

## Pantheon Report

Generated at 2017-09-08 10:54:11 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

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

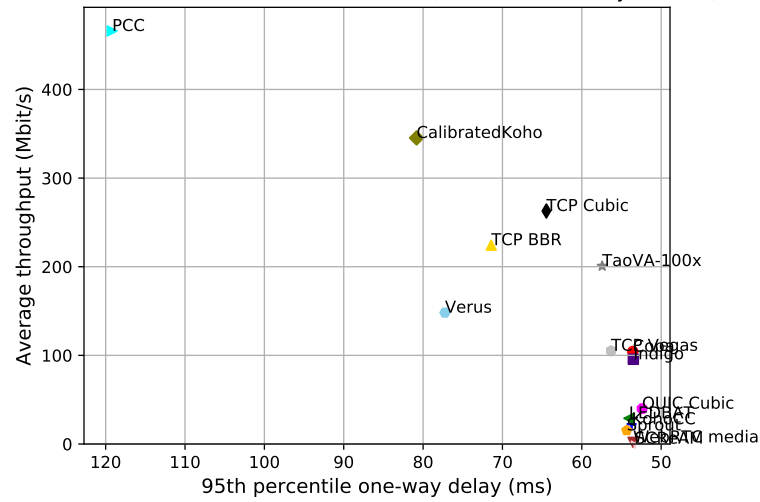
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

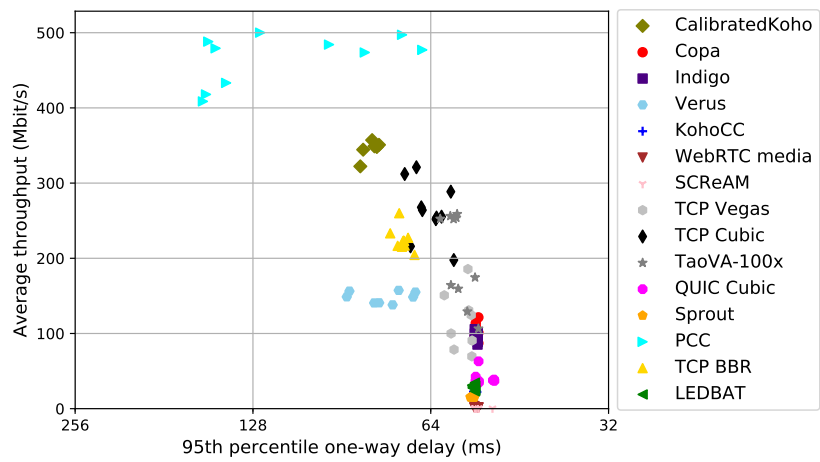
Git summary:

```
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ 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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Sydney Ethernet to GCE Tokyo Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows



| scheme         | # runs | mean avg tput (Mbit/s) |        |        | mean 95th-%ile delay (ms) |        |        | mean loss rate (%) |        |        |
|----------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
|                |        | flow 1                 | flow 2 | flow 3 | flow 1                    | flow 2 | flow 3 | flow 1             | flow 2 | flow 3 |
| TCP BBR        | 10     | 112.29                 | 112.54 | 112.30 | 69.49                     | 71.27  | 76.10  | 0.00               | 0.02   | 0.04   |
| CalibratedKoho | 6      | 220.66                 | 139.49 | 96.73  | 83.83                     | 77.48  | 74.71  | 0.01               | 0.03   | 0.07   |
| Copa           | 10     | 63.51                  | 55.58  | 53.84  | 53.52                     | 53.47  | 53.51  | 0.00               | 0.00   | 0.00   |
| TCP Cubic      | 10     | 136.85                 | 124.39 | 129.74 | 62.24                     | 62.20  | 66.42  | 0.01               | 0.00   | 0.01   |
| Indigo         | 10     | 37.61                  | 67.89  | 40.17  | 53.45                     | 53.56  | 53.46  | 0.00               | 0.00   | 0.00   |
| KohoCC         | 10     | 11.24                  | 11.12  | 10.97  | 53.70                     | 53.71  | 53.76  | 0.00               | 0.00   | 0.00   |
| LEDBAT         | 10     | 16.04                  | 15.20  | 8.49   | 54.07                     | 54.05  | 54.05  | 0.01               | 0.01   | 0.00   |
| PCC            | 10     | 299.05                 | 173.13 | 159.83 | 126.14                    | 67.30  | 63.28  | 1.20               | 0.00   | 0.00   |
| QUIC Cubic     | 10     | 3.37                   | 36.20  | 34.39  | 51.99                     | 51.32  | 51.10  | 0.00               | 0.00   | 0.00   |
| SCReAM         | 10     | 0.21                   | 0.21   | 0.22   | 51.55                     | 52.22  | 51.51  | 0.00               | 0.00   | 0.00   |
| Sprout         | 10     | 7.80                   | 7.67   | 7.37   | 54.34                     | 54.35  | 54.31  | 0.00               | 0.00   | 0.00   |
| TaoVA-100x     | 10     | 118.33                 | 121.30 | 76.54  | 56.28                     | 56.71  | 57.32  | 0.00               | 0.00   | 0.00   |
| TCP Vegas      | 9      | 47.87                  | 54.99  | 62.43  | 54.53                     | 55.84  | 55.99  | 0.00               | 0.00   | 0.00   |
| Verus          | 8      | 94.74                  | 60.04  | 44.33  | 78.67                     | 75.76  | 65.07  | 0.01               | 0.00   | 0.00   |
| WebRTC media   | 10     | 0.23                   | 1.58   | 0.41   | 53.73                     | 51.51  | 53.64  | 0.00               | 0.00   | 0.00   |

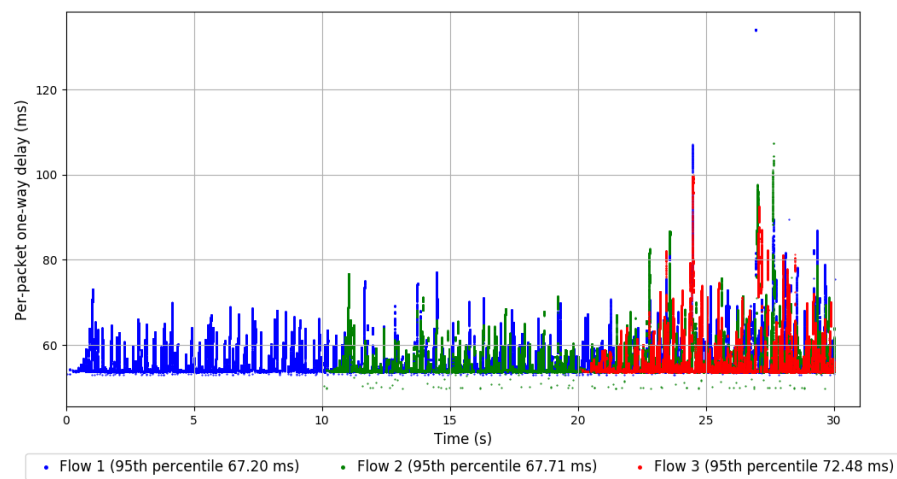
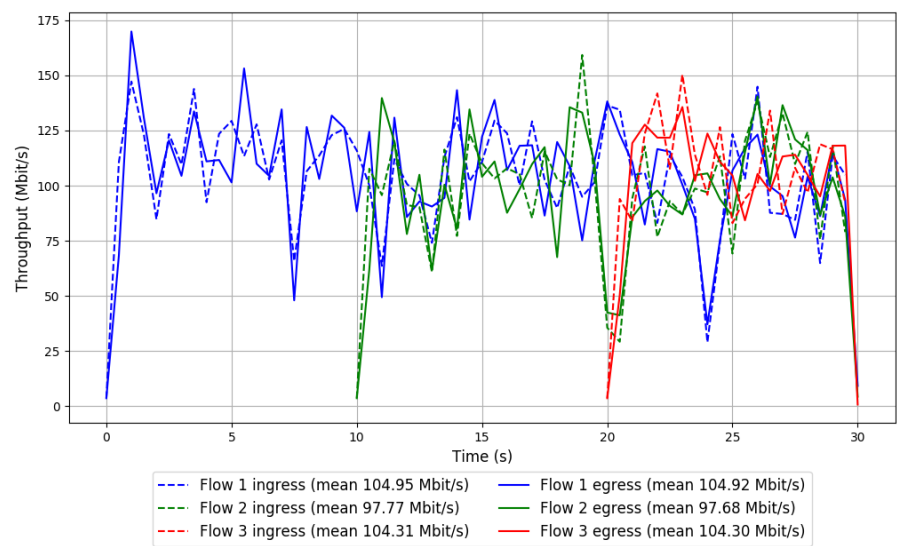
```
Run 1: Statistics of TCP BBR

Start at: 2017-09-08 06:16:14
End at: 2017-09-08 06:16:44

# Below is generated by plot.py at 2017-09-08 10:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 204.50 Mbit/s
95th percentile per-packet one-way delay: 68.177 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 104.92 Mbit/s
95th percentile per-packet one-way delay: 67.201 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 97.68 Mbit/s
95th percentile per-packet one-way delay: 67.710 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 104.30 Mbit/s
95th percentile per-packet one-way delay: 72.483 ms
Loss rate: 0.00%
```



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-08 06:28:12

End at: 2017-09-08 06:28:42

# Below is generated by plot.py at 2017-09-08 10:18:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 217.02 Mbit/s

95th percentile per-packet one-way delay: 70.854 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 108.31 Mbit/s

95th percentile per-packet one-way delay: 68.129 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.94 Mbit/s

95th percentile per-packet one-way delay: 71.675 ms

Loss rate: 0.00%

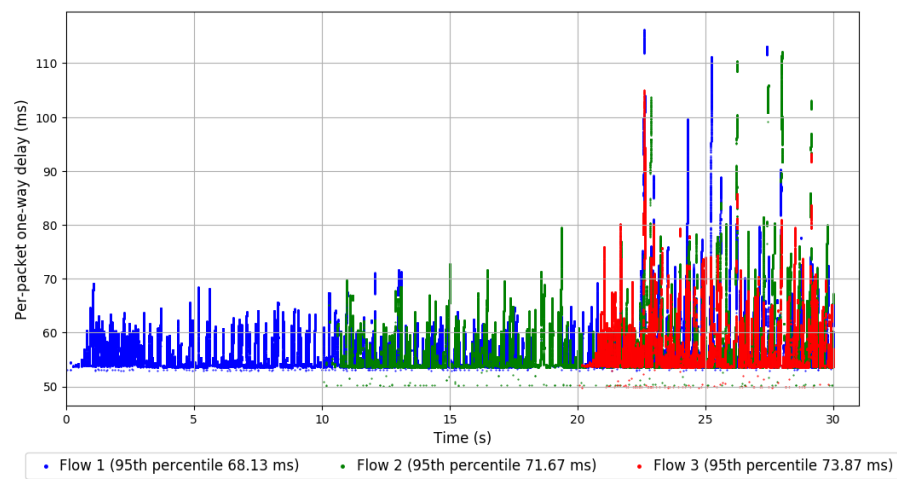
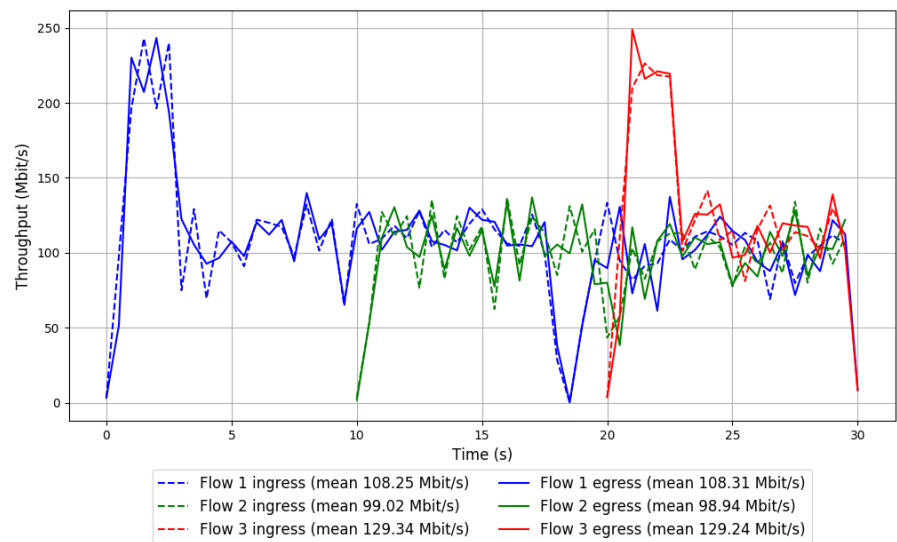
-- Flow 3:

Average throughput: 129.24 Mbit/s

95th percentile per-packet one-way delay: 73.870 ms

Loss rate: 0.03%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-08 06:40:03

End at: 2017-09-08 06:40:33

# Below is generated by plot.py at 2017-09-08 10:18:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 227.24 Mbit/s

95th percentile per-packet one-way delay: 69.912 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 124.14 Mbit/s

95th percentile per-packet one-way delay: 67.549 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 105.84 Mbit/s

95th percentile per-packet one-way delay: 70.247 ms

Loss rate: 0.00%

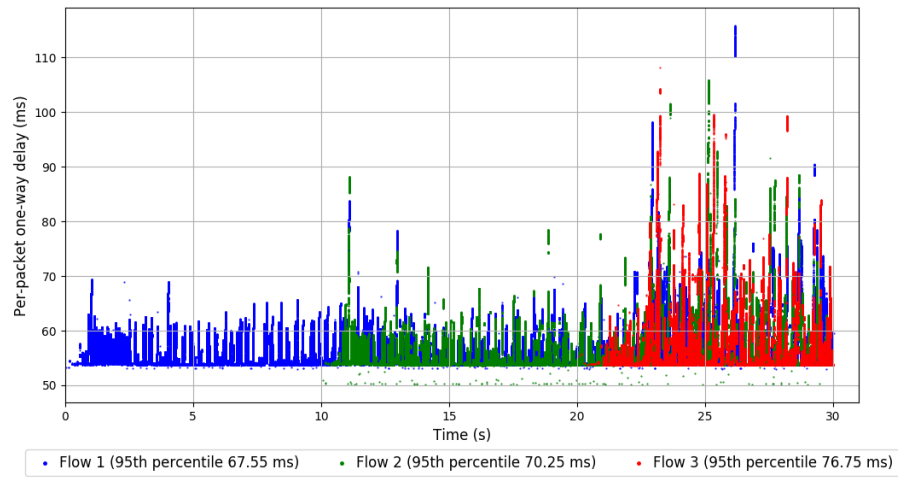
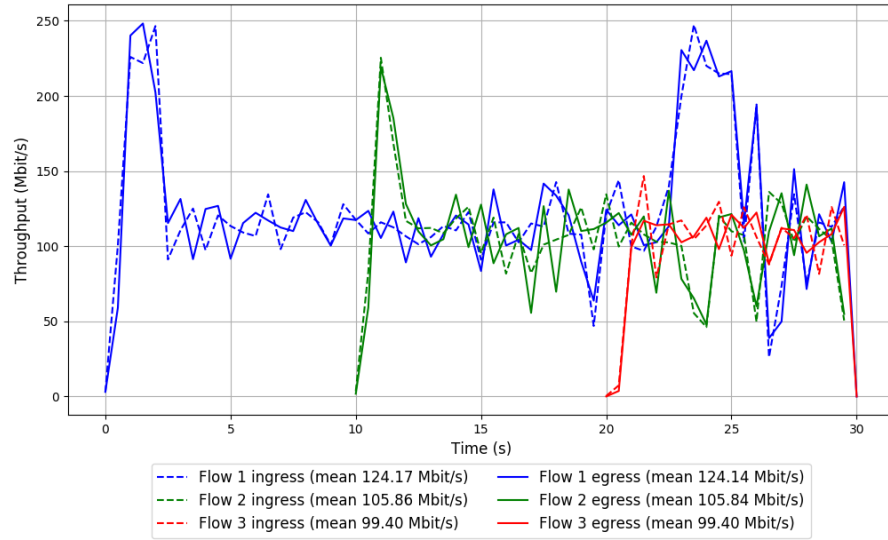
-- Flow 3:

Average throughput: 99.40 Mbit/s

95th percentile per-packet one-way delay: 76.745 ms

Loss rate: 0.01%

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



Run 4: Statistics of TCP BBR

Start at: 2017-09-08 06:52:19

End at: 2017-09-08 06:52:49

# Below is generated by plot.py at 2017-09-08 10:18:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.35 Mbit/s

95th percentile per-packet one-way delay: 71.595 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.18 Mbit/s

95th percentile per-packet one-way delay: 69.209 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 105.60 Mbit/s

95th percentile per-packet one-way delay: 70.454 ms

Loss rate: 0.00%

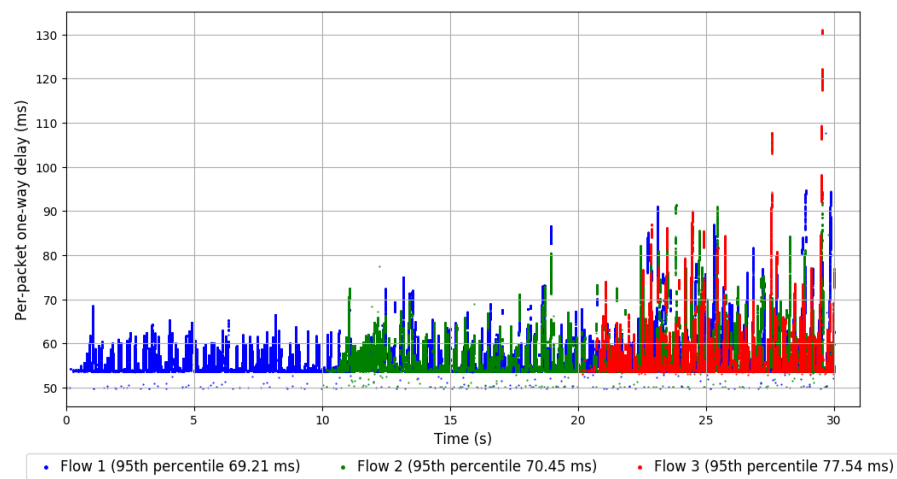
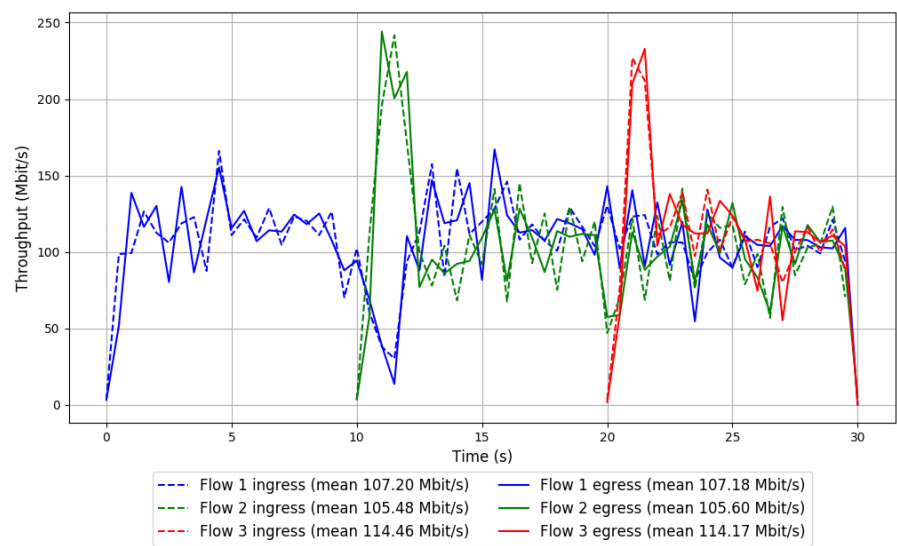
-- Flow 3:

Average throughput: 114.17 Mbit/s

95th percentile per-packet one-way delay: 77.539 ms

Loss rate: 0.01%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-08 07:04:15

End at: 2017-09-08 07:04:45

# Below is generated by plot.py at 2017-09-08 10:19:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 223.02 Mbit/s

95th percentile per-packet one-way delay: 71.004 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 116.49 Mbit/s

95th percentile per-packet one-way delay: 68.490 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 99.73 Mbit/s

95th percentile per-packet one-way delay: 72.623 ms

Loss rate: 0.00%

-- Flow 3:

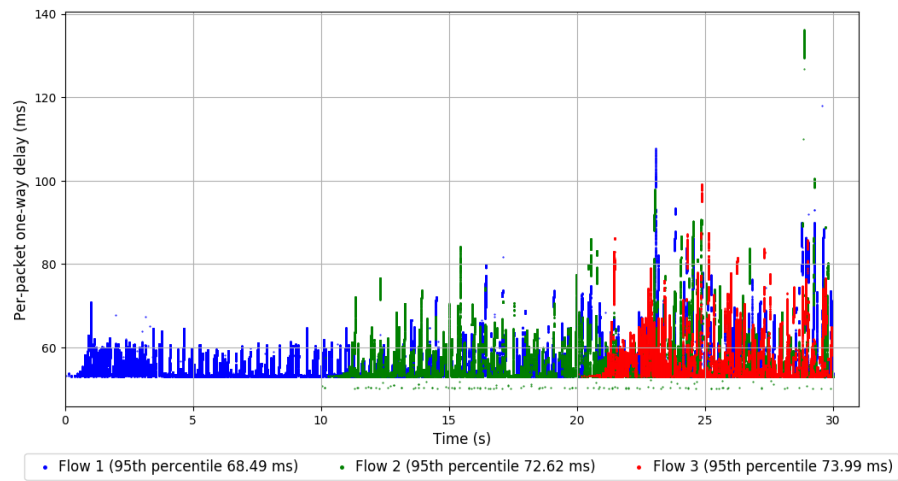
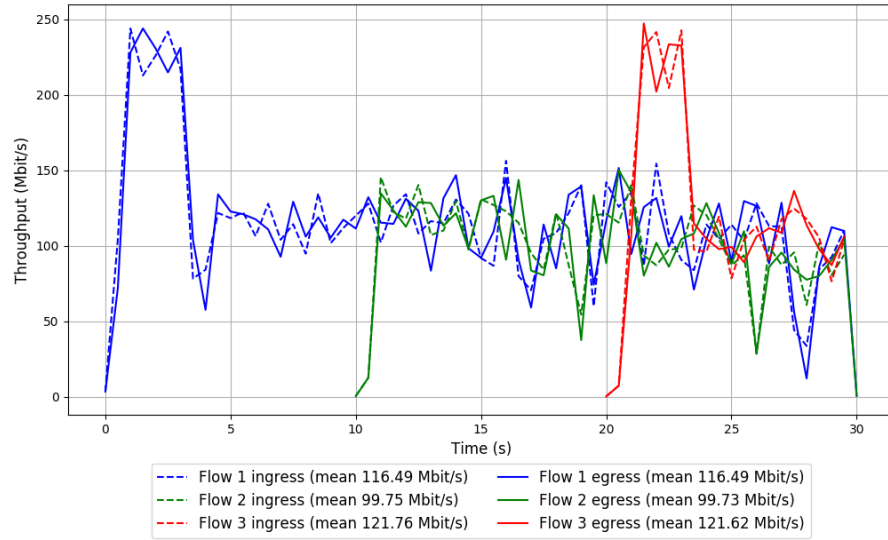
Average throughput: 121.62 Mbit/s

95th percentile per-packet one-way delay: 73.990 ms

Loss rate: 0.02%



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



Run 6: Statistics of TCP BBR

Start at: 2017-09-08 07:16:27

End at: 2017-09-08 07:16:57

# Below is generated by plot.py at 2017-09-08 10:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 259.97 Mbit/s

95th percentile per-packet one-way delay: 72.371 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 121.60 Mbit/s

95th percentile per-packet one-way delay: 69.697 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 158.74 Mbit/s

95th percentile per-packet one-way delay: 71.009 ms

Loss rate: 0.06%

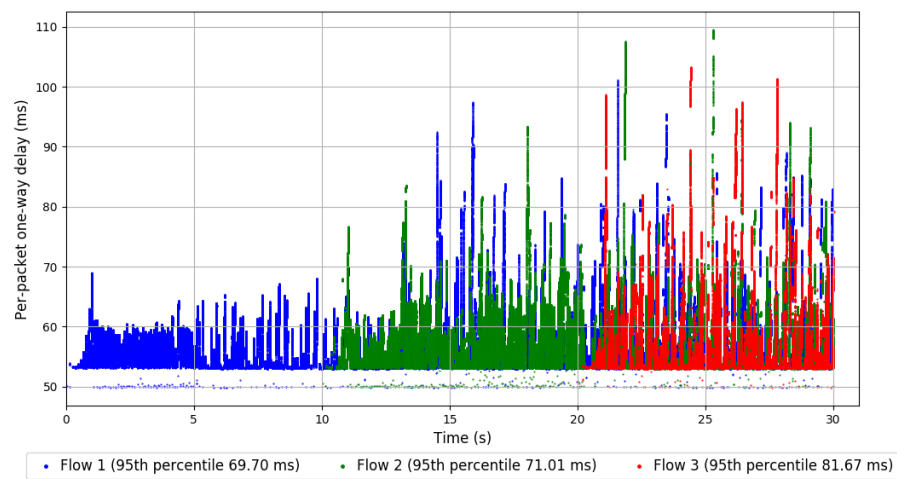
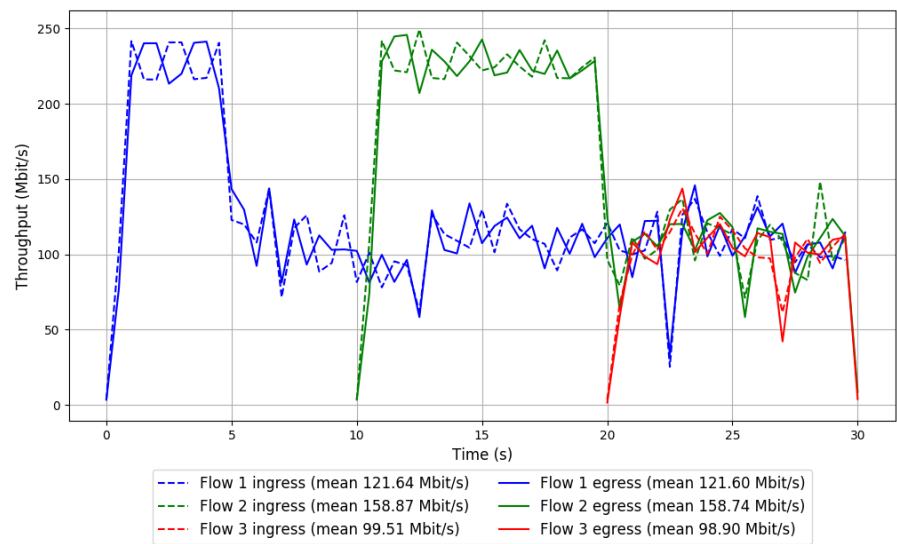
-- Flow 3:

Average throughput: 98.90 Mbit/s

95th percentile per-packet one-way delay: 81.674 ms

Loss rate: 0.36%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-08 07:28:32

End at: 2017-09-08 07:29:02

# Below is generated by plot.py at 2017-09-08 10:20:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 222.90 Mbit/s

95th percentile per-packet one-way delay: 71.298 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 114.98 Mbit/s

95th percentile per-packet one-way delay: 68.765 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.57 Mbit/s

95th percentile per-packet one-way delay: 71.282 ms

Loss rate: 0.00%

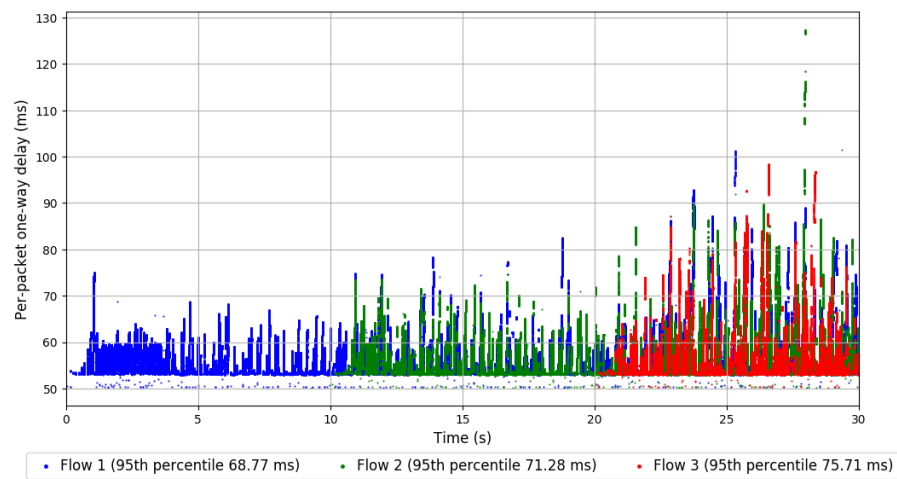
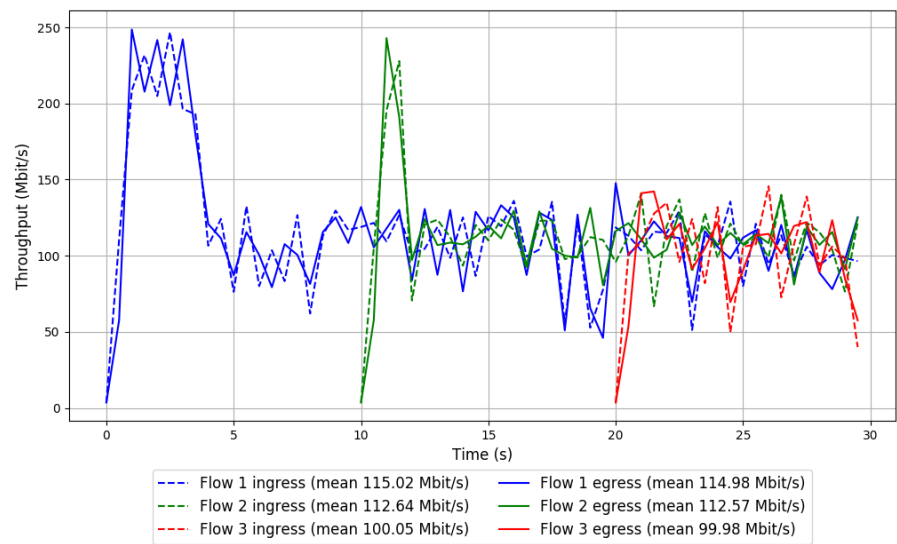
-- Flow 3:

Average throughput: 99.98 Mbit/s

95th percentile per-packet one-way delay: 75.714 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-08 07:40:40

End at: 2017-09-08 07:41:10

# Below is generated by plot.py at 2017-09-08 10:20:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 216.57 Mbit/s

95th percentile per-packet one-way delay: 72.811 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 108.95 Mbit/s

95th percentile per-packet one-way delay: 70.689 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.04 Mbit/s

95th percentile per-packet one-way delay: 73.121 ms

Loss rate: 0.01%

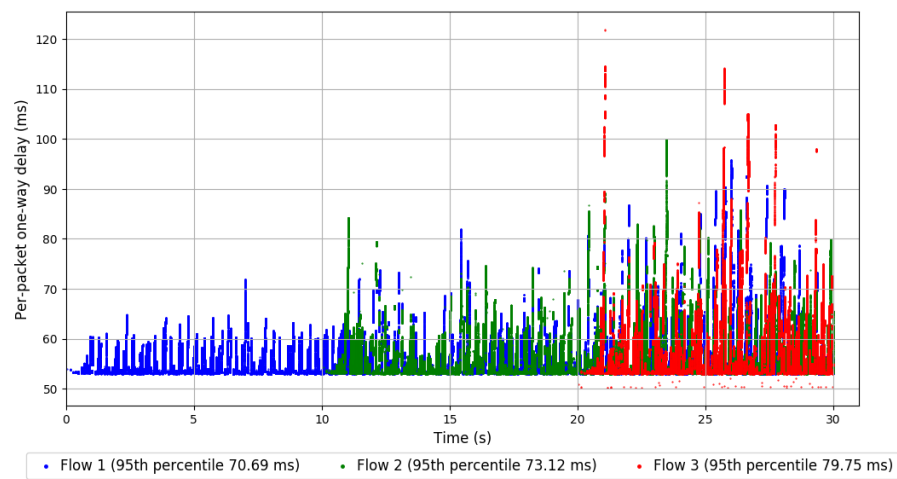
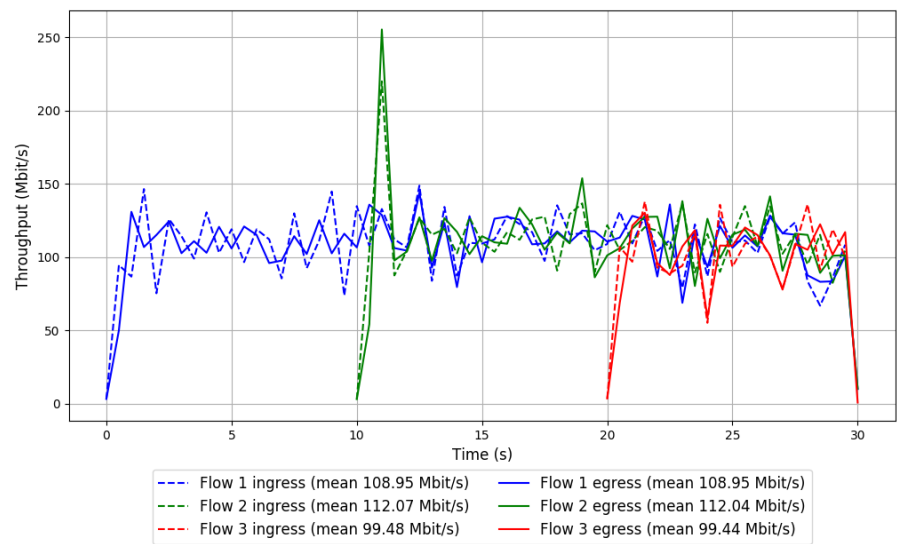
-- Flow 3:

Average throughput: 99.44 Mbit/s

95th percentile per-packet one-way delay: 79.746 ms

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-09-08 07:52:32

End at: 2017-09-08 07:53:02

# Below is generated by plot.py at 2017-09-08 10:21:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 233.21 Mbit/s

95th percentile per-packet one-way delay: 74.961 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 116.81 Mbit/s

95th percentile per-packet one-way delay: 74.829 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 106.76 Mbit/s

95th percentile per-packet one-way delay: 74.747 ms

Loss rate: 0.00%

-- Flow 3:

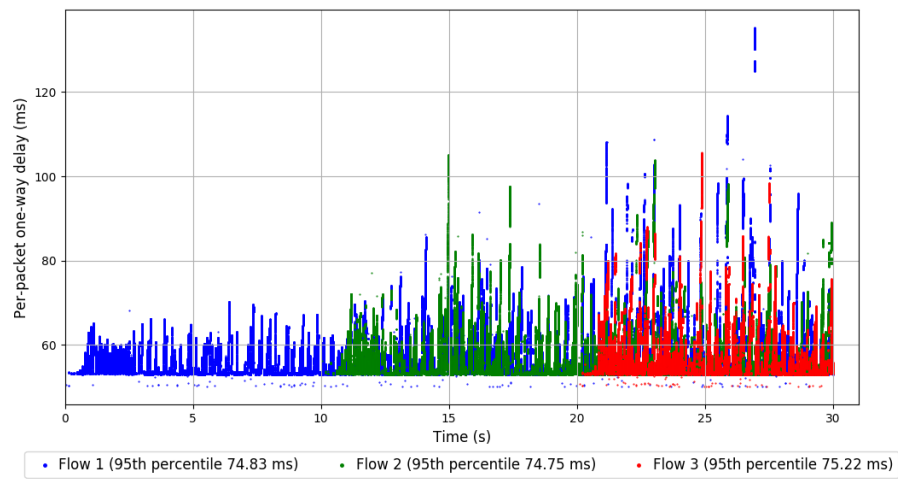
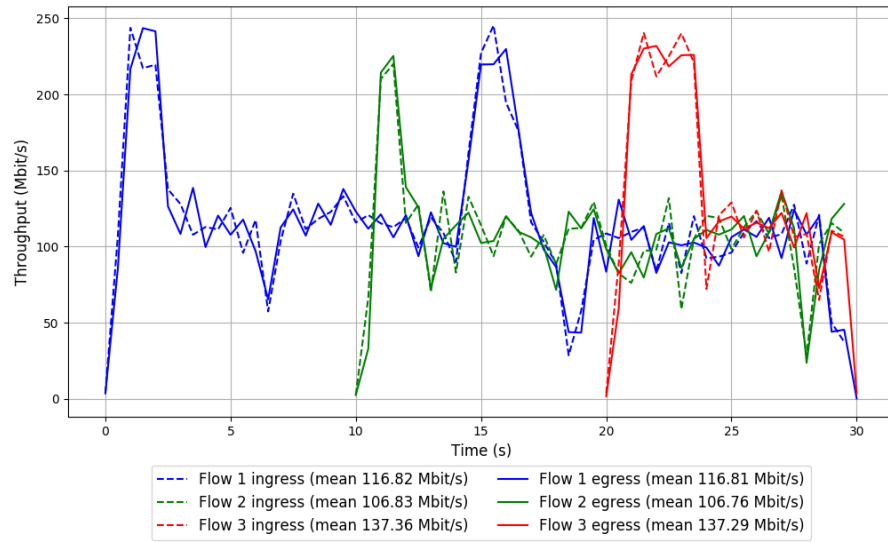
Average throughput: 137.29 Mbit/s

95th percentile per-packet one-way delay: 75.221 ms

Loss rate: 0.00%



# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-08 08:04:45

End at: 2017-09-08 08:05:15

# Below is generated by plot.py at 2017-09-08 10:21:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 223.51 Mbit/s

95th percentile per-packet one-way delay: 71.134 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 99.53 Mbit/s

95th percentile per-packet one-way delay: 70.322 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 127.54 Mbit/s

95th percentile per-packet one-way delay: 69.863 ms

Loss rate: 0.06%

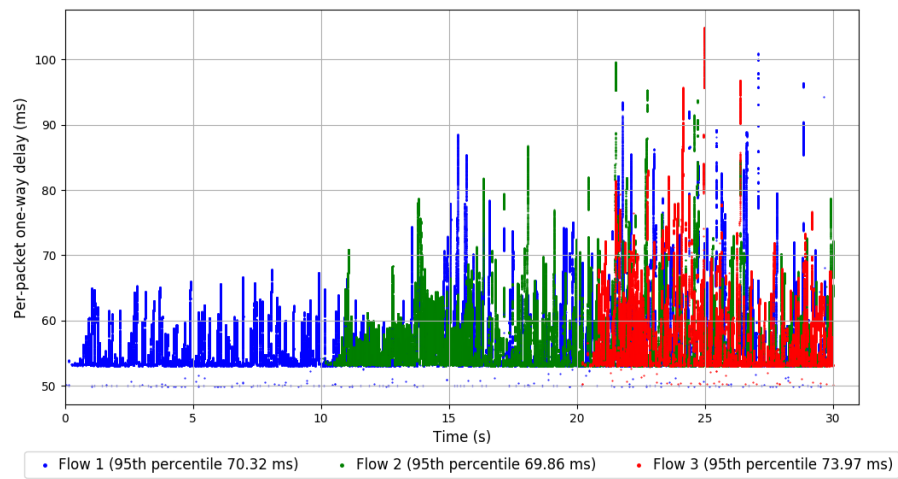
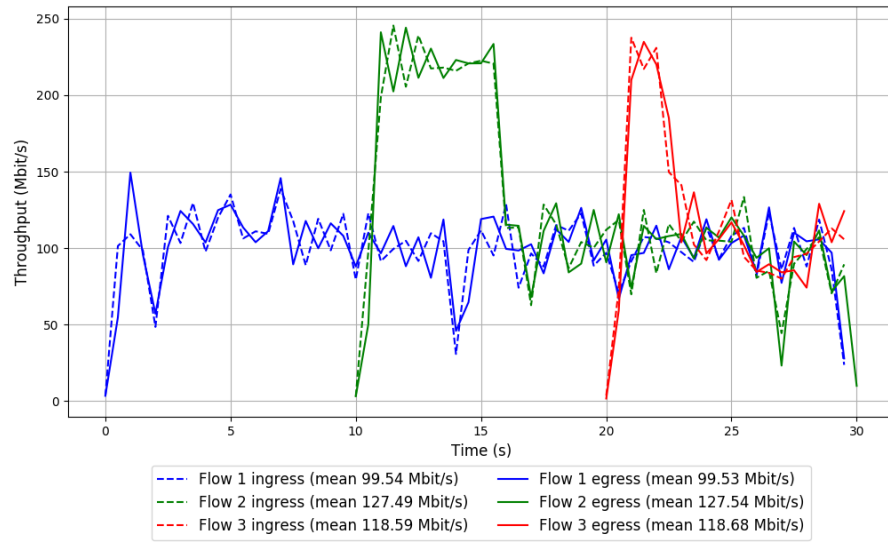
-- Flow 3:

Average throughput: 118.68 Mbit/s

95th percentile per-packet one-way delay: 73.970 ms

Loss rate: 0.00%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 06:24:50

End at: 2017-09-08 06:25:20

# Below is generated by plot.py at 2017-09-08 10:22:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 322.27 Mbit/s

95th percentile per-packet one-way delay: 84.222 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 196.47 Mbit/s

95th percentile per-packet one-way delay: 92.926 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 148.11 Mbit/s

95th percentile per-packet one-way delay: 76.419 ms

Loss rate: 0.04%

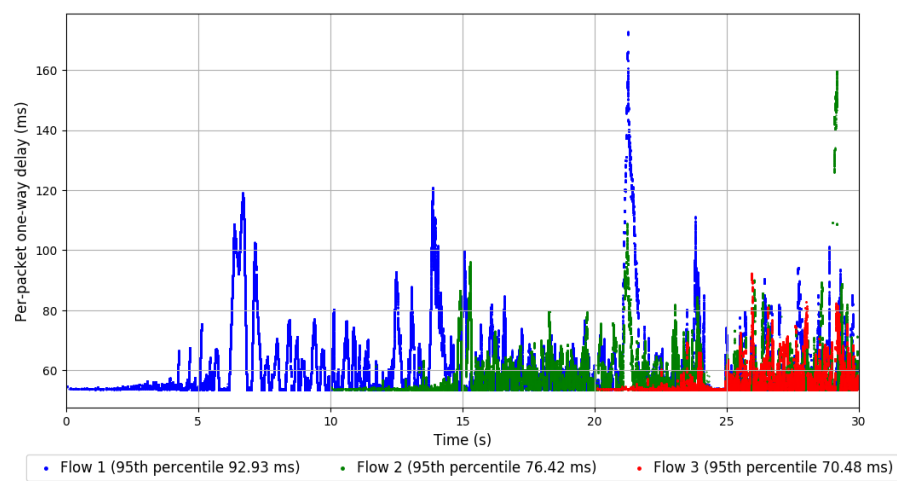
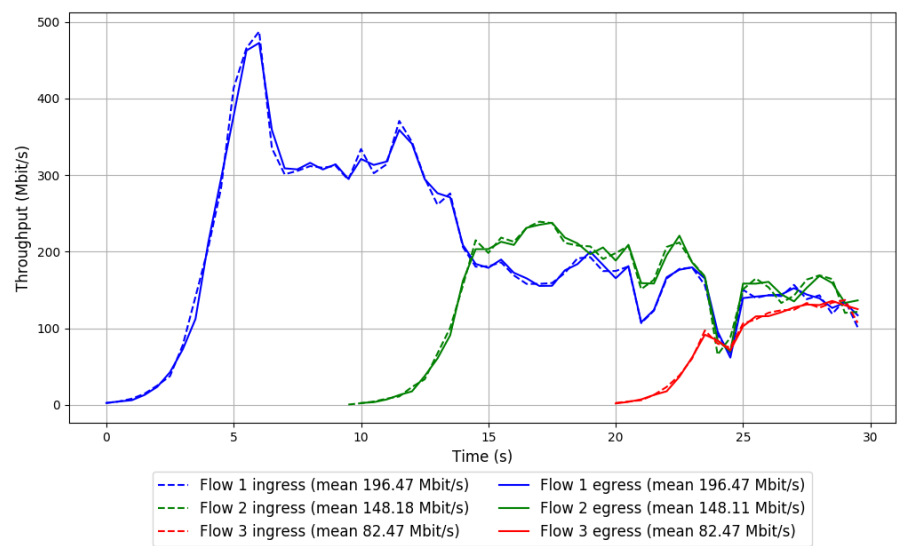
-- Flow 3:

Average throughput: 82.47 Mbit/s

95th percentile per-packet one-way delay: 70.483 ms

Loss rate: 0.00%

Run 1: Report of CalibratedKoho — Data Link

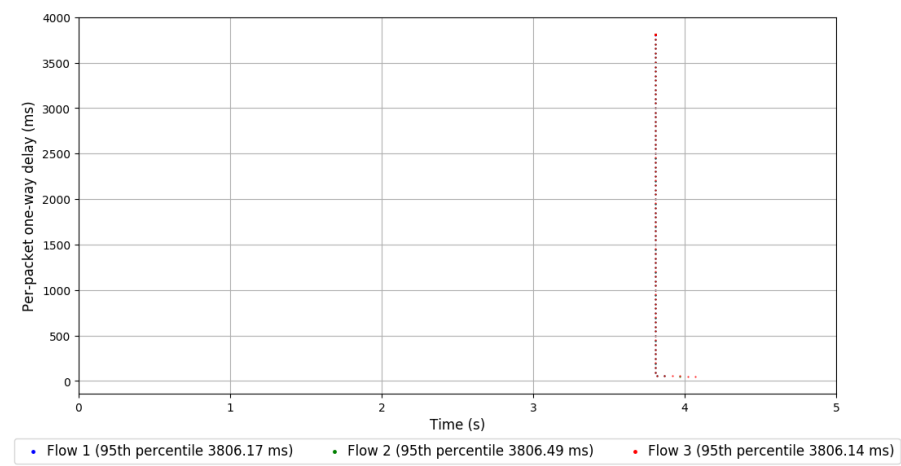
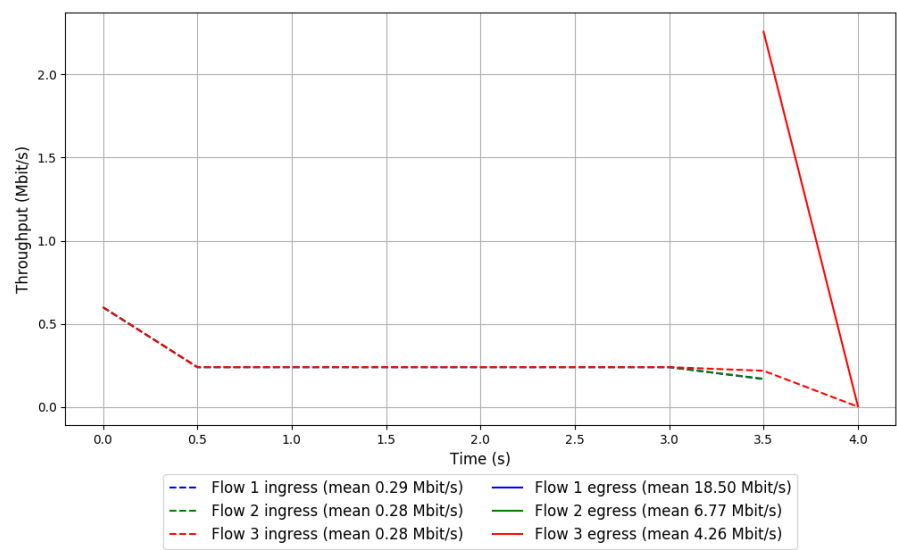


Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 06:37:09

End at: 2017-09-08 06:37:39

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 06:48:55

End at: 2017-09-08 06:49:25

# Below is generated by plot.py at 2017-09-08 10:22:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.90 Mbit/s

95th percentile per-packet one-way delay: 79.718 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 226.70 Mbit/s

95th percentile per-packet one-way delay: 84.443 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 131.73 Mbit/s

95th percentile per-packet one-way delay: 73.207 ms

Loss rate: 0.08%

-- Flow 3:

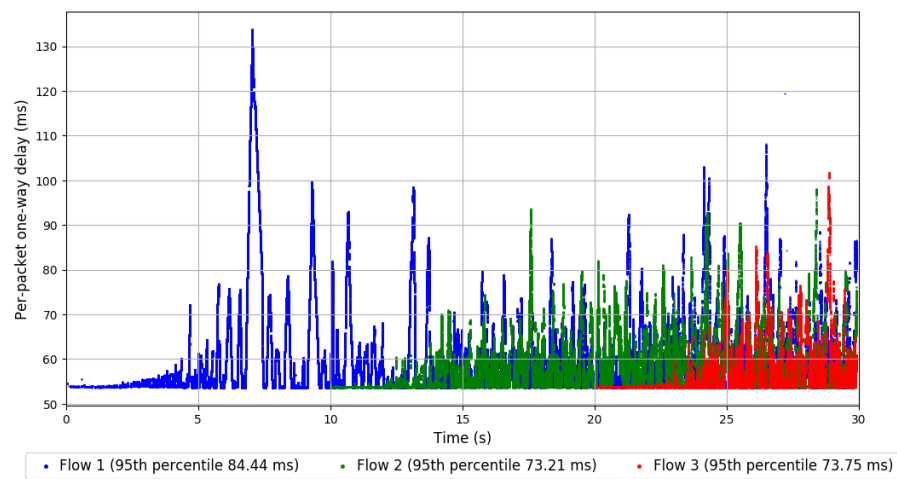
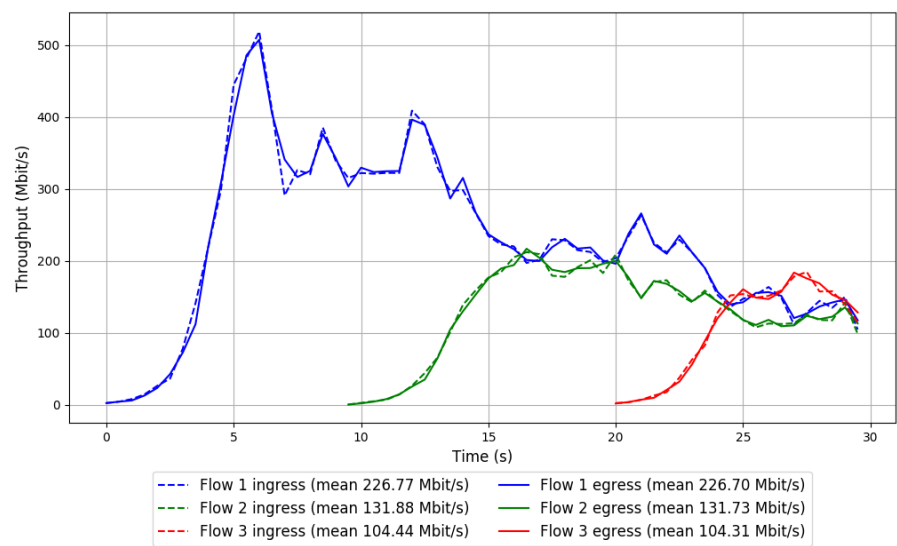
Average throughput: 104.31 Mbit/s

95th percentile per-packet one-way delay: 73.747 ms

Loss rate: 0.04%



Run 3: Report of CalibratedKoho — Data Link

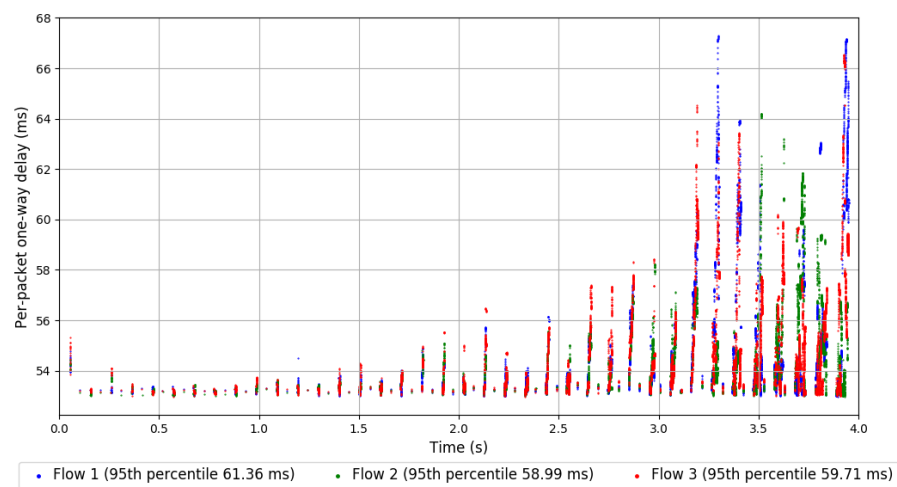
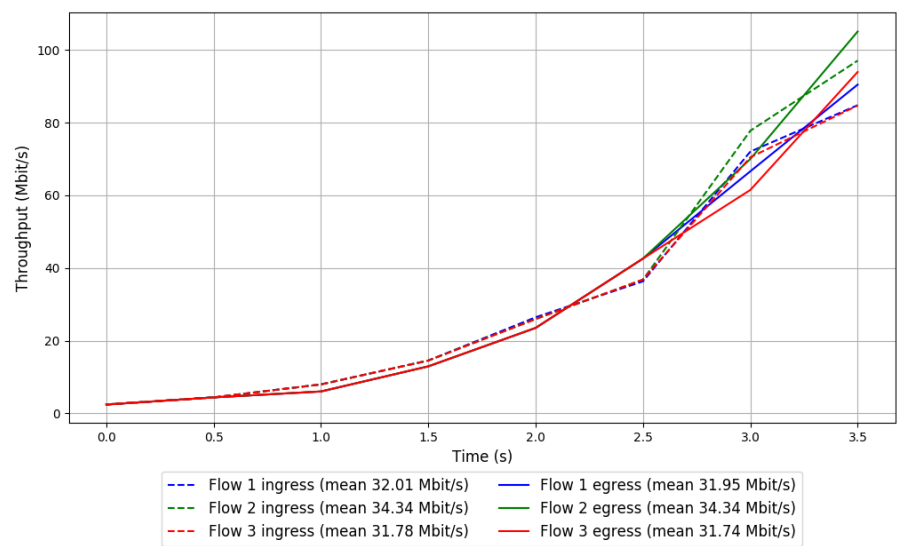


Run 4: Statistics of CalibratedKoho

Start at: 2017-09-08 07:01:17

End at: 2017-09-08 07:01:47

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 07:13:03

End at: 2017-09-08 07:13:33

# Below is generated by plot.py at 2017-09-08 10:23:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 350.87 Mbit/s

95th percentile per-packet one-way delay: 78.314 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 229.68 Mbit/s

95th percentile per-packet one-way delay: 78.115 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 134.11 Mbit/s

95th percentile per-packet one-way delay: 79.903 ms

Loss rate: 0.04%

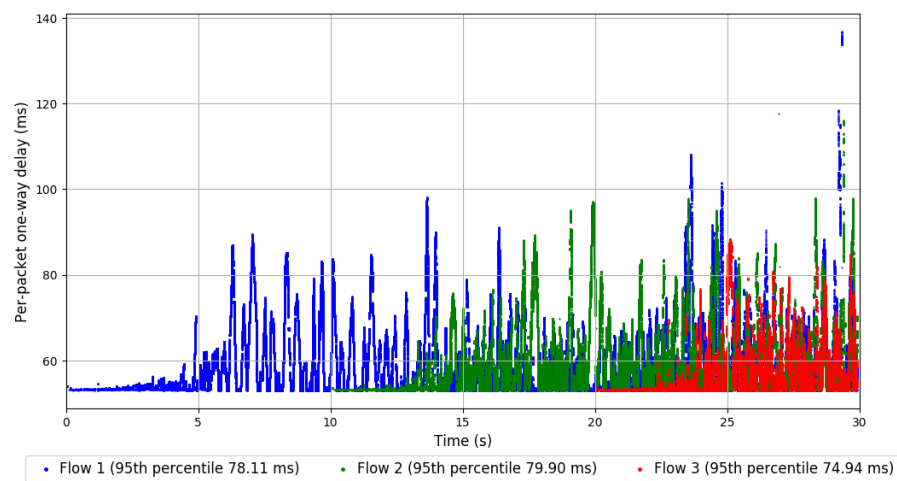
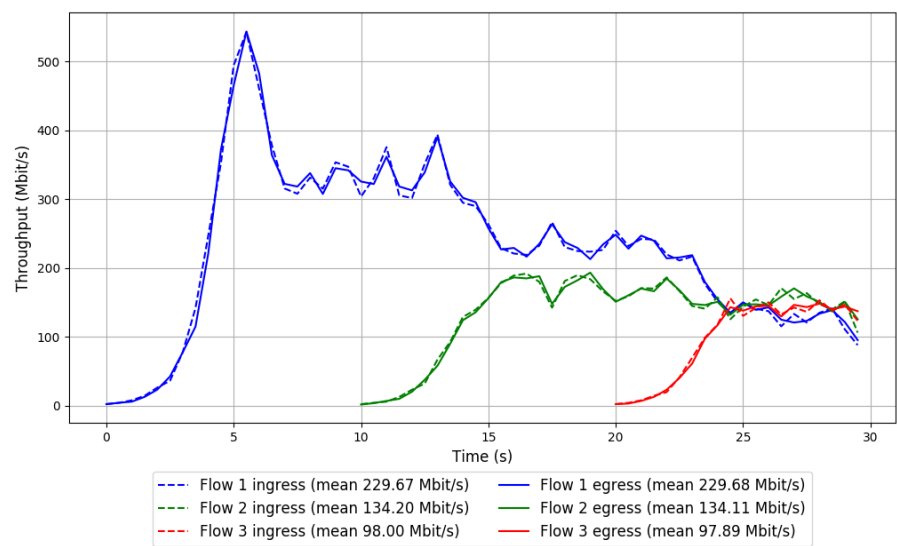
-- Flow 3:

Average throughput: 97.89 Mbit/s

95th percentile per-packet one-way delay: 74.937 ms

Loss rate: 0.20%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 07:25:07

End at: 2017-09-08 07:25:37

# Below is generated by plot.py at 2017-09-08 10:23:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 357.18 Mbit/s

95th percentile per-packet one-way delay: 80.430 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 234.98 Mbit/s

95th percentile per-packet one-way delay: 82.915 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 133.75 Mbit/s

95th percentile per-packet one-way delay: 76.575 ms

Loss rate: 0.00%

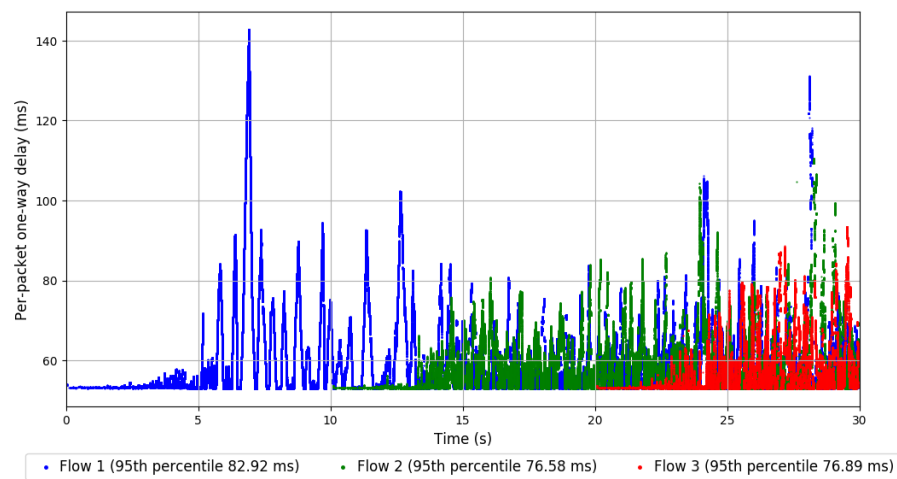
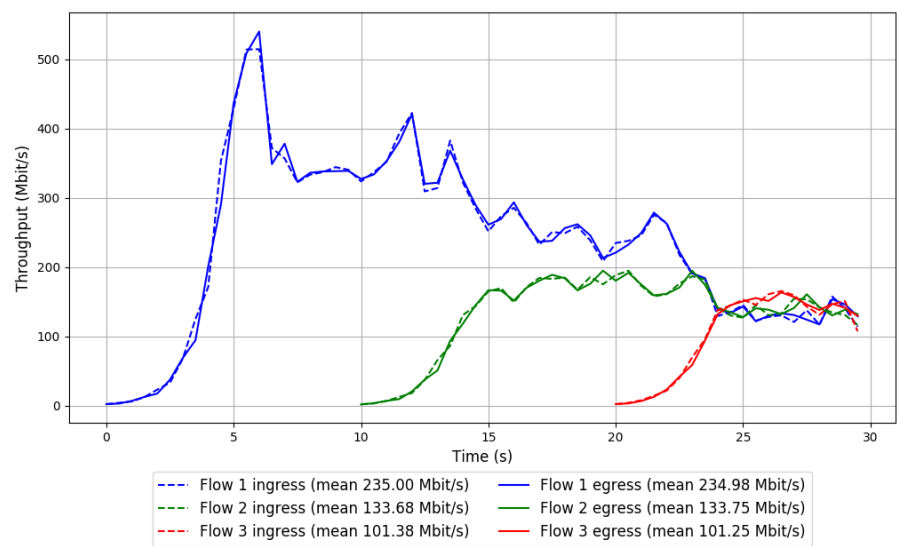
-- Flow 3:

Average throughput: 101.25 Mbit/s

95th percentile per-packet one-way delay: 76.890 ms

Loss rate: 0.09%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 07:37:16

End at: 2017-09-08 07:37:46

# Below is generated by plot.py at 2017-09-08 10:24:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.01 Mbit/s

95th percentile per-packet one-way delay: 78.973 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 224.87 Mbit/s

95th percentile per-packet one-way delay: 79.659 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 140.58 Mbit/s

95th percentile per-packet one-way delay: 78.218 ms

Loss rate: 0.00%

-- Flow 3:

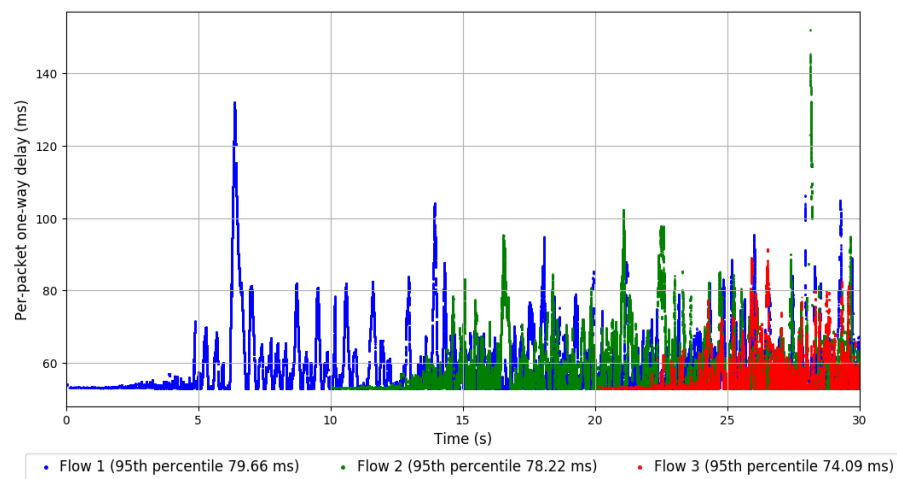
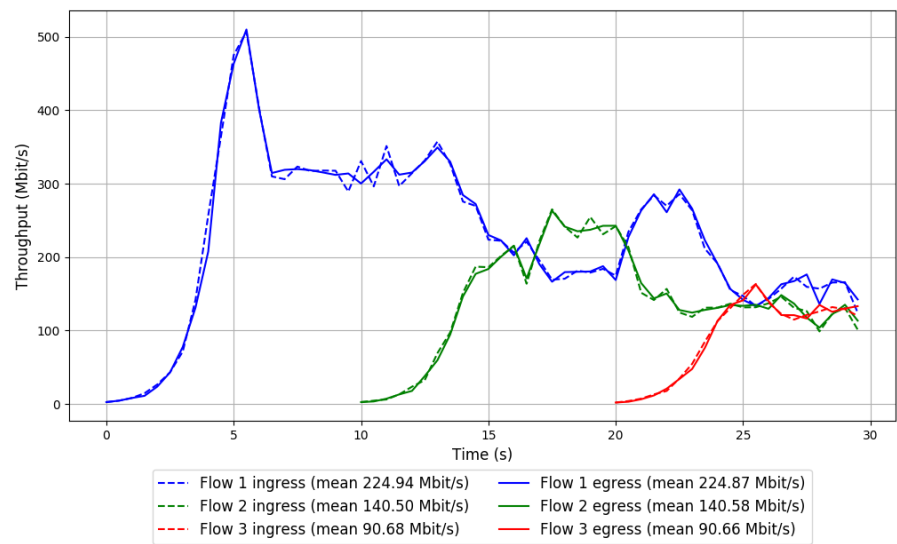
Average throughput: 90.66 Mbit/s

95th percentile per-packet one-way delay: 74.089 ms

Loss rate: 0.09%



Run 7: Report of CalibratedKoho — Data Link

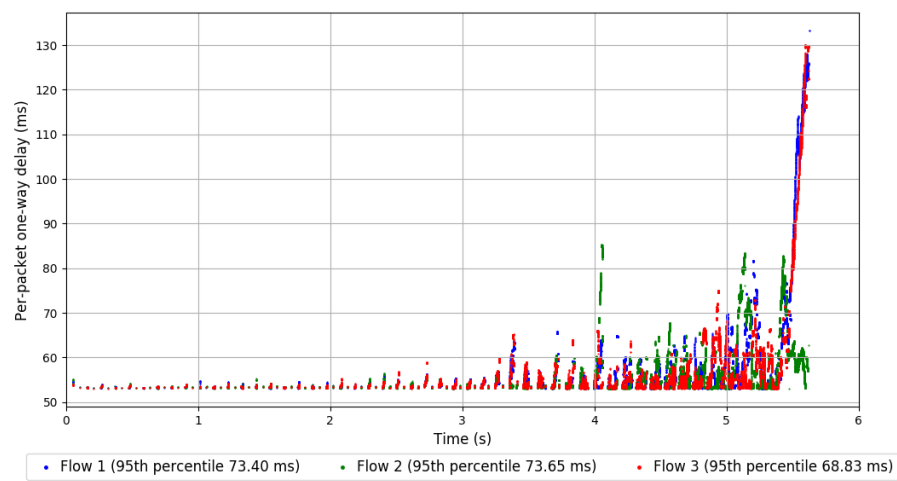
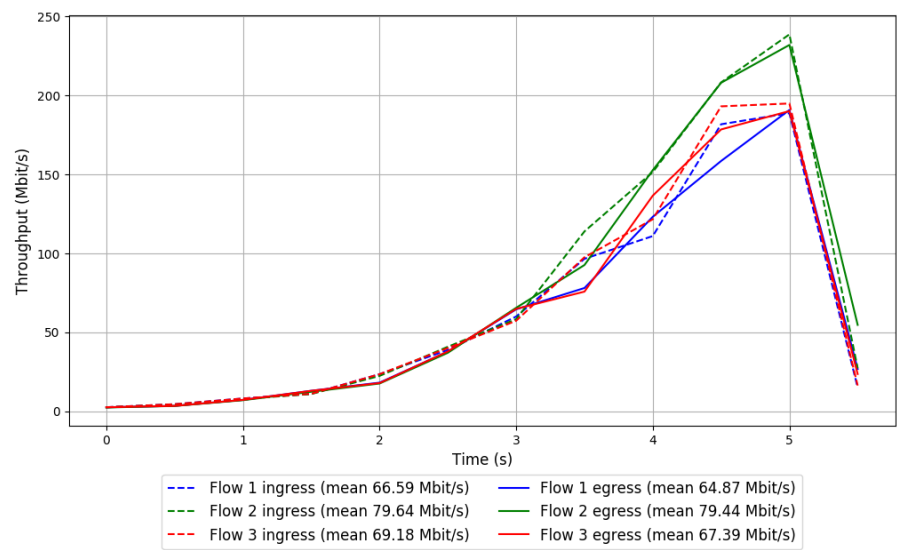


Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 07:49:34

End at: 2017-09-08 07:50:04

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 08:01:19

End at: 2017-09-08 08:01:49

# Below is generated by plot.py at 2017-09-08 10:24:55

# Datalink statistics

-- Total of 3 flows:

Average throughput: 344.43 Mbit/s

95th percentile per-packet one-way delay: 83.291 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 211.25 Mbit/s

95th percentile per-packet one-way delay: 84.906 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 148.67 Mbit/s

95th percentile per-packet one-way delay: 80.566 ms

Loss rate: 0.00%

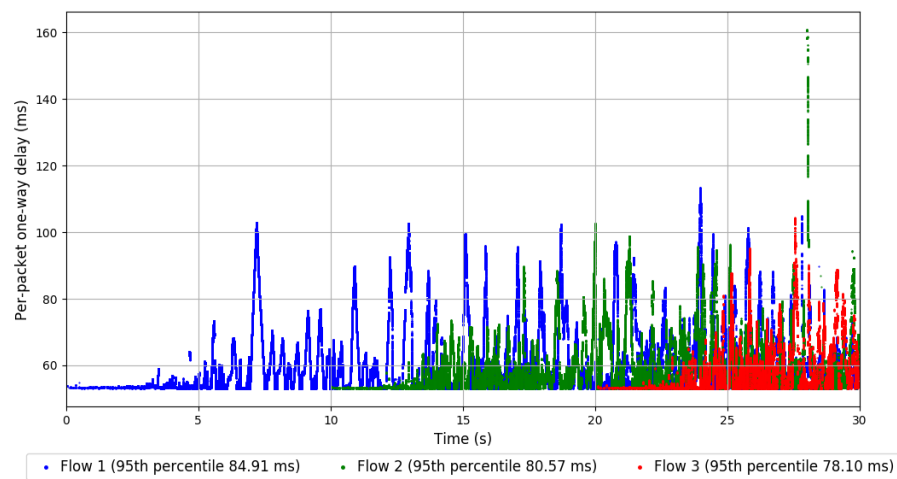
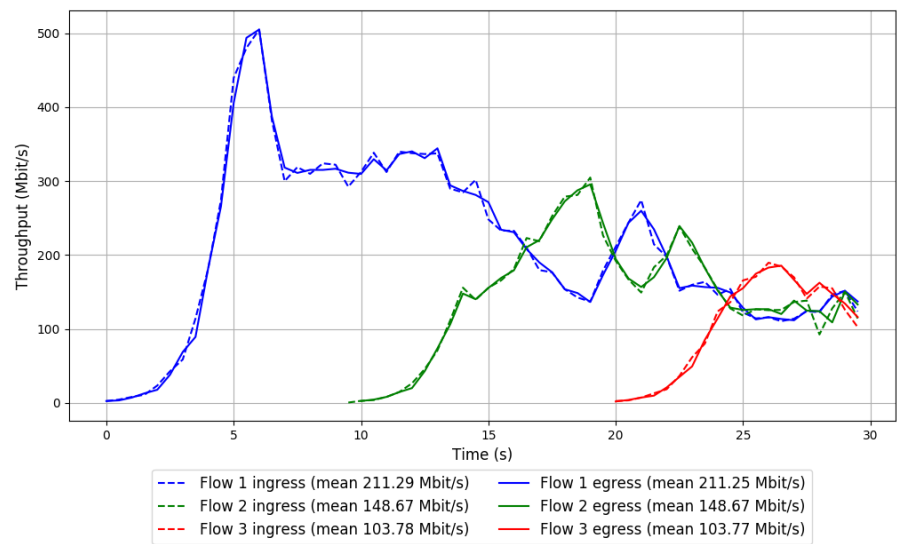
-- Flow 3:

Average throughput: 103.77 Mbit/s

95th percentile per-packet one-way delay: 78.104 ms

Loss rate: 0.00%

Run 9: Report of CalibratedKoho — Data Link

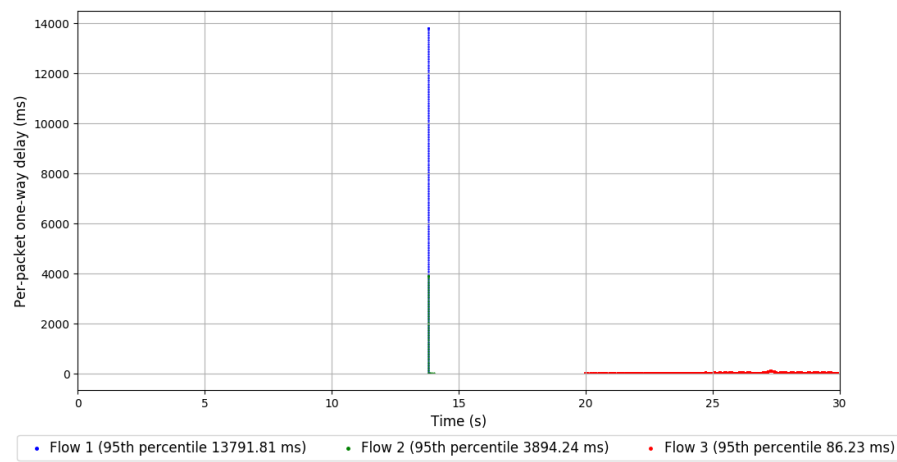
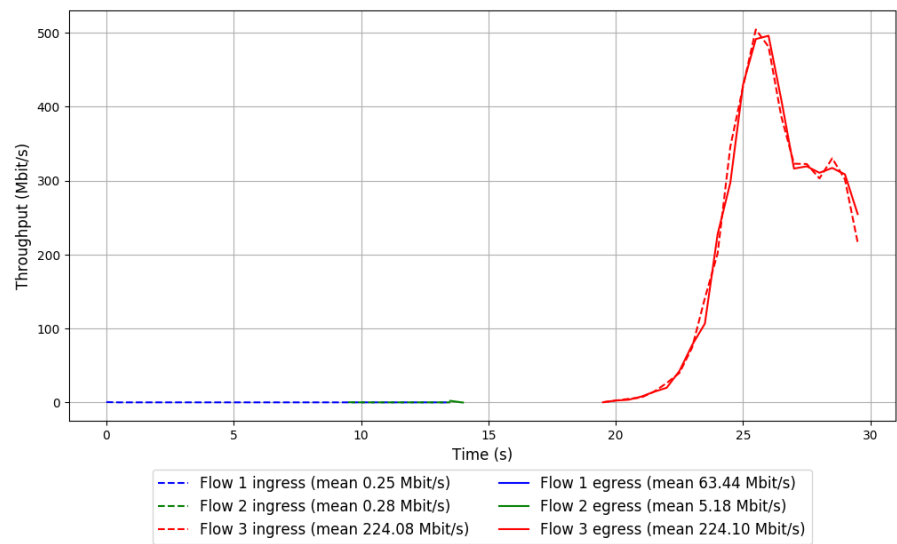


Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 08:13:40

End at: 2017-09-08 08:14:10

Run 10: Report of CalibratedKoho — Data Link



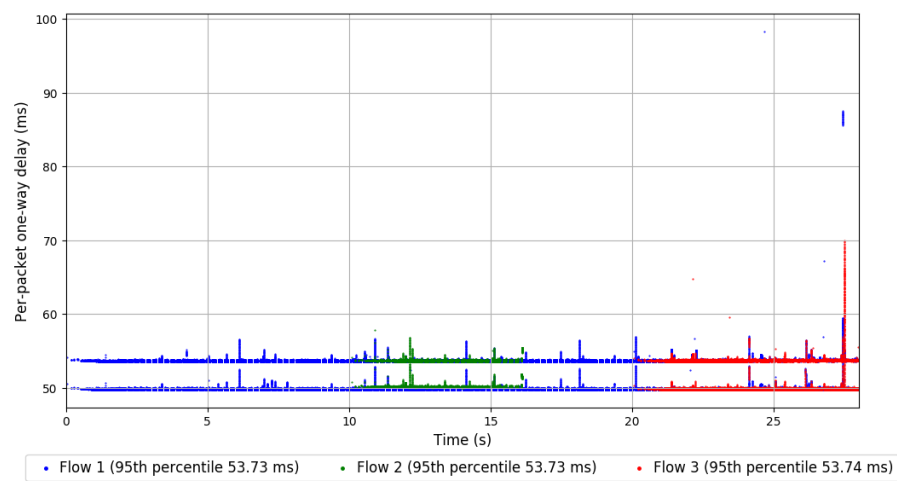
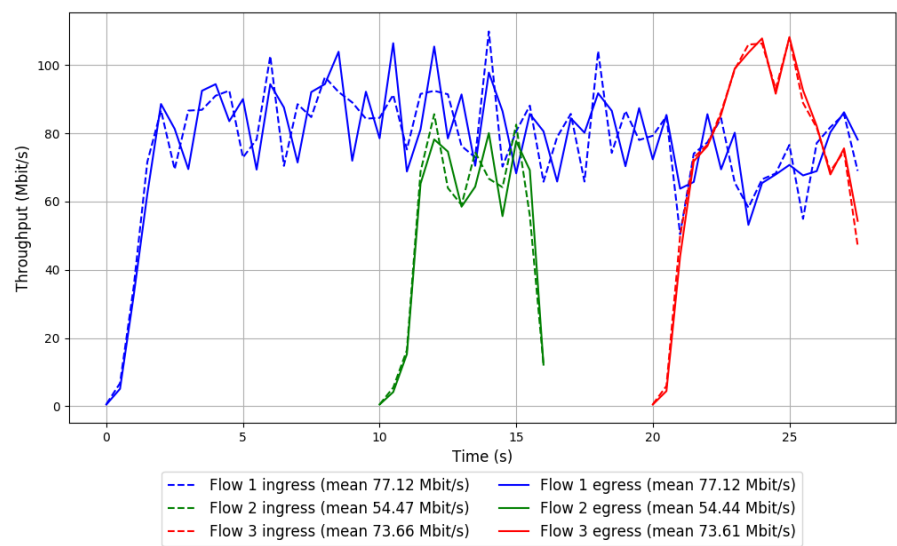
```
Run 1: Statistics of Copa

