

## Pantheon Report

Generated at 2017-09-08 16:40:47 (UTC).

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

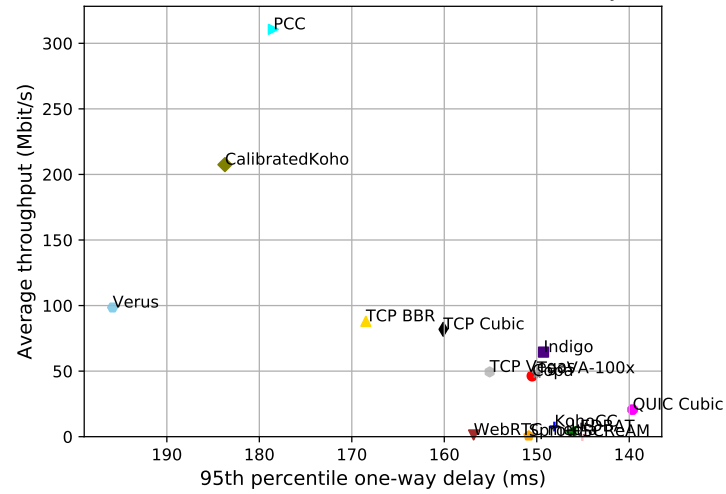
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

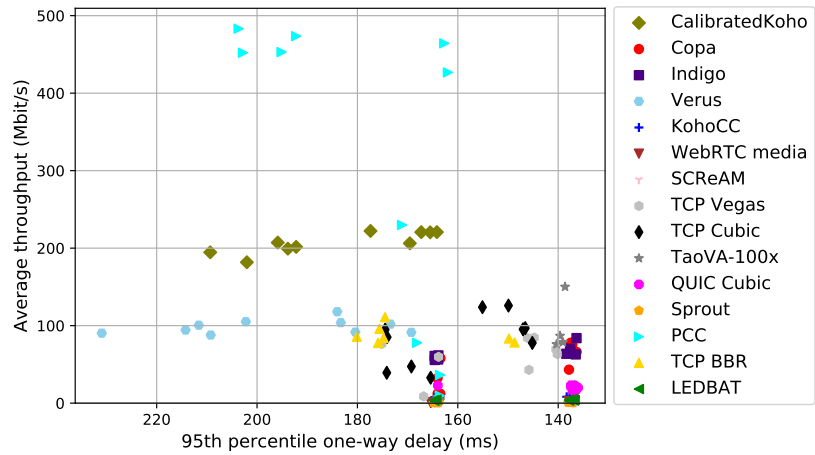
Git summary:

```
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 @ f1a14bffe749737437f61b1eaeeb30b267cde681
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 London Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



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



| scheme         | # runs | mean avg tput (Mbit/s) |        |        | mean 95th-%ile delay (ms) |        |        | mean loss rate (%) |        |        |
|----------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
|                |        | flow 1                 | flow 2 | flow 3 | flow 1                    | flow 2 | flow 3 | flow 1             | flow 2 | flow 3 |
| TCP BBR        | 7      | 43.18                  | 43.65  | 47.83  | 167.47                    | 168.47 | 171.39 | 0.00               | 0.42   | 0.26   |
| CalibratedKoho | 10     | 165.99                 | 58.32  | 7.85   | 186.08                    | 173.08 | 154.28 | 0.13               | 0.28   | 0.15   |
| Copa           | 10     | 25.22                  | 26.50  | 16.98  | 150.46                    | 151.03 | 147.81 | 0.02               | 0.01   | 0.21   |
| TCP Cubic      | 10     | 47.17                  | 40.99  | 23.11  | 159.38                    | 158.50 | 157.77 | 0.15               | 0.04   | 0.17   |
| Indigo         | 9      | 20.61                  | 49.11  | 35.63  | 149.22                    | 149.28 | 149.29 | 0.09               | 0.04   | 0.12   |
| KohoCC         | 10     | 3.96                   | 3.88   | 3.60   | 148.11                    | 148.09 | 148.05 | 0.01               | 0.02   | 0.96   |
| LEDBAT         | 9      | 2.51                   | 1.75   | 0.95   | 146.35                    | 146.28 | 146.19 | 0.29               | 0.01   | 0.00   |
| PCC            | 10     | 180.36                 | 135.41 | 124.56 | 192.47                    | 159.43 | 172.72 | 1.34               | 0.03   | 0.14   |
| QUIC Cubic     | 10     | 0.04                   | 22.95  | 17.16  | 137.24                    | 139.18 | 139.50 | 0.00               | 0.00   | 0.01   |
| SCReAM         | 10     | 0.21                   | 0.21   | 0.21   | 142.17                    | 139.40 | 139.63 | 0.00               | 0.02   | 0.03   |
| Sprout         | 6      | 0.27                   | 0.40   | 0.40   | 150.50                    | 150.76 | 150.57 | 0.00               | 0.00   | 0.00   |
| TaoVA-100x     | 9      | 24.66                  | 38.12  | 13.16  | 149.00                    | 150.46 | 149.21 | 0.00               | 0.00   | 0.00   |
| TCP Vegas      | 10     | 27.11                  | 21.20  | 24.93  | 153.78                    | 154.71 | 154.68 | 0.01               | 0.04   | 0.00   |
| Verus          | 10     | 57.30                  | 49.05  | 28.72  | 195.43                    | 219.48 | 172.72 | 0.43               | 0.44   | 0.33   |
| WebRTC media   | 7      | 0.36                   | 1.01   | 0.16   | 152.62                    | 149.21 | 153.22 | 0.00               | 0.00   | 0.01   |

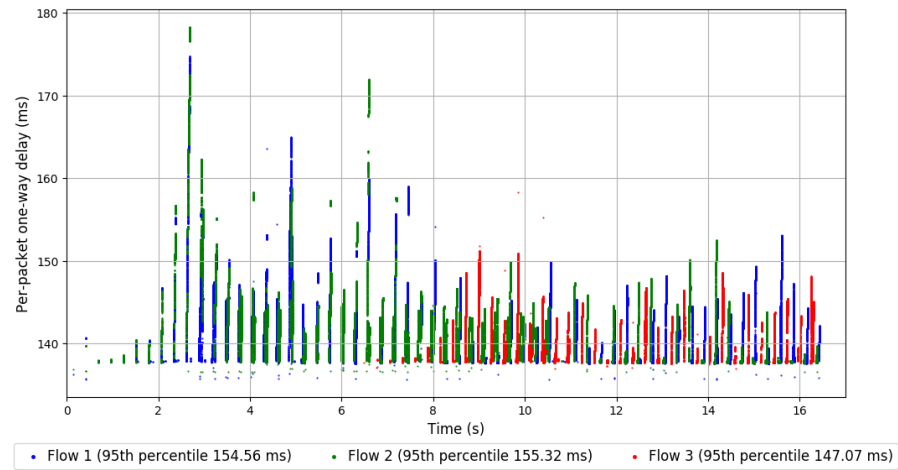
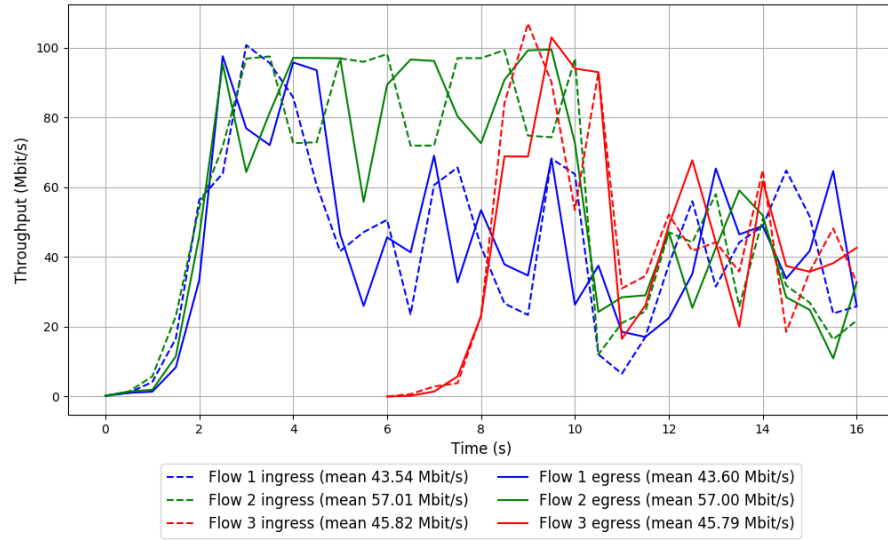
Run 1: Statistics of TCP BBR

Start at: 2017-09-08 13:15:10

End at: 2017-09-08 13:15:40



# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-08 13:29:01

End at: 2017-09-08 13:29:31

# Below is generated by plot.py at 2017-09-08 16:21:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.72 Mbit/s

95th percentile per-packet one-way delay: 180.121 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 41.97 Mbit/s

95th percentile per-packet one-way delay: 176.520 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 38.56 Mbit/s

95th percentile per-packet one-way delay: 181.154 ms

Loss rate: 0.00%

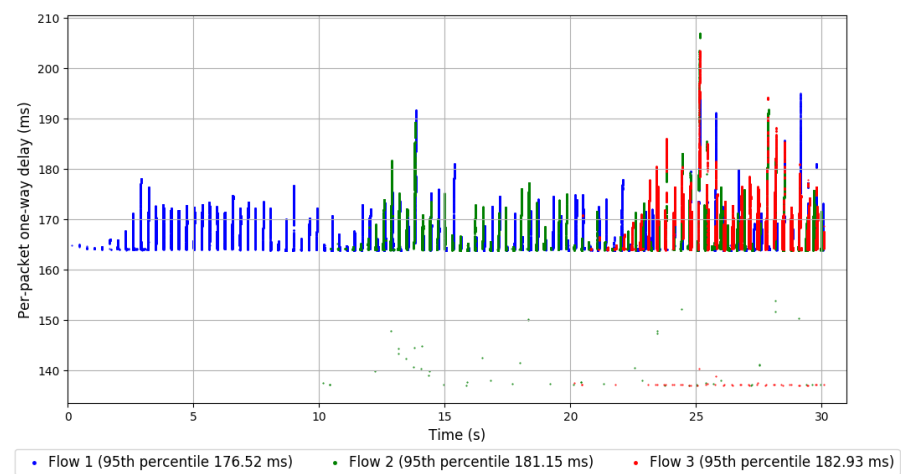
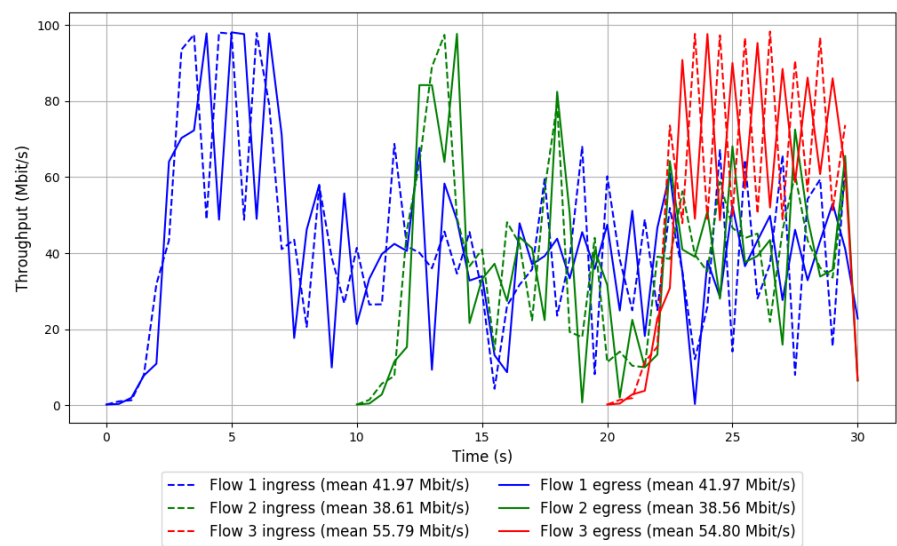
-- Flow 3:

Average throughput: 54.80 Mbit/s

95th percentile per-packet one-way delay: 182.931 ms

Loss rate: 1.62%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-08 13:42:21

End at: 2017-09-08 13:42:51

# Below is generated by plot.py at 2017-09-08 16:21:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.69 Mbit/s

95th percentile per-packet one-way delay: 175.883 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 44.54 Mbit/s

95th percentile per-packet one-way delay: 175.045 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.36 Mbit/s

95th percentile per-packet one-way delay: 176.133 ms

Loss rate: 1.20%

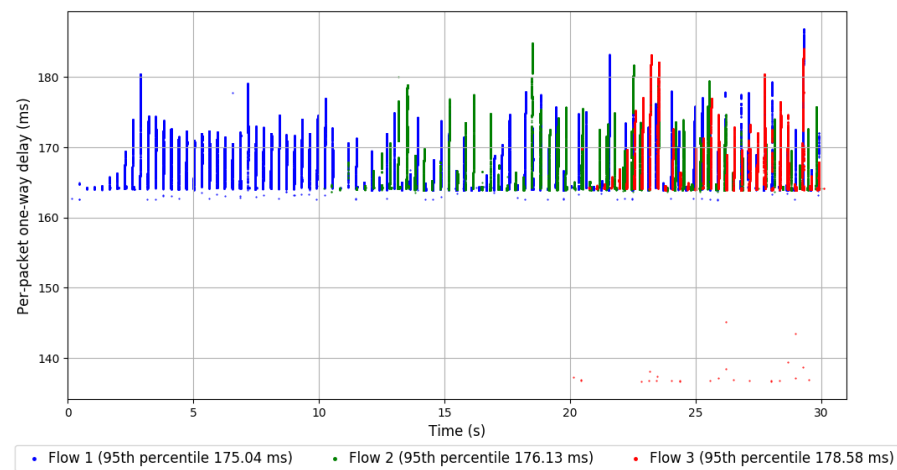
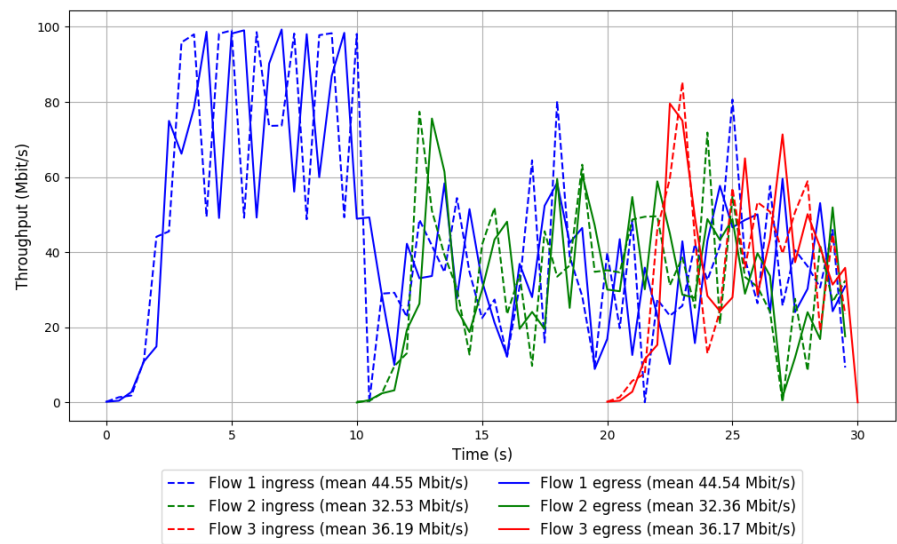
-- Flow 3:

Average throughput: 36.17 Mbit/s

95th percentile per-packet one-way delay: 178.576 ms

Loss rate: 0.16%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-08 13:56:02

End at: 2017-09-08 13:56:32

# Below is generated by plot.py at 2017-09-08 16:21:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.40 Mbit/s

95th percentile per-packet one-way delay: 149.797 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.44 Mbit/s

95th percentile per-packet one-way delay: 149.419 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.88 Mbit/s

95th percentile per-packet one-way delay: 148.462 ms

Loss rate: 0.00%

