

## Pantheon Report

Generated at 2019-01-03 15:37:32 (UTC).

Data path: GCE Iowa on **ens4** (*local*) → GCE Tokyo on **ens4** (*remote*).

Repeated the test of 19 congestion control schemes 5 times.

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

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

### System info:

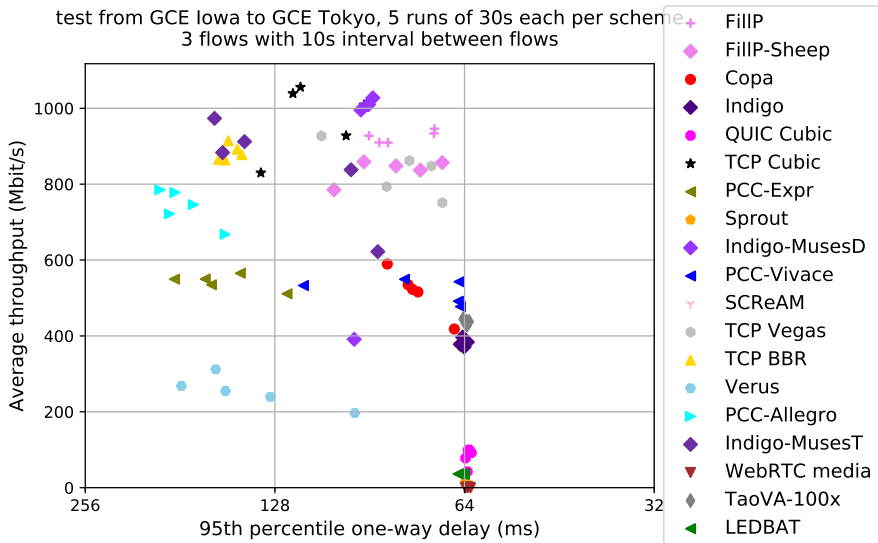
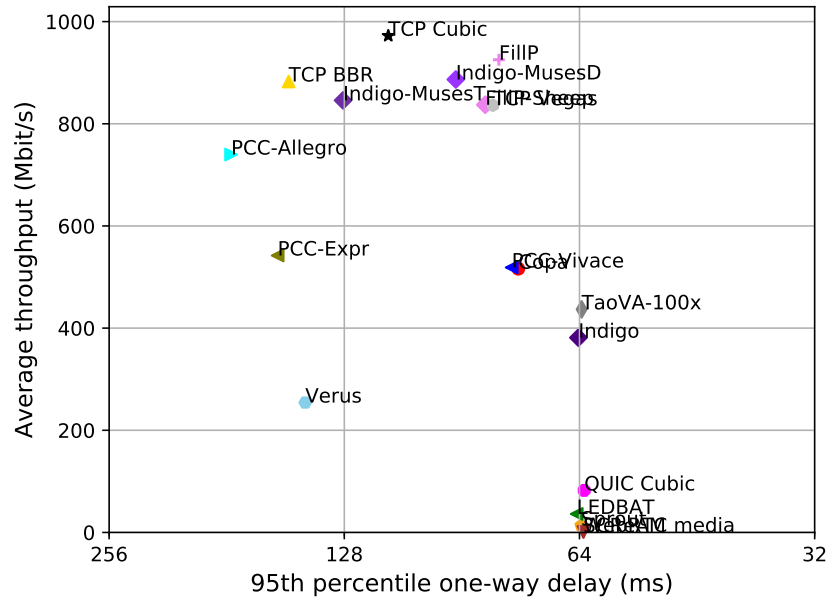
```
Linux 4.15.0-1025-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfc58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/muses-refactored @ 31f8f0ba8ef8b1da76c2bc0cd0a7850c33ff64fb
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-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
```

```
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Iowa to GCE Tokyo, 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      | 457.70                 | 424.84 | 427.76 | 157.68                    | 129.52 | 126.08 | 0.69               | 0.48   | 0.64   |
| Copa          | 5      | 267.25                 | 252.03 | 244.25 | 70.15                     | 85.74  | 76.74  | 0.01               | 0.02   | 0.00   |
| TCP Cubic     | 5      | 512.19                 | 477.11 | 427.84 | 102.94                    | 105.48 | 102.81 | 0.03               | 0.05   | 0.01   |
| FillP         | 5      | 585.22                 | 374.18 | 272.26 | 85.74                     | 67.27  | 67.15  | 0.03               | 0.00   | 0.00   |
| FillP-Sheep   | 5      | 541.22                 | 322.40 | 245.17 | 91.13                     | 66.66  | 66.16  | 0.29               | 0.00   | 0.00   |
| Indigo        | 5      | 205.56                 | 187.04 | 159.79 | 63.97                     | 64.34  | 64.49  | 0.00               | 0.00   | 0.00   |
| Indigo-MusesD | 5      | 452.72                 | 458.00 | 397.53 | 85.09                     | 94.52  | 87.81  | 0.00               | 0.01   | 0.15   |
| Indigo-MusesT | 5      | 515.31                 | 401.06 | 245.82 | 134.52                    | 108.09 | 77.05  | 0.21               | 0.02   | 0.08   |
| LEDBAT        | 5      | 23.31                  | 15.63  | 7.71   | 64.67                     | 64.21  | 64.07  | 0.00               | 0.00   | 0.00   |
| PCC-Allegro   | 5      | 431.92                 | 333.60 | 262.45 | 168.55                    | 159.52 | 114.17 | 2.32               | 2.23   | 0.26   |
| PCC-Expr      | 5      | 314.58                 | 253.73 | 177.42 | 149.83                    | 137.62 | 81.55  | 1.43               | 1.51   | 0.06   |
| QUIC Cubic    | 5      | 39.54                  | 46.77  | 36.02  | 62.99                     | 63.04  | 62.97  | 0.00               | 0.00   | 0.00   |
| SCReAM        | 5      | 0.22                   | 0.22   | 0.22   | 63.33                     | 63.12  | 63.10  | 0.00               | 0.00   | 0.00   |
| Sprout        | 5      | 6.78                   | 6.74   | 6.45   | 63.64                     | 63.77  | 63.69  | 0.00               | 0.00   | 0.00   |
| TaoVA-100x    | 5      | 223.01                 | 216.18 | 208.88 | 63.46                     | 63.59  | 64.10  | 0.02               | 0.00   | 0.00   |
| TCP Vegas     | 5      | 436.71                 | 414.82 | 370.50 | 72.27                     | 83.94  | 84.23  | 0.00               | 0.00   | 0.00   |
| Verus         | 5      | 142.37                 | 120.87 | 96.90  | 129.95                    | 126.74 | 135.16 | 0.29               | 0.32   | 1.15   |
| PCC-Vivace    | 5      | 314.32                 | 236.83 | 142.03 | 89.76                     | 74.02  | 64.26  | 0.13               | 0.01   | 0.00   |
| WebRTC media  | 5      | 0.03                   | 0.74   | 0.30   | 63.20                     | 63.25  | 63.16  | 0.00               | 0.00   | 0.00   |

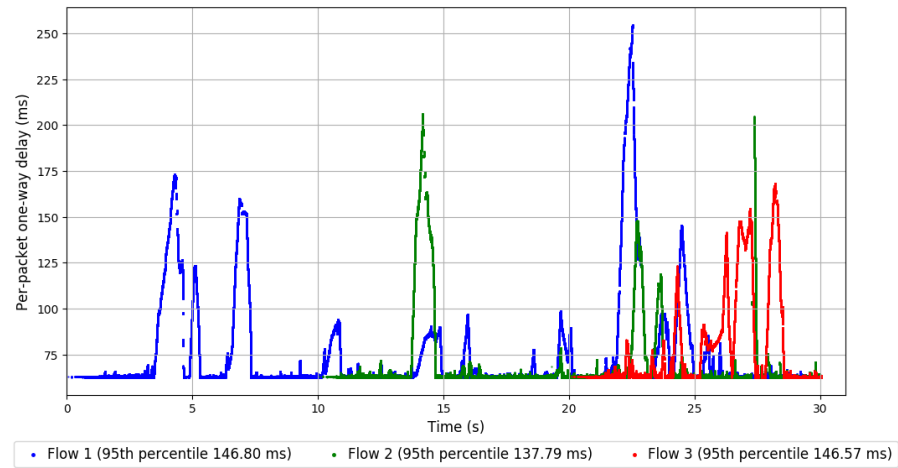
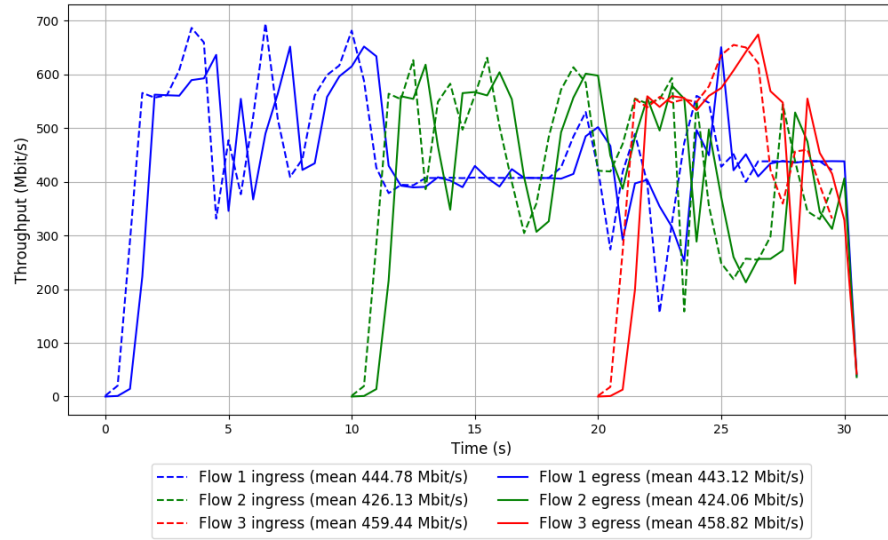


Run 1: Statistics of TCP BBR

Start at: 2019-01-03 09:42:10  
End at: 2019-01-03 09:42:40  
Local clock offset: -0.073 ms  
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-01-03 12:49:00  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 878.04 Mbit/s  
95th percentile per-packet one-way delay: 144.472 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 443.12 Mbit/s  
95th percentile per-packet one-way delay: 146.799 ms  
Loss rate: 0.37%  
-- Flow 2:  
Average throughput: 424.06 Mbit/s  
95th percentile per-packet one-way delay: 137.791 ms  
Loss rate: 0.49%  
-- Flow 3:  
Average throughput: 458.82 Mbit/s  
95th percentile per-packet one-way delay: 146.566 ms  
Loss rate: 0.14%

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

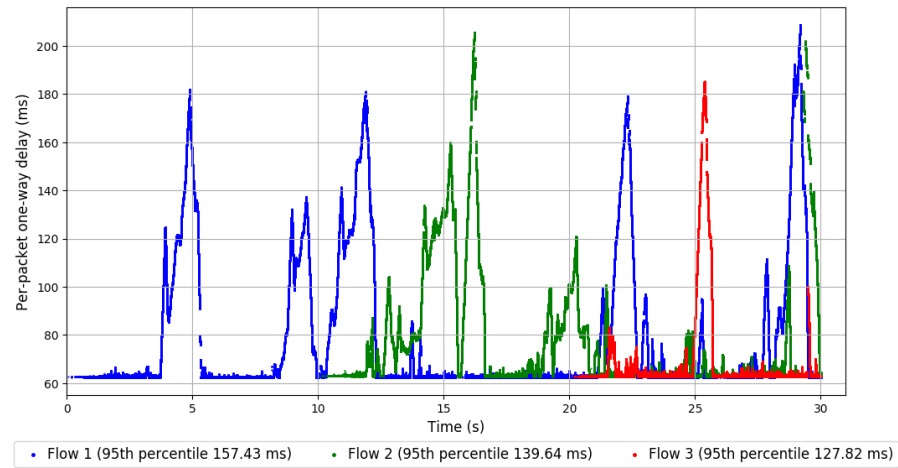
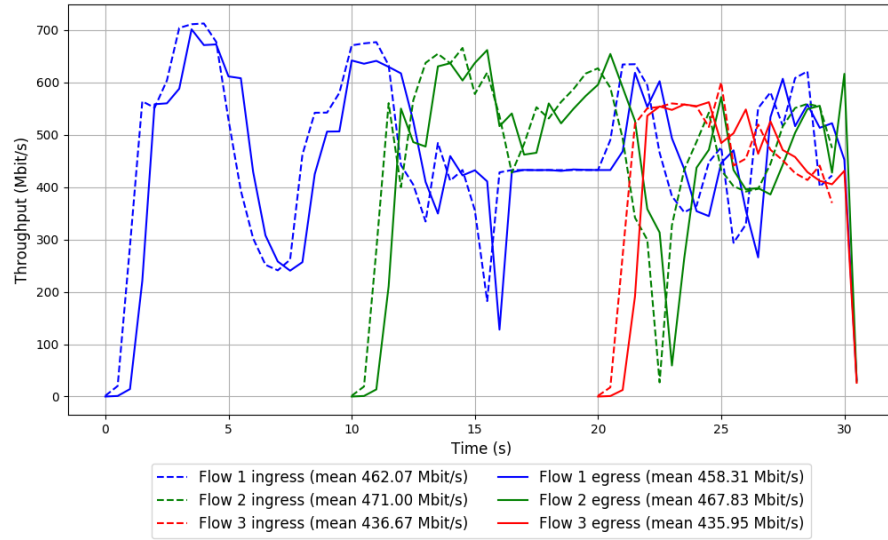


Run 2: Statistics of TCP BBR

Start at: 2019-01-03 10:15:53  
End at: 2019-01-03 10:16:23  
Local clock offset: -0.099 ms  
Remote clock offset: -0.344 ms

# Below is generated by plot.py at 2019-01-03 12:49:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 914.60 Mbit/s  
95th percentile per-packet one-way delay: 151.756 ms  
Loss rate: 0.67%  
-- Flow 1:  
Average throughput: 458.31 Mbit/s  
95th percentile per-packet one-way delay: 157.428 ms  
Loss rate: 0.82%  
-- Flow 2:  
Average throughput: 467.83 Mbit/s  
95th percentile per-packet one-way delay: 139.640 ms  
Loss rate: 0.67%  
-- Flow 3:  
Average throughput: 435.95 Mbit/s  
95th percentile per-packet one-way delay: 127.823 ms  
Loss rate: 0.17%

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



Run 3: Statistics of TCP BBR

Start at: 2019-01-03 10:49:19

End at: 2019-01-03 10:49:49

Local clock offset: -0.06 ms

Remote clock offset: -0.48 ms

# Below is generated by plot.py at 2019-01-03 12:49:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 863.84 Mbit/s

95th percentile per-packet one-way delay: 153.650 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 443.43 Mbit/s

95th percentile per-packet one-way delay: 159.964 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 438.93 Mbit/s

95th percentile per-packet one-way delay: 135.430 ms

Loss rate: 0.47%

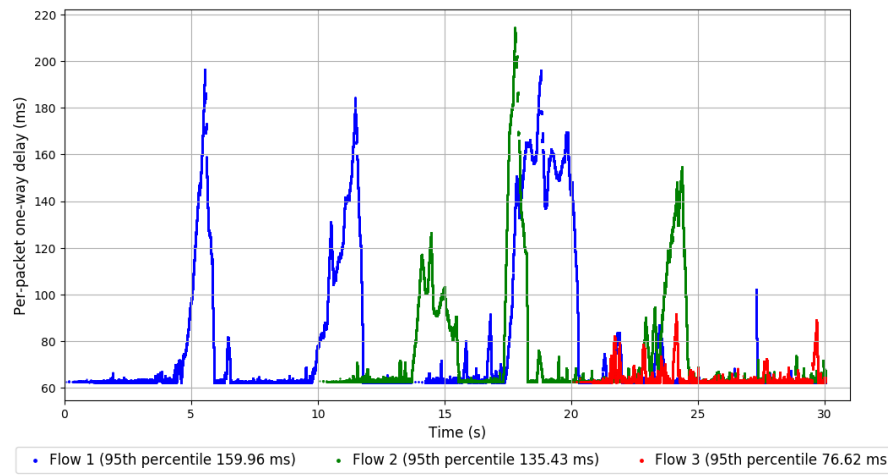
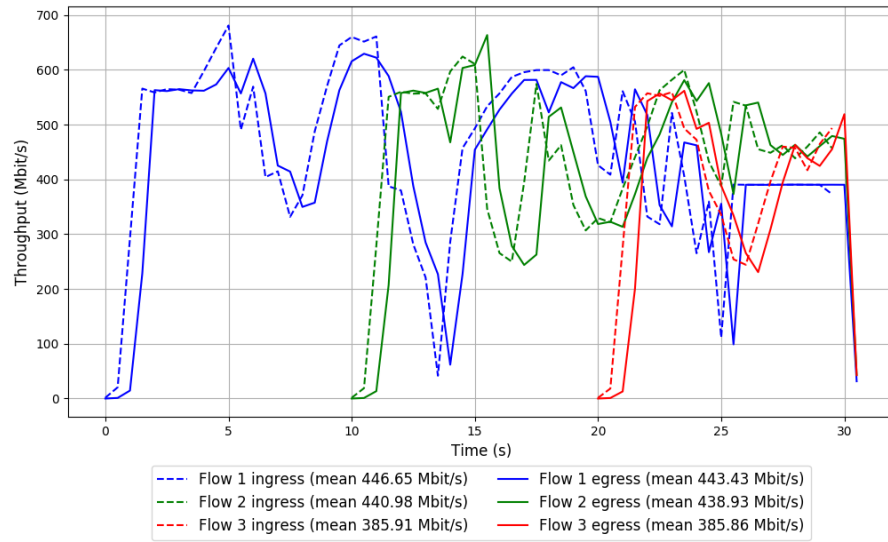
-- Flow 3:

Average throughput: 385.86 Mbit/s

95th percentile per-packet one-way delay: 76.622 ms

Loss rate: 0.01%

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



Run 4: Statistics of TCP BBR

Start at: 2019-01-03 11:22:36

End at: 2019-01-03 11:23:06

Local clock offset: 0.03 ms

Remote clock offset: 0.046 ms

# Below is generated by plot.py at 2019-01-03 12:49:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 892.08 Mbit/s

95th percentile per-packet one-way delay: 146.908 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 456.61 Mbit/s

95th percentile per-packet one-way delay: 161.417 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 443.39 Mbit/s

95th percentile per-packet one-way delay: 107.625 ms

Loss rate: 0.27%

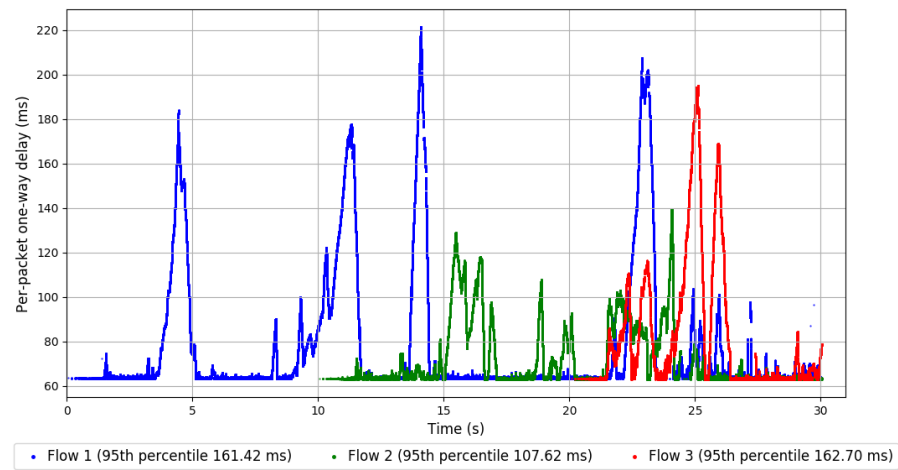
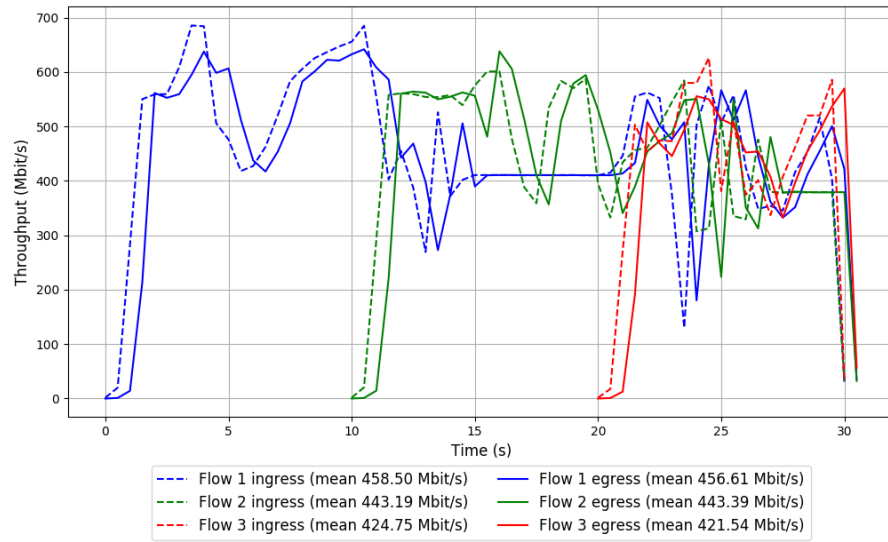
-- Flow 3:

Average throughput: 421.54 Mbit/s

95th percentile per-packet one-way delay: 162.697 ms

Loss rate: 1.39%

#### Run 4: Report of TCP BBR — Data Link





Run 5: Statistics of TCP BBR

Start at: 2019-01-03 11:55:59

End at: 2019-01-03 11:56:29

Local clock offset: 0.027 ms

Remote clock offset: 0.014 ms

# Below is generated by plot.py at 2019-01-03 12:49:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 865.24 Mbit/s

95th percentile per-packet one-way delay: 157.198 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 487.01 Mbit/s

95th percentile per-packet one-way delay: 162.797 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 349.99 Mbit/s

95th percentile per-packet one-way delay: 127.114 ms

Loss rate: 0.50%

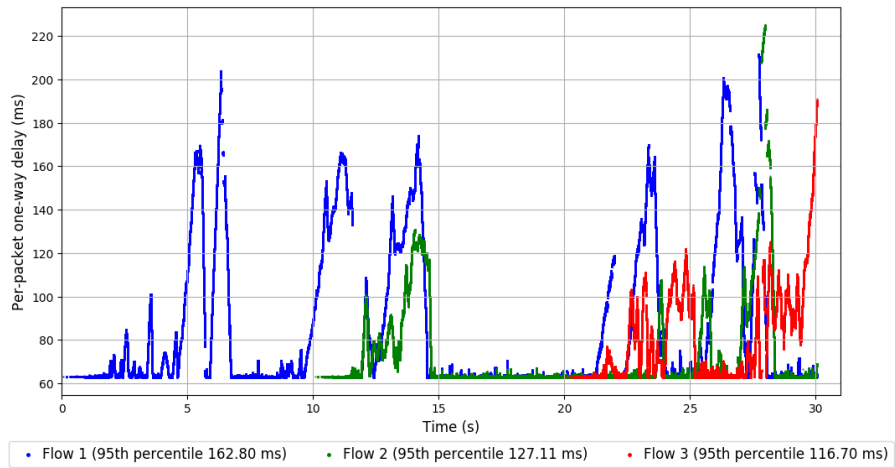
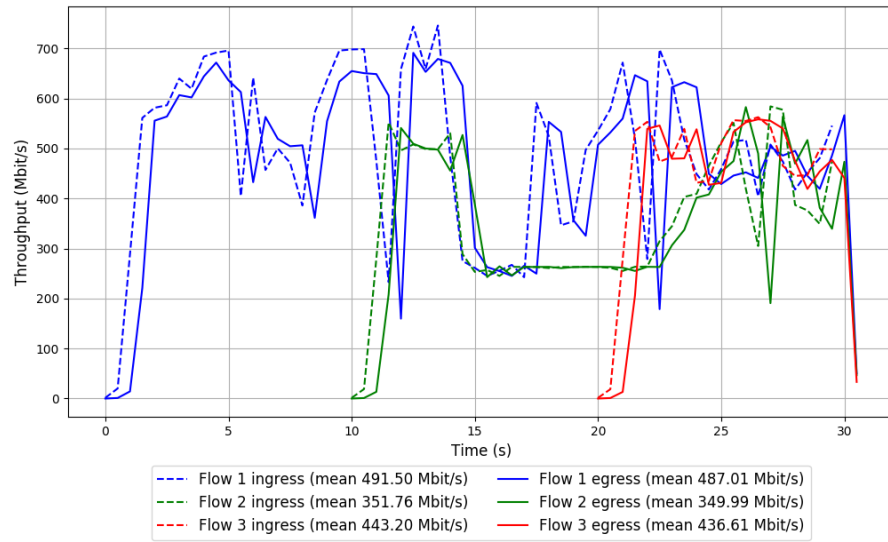
-- Flow 3:

Average throughput: 436.61 Mbit/s

95th percentile per-packet one-way delay: 116.700 ms

Loss rate: 1.48%

# Run 5: Report of TCP BBR — Data Link

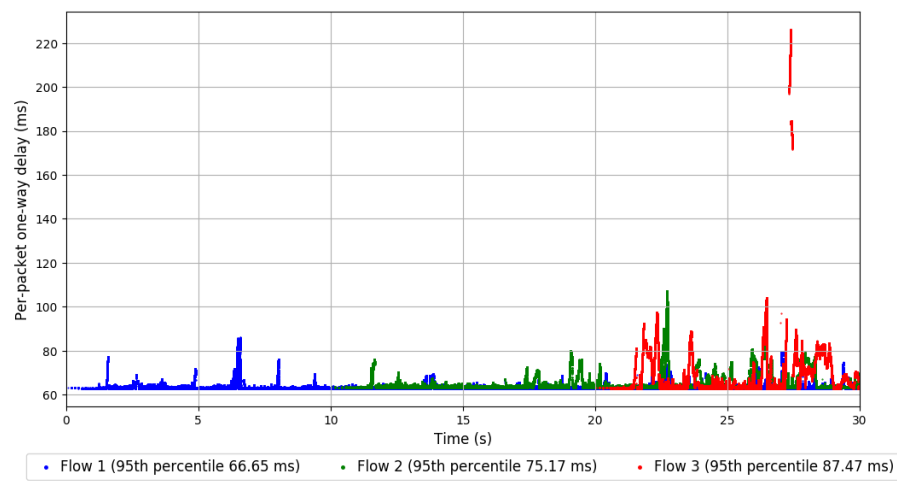
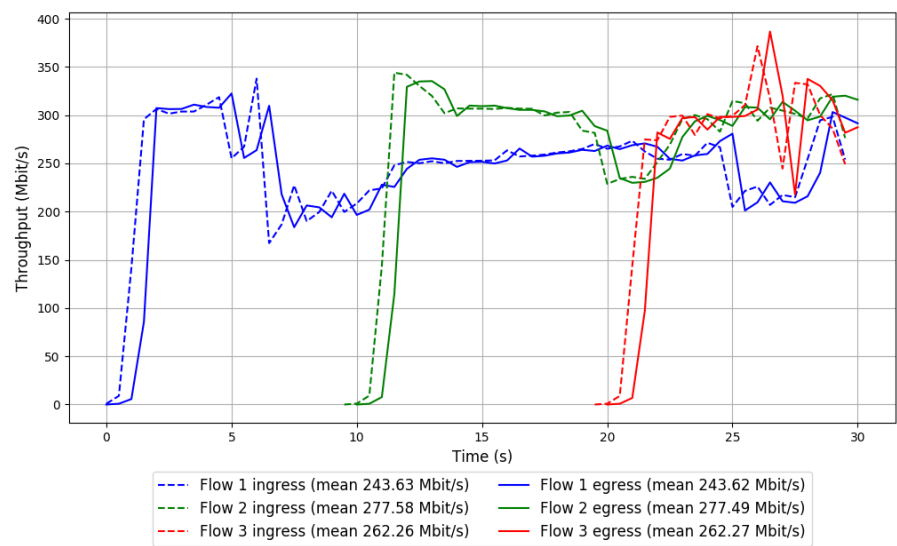


Run 1: Statistics of Copa

Start at: 2019-01-03 09:34:41  
End at: 2019-01-03 09:35:11  
Local clock offset: -0.042 ms  
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2019-01-03 12:51:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 515.94 Mbit/s  
95th percentile per-packet one-way delay: 75.895 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 243.62 Mbit/s  
95th percentile per-packet one-way delay: 66.646 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 277.49 Mbit/s  
95th percentile per-packet one-way delay: 75.171 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 262.27 Mbit/s  
95th percentile per-packet one-way delay: 87.472 ms  
Loss rate: 0.00%

Run 1: Report of Copa — Data Link

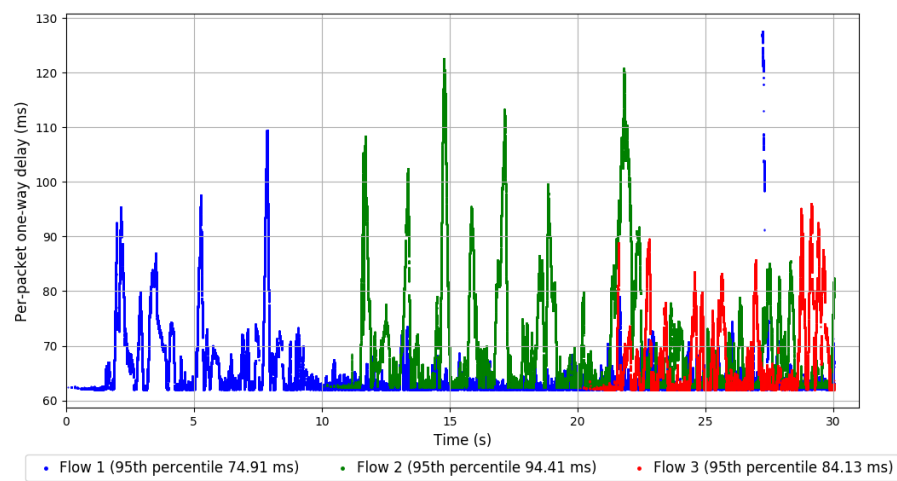
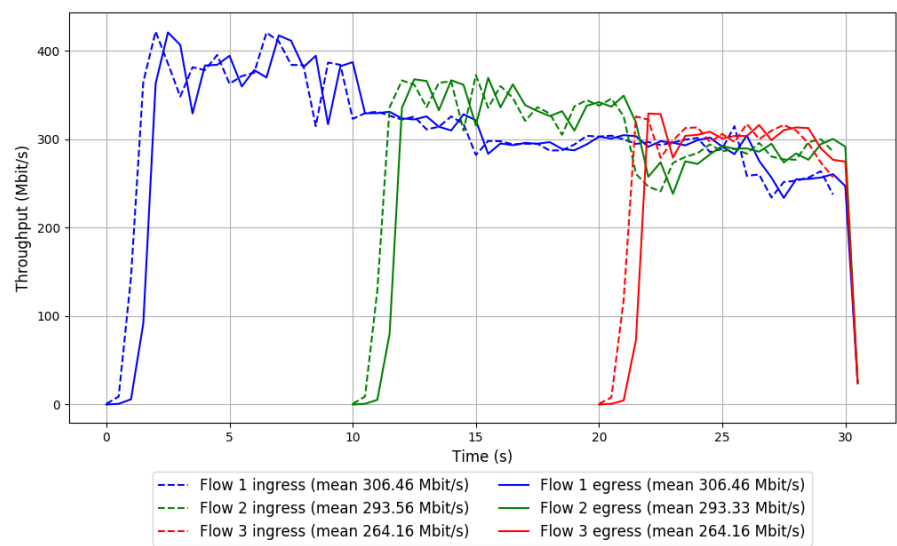


Run 2: Statistics of Copa

Start at: 2019-01-03 10:07:36  
End at: 2019-01-03 10:08:06  
Local clock offset: -0.112 ms  
Remote clock offset: -0.835 ms

# Below is generated by plot.py at 2019-01-03 12:53:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 589.51 Mbit/s  
95th percentile per-packet one-way delay: 84.866 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 306.46 Mbit/s  
95th percentile per-packet one-way delay: 74.911 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 293.33 Mbit/s  
95th percentile per-packet one-way delay: 94.409 ms  
Loss rate: 0.07%  
-- Flow 3:  
Average throughput: 264.16 Mbit/s  
95th percentile per-packet one-way delay: 84.128 ms  
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

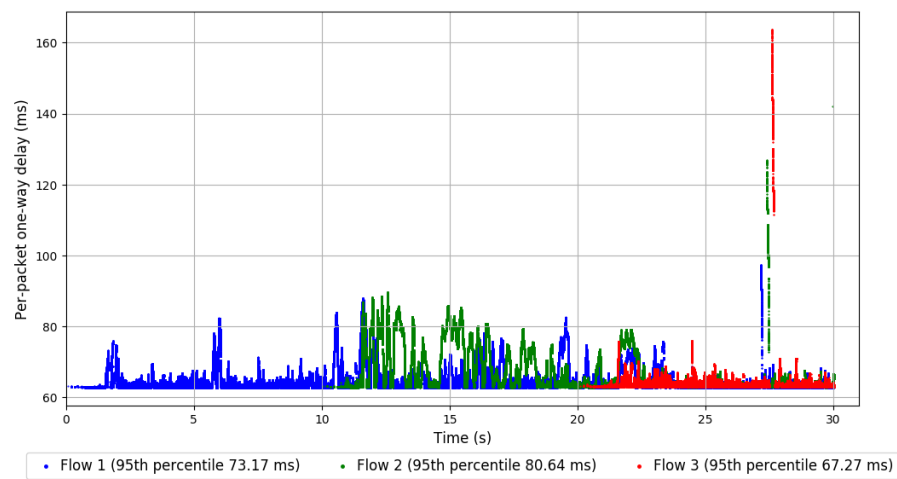
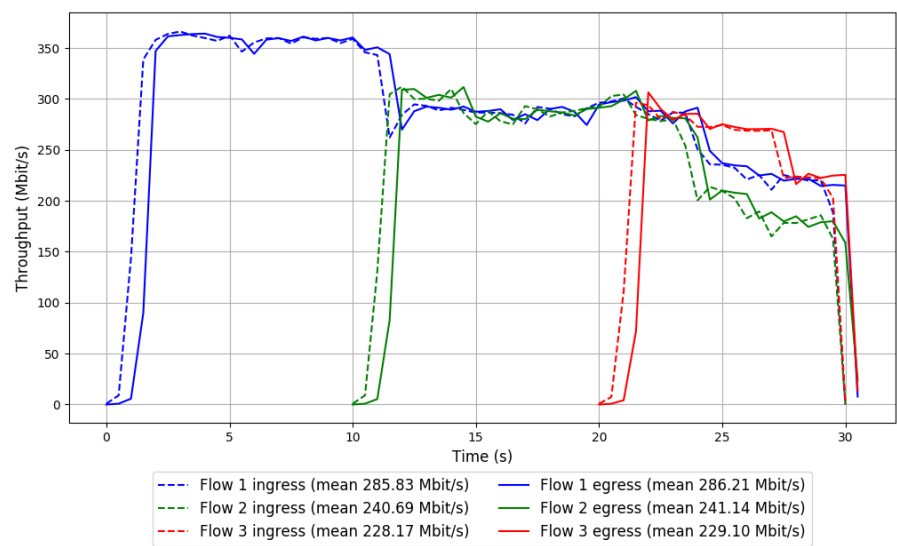


Run 3: Statistics of Copa

Start at: 2019-01-03 10:41:19  
End at: 2019-01-03 10:41:49  
Local clock offset: -0.052 ms  
Remote clock offset: -0.183 ms

# Below is generated by plot.py at 2019-01-03 12:53:54  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 522.72 Mbit/s  
95th percentile per-packet one-way delay: 77.397 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 286.21 Mbit/s  
95th percentile per-packet one-way delay: 73.167 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 241.14 Mbit/s  
95th percentile per-packet one-way delay: 80.645 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 229.10 Mbit/s  
95th percentile per-packet one-way delay: 67.267 ms  
Loss rate: 0.00%

Run 3: Report of Copa — Data Link



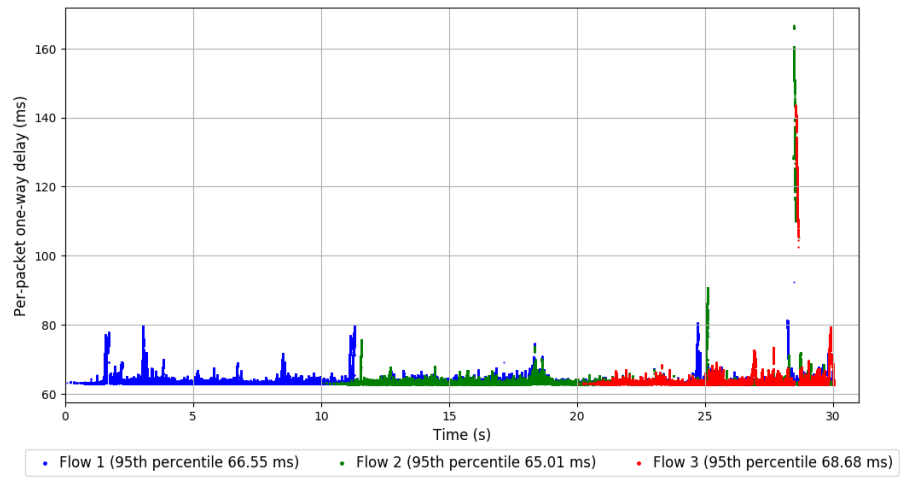
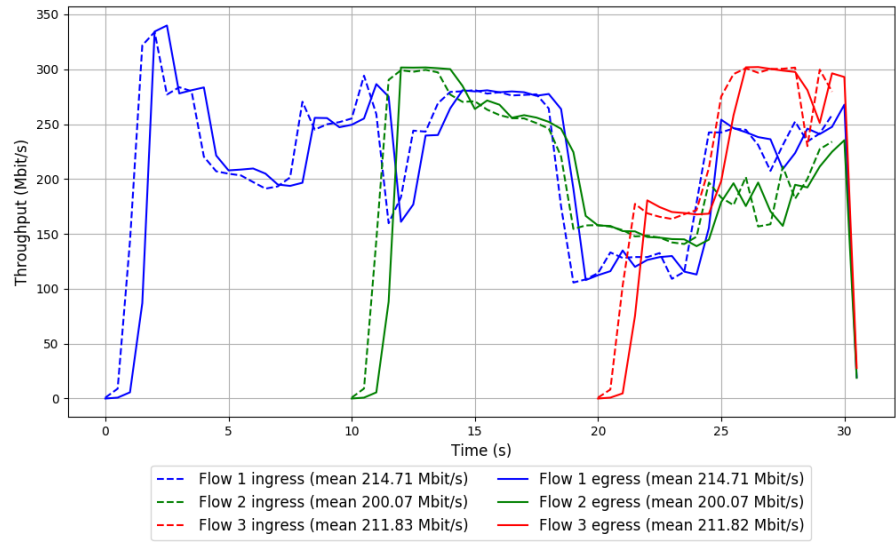


Run 4: Statistics of Copa

Start at: 2019-01-03 11:14:43  
End at: 2019-01-03 11:15:13  
Local clock offset: 0.014 ms  
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2019-01-03 13:05:08  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 418.24 Mbit/s  
95th percentile per-packet one-way delay: 66.434 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 214.71 Mbit/s  
95th percentile per-packet one-way delay: 66.553 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 200.07 Mbit/s  
95th percentile per-packet one-way delay: 65.013 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 211.82 Mbit/s  
95th percentile per-packet one-way delay: 68.681 ms  
Loss rate: 0.00%

# Run 4: Report of Copa — Data Link

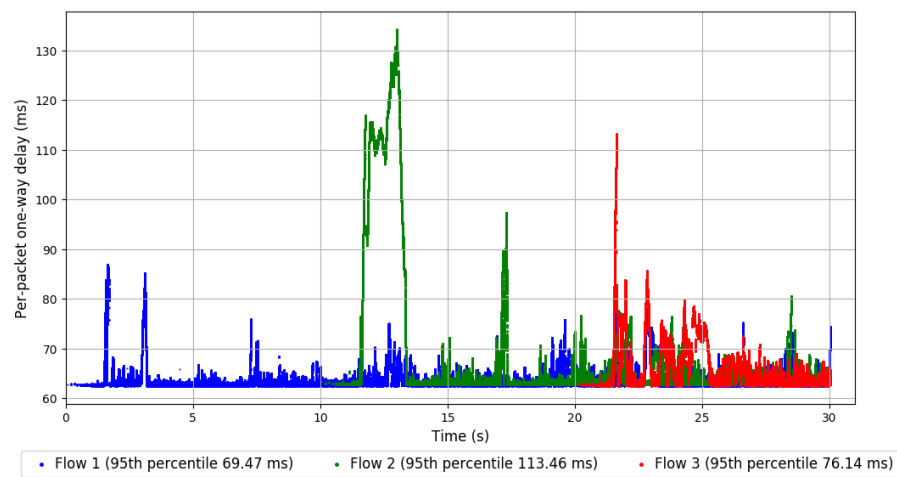
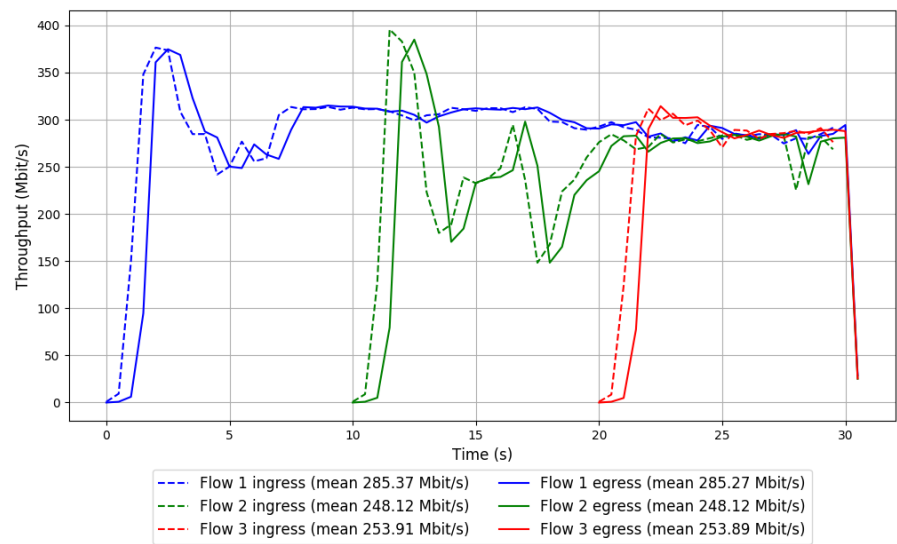


Run 5: Statistics of Copa

Start at: 2019-01-03 11:48:07  
End at: 2019-01-03 11:48:37  
Local clock offset: -0.004 ms  
Remote clock offset: -0.143 ms

# Below is generated by plot.py at 2019-01-03 13:11:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 534.83 Mbit/s  
95th percentile per-packet one-way delay: 78.659 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 285.27 Mbit/s  
95th percentile per-packet one-way delay: 69.465 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 248.12 Mbit/s  
95th percentile per-packet one-way delay: 113.463 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 253.89 Mbit/s  
95th percentile per-packet one-way delay: 76.135 ms  
Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-01-03 09:45:28

End at: 2019-01-03 09:45:58

Local clock offset: -0.033 ms

Remote clock offset: 0.59 ms

