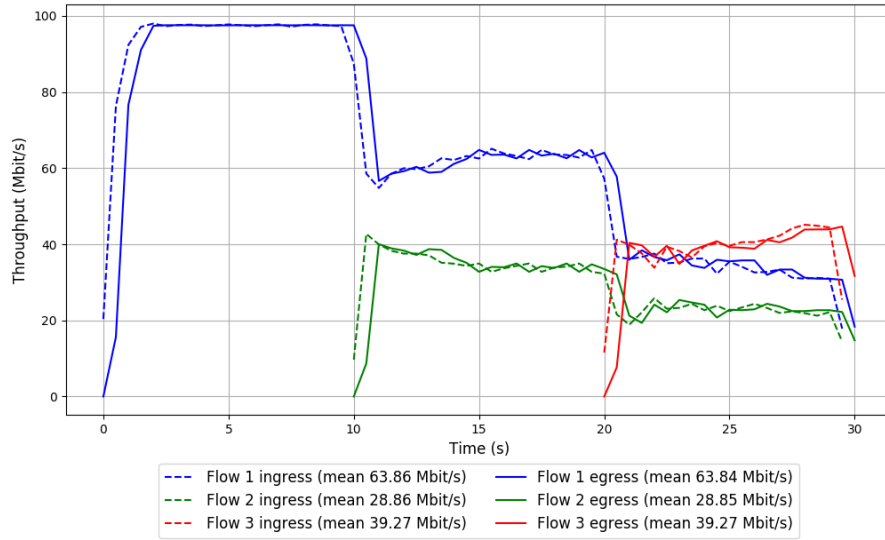
-- Flow 2:

Average throughput: 28.85 Mbit/s
95th percentile per-packet one-way delay: 47.864 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 39.27 Mbit/s
95th percentile per-packet one-way delay: 51.869 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-05-30 00:53:42
End at: 2019-05-30 00:54:12
Local clock offset: 1.103 ms
Remote clock offset: -3.311 ms

Below is generated by plot.py at 2019-05-30 02:40:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.62 Mbit/s
95th percentile per-packet one-way delay: 39.311 ms
Loss rate: 0.11%

-- Flow 1:

Average throughput: 67.75 Mbit/s
95th percentile per-packet one-way delay: 37.542 ms
Loss rate: 0.16%

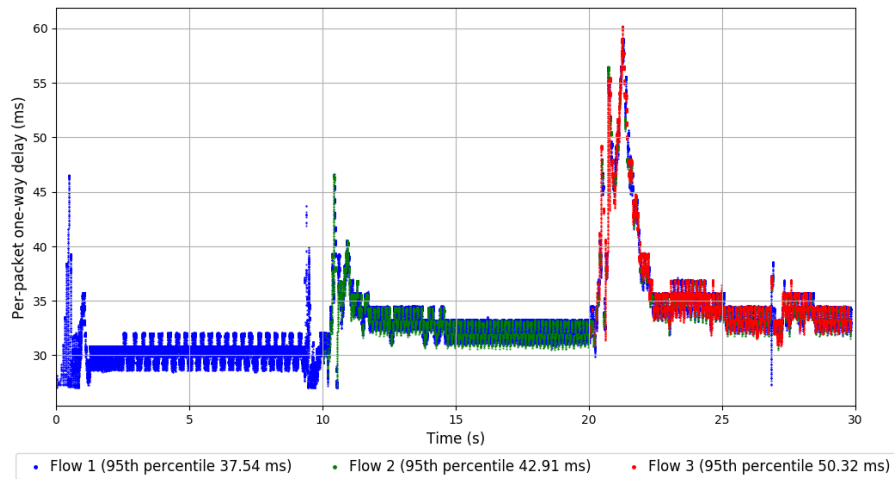
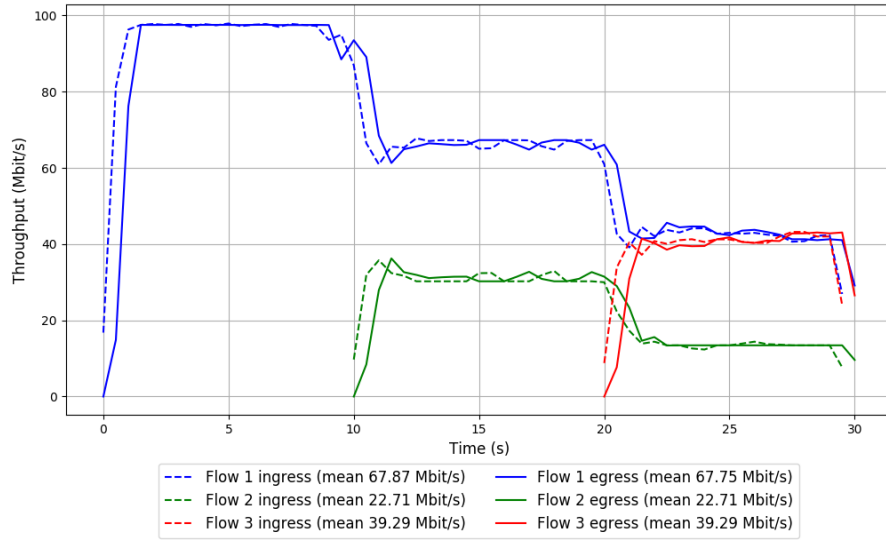
-- Flow 2:

Average throughput: 22.71 Mbit/s
95th percentile per-packet one-way delay: 42.911 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 39.29 Mbit/s
95th percentile per-packet one-way delay: 50.324 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-05-30 01:20:06

End at: 2019-05-30 01:20:36

Local clock offset: 0.655 ms

Remote clock offset: -2.91 ms

Below is generated by plot.py at 2019-05-30 02:40:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.86 Mbit/s

95th percentile per-packet one-way delay: 41.719 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 67.58 Mbit/s

95th percentile per-packet one-way delay: 40.275 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 28.65 Mbit/s

95th percentile per-packet one-way delay: 44.107 ms

Loss rate: 0.00%

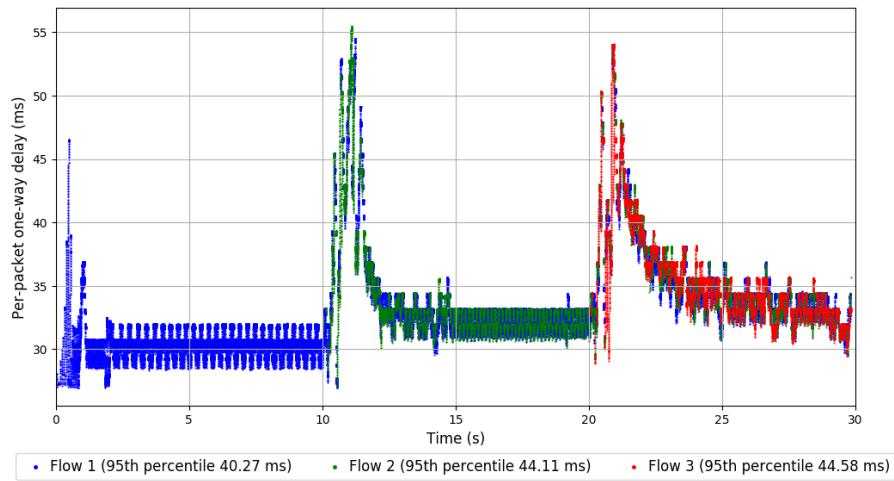
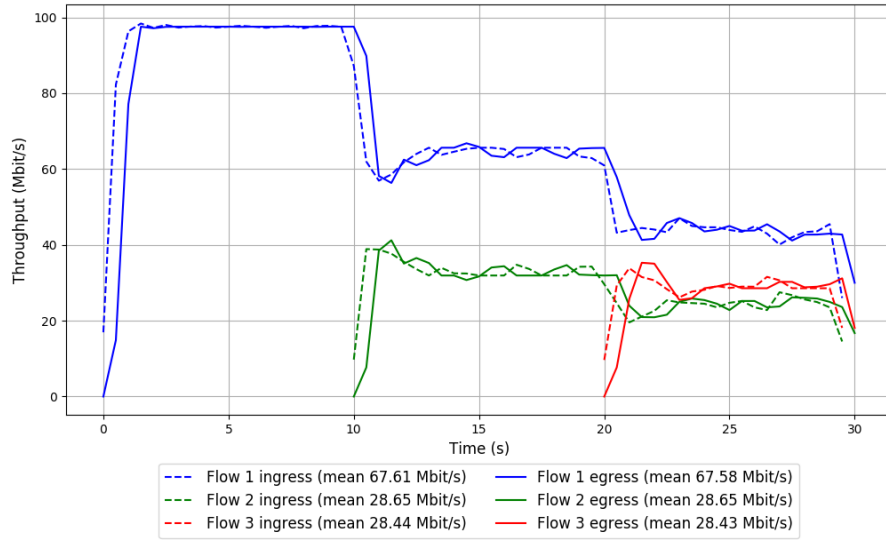
-- Flow 3:

Average throughput: 28.43 Mbit/s

95th percentile per-packet one-way delay: 44.575 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

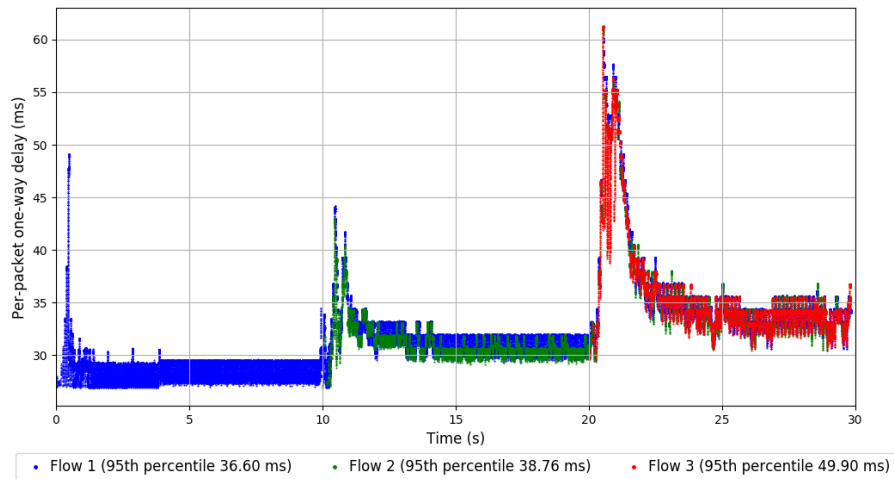
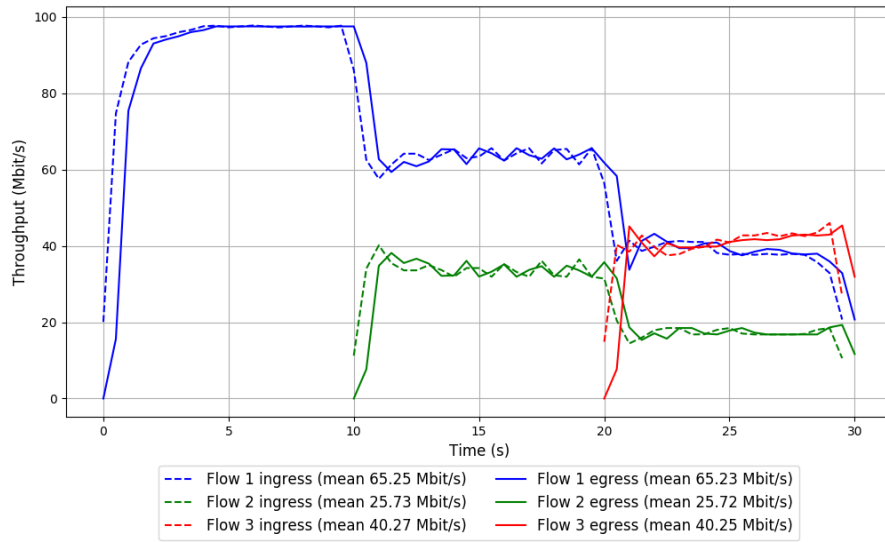


Run 4: Statistics of Indigo

Start at: 2019-05-30 01:45:39
End at: 2019-05-30 01:46:09
Local clock offset: 0.44 ms
Remote clock offset: -2.603 ms

```
# Below is generated by plot.py at 2019-05-30 02:40:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.44 Mbit/s
95th percentile per-packet one-way delay: 39.000 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.23 Mbit/s
95th percentile per-packet one-way delay: 36.601 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.72 Mbit/s
95th percentile per-packet one-way delay: 38.763 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.25 Mbit/s
95th percentile per-packet one-way delay: 49.904 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-05-30 02:11:23
End at: 2019-05-30 02:11:53
Local clock offset: 0.41 ms
Remote clock offset: -2.177 ms

Below is generated by plot.py at 2019-05-30 02:40:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.86 Mbit/s
95th percentile per-packet one-way delay: 45.879 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.32 Mbit/s
95th percentile per-packet one-way delay: 41.507 ms
Loss rate: 0.00%

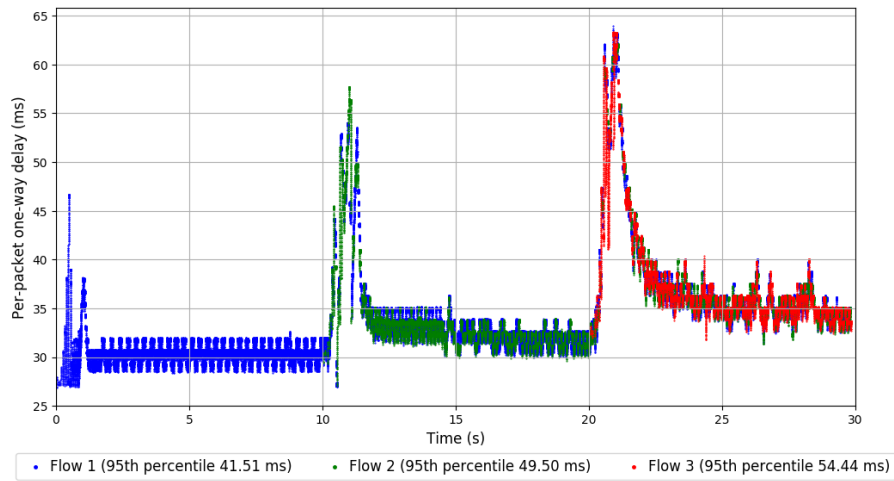
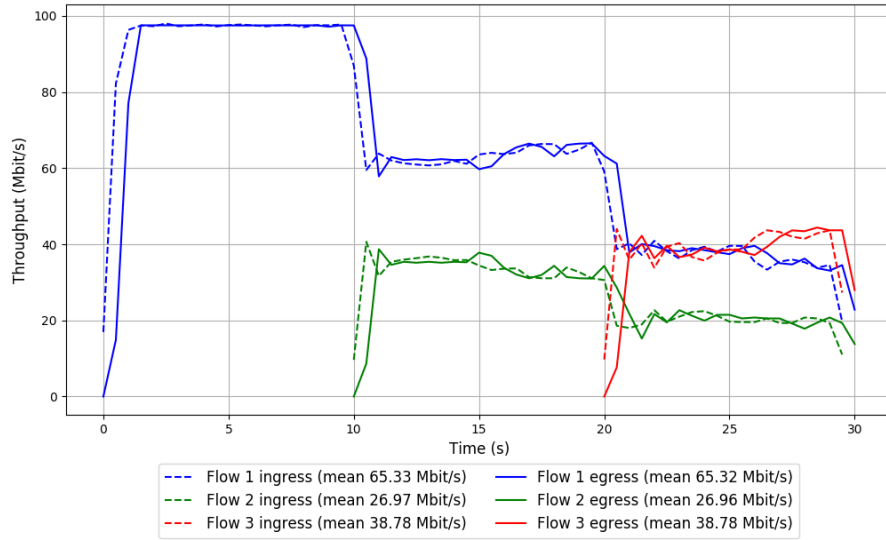
-- Flow 2:

Average throughput: 26.96 Mbit/s
95th percentile per-packet one-way delay: 49.500 ms
Loss rate: 0.01%

-- Flow 3:

Average throughput: 38.78 Mbit/s
95th percentile per-packet one-way delay: 54.443 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-05-30 00:49:49
End at: 2019-05-30 00:50:19
Local clock offset: 1.148 ms
Remote clock offset: -3.415 ms

Below is generated by plot.py at 2019-05-30 02:40:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 47.802 ms
Loss rate: 0.70%

-- Flow 1:

Average throughput: 56.57 Mbit/s
95th percentile per-packet one-way delay: 42.867 ms
Loss rate: 0.33%

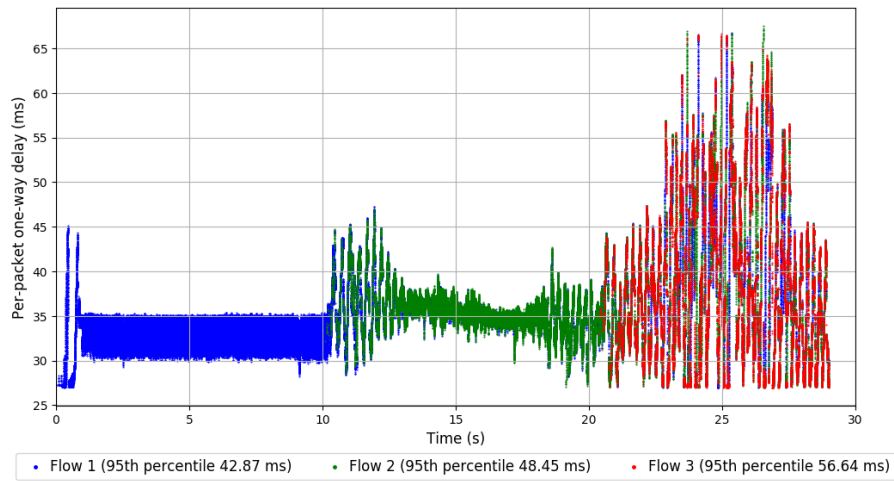
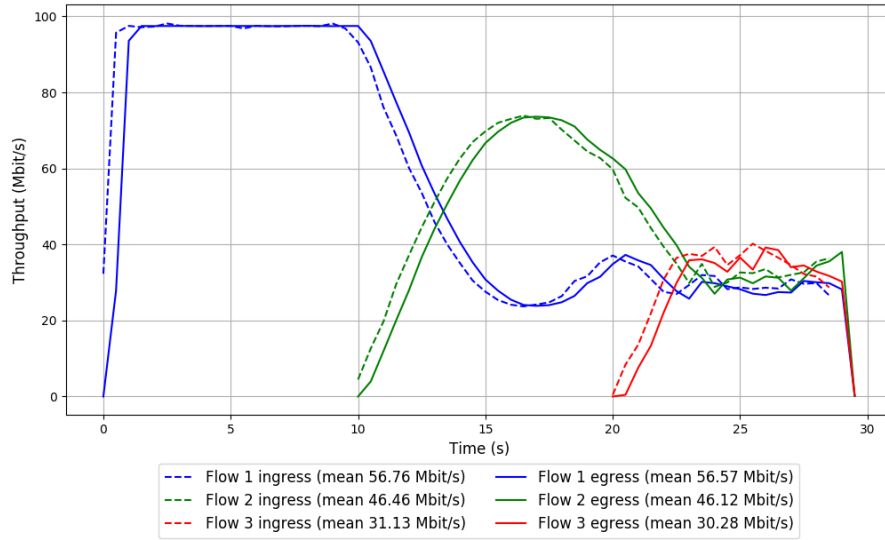
-- Flow 2:

Average throughput: 46.12 Mbit/s
95th percentile per-packet one-way delay: 48.451 ms
Loss rate: 0.75%

-- Flow 3:

Average throughput: 30.28 Mbit/s
95th percentile per-packet one-way delay: 56.639 ms
Loss rate: 2.79%

Run 1: Report of Indigo-MusesC3 — Data Link

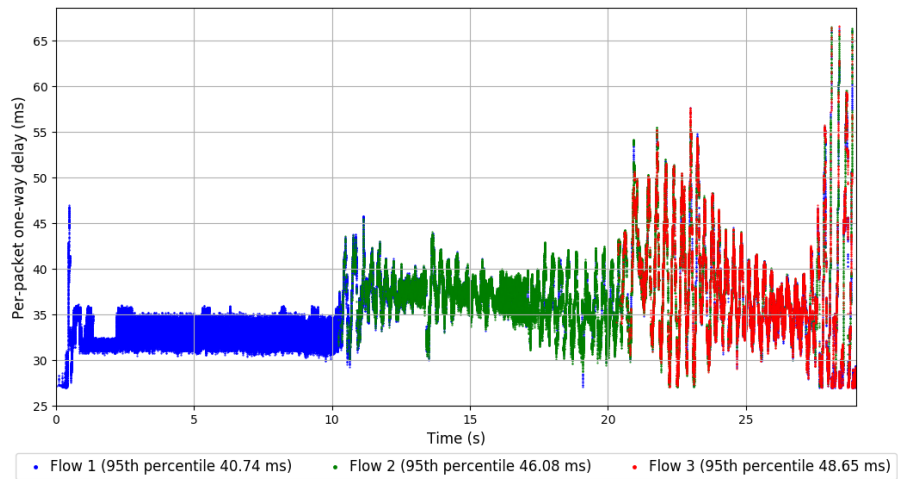
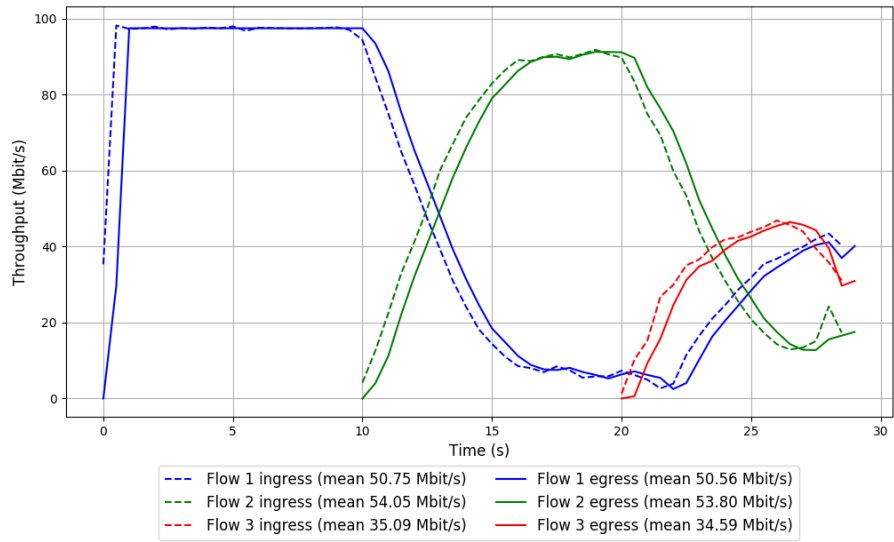


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-05-30 01:16:19
End at: 2019-05-30 01:16:49
Local clock offset: 0.724 ms
Remote clock offset: -2.924 ms

```
# Below is generated by plot.py at 2019-05-30 02:41:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.95 Mbit/s
95th percentile per-packet one-way delay: 43.813 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 40.745 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 53.80 Mbit/s
95th percentile per-packet one-way delay: 46.083 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 34.59 Mbit/s
95th percentile per-packet one-way delay: 48.650 ms
Loss rate: 1.49%
```

Run 2: Report of Indigo-MusesC3 — Data Link

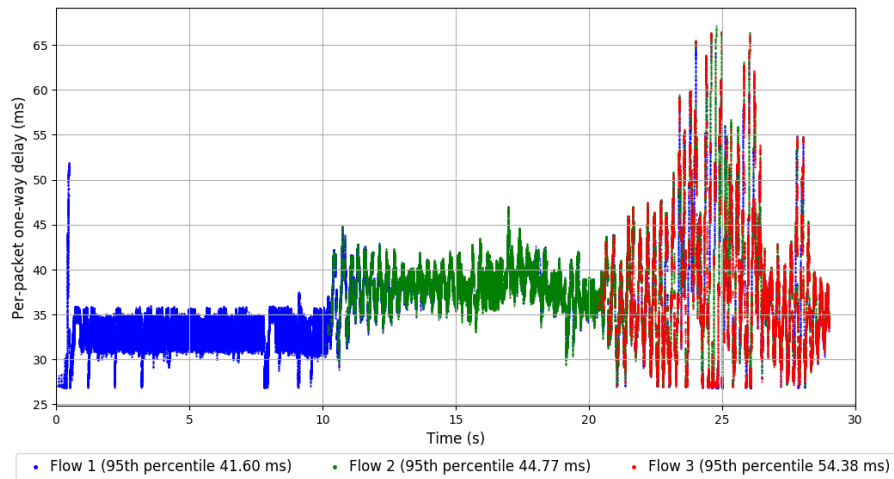
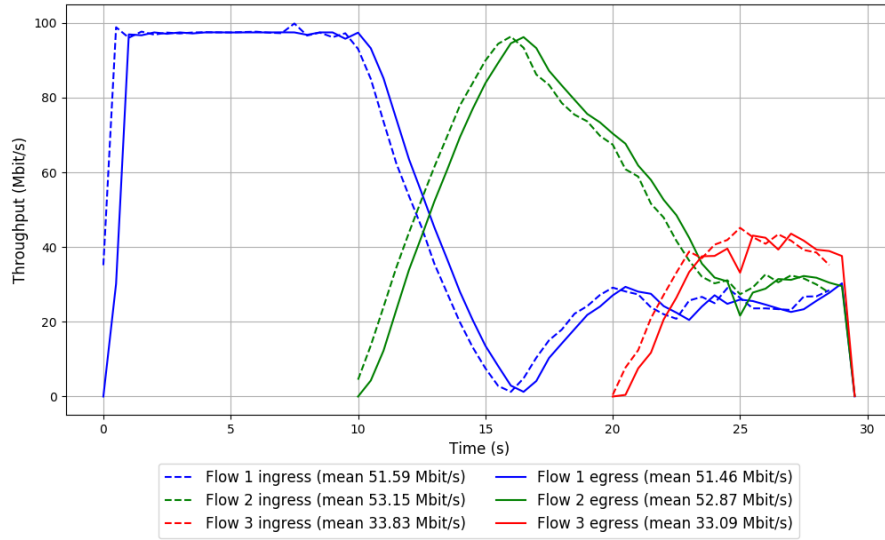


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-05-30 01:41:54
End at: 2019-05-30 01:42:24
Local clock offset: 0.512 ms
Remote clock offset: -2.706 ms

```
# Below is generated by plot.py at 2019-05-30 02:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 44.885 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 51.46 Mbit/s
95th percentile per-packet one-way delay: 41.596 ms
Loss rate: 0.23%
-- Flow 2:
Average throughput: 52.87 Mbit/s
95th percentile per-packet one-way delay: 44.765 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 54.385 ms
Loss rate: 2.20%
```

Run 3: Report of Indigo-MusesC3 — Data Link

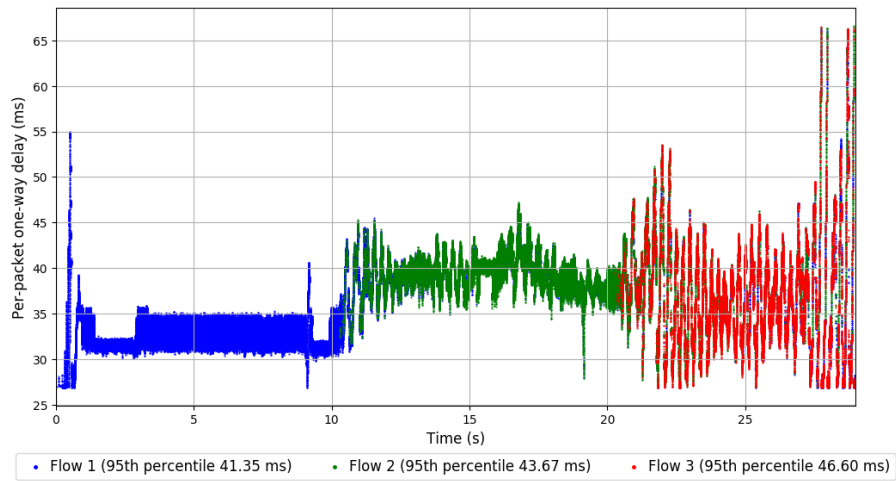
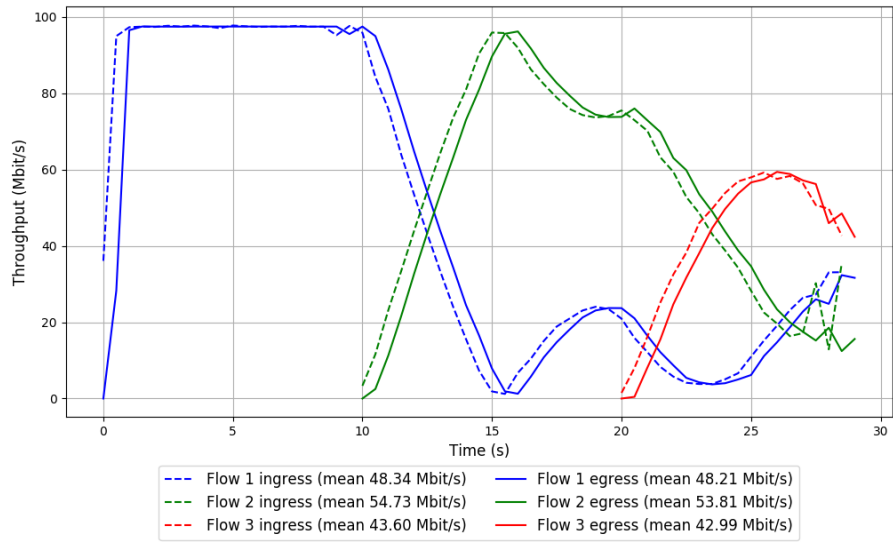


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-05-30 02:07:36
End at: 2019-05-30 02:08:06
Local clock offset: 0.472 ms
Remote clock offset: -2.221 ms

```
# Below is generated by plot.py at 2019-05-30 02:41:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 43.145 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 48.21 Mbit/s
95th percentile per-packet one-way delay: 41.352 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 53.81 Mbit/s
95th percentile per-packet one-way delay: 43.671 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 42.99 Mbit/s
95th percentile per-packet one-way delay: 46.602 ms
Loss rate: 1.52%
```

Run 4: Report of Indigo-MusesC3 — Data Link

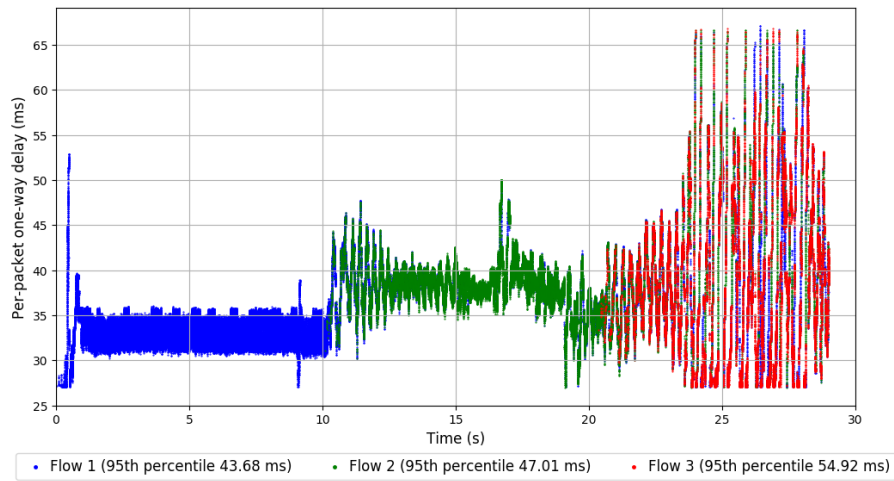
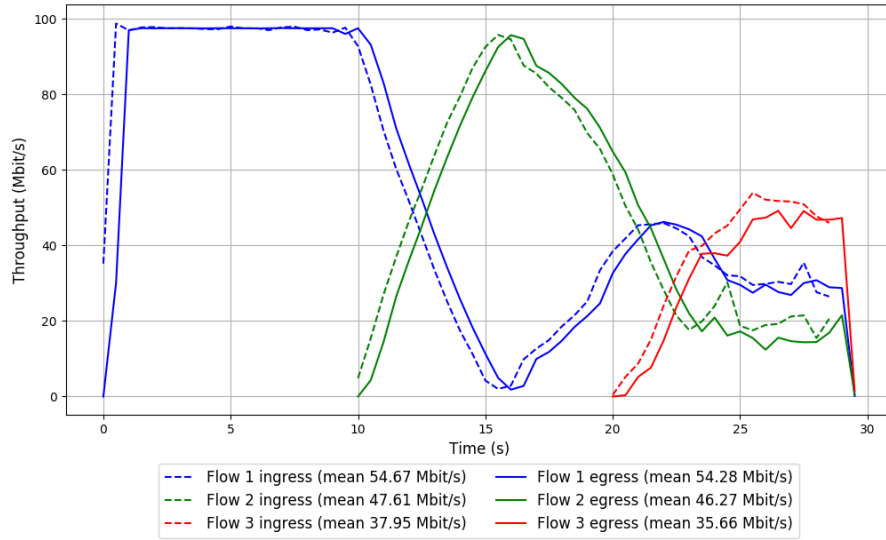


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-05-30 02:33:28
End at: 2019-05-30 02:33:58
Local clock offset: 0.607 ms
Remote clock offset: -1.851 ms