Start at: 2017-09-08 06:17:49
End at: 2017-09-08 06:18:19

# Below is generated by plot.py at 2017-09-08 10:25:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.66 Mbit/s
95th percentile per-packet one-way delay: 53.728 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.12 Mbit/s
95th percentile per-packet one-way delay: 53.725 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.44 Mbit/s
95th percentile per-packet one-way delay: 53.731 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.61 Mbit/s
95th percentile per-packet one-way delay: 53.736 ms
Loss rate: 0.00%
```



Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-08 06:29:51

End at: 2017-09-08 06:30:21

# Below is generated by plot.py at 2017-09-08 10:25:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.68 Mbit/s

95th percentile per-packet one-way delay: 53.763 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.34 Mbit/s

95th percentile per-packet one-way delay: 53.758 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.91 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.00%

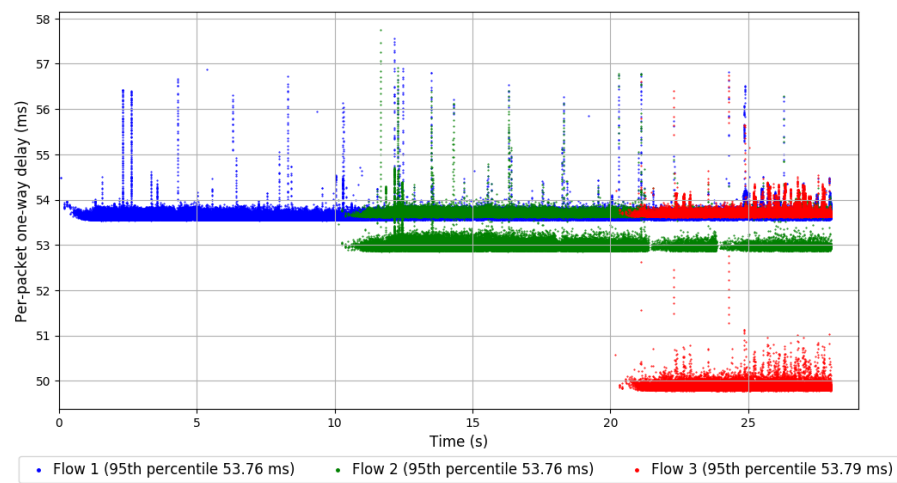
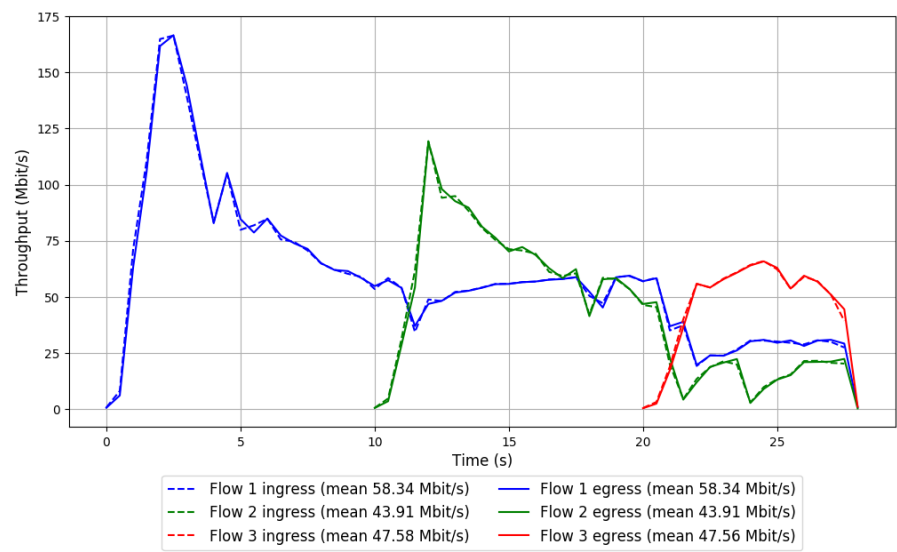
-- Flow 3:

Average throughput: 47.56 Mbit/s

95th percentile per-packet one-way delay: 53.794 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-08 06:41:43

End at: 2017-09-08 06:42:13

# Below is generated by plot.py at 2017-09-08 10:26:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.65 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.80 Mbit/s

95th percentile per-packet one-way delay: 53.752 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.75 Mbit/s

95th percentile per-packet one-way delay: 53.770 ms

Loss rate: 0.00%

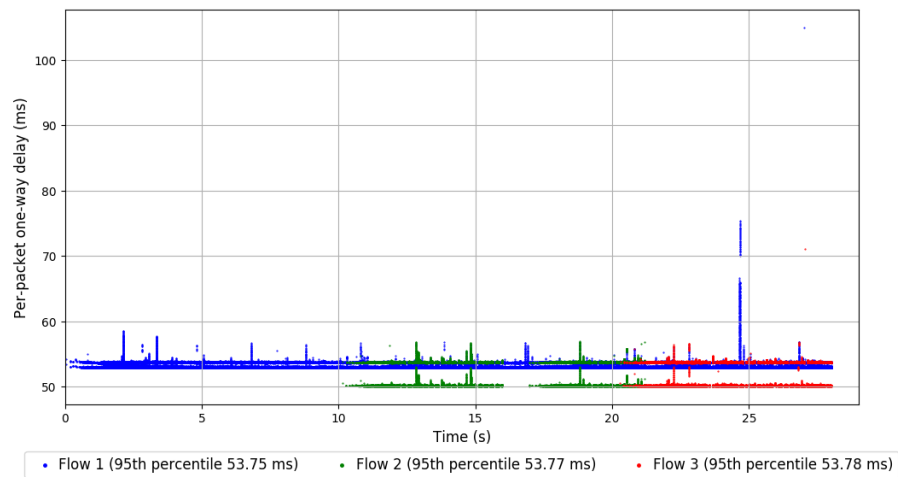
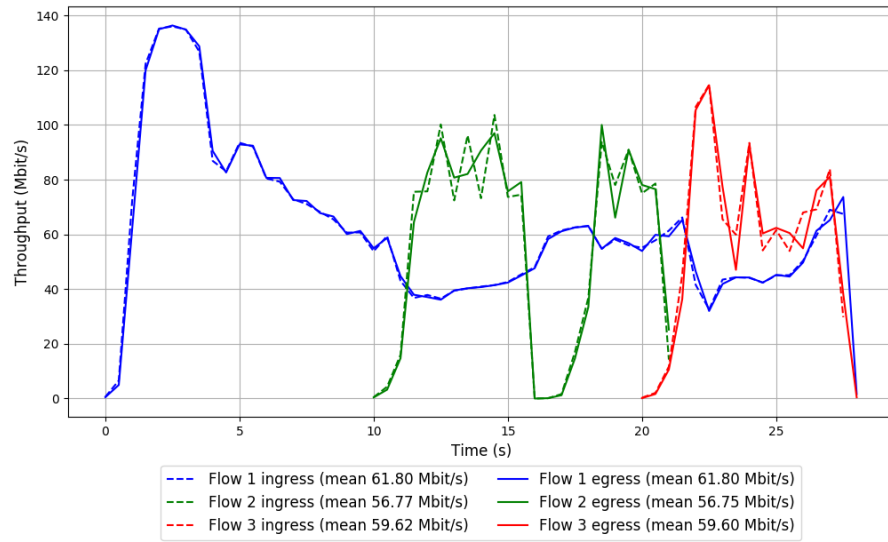
-- Flow 3:

Average throughput: 59.60 Mbit/s

95th percentile per-packet one-way delay: 53.779 ms

Loss rate: 0.00%

### Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-08 06:54:04

End at: 2017-09-08 06:54:34

# Below is generated by plot.py at 2017-09-08 10:26:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.95 Mbit/s

95th percentile per-packet one-way delay: 53.891 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.54 Mbit/s

95th percentile per-packet one-way delay: 53.783 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.87 Mbit/s

95th percentile per-packet one-way delay: 53.913 ms

Loss rate: 0.00%

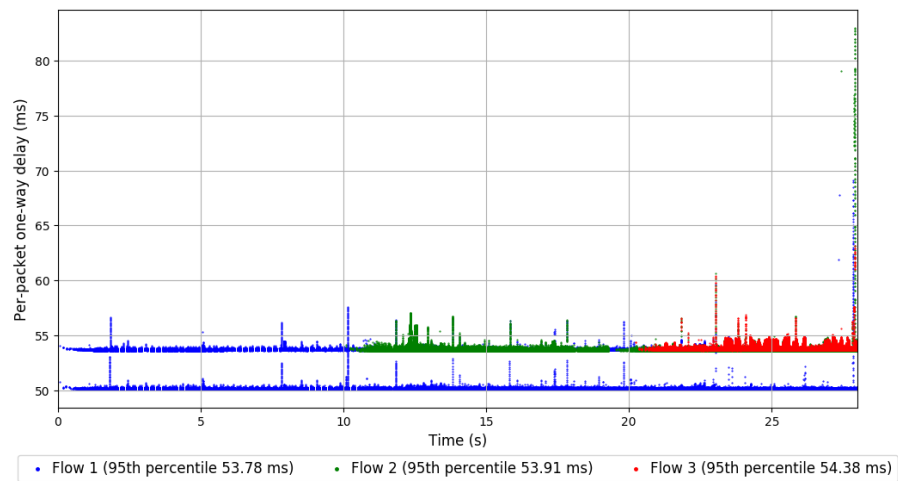
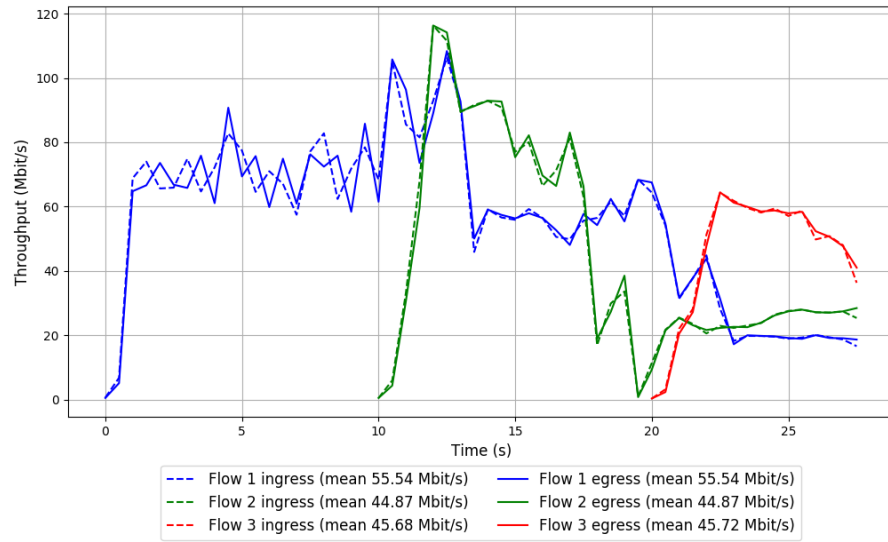
-- Flow 3:

Average throughput: 45.72 Mbit/s

95th percentile per-packet one-way delay: 54.385 ms

Loss rate: 0.00%

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



Run 5: Statistics of Copa

Start at: 2017-09-08 07:05:58

End at: 2017-09-08 07:06:28

# Below is generated by plot.py at 2017-09-08 10:26:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 108.28 Mbit/s

95th percentile per-packet one-way delay: 53.749 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.80 Mbit/s

95th percentile per-packet one-way delay: 53.784 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.12 Mbit/s

95th percentile per-packet one-way delay: 53.137 ms

Loss rate: 0.00%

-- Flow 3:

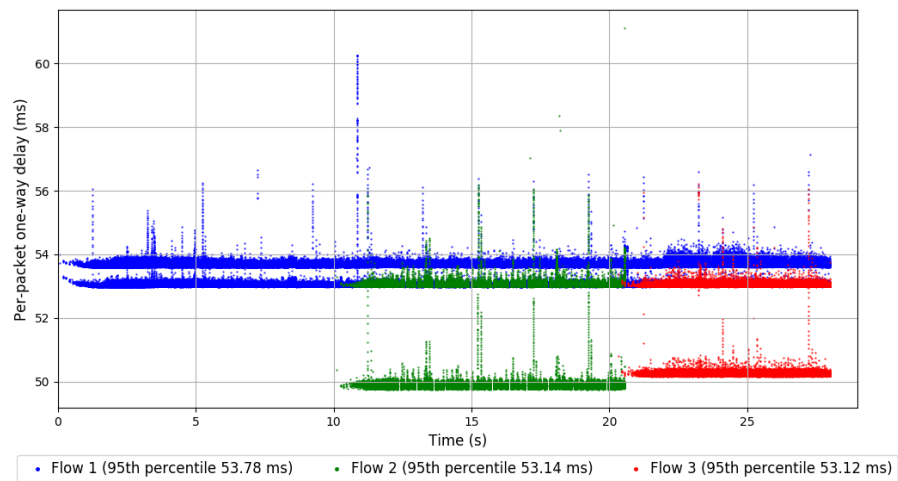
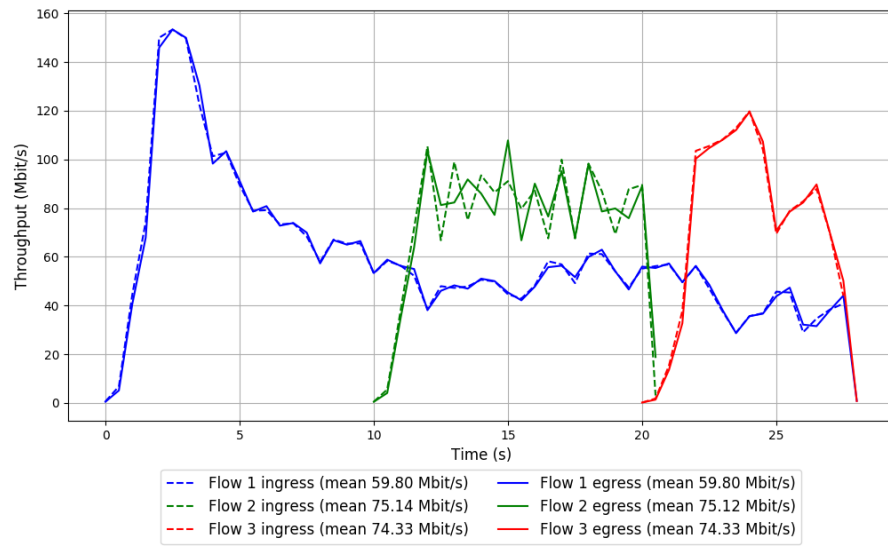
Average throughput: 74.33 Mbit/s

95th percentile per-packet one-way delay: 53.115 ms

Loss rate: 0.01%



## Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-08 07:18:09

End at: 2017-09-08 07:18:39

# Below is generated by plot.py at 2017-09-08 10:26:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.91 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 53.55 Mbit/s

95th percentile per-packet one-way delay: 53.146 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.42 Mbit/s

95th percentile per-packet one-way delay: 53.128 ms

Loss rate: 0.02%

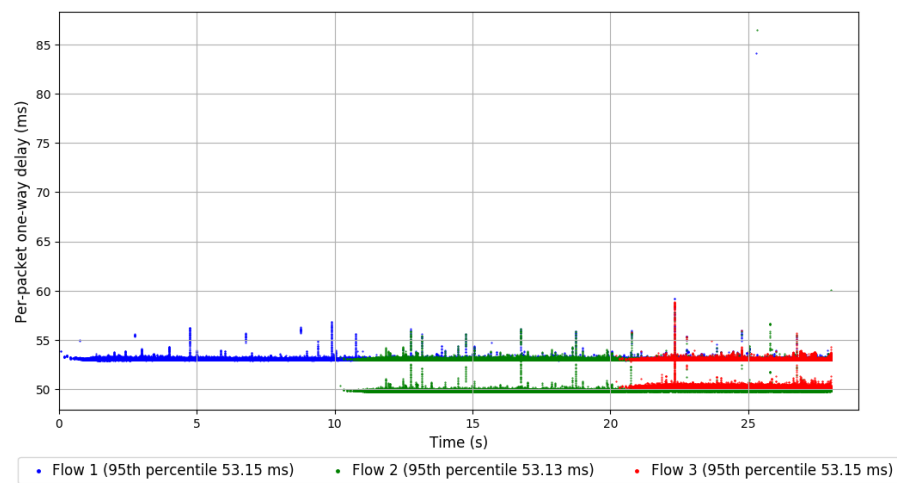
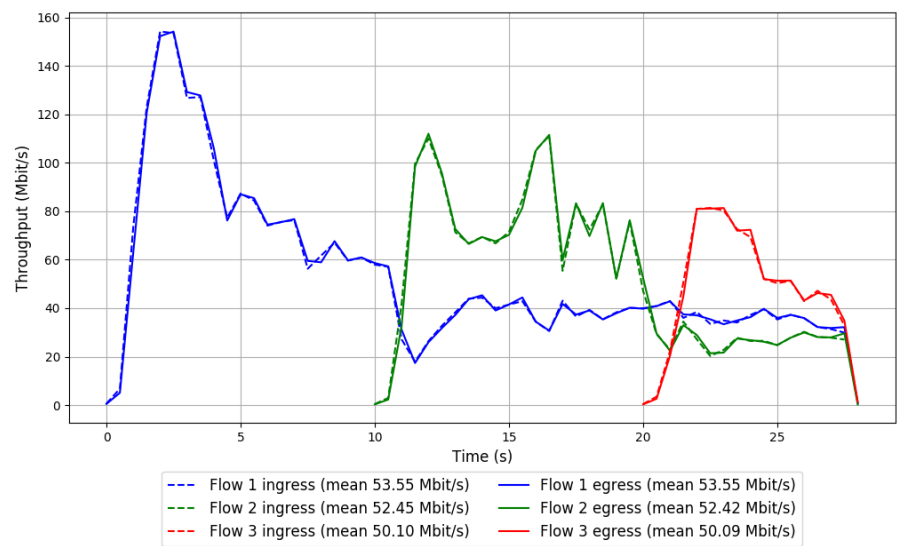
-- Flow 3:

Average throughput: 50.09 Mbit/s

95th percentile per-packet one-way delay: 53.153 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-08 07:30:15

End at: 2017-09-08 07:30:45

# Below is generated by plot.py at 2017-09-08 10:27:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 121.43 Mbit/s

95th percentile per-packet one-way delay: 53.157 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.26 Mbit/s

95th percentile per-packet one-way delay: 53.153 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.34 Mbit/s

95th percentile per-packet one-way delay: 53.155 ms

Loss rate: 0.00%

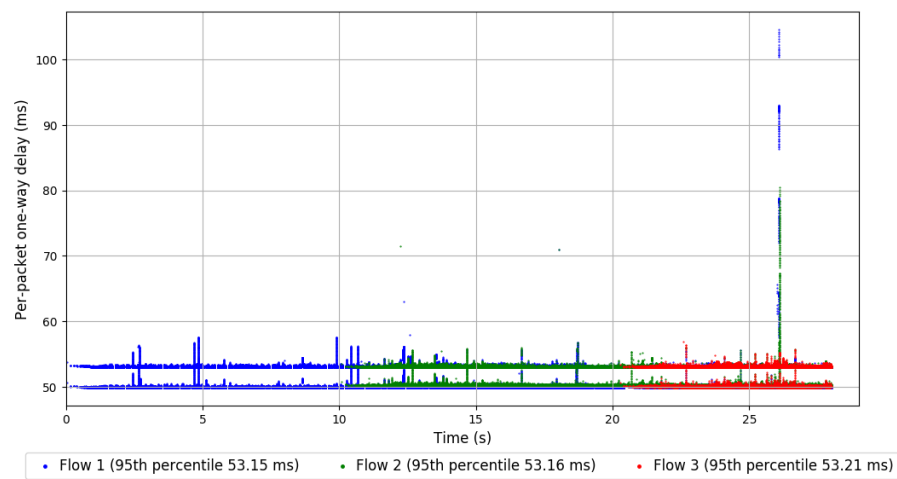
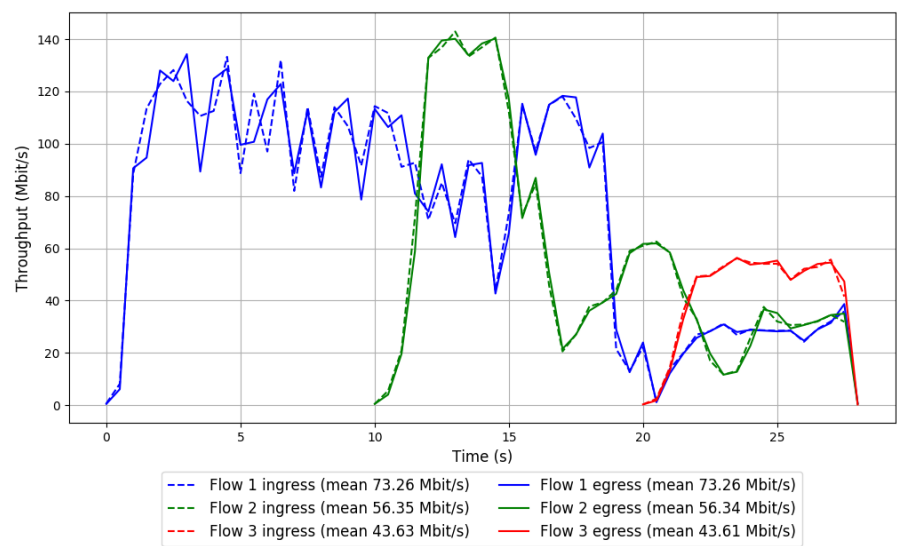
-- Flow 3:

Average throughput: 43.61 Mbit/s

95th percentile per-packet one-way delay: 53.210 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-08 07:42:19

End at: 2017-09-08 07:42:49

# Below is generated by plot.py at 2017-09-08 10:27:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 113.75 Mbit/s

95th percentile per-packet one-way delay: 53.703 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.02 Mbit/s

95th percentile per-packet one-way delay: 53.156 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.76 Mbit/s

95th percentile per-packet one-way delay: 53.774 ms

Loss rate: 0.00%

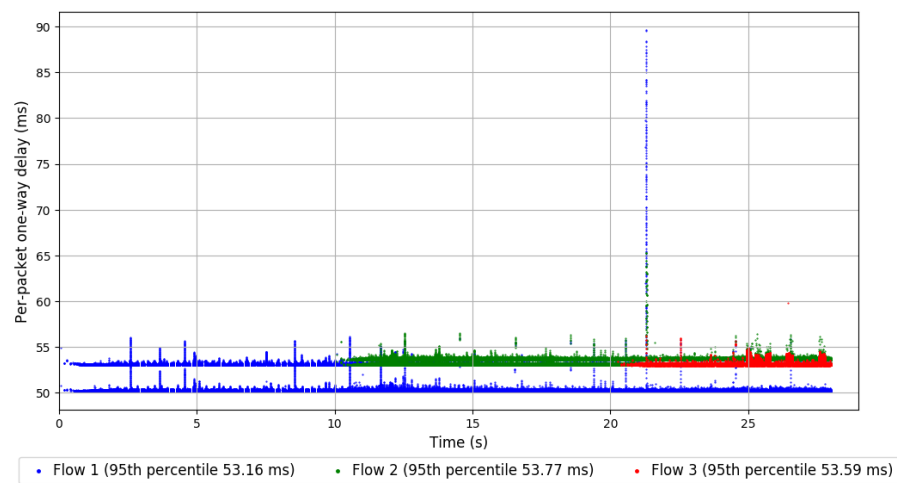
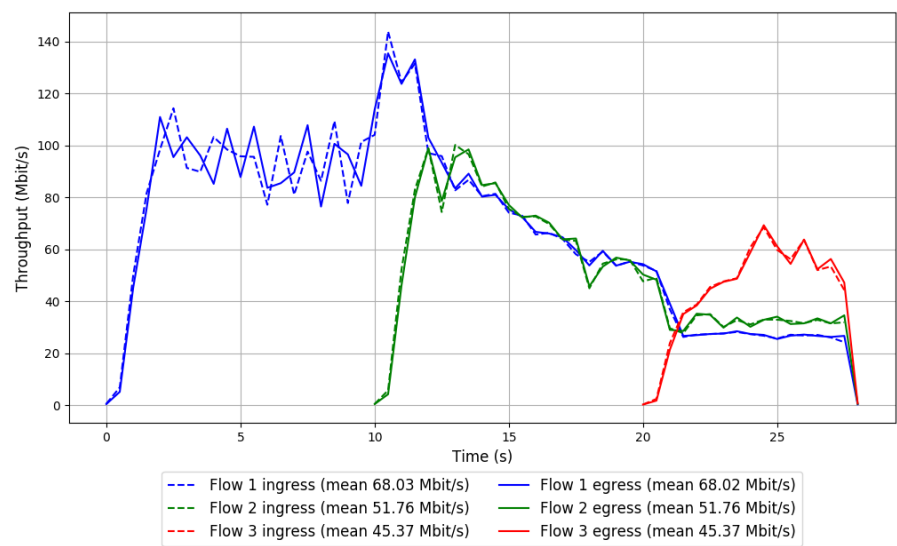
-- Flow 3:

Average throughput: 45.37 Mbit/s

95th percentile per-packet one-way delay: 53.595 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-08 07:54:14

End at: 2017-09-08 07:54:44

# Below is generated by plot.py at 2017-09-08 10:27:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.12 Mbit/s

95th percentile per-packet one-way delay: 53.161 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 72.66 Mbit/s

95th percentile per-packet one-way delay: 53.149 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.81 Mbit/s

95th percentile per-packet one-way delay: 53.165 ms

Loss rate: 0.00%

-- Flow 3:

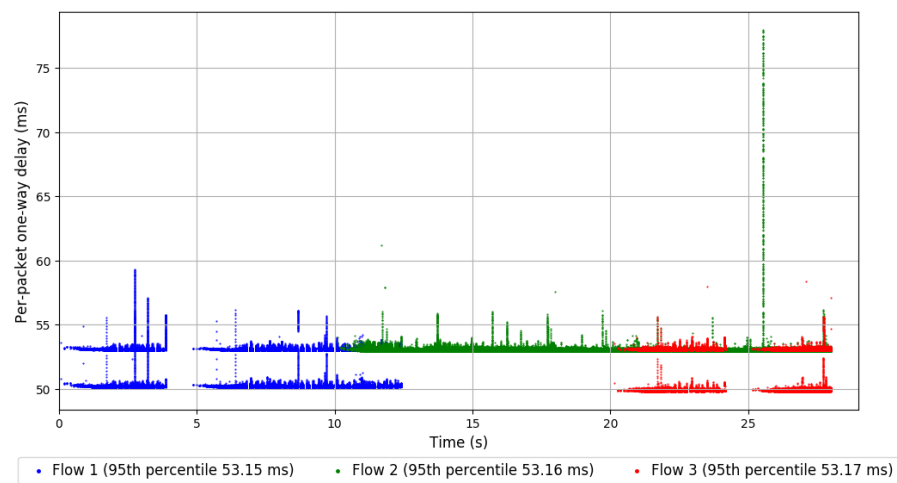
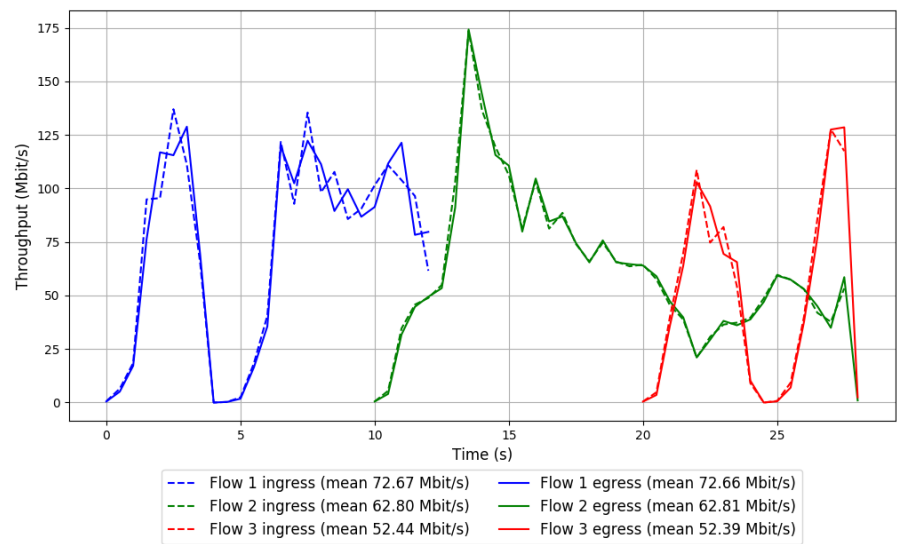
Average throughput: 52.39 Mbit/s

95th percentile per-packet one-way delay: 53.168 ms

Loss rate: 0.03%



Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-08 08:06:22

End at: 2017-09-08 08:06:52

# Below is generated by plot.py at 2017-09-08 10:28:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 104.37 Mbit/s

95th percentile per-packet one-way delay: 53.728 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.96 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.33 Mbit/s

95th percentile per-packet one-way delay: 53.196 ms

Loss rate: 0.00%

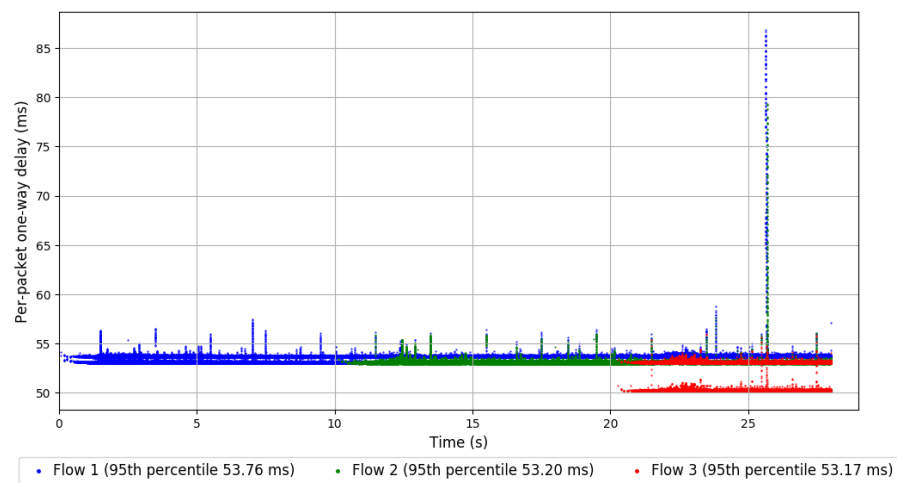
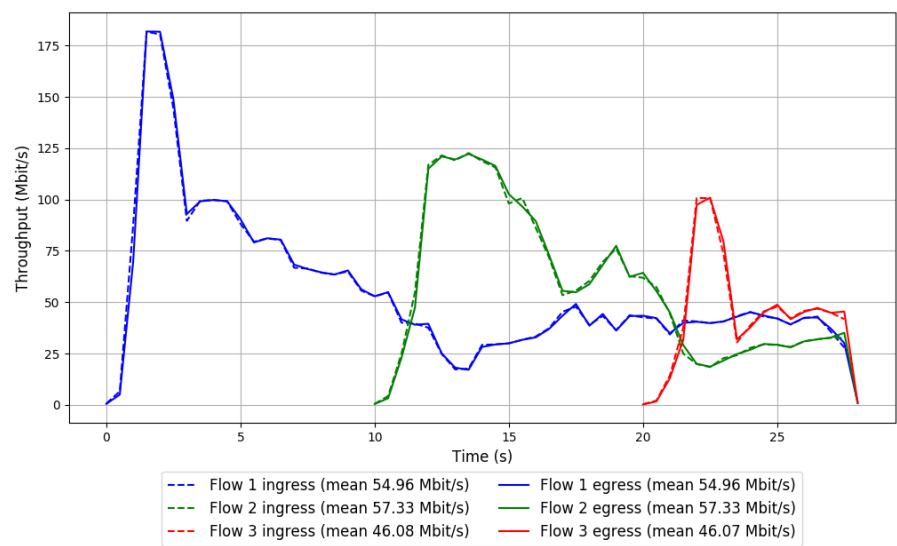
-- Flow 3:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 53.166 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-09-08 06:25:53

End at: 2017-09-08 06:26:23

# Below is generated by plot.py at 2017-09-08 10:28:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 267.76 Mbit/s

95th percentile per-packet one-way delay: 66.394 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 109.66 Mbit/s

95th percentile per-packet one-way delay: 59.354 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 155.18 Mbit/s

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

Loss rate: 0.00%

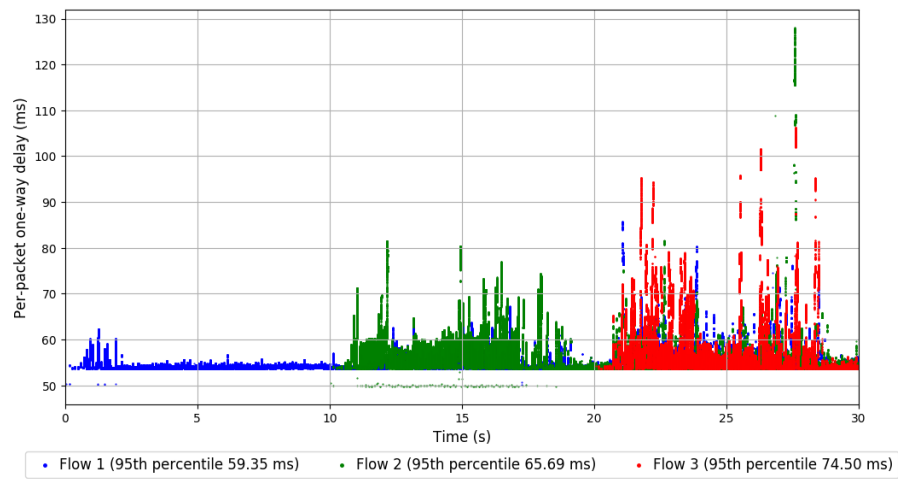
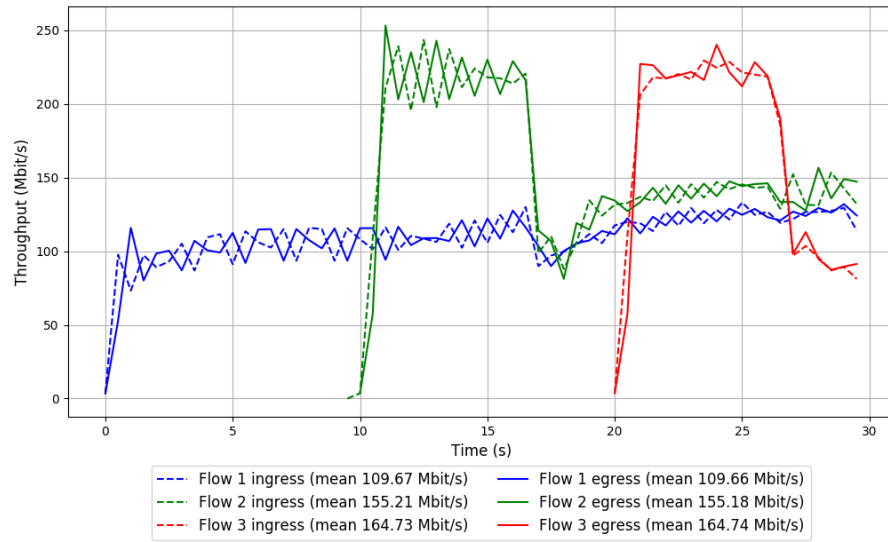
-- Flow 3:

Average throughput: 164.74 Mbit/s

95th percentile per-packet one-way delay: 74.501 ms

Loss rate: 0.00%

# Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 06:37:48

End at: 2017-09-08 06:38:18

# Below is generated by plot.py at 2017-09-08 10:28:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 215.91 Mbit/s

95th percentile per-packet one-way delay: 69.252 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 131.69 Mbit/s

95th percentile per-packet one-way delay: 63.910 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.92 Mbit/s

95th percentile per-packet one-way delay: 59.162 ms

Loss rate: 0.01%

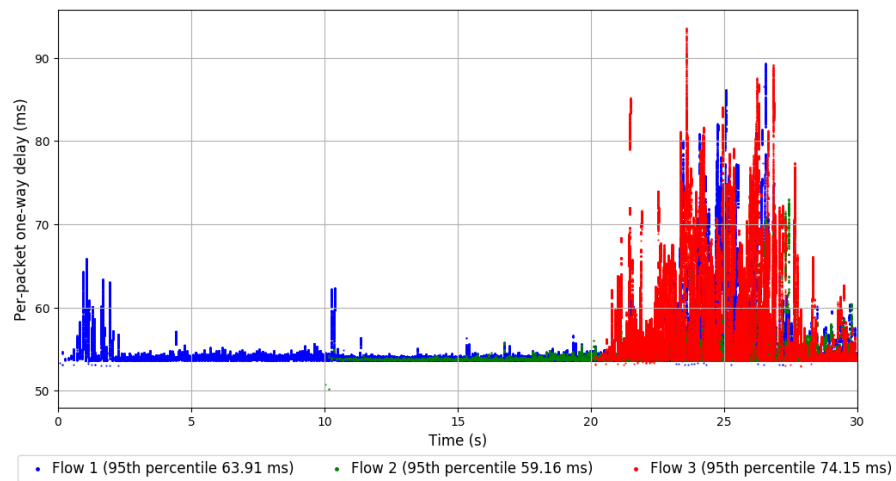
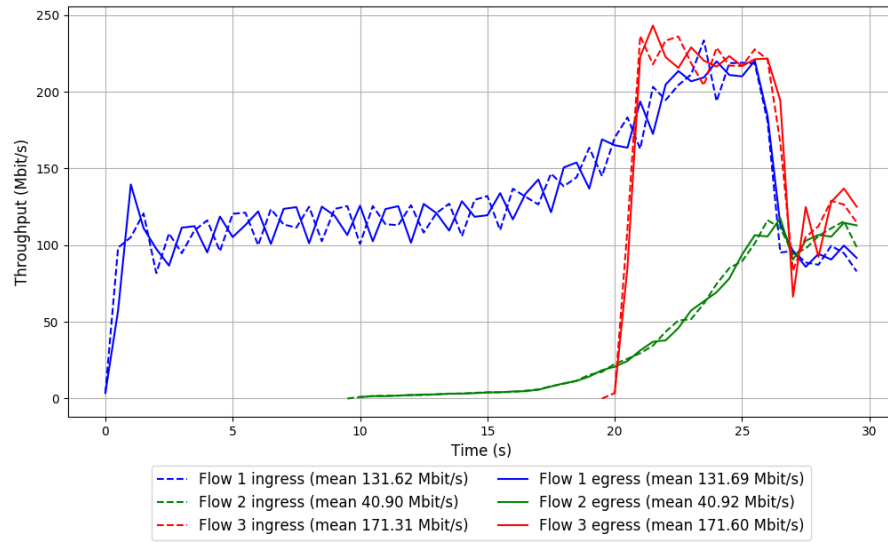
-- Flow 3:

Average throughput: 171.60 Mbit/s

95th percentile per-packet one-way delay: 74.153 ms

Loss rate: 0.00%

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



Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 06:50:02

End at: 2017-09-08 06:50:32

# Below is generated by plot.py at 2017-09-08 10:29:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 255.33 Mbit/s

95th percentile per-packet one-way delay: 61.365 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 127.59 Mbit/s

95th percentile per-packet one-way delay: 61.838 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 108.07 Mbit/s

95th percentile per-packet one-way delay: 58.706 ms

Loss rate: 0.00%

-- Flow 3:

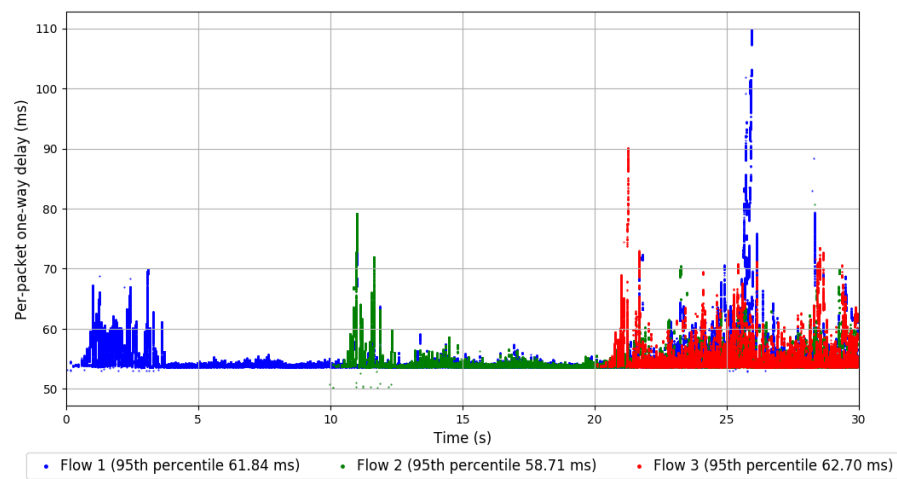
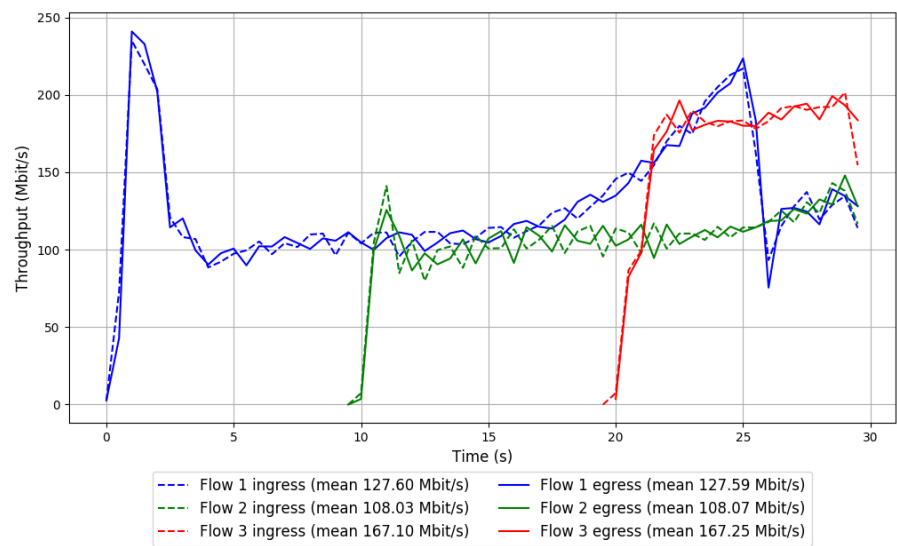
Average throughput: 167.25 Mbit/s

95th percentile per-packet one-way delay: 62.697 ms

Loss rate: 0.00%



Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 07:01:57

End at: 2017-09-08 07:02:27

# Below is generated by plot.py at 2017-09-08 10:29:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 288.60 Mbit/s

95th percentile per-packet one-way delay: 59.187 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.72 Mbit/s

95th percentile per-packet one-way delay: 58.943 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 113.76 Mbit/s

95th percentile per-packet one-way delay: 59.559 ms

Loss rate: 0.00%

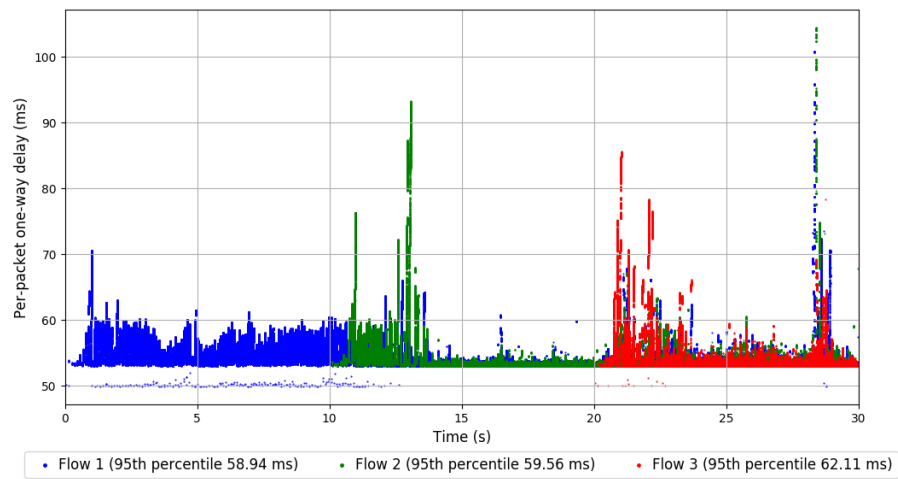
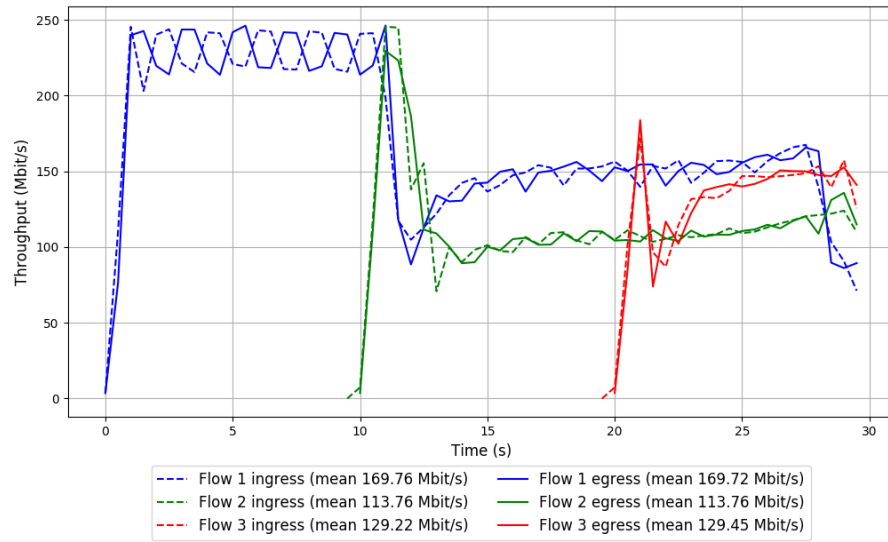
-- Flow 3:

Average throughput: 129.45 Mbit/s

95th percentile per-packet one-way delay: 62.109 ms

Loss rate: 0.00%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-08 07:14:09

End at: 2017-09-08 07:14:39

# Below is generated by plot.py at 2017-09-08 10:30:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 254.17 Mbit/s

95th percentile per-packet one-way delay: 62.579 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 148.20 Mbit/s

95th percentile per-packet one-way delay: 62.516 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 107.83 Mbit/s

95th percentile per-packet one-way delay: 60.033 ms

Loss rate: 0.00%

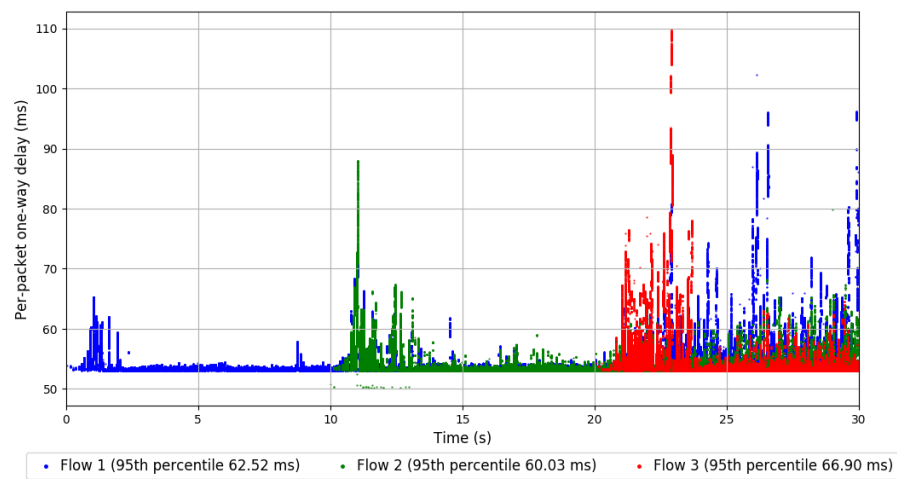
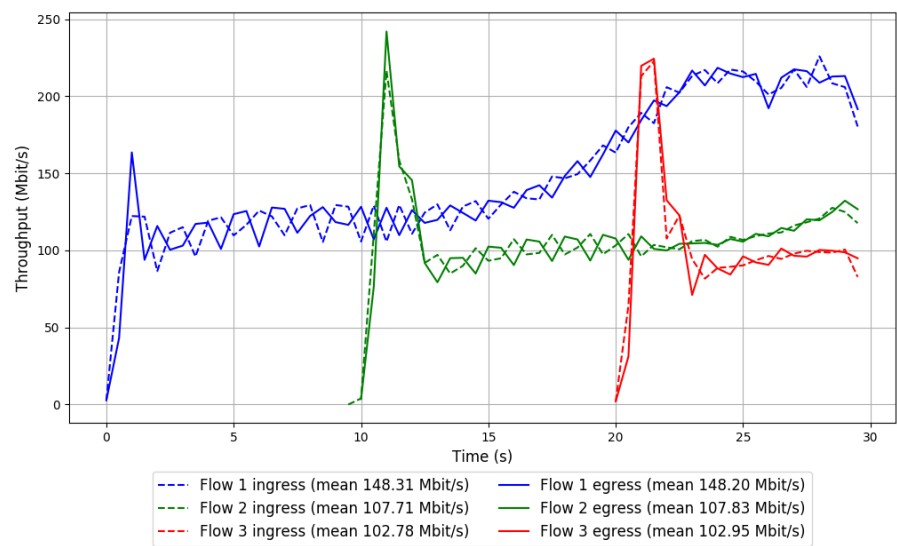
-- Flow 3:

Average throughput: 102.95 Mbit/s

95th percentile per-packet one-way delay: 66.898 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 07:26:14

End at: 2017-09-08 07:26:44

# Below is generated by plot.py at 2017-09-08 10:30:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 252.05 Mbit/s

95th percentile per-packet one-way delay: 62.740 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 136.94 Mbit/s

95th percentile per-packet one-way delay: 66.143 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 118.72 Mbit/s

95th percentile per-packet one-way delay: 59.362 ms

Loss rate: 0.00%

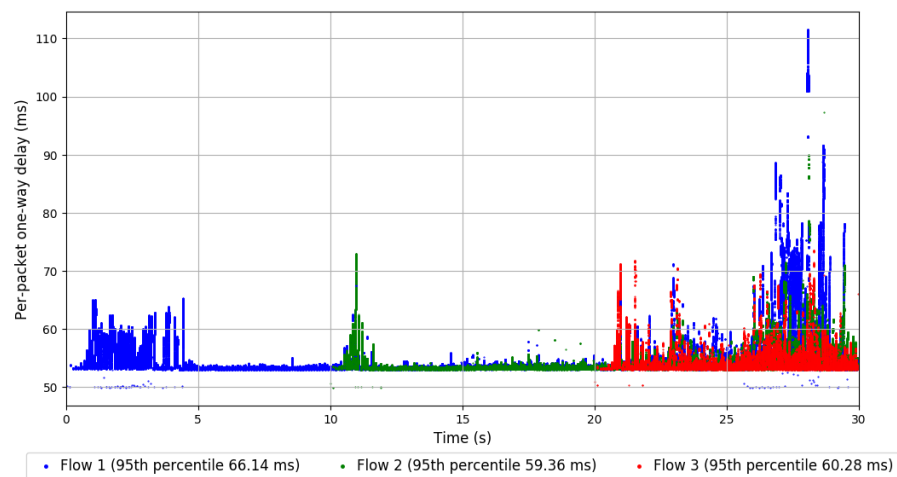
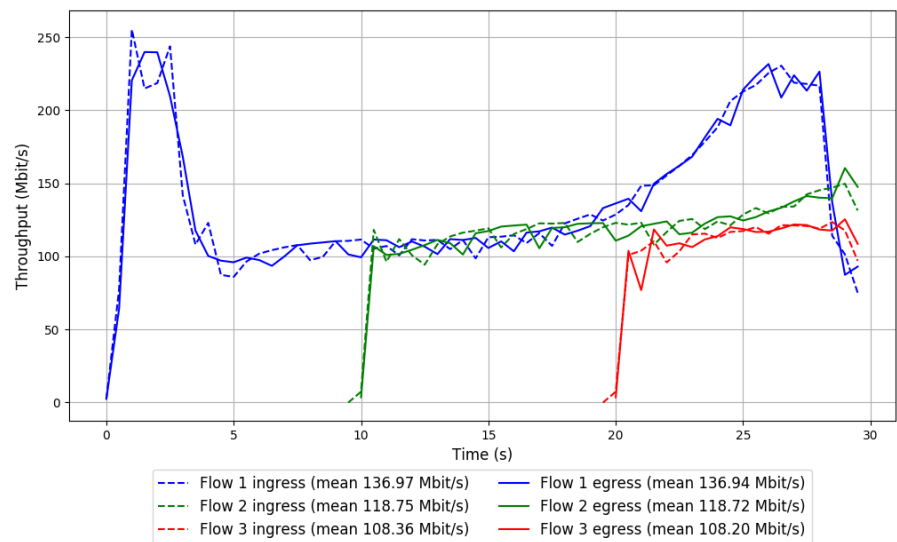
-- Flow 3:

Average throughput: 108.20 Mbit/s

95th percentile per-packet one-way delay: 60.283 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 07:38:21

End at: 2017-09-08 07:38:51

# Below is generated by plot.py at 2017-09-08 10:31:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 264.05 Mbit/s

95th percentile per-packet one-way delay: 66.131 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 138.34 Mbit/s

95th percentile per-packet one-way delay: 67.804 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 128.29 Mbit/s

95th percentile per-packet one-way delay: 63.538 ms

Loss rate: 0.00%

-- Flow 3:

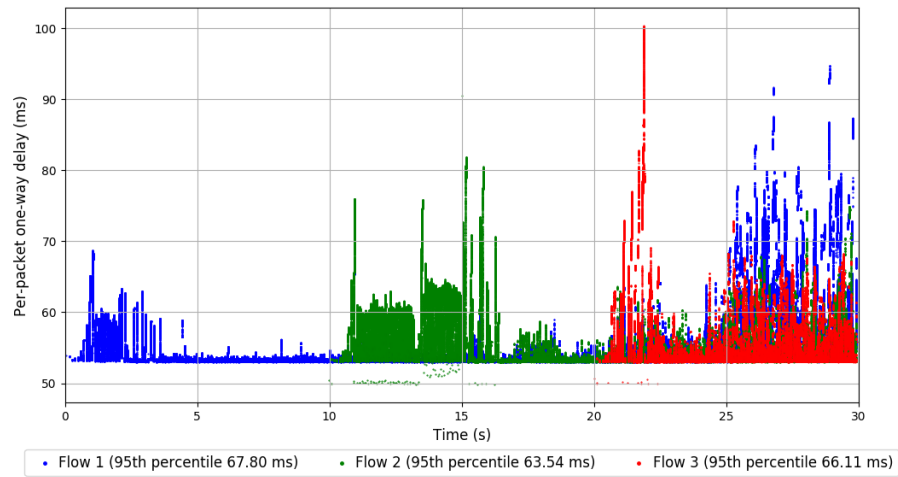
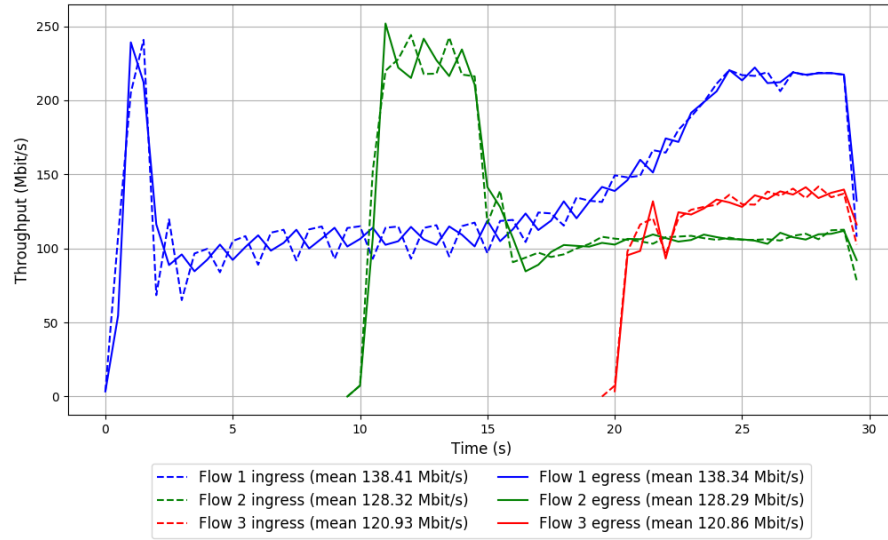
Average throughput: 120.86 Mbit/s

95th percentile per-packet one-way delay: 66.113 ms

Loss rate: 0.00%



# Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 07:50:17

End at: 2017-09-08 07:50:47

# Below is generated by plot.py at 2017-09-08 10:31:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 197.66 Mbit/s

95th percentile per-packet one-way delay: 58.499 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 122.55 Mbit/s

95th percentile per-packet one-way delay: 56.729 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 110.02 Mbit/s

95th percentile per-packet one-way delay: 59.426 ms

Loss rate: 0.00%

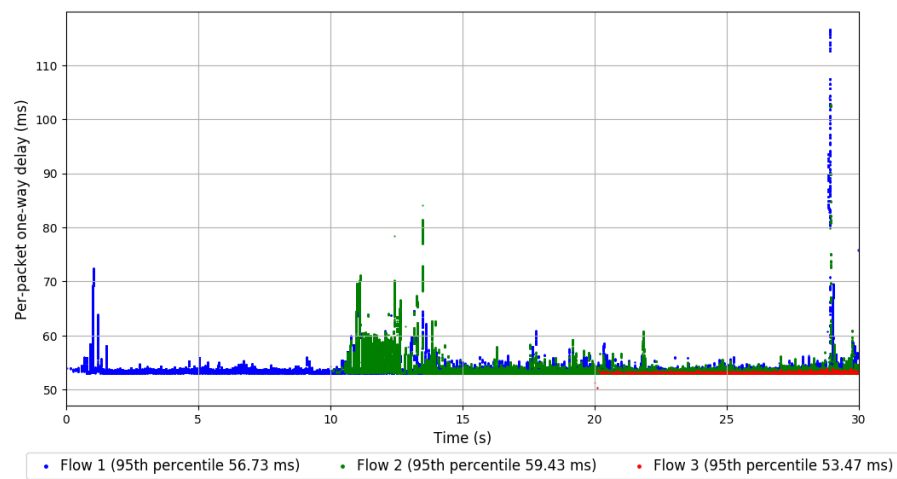
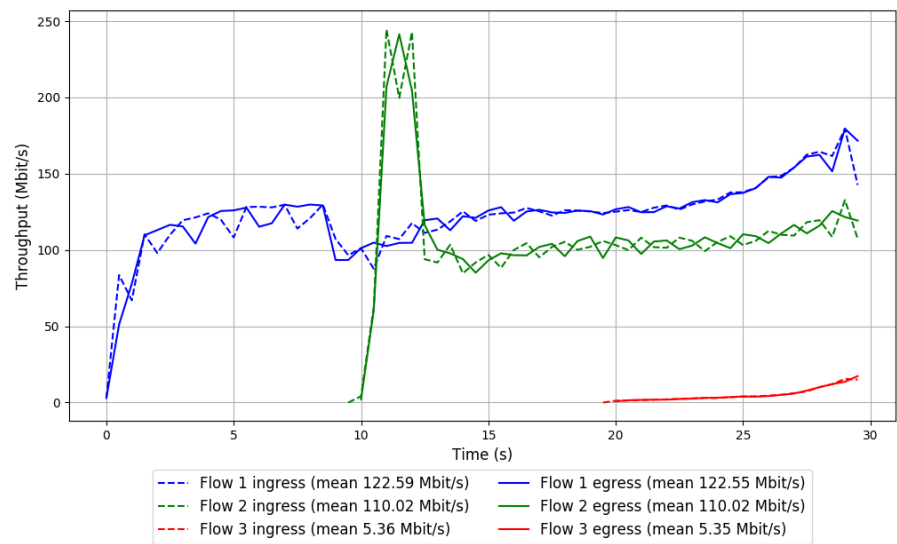
-- Flow 3:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 53.470 ms

Loss rate: 0.11%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 08:02:25

End at: 2017-09-08 08:02:55

# Below is generated by plot.py at 2017-09-08 10:32:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 312.06 Mbit/s

95th percentile per-packet one-way delay: 70.837 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 117.07 Mbit/s

95th percentile per-packet one-way delay: 59.943 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 189.81 Mbit/s

95th percentile per-packet one-way delay: 67.450 ms

Loss rate: 0.00%

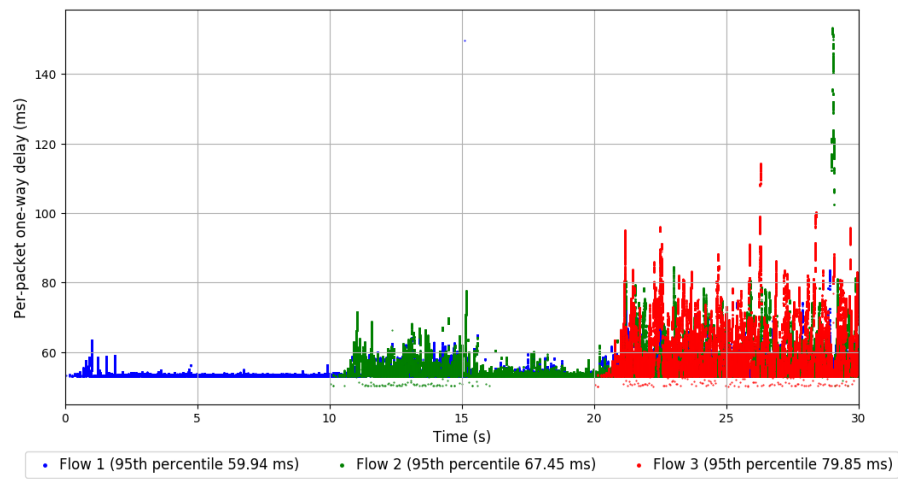
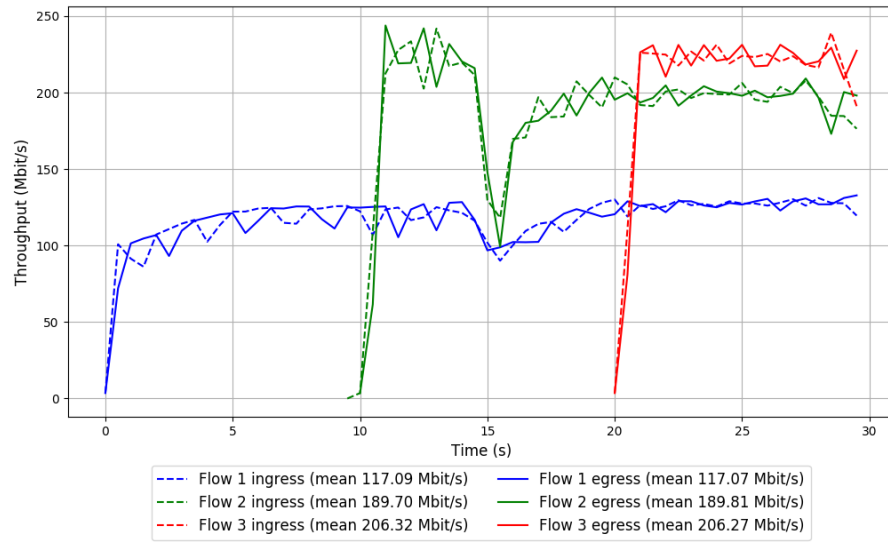
-- Flow 3:

Average throughput: 206.27 Mbit/s

95th percentile per-packet one-way delay: 79.853 ms

Loss rate: 0.00%

# Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 08:14:26

End at: 2017-09-08 08:14:56

# Below is generated by plot.py at 2017-09-08 10:32:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 321.08 Mbit/s

95th percentile per-packet one-way delay: 67.677 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 166.78 Mbit/s

95th percentile per-packet one-way delay: 65.230 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.33 Mbit/s

95th percentile per-packet one-way delay: 69.086 ms

Loss rate: 0.00%

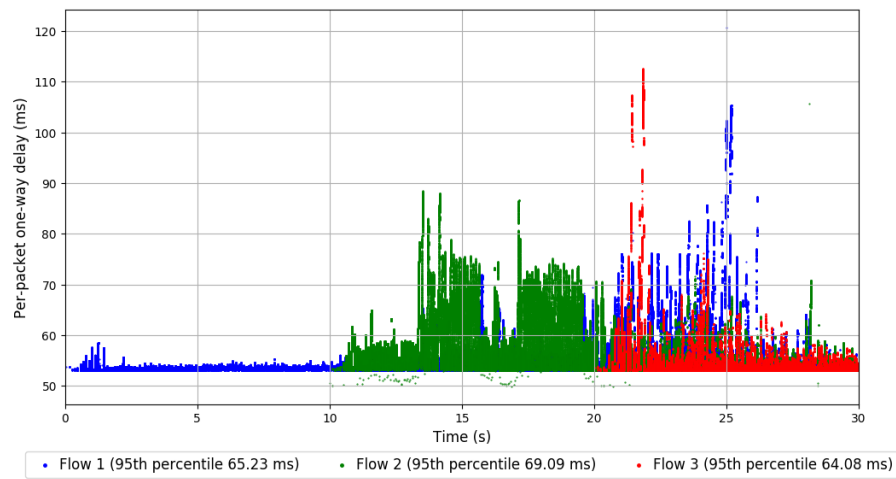
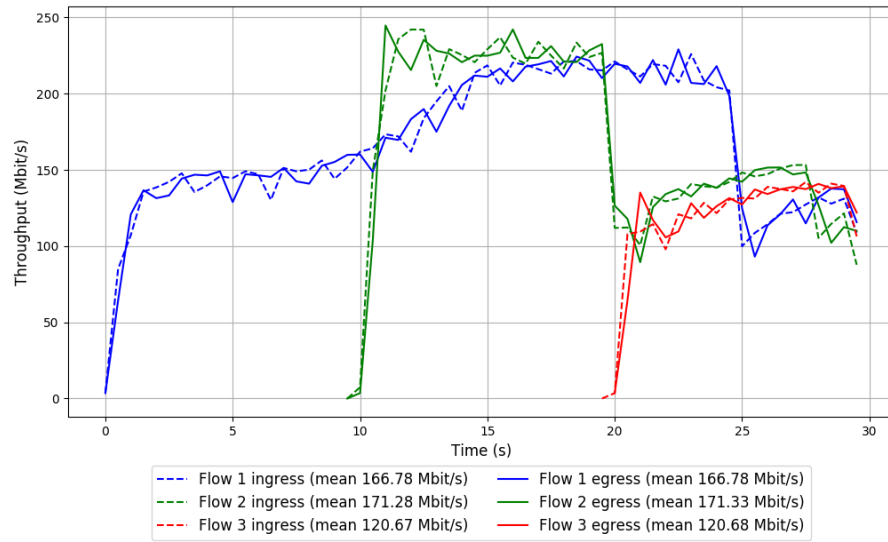
-- Flow 3:

Average throughput: 120.68 Mbit/s

95th percentile per-packet one-way delay: 64.076 ms

Loss rate: 0.00%

# Run 10: Report of TCP Cubic — Data Link



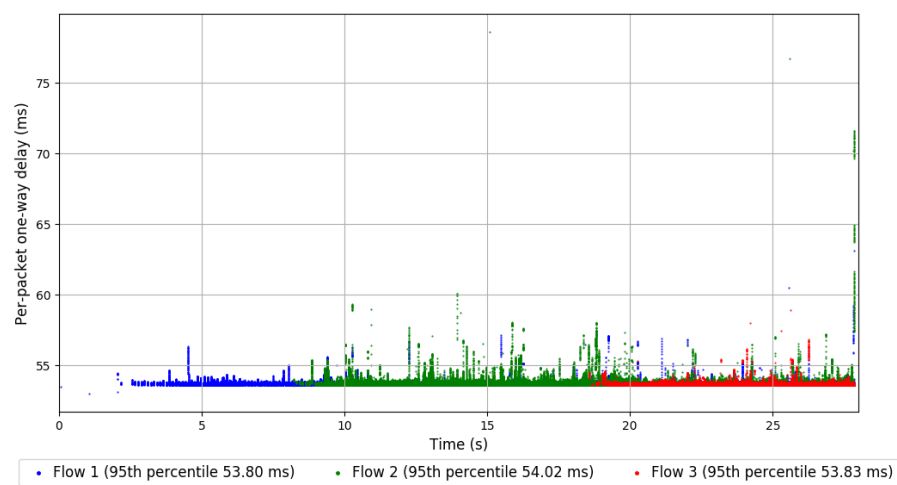
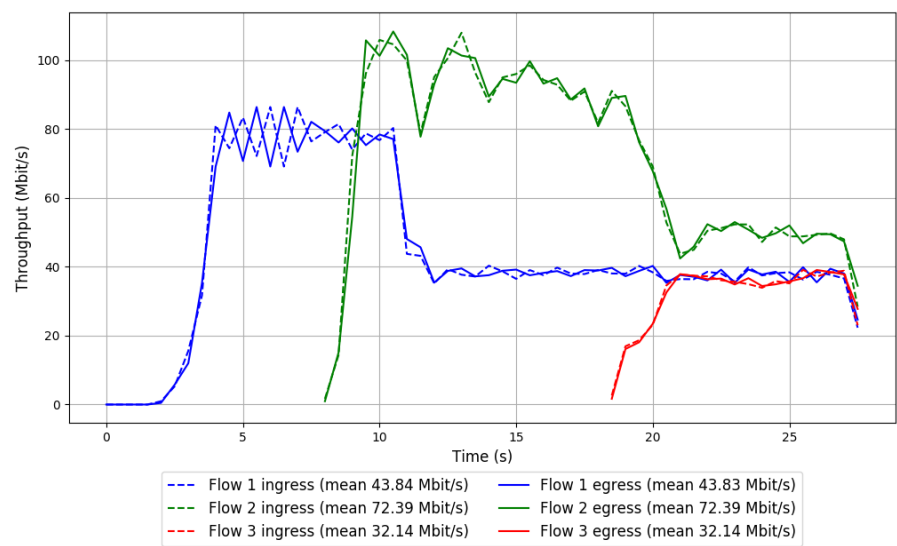
```
Run 1: Statistics of Indigo