# Below is generated by plot.py at 2019-01-03 13:11:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 927.72 Mbit/s

95th percentile per-packet one-way delay: 98.674 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 481.81 Mbit/s

95th percentile per-packet one-way delay: 102.419 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 460.97 Mbit/s

95th percentile per-packet one-way delay: 81.238 ms

Loss rate: 0.00%

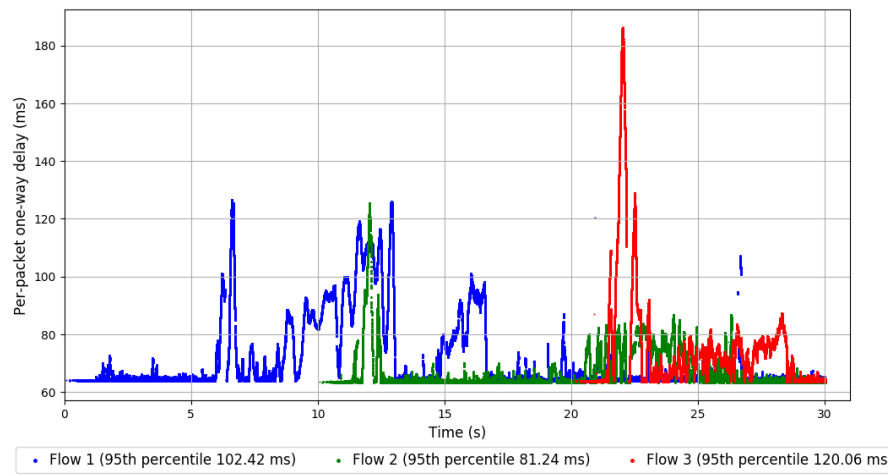
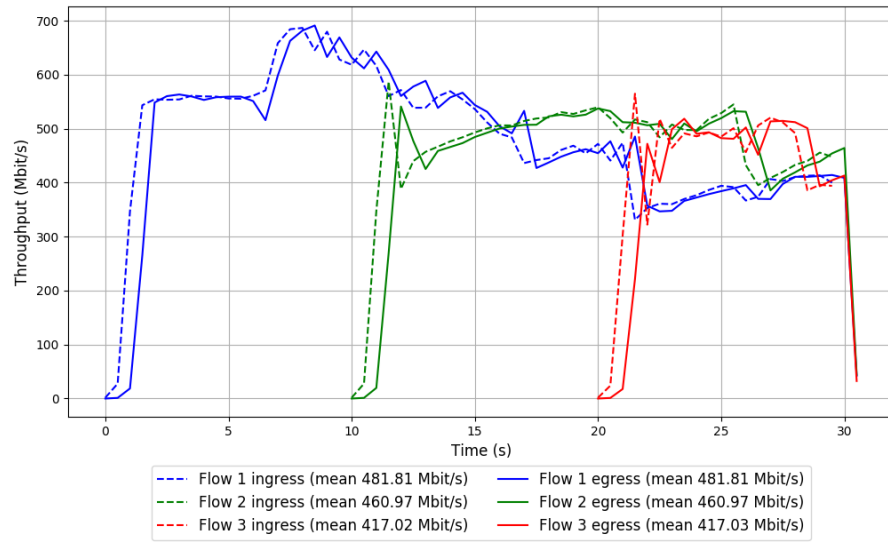
-- Flow 3:

Average throughput: 417.03 Mbit/s

95th percentile per-packet one-way delay: 120.062 ms

Loss rate: 0.00%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-01-03 10:19:12

End at: 2019-01-03 10:19:42

Local clock offset: -0.101 ms

Remote clock offset: -0.23 ms

# Below is generated by plot.py at 2019-01-03 13:11:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 829.87 Mbit/s

95th percentile per-packet one-way delay: 134.730 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 464.66 Mbit/s

95th percentile per-packet one-way delay: 93.204 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 380.16 Mbit/s

95th percentile per-packet one-way delay: 152.257 ms

Loss rate: 0.01%

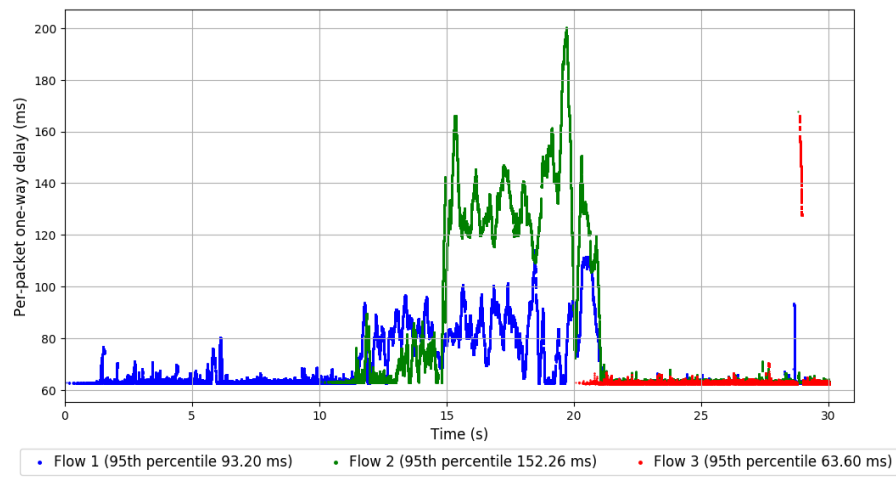
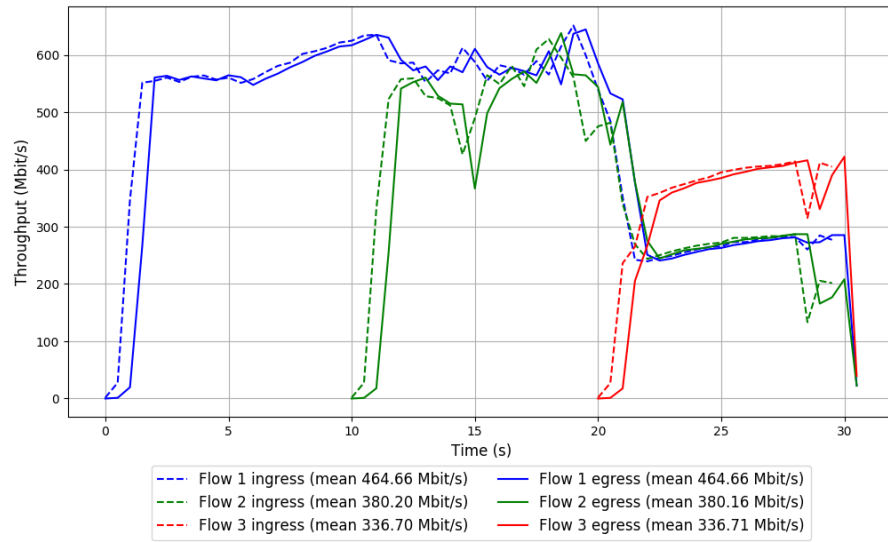
-- Flow 3:

Average throughput: 336.71 Mbit/s

95th percentile per-packet one-way delay: 63.600 ms

Loss rate: 0.00%

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



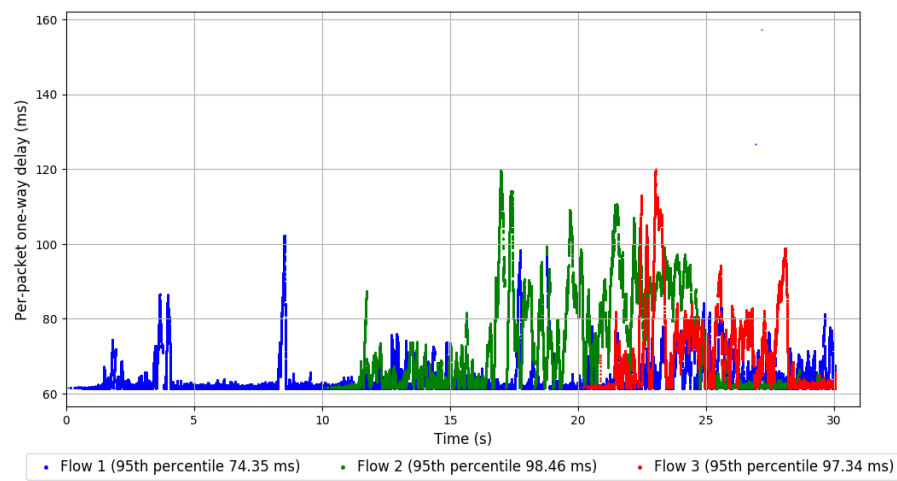
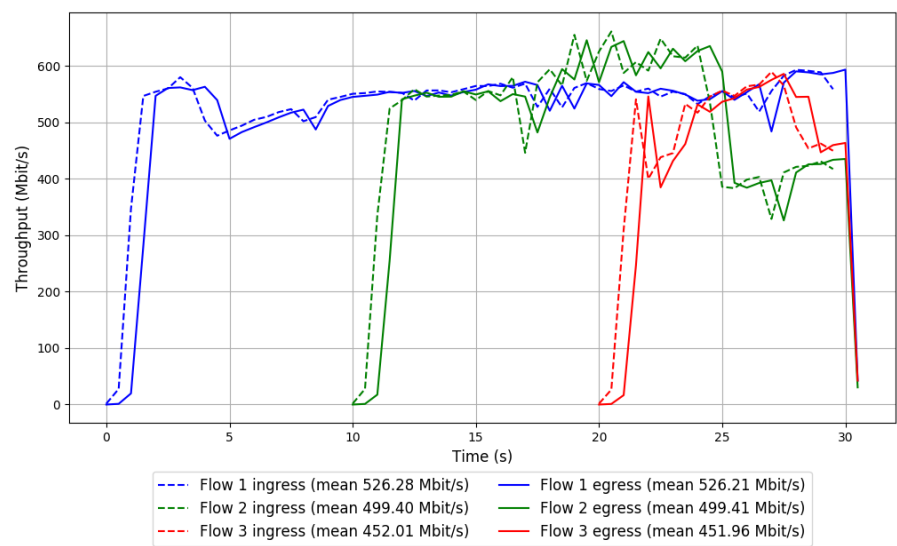


Run 3: Statistics of TCP Cubic

Start at: 2019-01-03 10:52:35  
End at: 2019-01-03 10:53:05  
Local clock offset: -0.05 ms  
Remote clock offset: -1.462 ms

# Below is generated by plot.py at 2019-01-03 13:14:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1008.95 Mbit/s  
95th percentile per-packet one-way delay: 92.383 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 526.21 Mbit/s  
95th percentile per-packet one-way delay: 74.347 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 499.41 Mbit/s  
95th percentile per-packet one-way delay: 98.459 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 451.96 Mbit/s  
95th percentile per-packet one-way delay: 97.340 ms  
Loss rate: 0.01%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-01-03 11:25:55

End at: 2019-01-03 11:26:25

Local clock offset: -0.016 ms

Remote clock offset: 0.261 ms

# Below is generated by plot.py at 2019-01-03 13:16:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1055.72 Mbit/s

95th percentile per-packet one-way delay: 116.563 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 557.25 Mbit/s

95th percentile per-packet one-way delay: 121.491 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 522.86 Mbit/s

95th percentile per-packet one-way delay: 99.847 ms

Loss rate: 0.12%

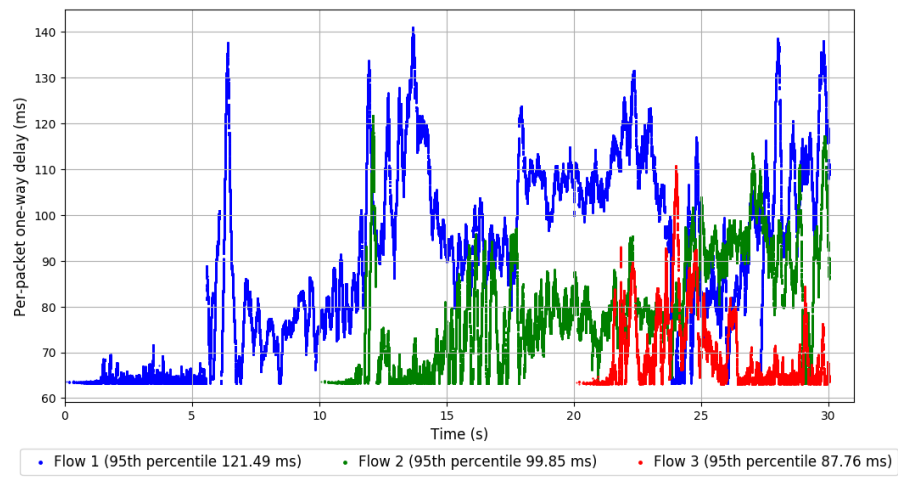
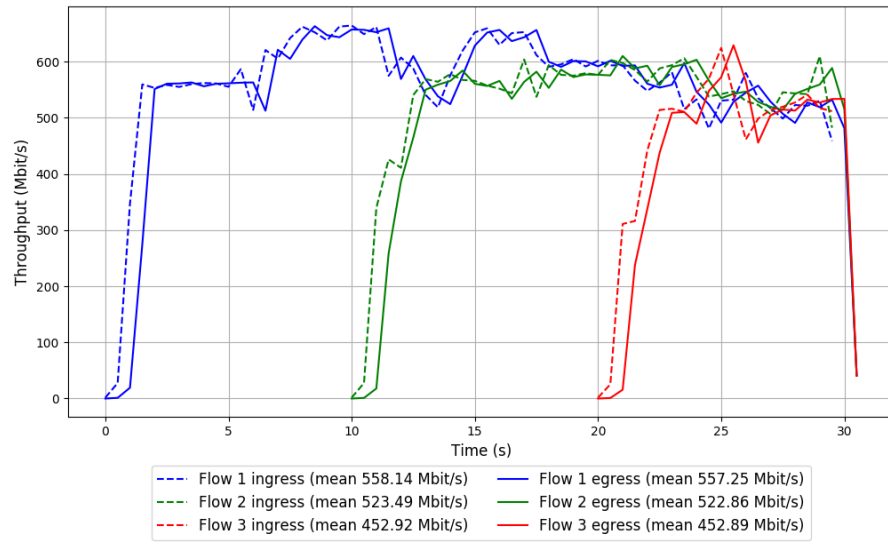
-- Flow 3:

Average throughput: 452.89 Mbit/s

95th percentile per-packet one-way delay: 87.760 ms

Loss rate: 0.00%

# Run 4: Report of TCP Cubic — Data Link

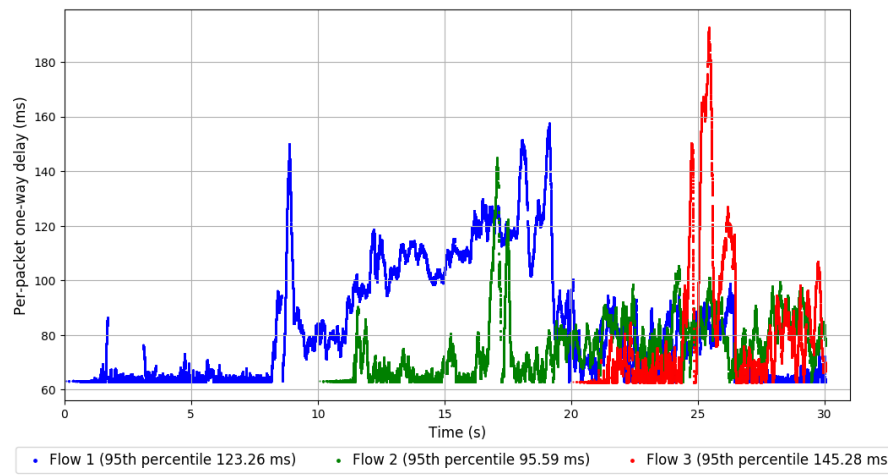
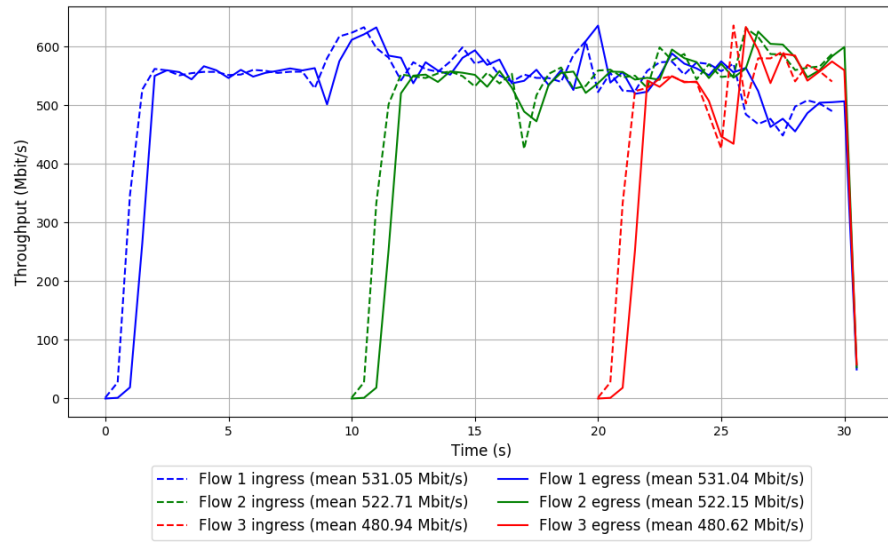


Run 5: Statistics of TCP Cubic

Start at: 2019-01-03 11:59:13  
End at: 2019-01-03 11:59:43  
Local clock offset: -0.004 ms  
Remote clock offset: -0.069 ms

# Below is generated by plot.py at 2019-01-03 13:16:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1038.87 Mbit/s  
95th percentile per-packet one-way delay: 119.843 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 531.04 Mbit/s  
95th percentile per-packet one-way delay: 123.261 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 522.15 Mbit/s  
95th percentile per-packet one-way delay: 95.595 ms  
Loss rate: 0.11%  
-- Flow 3:  
Average throughput: 480.62 Mbit/s  
95th percentile per-packet one-way delay: 145.279 ms  
Loss rate: 0.06%

## Run 5: Report of TCP Cubic — Data Link

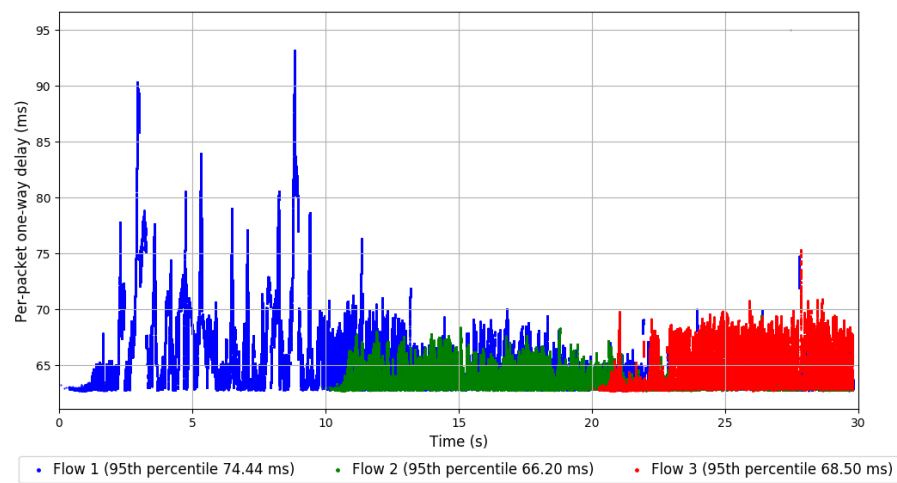
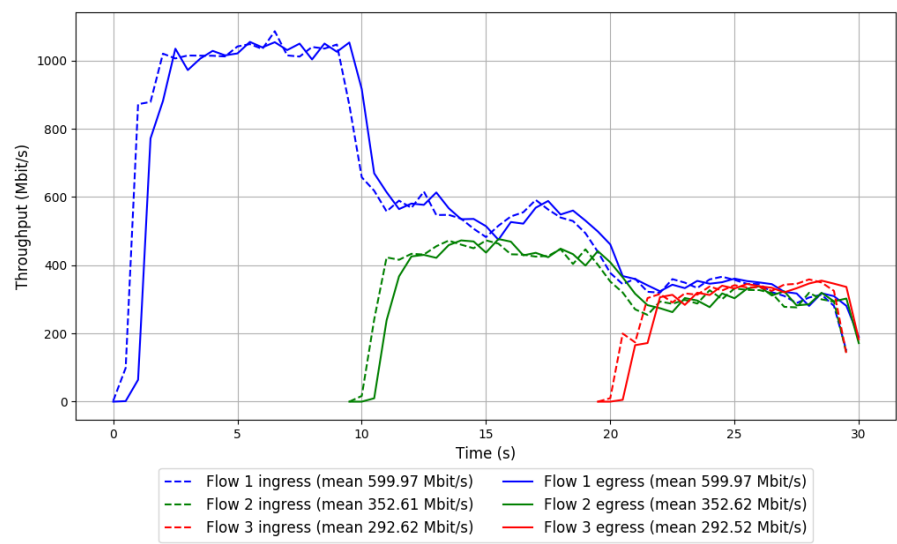


Run 1: Statistics of FillP

Start at: 2019-01-03 09:29:17  
End at: 2019-01-03 09:29:47  
Local clock offset: -0.057 ms  
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2019-01-03 13:20:01  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 933.72 Mbit/s  
95th percentile per-packet one-way delay: 71.563 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 599.97 Mbit/s  
95th percentile per-packet one-way delay: 74.440 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 352.62 Mbit/s  
95th percentile per-packet one-way delay: 66.199 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 292.52 Mbit/s  
95th percentile per-packet one-way delay: 68.499 ms  
Loss rate: 0.00%

Run 1: Report of FillP — Data Link





Run 2: Statistics of FillP

Start at: 2019-01-03 10:02:11

End at: 2019-01-03 10:02:41

Local clock offset: -0.077 ms

Remote clock offset: 0.11 ms

# Below is generated by plot.py at 2019-01-03 13:31:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 909.60 Mbit/s

95th percentile per-packet one-way delay: 84.653 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 583.00 Mbit/s

95th percentile per-packet one-way delay: 88.678 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 364.18 Mbit/s

95th percentile per-packet one-way delay: 69.407 ms

Loss rate: 0.00%

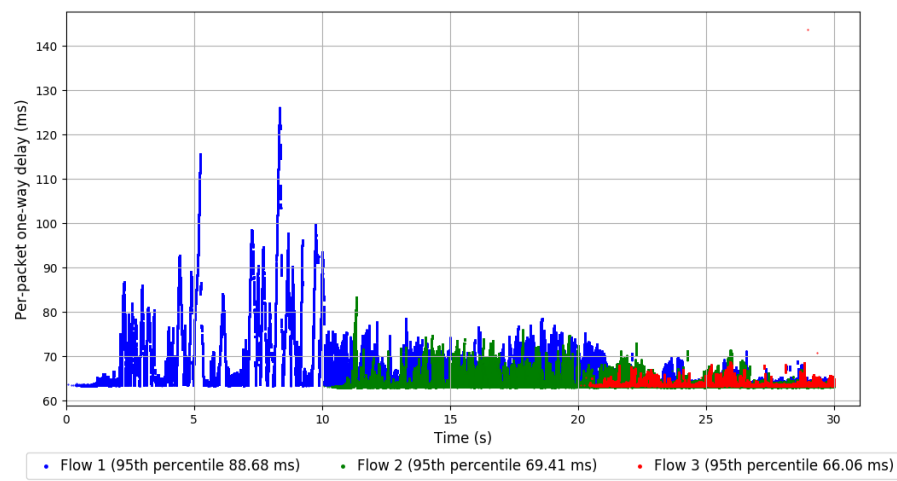
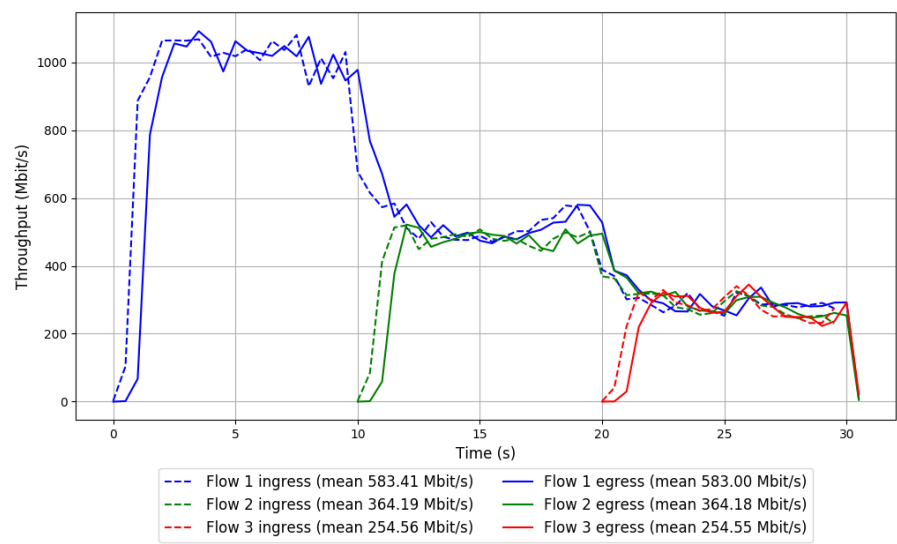
-- Flow 3:

Average throughput: 254.55 Mbit/s

95th percentile per-packet one-way delay: 66.058 ms

Loss rate: 0.00%

Run 2: Report of FillP — Data Link

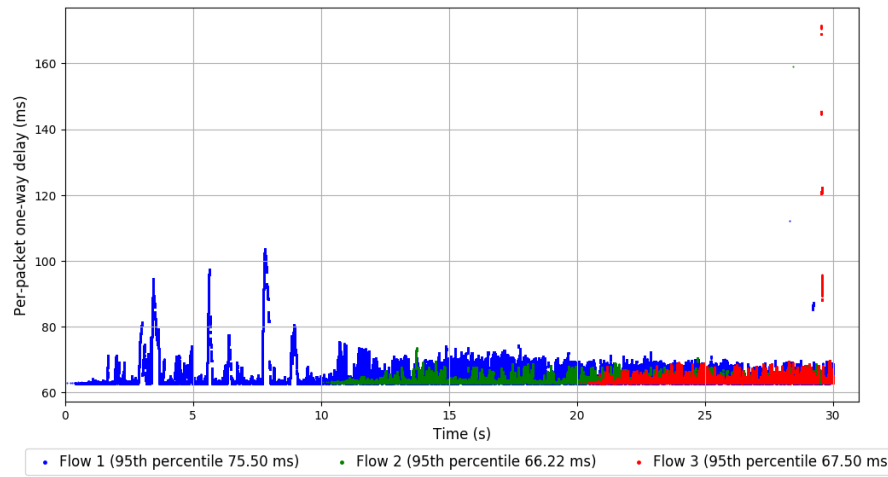
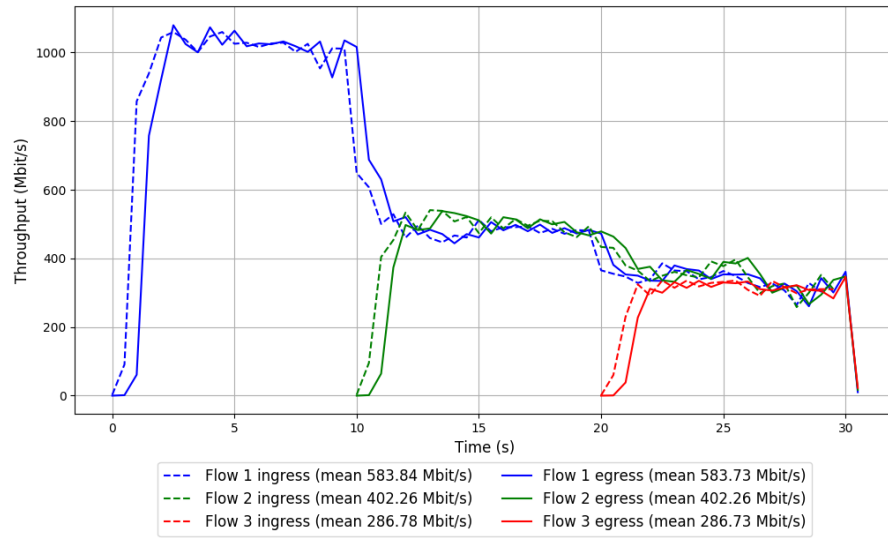


Run 3: Statistics of FillP

Start at: 2019-01-03 10:35:54  
End at: 2019-01-03 10:36:24  
Local clock offset: -0.064 ms  
Remote clock offset: -0.203 ms

# Below is generated by plot.py at 2019-01-03 13:36:22  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 946.11 Mbit/s  
95th percentile per-packet one-way delay: 71.407 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 583.73 Mbit/s  
95th percentile per-packet one-way delay: 75.502 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 402.26 Mbit/s  
95th percentile per-packet one-way delay: 66.222 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 286.73 Mbit/s  
95th percentile per-packet one-way delay: 67.505 ms  
Loss rate: 0.00%

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



Run 4: Statistics of FillP

Start at: 2019-01-03 11:09:21

End at: 2019-01-03 11:09:51

Local clock offset: 0.019 ms

Remote clock offset: 0.668 ms

# Below is generated by plot.py at 2019-01-03 13:37:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 927.62 Mbit/s

95th percentile per-packet one-way delay: 90.753 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 580.48 Mbit/s

95th percentile per-packet one-way delay: 95.658 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 375.55 Mbit/s

95th percentile per-packet one-way delay: 67.794 ms

Loss rate: 0.01%

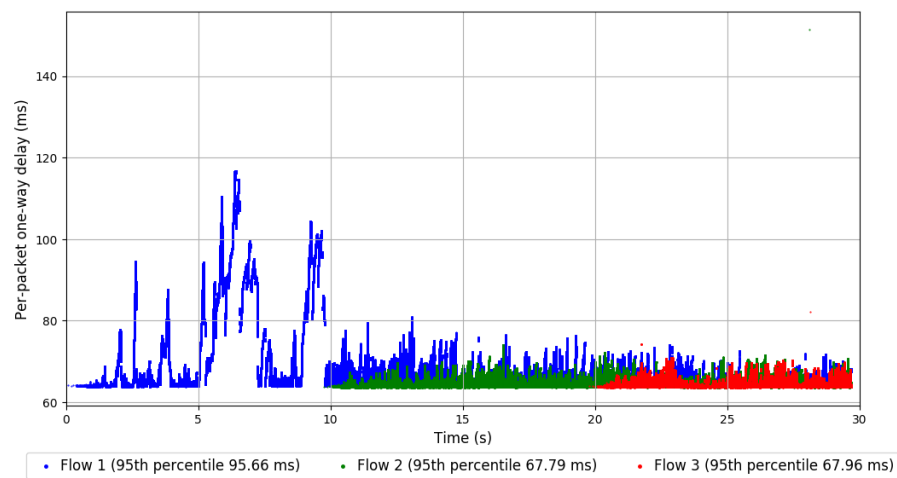
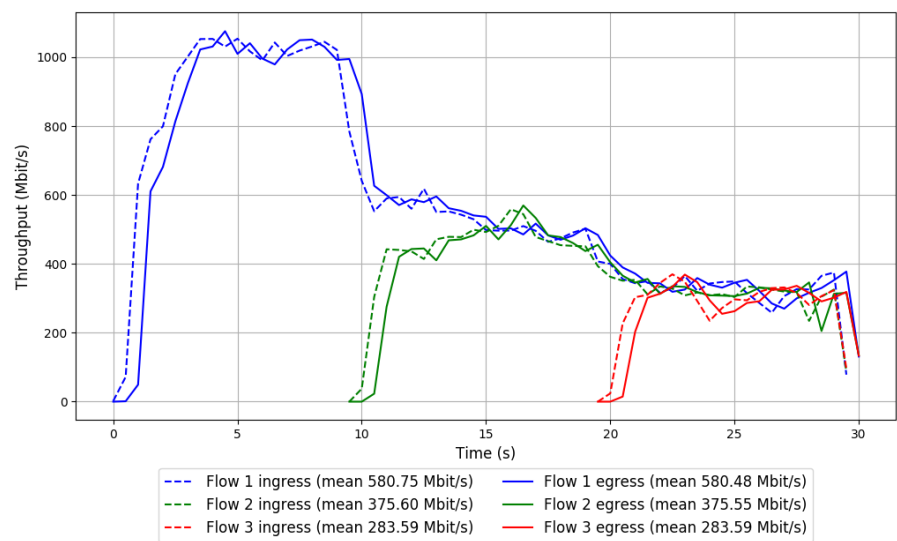
-- Flow 3:

Average throughput: 283.59 Mbit/s

95th percentile per-packet one-way delay: 67.962 ms

Loss rate: 0.00%

Run 4: Report of FillP — Data Link

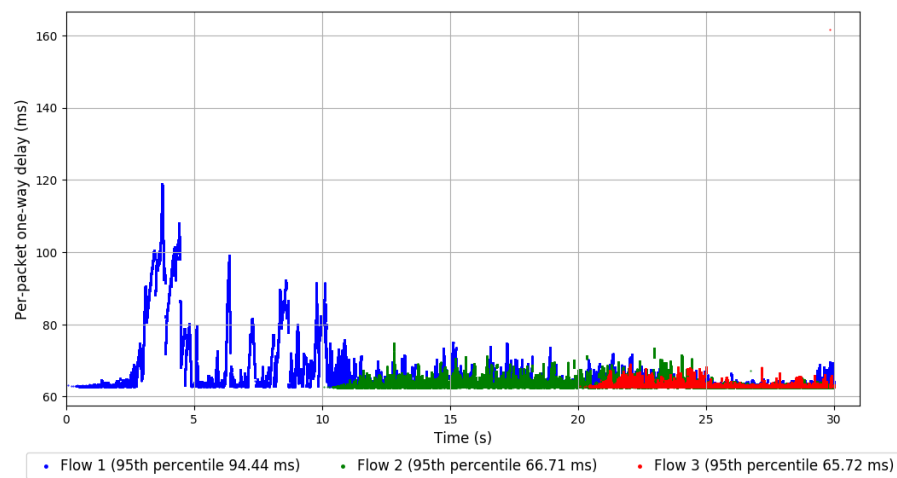
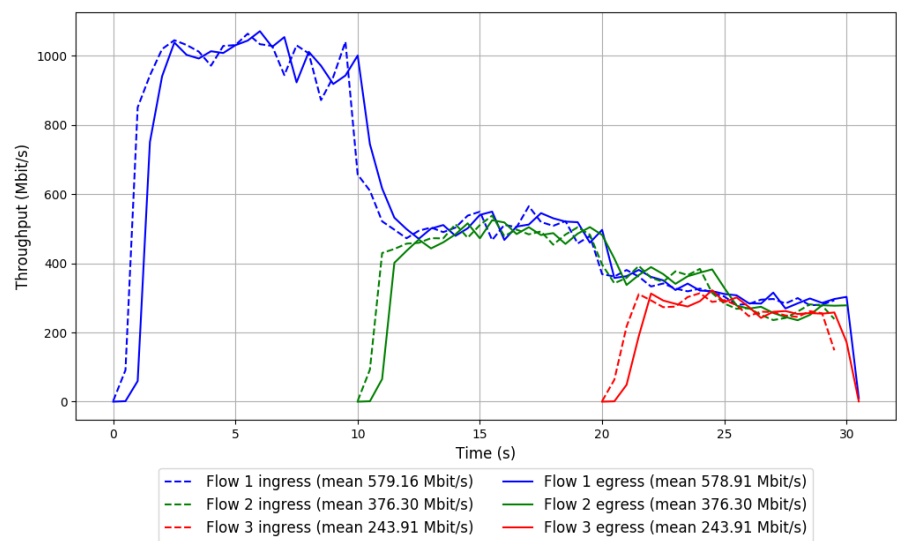


Run 5: Statistics of FillP

Start at: 2019-01-03 11:42:44  
End at: 2019-01-03 11:43:14  
Local clock offset: 0.023 ms  
Remote clock offset: -0.161 ms

# Below is generated by plot.py at 2019-01-03 13:38:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 909.86 Mbit/s  
95th percentile per-packet one-way delay: 87.402 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 578.91 Mbit/s  
95th percentile per-packet one-way delay: 94.444 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 376.30 Mbit/s  
95th percentile per-packet one-way delay: 66.708 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 243.91 Mbit/s  
95th percentile per-packet one-way delay: 65.723 ms  
Loss rate: 0.00%

Run 5: Report of FillP — Data Link



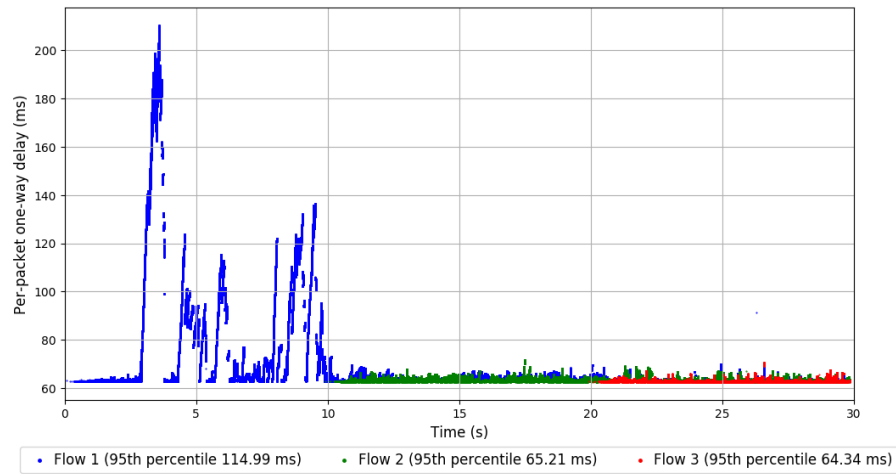
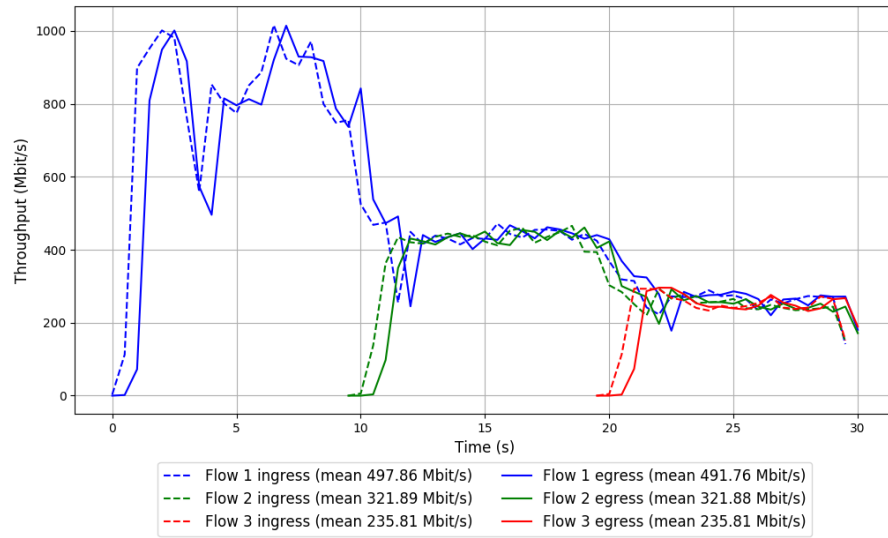


Run 1: Statistics of FillP-Sheep

Start at: 2019-01-03 09:52:38  
End at: 2019-01-03 09:53:08  
Local clock offset: -0.026 ms  
Remote clock offset: -0.251 ms

# Below is generated by plot.py at 2019-01-03 13:38:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 785.21 Mbit/s  
95th percentile per-packet one-way delay: 103.125 ms  
Loss rate: 0.77%  
-- Flow 1:  
Average throughput: 491.76 Mbit/s  
95th percentile per-packet one-way delay: 114.990 ms  
Loss rate: 1.22%  
-- Flow 2:  
Average throughput: 321.88 Mbit/s  
95th percentile per-packet one-way delay: 65.210 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 235.81 Mbit/s  
95th percentile per-packet one-way delay: 64.340 ms  
Loss rate: 0.00%

# Run 1: Report of FillP-Sheep — Data Link

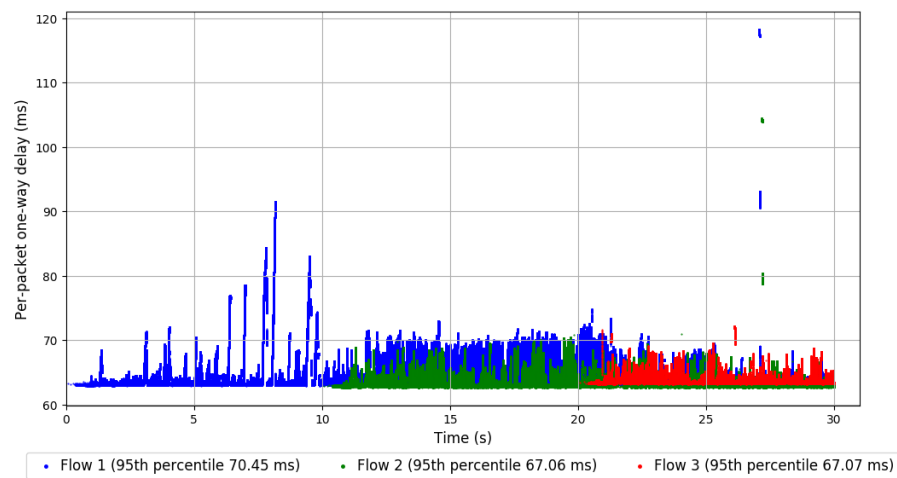
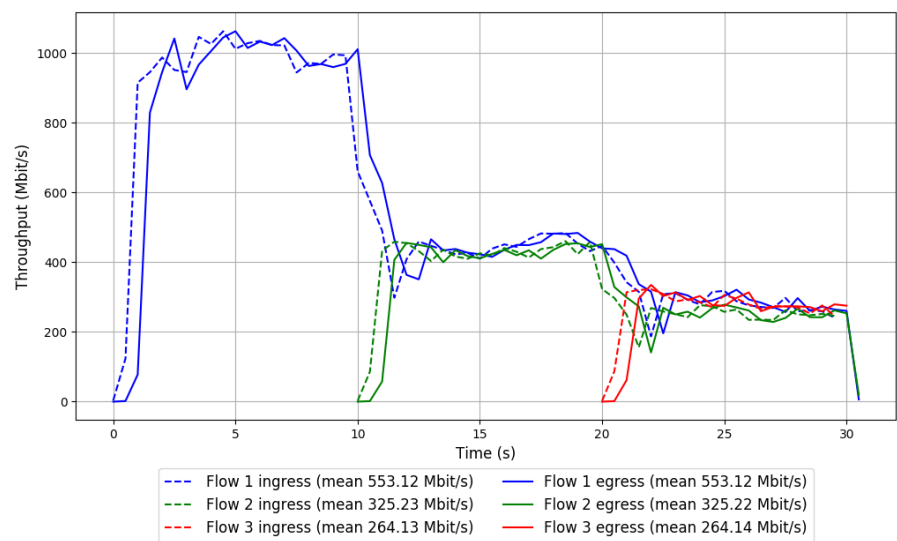


Run 2: Statistics of FillP-Sheep

Start at: 2019-01-03 10:26:23  
End at: 2019-01-03 10:26:53  
Local clock offset: -0.099 ms  
Remote clock offset: -0.018 ms

# Below is generated by plot.py at 2019-01-03 13:40:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 856.78 Mbit/s  
95th percentile per-packet one-way delay: 69.442 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 553.12 Mbit/s  
95th percentile per-packet one-way delay: 70.454 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 325.22 Mbit/s  
95th percentile per-packet one-way delay: 67.065 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 264.14 Mbit/s  
95th percentile per-packet one-way delay: 67.067 ms  
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-01-03 10:59:55

End at: 2019-01-03 11:00:25

Local clock offset: -0.036 ms

Remote clock offset: 0.653 ms

# Below is generated by plot.py at 2019-01-03 13:40:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 837.14 Mbit/s

95th percentile per-packet one-way delay: 75.210 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 544.05 Mbit/s

95th percentile per-packet one-way delay: 80.767 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 322.16 Mbit/s

95th percentile per-packet one-way delay: 67.402 ms

Loss rate: 0.00%

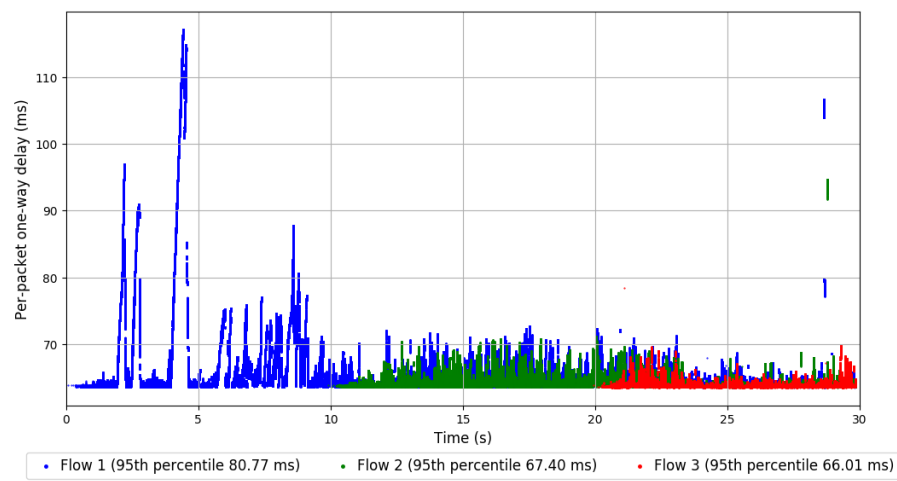
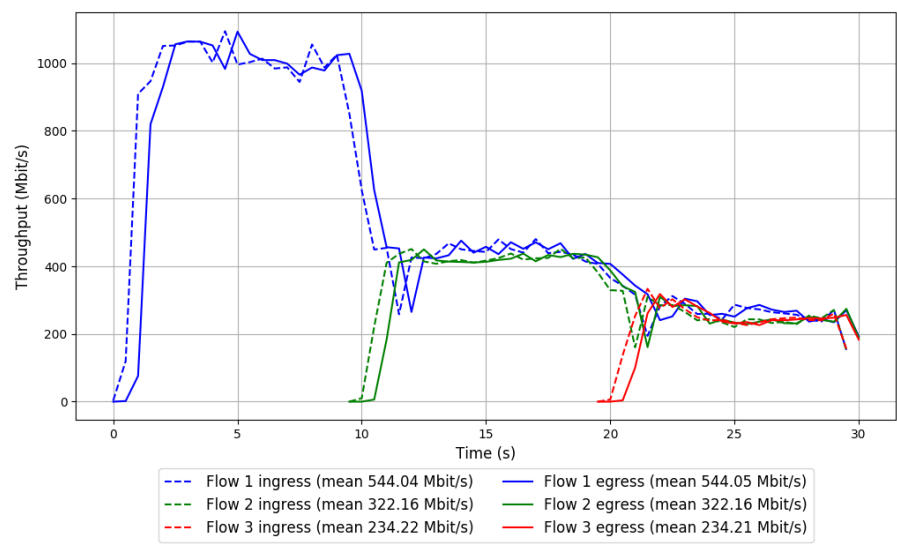
-- Flow 3:

Average throughput: 234.21 Mbit/s

95th percentile per-packet one-way delay: 66.010 ms

Loss rate: 0.01%

Run 3: Report of FillP-Sheep — Data Link

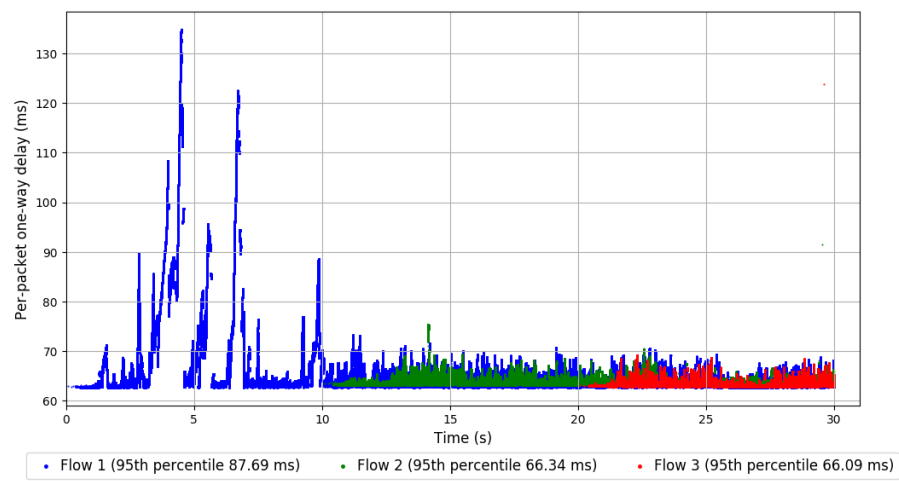
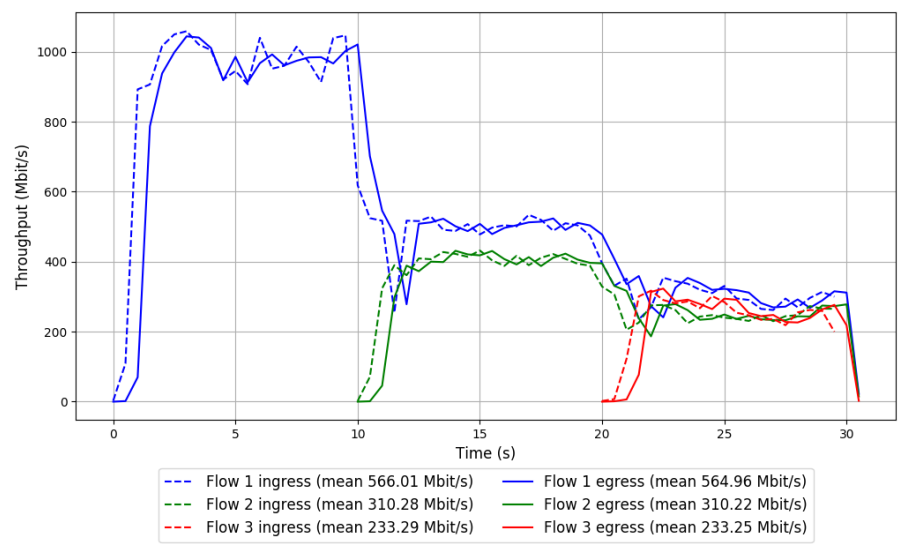


Run 4: Statistics of FillP-Sheep

Start at: 2019-01-03 11:33:14  
End at: 2019-01-03 11:33:44  
Local clock offset: 0.046 ms  
Remote clock offset: -0.031 ms

# Below is generated by plot.py at 2019-01-03 13:44:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 848.14 Mbit/s  
95th percentile per-packet one-way delay: 82.248 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 564.96 Mbit/s  
95th percentile per-packet one-way delay: 87.694 ms  
Loss rate: 0.19%  
-- Flow 2:  
Average throughput: 310.22 Mbit/s  
95th percentile per-packet one-way delay: 66.336 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 233.25 Mbit/s  
95th percentile per-packet one-way delay: 66.089 ms  
Loss rate: 0.00%

Run 4: Report of FillP-Sheep — Data Link





Run 5: Statistics of FillP-Sheep

Start at: 2019-01-03 12:06:33

End at: 2019-01-03 12:07:03

Local clock offset: 0.016 ms

Remote clock offset: 0.058 ms

# Below is generated by plot.py at 2019-01-03 13:57:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 858.91 Mbit/s

95th percentile per-packet one-way delay: 92.453 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 552.20 Mbit/s

95th percentile per-packet one-way delay: 101.745 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 332.53 Mbit/s

95th percentile per-packet one-way delay: 67.294 ms

Loss rate: 0.00%

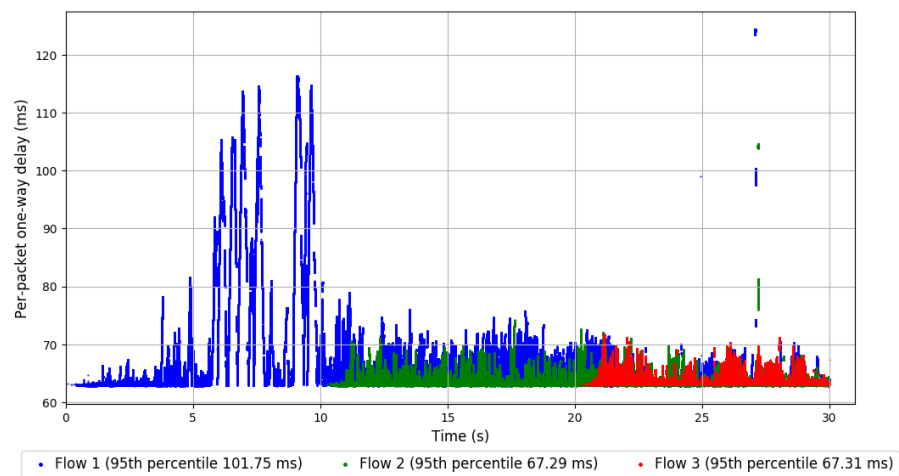
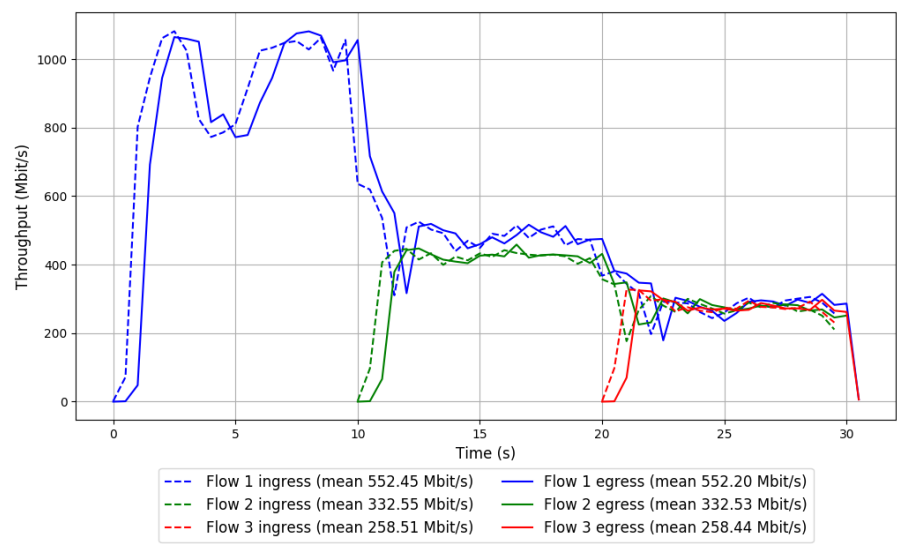
-- Flow 3:

Average throughput: 258.44 Mbit/s

95th percentile per-packet one-way delay: 67.307 ms

Loss rate: 0.00%

Run 5: Report of FillP-Sheep — Data Link

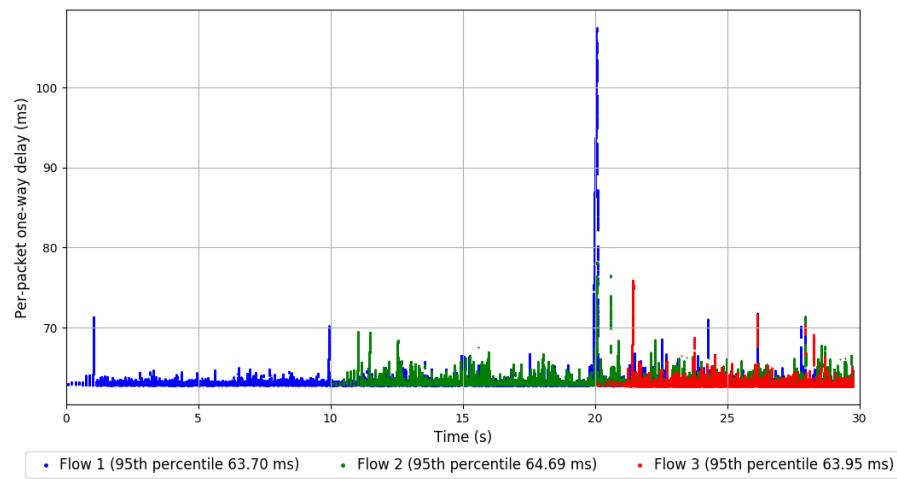