```
# Below is generated by plot.py at 2019-05-30 02:41:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.09 Mbit/s
95th percentile per-packet one-way delay: 47.685 ms
Loss rate: 1.97%
-- Flow 1:
Average throughput: 54.28 Mbit/s
95th percentile per-packet one-way delay: 43.681 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 46.27 Mbit/s
95th percentile per-packet one-way delay: 47.010 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 35.66 Mbit/s
95th percentile per-packet one-way delay: 54.917 ms
Loss rate: 6.02%
```

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:26:40
End at: 2019-05-30 00:27:10
Local clock offset: 0.761 ms
Remote clock offset: -3.935 ms

Below is generated by plot.py at 2019-05-30 02:41:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.34 Mbit/s
95th percentile per-packet one-way delay: 60.011 ms
Loss rate: 13.79%

-- Flow 1:

Average throughput: 58.45 Mbit/s
95th percentile per-packet one-way delay: 57.966 ms
Loss rate: 10.74%

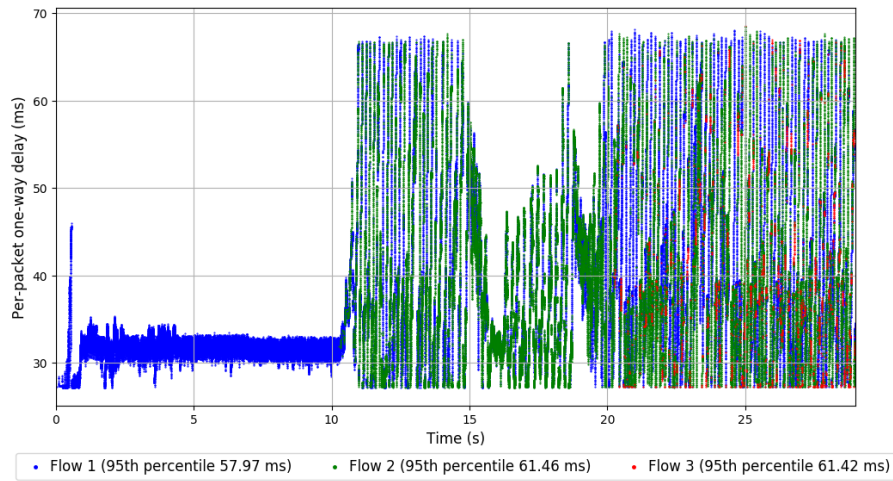
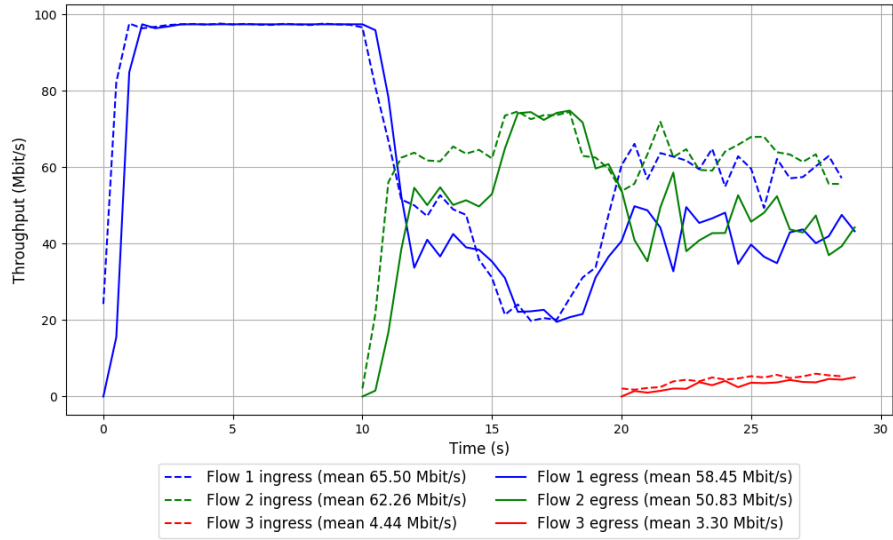
-- Flow 2:

Average throughput: 50.83 Mbit/s
95th percentile per-packet one-way delay: 61.460 ms
Loss rate: 18.37%

-- Flow 3:

Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 61.417 ms
Loss rate: 25.63%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-05-30 00:52:25
End at: 2019-05-30 00:52:55
Local clock offset: 1.121 ms
Remote clock offset: -3.354 ms

Below is generated by plot.py at 2019-05-30 02:41:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 59.314 ms
Loss rate: 14.55%

-- Flow 1:

Average throughput: 63.50 Mbit/s
95th percentile per-packet one-way delay: 56.178 ms
Loss rate: 10.54%

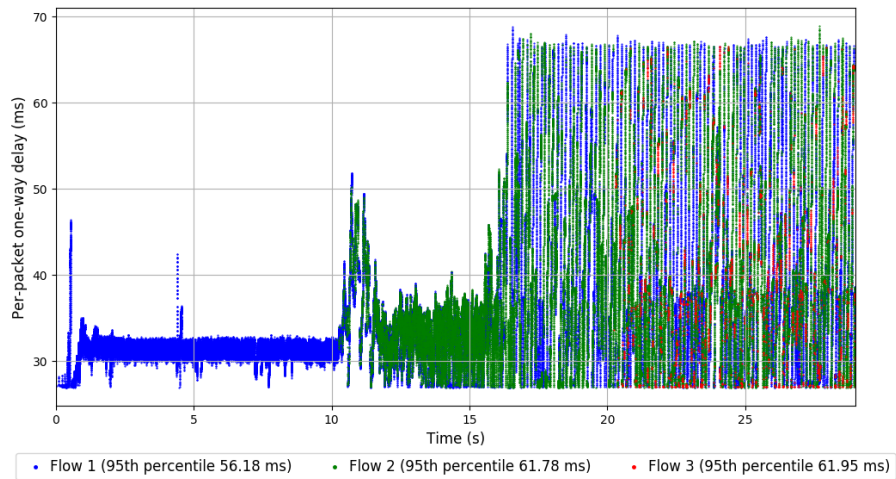
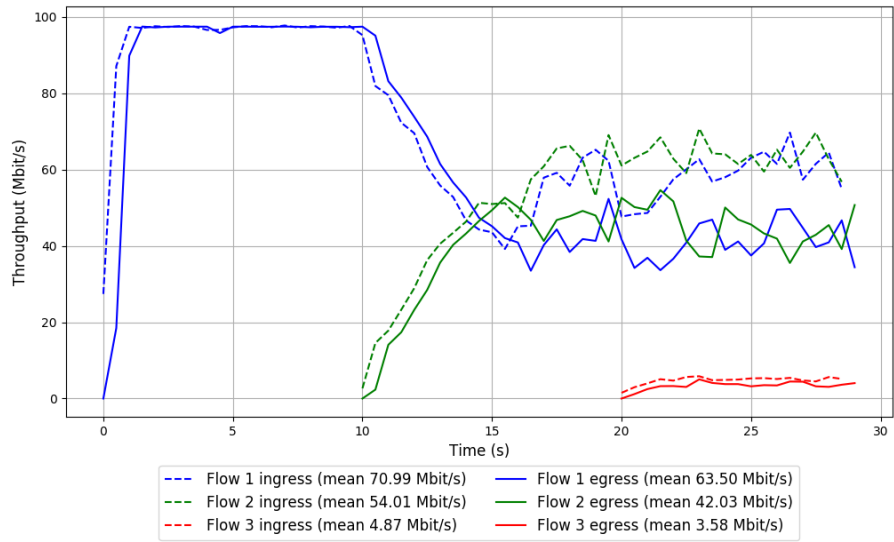
-- Flow 2:

Average throughput: 42.03 Mbit/s
95th percentile per-packet one-way delay: 61.778 ms
Loss rate: 22.18%

-- Flow 3:

Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 61.950 ms
Loss rate: 26.55%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-05-30 01:18:50

End at: 2019-05-30 01:19:20

Local clock offset: 0.648 ms

Remote clock offset: -2.82 ms

Below is generated by plot.py at 2019-05-30 02:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.57 Mbit/s

95th percentile per-packet one-way delay: 59.523 ms

Loss rate: 13.73%

-- Flow 1:

Average throughput: 64.25 Mbit/s

95th percentile per-packet one-way delay: 56.275 ms

Loss rate: 10.08%

-- Flow 2:

Average throughput: 41.98 Mbit/s

95th percentile per-packet one-way delay: 62.219 ms

Loss rate: 20.87%

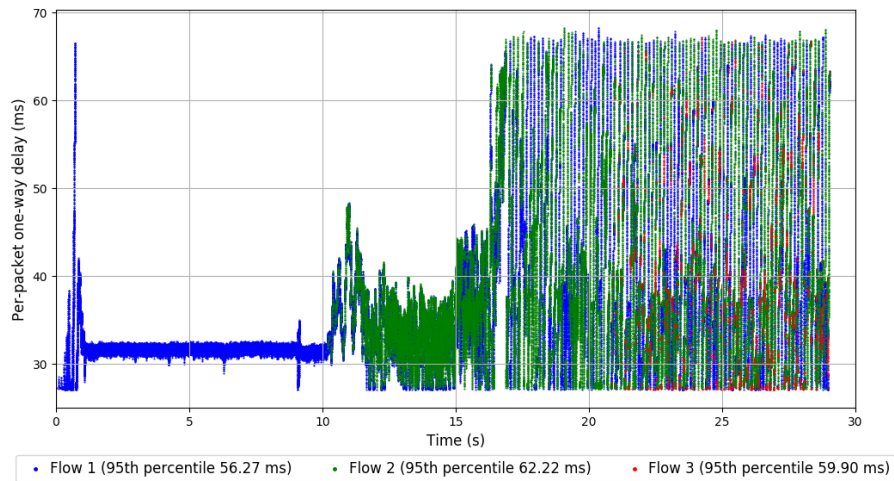
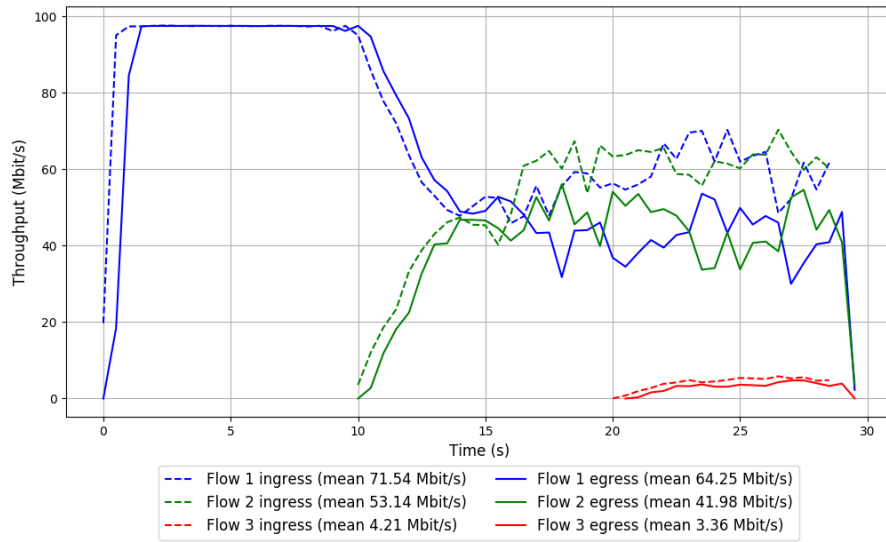
-- Flow 3:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 59.897 ms

Loss rate: 24.52%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-05-30 01:44:25

End at: 2019-05-30 01:44:55

Local clock offset: 0.414 ms

Remote clock offset: -2.64 ms

Below is generated by plot.py at 2019-05-30 02:42:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.34 Mbit/s

95th percentile per-packet one-way delay: 60.133 ms

Loss rate: 13.75%

-- Flow 1:

Average throughput: 58.02 Mbit/s

95th percentile per-packet one-way delay: 58.712 ms

Loss rate: 10.80%

-- Flow 2:

Average throughput: 51.03 Mbit/s

95th percentile per-packet one-way delay: 61.695 ms

Loss rate: 18.02%

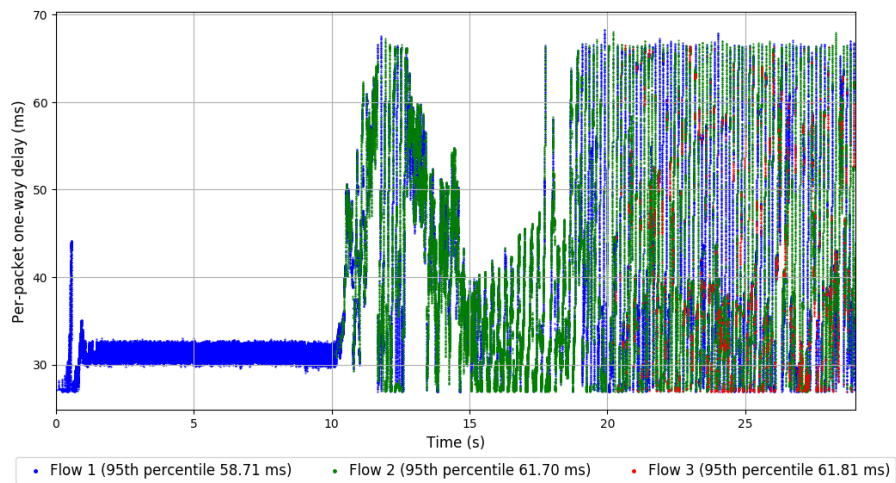
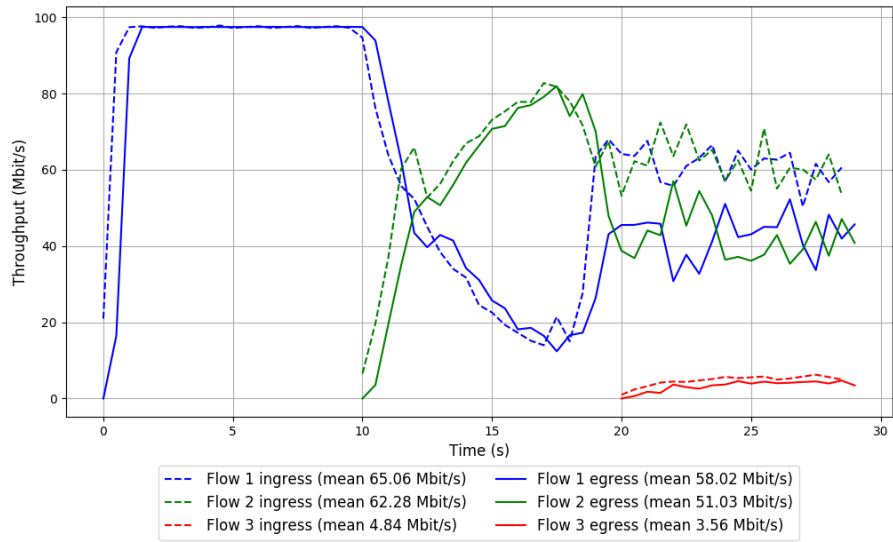
-- Flow 3:

Average throughput: 3.56 Mbit/s

95th percentile per-packet one-way delay: 61.814 ms

Loss rate: 26.48%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-05-30 02:10:07

End at: 2019-05-30 02:10:37

Local clock offset: 0.402 ms

Remote clock offset: -2.21 ms

Below is generated by plot.py at 2019-05-30 02:42:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.98 Mbit/s

95th percentile per-packet one-way delay: 59.129 ms

Loss rate: 14.26%

-- Flow 1:

Average throughput: 57.42 Mbit/s

95th percentile per-packet one-way delay: 57.487 ms

Loss rate: 11.54%

-- Flow 2:

Average throughput: 52.25 Mbit/s

95th percentile per-packet one-way delay: 60.634 ms

Loss rate: 18.26%

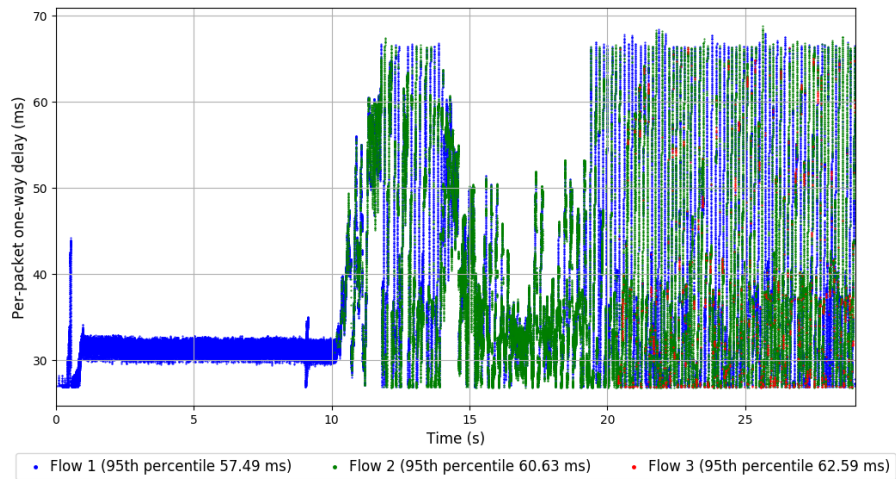
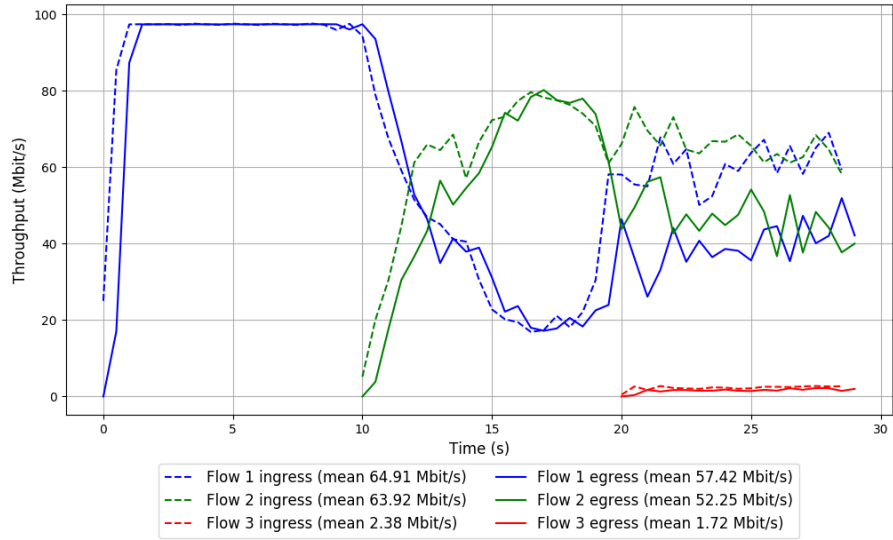
-- Flow 3:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 62.589 ms

Loss rate: 27.72%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-05-30 00:29:07
End at: 2019-05-30 00:29:37
Local clock offset: 1.222 ms
Remote clock offset: -4.018 ms

Below is generated by plot.py at 2019-05-30 02:42:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 33.698 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.69 Mbit/s
95th percentile per-packet one-way delay: 34.011 ms
Loss rate: 0.00%

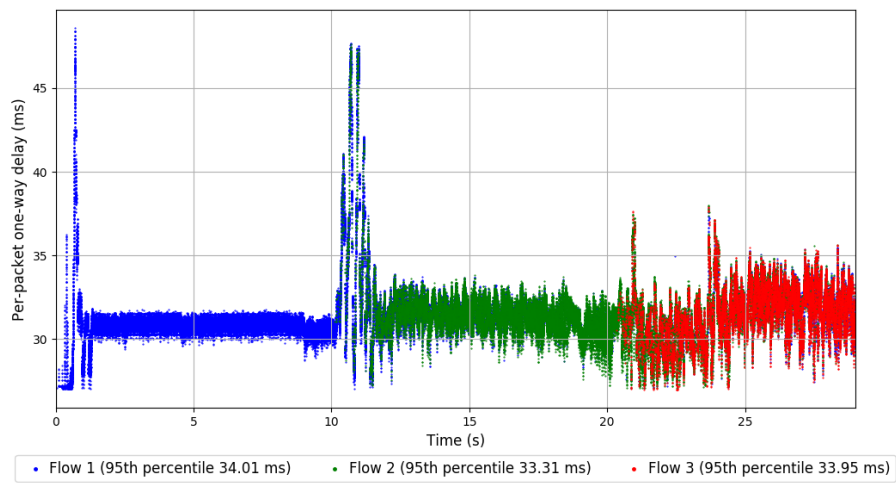
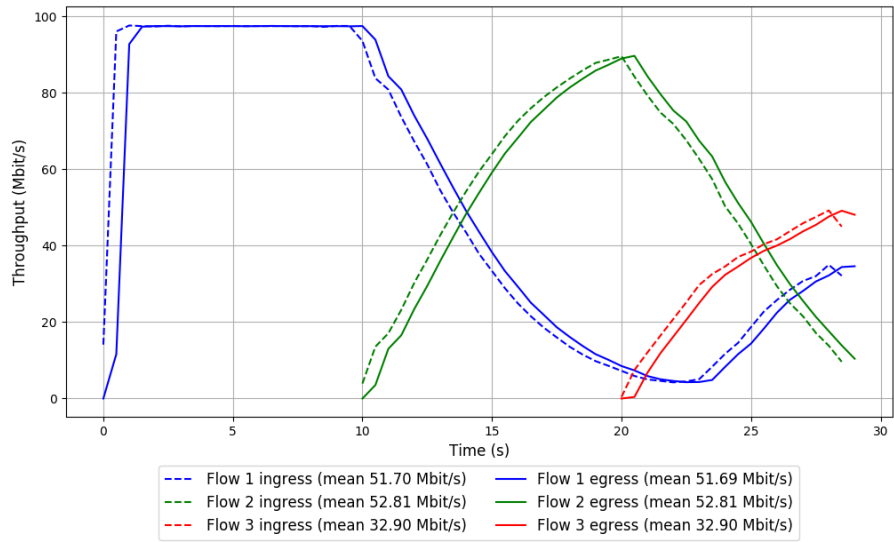
-- Flow 2:

Average throughput: 52.81 Mbit/s
95th percentile per-packet one-way delay: 33.312 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 32.90 Mbit/s
95th percentile per-packet one-way delay: 33.955 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

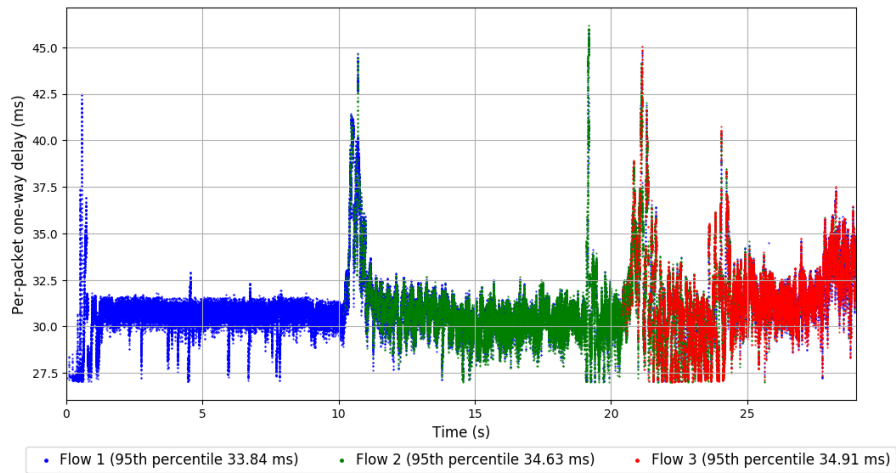
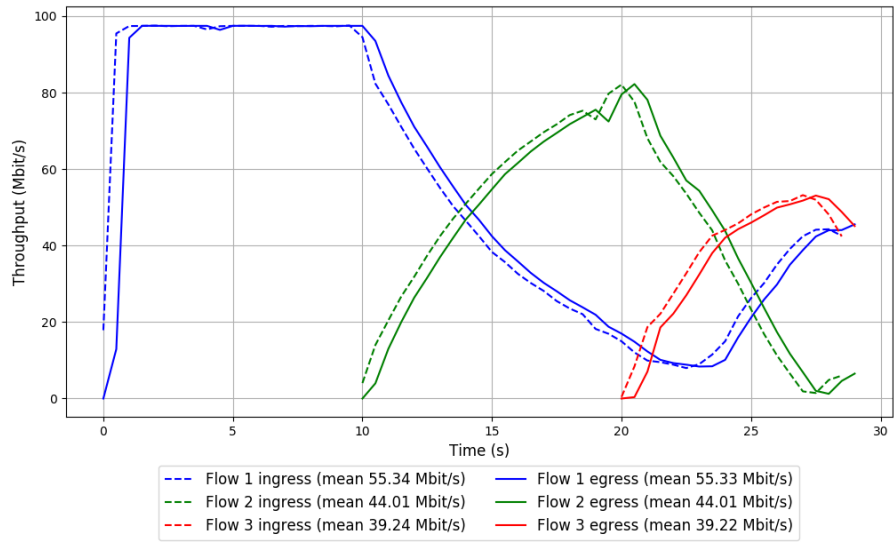


Run 2: Statistics of Indigo-MusesD

Start at: 2019-05-30 00:55:04
End at: 2019-05-30 00:55:34
Local clock offset: 1.115 ms
Remote clock offset: -3.275 ms

```
# Below is generated by plot.py at 2019-05-30 02:42:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 34.313 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.33 Mbit/s
95th percentile per-packet one-way delay: 33.843 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 44.01 Mbit/s
95th percentile per-packet one-way delay: 34.627 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 39.22 Mbit/s
95th percentile per-packet one-way delay: 34.909 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesD — Data Link

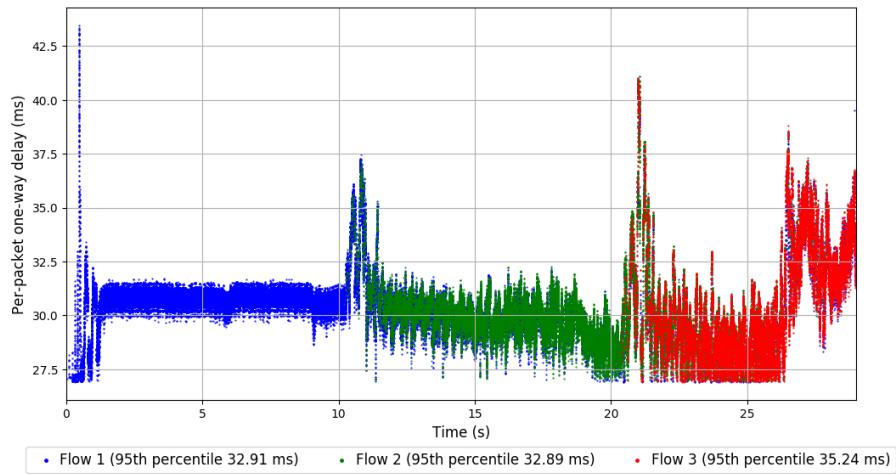
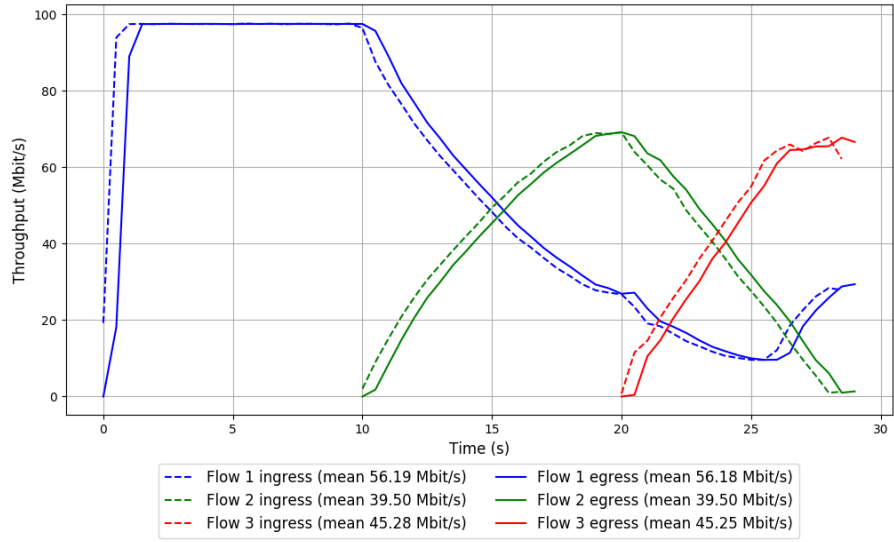


