

## Pantheon Report

Generated at 2018-01-17 13:50:59 (UTC).

Data path: GCE Tokyo Ethernet (*remote*) → GCE London Ethernet (*local*).

Repeated the test of 17 congestion control schemes 10 times.

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

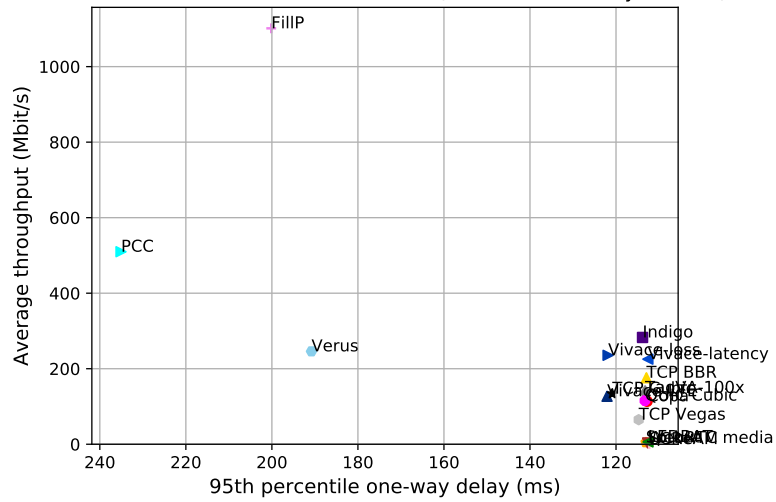
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

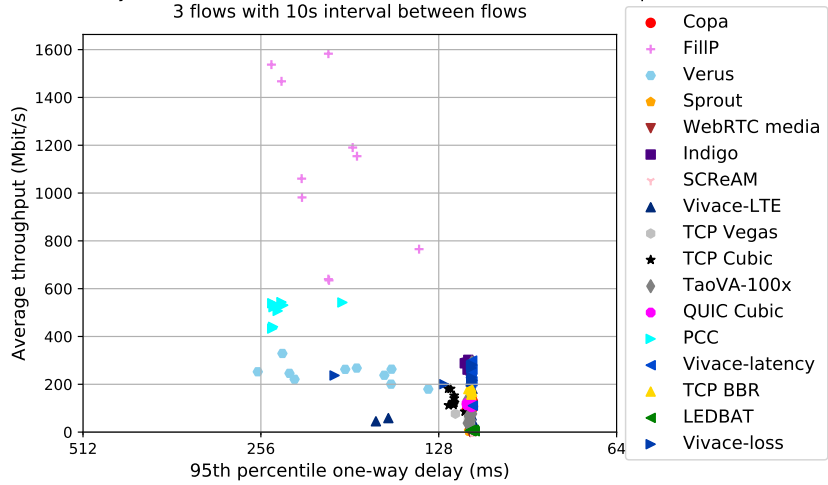
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE Tokyo Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Tokyo Ethernet to GCE London 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        | 8      | 92.09                  | 88.77  | 77.18  | 112.80                    | 112.61 | 114.18 | 0.80               | 1.28   | 3.23   |
| TCP Cubic      | 10     | 68.11                  | 76.33  | 46.89  | 121.27                    | 119.79 | 119.86 | 0.86               | 1.39   | 4.13   |
| LEDBAT         | 10     | 3.40                   | 3.08   | 1.93   | 112.65                    | 112.40 | 112.19 | 1.73               | 2.18   | 4.67   |
| PCC            | 9      | 437.82                 | 92.30  | 33.84  | 234.26                    | 234.31 | 229.08 | 2.82               | 3.17   | 4.57   |
| QUIC Cubic     | 8      | 61.38                  | 59.42  | 45.30  | 111.64                    | 113.32 | 112.13 | 0.82               | 0.97   | 14.78  |
| SCReAM         | 10     | 0.21                   | 0.20   | 0.20   | 111.77                    | 111.92 | 111.83 | 0.64               | 1.16   | 2.20   |
| WebRTC media   | 10     | 1.89                   | 1.16   | 0.40   | 112.06                    | 112.55 | 112.27 | 0.94               | 1.25   | 3.76   |
| Sprout         | 10     | 2.51                   | 2.35   | 1.66   | 113.02                    | 113.04 | 113.15 | 0.84               | 1.29   | 3.36   |
| TaoVA-100x     | 10     | 65.12                  | 84.63  | 66.34  | 112.93                    | 112.82 | 112.56 | 1.09               | 1.44   | 3.41   |
| TCP Vegas      | 6      | 31.04                  | 40.43  | 22.10  | 114.32                    | 114.58 | 114.54 | 1.14               | 1.25   | 3.56   |
| Verus          | 10     | 144.89                 | 137.50 | 36.42  | 181.31                    | 189.73 | 176.84 | 1.17               | 1.85   | 7.69   |
| Copa           | 10     | 61.68                  | 61.10  | 47.24  | 112.49                    | 112.52 | 111.97 | 0.76               | 1.18   | 5.44   |
| FillP          | 10     | 594.45                 | 503.35 | 534.25 | 193.63                    | 186.02 | 187.75 | 1.35               | 2.32   | 4.15   |
| Indigo         | 10     | 151.60                 | 141.73 | 116.58 | 113.11                    | 114.24 | 116.38 | 0.75               | 1.14   | 2.85   |
| Vivace-latency | 10     | 129.41                 | 112.47 | 78.58  | 395.99                    | 115.71 | 120.48 | 0.61               | 1.31   | 3.09   |
| Vivace-loss    | 10     | 147.77                 | 94.16  | 78.73  | 112.51                    | 112.63 | 129.13 | 0.82               | 1.11   | 3.17   |
| Vivace-LTE     | 10     | 57.03                  | 74.33  | 64.29  | 124.50                    | 122.70 | 117.13 | 0.21               | 0.64   | 2.23   |

Run 1: Statistics of TCP BBR

Start at: 2018-01-17 06:14:36

End at: 2018-01-17 06:15:06

# Below is generated by plot.py at 2018-01-17 12:32:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 184.89 Mbit/s

95th percentile per-packet one-way delay: 113.090 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 97.72 Mbit/s

95th percentile per-packet one-way delay: 113.086 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 90.32 Mbit/s

95th percentile per-packet one-way delay: 113.459 ms

Loss rate: 1.20%

-- Flow 3:

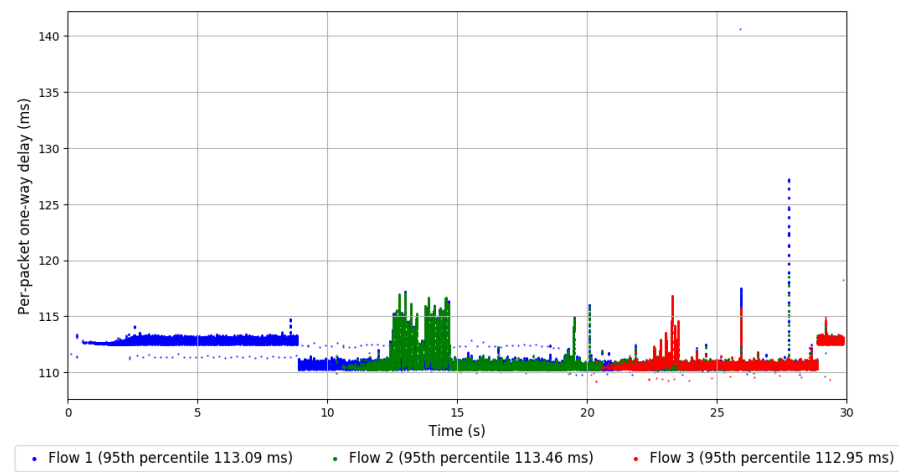
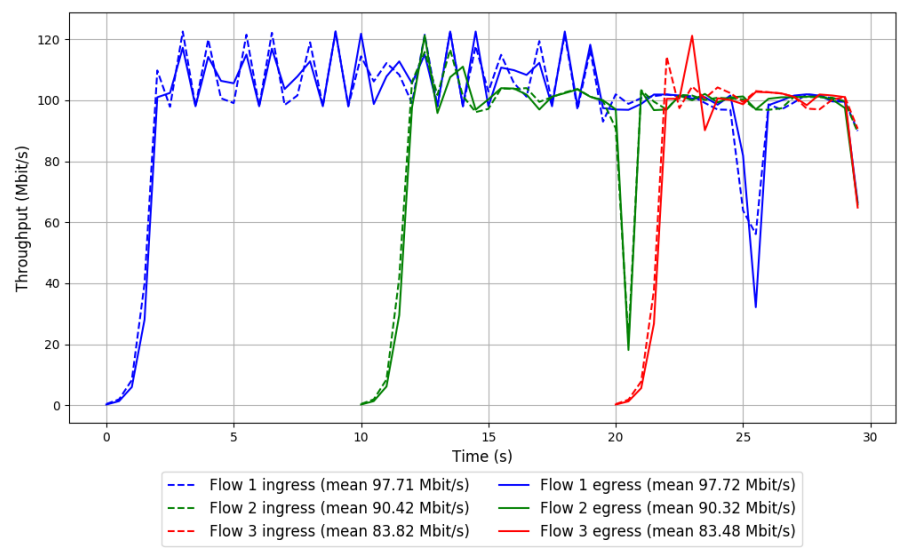
Average throughput: 83.48 Mbit/s

95th percentile per-packet one-way delay: 112.953 ms

Loss rate: 2.63%



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-17 06:33:03

End at: 2018-01-17 06:33:33

# Below is generated by plot.py at 2018-01-17 12:32:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 173.96 Mbit/s

95th percentile per-packet one-way delay: 112.785 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 89.37 Mbit/s

95th percentile per-packet one-way delay: 112.870 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 89.40 Mbit/s

95th percentile per-packet one-way delay: 110.922 ms

Loss rate: 1.21%

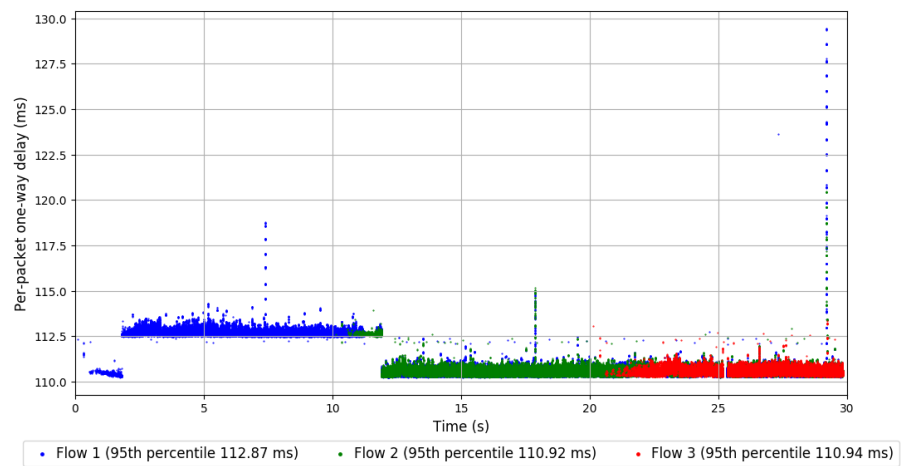
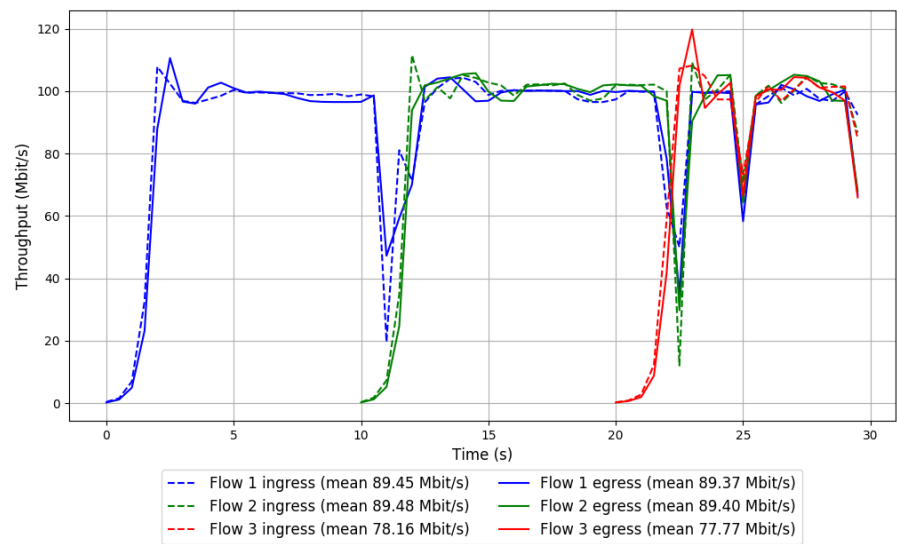
-- Flow 3:

Average throughput: 77.77 Mbit/s

95th percentile per-packet one-way delay: 110.940 ms

Loss rate: 2.76%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-17 06:51:11

End at: 2018-01-17 06:51:41

# Below is generated by plot.py at 2018-01-17 12:32:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 179.34 Mbit/s

95th percentile per-packet one-way delay: 112.870 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 90.80 Mbit/s

95th percentile per-packet one-way delay: 112.850 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 91.67 Mbit/s

95th percentile per-packet one-way delay: 112.919 ms

Loss rate: 1.21%

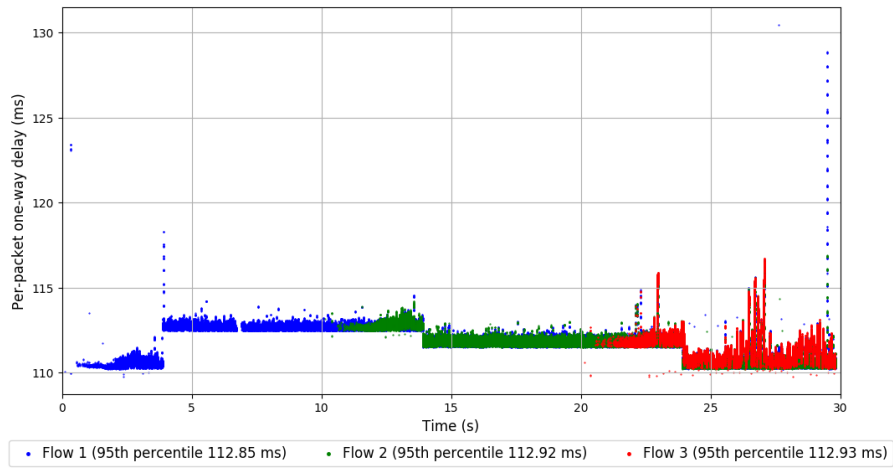
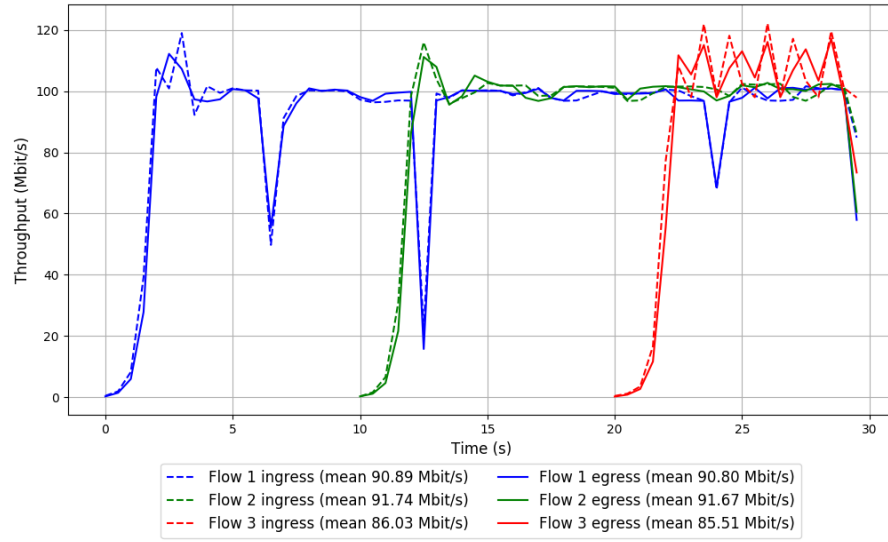
-- Flow 3:

Average throughput: 85.51 Mbit/s

95th percentile per-packet one-way delay: 112.932 ms

Loss rate: 2.88%

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



Run 4: Statistics of TCP BBR

Start at: 2018-01-17 07:09:26

End at: 2018-01-17 07:09:56

# Below is generated by plot.py at 2018-01-17 12:32:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 178.39 Mbit/s

95th percentile per-packet one-way delay: 112.751 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 93.16 Mbit/s

95th percentile per-packet one-way delay: 112.819 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 87.79 Mbit/s

95th percentile per-packet one-way delay: 110.878 ms

Loss rate: 1.24%

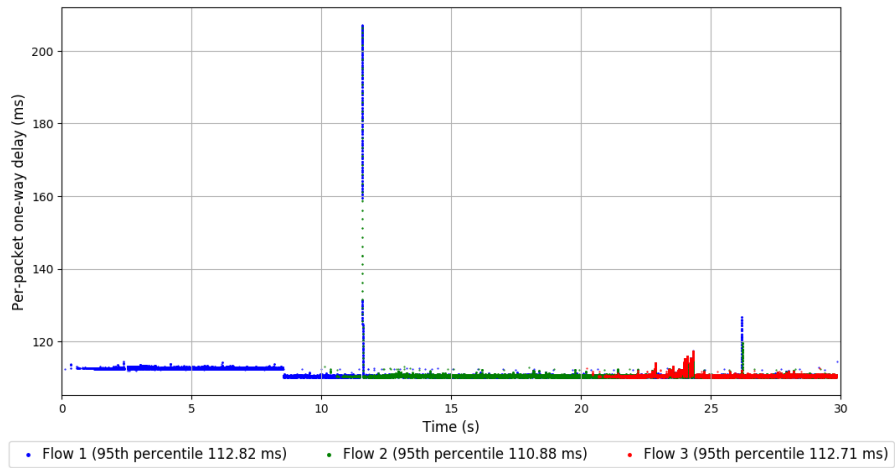
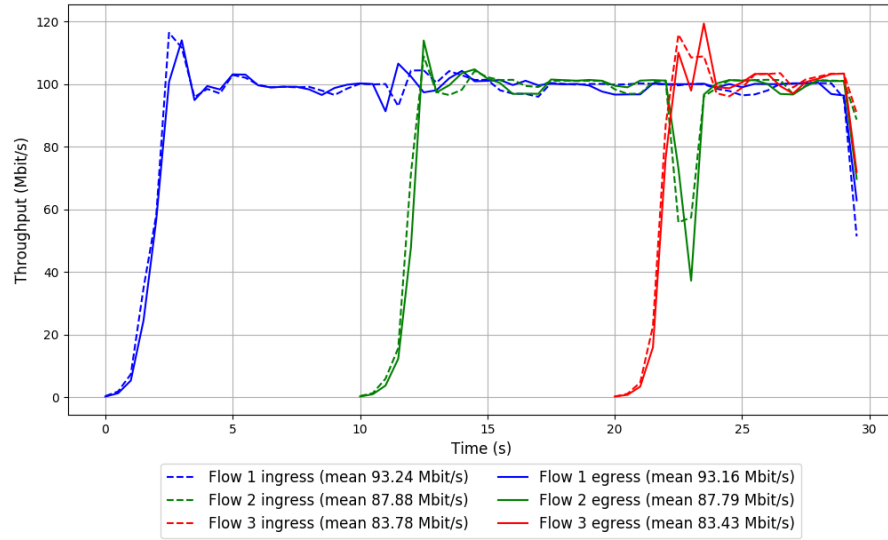
-- Flow 3:

Average throughput: 83.43 Mbit/s

95th percentile per-packet one-way delay: 112.709 ms

Loss rate: 2.71%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-17 07:27:37

End at: 2018-01-17 07:28:07

# Below is generated by plot.py at 2018-01-17 12:32:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 187.24 Mbit/s

95th percentile per-packet one-way delay: 112.774 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 112.694 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 95.87 Mbit/s

95th percentile per-packet one-way delay: 113.324 ms

Loss rate: 1.16%

-- Flow 3:

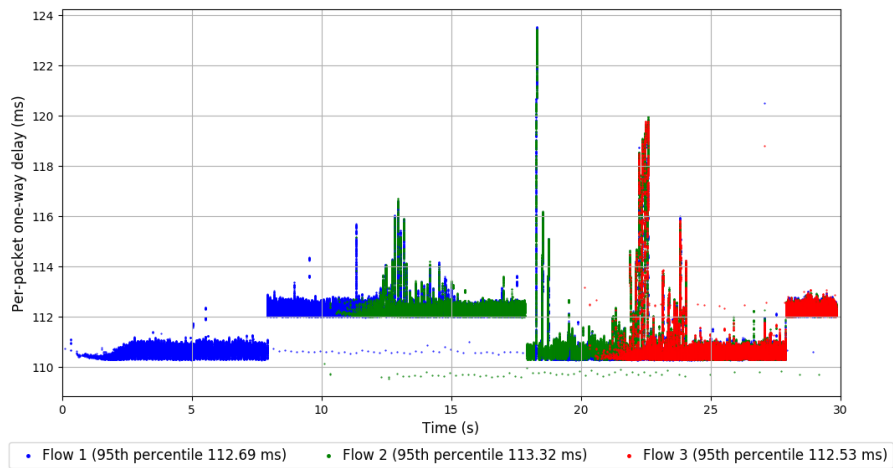
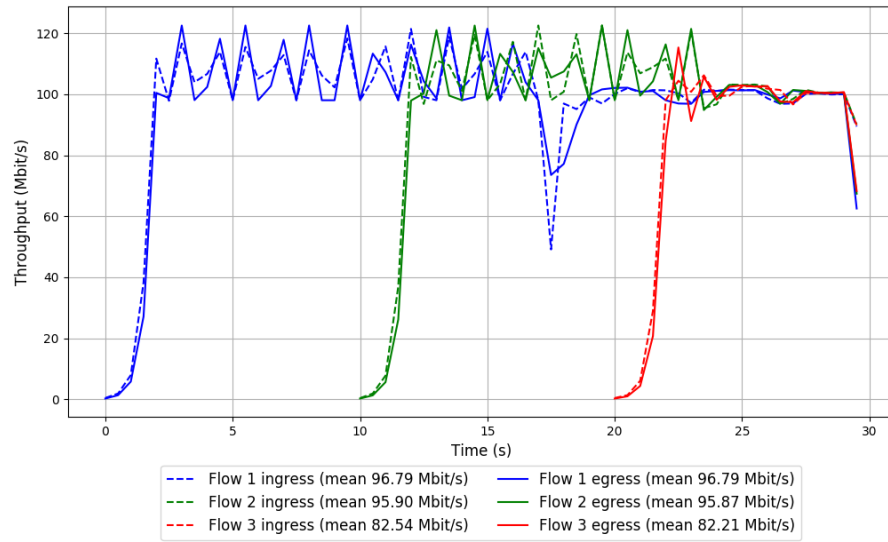
Average throughput: 82.21 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 2.69%



# Run 5: Report of TCP BBR — Data Link

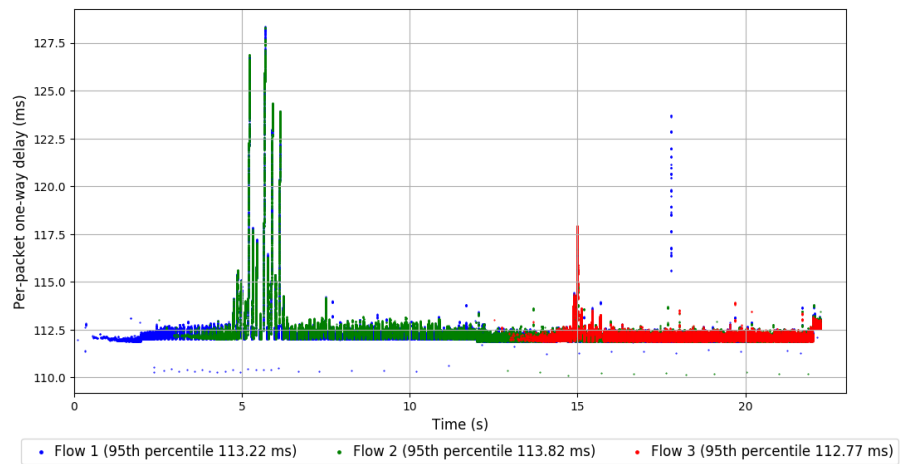
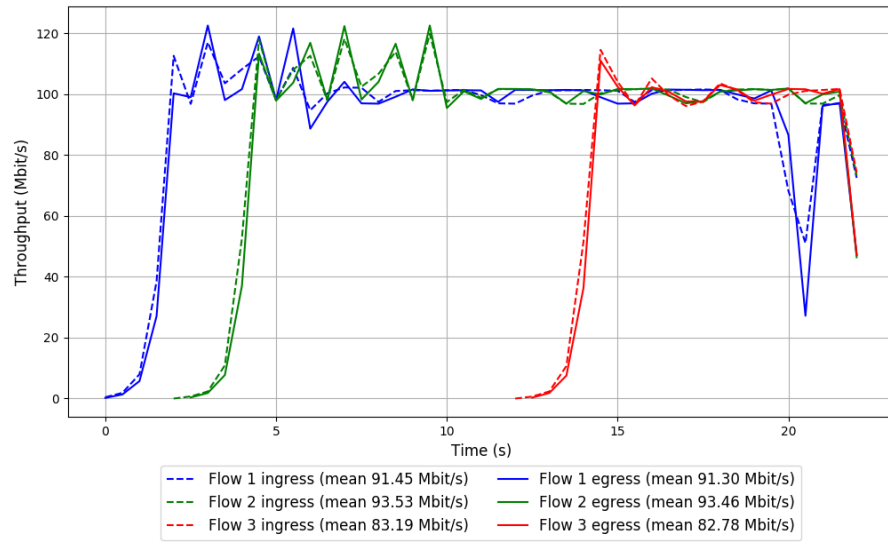


Run 6: Statistics of TCP BBR

Start at: 2018-01-17 07:48:05

End at: 2018-01-17 07:48:35

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



Run 7: Statistics of TCP BBR

Start at: 2018-01-17 08:07:12

End at: 2018-01-17 08:07:42

# Below is generated by plot.py at 2018-01-17 12:32:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 167.98 Mbit/s

95th percentile per-packet one-way delay: 112.378 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 91.12 Mbit/s

95th percentile per-packet one-way delay: 112.339 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 84.22 Mbit/s

95th percentile per-packet one-way delay: 112.352 ms

Loss rate: 2.06%

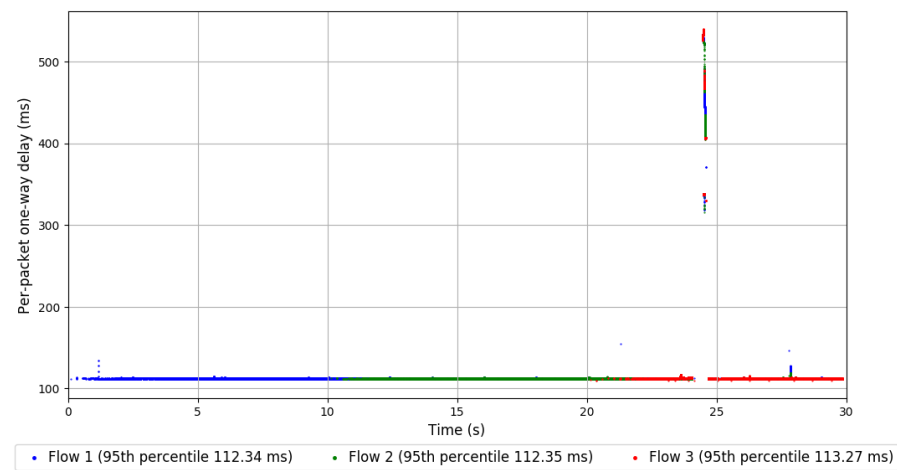
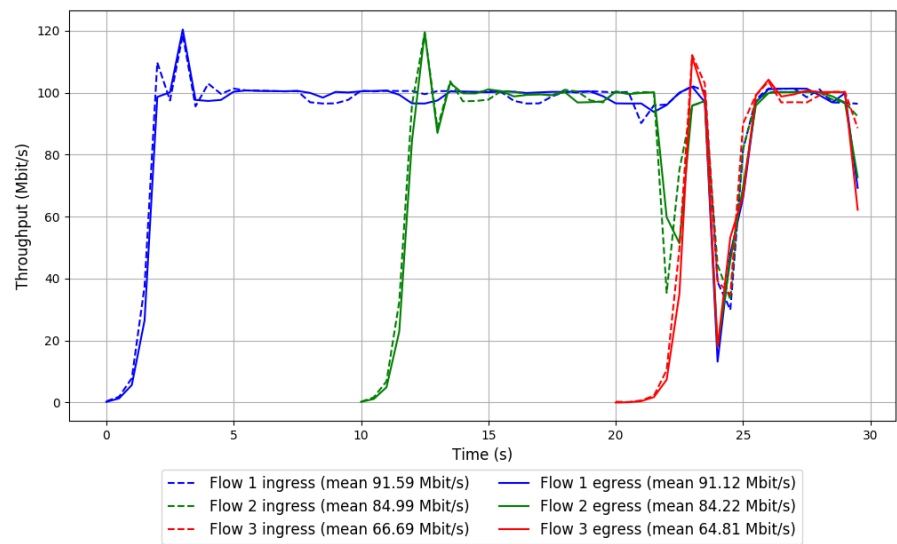
-- Flow 3:

Average throughput: 64.81 Mbit/s

95th percentile per-packet one-way delay: 113.266 ms

Loss rate: 5.00%

Run 7: Report of TCP BBR — Data Link

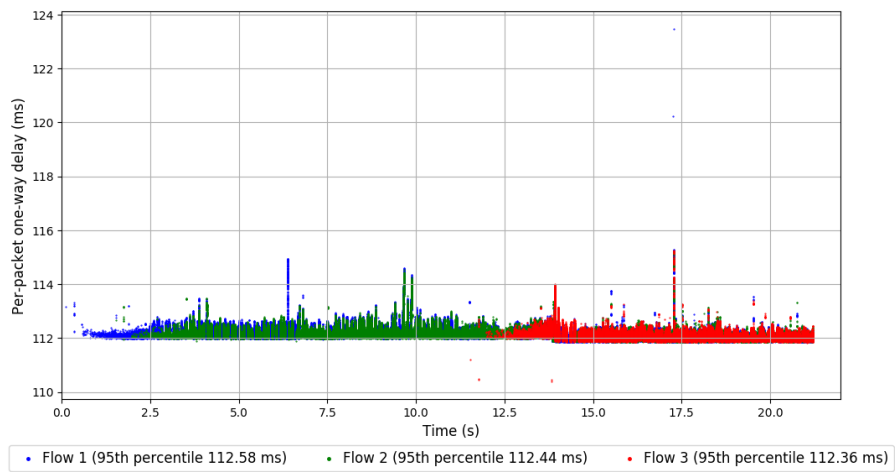
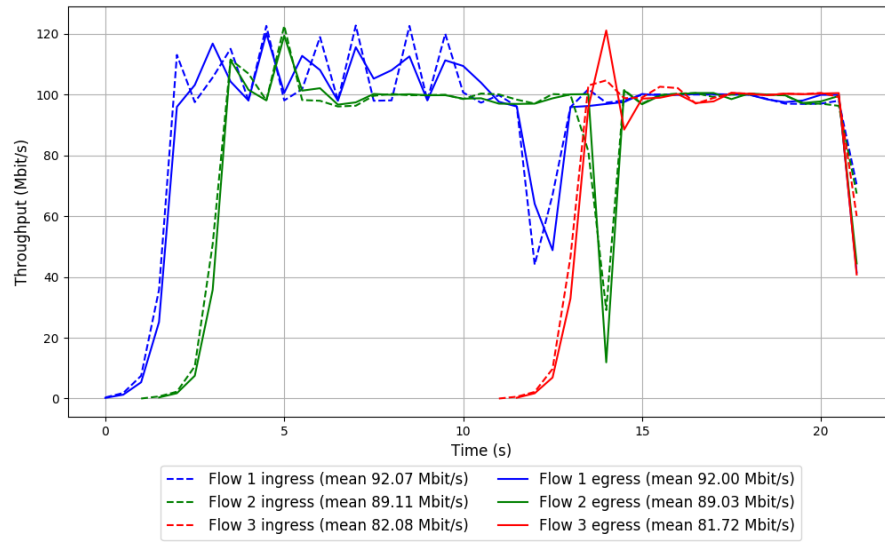


Run 8: Statistics of TCP BBR

Start at: 2018-01-17 08:25:02

End at: 2018-01-17 08:25:32

# Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-17 08:43:13

End at: 2018-01-17 08:43:43

# Below is generated by plot.py at 2018-01-17 12:34:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 156.73 Mbit/s

95th percentile per-packet one-way delay: 112.747 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 86.94 Mbit/s

95th percentile per-packet one-way delay: 112.600 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 78.41 Mbit/s

95th percentile per-packet one-way delay: 112.851 ms

Loss rate: 0.97%

-- Flow 3:

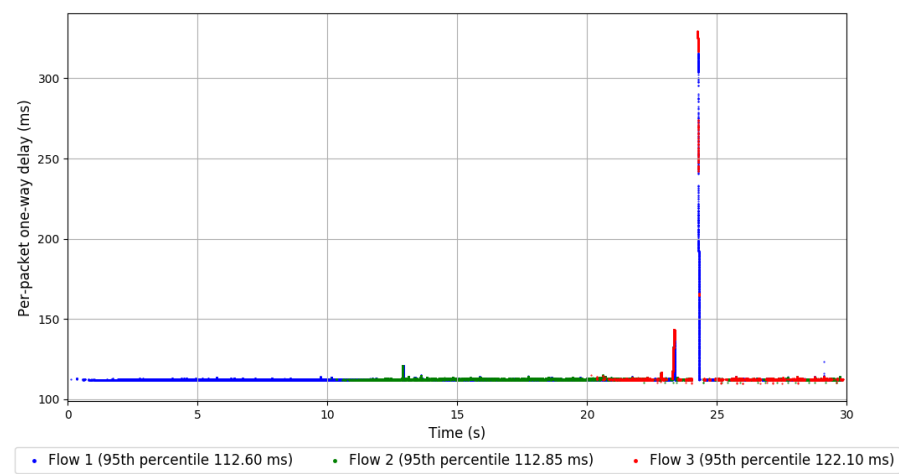
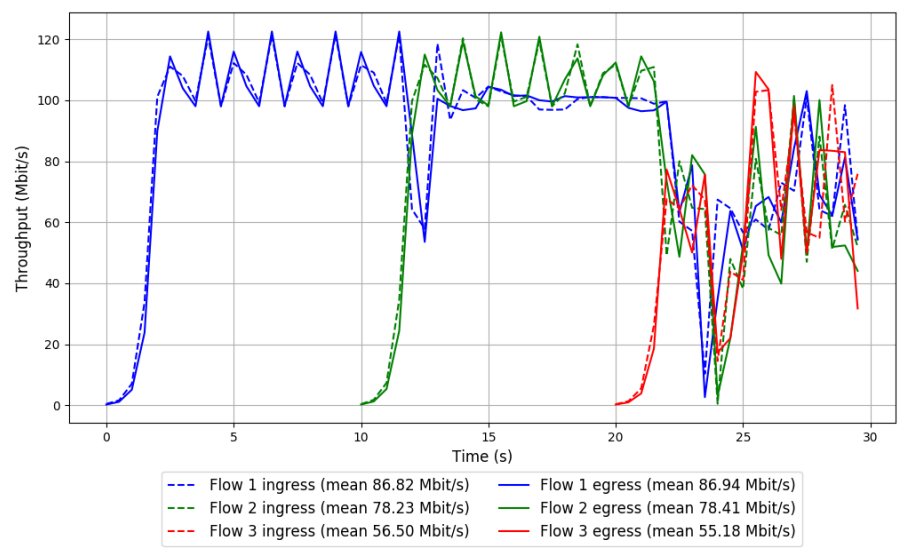
Average throughput: 55.18 Mbit/s

95th percentile per-packet one-way delay: 122.099 ms

Loss rate: 4.57%



Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-17 09:01:10

End at: 2018-01-17 09:01:40

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 180.02 Mbit/s

95th percentile per-packet one-way delay: 114.050 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 90.86 Mbit/s

95th percentile per-packet one-way delay: 113.123 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 92.44 Mbit/s

95th percentile per-packet one-way delay: 114.177 ms

Loss rate: 1.19%

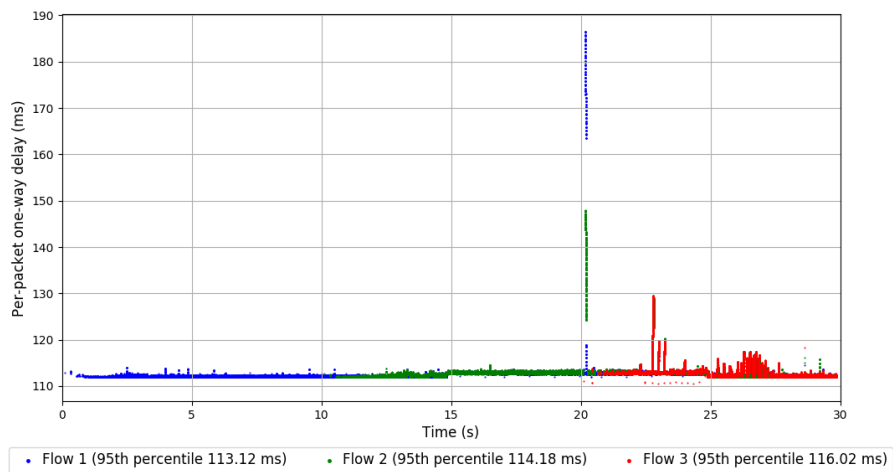
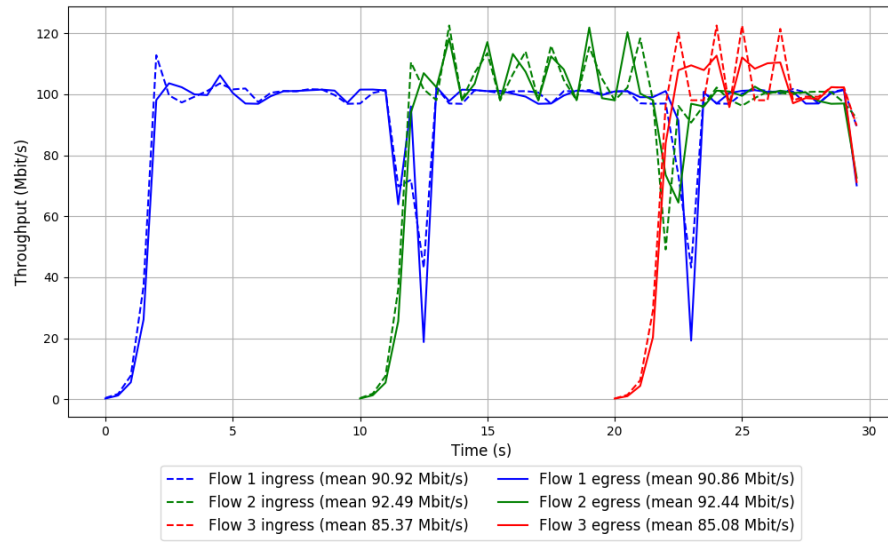
-- Flow 3:

Average throughput: 85.08 Mbit/s

95th percentile per-packet one-way delay: 116.017 ms

Loss rate: 2.59%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-17 06:17:29

End at: 2018-01-17 06:17:59

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.78 Mbit/s

95th percentile per-packet one-way delay: 115.701 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 59.54 Mbit/s

95th percentile per-packet one-way delay: 115.822 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 15.82 Mbit/s

95th percentile per-packet one-way delay: 113.862 ms

Loss rate: 3.05%

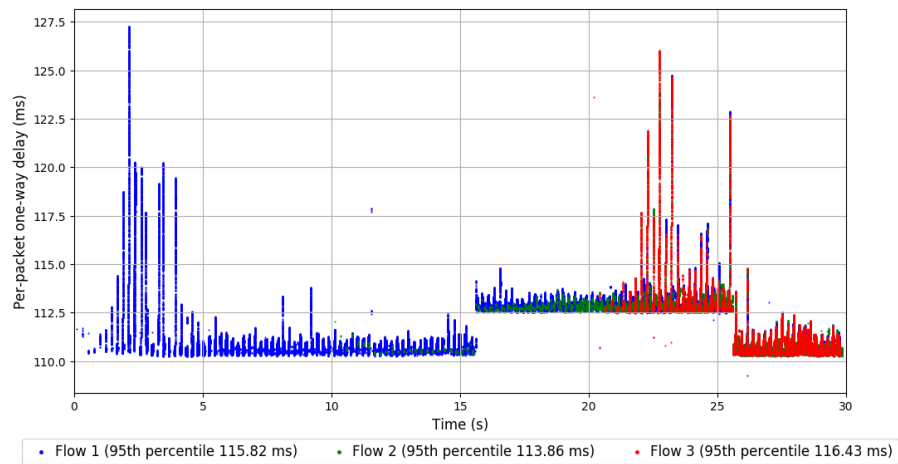
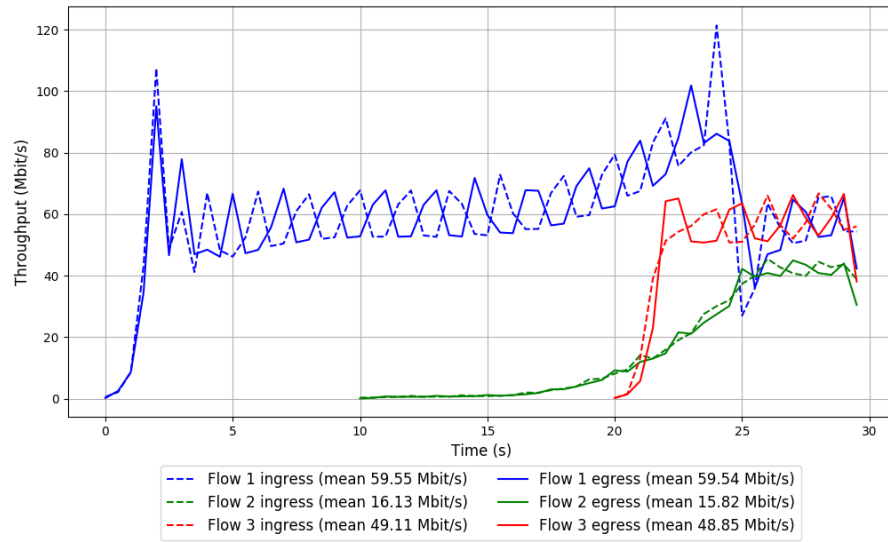
-- Flow 3:

Average throughput: 48.85 Mbit/s

95th percentile per-packet one-way delay: 116.432 ms

Loss rate: 2.91%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-17 06:35:54

End at: 2018-01-17 06:36:24

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 140.82 Mbit/s

95th percentile per-packet one-way delay: 120.524 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 62.44 Mbit/s

95th percentile per-packet one-way delay: 120.189 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 99.56 Mbit/s

95th percentile per-packet one-way delay: 120.657 ms

Loss rate: 1.25%

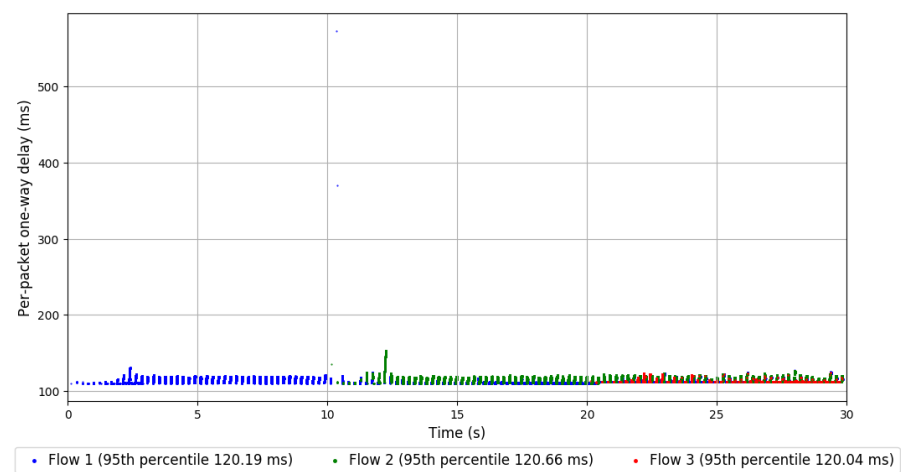
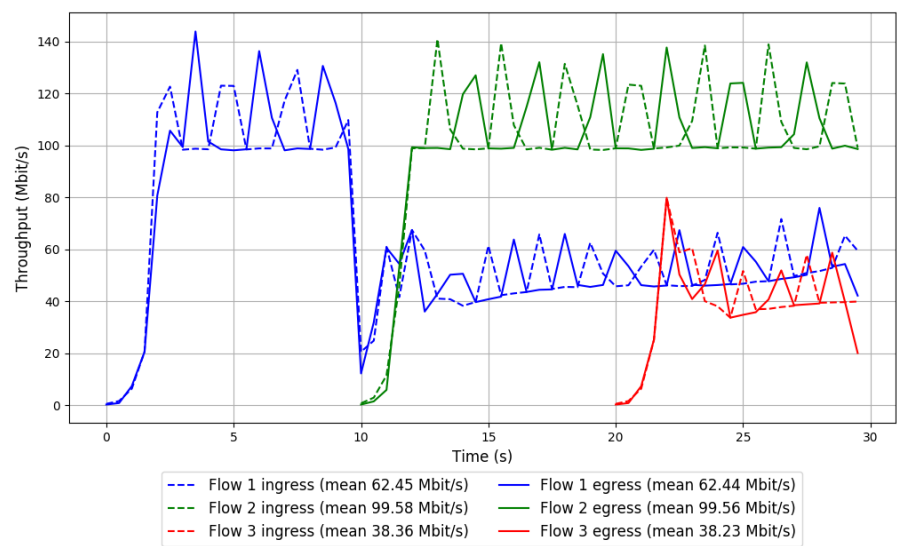
-- Flow 3:

Average throughput: 38.23 Mbit/s

95th percentile per-packet one-way delay: 120.043 ms

Loss rate: 2.61%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-17 06:54:03

End at: 2018-01-17 06:54:33

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.72 Mbit/s

95th percentile per-packet one-way delay: 120.830 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 60.22 Mbit/s

95th percentile per-packet one-way delay: 121.424 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 99.85 Mbit/s

95th percentile per-packet one-way delay: 120.347 ms

Loss rate: 1.33%

-- Flow 3:

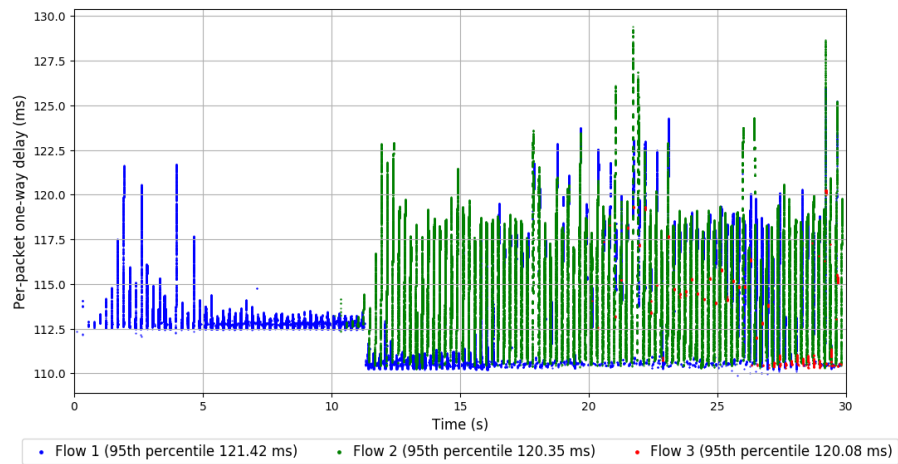
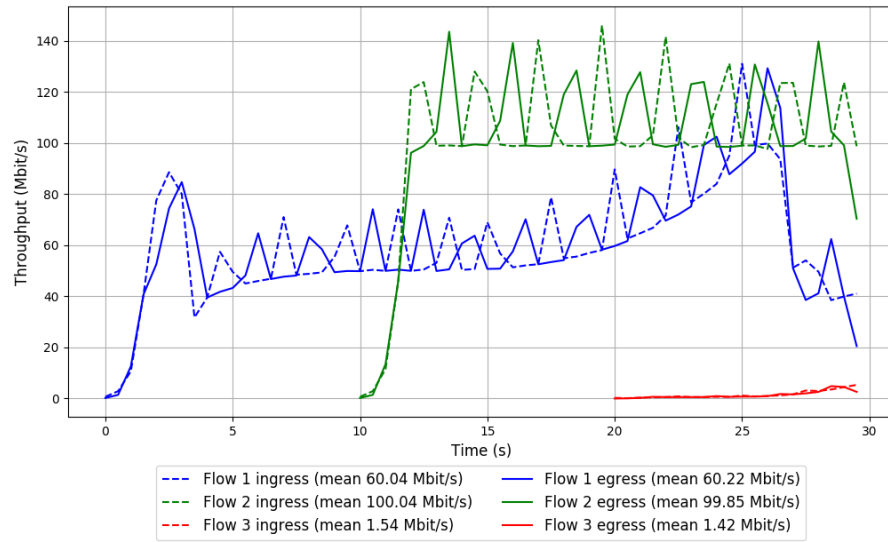
Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 120.079 ms

Loss rate: 9.98%



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



Run 4: Statistics of TCP Cubic

Start at: 2018-01-17 07:12:19

End at: 2018-01-17 07:12:49

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 152.48 Mbit/s

95th percentile per-packet one-way delay: 120.547 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 73.61 Mbit/s

95th percentile per-packet one-way delay: 120.554 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 75.66 Mbit/s

95th percentile per-packet one-way delay: 121.083 ms

Loss rate: 1.06%

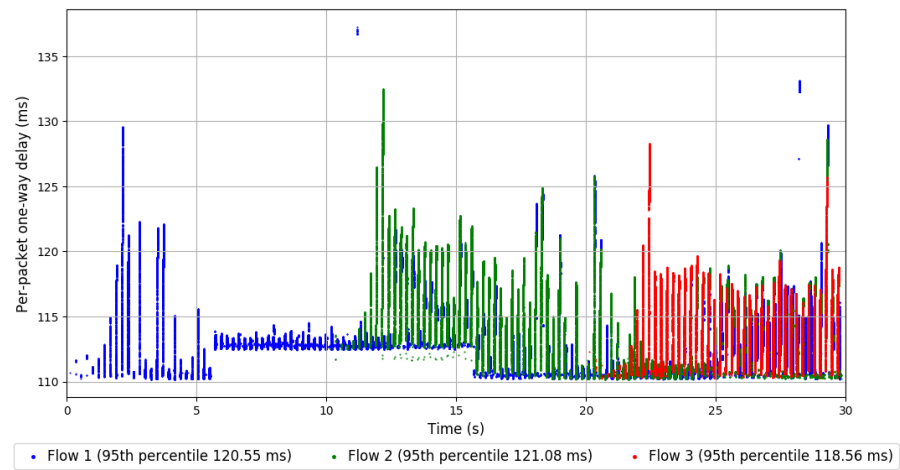
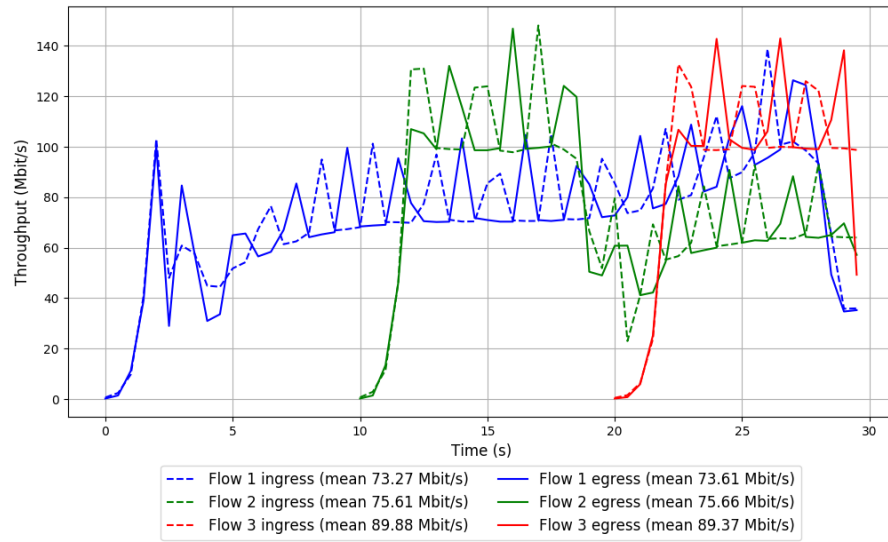
-- Flow 3:

Average throughput: 89.37 Mbit/s

95th percentile per-packet one-way delay: 118.561 ms

Loss rate: 2.80%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-17 07:30:39

End at: 2018-01-17 07:31:09

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 114.10 Mbit/s

95th percentile per-packet one-way delay: 120.831 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 64.17 Mbit/s

95th percentile per-packet one-way delay: 121.309 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 52.23 Mbit/s

95th percentile per-packet one-way delay: 114.805 ms

Loss rate: 1.49%

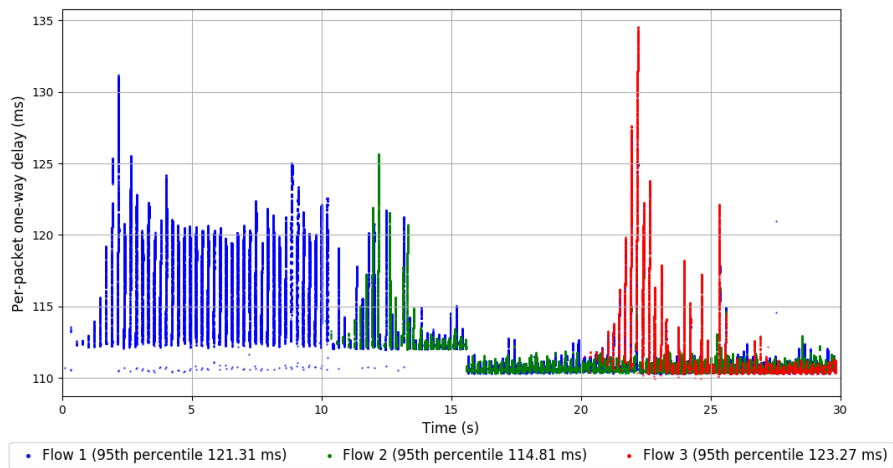
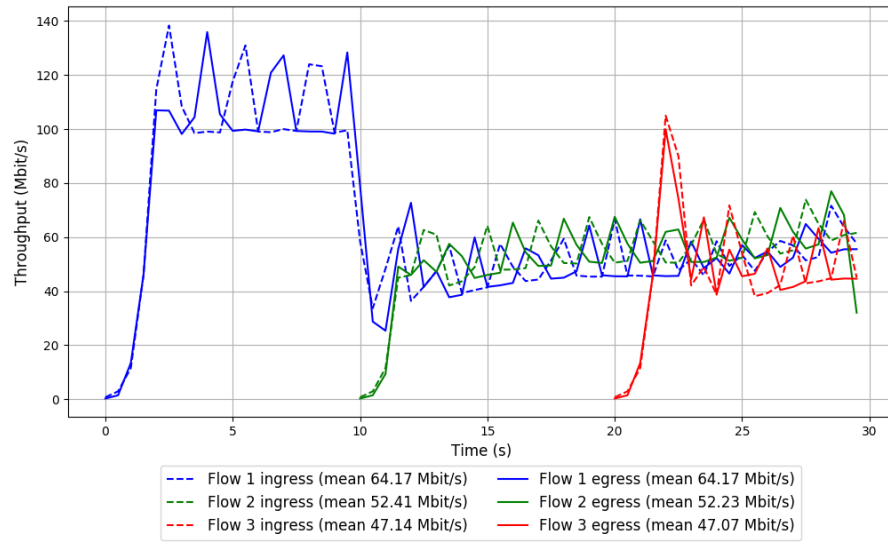
-- Flow 3:

Average throughput: 47.07 Mbit/s

95th percentile per-packet one-way delay: 123.273 ms

Loss rate: 2.42%

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



Run 6: Statistics of TCP Cubic

Start at: 2018-01-17 07:51:29

End at: 2018-01-17 07:51:59

# Below is generated by plot.py at 2018-01-17 12:34:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.07 Mbit/s

95th percentile per-packet one-way delay: 120.988 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 58.77 Mbit/s

95th percentile per-packet one-way delay: 120.460 ms

Loss rate: 1.62%

-- Flow 2:

Average throughput: 93.17 Mbit/s

95th percentile per-packet one-way delay: 121.193 ms

Loss rate: 0.60%

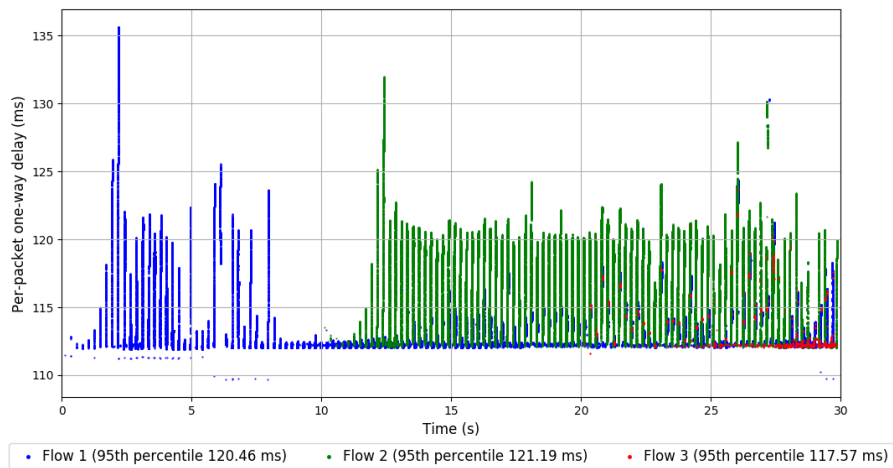
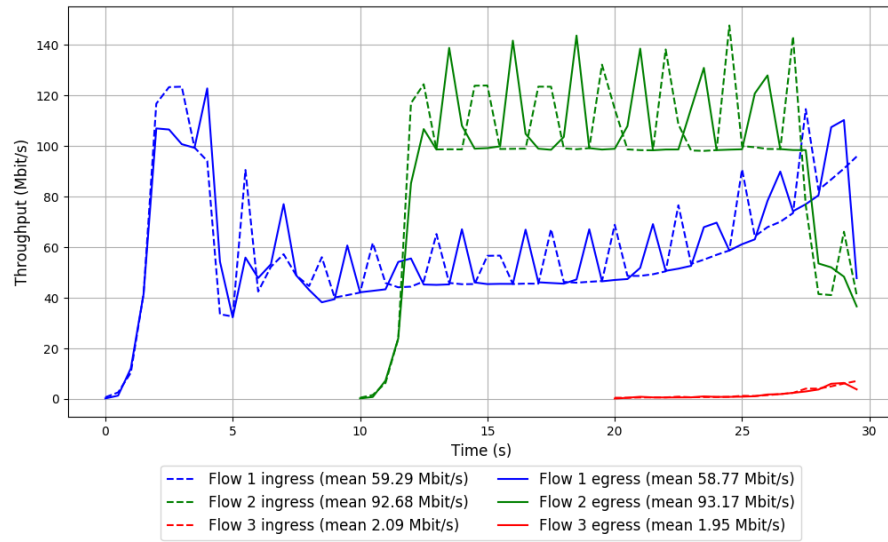
-- Flow 3:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 117.570 ms

Loss rate: 9.04%

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



Run 7: Statistics of TCP Cubic

Start at: 2018-01-17 08:10:06

End at: 2018-01-17 08:10:36

# Below is generated by plot.py at 2018-01-17 12:35:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.27 Mbit/s

95th percentile per-packet one-way delay: 120.402 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 64.75 Mbit/s

95th percentile per-packet one-way delay: 119.614 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 54.32 Mbit/s

95th percentile per-packet one-way delay: 121.001 ms

Loss rate: 1.14%

-- Flow 3:

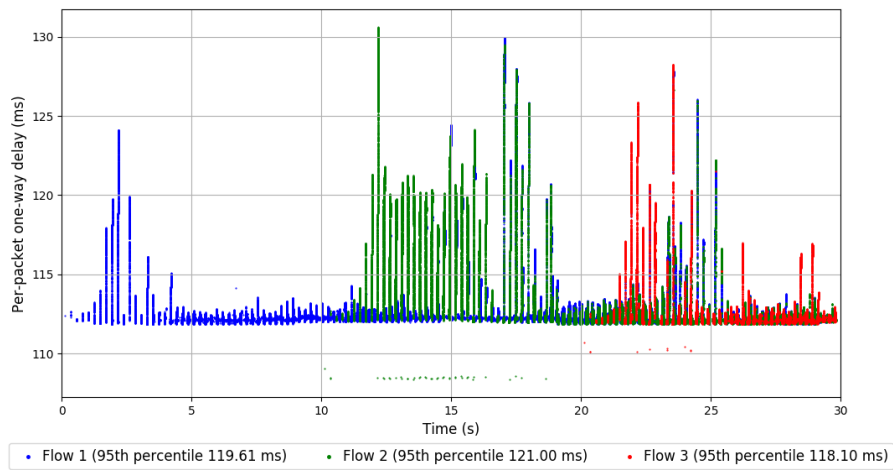
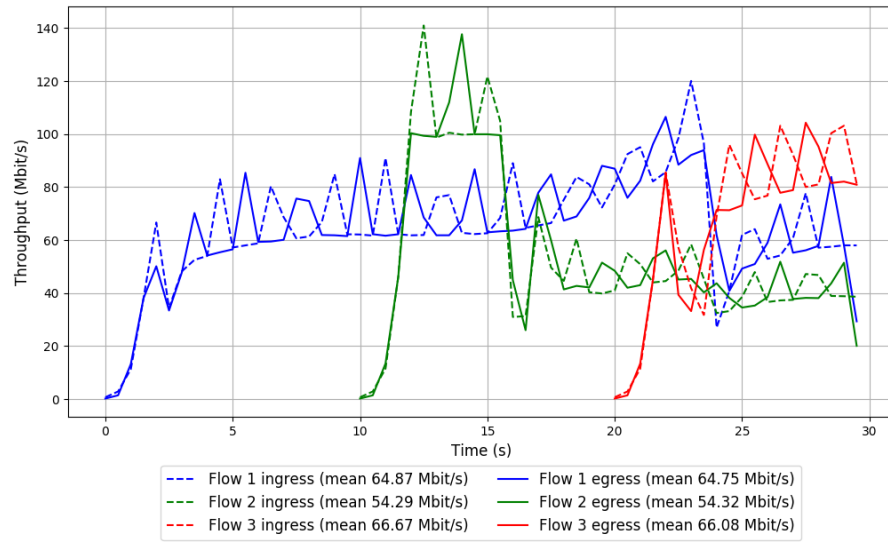
Average throughput: 66.08 Mbit/s

95th percentile per-packet one-way delay: 118.103 ms

Loss rate: 3.10%



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



Run 8: Statistics of TCP Cubic

Start at: 2018-01-17 08:27:51

End at: 2018-01-17 08:28:21

# Below is generated by plot.py at 2018-01-17 12:35:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 112.05 Mbit/s

95th percentile per-packet one-way delay: 123.169 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 33.14 Mbit/s

95th percentile per-packet one-way delay: 125.755 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 73.62 Mbit/s

95th percentile per-packet one-way delay: 122.334 ms

Loss rate: 1.38%

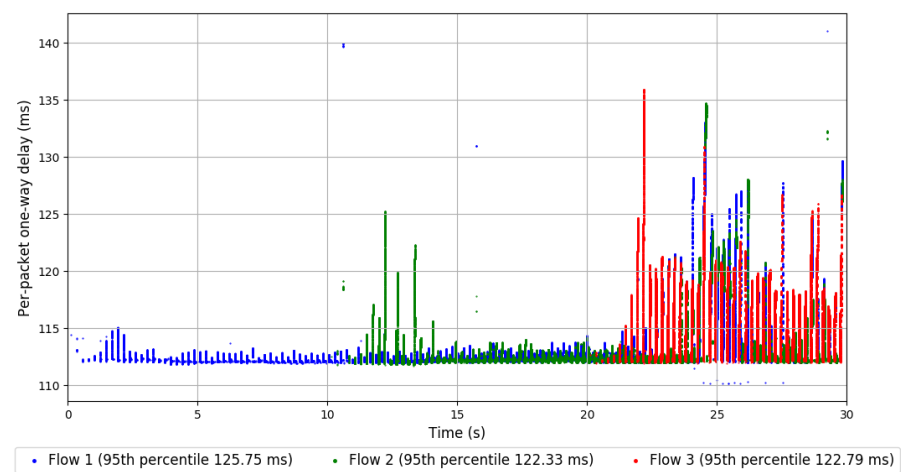
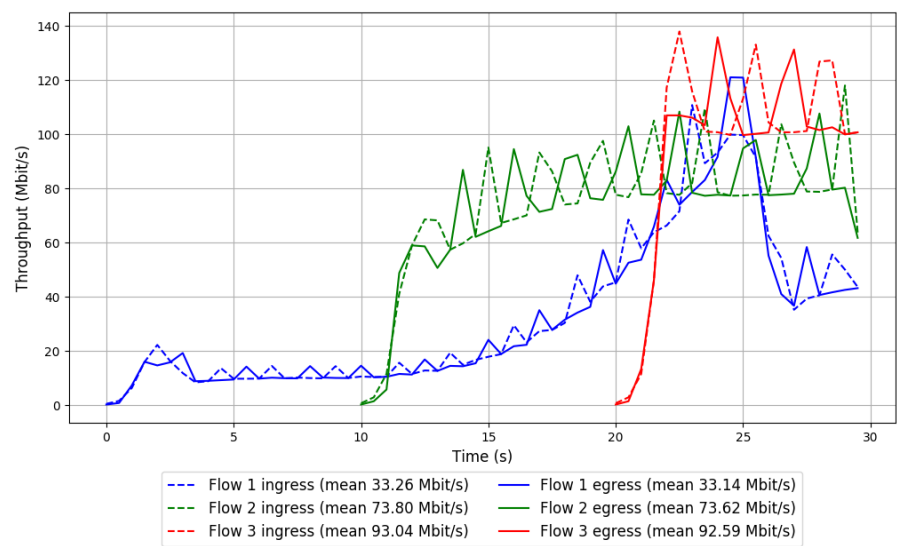
-- Flow 3:

Average throughput: 92.59 Mbit/s

95th percentile per-packet one-way delay: 122.790 ms

Loss rate: 2.72%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-17 08:46:06

End at: 2018-01-17 08:46:36

# Below is generated by plot.py at 2018-01-17 12:36:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 181.79 Mbit/s

95th percentile per-packet one-way delay: 123.426 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 101.98 Mbit/s

95th percentile per-packet one-way delay: 125.007 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 99.08 Mbit/s

95th percentile per-packet one-way delay: 121.059 ms

Loss rate: 1.31%

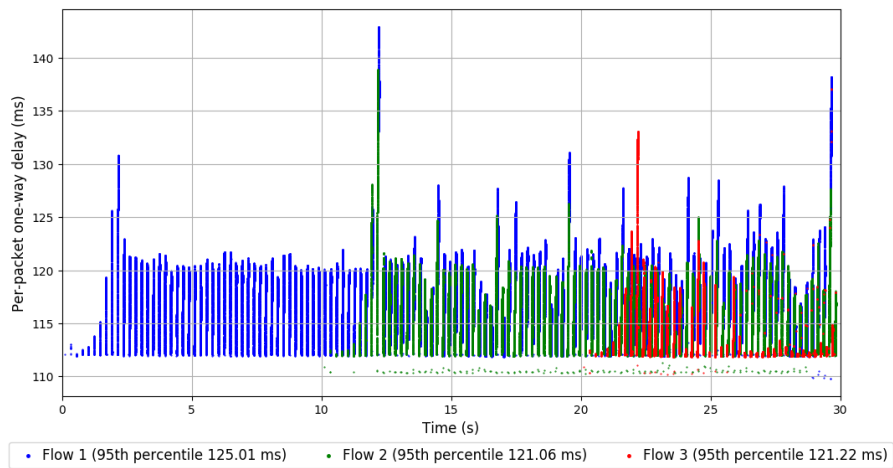
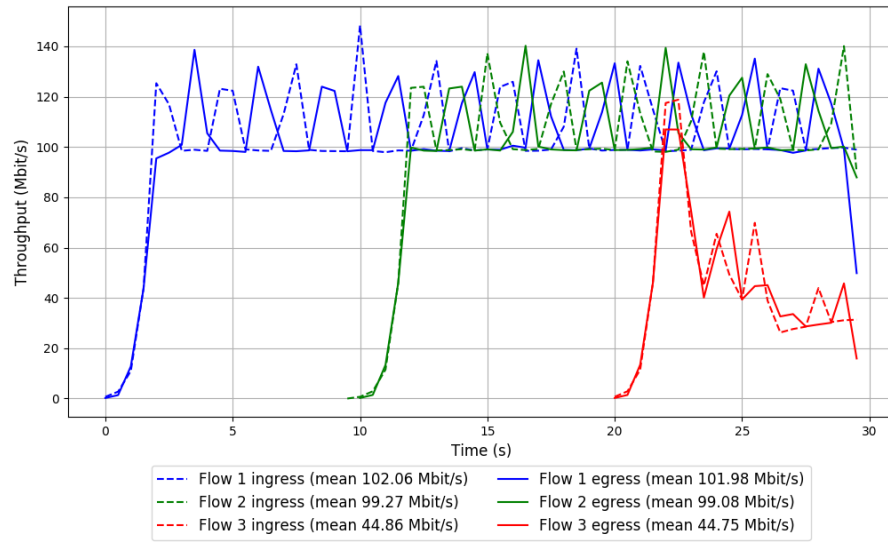
-- Flow 3:

Average throughput: 44.75 Mbit/s

95th percentile per-packet one-way delay: 121.222 ms

Loss rate: 2.49%

# Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-17 09:04:03

End at: 2018-01-17 09:04:33

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 181.03 Mbit/s

95th percentile per-packet one-way delay: 122.258 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 102.45 Mbit/s

95th percentile per-packet one-way delay: 122.553 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 100.03 Mbit/s

95th percentile per-packet one-way delay: 121.589 ms

Loss rate: 1.24%

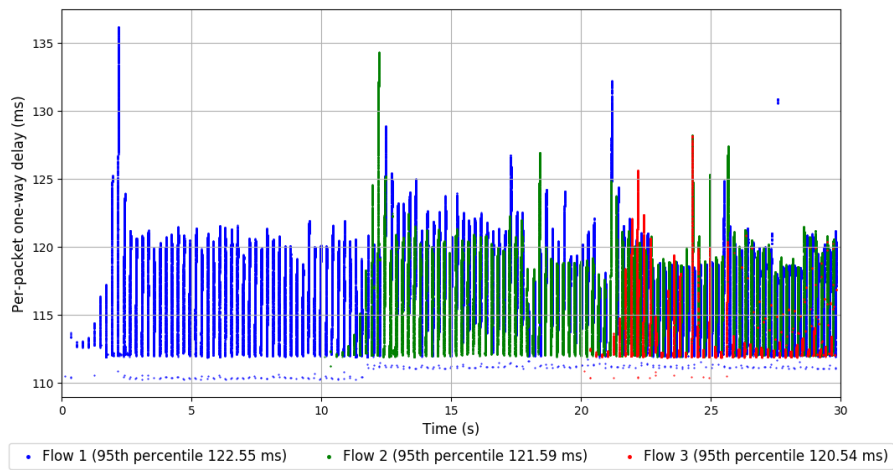
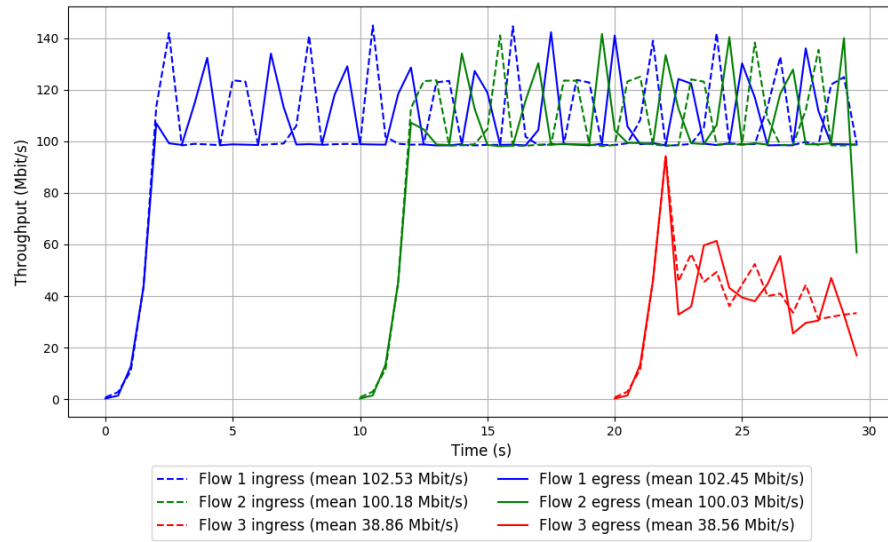
-- Flow 3:

Average throughput: 38.56 Mbit/s

95th percentile per-packet one-way delay: 120.544 ms

Loss rate: 3.22%

# Run 10: Report of TCP Cubic — Data Link



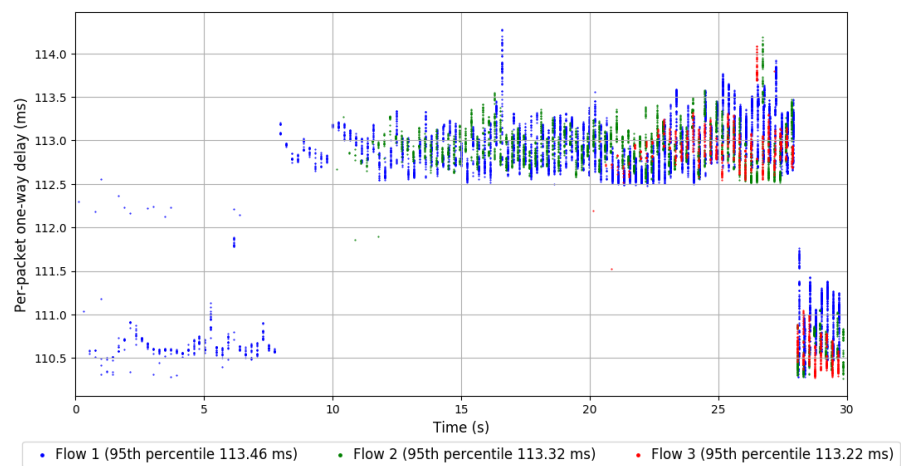
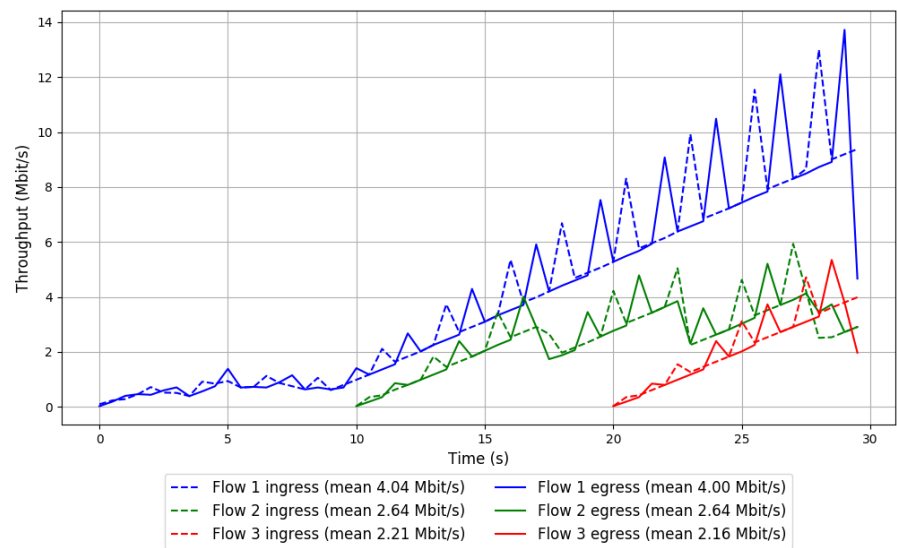
```
Run 1: Statistics of LEDBAT

Start at: 2018-01-17 06:19:17
End at: 2018-01-17 06:19:47

# Below is generated by plot.py at 2018-01-17 12:36:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.41 Mbit/s
95th percentile per-packet one-way delay: 113.420 ms
Loss rate: 1.73%
-- Flow 1:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 113.460 ms
Loss rate: 1.96%
-- Flow 2:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 113.320 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 113.223 ms
Loss rate: 4.68%
```



Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-01-17 06:37:45

End at: 2018-01-17 06:38:15

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 113.077 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 113.203 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 111.666 ms

Loss rate: 2.41%

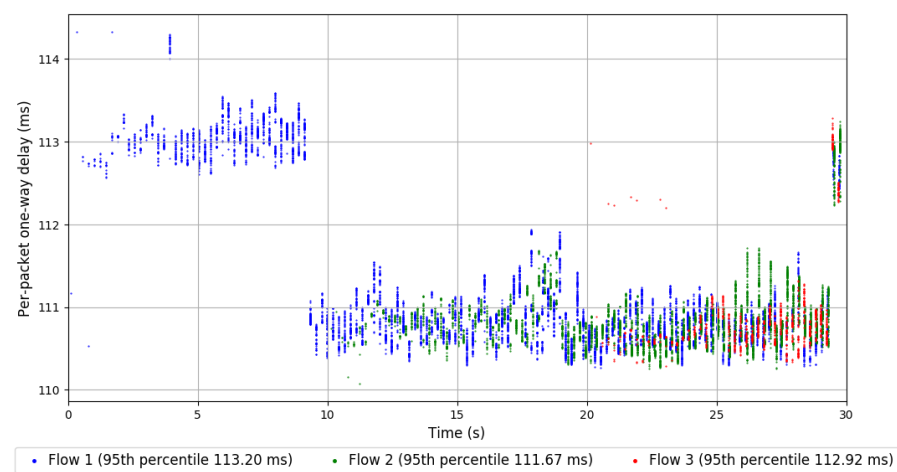
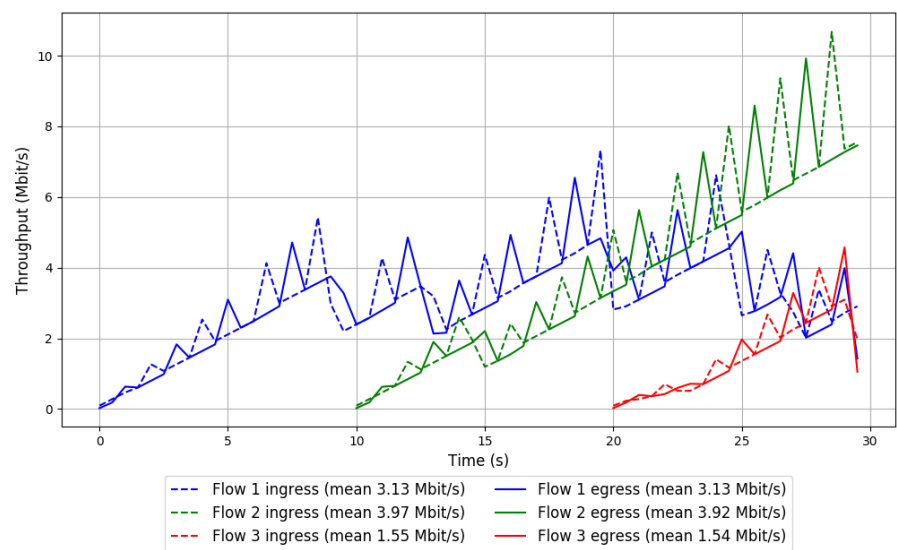
-- Flow 3:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 112.917 ms

Loss rate: 3.02%

Run 2: Report of LEDBAT — Data Link

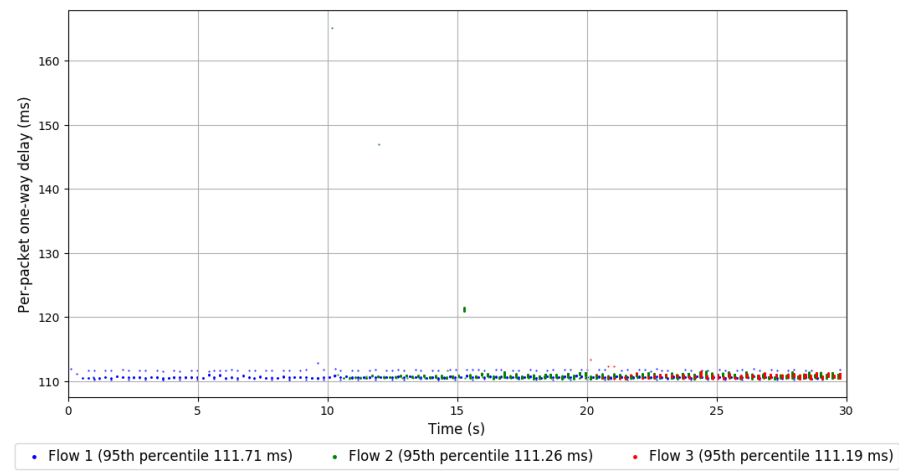
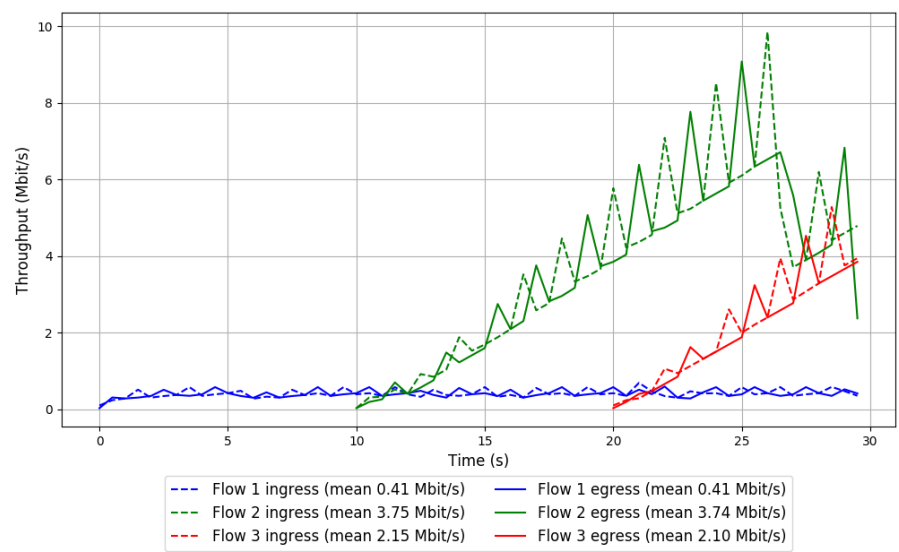


```
Run 3: Statistics of LEDBAT

Start at: 2018-01-17 06:55:55
End at: 2018-01-17 06:56:25

# Below is generated by plot.py at 2018-01-17 12:36:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 111.251 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 111.713 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 111.257 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 111.185 ms
Loss rate: 4.71%
```

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-17 07:14:14

End at: 2018-01-17 07:14:44

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 111.607 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 111.657 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 111.391 ms

Loss rate: 2.94%

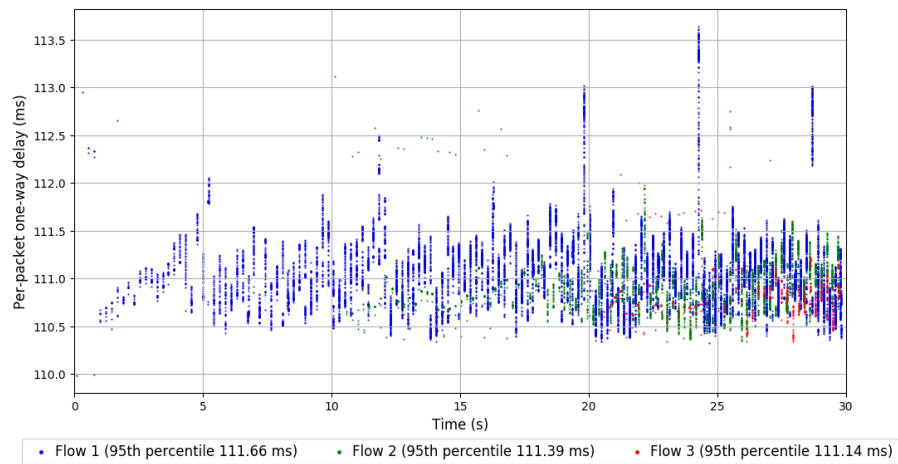
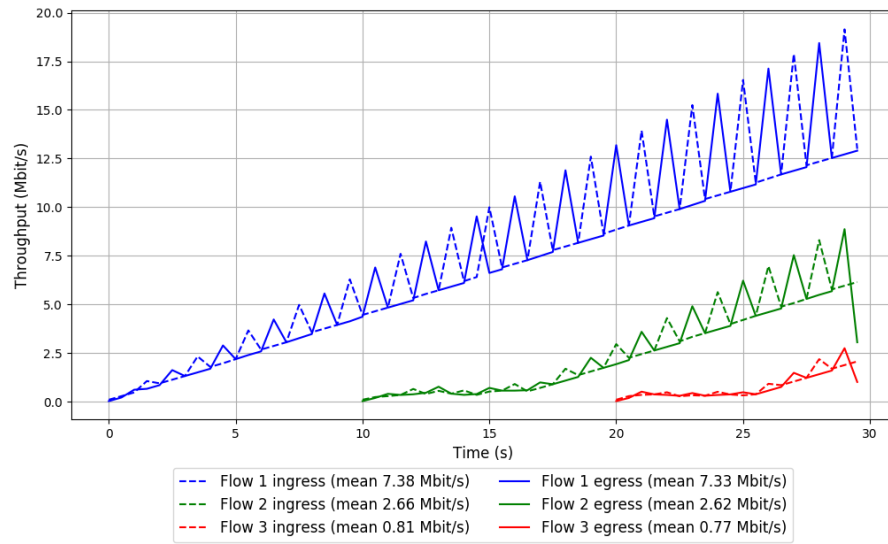
-- Flow 3:

Average throughput: 0.77 Mbit/s

95th percentile per-packet one-way delay: 111.138 ms

Loss rate: 6.66%

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



Run 5: Statistics of LEDBAT

Start at: 2018-01-17 07:32:54

End at: 2018-01-17 07:33:24

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.59 Mbit/s

95th percentile per-packet one-way delay: 112.691 ms

Loss rate: 3.94%

-- Flow 1:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 112.709 ms

Loss rate: 3.97%

-- Flow 2:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 112.728 ms

Loss rate: 3.75%

-- Flow 3:

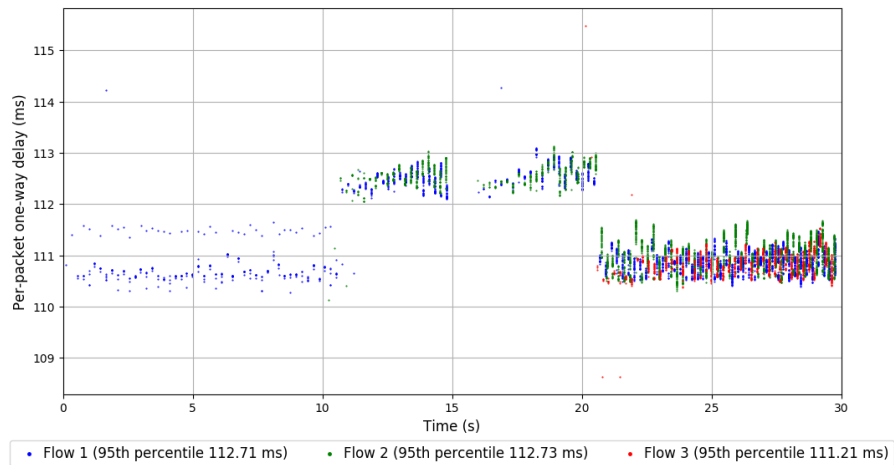
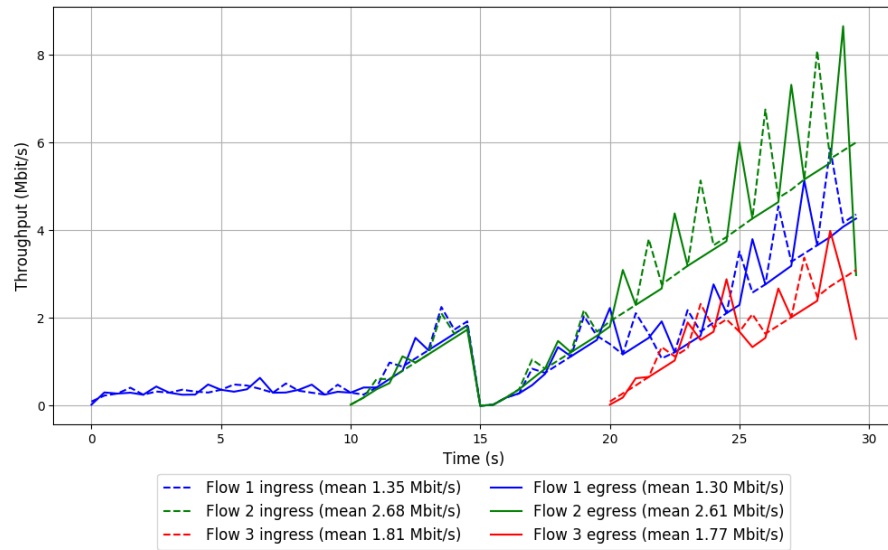
Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 111.207 ms

Loss rate: 4.46%



# Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-17 07:53:25

End at: 2018-01-17 07:53:55

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.78 Mbit/s

95th percentile per-packet one-way delay: 112.795 ms

Loss rate: 2.26%

-- Flow 1:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 112.823 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 112.748 ms

Loss rate: 2.26%

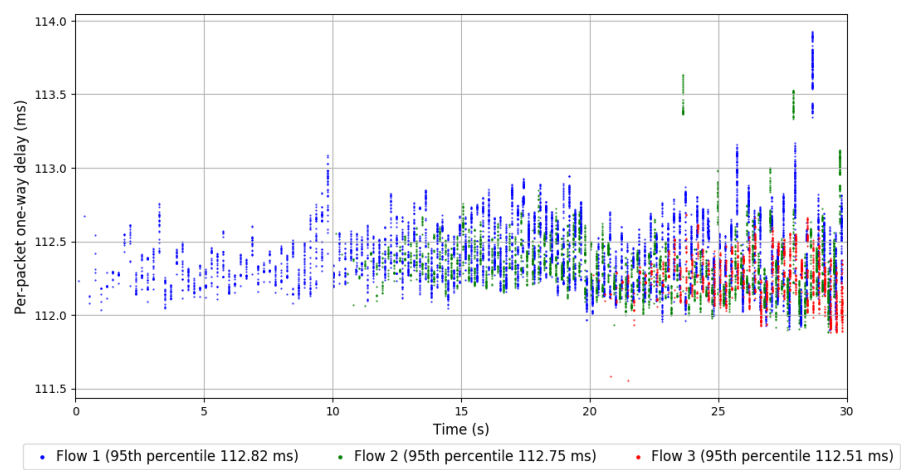
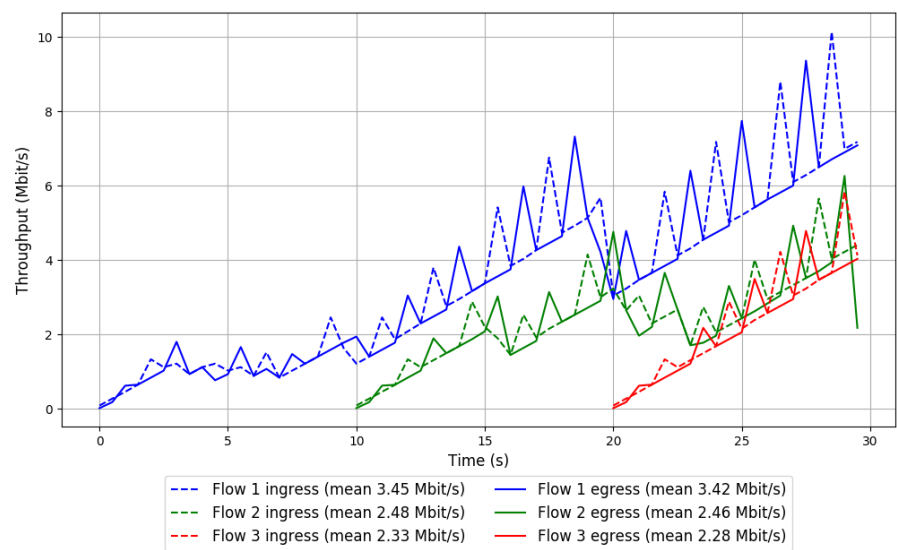
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 112.513 ms

Loss rate: 4.53%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-17 08:11:58

End at: 2018-01-17 08:12:28

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.97 Mbit/s

95th percentile per-packet one-way delay: 112.551 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 112.649 ms

Loss rate: 1.86%

-- Flow 2:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 112.398 ms

Loss rate: 2.30%

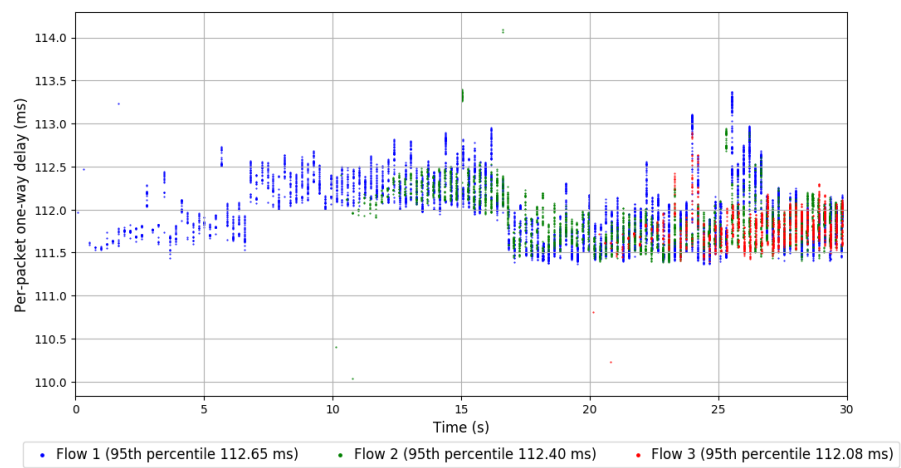
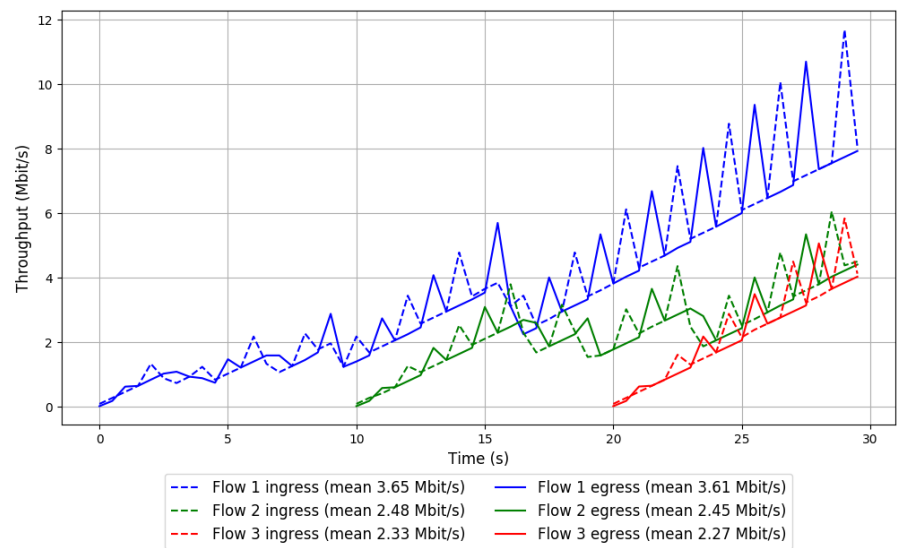
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 112.081 ms

Loss rate: 4.53%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-17 08:29:44

End at: 2018-01-17 08:30:14

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.66 Mbit/s

95th percentile per-packet one-way delay: 112.801 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 3.55 Mbit/s

95th percentile per-packet one-way delay: 112.811 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 112.861 ms

Loss rate: 1.68%

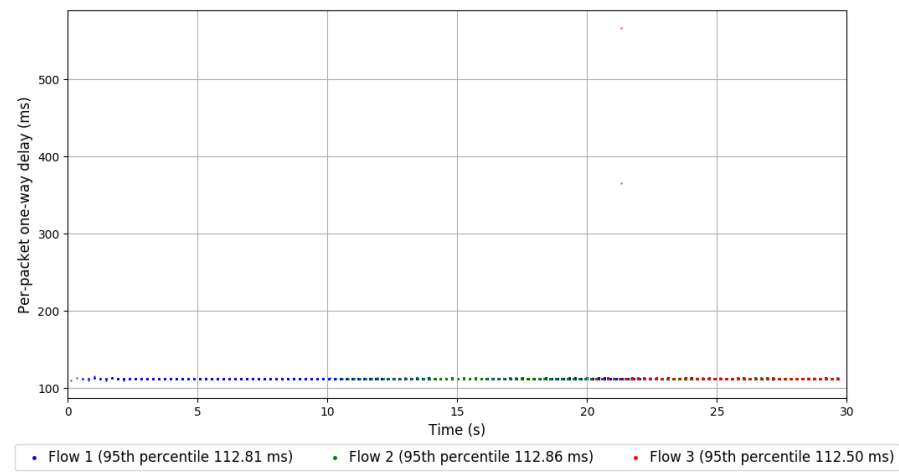
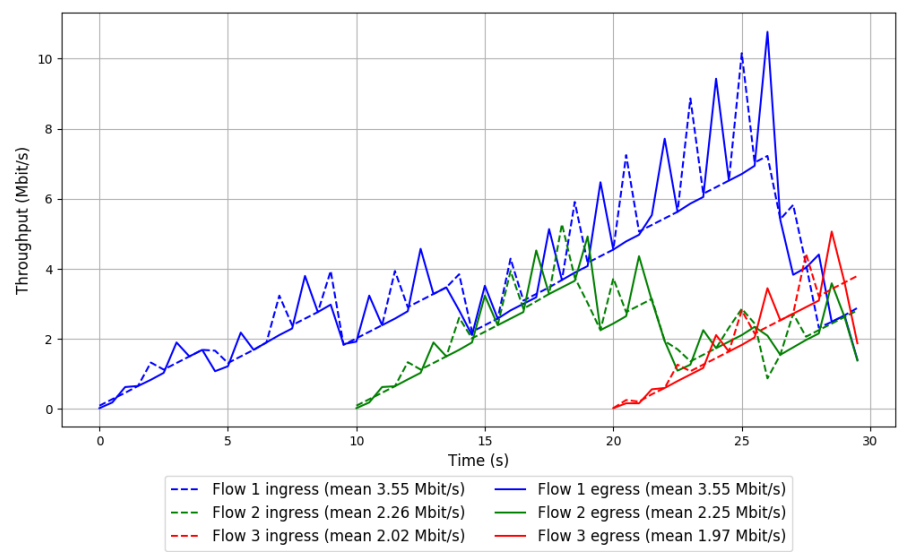
-- Flow 3:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 112.500 ms

Loss rate: 4.90%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-17 08:48:05

End at: 2018-01-17 08:48:35

# Below is generated by plot.py at 2018-01-17 12:36:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.38 Mbit/s

95th percentile per-packet one-way delay: 112.696 ms

Loss rate: 2.60%

-- Flow 1:

Average throughput: 2.64 Mbit/s

95th percentile per-packet one-way delay: 112.522 ms

Loss rate: 2.40%

-- Flow 2:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 112.789 ms

Loss rate: 2.29%

-- Flow 3:

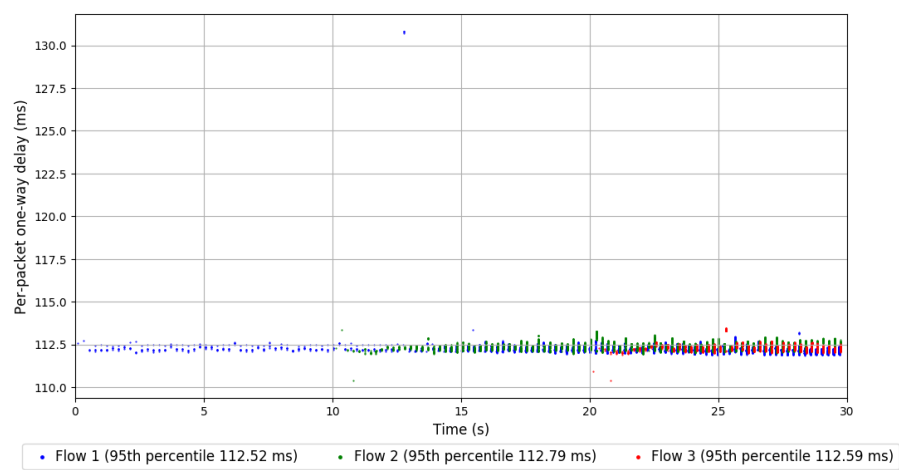
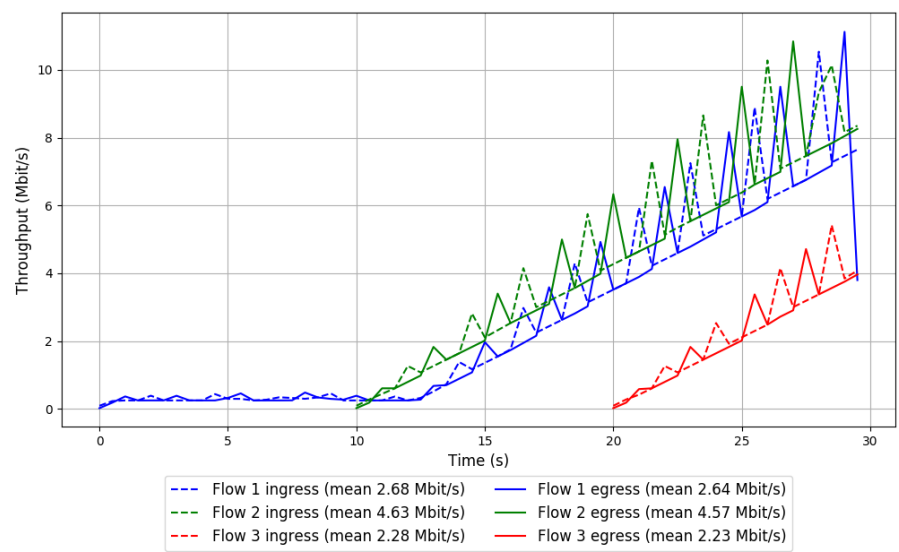
Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 112.590 ms

Loss rate: 4.60%



Run 9: Report of LEDBAT — Data Link

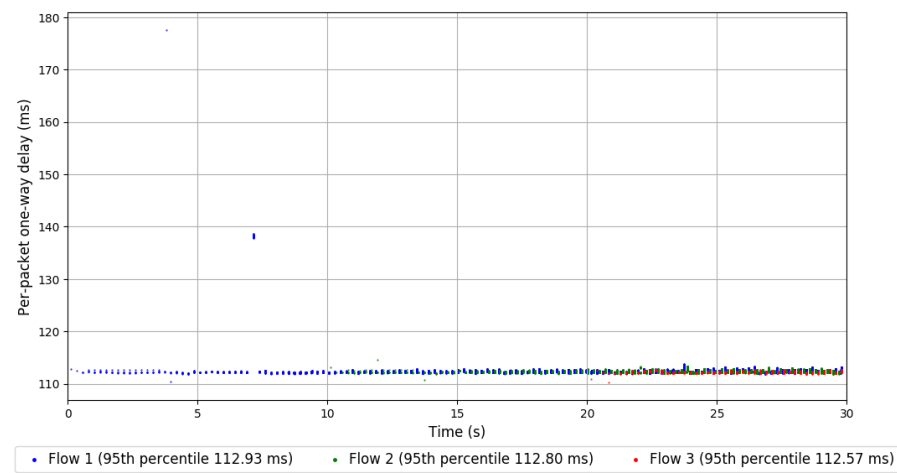
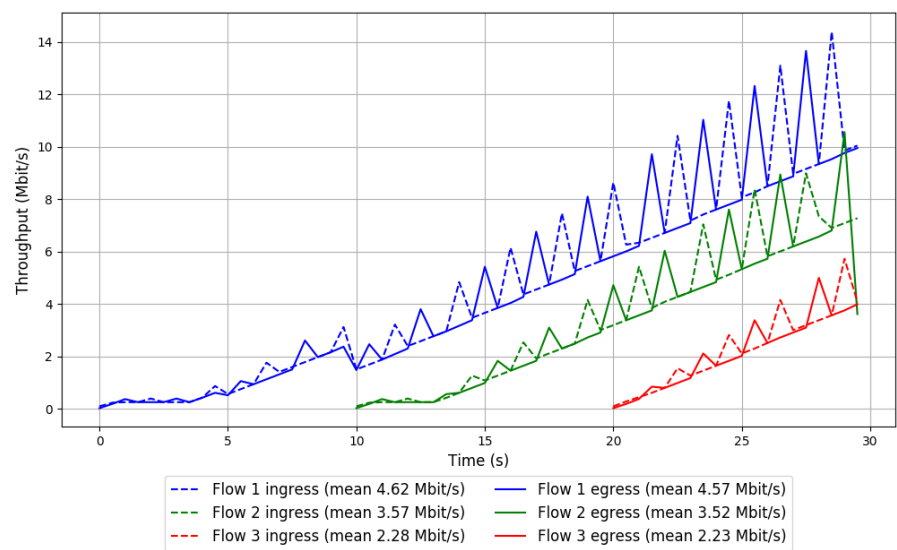


```
Run 10: Statistics of LEDBAT

Start at: 2018-01-17 09:06:01
End at: 2018-01-17 09:06:31

# Below is generated by plot.py at 2018-01-17 12:36:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 112.855 ms
Loss rate: 2.33%
-- Flow 1:
Average throughput: 4.57 Mbit/s
95th percentile per-packet one-way delay: 112.934 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 112.804 ms
Loss rate: 2.59%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 112.569 ms
Loss rate: 4.59%
```

Run 10: Report of LEDBAT — Data Link

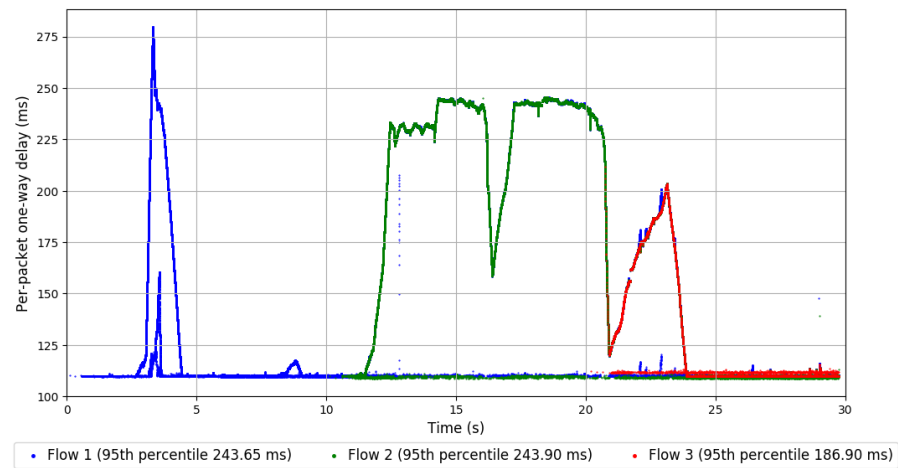
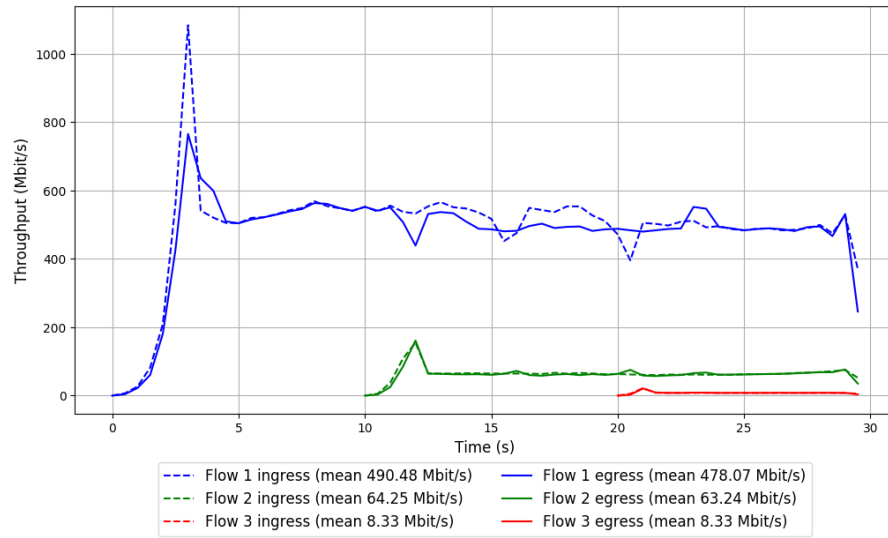


```
Run 1: Statistics of PCC

Start at: 2018-01-17 06:11:49
End at: 2018-01-17 06:12:19

# Below is generated by plot.py at 2018-01-17 12:42:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 522.54 Mbit/s
95th percentile per-packet one-way delay: 243.679 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 478.07 Mbit/s
95th percentile per-packet one-way delay: 243.654 ms
Loss rate: 3.26%
-- Flow 2:
Average throughput: 63.24 Mbit/s
95th percentile per-packet one-way delay: 243.900 ms
Loss rate: 2.70%
-- Flow 3:
Average throughput: 8.33 Mbit/s
95th percentile per-packet one-way delay: 186.899 ms
Loss rate: 2.28%
```

# Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-01-17 06:29:56

End at: 2018-01-17 06:30:26

# Below is generated by plot.py at 2018-01-17 12:42:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 539.10 Mbit/s

95th percentile per-packet one-way delay: 244.858 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 494.26 Mbit/s

95th percentile per-packet one-way delay: 244.840 ms

Loss rate: 2.35%

-- Flow 2:

Average throughput: 65.84 Mbit/s

95th percentile per-packet one-way delay: 244.887 ms

Loss rate: 1.92%

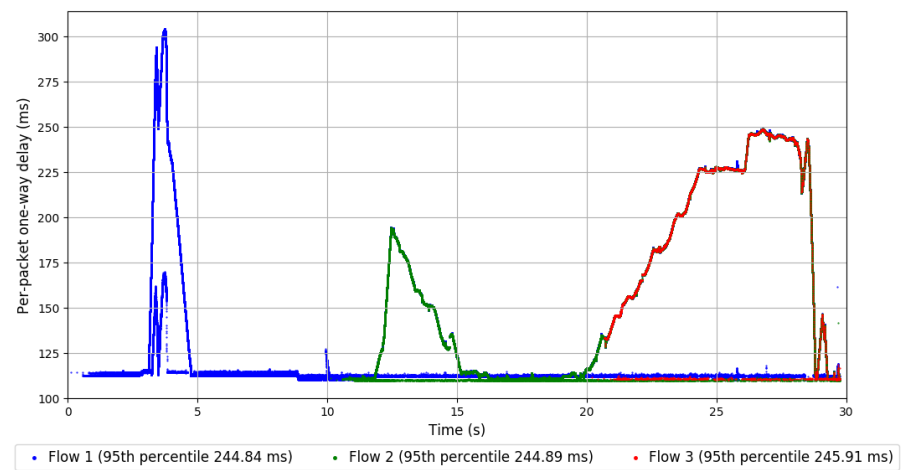
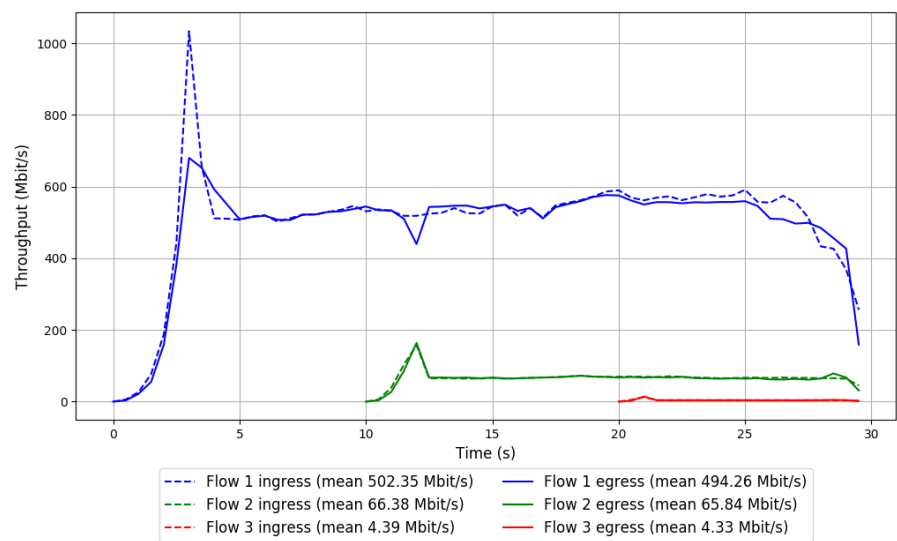
-- Flow 3:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 245.908 ms

Loss rate: 3.48%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-17 06:48:05

End at: 2018-01-17 06:48:35

# Below is generated by plot.py at 2018-01-17 12:42:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 543.57 Mbit/s

95th percentile per-packet one-way delay: 236.258 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 489.81 Mbit/s

95th percentile per-packet one-way delay: 236.240 ms

Loss rate: 2.53%

-- Flow 2:

Average throughput: 65.60 Mbit/s

95th percentile per-packet one-way delay: 236.160 ms

Loss rate: 2.68%

-- Flow 3:

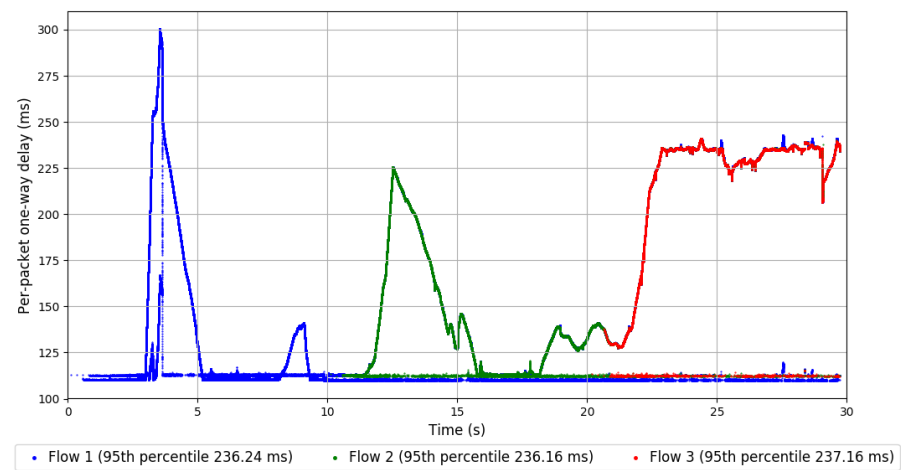
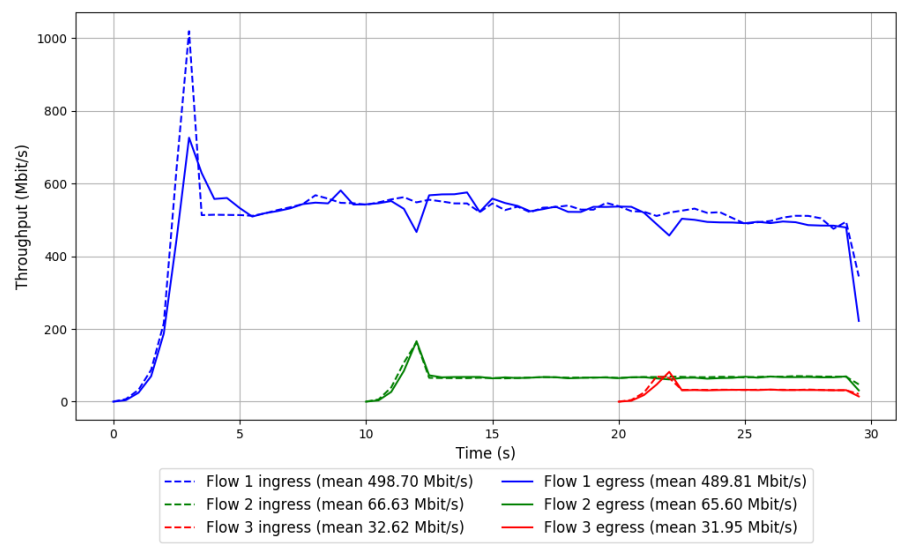
Average throughput: 31.95 Mbit/s

95th percentile per-packet one-way delay: 237.165 ms

Loss rate: 4.34%



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-17 07:06:25

End at: 2018-01-17 07:06:55

# Below is generated by plot.py at 2018-01-17 12:42:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 506.97 Mbit/s

95th percentile per-packet one-way delay: 239.740 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 460.44 Mbit/s

95th percentile per-packet one-way delay: 239.673 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 66.32 Mbit/s

95th percentile per-packet one-way delay: 240.137 ms

Loss rate: 1.72%

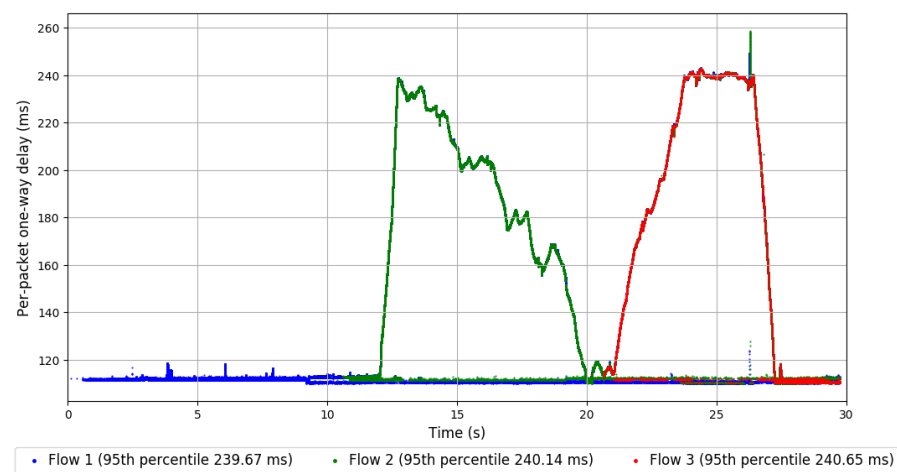
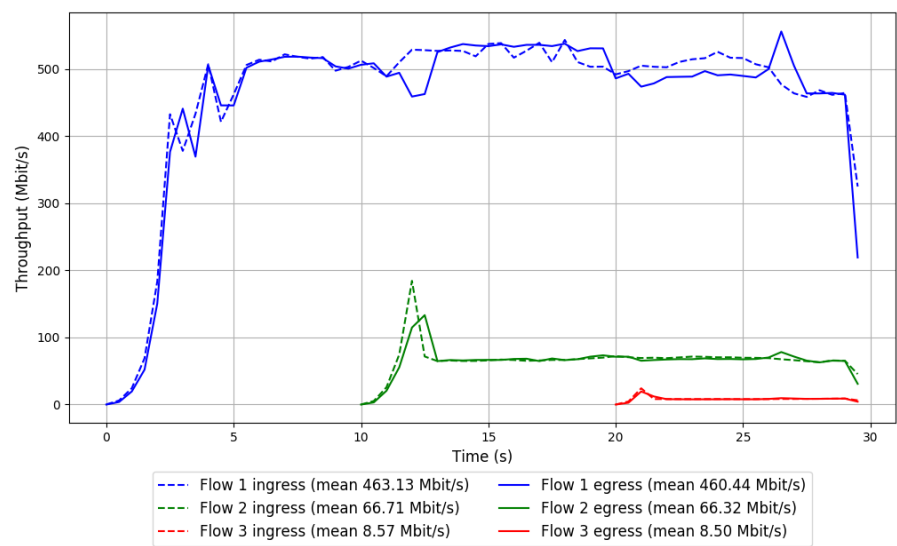
-- Flow 3:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 240.647 ms

Loss rate: 3.13%

Run 4: Report of PCC — Data Link

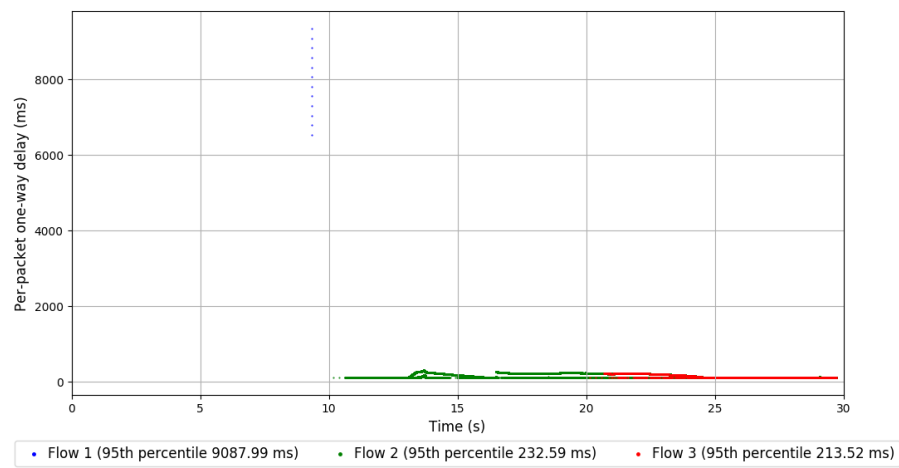
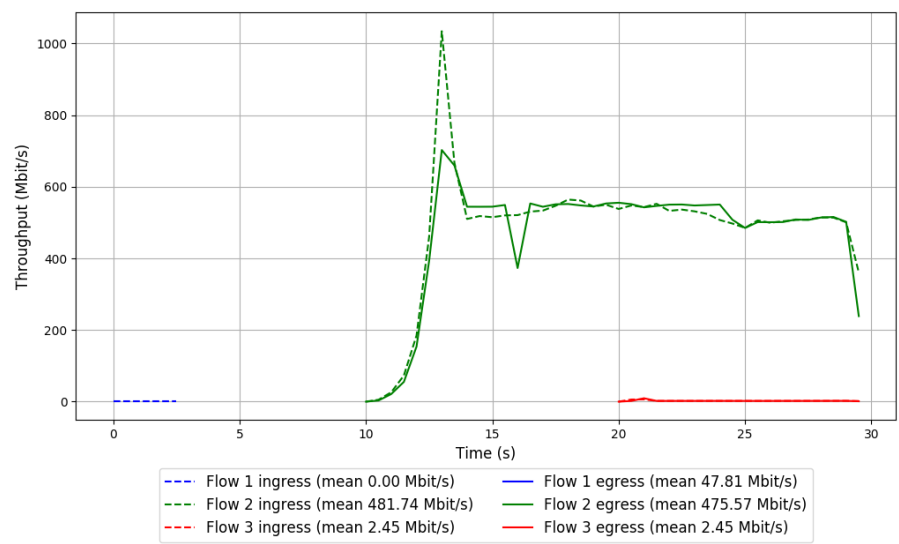


Run 5: Statistics of PCC

Start at: 2018-01-17 07:24:19

End at: 2018-01-17 07:24:49

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-17 07:45:15

End at: 2018-01-17 07:45:45

# Below is generated by plot.py at 2018-01-17 12:43:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 542.27 Mbit/s

95th percentile per-packet one-way delay: 186.303 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 509.53 Mbit/s

95th percentile per-packet one-way delay: 187.010 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 33.55 Mbit/s

95th percentile per-packet one-way delay: 179.509 ms

Loss rate: 1.24%

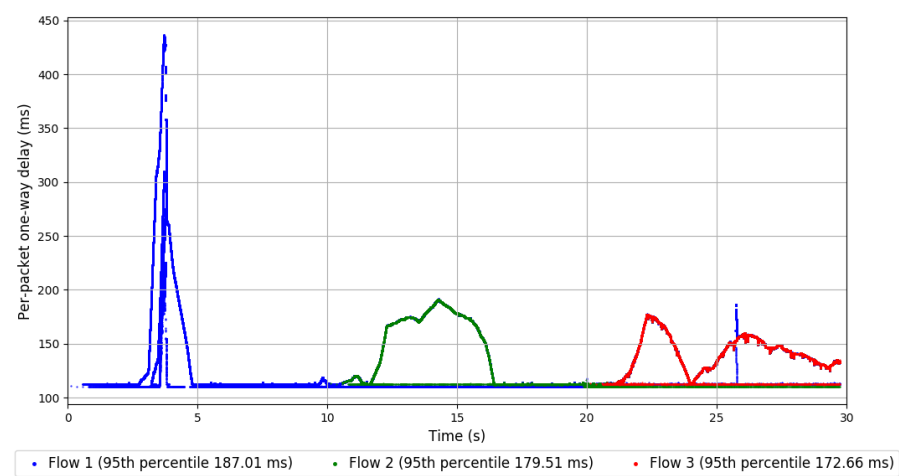
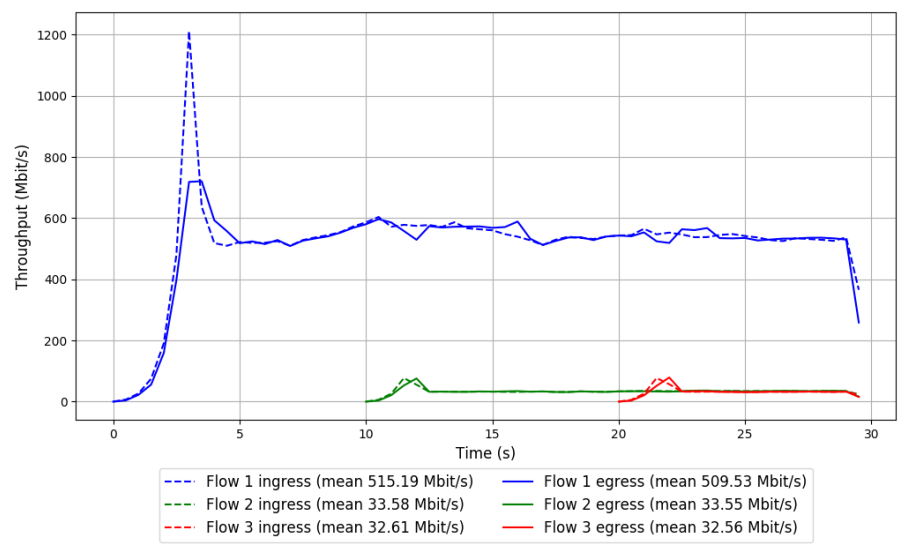
-- Flow 3:

Average throughput: 32.56 Mbit/s

95th percentile per-packet one-way delay: 172.665 ms

Loss rate: 2.41%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-17 08:04:12

End at: 2018-01-17 08:04:42

# Below is generated by plot.py at 2018-01-17 12:43:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 440.53 Mbit/s

95th percentile per-packet one-way delay: 244.130 ms

Loss rate: 5.56%

-- Flow 1:

Average throughput: 325.90 Mbit/s

95th percentile per-packet one-way delay: 236.669 ms

Loss rate: 4.63%

-- Flow 2:

Average throughput: 120.79 Mbit/s

95th percentile per-packet one-way delay: 243.083 ms

Loss rate: 5.99%

-- Flow 3:

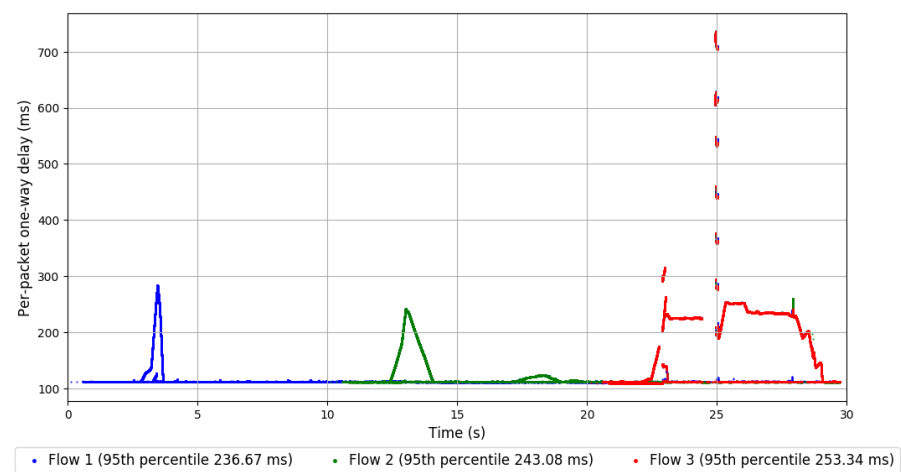
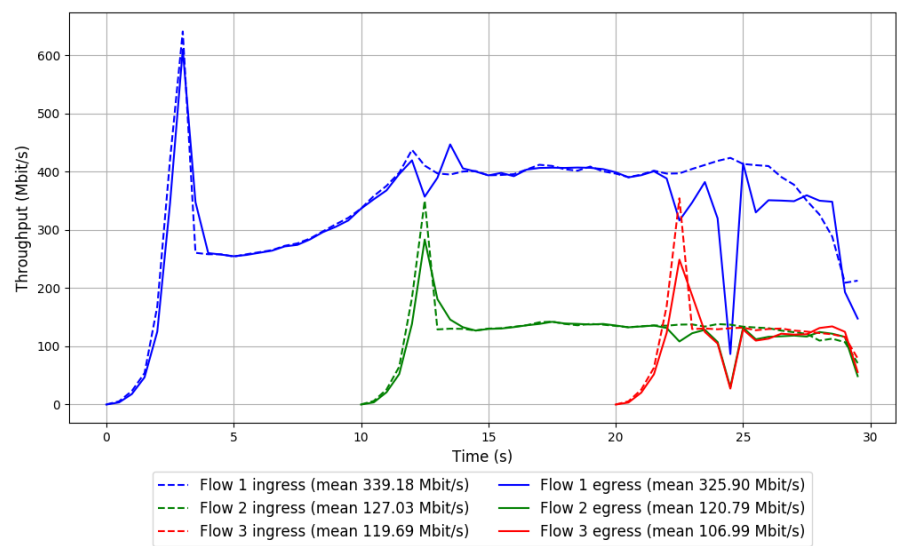
Average throughput: 106.99 Mbit/s

95th percentile per-packet one-way delay: 253.338 ms

Loss rate: 12.63%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-17 08:22:14

End at: 2018-01-17 08:22:44

# Below is generated by plot.py at 2018-01-17 12:45:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 530.84 Mbit/s

95th percentile per-packet one-way delay: 234.615 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 468.44 Mbit/s

95th percentile per-packet one-way delay: 234.634 ms

Loss rate: 2.32%

-- Flow 2:

Average throughput: 63.76 Mbit/s

95th percentile per-packet one-way delay: 234.572 ms

Loss rate: 2.36%

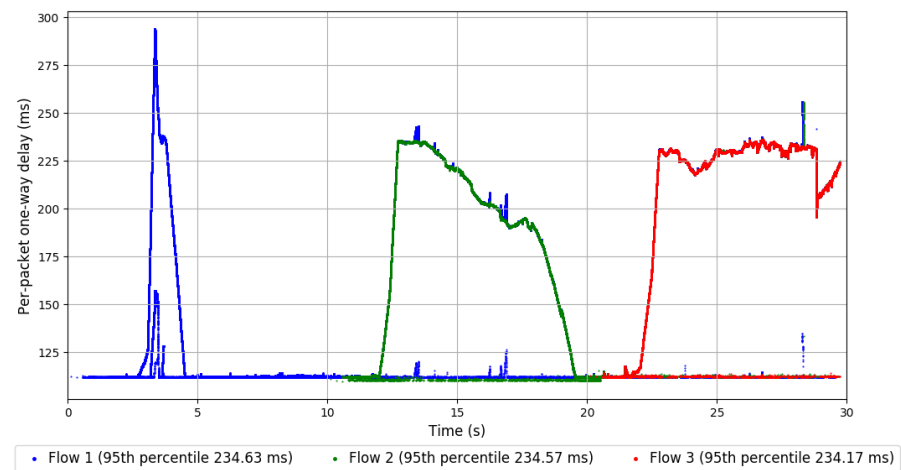
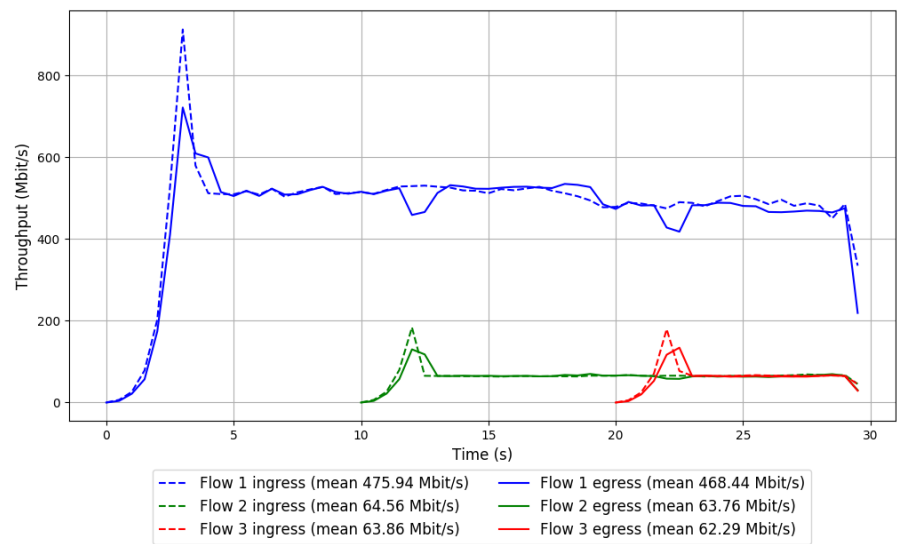
-- Flow 3:

Average throughput: 62.29 Mbit/s

95th percentile per-packet one-way delay: 234.171 ms

Loss rate: 4.69%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-17 08:40:26

End at: 2018-01-17 08:40:56

# Below is generated by plot.py at 2018-01-17 12:47:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 432.99 Mbit/s

95th percentile per-packet one-way delay: 244.931 ms

Loss rate: 2.25%

-- Flow 1:

Average throughput: 274.82 Mbit/s

95th percentile per-packet one-way delay: 244.622 ms

Loss rate: 1.68%

-- Flow 2:

Average throughput: 230.79 Mbit/s

95th percentile per-packet one-way delay: 245.164 ms

Loss rate: 3.20%

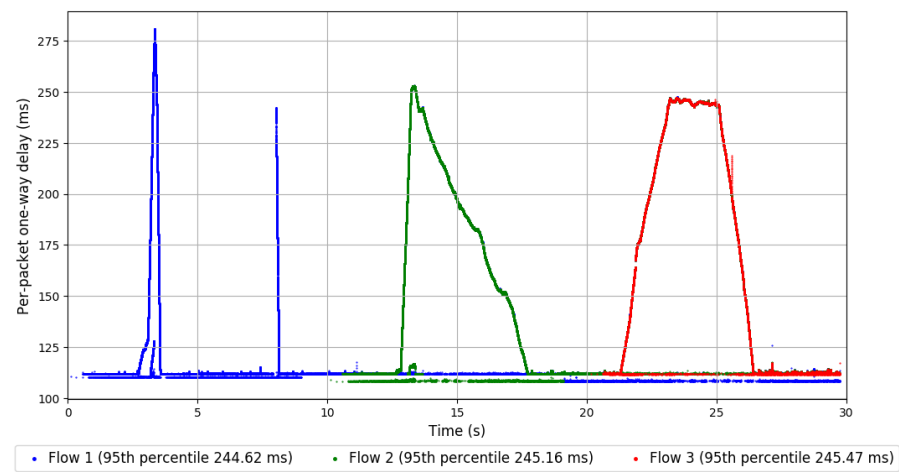
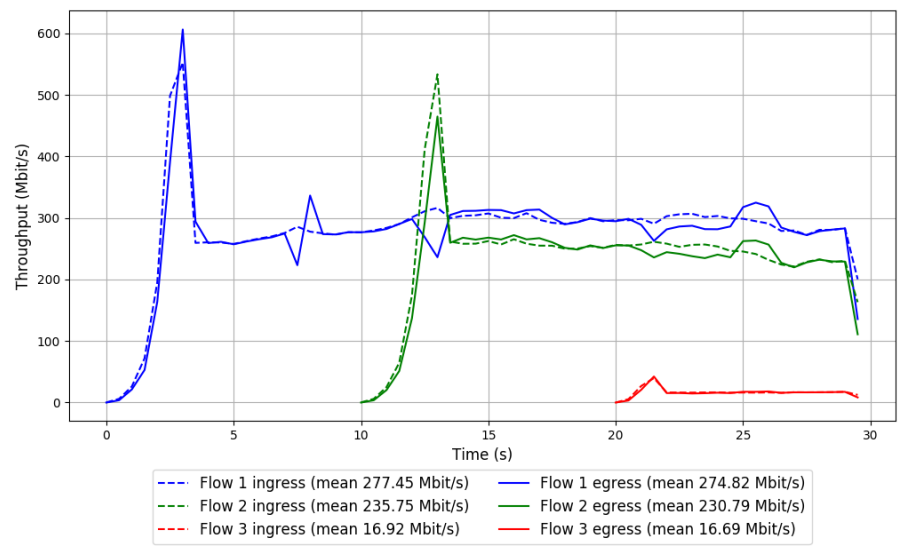
-- Flow 3:

Average throughput: 16.69 Mbit/s

95th percentile per-packet one-way delay: 245.469 ms

Loss rate: 3.53%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-01-17 08:58:11

End at: 2018-01-17 08:58:41

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 529.62 Mbit/s

95th percentile per-packet one-way delay: 241.114 ms

Loss rate: 5.61%

-- Flow 1:

Average throughput: 439.07 Mbit/s

95th percentile per-packet one-way delay: 241.042 ms

Loss rate: 5.42%

-- Flow 2:

Average throughput: 120.84 Mbit/s

95th percentile per-packet one-way delay: 241.366 ms

Loss rate: 6.75%

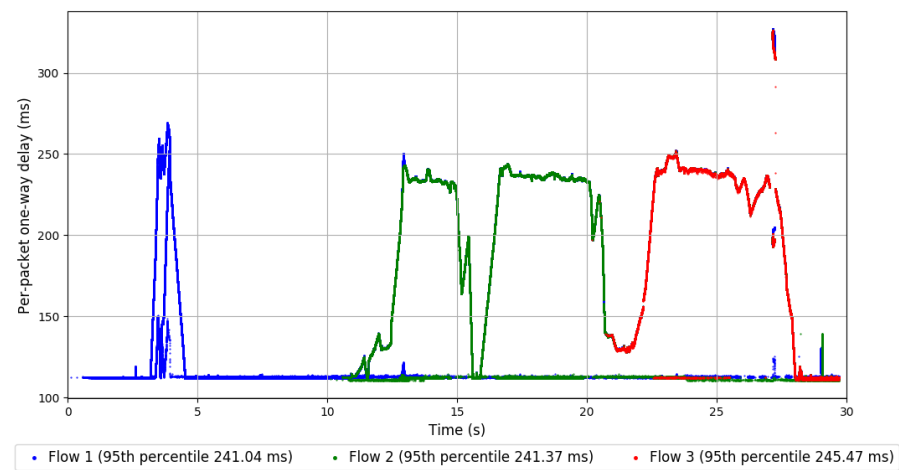
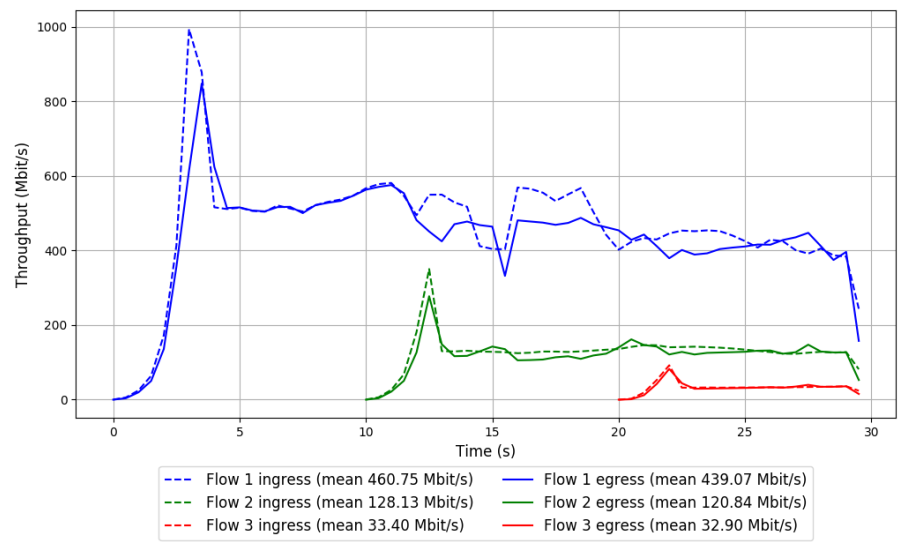
-- Flow 3:

Average throughput: 32.90 Mbit/s

95th percentile per-packet one-way delay: 245.473 ms

Loss rate: 4.62%

Run 10: Report of PCC — Data Link



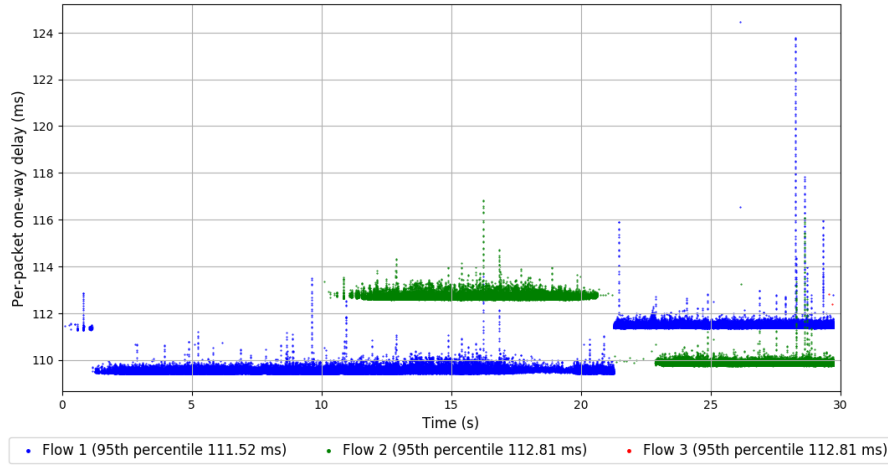
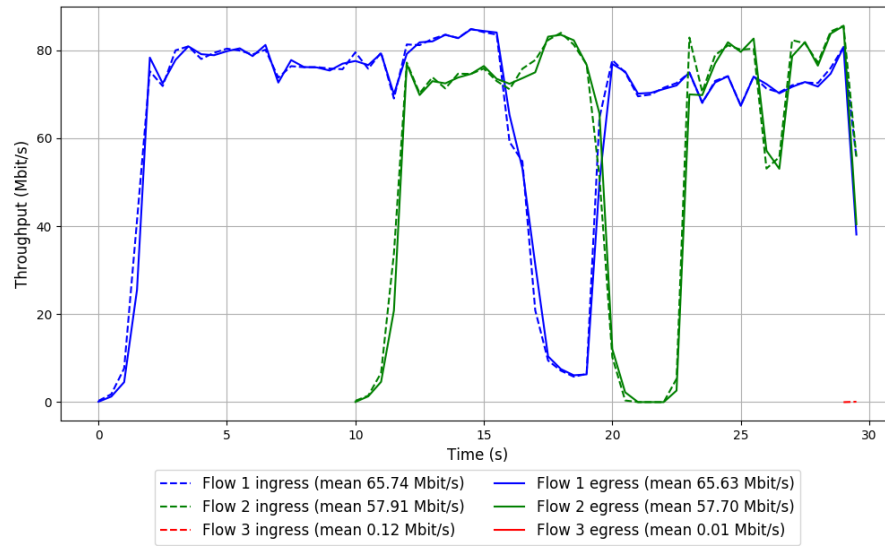
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-17 06:20:03
End at: 2018-01-17 06:20:33