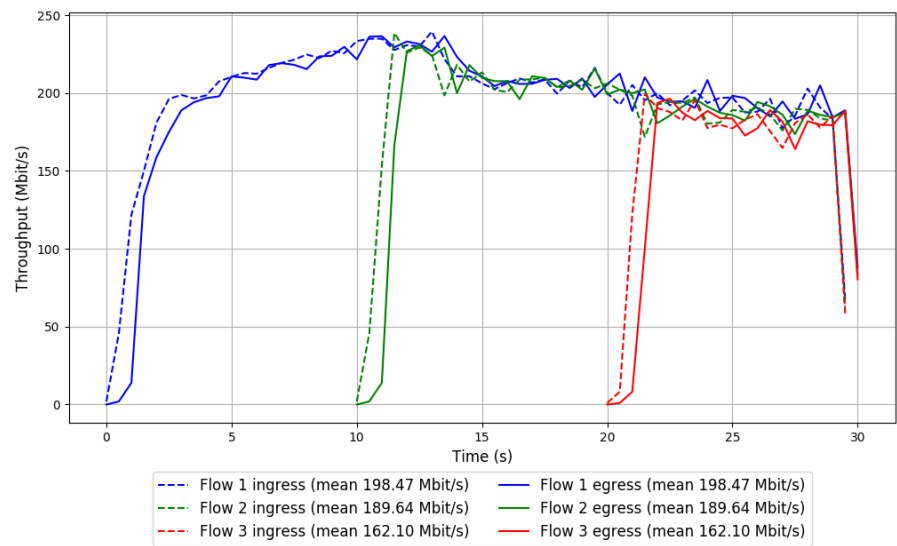


Run 1: Statistics of Indigo

Start at: 2019-01-03 09:48:46  
End at: 2019-01-03 09:49:16  
Local clock offset: -0.093 ms  
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-01-03 13:57:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 376.72 Mbit/s  
95th percentile per-packet one-way delay: 64.133 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 198.47 Mbit/s  
95th percentile per-packet one-way delay: 63.702 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 189.64 Mbit/s  
95th percentile per-packet one-way delay: 64.689 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 162.10 Mbit/s  
95th percentile per-packet one-way delay: 63.953 ms  
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

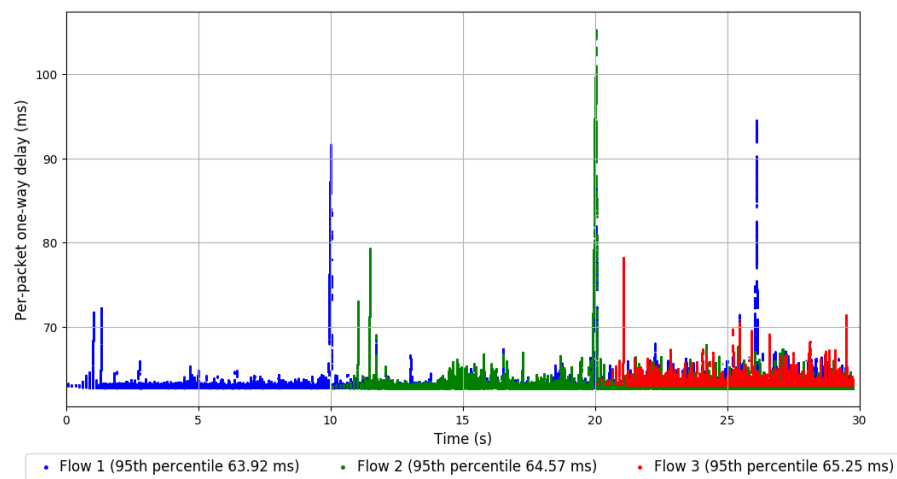
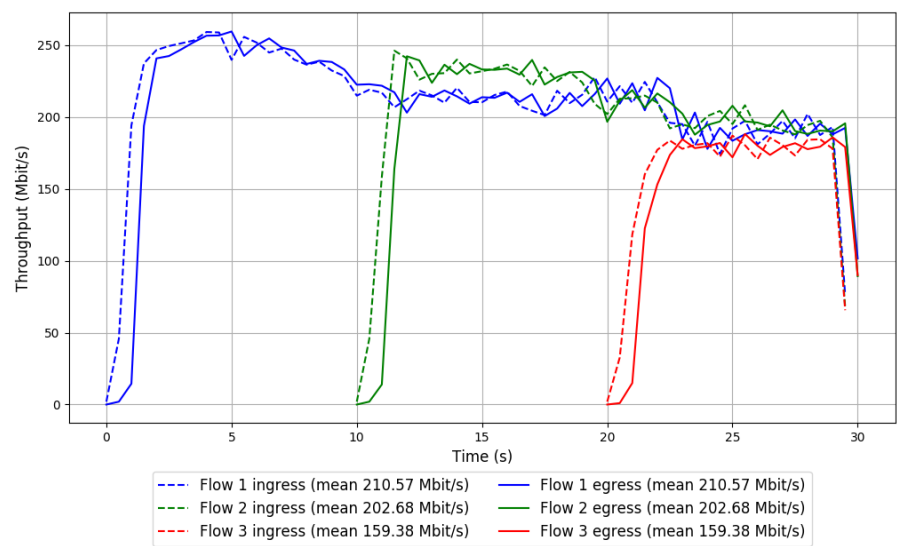


Run 2: Statistics of Indigo

Start at: 2019-01-03 10:22:26  
End at: 2019-01-03 10:22:56  
Local clock offset: -0.127 ms  
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2019-01-03 13:57:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 396.75 Mbit/s  
95th percentile per-packet one-way delay: 64.437 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 210.57 Mbit/s  
95th percentile per-packet one-way delay: 63.924 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 202.68 Mbit/s  
95th percentile per-packet one-way delay: 64.570 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 159.38 Mbit/s  
95th percentile per-packet one-way delay: 65.251 ms  
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

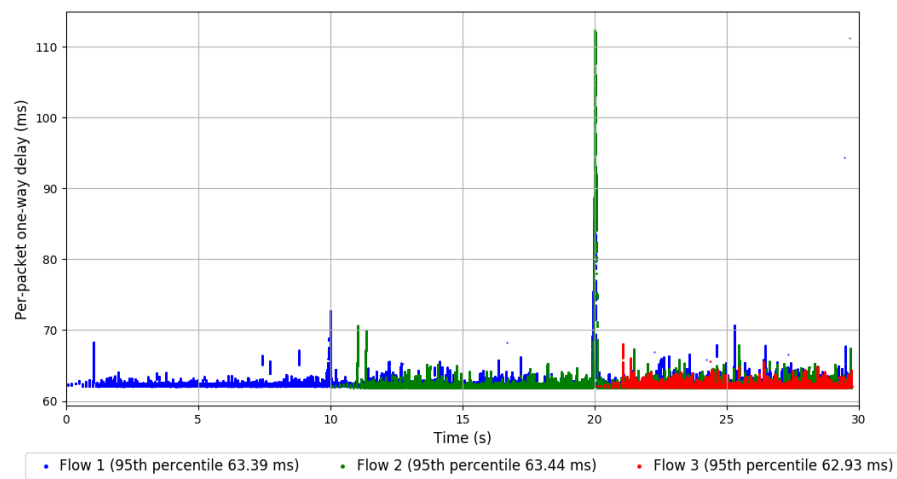
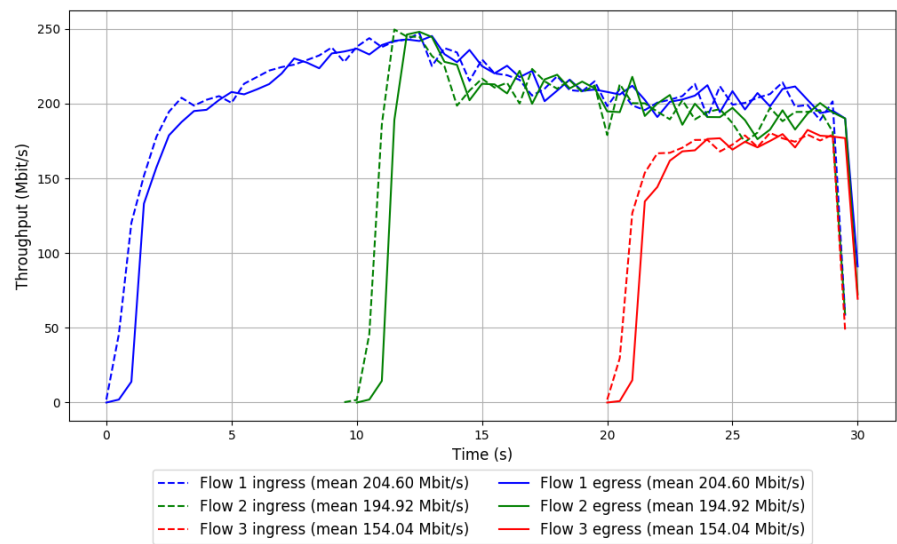


Run 3: Statistics of Indigo

Start at: 2019-01-03 10:56:00  
End at: 2019-01-03 10:56:30  
Local clock offset: -0.039 ms  
Remote clock offset: -0.864 ms

# Below is generated by plot.py at 2019-01-03 13:57:32  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 383.91 Mbit/s  
95th percentile per-packet one-way delay: 63.345 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 204.60 Mbit/s  
95th percentile per-packet one-way delay: 63.387 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 194.92 Mbit/s  
95th percentile per-packet one-way delay: 63.440 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 154.04 Mbit/s  
95th percentile per-packet one-way delay: 62.930 ms  
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link





Run 4: Statistics of Indigo

Start at: 2019-01-03 11:29:22

End at: 2019-01-03 11:29:52

Local clock offset: 0.059 ms

Remote clock offset: 0.578 ms

# Below is generated by plot.py at 2019-01-03 13:57:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 377.99 Mbit/s

95th percentile per-packet one-way delay: 64.988 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 205.21 Mbit/s

95th percentile per-packet one-way delay: 64.804 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 181.89 Mbit/s

95th percentile per-packet one-way delay: 64.926 ms

Loss rate: 0.00%

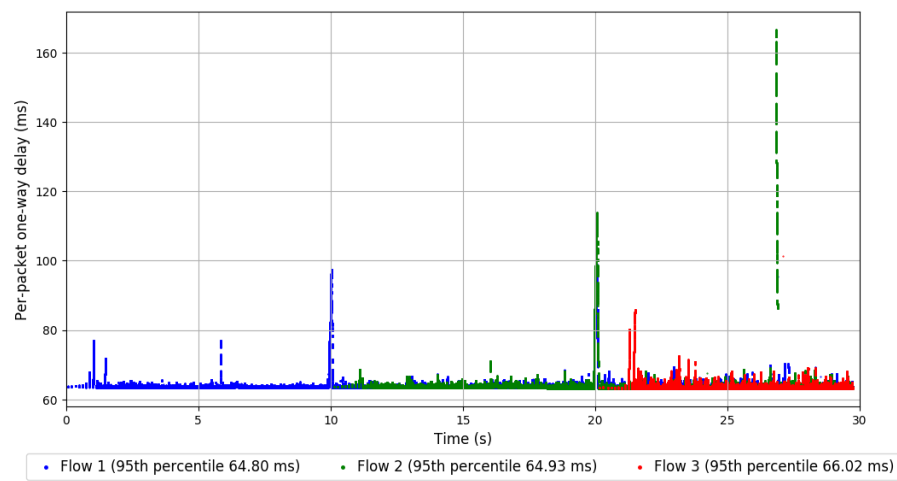
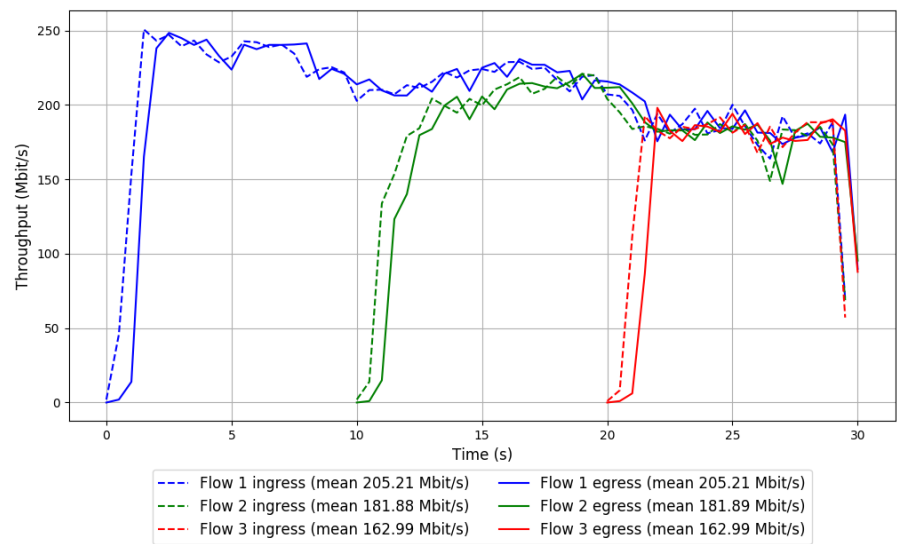
-- Flow 3:

Average throughput: 162.99 Mbit/s

95th percentile per-packet one-way delay: 66.022 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-01-03 12:02:39

End at: 2019-01-03 12:03:09

Local clock offset: 0.012 ms

Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2019-01-03 13:57:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 370.97 Mbit/s

95th percentile per-packet one-way delay: 64.106 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 208.94 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 166.09 Mbit/s

95th percentile per-packet one-way delay: 64.093 ms

Loss rate: 0.01%

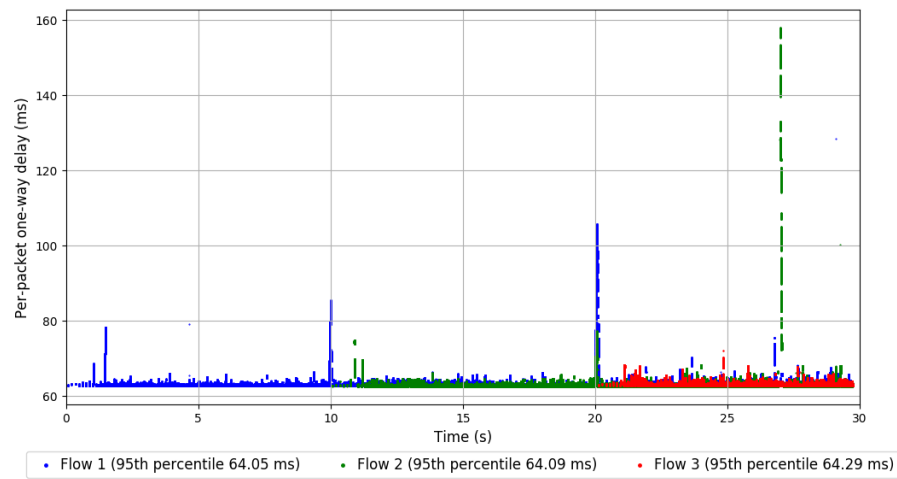
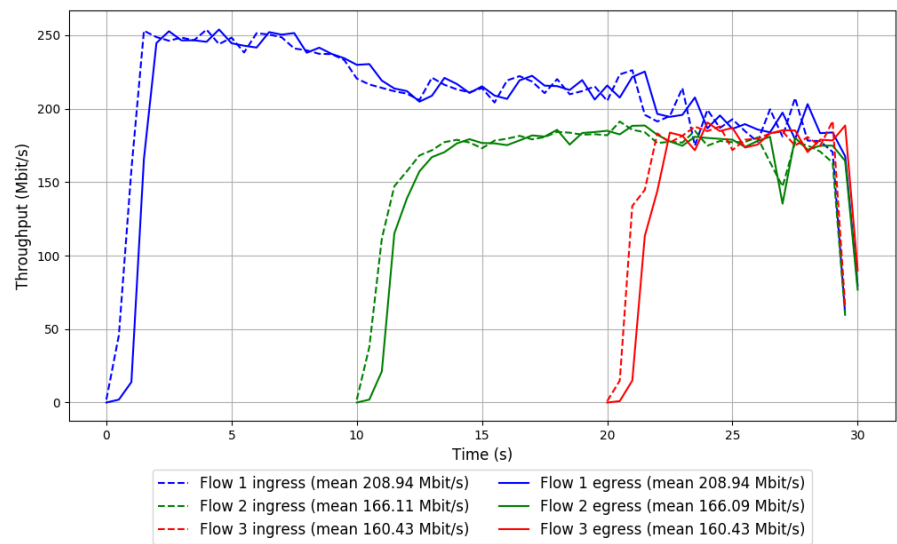
-- Flow 3:

Average throughput: 160.43 Mbit/s

95th percentile per-packet one-way delay: 64.292 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

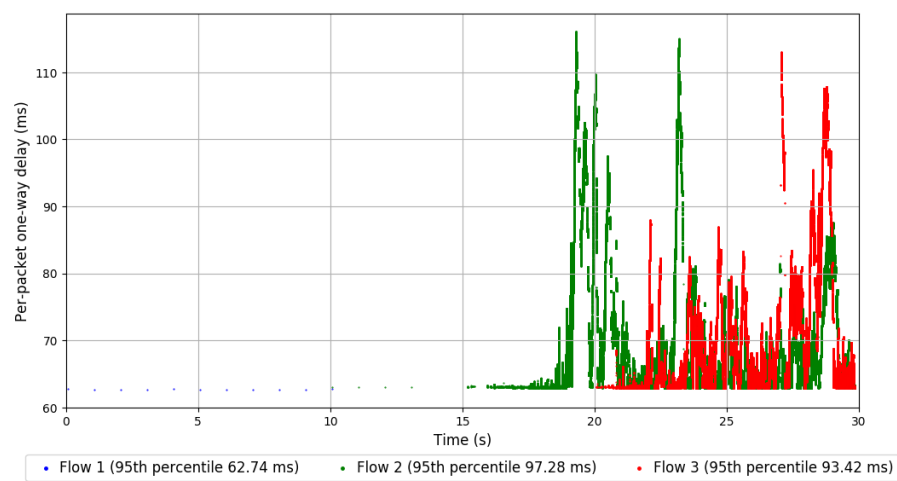
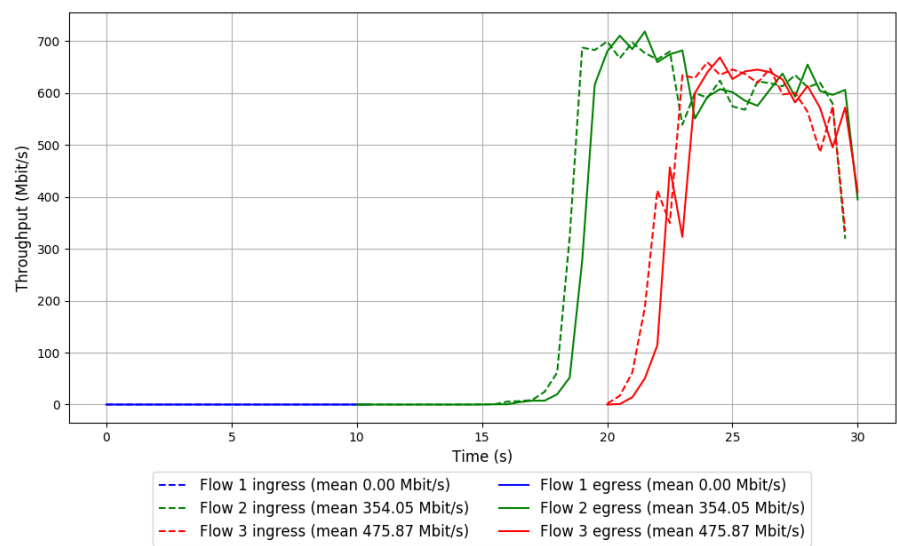


Run 1: Statistics of Indigo-MusesD

Start at: 2019-01-03 09:36:44  
End at: 2019-01-03 09:37:14  
Local clock offset: -0.05 ms  
Remote clock offset: -0.325 ms

# Below is generated by plot.py at 2019-01-03 13:57:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 391.09 Mbit/s  
95th percentile per-packet one-way delay: 95.785 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 62.740 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 354.05 Mbit/s  
95th percentile per-packet one-way delay: 97.280 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 475.87 Mbit/s  
95th percentile per-packet one-way delay: 93.420 ms  
Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link

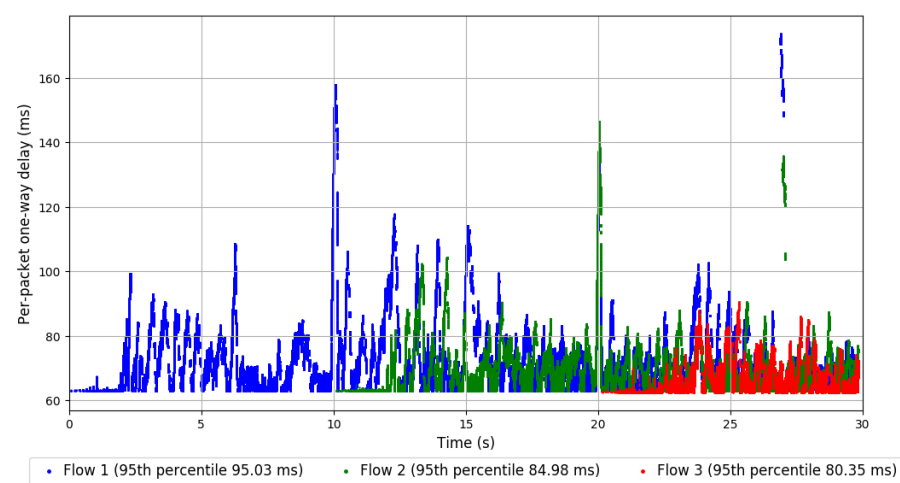
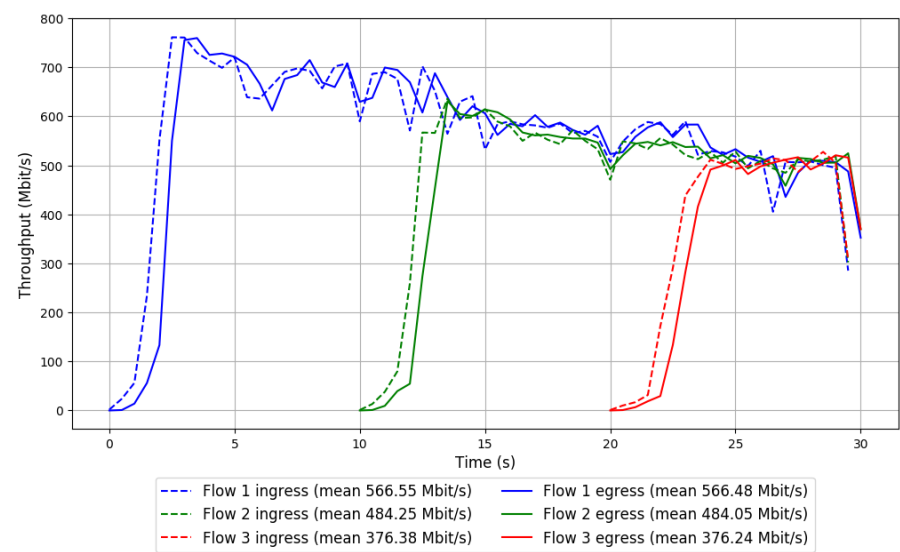


Run 2: Statistics of Indigo-MusesD

Start at: 2019-01-03 10:09:46  
End at: 2019-01-03 10:10:16  
Local clock offset: -0.074 ms  
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2019-01-03 14:07:53  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1010.05 Mbit/s  
95th percentile per-packet one-way delay: 90.849 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 566.48 Mbit/s  
95th percentile per-packet one-way delay: 95.025 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 484.05 Mbit/s  
95th percentile per-packet one-way delay: 84.984 ms  
Loss rate: 0.03%  
-- Flow 3:  
Average throughput: 376.24 Mbit/s  
95th percentile per-packet one-way delay: 80.347 ms  
Loss rate: 0.02%

Run 2: Report of Indigo-MusesD — Data Link



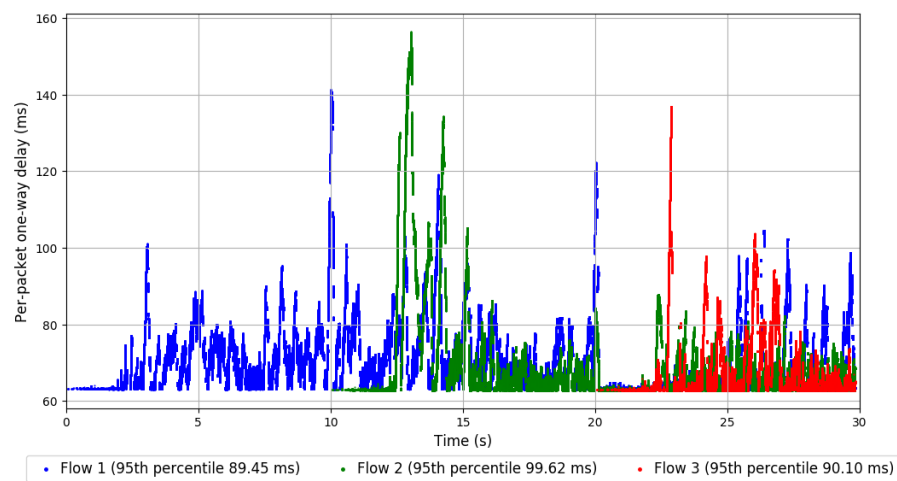
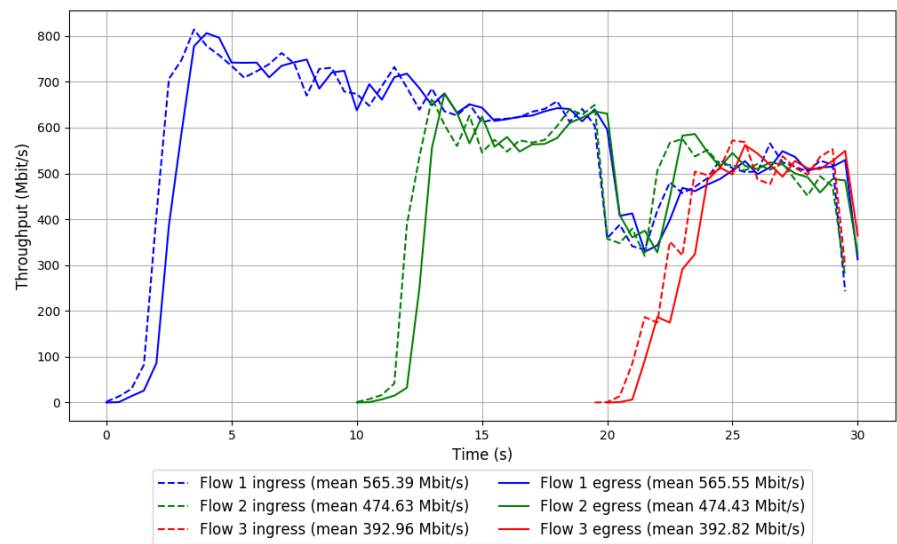


Run 3: Statistics of Indigo-MusesD

Start at: 2019-01-03 10:43:23  
End at: 2019-01-03 10:43:53  
Local clock offset: -0.053 ms  
Remote clock offset: -0.121 ms

# Below is generated by plot.py at 2019-01-03 14:14:16  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1009.54 Mbit/s  
95th percentile per-packet one-way delay: 91.181 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 565.55 Mbit/s  
95th percentile per-packet one-way delay: 89.450 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 474.43 Mbit/s  
95th percentile per-packet one-way delay: 99.616 ms  
Loss rate: 0.04%  
-- Flow 3:  
Average throughput: 392.82 Mbit/s  
95th percentile per-packet one-way delay: 90.102 ms  
Loss rate: 0.04%

Run 3: Report of Indigo-MusesD — Data Link

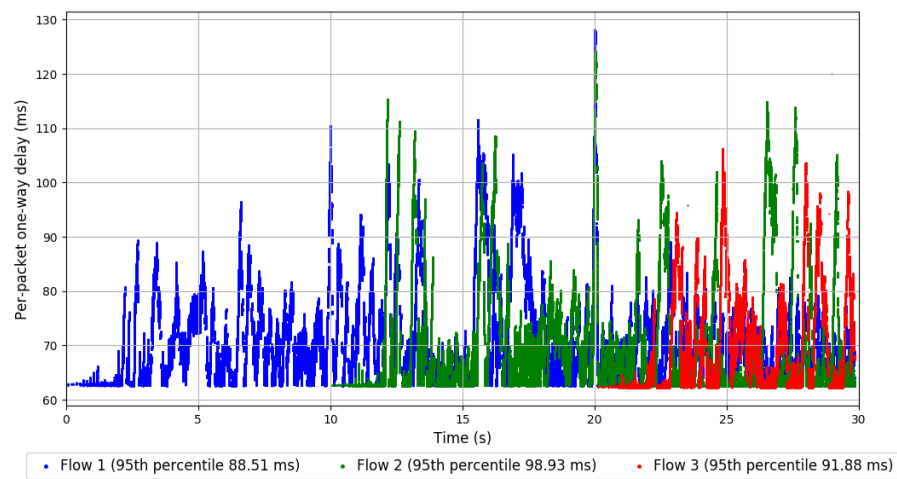
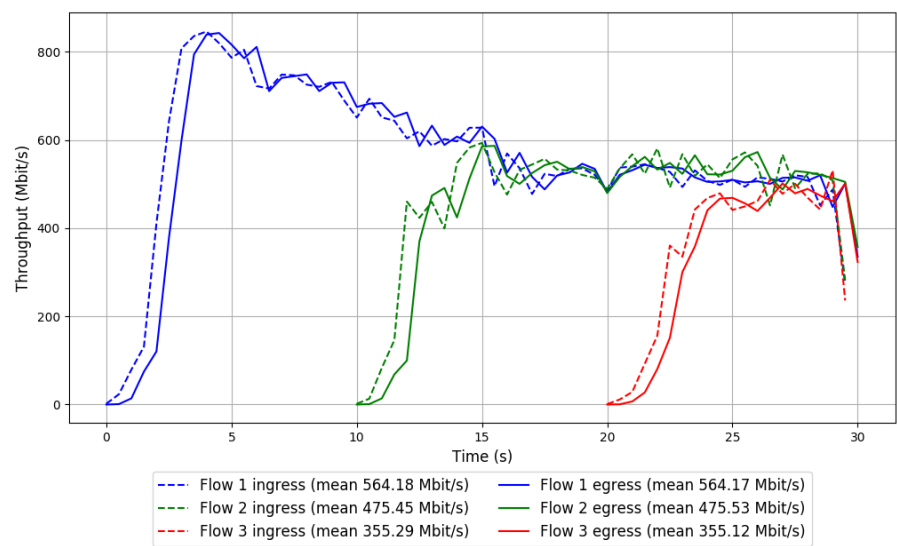


Run 4: Statistics of Indigo-MusesD

Start at: 2019-01-03 11:16:37  
End at: 2019-01-03 11:17:07  
Local clock offset: 0.032 ms  
Remote clock offset: -0.669 ms

# Below is generated by plot.py at 2019-01-03 14:17:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 995.65 Mbit/s  
95th percentile per-packet one-way delay: 93.470 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 564.17 Mbit/s  
95th percentile per-packet one-way delay: 88.512 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 475.53 Mbit/s  
95th percentile per-packet one-way delay: 98.929 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 355.12 Mbit/s  
95th percentile per-packet one-way delay: 91.882 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link

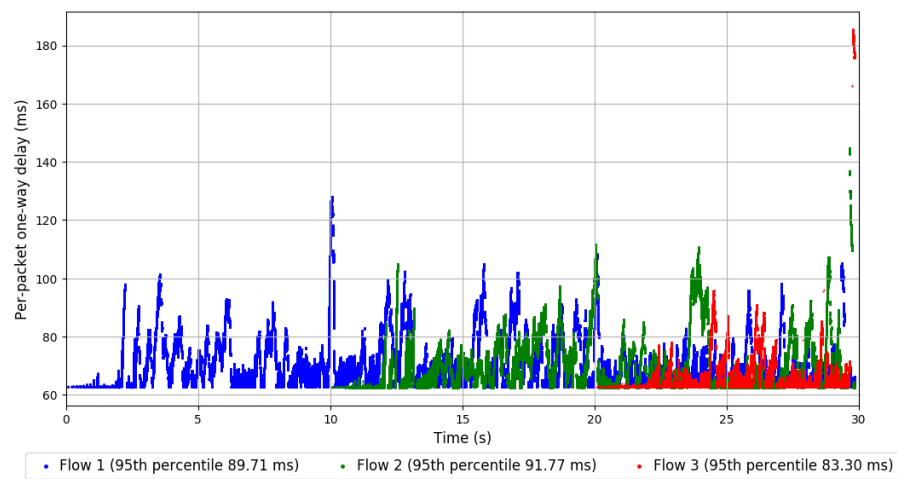
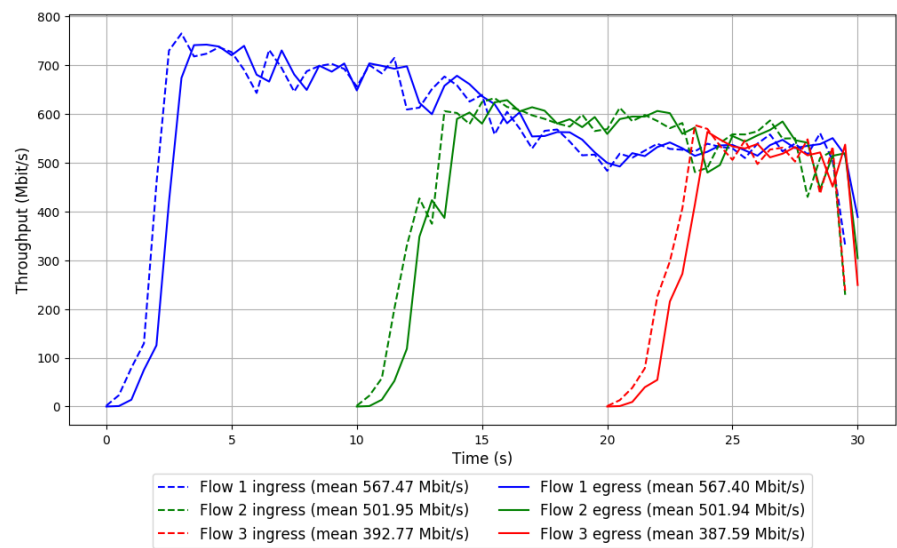


Run 5: Statistics of Indigo-MusesD

Start at: 2019-01-03 11:50:12  
End at: 2019-01-03 11:50:42  
Local clock offset: 0.011 ms  
Remote clock offset: -0.194 ms

# Below is generated by plot.py at 2019-01-03 14:19:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1027.49 Mbit/s  
95th percentile per-packet one-way delay: 89.468 ms  
Loss rate: 0.09%  
-- Flow 1:  
Average throughput: 567.40 Mbit/s  
95th percentile per-packet one-way delay: 89.708 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 501.94 Mbit/s  
95th percentile per-packet one-way delay: 91.767 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 387.59 Mbit/s  
95th percentile per-packet one-way delay: 83.302 ms  
Loss rate: 0.69%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-01-03 09:38:17

End at: 2019-01-03 09:38:47

Local clock offset: -0.078 ms

Remote clock offset: 1.143 ms

# Below is generated by plot.py at 2019-01-03 14:19:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 912.16 Mbit/s

95th percentile per-packet one-way delay: 143.008 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 546.75 Mbit/s

95th percentile per-packet one-way delay: 148.045 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 464.95 Mbit/s

95th percentile per-packet one-way delay: 134.535 ms

Loss rate: 0.00%

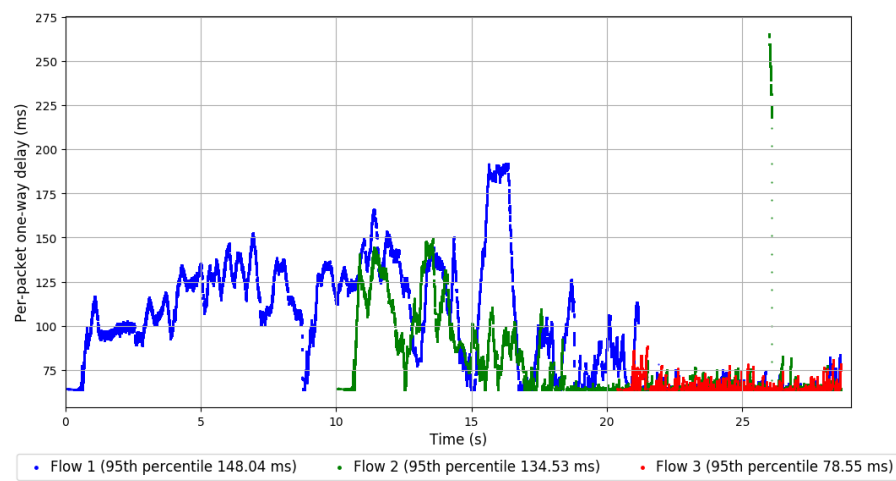
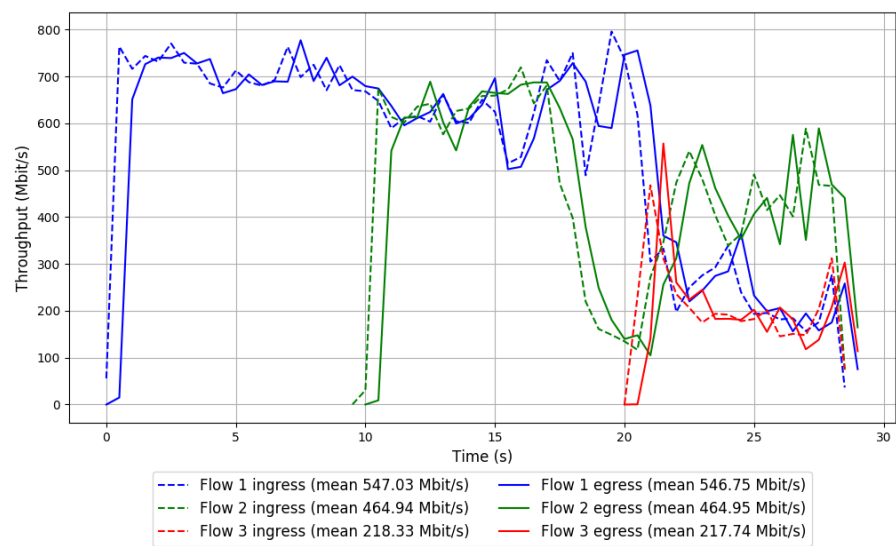
-- Flow 3:

Average throughput: 217.74 Mbit/s

95th percentile per-packet one-way delay: 78.552 ms

Loss rate: 0.24%

Run 1: Report of Indigo-MusesT — Data Link



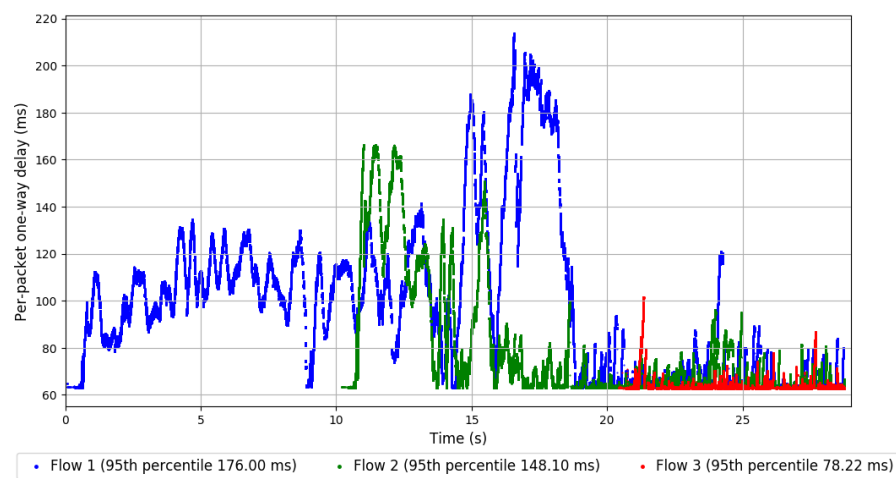
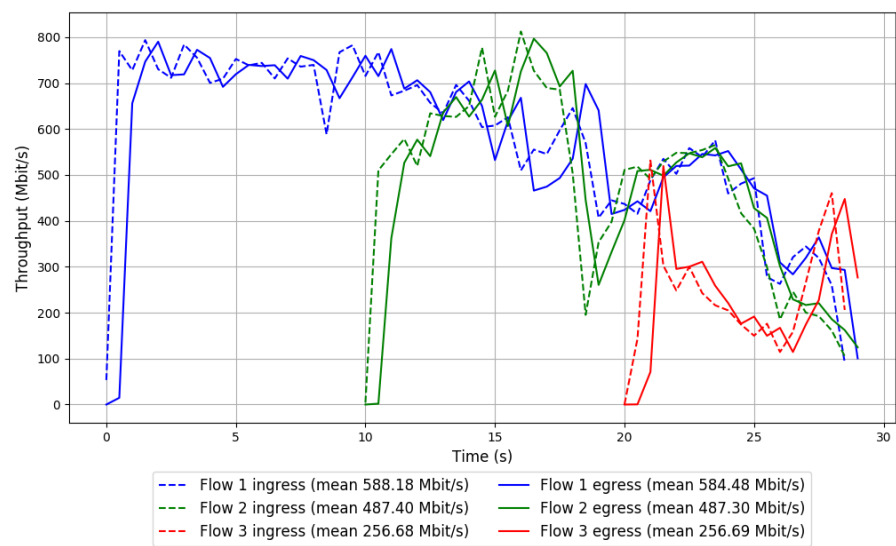


Run 2: Statistics of Indigo-MusesT

Start at: 2019-01-03 10:11:51  
End at: 2019-01-03 10:12:21  
Local clock offset: -0.097 ms  
Remote clock offset: -0.12 ms

# Below is generated by plot.py at 2019-01-03 14:19:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 973.42 Mbit/s  
95th percentile per-packet one-way delay: 159.602 ms  
Loss rate: 0.35%  
-- Flow 1:  
Average throughput: 584.48 Mbit/s  
95th percentile per-packet one-way delay: 176.005 ms  
Loss rate: 0.57%  
-- Flow 2:  
Average throughput: 487.30 Mbit/s  
95th percentile per-packet one-way delay: 148.099 ms  
Loss rate: 0.01%  
-- Flow 3:  
Average throughput: 256.69 Mbit/s  
95th percentile per-packet one-way delay: 78.217 ms  
Loss rate: 0.00%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-01-03 10:45:30

End at: 2019-01-03 10:46:00

Local clock offset: -0.039 ms

Remote clock offset: 0.189 ms

# Below is generated by plot.py at 2019-01-03 14:19:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 883.33 Mbit/s

95th percentile per-packet one-way delay: 154.953 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 585.37 Mbit/s

95th percentile per-packet one-way delay: 163.700 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 357.64 Mbit/s

95th percentile per-packet one-way delay: 78.547 ms

Loss rate: 0.00%

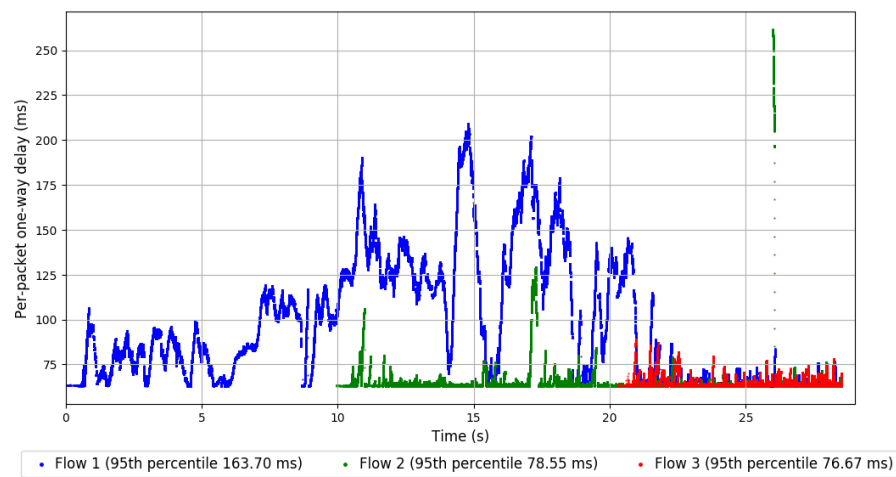
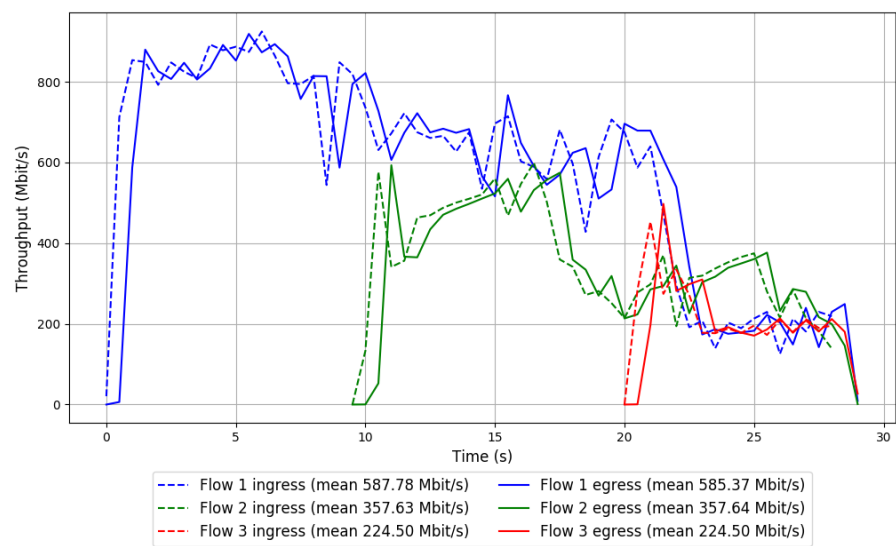
-- Flow 3:

Average throughput: 224.50 Mbit/s

95th percentile per-packet one-way delay: 76.675 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesT — Data Link

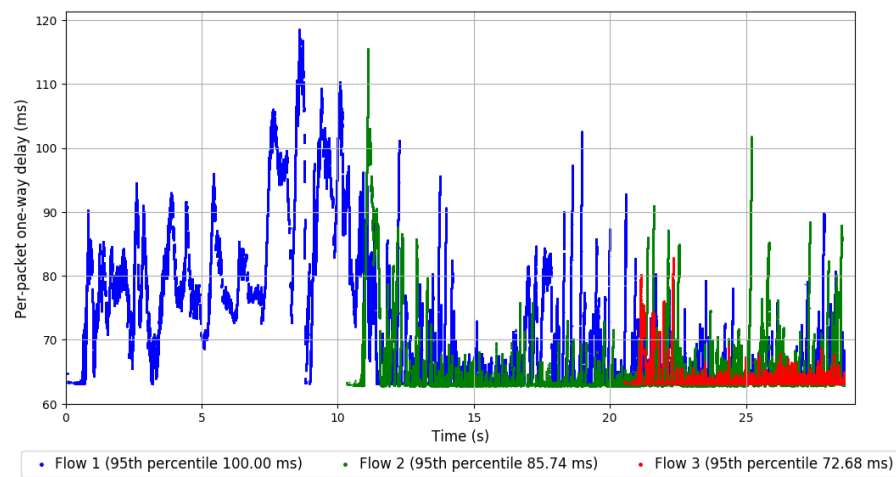
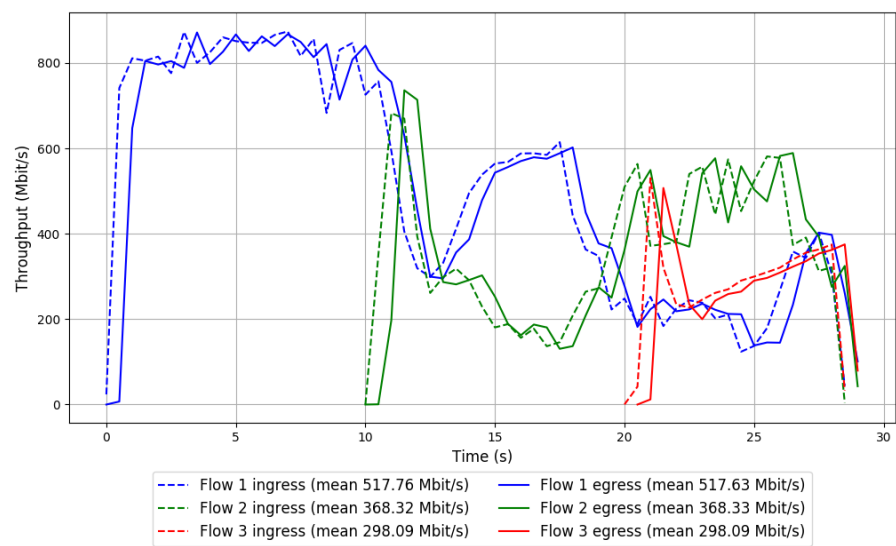


Run 4: Statistics of Indigo-MusesT

Start at: 2019-01-03 11:18:43  
End at: 2019-01-03 11:19:13  
Local clock offset: 0.043 ms  
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-01-03 14:19:34  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 837.96 Mbit/s  
95th percentile per-packet one-way delay: 96.897 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 517.63 Mbit/s  
95th percentile per-packet one-way delay: 99.996 ms  
Loss rate: 0.02%  
-- Flow 2:  
Average throughput: 368.33 Mbit/s  
95th percentile per-packet one-way delay: 85.741 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 298.09 Mbit/s  
95th percentile per-packet one-way delay: 72.679 ms  
Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-01-03 11:52:18

End at: 2019-01-03 11:52:48

Local clock offset: -0.008 ms

Remote clock offset: 0.006 ms

# Below is generated by plot.py at 2019-01-03 14:23:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 622.18 Mbit/s

95th percentile per-packet one-way delay: 87.863 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 342.30 Mbit/s

95th percentile per-packet one-way delay: 84.874 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 327.06 Mbit/s

95th percentile per-packet one-way delay: 93.525 ms

Loss rate: 0.09%

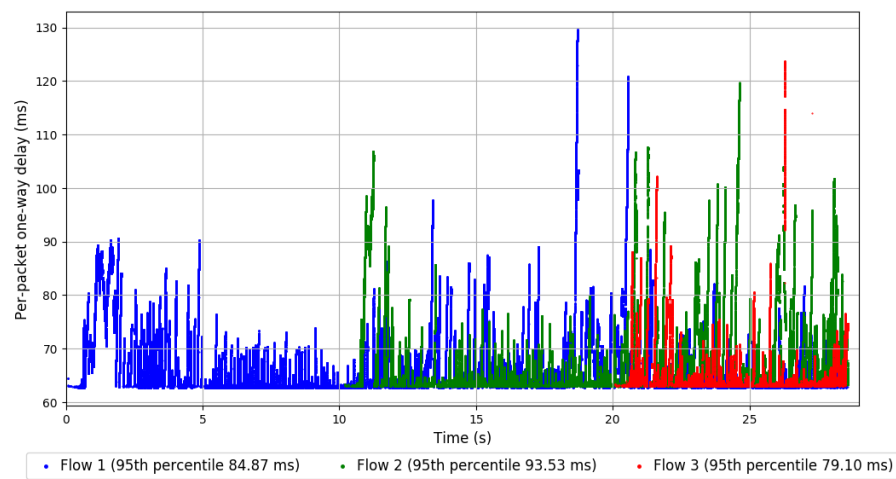
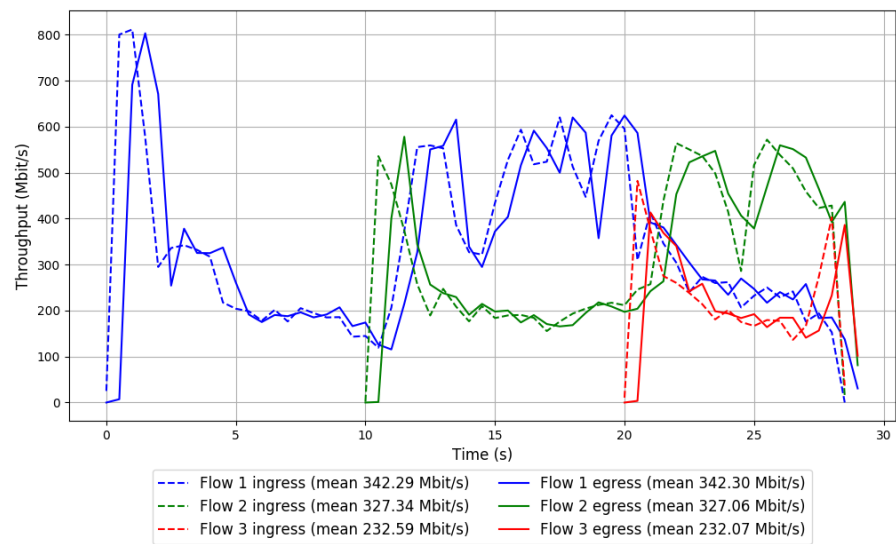
-- Flow 3:

Average throughput: 232.07 Mbit/s

95th percentile per-packet one-way delay: 79.104 ms

Loss rate: 0.16%

Run 5: Report of Indigo-MusesT — Data Link



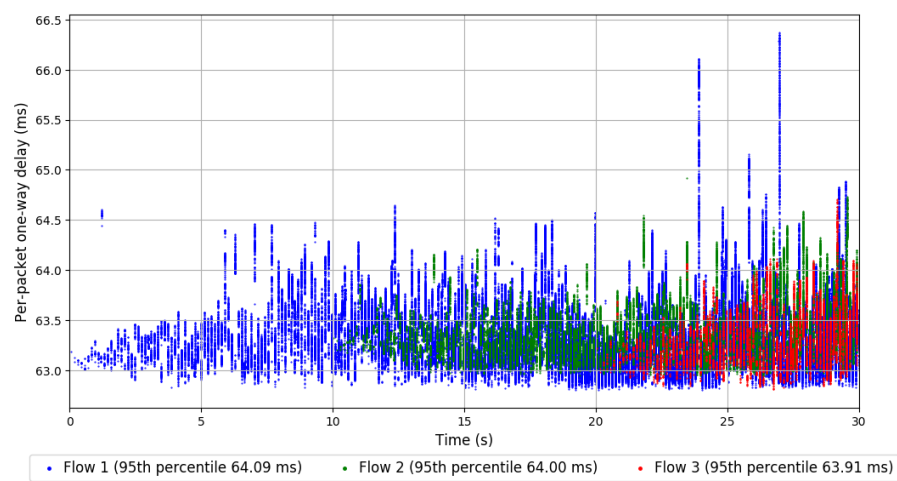
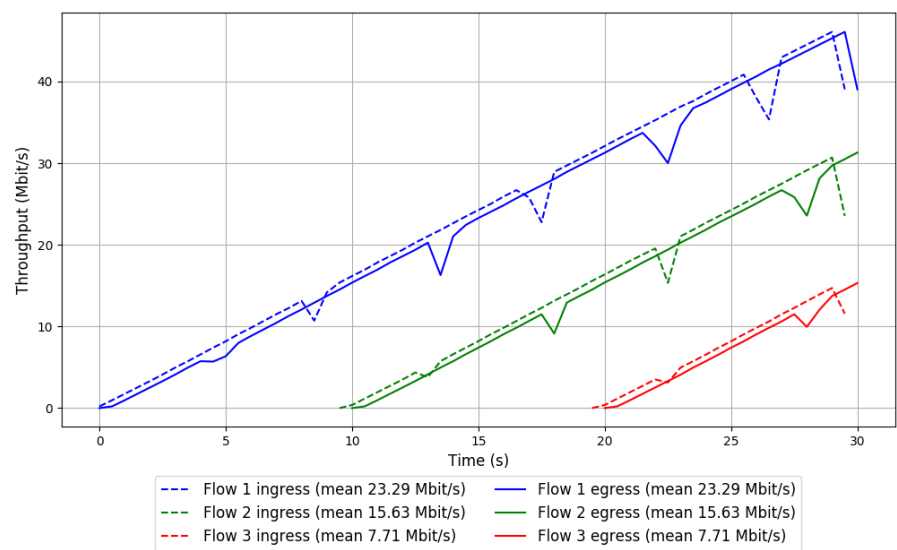


