

## Pantheon Report

Generated at 2017-12-06 04:47:41 (UTC).

Data path: AWS Brazil 1 Ethernet (*local*) → Brazil Ethernet (*remote*).

Repeated the test of 14 congestion control schemes 10 times.

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

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

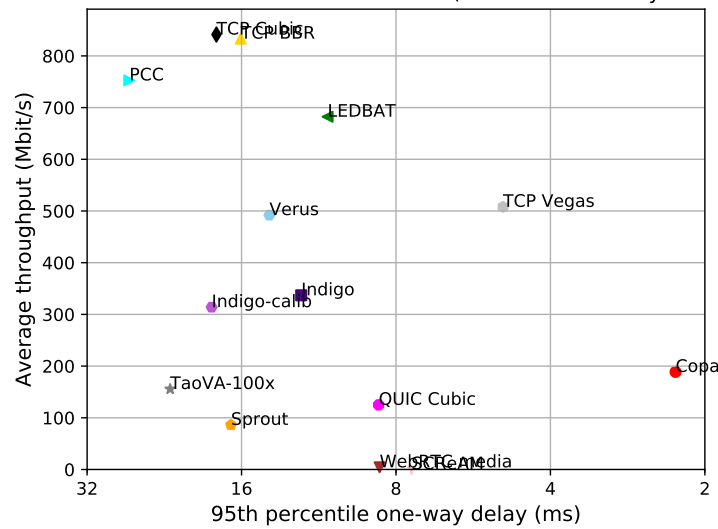
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo\_fast**).

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

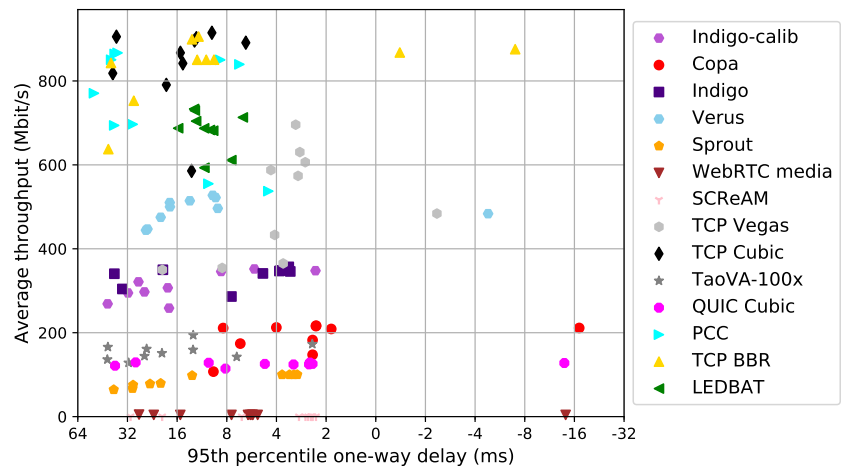
Git summary:

```
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from AWS Brazil 1 Ethernet to Brazil Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 1 Ethernet to Brazil Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows



| scheme       | # runs | mean avg tput (Mbit/s) |        |        | mean 95th-%ile delay (ms) |        |        | mean loss rate (%) |        |        |
|--------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
|              |        | flow 1                 | flow 2 | flow 3 | flow 1                    | flow 2 | flow 3 | flow 1             | flow 2 | flow 3 |
| TCP BBR      | 10     | 451.91                 | 407.86 | 336.41 | 15.56                     | 9.20   | 5.45   | 12.47              | 19.07  | 23.34  |
| TCP Cubic    | 10     | 453.58                 | 423.65 | 318.34 | 21.72                     | 5.95   | 8.26   | 0.25               | 0.03   | 0.08   |
| LEDBAT       | 10     | 409.85                 | 304.39 | 211.01 | 12.77                     | 8.54   | 10.66  | 0.03               | 0.25   | 0.58   |
| PCC          | 10     | 503.28                 | 338.77 | 72.91  | 28.75                     | 11.53  | 3.70   | 1.11               | 0.20   | 0.06   |
| QUIC Cubic   | 10     | 68.61                  | 61.88  | 46.56  | 2.49                      | 3.88   | 10.01  | 0.00               | 0.01   | 0.77   |
| SCReAM       | 10     | 0.22                   | 0.22   | 0.22   | 4.71                      | 2.96   | 5.81   | 0.00               | 0.00   | 0.00   |
| WebRTC media | 10     | 2.32                   | 1.52   | 0.36   | 4.98                      | 5.53   | 4.40   | 0.01               | 0.54   | 0.03   |
| Sprout       | 10     | 38.00                  | 50.14  | 45.14  | 16.78                     | 4.63   | 9.27   | 0.76               | 0.01   | 0.00   |
| TaoVA-100x   | 10     | 83.59                  | 73.74  | 87.30  | 7.64                      | 14.54  | 12.58  | 0.21               | 0.20   | 0.07   |
| TCP Vegas    | 10     | 260.38                 | 266.84 | 210.68 | 4.83                      | 3.92   | 5.66   | 0.00               | 0.00   | 0.00   |
| Verus        | 10     | 271.20                 | 242.09 | 180.47 | 10.46                     | 16.94  | 16.82  | 1.71               | 2.50   | 4.19   |
| Copa         | 10     | 106.38                 | 90.65  | 91.78  | 2.27                      | 0.68   | 5.50   | 0.00               | 0.00   | 0.79   |
| Indigo       | 10     | 183.46                 | 154.36 | 145.65 | 2.47                      | 7.68   | 10.04  | 0.00               | 0.03   | 0.75   |
| Indigo-calib | 10     | 159.62                 | 157.59 | 153.09 | 15.38                     | 8.11   | 9.67   | 0.75               | 0.00   | 0.35   |

Run 1: Statistics of TCP BBR

Start at: 2017-12-05 22:03:40

End at: 2017-12-05 22:04:10

Local clock offset: 0.655 ms

Remote clock offset: 1.322 ms

# Below is generated by plot.py at 2017-12-06 03:15:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 905.81 Mbit/s

95th percentile per-packet one-way delay: 11.863 ms

Loss rate: 17.56%

-- Flow 1:

Average throughput: 527.12 Mbit/s

95th percentile per-packet one-way delay: 13.632 ms

Loss rate: 12.38%

-- Flow 2:

Average throughput: 399.96 Mbit/s

95th percentile per-packet one-way delay: 8.158 ms

Loss rate: 22.53%

-- Flow 3:

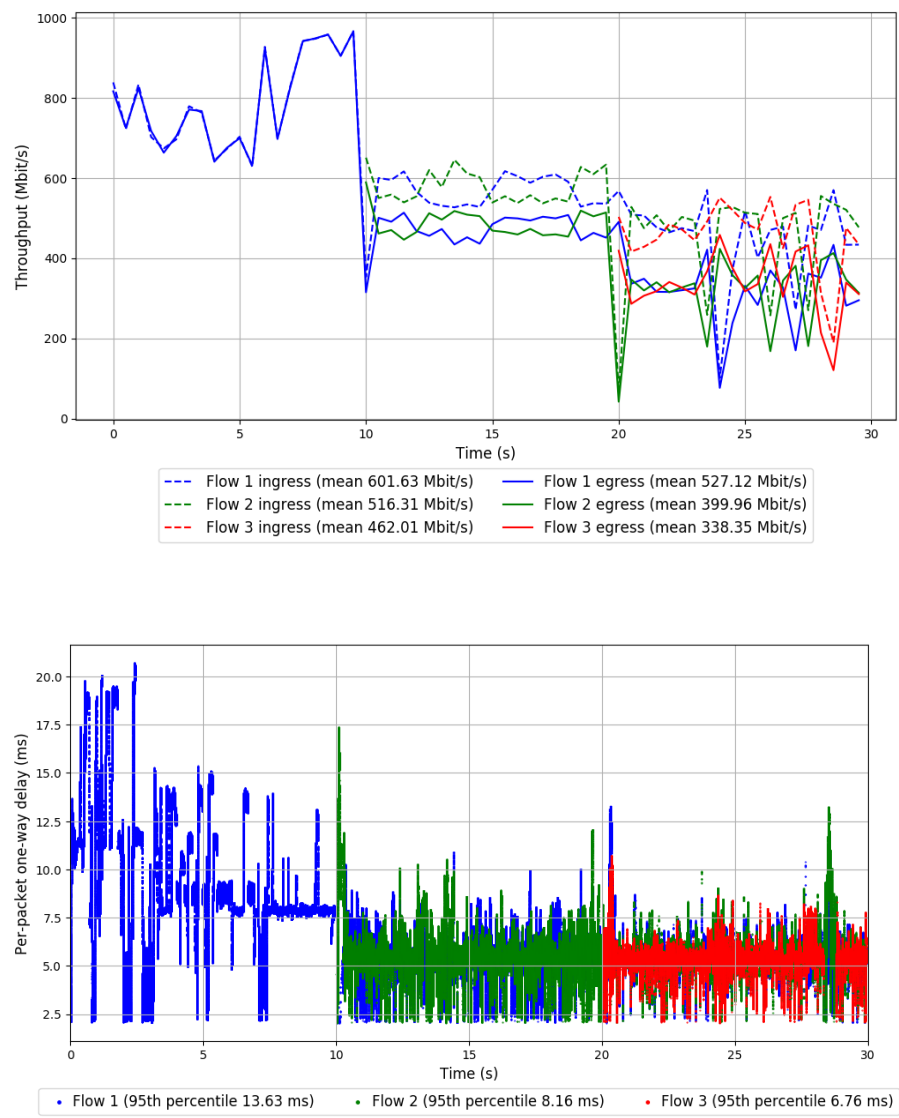
Average throughput: 338.35 Mbit/s

95th percentile per-packet one-way delay: 6.763 ms

Loss rate: 26.74%



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-05 22:22:58

End at: 2017-12-05 22:23:28

Local clock offset: 0.617 ms

Remote clock offset: 1.392 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 899.28 Mbit/s

95th percentile per-packet one-way delay: 12.996 ms

Loss rate: 19.31%

-- Flow 1:

Average throughput: 529.47 Mbit/s

95th percentile per-packet one-way delay: 13.913 ms

Loss rate: 14.35%

-- Flow 2:

Average throughput: 401.76 Mbit/s

95th percentile per-packet one-way delay: 7.546 ms

Loss rate: 24.32%

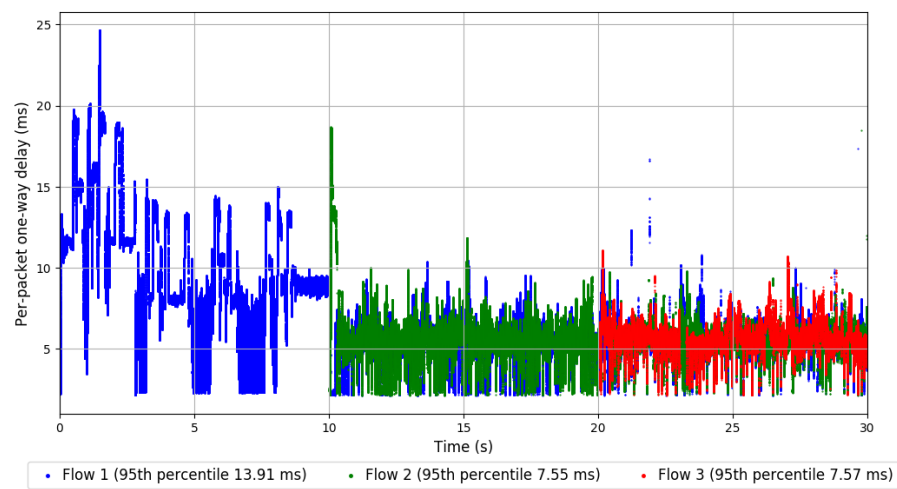
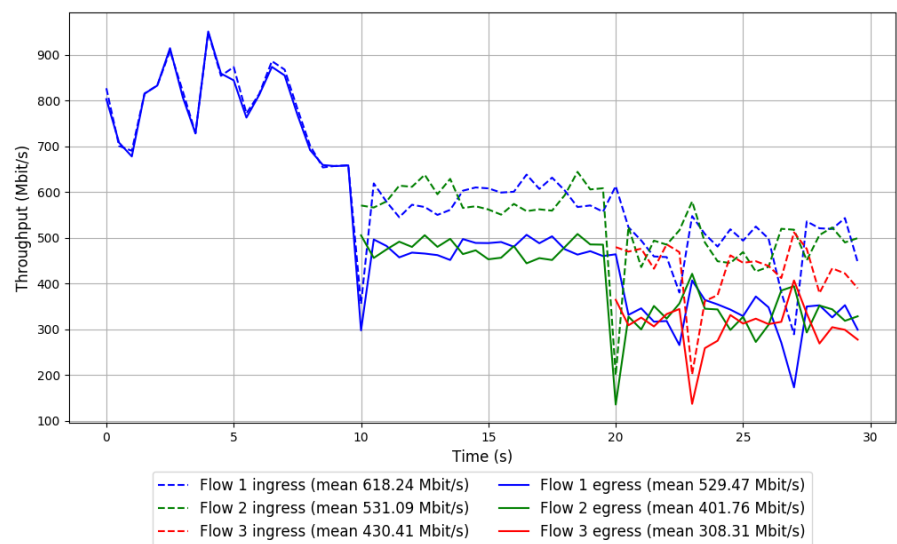
-- Flow 3:

Average throughput: 308.31 Mbit/s

95th percentile per-packet one-way delay: 7.571 ms

Loss rate: 28.37%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-05 22:42:10

End at: 2017-12-05 22:42:40

Local clock offset: 0.603 ms

Remote clock offset: 1.451 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 850.50 Mbit/s

95th percentile per-packet one-way delay: 12.088 ms

Loss rate: 19.92%

-- Flow 1:

Average throughput: 471.25 Mbit/s

95th percentile per-packet one-way delay: 12.832 ms

Loss rate: 14.97%

-- Flow 2:

Average throughput: 405.64 Mbit/s

95th percentile per-packet one-way delay: 7.726 ms

Loss rate: 24.00%

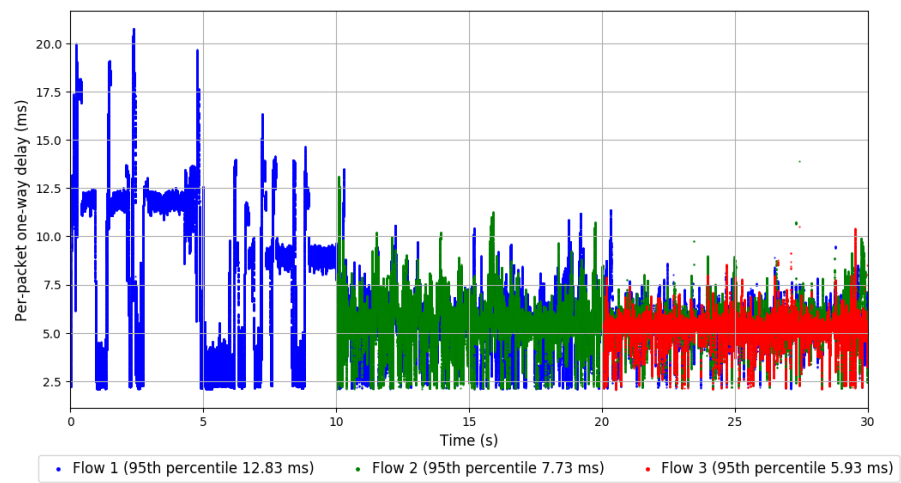
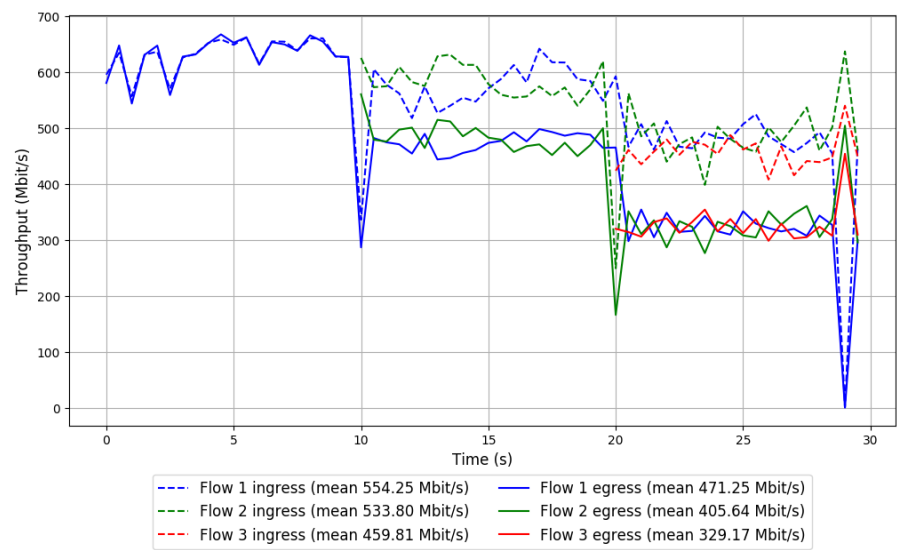
-- Flow 3:

Average throughput: 329.17 Mbit/s

95th percentile per-packet one-way delay: 5.927 ms

Loss rate: 28.39%

Run 3: Report of TCP BBR — Data Link

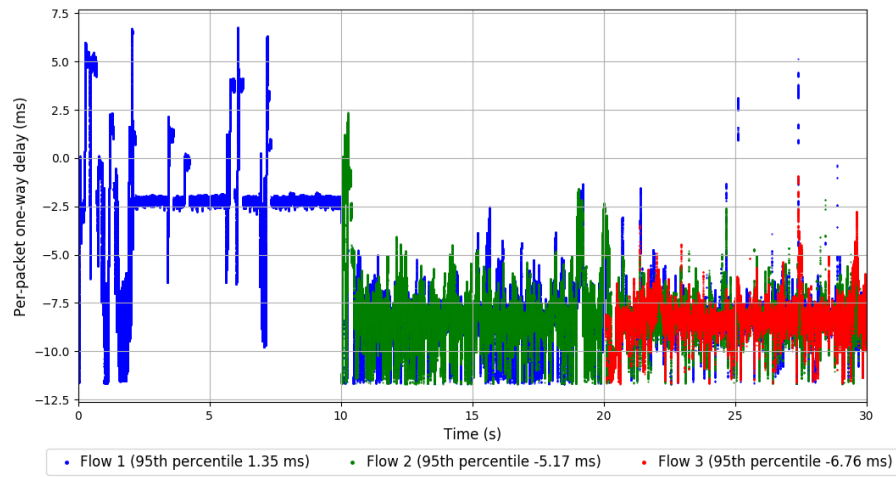
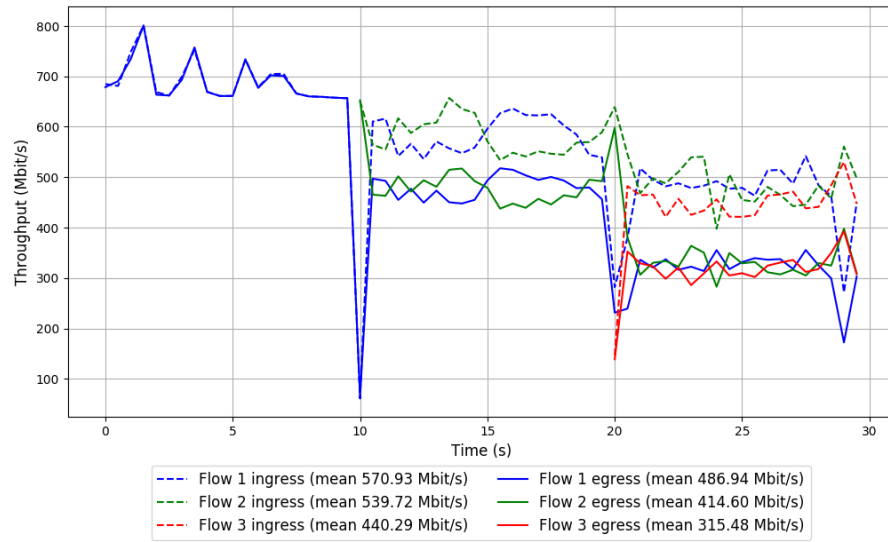


Run 4: Statistics of TCP BBR

Start at: 2017-12-05 23:01:27  
End at: 2017-12-05 23:01:57  
Local clock offset: 0.51 ms  
Remote clock offset: -12.36 ms

# Below is generated by plot.py at 2017-12-06 03:15:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 867.82 Mbit/s  
95th percentile per-packet one-way delay: -0.968 ms  
Loss rate: 19.38%  
-- Flow 1:  
Average throughput: 486.94 Mbit/s  
95th percentile per-packet one-way delay: 1.348 ms  
Loss rate: 14.70%  
-- Flow 2:  
Average throughput: 414.60 Mbit/s  
95th percentile per-packet one-way delay: -5.168 ms  
Loss rate: 23.17%  
-- Flow 3:  
Average throughput: 315.48 Mbit/s  
95th percentile per-packet one-way delay: -6.758 ms  
Loss rate: 28.34%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-05 23:20:26

End at: 2017-12-05 23:20:56

Local clock offset: 0.487 ms

Remote clock offset: 1.972 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 637.52 Mbit/s

95th percentile per-packet one-way delay: 41.784 ms

Loss rate: 12.76%

-- Flow 1:

Average throughput: 91.87 Mbit/s

95th percentile per-packet one-way delay: 49.779 ms

Loss rate: 23.13%

-- Flow 2:

Average throughput: 616.30 Mbit/s

95th percentile per-packet one-way delay: 10.501 ms

Loss rate: 9.01%

-- Flow 3:

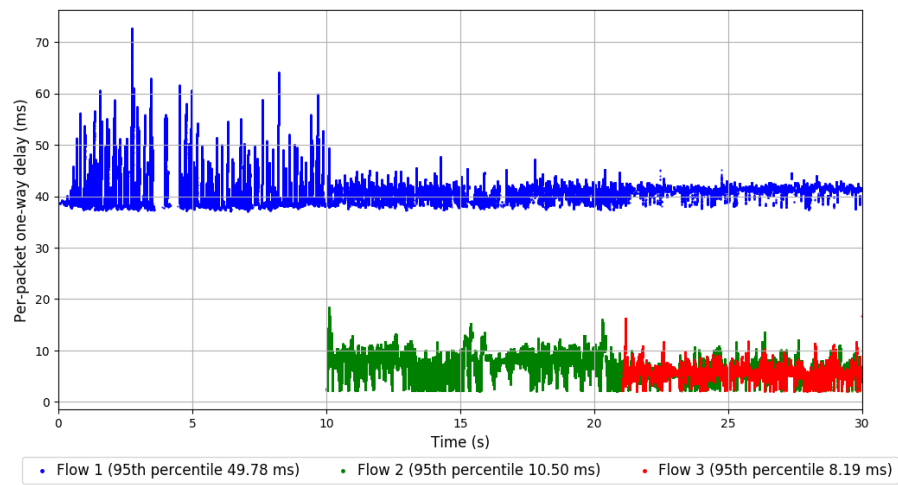
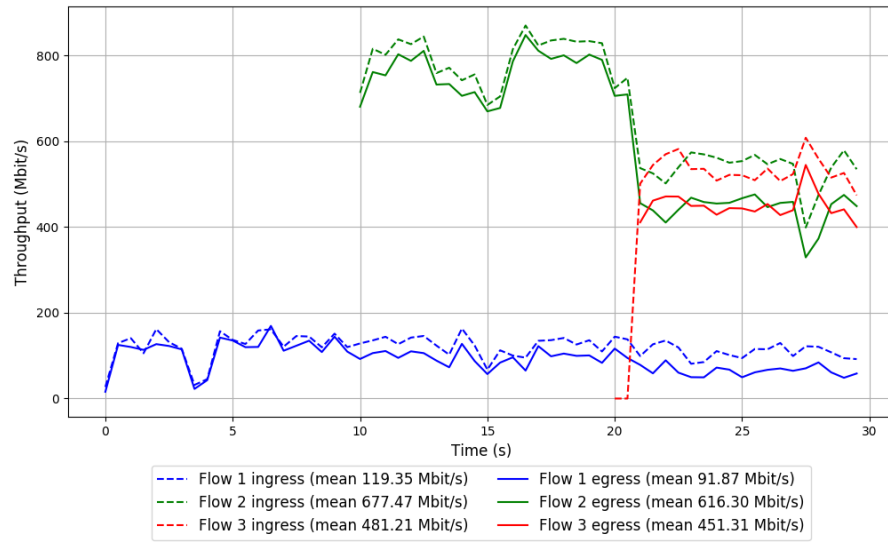
Average throughput: 451.31 Mbit/s

95th percentile per-packet one-way delay: 8.194 ms

Loss rate: 15.61%



# Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-05 23:39:16

End at: 2017-12-05 23:39:46

Local clock offset: 0.324 ms

Remote clock offset: 2.216 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 850.59 Mbit/s

95th percentile per-packet one-way delay: 10.654 ms

Loss rate: 14.27%

-- Flow 1:

Average throughput: 508.44 Mbit/s

95th percentile per-packet one-way delay: 10.885 ms

Loss rate: 11.52%

-- Flow 2:

Average throughput: 466.34 Mbit/s

95th percentile per-packet one-way delay: 8.303 ms

Loss rate: 17.44%

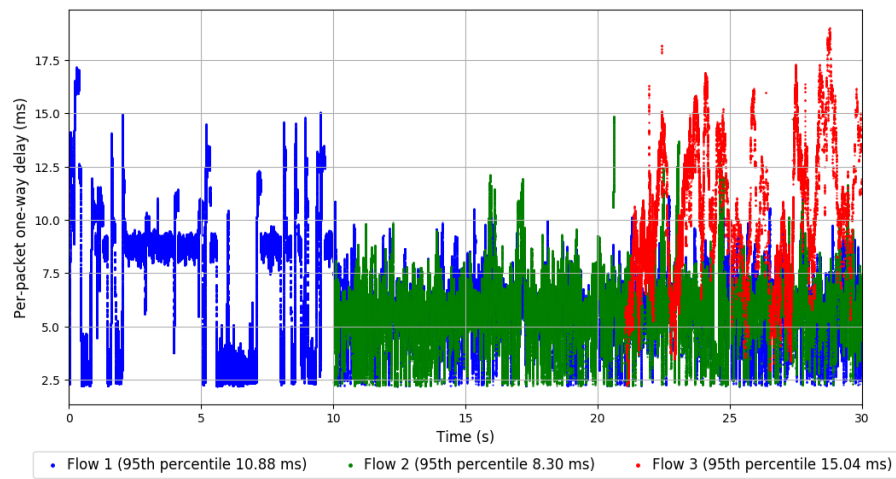
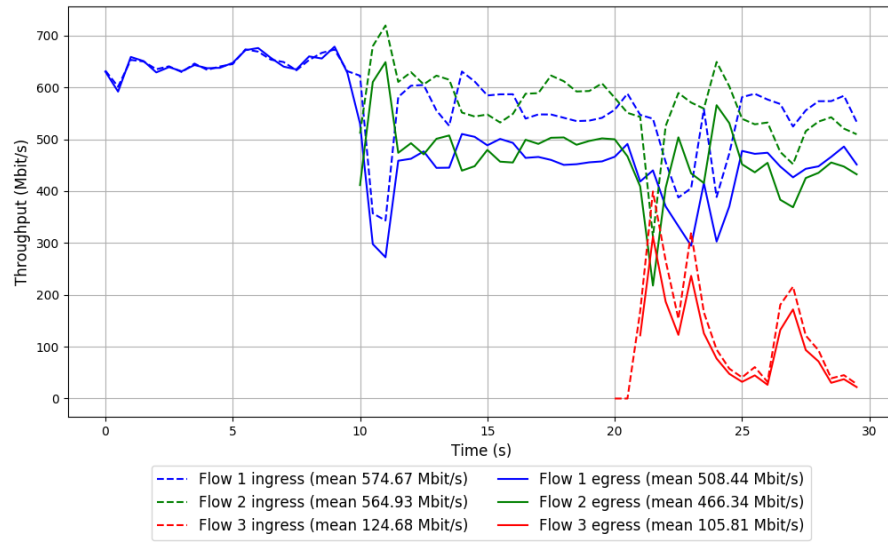
-- Flow 3:

Average throughput: 105.81 Mbit/s

95th percentile per-packet one-way delay: 15.041 ms

Loss rate: 23.74%

## Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-05 23:58:29

End at: 2017-12-05 23:58:59

Local clock offset: 0.28 ms

Remote clock offset: 1.861 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 842.82 Mbit/s

95th percentile per-packet one-way delay: 40.270 ms

Loss rate: 10.88%

-- Flow 1:

Average throughput: 625.44 Mbit/s

95th percentile per-packet one-way delay: 18.192 ms

Loss rate: 6.66%

-- Flow 2:

Average throughput: 98.37 Mbit/s

95th percentile per-packet one-way delay: 45.581 ms

Loss rate: 27.18%

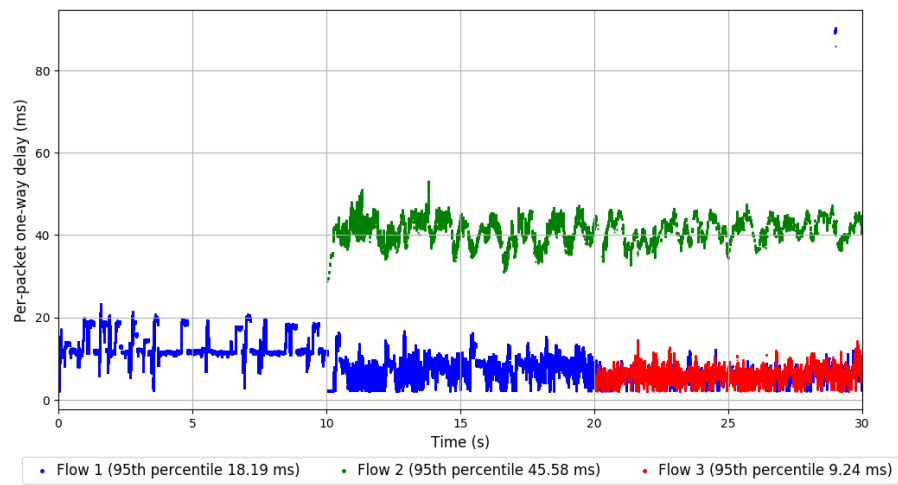
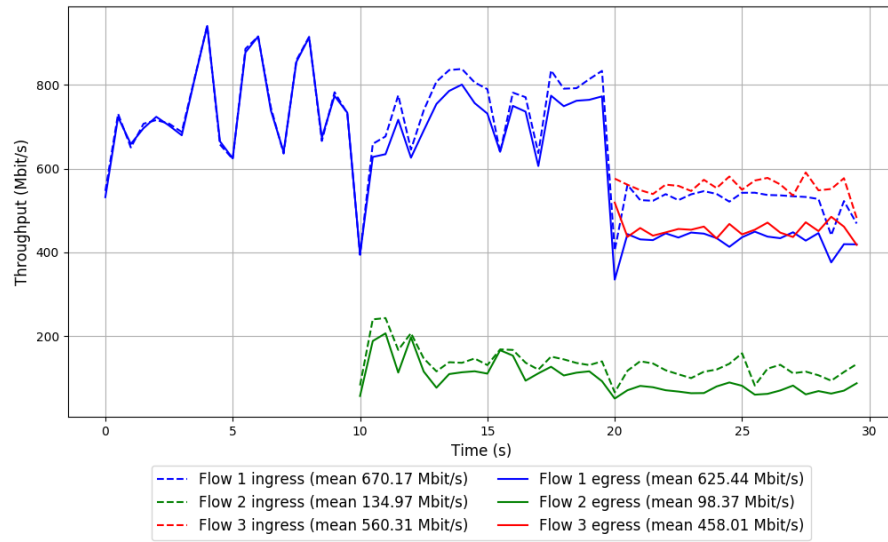
-- Flow 3:

Average throughput: 458.01 Mbit/s

95th percentile per-packet one-way delay: 9.242 ms

Loss rate: 18.23%

# Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-06 00:17:39

End at: 2017-12-06 00:18:09

Local clock offset: 0.159 ms

Remote clock offset: 1.316 ms

# Below is generated by plot.py at 2017-12-06 03:15:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 752.91 Mbit/s

95th percentile per-packet one-way delay: 29.305 ms

Loss rate: 12.56%

-- Flow 1:

Average throughput: 296.75 Mbit/s

95th percentile per-packet one-way delay: 31.766 ms

Loss rate: 8.89%

-- Flow 2:

Average throughput: 467.28 Mbit/s

95th percentile per-packet one-way delay: 9.397 ms

Loss rate: 12.80%

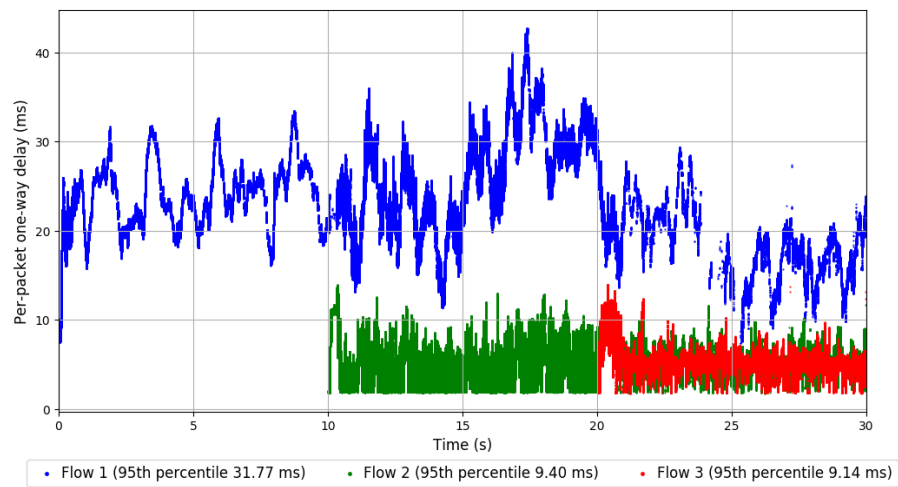
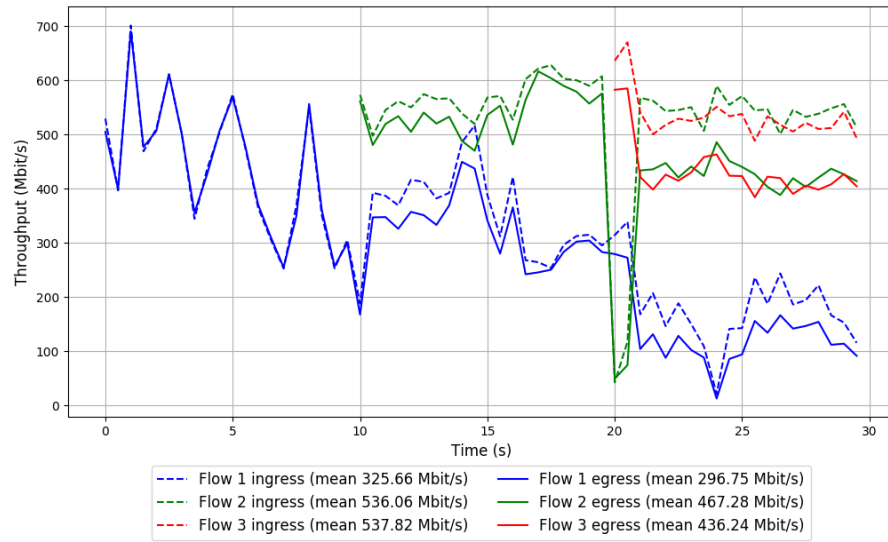
-- Flow 3:

Average throughput: 436.24 Mbit/s

95th percentile per-packet one-way delay: 9.140 ms

Loss rate: 18.80%

## Run 8: Report of TCP BBR — Data Link



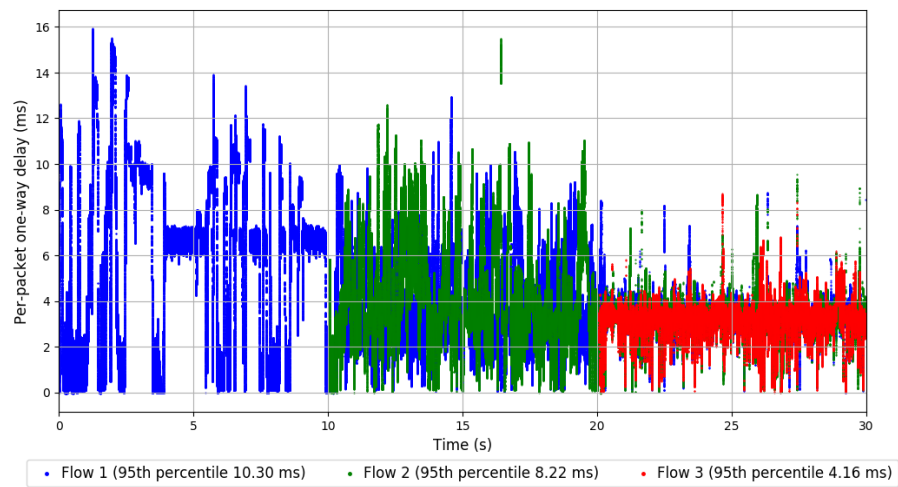
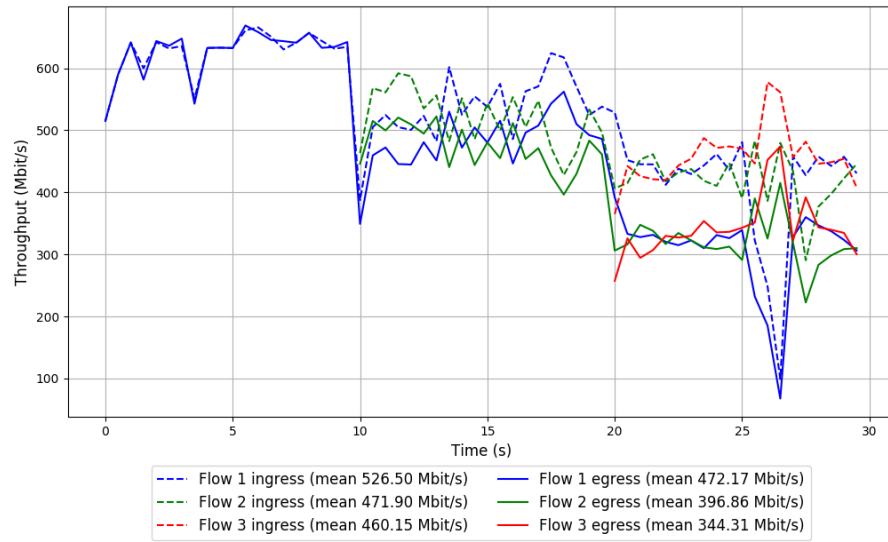
Run 9: Statistics of TCP BBR

Start at: 2017-12-06 00:36:30  
End at: 2017-12-06 00:37:00  
Local clock offset: -0.034 ms  
Remote clock offset: -0.993 ms

# Below is generated by plot.py at 2017-12-06 03:22:38  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 850.68 Mbit/s  
95th percentile per-packet one-way delay: 9.567 ms  
Loss rate: 14.35%  
-- Flow 1:  
Average throughput: 472.17 Mbit/s  
95th percentile per-packet one-way delay: 10.302 ms  
Loss rate: 10.29%  
-- Flow 2:  
Average throughput: 396.86 Mbit/s  
95th percentile per-packet one-way delay: 8.224 ms  
Loss rate: 15.90%  
-- Flow 3:  
Average throughput: 344.31 Mbit/s  
95th percentile per-packet one-way delay: 4.156 ms  
Loss rate: 25.18%



### Run 9: Report of TCP BBR — Data Link

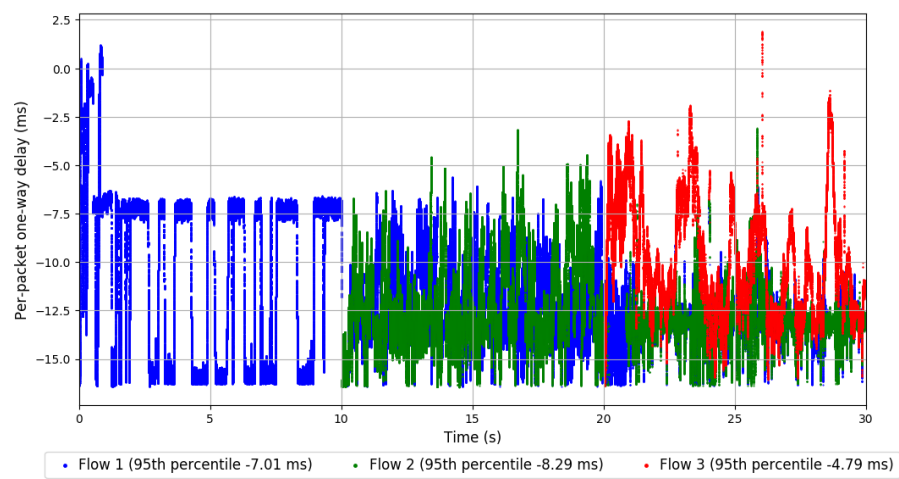
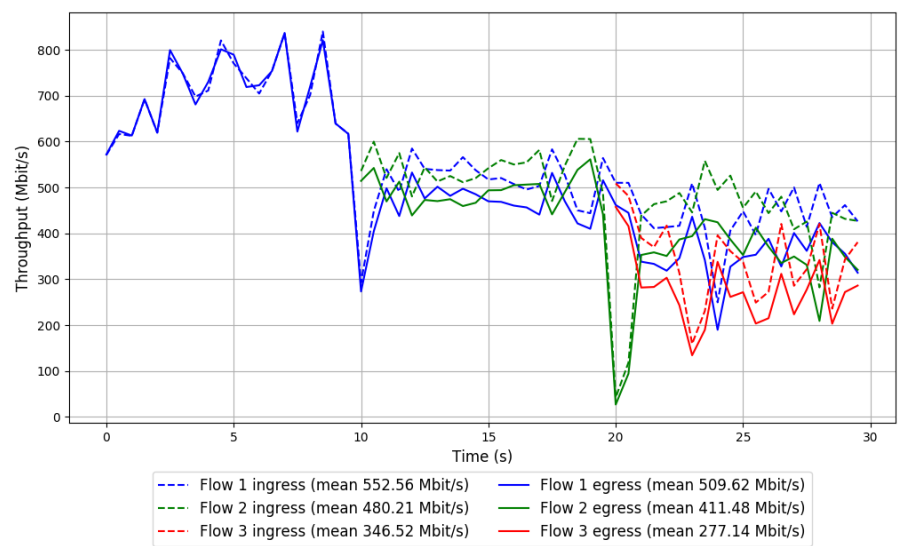


Run 10: Statistics of TCP BBR

Start at: 2017-12-06 00:55:35  
End at: 2017-12-06 00:56:05  
Local clock offset: -0.132 ms  
Remote clock offset: -17.812 ms

# Below is generated by plot.py at 2017-12-06 03:26:03  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 875.67 Mbit/s  
95th percentile per-packet one-way delay: -6.999 ms  
Loss rate: 11.31%  
-- Flow 1:  
Average throughput: 509.62 Mbit/s  
95th percentile per-packet one-way delay: -7.014 ms  
Loss rate: 7.76%  
-- Flow 2:  
Average throughput: 411.48 Mbit/s  
95th percentile per-packet one-way delay: -8.286 ms  
Loss rate: 14.30%  
-- Flow 3:  
Average throughput: 277.14 Mbit/s  
95th percentile per-packet one-way delay: -4.786 ms  
Loss rate: 20.02%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-05 22:06:37

End at: 2017-12-05 22:07:07

Local clock offset: 0.641 ms

Remote clock offset: 1.396 ms

# Below is generated by plot.py at 2017-12-06 03:27:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 914.82 Mbit/s

95th percentile per-packet one-way delay: 9.847 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 555.27 Mbit/s

95th percentile per-packet one-way delay: 10.593 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 352.41 Mbit/s

95th percentile per-packet one-way delay: 5.095 ms

Loss rate: 0.02%

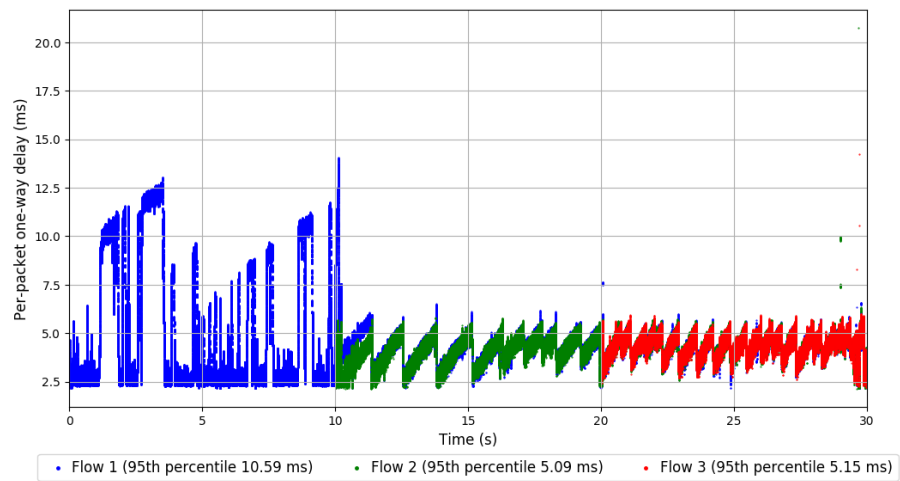
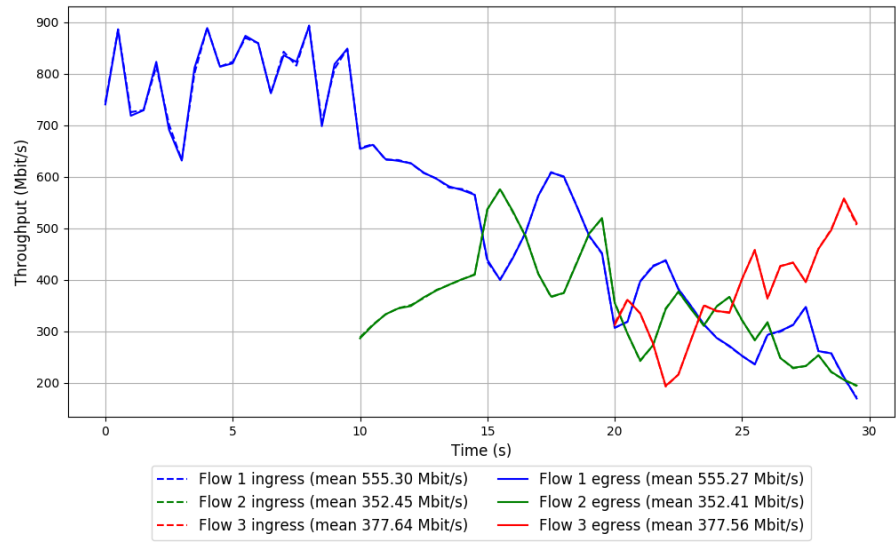
-- Flow 3:

Average throughput: 377.56 Mbit/s

95th percentile per-packet one-way delay: 5.150 ms

Loss rate: 0.02%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-05 22:25:54

End at: 2017-12-05 22:26:24

Local clock offset: 0.631 ms

Remote clock offset: 1.342 ms

# Below is generated by plot.py at 2017-12-06 03:27:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 867.09 Mbit/s

95th percentile per-packet one-way delay: 15.283 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 459.47 Mbit/s

95th percentile per-packet one-way delay: 15.994 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 427.79 Mbit/s

95th percentile per-packet one-way delay: 4.887 ms

Loss rate: 0.03%

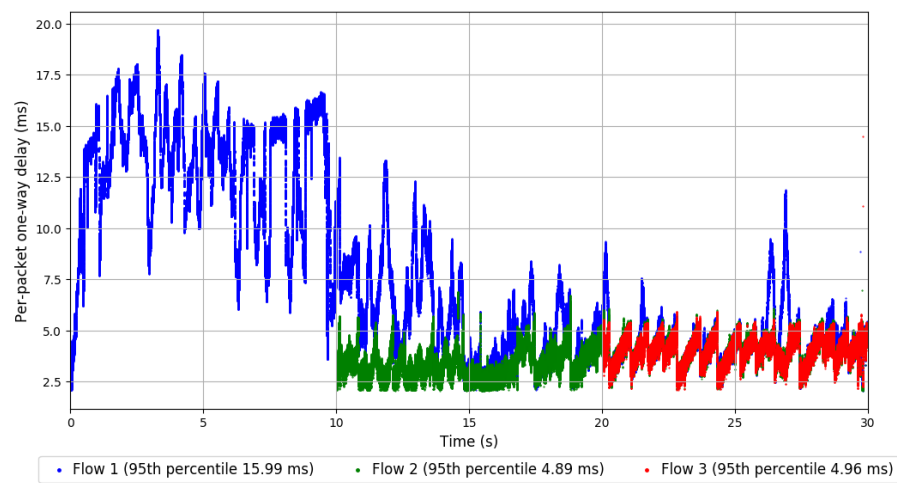
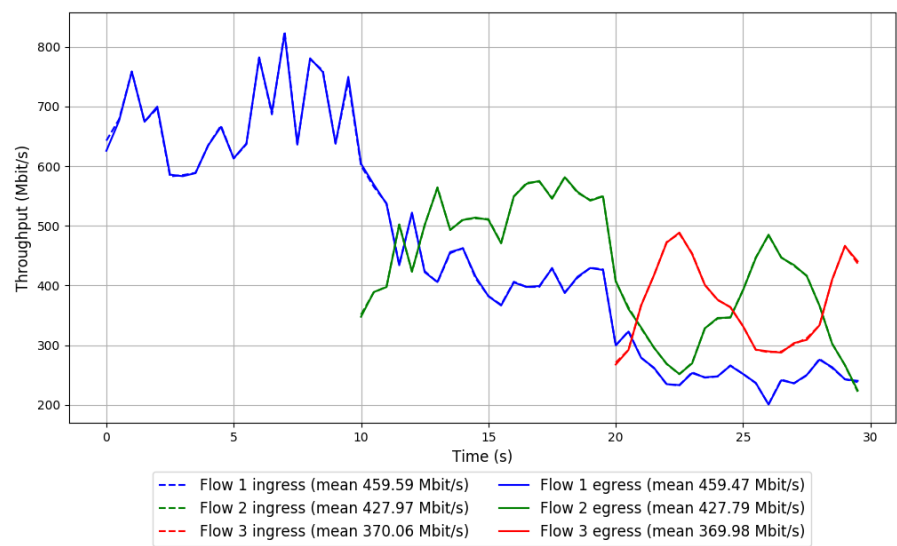
-- Flow 3:

Average throughput: 369.98 Mbit/s

95th percentile per-packet one-way delay: 4.965 ms

Loss rate: 0.02%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-05 22:45:04

End at: 2017-12-05 22:45:34

Local clock offset: 0.597 ms

Remote clock offset: 1.467 ms

# Below is generated by plot.py at 2017-12-06 03:28:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 901.92 Mbit/s

95th percentile per-packet one-way delay: 12.229 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 702.19 Mbit/s

95th percentile per-packet one-way delay: 9.971 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 281.63 Mbit/s

95th percentile per-packet one-way delay: 14.370 ms

Loss rate: 0.04%

-- Flow 3:

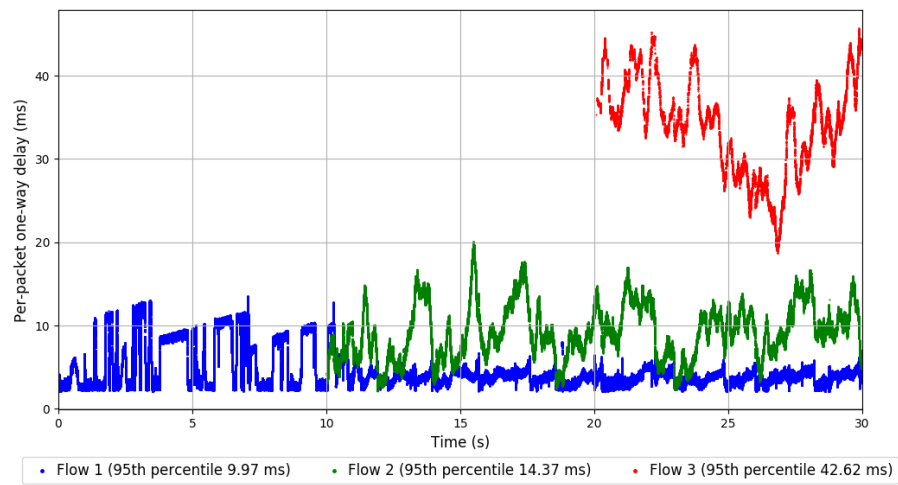
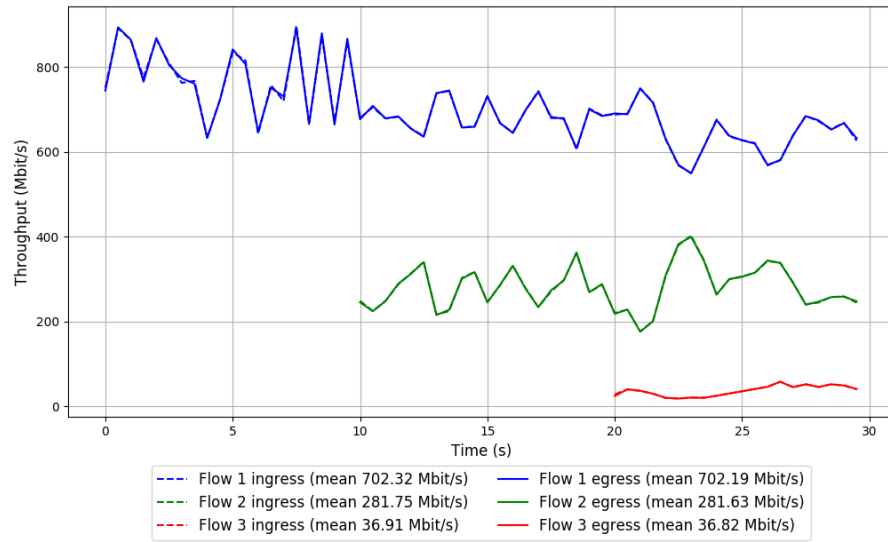
Average throughput: 36.82 Mbit/s

95th percentile per-packet one-way delay: 42.619 ms

Loss rate: 0.54%



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

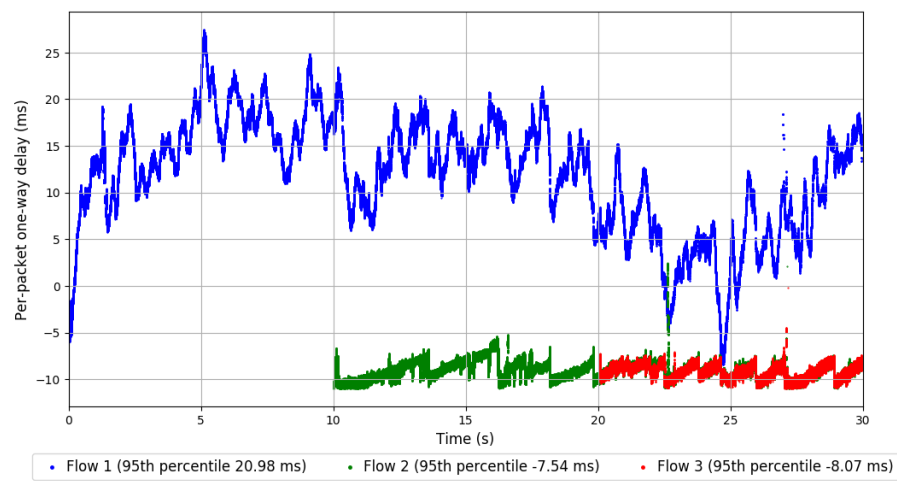
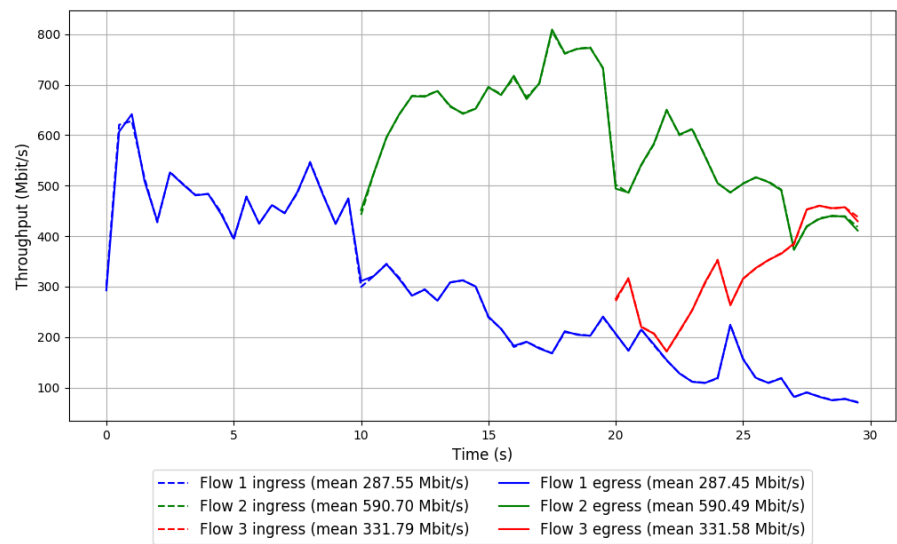


Run 4: Statistics of TCP Cubic

Start at: 2017-12-05 23:04:22  
End at: 2017-12-05 23:04:52  
Local clock offset: 0.506 ms  
Remote clock offset: -11.637 ms

# Below is generated by plot.py at 2017-12-06 03:28:14  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 790.63 Mbit/s  
95th percentile per-packet one-way delay: 18.601 ms  
Loss rate: 0.03%  
-- Flow 1:  
Average throughput: 287.45 Mbit/s  
95th percentile per-packet one-way delay: 20.985 ms  
Loss rate: 0.04%  
-- Flow 2:  
Average throughput: 590.49 Mbit/s  
95th percentile per-packet one-way delay: -7.538 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 331.58 Mbit/s  
95th percentile per-packet one-way delay: -8.071 ms  
Loss rate: 0.04%

Run 4: Report of TCP Cubic — Data Link

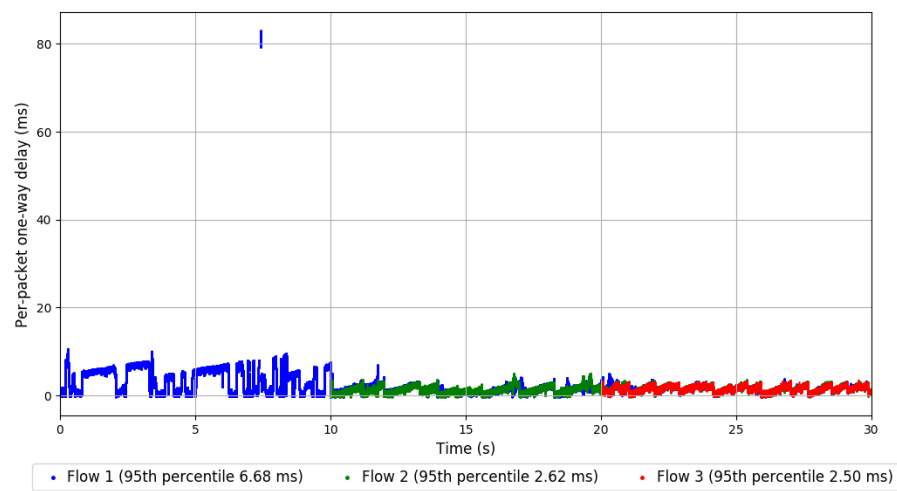
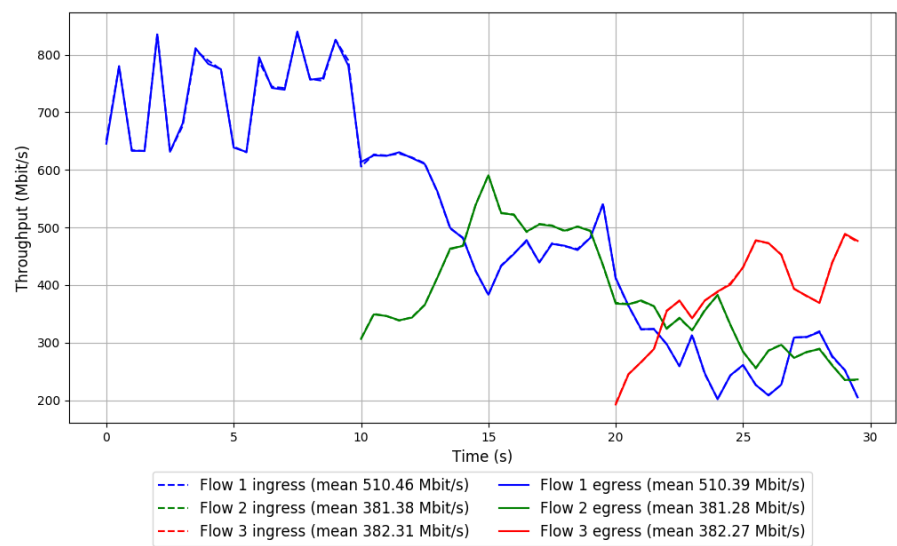


Run 5: Statistics of TCP Cubic

Start at: 2017-12-05 23:23:07  
End at: 2017-12-05 23:23:37  
Local clock offset: 0.398 ms  
Remote clock offset: -0.506 ms

# Below is generated by plot.py at 2017-12-06 03:28:40  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 891.18 Mbit/s  
95th percentile per-packet one-way delay: 6.135 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 510.39 Mbit/s  
95th percentile per-packet one-way delay: 6.683 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 381.28 Mbit/s  
95th percentile per-packet one-way delay: 2.621 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 382.27 Mbit/s  
95th percentile per-packet one-way delay: 2.500 ms  
Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-05 23:42:09

End at: 2017-12-05 23:42:39

Local clock offset: 0.372 ms

Remote clock offset: 2.168 ms

# Below is generated by plot.py at 2017-12-06 03:28:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 841.88 Mbit/s

95th percentile per-packet one-way delay: 14.771 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 484.58 Mbit/s

95th percentile per-packet one-way delay: 15.933 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 347.85 Mbit/s

95th percentile per-packet one-way delay: 10.073 ms

Loss rate: 0.04%

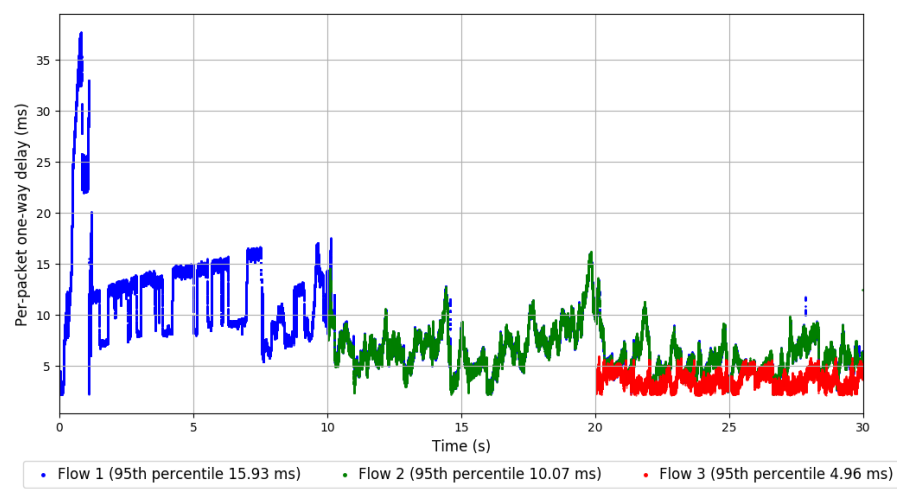
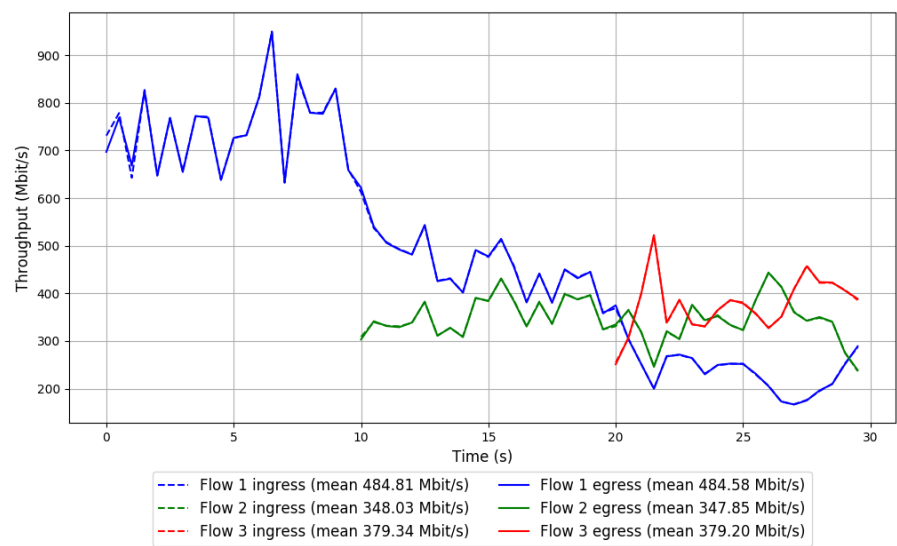
-- Flow 3:

Average throughput: 379.20 Mbit/s

95th percentile per-packet one-way delay: 4.956 ms

Loss rate: 0.02%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-06 00:01:18

End at: 2017-12-06 00:01:48

Local clock offset: 0.234 ms

Remote clock offset: 1.812 ms

# Below is generated by plot.py at 2017-12-06 03:37:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 905.48 Mbit/s

95th percentile per-packet one-way delay: 37.325 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 567.62 Mbit/s

95th percentile per-packet one-way delay: 38.122 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 431.87 Mbit/s

95th percentile per-packet one-way delay: 5.252 ms

Loss rate: 0.01%

-- Flow 3:

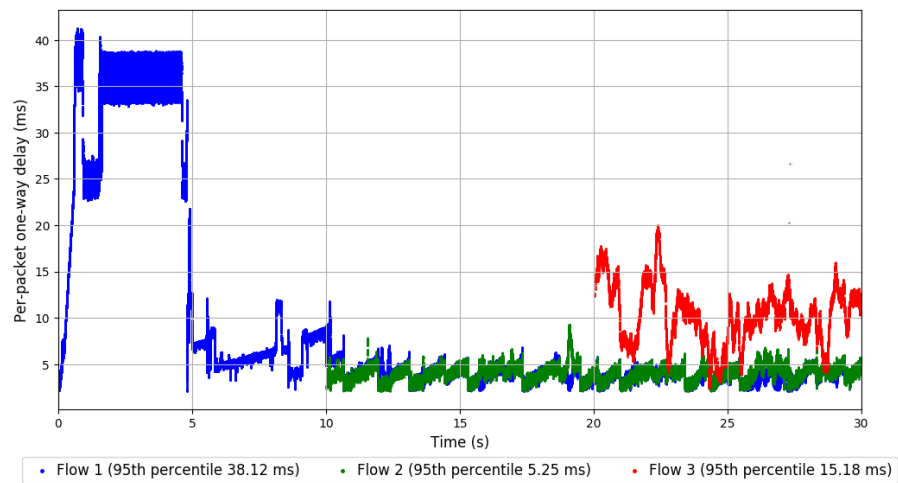
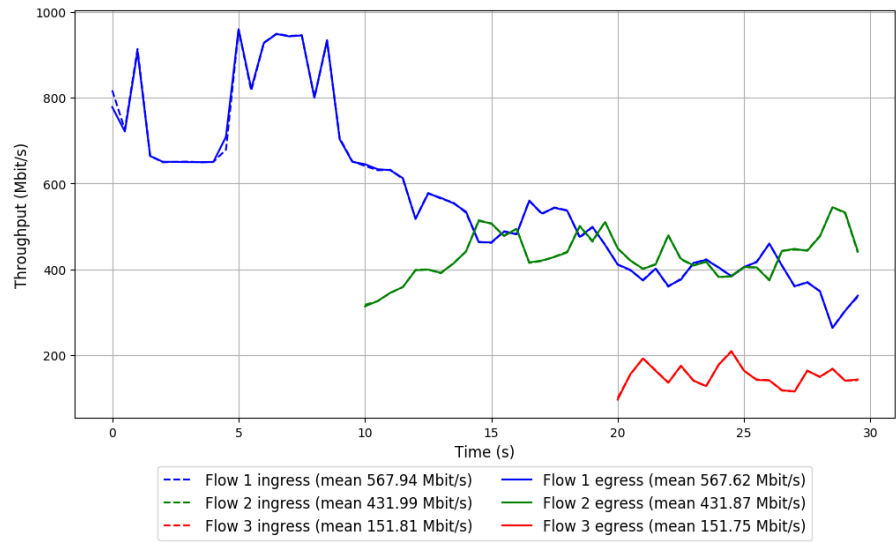
Average throughput: 151.75 Mbit/s

95th percentile per-packet one-way delay: 15.181 ms

Loss rate: 0.10%



## Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-06 00:20:25

End at: 2017-12-06 00:20:55

Local clock offset: 0.156 ms

Remote clock offset: 1.667 ms

# Below is generated by plot.py at 2017-12-06 03:37:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 585.67 Mbit/s

95th percentile per-packet one-way delay: 13.074 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 44.642 ms

Loss rate: 2.30%

-- Flow 2:

Average throughput: 668.62 Mbit/s

95th percentile per-packet one-way delay: 13.209 ms

Loss rate: 0.04%

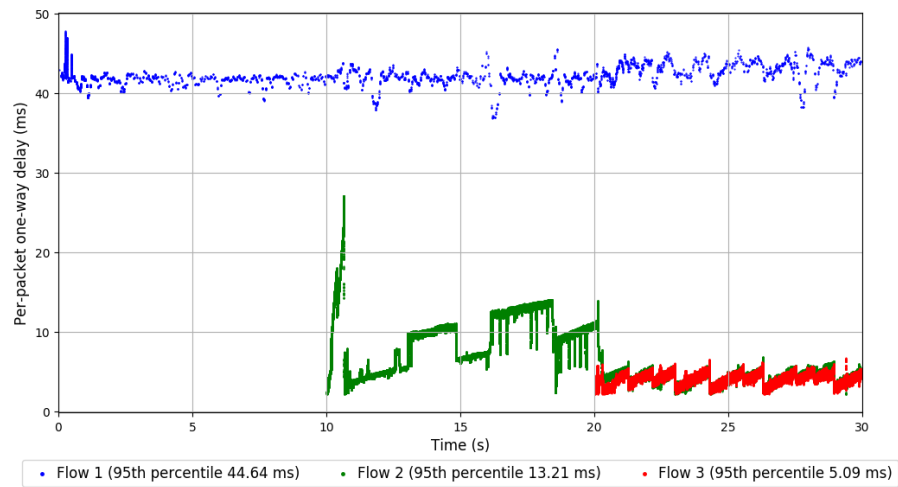
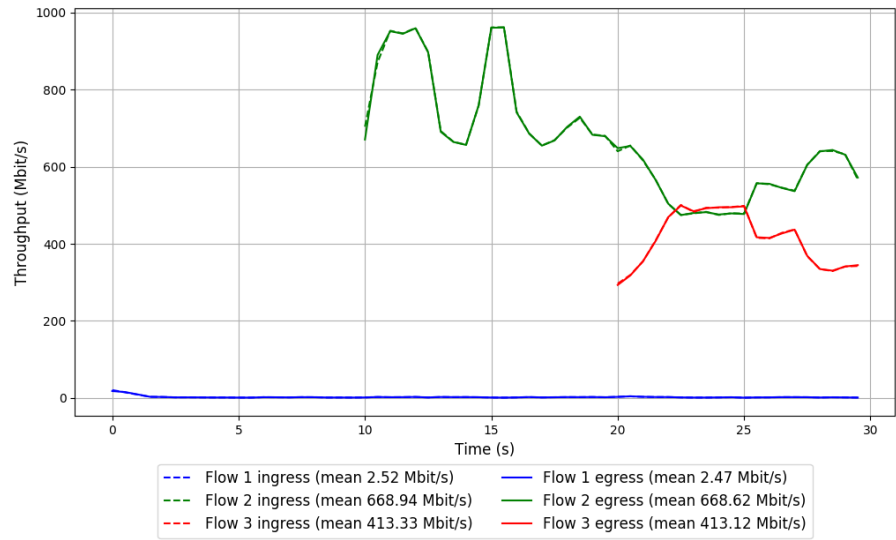
-- Flow 3:

Average throughput: 413.12 Mbit/s

95th percentile per-packet one-way delay: 5.087 ms

Loss rate: 0.02%

## Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-06 00:39:23

End at: 2017-12-06 00:39:53

Local clock offset: -0.011 ms

Remote clock offset: 1.164 ms

# Below is generated by plot.py at 2017-12-06 03:39:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 818.28 Mbit/s

95th percentile per-packet one-way delay: 39.281 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 410.73 Mbit/s

95th percentile per-packet one-way delay: 40.449 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 406.19 Mbit/s

95th percentile per-packet one-way delay: 6.405 ms

Loss rate: 0.02%

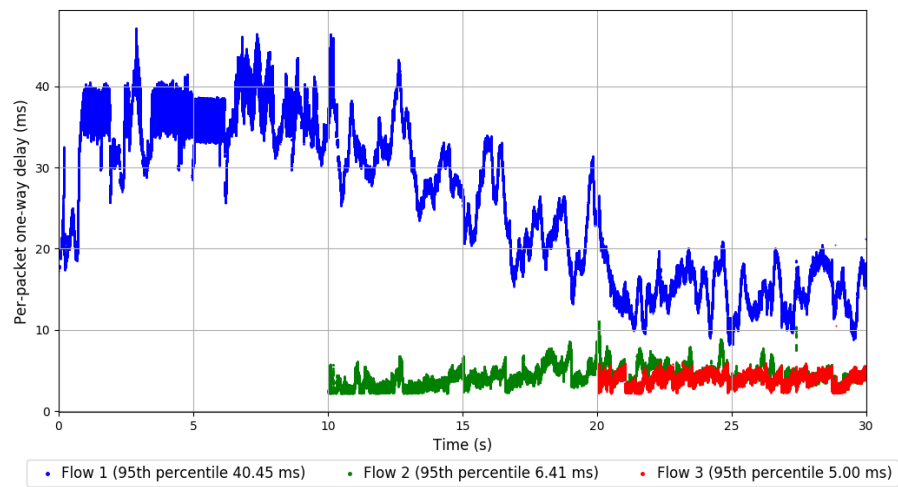
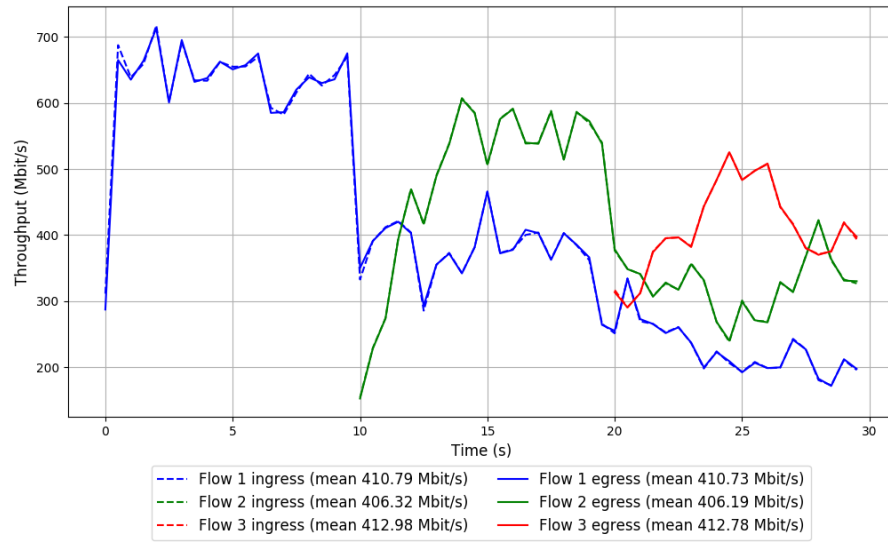
-- Flow 3:

Average throughput: 412.78 Mbit/s

95th percentile per-packet one-way delay: 4.999 ms

Loss rate: 0.02%

## Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-06 00:58:28

End at: 2017-12-06 00:58:58

Local clock offset: -0.184 ms

Remote clock offset: 0.723 ms

# Below is generated by plot.py at 2017-12-06 03:40:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 896.37 Mbit/s

95th percentile per-packet one-way delay: 12.547 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 555.60 Mbit/s

95th percentile per-packet one-way delay: 13.841 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 348.35 Mbit/s

95th percentile per-packet one-way delay: 5.096 ms

Loss rate: 0.02%

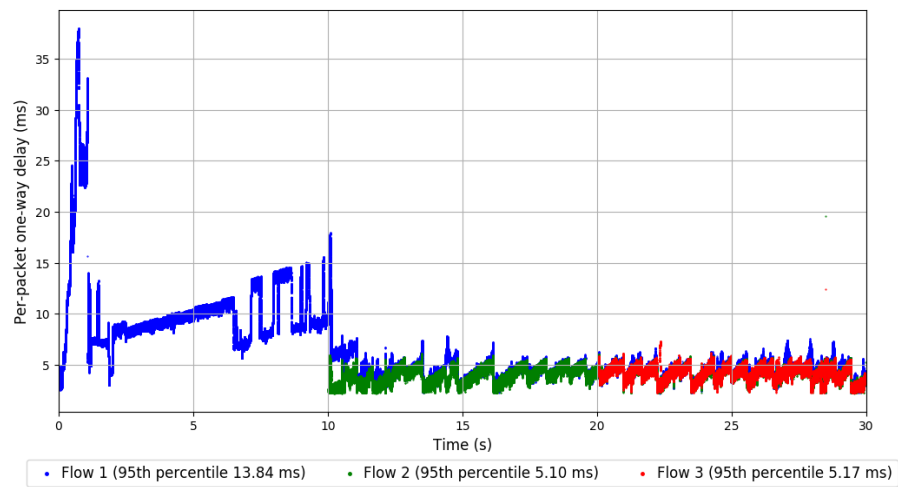
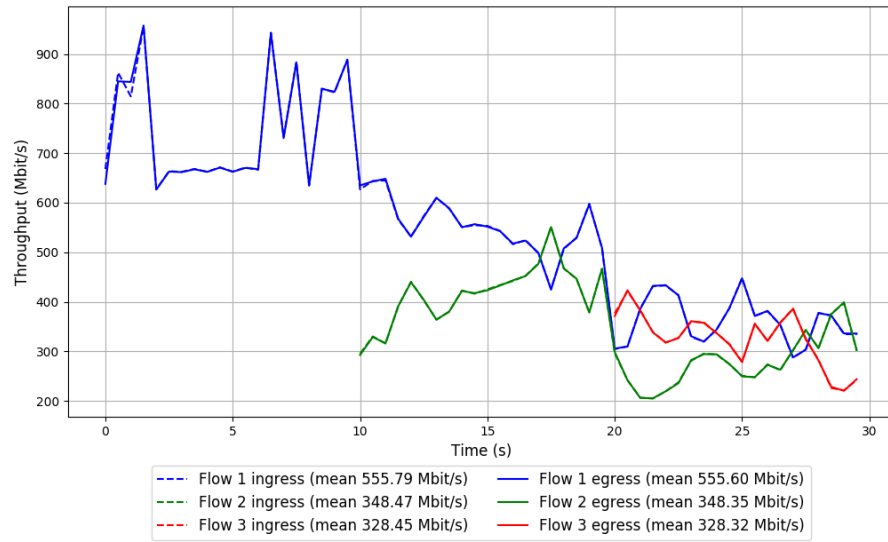
-- Flow 3:

Average throughput: 328.32 Mbit/s

95th percentile per-packet one-way delay: 5.165 ms

Loss rate: 0.04%

## Run 10: Report of TCP Cubic — Data Link



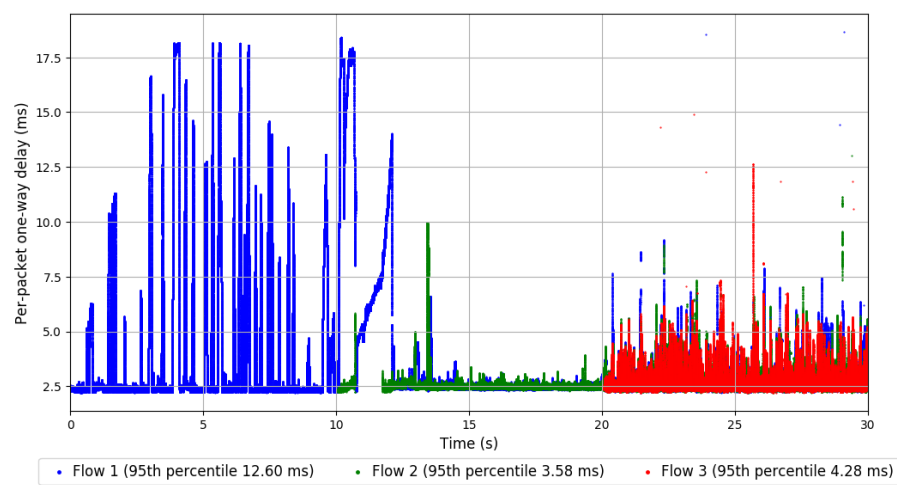
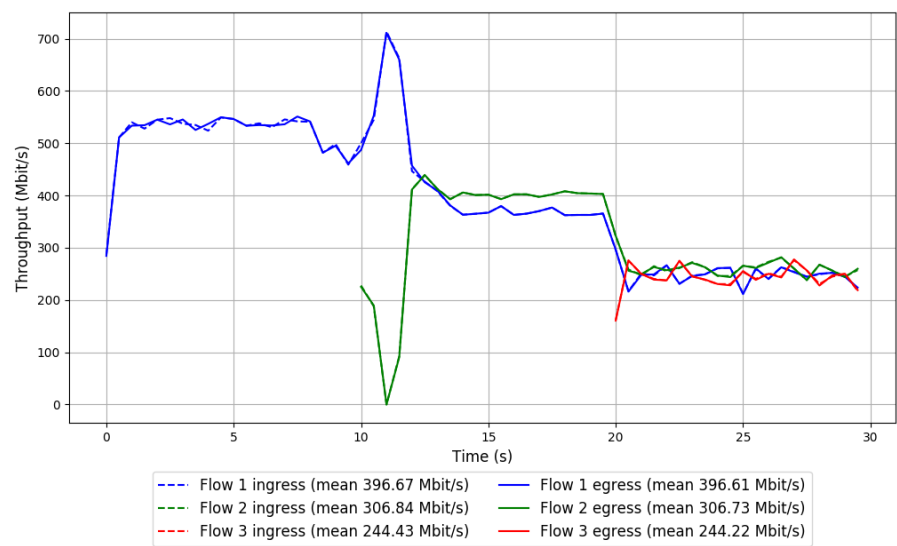
```
Run 1: Statistics of LEDBAT