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.84 Mbit/s
95th percentile per-packet one-way delay: 112.712 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 65.63 Mbit/s
95th percentile per-packet one-way delay: 111.515 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 57.70 Mbit/s
95th percentile per-packet one-way delay: 112.805 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 112.811 ms
Loss rate: 96.87%
```



# Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-17 06:38:32

End at: 2018-01-17 06:39:02

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 119.62 Mbit/s

95th percentile per-packet one-way delay: 112.533 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 60.61 Mbit/s

95th percentile per-packet one-way delay: 110.063 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 112.168 ms

Loss rate: 0.15%

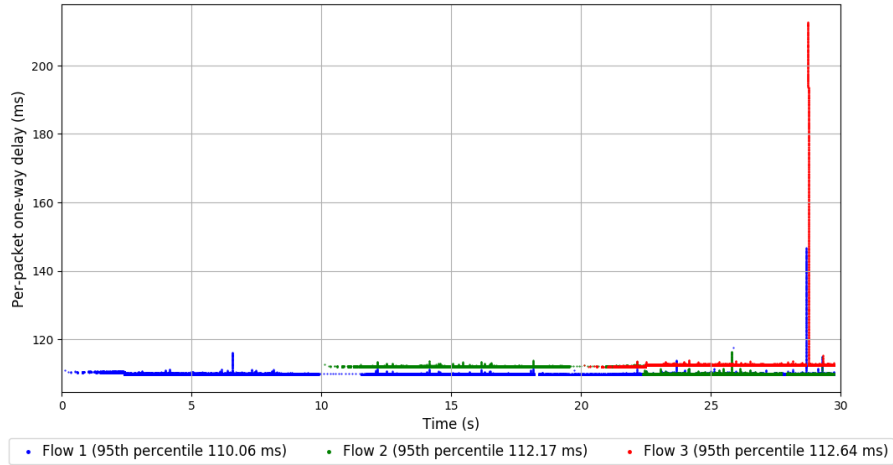
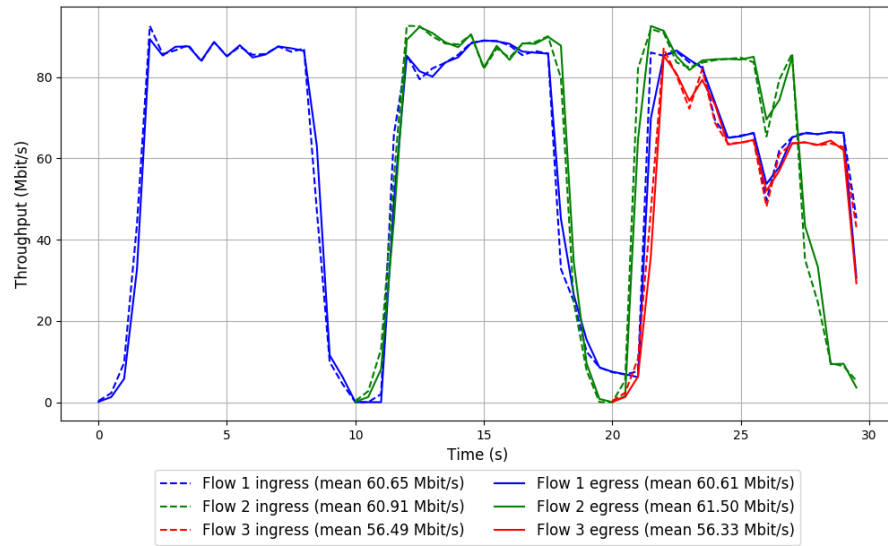
-- Flow 3:

Average throughput: 56.33 Mbit/s

95th percentile per-packet one-way delay: 112.635 ms

Loss rate: 2.53%

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



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-17 06:56:42

End at: 2018-01-17 06:57:12

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 120.19 Mbit/s

95th percentile per-packet one-way delay: 114.851 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 61.70 Mbit/s

95th percentile per-packet one-way delay: 112.237 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 60.56 Mbit/s

95th percentile per-packet one-way delay: 114.960 ms

Loss rate: 0.34%

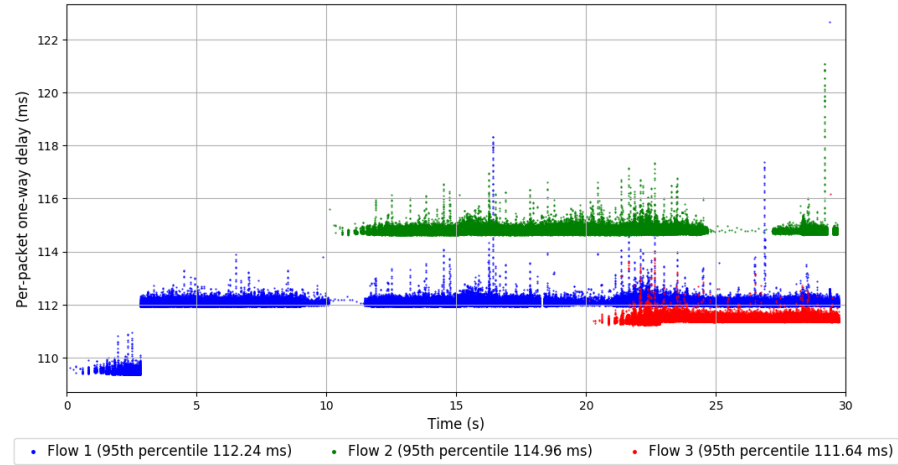
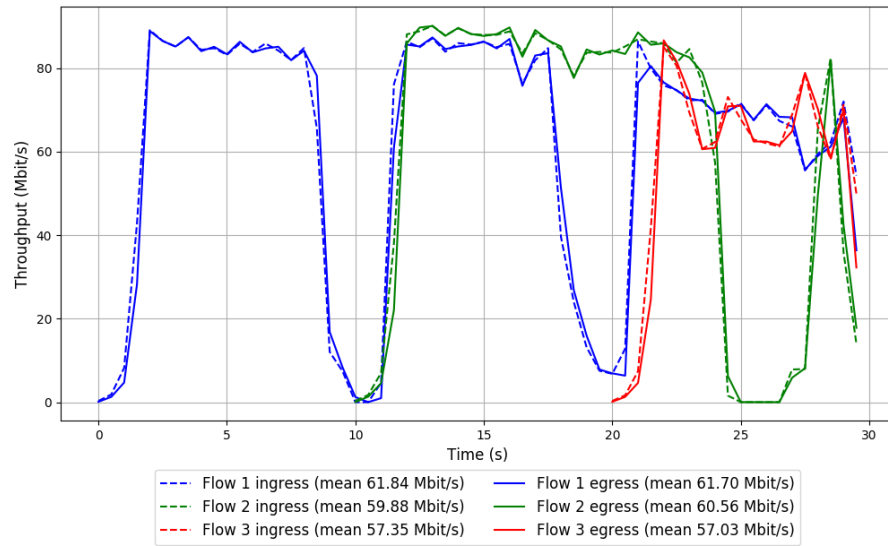
-- Flow 3:

Average throughput: 57.03 Mbit/s

95th percentile per-packet one-way delay: 111.644 ms

Loss rate: 2.84%

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



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-17 07:15:01

End at: 2018-01-17 07:15:31

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.92 Mbit/s

95th percentile per-packet one-way delay: 112.703 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 61.03 Mbit/s

95th percentile per-packet one-way delay: 111.855 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 62.60 Mbit/s

95th percentile per-packet one-way delay: 112.764 ms

Loss rate: 1.75%

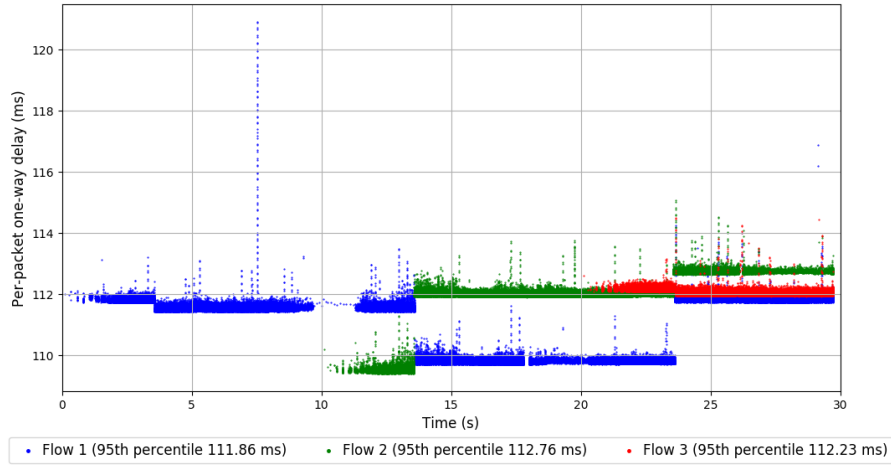
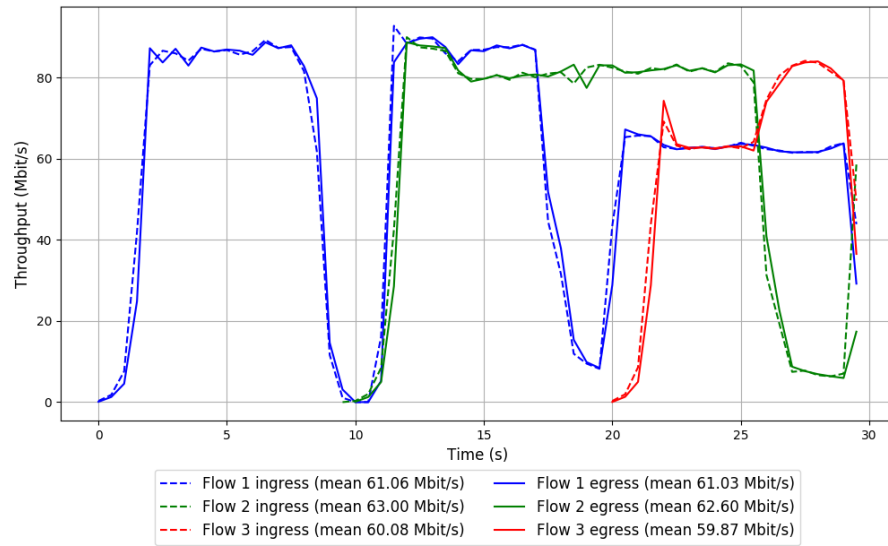
-- Flow 3:

Average throughput: 59.87 Mbit/s

95th percentile per-packet one-way delay: 112.233 ms

Loss rate: 2.62%

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



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-17 07:33:41

End at: 2018-01-17 07:34:11

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 111.87 Mbit/s

95th percentile per-packet one-way delay: 114.734 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 55.91 Mbit/s

95th percentile per-packet one-way delay: 112.338 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 58.12 Mbit/s

95th percentile per-packet one-way delay: 114.883 ms

Loss rate: 2.20%

-- Flow 3:

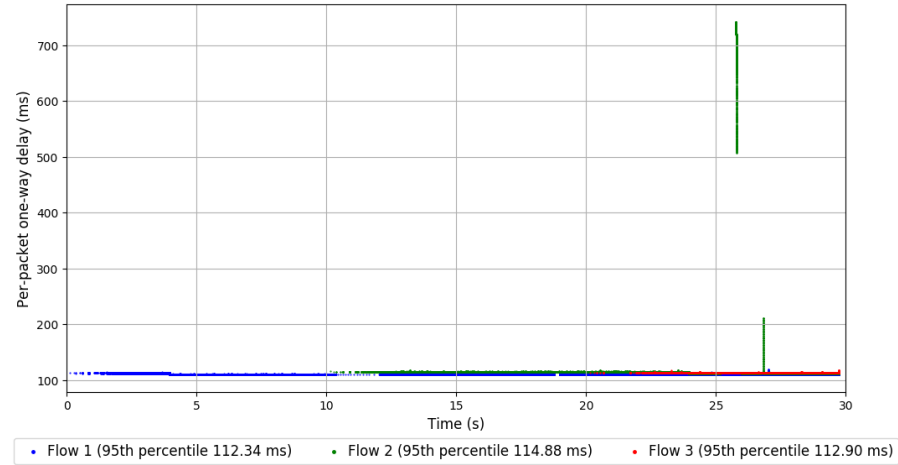
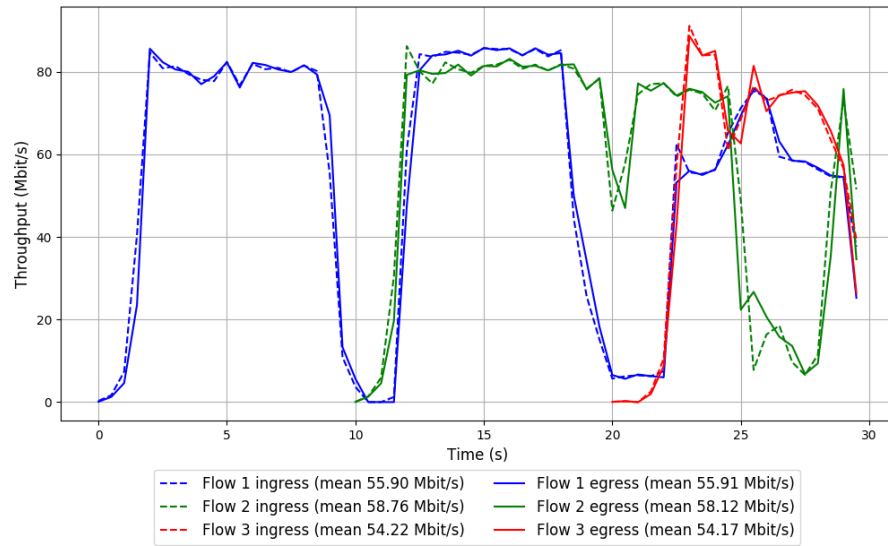
Average throughput: 54.17 Mbit/s

95th percentile per-packet one-way delay: 112.897 ms

Loss rate: 2.41%



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



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-17 07:54:12

End at: 2018-01-17 07:54:42

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 107.84 Mbit/s

95th percentile per-packet one-way delay: 112.086 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 61.00 Mbit/s

95th percentile per-packet one-way delay: 111.998 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 52.60 Mbit/s

95th percentile per-packet one-way delay: 112.393 ms

Loss rate: 1.36%

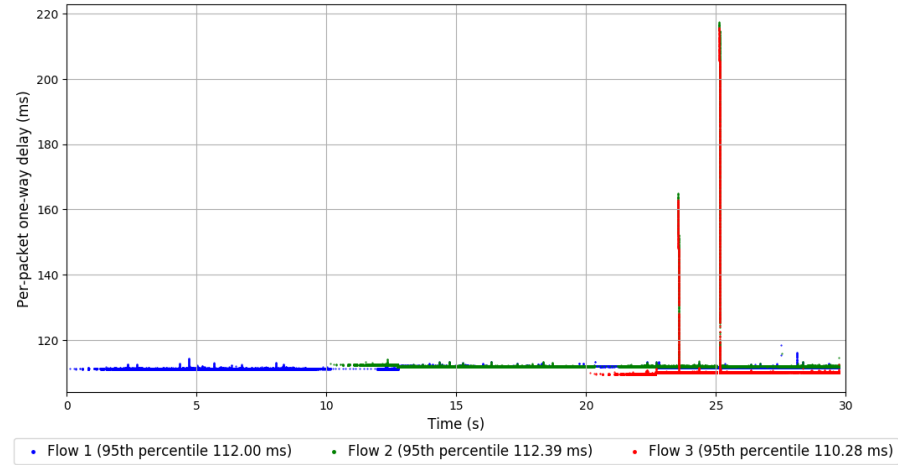
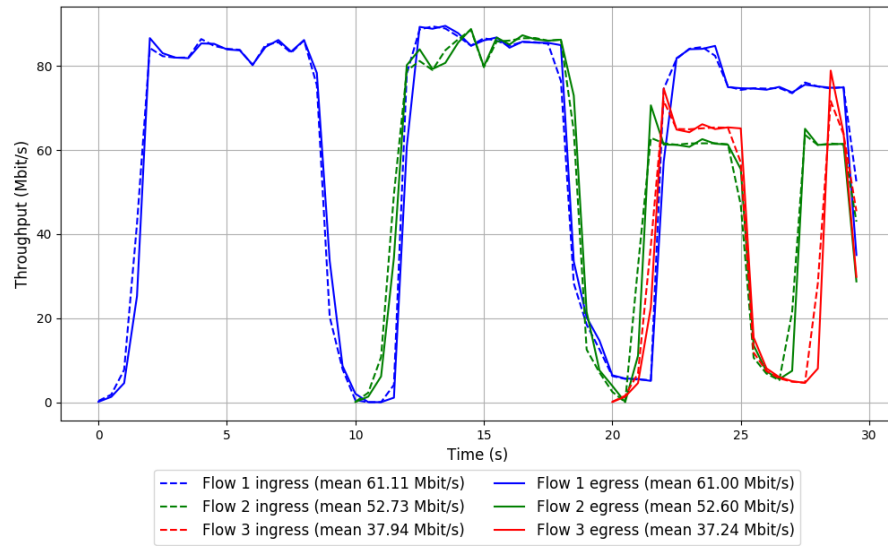
-- Flow 3:

Average throughput: 37.24 Mbit/s

95th percentile per-packet one-way delay: 110.276 ms

Loss rate: 4.06%

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

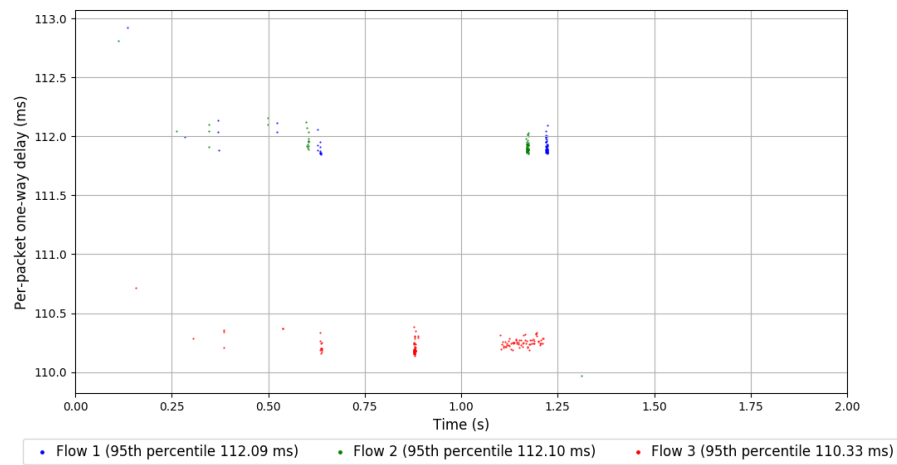
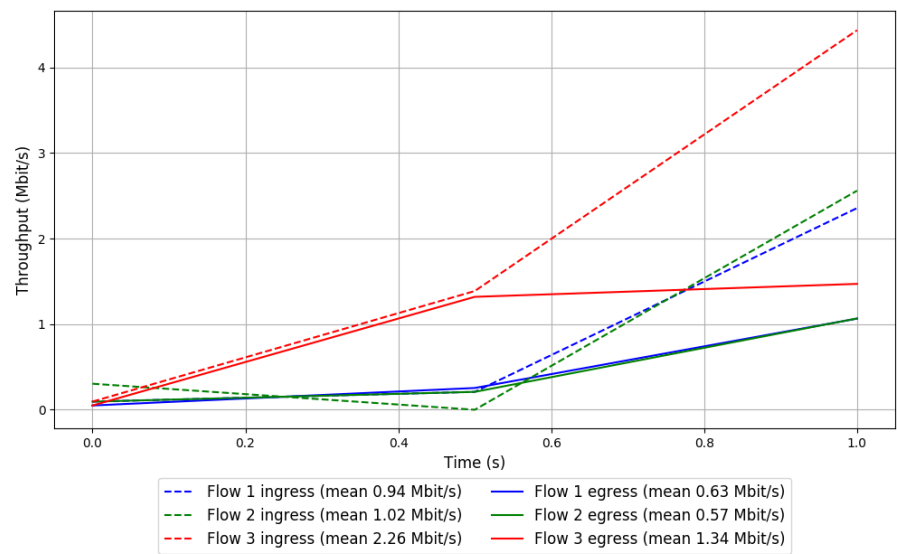


Run 7: Statistics of QUIC Cubic

Start at: 2018-01-17 08:12:45

End at: 2018-01-17 08:13:15

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-17 08:30:31

End at: 2018-01-17 08:31:01

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 118.20 Mbit/s

95th percentile per-packet one-way delay: 112.025 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 64.64 Mbit/s

95th percentile per-packet one-way delay: 112.037 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 60.89 Mbit/s

95th percentile per-packet one-way delay: 111.992 ms

Loss rate: 0.30%

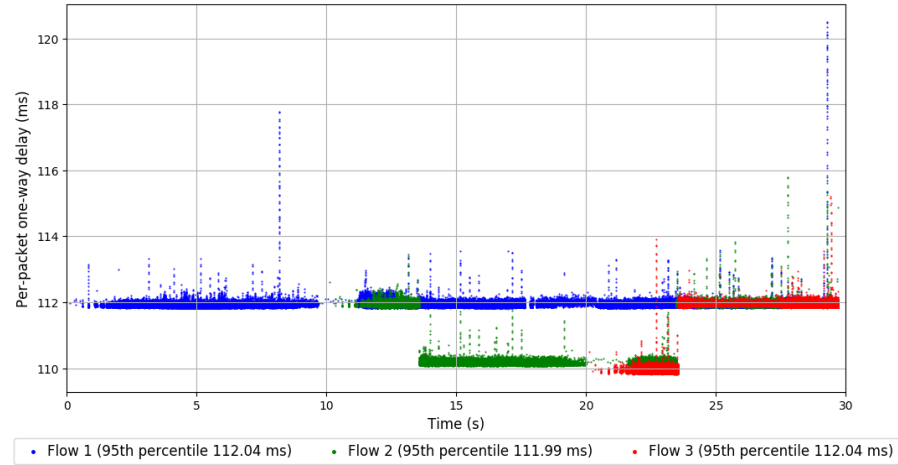
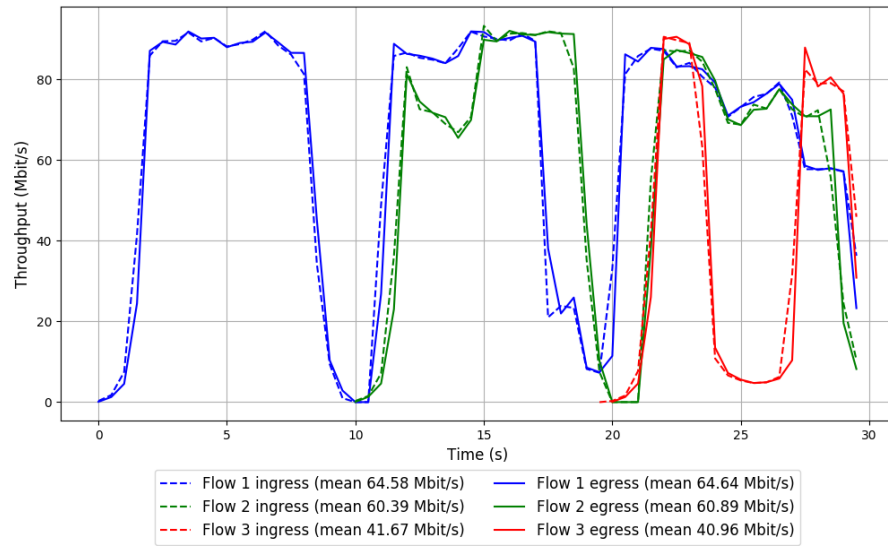
-- Flow 3:

Average throughput: 40.96 Mbit/s

95th percentile per-packet one-way delay: 112.042 ms

Loss rate: 3.94%

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



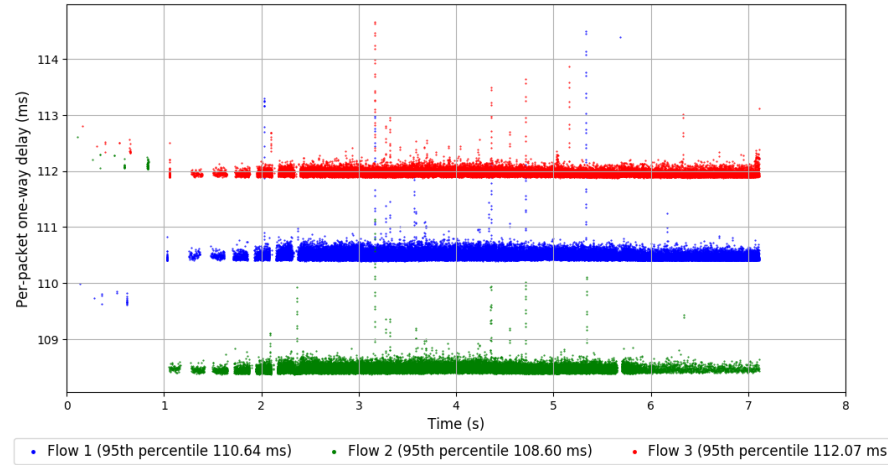
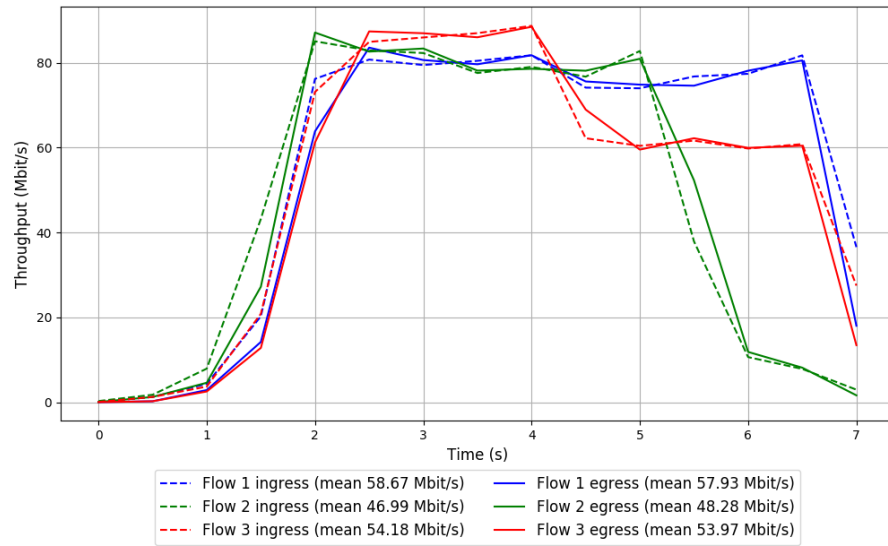
Run 9: Statistics of QUIC Cubic

Start at: 2018-01-17 08:48:51

End at: 2018-01-17 08:49:21



# Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-17 09:06:48

End at: 2018-01-17 09:07:18

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 120.69 Mbit/s

95th percentile per-packet one-way delay: 114.562 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 60.50 Mbit/s

95th percentile per-packet one-way delay: 111.111 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 61.41 Mbit/s

95th percentile per-packet one-way delay: 114.627 ms

Loss rate: 0.21%

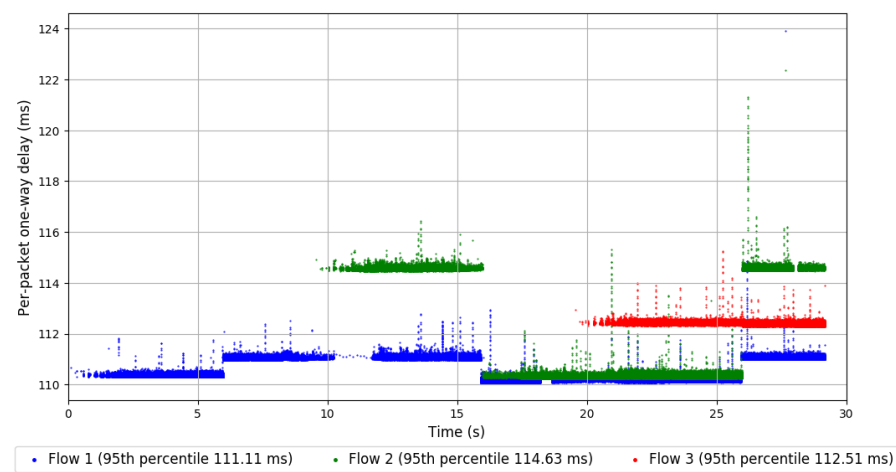
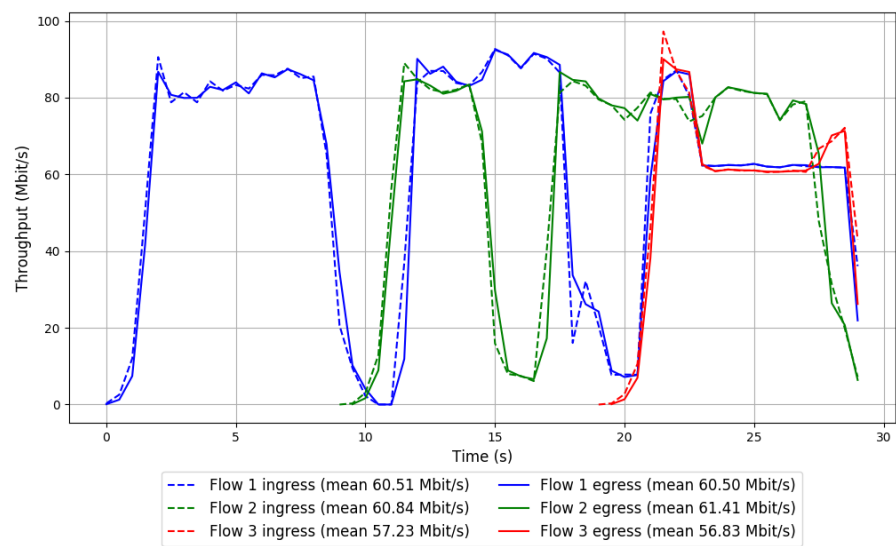
-- Flow 3:

Average throughput: 56.83 Mbit/s

95th percentile per-packet one-way delay: 112.509 ms

Loss rate: 2.97%

Run 10: Report of QUIC Cubic — Data Link

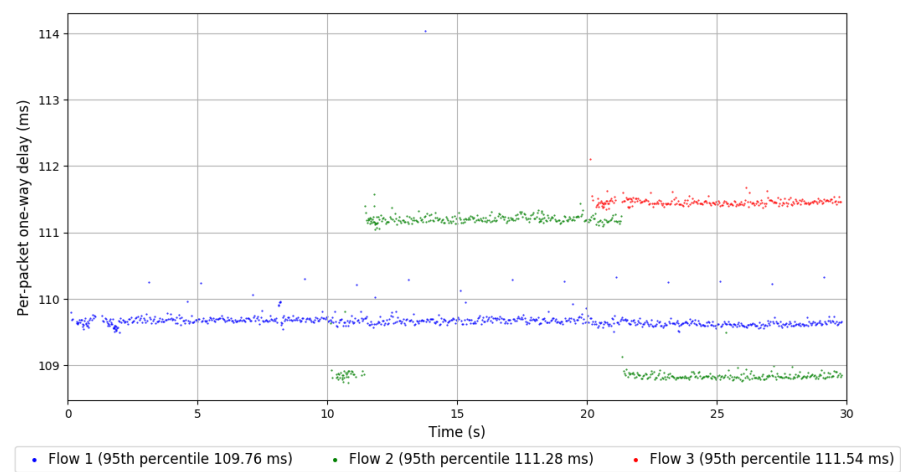
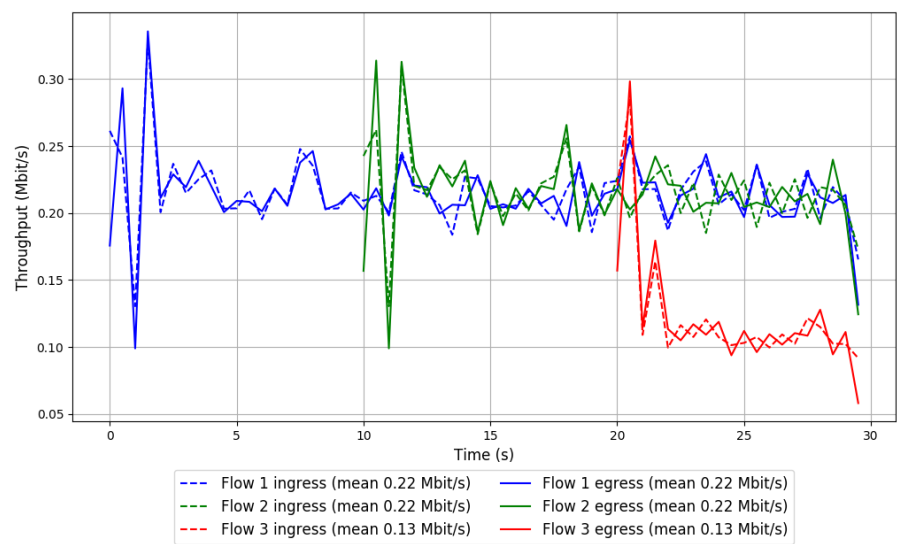


```
Run 1: Statistics of SCReAM

Start at: 2018-01-17 06:16:43
End at: 2018-01-17 06:17:13

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 111.476 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.763 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.277 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 111.536 ms
Loss rate: 1.99%
```

Run 1: Report of SReAM — Data Link

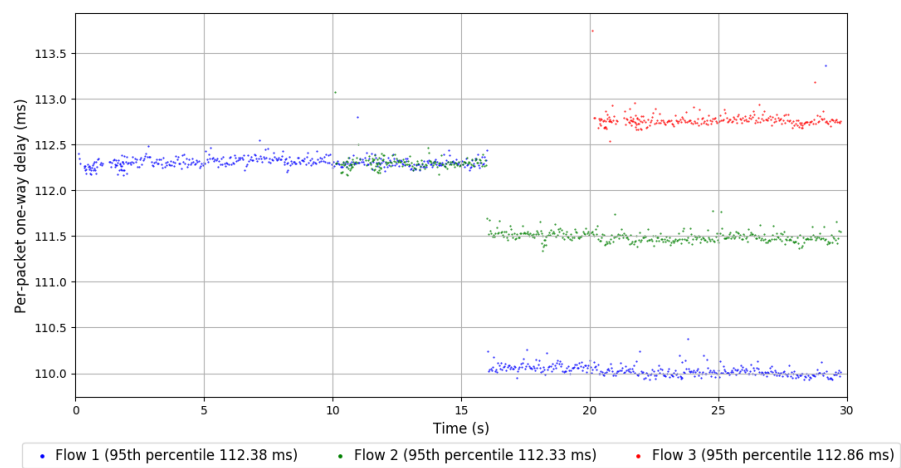
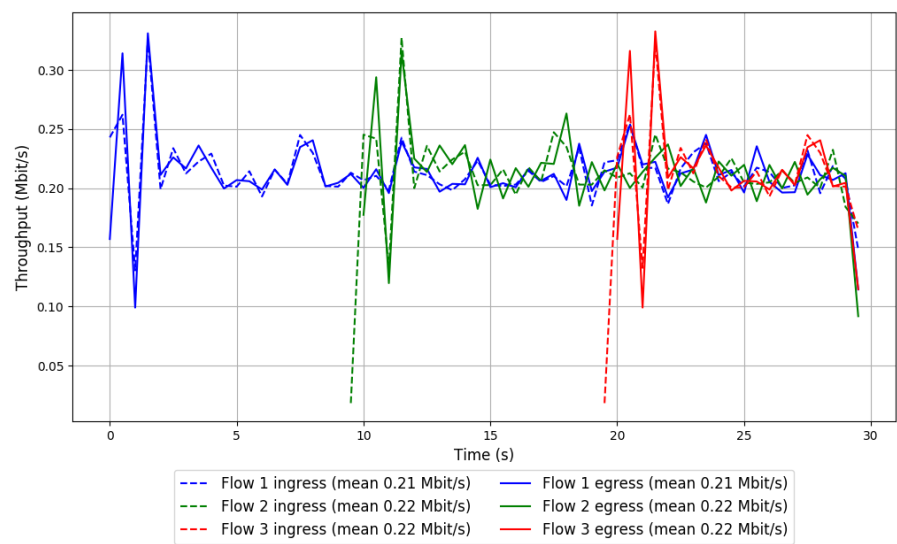


```
Run 2: Statistics of SReAM

Start at: 2018-01-17 06:35:08
End at: 2018-01-17 06:35:39

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.780 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.377 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.335 ms
Loss rate: 1.24%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.860 ms
Loss rate: 2.25%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-01-17 06:53:17

End at: 2018-01-17 06:53:47

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.521 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.465 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.883 ms

Loss rate: 1.24%

-- Flow 3:

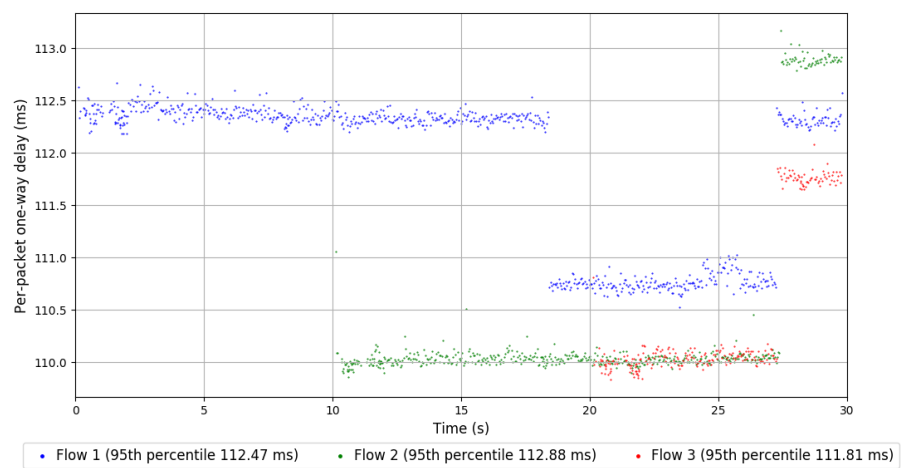
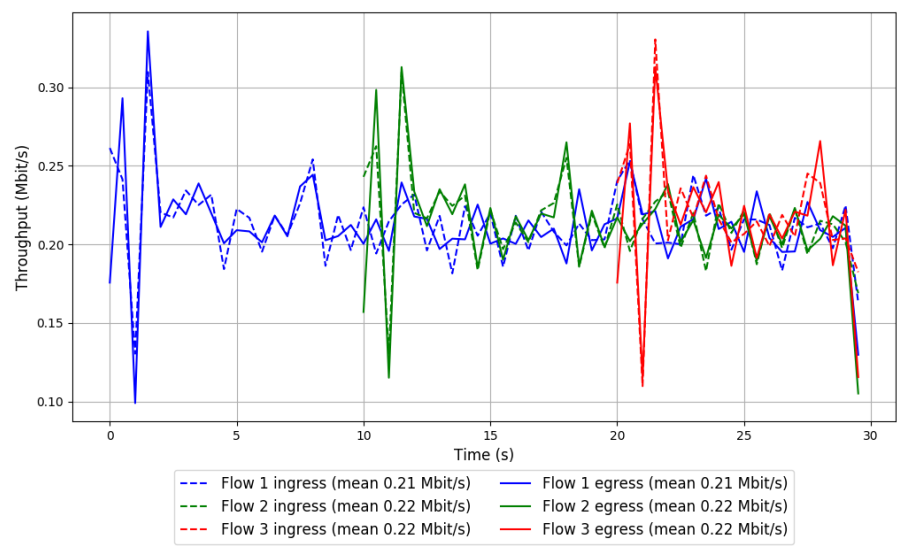
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.811 ms

Loss rate: 2.25%



Run 3: Report of SReAM — Data Link

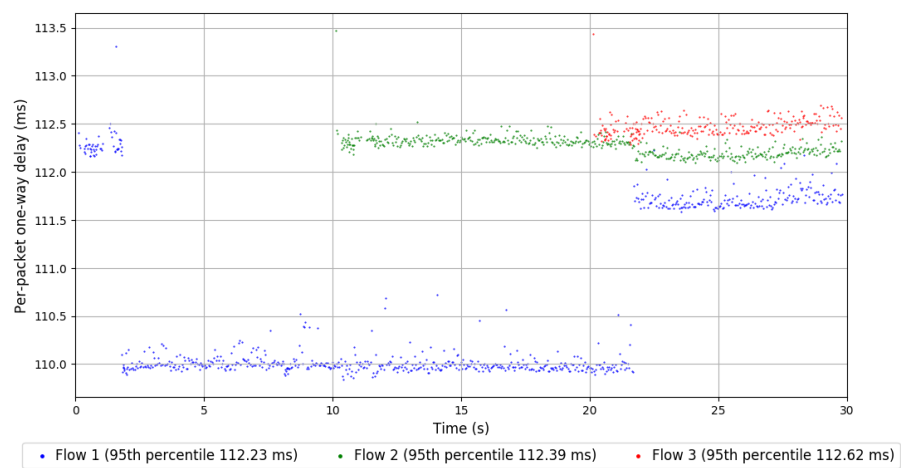
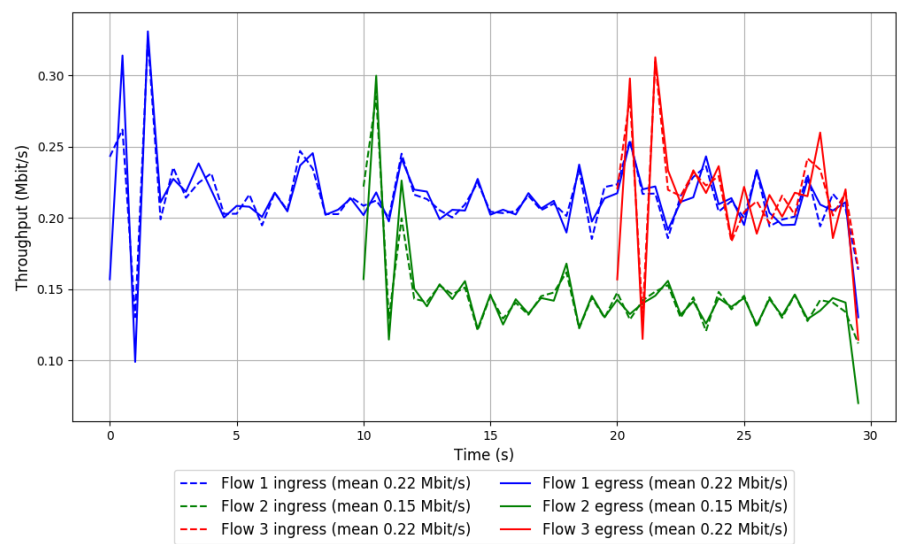


```
Run 4: Statistics of SCReAM

Start at: 2018-01-17 07:11:33
End at: 2018-01-17 07:12:03

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 112.511 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.230 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 112.395 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.620 ms
Loss rate: 2.25%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-01-17 07:29:53

End at: 2018-01-17 07:30:23

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 111.040 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.745 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.168 ms

Loss rate: 1.25%

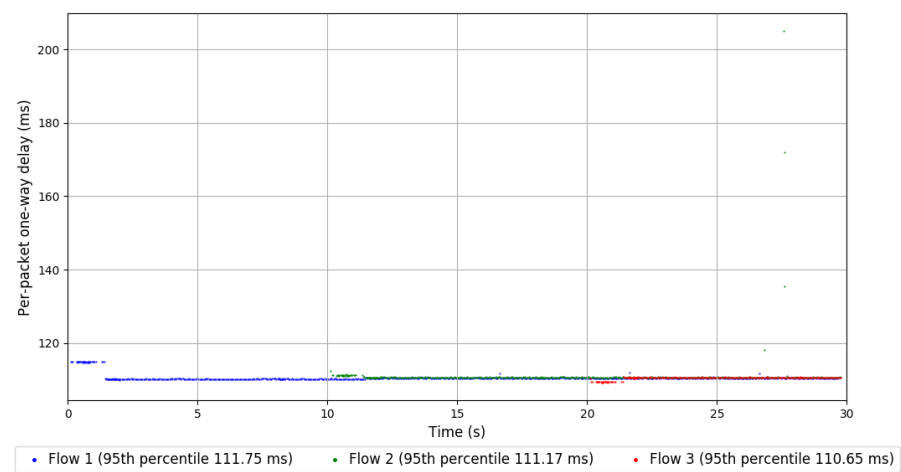
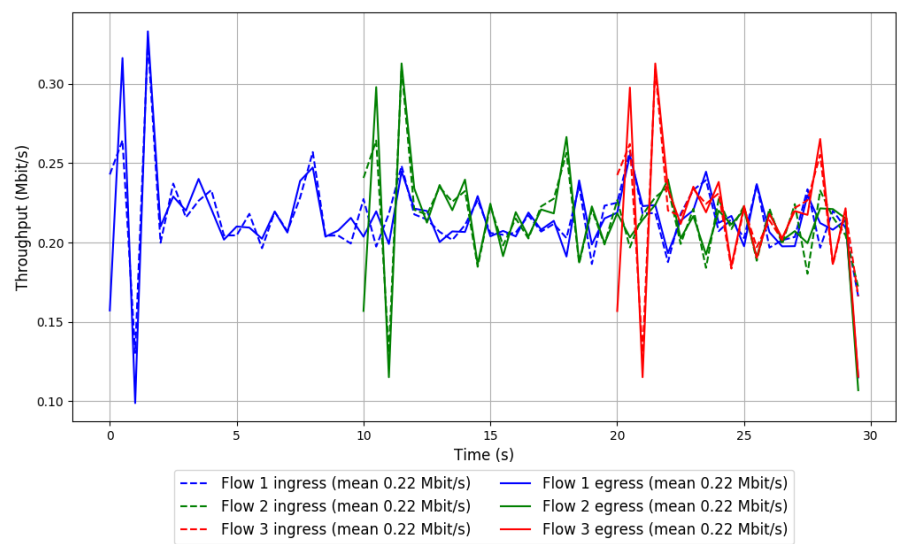
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.653 ms

Loss rate: 2.25%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-17 07:50:43

End at: 2018-01-17 07:51:13

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 112.700 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 112.130 ms

Loss rate: 1.01%

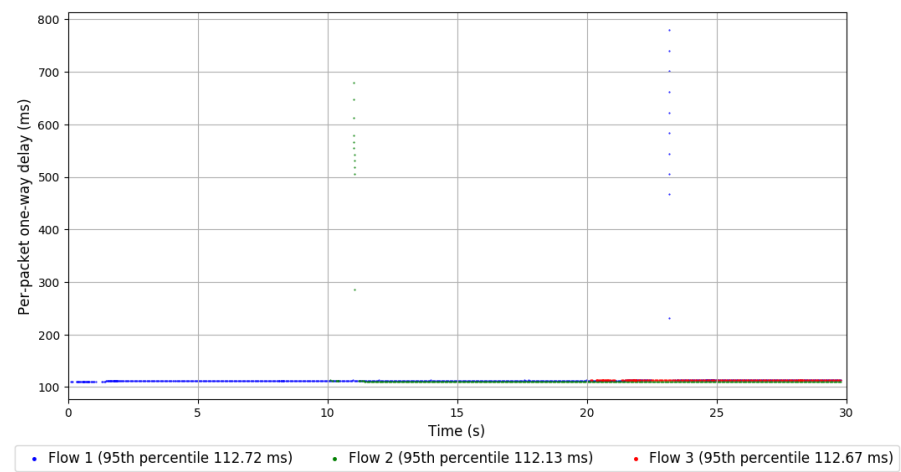
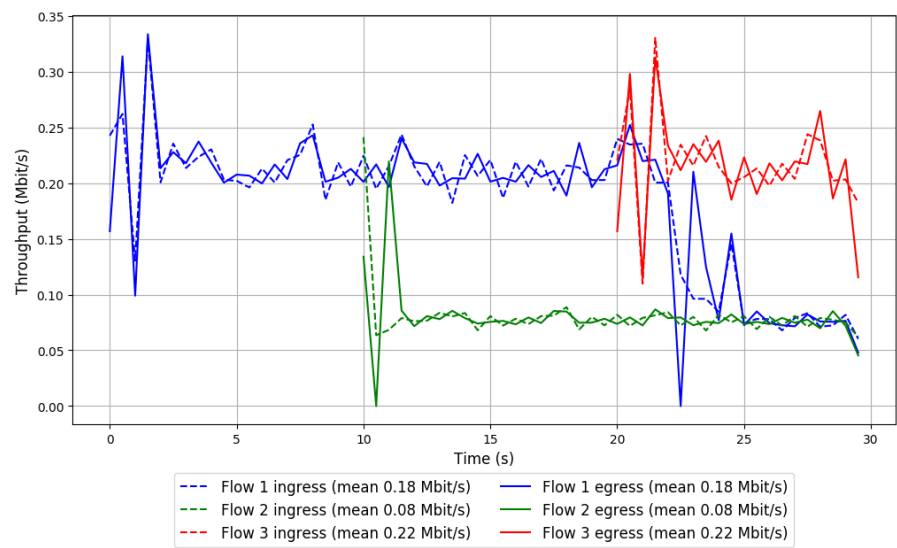
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.669 ms

Loss rate: 2.26%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-01-17 08:09:19

End at: 2018-01-17 08:09:50

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 112.381 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.403 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.378 ms

Loss rate: 1.25%

-- Flow 3:

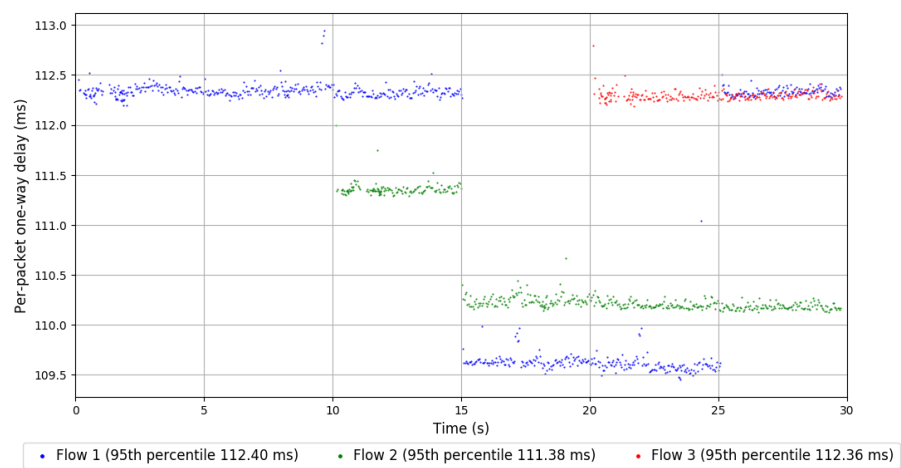
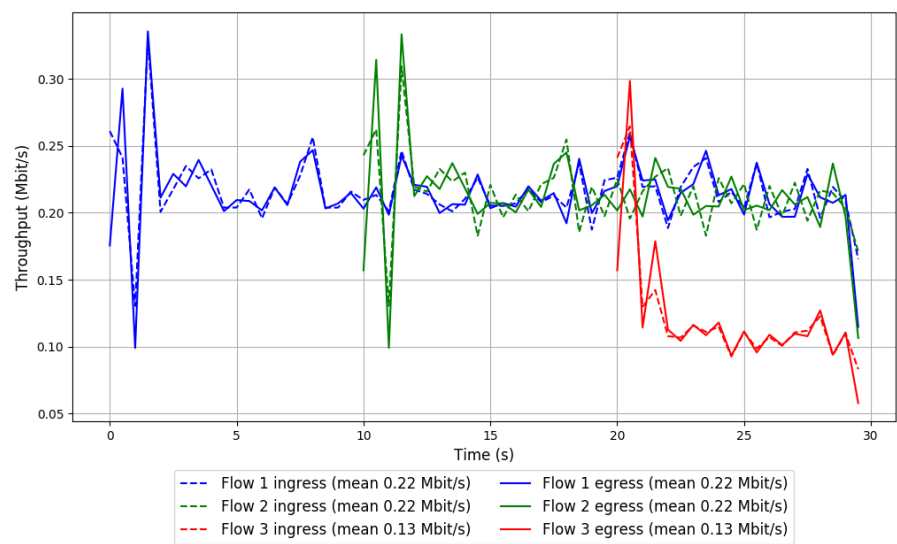
Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 112.362 ms

Loss rate: 1.99%



Run 7: Report of SCSReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-01-17 08:27:05

End at: 2018-01-17 08:27:35

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.258 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.119 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.289 ms

Loss rate: 1.26%

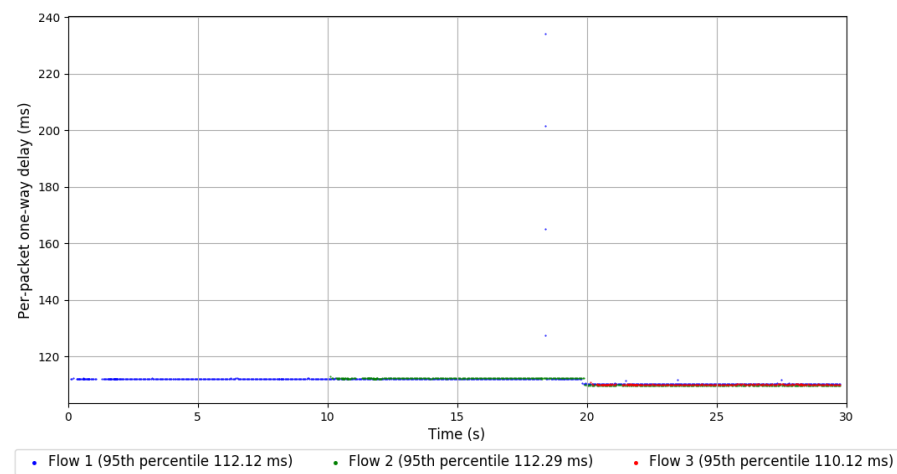
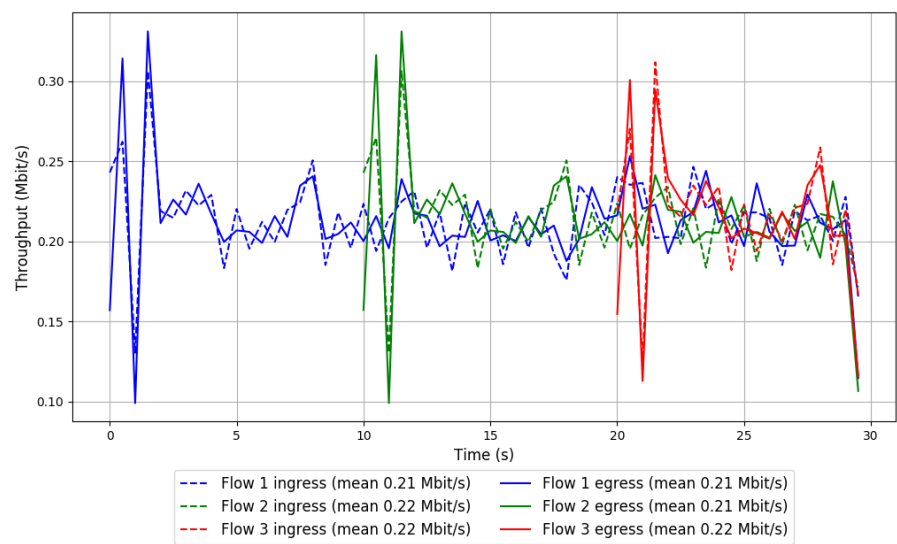
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.124 ms

Loss rate: 2.30%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-01-17 08:45:20

End at: 2018-01-17 08:45:50

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.429 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.441 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.154 ms

Loss rate: 1.06%

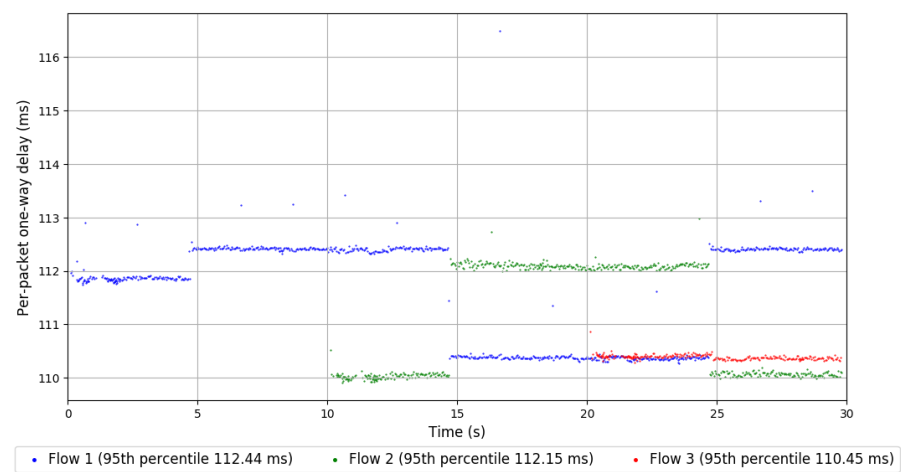
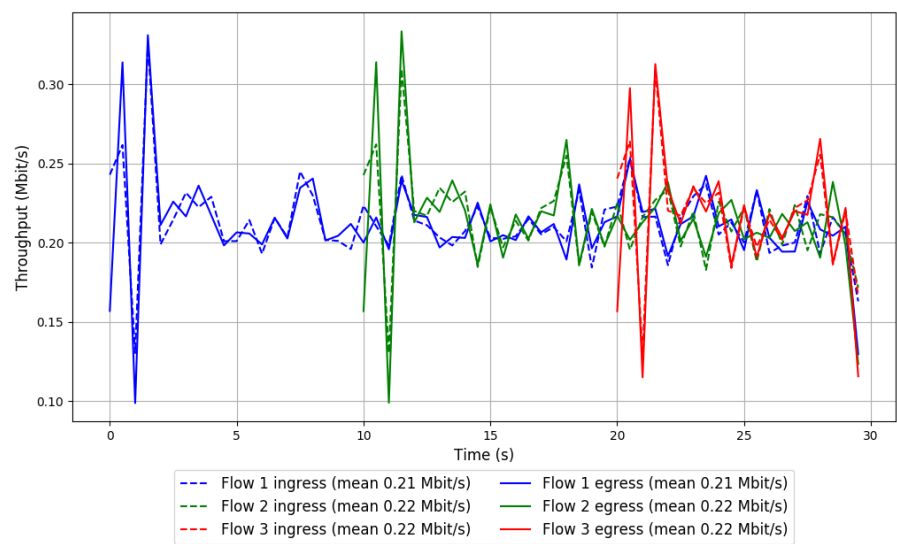
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.450 ms

Loss rate: 2.25%

Run 9: Report of SCRaM — Data Link

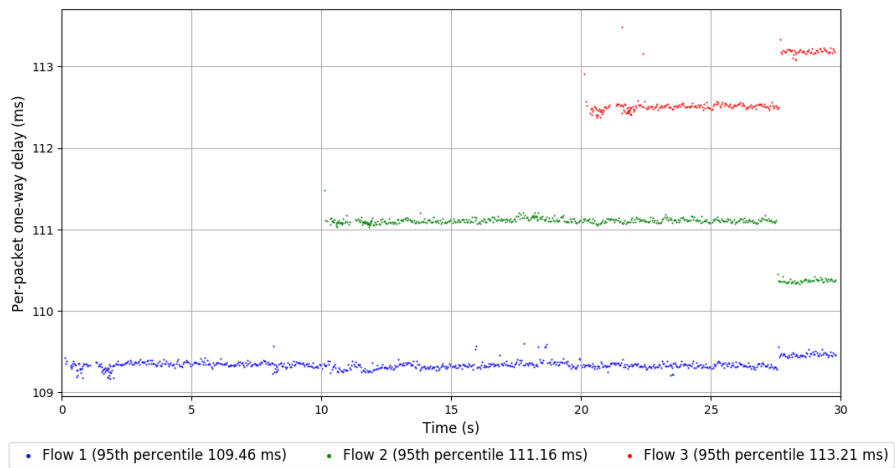
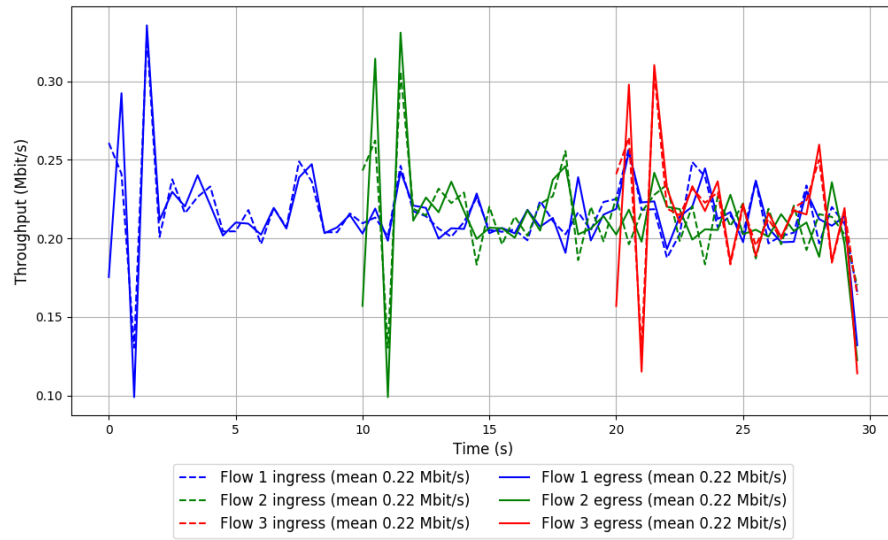


```
Run 10: Statistics of SCReAM

Start at: 2018-01-17 09:03:17
End at: 2018-01-17 09:03:47

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.544 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.457 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.157 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.206 ms
Loss rate: 2.24%
```

## Run 10: Report of SReAM — Data Link



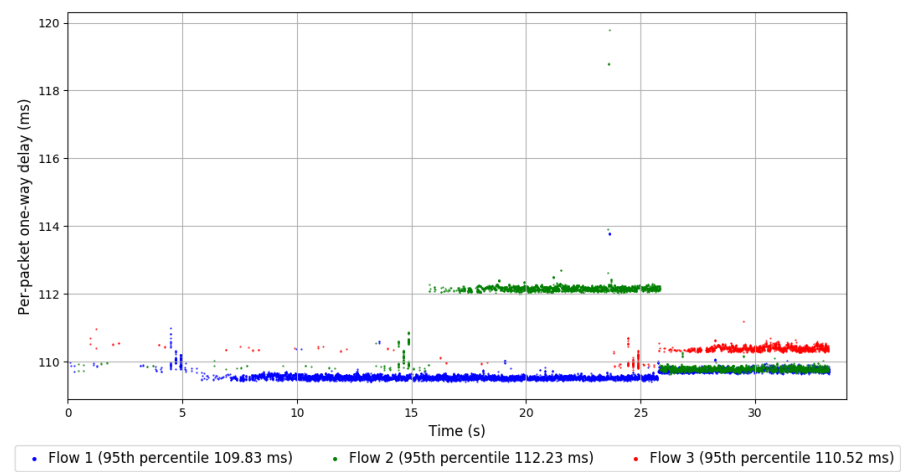
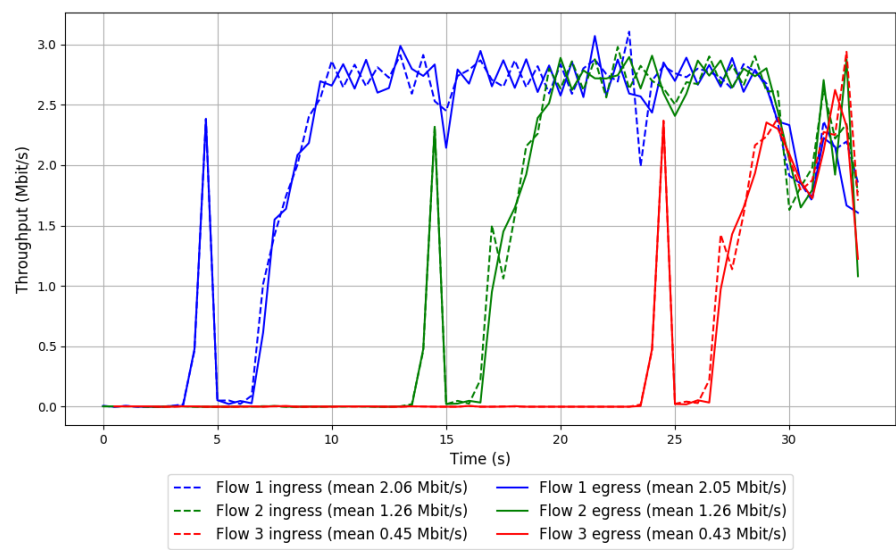
```
Run 1: Statistics of WebRTC media

Start at: 2018-01-17 06:11:02
End at: 2018-01-17 06:11:32

# Below is generated by plot.py at 2018-01-17 12:50:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 112.197 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 109.830 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 112.235 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 110.517 ms
Loss rate: 4.90%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-17 06:29:09

End at: 2018-01-17 06:29:39

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 112.913 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 112.951 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.388 ms

Loss rate: 0.98%

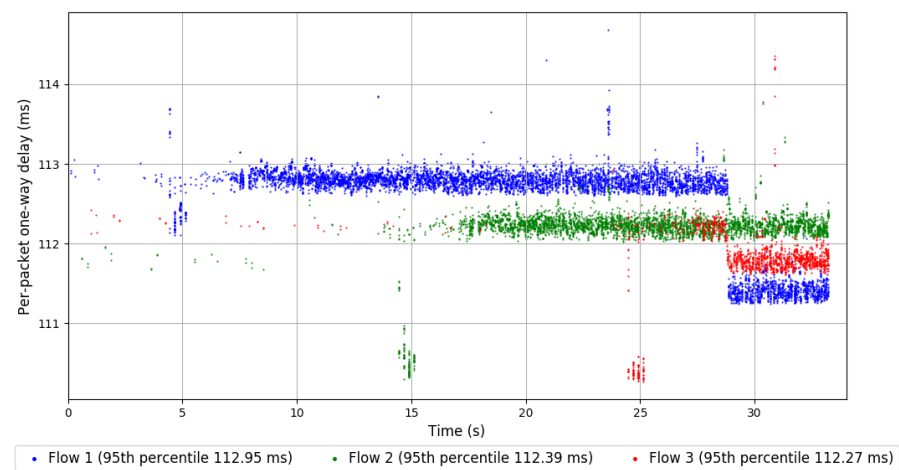
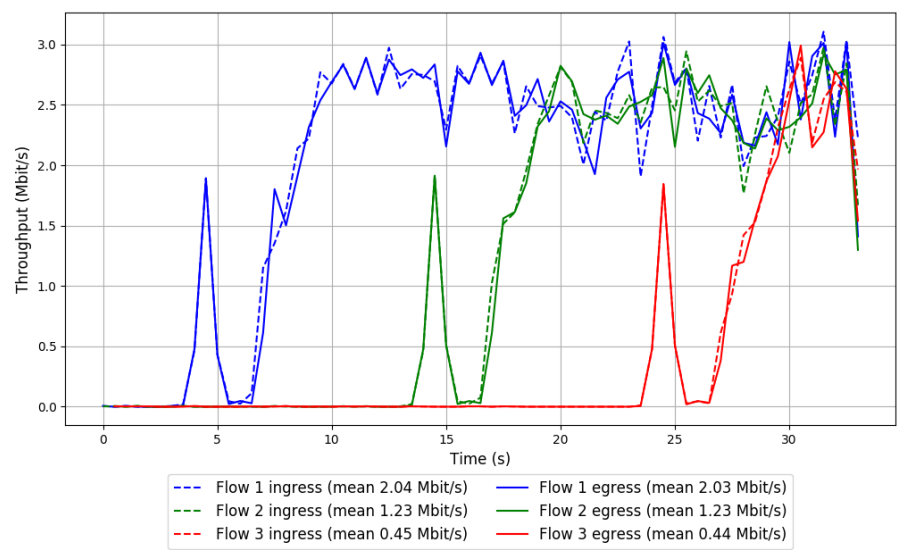
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 112.273 ms

Loss rate: 3.58%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-17 06:47:18

End at: 2018-01-17 06:47:48

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.65 Mbit/s

95th percentile per-packet one-way delay: 112.788 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.396 ms

Loss rate: 1.96%

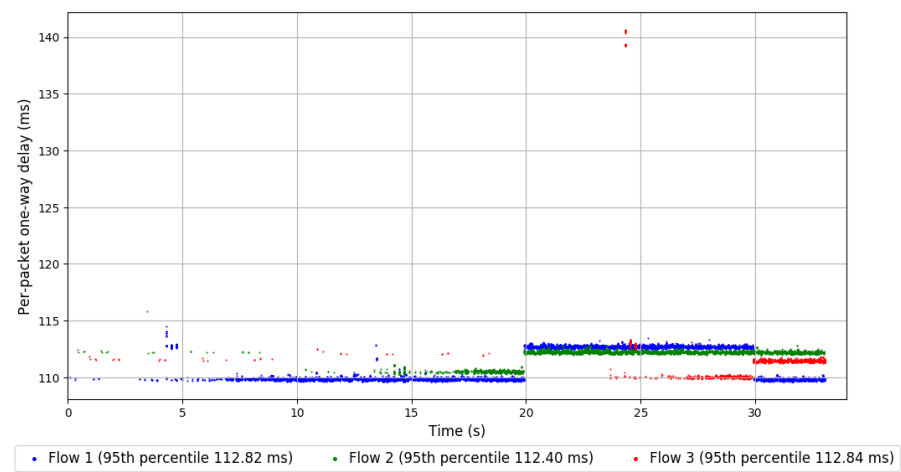
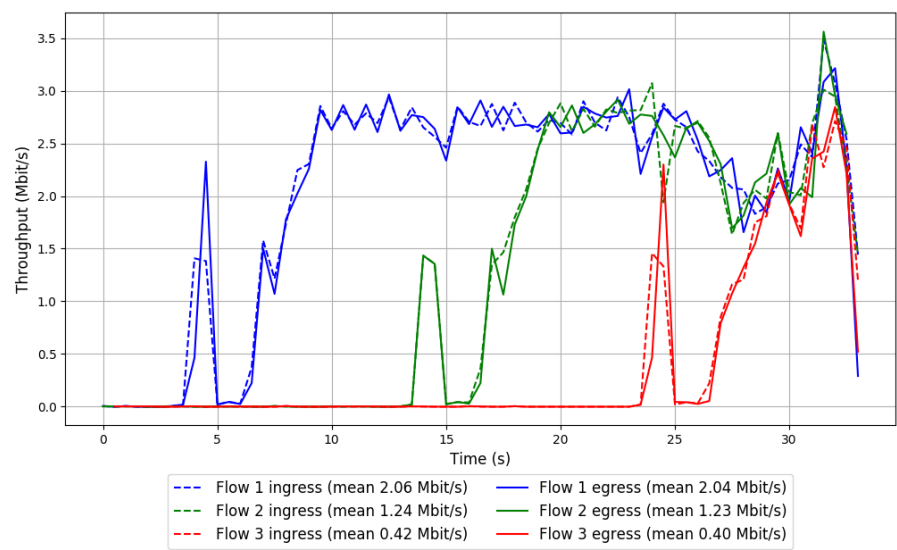
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 112.844 ms

Loss rate: 4.99%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-17 07:05:39

End at: 2018-01-17 07:06:09

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 112.887 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 110.252 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 112.987 ms