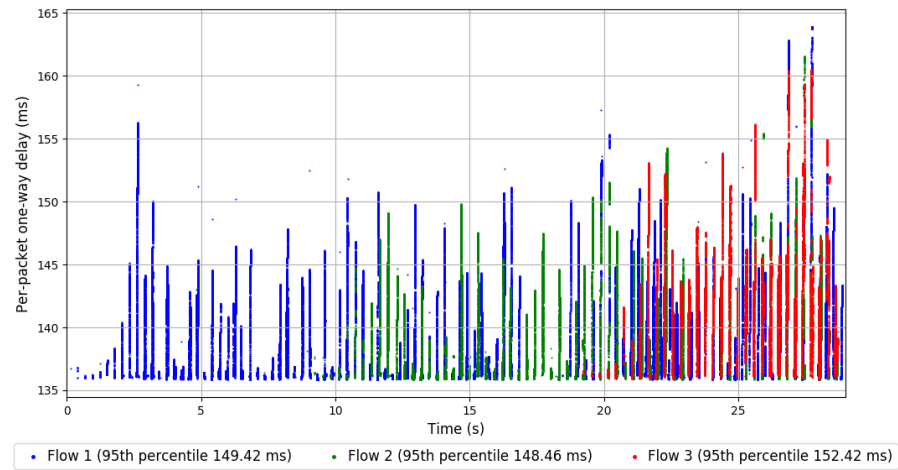
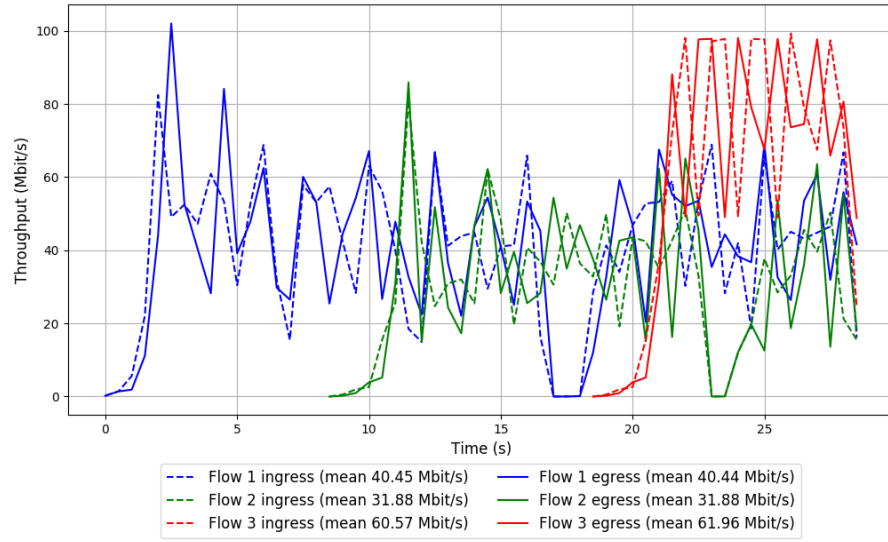
-- Flow 3:

Average throughput: 61.96 Mbit/s

95th percentile per-packet one-way delay: 152.422 ms

Loss rate: 0.00%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-08 14:10:28

End at: 2017-09-08 14:10:58

# Below is generated by plot.py at 2017-09-08 16:21:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.25 Mbit/s

95th percentile per-packet one-way delay: 148.685 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 42.02 Mbit/s

95th percentile per-packet one-way delay: 146.489 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 36.38 Mbit/s

95th percentile per-packet one-way delay: 150.042 ms

Loss rate: 1.06%

-- Flow 3:

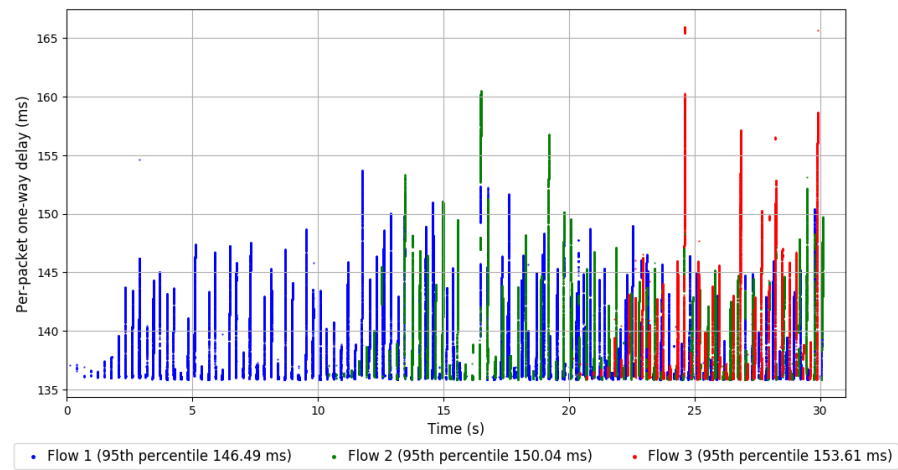
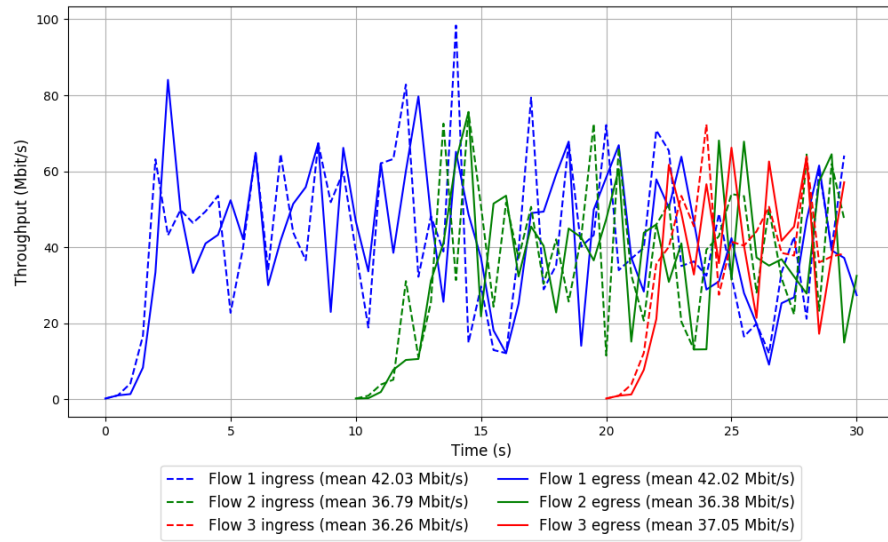
Average throughput: 37.05 Mbit/s

95th percentile per-packet one-way delay: 153.606 ms

Loss rate: 0.00%



# Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-08 14:24:44

End at: 2017-09-08 14:25:14

# Below is generated by plot.py at 2017-09-08 16:22:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.93 Mbit/s

95th percentile per-packet one-way delay: 175.607 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 46.71 Mbit/s

95th percentile per-packet one-way delay: 176.275 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.50 Mbit/s

95th percentile per-packet one-way delay: 174.054 ms

Loss rate: 0.69%

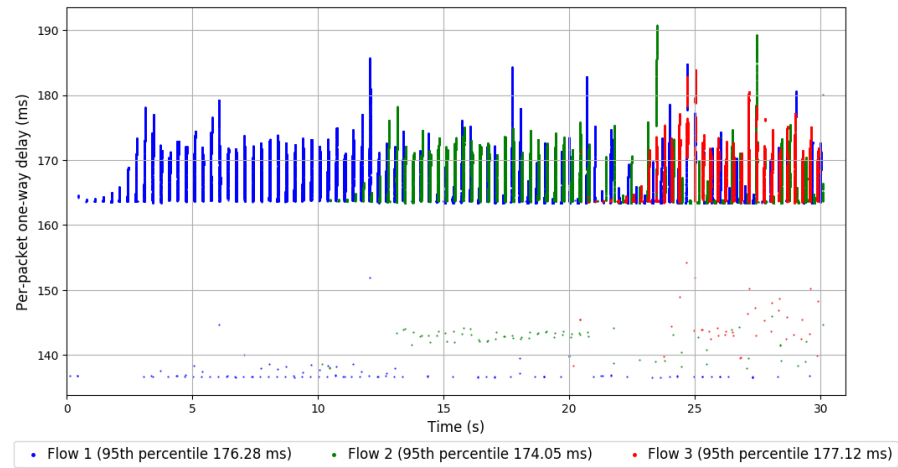
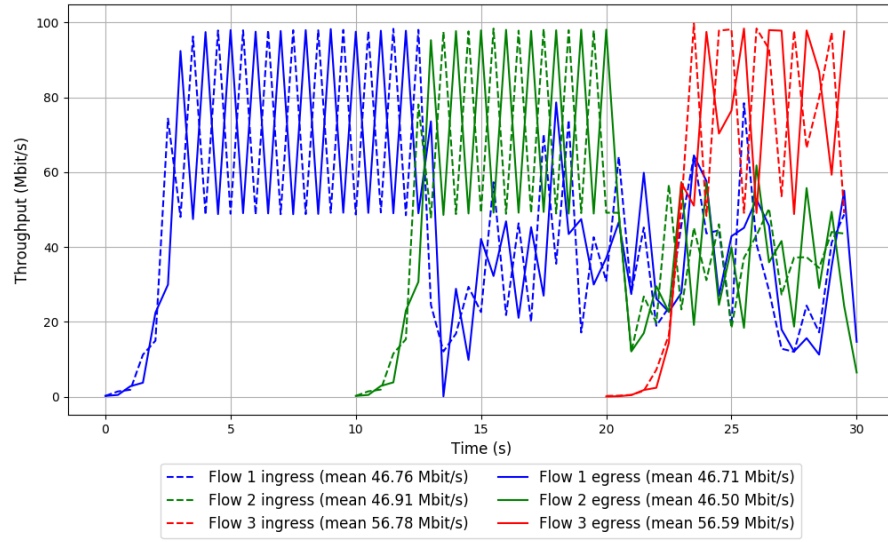
-- Flow 3:

Average throughput: 56.59 Mbit/s

95th percentile per-packet one-way delay: 177.116 ms

Loss rate: 0.02%

# Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-08 14:37:58

End at: 2017-09-08 14:38:28

# Below is generated by plot.py at 2017-09-08 16:22:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.95 Mbit/s

95th percentile per-packet one-way delay: 174.505 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.51 Mbit/s

95th percentile per-packet one-way delay: 174.518 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.13 Mbit/s

95th percentile per-packet one-way delay: 174.368 ms

Loss rate: 0.00%

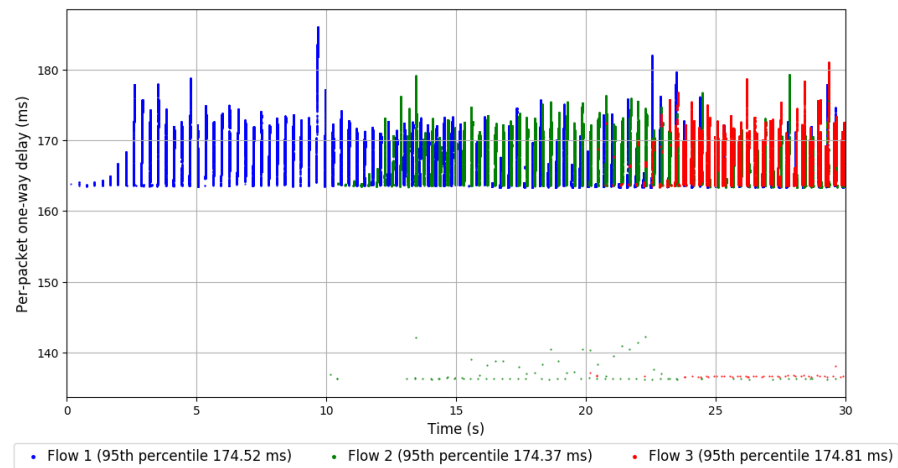
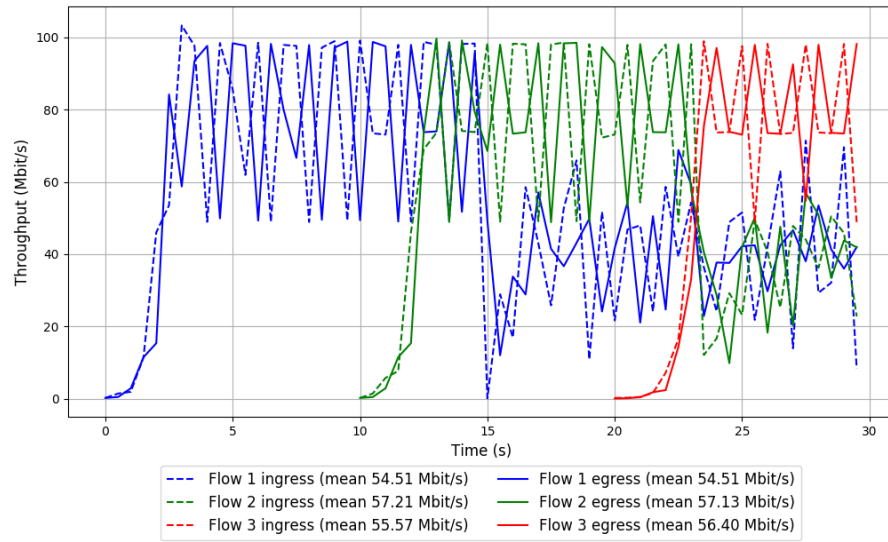
-- Flow 3:

Average throughput: 56.40 Mbit/s

95th percentile per-packet one-way delay: 174.805 ms

Loss rate: 0.02%

# Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-08 14:51:09

End at: 2017-09-08 14:51:39

# Below is generated by plot.py at 2017-09-08 16:22:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.98 Mbit/s

95th percentile per-packet one-way delay: 174.770 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.04 Mbit/s

95th percentile per-packet one-way delay: 174.017 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.71 Mbit/s

95th percentile per-packet one-way delay: 175.087 ms

Loss rate: 0.00%

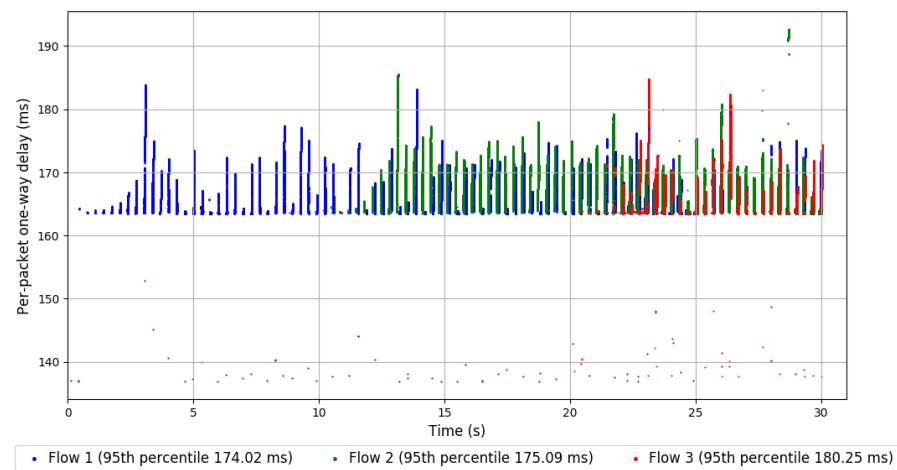
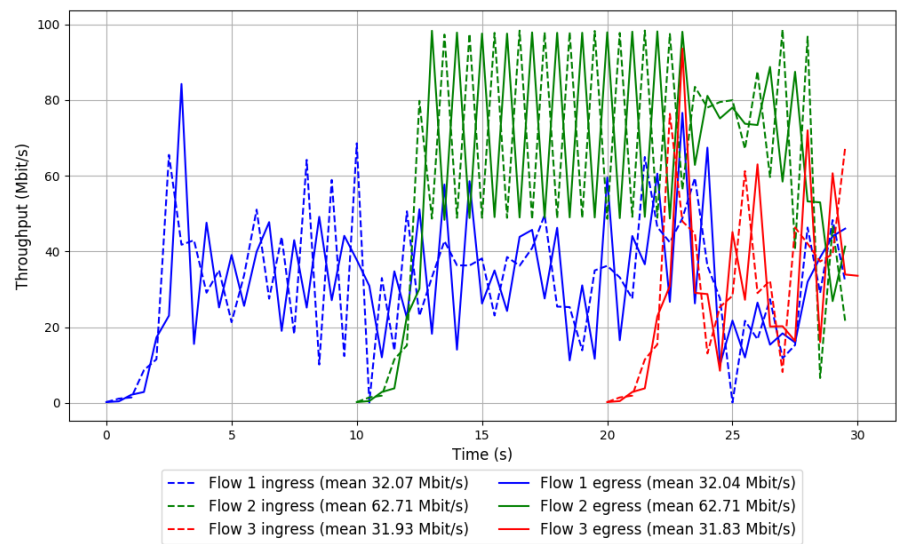
-- Flow 3:

Average throughput: 31.83 Mbit/s

95th percentile per-packet one-way delay: 180.246 ms

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



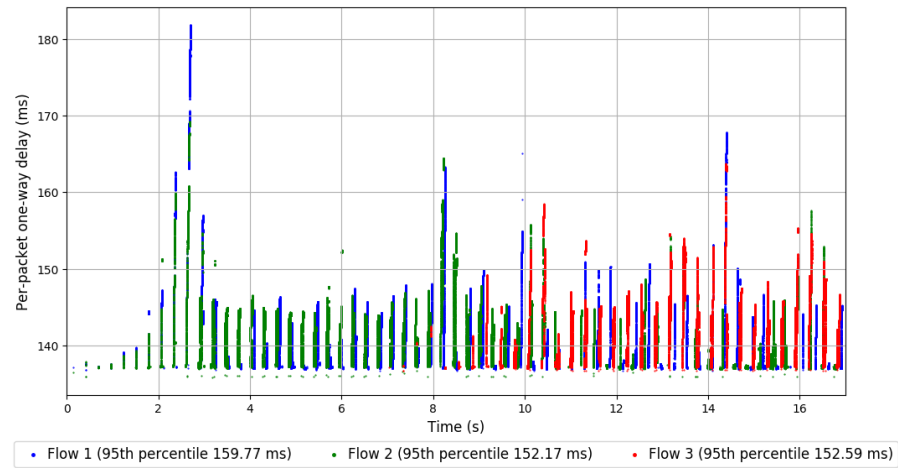
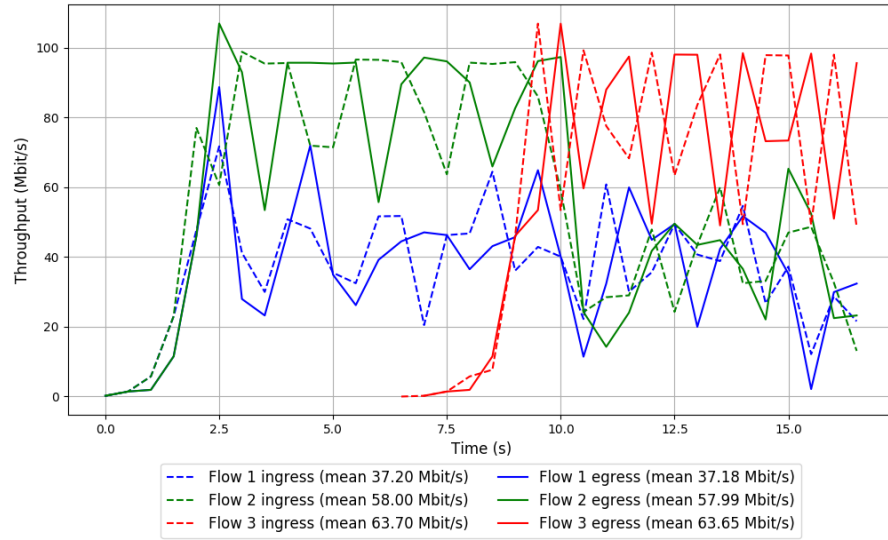
Run 9: Statistics of TCP BBR

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

End at: 2017-09-08 15:05:40



# Run 9: Report of TCP BBR — Data Link

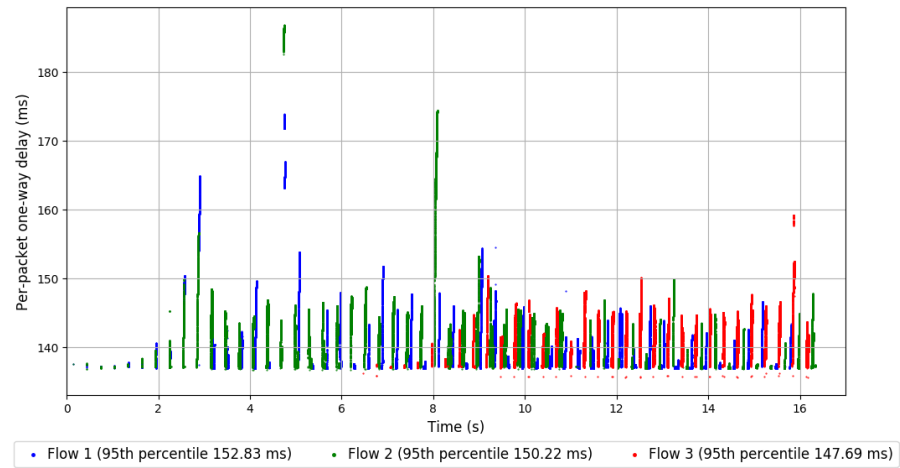
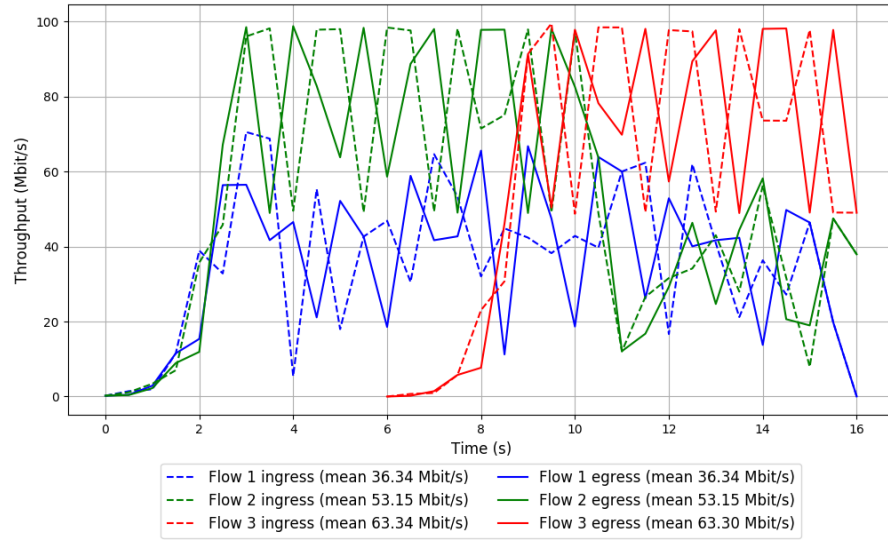


Run 10: Statistics of TCP BBR

Start at: 2017-09-08 15:19:09

End at: 2017-09-08 15:19:39

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 13:24:30

End at: 2017-09-08 13:25:00

# Below is generated by plot.py at 2017-09-08 16:23:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 199.33 Mbit/s

95th percentile per-packet one-way delay: 193.856 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 160.62 Mbit/s

95th percentile per-packet one-way delay: 196.131 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 54.24 Mbit/s

95th percentile per-packet one-way delay: 184.186 ms

Loss rate: 0.46%

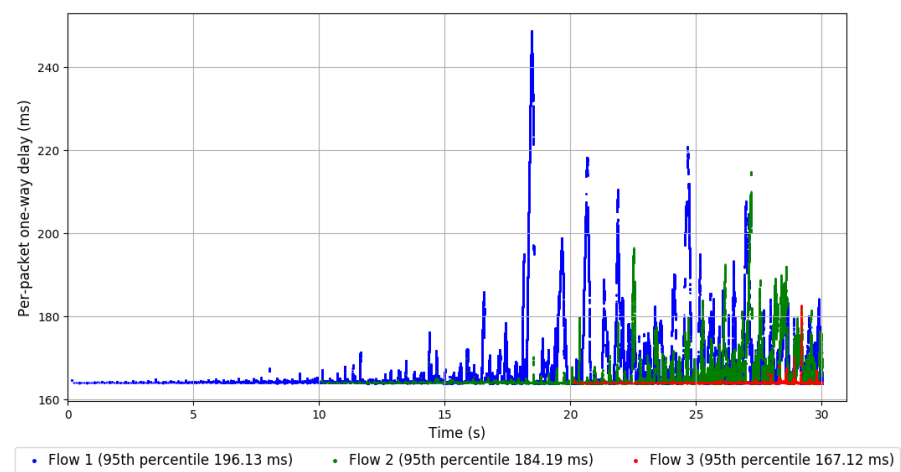
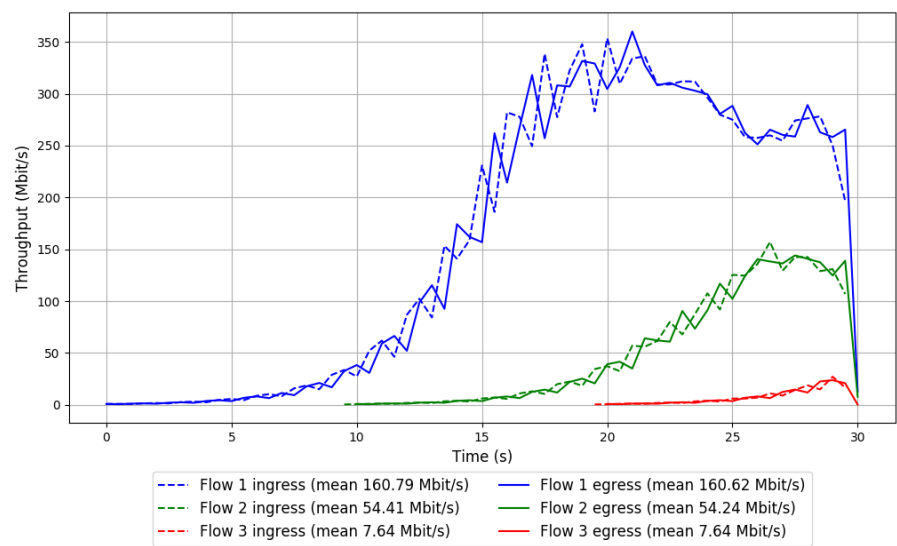
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 167.117 ms

Loss rate: 0.00%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 13:37:44

End at: 2017-09-08 13:38:14

# Below is generated by plot.py at 2017-09-08 16:23:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 194.65 Mbit/s

95th percentile per-packet one-way delay: 209.324 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 152.60 Mbit/s

95th percentile per-packet one-way delay: 215.317 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 59.24 Mbit/s

95th percentile per-packet one-way delay: 184.891 ms

Loss rate: 0.34%

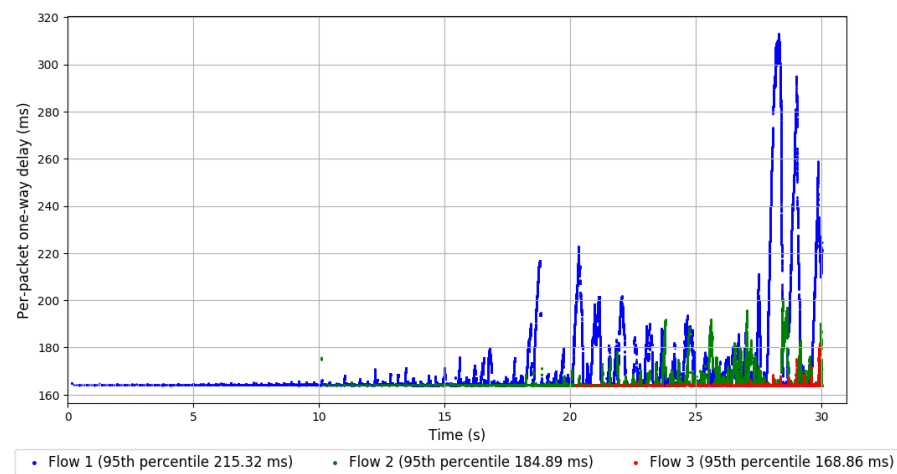
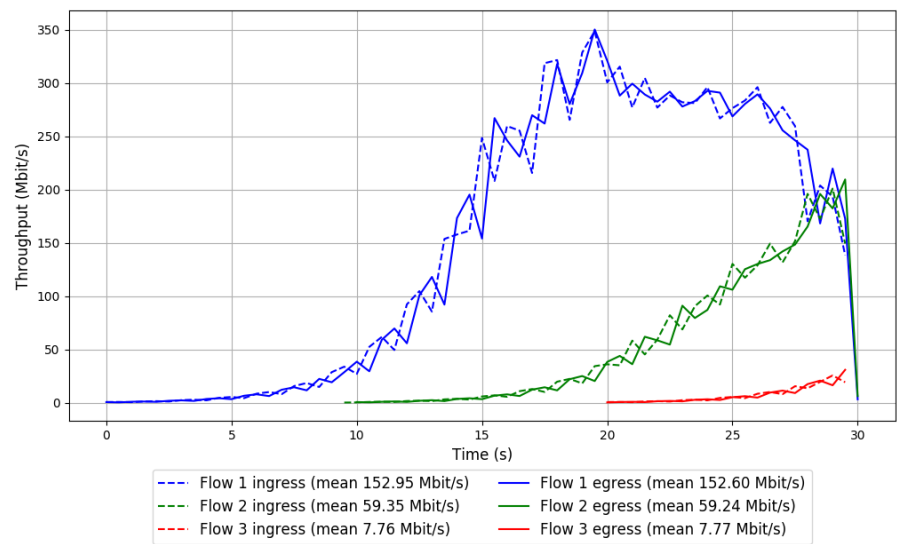
-- Flow 3:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 168.863 ms

Loss rate: 0.35%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 13:51:14

End at: 2017-09-08 13:51:44

# Below is generated by plot.py at 2017-09-08 16:23:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 181.80 Mbit/s

95th percentile per-packet one-way delay: 202.029 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 143.14 Mbit/s

95th percentile per-packet one-way delay: 204.159 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 55.08 Mbit/s

95th percentile per-packet one-way delay: 183.390 ms

