

## Pantheon Report

Generated at 2018-01-18 09:40:02 (UTC).

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

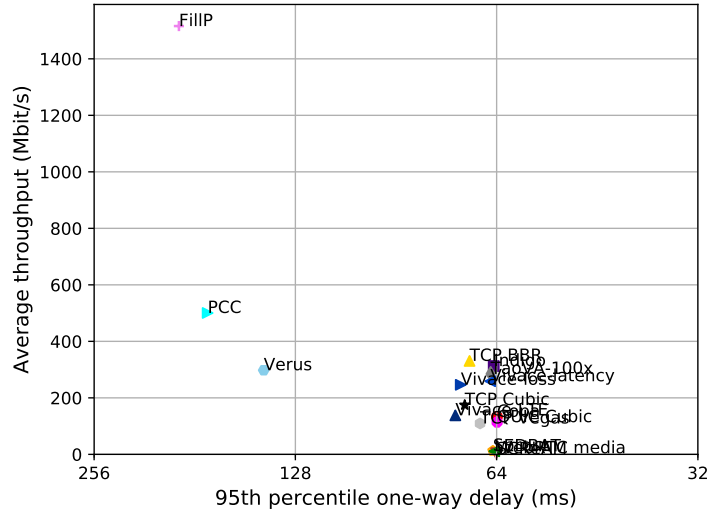
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

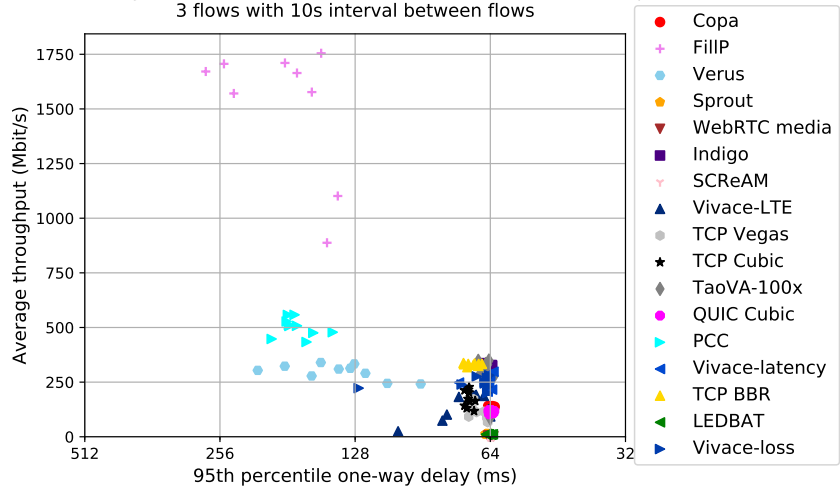
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fixp @ 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 Iowa 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 Iowa 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        | 9      | 168.91                 | 166.28 | 156.78 | 69.39                     | 70.26  | 72.00  | 0.52               | 0.73   | 1.54   |
| TCP Cubic      | 10     | 87.63                  | 89.19  | 85.10  | 70.69                     | 70.59  | 69.08  | 0.82               | 0.91   | 1.84   |
| LEDBAT         | 10     | 5.70                   | 5.76   | 3.94   | 64.53                     | 64.53  | 64.38  | 1.47               | 2.13   | 3.24   |
| PCC            | 10     | 440.08                 | 77.84  | 27.05  | 173.39                    | 173.09 | 163.22 | 1.37               | 1.81   | 3.05   |
| QUIC Cubic     | 10     | 62.52                  | 52.47  | 49.93  | 63.67                     | 63.43  | 63.62  | 0.46               | 0.43   | 1.14   |
| SCReAM         | 10     | 0.21                   | 0.22   | 0.22   | 64.01                     | 63.97  | 63.81  | 0.38               | 0.63   | 1.14   |
| WebRTC media   | 10     | 2.08                   | 1.34   | 0.54   | 63.86                     | 64.07  | 63.85  | 0.64               | 0.71   | 2.09   |
| Sprout         | 10     | 6.30                   | 6.23   | 5.97   | 64.84                     | 64.78  | 64.80  | 1.24               | 0.98   | 2.25   |
| TaoVA-100x     | 10     | 169.78                 | 125.08 | 126.79 | 64.98                     | 65.87  | 65.46  | 0.32               | 0.49   | 1.76   |
| TCP Vegas      | 10     | 51.35                  | 52.61  | 72.57  | 217.67                    | 66.06  | 65.96  | 0.54               | 1.04   | 1.19   |
| Verus          | 10     | 185.22                 | 128.22 | 86.02  | 138.16                    | 137.34 | 140.82 | 1.09               | 2.09   | 2.31   |
| Copa           | 10     | 71.76                  | 67.29  | 64.58  | 63.86                     | 63.92  | 63.69  | 0.38               | 0.60   | 1.77   |
| FillP          | 9      | 790.71                 | 731.47 | 731.30 | 178.42                    | 183.81 | 200.66 | 3.79               | 6.44   | 9.16   |
| Indigo         | 10     | 165.74                 | 156.30 | 130.79 | 64.40                     | 64.78  | 64.89  | 0.45               | 0.58   | 1.45   |
| Vivace-latency | 10     | 157.60                 | 118.94 | 68.59  | 65.55                     | 64.92  | 66.82  | 0.40               | 0.51   | 2.22   |
| Vivace-loss    | 10     | 129.91                 | 129.91 | 92.48  | 66.66                     | 71.07  | 83.81  | 0.43               | 0.70   | 2.13   |
| Vivace-LTE     | 10     | 73.89                  | 71.40  | 51.72  | 70.47                     | 69.43  | 76.93  | 0.16               | 0.27   | 1.13   |

Run 1: Statistics of TCP BBR

Start at: 2018-01-18 01:47:42

End at: 2018-01-18 01:48:12

# Below is generated by plot.py at 2018-01-18 07:49:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 331.78 Mbit/s

95th percentile per-packet one-way delay: 73.242 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 166.31 Mbit/s

95th percentile per-packet one-way delay: 71.831 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 170.64 Mbit/s

95th percentile per-packet one-way delay: 73.363 ms

Loss rate: 0.67%

-- Flow 3:

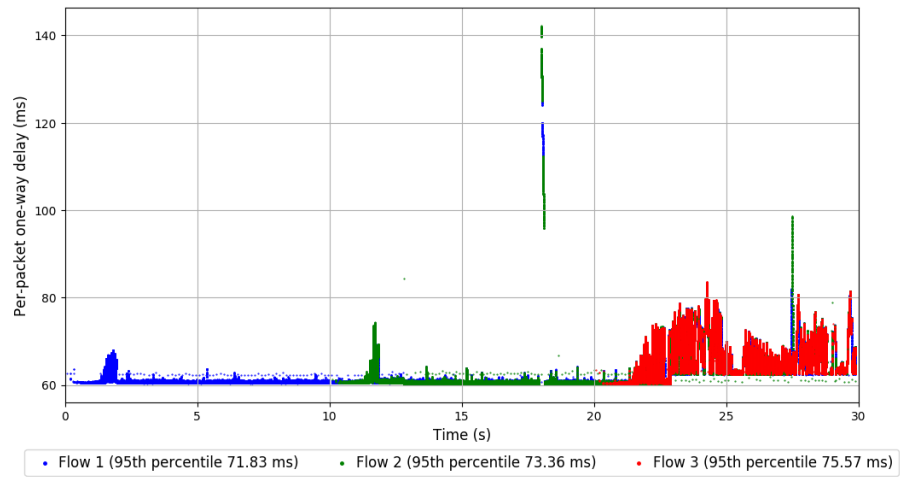
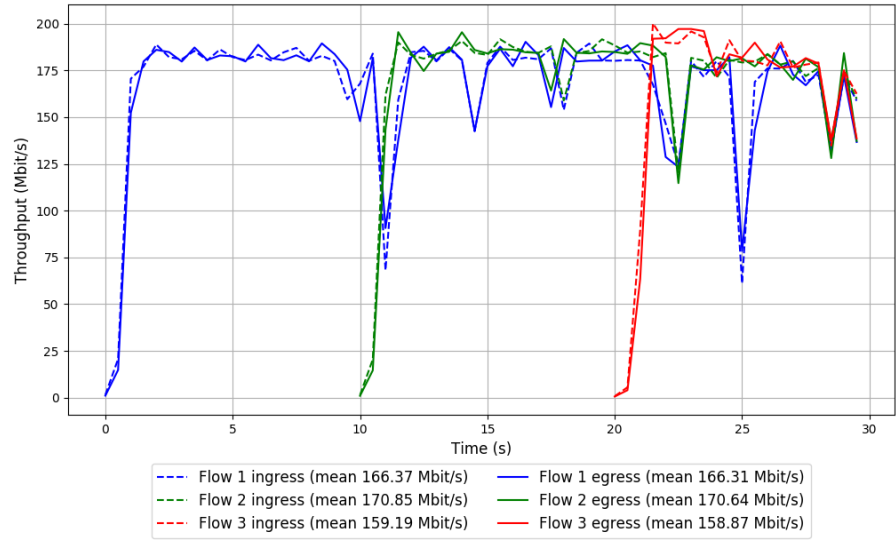
Average throughput: 158.87 Mbit/s

95th percentile per-packet one-way delay: 75.571 ms

Loss rate: 1.49%



# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-18 02:05:09

End at: 2018-01-18 02:05:39

# Below is generated by plot.py at 2018-01-18 07:49:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 324.48 Mbit/s

95th percentile per-packet one-way delay: 68.094 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 165.65 Mbit/s

95th percentile per-packet one-way delay: 67.259 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 165.94 Mbit/s

95th percentile per-packet one-way delay: 68.544 ms

Loss rate: 0.83%

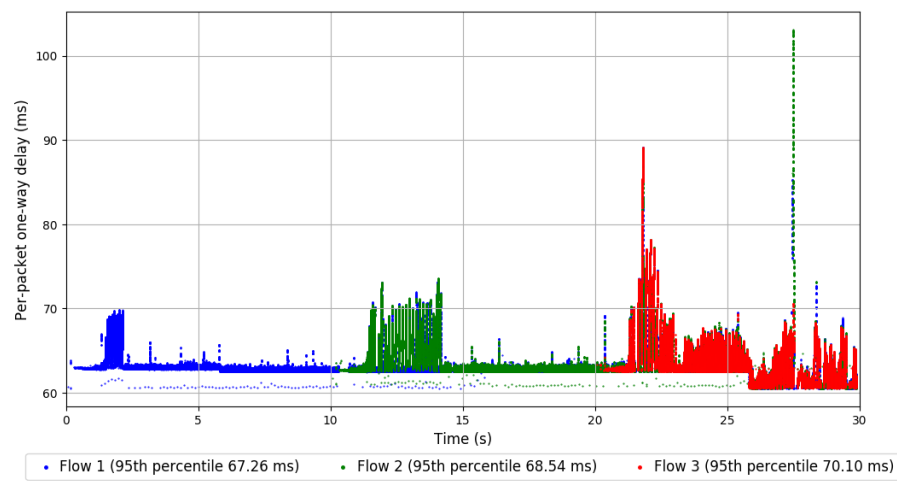
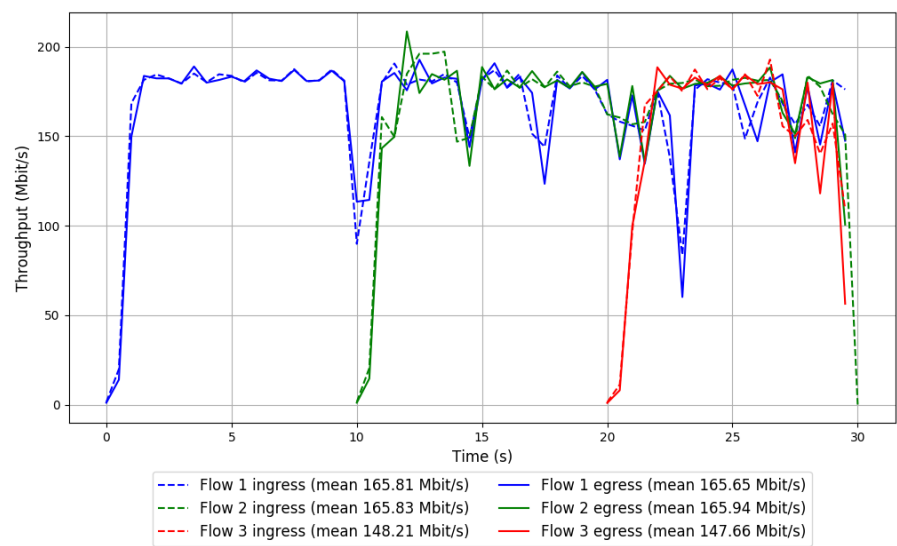
-- Flow 3:

Average throughput: 147.66 Mbit/s

95th percentile per-packet one-way delay: 70.098 ms

Loss rate: 1.85%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-18 02:22:44

End at: 2018-01-18 02:23:14

# Below is generated by plot.py at 2018-01-18 07:49:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 335.50 Mbit/s

95th percentile per-packet one-way delay: 69.379 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 169.41 Mbit/s

95th percentile per-packet one-way delay: 68.298 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 169.59 Mbit/s

95th percentile per-packet one-way delay: 69.424 ms

Loss rate: 0.74%

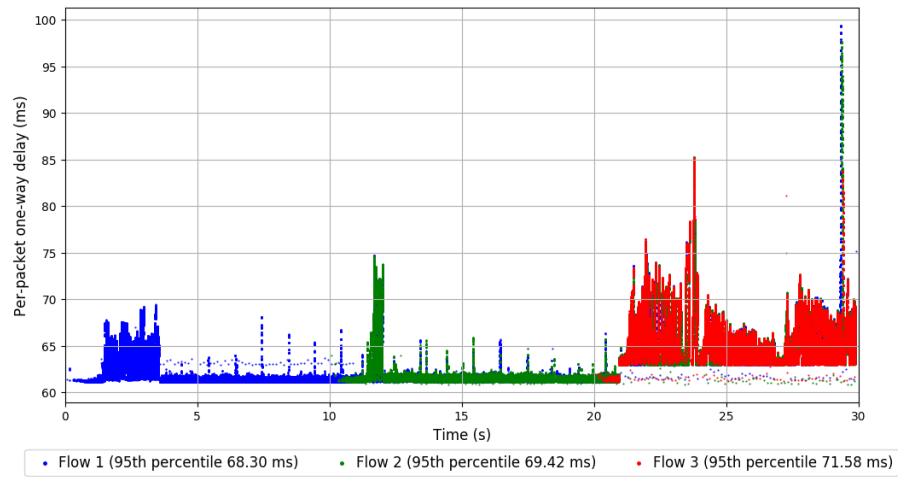
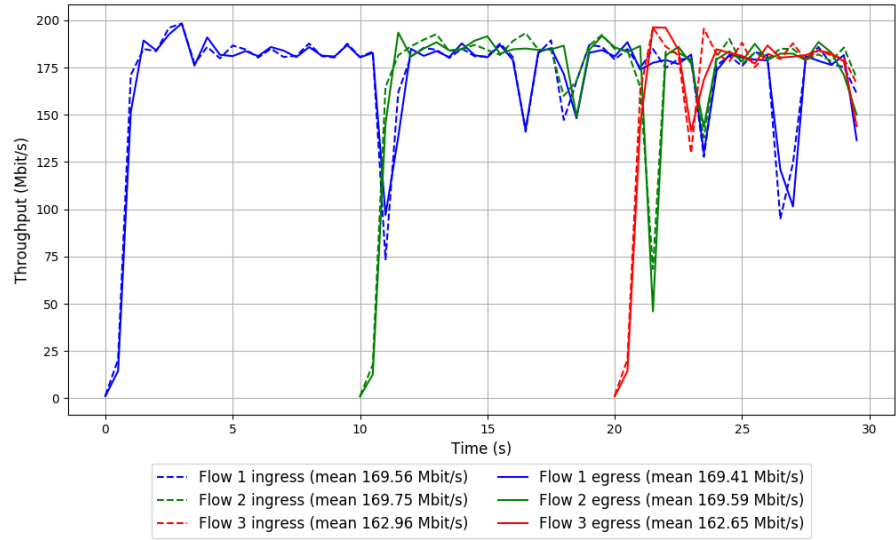
-- Flow 3:

Average throughput: 162.65 Mbit/s

95th percentile per-packet one-way delay: 71.575 ms

Loss rate: 1.46%

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



Run 4: Statistics of TCP BBR

Start at: 2018-01-18 02:40:17

End at: 2018-01-18 02:40:47

# Below is generated by plot.py at 2018-01-18 07:49:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 329.44 Mbit/s

95th percentile per-packet one-way delay: 69.748 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 168.69 Mbit/s

95th percentile per-packet one-way delay: 68.803 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 165.34 Mbit/s

95th percentile per-packet one-way delay: 69.871 ms

Loss rate: 0.74%

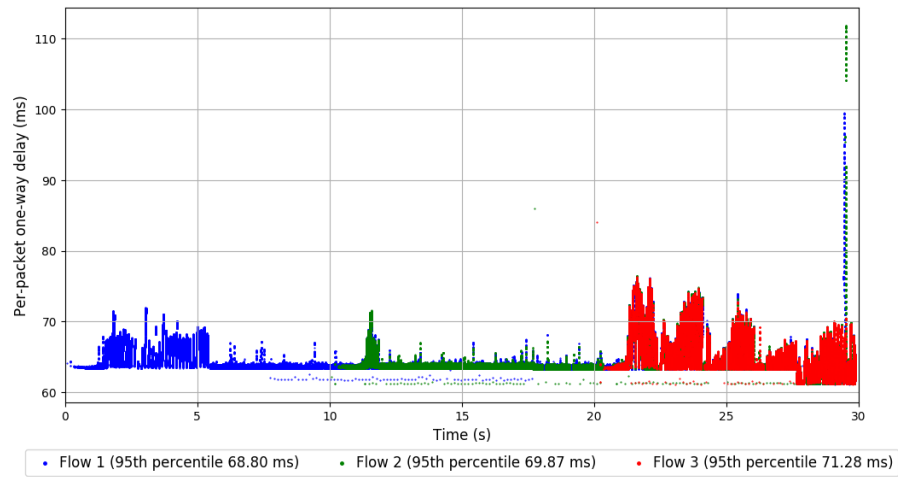
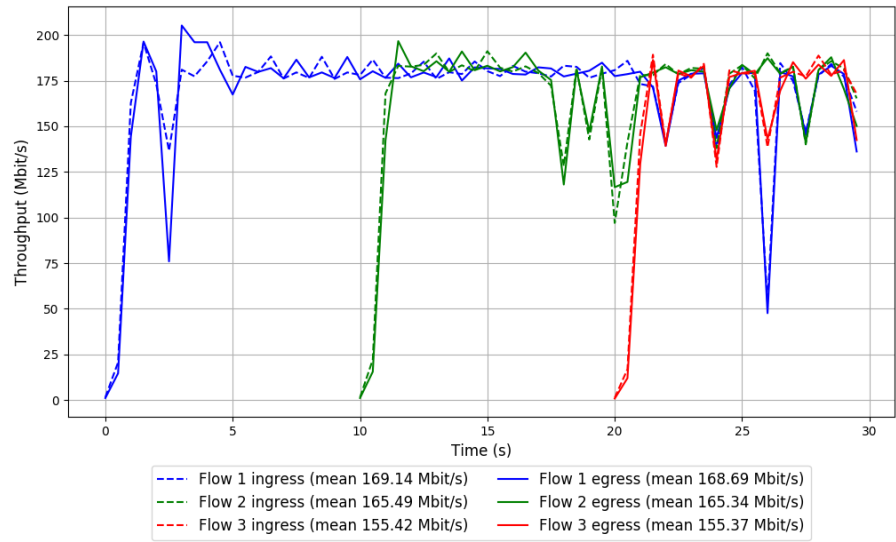
-- Flow 3:

Average throughput: 155.37 Mbit/s

95th percentile per-packet one-way delay: 71.281 ms

Loss rate: 1.52%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-18 02:57:52

End at: 2018-01-18 02:58:22

# Below is generated by plot.py at 2018-01-18 07:49:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 337.41 Mbit/s

95th percentile per-packet one-way delay: 73.437 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 173.97 Mbit/s

95th percentile per-packet one-way delay: 72.437 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 167.22 Mbit/s

95th percentile per-packet one-way delay: 73.298 ms

Loss rate: 0.69%

-- Flow 3:

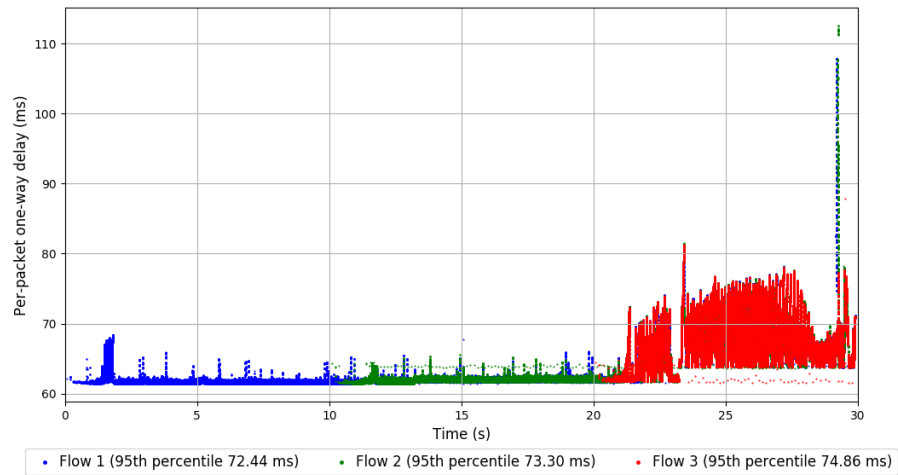
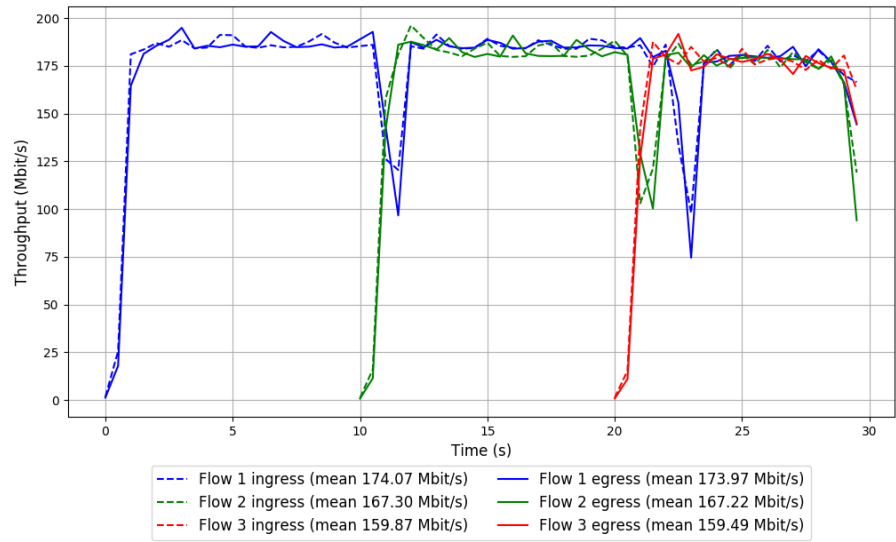
Average throughput: 159.49 Mbit/s

95th percentile per-packet one-way delay: 74.858 ms

Loss rate: 1.53%



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



Run 6: Statistics of TCP BBR

Start at: 2018-01-18 03:15:07

End at: 2018-01-18 03:15:37

# Below is generated by plot.py at 2018-01-18 07:49:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 333.79 Mbit/s

95th percentile per-packet one-way delay: 66.818 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 168.40 Mbit/s

95th percentile per-packet one-way delay: 66.552 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 169.34 Mbit/s

95th percentile per-packet one-way delay: 66.810 ms

Loss rate: 0.70%

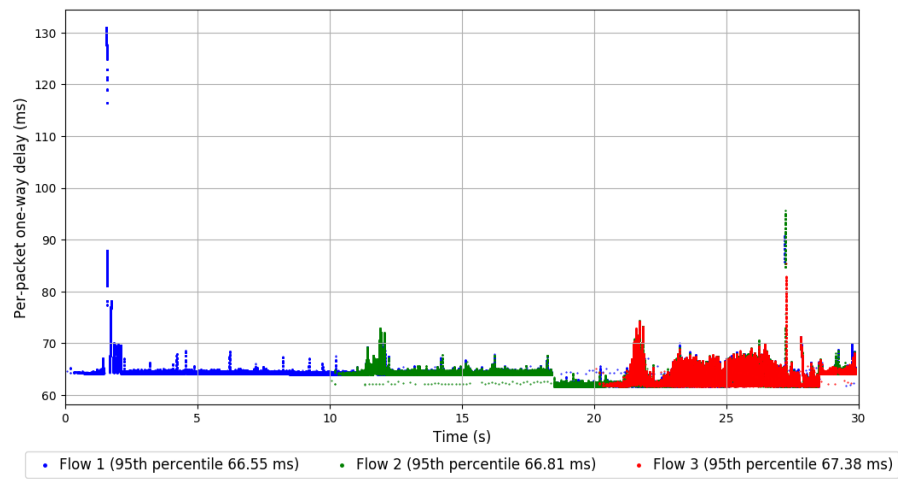
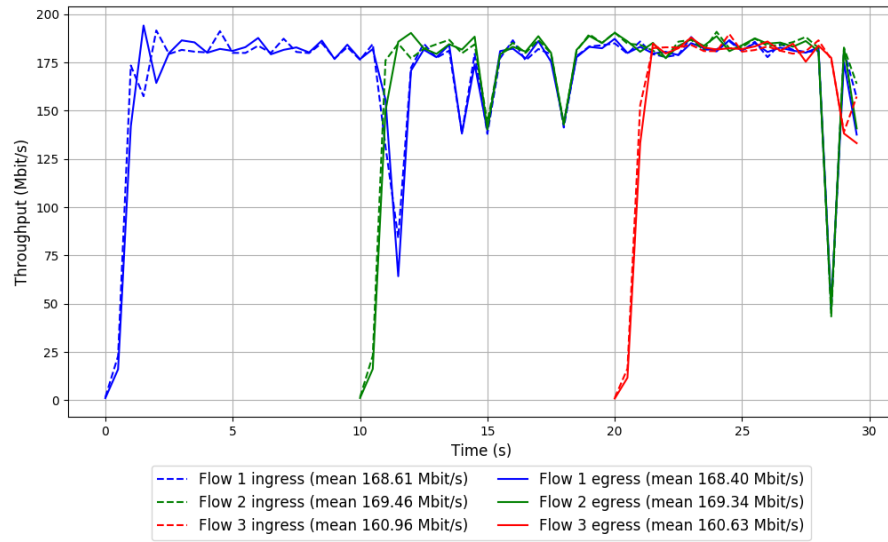
-- Flow 3:

Average throughput: 160.63 Mbit/s

95th percentile per-packet one-way delay: 67.378 ms

Loss rate: 1.51%

# Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-18 03:32:37

End at: 2018-01-18 03:33:07

# Below is generated by plot.py at 2018-01-18 07:49:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 333.42 Mbit/s

95th percentile per-packet one-way delay: 71.660 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 171.95 Mbit/s

95th percentile per-packet one-way delay: 70.852 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 167.12 Mbit/s

95th percentile per-packet one-way delay: 71.771 ms

Loss rate: 0.73%

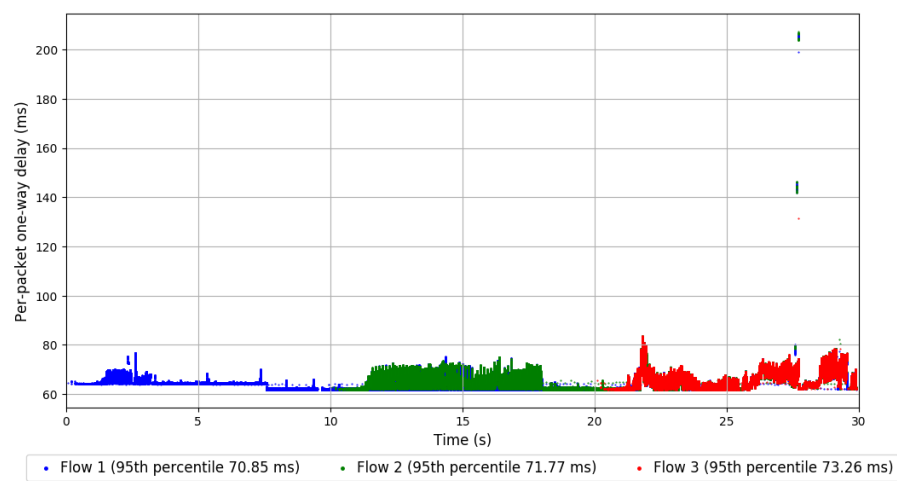
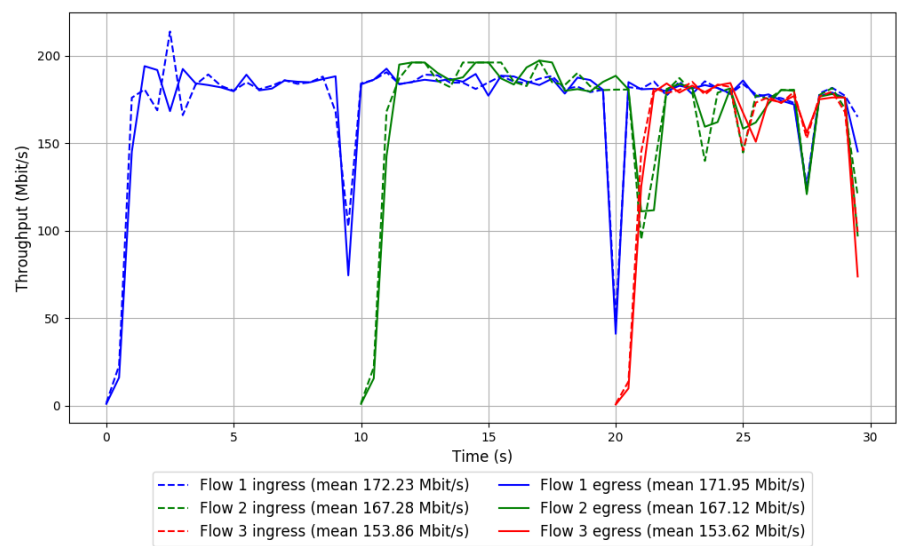
-- Flow 3:

Average throughput: 153.62 Mbit/s

95th percentile per-packet one-way delay: 73.256 ms

Loss rate: 1.46%

Run 7: Report of TCP BBR — Data Link

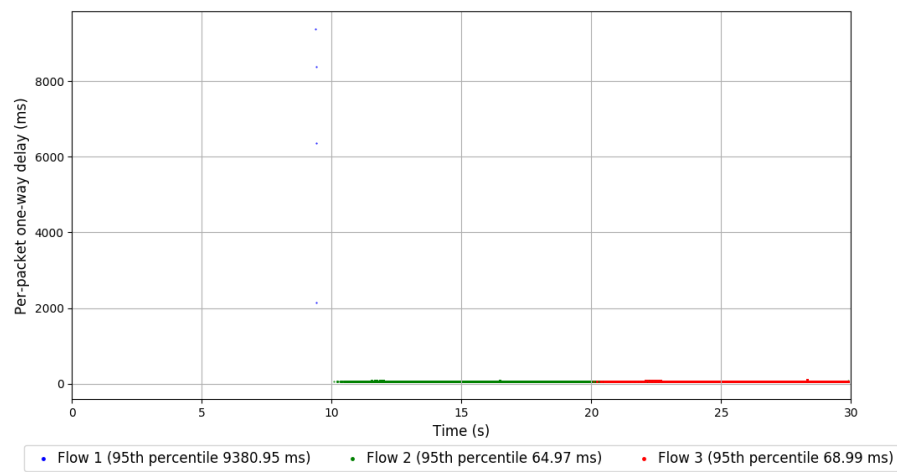
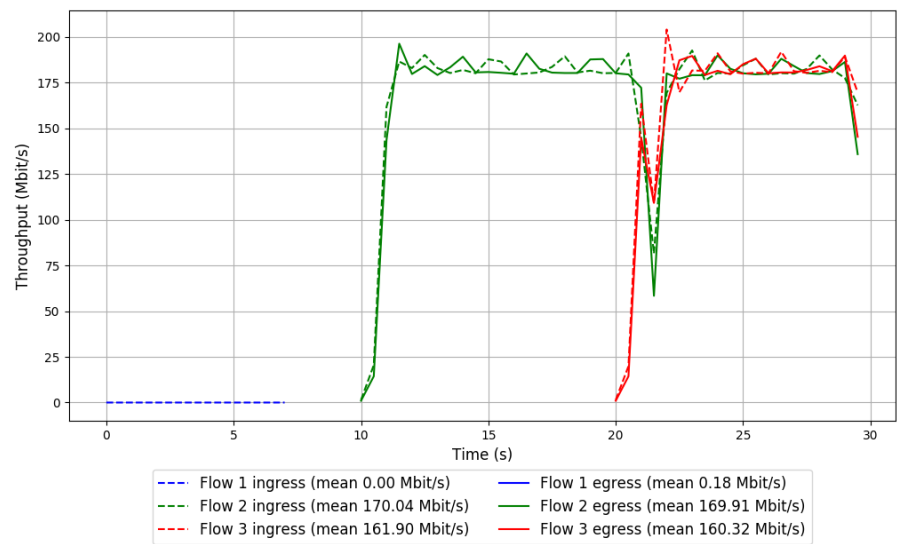


Run 8: Statistics of TCP BBR

Start at: 2018-01-18 03:49:16

End at: 2018-01-18 03:49:46

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-18 04:05:59

End at: 2018-01-18 04:06:29

# Below is generated by plot.py at 2018-01-18 07:52:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 333.44 Mbit/s

95th percentile per-packet one-way delay: 67.950 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 172.18 Mbit/s

95th percentile per-packet one-way delay: 67.424 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 163.40 Mbit/s

95th percentile per-packet one-way delay: 67.688 ms

Loss rate: 0.70%

-- Flow 3:

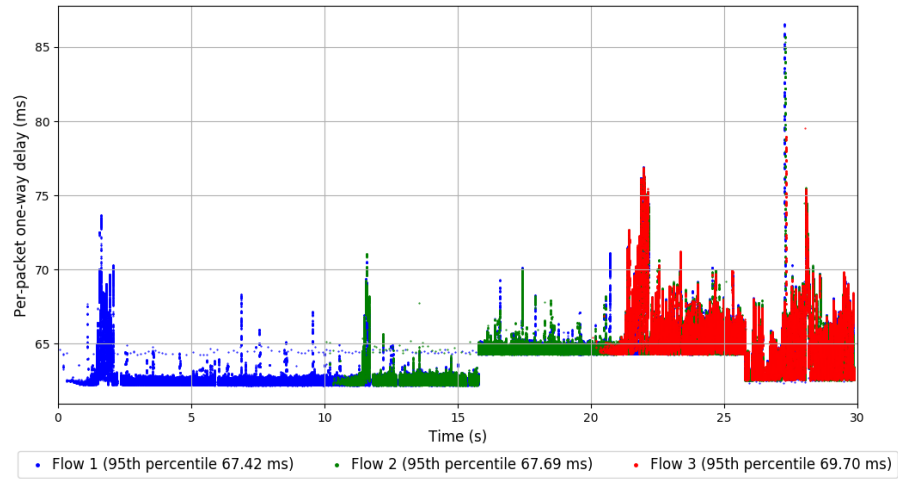
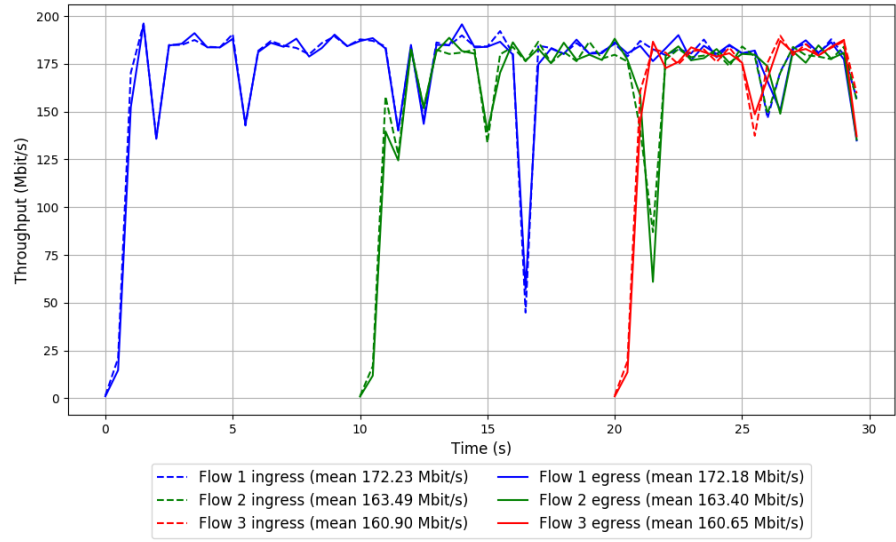
Average throughput: 160.65 Mbit/s

95th percentile per-packet one-way delay: 69.698 ms

Loss rate: 1.45%



# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-18 04:23:21

End at: 2018-01-18 04:23:51

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 318.57 Mbit/s

95th percentile per-packet one-way delay: 71.994 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 163.67 Mbit/s

95th percentile per-packet one-way delay: 71.079 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 157.93 Mbit/s

95th percentile per-packet one-way delay: 71.591 ms

Loss rate: 0.80%

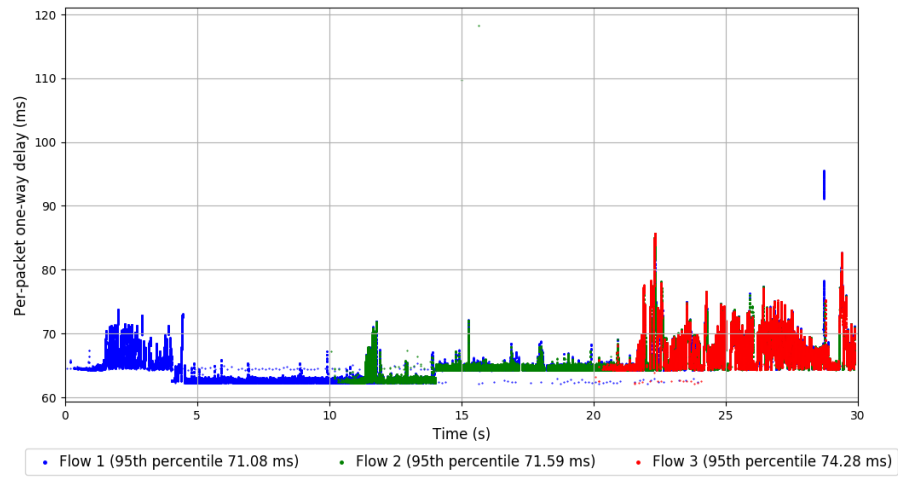
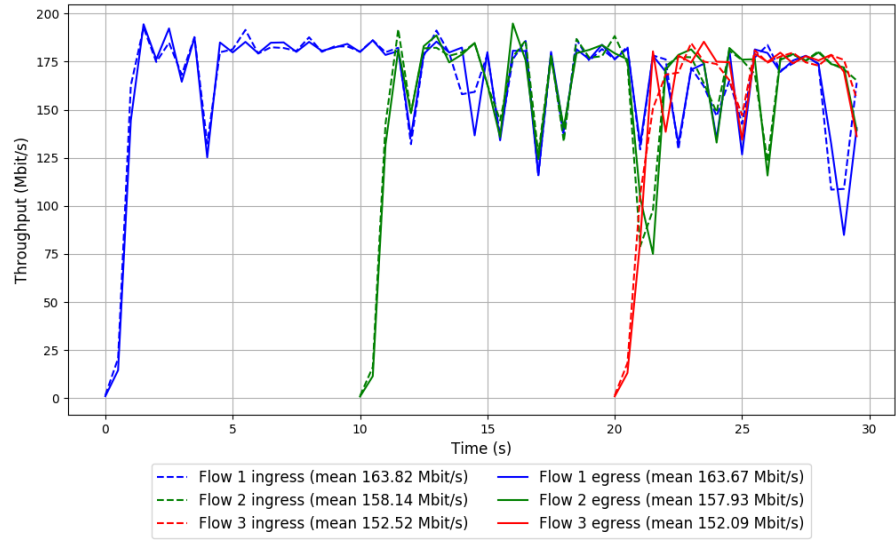
-- Flow 3:

Average throughput: 152.09 Mbit/s

95th percentile per-packet one-way delay: 74.282 ms

Loss rate: 1.56%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-18 01:59:54

End at: 2018-01-18 02:00:24

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.66 Mbit/s

95th percentile per-packet one-way delay: 72.224 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 68.52 Mbit/s

95th percentile per-packet one-way delay: 70.984 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 92.03 Mbit/s

95th percentile per-packet one-way delay: 73.617 ms

Loss rate: 1.07%

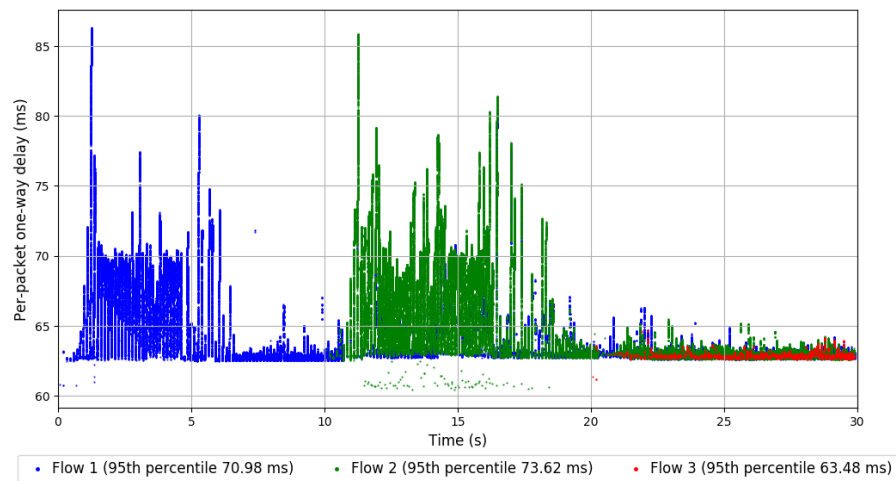
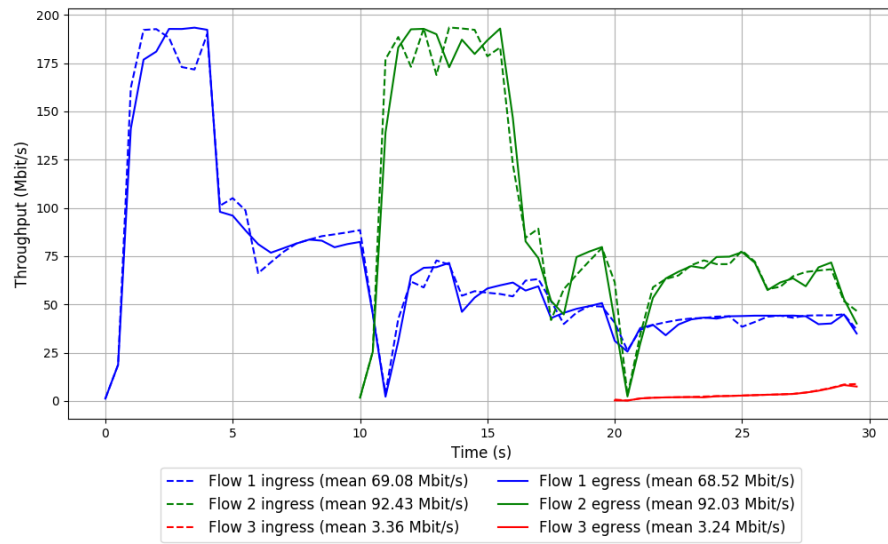
-- Flow 3:

Average throughput: 3.24 Mbit/s

95th percentile per-packet one-way delay: 63.479 ms

Loss rate: 4.78%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-18 02:17:32

End at: 2018-01-18 02:18:02

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.35 Mbit/s

95th percentile per-packet one-way delay: 71.621 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 112.61 Mbit/s

95th percentile per-packet one-way delay: 70.994 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 98.19 Mbit/s

95th percentile per-packet one-way delay: 72.272 ms

Loss rate: 0.49%

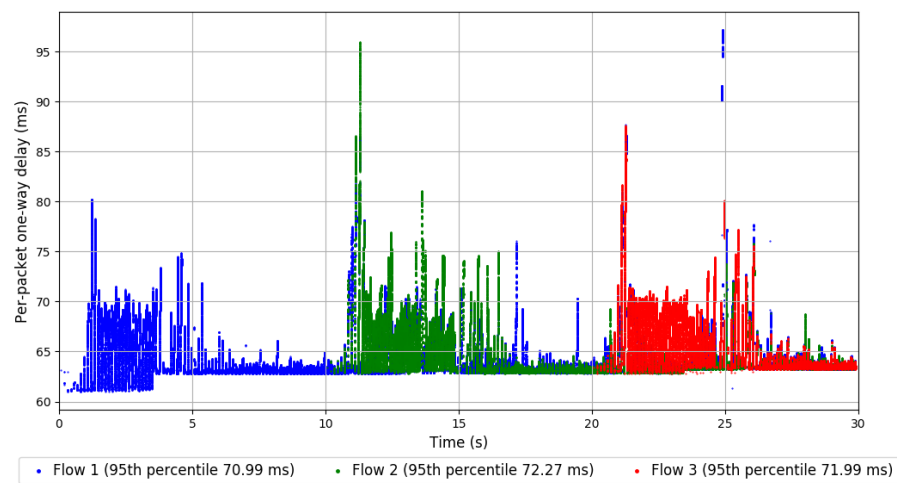
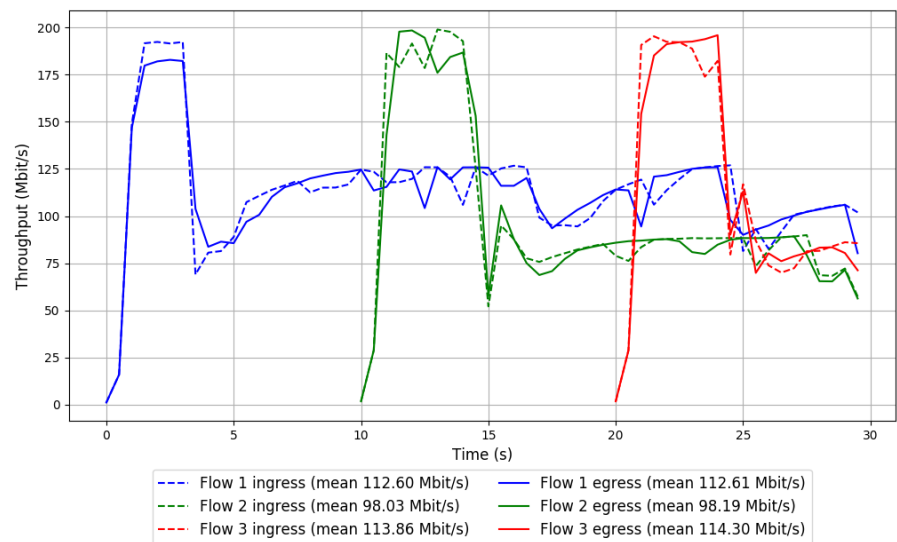
-- Flow 3:

Average throughput: 114.30 Mbit/s

95th percentile per-packet one-way delay: 71.987 ms

Loss rate: 0.98%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-18 02:34:49

End at: 2018-01-18 02:35:19

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 164.06 Mbit/s

95th percentile per-packet one-way delay: 69.163 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 111.79 Mbit/s

95th percentile per-packet one-way delay: 67.813 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 26.87 Mbit/s

95th percentile per-packet one-way delay: 67.136 ms

Loss rate: 3.04%

-- Flow 3:

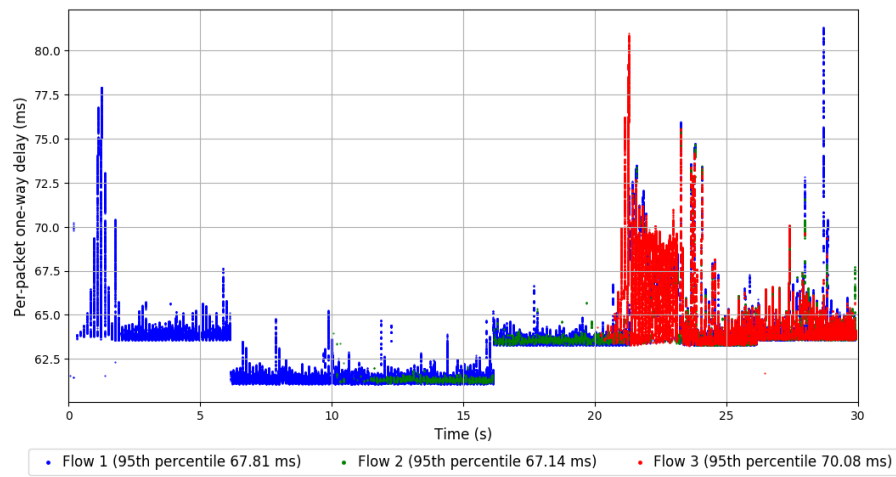
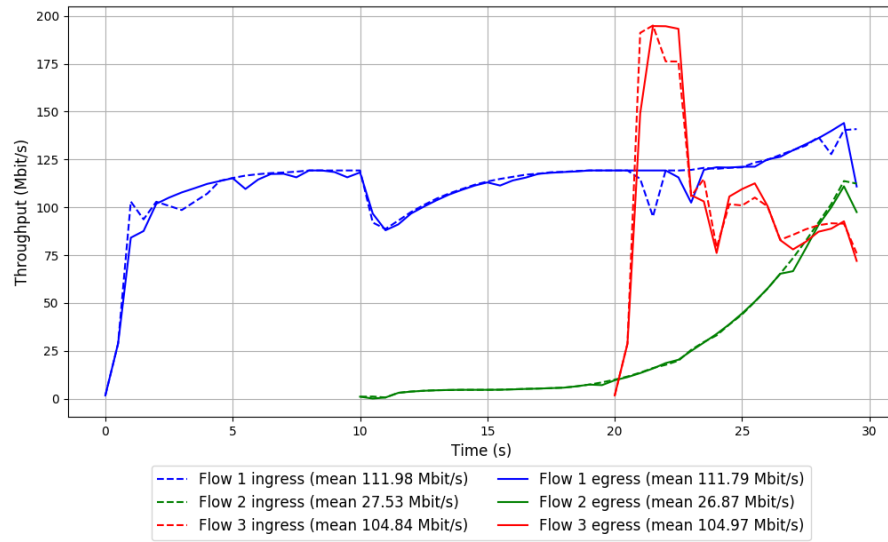
Average throughput: 104.97 Mbit/s

95th percentile per-packet one-way delay: 70.079 ms

Loss rate: 1.16%



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



Run 4: Statistics of TCP Cubic

Start at: 2018-01-18 02:52:28

End at: 2018-01-18 02:52:58

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 227.56 Mbit/s

95th percentile per-packet one-way delay: 71.372 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 111.64 Mbit/s

95th percentile per-packet one-way delay: 71.759 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 110.87 Mbit/s

95th percentile per-packet one-way delay: 70.954 ms

Loss rate: 0.52%

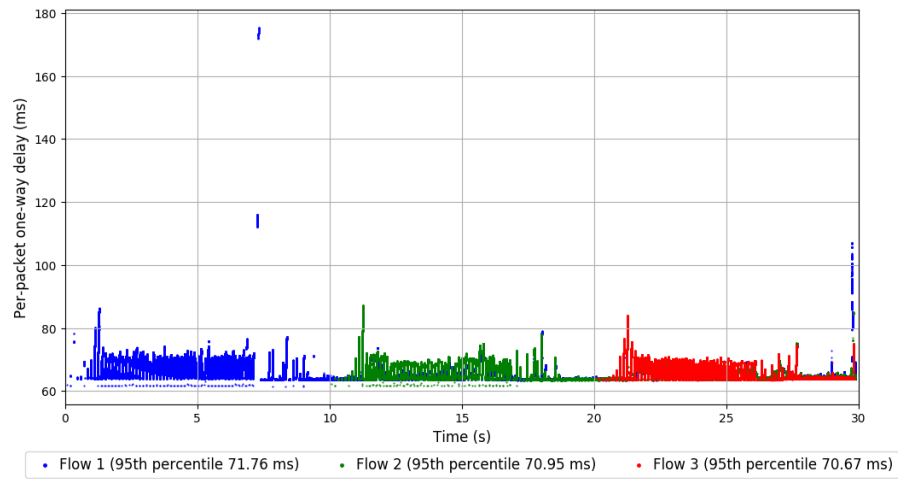
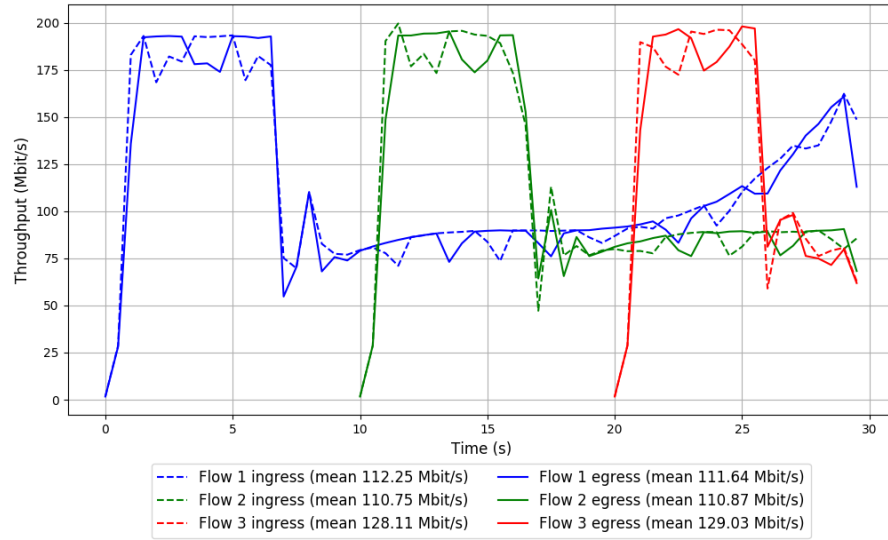
-- Flow 3:

Average throughput: 129.03 Mbit/s

95th percentile per-packet one-way delay: 70.666 ms

Loss rate: 0.83%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-18 03:09:39

End at: 2018-01-18 03:10:09

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.85 Mbit/s

95th percentile per-packet one-way delay: 69.565 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 81.18 Mbit/s

95th percentile per-packet one-way delay: 70.134 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 17.36 Mbit/s

95th percentile per-packet one-way delay: 64.686 ms

Loss rate: 1.22%

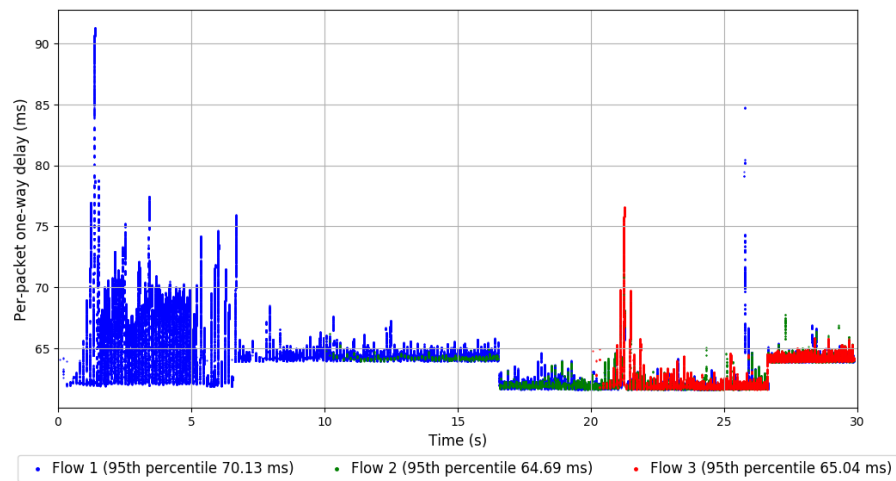
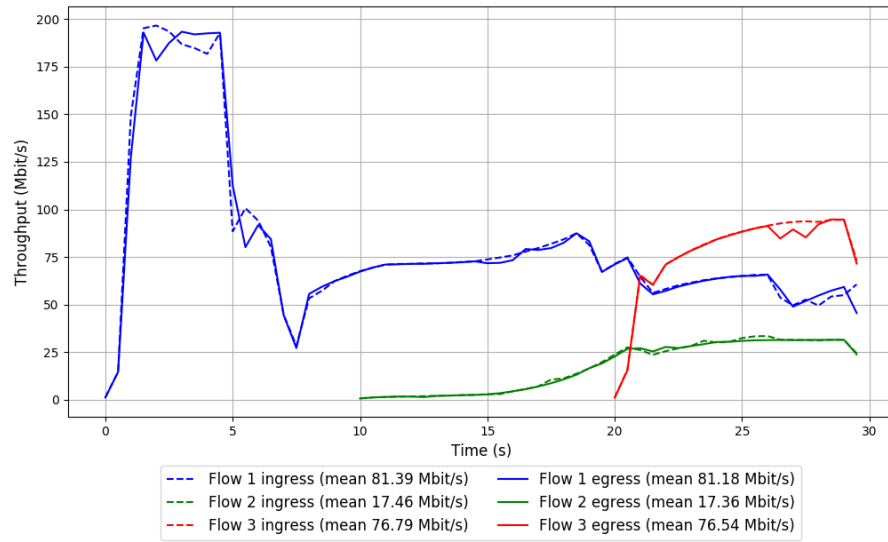
-- Flow 3:

Average throughput: 76.54 Mbit/s

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

Loss rate: 1.60%

# Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-18 03:27:11

End at: 2018-01-18 03:27:41

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 142.32 Mbit/s

95th percentile per-packet one-way delay: 73.042 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 30.96 Mbit/s

95th percentile per-packet one-way delay: 69.785 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 114.05 Mbit/s

95th percentile per-packet one-way delay: 74.081 ms

Loss rate: 0.58%

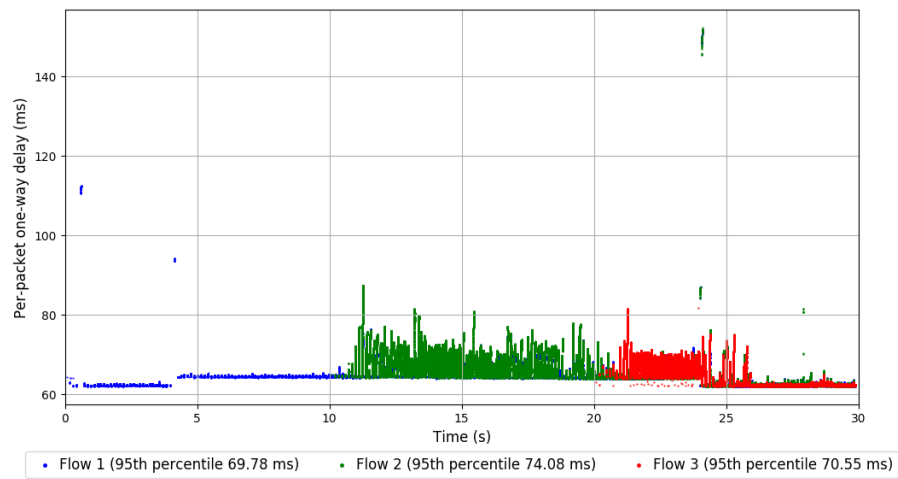
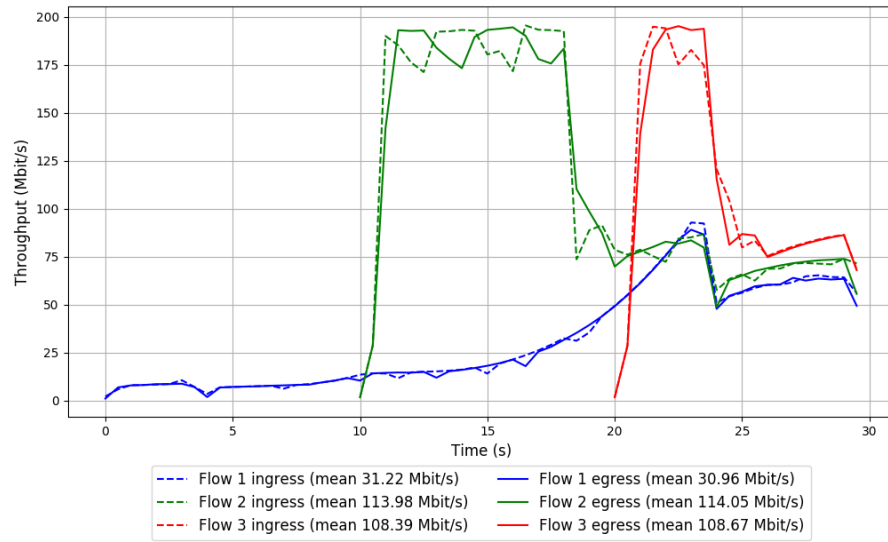
-- Flow 3:

Average throughput: 108.67 Mbit/s

95th percentile per-packet one-way delay: 70.549 ms

Loss rate: 1.01%

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



Run 7: Statistics of TCP Cubic

Start at: 2018-01-18 03:44:41

End at: 2018-01-18 03:45:11

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 161.35 Mbit/s

95th percentile per-packet one-way delay: 71.212 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 43.05 Mbit/s

95th percentile per-packet one-way delay: 67.695 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 138.61 Mbit/s

95th percentile per-packet one-way delay: 71.765 ms

Loss rate: 0.41%

-- Flow 3:

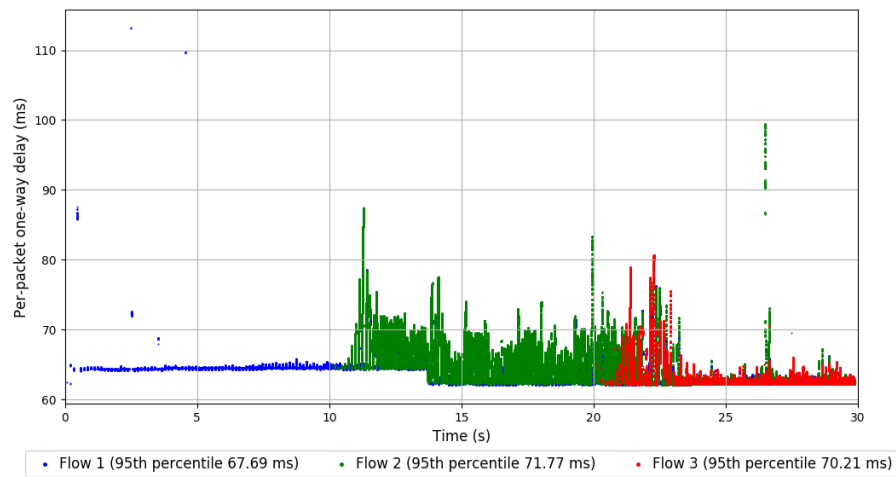
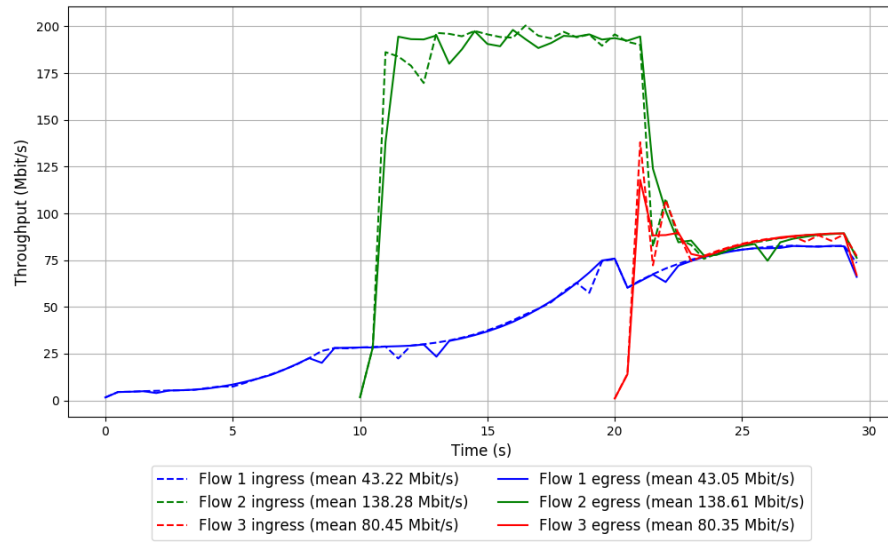
Average throughput: 80.35 Mbit/s

95th percentile per-packet one-way delay: 70.211 ms

Loss rate: 1.41%



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



Run 8: Statistics of TCP Cubic

Start at: 2018-01-18 04:01:05

End at: 2018-01-18 04:01:35

# Below is generated by plot.py at 2018-01-18 07:54:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 173.17 Mbit/s

95th percentile per-packet one-way delay: 71.724 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 119.02 Mbit/s

95th percentile per-packet one-way delay: 71.992 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 79.54 Mbit/s

95th percentile per-packet one-way delay: 70.802 ms

Loss rate: 0.51%

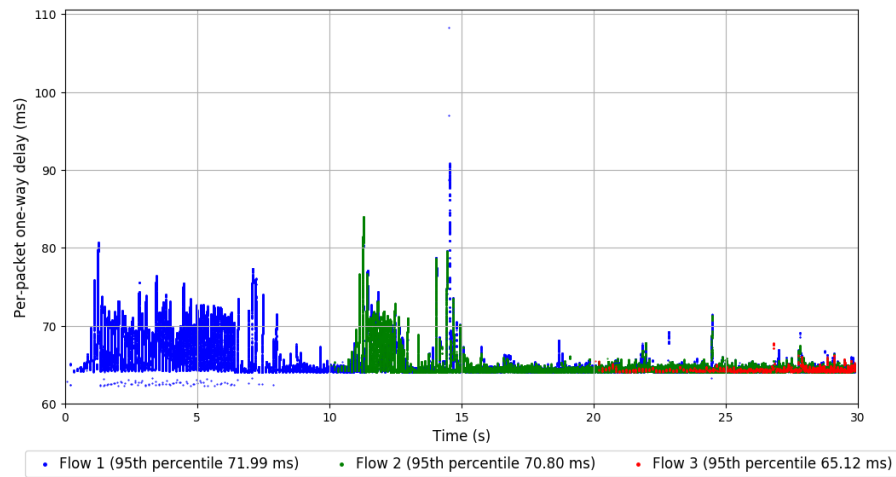
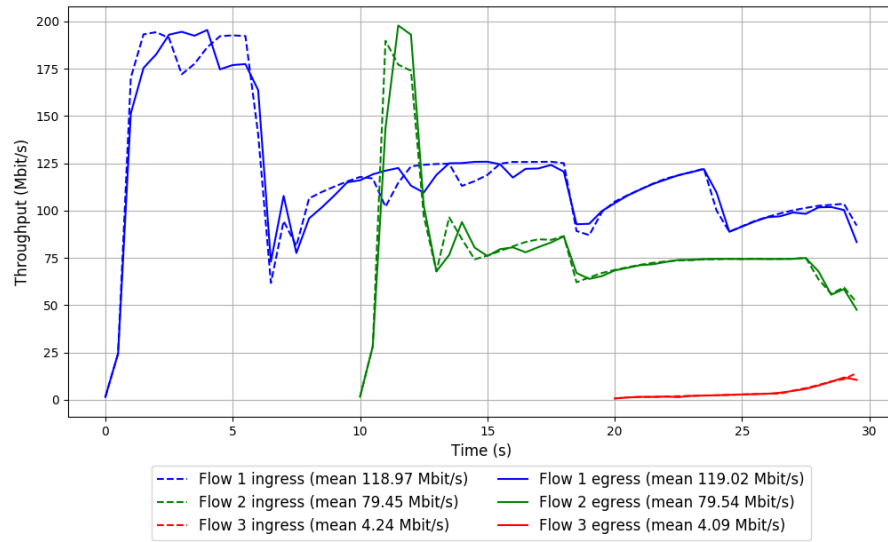
-- Flow 3:

Average throughput: 4.09 Mbit/s

95th percentile per-packet one-way delay: 65.121 ms

Loss rate: 4.73%

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



Run 9: Statistics of TCP Cubic

Start at: 2018-01-18 04:17:56

End at: 2018-01-18 04:18:26

# Below is generated by plot.py at 2018-01-18 07:55:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 212.77 Mbit/s

95th percentile per-packet one-way delay: 73.026 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 106.84 Mbit/s

95th percentile per-packet one-way delay: 73.889 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 97.57 Mbit/s

95th percentile per-packet one-way delay: 71.857 ms

Loss rate: 0.47%

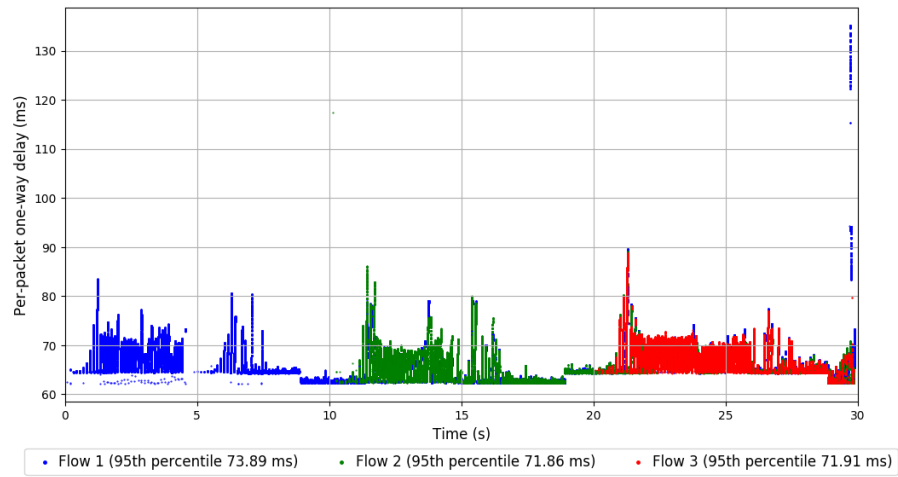
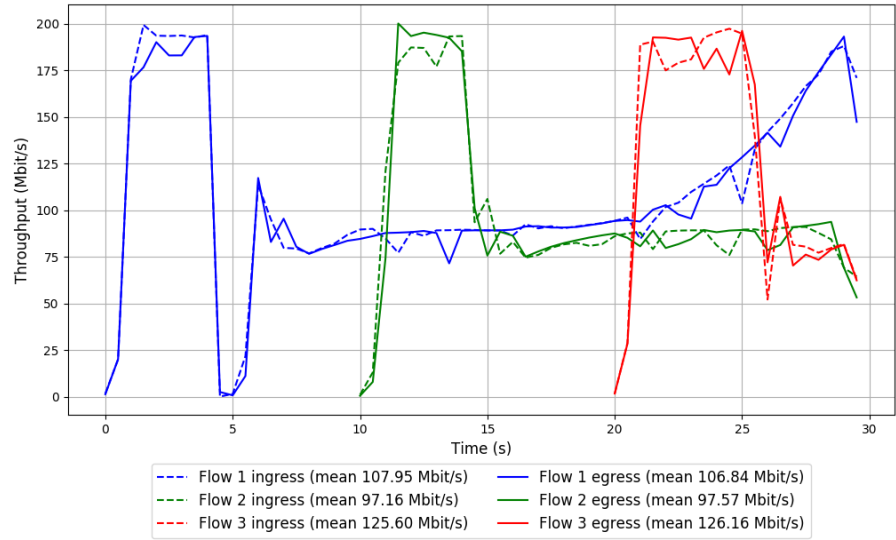
-- Flow 3:

Average throughput: 126.16 Mbit/s

95th percentile per-packet one-way delay: 71.907 ms

Loss rate: 0.85%

# Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-18 04:35:20

End at: 2018-01-18 04:35:50

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 202.45 Mbit/s

95th percentile per-packet one-way delay: 71.421 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 90.68 Mbit/s

95th percentile per-packet one-way delay: 71.818 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 116.81 Mbit/s

95th percentile per-packet one-way delay: 68.760 ms

Loss rate: 0.80%

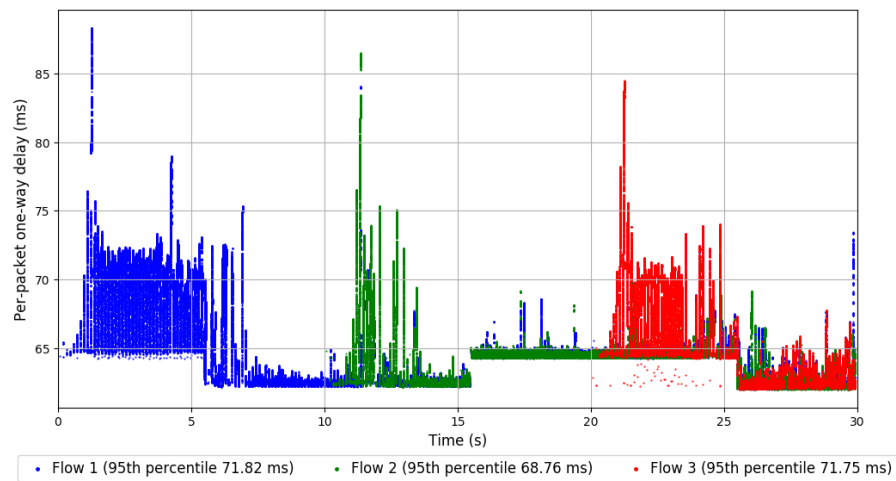
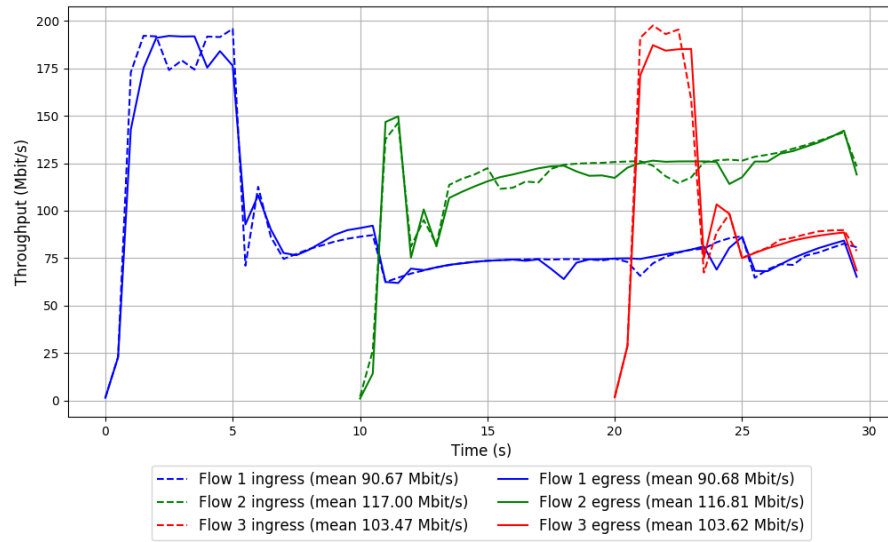
-- Flow 3:

Average throughput: 103.62 Mbit/s

95th percentile per-packet one-way delay: 71.745 ms

Loss rate: 1.08%

# Run 10: Report of TCP Cubic — Data Link



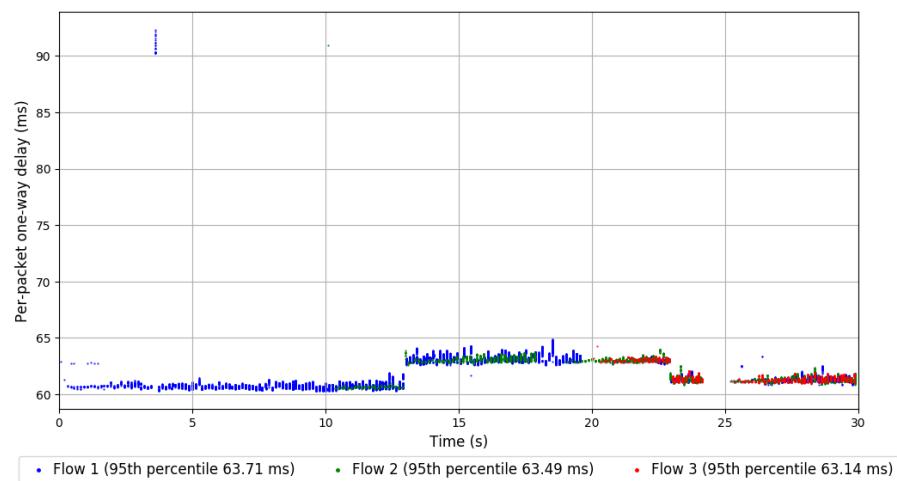
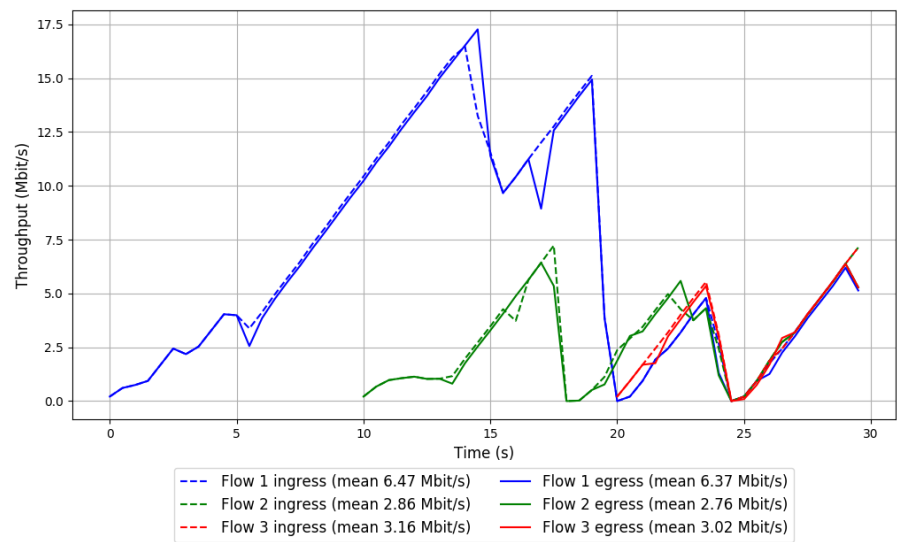
```
Run 1: Statistics of LEDBAT

Start at: 2018-01-18 01:59:12
End at: 2018-01-18 01:59:42

# Below is generated by plot.py at 2018-01-18 07:55:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 63.618 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 6.37 Mbit/s
95th percentile per-packet one-way delay: 63.707 ms
Loss rate: 1.87%
-- Flow 2:
Average throughput: 2.76 Mbit/s
95th percentile per-packet one-way delay: 63.490 ms
Loss rate: 4.37%
-- Flow 3:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 63.141 ms
Loss rate: 5.49%
```



Run 1: Report of LEDBAT — Data Link

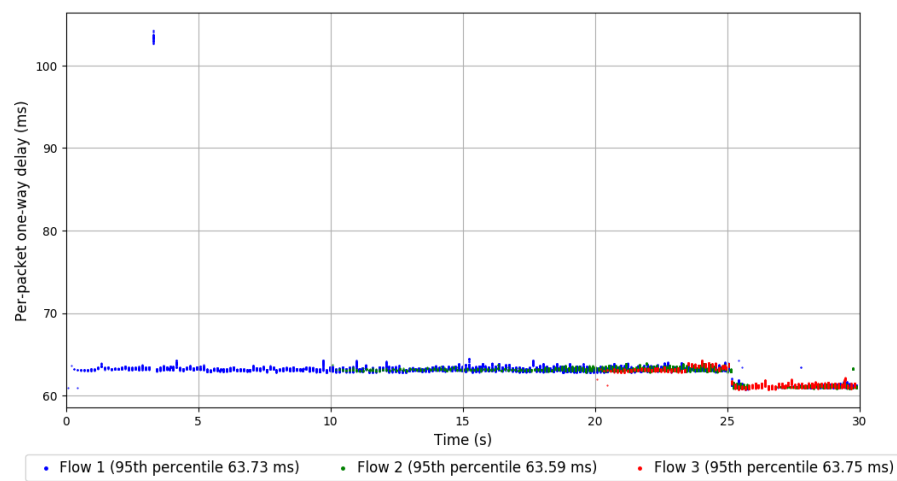
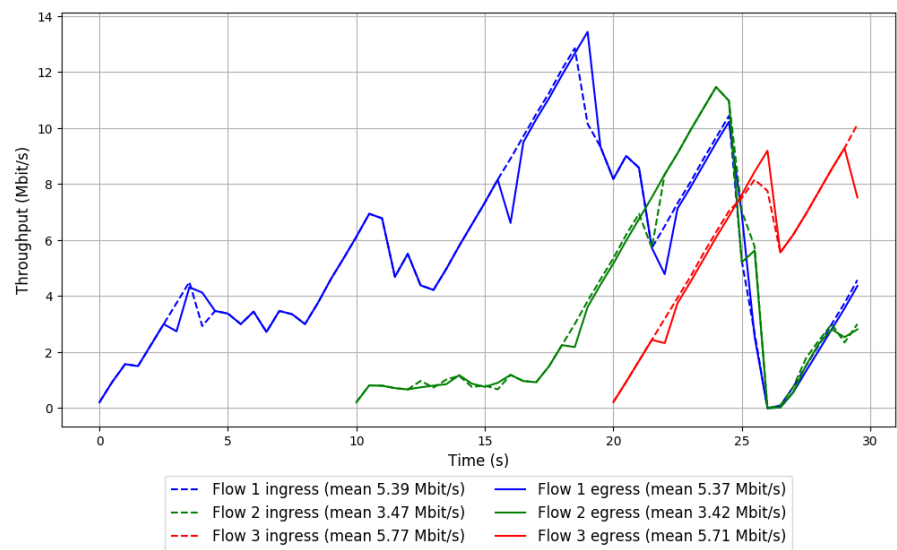


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-18 02:16:50
End at: 2018-01-18 02:17:20

# Below is generated by plot.py at 2018-01-18 07:55:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.51 Mbit/s
95th percentile per-packet one-way delay: 63.709 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 5.37 Mbit/s
95th percentile per-packet one-way delay: 63.727 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 63.585 ms
Loss rate: 2.02%
-- Flow 3:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 63.753 ms
Loss rate: 2.29%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-18 02:34:07

End at: 2018-01-18 02:34:37

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 64.405 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 5.45 Mbit/s

95th percentile per-packet one-way delay: 64.314 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 7.25 Mbit/s

95th percentile per-packet one-way delay: 64.520 ms

Loss rate: 1.06%

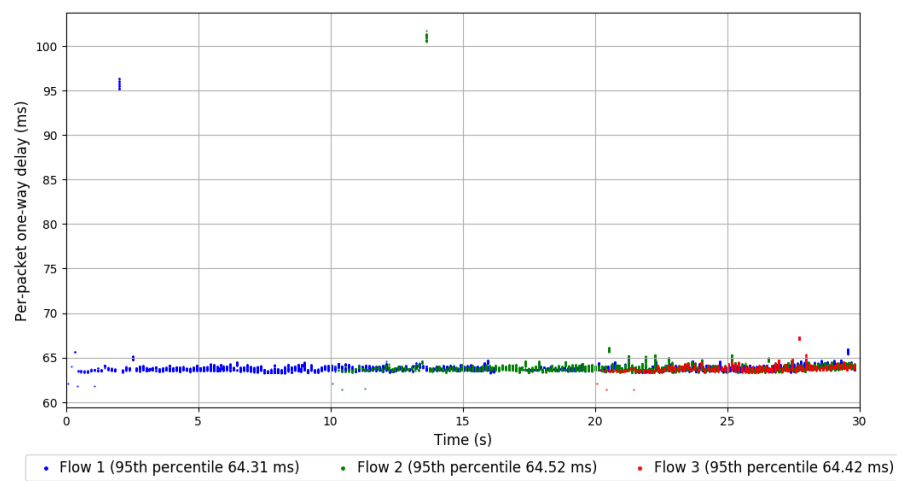
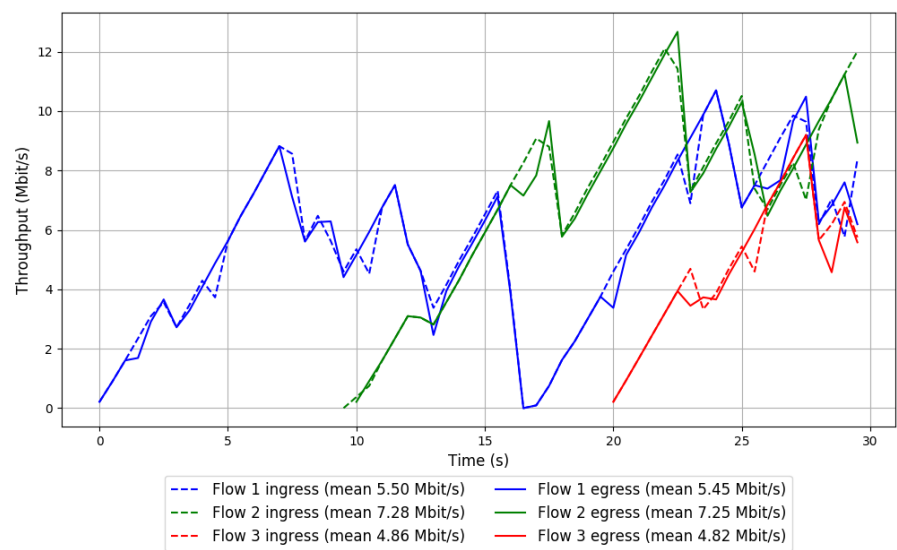
-- Flow 3:

Average throughput: 4.82 Mbit/s

95th percentile per-packet one-way delay: 64.418 ms

Loss rate: 2.06%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-18 02:51:46

End at: 2018-01-18 02:52:16

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.12 Mbit/s

95th percentile per-packet one-way delay: 64.715 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 6.43 Mbit/s

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

Loss rate: 0.90%

-- Flow 2:

Average throughput: 5.31 Mbit/s

95th percentile per-packet one-way delay: 64.683 ms

Loss rate: 1.64%

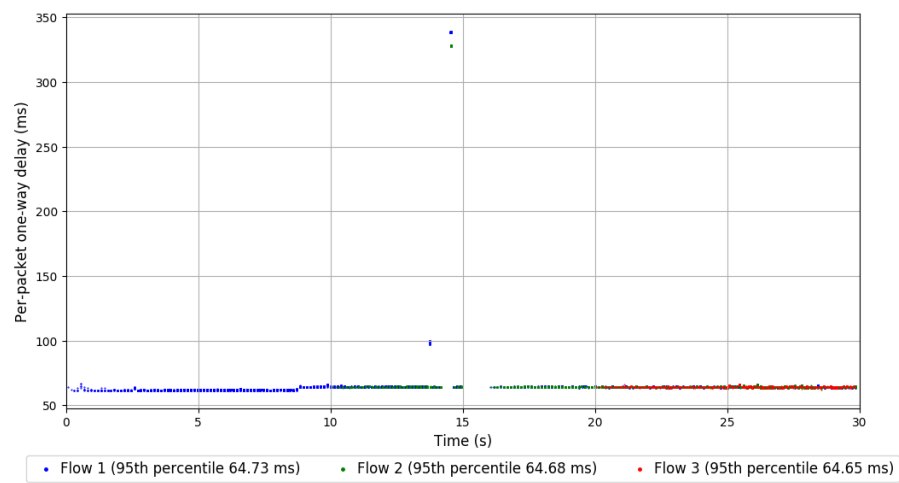
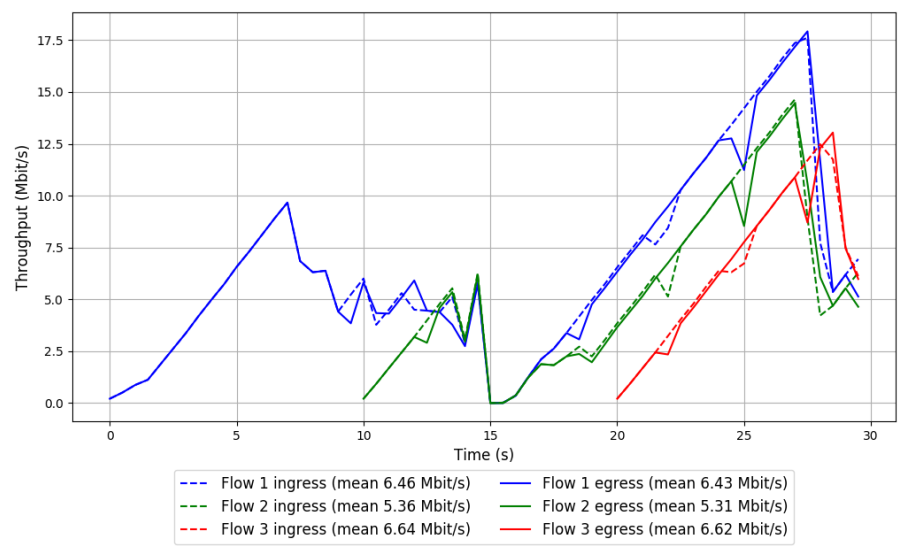
-- Flow 3:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 64.652 ms

Loss rate: 1.60%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-18 03:08:57

End at: 2018-01-18 03:09:27

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.18 Mbit/s

95th percentile per-packet one-way delay: 64.967 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 3.96 Mbit/s

95th percentile per-packet one-way delay: 64.915 ms

Loss rate: 2.52%

-- Flow 2:

Average throughput: 5.44 Mbit/s

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

Loss rate: 1.94%

-- Flow 3:

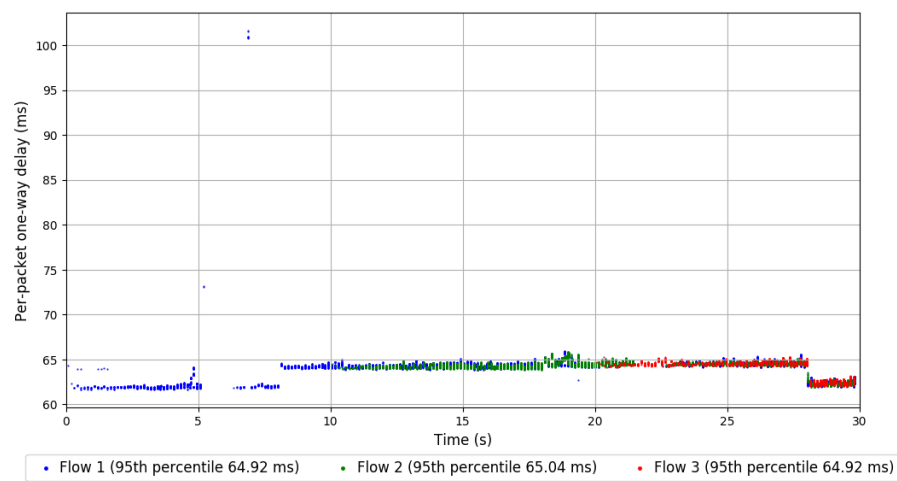
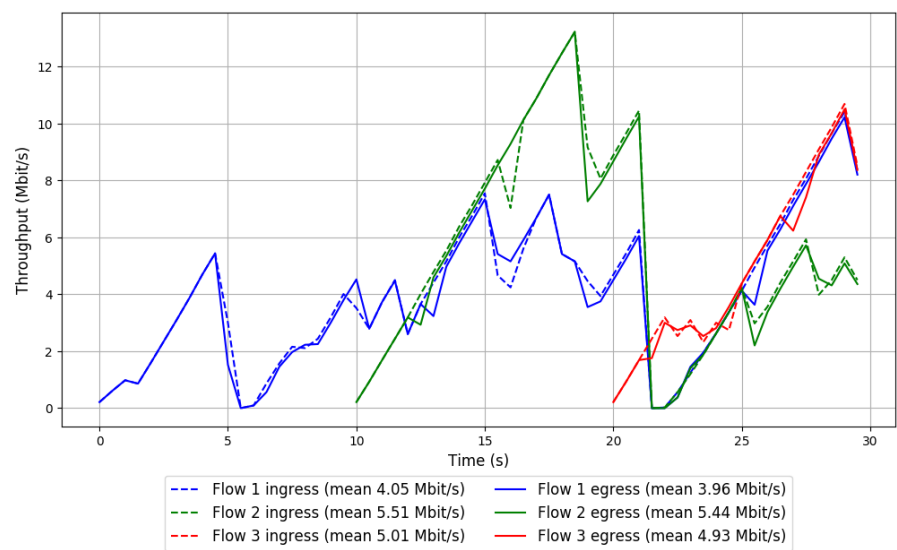
Average throughput: 4.93 Mbit/s

95th percentile per-packet one-way delay: 64.921 ms

Loss rate: 2.93%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-18 03:26:29

End at: 2018-01-18 03:26:59

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.46 Mbit/s

95th percentile per-packet one-way delay: 63.154 ms

Loss rate: 2.20%

-- Flow 1:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 63.155 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 8.03 Mbit/s

95th percentile per-packet one-way delay: 63.198 ms

Loss rate: 1.56%

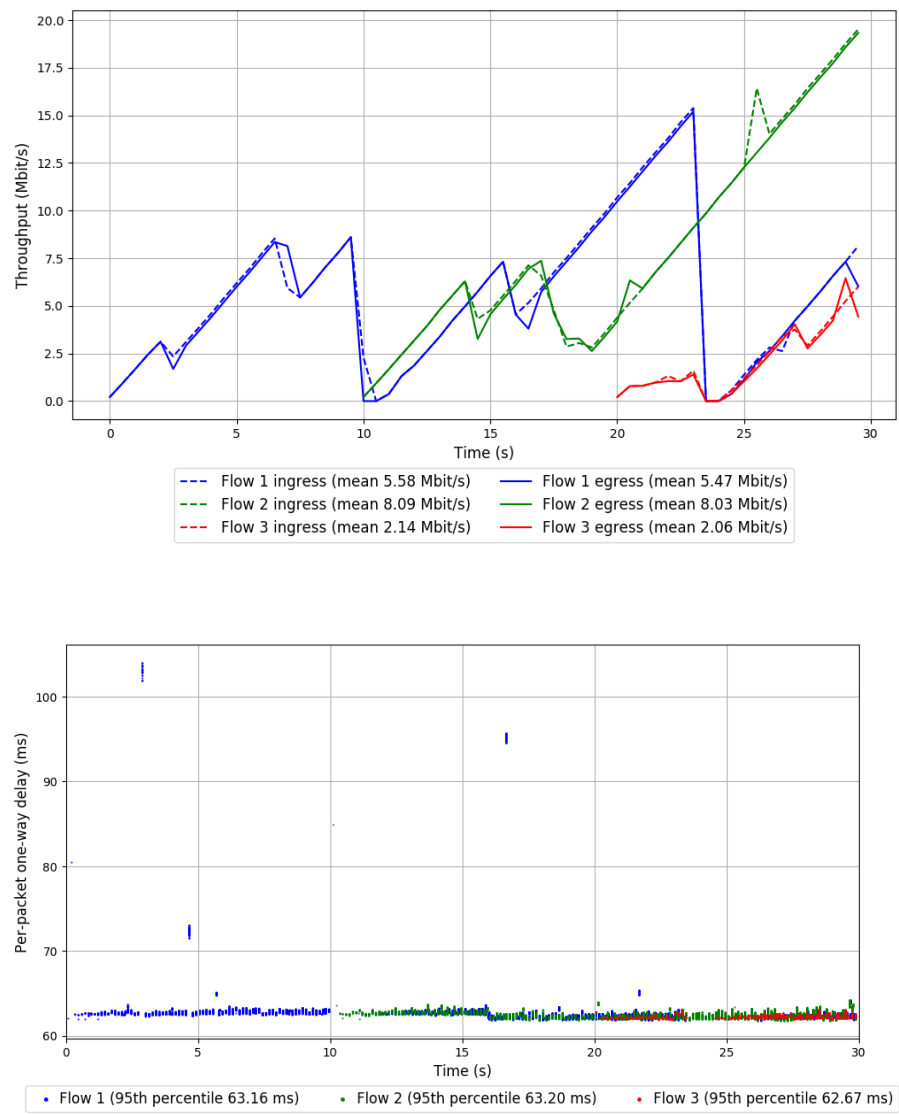
-- Flow 3:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 62.668 ms

Loss rate: 4.81%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-18 03:44:00

End at: 2018-01-18 03:44:30

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.10 Mbit/s

95th percentile per-packet one-way delay: 64.997 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 64.993 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 6.13 Mbit/s

95th percentile per-packet one-way delay: 64.978 ms

Loss rate: 2.79%

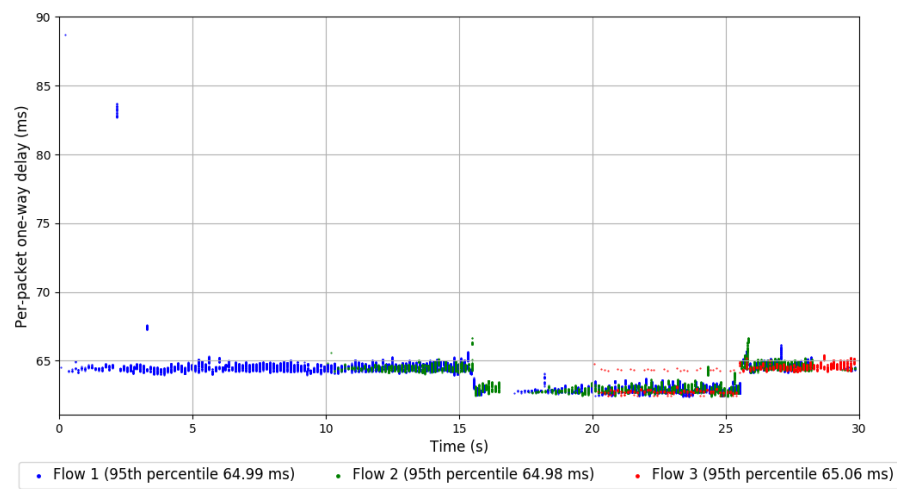
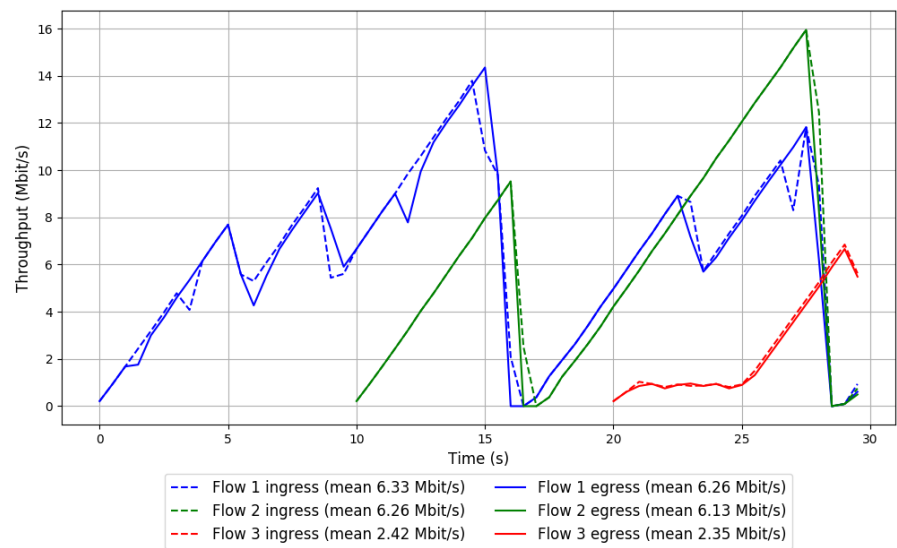
-- Flow 3:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 65.064 ms

Loss rate: 4.03%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-18 04:00:23

End at: 2018-01-18 04:00:53

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.82 Mbit/s

95th percentile per-packet one-way delay: 65.098 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 6.04 Mbit/s

95th percentile per-packet one-way delay: 65.121 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 8.49 Mbit/s

95th percentile per-packet one-way delay: 65.027 ms

Loss rate: 1.27%

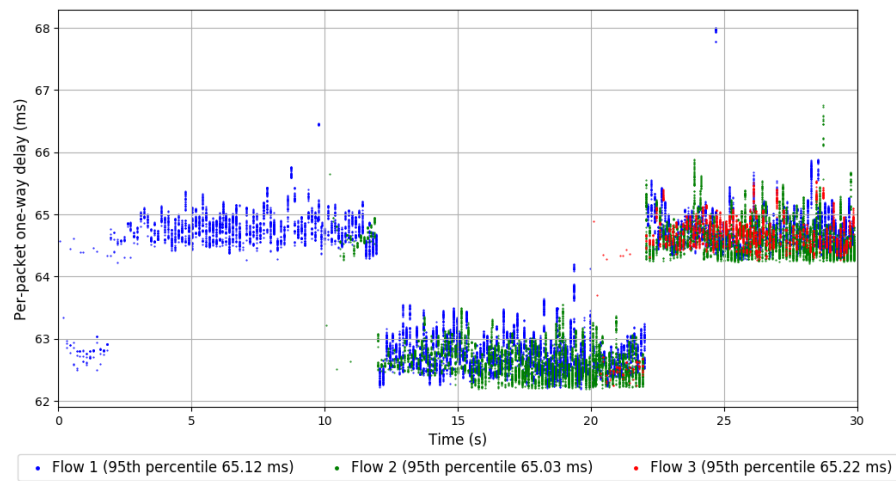
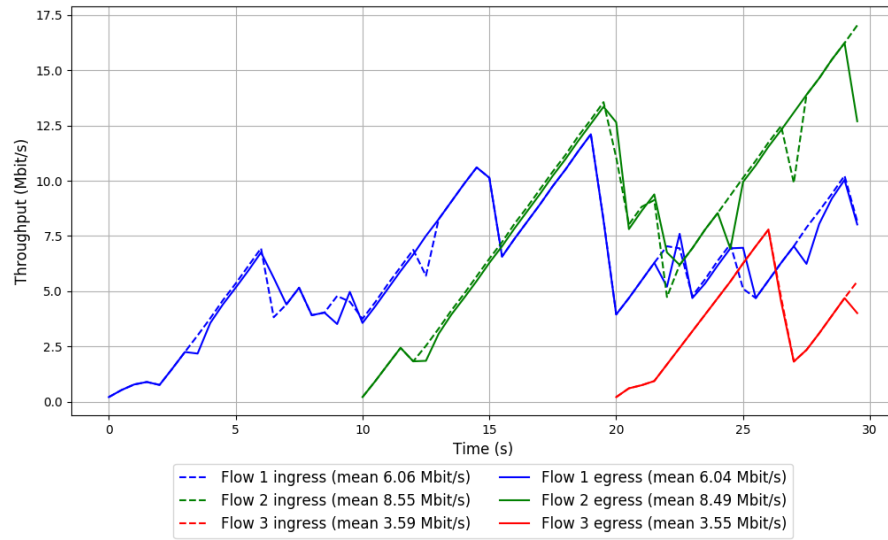
-- Flow 3:

Average throughput: 3.55 Mbit/s

95th percentile per-packet one-way delay: 65.216 ms

Loss rate: 2.28%

# Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-18 04:17:14

End at: 2018-01-18 04:17:44

# Below is generated by plot.py at 2018-01-18 07:55:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.72 Mbit/s

95th percentile per-packet one-way delay: 65.151 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 5.09 Mbit/s

95th percentile per-packet one-way delay: 65.167 ms

Loss rate: 1.97%

-- Flow 2:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 65.157 ms

Loss rate: 2.07%

-- Flow 3:

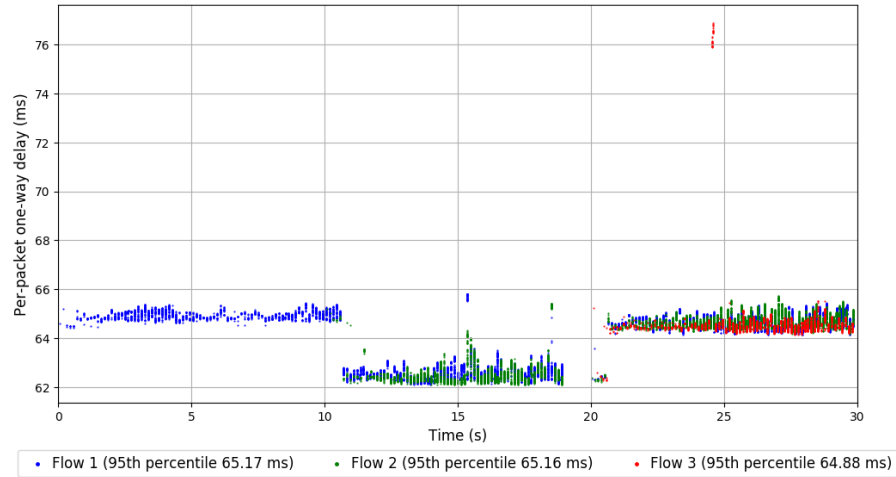
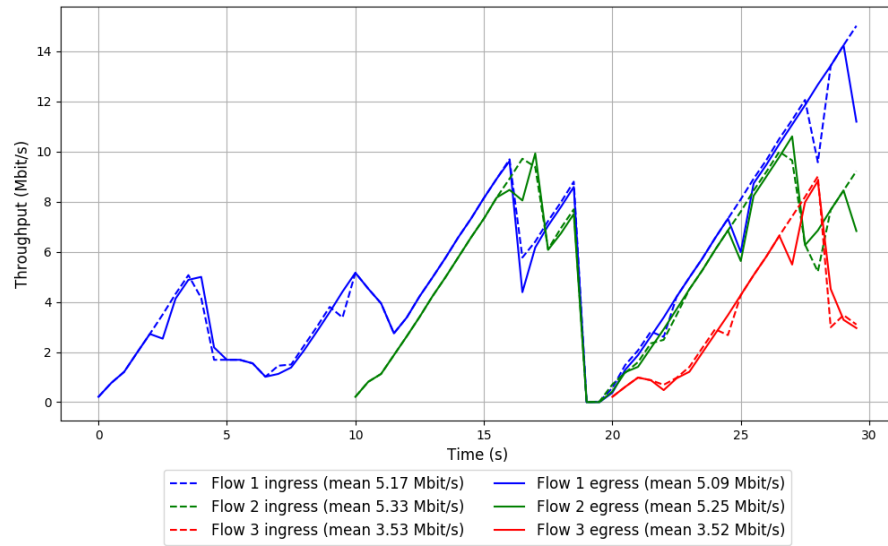
Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 64.875 ms

Loss rate: 1.62%



# Run 9: Report of LEDBAT — Data Link

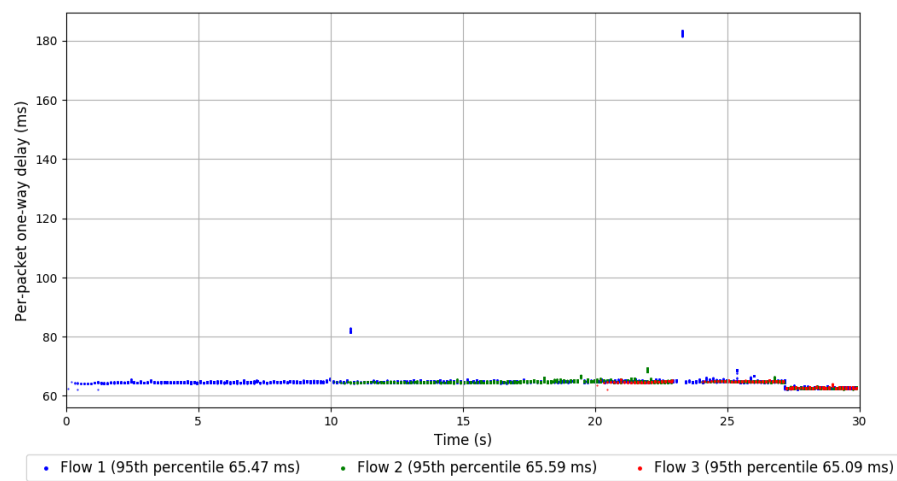
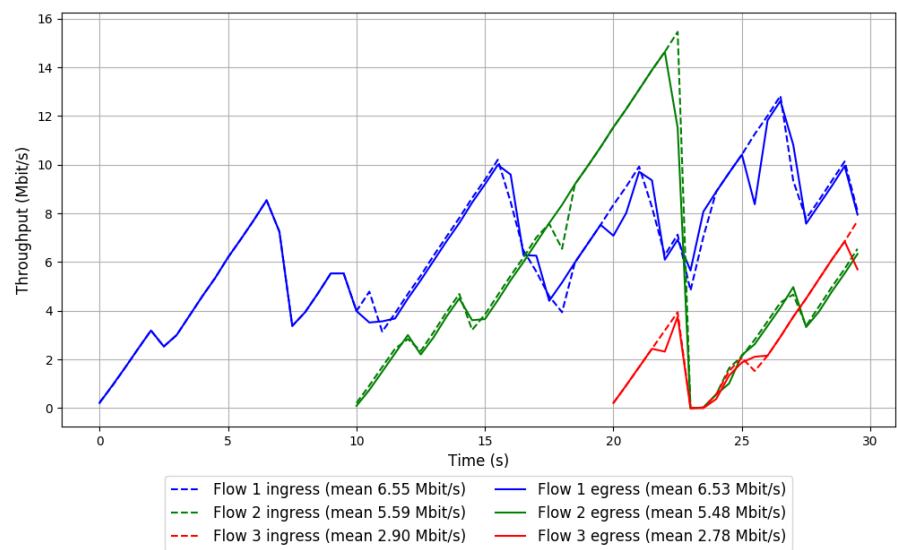


```
Run 10: Statistics of LEDBAT

Start at: 2018-01-18 04:34:38
End at: 2018-01-18 04:35:08

# Below is generated by plot.py at 2018-01-18 07:55:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 65.476 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 6.53 Mbit/s
95th percentile per-packet one-way delay: 65.472 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 5.48 Mbit/s
95th percentile per-packet one-way delay: 65.594 ms
Loss rate: 2.55%
-- Flow 3:
Average throughput: 2.78 Mbit/s
95th percentile per-packet one-way delay: 65.095 ms
Loss rate: 5.31%
```

Run 10: Report of LEDBAT — Data Link

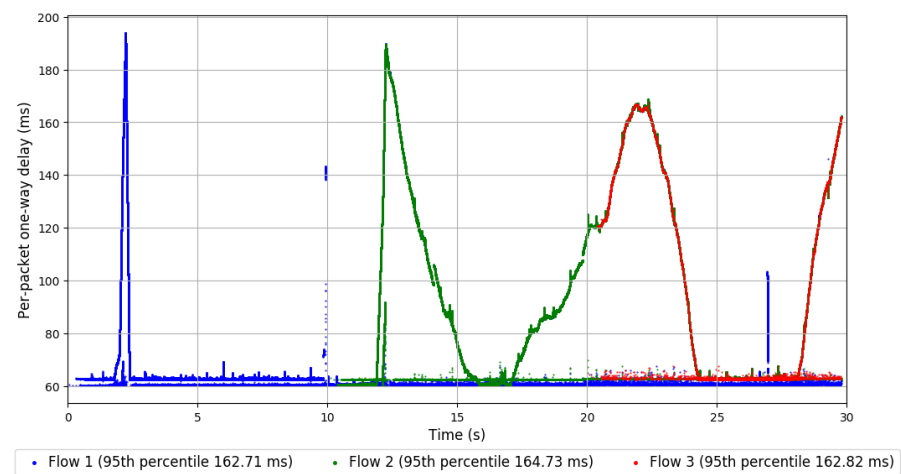
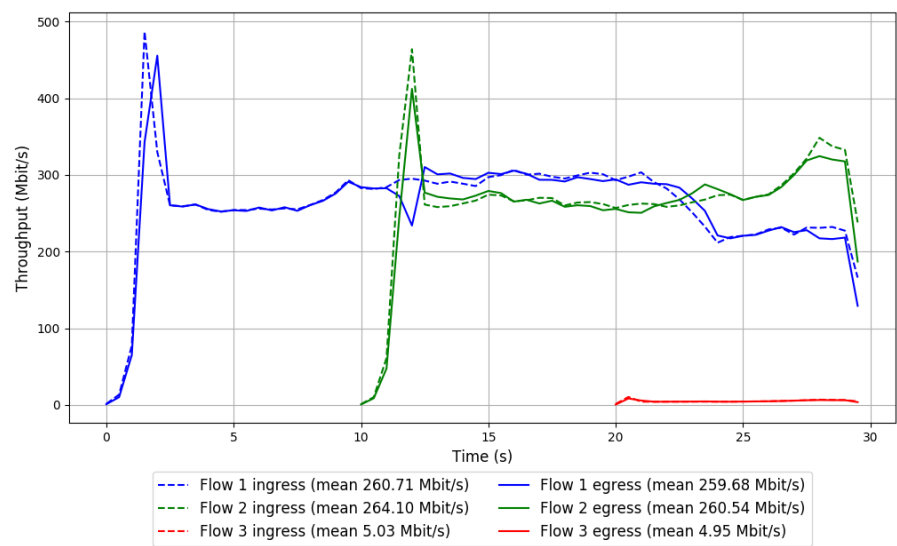


```
Run 1: Statistics of PCC

Start at: 2018-01-18 01:56:25
End at: 2018-01-18 01:56:55

# Below is generated by plot.py at 2018-01-18 08:01:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 433.66 Mbit/s
95th percentile per-packet one-way delay: 164.195 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 259.68 Mbit/s
95th percentile per-packet one-way delay: 162.714 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 260.54 Mbit/s
95th percentile per-packet one-way delay: 164.729 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 4.95 Mbit/s
95th percentile per-packet one-way delay: 162.823 ms
Loss rate: 2.91%
```

Run 1: Report of PCC — Data Link

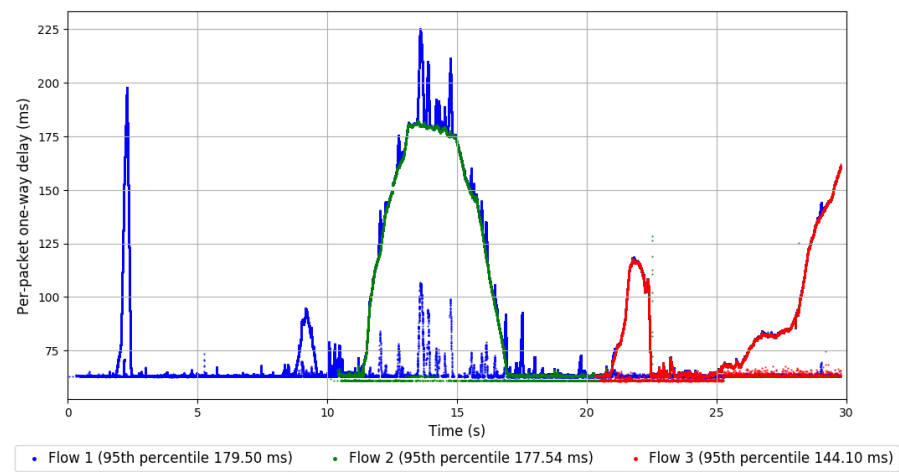
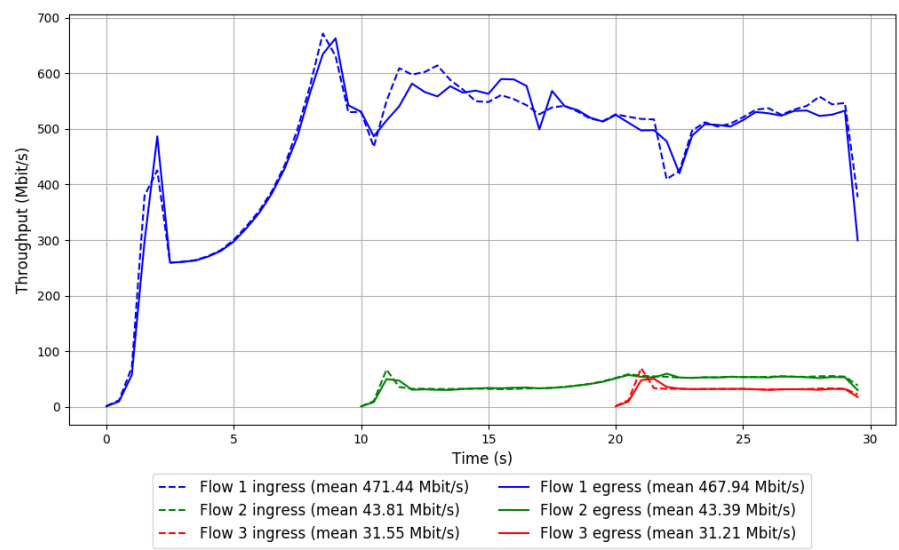


```
Run 2: Statistics of PCC

Start at: 2018-01-18 02:14:00
End at: 2018-01-18 02:14:30

# Below is generated by plot.py at 2018-01-18 08:03:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 506.83 Mbit/s
95th percentile per-packet one-way delay: 179.323 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 467.94 Mbit/s
95th percentile per-packet one-way delay: 179.499 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 43.39 Mbit/s
95th percentile per-packet one-way delay: 177.540 ms
Loss rate: 1.59%
-- Flow 3:
Average throughput: 31.21 Mbit/s
95th percentile per-packet one-way delay: 144.103 ms
Loss rate: 2.35%
```

Run 2: Report of PCC — Data Link



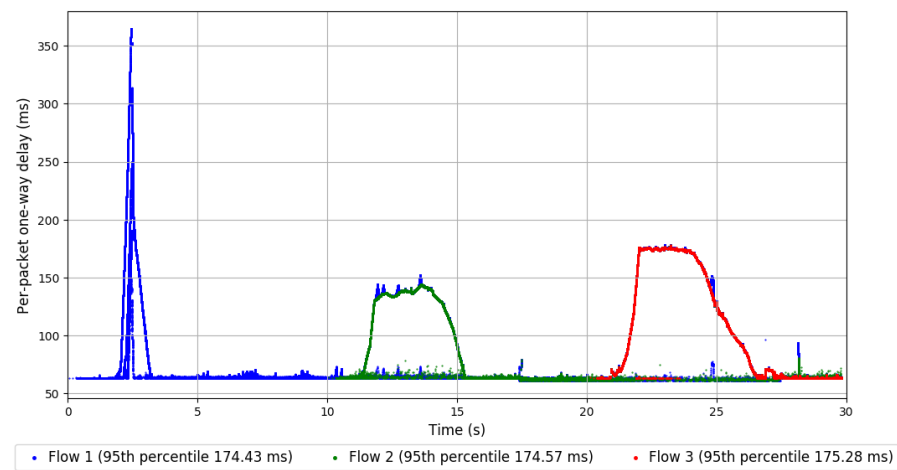
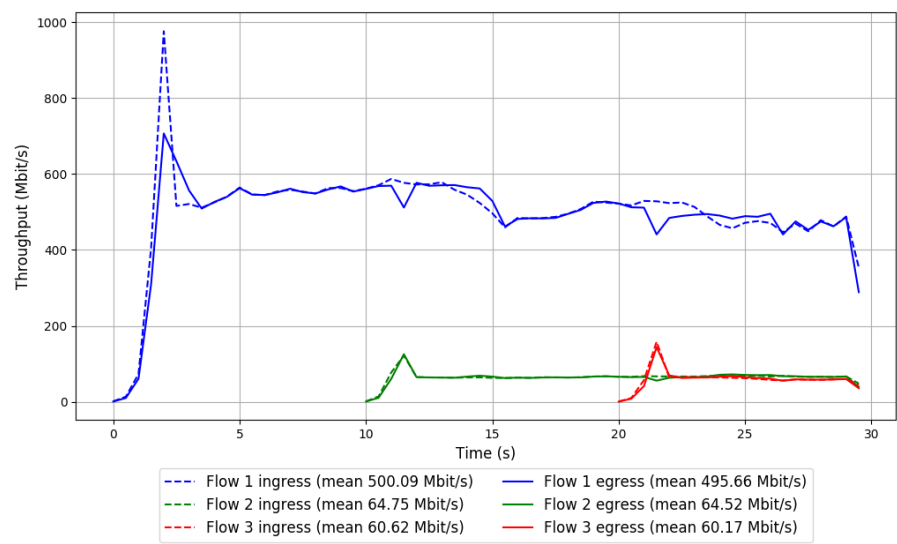
```
Run 3: Statistics of PCC

Start at: 2018-01-18 02:31:18
End at: 2018-01-18 02:31:48

# Below is generated by plot.py at 2018-01-18 08:03:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 558.04 Mbit/s
95th percentile per-packet one-way delay: 174.586 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 495.66 Mbit/s
95th percentile per-packet one-way delay: 174.431 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 64.52 Mbit/s
95th percentile per-packet one-way delay: 174.573 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 60.17 Mbit/s
95th percentile per-packet one-way delay: 175.279 ms
Loss rate: 2.05%
```



Run 3: Report of PCC — Data Link

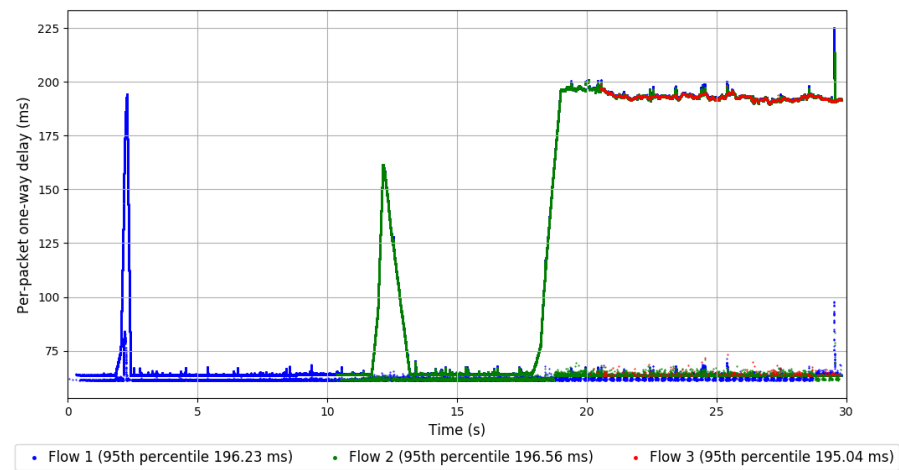
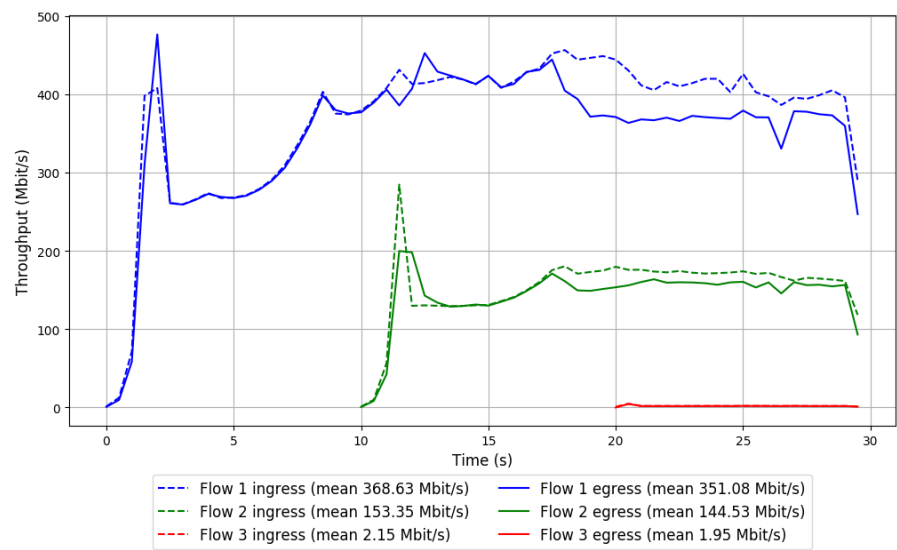


```
Run 4: Statistics of PCC

Start at: 2018-01-18 02:48:56
End at: 2018-01-18 02:49:26

# Below is generated by plot.py at 2018-01-18 08:03:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.48 Mbit/s
95th percentile per-packet one-way delay: 196.339 ms
Loss rate: 5.43%
-- Flow 1:
Average throughput: 351.08 Mbit/s
95th percentile per-packet one-way delay: 196.230 ms
Loss rate: 5.17%
-- Flow 2:
Average throughput: 144.53 Mbit/s
95th percentile per-packet one-way delay: 196.563 ms
Loss rate: 6.36%
-- Flow 3:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 195.038 ms
Loss rate: 10.55%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-01-18 03:06:06

End at: 2018-01-18 03:06:36

# Below is generated by plot.py at 2018-01-18 08:03:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 478.40 Mbit/s

95th percentile per-packet one-way delay: 143.553 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 455.41 Mbit/s

95th percentile per-packet one-way delay: 143.700 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 143.302 ms

Loss rate: 0.91%

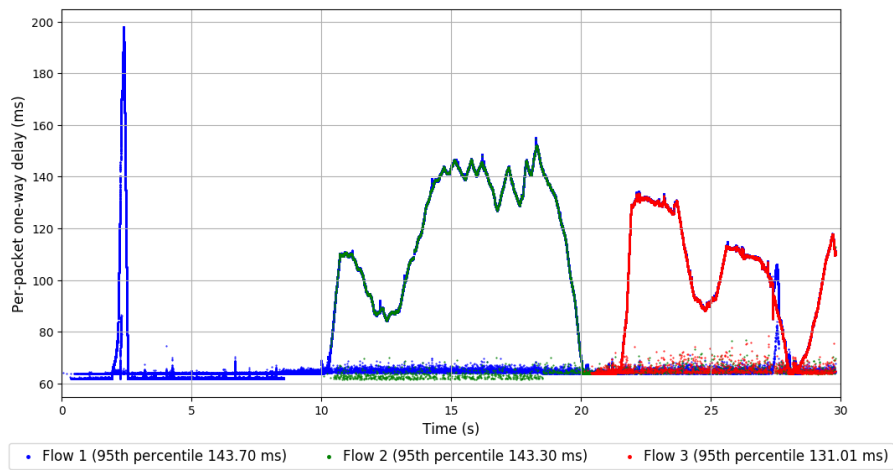
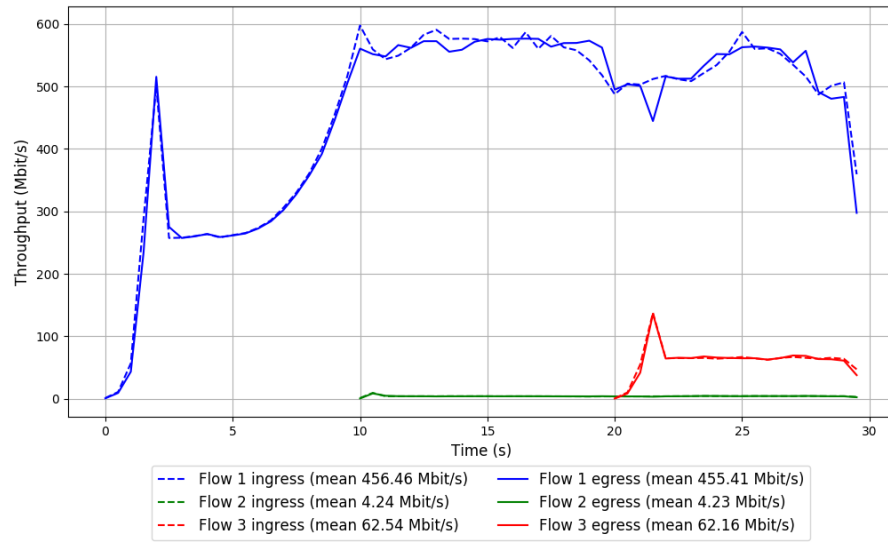
-- Flow 3:

Average throughput: 62.16 Mbit/s

95th percentile per-packet one-way delay: 131.007 ms

Loss rate: 1.91%

## Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-18 03:23:41

End at: 2018-01-18 03:24:11

# Below is generated by plot.py at 2018-01-18 08:03:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 475.64 Mbit/s

95th percentile per-packet one-way delay: 158.624 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 418.40 Mbit/s

95th percentile per-packet one-way delay: 156.867 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 70.07 Mbit/s

95th percentile per-packet one-way delay: 159.303 ms

Loss rate: 1.36%

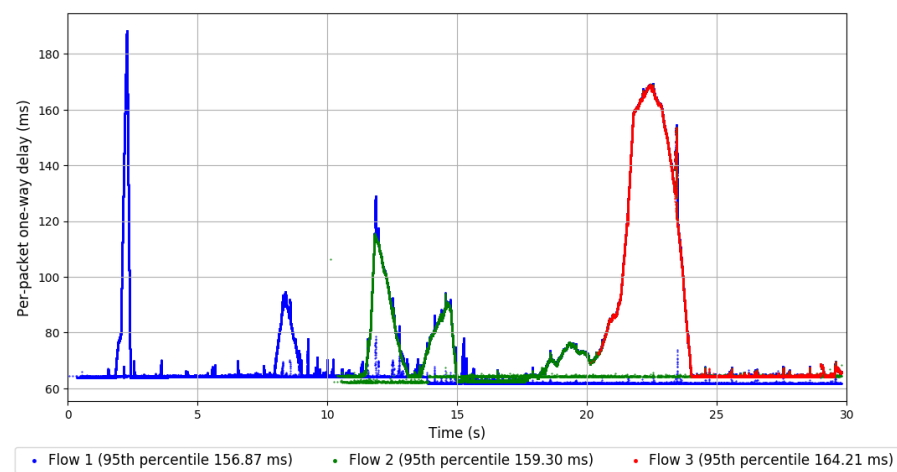
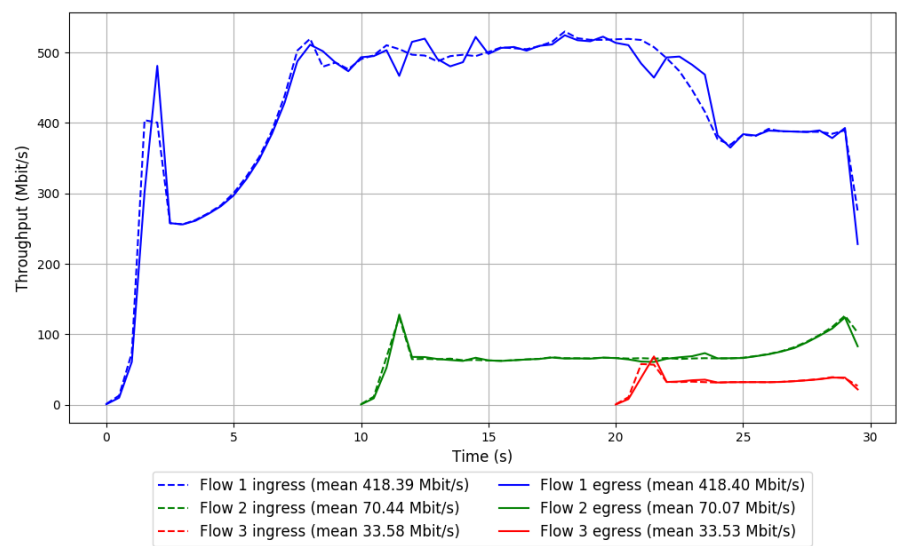
-- Flow 3:

Average throughput: 33.53 Mbit/s

95th percentile per-packet one-way delay: 164.209 ms

Loss rate: 1.50%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-18 03:41:15

End at: 2018-01-18 03:41:45

# Below is generated by plot.py at 2018-01-18 08:04:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 507.58 Mbit/s

95th percentile per-packet one-way delay: 172.456 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 462.26 Mbit/s

95th percentile per-packet one-way delay: 169.757 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 66.21 Mbit/s

95th percentile per-packet one-way delay: 179.864 ms

Loss rate: 1.39%

-- Flow 3:

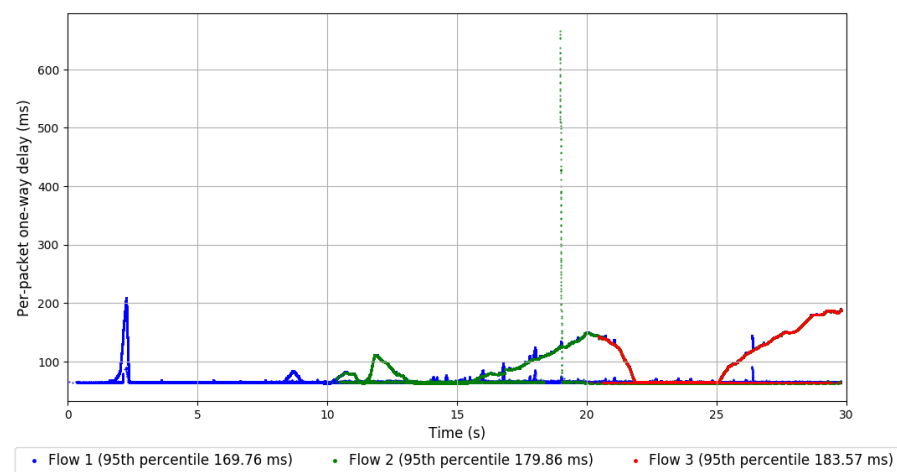
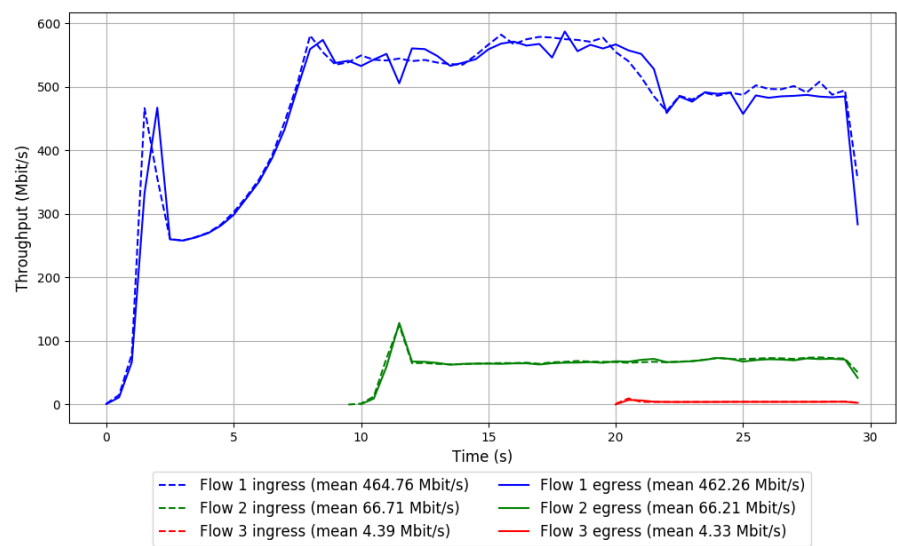
Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 183.575 ms

Loss rate: 2.65%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-18 03:57:30

End at: 2018-01-18 03:58:00

# Below is generated by plot.py at 2018-01-18 08:05:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 557.45 Mbit/s

95th percentile per-packet one-way delay: 180.696 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 513.41 Mbit/s

95th percentile per-packet one-way delay: 182.495 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 35.44 Mbit/s

95th percentile per-packet one-way delay: 177.314 ms

Loss rate: 1.66%

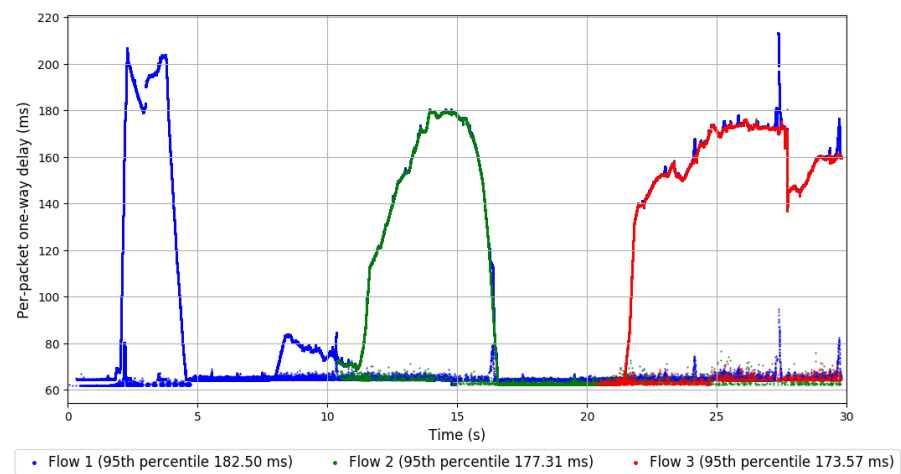
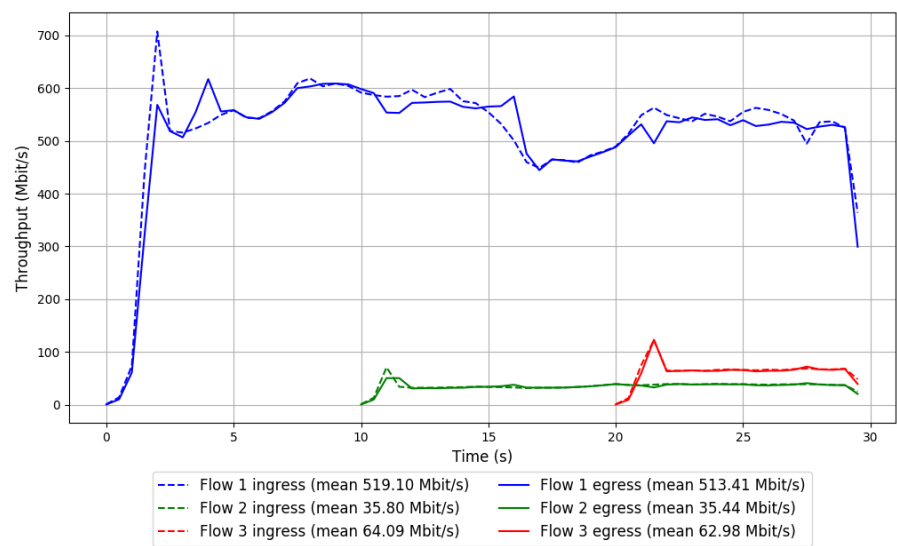
-- Flow 3:

Average throughput: 62.98 Mbit/s

95th percentile per-packet one-way delay: 173.573 ms

Loss rate: 3.00%

Run 8: Report of PCC — Data Link

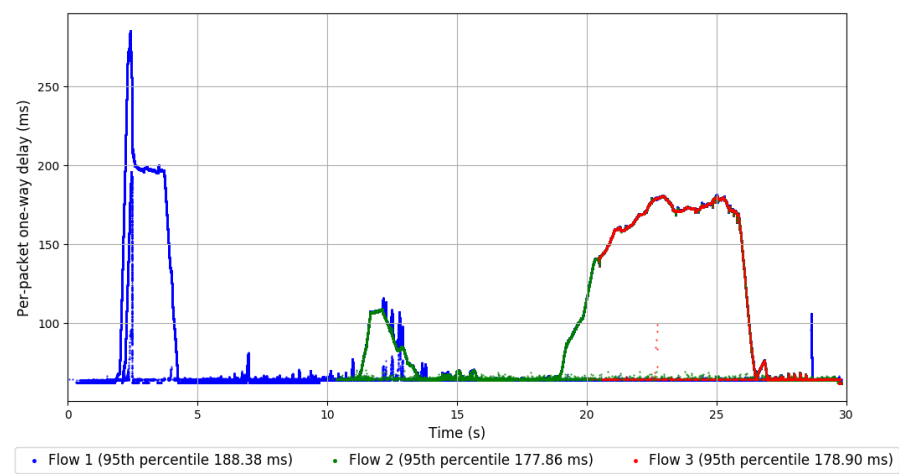
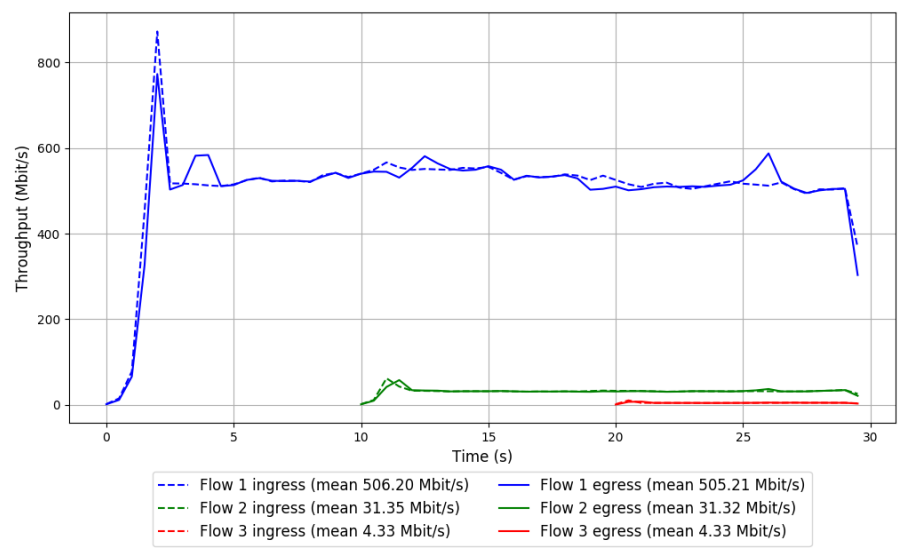


```
Run 9: Statistics of PCC

Start at: 2018-01-18 04:14:25
End at: 2018-01-18 04:14:55

# Below is generated by plot.py at 2018-01-18 08:11:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.39 Mbit/s
95th percentile per-packet one-way delay: 181.824 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 505.21 Mbit/s
95th percentile per-packet one-way delay: 188.382 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 31.32 Mbit/s
95th percentile per-packet one-way delay: 177.857 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 4.33 Mbit/s
95th percentile per-packet one-way delay: 178.901 ms
Loss rate: 1.28%
```

Run 9: Report of PCC — Data Link

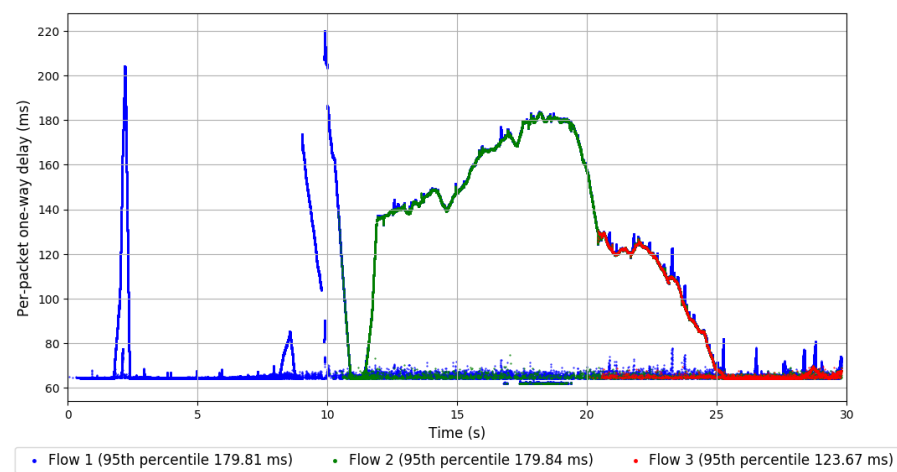
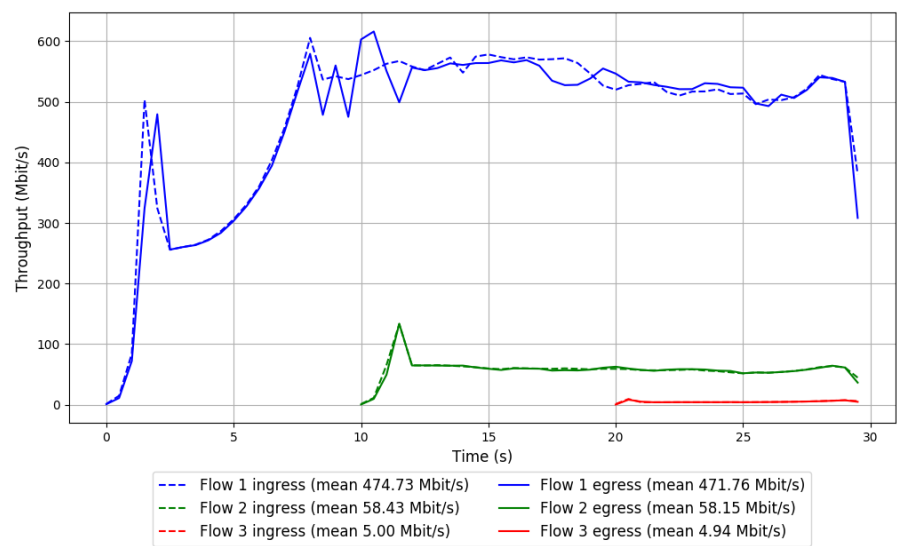


```
Run 10: Statistics of PCC

Start at: 2018-01-18 04:31:52
End at: 2018-01-18 04:32:22

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.94 Mbit/s
95th percentile per-packet one-way delay: 179.804 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 471.76 Mbit/s
95th percentile per-packet one-way delay: 179.807 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 58.15 Mbit/s
95th percentile per-packet one-way delay: 179.843 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 123.670 ms
Loss rate: 2.34%
```

Run 10: Report of PCC — Data Link



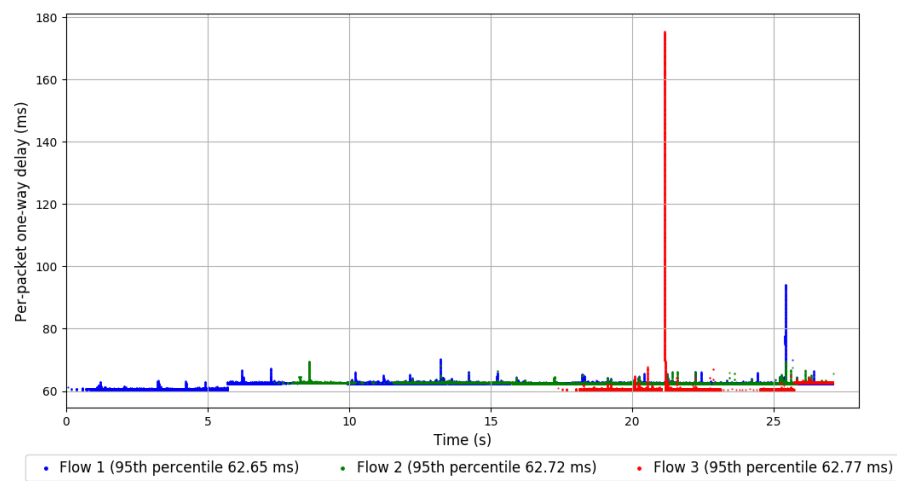
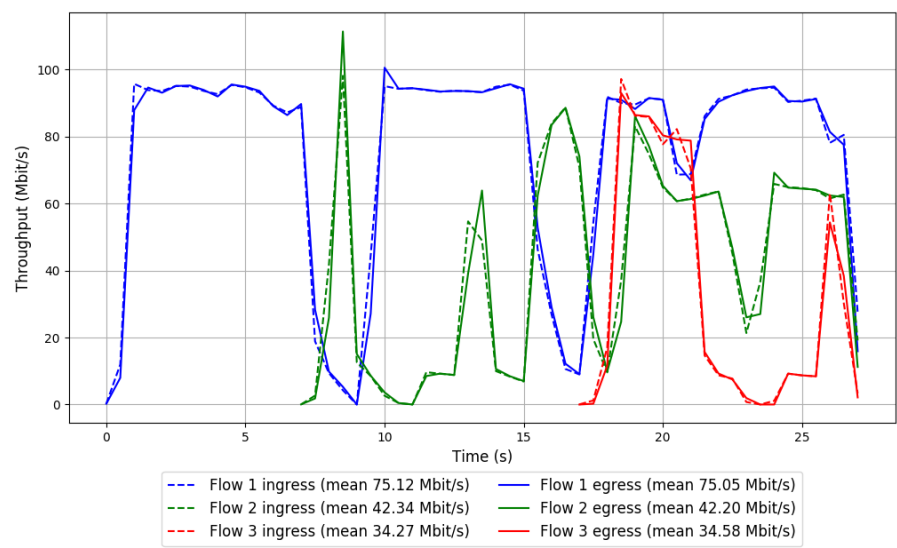
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-18 01:50:26
End at: 2018-01-18 01:50:57

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.25 Mbit/s
95th percentile per-packet one-way delay: 62.692 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 75.05 Mbit/s
95th percentile per-packet one-way delay: 62.652 ms
Loss rate: 0.56%
-- Flow 2:
Average throughput: 42.20 Mbit/s
95th percentile per-packet one-way delay: 62.723 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 34.58 Mbit/s
95th percentile per-packet one-way delay: 62.774 ms
Loss rate: 0.41%
```



Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-18 02:07:56

End at: 2018-01-18 02:08:26

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 108.00 Mbit/s

95th percentile per-packet one-way delay: 62.970 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 57.98 Mbit/s