Loss rate: 1.78%

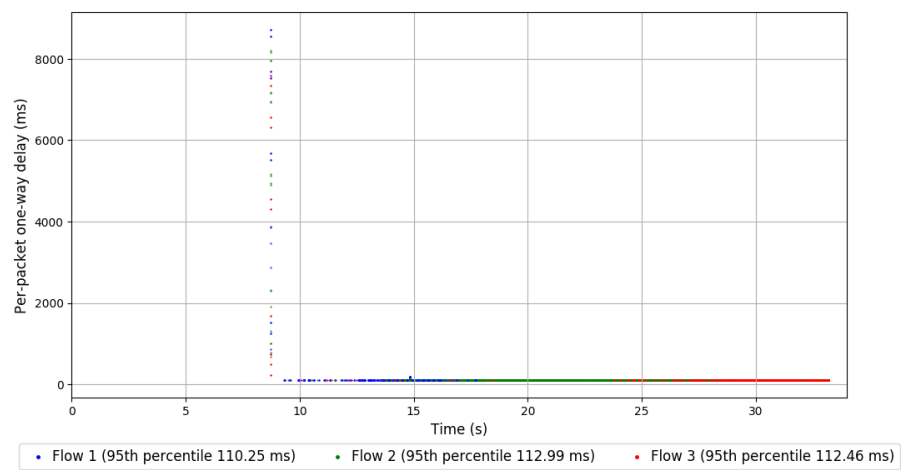
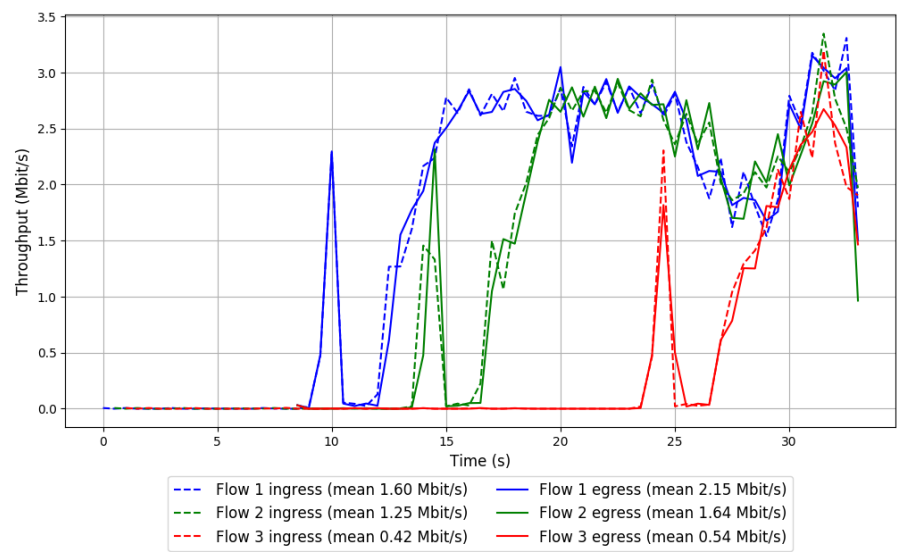
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 112.464 ms

Loss rate: 3.08%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-17 07:23:33

End at: 2018-01-17 07:24:03

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 113.253 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 113.228 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 113.264 ms

Loss rate: 0.00%

-- Flow 3:

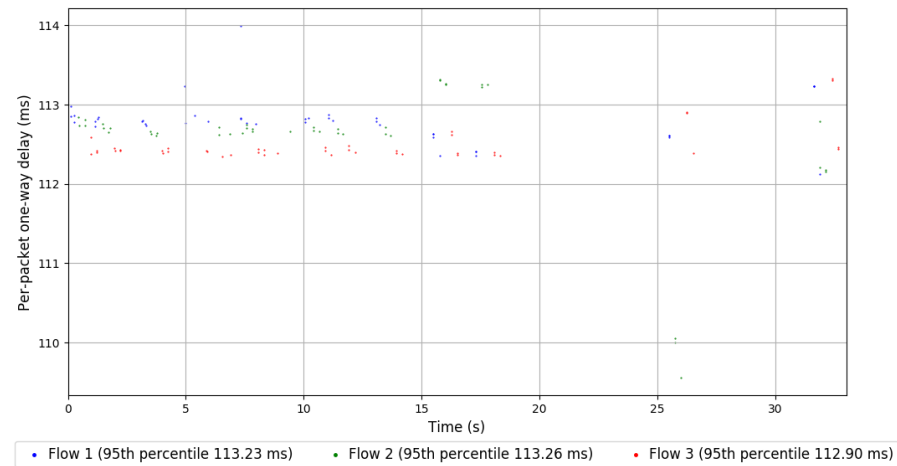
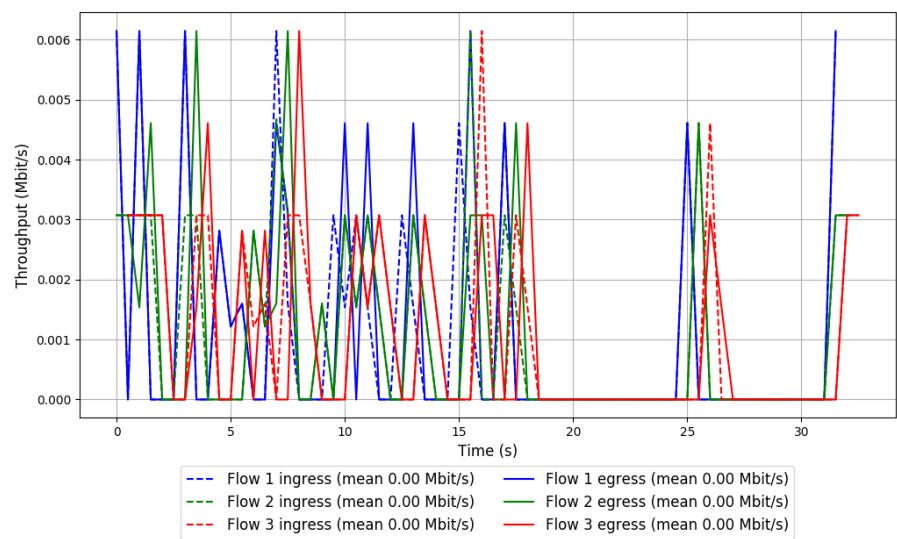
Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 112.903 ms

Loss rate: 0.00%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-17 07:44:28

End at: 2018-01-17 07:44:58

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 112.856 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 112.467 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 114.016 ms

Loss rate: 1.34%

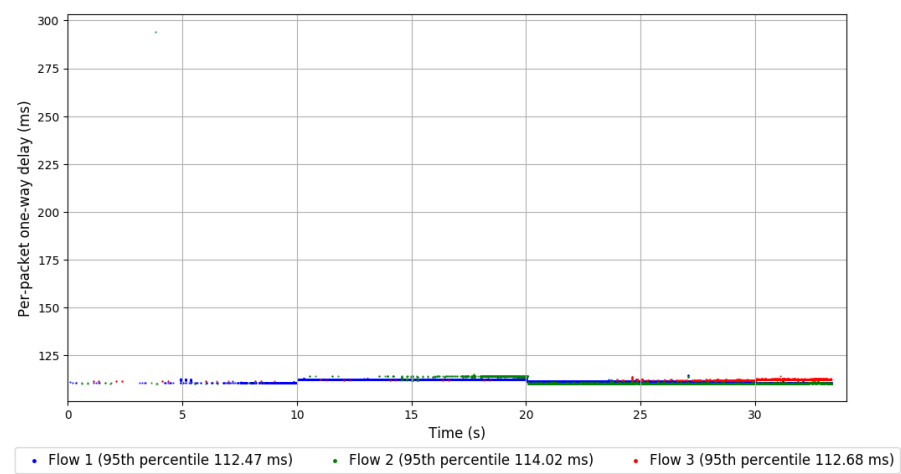
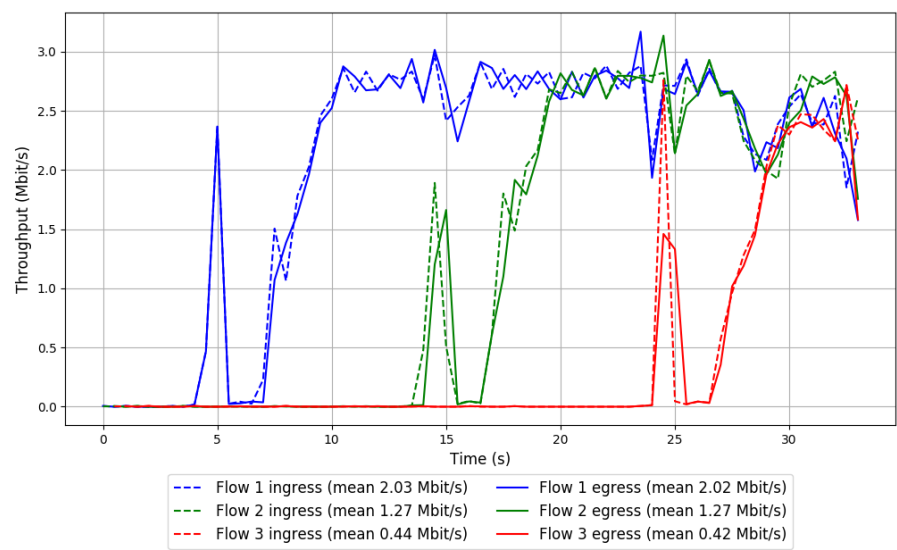
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 112.682 ms

Loss rate: 4.37%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-17 08:03:25

End at: 2018-01-17 08:03:55

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 112.227 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 112.239 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 110.582 ms

Loss rate: 1.35%

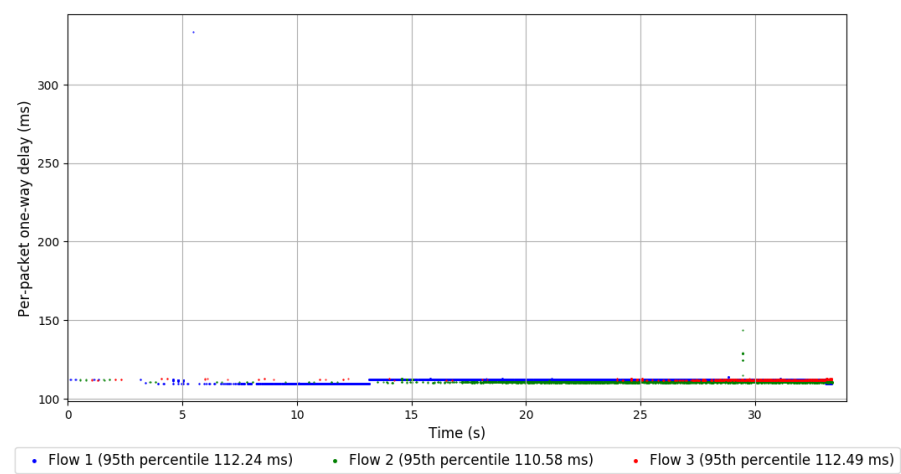
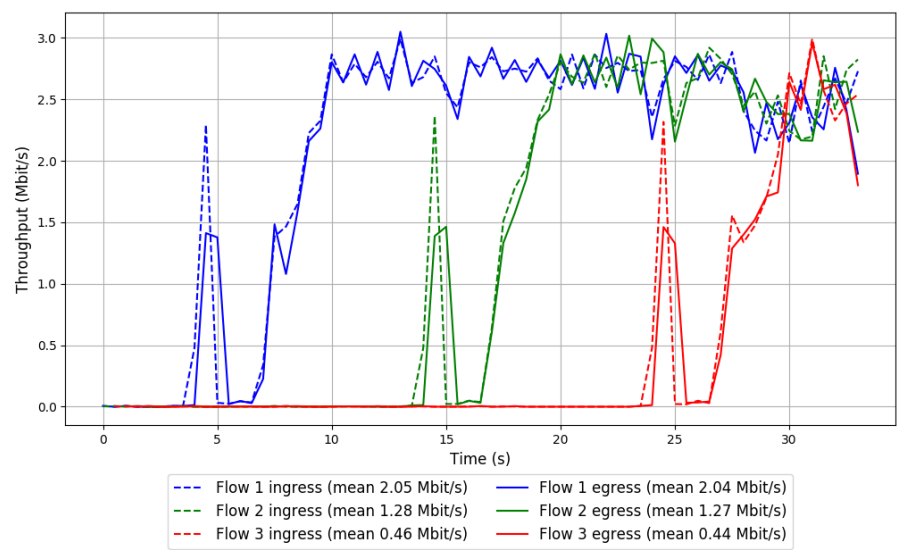
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 112.494 ms

Loss rate: 4.42%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-17 08:21:27

End at: 2018-01-17 08:21:57

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 112.676 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 112.300 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 112.736 ms

Loss rate: 0.82%

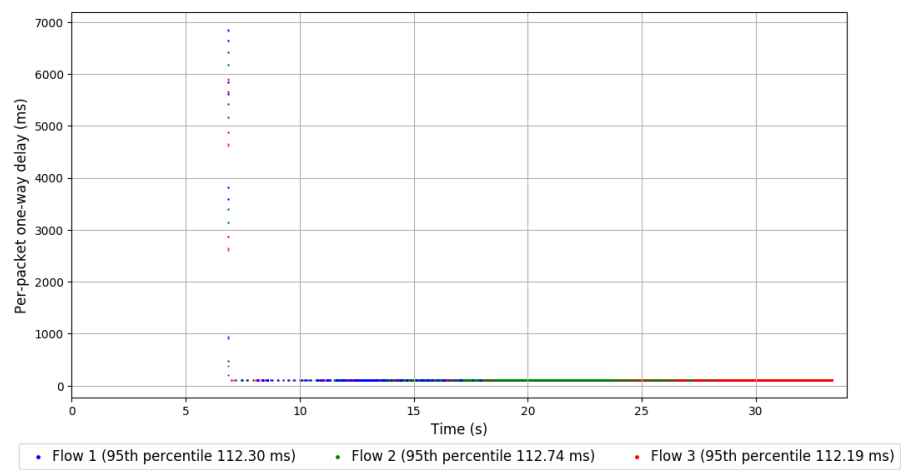
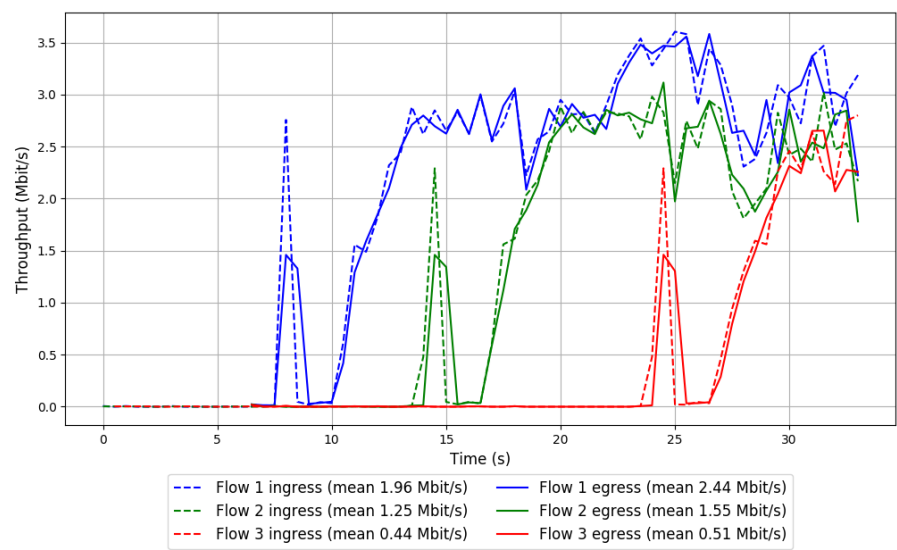
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 112.189 ms

Loss rate: 4.74%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-17 08:39:39

End at: 2018-01-17 08:40:09

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.45 Mbit/s

95th percentile per-packet one-way delay: 112.075 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 112.010 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 112.153 ms

Loss rate: 1.85%

-- Flow 3:

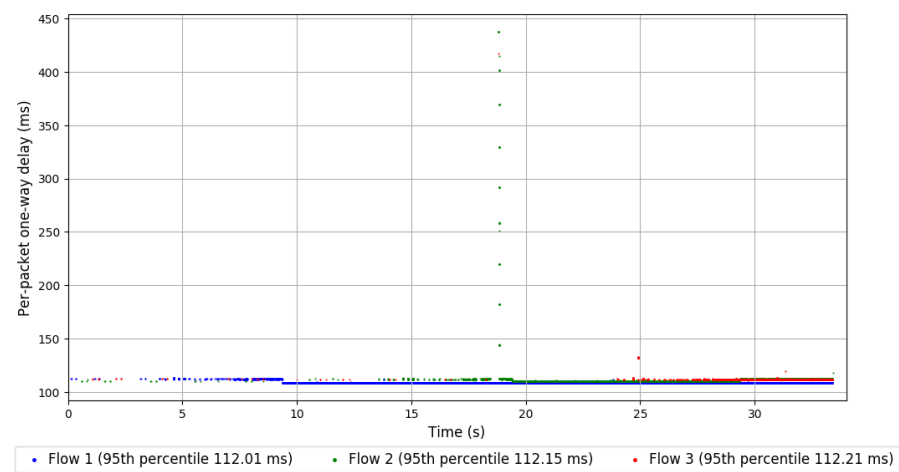
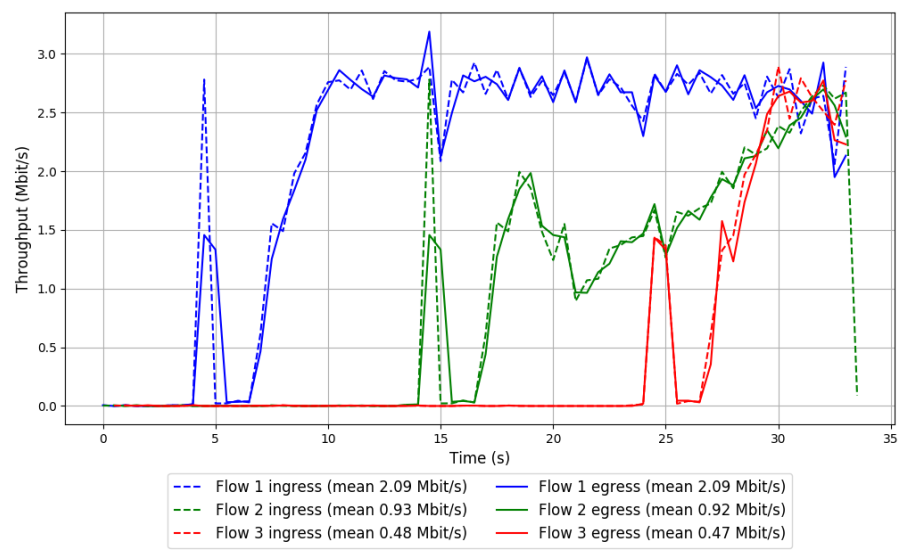
Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 112.206 ms

Loss rate: 3.46%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-17 08:57:24

End at: 2018-01-17 08:57:54

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 112.638 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 112.547 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 112.696 ms

Loss rate: 1.26%

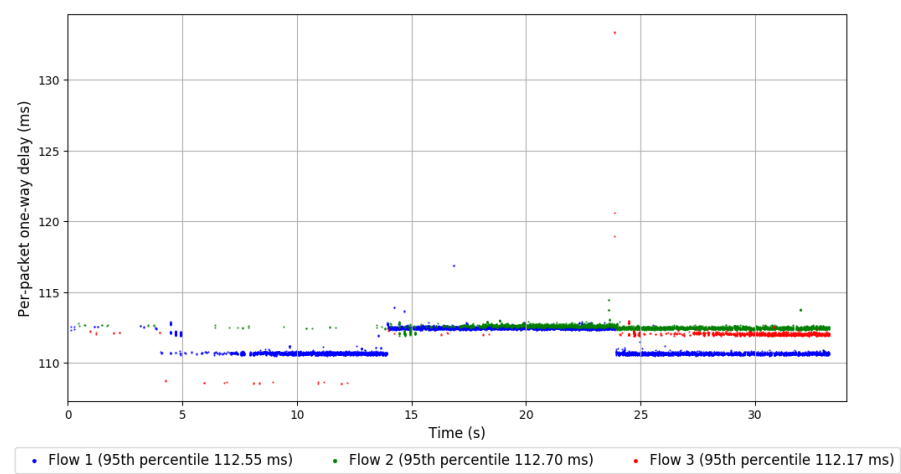
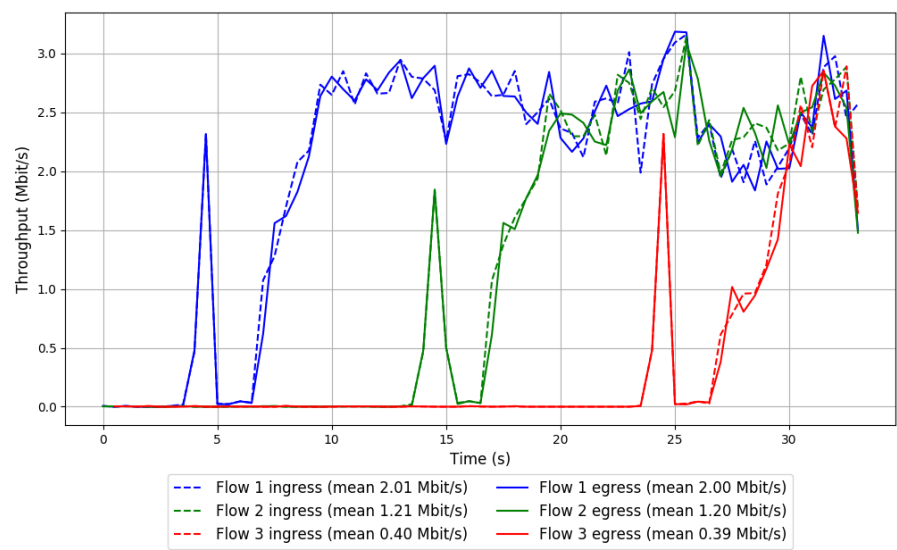
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 112.167 ms

Loss rate: 4.02%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-17 06:12:58

End at: 2018-01-17 06:13:28

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.57 Mbit/s

95th percentile per-packet one-way delay: 111.153 ms

Loss rate: 1.75%

-- Flow 1:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 111.084 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 111.155 ms

Loss rate: 1.64%

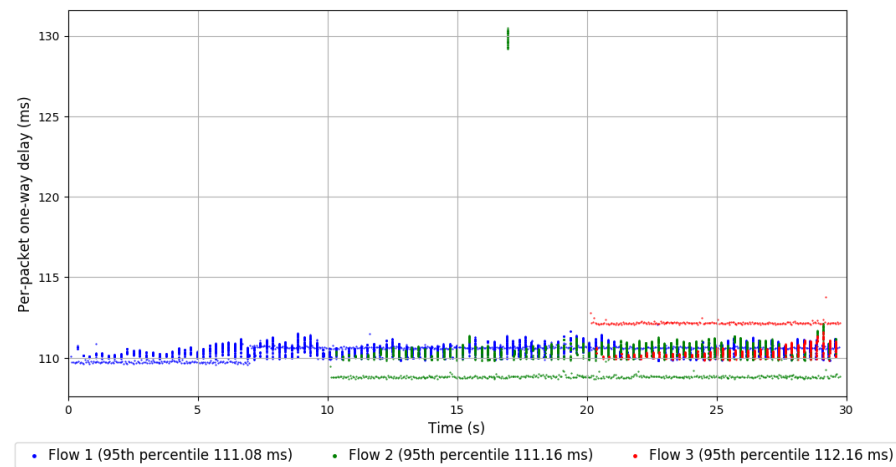
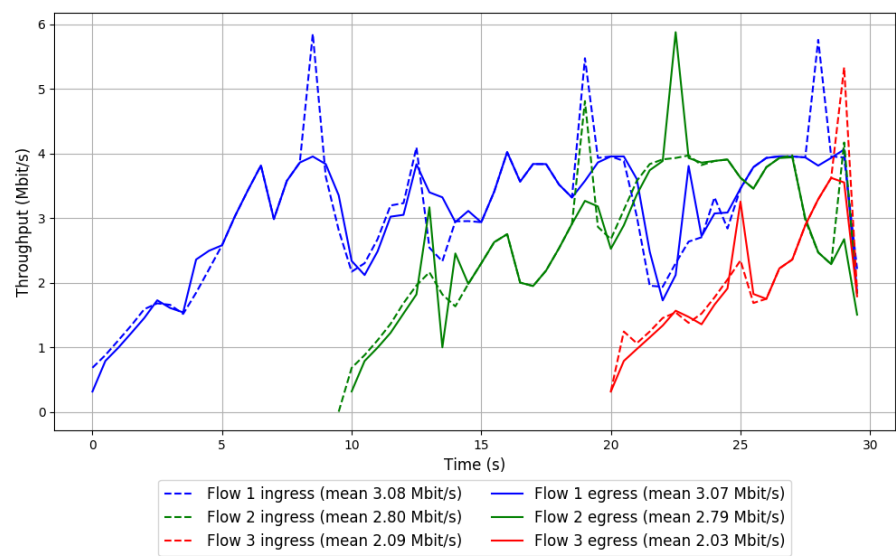
-- Flow 3:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 112.163 ms

Loss rate: 4.54%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-17 06:31:06

End at: 2018-01-17 06:31:36

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 113.145 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 112.606 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 2.97 Mbit/s

95th percentile per-packet one-way delay: 113.246 ms

Loss rate: 1.69%

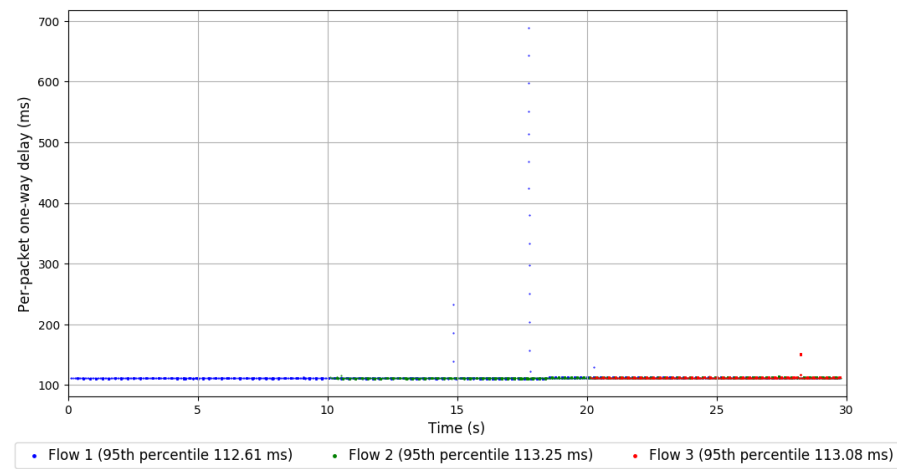
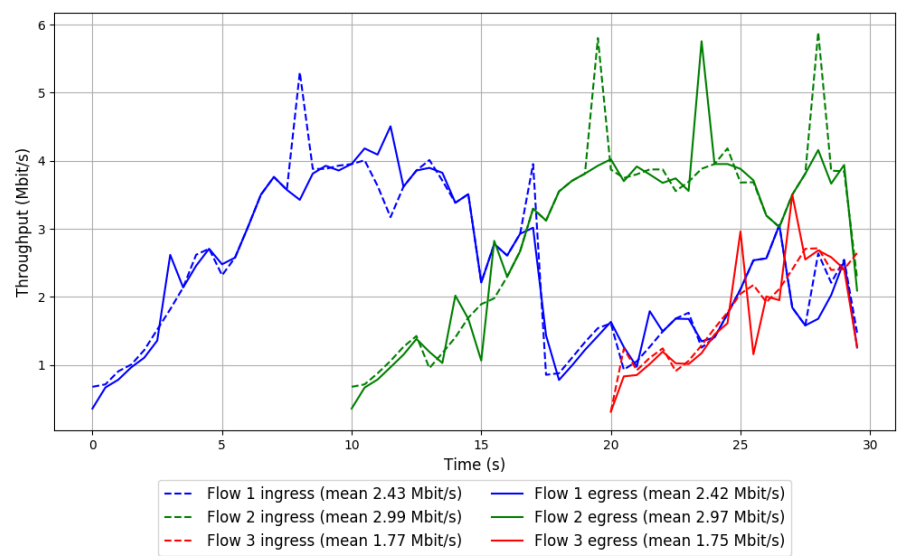
-- Flow 3:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 113.079 ms

Loss rate: 3.96%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-17 06:49:15

End at: 2018-01-17 06:49:45

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 113.709 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 113.726 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 113.761 ms

Loss rate: 0.62%

-- Flow 3:

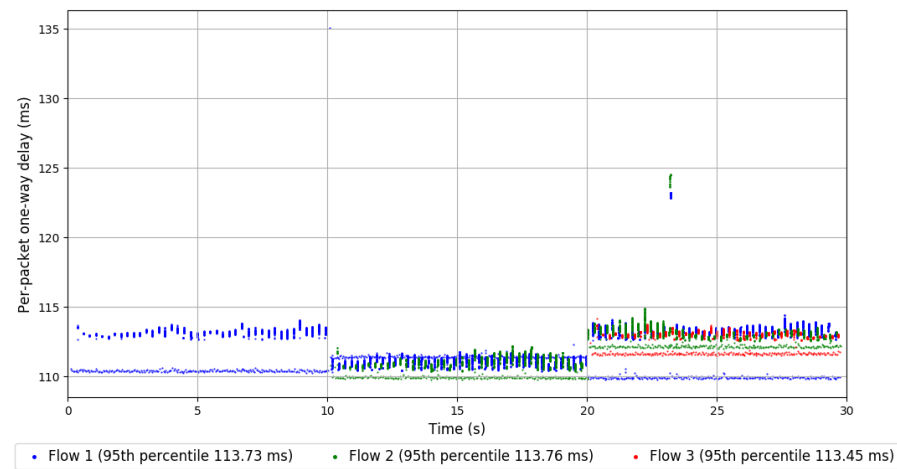
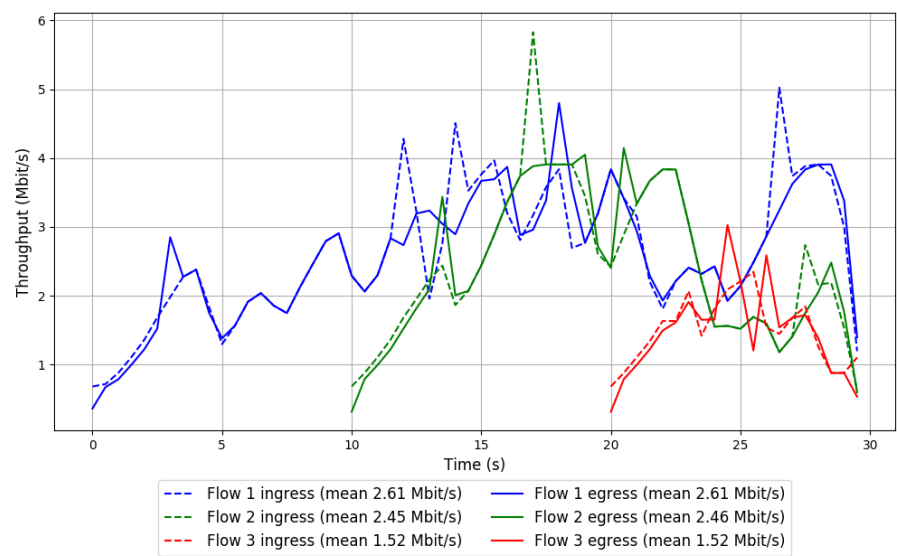
Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 113.447 ms

Loss rate: 1.93%



Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-17 07:07:34

End at: 2018-01-17 07:08:04

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 113.473 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 113.376 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 113.505 ms

Loss rate: 0.79%

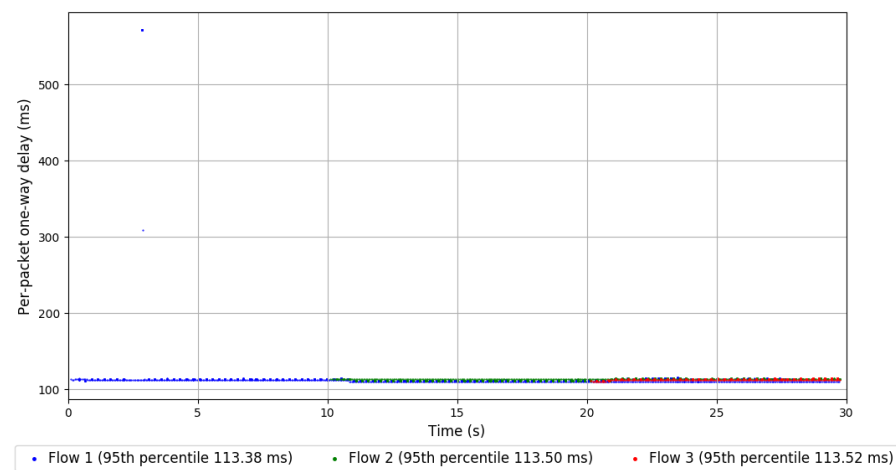
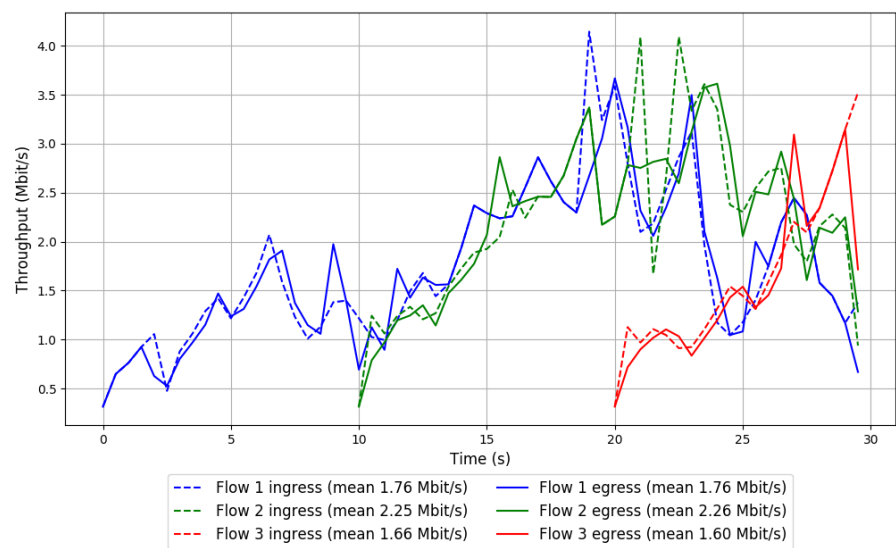
-- Flow 3:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 113.523 ms

Loss rate: 5.55%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-17 07:25:30

End at: 2018-01-17 07:26:00

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 113.852 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 3.02 Mbit/s

95th percentile per-packet one-way delay: 113.925 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 113.584 ms

Loss rate: 0.91%

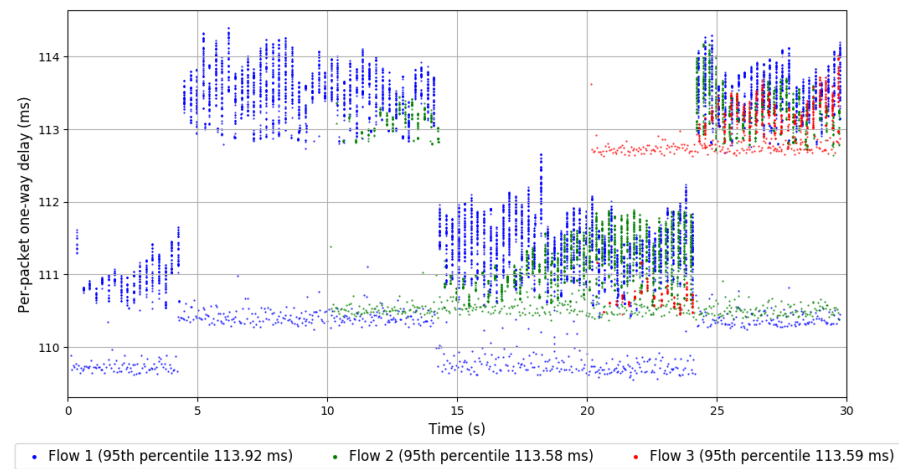
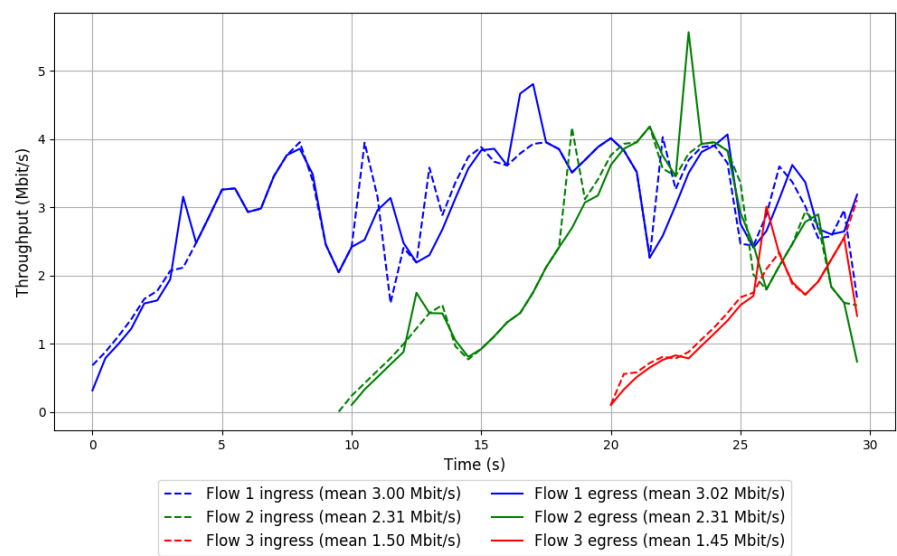
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 113.586 ms

Loss rate: 5.78%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-17 07:46:25

End at: 2018-01-17 07:46:55

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 113.251 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 113.215 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 113.505 ms

Loss rate: 1.49%

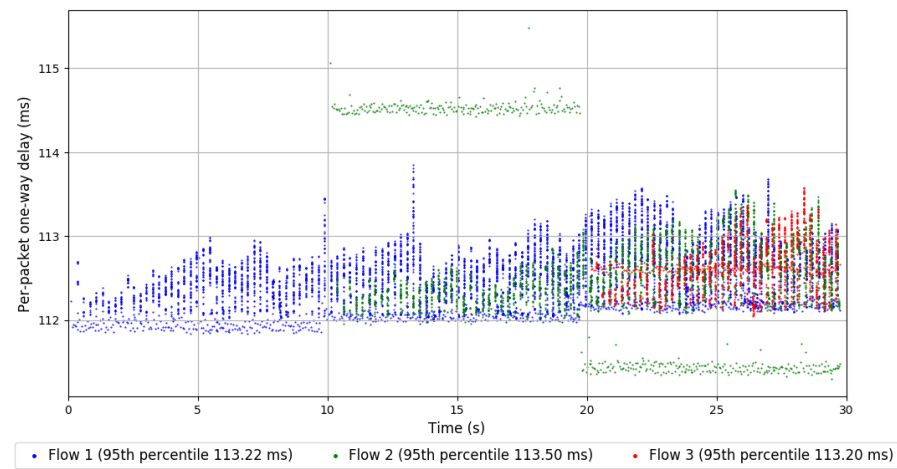
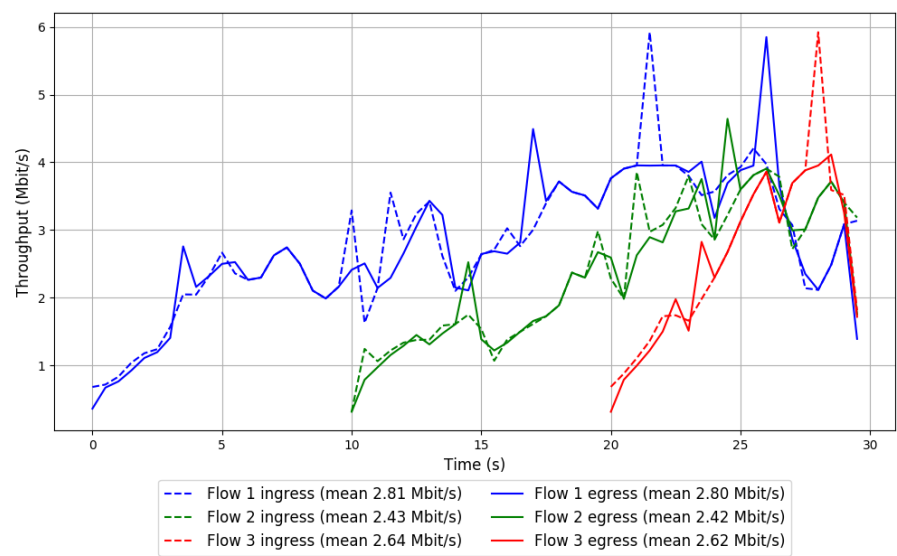
-- Flow 3:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 113.198 ms

Loss rate: 3.47%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-17 08:05:18

End at: 2018-01-17 08:05:48

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 112.955 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 113.001 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 112.925 ms

Loss rate: 0.99%

-- Flow 3:

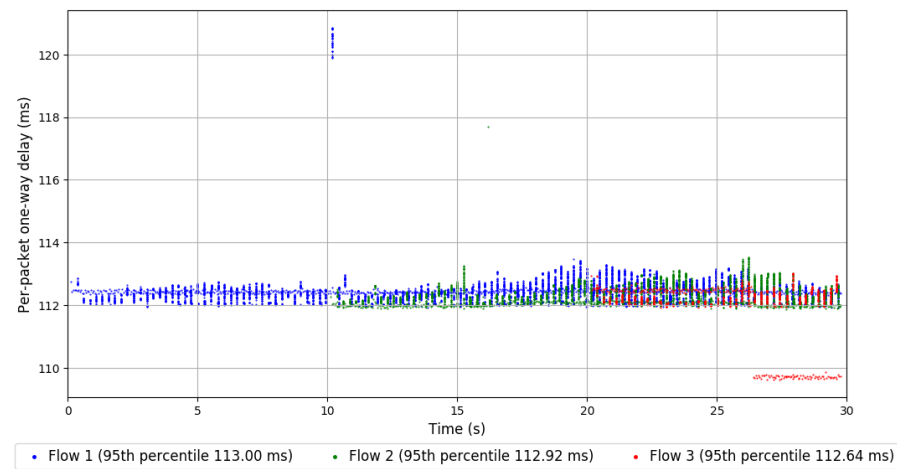
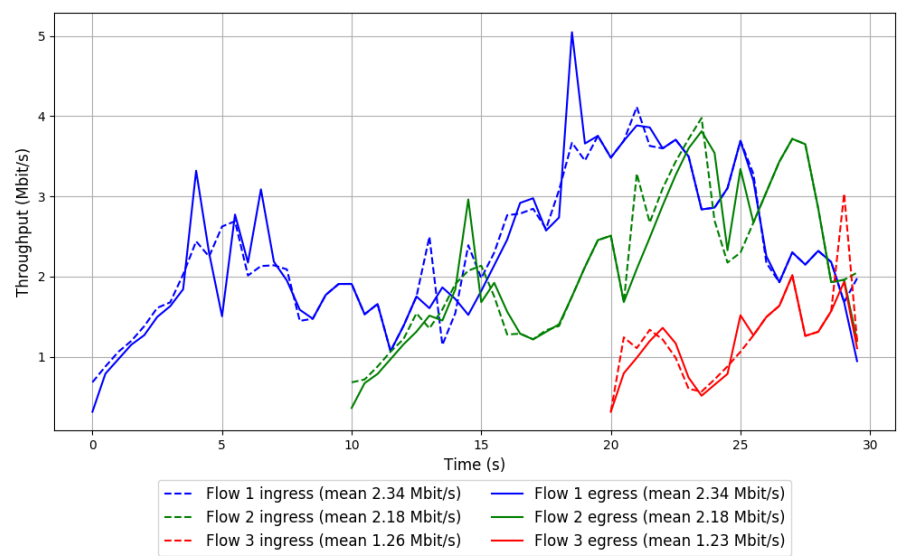
Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.638 ms

Loss rate: 4.81%



Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-17 08:23:23

End at: 2018-01-17 08:23:53

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 112.877 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 112.994 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 112.654 ms

Loss rate: 2.09%

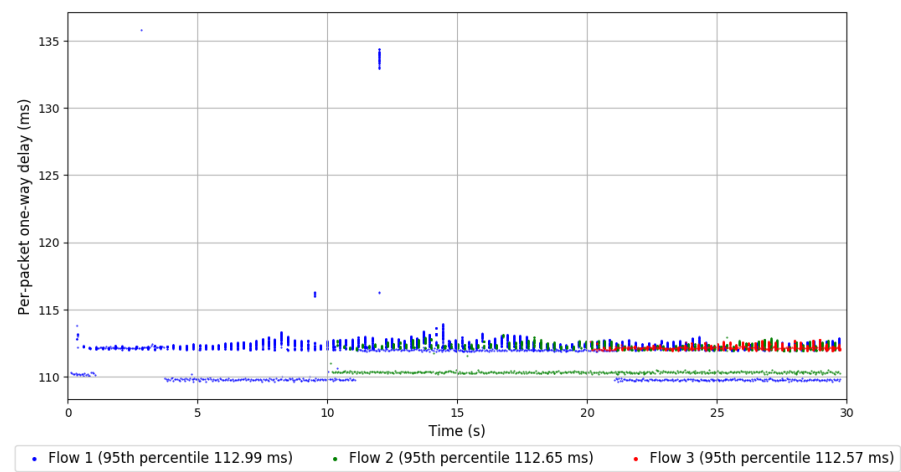
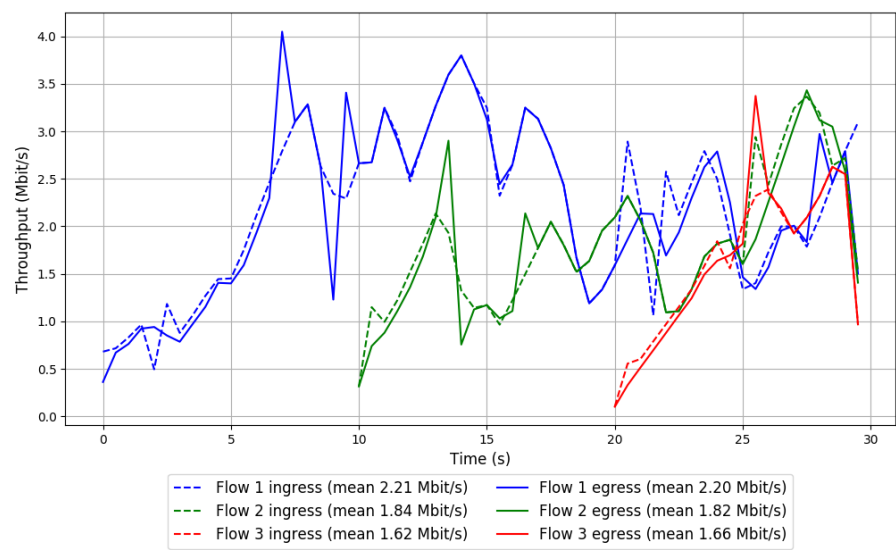
-- Flow 3:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 112.566 ms

Loss rate: 0.02%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-17 08:41:32

End at: 2018-01-17 08:42:02

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.56 Mbit/s

95th percentile per-packet one-way delay: 112.783 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 112.786 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 112.652 ms

Loss rate: 1.51%

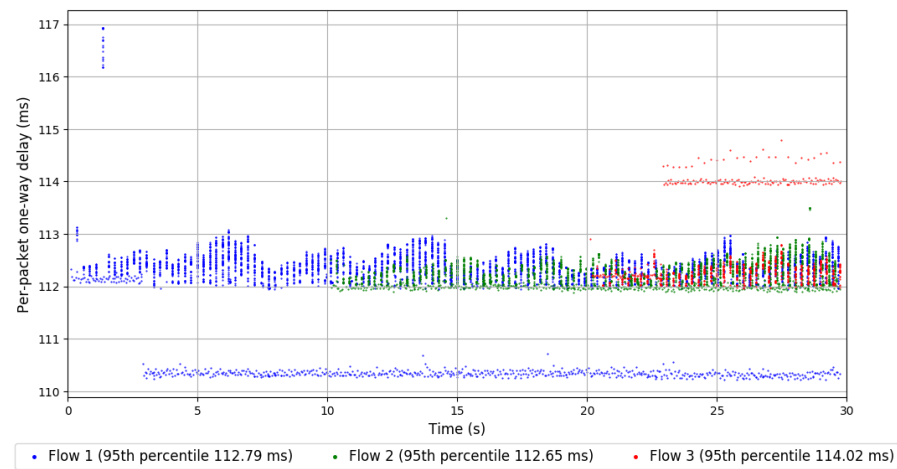
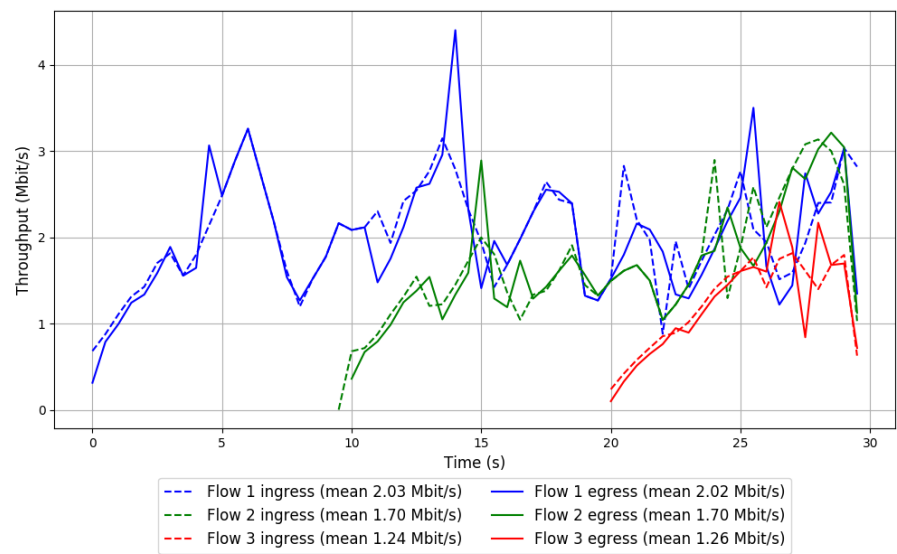
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 114.018 ms

Loss rate: 0.05%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-17 08:59:21

End at: 2018-01-17 08:59:51

# Below is generated by plot.py at 2018-01-17 12:50:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 113.443 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 2.90 Mbit/s

95th percentile per-packet one-way delay: 113.503 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 113.425 ms

Loss rate: 1.13%

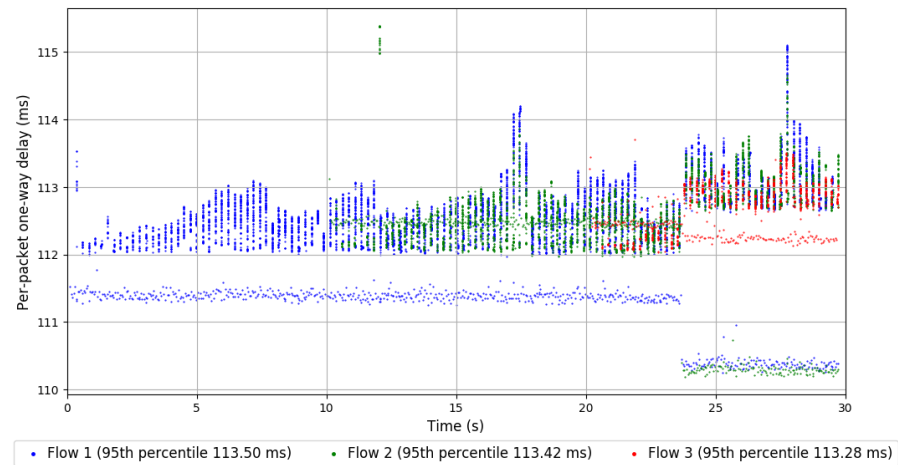
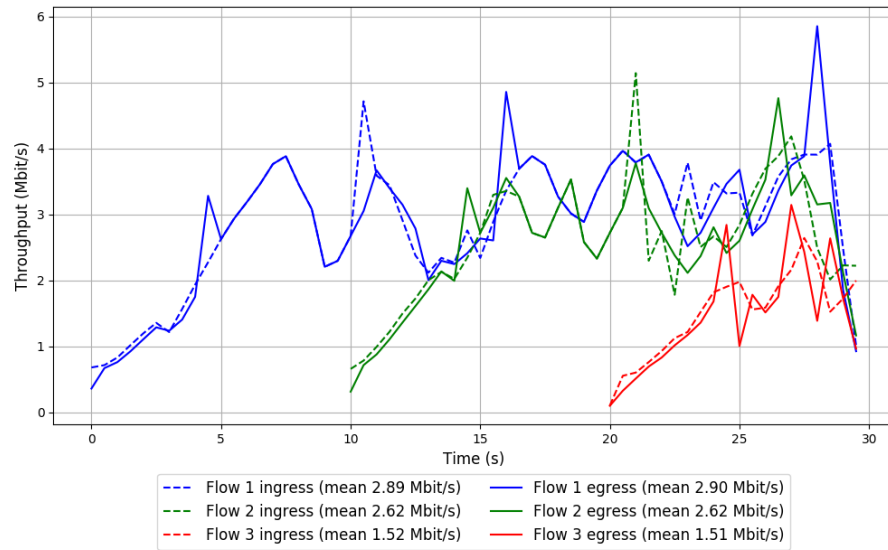
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.283 ms

Loss rate: 3.46%

## Run 10: Report of Sprout — Data Link



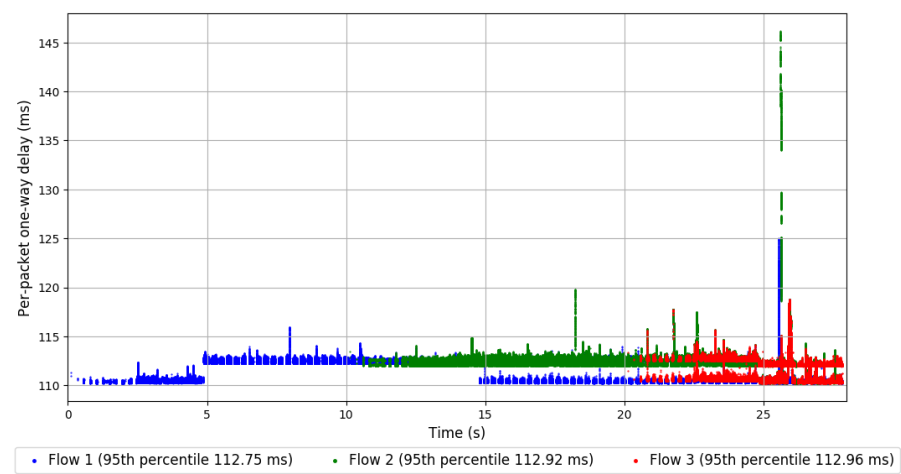
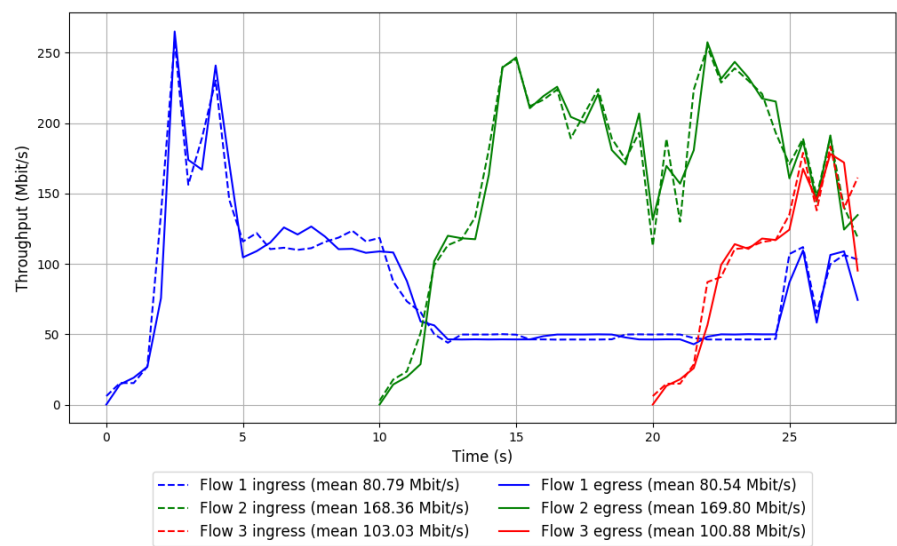
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-17 06:22:08
End at: 2018-01-17 06:22:38