Run 3: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:21:23
End at: 2019-05-30 01:21:53
Local clock offset: 0.589 ms
Remote clock offset: -2.952 ms

```
# Below is generated by plot.py at 2019-05-30 02:42:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.34 Mbit/s
95th percentile per-packet one-way delay: 33.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.18 Mbit/s
95th percentile per-packet one-way delay: 32.911 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 39.50 Mbit/s
95th percentile per-packet one-way delay: 32.894 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 45.25 Mbit/s
95th percentile per-packet one-way delay: 35.241 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-05-30 01:46:56
End at: 2019-05-30 01:47:26
Local clock offset: 0.406 ms
Remote clock offset: -2.528 ms

Below is generated by plot.py at 2019-05-30 02:42:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 37.865 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.03 Mbit/s
95th percentile per-packet one-way delay: 33.960 ms
Loss rate: 0.00%

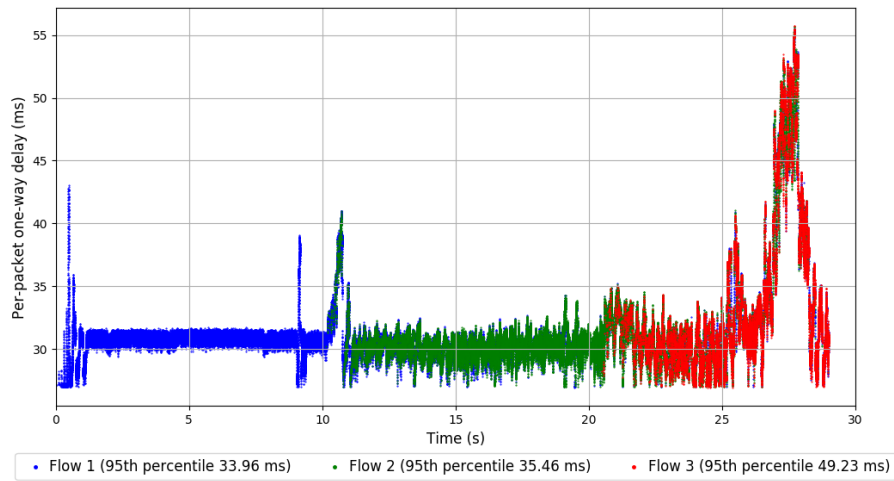
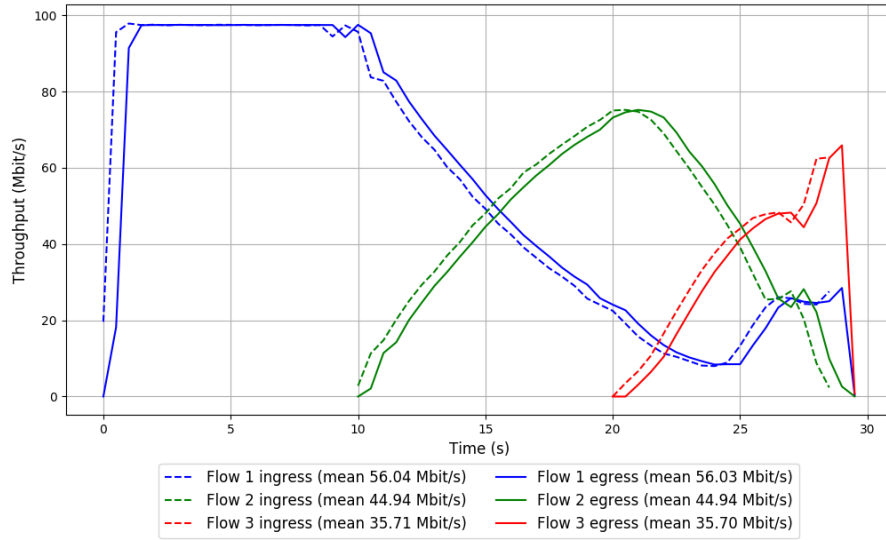
-- Flow 2:

Average throughput: 44.94 Mbit/s
95th percentile per-packet one-way delay: 35.459 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 35.70 Mbit/s
95th percentile per-packet one-way delay: 49.232 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-05-30 02:12:38

End at: 2019-05-30 02:13:08

Local clock offset: 0.403 ms

Remote clock offset: -2.17 ms

Below is generated by plot.py at 2019-05-30 02:42:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.92 Mbit/s

95th percentile per-packet one-way delay: 34.847 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.57 Mbit/s

95th percentile per-packet one-way delay: 33.658 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.43 Mbit/s

95th percentile per-packet one-way delay: 35.607 ms

Loss rate: 0.00%

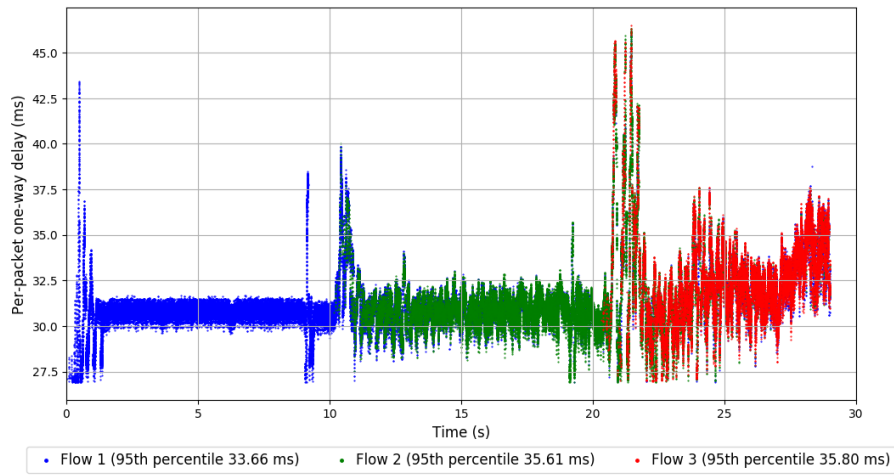
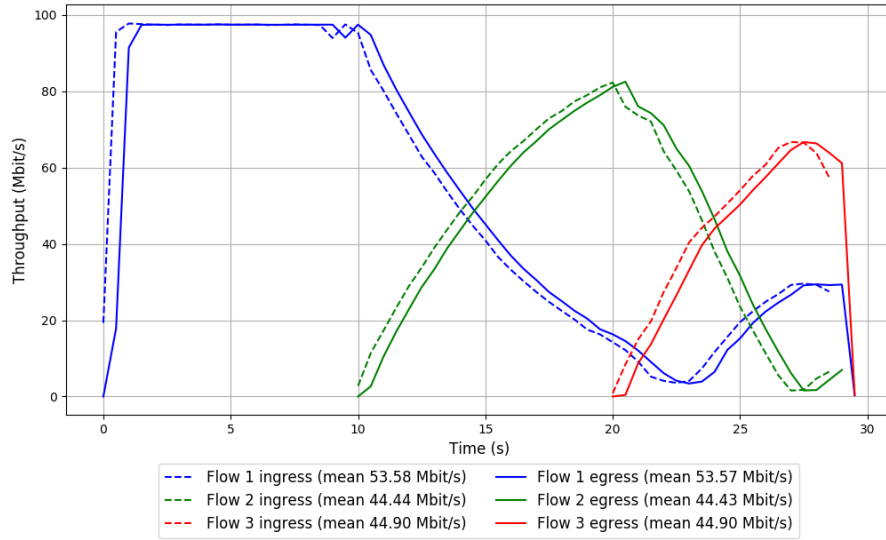
-- Flow 3:

Average throughput: 44.90 Mbit/s

95th percentile per-packet one-way delay: 35.805 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MuseST

Start at: 2019-05-30 00:36:16
End at: 2019-05-30 00:36:46
Local clock offset: 2.224 ms
Remote clock offset: -3.963 ms

Below is generated by plot.py at 2019-05-30 02:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.51 Mbit/s
95th percentile per-packet one-way delay: 55.832 ms
Loss rate: 12.65%

-- Flow 1:

Average throughput: 53.44 Mbit/s
95th percentile per-packet one-way delay: 51.230 ms
Loss rate: 9.65%

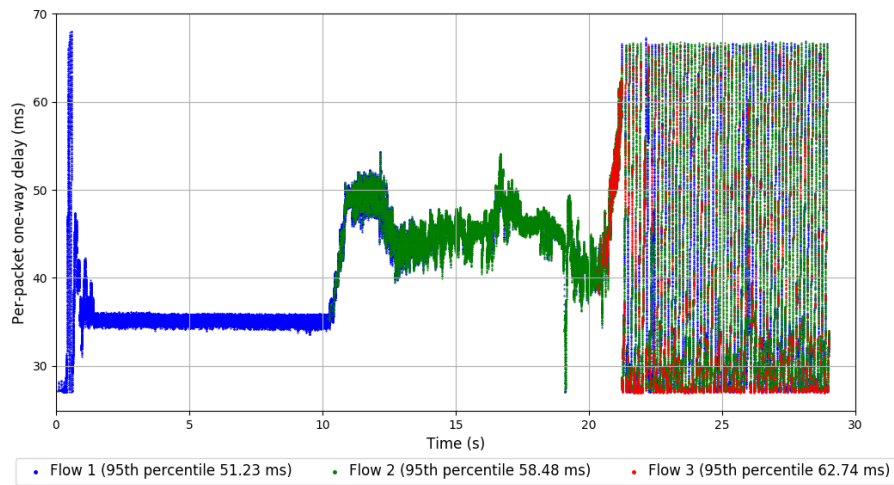
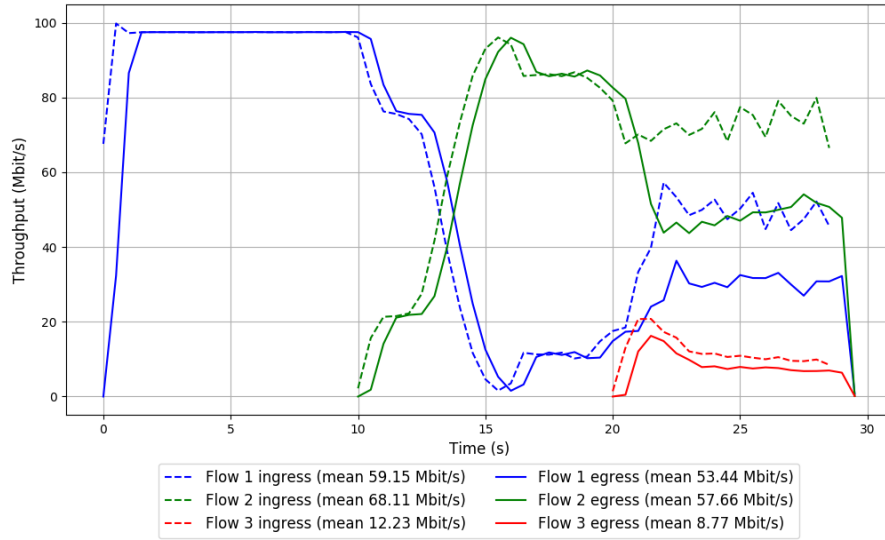
-- Flow 2:

Average throughput: 57.66 Mbit/s
95th percentile per-packet one-way delay: 58.478 ms
Loss rate: 15.36%

-- Flow 3:

Average throughput: 8.77 Mbit/s
95th percentile per-packet one-way delay: 62.737 ms
Loss rate: 28.31%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:02:38
End at: 2019-05-30 01:03:08
Local clock offset: 1.211 ms
Remote clock offset: -3.161 ms

Below is generated by plot.py at 2019-05-30 02:43:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.91 Mbit/s
95th percentile per-packet one-way delay: 61.749 ms
Loss rate: 28.95%

-- Flow 1:

Average throughput: 59.30 Mbit/s
95th percentile per-packet one-way delay: 60.122 ms
Loss rate: 23.43%

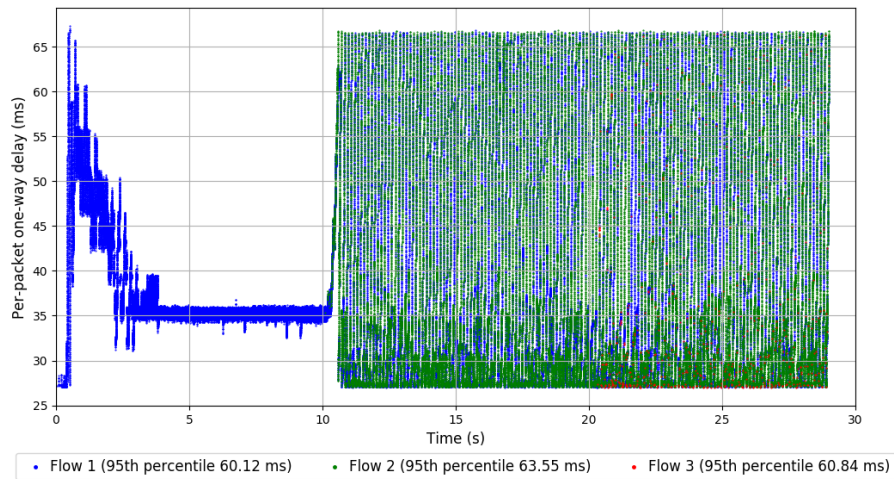
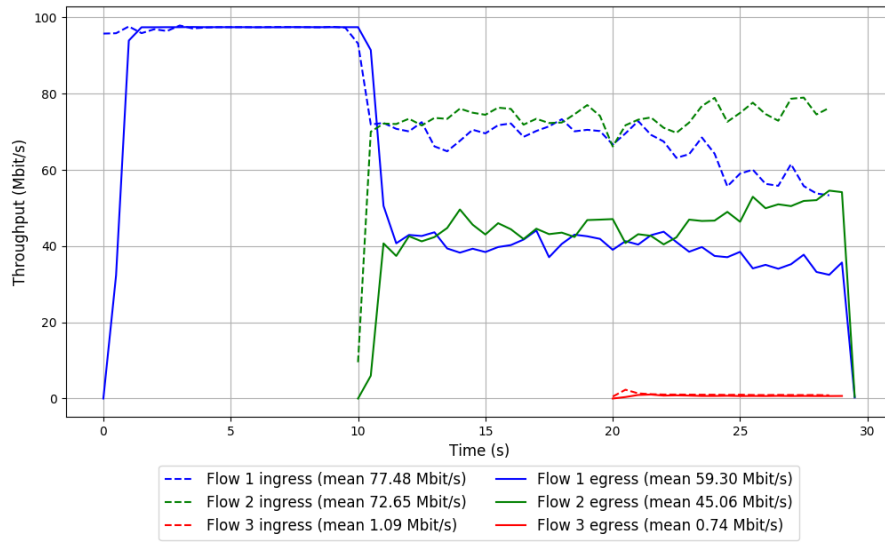
-- Flow 2:

Average throughput: 45.06 Mbit/s
95th percentile per-packet one-way delay: 63.552 ms
Loss rate: 37.96%

-- Flow 3:

Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 60.837 ms
Loss rate: 31.84%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:28:34
End at: 2019-05-30 01:29:04
Local clock offset: 0.579 ms
Remote clock offset: -2.883 ms

Below is generated by plot.py at 2019-05-30 02:43:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.50 Mbit/s
95th percentile per-packet one-way delay: 58.995 ms
Loss rate: 12.61%

-- Flow 1:

Average throughput: 55.18 Mbit/s
95th percentile per-packet one-way delay: 56.040 ms
Loss rate: 9.01%

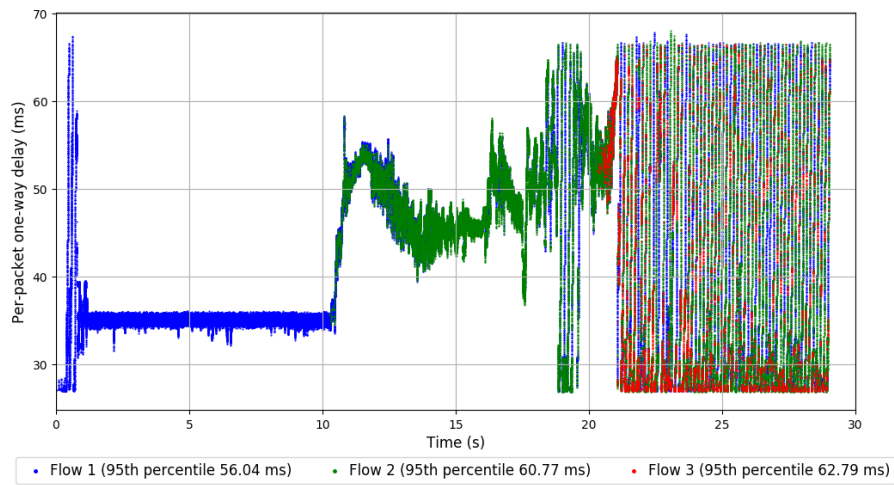
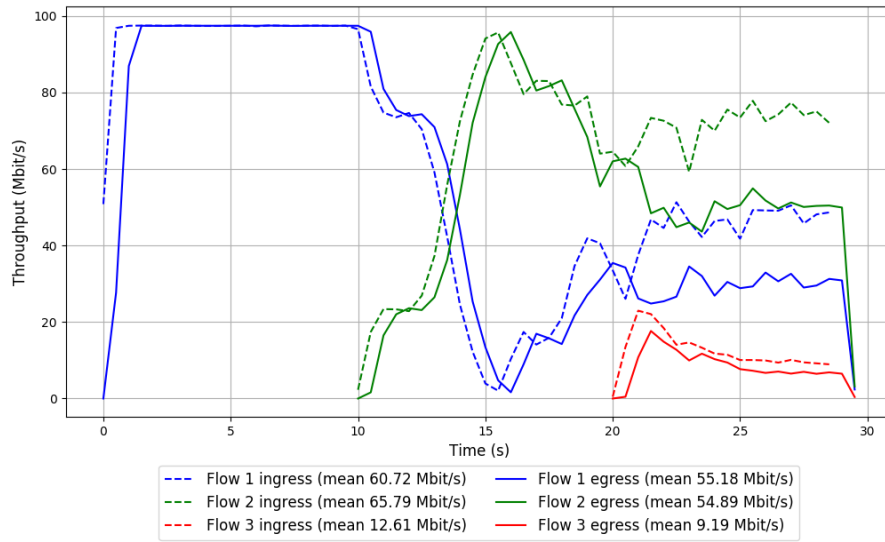
-- Flow 2:

Average throughput: 54.89 Mbit/s
95th percentile per-packet one-way delay: 60.771 ms
Loss rate: 16.45%

-- Flow 3:

Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 62.792 ms
Loss rate: 27.07%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MuseST

Start at: 2019-05-30 01:54:11
End at: 2019-05-30 01:54:41
Local clock offset: 0.366 ms
Remote clock offset: -2.548 ms

Below is generated by plot.py at 2019-05-30 02:43:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.60 Mbit/s
95th percentile per-packet one-way delay: 55.988 ms
Loss rate: 11.22%

-- Flow 1:

Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 52.288 ms
Loss rate: 8.85%

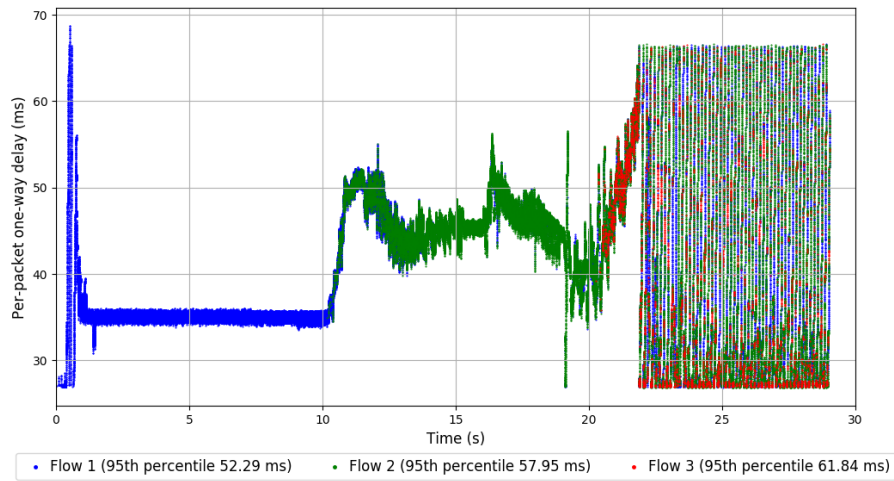
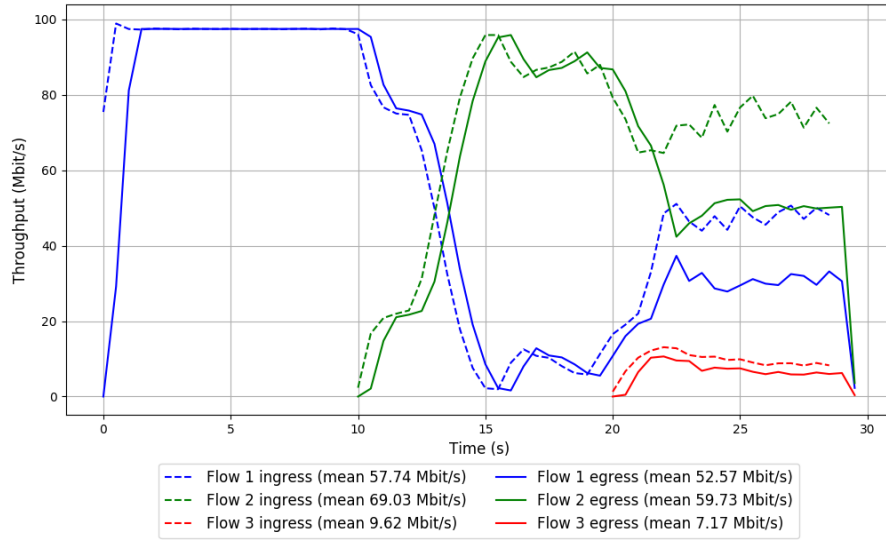
-- Flow 2:

Average throughput: 59.73 Mbit/s
95th percentile per-packet one-way delay: 57.949 ms
Loss rate: 13.36%

-- Flow 3:

Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 61.842 ms
Loss rate: 25.24%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MuseST

Start at: 2019-05-30 02:19:57
End at: 2019-05-30 02:20:27
Local clock offset: 0.406 ms
Remote clock offset: -2.111 ms

Below is generated by plot.py at 2019-05-30 02:43:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.55 Mbit/s
95th percentile per-packet one-way delay: 61.169 ms
Loss rate: 22.80%

-- Flow 1:

Average throughput: 63.71 Mbit/s
95th percentile per-packet one-way delay: 59.592 ms
Loss rate: 17.91%

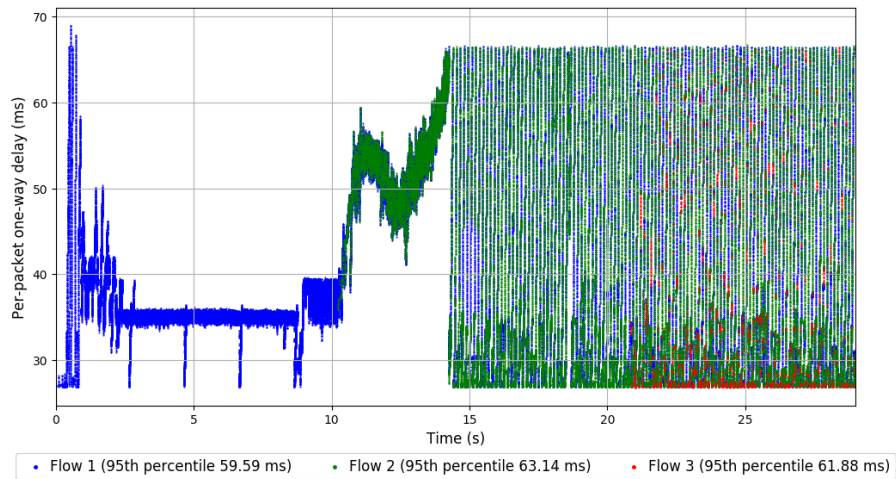
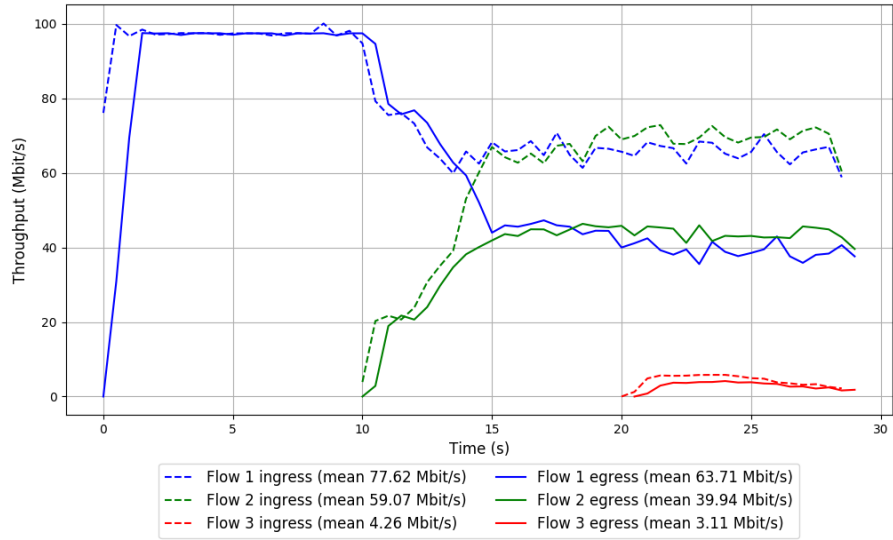
-- Flow 2:

Average throughput: 39.94 Mbit/s
95th percentile per-packet one-way delay: 63.143 ms
Loss rate: 32.39%

-- Flow 3:

Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 61.883 ms
Loss rate: 31.25%

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-05-30 00:32:39

End at: 2019-05-30 00:33:09

Local clock offset: 1.803 ms

Remote clock offset: -3.95 ms

Below is generated by plot.py at 2019-05-30 02:43:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.70 Mbit/s

95th percentile per-packet one-way delay: 61.625 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 41.36 Mbit/s

95th percentile per-packet one-way delay: 61.610 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 19.28 Mbit/s

95th percentile per-packet one-way delay: 62.702 ms

Loss rate: 0.65%

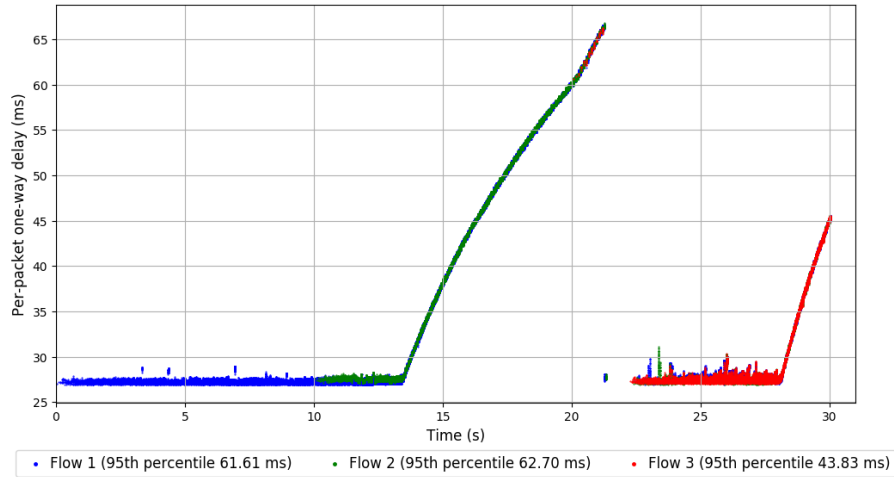
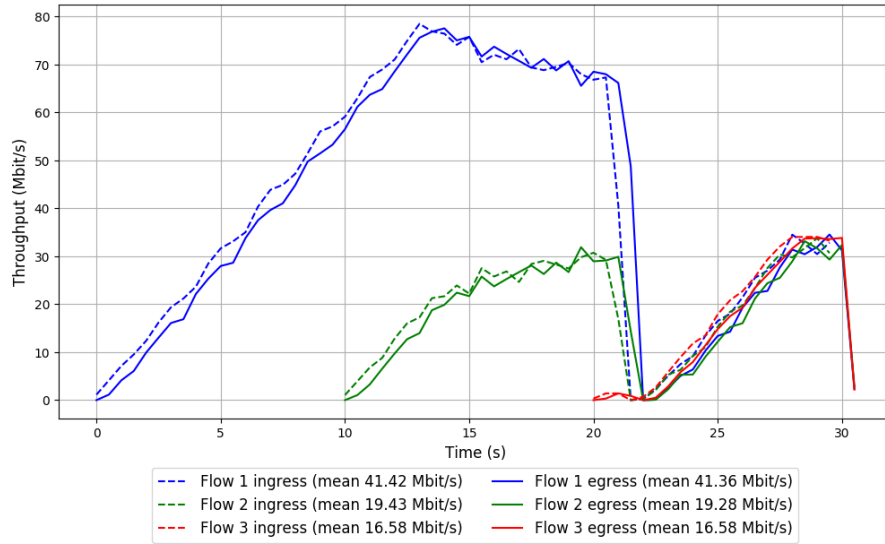
-- Flow 3:

Average throughput: 16.58 Mbit/s

95th percentile per-packet one-way delay: 43.832 ms

Loss rate: 0.16%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-05-30 00:58:44
End at: 2019-05-30 00:59:14
Local clock offset: 1.132 ms
Remote clock offset: -3.242 ms

Below is generated by plot.py at 2019-05-30 02:43:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.64 Mbit/s
95th percentile per-packet one-way delay: 62.195 ms
Loss rate: 0.23%

-- Flow 1:

Average throughput: 35.60 Mbit/s
95th percentile per-packet one-way delay: 61.974 ms
Loss rate: 0.25%

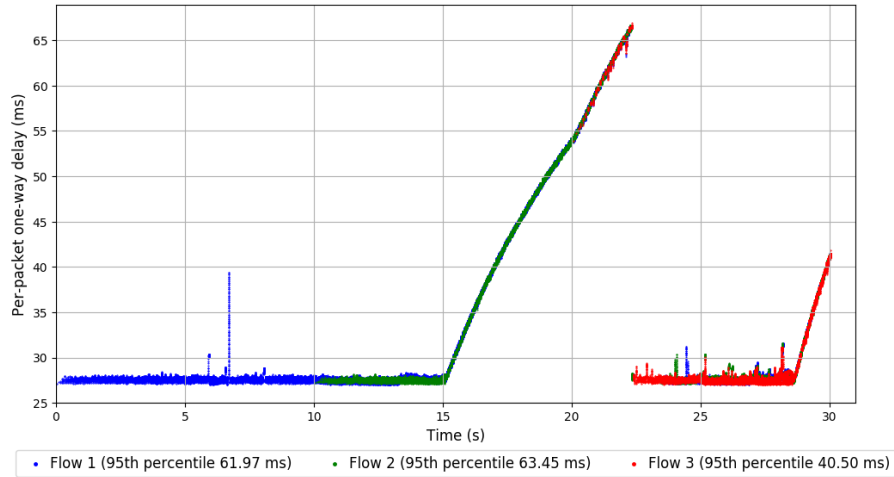
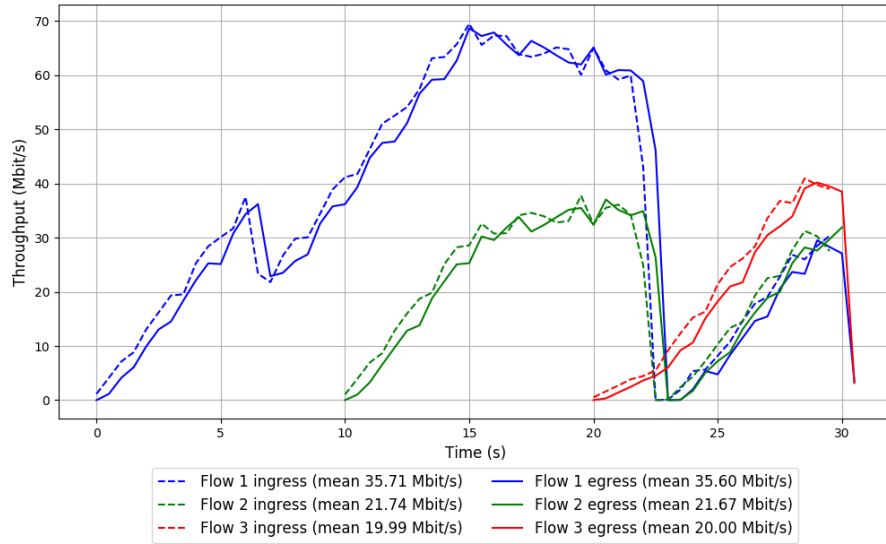
-- Flow 2:

Average throughput: 21.67 Mbit/s
95th percentile per-packet one-way delay: 63.453 ms
Loss rate: 0.24%

-- Flow 3:

Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 40.503 ms
Loss rate: 0.07%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-05-30 01:24:56
End at: 2019-05-30 01:25:26
Local clock offset: 0.57 ms
Remote clock offset: -2.886 ms

Below is generated by plot.py at 2019-05-30 02:43:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 61.341 ms
Loss rate: 0.21%

-- Flow 1:

Average throughput: 40.74 Mbit/s
95th percentile per-packet one-way delay: 61.547 ms
Loss rate: 0.24%

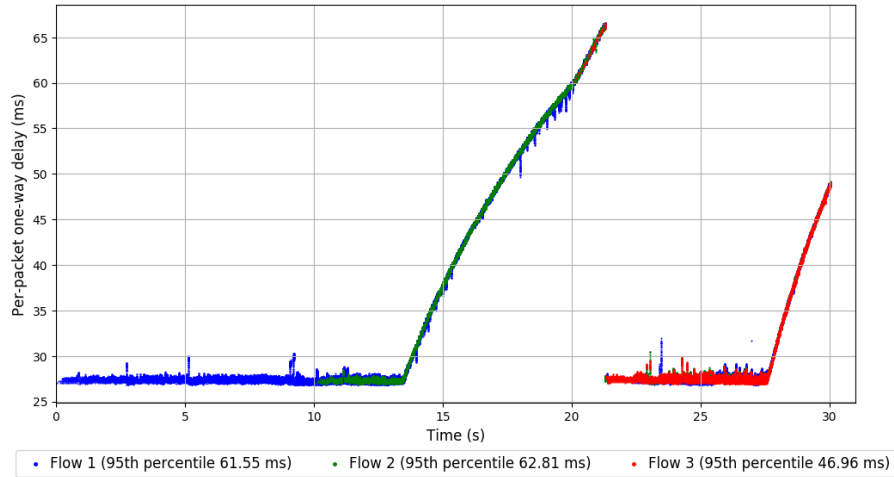
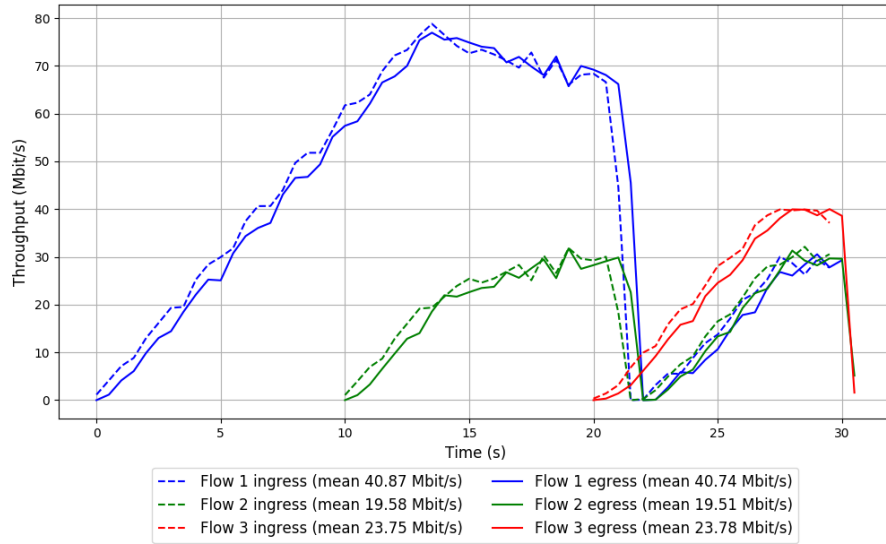
-- Flow 2:

Average throughput: 19.51 Mbit/s
95th percentile per-packet one-way delay: 62.808 ms
Loss rate: 0.24%

-- Flow 3:

Average throughput: 23.78 Mbit/s
95th percentile per-packet one-way delay: 46.956 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-05-30 01:50:30
End at: 2019-05-30 01:51:00
Local clock offset: 0.374 ms
Remote clock offset: -2.541 ms

Below is generated by plot.py at 2019-05-30 02:43:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.28 Mbit/s
95th percentile per-packet one-way delay: 61.531 ms
Loss rate: 0.21%

-- Flow 1:

Average throughput: 40.65 Mbit/s
95th percentile per-packet one-way delay: 61.600 ms
Loss rate: 0.27%

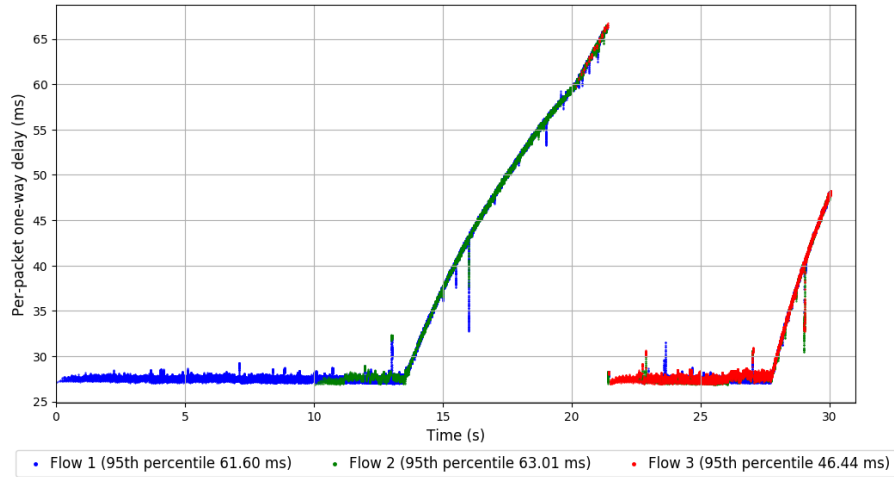
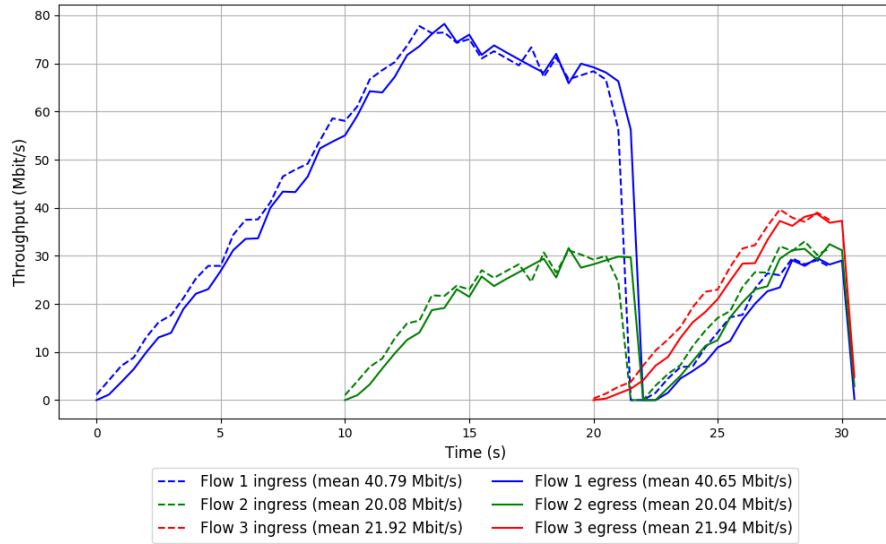
-- Flow 2:

Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 63.011 ms
Loss rate: 0.11%

-- Flow 3:

Average throughput: 21.94 Mbit/s
95th percentile per-packet one-way delay: 46.441 ms
Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link

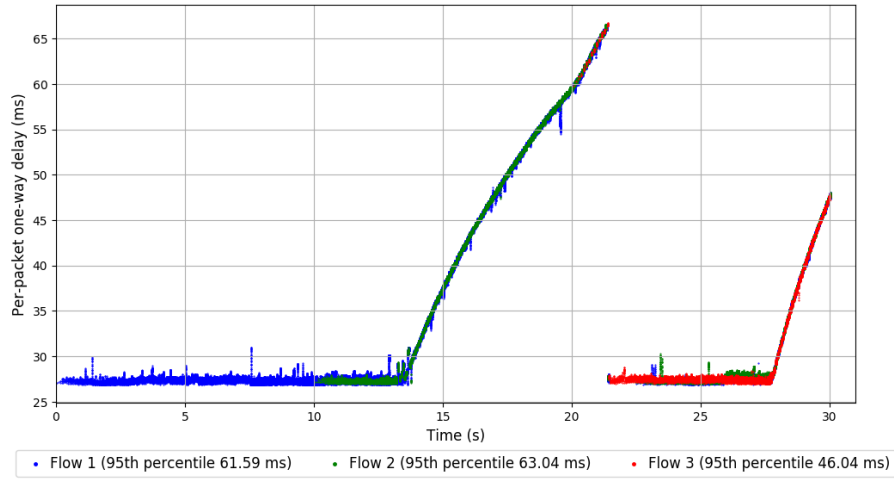
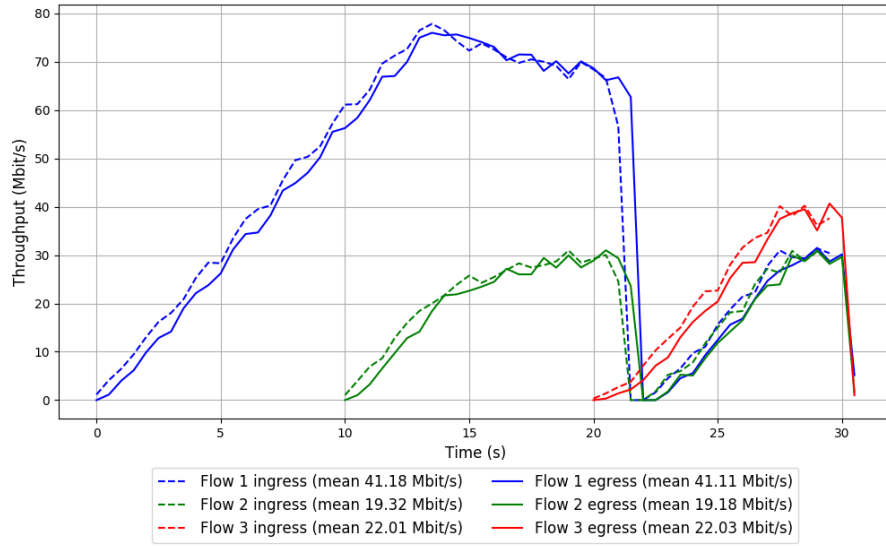


Run 5: Statistics of LEDBAT

Start at: 2019-05-30 02:16:11
End at: 2019-05-30 02:16:41
Local clock offset: 0.409 ms
Remote clock offset: -2.113 ms