95th percentile per-packet one-way delay: 62.999 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 43.15 Mbit/s

95th percentile per-packet one-way delay: 60.834 ms

Loss rate: 0.97%

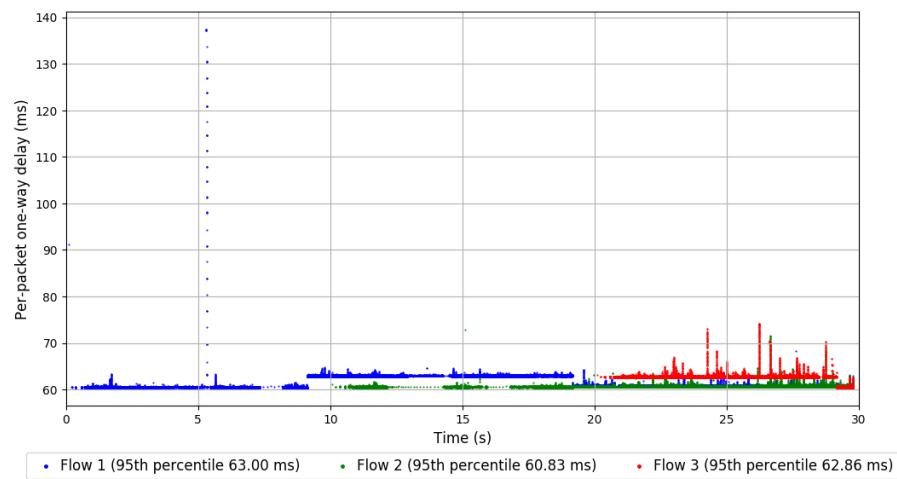
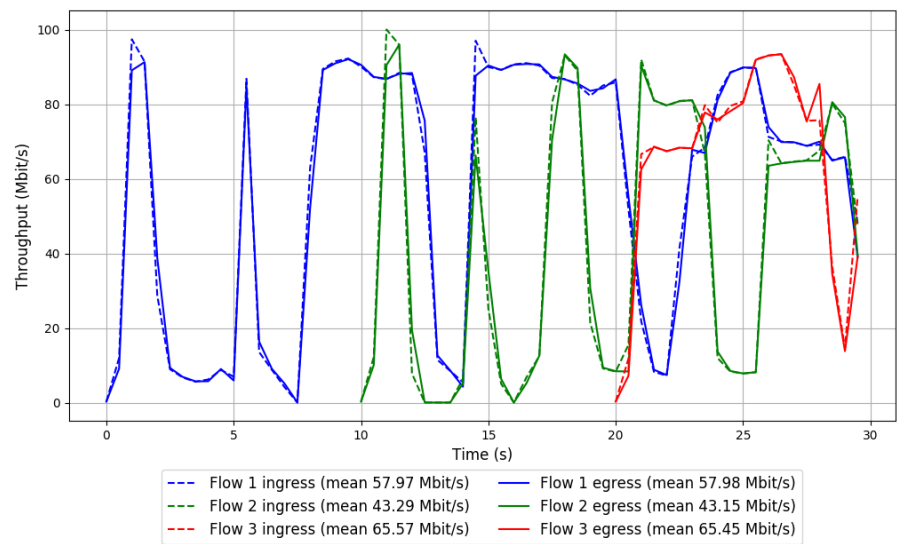
-- Flow 3:

Average throughput: 65.45 Mbit/s

95th percentile per-packet one-way delay: 62.860 ms

Loss rate: 1.47%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-18 02:25:28

End at: 2018-01-18 02:25:58

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 119.20 Mbit/s

95th percentile per-packet one-way delay: 63.463 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 67.21 Mbit/s

95th percentile per-packet one-way delay: 63.492 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 61.31 Mbit/s

95th percentile per-packet one-way delay: 63.318 ms

Loss rate: 0.07%

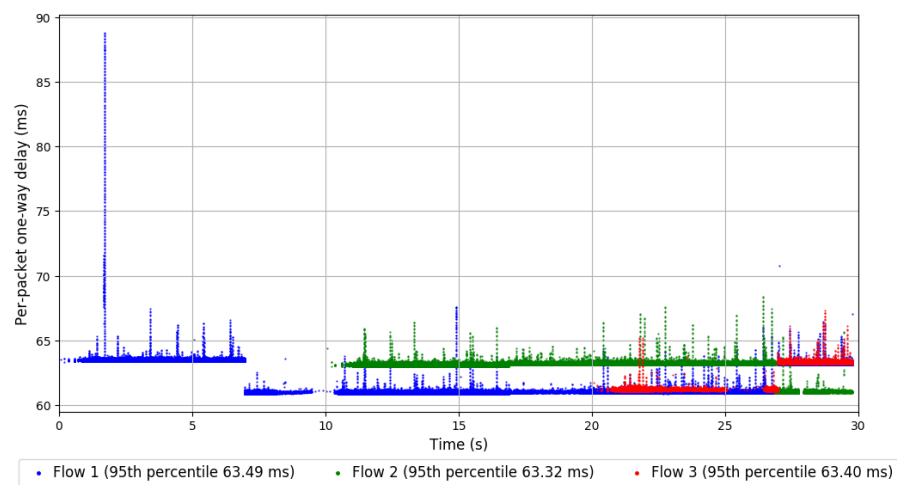
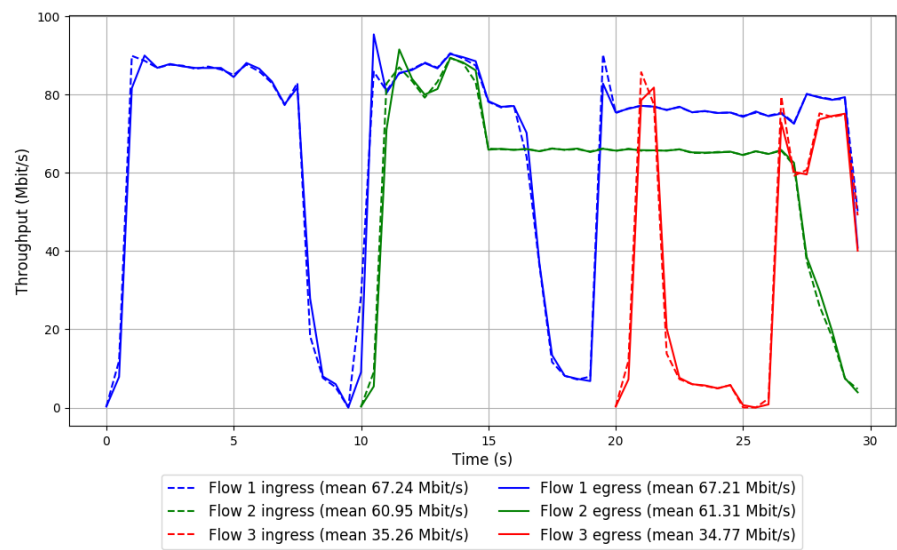
-- Flow 3:

Average throughput: 34.77 Mbit/s

95th percentile per-packet one-way delay: 63.396 ms

Loss rate: 2.65%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-18 02:42:58

End at: 2018-01-18 02:43:28

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.45 Mbit/s

95th percentile per-packet one-way delay: 63.626 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 67.13 Mbit/s

95th percentile per-packet one-way delay: 63.325 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 61.93 Mbit/s

95th percentile per-packet one-way delay: 63.683 ms

Loss rate: 0.06%

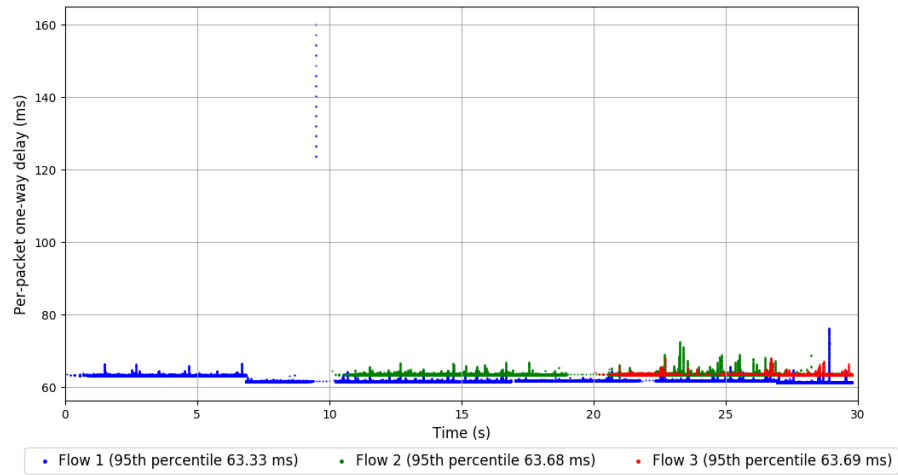
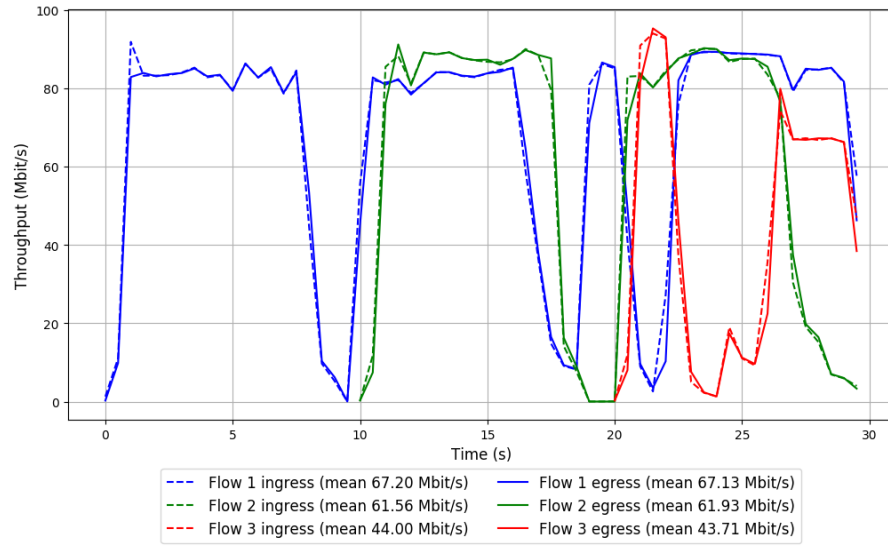
-- Flow 3:

Average throughput: 43.71 Mbit/s

95th percentile per-packet one-way delay: 63.685 ms

Loss rate: 1.96%

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



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-18 03:00:34

End at: 2018-01-18 03:01:04

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 113.30 Mbit/s

95th percentile per-packet one-way delay: 63.921 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 56.91 Mbit/s

95th percentile per-packet one-way delay: 63.944 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 53.34 Mbit/s

95th percentile per-packet one-way delay: 61.824 ms

Loss rate: 0.87%

-- Flow 3:

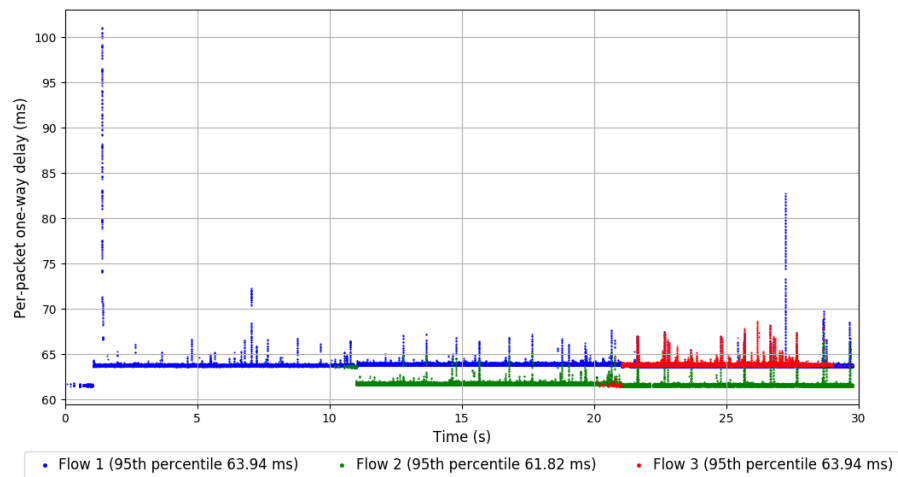
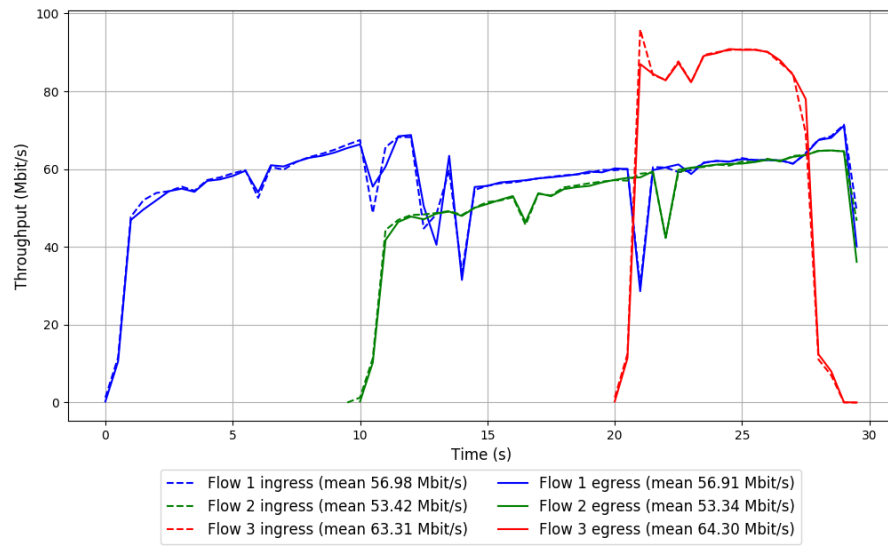
Average throughput: 64.30 Mbit/s

95th percentile per-packet one-way delay: 63.940 ms

Loss rate: 0.00%



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



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-18 03:17:45

End at: 2018-01-18 03:18:15

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.65 Mbit/s

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

Loss rate: 0.35%

-- Flow 1:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 64.395 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 60.76 Mbit/s

95th percentile per-packet one-way delay: 64.318 ms

Loss rate: 0.11%

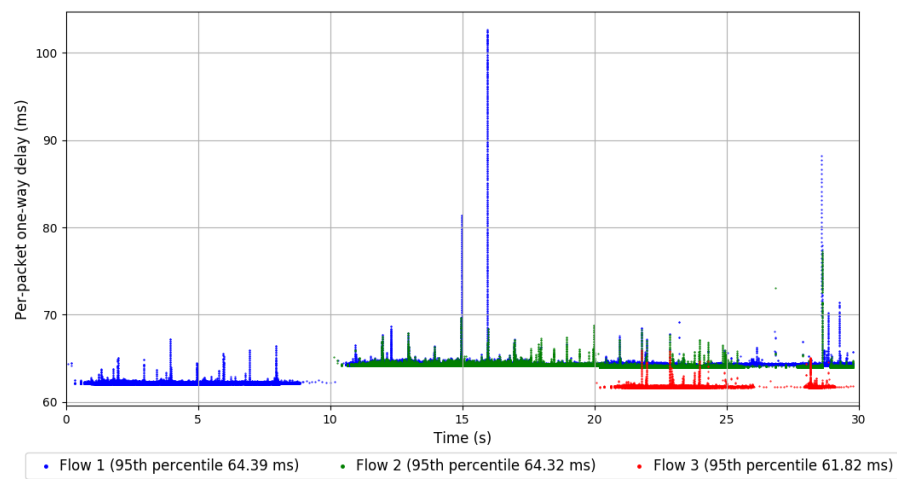
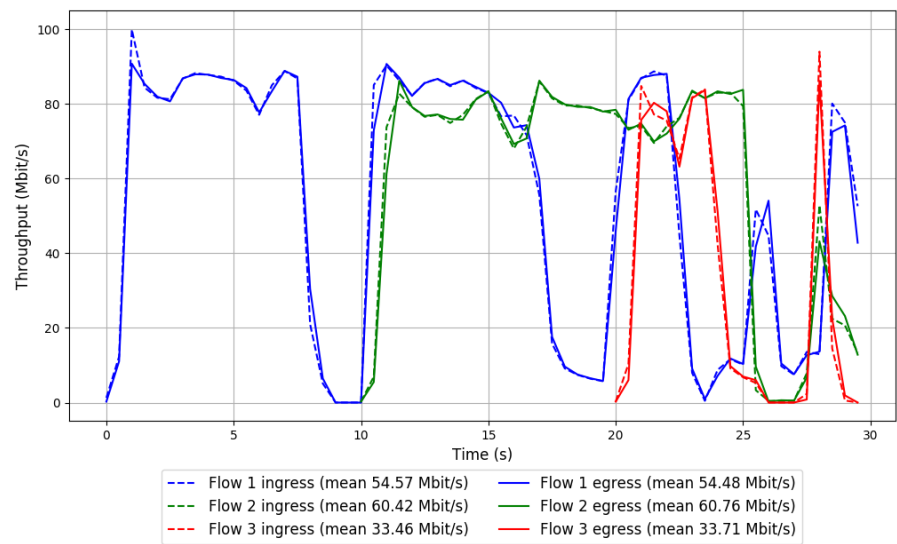
-- Flow 3:

Average throughput: 33.71 Mbit/s

95th percentile per-packet one-way delay: 61.823 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-18 03:35:19

End at: 2018-01-18 03:35:49

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.31 Mbit/s

95th percentile per-packet one-way delay: 64.476 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 51.06 Mbit/s

95th percentile per-packet one-way delay: 64.505 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 60.63 Mbit/s

95th percentile per-packet one-way delay: 64.200 ms

Loss rate: 0.20%

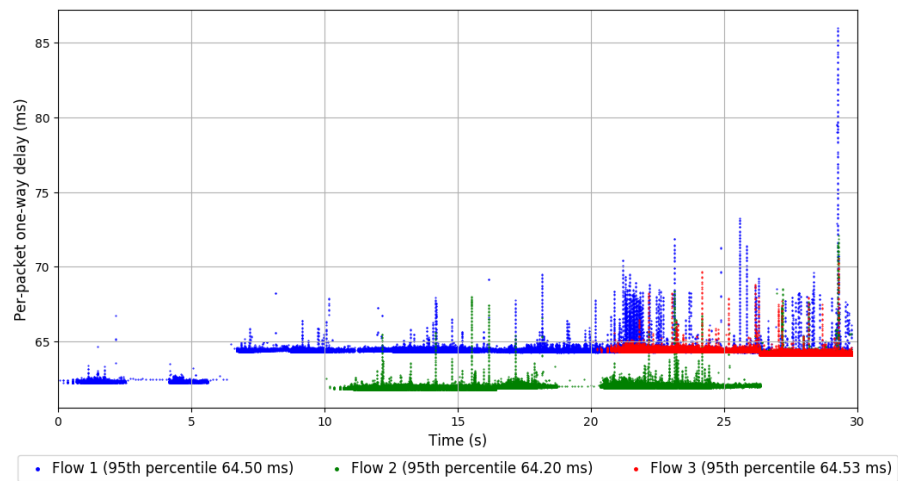
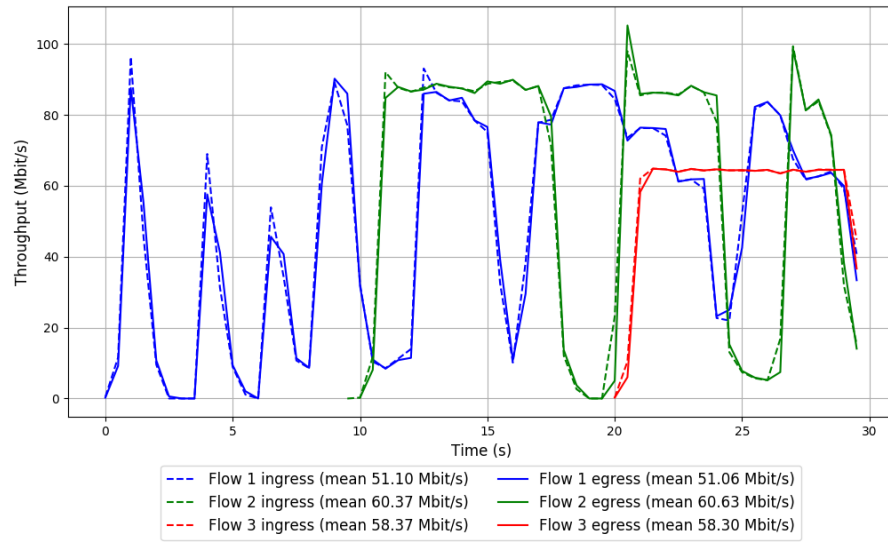
-- Flow 3:

Average throughput: 58.30 Mbit/s

95th percentile per-packet one-way delay: 64.535 ms

Loss rate: 1.43%

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



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-18 03:51:47

End at: 2018-01-18 03:52:17

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.09 Mbit/s

95th percentile per-packet one-way delay: 64.369 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 61.65 Mbit/s

95th percentile per-packet one-way delay: 64.349 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.50 Mbit/s

95th percentile per-packet one-way delay: 64.361 ms

Loss rate: 0.17%

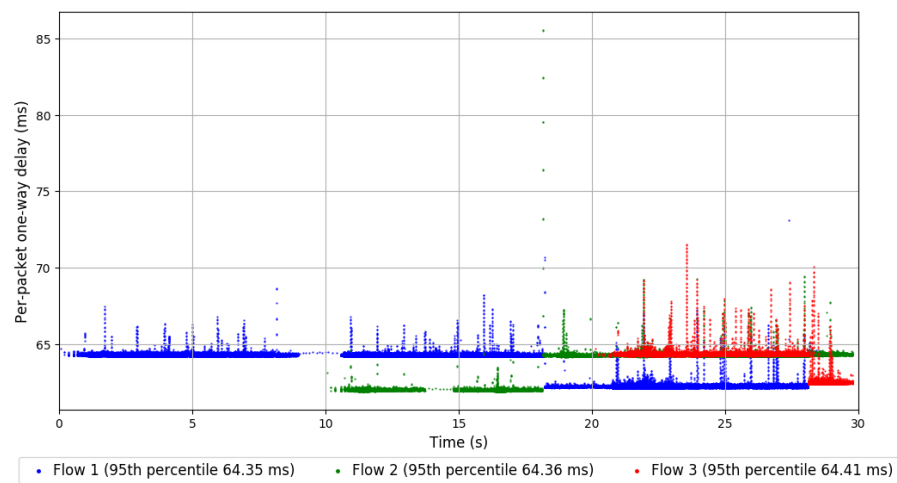
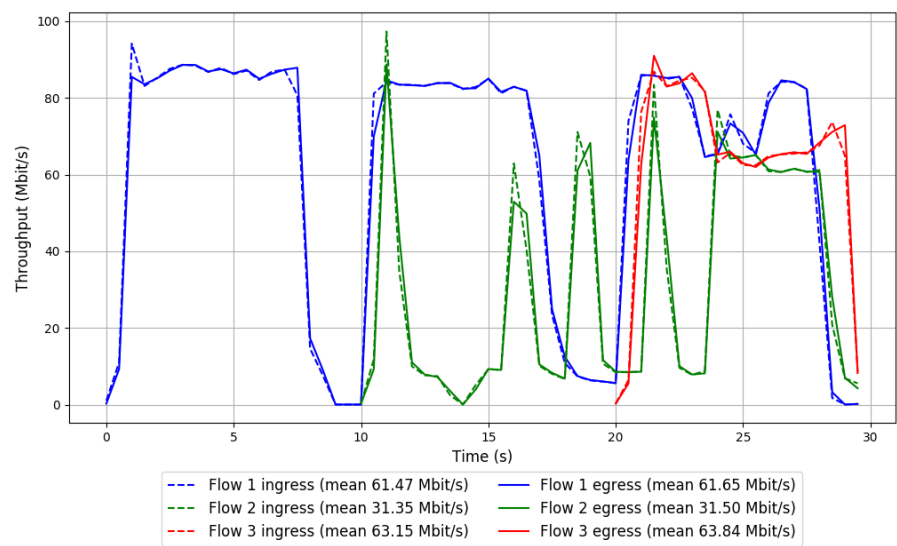
-- Flow 3:

Average throughput: 63.84 Mbit/s

95th percentile per-packet one-way delay: 64.412 ms

Loss rate: 0.21%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-18 04:08:36

End at: 2018-01-18 04:09:06

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.26 Mbit/s

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

Loss rate: 0.45%

-- Flow 1:

Average throughput: 63.74 Mbit/s

95th percentile per-packet one-way delay: 64.558 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 61.07 Mbit/s

95th percentile per-packet one-way delay: 64.337 ms

Loss rate: 0.07%

-- Flow 3:

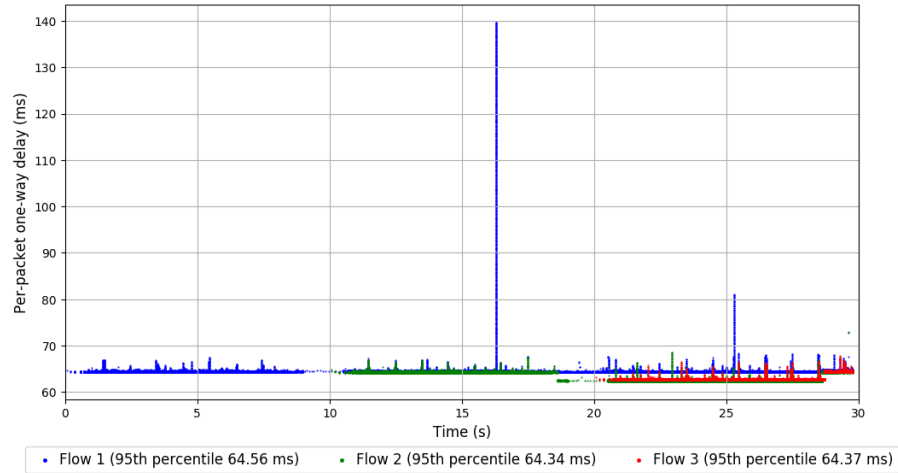
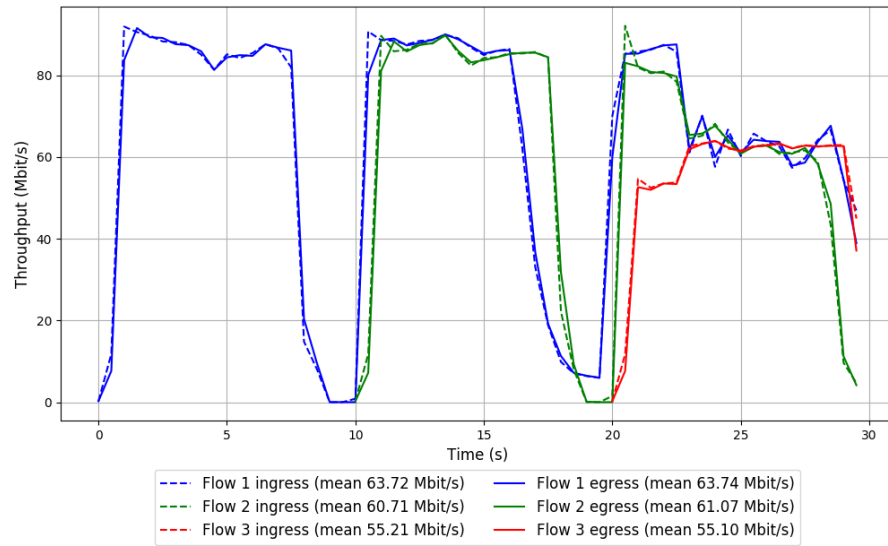
Average throughput: 55.10 Mbit/s

95th percentile per-packet one-way delay: 64.372 ms

Loss rate: 1.48%



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



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-18 04:26:04

End at: 2018-01-18 04:26:34

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.13 Mbit/s

95th percentile per-packet one-way delay: 64.624 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 69.99 Mbit/s

95th percentile per-packet one-way delay: 62.488 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 48.81 Mbit/s

95th percentile per-packet one-way delay: 64.704 ms

Loss rate: 0.85%

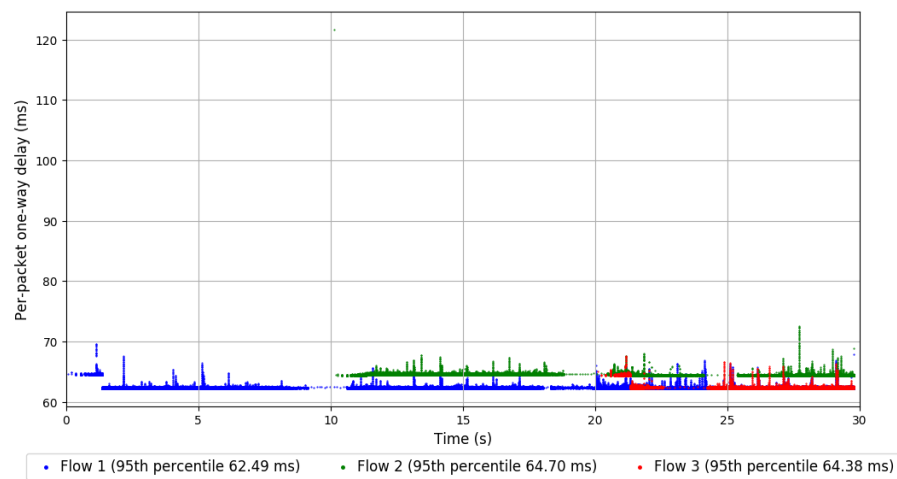
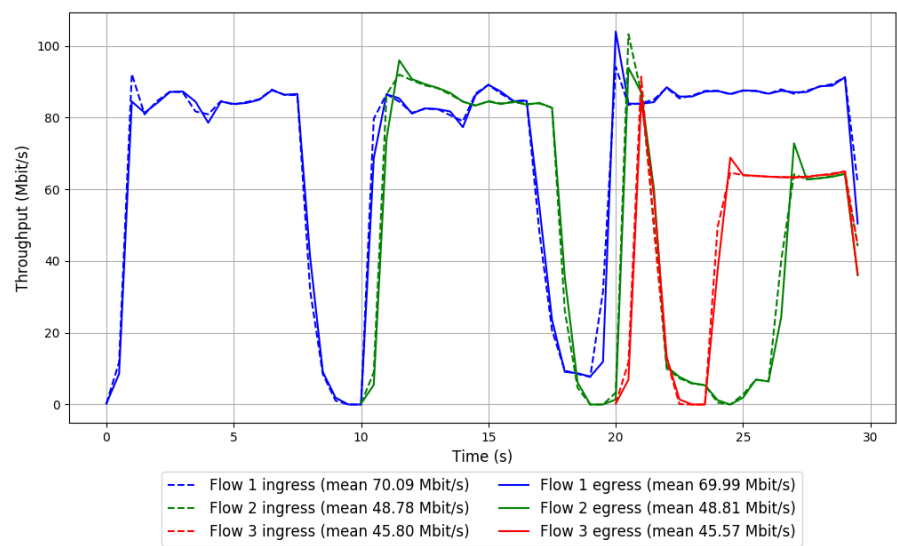
-- Flow 3:

Average throughput: 45.57 Mbit/s

95th percentile per-packet one-way delay: 64.376 ms

Loss rate: 1.81%

Run 10: Report of QUIC Cubic — Data Link

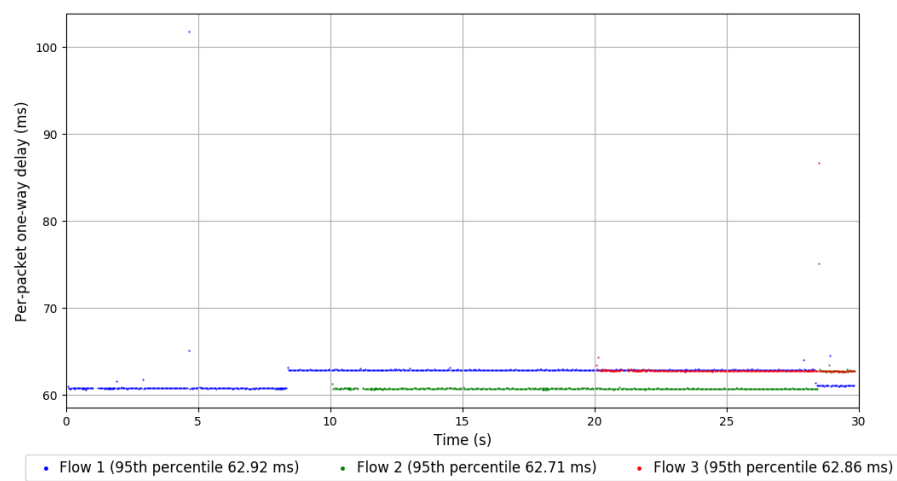
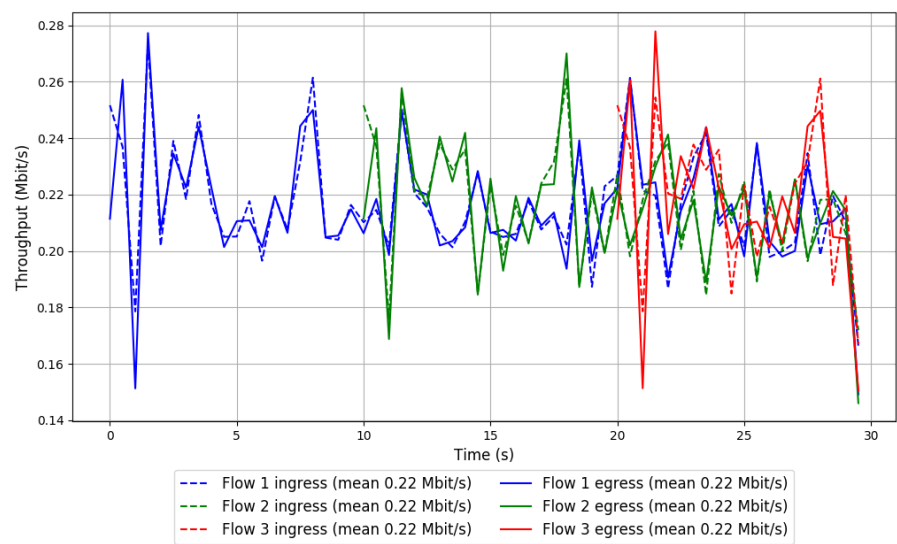


```
Run 1: Statistics of SCReAM

Start at: 2018-01-18 02:01:27
End at: 2018-01-18 02:01:57

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 62.904 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.916 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.709 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.856 ms
Loss rate: 1.10%
```

Run 1: Report of SReAM — Data Link

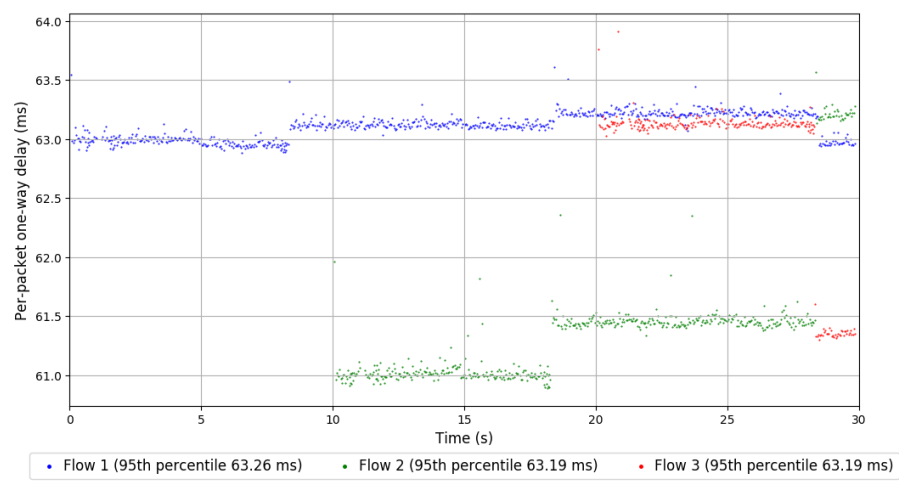
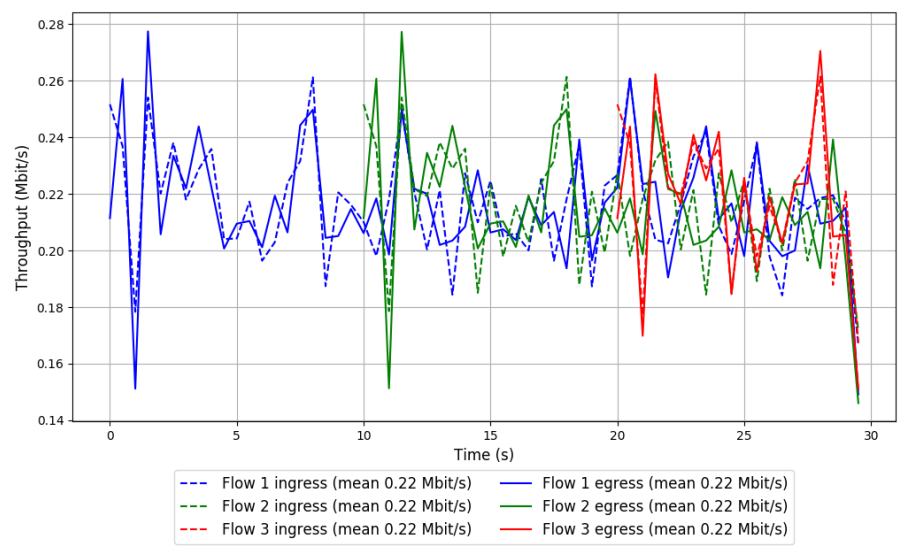


```
Run 2: Statistics of SCReAM

Start at: 2018-01-18 02:19:27
End at: 2018-01-18 02:19:57

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.240 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.256 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.190 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.190 ms
Loss rate: 1.10%
```

Run 2: Report of SReAM — Data Link



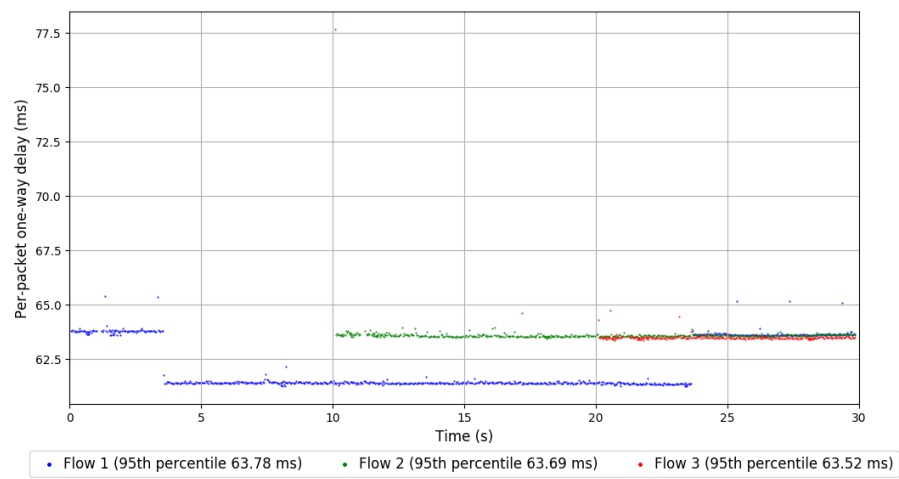
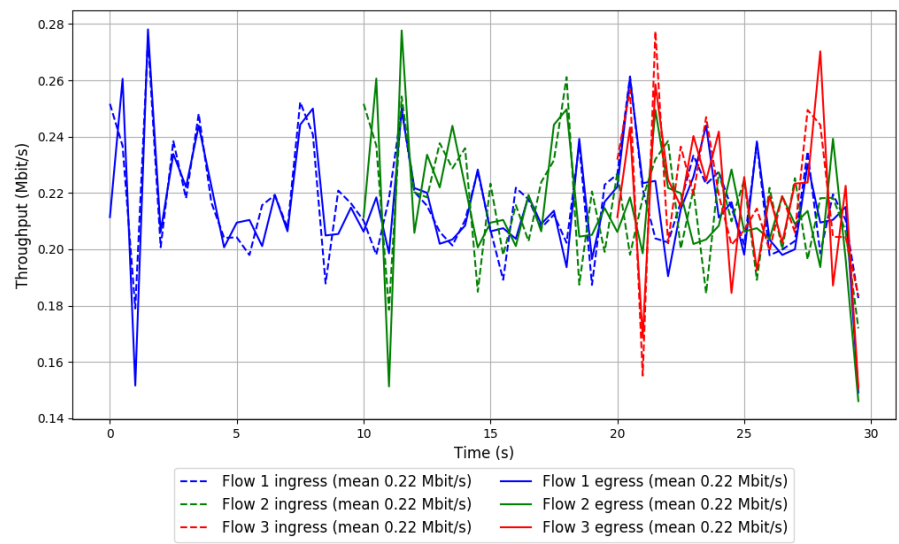
```
Run 3: Statistics of SCReAM

Start at: 2018-01-18 02:36:41
End at: 2018-01-18 02:37:11

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 63.763 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.780 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.686 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.522 ms
Loss rate: 1.10%
```



Run 3: Report of SReAM — Data Link

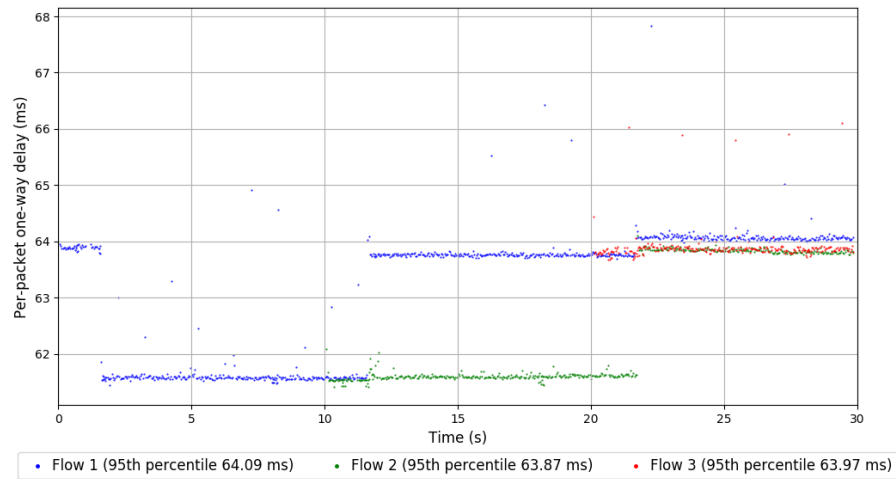
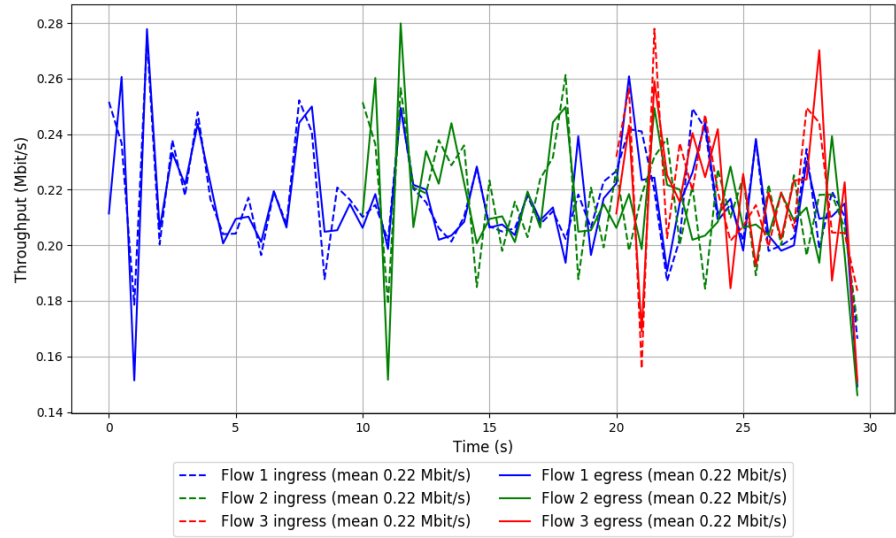


```
Run 4: Statistics of SCReAM

Start at: 2018-01-18 02:54:13
End at: 2018-01-18 02:54:43

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 64.077 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.095 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.874 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.970 ms
Loss rate: 1.10%
```

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

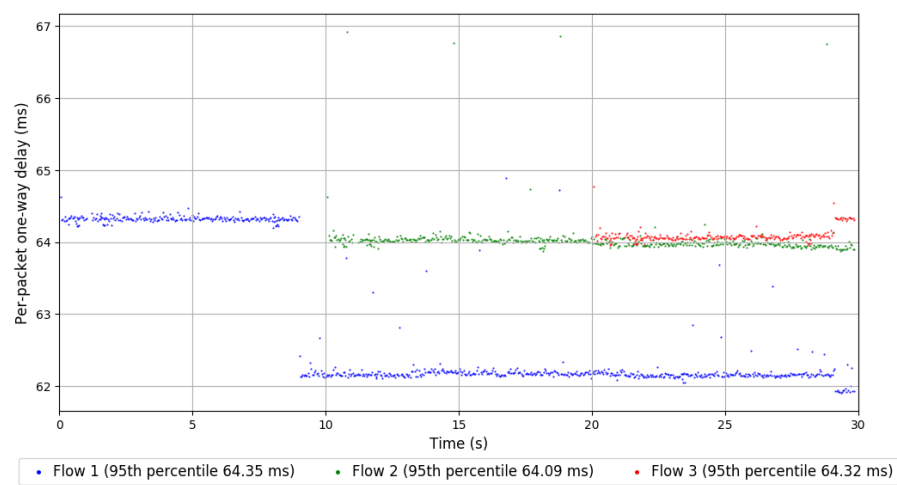
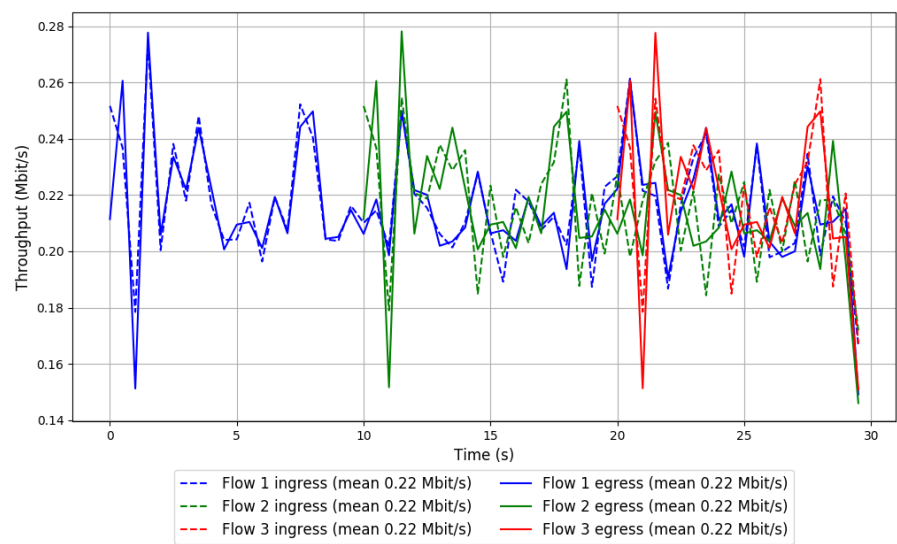


```
Run 5: Statistics of SCReAM

Start at: 2018-01-18 03:11:26
End at: 2018-01-18 03:11:56

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 64.338 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.350 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.092 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.324 ms
Loss rate: 1.10%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-18 03:29:04

End at: 2018-01-18 03:29:34

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 64.214 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.393 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.238 ms

Loss rate: 0.63%

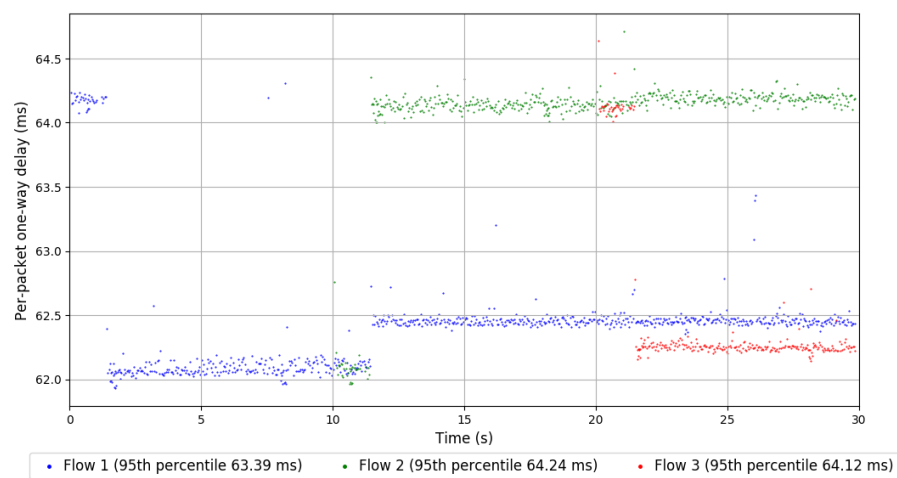
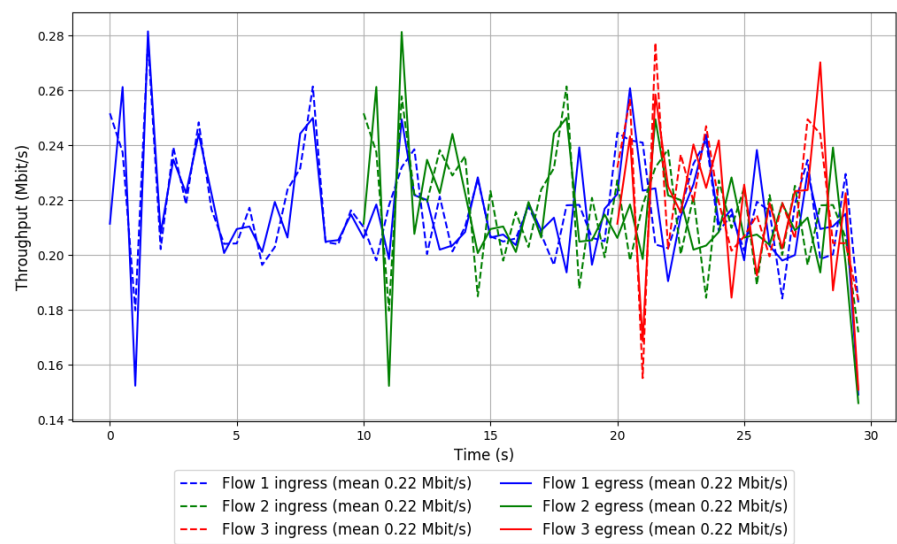
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.125 ms

Loss rate: 1.10%

Run 6: Report of SReAM — Data Link



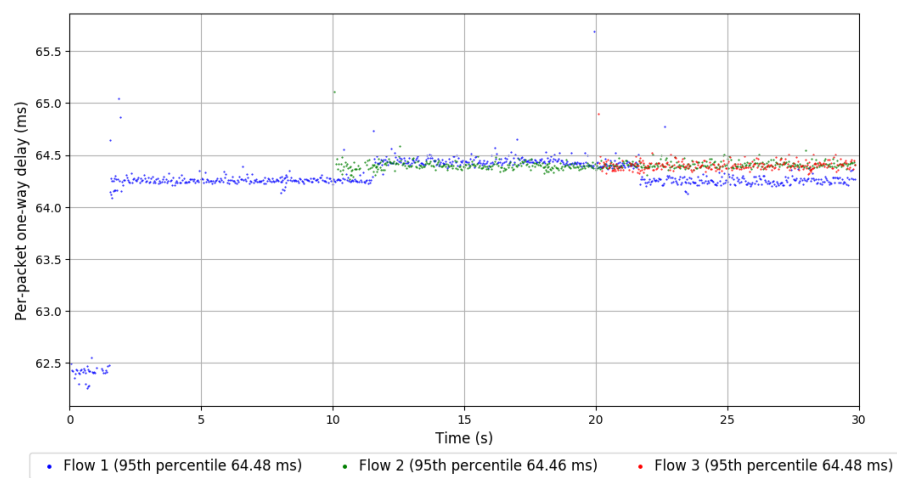
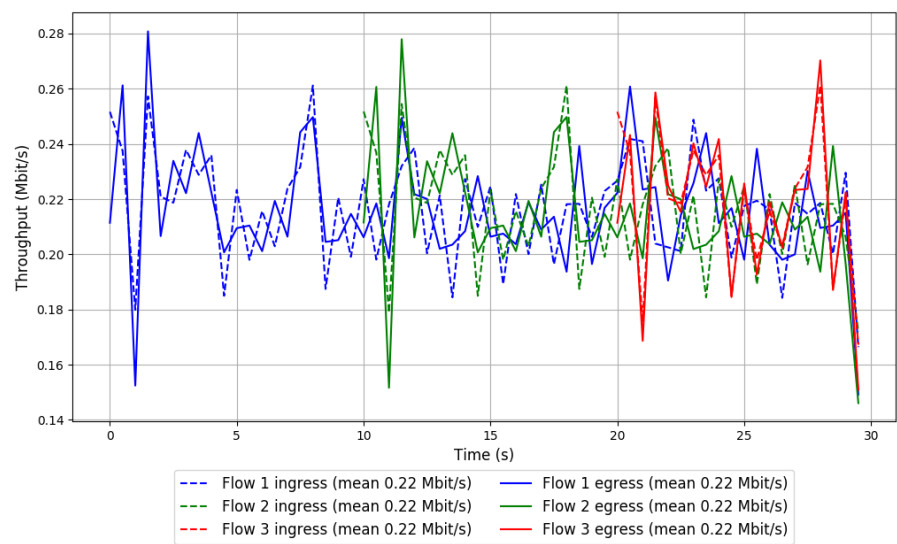
```
Run 7: Statistics of SReAM

Start at: 2018-01-18 03:46:23
End at: 2018-01-18 03:46:53

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 64.471 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.478 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.463 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.476 ms
Loss rate: 1.10%
```



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-18 04:02:57

End at: 2018-01-18 04:03:27

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 64.547 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.561 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.430 ms

Loss rate: 0.63%

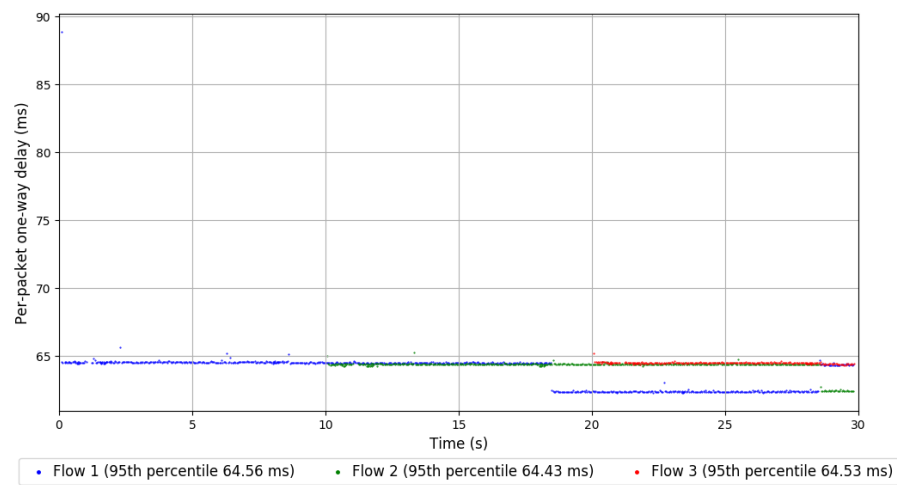
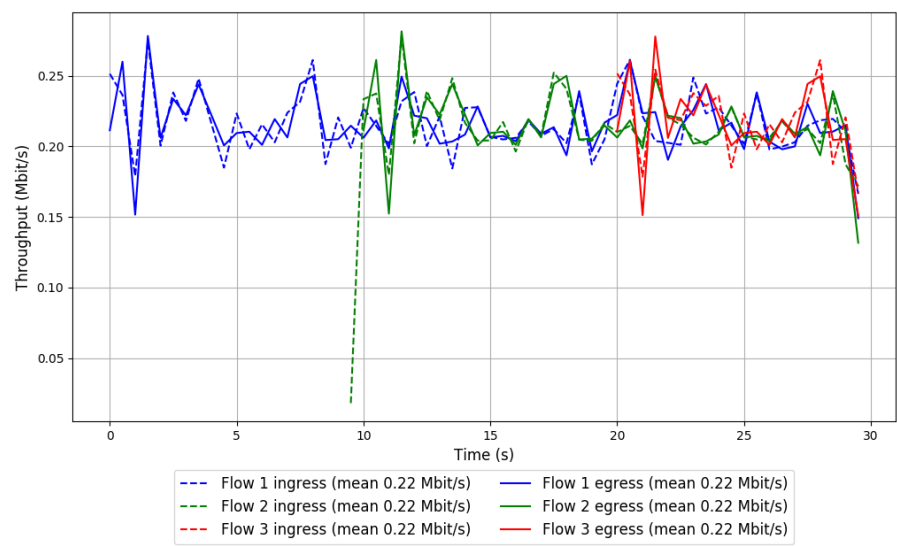
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.533 ms

Loss rate: 1.10%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-01-18 04:19:44

End at: 2018-01-18 04:20:14

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 64.764 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 64.807 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 64.597 ms

Loss rate: 0.63%

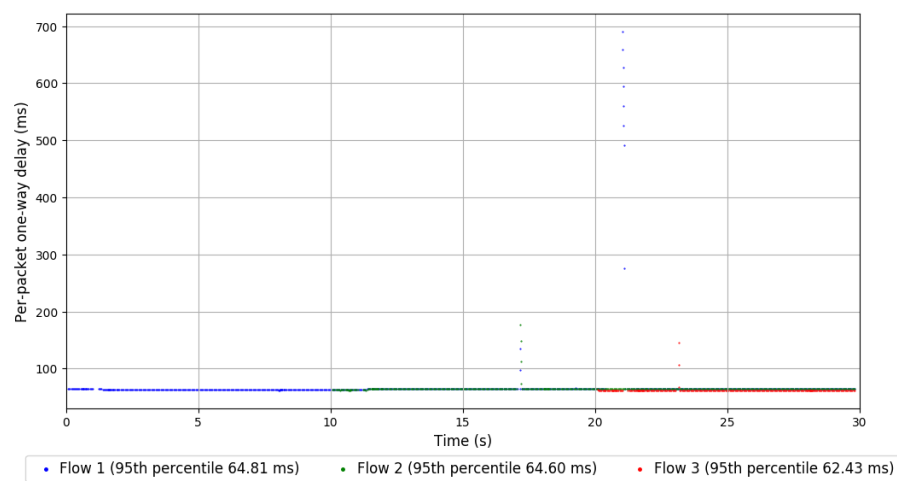
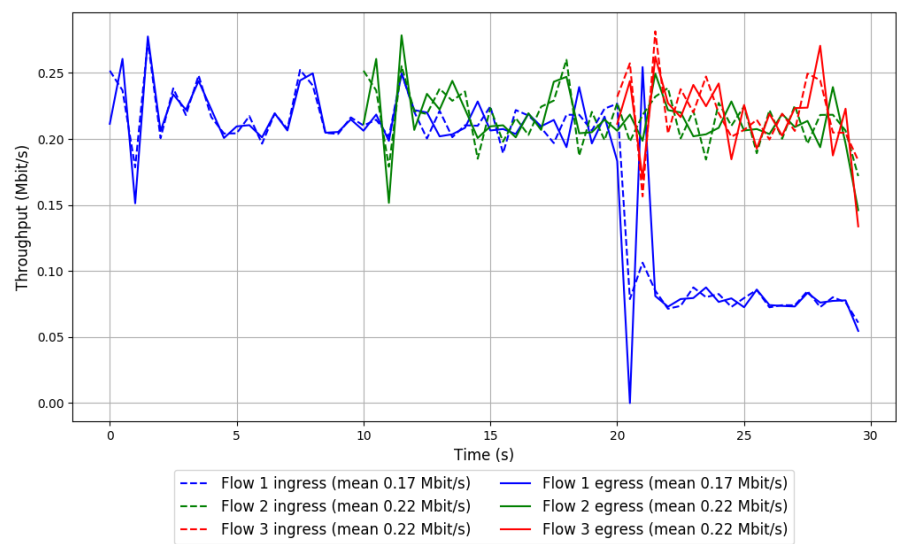
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 62.429 ms

Loss rate: 1.49%

Run 9: Report of SReAM — Data Link

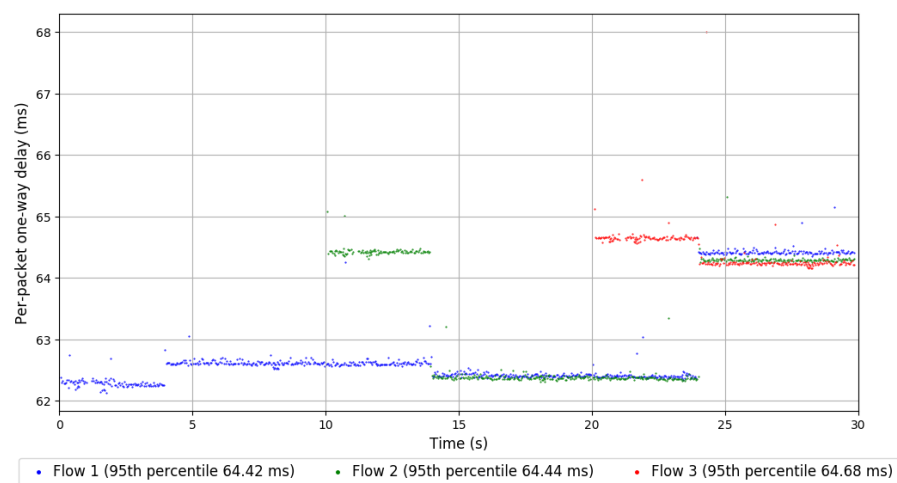
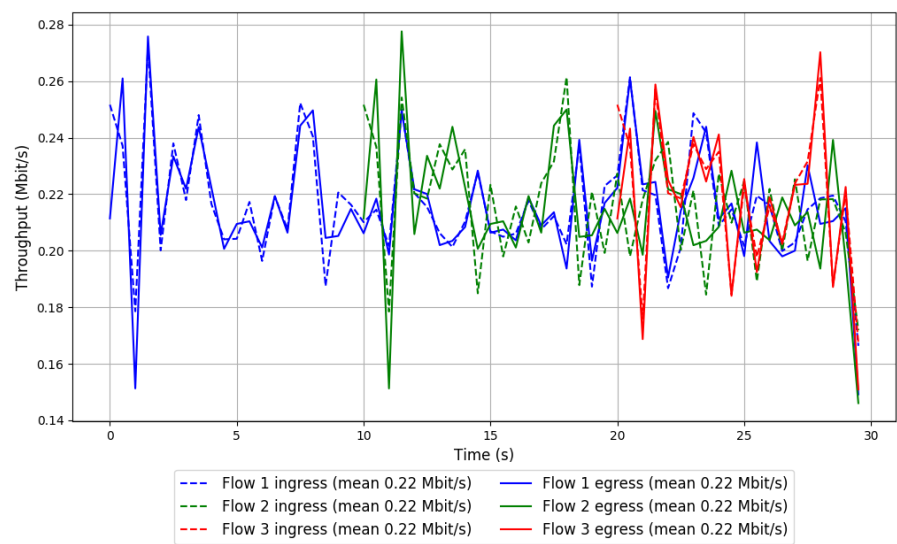


```
Run 10: Statistics of SReAM

Start at: 2018-01-18 04:37:01
End at: 2018-01-18 04:37:31

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 64.638 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.424 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.440 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.677 ms
Loss rate: 1.10%
```

Run 10: Report of SReAM — Data Link



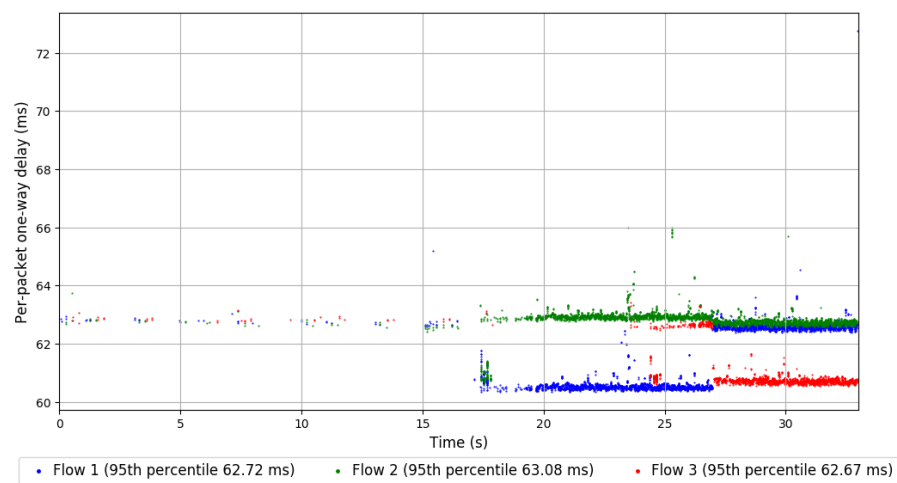
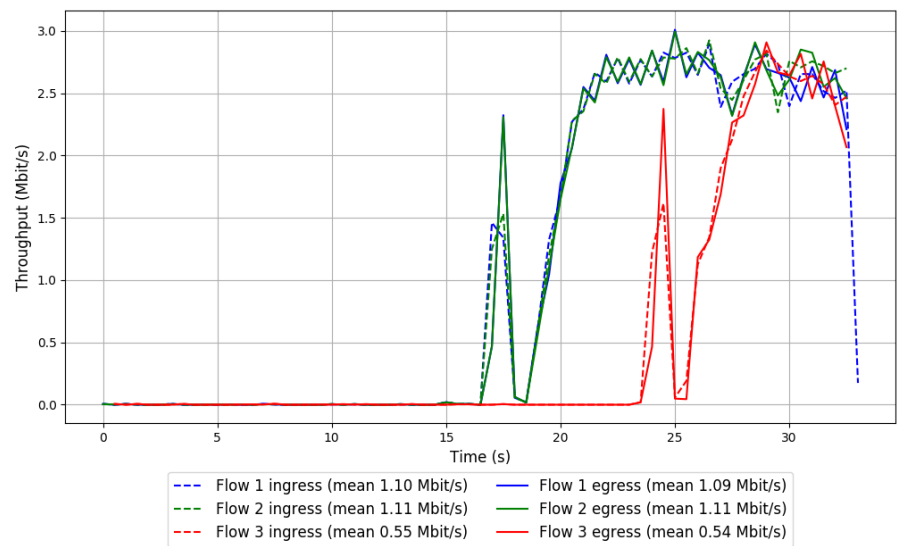
```
Run 1: Statistics of WebRTC media

Start at: 2018-01-18 01:58:31
End at: 2018-01-18 01:59:01

# Below is generated by plot.py at 2018-01-18 08:11:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 62.996 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 62.715 ms
Loss rate: 0.96%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 63.079 ms
Loss rate: 0.93%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 62.674 ms
Loss rate: 1.76%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-18 02:16:09

End at: 2018-01-18 02:16:39

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 63.381 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.400 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.333 ms

Loss rate: 0.32%

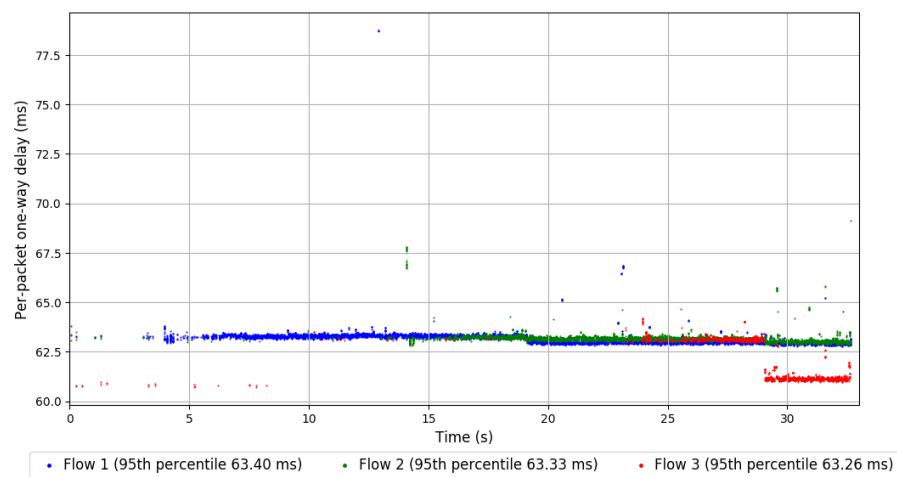
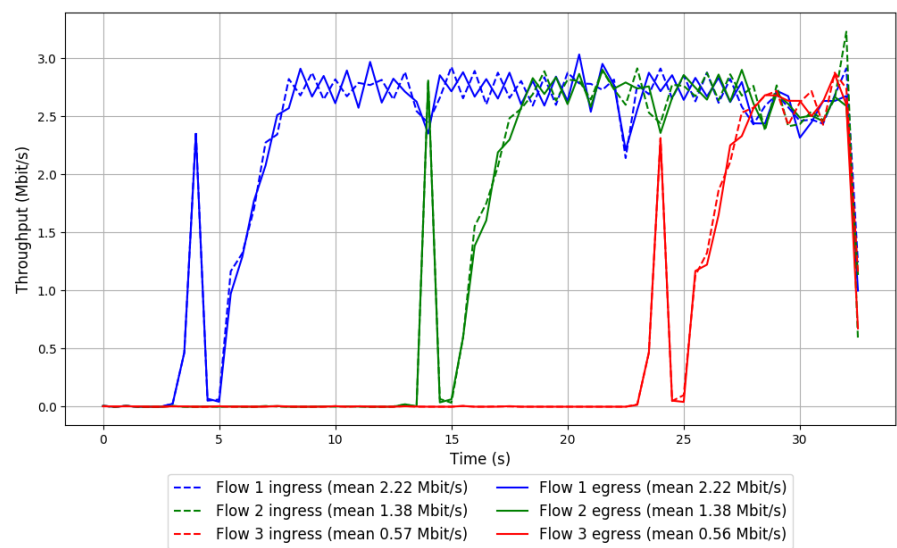
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 63.257 ms

Loss rate: 2.33%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-18 02:33:26

End at: 2018-01-18 02:33:56

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 63.589 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 63.616 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 63.558 ms

Loss rate: 0.71%

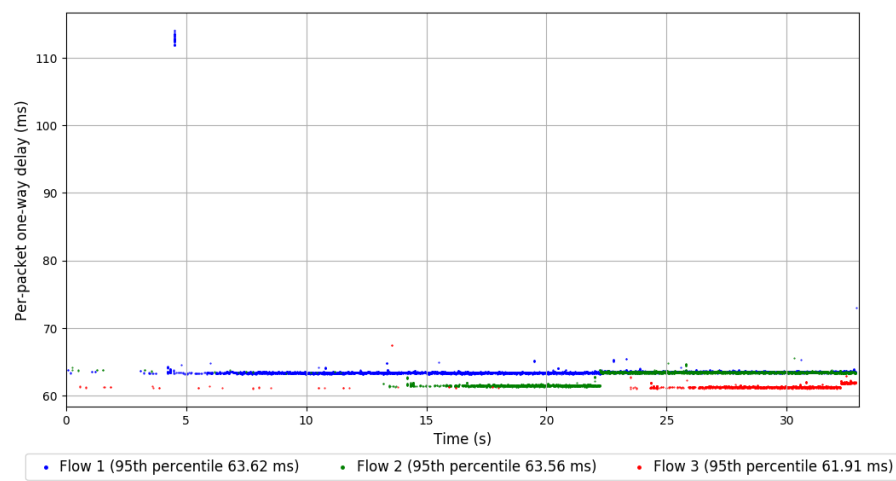
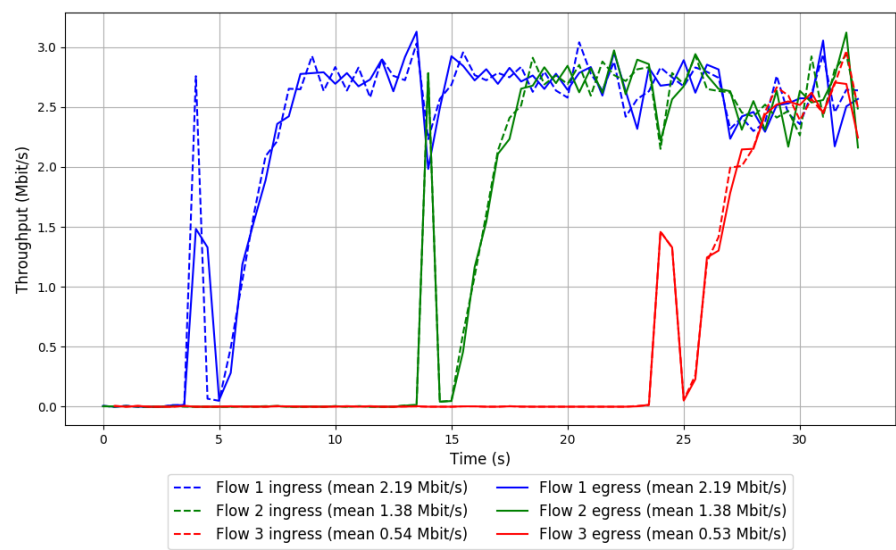
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 61.913 ms

Loss rate: 2.11%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-18 02:51:05

End at: 2018-01-18 02:51:35

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 63.860 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 61.697 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 63.920 ms