Start at: 2017-09-08 06:24:03
End at: 2017-09-08 06:24:33

# Below is generated by plot.py at 2017-09-08 10:32:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.66 Mbit/s
95th percentile per-packet one-way delay: 53.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.83 Mbit/s
95th percentile per-packet one-way delay: 53.805 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 72.39 Mbit/s
95th percentile per-packet one-way delay: 54.015 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.14 Mbit/s
95th percentile per-packet one-way delay: 53.834 ms
Loss rate: 0.00%
```



Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-08 06:36:22

End at: 2017-09-08 06:36:52

# Below is generated by plot.py at 2017-09-08 10:32:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.88 Mbit/s

95th percentile per-packet one-way delay: 53.886 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.58 Mbit/s

95th percentile per-packet one-way delay: 53.893 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.34 Mbit/s

95th percentile per-packet one-way delay: 53.867 ms

Loss rate: 0.00%

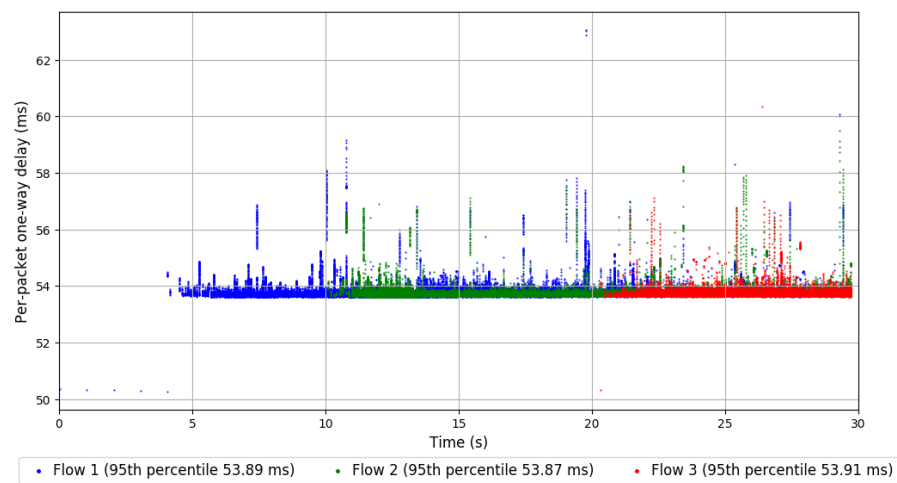
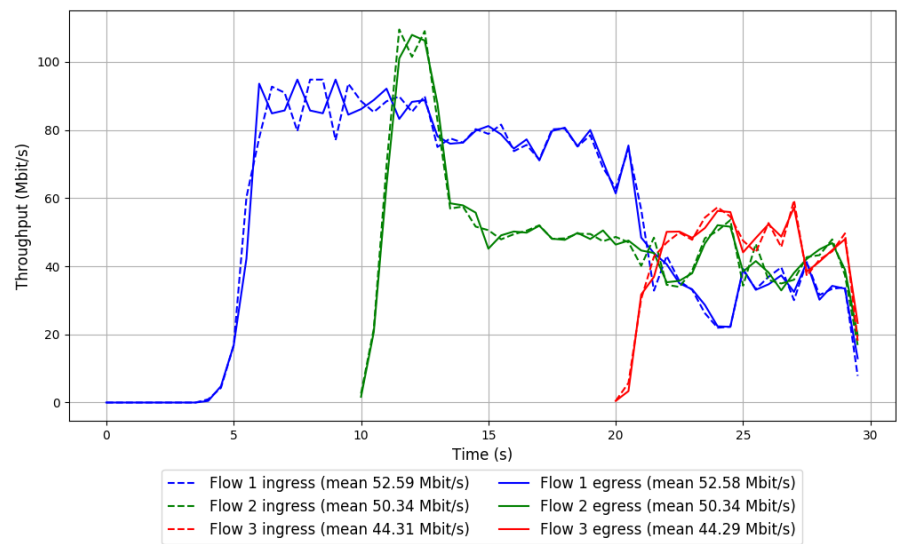
-- Flow 3:

Average throughput: 44.29 Mbit/s

95th percentile per-packet one-way delay: 53.908 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-08 06:48:07

End at: 2017-09-08 06:48:37

# Below is generated by plot.py at 2017-09-08 10:32:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.26 Mbit/s

95th percentile per-packet one-way delay: 53.936 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 35.93 Mbit/s

95th percentile per-packet one-way delay: 53.897 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 53.975 ms

Loss rate: 0.00%

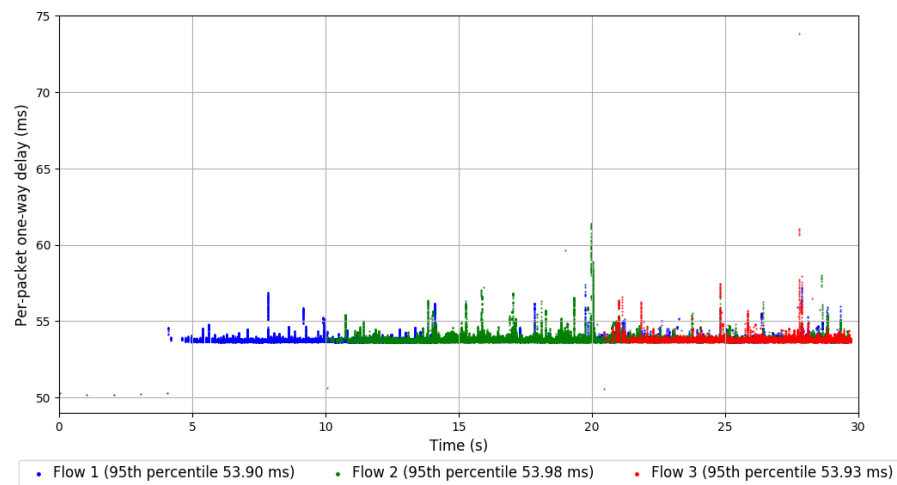
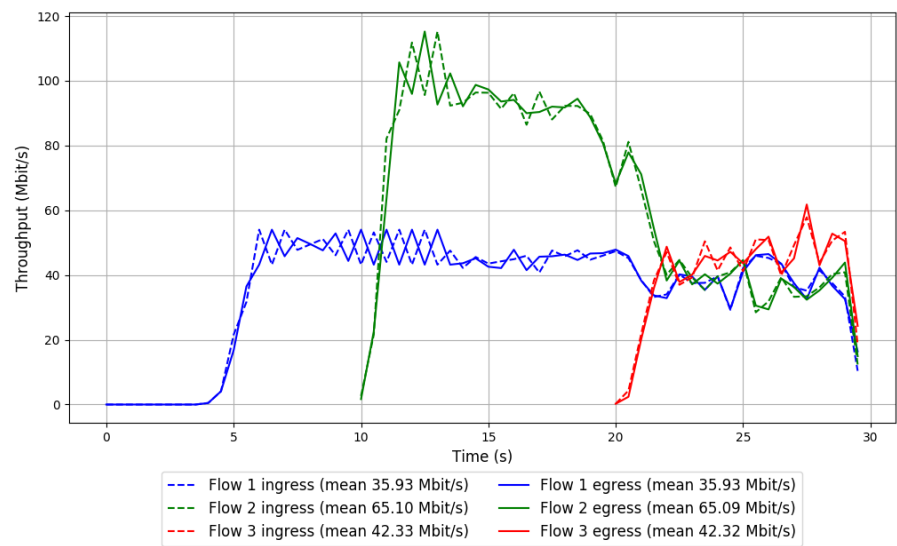
-- Flow 3:

Average throughput: 42.32 Mbit/s

95th percentile per-packet one-way delay: 53.928 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-08 07:00:30

End at: 2017-09-08 07:01:00

# Below is generated by plot.py at 2017-09-08 10:33:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 88.85 Mbit/s

95th percentile per-packet one-way delay: 53.292 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 27.66 Mbit/s

95th percentile per-packet one-way delay: 53.242 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.70 Mbit/s

95th percentile per-packet one-way delay: 53.333 ms

Loss rate: 0.00%

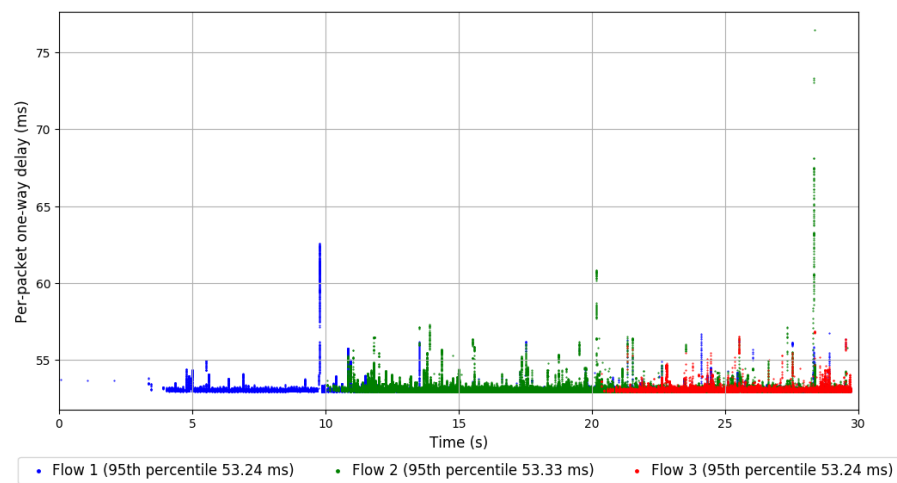
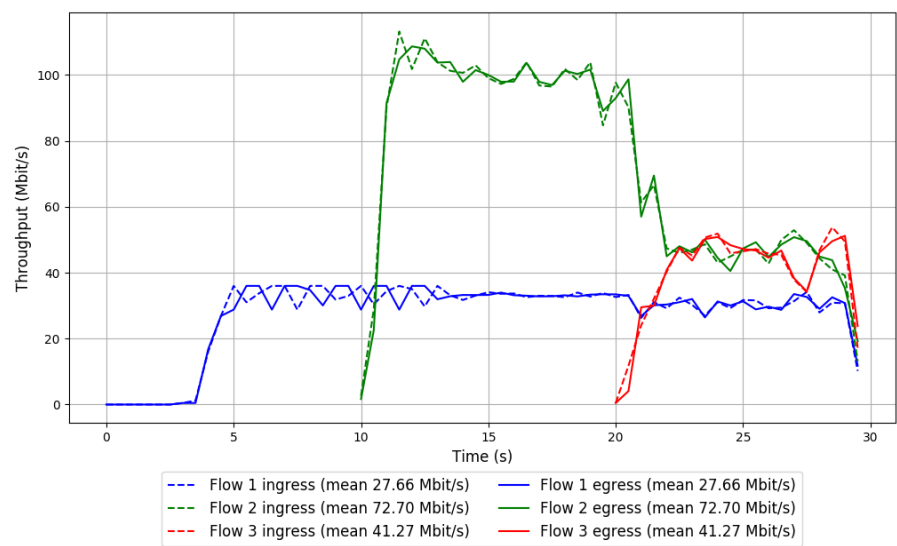
-- Flow 3:

Average throughput: 41.27 Mbit/s

95th percentile per-packet one-way delay: 53.244 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-08 07:12:17

End at: 2017-09-08 07:12:47

# Below is generated by plot.py at 2017-09-08 10:33:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.25 Mbit/s

95th percentile per-packet one-way delay: 53.334 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 29.07 Mbit/s

95th percentile per-packet one-way delay: 53.317 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 63.82 Mbit/s

95th percentile per-packet one-way delay: 53.358 ms

Loss rate: 0.00%

-- Flow 3:

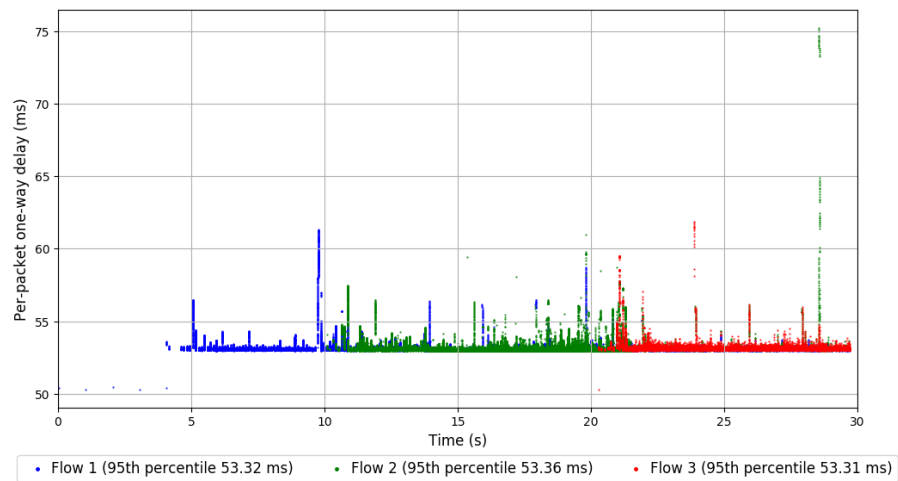
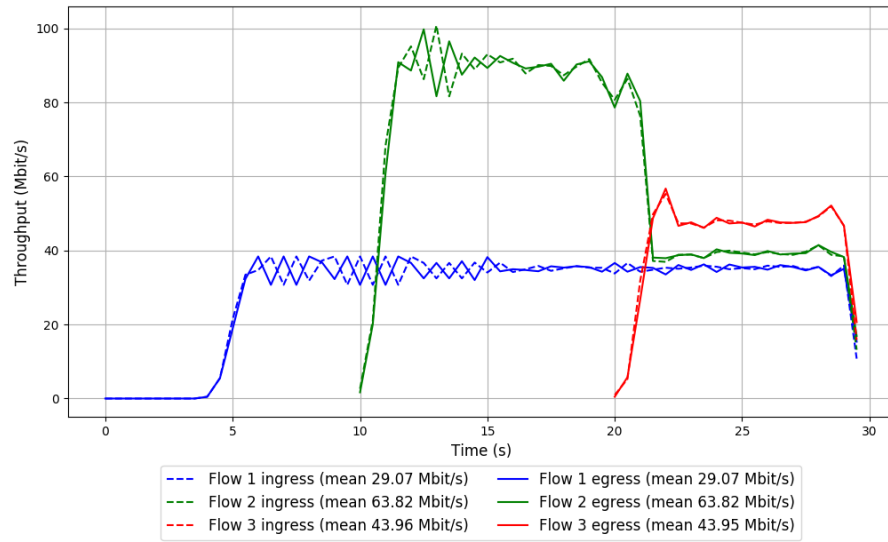
Average throughput: 43.95 Mbit/s

95th percentile per-packet one-way delay: 53.309 ms

Loss rate: 0.00%



## Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-09-08 07:24:19

End at: 2017-09-08 07:24:49

# Below is generated by plot.py at 2017-09-08 10:33:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.63 Mbit/s

95th percentile per-packet one-way delay: 53.285 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 36.23 Mbit/s

95th percentile per-packet one-way delay: 53.262 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 77.85 Mbit/s

95th percentile per-packet one-way delay: 53.305 ms

Loss rate: 0.00%

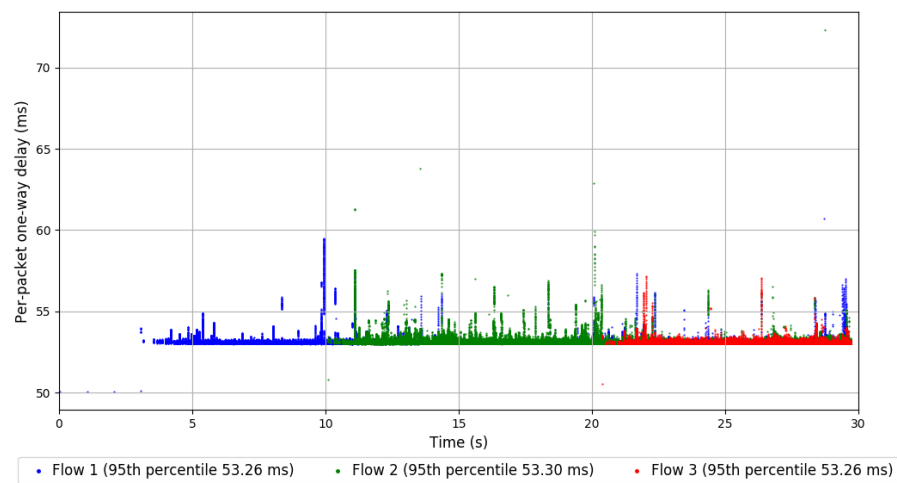
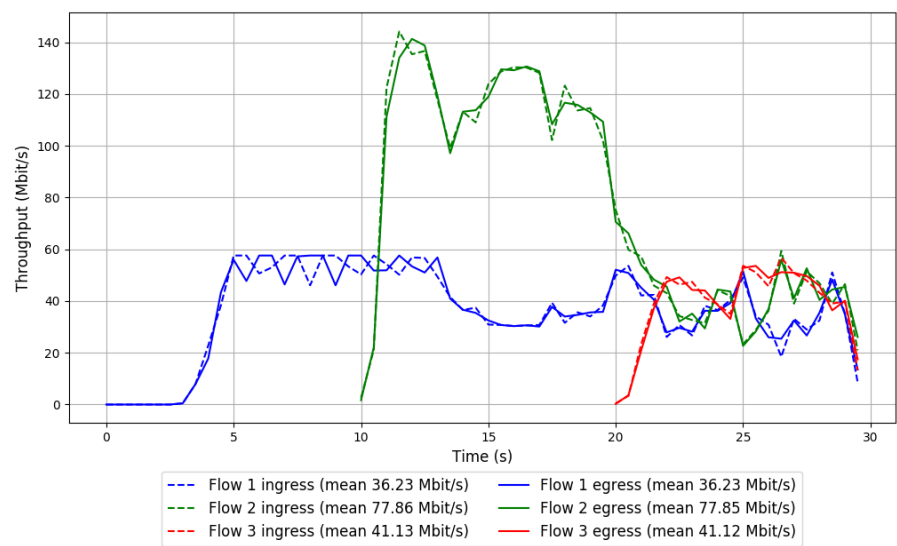
-- Flow 3:

Average throughput: 41.12 Mbit/s

95th percentile per-packet one-way delay: 53.256 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-08 07:36:29

End at: 2017-09-08 07:36:59

# Below is generated by plot.py at 2017-09-08 10:33:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.65 Mbit/s

95th percentile per-packet one-way delay: 53.335 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 35.99 Mbit/s

95th percentile per-packet one-way delay: 53.231 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.92 Mbit/s

95th percentile per-packet one-way delay: 53.392 ms

Loss rate: 0.00%

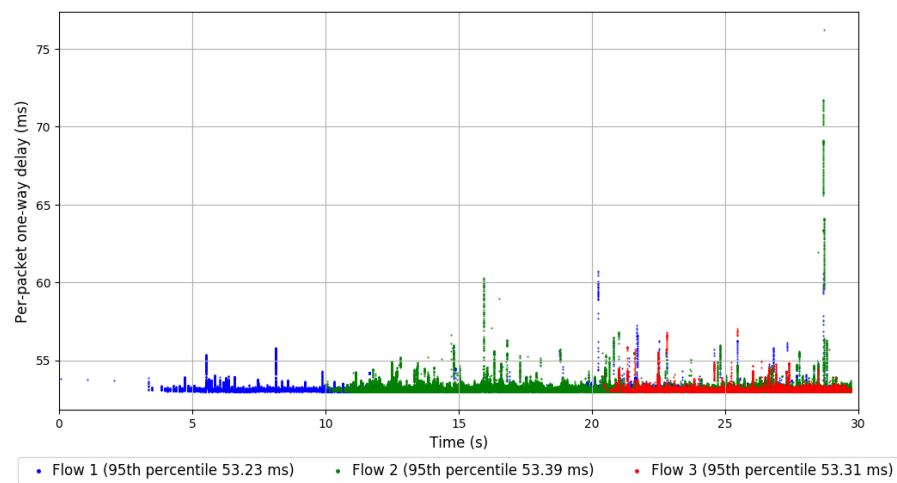
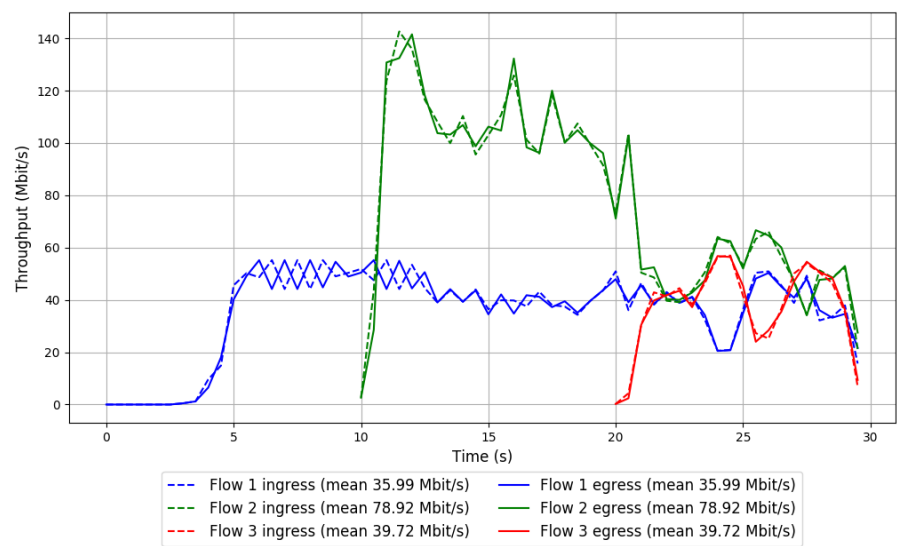
-- Flow 3:

Average throughput: 39.72 Mbit/s

95th percentile per-packet one-way delay: 53.309 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-08 07:48:47

End at: 2017-09-08 07:49:17

# Below is generated by plot.py at 2017-09-08 10:33:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.62 Mbit/s

95th percentile per-packet one-way delay: 53.487 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 36.42 Mbit/s

95th percentile per-packet one-way delay: 53.363 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.88 Mbit/s

95th percentile per-packet one-way delay: 53.654 ms

Loss rate: 0.00%

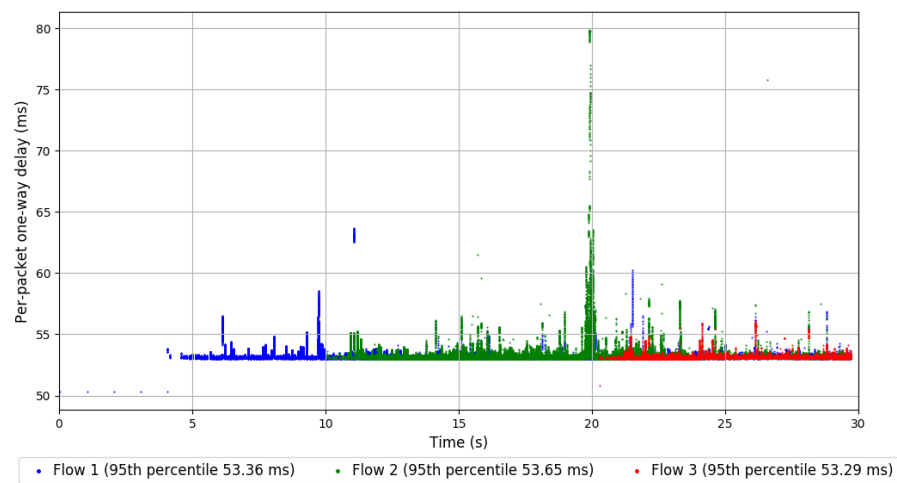
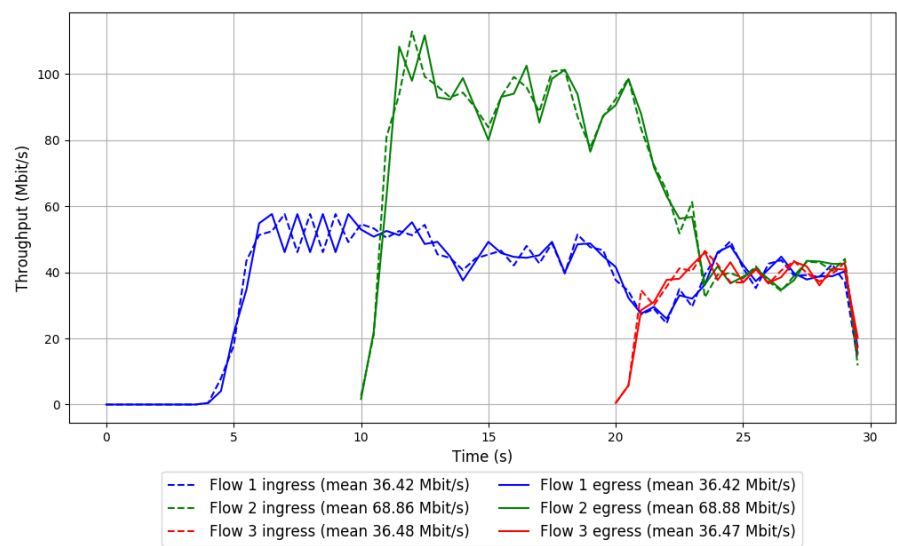
-- Flow 3:

Average throughput: 36.47 Mbit/s

95th percentile per-packet one-way delay: 53.292 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-08 08:00:32

End at: 2017-09-08 08:01:02

# Below is generated by plot.py at 2017-09-08 10:33:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.99 Mbit/s

95th percentile per-packet one-way delay: 53.315 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 38.87 Mbit/s

95th percentile per-packet one-way delay: 53.276 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.98 Mbit/s

95th percentile per-packet one-way delay: 53.351 ms

Loss rate: 0.00%

-- Flow 3:

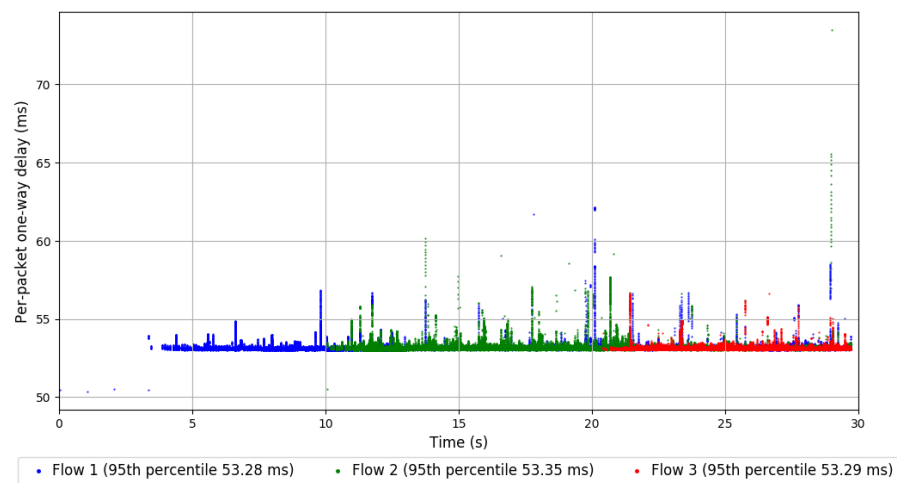
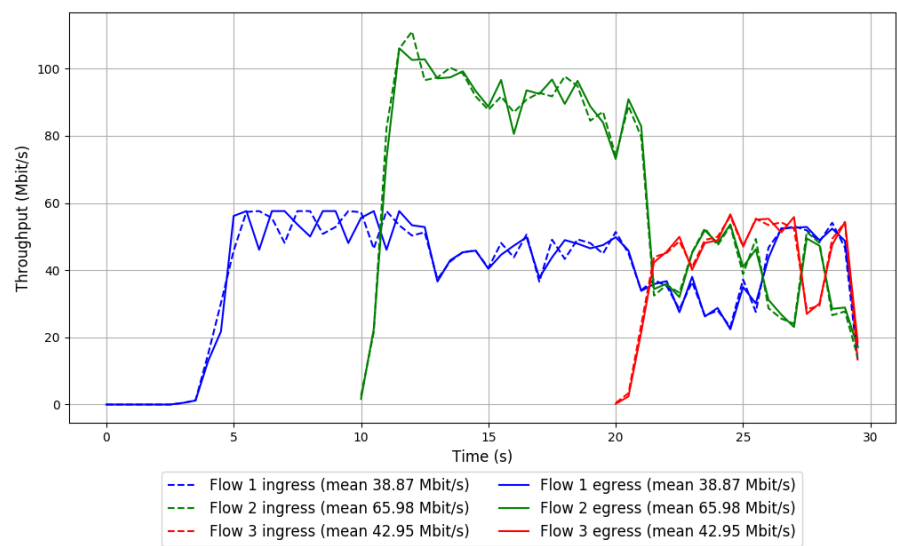
Average throughput: 42.95 Mbit/s

95th percentile per-packet one-way delay: 53.290 ms

Loss rate: 0.00%



Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-08 08:12:53

End at: 2017-09-08 08:13:23

# Below is generated by plot.py at 2017-09-08 10:34:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 93.16 Mbit/s

95th percentile per-packet one-way delay: 53.285 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 39.56 Mbit/s

95th percentile per-packet one-way delay: 53.250 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.96 Mbit/s

95th percentile per-packet one-way delay: 53.319 ms

Loss rate: 0.00%

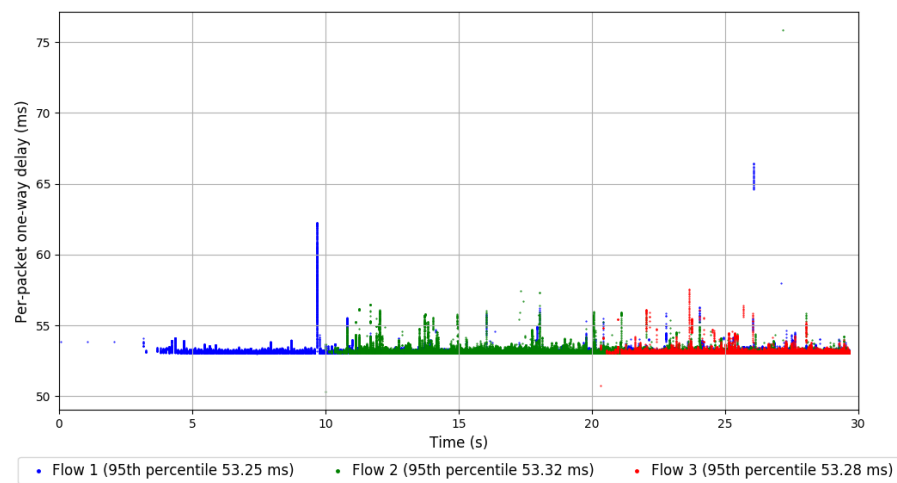
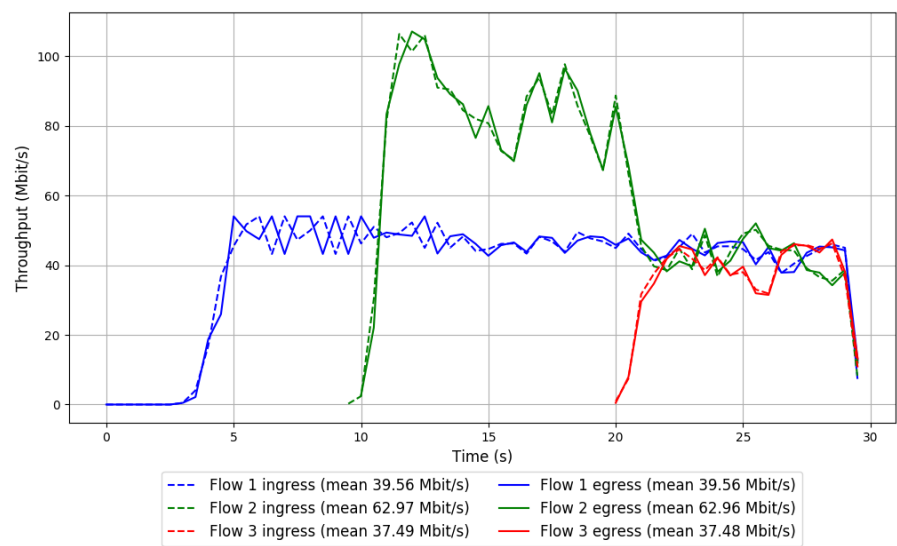
-- Flow 3:

Average throughput: 37.48 Mbit/s

95th percentile per-packet one-way delay: 53.279 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

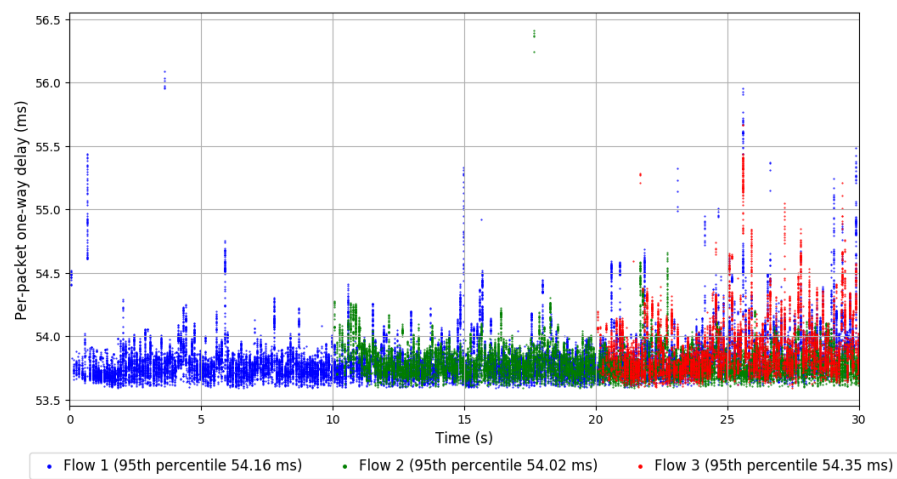
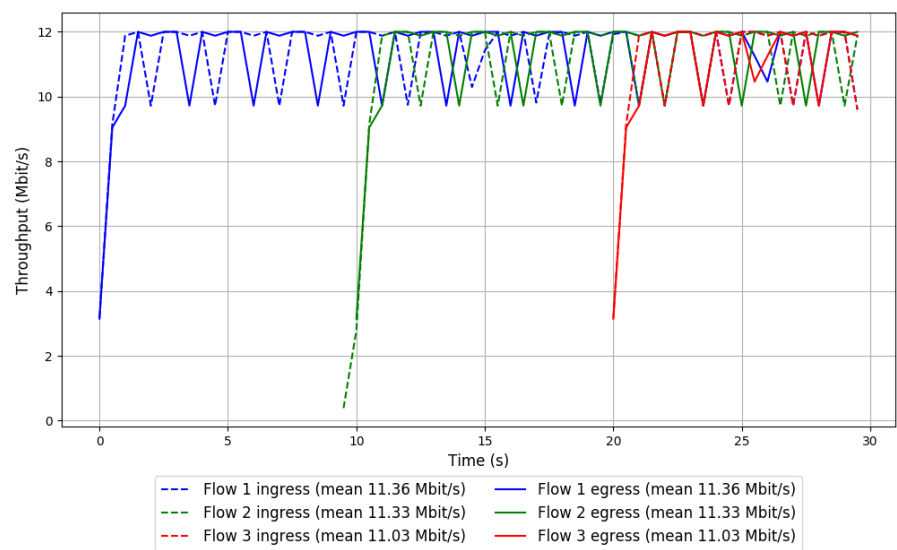


```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 06:20:18
End at: 2017-09-08 06:20:48

# Below is generated by plot.py at 2017-09-08 10:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.55 Mbit/s
95th percentile per-packet one-way delay: 54.171 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.36 Mbit/s
95th percentile per-packet one-way delay: 54.157 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.33 Mbit/s
95th percentile per-packet one-way delay: 54.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.03 Mbit/s
95th percentile per-packet one-way delay: 54.350 ms
Loss rate: 0.00%
```

Run 1: Report of KohoCC — Data Link

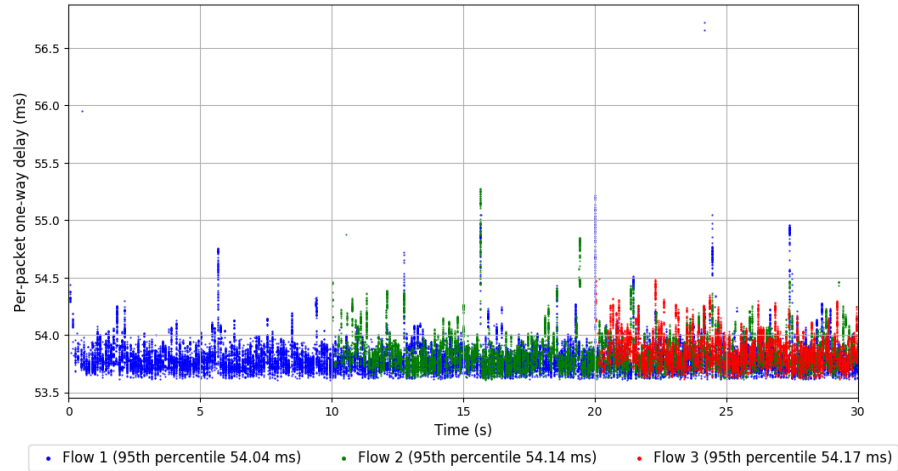
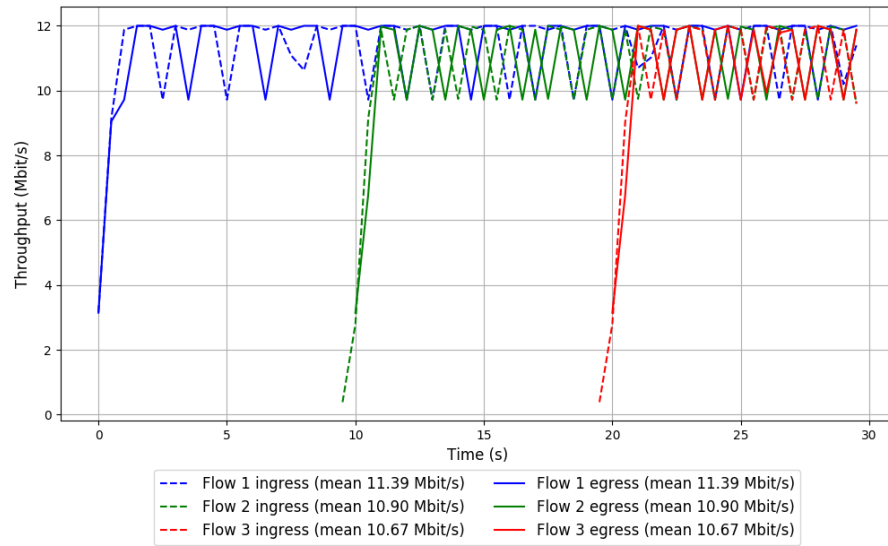


```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 06:32:23
End at: 2017-09-08 06:32:53