```
Run 1: Statistics of LEDBAT

Start at: 2019-01-03 09:23:26
End at: 2019-01-03 09:23:56
Local clock offset: -0.085 ms
Remote clock offset: -0.029 ms

# Below is generated by plot.py at 2019-01-03 14:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.23 Mbit/s
95th percentile per-packet one-way delay: 64.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.29 Mbit/s
95th percentile per-packet one-way delay: 64.086 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.63 Mbit/s
95th percentile per-packet one-way delay: 64.004 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.71 Mbit/s
95th percentile per-packet one-way delay: 63.912 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

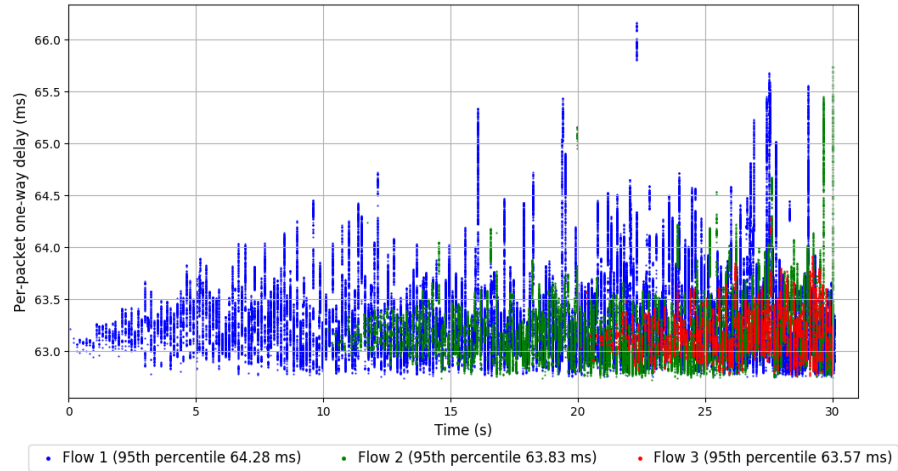
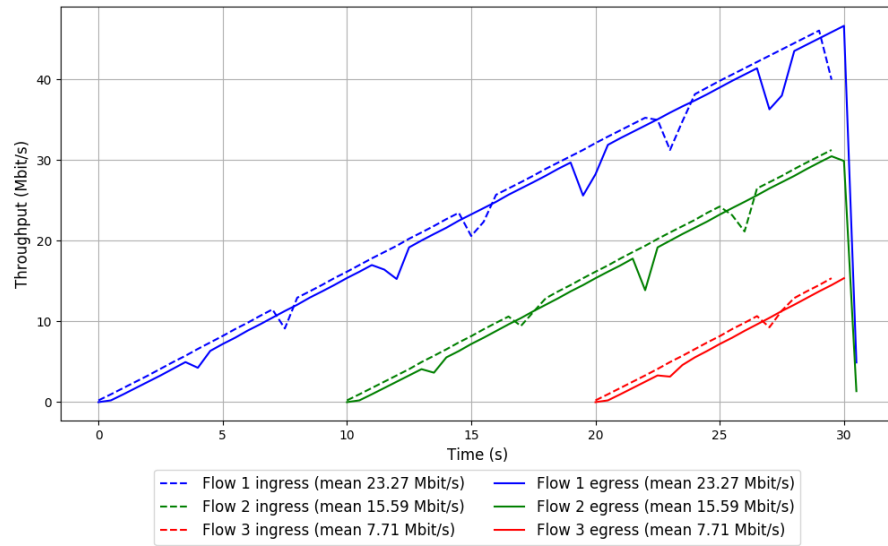


Run 2: Statistics of LEDBAT

Start at: 2019-01-03 09:56:21  
End at: 2019-01-03 09:56:51  
Local clock offset: -0.088 ms  
Remote clock offset: -0.112 ms

# Below is generated by plot.py at 2019-01-03 14:23:42  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 36.17 Mbit/s  
95th percentile per-packet one-way delay: 64.148 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 23.27 Mbit/s  
95th percentile per-packet one-way delay: 64.277 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 15.59 Mbit/s  
95th percentile per-packet one-way delay: 63.834 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 7.71 Mbit/s  
95th percentile per-packet one-way delay: 63.571 ms  
Loss rate: 0.00%

## Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-01-03 10:30:07

End at: 2019-01-03 10:30:37

Local clock offset: -0.109 ms

Remote clock offset: 0.367 ms

# Below is generated by plot.py at 2019-01-03 14:23:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.37 Mbit/s

95th percentile per-packet one-way delay: 64.455 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 23.45 Mbit/s

95th percentile per-packet one-way delay: 64.603 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.62 Mbit/s

95th percentile per-packet one-way delay: 64.228 ms

Loss rate: 0.00%

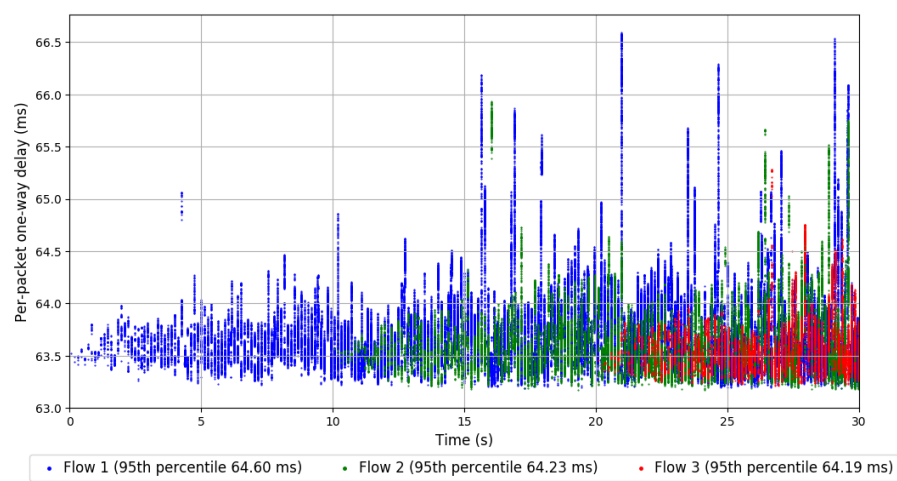
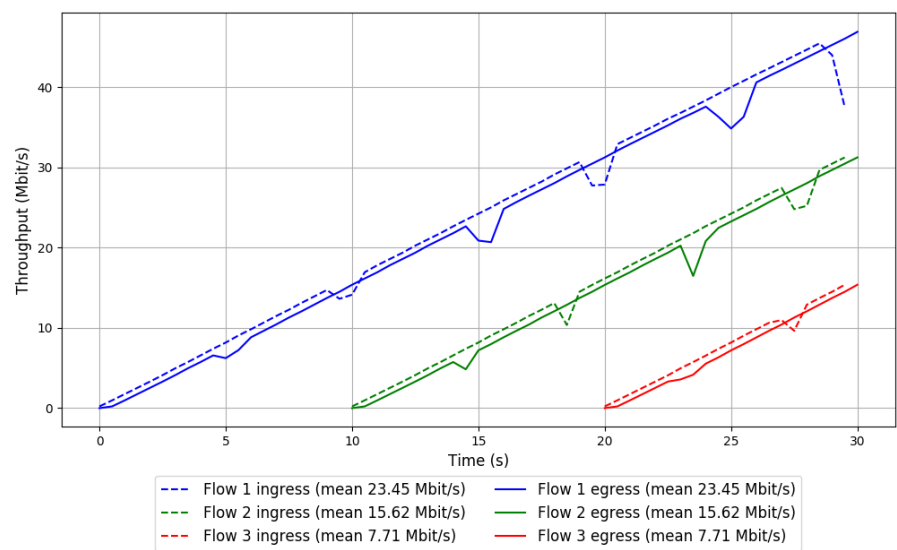
-- Flow 3:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 64.192 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

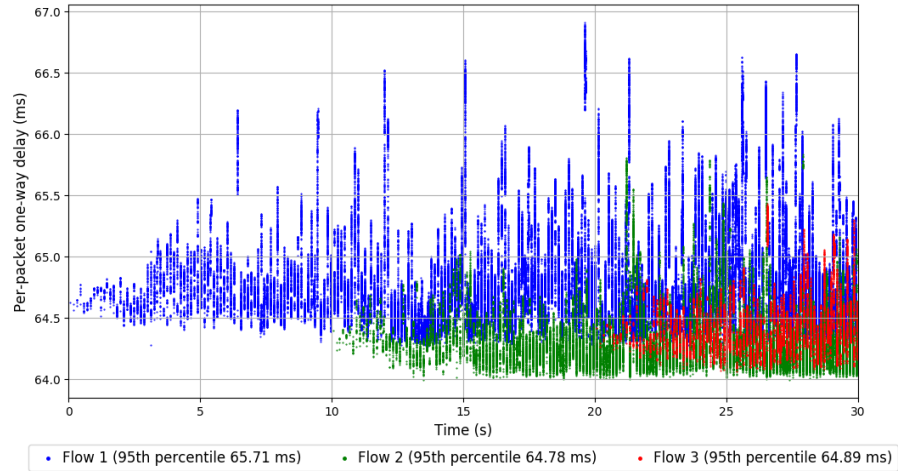
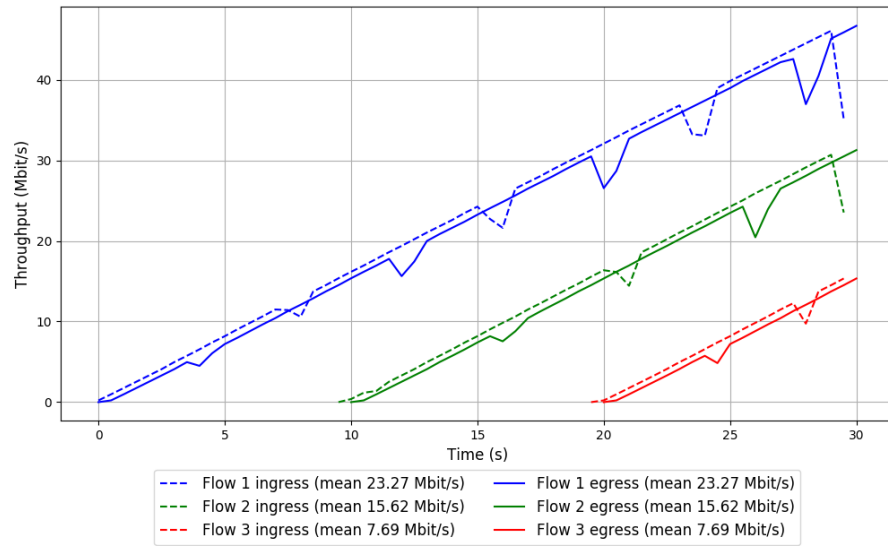


Run 4: Statistics of LEDBAT

Start at: 2019-01-03 11:03:38  
End at: 2019-01-03 11:04:08  
Local clock offset: -0.023 ms  
Remote clock offset: 1.241 ms

```
# Below is generated by plot.py at 2019-01-03 14:23:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.17 Mbit/s
95th percentile per-packet one-way delay: 65.529 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.27 Mbit/s
95th percentile per-packet one-way delay: 65.707 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 15.62 Mbit/s
95th percentile per-packet one-way delay: 64.777 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.69 Mbit/s
95th percentile per-packet one-way delay: 64.888 ms
Loss rate: 0.00%
```

#### Run 4: Report of LEDBAT — Data Link





Run 5: Statistics of LEDBAT

Start at: 2019-01-03 11:36:58

End at: 2019-01-03 11:37:28

Local clock offset: 0.059 ms

Remote clock offset: 0.054 ms

# Below is generated by plot.py at 2019-01-03 14:23:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.26 Mbit/s

95th percentile per-packet one-way delay: 64.468 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 23.29 Mbit/s

95th percentile per-packet one-way delay: 64.678 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.67 Mbit/s

95th percentile per-packet one-way delay: 64.195 ms

Loss rate: 0.00%

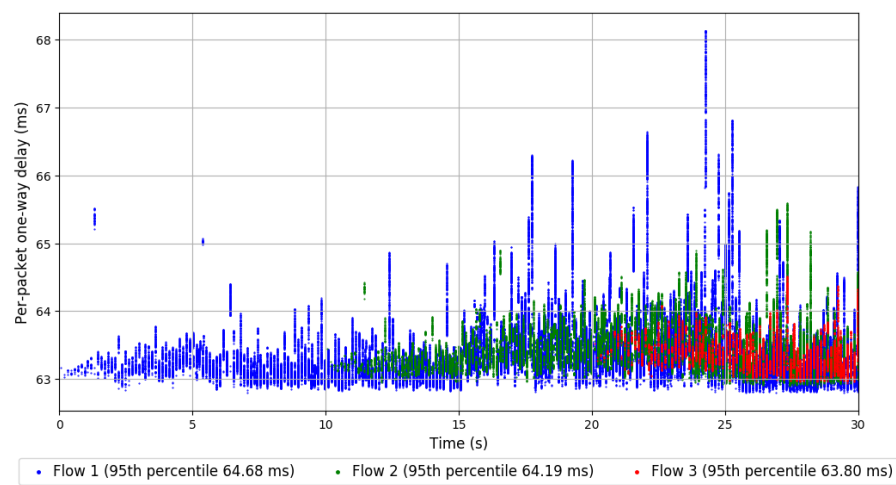
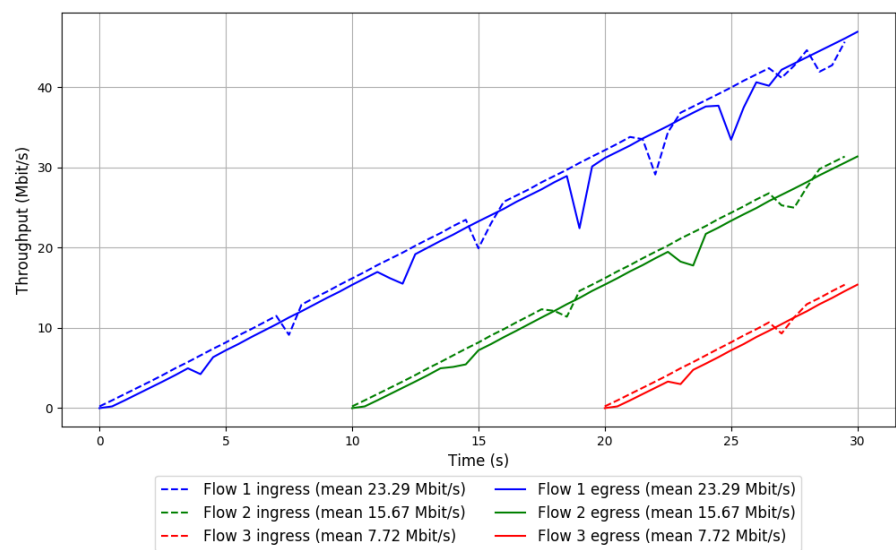
-- Flow 3:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 63.804 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

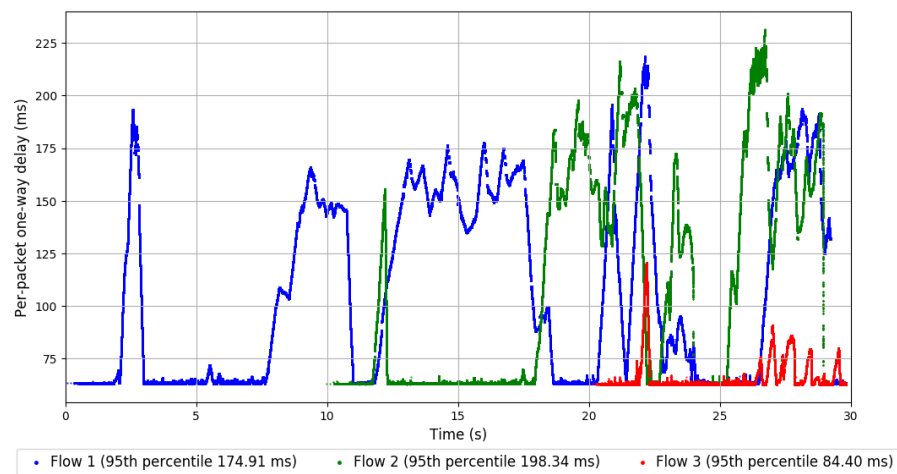
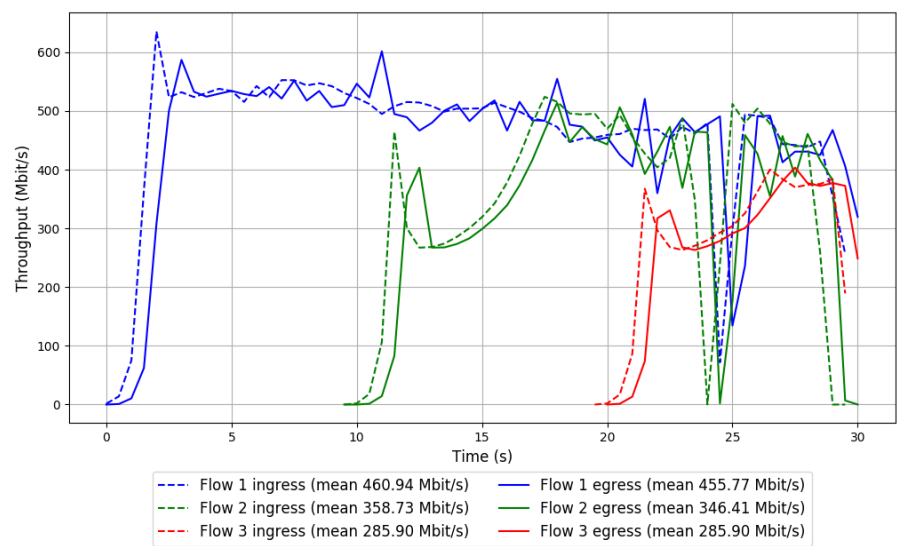


Run 1: Statistics of PCC-Allegro

Start at: 2019-01-03 09:24:43  
End at: 2019-01-03 09:25:13  
Local clock offset: -0.047 ms  
Remote clock offset: -0.095 ms