Start at: 2017-12-05 22:14:59
End at: 2017-12-05 22:15:29
Local clock offset: 0.561 ms
Remote clock offset: 1.401 ms

# Below is generated by plot.py at 2017-12-06 03:40:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 681.45 Mbit/s
95th percentile per-packet one-way delay: 9.671 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 396.61 Mbit/s
95th percentile per-packet one-way delay: 12.602 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 306.73 Mbit/s
95th percentile per-packet one-way delay: 3.585 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 244.22 Mbit/s
95th percentile per-packet one-way delay: 4.276 ms
Loss rate: 0.09%
```



Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-12-05 22:34:13

End at: 2017-12-05 22:34:43

Local clock offset: 0.53 ms

Remote clock offset: 1.418 ms

# Below is generated by plot.py at 2017-12-06 03:40:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 683.11 Mbit/s

95th percentile per-packet one-way delay: 10.118 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 392.69 Mbit/s

95th percentile per-packet one-way delay: 11.937 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 290.79 Mbit/s

95th percentile per-packet one-way delay: 4.624 ms

Loss rate: 0.06%

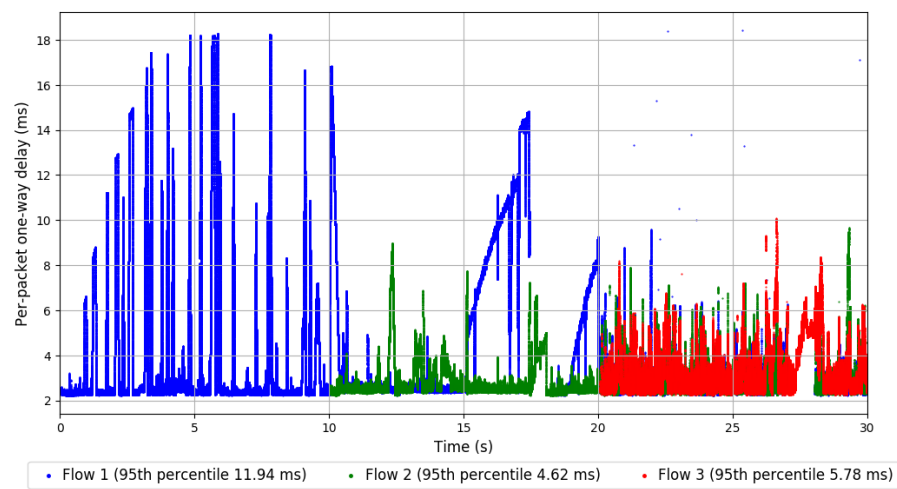
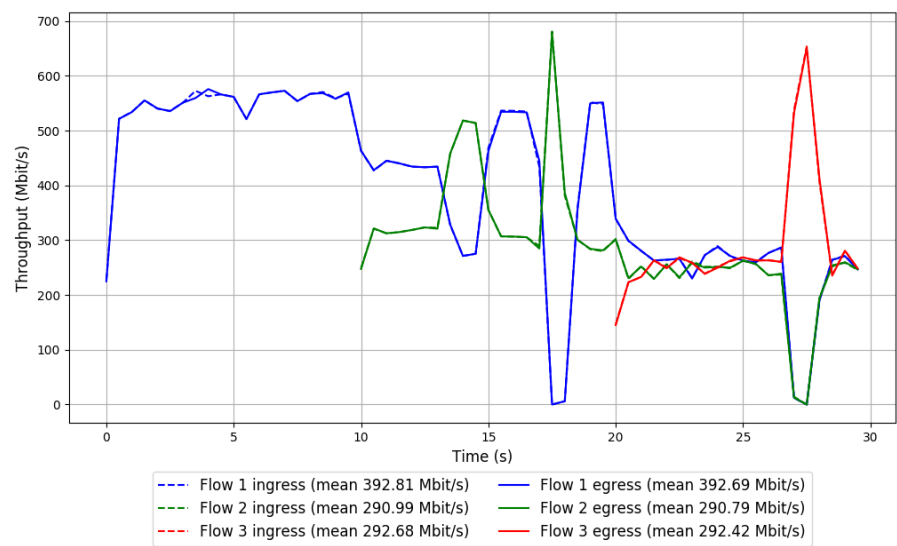
-- Flow 3:

Average throughput: 292.42 Mbit/s

95th percentile per-packet one-way delay: 5.776 ms

Loss rate: 0.09%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-05 22:53:28

End at: 2017-12-05 22:53:58

Local clock offset: 0.567 ms

Remote clock offset: -5.44 ms

# Below is generated by plot.py at 2017-12-06 03:40:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 713.11 Mbit/s

95th percentile per-packet one-way delay: 6.395 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 432.68 Mbit/s

95th percentile per-packet one-way delay: 9.921 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 313.19 Mbit/s

95th percentile per-packet one-way delay: -1.225 ms

Loss rate: 0.04%

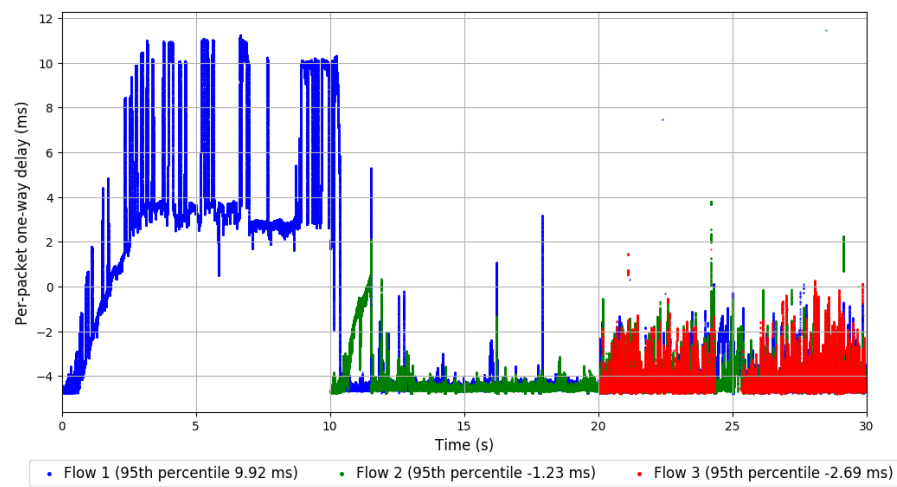
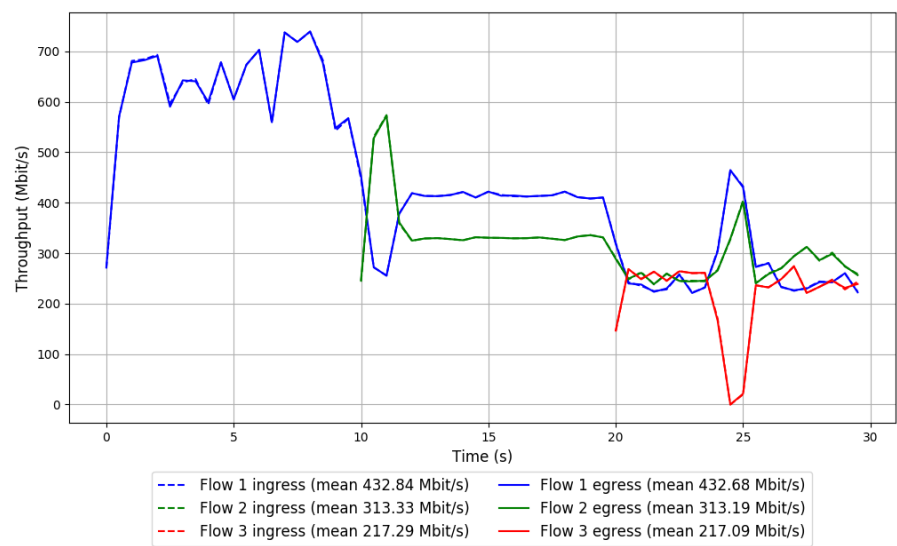
-- Flow 3:

Average throughput: 217.09 Mbit/s

95th percentile per-packet one-way delay: -2.692 ms

Loss rate: 0.09%

Run 3: Report of LEDBAT — Data Link

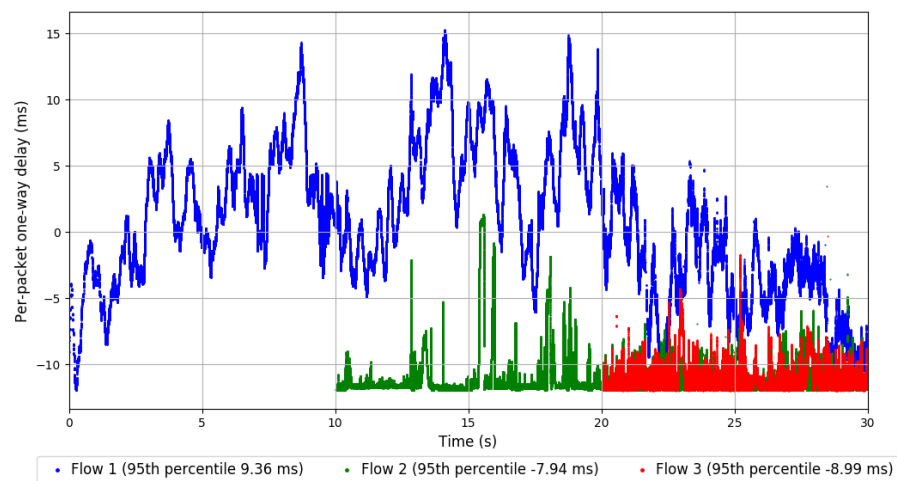
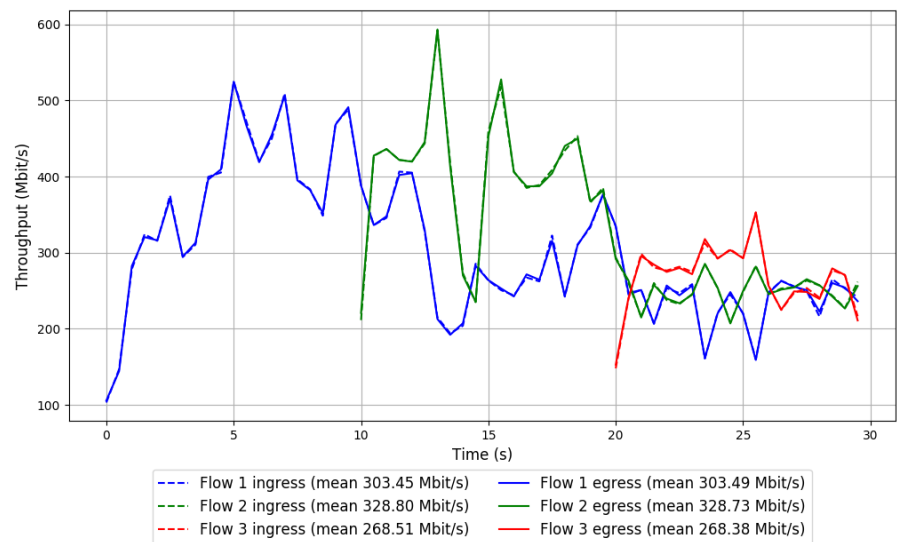


Run 4: Statistics of LEDBAT

Start at: 2017-12-05 23:12:26  
End at: 2017-12-05 23:12:56  
Local clock offset: 0.548 ms  
Remote clock offset: -12.521 ms

# Below is generated by plot.py at 2017-12-06 03:40:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 611.30 Mbit/s  
95th percentile per-packet one-way delay: 7.507 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 303.49 Mbit/s  
95th percentile per-packet one-way delay: 9.361 ms  
Loss rate: 0.01%  
-- Flow 2:  
Average throughput: 328.73 Mbit/s  
95th percentile per-packet one-way delay: -7.939 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 268.38 Mbit/s  
95th percentile per-packet one-way delay: -8.989 ms  
Loss rate: 0.05%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-05 23:31:19

End at: 2017-12-05 23:31:49

Local clock offset: 0.46 ms

Remote clock offset: 2.082 ms

# Below is generated by plot.py at 2017-12-06 03:44:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 704.28 Mbit/s

95th percentile per-packet one-way delay: 12.274 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 415.62 Mbit/s

95th percentile per-packet one-way delay: 15.835 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 311.14 Mbit/s

95th percentile per-packet one-way delay: 5.079 ms

Loss rate: 0.12%

-- Flow 3:

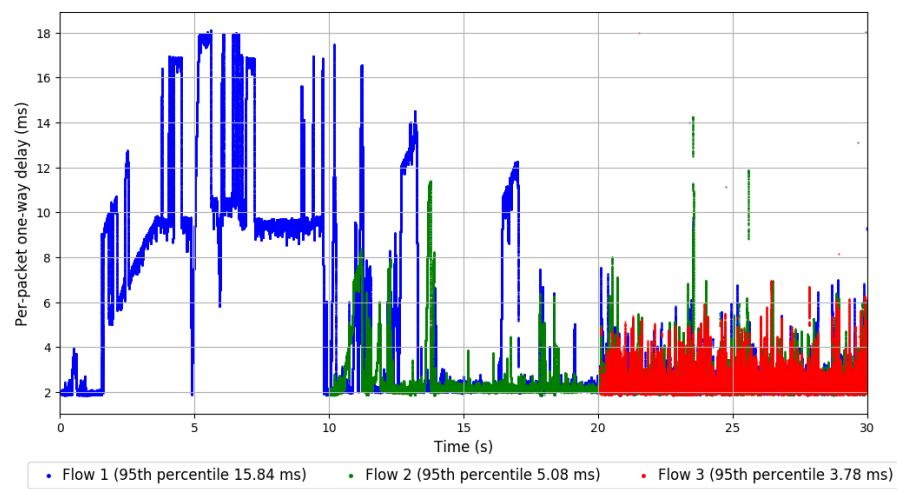
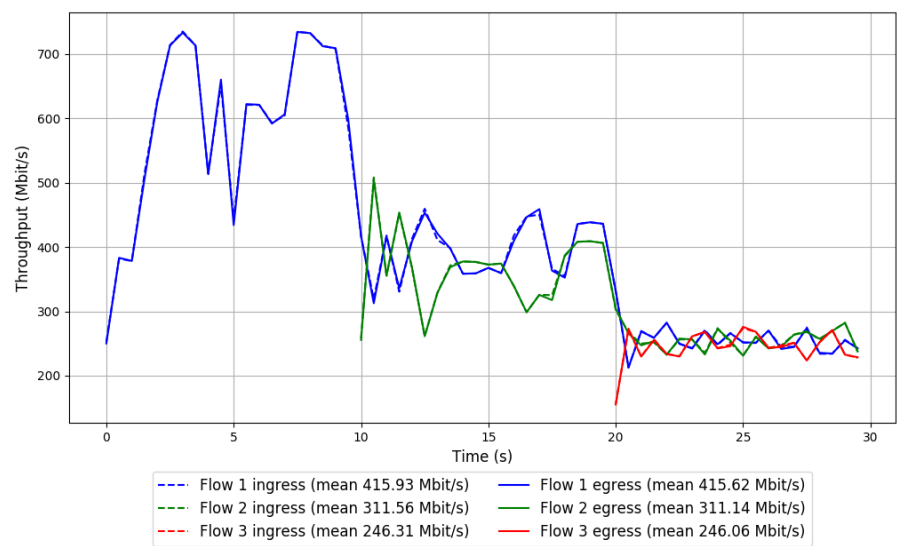
Average throughput: 246.06 Mbit/s

95th percentile per-packet one-way delay: 3.778 ms

Loss rate: 0.07%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-05 23:50:26

End at: 2017-12-05 23:50:56

Local clock offset: 0.254 ms

Remote clock offset: 1.981 ms

# Below is generated by plot.py at 2017-12-06 03:48:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 687.30 Mbit/s

95th percentile per-packet one-way delay: 15.769 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 382.35 Mbit/s

95th percentile per-packet one-way delay: 17.036 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 335.87 Mbit/s

95th percentile per-packet one-way delay: 7.018 ms

Loss rate: 0.08%

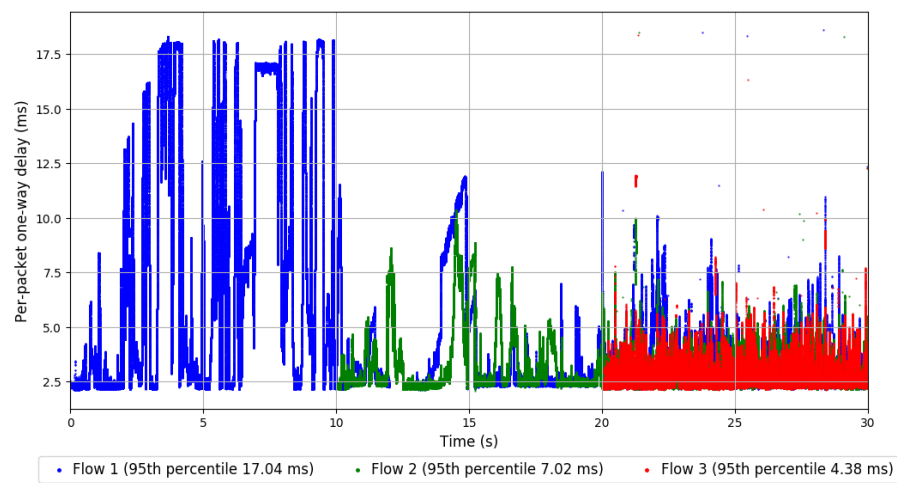
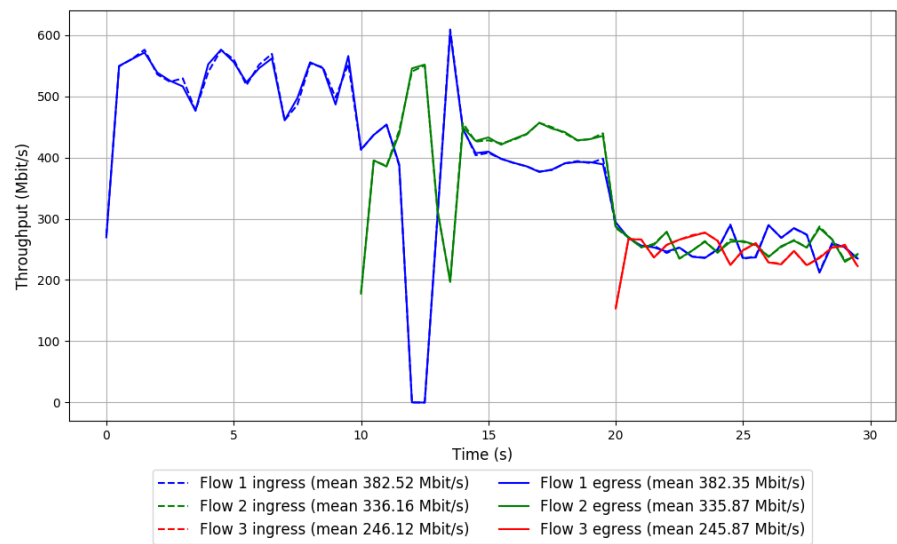
-- Flow 3:

Average throughput: 245.87 Mbit/s

95th percentile per-packet one-way delay: 4.376 ms

Loss rate: 0.09%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-06 00:09:31

End at: 2017-12-06 00:10:01

Local clock offset: 0.205 ms

Remote clock offset: 1.761 ms

# Below is generated by plot.py at 2017-12-06 03:49:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 733.24 Mbit/s

95th percentile per-packet one-way delay: 12.626 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 461.46 Mbit/s

95th percentile per-packet one-way delay: 13.402 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 406.19 Mbit/s

95th percentile per-packet one-way delay: 8.875 ms

Loss rate: 0.09%

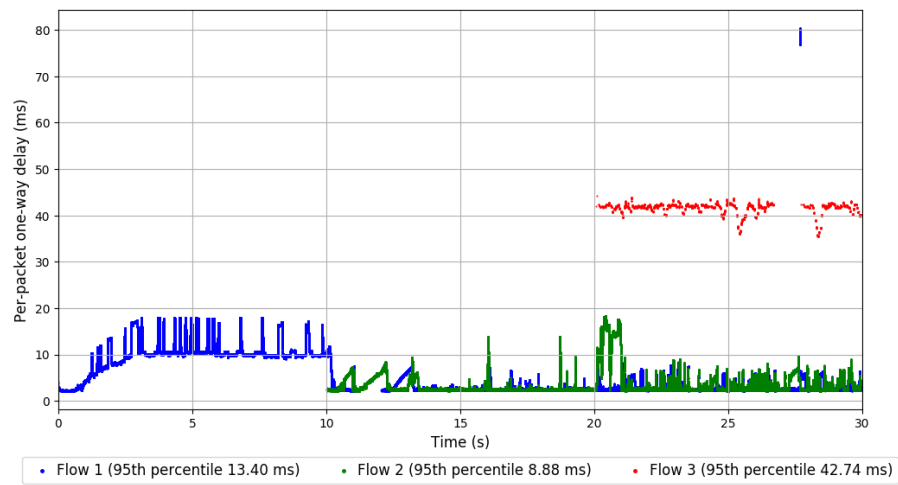
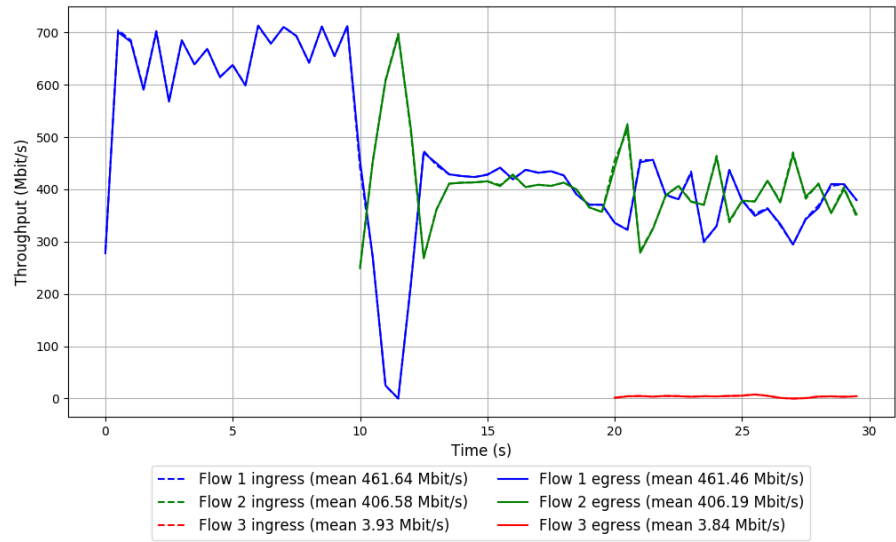
-- Flow 3:

Average throughput: 3.84 Mbit/s

95th percentile per-packet one-way delay: 42.744 ms

Loss rate: 2.85%

# Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-06 00:28:27

End at: 2017-12-06 00:28:57

Local clock offset: 0.098 ms

Remote clock offset: 1.476 ms

# Below is generated by plot.py at 2017-12-06 03:49:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 729.44 Mbit/s

95th percentile per-packet one-way delay: 12.497 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 410.95 Mbit/s

95th percentile per-packet one-way delay: 13.553 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 354.40 Mbit/s

95th percentile per-packet one-way delay: 12.470 ms

Loss rate: 0.09%

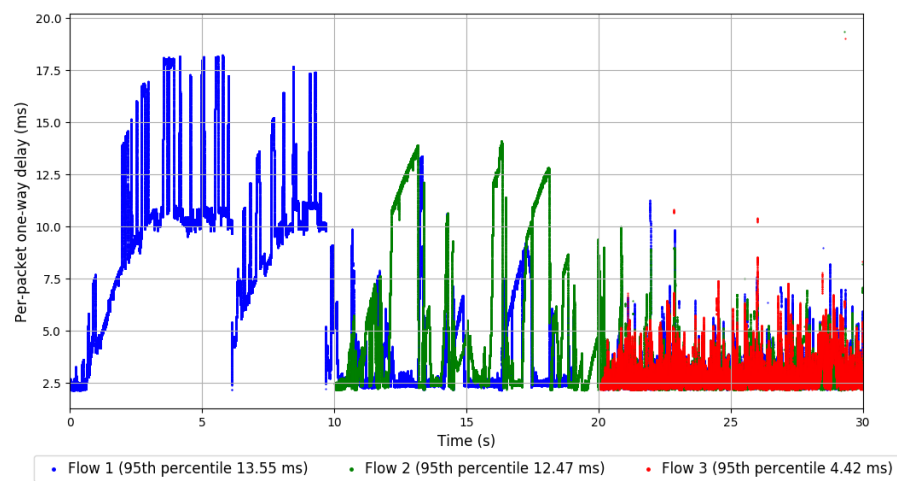
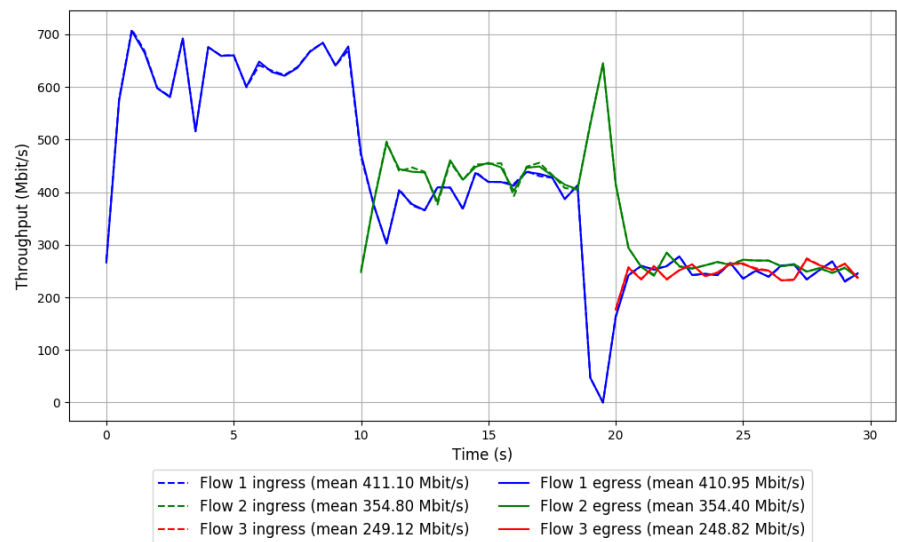
-- Flow 3:

Average throughput: 248.82 Mbit/s

95th percentile per-packet one-way delay: 4.425 ms

Loss rate: 0.06%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-06 00:47:33

End at: 2017-12-06 00:48:03

Local clock offset: -0.078 ms

Remote clock offset: 0.986 ms

# Below is generated by plot.py at 2017-12-06 03:49:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 593.12 Mbit/s

95th percentile per-packet one-way delay: 10.933 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 477.73 Mbit/s

95th percentile per-packet one-way delay: 10.924 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 4.85 Mbit/s

95th percentile per-packet one-way delay: 42.685 ms

Loss rate: 1.94%

-- Flow 3:

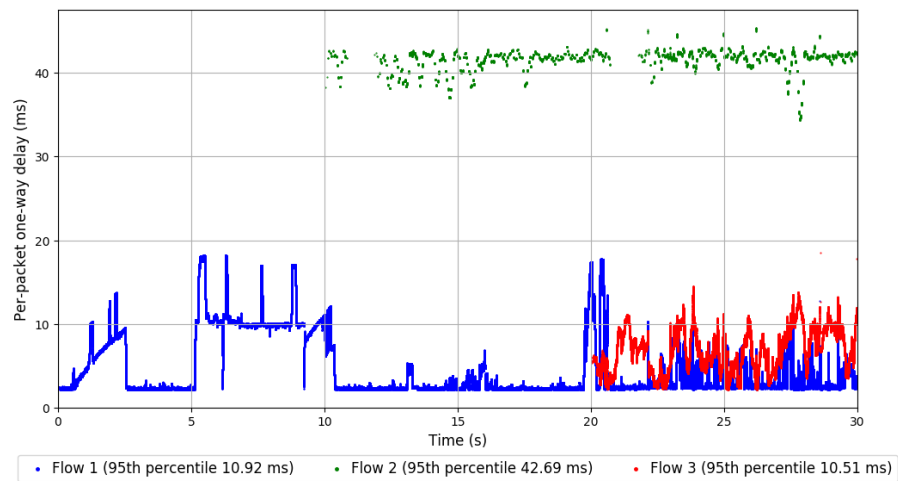
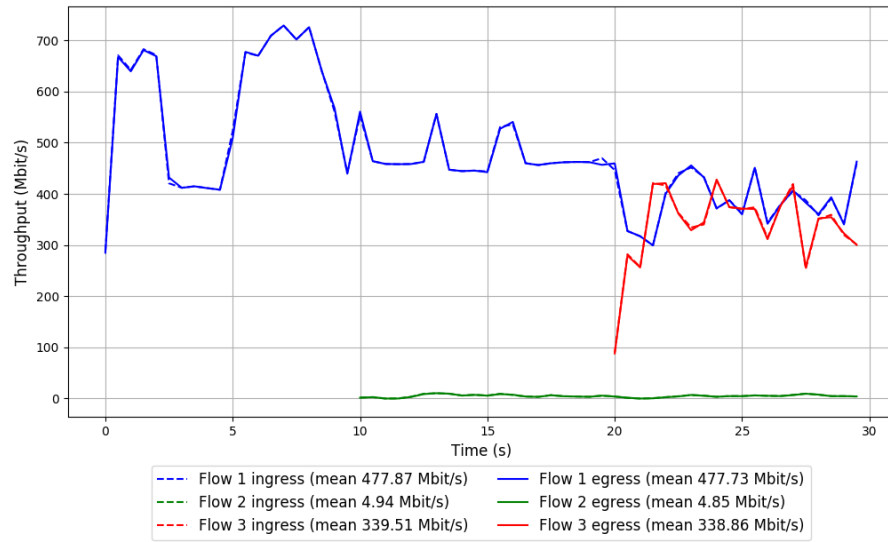
Average throughput: 338.86 Mbit/s

95th percentile per-packet one-way delay: 10.514 ms

Loss rate: 0.16%



## Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-06 01:06:53

End at: 2017-12-06 01:07:23

Local clock offset: -0.23 ms

Remote clock offset: 0.561 ms

# Below is generated by plot.py at 2017-12-06 03:49:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 687.08 Mbit/s

95th percentile per-packet one-way delay: 10.971 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 424.88 Mbit/s

95th percentile per-packet one-way delay: 13.174 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 392.04 Mbit/s

95th percentile per-packet one-way delay: 10.251 ms

Loss rate: 0.05%

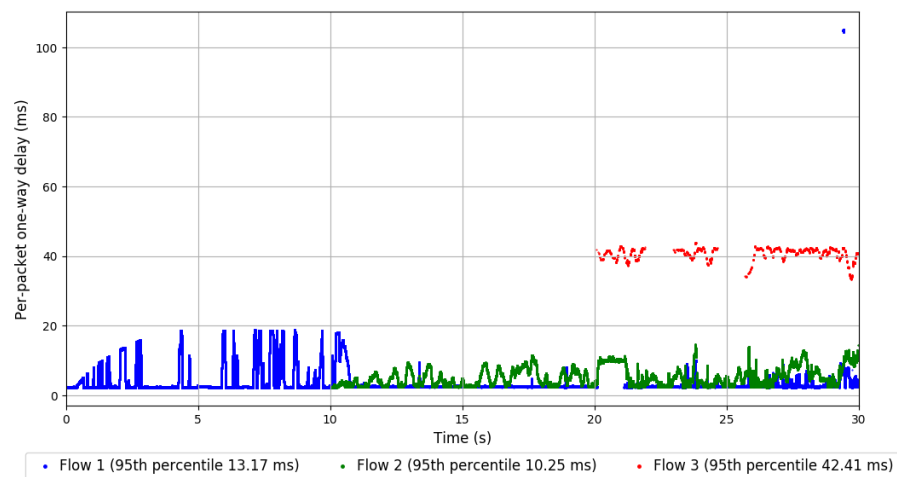
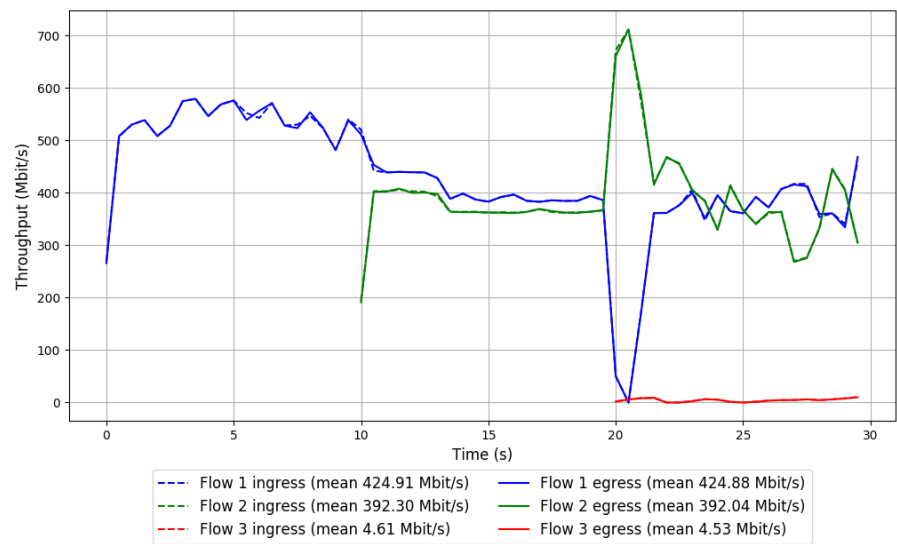
-- Flow 3:

Average throughput: 4.53 Mbit/s

95th percentile per-packet one-way delay: 42.412 ms

Loss rate: 2.26%

Run 10: Report of LEDBAT — Data Link

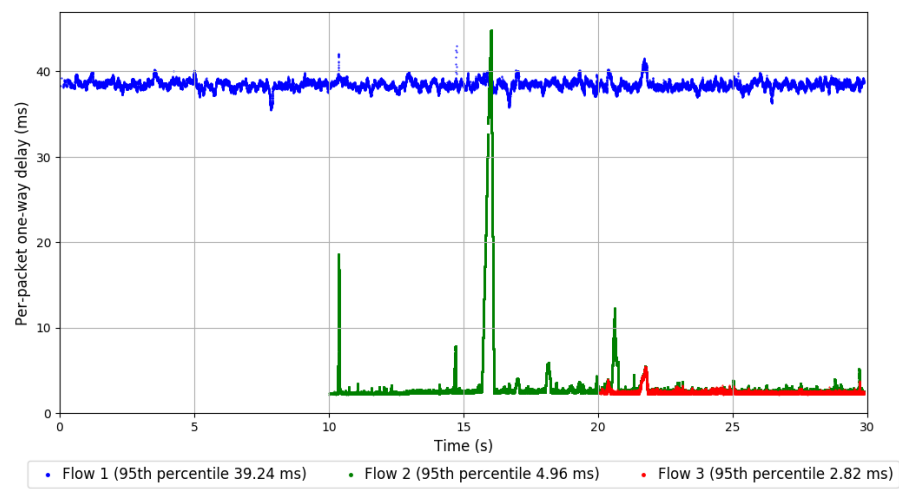
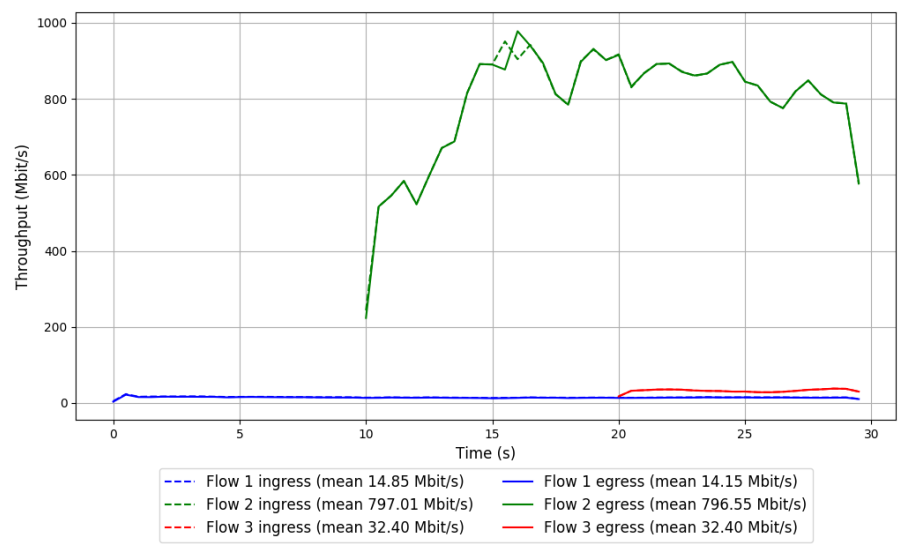


```
Run 1: Statistics of PCC

Start at: 2017-12-05 22:17:48
End at: 2017-12-05 22:18:18
Local clock offset: 0.554 ms
Remote clock offset: 1.374 ms

# Below is generated by plot.py at 2017-12-06 03:49:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 555.04 Mbit/s
95th percentile per-packet one-way delay: 10.340 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 14.15 Mbit/s
95th percentile per-packet one-way delay: 39.240 ms
Loss rate: 4.81%
-- Flow 2:
Average throughput: 796.55 Mbit/s
95th percentile per-packet one-way delay: 4.958 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 32.40 Mbit/s
95th percentile per-packet one-way delay: 2.823 ms
Loss rate: 0.00%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-05 22:37:03

End at: 2017-12-05 22:37:33

Local clock offset: 0.548 ms

Remote clock offset: 1.374 ms

# Below is generated by plot.py at 2017-12-06 03:49:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 537.31 Mbit/s

95th percentile per-packet one-way delay: 4.479 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 8.46 Mbit/s

95th percentile per-packet one-way delay: 39.550 ms

Loss rate: 4.77%

-- Flow 2:

Average throughput: 708.43 Mbit/s

95th percentile per-packet one-way delay: 3.940 ms

Loss rate: 0.03%

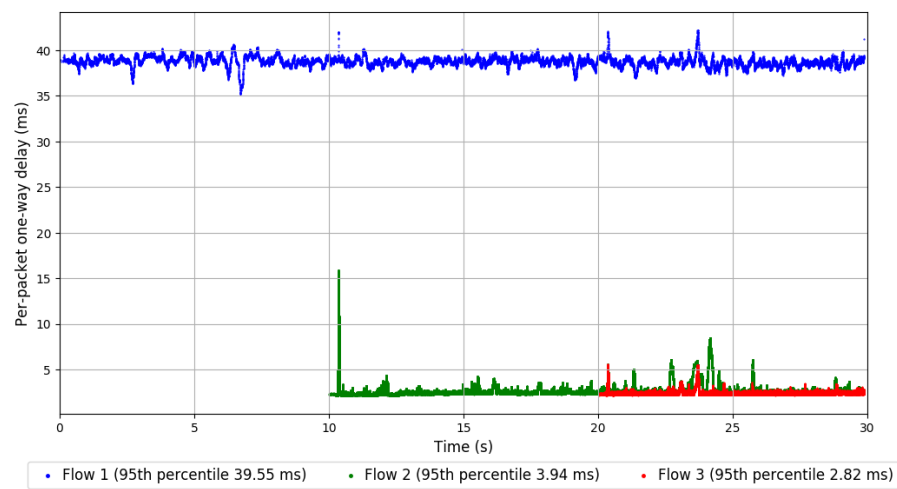
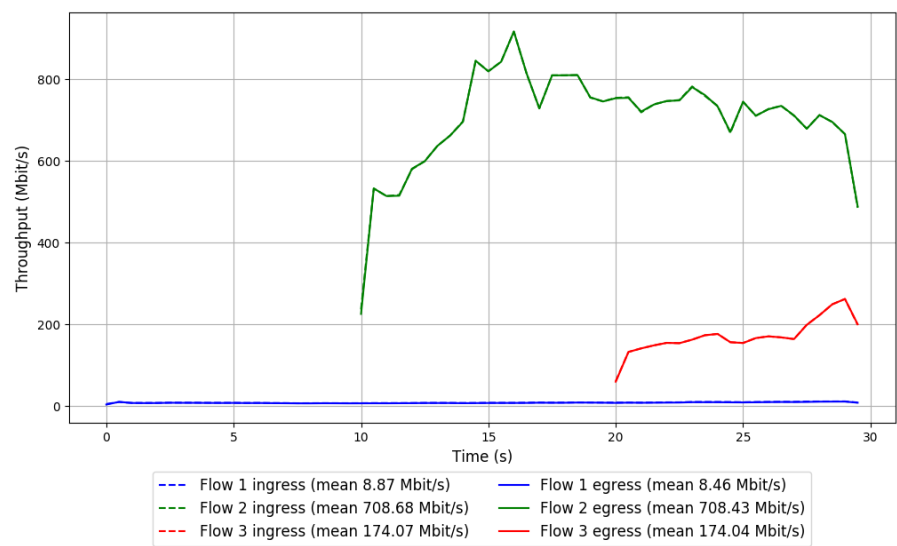
-- Flow 3:

Average throughput: 174.04 Mbit/s

95th percentile per-packet one-way delay: 2.822 ms

Loss rate: 0.02%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-05 22:56:20

End at: 2017-12-05 22:56:50

Local clock offset: 0.588 ms

Remote clock offset: 1.516 ms

# Below is generated by plot.py at 2017-12-06 03:58:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 864.41 Mbit/s

95th percentile per-packet one-way delay: 38.260 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 771.69 Mbit/s

95th percentile per-packet one-way delay: 5.444 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 117.22 Mbit/s

95th percentile per-packet one-way delay: 42.070 ms

Loss rate: 0.74%

-- Flow 3:

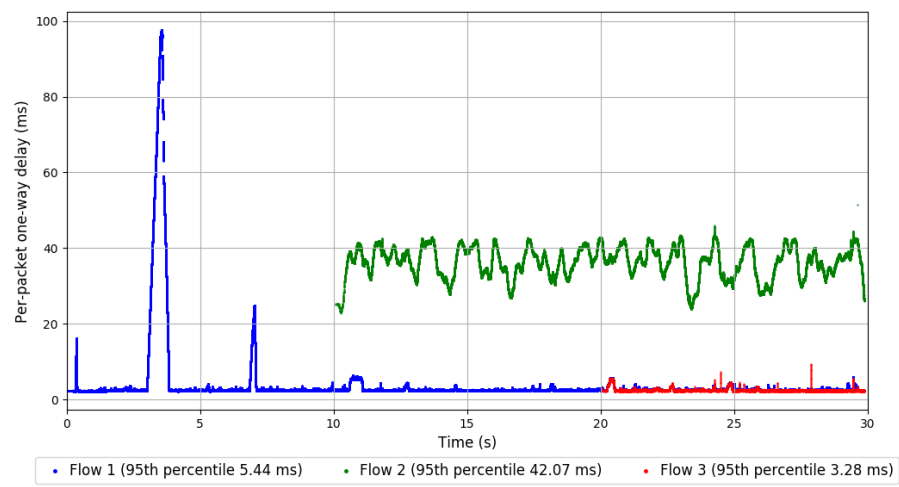
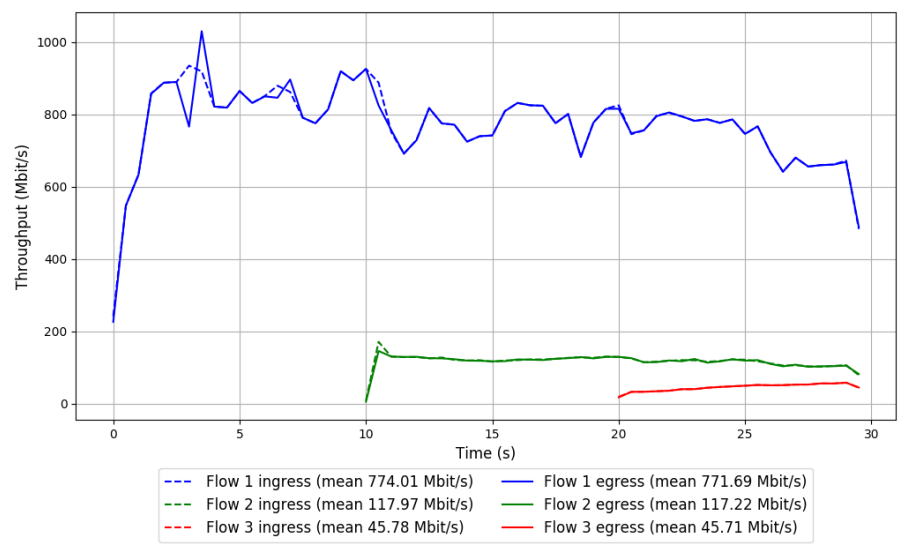
Average throughput: 45.71 Mbit/s

95th percentile per-packet one-way delay: 3.276 ms

Loss rate: 0.16%



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-05 23:15:12

End at: 2017-12-05 23:15:42

Local clock offset: 0.536 ms

Remote clock offset: 1.709 ms

# Below is generated by plot.py at 2017-12-06 04:00:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 850.61 Mbit/s

95th percentile per-packet one-way delay: 40.183 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 753.48 Mbit/s

95th percentile per-packet one-way delay: 47.364 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 103.86 Mbit/s

95th percentile per-packet one-way delay: 3.172 ms

Loss rate: 0.04%

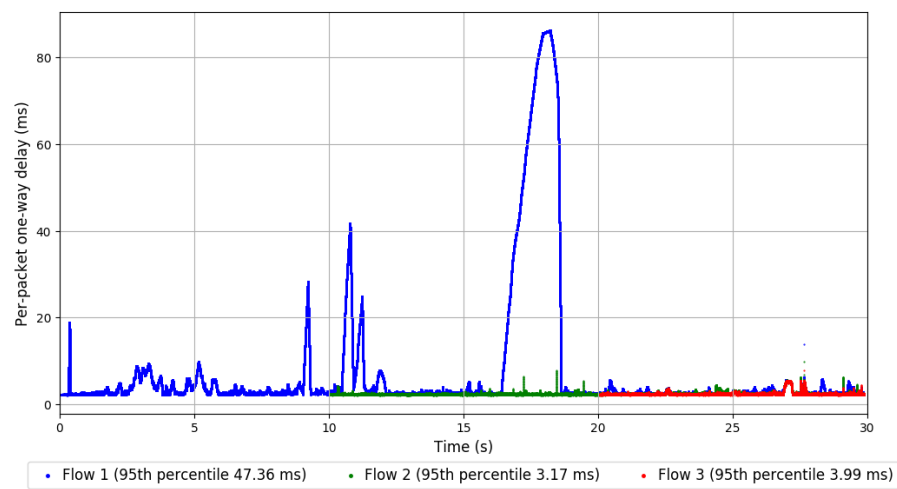
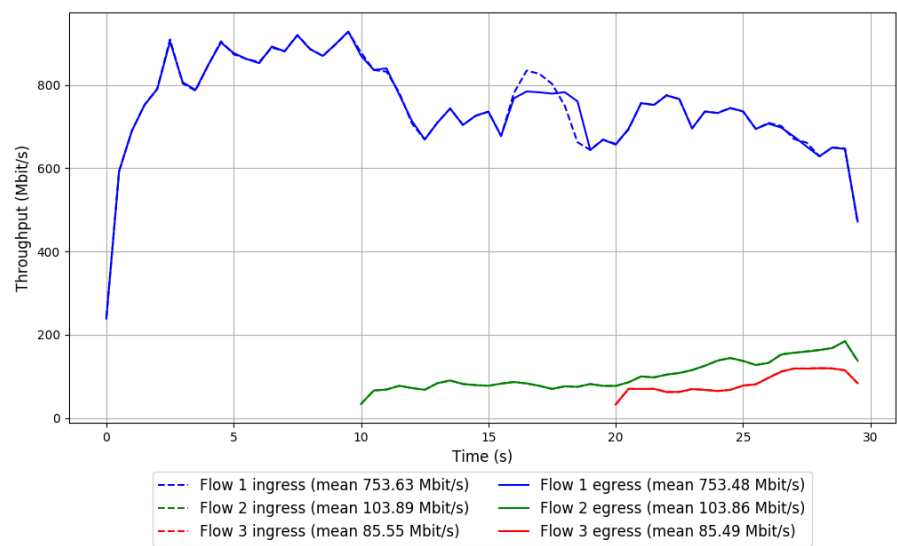
-- Flow 3:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 3.992 ms

Loss rate: 0.06%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-05 23:34:10

End at: 2017-12-05 23:34:40

Local clock offset: 0.438 ms

Remote clock offset: 2.239 ms

# Below is generated by plot.py at 2017-12-06 04:00:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 770.62 Mbit/s

95th percentile per-packet one-way delay: 51.081 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 632.16 Mbit/s

95th percentile per-packet one-way delay: 58.202 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 146.89 Mbit/s

95th percentile per-packet one-way delay: 4.078 ms

Loss rate: 0.09%

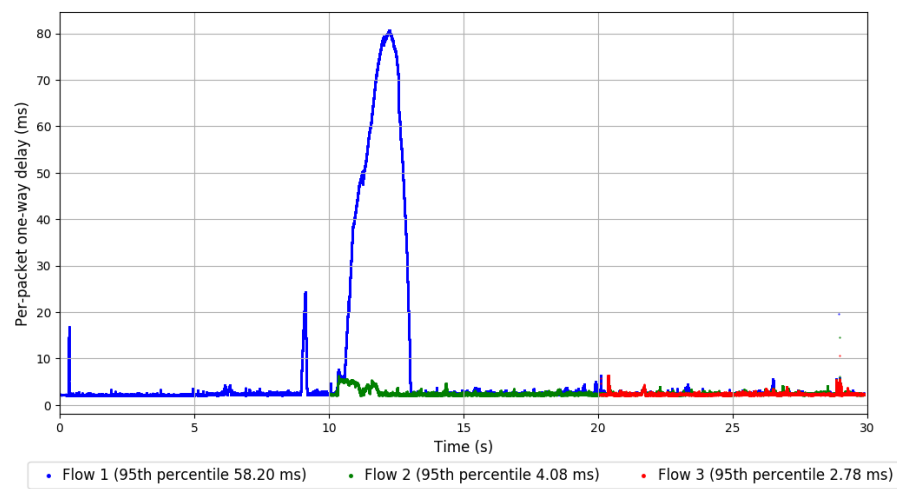
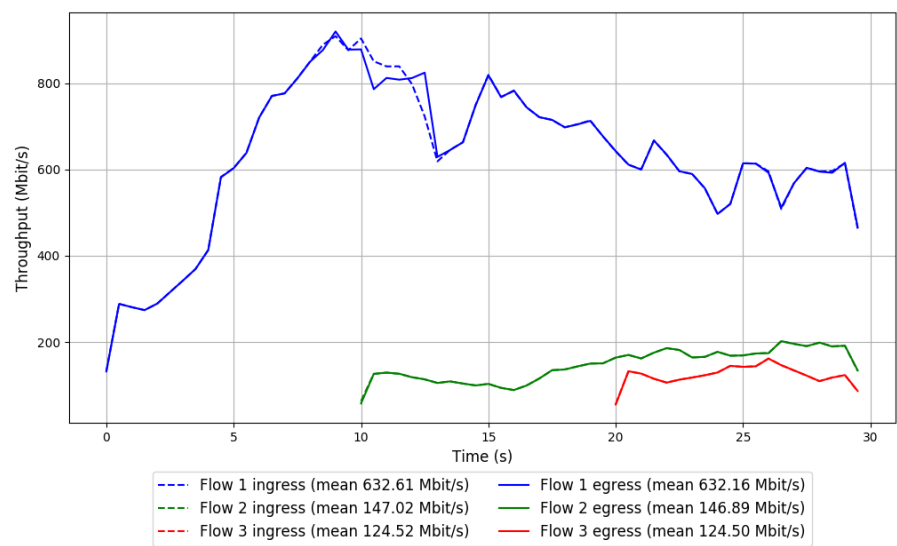
-- Flow 3:

Average throughput: 124.50 Mbit/s

95th percentile per-packet one-way delay: 2.782 ms

Loss rate: 0.02%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-05 23:53:15

End at: 2017-12-05 23:53:45

Local clock offset: 0.301 ms

Remote clock offset: 2.025 ms

# Below is generated by plot.py at 2017-12-06 04:00:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 696.68 Mbit/s

95th percentile per-packet one-way delay: 29.729 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 397.11 Mbit/s

95th percentile per-packet one-way delay: 31.845 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 395.89 Mbit/s

95th percentile per-packet one-way delay: 4.505 ms

Loss rate: 0.02%

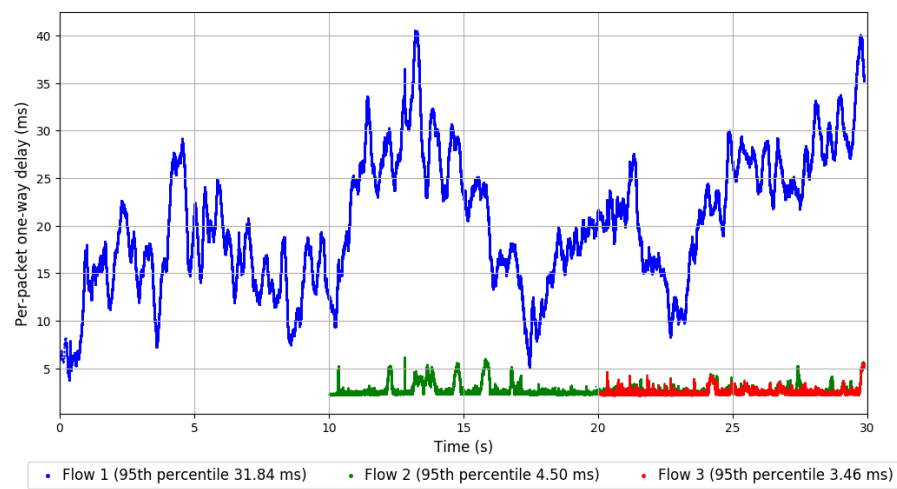
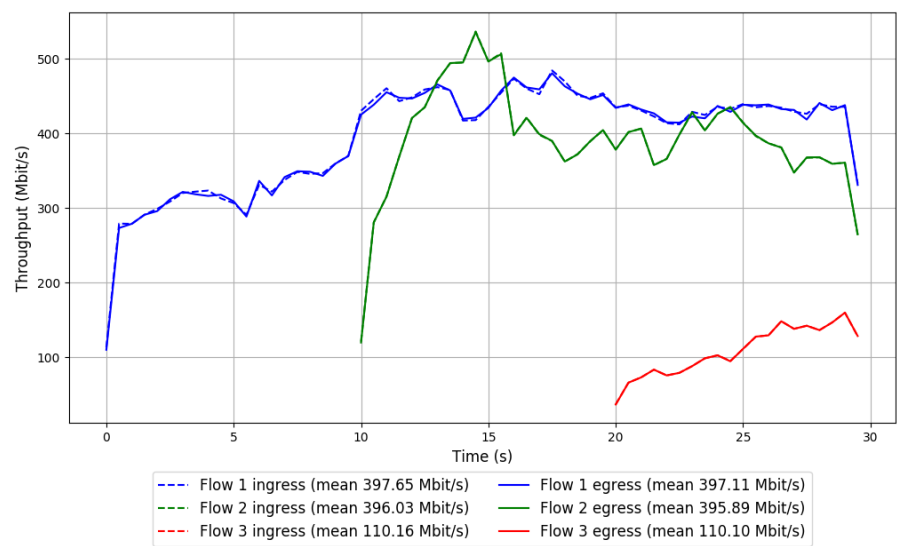
-- Flow 3:

Average throughput: 110.10 Mbit/s

95th percentile per-packet one-way delay: 3.461 ms

Loss rate: 0.02%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-06 00:12:24

End at: 2017-12-06 00:12:54

Local clock offset: 0.158 ms

Remote clock offset: 1.731 ms

# Below is generated by plot.py at 2017-12-06 04:02:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 839.50 Mbit/s

95th percentile per-packet one-way delay: 6.709 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 709.99 Mbit/s

95th percentile per-packet one-way delay: 6.934 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 175.00 Mbit/s

95th percentile per-packet one-way delay: 3.893 ms

Loss rate: 0.03%

-- Flow 3:

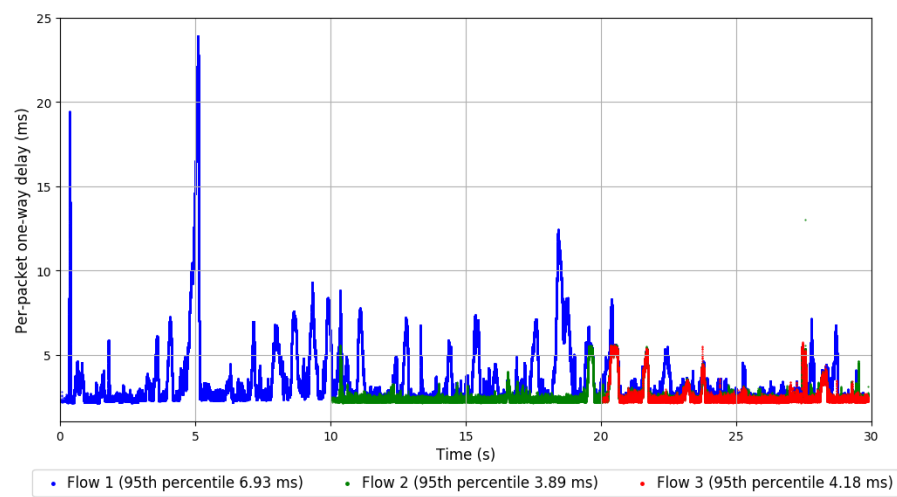
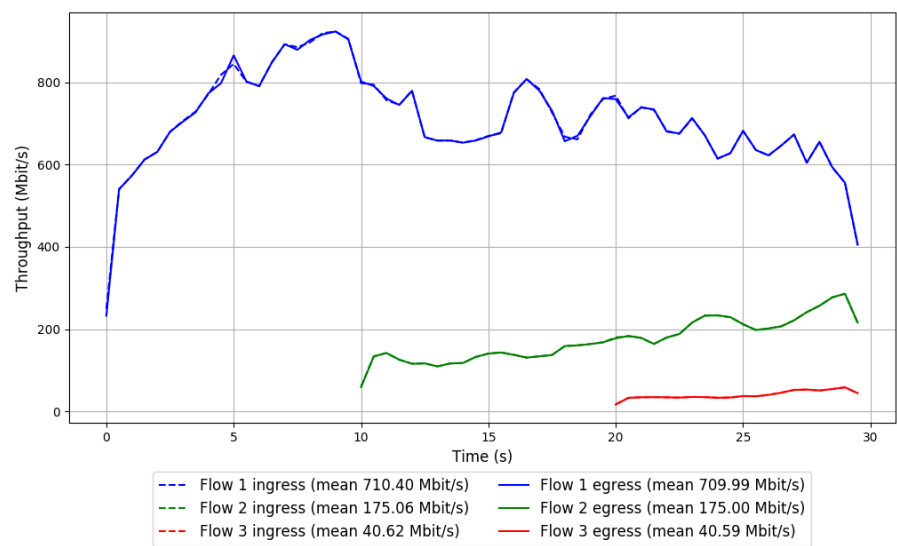
Average throughput: 40.59 Mbit/s

95th percentile per-packet one-way delay: 4.182 ms

Loss rate: 0.05%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-06 00:31:19

End at: 2017-12-06 00:31:49

Local clock offset: 0.079 ms

Remote clock offset: 1.367 ms

# Below is generated by plot.py at 2017-12-06 04:02:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 694.02 Mbit/s

95th percentile per-packet one-way delay: 38.504 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 350.05 Mbit/s

95th percentile per-packet one-way delay: 5.379 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 501.52 Mbit/s

95th percentile per-packet one-way delay: 40.224 ms

Loss rate: 0.83%

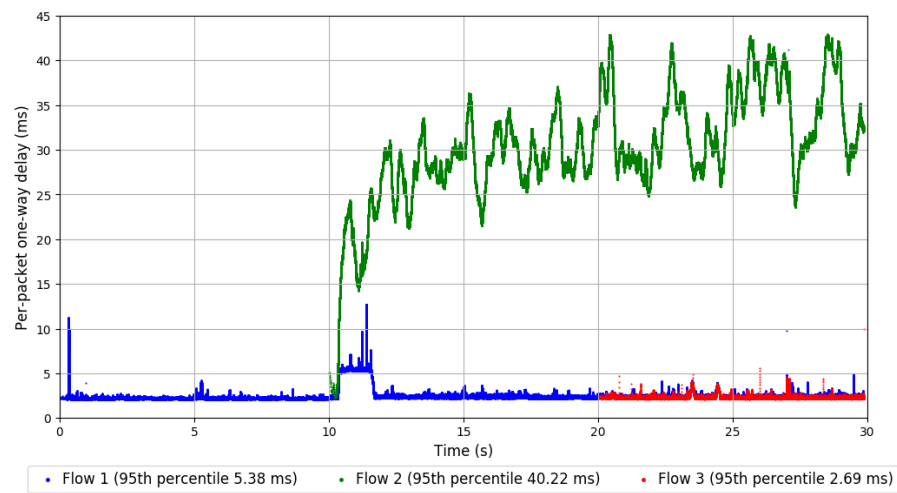
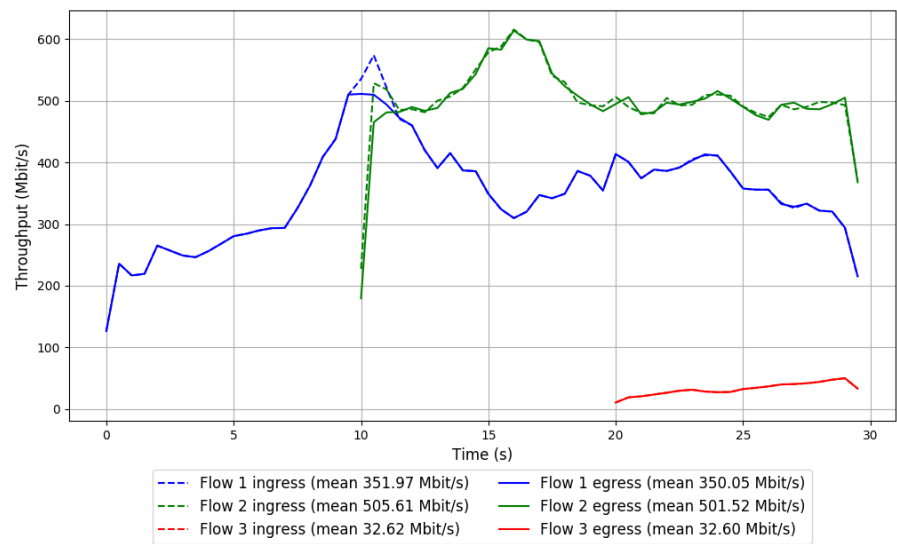
-- Flow 3:

Average throughput: 32.60 Mbit/s

95th percentile per-packet one-way delay: 2.689 ms

Loss rate: 0.02%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-06 00:50:19

End at: 2017-12-06 00:50:49

Local clock offset: -0.057 ms

Remote clock offset: 0.887 ms

# Below is generated by plot.py at 2017-12-06 04:02:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 850.30 Mbit/s

95th percentile per-packet one-way delay: 8.766 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 724.22 Mbit/s

95th percentile per-packet one-way delay: 10.770 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 163.58 Mbit/s

95th percentile per-packet one-way delay: 3.183 ms

Loss rate: 0.02%

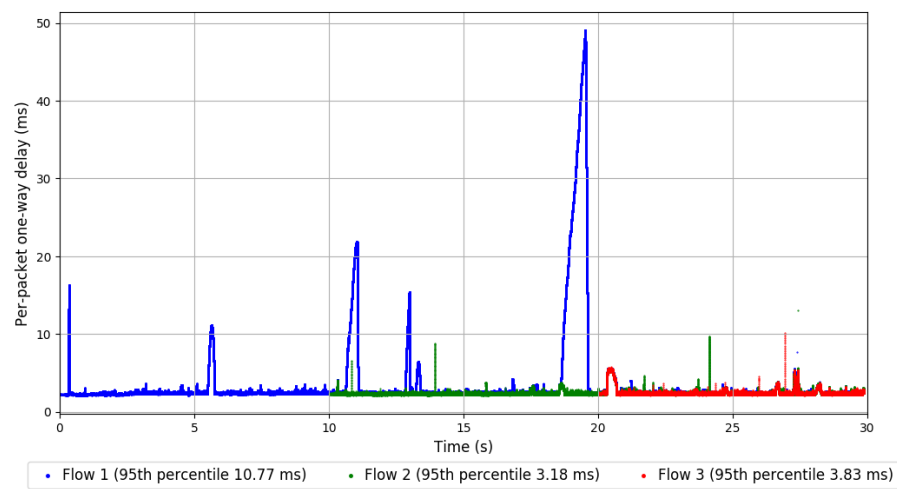
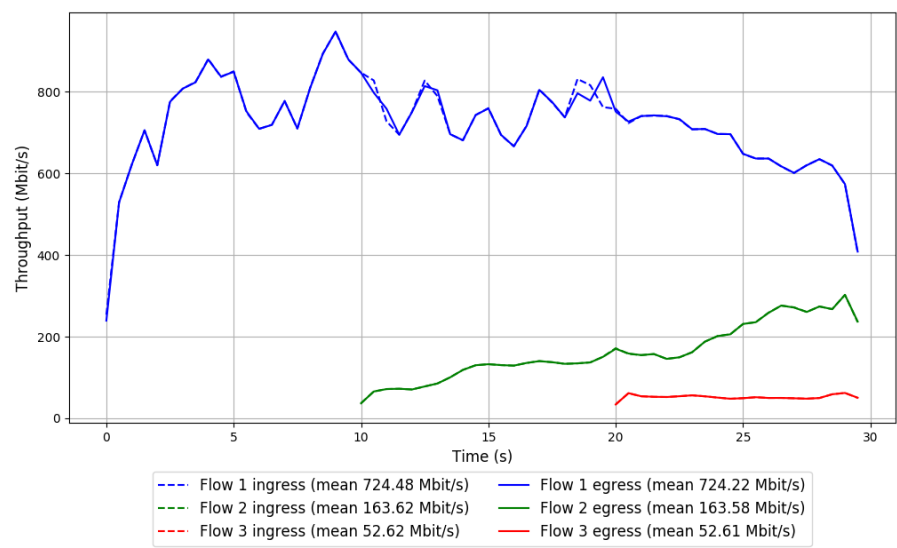
-- Flow 3:

Average throughput: 52.61 Mbit/s

95th percentile per-packet one-way delay: 3.826 ms

Loss rate: 0.02%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-06 01:09:44

End at: 2017-12-06 01:10:14

Local clock offset: -0.212 ms

Remote clock offset: 0.441 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 866.89 Mbit/s

95th percentile per-packet one-way delay: 36.725 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 671.50 Mbit/s

95th percentile per-packet one-way delay: 42.728 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 278.81 Mbit/s

95th percentile per-packet one-way delay: 5.293 ms

Loss rate: 0.15%

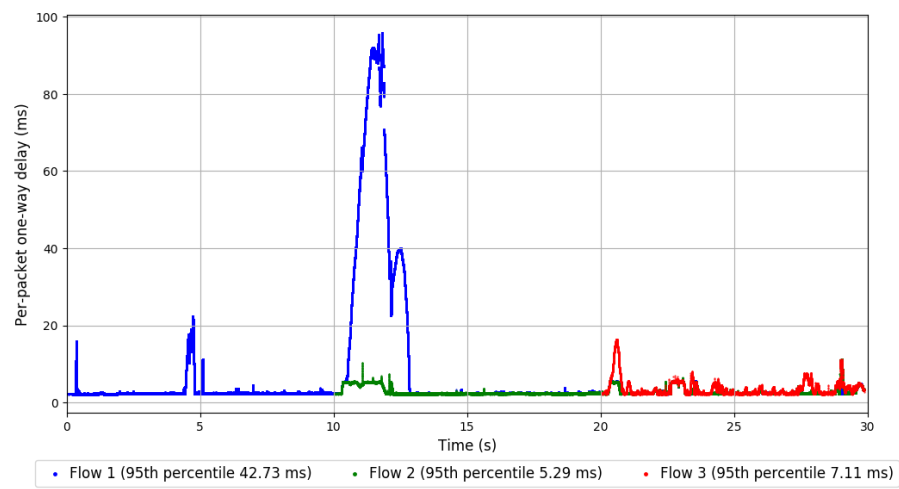
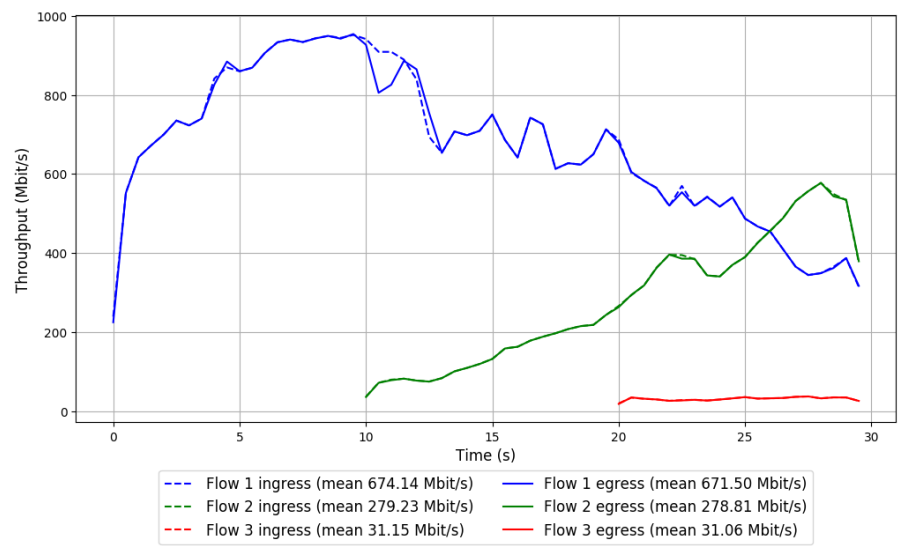
-- Flow 3:

Average throughput: 31.06 Mbit/s

95th percentile per-packet one-way delay: 7.111 ms

Loss rate: 0.26%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2017-12-05 22:16:39

End at: 2017-12-05 22:17:09

Local clock offset: 0.632 ms

Remote clock offset: 1.387 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.66 Mbit/s

95th percentile per-packet one-way delay: 4.704 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.82 Mbit/s

95th percentile per-packet one-way delay: 4.635 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.16 Mbit/s

95th percentile per-packet one-way delay: 2.386 ms

Loss rate: 0.00%

-- Flow 3:

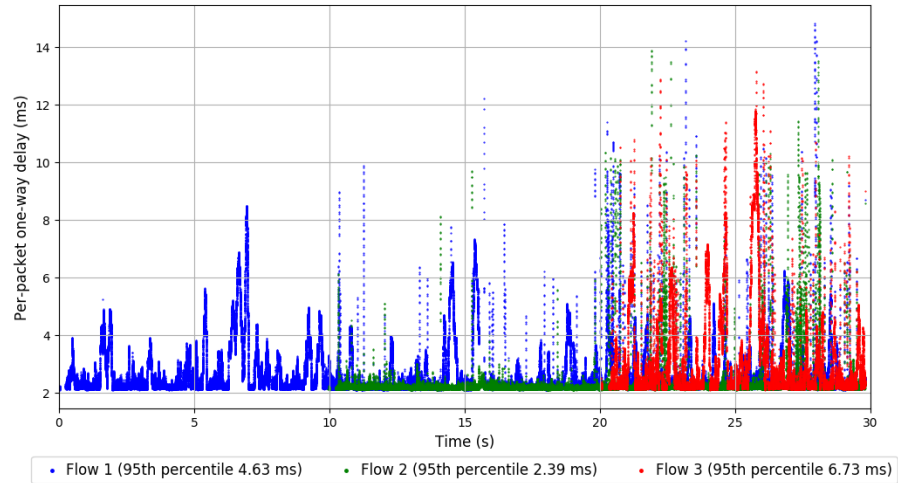
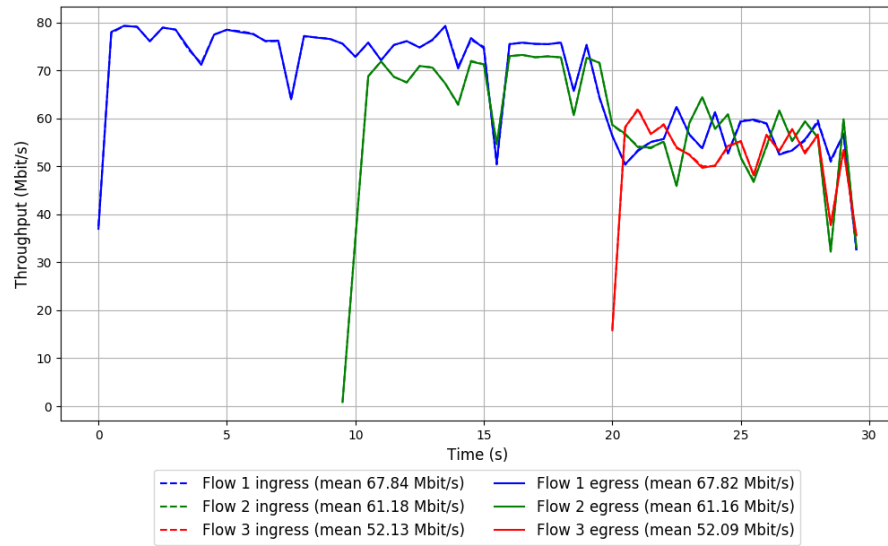
Average throughput: 52.09 Mbit/s

95th percentile per-packet one-way delay: 6.733 ms

Loss rate: 0.01%



## Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-05 22:35:53

End at: 2017-12-05 22:36:23

Local clock offset: 0.557 ms

Remote clock offset: 1.427 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.76 Mbit/s

95th percentile per-packet one-way delay: 2.417 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.61 Mbit/s

95th percentile per-packet one-way delay: 2.399 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.86 Mbit/s

95th percentile per-packet one-way delay: 2.395 ms

Loss rate: 0.00%

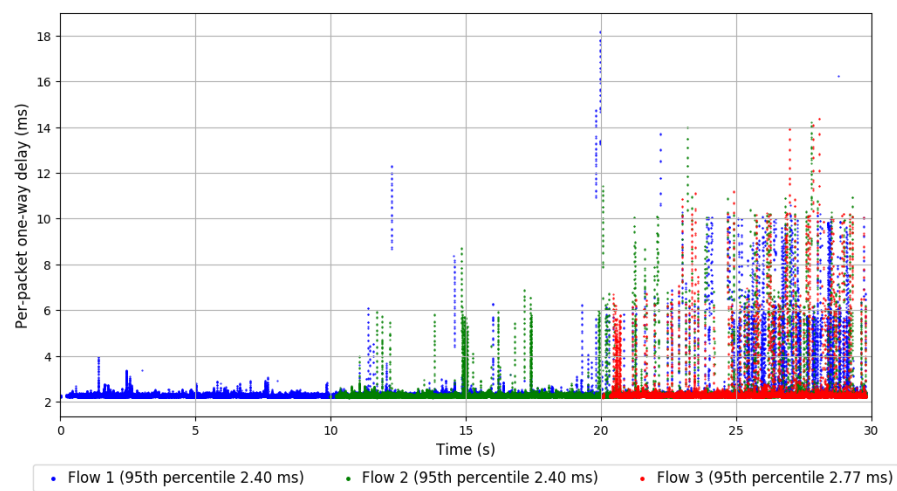
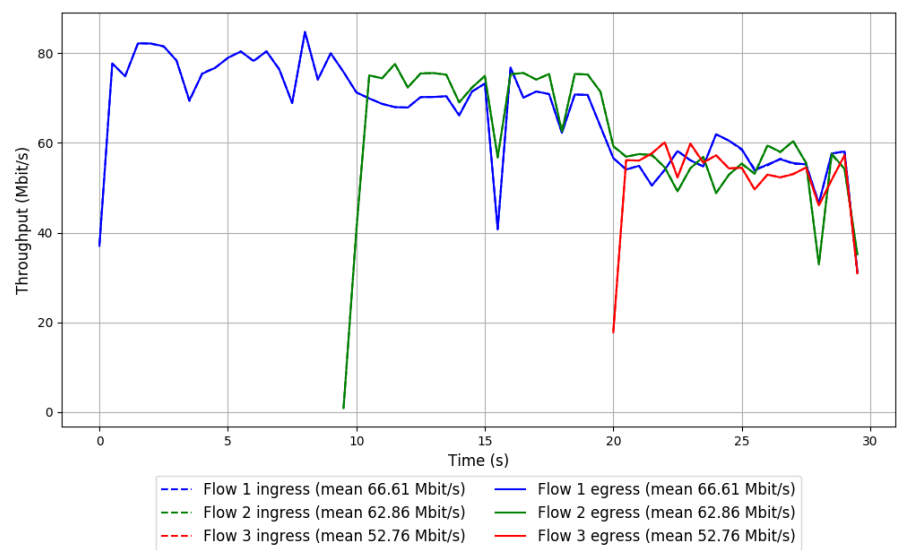
-- Flow 3:

Average throughput: 52.76 Mbit/s

95th percentile per-packet one-way delay: 2.773 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-05 22:55:10

End at: 2017-12-05 22:55:40

Local clock offset: 0.608 ms

Remote clock offset: 1.499 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.36 Mbit/s

95th percentile per-packet one-way delay: 38.059 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 69.55 Mbit/s

95th percentile per-packet one-way delay: 2.282 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.26 Mbit/s

95th percentile per-packet one-way delay: 2.430 ms

Loss rate: 0.00%

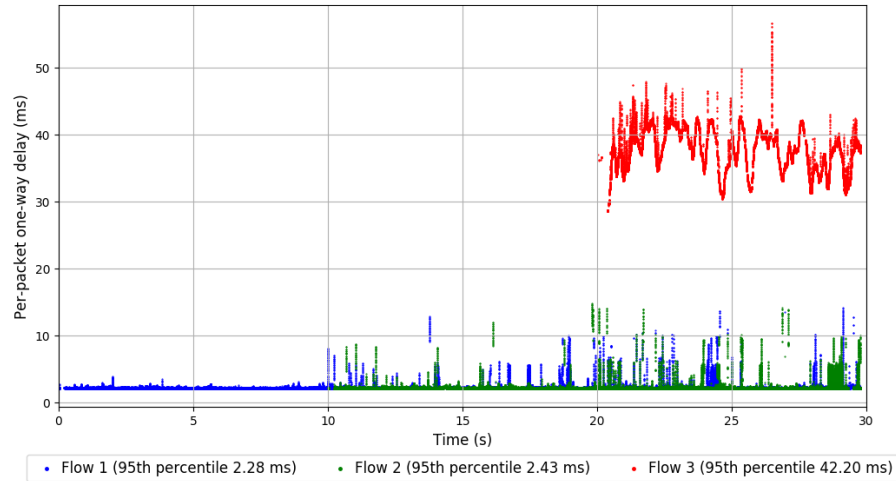
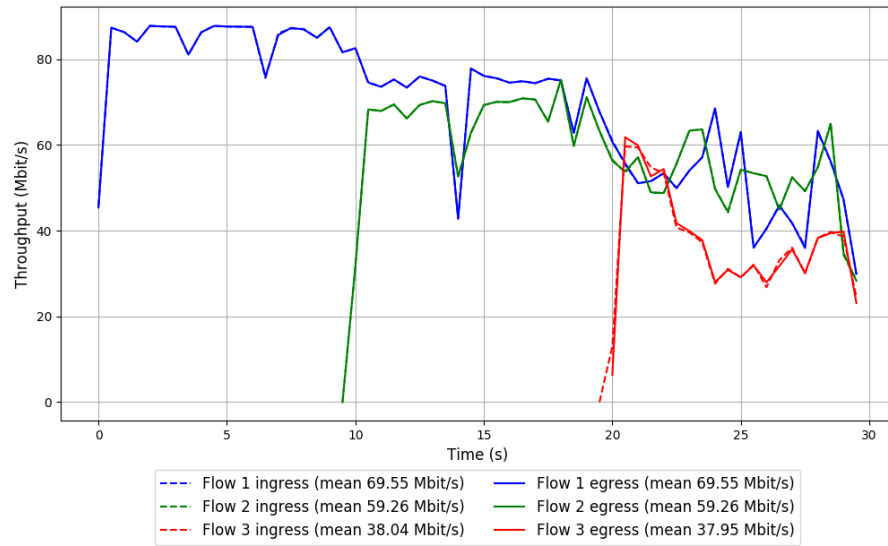
-- Flow 3:

Average throughput: 37.95 Mbit/s

95th percentile per-packet one-way delay: 42.202 ms

Loss rate: 0.58%

### Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-05 23:14:02

End at: 2017-12-05 23:14:32

Local clock offset: 0.499 ms

Remote clock offset: 1.639 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.83 Mbit/s

95th percentile per-packet one-way delay: 2.510 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 70.17 Mbit/s

95th percentile per-packet one-way delay: 2.371 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.15 Mbit/s

95th percentile per-packet one-way delay: 2.726 ms

Loss rate: 0.00%

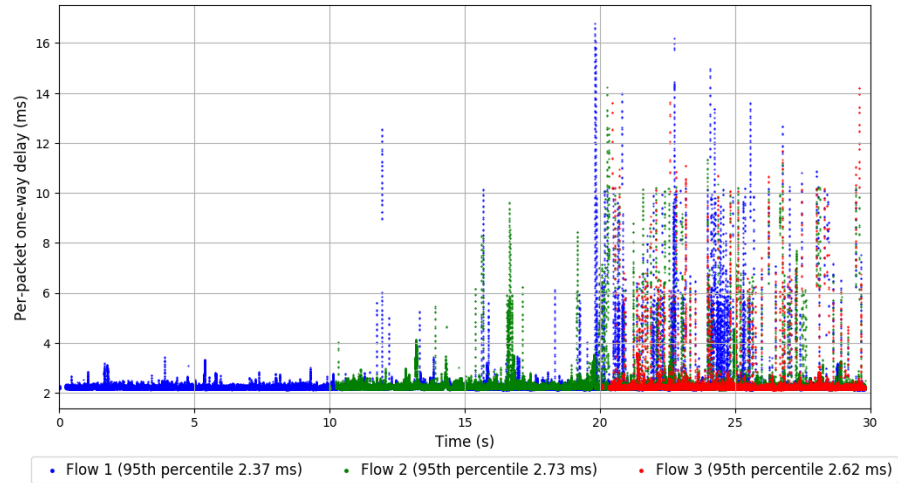
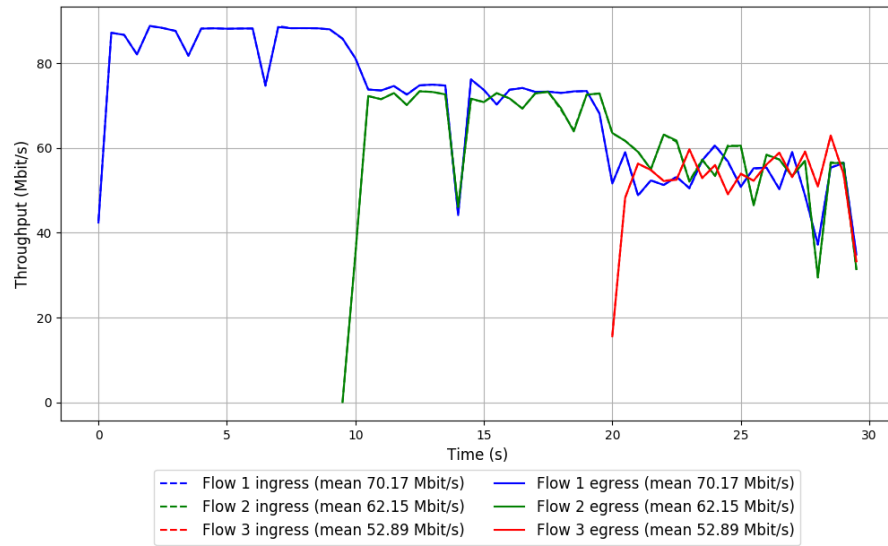
-- Flow 3:

Average throughput: 52.89 Mbit/s

95th percentile per-packet one-way delay: 2.616 ms

Loss rate: 0.00%

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



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-05 23:33:00

End at: 2017-12-05 23:33:30

Local clock offset: 0.356 ms

Remote clock offset: 2.308 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.53 Mbit/s

95th percentile per-packet one-way delay: 2.538 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.31 Mbit/s

95th percentile per-packet one-way delay: 2.439 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.07 Mbit/s

95th percentile per-packet one-way delay: 2.539 ms

Loss rate: 0.00%

-- Flow 3:

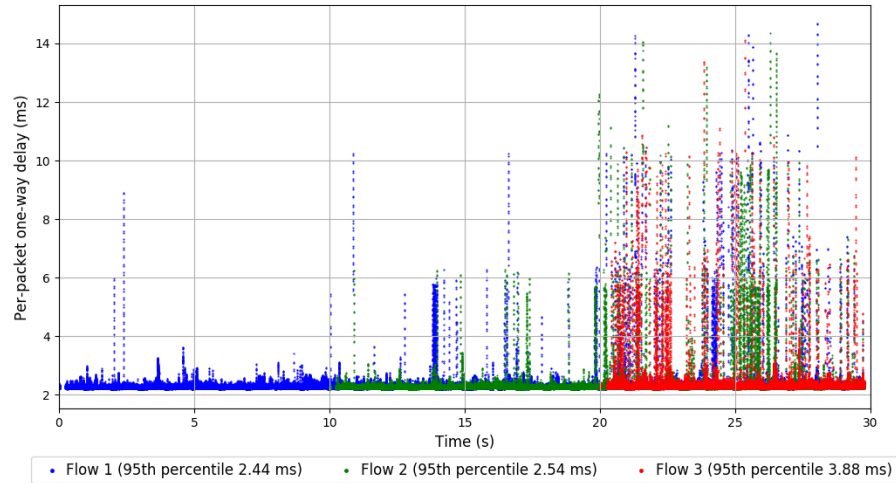
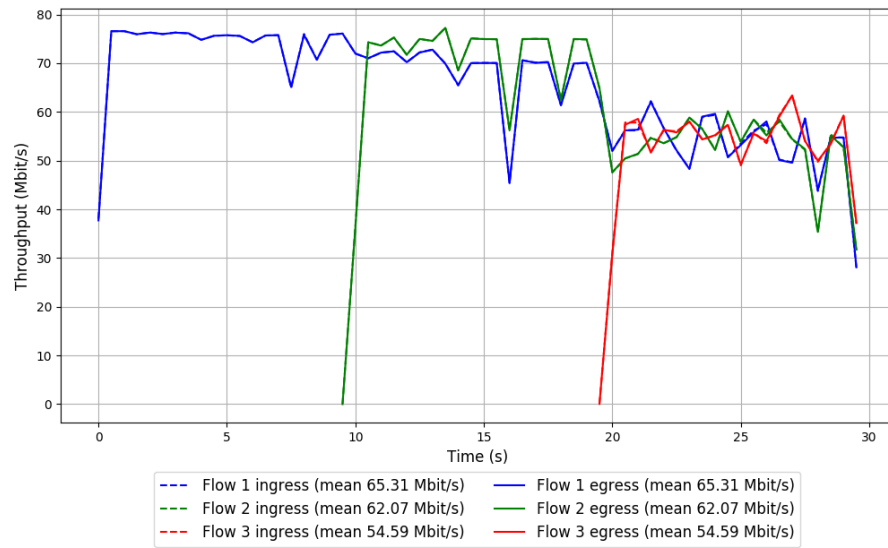
Average throughput: 54.59 Mbit/s

95th percentile per-packet one-way delay: 3.879 ms

Loss rate: 0.00%



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



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-05 23:52:06

End at: 2017-12-05 23:52:36

Local clock offset: 0.298 ms

Remote clock offset: 2.027 ms

# Below is generated by plot.py at 2017-12-06 04:03:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 114.44 Mbit/s

95th percentile per-packet one-way delay: 8.149 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 69.53 Mbit/s

95th percentile per-packet one-way delay: 8.457 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 66.04 Mbit/s

95th percentile per-packet one-way delay: 2.500 ms

Loss rate: 0.00%

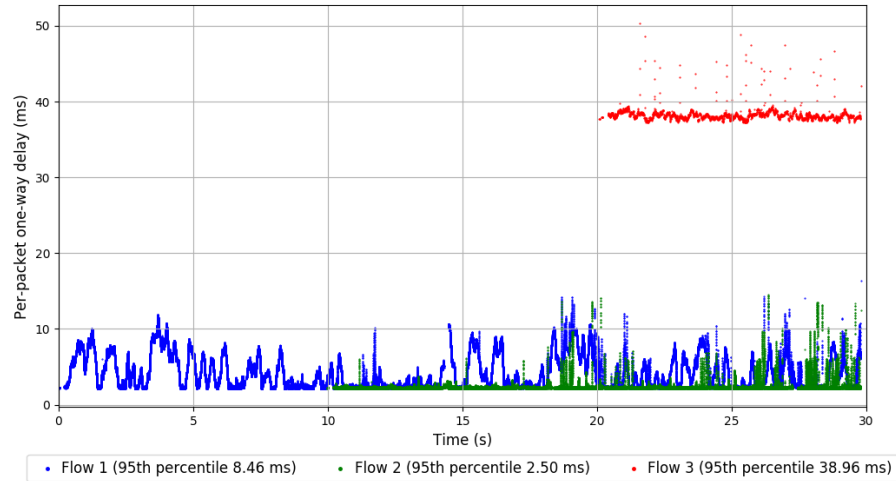
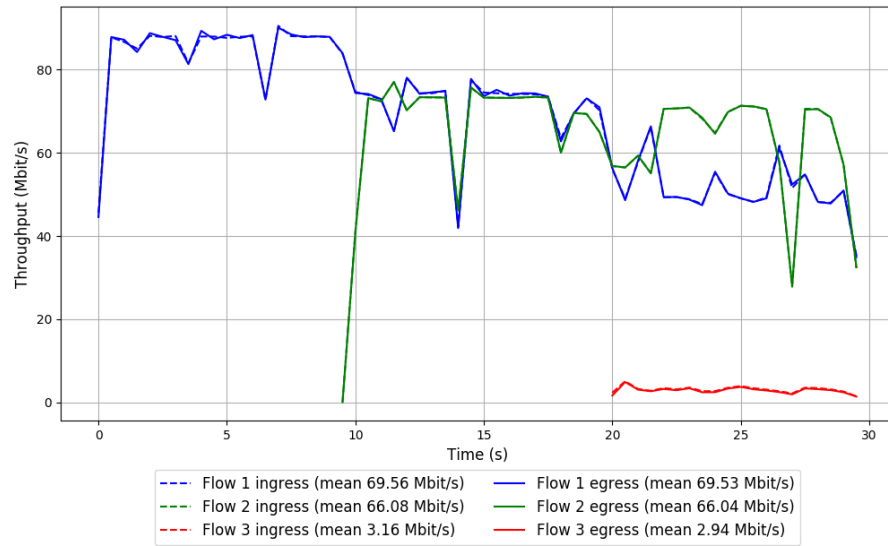
-- Flow 3:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 38.963 ms

Loss rate: 7.11%

## Run 6: Report of QUIC Cubic — Data Link

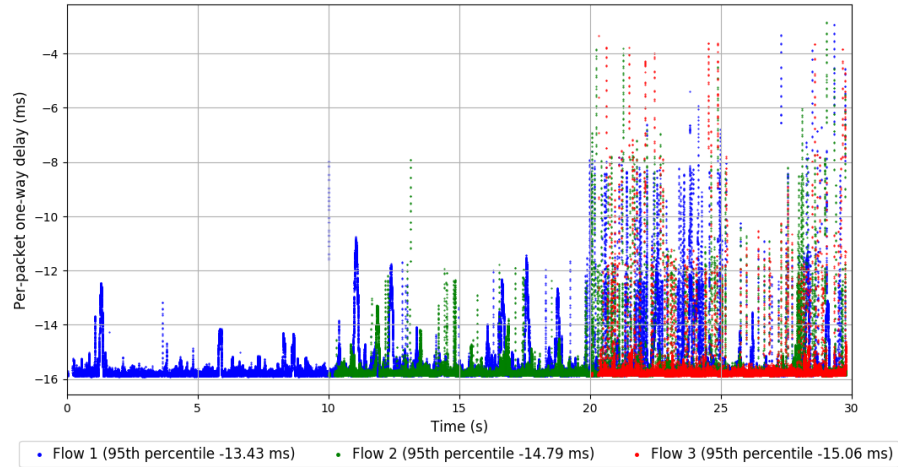
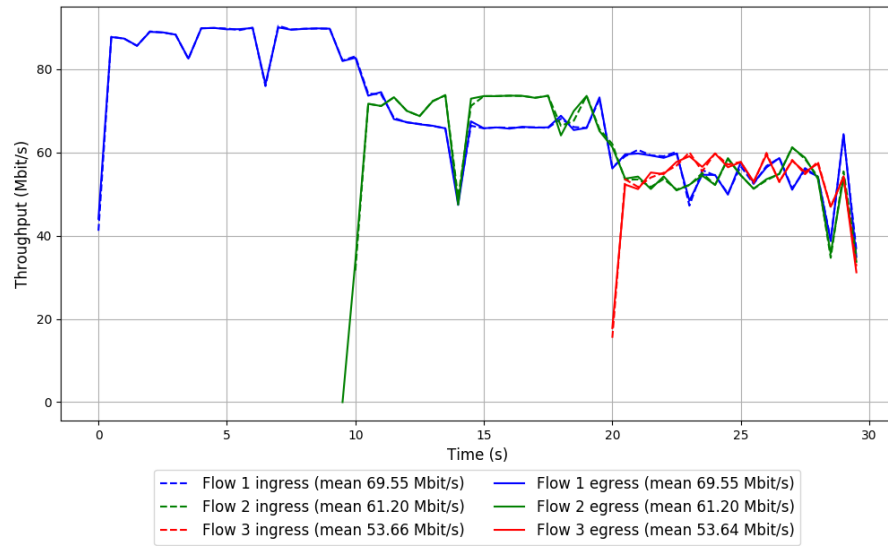


Run 7: Statistics of QUIC Cubic

Start at: 2017-12-06 00:11:15  
End at: 2017-12-06 00:11:45  
Local clock offset: 0.198 ms  
Remote clock offset: -16.272 ms

# Below is generated by plot.py at 2017-12-06 04:03:31  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 127.77 Mbit/s  
95th percentile per-packet one-way delay: -13.901 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 69.55 Mbit/s  
95th percentile per-packet one-way delay: -13.431 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 61.20 Mbit/s  
95th percentile per-packet one-way delay: -14.793 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 53.64 Mbit/s  
95th percentile per-packet one-way delay: -15.065 ms  
Loss rate: 0.00%

## Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-06 00:30:10

End at: 2017-12-06 00:30:40

Local clock offset: 0.076 ms

Remote clock offset: 1.422 ms

# Below is generated by plot.py at 2017-12-06 04:04:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.28 Mbit/s

95th percentile per-packet one-way delay: 28.551 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 71.35 Mbit/s

95th percentile per-packet one-way delay: 2.411 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.61 Mbit/s

95th percentile per-packet one-way delay: 32.513 ms

Loss rate: 0.08%

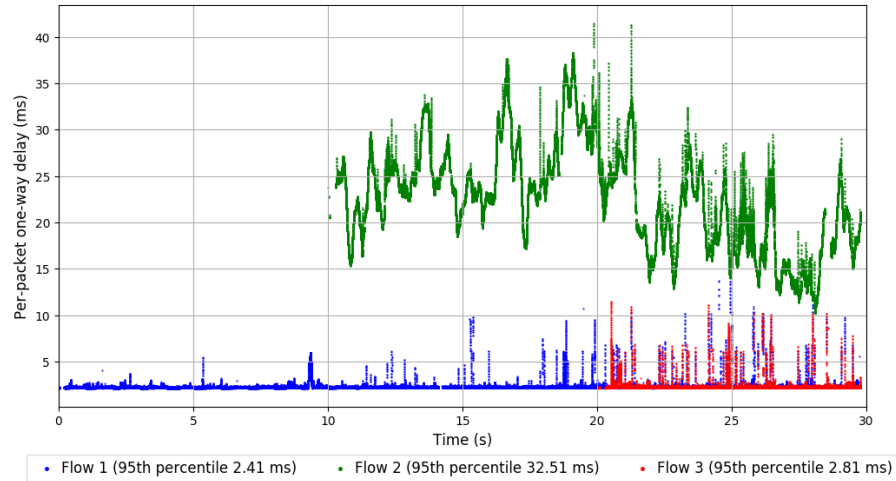
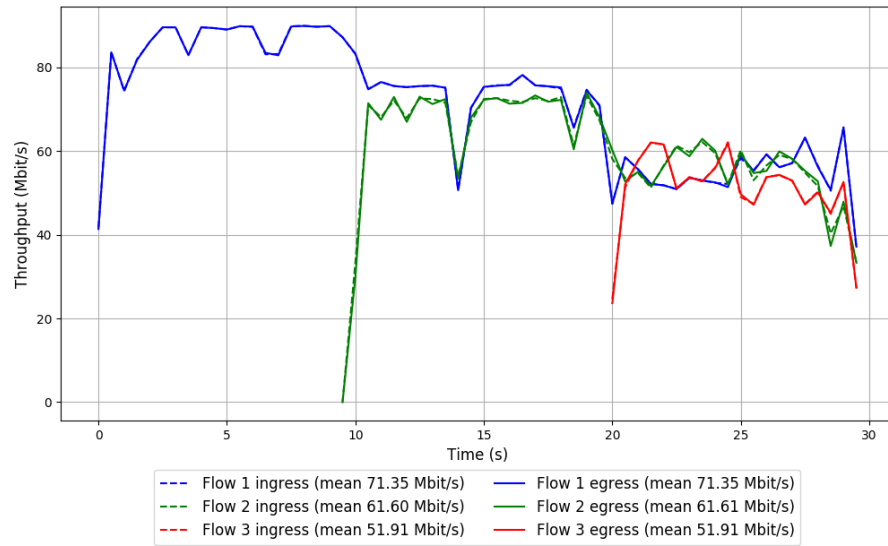
-- Flow 3:

Average throughput: 51.91 Mbit/s

95th percentile per-packet one-way delay: 2.812 ms

Loss rate: 0.00%

## Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-06 00:49:10

End at: 2017-12-06 00:49:40

Local clock offset: -0.118 ms

Remote clock offset: 0.929 ms

# Below is generated by plot.py at 2017-12-06 04:04:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.36 Mbit/s

95th percentile per-packet one-way delay: 3.152 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.10 Mbit/s

95th percentile per-packet one-way delay: 2.353 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.62 Mbit/s

95th percentile per-packet one-way delay: 3.850 ms

Loss rate: 0.00%

-- Flow 3:

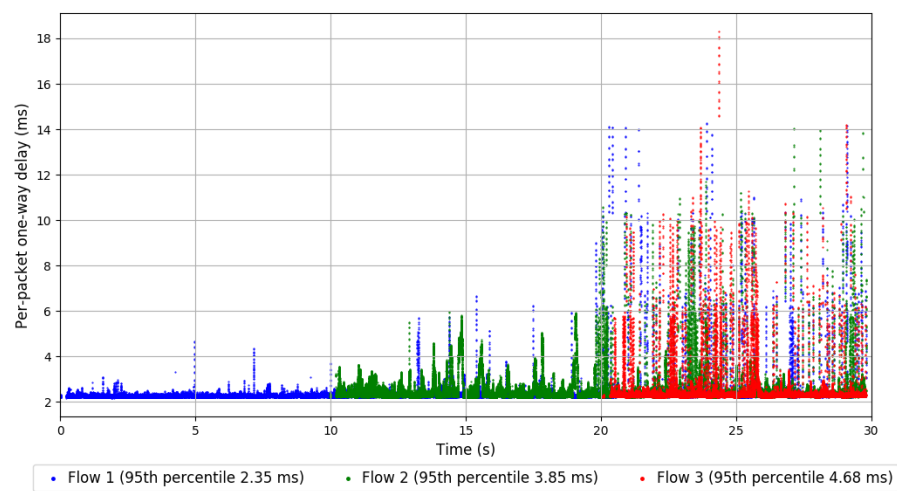
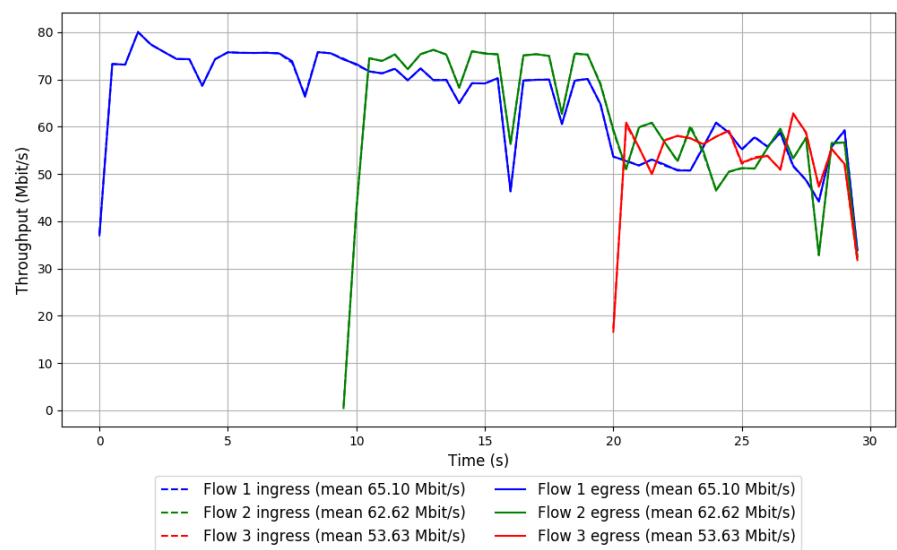
Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 4.683 ms

Loss rate: 0.00%



Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-06 01:08:34

End at: 2017-12-06 01:09:04

Local clock offset: -0.174 ms

Remote clock offset: 0.452 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.37 Mbit/s

95th percentile per-packet one-way delay: 10.295 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.14 Mbit/s

95th percentile per-packet one-way delay: 11.007 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.78 Mbit/s

95th percentile per-packet one-way delay: 2.272 ms

Loss rate: 0.00%

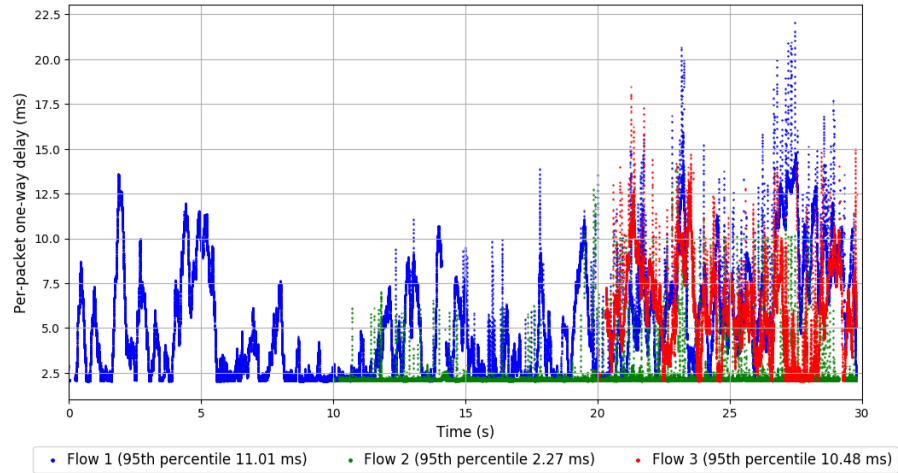
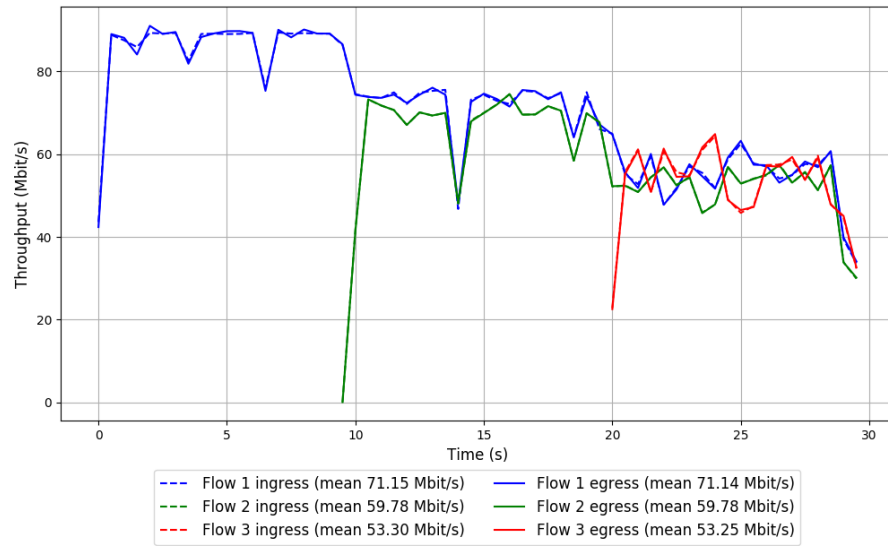
-- Flow 3:

Average throughput: 53.25 Mbit/s

95th percentile per-packet one-way delay: 10.479 ms

Loss rate: 0.03%

# Run 10: Report of QUIC Cubic — Data Link

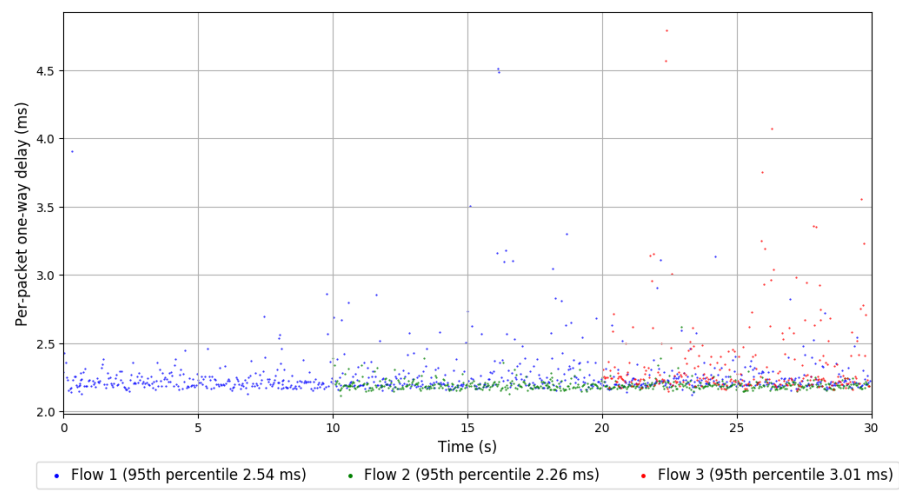
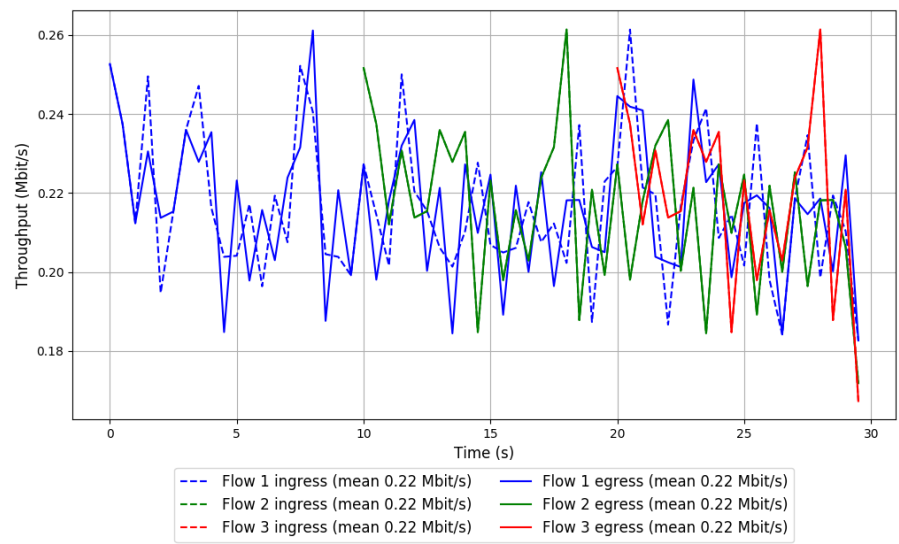


```
Run 1: Statistics of SReAM

Start at: 2017-12-05 22:11:08
End at: 2017-12-05 22:11:38
Local clock offset: 0.643 ms
Remote clock offset: 1.338 ms

# Below is generated by plot.py at 2017-12-06 04:04:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.568 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.545 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.260 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.006 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

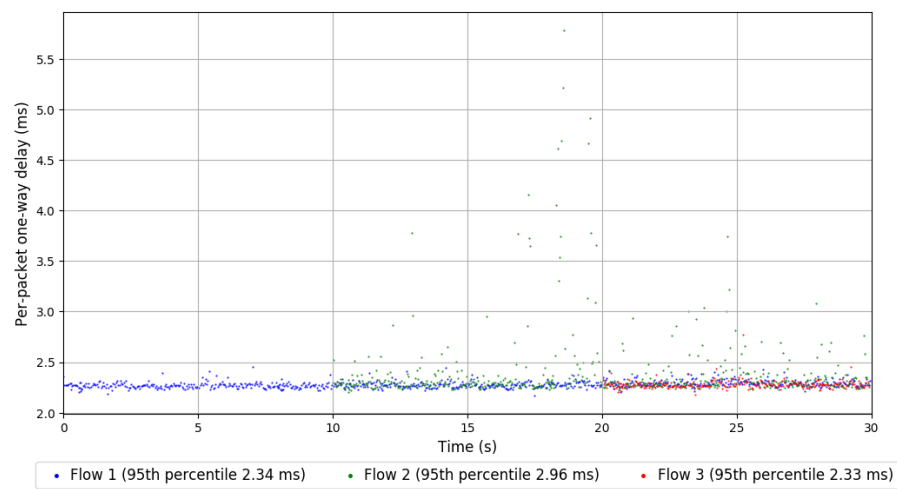
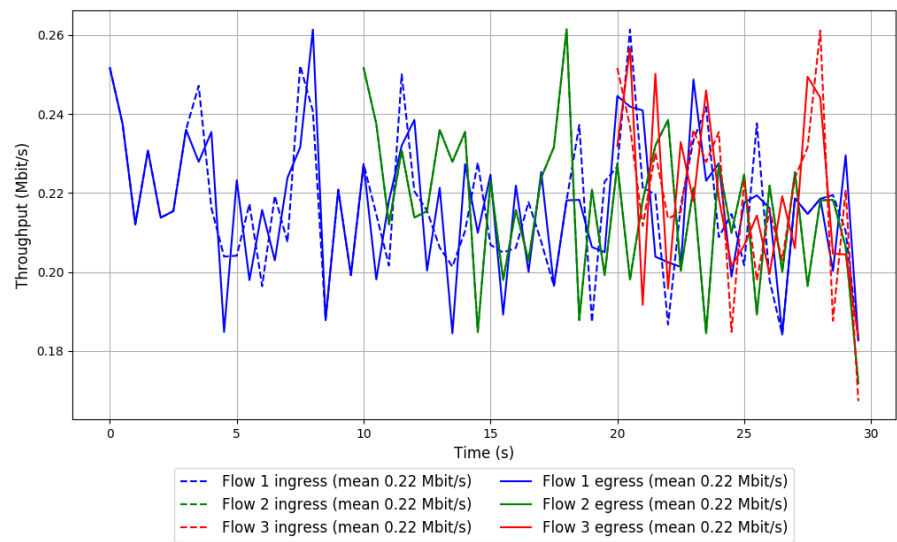


```
Run 2: Statistics of SReAM

Start at: 2017-12-05 22:30:23
End at: 2017-12-05 22:30:53
Local clock offset: 0.612 ms
Remote clock offset: 1.421 ms

# Below is generated by plot.py at 2017-12-06 04:04:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2.468 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.343 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2.334 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-12-05 22:49:39

End at: 2017-12-05 22:50:09

Local clock offset: 0.614 ms

Remote clock offset: 1.46 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.667 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.476 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.094 ms

Loss rate: 0.00%

-- Flow 3:

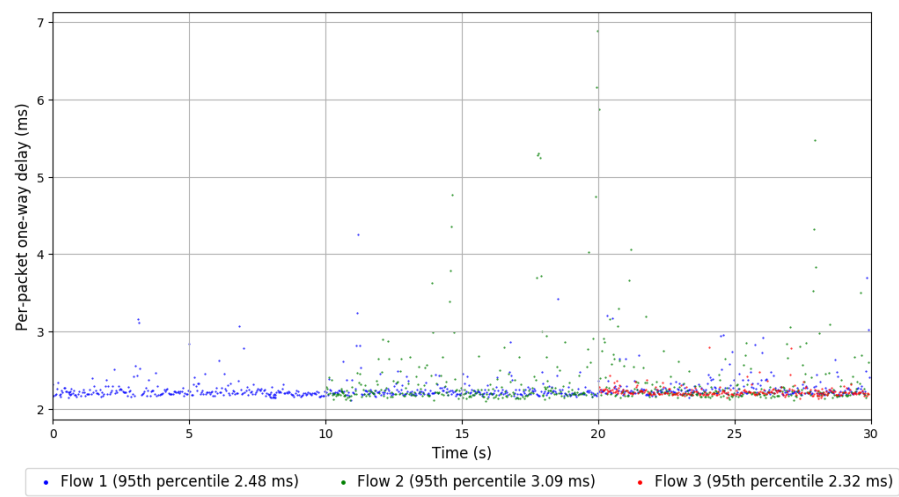
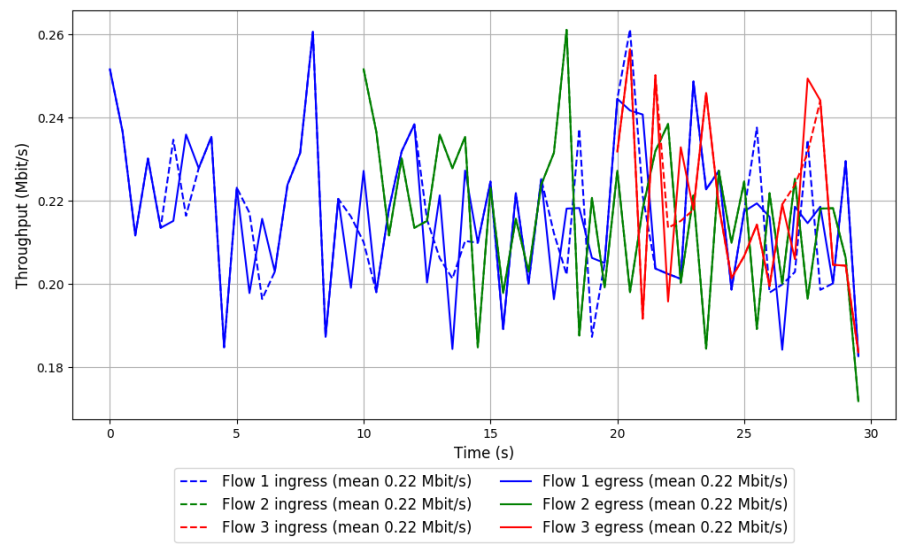
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.321 ms

Loss rate: 0.00%



Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-12-05 23:08:36

End at: 2017-12-05 23:09:06

Local clock offset: 0.56 ms

Remote clock offset: 1.53 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 19.717 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 21.637 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.331 ms

Loss rate: 0.00%

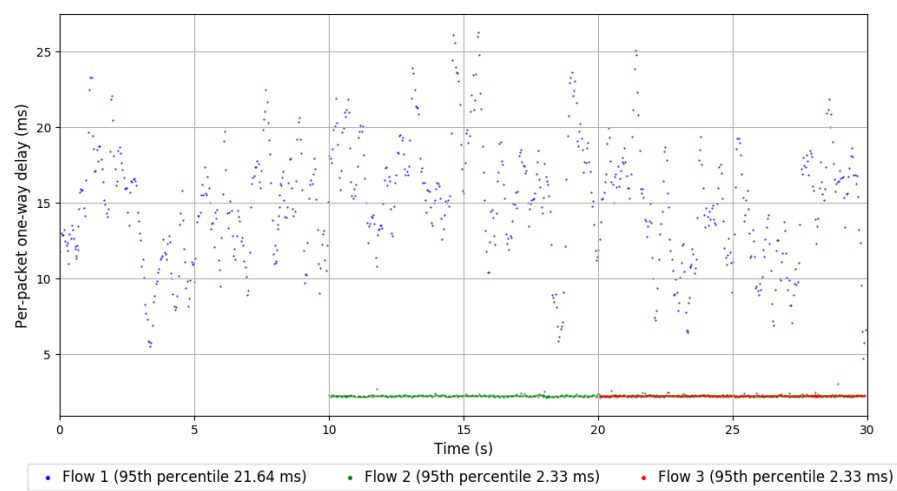
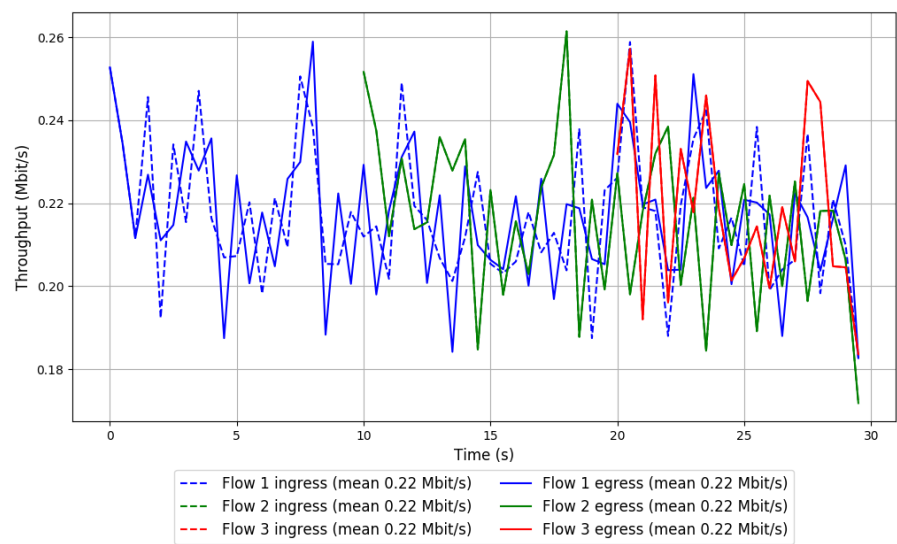
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.329 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-12-05 23:27:30

End at: 2017-12-05 23:28:00

Local clock offset: 0.422 ms

Remote clock offset: 1.58 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 30.651 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.654 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.702 ms

Loss rate: 0.00%

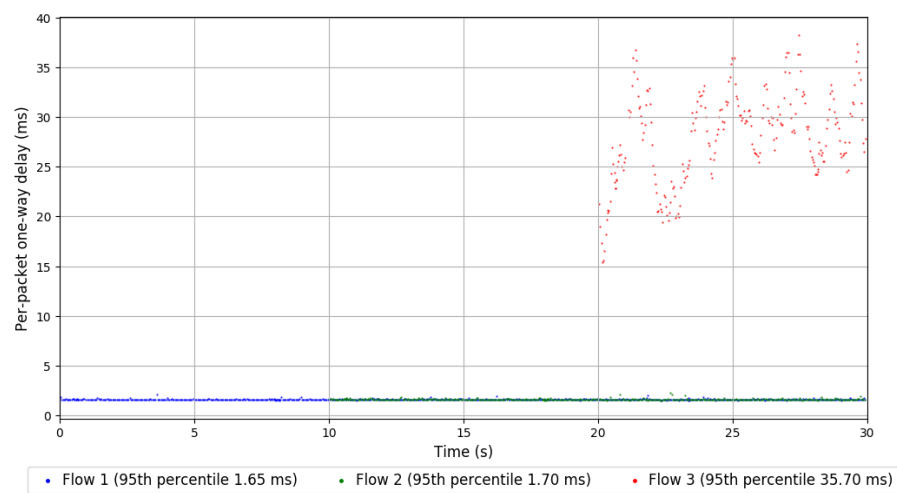
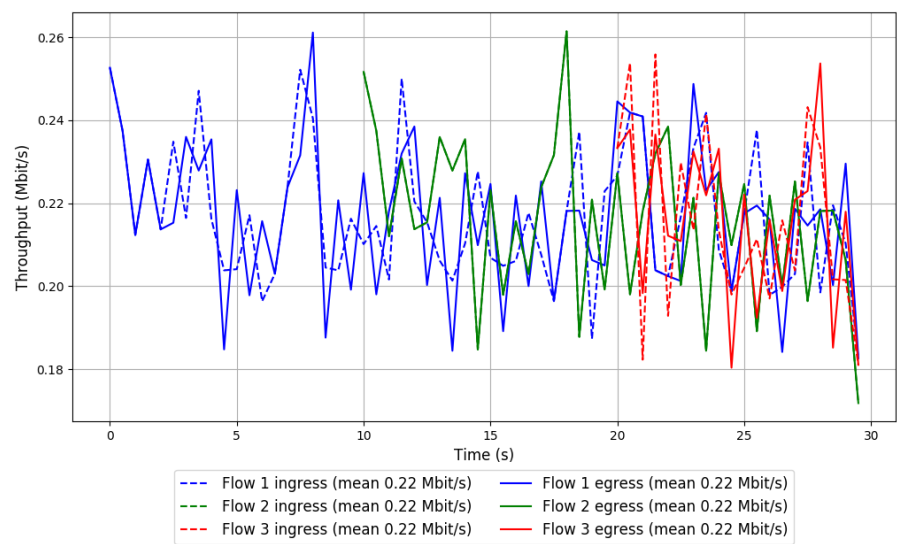
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 35.701 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-12-05 23:46:34

End at: 2017-12-05 23:47:04

Local clock offset: 0.339 ms

Remote clock offset: 2.05 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.304 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.298 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.303 ms

Loss rate: 0.00%

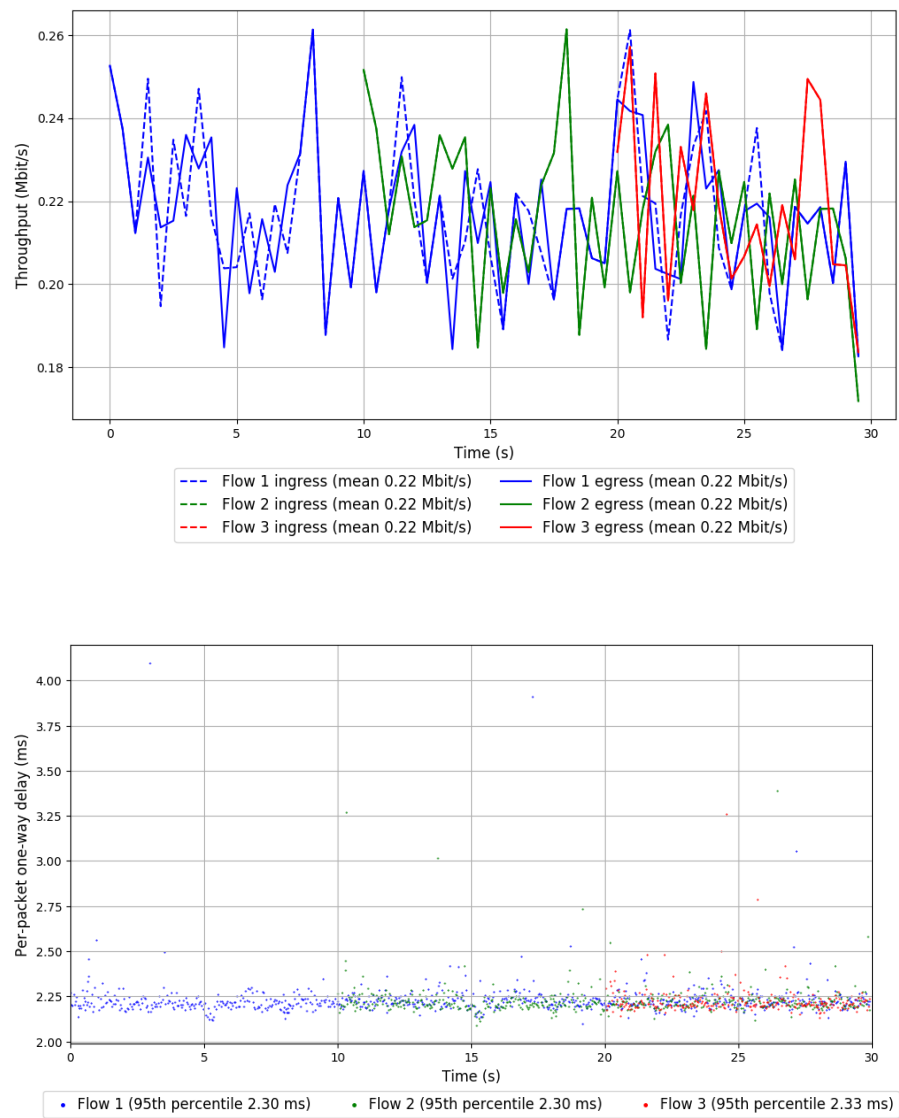
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.330 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



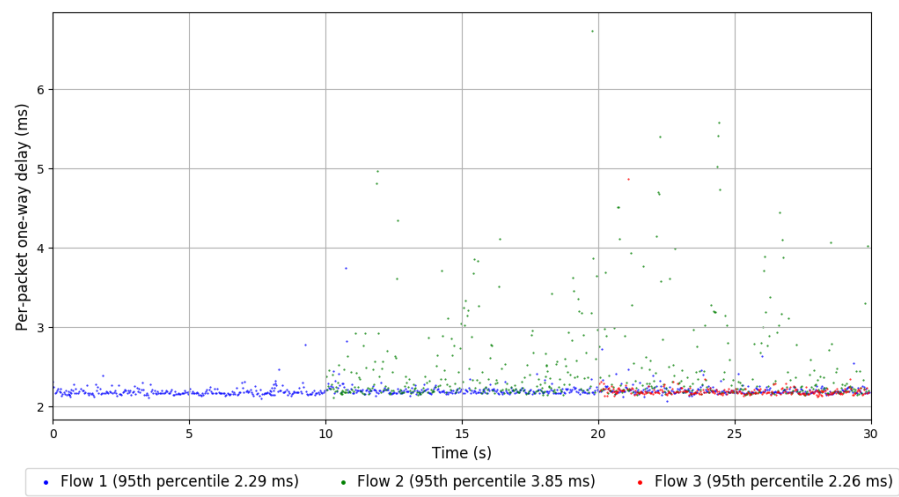
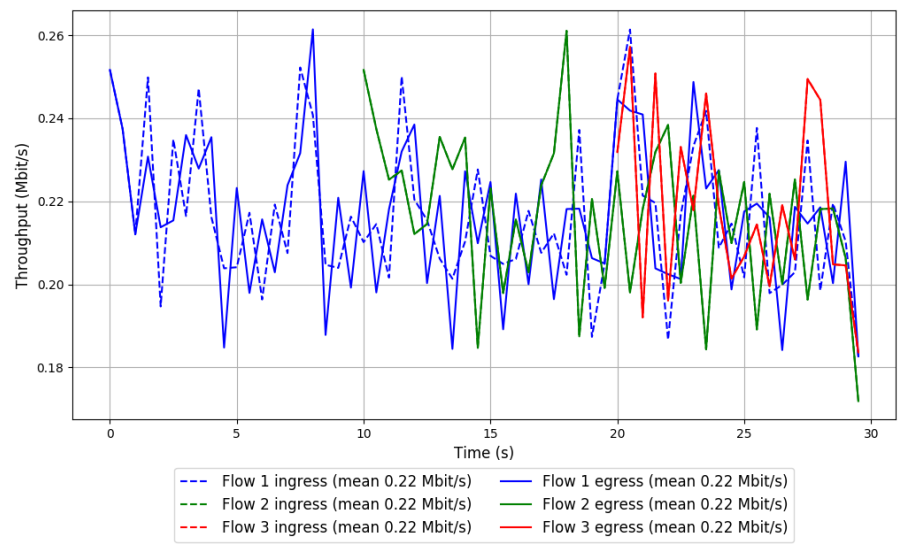
Run 7: Statistics of SReAM

Start at: 2017-12-06 00:05:40  
End at: 2017-12-06 00:06:10  
Local clock offset: 0.214 ms  
Remote clock offset: 1.723 ms

# Below is generated by plot.py at 2017-12-06 04:04:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 0.43 Mbit/s  
95th percentile per-packet one-way delay: 2.921 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.285 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 3.852 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.259 ms  
Loss rate: 0.00%



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-12-06 00:24:36

End at: 2017-12-06 00:25:06

Local clock offset: 0.05 ms

Remote clock offset: 1.585 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.441 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.425 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.420 ms

Loss rate: 0.00%

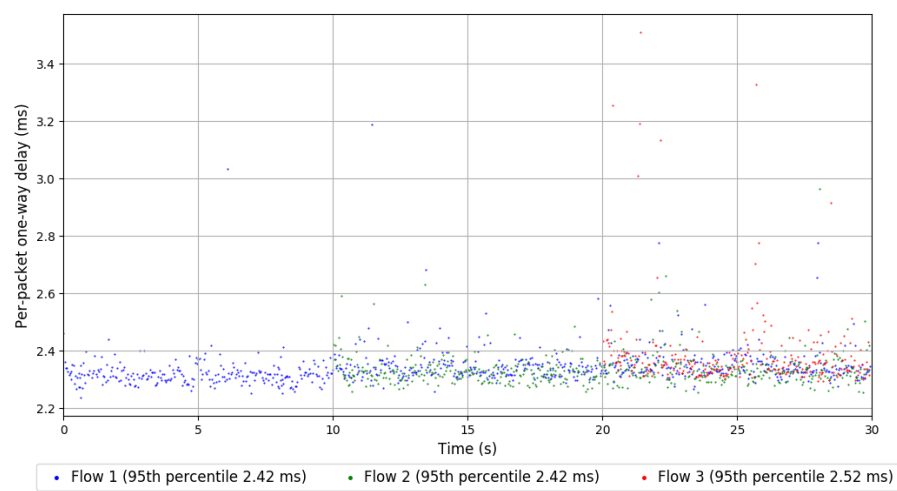
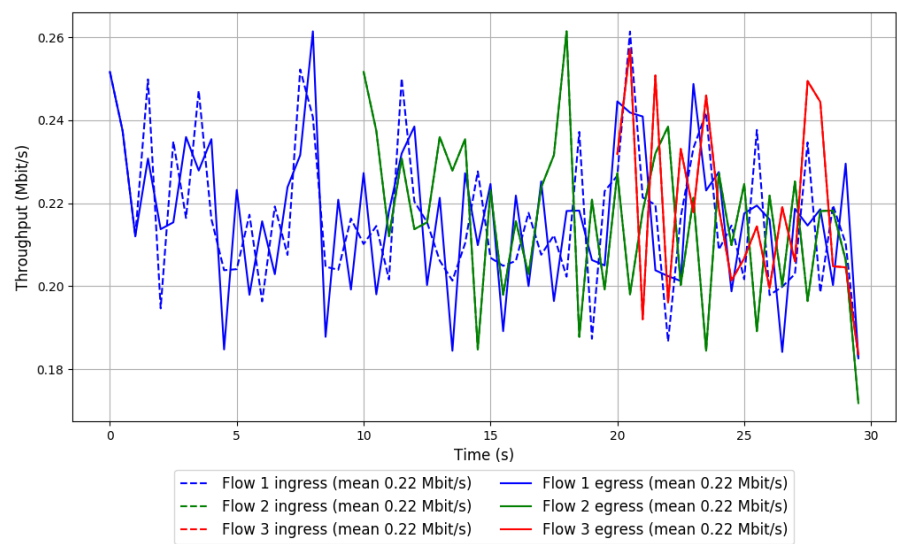
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.524 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-12-06 00:43:47

End at: 2017-12-06 00:44:17

Local clock offset: -0.021 ms

Remote clock offset: 1.062 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 2.412 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.432 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.391 ms

Loss rate: 0.00%

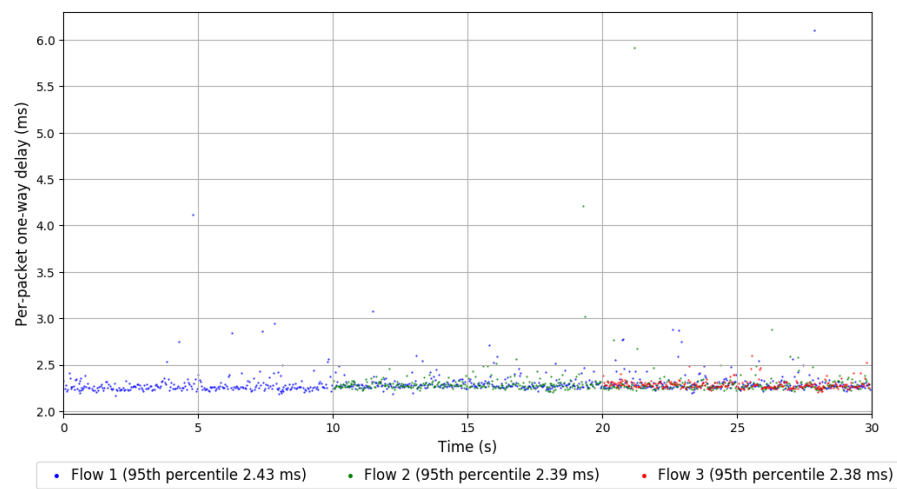
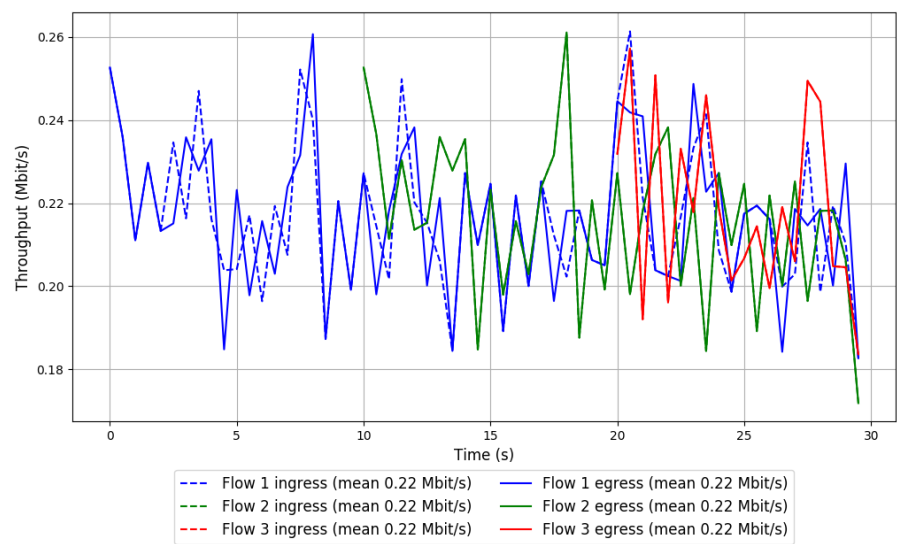
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.375 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-06 01:03:00

End at: 2017-12-06 01:03:30

Local clock offset: -0.142 ms

Remote clock offset: 0.637 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 6.490 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 6.986 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 6.246 ms

Loss rate: 0.00%

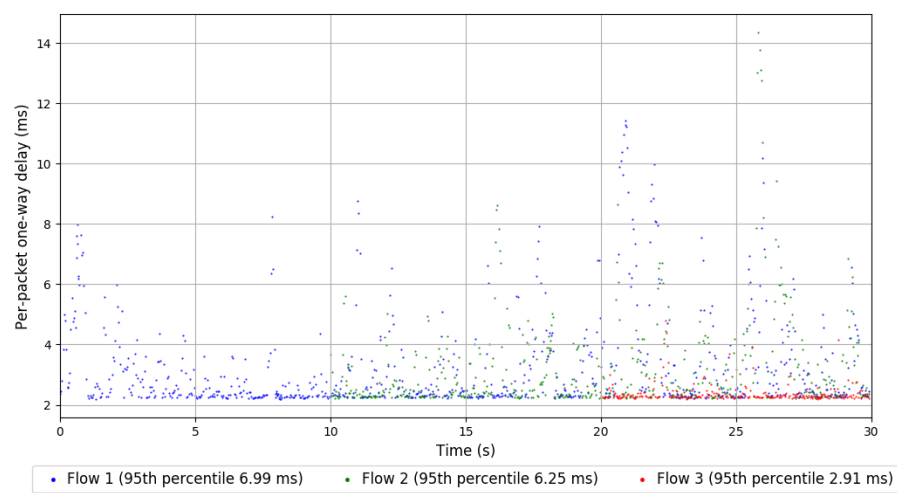
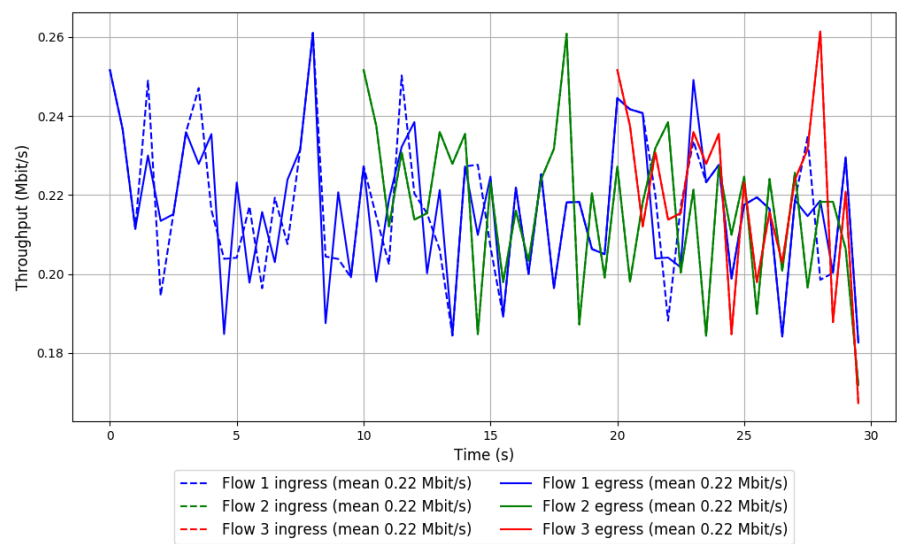
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.906 ms

Loss rate: 0.00%

Run 10: Report of SCReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-12-05 22:05:33

End at: 2017-12-05 22:06:03

Local clock offset: 0.562 ms

Remote clock offset: 1.384 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 5.764 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.169 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 5.822 ms

Loss rate: 0.15%

-- Flow 3:

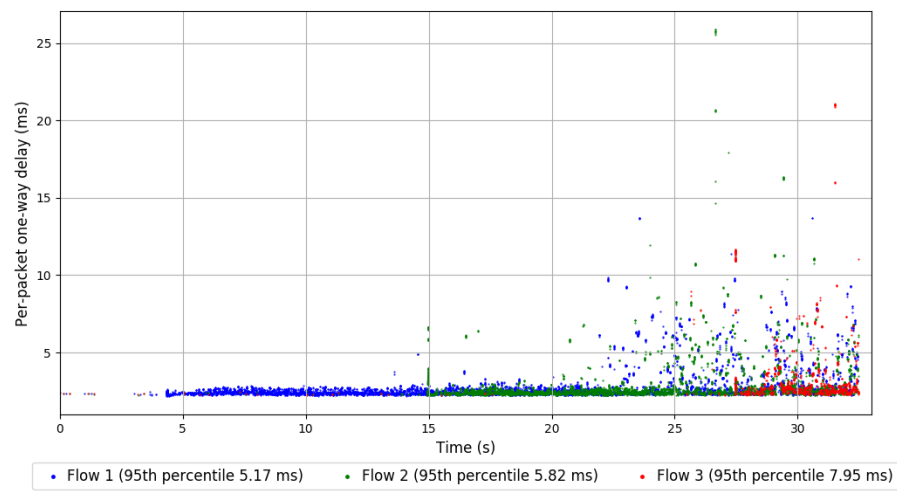
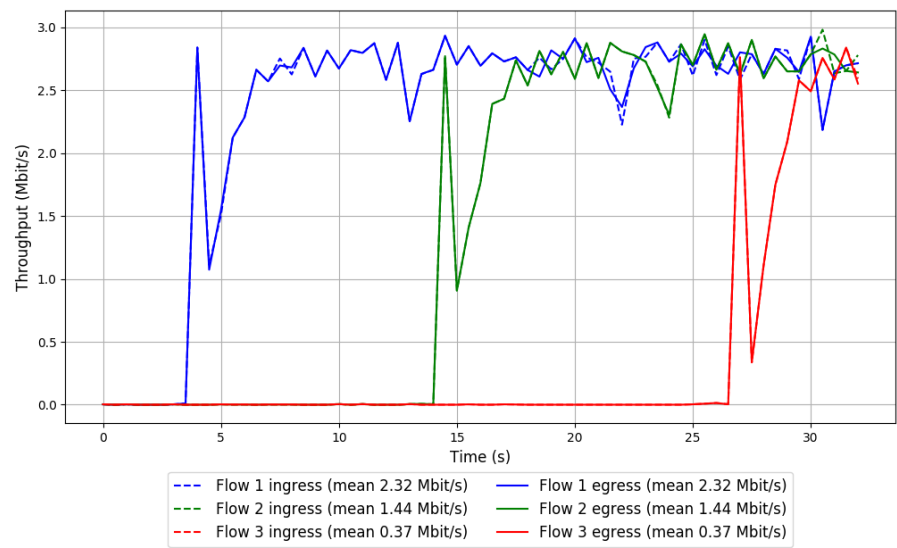
Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 7.946 ms

Loss rate: 0.16%



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-05 22:24:50

End at: 2017-12-05 22:25:20

Local clock offset: 0.612 ms

Remote clock offset: 1.395 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 7.491 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 5.066 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 4.785 ms

Loss rate: 0.00%

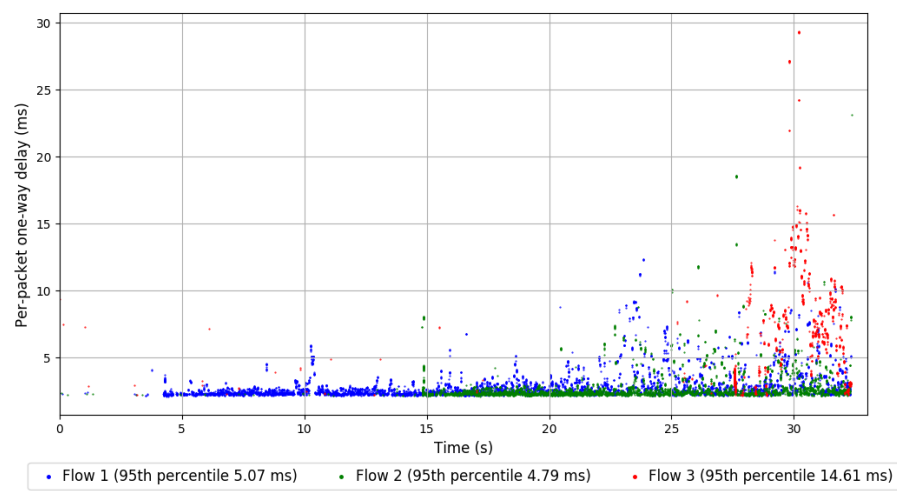
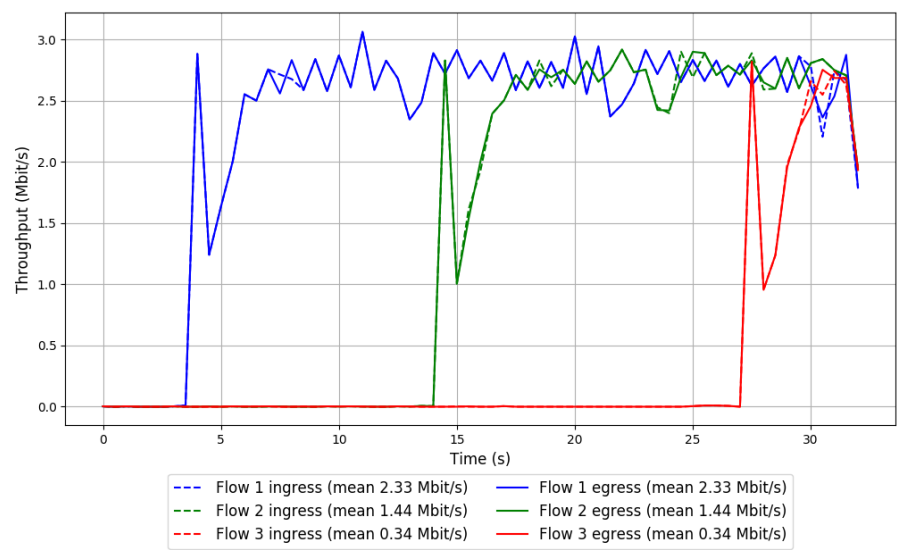
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 14.611 ms

Loss rate: 0.09%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-05 22:44:00

End at: 2017-12-05 22:44:30

Local clock offset: 0.545 ms

Remote clock offset: 1.517 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 22.172 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 24.548 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 5.800 ms

Loss rate: 0.00%

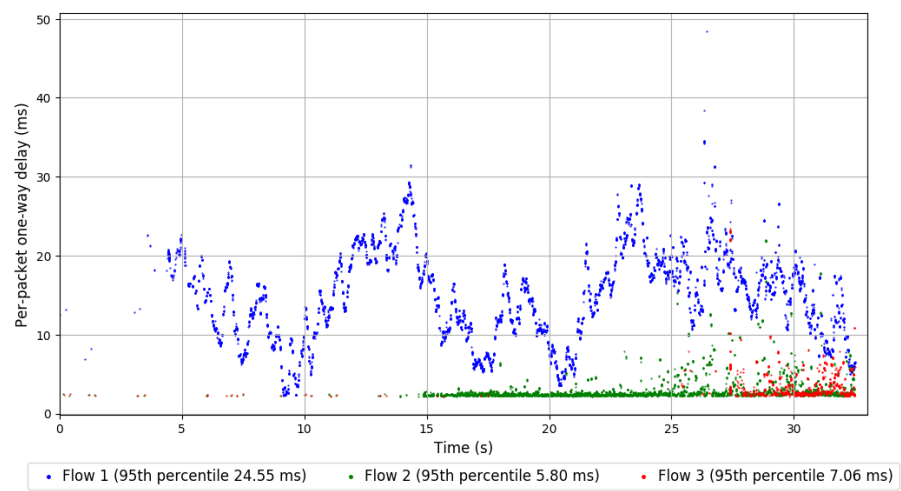
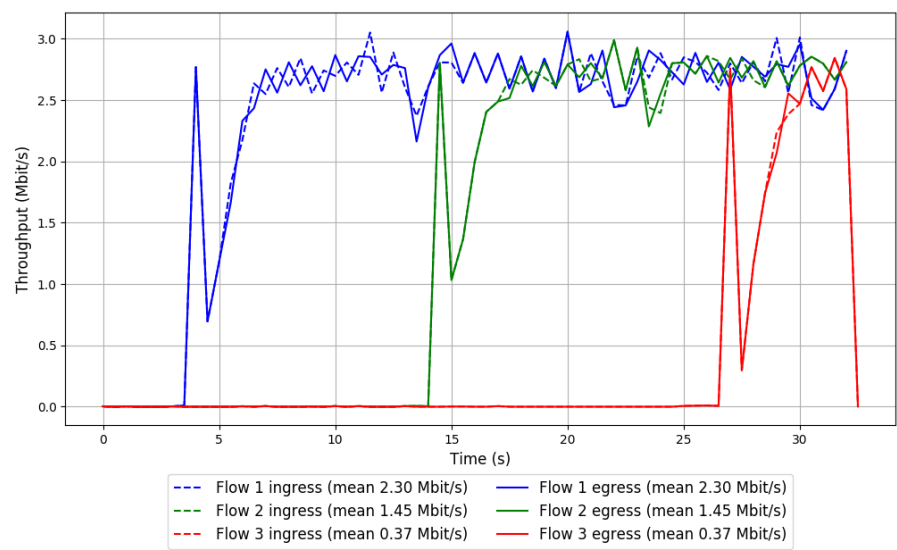
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 7.060 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

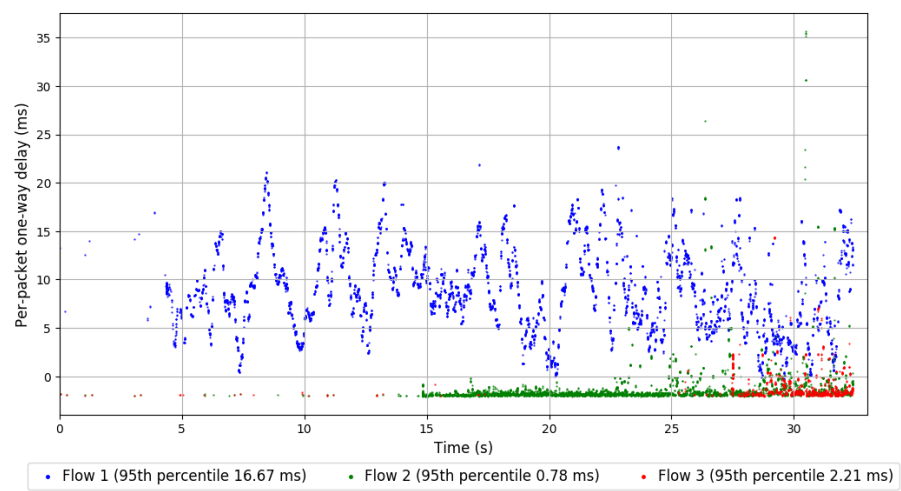
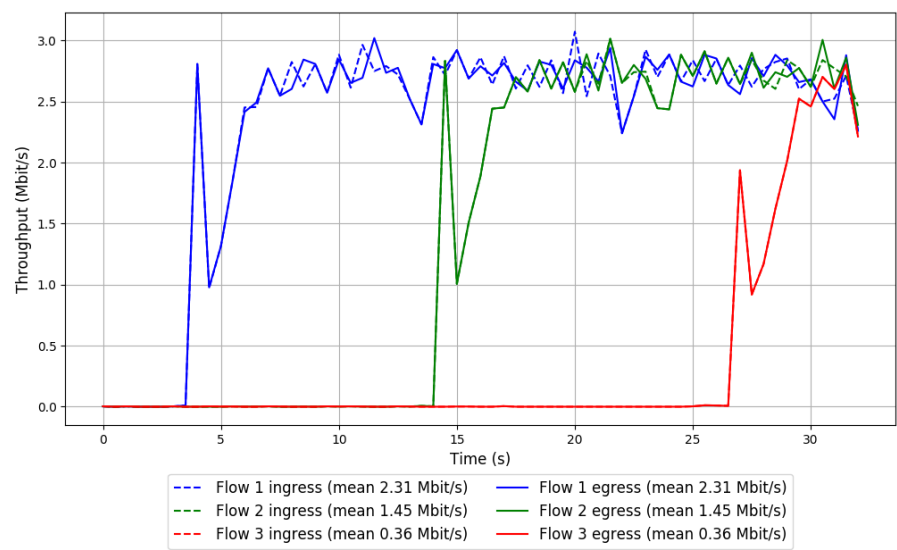


Run 4: Statistics of WebRTC media

Start at: 2017-12-05 23:03:17  
End at: 2017-12-05 23:03:47  
Local clock offset: 0.504 ms  
Remote clock offset: -2.735 ms

# Below is generated by plot.py at 2017-12-06 04:04:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.11 Mbit/s  
95th percentile per-packet one-way delay: 15.304 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 2.31 Mbit/s  
95th percentile per-packet one-way delay: 16.673 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.45 Mbit/s  
95th percentile per-packet one-way delay: 0.783 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: 2.214 ms  
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-05 23:22:03

End at: 2017-12-05 23:22:33

Local clock offset: 0.461 ms

Remote clock offset: 1.513 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 5.201 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 4.809 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 5.316 ms

Loss rate: 0.00%

-- Flow 3:

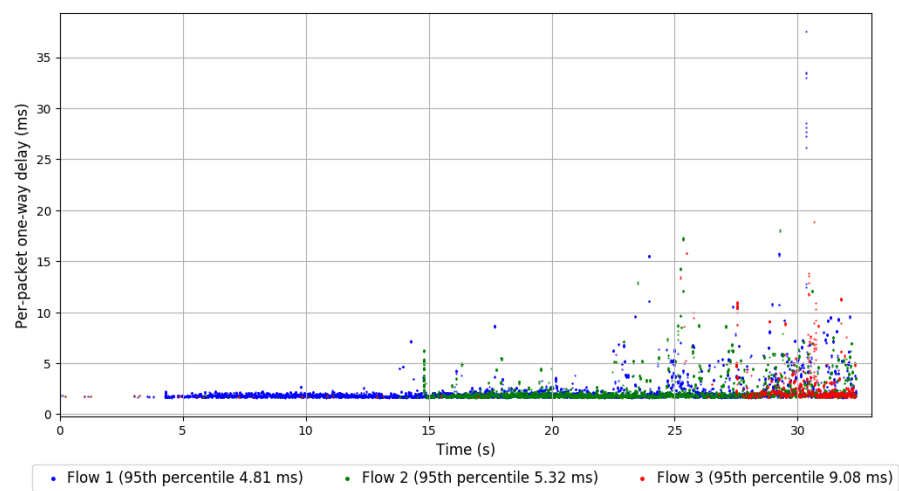
Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 9.083 ms

Loss rate: 0.00%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-05 23:41:05

End at: 2017-12-05 23:41:35

Local clock offset: 0.3 ms

Remote clock offset: 2.155 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 5.617 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 5.405 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 5.464 ms

Loss rate: 0.00%

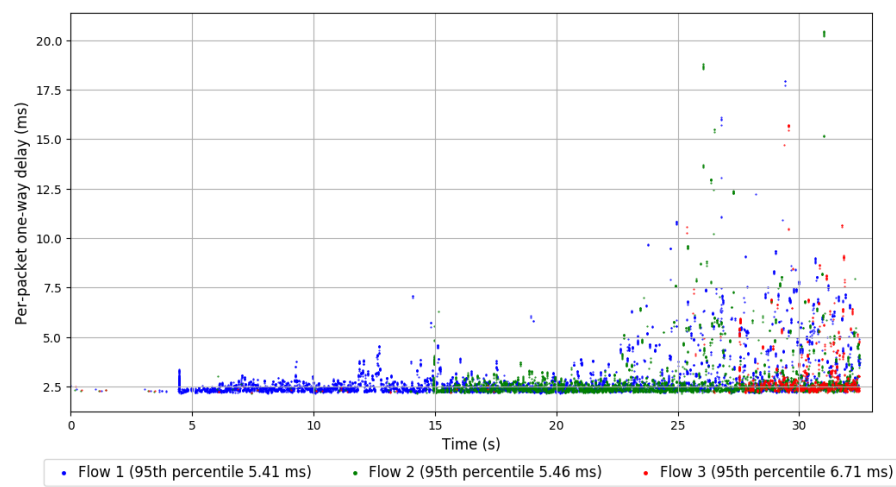
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 6.711 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link

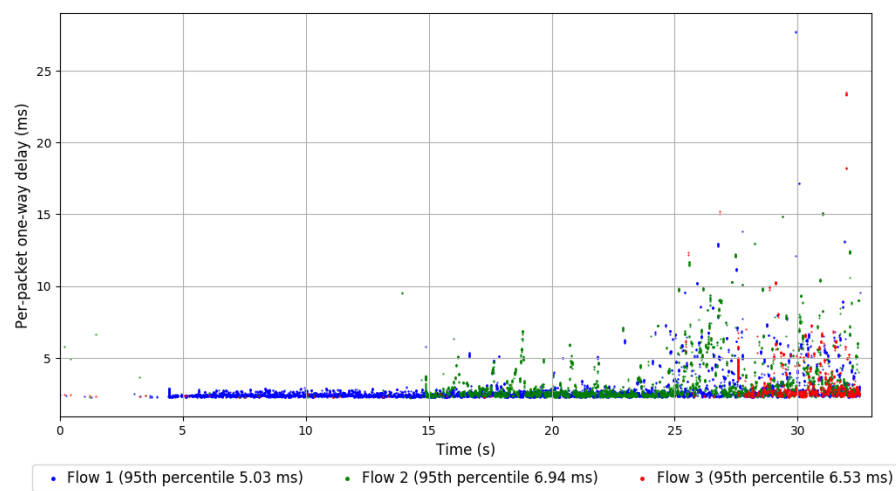


Run 7: Statistics of WebRTC media

Start at: 2017-12-06 00:00:14  
End at: 2017-12-06 00:00:44  
Local clock offset: 0.17 ms  
Remote clock offset: 1.888 ms

# Below is generated by plot.py at 2017-12-06 04:04:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.10 Mbit/s  
95th percentile per-packet one-way delay: 5.948 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 2.31 Mbit/s  
95th percentile per-packet one-way delay: 5.027 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.44 Mbit/s  
95th percentile per-packet one-way delay: 6.939 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: 6.533 ms  
Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link

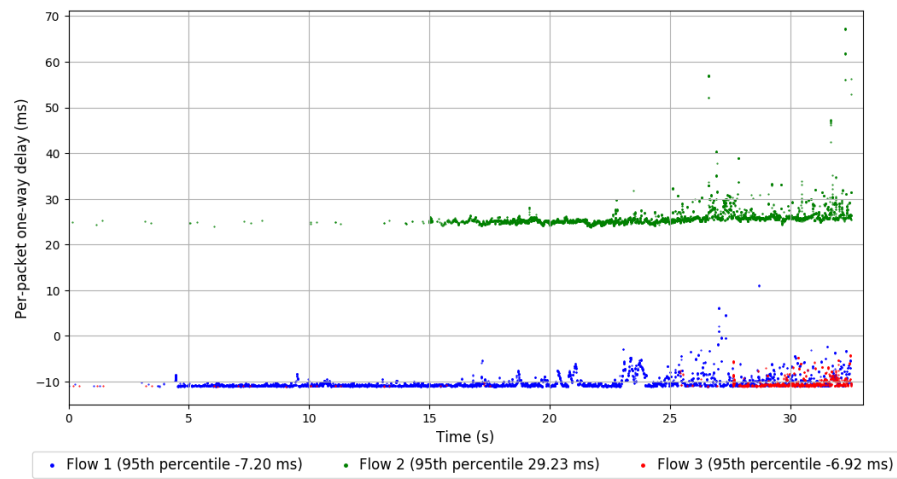
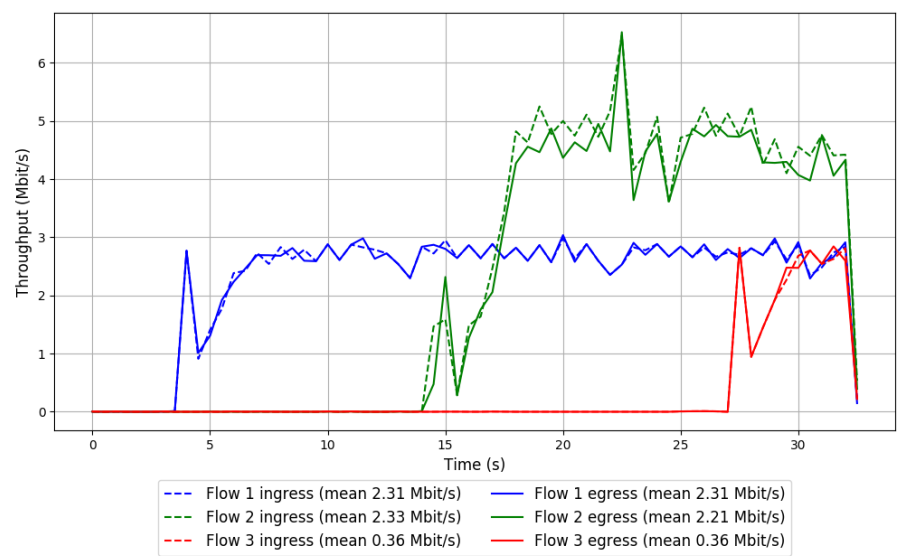


Run 8: Statistics of WebRTC media

Start at: 2017-12-06 00:19:21  
End at: 2017-12-06 00:19:51  
Local clock offset: 0.065 ms  
Remote clock offset: -11.657 ms

# Below is generated by plot.py at 2017-12-06 04:04:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.87 Mbit/s  
95th percentile per-packet one-way delay: 27.222 ms  
Loss rate: 2.45%  
-- Flow 1:  
Average throughput: 2.31 Mbit/s  
95th percentile per-packet one-way delay: -7.199 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 2.21 Mbit/s  
95th percentile per-packet one-way delay: 29.229 ms  
Loss rate: 5.27%  
-- Flow 3:  
Average throughput: 0.36 Mbit/s  
95th percentile per-packet one-way delay: -6.923 ms  
Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



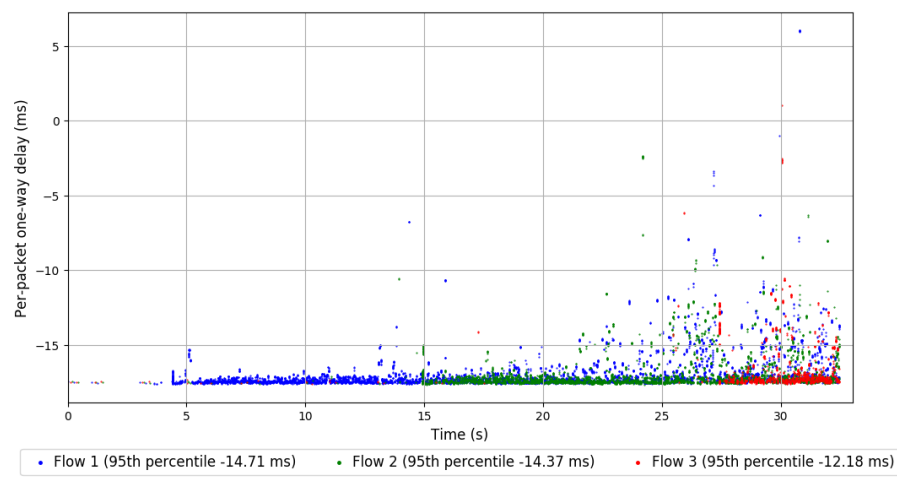
Run 9: Statistics of WebRTC media

Start at: 2017-12-06 00:38:18  
End at: 2017-12-06 00:38:48  
Local clock offset: 0.01 ms  
Remote clock offset: -18.558 ms

# Below is generated by plot.py at 2017-12-06 04:04:43  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 4.11 Mbit/s  
95th percentile per-packet one-way delay: -14.157 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 2.32 Mbit/s  
95th percentile per-packet one-way delay: -14.711 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 1.43 Mbit/s  
95th percentile per-packet one-way delay: -14.367 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 0.37 Mbit/s  
95th percentile per-packet one-way delay: -12.184 ms  
Loss rate: 0.00%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-06 00:57:24

End at: 2017-12-06 00:57:54

Local clock offset: -0.124 ms

Remote clock offset: 0.737 ms

# Below is generated by plot.py at 2017-12-06 04:04:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 5.562 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 5.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 5.513 ms

Loss rate: 0.00%

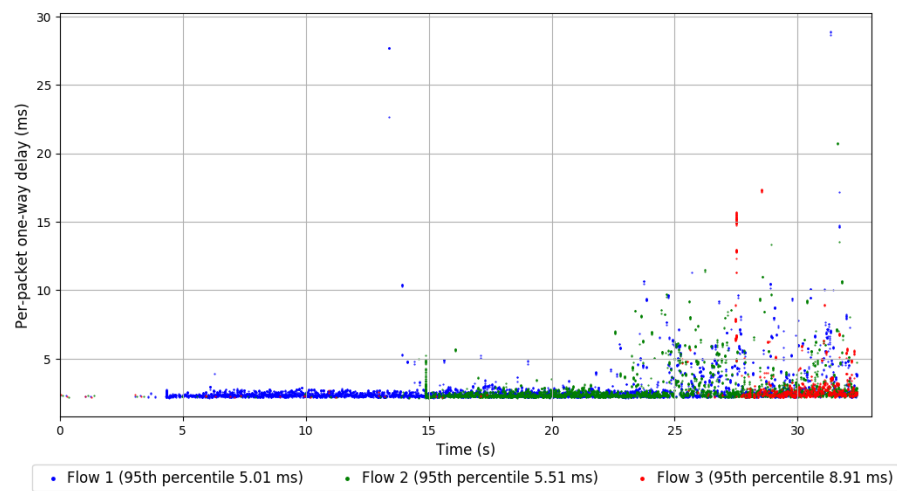
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 8.914 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-05 22:20:28

End at: 2017-12-05 22:20:58

Local clock offset: 0.569 ms

Remote clock offset: 1.386 ms

# Below is generated by plot.py at 2017-12-06 04:05:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.07 Mbit/s

95th percentile per-packet one-way delay: 3.139 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 3.158 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.17 Mbit/s

95th percentile per-packet one-way delay: 3.098 ms

Loss rate: 0.00%

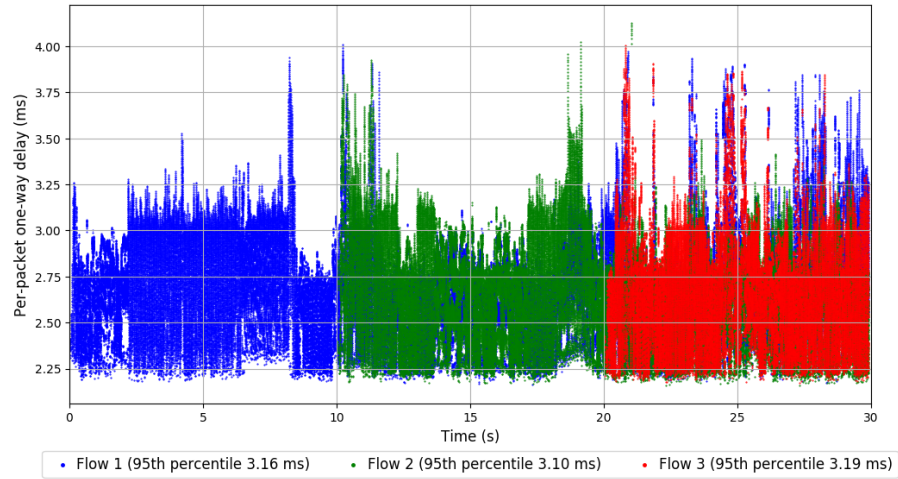
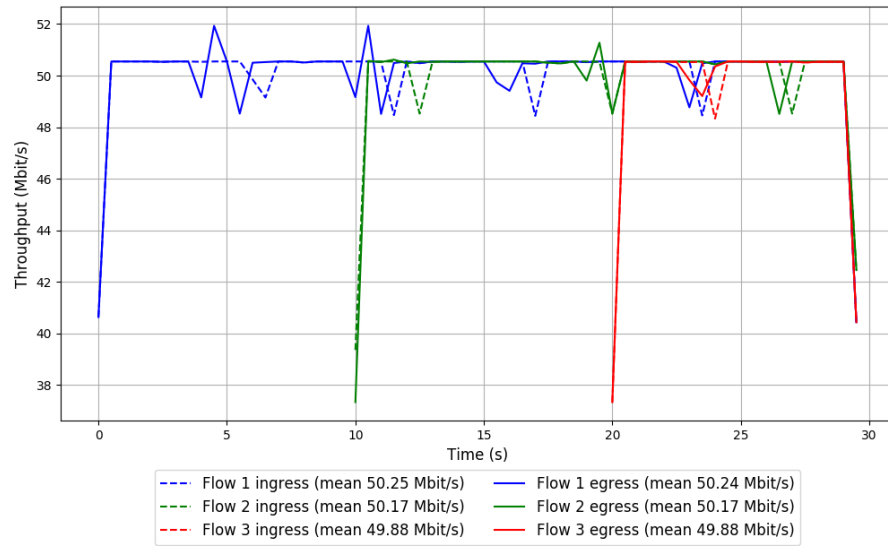
-- Flow 3:

Average throughput: 49.88 Mbit/s

95th percentile per-packet one-way delay: 3.190 ms

Loss rate: 0.00%

## Run 1: Report of Sprout — Data Link



## Run 2: Statistics of Sprout

Start at: 2017-12-05 22:39:42

End at: 2017-12-05 22:40:12

Local clock offset: 0.615 ms

Remote clock offset: 1.426 ms

# Below is generated by plot.py at 2017-12-06 04:05:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.39 Mbit/s

95th percentile per-packet one-way delay: 29.582 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 25.53 Mbit/s

95th percentile per-packet one-way delay: 31.569 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 50.16 Mbit/s

95th percentile per-packet one-way delay: 3.078 ms

Loss rate: 0.00%

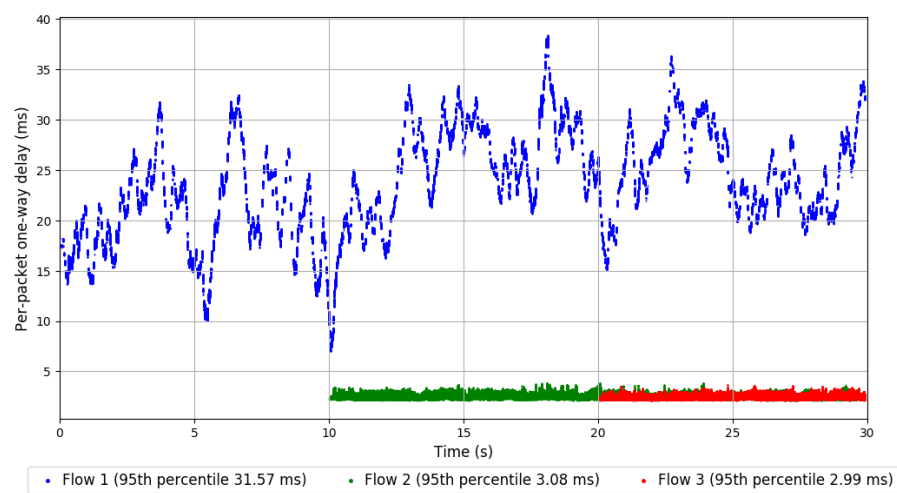
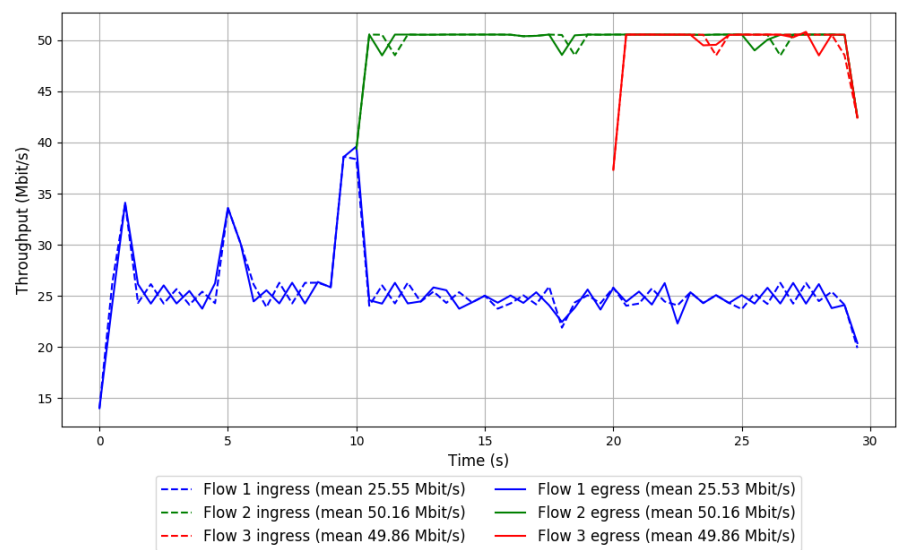
-- Flow 3:

Average throughput: 49.86 Mbit/s

95th percentile per-packet one-way delay: 2.994 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-05 22:59:01

End at: 2017-12-05 22:59:31

Local clock offset: 0.489 ms

Remote clock offset: 1.454 ms

# Below is generated by plot.py at 2017-12-06 04:05:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 64.35 Mbit/s

95th percentile per-packet one-way delay: 38.757 ms

Loss rate: 1.78%

-- Flow 1:

Average throughput: 14.50 Mbit/s

95th percentile per-packet one-way delay: 39.150 ms

Loss rate: 7.43%

-- Flow 2:

Average throughput: 50.10 Mbit/s

95th percentile per-packet one-way delay: 3.115 ms

Loss rate: 0.01%

-- Flow 3:

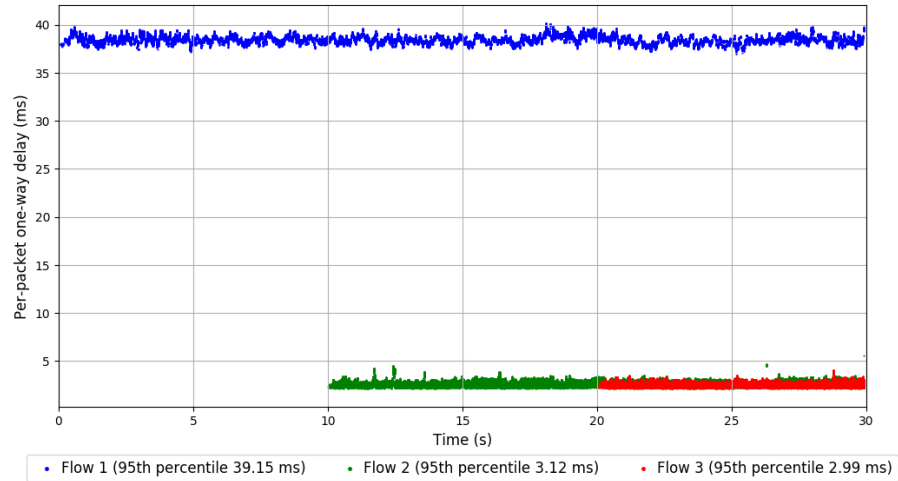
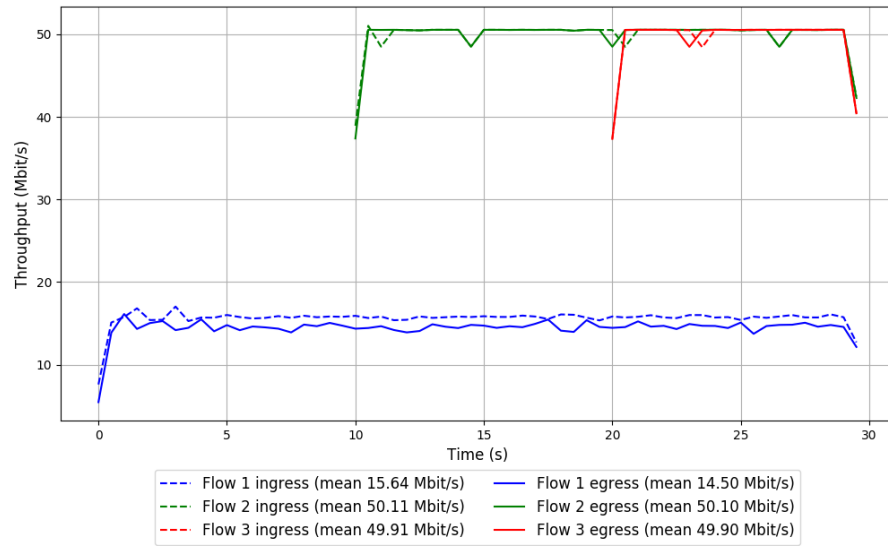
Average throughput: 49.90 Mbit/s

95th percentile per-packet one-way delay: 2.993 ms

Loss rate: 0.00%



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



#### Run 4: Statistics of Sprout

Start at: 2017-12-05 23:18:00

End at: 2017-12-05 23:18:30

Local clock offset: 0.5 ms

Remote clock offset: 1.856 ms

# Below is generated by plot.py at 2017-12-06 04:05:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.24 Mbit/s

95th percentile per-packet one-way delay: 29.823 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 25.49 Mbit/s

95th percentile per-packet one-way delay: 31.557 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 9.007 ms

Loss rate: 0.10%

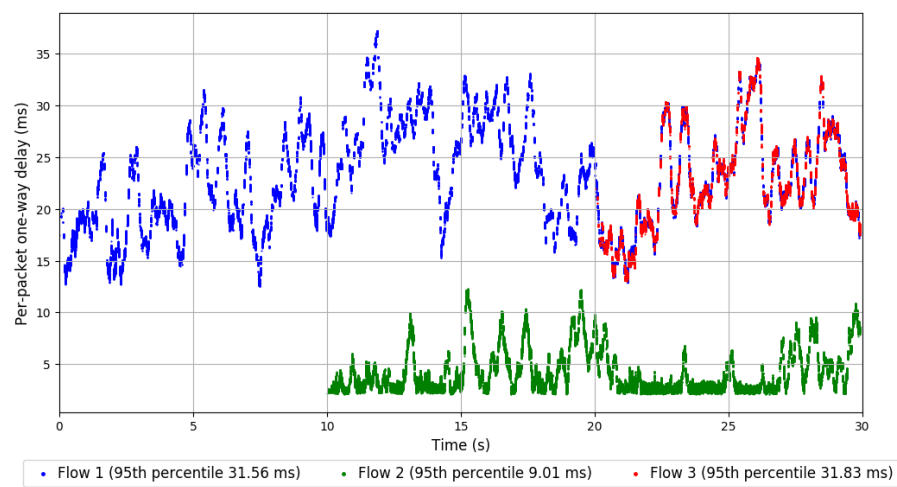
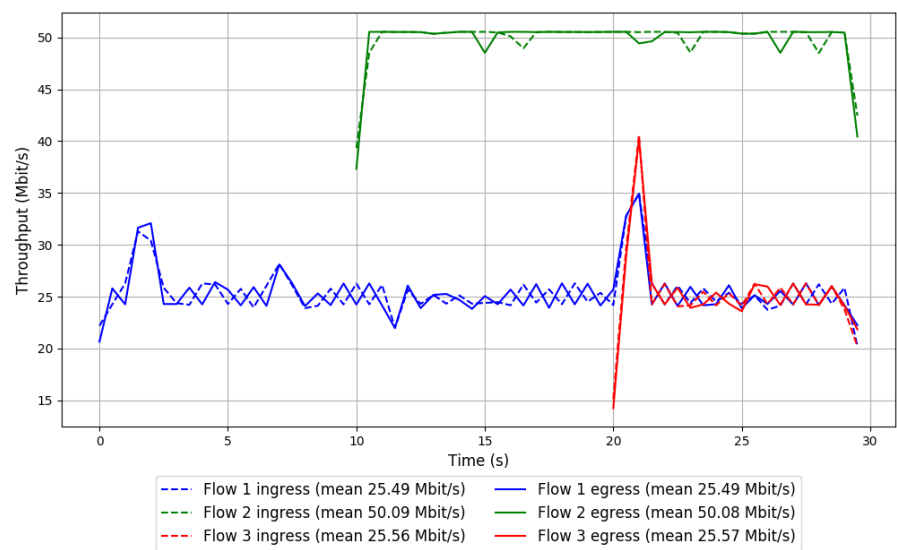
-- Flow 3:

Average throughput: 25.57 Mbit/s

95th percentile per-packet one-way delay: 31.829 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-05 23:36:51

End at: 2017-12-05 23:37:21

Local clock offset: 0.361 ms

Remote clock offset: 2.248 ms

# Below is generated by plot.py at 2017-12-06 04:05:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 97.93 Mbit/s

95th percentile per-packet one-way delay: 12.976 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.21 Mbit/s

95th percentile per-packet one-way delay: 3.514 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.13 Mbit/s

95th percentile per-packet one-way delay: 11.347 ms

Loss rate: 0.00%

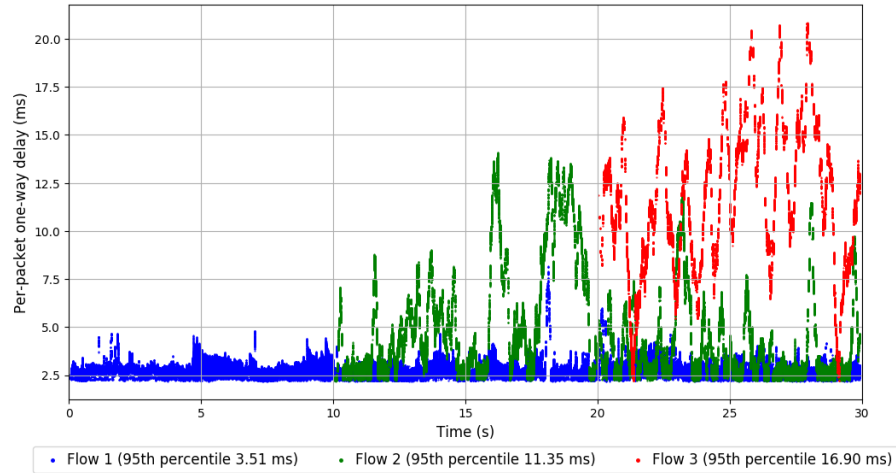
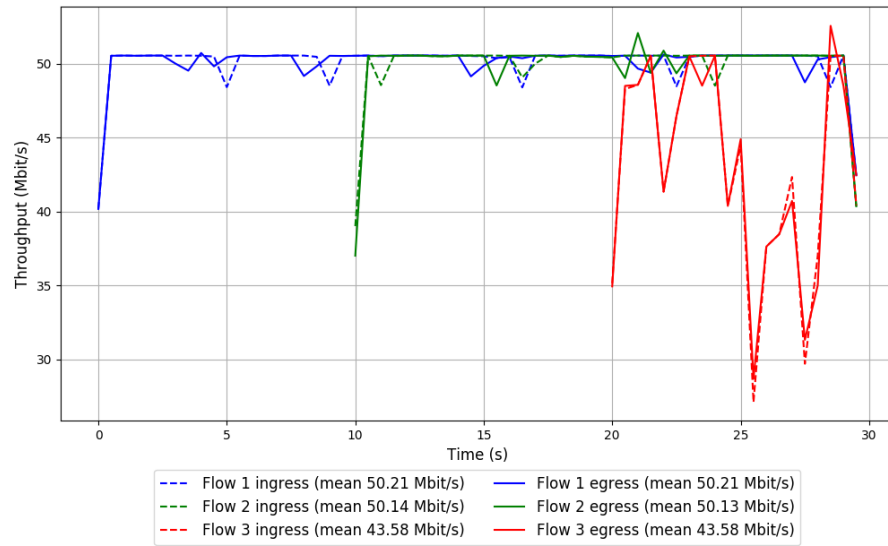
-- Flow 3:

Average throughput: 43.58 Mbit/s

95th percentile per-packet one-way delay: 16.896 ms

Loss rate: 0.00%

# Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-05 23:55:59

End at: 2017-12-05 23:56:29

Local clock offset: 0.296 ms

Remote clock offset: 1.965 ms

# Below is generated by plot.py at 2017-12-06 04:05:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.03 Mbit/s

95th percentile per-packet one-way delay: 3.336 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 3.689 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.13 Mbit/s

95th percentile per-packet one-way delay: 3.150 ms

Loss rate: 0.00%

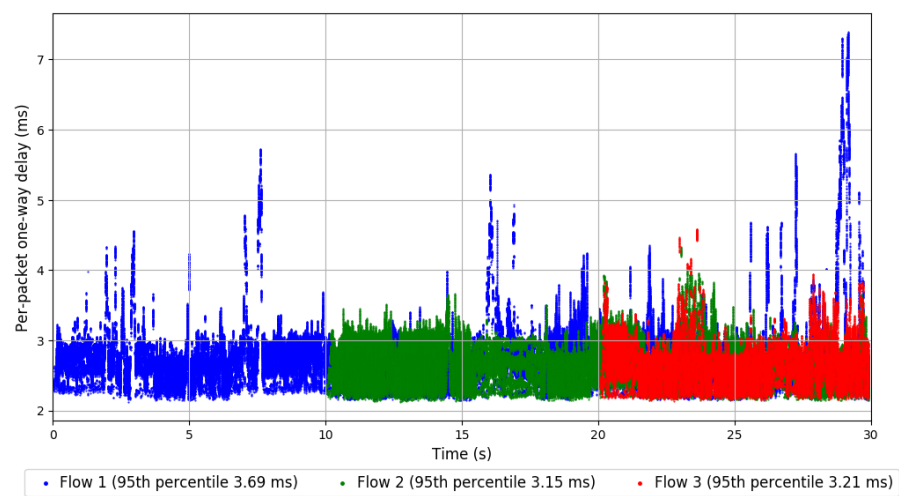
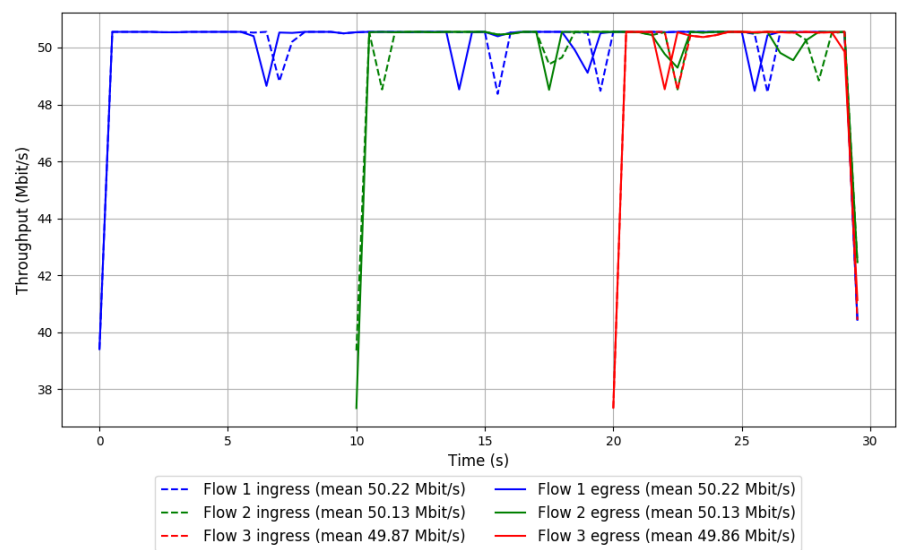
-- Flow 3:

Average throughput: 49.86 Mbit/s

95th percentile per-packet one-way delay: 3.213 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-06 00:15:12

End at: 2017-12-06 00:15:42

Local clock offset: 0.143 ms

Remote clock offset: 1.715 ms

# Below is generated by plot.py at 2017-12-06 04:06:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.03 Mbit/s

95th percentile per-packet one-way delay: 3.696 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 3.558 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.12 Mbit/s

95th percentile per-packet one-way delay: 3.758 ms

Loss rate: 0.00%

-- Flow 3:

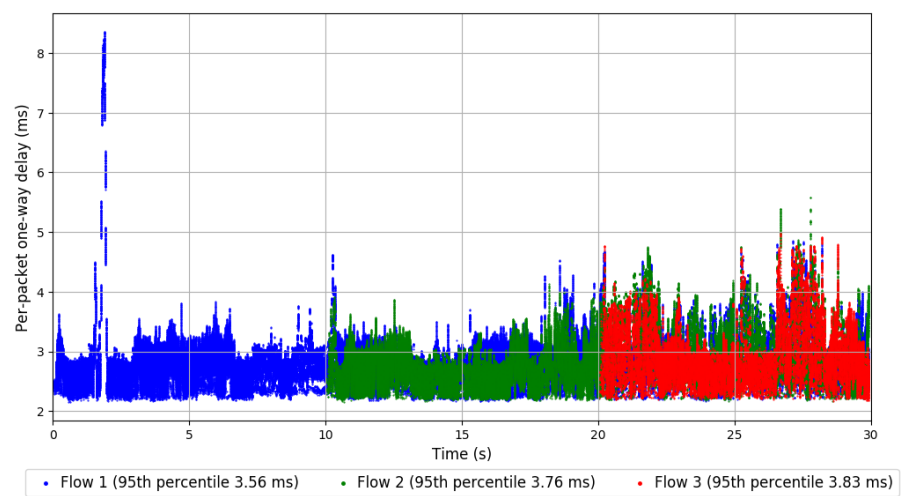
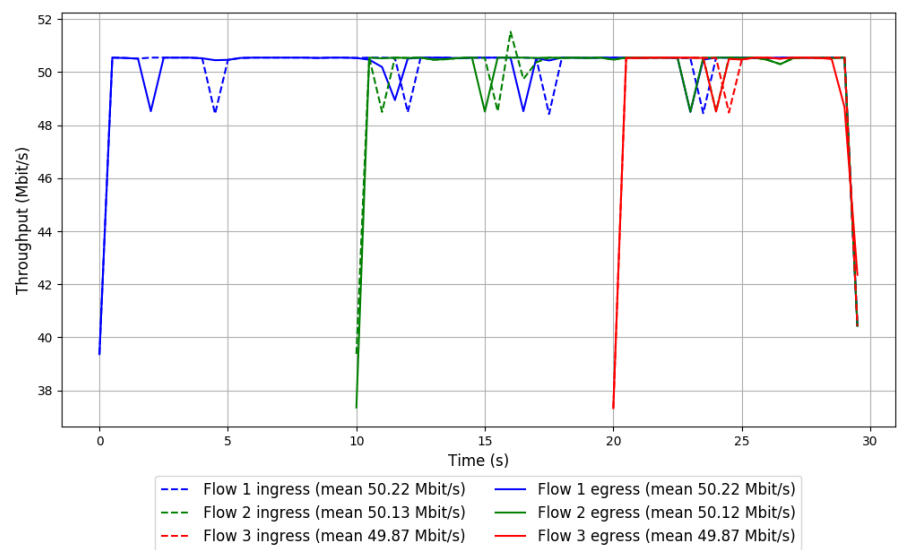
Average throughput: 49.87 Mbit/s

95th percentile per-packet one-way delay: 3.833 ms

Loss rate: 0.00%



Run 7: Report of Sprout — Data Link

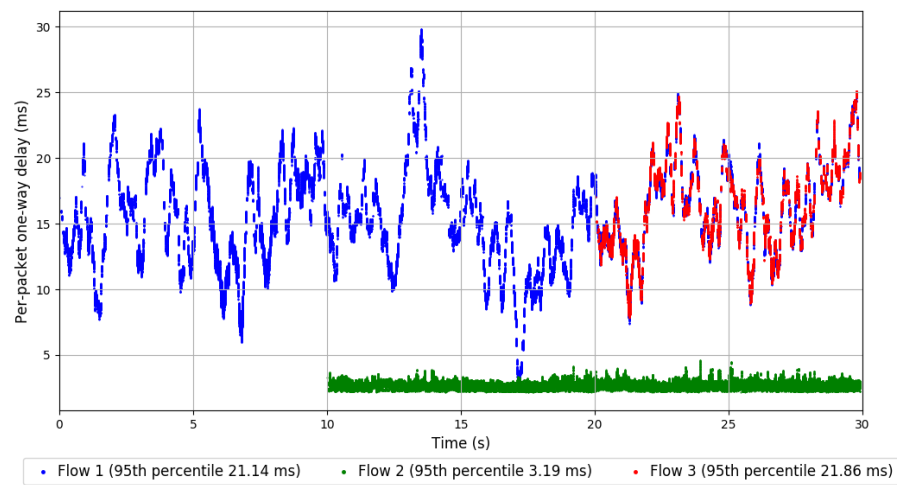
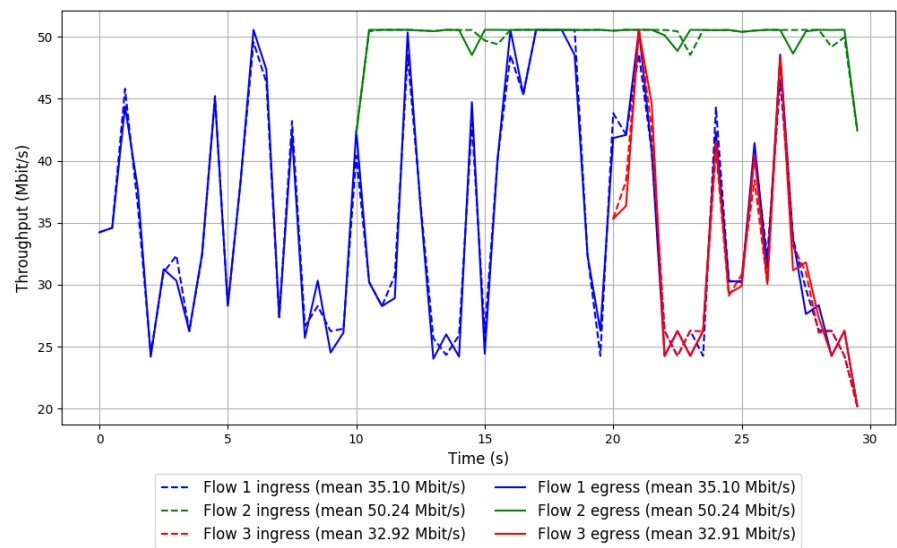


Run 8: Statistics of Sprout

Start at: 2017-12-06 00:34:00  
End at: 2017-12-06 00:34:30  
Local clock offset: 0.031 ms  
Remote clock offset: 1.312 ms

# Below is generated by plot.py at 2017-12-06 04:06:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 79.37 Mbit/s  
95th percentile per-packet one-way delay: 20.131 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 35.10 Mbit/s  
95th percentile per-packet one-way delay: 21.136 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 50.24 Mbit/s  
95th percentile per-packet one-way delay: 3.185 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 32.91 Mbit/s  
95th percentile per-packet one-way delay: 21.862 ms  
Loss rate: 0.00%

Run 8: Report of Sprout — Data Link

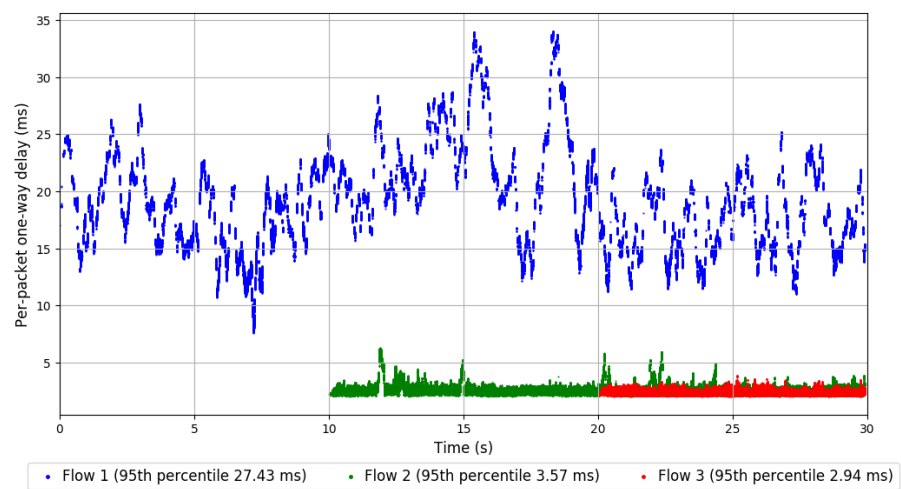
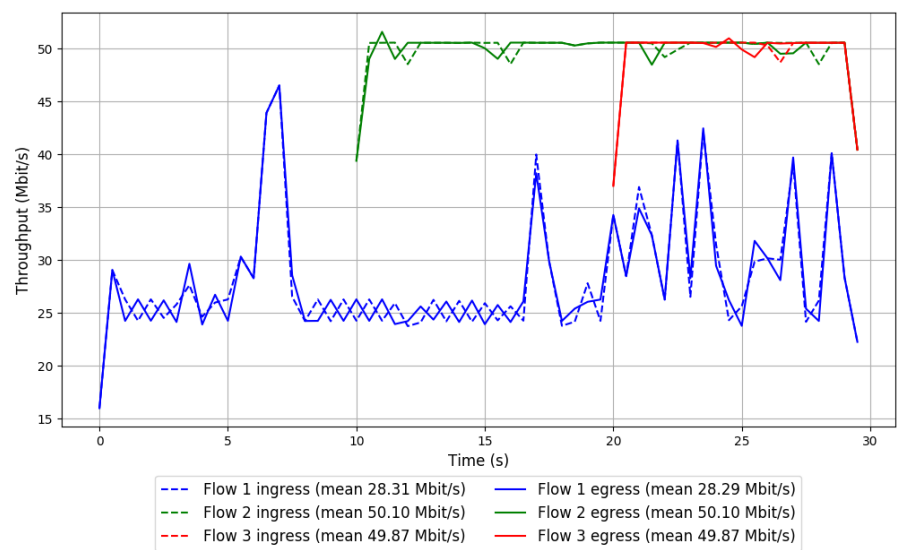


Run 9: Statistics of Sprout

Start at: 2017-12-06 00:53:05  
End at: 2017-12-06 00:53:35  
Local clock offset: -0.113 ms  
Remote clock offset: 0.727 ms

# Below is generated by plot.py at 2017-12-06 04:06:04  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 78.10 Mbit/s  
95th percentile per-packet one-way delay: 23.358 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 28.29 Mbit/s  
95th percentile per-packet one-way delay: 27.434 ms  
Loss rate: 0.12%  
-- Flow 2:  
Average throughput: 50.10 Mbit/s  
95th percentile per-packet one-way delay: 3.572 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 49.87 Mbit/s  
95th percentile per-packet one-way delay: 2.937 ms  
Loss rate: 0.00%

Run 9: Report of Sprout — Data Link

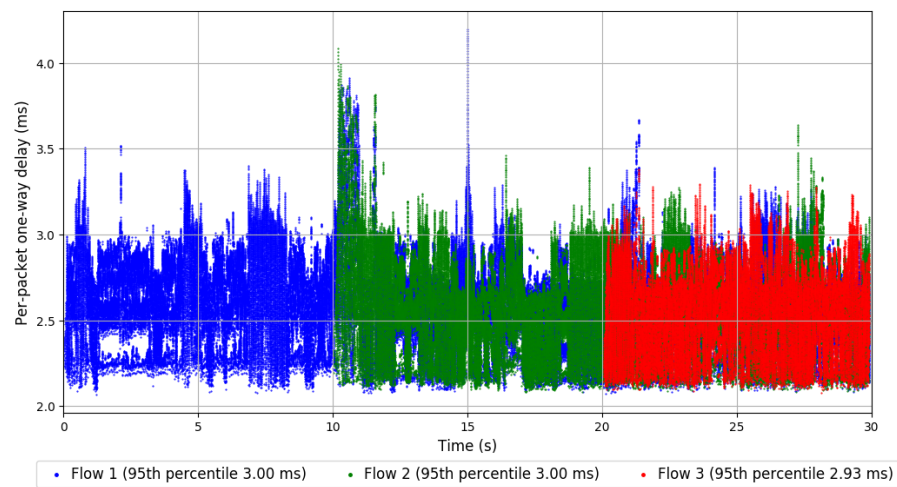
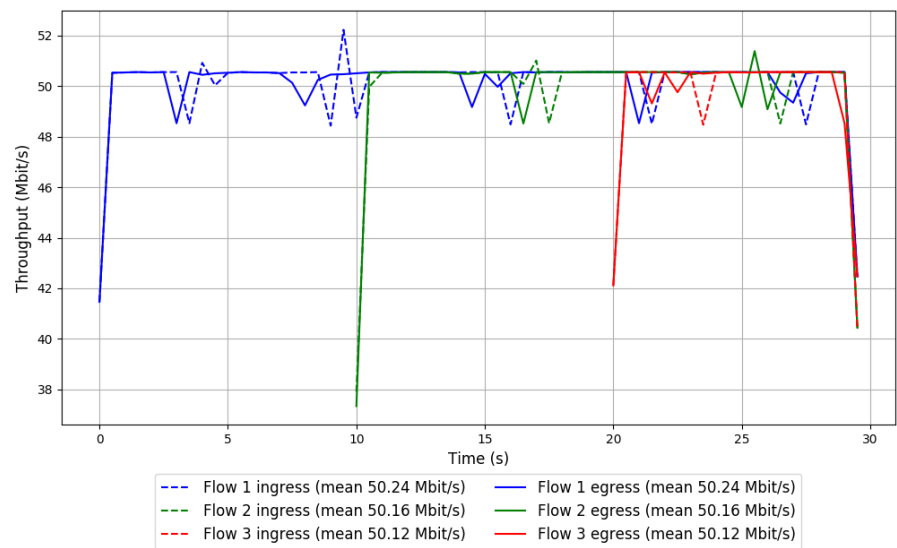


Run 10: Statistics of Sprout

Start at: 2017-12-06 01:12:33  
End at: 2017-12-06 01:13:03  
Local clock offset: -0.212 ms  
Remote clock offset: 0.406 ms

# Below is generated by plot.py at 2017-12-06 04:06:15  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 100.15 Mbit/s  
95th percentile per-packet one-way delay: 2.993 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 50.24 Mbit/s  
95th percentile per-packet one-way delay: 3.005 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 50.16 Mbit/s  
95th percentile per-packet one-way delay: 3.003 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 50.12 Mbit/s  
95th percentile per-packet one-way delay: 2.928 ms  
Loss rate: 0.00%

Run 10: Report of Sprout — Data Link



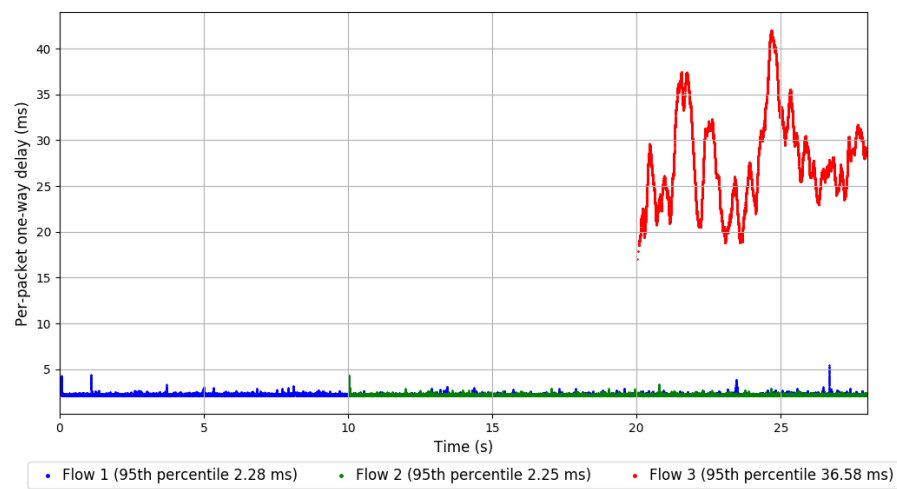
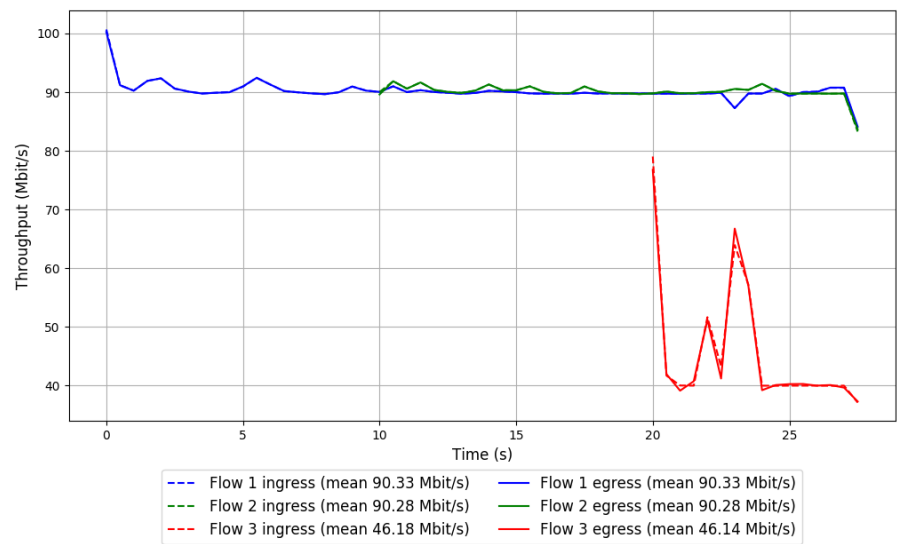
```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-05 22:12:12
End at: 2017-12-05 22:12:42
Local clock offset: 0.642 ms
Remote clock offset: 1.404 ms

# Below is generated by plot.py at 2017-12-06 04:08:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 161.39 Mbit/s
95th percentile per-packet one-way delay: 24.497 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 90.33 Mbit/s
95th percentile per-packet one-way delay: 2.276 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 90.28 Mbit/s
95th percentile per-packet one-way delay: 2.250 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 46.14 Mbit/s
95th percentile per-packet one-way delay: 36.584 ms
Loss rate: 0.29%
```



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

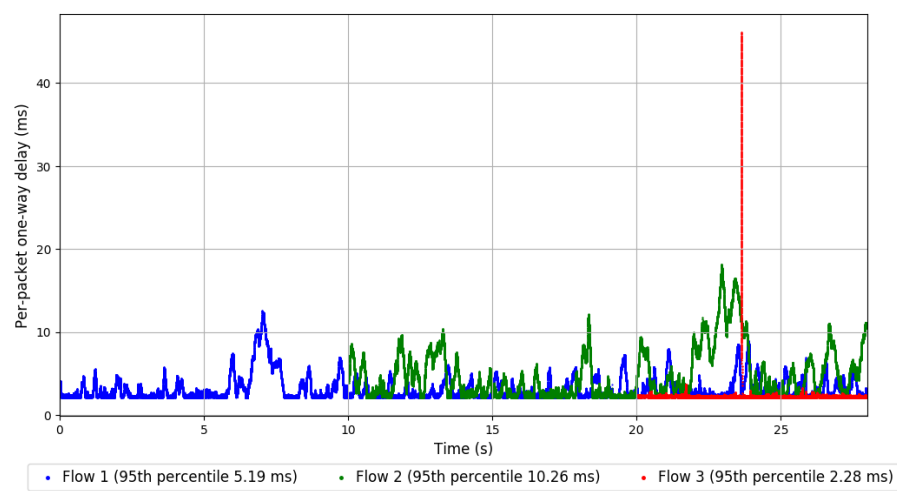
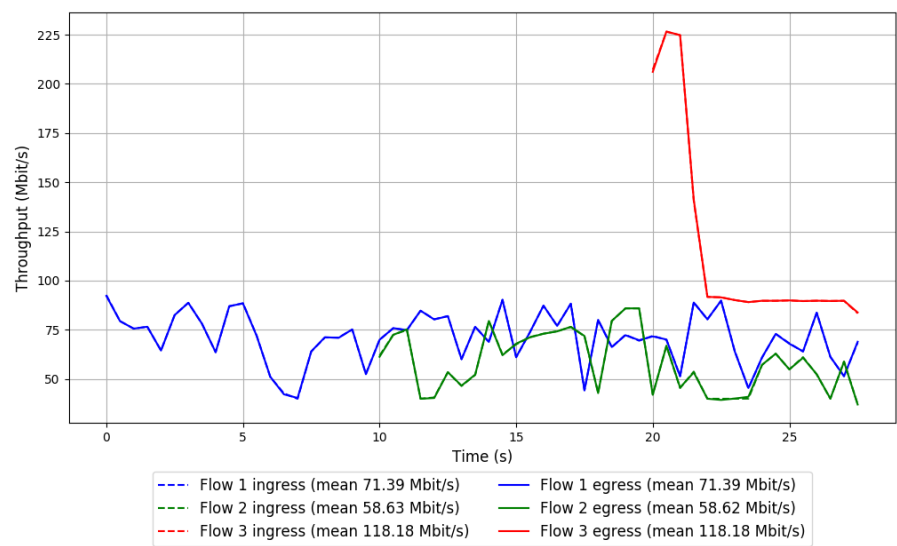


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-05 22:31:27
End at: 2017-12-05 22:31:57
Local clock offset: 0.59 ms
Remote clock offset: 1.37 ms

# Below is generated by plot.py at 2017-12-06 04:08:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 142.51 Mbit/s
95th percentile per-packet one-way delay: 6.963 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 71.39 Mbit/s
95th percentile per-packet one-way delay: 5.186 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 10.264 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 118.18 Mbit/s
95th percentile per-packet one-way delay: 2.283 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-12-05 22:50:43

End at: 2017-12-05 22:51:13

Local clock offset: 0.636 ms

Remote clock offset: 1.531 ms

# Below is generated by plot.py at 2017-12-06 04:08:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.36 Mbit/s

95th percentile per-packet one-way delay: 31.503 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 54.51 Mbit/s

95th percentile per-packet one-way delay: 8.502 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 45.02 Mbit/s

95th percentile per-packet one-way delay: 34.905 ms

Loss rate: 0.15%

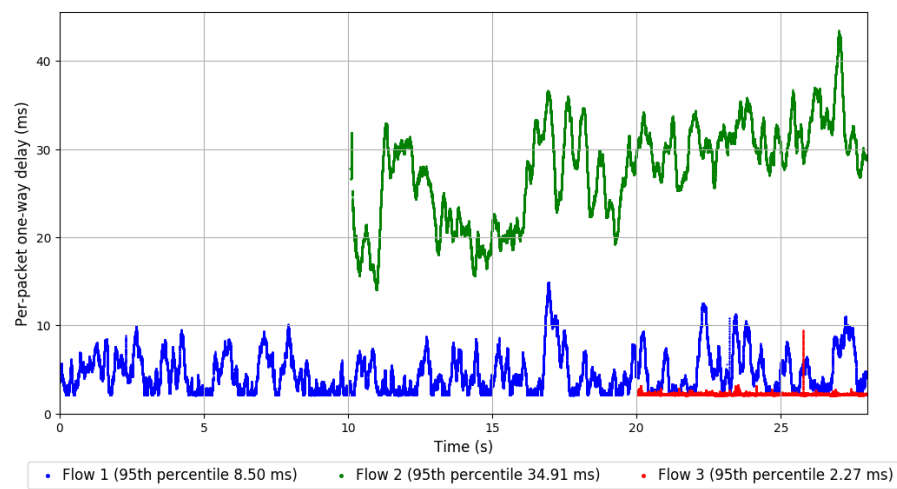
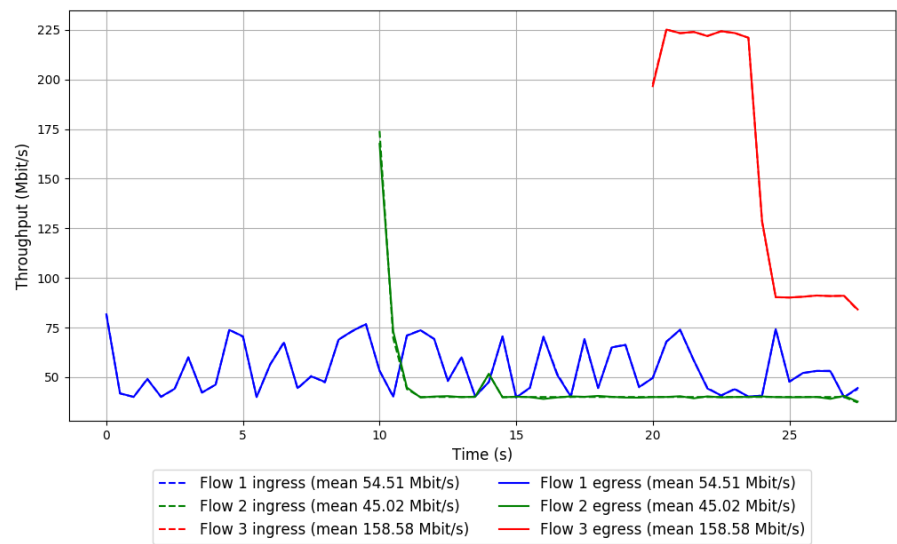
-- Flow 3:

Average throughput: 158.58 Mbit/s

95th percentile per-packet one-way delay: 2.274 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-05 23:09:40

End at: 2017-12-05 23:10:10

Local clock offset: 0.563 ms

Remote clock offset: 1.543 ms

# Below is generated by plot.py at 2017-12-06 04:09:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 144.38 Mbit/s

95th percentile per-packet one-way delay: 25.232 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 85.41 Mbit/s

95th percentile per-packet one-way delay: 2.297 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.64 Mbit/s

95th percentile per-packet one-way delay: 29.207 ms

Loss rate: 0.06%

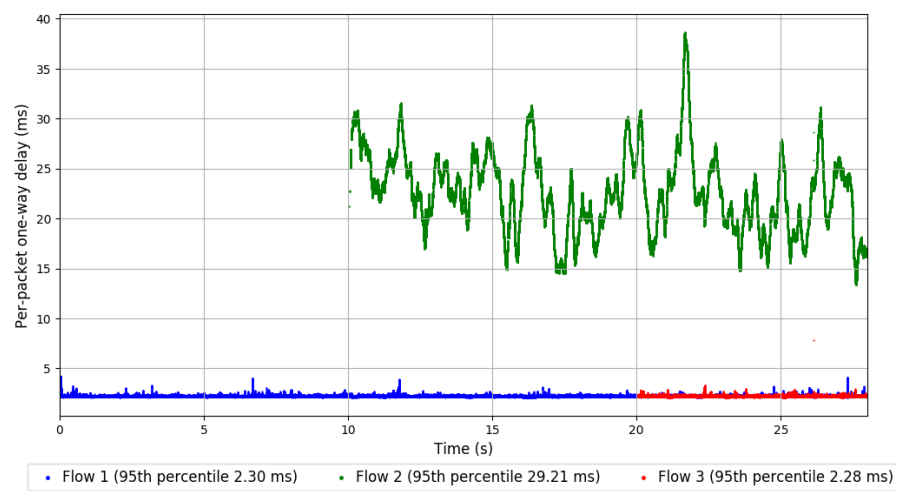
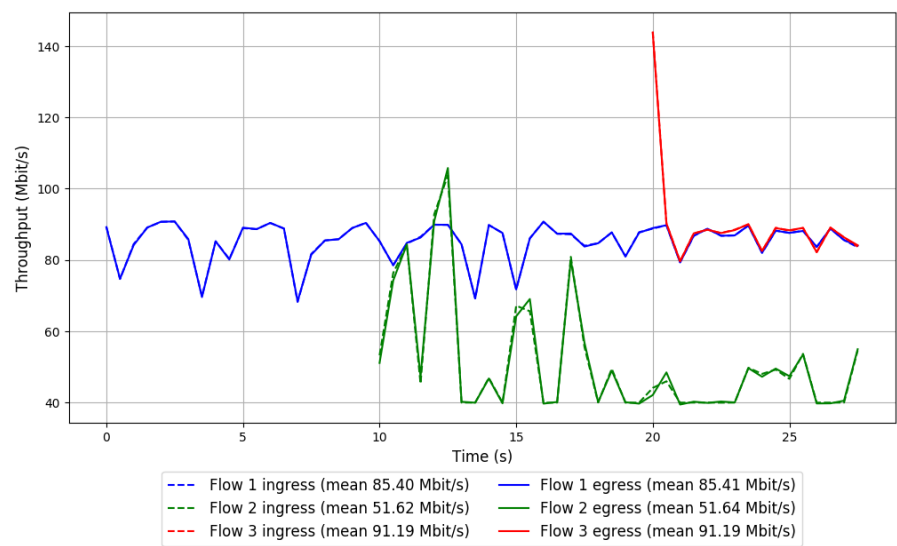
-- Flow 3:

Average throughput: 91.19 Mbit/s

95th percentile per-packet one-way delay: 2.279 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-05 23:28:34

End at: 2017-12-05 23:29:04

Local clock offset: 0.475 ms

Remote clock offset: 2.323 ms

# Below is generated by plot.py at 2017-12-06 04:09:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 151.25 Mbit/s

95th percentile per-packet one-way delay: 19.772 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 90.13 Mbit/s

95th percentile per-packet one-way delay: 2.254 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.12 Mbit/s

95th percentile per-packet one-way delay: 5.702 ms

Loss rate: 0.00%

-- Flow 3:

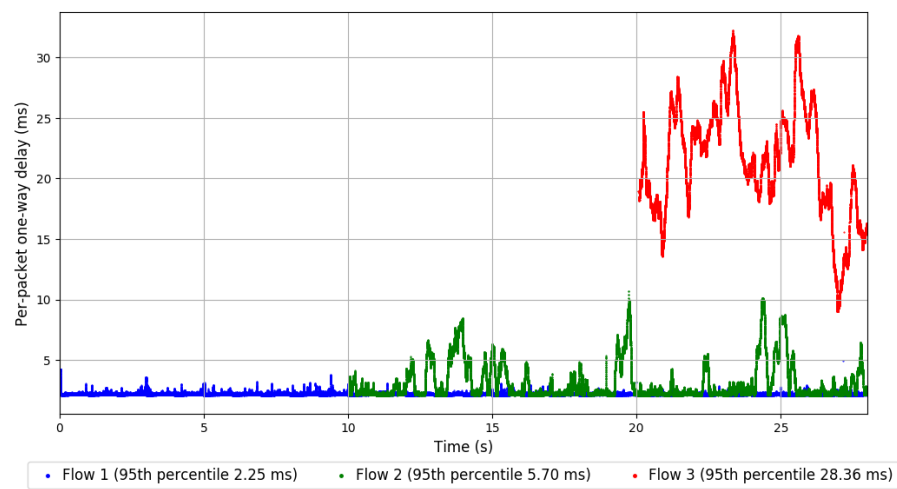
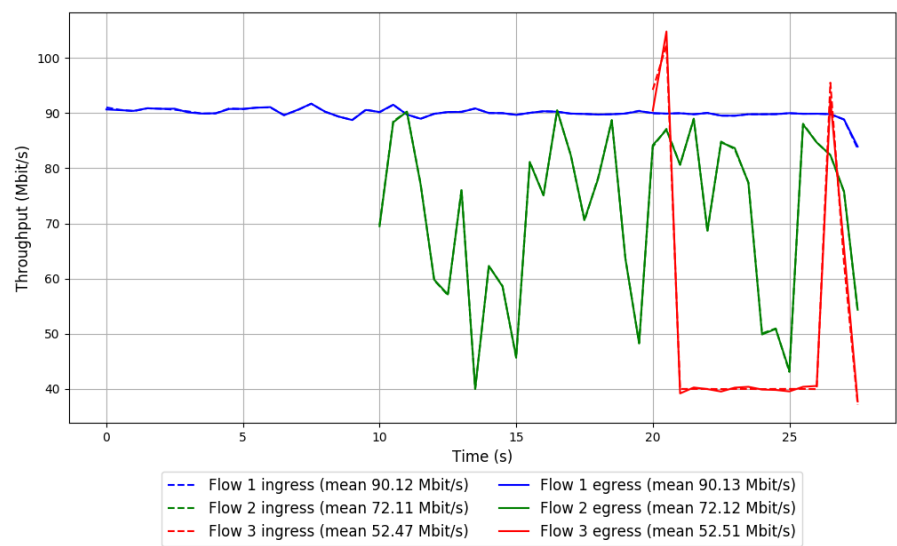
Average throughput: 52.51 Mbit/s

95th percentile per-packet one-way delay: 28.363 ms

Loss rate: 0.13%



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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-05 23:47:38

End at: 2017-12-05 23:48:08

Local clock offset: 0.289 ms

Remote clock offset: 2.113 ms

# Below is generated by plot.py at 2017-12-06 04:09:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 159.22 Mbit/s

95th percentile per-packet one-way delay: 12.809 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 71.76 Mbit/s

95th percentile per-packet one-way delay: 5.806 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 105.94 Mbit/s

95th percentile per-packet one-way delay: 2.392 ms

Loss rate: 0.00%

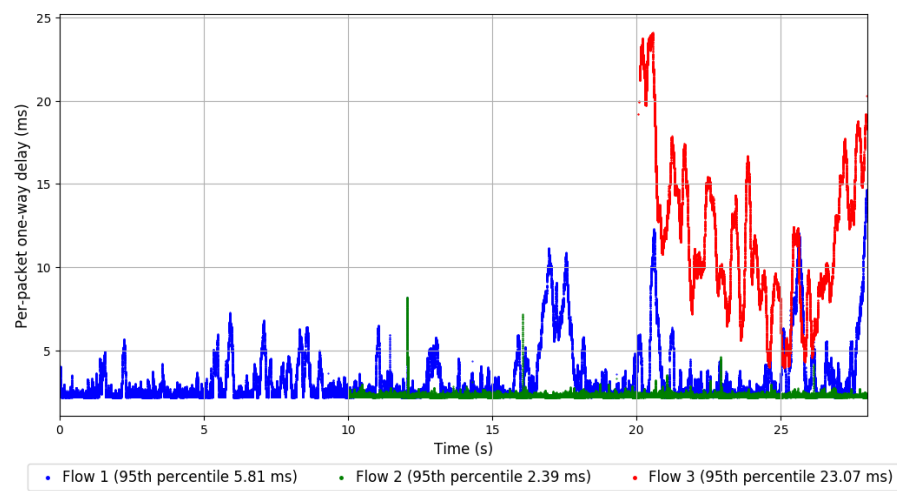
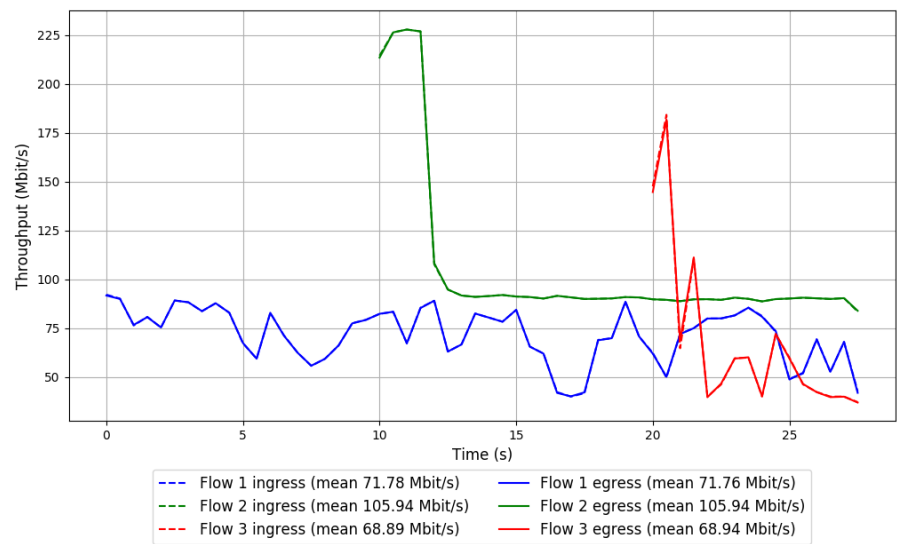
-- Flow 3:

Average throughput: 68.94 Mbit/s

95th percentile per-packet one-way delay: 23.065 ms

Loss rate: 0.12%

Run 6: Report of TaoVA-100x — Data Link



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-06 00:06:44

End at: 2017-12-06 00:07:14

Local clock offset: 0.205 ms

Remote clock offset: 1.755 ms

# Below is generated by plot.py at 2017-12-06 04:10:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 173.01 Mbit/s

95th percentile per-packet one-way delay: 2.425 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 88.67 Mbit/s

95th percentile per-packet one-way delay: 2.466 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 89.01 Mbit/s

95th percentile per-packet one-way delay: 2.383 ms

Loss rate: 0.00%

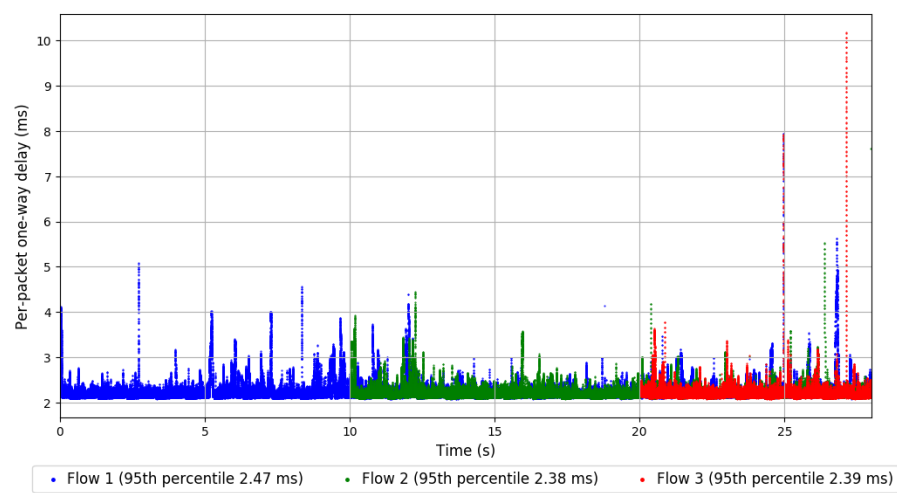
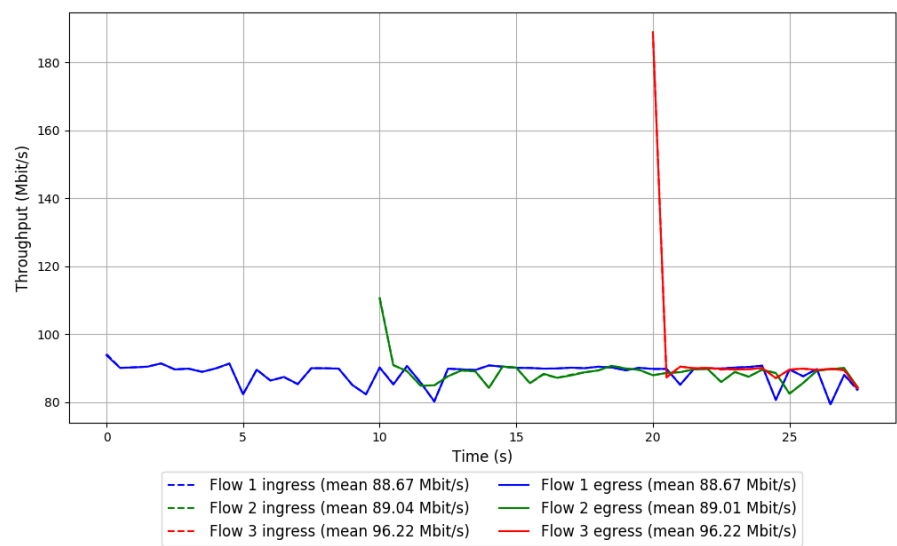
-- Flow 3:

Average throughput: 96.22 Mbit/s

95th percentile per-packet one-way delay: 2.388 ms

Loss rate: 0.00%

Run 7: Report of TaoVA-100x — Data Link



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-06 00:25:40

End at: 2017-12-06 00:26:10

Local clock offset: 0.094 ms

Remote clock offset: 1.581 ms

# Below is generated by plot.py at 2017-12-06 04:11:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 194.25 Mbit/s

95th percentile per-packet one-way delay: 12.784 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 118.40 Mbit/s

95th percentile per-packet one-way delay: 2.351 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 95.46 Mbit/s

95th percentile per-packet one-way delay: 2.494 ms

Loss rate: 0.00%

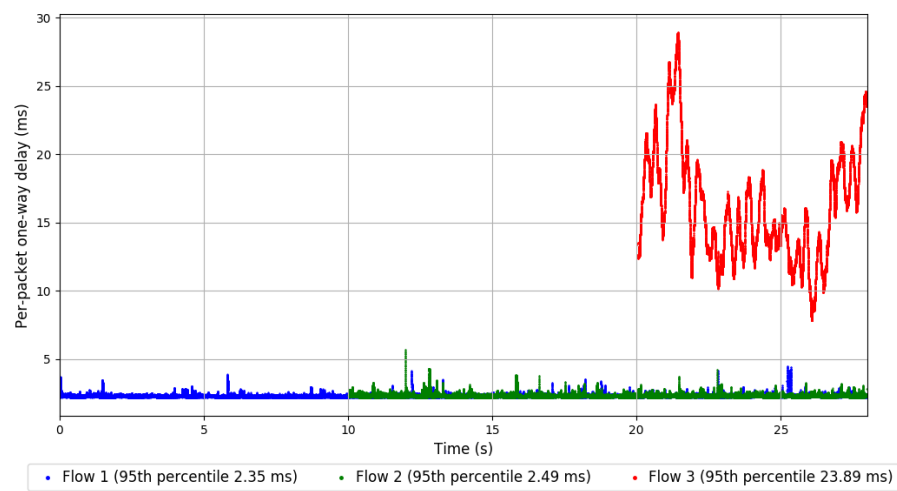
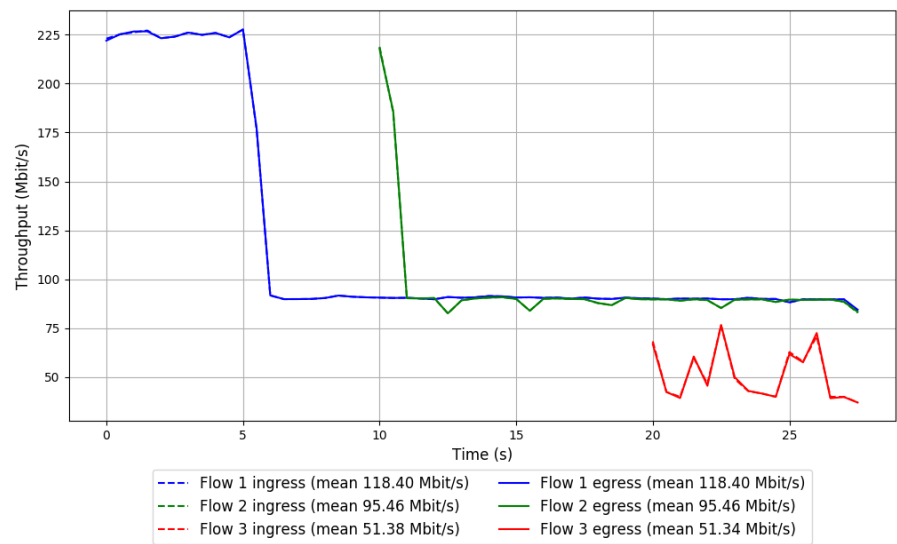
-- Flow 3:

Average throughput: 51.34 Mbit/s

95th percentile per-packet one-way delay: 23.886 ms

Loss rate: 0.21%

Run 8: Report of TaoVA-100x — Data Link



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-06 00:44:51

End at: 2017-12-06 00:45:21

Local clock offset: -0.024 ms

Remote clock offset: 1.018 ms

# Below is generated by plot.py at 2017-12-06 04:11:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 136.19 Mbit/s

95th percentile per-packet one-way delay: 42.369 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 80.35 Mbit/s

95th percentile per-packet one-way delay: 42.496 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 47.51 Mbit/s

95th percentile per-packet one-way delay: 13.399 ms

Loss rate: 0.03%

-- Flow 3:

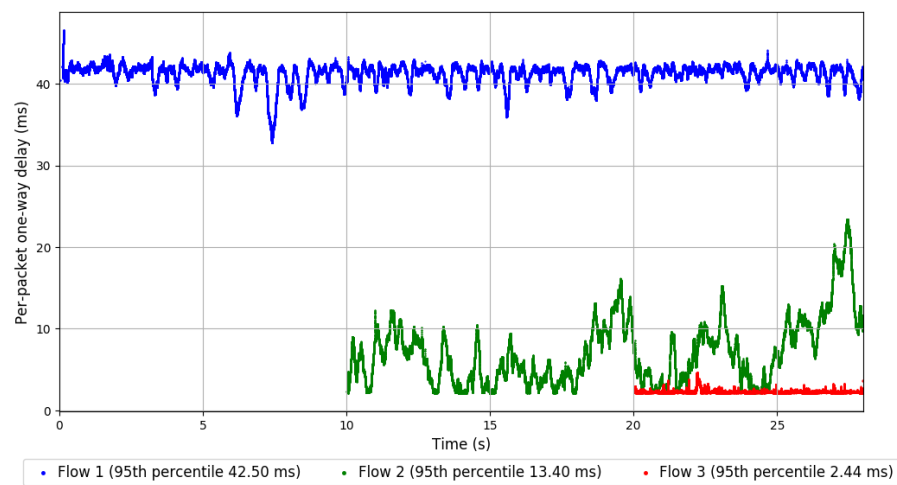
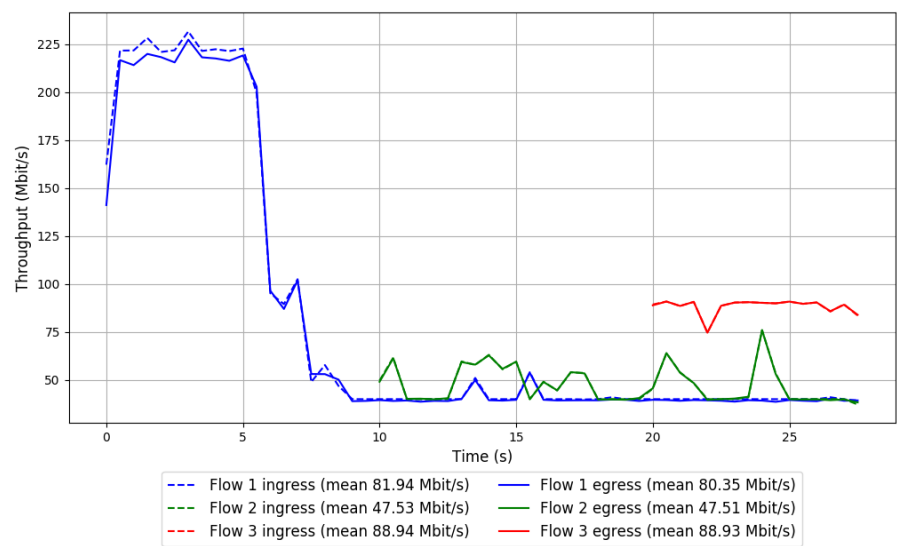
Average throughput: 88.93 Mbit/s

95th percentile per-packet one-way delay: 2.444 ms

Loss rate: 0.00%



Run 9: Report of TaoVA-100x — Data Link



Run 10: Statistics of TaoVA-100x

Start at: 2017-12-06 01:04:04

End at: 2017-12-06 01:04:34

Local clock offset: -0.145 ms

Remote clock offset: 0.569 ms

# Below is generated by plot.py at 2017-12-06 04:12:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 165.98 Mbit/s

95th percentile per-packet one-way delay: 42.062 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 84.92 Mbit/s

95th percentile per-packet one-way delay: 2.727 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 81.76 Mbit/s

95th percentile per-packet one-way delay: 42.366 ms

Loss rate: 1.74%

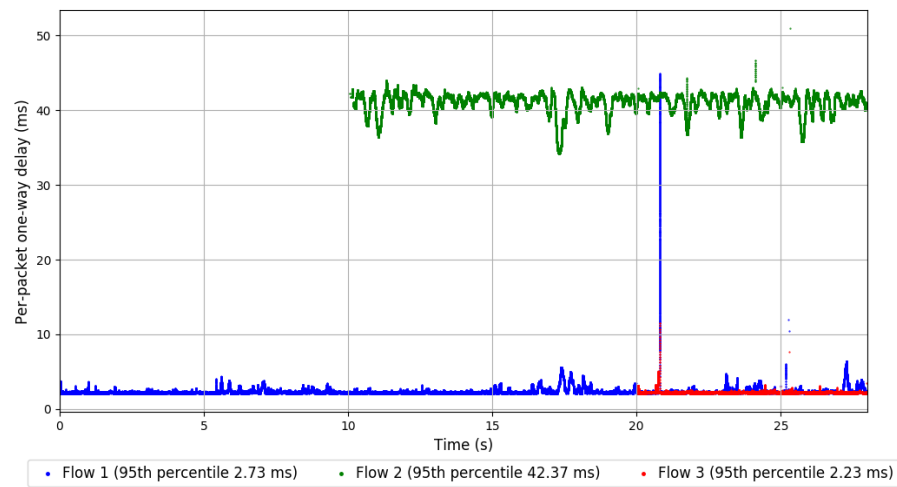
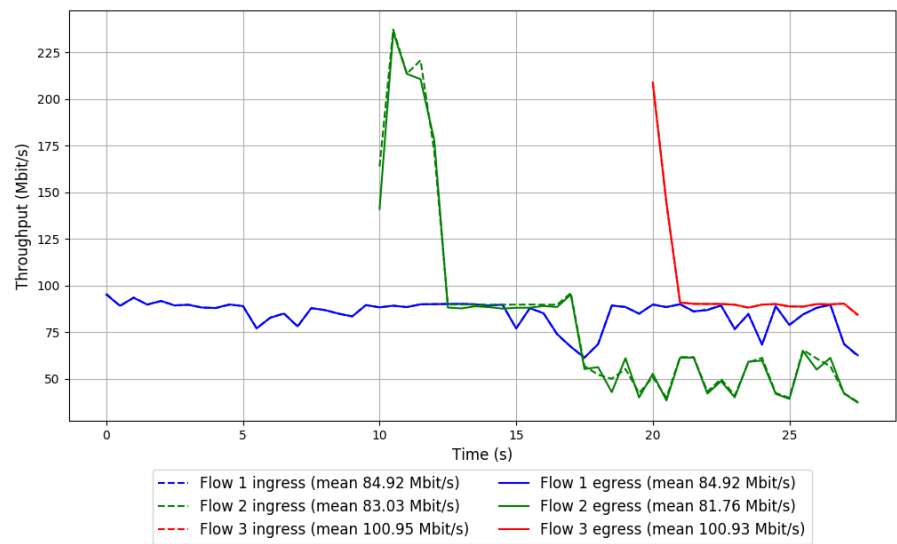
-- Flow 3:

Average throughput: 100.93 Mbit/s

95th percentile per-packet one-way delay: 2.229 ms

Loss rate: 0.00%

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2017-12-05 22:08:18

End at: 2017-12-05 22:08:48

Local clock offset: 0.625 ms

Remote clock offset: 1.39 ms

# Below is generated by plot.py at 2017-12-06 04:18:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 630.46 Mbit/s

95th percentile per-packet one-way delay: 2.886 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 369.17 Mbit/s

95th percentile per-packet one-way delay: 2.808 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 333.02 Mbit/s

95th percentile per-packet one-way delay: 2.888 ms

Loss rate: 0.00%

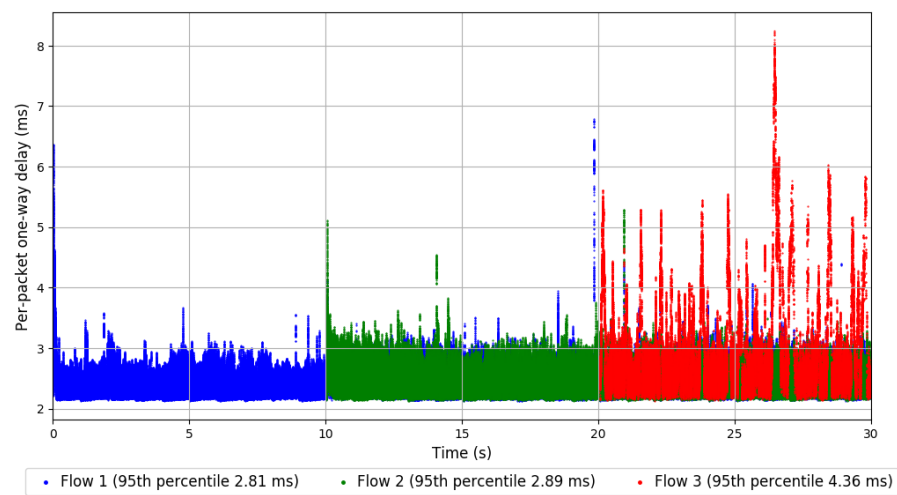
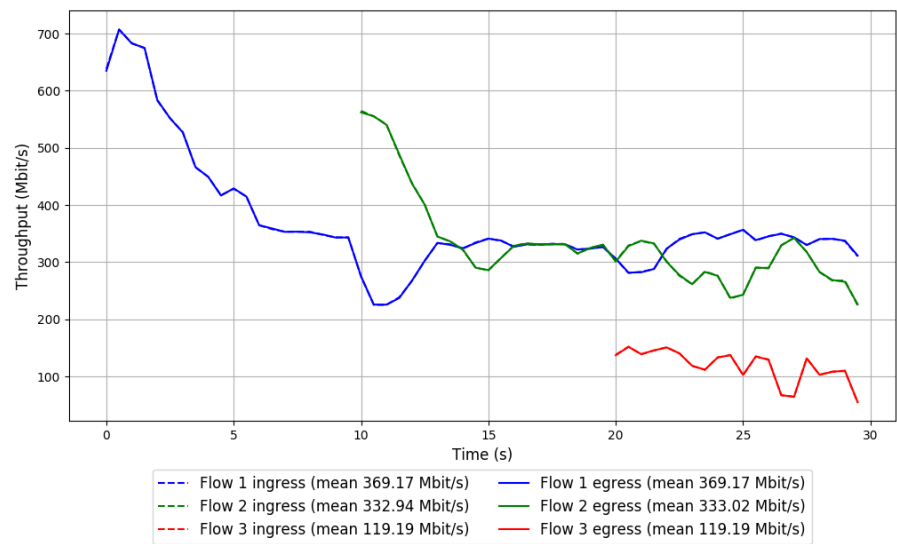
-- Flow 3:

Average throughput: 119.19 Mbit/s

95th percentile per-packet one-way delay: 4.360 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-05 22:27:33

End at: 2017-12-05 22:28:03

Local clock offset: 0.624 ms

Remote clock offset: 1.399 ms

# Below is generated by plot.py at 2017-12-06 04:18:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 573.75 Mbit/s

95th percentile per-packet one-way delay: 2.958 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 342.68 Mbit/s

95th percentile per-packet one-way delay: 2.797 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 317.41 Mbit/s

95th percentile per-packet one-way delay: 2.835 ms

Loss rate: 0.00%

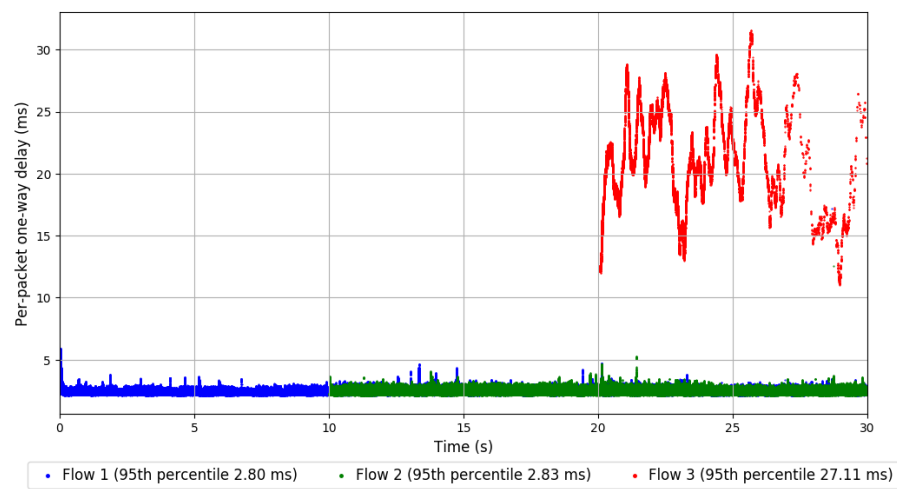
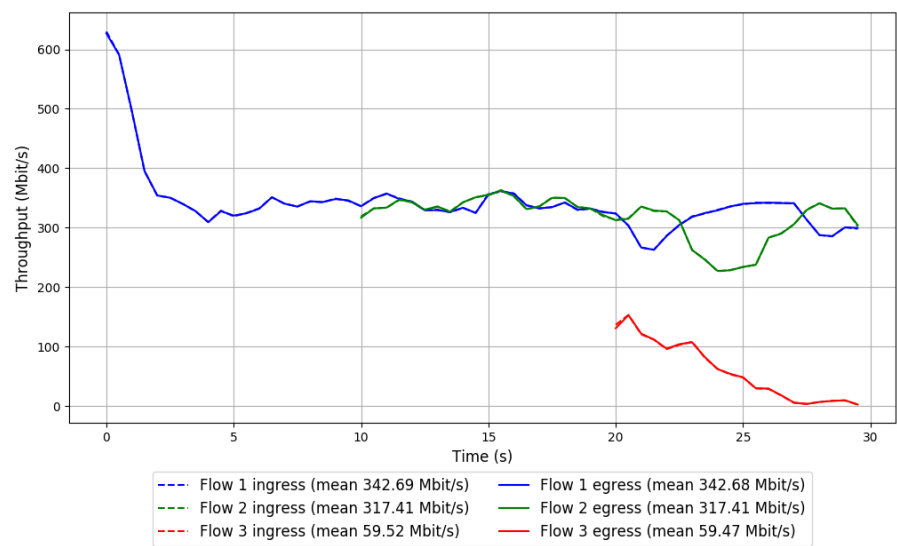
-- Flow 3:

Average throughput: 59.47 Mbit/s

95th percentile per-packet one-way delay: 27.110 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-05 22:46:45

End at: 2017-12-05 22:47:15

Local clock offset: 0.508 ms

Remote clock offset: 1.45 ms

# Below is generated by plot.py at 2017-12-06 04:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 695.72 Mbit/s

95th percentile per-packet one-way delay: 3.058 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 399.12 Mbit/s

95th percentile per-packet one-way delay: 3.346 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 330.48 Mbit/s

95th percentile per-packet one-way delay: 2.937 ms

Loss rate: 0.00%

-- Flow 3:

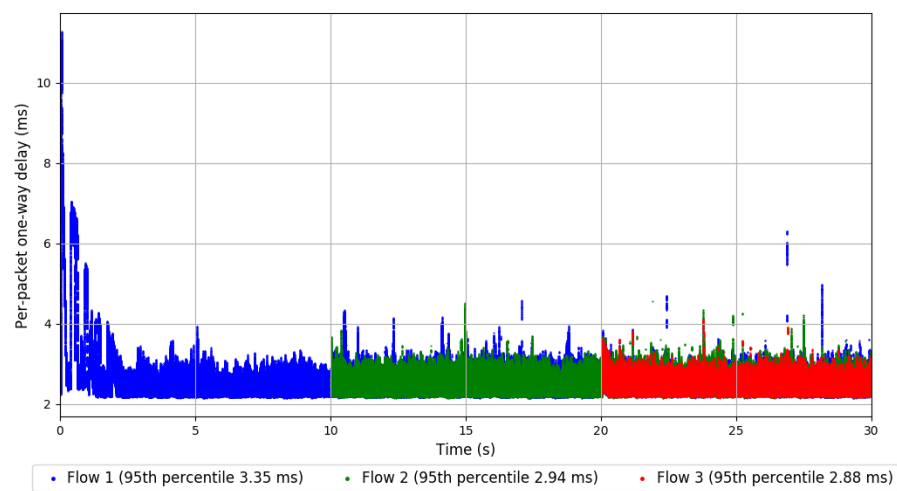
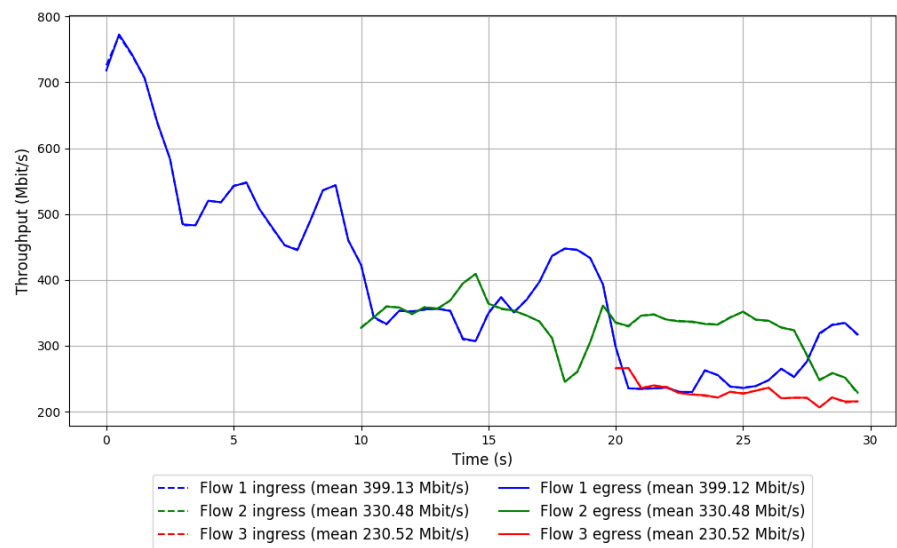
Average throughput: 230.52 Mbit/s

95th percentile per-packet one-way delay: 2.878 ms

Loss rate: 0.00%



Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-05 23:05:58

End at: 2017-12-05 23:06:28

Local clock offset: 0.564 ms

Remote clock offset: 1.499 ms

# Below is generated by plot.py at 2017-12-06 04:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 354.44 Mbit/s

95th percentile per-packet one-way delay: 8.527 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 164.77 Mbit/s

95th percentile per-packet one-way delay: 2.652 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 81.41 Mbit/s

95th percentile per-packet one-way delay: 13.160 ms

Loss rate: 0.00%

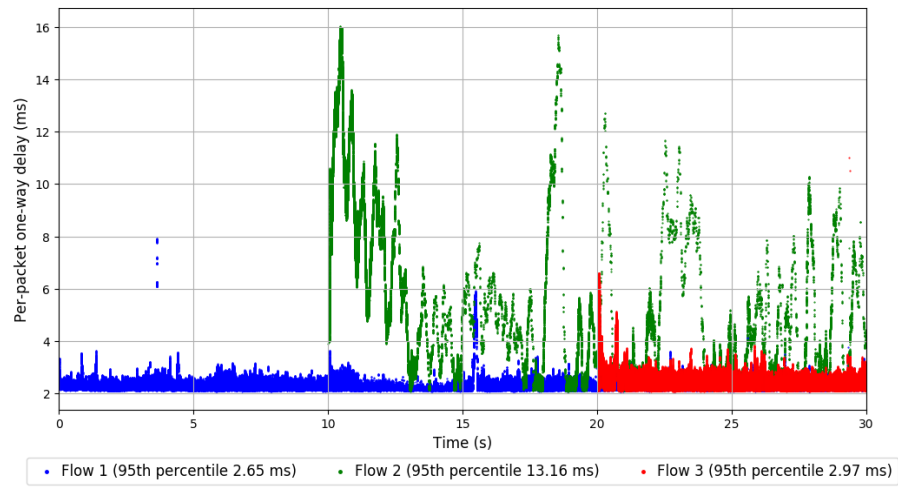
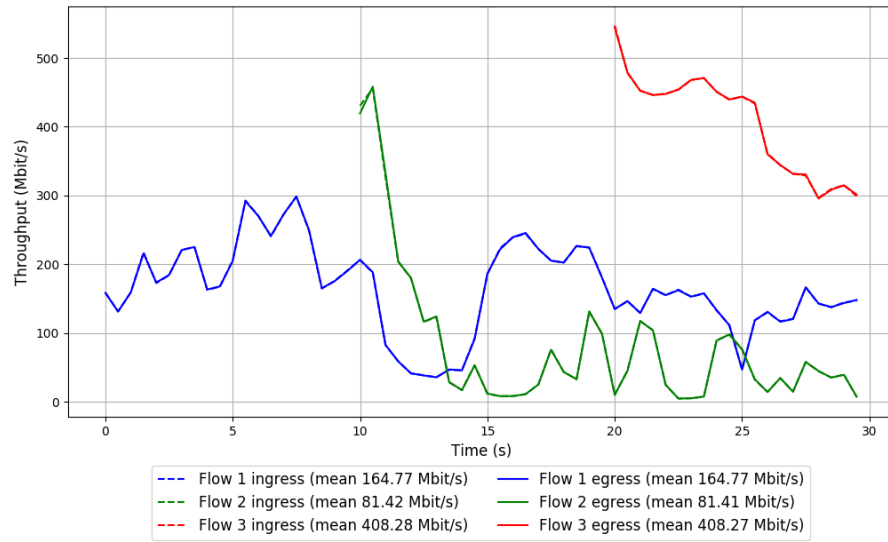
-- Flow 3:

Average throughput: 408.27 Mbit/s

95th percentile per-packet one-way delay: 2.970 ms

Loss rate: 0.00%

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-05 23:24:47

End at: 2017-12-05 23:25:18

Local clock offset: 0.468 ms

Remote clock offset: 2.158 ms

# Below is generated by plot.py at 2017-12-06 04:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 365.08 Mbit/s

95th percentile per-packet one-way delay: 3.642 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 100.10 Mbit/s

95th percentile per-packet one-way delay: 5.424 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 273.55 Mbit/s

95th percentile per-packet one-way delay: 2.756 ms

Loss rate: 0.00%

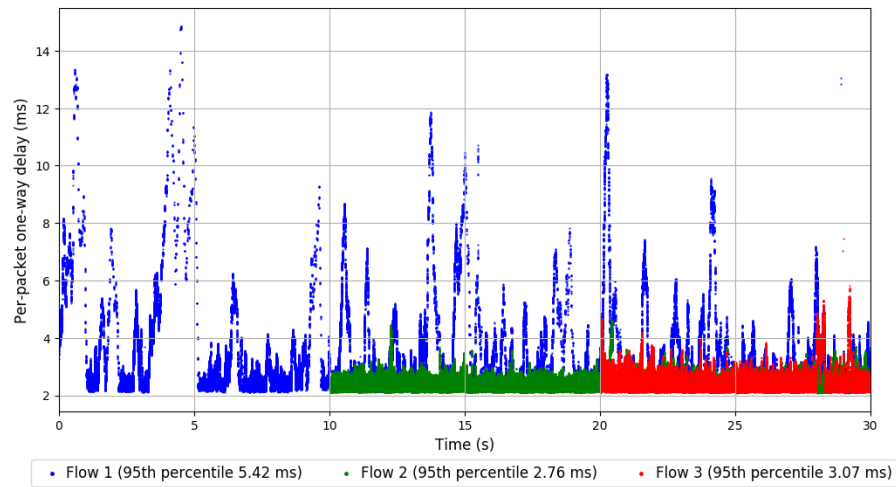
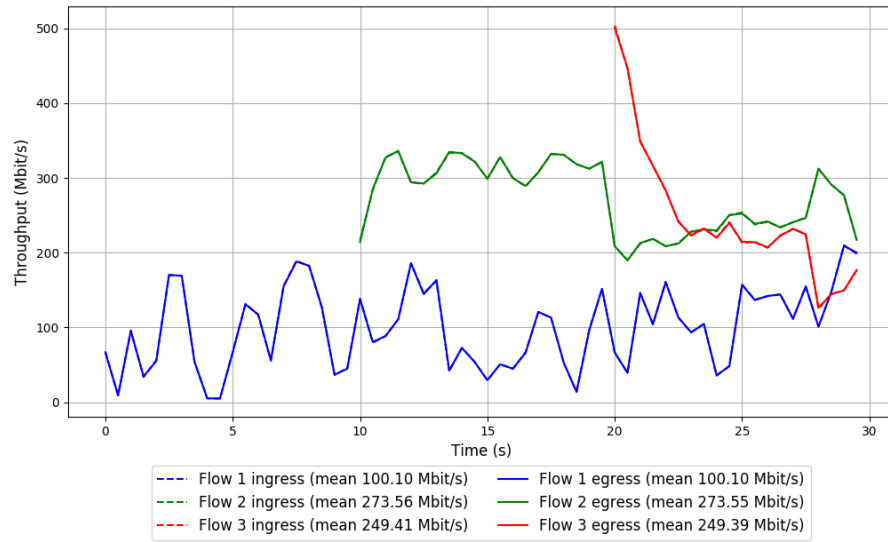
-- Flow 3:

Average throughput: 249.39 Mbit/s

95th percentile per-packet one-way delay: 3.073 ms

Loss rate: 0.00%

# Run 5: Report of TCP Vegas — Data Link

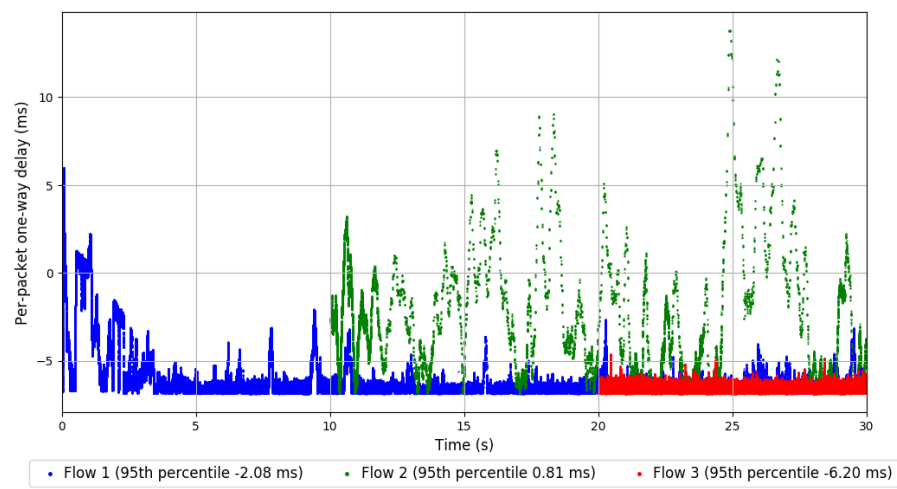
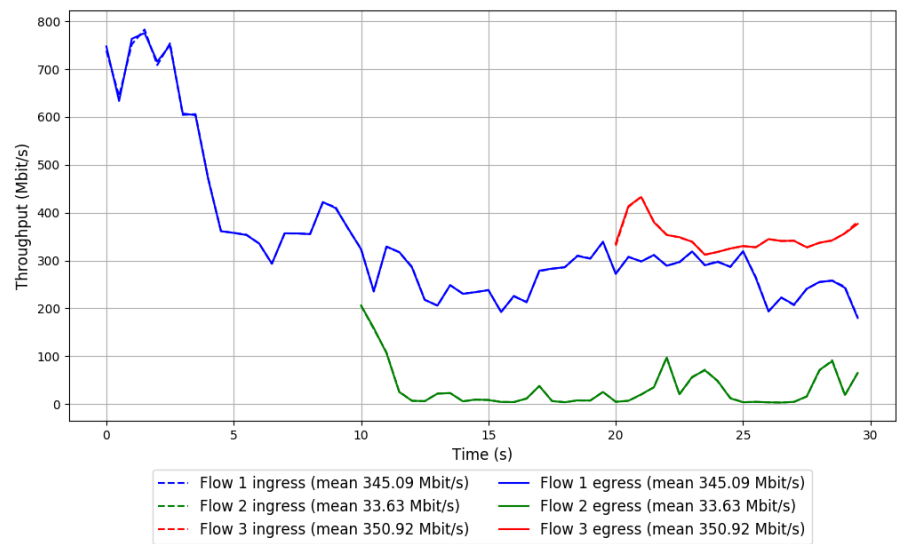


Run 6: Statistics of TCP Vegas

Start at: 2017-12-05 23:43:48  
End at: 2017-12-05 23:44:18  
Local clock offset: 0.373 ms  
Remote clock offset: -6.849 ms

# Below is generated by plot.py at 2017-12-06 04:19:46  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 483.97 Mbit/s  
95th percentile per-packet one-way delay: -2.348 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 345.09 Mbit/s  
95th percentile per-packet one-way delay: -2.085 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 33.63 Mbit/s  
95th percentile per-packet one-way delay: 0.814 ms  
Loss rate: 0.02%  
-- Flow 3:  
Average throughput: 350.92 Mbit/s  
95th percentile per-packet one-way delay: -6.197 ms  
Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-06 00:03:00

End at: 2017-12-06 00:03:30

Local clock offset: 0.25 ms

Remote clock offset: 1.525 ms

# Below is generated by plot.py at 2017-12-06 04:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 349.94 Mbit/s

95th percentile per-packet one-way delay: 19.665 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 77.10 Mbit/s

95th percentile per-packet one-way delay: 23.160 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 348.48 Mbit/s

95th percentile per-packet one-way delay: 2.373 ms

Loss rate: 0.00%

-- Flow 3:

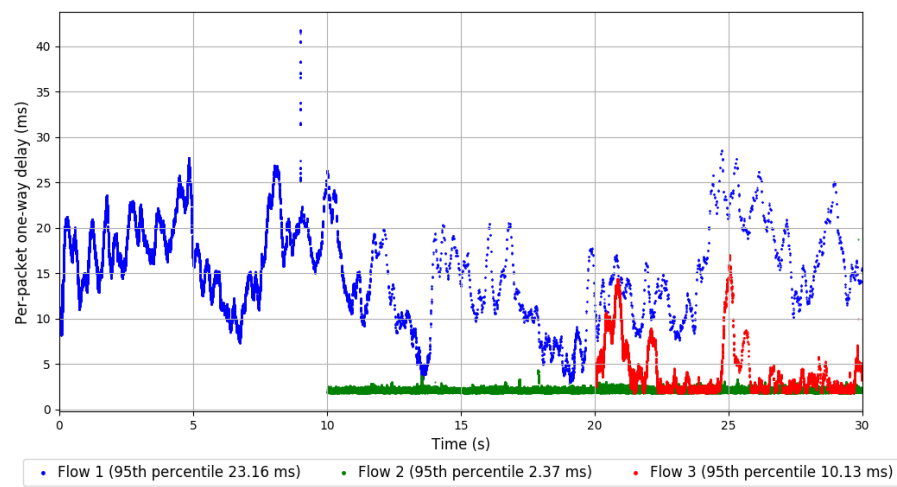
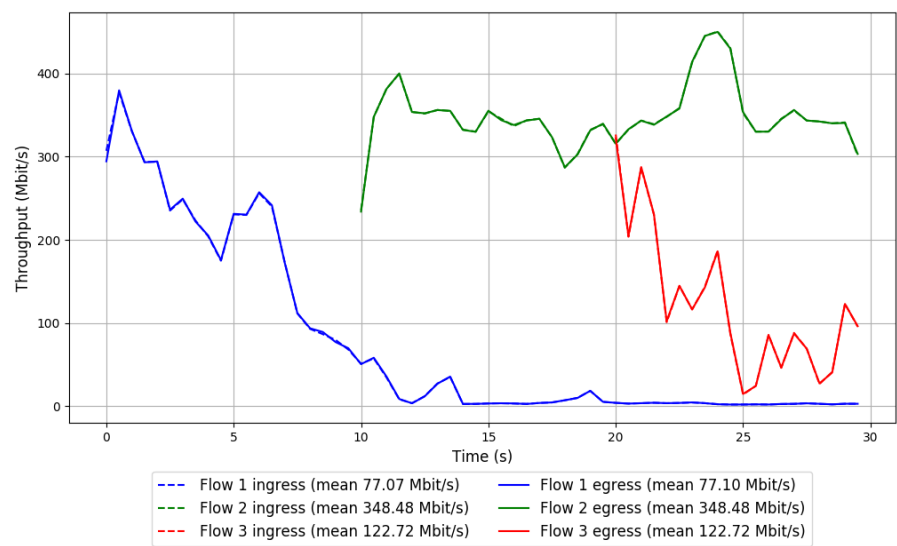
Average throughput: 122.72 Mbit/s

95th percentile per-packet one-way delay: 10.132 ms

Loss rate: 0.01%



Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-06 00:21:53

End at: 2017-12-06 00:22:23

Local clock offset: 0.144 ms

Remote clock offset: 1.652 ms

# Below is generated by plot.py at 2017-12-06 04:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 433.04 Mbit/s

95th percentile per-packet one-way delay: 4.103 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 194.90 Mbit/s

95th percentile per-packet one-way delay: 4.684 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 323.50 Mbit/s

95th percentile per-packet one-way delay: 2.744 ms

Loss rate: 0.00%

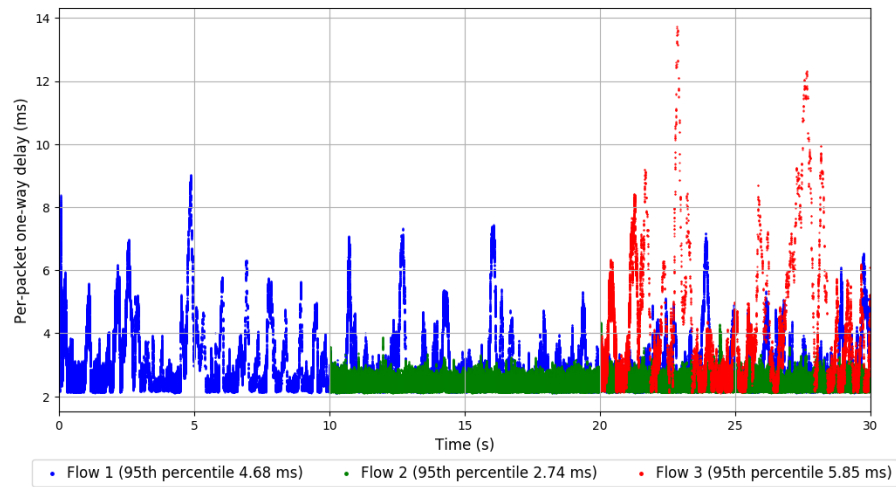
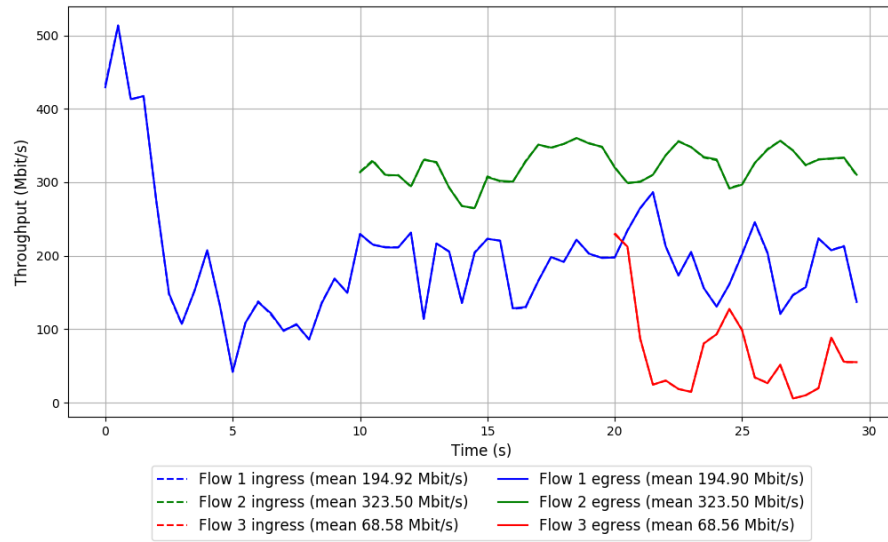
-- Flow 3:

Average throughput: 68.56 Mbit/s

95th percentile per-packet one-way delay: 5.847 ms

Loss rate: 0.00%

# Run 8: Report of TCP Vegas — Data Link

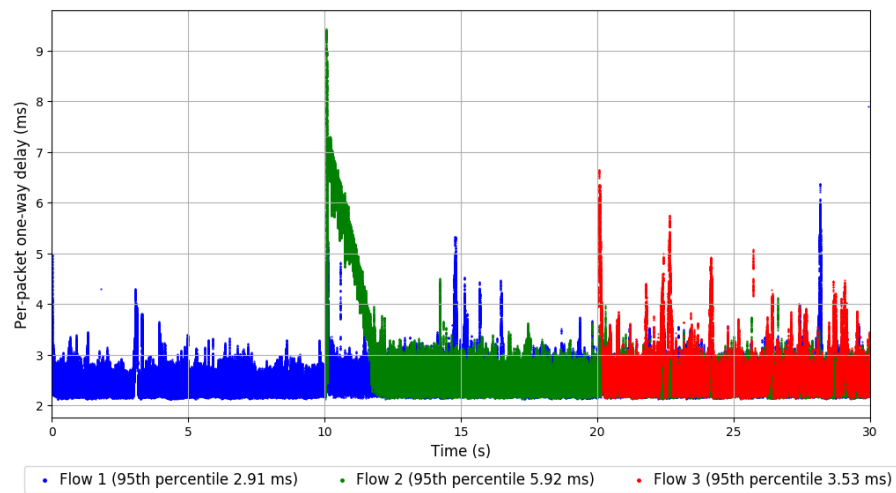
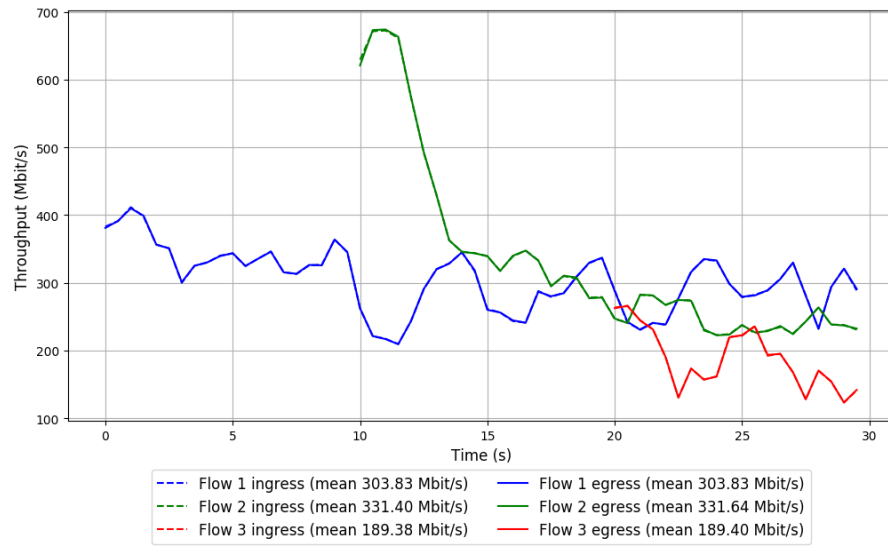


Run 9: Statistics of TCP Vegas

Start at: 2017-12-06 00:41:00  
End at: 2017-12-06 00:41:30  
Local clock offset: -0.008 ms  
Remote clock offset: 1.133 ms

# Below is generated by plot.py at 2017-12-06 04:23:20  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 587.55 Mbit/s  
95th percentile per-packet one-way delay: 4.323 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 303.83 Mbit/s  
95th percentile per-packet one-way delay: 2.913 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 331.64 Mbit/s  
95th percentile per-packet one-way delay: 5.923 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 189.40 Mbit/s  
95th percentile per-packet one-way delay: 3.531 ms  
Loss rate: 0.00%

# Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-06 01:00:08

End at: 2017-12-06 01:00:38

Local clock offset: -0.15 ms

Remote clock offset: 0.443 ms

# Below is generated by plot.py at 2017-12-06 04:24:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 606.22 Mbit/s

95th percentile per-packet one-way delay: 2.676 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 307.06 Mbit/s

95th percentile per-packet one-way delay: 2.596 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 295.24 Mbit/s

95th percentile per-packet one-way delay: 2.734 ms

Loss rate: 0.01%

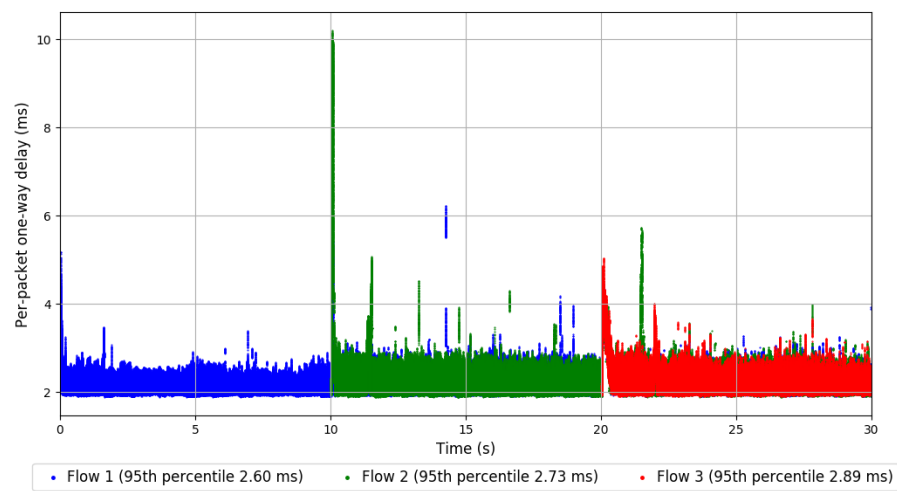
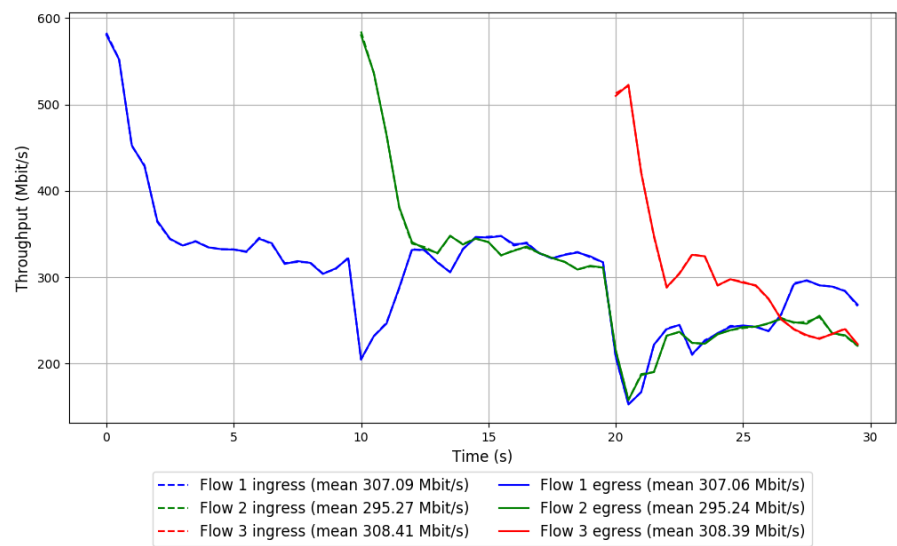
-- Flow 3:

Average throughput: 308.39 Mbit/s

95th percentile per-packet one-way delay: 2.894 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-05 22:13:27

End at: 2017-12-05 22:13:57

Local clock offset: 0.646 ms

Remote clock offset: 1.394 ms

# Below is generated by plot.py at 2017-12-06 04:24:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 500.09 Mbit/s

95th percentile per-packet one-way delay: 17.680 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 275.87 Mbit/s

95th percentile per-packet one-way delay: 8.828 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 279.25 Mbit/s

95th percentile per-packet one-way delay: 19.065 ms

Loss rate: 2.46%

-- Flow 3:

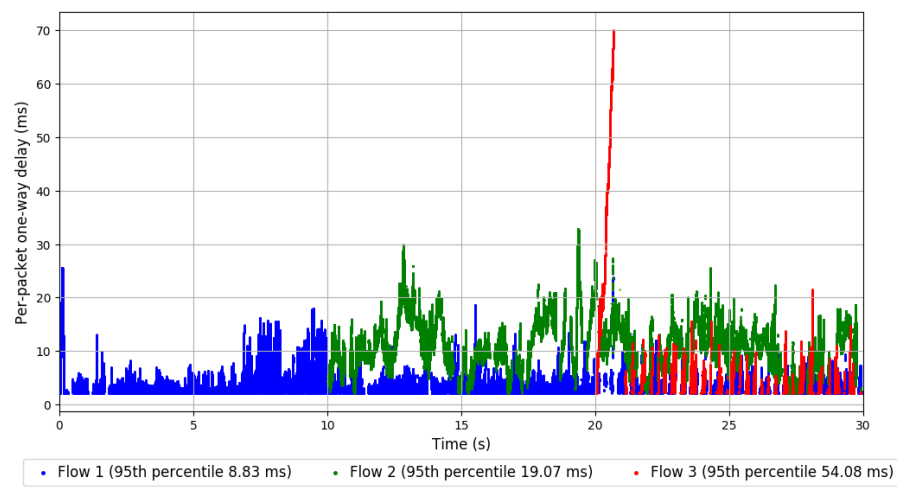
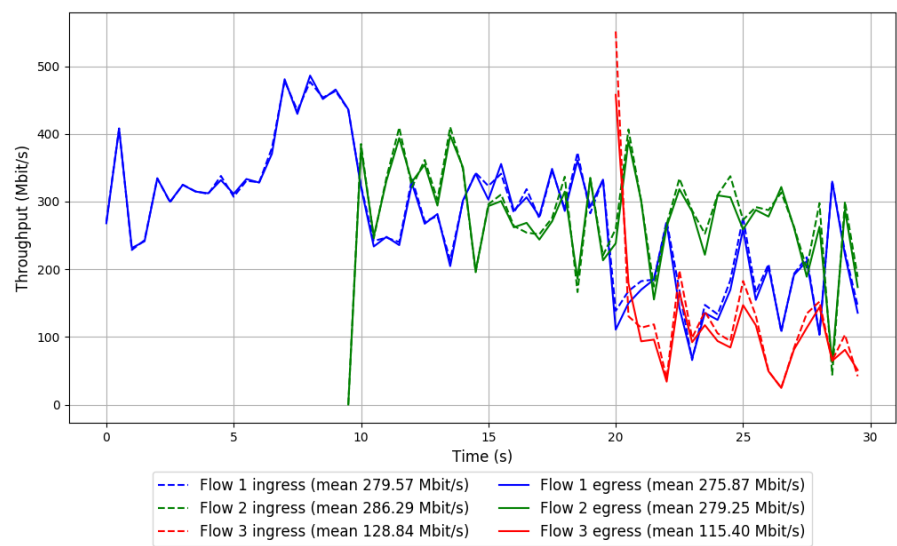
Average throughput: 115.40 Mbit/s

95th percentile per-packet one-way delay: 54.079 ms

Loss rate: 10.43%



Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-05 22:32:41

End at: 2017-12-05 22:33:11

Local clock offset: 0.602 ms

Remote clock offset: 1.418 ms

# Below is generated by plot.py at 2017-12-06 04:25:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 514.41 Mbit/s

95th percentile per-packet one-way delay: 13.404 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 275.88 Mbit/s

95th percentile per-packet one-way delay: 17.895 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 254.41 Mbit/s

95th percentile per-packet one-way delay: 6.211 ms

Loss rate: 0.94%

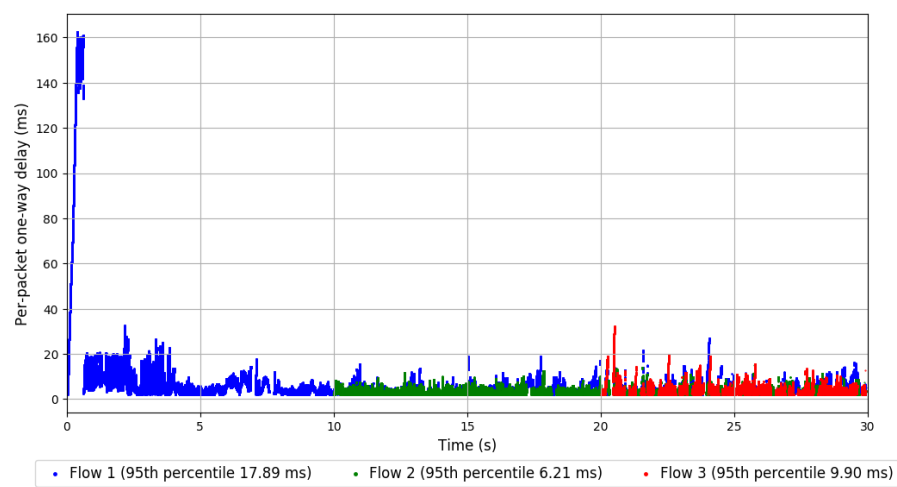
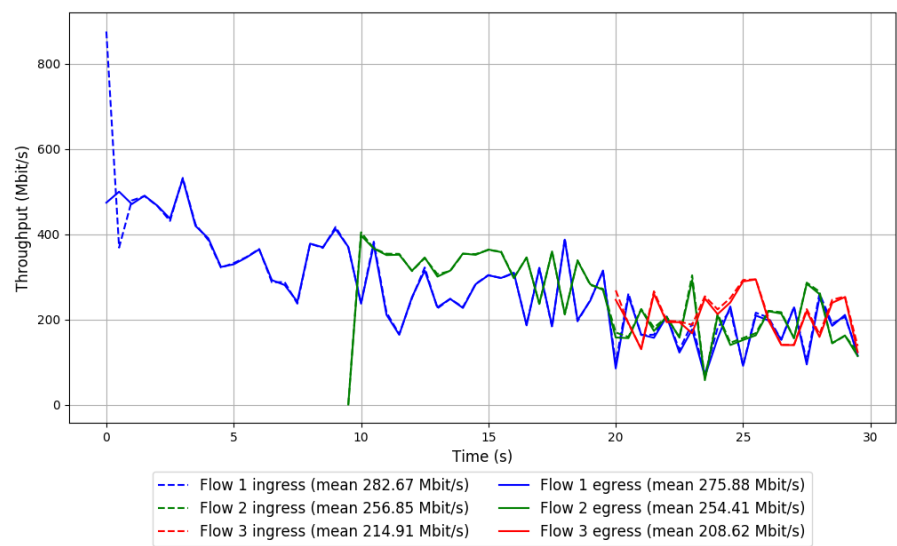
-- Flow 3:

Average throughput: 208.62 Mbit/s

95th percentile per-packet one-way delay: 9.904 ms

Loss rate: 2.91%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-05 22:51:56

End at: 2017-12-05 22:52:26

Local clock offset: 0.609 ms

Remote clock offset: 1.531 ms

# Below is generated by plot.py at 2017-12-06 04:26:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 510.15 Mbit/s

95th percentile per-packet one-way delay: 17.726 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 283.75 Mbit/s

95th percentile per-packet one-way delay: 20.506 ms

Loss rate: 2.06%

-- Flow 2:

Average throughput: 244.78 Mbit/s

95th percentile per-packet one-way delay: 8.519 ms

Loss rate: 1.77%

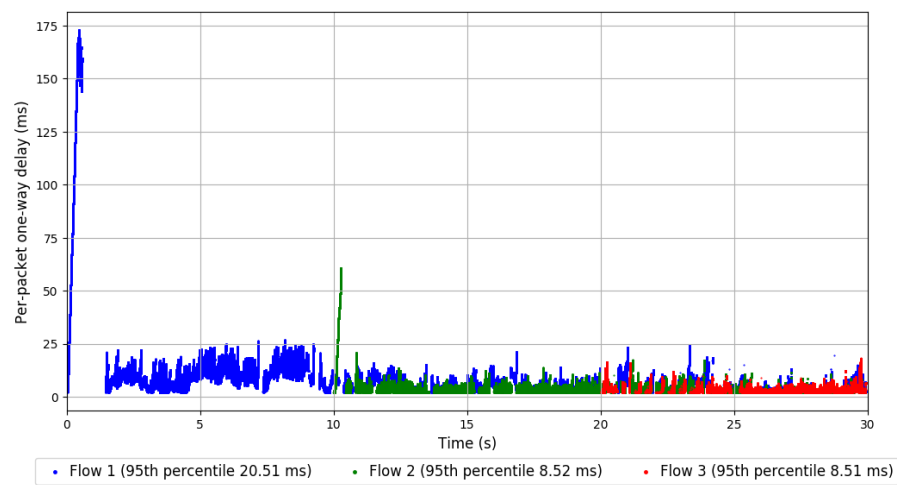
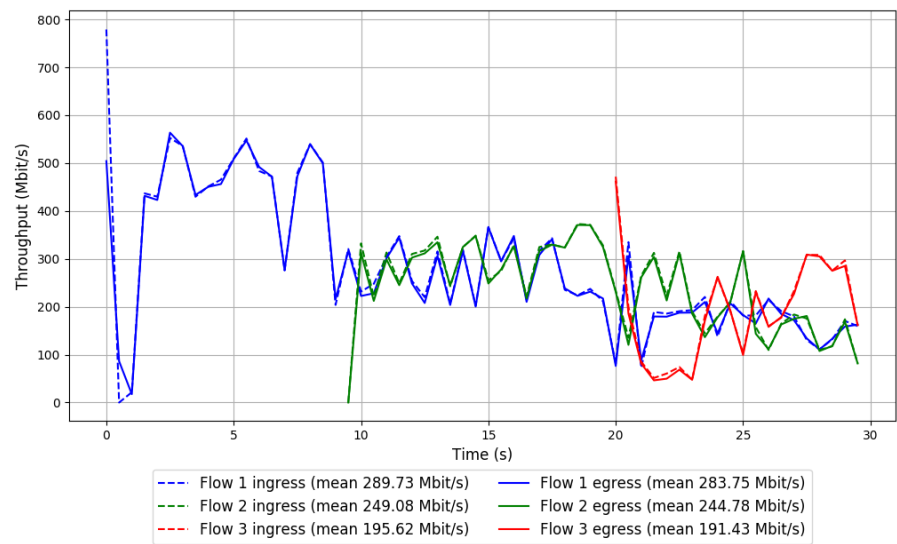
-- Flow 3:

Average throughput: 191.43 Mbit/s

95th percentile per-packet one-way delay: 8.510 ms

Loss rate: 2.13%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-05 23:10:55

End at: 2017-12-05 23:11:25

Local clock offset: 0.55 ms

Remote clock offset: 1.533 ms

# Below is generated by plot.py at 2017-12-06 04:26:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 496.35 Mbit/s

95th percentile per-packet one-way delay: 9.074 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 303.54 Mbit/s

95th percentile per-packet one-way delay: 8.783 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 175.33 Mbit/s

95th percentile per-packet one-way delay: 11.341 ms

Loss rate: 3.74%

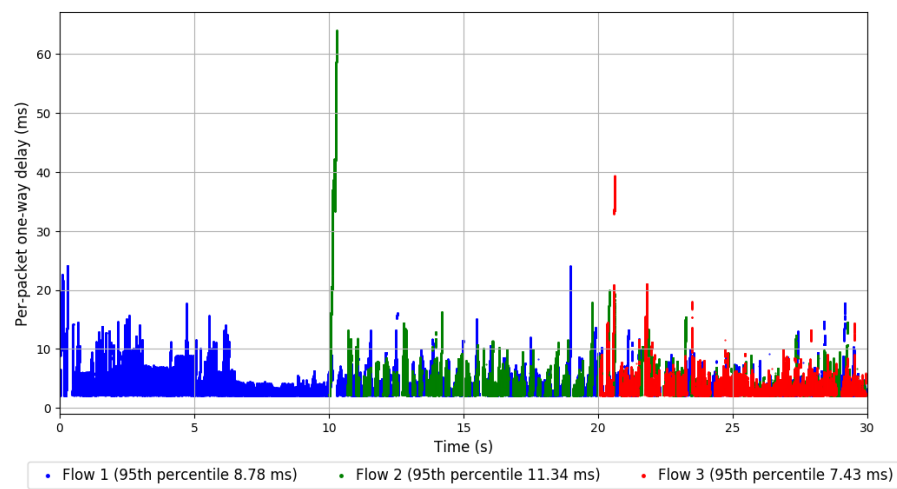
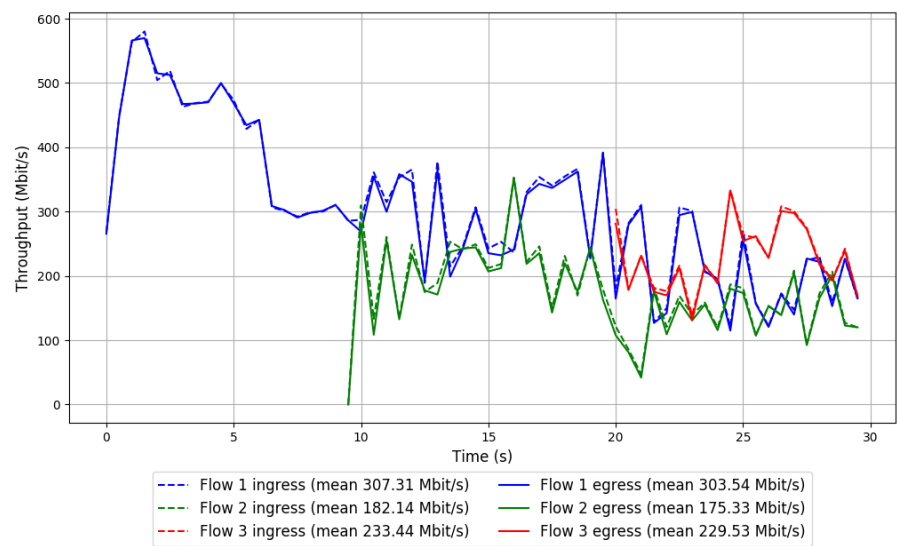
-- Flow 3:

Average throughput: 229.53 Mbit/s

95th percentile per-packet one-way delay: 7.429 ms

Loss rate: 1.66%

Run 4: Report of Verus — Data Link



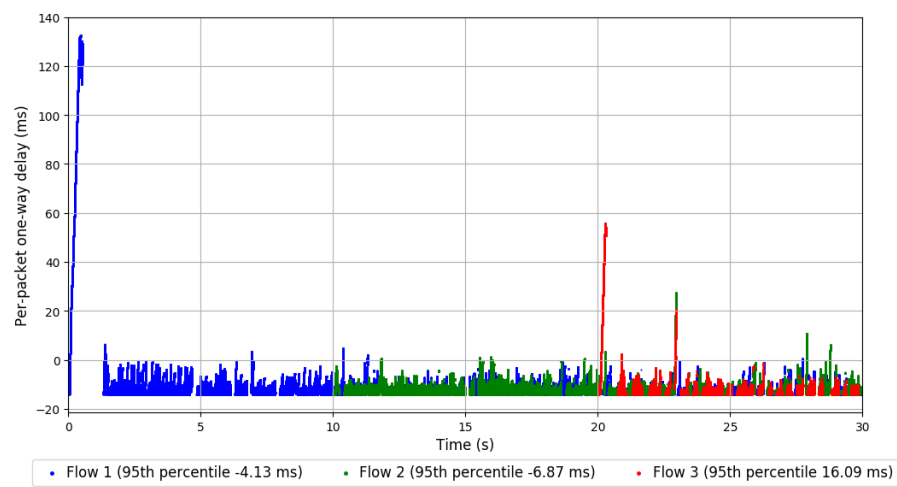
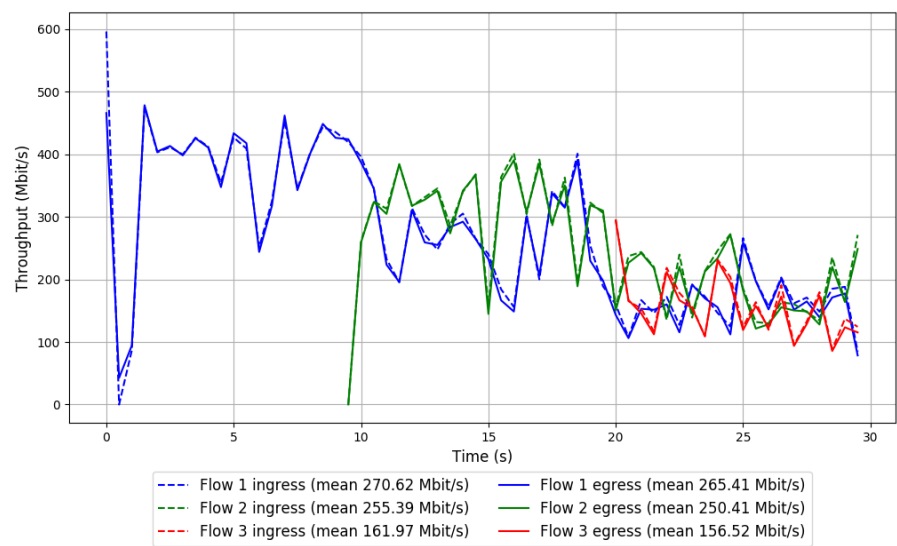
Run 5: Statistics of Verus

Start at: 2017-12-05 23:29:48  
End at: 2017-12-05 23:30:18  
Local clock offset: 0.366 ms  
Remote clock offset: -13.918 ms