# Below is generated by plot.py at 2018-01-17 12:52:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 216.56 Mbit/s
95th percentile per-packet one-way delay: 112.867 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 80.54 Mbit/s
95th percentile per-packet one-way delay: 112.754 ms
Loss rate: 1.11%
-- Flow 2:
Average throughput: 169.80 Mbit/s
95th percentile per-packet one-way delay: 112.921 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 100.88 Mbit/s
95th percentile per-packet one-way delay: 112.958 ms
Loss rate: 4.78%
```



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

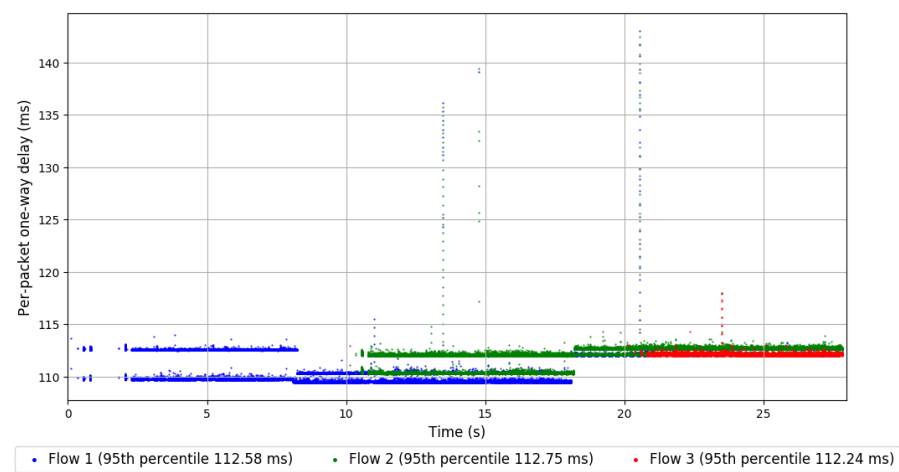
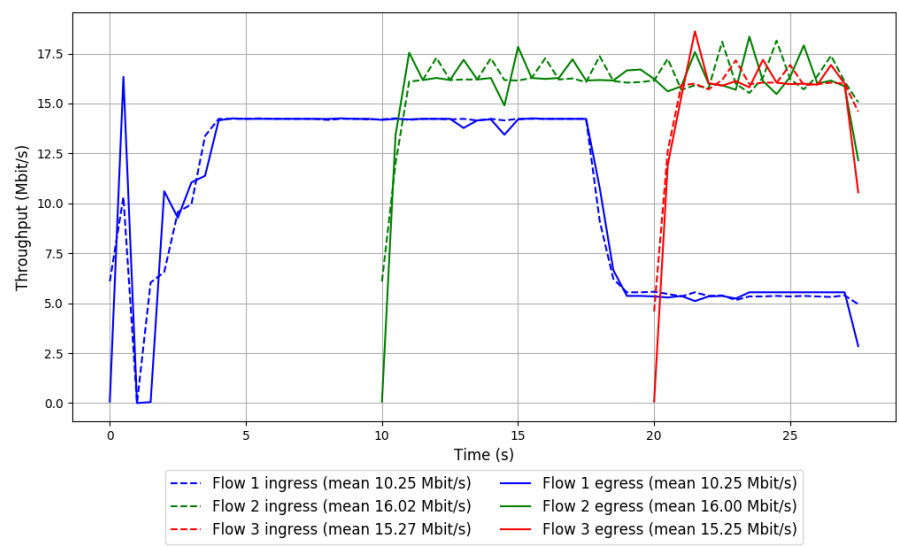


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-17 06:40:44
End at: 2018-01-17 06:41:14

# Below is generated by plot.py at 2018-01-17 12:52:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.70 Mbit/s
95th percentile per-packet one-way delay: 112.680 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 112.576 ms
Loss rate: 0.68%
-- Flow 2:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 112.751 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 15.25 Mbit/s
95th percentile per-packet one-way delay: 112.237 ms
Loss rate: 3.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-01-17 06:58:51

End at: 2018-01-17 06:59:21

# Below is generated by plot.py at 2018-01-17 12:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 263.10 Mbit/s

95th percentile per-packet one-way delay: 113.083 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 149.51 Mbit/s

95th percentile per-packet one-way delay: 113.039 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 172.92 Mbit/s

95th percentile per-packet one-way delay: 113.137 ms

Loss rate: 1.32%

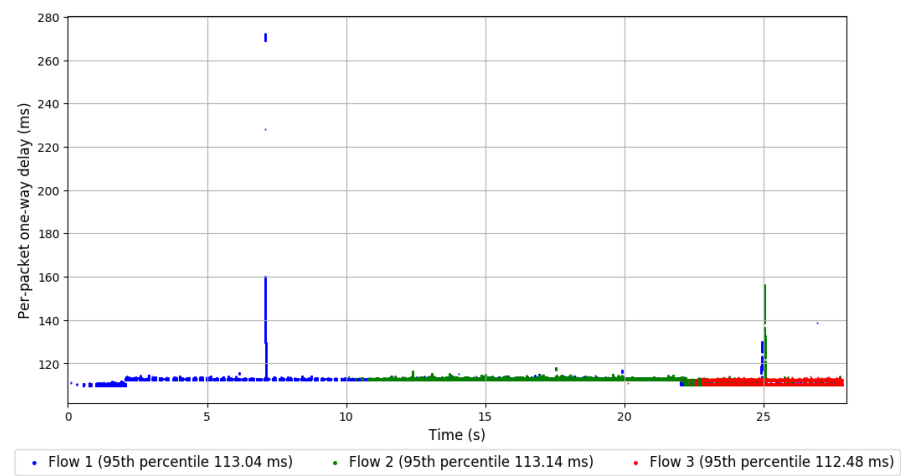
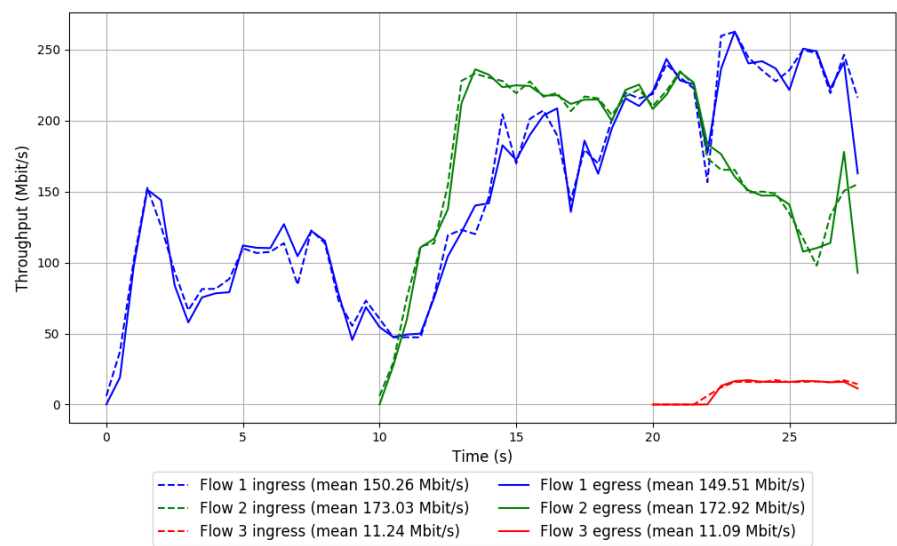
-- Flow 3:

Average throughput: 11.09 Mbit/s

95th percentile per-packet one-way delay: 112.485 ms

Loss rate: 4.13%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-17 07:17:04

End at: 2018-01-17 07:17:34

# Below is generated by plot.py at 2018-01-17 12:53:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.20 Mbit/s

95th percentile per-packet one-way delay: 114.636 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 25.35 Mbit/s

95th percentile per-packet one-way delay: 114.887 ms

Loss rate: 1.76%

-- Flow 2:

Average throughput: 165.00 Mbit/s

95th percentile per-packet one-way delay: 112.315 ms

Loss rate: 1.61%

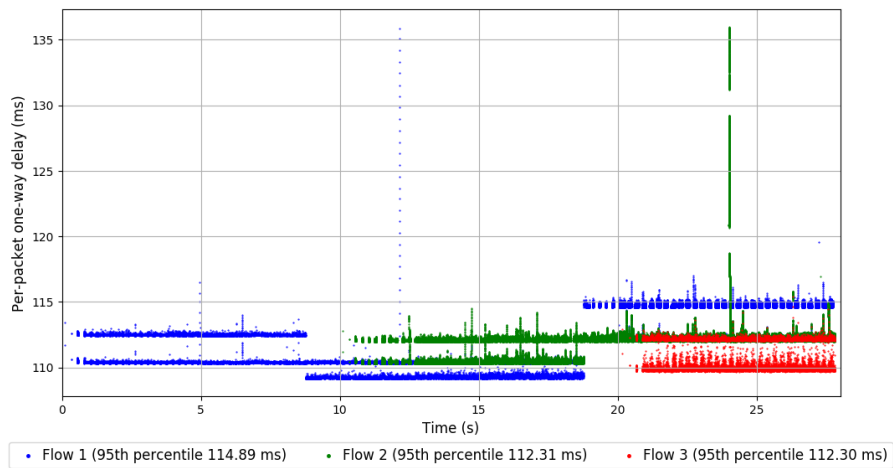
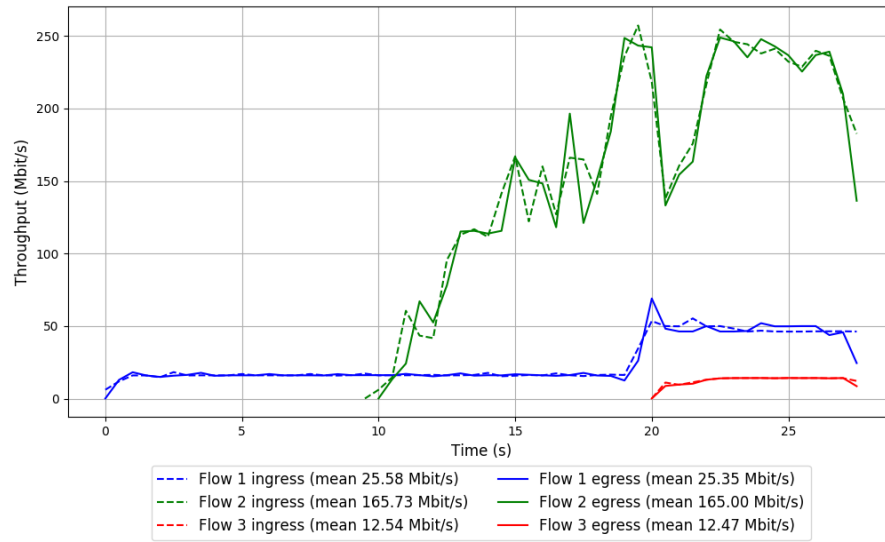
-- Flow 3:

Average throughput: 12.47 Mbit/s

95th percentile per-packet one-way delay: 112.299 ms

Loss rate: 3.38%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-17 07:36:00

End at: 2018-01-17 07:36:30

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 291.81 Mbit/s

95th percentile per-packet one-way delay: 112.509 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 186.45 Mbit/s

95th percentile per-packet one-way delay: 112.170 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 158.31 Mbit/s

95th percentile per-packet one-way delay: 112.633 ms

Loss rate: 0.87%

-- Flow 3:

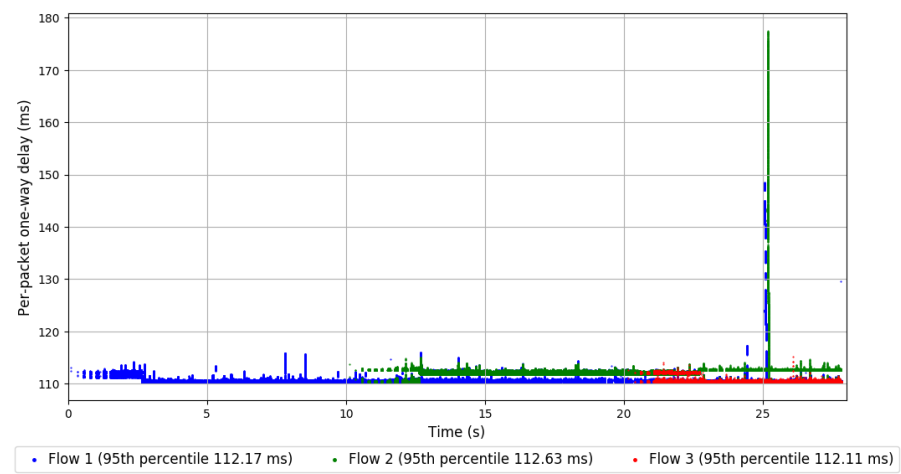
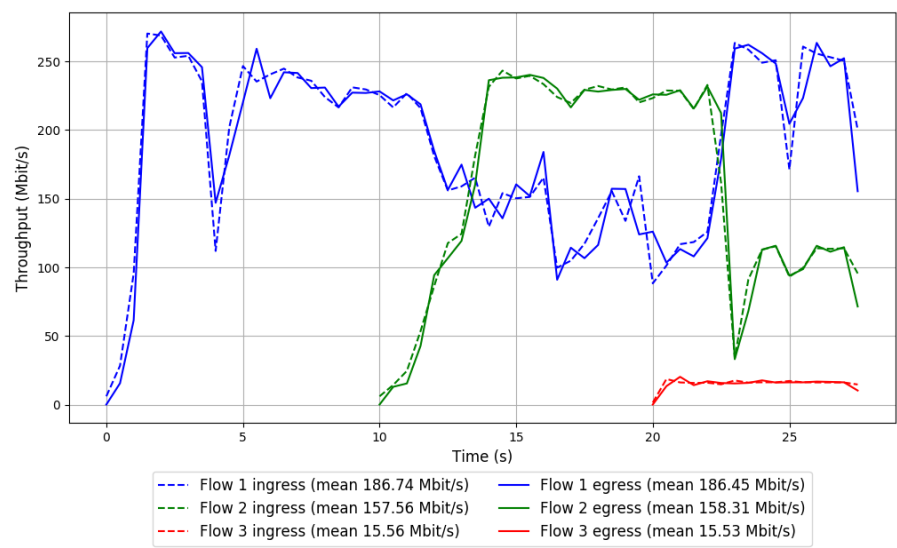
Average throughput: 15.53 Mbit/s

95th percentile per-packet one-way delay: 112.112 ms

Loss rate: 3.02%



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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-17 07:56:15

End at: 2018-01-17 07:56:45

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.63 Mbit/s

95th percentile per-packet one-way delay: 112.112 ms

Loss rate: 2.84%

-- Flow 1:

Average throughput: 13.82 Mbit/s

95th percentile per-packet one-way delay: 112.125 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 15.86 Mbit/s

95th percentile per-packet one-way delay: 112.083 ms

Loss rate: 2.03%

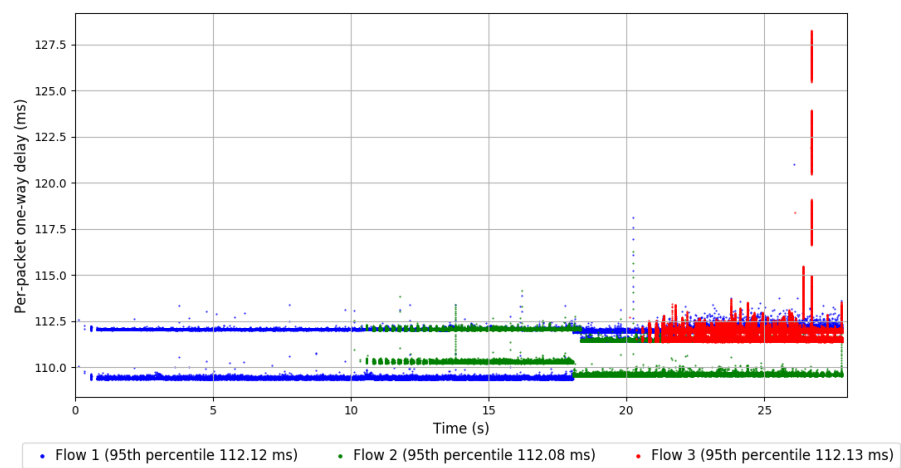
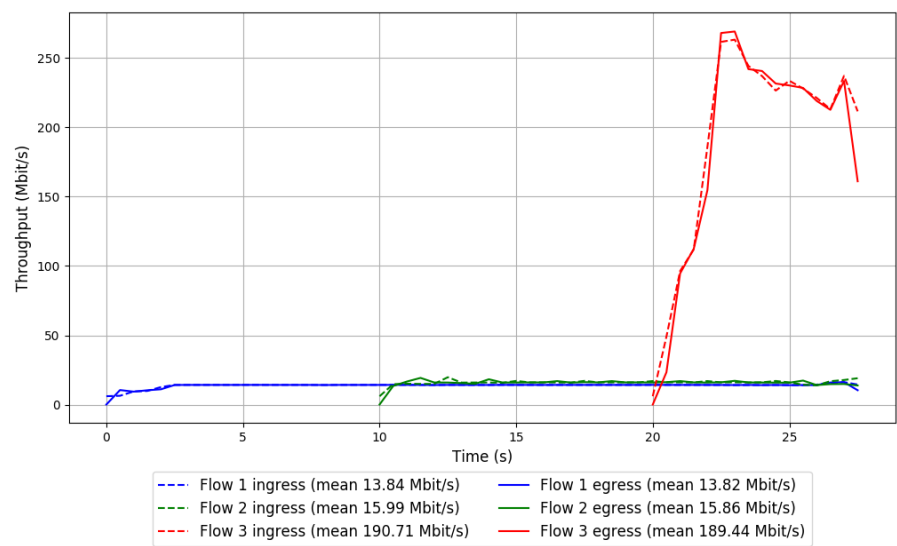
-- Flow 3:

Average throughput: 189.44 Mbit/s

95th percentile per-packet one-way delay: 112.126 ms

Loss rate: 3.48%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-17 08:14:46

End at: 2018-01-17 08:15:16

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 198.30 Mbit/s

95th percentile per-packet one-way delay: 113.161 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 137.20 Mbit/s

95th percentile per-packet one-way delay: 112.209 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 39.12 Mbit/s

95th percentile per-packet one-way delay: 114.248 ms

Loss rate: 3.39%

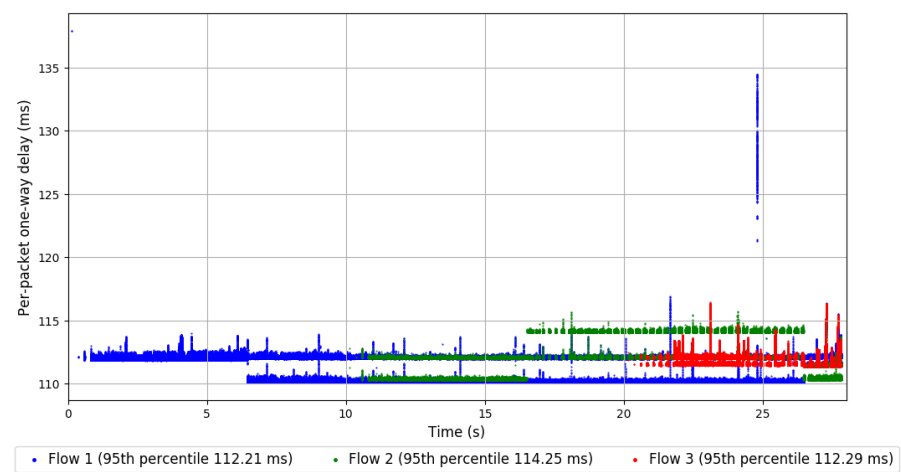
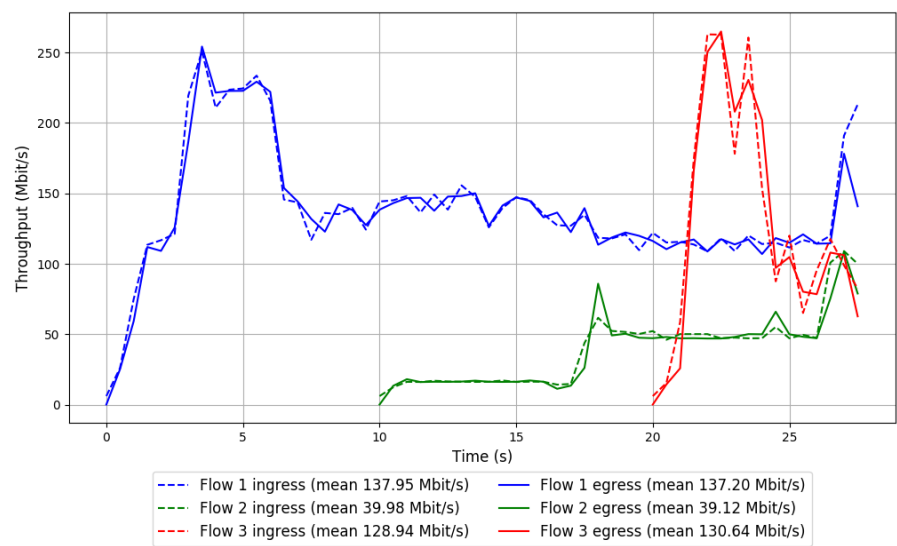
-- Flow 3:

Average throughput: 130.64 Mbit/s

95th percentile per-packet one-way delay: 112.292 ms

Loss rate: 1.92%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-17 08:32:36

End at: 2018-01-17 08:33:06

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.57 Mbit/s

95th percentile per-packet one-way delay: 114.118 ms

Loss rate: 3.21%

-- Flow 1:

Average throughput: 15.51 Mbit/s

95th percentile per-packet one-way delay: 114.209 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 13.20 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 1.26%

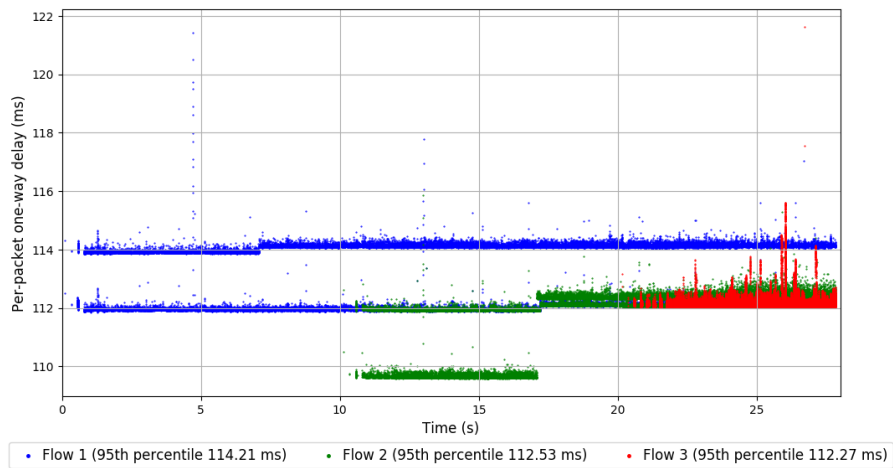
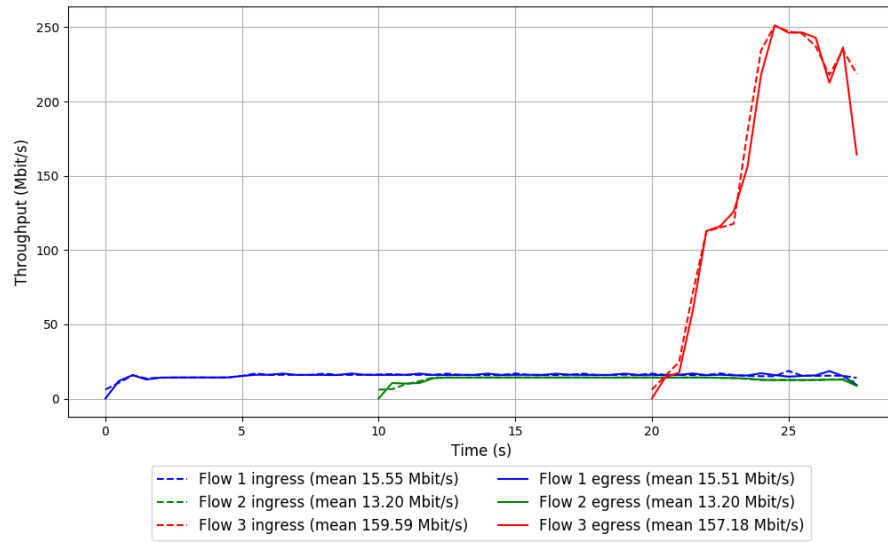
-- Flow 3:

Average throughput: 157.18 Mbit/s

95th percentile per-packet one-way delay: 112.271 ms

Loss rate: 4.32%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-01-17 08:50:38

End at: 2018-01-17 08:51:08

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 50.53 Mbit/s

95th percentile per-packet one-way delay: 112.637 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 18.59 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 66.18 Mbit/s

95th percentile per-packet one-way delay: 112.660 ms

Loss rate: 0.00%

-- Flow 3:

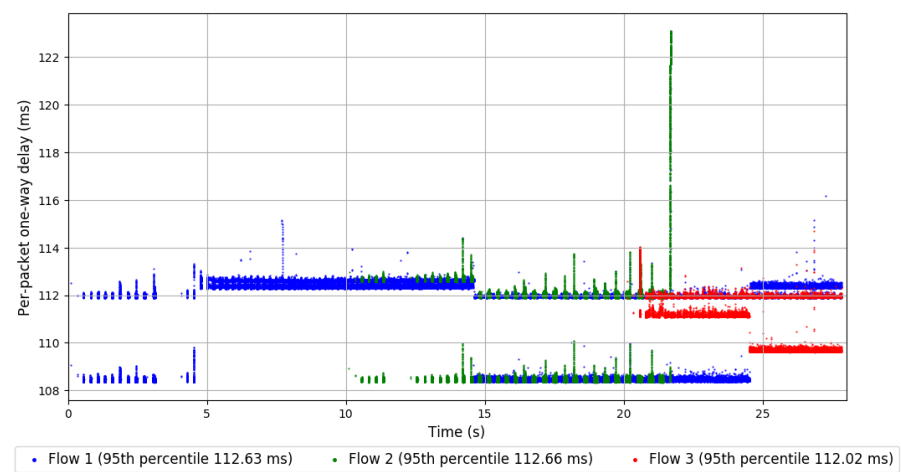
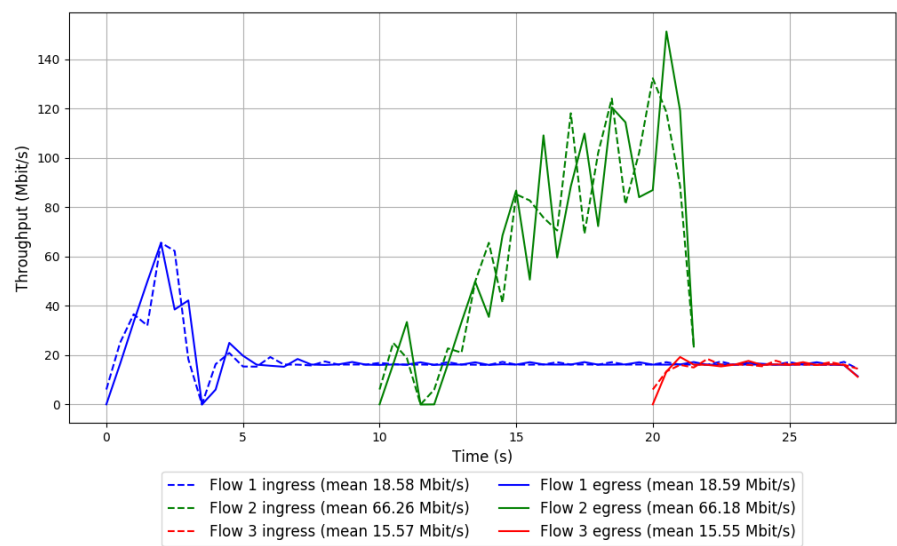
Average throughput: 15.55 Mbit/s

95th percentile per-packet one-way delay: 112.023 ms

Loss rate: 2.99%



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

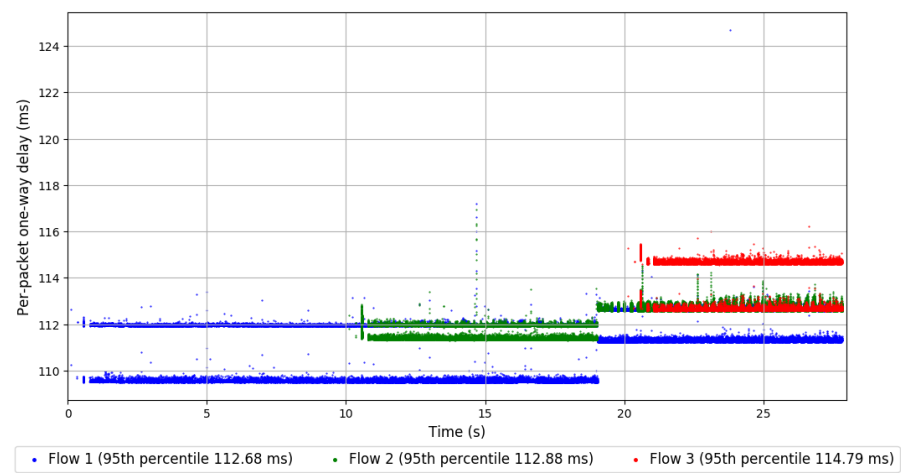
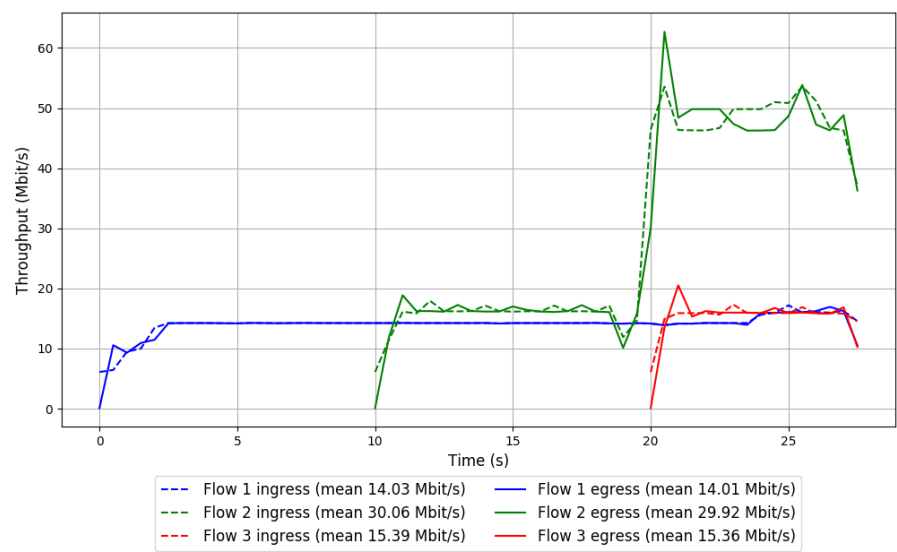


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-17 09:08:54
End at: 2018-01-17 09:09:24

# Below is generated by plot.py at 2018-01-17 12:55:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.40 Mbit/s
95th percentile per-packet one-way delay: 114.617 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 14.01 Mbit/s
95th percentile per-packet one-way delay: 112.683 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 112.877 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 15.36 Mbit/s
95th percentile per-packet one-way delay: 114.791 ms
Loss rate: 3.04%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-17 06:23:16

End at: 2018-01-17 06:23:46

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.30 Mbit/s

95th percentile per-packet one-way delay: 113.701 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 29.12 Mbit/s

95th percentile per-packet one-way delay: 113.893 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 22.11 Mbit/s

95th percentile per-packet one-way delay: 113.491 ms

Loss rate: 1.96%

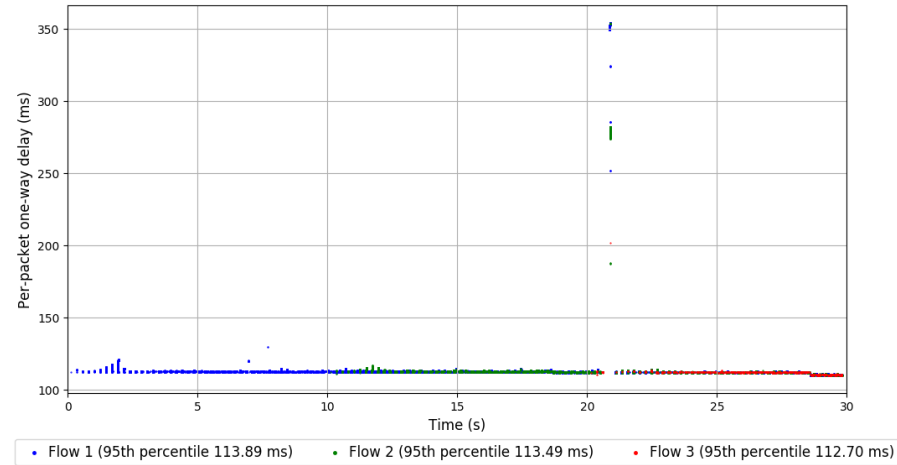
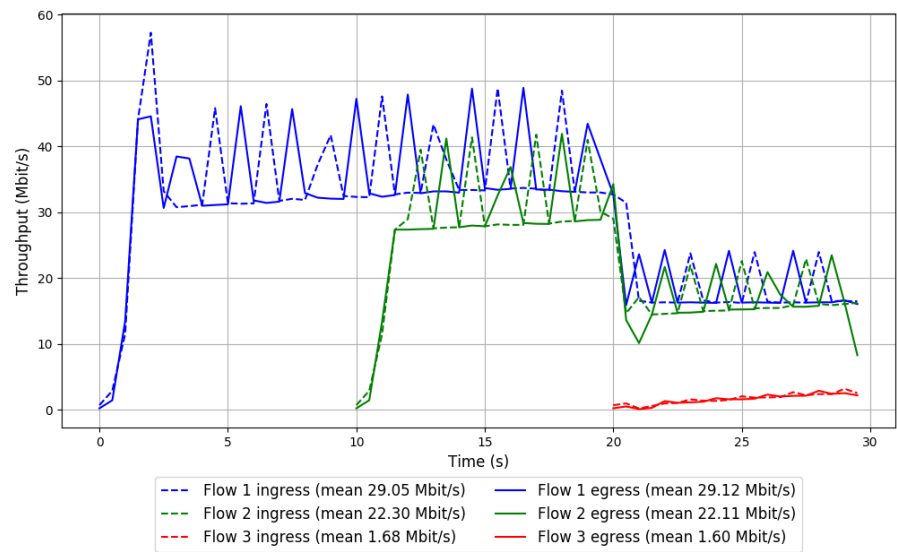
-- Flow 3:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 112.702 ms

Loss rate: 6.65%

Run 1: Report of TCP Vegas — Data Link

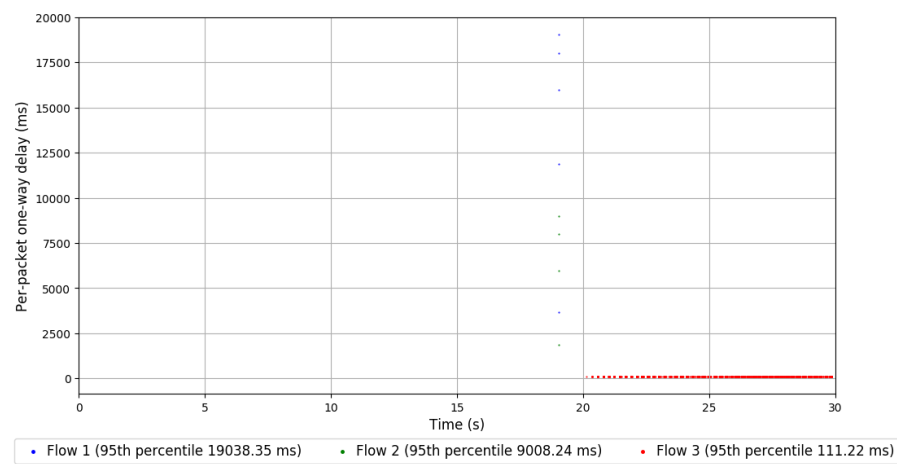
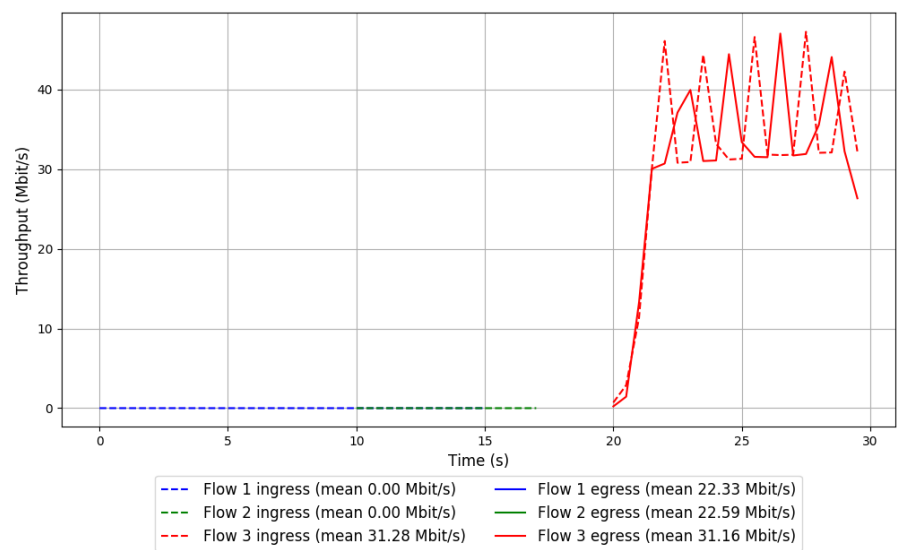


Run 2: Statistics of TCP Vegas

Start at: 2018-01-17 06:41:34

End at: 2018-01-17 06:42:04

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-17 07:00:03

End at: 2018-01-17 07:00:33

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 50.81 Mbit/s

95th percentile per-packet one-way delay: 114.061 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 113.786 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 46.32 Mbit/s

95th percentile per-packet one-way delay: 114.490 ms

Loss rate: 1.17%

-- Flow 3:

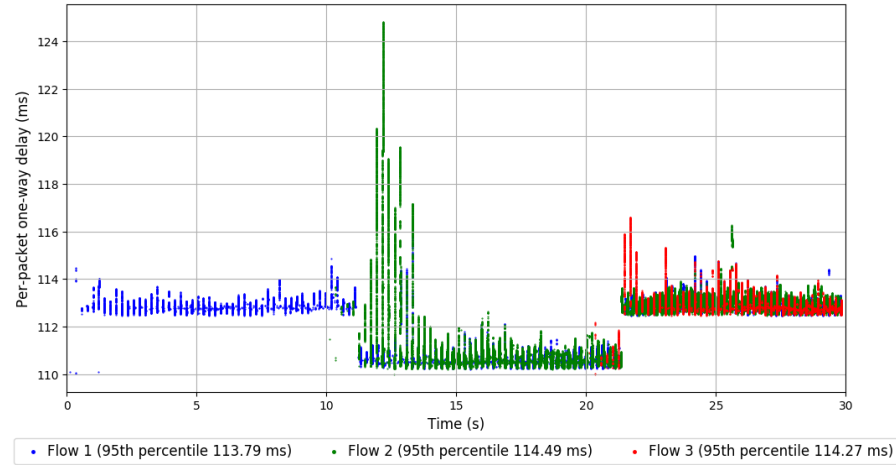
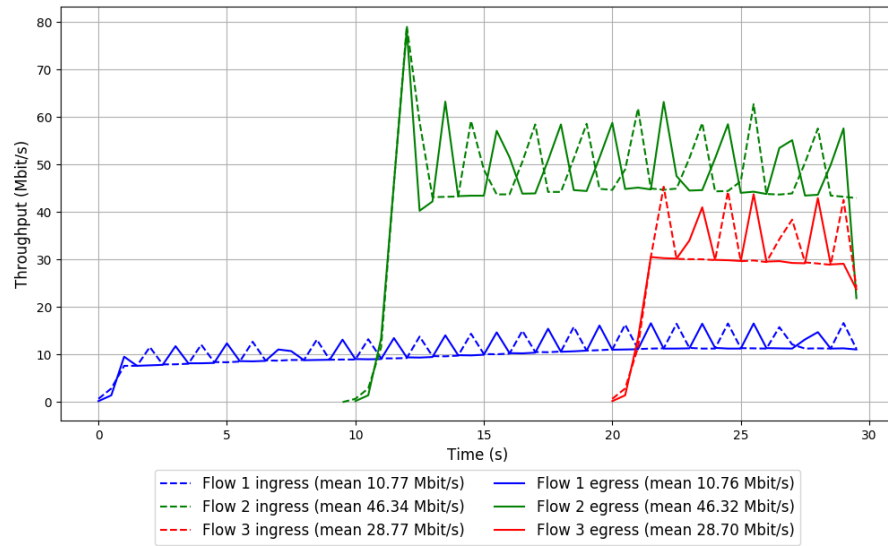
Average throughput: 28.70 Mbit/s

95th percentile per-packet one-way delay: 114.269 ms

Loss rate: 2.50%



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

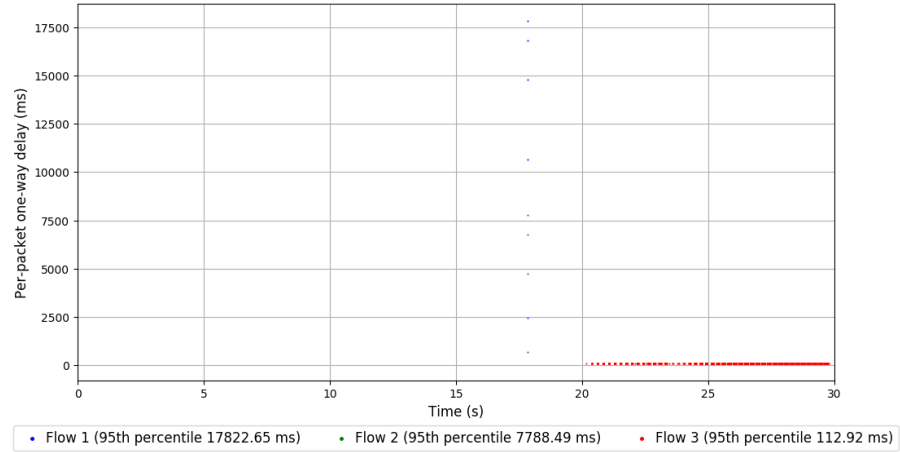
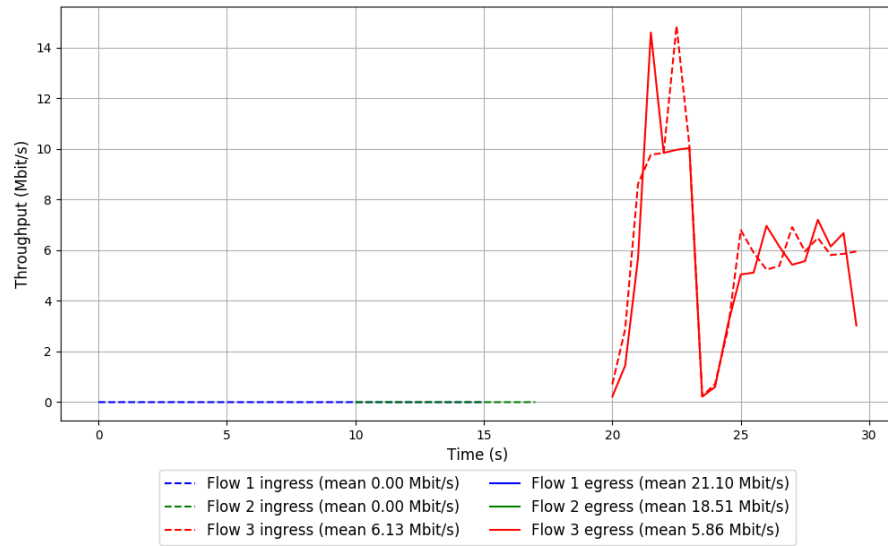


Run 4: Statistics of TCP Vegas

Start at: 2018-01-17 07:18:04

End at: 2018-01-17 07:18:34

# Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-17 07:37:16

End at: 2018-01-17 07:37:46

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 114.090 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 60.54 Mbit/s

95th percentile per-packet one-way delay: 114.300 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 32.58 Mbit/s

95th percentile per-packet one-way delay: 113.695 ms

Loss rate: 0.66%

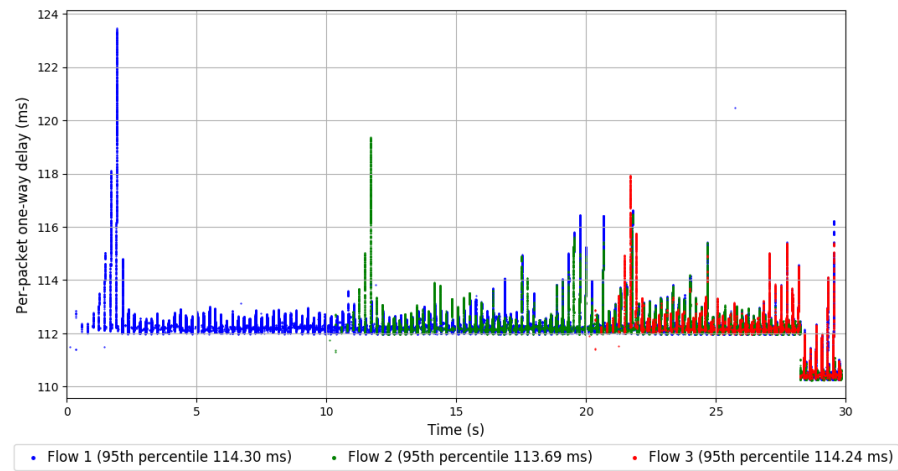
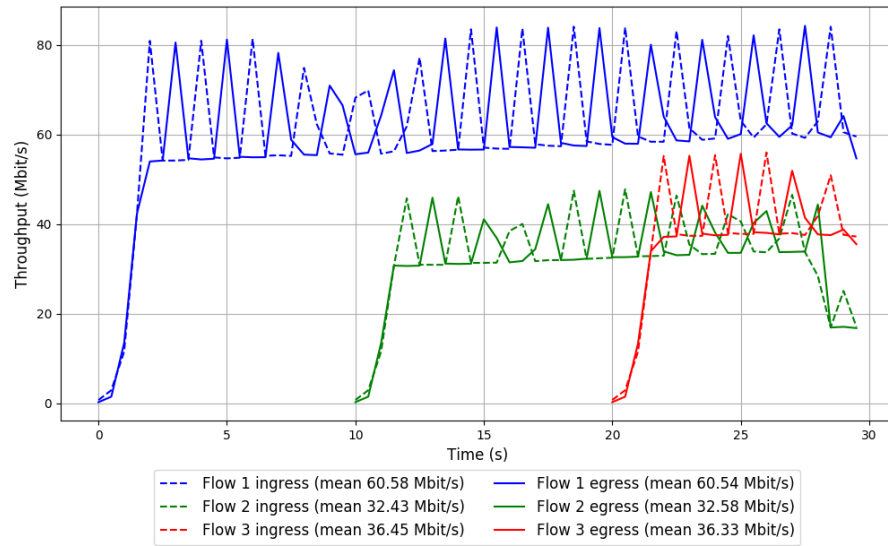
-- Flow 3:

Average throughput: 36.33 Mbit/s

95th percentile per-packet one-way delay: 114.238 ms

Loss rate: 2.58%

# Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-17 07:57:09

End at: 2018-01-17 07:57:39

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.92 Mbit/s

95th percentile per-packet one-way delay: 113.485 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 61.75 Mbit/s

95th percentile per-packet one-way delay: 113.460 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 16.25 Mbit/s

95th percentile per-packet one-way delay: 112.725 ms

Loss rate: 1.18%

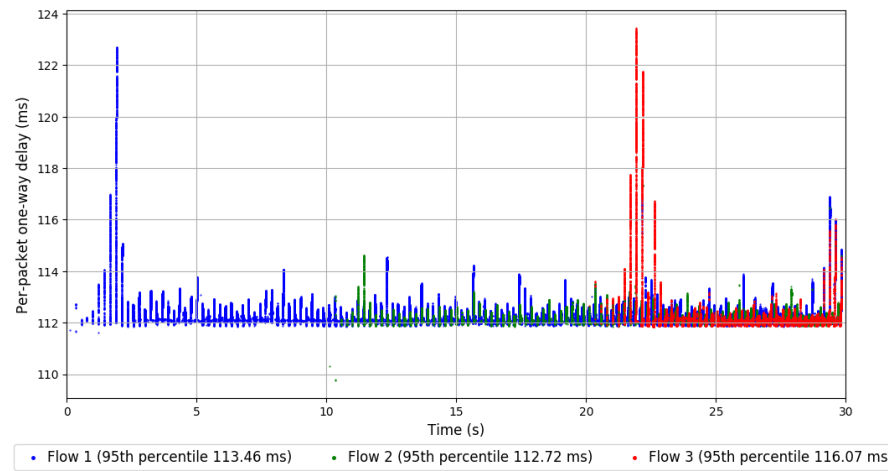
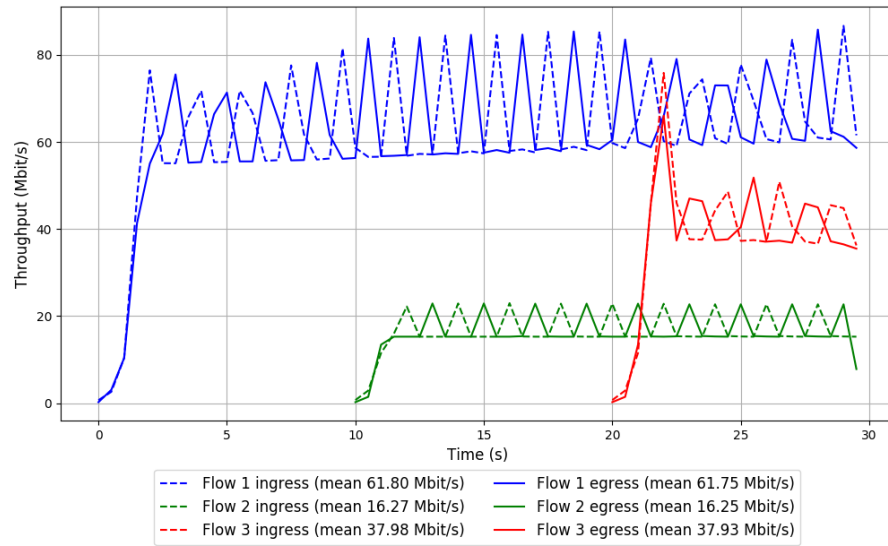
-- Flow 3:

Average throughput: 37.93 Mbit/s

95th percentile per-packet one-way delay: 116.066 ms

Loss rate: 2.40%

# Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-17 08:15:52

End at: 2018-01-17 08:16:22

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 39.21 Mbit/s

95th percentile per-packet one-way delay: 113.069 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 11.48 Mbit/s

95th percentile per-packet one-way delay: 112.990 ms

Loss rate: 1.73%

-- Flow 2:

Average throughput: 28.68 Mbit/s

95th percentile per-packet one-way delay: 112.977 ms

Loss rate: 1.29%

-- Flow 3:

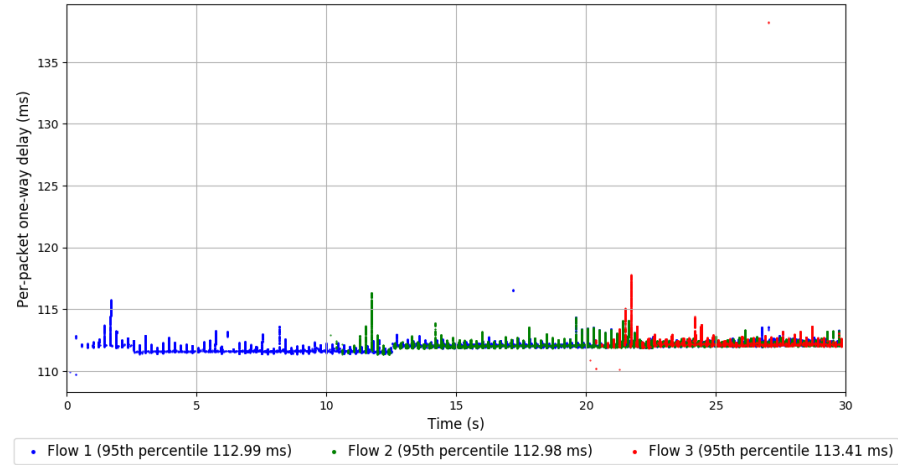
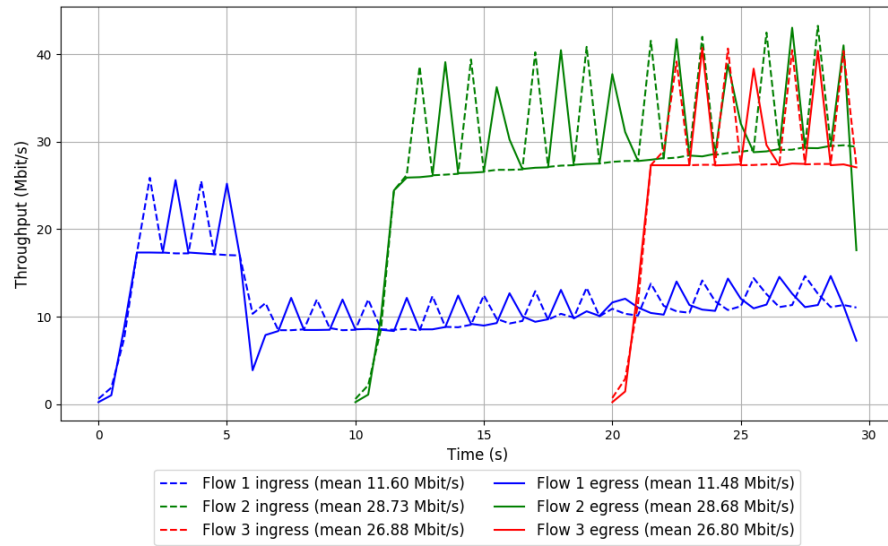
Average throughput: 26.80 Mbit/s

95th percentile per-packet one-way delay: 113.406 ms

Loss rate: 2.56%



# Run 7: Report of TCP Vegas — Data Link

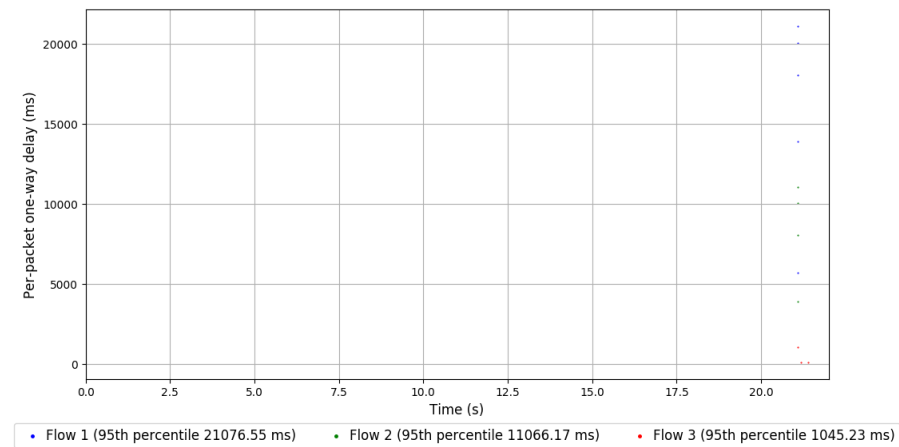
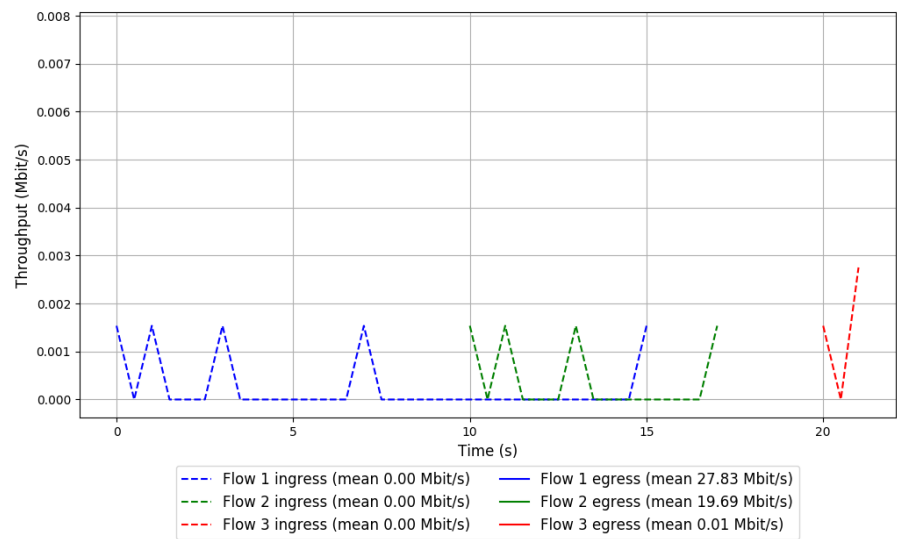


Run 8: Statistics of TCP Vegas

Start at: 2018-01-17 08:33:29

End at: 2018-01-17 08:33:59

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-17 08:51:29

End at: 2018-01-17 08:51:59

# Below is generated by plot.py at 2018-01-17 12:55:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.68 Mbit/s

95th percentile per-packet one-way delay: 119.964 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 12.61 Mbit/s

95th percentile per-packet one-way delay: 117.478 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 96.63 Mbit/s

95th percentile per-packet one-way delay: 120.087 ms

Loss rate: 1.26%

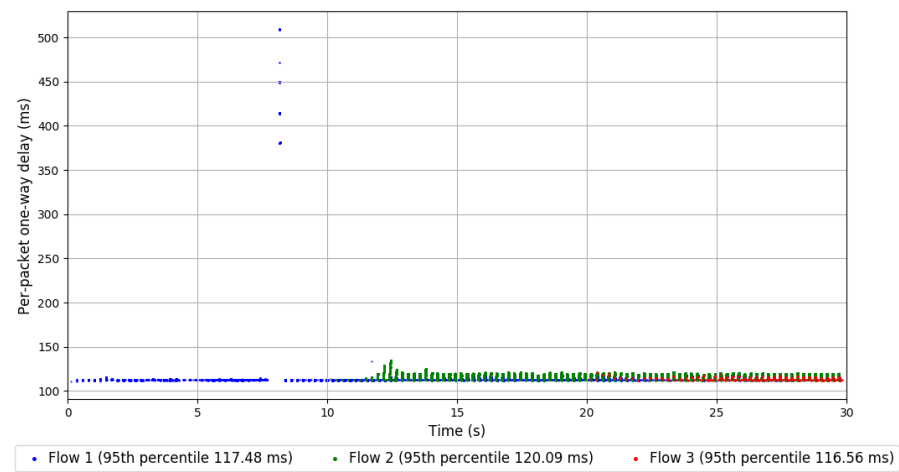
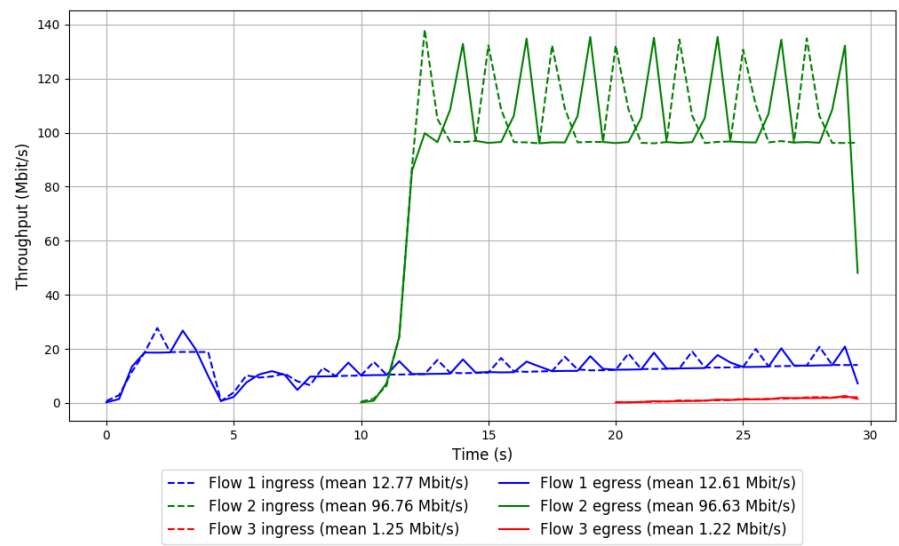
-- Flow 3:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 116.556 ms

Loss rate: 4.65%

Run 9: Report of TCP Vegas — Data Link

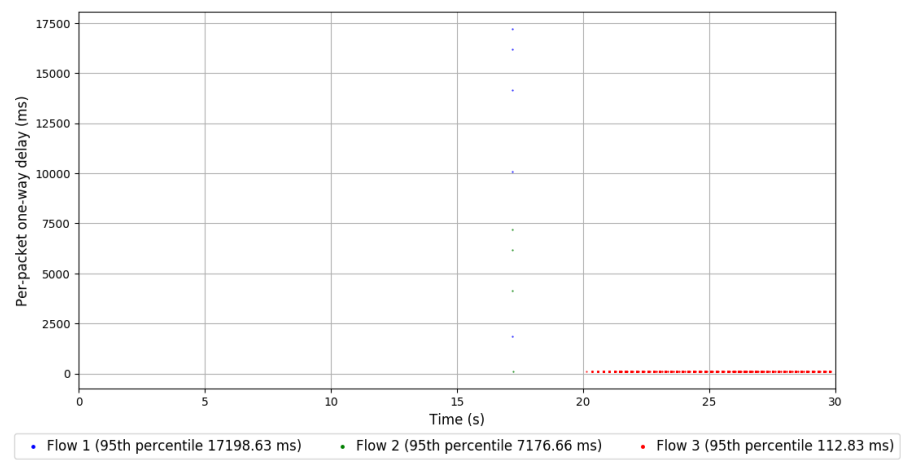
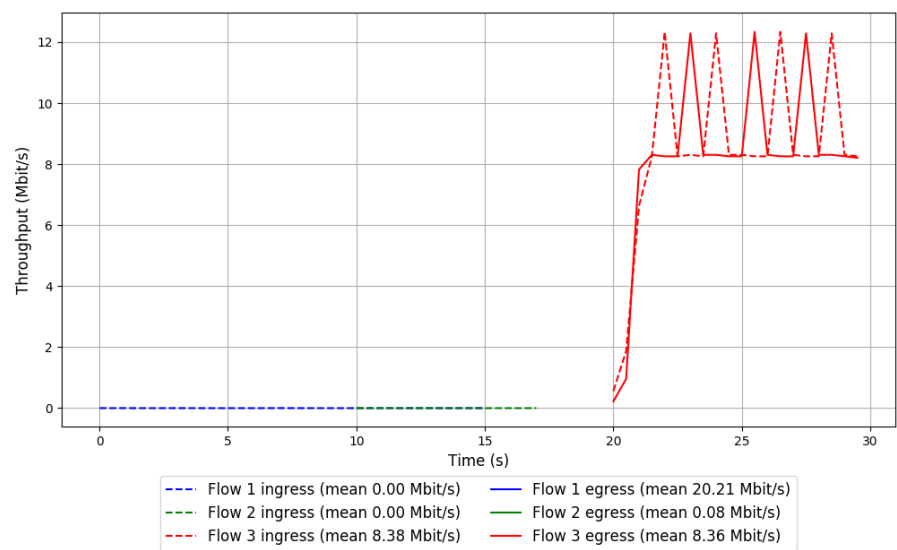


Run 10: Statistics of TCP Vegas

Start at: 2018-01-17 09:09:44

End at: 2018-01-17 09:10:14

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-17 06:07:08

End at: 2018-01-17 06:07:38

# Below is generated by plot.py at 2018-01-17 12:55:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 263.18 Mbit/s

95th percentile per-packet one-way delay: 153.840 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 103.59 Mbit/s

95th percentile per-packet one-way delay: 140.415 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 220.31 Mbit/s

95th percentile per-packet one-way delay: 156.836 ms

Loss rate: 0.22%

-- Flow 3:

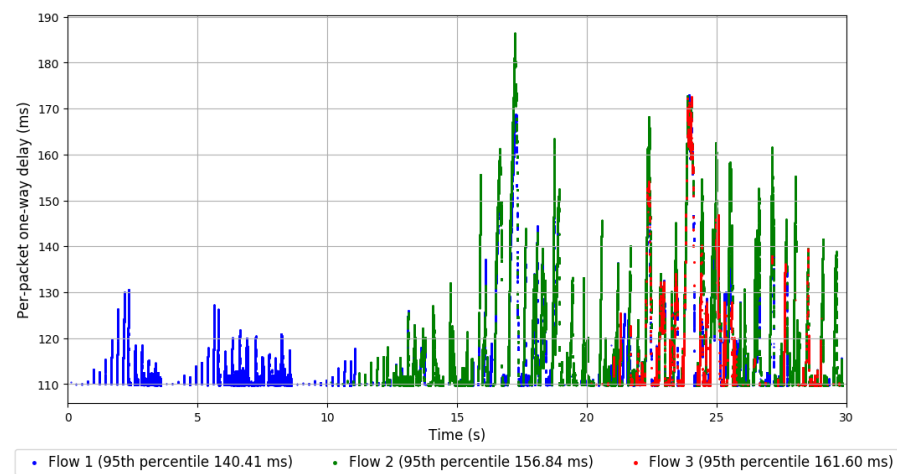
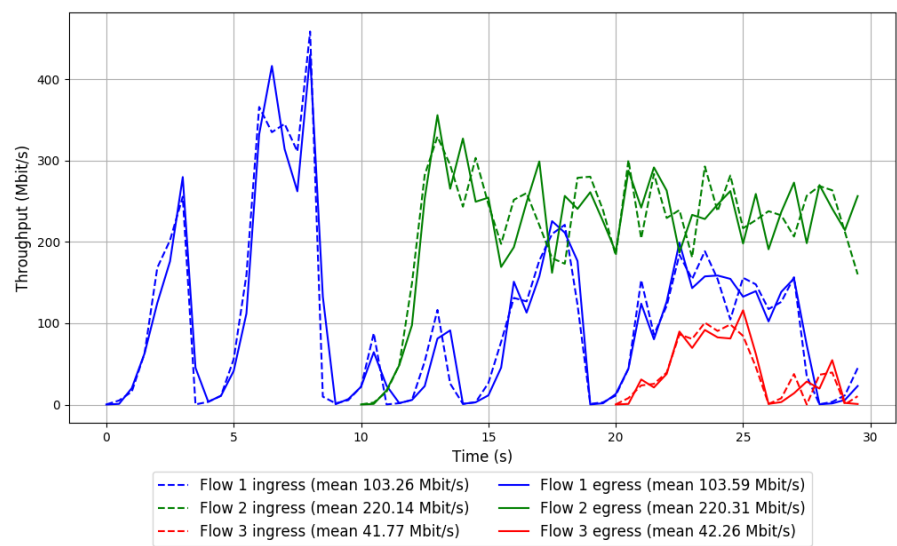
Average throughput: 42.26 Mbit/s

95th percentile per-packet one-way delay: 161.596 ms

Loss rate: 1.17%



Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-17 06:25:16

End at: 2018-01-17 06:25:46

# Below is generated by plot.py at 2018-01-17 12:56:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 267.82 Mbit/s

95th percentile per-packet one-way delay: 176.203 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 182.15 Mbit/s

95th percentile per-packet one-way delay: 184.041 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 118.84 Mbit/s

95th percentile per-packet one-way delay: 152.080 ms

Loss rate: 2.33%

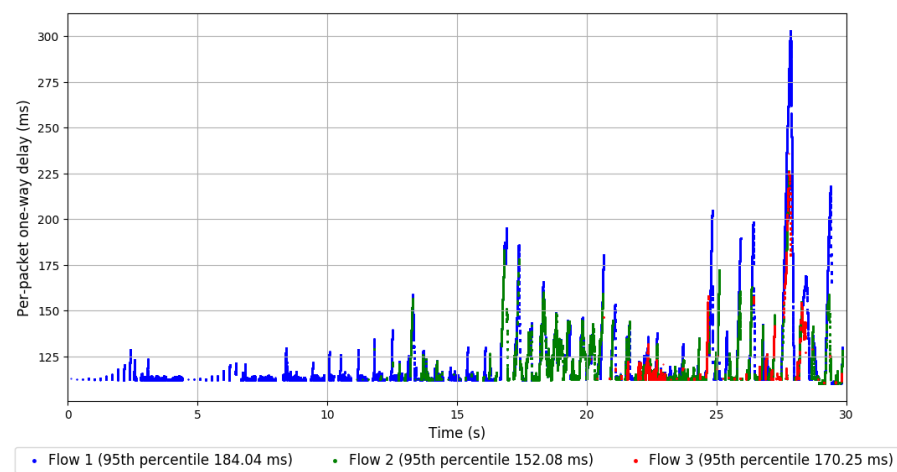
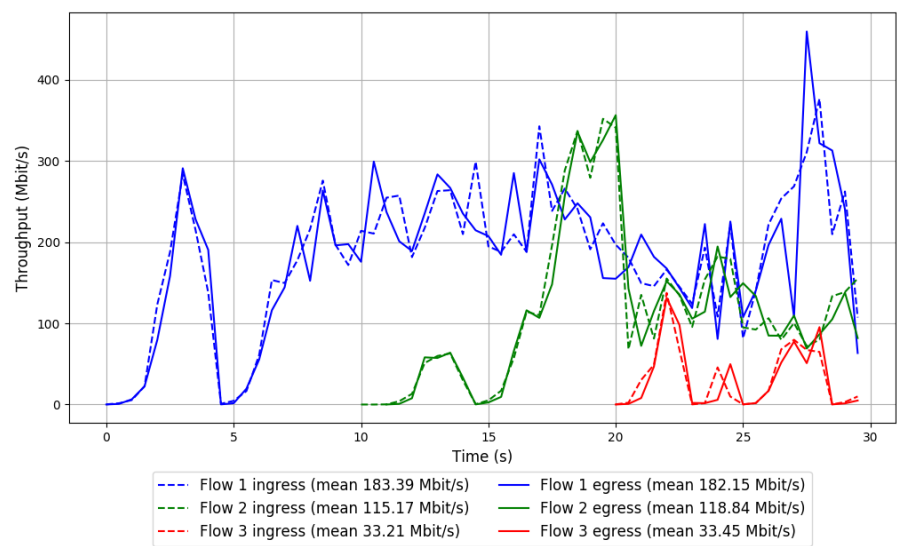
-- Flow 3:

Average throughput: 33.45 Mbit/s

95th percentile per-packet one-way delay: 170.247 ms

Loss rate: 1.66%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-17 06:43:33

End at: 2018-01-17 06:44:03

# Below is generated by plot.py at 2018-01-17 12:56:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 221.05 Mbit/s

95th percentile per-packet one-way delay: 224.490 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 159.10 Mbit/s

95th percentile per-packet one-way delay: 231.067 ms

Loss rate: 2.53%

-- Flow 2:

Average throughput: 78.10 Mbit/s

95th percentile per-packet one-way delay: 181.290 ms

Loss rate: 0.23%

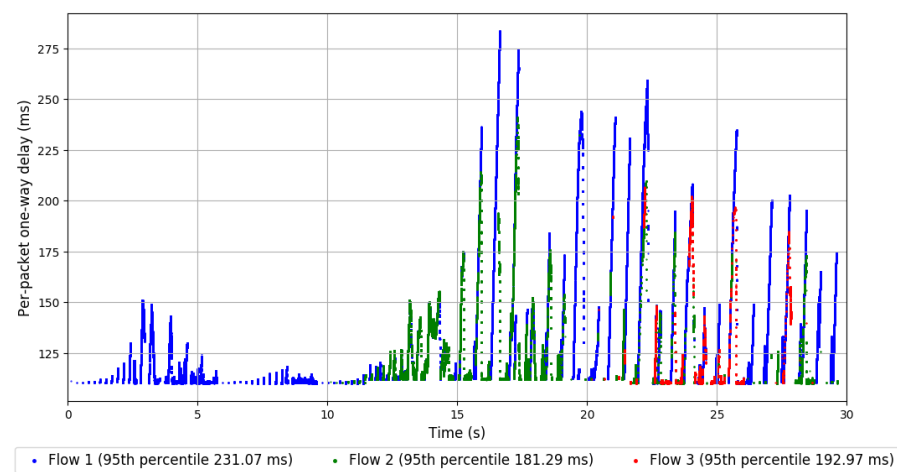
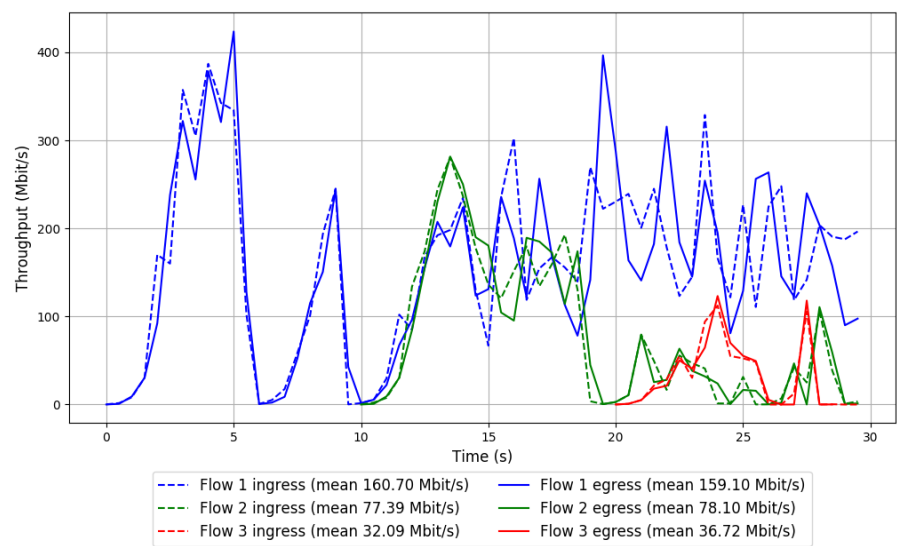
-- Flow 3:

Average throughput: 36.72 Mbit/s

95th percentile per-packet one-way delay: 192.975 ms

Loss rate: 0.04%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-17 07:02:04

End at: 2018-01-17 07:02:34

# Below is generated by plot.py at 2018-01-17 12:56:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 237.83 Mbit/s

95th percentile per-packet one-way delay: 158.235 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 100.89 Mbit/s

95th percentile per-packet one-way delay: 140.741 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 186.20 Mbit/s

95th percentile per-packet one-way delay: 170.219 ms

Loss rate: 1.95%

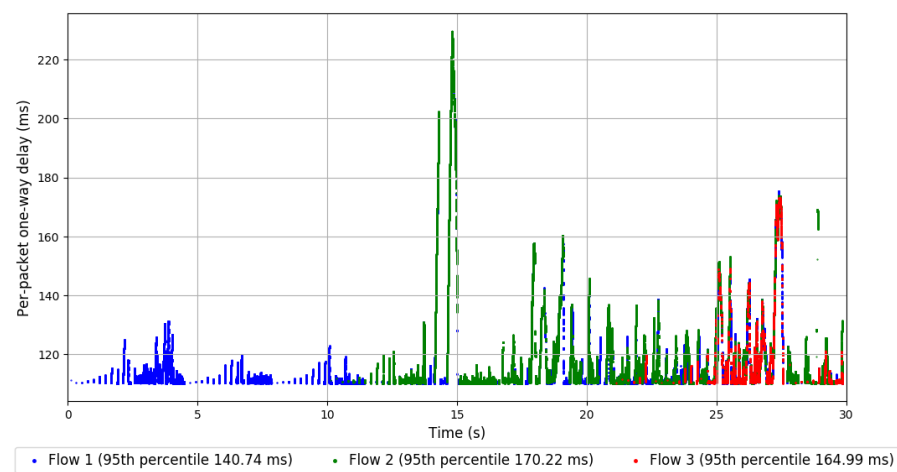
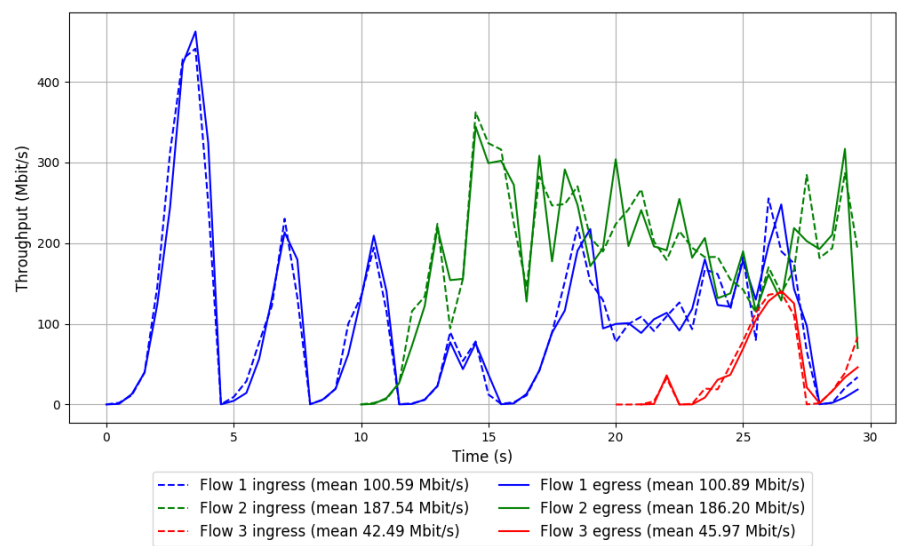
-- Flow 3:

Average throughput: 45.97 Mbit/s

95th percentile per-packet one-way delay: 164.994 ms

Loss rate: 5.10%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-17 07:20:02

End at: 2018-01-17 07:20:32

# Below is generated by plot.py at 2018-01-17 12:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 252.38 Mbit/s

95th percentile per-packet one-way delay: 259.098 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 130.77 Mbit/s

95th percentile per-packet one-way delay: 184.909 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 185.03 Mbit/s

95th percentile per-packet one-way delay: 298.656 ms

Loss rate: 3.38%

-- Flow 3:

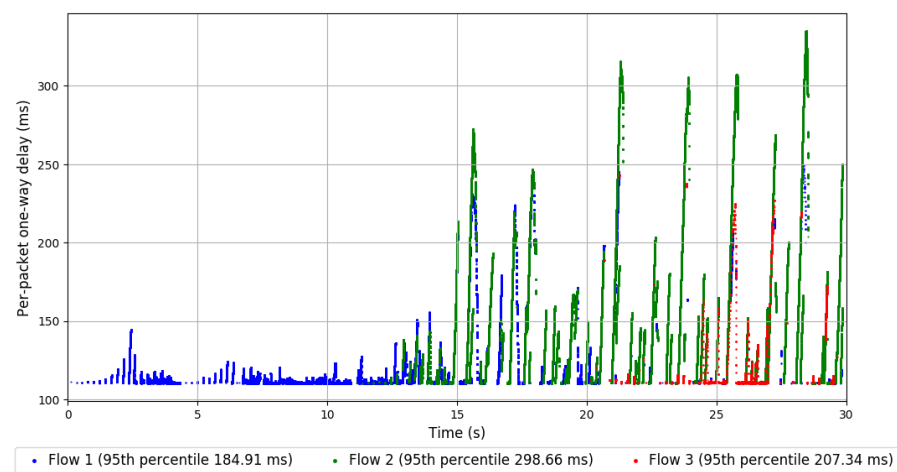
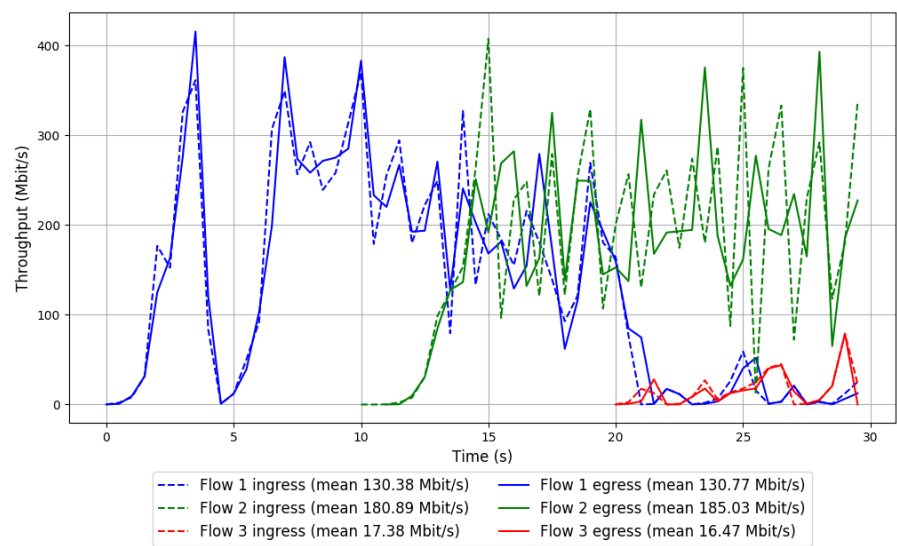
Average throughput: 16.47 Mbit/s

95th percentile per-packet one-way delay: 207.335 ms

Loss rate: 9.37%



Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-17 07:39:25

End at: 2018-01-17 07:39:55

# Below is generated by plot.py at 2018-01-17 12:56:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 179.67 Mbit/s

95th percentile per-packet one-way delay: 133.326 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 64.78 Mbit/s

95th percentile per-packet one-way delay: 128.640 ms

Loss rate: 2.62%

-- Flow 2:

Average throughput: 146.96 Mbit/s

95th percentile per-packet one-way delay: 133.161 ms

Loss rate: 0.56%

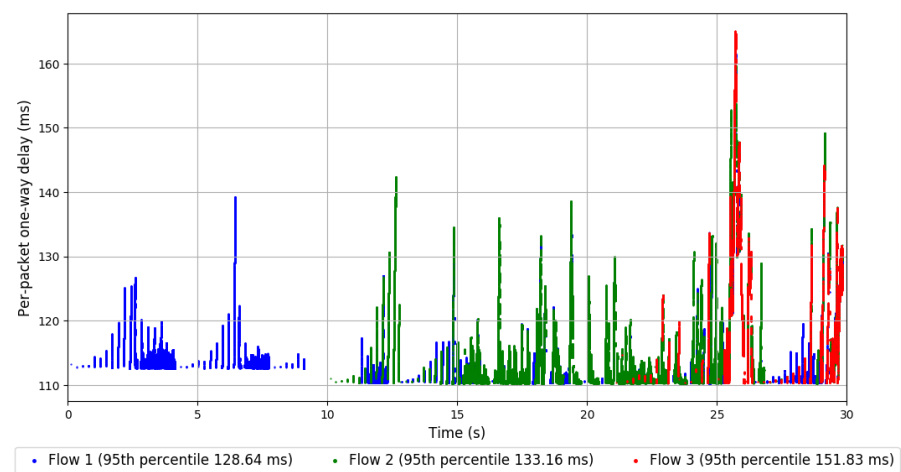
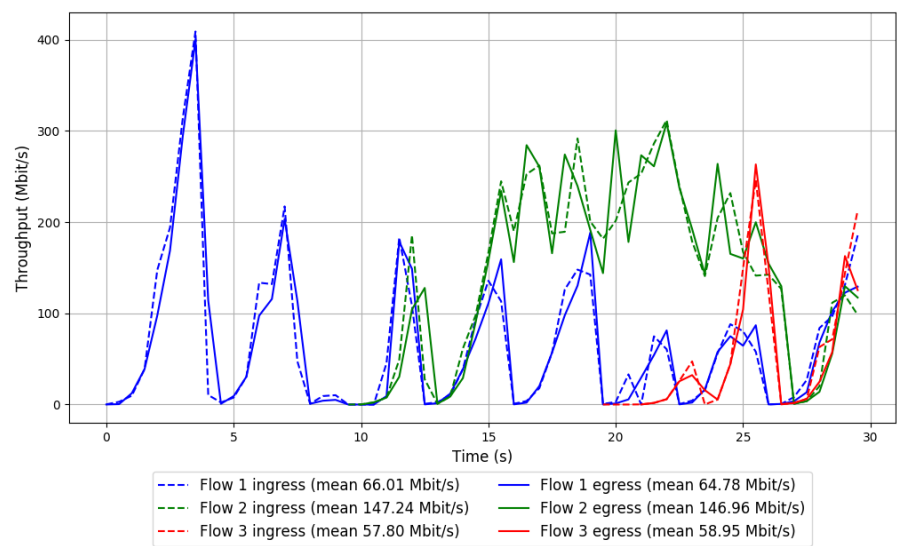
-- Flow 3:

Average throughput: 58.95 Mbit/s

95th percentile per-packet one-way delay: 151.834 ms

Loss rate: 10.52%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-17 07:59:19

End at: 2018-01-17 07:59:49

# Below is generated by plot.py at 2018-01-17 12:56:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 200.55 Mbit/s

95th percentile per-packet one-way delay: 154.120 ms

Loss rate: 3.48%

-- Flow 1:

Average throughput: 136.10 Mbit/s

95th percentile per-packet one-way delay: 149.551 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 86.50 Mbit/s

95th percentile per-packet one-way delay: 169.177 ms

Loss rate: 1.56%

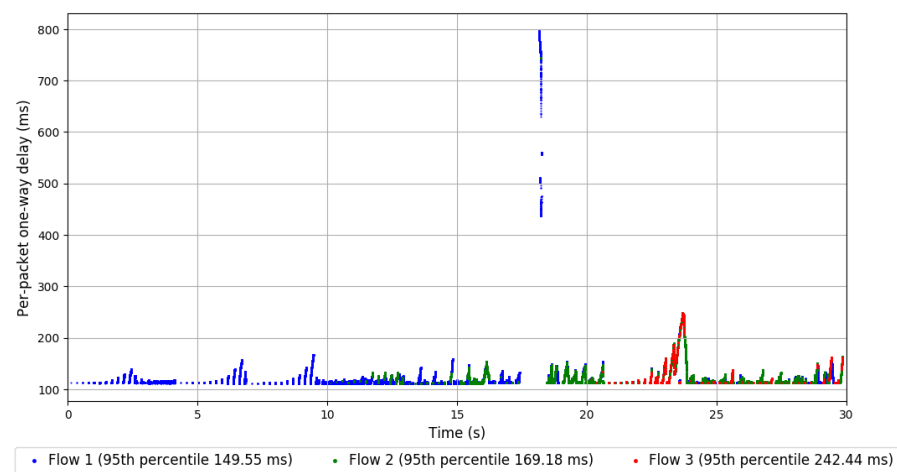
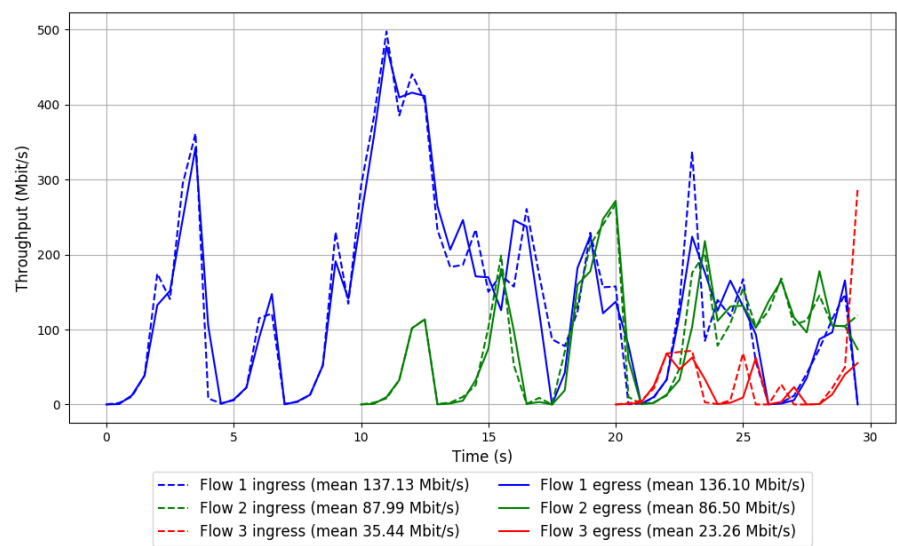
-- Flow 3:

Average throughput: 23.26 Mbit/s

95th percentile per-packet one-way delay: 242.442 ms

Loss rate: 35.92%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-17 08:17:50

End at: 2018-01-17 08:18:20

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 328.98 Mbit/s

95th percentile per-packet one-way delay: 235.409 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 195.74 Mbit/s

95th percentile per-packet one-way delay: 220.683 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 186.56 Mbit/s

95th percentile per-packet one-way delay: 250.795 ms

Loss rate: 1.27%

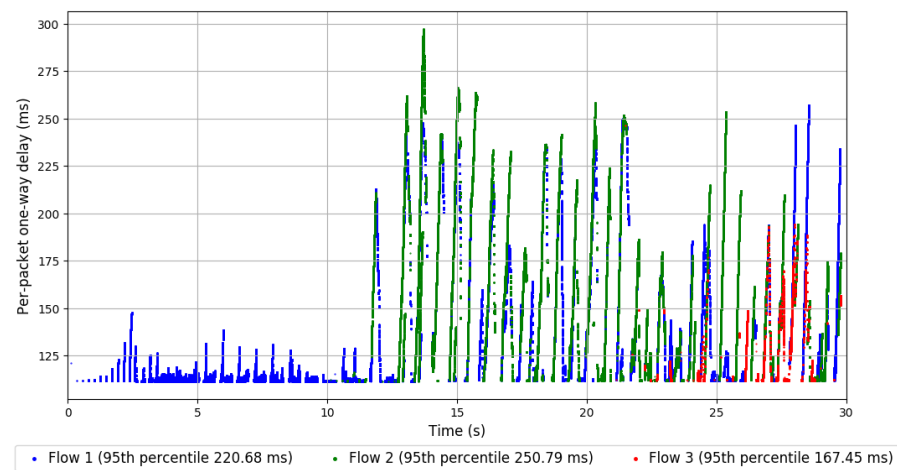
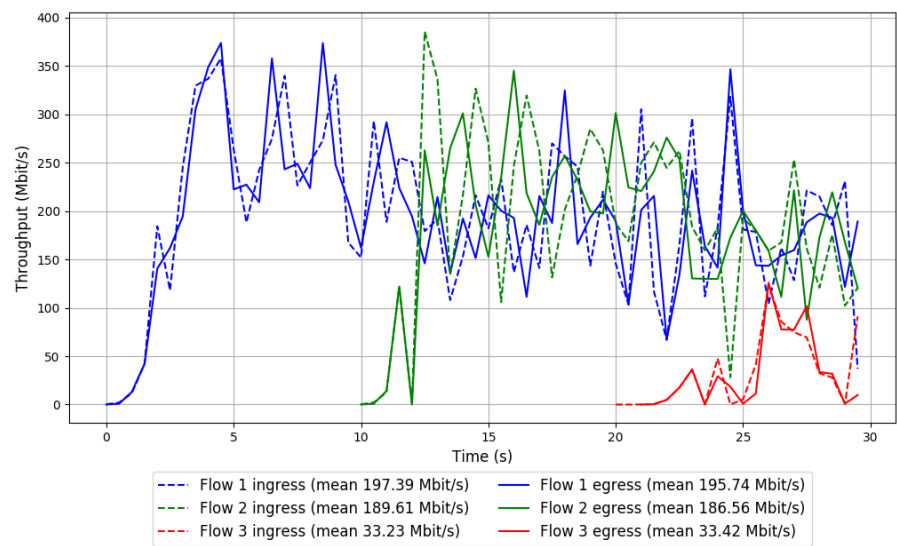
-- Flow 3:

Average throughput: 33.42 Mbit/s

95th percentile per-packet one-way delay: 167.450 ms

Loss rate: 12.34%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-17 08:35:31

End at: 2018-01-17 08:36:01

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 262.55 Mbit/s

95th percentile per-packet one-way delay: 184.280 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 207.15 Mbit/s

95th percentile per-packet one-way delay: 181.756 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 63.32 Mbit/s

95th percentile per-packet one-way delay: 205.611 ms

Loss rate: 4.63%

-- Flow 3:

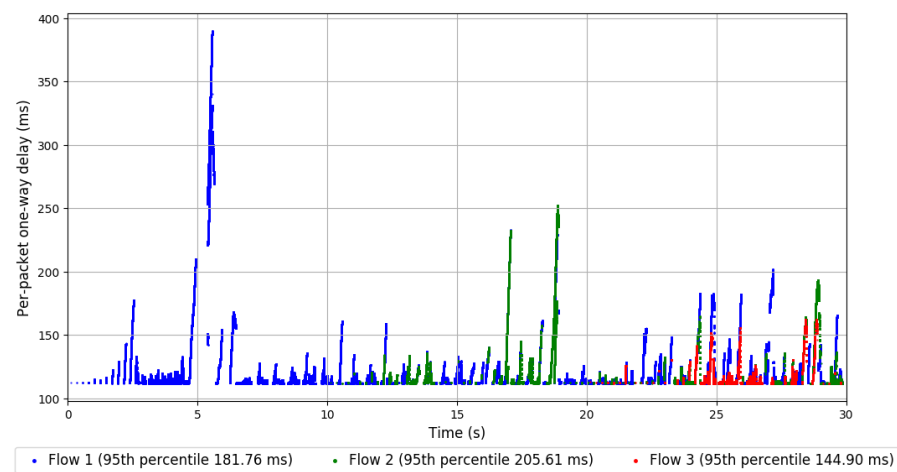
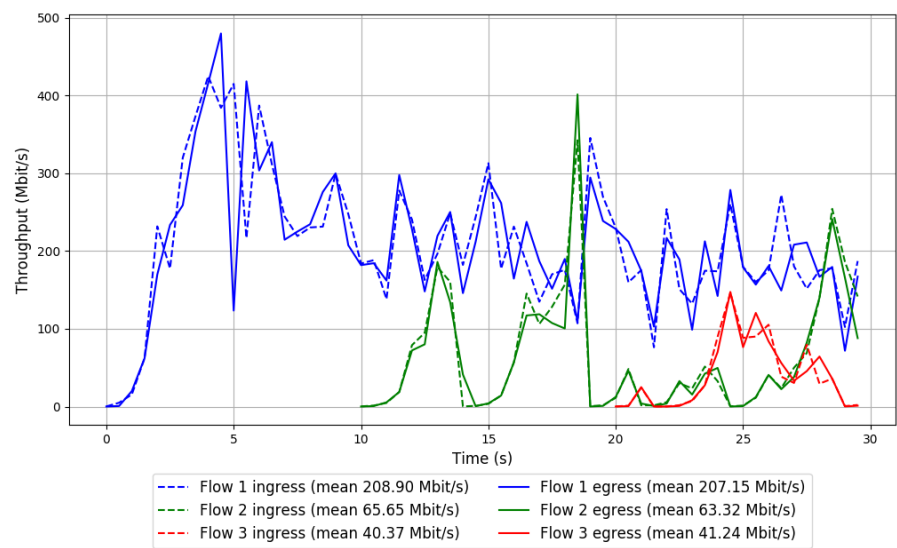
Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 144.900 ms

Loss rate: 0.17%



Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-17 08:53:38

End at: 2018-01-17 08:54:08

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 245.85 Mbit/s

95th percentile per-packet one-way delay: 229.014 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 168.59 Mbit/s

95th percentile per-packet one-way delay: 251.313 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 103.14 Mbit/s

95th percentile per-packet one-way delay: 179.494 ms

Loss rate: 2.39%

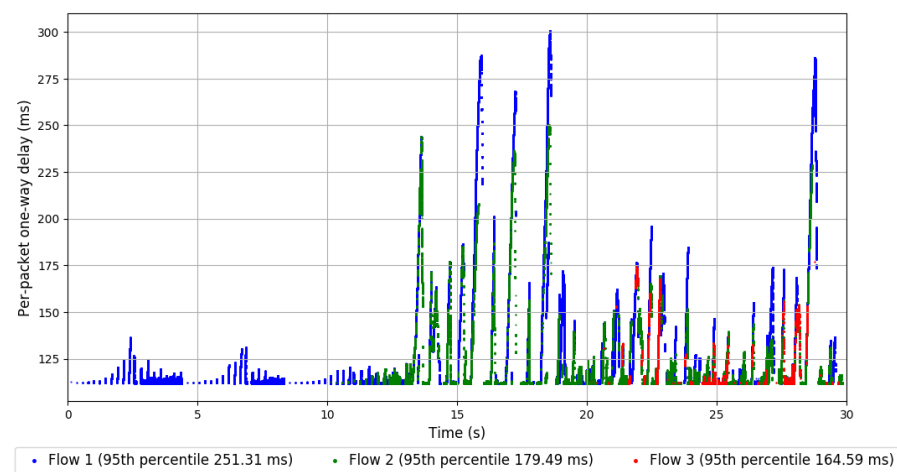
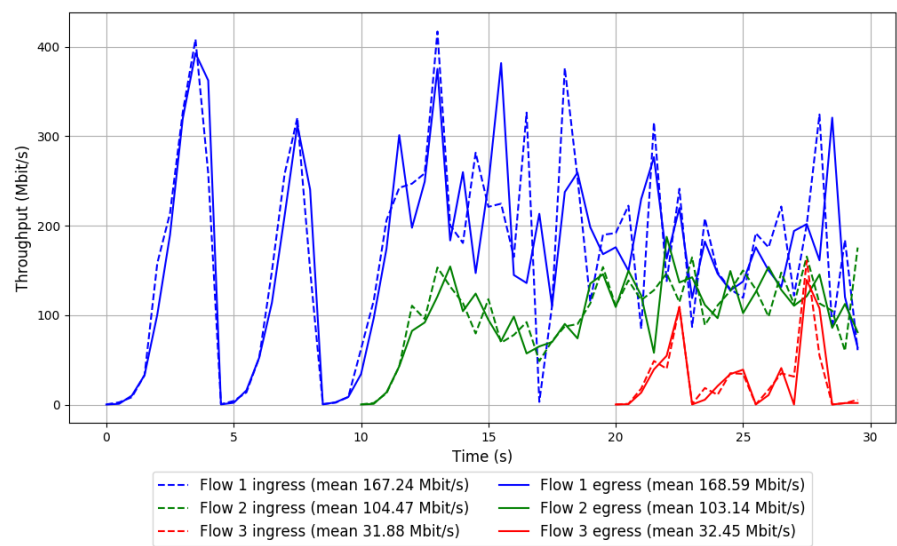
-- Flow 3:

Average throughput: 32.45 Mbit/s

95th percentile per-packet one-way delay: 164.595 ms

Loss rate: 0.58%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-17 06:18:20

End at: 2018-01-17 06:18:50

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.74 Mbit/s

95th percentile per-packet one-way delay: 114.744 ms

Loss rate: 2.09%

-- Flow 1:

Average throughput: 57.85 Mbit/s

95th percentile per-packet one-way delay: 112.691 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 40.42 Mbit/s

95th percentile per-packet one-way delay: 114.859 ms

Loss rate: 2.59%

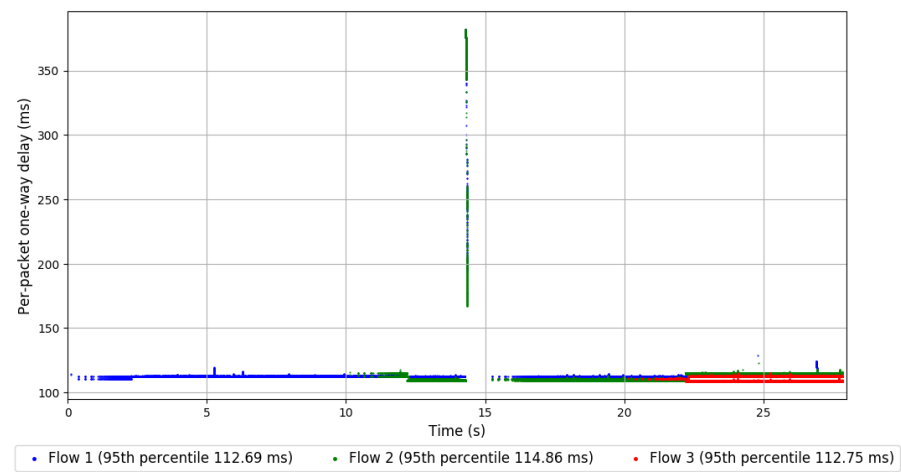
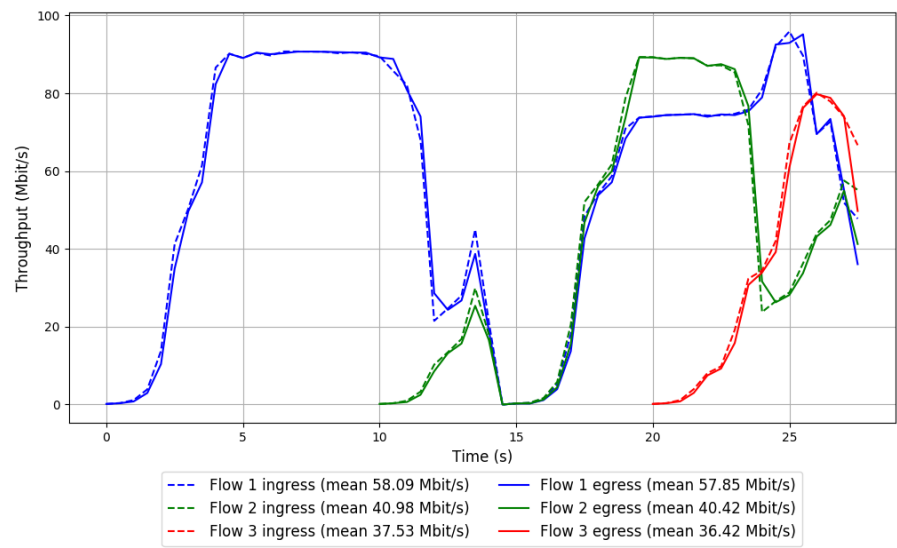
-- Flow 3:

Average throughput: 36.42 Mbit/s

95th percentile per-packet one-way delay: 112.751 ms

Loss rate: 5.66%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-17 06:36:49

End at: 2018-01-17 06:37:19

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.55 Mbit/s

95th percentile per-packet one-way delay: 112.605 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 42.32 Mbit/s

95th percentile per-packet one-way delay: 112.663 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 60.73 Mbit/s

95th percentile per-packet one-way delay: 112.173 ms

Loss rate: 0.78%

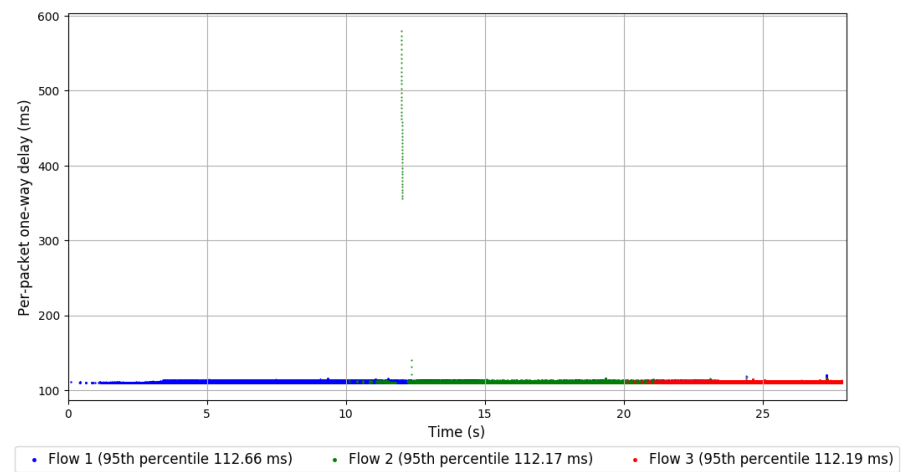
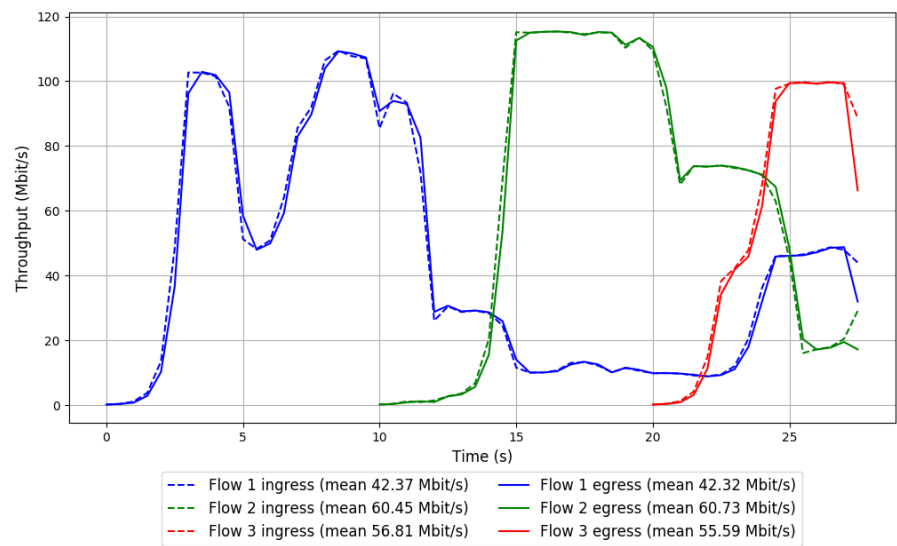
-- Flow 3:

Average throughput: 55.59 Mbit/s

95th percentile per-packet one-way delay: 112.185 ms

Loss rate: 4.90%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-17 06:54:57

End at: 2018-01-17 06:55:27

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 107.39 Mbit/s

95th percentile per-packet one-way delay: 112.056 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 59.17 Mbit/s

95th percentile per-packet one-way delay: 111.624 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 56.92 Mbit/s

95th percentile per-packet one-way delay: 112.153 ms

Loss rate: 1.57%

-- Flow 3:

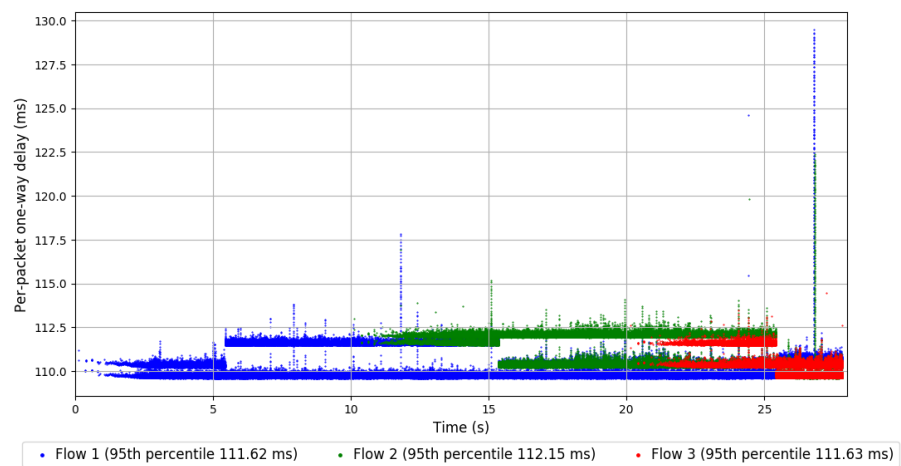
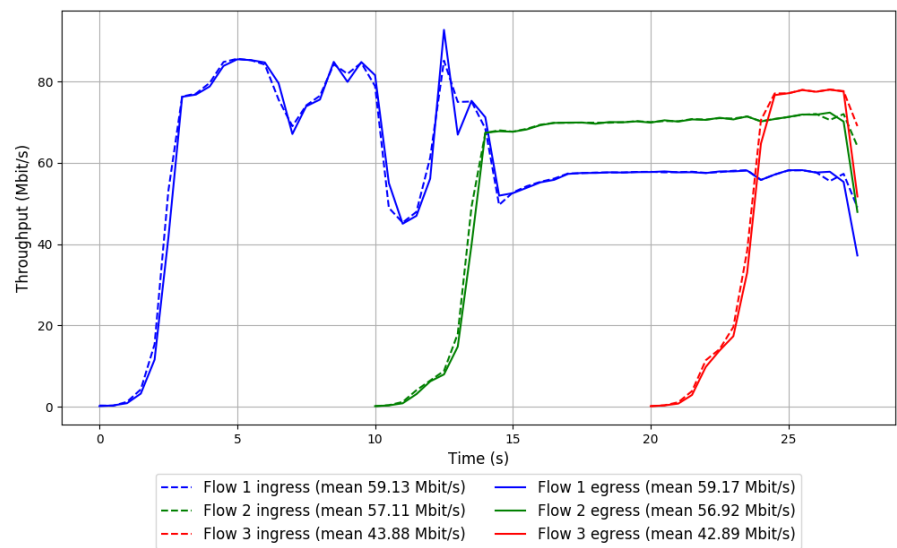
Average throughput: 42.89 Mbit/s

95th percentile per-packet one-way delay: 111.629 ms

Loss rate: 4.99%



Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-17 07:13:15

End at: 2018-01-17 07:13:45

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.02 Mbit/s

95th percentile per-packet one-way delay: 114.636 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 69.72 Mbit/s

95th percentile per-packet one-way delay: 114.678 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 60.12 Mbit/s

95th percentile per-packet one-way delay: 112.173 ms

Loss rate: 0.58%

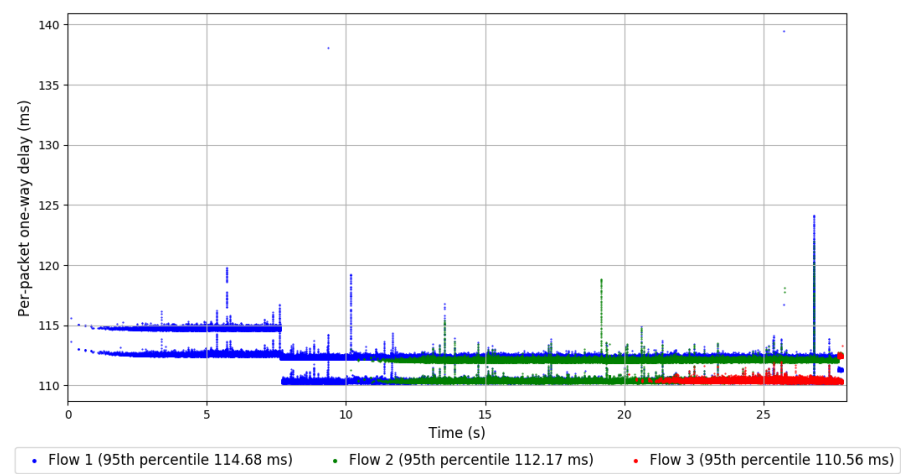
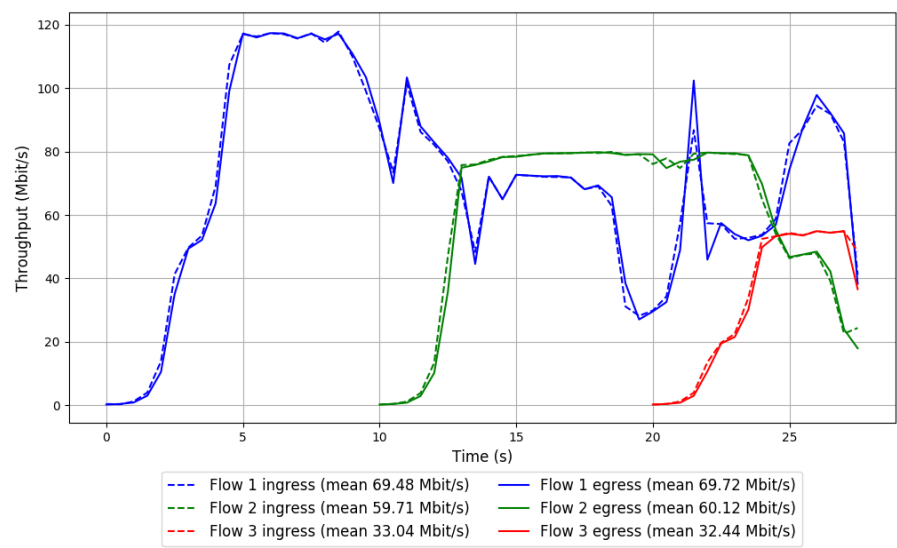
-- Flow 3:

Average throughput: 32.44 Mbit/s

95th percentile per-packet one-way delay: 110.558 ms

Loss rate: 4.61%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-17 07:31:37

End at: 2018-01-17 07:32:07

# Below is generated by plot.py at 2018-01-17 13:00:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.07 Mbit/s

95th percentile per-packet one-way delay: 112.314 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 55.18 Mbit/s

95th percentile per-packet one-way delay: 112.107 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 72.71 Mbit/s

95th percentile per-packet one-way delay: 112.395 ms

Loss rate: 1.16%

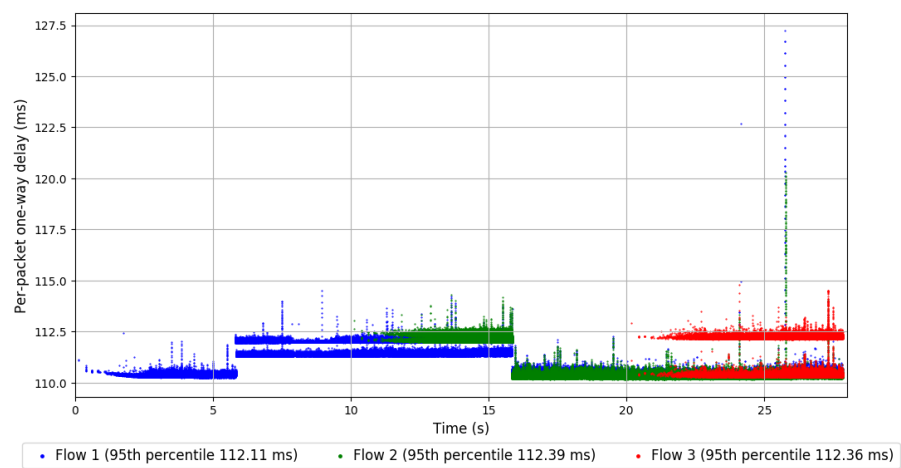
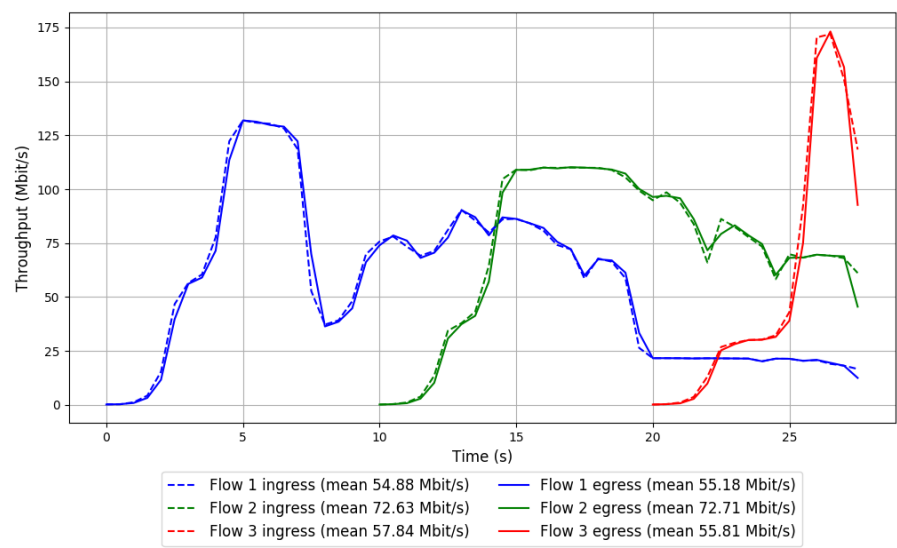
-- Flow 3:

Average throughput: 55.81 Mbit/s

95th percentile per-packet one-way delay: 112.363 ms

Loss rate: 6.25%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-17 07:52:27

End at: 2018-01-17 07:52:57

# Below is generated by plot.py at 2018-01-17 13:01:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.56 Mbit/s

95th percentile per-packet one-way delay: 112.219 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 45.95 Mbit/s

95th percentile per-packet one-way delay: 112.143 ms

Loss rate: 1.41%

-- Flow 2:

Average throughput: 67.63 Mbit/s

95th percentile per-packet one-way delay: 112.258 ms

Loss rate: 0.19%

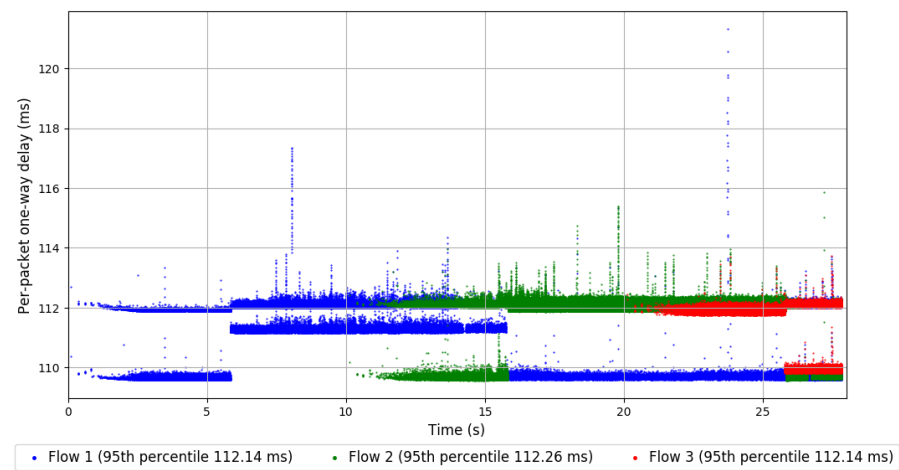
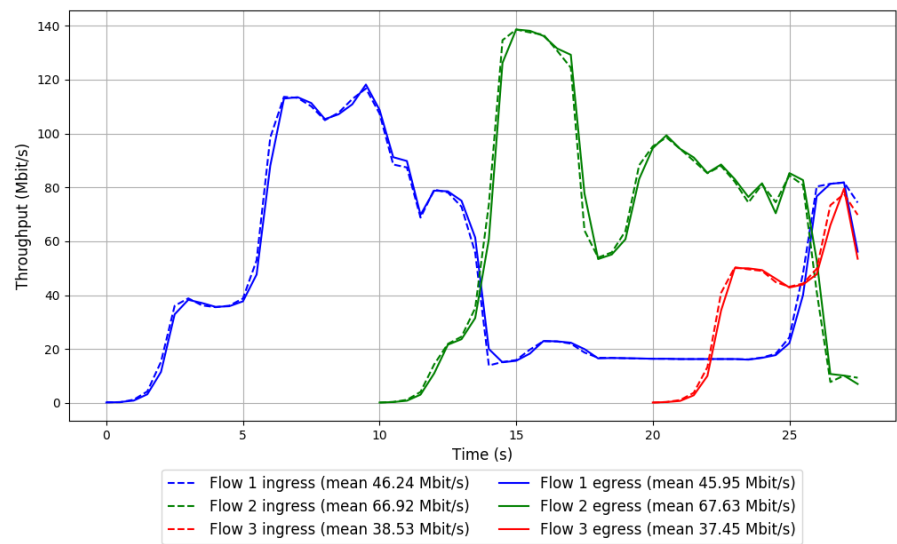
-- Flow 3:

Average throughput: 37.45 Mbit/s

95th percentile per-packet one-way delay: 112.141 ms

Loss rate: 5.55%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-17 08:11:00

End at: 2018-01-17 08:11:30

# Below is generated by plot.py at 2018-01-17 13:01:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 107.26 Mbit/s

95th percentile per-packet one-way delay: 112.056 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 52.17 Mbit/s

95th percentile per-packet one-way delay: 112.113 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 67.23 Mbit/s

95th percentile per-packet one-way delay: 111.990 ms

Loss rate: 1.08%

-- Flow 3:

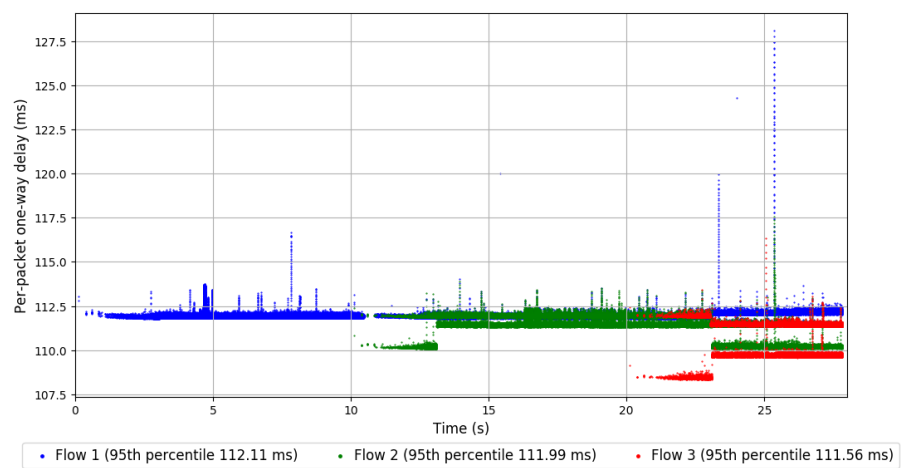
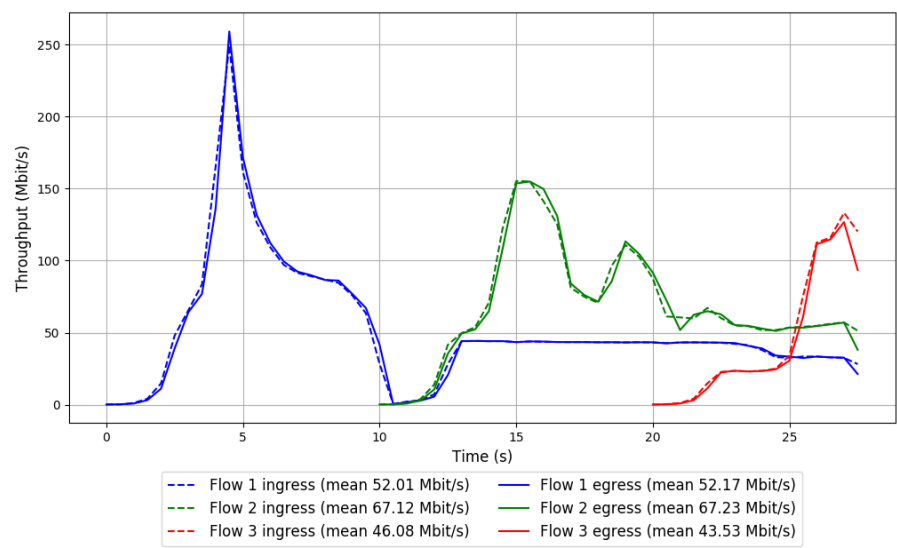
Average throughput: 43.53 Mbit/s

95th percentile per-packet one-way delay: 111.563 ms

Loss rate: 8.16%



Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-17 08:28:44

End at: 2018-01-17 08:29:14

# Below is generated by plot.py at 2018-01-17 13:02:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.17 Mbit/s

95th percentile per-packet one-way delay: 112.348 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 72.74 Mbit/s

95th percentile per-packet one-way delay: 112.159 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 57.32 Mbit/s

95th percentile per-packet one-way delay: 112.435 ms

Loss rate: 1.14%

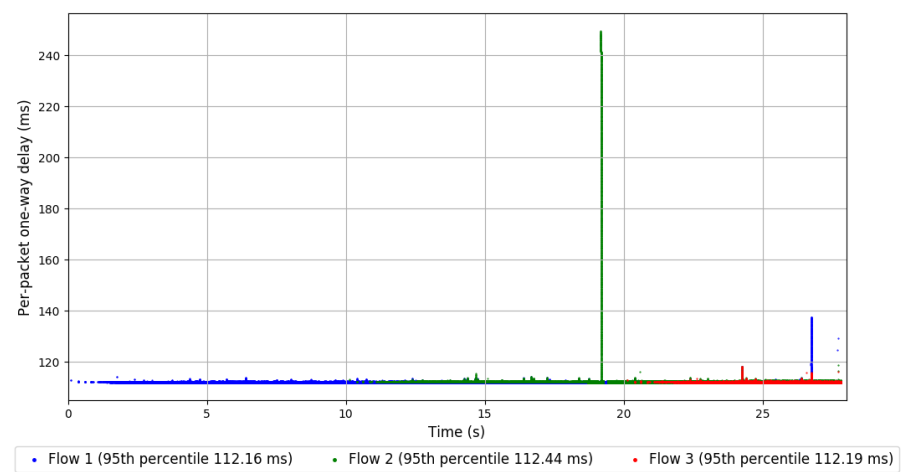
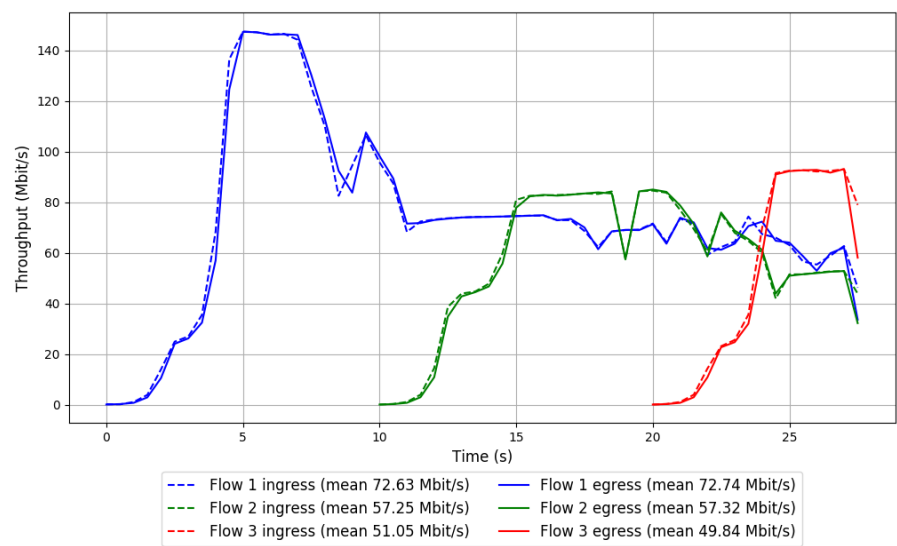
-- Flow 3:

Average throughput: 49.84 Mbit/s

95th percentile per-packet one-way delay: 112.194 ms

Loss rate: 5.15%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-17 08:47:04

End at: 2018-01-17 08:47:34

# Below is generated by plot.py at 2018-01-17 13:02:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.39 Mbit/s

95th percentile per-packet one-way delay: 112.105 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 72.67 Mbit/s

95th percentile per-packet one-way delay: 112.067 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 65.56 Mbit/s

95th percentile per-packet one-way delay: 112.061 ms

Loss rate: 1.26%

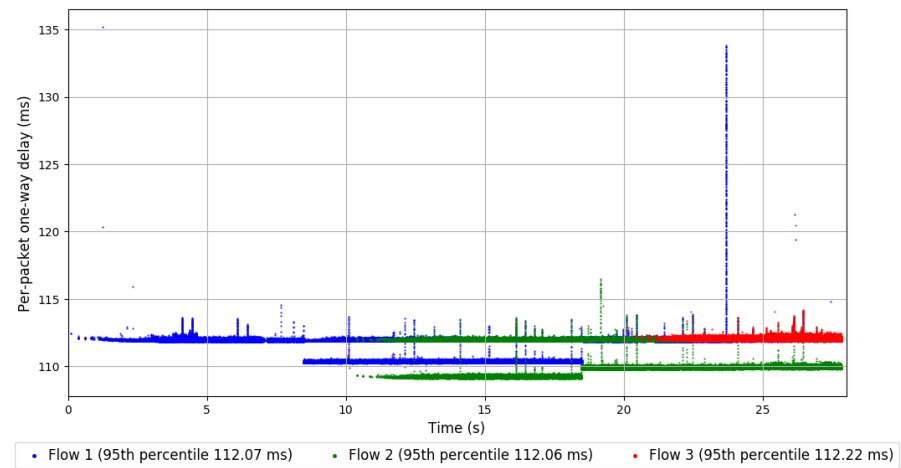
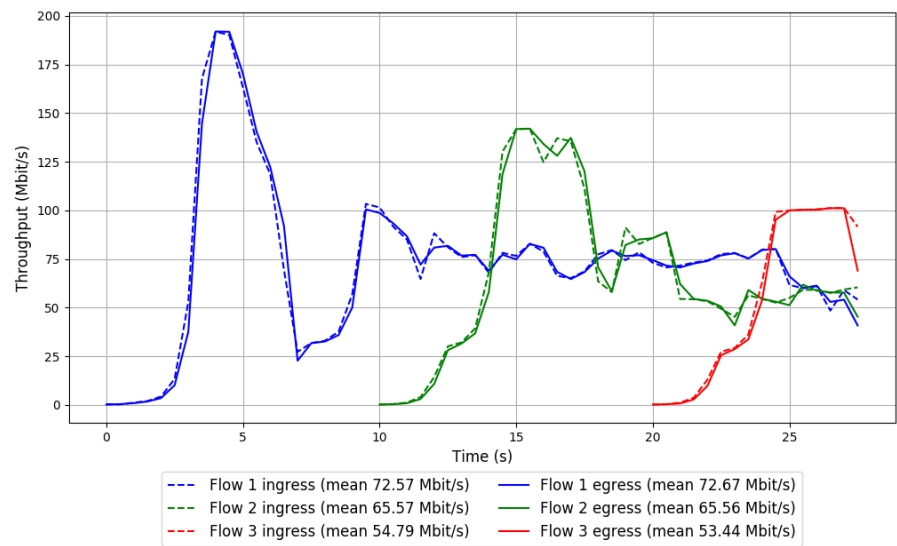
-- Flow 3:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 112.217 ms

Loss rate: 5.23%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-17 09:05:01

End at: 2018-01-17 09:05:31

# Below is generated by plot.py at 2018-01-17 13:03:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 146.91 Mbit/s

95th percentile per-packet one-way delay: 112.705 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 88.99 Mbit/s

95th percentile per-packet one-way delay: 112.705 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 62.31 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 1.43%

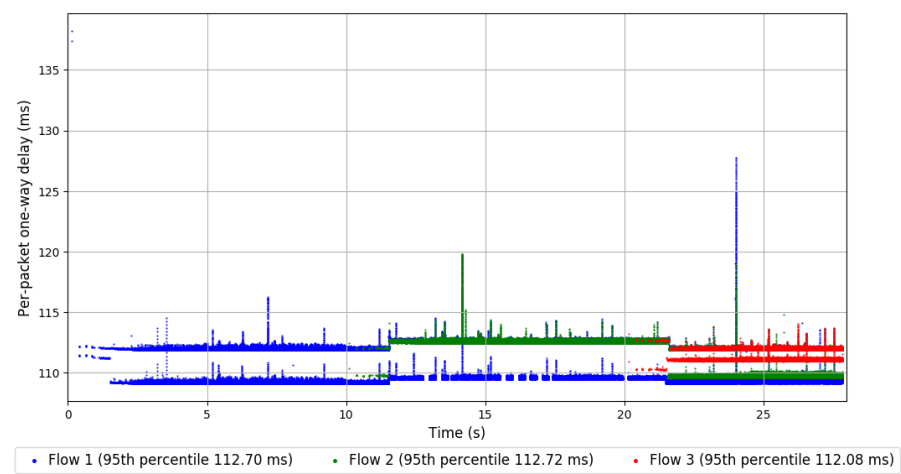
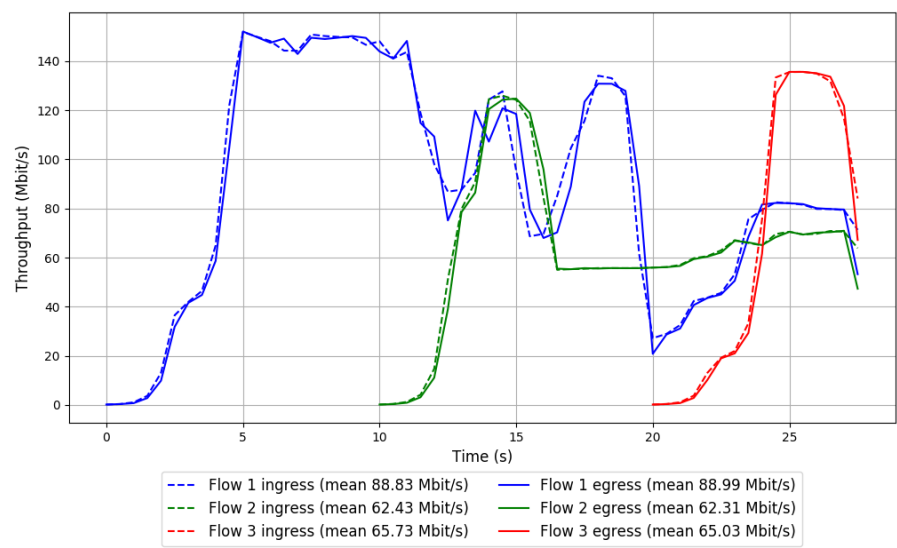
-- Flow 3:

Average throughput: 65.03 Mbit/s

95th percentile per-packet one-way delay: 112.077 ms

Loss rate: 3.85%

Run 10: Report of Copa — Data Link



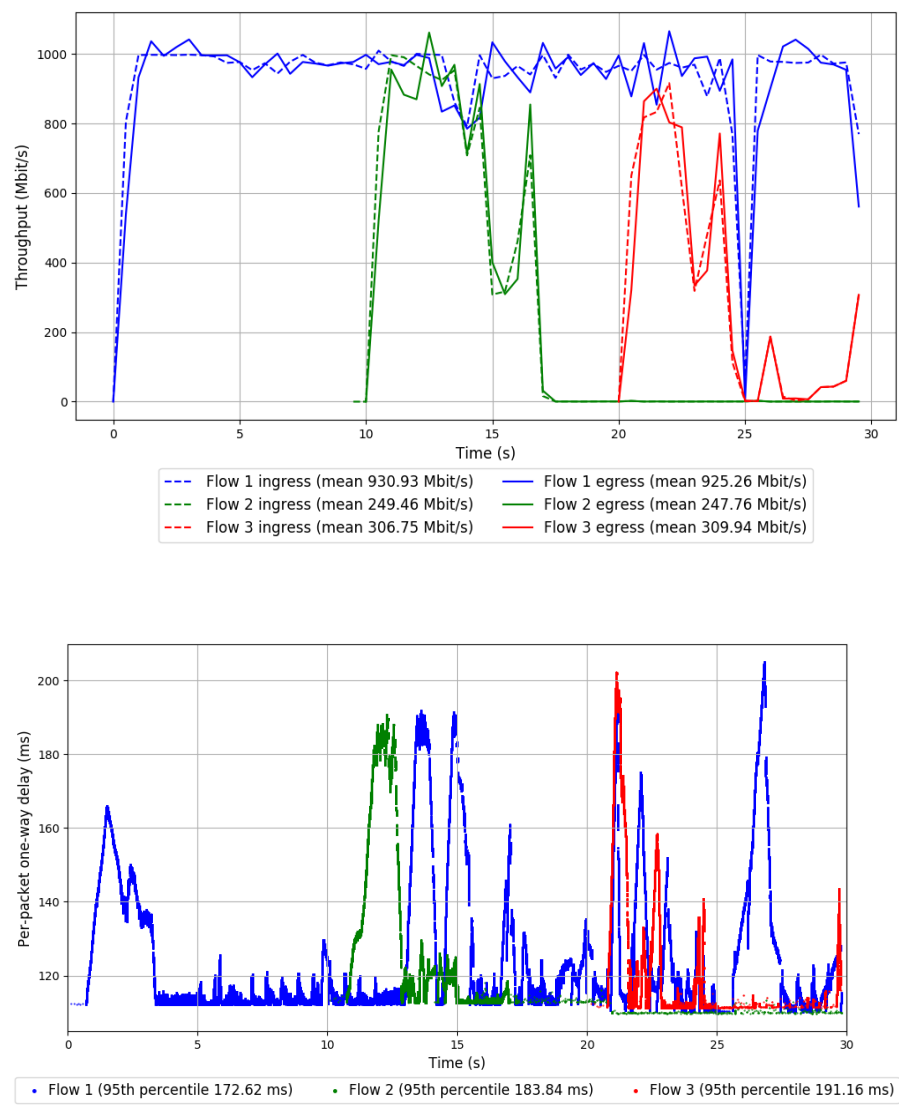
```
Run 1: Statistics of FillP