# Below is generated by plot.py at 2019-01-03 14:52:05  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 778.14 Mbit/s  
95th percentile per-packet one-way delay: 184.428 ms  
Loss rate: 1.68%  
-- Flow 1:  
Average throughput: 455.77 Mbit/s  
95th percentile per-packet one-way delay: 174.906 ms  
Loss rate: 1.12%  
-- Flow 2:  
Average throughput: 346.41 Mbit/s  
95th percentile per-packet one-way delay: 198.335 ms  
Loss rate: 3.43%  
-- Flow 3:  
Average throughput: 285.90 Mbit/s  
95th percentile per-packet one-way delay: 84.399 ms  
Loss rate: 0.00%

Run 1: Report of PCC-Allegro — Data Link

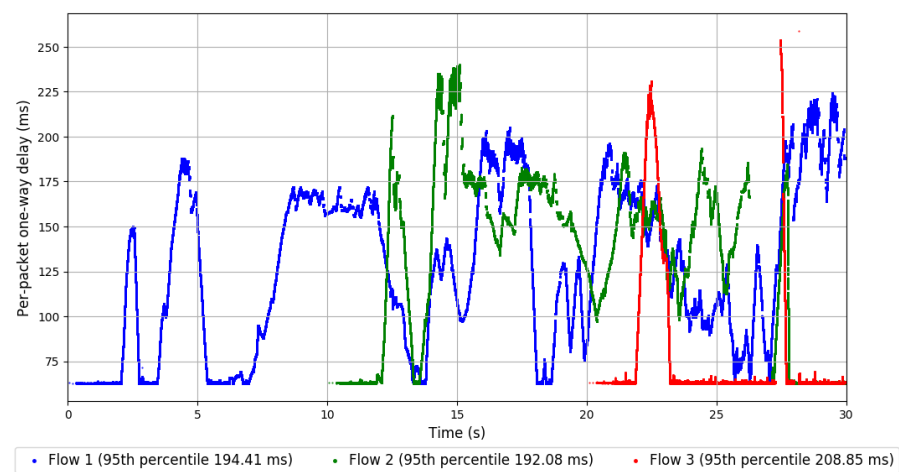
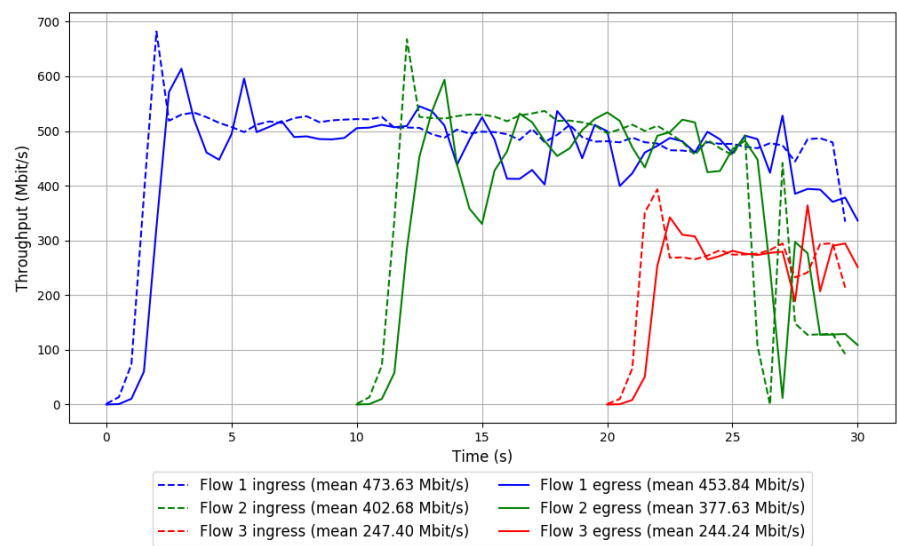


Run 2: Statistics of PCC-Allegro

Start at: 2019-01-03 09:57:38  
End at: 2019-01-03 09:58:08  
Local clock offset: -0.067 ms  
Remote clock offset: -0.079 ms

# Below is generated by plot.py at 2019-01-03 14:53:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 785.11 Mbit/s  
95th percentile per-packet one-way delay: 194.889 ms  
Loss rate: 4.55%  
-- Flow 1:  
Average throughput: 453.84 Mbit/s  
95th percentile per-packet one-way delay: 194.406 ms  
Loss rate: 4.17%  
-- Flow 2:  
Average throughput: 377.63 Mbit/s  
95th percentile per-packet one-way delay: 192.084 ms  
Loss rate: 6.22%  
-- Flow 3:  
Average throughput: 244.24 Mbit/s  
95th percentile per-packet one-way delay: 208.848 ms  
Loss rate: 1.28%

Run 2: Report of PCC-Allegro — Data Link

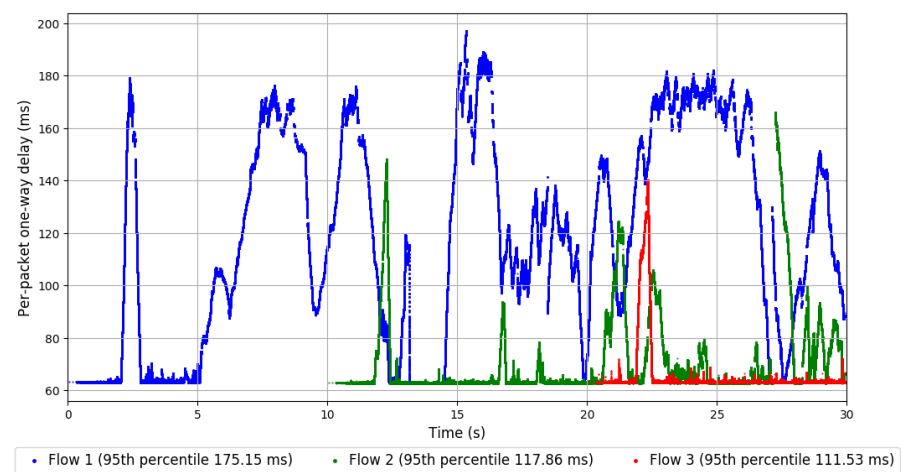
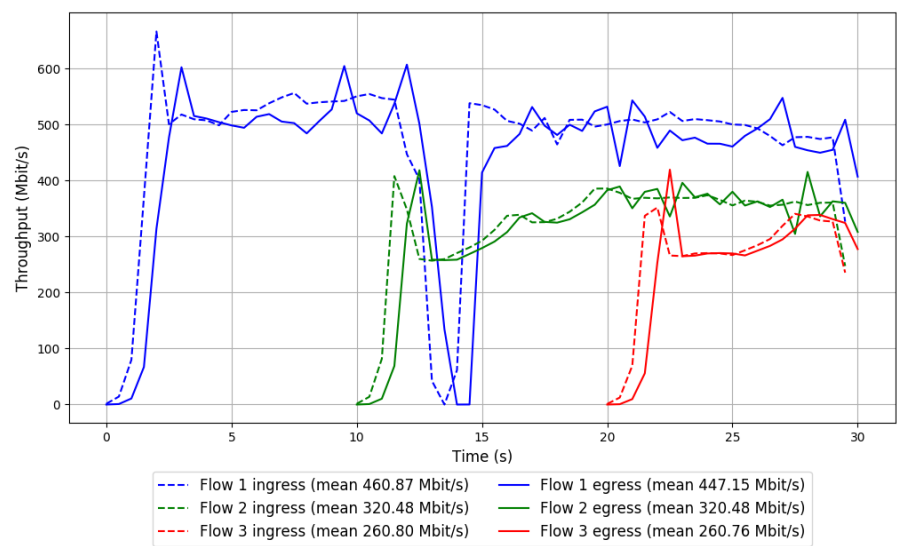


Run 3: Statistics of PCC-Allegro

Start at: 2019-01-03 10:31:24  
End at: 2019-01-03 10:31:54  
Local clock offset: -0.107 ms  
Remote clock offset: -0.118 ms

# Below is generated by plot.py at 2019-01-03 14:53:17  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 745.97 Mbit/s  
95th percentile per-packet one-way delay: 172.478 ms  
Loss rate: 1.81%  
-- Flow 1:  
Average throughput: 447.15 Mbit/s  
95th percentile per-packet one-way delay: 175.153 ms  
Loss rate: 2.97%  
-- Flow 2:  
Average throughput: 320.48 Mbit/s  
95th percentile per-packet one-way delay: 117.858 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 260.76 Mbit/s  
95th percentile per-packet one-way delay: 111.535 ms  
Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



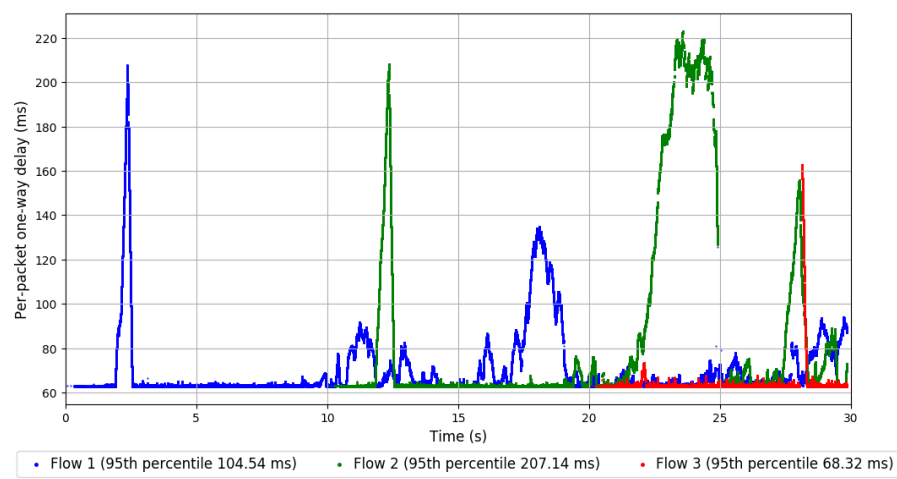
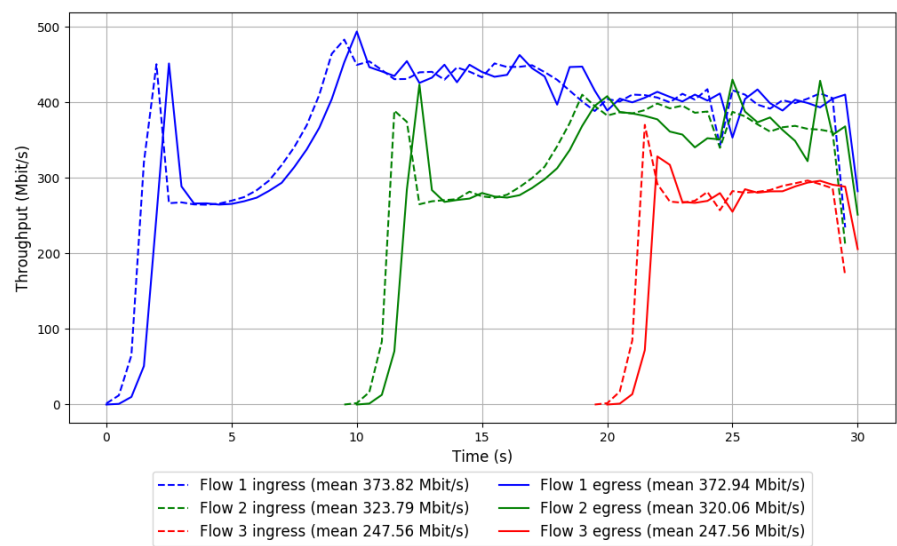


Run 4: Statistics of PCC-Allegro

Start at: 2019-01-03 11:04:55  
End at: 2019-01-03 11:05:25  
Local clock offset: 0.004 ms  
Remote clock offset: -0.113 ms

# Below is generated by plot.py at 2019-01-03 14:53:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 667.81 Mbit/s  
95th percentile per-packet one-way delay: 153.502 ms  
Loss rate: 0.50%  
-- Flow 1:  
Average throughput: 372.94 Mbit/s  
95th percentile per-packet one-way delay: 104.537 ms  
Loss rate: 0.23%  
-- Flow 2:  
Average throughput: 320.06 Mbit/s  
95th percentile per-packet one-way delay: 207.143 ms  
Loss rate: 1.15%  
-- Flow 3:  
Average throughput: 247.56 Mbit/s  
95th percentile per-packet one-way delay: 68.316 ms  
Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-01-03 11:38:15

End at: 2019-01-03 11:38:45

Local clock offset: 0.047 ms

Remote clock offset: 1.167 ms

# Below is generated by plot.py at 2019-01-03 14:53:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 721.67 Mbit/s

95th percentile per-packet one-way delay: 188.176 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 429.92 Mbit/s

95th percentile per-packet one-way delay: 193.738 ms

Loss rate: 3.13%

-- Flow 2:

Average throughput: 303.43 Mbit/s

95th percentile per-packet one-way delay: 82.196 ms

Loss rate: 0.31%

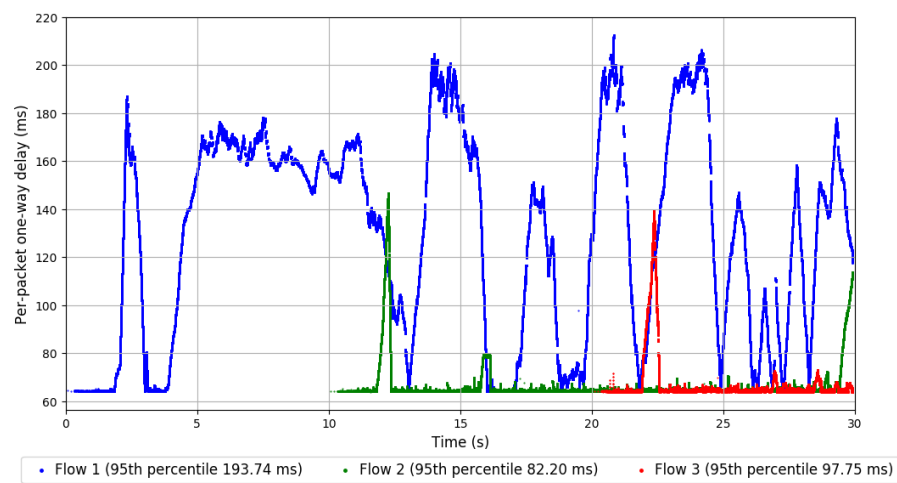
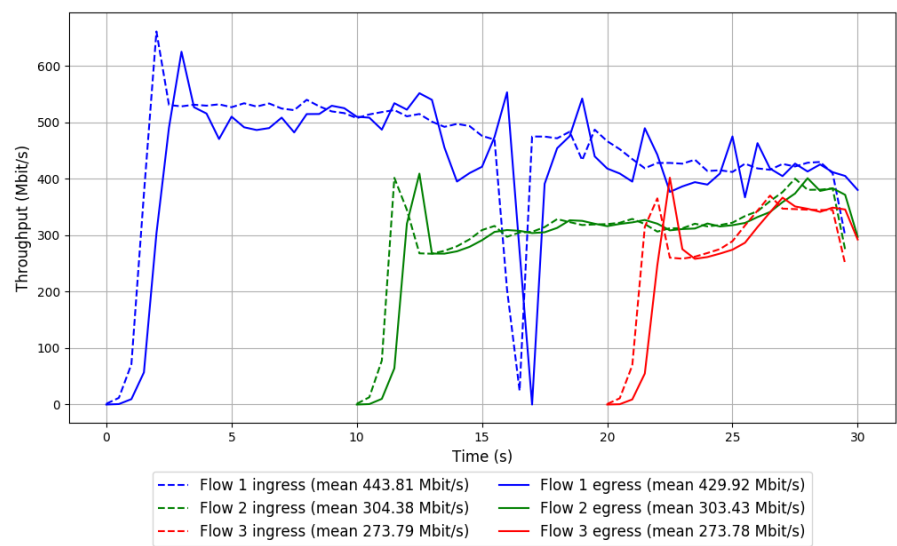
-- Flow 3:

Average throughput: 273.78 Mbit/s

95th percentile per-packet one-way delay: 97.754 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

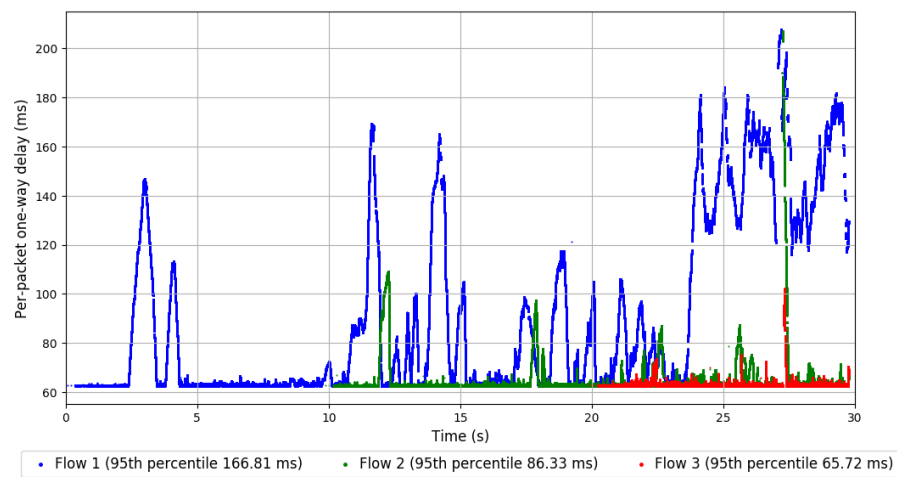
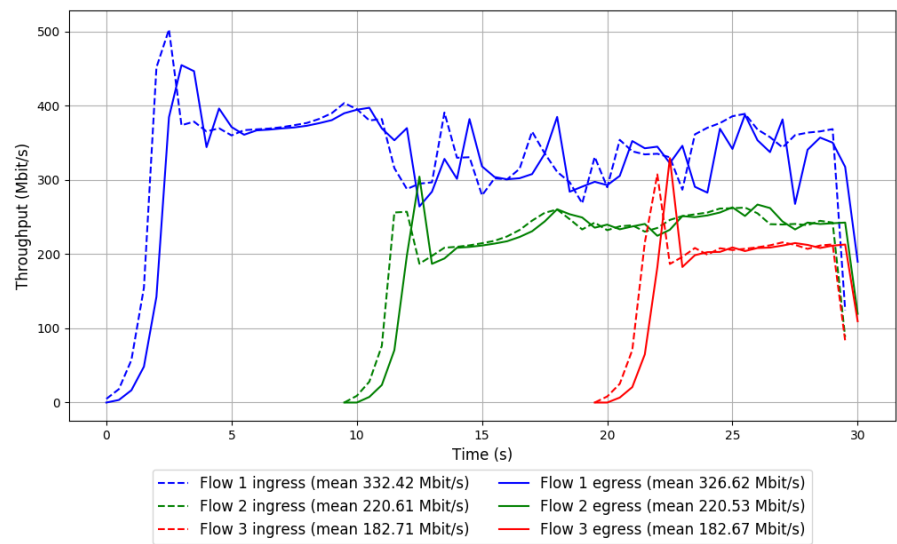


```
Run 1: Statistics of PCC-Expr

Start at: 2019-01-03 09:50:36
End at: 2019-01-03 09:51:06
Local clock offset: -0.032 ms
Remote clock offset: -0.264 ms

# Below is generated by plot.py at 2019-01-03 14:53:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 534.82 Mbit/s
95th percentile per-packet one-way delay: 161.417 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 326.62 Mbit/s
95th percentile per-packet one-way delay: 166.808 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 220.53 Mbit/s
95th percentile per-packet one-way delay: 86.332 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 182.67 Mbit/s
95th percentile per-packet one-way delay: 65.718 ms
Loss rate: 0.01%
```

Run 1: Report of PCC-Expr — Data Link

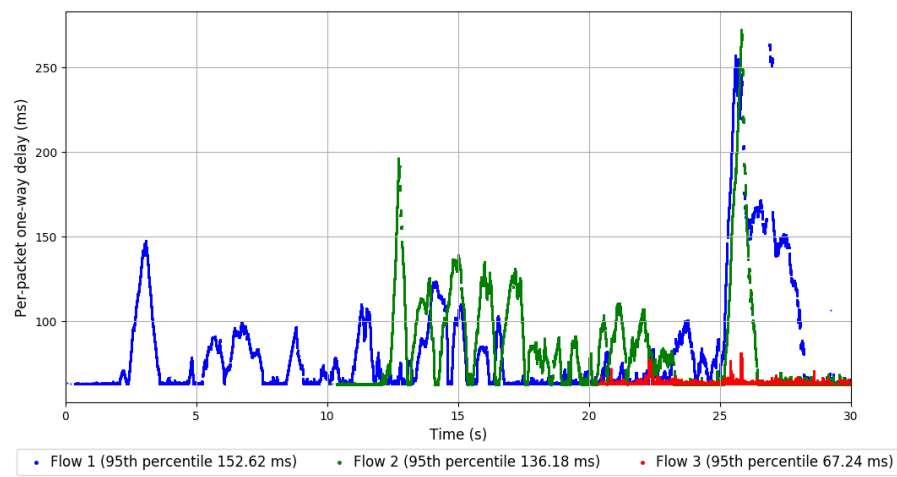
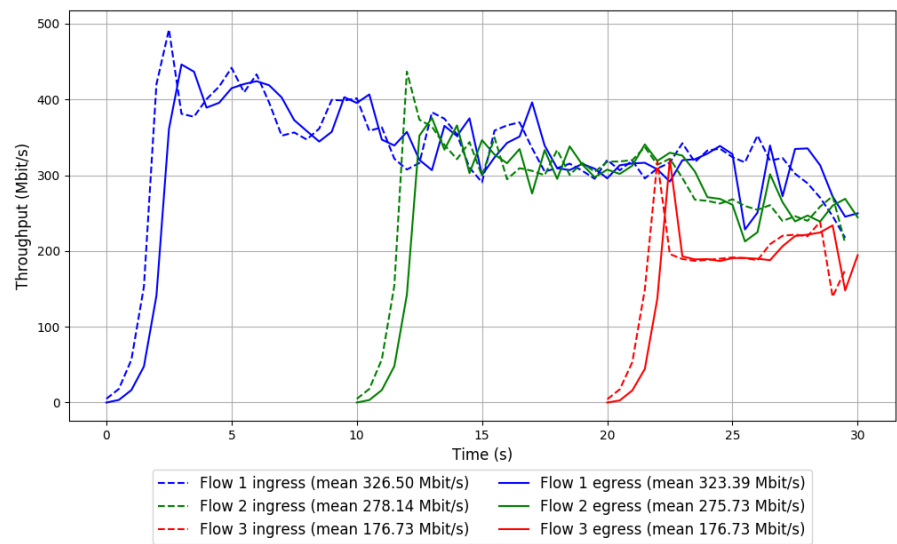


Run 2: Statistics of PCC-Expr

Start at: 2019-01-03 10:24:17  
End at: 2019-01-03 10:24:47  
Local clock offset: -0.11 ms  
Remote clock offset: -0.202 ms

# Below is generated by plot.py at 2019-01-03 14:53:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 565.13 Mbit/s  
95th percentile per-packet one-way delay: 145.247 ms  
Loss rate: 0.82%  
-- Flow 1:  
Average throughput: 323.39 Mbit/s  
95th percentile per-packet one-way delay: 152.622 ms  
Loss rate: 0.95%  
-- Flow 2:  
Average throughput: 275.73 Mbit/s  
95th percentile per-packet one-way delay: 136.178 ms  
Loss rate: 0.86%  
-- Flow 3:  
Average throughput: 176.73 Mbit/s  
95th percentile per-packet one-way delay: 67.238 ms  
Loss rate: 0.00%

Run 2: Report of PCC-Expr — Data Link



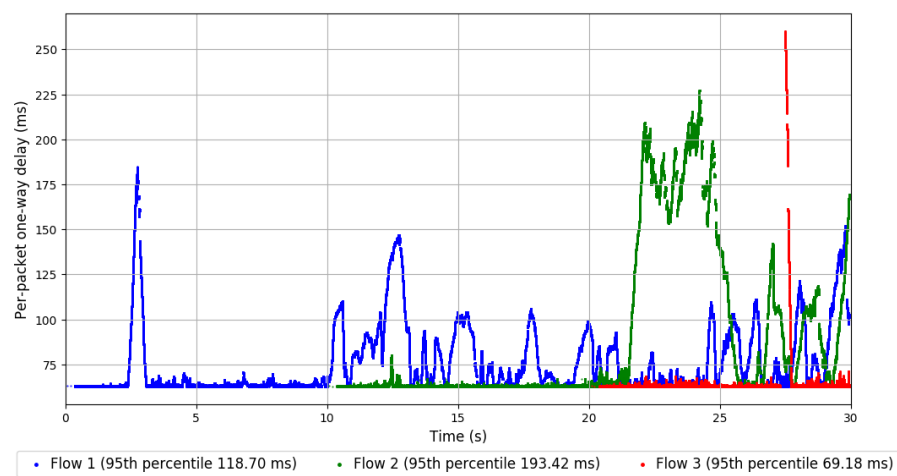
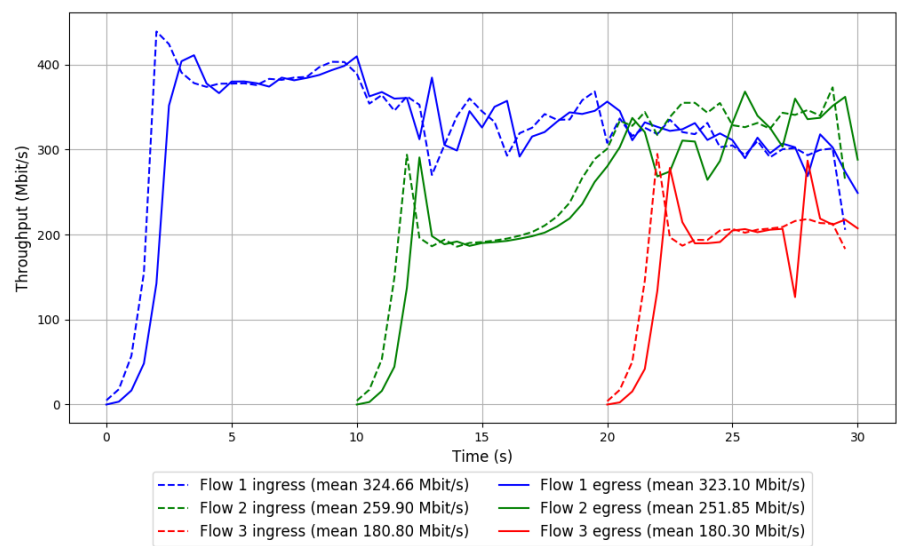


Run 3: Statistics of PCC-Expr

Start at: 2019-01-03 10:57:50  
End at: 2019-01-03 10:58:20  
Local clock offset: -0.051 ms  
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2019-01-03 14:53:18  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 550.03 Mbit/s  
95th percentile per-packet one-way delay: 165.119 ms  
Loss rate: 1.37%  
-- Flow 1:  
Average throughput: 323.10 Mbit/s  
95th percentile per-packet one-way delay: 118.704 ms  
Loss rate: 0.47%  
-- Flow 2:  
Average throughput: 251.85 Mbit/s  
95th percentile per-packet one-way delay: 193.422 ms  
Loss rate: 3.43%  
-- Flow 3:  
Average throughput: 180.30 Mbit/s  
95th percentile per-packet one-way delay: 69.176 ms  
Loss rate: 0.28%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-01-03 11:31:13

End at: 2019-01-03 11:31:43

Local clock offset: 0.057 ms

Remote clock offset: 0.098 ms

# Below is generated by plot.py at 2019-01-03 15:02:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 511.07 Mbit/s

95th percentile per-packet one-way delay: 122.447 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 292.62 Mbit/s

95th percentile per-packet one-way delay: 141.040 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 237.79 Mbit/s

95th percentile per-packet one-way delay: 71.261 ms

Loss rate: 0.10%

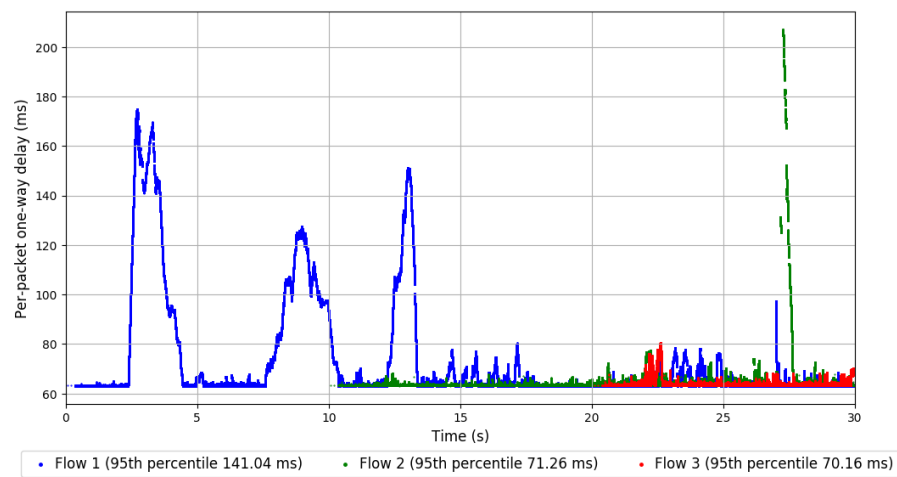
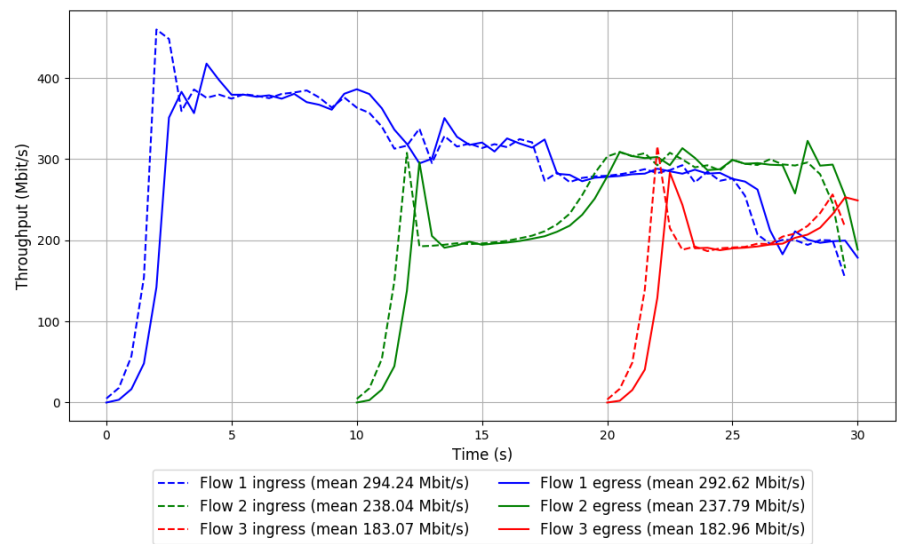
-- Flow 3:

Average throughput: 182.96 Mbit/s

95th percentile per-packet one-way delay: 70.156 ms

Loss rate: 0.03%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-01-03 12:04:29

End at: 2019-01-03 12:04:59

Local clock offset: -0.038 ms

Remote clock offset: 0.066 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 549.74 Mbit/s

95th percentile per-packet one-way delay: 184.745 ms

Loss rate: 3.02%

-- Flow 1:

Average throughput: 307.19 Mbit/s

95th percentile per-packet one-way delay: 170.000 ms

Loss rate: 3.45%

-- Flow 2:

Average throughput: 282.75 Mbit/s

95th percentile per-packet one-way delay: 200.900 ms

Loss rate: 3.15%

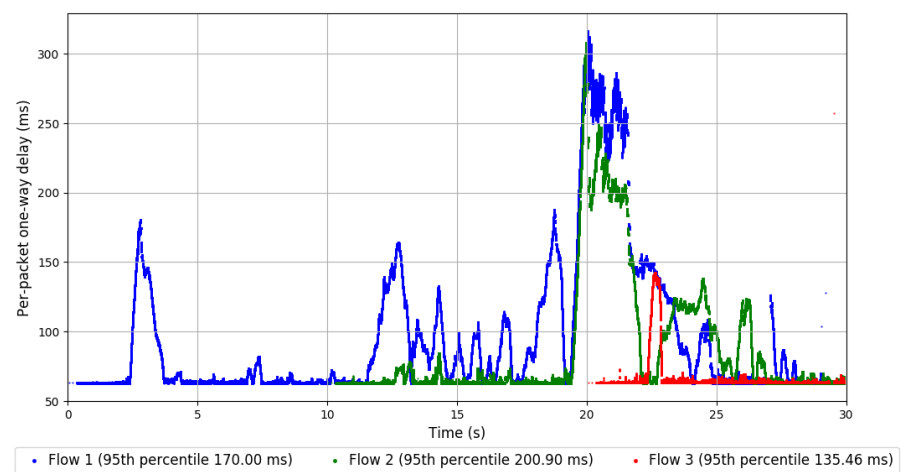
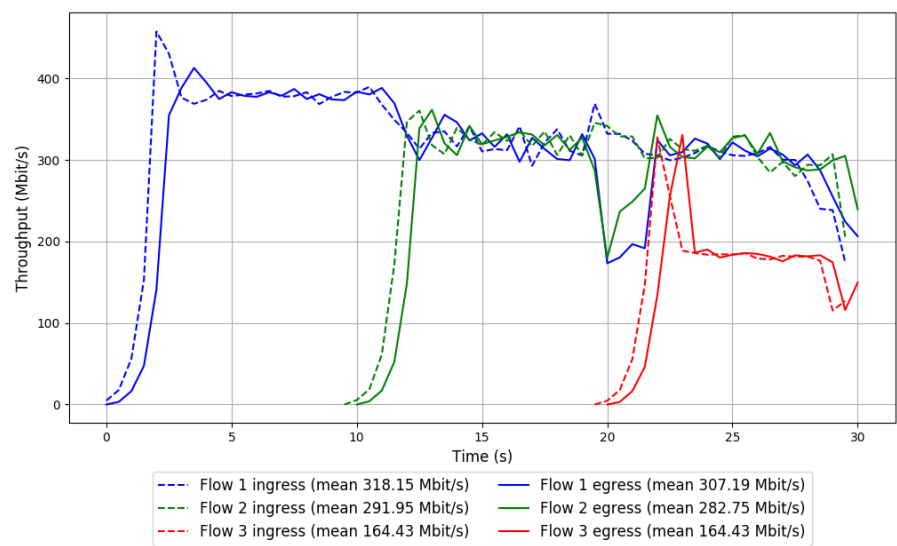
-- Flow 3:

Average throughput: 164.43 Mbit/s

95th percentile per-packet one-way delay: 135.456 ms

Loss rate: 0.00%

Run 5: Report of PCC-Expr — Data Link

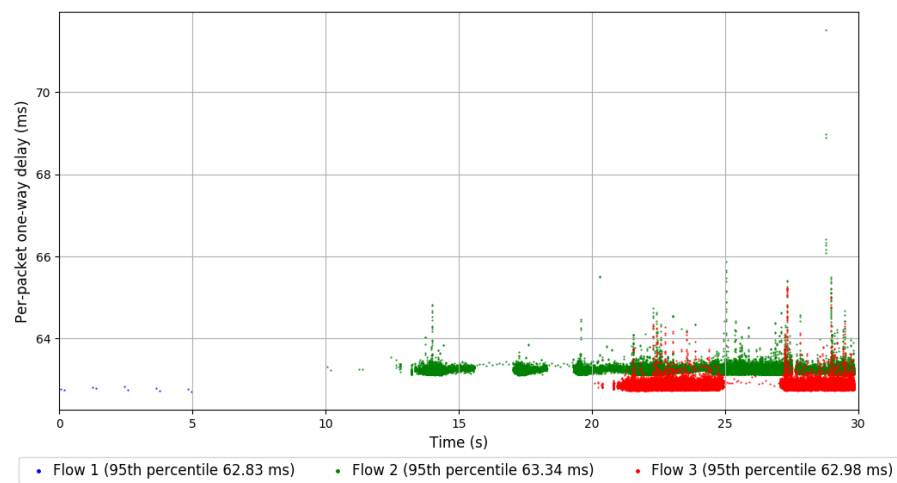
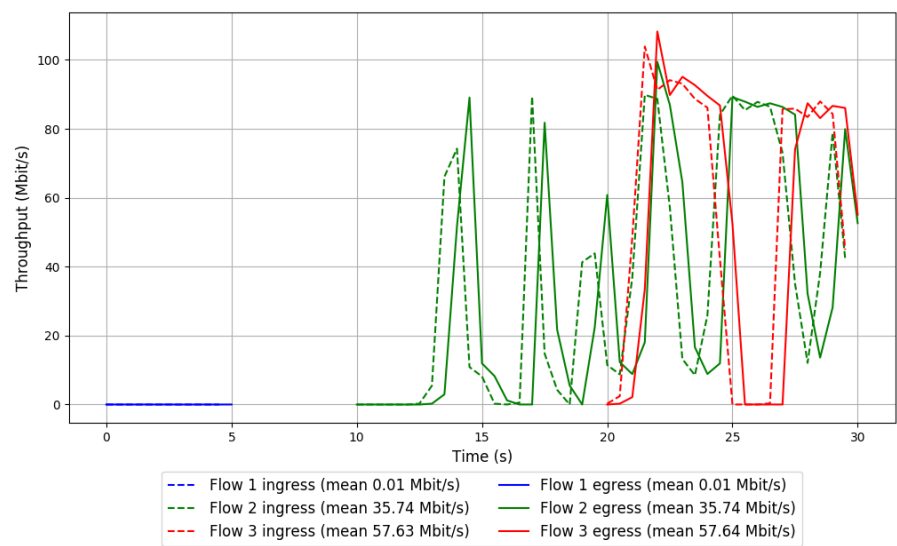


Run 1: Statistics of QUIC Cubic

Start at: 2019-01-03 09:47:30  
End at: 2019-01-03 09:48:00  
Local clock offset: -0.012 ms  
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 42.60 Mbit/s  
95th percentile per-packet one-way delay: 63.313 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.01 Mbit/s  
95th percentile per-packet one-way delay: 62.827 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 35.74 Mbit/s  
95th percentile per-packet one-way delay: 63.343 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 57.64 Mbit/s  
95th percentile per-packet one-way delay: 62.981 ms  
Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link





Run 2: Statistics of QUIC Cubic

Start at: 2019-01-03 10:21:09

End at: 2019-01-03 10:21:39

Local clock offset: -0.12 ms

Remote clock offset: 0.774 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.85 Mbit/s

95th percentile per-packet one-way delay: 63.773 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 39.80 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.22 Mbit/s

95th percentile per-packet one-way delay: 63.820 ms

Loss rate: 0.00%

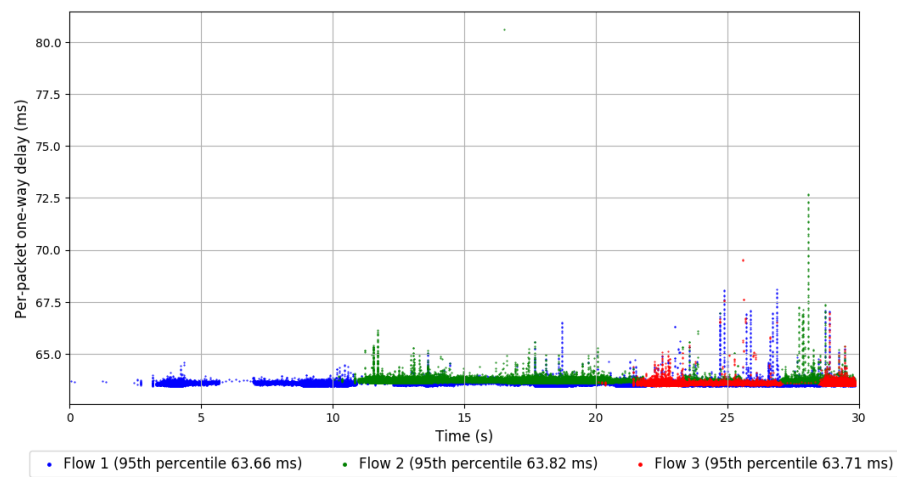
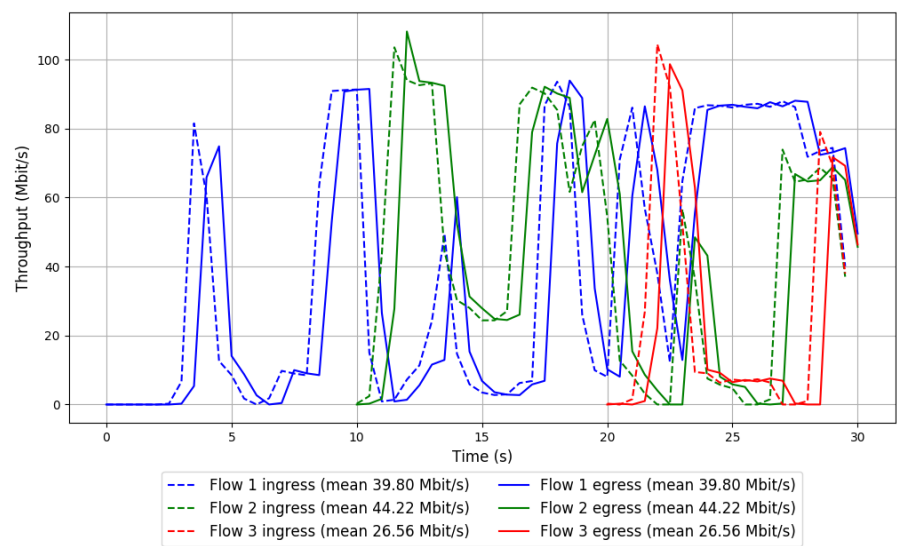
-- Flow 3:

Average throughput: 26.56 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

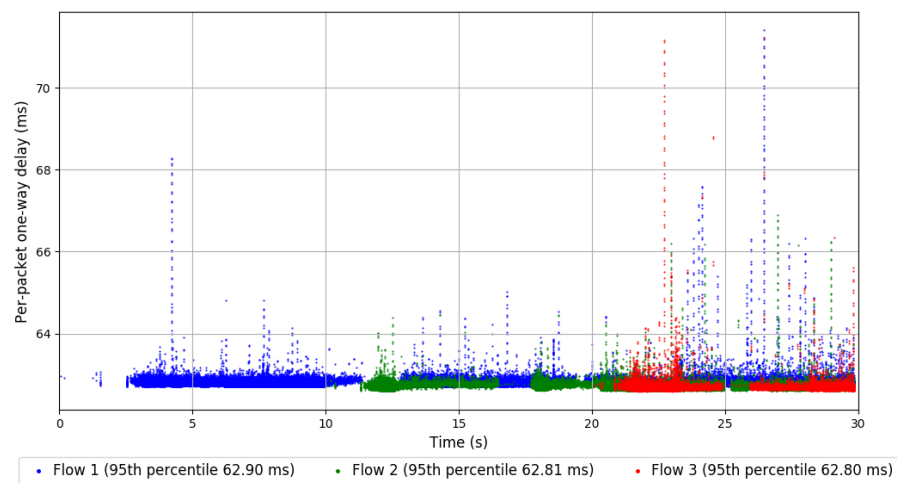
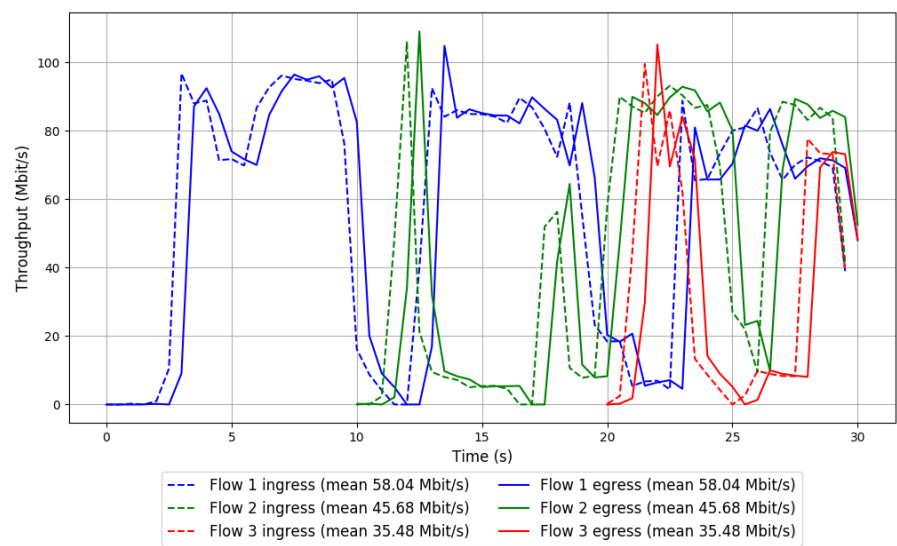