```
# Below is generated by plot.py at 2019-05-30 02:44:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.17 Mbit/s
95th percentile per-packet one-way delay: 61.564 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 41.11 Mbit/s
95th percentile per-packet one-way delay: 61.590 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 19.18 Mbit/s
95th percentile per-packet one-way delay: 63.038 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 22.03 Mbit/s
95th percentile per-packet one-way delay: 46.041 ms
Loss rate: 0.03%
```

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-05-30 00:33:51

End at: 2019-05-30 00:34:21

Local clock offset: 1.919 ms

Remote clock offset: -3.934 ms

Below is generated by plot.py at 2019-05-30 02:44:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.22 Mbit/s

95th percentile per-packet one-way delay: 59.673 ms

Loss rate: 2.53%

-- Flow 1:

Average throughput: 81.13 Mbit/s

95th percentile per-packet one-way delay: 58.795 ms

Loss rate: 2.44%

-- Flow 2:

Average throughput: 12.50 Mbit/s

95th percentile per-packet one-way delay: 62.242 ms

Loss rate: 2.83%

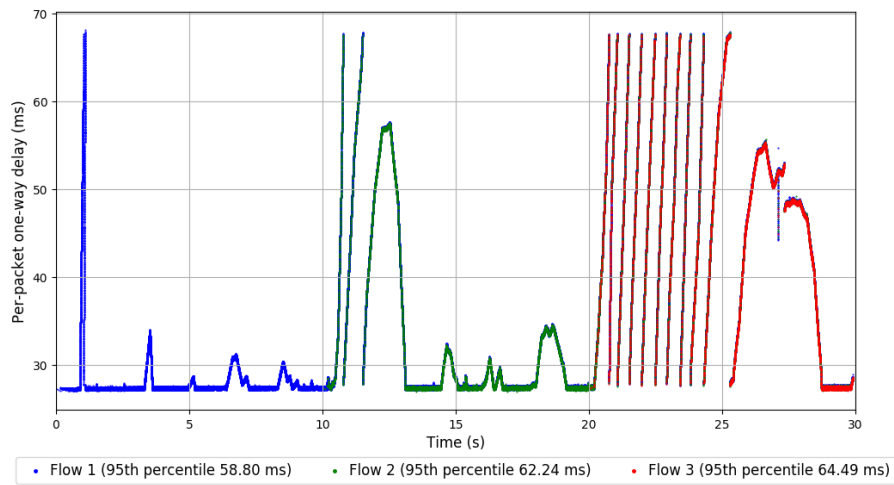
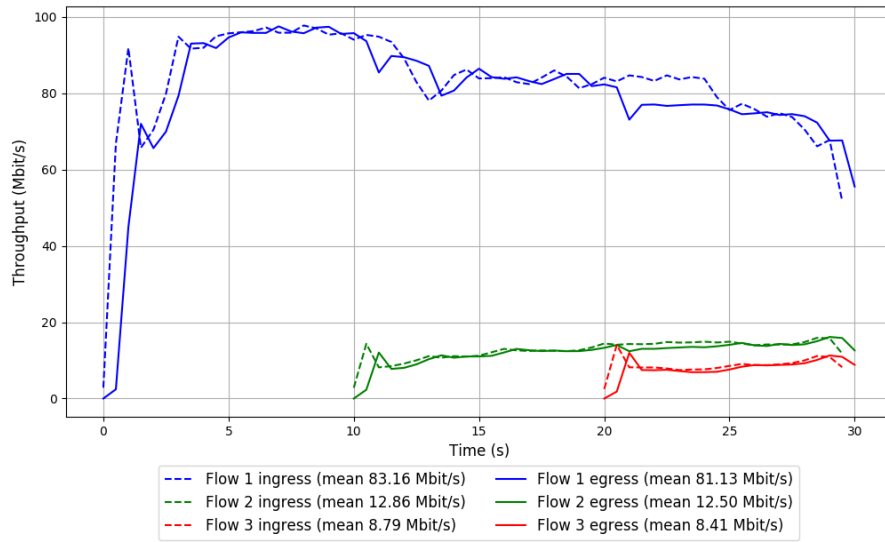
-- Flow 3:

Average throughput: 8.41 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 4.31%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-05-30 01:00:04

End at: 2019-05-30 01:00:34

Local clock offset: 1.171 ms

Remote clock offset: -3.256 ms

Below is generated by plot.py at 2019-05-30 02:44:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.86 Mbit/s

95th percentile per-packet one-way delay: 62.686 ms

Loss rate: 4.10%

-- Flow 1:

Average throughput: 79.00 Mbit/s

95th percentile per-packet one-way delay: 62.293 ms

Loss rate: 3.83%

-- Flow 2:

Average throughput: 8.87 Mbit/s

95th percentile per-packet one-way delay: 64.024 ms

Loss rate: 4.70%

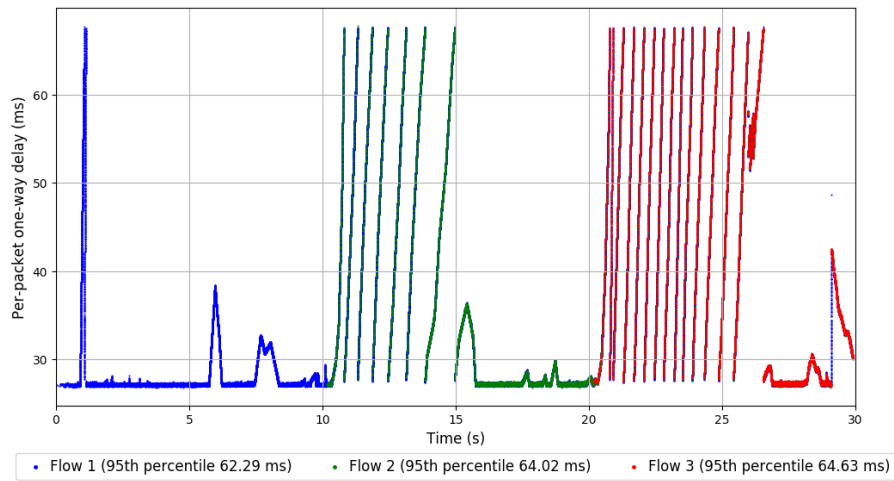
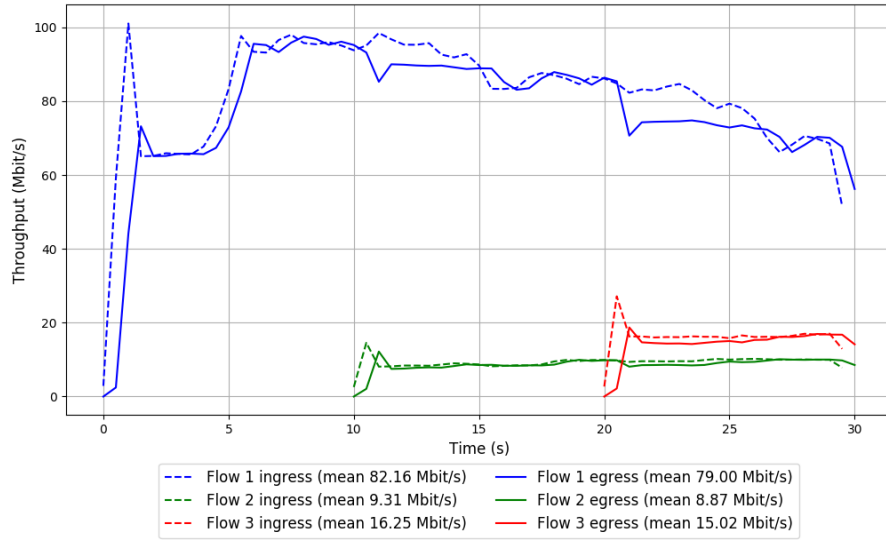
-- Flow 3:

Average throughput: 15.02 Mbit/s

95th percentile per-packet one-way delay: 64.628 ms

Loss rate: 7.52%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-05-30 01:26:08

End at: 2019-05-30 01:26:38

Local clock offset: 0.549 ms

Remote clock offset: -2.837 ms

Below is generated by plot.py at 2019-05-30 02:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.30 Mbit/s

95th percentile per-packet one-way delay: 61.685 ms

Loss rate: 5.02%

-- Flow 1:

Average throughput: 81.37 Mbit/s

95th percentile per-packet one-way delay: 60.577 ms

Loss rate: 4.41%

-- Flow 2:

Average throughput: 9.09 Mbit/s

95th percentile per-packet one-way delay: 63.612 ms

Loss rate: 6.58%

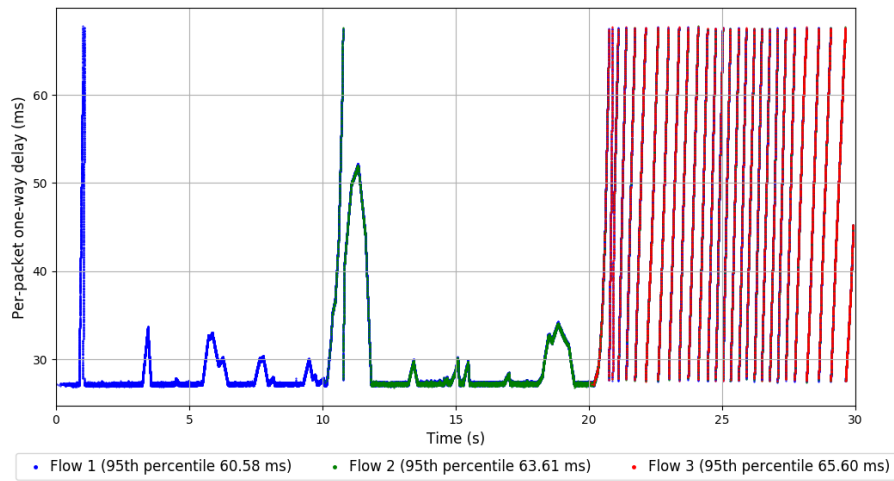
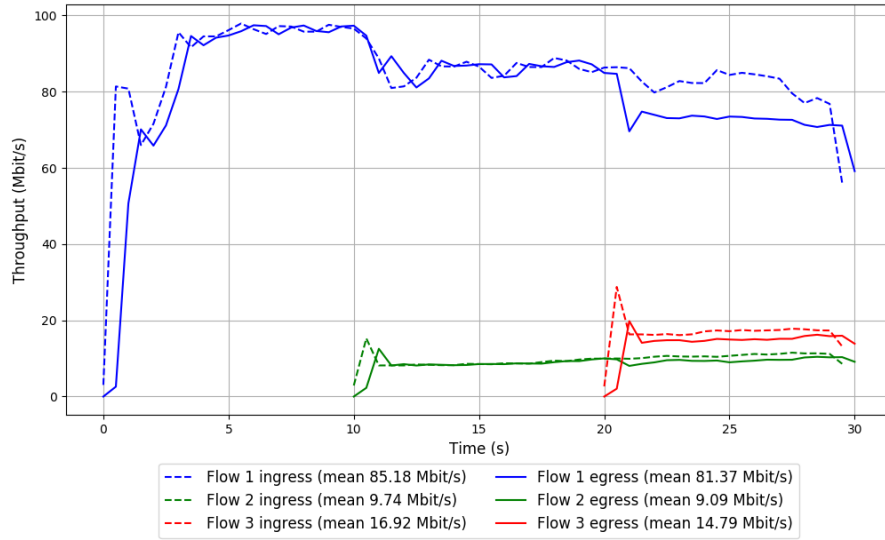
-- Flow 3:

Average throughput: 14.79 Mbit/s

95th percentile per-packet one-way delay: 65.598 ms

Loss rate: 12.44%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-05-30 01:51:43
End at: 2019-05-30 01:52:13
Local clock offset: 0.352 ms
Remote clock offset: -2.587 ms

Below is generated by plot.py at 2019-05-30 02:44:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.35 Mbit/s
95th percentile per-packet one-way delay: 60.886 ms
Loss rate: 4.49%

-- Flow 1:

Average throughput: 81.89 Mbit/s
95th percentile per-packet one-way delay: 60.480 ms
Loss rate: 4.05%

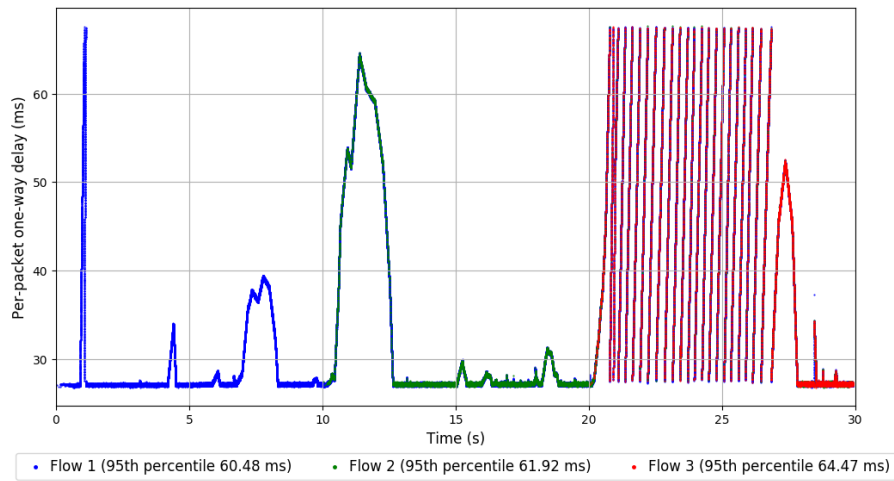
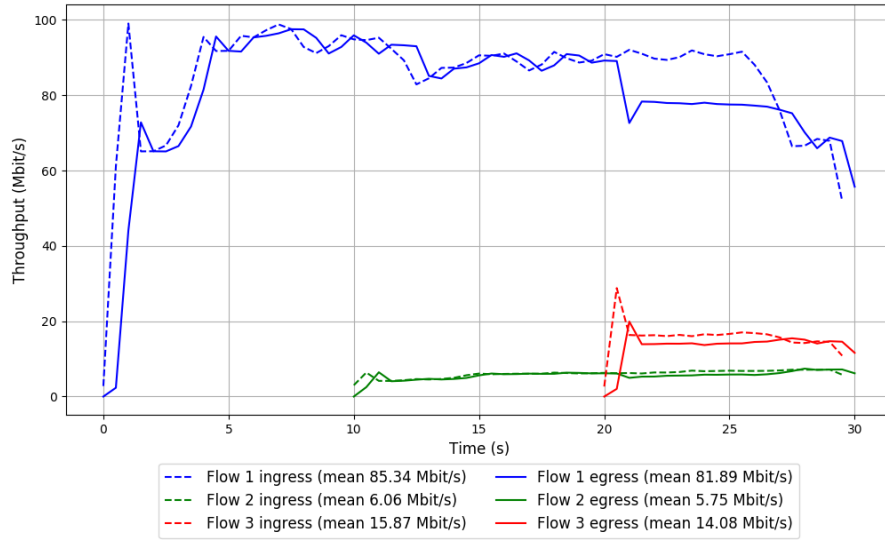
-- Flow 2:

Average throughput: 5.75 Mbit/s
95th percentile per-packet one-way delay: 61.923 ms
Loss rate: 5.02%

-- Flow 3:

Average throughput: 14.08 Mbit/s
95th percentile per-packet one-way delay: 64.470 ms
Loss rate: 11.30%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-05-30 02:17:26

End at: 2019-05-30 02:17:56

Local clock offset: 0.394 ms

Remote clock offset: -2.062 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.91 Mbit/s

95th percentile per-packet one-way delay: 60.580 ms

Loss rate: 3.43%

-- Flow 1:

Average throughput: 79.79 Mbit/s

95th percentile per-packet one-way delay: 60.362 ms

Loss rate: 3.36%

-- Flow 2:

Average throughput: 13.65 Mbit/s

95th percentile per-packet one-way delay: 62.273 ms

Loss rate: 4.60%

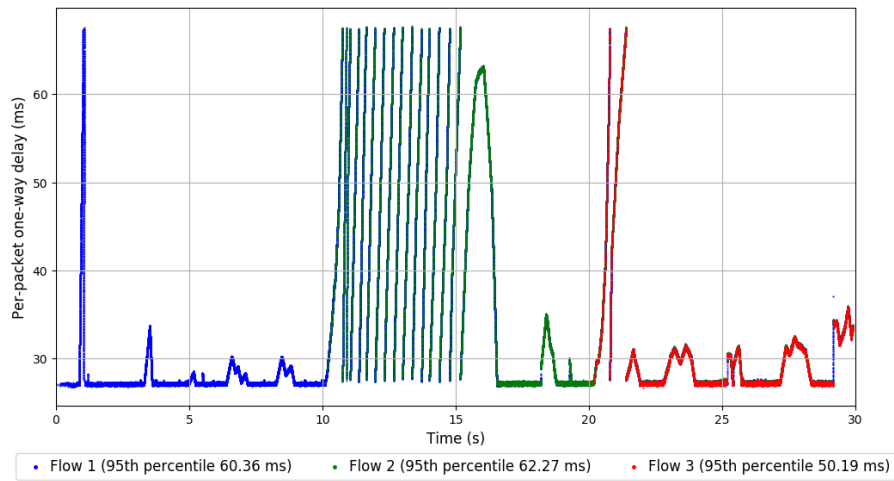
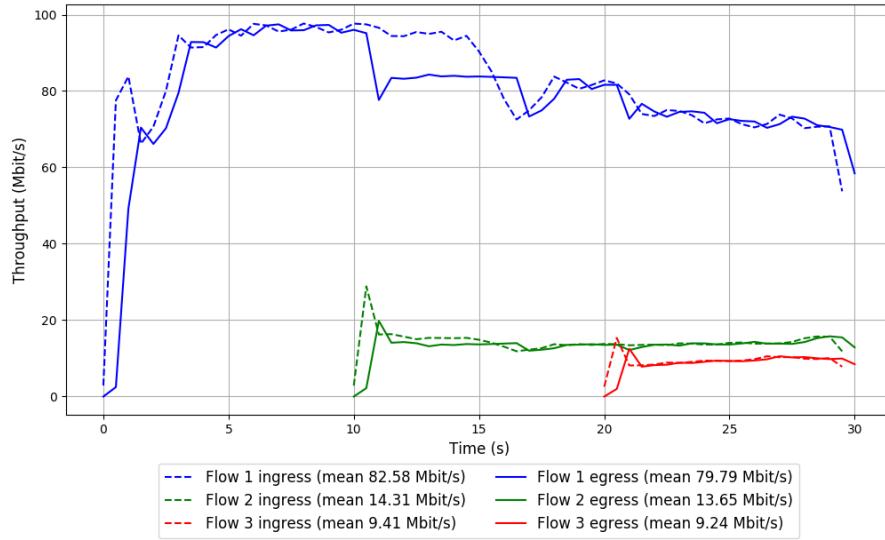
-- Flow 3:

Average throughput: 9.24 Mbit/s

95th percentile per-packet one-way delay: 50.185 ms

Loss rate: 1.76%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-05-30 00:47:21
End at: 2019-05-30 00:47:51
Local clock offset: 1.25 ms
Remote clock offset: -3.545 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 27.270 ms
Loss rate: 51.00%

-- Flow 1:

Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 27.281 ms
Loss rate: 50.38%

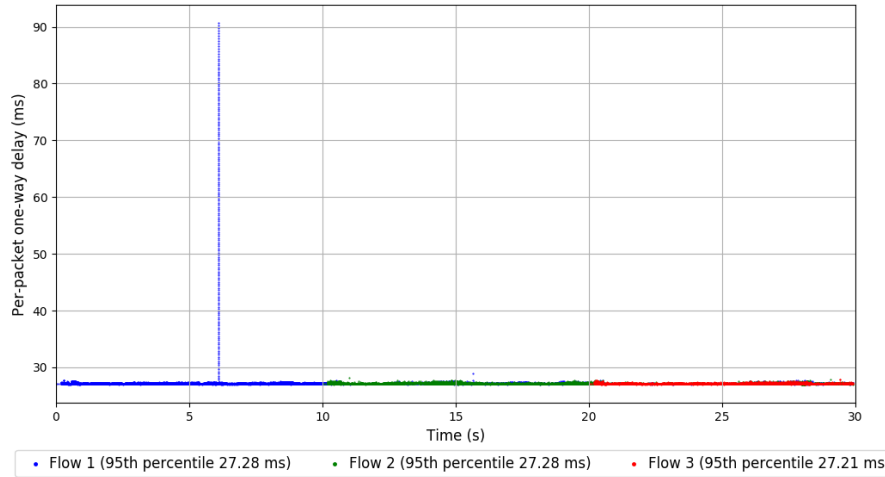
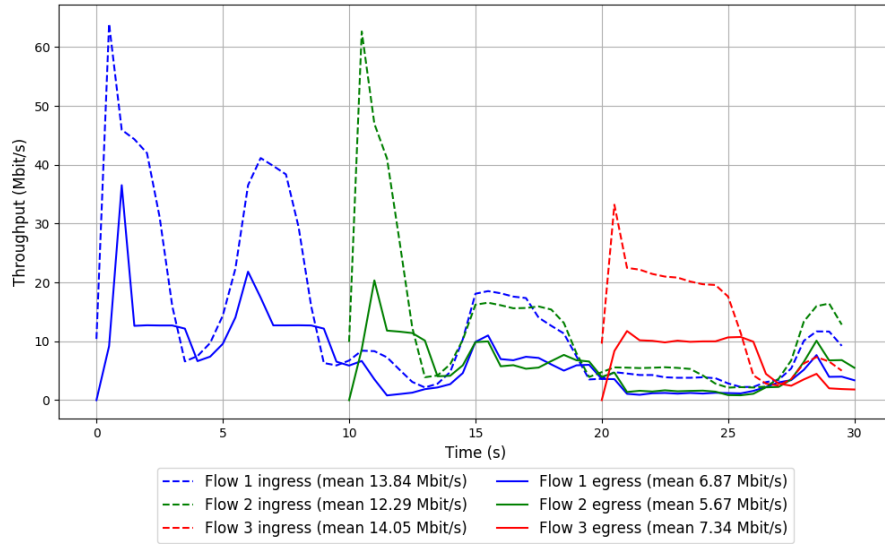
-- Flow 2:

Average throughput: 5.67 Mbit/s
95th percentile per-packet one-way delay: 27.279 ms
Loss rate: 53.87%

-- Flow 3:

Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 27.215 ms
Loss rate: 47.76%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-05-30 01:13:52
End at: 2019-05-30 01:14:22
Local clock offset: 0.805 ms
Remote clock offset: -3.007 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 27.254 ms
Loss rate: 45.50%

-- Flow 1:

Average throughput: 9.25 Mbit/s
95th percentile per-packet one-way delay: 27.235 ms
Loss rate: 49.99%

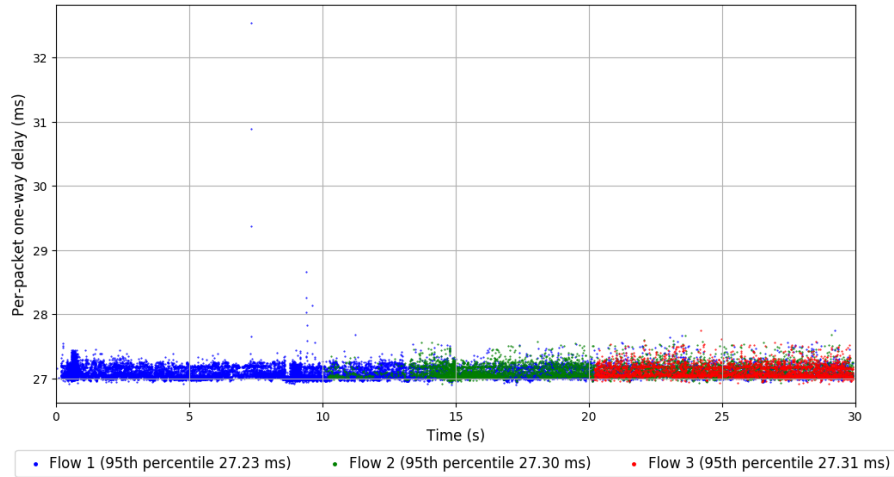
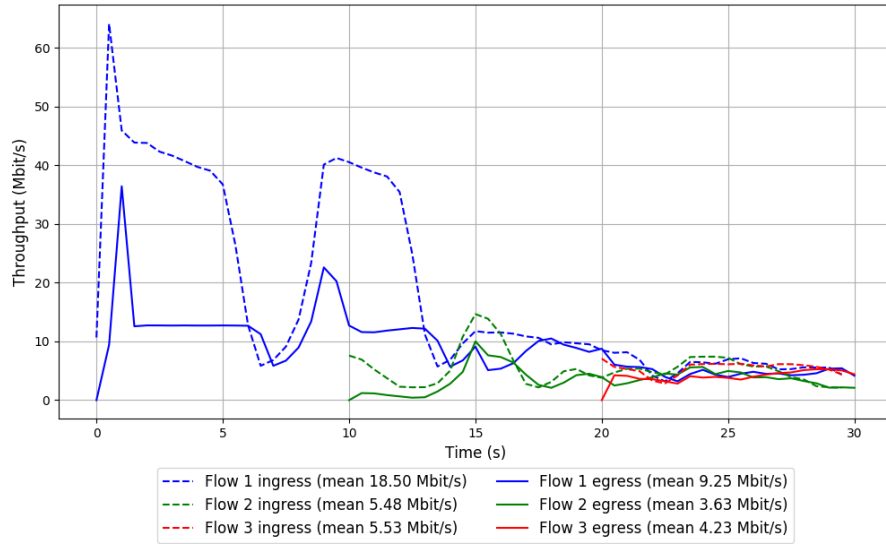
-- Flow 2:

Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 27.300 ms
Loss rate: 33.72%

-- Flow 3:

Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 27.307 ms
Loss rate: 23.47%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-05-30 01:39:29
End at: 2019-05-30 01:39:59
Local clock offset: 0.547 ms
Remote clock offset: -2.714 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 27.213 ms
Loss rate: 52.37%

-- Flow 1:

Average throughput: 8.83 Mbit/s
95th percentile per-packet one-way delay: 27.207 ms
Loss rate: 56.94%

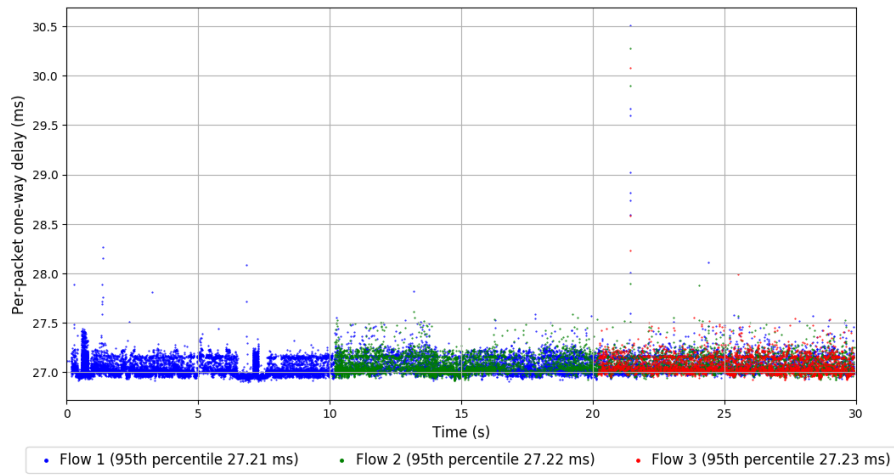
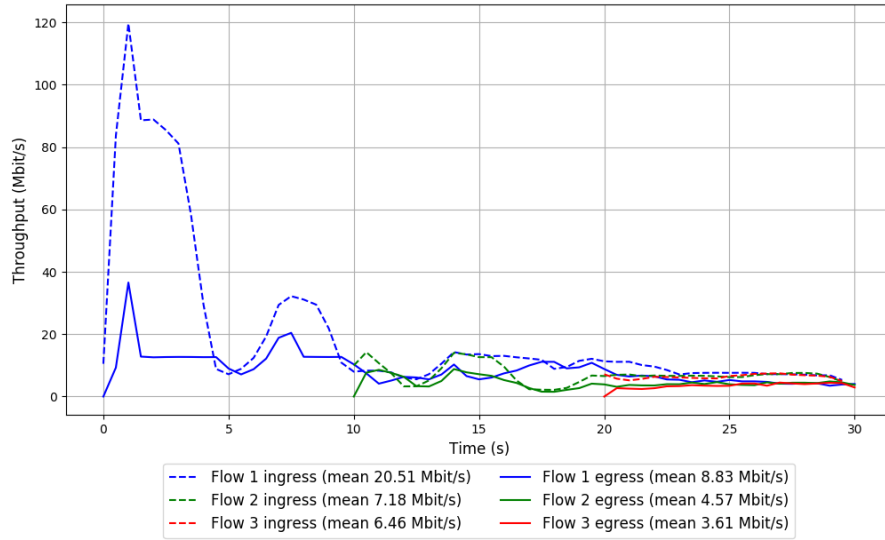
-- Flow 2:

Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 27.224 ms
Loss rate: 36.41%

-- Flow 3:

Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 27.231 ms
Loss rate: 44.13%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-05-30 02:05:12
End at: 2019-05-30 02:05:42
Local clock offset: 0.443 ms
Remote clock offset: -2.302 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 27.182 ms
Loss rate: 46.80%

-- Flow 1:

Average throughput: 8.86 Mbit/s
95th percentile per-packet one-way delay: 27.167 ms
Loss rate: 51.69%

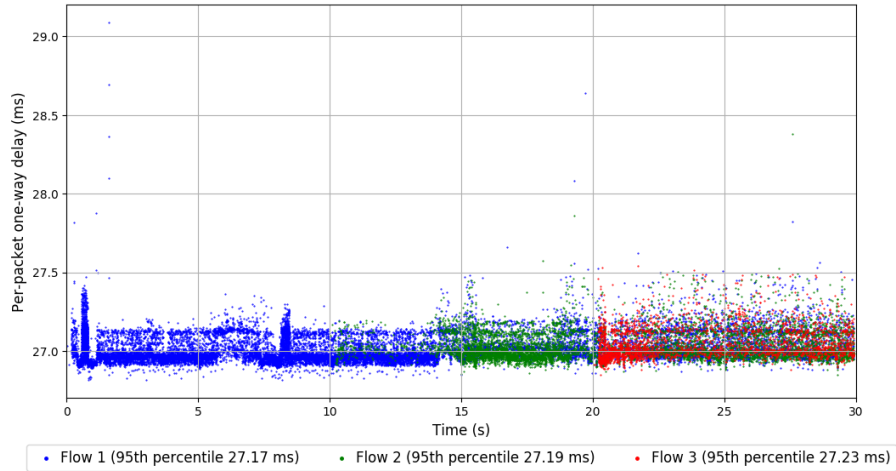