Loss rate: 0.30%

-- Flow 3:

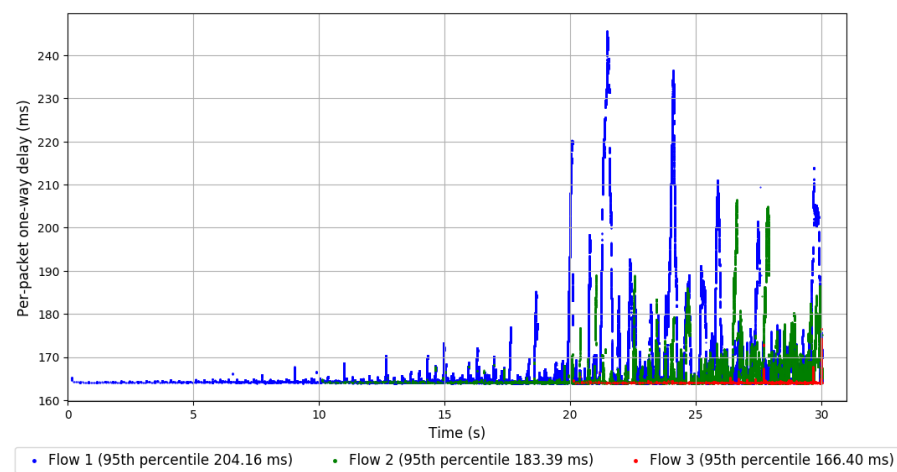
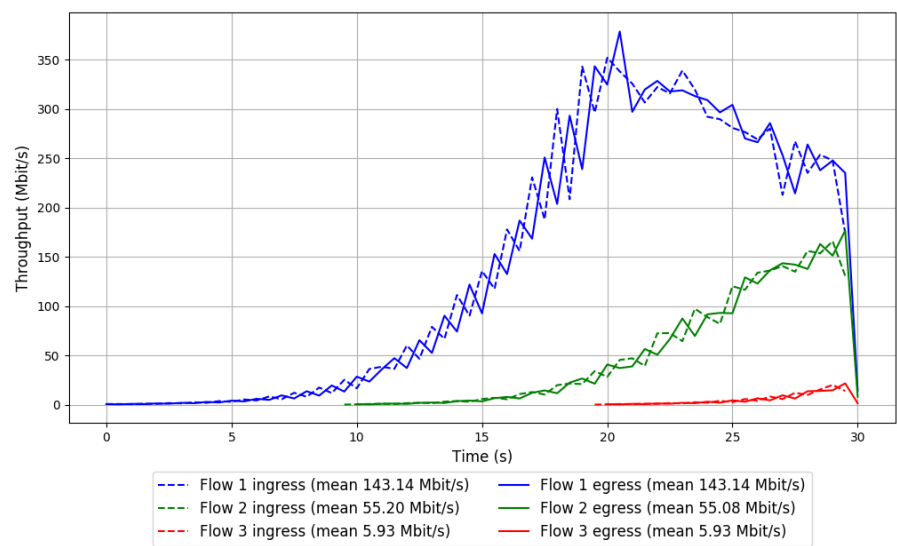
Average throughput: 5.93 Mbit/s

95th percentile per-packet one-way delay: 166.401 ms

Loss rate: 0.00%



Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-08 14:05:40

End at: 2017-09-08 14:06:10

# Below is generated by plot.py at 2017-09-08 16:24:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 220.71 Mbit/s

95th percentile per-packet one-way delay: 164.166 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 182.34 Mbit/s

95th percentile per-packet one-way delay: 164.868 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 53.97 Mbit/s

95th percentile per-packet one-way delay: 159.704 ms

Loss rate: 0.00%

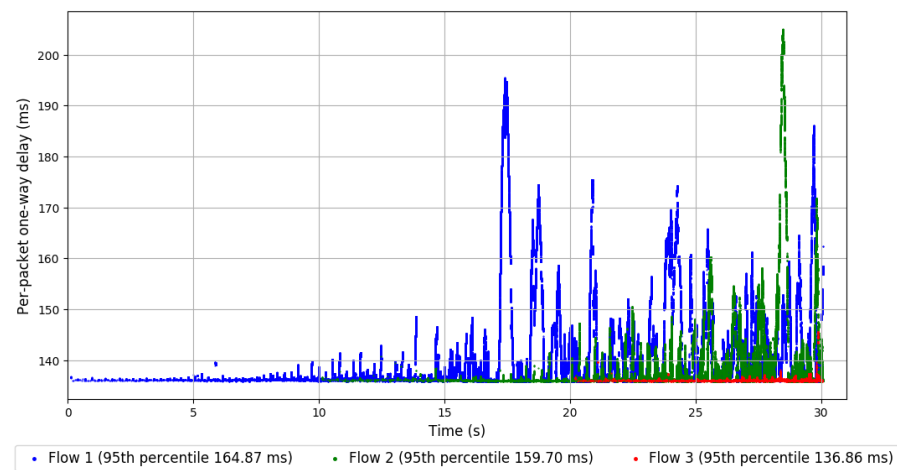
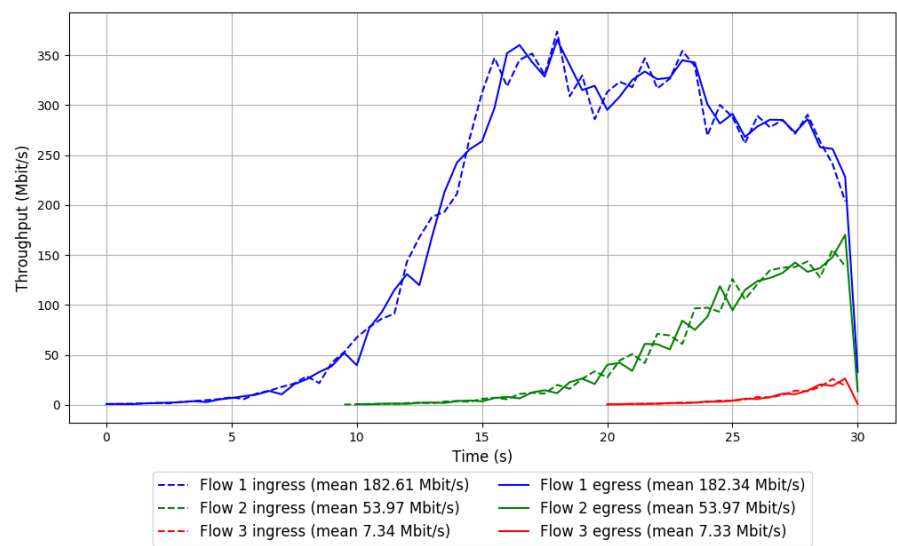
-- Flow 3:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 136.864 ms

Loss rate: 0.12%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 14:20:02

End at: 2017-09-08 14:20:32

# Below is generated by plot.py at 2017-09-08 16:24:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 206.22 Mbit/s

95th percentile per-packet one-way delay: 169.555 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 166.47 Mbit/s

95th percentile per-packet one-way delay: 170.277 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 55.90 Mbit/s

95th percentile per-packet one-way delay: 165.476 ms

Loss rate: 0.00%

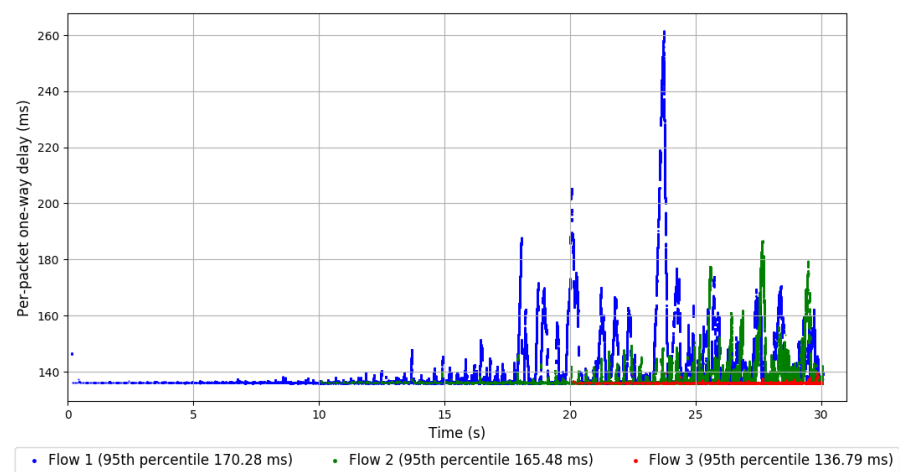
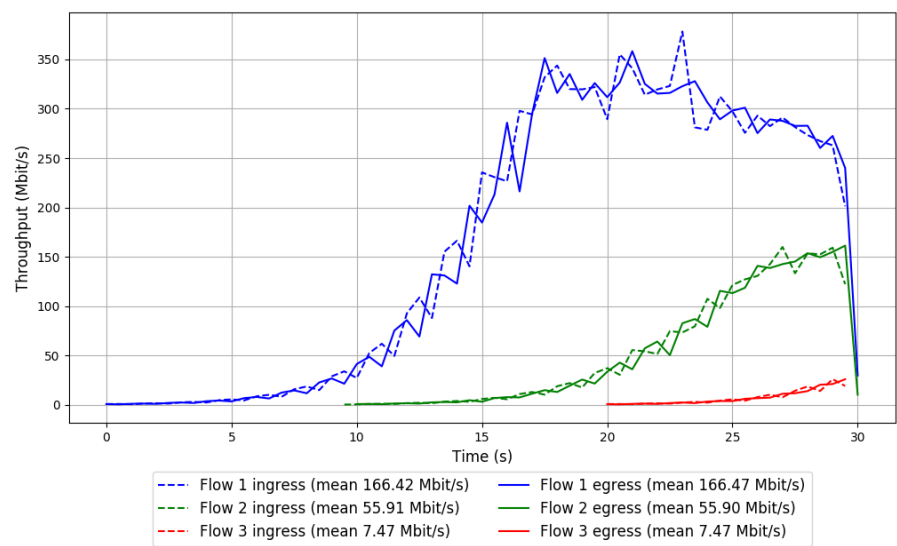
-- Flow 3:

Average throughput: 7.47 Mbit/s

95th percentile per-packet one-way delay: 136.795 ms

Loss rate: 0.08%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 14:33:27

End at: 2017-09-08 14:33:57

# Below is generated by plot.py at 2017-09-08 16:24:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 201.60 Mbit/s

95th percentile per-packet one-way delay: 192.212 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 161.90 Mbit/s

95th percentile per-packet one-way delay: 193.546 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 56.62 Mbit/s

95th percentile per-packet one-way delay: 185.289 ms

Loss rate: 0.85%

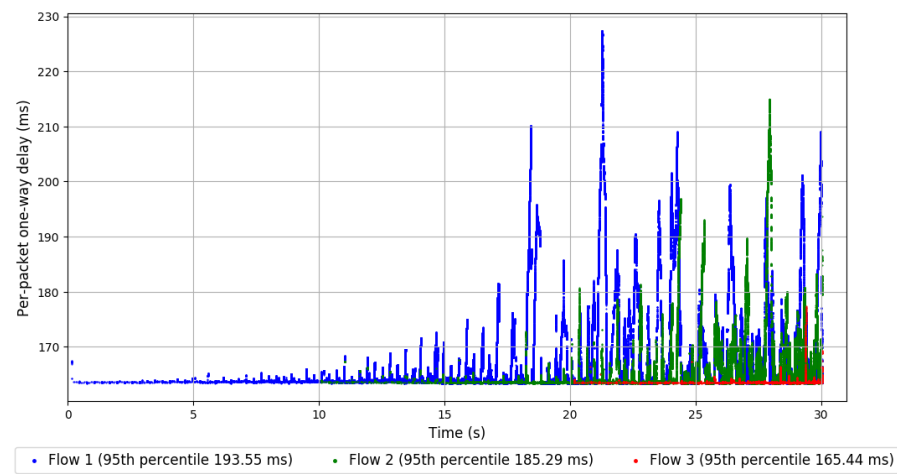
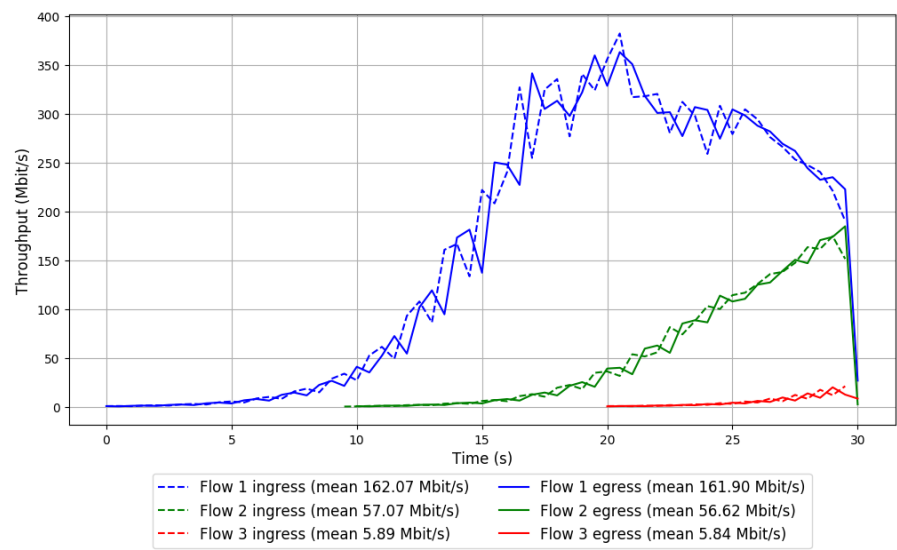
-- Flow 3:

Average throughput: 5.84 Mbit/s

95th percentile per-packet one-way delay: 165.435 ms

Loss rate: 0.81%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 14:46:38

End at: 2017-09-08 14:47:08

# Below is generated by plot.py at 2017-09-08 16:25:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 207.18 Mbit/s

95th percentile per-packet one-way delay: 195.873 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 159.58 Mbit/s

95th percentile per-packet one-way delay: 198.689 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 67.53 Mbit/s

95th percentile per-packet one-way delay: 186.780 ms

Loss rate: 0.73%

-- Flow 3:

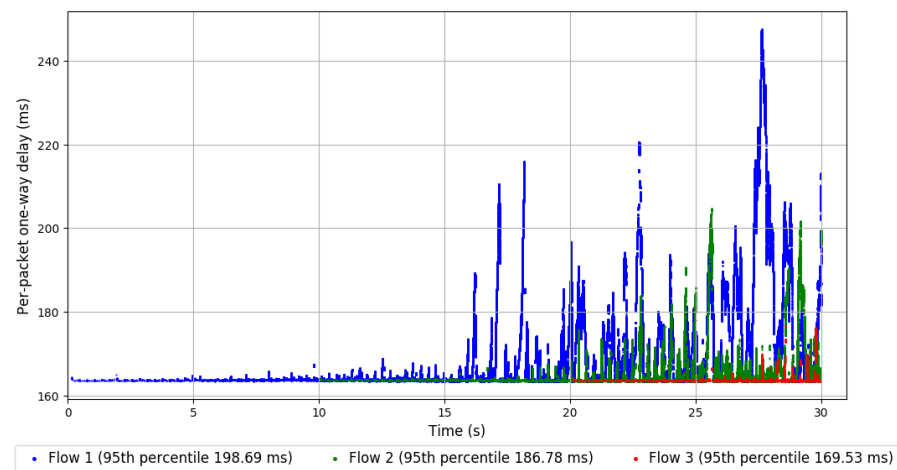
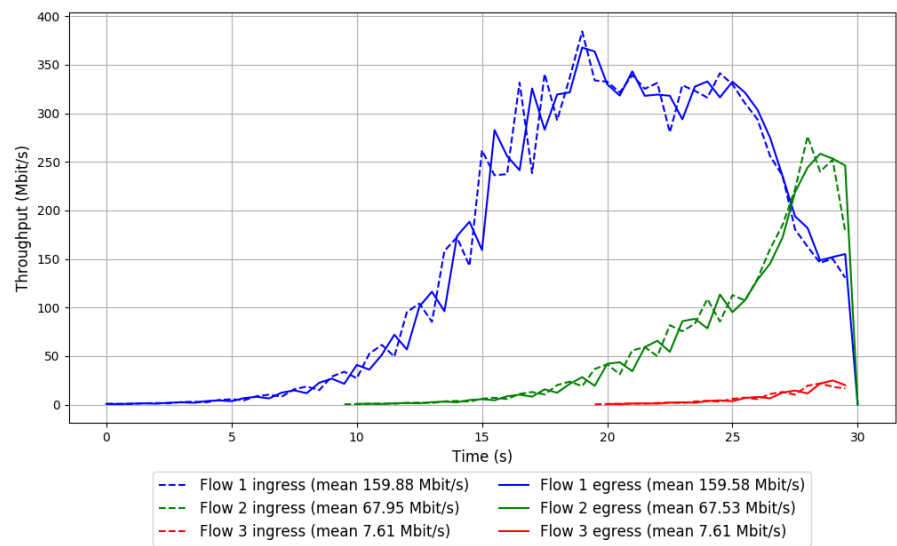
Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 169.528 ms

Loss rate: 0.00%



Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 15:00:29

End at: 2017-09-08 15:00:59

# Below is generated by plot.py at 2017-09-08 16:25:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 220.64 Mbit/s

95th percentile per-packet one-way delay: 167.283 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.49 Mbit/s

95th percentile per-packet one-way delay: 169.007 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 73.16 Mbit/s

95th percentile per-packet one-way delay: 159.028 ms

Loss rate: 0.00%

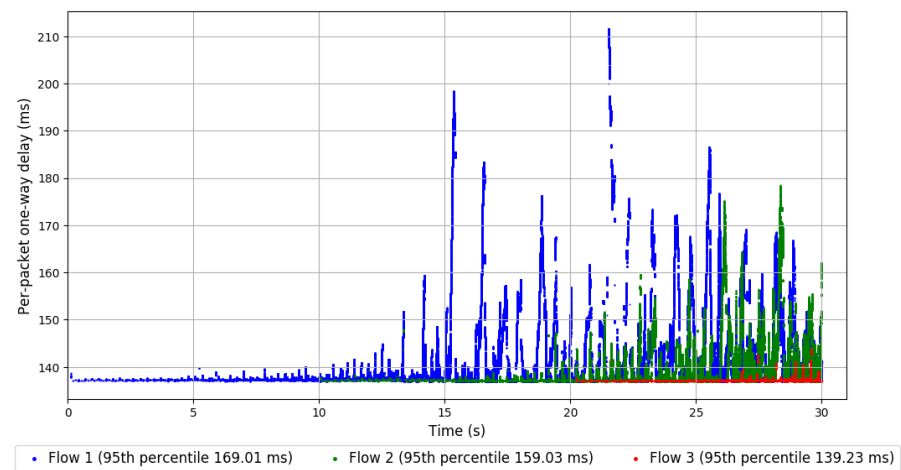
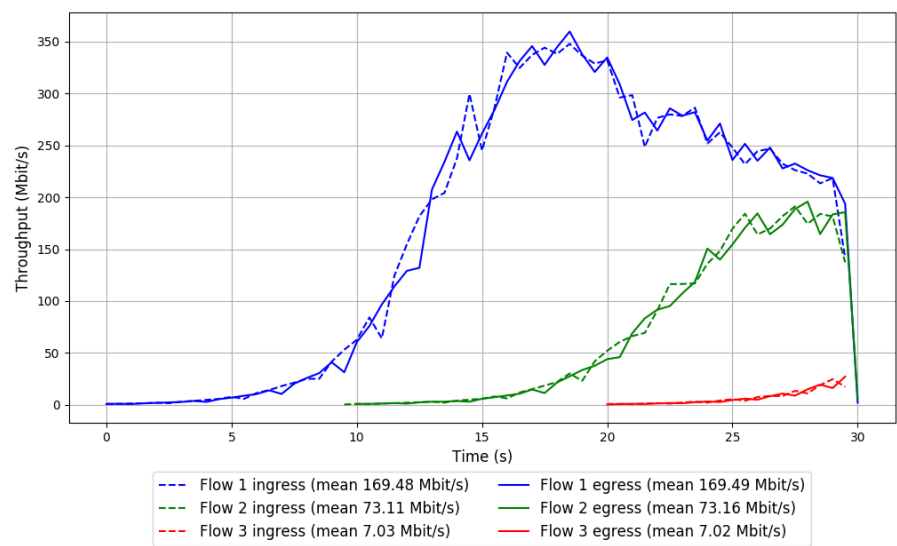
-- Flow 3:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 139.234 ms

Loss rate: 0.16%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 15:14:31

End at: 2017-09-08 15:15:01

# Below is generated by plot.py at 2017-09-08 16:25:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 220.45 Mbit/s

95th percentile per-packet one-way delay: 165.505 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 181.40 Mbit/s

95th percentile per-packet one-way delay: 166.970 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.34 Mbit/s

95th percentile per-packet one-way delay: 159.919 ms

Loss rate: 0.00%

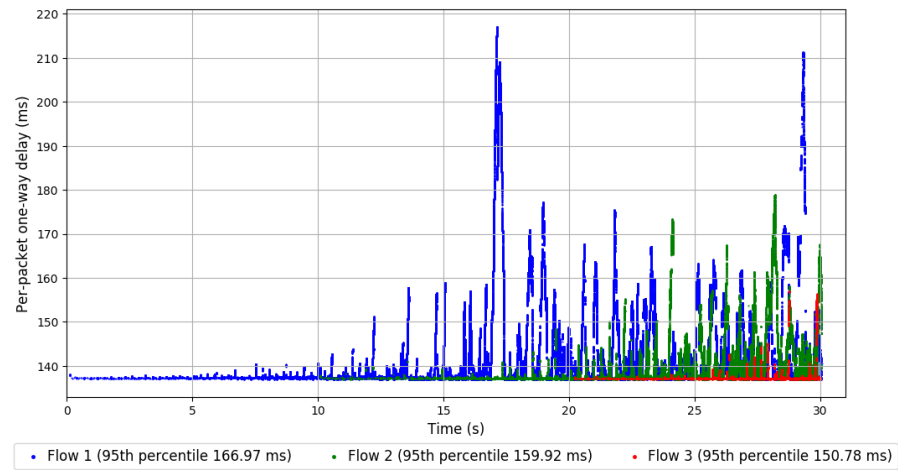
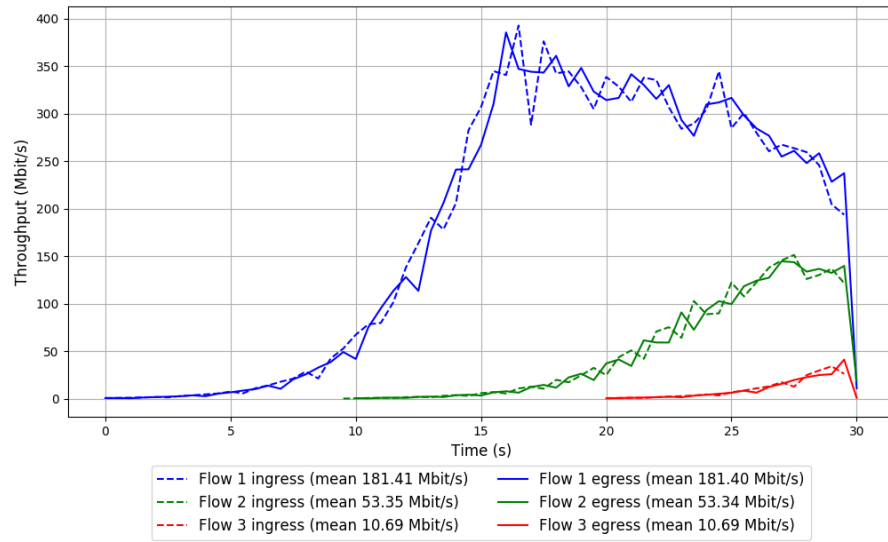
-- Flow 3:

Average throughput: 10.69 Mbit/s

95th percentile per-packet one-way delay: 150.776 ms

Loss rate: 0.00%

## Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 15:28:23

End at: 2017-09-08 15:28:53

# Below is generated by plot.py at 2017-09-08 16:26:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 222.16 Mbit/s

95th percentile per-packet one-way delay: 177.394 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 182.37 Mbit/s

95th percentile per-packet one-way delay: 181.832 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 54.14 Mbit/s

95th percentile per-packet one-way delay: 162.169 ms

Loss rate: 0.09%

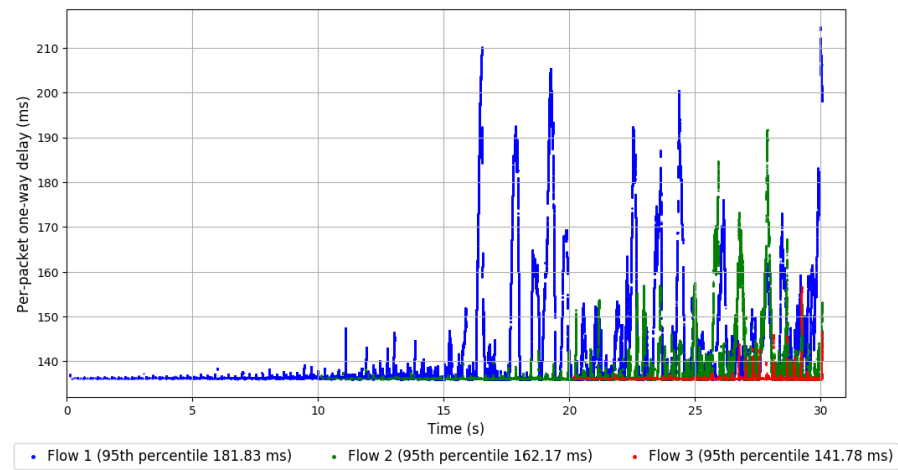
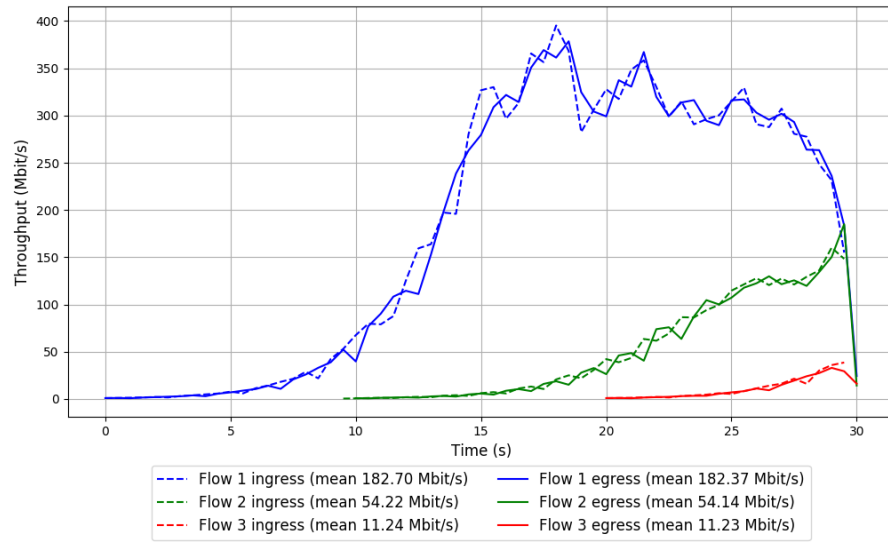
-- Flow 3:

Average throughput: 11.23 Mbit/s

95th percentile per-packet one-way delay: 141.777 ms

Loss rate: 0.00%

# Run 10: Report of CalibratedKoho — Data Link



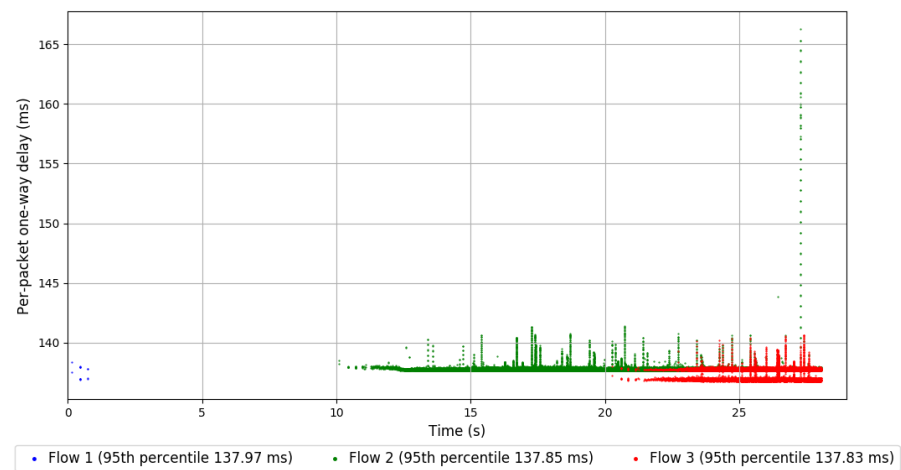
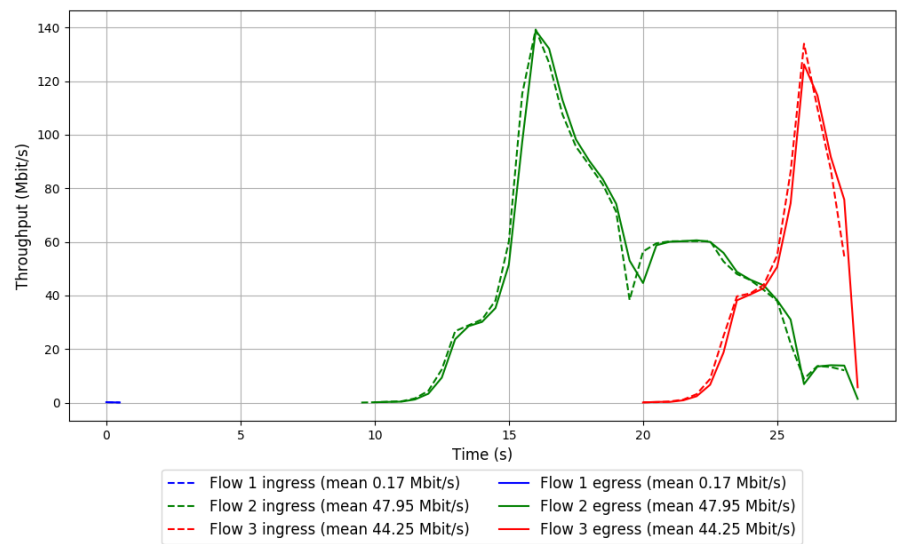
```
Run 1: Statistics of Copa