Run 3: Statistics of QUIC Cubic

Start at: 2019-01-03 10:54:40  
End at: 2019-01-03 10:55:11  
Local clock offset: -0.026 ms  
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 100.01 Mbit/s  
95th percentile per-packet one-way delay: 62.882 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 58.04 Mbit/s  
95th percentile per-packet one-way delay: 62.901 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 45.68 Mbit/s  
95th percentile per-packet one-way delay: 62.809 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 35.48 Mbit/s  
95th percentile per-packet one-way delay: 62.801 ms  
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-01-03 11:28:03

End at: 2019-01-03 11:28:33

Local clock offset: 0.009 ms

Remote clock offset: 0.092 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.10 Mbit/s

95th percentile per-packet one-way delay: 63.188 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.84 Mbit/s

95th percentile per-packet one-way delay: 63.134 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.82 Mbit/s

95th percentile per-packet one-way delay: 63.223 ms

Loss rate: 0.00%

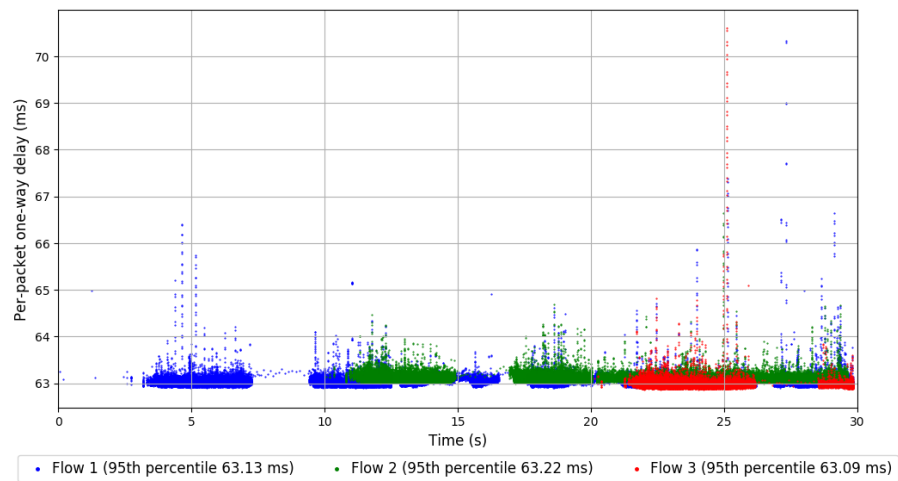
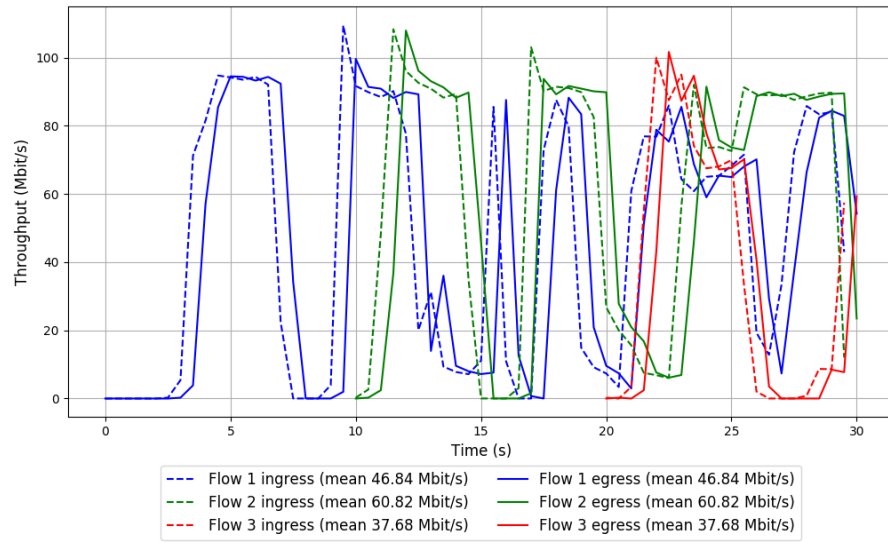
-- Flow 3:

Average throughput: 37.68 Mbit/s

95th percentile per-packet one-way delay: 63.085 ms

Loss rate: 0.00%

#### Run 4: Report of QUIC Cubic — Data Link

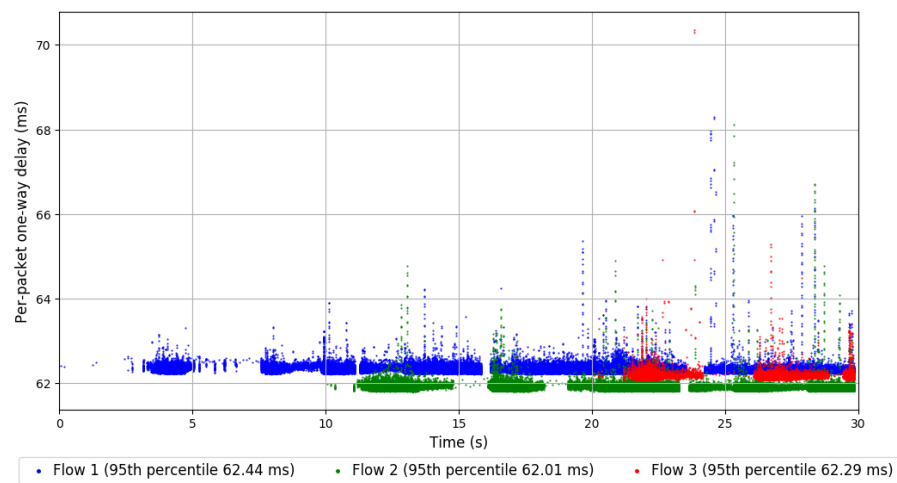
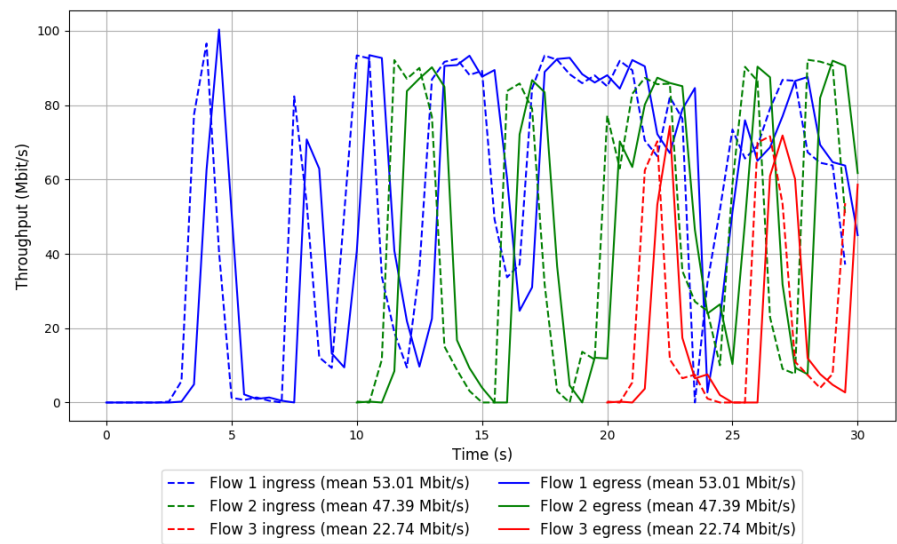


Run 5: Statistics of QUIC Cubic

Start at: 2019-01-03 12:01:21  
End at: 2019-01-03 12:01:51  
Local clock offset: 0.025 ms  
Remote clock offset: -0.763 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 91.91 Mbit/s  
95th percentile per-packet one-way delay: 62.407 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 53.01 Mbit/s  
95th percentile per-packet one-way delay: 62.436 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 47.39 Mbit/s  
95th percentile per-packet one-way delay: 62.014 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 22.74 Mbit/s  
95th percentile per-packet one-way delay: 62.286 ms  
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



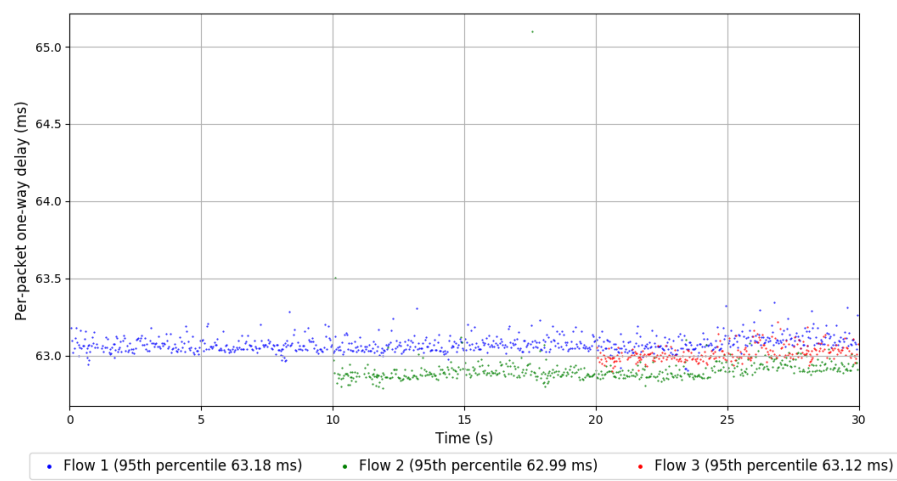
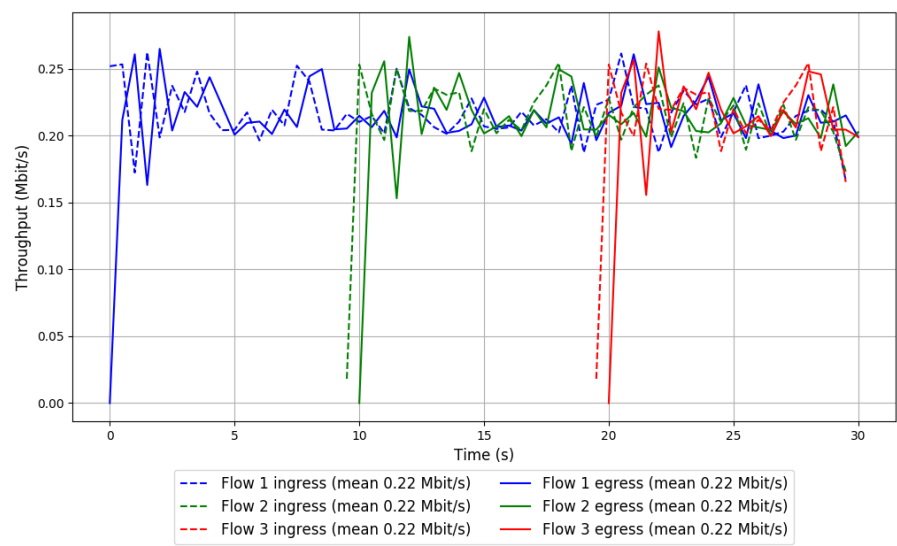


Run 1: Statistics of SReAM

Start at: 2019-01-03 09:44:15  
End at: 2019-01-03 09:44:45  
Local clock offset: -0.061 ms  
Remote clock offset: -0.072 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 63.144 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 63.176 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 62.993 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 63.117 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

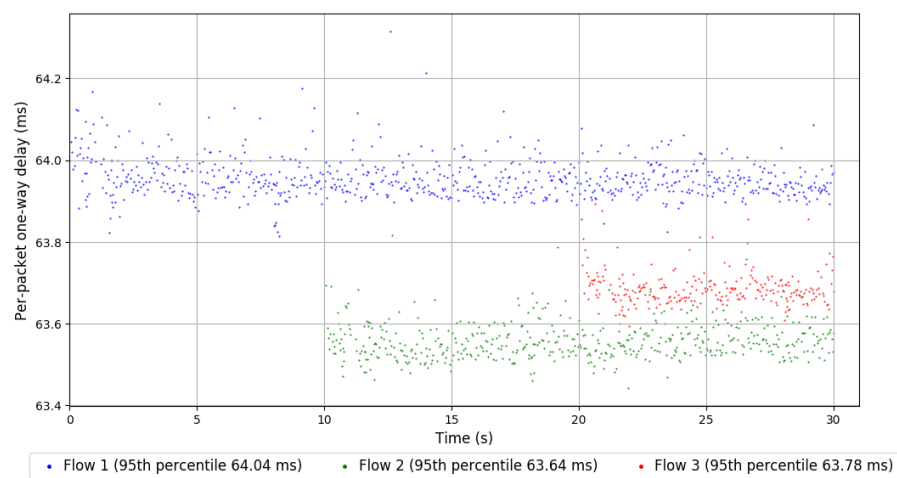
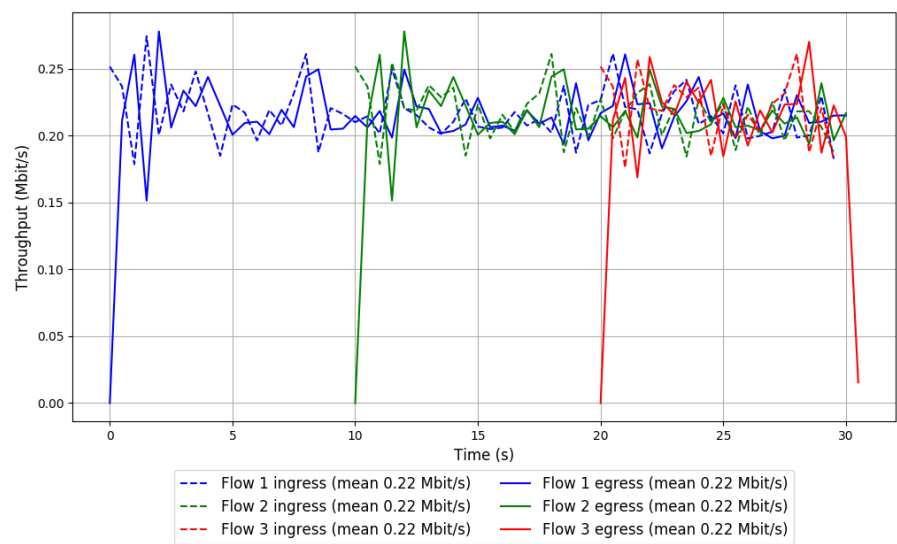


Run 2: Statistics of SReAM

Start at: 2019-01-03 10:18:00  
End at: 2019-01-03 10:18:30  
Local clock offset: -0.117 ms  
Remote clock offset: 0.47 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 64.015 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 64.044 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 63.640 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 63.780 ms  
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2019-01-03 10:51:23

End at: 2019-01-03 10:51:53

Local clock offset: -0.033 ms

Remote clock offset: -0.25 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 63.094 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.116 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.889 ms

Loss rate: 0.00%

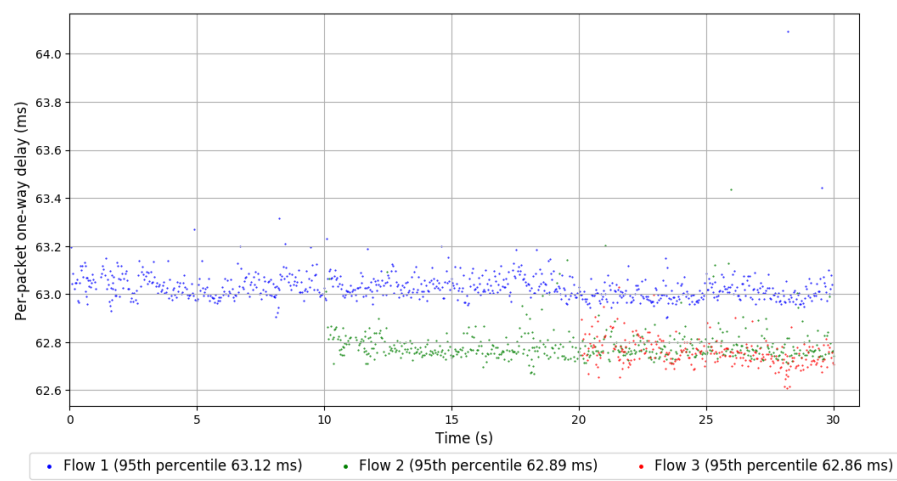
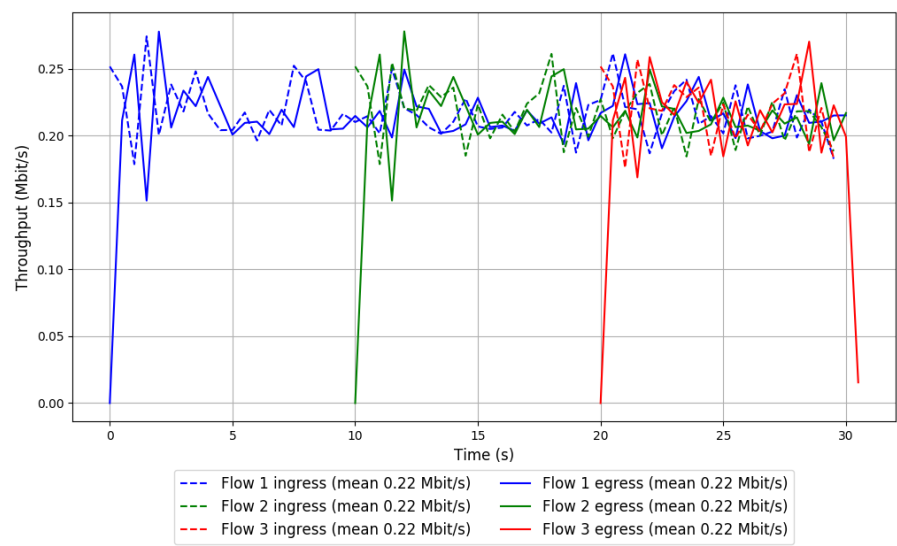
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.863 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-01-03 11:24:42

End at: 2019-01-03 11:25:12

Local clock offset: 0.021 ms

Remote clock offset: 0.502 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 64.015 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.010 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.031 ms

Loss rate: 0.00%

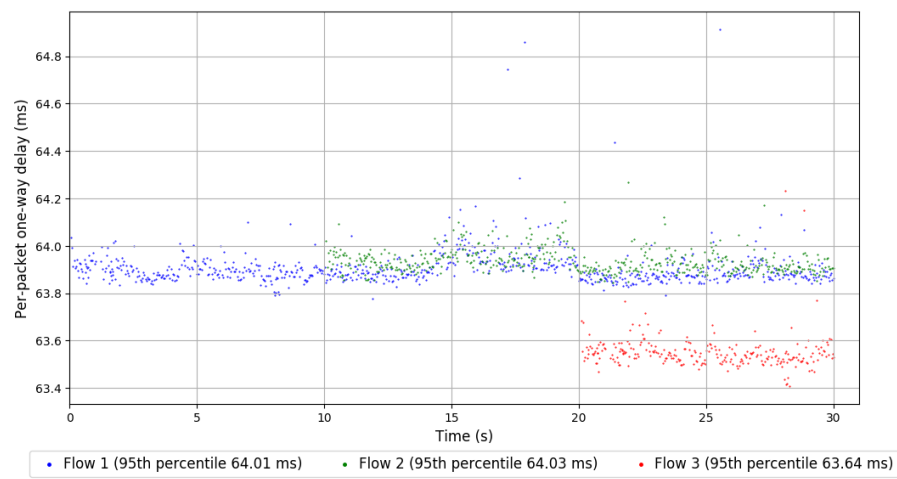
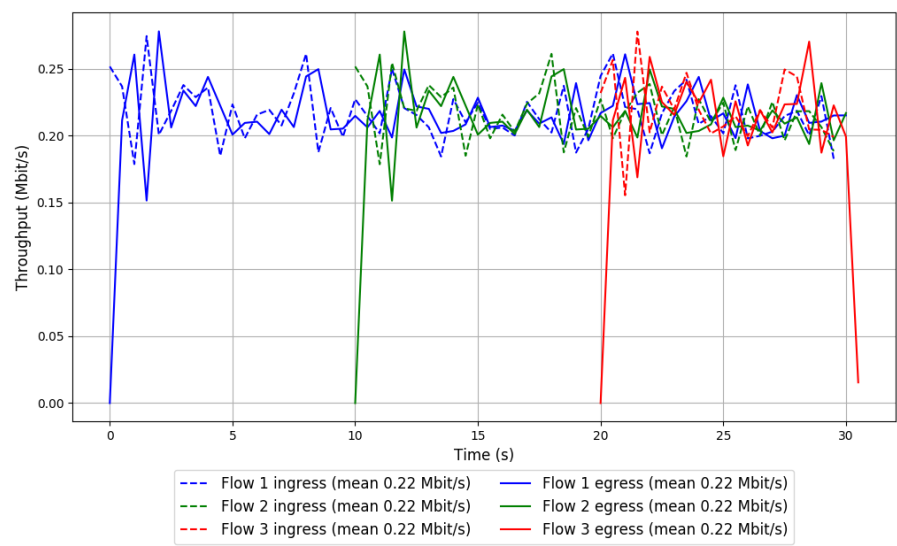
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.643 ms

Loss rate: 0.00%

Run 4: Report of SCRaM — Data Link



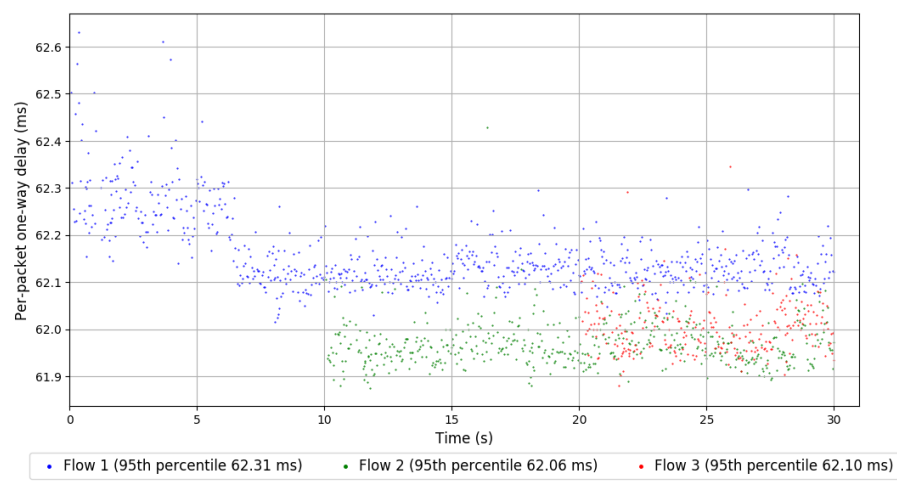
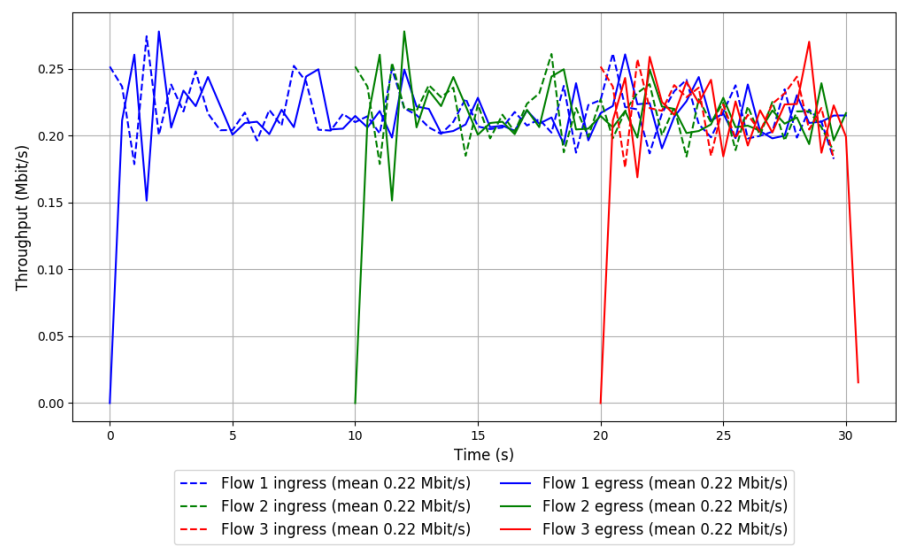


Run 5: Statistics of SReAM

Start at: 2019-01-03 11:58:01  
End at: 2019-01-03 11:58:31  
Local clock offset: -0.013 ms  
Remote clock offset: -0.919 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.44 Mbit/s  
95th percentile per-packet one-way delay: 62.278 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 62.313 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 62.058 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 62.104 ms  
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2019-01-03 09:26:49

End at: 2019-01-03 09:27:19

Local clock offset: -0.065 ms

Remote clock offset: -0.27 ms

# Below is generated by plot.py at 2019-01-03 15:08:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 63.713 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 6.83 Mbit/s

95th percentile per-packet one-way delay: 63.524 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.79 Mbit/s

95th percentile per-packet one-way delay: 63.867 ms

Loss rate: 0.00%

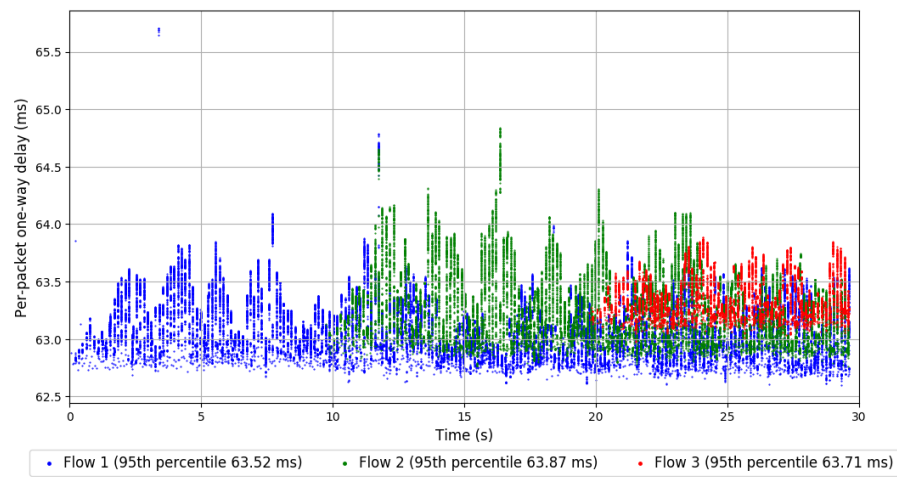
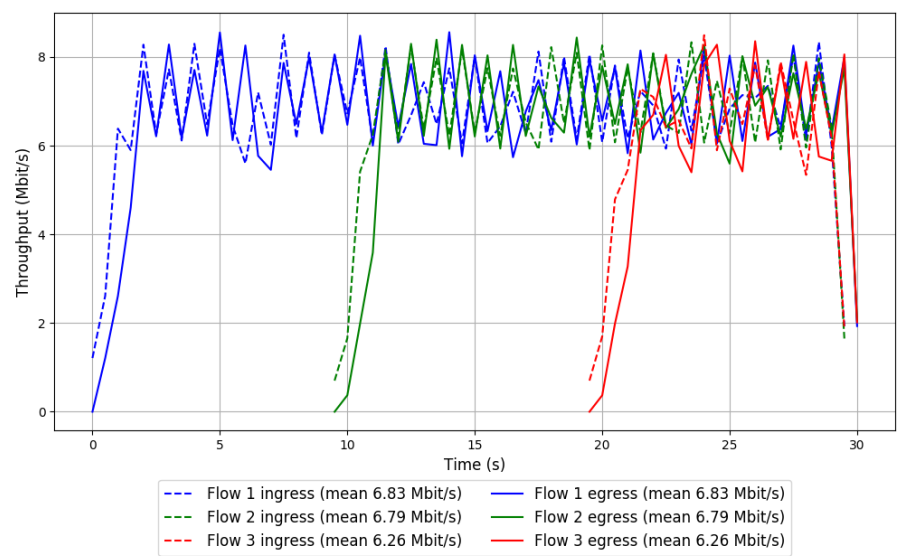
-- Flow 3:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 63.707 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

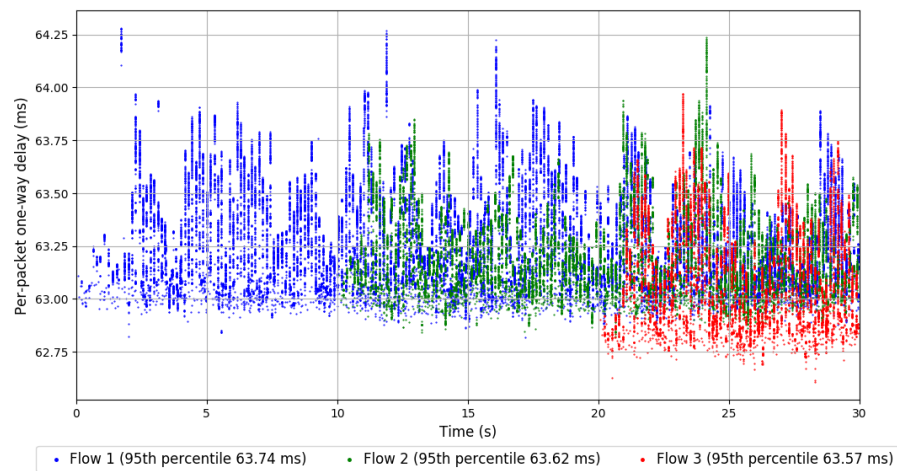
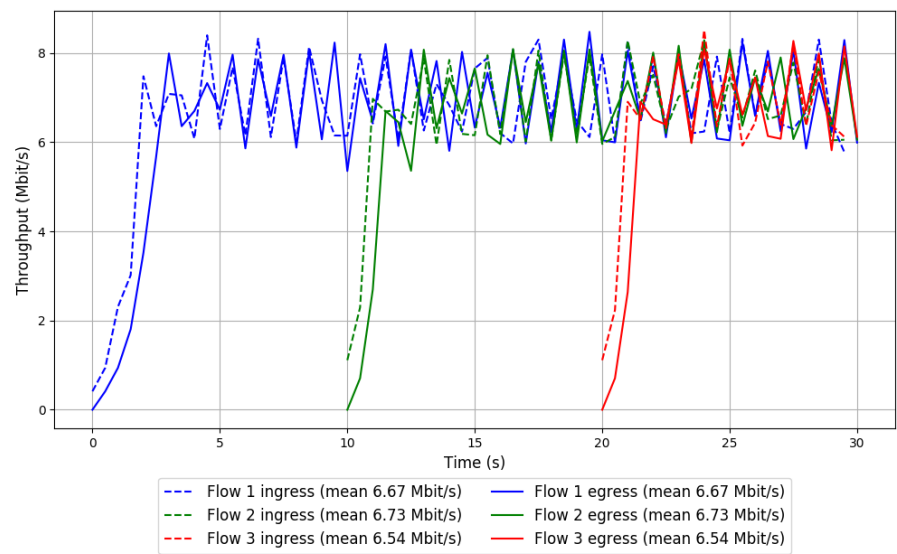


Run 2: Statistics of Sprout

Start at: 2019-01-03 09:59:44  
End at: 2019-01-03 10:00:14  
Local clock offset: -0.043 ms  
Remote clock offset: -0.048 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.30 Mbit/s  
95th percentile per-packet one-way delay: 63.682 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 6.67 Mbit/s  
95th percentile per-packet one-way delay: 63.736 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.73 Mbit/s  
95th percentile per-packet one-way delay: 63.622 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 6.54 Mbit/s  
95th percentile per-packet one-way delay: 63.566 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

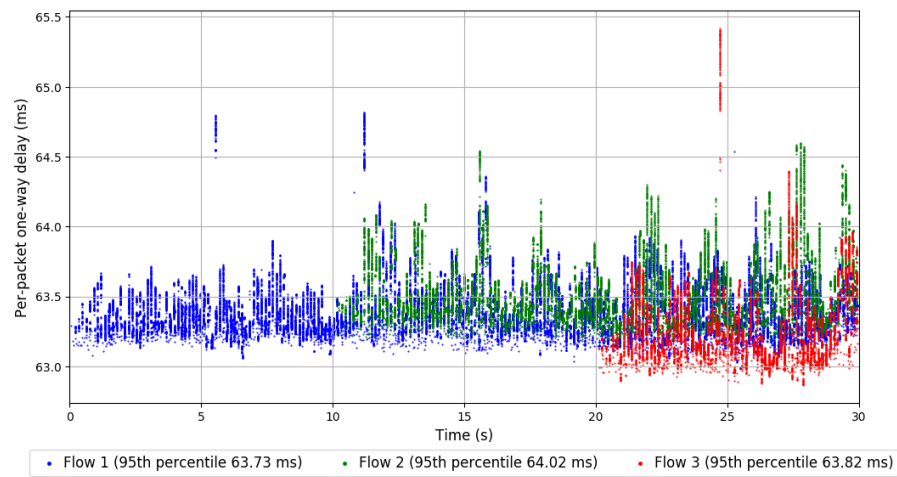
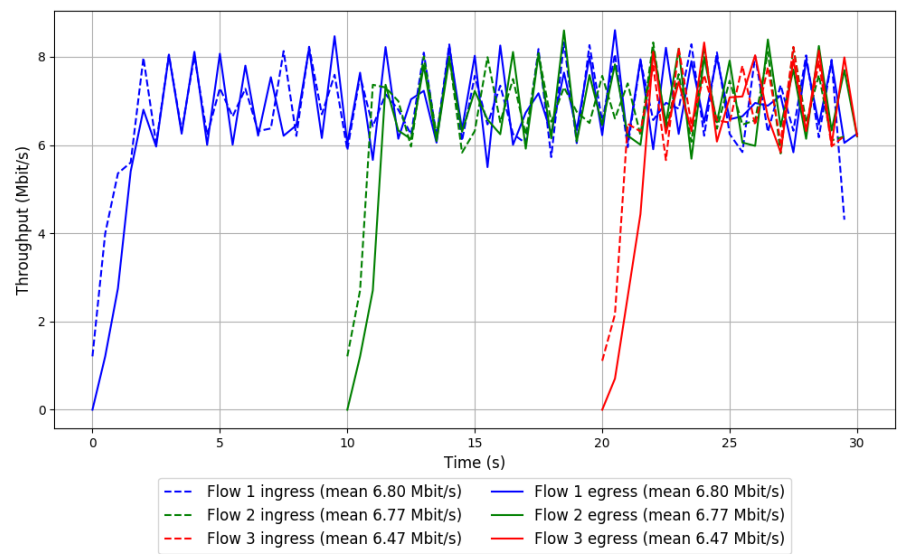


Run 3: Statistics of Sprout

Start at: 2019-01-03 10:33:27  
End at: 2019-01-03 10:33:57  
Local clock offset: -0.069 ms  
Remote clock offset: -0.017 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.43 Mbit/s  
95th percentile per-packet one-way delay: 63.880 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 6.80 Mbit/s  
95th percentile per-packet one-way delay: 63.735 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.77 Mbit/s  
95th percentile per-packet one-way delay: 64.016 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 6.47 Mbit/s  
95th percentile per-packet one-way delay: 63.823 ms  
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



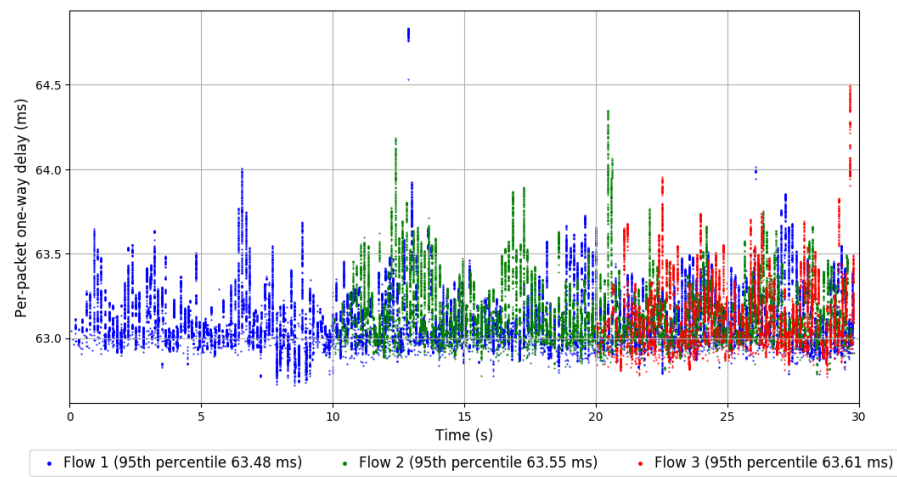
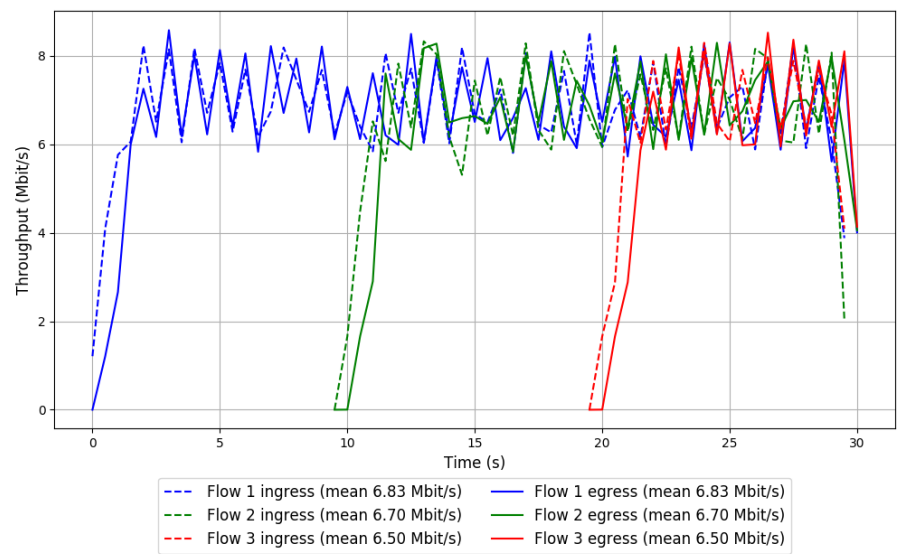


#### Run 4: Statistics of Sprout

Start at: 2019-01-03 11:06:53  
End at: 2019-01-03 11:07:23  
Local clock offset: 0.001 ms  
Remote clock offset: -0.184 ms

```
# Below is generated by plot.py at 2019-01-03 15:08:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.46 Mbit/s
95th percentile per-packet one-way delay: 63.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.484 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 63.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 63.612 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

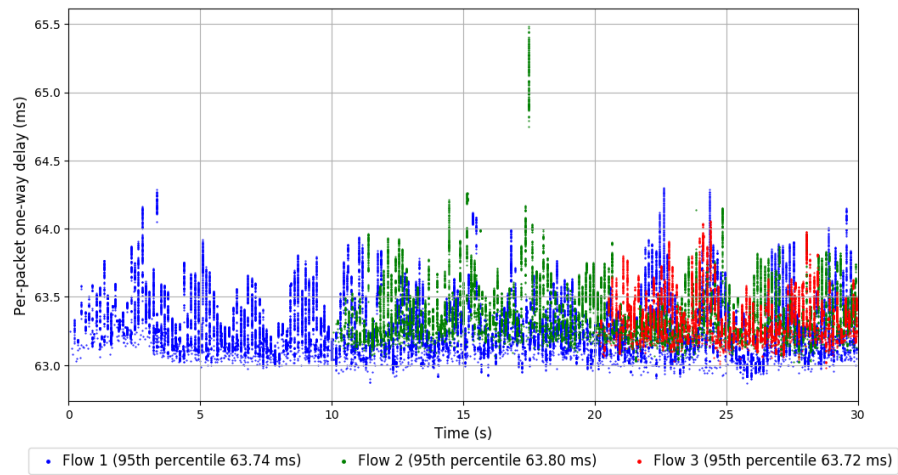
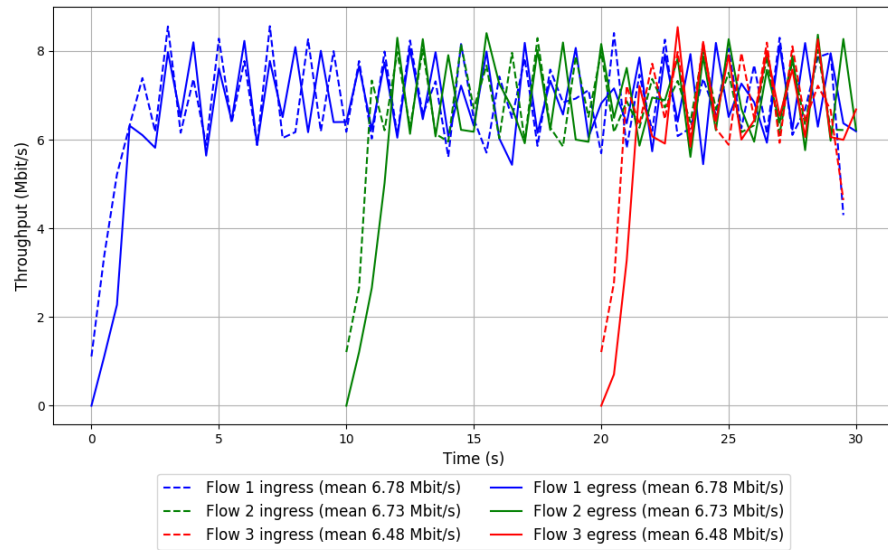


Run 5: Statistics of Sprout

Start at: 2019-01-03 11:40:17  
End at: 2019-01-03 11:40:47  
Local clock offset: -0.003 ms  
Remote clock offset: 0.002 ms

# Below is generated by plot.py at 2019-01-03 15:08:07  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 13.39 Mbit/s  
95th percentile per-packet one-way delay: 63.759 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 6.78 Mbit/s  
95th percentile per-packet one-way delay: 63.739 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 6.73 Mbit/s  
95th percentile per-packet one-way delay: 63.800 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 6.48 Mbit/s  
95th percentile per-packet one-way delay: 63.723 ms  
Loss rate: 0.00%

## Run 5: Report of Sprout — Data Link

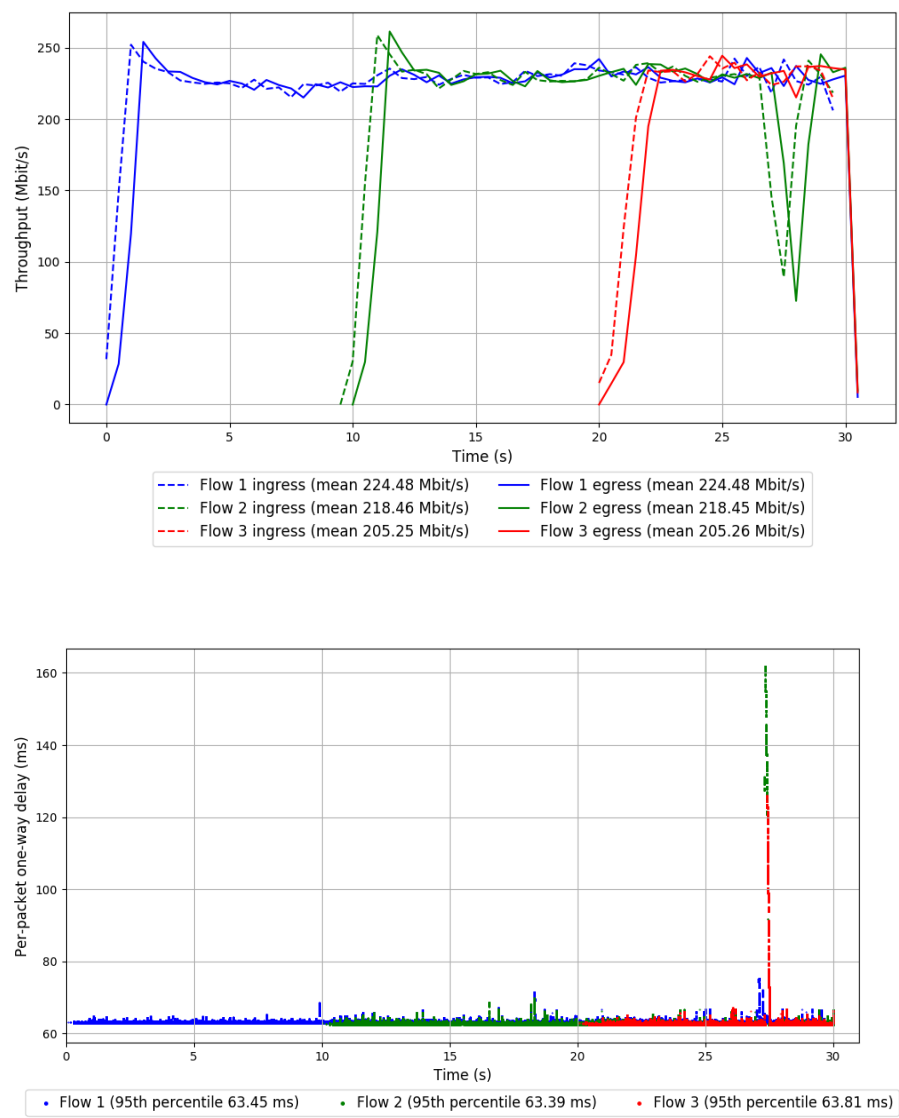