# Below is generated by plot.py at 2017-09-08 10:34:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.19 Mbit/s
95th percentile per-packet one-way delay: 54.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 54.037 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 54.138 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.67 Mbit/s
95th percentile per-packet one-way delay: 54.166 ms
Loss rate: 0.00%
```

## Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-08 06:44:11

End at: 2017-09-08 06:44:41

# Below is generated by plot.py at 2017-09-08 10:34:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.87 Mbit/s

95th percentile per-packet one-way delay: 54.098 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 10.97 Mbit/s

95th percentile per-packet one-way delay: 54.095 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.90 Mbit/s

95th percentile per-packet one-way delay: 54.111 ms

Loss rate: 0.00%

-- Flow 3:

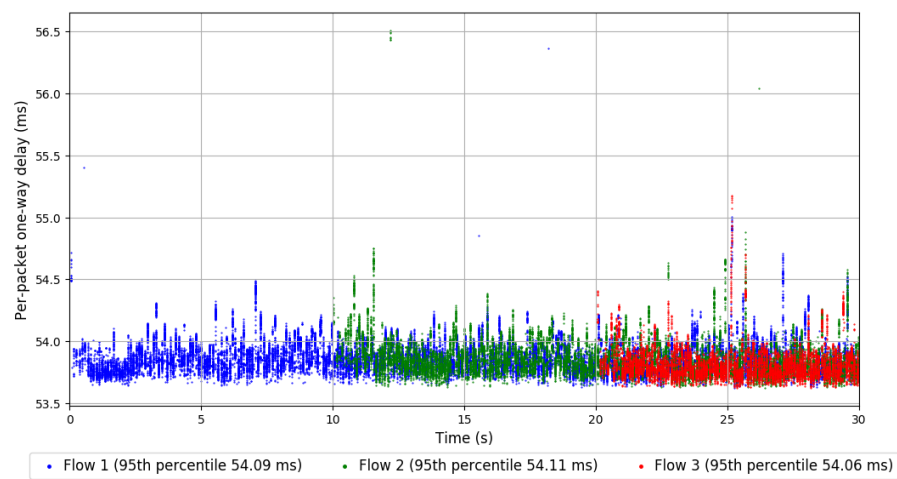
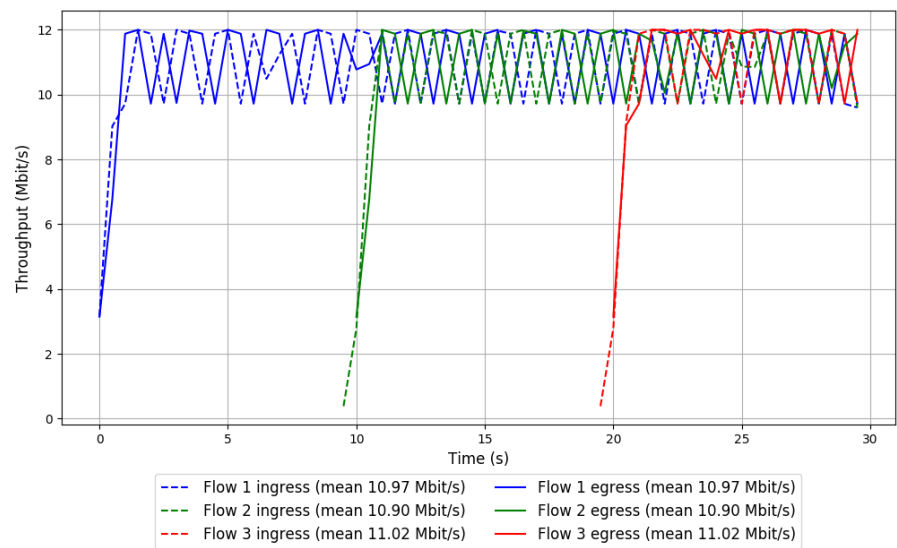
Average throughput: 11.02 Mbit/s

95th percentile per-packet one-way delay: 54.056 ms

Loss rate: 0.00%



Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-09-08 06:56:31

End at: 2017-09-08 06:57:01

# Below is generated by plot.py at 2017-09-08 10:34:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.26 Mbit/s

95th percentile per-packet one-way delay: 53.539 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 53.512 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.98 Mbit/s

95th percentile per-packet one-way delay: 53.495 ms

Loss rate: 0.00%

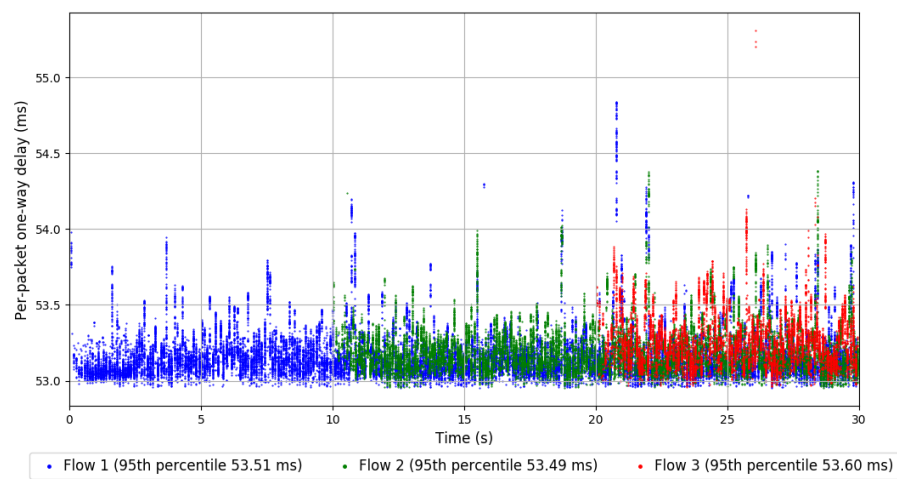
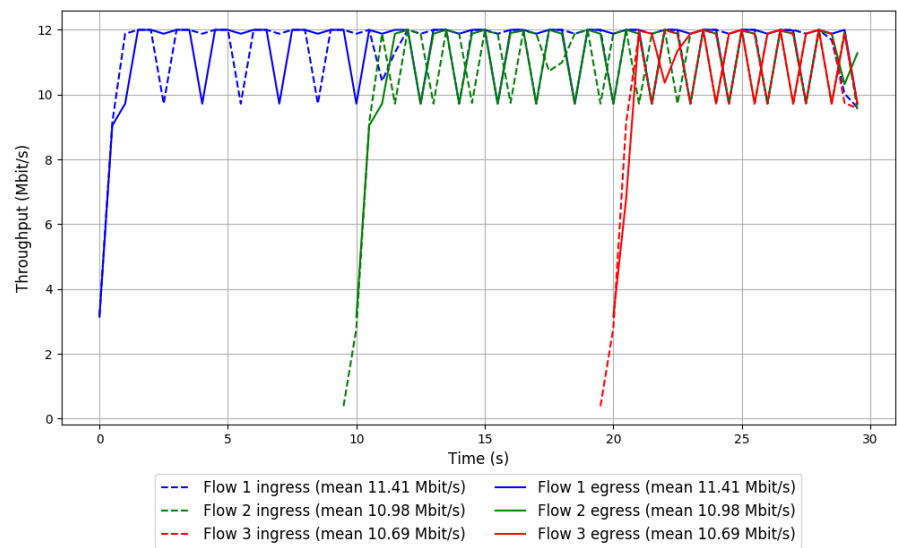
-- Flow 3:

Average throughput: 10.69 Mbit/s

95th percentile per-packet one-way delay: 53.604 ms

Loss rate: 0.00%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-08 07:08:27

End at: 2017-09-08 07:08:57

# Below is generated by plot.py at 2017-09-08 10:34:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.08 Mbit/s

95th percentile per-packet one-way delay: 53.538 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.04 Mbit/s

95th percentile per-packet one-way delay: 53.548 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.02 Mbit/s

95th percentile per-packet one-way delay: 53.503 ms

Loss rate: 0.00%

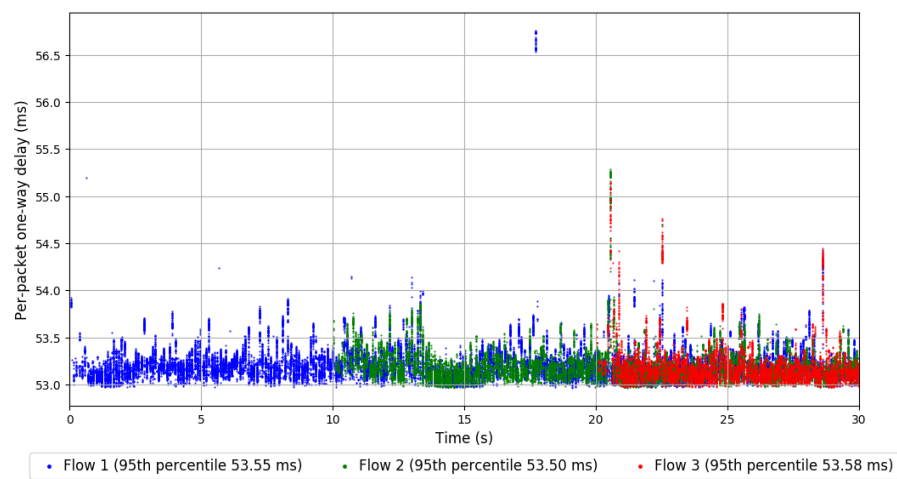
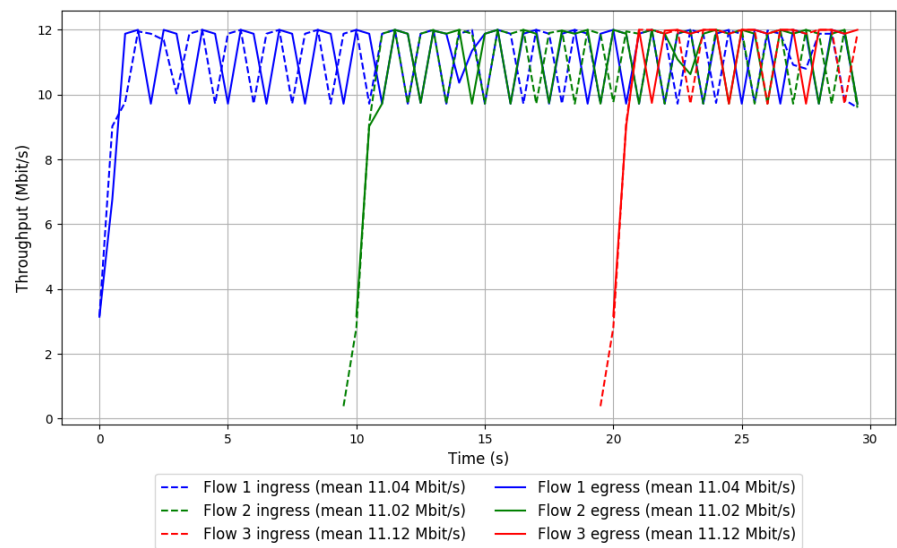
-- Flow 3:

Average throughput: 11.12 Mbit/s

95th percentile per-packet one-way delay: 53.584 ms

Loss rate: 0.00%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-08 07:20:35

End at: 2017-09-08 07:21:05

# Below is generated by plot.py at 2017-09-08 10:34:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.74 Mbit/s

95th percentile per-packet one-way delay: 53.662 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.45 Mbit/s

95th percentile per-packet one-way delay: 53.508 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 53.709 ms

Loss rate: 0.00%

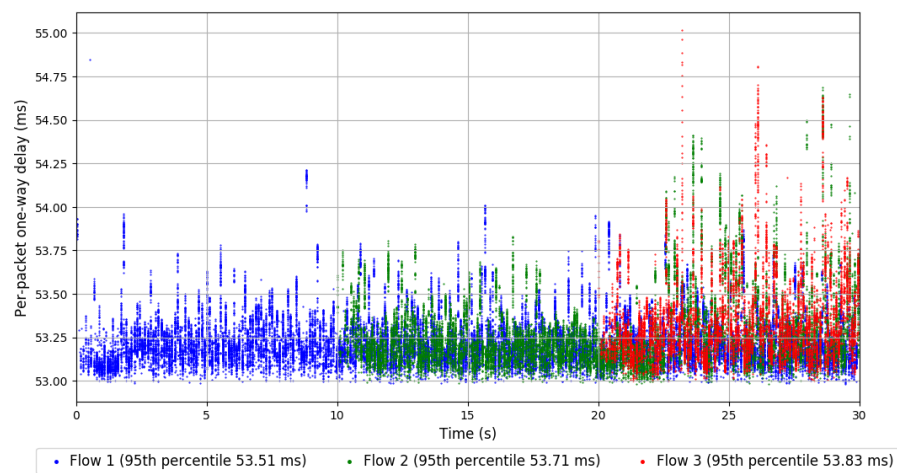
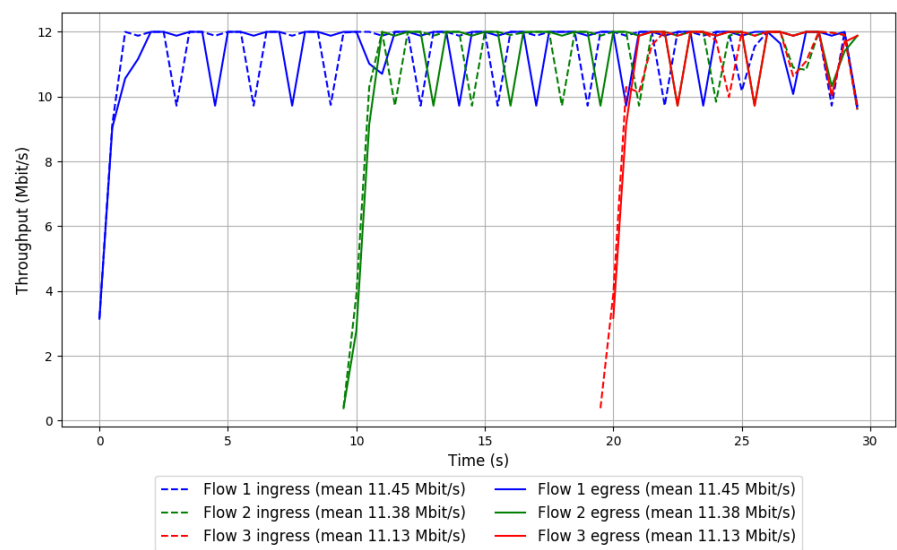
-- Flow 3:

Average throughput: 11.13 Mbit/s

95th percentile per-packet one-way delay: 53.831 ms

Loss rate: 0.00%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-08 07:32:41

End at: 2017-09-08 07:33:11

# Below is generated by plot.py at 2017-09-08 10:34:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.48 Mbit/s

95th percentile per-packet one-way delay: 53.607 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.44 Mbit/s

95th percentile per-packet one-way delay: 53.643 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.03 Mbit/s

95th percentile per-packet one-way delay: 53.516 ms

Loss rate: 0.00%

-- Flow 3:

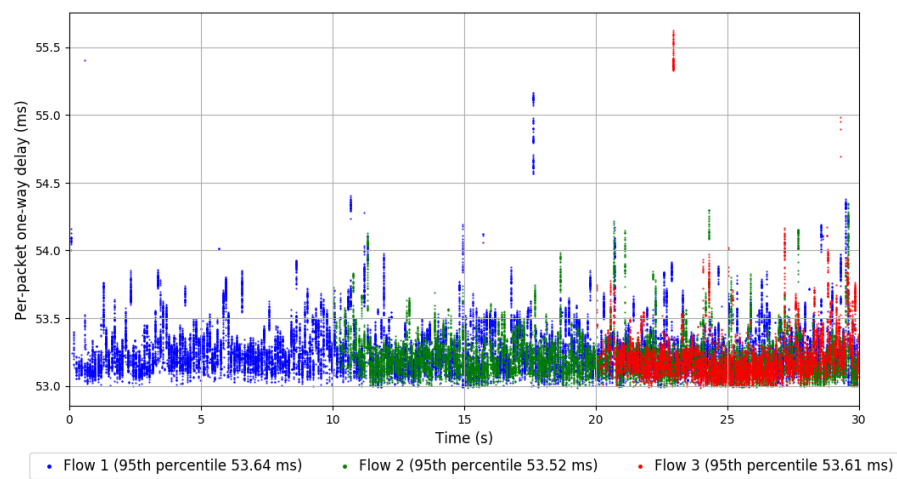
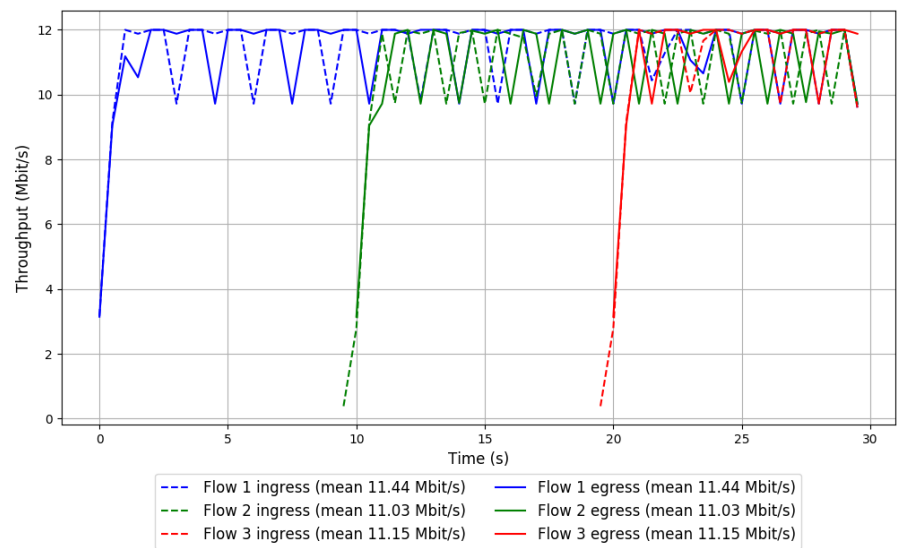
Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 53.612 ms

Loss rate: 0.00%



Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-08 07:44:47

End at: 2017-09-08 07:45:17

# Below is generated by plot.py at 2017-09-08 10:34:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.35 Mbit/s

95th percentile per-packet one-way delay: 53.528 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 53.520 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 53.554 ms

Loss rate: 0.00%

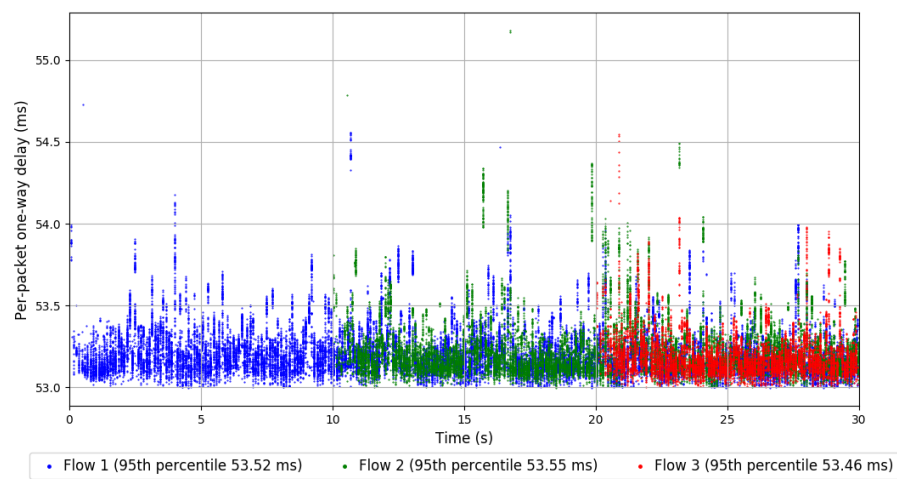
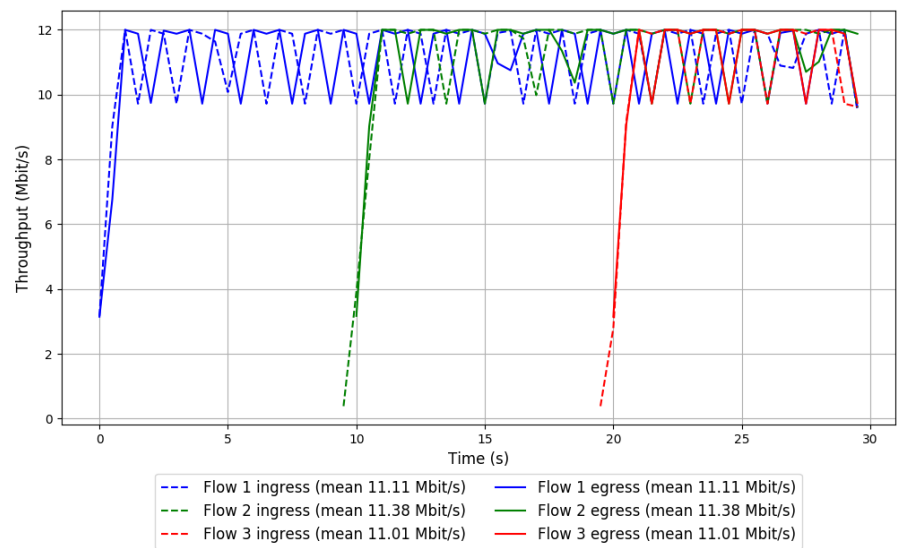
-- Flow 3:

Average throughput: 11.01 Mbit/s

95th percentile per-packet one-way delay: 53.459 ms

Loss rate: 0.00%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-08 07:56:41

End at: 2017-09-08 07:57:11

# Below is generated by plot.py at 2017-09-08 10:34:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.25 Mbit/s

95th percentile per-packet one-way delay: 53.508 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.13 Mbit/s

95th percentile per-packet one-way delay: 53.493 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.33 Mbit/s

95th percentile per-packet one-way delay: 53.545 ms

Loss rate: 0.00%

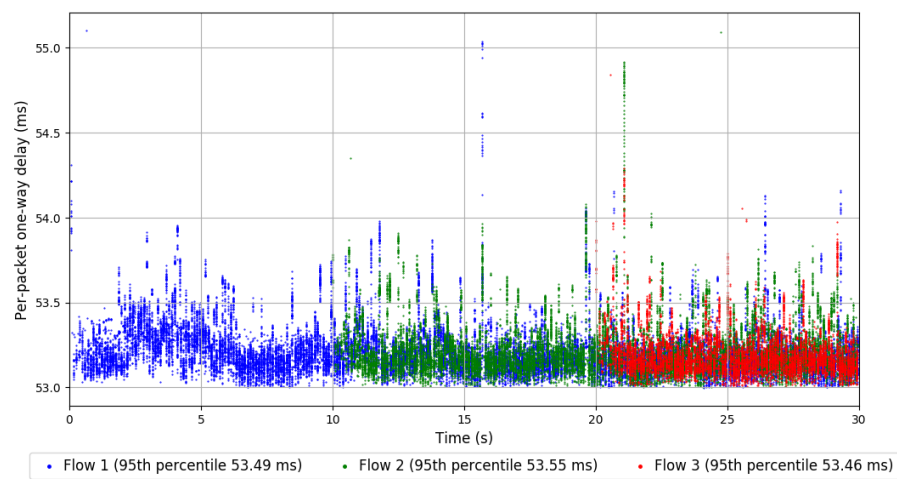
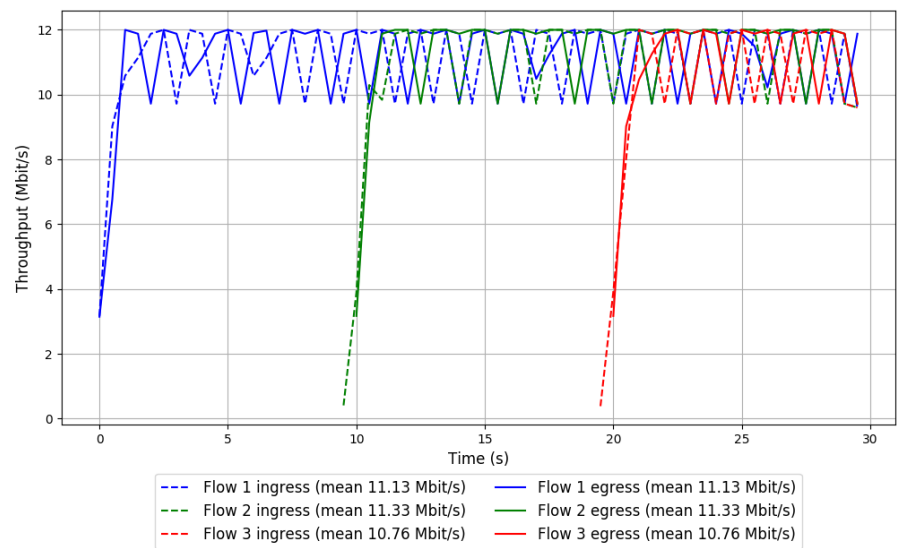
-- Flow 3:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 53.461 ms

Loss rate: 0.00%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-08 08:08:53

End at: 2017-09-08 08:09:23

# Below is generated by plot.py at 2017-09-08 10:34:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.13 Mbit/s

95th percentile per-packet one-way delay: 53.513 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.10 Mbit/s

95th percentile per-packet one-way delay: 53.516 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.98 Mbit/s

95th percentile per-packet one-way delay: 53.517 ms

Loss rate: 0.00%

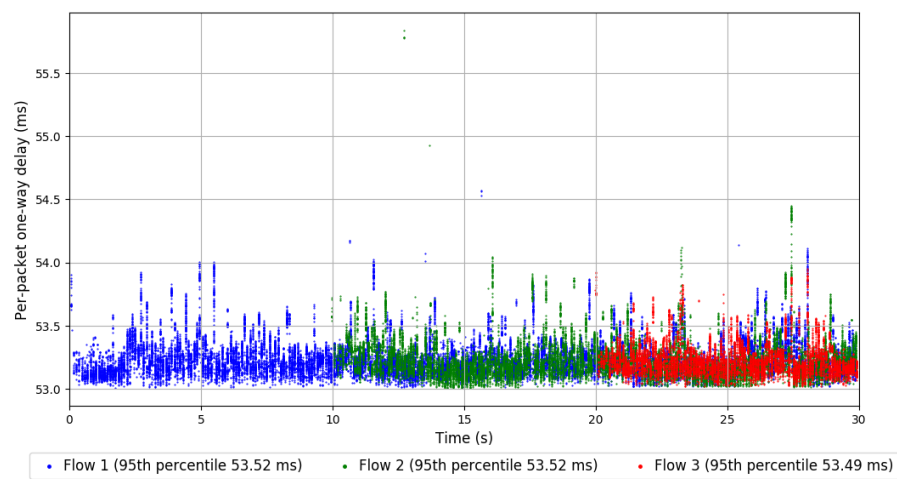
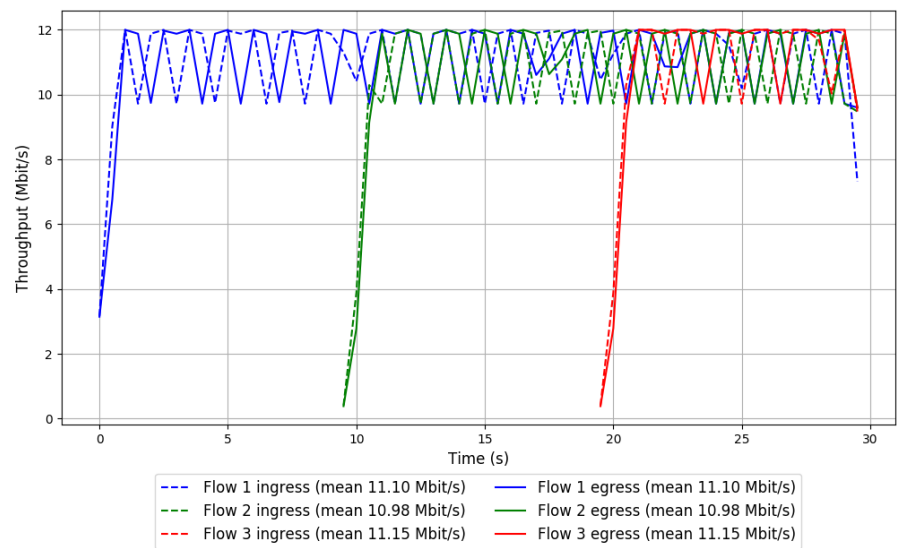
-- Flow 3:

Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 53.490 ms

Loss rate: 0.00%

Run 10: Report of KohoCC — Data Link



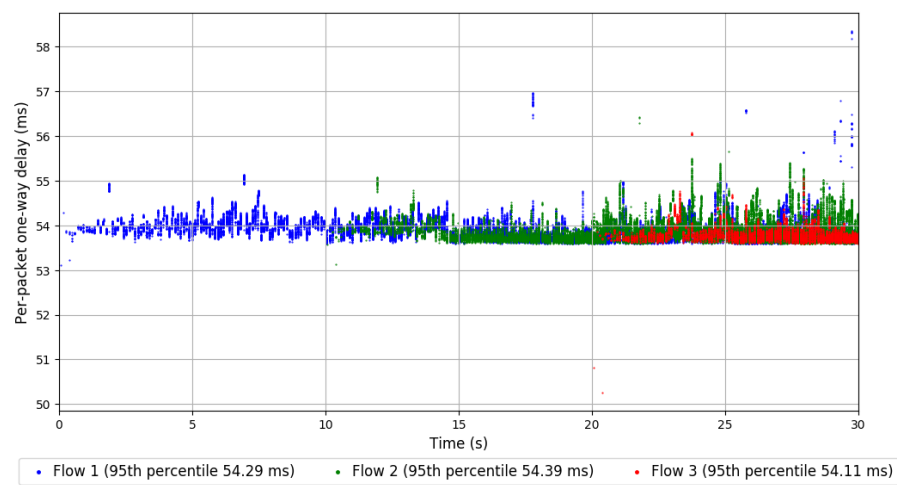
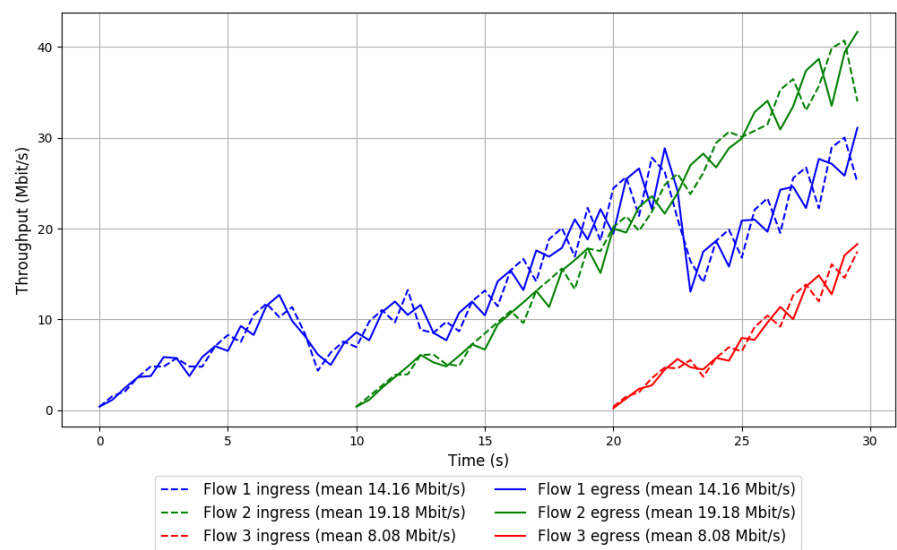
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 06:14:52
End at: 2017-09-08 06:15:22

# Below is generated by plot.py at 2017-09-08 10:34:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 29.59 Mbit/s
95th percentile per-packet one-way delay: 54.316 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.16 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.18 Mbit/s
95th percentile per-packet one-way delay: 54.387 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.08 Mbit/s
95th percentile per-packet one-way delay: 54.113 ms
Loss rate: 0.00%
```



Run 1: Report of LEDBAT — Data Link

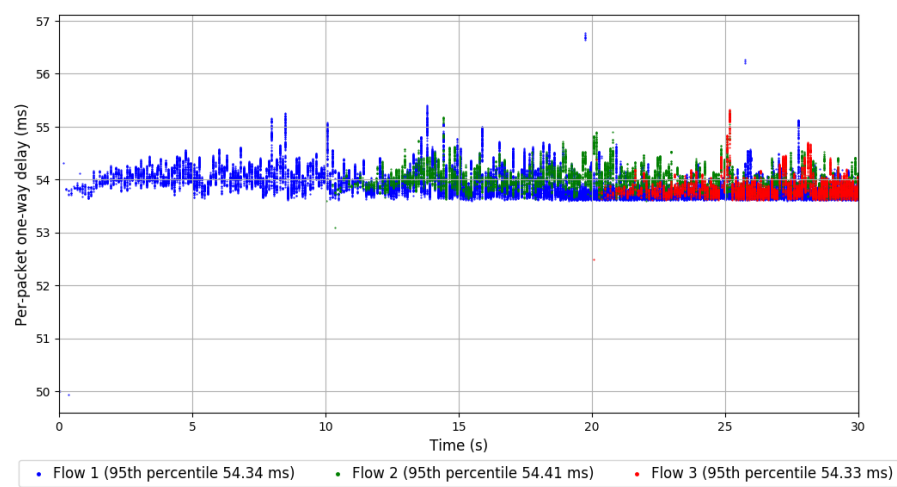
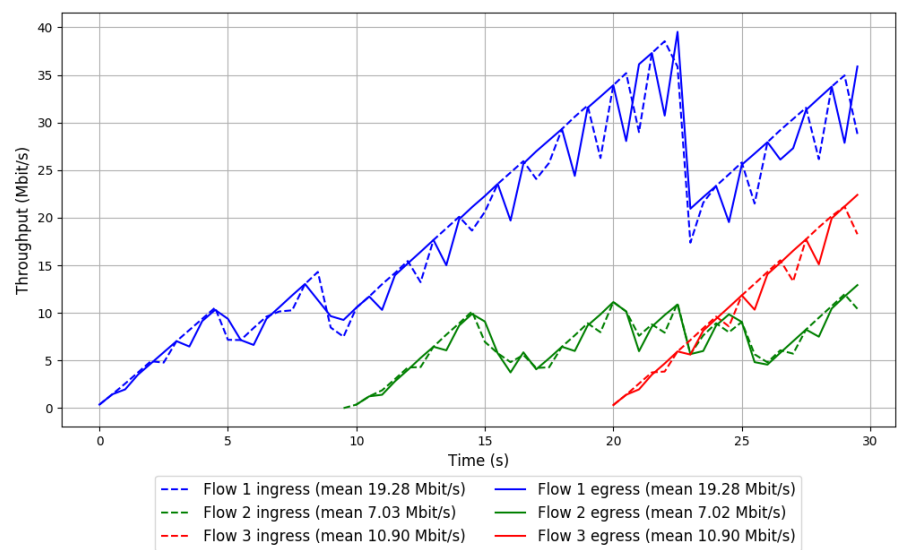


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-08 06:26:50
End at: 2017-09-08 06:27:20

# Below is generated by plot.py at 2017-09-08 10:34:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 27.54 Mbit/s
95th percentile per-packet one-way delay: 54.361 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 19.28 Mbit/s
95th percentile per-packet one-way delay: 54.345 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.02 Mbit/s
95th percentile per-packet one-way delay: 54.415 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 54.334 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-08 06:38:41

End at: 2017-09-08 06:39:11

# Below is generated by plot.py at 2017-09-08 10:34:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 28.92 Mbit/s

95th percentile per-packet one-way delay: 54.364 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.56 Mbit/s

95th percentile per-packet one-way delay: 54.464 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 16.64 Mbit/s

95th percentile per-packet one-way delay: 54.033 ms

Loss rate: 0.00%

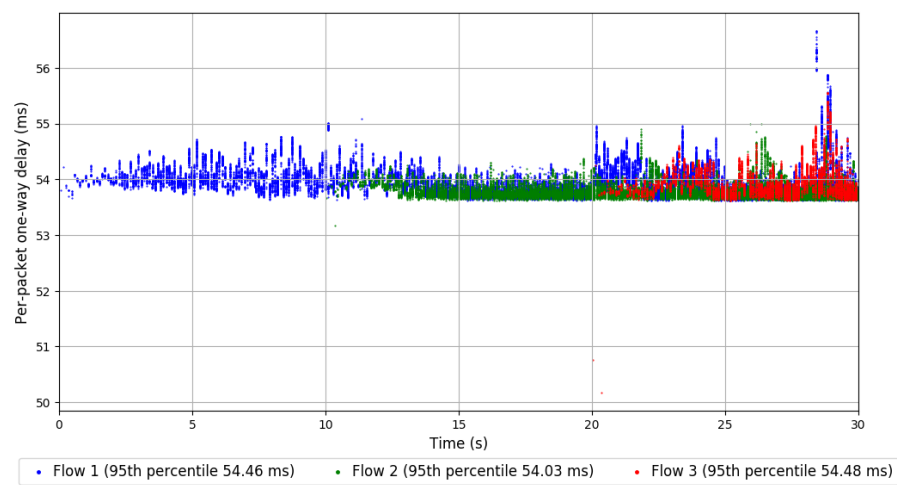
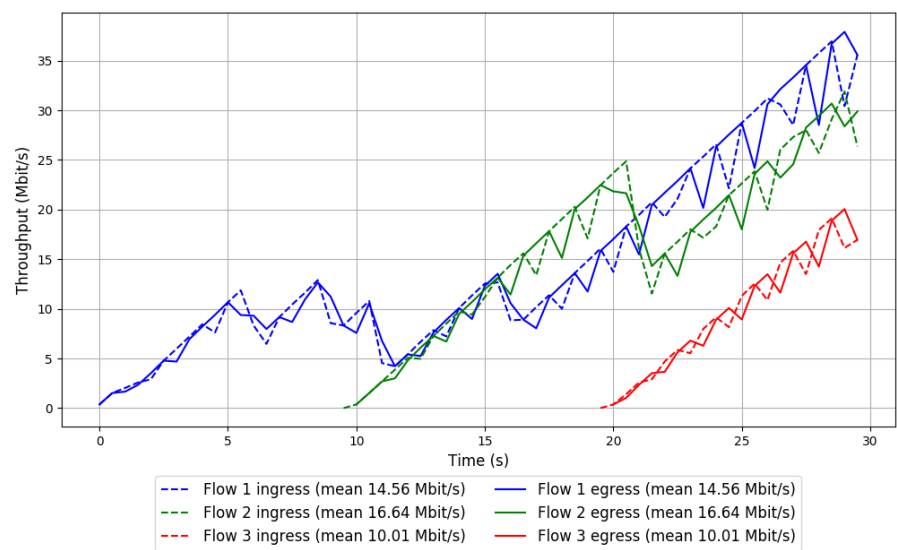
-- Flow 3:

Average throughput: 10.01 Mbit/s

95th percentile per-packet one-way delay: 54.482 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-08 06:50:57

End at: 2017-09-08 06:51:27

# Below is generated by plot.py at 2017-09-08 10:34:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.26 Mbit/s

95th percentile per-packet one-way delay: 54.472 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 19.55 Mbit/s

95th percentile per-packet one-way delay: 54.325 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.36 Mbit/s

95th percentile per-packet one-way delay: 54.635 ms

Loss rate: 0.00%

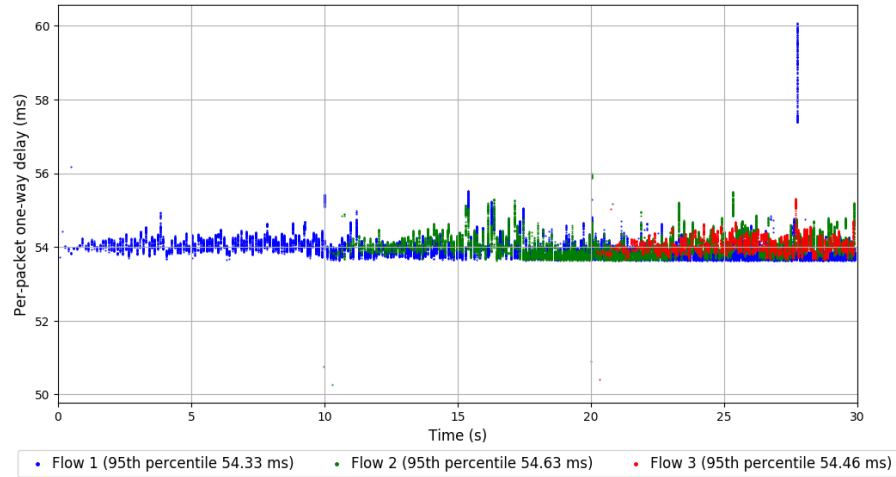
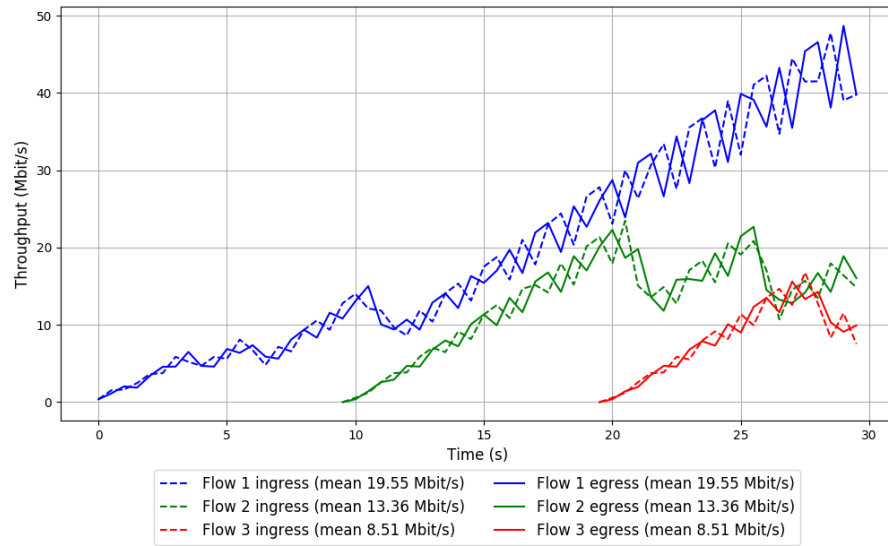
-- Flow 3:

Average throughput: 8.51 Mbit/s

95th percentile per-packet one-way delay: 54.464 ms

Loss rate: 0.00%

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



Run 5: Statistics of LEDBAT

Start at: 2017-09-08 07:02:53

End at: 2017-09-08 07:03:23

# Below is generated by plot.py at 2017-09-08 10:34:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.04 Mbit/s

95th percentile per-packet one-way delay: 53.860 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 5.84 Mbit/s

95th percentile per-packet one-way delay: 53.883 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.79 Mbit/s

95th percentile per-packet one-way delay: 53.868 ms

Loss rate: 0.00%

-- Flow 3:

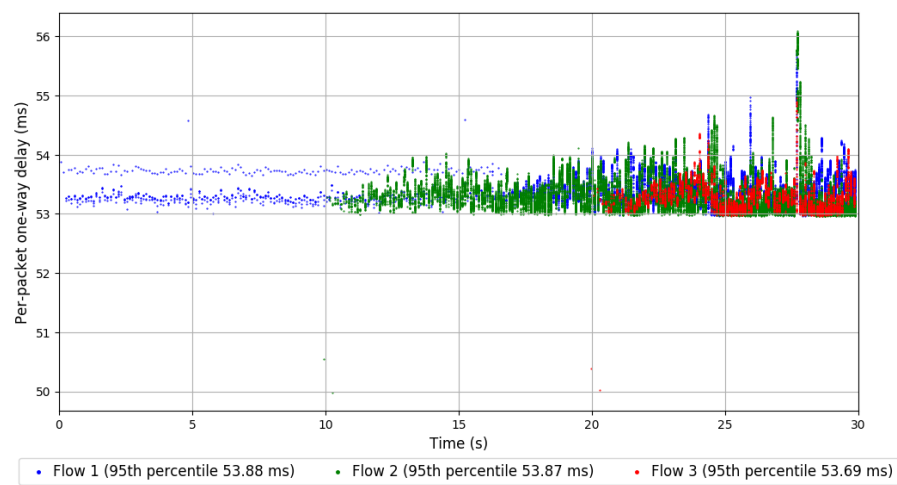
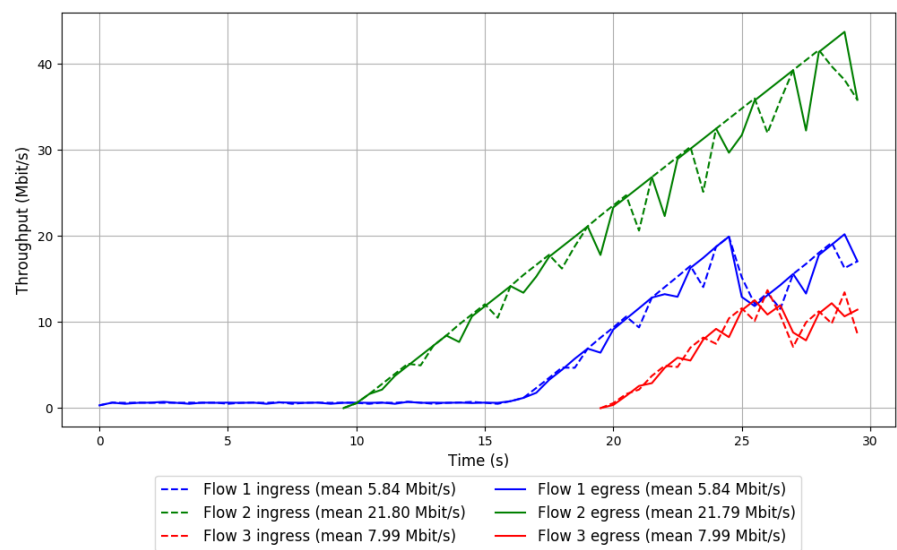
Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 53.691 ms

Loss rate: 0.00%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-08 07:15:04

End at: 2017-09-08 07:15:34

# Below is generated by plot.py at 2017-09-08 10:34:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.53 Mbit/s

95th percentile per-packet one-way delay: 53.887 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 23.55 Mbit/s

95th percentile per-packet one-way delay: 53.900 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.93 Mbit/s

95th percentile per-packet one-way delay: 53.894 ms

Loss rate: 0.03%

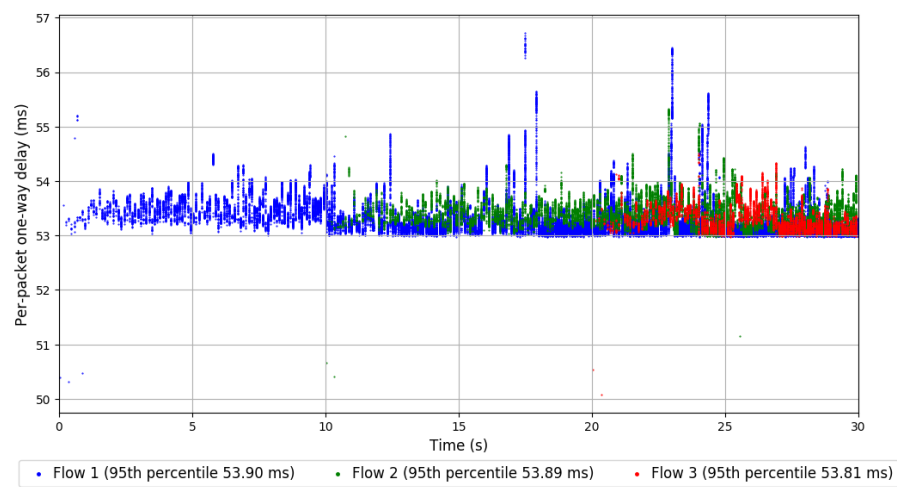
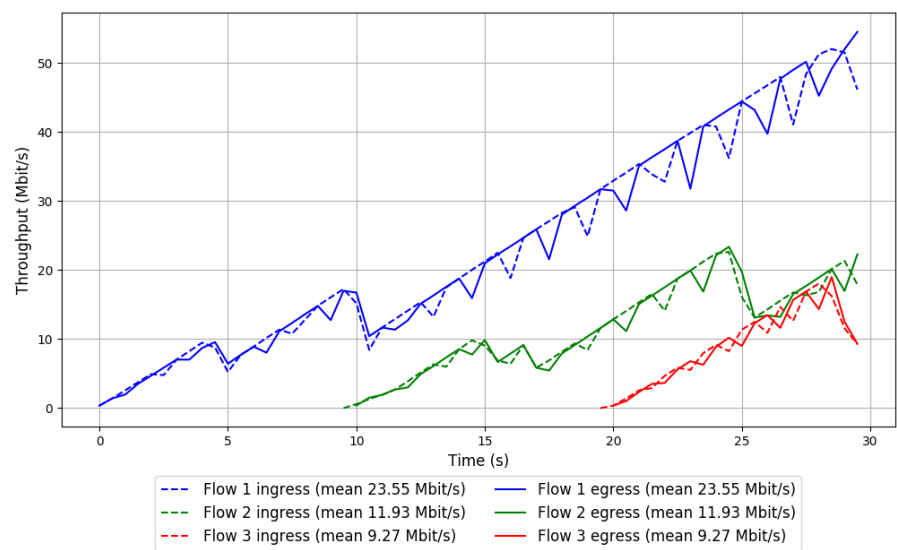
-- Flow 3:

Average throughput: 9.27 Mbit/s

95th percentile per-packet one-way delay: 53.808 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-08 07:27:10

End at: 2017-09-08 07:27:40

# Below is generated by plot.py at 2017-09-08 10:35:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 31.09 Mbit/s

95th percentile per-packet one-way delay: 53.897 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 19.35 Mbit/s

95th percentile per-packet one-way delay: 53.826 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.99 Mbit/s

95th percentile per-packet one-way delay: 53.966 ms

Loss rate: 0.00%

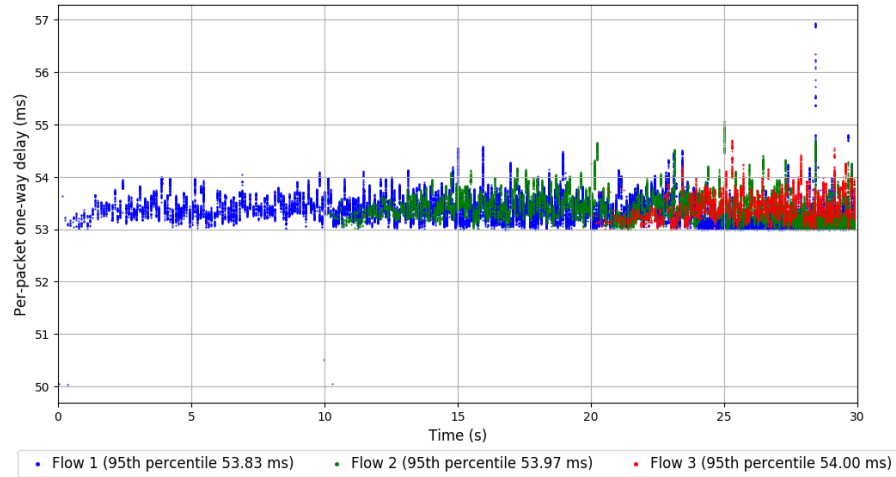
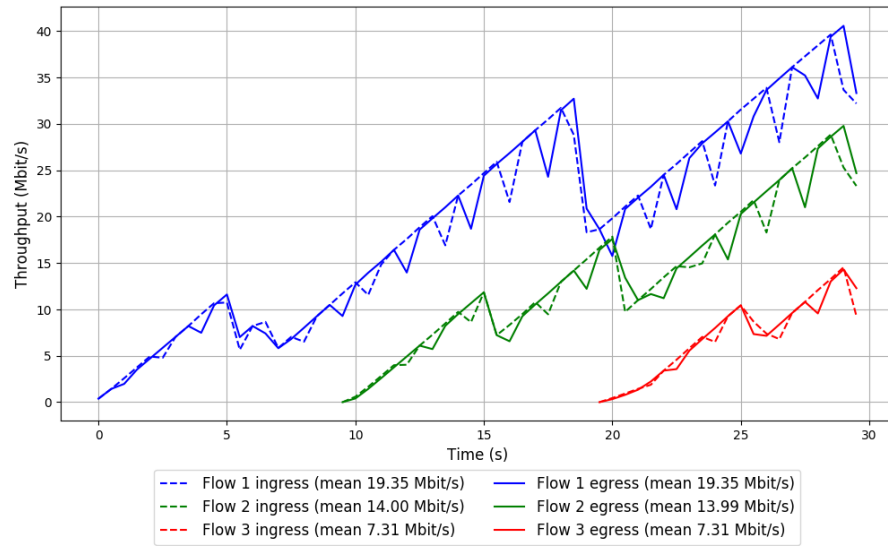
-- Flow 3:

Average throughput: 7.31 Mbit/s

95th percentile per-packet one-way delay: 53.999 ms

Loss rate: 0.00%

## Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-08 07:39:17

End at: 2017-09-08 07:39:47

# Below is generated by plot.py at 2017-09-08 10:35:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 30.49 Mbit/s

95th percentile per-packet one-way delay: 53.822 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.55 Mbit/s

95th percentile per-packet one-way delay: 53.911 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.56 Mbit/s

95th percentile per-packet one-way delay: 53.661 ms

Loss rate: 0.00%

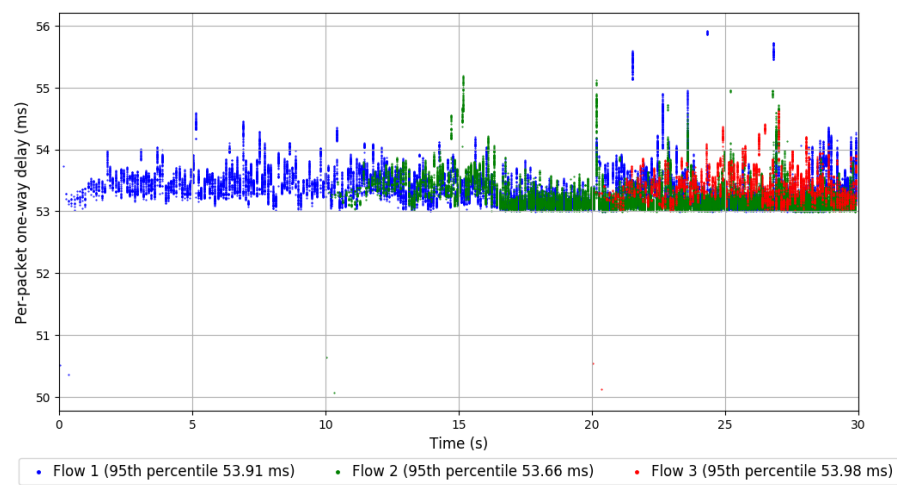
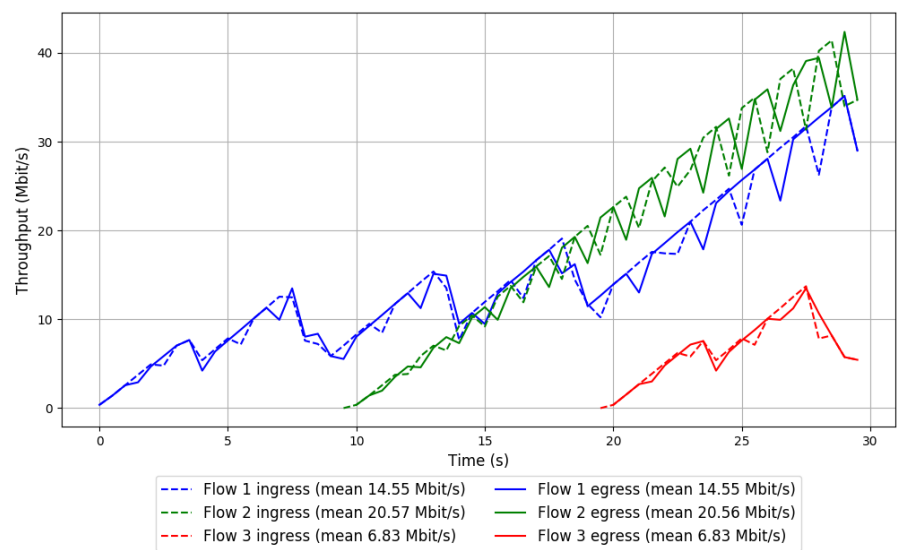
-- Flow 3:

Average throughput: 6.83 Mbit/s

95th percentile per-packet one-way delay: 53.976 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-08 07:51:10

End at: 2017-09-08 07:51:40

# Below is generated by plot.py at 2017-09-08 10:35:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 28.85 Mbit/s

95th percentile per-packet one-way delay: 53.911 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 17.19 Mbit/s

95th percentile per-packet one-way delay: 53.960 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 13.81 Mbit/s

95th percentile per-packet one-way delay: 53.856 ms

Loss rate: 0.00%

-- Flow 3:

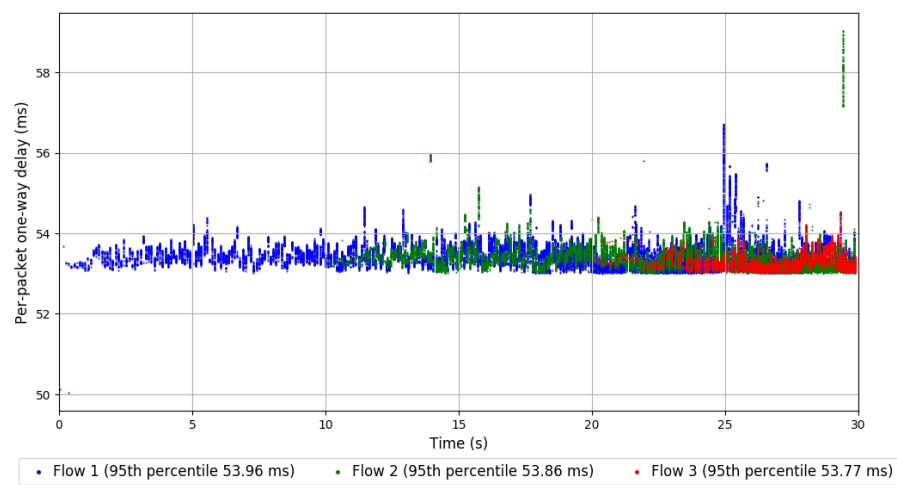
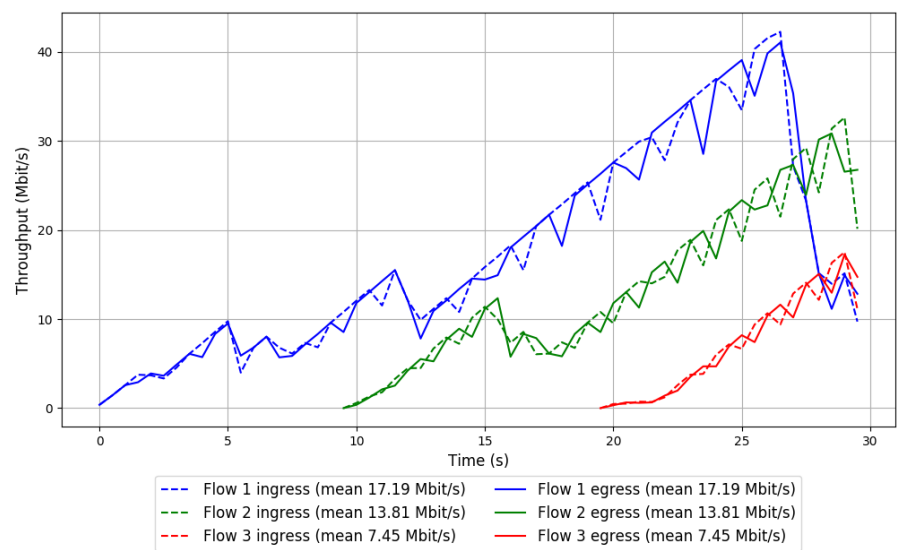
Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 53.769 ms

Loss rate: 0.00%



Run 9: Report of LEDBAT — Data Link

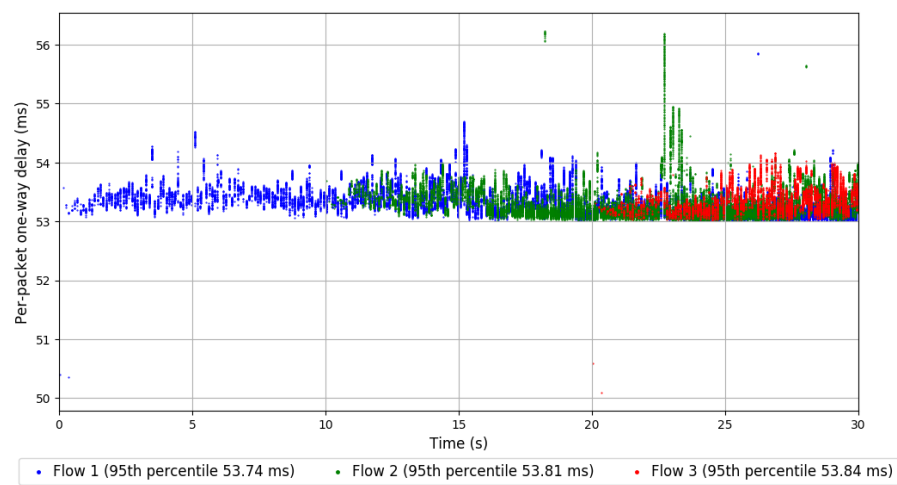
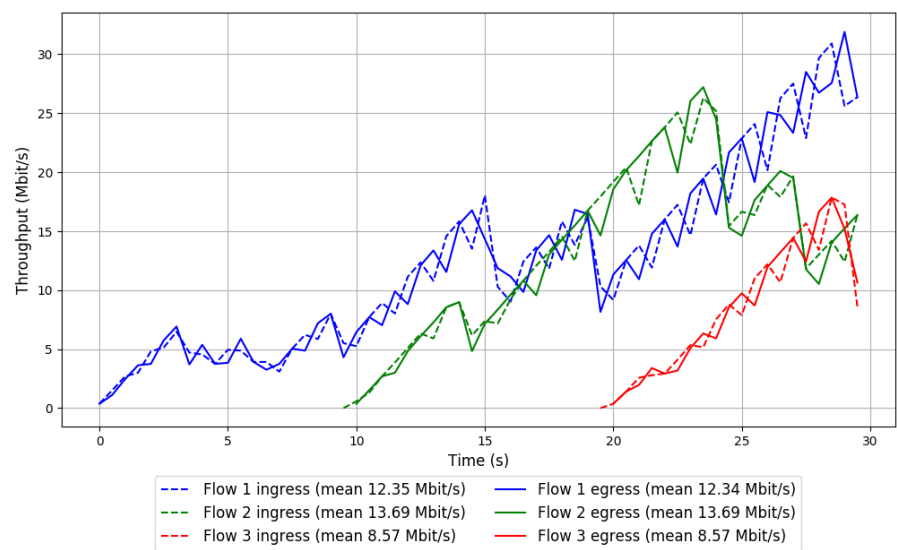


```
Run 10: Statistics of LEDBAT

Start at: 2017-09-08 08:03:23
End at: 2017-09-08 08:03:53

# Below is generated by plot.py at 2017-09-08 10:35:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.28 Mbit/s
95th percentile per-packet one-way delay: 53.791 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 12.34 Mbit/s
95th percentile per-packet one-way delay: 53.745 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 13.69 Mbit/s
95th percentile per-packet one-way delay: 53.812 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 53.844 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

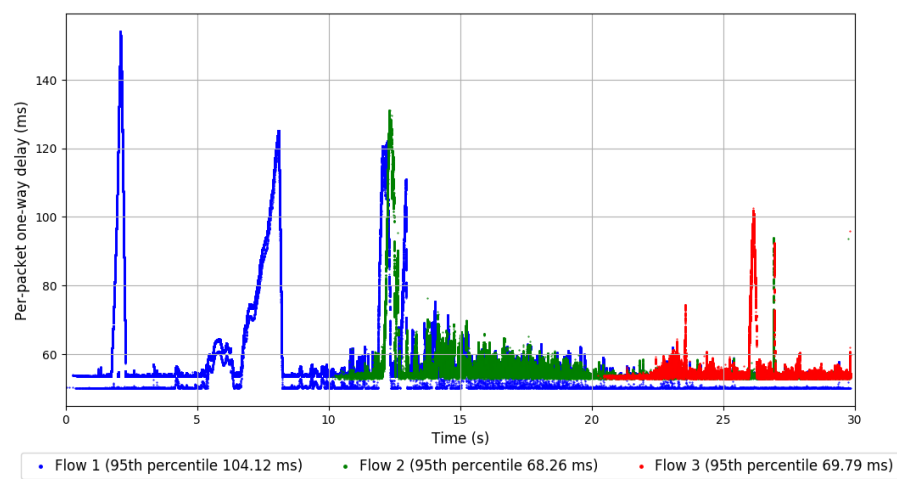
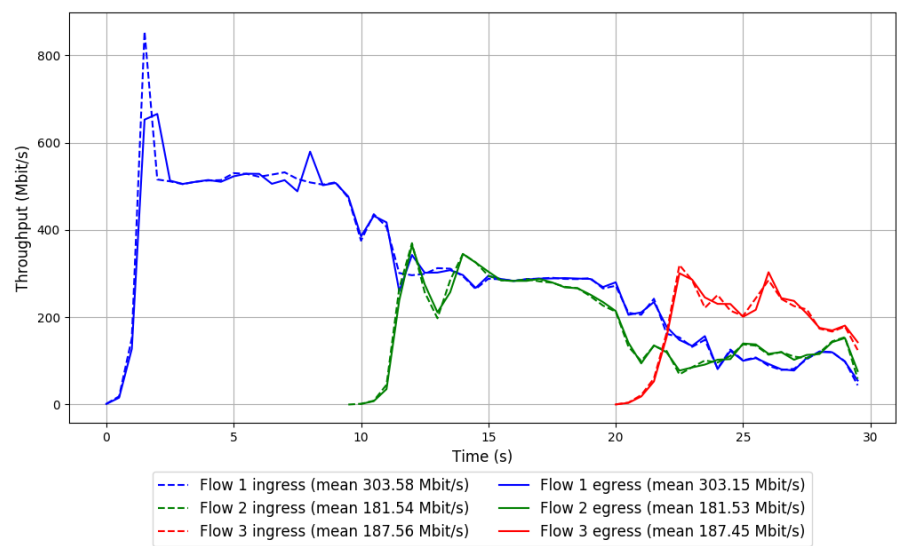


```
Run 1: Statistics of PCC

Start at: 2017-09-08 06:18:38
End at: 2017-09-08 06:19:08

# Below is generated by plot.py at 2017-09-08 10:36:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 484.19 Mbit/s
95th percentile per-packet one-way delay: 95.141 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 303.15 Mbit/s
95th percentile per-packet one-way delay: 104.118 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 181.53 Mbit/s
95th percentile per-packet one-way delay: 68.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 187.45 Mbit/s
95th percentile per-packet one-way delay: 69.789 ms
Loss rate: 0.00%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-09-08 06:30:42

End at: 2017-09-08 06:31:12

# Below is generated by plot.py at 2017-09-08 10:36:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 500.09 Mbit/s

95th percentile per-packet one-way delay: 124.453 ms

Loss rate: 2.97%

-- Flow 1:

Average throughput: 326.73 Mbit/s

95th percentile per-packet one-way delay: 157.880 ms

Loss rate: 4.47%

-- Flow 2:

Average throughput: 181.73 Mbit/s

95th percentile per-packet one-way delay: 65.445 ms

Loss rate: 0.00%

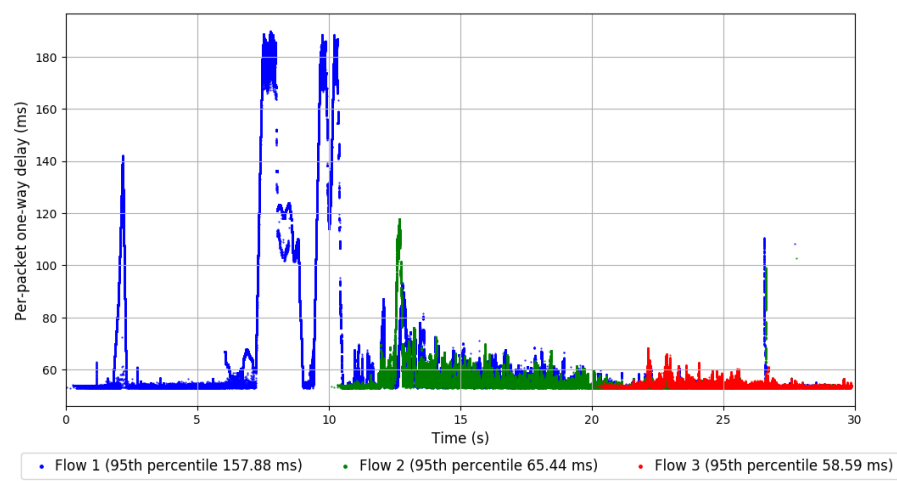
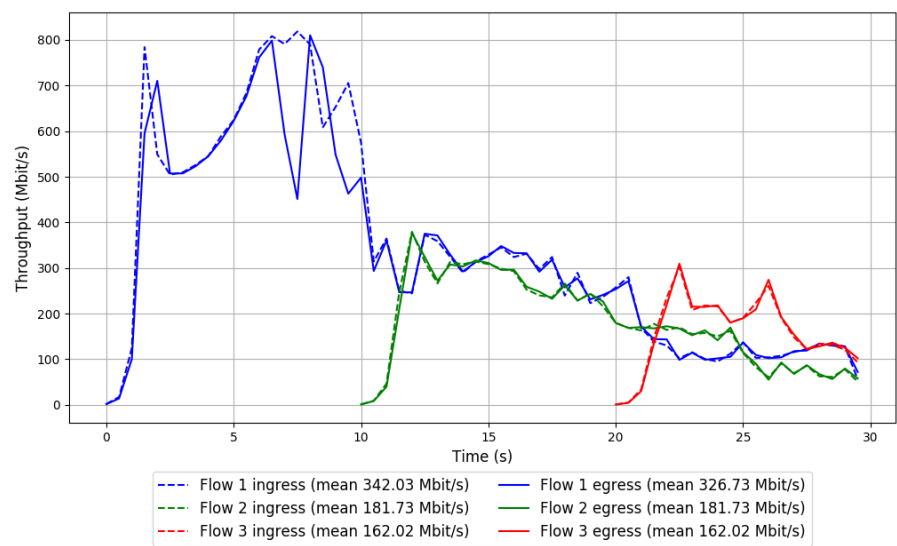
-- Flow 3:

Average throughput: 162.02 Mbit/s

95th percentile per-packet one-way delay: 58.588 ms

Loss rate: 0.00%

Run 2: Report of PCC — Data Link



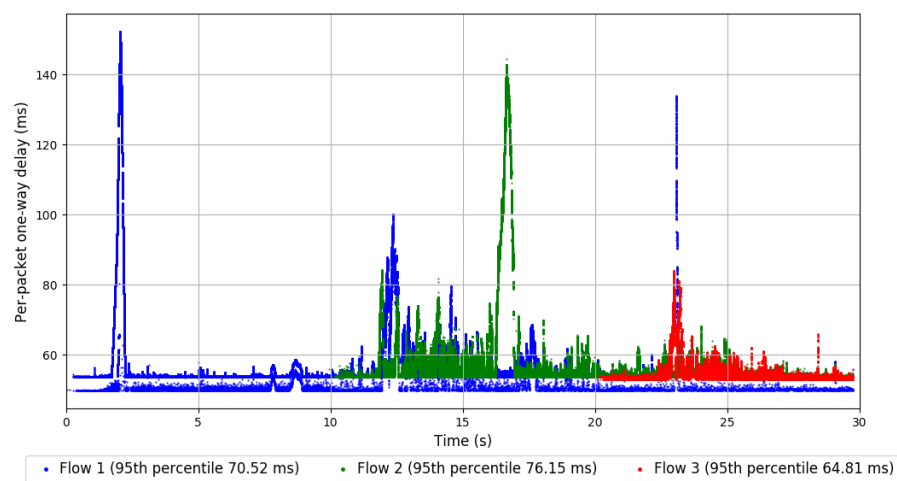
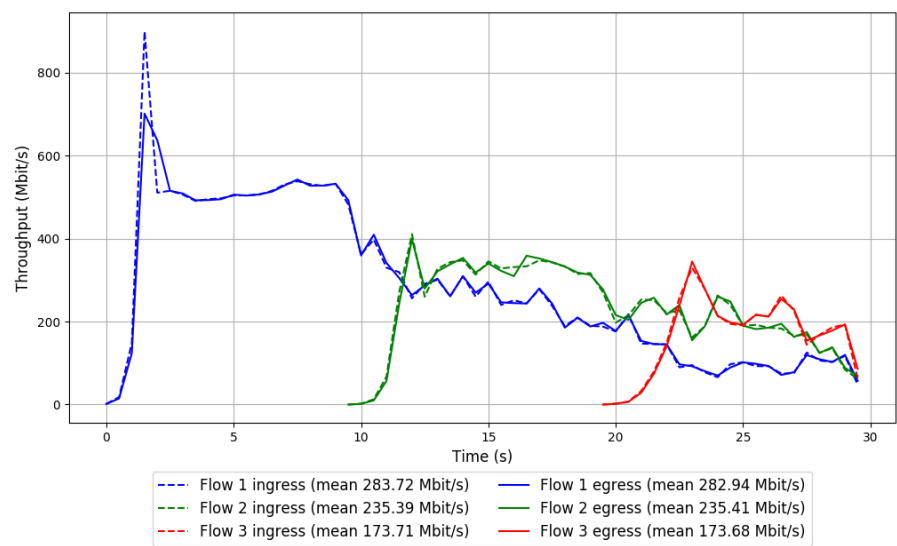
```
Run 3: Statistics of PCC

Start at: 2017-09-08 06:42:32
End at: 2017-09-08 06:43:02

# Below is generated by plot.py at 2017-09-08 10:38:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 497.23 Mbit/s
95th percentile per-packet one-way delay: 71.570 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 282.94 Mbit/s
95th percentile per-packet one-way delay: 70.520 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 235.41 Mbit/s
95th percentile per-packet one-way delay: 76.152 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 173.68 Mbit/s
95th percentile per-packet one-way delay: 64.808 ms
Loss rate: 0.01%
```