Start at: 2017-09-08 13:16:05
End at: 2017-09-08 13:16:35

# Below is generated by plot.py at 2017-09-08 16:26:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 43.19 Mbit/s
95th percentile per-packet one-way delay: 137.846 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 137.971 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 47.95 Mbit/s
95th percentile per-packet one-way delay: 137.851 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.25 Mbit/s
95th percentile per-packet one-way delay: 137.833 ms
Loss rate: 0.00%
```



Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-08 13:29:57

End at: 2017-09-08 13:30:27

# Below is generated by plot.py at 2017-09-08 16:26:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.38 Mbit/s

95th percentile per-packet one-way delay: 164.017 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 9.88 Mbit/s

95th percentile per-packet one-way delay: 164.015 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 164.214 ms

Loss rate: 0.00%

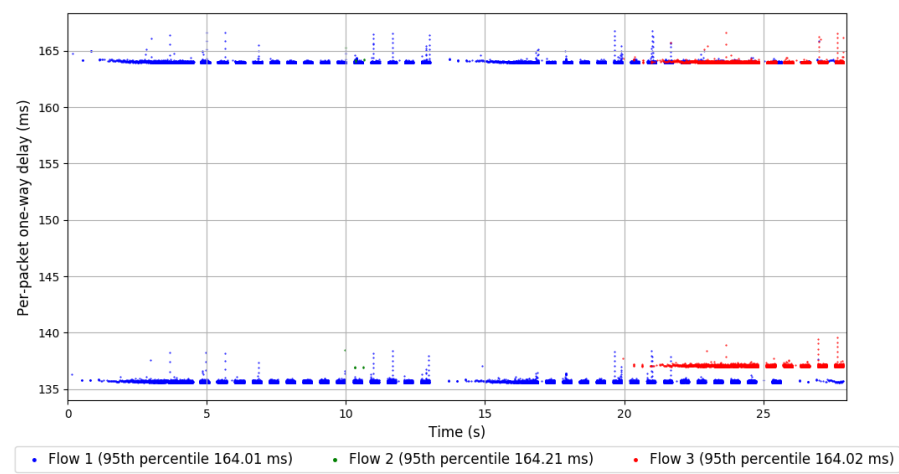
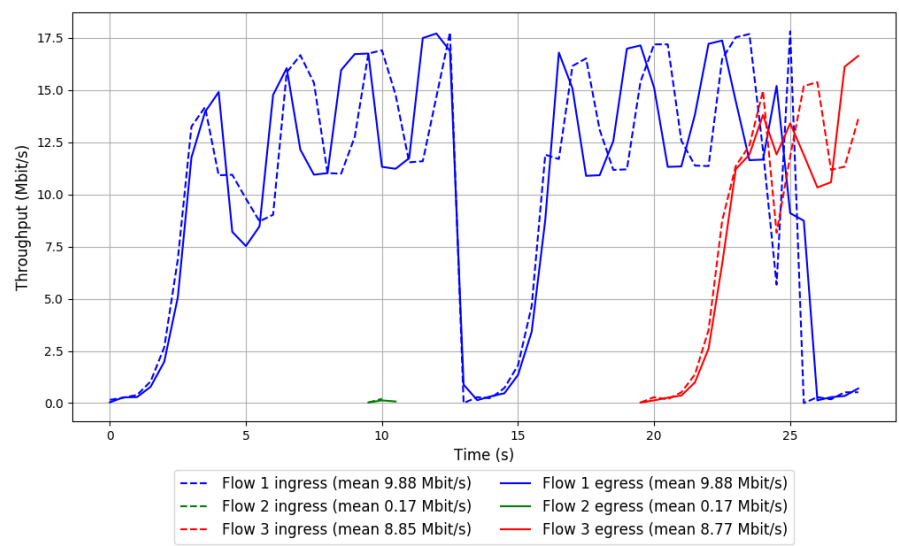
-- Flow 3:

Average throughput: 8.77 Mbit/s

95th percentile per-packet one-way delay: 164.024 ms

Loss rate: 0.80%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-08 13:43:17

End at: 2017-09-08 13:43:47

# Below is generated by plot.py at 2017-09-08 16:26:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 32.25 Mbit/s

95th percentile per-packet one-way delay: 164.042 ms

Loss rate: 0.14%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 164.331 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.03 Mbit/s

95th percentile per-packet one-way delay: 164.041 ms

Loss rate: 0.13%

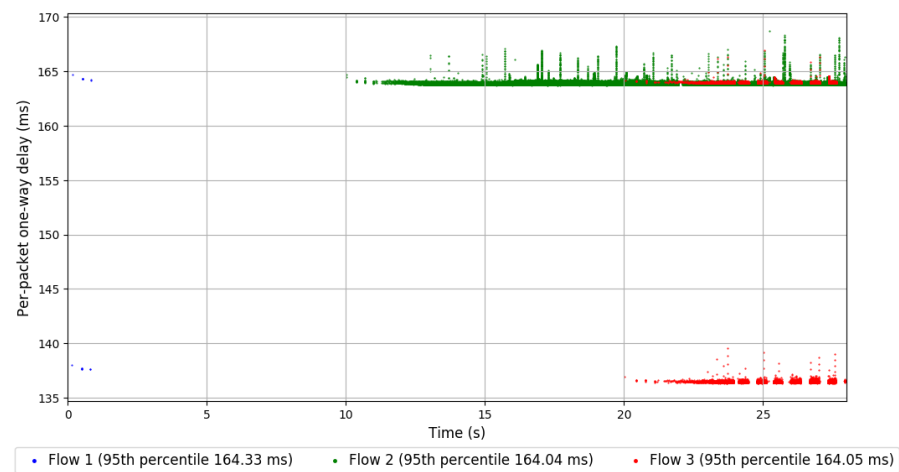
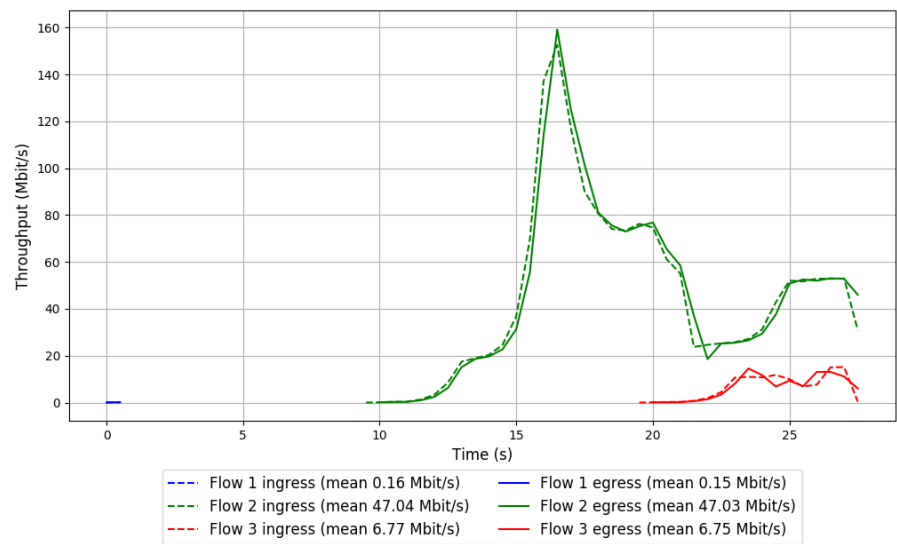
-- Flow 3:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 164.052 ms

Loss rate: 0.31%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-08 13:57:00

End at: 2017-09-08 13:57:30

# Below is generated by plot.py at 2017-09-08 16:26:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 74.30 Mbit/s

95th percentile per-packet one-way delay: 137.502 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.43 Mbit/s

95th percentile per-packet one-way delay: 137.182 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.51 Mbit/s

95th percentile per-packet one-way delay: 137.586 ms

Loss rate: 0.00%

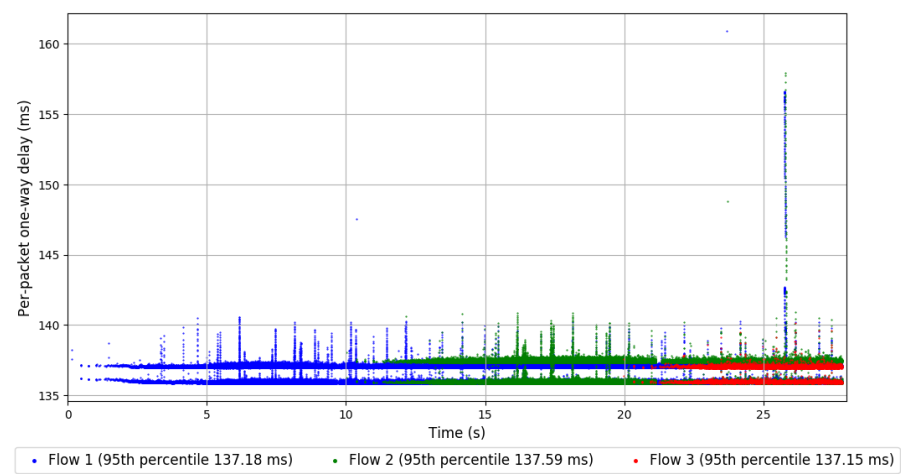
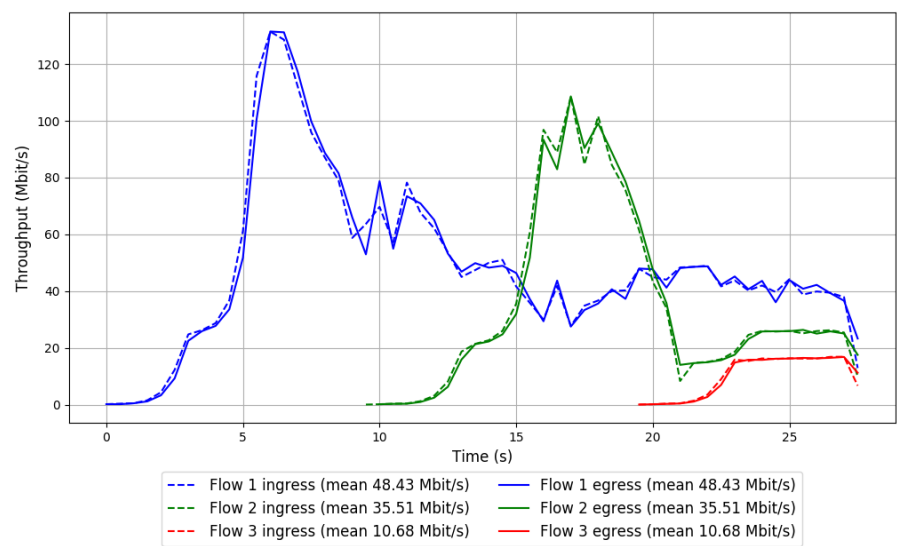
-- Flow 3:

Average throughput: 10.68 Mbit/s

95th percentile per-packet one-way delay: 137.149 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-08 14:11:25

End at: 2017-09-08 14:11:55

# Below is generated by plot.py at 2017-09-08 16:26:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.05 Mbit/s

95th percentile per-packet one-way delay: 136.330 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.75 Mbit/s

95th percentile per-packet one-way delay: 136.129 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 166.963 ms

Loss rate: 0.00%

-- Flow 3:

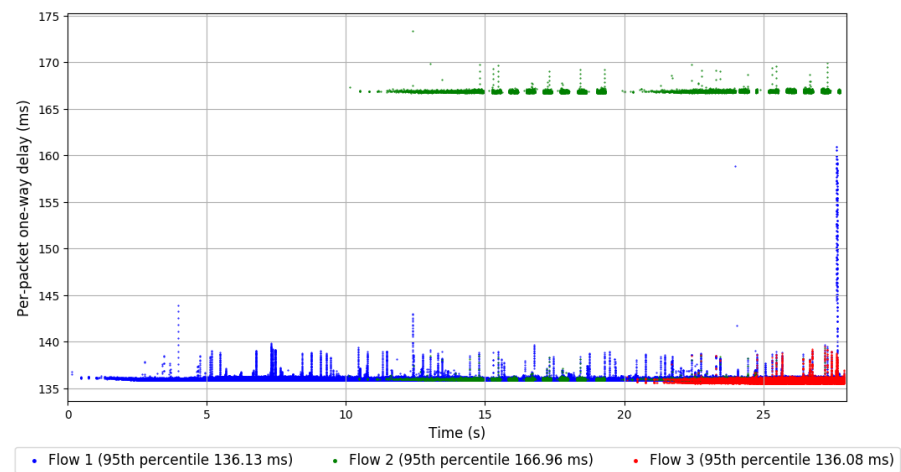
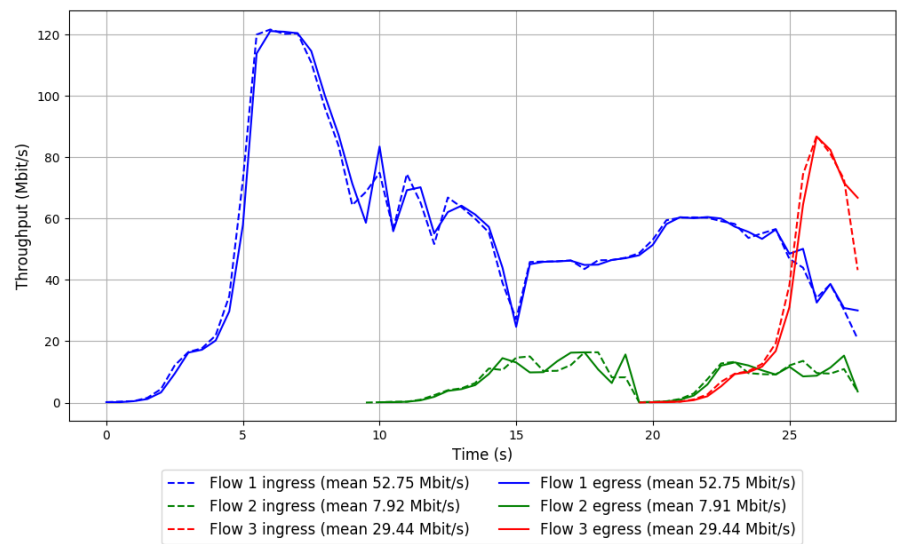
Average throughput: 29.44 Mbit/s

95th percentile per-packet one-way delay: 136.078 ms

Loss rate: 0.00%



Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-08 14:25:40

End at: 2017-09-08 14:26:10

# Below is generated by plot.py at 2017-09-08 16:26:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.06 Mbit/s

95th percentile per-packet one-way delay: 163.515 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 163.532 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.06 Mbit/s

95th percentile per-packet one-way delay: 163.506 ms

Loss rate: 0.00%

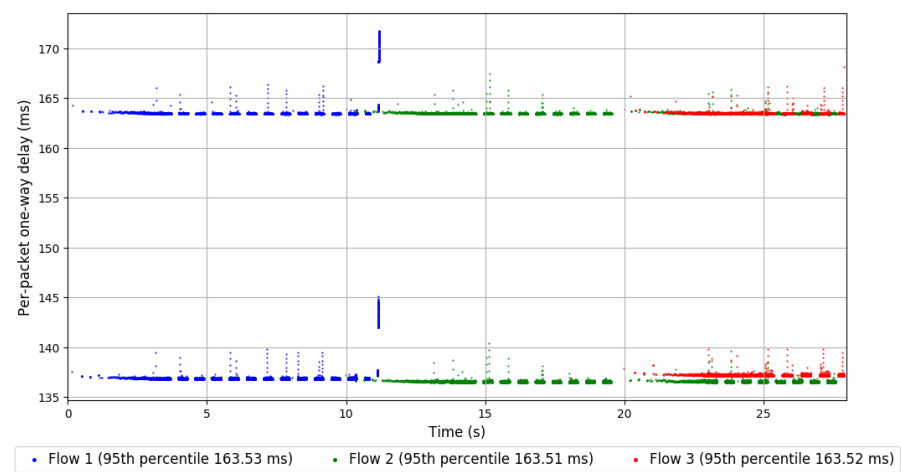
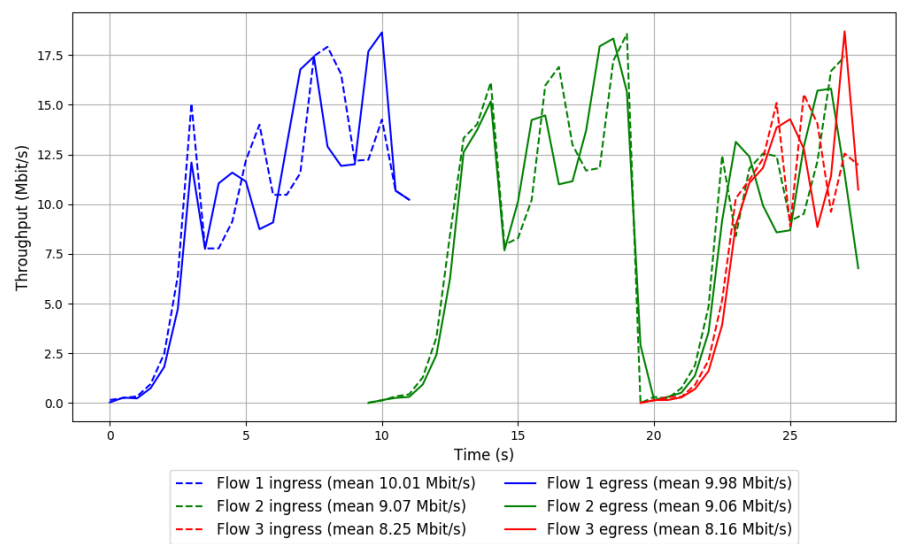
-- Flow 3:

Average throughput: 8.16 Mbit/s

95th percentile per-packet one-way delay: 163.518 ms

Loss rate: 0.95%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-08 14:38:56

End at: 2017-09-08 14:39:26

# Below is generated by plot.py at 2017-09-08 16:26:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.13 Mbit/s

95th percentile per-packet one-way delay: 163.542 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 9.65 Mbit/s

95th percentile per-packet one-way delay: 163.548 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 163.796 ms

Loss rate: 0.00%

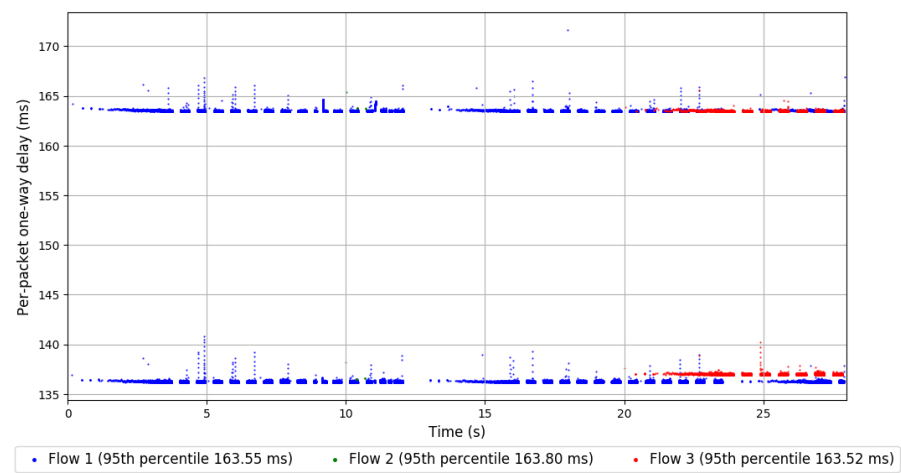
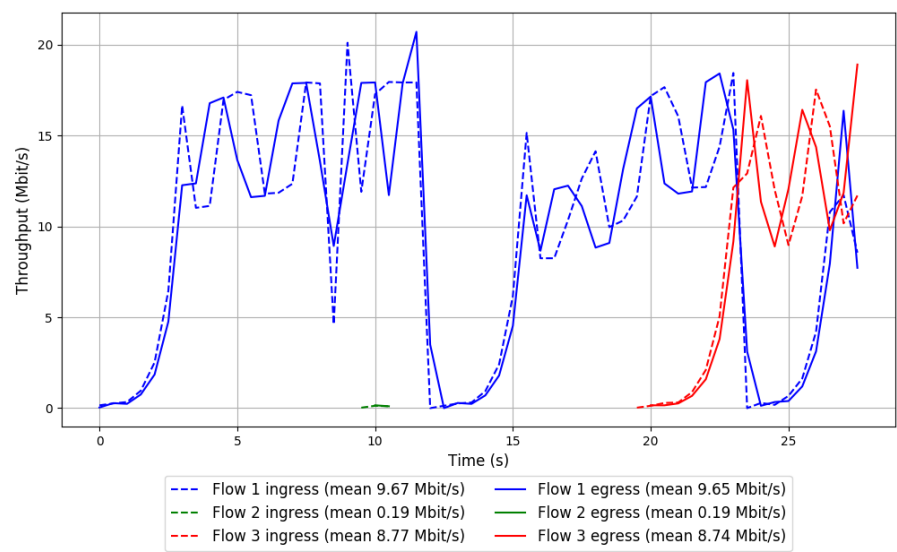
-- Flow 3:

Average throughput: 8.74 Mbit/s

95th percentile per-packet one-way delay: 163.522 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-08 14:52:04

End at: 2017-09-08 14:52:34

# Below is generated by plot.py at 2017-09-08 16:27:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 57.94 Mbit/s

95th percentile per-packet one-way delay: 163.465 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 28.49 Mbit/s

95th percentile per-packet one-way delay: 163.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.79 Mbit/s

95th percentile per-packet one-way delay: 138.029 ms

Loss rate: 0.00%

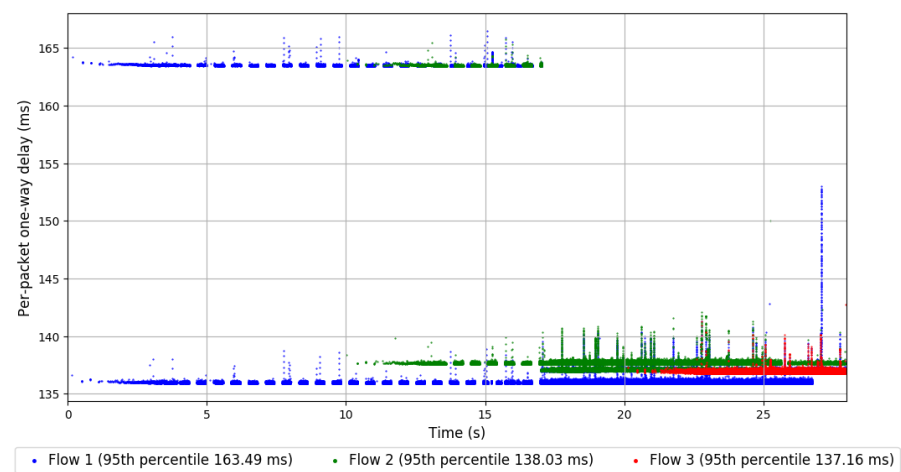
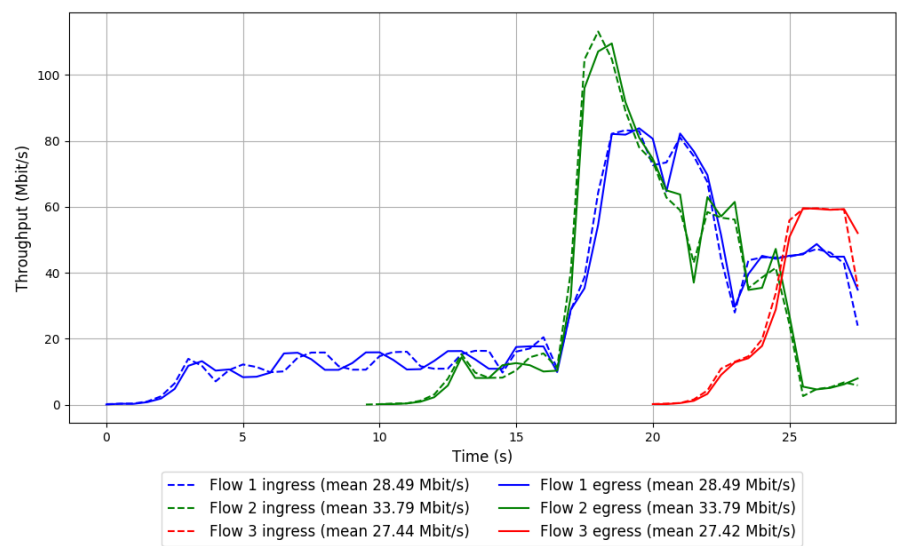
-- Flow 3:

Average throughput: 27.42 Mbit/s

95th percentile per-packet one-way delay: 137.159 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-08 15:06:04

End at: 2017-09-08 15:06:34

# Below is generated by plot.py at 2017-09-08 16:27:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.02 Mbit/s

95th percentile per-packet one-way delay: 137.497 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.17 Mbit/s

95th percentile per-packet one-way delay: 137.179 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.49 Mbit/s

95th percentile per-packet one-way delay: 137.134 ms

Loss rate: 0.00%

-- Flow 3:

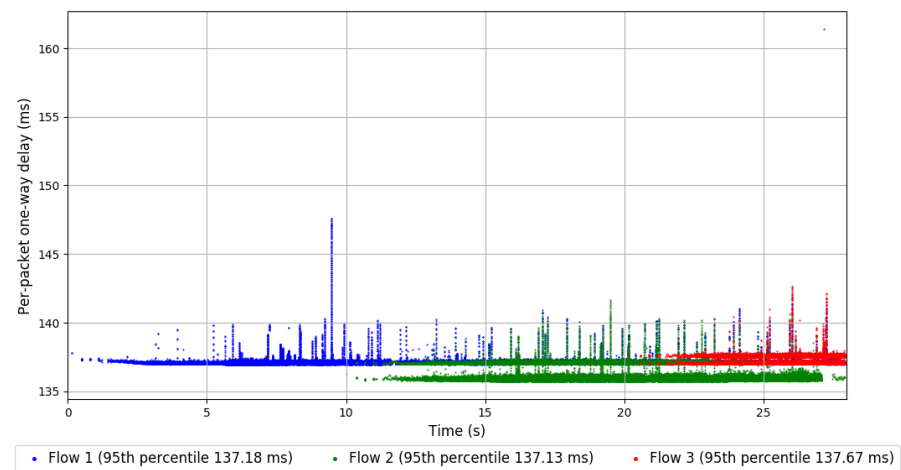
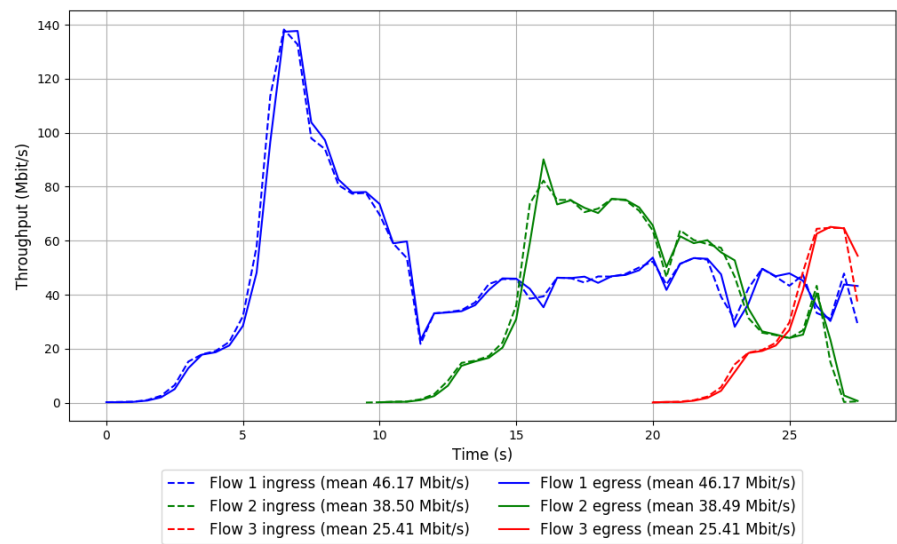
Average throughput: 25.41 Mbit/s

95th percentile per-packet one-way delay: 137.670 ms

Loss rate: 0.00%



Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-08 15:20:03

End at: 2017-09-08 15:20:33

# Below is generated by plot.py at 2017-09-08 16:27:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.32 Mbit/s

95th percentile per-packet one-way delay: 137.194 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.51 Mbit/s

95th percentile per-packet one-way delay: 137.180 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.92 Mbit/s

95th percentile per-packet one-way delay: 137.216 ms

Loss rate: 0.00%

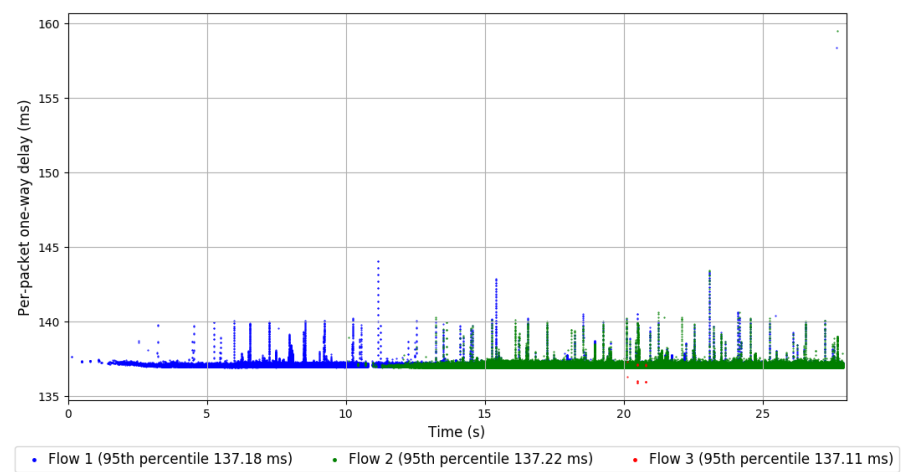
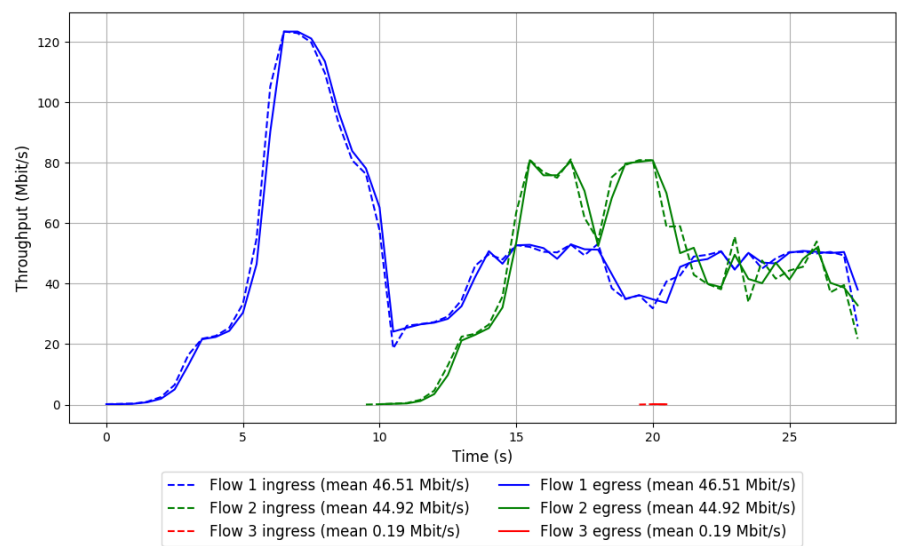
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 137.109 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

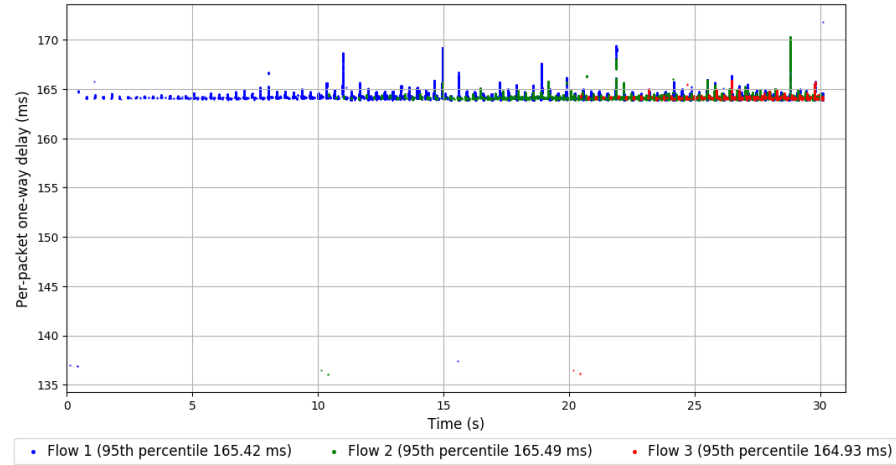
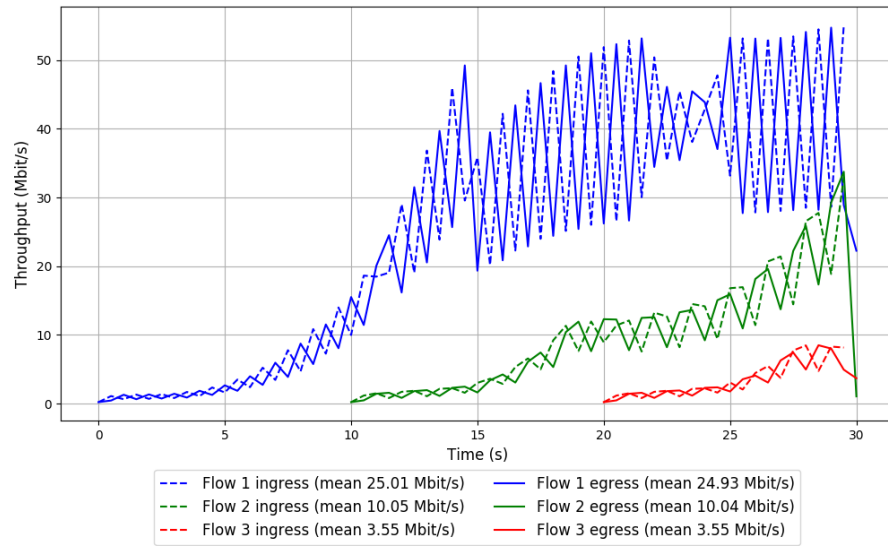