Loss rate: 0.68%

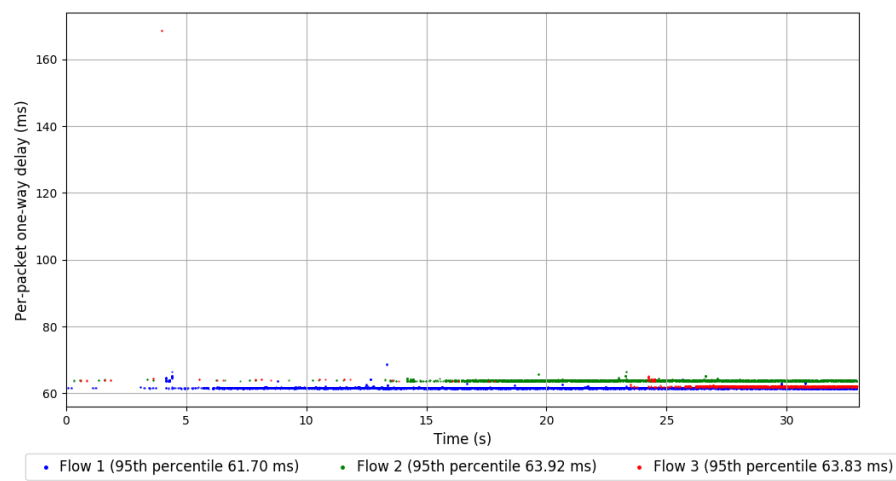
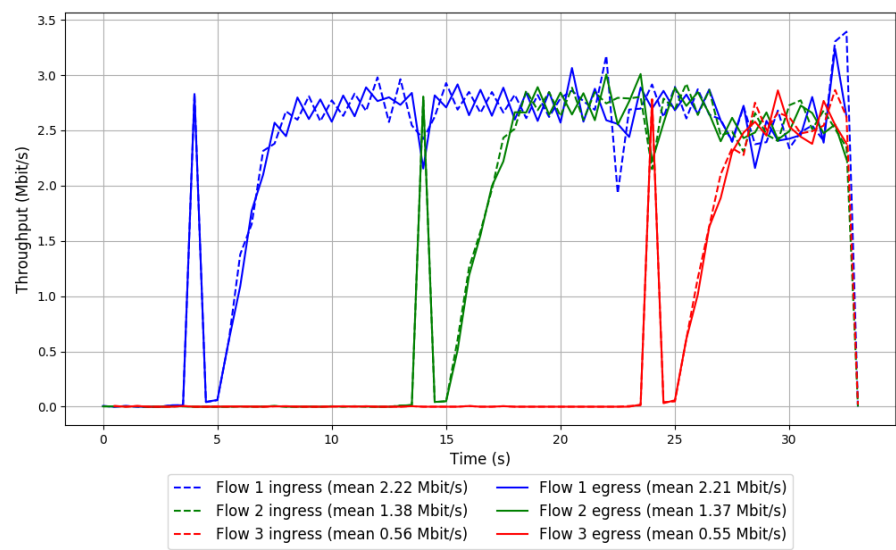
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 63.830 ms

Loss rate: 2.21%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-18 03:08:16

End at: 2018-01-18 03:08:46

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.07 Mbit/s

95th percentile per-packet one-way delay: 64.263 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 64.220 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 64.350 ms

Loss rate: 0.84%

-- Flow 3:

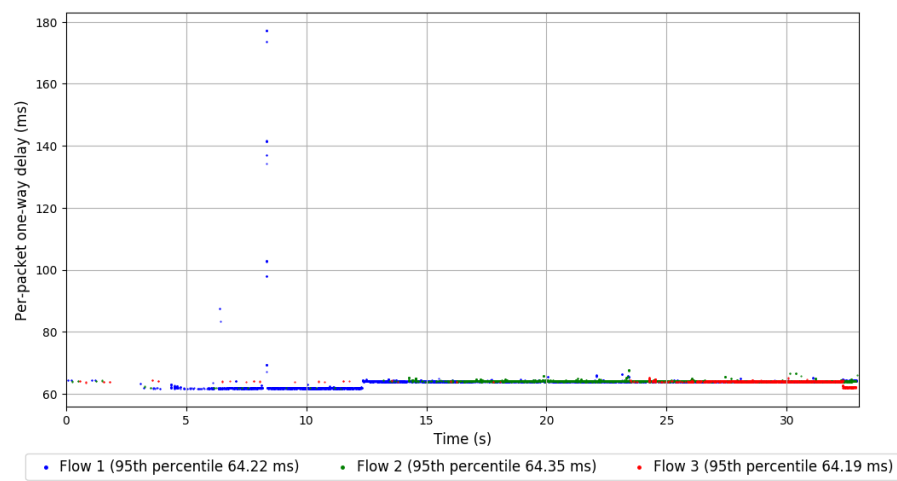
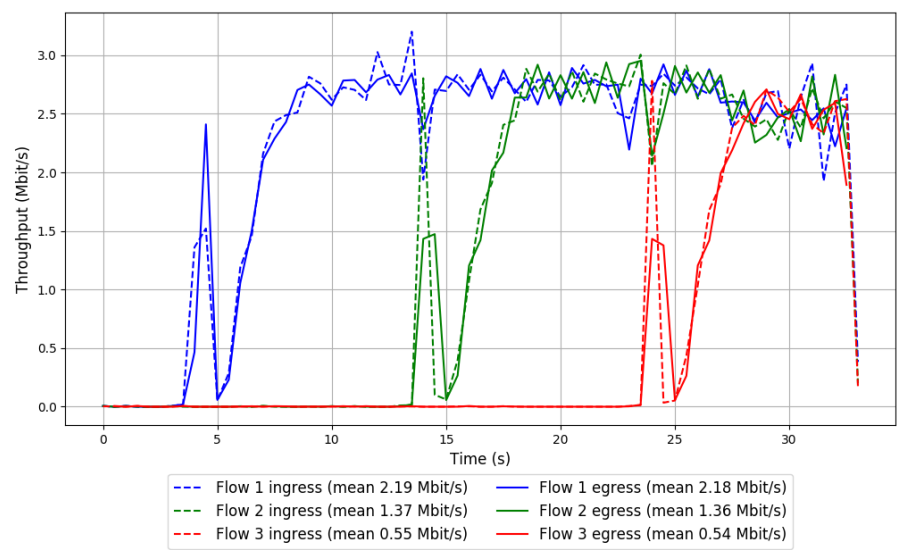
Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 64.185 ms

Loss rate: 3.17%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-18 03:25:48

End at: 2018-01-18 03:26:18

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 64.535 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 64.537 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 64.545 ms

Loss rate: 0.79%

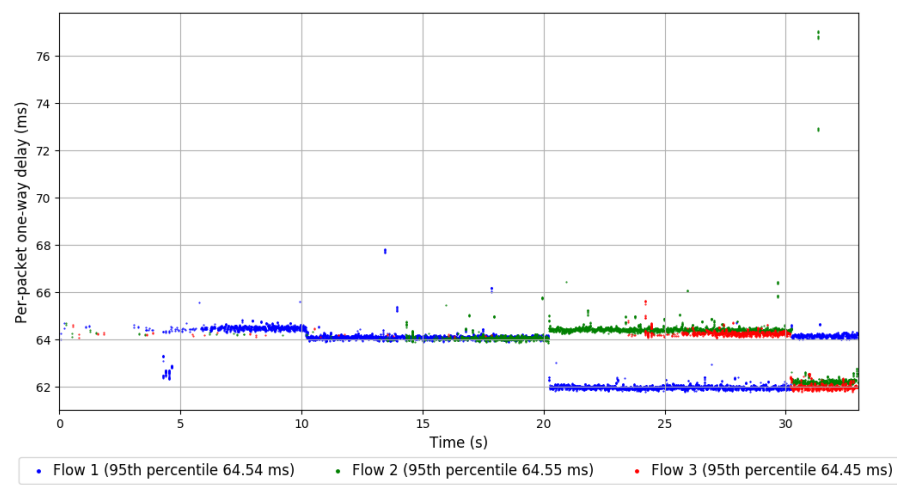
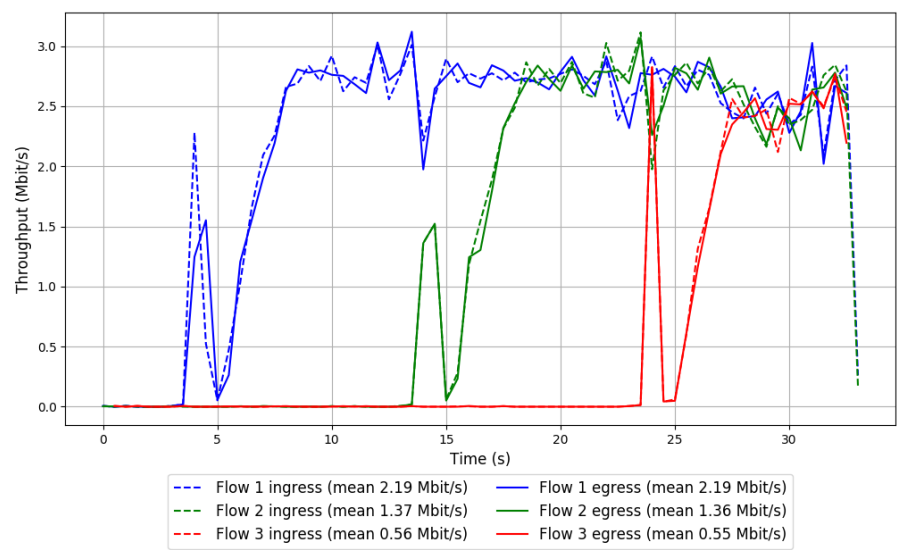
-- Flow 3:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 64.447 ms

Loss rate: 1.33%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-18 03:43:18

End at: 2018-01-18 03:43:48

# Below is generated by plot.py at 2018-01-18 08:11:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 64.466 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 64.295 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 64.411 ms

Loss rate: 0.92%

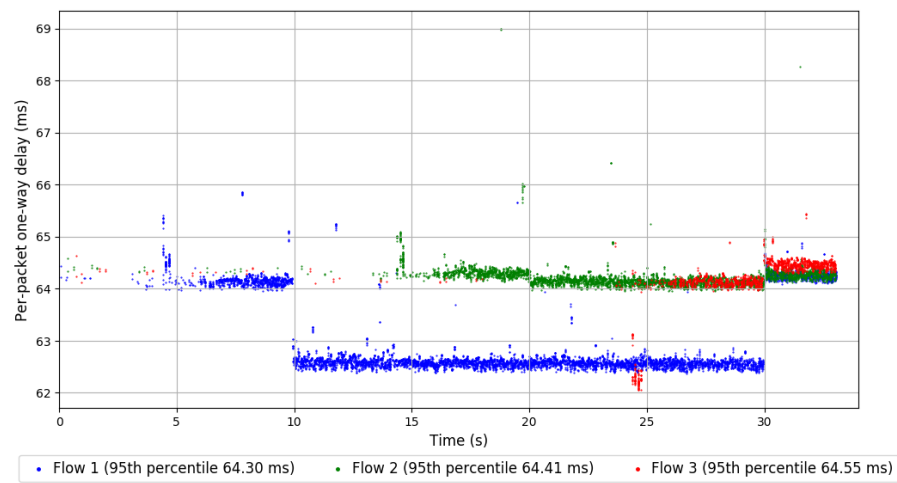
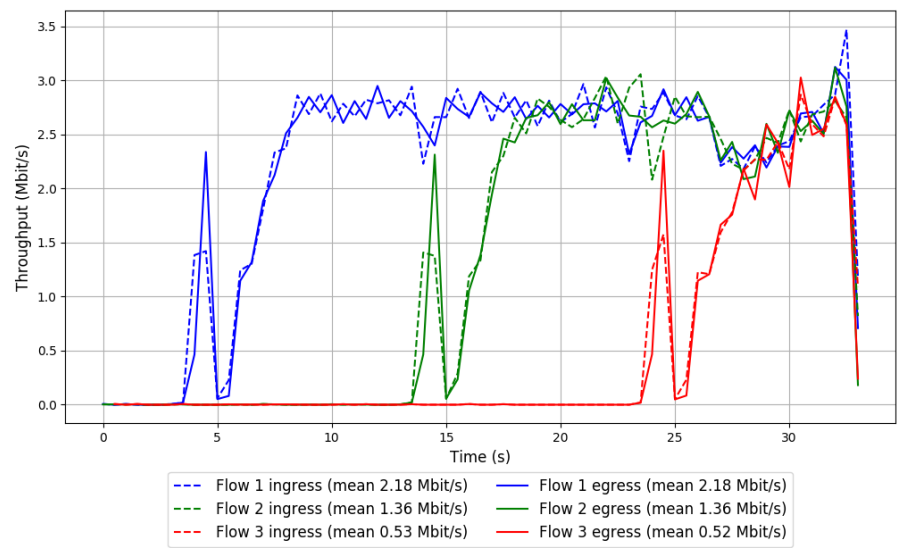
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 64.551 ms

Loss rate: 3.14%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-18 03:59:42

End at: 2018-01-18 04:00:12

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.00 Mbit/s

95th percentile per-packet one-way delay: 64.677 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 64.707 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 1.35 Mbit/s

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

Loss rate: 0.75%

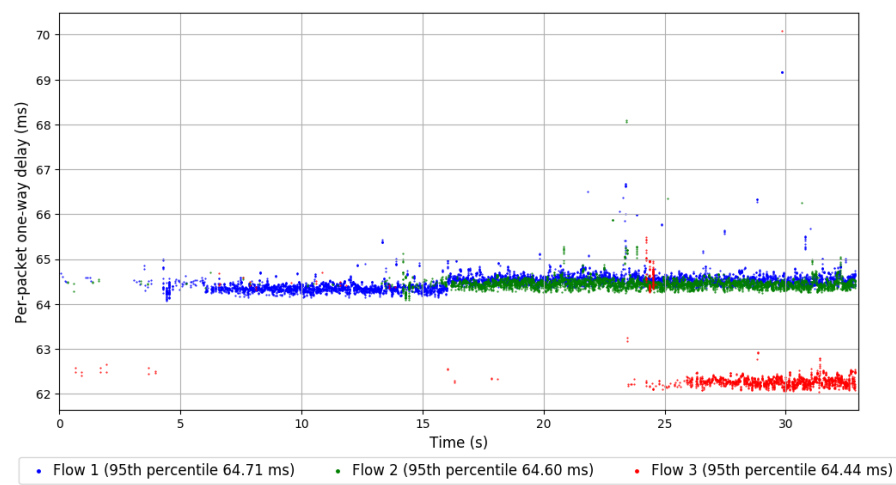
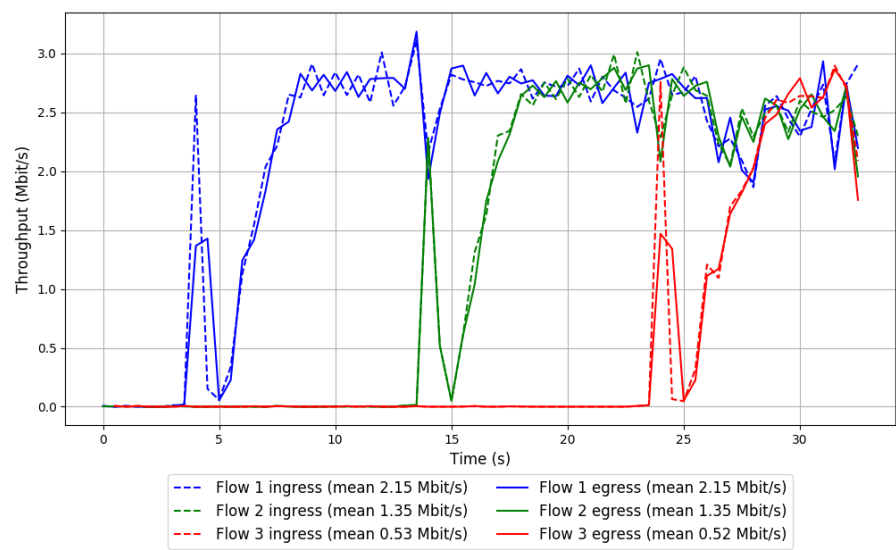
-- Flow 3:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 64.435 ms

Loss rate: 1.70%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-18 04:16:33

End at: 2018-01-18 04:17:03

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.97 Mbit/s

95th percentile per-packet one-way delay: 64.598 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 2.16 Mbit/s

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

Loss rate: 0.68%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 64.596 ms

Loss rate: 0.69%

-- Flow 3:

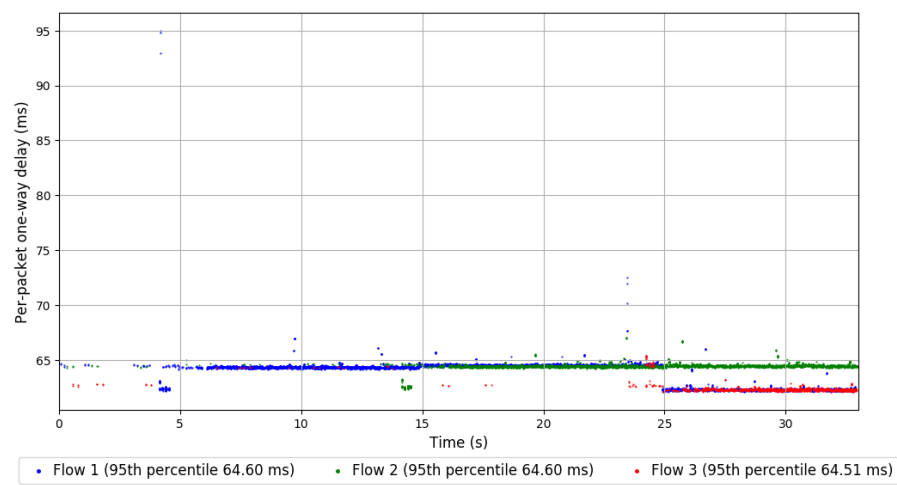
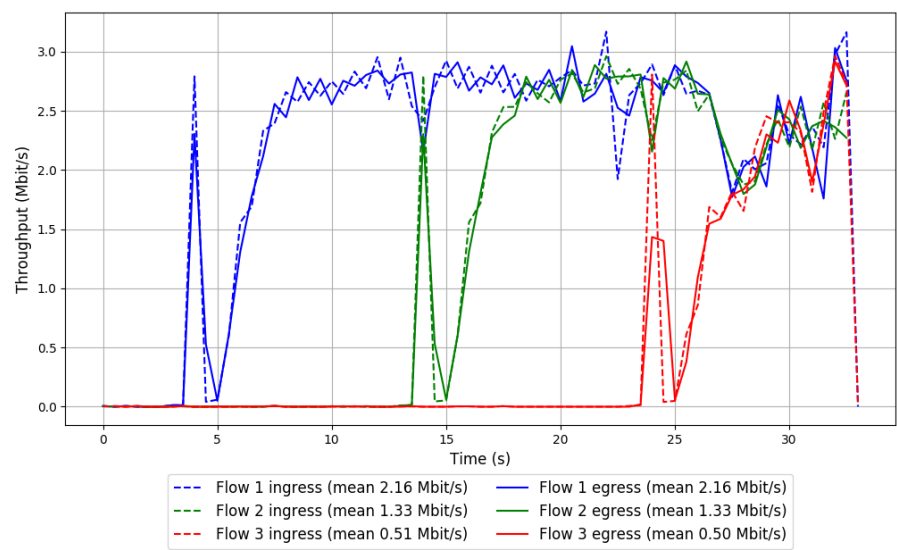
Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 64.510 ms

Loss rate: 1.49%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-18 04:33:57

End at: 2018-01-18 04:34:27

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 64.757 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 64.783 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 64.297 ms

Loss rate: 0.46%

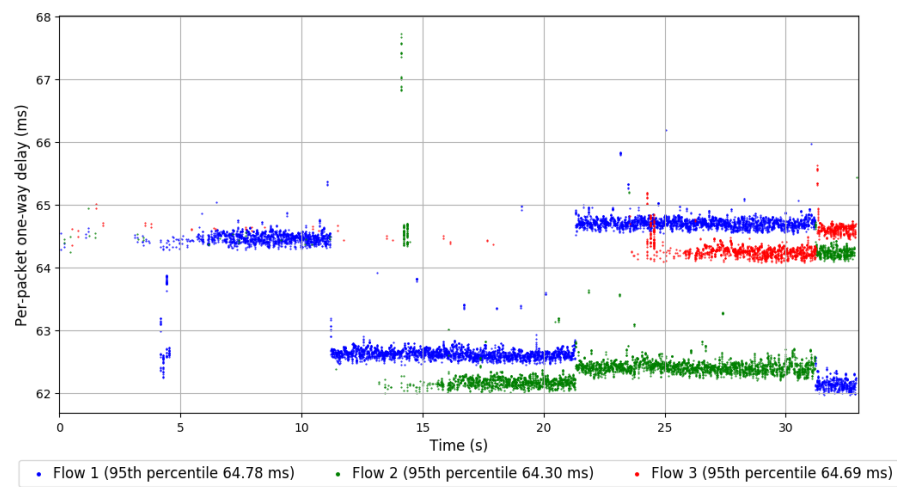
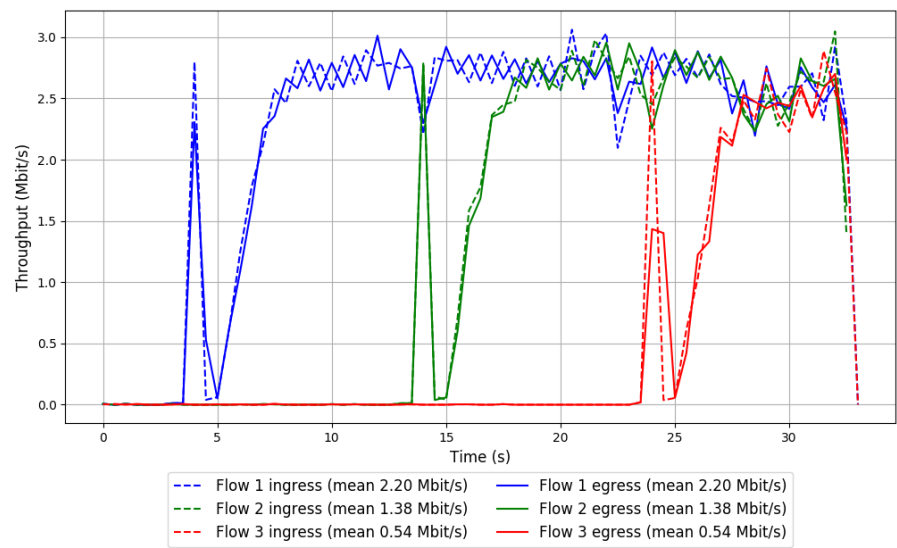
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 64.689 ms

Loss rate: 1.62%

Run 10: Report of WebRTC media — Data Link

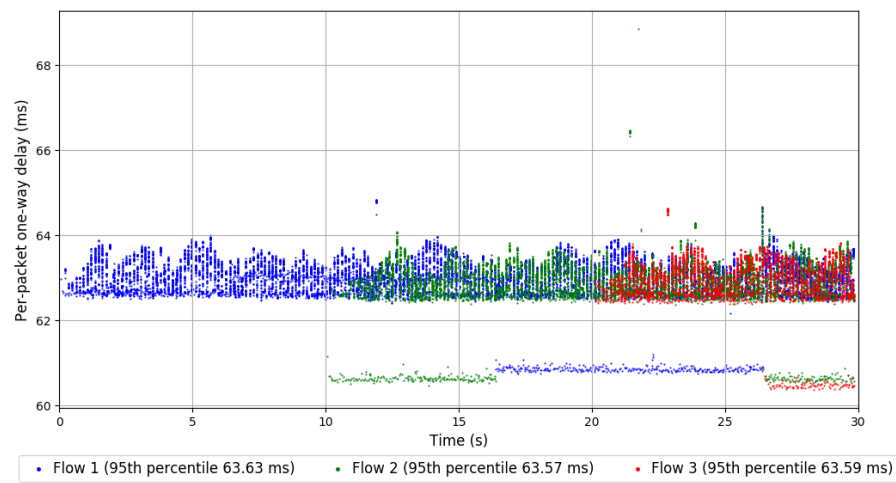
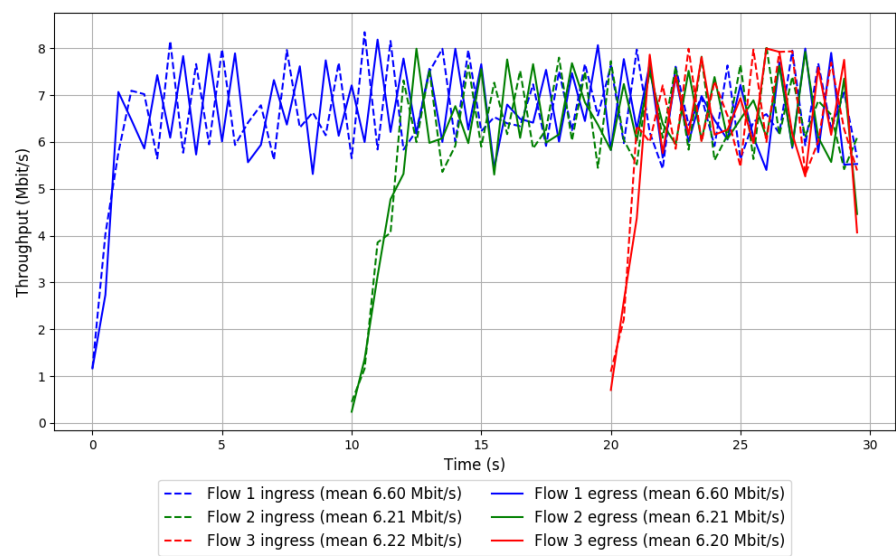


```
Run 1: Statistics of Sprout

Start at: 2018-01-18 01:52:19
End at: 2018-01-18 01:52:49

# Below is generated by plot.py at 2018-01-18 08:11:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 63.613 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 6.60 Mbit/s
95th percentile per-packet one-way delay: 63.634 ms
Loss rate: 0.50%
-- Flow 2:
Average throughput: 6.21 Mbit/s
95th percentile per-packet one-way delay: 63.568 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 6.20 Mbit/s
95th percentile per-packet one-way delay: 63.595 ms
Loss rate: 1.32%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-18 02:09:49

End at: 2018-01-18 02:10:19

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.48 Mbit/s

95th percentile per-packet one-way delay: 64.034 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 64.033 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 6.23 Mbit/s

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

Loss rate: 0.50%

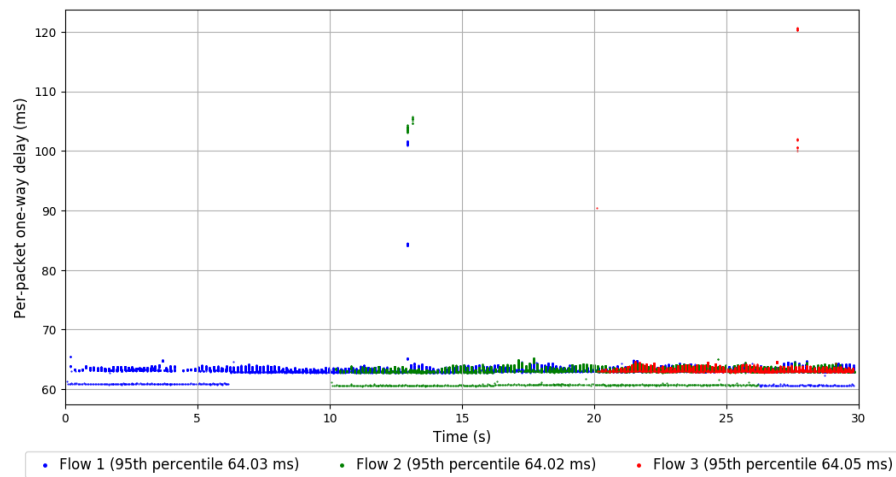
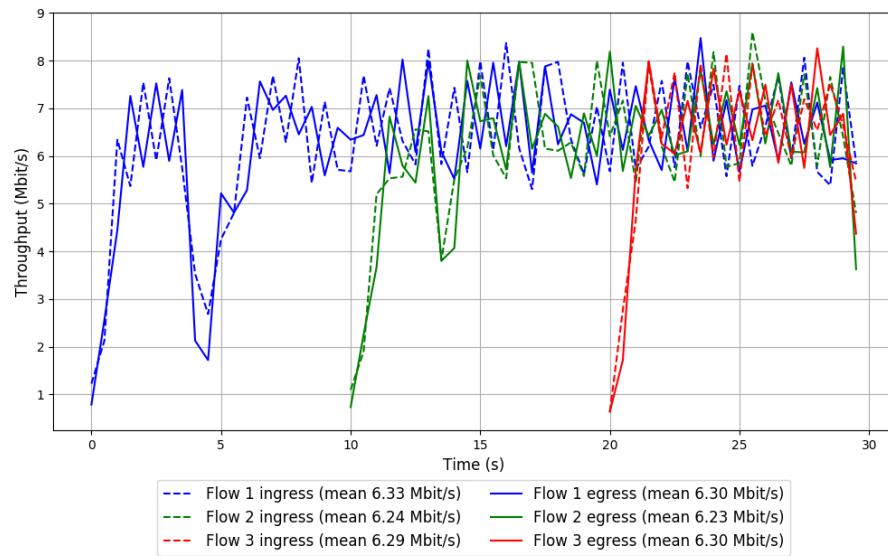
-- Flow 3:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 64.051 ms

Loss rate: 1.57%

## Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-18 02:27:21

End at: 2018-01-18 02:27:51

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.82 Mbit/s

95th percentile per-packet one-way delay: 64.374 ms

Loss rate: 2.16%

-- Flow 1:

Average throughput: 5.99 Mbit/s

95th percentile per-packet one-way delay: 64.361 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 6.09 Mbit/s

95th percentile per-packet one-way delay: 64.428 ms

Loss rate: 2.17%

-- Flow 3:

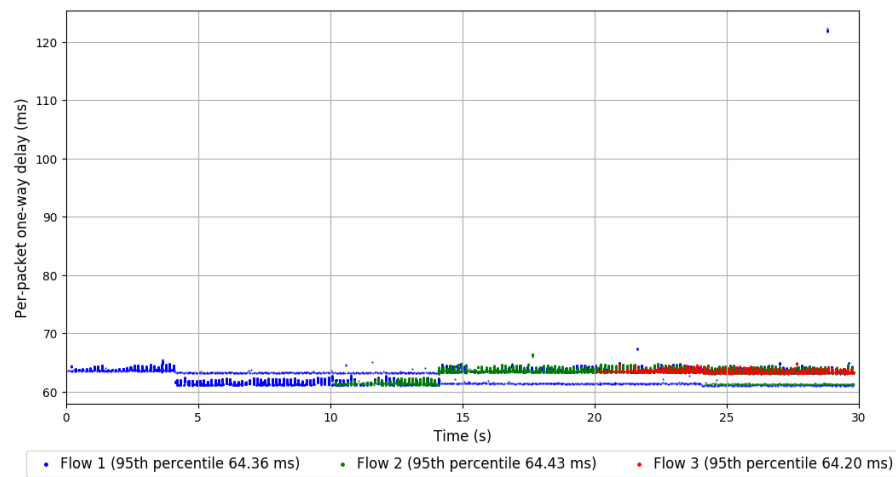
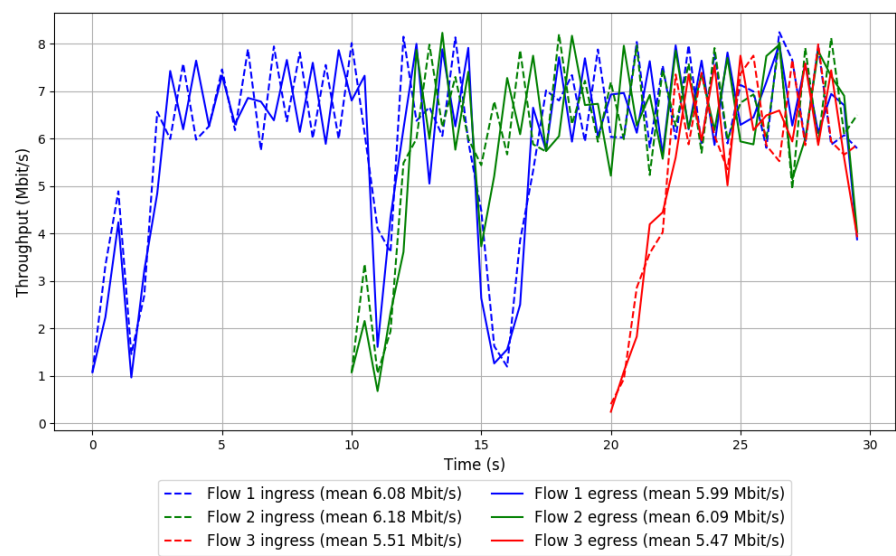
Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 64.197 ms

Loss rate: 2.43%



Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-18 02:44:51

End at: 2018-01-18 02:45:21

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.35 Mbit/s

95th percentile per-packet one-way delay: 64.833 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 6.13 Mbit/s

95th percentile per-packet one-way delay: 64.810 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 64.895 ms

Loss rate: 0.59%

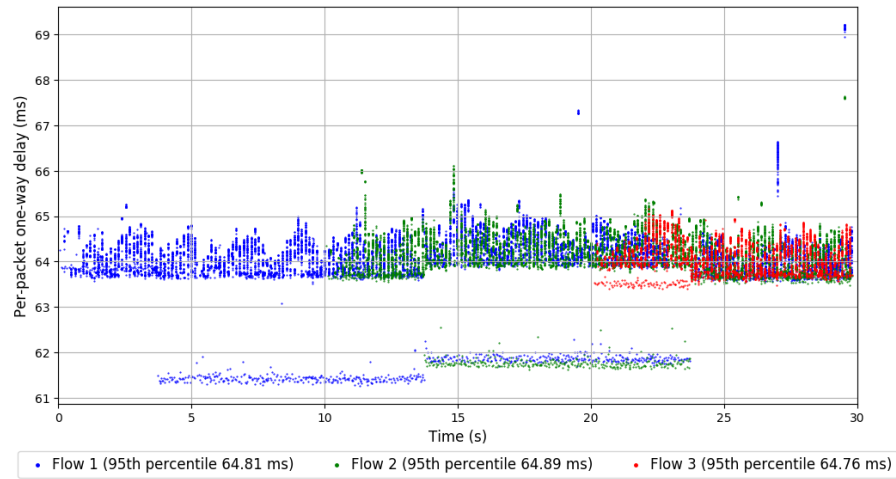
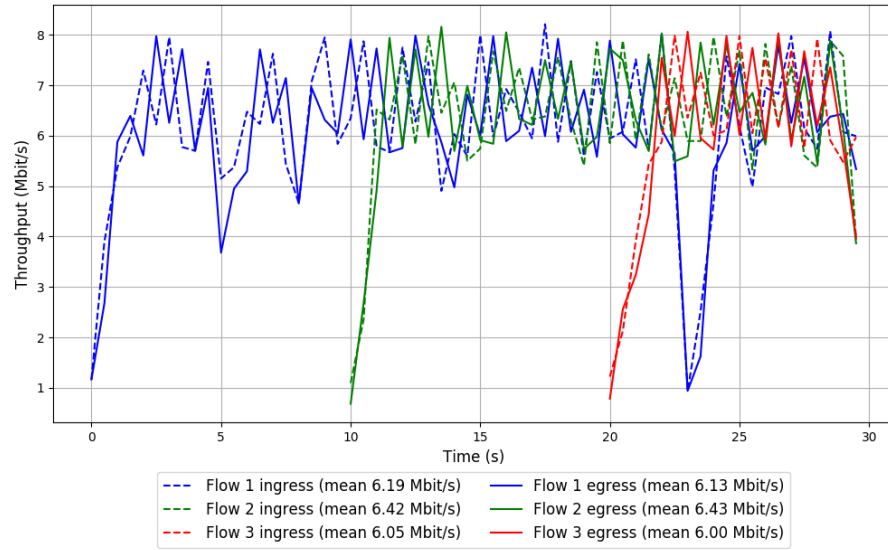
-- Flow 3:

Average throughput: 6.00 Mbit/s

95th percentile per-packet one-way delay: 64.760 ms

Loss rate: 1.68%

# Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-18 03:02:25

End at: 2018-01-18 03:02:55

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.53 Mbit/s

95th percentile per-packet one-way delay: 65.270 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 6.49 Mbit/s

95th percentile per-packet one-way delay: 65.167 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 6.11 Mbit/s

95th percentile per-packet one-way delay: 65.422 ms

Loss rate: 1.49%

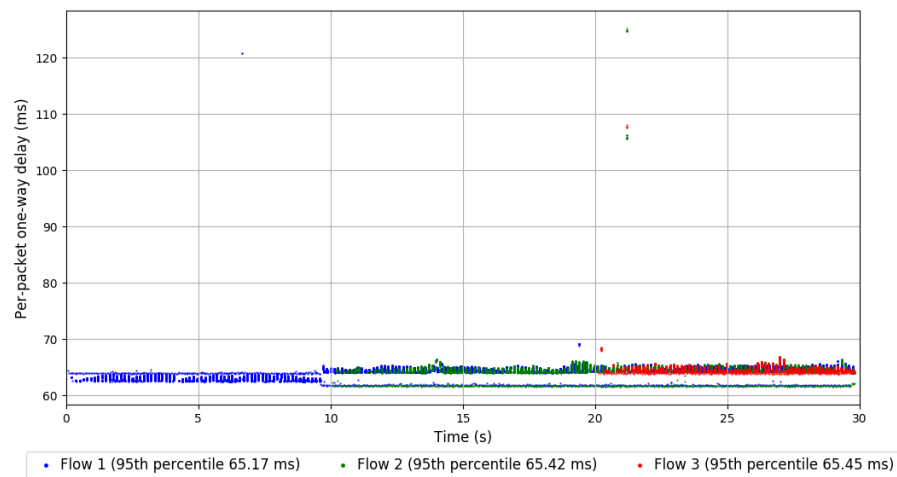
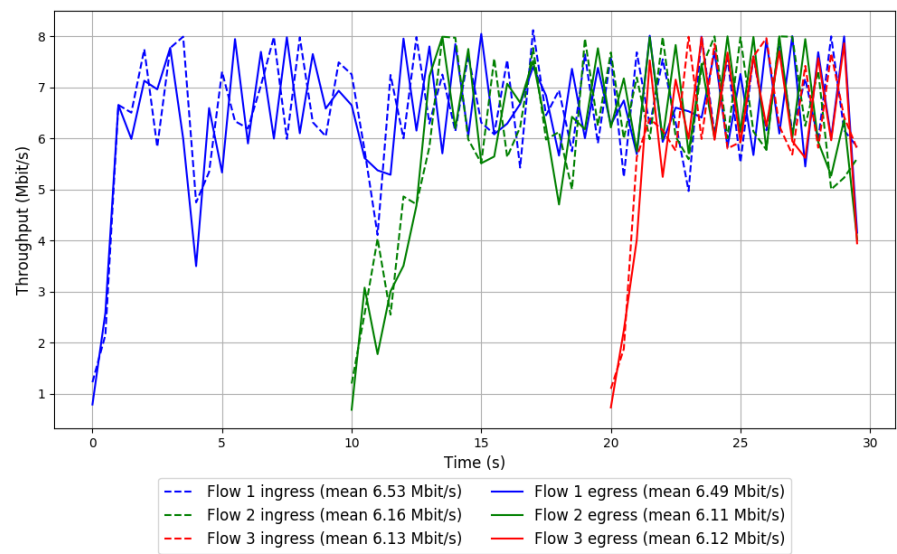
-- Flow 3:

Average throughput: 6.12 Mbit/s

95th percentile per-packet one-way delay: 65.453 ms

Loss rate: 1.78%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-18 03:19:35

End at: 2018-01-18 03:20:05

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.82 Mbit/s

95th percentile per-packet one-way delay: 65.359 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 5.99 Mbit/s

95th percentile per-packet one-way delay: 65.324 ms

Loss rate: 1.90%

-- Flow 2:

Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 65.410 ms

Loss rate: 1.45%

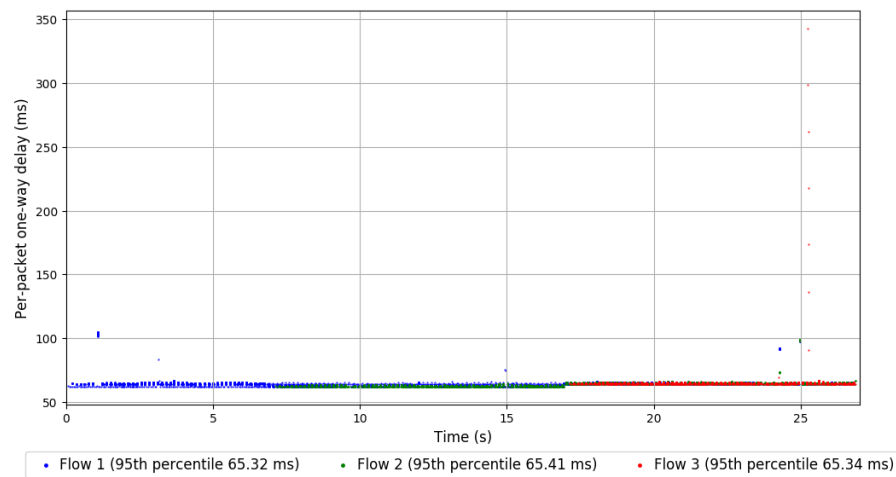
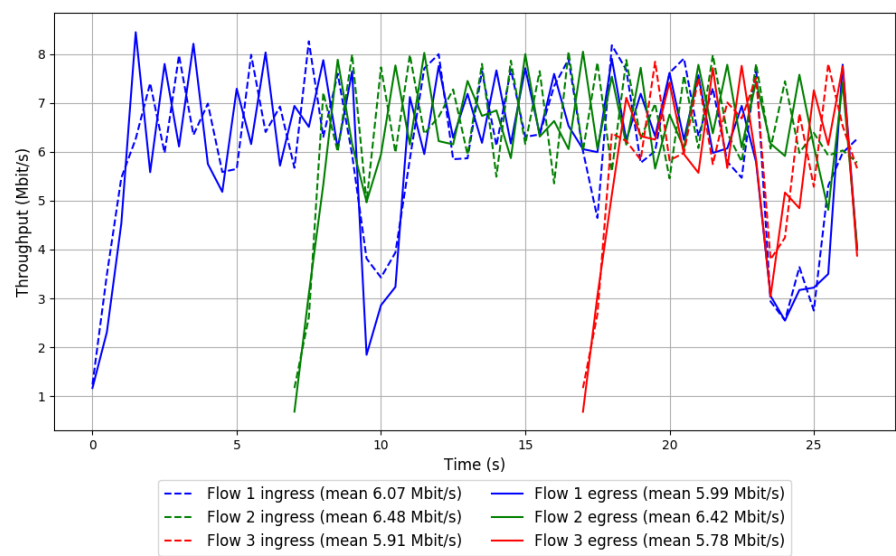
-- Flow 3:

Average throughput: 5.78 Mbit/s

95th percentile per-packet one-way delay: 65.339 ms

Loss rate: 3.40%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-18 03:37:09

End at: 2018-01-18 03:37:39

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 64.842 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 64.807 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 6.13 Mbit/s

95th percentile per-packet one-way delay: 64.726 ms

Loss rate: 0.77%

-- Flow 3:

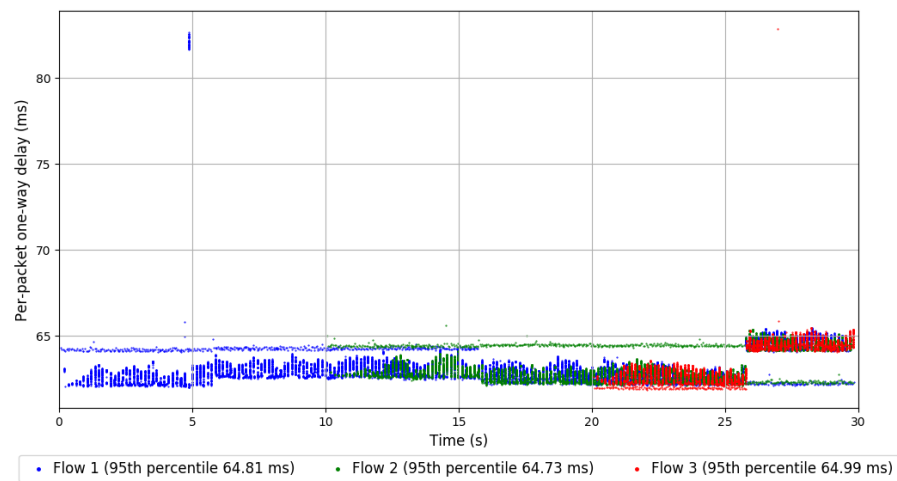
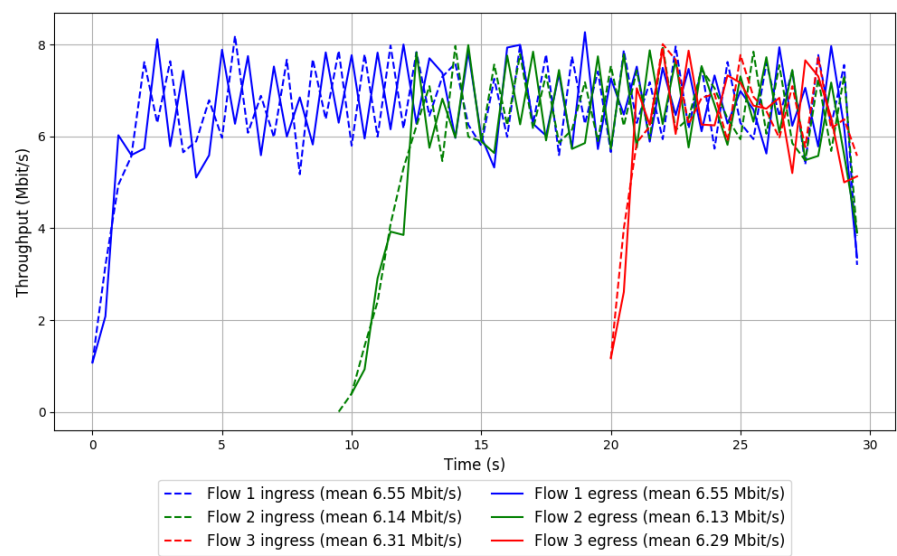
Average throughput: 6.29 Mbit/s

95th percentile per-packet one-way delay: 64.986 ms

Loss rate: 1.60%



Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-18 03:53:37

End at: 2018-01-18 03:54:07

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 64.707 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 6.39 Mbit/s

95th percentile per-packet one-way delay: 65.126 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 6.20 Mbit/s

95th percentile per-packet one-way delay: 64.099 ms

Loss rate: 0.82%

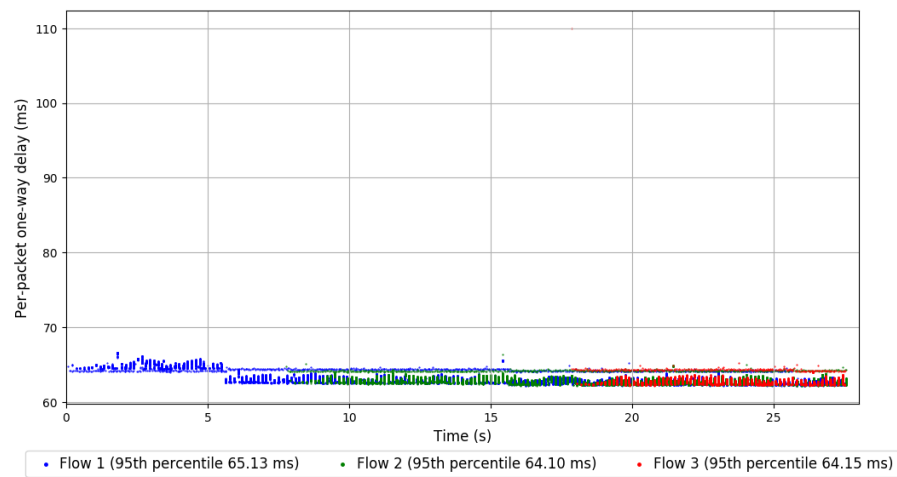
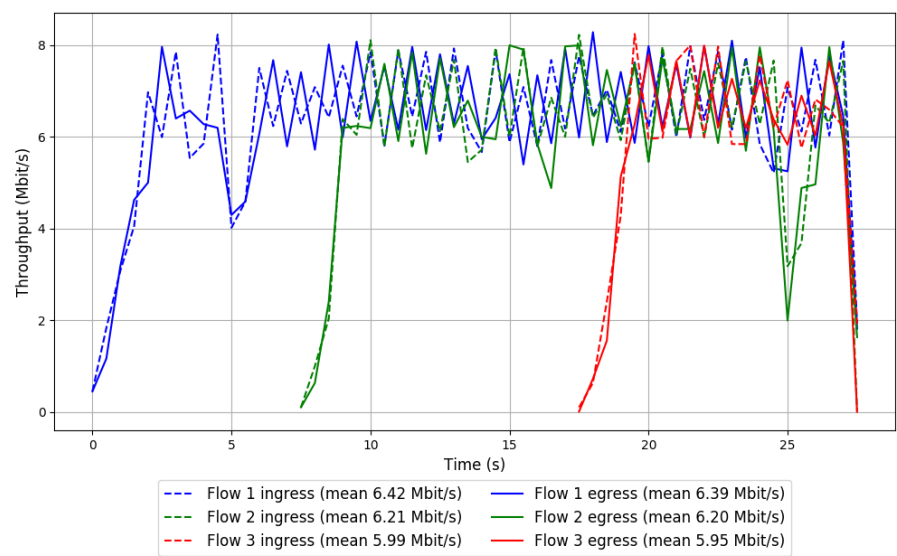
-- Flow 3:

Average throughput: 5.95 Mbit/s

95th percentile per-packet one-way delay: 64.147 ms

Loss rate: 1.96%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-18 04:10:26

End at: 2018-01-18 04:10:56

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.03 Mbit/s

95th percentile per-packet one-way delay: 65.544 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 65.521 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 6.49 Mbit/s

95th percentile per-packet one-way delay: 65.551 ms

Loss rate: 0.02%

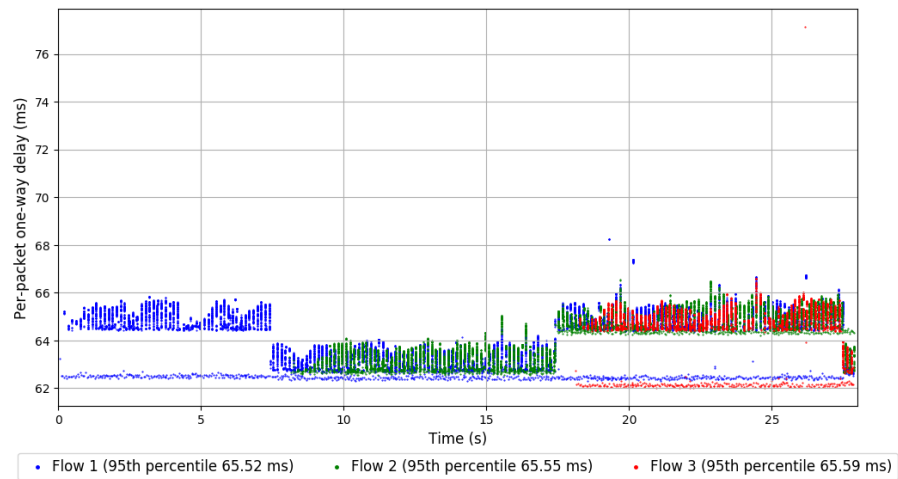
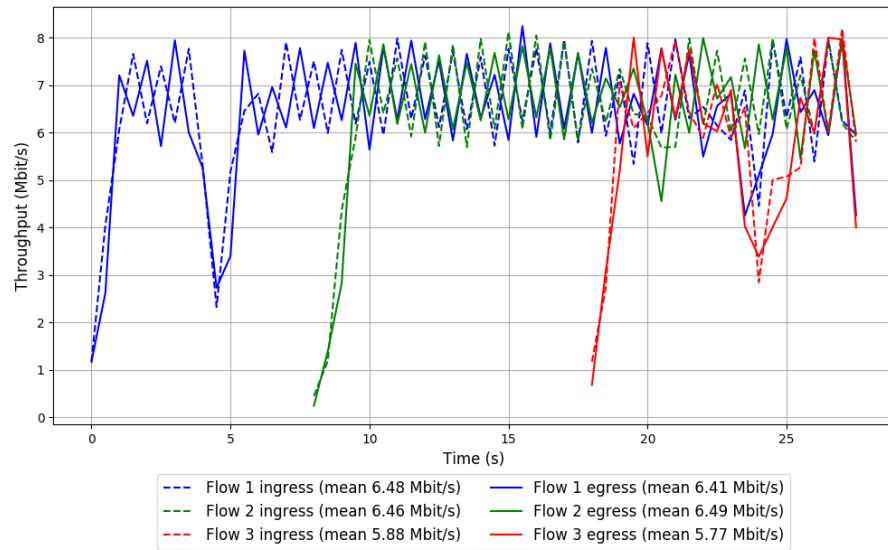
-- Flow 3:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 65.586 ms

Loss rate: 3.45%

## Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-18 04:27:58

End at: 2018-01-18 04:28:28

# Below is generated by plot.py at 2018-01-18 08:11:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.05 Mbit/s

95th percentile per-packet one-way delay: 65.669 ms

Loss rate: 1.73%

-- Flow 1:

Average throughput: 6.17 Mbit/s

95th percentile per-packet one-way delay: 65.589 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 5.97 Mbit/s

95th percentile per-packet one-way delay: 65.657 ms

Loss rate: 1.38%

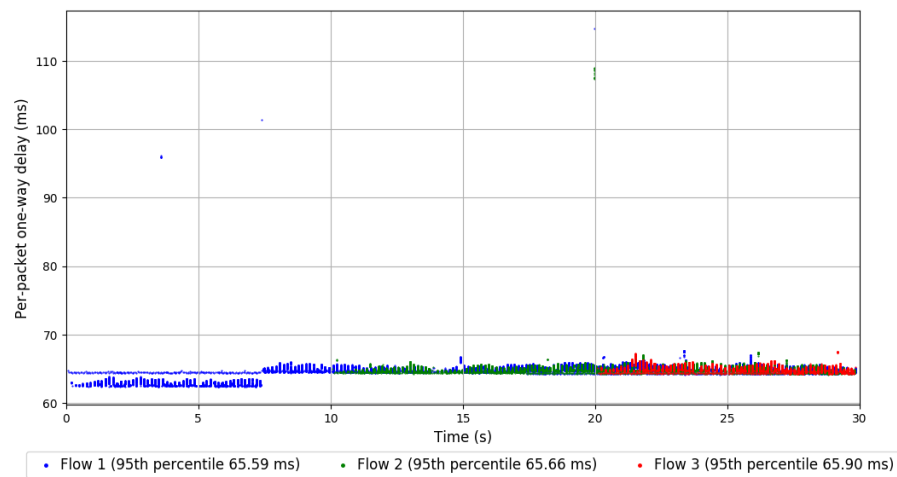
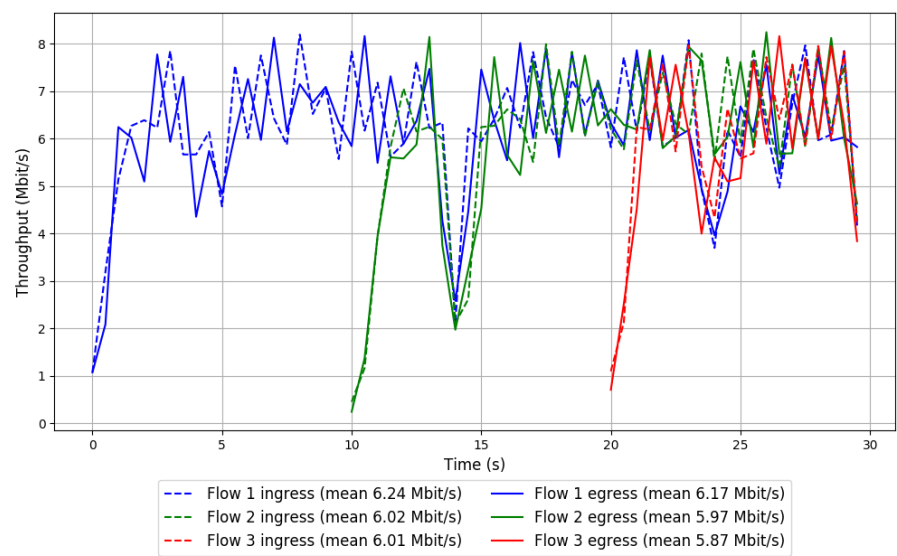
-- Flow 3:

Average throughput: 5.87 Mbit/s

95th percentile per-packet one-way delay: 65.900 ms

Loss rate: 3.34%

Run 10: Report of Sprout — Data Link



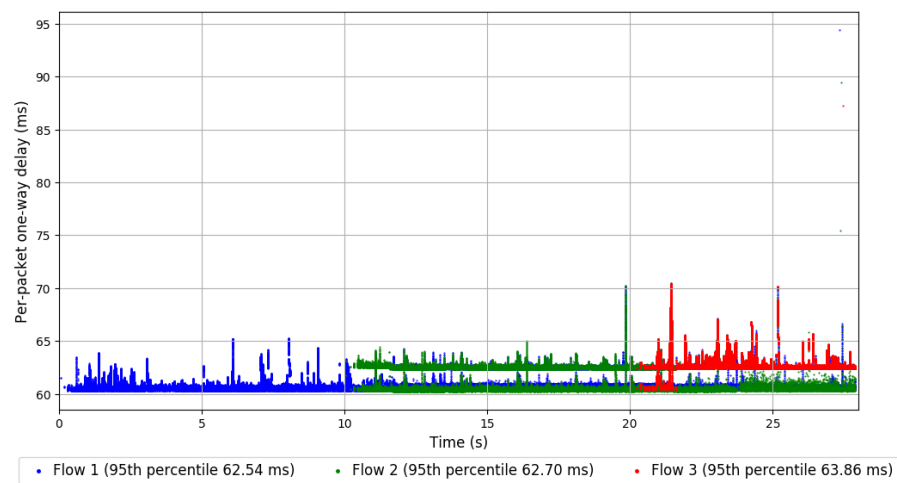
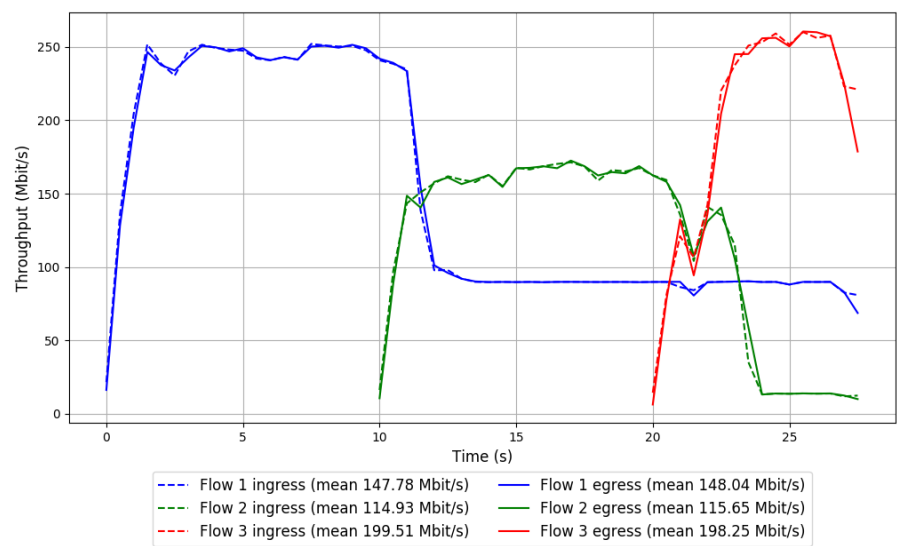
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-18 01:54:11
End at: 2018-01-18 01:54:41

# Below is generated by plot.py at 2018-01-18 08:16:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 277.53 Mbit/s
95th percentile per-packet one-way delay: 62.764 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 148.04 Mbit/s
95th percentile per-packet one-way delay: 62.537 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 115.65 Mbit/s
95th percentile per-packet one-way delay: 62.701 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 198.25 Mbit/s
95th percentile per-packet one-way delay: 63.863 ms
Loss rate: 2.23%
```



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

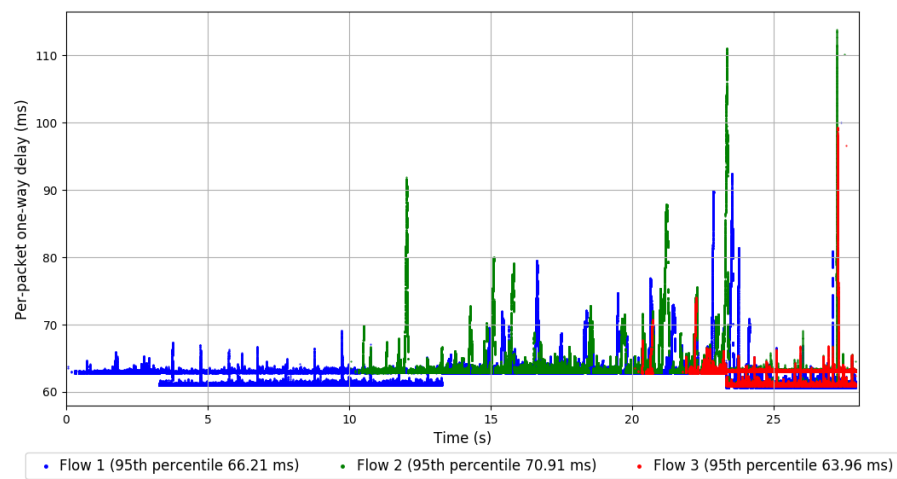
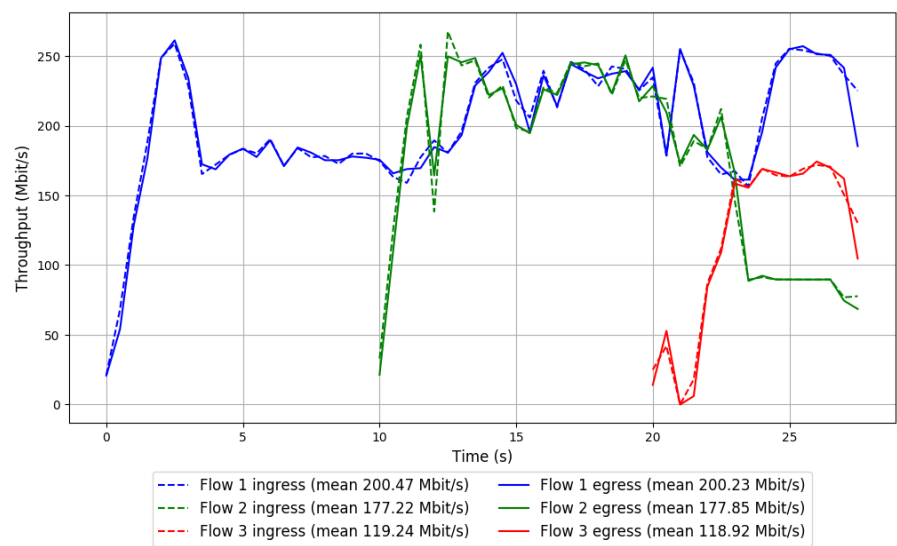


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-18 02:11:40
End at: 2018-01-18 02:12:10

# Below is generated by plot.py at 2018-01-18 08:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 347.46 Mbit/s
95th percentile per-packet one-way delay: 68.070 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 200.23 Mbit/s
95th percentile per-packet one-way delay: 66.214 ms
Loss rate: 0.58%
-- Flow 2:
Average throughput: 177.85 Mbit/s
95th percentile per-packet one-way delay: 70.914 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 118.92 Mbit/s
95th percentile per-packet one-way delay: 63.961 ms
Loss rate: 1.88%
```

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

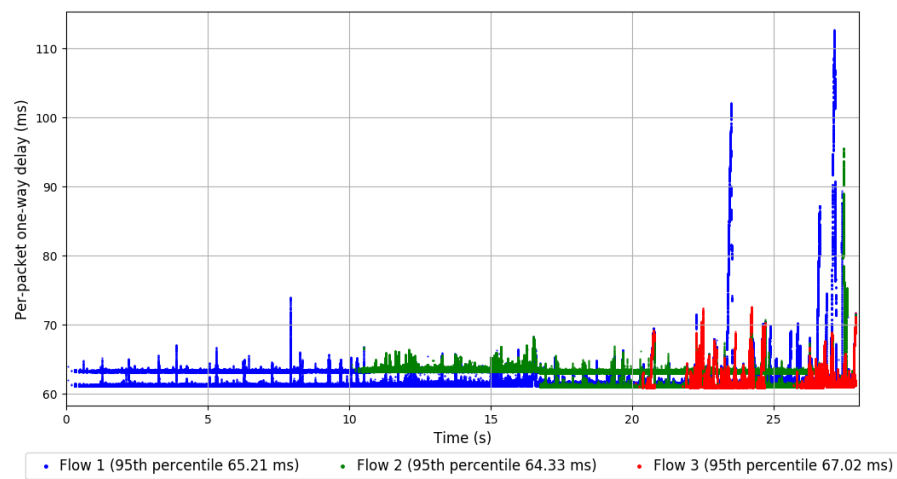
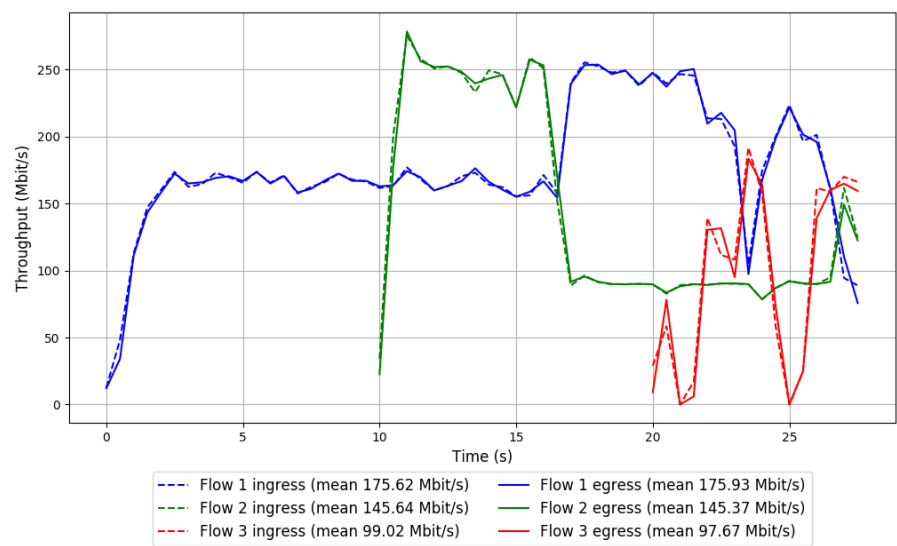


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-01-18 02:29:06
End at: 2018-01-18 02:29:36

# Below is generated by plot.py at 2018-01-18 08:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 296.23 Mbit/s
95th percentile per-packet one-way delay: 65.120 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 175.93 Mbit/s
95th percentile per-packet one-way delay: 65.214 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 145.37 Mbit/s
95th percentile per-packet one-way delay: 64.331 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 97.67 Mbit/s
95th percentile per-packet one-way delay: 67.016 ms
Loss rate: 2.12%
```