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-08 06:54:53

End at: 2017-09-08 06:55:23

# Below is generated by plot.py at 2017-09-08 10:38:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 477.16 Mbit/s

95th percentile per-packet one-way delay: 66.149 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 321.34 Mbit/s

95th percentile per-packet one-way delay: 72.255 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 172.73 Mbit/s

95th percentile per-packet one-way delay: 61.974 ms

Loss rate: 0.00%

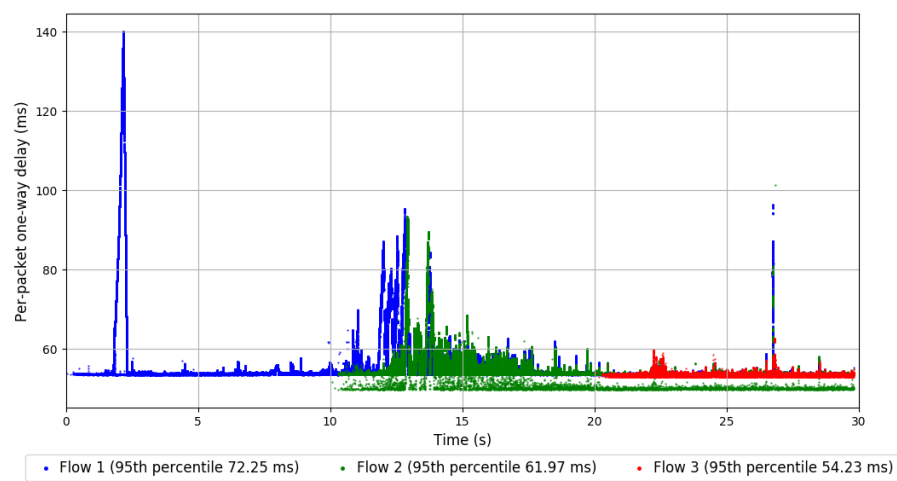
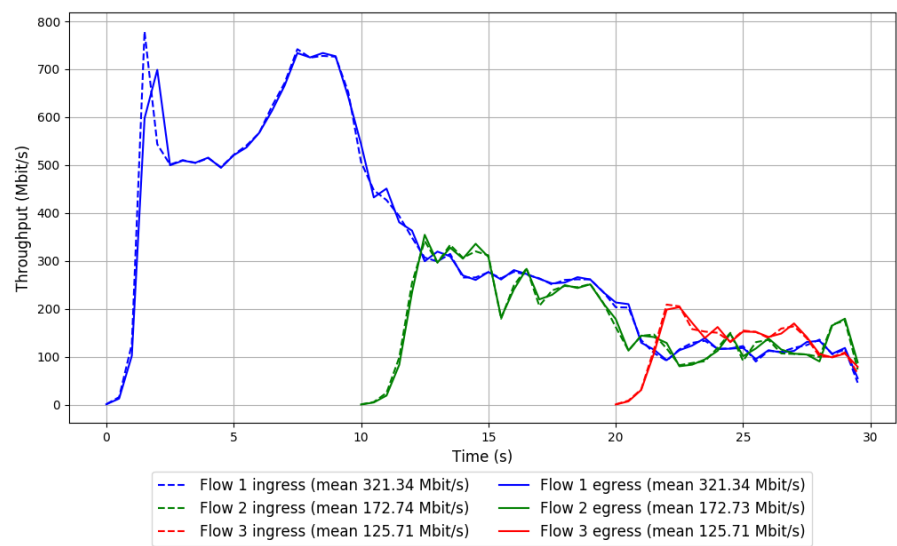
-- Flow 3:

Average throughput: 125.71 Mbit/s

95th percentile per-packet one-way delay: 54.226 ms

Loss rate: 0.00%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-08 07:06:49

End at: 2017-09-08 07:07:19

# Below is generated by plot.py at 2017-09-08 10:39:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 479.25 Mbit/s

95th percentile per-packet one-way delay: 148.056 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 290.57 Mbit/s

95th percentile per-packet one-way delay: 149.977 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 181.87 Mbit/s

95th percentile per-packet one-way delay: 56.164 ms

Loss rate: 0.00%

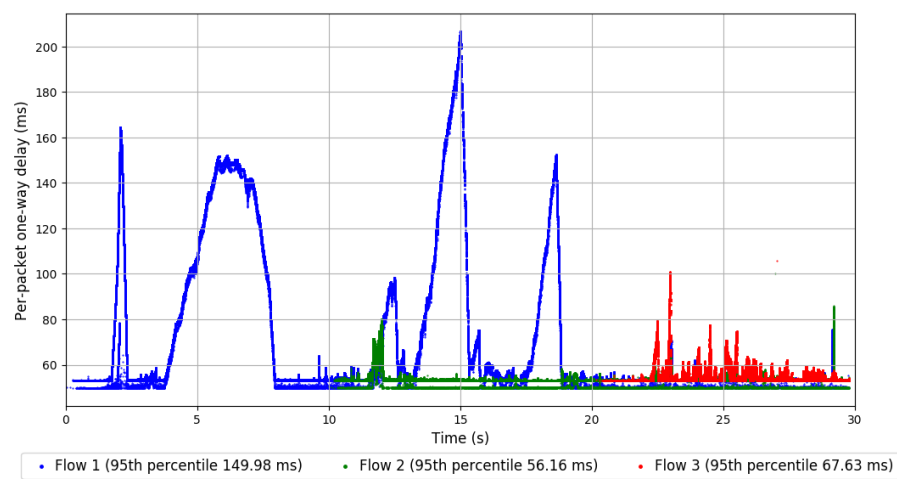
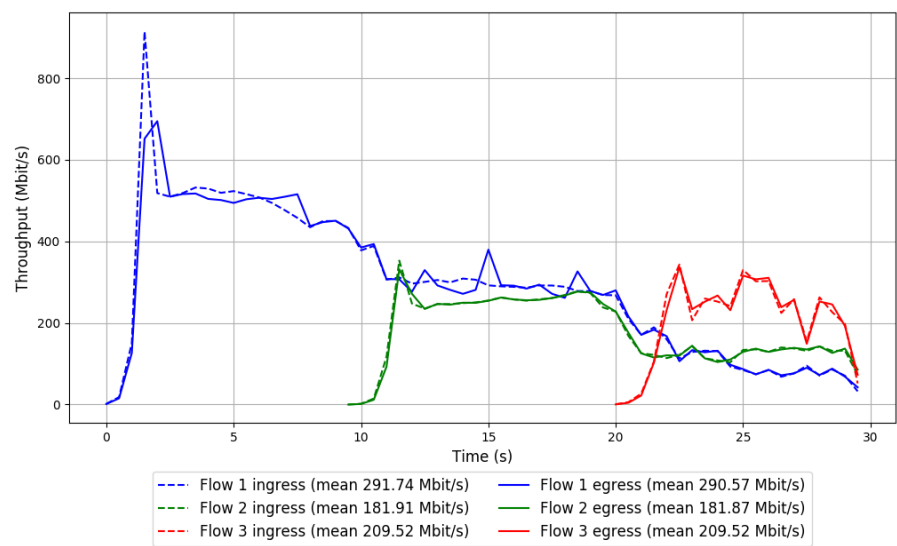
-- Flow 3:

Average throughput: 209.52 Mbit/s

95th percentile per-packet one-way delay: 67.634 ms

Loss rate: 0.00%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-08 07:18:59

End at: 2017-09-08 07:19:29

# Below is generated by plot.py at 2017-09-08 10:39:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 417.94 Mbit/s

95th percentile per-packet one-way delay: 153.699 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 275.28 Mbit/s

95th percentile per-packet one-way delay: 155.424 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 122.78 Mbit/s

95th percentile per-packet one-way delay: 56.174 ms

Loss rate: 0.01%

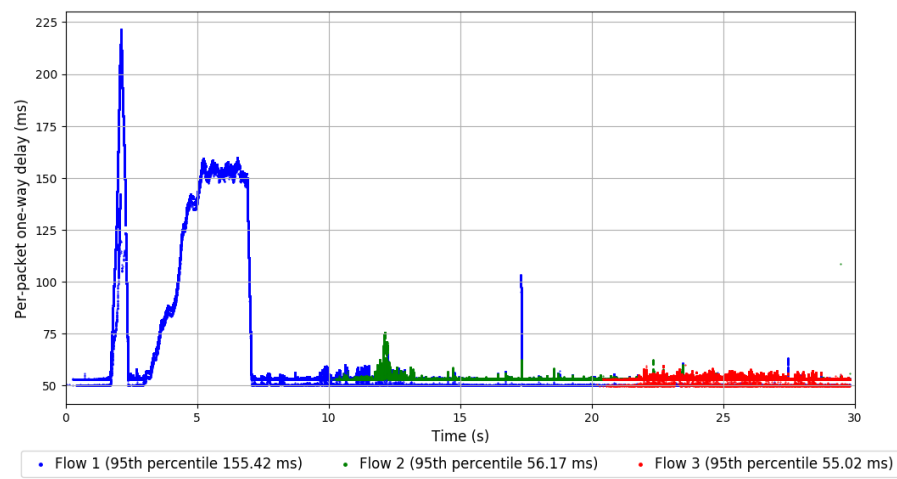
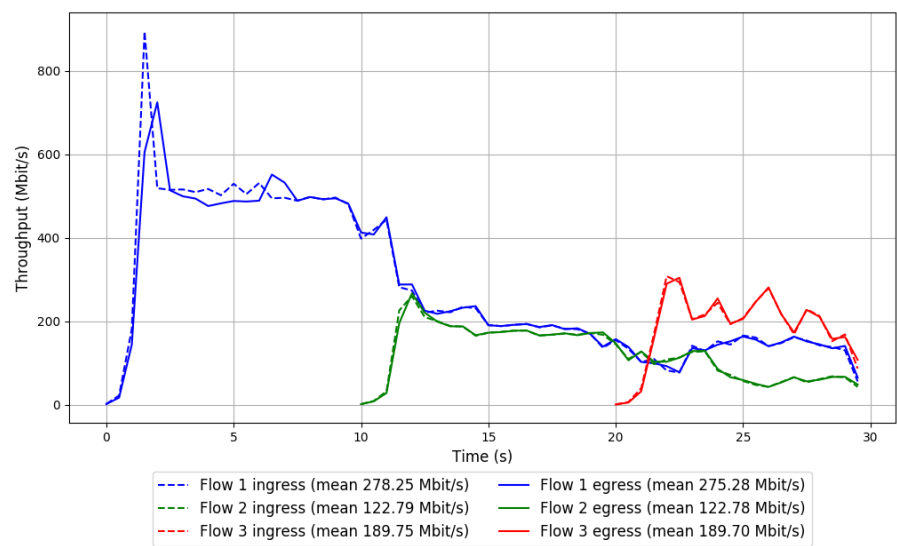
-- Flow 3:

Average throughput: 189.70 Mbit/s

95th percentile per-packet one-way delay: 55.019 ms

Loss rate: 0.00%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-08 07:31:05

End at: 2017-09-08 07:31:35

# Below is generated by plot.py at 2017-09-08 10:41:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 408.63 Mbit/s

95th percentile per-packet one-way delay: 155.559 ms

Loss rate: 2.61%

-- Flow 1:

Average throughput: 281.29 Mbit/s

95th percentile per-packet one-way delay: 156.502 ms

Loss rate: 3.74%

-- Flow 2:

Average throughput: 124.49 Mbit/s

95th percentile per-packet one-way delay: 107.397 ms

Loss rate: 0.00%

-- Flow 3:

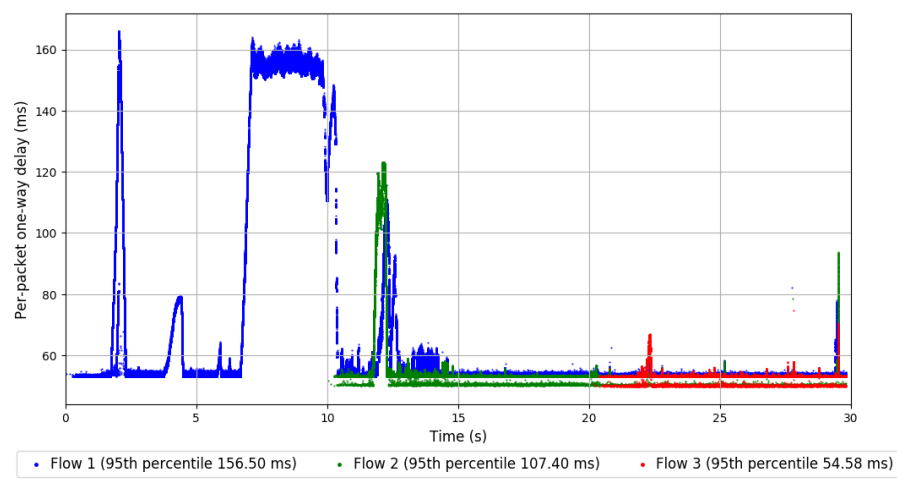
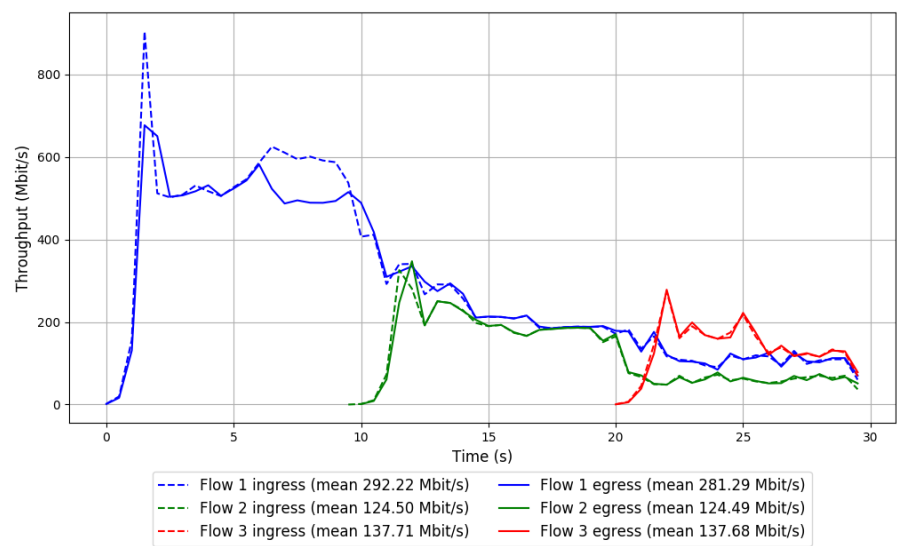
Average throughput: 137.68 Mbit/s

95th percentile per-packet one-way delay: 54.578 ms

Loss rate: 0.00%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-08 07:43:09

End at: 2017-09-08 07:43:39

# Below is generated by plot.py at 2017-09-08 10:41:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 433.25 Mbit/s

95th percentile per-packet one-way delay: 142.106 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 277.77 Mbit/s

95th percentile per-packet one-way delay: 151.531 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 194.71 Mbit/s

95th percentile per-packet one-way delay: 57.963 ms

Loss rate: 0.00%

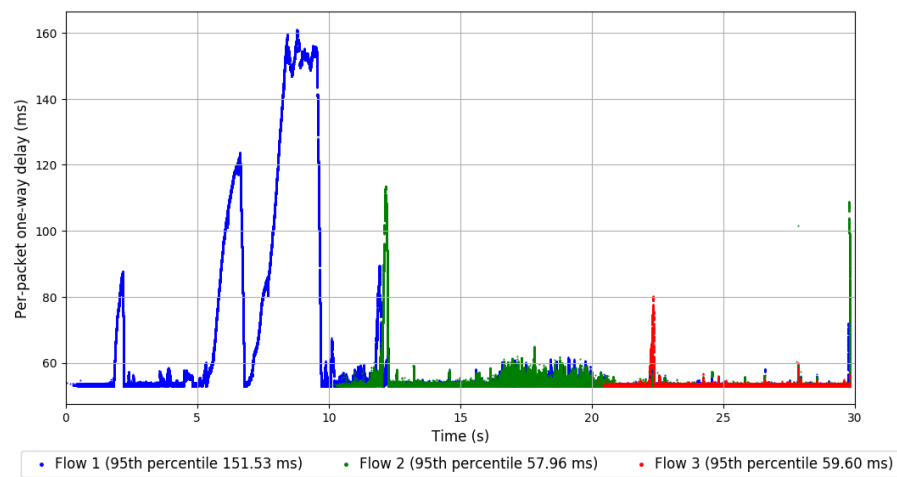
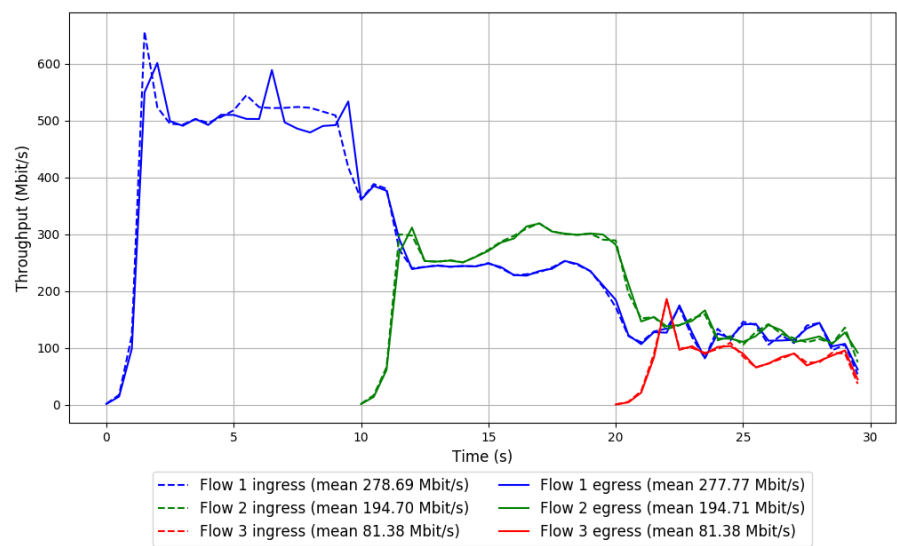
-- Flow 3:

Average throughput: 81.38 Mbit/s

95th percentile per-packet one-way delay: 59.601 ms

Loss rate: 0.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-08 07:55:01

End at: 2017-09-08 07:55:31

# Below is generated by plot.py at 2017-09-08 10:42:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 473.70 Mbit/s

95th percentile per-packet one-way delay: 82.765 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 309.35 Mbit/s

95th percentile per-packet one-way delay: 89.831 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 144.67 Mbit/s

95th percentile per-packet one-way delay: 58.403 ms

Loss rate: 0.00%

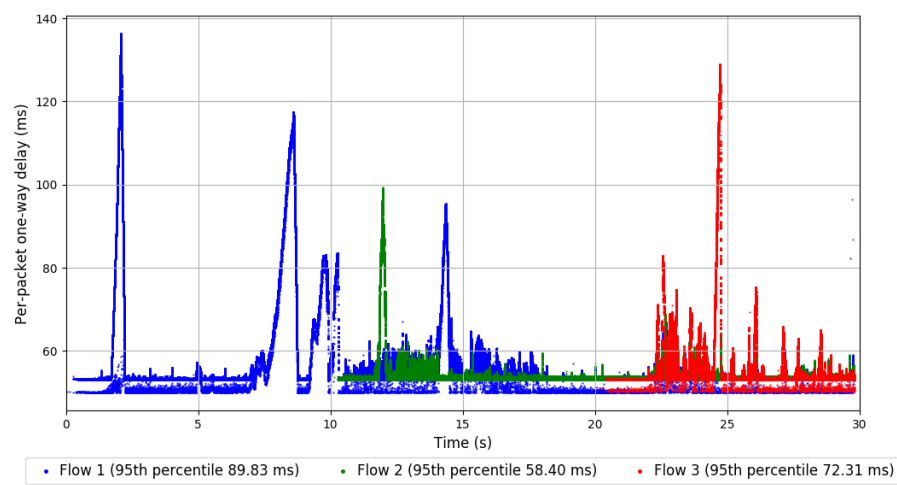
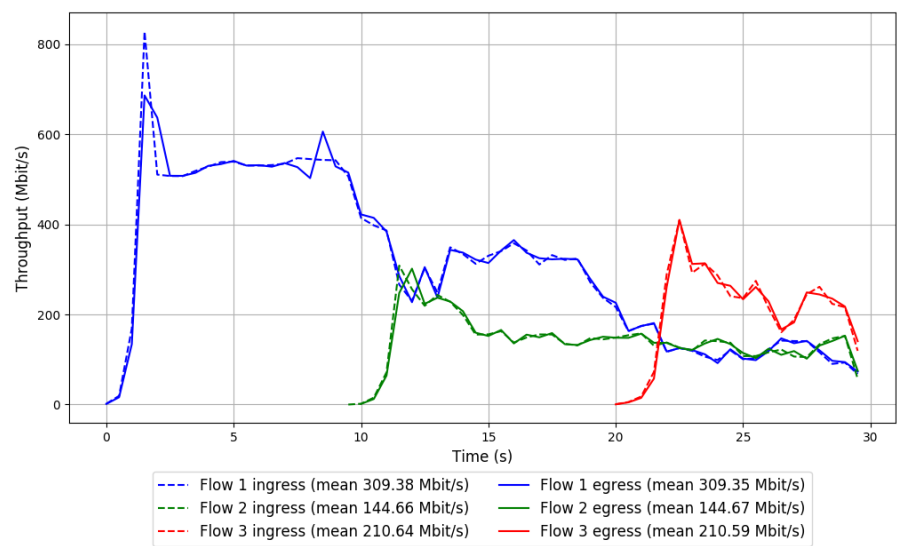
-- Flow 3:

Average throughput: 210.59 Mbit/s

95th percentile per-packet one-way delay: 72.314 ms

Loss rate: 0.00%

Run 9: Report of PCC — Data Link

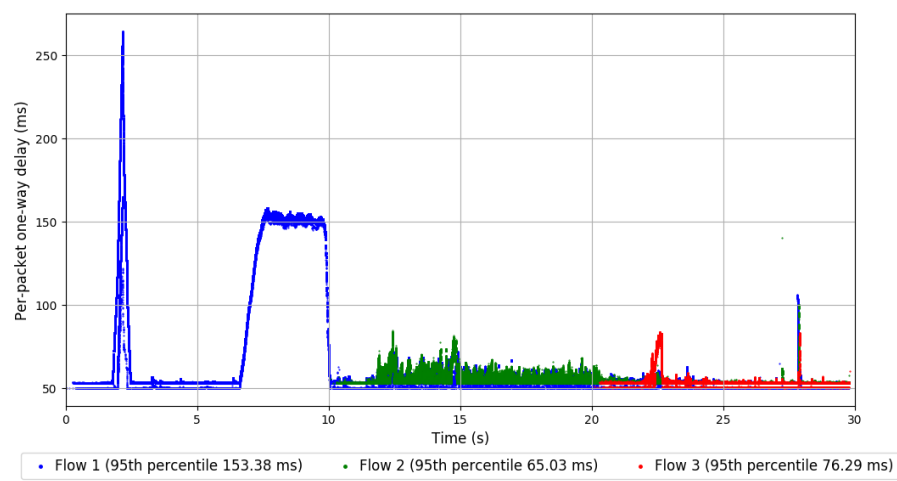
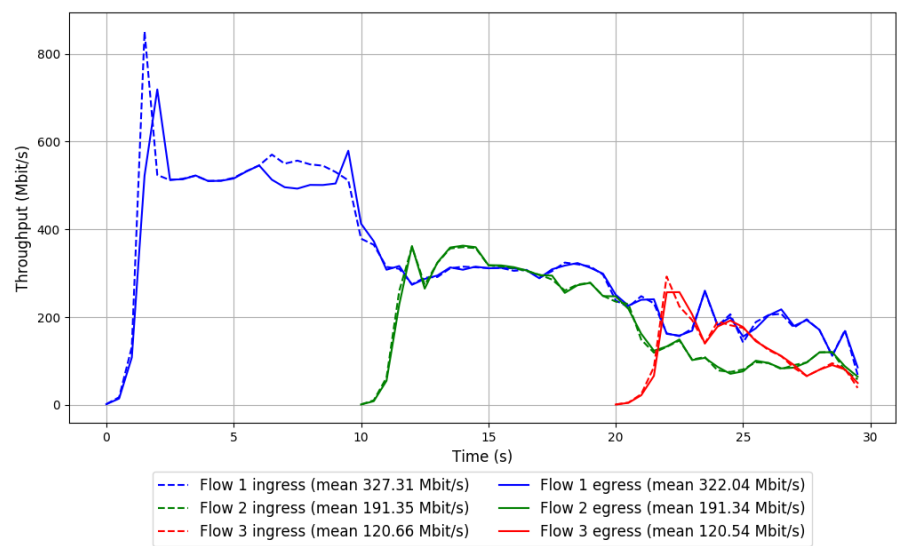


```
Run 10: Statistics of PCC

Start at: 2017-09-08 08:07:13
End at: 2017-09-08 08:07:43

# Below is generated by plot.py at 2017-09-08 10:42:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.15 Mbit/s
95th percentile per-packet one-way delay: 152.354 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 322.04 Mbit/s
95th percentile per-packet one-way delay: 153.382 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 191.34 Mbit/s
95th percentile per-packet one-way delay: 65.026 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.54 Mbit/s
95th percentile per-packet one-way delay: 76.291 ms
Loss rate: 0.00%
```

Run 10: Report of PCC — Data Link



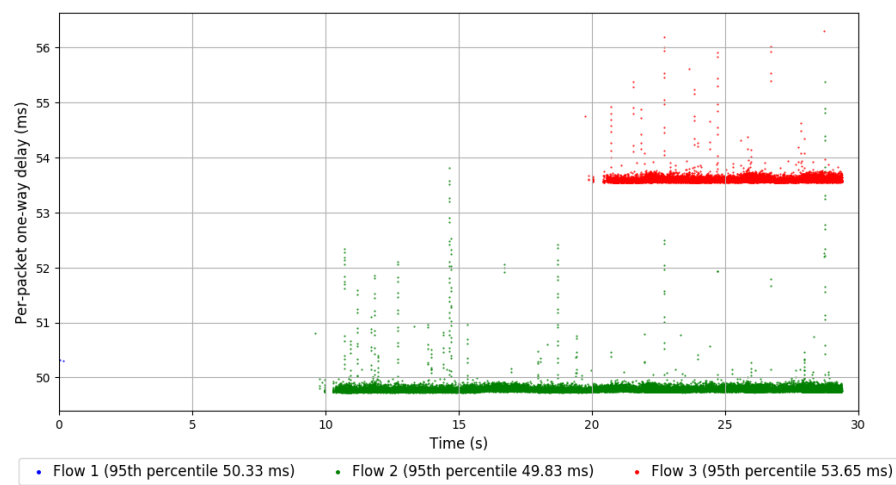
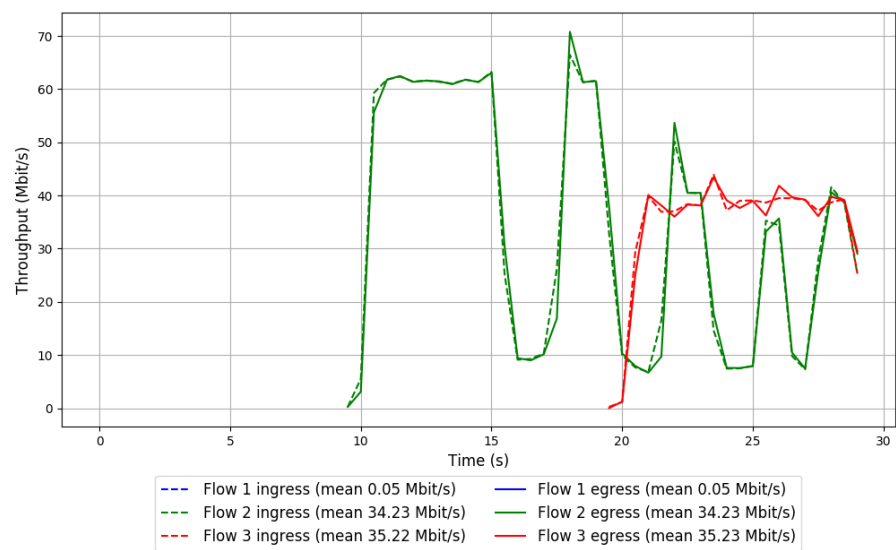
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 06:22:26
End at: 2017-09-08 06:22:56

# Below is generated by plot.py at 2017-09-08 10:42:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 53.609 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 50.326 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.23 Mbit/s
95th percentile per-packet one-way delay: 49.832 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 53.646 ms
Loss rate: 0.00%
```



Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 06:34:35

End at: 2017-09-08 06:35:05

# Below is generated by plot.py at 2017-09-08 10:43:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 37.30 Mbit/s

95th percentile per-packet one-way delay: 53.651 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.358 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.26 Mbit/s

95th percentile per-packet one-way delay: 53.057 ms

Loss rate: 0.00%

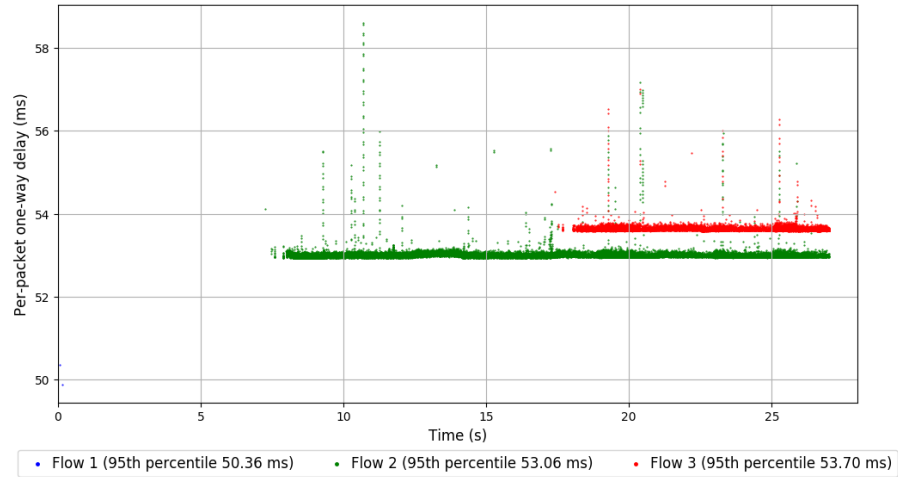
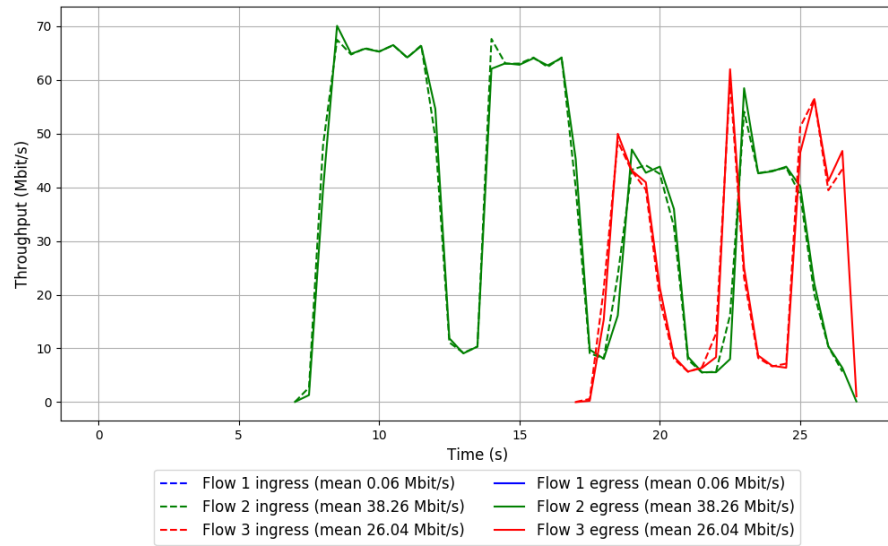
-- Flow 3:

Average throughput: 26.04 Mbit/s

95th percentile per-packet one-way delay: 53.701 ms

Loss rate: 0.00%

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



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 06:46:20

End at: 2017-09-08 06:46:50

# Below is generated by plot.py at 2017-09-08 10:43:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.69 Mbit/s

95th percentile per-packet one-way delay: 53.042 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.707 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.57 Mbit/s

95th percentile per-packet one-way delay: 53.056 ms

Loss rate: 0.00%

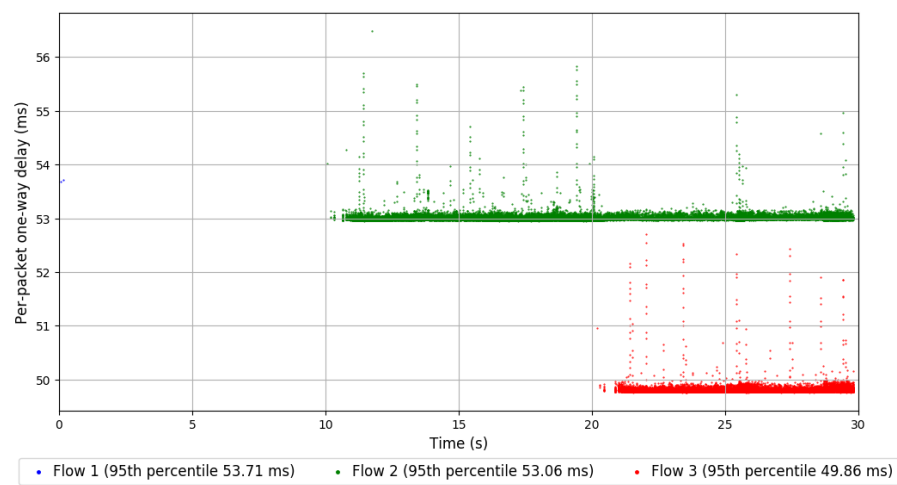
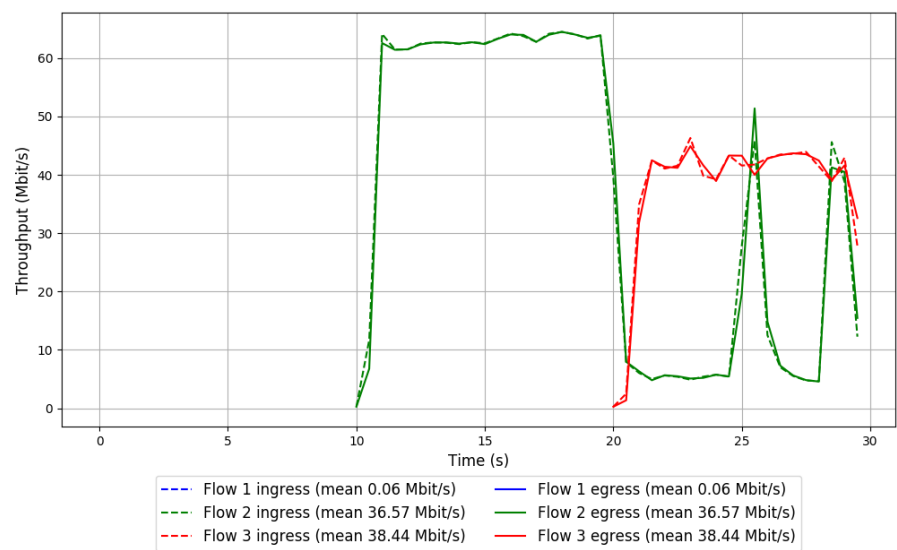
-- Flow 3:

Average throughput: 38.44 Mbit/s

95th percentile per-packet one-way delay: 49.859 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 06:58:43

End at: 2017-09-08 06:59:13

# Below is generated by plot.py at 2017-09-08 10:43:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.50 Mbit/s

95th percentile per-packet one-way delay: 53.771 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.313 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.65 Mbit/s

95th percentile per-packet one-way delay: 53.788 ms

Loss rate: 0.00%

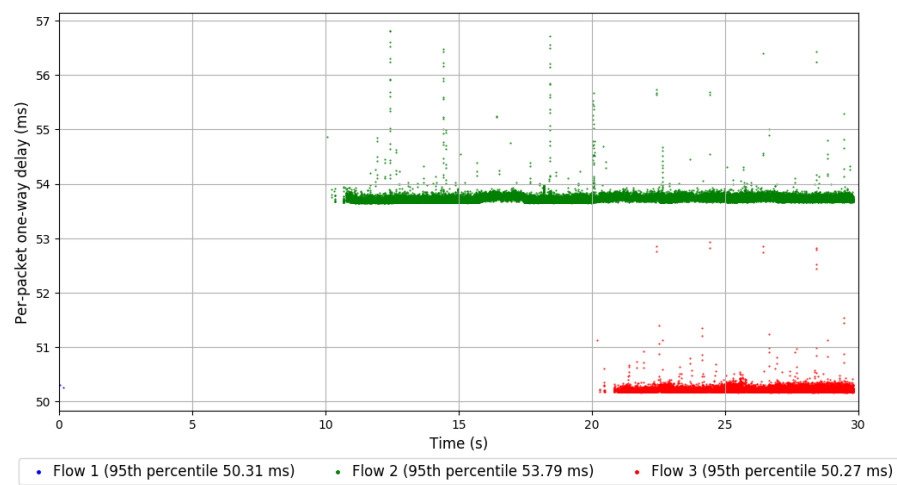
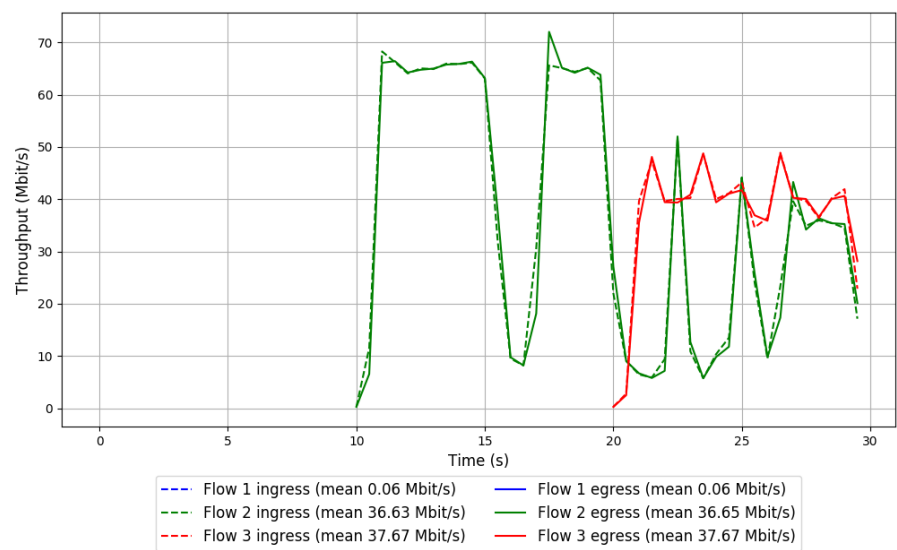
-- Flow 3:

Average throughput: 37.67 Mbit/s

95th percentile per-packet one-way delay: 50.271 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 07:10:39

End at: 2017-09-08 07:11:09

# Below is generated by plot.py at 2017-09-08 10:43:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.64 Mbit/s

95th percentile per-packet one-way delay: 53.055 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.821 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 34.04 Mbit/s

95th percentile per-packet one-way delay: 53.072 ms

Loss rate: 0.00%

-- Flow 3:

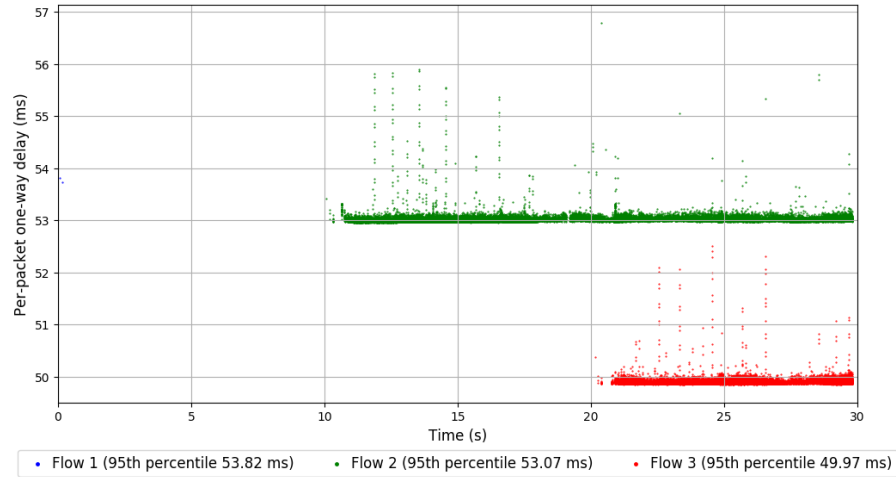
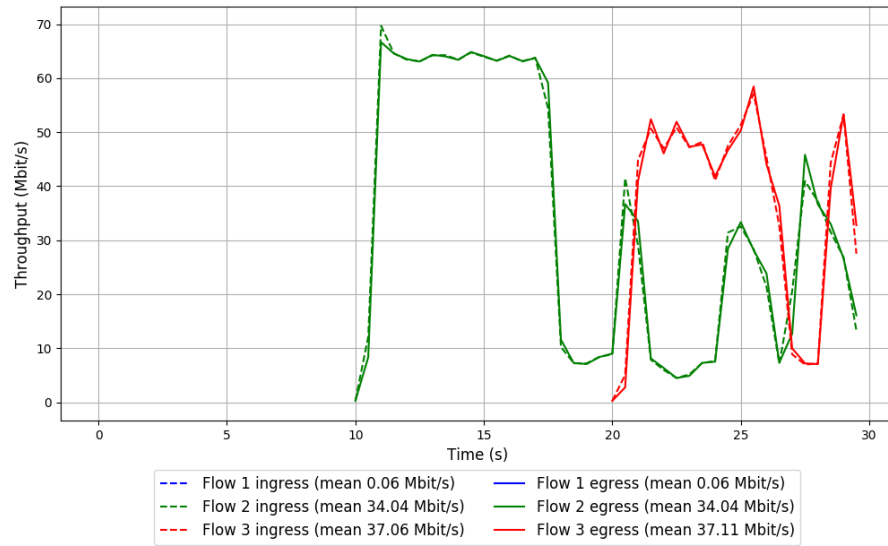
Average throughput: 37.11 Mbit/s

95th percentile per-packet one-way delay: 49.967 ms

Loss rate: 0.00%



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



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-08 07:22:46

End at: 2017-09-08 07:23:16

# Below is generated by plot.py at 2017-09-08 10:43:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.94 Mbit/s

95th percentile per-packet one-way delay: 49.937 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.522 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.02 Mbit/s

95th percentile per-packet one-way delay: 49.908 ms

Loss rate: 0.00%

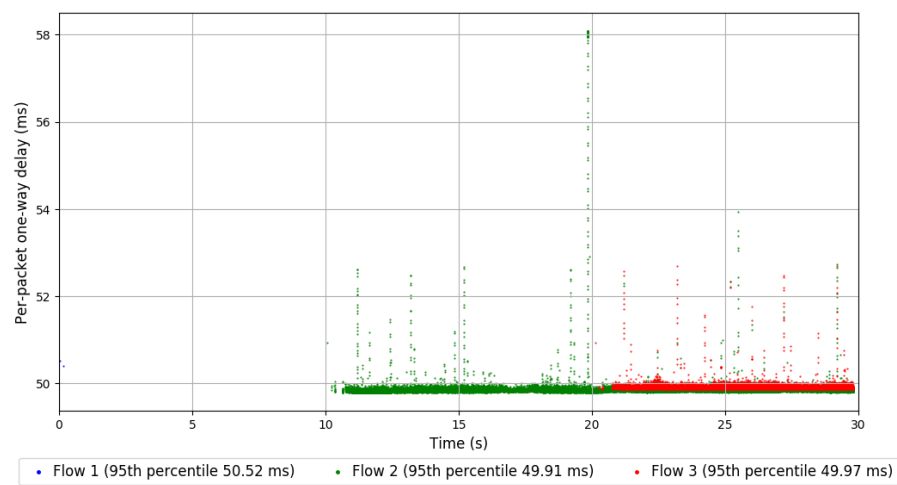
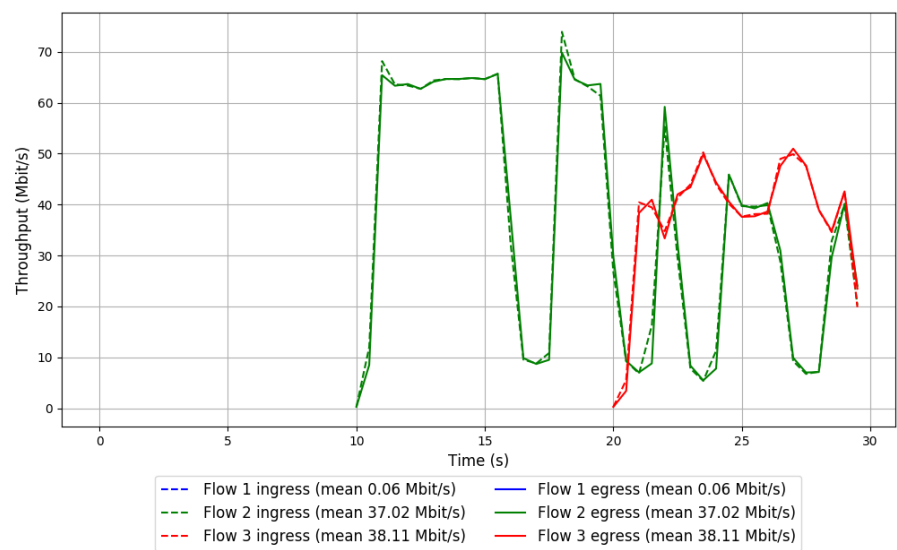
-- Flow 3:

Average throughput: 38.11 Mbit/s

95th percentile per-packet one-way delay: 49.967 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 07:34:53

End at: 2017-09-08 07:35:23

# Below is generated by plot.py at 2017-09-08 10:43:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 37.73 Mbit/s

95th percentile per-packet one-way delay: 50.229 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.729 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.98 Mbit/s

95th percentile per-packet one-way delay: 50.242 ms

Loss rate: 0.00%

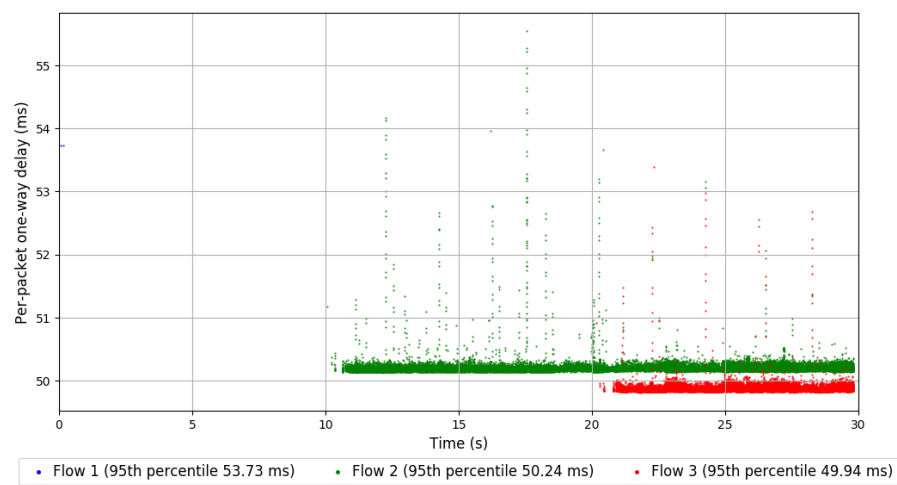
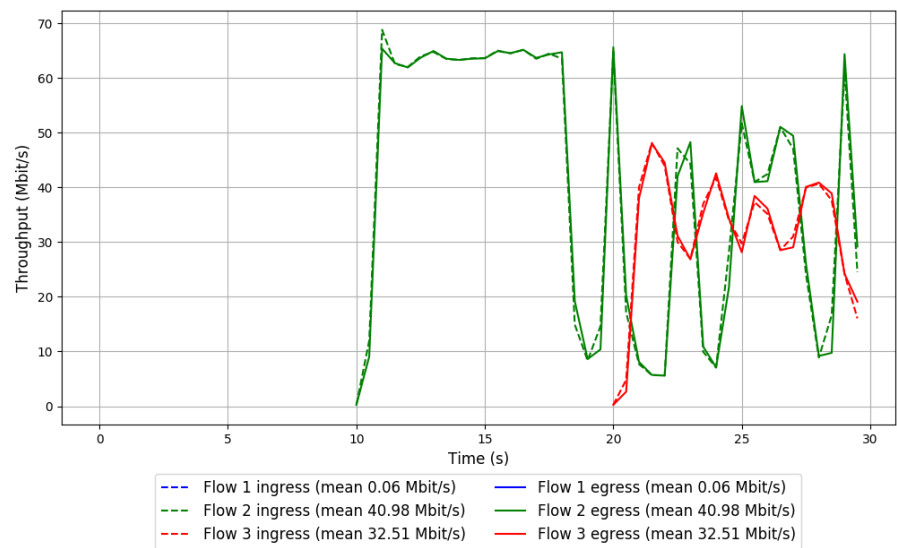
-- Flow 3:

Average throughput: 32.51 Mbit/s

95th percentile per-packet one-way delay: 49.939 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 07:47:00

End at: 2017-09-08 07:47:30

# Below is generated by plot.py at 2017-09-08 10:43:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.98 Mbit/s

95th percentile per-packet one-way delay: 53.114 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.14 Mbit/s

95th percentile per-packet one-way delay: 53.142 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.79 Mbit/s

95th percentile per-packet one-way delay: 50.269 ms

Loss rate: 0.00%

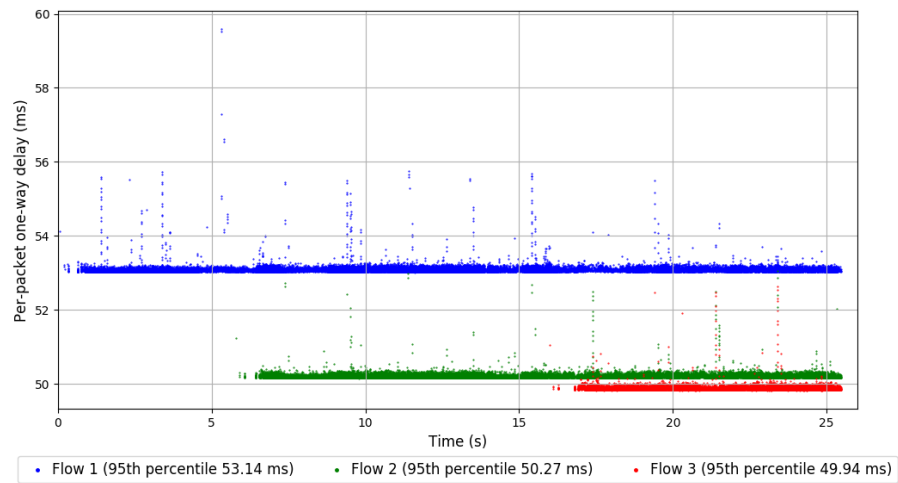
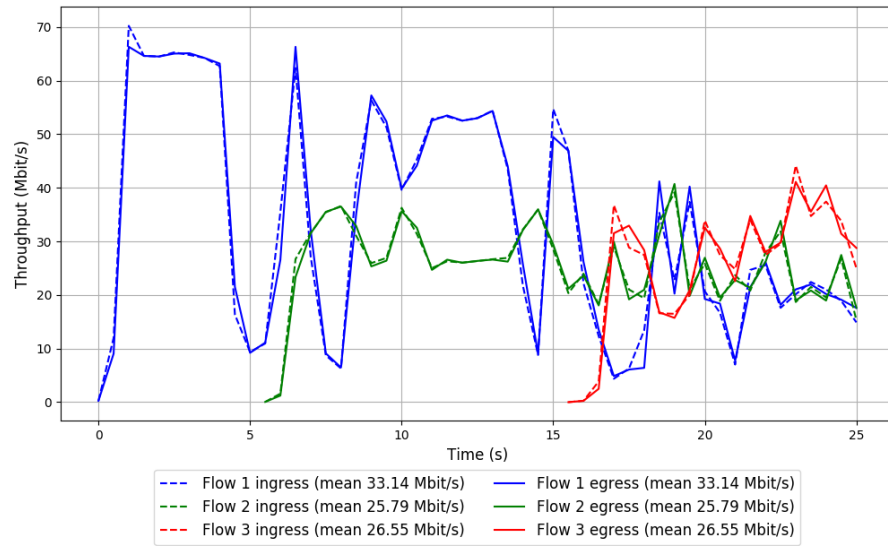
-- Flow 3:

Average throughput: 26.55 Mbit/s

95th percentile per-packet one-way delay: 49.940 ms

Loss rate: 0.00%

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



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 07:58:53

End at: 2017-09-08 07:59:23

# Below is generated by plot.py at 2017-09-08 10:43:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 42.58 Mbit/s

95th percentile per-packet one-way delay: 53.717 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.572 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.36 Mbit/s

95th percentile per-packet one-way delay: 49.959 ms

Loss rate: 0.00%

-- Flow 3:

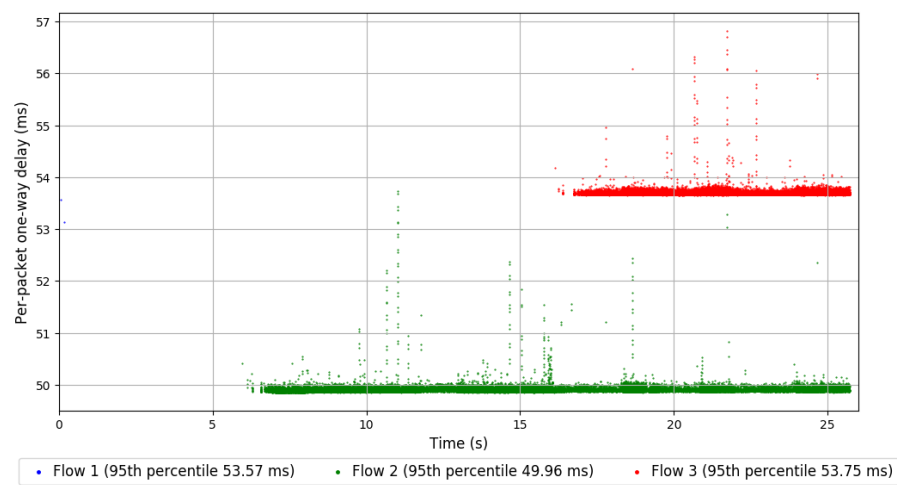
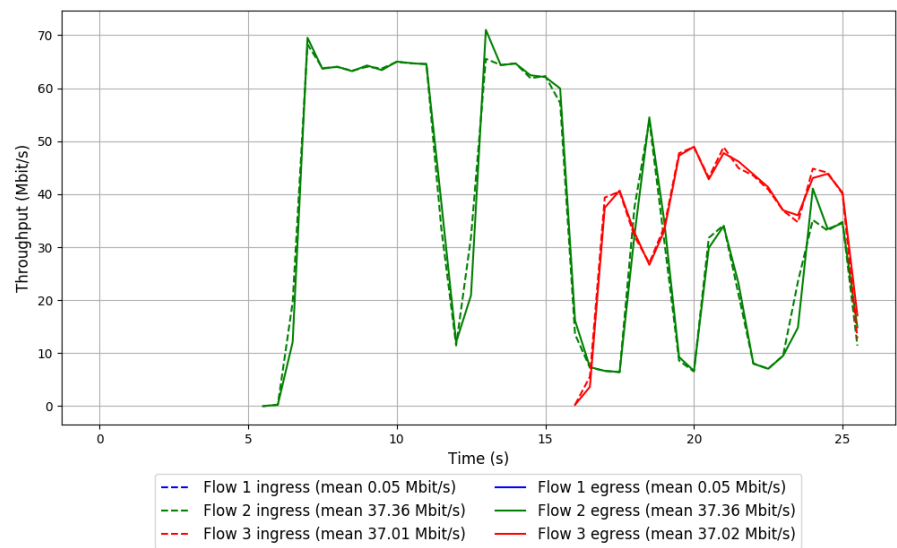
Average throughput: 37.02 Mbit/s

95th percentile per-packet one-way delay: 53.754 ms

Loss rate: 0.00%



Run 9: Report of QUIC Cubic — Data Link

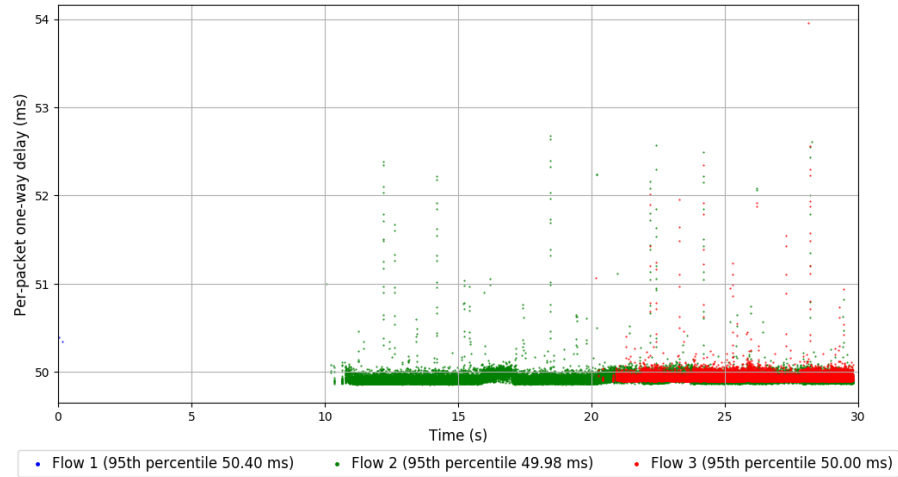
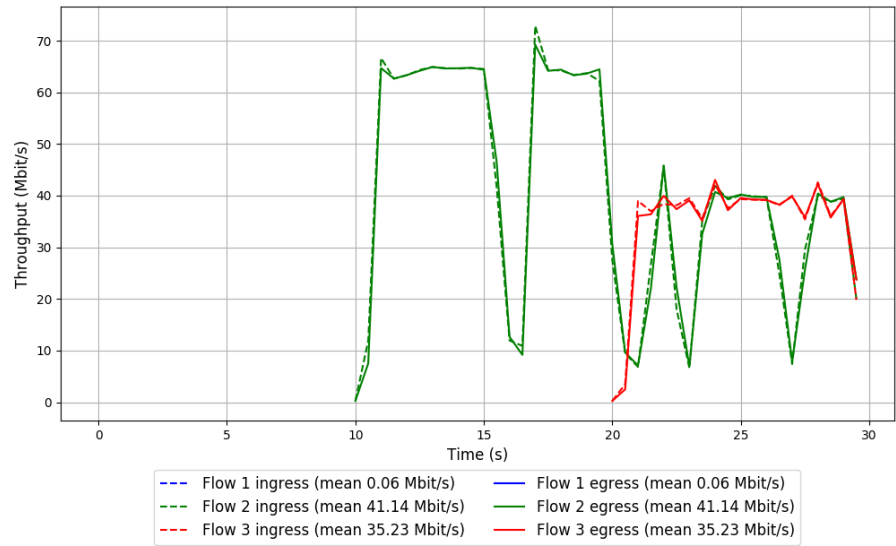


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 08:11:05
End at: 2017-09-08 08:11:35

# Below is generated by plot.py at 2017-09-08 10:43:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.72 Mbit/s
95th percentile per-packet one-way delay: 49.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.14 Mbit/s
95th percentile per-packet one-way delay: 49.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 35.23 Mbit/s
95th percentile per-packet one-way delay: 50.001 ms
Loss rate: 0.00%
```

# Run 10: Report of QUIC Cubic — Data Link

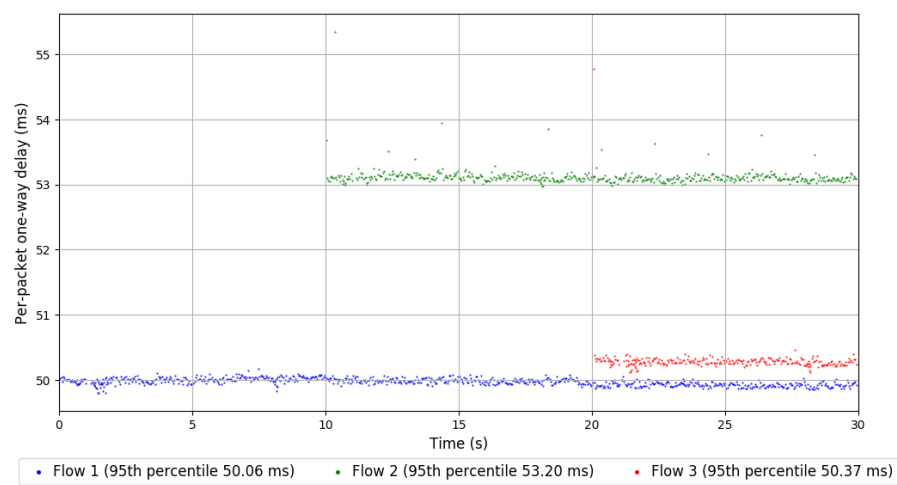
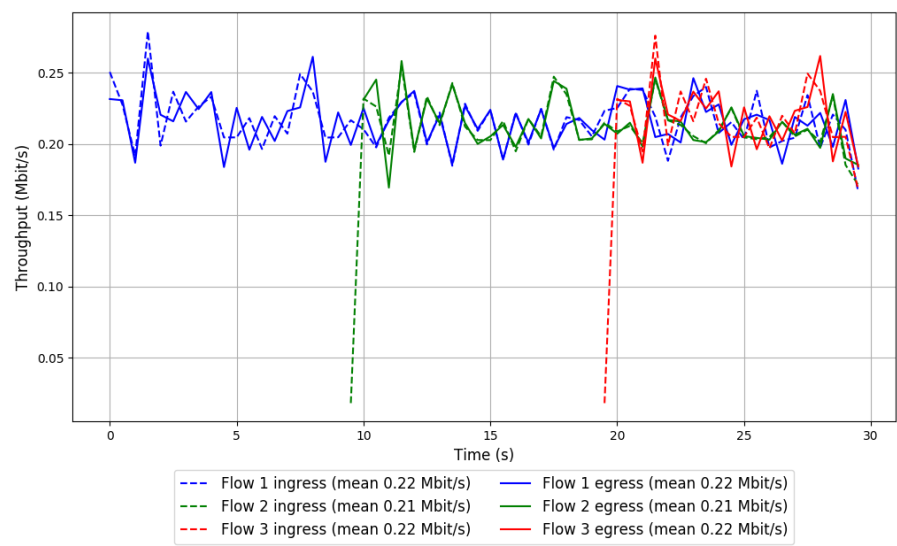


```
Run 1: Statistics of SCReAM

Start at: 2017-09-08 06:20:59
End at: 2017-09-08 06:21:29

# Below is generated by plot.py at 2017-09-08 10:43:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.061 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.199 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.365 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

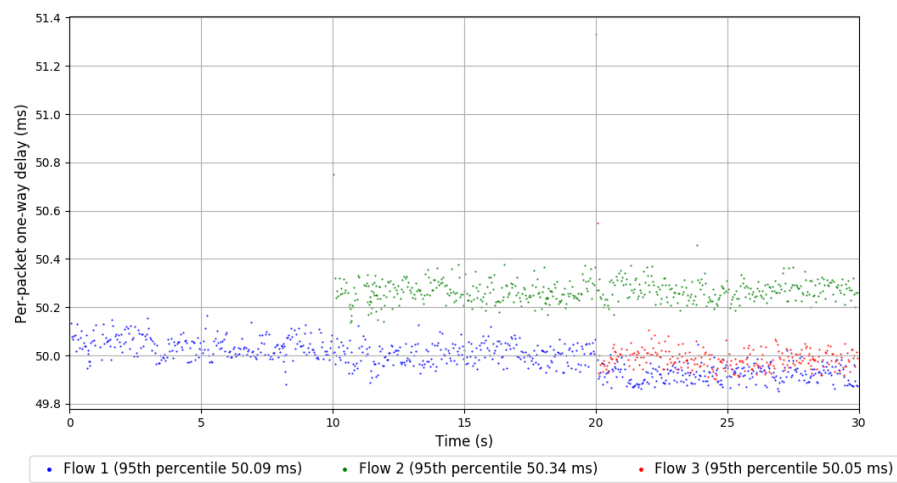
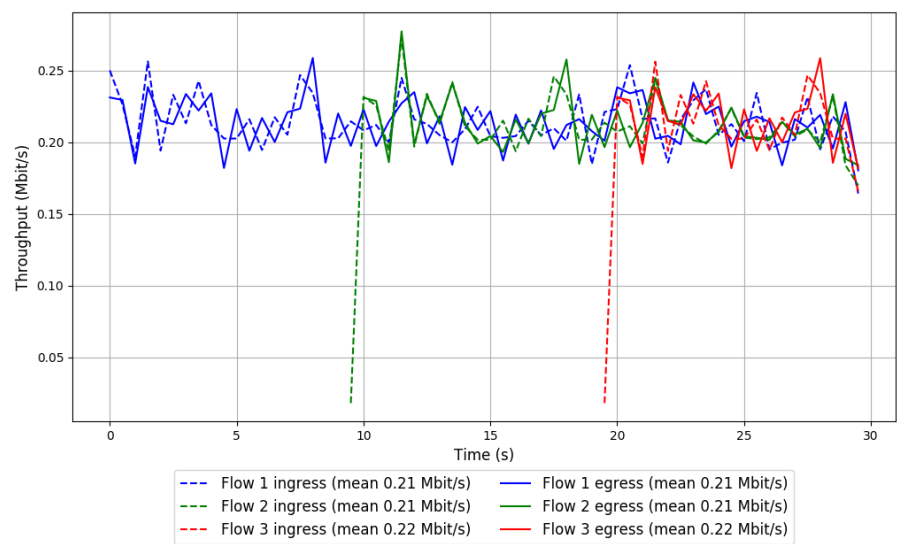