Start at: 2018-01-17 06:09:24
End at: 2018-01-17 06:09:54

# Below is generated by plot.py at 2018-01-17 13:18:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1190.28 Mbit/s
95th percentile per-packet one-way delay: 179.011 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 925.26 Mbit/s
95th percentile per-packet one-way delay: 172.618 ms
Loss rate: 1.35%
-- Flow 2:
Average throughput: 247.76 Mbit/s
95th percentile per-packet one-way delay: 183.843 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 309.94 Mbit/s
95th percentile per-packet one-way delay: 191.158 ms
Loss rate: 1.23%
```



Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-17 06:27:31

End at: 2018-01-17 06:28:01

# Below is generated by plot.py at 2018-01-17 13:18:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1154.25 Mbit/s

95th percentile per-packet one-way delay: 176.027 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 656.60 Mbit/s

95th percentile per-packet one-way delay: 171.805 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 458.33 Mbit/s

95th percentile per-packet one-way delay: 185.522 ms

Loss rate: 2.07%

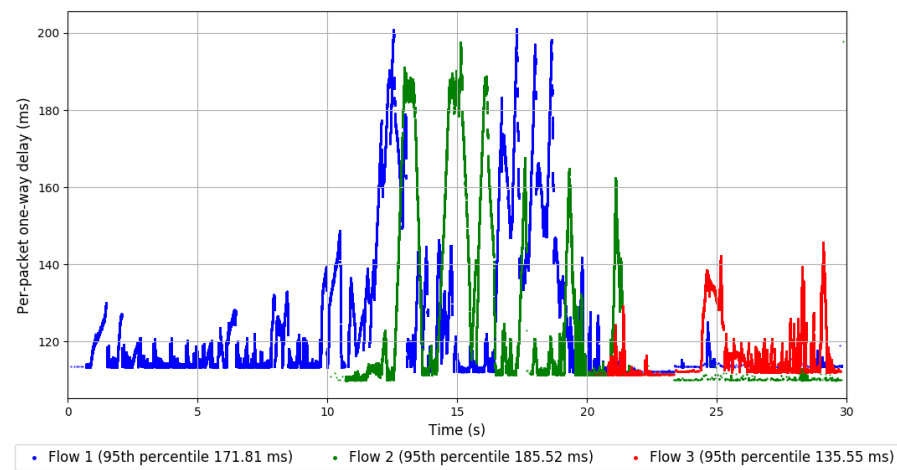
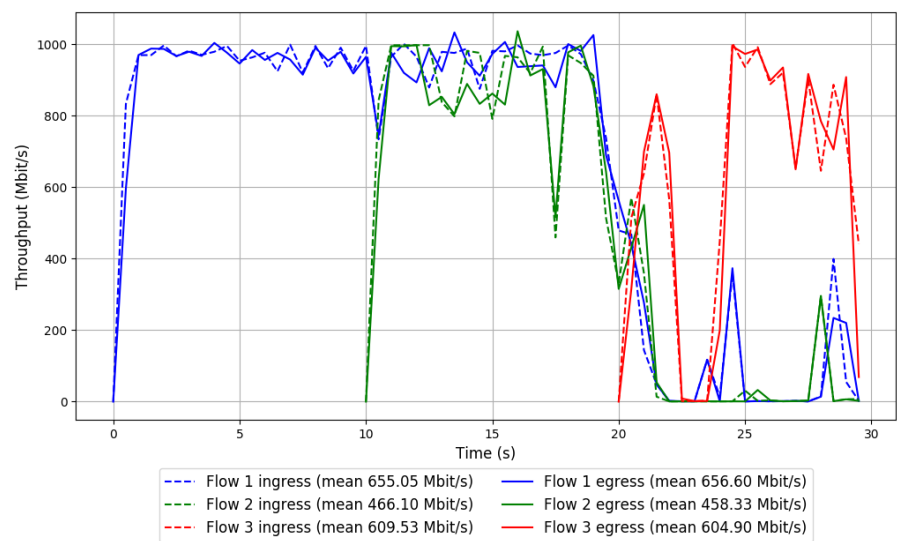
-- Flow 3:

Average throughput: 604.90 Mbit/s

95th percentile per-packet one-way delay: 135.547 ms

Loss rate: 3.64%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-17 06:45:45

End at: 2018-01-17 06:46:15

# Below is generated by plot.py at 2018-01-17 13:18:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1060.30 Mbit/s

95th percentile per-packet one-way delay: 218.389 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 918.52 Mbit/s

95th percentile per-packet one-way delay: 220.267 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 140.57 Mbit/s

95th percentile per-packet one-way delay: 175.256 ms

Loss rate: 0.00%

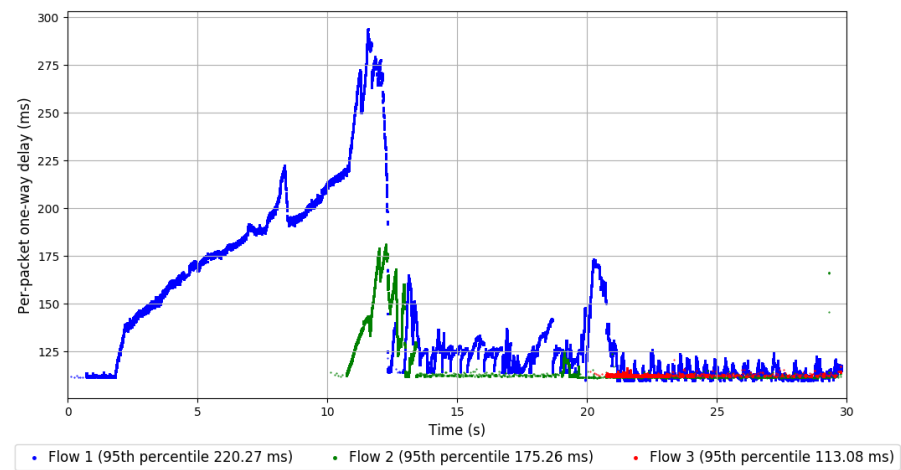
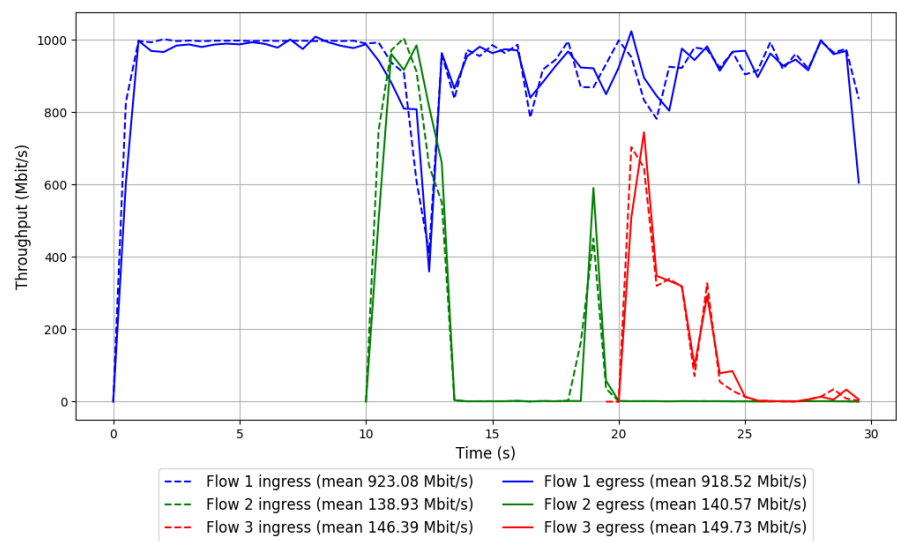
-- Flow 3:

Average throughput: 149.73 Mbit/s

95th percentile per-packet one-way delay: 113.082 ms

Loss rate: 0.02%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-17 07:04:16

End at: 2018-01-17 07:04:46

# Below is generated by plot.py at 2018-01-17 13:18:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 765.34 Mbit/s

95th percentile per-packet one-way delay: 138.198 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 311.09 Mbit/s

95th percentile per-packet one-way delay: 137.749 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 243.60 Mbit/s

95th percentile per-packet one-way delay: 121.613 ms

Loss rate: 0.06%

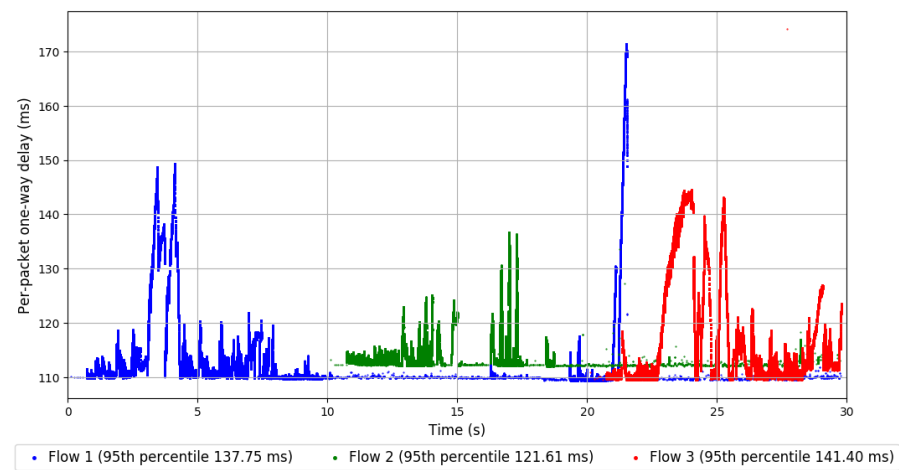
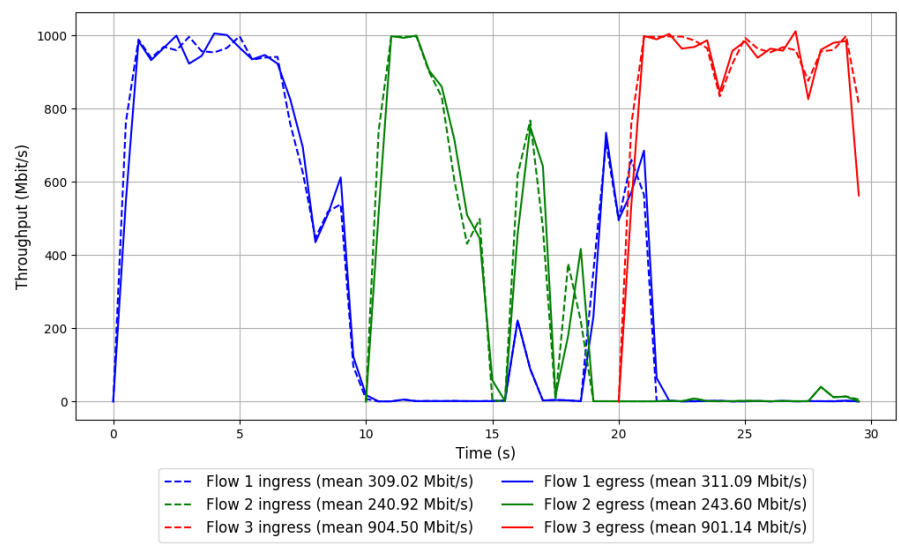
-- Flow 3:

Average throughput: 901.14 Mbit/s

95th percentile per-packet one-way delay: 141.404 ms

Loss rate: 2.64%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-17 07:22:16

End at: 2018-01-17 07:22:46

# Below is generated by plot.py at 2018-01-17 13:18:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 634.78 Mbit/s

95th percentile per-packet one-way delay: 196.306 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 217.15 Mbit/s

95th percentile per-packet one-way delay: 122.975 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 516.78 Mbit/s

95th percentile per-packet one-way delay: 212.521 ms

Loss rate: 0.00%

-- Flow 3:

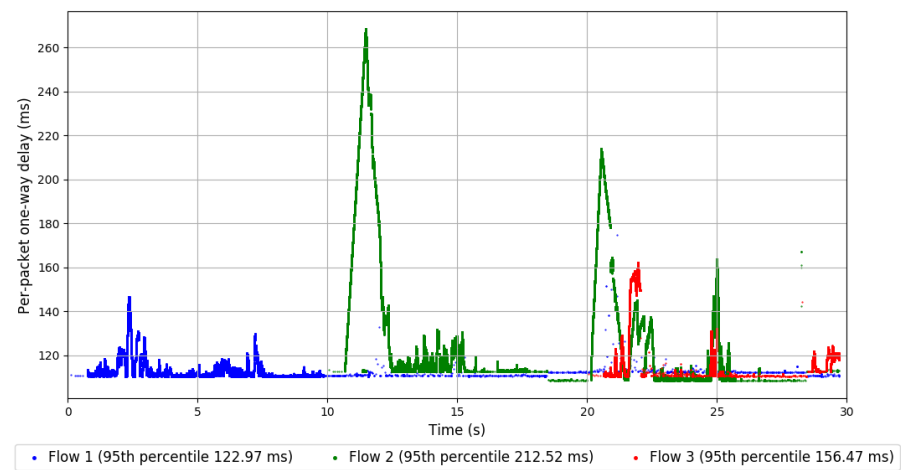
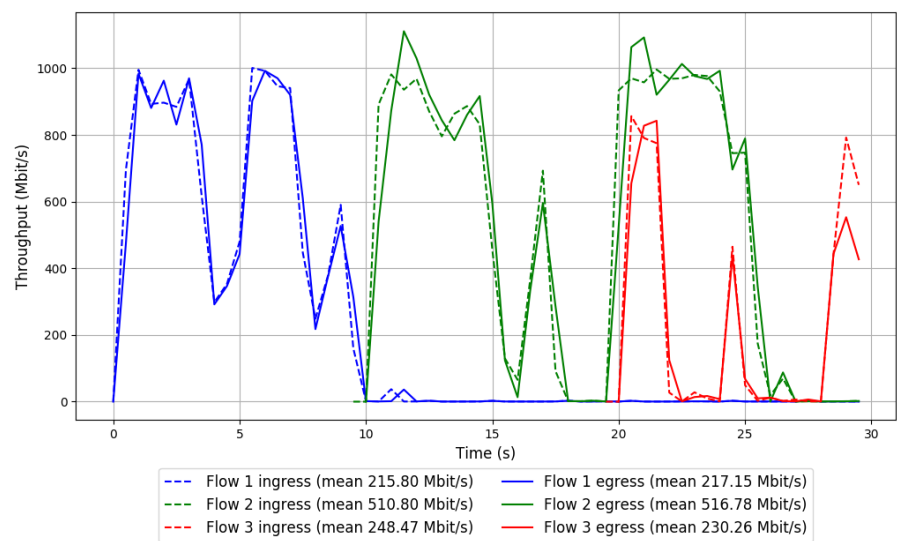
Average throughput: 230.26 Mbit/s

95th percentile per-packet one-way delay: 156.469 ms

Loss rate: 9.42%



Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-17 07:41:59

End at: 2018-01-17 07:42:29

# Below is generated by plot.py at 2018-01-17 13:28:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1583.01 Mbit/s

95th percentile per-packet one-way delay: 196.768 ms

Loss rate: 2.64%

-- Flow 1:

Average throughput: 893.40 Mbit/s

95th percentile per-packet one-way delay: 191.456 ms

Loss rate: 1.67%

-- Flow 2:

Average throughput: 648.84 Mbit/s

95th percentile per-packet one-way delay: 219.333 ms

Loss rate: 3.75%

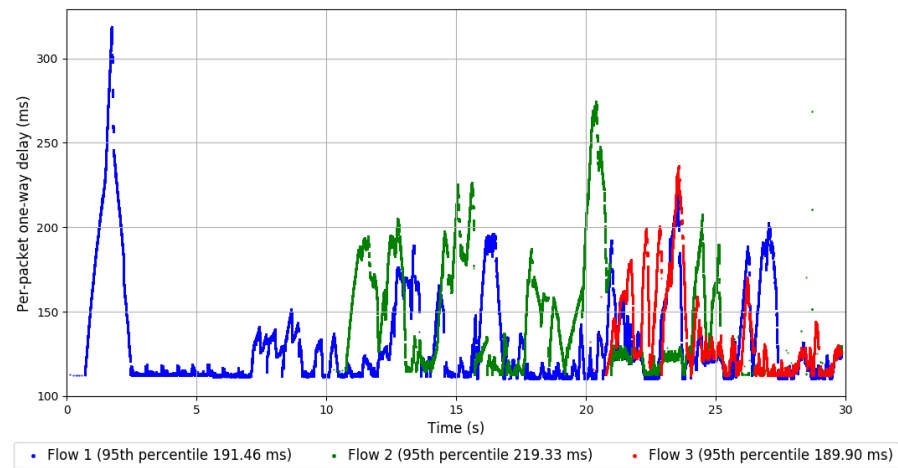
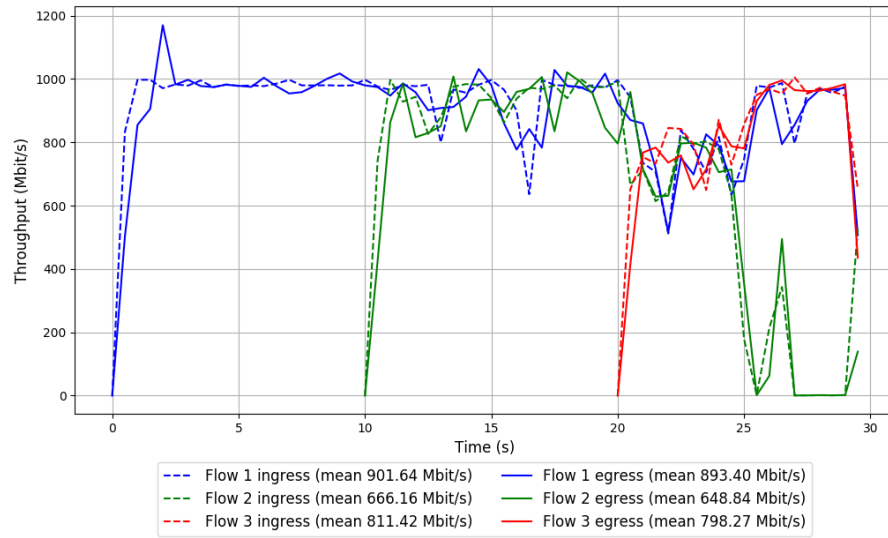
-- Flow 3:

Average throughput: 798.27 Mbit/s

95th percentile per-packet one-way delay: 189.896 ms

Loss rate: 4.07%

## Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-17 08:01:31

End at: 2018-01-17 08:02:01

# Below is generated by plot.py at 2018-01-17 13:28:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1537.23 Mbit/s

95th percentile per-packet one-way delay: 245.701 ms

Loss rate: 6.32%

-- Flow 1:

Average throughput: 729.09 Mbit/s

95th percentile per-packet one-way delay: 229.439 ms

Loss rate: 5.18%

-- Flow 2:

Average throughput: 819.95 Mbit/s

95th percentile per-packet one-way delay: 197.111 ms

Loss rate: 6.24%

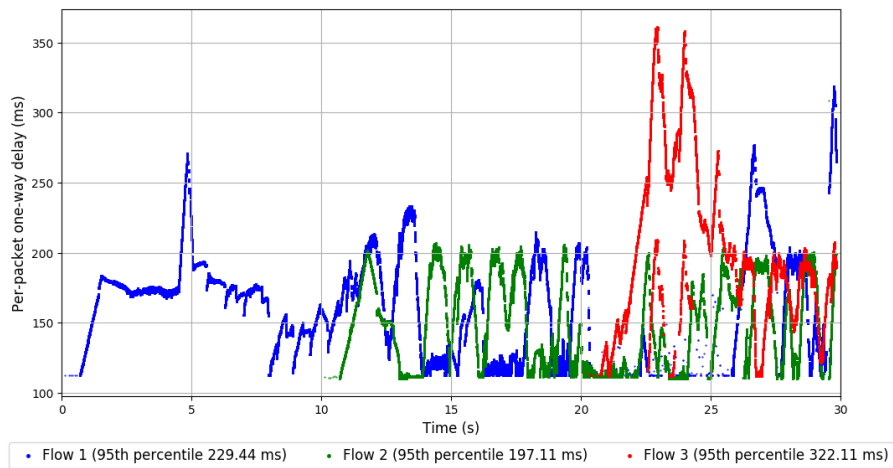
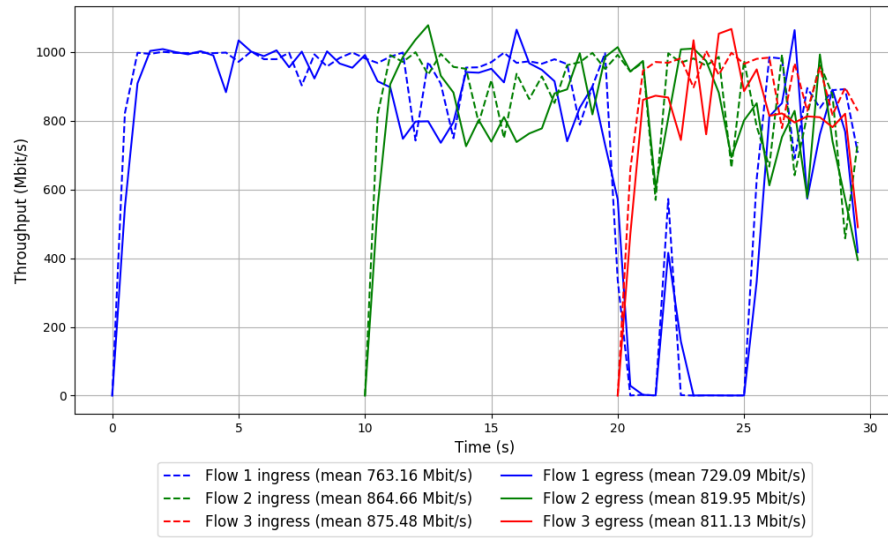
-- Flow 3:

Average throughput: 811.13 Mbit/s

95th percentile per-packet one-way delay: 322.111 ms

Loss rate: 9.48%

## Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-17 08:20:11

End at: 2018-01-17 08:20:41

# Below is generated by plot.py at 2018-01-17 13:28:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 639.80 Mbit/s

95th percentile per-packet one-way delay: 196.793 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 264.68 Mbit/s

95th percentile per-packet one-way delay: 207.669 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 163.89 Mbit/s

95th percentile per-packet one-way delay: 213.795 ms

Loss rate: 3.05%

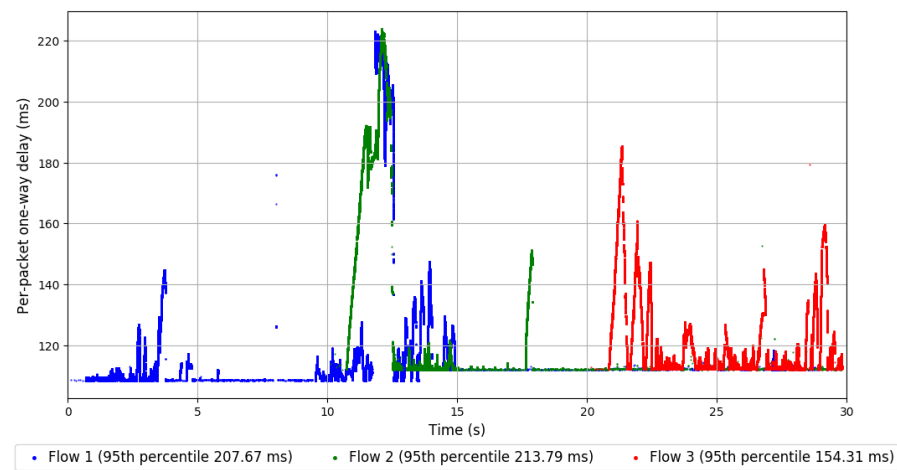
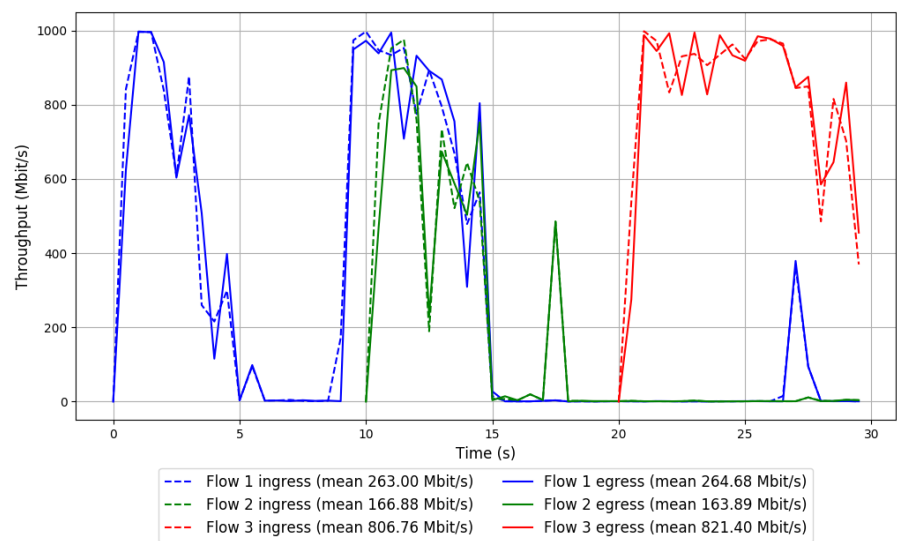
-- Flow 3:

Average throughput: 821.40 Mbit/s

95th percentile per-packet one-way delay: 154.305 ms

Loss rate: 0.26%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-17 08:37:49

End at: 2018-01-17 08:38:19

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1467.45 Mbit/s

95th percentile per-packet one-way delay: 236.223 ms

Loss rate: 3.48%

-- Flow 1:

Average throughput: 810.80 Mbit/s

95th percentile per-packet one-way delay: 252.049 ms

Loss rate: 2.73%

-- Flow 2:

Average throughput: 879.33 Mbit/s

95th percentile per-packet one-way delay: 189.175 ms

Loss rate: 4.26%

-- Flow 3:

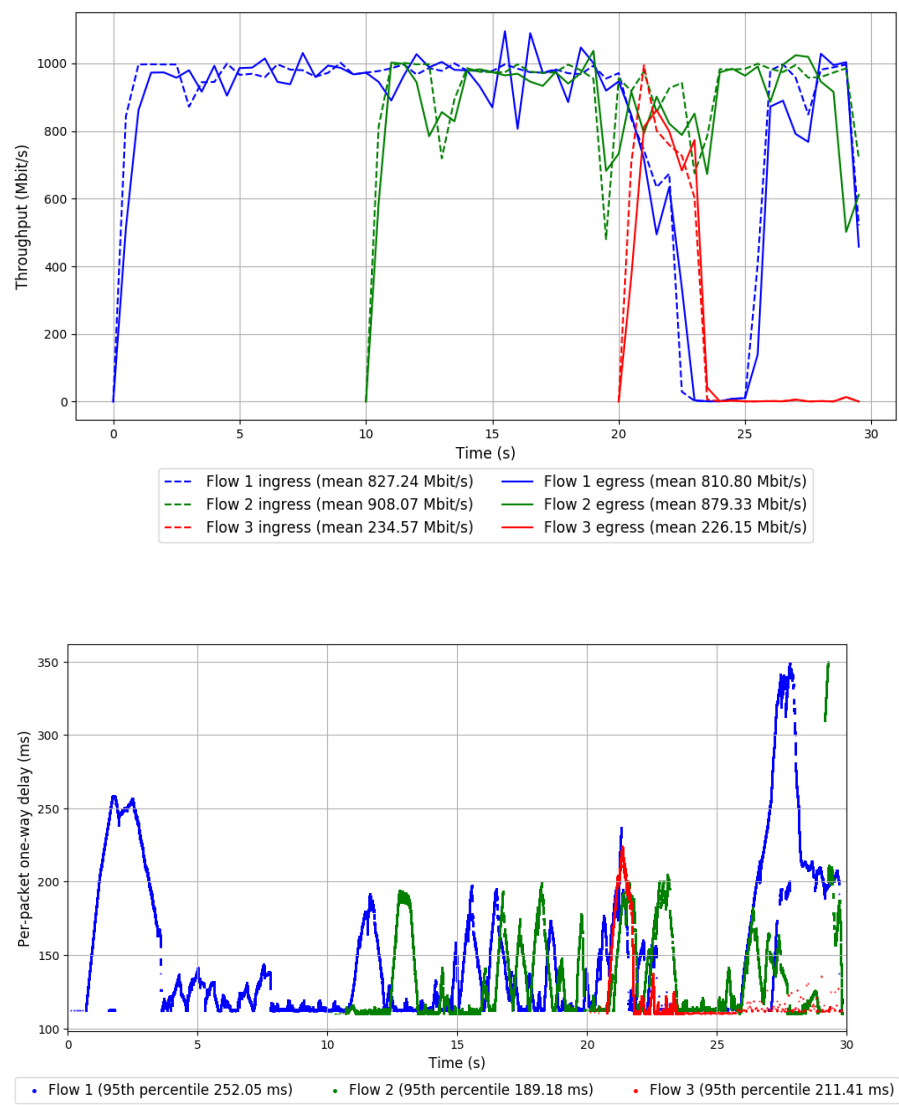
Average throughput: 226.15 Mbit/s

95th percentile per-packet one-way delay: 211.409 ms

Loss rate: 5.54%



Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-17 08:55:54

End at: 2018-01-17 08:56:24

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 981.74 Mbit/s

95th percentile per-packet one-way delay: 218.099 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 217.91 Mbit/s

95th percentile per-packet one-way delay: 230.286 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 914.41 Mbit/s

95th percentile per-packet one-way delay: 162.034 ms

Loss rate: 2.06%

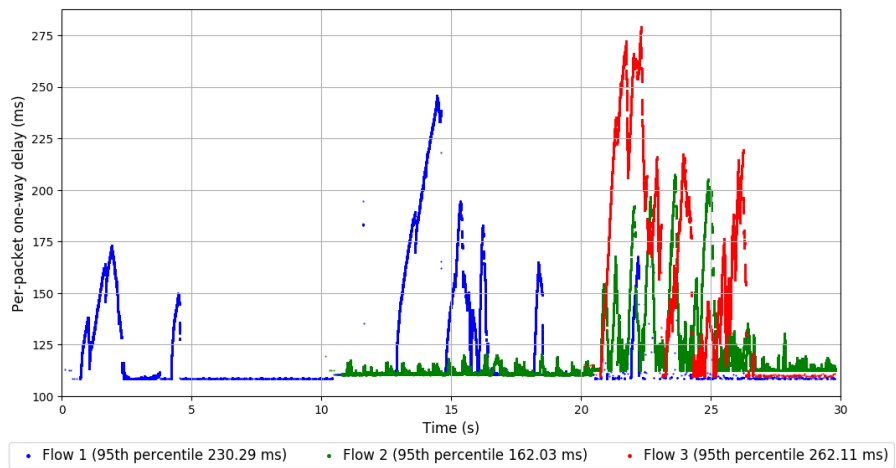
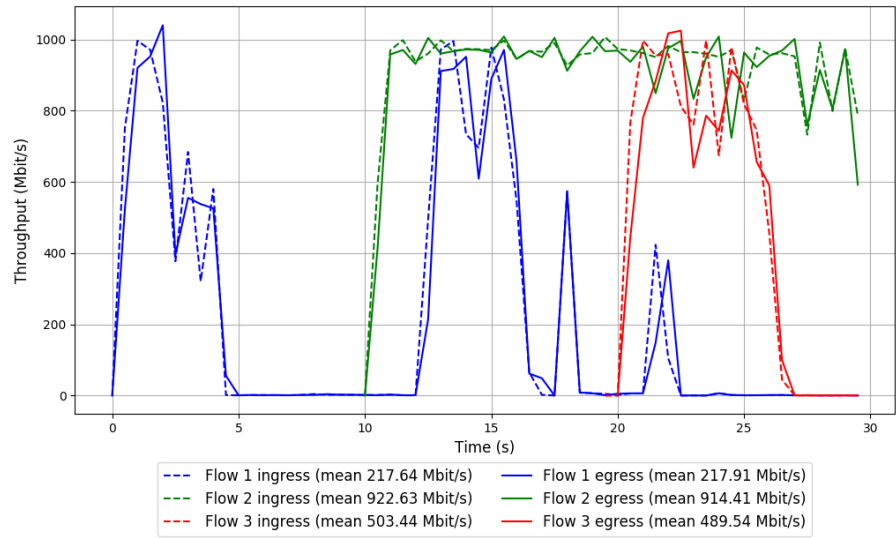
-- Flow 3:

Average throughput: 489.54 Mbit/s

95th percentile per-packet one-way delay: 262.109 ms

Loss rate: 5.16%

# Run 10: Report of FillP — Data Link

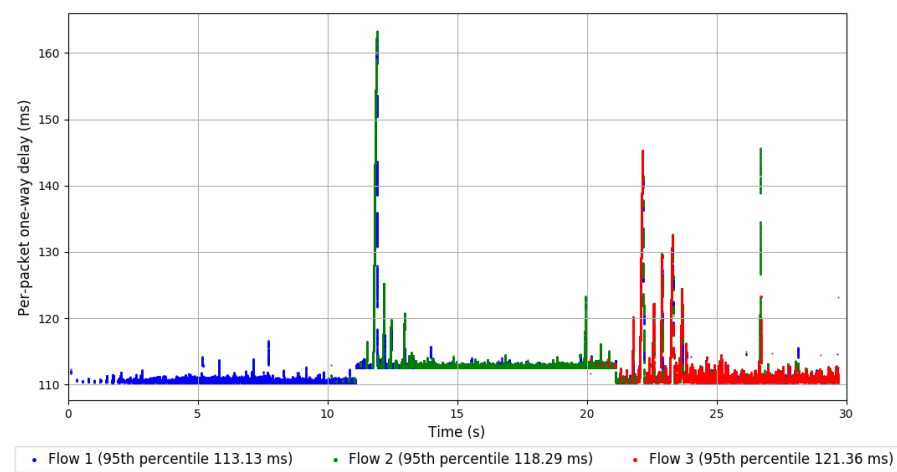
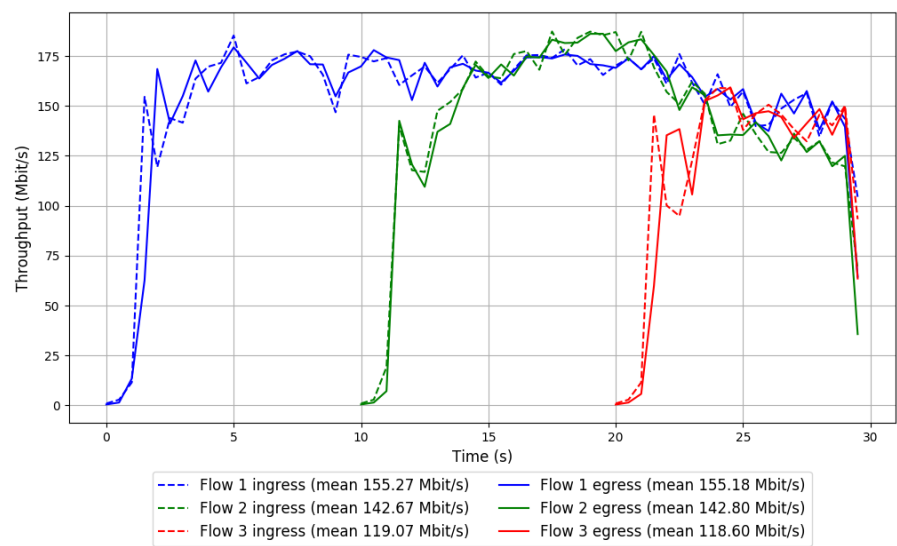