```
Run 1: Statistics of TCP Cubic

Start at: 2017-09-08 13:22:46
End at: 2017-09-08 13:23:16

# Below is generated by plot.py at 2017-09-08 16:27:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.78 Mbit/s
95th percentile per-packet one-way delay: 165.411 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 24.93 Mbit/s
95th percentile per-packet one-way delay: 165.424 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 10.04 Mbit/s
95th percentile per-packet one-way delay: 165.488 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 164.928 ms
Loss rate: 0.20%
```

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



Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 13:35:57

End at: 2017-09-08 13:36:27

# Below is generated by plot.py at 2017-09-08 16:27:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 85.18 Mbit/s

95th percentile per-packet one-way delay: 174.077 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 35.72 Mbit/s

95th percentile per-packet one-way delay: 172.095 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 72.63 Mbit/s

95th percentile per-packet one-way delay: 174.525 ms

Loss rate: 0.00%

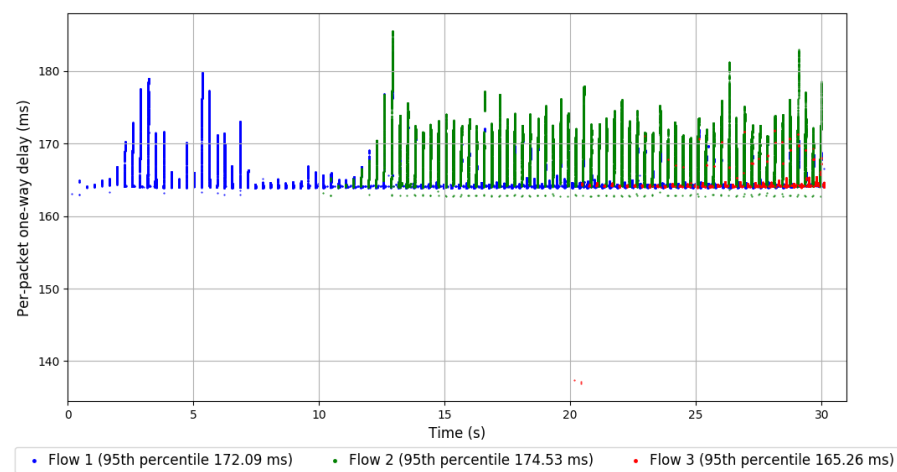
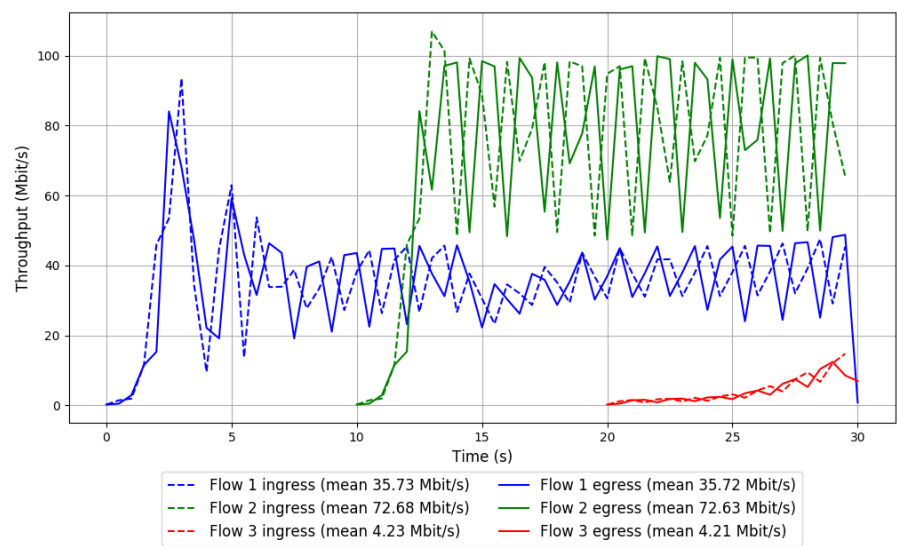
-- Flow 3:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 165.261 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 13:49:28

End at: 2017-09-08 13:49:58

# Below is generated by plot.py at 2017-09-08 16:27:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 39.20 Mbit/s

95th percentile per-packet one-way delay: 174.152 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 31.49 Mbit/s

95th percentile per-packet one-way delay: 174.670 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.52 Mbit/s

95th percentile per-packet one-way delay: 166.205 ms

Loss rate: 0.08%

-- Flow 3:

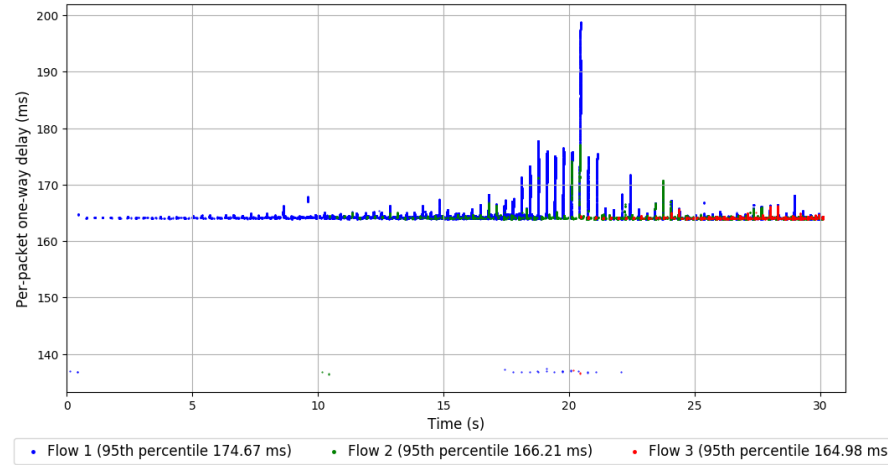
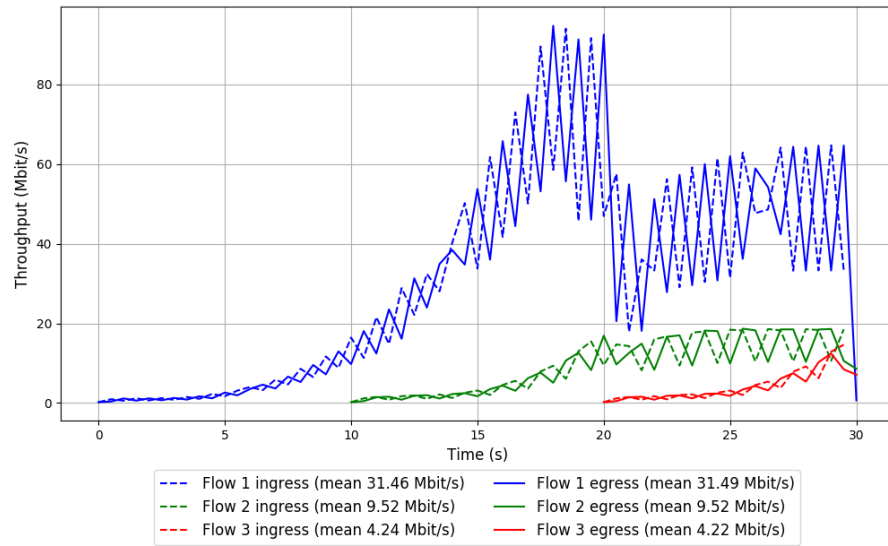
Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 164.976 ms

Loss rate: 0.00%



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



Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 14:03:49

End at: 2017-09-08 14:04:19

# Below is generated by plot.py at 2017-09-08 16:28:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 77.70 Mbit/s

95th percentile per-packet one-way delay: 145.152 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.10 Mbit/s

95th percentile per-packet one-way delay: 145.370 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.01 Mbit/s

95th percentile per-packet one-way delay: 139.308 ms

Loss rate: 0.00%

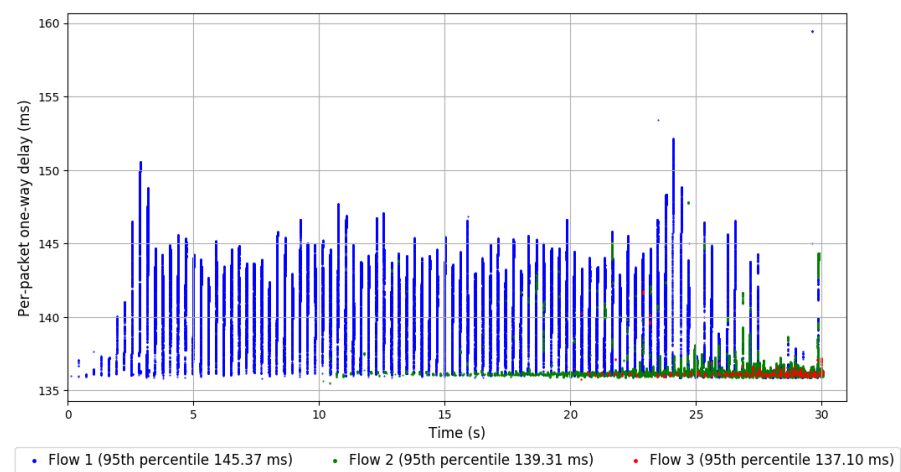
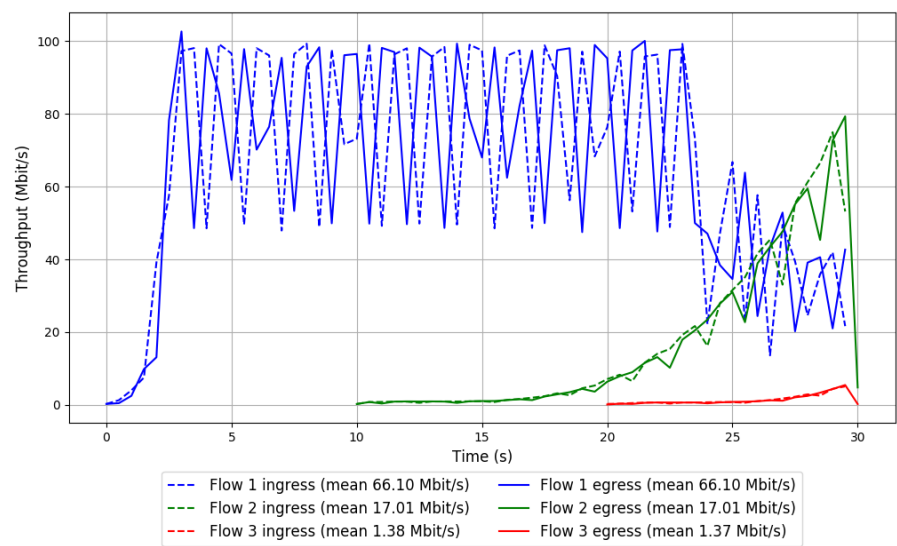
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 137.098 ms

Loss rate: 0.61%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-08 14:18:10

End at: 2017-09-08 14:18:40

# Below is generated by plot.py at 2017-09-08 16:28:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.84 Mbit/s

95th percentile per-packet one-way delay: 146.558 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.42 Mbit/s

95th percentile per-packet one-way delay: 146.634 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.27 Mbit/s

95th percentile per-packet one-way delay: 146.890 ms

Loss rate: 0.00%

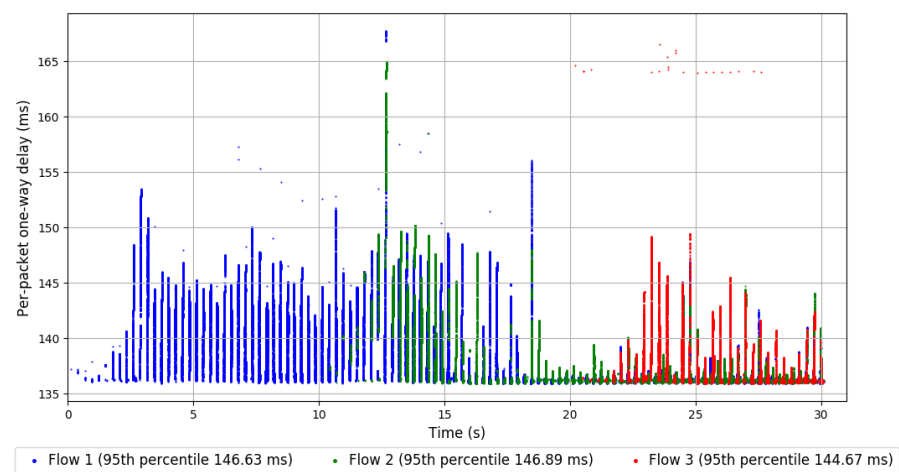
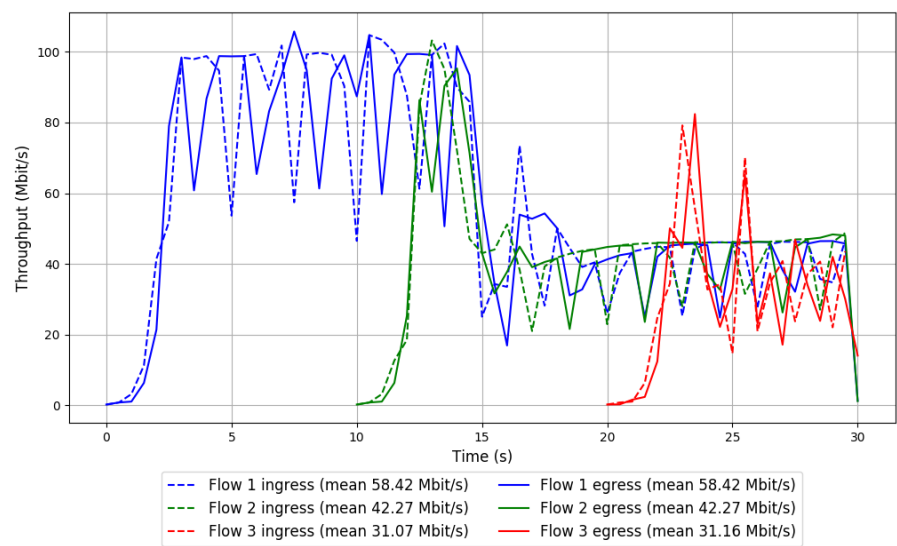
-- Flow 3:

Average throughput: 31.16 Mbit/s

95th percentile per-packet one-way delay: 144.666 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 14:31:37

End at: 2017-09-08 14:32:08

# Below is generated by plot.py at 2017-09-08 16:28:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 174.484 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 50.07 Mbit/s

95th percentile per-packet one-way delay: 173.941 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 41.48 Mbit/s

95th percentile per-packet one-way delay: 173.358 ms

Loss rate: 0.01%

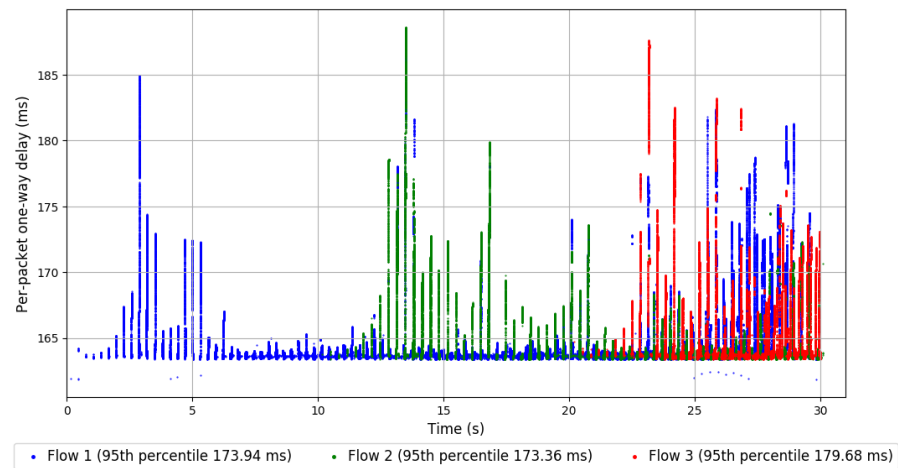
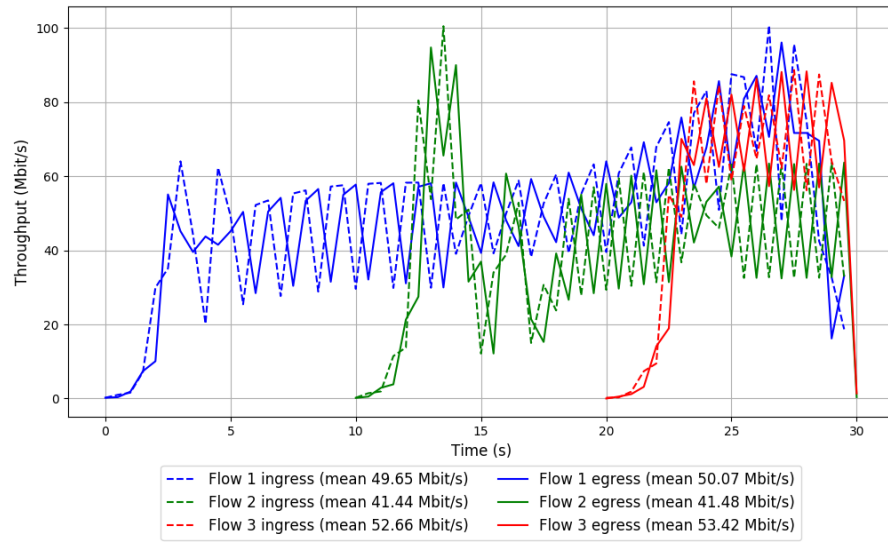
-- Flow 3:

Average throughput: 53.42 Mbit/s

95th percentile per-packet one-way delay: 179.675 ms

Loss rate: 0.00%

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



Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 14:44:53

End at: 2017-09-08 14:45:23

# Below is generated by plot.py at 2017-09-08 16:28:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 47.30 Mbit/s

95th percentile per-packet one-way delay: 169.248 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 32.83 Mbit/s

95th percentile per-packet one-way delay: 170.479 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 165.598 ms

Loss rate: 0.06%

-- Flow 3:

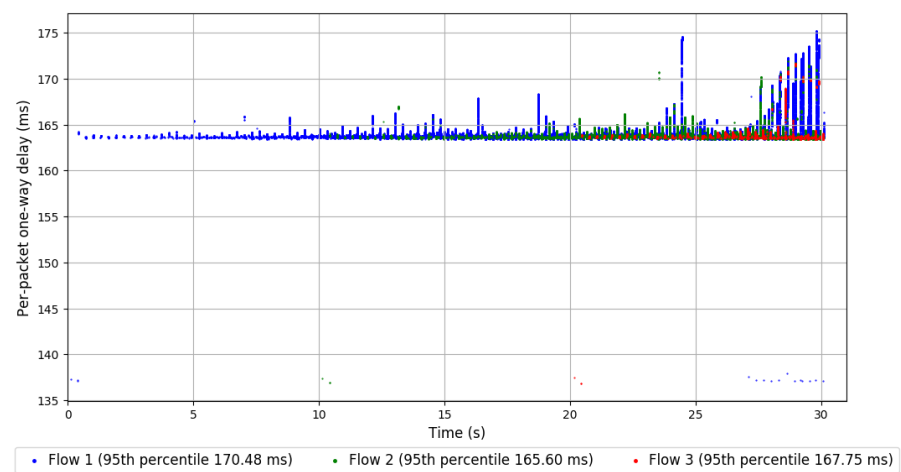
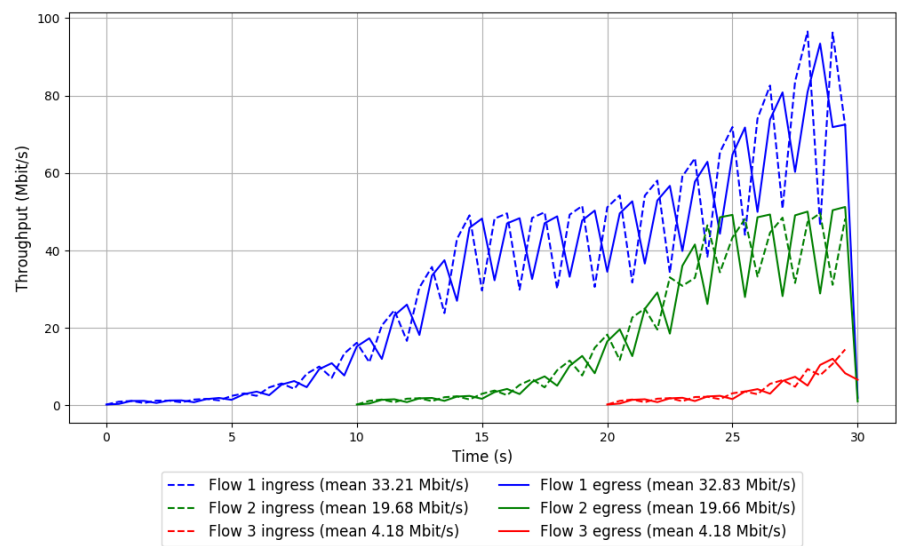
Average throughput: 4.18 Mbit/s

95th percentile per-packet one-way delay: 167.755 ms

Loss rate: 0.43%



Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 14:58:41

End at: 2017-09-08 14:59:11

# Below is generated by plot.py at 2017-09-08 16:28:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 95.33 Mbit/s

95th percentile per-packet one-way delay: 146.997 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 42.31 Mbit/s

95th percentile per-packet one-way delay: 145.085 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 79.75 Mbit/s

95th percentile per-packet one-way delay: 148.167 ms

Loss rate: 0.00%

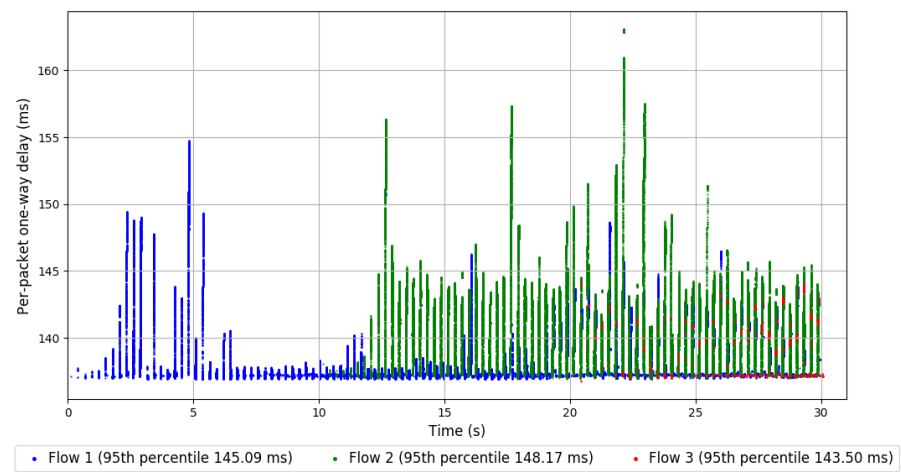
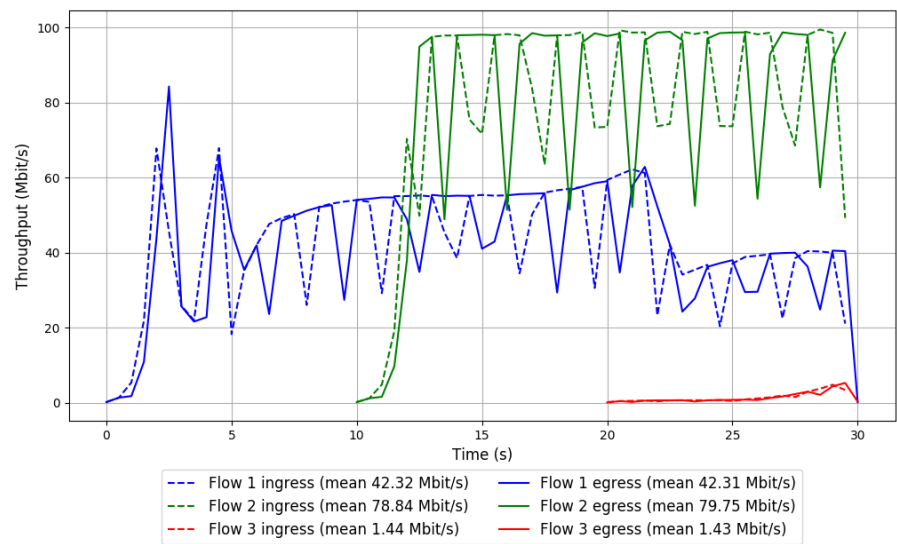
-- Flow 3:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 143.495 ms

Loss rate: 0.42%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 15:12:41

End at: 2017-09-08 15:13:11

# Below is generated by plot.py at 2017-09-08 16:28:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.90 Mbit/s

95th percentile per-packet one-way delay: 149.907 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 77.07 Mbit/s

95th percentile per-packet one-way delay: 149.069 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 42.26 Mbit/s

95th percentile per-packet one-way delay: 148.773 ms

Loss rate: 0.01%

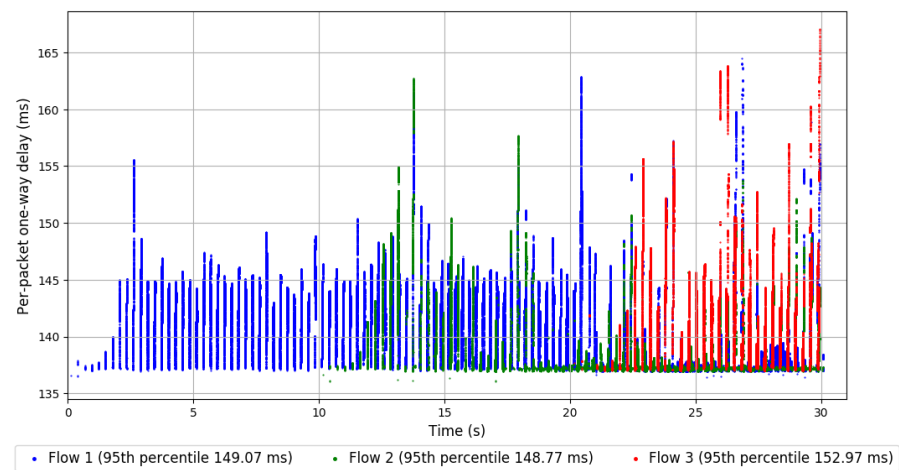
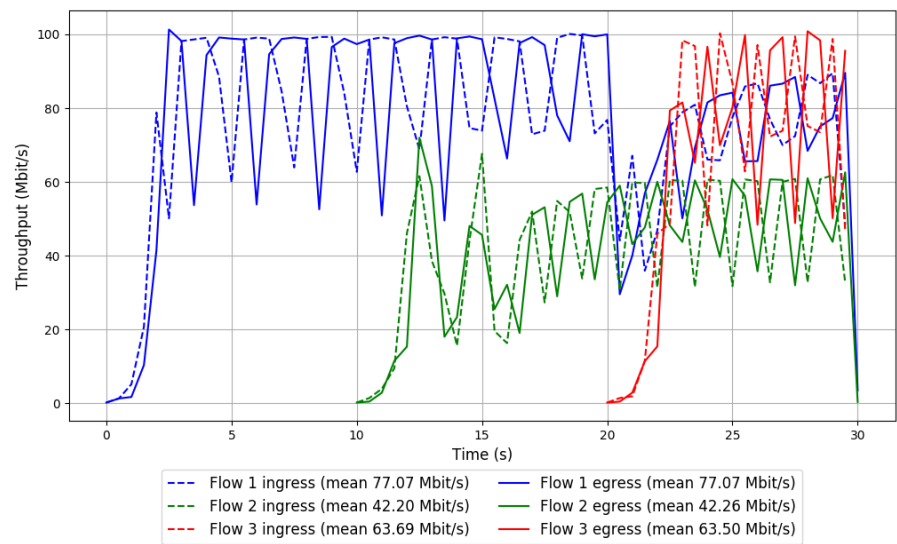
-- Flow 3:

Average throughput: 63.50 Mbit/s

95th percentile per-packet one-way delay: 152.971 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 15:26:32

End at: 2017-09-08 15:27:02

# Below is generated by plot.py at 2017-09-08 16:29:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.82 Mbit/s

95th percentile per-packet one-way delay: 155.090 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.77 Mbit/s

95th percentile per-packet one-way delay: 151.043 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 75.32 Mbit/s

95th percentile per-packet one-way delay: 156.711 ms

Loss rate: 0.00%

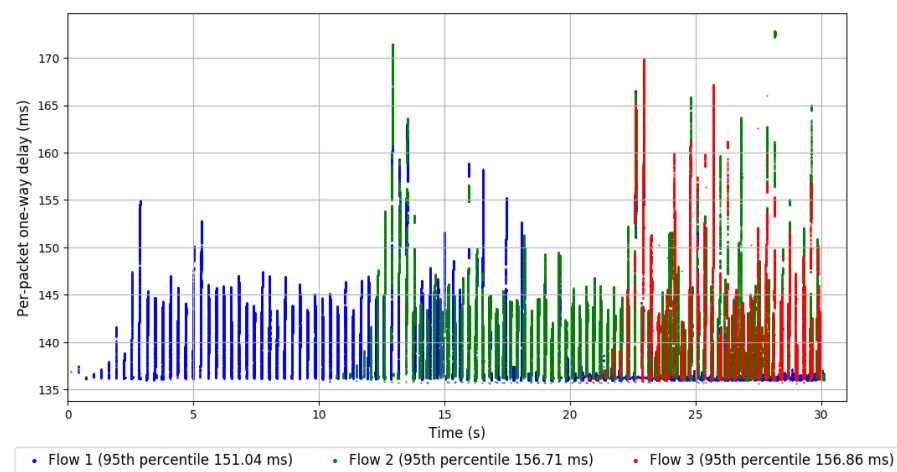
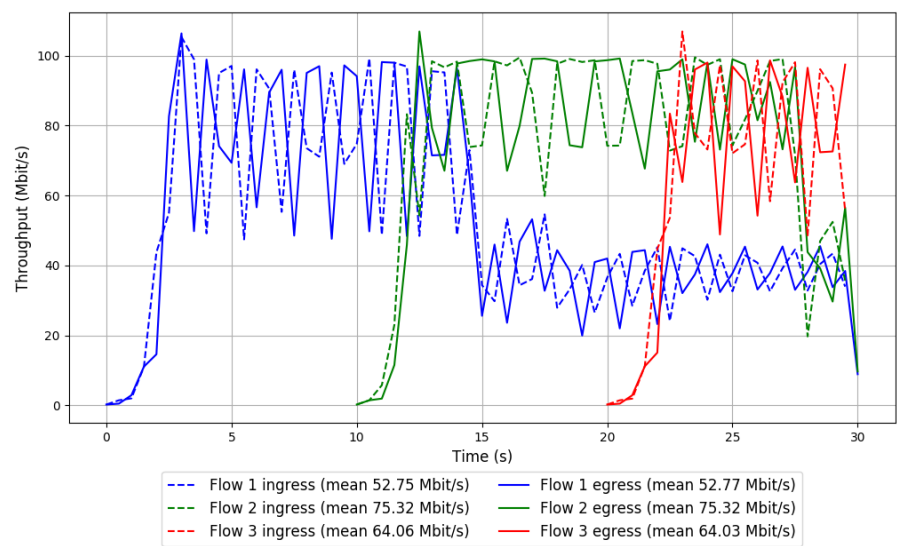
-- Flow 3:

Average throughput: 64.03 Mbit/s

95th percentile per-packet one-way delay: 156.859 ms

Loss rate: 0.00%

Run 10: Report of TCP Cubic — Data Link



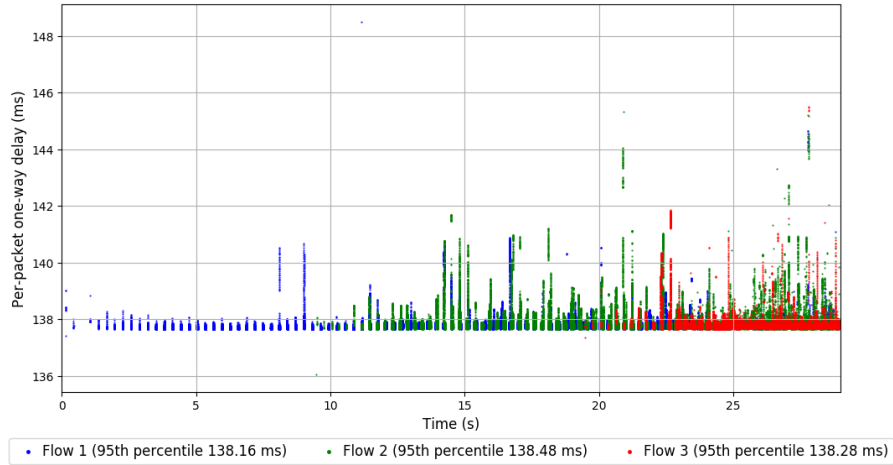
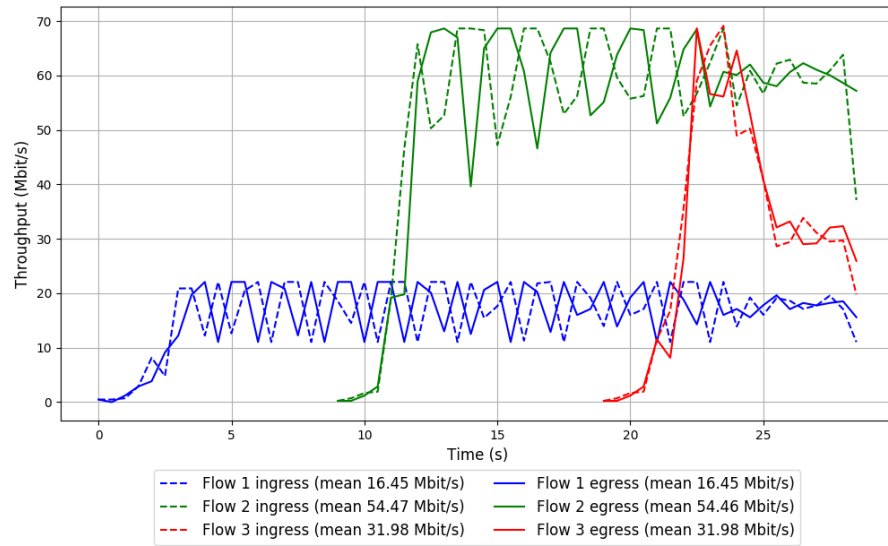
```
Run 1: Statistics of Indigo