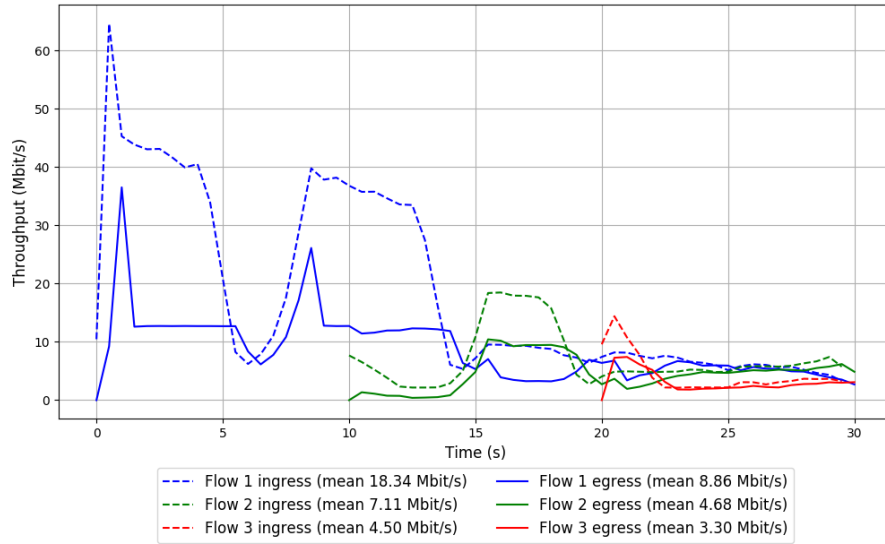
-- Flow 2:

Average throughput: 4.68 Mbit/s
95th percentile per-packet one-way delay: 27.188 ms
Loss rate: 34.22%

-- Flow 3:

Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 27.234 ms
Loss rate: 26.57%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-05-30 02:31:00
End at: 2019-05-30 02:31:30
Local clock offset: 0.527 ms
Remote clock offset: -1.935 ms

Below is generated by plot.py at 2019-05-30 02:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 27.236 ms
Loss rate: 43.32%

-- Flow 1:

Average throughput: 8.67 Mbit/s
95th percentile per-packet one-way delay: 27.210 ms
Loss rate: 48.04%

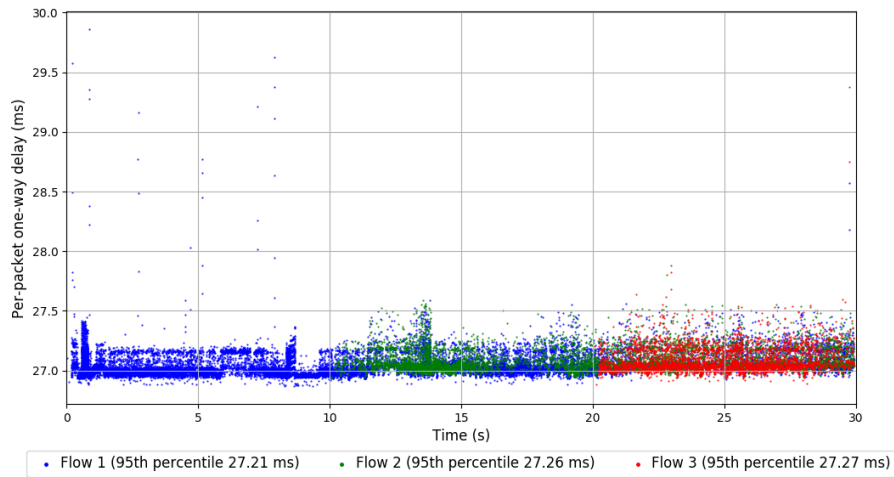
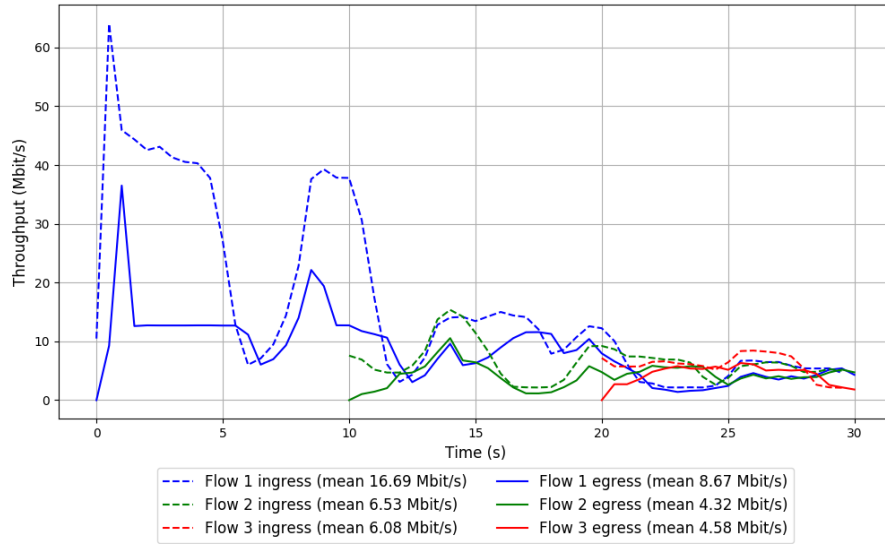
-- Flow 2:

Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 27.264 ms
Loss rate: 33.76%

-- Flow 3:

Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 27.275 ms
Loss rate: 24.75%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-05-30 00:39:52
End at: 2019-05-30 00:40:22
Local clock offset: 1.969 ms
Remote clock offset: -3.846 ms

Below is generated by plot.py at 2019-05-30 02:45:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.04 Mbit/s
95th percentile per-packet one-way delay: 63.510 ms
Loss rate: 1.73%

-- Flow 1:

Average throughput: 60.97 Mbit/s
95th percentile per-packet one-way delay: 63.379 ms
Loss rate: 1.99%

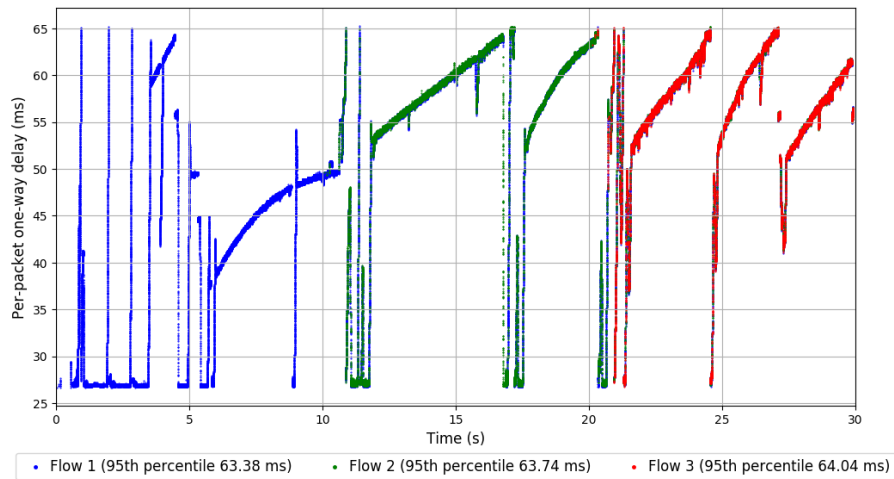
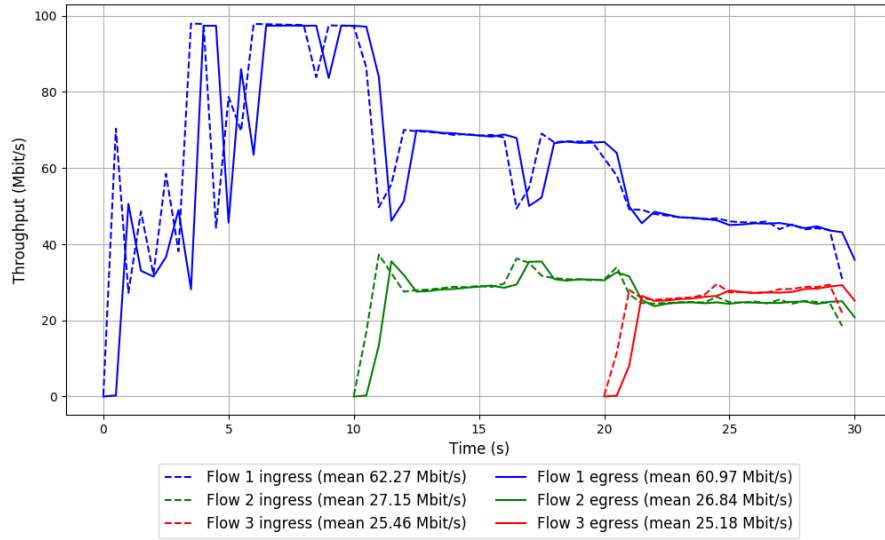
-- Flow 2:

Average throughput: 26.84 Mbit/s
95th percentile per-packet one-way delay: 63.745 ms
Loss rate: 1.11%

-- Flow 3:

Average throughput: 25.18 Mbit/s
95th percentile per-packet one-way delay: 64.036 ms
Loss rate: 1.15%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-05-30 01:06:27

End at: 2019-05-30 01:06:57

Local clock offset: 1.301 ms

Remote clock offset: -3.19 ms

Below is generated by plot.py at 2019-05-30 02:45:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.33 Mbit/s

95th percentile per-packet one-way delay: 63.677 ms

Loss rate: 2.49%

-- Flow 1:

Average throughput: 60.85 Mbit/s

95th percentile per-packet one-way delay: 63.512 ms

Loss rate: 2.93%

-- Flow 2:

Average throughput: 25.75 Mbit/s

95th percentile per-packet one-way delay: 63.924 ms

Loss rate: 1.23%

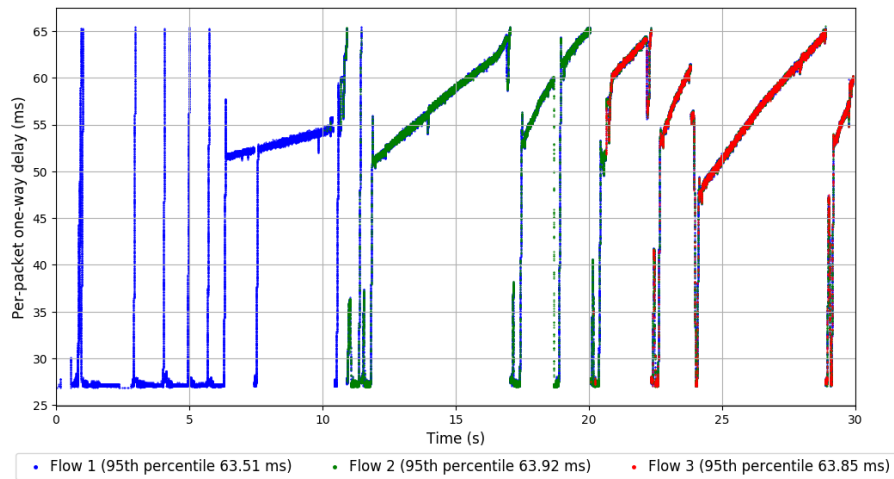
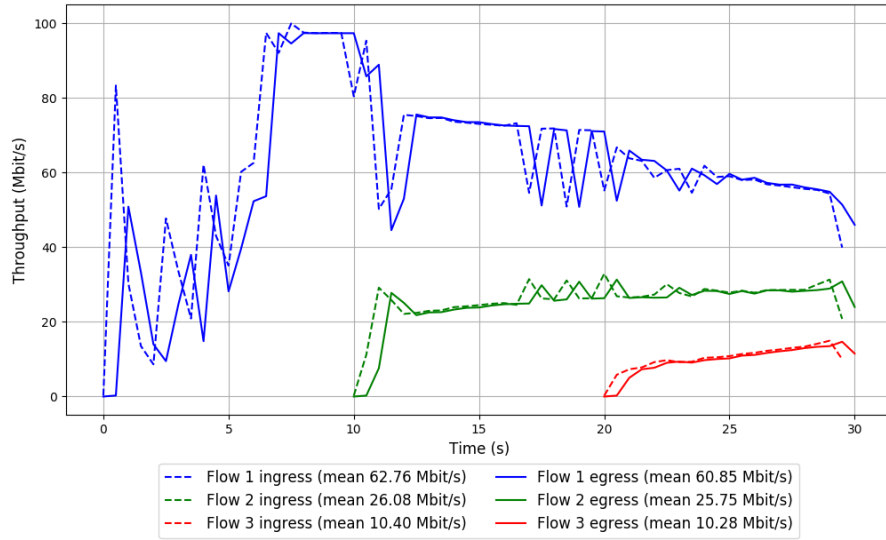
-- Flow 3:

Average throughput: 10.28 Mbit/s

95th percentile per-packet one-way delay: 63.848 ms

Loss rate: 0.84%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-05-30 01:32:09
End at: 2019-05-30 01:32:39
Local clock offset: 0.588 ms
Remote clock offset: -2.825 ms

Below is generated by plot.py at 2019-05-30 02:45:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.87 Mbit/s
95th percentile per-packet one-way delay: 63.453 ms
Loss rate: 1.63%

-- Flow 1:

Average throughput: 63.05 Mbit/s
95th percentile per-packet one-way delay: 63.379 ms
Loss rate: 1.75%

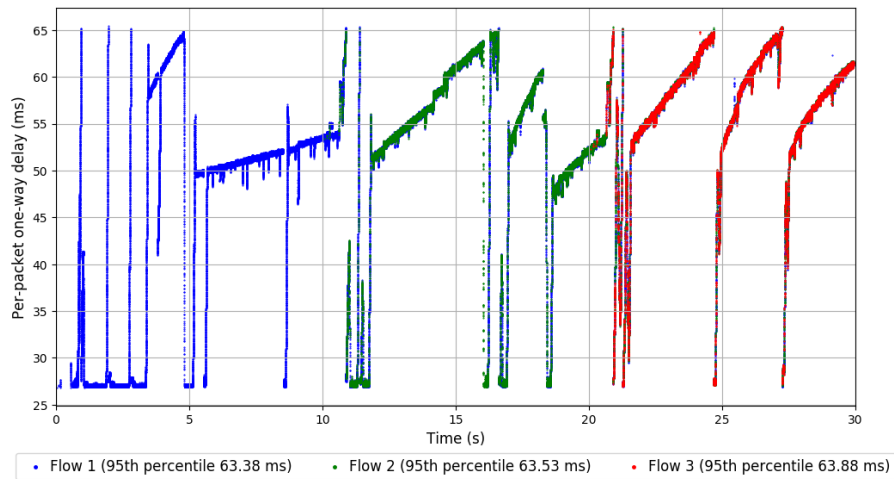
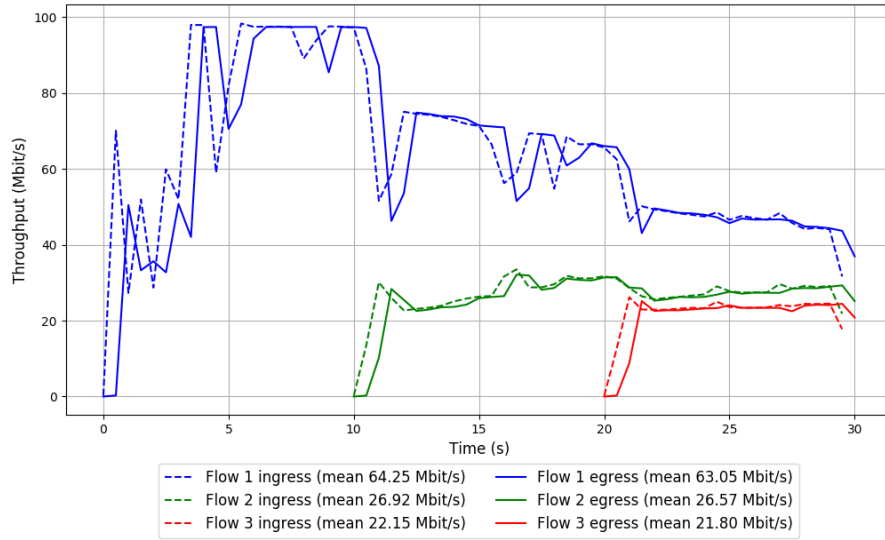
-- Flow 2:

Average throughput: 26.57 Mbit/s
95th percentile per-packet one-way delay: 63.535 ms
Loss rate: 1.27%

-- Flow 3:

Average throughput: 21.80 Mbit/s
95th percentile per-packet one-way delay: 63.879 ms
Loss rate: 1.45%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-05-30 01:57:49
End at: 2019-05-30 01:58:19
Local clock offset: 0.377 ms
Remote clock offset: -2.387 ms

Below is generated by plot.py at 2019-05-30 02:45:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.62 Mbit/s
95th percentile per-packet one-way delay: 63.867 ms
Loss rate: 2.38%

-- Flow 1:

Average throughput: 61.28 Mbit/s
95th percentile per-packet one-way delay: 63.698 ms
Loss rate: 2.81%

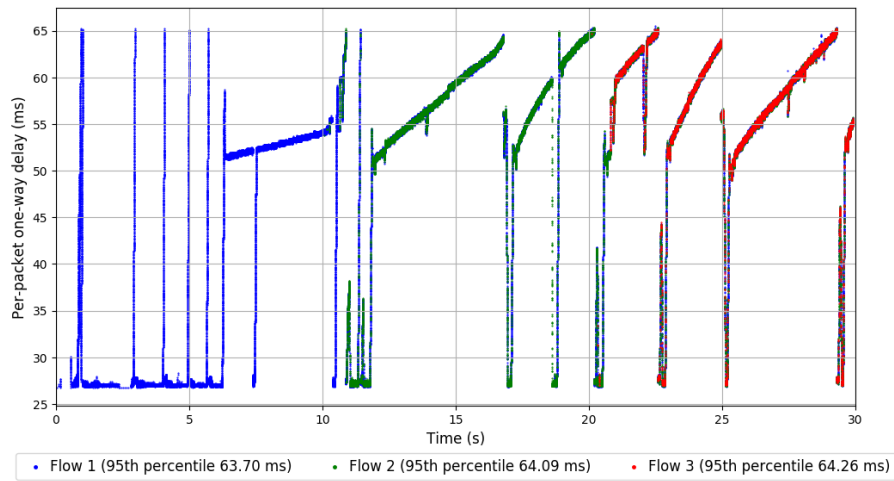
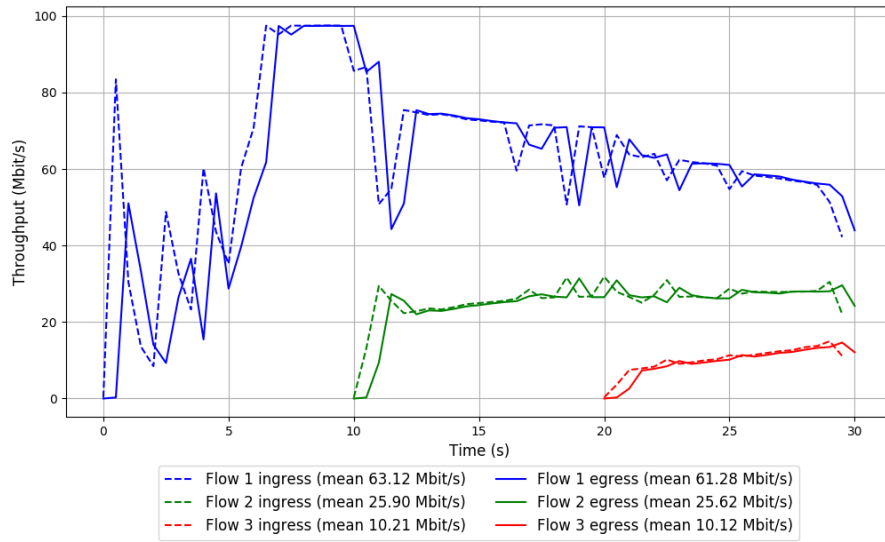
-- Flow 2:

Average throughput: 25.62 Mbit/s
95th percentile per-packet one-way delay: 64.087 ms
Loss rate: 1.08%

-- Flow 3:

Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 64.261 ms
Loss rate: 0.93%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-05-30 02:23:38

End at: 2019-05-30 02:24:08

Local clock offset: 0.452 ms

Remote clock offset: -2.1 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.68 Mbit/s

95th percentile per-packet one-way delay: 63.254 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 61.30 Mbit/s

95th percentile per-packet one-way delay: 63.121 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 26.80 Mbit/s

95th percentile per-packet one-way delay: 63.460 ms

Loss rate: 1.02%

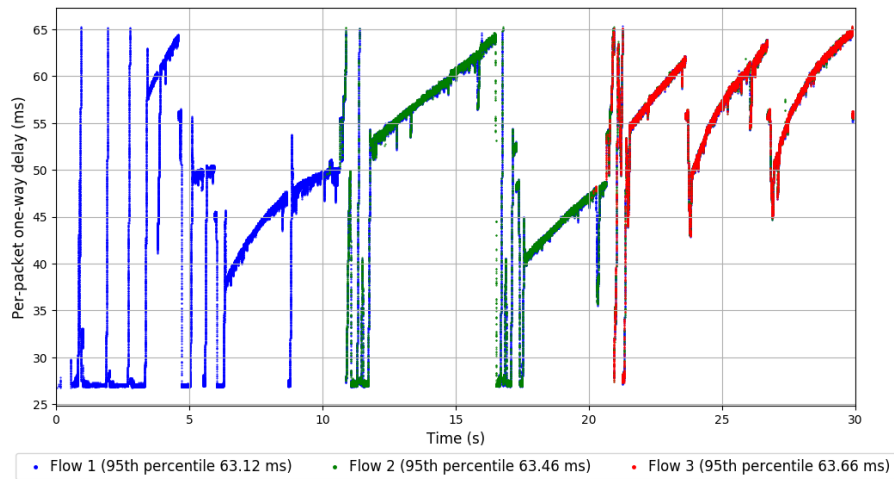
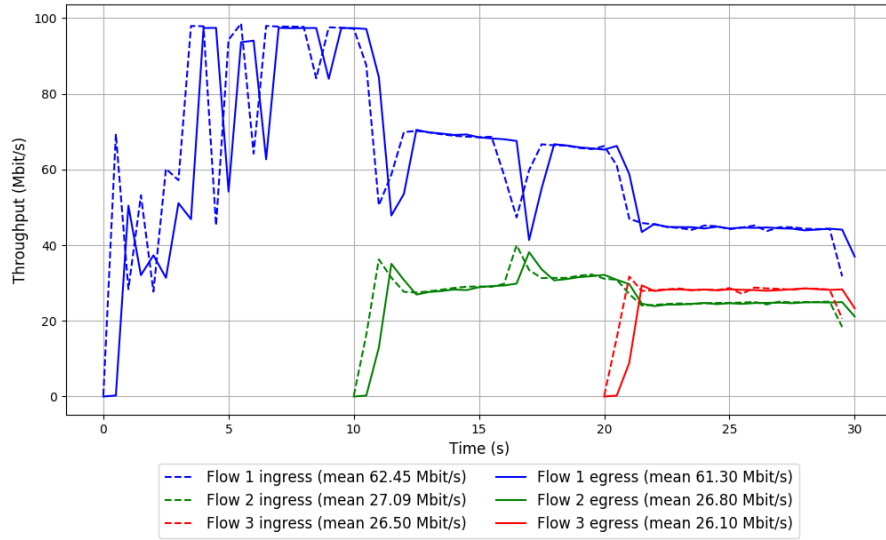
-- Flow 3:

Average throughput: 26.10 Mbit/s

95th percentile per-packet one-way delay: 63.655 ms

Loss rate: 1.39%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2019-05-30 00:30:21

End at: 2019-05-30 00:30:51

Local clock offset: 1.455 ms

Remote clock offset: -3.83 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 27.377 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.361 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.392 ms

Loss rate: 0.00%

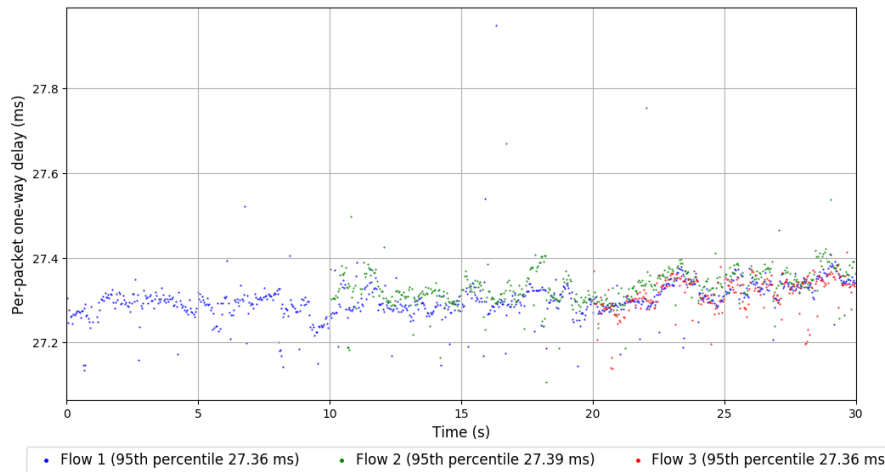
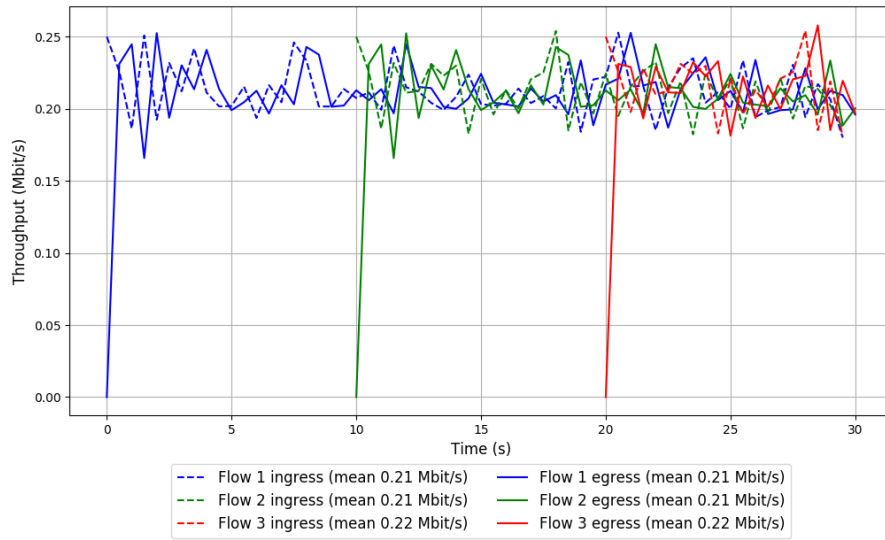
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 27.364 ms

Loss rate: 0.00%

Run 1: Report of SCReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-05-30 00:56:25
End at: 2019-05-30 00:56:55
Local clock offset: 1.115 ms
Remote clock offset: -3.234 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 27.271 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.266 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.277 ms

Loss rate: 0.00%

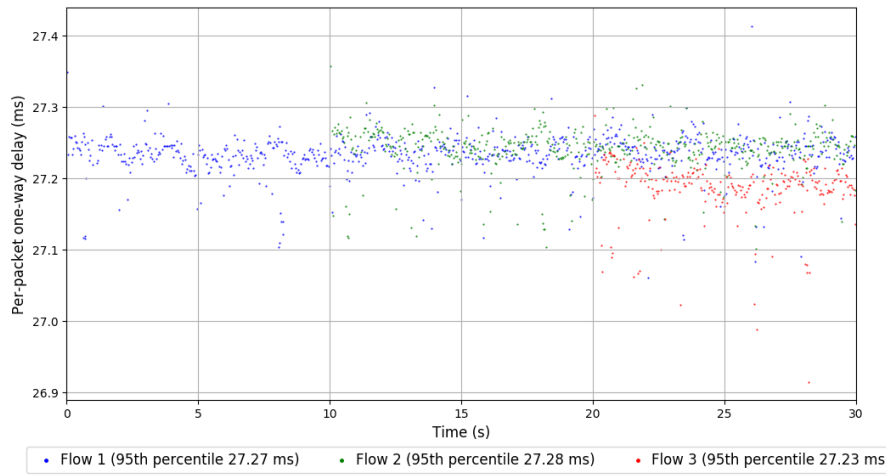
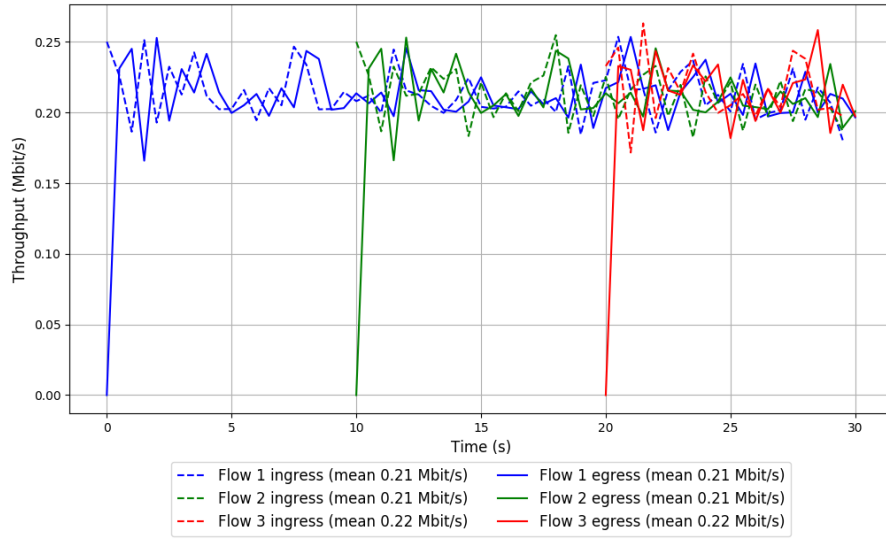
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 27.228 ms

Loss rate: 0.00%

Run 2: Report of SCReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-05-30 01:22:37

End at: 2019-05-30 01:23:07

Local clock offset: 0.574 ms

Remote clock offset: -2.92 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 27.141 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.094 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 27.151 ms

Loss rate: 0.00%

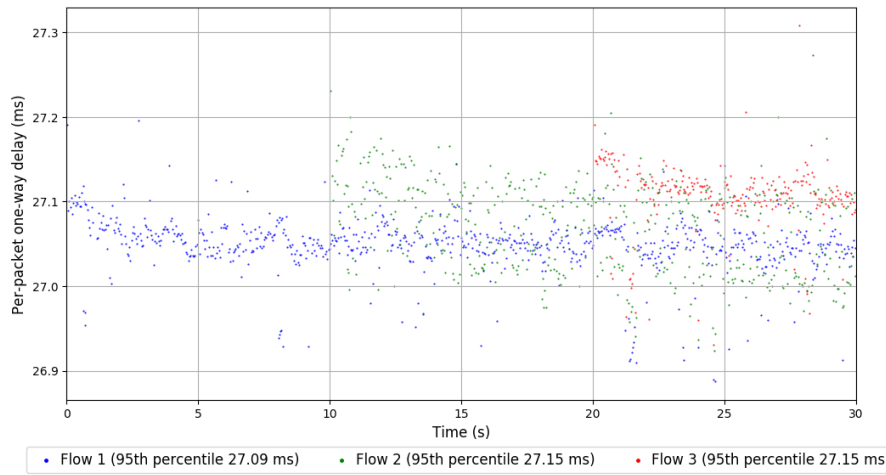
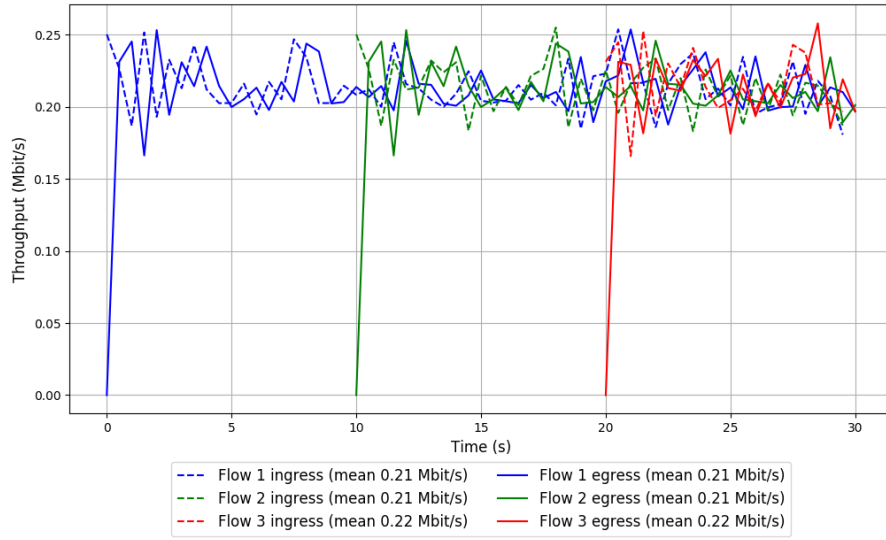
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 27.151 ms

Loss rate: 0.00%

Run 3: Report of SCReAM — Data Link

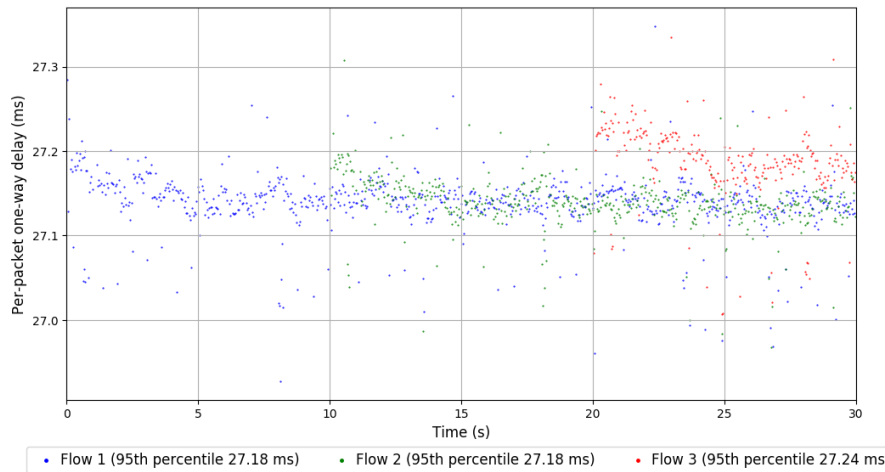
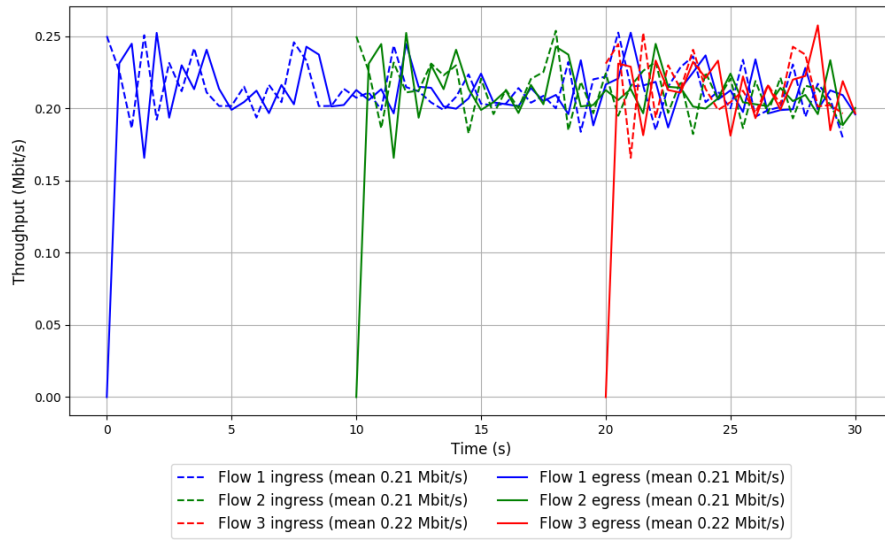


Run 4: Statistics of SCReAM

Start at: 2019-05-30 01:48:11
End at: 2019-05-30 01:48:41
Local clock offset: 0.356 ms
Remote clock offset: -2.562 ms