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

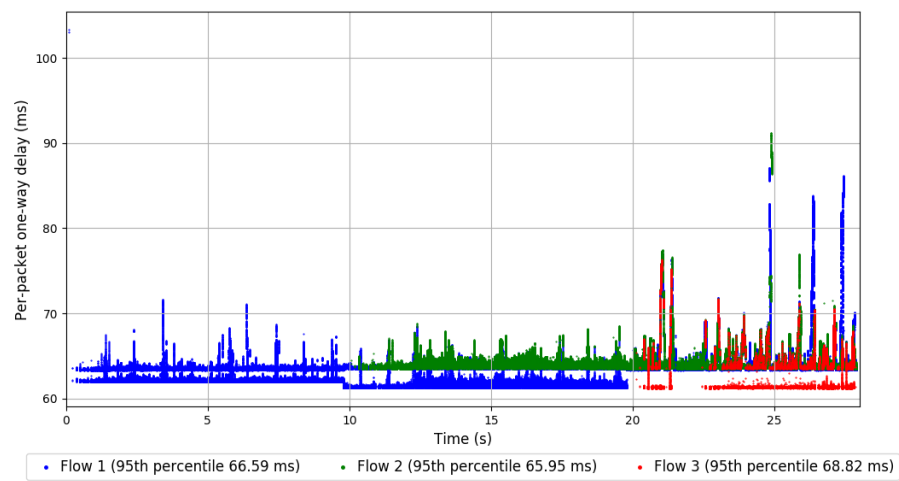
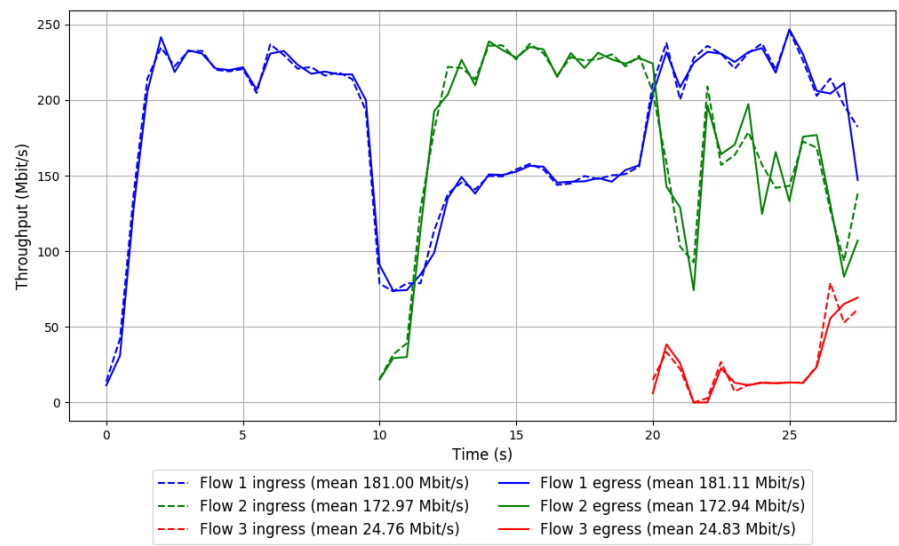


```
Run 4: Statistics of TaoVA-100x

Start at: 2018-01-18 02:46:43
End at: 2018-01-18 02:47:13

# Below is generated by plot.py at 2018-01-18 08:18:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.90 Mbit/s
95th percentile per-packet one-way delay: 66.369 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 181.11 Mbit/s
95th percentile per-packet one-way delay: 66.587 ms
Loss rate: 0.54%
-- Flow 2:
Average throughput: 172.94 Mbit/s
95th percentile per-packet one-way delay: 65.953 ms
Loss rate: 0.73%
-- Flow 3:
Average throughput: 24.83 Mbit/s
95th percentile per-packet one-way delay: 68.818 ms
Loss rate: 1.48%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-18 03:04:13

End at: 2018-01-18 03:04:43

# Below is generated by plot.py at 2018-01-18 08:18:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.38 Mbit/s

95th percentile per-packet one-way delay: 64.084 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 13.87 Mbit/s

95th percentile per-packet one-way delay: 64.235 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 11.16 Mbit/s

95th percentile per-packet one-way delay: 64.370 ms

Loss rate: 0.33%

-- Flow 3:

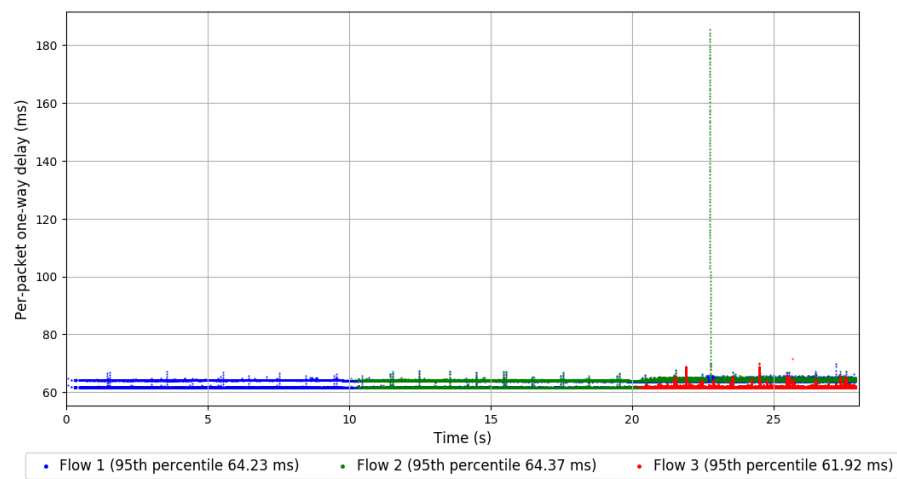
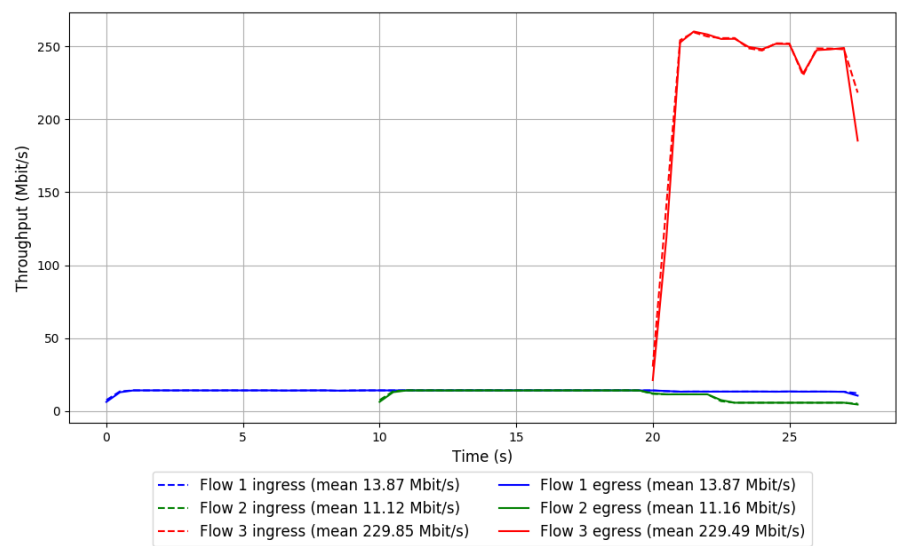
Average throughput: 229.49 Mbit/s

95th percentile per-packet one-way delay: 61.925 ms

Loss rate: 1.75%



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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-18 03:21:27

End at: 2018-01-18 03:21:57

# Below is generated by plot.py at 2018-01-18 08:19:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.85 Mbit/s

95th percentile per-packet one-way delay: 64.457 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 197.73 Mbit/s

95th percentile per-packet one-way delay: 64.464 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 182.53 Mbit/s

95th percentile per-packet one-way delay: 64.191 ms

Loss rate: 0.78%

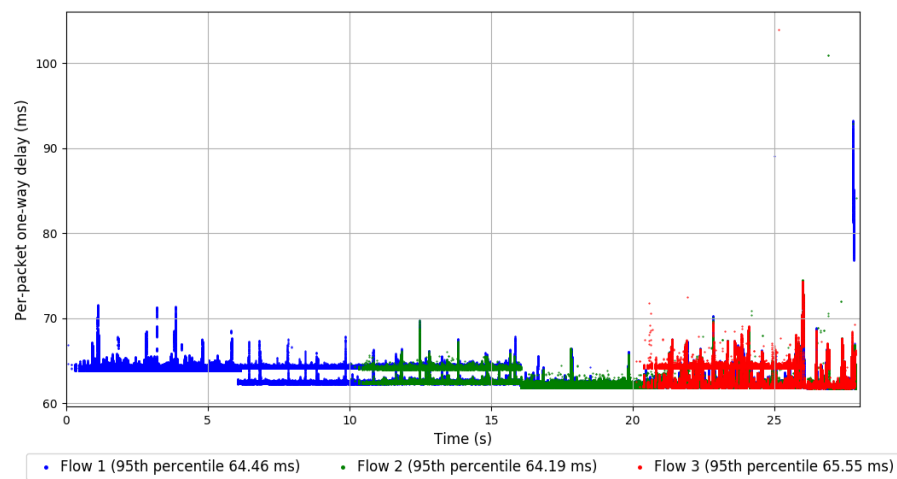
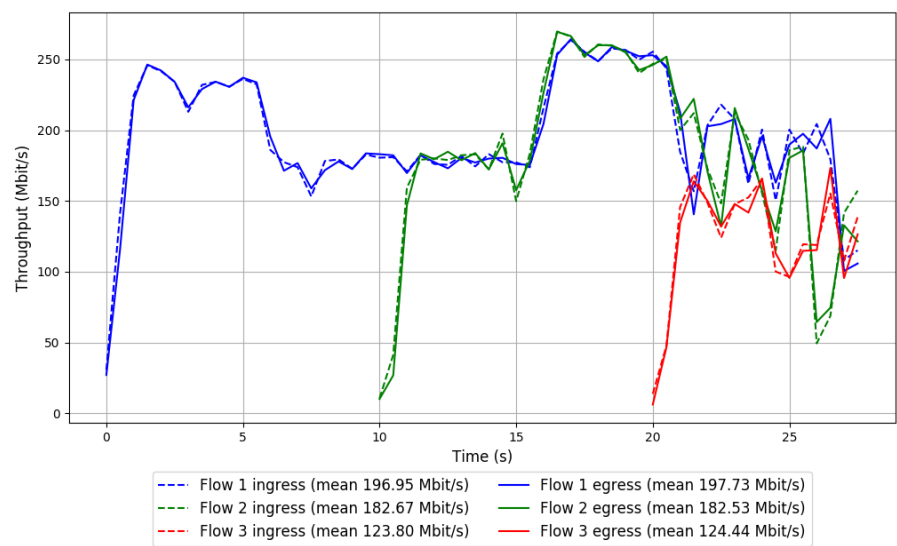
-- Flow 3:

Average throughput: 124.44 Mbit/s

95th percentile per-packet one-way delay: 65.554 ms

Loss rate: 1.45%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-18 03:38:58

End at: 2018-01-18 03:39:28

# Below is generated by plot.py at 2018-01-18 08:21:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 332.98 Mbit/s

95th percentile per-packet one-way delay: 65.477 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 204.21 Mbit/s

95th percentile per-packet one-way delay: 65.217 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 137.26 Mbit/s

95th percentile per-packet one-way delay: 65.996 ms

Loss rate: 0.47%

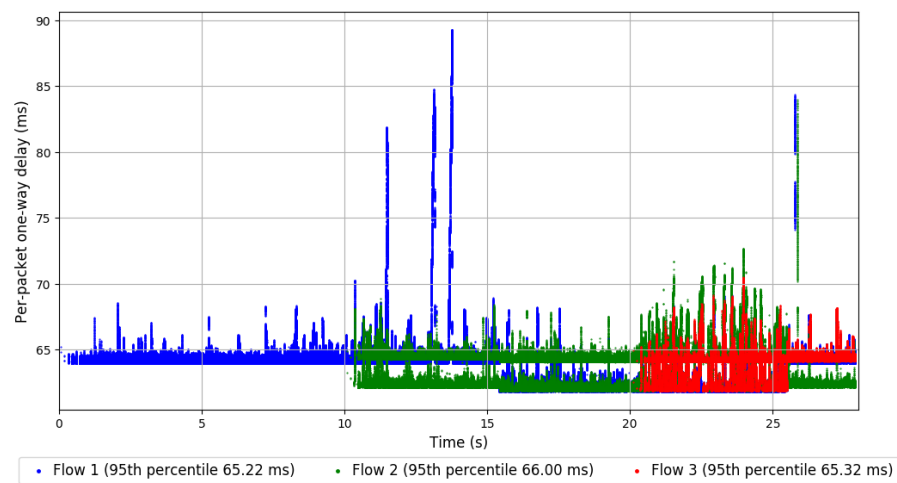
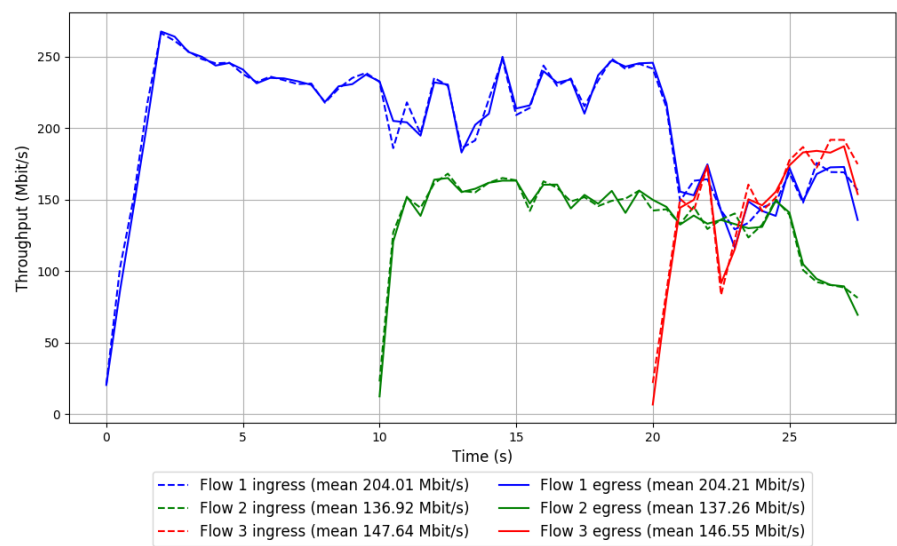
-- Flow 3:

Average throughput: 146.55 Mbit/s

95th percentile per-packet one-way delay: 65.319 ms

Loss rate: 2.14%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-18 03:55:29

End at: 2018-01-18 03:55:59

# Below is generated by plot.py at 2018-01-18 08:21:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 238.71 Mbit/s

95th percentile per-packet one-way delay: 64.810 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 226.17 Mbit/s

95th percentile per-packet one-way delay: 64.814 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 13.64 Mbit/s

95th percentile per-packet one-way delay: 64.927 ms

Loss rate: 0.74%

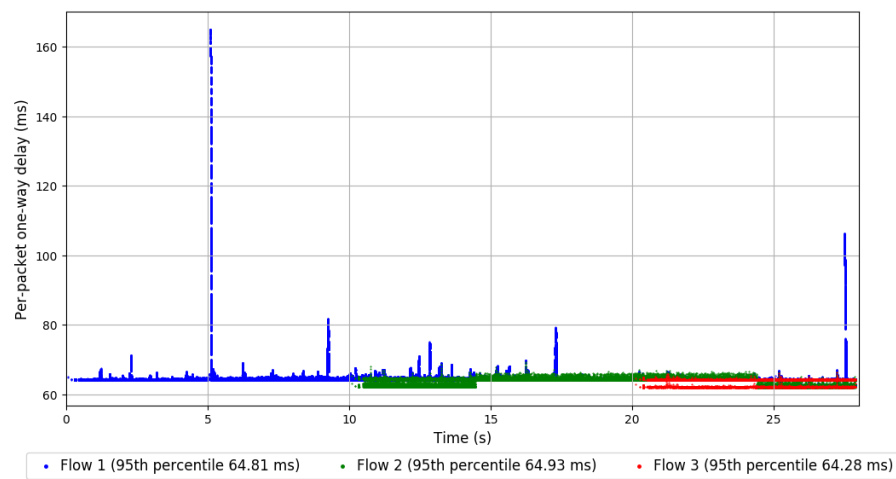
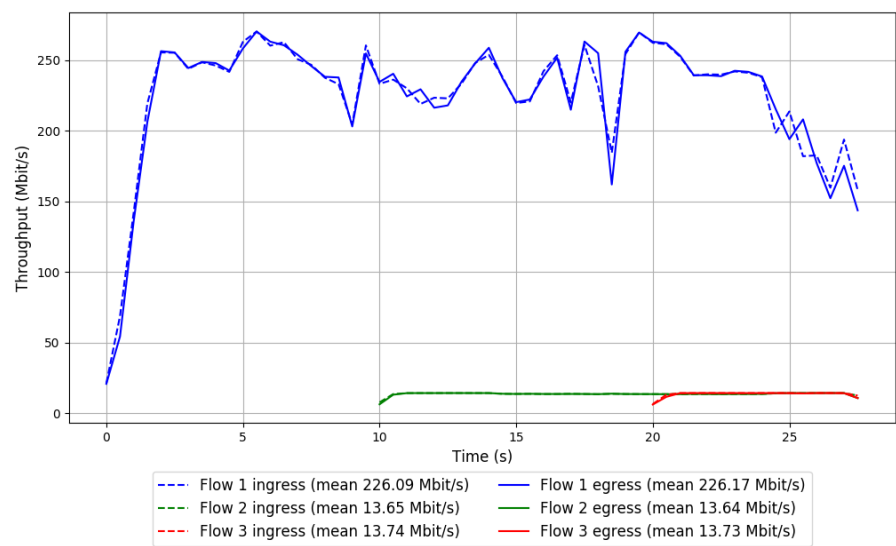
-- Flow 3:

Average throughput: 13.73 Mbit/s

95th percentile per-packet one-way delay: 64.281 ms

Loss rate: 1.66%

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



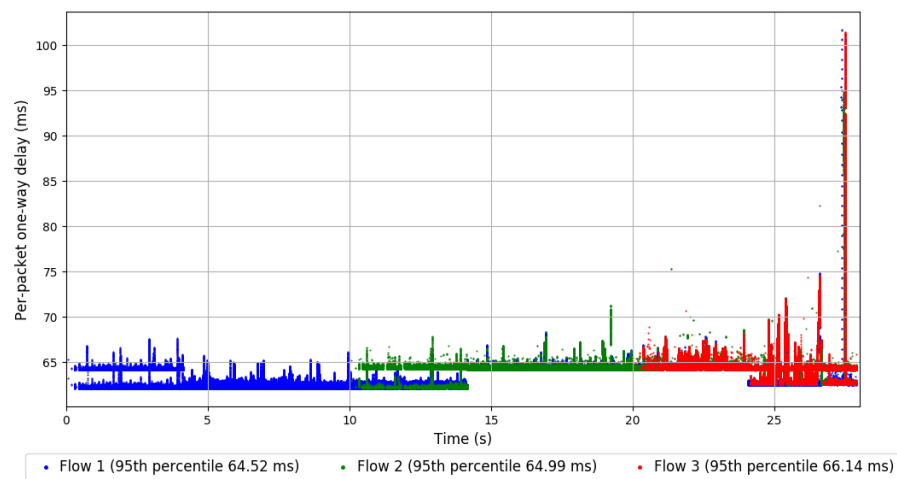
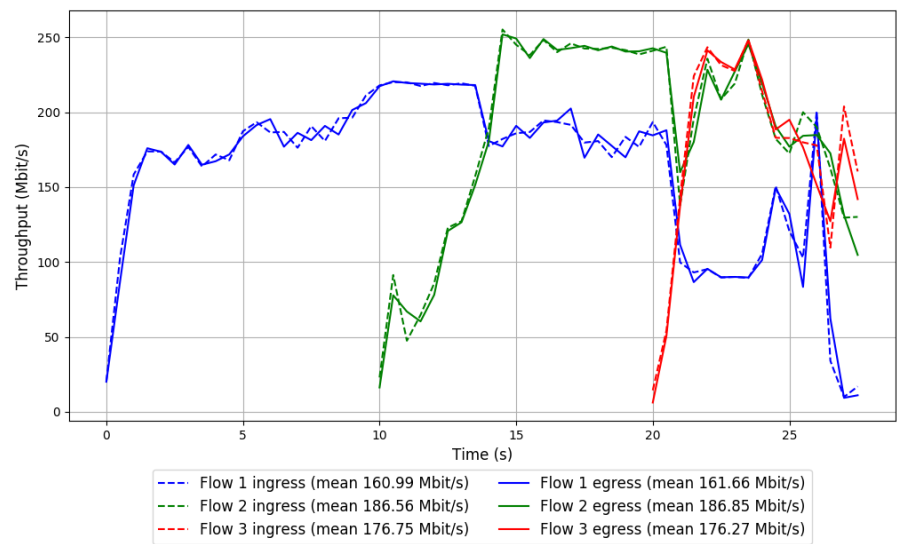
```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-18 04:12:09
End at: 2018-01-18 04:12:39

# Below is generated by plot.py at 2018-01-18 08:21:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 330.49 Mbit/s
95th percentile per-packet one-way delay: 64.866 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 161.66 Mbit/s
95th percentile per-packet one-way delay: 64.523 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 186.85 Mbit/s
95th percentile per-packet one-way delay: 64.991 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 176.27 Mbit/s
95th percentile per-packet one-way delay: 66.139 ms
Loss rate: 2.06%
```



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

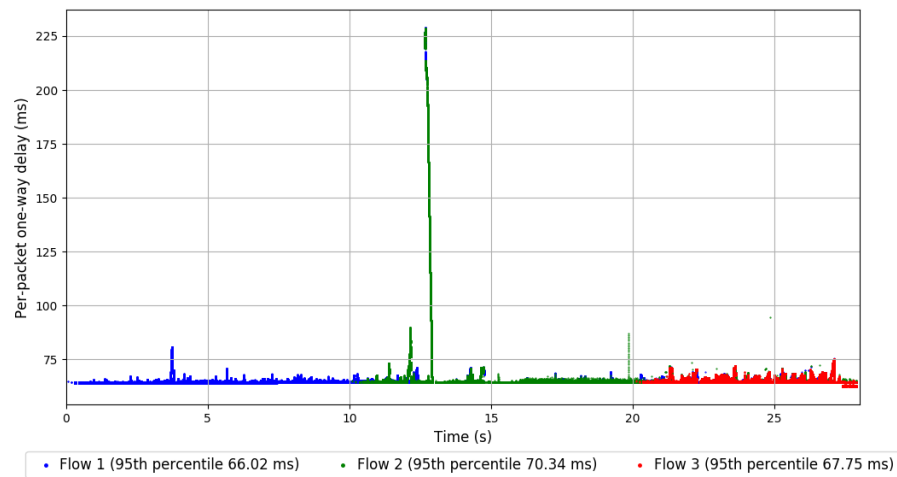
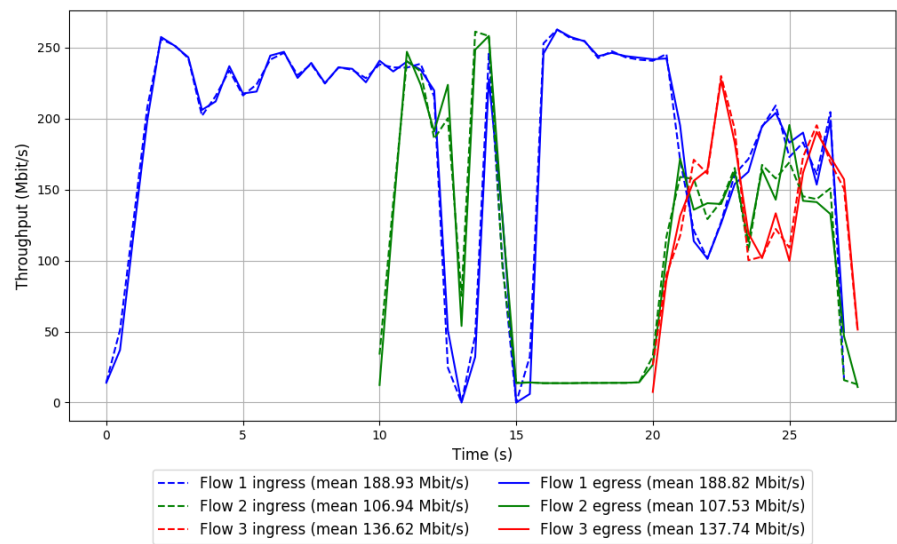


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-18 04:29:46
End at: 2018-01-18 04:30:16

# Below is generated by plot.py at 2018-01-18 08:25:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.71 Mbit/s
95th percentile per-packet one-way delay: 67.320 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 188.82 Mbit/s
95th percentile per-packet one-way delay: 66.018 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 107.53 Mbit/s
95th percentile per-packet one-way delay: 70.340 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 137.74 Mbit/s
95th percentile per-packet one-way delay: 67.747 ms
Loss rate: 0.82%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-18 01:48:42

End at: 2018-01-18 01:49:12

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 148.90 Mbit/s

95th percentile per-packet one-way delay: 70.307 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 110.03 Mbit/s

95th percentile per-packet one-way delay: 70.611 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 13.40 Mbit/s

95th percentile per-packet one-way delay: 64.363 ms

Loss rate: 0.78%

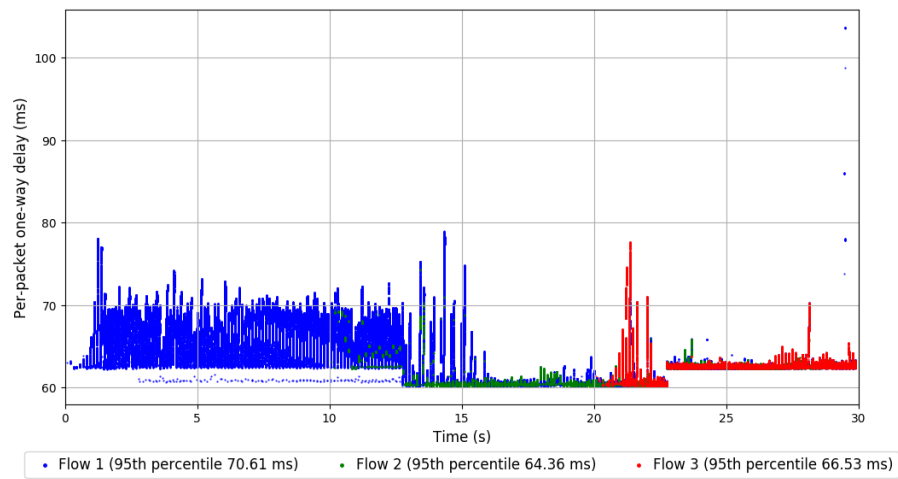
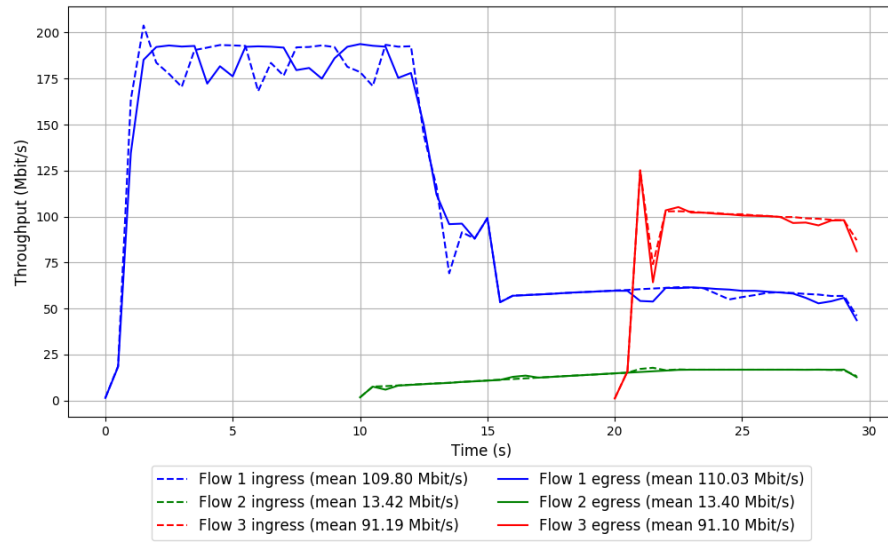
-- Flow 3:

Average throughput: 91.10 Mbit/s

95th percentile per-packet one-way delay: 66.530 ms

Loss rate: 1.35%

# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-18 02:06:09

End at: 2018-01-18 02:06:39

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 172.36 Mbit/s

95th percentile per-packet one-way delay: 69.709 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 89.40 Mbit/s

95th percentile per-packet one-way delay: 70.394 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 65.91 Mbit/s

95th percentile per-packet one-way delay: 64.520 ms

Loss rate: 0.22%

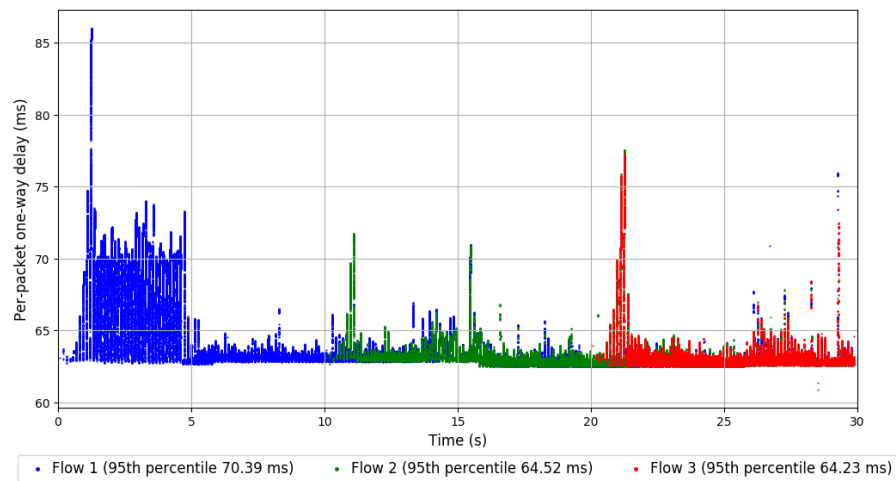
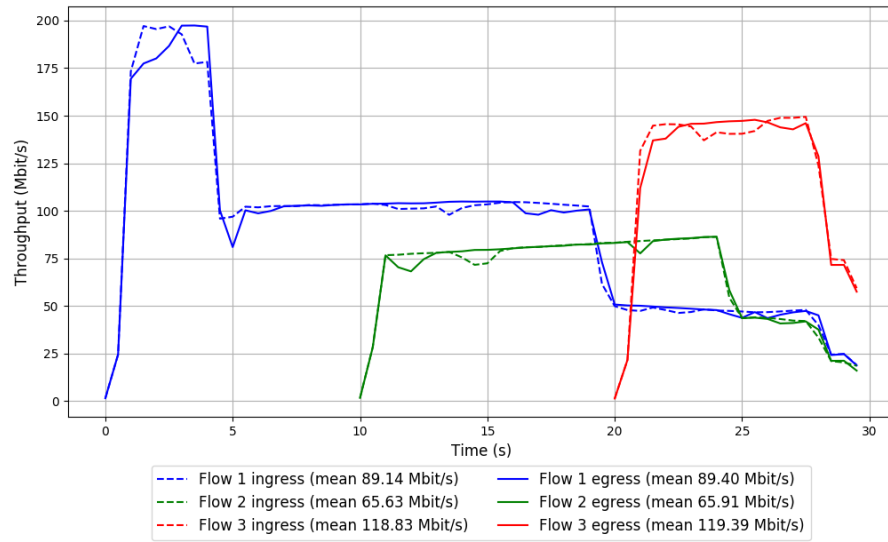
-- Flow 3:

Average throughput: 119.39 Mbit/s

95th percentile per-packet one-way delay: 64.230 ms

Loss rate: 0.81%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-01-18 02:23:45

End at: 2018-01-18 02:24:15

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 112.68 Mbit/s

95th percentile per-packet one-way delay: 68.688 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 51.46 Mbit/s

95th percentile per-packet one-way delay: 65.935 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 61.49 Mbit/s

95th percentile per-packet one-way delay: 68.369 ms

Loss rate: 0.59%

-- Flow 3:

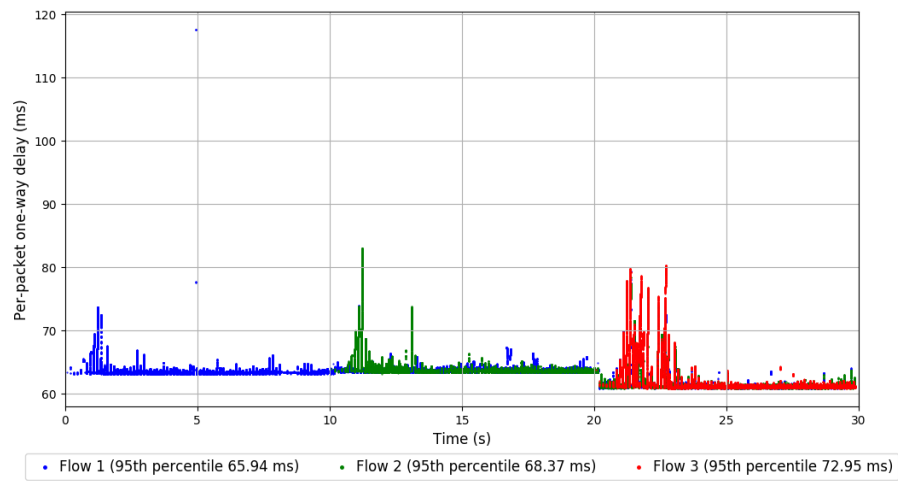
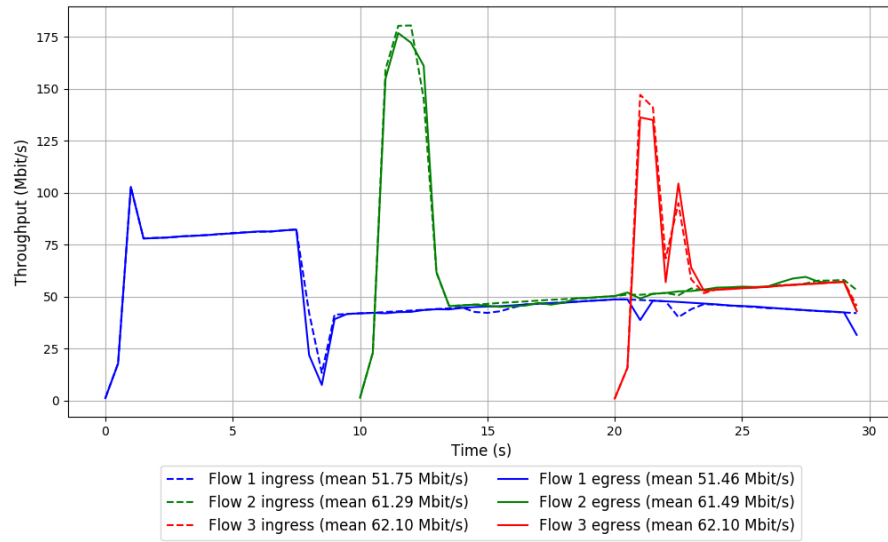
Average throughput: 62.10 Mbit/s

95th percentile per-packet one-way delay: 72.947 ms

Loss rate: 1.30%



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



Run 4: Statistics of TCP Vegas

Start at: 2018-01-18 02:41:17

End at: 2018-01-18 02:41:47

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.00 Mbit/s

95th percentile per-packet one-way delay: 71.498 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 54.51 Mbit/s

95th percentile per-packet one-way delay: 72.802 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 49.36 Mbit/s

95th percentile per-packet one-way delay: 65.085 ms

Loss rate: 0.57%

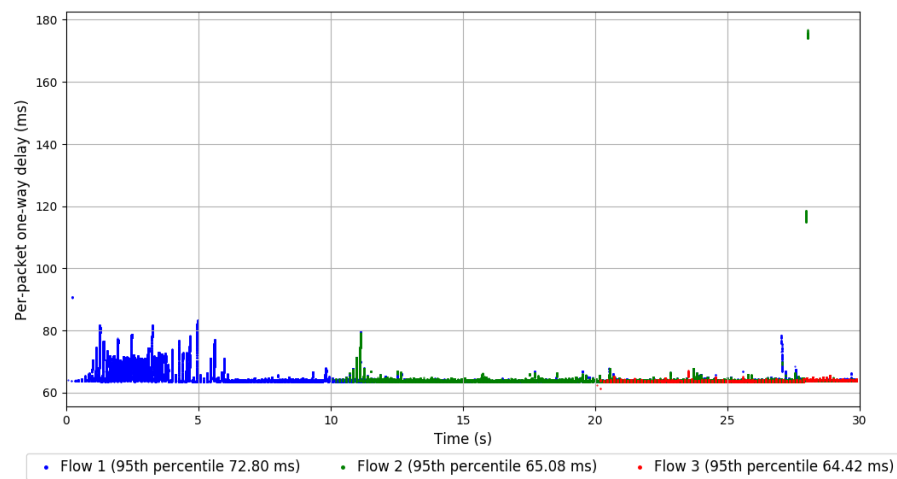
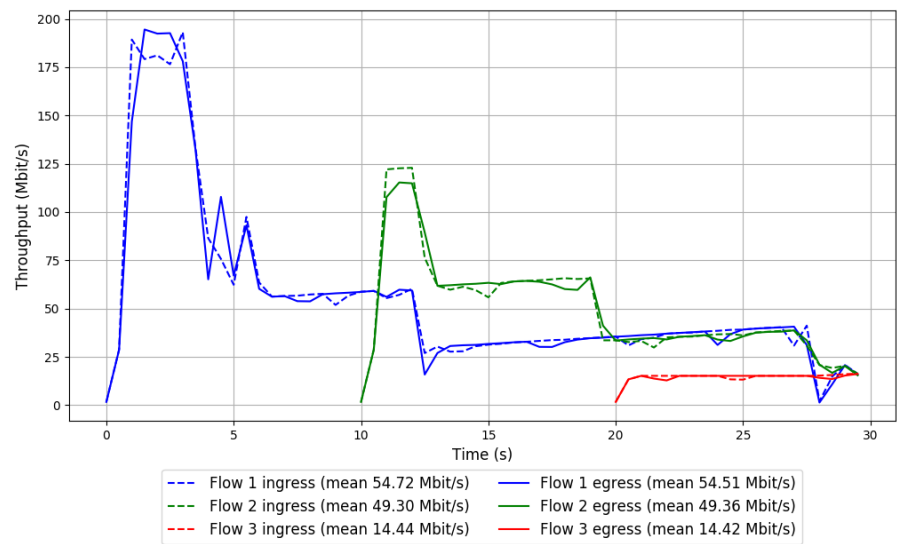
-- Flow 3:

Average throughput: 14.42 Mbit/s

95th percentile per-packet one-way delay: 64.425 ms

Loss rate: 1.44%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-18 02:58:52

End at: 2018-01-18 02:59:22

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.76 Mbit/s

95th percentile per-packet one-way delay: 71.204 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 33.70 Mbit/s

95th percentile per-packet one-way delay: 70.637 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 102.05 Mbit/s

95th percentile per-packet one-way delay: 71.867 ms

Loss rate: 0.59%

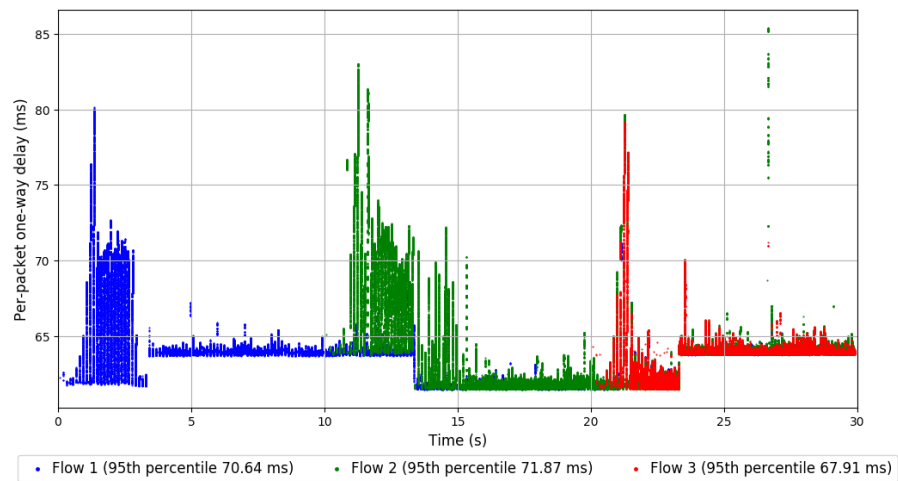
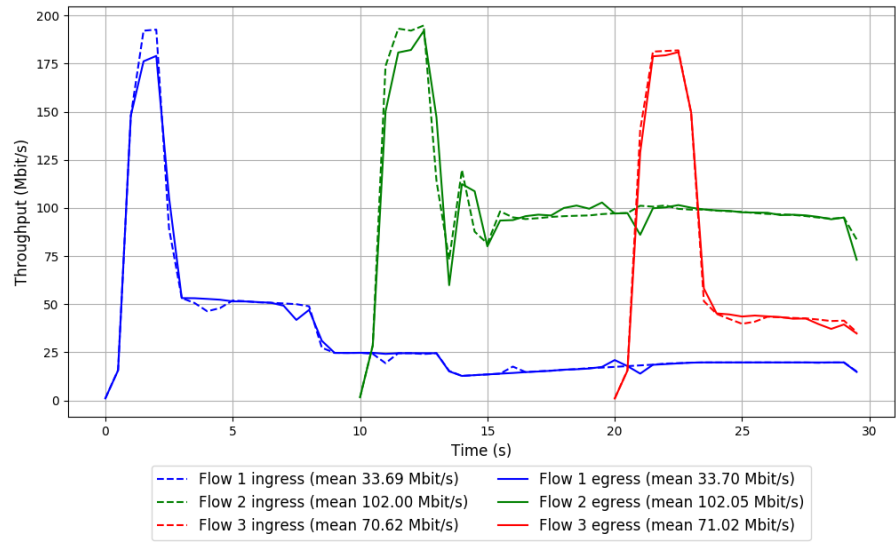
-- Flow 3:

Average throughput: 71.02 Mbit/s

95th percentile per-packet one-way delay: 67.908 ms

Loss rate: 0.72%

# Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-18 03:16:06

End at: 2018-01-18 03:16:36

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 68.33 Mbit/s

95th percentile per-packet one-way delay: 64.913 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 31.21 Mbit/s

95th percentile per-packet one-way delay: 64.743 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 24.75 Mbit/s

95th percentile per-packet one-way delay: 65.687 ms

Loss rate: 3.58%

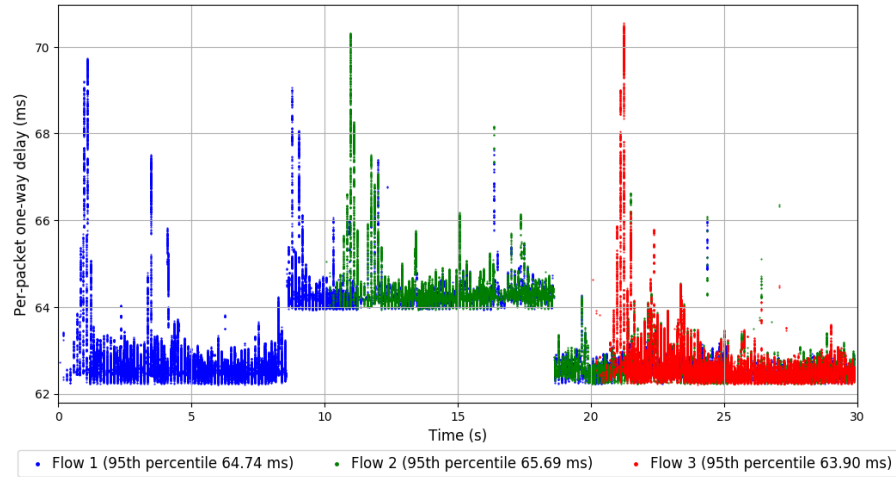
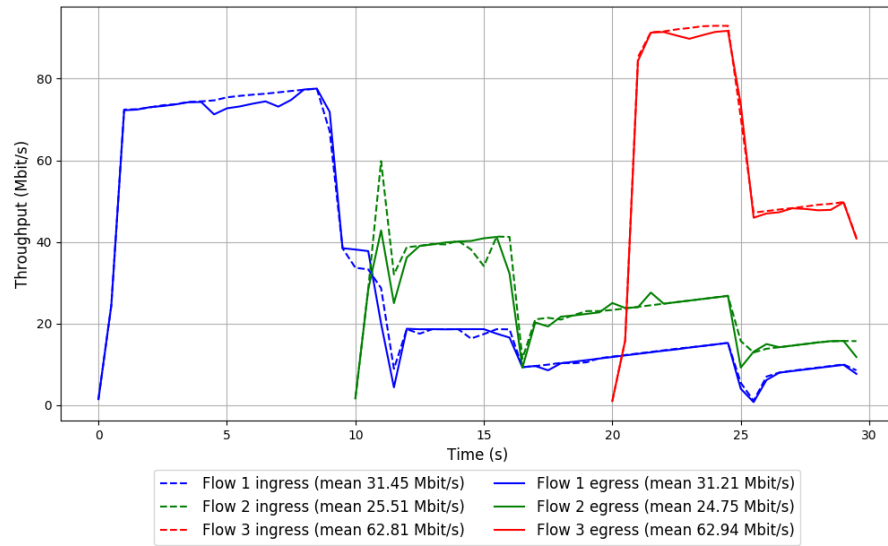
-- Flow 3:

Average throughput: 62.94 Mbit/s

95th percentile per-packet one-way delay: 63.897 ms

Loss rate: 1.07%

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



Run 7: Statistics of TCP Vegas

Start at: 2018-01-18 03:33:37

End at: 2018-01-18 03:34:07

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.81 Mbit/s

95th percentile per-packet one-way delay: 65.036 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 58.12 Mbit/s

95th percentile per-packet one-way delay: 65.066 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 62.82 Mbit/s

95th percentile per-packet one-way delay: 65.037 ms

Loss rate: 0.98%

-- Flow 3:

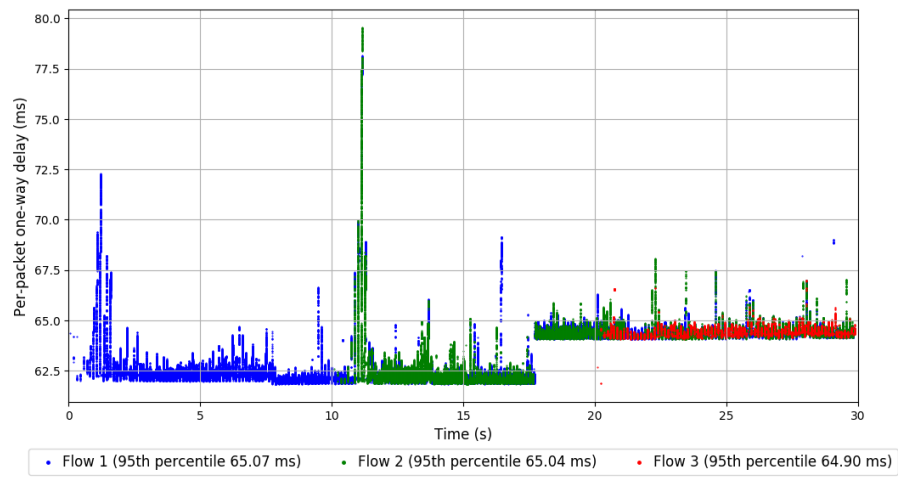
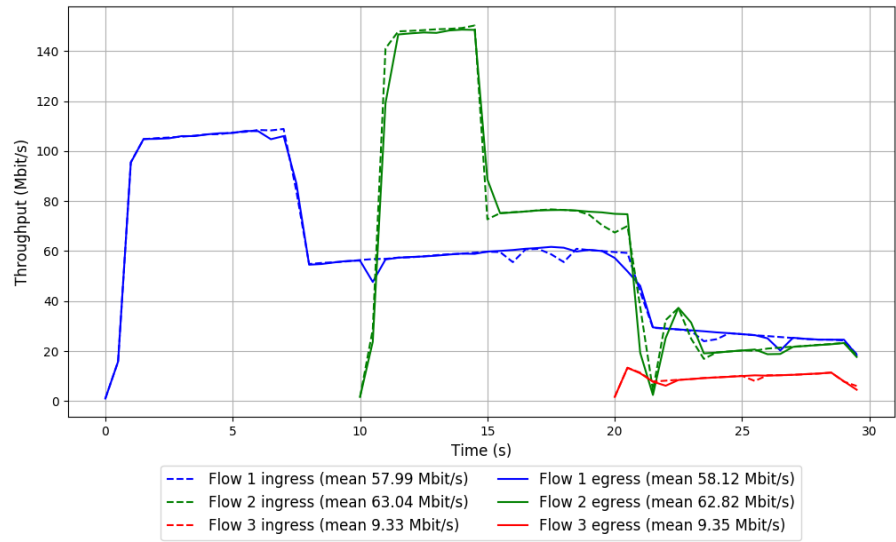
Average throughput: 9.35 Mbit/s

95th percentile per-packet one-way delay: 64.897 ms

Loss rate: 1.00%



# Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-18 03:50:07

End at: 2018-01-18 03:50:37

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 89.61 Mbit/s

95th percentile per-packet one-way delay: 65.211 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 18.98 Mbit/s

95th percentile per-packet one-way delay: 65.451 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 64.25 Mbit/s

95th percentile per-packet one-way delay: 65.154 ms

Loss rate: 0.72%

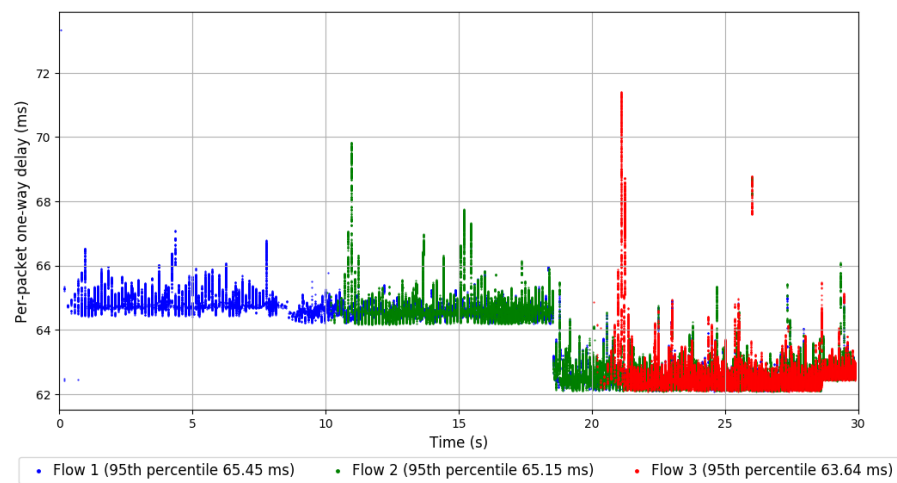
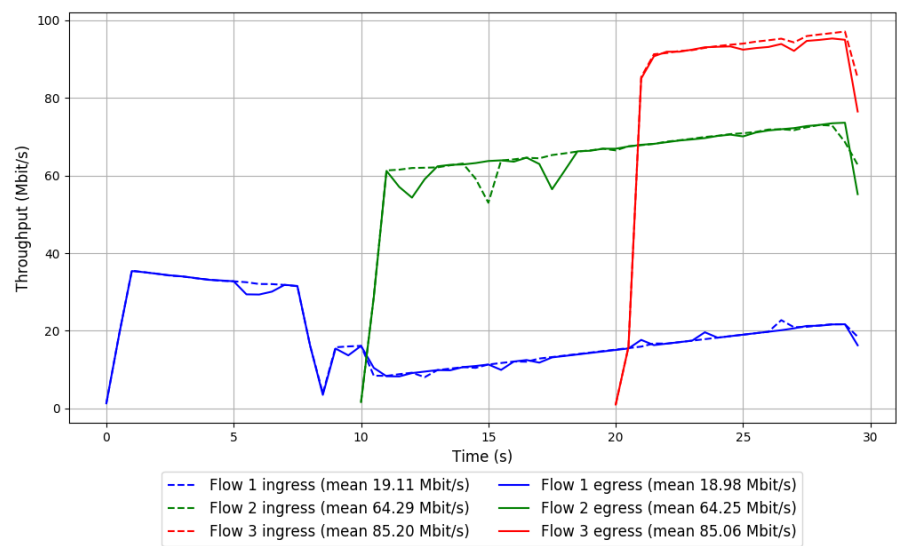
-- Flow 3:

Average throughput: 85.06 Mbit/s

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

Loss rate: 1.44%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-18 04:06:59

End at: 2018-01-18 04:07:29

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.76 Mbit/s

95th percentile per-packet one-way delay: 64.874 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 11.29 Mbit/s

95th percentile per-packet one-way delay: 1564.817 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.53 Mbit/s

95th percentile per-packet one-way delay: 64.889 ms

Loss rate: 0.77%

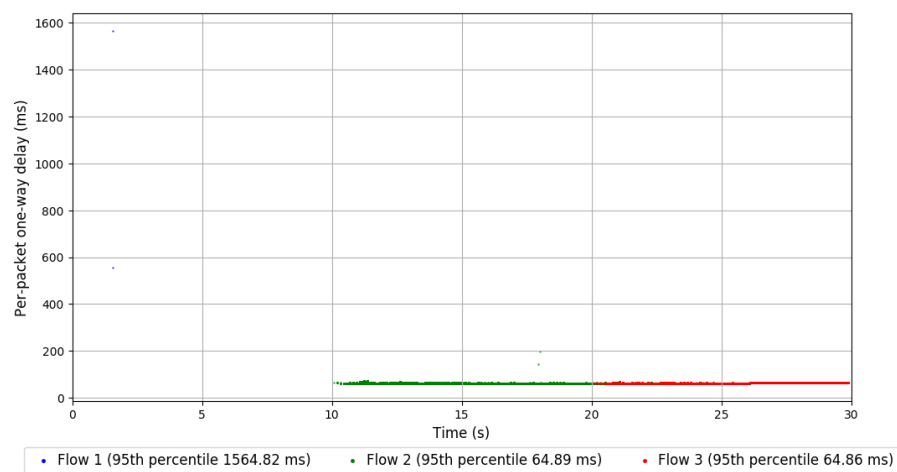
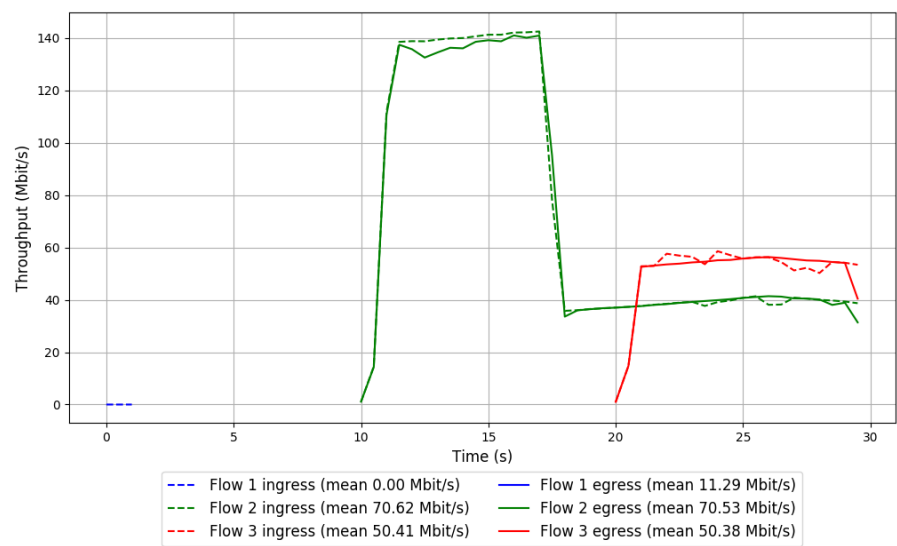
-- Flow 3:

Average throughput: 50.38 Mbit/s

95th percentile per-packet one-way delay: 64.856 ms

Loss rate: 1.34%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-18 04:24:21

End at: 2018-01-18 04:24:51

# Below is generated by plot.py at 2018-01-18 08:25:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.19 Mbit/s

95th percentile per-packet one-way delay: 66.196 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 54.85 Mbit/s

95th percentile per-packet one-way delay: 66.199 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 11.59 Mbit/s

95th percentile per-packet one-way delay: 65.625 ms

Loss rate: 1.55%

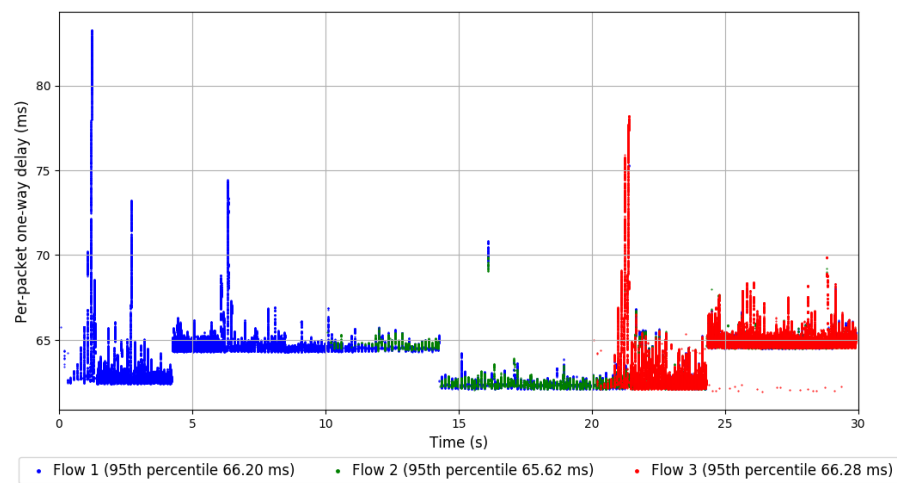
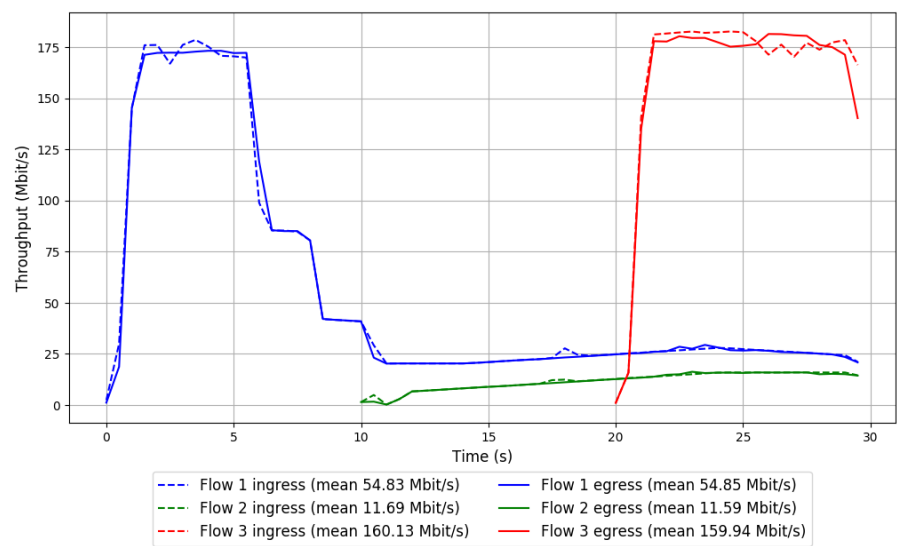
-- Flow 3:

Average throughput: 159.94 Mbit/s

95th percentile per-packet one-way delay: 66.282 ms

Loss rate: 1.41%

Run 10: Report of TCP Vegas — Data Link



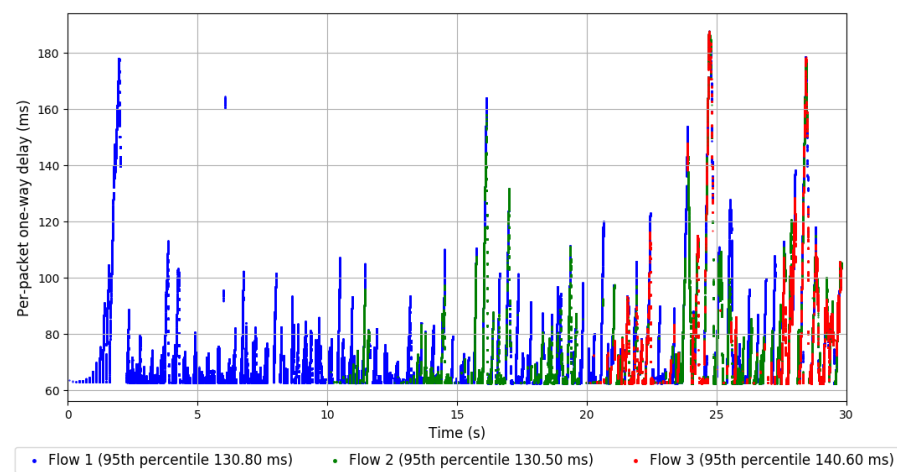
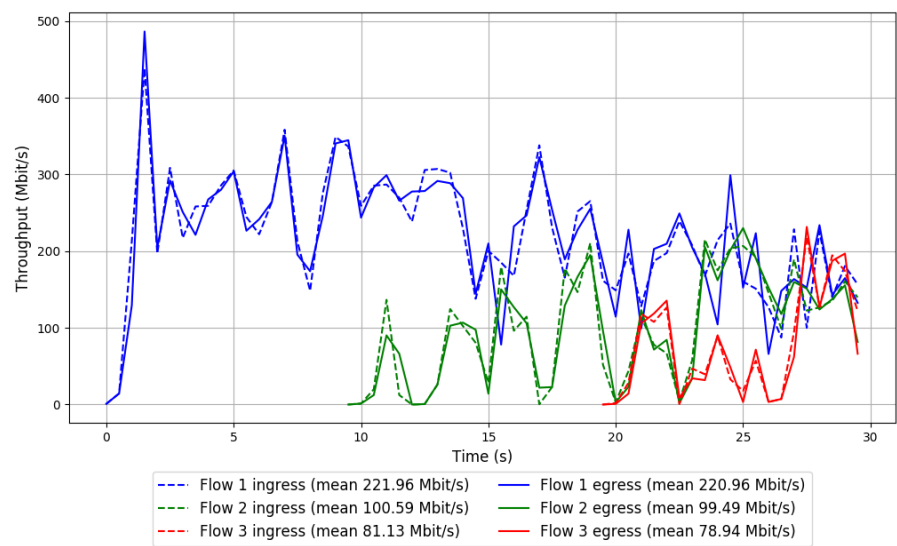
```
Run 1: Statistics of Verus

Start at: 2018-01-18 01:55:19
End at: 2018-01-18 01:55:49

# Below is generated by plot.py at 2018-01-18 08:26:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.24 Mbit/s
95th percentile per-packet one-way delay: 131.223 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 220.96 Mbit/s
95th percentile per-packet one-way delay: 130.801 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 99.49 Mbit/s
95th percentile per-packet one-way delay: 130.496 ms
Loss rate: 1.72%
-- Flow 3:
Average throughput: 78.94 Mbit/s
95th percentile per-packet one-way delay: 140.604 ms
Loss rate: 3.93%
```



Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-18 02:12:53

End at: 2018-01-18 02:13:23

# Below is generated by plot.py at 2018-01-18 08:27:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 333.49 Mbit/s

95th percentile per-packet one-way delay: 128.531 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 217.82 Mbit/s

95th percentile per-packet one-way delay: 140.675 ms

Loss rate: 1.62%

-- Flow 2:

Average throughput: 122.02 Mbit/s

95th percentile per-packet one-way delay: 120.755 ms

Loss rate: 0.05%

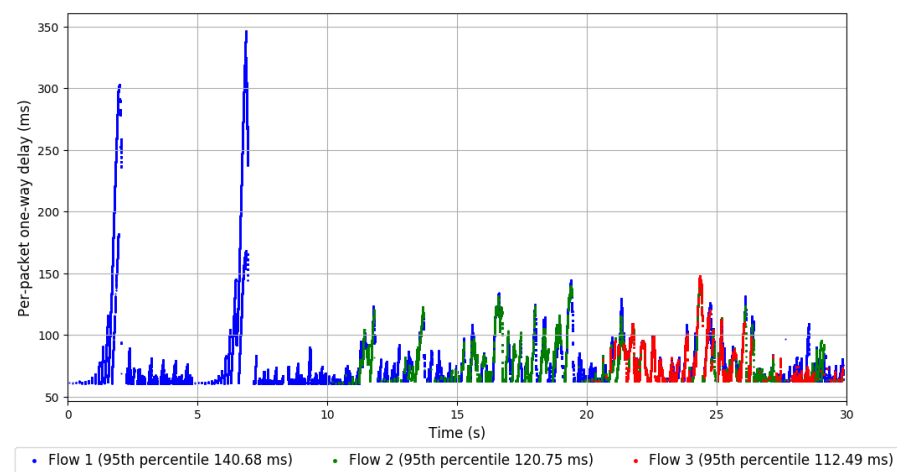
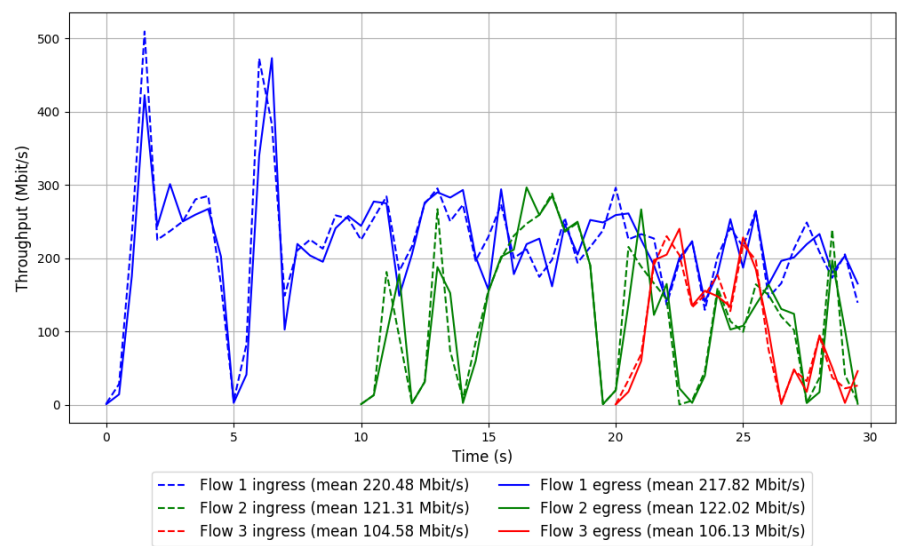
-- Flow 3:

Average throughput: 106.13 Mbit/s

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

Loss rate: 0.01%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-18 02:30:15

End at: 2018-01-18 02:30:45

# Below is generated by plot.py at 2018-01-18 08:27:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 290.37 Mbit/s

95th percentile per-packet one-way delay: 121.441 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 159.21 Mbit/s

95th percentile per-packet one-way delay: 124.759 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 173.77 Mbit/s

95th percentile per-packet one-way delay: 110.084 ms

Loss rate: 1.12%

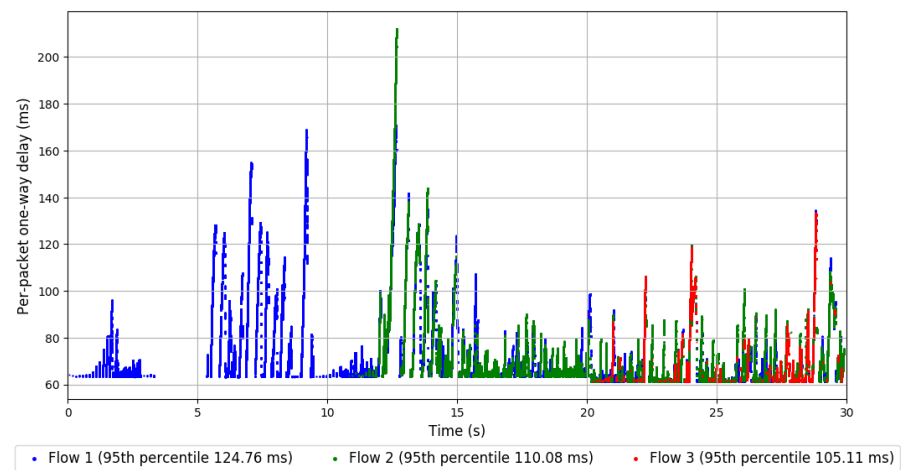
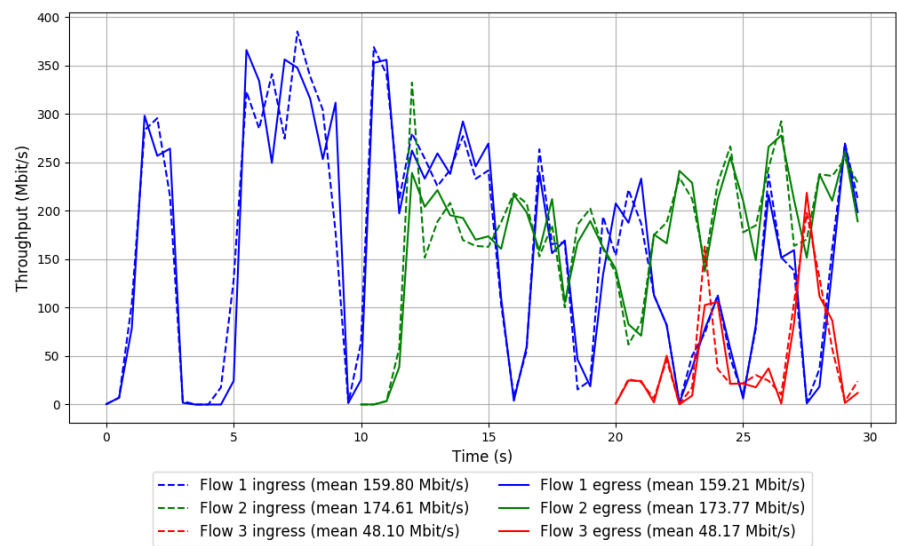
-- Flow 3:

Average throughput: 48.17 Mbit/s

95th percentile per-packet one-way delay: 105.107 ms

Loss rate: 1.45%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-18 02:47:52

End at: 2018-01-18 02:48:22

# Below is generated by plot.py at 2018-01-18 08:27:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 303.84 Mbit/s

95th percentile per-packet one-way delay: 210.907 ms

Loss rate: 6.98%

-- Flow 1:

Average throughput: 153.85 Mbit/s

95th percentile per-packet one-way delay: 161.243 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 201.95 Mbit/s

95th percentile per-packet one-way delay: 245.870 ms

Loss rate: 12.80%

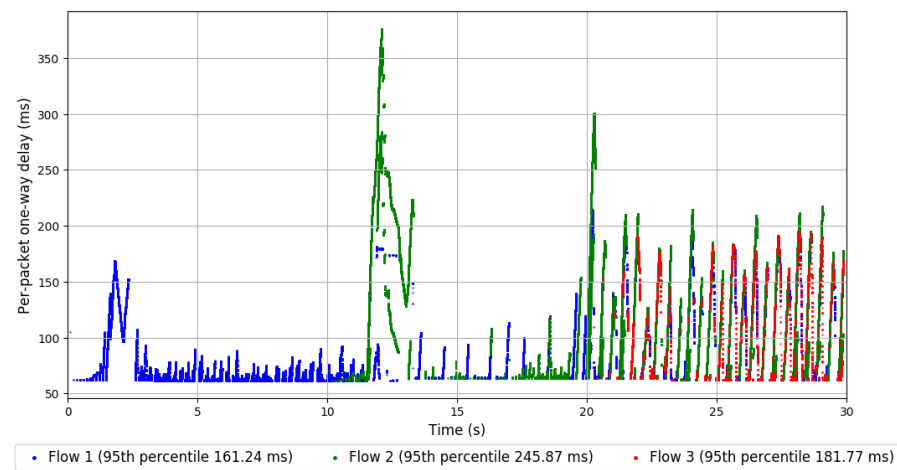
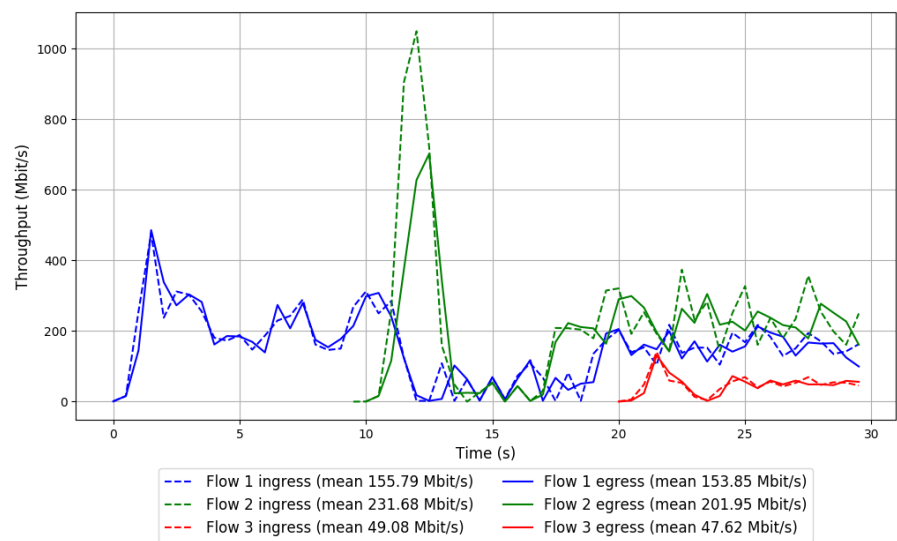
-- Flow 3:

Average throughput: 47.62 Mbit/s

95th percentile per-packet one-way delay: 181.769 ms

Loss rate: 2.47%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-18 03:05:02

End at: 2018-01-18 03:05:32

# Below is generated by plot.py at 2018-01-18 08:27:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 309.77 Mbit/s

95th percentile per-packet one-way delay: 139.203 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 160.29 Mbit/s

95th percentile per-packet one-way delay: 133.116 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 191.14 Mbit/s

95th percentile per-packet one-way delay: 146.425 ms

Loss rate: 1.90%

-- Flow 3:

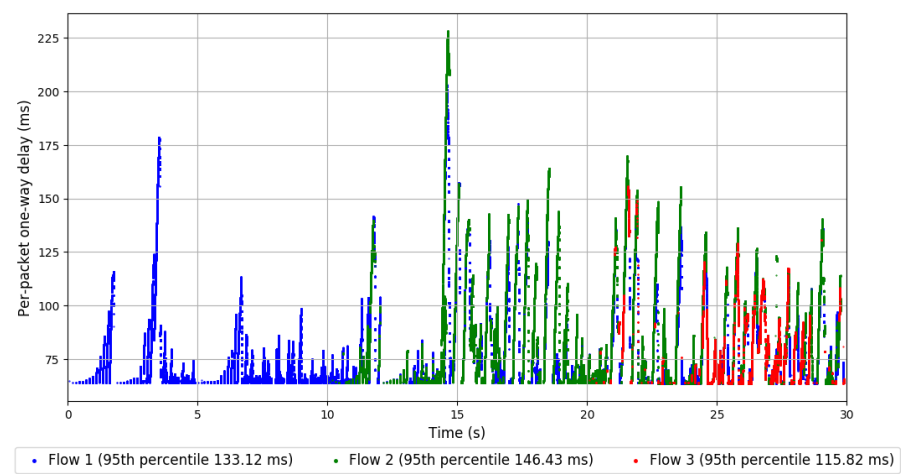
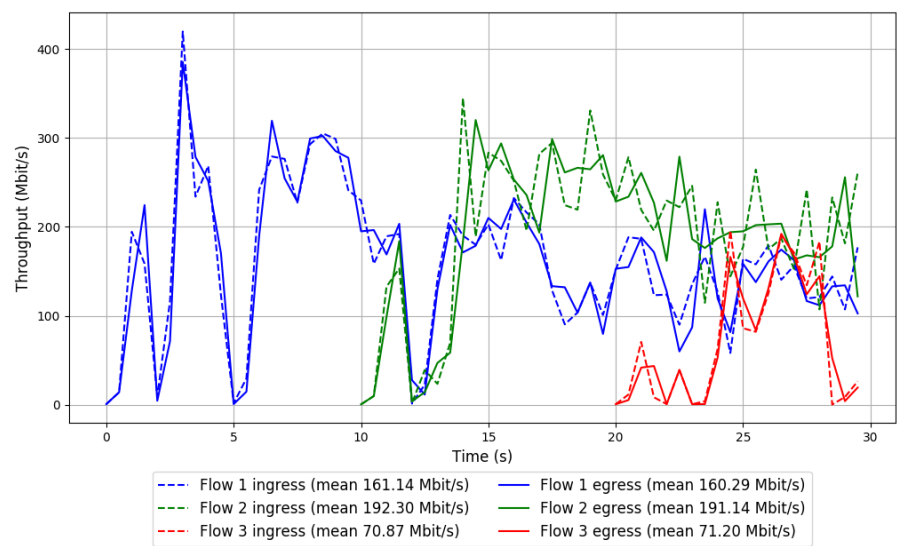
Average throughput: 71.20 Mbit/s

95th percentile per-packet one-way delay: 115.820 ms

Loss rate: 0.84%



Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-18 03:22:39

End at: 2018-01-18 03:23:09

# Below is generated by plot.py at 2018-01-18 08:27:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 278.21 Mbit/s

95th percentile per-packet one-way delay: 159.972 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 203.90 Mbit/s

95th percentile per-packet one-way delay: 155.918 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 92.34 Mbit/s

95th percentile per-packet one-way delay: 151.116 ms

Loss rate: 0.43%

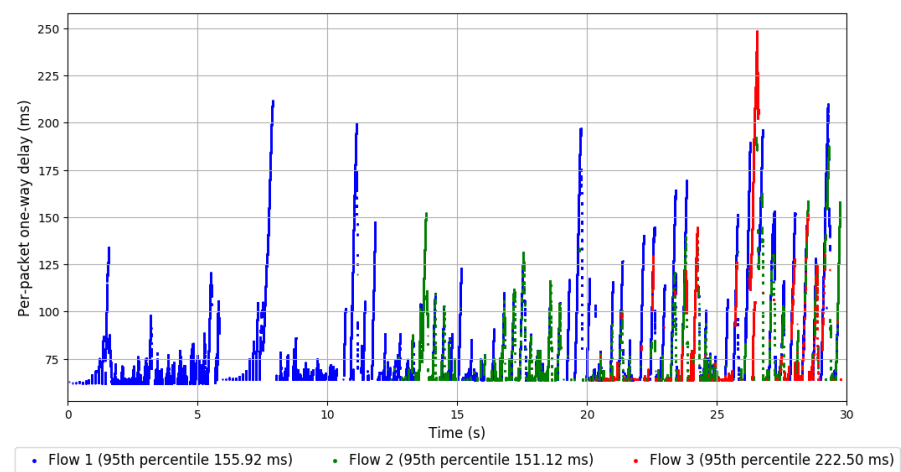
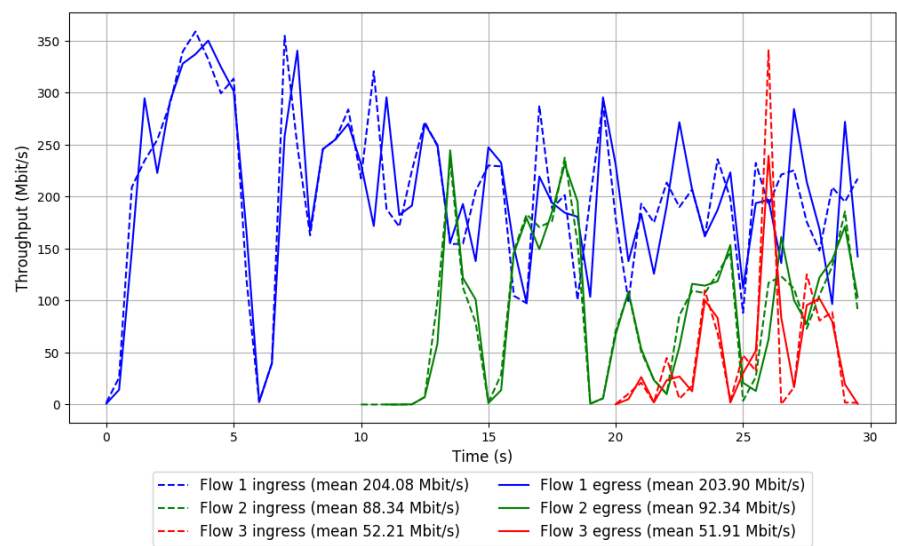
-- Flow 3:

Average throughput: 51.91 Mbit/s

95th percentile per-packet one-way delay: 222.498 ms

Loss rate: 1.86%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-18 03:40:09

End at: 2018-01-18 03:40:39

# Below is generated by plot.py at 2018-01-18 08:29:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 339.73 Mbit/s

95th percentile per-packet one-way delay: 152.624 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 266.09 Mbit/s

95th percentile per-packet one-way delay: 155.236 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 84.30 Mbit/s

95th percentile per-packet one-way delay: 145.381 ms

Loss rate: 0.96%

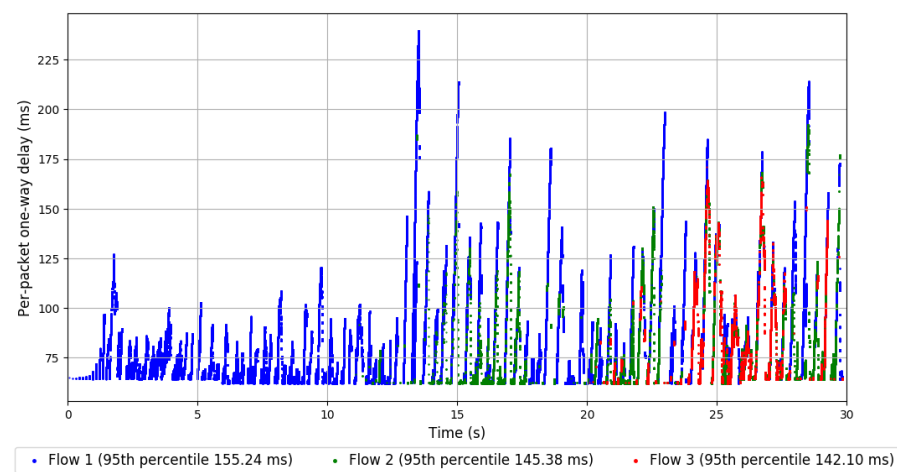
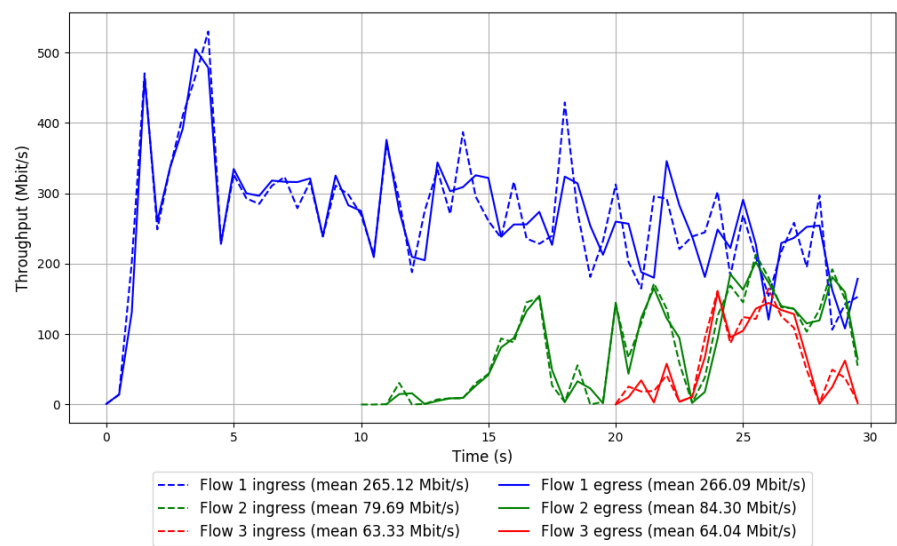
-- Flow 3:

Average throughput: 64.04 Mbit/s

95th percentile per-packet one-way delay: 142.098 ms

Loss rate: 0.16%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-18 03:56:31

End at: 2018-01-18 03:57:01

# Below is generated by plot.py at 2018-01-18 08:30:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 241.64 Mbit/s

95th percentile per-packet one-way delay: 91.447 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 130.35 Mbit/s

95th percentile per-packet one-way delay: 98.433 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 126.14 Mbit/s

95th percentile per-packet one-way delay: 85.772 ms

Loss rate: 0.04%

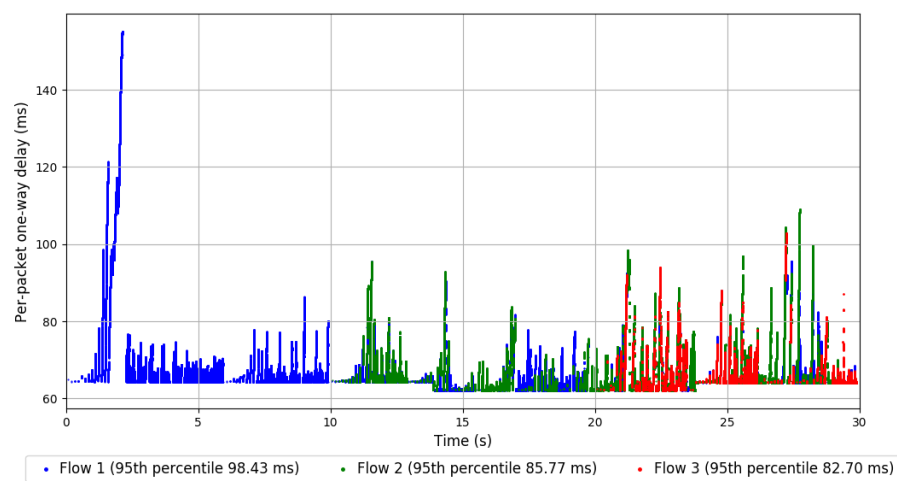
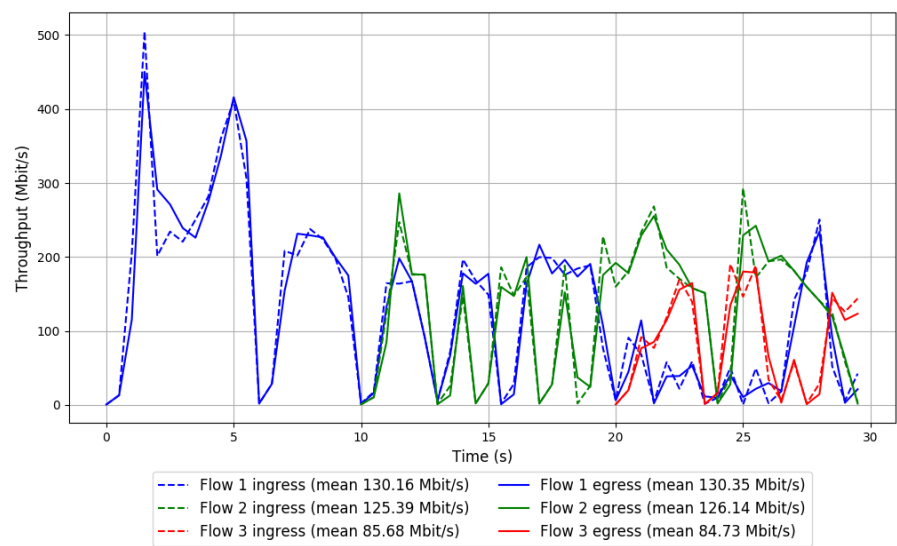
-- Flow 3:

Average throughput: 84.73 Mbit/s

95th percentile per-packet one-way delay: 82.704 ms

Loss rate: 2.35%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-18 04:13:20

End at: 2018-01-18 04:13:50

# Below is generated by plot.py at 2018-01-18 08:32:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 322.87 Mbit/s

95th percentile per-packet one-way delay: 183.623 ms

Loss rate: 4.36%

-- Flow 1:

Average throughput: 191.74 Mbit/s

95th percentile per-packet one-way delay: 169.222 ms

Loss rate: 3.19%

-- Flow 2:

Average throughput: 91.73 Mbit/s

95th percentile per-packet one-way delay: 134.636 ms

Loss rate: 1.81%

-- Flow 3:

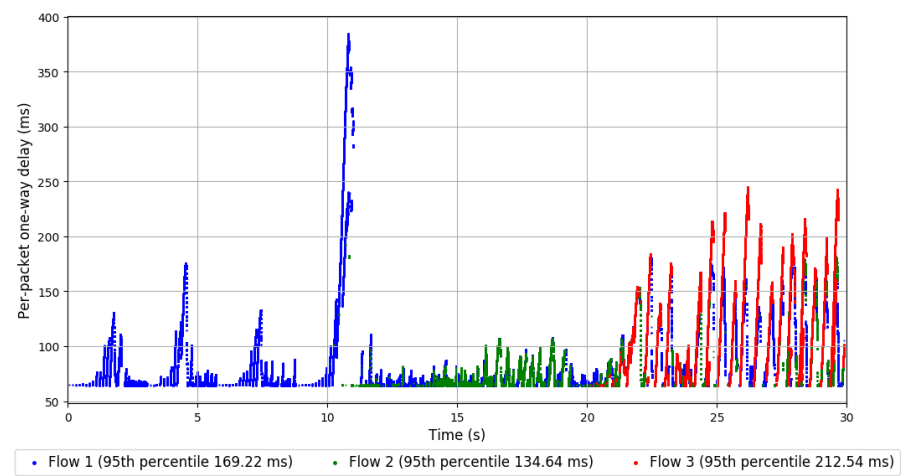
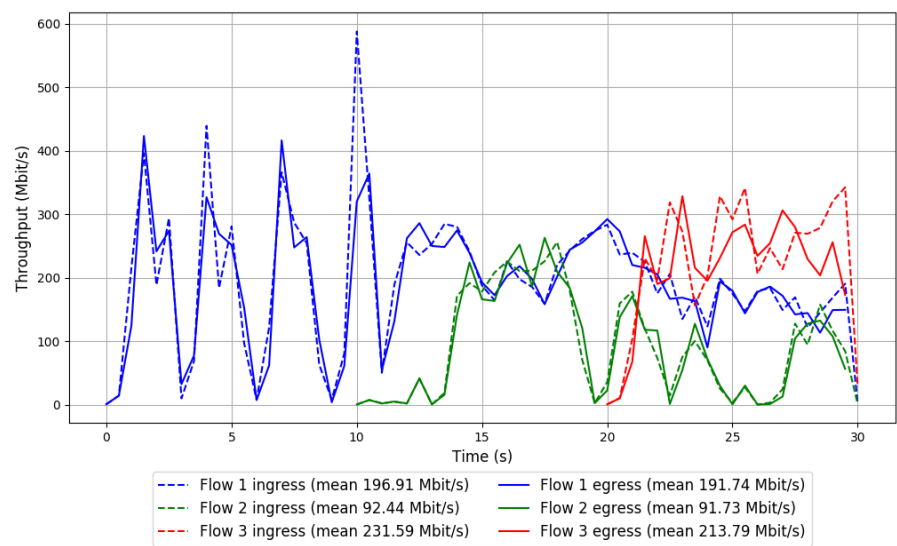
Average throughput: 213.79 Mbit/s

95th percentile per-packet one-way delay: 212.542 ms

Loss rate: 9.37%



Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-18 04:30:53

End at: 2018-01-18 04:31:23

# Below is generated by plot.py at 2018-01-18 08:32:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 244.33 Mbit/s

95th percentile per-packet one-way delay: 108.523 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 147.97 Mbit/s

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

Loss rate: 0.23%

-- Flow 2:

Average throughput: 99.30 Mbit/s

95th percentile per-packet one-way delay: 102.902 ms

Loss rate: 0.07%

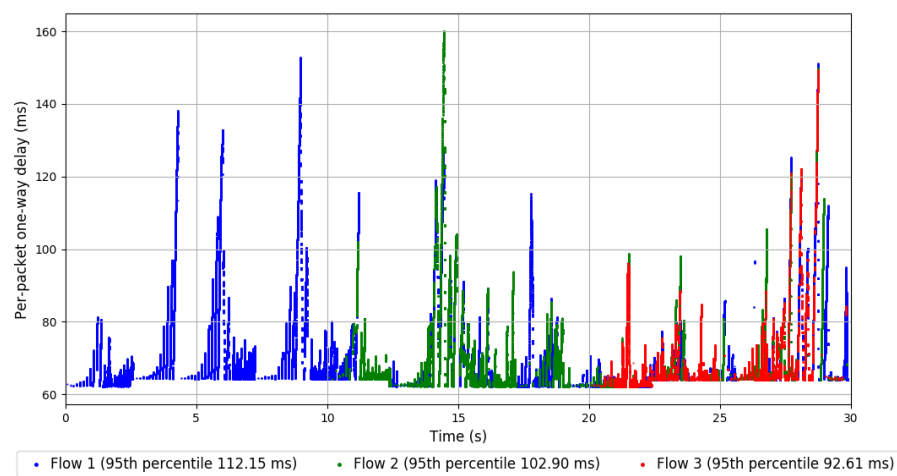
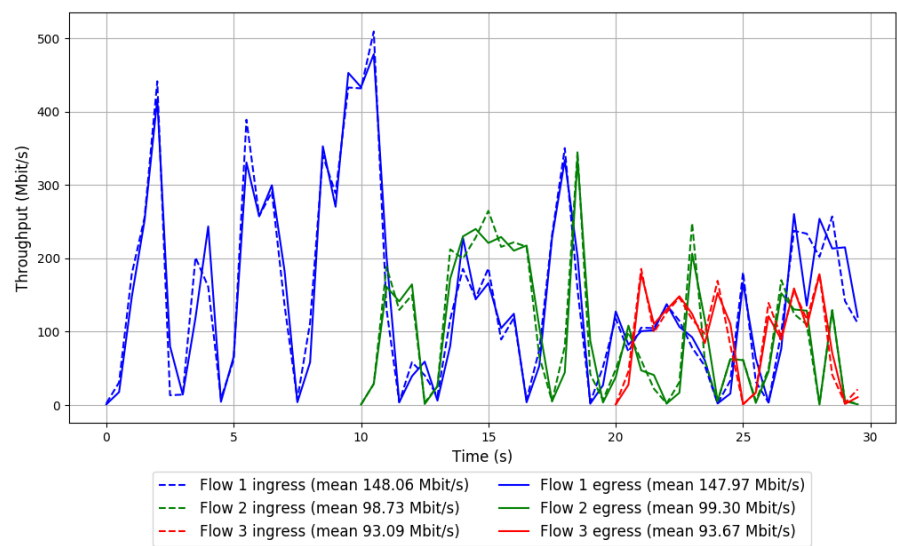
-- Flow 3:

Average throughput: 93.67 Mbit/s

95th percentile per-packet one-way delay: 92.611 ms

Loss rate: 0.70%

Run 10: Report of Verus — Data Link

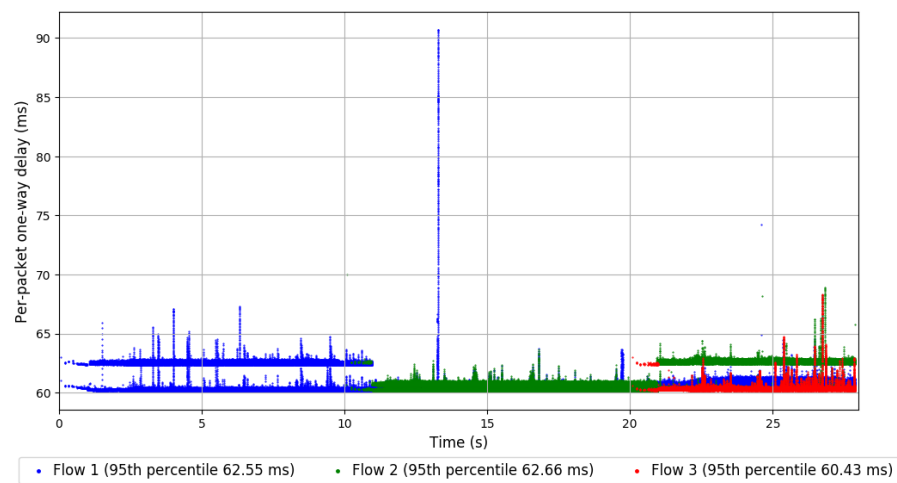
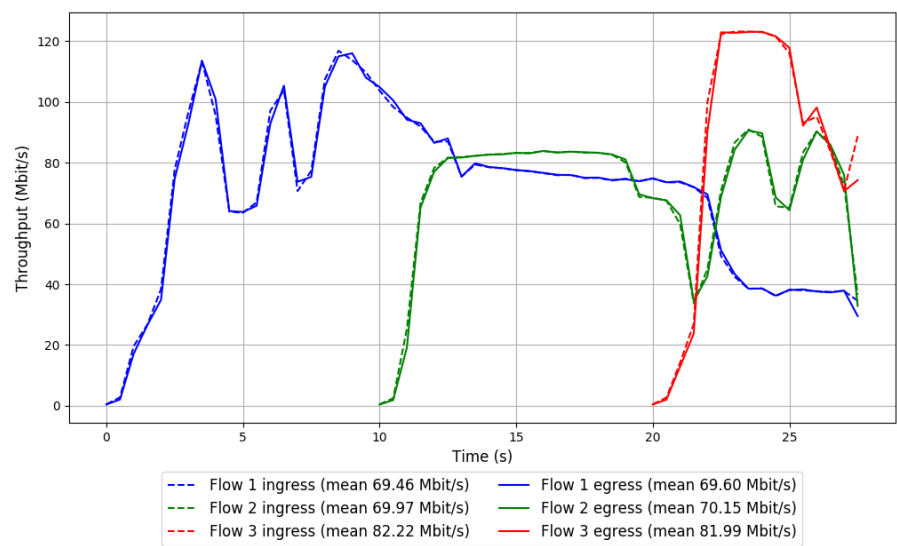