Start at: 2017-09-08 13:14:14
End at: 2017-09-08 13:14:44

# Below is generated by plot.py at 2017-09-08 16:29:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 63.72 Mbit/s
95th percentile per-packet one-way delay: 138.382 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.45 Mbit/s
95th percentile per-packet one-way delay: 138.161 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.46 Mbit/s
95th percentile per-packet one-way delay: 138.480 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 31.98 Mbit/s
95th percentile per-packet one-way delay: 138.279 ms
Loss rate: 0.00%
```



## Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-08 13:28:06

End at: 2017-09-08 13:28:36

# Below is generated by plot.py at 2017-09-08 16:29:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 55.72 Mbit/s

95th percentile per-packet one-way delay: 164.589 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 14.42 Mbit/s

95th percentile per-packet one-way delay: 164.803 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 43.37 Mbit/s

95th percentile per-packet one-way delay: 164.554 ms

Loss rate: 0.12%

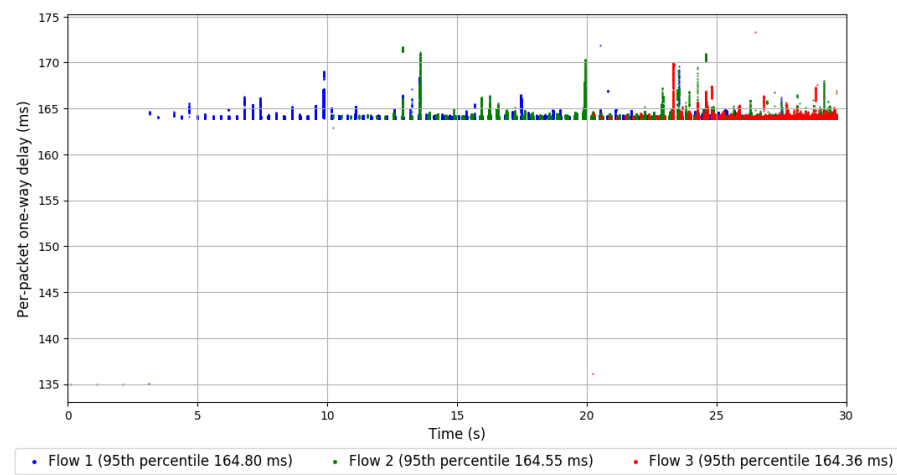
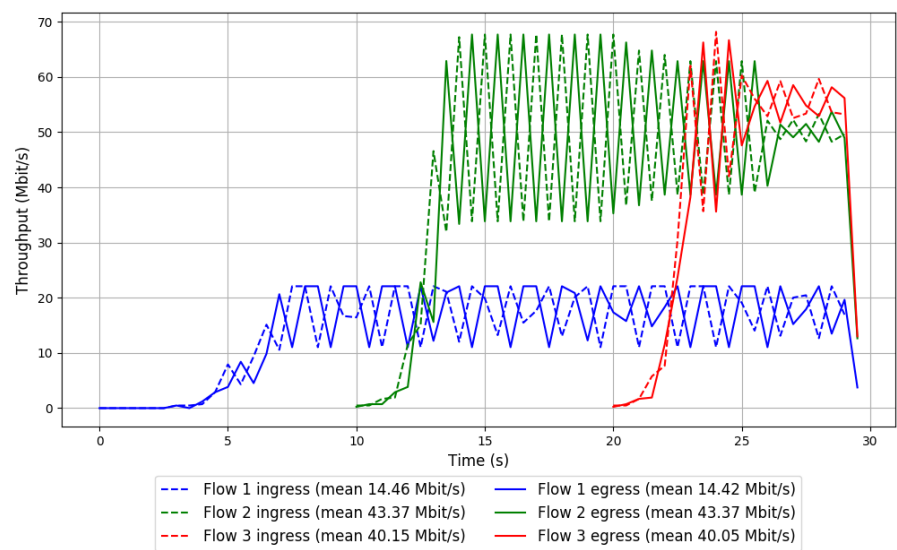
-- Flow 3:

Average throughput: 40.05 Mbit/s

95th percentile per-packet one-way delay: 164.358 ms

Loss rate: 0.25%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-08 13:41:26

End at: 2017-09-08 13:41:56

# Below is generated by plot.py at 2017-09-08 16:29:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 60.89 Mbit/s

95th percentile per-packet one-way delay: 164.621 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 20.75 Mbit/s

95th percentile per-packet one-way delay: 164.472 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 43.92 Mbit/s

95th percentile per-packet one-way delay: 164.578 ms

Loss rate: 0.09%

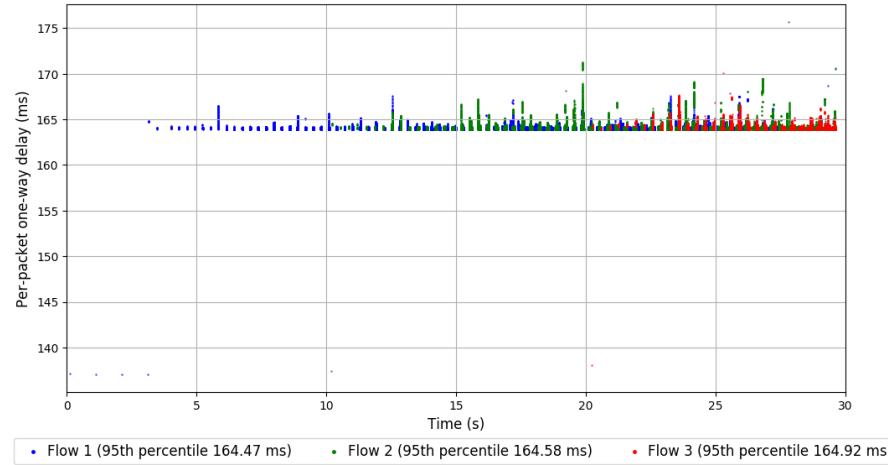
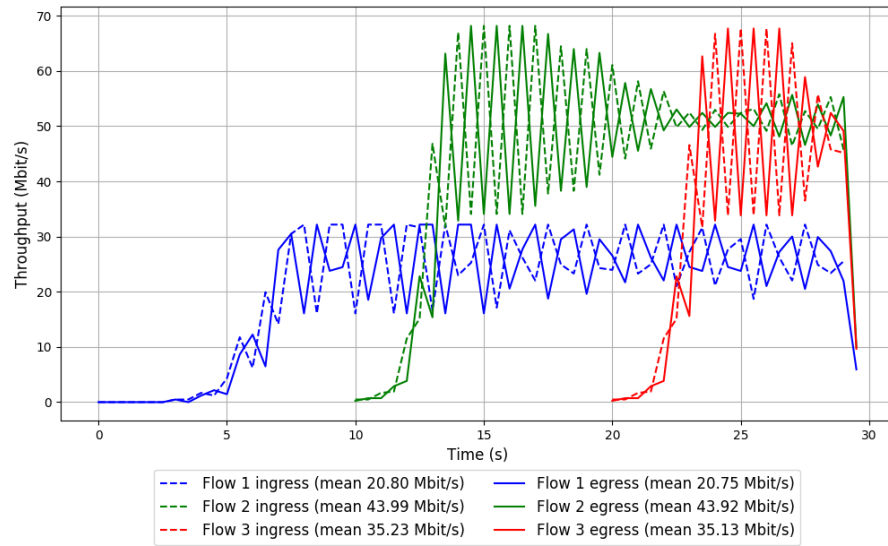
-- Flow 3:

Average throughput: 35.13 Mbit/s

95th percentile per-packet one-way delay: 164.918 ms

Loss rate: 0.25%

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



Run 4: Statistics of Indigo

Start at: 2017-09-08 13:54:56

End at: 2017-09-08 13:55:26

# Below is generated by plot.py at 2017-09-08 16:29:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 62.88 Mbit/s

95th percentile per-packet one-way delay: 136.506 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.21 Mbit/s

95th percentile per-packet one-way delay: 136.371 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.18 Mbit/s

95th percentile per-packet one-way delay: 136.660 ms

Loss rate: 0.00%

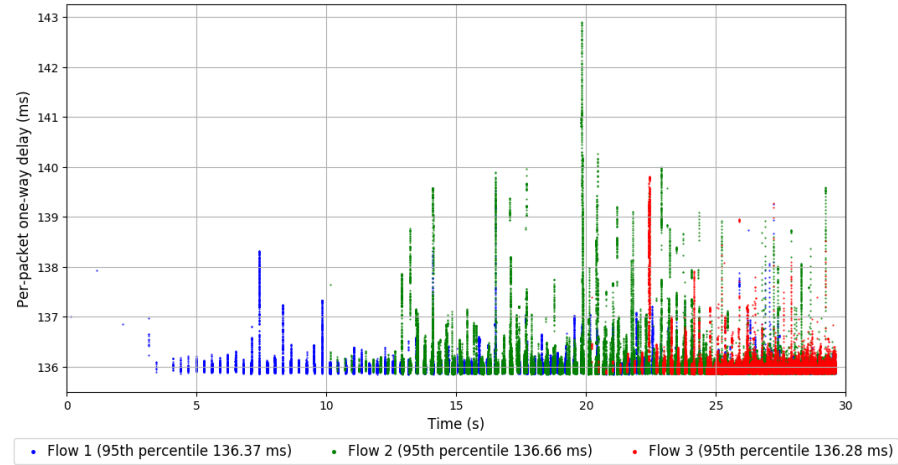
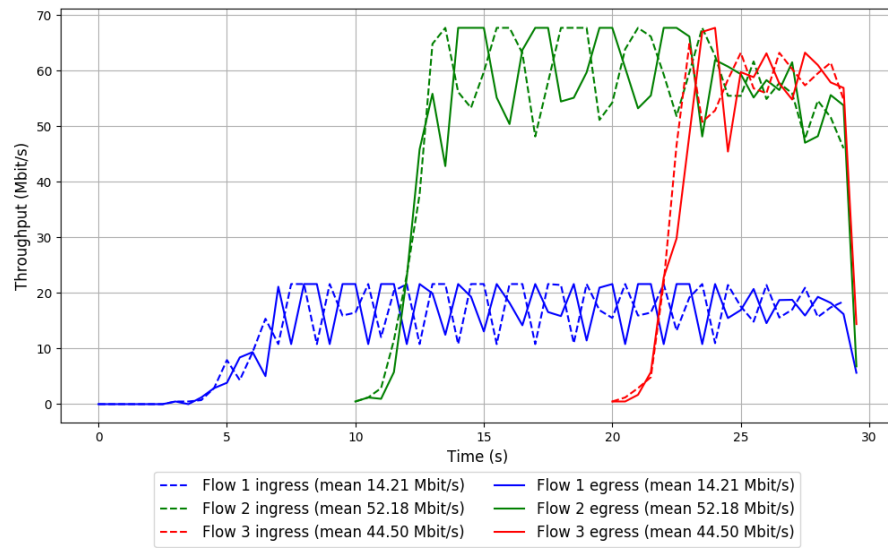
-- Flow 3:

Average throughput: 44.50 Mbit/s

95th percentile per-packet one-way delay: 136.283 ms

Loss rate: 0.00%

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



Run 5: Statistics of Indigo

Start at: 2017-09-08 14:09:29

End at: 2017-09-08 14:09:59

# Below is generated by plot.py at 2017-09-08 16:29:36

# Datalink statistics

-- Total of 3 flows:

Average throughput: 83.90 Mbit/s

95th percentile per-packet one-way delay: 136.348 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.68 Mbit/s

95th percentile per-packet one-way delay: 136.388 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.23 Mbit/s

95th percentile per-packet one-way delay: 136.334 ms

Loss rate: 0.00%

-- Flow 3:

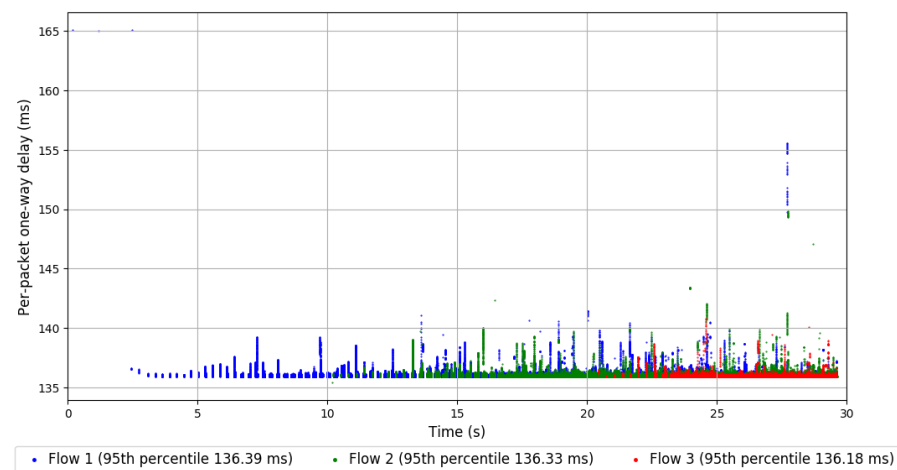
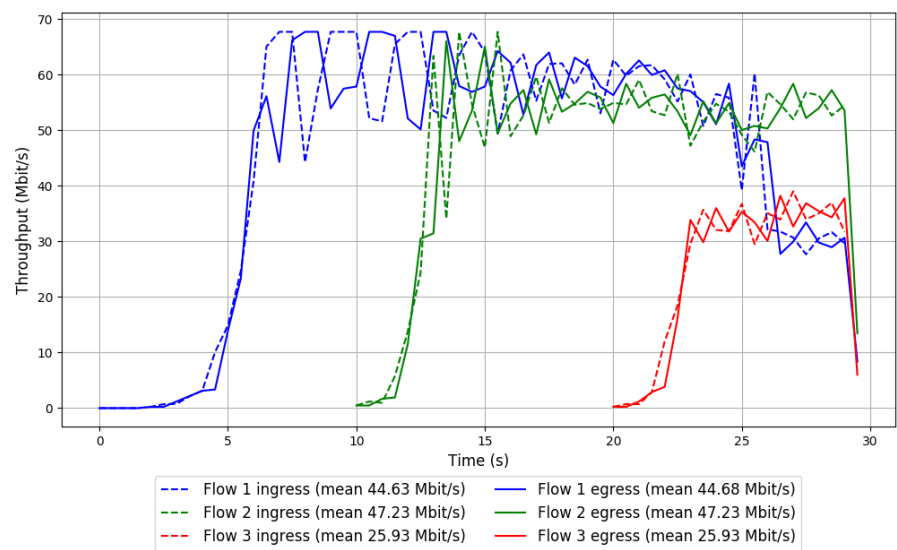
Average throughput: 25.93 Mbit/s

95th percentile per-packet one-way delay: 136.175 ms

Loss rate: 0.00%



Run 5: Report of Indigo — Data Link

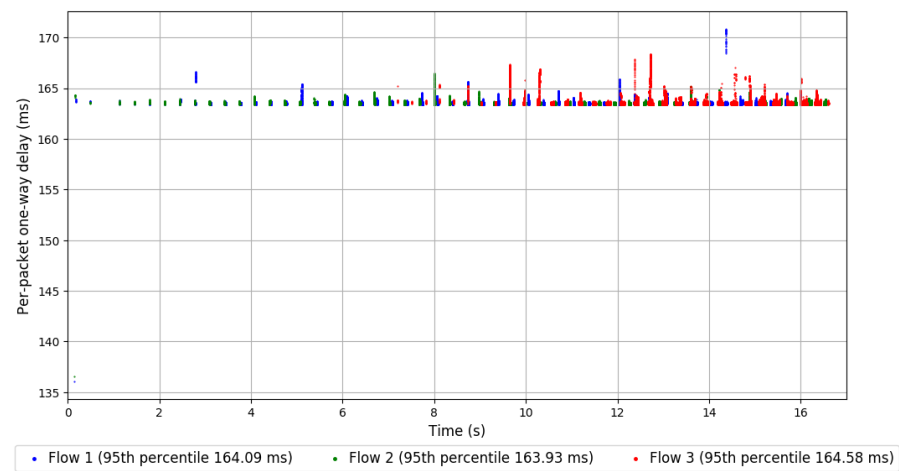
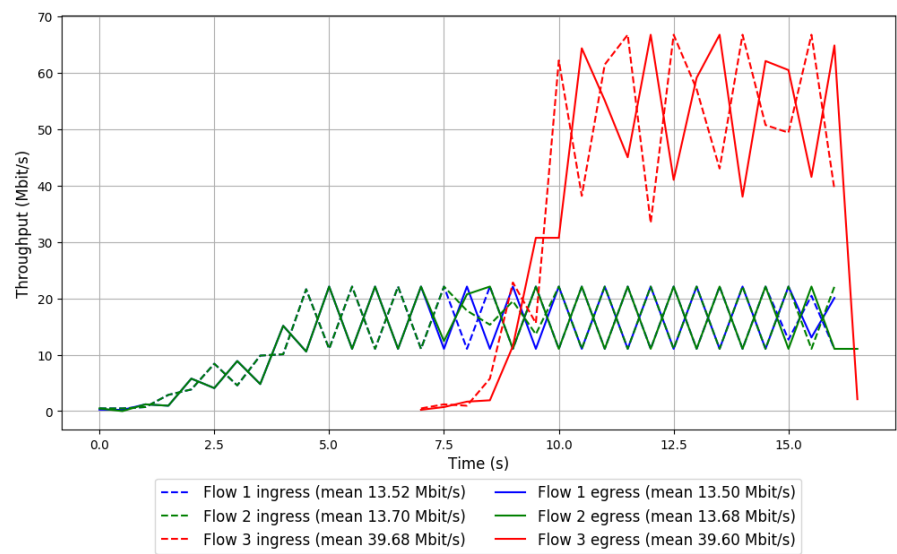


Run 6: Statistics of Indigo

Start at: 2017-09-08 14:23:50

End at: 2017-09-08 14:24:20

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-08 14:37:03

End at: 2017-09-08 14:37:33

# Below is generated by plot.py at 2017-09-08 16:29:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 61.58 Mbit/s

95th percentile per-packet one-way delay: 163.874 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 17.88 Mbit/s

95th percentile per-packet one-way delay: 163.887 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 47.23 Mbit/s

95th percentile per-packet one-way delay: 163.832 ms

Loss rate: 0.08%

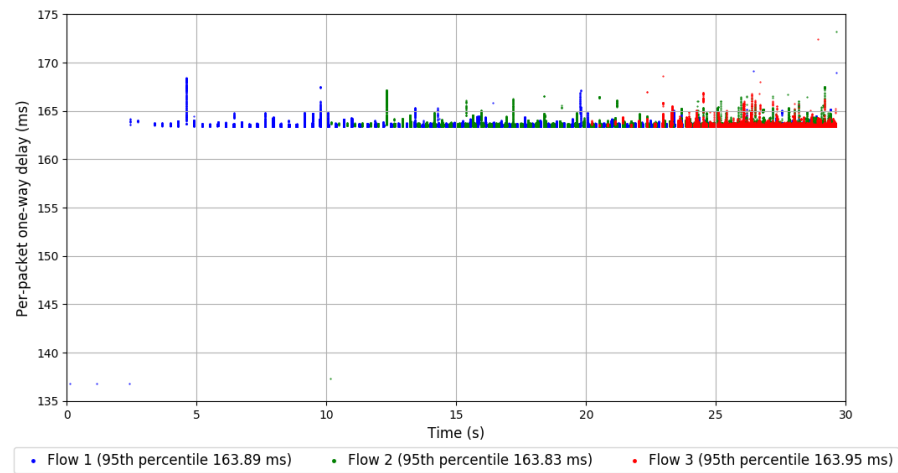
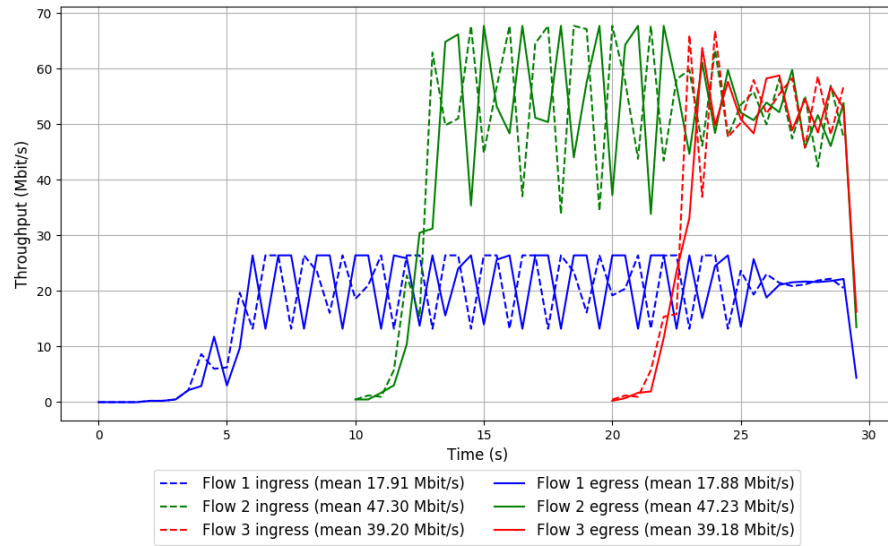
-- Flow 3:

Average throughput: 39.18 Mbit/s

95th percentile per-packet one-way delay: 163.950 ms

Loss rate: 0.31%

## Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-08 14:50:14

End at: 2017-09-08 14:50:44

# Below is generated by plot.py at 2017-09-08 16:29:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 56.33 Mbit/s

95th percentile per-packet one-way delay: 163.910 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 16.01 Mbit/s

95th percentile per-packet one-way delay: 163.850 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 47.88 Mbit/s

95th percentile per-packet one-way delay: 163.961 ms

Loss rate: 0.11%

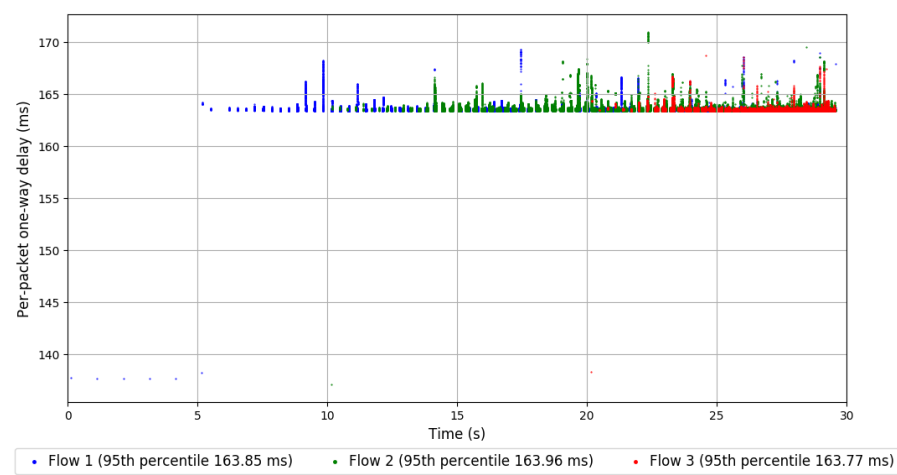
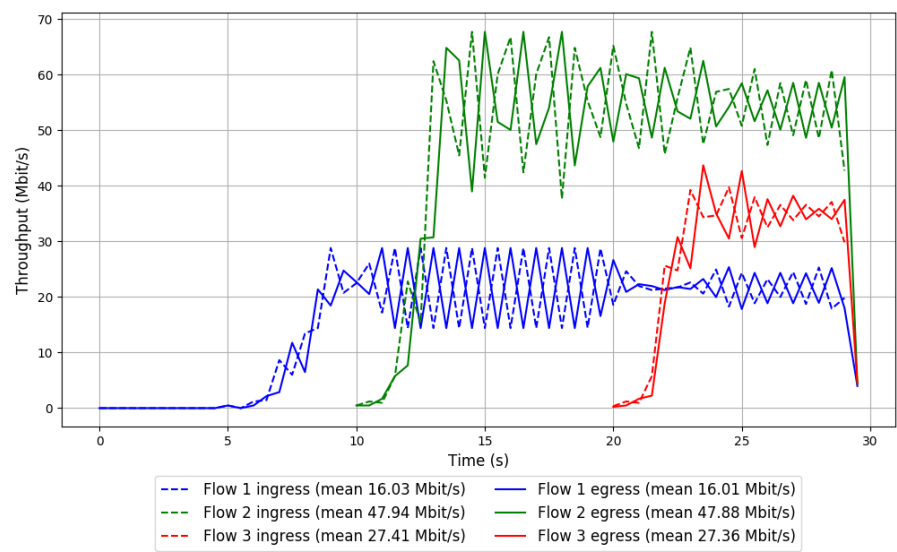
-- Flow 3:

Average throughput: 27.36 Mbit/s

95th percentile per-packet one-way delay: 163.766 ms

Loss rate: 0.29%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-08 15:04:13

End at: 2017-09-08 15:04:43

# Below is generated by plot.py at 2017-09-08 16:30:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.14 Mbit/s

95th percentile per-packet one-way delay: 137.631 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 24.77 Mbit/s

95th percentile per-packet one-way delay: 137.511 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.69 Mbit/s

95th percentile per-packet one-way delay: 137.532 ms

Loss rate: 0.00%

-- Flow 3:

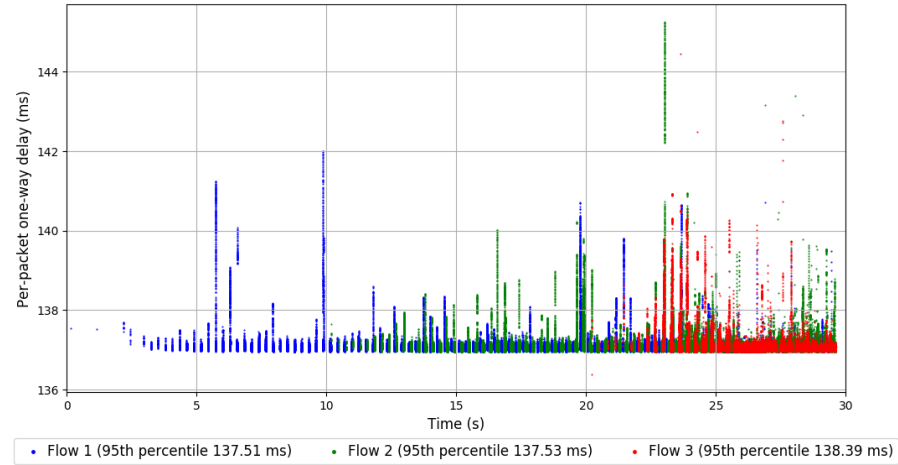
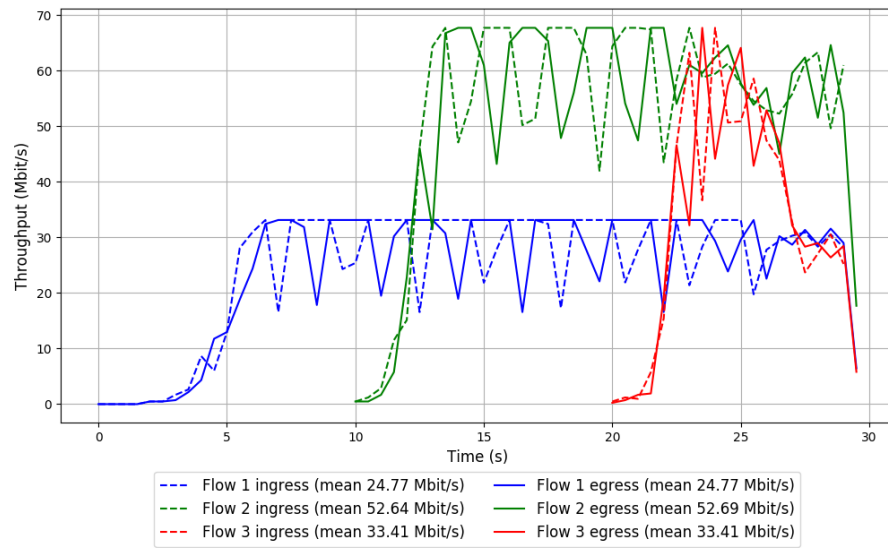
Average throughput: 33.41 Mbit/s

95th percentile per-packet one-way delay: 138.390 ms

Loss rate: 0.00%



## Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-08 15:18:13

End at: 2017-09-08 15:18:43

# Below is generated by plot.py at 2017-09-08 16:30:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 65.32 Mbit/s

95th percentile per-packet one-way delay: 137.583 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 16.35 Mbit/s

95th percentile per-packet one-way delay: 137.498 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.06 Mbit/s

95th percentile per-packet one-way delay: 137.634 ms

Loss rate: 0.00%

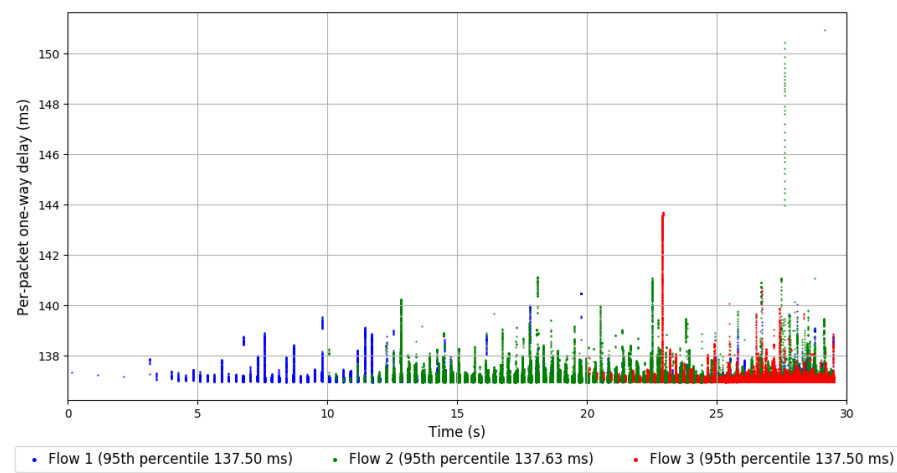
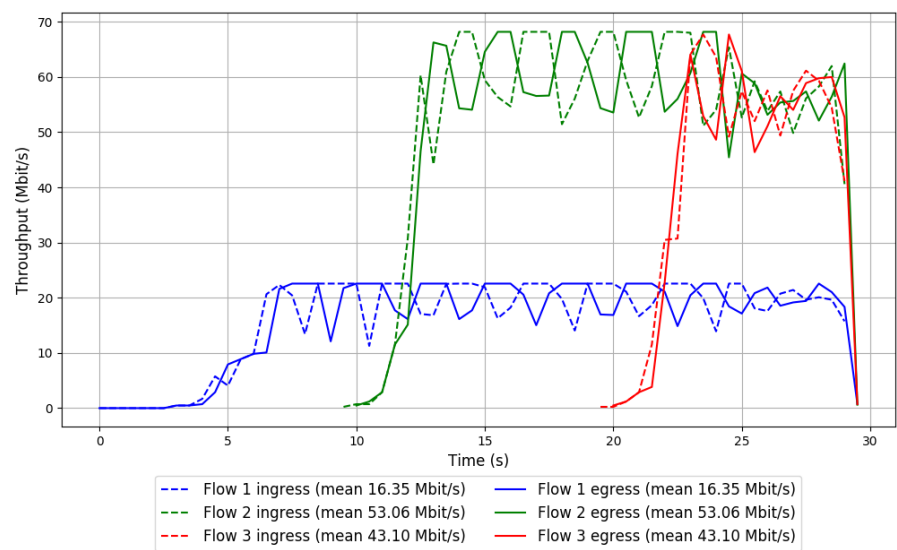
-- Flow 3:

Average throughput: 43.10 Mbit/s

95th percentile per-packet one-way delay: 137.498 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

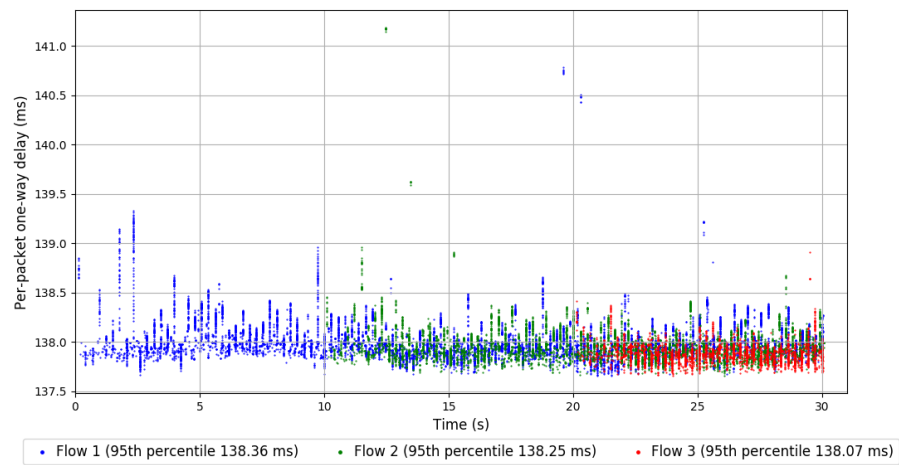
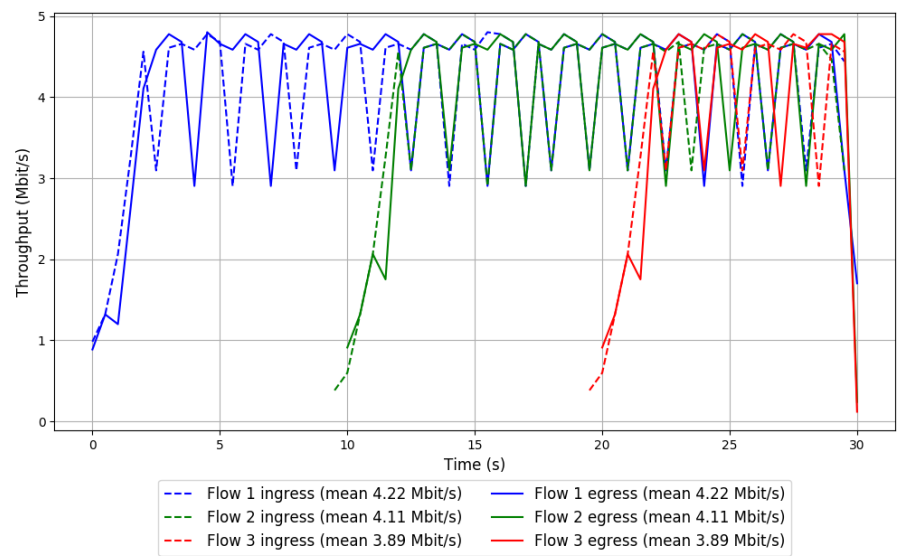