```
Run 1: Statistics of Indigo

Start at: 2018-01-17 06:15:33
End at: 2018-01-17 06:16:03

# Below is generated by plot.py at 2018-01-17 13:37:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.91 Mbit/s
95th percentile per-packet one-way delay: 115.639 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 155.18 Mbit/s
95th percentile per-packet one-way delay: 113.126 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 142.80 Mbit/s
95th percentile per-packet one-way delay: 118.289 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 118.60 Mbit/s
95th percentile per-packet one-way delay: 121.355 ms
Loss rate: 2.65%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-17 06:33:59

End at: 2018-01-17 06:34:29

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 284.46 Mbit/s

95th percentile per-packet one-way delay: 113.453 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 152.91 Mbit/s

95th percentile per-packet one-way delay: 113.225 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 140.11 Mbit/s

95th percentile per-packet one-way delay: 113.609 ms

Loss rate: 1.29%

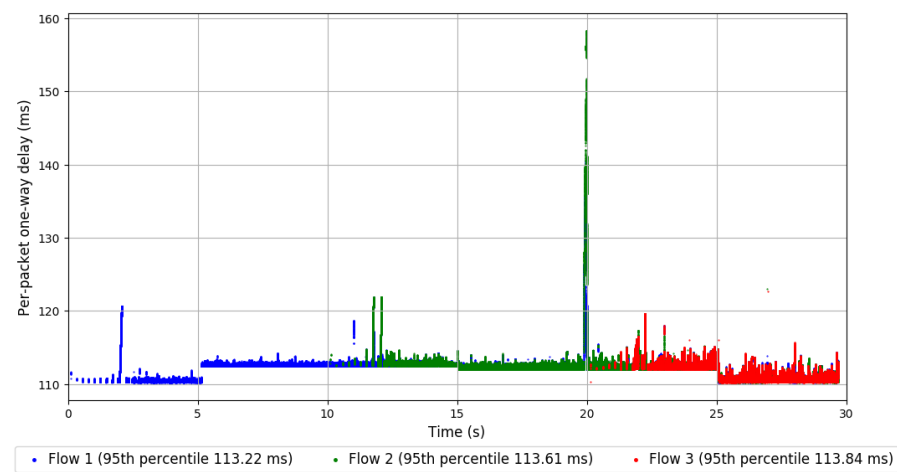
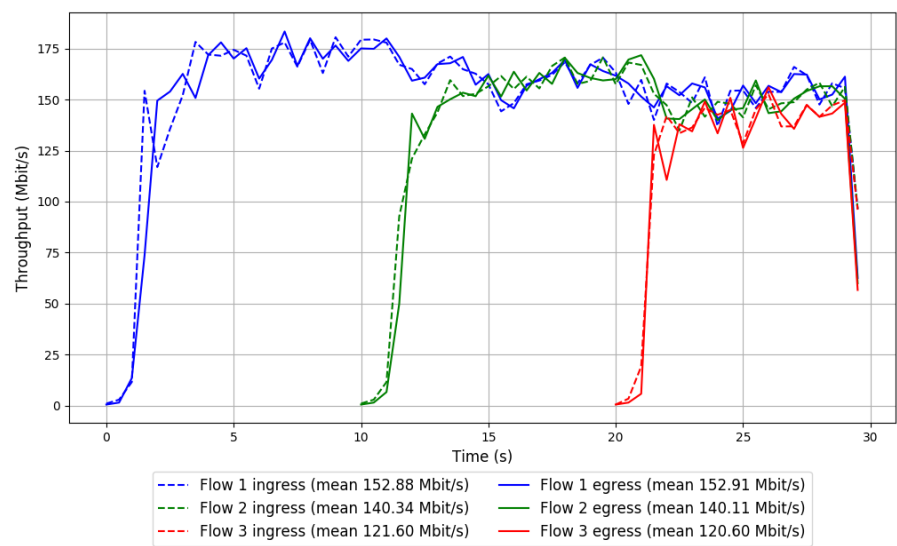
-- Flow 3:

Average throughput: 120.60 Mbit/s

95th percentile per-packet one-way delay: 113.845 ms

Loss rate: 3.05%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-17 06:52:08

End at: 2018-01-17 06:52:38

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 274.89 Mbit/s

95th percentile per-packet one-way delay: 112.625 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 140.94 Mbit/s

95th percentile per-packet one-way delay: 112.650 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 143.43 Mbit/s

95th percentile per-packet one-way delay: 111.763 ms

Loss rate: 0.94%

-- Flow 3:

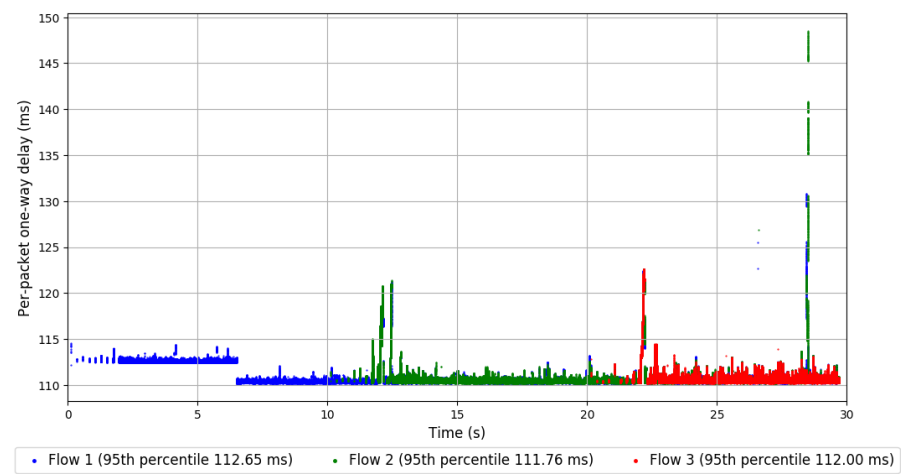
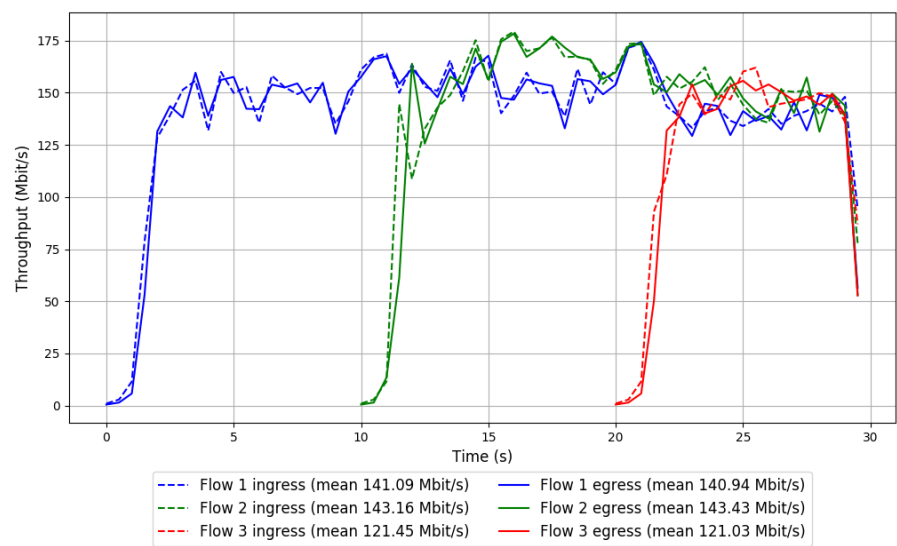
Average throughput: 121.03 Mbit/s

95th percentile per-packet one-way delay: 111.995 ms

Loss rate: 2.65%



Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-17 07:10:23

End at: 2018-01-17 07:10:53

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 285.10 Mbit/s

95th percentile per-packet one-way delay: 113.636 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 151.18 Mbit/s

95th percentile per-packet one-way delay: 113.366 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 143.65 Mbit/s

95th percentile per-packet one-way delay: 113.642 ms

Loss rate: 1.11%

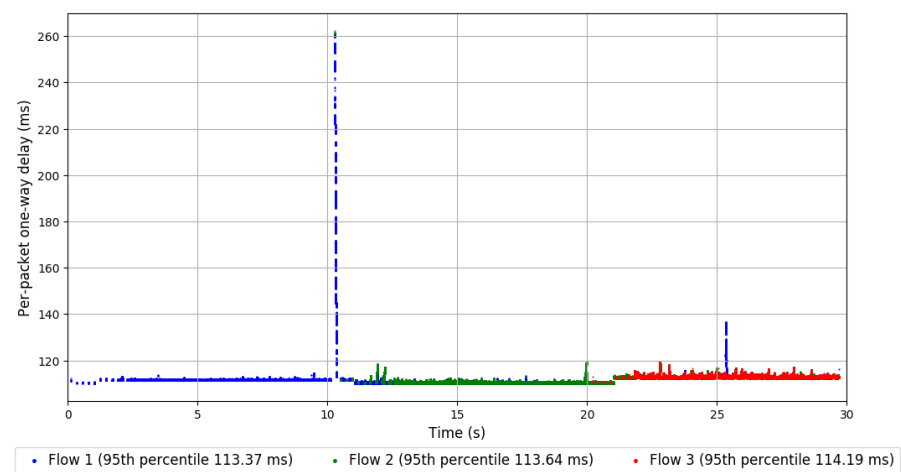
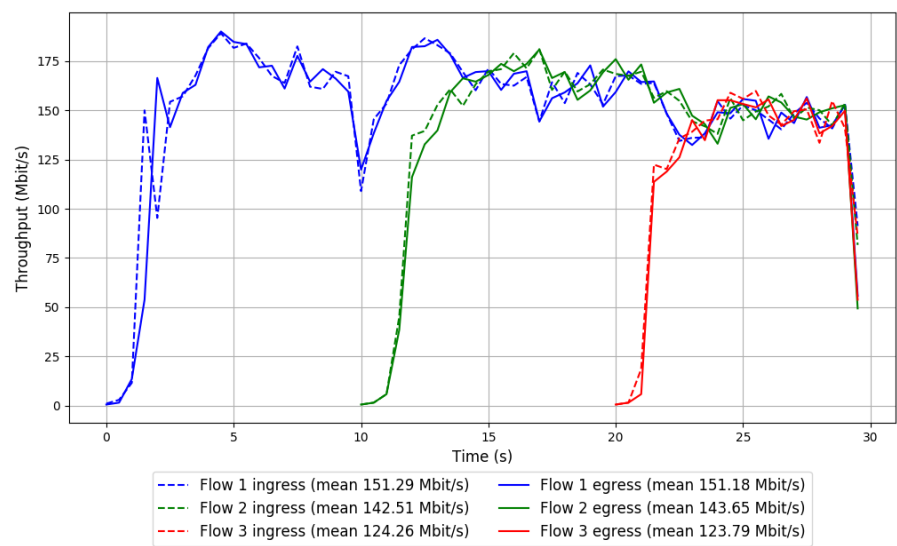
-- Flow 3:

Average throughput: 123.79 Mbit/s

95th percentile per-packet one-way delay: 114.192 ms

Loss rate: 2.67%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-17 07:28:36

End at: 2018-01-17 07:29:06

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 261.43 Mbit/s

95th percentile per-packet one-way delay: 114.397 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 143.99 Mbit/s

95th percentile per-packet one-way delay: 113.925 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 130.76 Mbit/s

95th percentile per-packet one-way delay: 115.233 ms

Loss rate: 1.11%

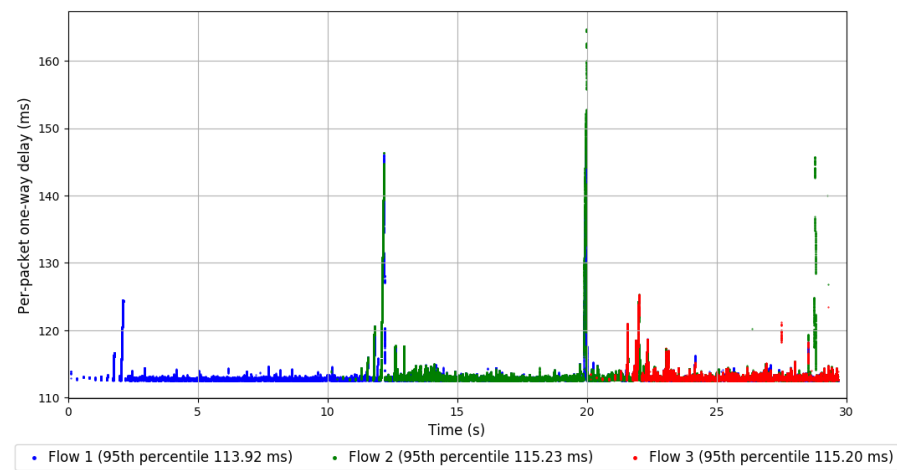
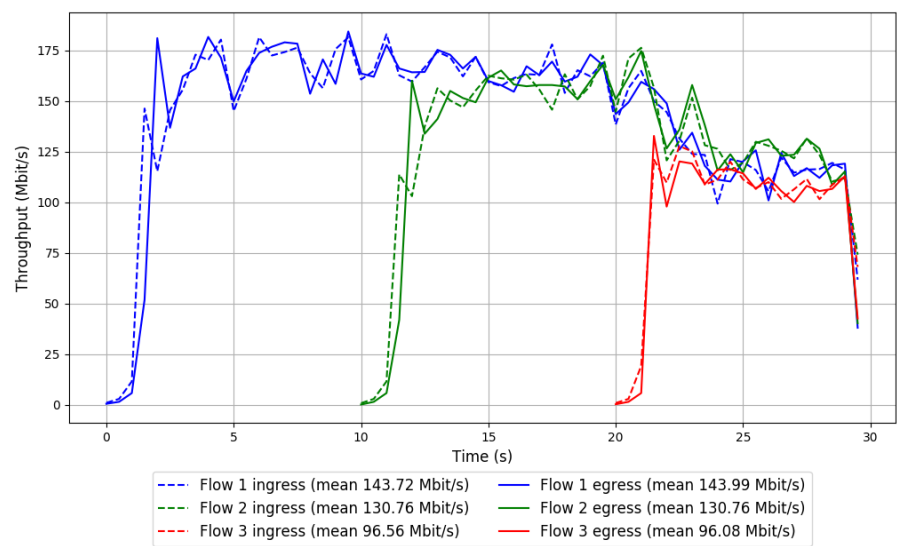
-- Flow 3:

Average throughput: 96.08 Mbit/s

95th percentile per-packet one-way delay: 115.205 ms

Loss rate: 2.77%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-17 07:49:04

End at: 2018-01-17 07:49:34

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 290.62 Mbit/s

95th percentile per-packet one-way delay: 113.139 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 156.13 Mbit/s

95th percentile per-packet one-way delay: 112.825 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 146.03 Mbit/s

95th percentile per-packet one-way delay: 113.240 ms

Loss rate: 1.19%

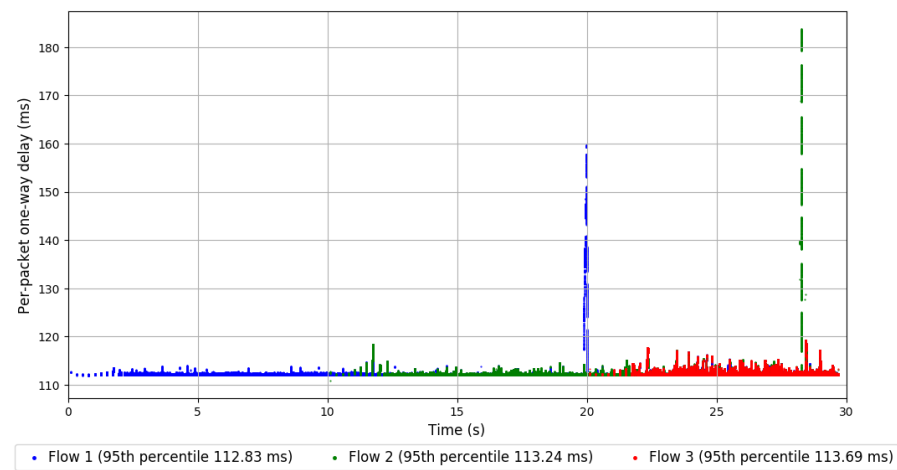
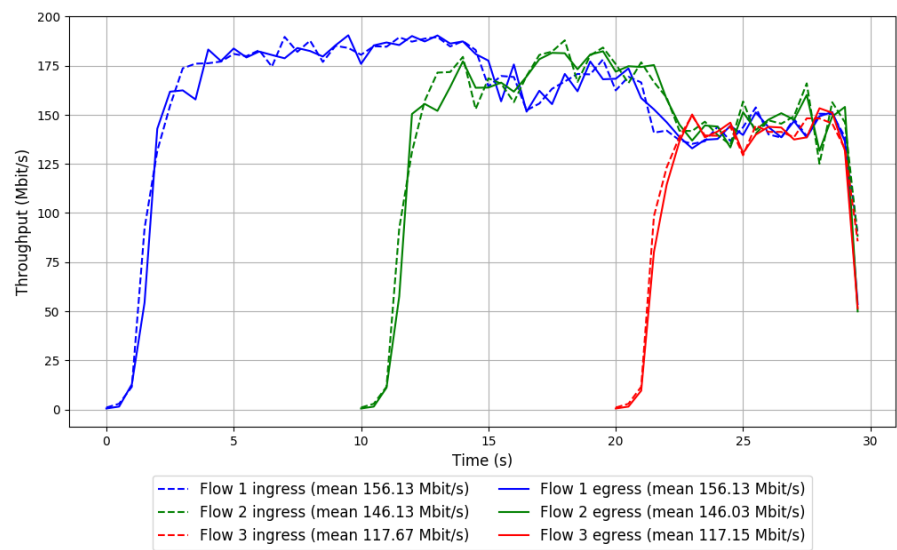
-- Flow 3:

Average throughput: 117.15 Mbit/s

95th percentile per-packet one-way delay: 113.694 ms

Loss rate: 2.75%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-17 08:08:09

End at: 2018-01-17 08:08:39

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 294.68 Mbit/s

95th percentile per-packet one-way delay: 113.448 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 159.82 Mbit/s

95th percentile per-packet one-way delay: 112.747 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 145.06 Mbit/s

95th percentile per-packet one-way delay: 114.079 ms

Loss rate: 1.26%

-- Flow 3:

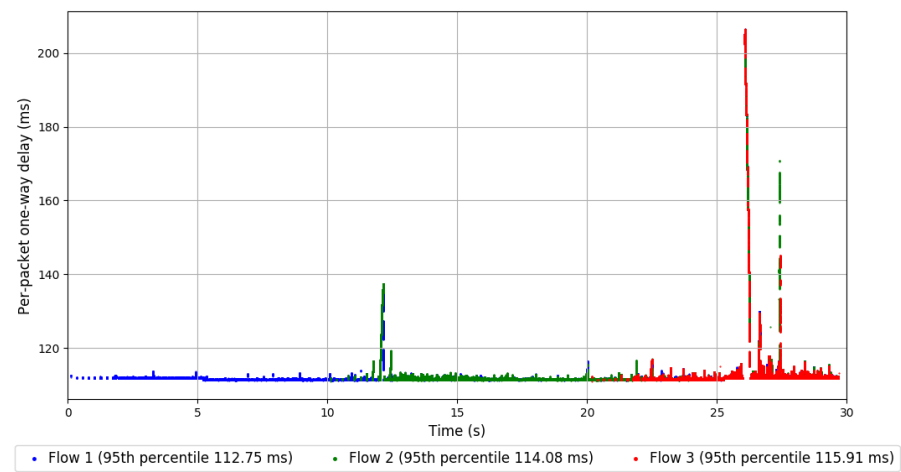
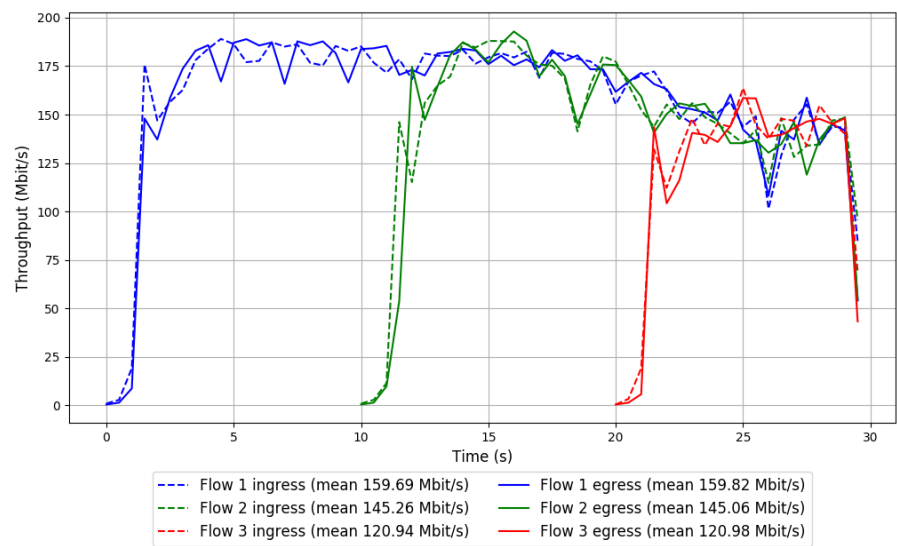
Average throughput: 120.98 Mbit/s

95th percentile per-packet one-way delay: 115.908 ms

Loss rate: 2.25%



Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-17 08:25:58

End at: 2018-01-17 08:26:28

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 256.53 Mbit/s

95th percentile per-packet one-way delay: 113.018 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 136.66 Mbit/s

95th percentile per-packet one-way delay: 112.719 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 130.55 Mbit/s

95th percentile per-packet one-way delay: 113.320 ms

Loss rate: 1.03%

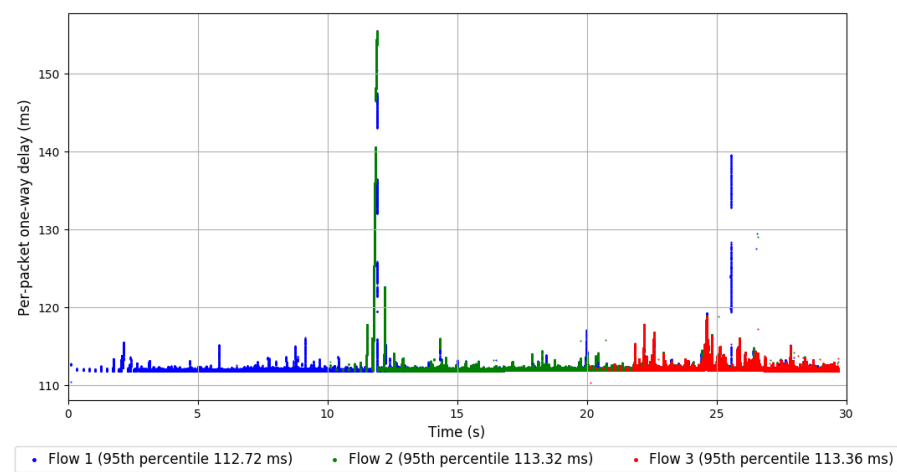
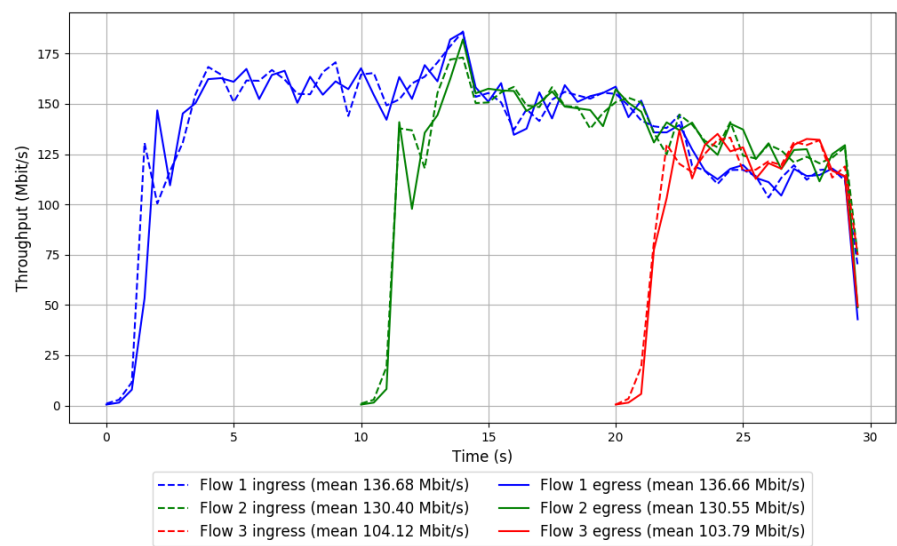
-- Flow 3:

Average throughput: 103.79 Mbit/s

95th percentile per-packet one-way delay: 113.358 ms

Loss rate: 2.58%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-17 08:44:09

End at: 2018-01-17 08:44:39

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 302.23 Mbit/s

95th percentile per-packet one-way delay: 114.073 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 160.20 Mbit/s

95th percentile per-packet one-way delay: 113.283 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 153.41 Mbit/s

95th percentile per-packet one-way delay: 114.704 ms

Loss rate: 1.17%

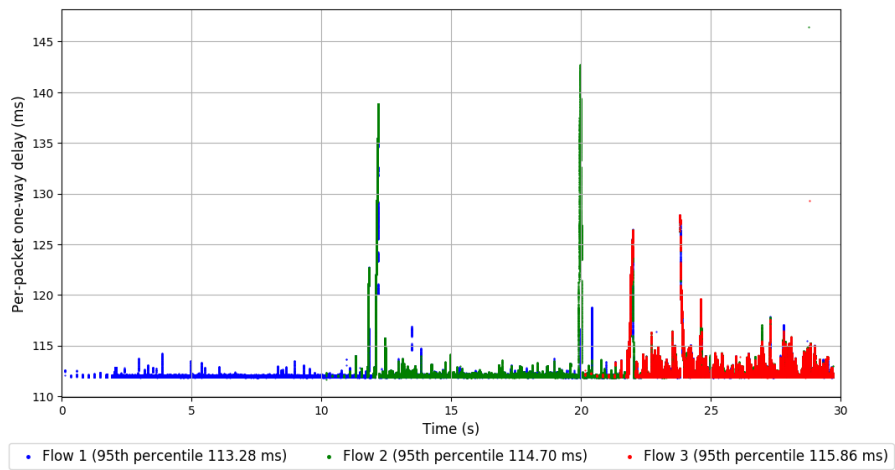
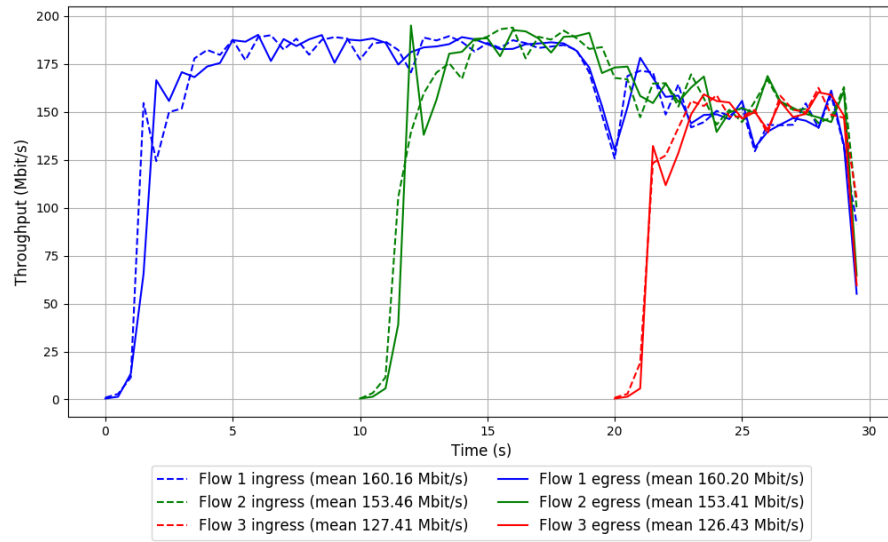
-- Flow 3:

Average throughput: 126.43 Mbit/s

95th percentile per-packet one-way delay: 115.857 ms

Loss rate: 3.03%

## Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-17 09:02:07

End at: 2018-01-17 09:02:37

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 289.99 Mbit/s

95th percentile per-packet one-way delay: 114.908 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 158.99 Mbit/s

95th percentile per-packet one-way delay: 113.233 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 141.52 Mbit/s

95th percentile per-packet one-way delay: 114.509 ms

Loss rate: 1.34%

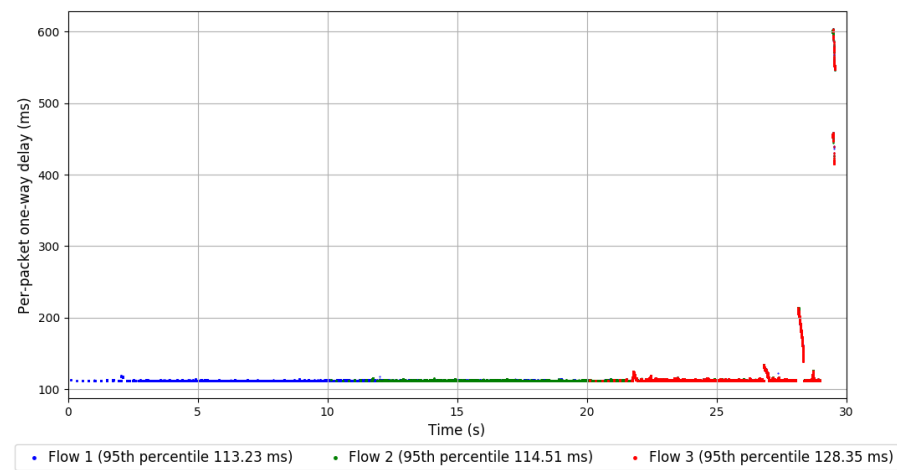
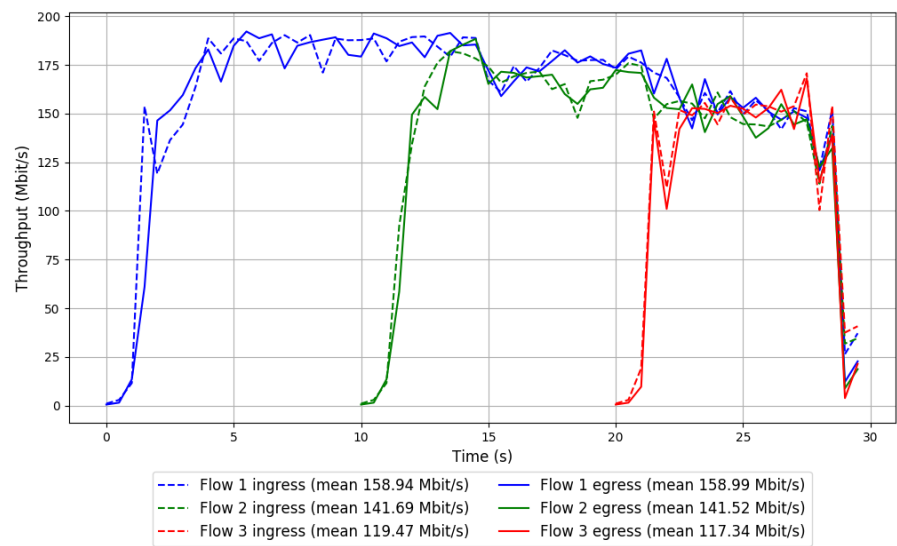
-- Flow 3:

Average throughput: 117.34 Mbit/s

95th percentile per-packet one-way delay: 128.350 ms

Loss rate: 4.13%

Run 10: Report of Indigo — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-17 06:20:56

End at: 2018-01-17 06:21:26

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 226.92 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 137.07 Mbit/s

95th percentile per-packet one-way delay: 112.776 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 115.56 Mbit/s

95th percentile per-packet one-way delay: 113.007 ms

Loss rate: 2.16%

-- Flow 3:

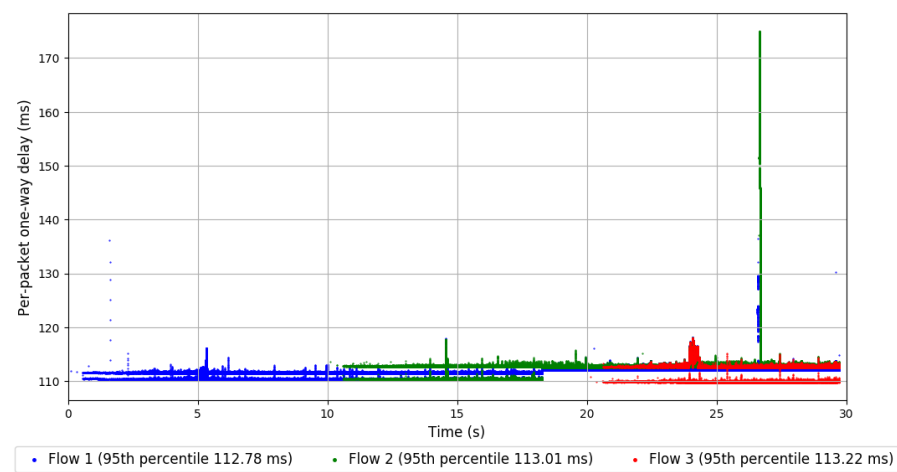
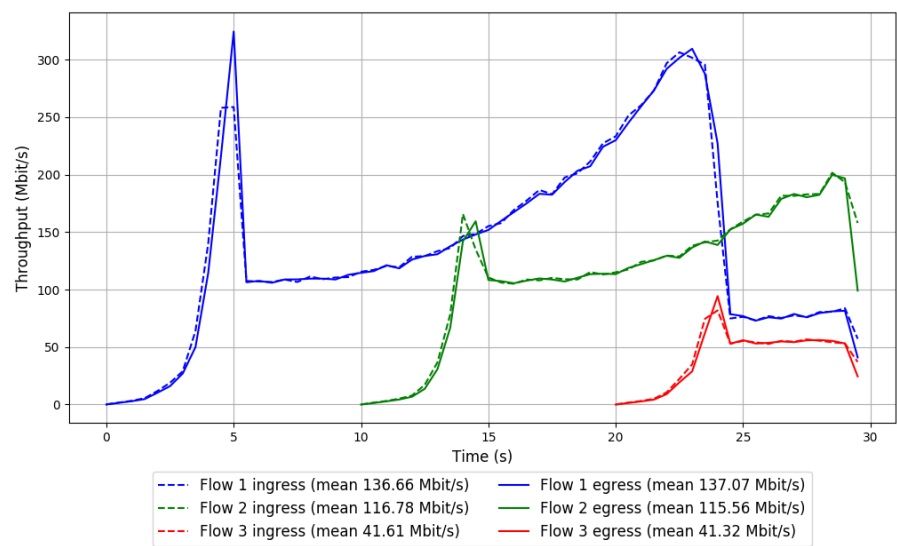
Average throughput: 41.32 Mbit/s

95th percentile per-packet one-way delay: 113.218 ms

Loss rate: 2.95%



Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-17 06:39:26

End at: 2018-01-17 06:39:56

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 299.22 Mbit/s

95th percentile per-packet one-way delay: 112.358 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 165.64 Mbit/s

95th percentile per-packet one-way delay: 110.986 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 141.01 Mbit/s

95th percentile per-packet one-way delay: 112.413 ms

Loss rate: 0.85%

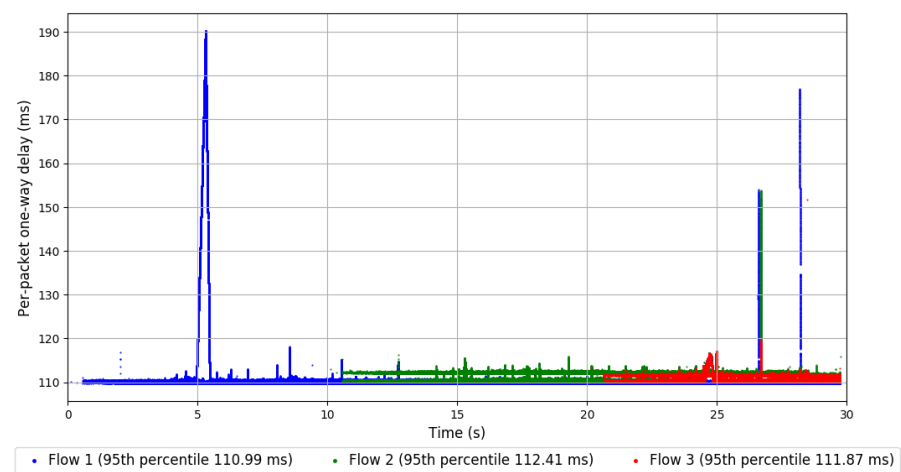
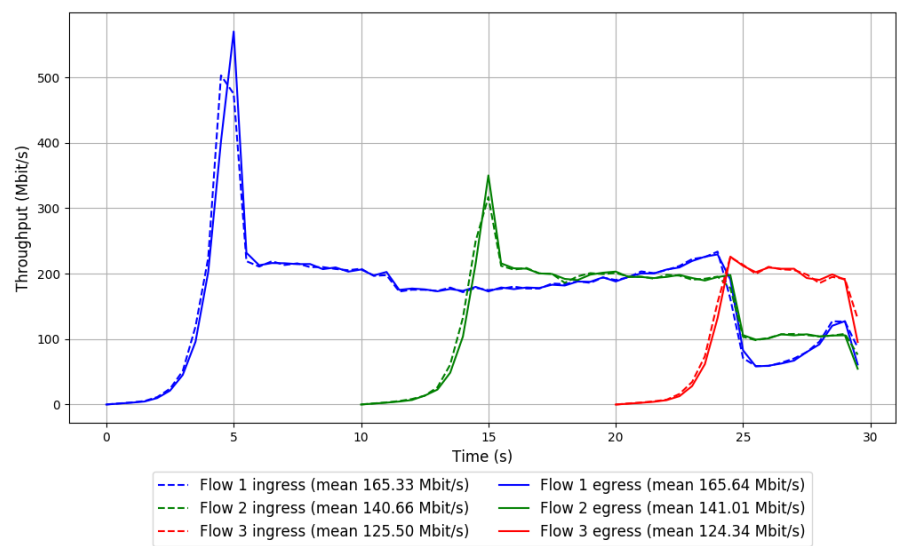
-- Flow 3:

Average throughput: 124.34 Mbit/s

95th percentile per-packet one-way delay: 111.867 ms

Loss rate: 3.16%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-17 06:57:36

End at: 2018-01-17 06:58:06

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 253.60 Mbit/s

95th percentile per-packet one-way delay: 112.576 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 163.34 Mbit/s

95th percentile per-packet one-way delay: 112.544 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 99.54 Mbit/s

95th percentile per-packet one-way delay: 112.625 ms

Loss rate: 1.25%

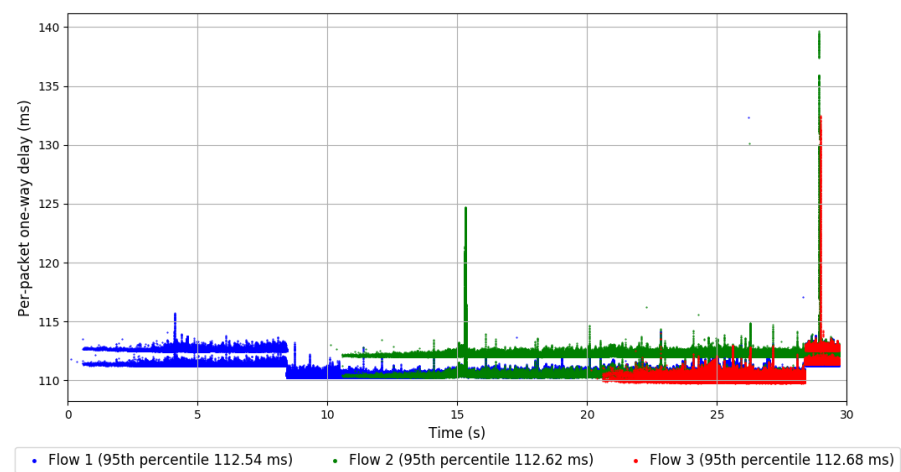
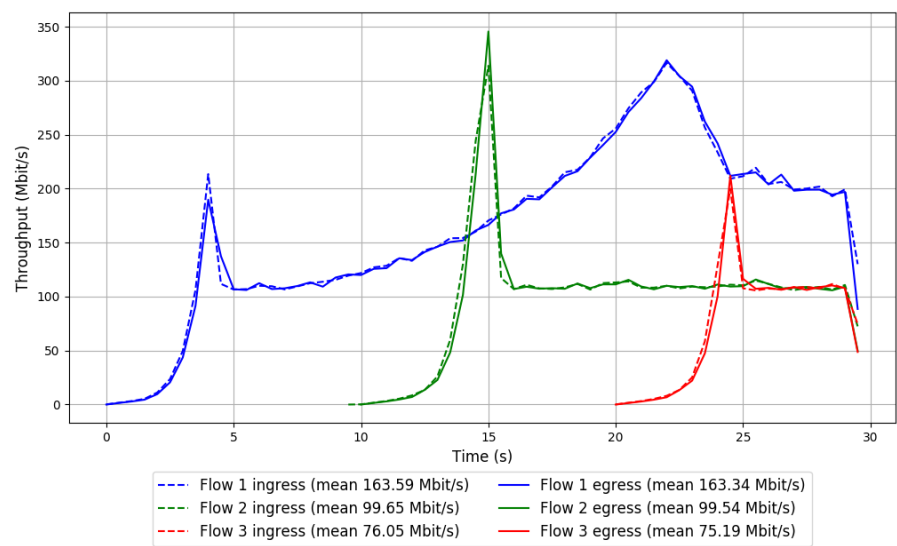
-- Flow 3:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 112.679 ms

Loss rate: 3.42%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-17 07:15:55

End at: 2018-01-17 07:16:25

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 200.59 Mbit/s

95th percentile per-packet one-way delay: 113.109 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 111.73 Mbit/s

95th percentile per-packet one-way delay: 113.113 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 90.65 Mbit/s

95th percentile per-packet one-way delay: 112.218 ms

Loss rate: 0.97%

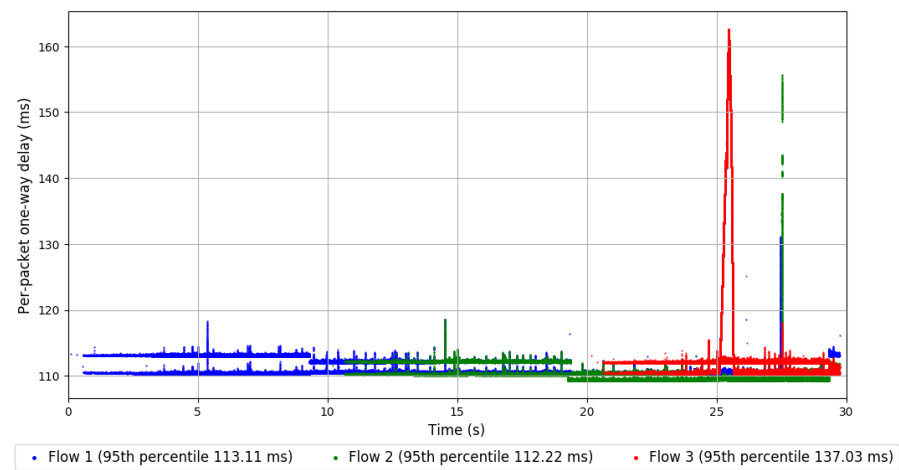
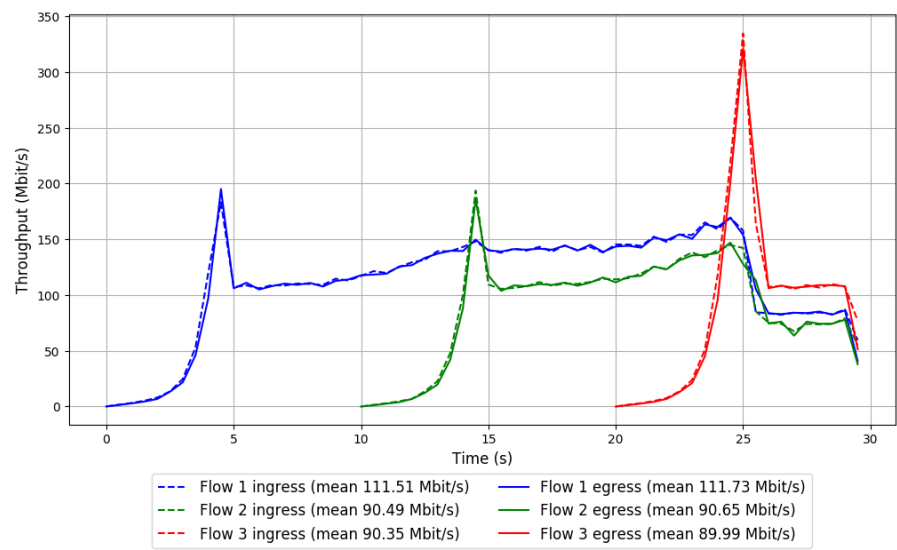
-- Flow 3:

Average throughput: 89.99 Mbit/s

95th percentile per-packet one-way delay: 137.029 ms

Loss rate: 2.76%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-17 07:34:37

End at: 2018-01-17 07:35:07

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 252.70 Mbit/s

95th percentile per-packet one-way delay: 112.708 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 126.54 Mbit/s

95th percentile per-packet one-way delay: 112.671 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 151.61 Mbit/s

95th percentile per-packet one-way delay: 112.700 ms

Loss rate: 0.72%

-- Flow 3:

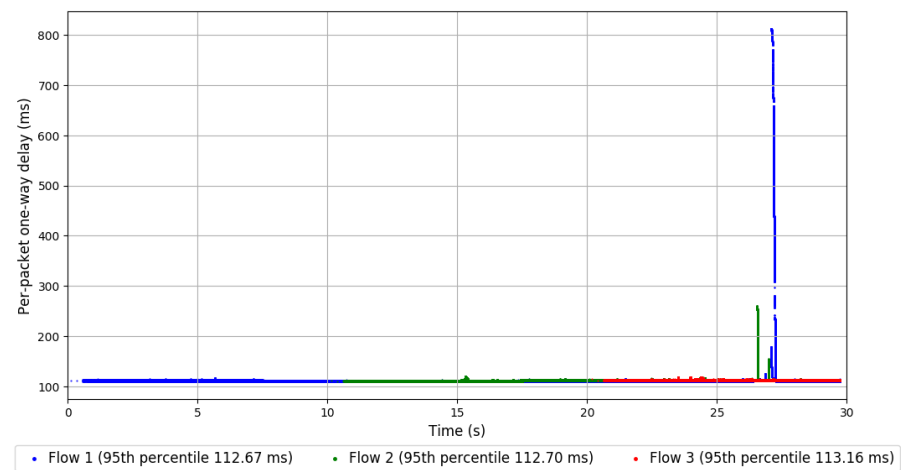
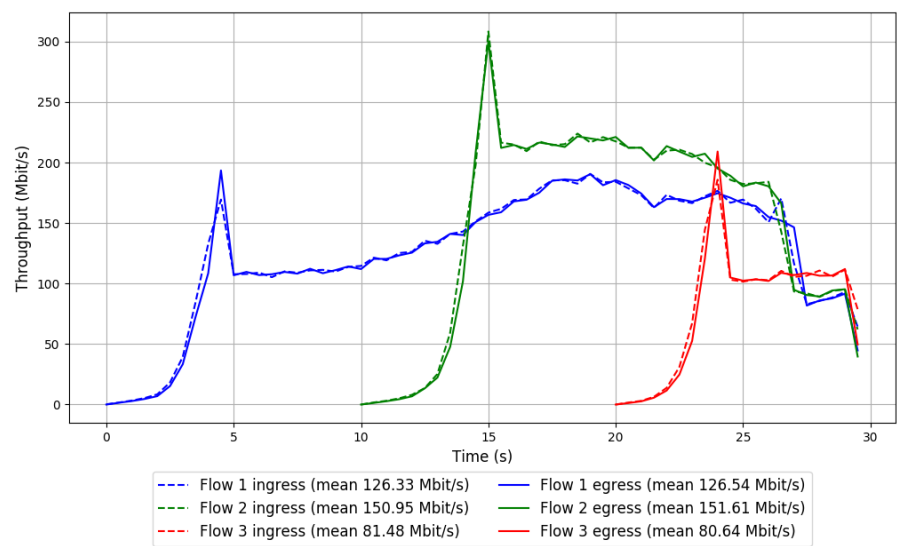
Average throughput: 80.64 Mbit/s

95th percentile per-packet one-way delay: 113.160 ms

Loss rate: 3.34%



Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-17 07:55:05

End at: 2018-01-17 07:55:35

# Below is generated by plot.py at 2018-01-17 13:37:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 206.43 Mbit/s

95th percentile per-packet one-way delay: 112.784 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 108.93 Mbit/s

95th percentile per-packet one-way delay: 112.079 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 111.30 Mbit/s

95th percentile per-packet one-way delay: 144.616 ms

Loss rate: 0.88%

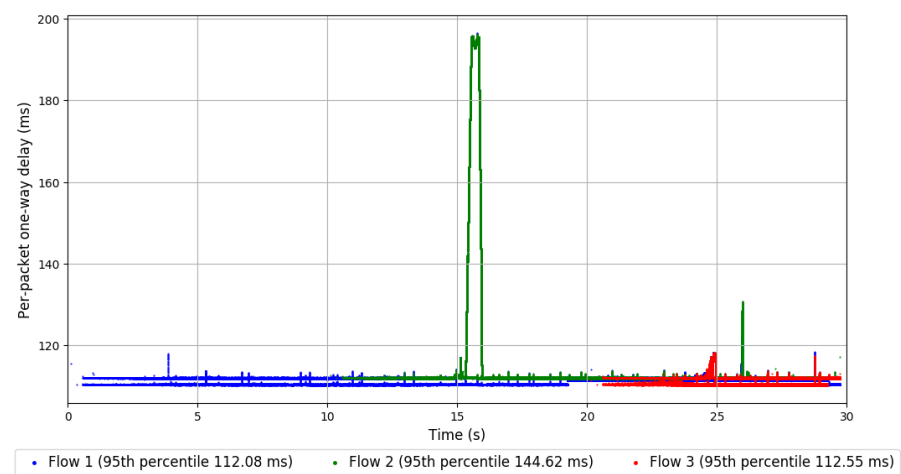
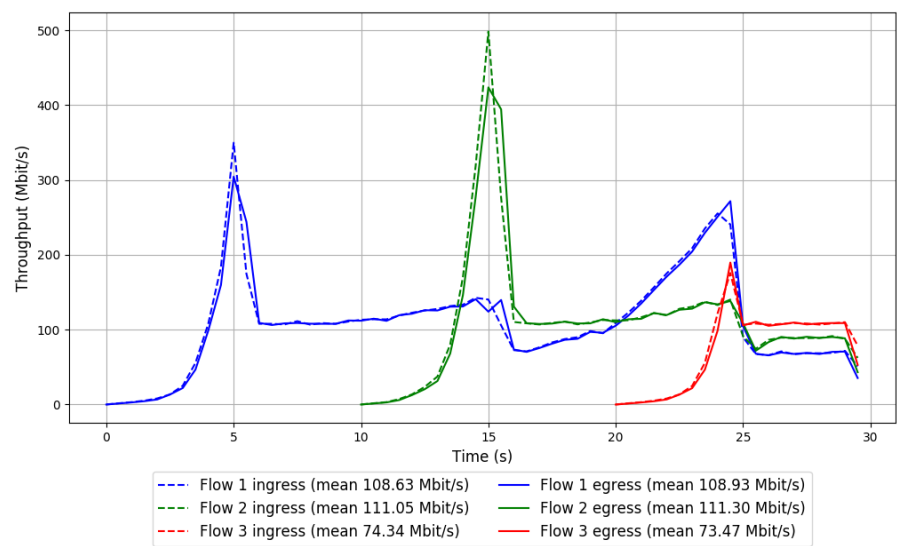
-- Flow 3:

Average throughput: 73.47 Mbit/s

95th percentile per-packet one-way delay: 112.551 ms

Loss rate: 3.43%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-17 08:13:31

End at: 2018-01-17 08:14:01

# Below is generated by plot.py at 2018-01-17 13:38:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 261.10 Mbit/s

95th percentile per-packet one-way delay: 112.254 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 163.32 Mbit/s

95th percentile per-packet one-way delay: 112.177 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 112.01 Mbit/s

95th percentile per-packet one-way delay: 112.239 ms

Loss rate: 1.37%

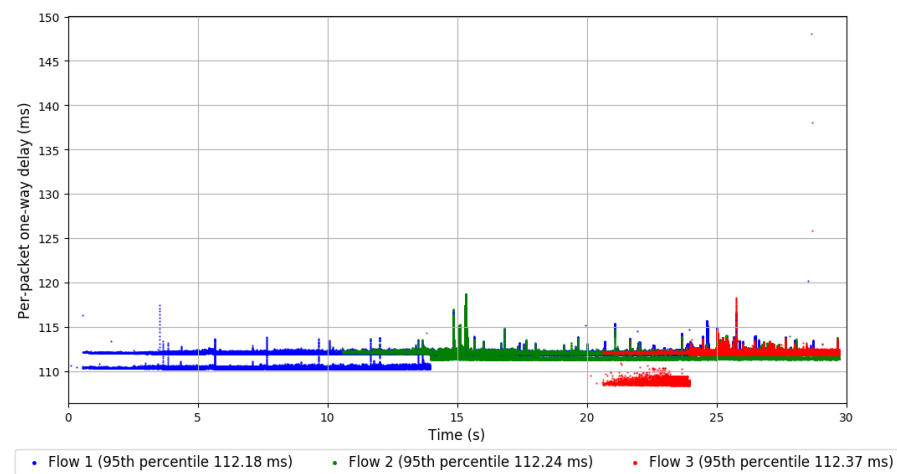
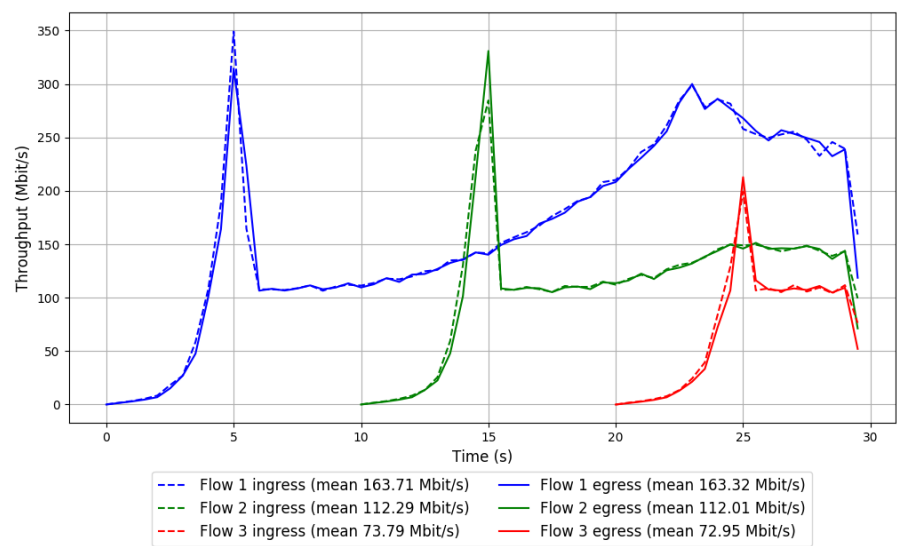
-- Flow 3:

Average throughput: 72.95 Mbit/s

95th percentile per-packet one-way delay: 112.371 ms

Loss rate: 3.38%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-17 08:31:25

End at: 2018-01-17 08:31:55

# Below is generated by plot.py at 2018-01-17 13:39:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 212.53 Mbit/s

95th percentile per-packet one-way delay: 112.256 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 114.54 Mbit/s

95th percentile per-packet one-way delay: 112.194 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 103.12 Mbit/s

95th percentile per-packet one-way delay: 112.326 ms

Loss rate: 2.03%

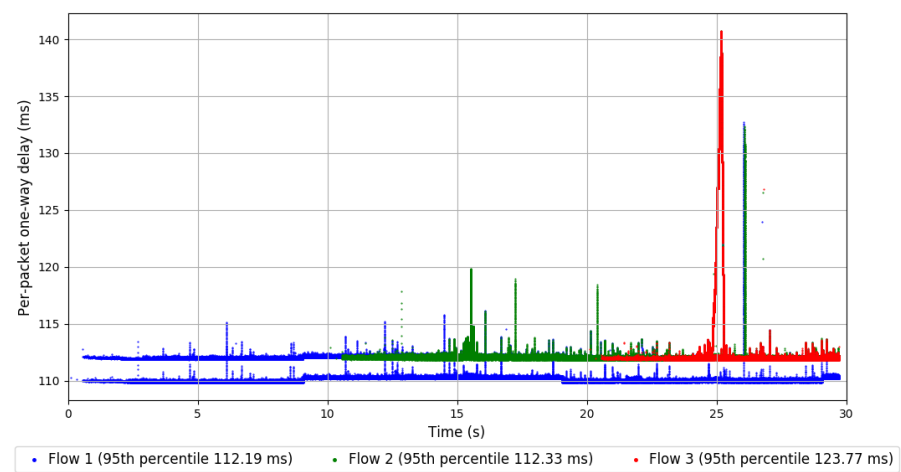
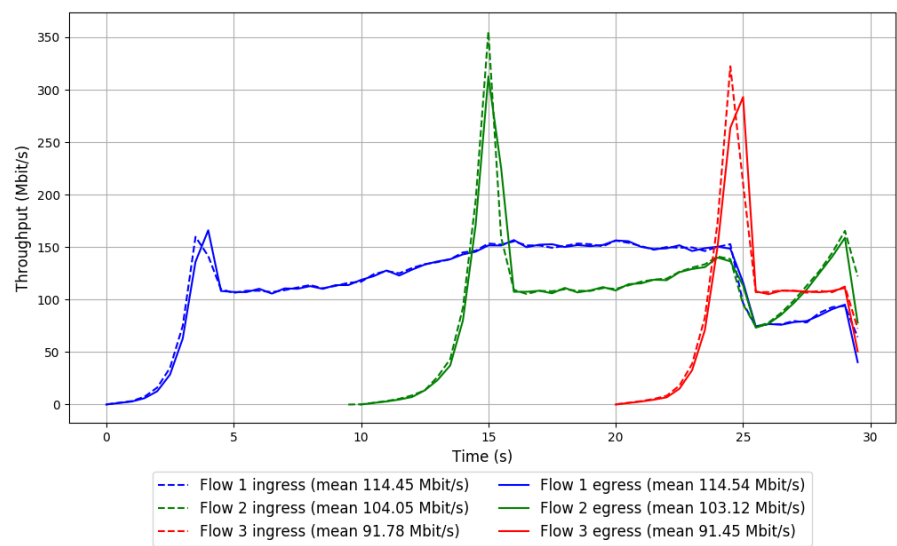
-- Flow 3:

Average throughput: 91.45 Mbit/s

95th percentile per-packet one-way delay: 123.765 ms

Loss rate: 2.63%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-17 08:49:40

End at: 2018-01-17 08:50:10

# Below is generated by plot.py at 2018-01-17 13:39:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.51 Mbit/s

95th percentile per-packet one-way delay: 112.071 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 50.99 Mbit/s

95th percentile per-packet one-way delay: 2948.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 107.66 Mbit/s

95th percentile per-packet one-way delay: 112.056 ms

Loss rate: 1.53%

-- Flow 3:

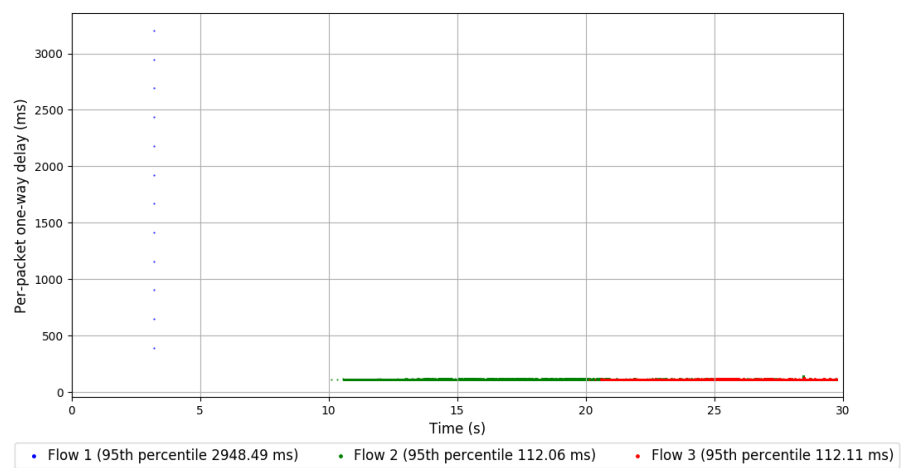
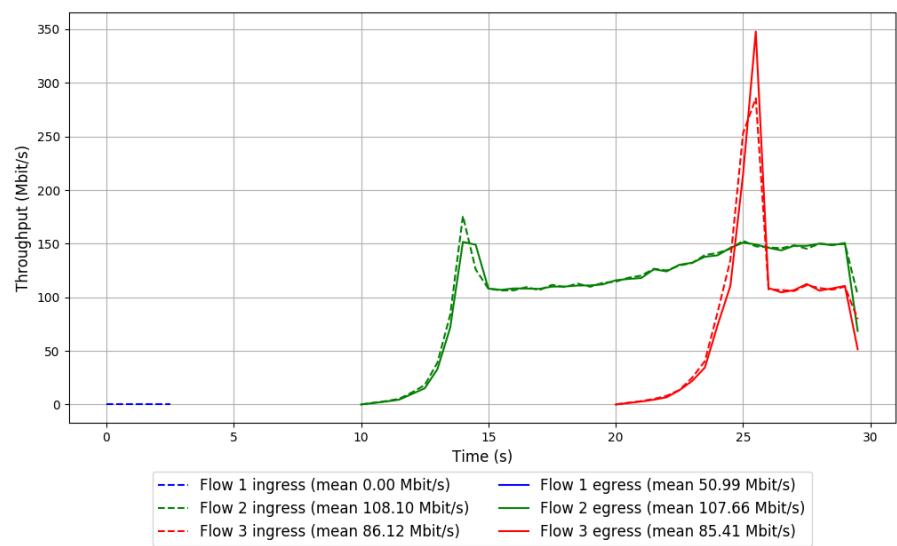
Average throughput: 85.41 Mbit/s

95th percentile per-packet one-way delay: 112.107 ms

Loss rate: 3.06%



Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-17 09:07:42

End at: 2018-01-17 09:08:12

# Below is generated by plot.py at 2018-01-17 13:42:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 229.52 Mbit/s

95th percentile per-packet one-way delay: 112.957 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 151.96 Mbit/s

95th percentile per-packet one-way delay: 112.885 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 92.26 Mbit/s

95th percentile per-packet one-way delay: 112.913 ms

Loss rate: 1.35%

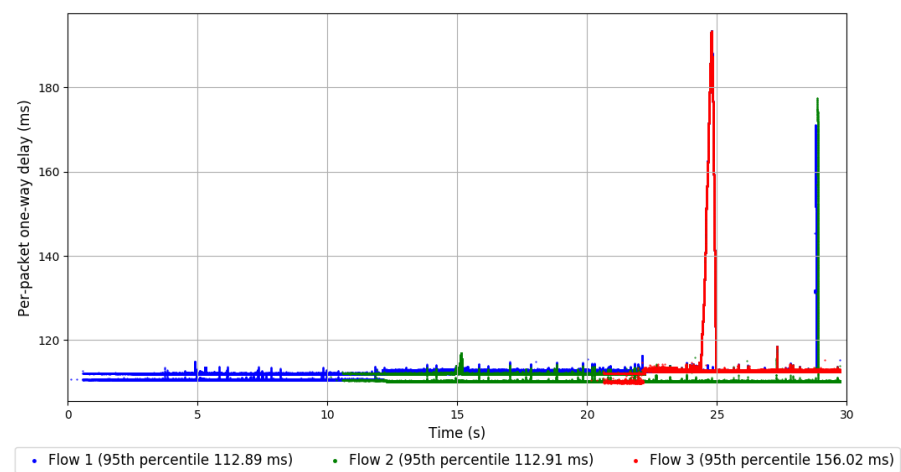
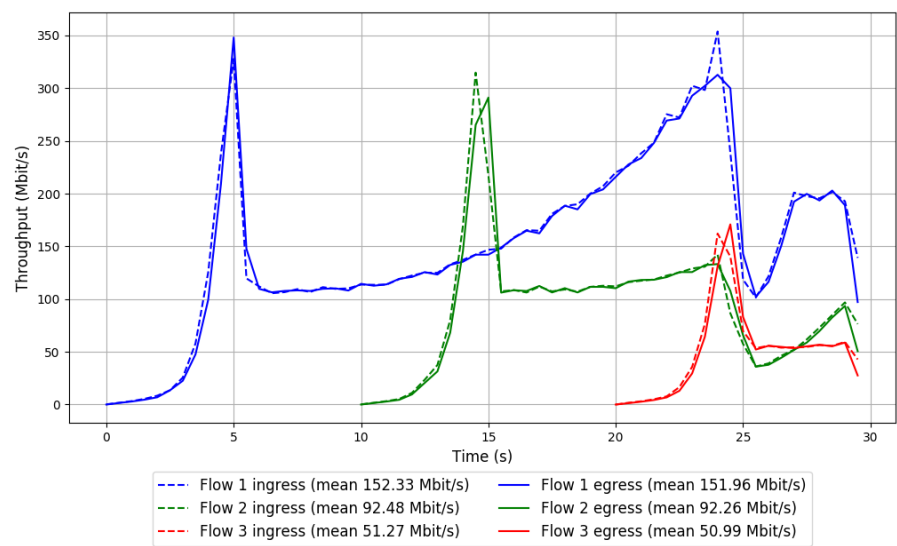
-- Flow 3:

Average throughput: 50.99 Mbit/s

95th percentile per-packet one-way delay: 156.016 ms

Loss rate: 2.82%

Run 10: Report of Vivace-latency — Data Link

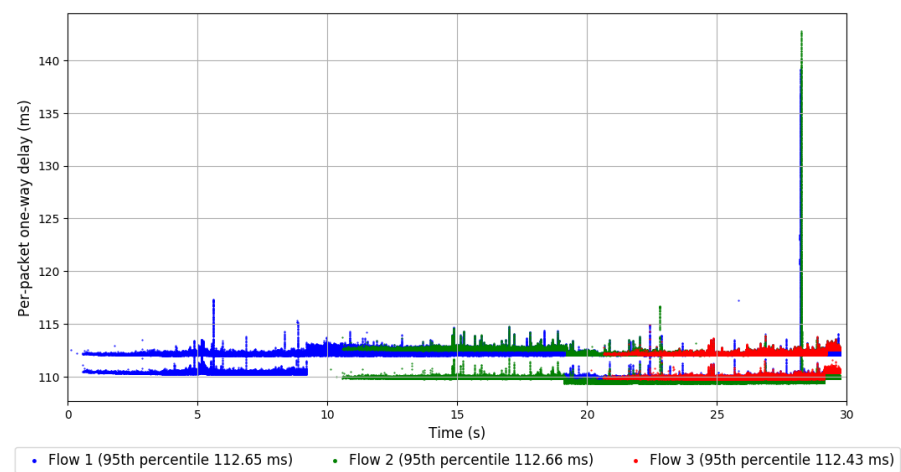
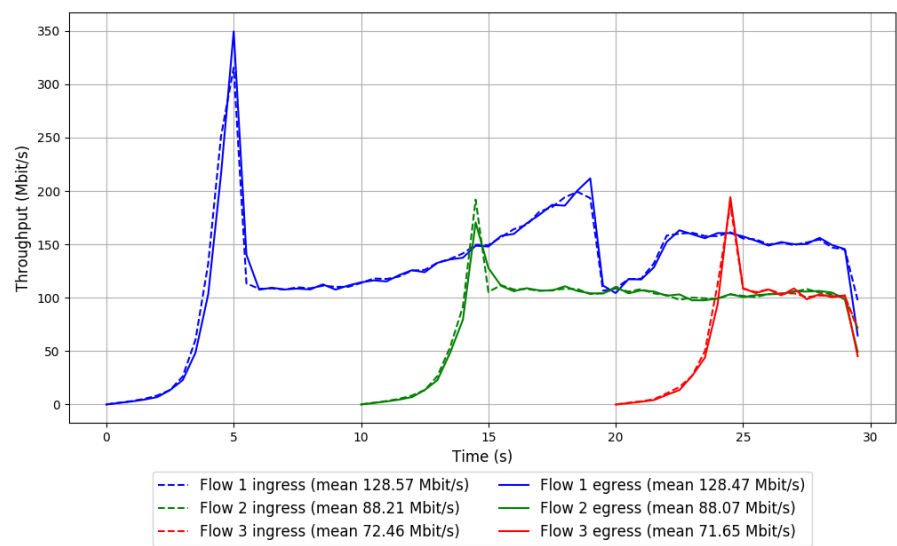


```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-17 06:24:05
End at: 2018-01-17 06:24:35

# Below is generated by plot.py at 2018-01-17 13:42:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 209.93 Mbit/s
95th percentile per-packet one-way delay: 112.650 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 128.47 Mbit/s
95th percentile per-packet one-way delay: 112.652 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 88.07 Mbit/s
95th percentile per-packet one-way delay: 112.660 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 71.65 Mbit/s
95th percentile per-packet one-way delay: 112.429 ms
Loss rate: 3.39%
```

Run 1: Report of Vivace-loss — Data Link

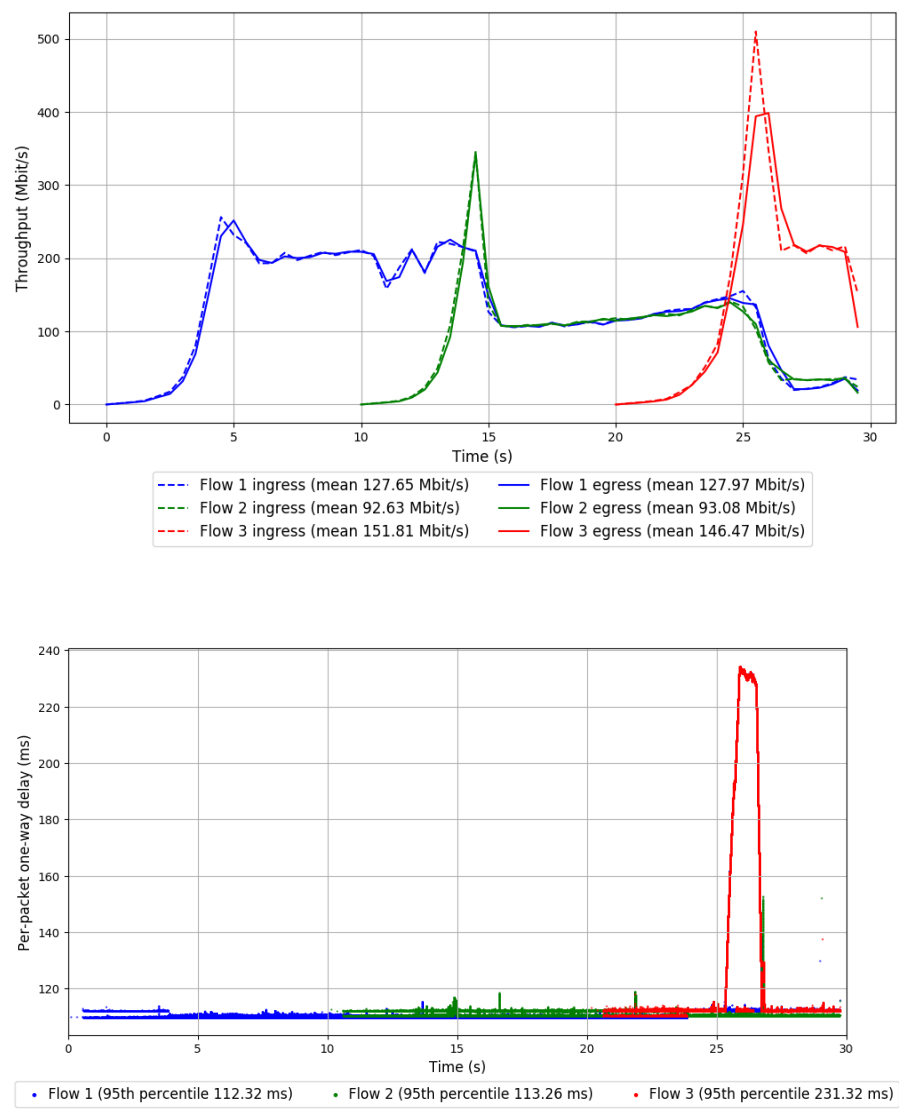


```
Run 2: Statistics of Vivace-loss

Start at: 2018-01-17 06:42:21
End at: 2018-01-17 06:42:51

# Below is generated by plot.py at 2018-01-17 13:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 236.91 Mbit/s
95th percentile per-packet one-way delay: 192.078 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 127.97 Mbit/s
95th percentile per-packet one-way delay: 112.316 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 93.08 Mbit/s
95th percentile per-packet one-way delay: 113.262 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 146.47 Mbit/s
95th percentile per-packet one-way delay: 231.322 ms
Loss rate: 5.74%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-17 07:00:53

End at: 2018-01-17 07:01:23

# Below is generated by plot.py at 2018-01-17 13:42:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 214.65 Mbit/s

95th percentile per-packet one-way delay: 112.769 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 131.06 Mbit/s

95th percentile per-packet one-way delay: 112.752 ms

Loss rate: 1.65%

-- Flow 2:

Average throughput: 100.27 Mbit/s

95th percentile per-packet one-way delay: 112.779 ms

Loss rate: 1.03%

-- Flow 3:

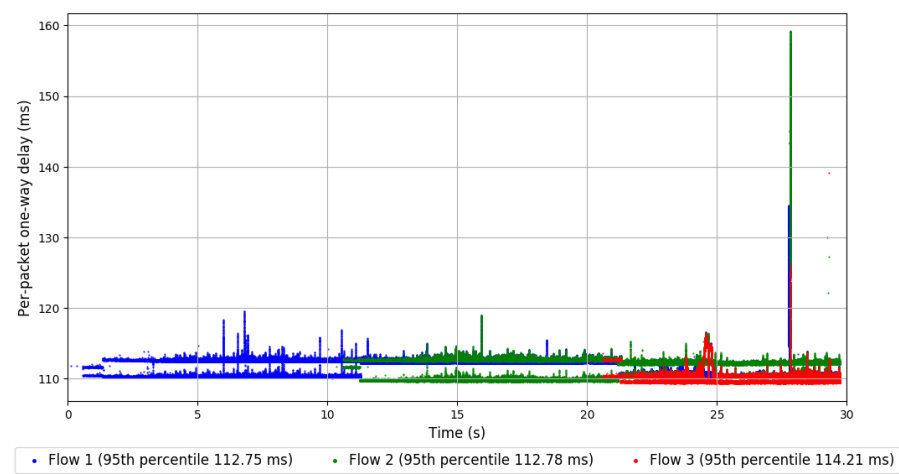
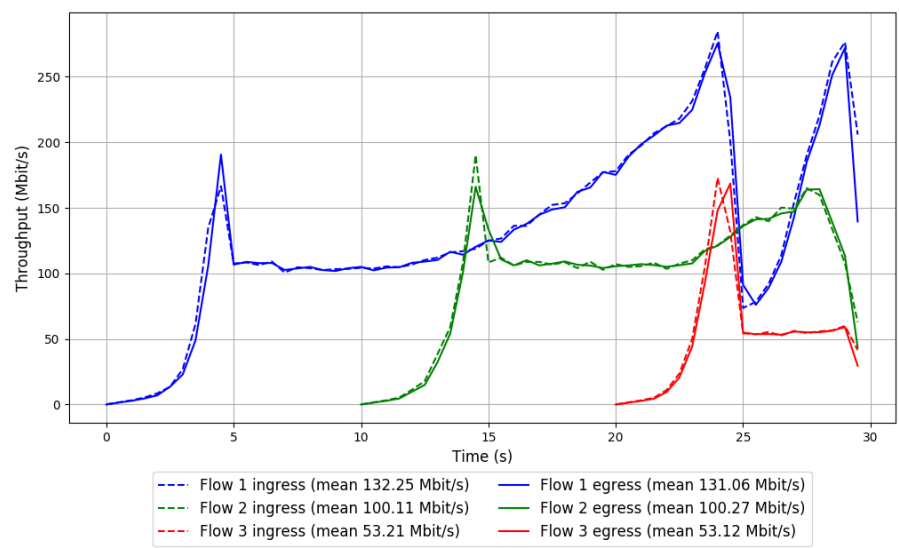
Average throughput: 53.12 Mbit/s

95th percentile per-packet one-way delay: 114.214 ms

Loss rate: 2.48%



Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-17 07:18:51

End at: 2018-01-17 07:19:21

# Below is generated by plot.py at 2018-01-17 13:43:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 216.62 Mbit/s

95th percentile per-packet one-way delay: 112.239 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 128.82 Mbit/s

95th percentile per-packet one-way delay: 112.212 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 90.04 Mbit/s

95th percentile per-packet one-way delay: 112.291 ms

Loss rate: 1.26%

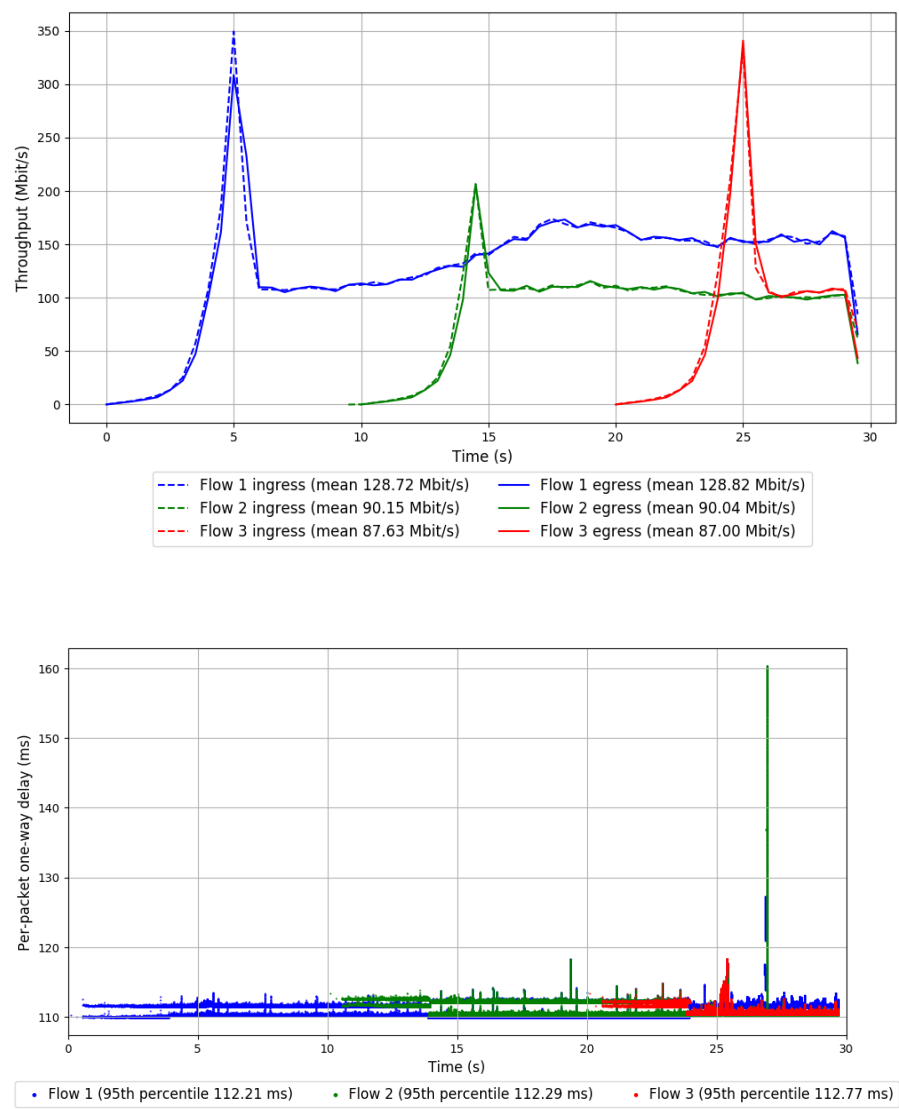
-- Flow 3:

Average throughput: 87.00 Mbit/s

95th percentile per-packet one-way delay: 112.765 ms

Loss rate: 3.03%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-17 07:38:09

End at: 2018-01-17 07:38:39

# Below is generated by plot.py at 2018-01-17 13:44:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 218.51 Mbit/s

95th percentile per-packet one-way delay: 112.725 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 140.47 Mbit/s

95th percentile per-packet one-way delay: 112.655 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 92.38 Mbit/s

95th percentile per-packet one-way delay: 112.743 ms

Loss rate: 0.99%

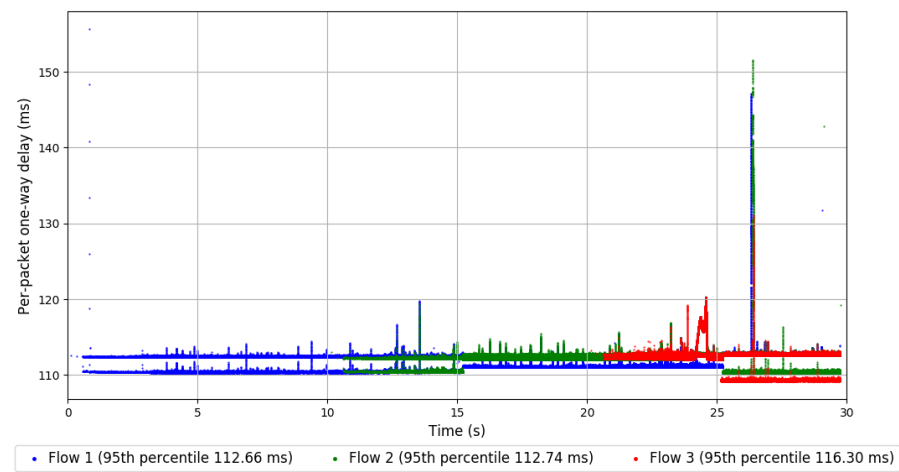
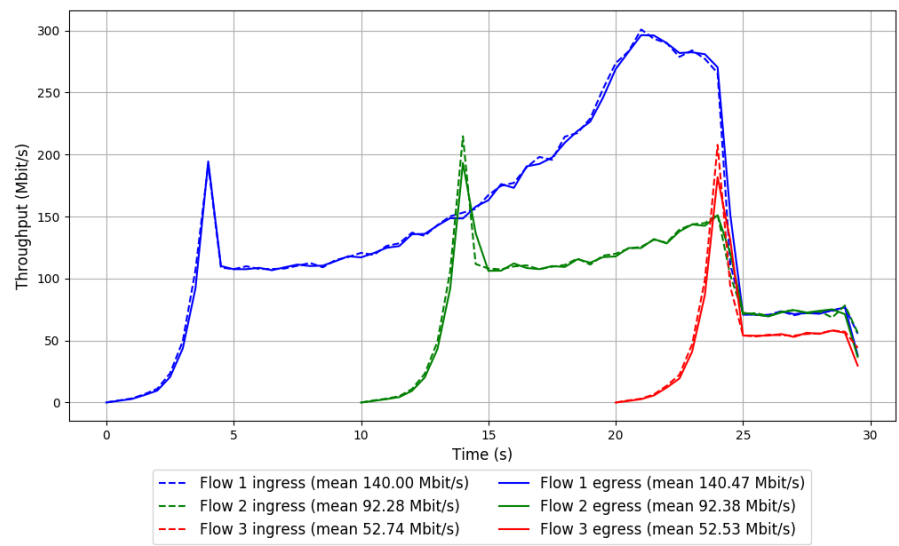
-- Flow 3:

Average throughput: 52.53 Mbit/s

95th percentile per-packet one-way delay: 116.295 ms

Loss rate: 2.68%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-17 07:58:00

End at: 2018-01-17 07:58:30

# Below is generated by plot.py at 2018-01-17 13:46:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 281.97 Mbit/s

95th percentile per-packet one-way delay: 112.355 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 202.45 Mbit/s

95th percentile per-packet one-way delay: 112.329 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 95.41 Mbit/s

95th percentile per-packet one-way delay: 112.176 ms

Loss rate: 1.60%

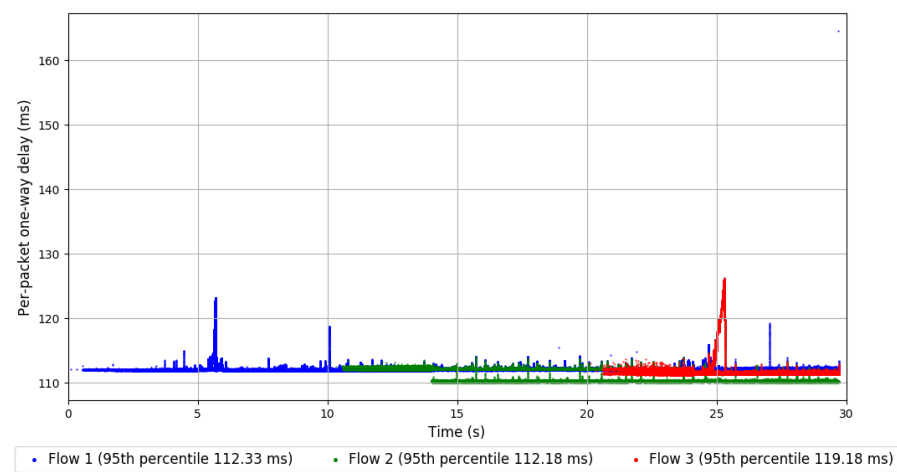
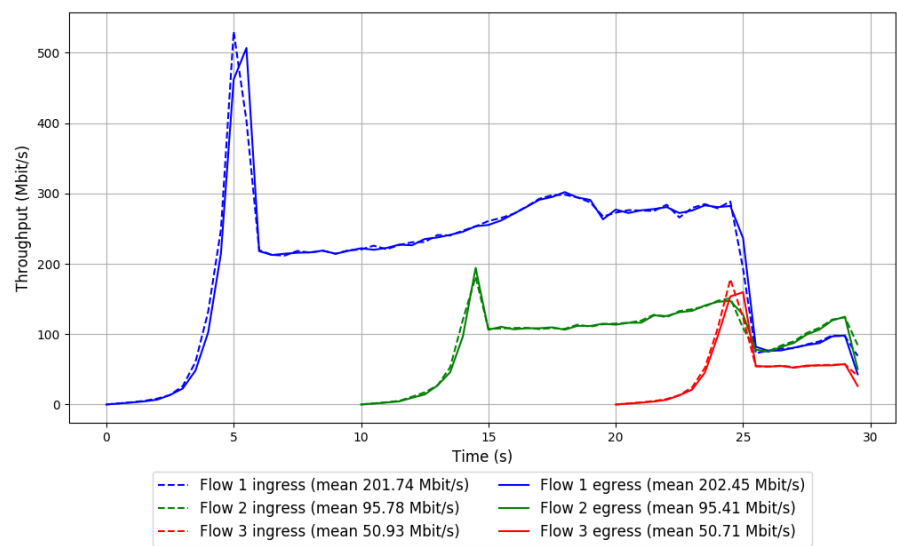
-- Flow 3:

Average throughput: 50.71 Mbit/s

95th percentile per-packet one-way delay: 119.183 ms

Loss rate: 2.71%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-17 08:16:41

End at: 2018-01-17 08:17:11

# Below is generated by plot.py at 2018-01-17 13:46:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 200.35 Mbit/s

95th percentile per-packet one-way delay: 125.403 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 104.35 Mbit/s

95th percentile per-packet one-way delay: 112.151 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 73.13 Mbit/s

95th percentile per-packet one-way delay: 112.188 ms

Loss rate: 0.58%

-- Flow 3:

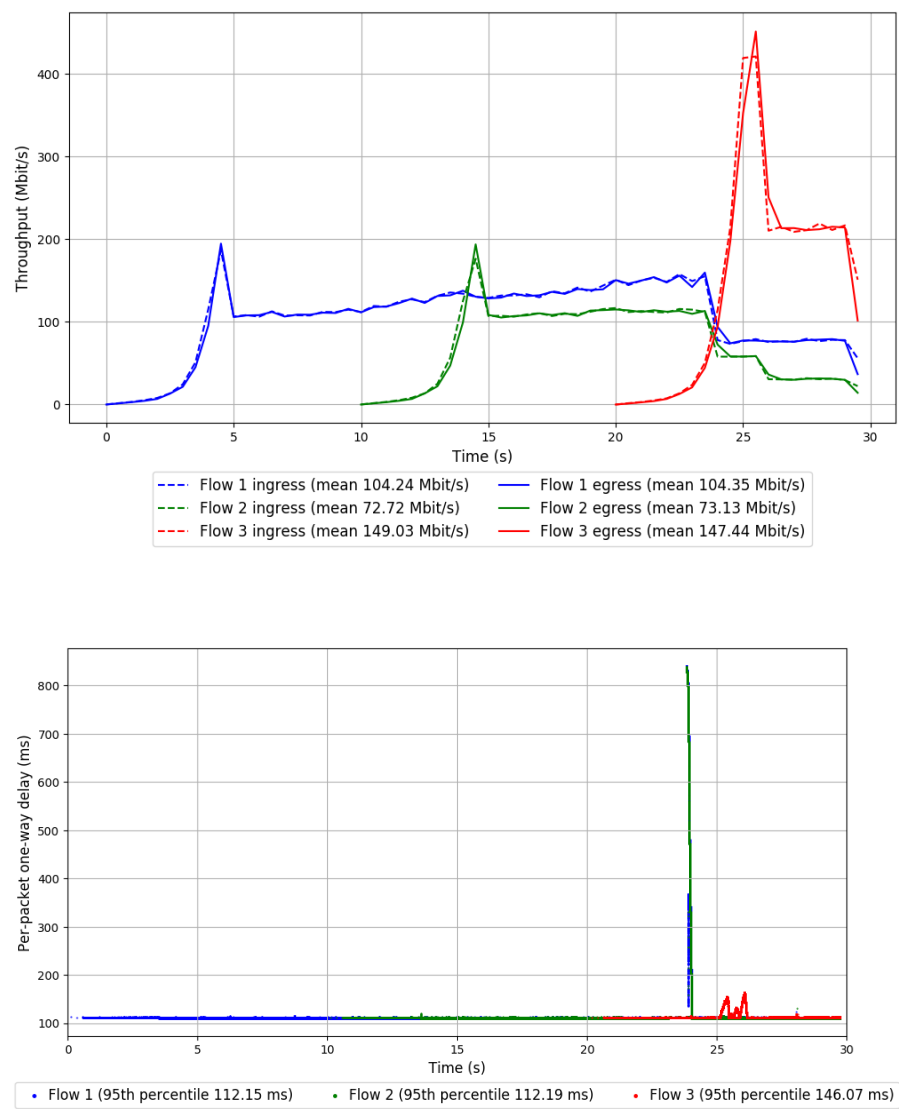
Average throughput: 147.44 Mbit/s

95th percentile per-packet one-way delay: 146.074 ms

Loss rate: 3.34%



Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-17 08:34:15

End at: 2018-01-17 08:34:45

# Below is generated by plot.py at 2018-01-17 13:49:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 268.42 Mbit/s

95th percentile per-packet one-way delay: 112.741 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 176.45 Mbit/s

95th percentile per-packet one-way delay: 112.698 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 101.35 Mbit/s

95th percentile per-packet one-way delay: 113.028 ms

Loss rate: 1.17%

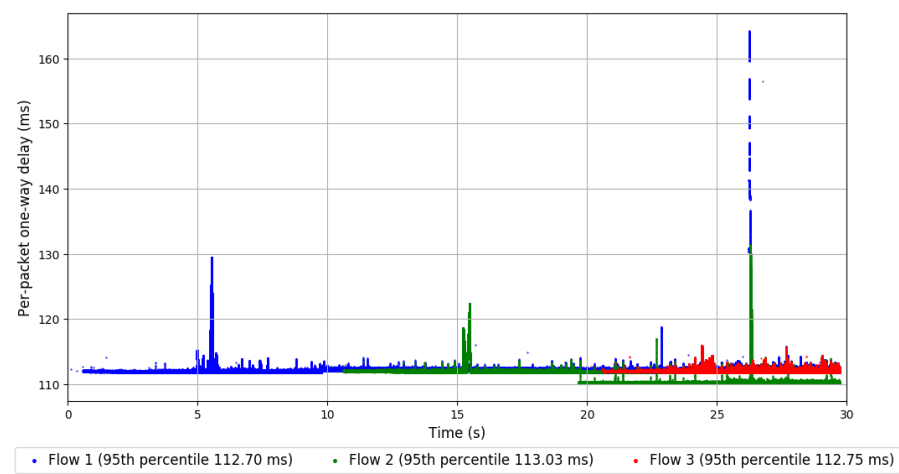
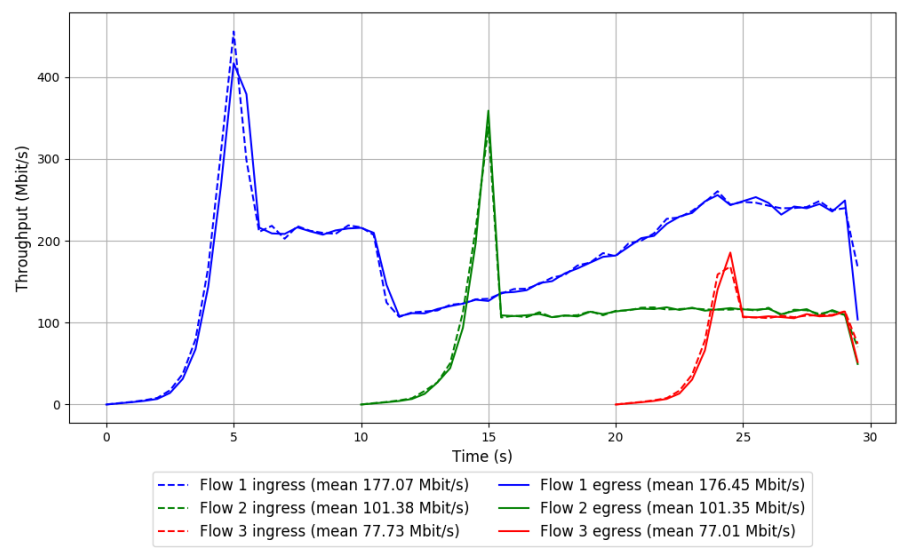
-- Flow 3:

Average throughput: 77.01 Mbit/s

95th percentile per-packet one-way delay: 112.749 ms

Loss rate: 3.20%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-17 08:52:20

End at: 2018-01-17 08:52:50

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 278.85 Mbit/s

95th percentile per-packet one-way delay: 112.869 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 196.03 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 100.03 Mbit/s

95th percentile per-packet one-way delay: 112.993 ms

Loss rate: 1.21%

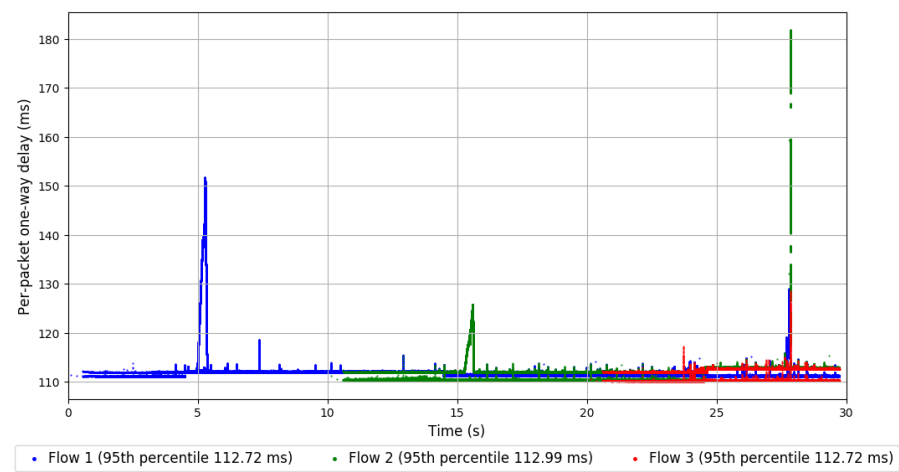
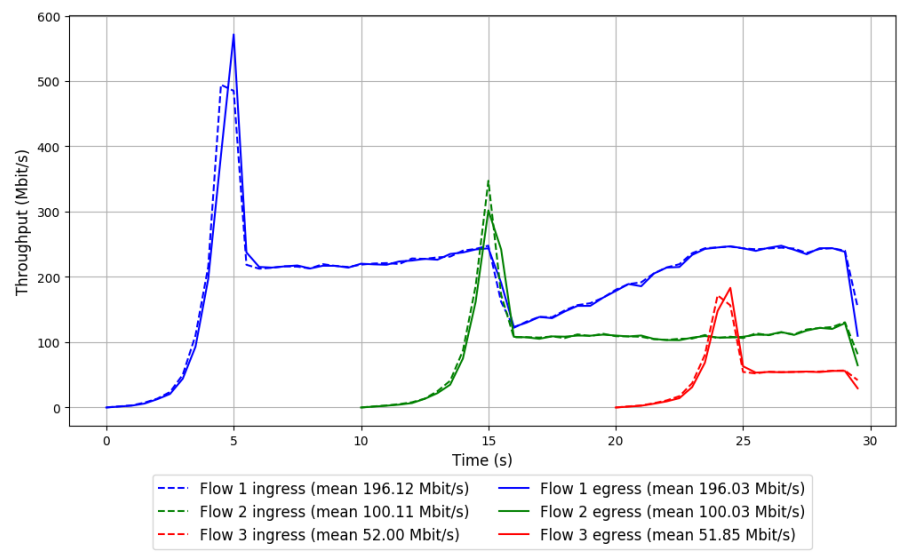
-- Flow 3:

Average throughput: 51.85 Mbit/s

95th percentile per-packet one-way delay: 112.722 ms

Loss rate: 2.56%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-17 09:10:30

End at: 2018-01-17 09:11:00

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 228.98 Mbit/s

95th percentile per-packet one-way delay: 112.578 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 141.60 Mbit/s

95th percentile per-packet one-way delay: 112.584 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 107.87 Mbit/s

95th percentile per-packet one-way delay: 112.143 ms

Loss rate: 1.34%

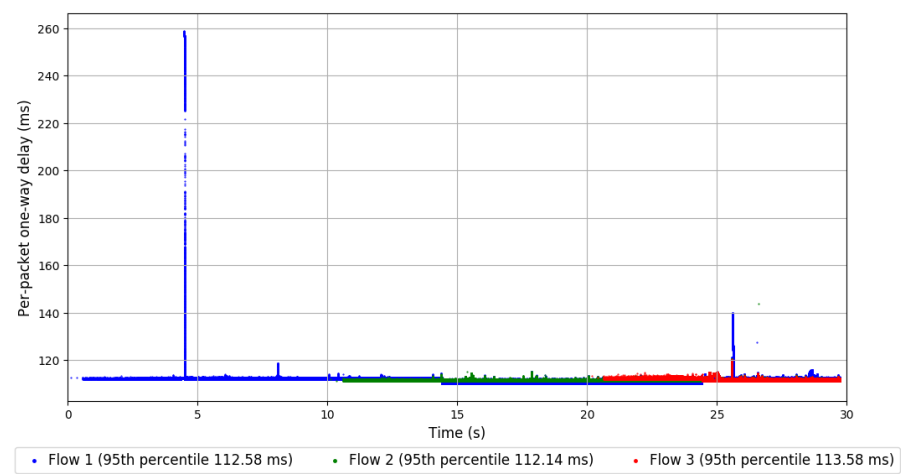
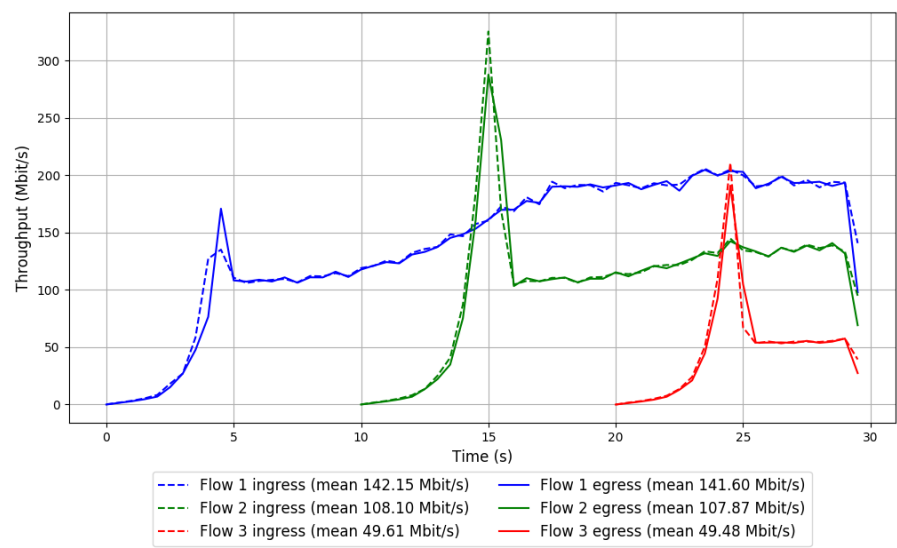
-- Flow 3:

Average throughput: 49.48 Mbit/s

95th percentile per-packet one-way delay: 113.585 ms

Loss rate: 2.59%

Run 10: Report of Vivace-loss — Data Link



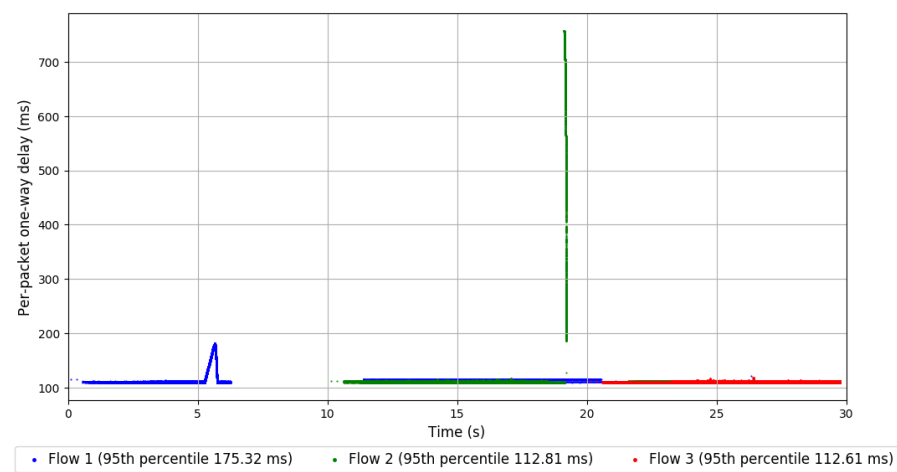
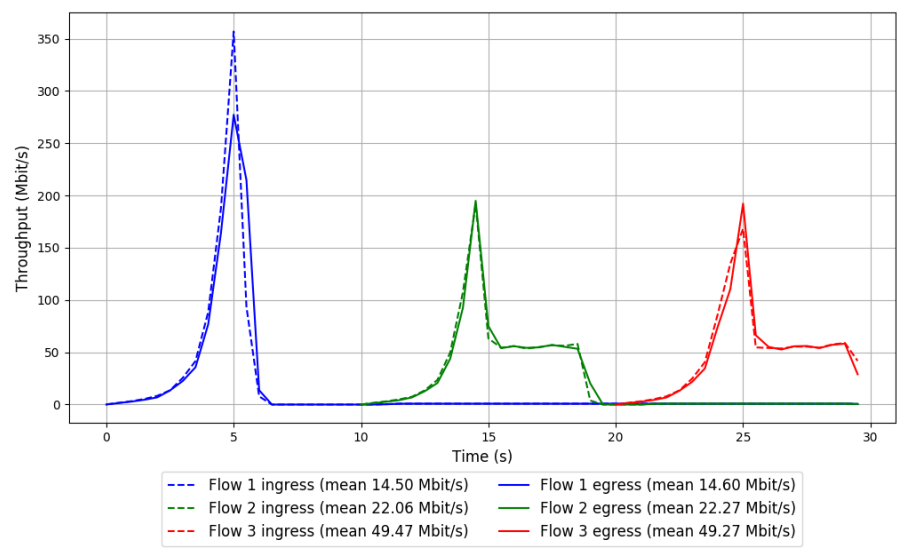
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-17 06:13:44
End at: 2018-01-17 06:14:14

# Below is generated by plot.py at 2018-01-17 13:50:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 45.28 Mbit/s
95th percentile per-packet one-way delay: 163.519 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 14.60 Mbit/s
95th percentile per-packet one-way delay: 175.318 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 22.27 Mbit/s
95th percentile per-packet one-way delay: 112.808 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 49.27 Mbit/s
95th percentile per-packet one-way delay: 112.611 ms
Loss rate: 2.68%
```



Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-17 06:31:53

End at: 2018-01-17 06:32:23

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 213.76 Mbit/s

95th percentile per-packet one-way delay: 113.008 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 141.37 Mbit/s

95th percentile per-packet one-way delay: 113.043 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 70.47 Mbit/s

95th percentile per-packet one-way delay: 112.833 ms

Loss rate: 1.39%

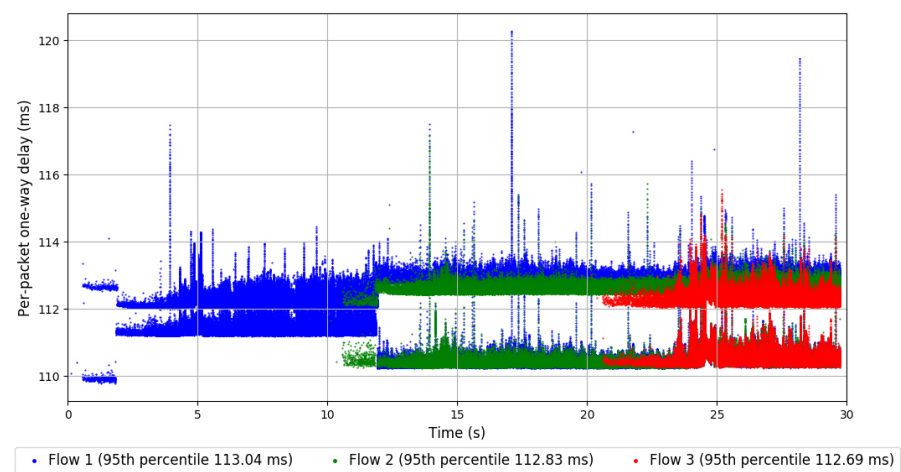
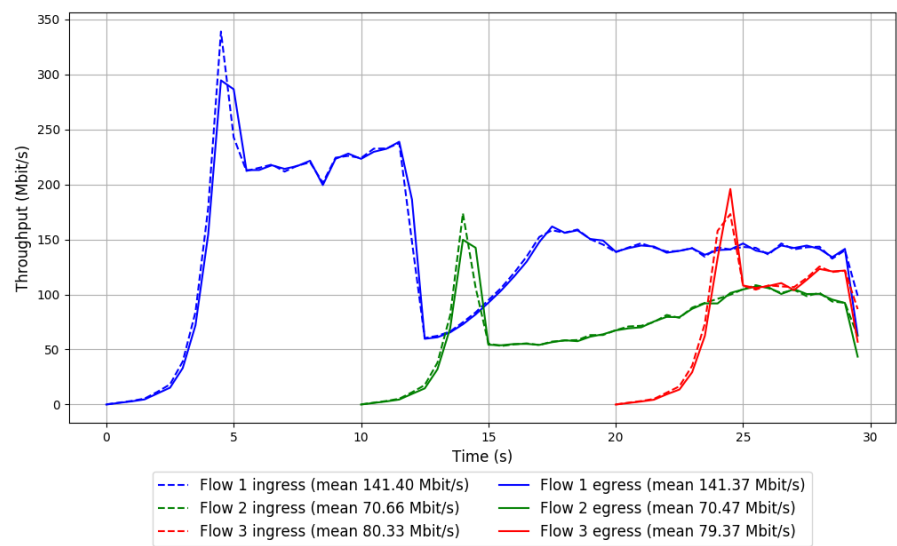
-- Flow 3:

Average throughput: 79.37 Mbit/s

95th percentile per-packet one-way delay: 112.688 ms

Loss rate: 3.57%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-17 06:50:01

End at: 2018-01-17 06:50:31

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 209.35 Mbit/s

95th percentile per-packet one-way delay: 112.925 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 148.27 Mbit/s

95th percentile per-packet one-way delay: 112.888 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 20.91 Mbit/s

95th percentile per-packet one-way delay: 112.638 ms

Loss rate: 0.05%

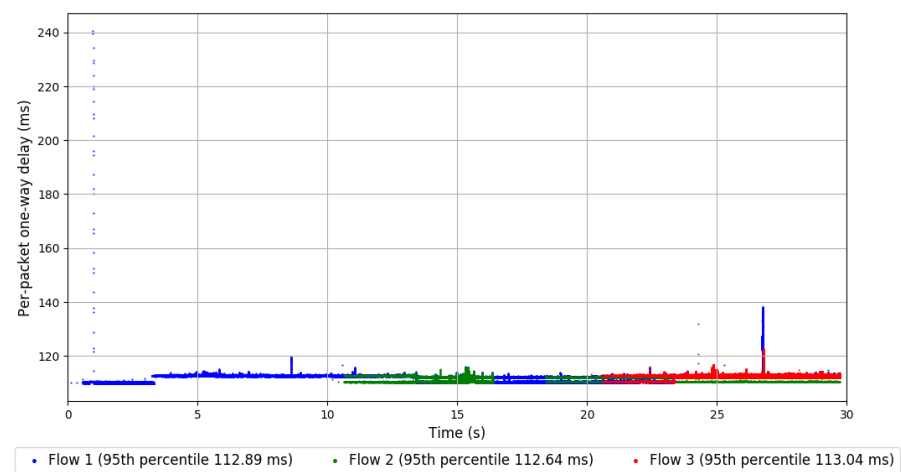
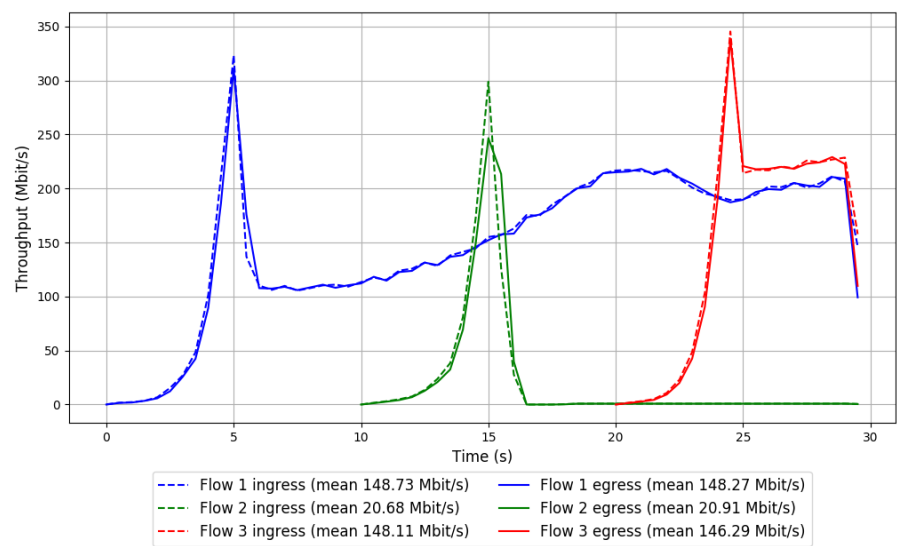
-- Flow 3:

Average throughput: 146.29 Mbit/s

95th percentile per-packet one-way delay: 113.037 ms

Loss rate: 3.53%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-17 07:08:20

End at: 2018-01-17 07:08:50

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 170.07 Mbit/s

95th percentile per-packet one-way delay: 112.905 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 112.832 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 96.23 Mbit/s

95th percentile per-packet one-way delay: 112.822 ms

Loss rate: 1.76%

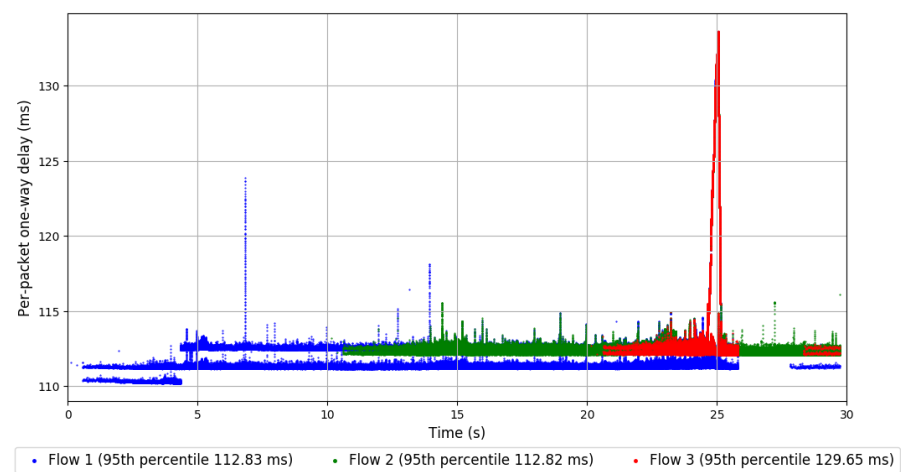
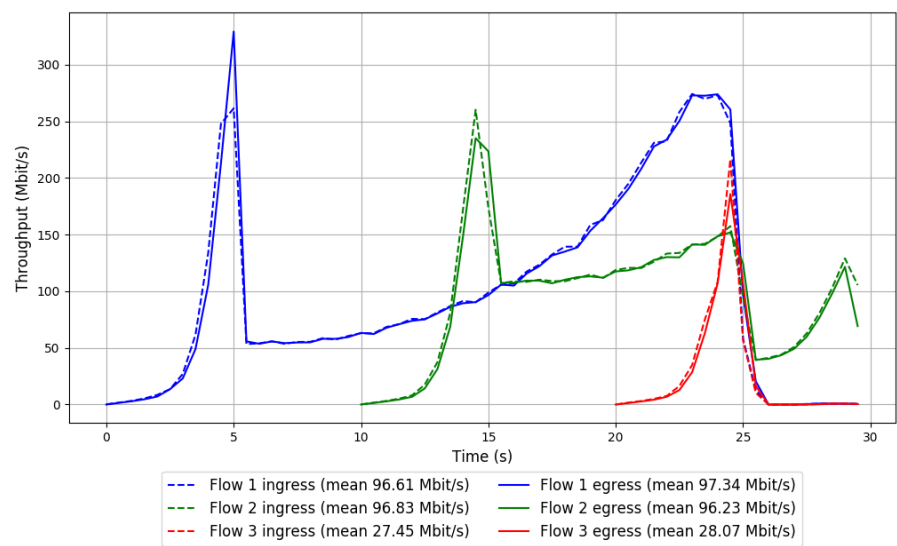
-- Flow 3:

Average throughput: 28.07 Mbit/s

95th percentile per-packet one-way delay: 129.648 ms

Loss rate: 0.07%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-17 07:26:17

End at: 2018-01-17 07:26:47

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.23 Mbit/s

95th percentile per-packet one-way delay: 112.931 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 14.42 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 161.83 Mbit/s

95th percentile per-packet one-way delay: 112.264 ms

Loss rate: 0.82%

-- Flow 3:

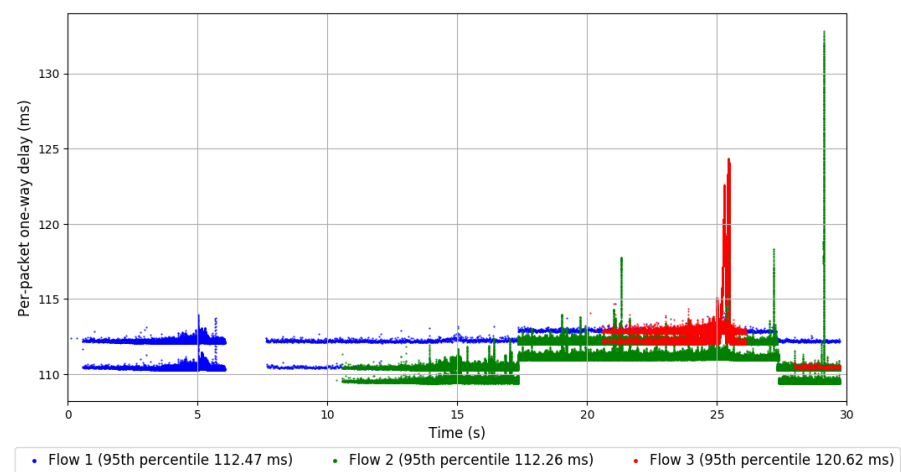
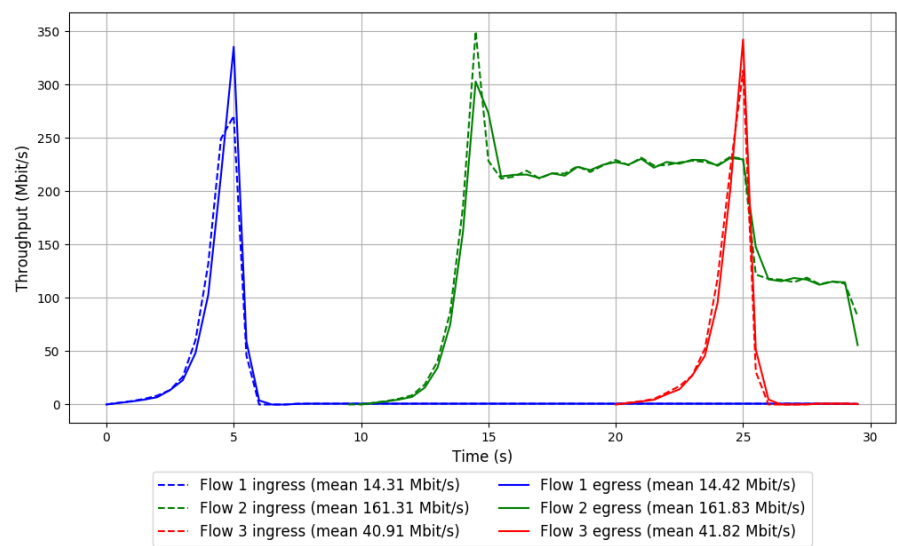
Average throughput: 41.82 Mbit/s

95th percentile per-packet one-way delay: 120.618 ms

Loss rate: 0.05%



Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-17 07:47:11

End at: 2018-01-17 07:47:41

# Below is generated by plot.py at 2018-01-17 13:50:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 58.53 Mbit/s

95th percentile per-packet one-way delay: 155.769 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 21.79 Mbit/s

95th percentile per-packet one-way delay: 168.129 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 32.08 Mbit/s

95th percentile per-packet one-way delay: 161.779 ms

Loss rate: 0.03%

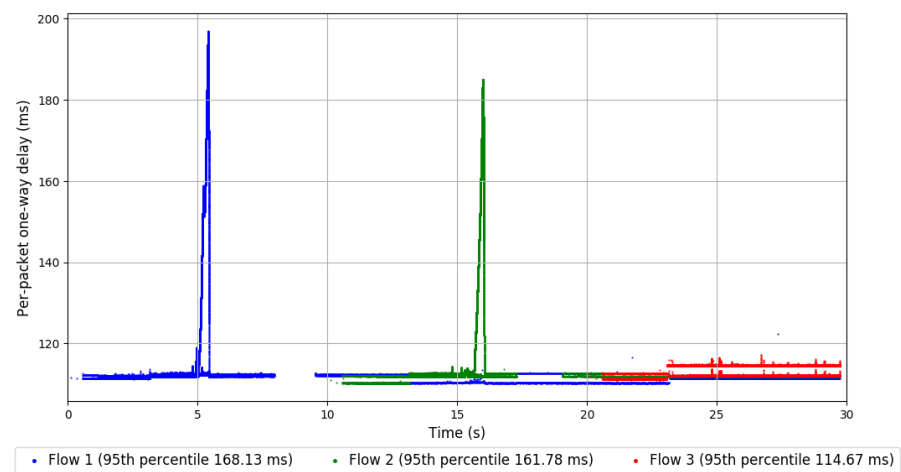
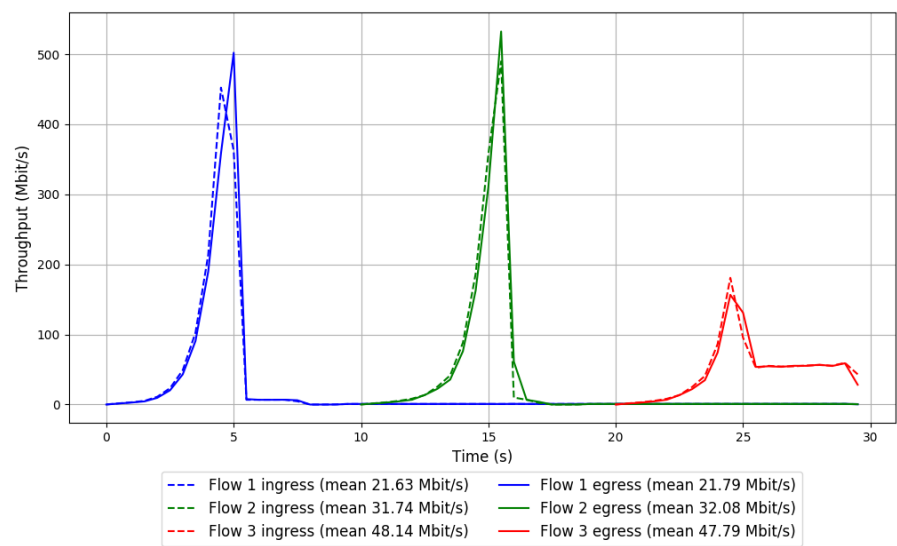
-- Flow 3:

Average throughput: 47.79 Mbit/s

95th percentile per-packet one-way delay: 114.669 ms

Loss rate: 2.95%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-17 08:06:05

End at: 2018-01-17 08:06:35

# Below is generated by plot.py at 2018-01-17 13:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 180.56 Mbit/s

95th percentile per-packet one-way delay: 112.235 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 71.34 Mbit/s

95th percentile per-packet one-way delay: 112.070 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 140.53 Mbit/s

95th percentile per-packet one-way delay: 112.199 ms

Loss rate: 0.53%

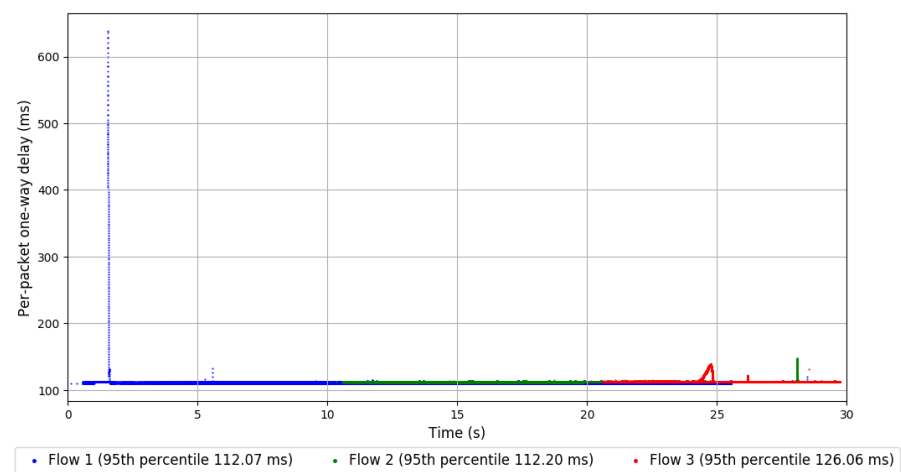
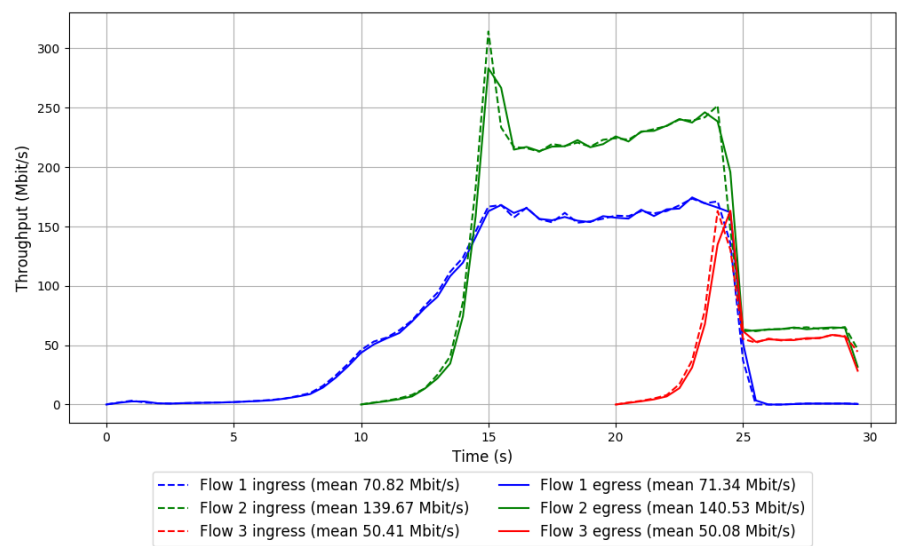
-- Flow 3:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 126.059 ms

Loss rate: 2.94%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-17 08:24:10

End at: 2018-01-17 08:24:40

# Below is generated by plot.py at 2018-01-17 13:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 47.17 Mbit/s

95th percentile per-packet one-way delay: 112.132 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 8.76 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 18.85 Mbit/s

95th percentile per-packet one-way delay: 112.183 ms

Loss rate: 0.04%

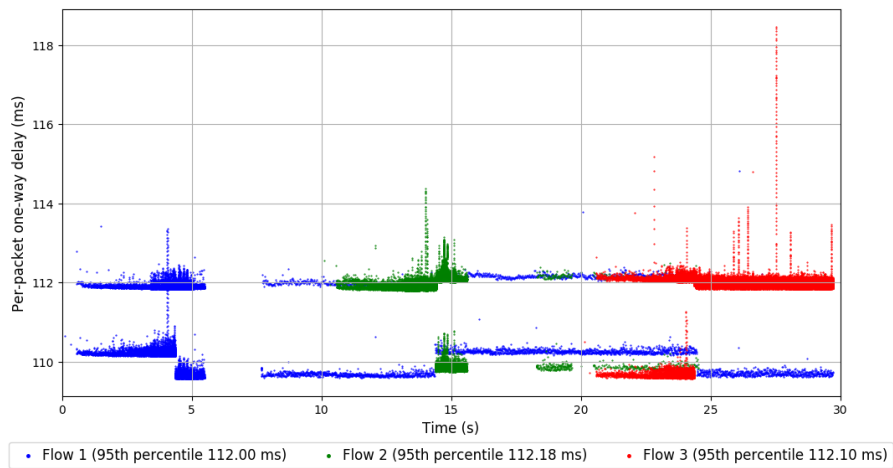
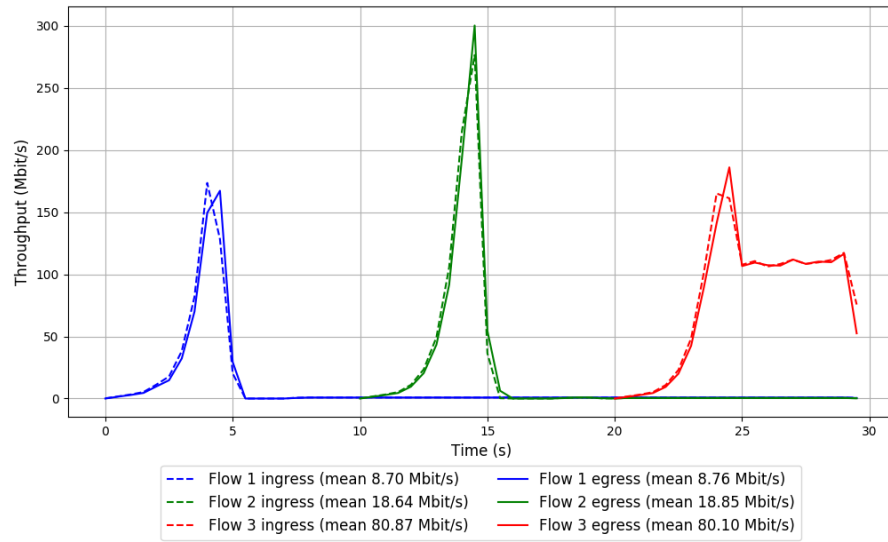
-- Flow 3:

Average throughput: 80.10 Mbit/s

95th percentile per-packet one-way delay: 112.104 ms

Loss rate: 3.19%

## Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-17 08:42:18

End at: 2018-01-17 08:42:48

# Below is generated by plot.py at 2018-01-17 13:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.60 Mbit/s

95th percentile per-packet one-way delay: 112.590 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 31.47 Mbit/s

95th percentile per-packet one-way delay: 112.072 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 19.26 Mbit/s

95th percentile per-packet one-way delay: 165.351 ms

Loss rate: 0.55%

-- Flow 3:

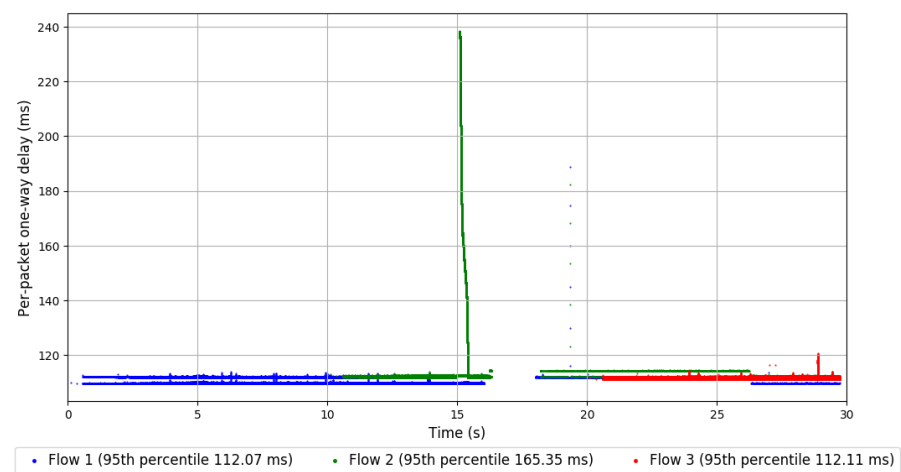
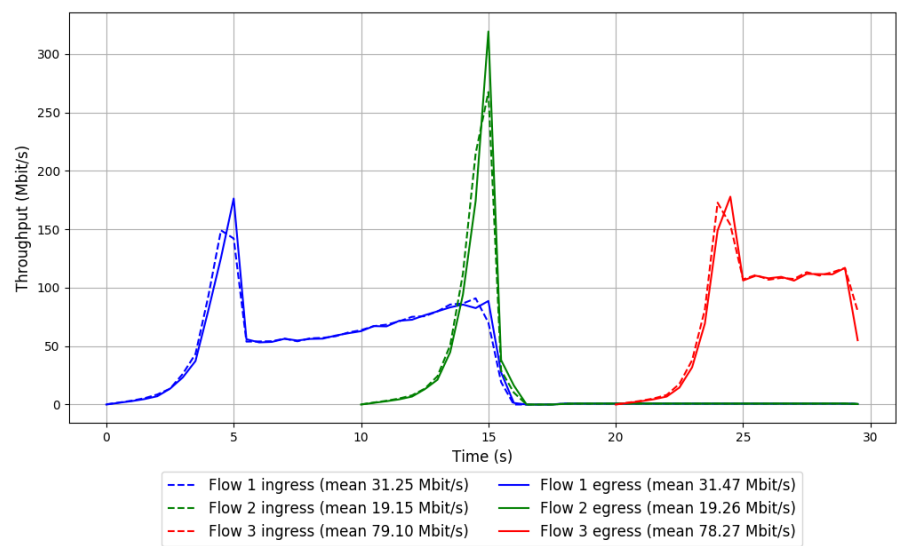
Average throughput: 78.27 Mbit/s

95th percentile per-packet one-way delay: 112.114 ms

Loss rate: 3.32%



Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-01-17 09:00:08

End at: 2018-01-17 09:00:38

# Below is generated by plot.py at 2018-01-17 13:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 141.04 Mbit/s

95th percentile per-packet one-way delay: 112.804 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 20.91 Mbit/s

95th percentile per-packet one-way delay: 114.183 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 160.83 Mbit/s

95th percentile per-packet one-way delay: 112.134 ms

Loss rate: 1.00%

-- Flow 3:

Average throughput: 41.80 Mbit/s

95th percentile per-packet one-way delay: 117.740 ms

Loss rate: 0.05%

Run 10: Report of Vivace-LTE — Data Link