```
Run 1: Statistics of TaoVA-100x

Start at: 2019-01-03 09:54:24
End at: 2019-01-03 09:54:54
Local clock offset: -0.057 ms
Remote clock offset: -0.375 ms

# Below is generated by plot.py at 2019-01-03 15:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 438.28 Mbit/s
95th percentile per-packet one-way delay: 63.472 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.48 Mbit/s
95th percentile per-packet one-way delay: 63.447 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 218.45 Mbit/s
95th percentile per-packet one-way delay: 63.392 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 205.26 Mbit/s
95th percentile per-packet one-way delay: 63.807 ms
Loss rate: 0.00%
```

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-01-03 10:28:13

End at: 2019-01-03 10:28:43

Local clock offset: -0.129 ms

Remote clock offset: -0.45 ms

# Below is generated by plot.py at 2019-01-03 15:12:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 428.92 Mbit/s

95th percentile per-packet one-way delay: 63.415 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 219.40 Mbit/s

95th percentile per-packet one-way delay: 63.223 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 214.33 Mbit/s

95th percentile per-packet one-way delay: 63.438 ms

Loss rate: 0.00%

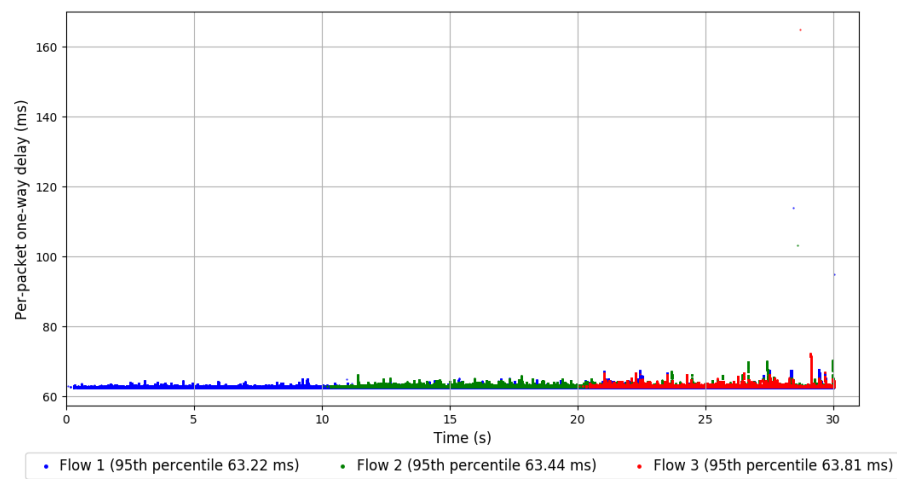
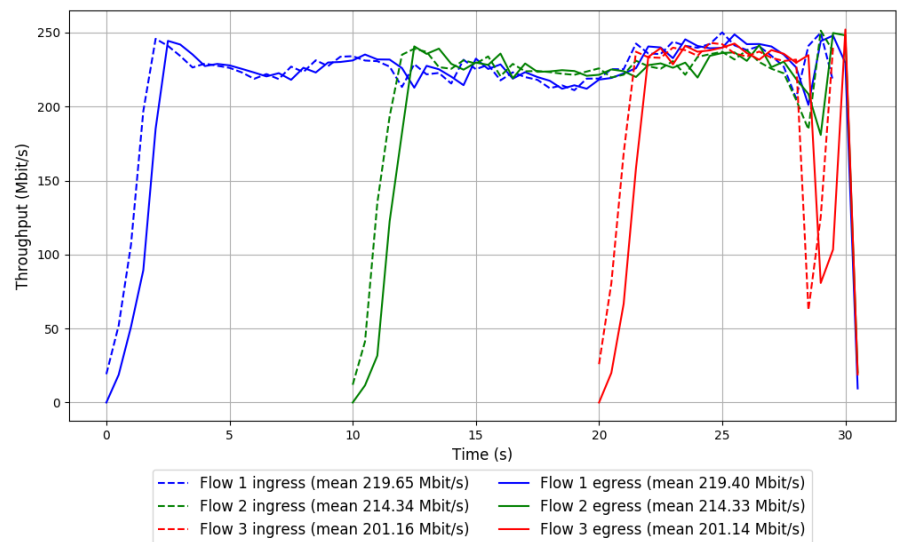
-- Flow 3:

Average throughput: 201.14 Mbit/s

95th percentile per-packet one-way delay: 63.811 ms

Loss rate: 0.00%

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





Run 3: Statistics of TaoVA-100x

Start at: 2019-01-03 11:01:42

End at: 2019-01-03 11:02:12

Local clock offset: -0.04 ms

Remote clock offset: 0.637 ms

# Below is generated by plot.py at 2019-01-03 15:13:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 444.71 Mbit/s

95th percentile per-packet one-way delay: 64.333 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 225.57 Mbit/s

95th percentile per-packet one-way delay: 64.165 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 225.05 Mbit/s

95th percentile per-packet one-way delay: 64.365 ms

Loss rate: 0.00%

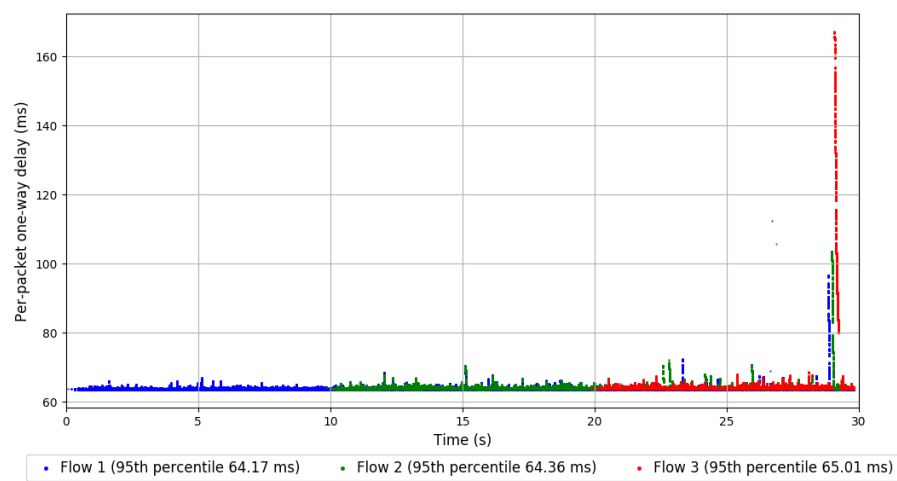
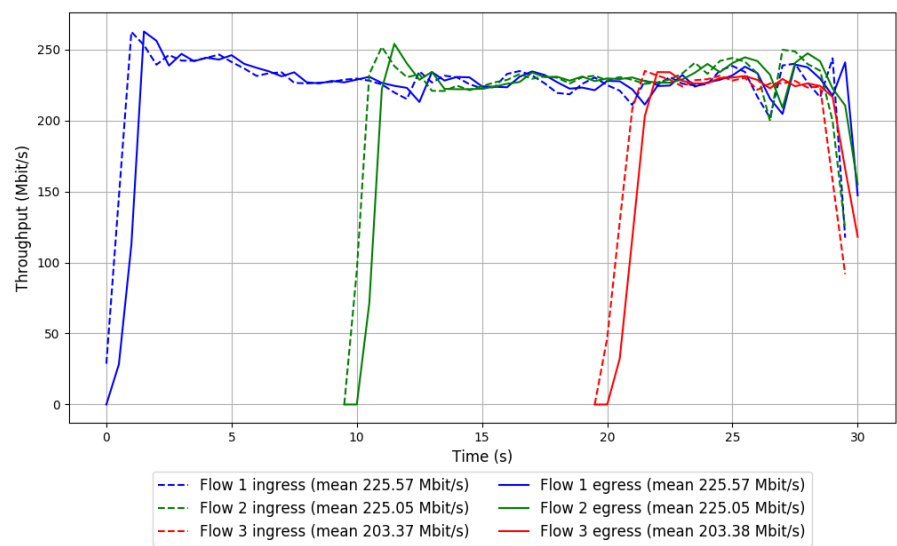
-- Flow 3:

Average throughput: 203.38 Mbit/s

95th percentile per-packet one-way delay: 65.009 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-01-03 11:35:03

End at: 2019-01-03 11:35:33

Local clock offset: 0.059 ms

Remote clock offset: 0.06 ms

# Below is generated by plot.py at 2019-01-03 15:13:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 434.17 Mbit/s

95th percentile per-packet one-way delay: 63.824 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 221.07 Mbit/s

95th percentile per-packet one-way delay: 63.660 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 212.12 Mbit/s

95th percentile per-packet one-way delay: 63.946 ms

Loss rate: 0.00%

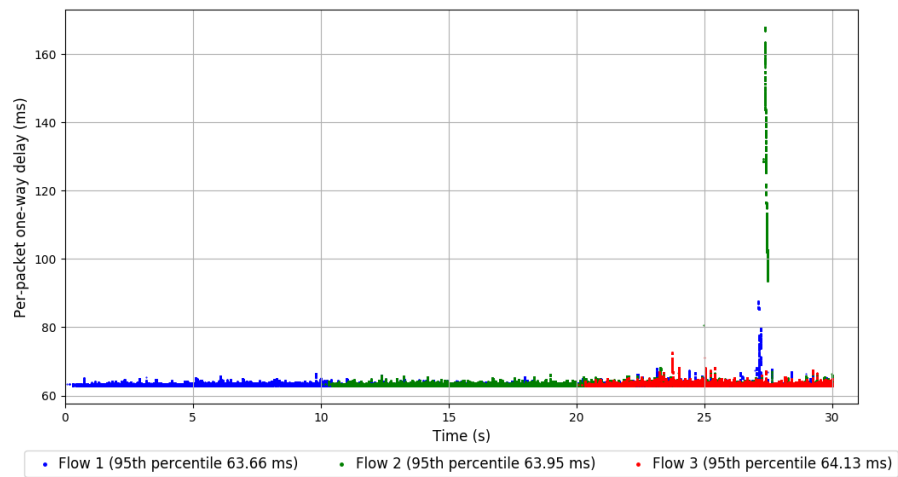
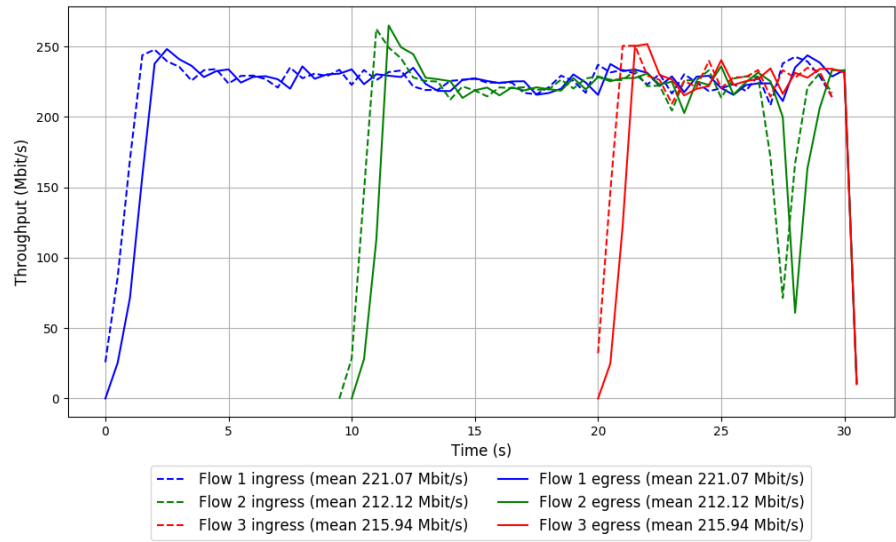
-- Flow 3:

Average throughput: 215.94 Mbit/s

95th percentile per-packet one-way delay: 64.130 ms

Loss rate: 0.00%

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

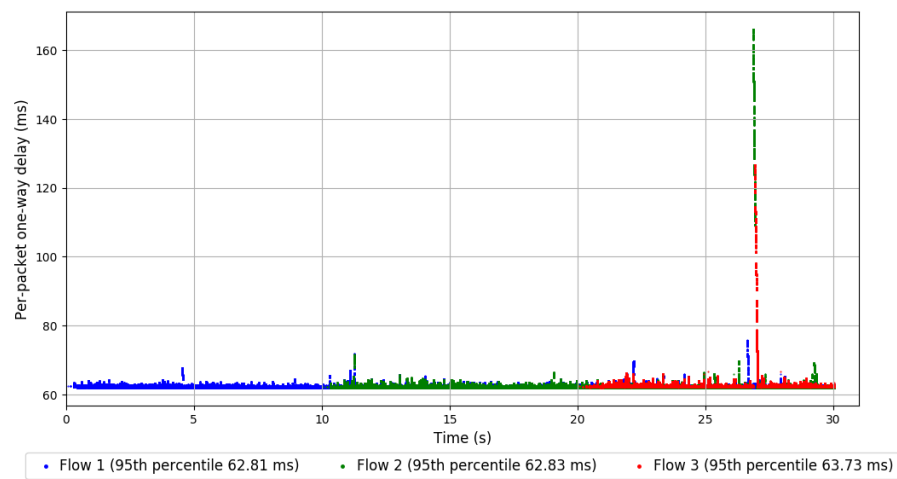
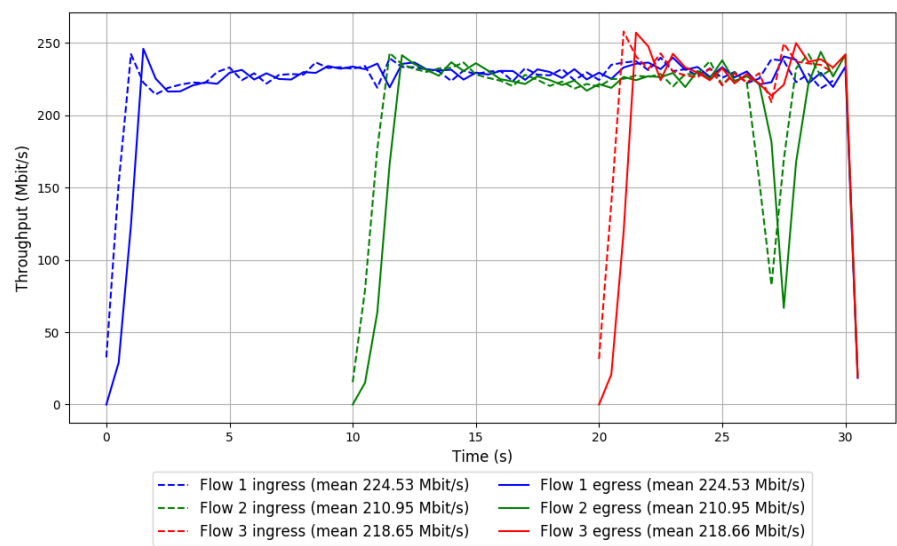


Run 5: Statistics of TaoVA-100x

Start at: 2019-01-03 12:08:22  
End at: 2019-01-03 12:08:52  
Local clock offset: -0.002 ms  
Remote clock offset: -0.773 ms

# Below is generated by plot.py at 2019-01-03 15:13:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 437.68 Mbit/s  
95th percentile per-packet one-way delay: 62.934 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 224.53 Mbit/s  
95th percentile per-packet one-way delay: 62.806 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 210.95 Mbit/s  
95th percentile per-packet one-way delay: 62.832 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 218.66 Mbit/s  
95th percentile per-packet one-way delay: 63.733 ms  
Loss rate: 0.00%

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

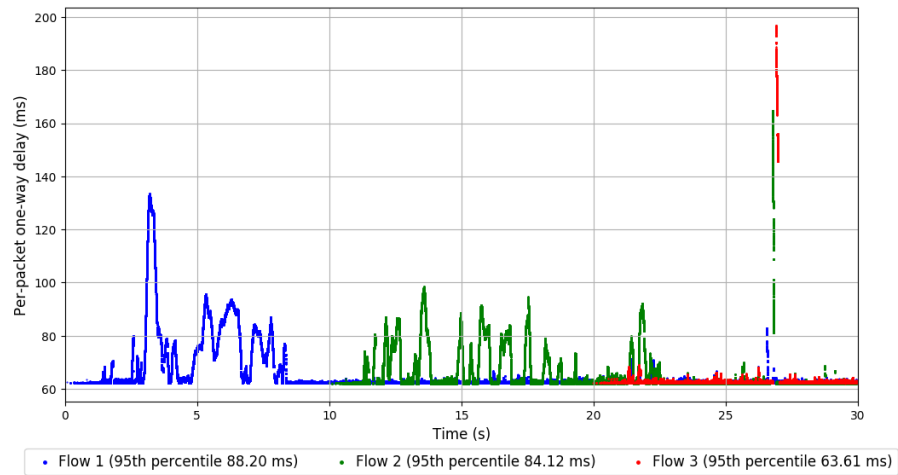
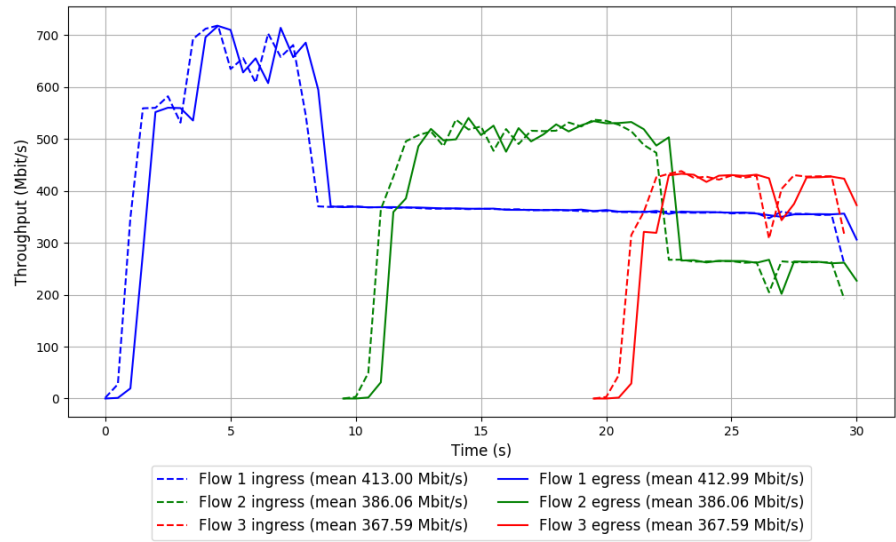


Run 1: Statistics of TCP Vegas

Start at: 2019-01-03 09:40:16  
End at: 2019-01-03 09:40:46  
Local clock offset: -0.013 ms  
Remote clock offset: -0.668 ms

# Below is generated by plot.py at 2019-01-03 15:13:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 793.50 Mbit/s  
95th percentile per-packet one-way delay: 85.073 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 412.99 Mbit/s  
95th percentile per-packet one-way delay: 88.205 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 386.06 Mbit/s  
95th percentile per-packet one-way delay: 84.120 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 367.59 Mbit/s  
95th percentile per-packet one-way delay: 63.612 ms  
Loss rate: 0.00%

# Run 1: Report of TCP Vegas — Data Link



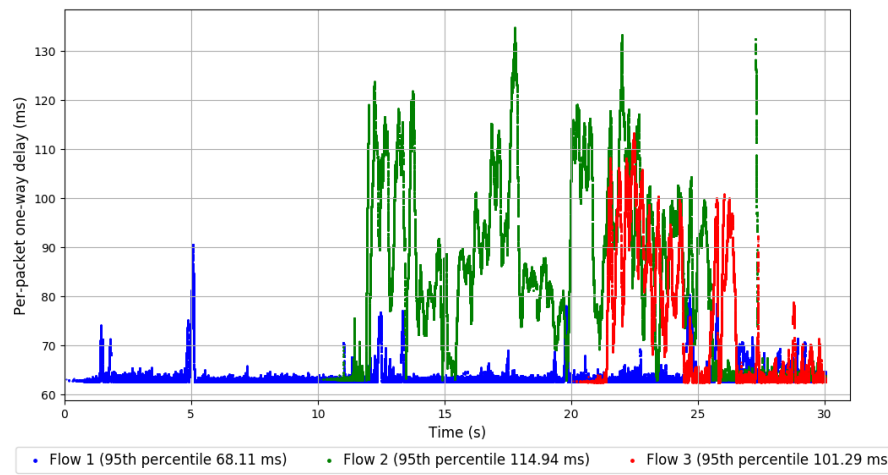
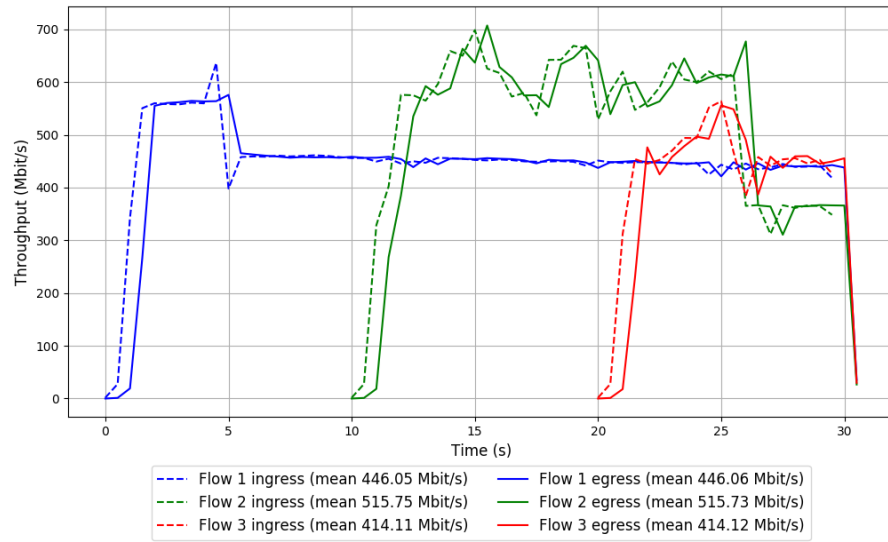


Run 2: Statistics of TCP Vegas

Start at: 2019-01-03 10:13:52  
End at: 2019-01-03 10:14:22  
Local clock offset: -0.097 ms  
Remote clock offset: -0.217 ms

# Below is generated by plot.py at 2019-01-03 15:26:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 927.20 Mbit/s  
95th percentile per-packet one-way delay: 107.955 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 446.06 Mbit/s  
95th percentile per-packet one-way delay: 68.105 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 515.73 Mbit/s  
95th percentile per-packet one-way delay: 114.940 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 414.12 Mbit/s  
95th percentile per-packet one-way delay: 101.290 ms  
Loss rate: 0.00%

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

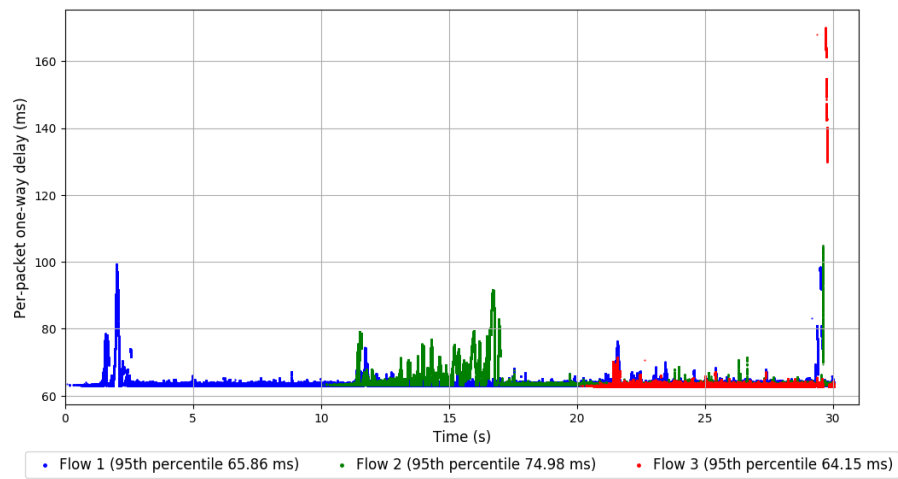
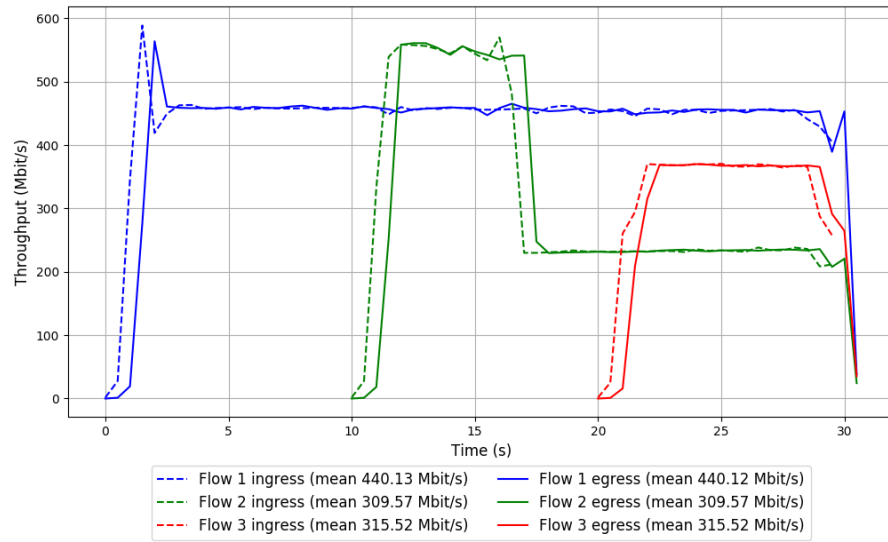


Run 3: Statistics of TCP Vegas

Start at: 2019-01-03 10:47:26  
End at: 2019-01-03 10:47:56  
Local clock offset: -0.029 ms  
Remote clock offset: -0.045 ms

# Below is generated by plot.py at 2019-01-03 15:26:33  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 751.13 Mbit/s  
95th percentile per-packet one-way delay: 69.410 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 440.12 Mbit/s  
95th percentile per-packet one-way delay: 65.858 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 309.57 Mbit/s  
95th percentile per-packet one-way delay: 74.980 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 315.52 Mbit/s  
95th percentile per-packet one-way delay: 64.146 ms  
Loss rate: 0.00%

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

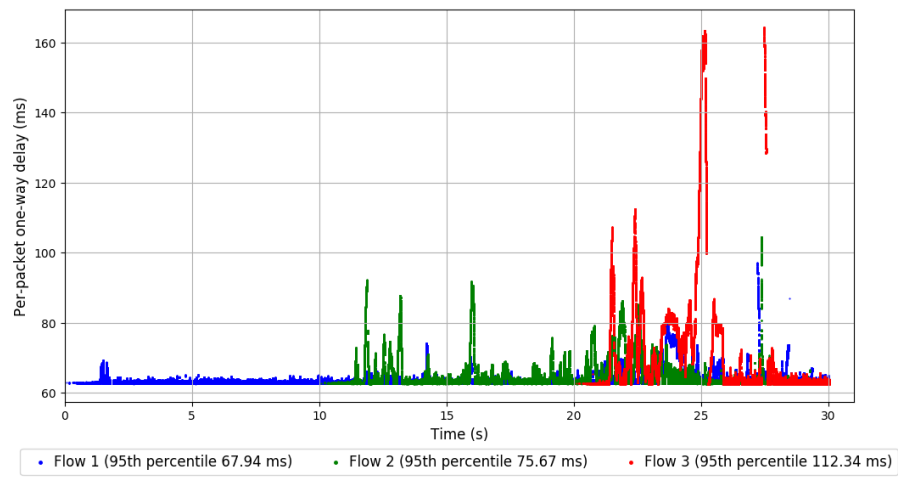
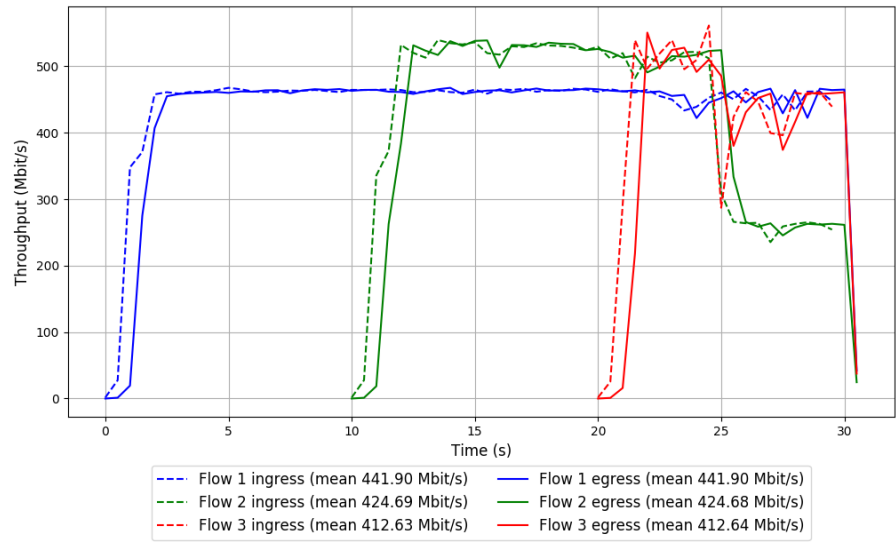


Run 4: Statistics of TCP Vegas

Start at: 2019-01-03 11:20:37  
End at: 2019-01-03 11:21:07  
Local clock offset: 0.014 ms  
Remote clock offset: -0.331 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 861.77 Mbit/s  
95th percentile per-packet one-way delay: 78.282 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 441.90 Mbit/s  
95th percentile per-packet one-way delay: 67.944 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 424.68 Mbit/s  
95th percentile per-packet one-way delay: 75.666 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 412.64 Mbit/s  
95th percentile per-packet one-way delay: 112.341 ms  
Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link

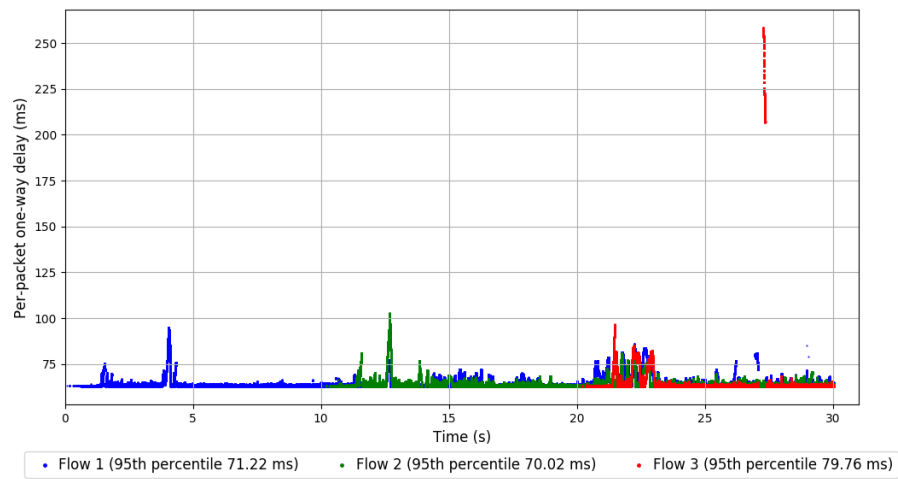
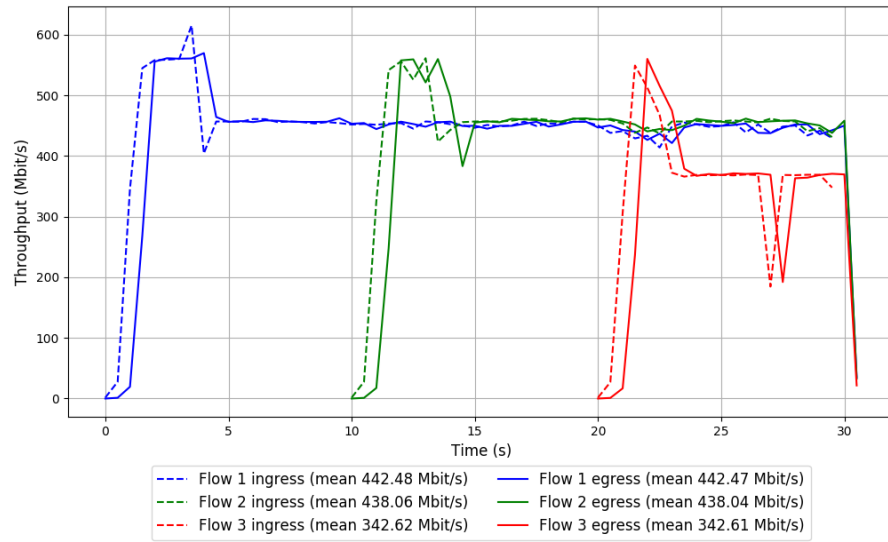


Run 5: Statistics of TCP Vegas

Start at: 2019-01-03 11:54:01  
End at: 2019-01-03 11:54:31  
Local clock offset: -0.007 ms  
Remote clock offset: -0.111 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 847.96 Mbit/s  
95th percentile per-packet one-way delay: 72.252 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 442.47 Mbit/s  
95th percentile per-packet one-way delay: 71.220 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 438.04 Mbit/s  
95th percentile per-packet one-way delay: 70.018 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 342.61 Mbit/s  
95th percentile per-packet one-way delay: 79.756 ms  
Loss rate: 0.00%

# Run 5: Report of TCP Vegas — Data Link



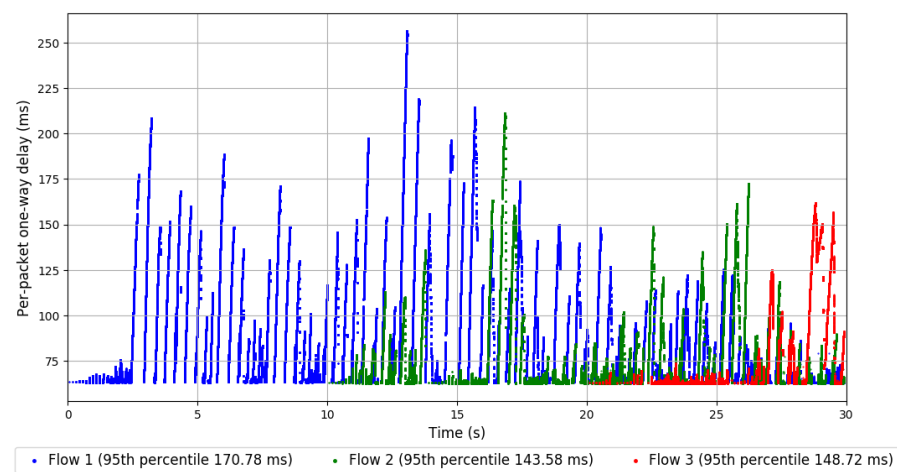
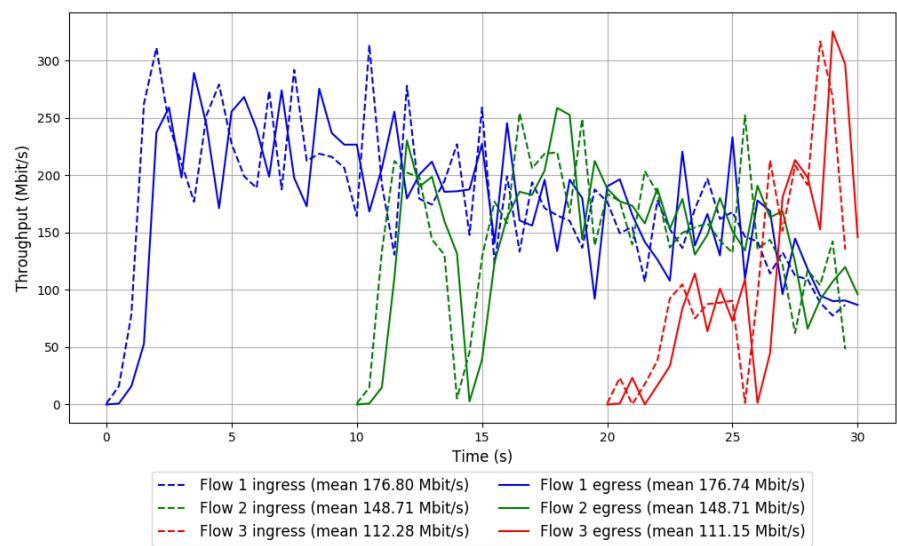


Run 1: Statistics of Verus

Start at: 2019-01-03 09:32:57  
End at: 2019-01-03 09:33:27  
Local clock offset: -0.053 ms  
Remote clock offset: -0.195 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 312.07 Mbit/s  
95th percentile per-packet one-way delay: 158.904 ms  
Loss rate: 0.14%  
-- Flow 1:  
Average throughput: 176.74 Mbit/s  
95th percentile per-packet one-way delay: 170.785 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 148.71 Mbit/s  
95th percentile per-packet one-way delay: 143.584 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 111.15 Mbit/s  
95th percentile per-packet one-way delay: 148.716 ms  
Loss rate: 1.00%

Run 1: Report of Verus — Data Link

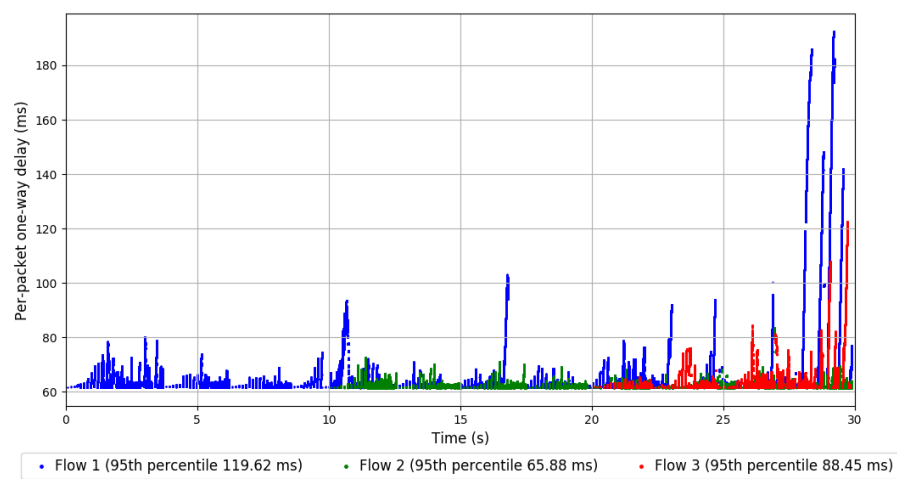
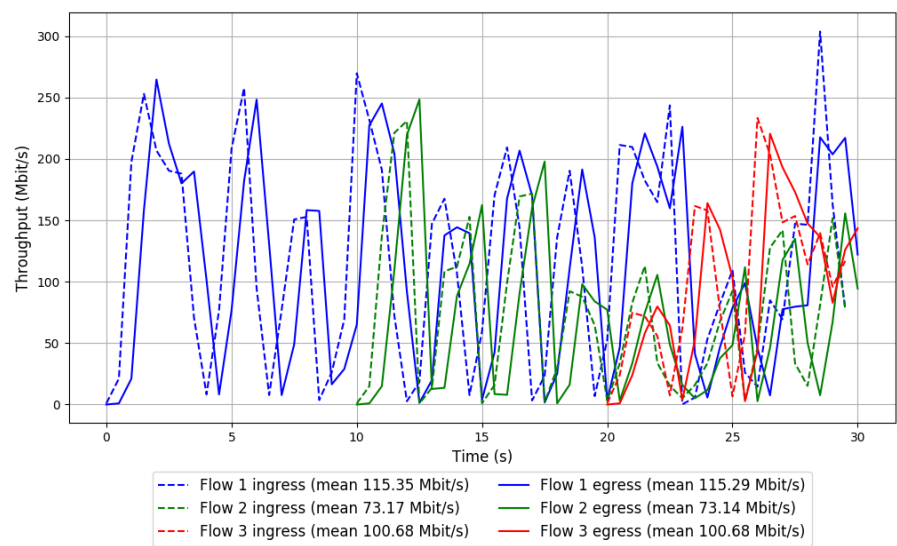


Run 2: Statistics of Verus

Start at: 2019-01-03 10:06:03  
End at: 2019-01-03 10:06:33  
Local clock offset: -0.046 ms  
Remote clock offset: -1.321 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 196.78 Mbit/s  
95th percentile per-packet one-way delay: 95.572 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 115.29 Mbit/s  
95th percentile per-packet one-way delay: 119.621 ms  
Loss rate: 0.03%  
-- Flow 2:  
Average throughput: 73.14 Mbit/s  
95th percentile per-packet one-way delay: 65.881 ms  
Loss rate: 0.05%  
-- Flow 3:  
Average throughput: 100.68 Mbit/s  
95th percentile per-packet one-way delay: 88.449 ms  
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