```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 13:21:06
End at: 2017-09-08 13:21:36

# Below is generated by plot.py at 2017-09-08 16:30:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 138.304 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 138.358 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.11 Mbit/s
95th percentile per-packet one-way delay: 138.255 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 138.075 ms
Loss rate: 0.00%
```

Run 1: Report of KohoCC — Data Link

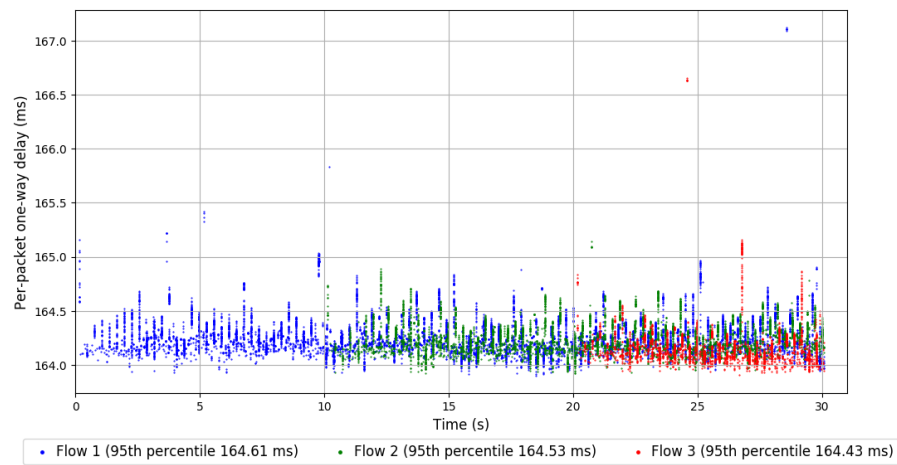
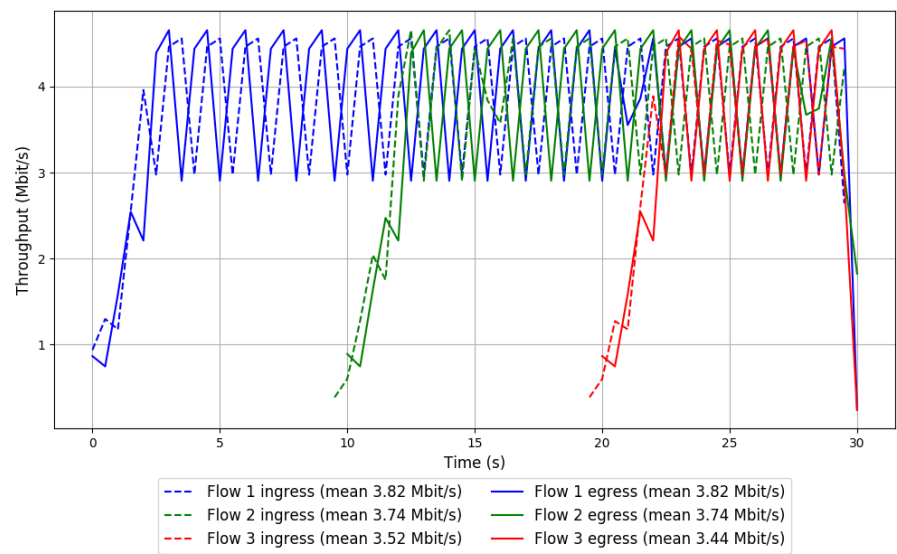


```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 13:34:18
End at: 2017-09-08 13:34:48

# Below is generated by plot.py at 2017-09-08 16:30:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.45 Mbit/s
95th percentile per-packet one-way delay: 164.565 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 164.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.74 Mbit/s
95th percentile per-packet one-way delay: 164.527 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 164.433 ms
Loss rate: 2.37%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-08 13:47:49

End at: 2017-09-08 13:48:19

# Below is generated by plot.py at 2017-09-08 16:30:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.22 Mbit/s

95th percentile per-packet one-way delay: 164.629 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 164.627 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 3.40 Mbit/s

95th percentile per-packet one-way delay: 164.619 ms

Loss rate: 0.14%

-- Flow 3:

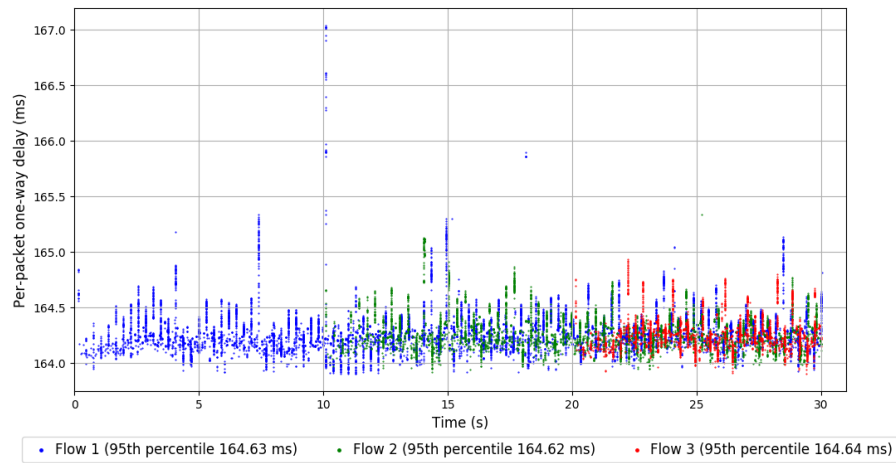
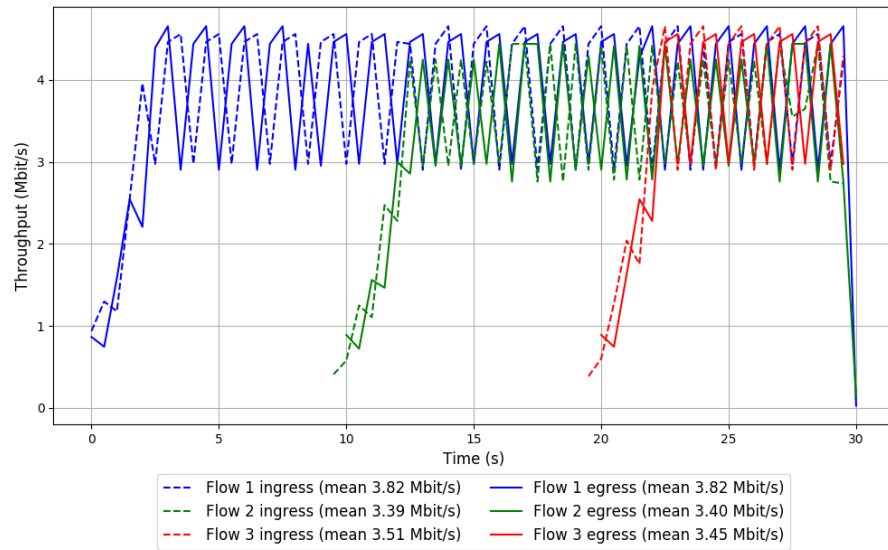
Average throughput: 3.45 Mbit/s

95th percentile per-packet one-way delay: 164.639 ms

Loss rate: 2.44%



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

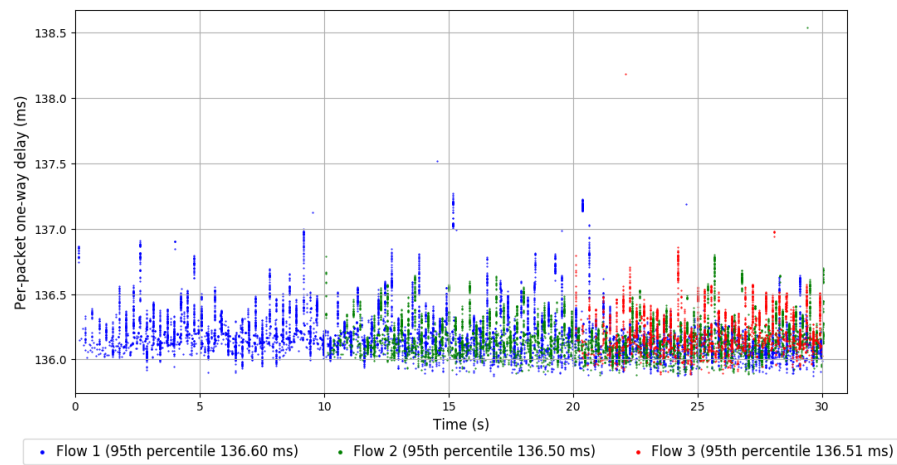
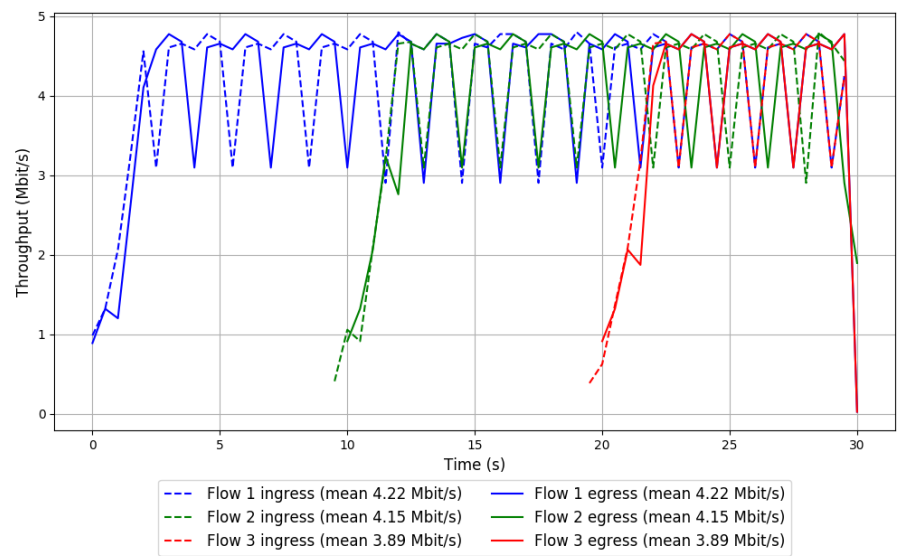


```
Run 4: Statistics of KohoCC

Start at: 2017-09-08 14:02:06
End at: 2017-09-08 14:02:36

# Below is generated by plot.py at 2017-09-08 16:30:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.28 Mbit/s
95th percentile per-packet one-way delay: 136.541 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 136.598 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 136.497 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 136.515 ms
Loss rate: 0.00%
```

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-08 14:16:27

End at: 2017-09-08 14:16:57

# Below is generated by plot.py at 2017-09-08 16:30:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 136.604 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 3.86 Mbit/s

95th percentile per-packet one-way delay: 136.609 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 136.624 ms

Loss rate: 0.00%

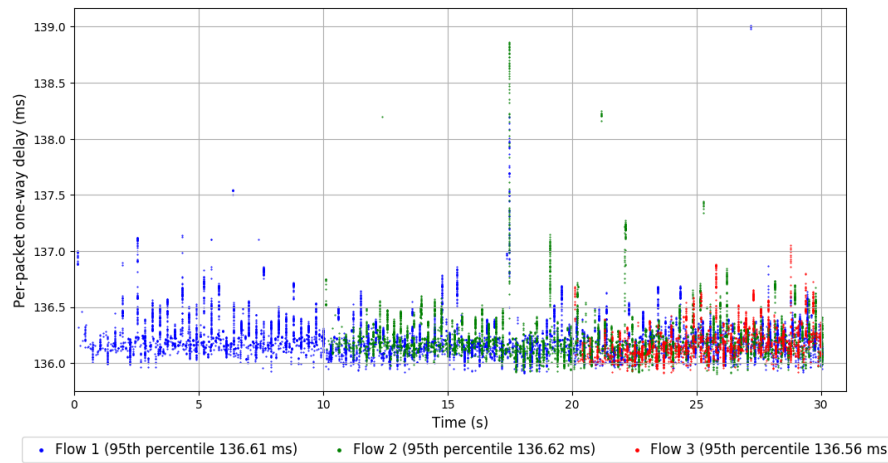
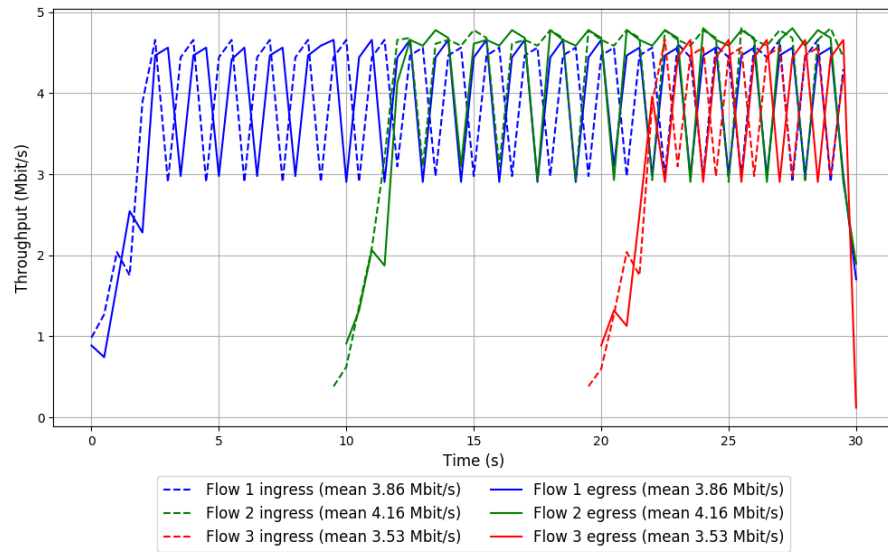
-- Flow 3:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 136.559 ms

Loss rate: 0.00%

# Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-08 14:29:58

End at: 2017-09-08 14:30:28

# Below is generated by plot.py at 2017-09-08 16:30:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.26 Mbit/s

95th percentile per-packet one-way delay: 164.135 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 164.149 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 164.315 ms

Loss rate: 0.09%

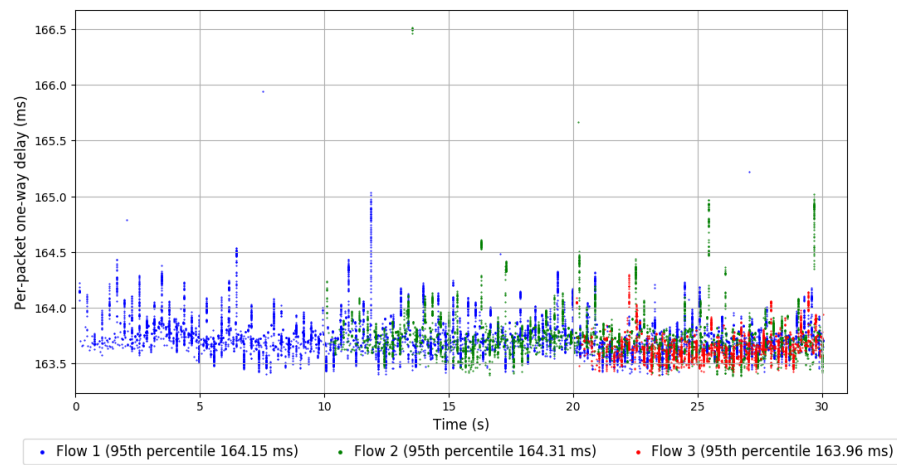
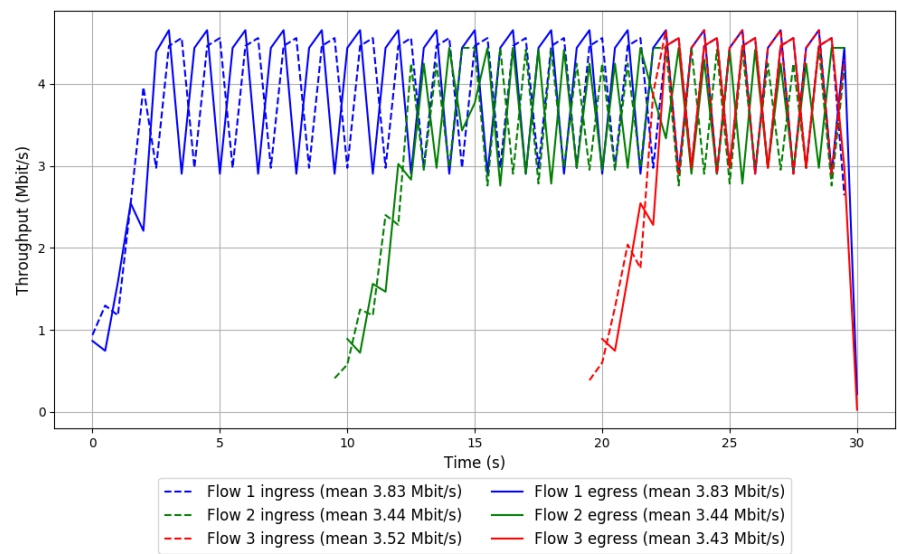
-- Flow 3:

Average throughput: 3.43 Mbit/s

95th percentile per-packet one-way delay: 163.956 ms

Loss rate: 2.41%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-08 14:43:14

End at: 2017-09-08 14:43:44

# Below is generated by plot.py at 2017-09-08 16:30:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.14 Mbit/s

95th percentile per-packet one-way delay: 164.019 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 3.51 Mbit/s

95th percentile per-packet one-way delay: 164.025 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 163.928 ms

Loss rate: 0.00%

-- Flow 3:

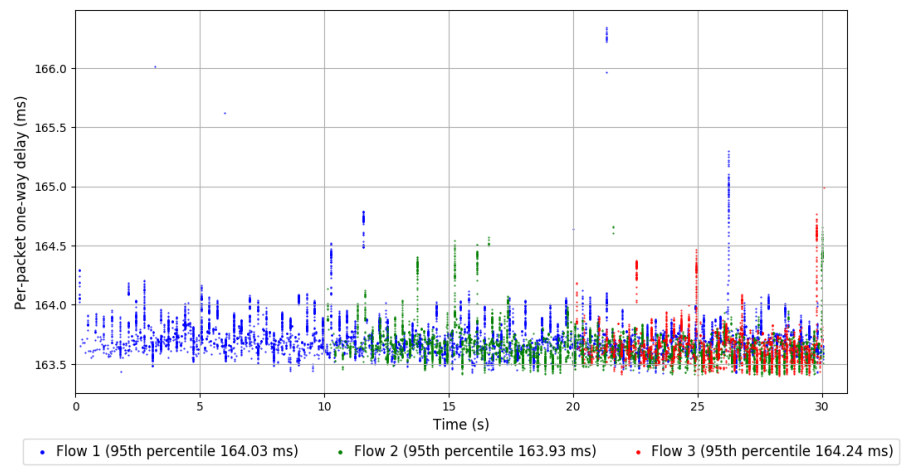
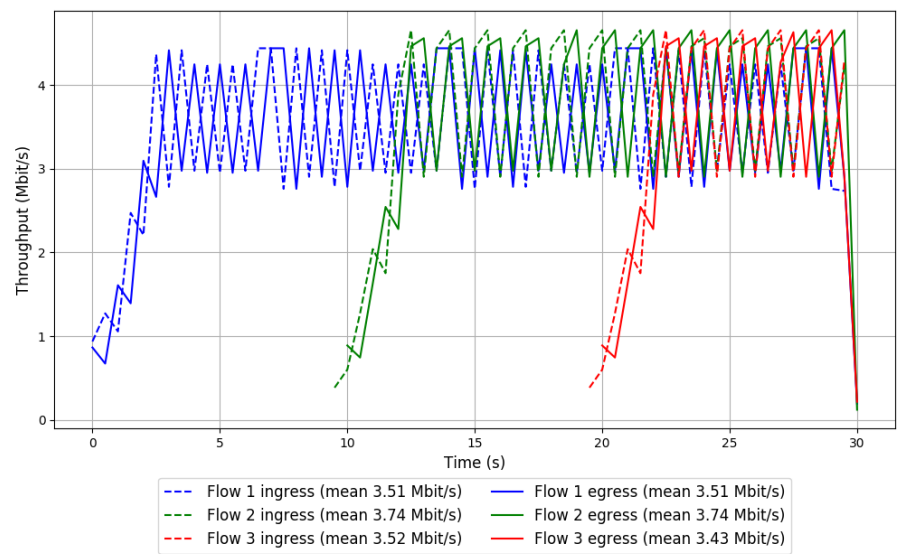
Average throughput: 3.43 Mbit/s

95th percentile per-packet one-way delay: 164.235 ms

Loss rate: 2.41%



Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-08 14:57:02

End at: 2017-09-08 14:57:32

# Below is generated by plot.py at 2017-09-08 16:30:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 137.673 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 137.690 ms

Loss rate: 0.00%

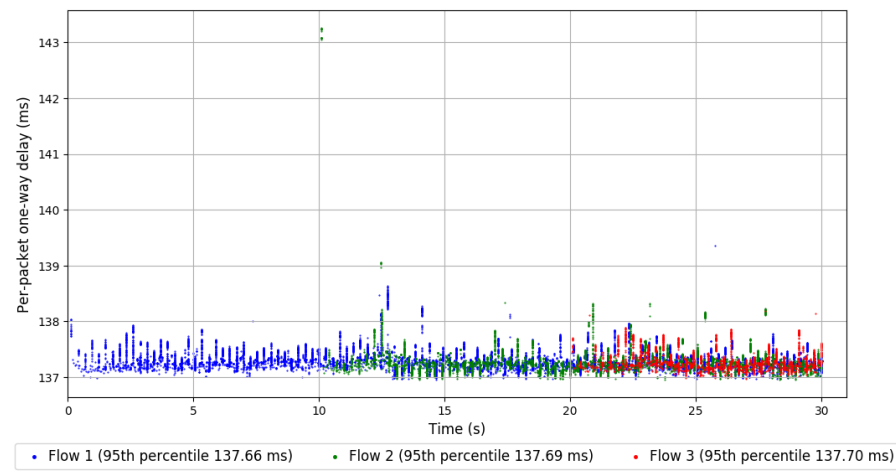
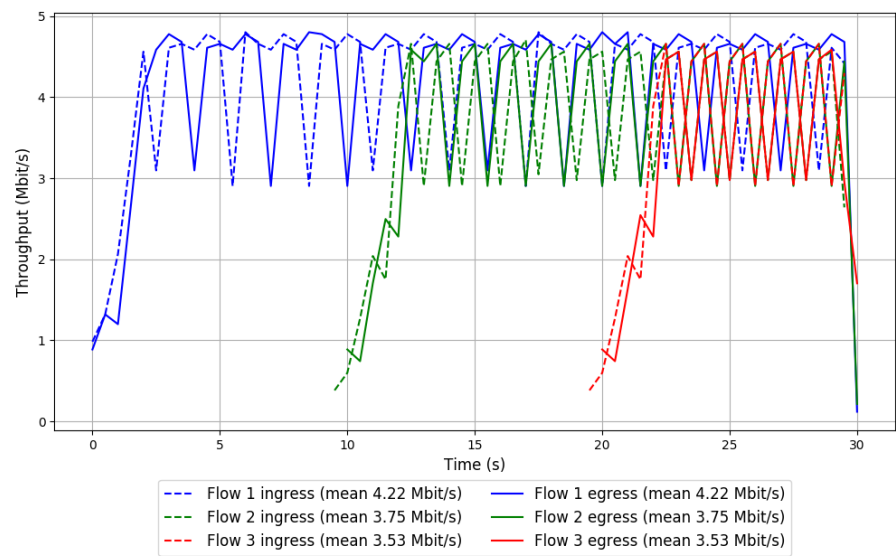
-- Flow 3:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 137.696 ms

Loss rate: 0.00%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-08 15:11:02

End at: 2017-09-08 15:11:32

# Below is generated by plot.py at 2017-09-08 16:30:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 137.724 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.82 Mbit/s

95th percentile per-packet one-way delay: 137.746 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 137.679 ms

Loss rate: 0.00%

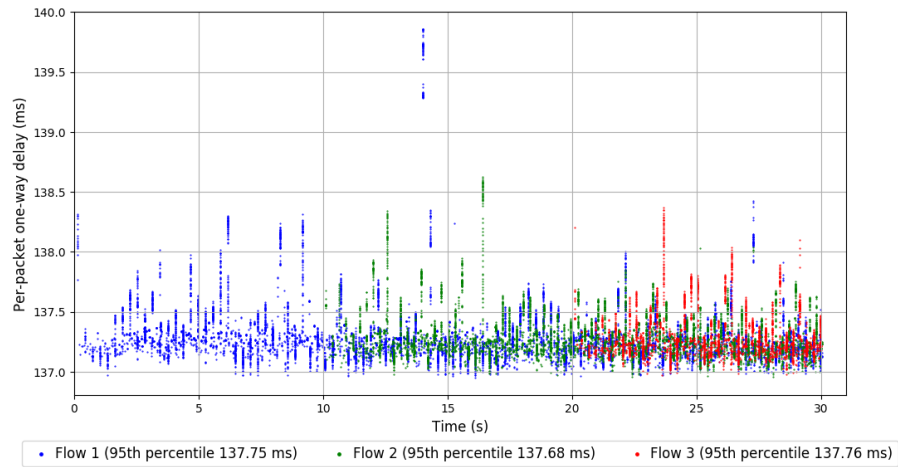
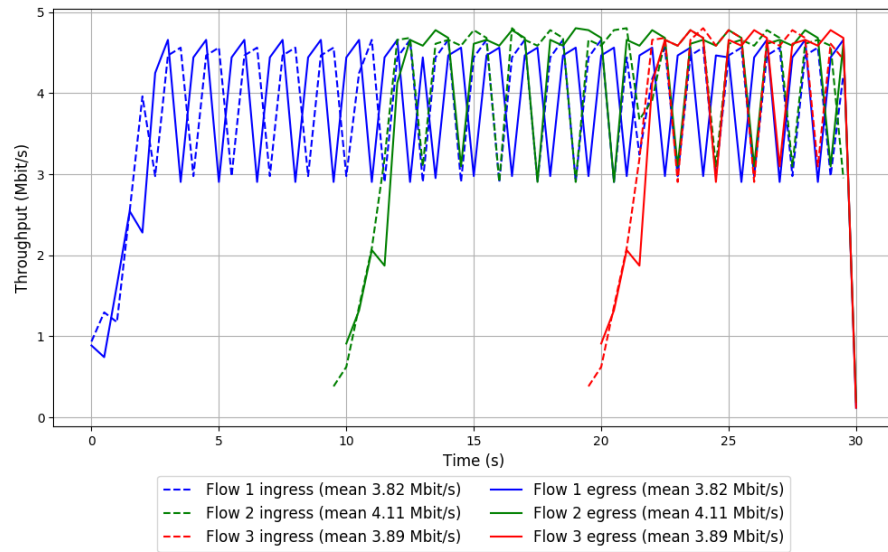
-- Flow 3:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 137.756 ms

Loss rate: 0.00%

### Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-08 15:24:53

End at: 2017-09-08 15:25:23

# Below is generated by plot.py at 2017-09-08 16:30:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 136.732 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 136.743 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 136.767 ms

Loss rate: 0.00%

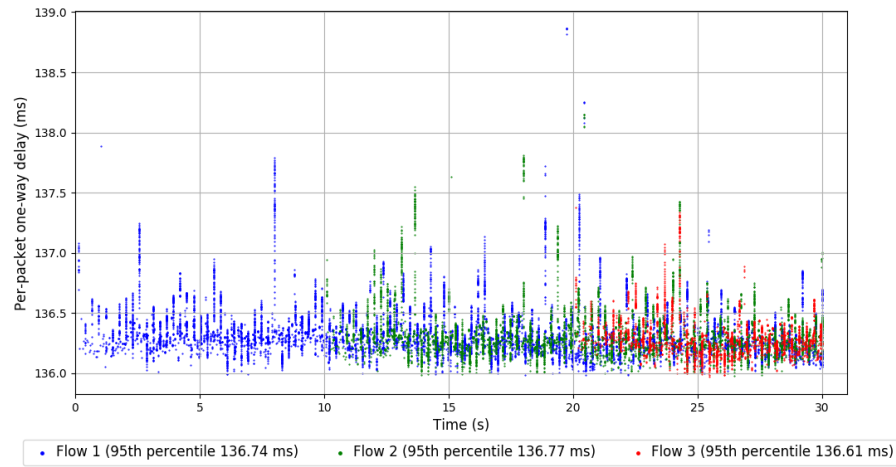
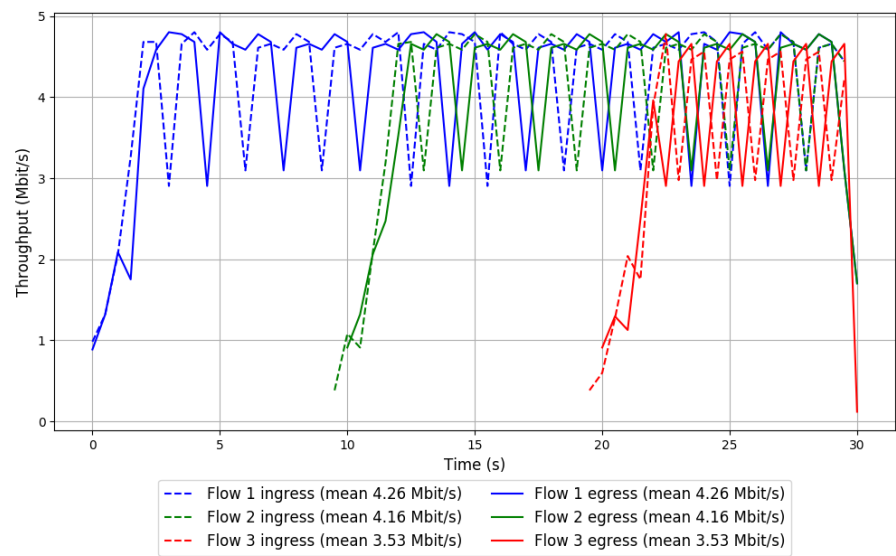
-- Flow 3:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 136.609 ms