# Below is generated by plot.py at 2017-12-06 04:26:50  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 483.66 Mbit/s  
95th percentile per-packet one-way delay: -4.796 ms  
Loss rate: 2.08%  
-- Flow 1:  
Average throughput: 265.41 Mbit/s  
95th percentile per-packet one-way delay: -4.134 ms  
Loss rate: 1.92%  
-- Flow 2:  
Average throughput: 250.41 Mbit/s  
95th percentile per-packet one-way delay: -6.870 ms  
Loss rate: 1.95%  
-- Flow 3:  
Average throughput: 156.52 Mbit/s  
95th percentile per-packet one-way delay: 16.090 ms  
Loss rate: 3.35%



Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-05 23:48:53

End at: 2017-12-05 23:49:23

Local clock offset: 0.274 ms

Remote clock offset: 2.079 ms

# Below is generated by plot.py at 2017-12-06 04:27:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 522.09 Mbit/s

95th percentile per-packet one-way delay: 9.348 ms

Loss rate: 2.74%

-- Flow 1:

Average throughput: 310.36 Mbit/s

95th percentile per-packet one-way delay: 8.529 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 245.03 Mbit/s

95th percentile per-packet one-way delay: 9.683 ms

Loss rate: 3.44%

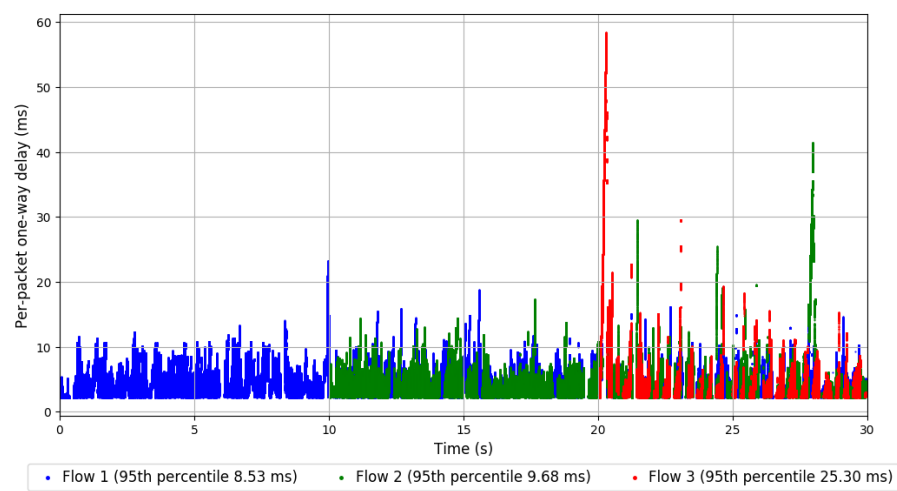
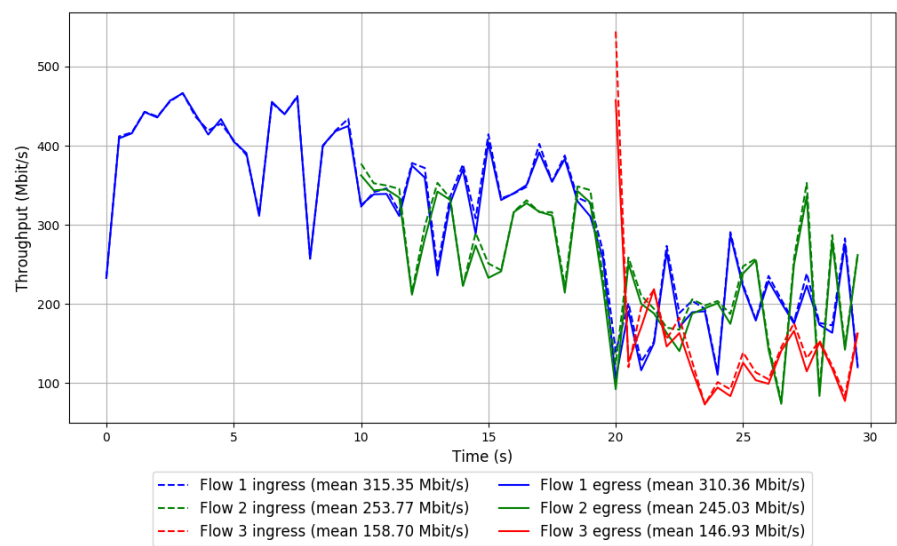
-- Flow 3:

Average throughput: 146.93 Mbit/s

95th percentile per-packet one-way delay: 25.304 ms

Loss rate: 7.41%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-06 00:08:01

End at: 2017-12-06 00:08:31

Local clock offset: 0.16 ms

Remote clock offset: 1.688 ms

# Below is generated by plot.py at 2017-12-06 04:31:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 475.08 Mbit/s

95th percentile per-packet one-way delay: 20.124 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 275.83 Mbit/s

95th percentile per-packet one-way delay: 11.555 ms

Loss rate: 2.03%

-- Flow 2:

Average throughput: 176.86 Mbit/s

95th percentile per-packet one-way delay: 58.195 ms

Loss rate: 3.56%

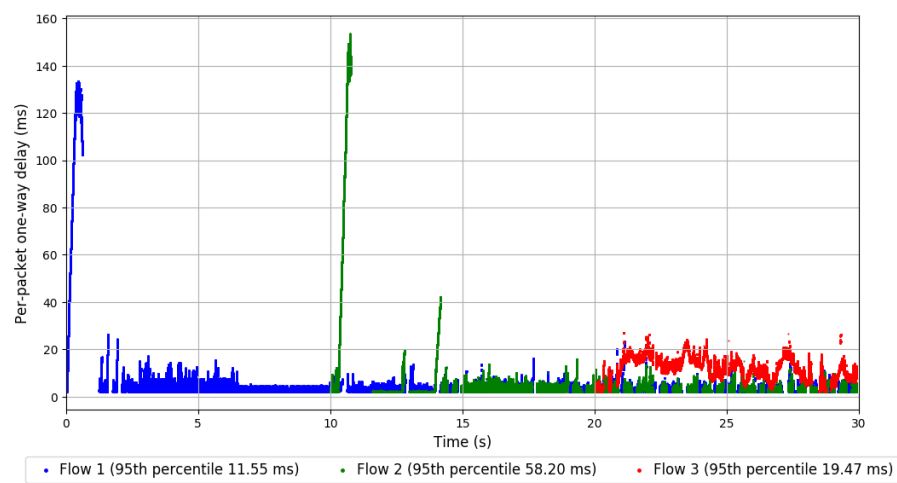
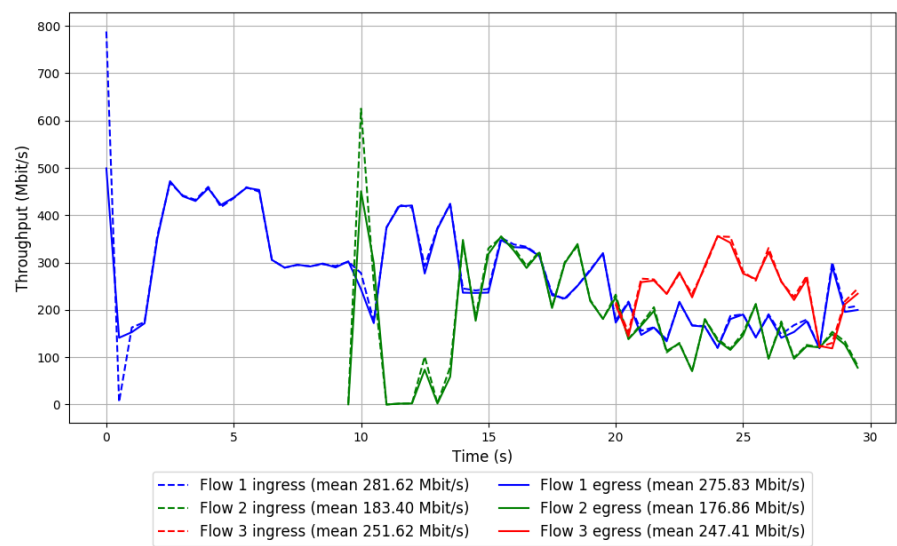
-- Flow 3:

Average throughput: 247.41 Mbit/s

95th percentile per-packet one-way delay: 19.472 ms

Loss rate: 1.68%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-06 00:26:58

End at: 2017-12-06 00:27:28

Local clock offset: 0.075 ms

Remote clock offset: 0.955 ms

# Below is generated by plot.py at 2017-12-06 04:31:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 444.30 Mbit/s

95th percentile per-packet one-way delay: 24.725 ms

Loss rate: 3.02%

-- Flow 1:

Average throughput: 197.00 Mbit/s

95th percentile per-packet one-way delay: 14.688 ms

Loss rate: 2.54%

-- Flow 2:

Average throughput: 301.25 Mbit/s

95th percentile per-packet one-way delay: 28.626 ms

Loss rate: 2.63%

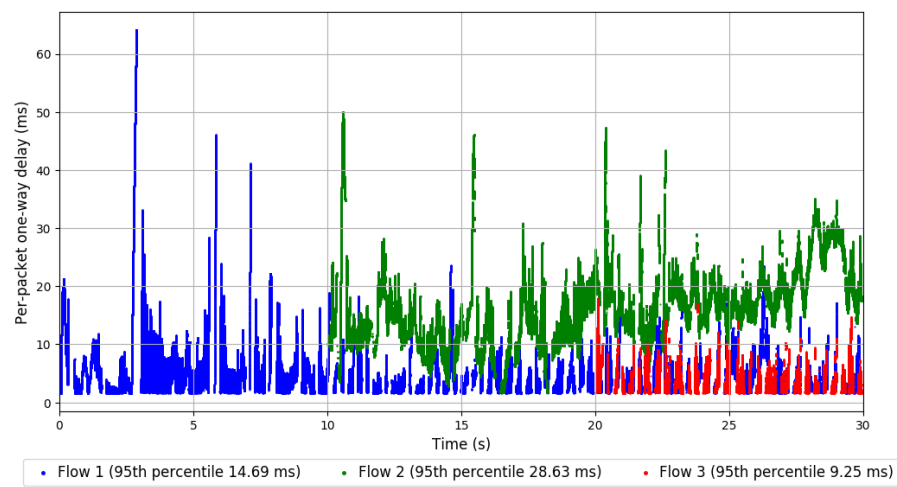
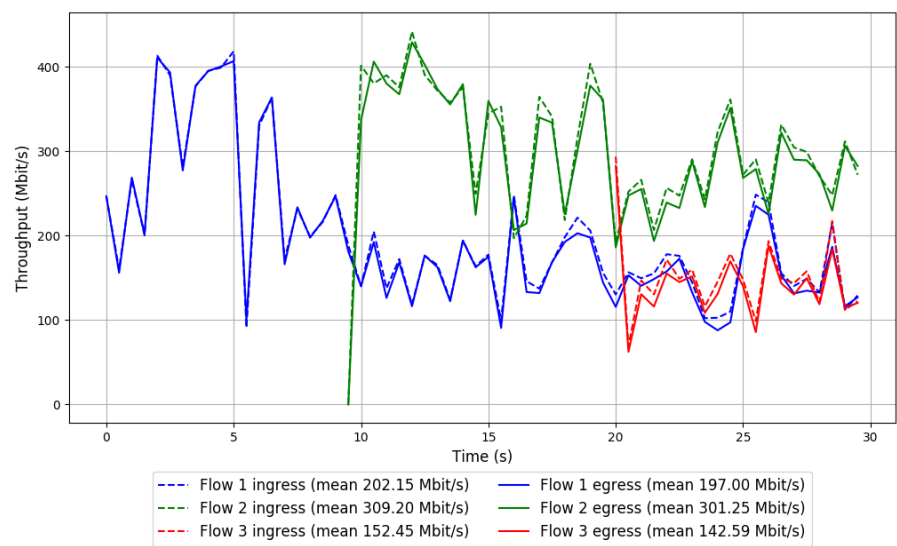
-- Flow 3:

Average throughput: 142.59 Mbit/s

95th percentile per-packet one-way delay: 9.254 ms

Loss rate: 6.51%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-06 00:46:05

End at: 2017-12-06 00:46:35

Local clock offset: -0.04 ms

Remote clock offset: 0.939 ms

# Below is generated by plot.py at 2017-12-06 04:31:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 447.08 Mbit/s

95th percentile per-packet one-way delay: 24.198 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 207.37 Mbit/s

95th percentile per-packet one-way delay: 8.134 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 268.95 Mbit/s

95th percentile per-packet one-way delay: 26.256 ms

Loss rate: 2.89%

-- Flow 3:

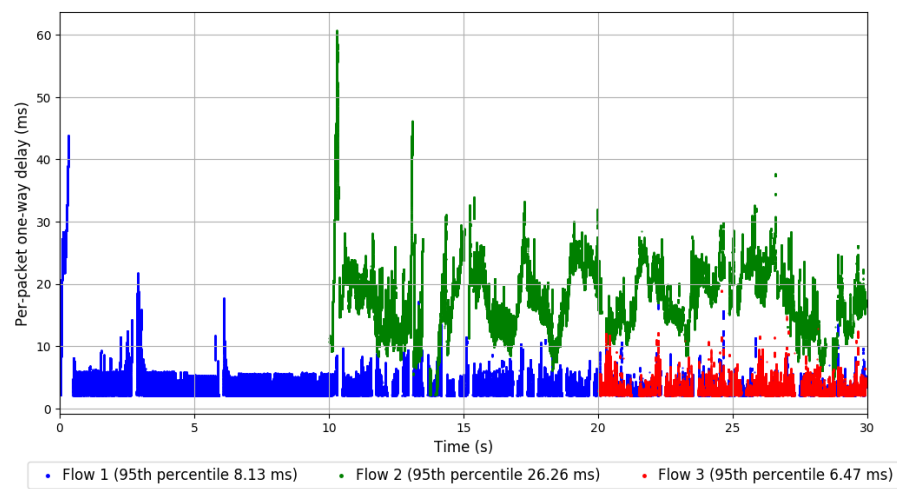
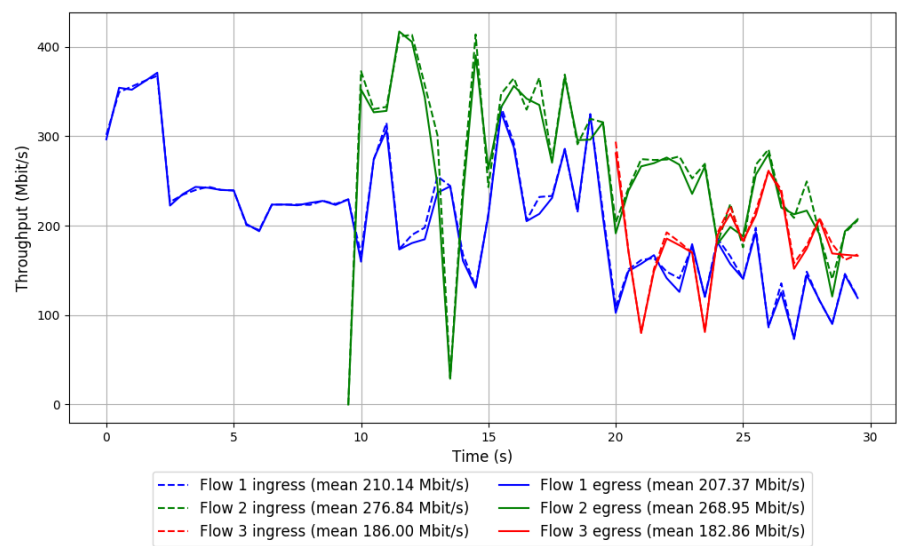
Average throughput: 182.86 Mbit/s

95th percentile per-packet one-way delay: 6.471 ms

Loss rate: 1.68%



Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-06 01:05:20

End at: 2017-12-06 01:05:50

Local clock offset: -0.148 ms

Remote clock offset: 0.578 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 527.46 Mbit/s

95th percentile per-packet one-way delay: 9.729 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 317.03 Mbit/s

95th percentile per-packet one-way delay: 9.845 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 224.66 Mbit/s

95th percentile per-packet one-way delay: 8.326 ms

Loss rate: 1.57%

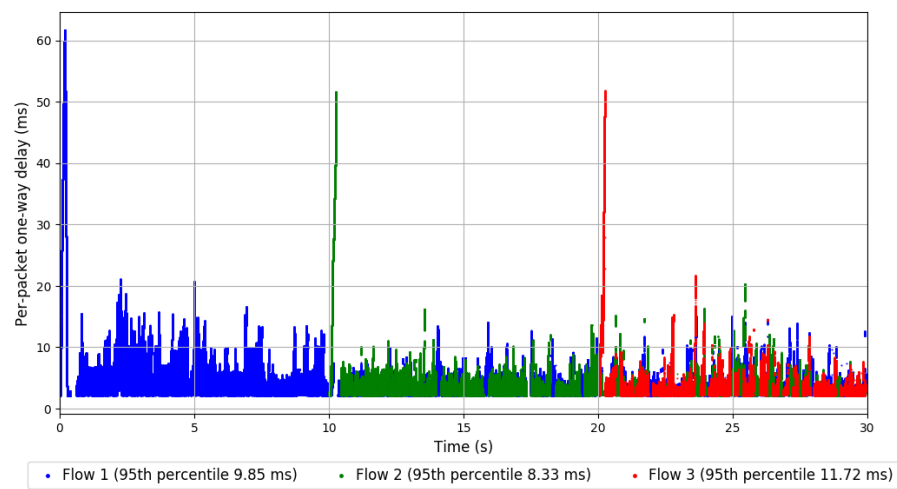
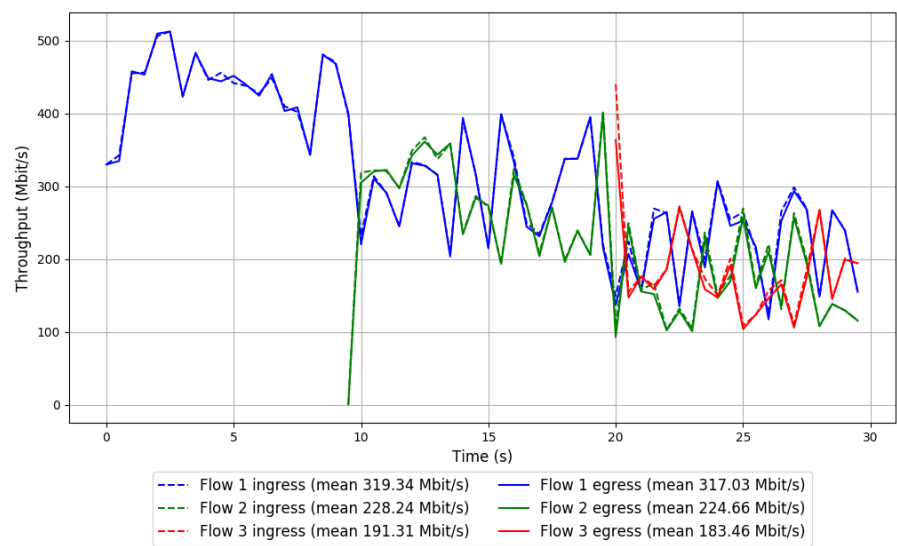
-- Flow 3:

Average throughput: 183.46 Mbit/s

95th percentile per-packet one-way delay: 11.721 ms

Loss rate: 4.10%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-05 22:19:09

End at: 2017-12-05 22:19:39

Local clock offset: 0.622 ms

Remote clock offset: 1.406 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 211.11 Mbit/s

95th percentile per-packet one-way delay: 8.416 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 106.82 Mbit/s

95th percentile per-packet one-way delay: 10.043 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 109.46 Mbit/s

95th percentile per-packet one-way delay: 2.306 ms

Loss rate: 0.00%

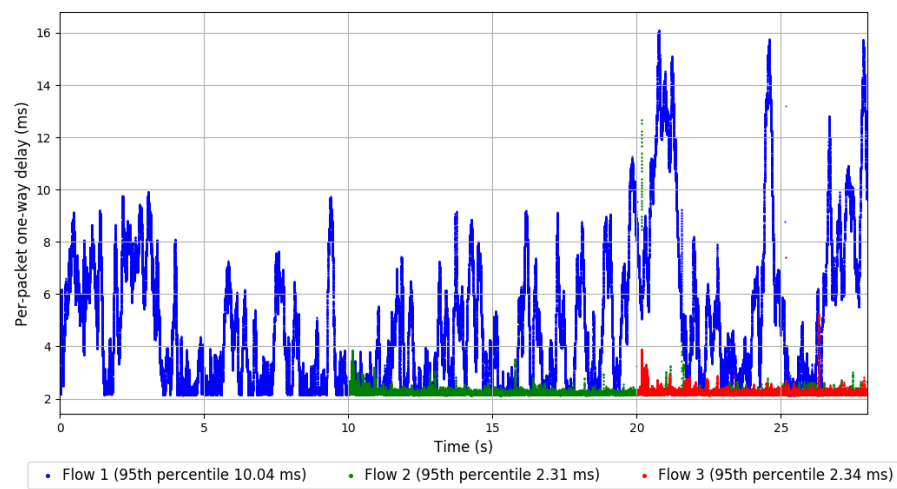
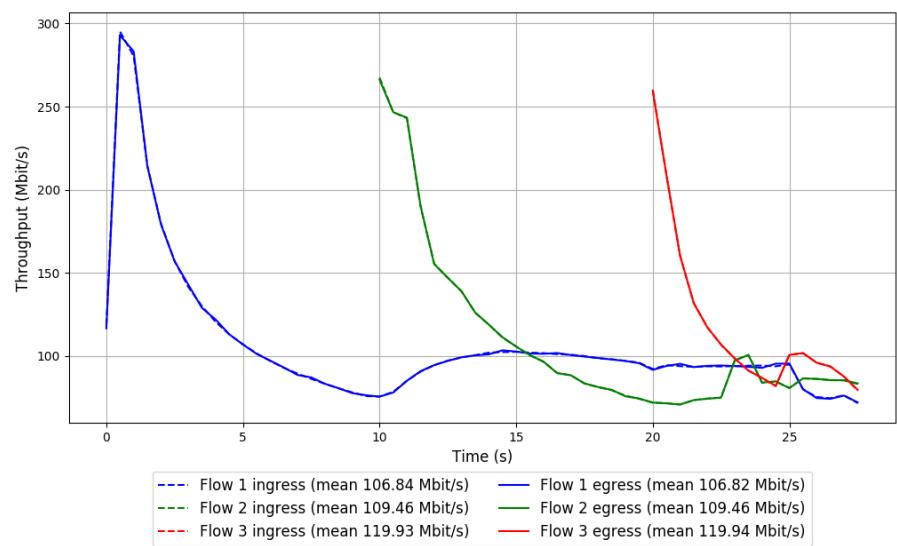
-- Flow 3:

Average throughput: 119.94 Mbit/s

95th percentile per-packet one-way delay: 2.337 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-05 22:38:23

End at: 2017-12-05 22:38:53

Local clock offset: 0.611 ms

Remote clock offset: 1.407 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.73 Mbit/s

95th percentile per-packet one-way delay: 2.305 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 108.39 Mbit/s

95th percentile per-packet one-way delay: 2.283 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 111.60 Mbit/s

95th percentile per-packet one-way delay: 2.354 ms

Loss rate: 0.00%

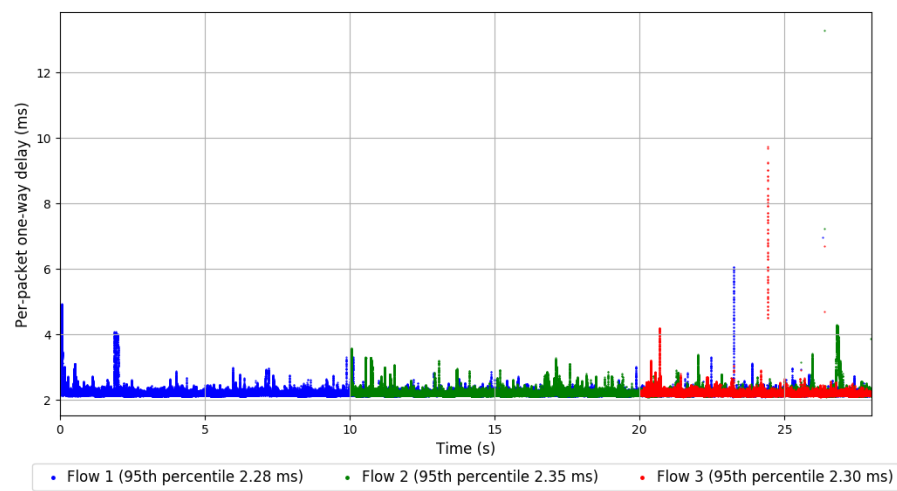
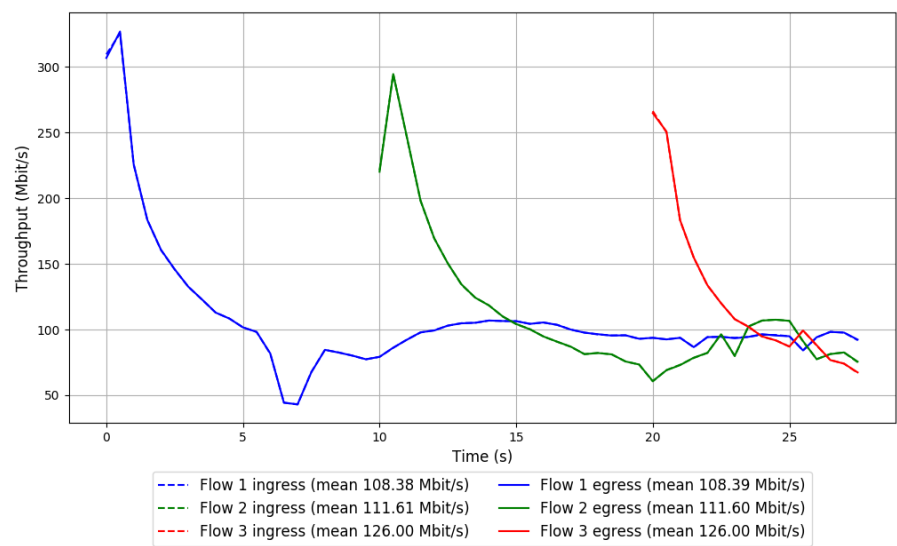
-- Flow 3:

Average throughput: 126.00 Mbit/s

95th percentile per-packet one-way delay: 2.297 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-05 22:57:50

End at: 2017-12-05 22:58:20

Local clock offset: 0.599 ms

Remote clock offset: 1.522 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 107.22 Mbit/s

95th percentile per-packet one-way delay: 9.641 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 107.21 Mbit/s

95th percentile per-packet one-way delay: 9.640 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 2.337 ms

Loss rate: 0.00%

-- Flow 3:

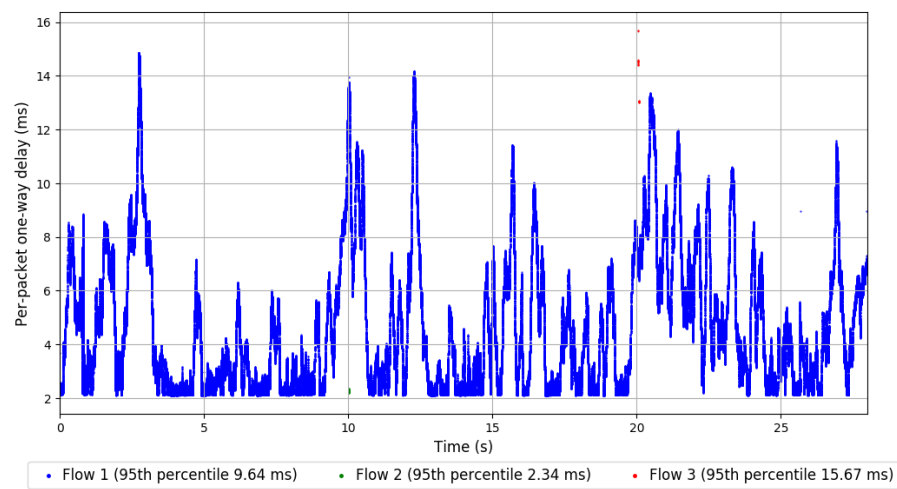
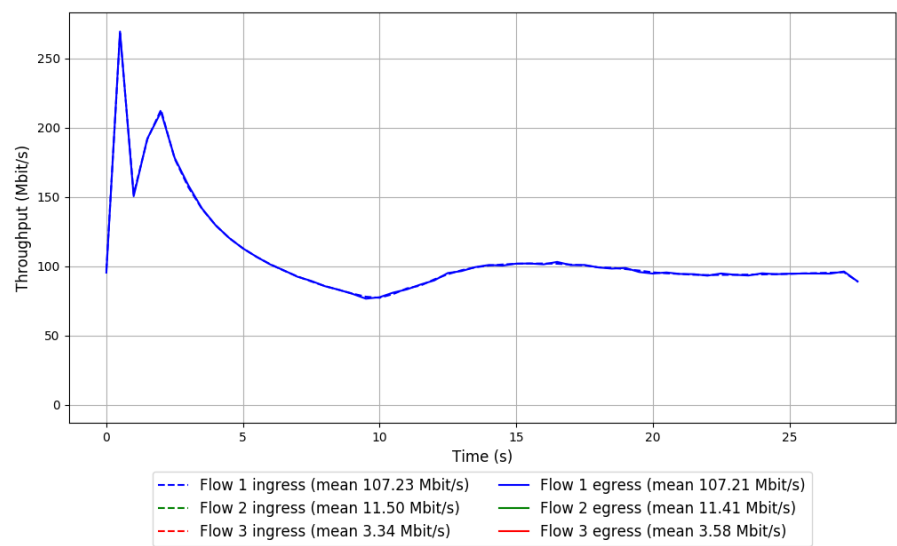
Average throughput: 3.58 Mbit/s

95th percentile per-packet one-way delay: 15.673 ms

Loss rate: 0.00%



Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-05 23:16:41

End at: 2017-12-05 23:17:11

Local clock offset: 0.501 ms

Remote clock offset: -17.9 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 211.29 Mbit/s

95th percentile per-packet one-way delay: -17.105 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 101.08 Mbit/s

95th percentile per-packet one-way delay: -17.362 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.62 Mbit/s

95th percentile per-packet one-way delay: -17.138 ms

Loss rate: 0.00%

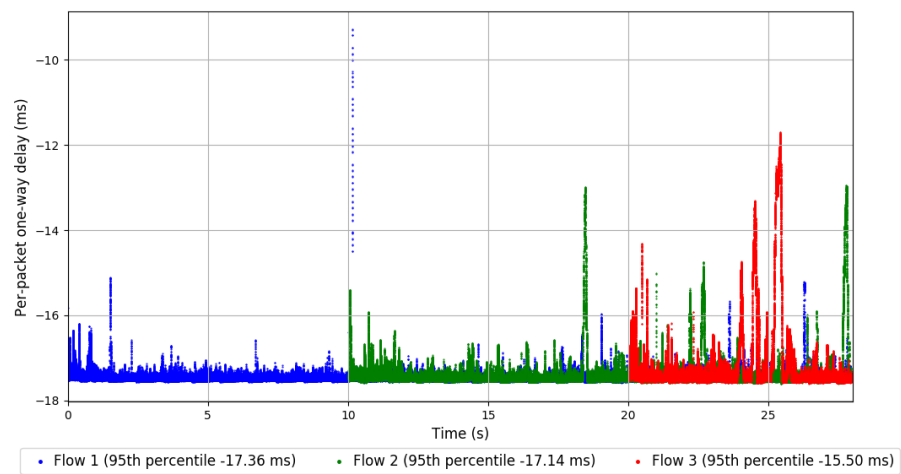
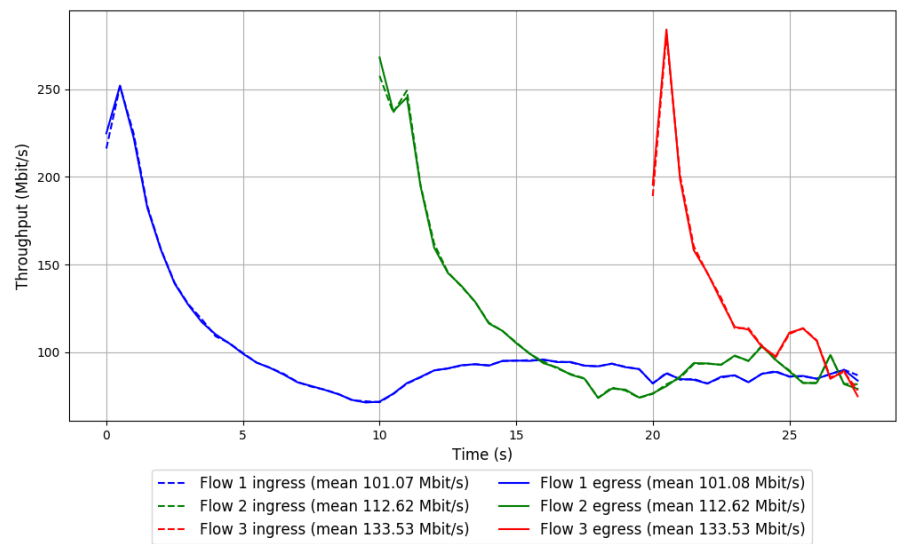
-- Flow 3:

Average throughput: 133.53 Mbit/s

95th percentile per-packet one-way delay: -15.501 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-05 23:35:37

End at: 2017-12-05 23:36:07

Local clock offset: 0.41 ms

Remote clock offset: 2.283 ms

# Below is generated by plot.py at 2017-12-06 04:33:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 147.49 Mbit/s

95th percentile per-packet one-way delay: 2.415 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 106.51 Mbit/s

95th percentile per-packet one-way delay: 2.377 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.28 Mbit/s

95th percentile per-packet one-way delay: 2.307 ms

Loss rate: 0.00%

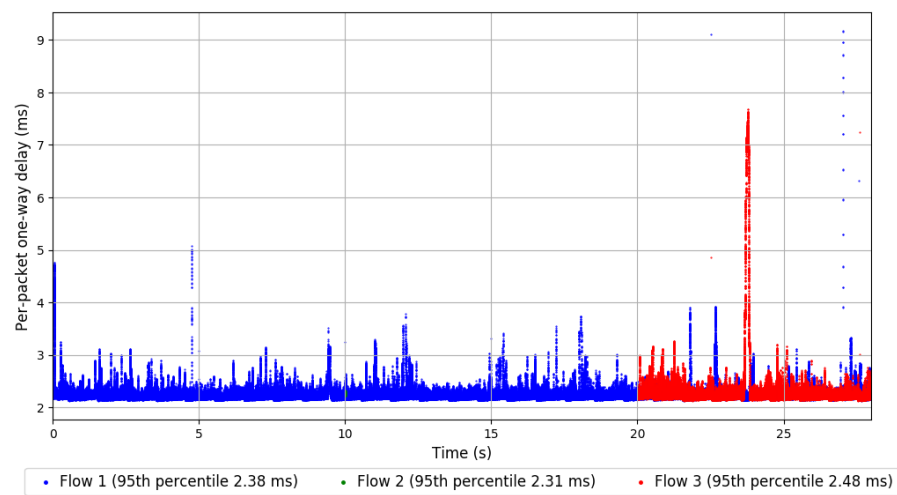
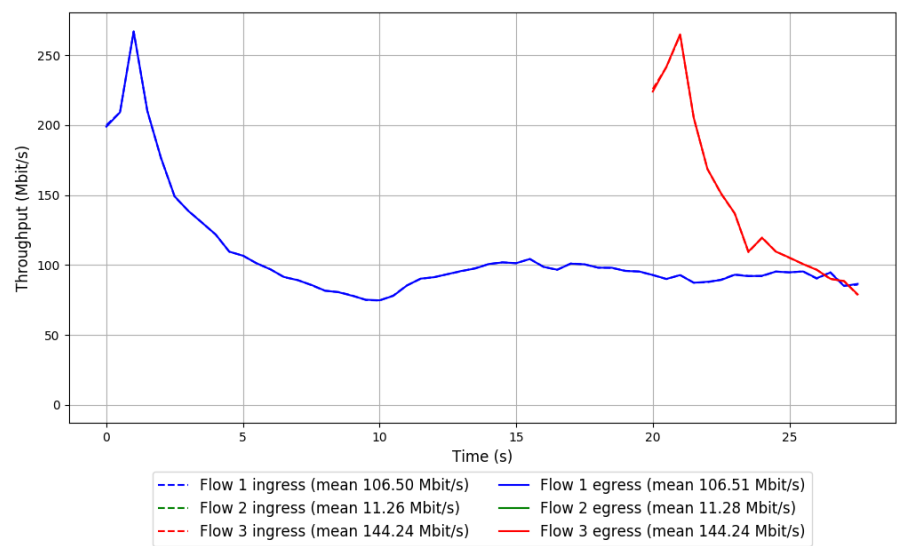
-- Flow 3:

Average throughput: 144.24 Mbit/s

95th percentile per-packet one-way delay: 2.480 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-05 23:54:40

End at: 2017-12-05 23:55:10

Local clock offset: 0.313 ms

Remote clock offset: 1.922 ms

# Below is generated by plot.py at 2017-12-06 04:36:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 212.46 Mbit/s

95th percentile per-packet one-way delay: 4.005 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.99 Mbit/s

95th percentile per-packet one-way delay: 2.315 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 104.13 Mbit/s

95th percentile per-packet one-way delay: 5.507 ms

Loss rate: 0.00%

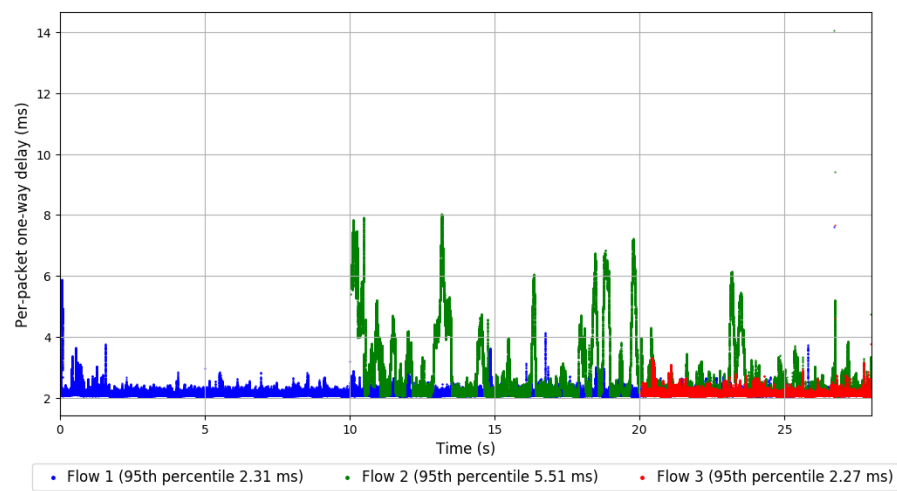
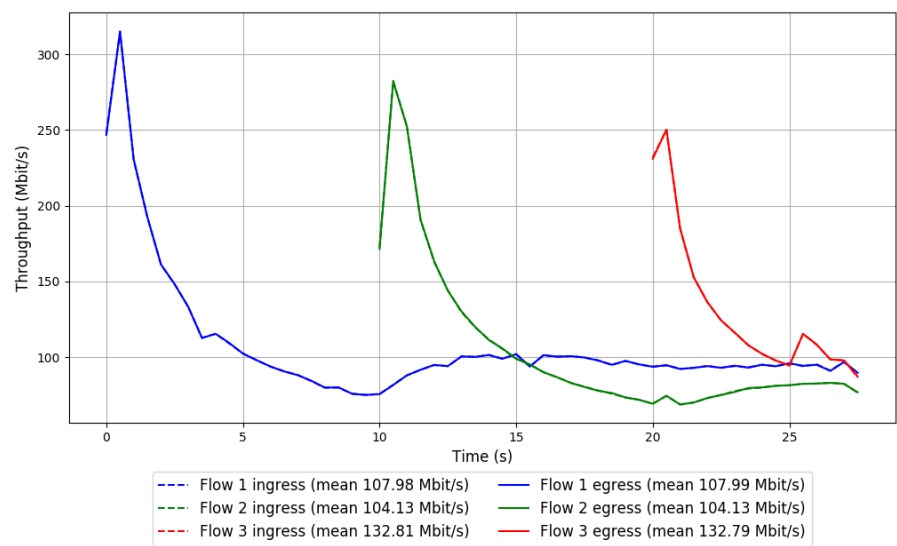
-- Flow 3:

Average throughput: 132.79 Mbit/s

95th percentile per-packet one-way delay: 2.271 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-06 00:13:53

End at: 2017-12-06 00:14:23

Local clock offset: 0.168 ms

Remote clock offset: 1.132 ms

# Below is generated by plot.py at 2017-12-06 04:37:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 208.93 Mbit/s

95th percentile per-packet one-way delay: 1.794 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 108.28 Mbit/s

95th percentile per-packet one-way delay: 1.745 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 109.73 Mbit/s

95th percentile per-packet one-way delay: 1.817 ms

Loss rate: 0.00%

-- Flow 3:

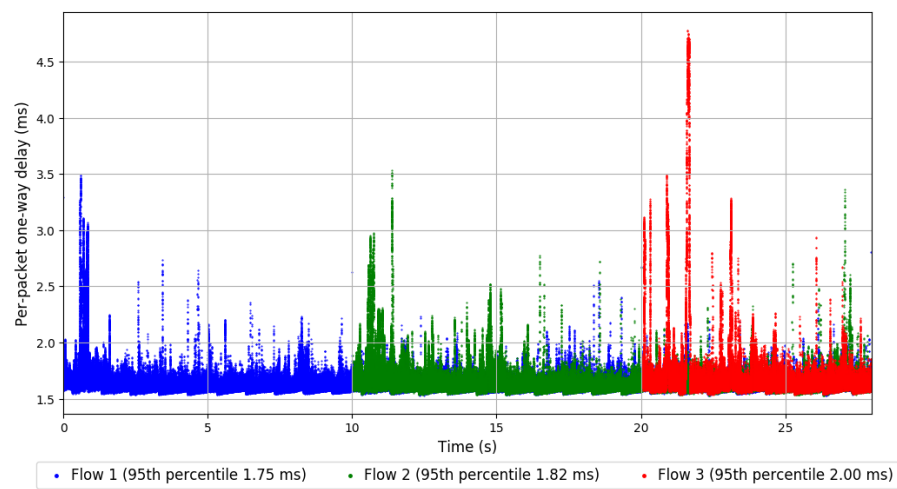
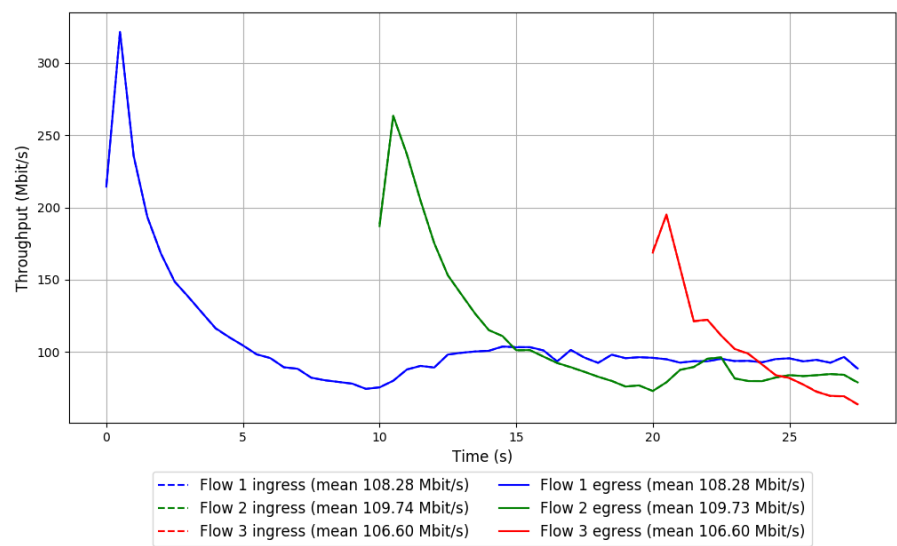
Average throughput: 106.60 Mbit/s

95th percentile per-packet one-way delay: 2.005 ms

Loss rate: 0.00%



Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-06 00:32:44

End at: 2017-12-06 00:33:14

Local clock offset: 0.06 ms

Remote clock offset: 1.337 ms

# Below is generated by plot.py at 2017-12-06 04:37:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 174.03 Mbit/s

95th percentile per-packet one-way delay: 6.626 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 103.62 Mbit/s

95th percentile per-packet one-way delay: 6.905 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 105.51 Mbit/s

95th percentile per-packet one-way delay: 2.644 ms

Loss rate: 0.00%

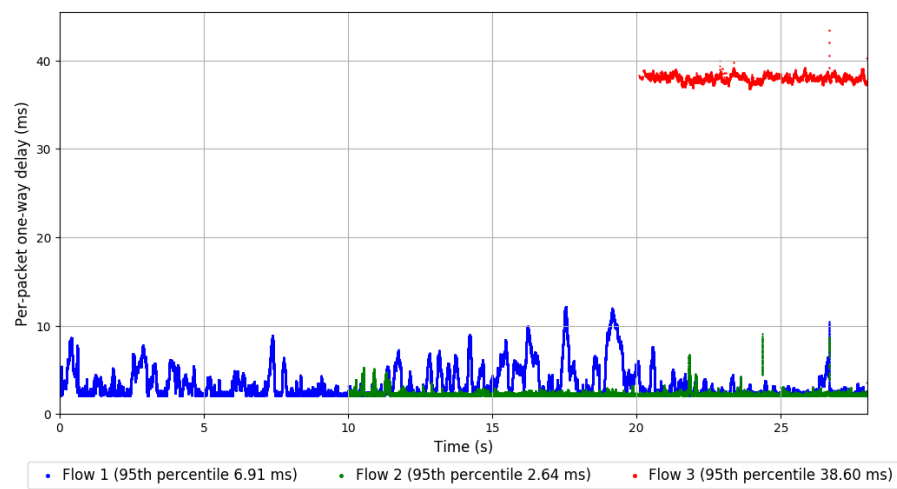
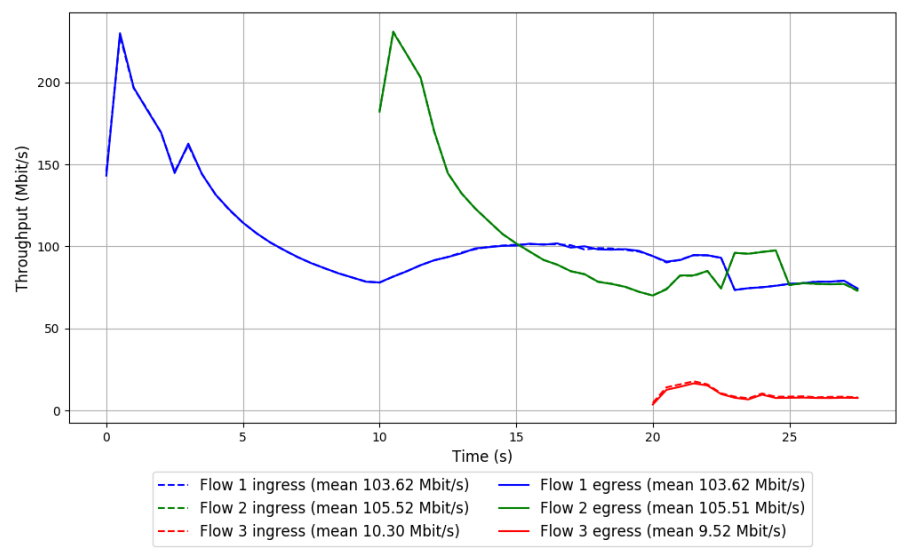
-- Flow 3:

Average throughput: 9.52 Mbit/s

95th percentile per-packet one-way delay: 38.601 ms

Loss rate: 7.90%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-06 00:51:49

End at: 2017-12-06 00:52:19

Local clock offset: -0.106 ms

Remote clock offset: 0.862 ms

# Below is generated by plot.py at 2017-12-06 04:37:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 182.55 Mbit/s

95th percentile per-packet one-way delay: 2.416 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.94 Mbit/s

95th percentile per-packet one-way delay: 2.432 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 116.19 Mbit/s

95th percentile per-packet one-way delay: 2.396 ms

Loss rate: 0.00%

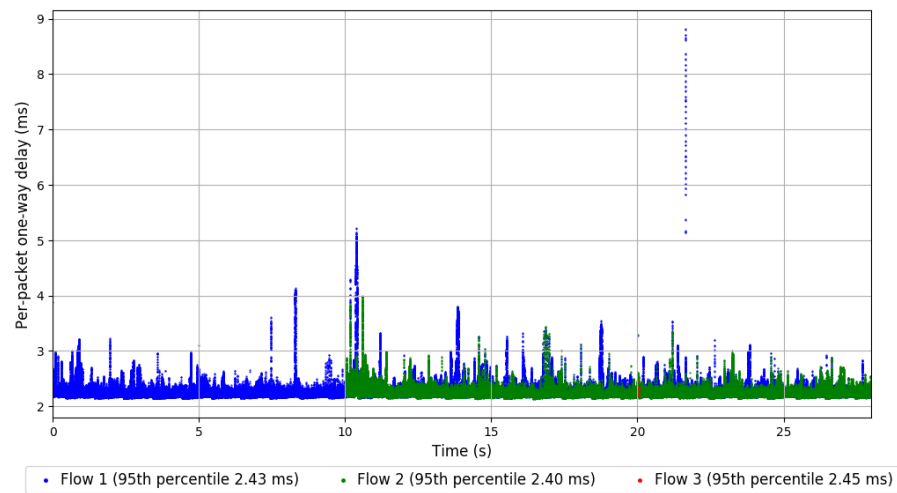
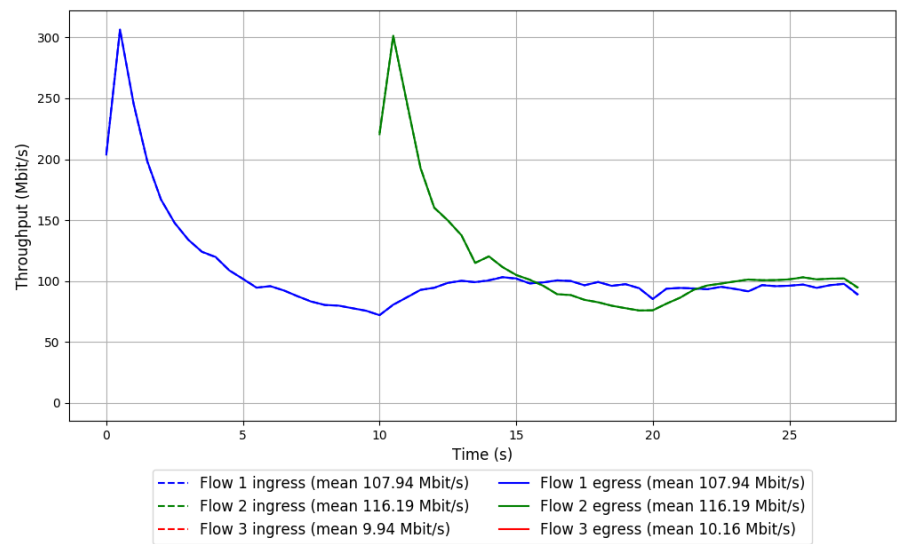
-- Flow 3:

Average throughput: 10.16 Mbit/s

95th percentile per-packet one-way delay: 2.447 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-06 01:11:14

End at: 2017-12-06 01:11:44

Local clock offset: -0.181 ms

Remote clock offset: 0.504 ms

# Below is generated by plot.py at 2017-12-06 04:37:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 216.78 Mbit/s

95th percentile per-packet one-way delay: 2.299 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 105.94 Mbit/s

95th percentile per-packet one-way delay: 2.278 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 114.60 Mbit/s

95th percentile per-packet one-way delay: 2.293 ms

Loss rate: 0.00%

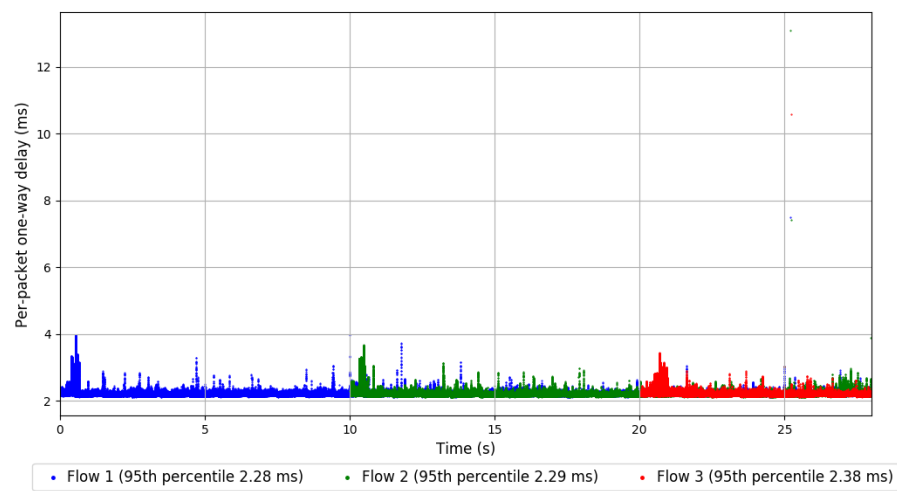
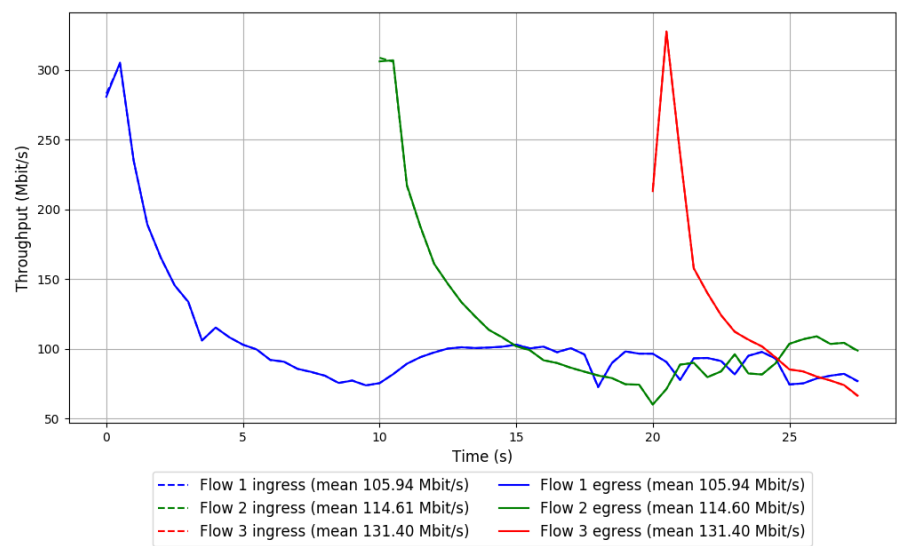
-- Flow 3:

Average throughput: 131.40 Mbit/s

95th percentile per-packet one-way delay: 2.376 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link



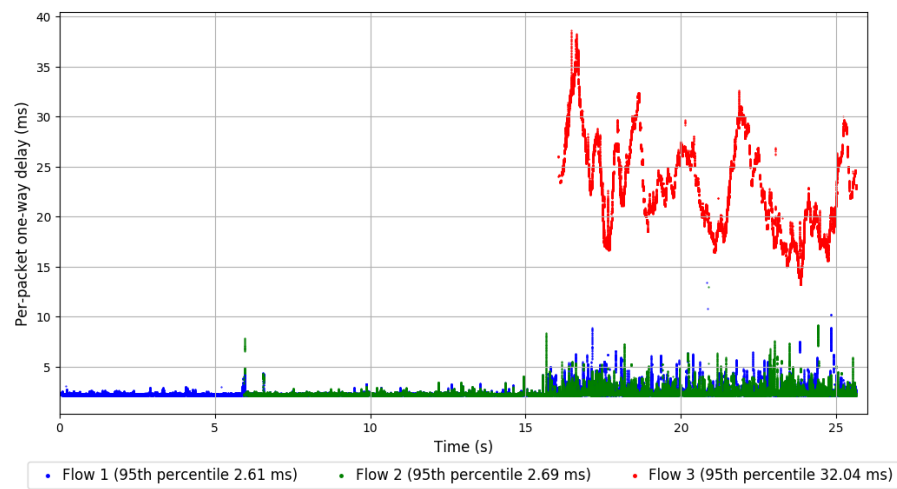
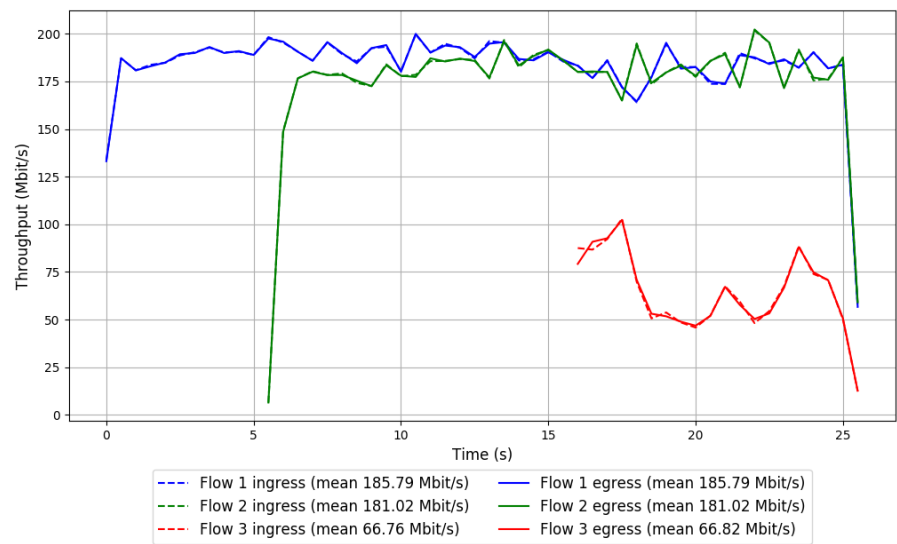
```
Run 1: Statistics of Indigo

Start at: 2017-12-05 22:09:48
End at: 2017-12-05 22:10:18
Local clock offset: 0.626 ms
Remote clock offset: 1.397 ms

# Below is generated by plot.py at 2017-12-06 04:38:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 350.00 Mbit/s
95th percentile per-packet one-way delay: 19.521 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 185.79 Mbit/s
95th percentile per-packet one-way delay: 2.610 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 181.02 Mbit/s
95th percentile per-packet one-way delay: 2.690 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 66.82 Mbit/s
95th percentile per-packet one-way delay: 32.041 ms
Loss rate: 0.19%
```