```
Run 2: Statistics of SCReAM

Start at: 2017-09-08 06:33:05
End at: 2017-09-08 06:33:35

# Below is generated by plot.py at 2017-09-08 10:43:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.089 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.340 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.048 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



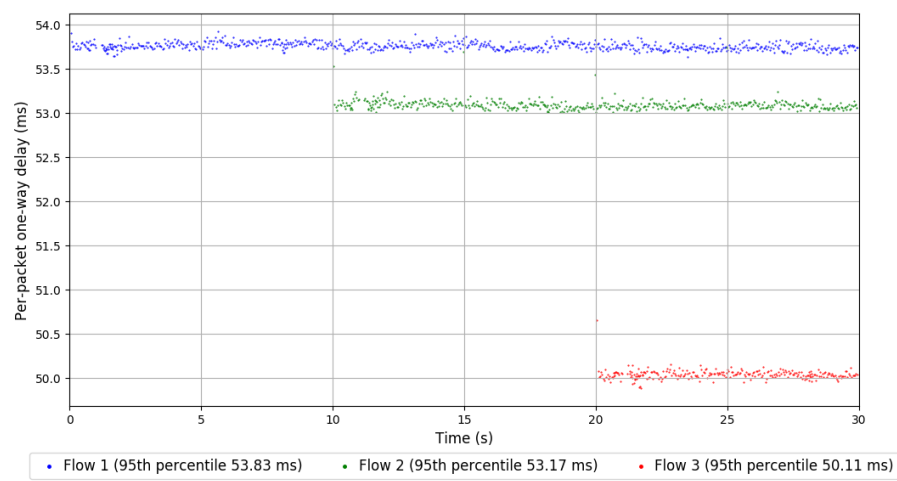
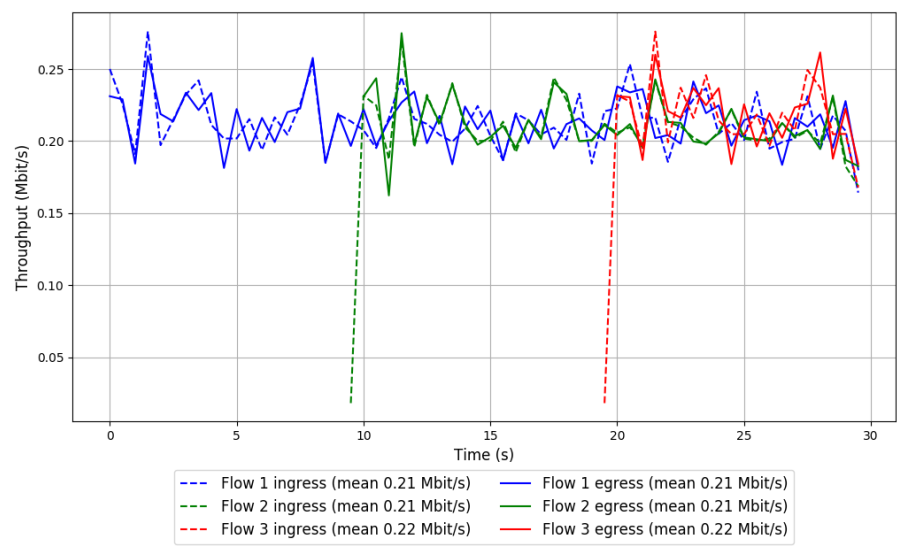
```
Run 3: Statistics of SReAM

Start at: 2017-09-08 06:44:53
End at: 2017-09-08 06:45:23

# Below is generated by plot.py at 2017-09-08 10:43:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.832 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.106 ms
Loss rate: 0.00%
```



Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-09-08 06:57:12

End at: 2017-09-08 06:57:42

# Below is generated by plot.py at 2017-09-08 10:43:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.387 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.881 ms

Loss rate: 0.00%

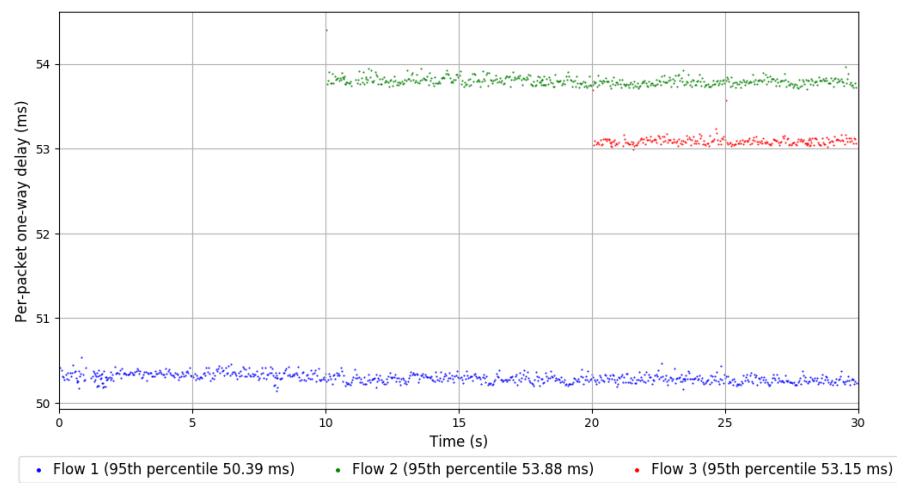
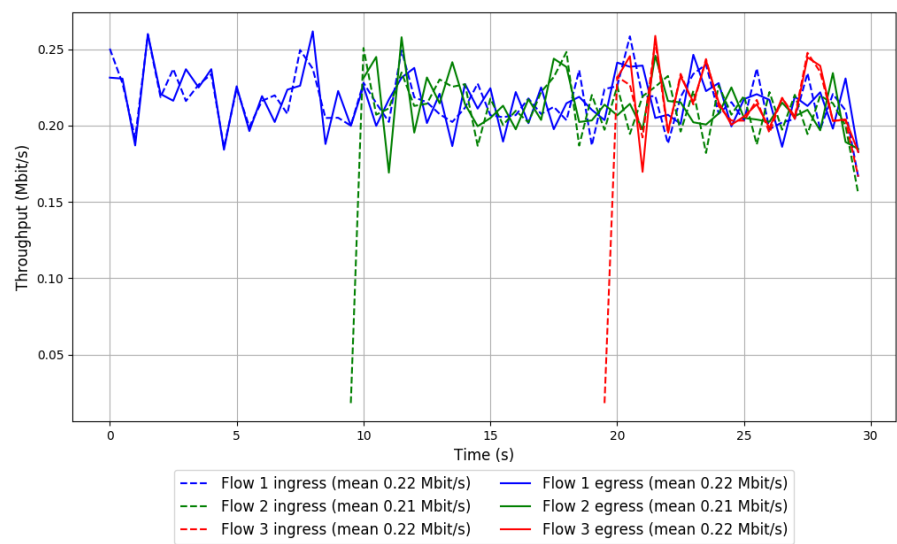
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.149 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-09-08 07:09:09

End at: 2017-09-08 07:09:39

# Below is generated by plot.py at 2017-09-08 10:43:45

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.917 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.956 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.127 ms

Loss rate: 0.00%

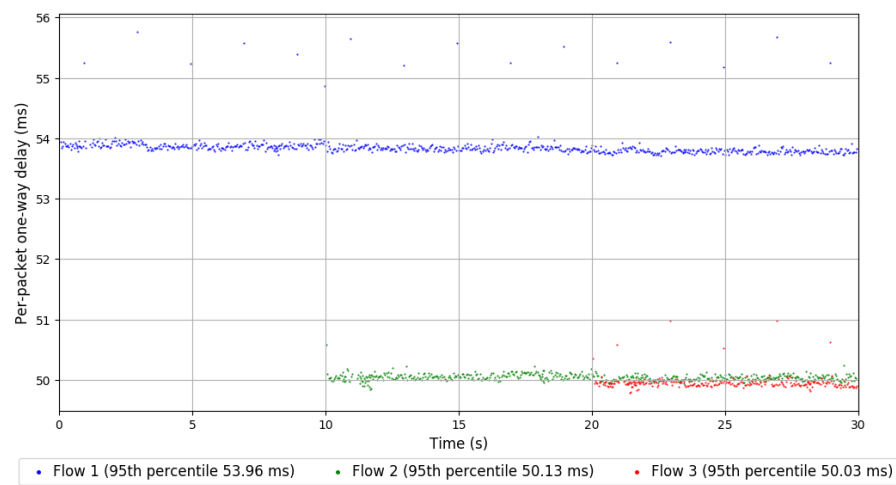
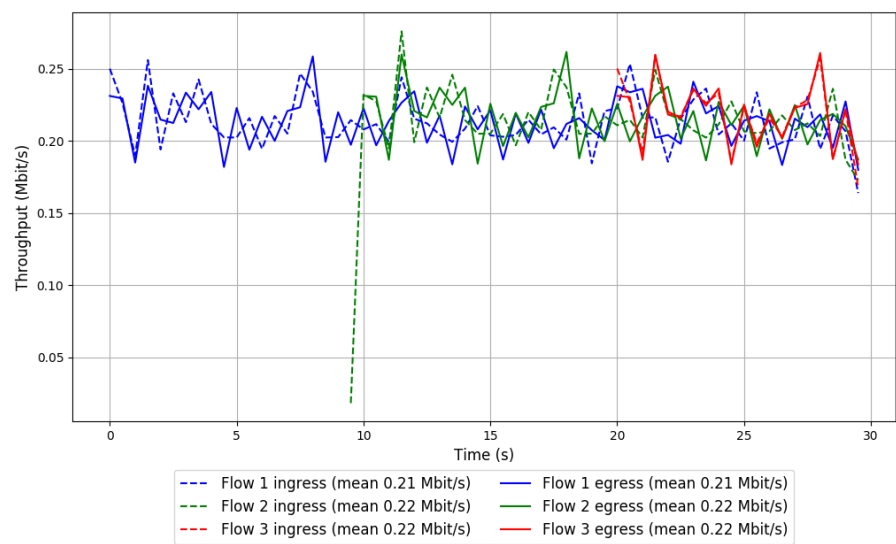
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.035 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-09-08 07:21:16

End at: 2017-09-08 07:21:46

# Below is generated by plot.py at 2017-09-08 10:43:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.130 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.128 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.110 ms

Loss rate: 0.00%

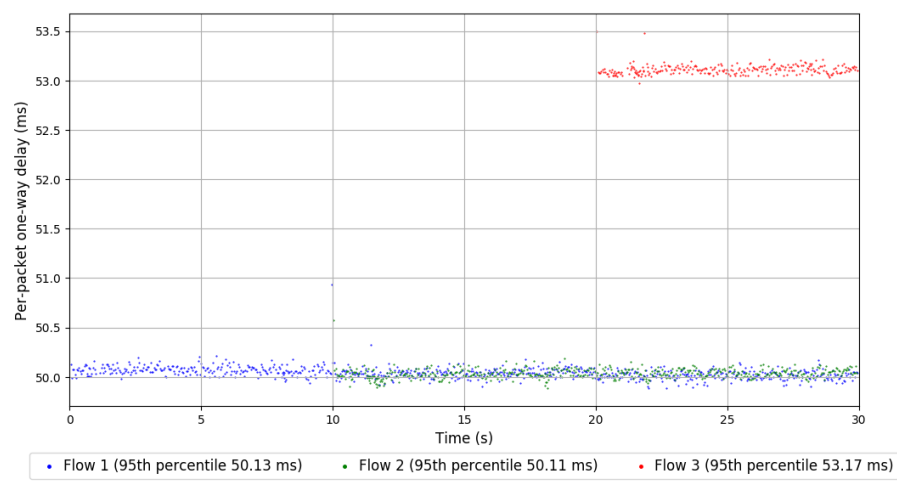
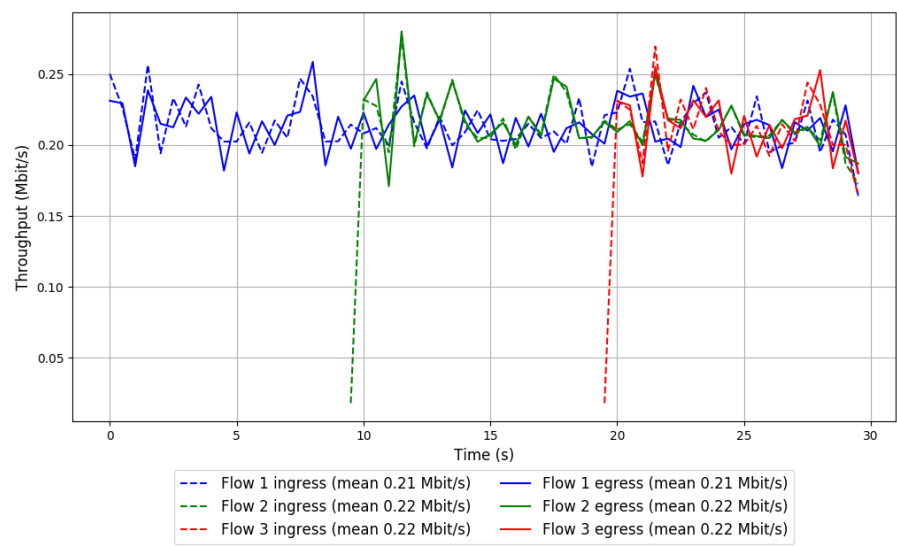
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.174 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-09-08 07:33:22

End at: 2017-09-08 07:33:52

# Below is generated by plot.py at 2017-09-08 10:43:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.727 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.239 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.440 ms

Loss rate: 0.00%

-- Flow 3:

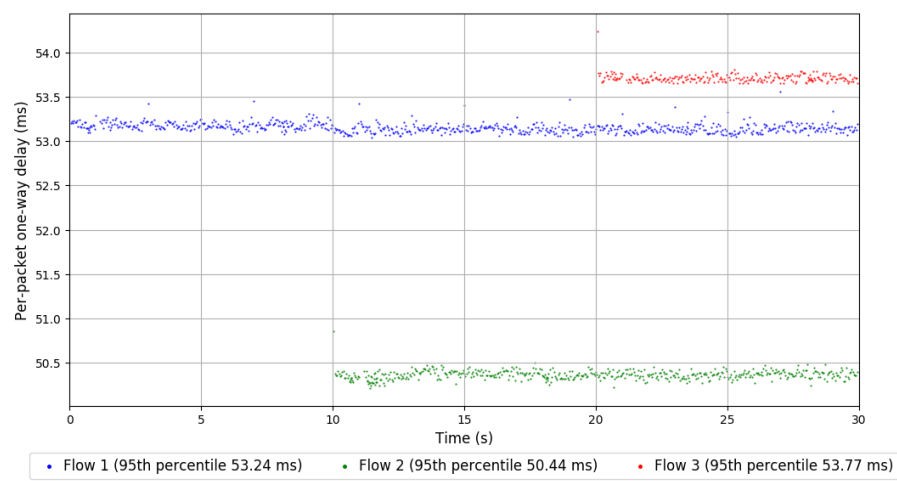
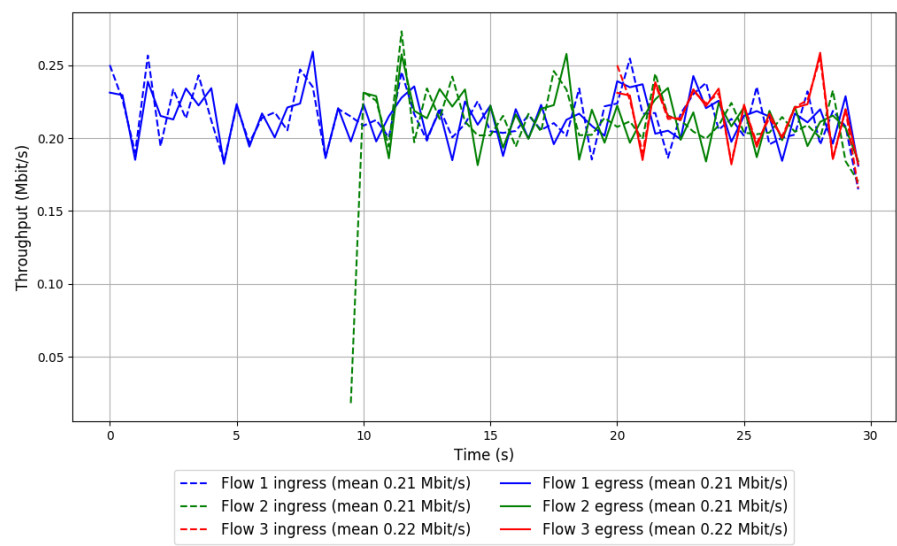
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.775 ms

Loss rate: 0.00%



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-09-08 07:45:28

End at: 2017-09-08 07:45:58

# Below is generated by plot.py at 2017-09-08 10:43:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.814 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.080 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.215 ms

Loss rate: 0.00%

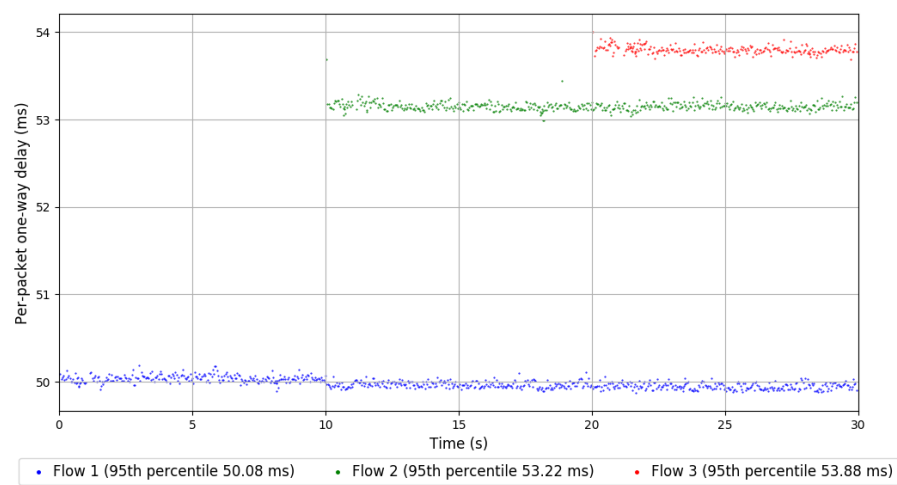
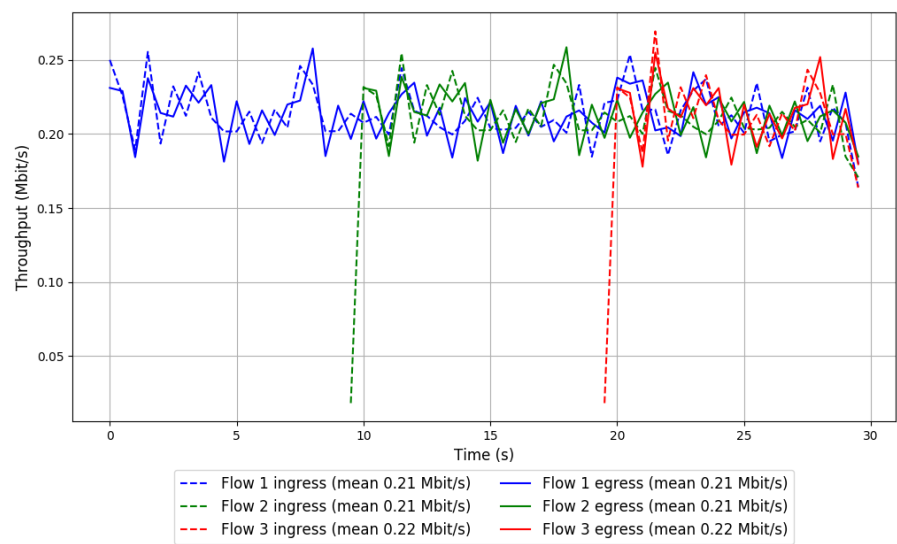
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.876 ms

Loss rate: 0.00%

Run 8: Report of SCReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-09-08 07:57:22

End at: 2017-09-08 07:57:52

# Below is generated by plot.py at 2017-09-08 10:43:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.855 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.236 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.885 ms

Loss rate: 0.00%

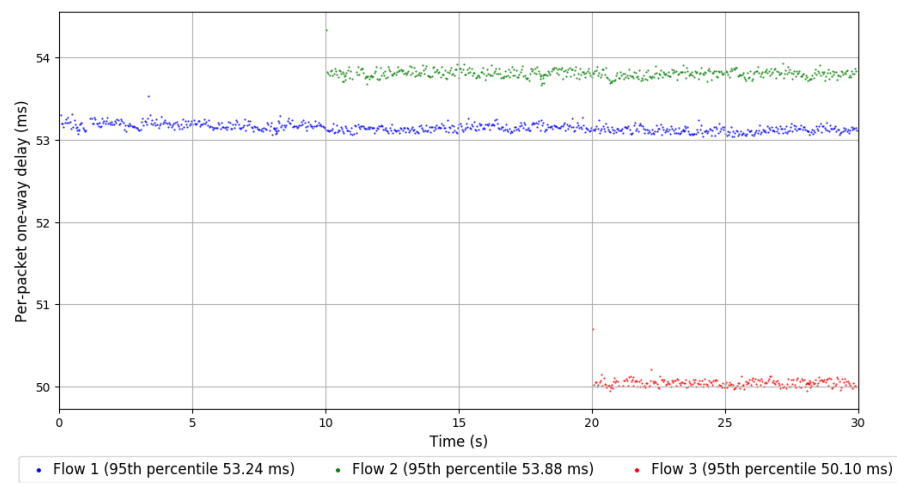
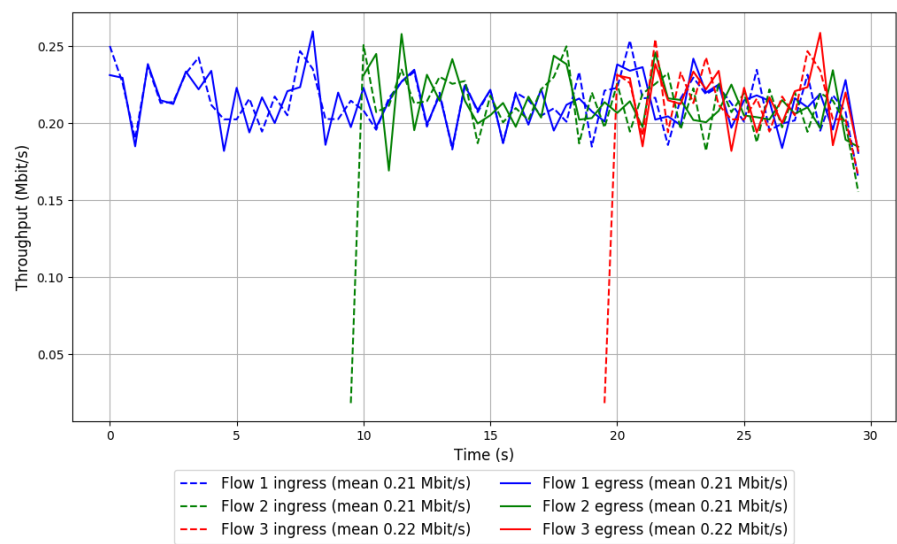
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.103 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

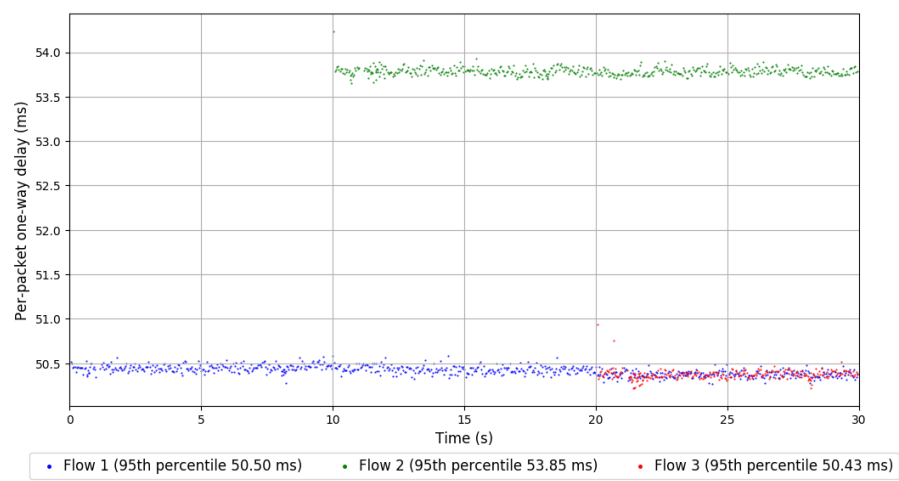
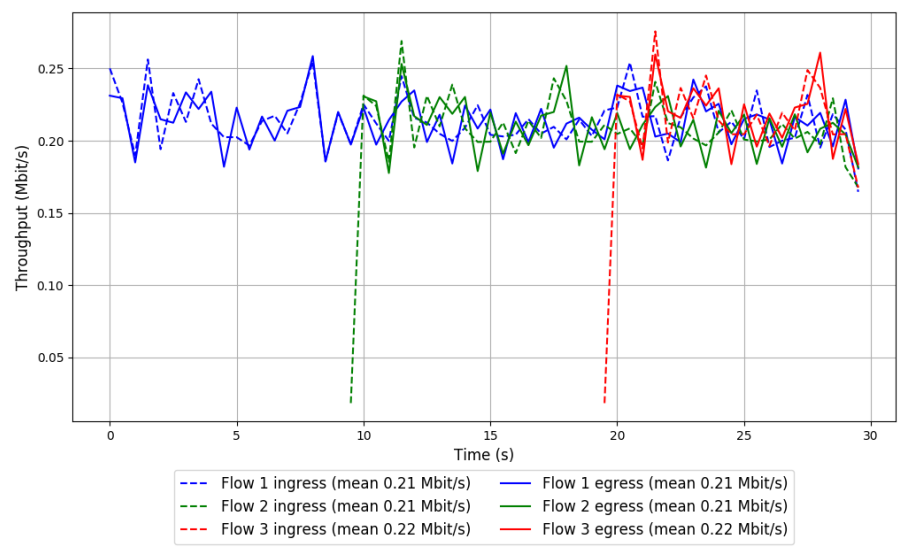


```
Run 10: Statistics of SReAM

Start at: 2017-09-08 08:09:34
End at: 2017-09-08 08:10:04

# Below is generated by plot.py at 2017-09-08 10:43:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.829 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.503 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.852 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.431 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link



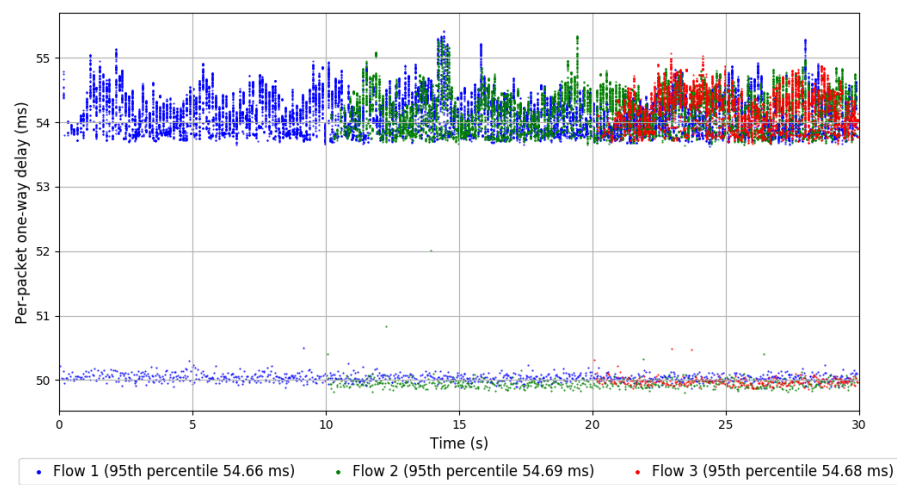
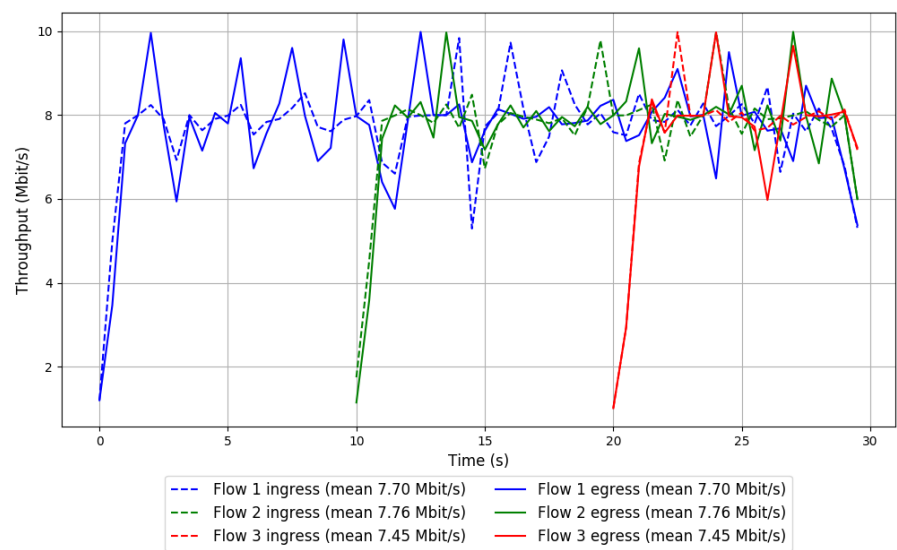
```
Run 1: Statistics of Sprout

Start at: 2017-09-08 06:15:34
End at: 2017-09-08 06:16:04

# Below is generated by plot.py at 2017-09-08 10:43:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.32 Mbit/s
95th percentile per-packet one-way delay: 54.675 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.70 Mbit/s
95th percentile per-packet one-way delay: 54.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.76 Mbit/s
95th percentile per-packet one-way delay: 54.687 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.45 Mbit/s
95th percentile per-packet one-way delay: 54.682 ms
Loss rate: 0.00%
```



Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-08 06:27:31

End at: 2017-09-08 06:28:01

# Below is generated by plot.py at 2017-09-08 10:43:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.24 Mbit/s

95th percentile per-packet one-way delay: 54.654 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 54.636 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 54.675 ms

Loss rate: 0.00%

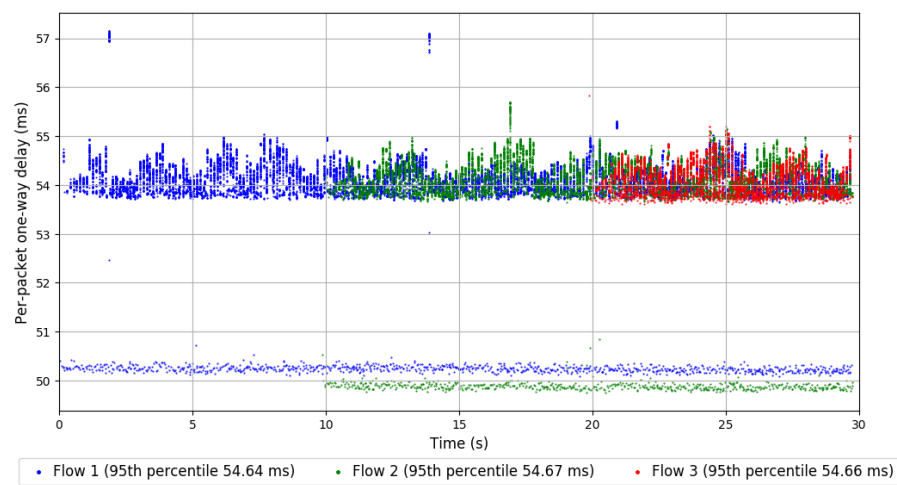
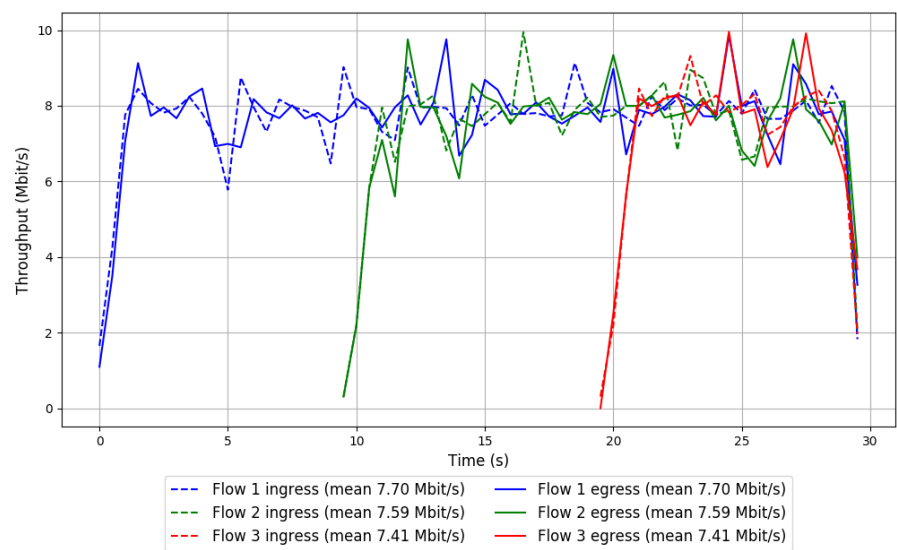
-- Flow 3:

Average throughput: 7.41 Mbit/s

95th percentile per-packet one-way delay: 54.662 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-08 06:39:22

End at: 2017-09-08 06:39:52

# Below is generated by plot.py at 2017-09-08 10:43:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 54.768 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 54.765 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.53 Mbit/s

95th percentile per-packet one-way delay: 54.757 ms

Loss rate: 0.00%

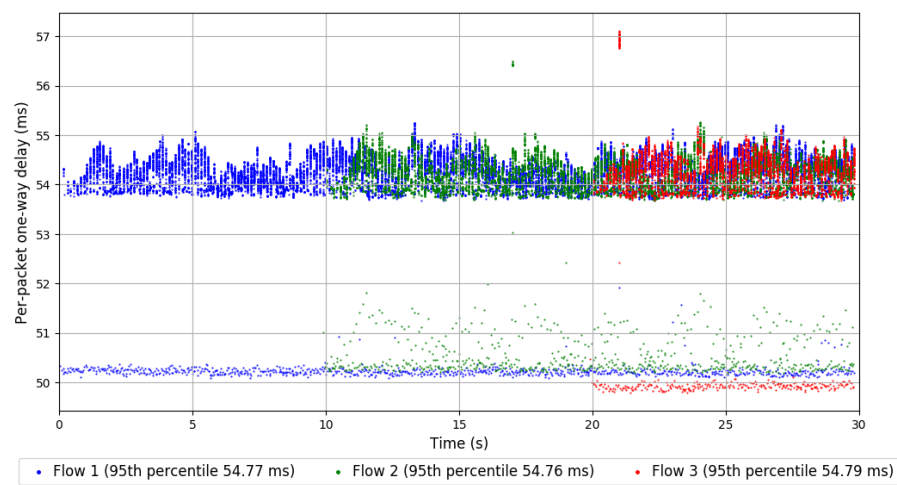
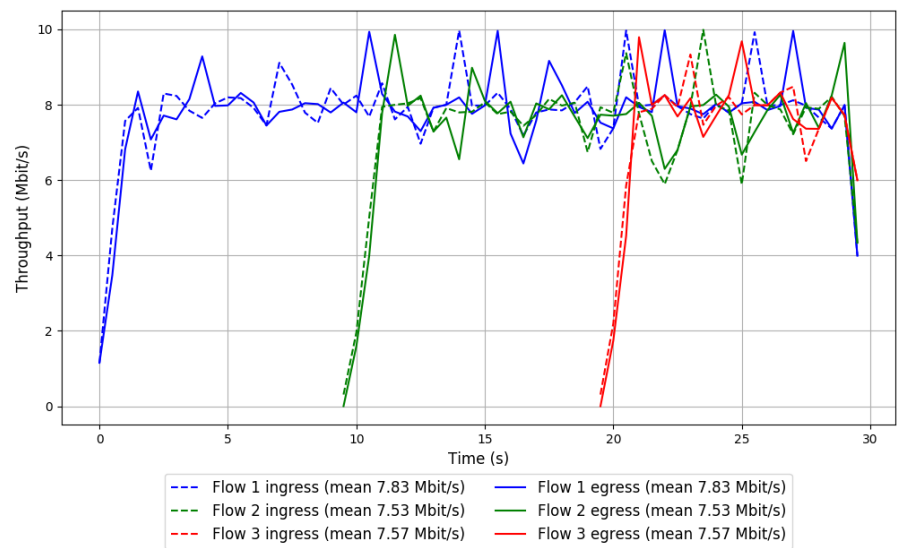
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 54.790 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-08 06:51:39

End at: 2017-09-08 06:52:09

# Below is generated by plot.py at 2017-09-08 10:44:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.33 Mbit/s

95th percentile per-packet one-way delay: 54.848 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 54.847 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 54.932 ms

Loss rate: 0.00%

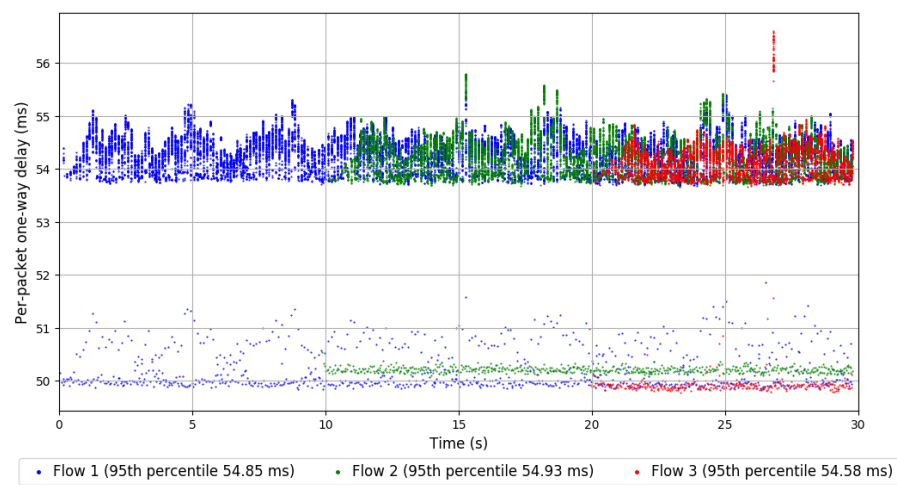
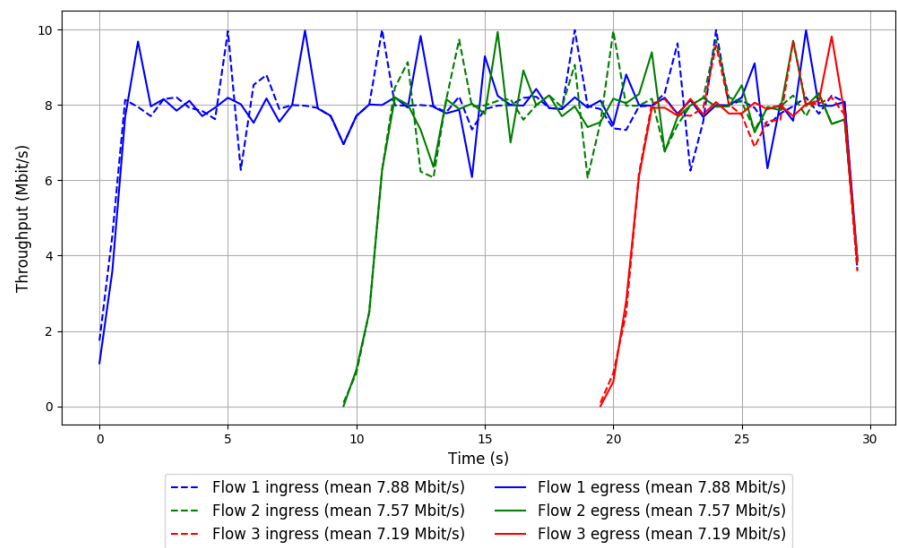
-- Flow 3:

Average throughput: 7.19 Mbit/s

95th percentile per-packet one-way delay: 54.579 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-08 07:03:35

End at: 2017-09-08 07:04:05

# Below is generated by plot.py at 2017-09-08 10:44:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.38 Mbit/s

95th percentile per-packet one-way delay: 54.084 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 54.129 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 54.017 ms

Loss rate: 0.00%

-- Flow 3:

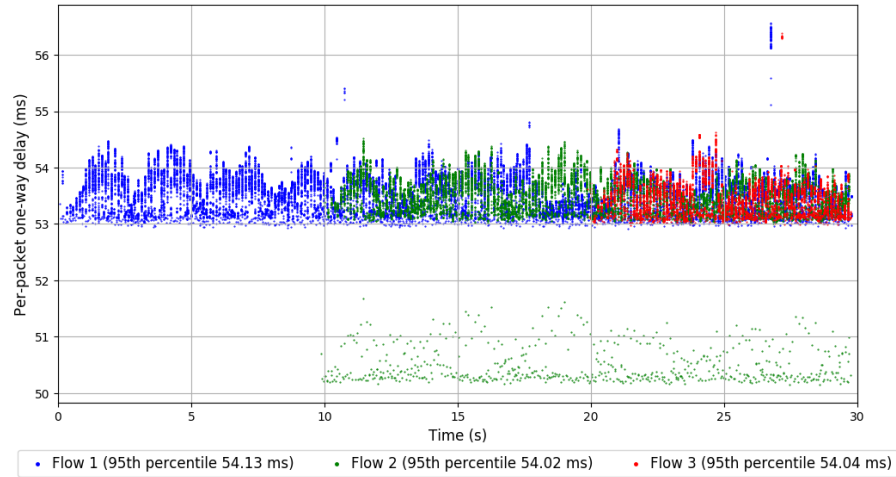
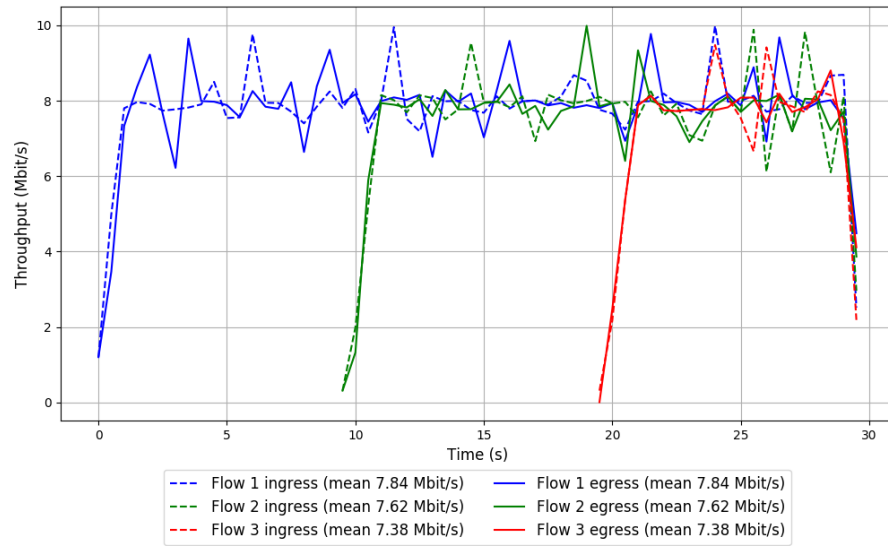
Average throughput: 7.38 Mbit/s

95th percentile per-packet one-way delay: 54.041 ms

Loss rate: 0.00%



## Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-08 07:15:46

End at: 2017-09-08 07:16:16

# Below is generated by plot.py at 2017-09-08 10:44:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.54 Mbit/s

95th percentile per-packet one-way delay: 54.083 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 54.068 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 54.087 ms

Loss rate: 0.00%

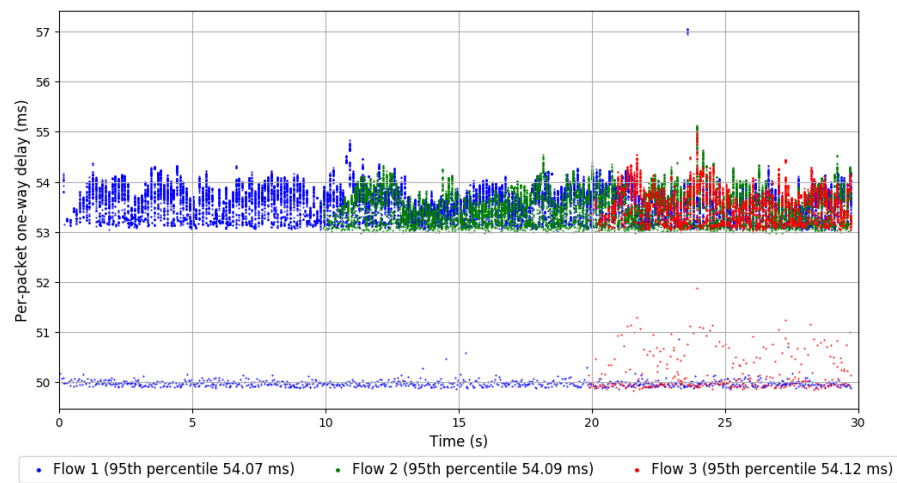
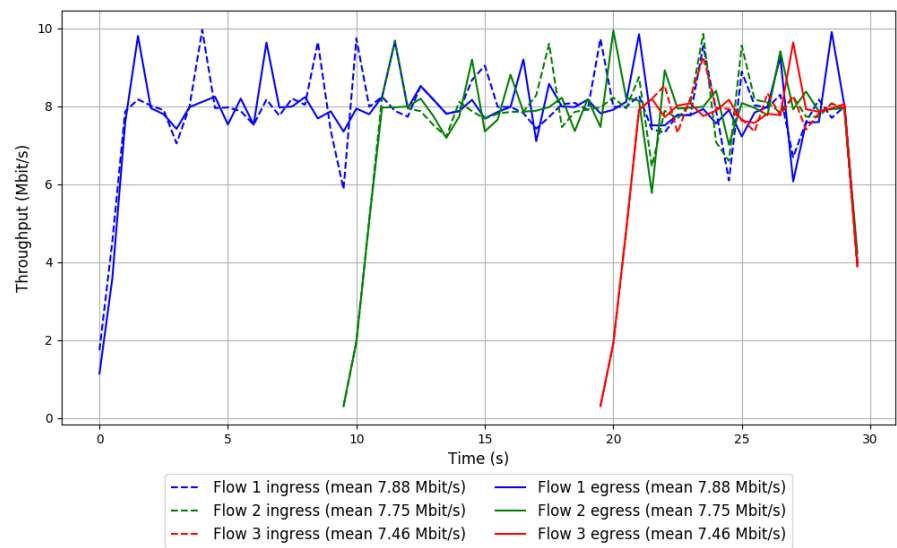
-- Flow 3:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 54.118 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-08 07:27:51

End at: 2017-09-08 07:28:21

# Below is generated by plot.py at 2017-09-08 10:44:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.41 Mbit/s

95th percentile per-packet one-way delay: 54.094 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 54.081 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 54.155 ms

Loss rate: 0.00%

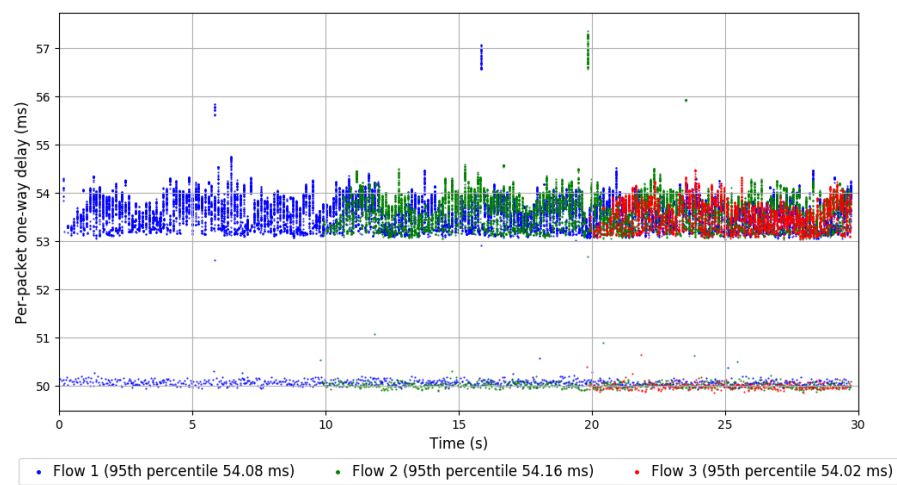
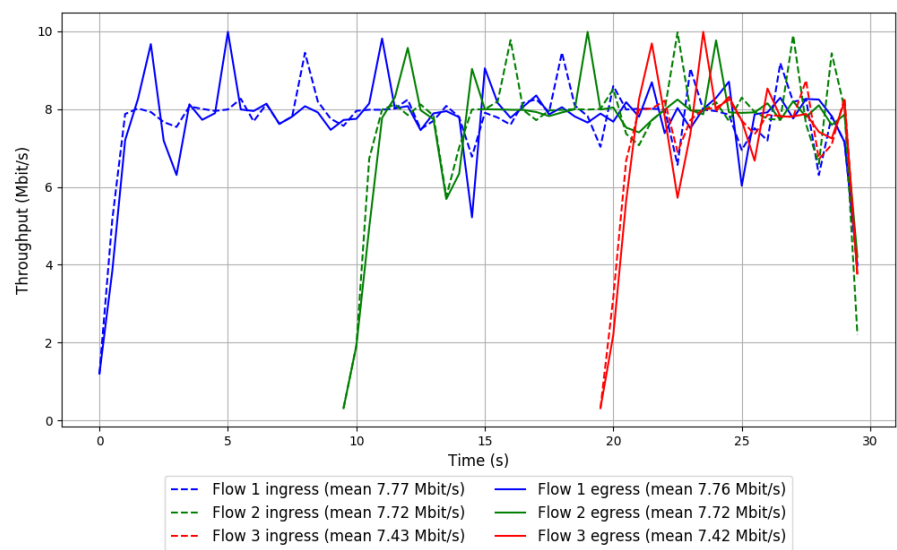
-- Flow 3:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 54.018 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-09-08 07:39:59

End at: 2017-09-08 07:40:29

# Below is generated by plot.py at 2017-09-08 10:44:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.49 Mbit/s

95th percentile per-packet one-way delay: 54.143 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 54.178 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 54.111 ms

Loss rate: 0.00%

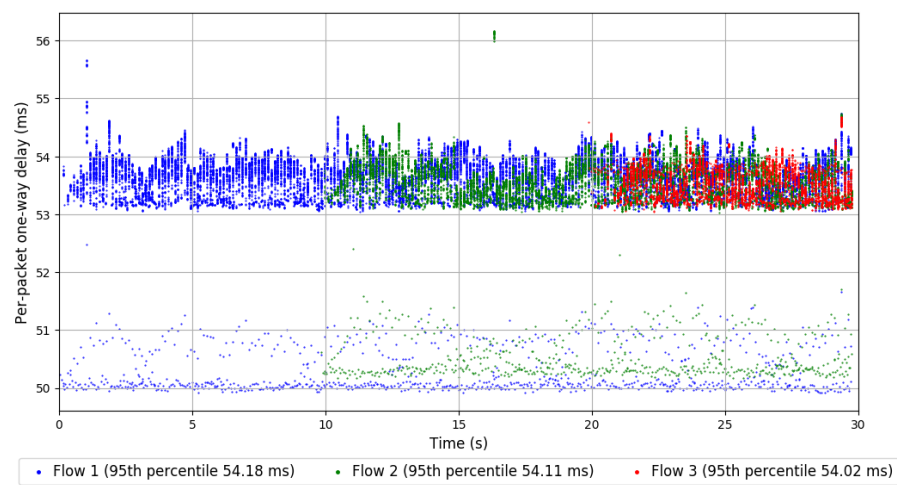
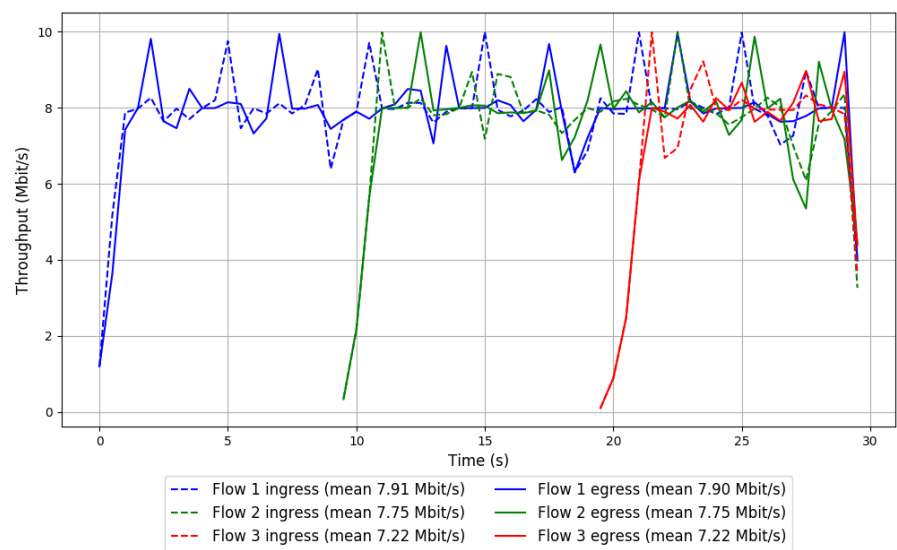
-- Flow 3:

Average throughput: 7.22 Mbit/s

95th percentile per-packet one-way delay: 54.025 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-08 07:51:51

End at: 2017-09-08 07:52:21

# Below is generated by plot.py at 2017-09-08 10:44:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.35 Mbit/s

95th percentile per-packet one-way delay: 54.088 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 54.091 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.69 Mbit/s

95th percentile per-packet one-way delay: 54.049 ms

Loss rate: 0.00%

-- Flow 3:

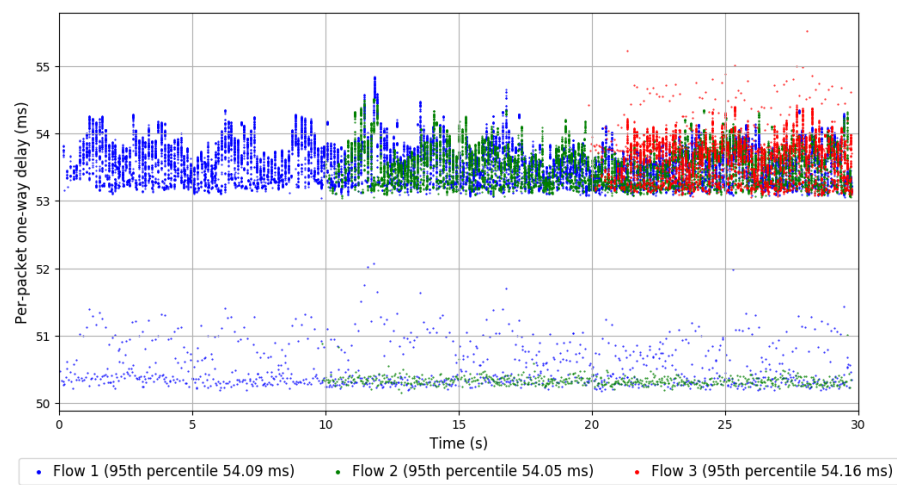
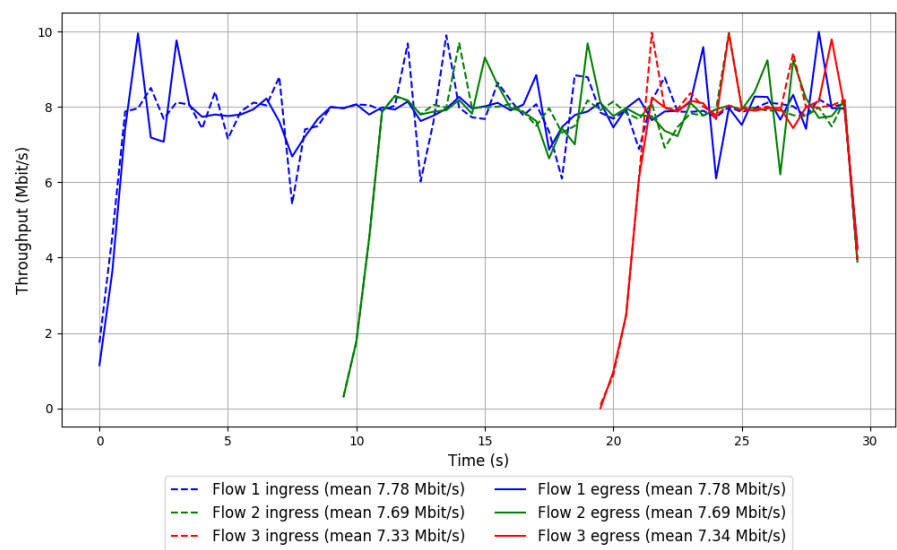
Average throughput: 7.34 Mbit/s

95th percentile per-packet one-way delay: 54.157 ms

Loss rate: 0.00%



Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-08 08:04:05

End at: 2017-09-08 08:04:35

# Below is generated by plot.py at 2017-09-08 10:44:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.31 Mbit/s

95th percentile per-packet one-way delay: 53.999 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 53.969 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 54.032 ms

Loss rate: 0.00%

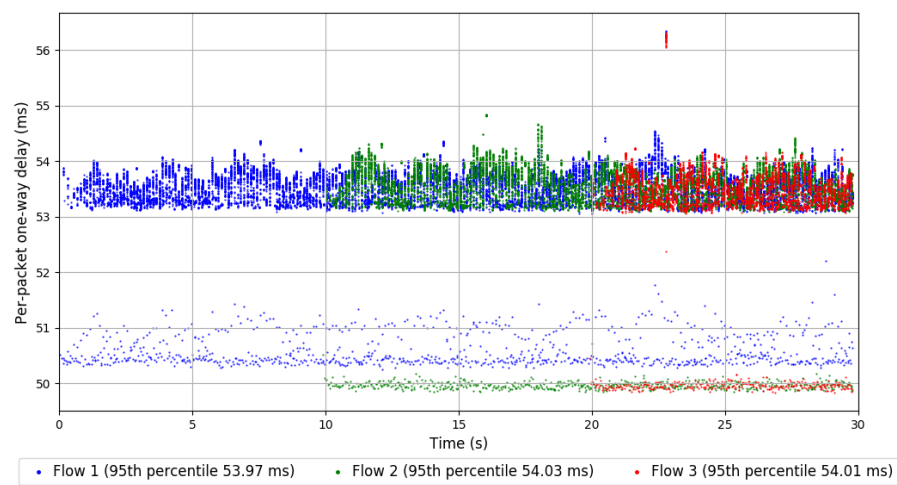
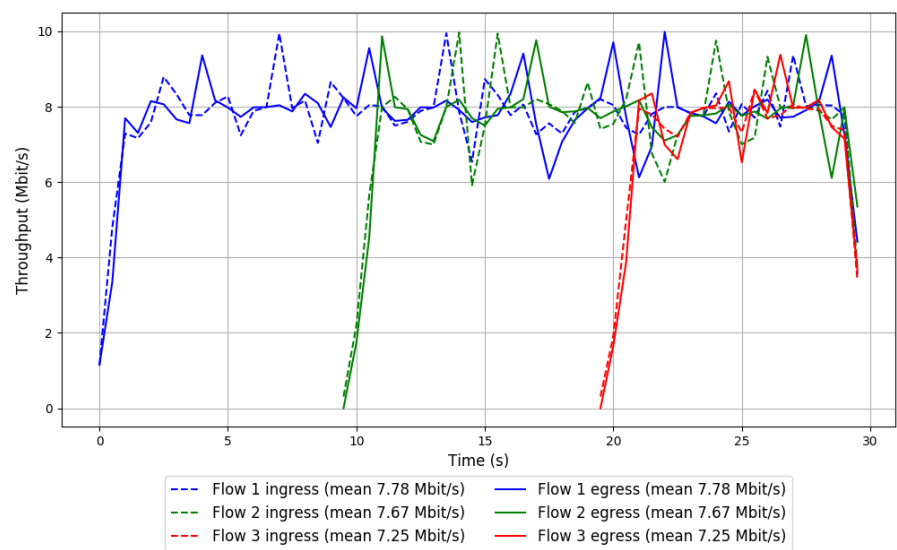
-- Flow 3:

Average throughput: 7.25 Mbit/s

95th percentile per-packet one-way delay: 54.006 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

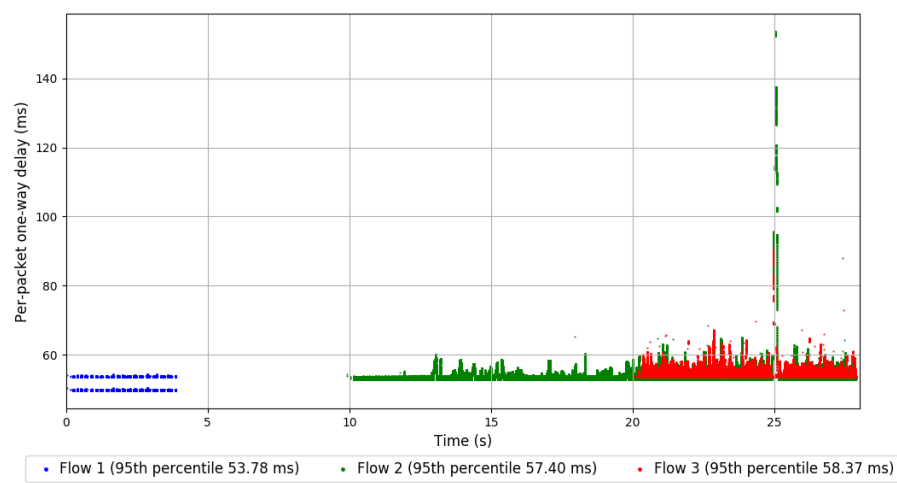
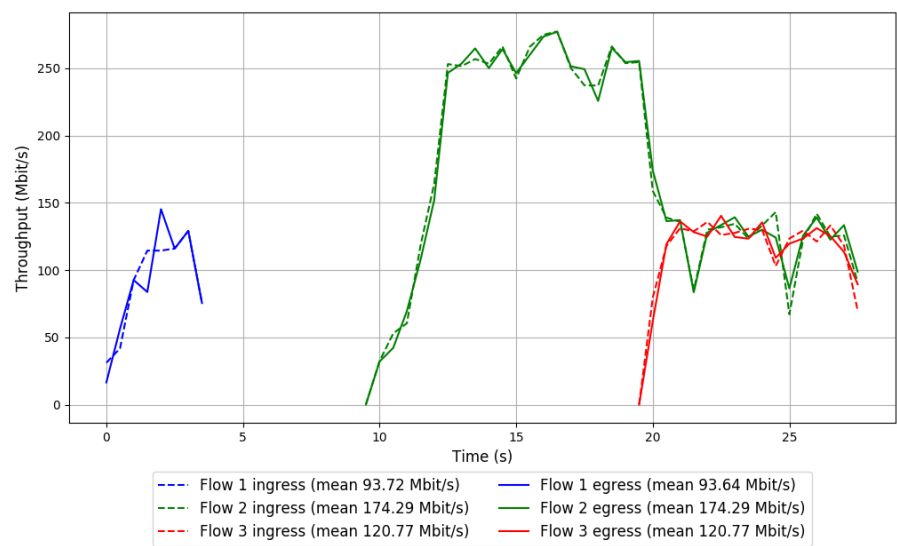


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 06:23:10
End at: 2017-09-08 06:23:40

# Below is generated by plot.py at 2017-09-08 10:45:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 159.47 Mbit/s
95th percentile per-packet one-way delay: 57.497 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.64 Mbit/s
95th percentile per-packet one-way delay: 53.784 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 174.29 Mbit/s
95th percentile per-packet one-way delay: 57.400 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 120.77 Mbit/s
95th percentile per-packet one-way delay: 58.368 ms
Loss rate: 0.00%
```