```
Run 1: Statistics of Copa

Start at: 2018-01-18 01:49:32
End at: 2018-01-18 01:50:02

# Below is generated by plot.py at 2018-01-18 08:32:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.51 Mbit/s
95th percentile per-packet one-way delay: 62.586 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 69.60 Mbit/s
95th percentile per-packet one-way delay: 62.552 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 70.15 Mbit/s
95th percentile per-packet one-way delay: 62.665 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 81.99 Mbit/s
95th percentile per-packet one-way delay: 60.430 ms
Loss rate: 1.87%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-18 02:07:01

End at: 2018-01-18 02:07:31

# Below is generated by plot.py at 2018-01-18 08:32:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 136.95 Mbit/s

95th percentile per-packet one-way delay: 63.185 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 79.11 Mbit/s

95th percentile per-packet one-way delay: 62.959 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 62.08 Mbit/s

95th percentile per-packet one-way delay: 63.072 ms

Loss rate: 0.67%

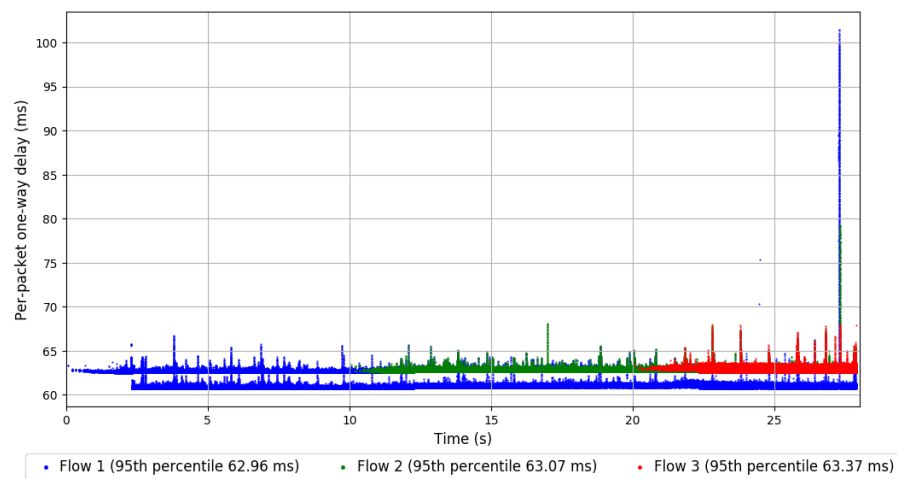
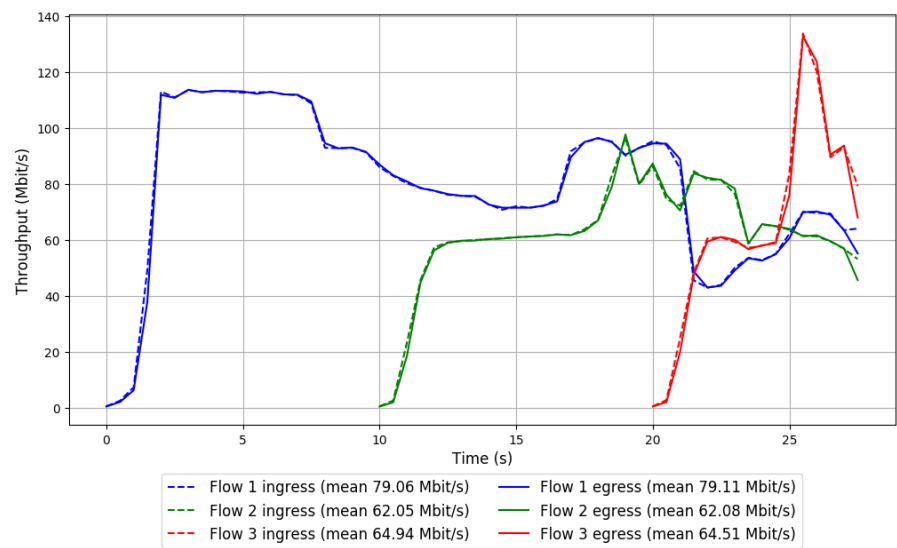
-- Flow 3:

Average throughput: 64.51 Mbit/s

95th percentile per-packet one-way delay: 63.372 ms

Loss rate: 2.21%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-18 02:24:33

End at: 2018-01-18 02:25:03

# Below is generated by plot.py at 2018-01-18 08:32:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 140.17 Mbit/s

95th percentile per-packet one-way delay: 63.322 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 75.25 Mbit/s

95th percentile per-packet one-way delay: 63.338 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 69.46 Mbit/s

95th percentile per-packet one-way delay: 63.331 ms

Loss rate: 0.59%

-- Flow 3:

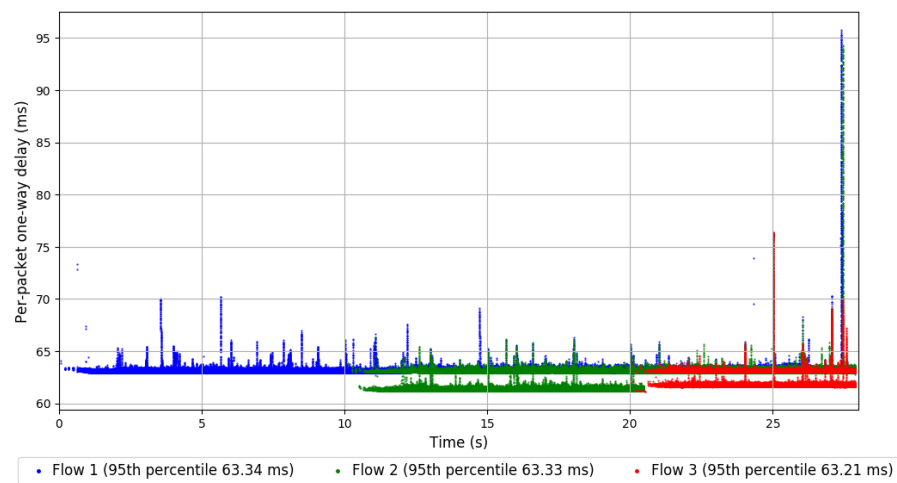
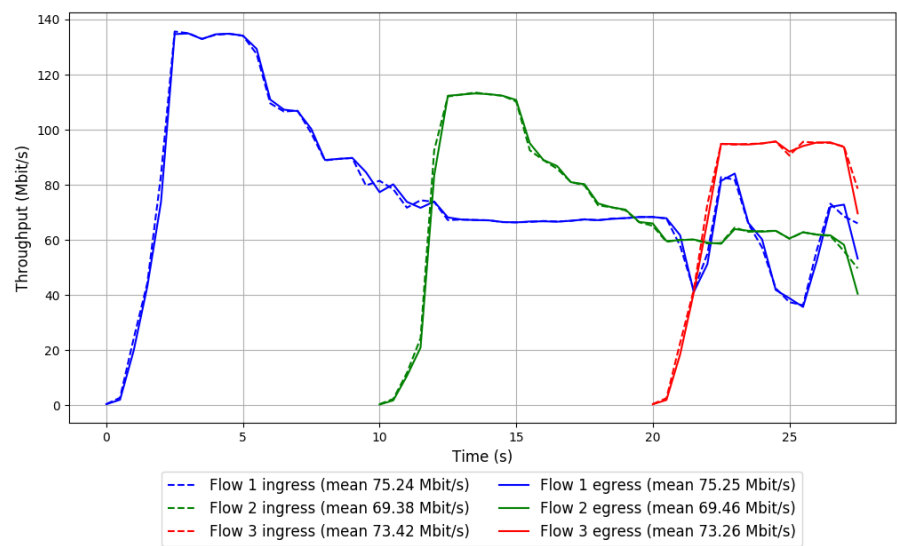
Average throughput: 73.26 Mbit/s

95th percentile per-packet one-way delay: 63.210 ms

Loss rate: 1.80%



Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-18 02:42:04

End at: 2018-01-18 02:42:34

# Below is generated by plot.py at 2018-01-18 08:32:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.21 Mbit/s

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

Loss rate: 0.61%

-- Flow 1:

Average throughput: 78.23 Mbit/s

95th percentile per-packet one-way delay: 63.616 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 67.06 Mbit/s

95th percentile per-packet one-way delay: 63.799 ms

Loss rate: 0.52%

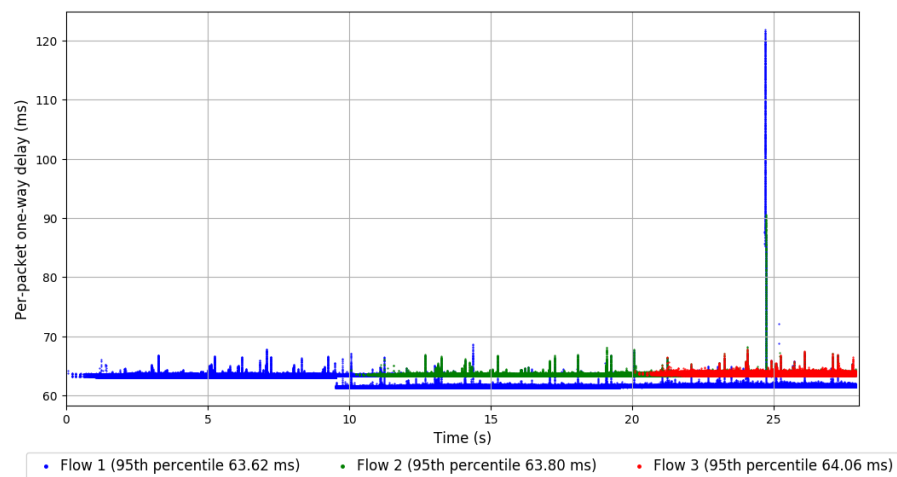
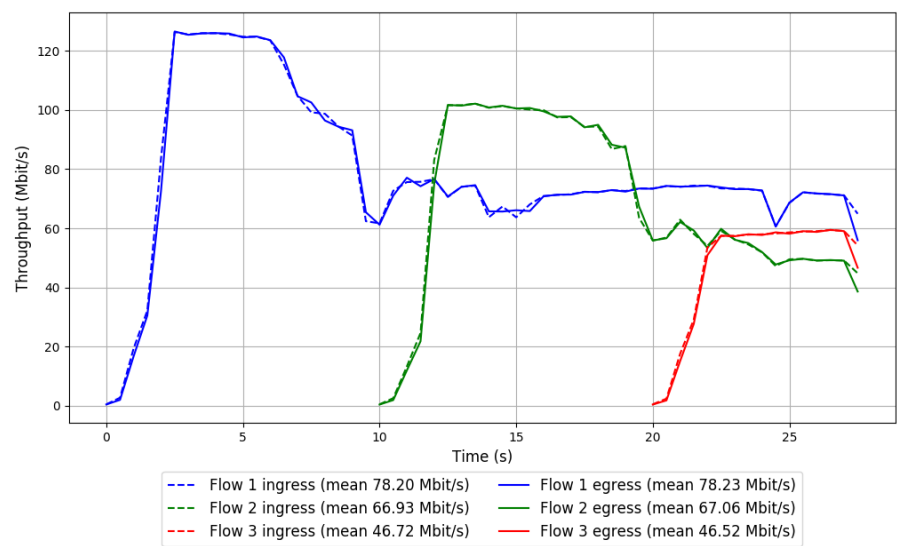
-- Flow 3:

Average throughput: 46.52 Mbit/s

95th percentile per-packet one-way delay: 64.058 ms

Loss rate: 2.04%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-18 02:59:40

End at: 2018-01-18 03:00:10

# Below is generated by plot.py at 2018-01-18 08:33:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 131.30 Mbit/s

95th percentile per-packet one-way delay: 64.179 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 69.97 Mbit/s

95th percentile per-packet one-way delay: 64.080 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 65.72 Mbit/s

95th percentile per-packet one-way delay: 64.244 ms

Loss rate: 0.67%

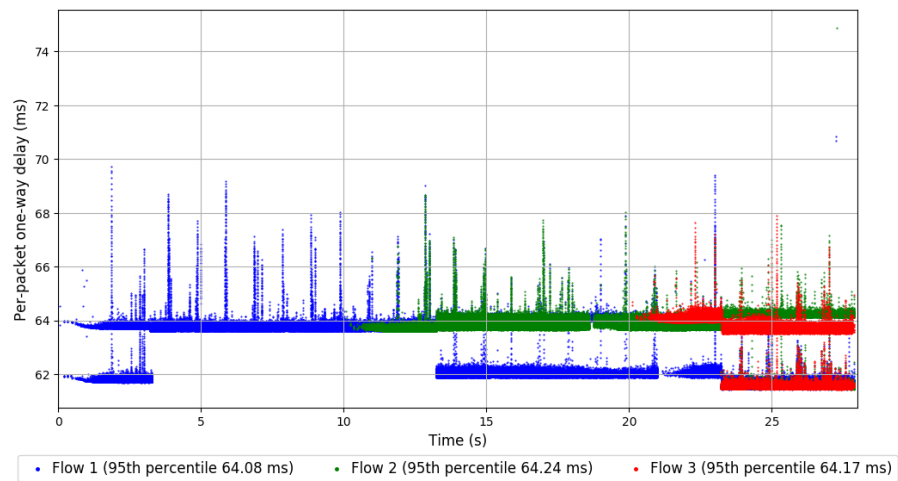
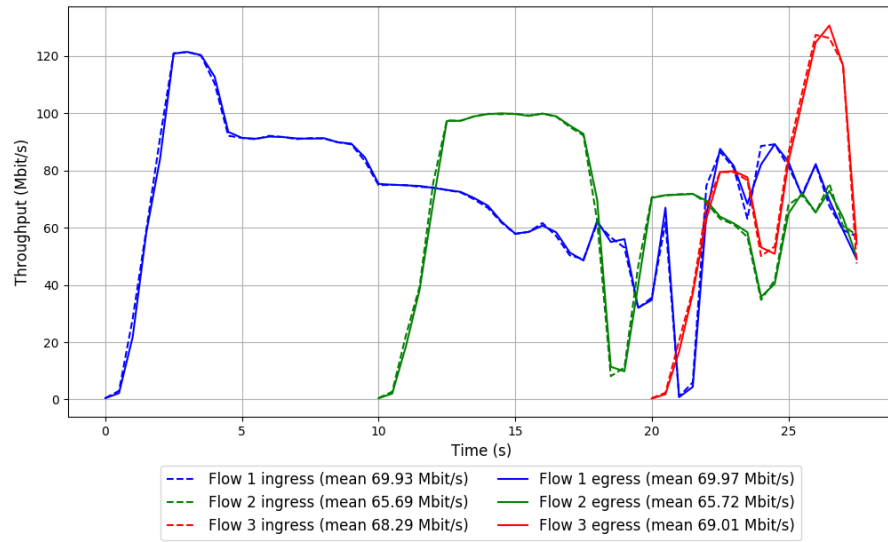
-- Flow 3:

Average throughput: 69.01 Mbit/s

95th percentile per-packet one-way delay: 64.166 ms

Loss rate: 0.58%

## Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-18 03:16:51

End at: 2018-01-18 03:17:21

# Below is generated by plot.py at 2018-01-18 08:33:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.39 Mbit/s

95th percentile per-packet one-way delay: 64.189 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 65.86 Mbit/s

95th percentile per-packet one-way delay: 64.090 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 61.84 Mbit/s

95th percentile per-packet one-way delay: 64.271 ms

Loss rate: 0.78%

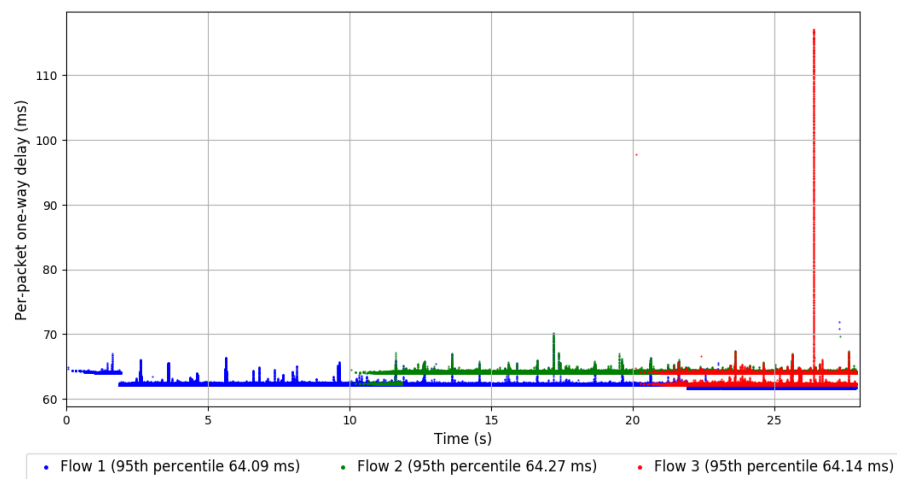
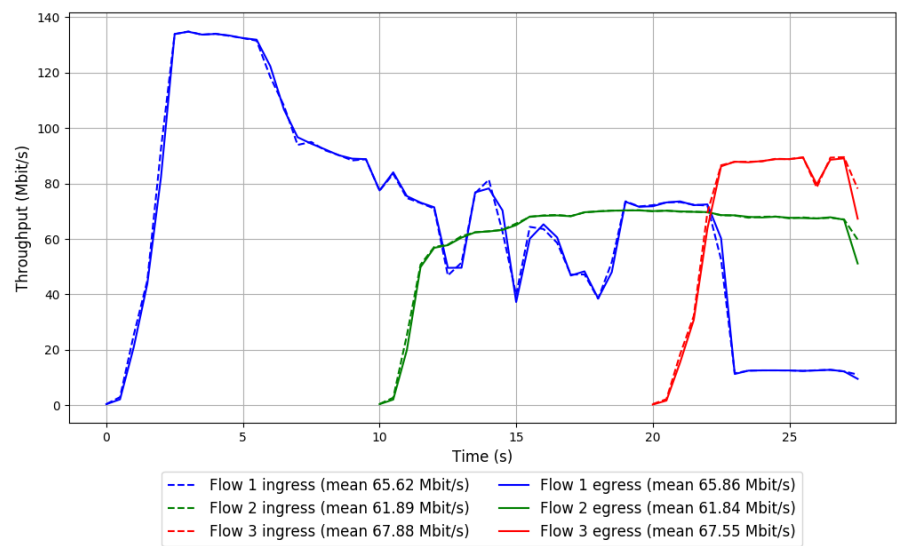
-- Flow 3:

Average throughput: 67.55 Mbit/s

95th percentile per-packet one-way delay: 64.143 ms

Loss rate: 2.08%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-18 03:34:24

End at: 2018-01-18 03:34:54

# Below is generated by plot.py at 2018-01-18 08:35:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.21 Mbit/s

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

Loss rate: 0.72%

-- Flow 1:

Average throughput: 71.30 Mbit/s

95th percentile per-packet one-way delay: 64.269 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 64.347 ms

Loss rate: 0.60%

-- Flow 3:

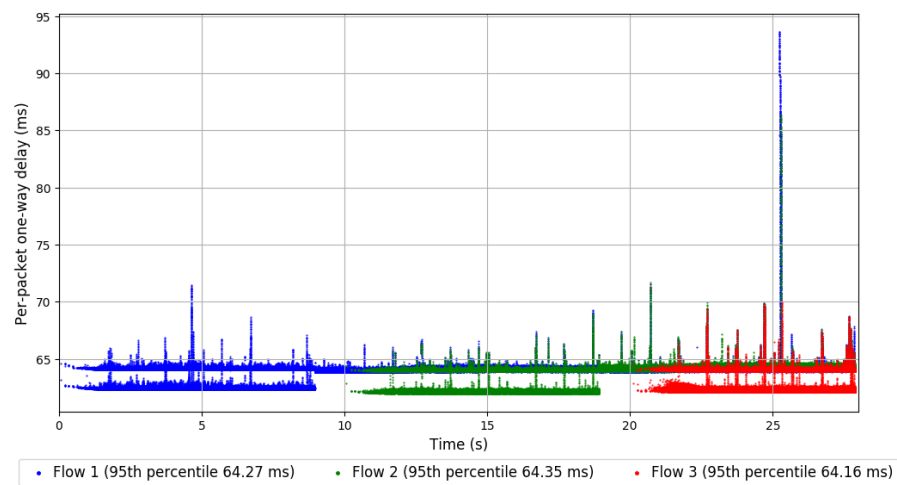
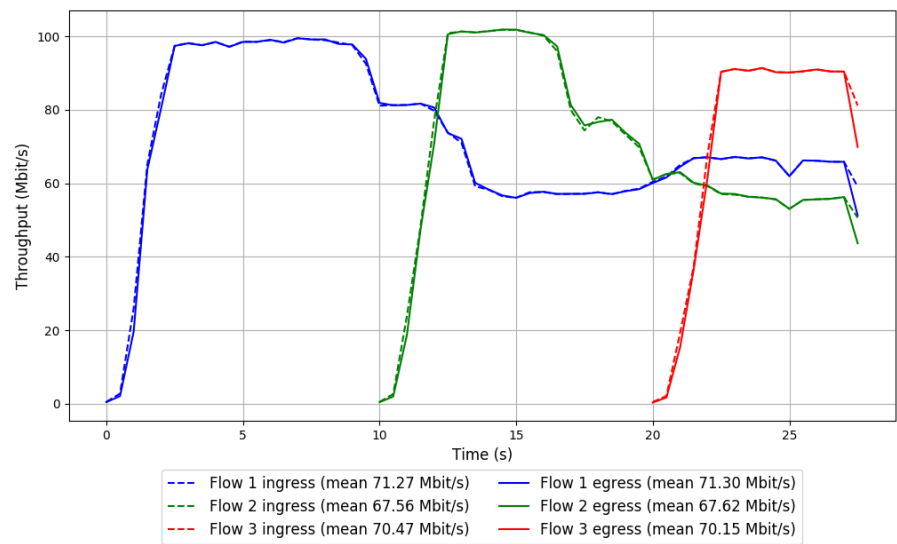
Average throughput: 70.15 Mbit/s

95th percentile per-packet one-way delay: 64.164 ms

Loss rate: 2.05%



Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-18 03:50:52

End at: 2018-01-18 03:51:22

# Below is generated by plot.py at 2018-01-18 08:35:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 132.71 Mbit/s

95th percentile per-packet one-way delay: 64.495 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 63.81 Mbit/s

95th percentile per-packet one-way delay: 64.547 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 74.49 Mbit/s

95th percentile per-packet one-way delay: 64.300 ms

Loss rate: 0.51%

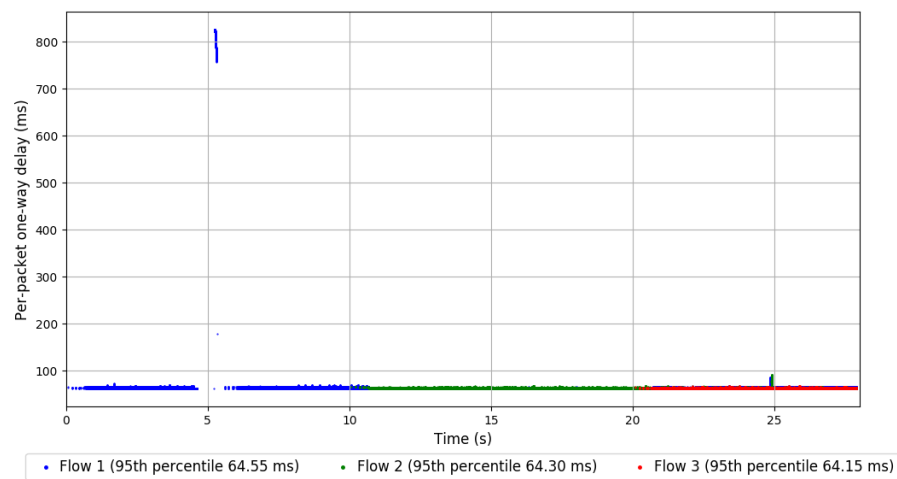
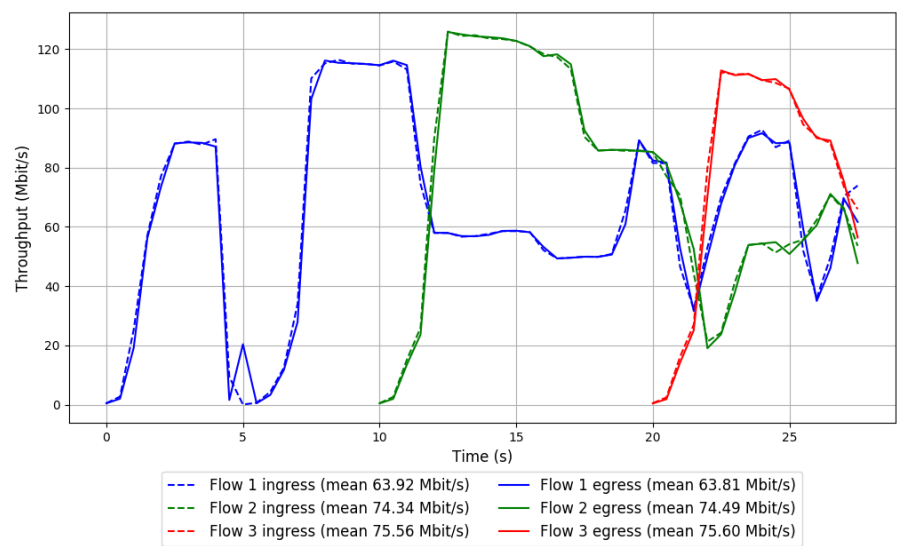
-- Flow 3:

Average throughput: 75.60 Mbit/s

95th percentile per-packet one-way delay: 64.152 ms

Loss rate: 1.53%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-18 04:07:44

End at: 2018-01-18 04:08:14

# Below is generated by plot.py at 2018-01-18 08:35:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 116.69 Mbit/s

95th percentile per-packet one-way delay: 64.541 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 65.67 Mbit/s

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

Loss rate: 0.37%

-- Flow 2:

Average throughput: 69.24 Mbit/s

95th percentile per-packet one-way delay: 64.583 ms

Loss rate: 0.72%

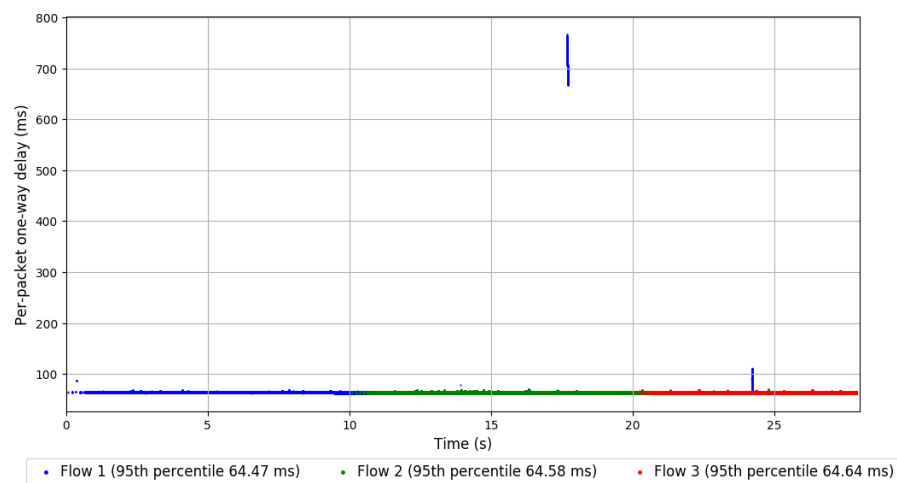
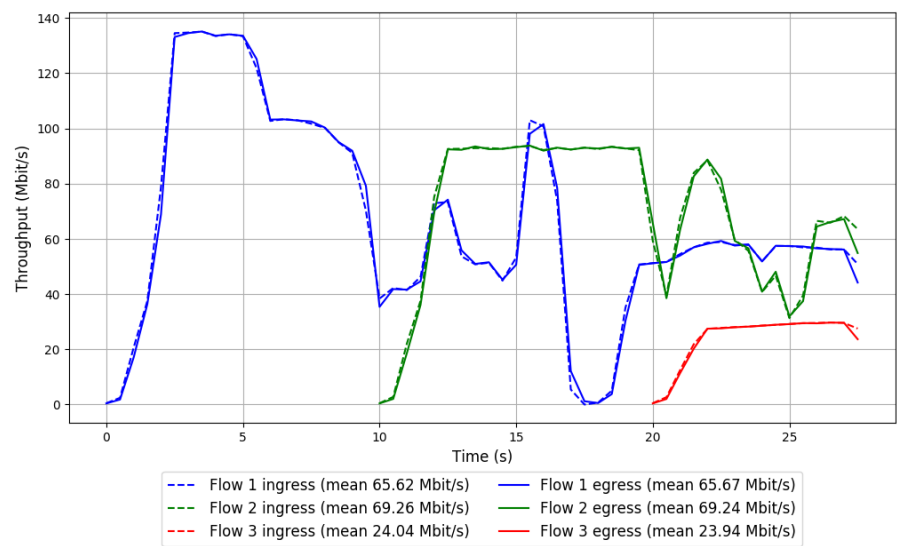
-- Flow 3:

Average throughput: 23.94 Mbit/s

95th percentile per-packet one-way delay: 64.643 ms

Loss rate: 1.98%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-18 04:25:09

End at: 2018-01-18 04:25:39

# Below is generated by plot.py at 2018-01-18 08:35:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 141.11 Mbit/s

95th percentile per-packet one-way delay: 64.682 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 78.77 Mbit/s

95th percentile per-packet one-way delay: 64.715 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 65.21 Mbit/s

95th percentile per-packet one-way delay: 64.589 ms

Loss rate: 0.54%

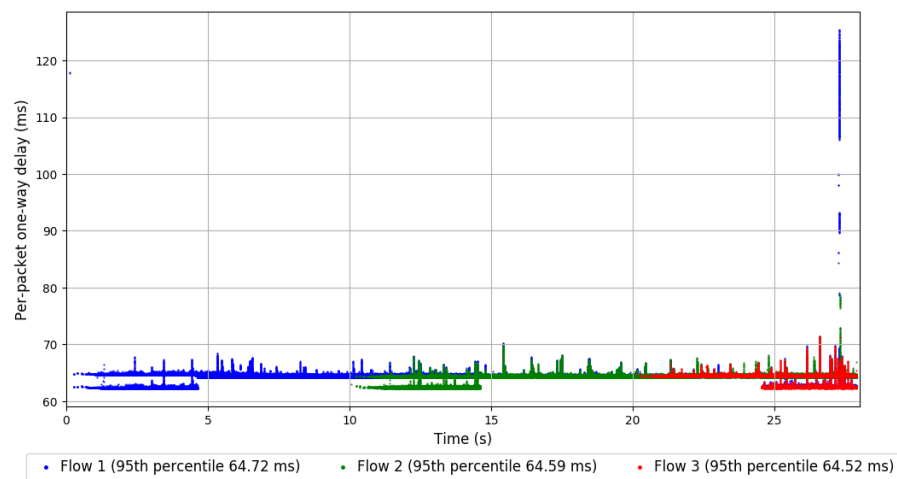
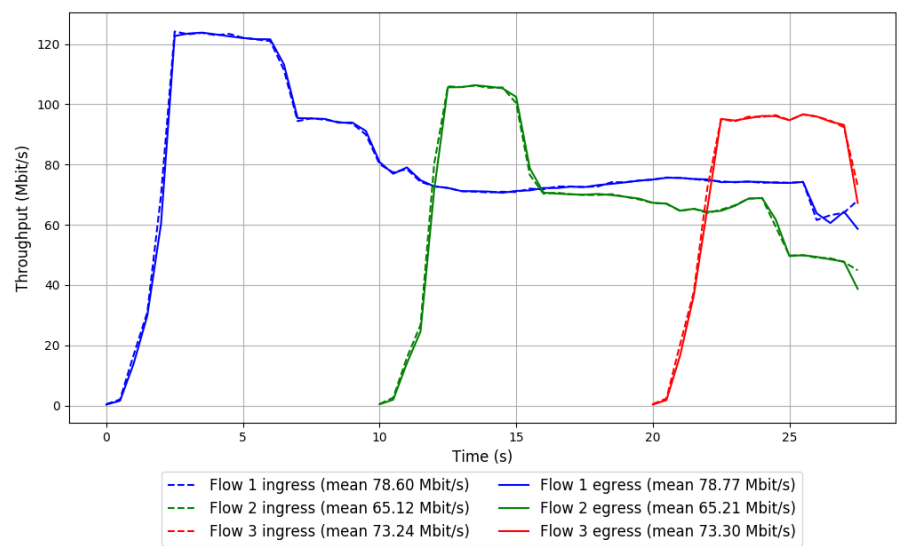
-- Flow 3:

Average throughput: 73.30 Mbit/s

95th percentile per-packet one-way delay: 64.523 ms

Loss rate: 1.52%

Run 10: Report of Copa — Data Link



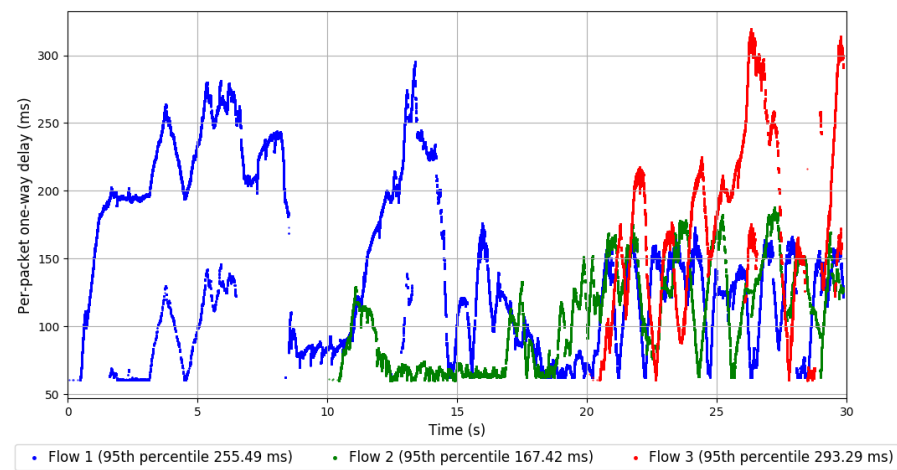
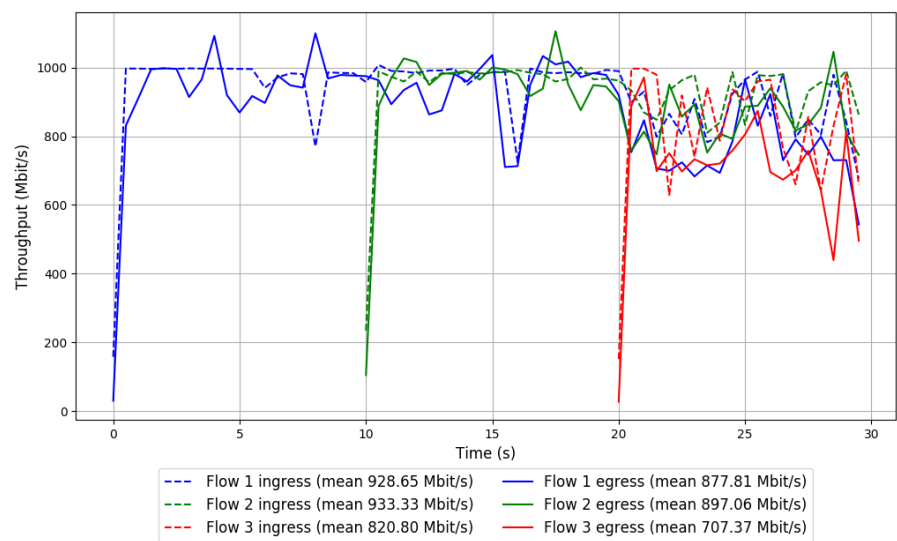
```
Run 1: Statistics of FillP

Start at: 2018-01-18 01:45:50
End at: 2018-01-18 01:46:20

# Below is generated by plot.py at 2018-01-18 09:02:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1706.27 Mbit/s
95th percentile per-packet one-way delay: 250.815 ms
Loss rate: 6.77%
-- Flow 1:
Average throughput: 877.81 Mbit/s
95th percentile per-packet one-way delay: 255.485 ms
Loss rate: 5.88%
-- Flow 2:
Average throughput: 897.06 Mbit/s
95th percentile per-packet one-way delay: 167.424 ms
Loss rate: 4.51%
-- Flow 3:
Average throughput: 707.37 Mbit/s
95th percentile per-packet one-way delay: 293.291 ms
Loss rate: 14.96%
```



Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-18 02:03:13

End at: 2018-01-18 02:03:43

# Below is generated by plot.py at 2018-01-18 09:04:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1754.73 Mbit/s

95th percentile per-packet one-way delay: 152.358 ms

Loss rate: 5.36%

-- Flow 1:

Average throughput: 913.53 Mbit/s

95th percentile per-packet one-way delay: 144.551 ms

Loss rate: 3.85%

-- Flow 2:

Average throughput: 877.73 Mbit/s

95th percentile per-packet one-way delay: 205.345 ms

Loss rate: 5.79%

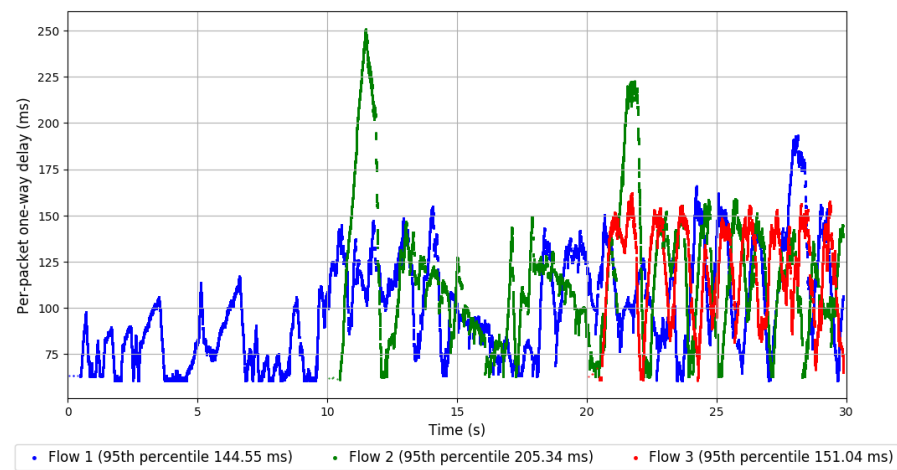
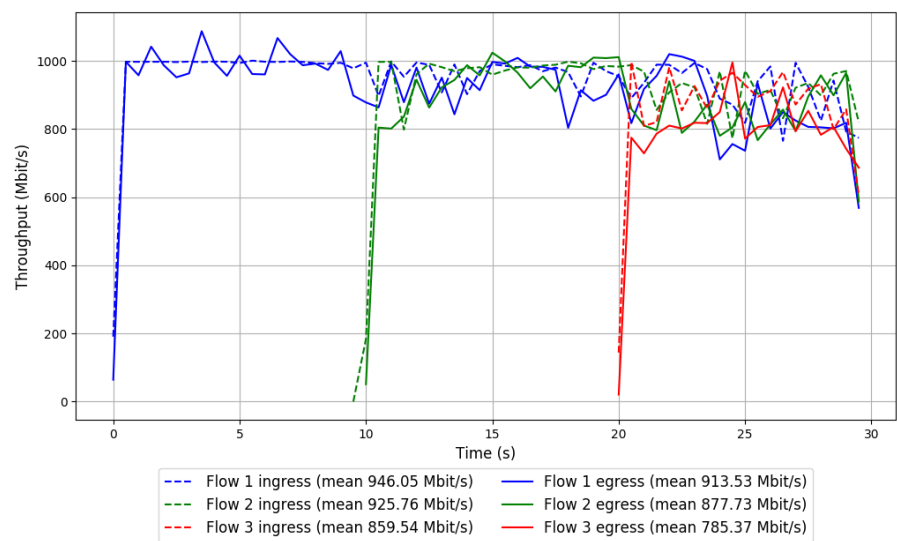
-- Flow 3:

Average throughput: 785.37 Mbit/s

95th percentile per-packet one-way delay: 151.045 ms

Loss rate: 9.46%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-18 02:21:15

End at: 2018-01-18 02:21:45

# Below is generated by plot.py at 2018-01-18 09:04:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1101.62 Mbit/s

95th percentile per-packet one-way delay: 139.912 ms

Loss rate: 2.82%

-- Flow 1:

Average throughput: 504.49 Mbit/s

95th percentile per-packet one-way delay: 117.073 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 628.24 Mbit/s

95th percentile per-packet one-way delay: 142.184 ms

Loss rate: 4.76%

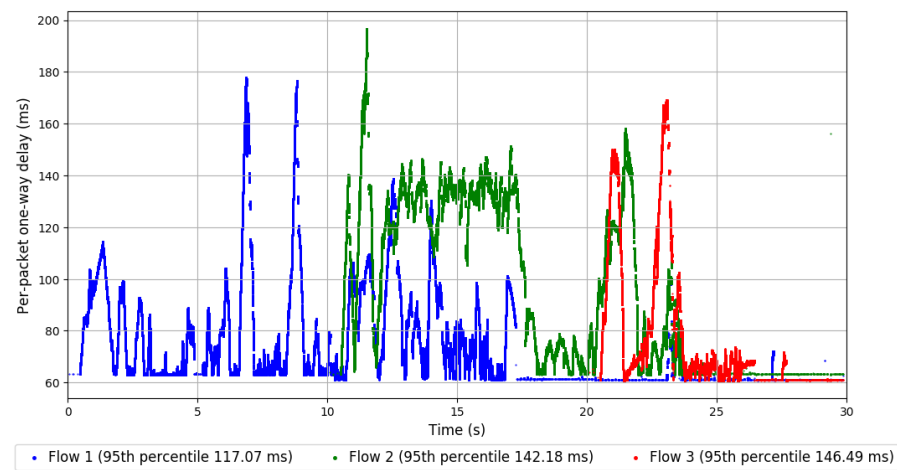
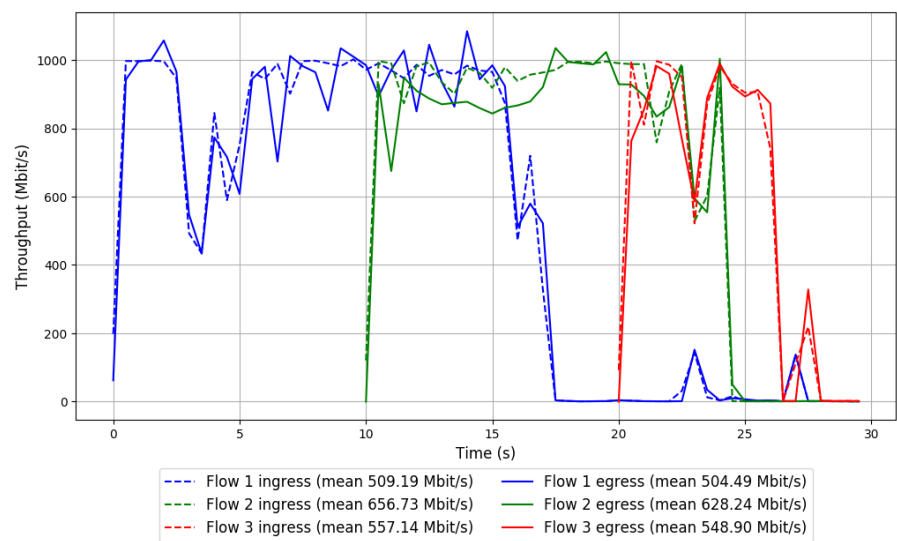
-- Flow 3:

Average throughput: 548.90 Mbit/s

95th percentile per-packet one-way delay: 146.493 ms

Loss rate: 2.68%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-18 02:38:29

End at: 2018-01-18 02:38:59

# Below is generated by plot.py at 2018-01-18 09:04:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1577.04 Mbit/s

95th percentile per-packet one-way delay: 159.826 ms

Loss rate: 5.87%

-- Flow 1:

Average throughput: 851.91 Mbit/s

95th percentile per-packet one-way delay: 154.196 ms

Loss rate: 6.28%

-- Flow 2:

Average throughput: 713.70 Mbit/s

95th percentile per-packet one-way delay: 156.098 ms

Loss rate: 6.74%

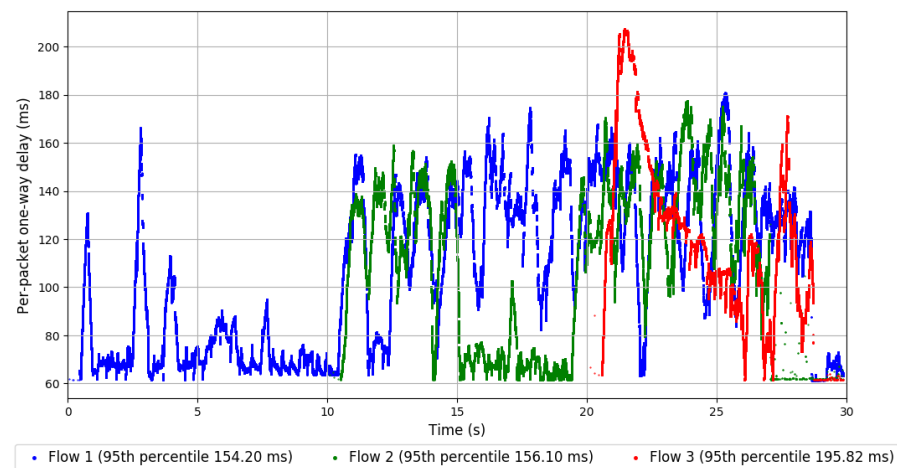
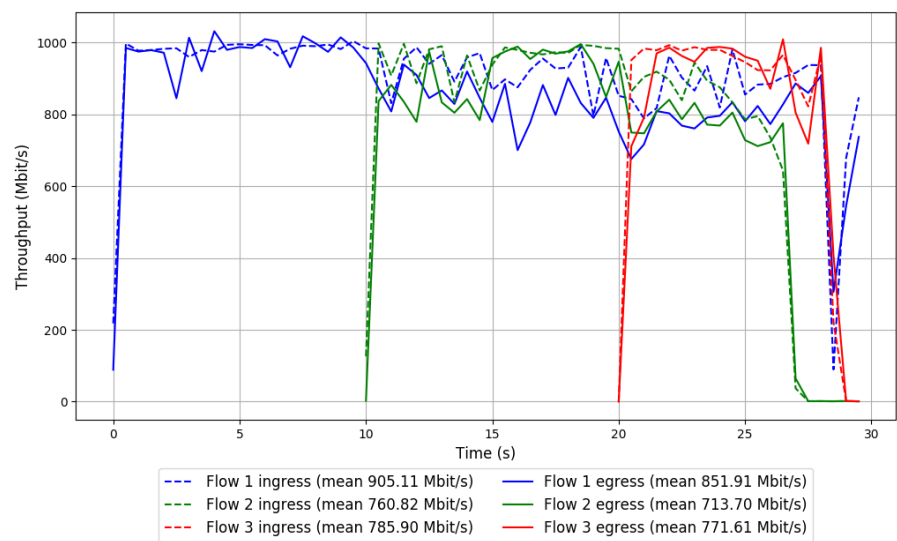
-- Flow 3:

Average throughput: 771.61 Mbit/s

95th percentile per-packet one-way delay: 195.820 ms

Loss rate: 2.74%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-18 02:55:59

End at: 2018-01-18 02:56:29

# Below is generated by plot.py at 2018-01-18 09:06:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1710.35 Mbit/s

95th percentile per-packet one-way delay: 183.440 ms

Loss rate: 7.01%

-- Flow 1:

Average throughput: 904.63 Mbit/s

95th percentile per-packet one-way delay: 193.438 ms

Loss rate: 5.14%

-- Flow 2:

Average throughput: 846.23 Mbit/s

95th percentile per-packet one-way delay: 152.092 ms

Loss rate: 7.90%

-- Flow 3:

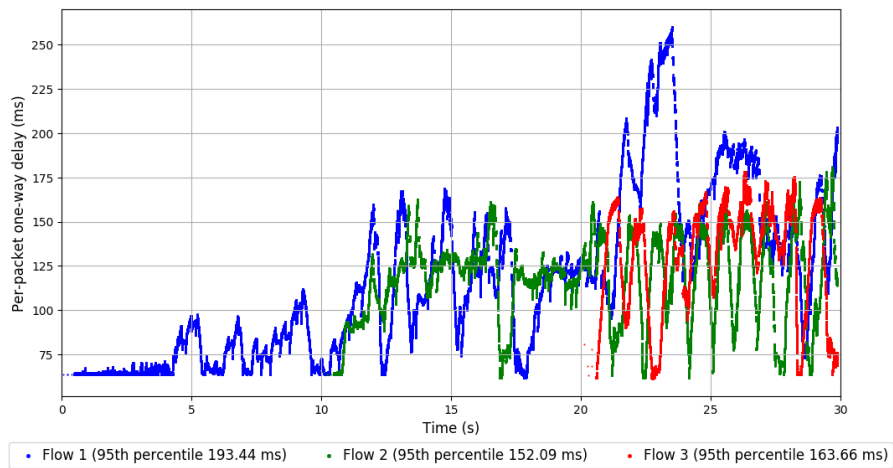
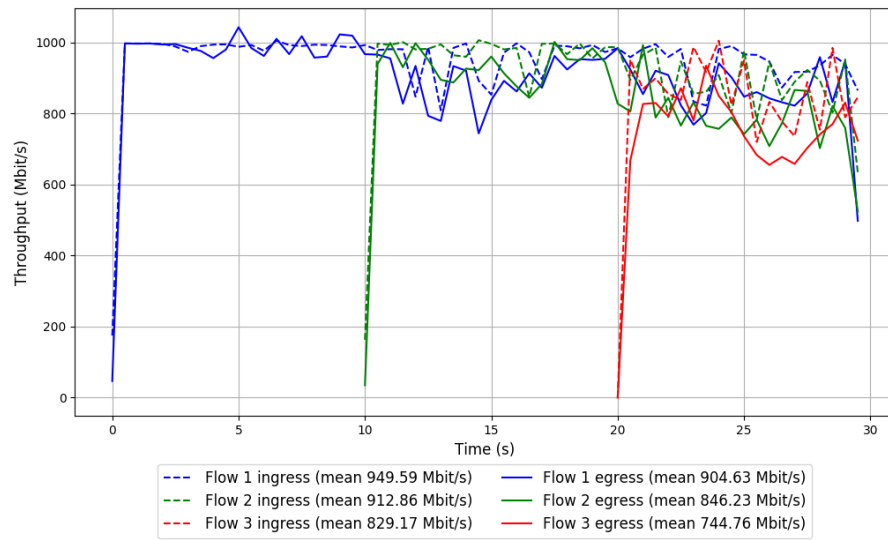
Average throughput: 744.76 Mbit/s

95th percentile per-packet one-way delay: 163.659 ms

Loss rate: 11.50%



# Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-18 03:13:11

End at: 2018-01-18 03:13:41

# Below is generated by plot.py at 2018-01-18 09:06:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1671.22 Mbit/s

95th percentile per-packet one-way delay: 275.318 ms

Loss rate: 6.23%

-- Flow 1:

Average throughput: 873.62 Mbit/s

95th percentile per-packet one-way delay: 146.502 ms

Loss rate: 3.30%

-- Flow 2:

Average throughput: 840.82 Mbit/s

95th percentile per-packet one-way delay: 284.700 ms

Loss rate: 7.11%

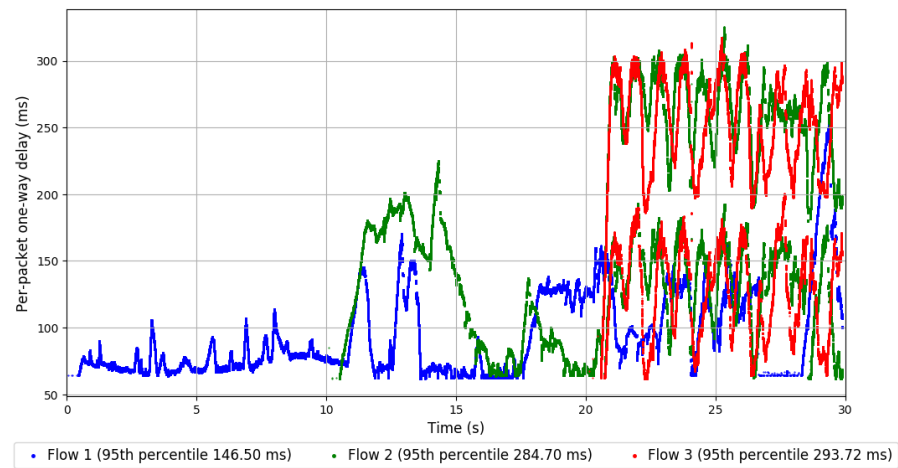
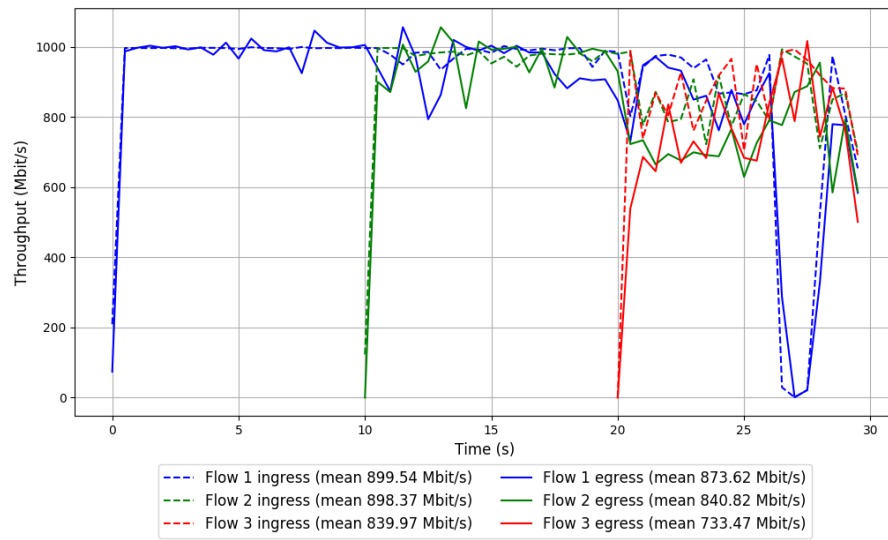
-- Flow 3:

Average throughput: 733.47 Mbit/s

95th percentile per-packet one-way delay: 293.722 ms

Loss rate: 13.84%

## Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-18 03:30:50

End at: 2018-01-18 03:31:20

# Below is generated by plot.py at 2018-01-18 09:06:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1570.79 Mbit/s

95th percentile per-packet one-way delay: 238.439 ms

Loss rate: 4.99%

-- Flow 1:

Average throughput: 900.57 Mbit/s

95th percentile per-packet one-way delay: 235.530 ms

Loss rate: 4.02%

-- Flow 2:

Average throughput: 649.76 Mbit/s

95th percentile per-packet one-way delay: 237.563 ms

Loss rate: 3.06%

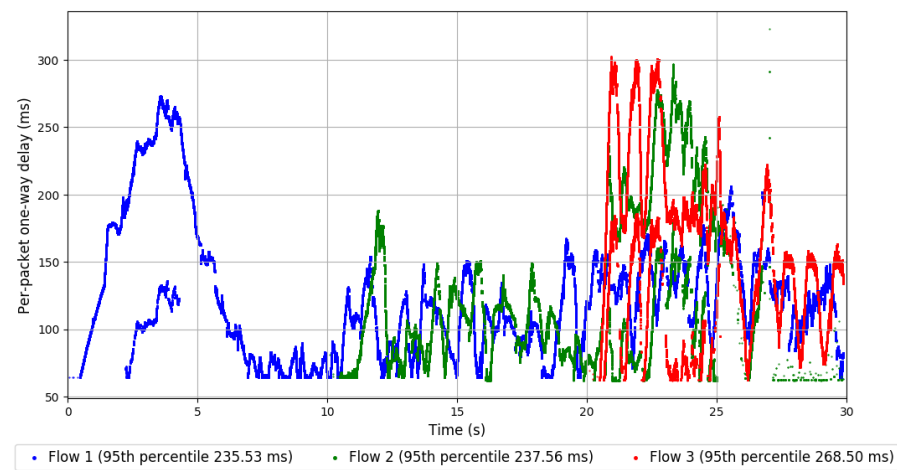
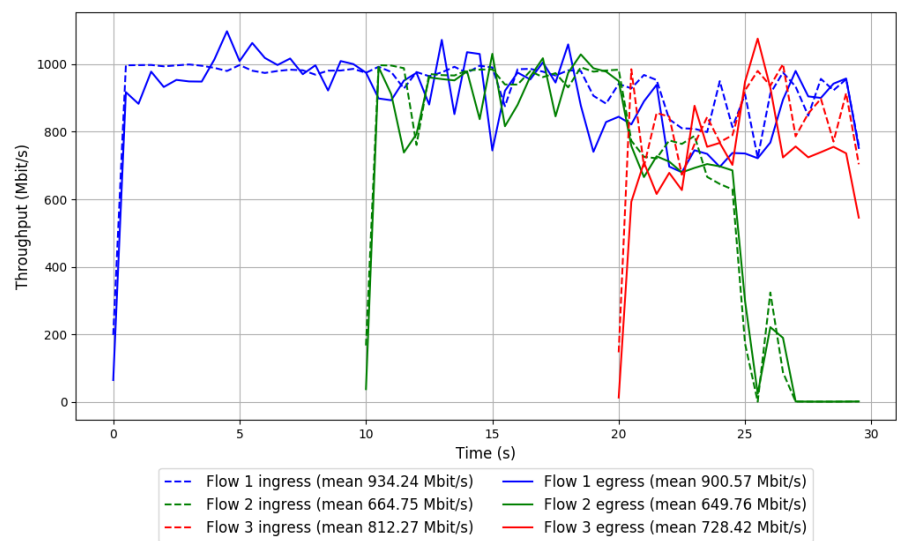
-- Flow 3:

Average throughput: 728.42 Mbit/s

95th percentile per-packet one-way delay: 268.501 ms

Loss rate: 11.54%

Run 7: Report of FillP — Data Link

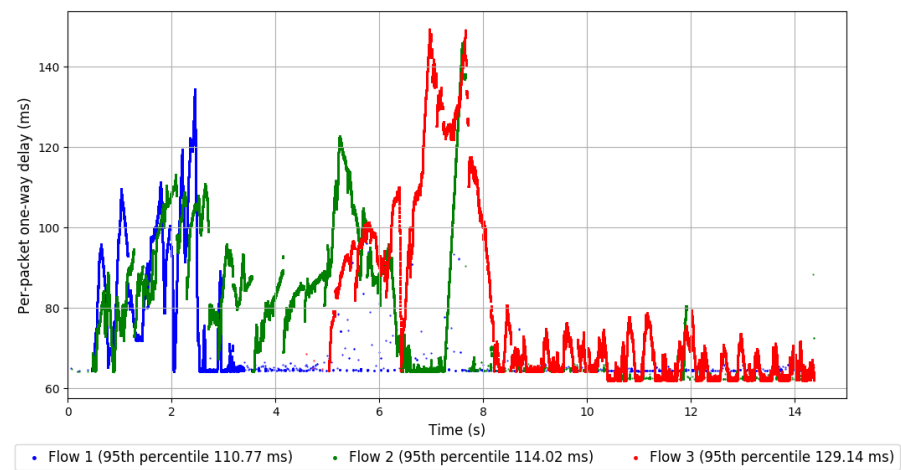
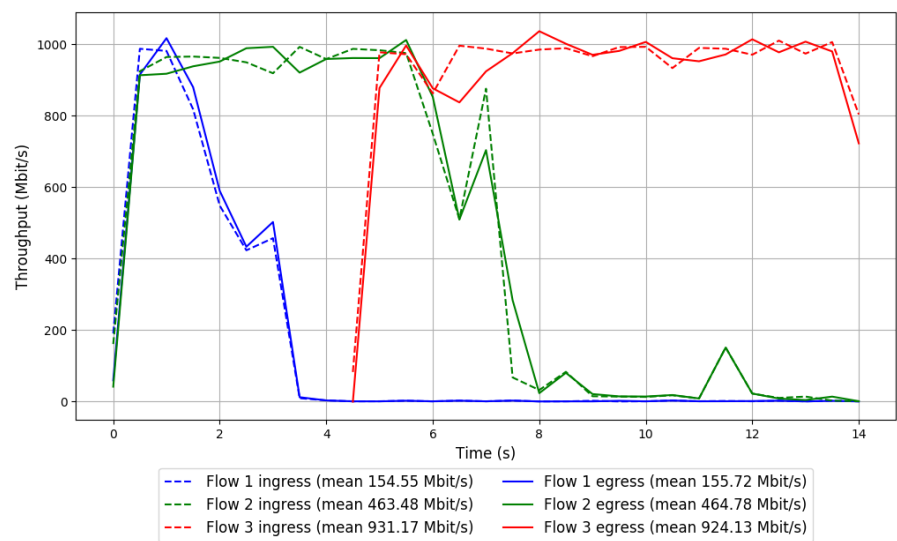


Run 8: Statistics of FillP

Start at: 2018-01-18 03:48:09

End at: 2018-01-18 03:48:39

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-18 04:04:41

End at: 2018-01-18 04:05:11

# Below is generated by plot.py at 2018-01-18 09:06:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 887.62 Mbit/s

95th percentile per-packet one-way delay: 147.850 ms

Loss rate: 3.74%

-- Flow 1:

Average throughput: 364.70 Mbit/s

95th percentile per-packet one-way delay: 173.602 ms

Loss rate: 1.43%

-- Flow 2:

Average throughput: 340.68 Mbit/s

95th percentile per-packet one-way delay: 146.215 ms

Loss rate: 6.47%

-- Flow 3:

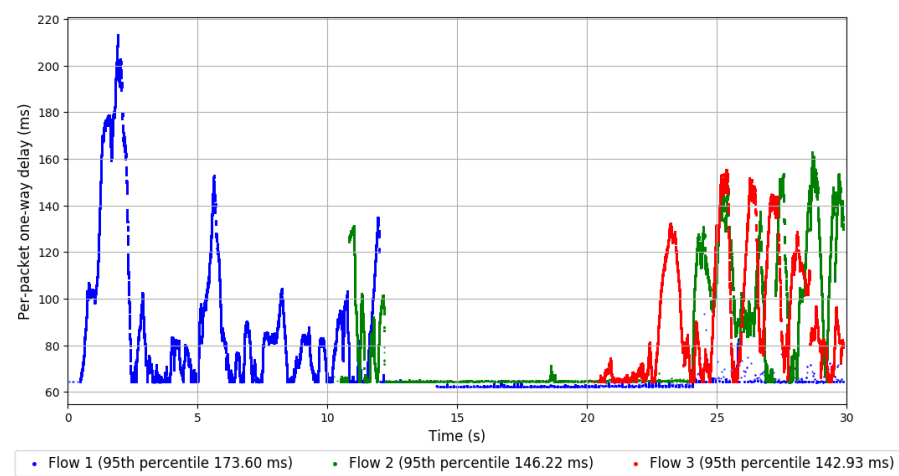
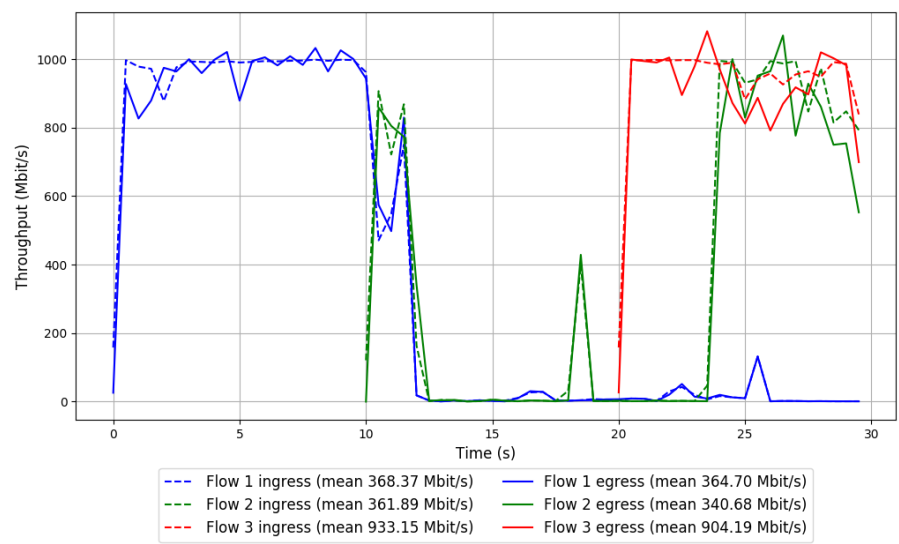
Average throughput: 904.19 Mbit/s

95th percentile per-packet one-way delay: 142.930 ms

Loss rate: 4.36%



Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-18 04:21:29

End at: 2018-01-18 04:21:59

# Below is generated by plot.py at 2018-01-18 09:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1664.27 Mbit/s

95th percentile per-packet one-way delay: 172.465 ms

Loss rate: 6.99%

-- Flow 1:

Average throughput: 925.17 Mbit/s

95th percentile per-packet one-way delay: 185.369 ms

Loss rate: 2.99%

-- Flow 2:

Average throughput: 789.00 Mbit/s

95th percentile per-packet one-way delay: 162.654 ms

Loss rate: 11.66%

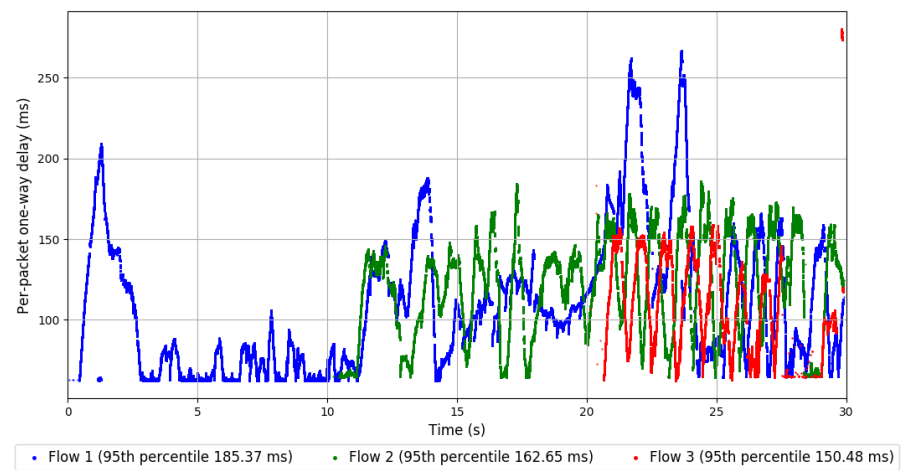
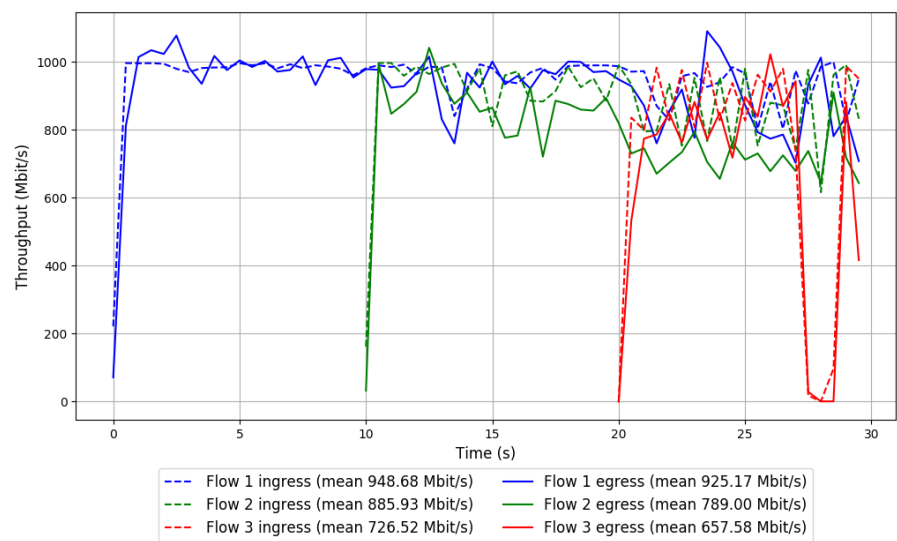
-- Flow 3:

Average throughput: 657.58 Mbit/s

95th percentile per-packet one-way delay: 150.483 ms

Loss rate: 11.33%

Run 10: Report of FillP — Data Link

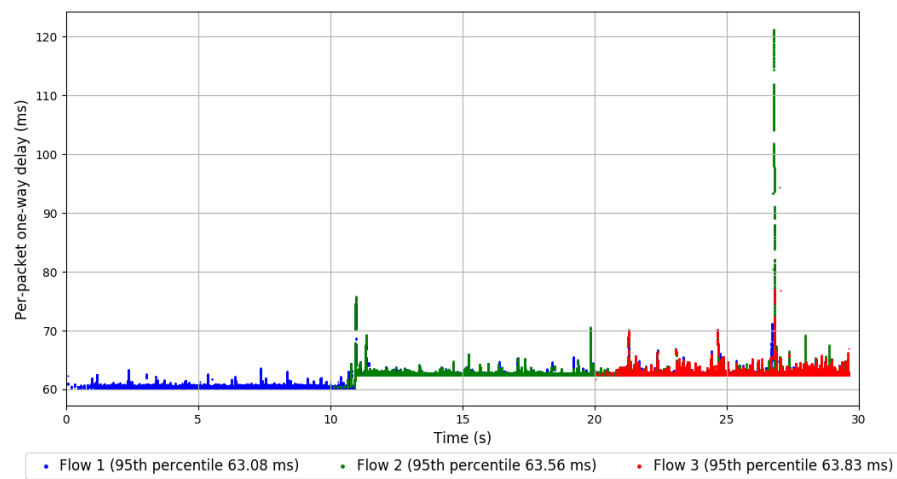
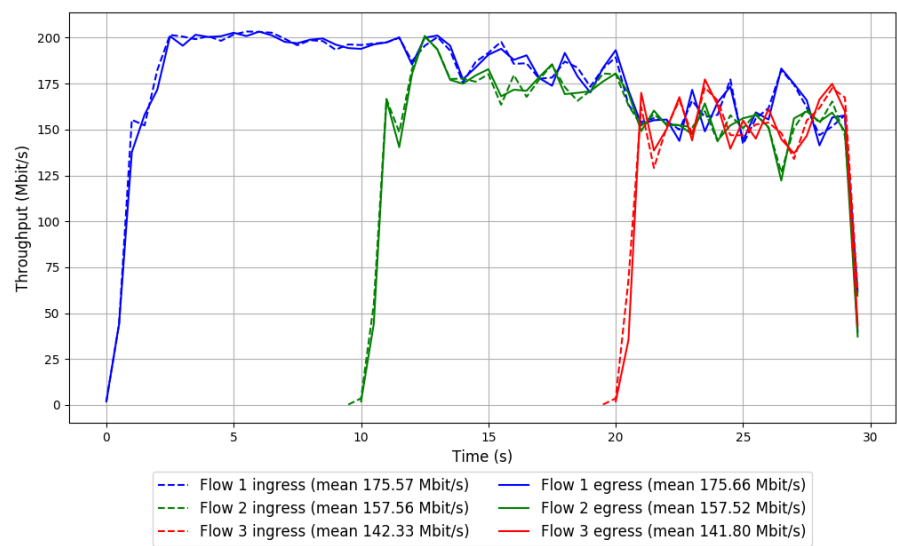


```
Run 1: Statistics of Indigo

Start at: 2018-01-18 01:51:14
End at: 2018-01-18 01:51:44

# Below is generated by plot.py at 2018-01-18 09:28:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 326.16 Mbit/s
95th percentile per-packet one-way delay: 63.381 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 175.66 Mbit/s
95th percentile per-packet one-way delay: 63.076 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 157.52 Mbit/s
95th percentile per-packet one-way delay: 63.563 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 141.80 Mbit/s
95th percentile per-packet one-way delay: 63.827 ms
Loss rate: 1.64%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-18 02:08:43

End at: 2018-01-18 02:09:13

# Below is generated by plot.py at 2018-01-18 09:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 328.36 Mbit/s

95th percentile per-packet one-way delay: 63.536 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 174.93 Mbit/s

95th percentile per-packet one-way delay: 63.289 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 163.04 Mbit/s

95th percentile per-packet one-way delay: 63.664 ms

Loss rate: 0.57%

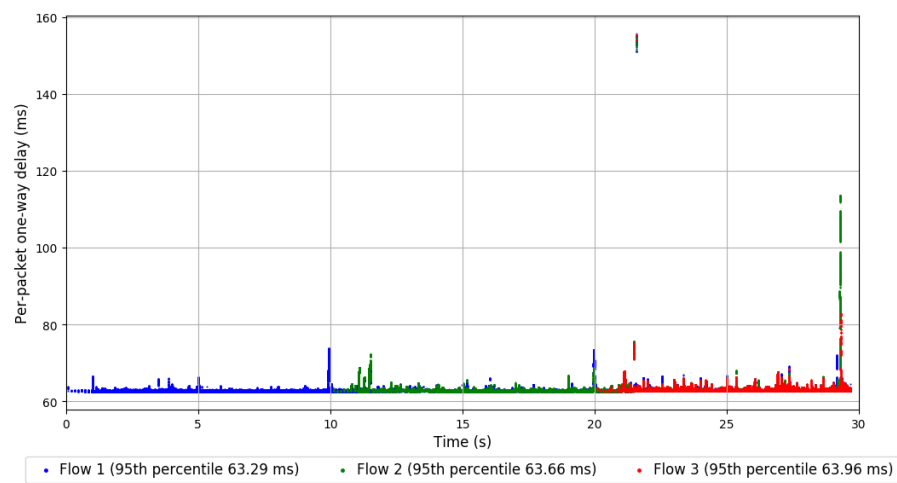
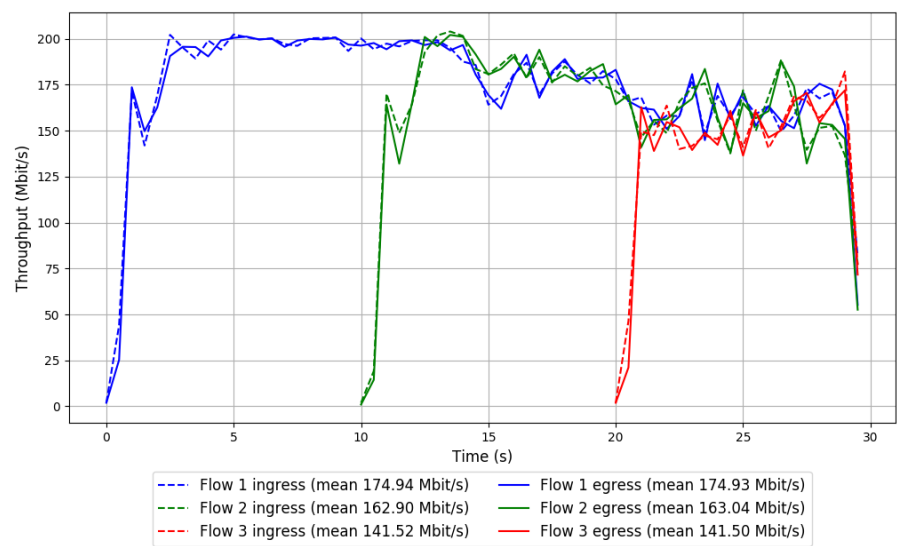
-- Flow 3:

Average throughput: 141.50 Mbit/s

95th percentile per-packet one-way delay: 63.957 ms

Loss rate: 1.32%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-18 02:26:17

End at: 2018-01-18 02:26:47

# Below is generated by plot.py at 2018-01-18 09:28:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 312.93 Mbit/s

95th percentile per-packet one-way delay: 64.049 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 162.40 Mbit/s

95th percentile per-packet one-way delay: 63.767 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 159.55 Mbit/s

95th percentile per-packet one-way delay: 64.328 ms

Loss rate: 0.41%

-- Flow 3:

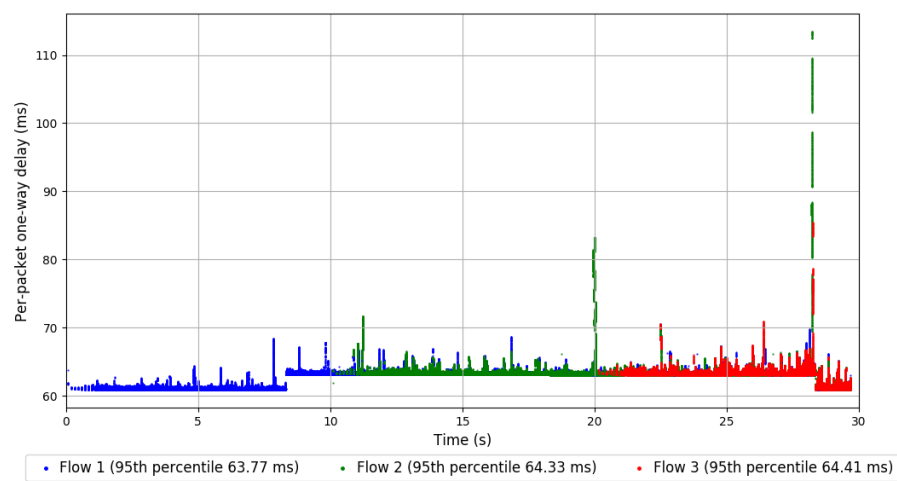
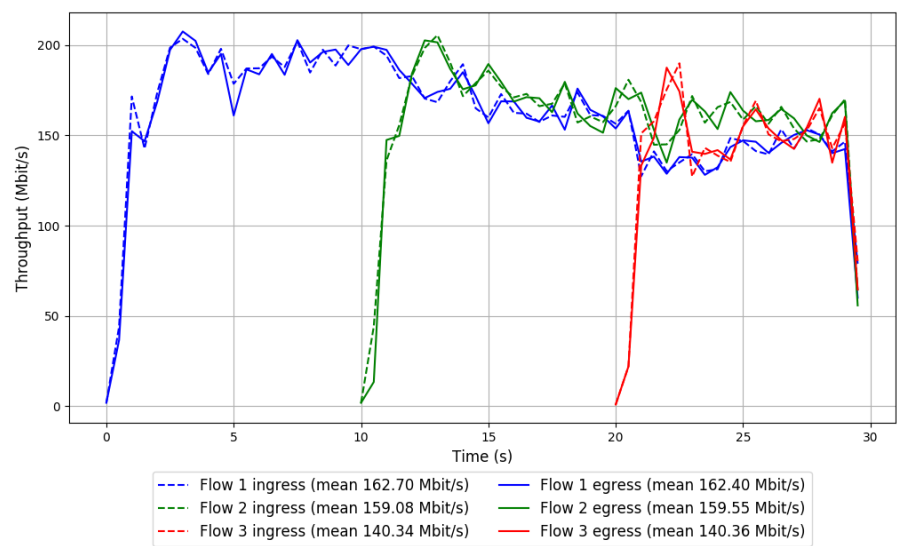
Average throughput: 140.36 Mbit/s

95th percentile per-packet one-way delay: 64.411 ms

Loss rate: 1.32%



Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-18 02:43:47

End at: 2018-01-18 02:44:17

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 324.59 Mbit/s

95th percentile per-packet one-way delay: 65.075 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 170.72 Mbit/s

95th percentile per-packet one-way delay: 64.799 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 162.79 Mbit/s

95th percentile per-packet one-way delay: 65.302 ms

Loss rate: 0.54%

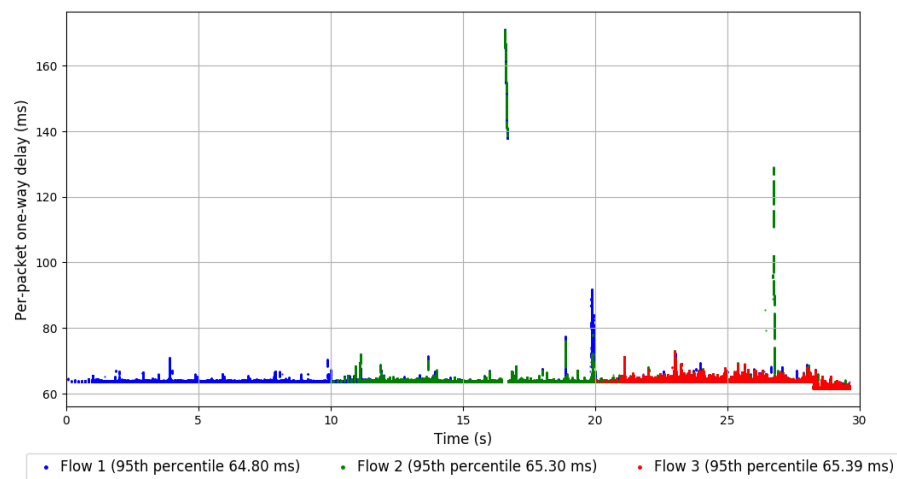
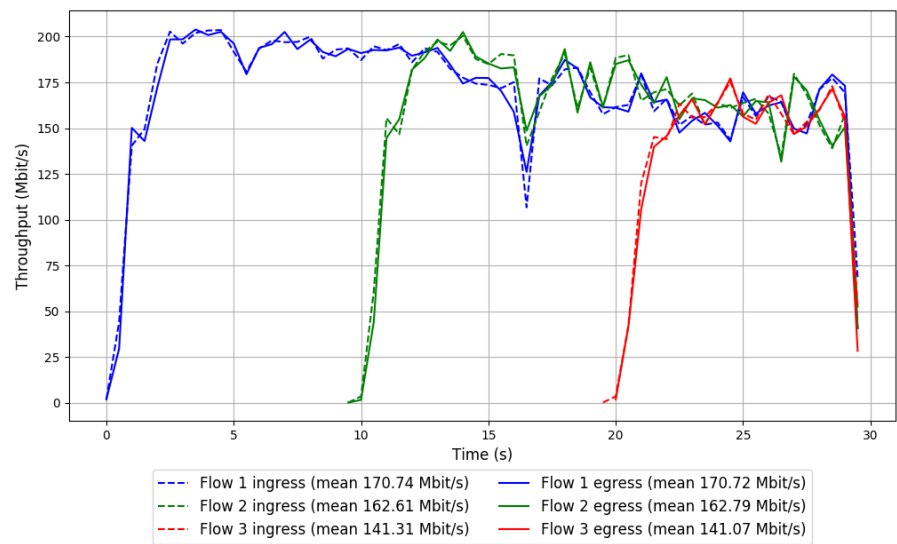
-- Flow 3:

Average throughput: 141.07 Mbit/s

95th percentile per-packet one-way delay: 65.388 ms

Loss rate: 1.47%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-18 03:01:22

End at: 2018-01-18 03:01:52

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 305.18 Mbit/s

95th percentile per-packet one-way delay: 63.932 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 164.71 Mbit/s

95th percentile per-packet one-way delay: 63.981 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 154.98 Mbit/s

95th percentile per-packet one-way delay: 63.893 ms

Loss rate: 0.57%

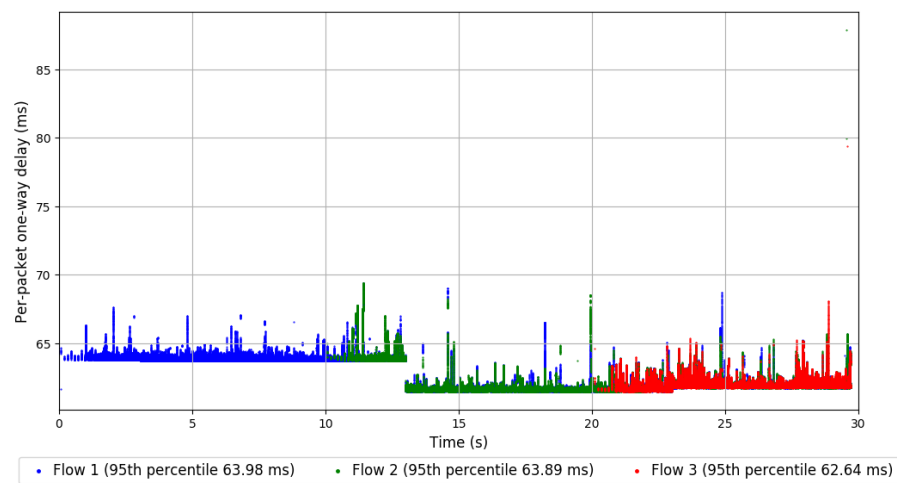
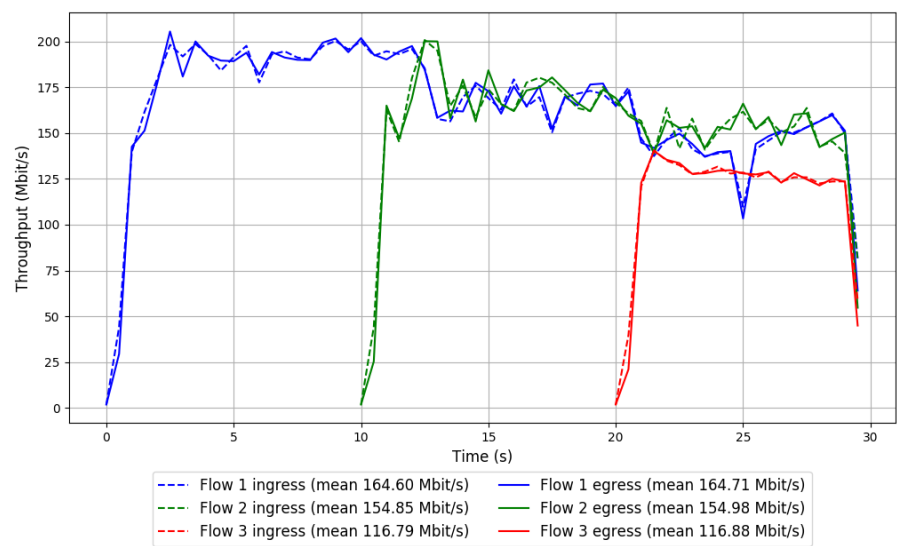
-- Flow 3:

Average throughput: 116.88 Mbit/s

95th percentile per-packet one-way delay: 62.643 ms

Loss rate: 1.27%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-18 03:18:32

End at: 2018-01-18 03:19:02

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 317.60 Mbit/s

95th percentile per-packet one-way delay: 65.030 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 162.86 Mbit/s

95th percentile per-packet one-way delay: 64.760 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 151.99 Mbit/s

95th percentile per-packet one-way delay: 65.045 ms

Loss rate: 0.55%

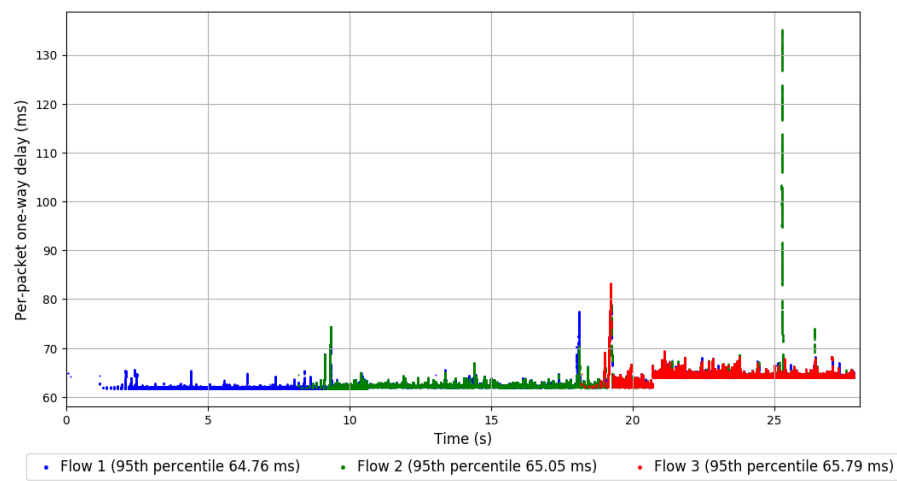
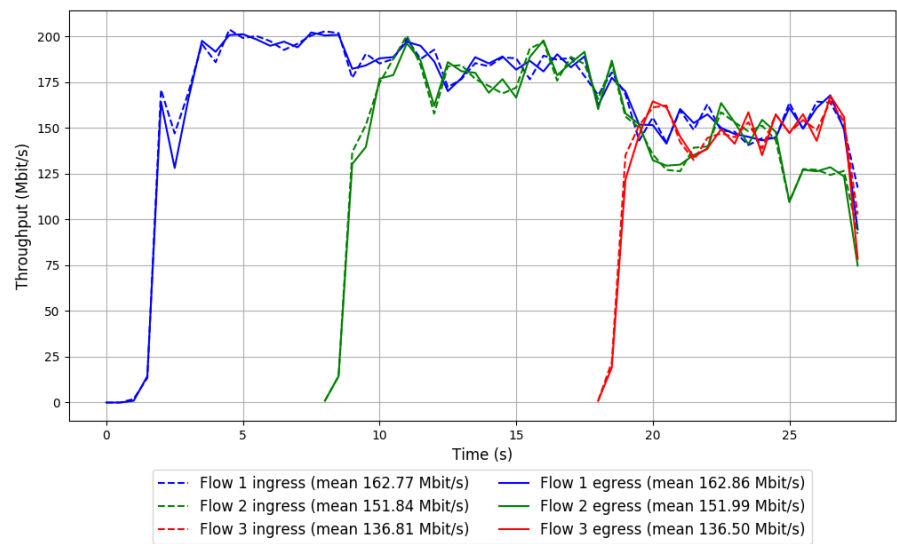
-- Flow 3:

Average throughput: 136.50 Mbit/s

95th percentile per-packet one-way delay: 65.790 ms

Loss rate: 1.56%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-18 03:36:06

End at: 2018-01-18 03:36:36

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 306.96 Mbit/s

95th percentile per-packet one-way delay: 64.925 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 161.74 Mbit/s

95th percentile per-packet one-way delay: 64.835 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 156.79 Mbit/s

95th percentile per-packet one-way delay: 65.284 ms

Loss rate: 0.61%

-- Flow 3:

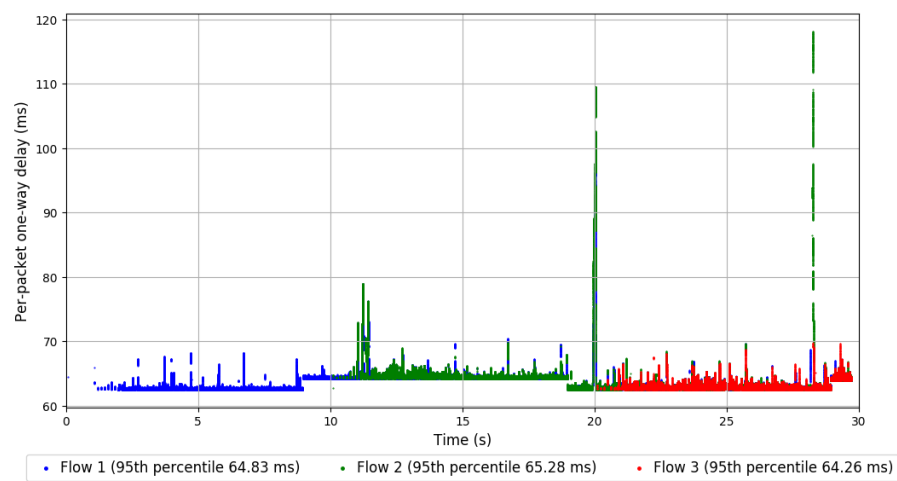
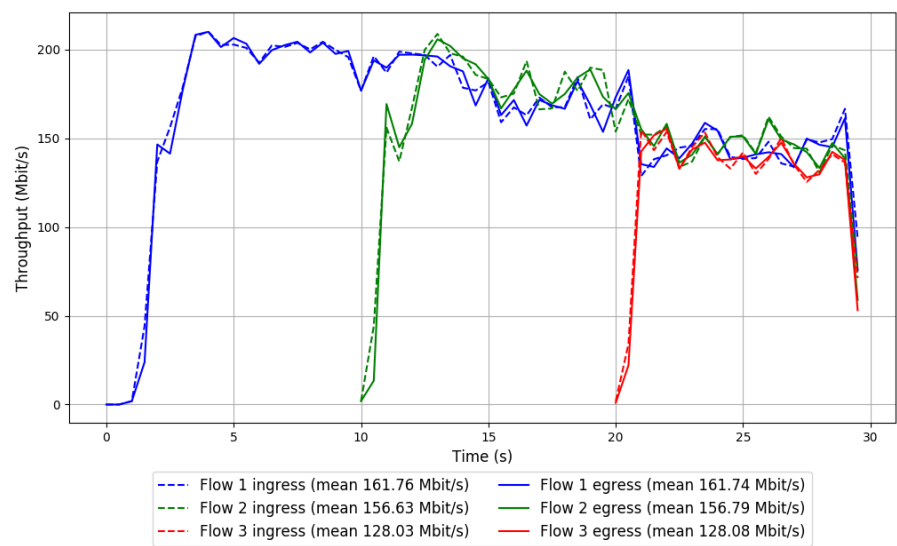
Average throughput: 128.08 Mbit/s

95th percentile per-packet one-way delay: 64.257 ms

Loss rate: 1.35%



Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-18 03:52:34

End at: 2018-01-18 03:53:04

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 299.54 Mbit/s

95th percentile per-packet one-way delay: 64.739 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 159.18 Mbit/s

95th percentile per-packet one-way delay: 64.532 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 157.27 Mbit/s

95th percentile per-packet one-way delay: 64.838 ms

Loss rate: 0.76%

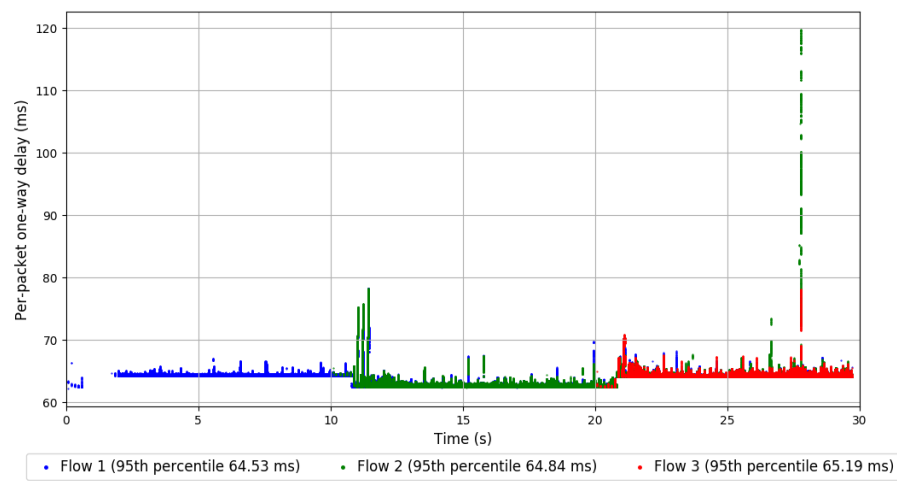
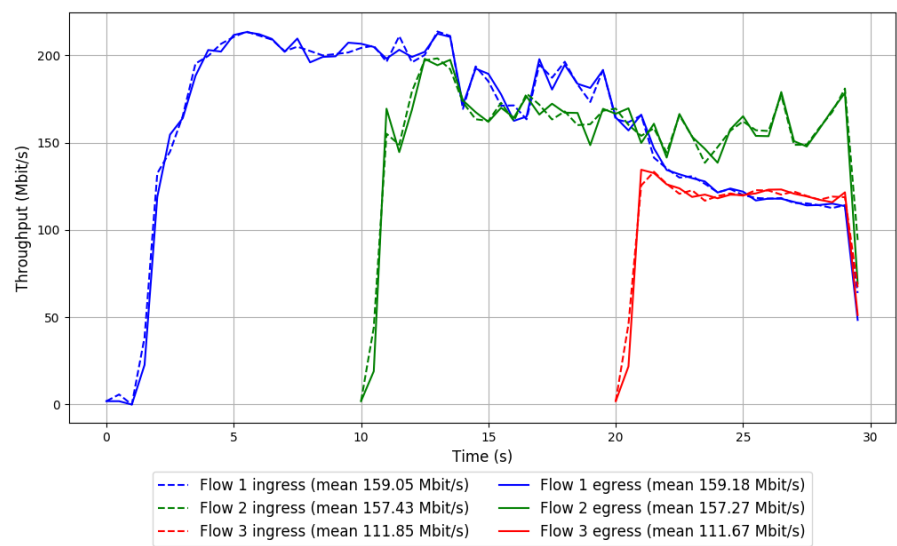
-- Flow 3:

Average throughput: 111.67 Mbit/s

95th percentile per-packet one-way delay: 65.192 ms

Loss rate: 1.44%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-18 04:09:25

End at: 2018-01-18 04:09:55

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 267.48 Mbit/s

95th percentile per-packet one-way delay: 64.720 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 147.78 Mbit/s

95th percentile per-packet one-way delay: 64.595 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 128.40 Mbit/s

95th percentile per-packet one-way delay: 64.774 ms

Loss rate: 0.51%

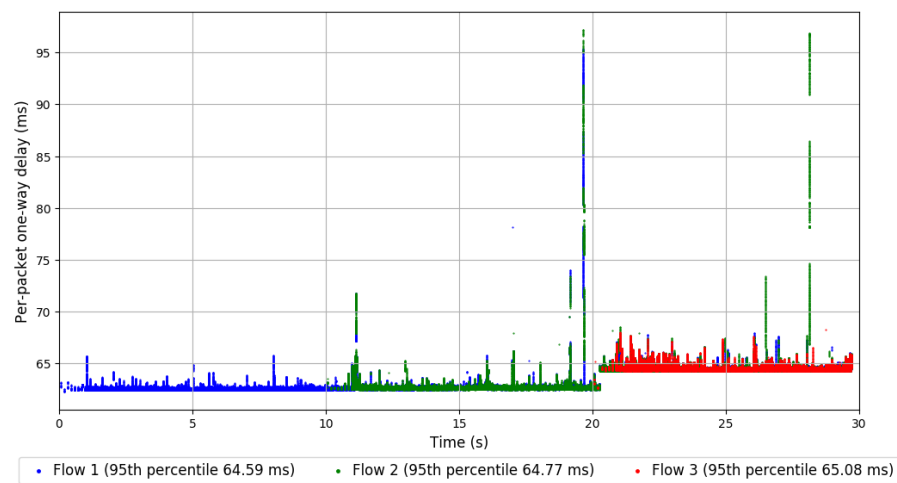
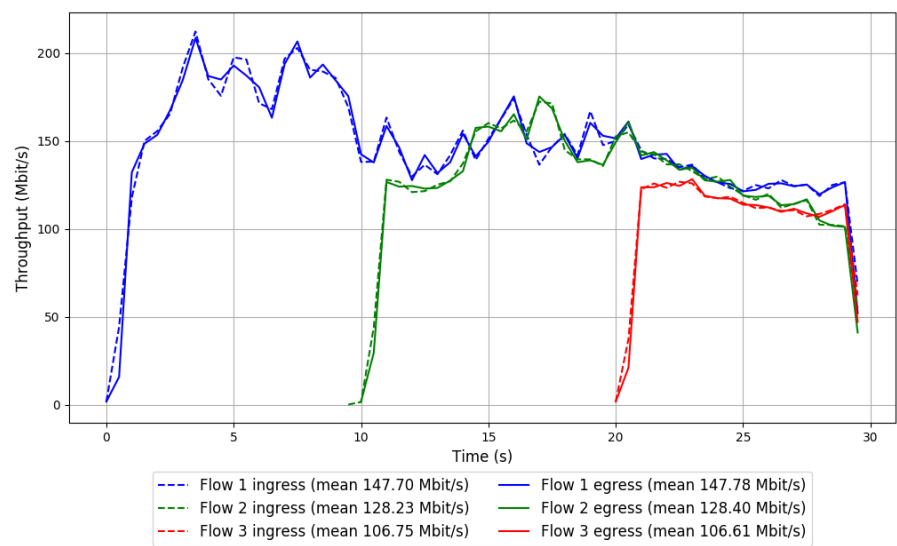
-- Flow 3:

Average throughput: 106.61 Mbit/s

95th percentile per-packet one-way delay: 65.085 ms

Loss rate: 1.46%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-18 04:26:52

End at: 2018-01-18 04:27:22

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 336.94 Mbit/s

95th percentile per-packet one-way delay: 67.057 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 177.41 Mbit/s

95th percentile per-packet one-way delay: 66.332 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 170.65 Mbit/s

95th percentile per-packet one-way delay: 67.151 ms

Loss rate: 0.67%

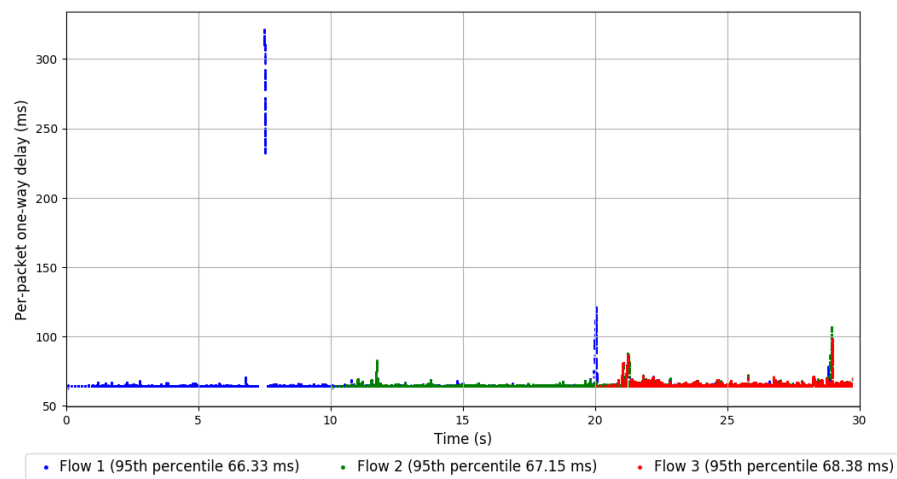
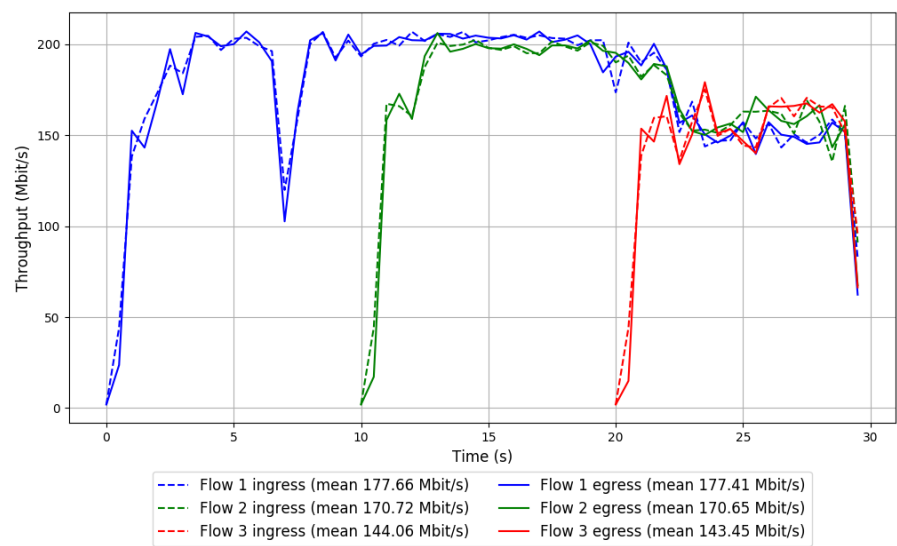
-- Flow 3:

Average throughput: 143.45 Mbit/s

95th percentile per-packet one-way delay: 68.376 ms

Loss rate: 1.68%

Run 10: Report of Indigo — Data Link



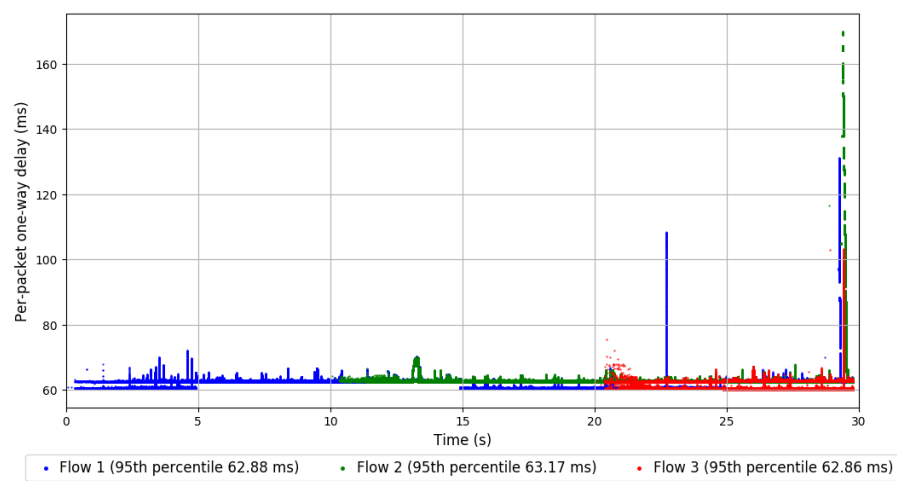
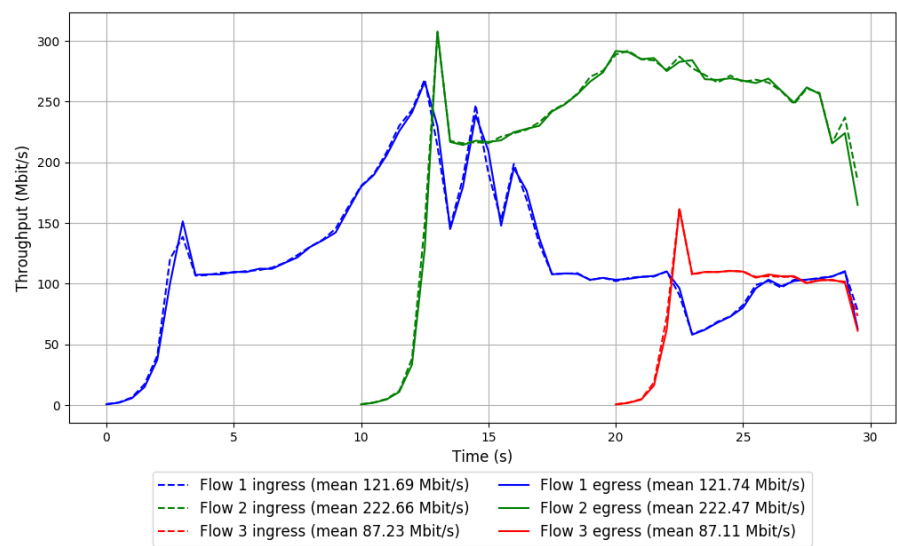
```
Run 1: Statistics of Vivace-latency

Start at: 2018-01-18 01:53:00
End at: 2018-01-18 01:53:30

# Below is generated by plot.py at 2018-01-18 09:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 297.63 Mbit/s
95th percentile per-packet one-way delay: 62.970 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 121.74 Mbit/s
95th percentile per-packet one-way delay: 62.878 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 222.47 Mbit/s
95th percentile per-packet one-way delay: 63.175 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 87.11 Mbit/s
95th percentile per-packet one-way delay: 62.862 ms
Loss rate: 1.47%
```



Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-18 02:10:30

End at: 2018-01-18 02:11:00

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 268.82 Mbit/s

95th percentile per-packet one-way delay: 64.256 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 165.94 Mbit/s

95th percentile per-packet one-way delay: 63.597 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 142.49 Mbit/s

95th percentile per-packet one-way delay: 64.760 ms

Loss rate: 0.74%

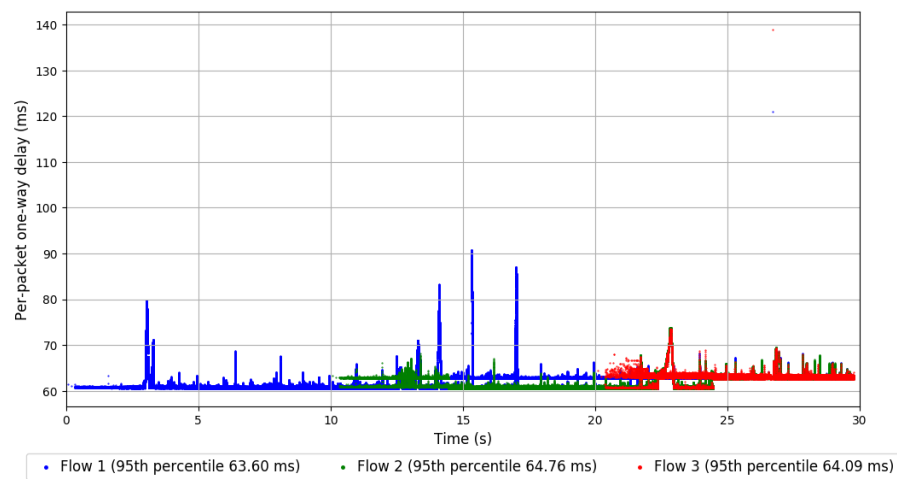
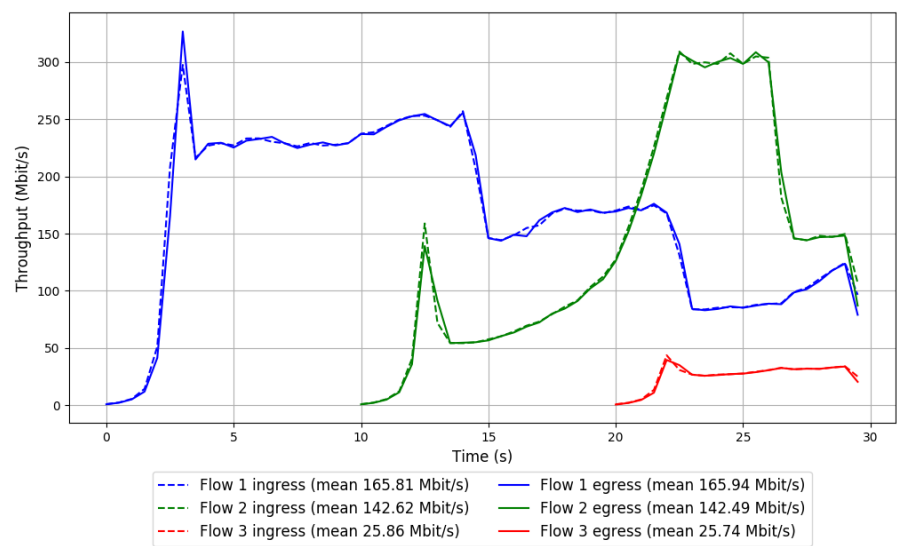
-- Flow 3:

Average throughput: 25.74 Mbit/s

95th percentile per-packet one-way delay: 64.094 ms

Loss rate: 1.78%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-18 02:28:02

End at: 2018-01-18 02:28:33

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.75 Mbit/s

95th percentile per-packet one-way delay: 63.428 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 133.25 Mbit/s

95th percentile per-packet one-way delay: 63.440 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 104.19 Mbit/s

95th percentile per-packet one-way delay: 63.394 ms

Loss rate: 0.61%

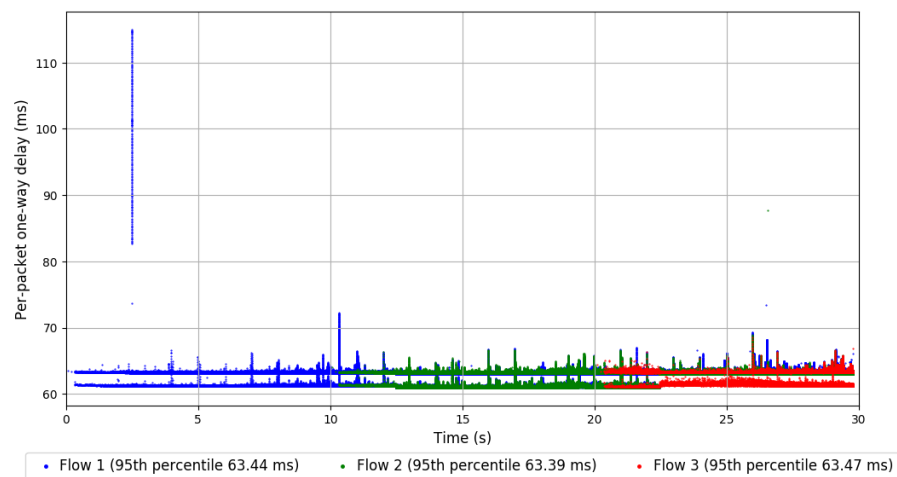
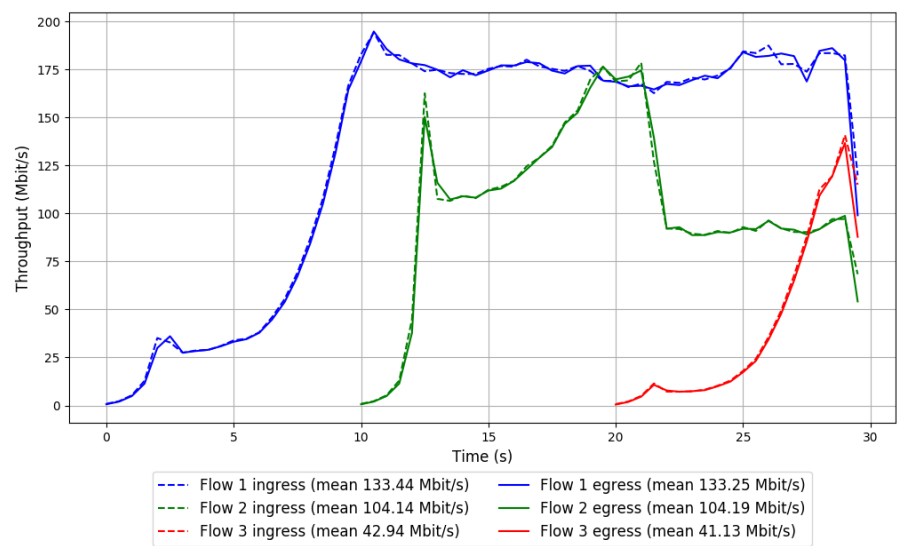
-- Flow 3:

Average throughput: 41.13 Mbit/s

95th percentile per-packet one-way delay: 63.466 ms

Loss rate: 5.51%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-18 02:45:33

End at: 2018-01-18 02:46:03

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 282.19 Mbit/s

95th percentile per-packet one-way delay: 64.032 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 186.18 Mbit/s

95th percentile per-packet one-way delay: 64.076 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 129.63 Mbit/s

95th percentile per-packet one-way delay: 63.952 ms

Loss rate: 0.24%

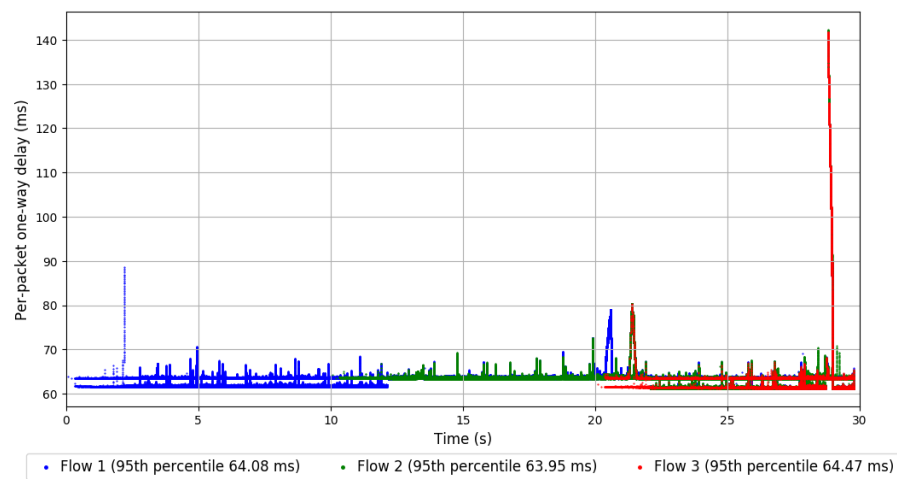
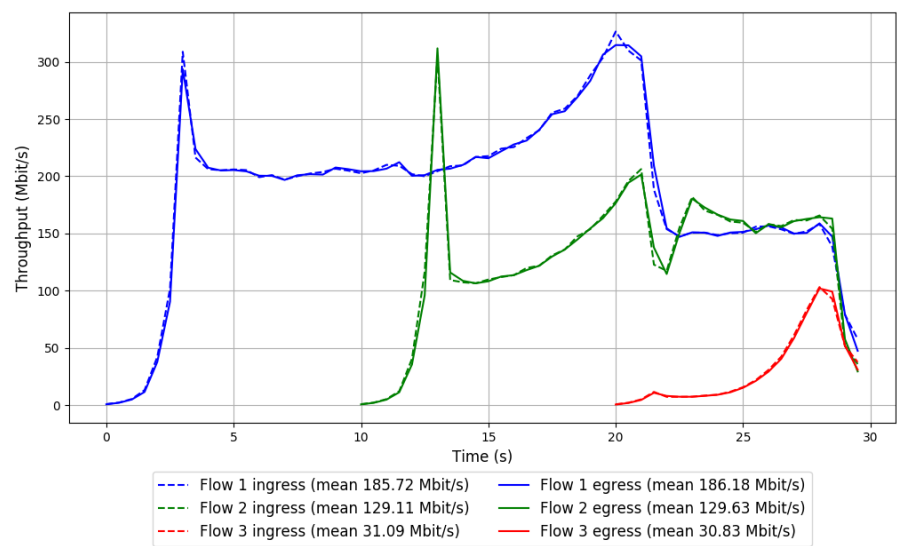
-- Flow 3:

Average throughput: 30.83 Mbit/s

95th percentile per-packet one-way delay: 64.467 ms

Loss rate: 2.09%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-18 03:03:07

End at: 2018-01-18 03:03:37

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 241.84 Mbit/s

95th percentile per-packet one-way delay: 64.404 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 160.53 Mbit/s

95th percentile per-packet one-way delay: 64.451 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 93.90 Mbit/s

95th percentile per-packet one-way delay: 64.155 ms

Loss rate: 0.33%

-- Flow 3:

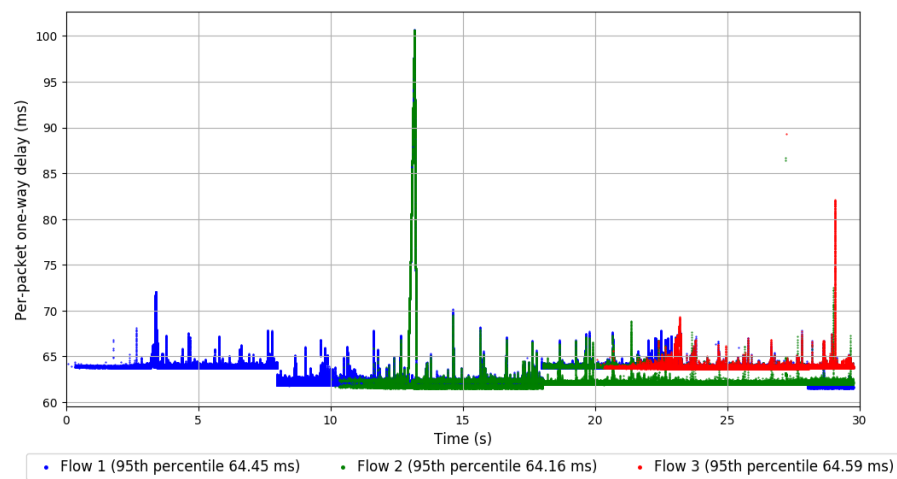
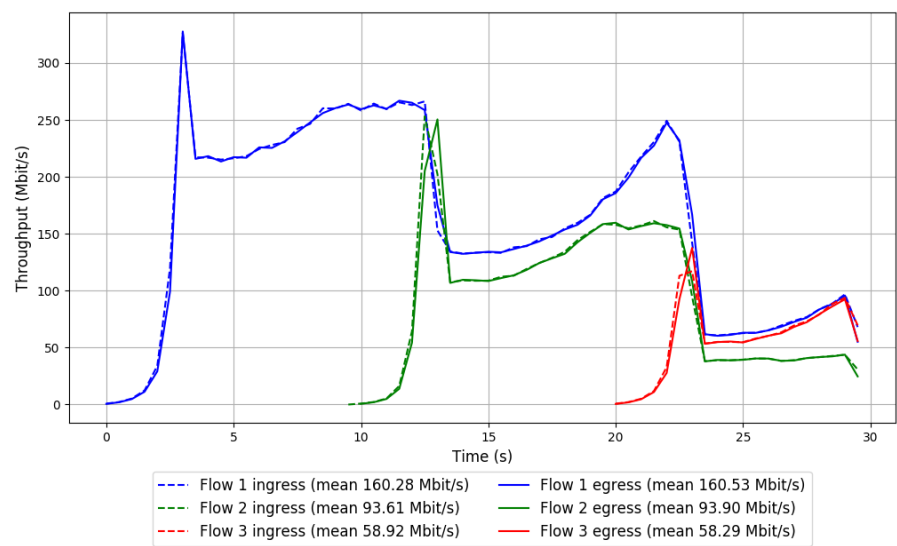
Average throughput: 58.29 Mbit/s

95th percentile per-packet one-way delay: 64.589 ms

Loss rate: 2.36%



Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-18 03:20:17

End at: 2018-01-18 03:20:47

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 286.97 Mbit/s

95th percentile per-packet one-way delay: 64.464 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 193.38 Mbit/s

95th percentile per-packet one-way delay: 64.769 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 87.65 Mbit/s

95th percentile per-packet one-way delay: 64.392 ms

Loss rate: 0.34%

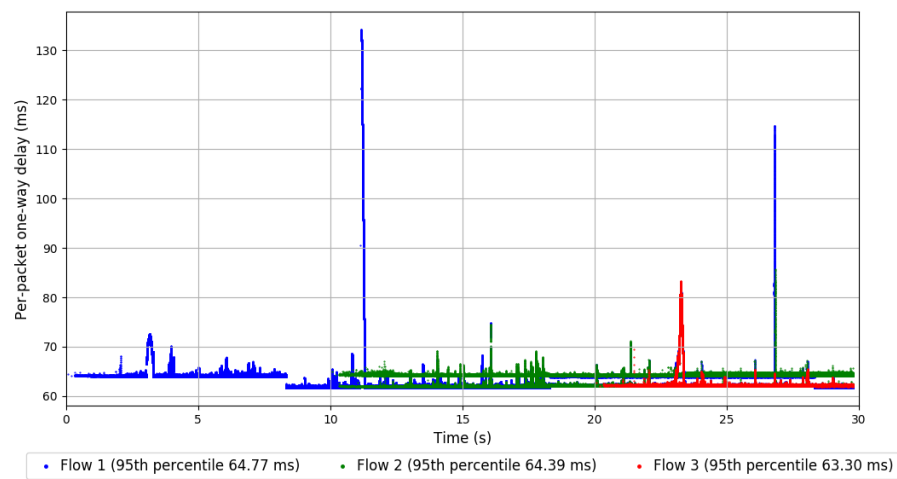
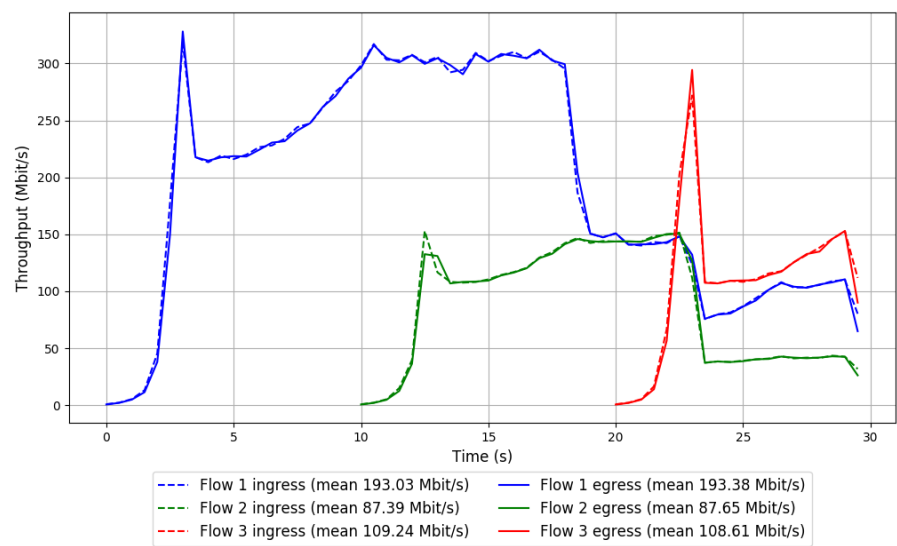
-- Flow 3:

Average throughput: 108.61 Mbit/s

95th percentile per-packet one-way delay: 63.297 ms

Loss rate: 1.85%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-18 03:37:51

End at: 2018-01-18 03:38:21

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 248.01 Mbit/s

95th percentile per-packet one-way delay: 75.145 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 160.02 Mbit/s

95th percentile per-packet one-way delay: 76.544 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 104.53 Mbit/s

95th percentile per-packet one-way delay: 69.793 ms

Loss rate: 0.80%

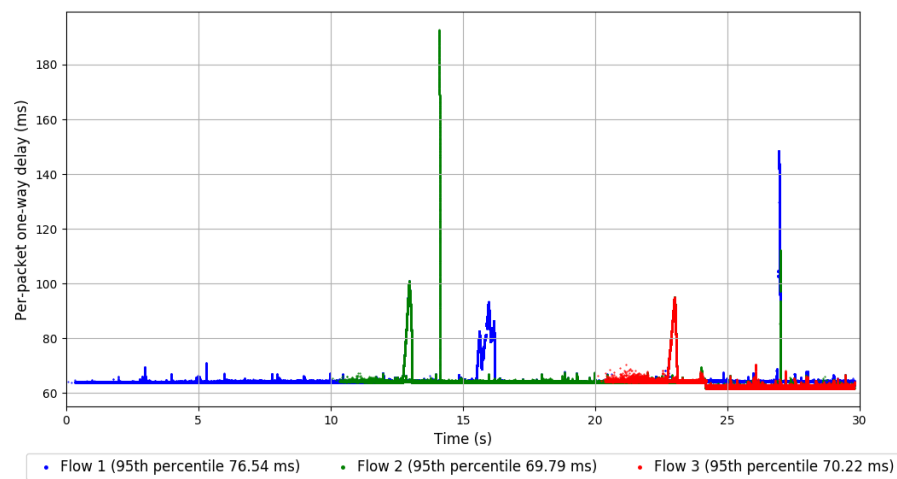
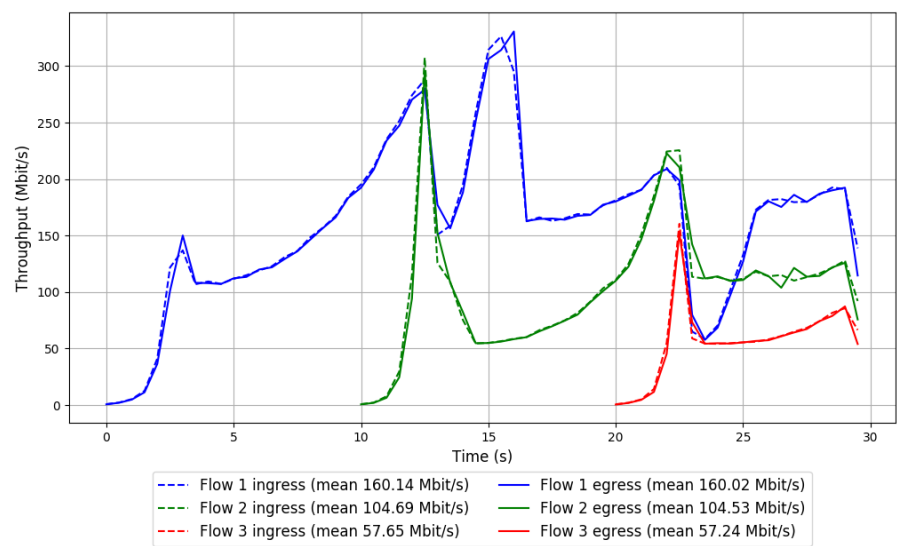
-- Flow 3:

Average throughput: 57.24 Mbit/s

95th percentile per-packet one-way delay: 70.218 ms

Loss rate: 2.04%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-18 03:54:19

End at: 2018-01-18 03:54:49

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 285.65 Mbit/s

95th percentile per-packet one-way delay: 64.595 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 175.12 Mbit/s

95th percentile per-packet one-way delay: 64.637 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 122.98 Mbit/s

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

Loss rate: 0.51%

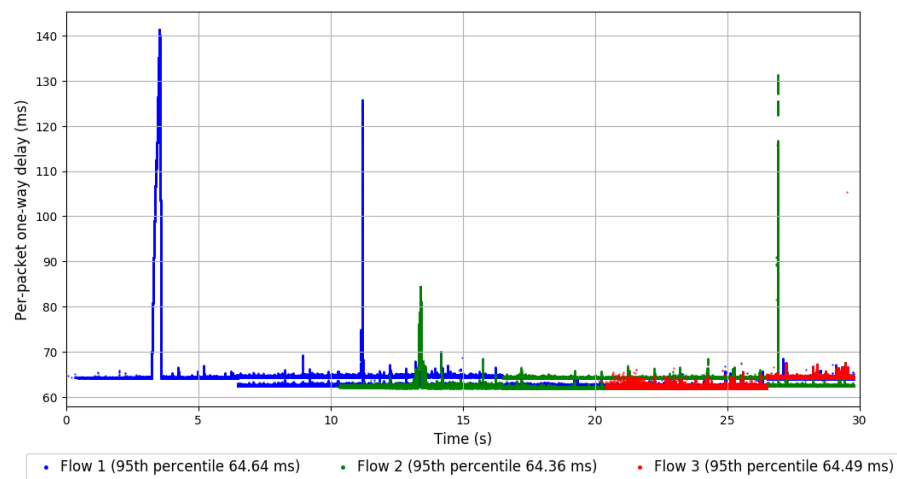
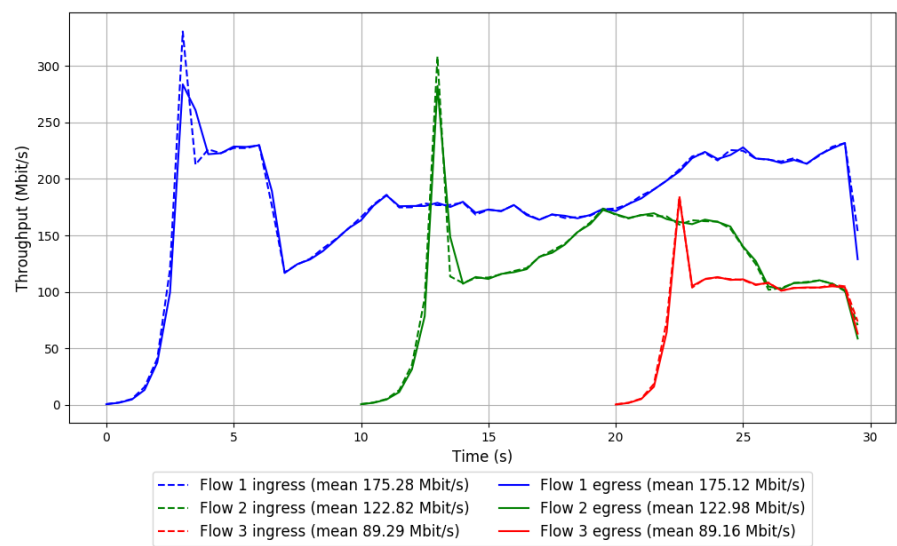
-- Flow 3:

Average throughput: 89.16 Mbit/s

95th percentile per-packet one-way delay: 64.488 ms

Loss rate: 1.48%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-18 04:11:07

End at: 2018-01-18 04:11:37

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 206.26 Mbit/s

95th percentile per-packet one-way delay: 64.871 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 107.18 Mbit/s

95th percentile per-packet one-way delay: 64.788 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 97.59 Mbit/s

95th percentile per-packet one-way delay: 66.697 ms

Loss rate: 0.24%

-- Flow 3:

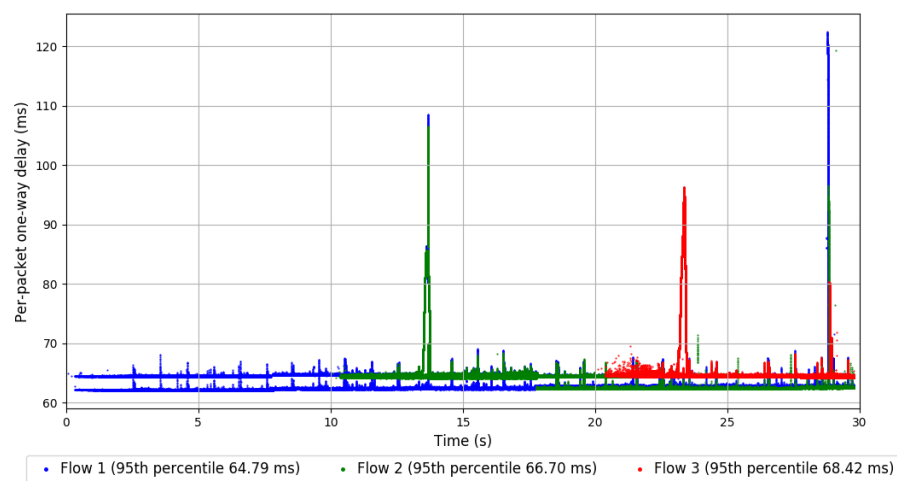
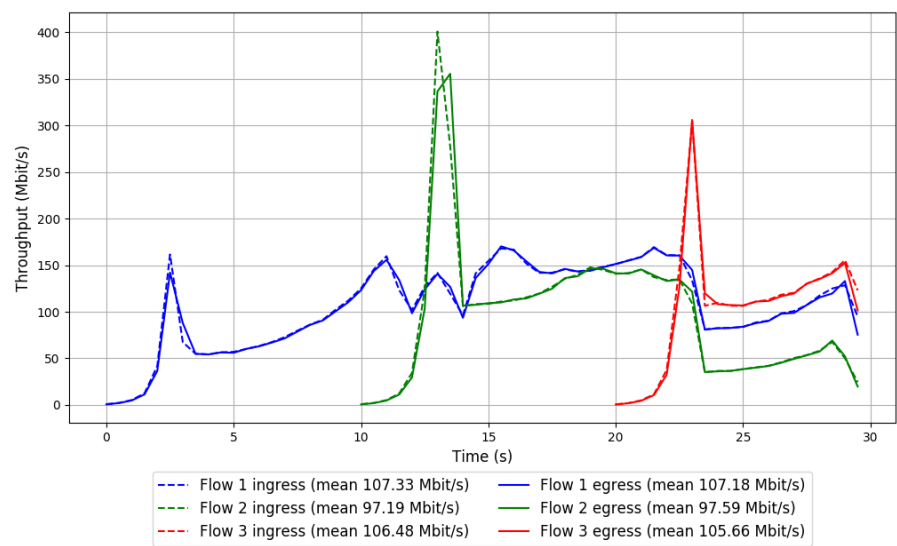
Average throughput: 105.66 Mbit/s

95th percentile per-packet one-way delay: 68.418 ms

Loss rate: 2.06%



Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-18 04:28:39

End at: 2018-01-18 04:29:09

# Below is generated by plot.py at 2018-01-18 09:28:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 255.12 Mbit/s

95th percentile per-packet one-way delay: 65.989 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 172.64 Mbit/s

95th percentile per-packet one-way delay: 66.363 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 84.00 Mbit/s

95th percentile per-packet one-way delay: 64.527 ms

Loss rate: 0.53%

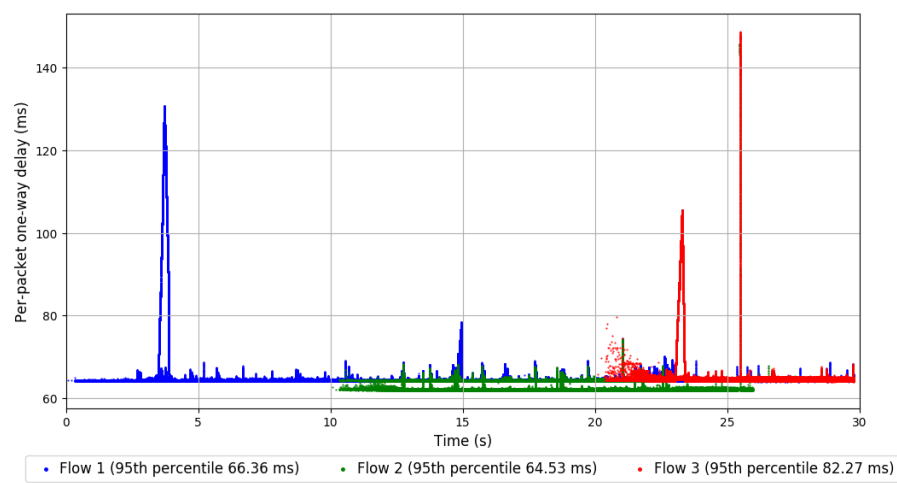
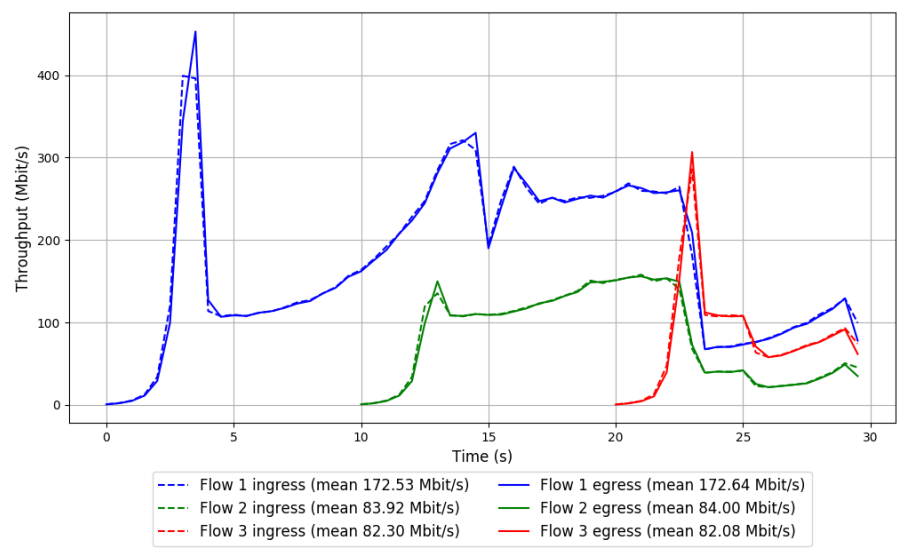
-- Flow 3:

Average throughput: 82.08 Mbit/s

95th percentile per-packet one-way delay: 82.265 ms

Loss rate: 1.58%

Run 10: Report of Vivace-latency — Data Link

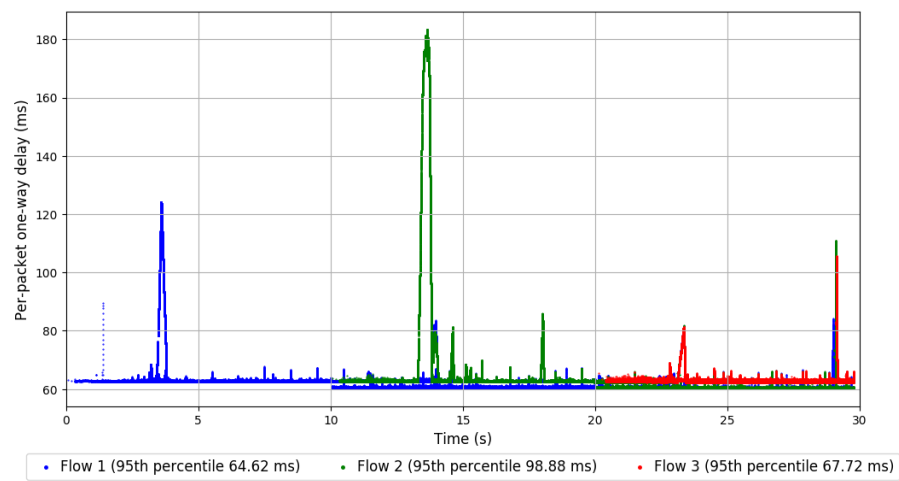
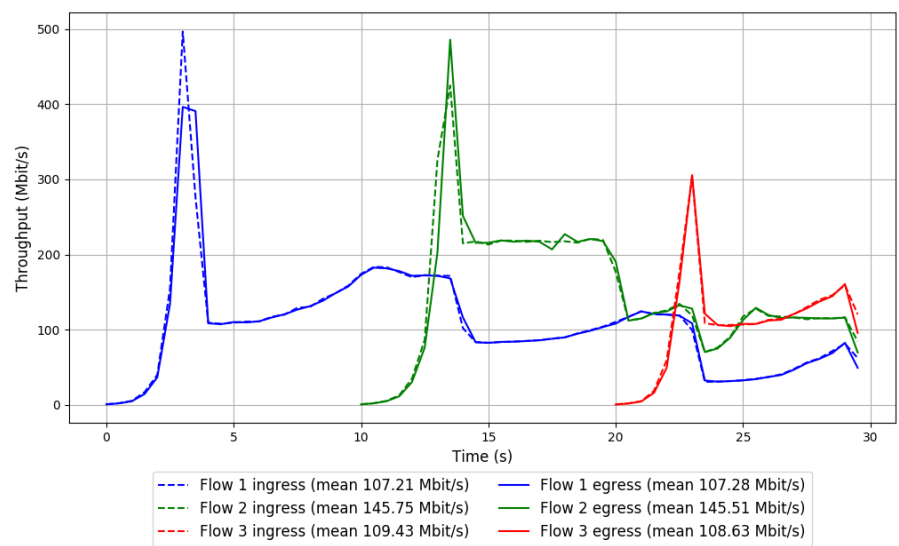