Run 1: Report of Indigo — Data Link

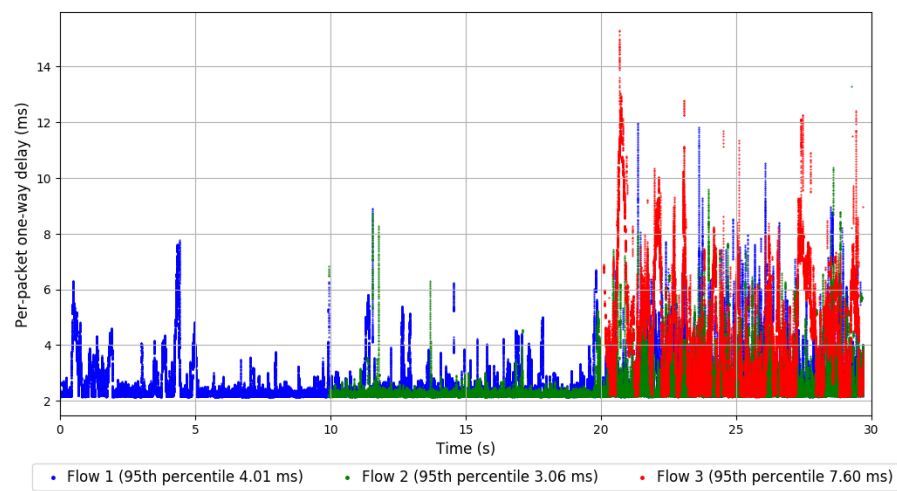
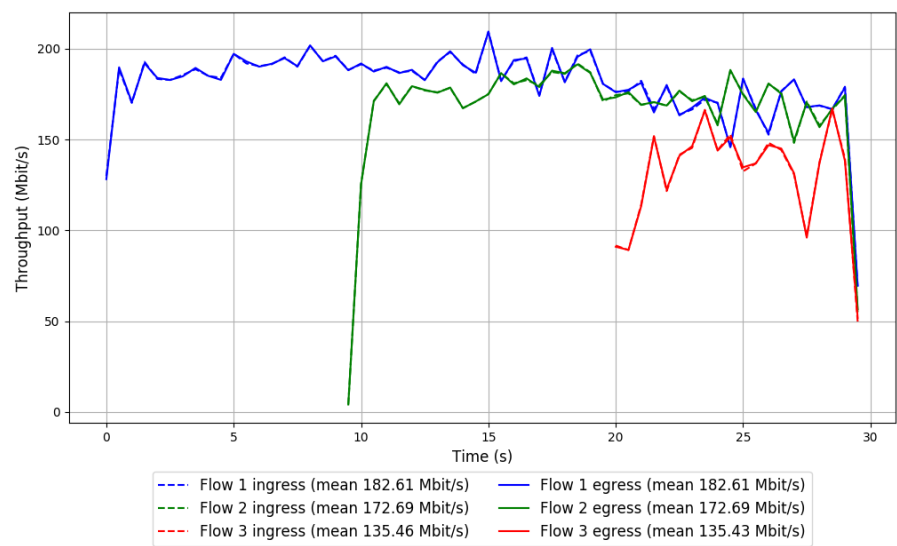


```
Run 2: Statistics of Indigo

Start at: 2017-12-05 22:29:00
End at: 2017-12-05 22:29:30
Local clock offset: 0.603 ms
Remote clock offset: 1.407 ms

# Below is generated by plot.py at 2017-12-06 04:38:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 341.25 Mbit/s
95th percentile per-packet one-way delay: 4.832 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 182.61 Mbit/s
95th percentile per-packet one-way delay: 4.012 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 172.69 Mbit/s
95th percentile per-packet one-way delay: 3.058 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 135.43 Mbit/s
95th percentile per-packet one-way delay: 7.601 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-05 22:48:17

End at: 2017-12-05 22:48:47

Local clock offset: 0.607 ms

Remote clock offset: 1.54 ms

# Below is generated by plot.py at 2017-12-06 04:38:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 356.91 Mbit/s

95th percentile per-packet one-way delay: 3.368 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 179.12 Mbit/s

95th percentile per-packet one-way delay: 2.972 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 169.65 Mbit/s

95th percentile per-packet one-way delay: 3.519 ms

Loss rate: 0.00%

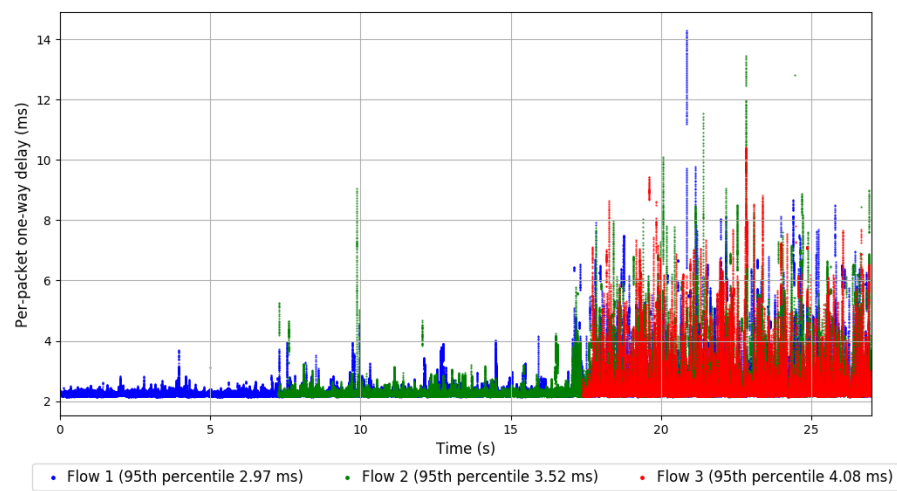
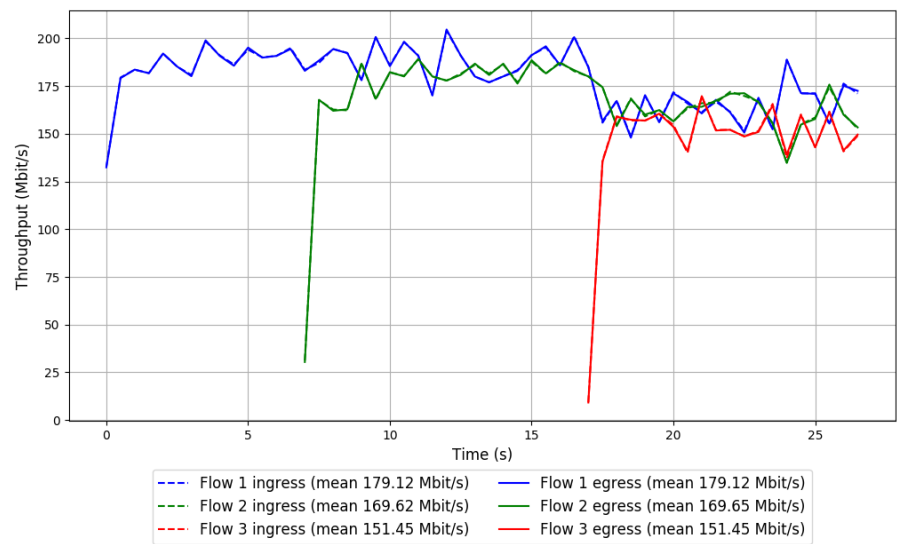
-- Flow 3:

Average throughput: 151.45 Mbit/s

95th percentile per-packet one-way delay: 4.078 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

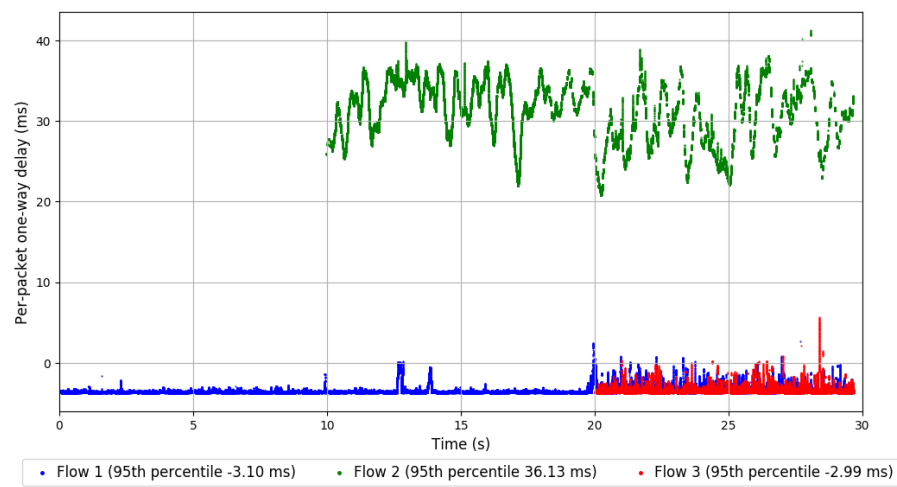
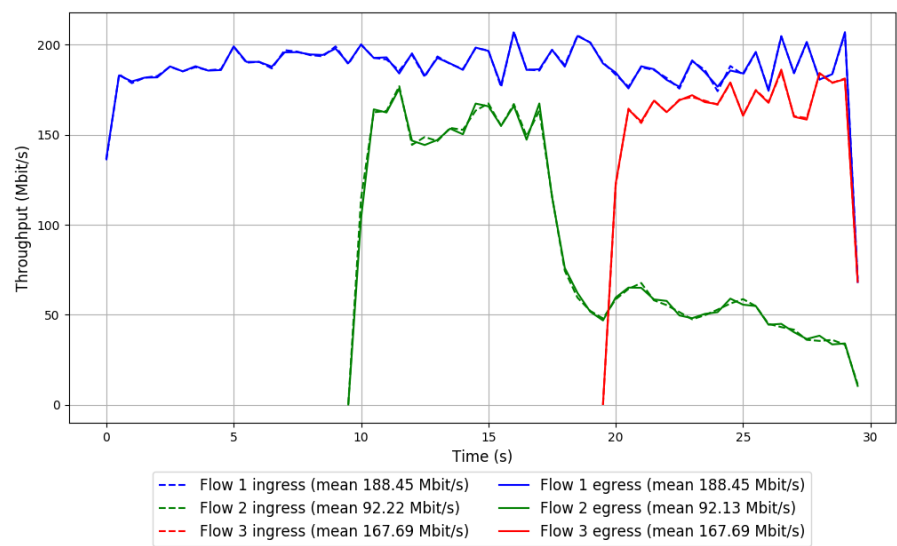


Run 4: Statistics of Indigo

Start at: 2017-12-05 23:07:16  
End at: 2017-12-05 23:07:46  
Local clock offset: 0.553 ms  
Remote clock offset: -4.342 ms

# Below is generated by plot.py at 2017-12-06 04:40:30  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 304.26 Mbit/s  
95th percentile per-packet one-way delay: 34.357 ms  
Loss rate: 0.06%  
-- Flow 1:  
Average throughput: 188.45 Mbit/s  
95th percentile per-packet one-way delay: -3.095 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 92.13 Mbit/s  
95th percentile per-packet one-way delay: 36.128 ms  
Loss rate: 0.28%  
-- Flow 3:  
Average throughput: 167.69 Mbit/s  
95th percentile per-packet one-way delay: -2.988 ms  
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-05 23:26:07

End at: 2017-12-05 23:26:37

Local clock offset: 0.406 ms

Remote clock offset: 2.256 ms

# Below is generated by plot.py at 2017-12-06 04:41:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.52 Mbit/s

95th percentile per-packet one-way delay: 3.765 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 182.97 Mbit/s

95th percentile per-packet one-way delay: 3.295 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.61 Mbit/s

95th percentile per-packet one-way delay: 4.169 ms

Loss rate: 0.00%

-- Flow 3:

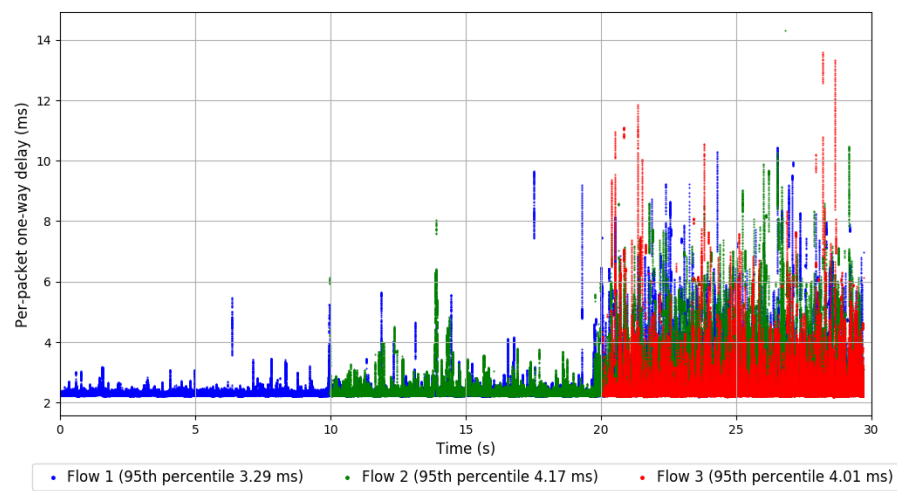
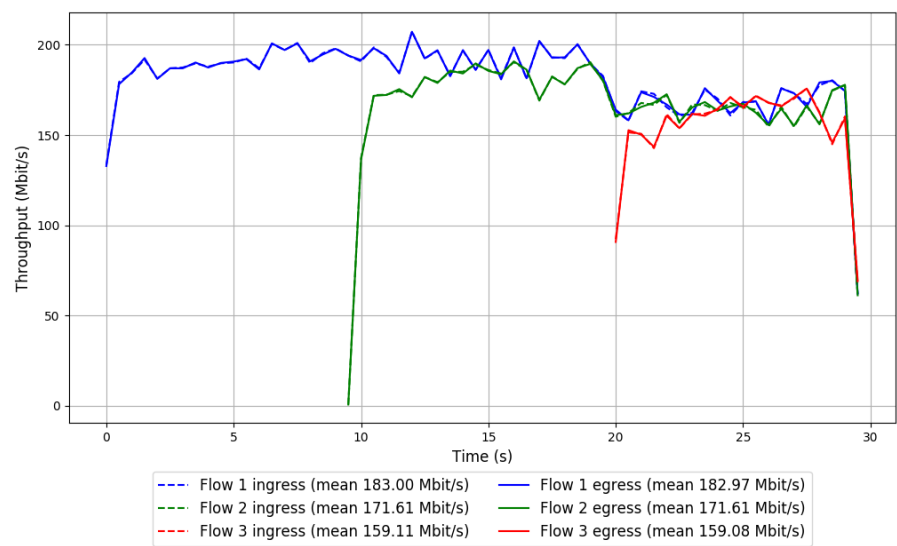
Average throughput: 159.08 Mbit/s

95th percentile per-packet one-way delay: 4.007 ms

Loss rate: 0.00%



Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-05 23:45:11

End at: 2017-12-05 23:45:41

Local clock offset: 0.269 ms

Remote clock offset: 2.133 ms

# Below is generated by plot.py at 2017-12-06 04:42:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.66 Mbit/s

95th percentile per-packet one-way delay: 3.510 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 184.53 Mbit/s

95th percentile per-packet one-way delay: 2.976 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.51 Mbit/s

95th percentile per-packet one-way delay: 3.686 ms

Loss rate: 0.02%

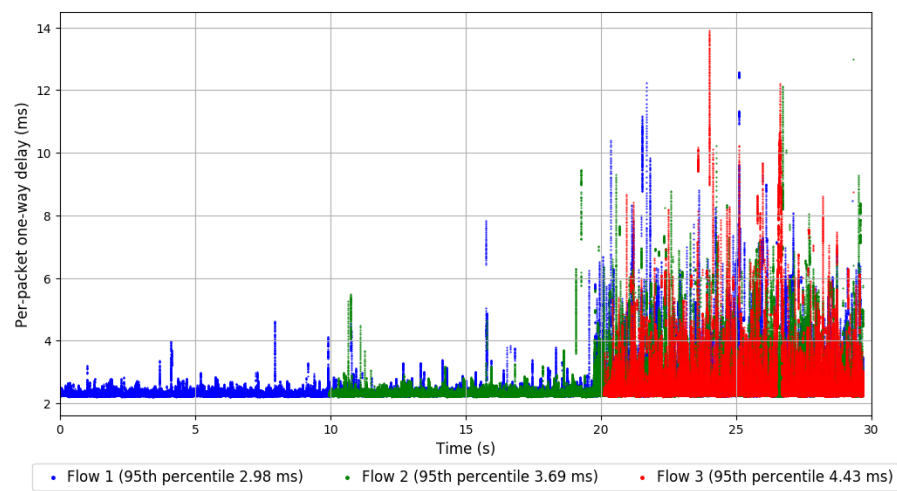
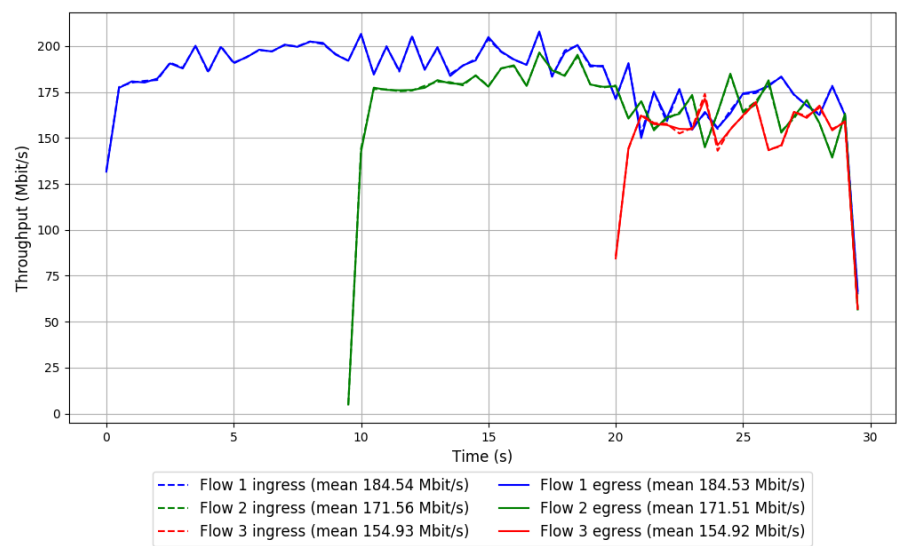
-- Flow 3:

Average throughput: 154.92 Mbit/s

95th percentile per-packet one-way delay: 4.432 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-06 00:04:18

End at: 2017-12-06 00:04:48

Local clock offset: 0.186 ms

Remote clock offset: 1.767 ms

# Below is generated by plot.py at 2017-12-06 04:42:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 347.04 Mbit/s

95th percentile per-packet one-way delay: 3.840 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 182.08 Mbit/s

95th percentile per-packet one-way delay: 3.208 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.90 Mbit/s

95th percentile per-packet one-way delay: 4.768 ms

Loss rate: 0.01%

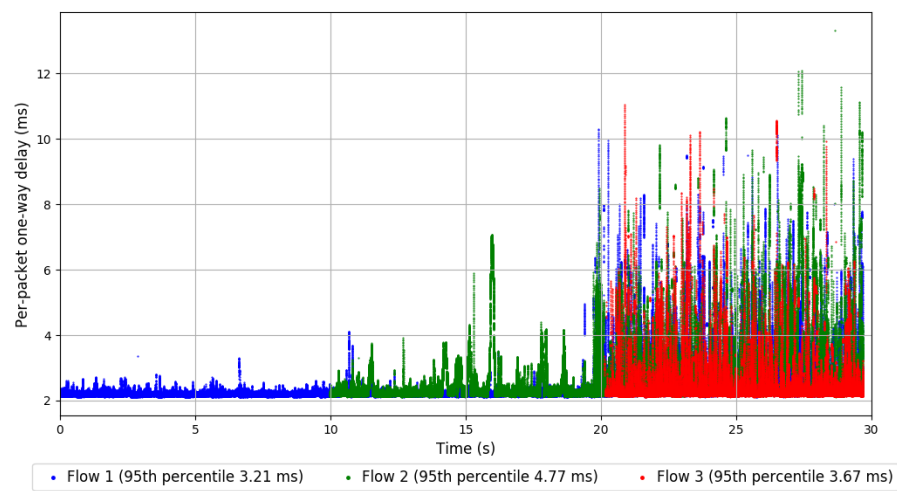
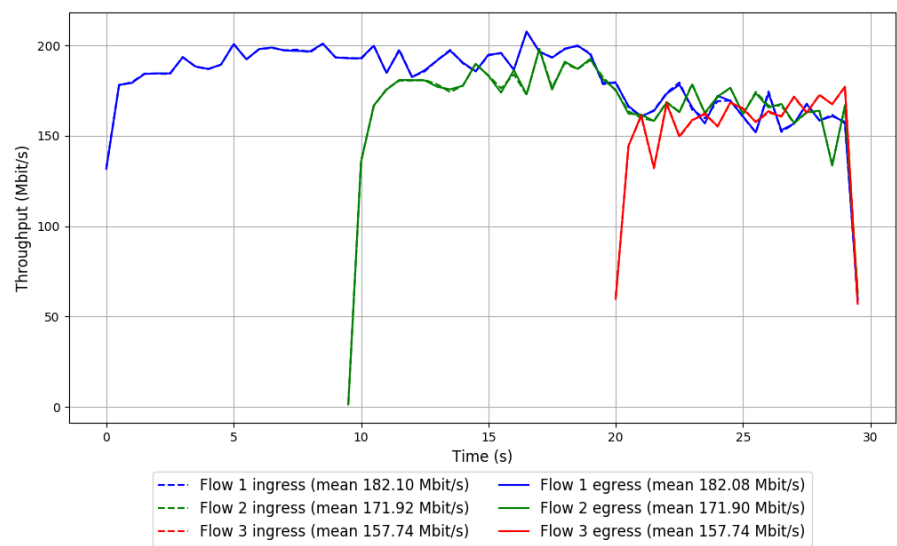
-- Flow 3:

Average throughput: 157.74 Mbit/s

95th percentile per-packet one-way delay: 3.668 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-06 00:23:14

End at: 2017-12-06 00:23:44

Local clock offset: 0.062 ms

Remote clock offset: 1.638 ms

# Below is generated by plot.py at 2017-12-06 04:42:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 340.58 Mbit/s

95th percentile per-packet one-way delay: 38.425 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 180.55 Mbit/s

95th percentile per-packet one-way delay: 3.062 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 170.55 Mbit/s

95th percentile per-packet one-way delay: 3.725 ms

Loss rate: 0.00%

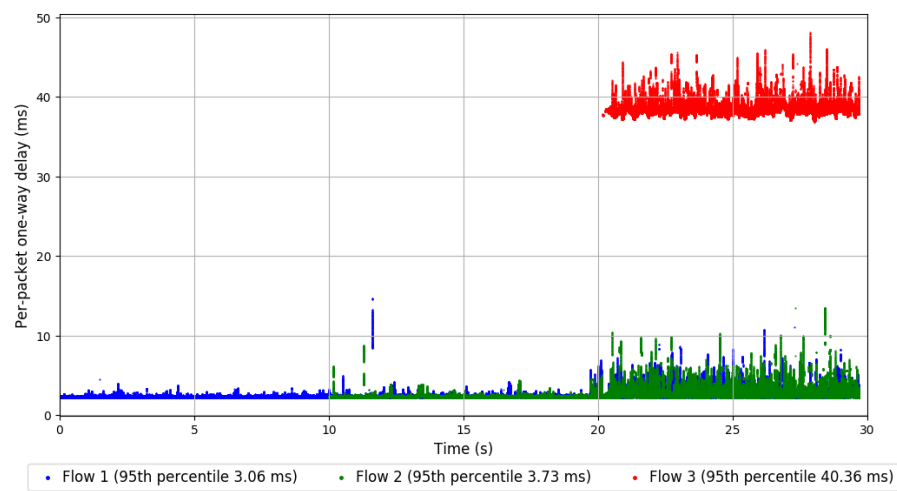
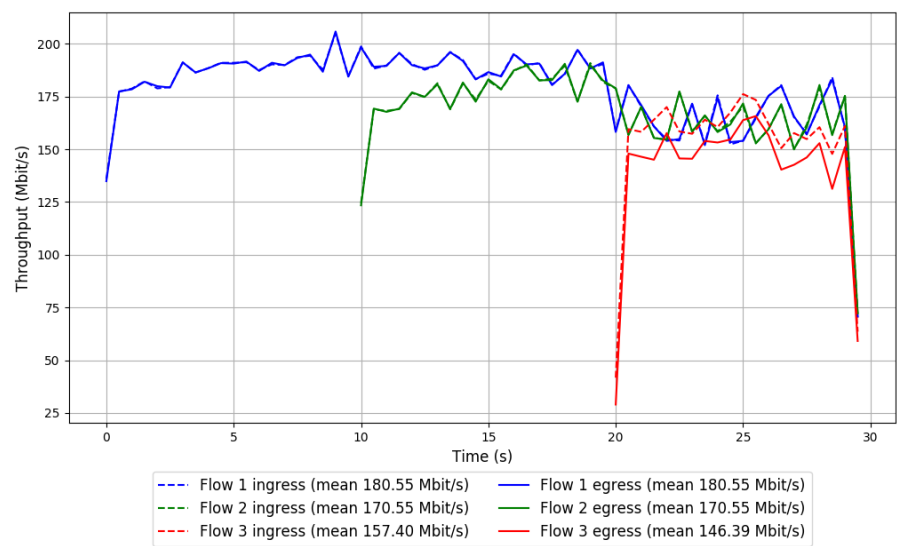
-- Flow 3:

Average throughput: 146.39 Mbit/s

95th percentile per-packet one-way delay: 40.362 ms

Loss rate: 7.32%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-06 00:42:28

End at: 2017-12-06 00:42:58

Local clock offset: -0.015 ms

Remote clock offset: 1.027 ms

# Below is generated by plot.py at 2017-12-06 04:42:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 286.27 Mbit/s

95th percentile per-packet one-way delay: 7.498 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 185.36 Mbit/s

95th percentile per-packet one-way delay: 2.601 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.78 Mbit/s

95th percentile per-packet one-way delay: 11.547 ms

Loss rate: 0.02%

-- Flow 3:

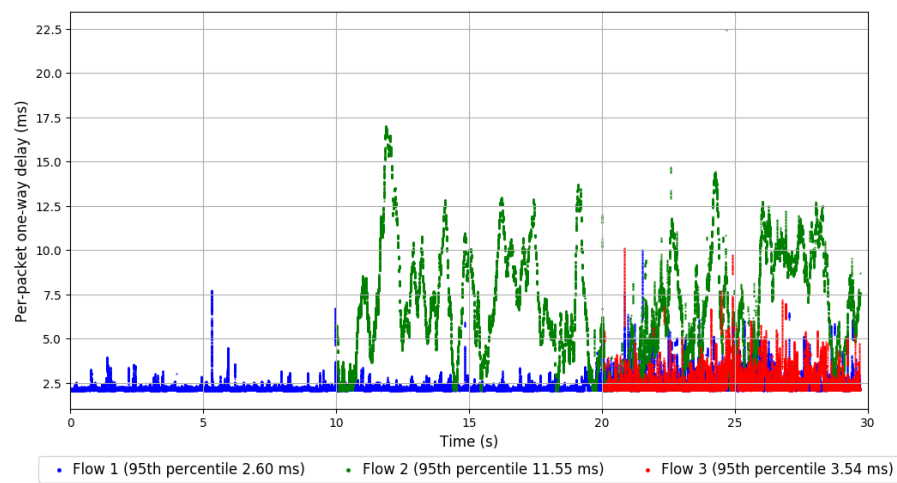
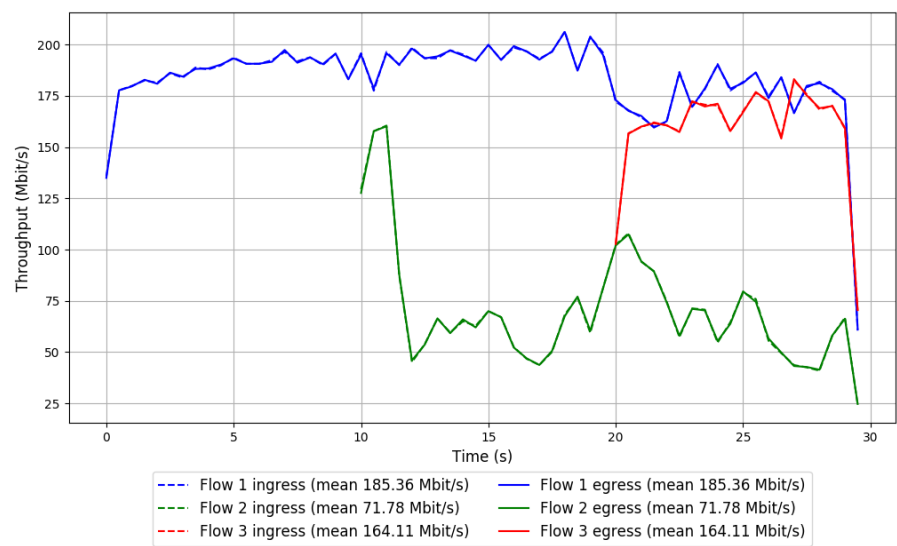
Average throughput: 164.11 Mbit/s

95th percentile per-packet one-way delay: 3.535 ms

Loss rate: 0.00%



Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-06 01:01:37

End at: 2017-12-06 01:02:07

Local clock offset: -0.125 ms

Remote clock offset: 0.605 ms

# Below is generated by plot.py at 2017-12-06 04:43:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 346.00 Mbit/s

95th percentile per-packet one-way delay: 3.298 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 183.14 Mbit/s

95th percentile per-packet one-way delay: 3.020 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 170.75 Mbit/s

95th percentile per-packet one-way delay: 3.461 ms

Loss rate: 0.00%

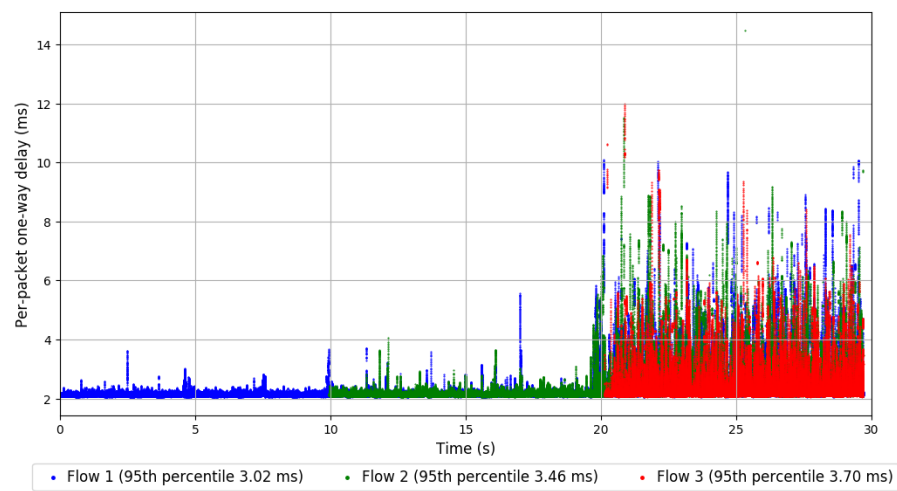
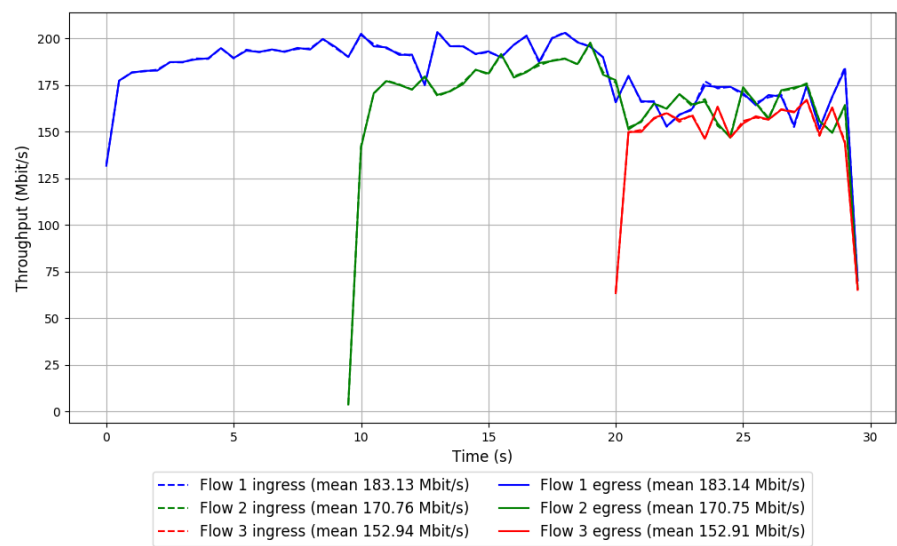
-- Flow 3:

Average throughput: 152.91 Mbit/s

95th percentile per-packet one-way delay: 3.700 ms

Loss rate: 0.02%

Run 10: Report of Indigo — Data Link

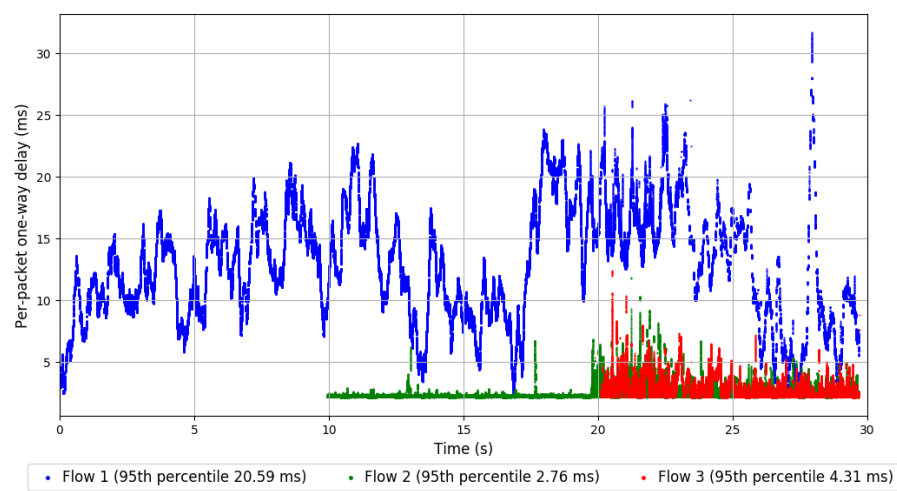
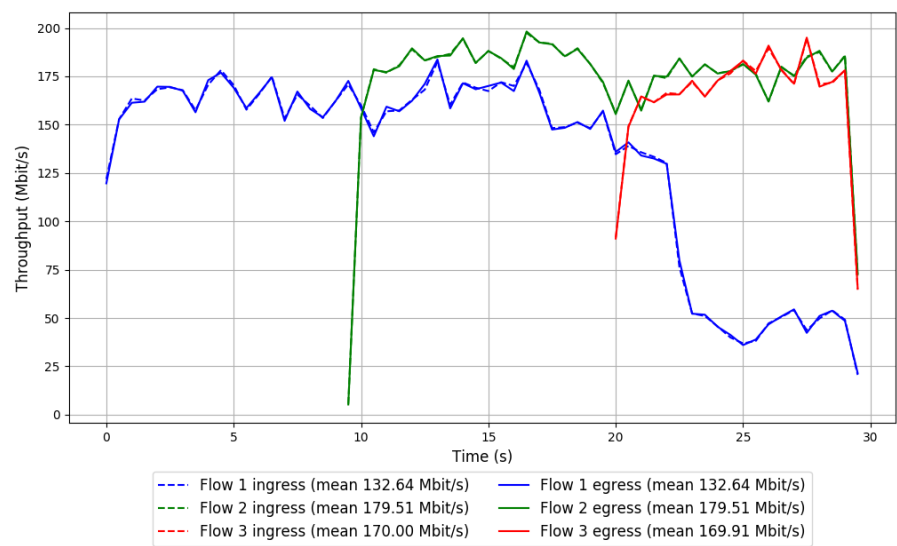


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-05 22:02:19
End at: 2017-12-05 22:02:49
Local clock offset: 0.642 ms
Remote clock offset: 1.376 ms

# Below is generated by plot.py at 2017-12-06 04:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.97 Mbit/s
95th percentile per-packet one-way delay: 18.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.64 Mbit/s
95th percentile per-packet one-way delay: 20.593 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.51 Mbit/s
95th percentile per-packet one-way delay: 2.759 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.91 Mbit/s
95th percentile per-packet one-way delay: 4.306 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-calib — Data Link

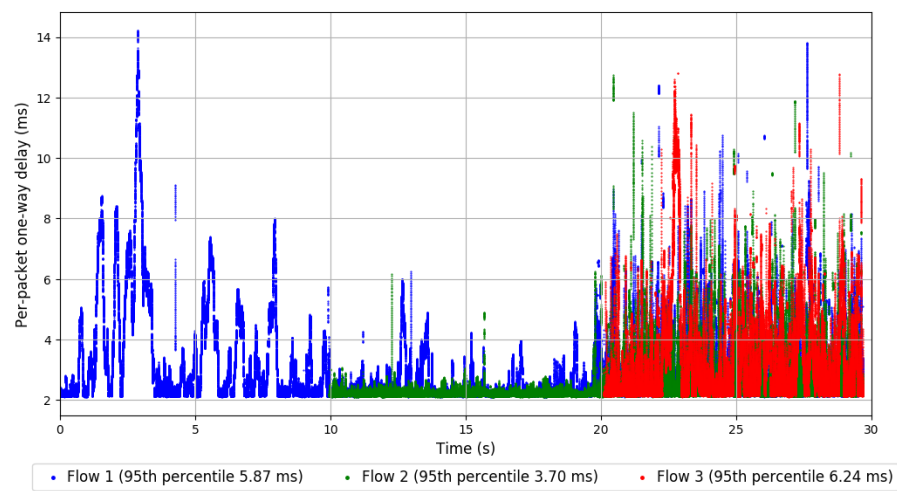
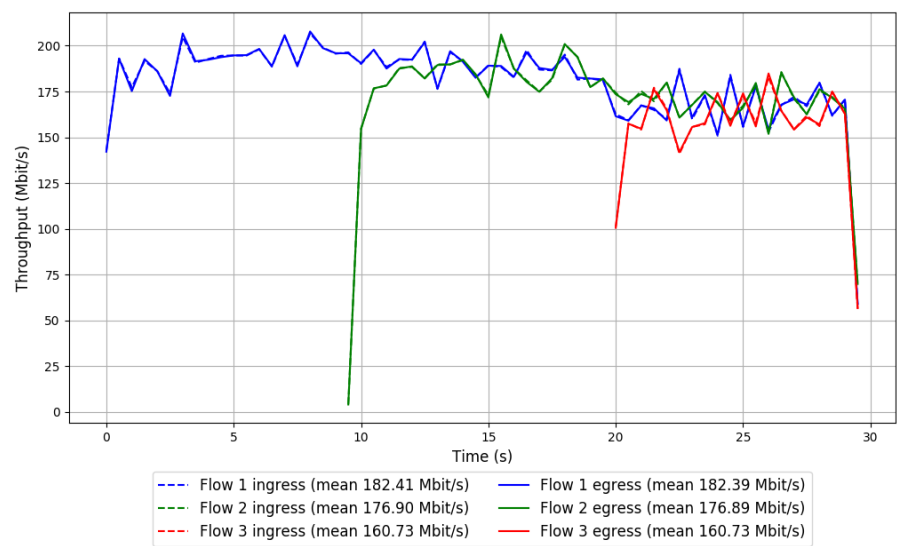


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-05 22:21:35
End at: 2017-12-05 22:22:05
Local clock offset: 0.628 ms
Remote clock offset: 1.383 ms

# Below is generated by plot.py at 2017-12-06 04:46:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 351.93 Mbit/s
95th percentile per-packet one-way delay: 5.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 182.39 Mbit/s
95th percentile per-packet one-way delay: 5.871 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 176.89 Mbit/s
95th percentile per-packet one-way delay: 3.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 160.73 Mbit/s
95th percentile per-packet one-way delay: 6.238 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-calib — Data Link



Run 3: Statistics of Indigo-calib

Start at: 2017-12-05 22:40:49

End at: 2017-12-05 22:41:19

Local clock offset: 0.601 ms

Remote clock offset: 1.452 ms

# Below is generated by plot.py at 2017-12-06 04:46:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 321.20 Mbit/s

95th percentile per-packet one-way delay: 27.439 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 150.21 Mbit/s

95th percentile per-packet one-way delay: 29.254 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 176.23 Mbit/s

95th percentile per-packet one-way delay: 4.016 ms

Loss rate: 0.00%

-- Flow 3:

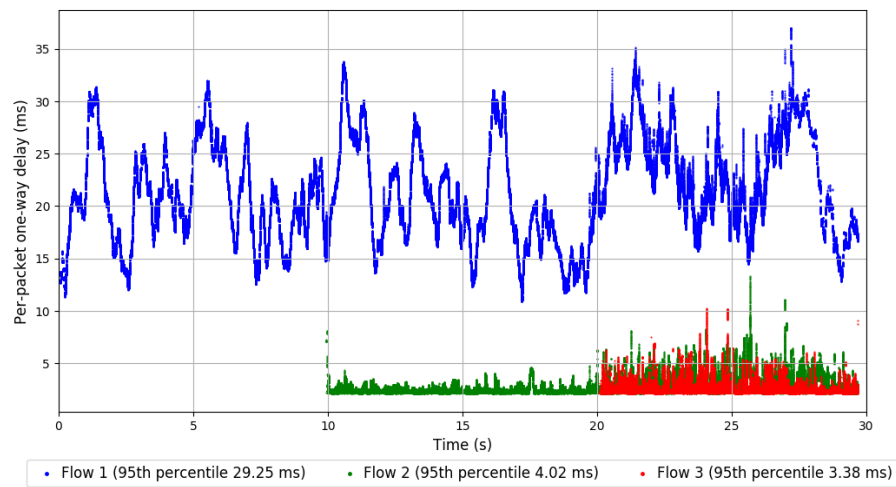
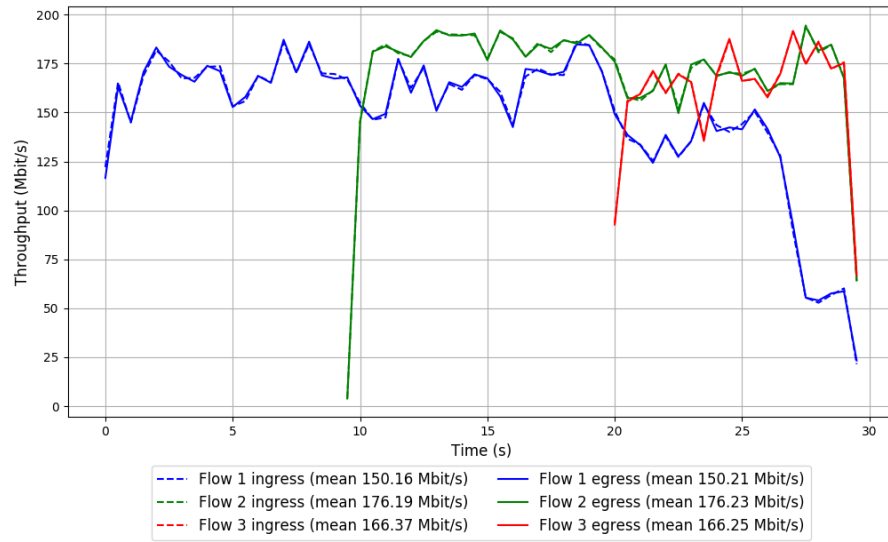
Average throughput: 166.25 Mbit/s

95th percentile per-packet one-way delay: 3.377 ms

Loss rate: 0.00%



### Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-12-05 23:00:07

End at: 2017-12-05 23:00:37

Local clock offset: 0.588 ms

Remote clock offset: 1.46 ms

# Below is generated by plot.py at 2017-12-06 04:46:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 294.79 Mbit/s

95th percentile per-packet one-way delay: 31.750 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 123.21 Mbit/s

95th percentile per-packet one-way delay: 33.626 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 179.12 Mbit/s

95th percentile per-packet one-way delay: 2.736 ms

Loss rate: 0.00%

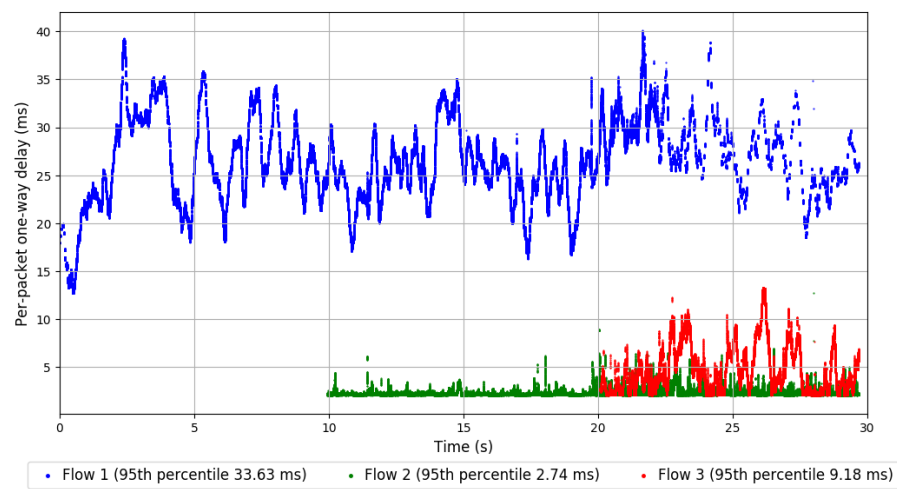
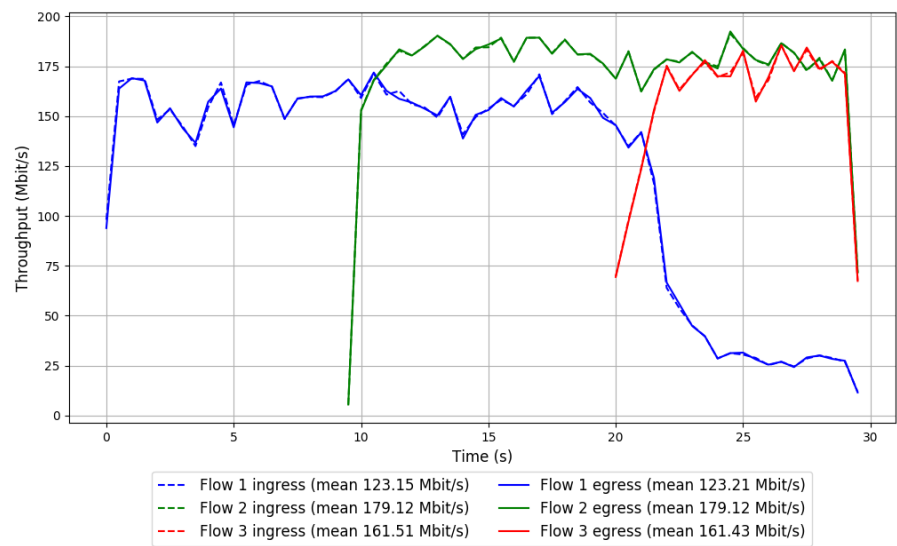
-- Flow 3:

Average throughput: 161.43 Mbit/s

95th percentile per-packet one-way delay: 9.177 ms

Loss rate: 0.06%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-05 23:19:06

End at: 2017-12-05 23:19:36

Local clock offset: 0.501 ms

Remote clock offset: 1.907 ms

# Below is generated by plot.py at 2017-12-06 04:46:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 297.23 Mbit/s

95th percentile per-packet one-way delay: 25.254 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 188.31 Mbit/s

95th percentile per-packet one-way delay: 2.581 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 136.58 Mbit/s

95th percentile per-packet one-way delay: 28.083 ms

Loss rate: 0.04%

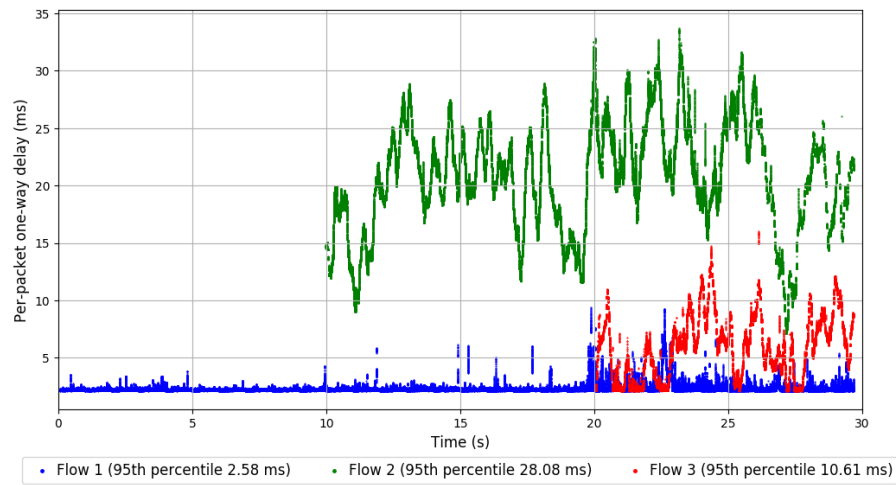
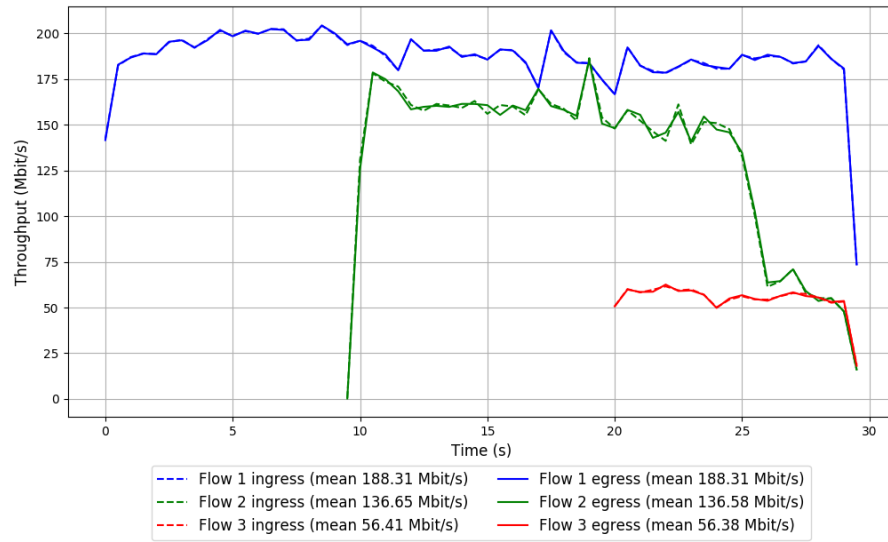
-- Flow 3:

Average throughput: 56.38 Mbit/s

95th percentile per-packet one-way delay: 10.611 ms

Loss rate: 0.09%

## Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-12-05 23:37:58

End at: 2017-12-05 23:38:28

Local clock offset: 0.394 ms

Remote clock offset: 2.176 ms

# Below is generated by plot.py at 2017-12-06 04:46:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 258.61 Mbit/s

95th percentile per-packet one-way delay: 17.907 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 183.37 Mbit/s

95th percentile per-packet one-way delay: 9.129 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 27.52 Mbit/s

95th percentile per-packet one-way delay: 27.135 ms

Loss rate: 0.00%

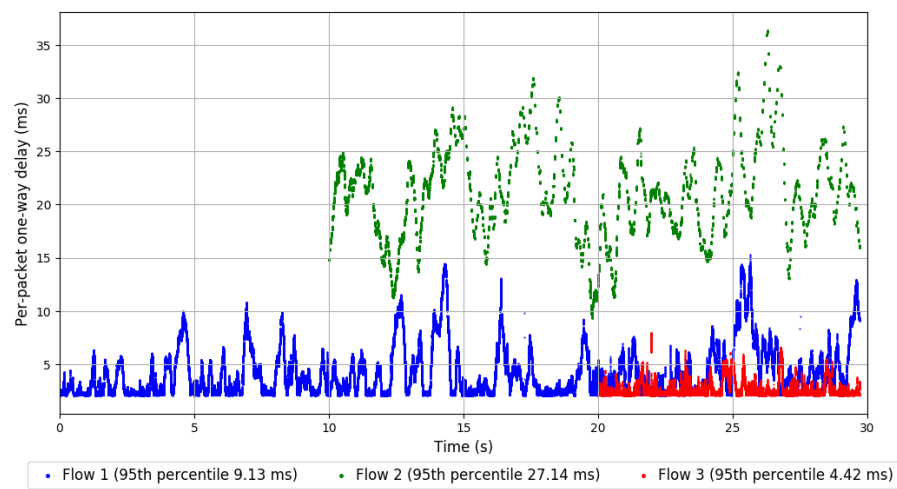
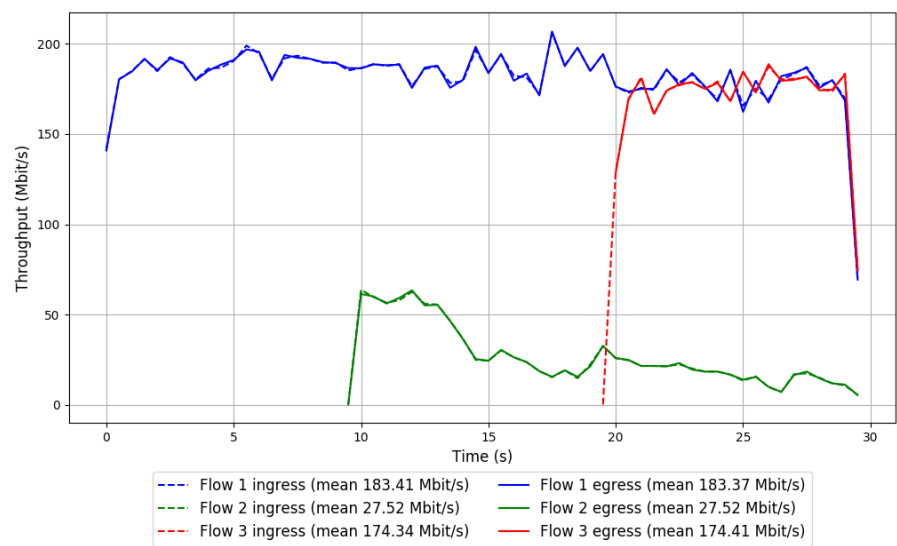
-- Flow 3:

Average throughput: 174.41 Mbit/s

95th percentile per-packet one-way delay: 4.417 ms

Loss rate: 0.00%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-12-05 23:57:06

End at: 2017-12-05 23:57:36

Local clock offset: 0.267 ms

Remote clock offset: 1.937 ms

# Below is generated by plot.py at 2017-12-06 04:47:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 346.65 Mbit/s

95th percentile per-packet one-way delay: 3.798 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 180.03 Mbit/s

95th percentile per-packet one-way delay: 3.476 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.52 Mbit/s

95th percentile per-packet one-way delay: 4.159 ms

Loss rate: 0.00%

-- Flow 3:

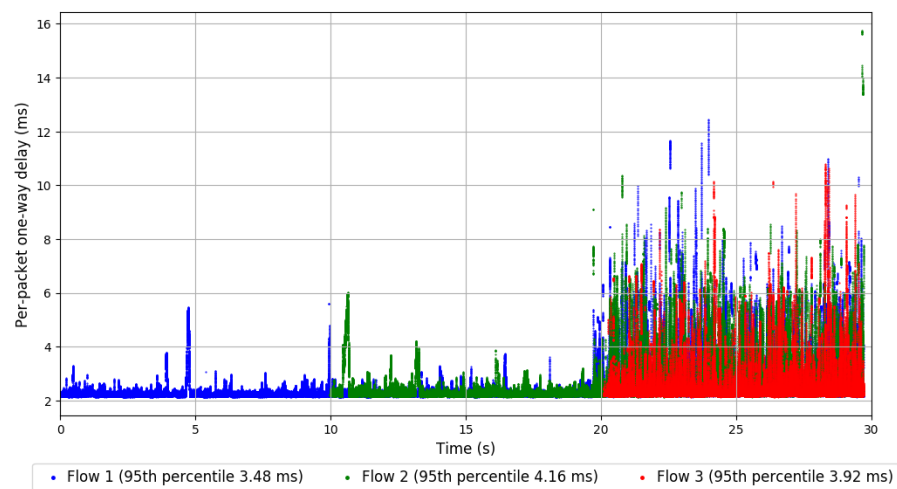
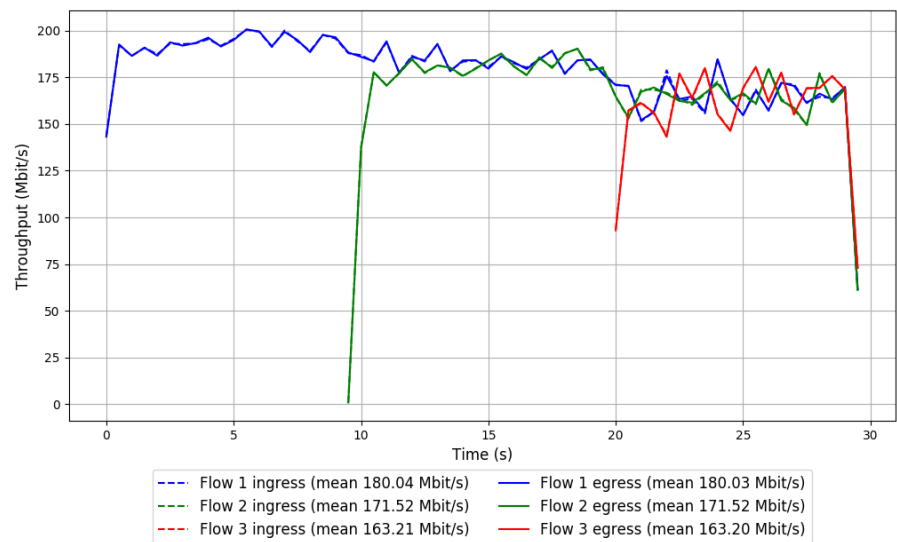
Average throughput: 163.20 Mbit/s

95th percentile per-packet one-way delay: 3.918 ms

Loss rate: 0.00%



Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-12-06 00:16:20

End at: 2017-12-06 00:16:50

Local clock offset: 0.151 ms

Remote clock offset: 1.704 ms

# Below is generated by plot.py at 2017-12-06 04:47:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 268.79 Mbit/s

95th percentile per-packet one-way delay: 42.201 ms

Loss rate: 3.46%

-- Flow 1:

Average throughput: 98.37 Mbit/s

95th percentile per-packet one-way delay: 38.745 ms

Loss rate: 7.42%

-- Flow 2:

Average throughput: 180.45 Mbit/s

95th percentile per-packet one-way delay: 3.378 ms

Loss rate: 0.00%

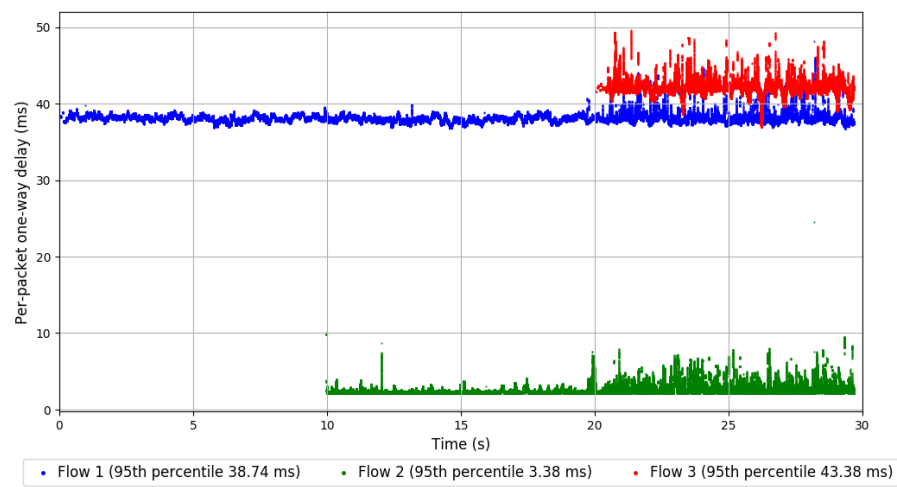
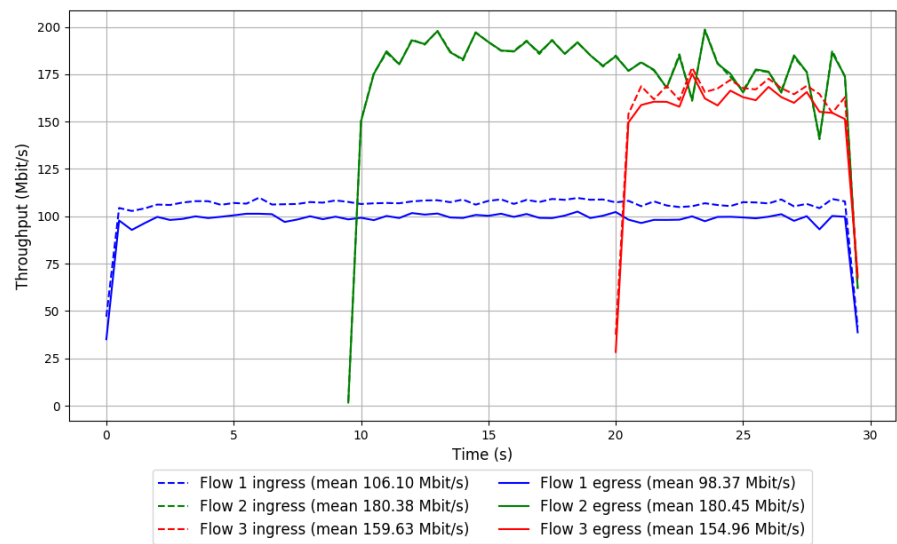
-- Flow 3:

Average throughput: 154.96 Mbit/s

95th percentile per-packet one-way delay: 43.377 ms

Loss rate: 3.39%

Run 8: Report of Indigo-calib — Data Link

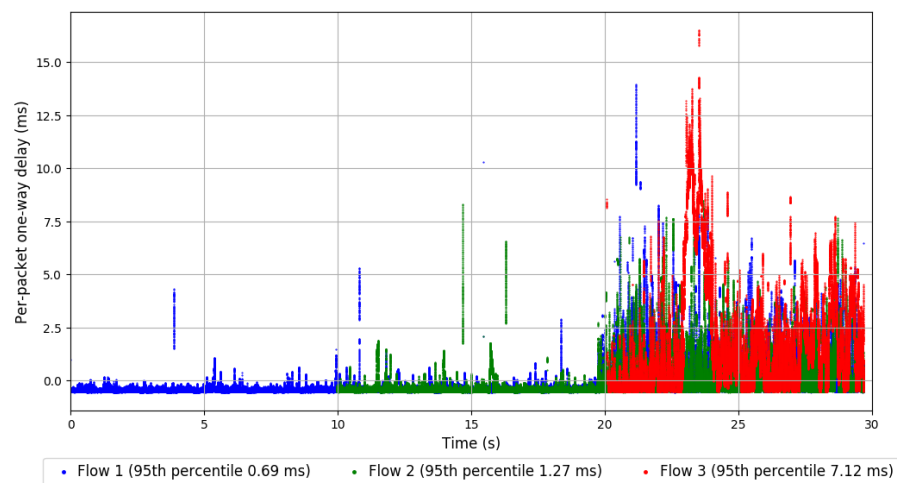
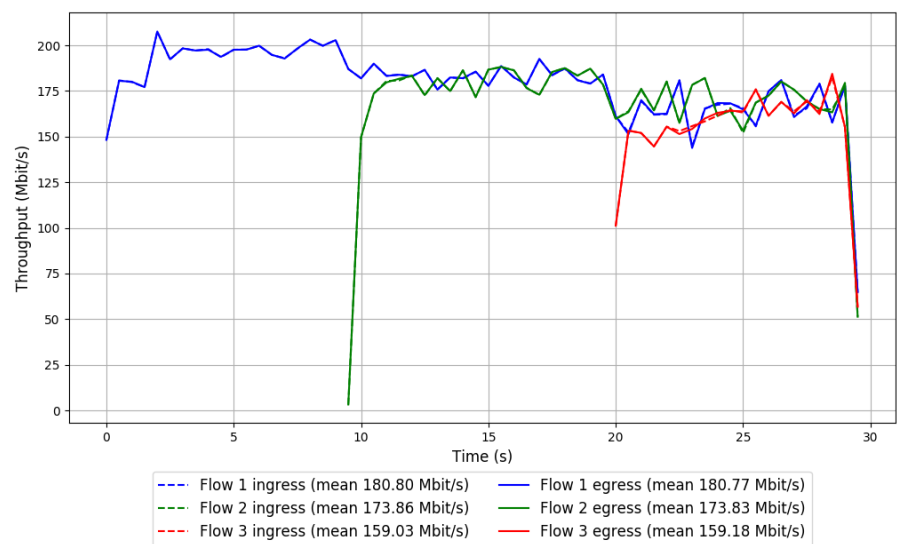


Run 9: Statistics of Indigo-calib

Start at: 2017-12-06 00:35:07  
End at: 2017-12-06 00:35:37  
Local clock offset: 0.045 ms  
Remote clock offset: -1.389 ms

# Below is generated by plot.py at 2017-12-06 04:47:27  
# Datalink statistics  
-- Total of 3 flows:  
Average throughput: 347.81 Mbit/s  
95th percentile per-packet one-way delay: 2.319 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 180.77 Mbit/s  
95th percentile per-packet one-way delay: 0.688 ms  
Loss rate: 0.00%  
-- Flow 2:  
Average throughput: 173.83 Mbit/s  
95th percentile per-packet one-way delay: 1.274 ms  
Loss rate: 0.00%  
-- Flow 3:  
Average throughput: 159.18 Mbit/s  
95th percentile per-packet one-way delay: 7.123 ms  
Loss rate: 0.00%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-06 00:54:12

End at: 2017-12-06 00:54:42

Local clock offset: -0.19 ms

Remote clock offset: 0.809 ms

# Below is generated by plot.py at 2017-12-06 04:47:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 345.93 Mbit/s

95th percentile per-packet one-way delay: 8.652 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 176.93 Mbit/s

95th percentile per-packet one-way delay: 9.855 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 174.26 Mbit/s

95th percentile per-packet one-way delay: 3.856 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 164.44 Mbit/s

95th percentile per-packet one-way delay: 4.154 ms

Loss rate: 0.00%

Run 10: Report of Indigo-calib — Data Link