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

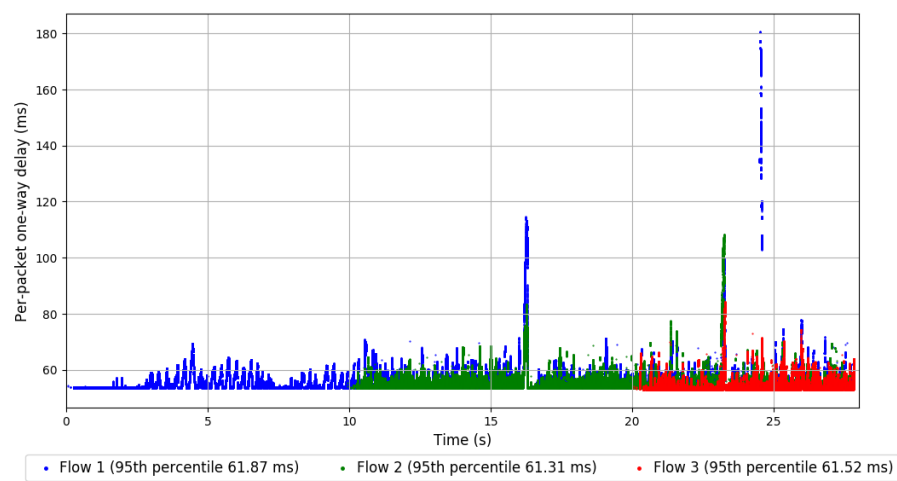
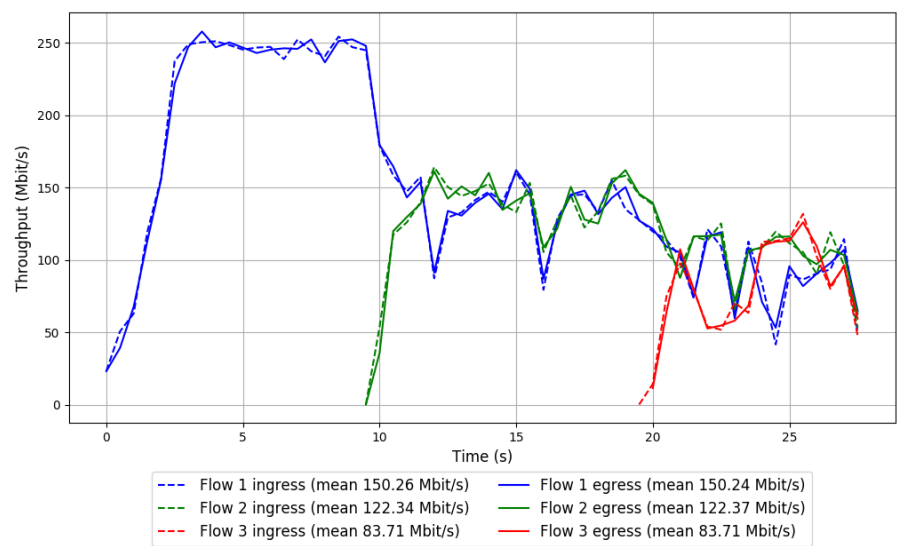


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 06:35:19
End at: 2017-09-08 06:35:49

# Below is generated by plot.py at 2017-09-08 10:45:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.53 Mbit/s
95th percentile per-packet one-way delay: 61.669 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 150.24 Mbit/s
95th percentile per-packet one-way delay: 61.873 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 122.37 Mbit/s
95th percentile per-packet one-way delay: 61.315 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 83.71 Mbit/s
95th percentile per-packet one-way delay: 61.522 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 06:47:04

End at: 2017-09-08 06:47:34

# Below is generated by plot.py at 2017-09-08 10:46:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 256.20 Mbit/s

95th percentile per-packet one-way delay: 59.295 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 172.42 Mbit/s

95th percentile per-packet one-way delay: 59.290 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 130.07 Mbit/s

95th percentile per-packet one-way delay: 59.305 ms

Loss rate: 0.00%

-- Flow 3:

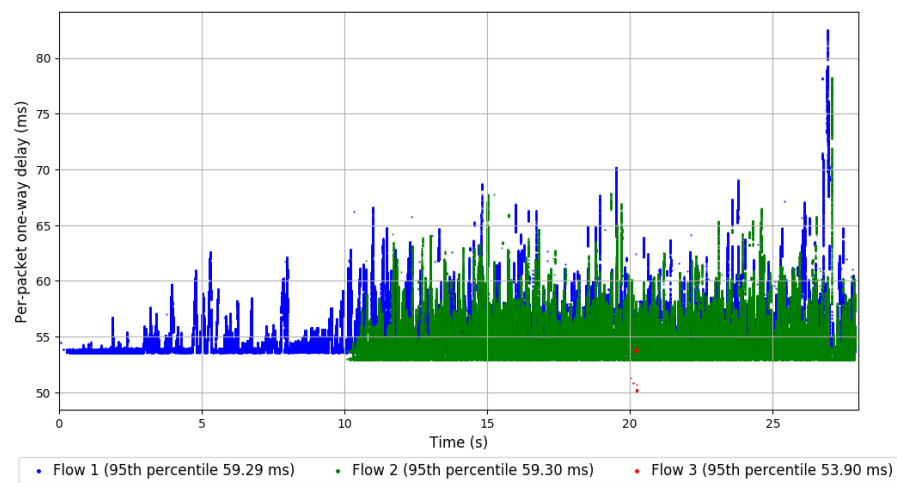
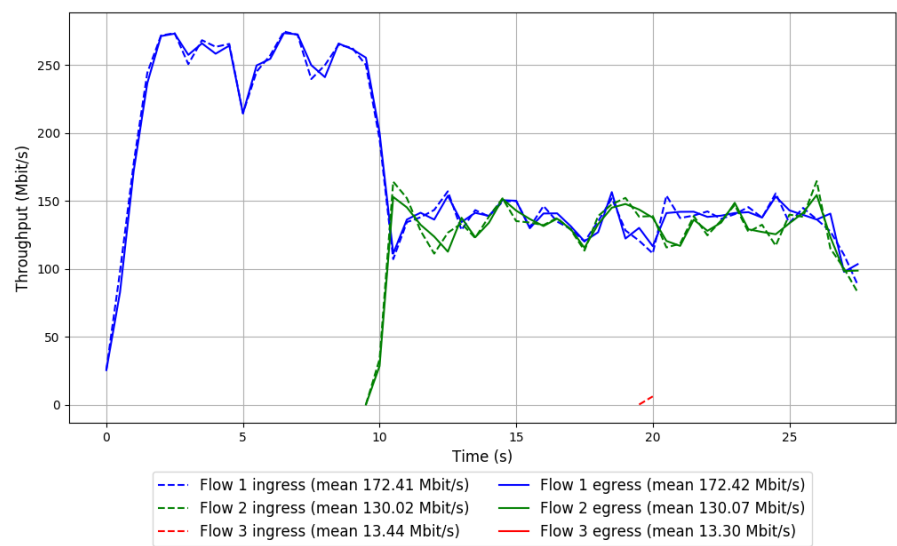
Average throughput: 13.30 Mbit/s

95th percentile per-packet one-way delay: 53.902 ms

Loss rate: 0.00%



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

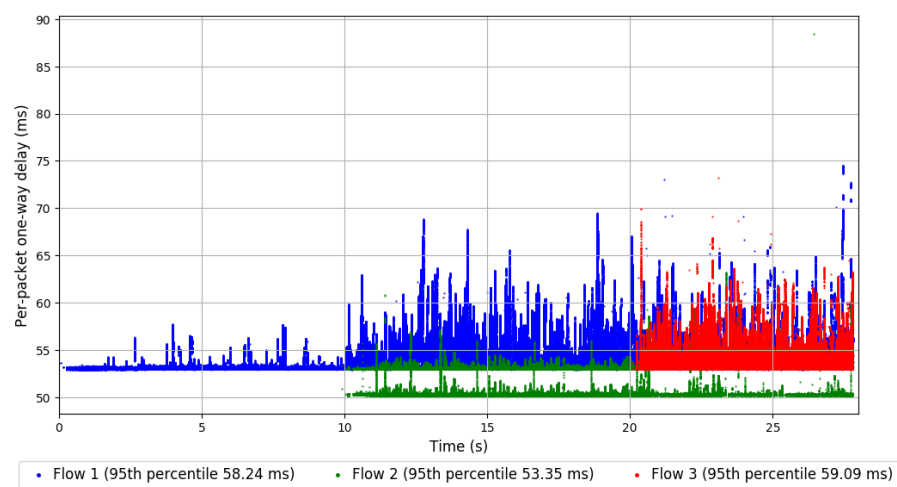
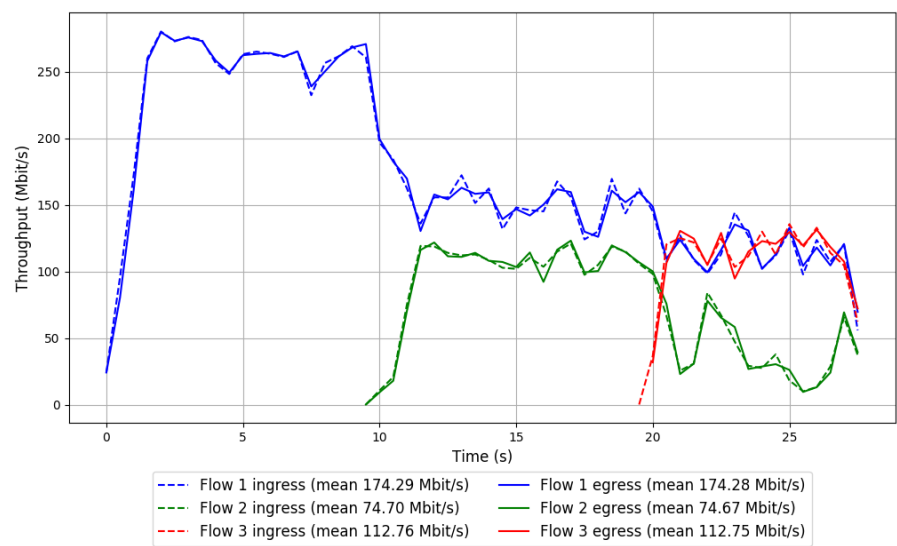


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 06:59:27
End at: 2017-09-08 06:59:57

# Below is generated by plot.py at 2017-09-08 10:46:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 254.03 Mbit/s
95th percentile per-packet one-way delay: 57.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.28 Mbit/s
95th percentile per-packet one-way delay: 58.238 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 74.67 Mbit/s
95th percentile per-packet one-way delay: 53.347 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 112.75 Mbit/s
95th percentile per-packet one-way delay: 59.088 ms
Loss rate: 0.00%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 07:11:22

End at: 2017-09-08 07:11:52

# Below is generated by plot.py at 2017-09-08 10:47:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 174.54 Mbit/s

95th percentile per-packet one-way delay: 53.848 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.28 Mbit/s

95th percentile per-packet one-way delay: 53.105 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 225.33 Mbit/s

95th percentile per-packet one-way delay: 54.056 ms

Loss rate: 0.00%

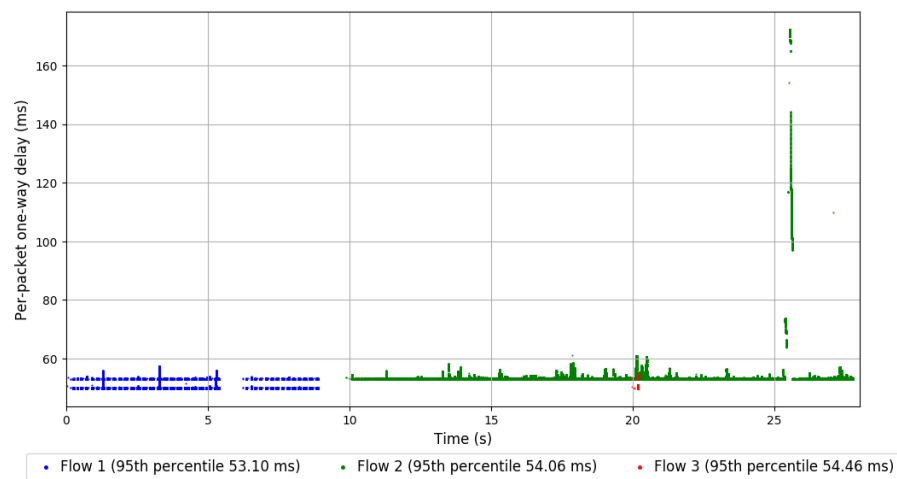
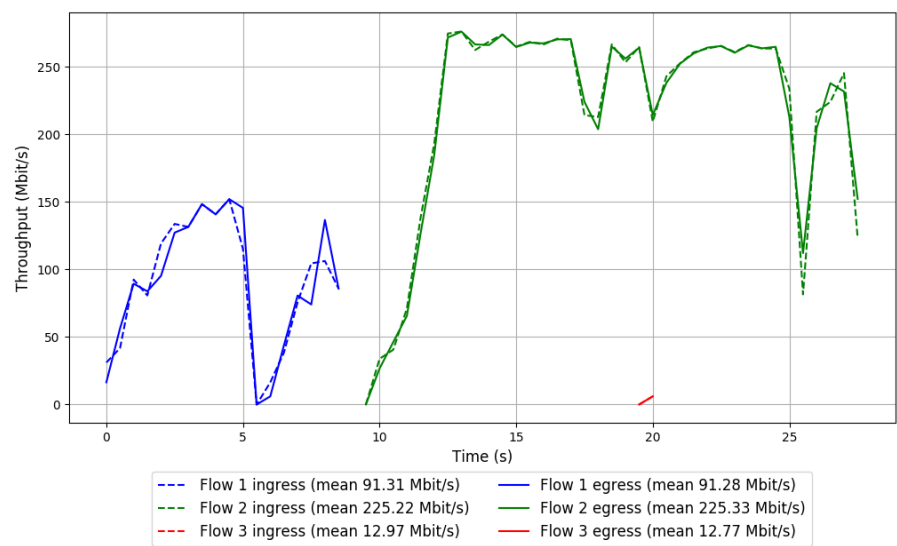
-- Flow 3:

Average throughput: 12.77 Mbit/s

95th percentile per-packet one-way delay: 54.459 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-08 07:23:30

End at: 2017-09-08 07:24:00

# Below is generated by plot.py at 2017-09-08 10:47:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 106.47 Mbit/s

95th percentile per-packet one-way delay: 53.145 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 76.66 Mbit/s

95th percentile per-packet one-way delay: 53.138 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.46 Mbit/s

95th percentile per-packet one-way delay: 53.167 ms

Loss rate: 0.00%

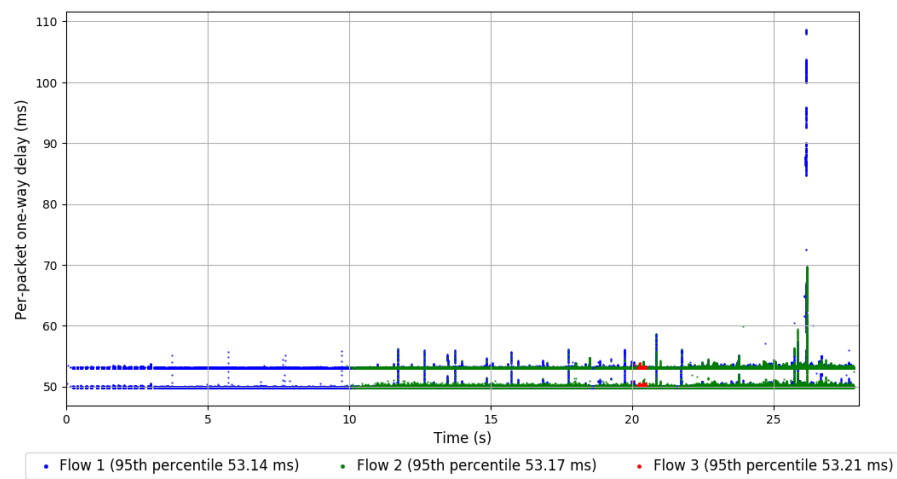
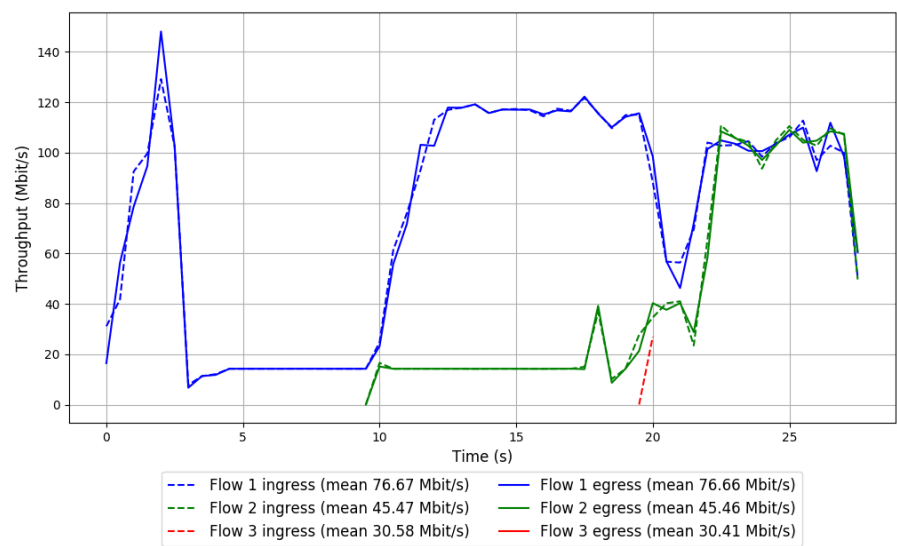
-- Flow 3:

Average throughput: 30.41 Mbit/s

95th percentile per-packet one-way delay: 53.209 ms

Loss rate: 0.00%

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



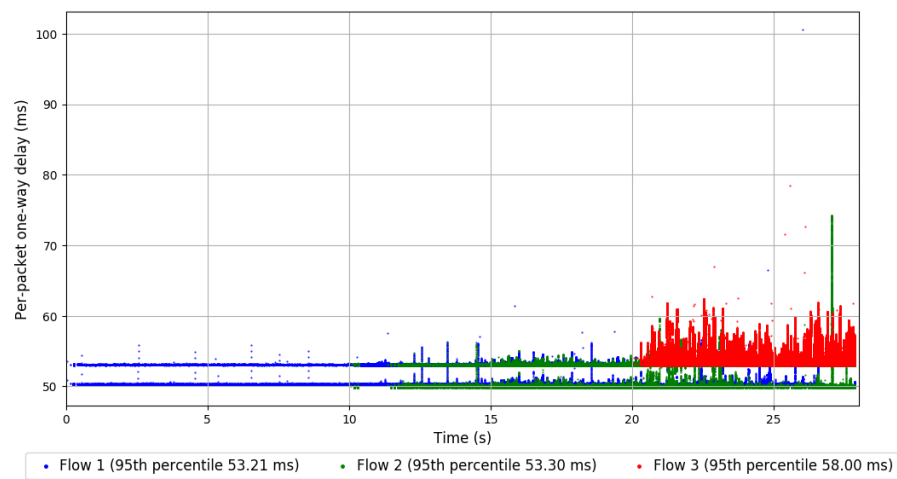
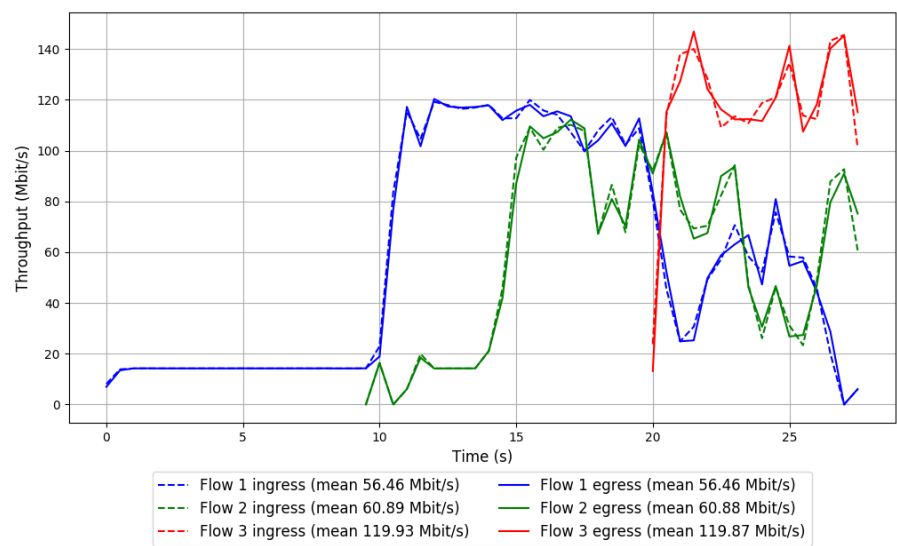
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 07:35:37
End at: 2017-09-08 07:36:07

# Below is generated by plot.py at 2017-09-08 10:48:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 129.18 Mbit/s
95th percentile per-packet one-way delay: 55.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.46 Mbit/s
95th percentile per-packet one-way delay: 53.209 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 60.88 Mbit/s
95th percentile per-packet one-way delay: 53.305 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 119.87 Mbit/s
95th percentile per-packet one-way delay: 58.000 ms
Loss rate: 0.00%
```



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



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 07:47:44

End at: 2017-09-08 07:48:14

# Below is generated by plot.py at 2017-09-08 10:49:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 252.15 Mbit/s

95th percentile per-packet one-way delay: 58.550 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 154.61 Mbit/s

95th percentile per-packet one-way delay: 58.442 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 109.24 Mbit/s

95th percentile per-packet one-way delay: 58.210 ms

Loss rate: 0.00%

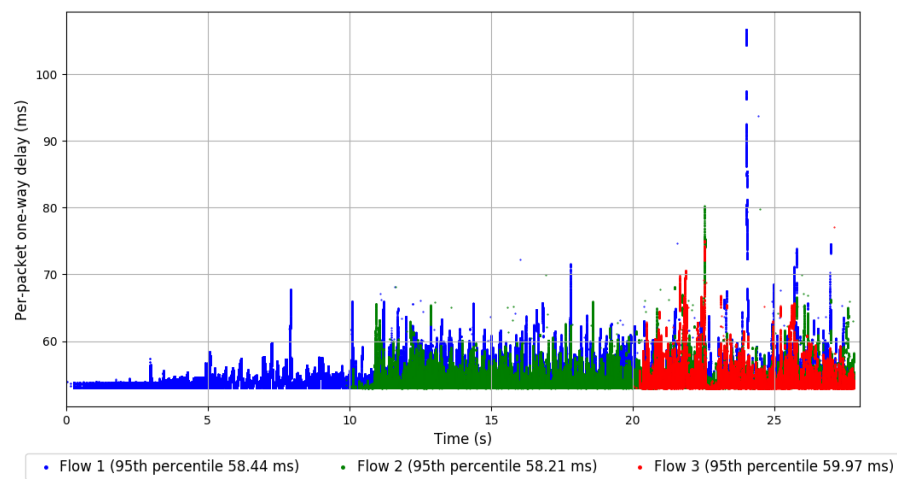
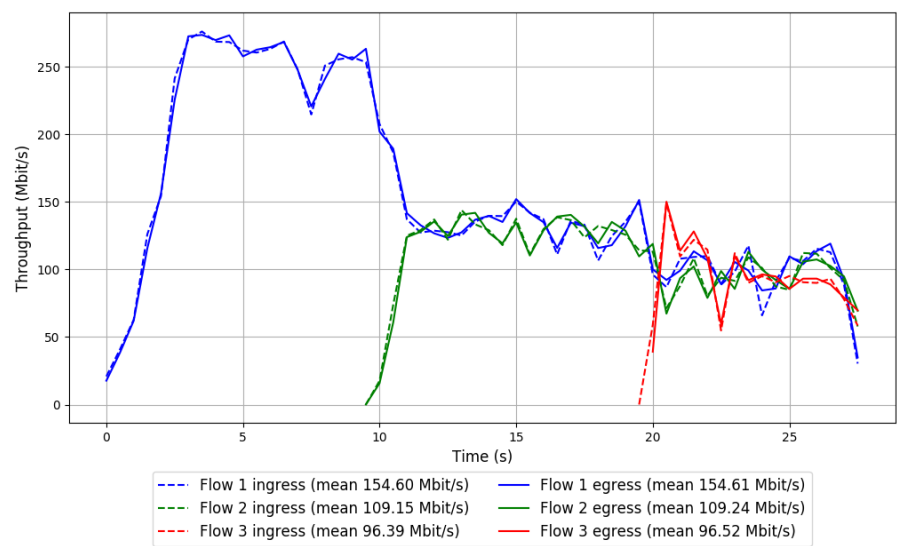
-- Flow 3:

Average throughput: 96.52 Mbit/s

95th percentile per-packet one-way delay: 59.968 ms

Loss rate: 0.00%

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

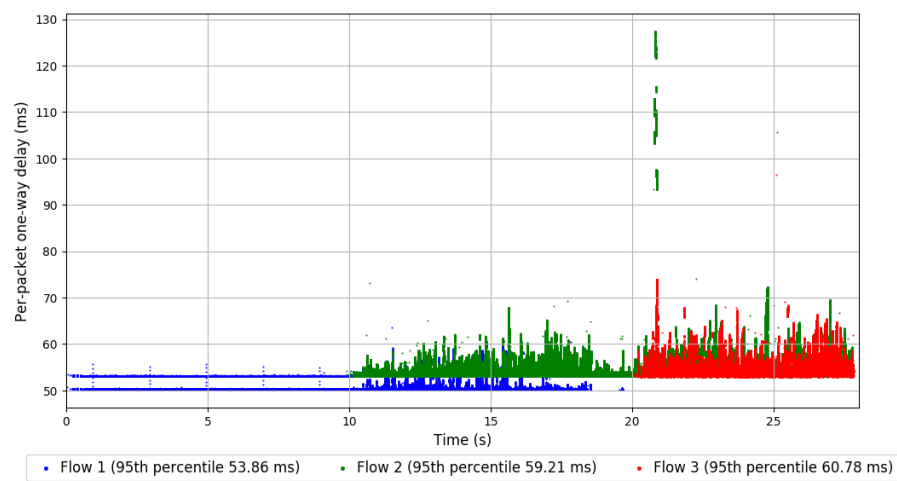
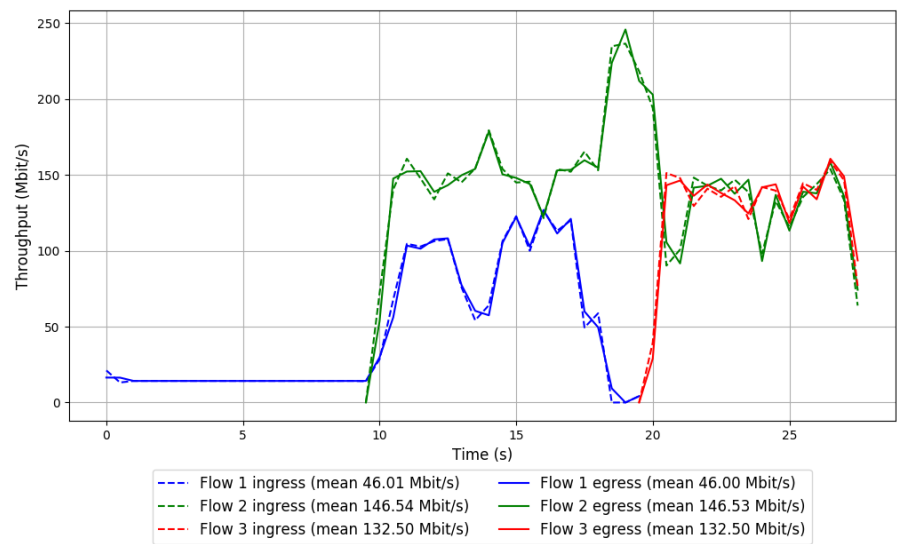


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 07:59:36
End at: 2017-09-08 08:00:06

# Below is generated by plot.py at 2017-09-08 10:49:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 164.32 Mbit/s
95th percentile per-packet one-way delay: 59.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.00 Mbit/s
95th percentile per-packet one-way delay: 53.858 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 146.53 Mbit/s
95th percentile per-packet one-way delay: 59.211 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 132.50 Mbit/s
95th percentile per-packet one-way delay: 60.776 ms
Loss rate: 0.00%
```

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

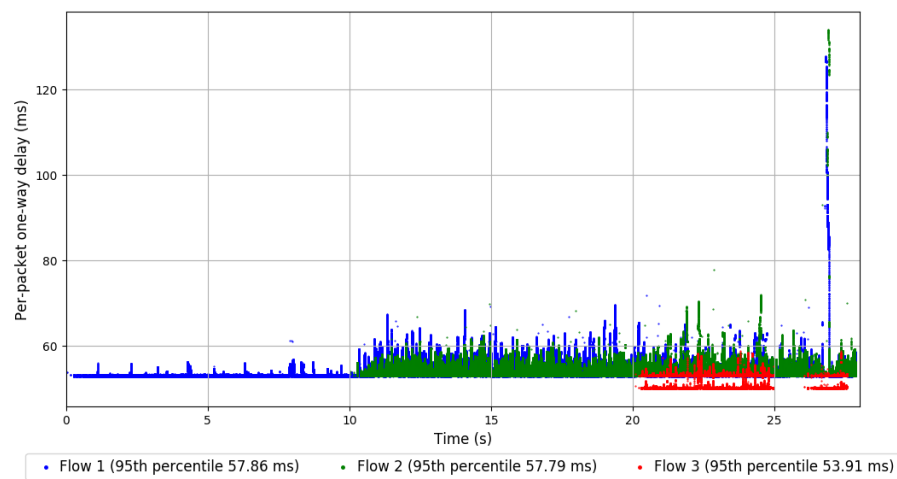
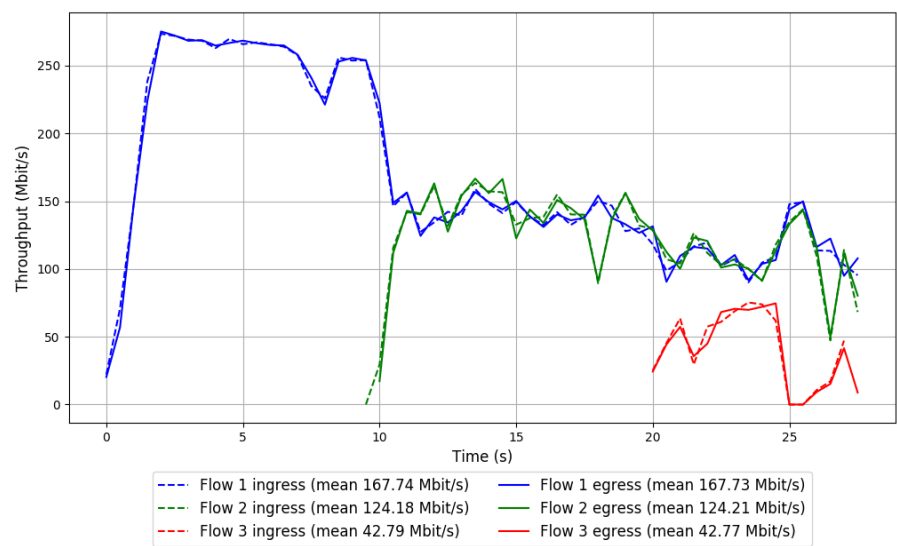


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 08:11:49
End at: 2017-09-08 08:12:19

# Below is generated by plot.py at 2017-09-08 10:50:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.80 Mbit/s
95th percentile per-packet one-way delay: 57.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 167.73 Mbit/s
95th percentile per-packet one-way delay: 57.859 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 124.21 Mbit/s
95th percentile per-packet one-way delay: 57.787 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 42.77 Mbit/s
95th percentile per-packet one-way delay: 53.910 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-08 06:17:09

End at: 2017-09-08 06:17:39

# Below is generated by plot.py at 2017-09-08 10:50:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 16.05 Mbit/s

95th percentile per-packet one-way delay: 54.293 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.52 Mbit/s

95th percentile per-packet one-way delay: 54.288 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 8.58 Mbit/s

95th percentile per-packet one-way delay: 54.301 ms

Loss rate: 0.00%

-- Flow 3:

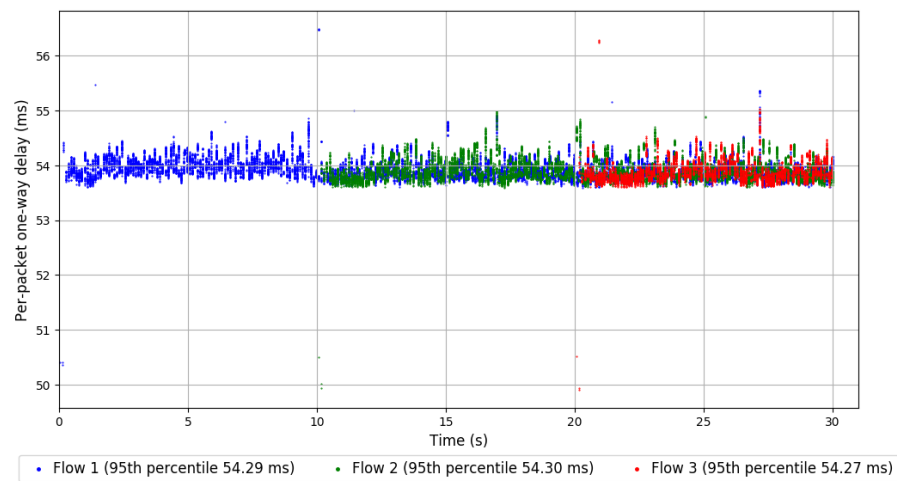
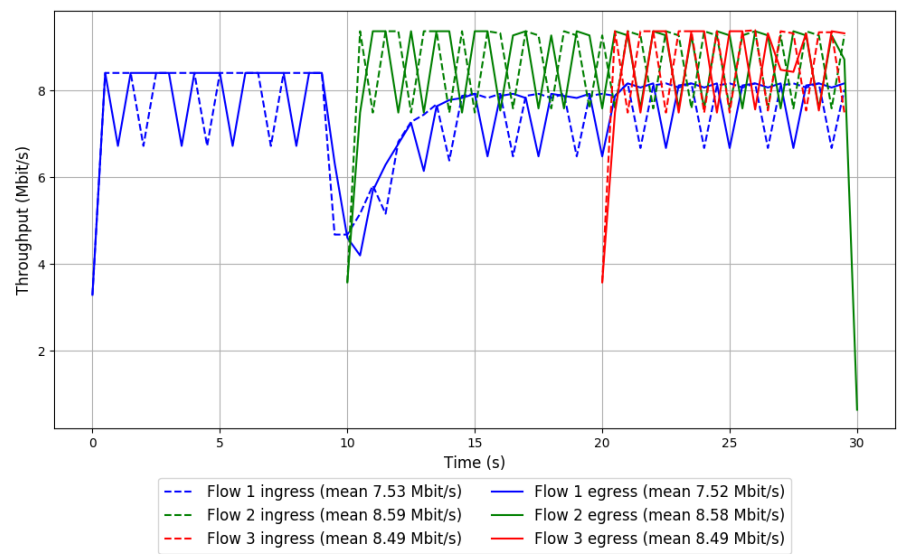
Average throughput: 8.49 Mbit/s

95th percentile per-packet one-way delay: 54.270 ms

Loss rate: 0.00%



Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 06:29:06

End at: 2017-09-08 06:29:36

# Below is generated by plot.py at 2017-09-08 10:50:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.69 Mbit/s

95th percentile per-packet one-way delay: 54.468 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.74 Mbit/s

95th percentile per-packet one-way delay: 54.334 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.07 Mbit/s

95th percentile per-packet one-way delay: 54.630 ms

Loss rate: 0.00%

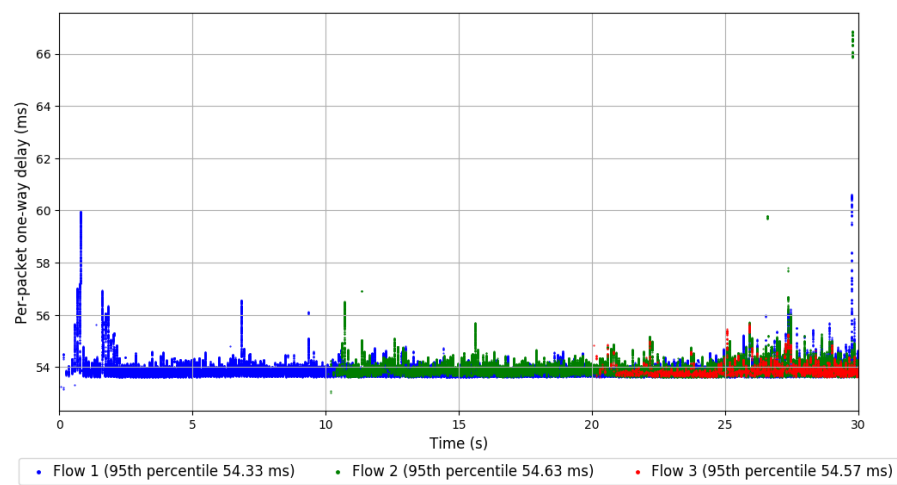
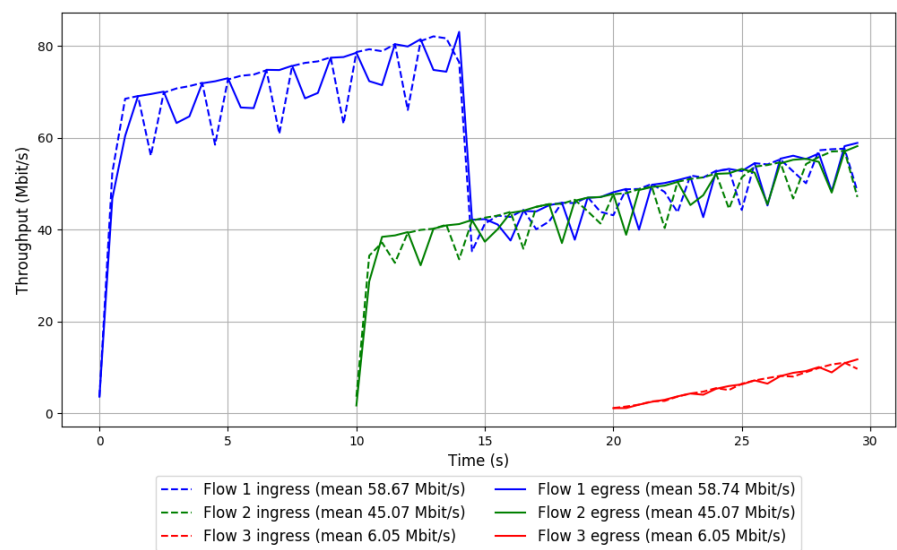
-- Flow 3:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 54.573 ms

Loss rate: 0.02%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 06:40:59

End at: 2017-09-08 06:41:29

# Below is generated by plot.py at 2017-09-08 10:50:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.56 Mbit/s

95th percentile per-packet one-way delay: 54.526 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 60.95 Mbit/s

95th percentile per-packet one-way delay: 54.548 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.58 Mbit/s

95th percentile per-packet one-way delay: 54.314 ms

Loss rate: 0.00%

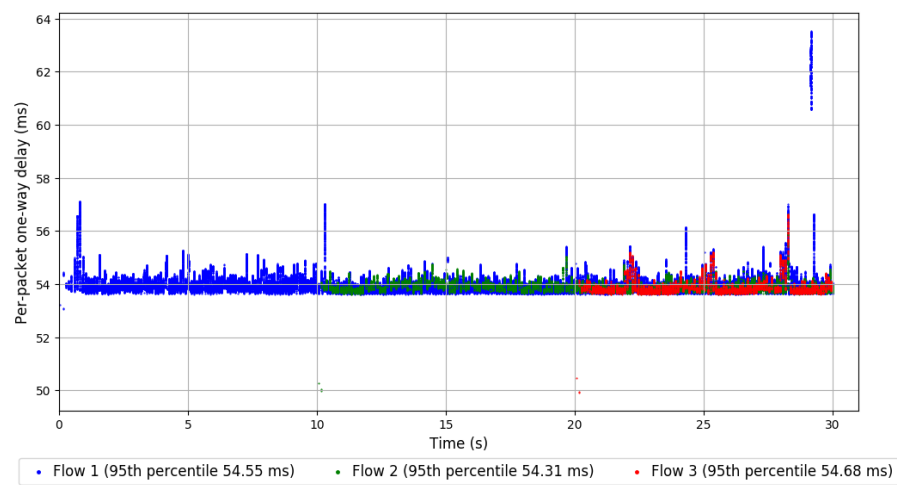
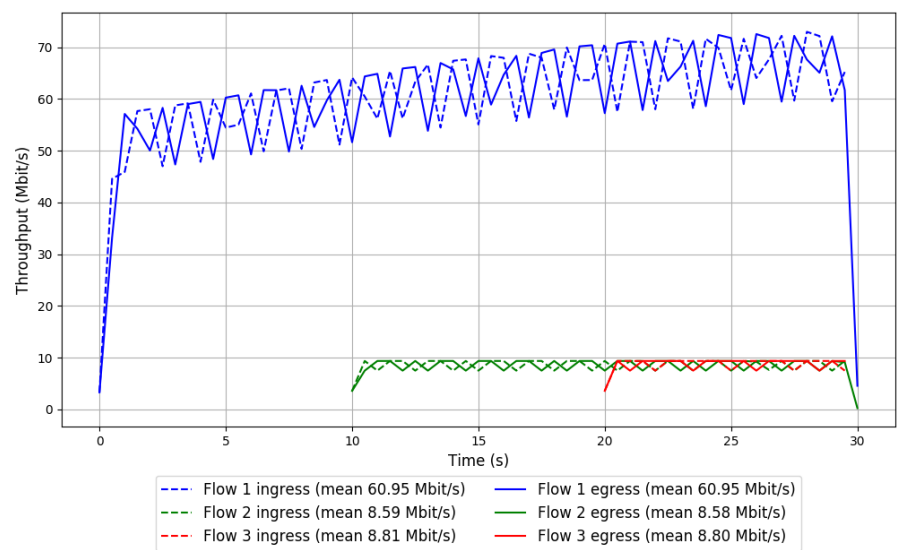
-- Flow 3:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 54.684 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 06:53:14

End at: 2017-09-08 06:53:44

# Below is generated by plot.py at 2017-09-08 10:50:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 185.64 Mbit/s

95th percentile per-packet one-way delay: 55.367 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 130.86 Mbit/s

95th percentile per-packet one-way delay: 55.305 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.37 Mbit/s

95th percentile per-packet one-way delay: 54.679 ms

Loss rate: 0.00%

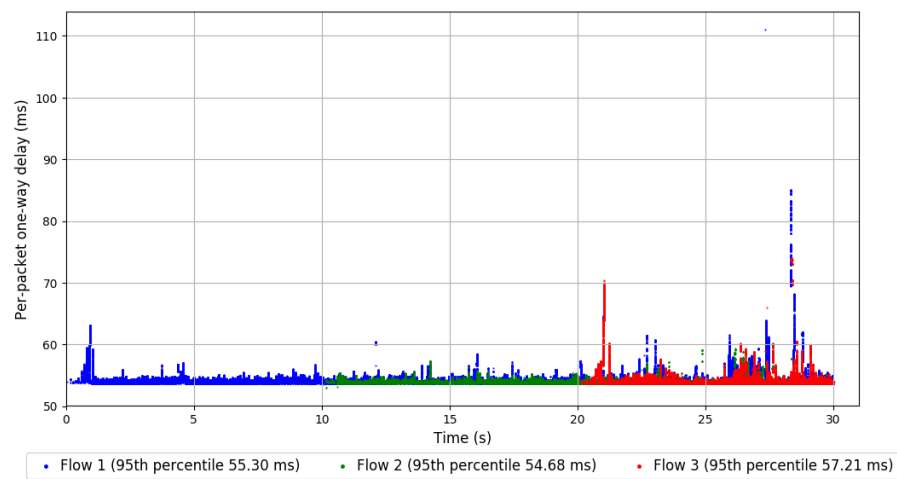
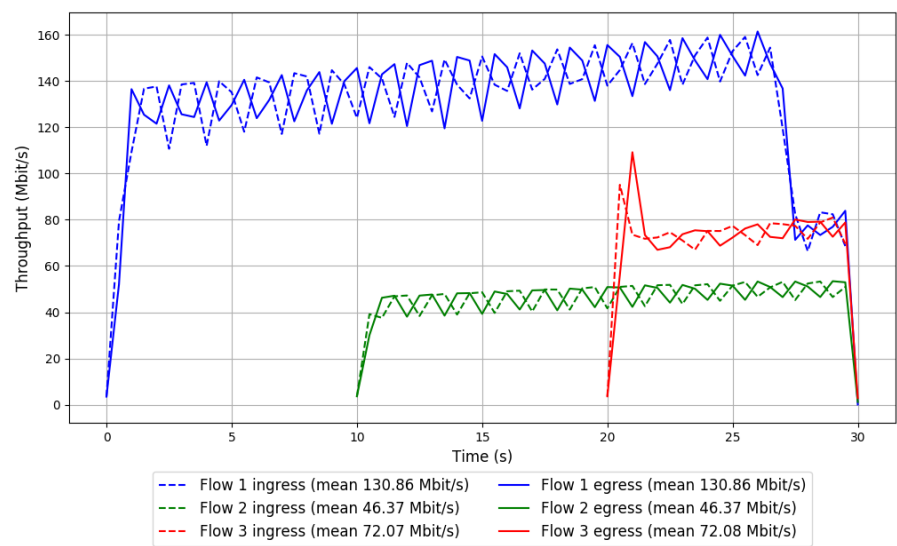
-- Flow 3:

Average throughput: 72.08 Mbit/s

95th percentile per-packet one-way delay: 57.211 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 07:05:10

End at: 2017-09-08 07:05:40

# Below is generated by plot.py at 2017-09-08 10:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 150.77 Mbit/s

95th percentile per-packet one-way delay: 60.711 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.16 Mbit/s

95th percentile per-packet one-way delay: 55.625 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 170.82 Mbit/s

95th percentile per-packet one-way delay: 60.976 ms

Loss rate: 0.00%

-- Flow 3:

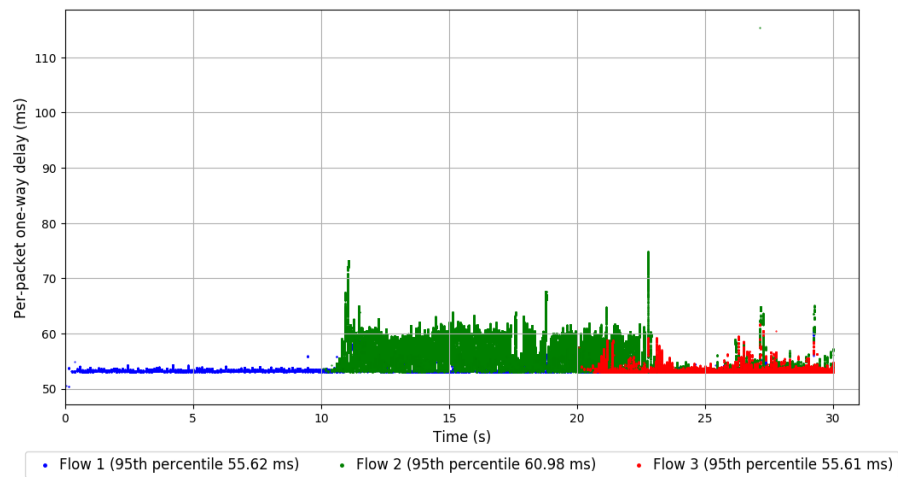
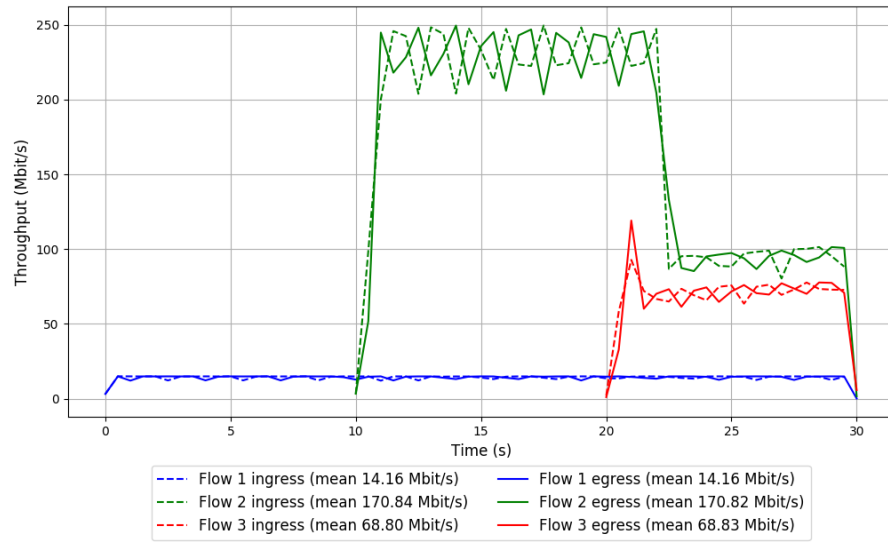
Average throughput: 68.83 Mbit/s

95th percentile per-packet one-way delay: 55.606 ms

Loss rate: 0.00%



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



Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 07:17:24

End at: 2017-09-08 07:17:54

# Below is generated by plot.py at 2017-09-08 10:50:57

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.98 Mbit/s

95th percentile per-packet one-way delay: 59.121 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.70 Mbit/s

95th percentile per-packet one-way delay: 54.718 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 123.68 Mbit/s

95th percentile per-packet one-way delay: 59.522 ms

Loss rate: 0.00%

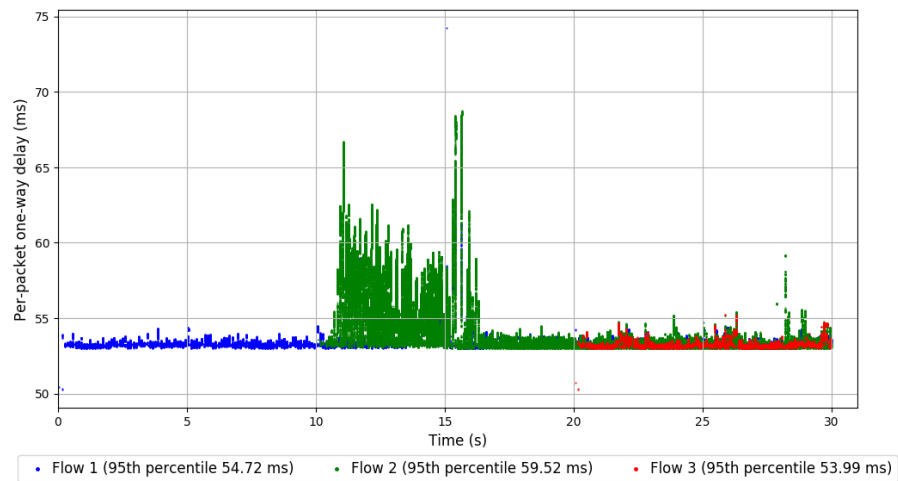
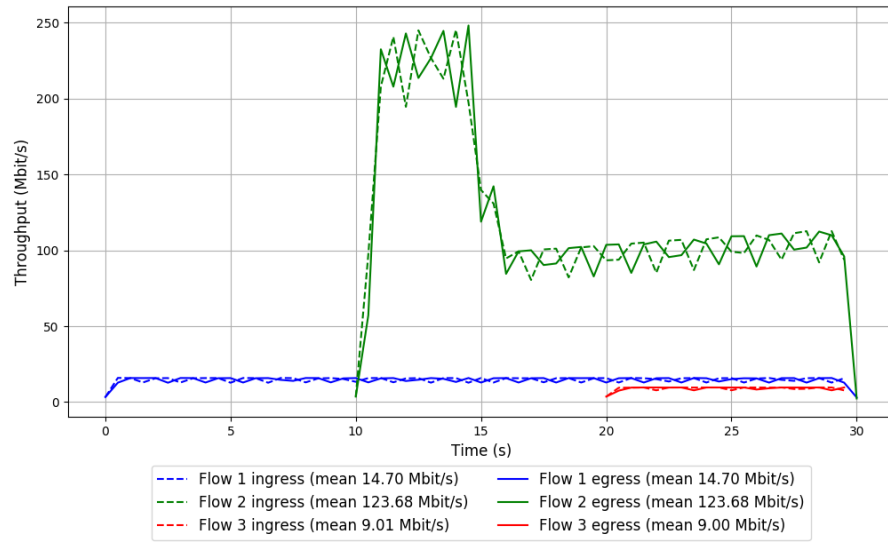
-- Flow 3:

Average throughput: 9.00 Mbit/s

95th percentile per-packet one-way delay: 53.994 ms

Loss rate: 0.00%

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



Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 07:29:28

End at: 2017-09-08 07:29:58

# Below is generated by plot.py at 2017-09-08 10:51:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.74 Mbit/s

95th percentile per-packet one-way delay: 55.203 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.96 Mbit/s

95th percentile per-packet one-way delay: 54.150 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.01 Mbit/s

95th percentile per-packet one-way delay: 53.601 ms

Loss rate: 0.00%

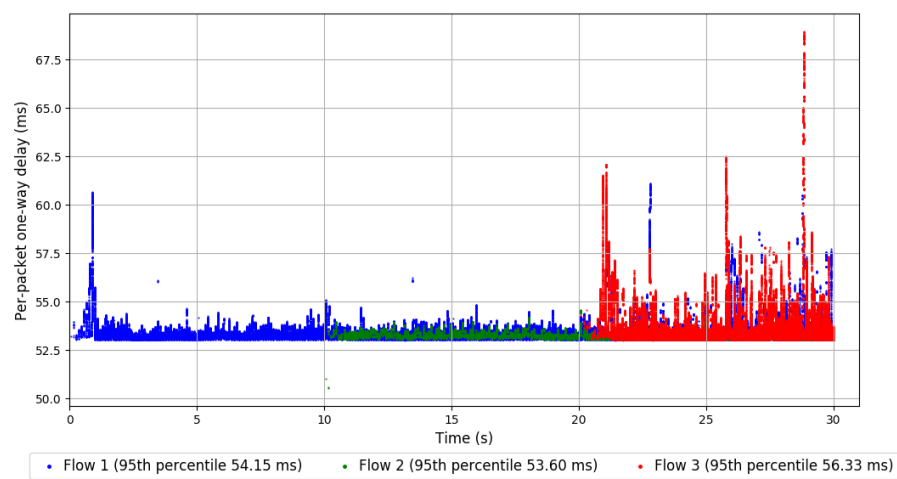
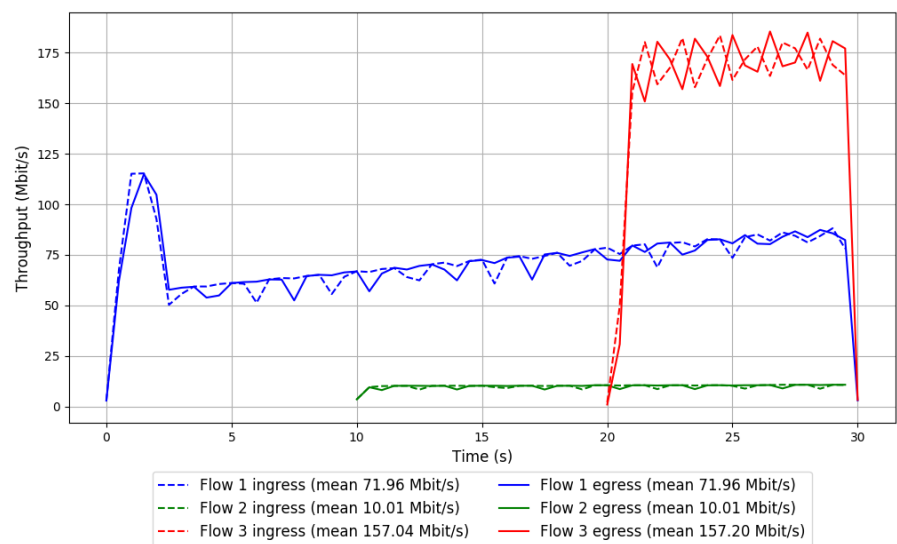
-- Flow 3:

Average throughput: 157.20 Mbit/s

95th percentile per-packet one-way delay: 56.329 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 07:41:35

End at: 2017-09-08 07:42:05

# Below is generated by plot.py at 2017-09-08 10:51:20

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.57 Mbit/s

95th percentile per-packet one-way delay: 58.447 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 9.86 Mbit/s

95th percentile per-packet one-way delay: 53.821 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.60 Mbit/s

95th percentile per-packet one-way delay: 56.772 ms

Loss rate: 0.00%

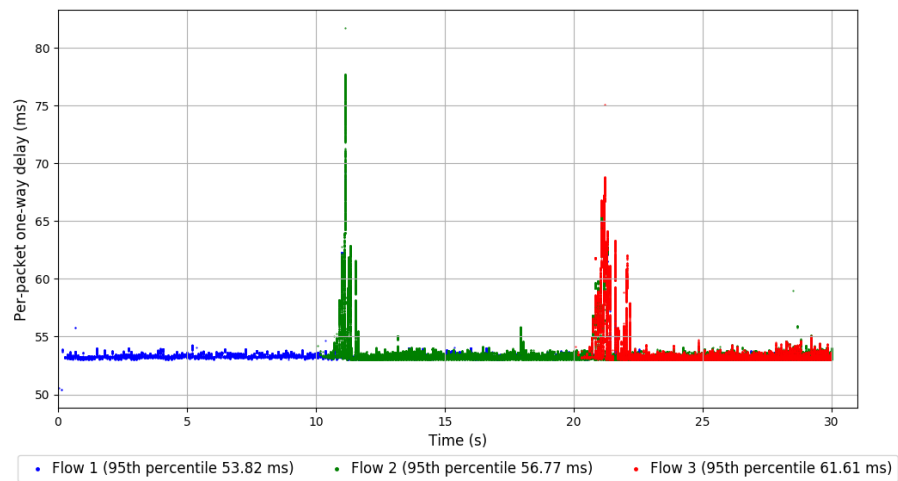
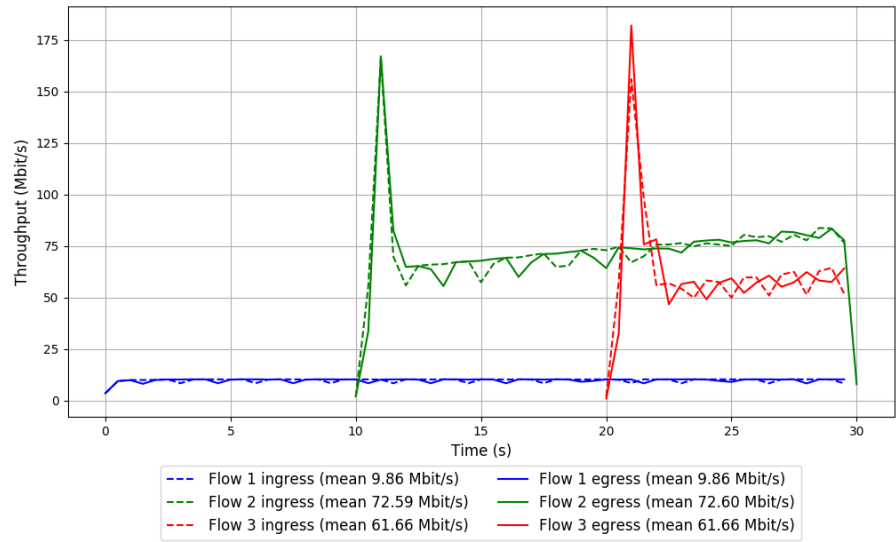
-- Flow 3:

Average throughput: 61.66 Mbit/s

95th percentile per-packet one-way delay: 61.611 ms

Loss rate: 0.00%

# Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 07:53:27

End at: 2017-09-08 07:53:58

# Below is generated by plot.py at 2017-09-08 10:51:39

# Datalink statistics

-- Total of 3 flows:

Average throughput: 124.55 Mbit/s

95th percentile per-packet one-way delay: 54.661 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.10 Mbit/s

95th percentile per-packet one-way delay: 53.957 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.20 Mbit/s

95th percentile per-packet one-way delay: 53.764 ms

Loss rate: 0.00%

-- Flow 3:

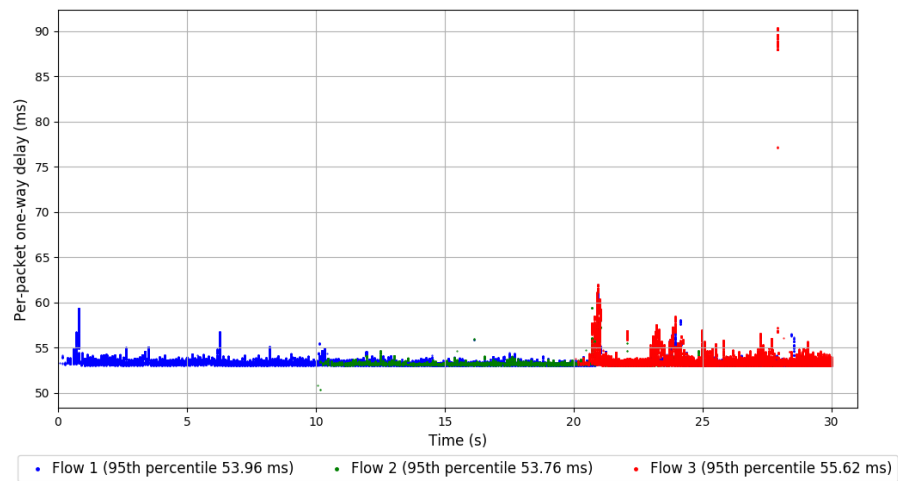
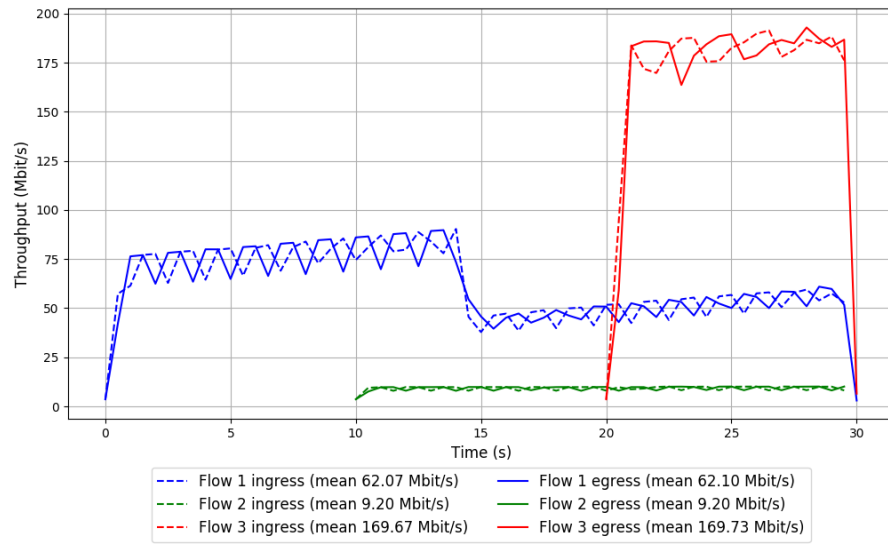
Average throughput: 169.73 Mbit/s

95th percentile per-packet one-way delay: 55.623 ms

Loss rate: 0.00%



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

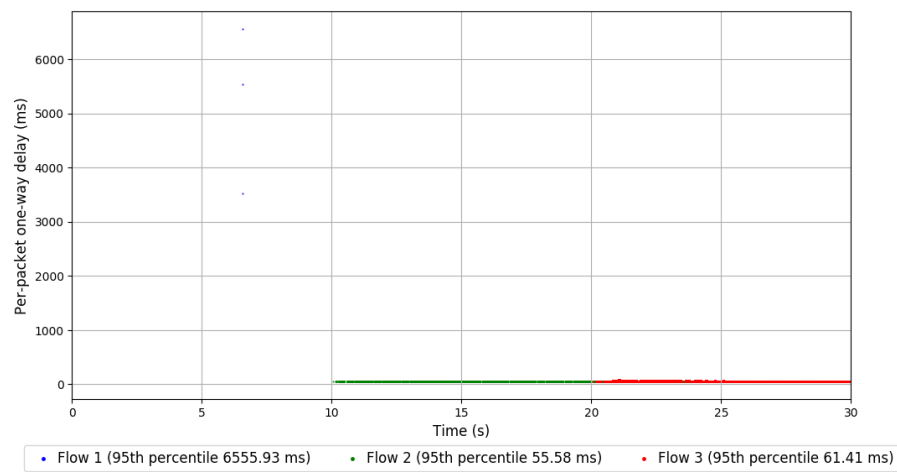
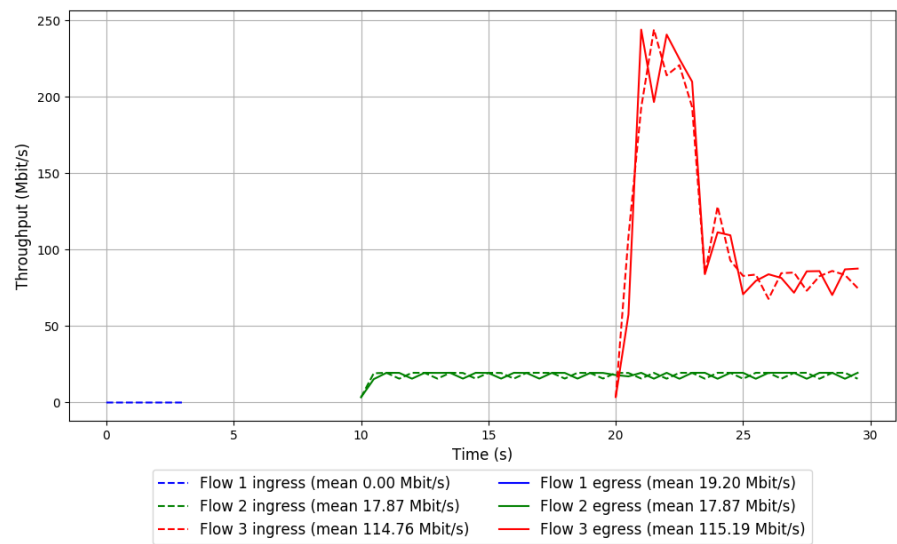


Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 08:05:40

End at: 2017-09-08 08:06:10

Run 10: Report of TCP Vegas — Data Link

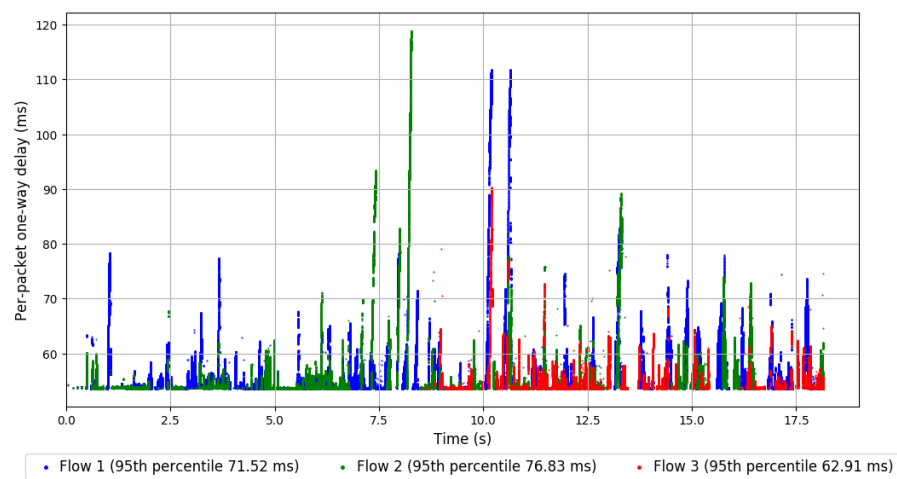
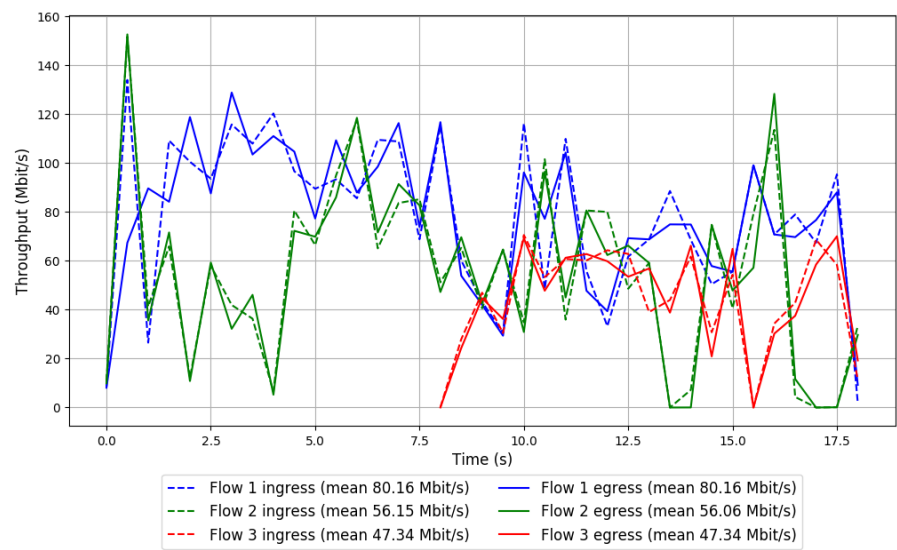


Run 1: Statistics of Verus

Start at: 2017-09-08 06:21:39

End at: 2017-09-08 06:22:09

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-08 06:33:44

End at: 2017-09-08 06:34:14

# Below is generated by plot.py at 2017-09-08 10:52:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 140.81 Mbit/s

95th percentile per-packet one-way delay: 78.255 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 84.85 Mbit/s

95th percentile per-packet one-way delay: 79.488 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.12 Mbit/s

95th percentile per-packet one-way delay: 82.523 ms

Loss rate: 0.02%

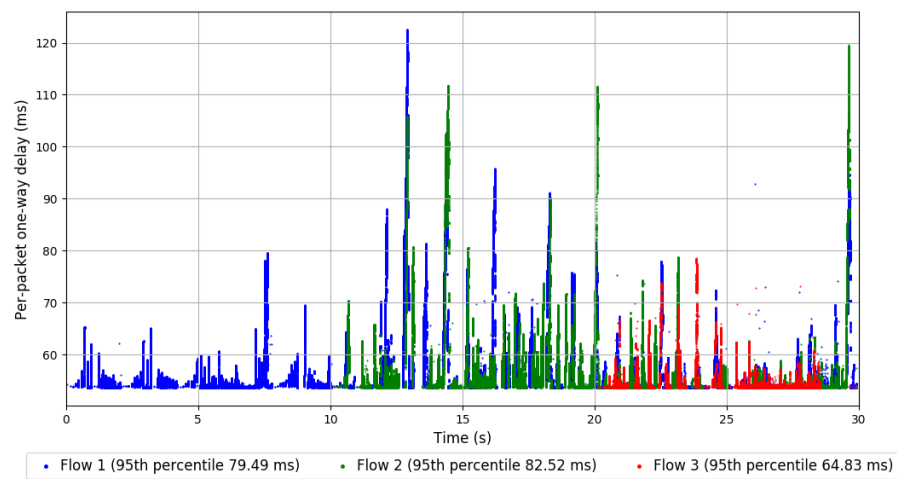
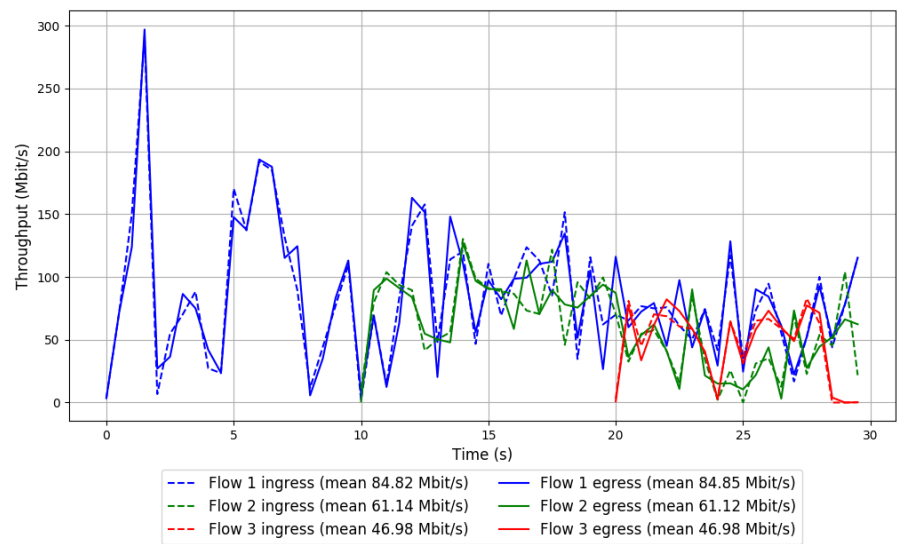
-- Flow 3:

Average throughput: 46.98 Mbit/s

95th percentile per-packet one-way delay: 64.825 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



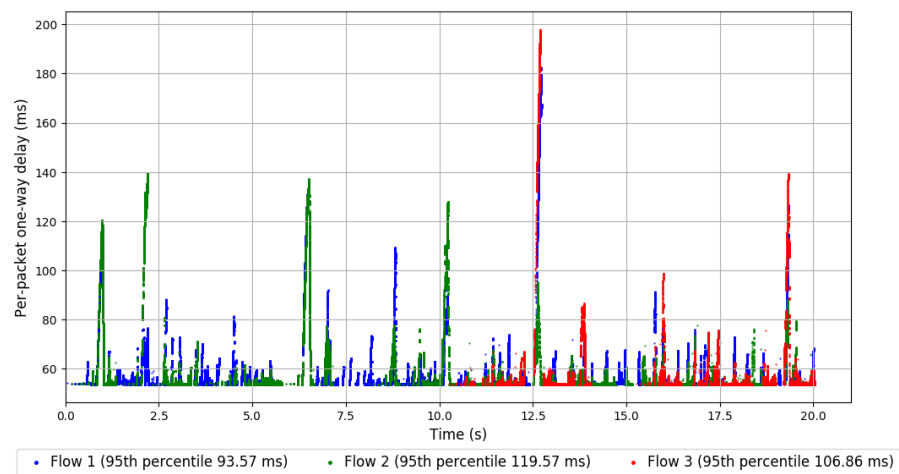
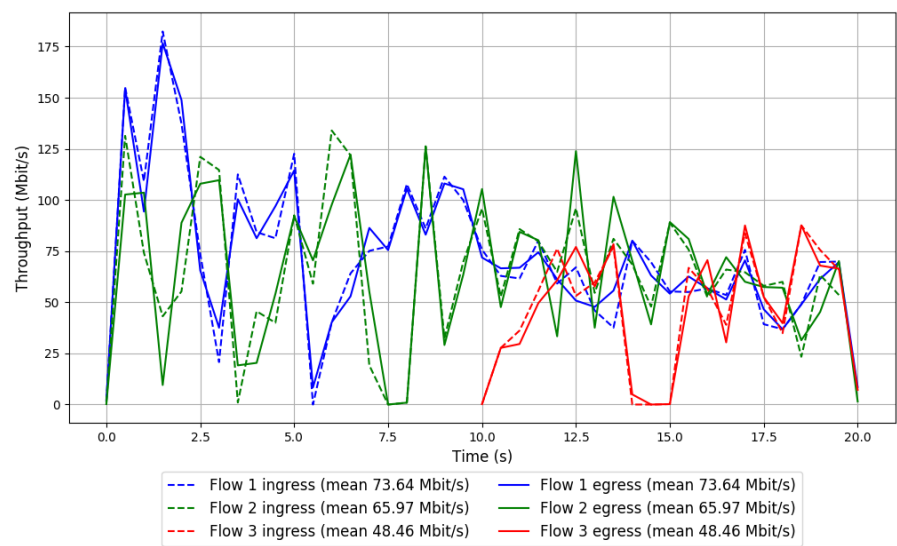
Run 3: Statistics of Verus

Start at: 2017-09-08 06:45:32

End at: 2017-09-08 06:46:02



Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-08 06:57:52

End at: 2017-09-08 06:58:22

# Below is generated by plot.py at 2017-09-08 10:52:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 148.74 Mbit/s

95th percentile per-packet one-way delay: 88.793 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 103.50 Mbit/s

95th percentile per-packet one-way delay: 98.440 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.05 Mbit/s

95th percentile per-packet one-way delay: 62.794 ms

Loss rate: 0.01%

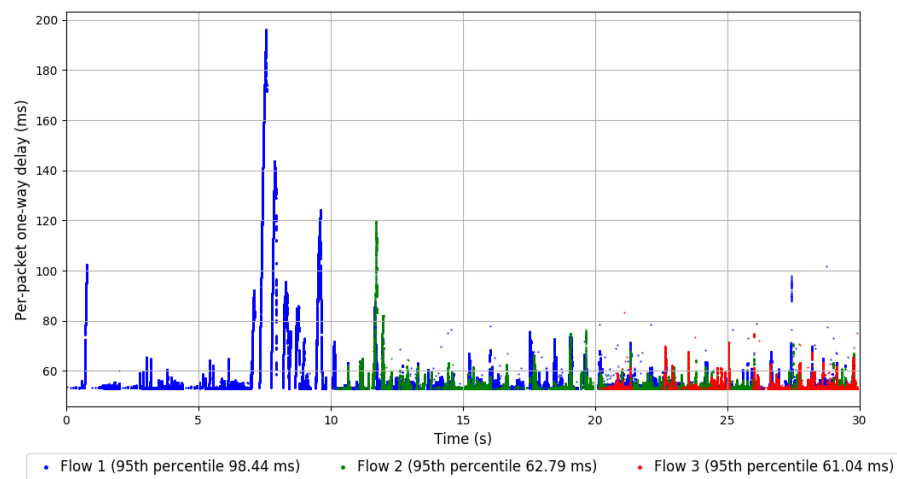
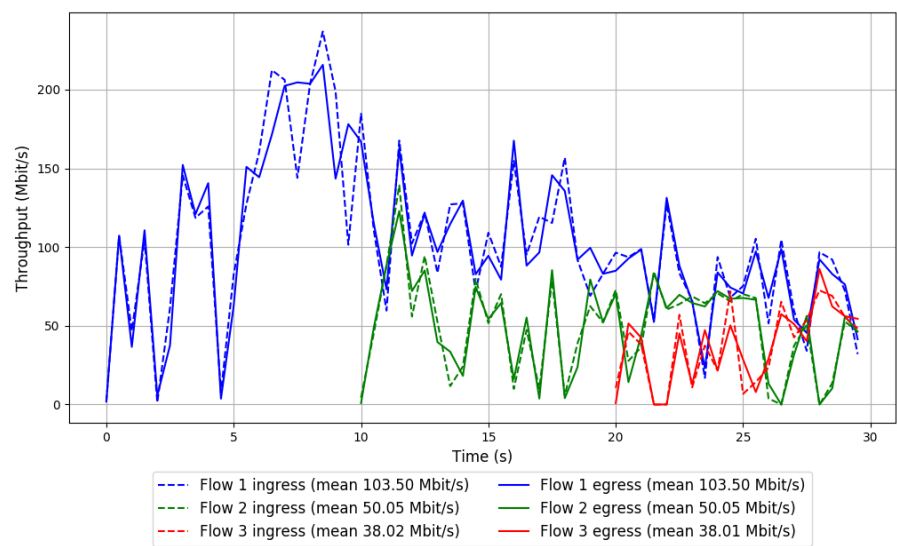
-- Flow 3:

Average throughput: 38.01 Mbit/s

95th percentile per-packet one-way delay: 61.043 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-08 07:09:48

End at: 2017-09-08 07:10:18

# Below is generated by plot.py at 2017-09-08 10:52:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 138.07 Mbit/s

95th percentile per-packet one-way delay: 74.251 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 77.33 Mbit/s

95th percentile per-packet one-way delay: 73.797 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 63.81 Mbit/s

95th percentile per-packet one-way delay: 83.805 ms

Loss rate: 0.00%

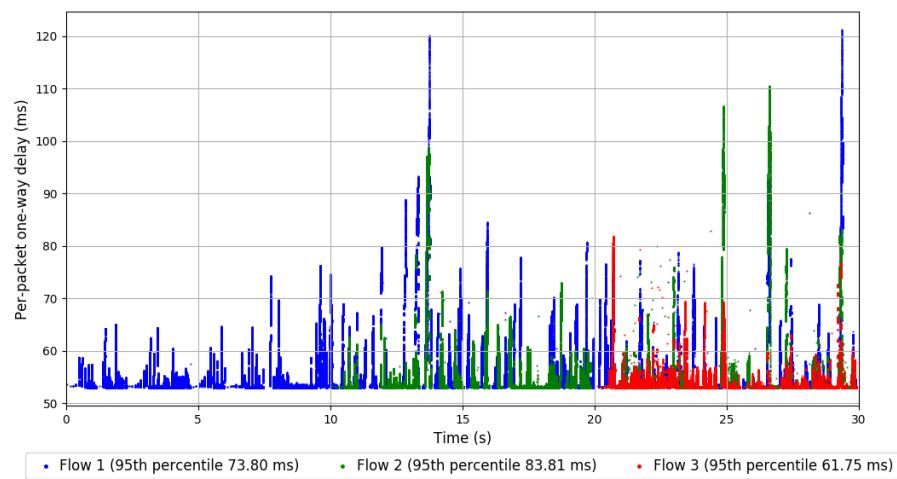
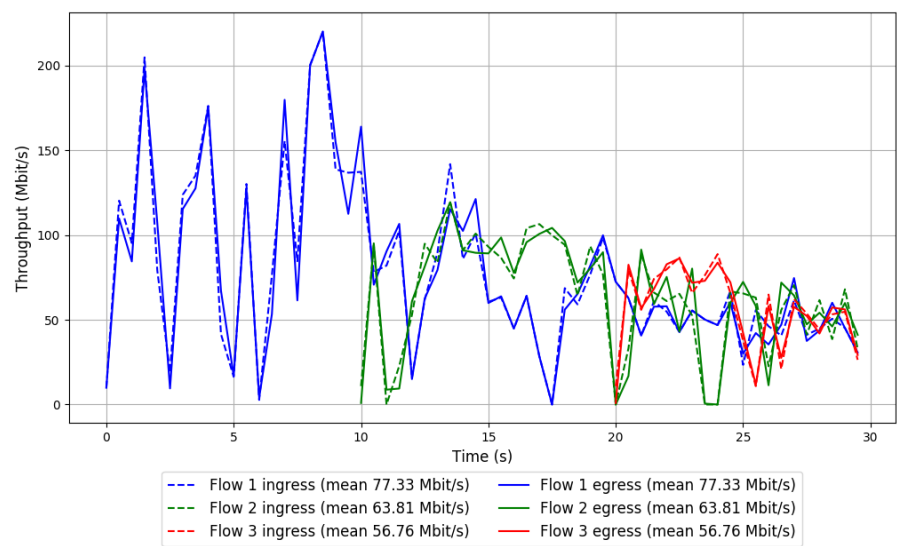
-- Flow 3:

Average throughput: 56.76 Mbit/s

95th percentile per-packet one-way delay: 61.752 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-08 07:21:55

End at: 2017-09-08 07:22:25

# Below is generated by plot.py at 2017-09-08 10:53:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 140.63 Mbit/s

95th percentile per-packet one-way delay: 79.805 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.83 Mbit/s

95th percentile per-packet one-way delay: 87.996 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.04 Mbit/s

95th percentile per-packet one-way delay: 68.600 ms

Loss rate: 0.00%

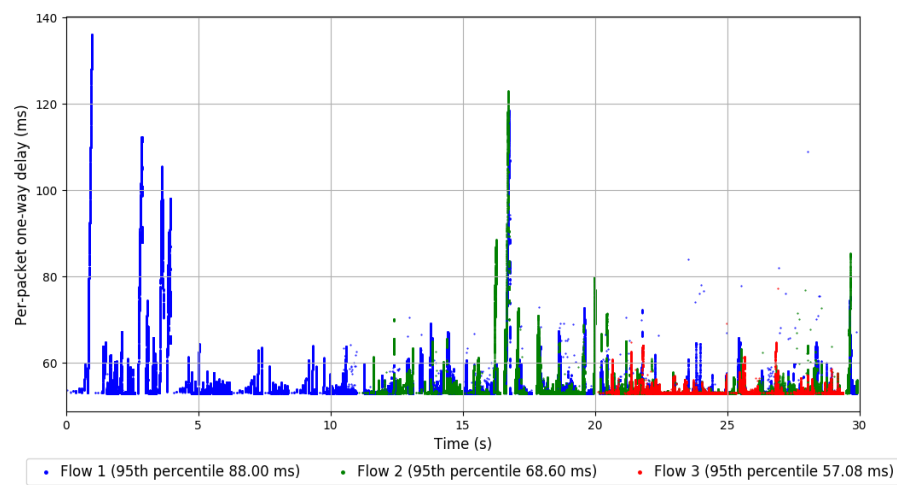
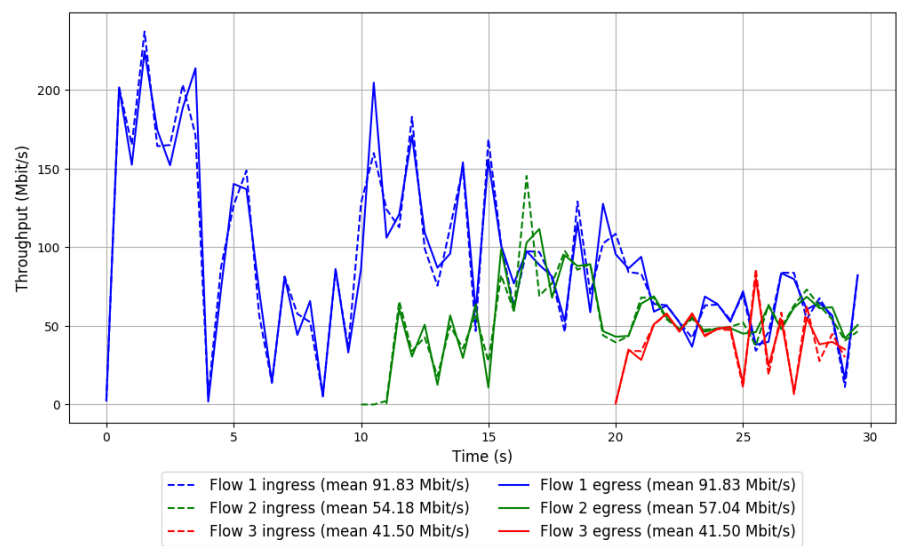
-- Flow 3:

Average throughput: 41.50 Mbit/s

95th percentile per-packet one-way delay: 57.080 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-08 07:34:01

End at: 2017-09-08 07:34:31

# Below is generated by plot.py at 2017-09-08 10:53:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 148.50 Mbit/s

95th percentile per-packet one-way delay: 68.552 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 96.58 Mbit/s

95th percentile per-packet one-way delay: 66.157 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.54 Mbit/s

95th percentile per-packet one-way delay: 68.252 ms

Loss rate: 0.00%

-- Flow 3:

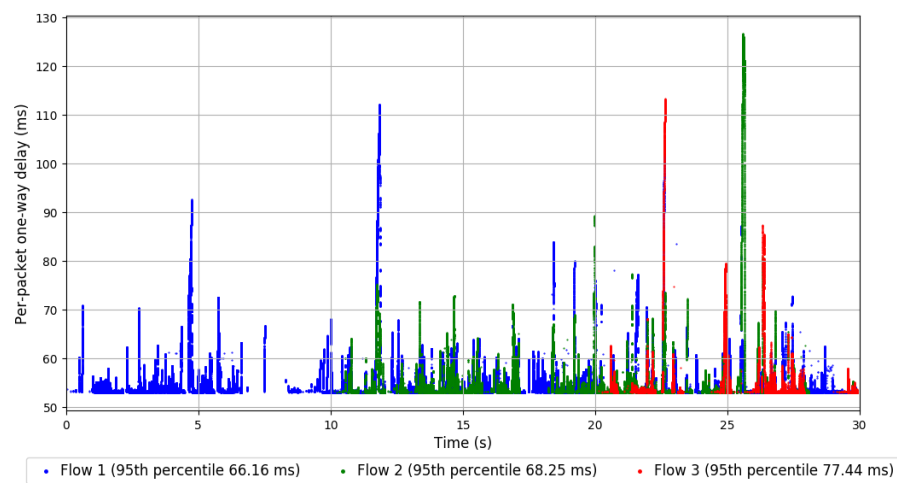
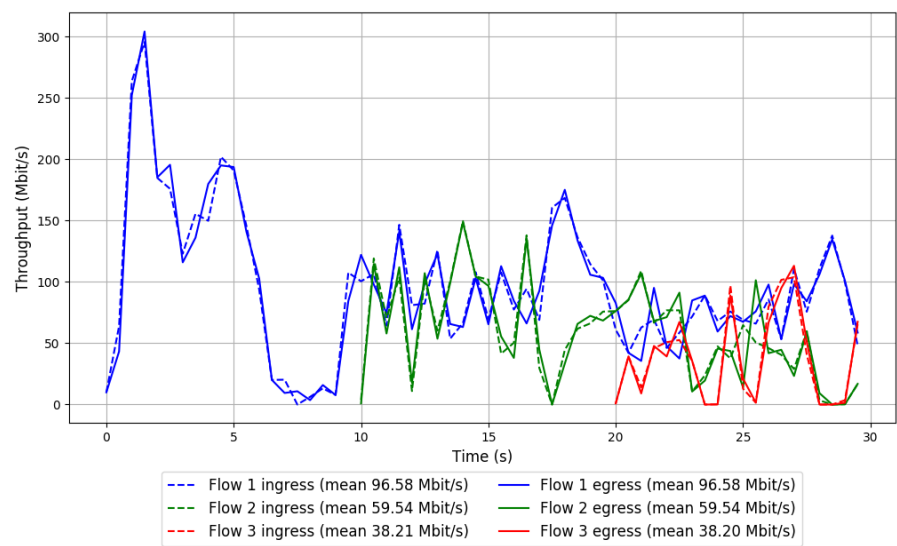
Average throughput: 38.20 Mbit/s

95th percentile per-packet one-way delay: 77.441 ms

Loss rate: 0.00%



Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-08 07:46:08

End at: 2017-09-08 07:46:38

# Below is generated by plot.py at 2017-09-08 10:53:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 157.34 Mbit/s

95th percentile per-packet one-way delay: 72.523 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 88.80 Mbit/s

95th percentile per-packet one-way delay: 68.097 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 81.62 Mbit/s

95th percentile per-packet one-way delay: 87.938 ms

Loss rate: 0.00%

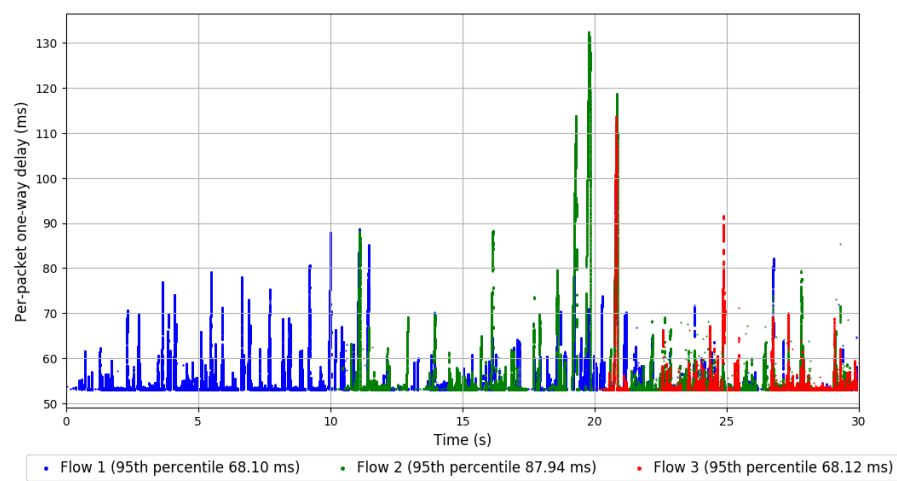
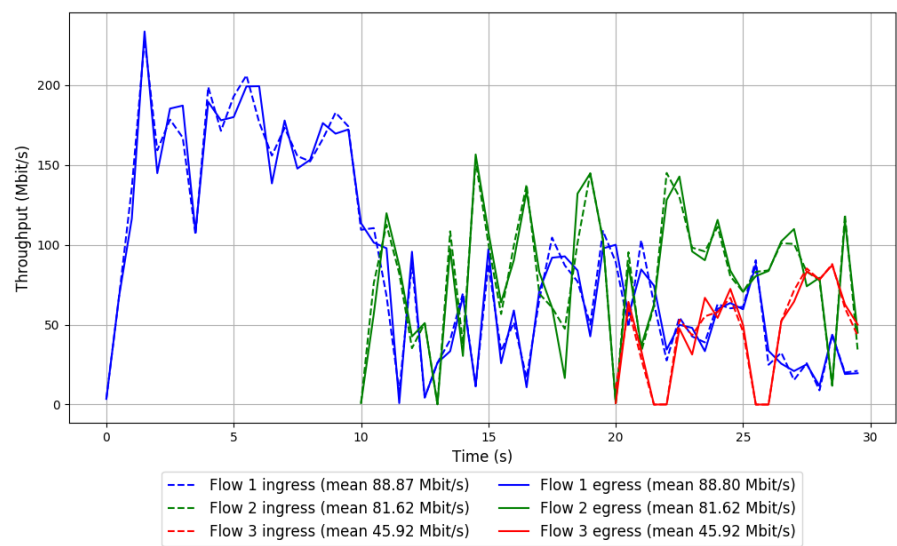
-- Flow 3:

Average throughput: 45.92 Mbit/s

95th percentile per-packet one-way delay: 68.125 ms

Loss rate: 0.00%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-08 07:58:01

End at: 2017-09-08 07:58:31

# Below is generated by plot.py at 2017-09-08 10:53:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 156.33 Mbit/s

95th percentile per-packet one-way delay: 87.872 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 118.24 Mbit/s

95th percentile per-packet one-way delay: 90.252 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.19 Mbit/s

95th percentile per-packet one-way delay: 76.137 ms

Loss rate: 0.00%

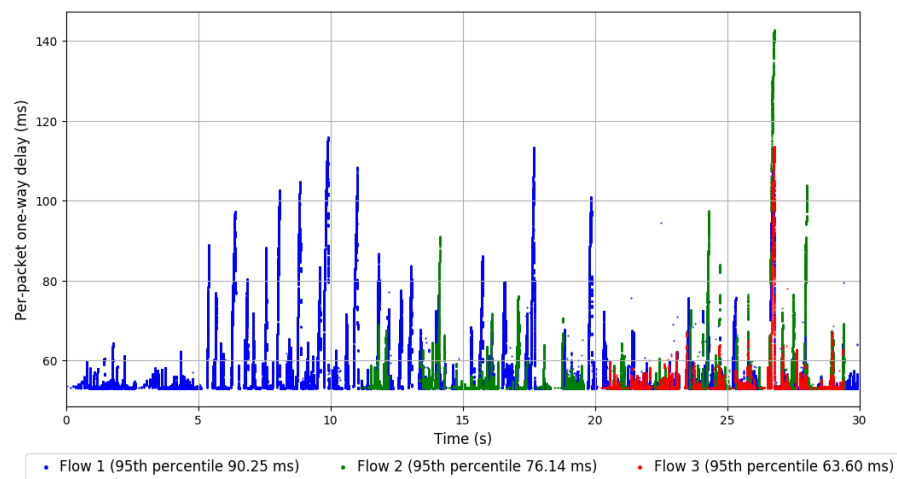
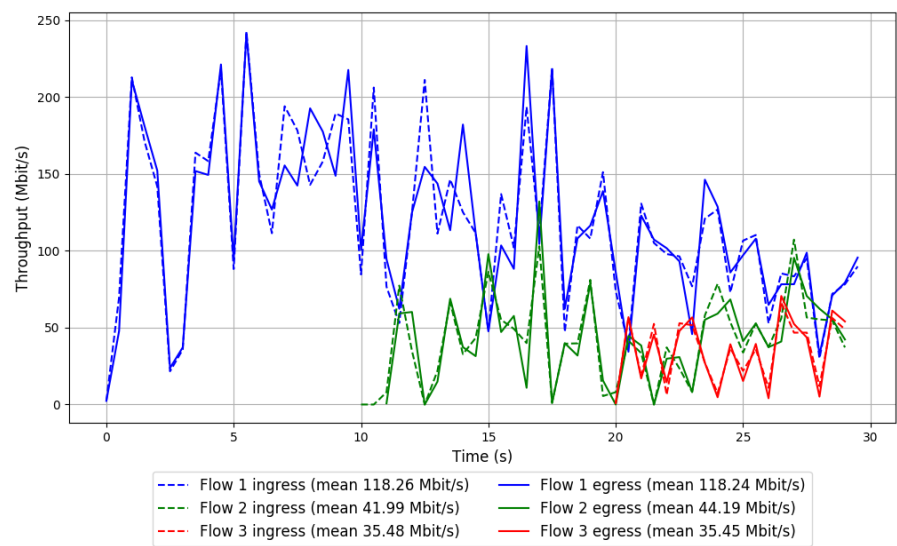
-- Flow 3:

Average throughput: 35.45 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-08 08:10:14

End at: 2017-09-08 08:10:44

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 155.04 Mbit/s

95th percentile per-packet one-way delay: 67.940 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 96.77 Mbit/s

95th percentile per-packet one-way delay: 65.162 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.93 Mbit/s

95th percentile per-packet one-way delay: 76.000 ms

Loss rate: 0.00%

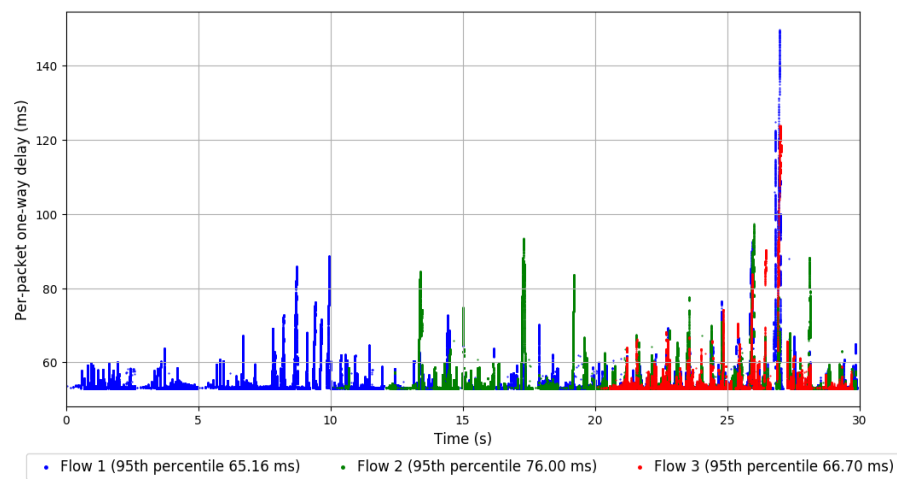
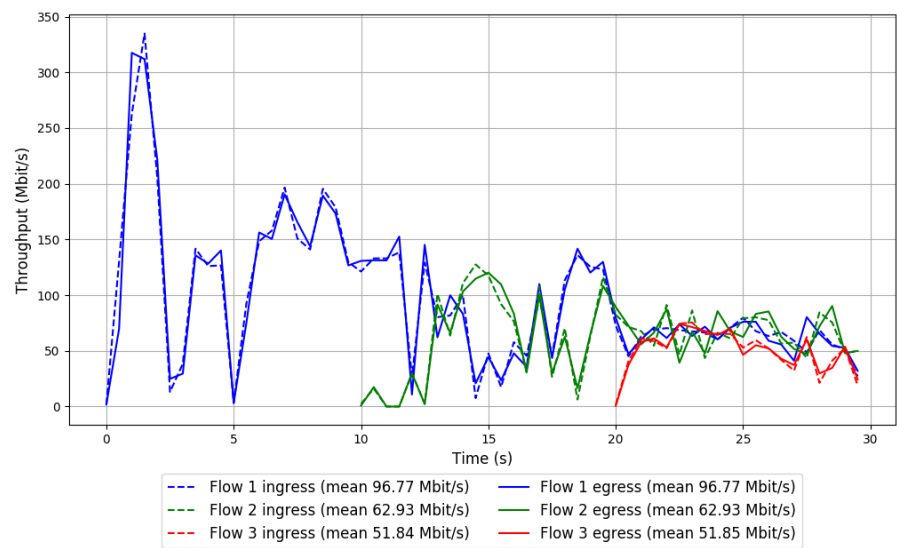
-- Flow 3:

Average throughput: 51.85 Mbit/s

95th percentile per-packet one-way delay: 66.699 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link



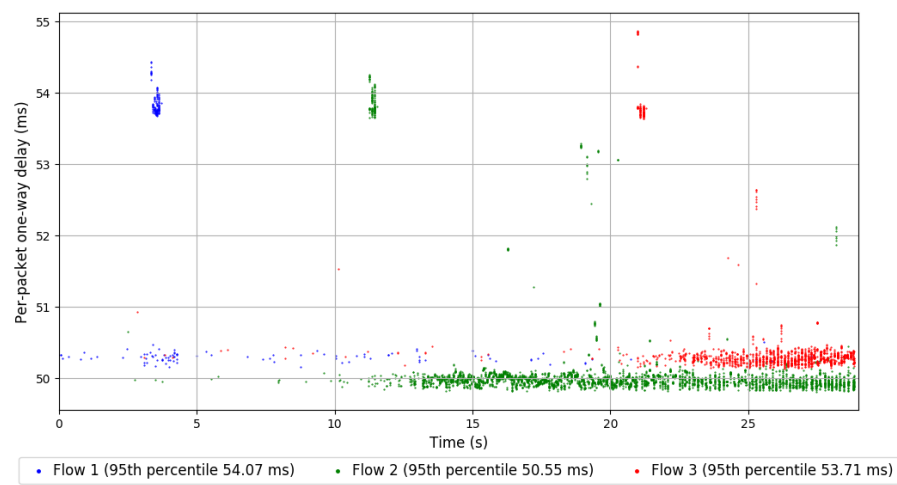
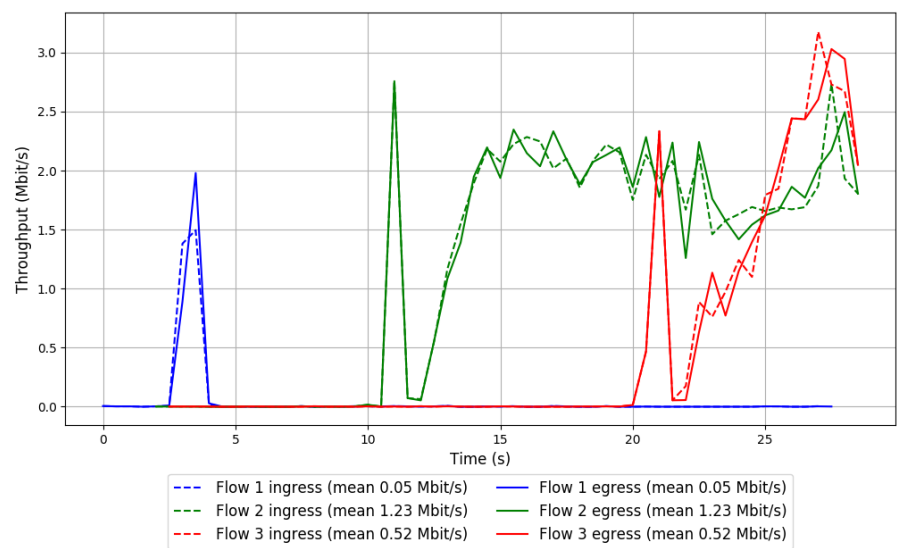
```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 06:19:38
End at: 2017-09-08 06:20:08

# Below is generated by plot.py at 2017-09-08 10:54:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 53.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 54.067 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 50.554 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 53.709 ms
Loss rate: 0.00%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-08 06:31:44

End at: 2017-09-08 06:32:14

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.45 Mbit/s

95th percentile per-packet one-way delay: 53.954 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 54.011 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 53.719 ms

Loss rate: 0.00%

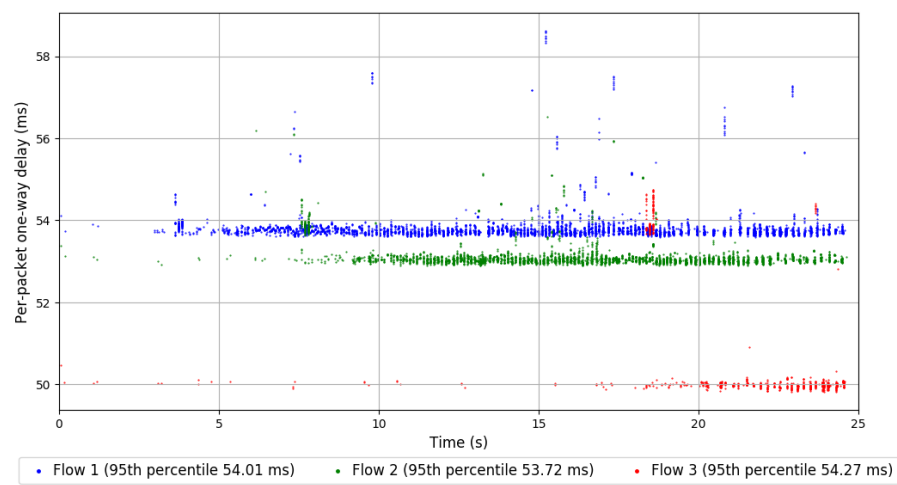
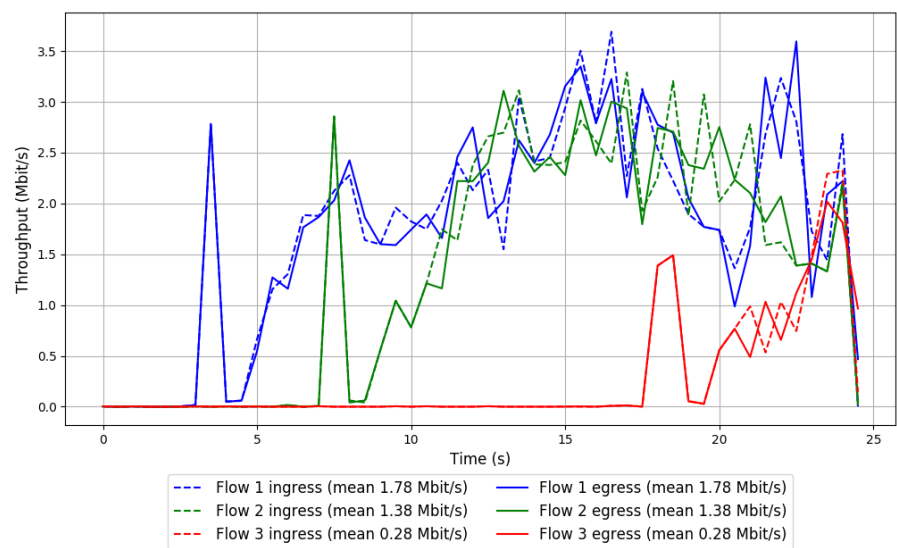
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 54.265 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-08 06:43:32

End at: 2017-09-08 06:44:02

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 54.010 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 54.318 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 53.602 ms

Loss rate: 0.00%

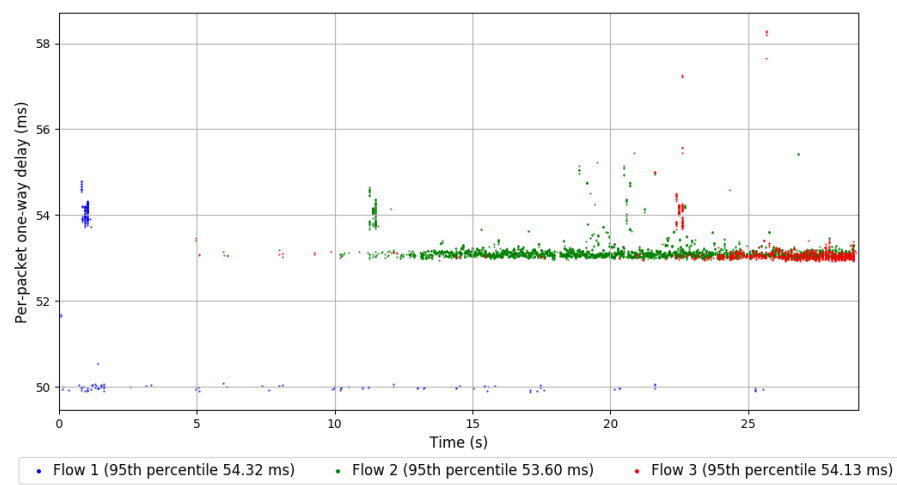
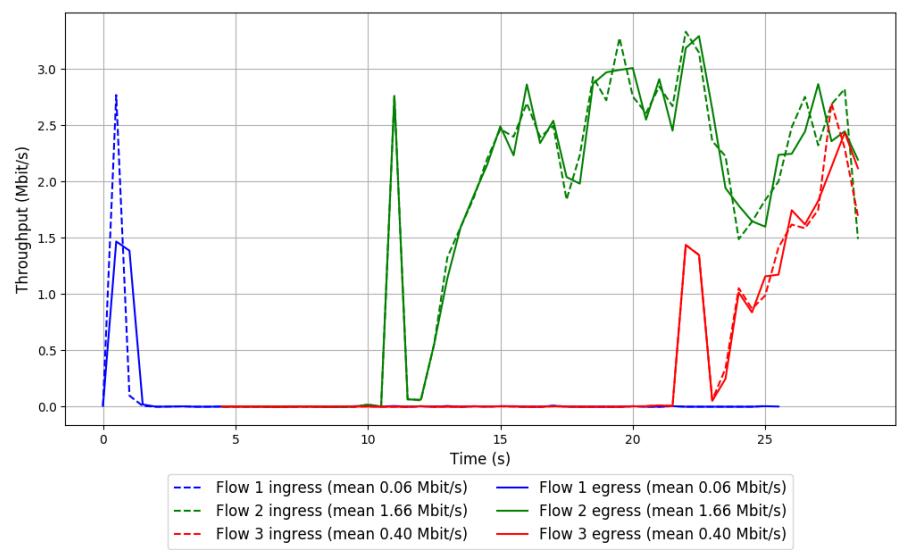
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 54.132 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-08 06:55:51

End at: 2017-09-08 06:56:21

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 53.940 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.458 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 53.963 ms

Loss rate: 0.00%

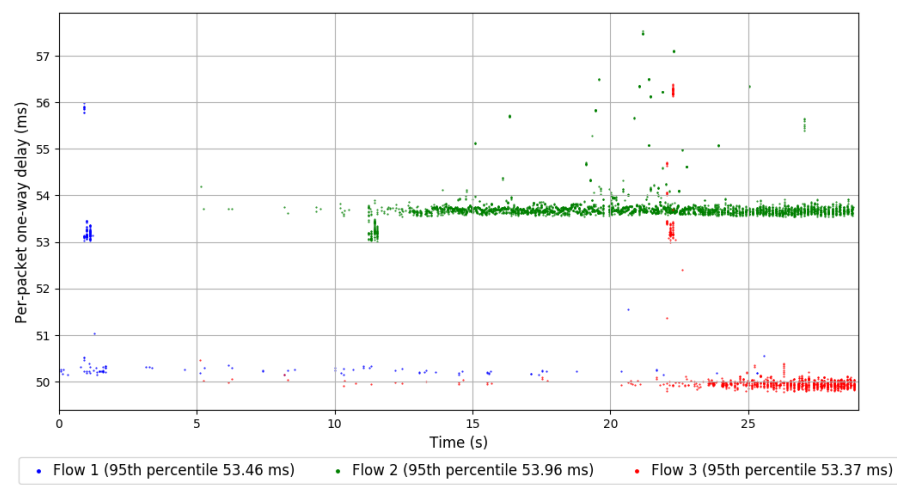
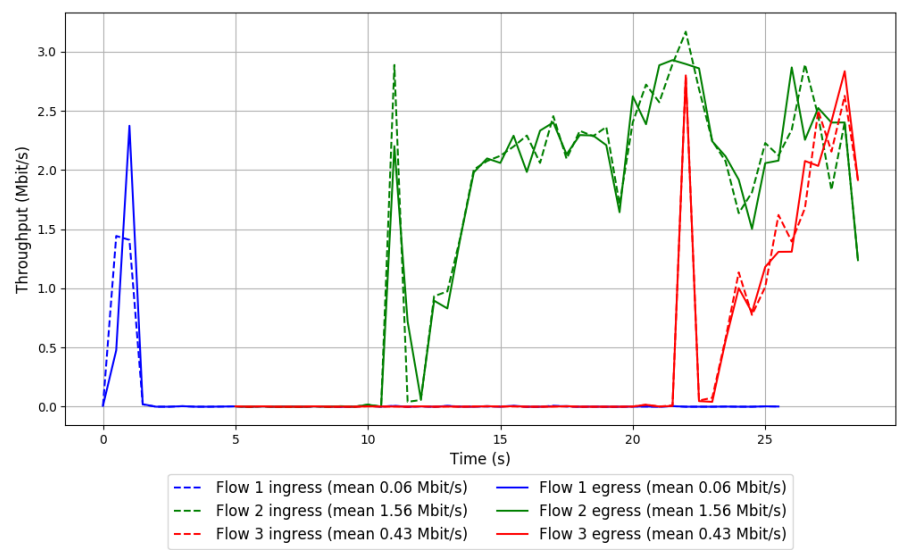
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.371 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-08 07:07:48

End at: 2017-09-08 07:08:18

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 53.156 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.700 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 50.279 ms

Loss rate: 0.00%

-- Flow 3:

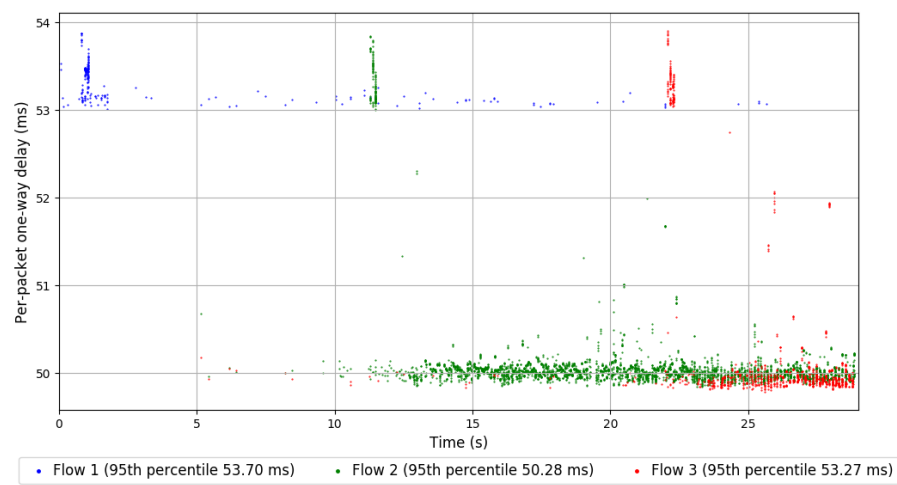
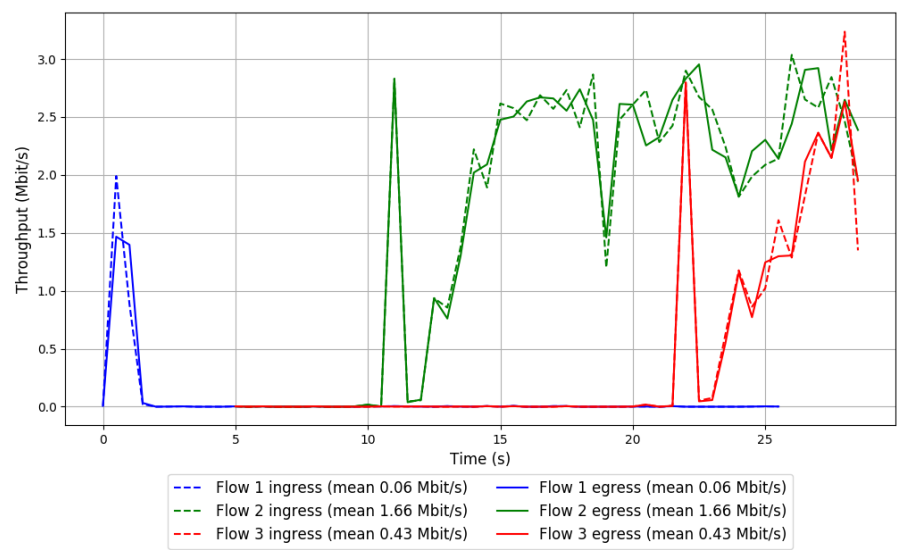
Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.268 ms

Loss rate: 0.00%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-08 07:19:55

End at: 2017-09-08 07:20:25

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 53.268 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.798 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 50.646 ms

Loss rate: 0.00%

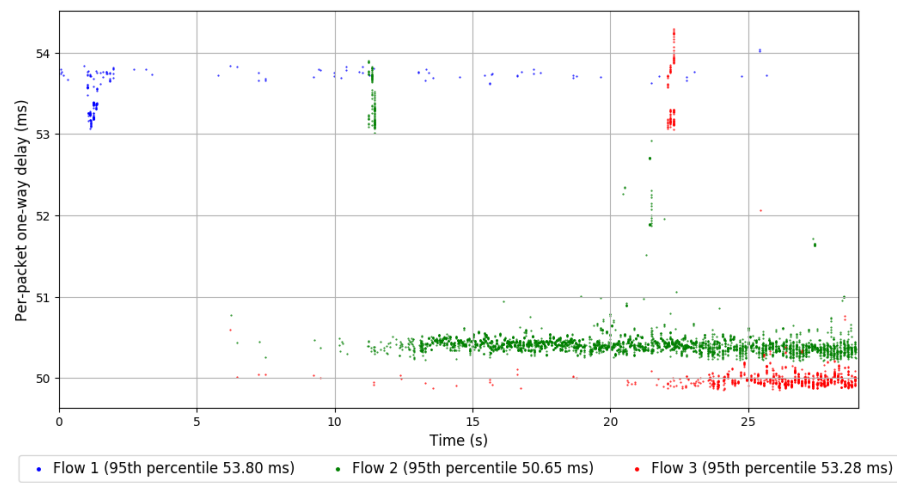
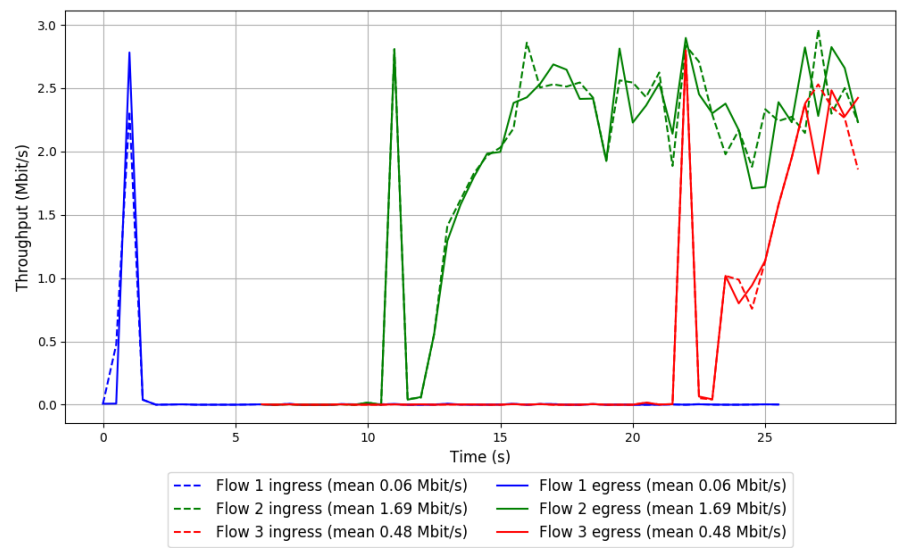
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 53.279 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-08 07:32:01

End at: 2017-09-08 07:32:31

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 53.790 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.362 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 50.809 ms

Loss rate: 0.00%

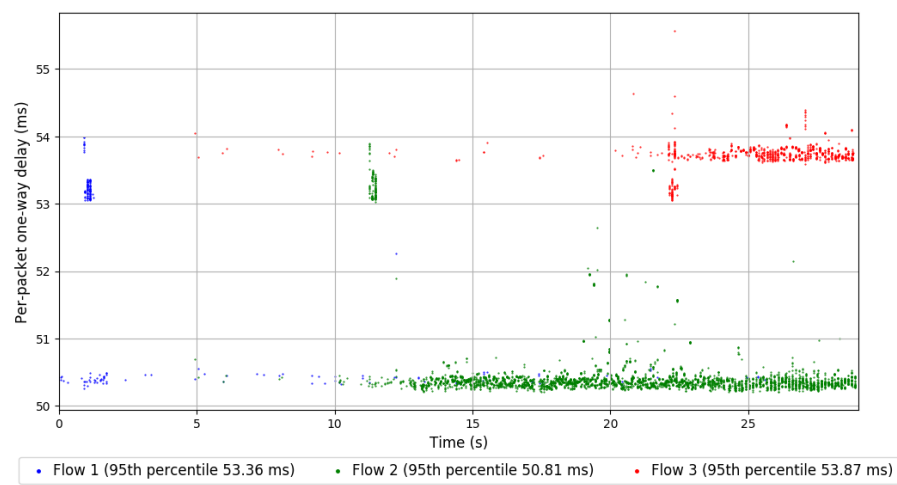
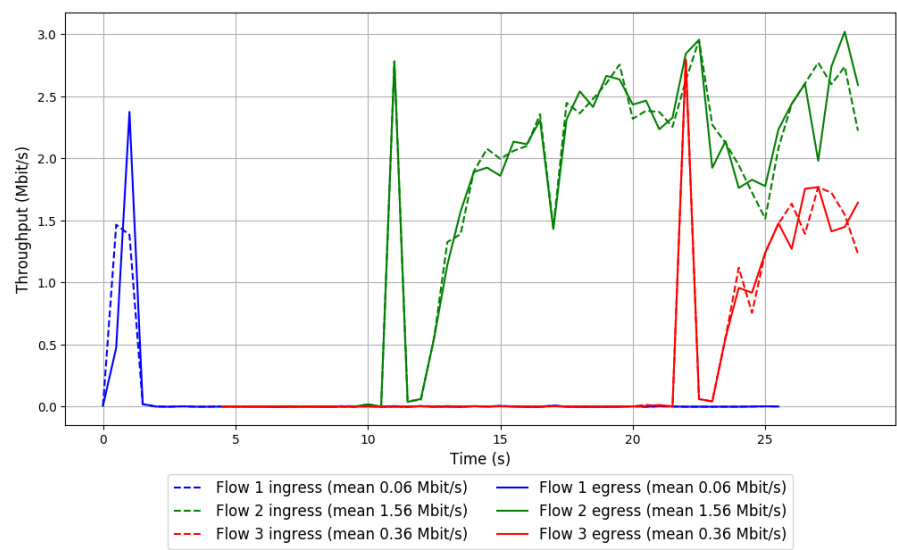
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 53.874 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-08 07:44:08

End at: 2017-09-08 07:44:38

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 53.251 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.641 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 50.761 ms

Loss rate: 0.00%

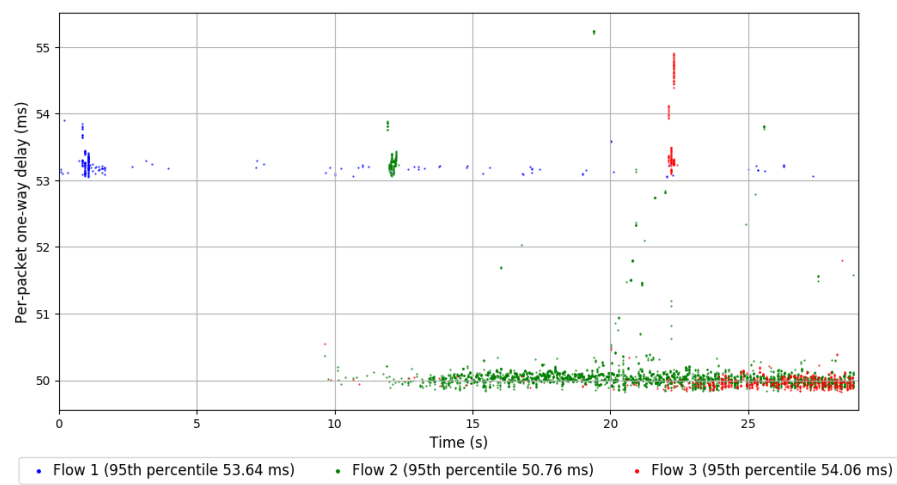
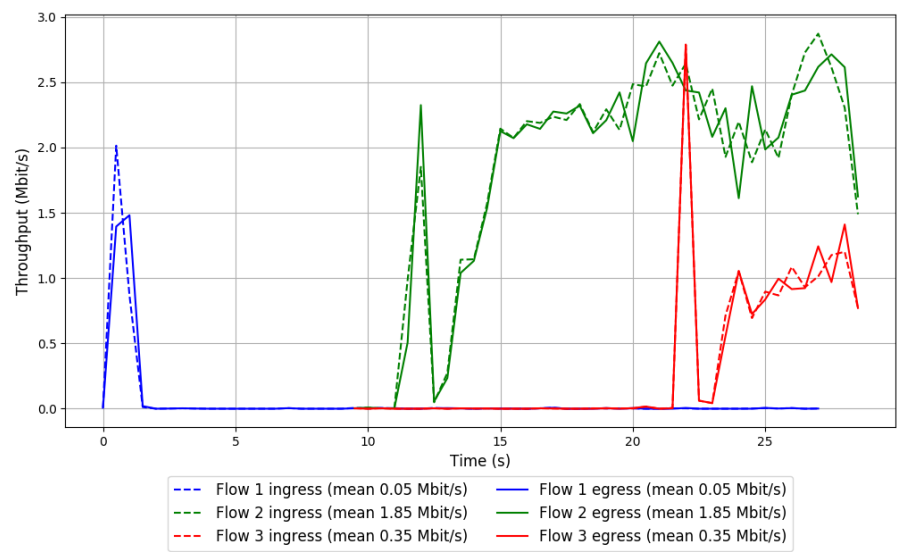
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 54.061 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-08 07:56:01

End at: 2017-09-08 07:56:31

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 53.175 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.519 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 50.361 ms

Loss rate: 0.00%

-- Flow 3:

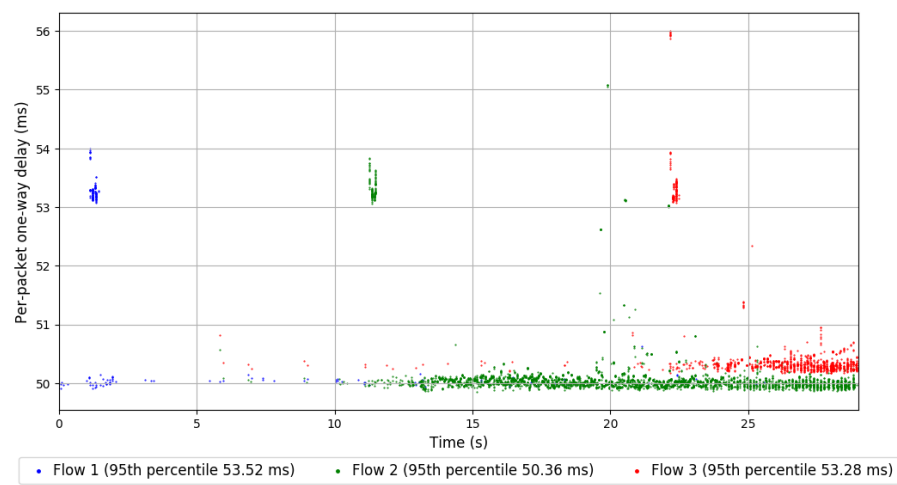
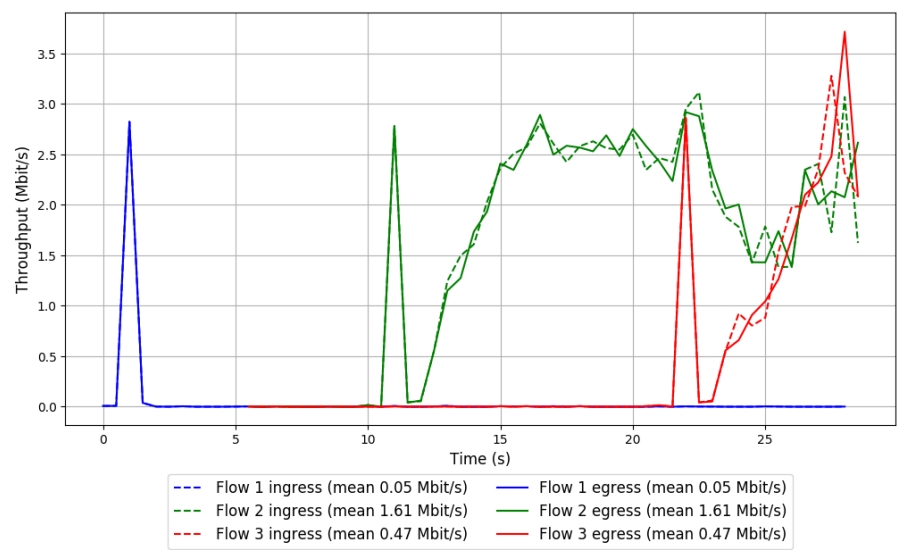
Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 53.280 ms

Loss rate: 0.00%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-08 08:08:13

End at: 2017-09-08 08:08:43

# Below is generated by plot.py at 2017-09-08 10:54:08

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 53.166 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.466 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 50.395 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.172 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