```
# Below is generated by plot.py at 2019-05-30 02:45:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 27.218 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 27.180 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 27.185 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.244 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

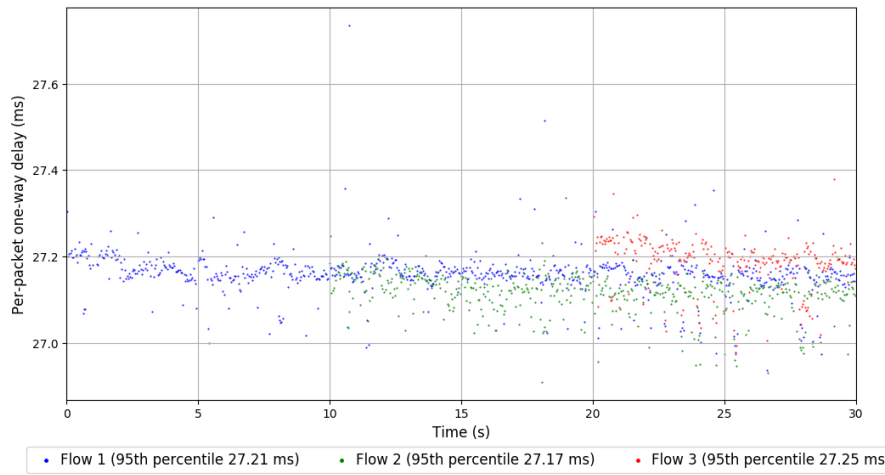
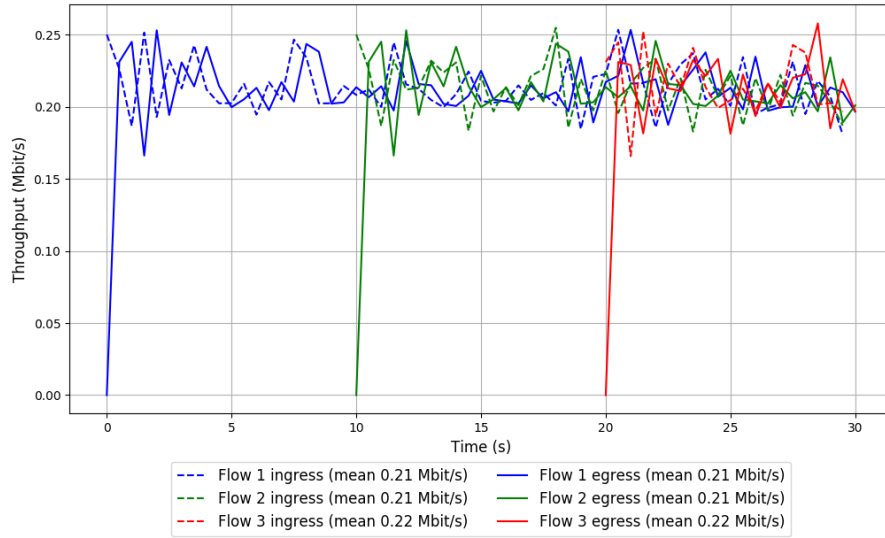


Run 5: Statistics of SCReAM

Start at: 2019-05-30 02:13:52
End at: 2019-05-30 02:14:22
Local clock offset: 0.422 ms
Remote clock offset: -2.057 ms

```
# Below is generated by plot.py at 2019-05-30 02:45:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 27.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 27.214 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 27.171 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.247 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-05-30 00:31:29
End at: 2019-05-30 00:31:59
Local clock offset: 1.619 ms
Remote clock offset: -3.948 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.43 Mbit/s
95th percentile per-packet one-way delay: 34.918 ms
Loss rate: 0.14%

-- Flow 1:

Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 34.652 ms
Loss rate: 0.22%

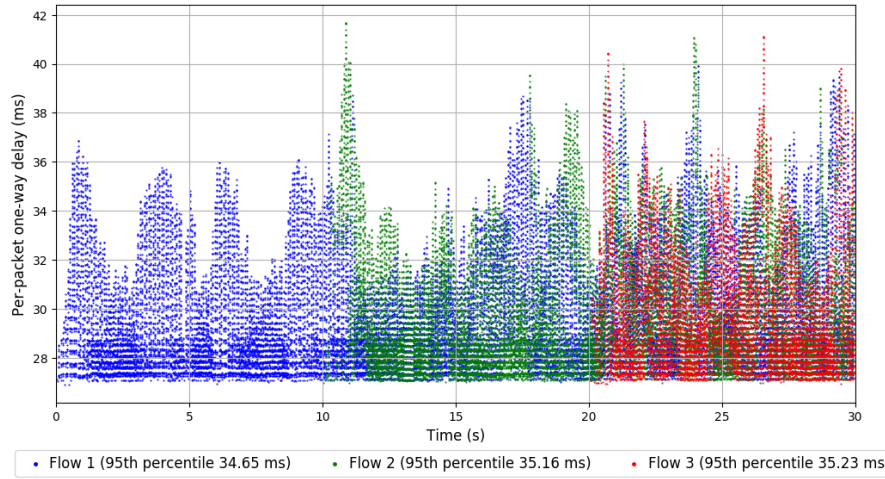
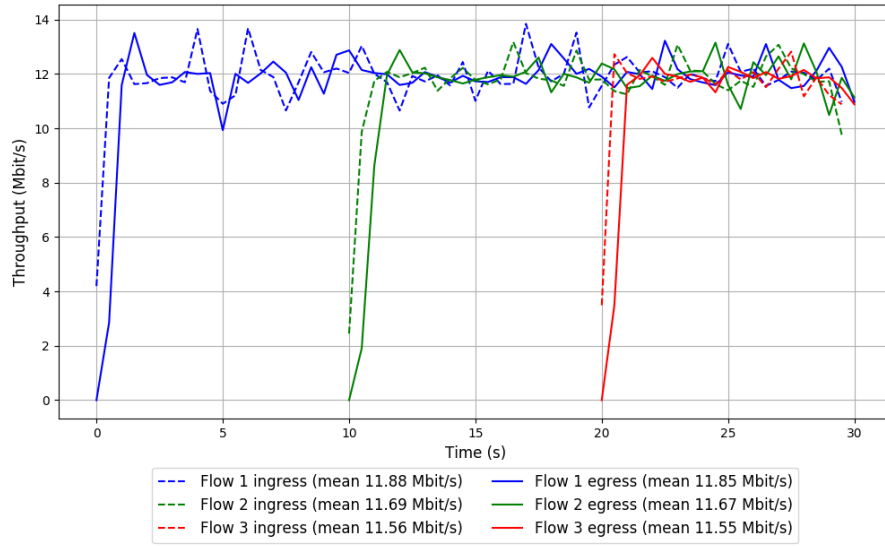
-- Flow 2:

Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 35.156 ms
Loss rate: 0.09%

-- Flow 3:

Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 35.233 ms
Loss rate: 0.01%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2019-05-30 00:57:34
End at: 2019-05-30 00:58:04
Local clock offset: 1.149 ms
Remote clock offset: -3.265 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.42 Mbit/s
95th percentile per-packet one-way delay: 33.559 ms
Loss rate: 0.11%

-- Flow 1:

Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 33.447 ms
Loss rate: 0.13%

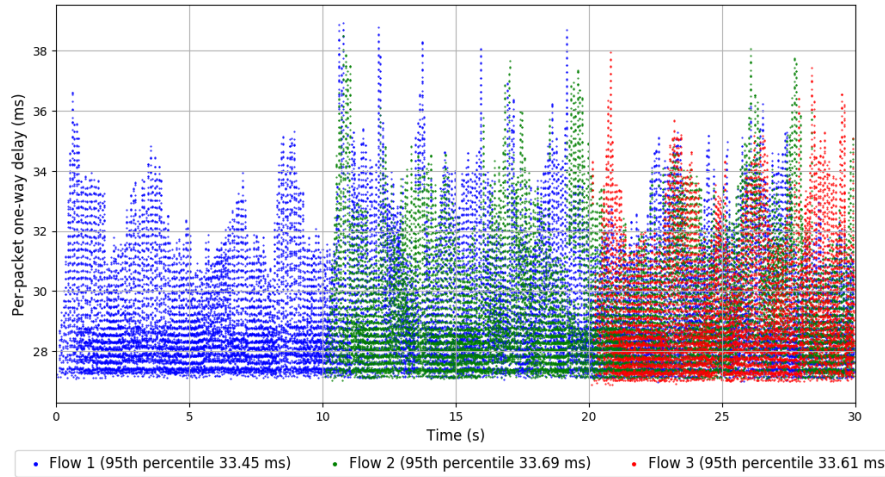
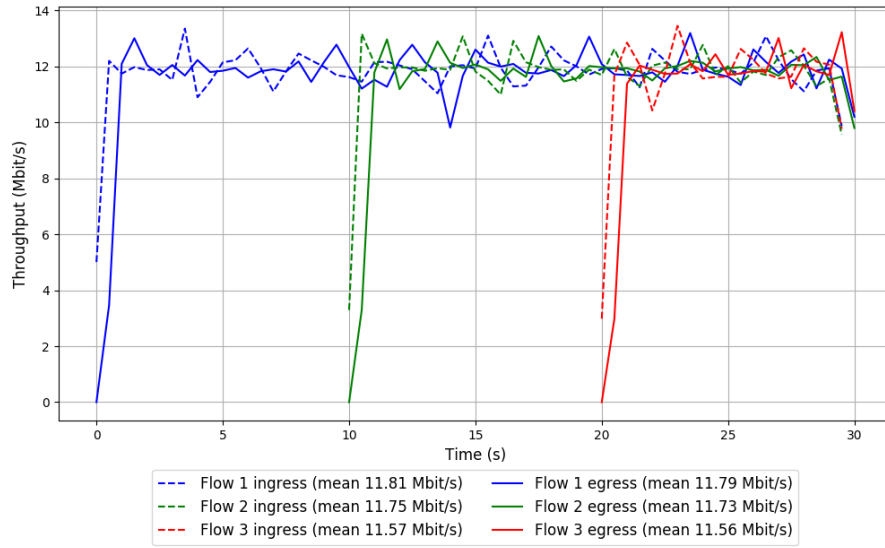
-- Flow 2:

Average throughput: 11.73 Mbit/s
95th percentile per-packet one-way delay: 33.686 ms
Loss rate: 0.13%

-- Flow 3:

Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 33.611 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

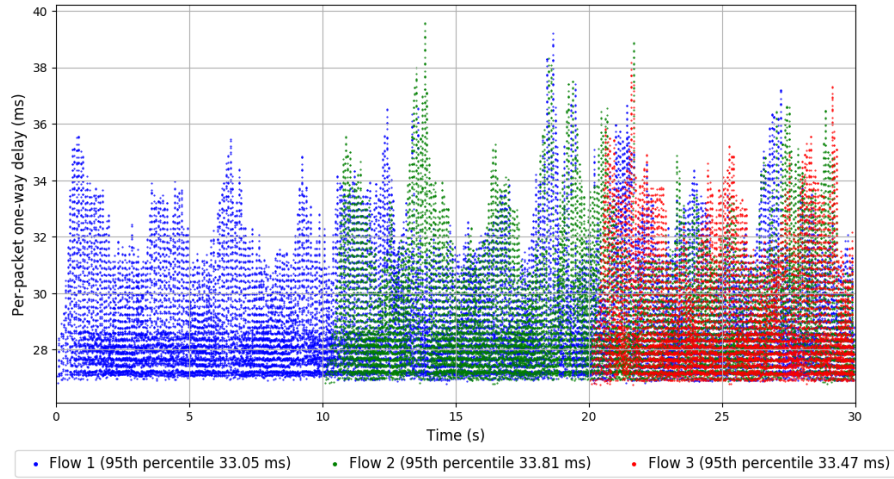
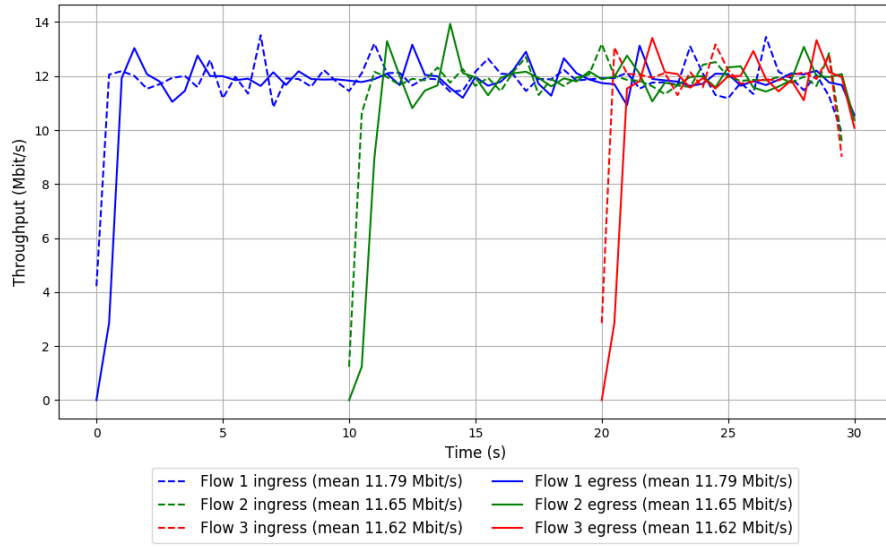


Run 3: Statistics of Sprout

Start at: 2019-05-30 01:23:46
End at: 2019-05-30 01:24:16
Local clock offset: 0.585 ms
Remote clock offset: -2.923 ms

```
# Below is generated by plot.py at 2019-05-30 02:45:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.37 Mbit/s
95th percentile per-packet one-way delay: 33.412 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 33.048 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 11.65 Mbit/s
95th percentile per-packet one-way delay: 33.813 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 33.466 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

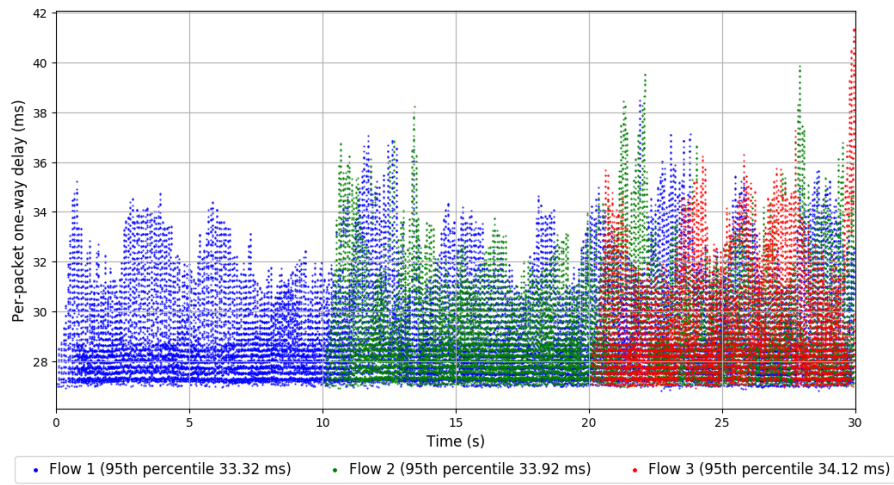
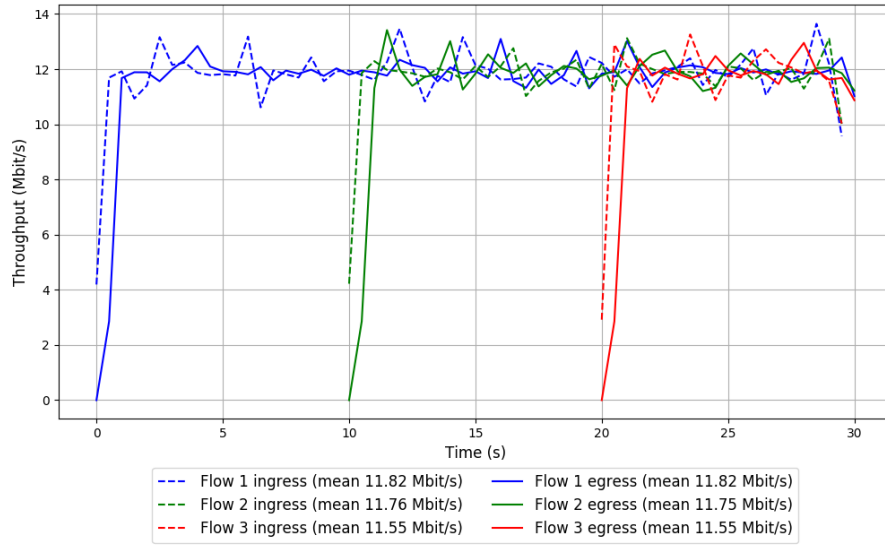


Run 4: Statistics of Sprout

Start at: 2019-05-30 01:49:20
End at: 2019-05-30 01:49:50
Local clock offset: 0.342 ms
Remote clock offset: -2.557 ms

```
# Below is generated by plot.py at 2019-05-30 02:45:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 33.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 33.321 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 33.919 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.55 Mbit/s
95th percentile per-packet one-way delay: 34.123 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-05-30 02:15:01

End at: 2019-05-30 02:15:31

Local clock offset: 0.403 ms

Remote clock offset: -2.16 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.36 Mbit/s

95th percentile per-packet one-way delay: 33.451 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 33.268 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.62 Mbit/s

95th percentile per-packet one-way delay: 33.939 ms

Loss rate: 0.10%

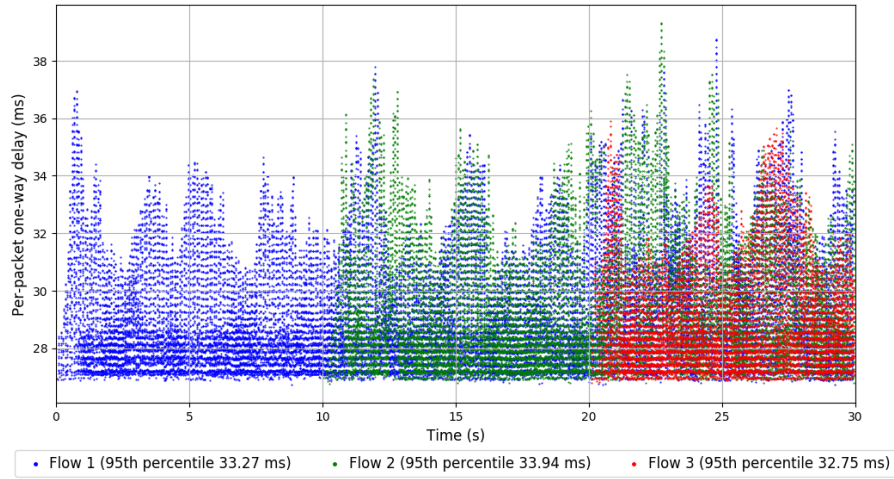
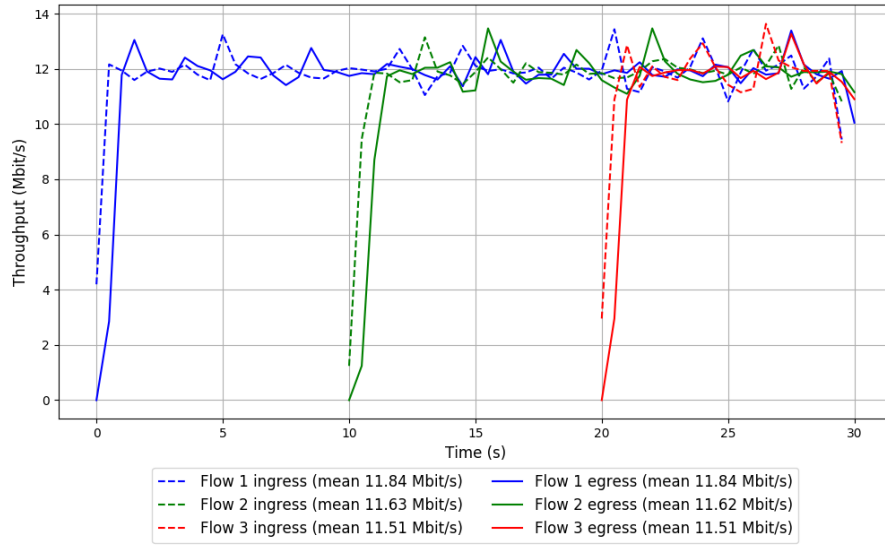
-- Flow 3:

Average throughput: 11.51 Mbit/s

95th percentile per-packet one-way delay: 32.750 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-05-30 00:41:05
End at: 2019-05-30 00:41:35
Local clock offset: 1.78 ms
Remote clock offset: -3.736 ms

Below is generated by plot.py at 2019-05-30 02:45:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 27.233 ms
Loss rate: 81.21%

-- Flow 1:

Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 28.502 ms
Loss rate: 86.28%

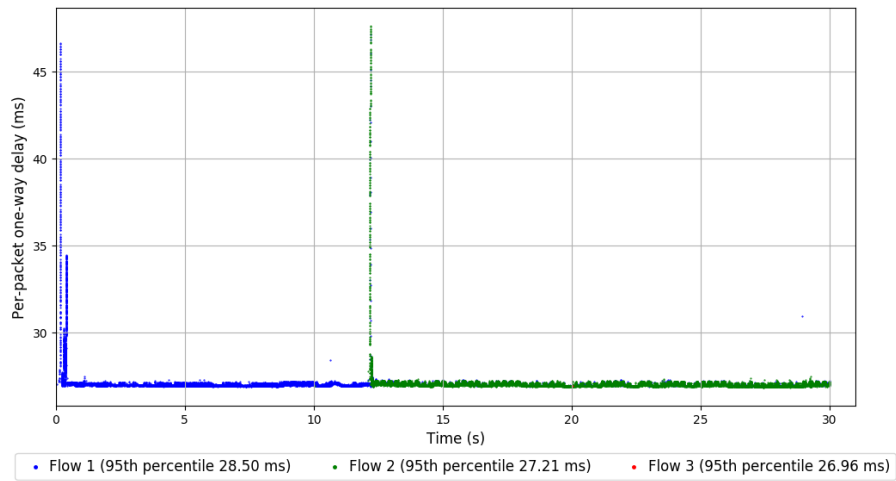
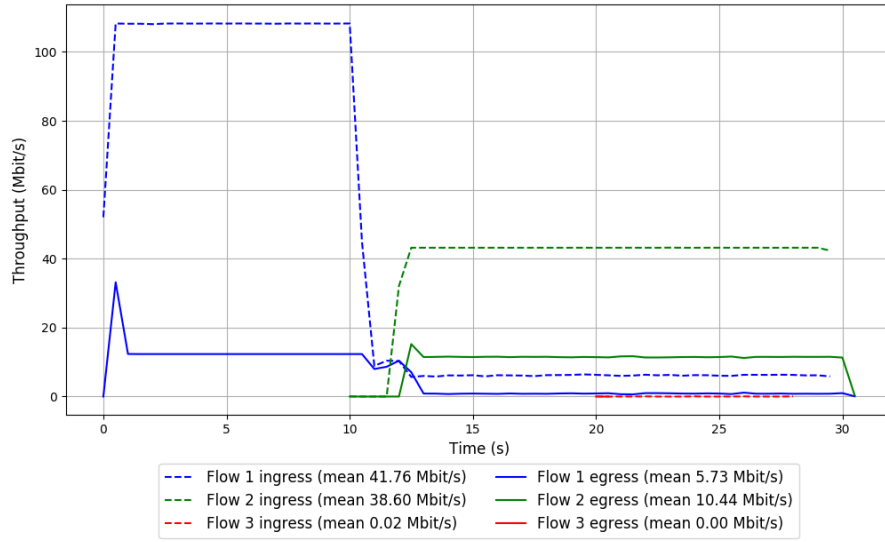
-- Flow 2:

Average throughput: 10.44 Mbit/s
95th percentile per-packet one-way delay: 27.211 ms
Loss rate: 72.96%

-- Flow 3:

Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 26.958 ms
Loss rate: 99.16%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-05-30 01:07:45
End at: 2019-05-30 01:08:15
Local clock offset: 1.335 ms
Remote clock offset: -3.155 ms

Below is generated by plot.py at 2019-05-30 02:46:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 27.555 ms
Loss rate: 88.95%

-- Flow 1:

Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 30.279 ms
Loss rate: 82.94%

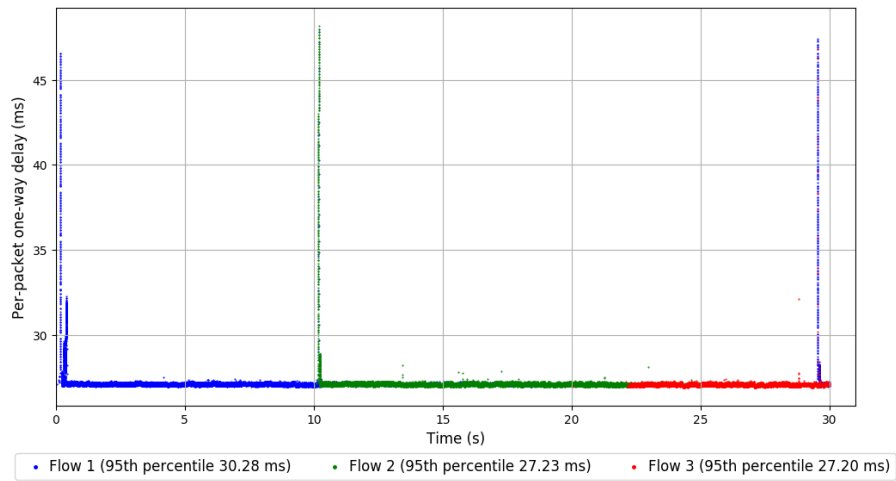
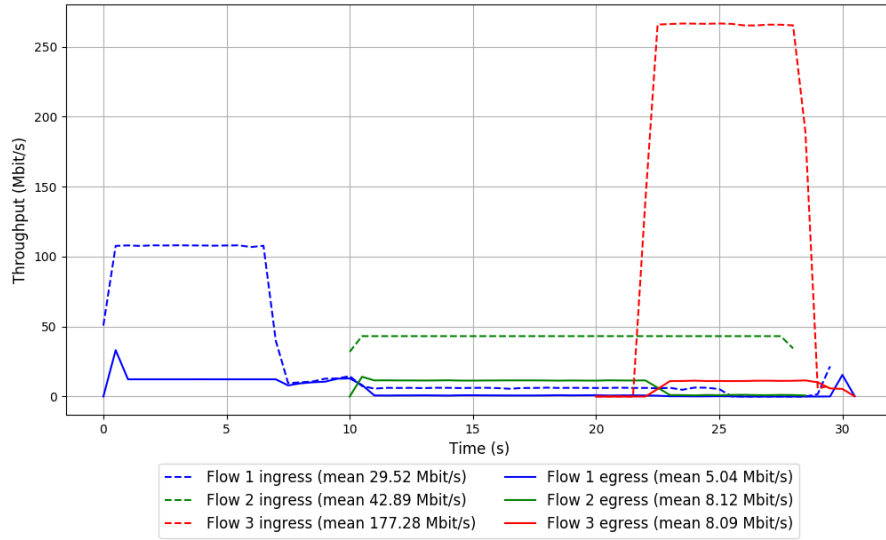
-- Flow 2:

Average throughput: 8.12 Mbit/s
95th percentile per-packet one-way delay: 27.227 ms
Loss rate: 81.16%

-- Flow 3:

Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 27.202 ms
Loss rate: 95.43%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-05-30 01:33:22
End at: 2019-05-30 01:33:52
Local clock offset: 0.595 ms
Remote clock offset: -2.818 ms

Below is generated by plot.py at 2019-05-30 02:46:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 27.256 ms
Loss rate: 78.57%

-- Flow 1:

Average throughput: 8.59 Mbit/s
95th percentile per-packet one-way delay: 27.275 ms
Loss rate: 83.75%

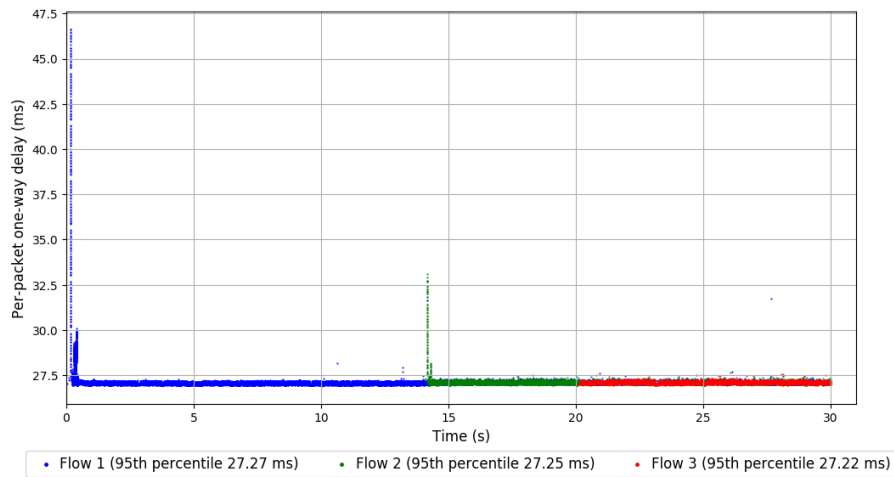
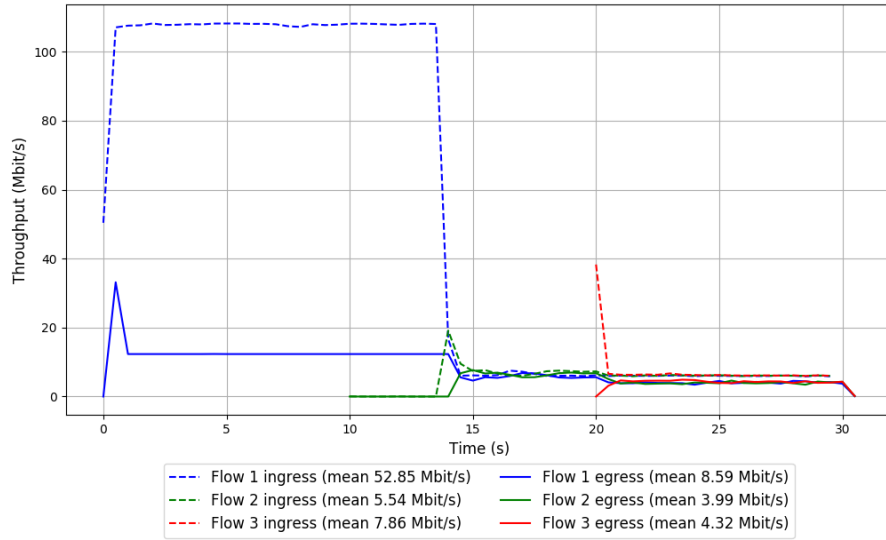
-- Flow 2:

Average throughput: 3.99 Mbit/s
95th percentile per-packet one-way delay: 27.253 ms
Loss rate: 28.01%

-- Flow 3:

Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 27.224 ms
Loss rate: 45.12%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-05-30 01:59:03
End at: 2019-05-30 01:59:33
Local clock offset: 0.383 ms
Remote clock offset: -2.367 ms

Below is generated by plot.py at 2019-05-30 02:46:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 27.246 ms
Loss rate: 95.50%

-- Flow 1:

Average throughput: 6.32 Mbit/s
95th percentile per-packet one-way delay: 28.064 ms
Loss rate: 94.10%

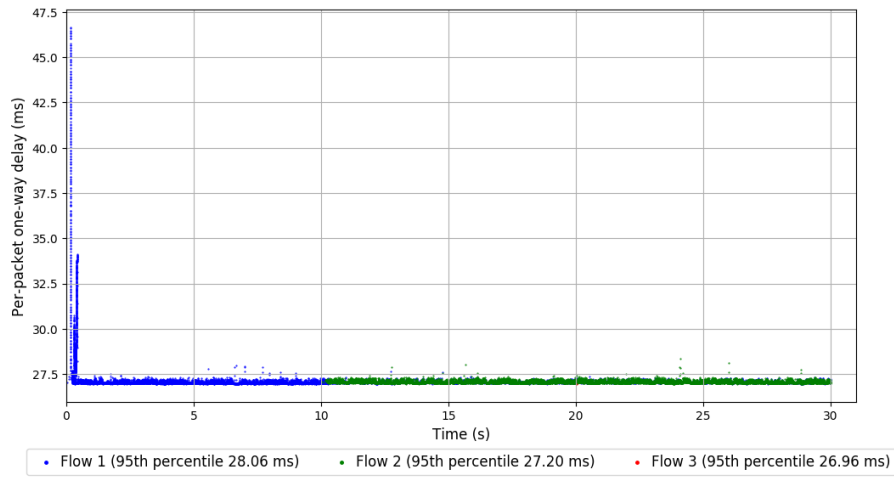
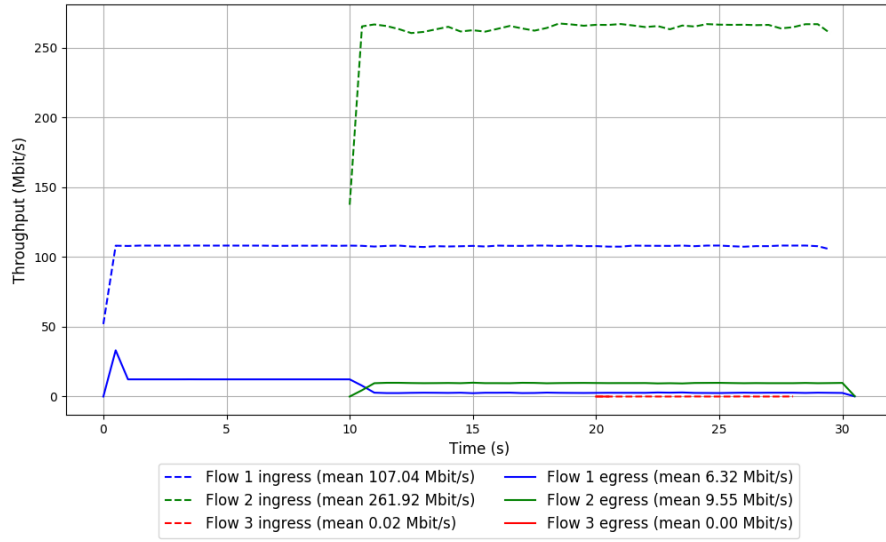
-- Flow 2:

Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 27.205 ms
Loss rate: 96.36%

-- Flow 3:

Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 26.957 ms
Loss rate: 99.16%

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

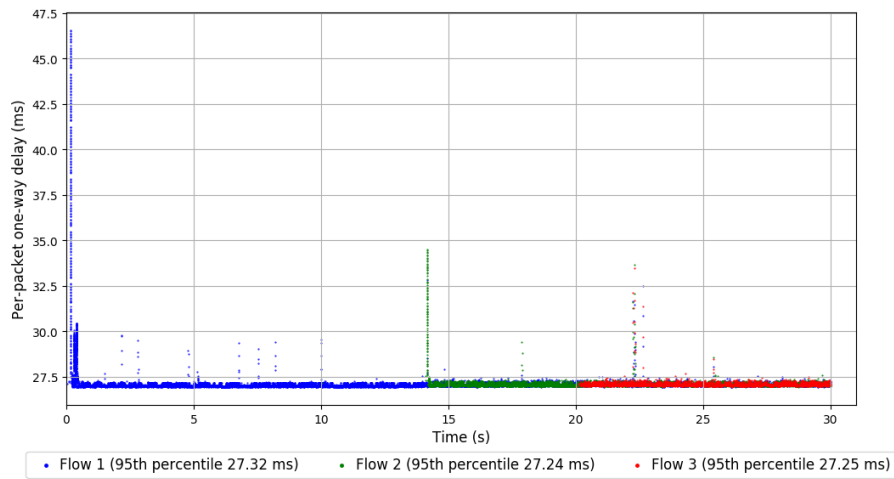
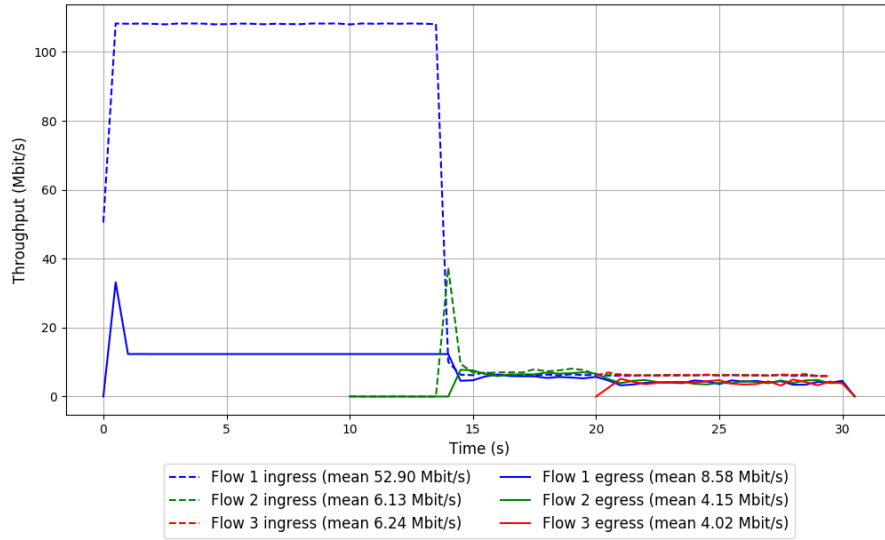


Run 5: Statistics of TaoVA-100x

Start at: 2019-05-30 02:24:56
End at: 2019-05-30 02:25:26
Local clock offset: 0.46 ms
Remote clock offset: -2.058 ms