```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-18 01:57:25
End at: 2018-01-18 01:57:55

# Below is generated by plot.py at 2018-01-18 09:28:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 239.12 Mbit/s
95th percentile per-packet one-way delay: 74.126 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 107.28 Mbit/s
95th percentile per-packet one-way delay: 64.616 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 145.51 Mbit/s
95th percentile per-packet one-way delay: 98.882 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 108.63 Mbit/s
95th percentile per-packet one-way delay: 67.720 ms
Loss rate: 2.04%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-01-18 02:15:02

End at: 2018-01-18 02:15:32

# Below is generated by plot.py at 2018-01-18 09:28:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 249.91 Mbit/s

95th percentile per-packet one-way delay: 65.841 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 119.91 Mbit/s

95th percentile per-packet one-way delay: 68.388 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 148.28 Mbit/s

95th percentile per-packet one-way delay: 67.117 ms

Loss rate: 0.64%

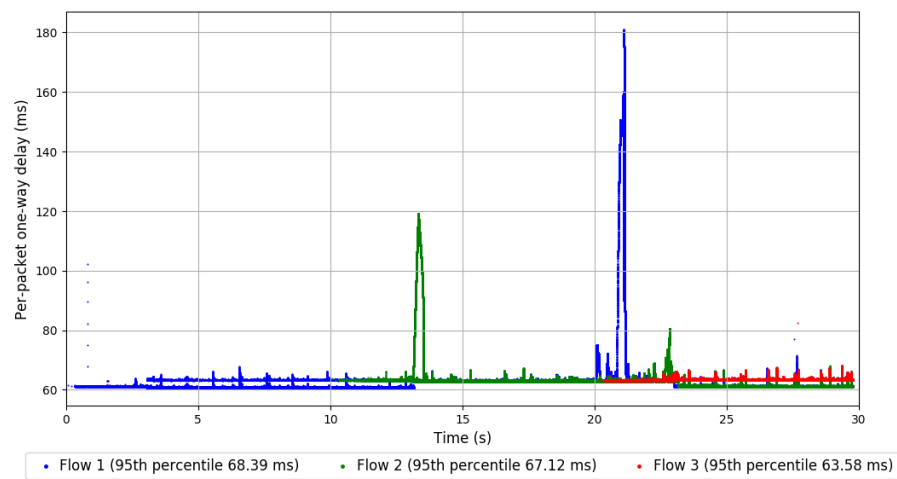
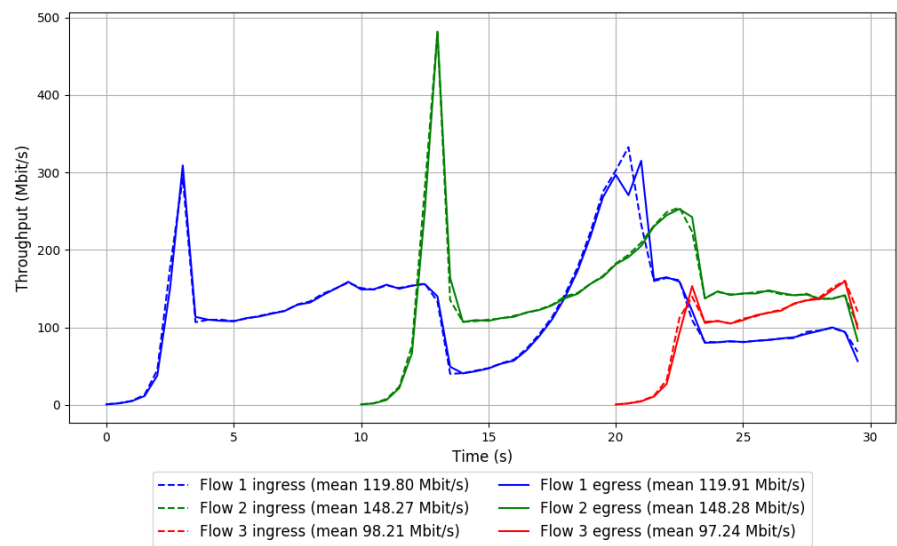
-- Flow 3:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 63.583 ms

Loss rate: 2.29%

Run 2: Report of Vivace-loss — Data Link



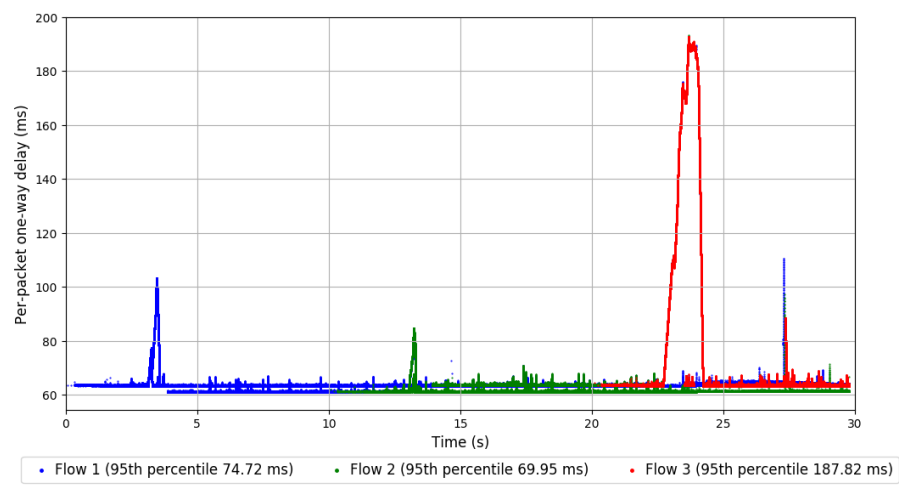
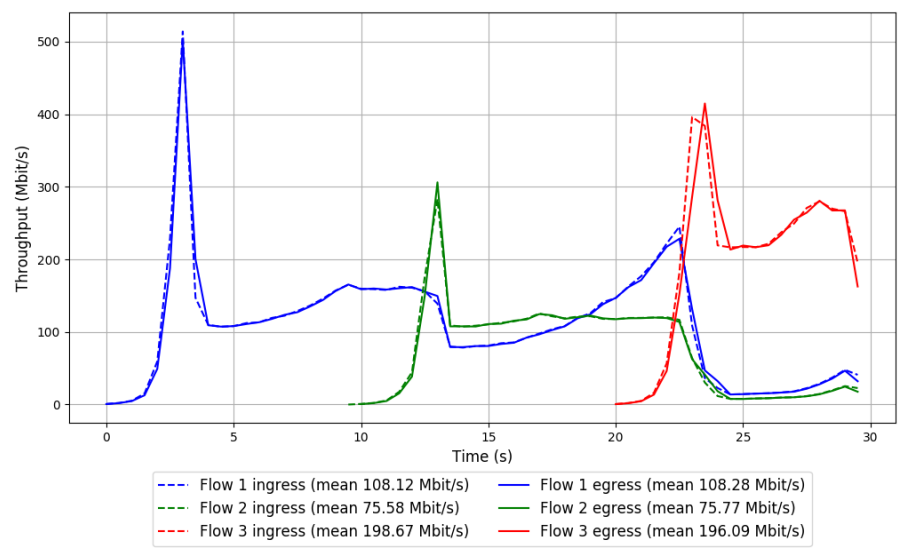
```
Run 3: Statistics of Vivace-loss

Start at: 2018-01-18 02:32:21
End at: 2018-01-18 02:32:51

# Below is generated by plot.py at 2018-01-18 09:29:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 222.47 Mbit/s
95th percentile per-packet one-way delay: 125.676 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 108.28 Mbit/s
95th percentile per-packet one-way delay: 74.716 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 69.953 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 196.09 Mbit/s
95th percentile per-packet one-way delay: 187.819 ms
Loss rate: 2.60%
```



Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-18 02:49:56

End at: 2018-01-18 02:50:26

# Below is generated by plot.py at 2018-01-18 09:32:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 281.00 Mbit/s

95th percentile per-packet one-way delay: 64.340 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 160.90 Mbit/s

95th percentile per-packet one-way delay: 64.435 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 137.41 Mbit/s

95th percentile per-packet one-way delay: 64.331 ms

Loss rate: 0.69%

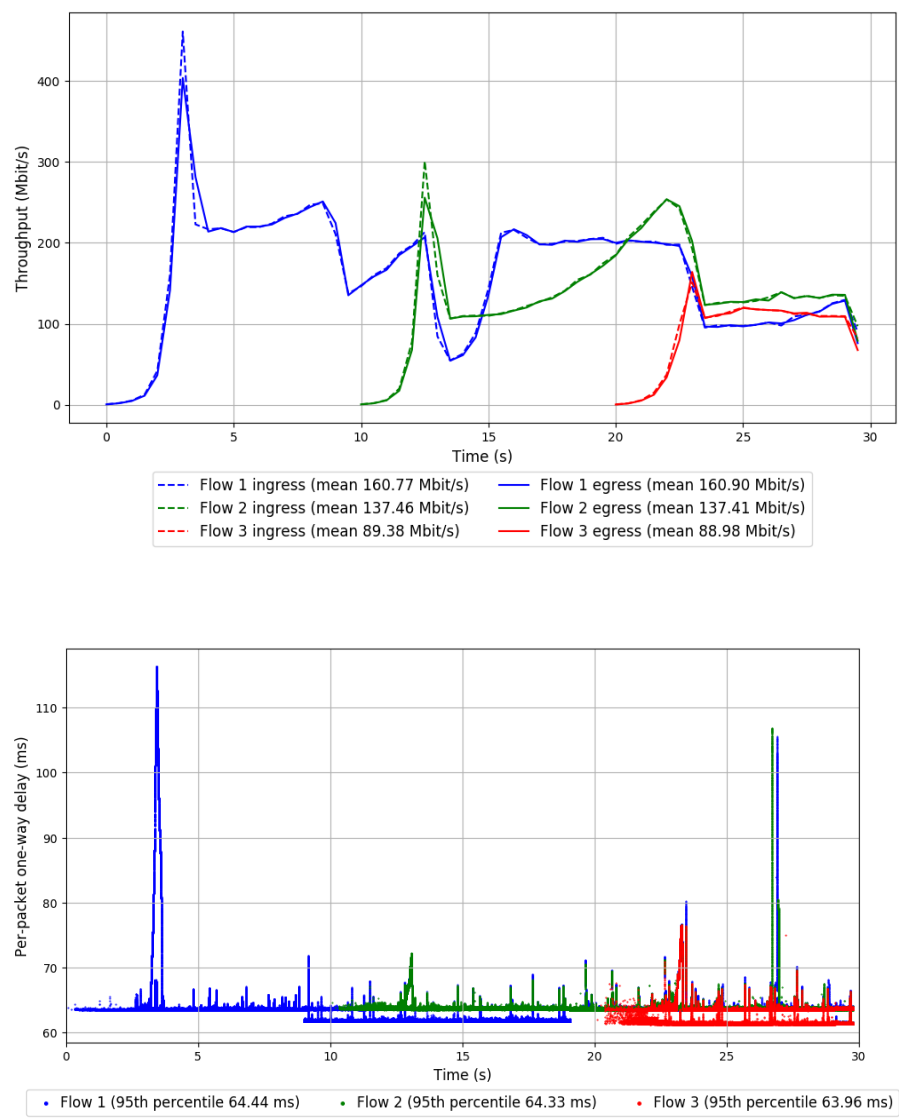
-- Flow 3:

Average throughput: 88.98 Mbit/s

95th percentile per-packet one-way delay: 63.962 ms

Loss rate: 1.73%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-18 03:07:07

End at: 2018-01-18 03:07:37

# Below is generated by plot.py at 2018-01-18 09:34:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 276.02 Mbit/s

95th percentile per-packet one-way delay: 68.588 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 152.35 Mbit/s

95th percentile per-packet one-way delay: 70.523 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 134.98 Mbit/s

95th percentile per-packet one-way delay: 64.504 ms

Loss rate: 1.39%

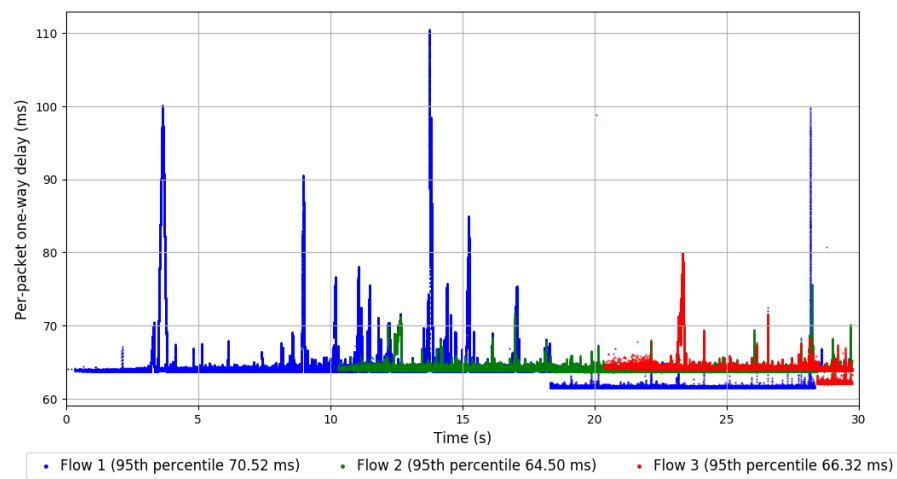
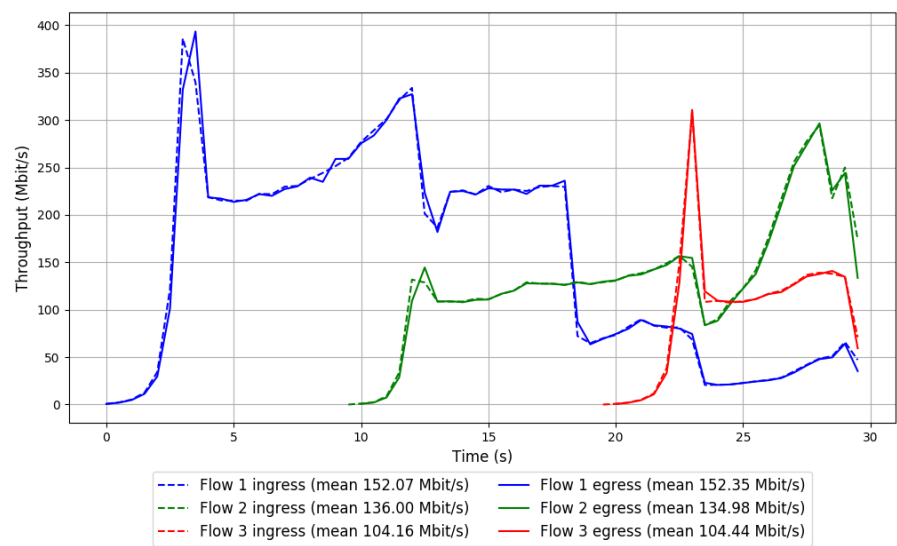
-- Flow 3:

Average throughput: 104.44 Mbit/s

95th percentile per-packet one-way delay: 66.319 ms

Loss rate: 1.38%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-18 03:24:41

End at: 2018-01-18 03:25:11

# Below is generated by plot.py at 2018-01-18 09:34:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 251.37 Mbit/s

95th percentile per-packet one-way delay: 64.698 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 141.50 Mbit/s

95th percentile per-packet one-way delay: 64.717 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 143.67 Mbit/s

95th percentile per-packet one-way delay: 64.659 ms

Loss rate: 0.87%

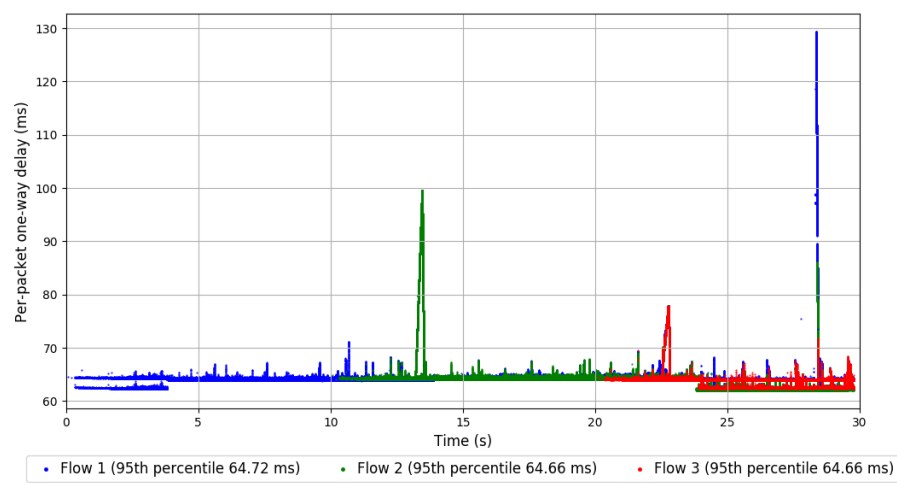
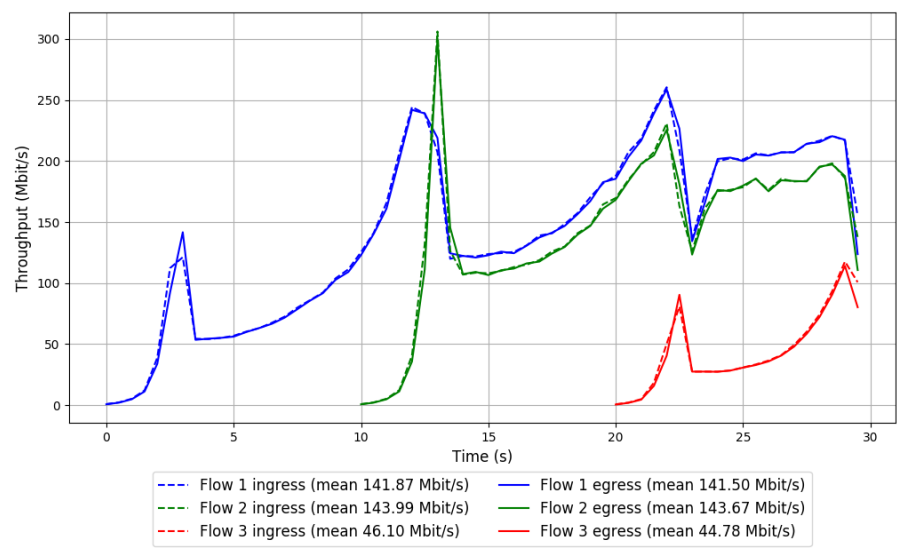
-- Flow 3:

Average throughput: 44.78 Mbit/s

95th percentile per-packet one-way delay: 64.663 ms

Loss rate: 4.12%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-18 03:42:17

End at: 2018-01-18 03:42:47

# Below is generated by plot.py at 2018-01-18 09:34:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 200.21 Mbit/s

95th percentile per-packet one-way delay: 65.012 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 115.04 Mbit/s

95th percentile per-packet one-way delay: 64.520 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 94.78 Mbit/s

95th percentile per-packet one-way delay: 74.691 ms

Loss rate: 0.44%

-- Flow 3:

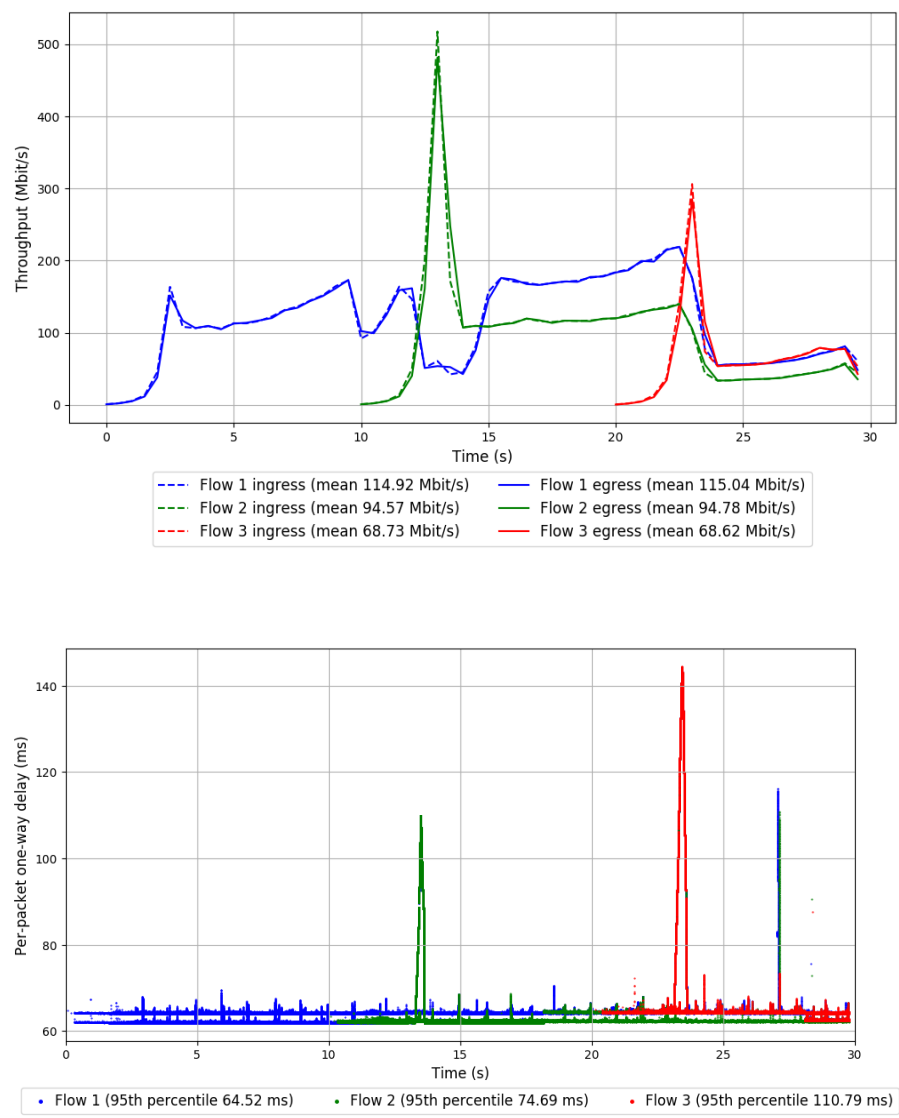
Average throughput: 68.62 Mbit/s

95th percentile per-packet one-way delay: 110.787 ms

Loss rate: 1.48%



Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-18 03:58:33

End at: 2018-01-18 03:59:03

# Below is generated by plot.py at 2018-01-18 09:37:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 269.80 Mbit/s

95th percentile per-packet one-way delay: 65.102 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 148.51 Mbit/s

95th percentile per-packet one-way delay: 64.944 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 158.86 Mbit/s

95th percentile per-packet one-way delay: 65.408 ms

Loss rate: 0.82%

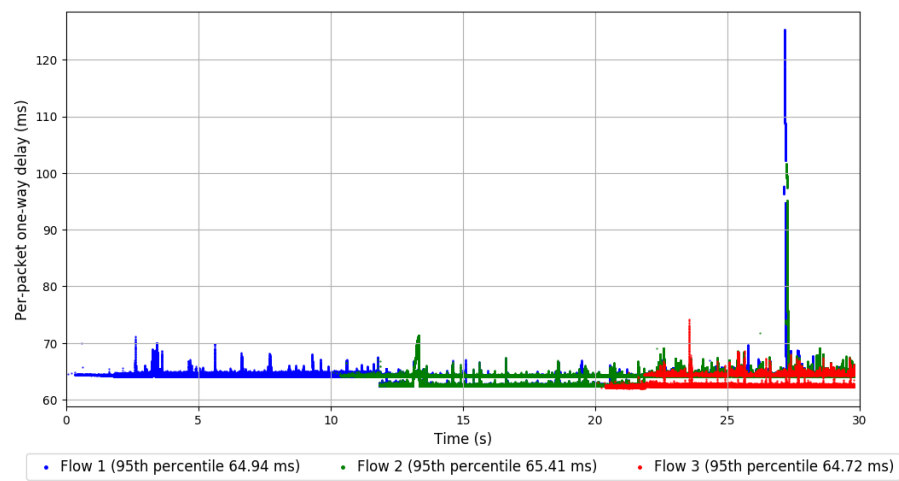
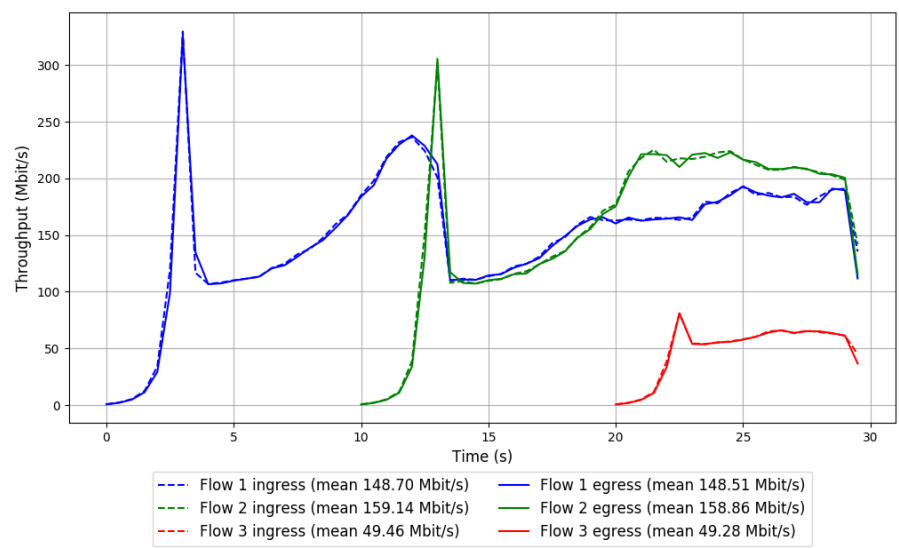
-- Flow 3:

Average throughput: 49.28 Mbit/s

95th percentile per-packet one-way delay: 64.721 ms

Loss rate: 1.65%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-18 04:15:28

End at: 2018-01-18 04:15:58

# Below is generated by plot.py at 2018-01-18 09:37:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 244.12 Mbit/s

95th percentile per-packet one-way delay: 65.852 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 130.46 Mbit/s

95th percentile per-packet one-way delay: 64.916 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 142.34 Mbit/s

95th percentile per-packet one-way delay: 75.174 ms

Loss rate: 0.39%

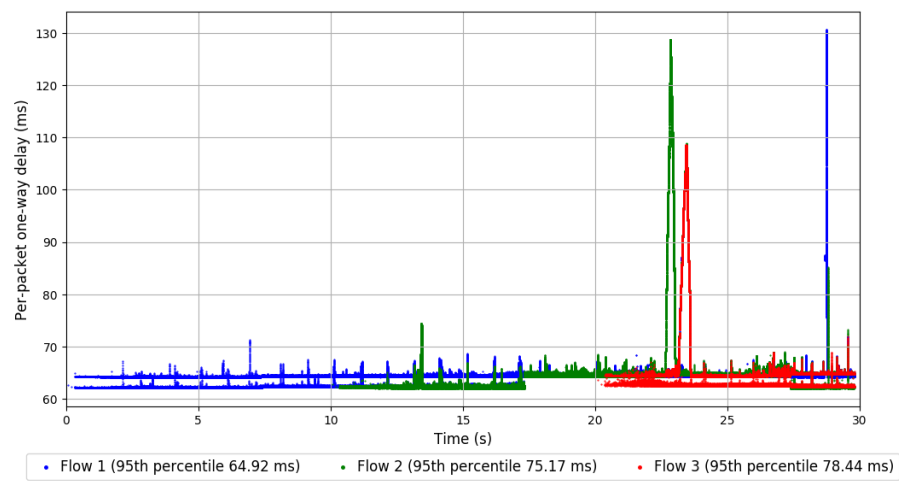
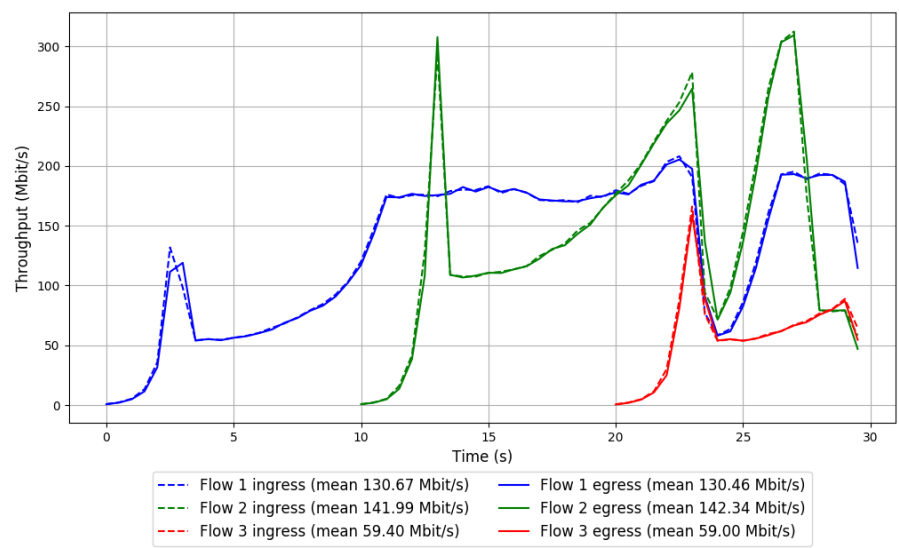
-- Flow 3:

Average throughput: 59.00 Mbit/s

95th percentile per-packet one-way delay: 78.443 ms

Loss rate: 1.95%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-18 04:32:53

End at: 2018-01-18 04:33:23

# Below is generated by plot.py at 2018-01-18 09:37:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 227.87 Mbit/s

95th percentile per-packet one-way delay: 64.916 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 114.83 Mbit/s

95th percentile per-packet one-way delay: 64.872 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 117.52 Mbit/s

95th percentile per-packet one-way delay: 66.019 ms

Loss rate: 0.61%

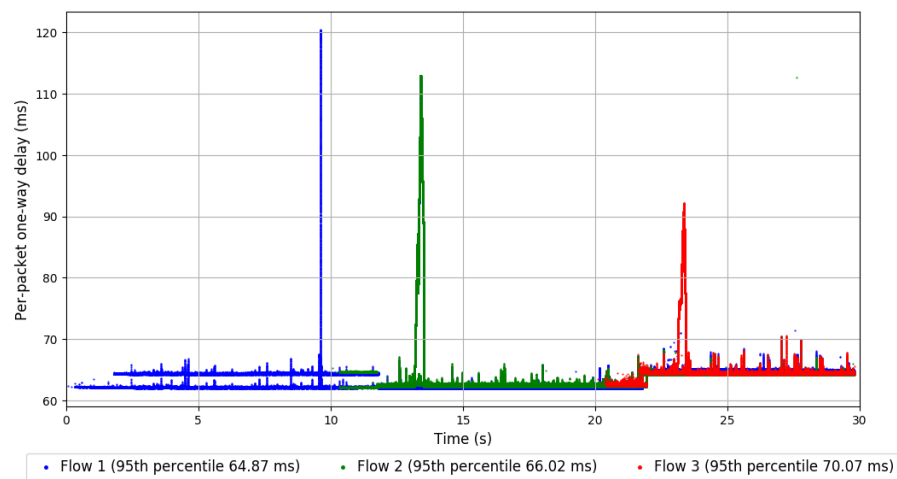
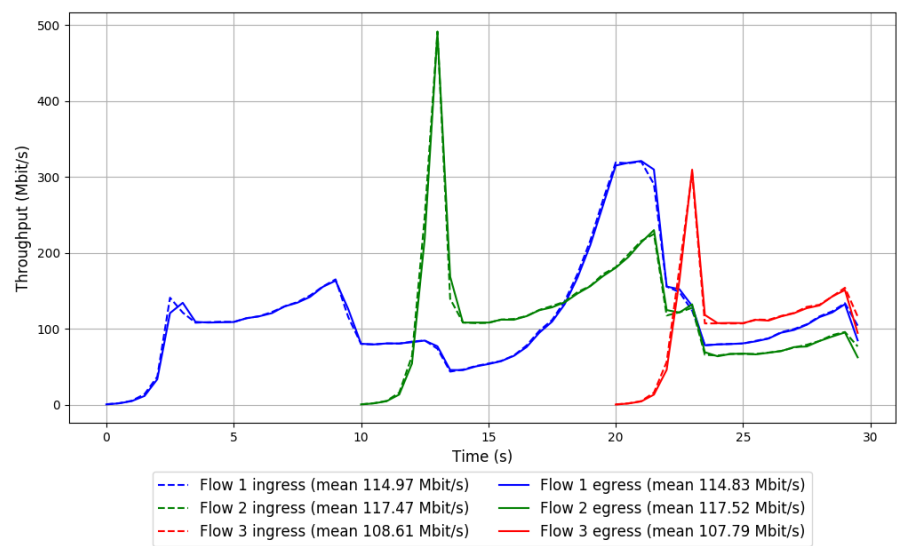
-- Flow 3:

Average throughput: 107.79 Mbit/s

95th percentile per-packet one-way delay: 70.073 ms

Loss rate: 2.03%

Run 10: Report of Vivace-loss — Data Link



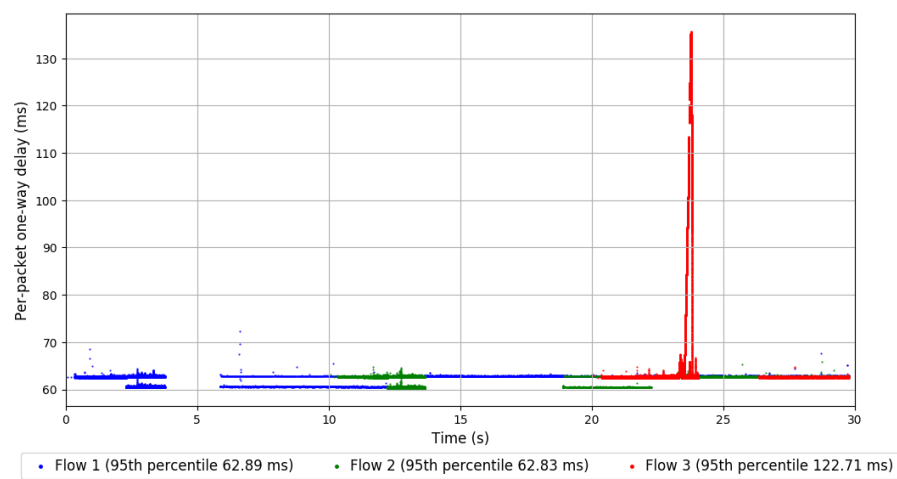
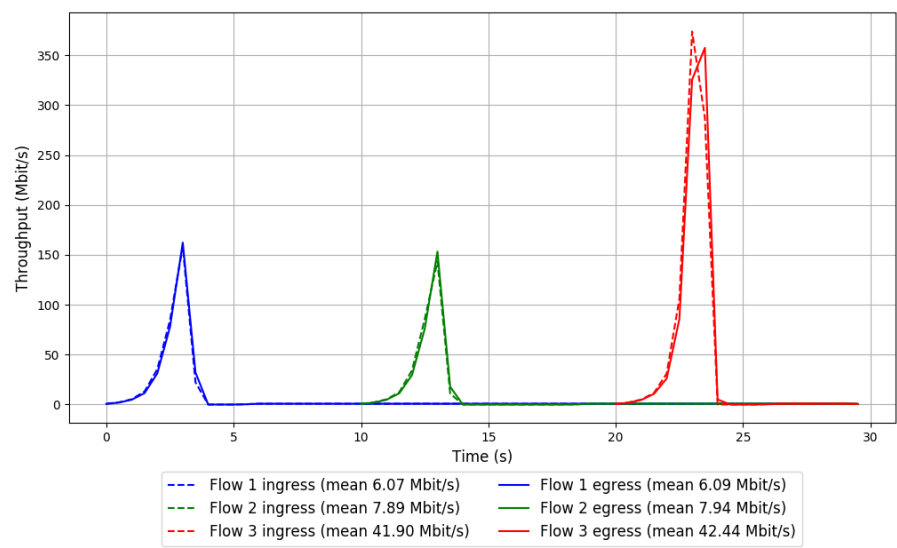
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-18 02:00:43
End at: 2018-01-18 02:01:13

# Below is generated by plot.py at 2018-01-18 09:37:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.21 Mbit/s
95th percentile per-packet one-way delay: 102.699 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 62.888 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 62.830 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 42.44 Mbit/s
95th percentile per-packet one-way delay: 122.714 ms
Loss rate: 0.03%
```



Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-18 02:18:26

End at: 2018-01-18 02:18:56

# Below is generated by plot.py at 2018-01-18 09:37:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 187.05 Mbit/s

95th percentile per-packet one-way delay: 66.168 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 113.63 Mbit/s

95th percentile per-packet one-way delay: 63.190 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 70.07 Mbit/s

95th percentile per-packet one-way delay: 63.800 ms

Loss rate: 0.04%

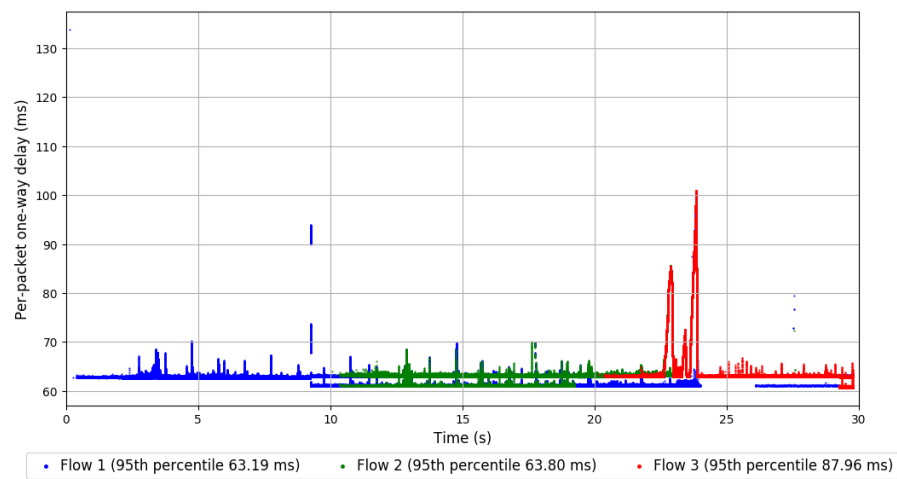
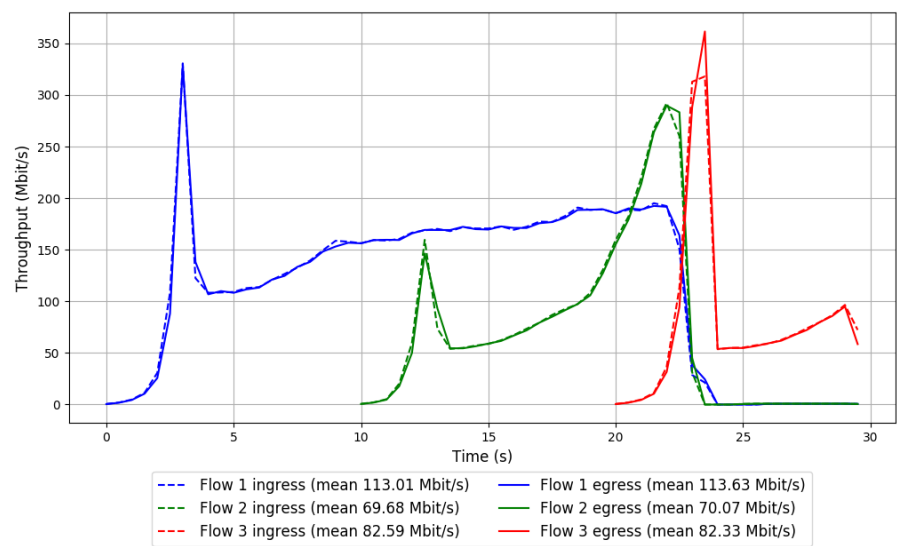
-- Flow 3:

Average throughput: 82.33 Mbit/s

95th percentile per-packet one-way delay: 87.958 ms

Loss rate: 1.62%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-18 02:35:40

End at: 2018-01-18 02:36:10

# Below is generated by plot.py at 2018-01-18 09:38:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 192.07 Mbit/s

95th percentile per-packet one-way delay: 68.837 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 180.77 Mbit/s

95th percentile per-packet one-way delay: 69.096 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 8.98 Mbit/s

95th percentile per-packet one-way delay: 63.783 ms

Loss rate: 0.08%

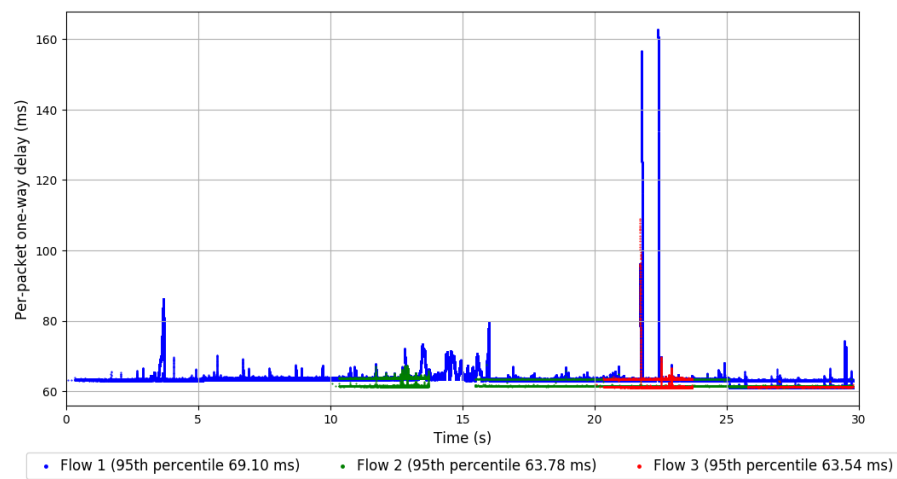
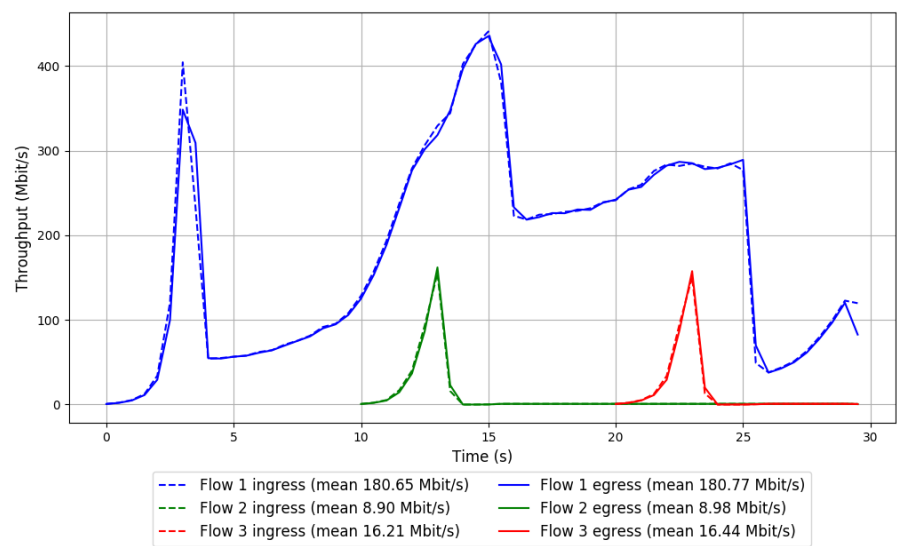
-- Flow 3:

Average throughput: 16.44 Mbit/s

95th percentile per-packet one-way delay: 63.544 ms

Loss rate: 0.09%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-18 02:53:22

End at: 2018-01-18 02:53:52

# Below is generated by plot.py at 2018-01-18 09:38:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.24 Mbit/s

95th percentile per-packet one-way delay: 64.002 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 83.07 Mbit/s

95th percentile per-packet one-way delay: 64.097 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.26 Mbit/s

95th percentile per-packet one-way delay: 63.918 ms

Loss rate: 0.07%

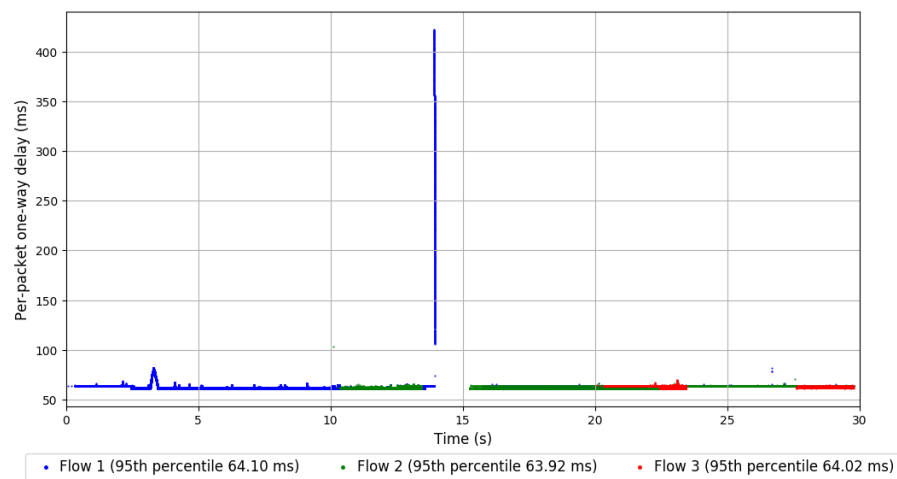
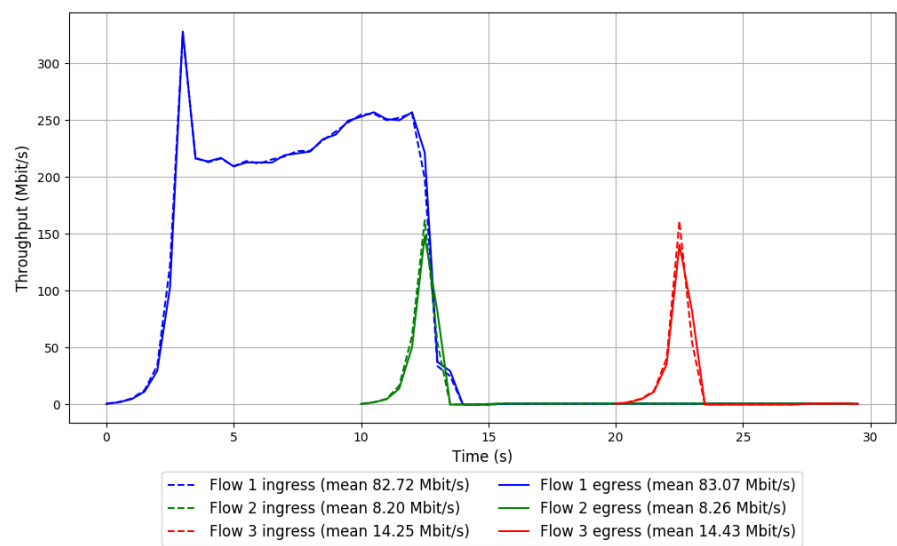
-- Flow 3:

Average throughput: 14.43 Mbit/s

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

Loss rate: 0.10%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-18 03:10:27

End at: 2018-01-18 03:10:57

# Below is generated by plot.py at 2018-01-18 09:39:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 182.46 Mbit/s

95th percentile per-packet one-way delay: 75.204 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 5.55 Mbit/s

95th percentile per-packet one-way delay: 64.257 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 242.58 Mbit/s

95th percentile per-packet one-way delay: 76.993 ms

Loss rate: 0.72%

-- Flow 3:

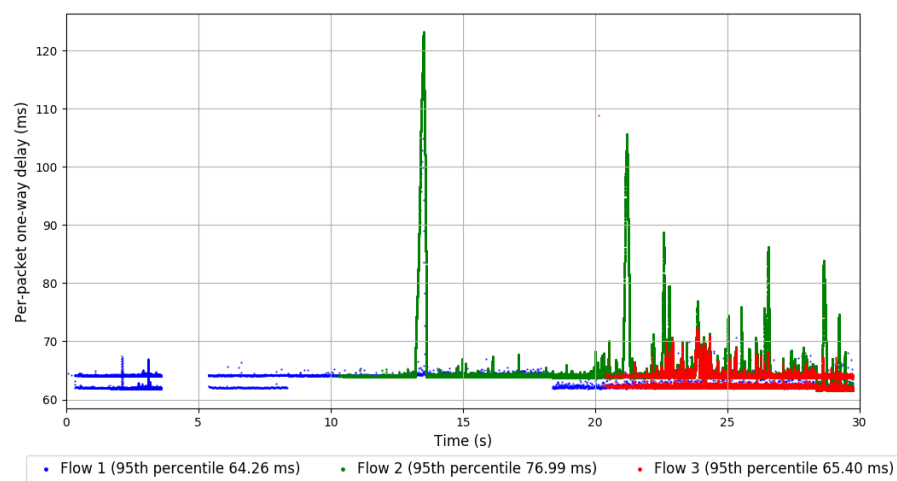
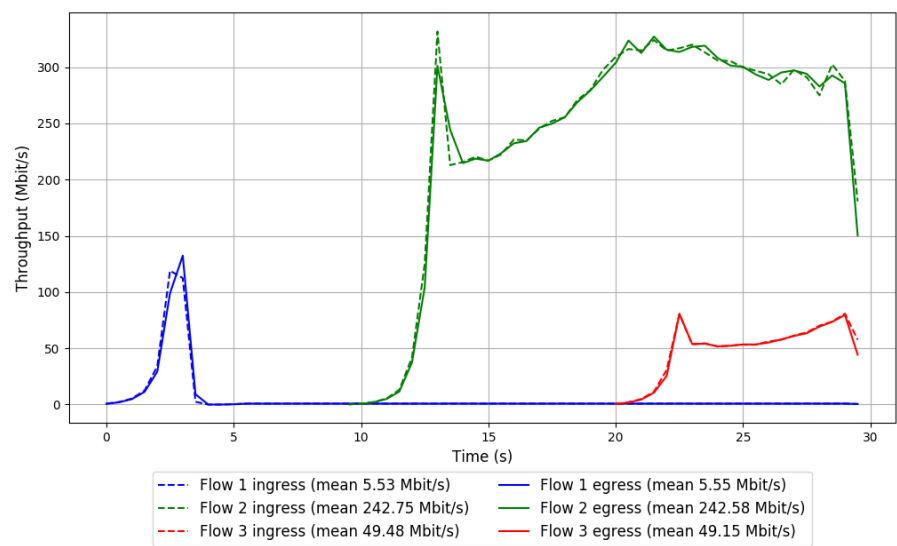
Average throughput: 49.15 Mbit/s

95th percentile per-packet one-way delay: 65.399 ms

Loss rate: 2.46%



Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-18 03:28:01

End at: 2018-01-18 03:28:31

# Below is generated by plot.py at 2018-01-18 09:39:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 210.94 Mbit/s

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

Loss rate: 0.91%

-- Flow 1:

Average throughput: 184.49 Mbit/s

95th percentile per-packet one-way delay: 65.203 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 8.86 Mbit/s

95th percentile per-packet one-way delay: 70.192 ms

Loss rate: 0.06%

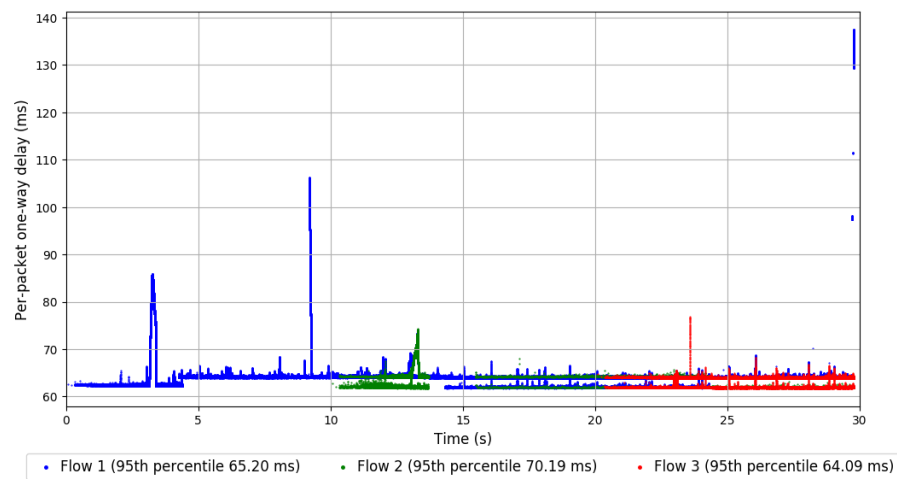
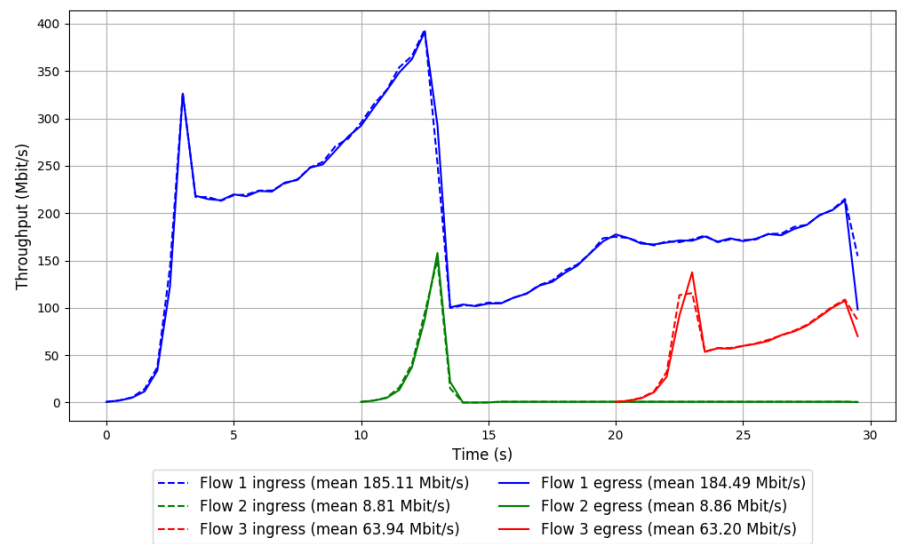
-- Flow 3:

Average throughput: 63.20 Mbit/s

95th percentile per-packet one-way delay: 64.089 ms

Loss rate: 2.46%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-18 03:45:32

End at: 2018-01-18 03:46:02

# Below is generated by plot.py at 2018-01-18 09:39:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 101.68 Mbit/s

95th percentile per-packet one-way delay: 79.967 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 9.20 Mbit/s

95th percentile per-packet one-way delay: 64.441 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 90.30 Mbit/s

95th percentile per-packet one-way delay: 83.915 ms

Loss rate: 0.47%

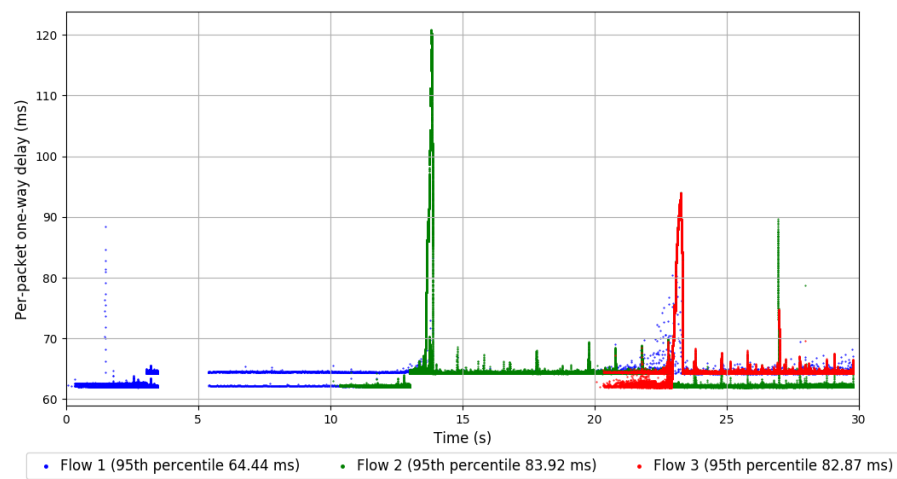
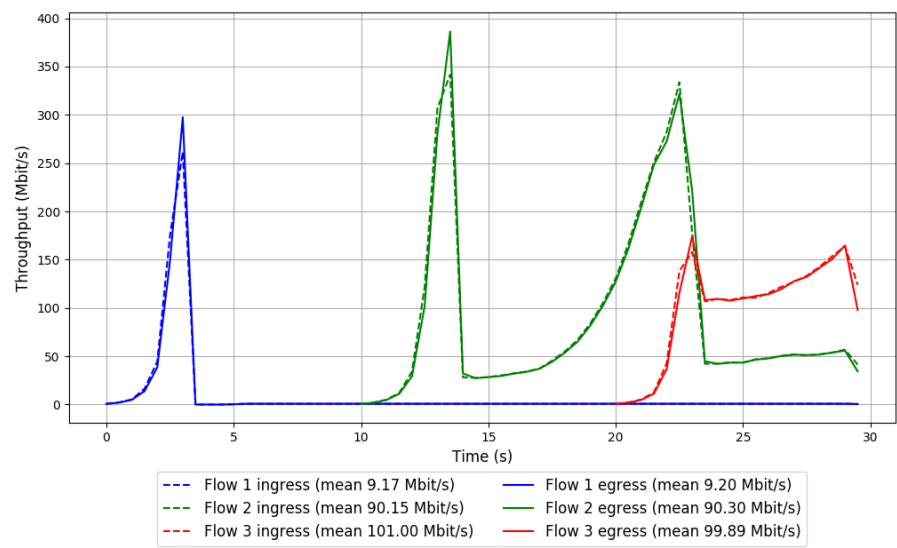
-- Flow 3:

Average throughput: 99.89 Mbit/s

95th percentile per-packet one-way delay: 82.866 ms

Loss rate: 2.37%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-18 04:01:56

End at: 2018-01-18 04:02:26

# Below is generated by plot.py at 2018-01-18 09:39:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 188.35 Mbit/s

95th percentile per-packet one-way delay: 69.590 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 54.70 Mbit/s

95th percentile per-packet one-way delay: 106.313 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 193.64 Mbit/s

95th percentile per-packet one-way delay: 64.717 ms

Loss rate: 1.08%

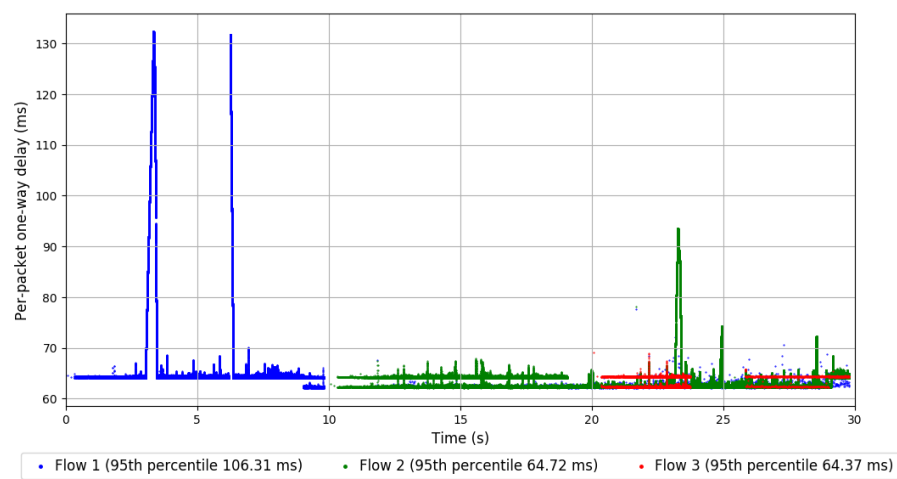
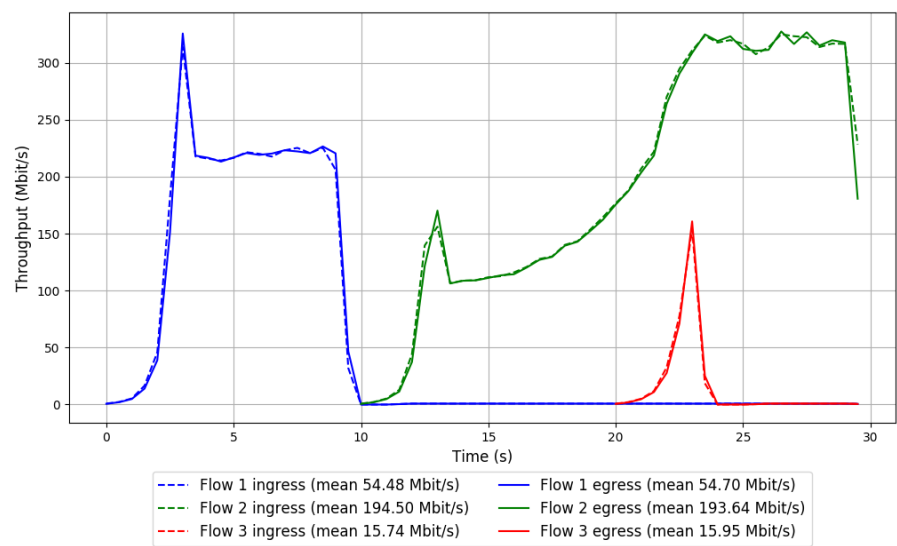
-- Flow 3:

Average throughput: 15.95 Mbit/s

95th percentile per-packet one-way delay: 64.372 ms

Loss rate: 0.06%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-18 04:18:50

End at: 2018-01-18 04:19:20

# Below is generated by plot.py at 2018-01-18 09:39:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 126.27 Mbit/s

95th percentile per-packet one-way delay: 64.537 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 86.15 Mbit/s

95th percentile per-packet one-way delay: 64.556 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 64.544 ms

Loss rate: 0.09%

-- Flow 3:

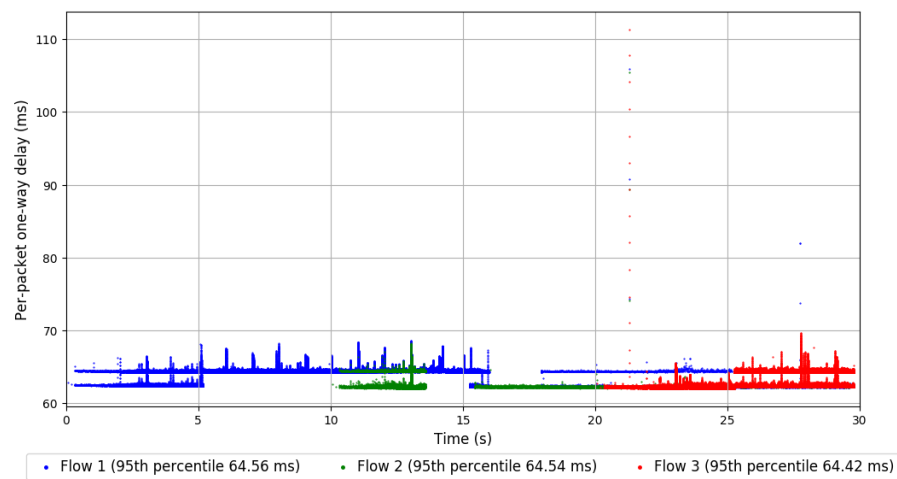
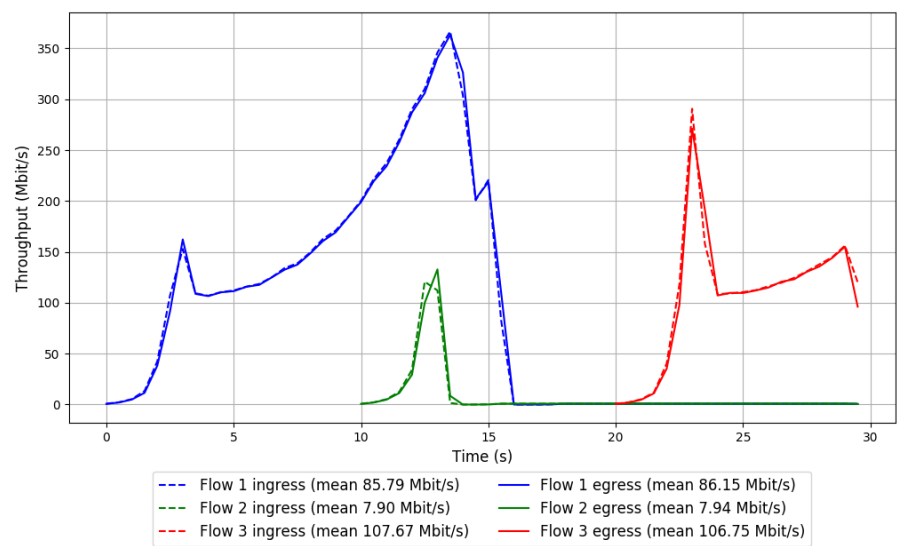
Average throughput: 106.75 Mbit/s

95th percentile per-packet one-way delay: 64.420 ms

Loss rate: 2.11%



Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-01-18 04:36:13

End at: 2018-01-18 04:36:43

# Below is generated by plot.py at 2018-01-18 09:39:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.02 Mbit/s

95th percentile per-packet one-way delay: 81.821 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 15.29 Mbit/s

95th percentile per-packet one-way delay: 80.673 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 75.44 Mbit/s

95th percentile per-packet one-way delay: 79.590 ms

Loss rate: 0.02%

-- Flow 3:

Average throughput: 26.63 Mbit/s

95th percentile per-packet one-way delay: 89.874 ms

Loss rate: 0.04%

Run 10: Report of Vivace-LTE — Data Link