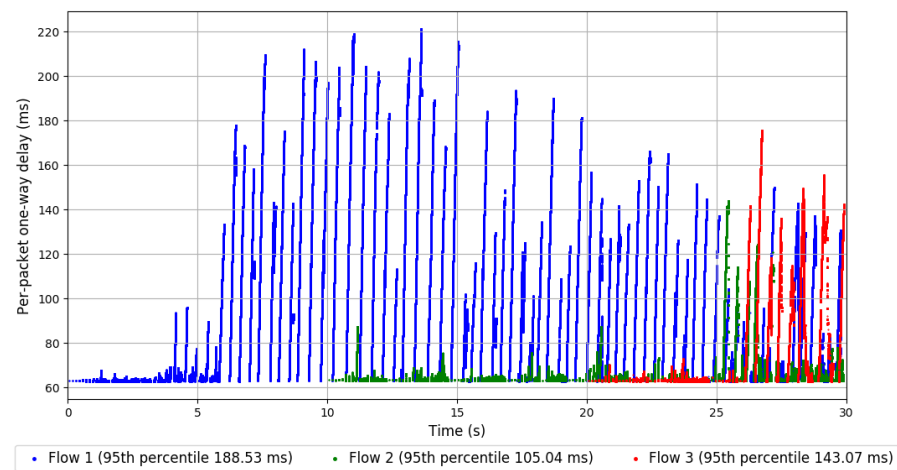
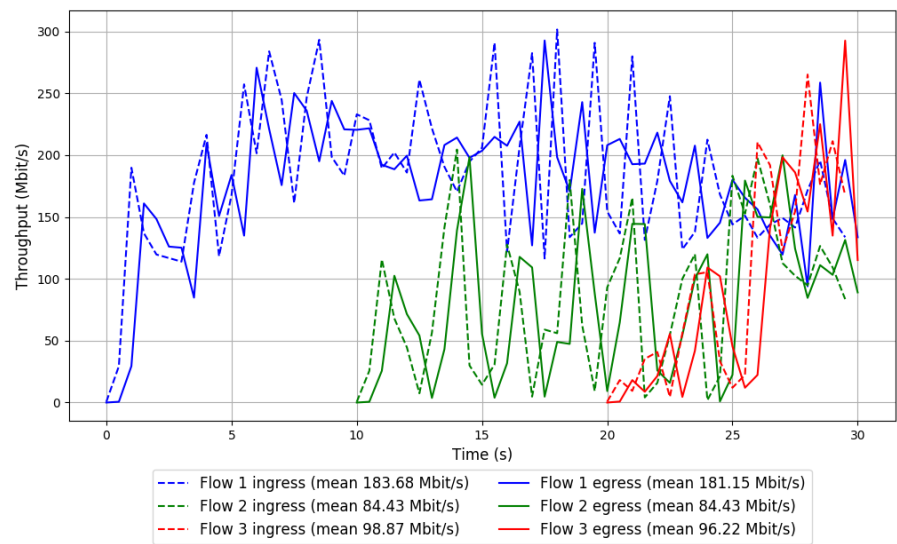


Run 3: Statistics of Verus

Start at: 2019-01-03 10:39:40  
End at: 2019-01-03 10:40:10  
Local clock offset: -0.054 ms  
Remote clock offset: 0.036 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 268.19 Mbit/s  
95th percentile per-packet one-way delay: 180.150 ms  
Loss rate: 1.23%  
-- Flow 1:  
Average throughput: 181.15 Mbit/s  
95th percentile per-packet one-way delay: 188.525 ms  
Loss rate: 1.35%  
-- Flow 2:  
Average throughput: 84.43 Mbit/s  
95th percentile per-packet one-way delay: 105.043 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 96.22 Mbit/s  
95th percentile per-packet one-way delay: 143.067 ms  
Loss rate: 2.70%

Run 3: Report of Verus — Data Link

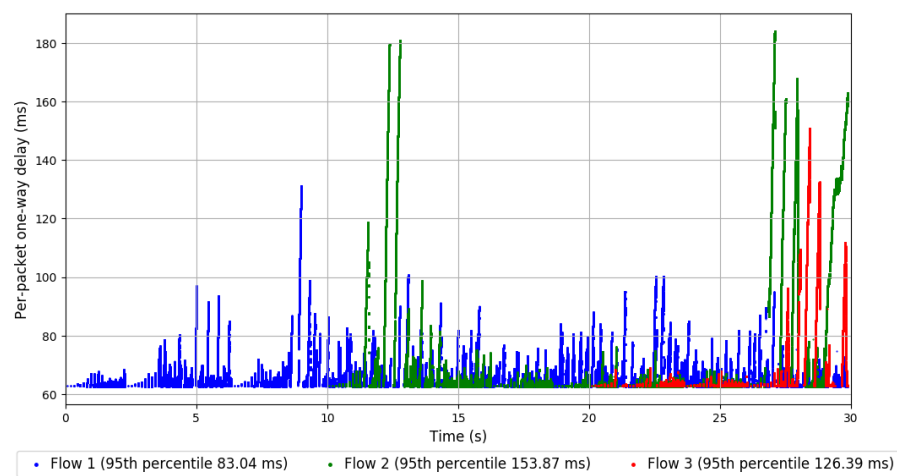
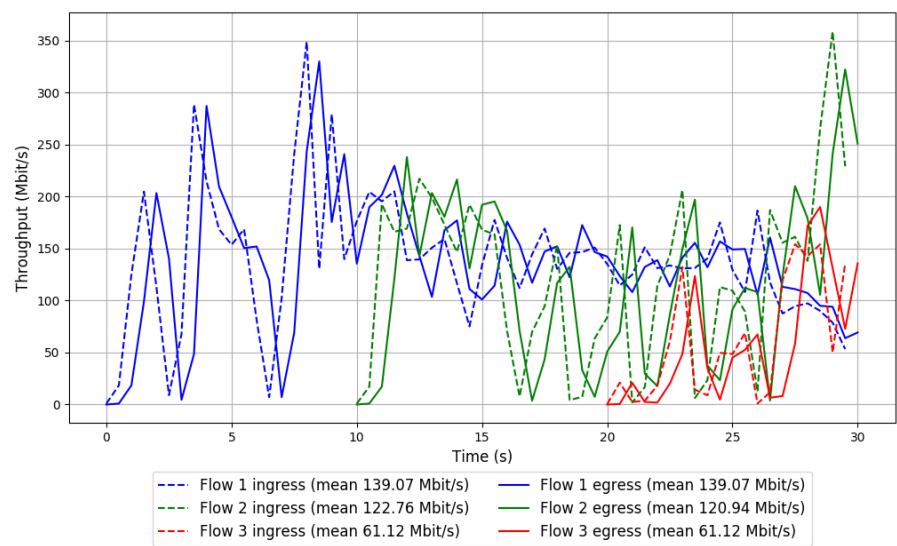


Run 4: Statistics of Verus

Start at: 2019-01-03 11:13:06  
End at: 2019-01-03 11:13:36  
Local clock offset: 0.004 ms  
Remote clock offset: -0.169 ms

# Below is generated by plot.py at 2019-01-03 15:33:10  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 239.37 Mbit/s  
95th percentile per-packet one-way delay: 130.140 ms  
Loss rate: 0.50%  
-- Flow 1:  
Average throughput: 139.07 Mbit/s  
95th percentile per-packet one-way delay: 83.040 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 120.94 Mbit/s  
95th percentile per-packet one-way delay: 153.870 ms  
Loss rate: 1.48%  
-- Flow 3:  
Average throughput: 61.12 Mbit/s  
95th percentile per-packet one-way delay: 126.386 ms  
Loss rate: 0.00%

Run 4: Report of Verus — Data Link





Run 5: Statistics of Verus

Start at: 2019-01-03 11:46:28

End at: 2019-01-03 11:46:58

Local clock offset: 0.002 ms

Remote clock offset: 0.747 ms

# Below is generated by plot.py at 2019-01-03 15:33:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 254.89 Mbit/s

95th percentile per-packet one-way delay: 153.341 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 99.58 Mbit/s

95th percentile per-packet one-way delay: 87.792 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 177.13 Mbit/s

95th percentile per-packet one-way delay: 165.323 ms

Loss rate: 0.08%

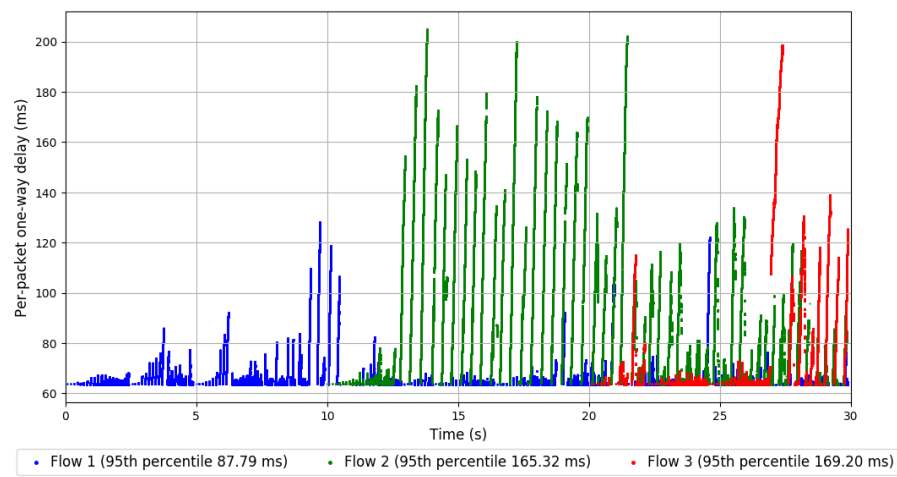
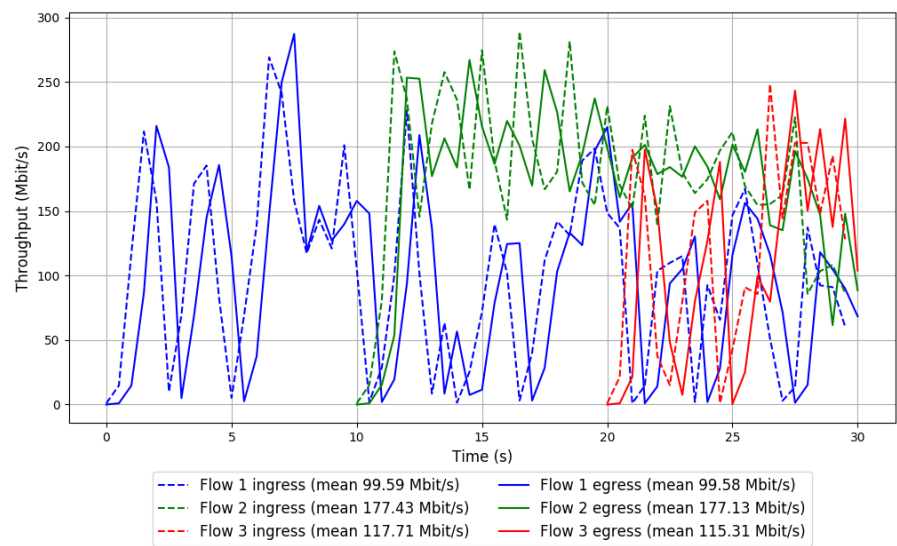
-- Flow 3:

Average throughput: 115.31 Mbit/s

95th percentile per-packet one-way delay: 169.203 ms

Loss rate: 2.06%

Run 5: Report of Verus — Data Link

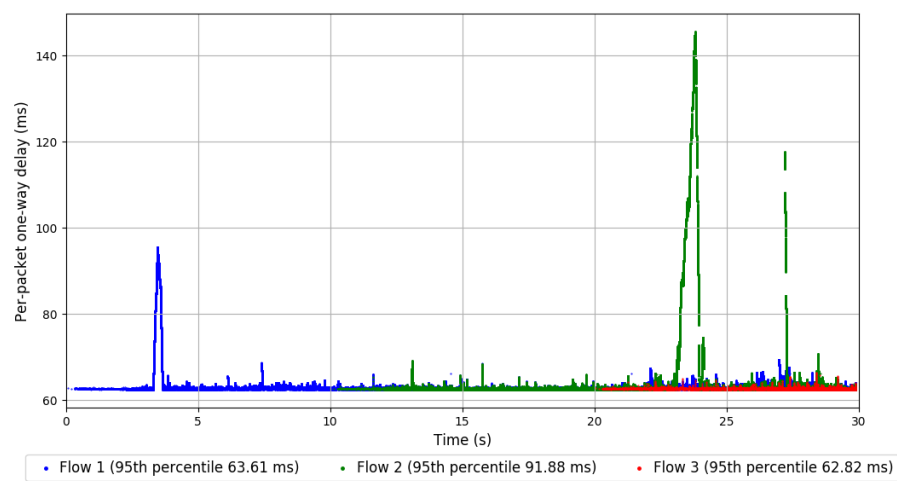
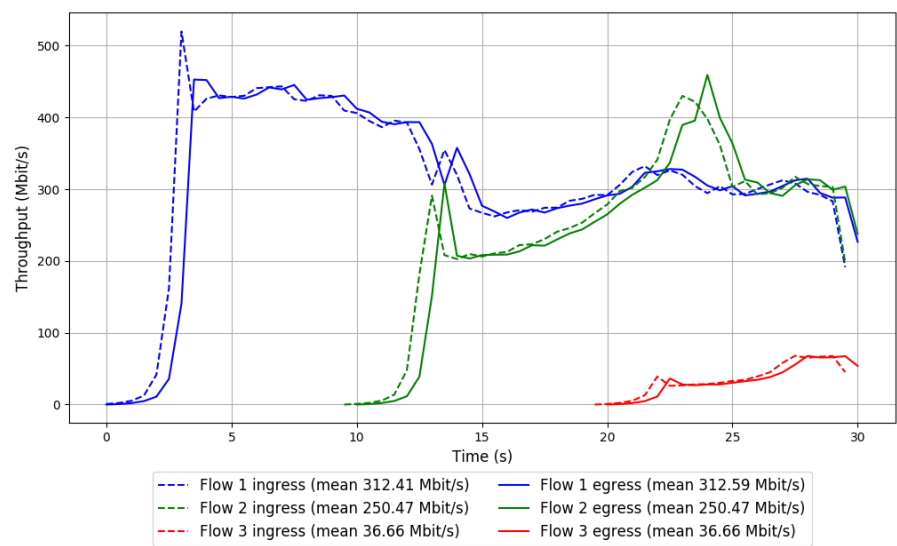


Run 1: Statistics of PCC-Vivace

Start at: 2019-01-03 09:31:09  
End at: 2019-01-03 09:31:39  
Local clock offset: -0.053 ms  
Remote clock offset: -0.307 ms

# Below is generated by plot.py at 2019-01-03 15:35:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 491.41 Mbit/s  
95th percentile per-packet one-way delay: 65.469 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 312.59 Mbit/s  
95th percentile per-packet one-way delay: 63.610 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 250.47 Mbit/s  
95th percentile per-packet one-way delay: 91.884 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 36.66 Mbit/s  
95th percentile per-packet one-way delay: 62.823 ms  
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-01-03 10:04:16

End at: 2019-01-03 10:04:46

Local clock offset: -0.062 ms

Remote clock offset: 0.599 ms

# Below is generated by plot.py at 2019-01-03 15:36:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 477.25 Mbit/s

95th percentile per-packet one-way delay: 64.976 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 284.89 Mbit/s

95th percentile per-packet one-way delay: 64.771 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 212.76 Mbit/s

95th percentile per-packet one-way delay: 65.708 ms

Loss rate: 0.01%

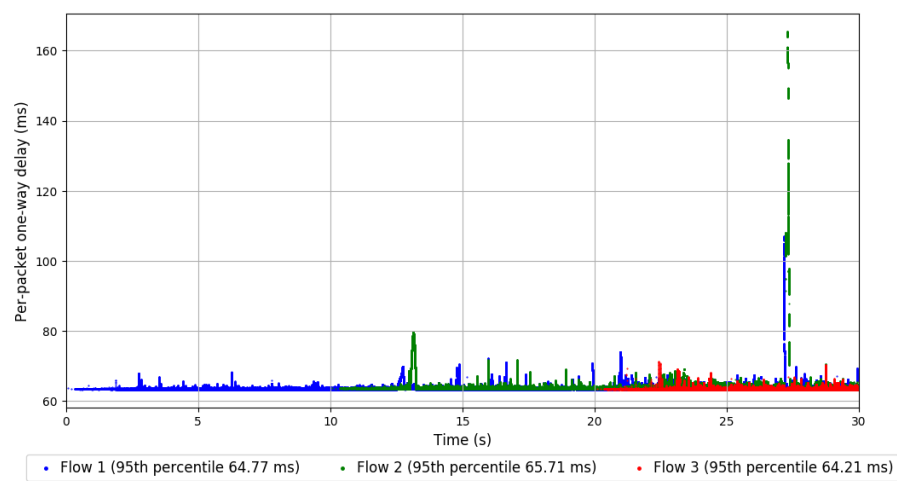
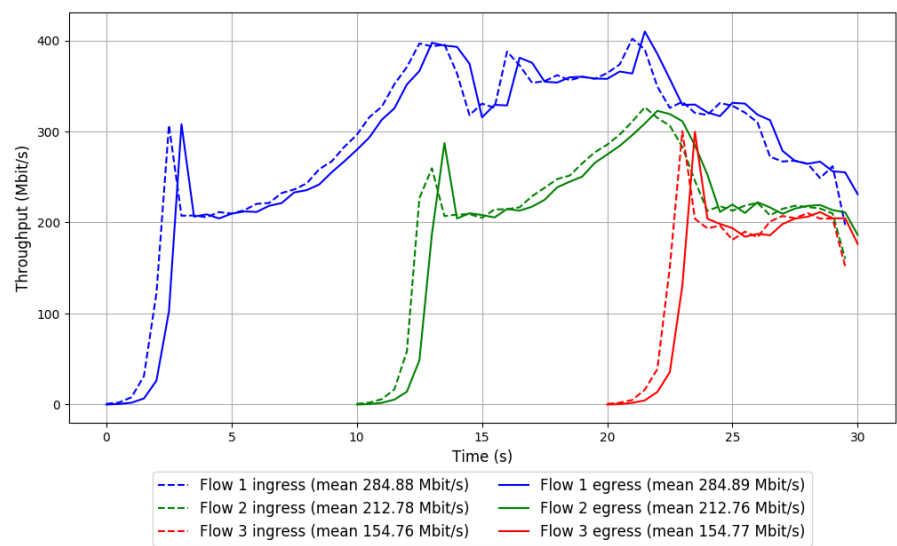
-- Flow 3:

Average throughput: 154.77 Mbit/s

95th percentile per-packet one-way delay: 64.213 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link

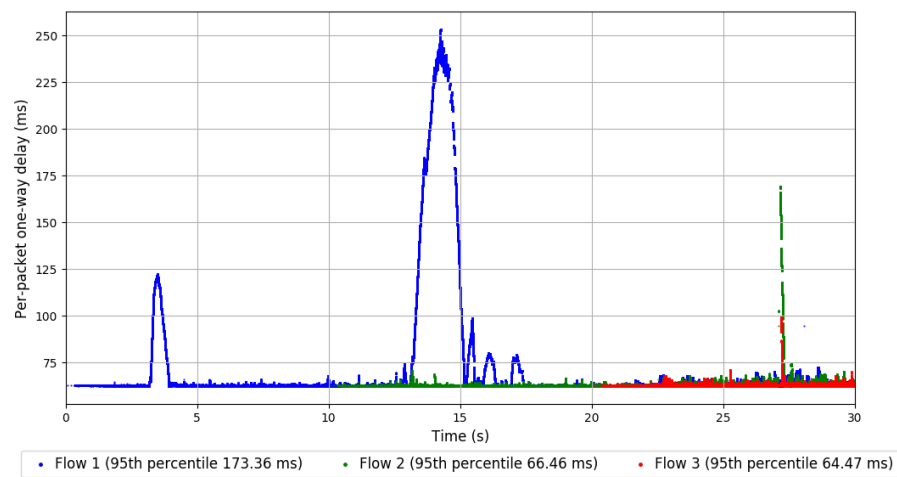
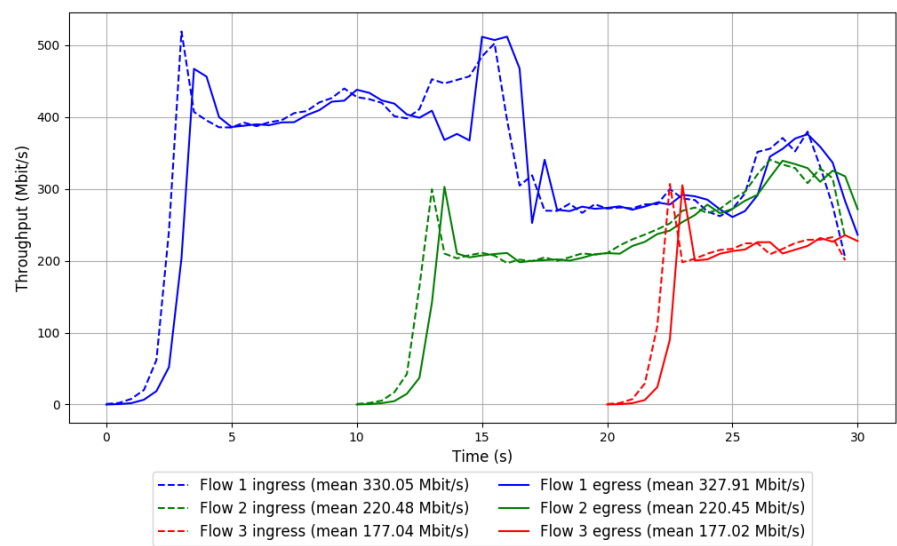


Run 3: Statistics of PCC-Vivace

Start at: 2019-01-03 10:37:49  
End at: 2019-01-03 10:38:19  
Local clock offset: -0.047 ms  
Remote clock offset: -0.243 ms

# Below is generated by plot.py at 2019-01-03 15:37:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 532.86 Mbit/s  
95th percentile per-packet one-way delay: 115.327 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 327.91 Mbit/s  
95th percentile per-packet one-way delay: 173.358 ms  
Loss rate: 0.65%  
-- Flow 2:  
Average throughput: 220.45 Mbit/s  
95th percentile per-packet one-way delay: 66.457 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 177.02 Mbit/s  
95th percentile per-packet one-way delay: 64.468 ms  
Loss rate: 0.01%

Run 3: Report of PCC-Vivace — Data Link





Run 4: Statistics of PCC-Vivace

Start at: 2019-01-03 11:11:13

End at: 2019-01-03 11:11:43

Local clock offset: -0.011 ms

Remote clock offset: 0.496 ms

# Below is generated by plot.py at 2019-01-03 15:37:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 549.39 Mbit/s

95th percentile per-packet one-way delay: 79.712 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 336.08 Mbit/s

95th percentile per-packet one-way delay: 82.045 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 235.44 Mbit/s

95th percentile per-packet one-way delay: 79.938 ms

Loss rate: 0.00%

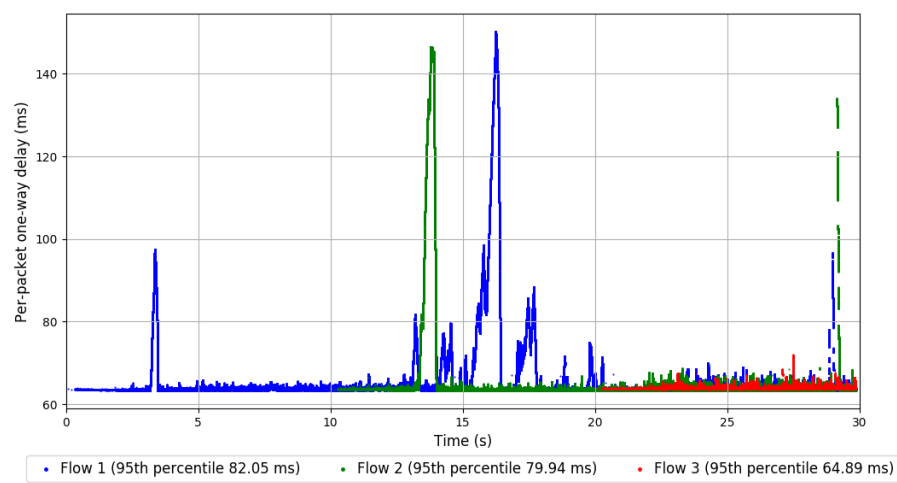
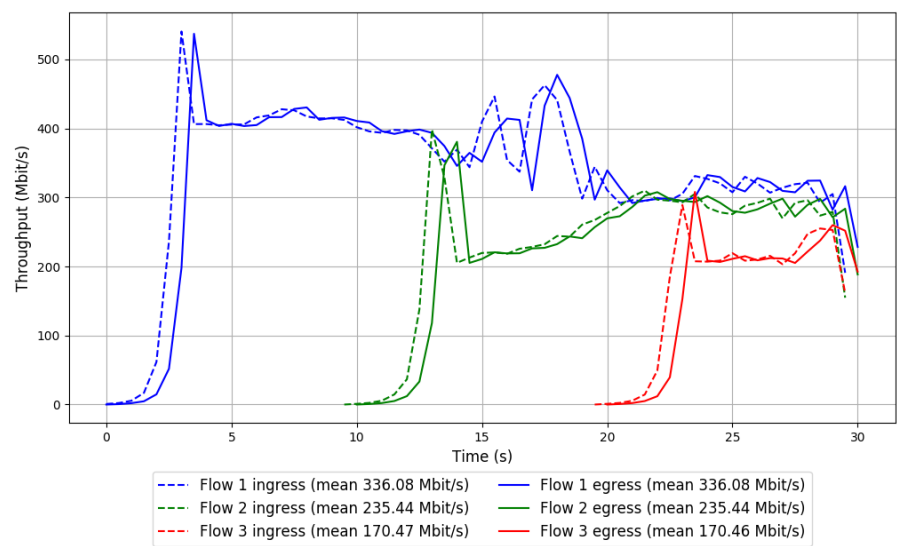
-- Flow 3:

Average throughput: 170.46 Mbit/s

95th percentile per-packet one-way delay: 64.891 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-01-03 11:44:37

End at: 2019-01-03 11:45:07

Local clock offset: 0.025 ms

Remote clock offset: 0.05 ms

# Below is generated by plot.py at 2019-01-03 15:37:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 542.84 Mbit/s

95th percentile per-packet one-way delay: 65.301 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 310.15 Mbit/s

95th percentile per-packet one-way delay: 65.039 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 265.05 Mbit/s

95th percentile per-packet one-way delay: 66.128 ms

Loss rate: 0.01%

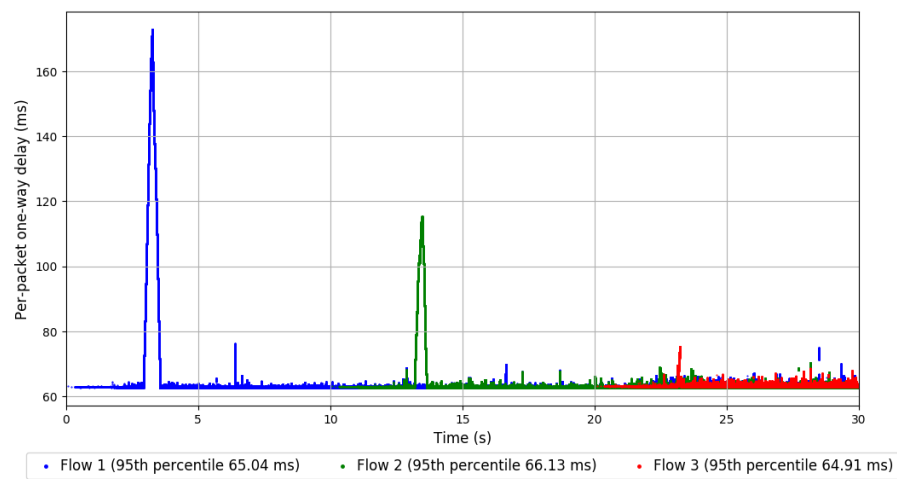
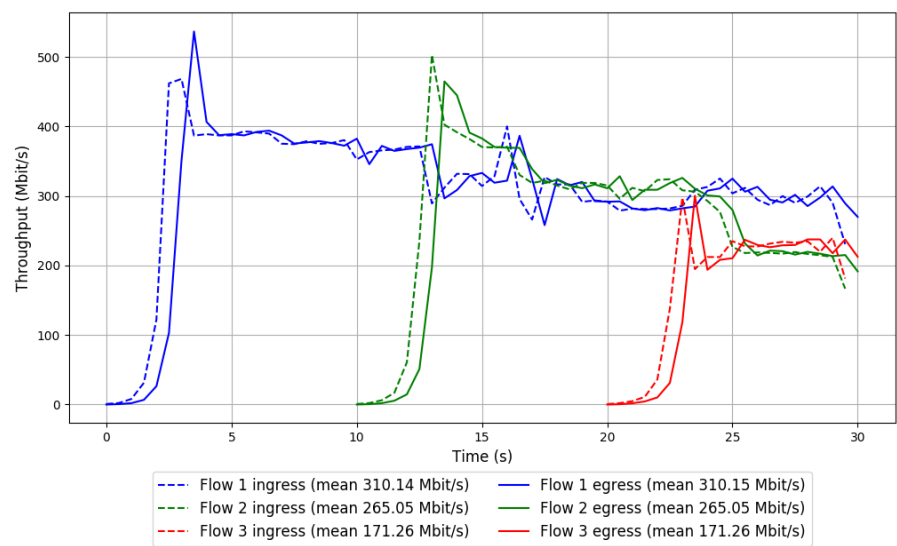
-- Flow 3:

Average throughput: 171.26 Mbit/s

95th percentile per-packet one-way delay: 64.905 ms

Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link

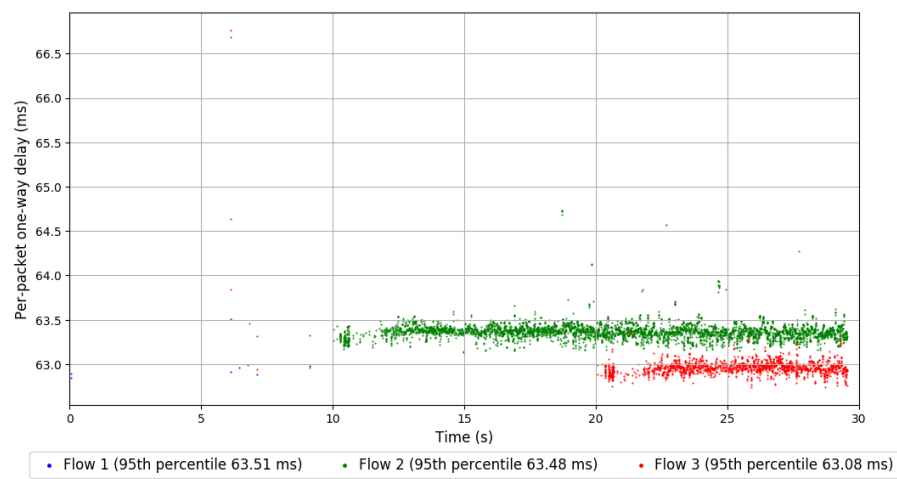
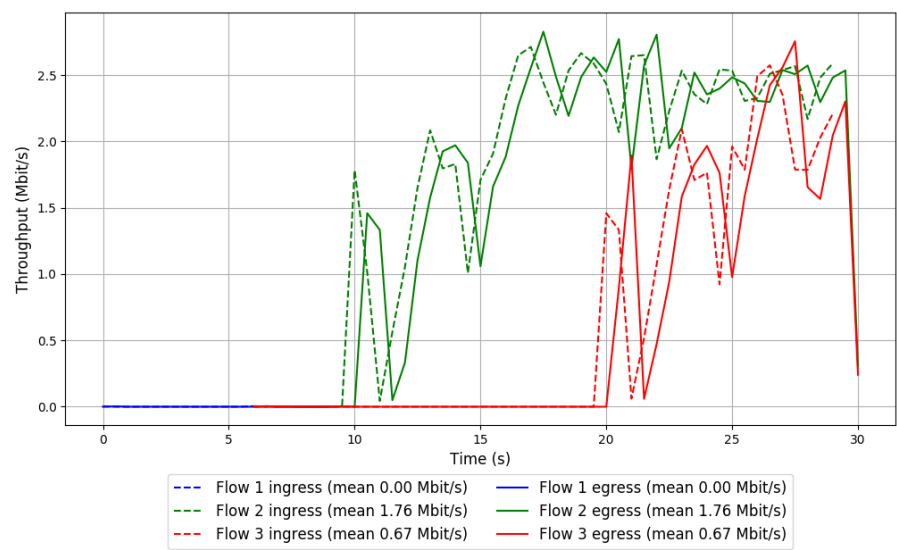


Run 1: Statistics of WebRTC media

Start at: 2019-01-03 09:28:03  
End at: 2019-01-03 09:28:33  
Local clock offset: -0.075 ms  
Remote clock offset: -0.106 ms

# Below is generated by plot.py at 2019-01-03 15:37:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 1.93 Mbit/s  
95th percentile per-packet one-way delay: 63.467 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.00 Mbit/s  
95th percentile per-packet one-way delay: 63.505 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.76 Mbit/s  
95th percentile per-packet one-way delay: 63.480 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.67 Mbit/s  
95th percentile per-packet one-way delay: 63.075 ms  
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

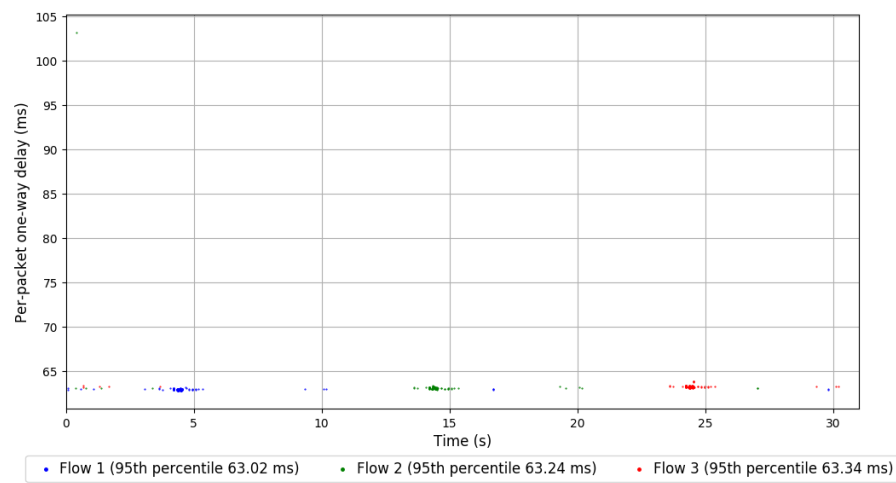
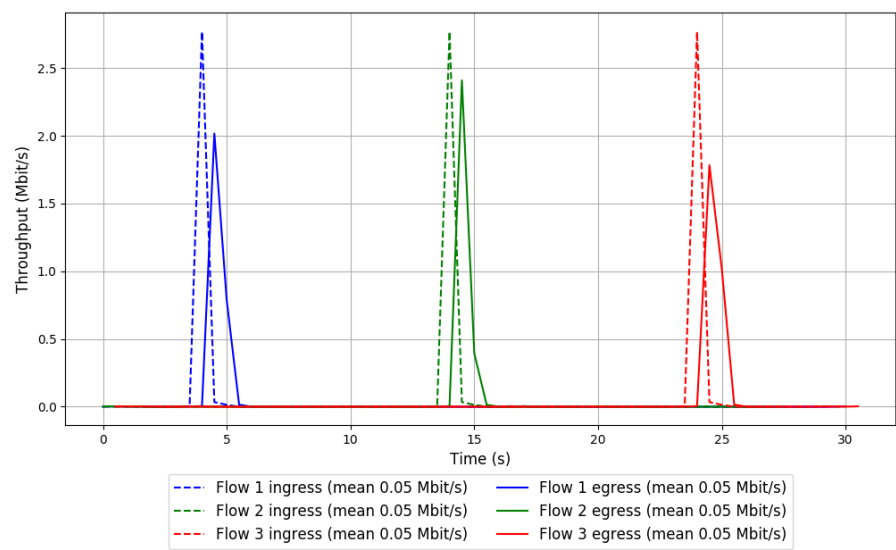


Run 2: Statistics of WebRTC media

Start at: 2019-01-03 10:00:59  
End at: 2019-01-03 10:01:29  
Local clock offset: -0.083 ms  
Remote clock offset: -0.002 ms

# Below is generated by plot.py at 2019-01-03 15:37:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 63.305 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 63.016 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 63.242 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 63.338 ms  
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



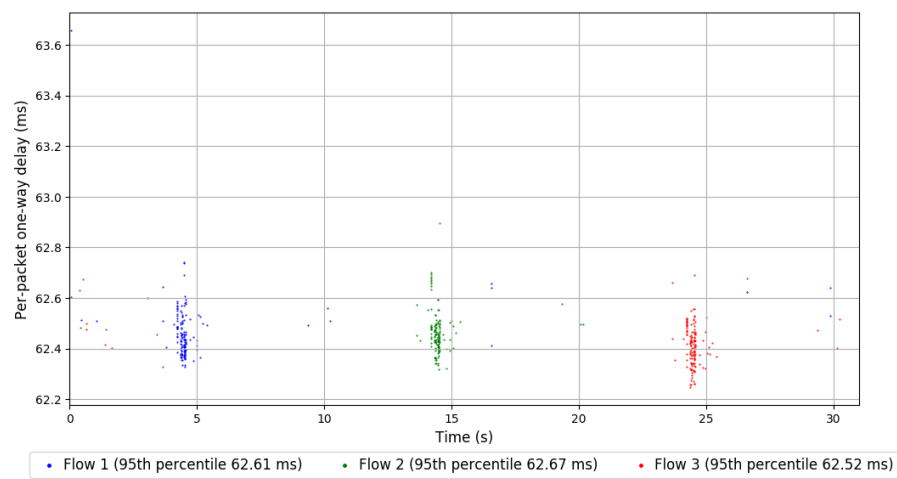
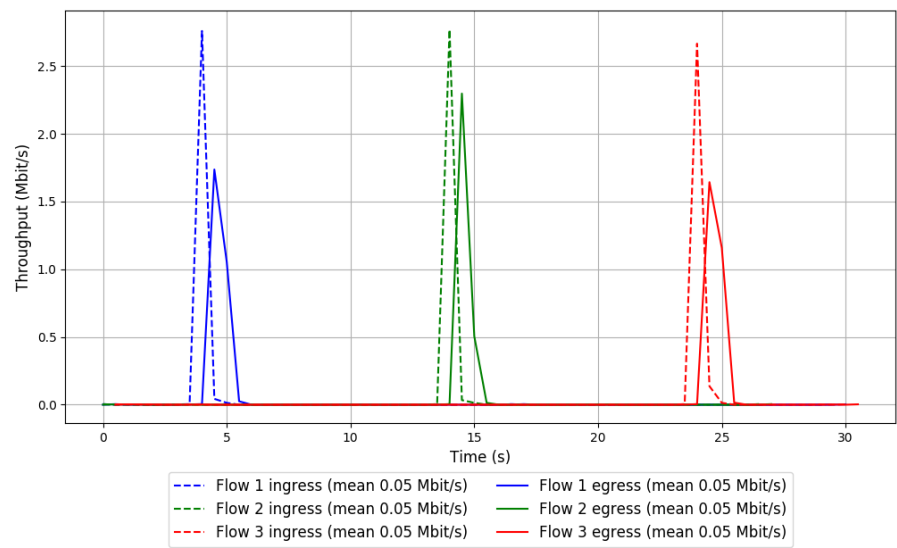


Run 3: Statistics of WebRTC media

Start at: 2019-01-03 10:34:41  
End at: 2019-01-03 10:35:11  
Local clock offset: -0.038 ms  
Remote clock offset: -0.627 ms

# Below is generated by plot.py at 2019-01-03 15:37:26  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.14 Mbit/s  
95th percentile per-packet one-way delay: 62.630 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.606 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.670 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.05 Mbit/s  
95th percentile per-packet one-way delay: 62.524 ms  
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-01-03 11:08:07

End at: 2019-01-03 11:08:37

Local clock offset: -0.022 ms

Remote clock offset: -0.47 ms

# Below is generated by plot.py at 2019-01-03 15:37:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 63.116 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 63.359 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 63.123 ms

Loss rate: 0.00%

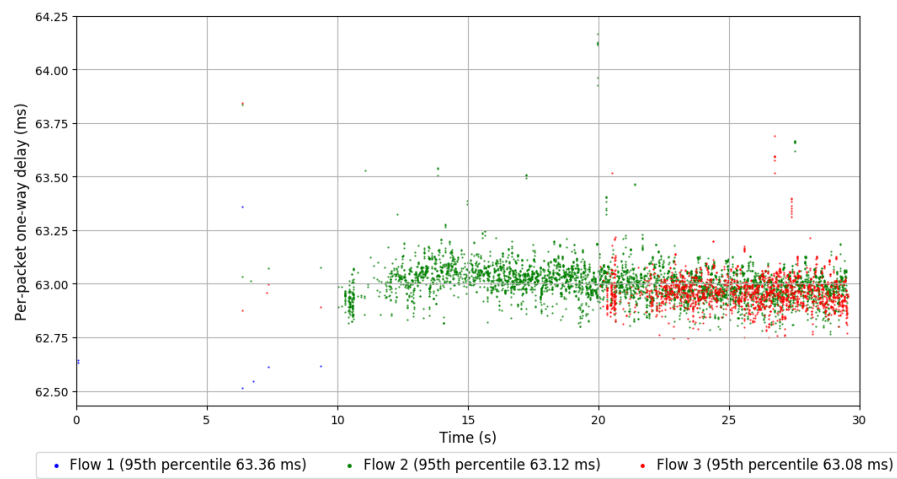
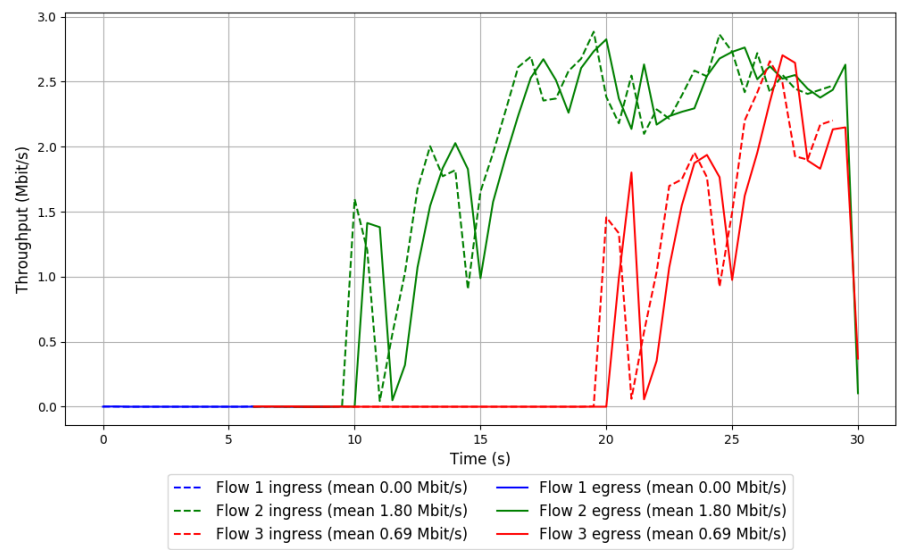
-- Flow 3:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 63.077 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-01-03 11:41:31

End at: 2019-01-03 11:42:01

Local clock offset: 0.042 ms

Remote clock offset: 0.519 ms

# Below is generated by plot.py at 2019-01-03 15:37:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 63.766 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.493 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.757 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 63.796 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