```
# Below is generated by plot.py at 2019-05-30 02:46:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.68 Mbit/s
95th percentile per-packet one-way delay: 27.264 ms
Loss rate: 78.53%
-- Flow 1:
Average throughput: 8.58 Mbit/s
95th percentile per-packet one-way delay: 27.323 ms
Loss rate: 83.78%
-- Flow 2:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 27.244 ms
Loss rate: 32.31%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 27.248 ms
Loss rate: 35.54%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2019-05-30 00:25:27
End at: 2019-05-30 00:25:57
Local clock offset: 0.58 ms
Remote clock offset: -4.081 ms

Below is generated by plot.py at 2019-05-30 02:46:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 50.970 ms
Loss rate: 0.64%

-- Flow 1:

Average throughput: 39.52 Mbit/s
95th percentile per-packet one-way delay: 46.950 ms
Loss rate: 0.84%

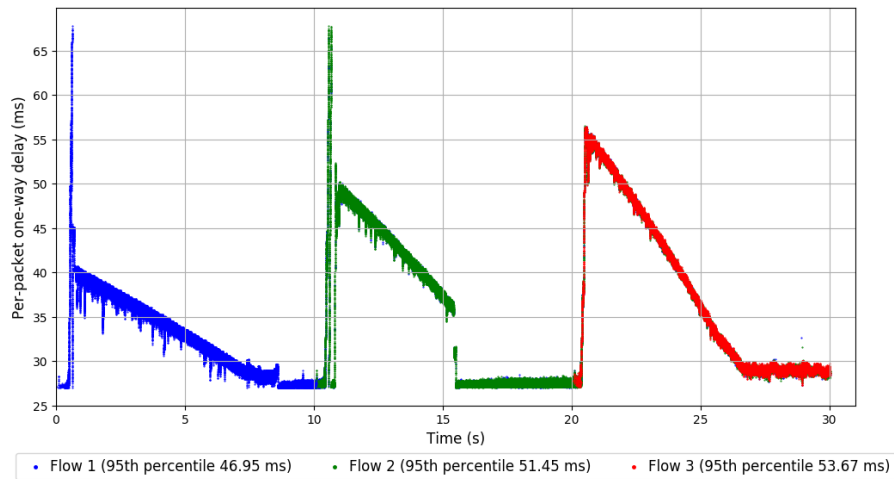
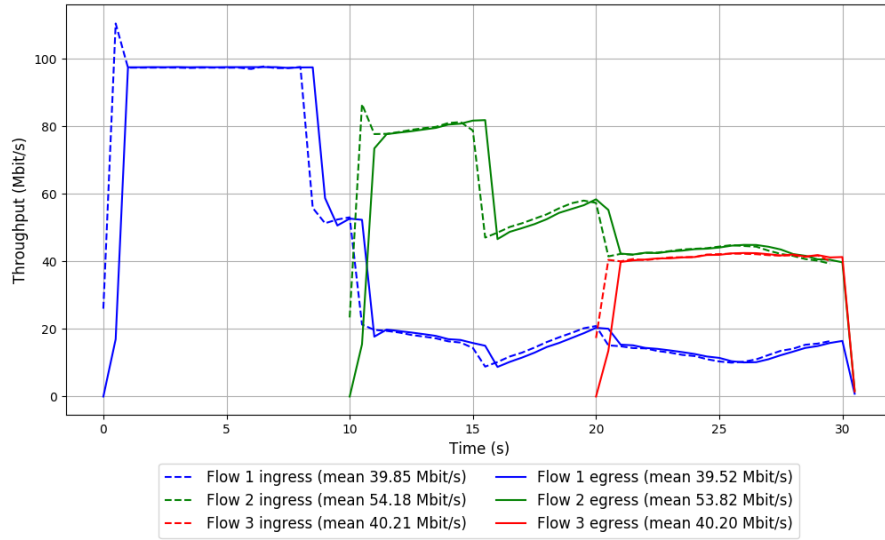
-- Flow 2:

Average throughput: 53.82 Mbit/s
95th percentile per-packet one-way delay: 51.455 ms
Loss rate: 0.65%

-- Flow 3:

Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 53.671 ms
Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-05-30 00:51:06
End at: 2019-05-30 00:51:36
Local clock offset: 1.123 ms
Remote clock offset: -3.368 ms

Below is generated by plot.py at 2019-05-30 02:46:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 38.118 ms
Loss rate: 0.27%

-- Flow 1:

Average throughput: 76.90 Mbit/s
95th percentile per-packet one-way delay: 38.408 ms
Loss rate: 0.34%

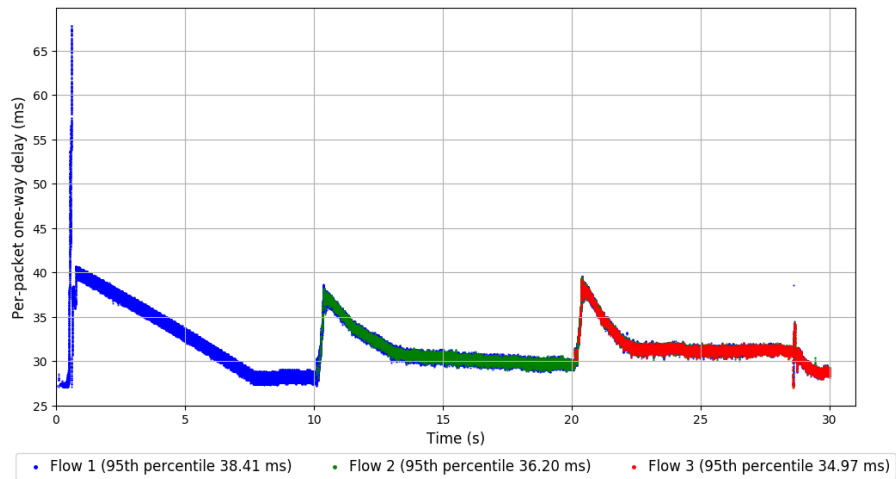
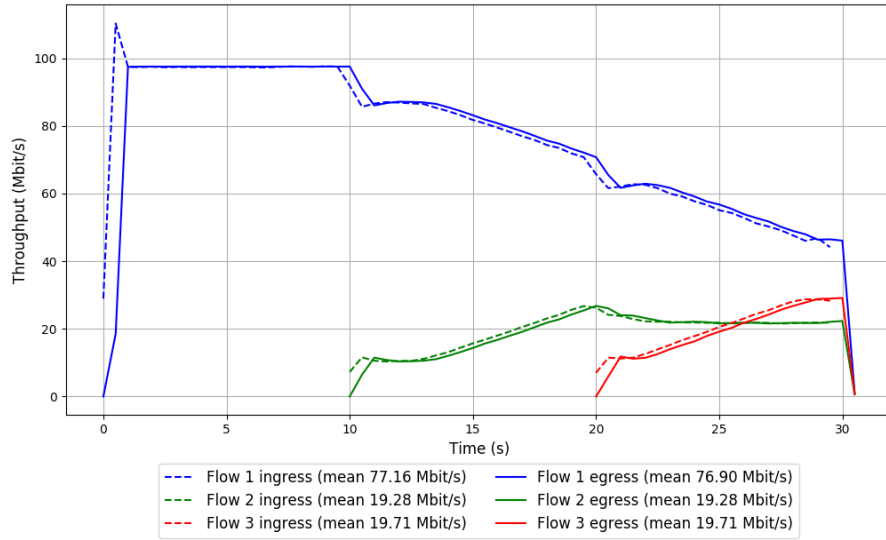
-- Flow 2:

Average throughput: 19.28 Mbit/s
95th percentile per-packet one-way delay: 36.197 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 19.71 Mbit/s
95th percentile per-packet one-way delay: 34.973 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-05-30 01:17:35
End at: 2019-05-30 01:18:05
Local clock offset: 0.69 ms
Remote clock offset: -2.957 ms

Below is generated by plot.py at 2019-05-30 02:46:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 37.865 ms
Loss rate: 0.29%

-- Flow 1:

Average throughput: 74.42 Mbit/s
95th percentile per-packet one-way delay: 38.122 ms
Loss rate: 0.35%

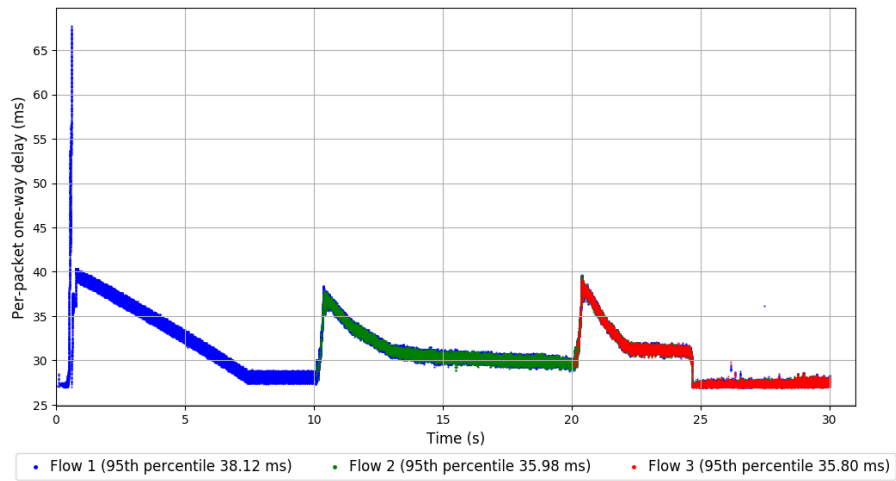
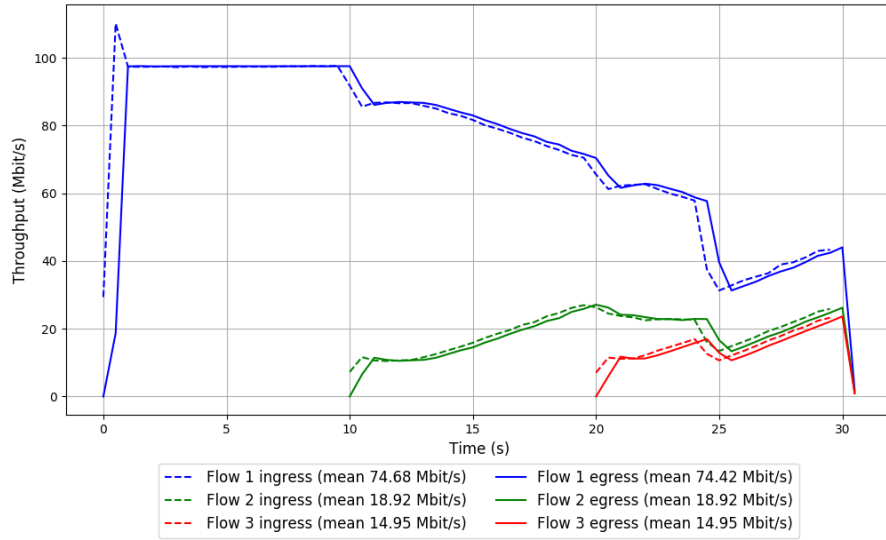
-- Flow 2:

Average throughput: 18.92 Mbit/s
95th percentile per-packet one-way delay: 35.981 ms
Loss rate: 0.01%

-- Flow 3:

Average throughput: 14.95 Mbit/s
95th percentile per-packet one-way delay: 35.797 ms
Loss rate: 0.02%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2019-05-30 01:43:10

End at: 2019-05-30 01:43:40

Local clock offset: 0.45 ms

Remote clock offset: -2.65 ms

Below is generated by plot.py at 2019-05-30 02:46:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.71 Mbit/s

95th percentile per-packet one-way delay: 42.969 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 74.40 Mbit/s

95th percentile per-packet one-way delay: 43.005 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 20.87 Mbit/s

95th percentile per-packet one-way delay: 43.656 ms

Loss rate: 0.00%

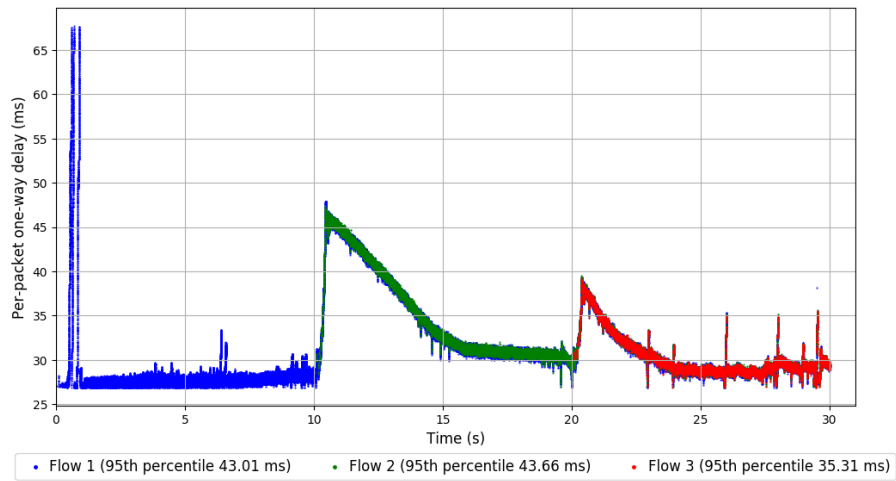
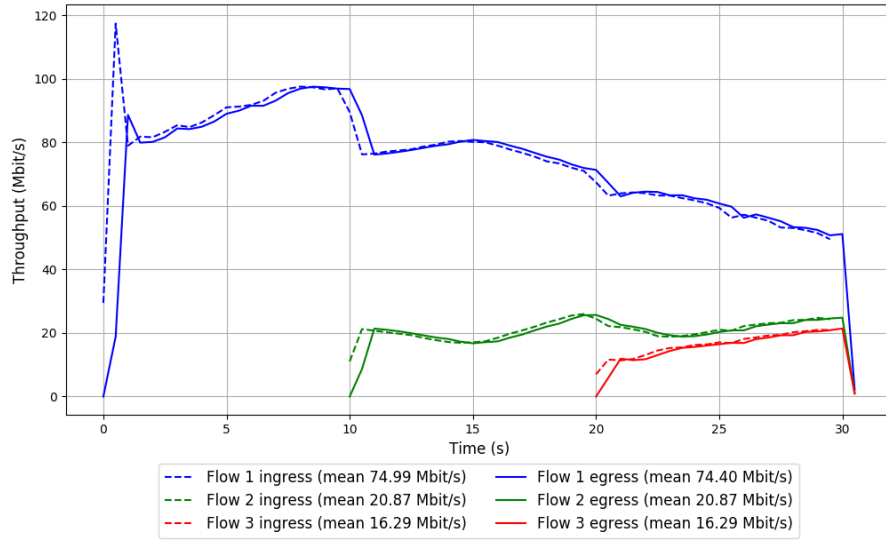
-- Flow 3:

Average throughput: 16.29 Mbit/s

95th percentile per-packet one-way delay: 35.313 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-05-30 02:08:51
End at: 2019-05-30 02:09:21
Local clock offset: 0.418 ms
Remote clock offset: -2.174 ms

Below is generated by plot.py at 2019-05-30 02:46:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 42.786 ms
Loss rate: 0.51%

-- Flow 1:

Average throughput: 74.68 Mbit/s
95th percentile per-packet one-way delay: 43.008 ms
Loss rate: 0.64%

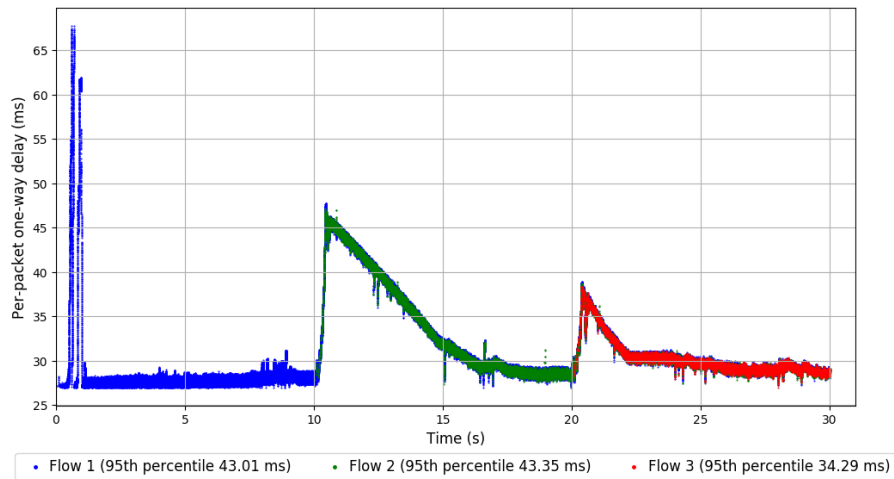
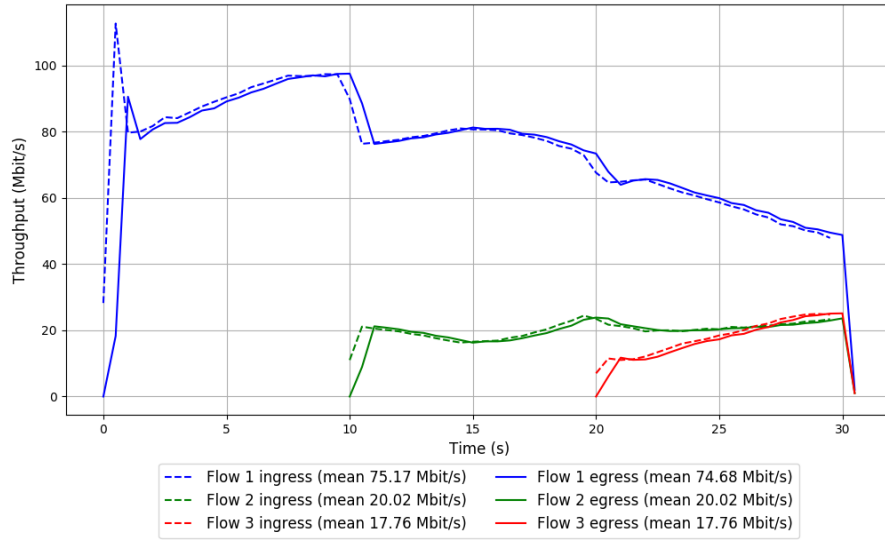
-- Flow 2:

Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 43.350 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 17.76 Mbit/s
95th percentile per-packet one-way delay: 34.294 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-05-30 00:48:32
End at: 2019-05-30 00:49:02
Local clock offset: 1.2 ms
Remote clock offset: -3.499 ms

Below is generated by plot.py at 2019-05-30 02:46:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.52 Mbit/s
95th percentile per-packet one-way delay: 64.196 ms
Loss rate: 56.04%

-- Flow 1:

Average throughput: 28.07 Mbit/s
95th percentile per-packet one-way delay: 62.450 ms
Loss rate: 24.38%

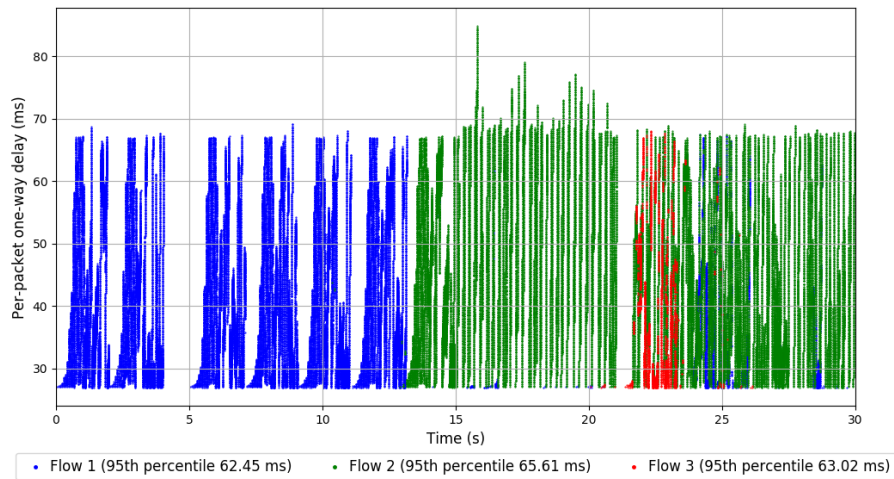
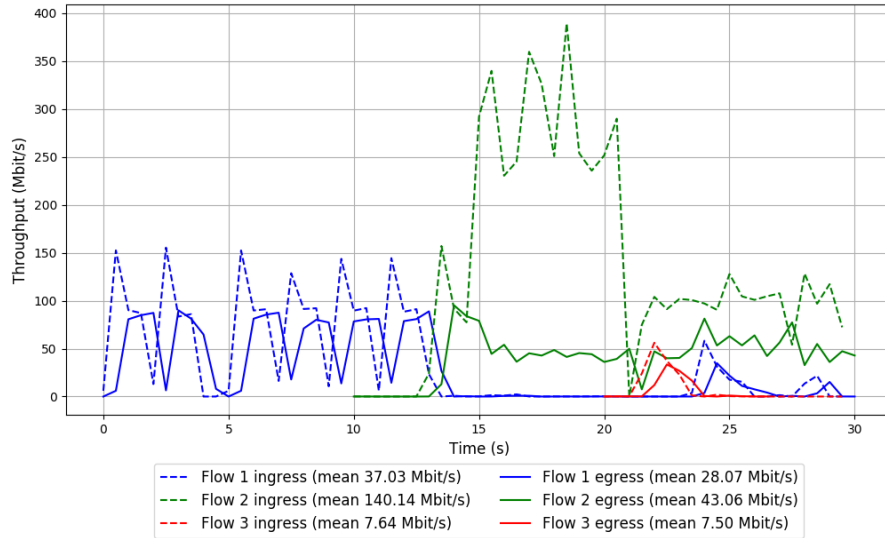
-- Flow 2:

Average throughput: 43.06 Mbit/s
95th percentile per-packet one-way delay: 65.607 ms
Loss rate: 69.25%

-- Flow 3:

Average throughput: 7.50 Mbit/s
95th percentile per-packet one-way delay: 63.025 ms
Loss rate: 36.92%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2019-05-30 01:15:02
End at: 2019-05-30 01:15:32
Local clock offset: 0.743 ms
Remote clock offset: -2.955 ms

Below is generated by plot.py at 2019-05-30 02:47:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 84.243 ms
Loss rate: 70.25%

-- Flow 1:

Average throughput: 53.57 Mbit/s
95th percentile per-packet one-way delay: 85.664 ms
Loss rate: 71.83%

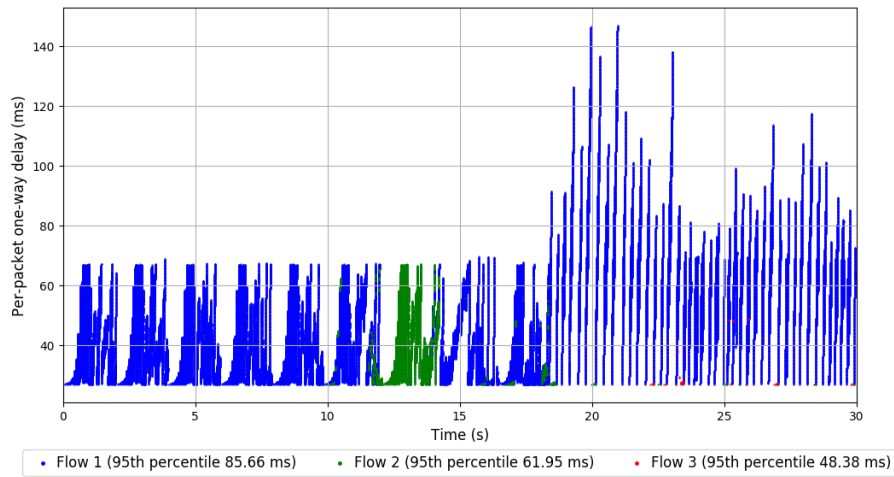
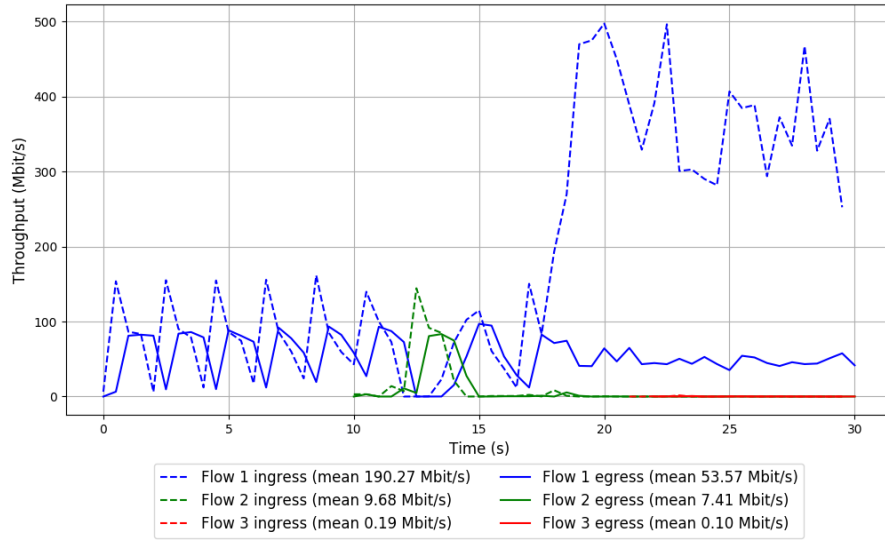
-- Flow 2:

Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 61.955 ms
Loss rate: 23.52%

-- Flow 3:

Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 48.377 ms
Loss rate: 55.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-05-30 01:40:39
End at: 2019-05-30 01:41:09
Local clock offset: 0.513 ms
Remote clock offset: -2.535 ms

Below is generated by plot.py at 2019-05-30 02:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 55.62 Mbit/s
95th percentile per-packet one-way delay: 69.371 ms
Loss rate: 70.22%

-- Flow 1:

Average throughput: 40.16 Mbit/s
95th percentile per-packet one-way delay: 71.615 ms
Loss rate: 73.48%

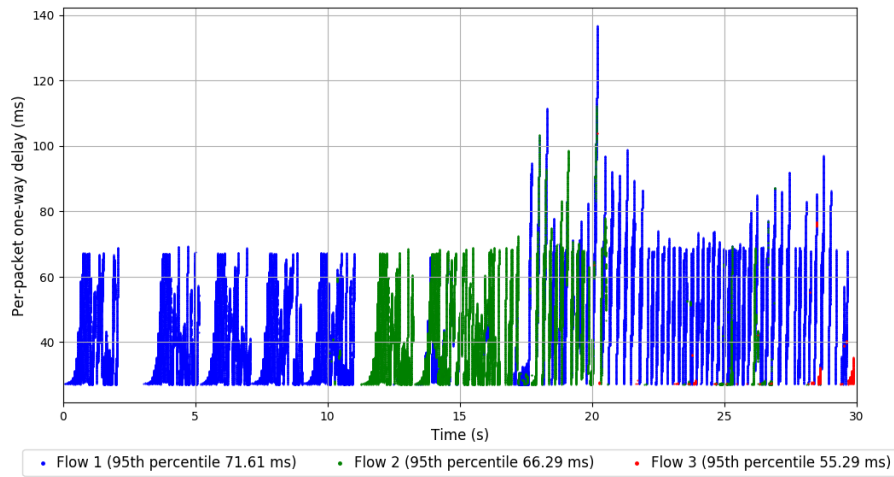
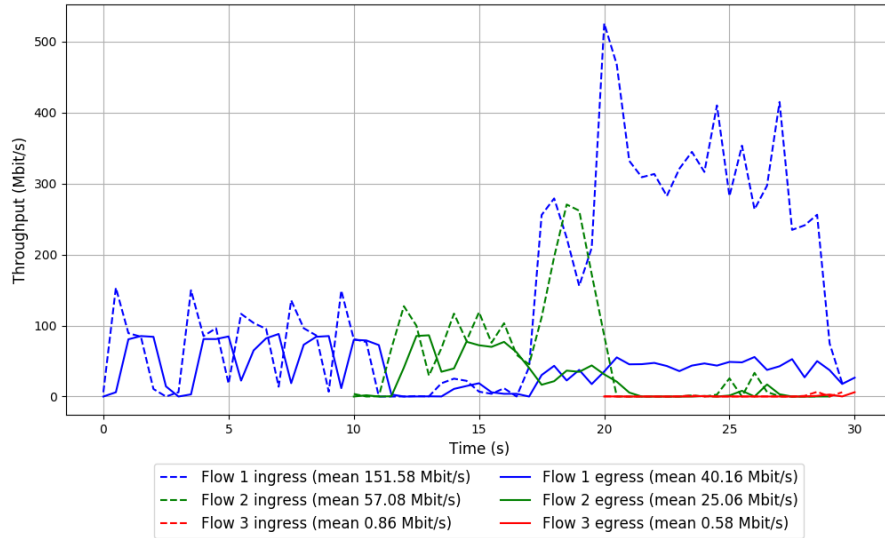
-- Flow 2:

Average throughput: 25.06 Mbit/s
95th percentile per-packet one-way delay: 66.293 ms
Loss rate: 57.01%

-- Flow 3:

Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 55.287 ms
Loss rate: 32.68%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-05-30 02:06:22
End at: 2019-05-30 02:06:52
Local clock offset: 0.42 ms
Remote clock offset: -2.214 ms

Below is generated by plot.py at 2019-05-30 02:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.84 Mbit/s
95th percentile per-packet one-way delay: 63.193 ms
Loss rate: 47.30%

-- Flow 1:

Average throughput: 54.93 Mbit/s
95th percentile per-packet one-way delay: 63.446 ms
Loss rate: 49.46%

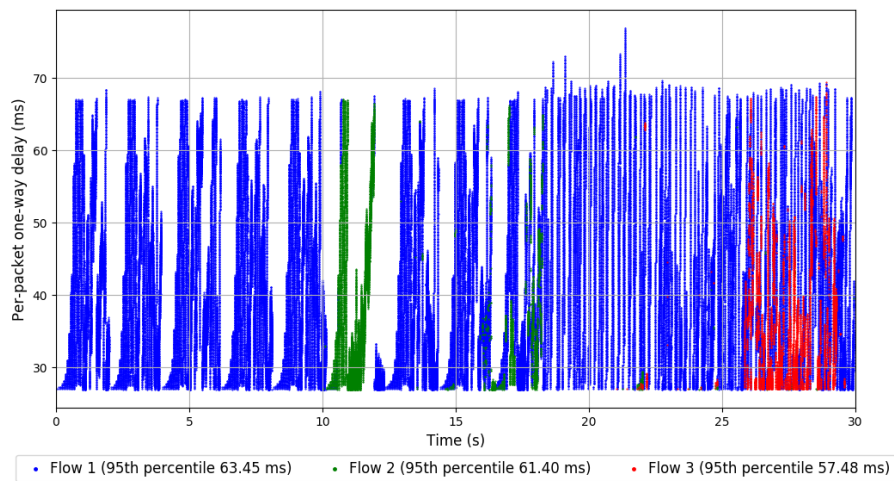
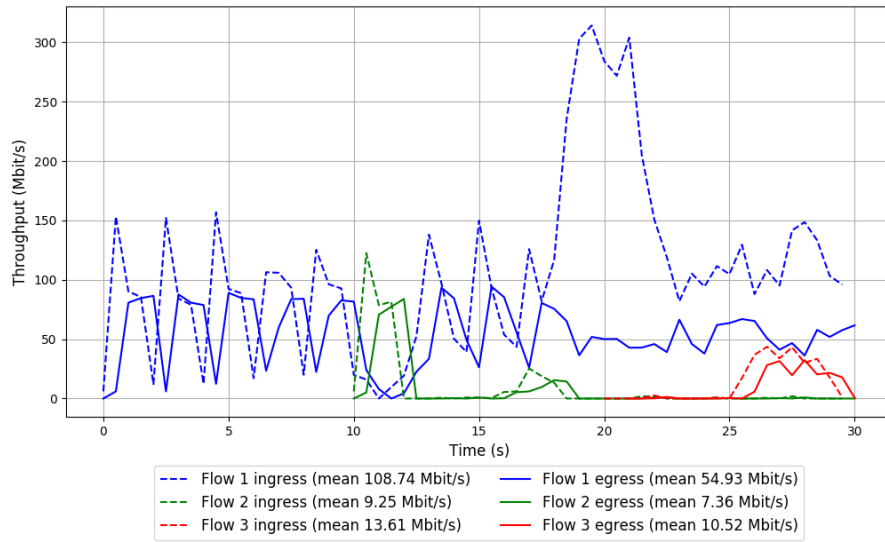
-- Flow 2:

Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 61.395 ms
Loss rate: 20.44%

-- Flow 3:

Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 57.483 ms
Loss rate: 31.25%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-05-30 02:32:10

End at: 2019-05-30 02:32:40

Local clock offset: 0.601 ms

Remote clock offset: -1.9 ms

Below is generated by plot.py at 2019-05-30 02:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.44 Mbit/s

95th percentile per-packet one-way delay: 63.081 ms

Loss rate: 40.89%

-- Flow 1:

Average throughput: 34.24 Mbit/s

95th percentile per-packet one-way delay: 62.972 ms

Loss rate: 36.79%

-- Flow 2:

Average throughput: 27.22 Mbit/s

95th percentile per-packet one-way delay: 63.697 ms

Loss rate: 50.70%

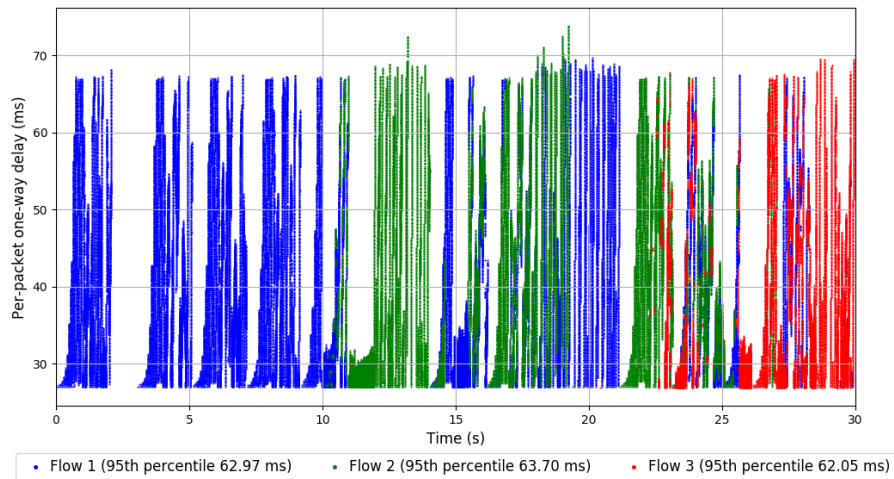
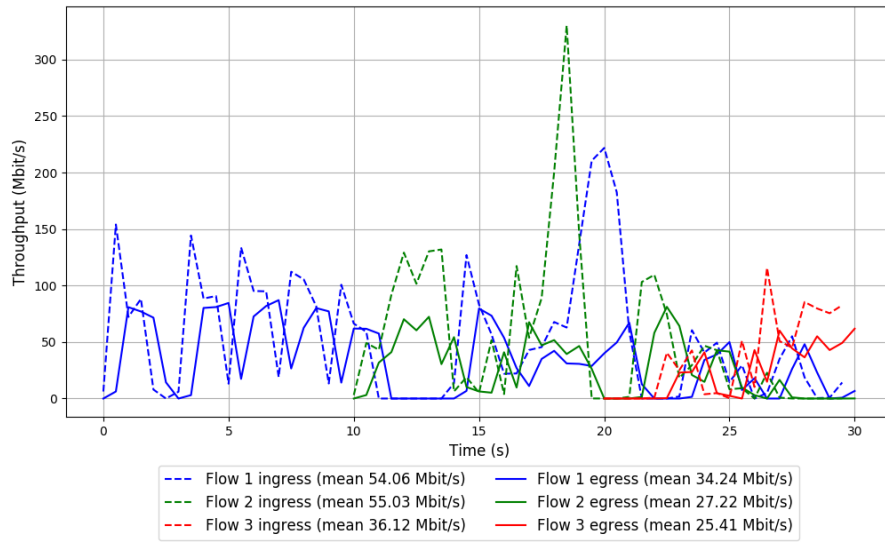
-- Flow 3:

Average throughput: 25.41 Mbit/s

95th percentile per-packet one-way delay: 62.051 ms

Loss rate: 29.61%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-05-30 00:43:34
End at: 2019-05-30 00:44:04
Local clock offset: 1.495 ms
Remote clock offset: -3.612 ms

Below is generated by plot.py at 2019-05-30 02:47:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.15 Mbit/s
95th percentile per-packet one-way delay: 39.438 ms
Loss rate: 0.04%

-- Flow 1:

Average throughput: 66.32 Mbit/s
95th percentile per-packet one-way delay: 38.340 ms
Loss rate: 0.03%

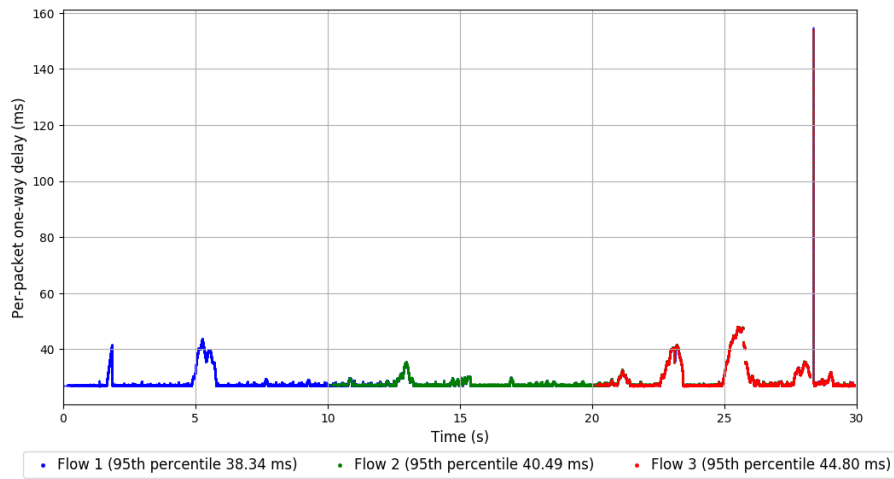
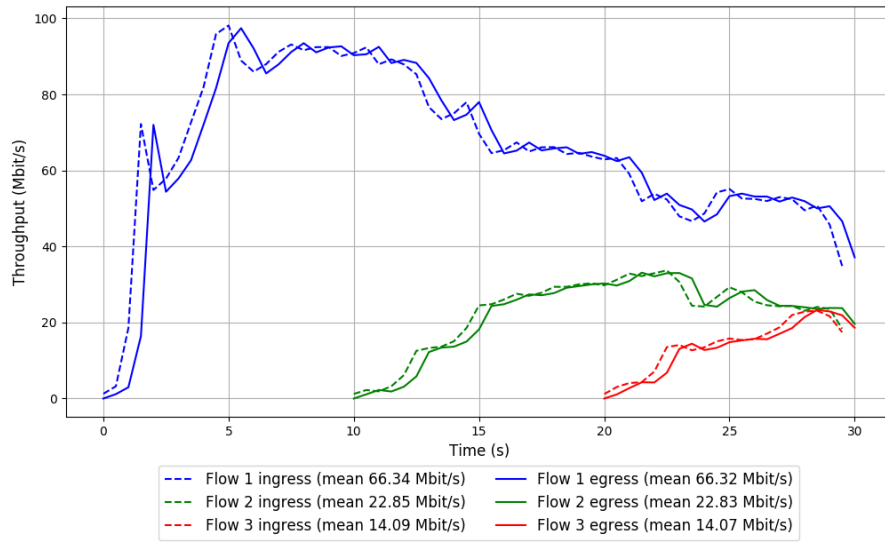
-- Flow 2:

Average throughput: 22.83 Mbit/s
95th percentile per-packet one-way delay: 40.486 ms
Loss rate: 0.06%

-- Flow 3:

Average throughput: 14.07 Mbit/s
95th percentile per-packet one-way delay: 44.803 ms
Loss rate: 0.11%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-05-30 01:10:11
End at: 2019-05-30 01:10:41
Local clock offset: 1.068 ms
Remote clock offset: -3.156 ms

Below is generated by plot.py at 2019-05-30 02:47:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.55 Mbit/s
95th percentile per-packet one-way delay: 34.521 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.93 Mbit/s
95th percentile per-packet one-way delay: 35.475 ms
Loss rate: 0.00%

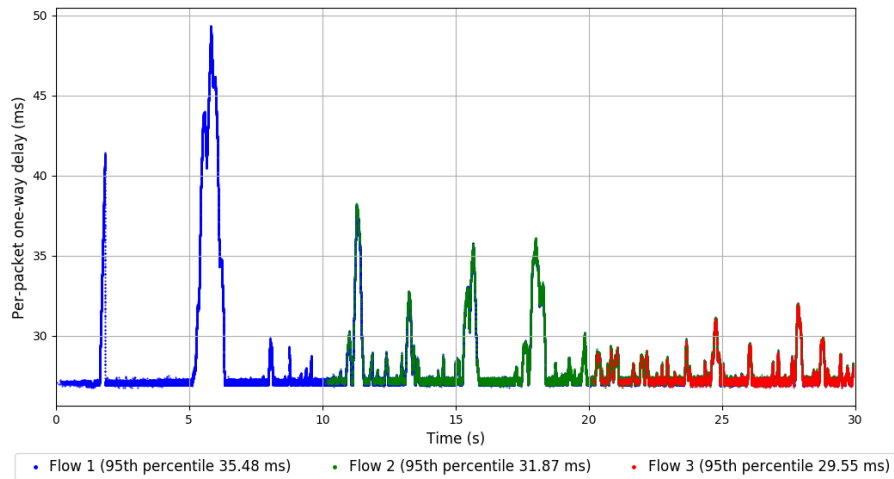
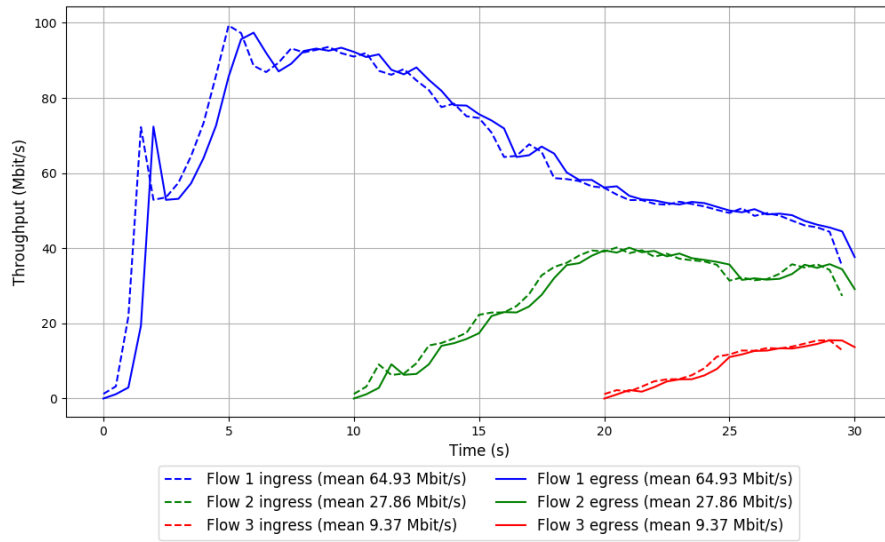
-- Flow 2:

Average throughput: 27.86 Mbit/s
95th percentile per-packet one-way delay: 31.869 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 9.37 Mbit/s
95th percentile per-packet one-way delay: 29.551 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

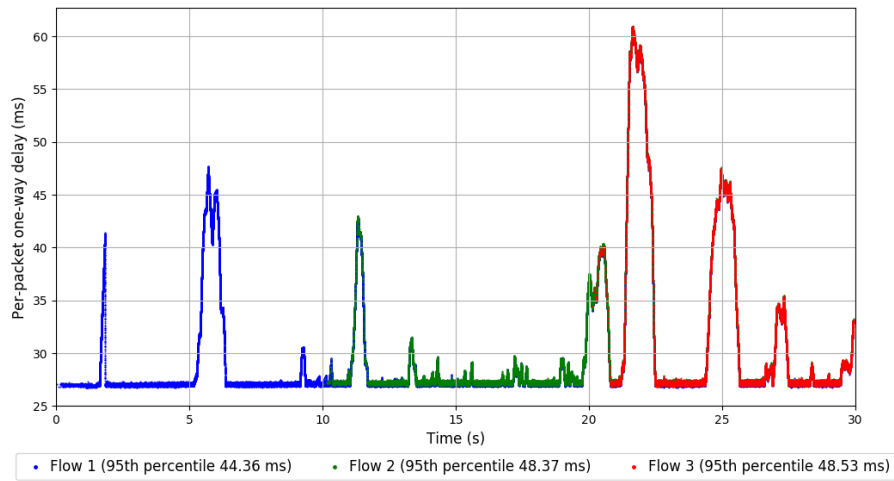
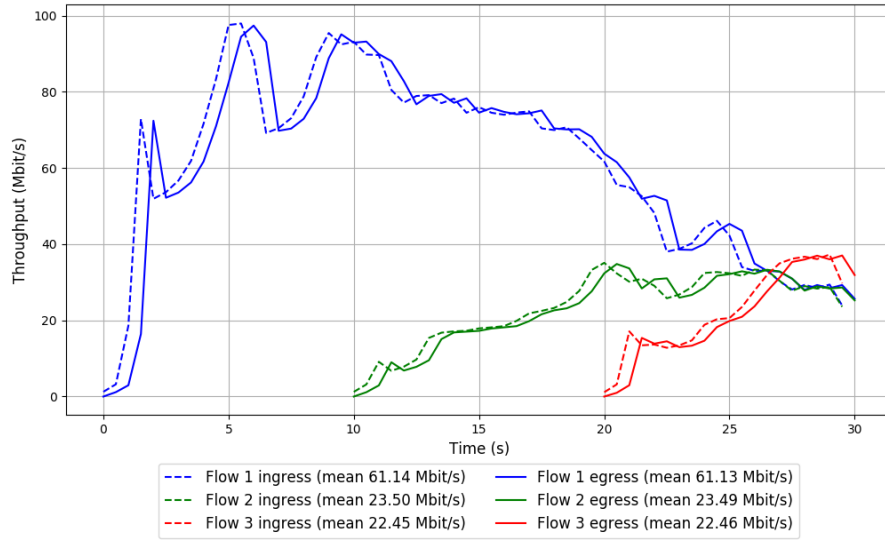


Run 3: Statistics of PCC-Vivace

Start at: 2019-05-30 01:35:48
End at: 2019-05-30 01:36:18
Local clock offset: 0.617 ms
Remote clock offset: -2.756 ms

```
# Below is generated by plot.py at 2019-05-30 02:48:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.17 Mbit/s
95th percentile per-packet one-way delay: 45.279 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.13 Mbit/s
95th percentile per-packet one-way delay: 44.356 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 48.371 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.46 Mbit/s
95th percentile per-packet one-way delay: 48.534 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-05-30 02:01:31

End at: 2019-05-30 02:02:01

Local clock offset: 0.388 ms

Remote clock offset: -2.355 ms

Below is generated by plot.py at 2019-05-30 02:48:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.33 Mbit/s

95th percentile per-packet one-way delay: 45.265 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.92 Mbit/s

95th percentile per-packet one-way delay: 44.536 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.21 Mbit/s

95th percentile per-packet one-way delay: 48.414 ms

Loss rate: 0.00%

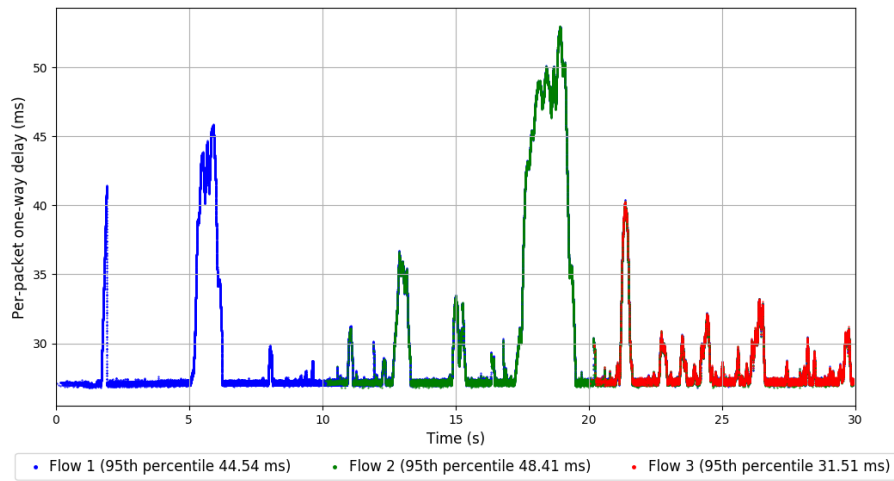
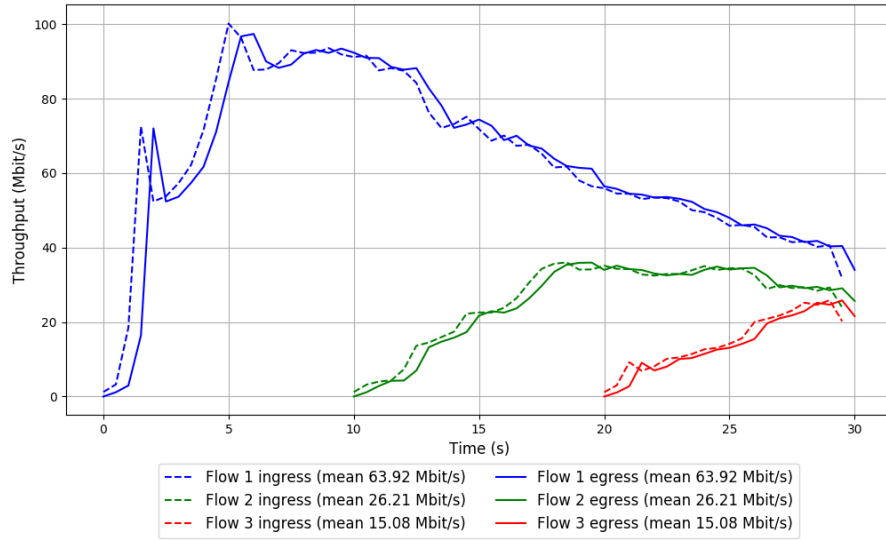
-- Flow 3:

Average throughput: 15.08 Mbit/s

95th percentile per-packet one-way delay: 31.512 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-05-30 02:27:22
End at: 2019-05-30 02:27:52
Local clock offset: 0.485 ms
Remote clock offset: -1.984 ms

Below is generated by plot.py at 2019-05-30 02:48:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.57 Mbit/s
95th percentile per-packet one-way delay: 41.302 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.50 Mbit/s
95th percentile per-packet one-way delay: 39.696 ms
Loss rate: 0.00%

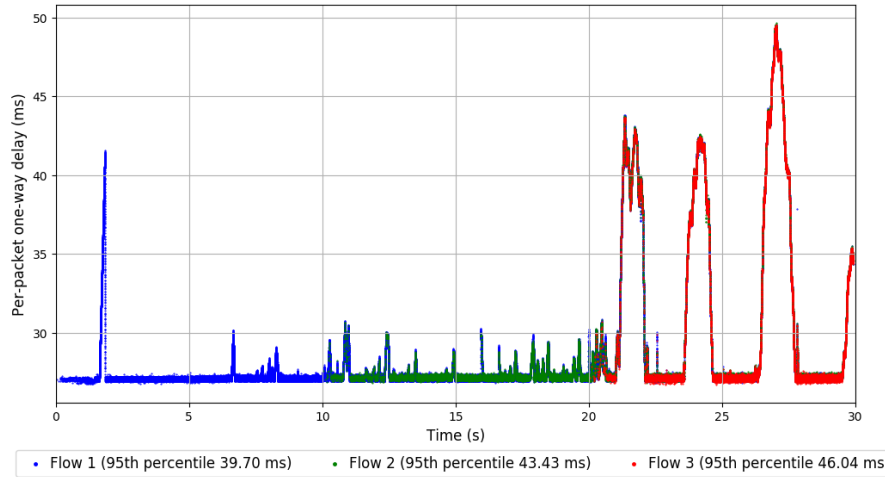
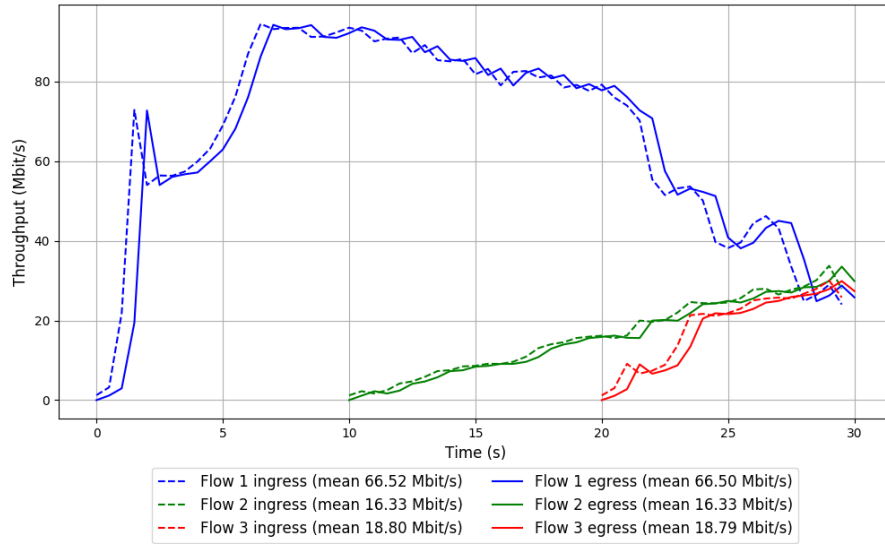
-- Flow 2:

Average throughput: 16.33 Mbit/s
95th percentile per-packet one-way delay: 43.429 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 18.79 Mbit/s
95th percentile per-packet one-way delay: 46.044 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-05-30 00:46:12
End at: 2019-05-30 00:46:42
Local clock offset: 1.285 ms
Remote clock offset: -3.561 ms

Below is generated by plot.py at 2019-05-30 02:48:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 27.837 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.799 ms
Loss rate: 0.00%

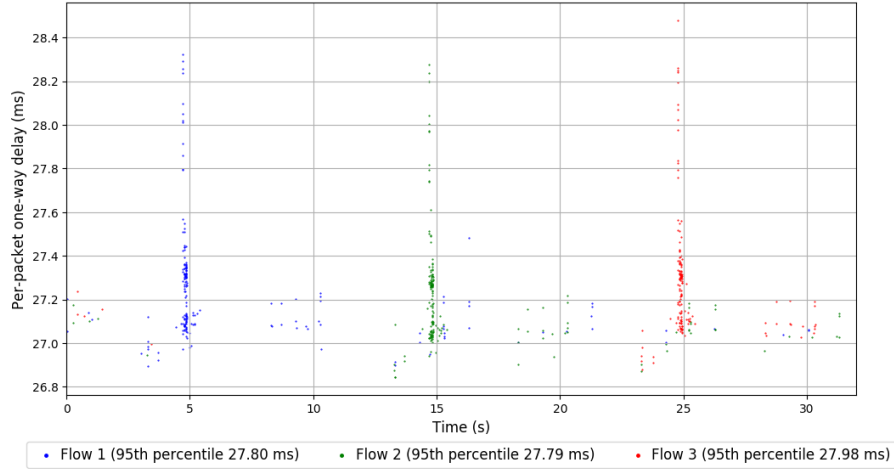
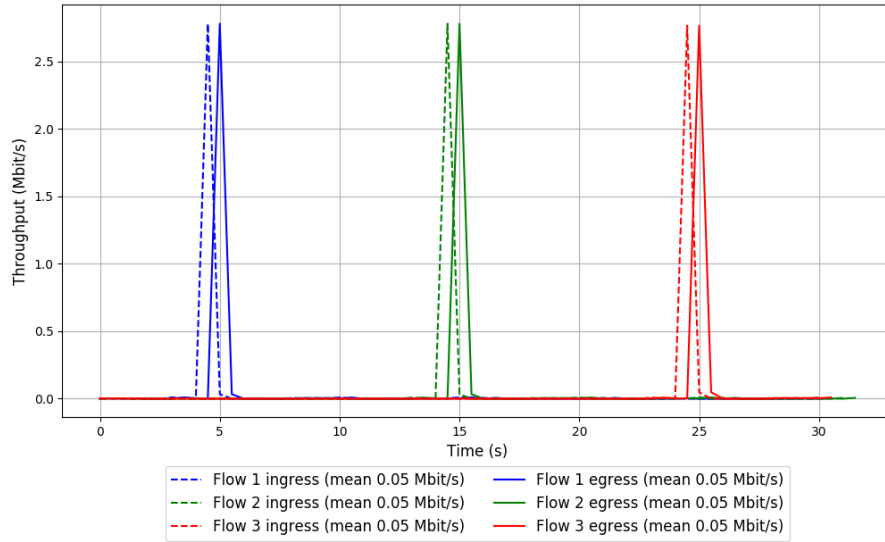
-- Flow 2:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.792 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.975 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-05-30 01:12:44
End at: 2019-05-30 01:13:14
Local clock offset: 0.858 ms
Remote clock offset: -3.033 ms

Below is generated by plot.py at 2019-05-30 02:48:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 27.760 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.760 ms
Loss rate: 0.00%

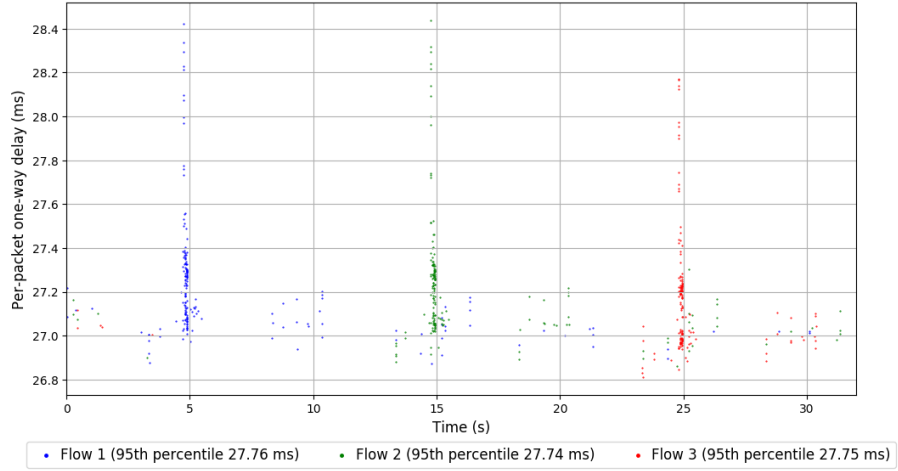
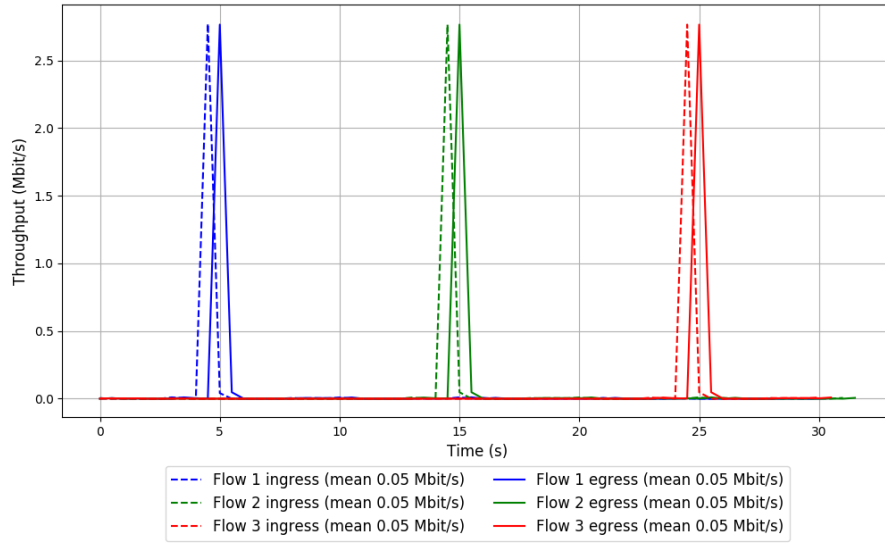
-- Flow 2:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.739 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.745 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-05-30 01:38:20
End at: 2019-05-30 01:38:50
Local clock offset: 0.581 ms
Remote clock offset: -2.734 ms

Below is generated by plot.py at 2019-05-30 02:48:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 27.749 ms
Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.659 ms
Loss rate: 0.00%

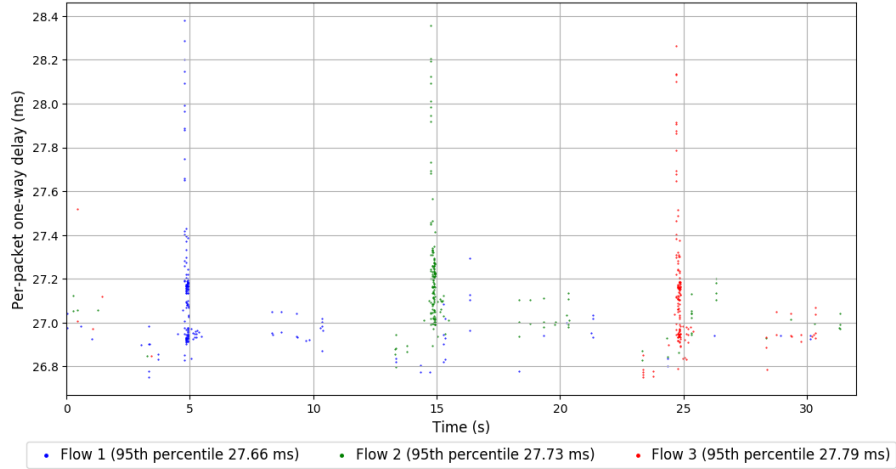
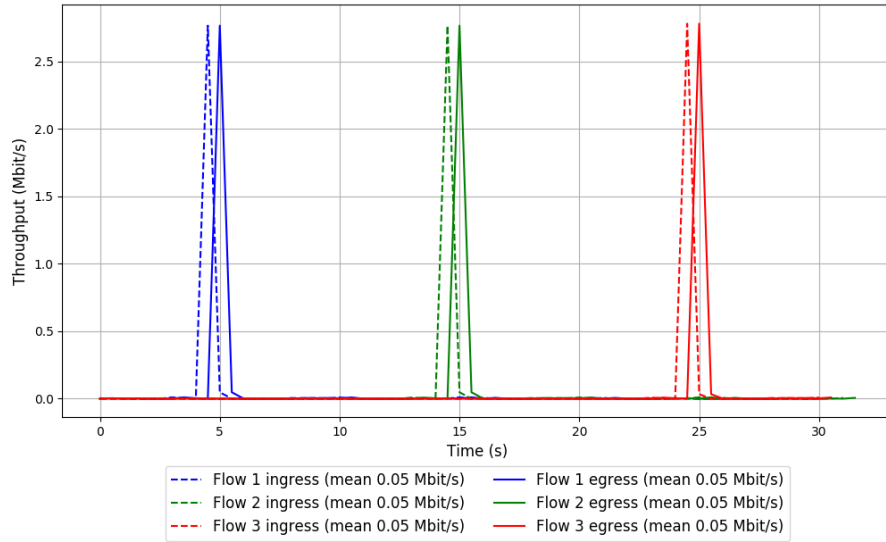
-- Flow 2:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.731 ms
Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.787 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-05-30 02:04:03

End at: 2019-05-30 02:04:33

Local clock offset: 0.424 ms

Remote clock offset: -2.28 ms

Below is generated by plot.py at 2019-05-30 02:48:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 27.820 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 27.703 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 27.879 ms

Loss rate: 0.00%

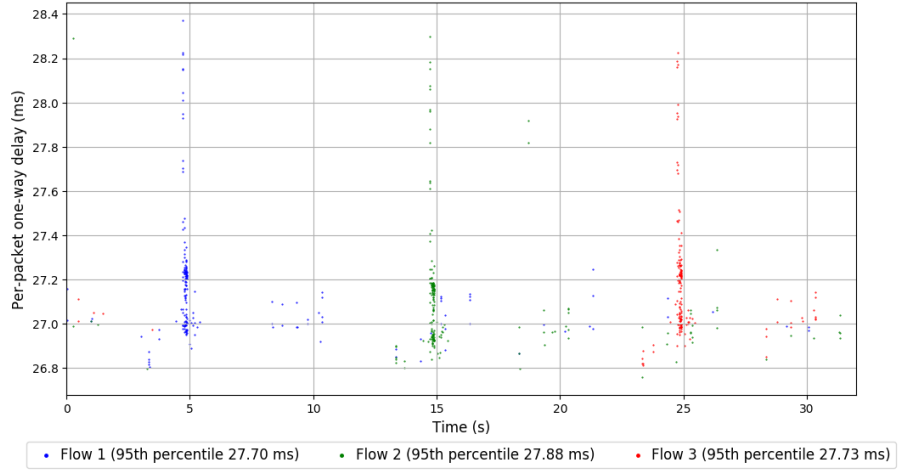
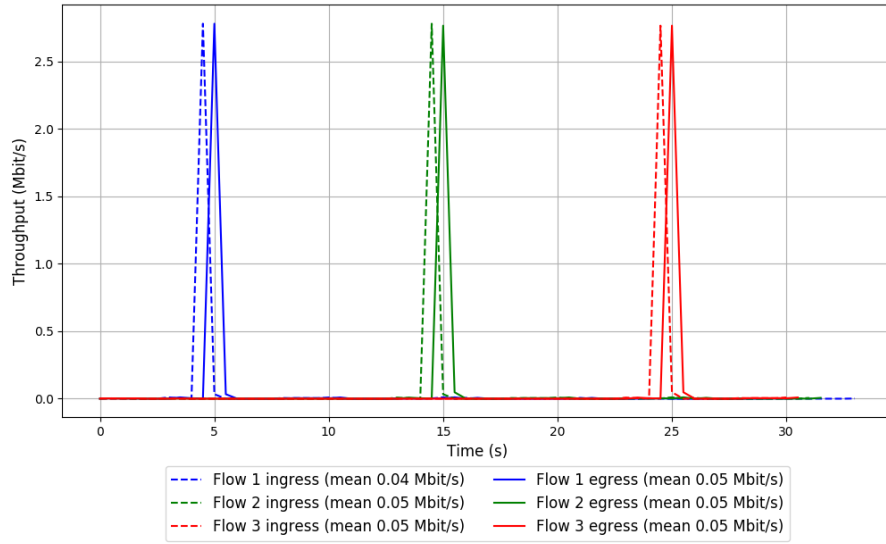
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 27.731 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-05-30 02:29:52
End at: 2019-05-30 02:30:22
Local clock offset: 0.533 ms
Remote clock offset: -1.903 ms

```
# Below is generated by plot.py at 2019-05-30 02:48:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 27.769 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.743 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.769 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.940 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