Loss rate: 0.00%

Run 10: Report of KohoCC — Data Link



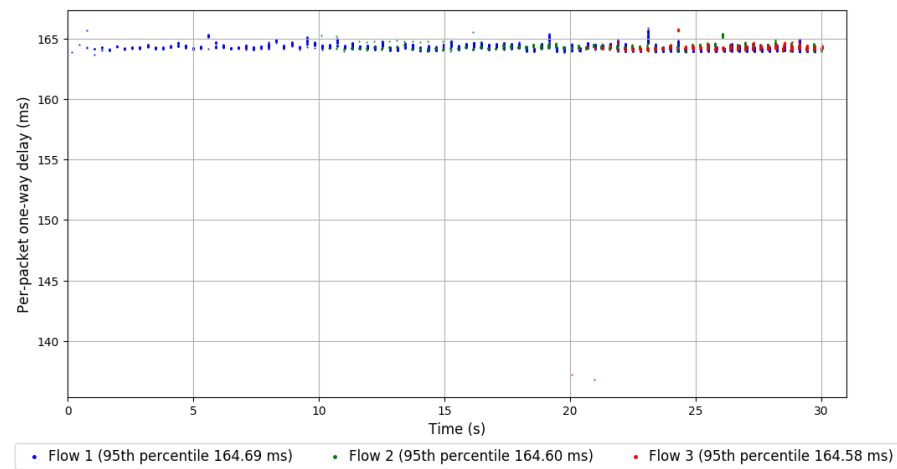
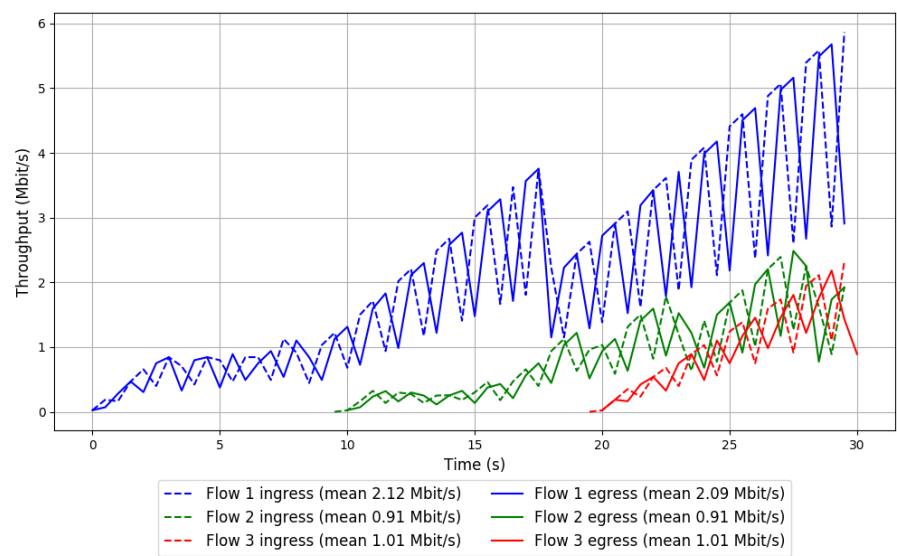
```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 13:25:37
End at: 2017-09-08 13:26:07

# Below is generated by plot.py at 2017-09-08 16:30:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 164.665 ms
Loss rate: 1.61%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 164.685 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 164.604 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 164.581 ms
Loss rate: 0.00%
```



Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-09-08 13:38:51

End at: 2017-09-08 13:39:21

# Below is generated by plot.py at 2017-09-08 16:30:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 164.714 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 164.731 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 164.717 ms

Loss rate: 0.07%

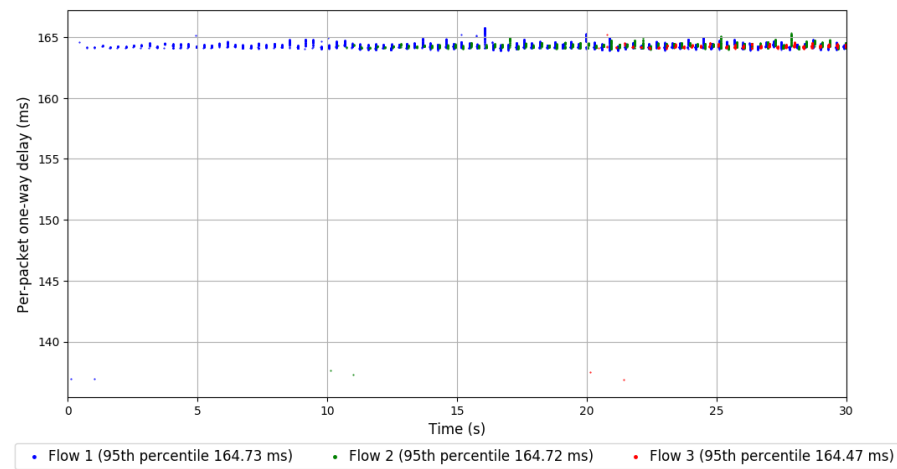
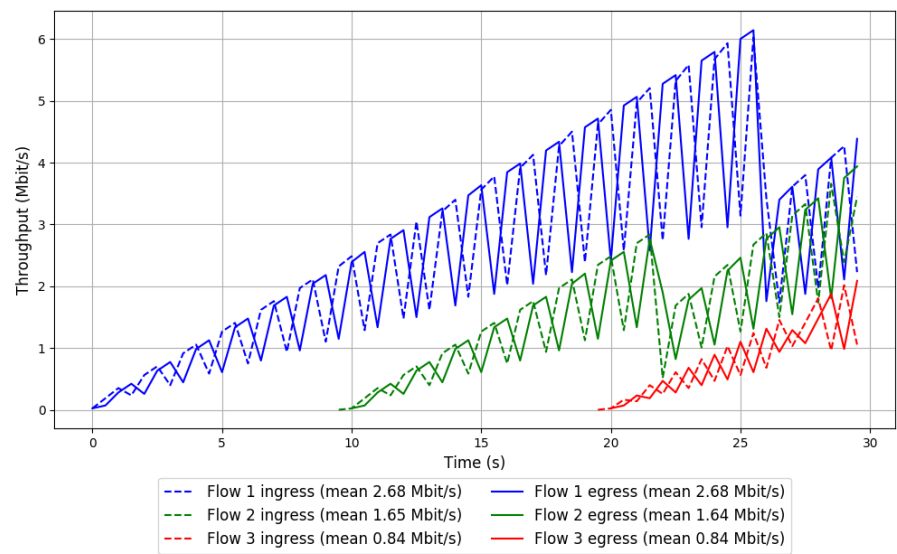
-- Flow 3:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 164.465 ms

Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-08 13:52:20

End at: 2017-09-08 13:52:50

# Below is generated by plot.py at 2017-09-08 16:30:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 136.794 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.48 Mbit/s

95th percentile per-packet one-way delay: 136.861 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 136.596 ms

Loss rate: 0.00%

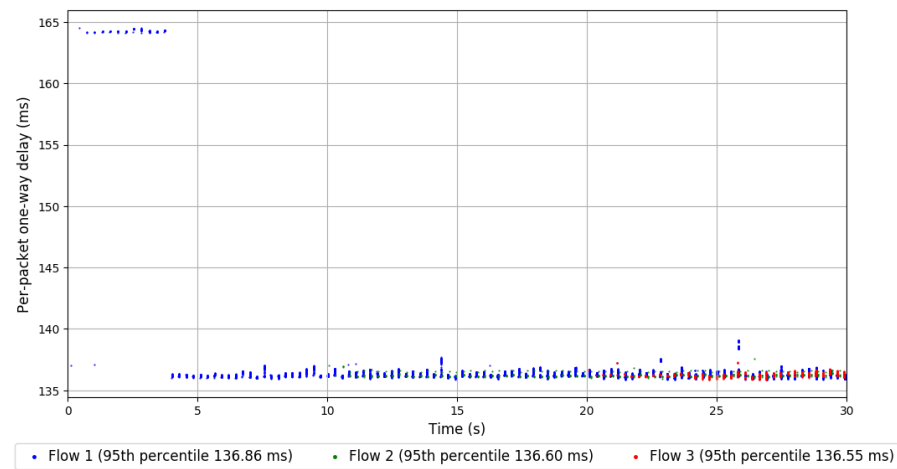
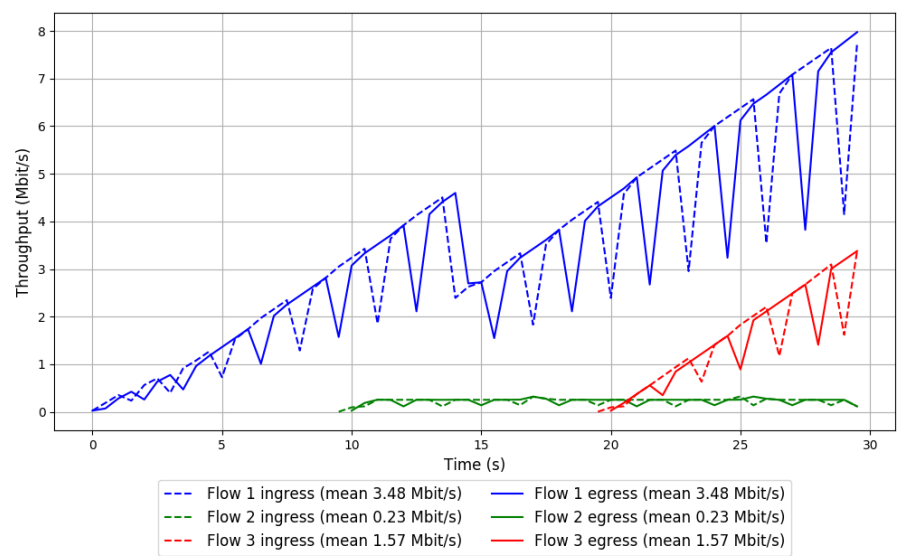
-- Flow 3:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 136.546 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-08 14:06:52

End at: 2017-09-08 14:07:22

# Below is generated by plot.py at 2017-09-08 16:30:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.28 Mbit/s

95th percentile per-packet one-way delay: 136.862 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 136.926 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 136.816 ms

Loss rate: 0.00%

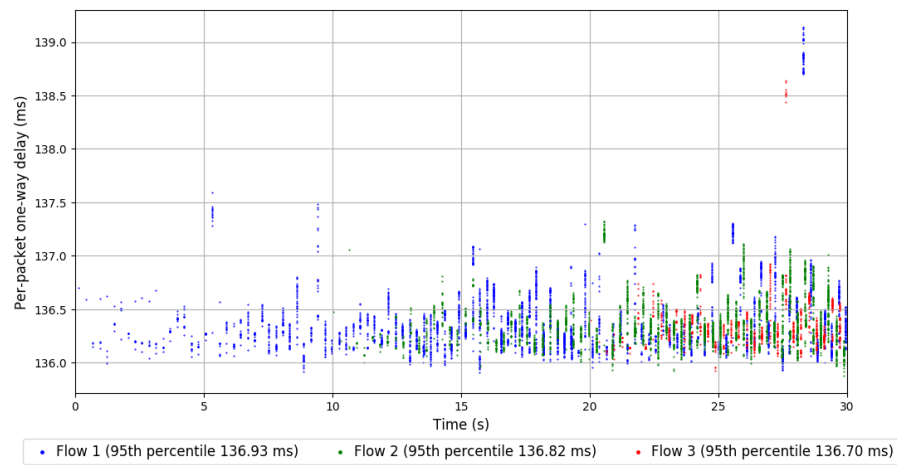
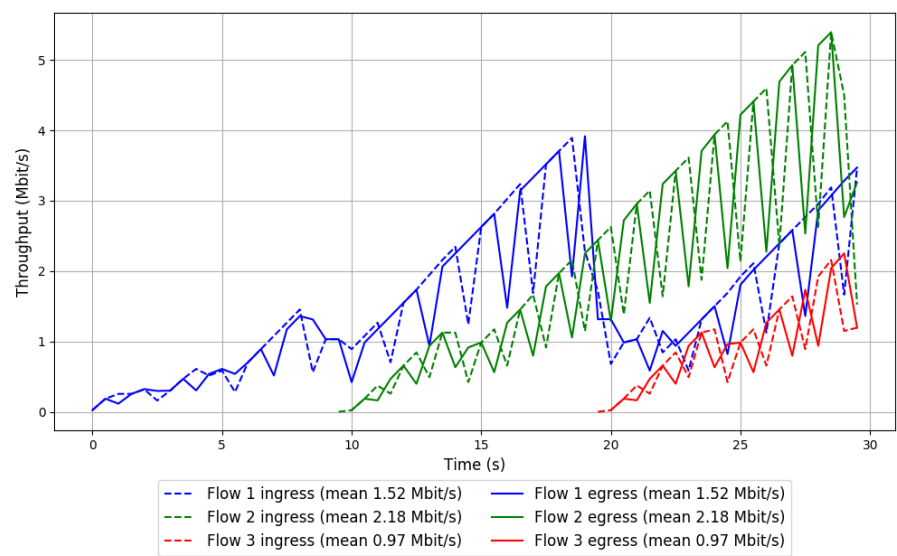
-- Flow 3:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 136.703 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-08 14:21:12

End at: 2017-09-08 14:21:42

# Below is generated by plot.py at 2017-09-08 16:30:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.96 Mbit/s

95th percentile per-packet one-way delay: 136.752 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 136.849 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 136.619 ms

Loss rate: 0.00%

-- Flow 3:

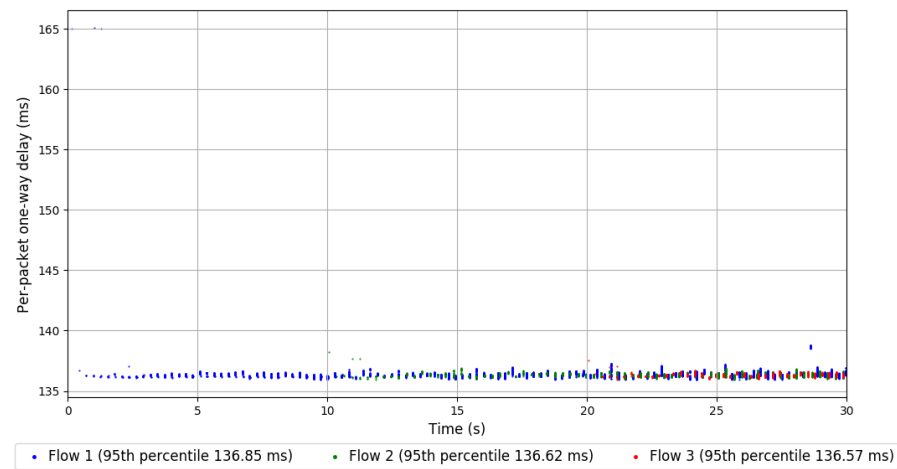
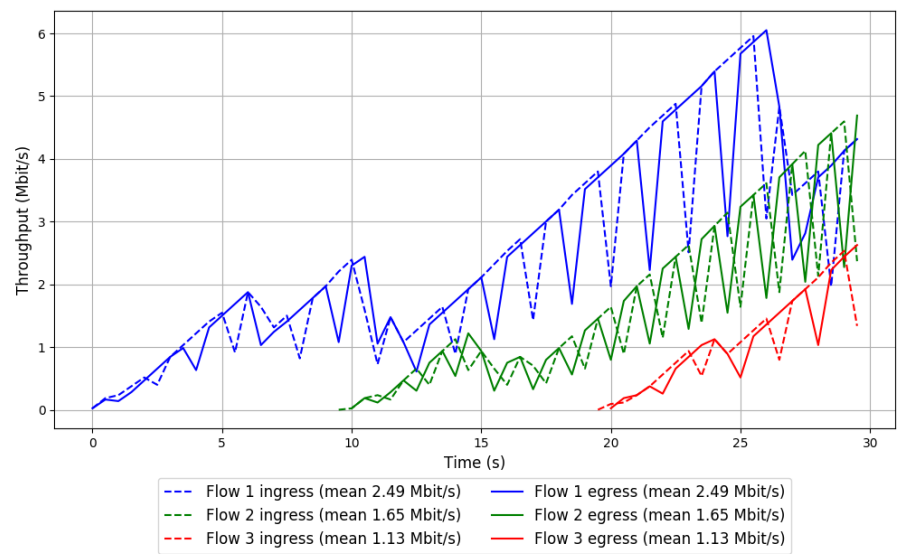
Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 136.569 ms

Loss rate: 0.00%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-08 14:34:34

End at: 2017-09-08 14:35:05

# Below is generated by plot.py at 2017-09-08 16:30:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.62 Mbit/s

95th percentile per-packet one-way delay: 164.235 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 164.233 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 164.283 ms

Loss rate: 0.00%

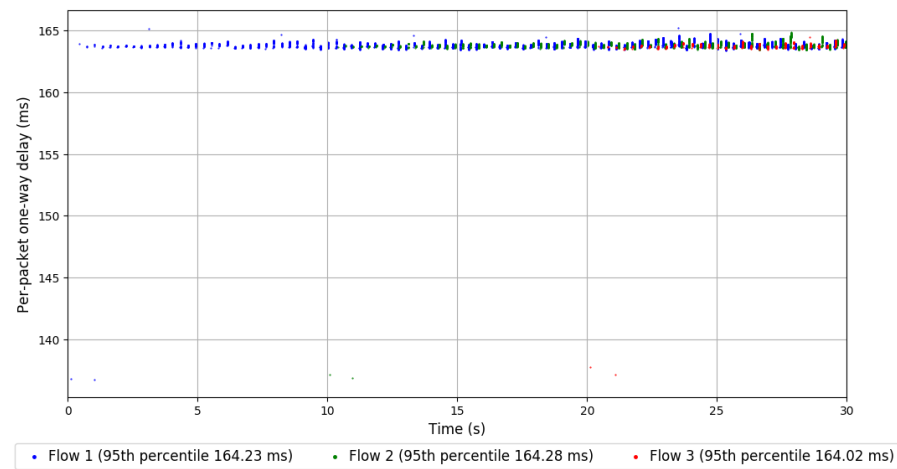
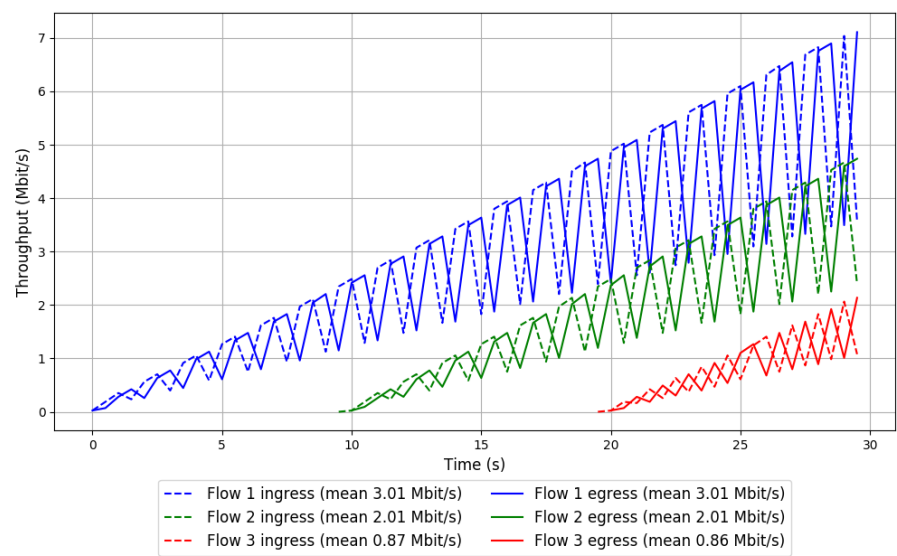
-- Flow 3:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 164.021 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link

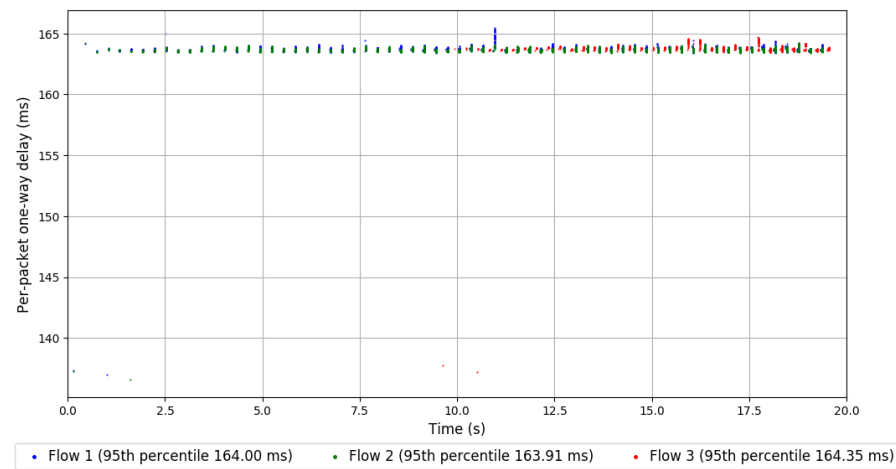
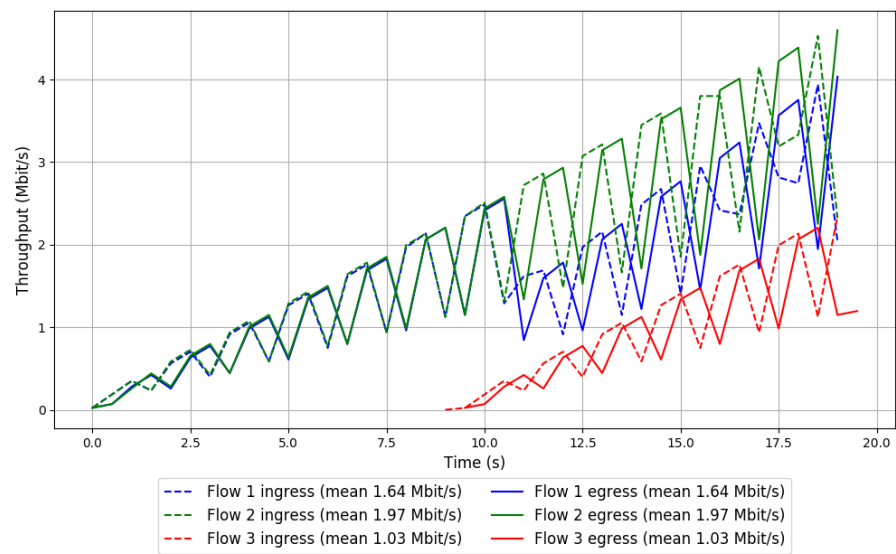


Run 7: Statistics of LEDBAT

Start at: 2017-09-08 14:47:46

End at: 2017-09-08 14:48:16

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-08 15:01:38

End at: 2017-09-08 15:02:08

# Below is generated by plot.py at 2017-09-08 16:30:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.12 Mbit/s

95th percentile per-packet one-way delay: 137.813 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 137.905 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 137.723 ms

Loss rate: 0.00%

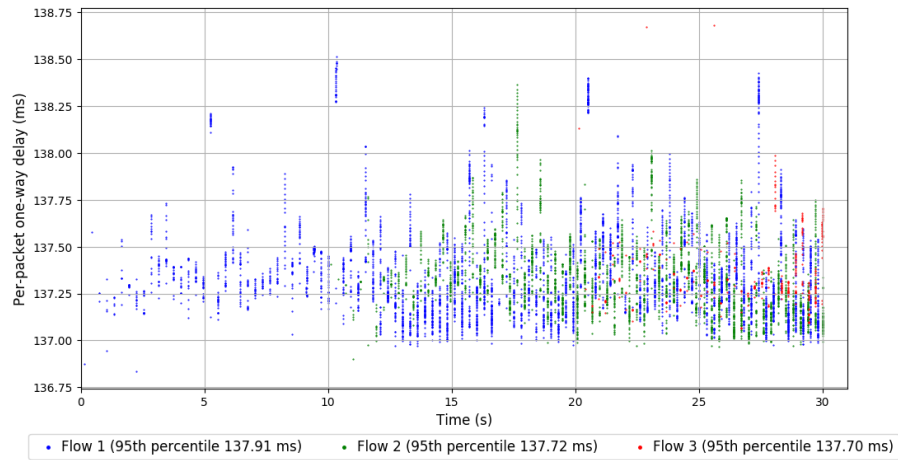
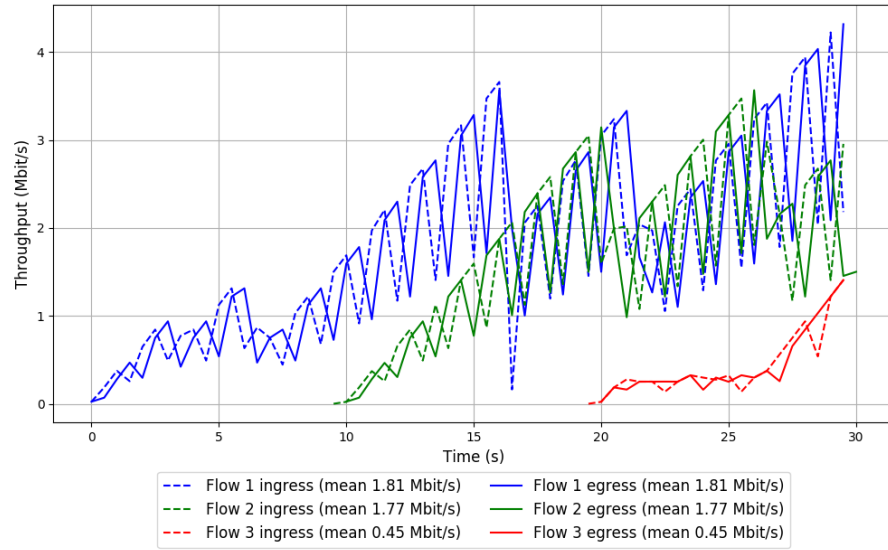
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 137.701 ms

Loss rate: 0.00%

## Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-08 15:15:40

End at: 2017-09-08 15:16:10

# Below is generated by plot.py at 2017-09-08 16:30:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 137.830 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 137.818 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 137.929 ms

Loss rate: 0.00%

-- Flow 3:

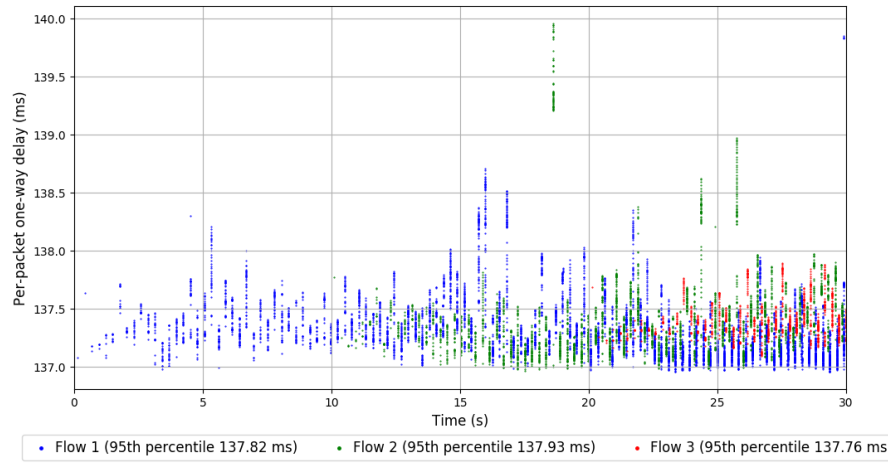
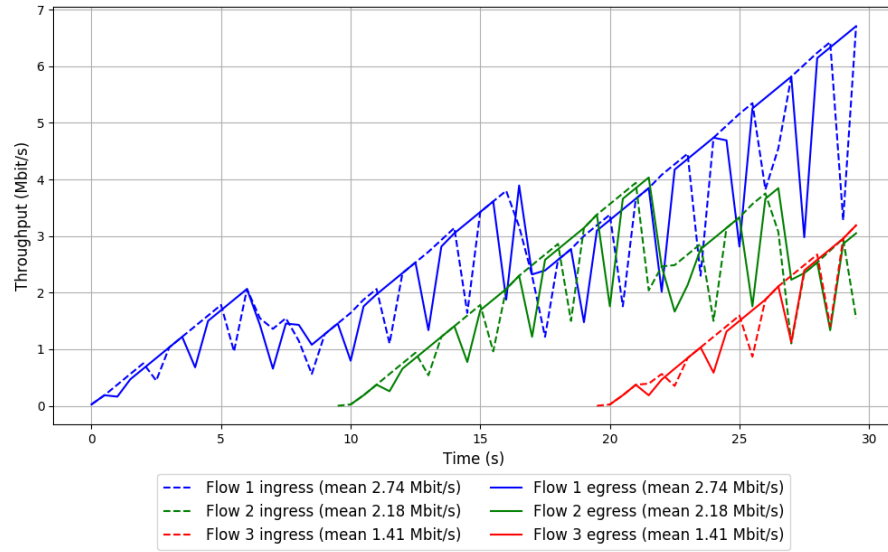
Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 137.764 ms

Loss rate: 0.00%



# Run 9: Report of LEDBAT — Data Link

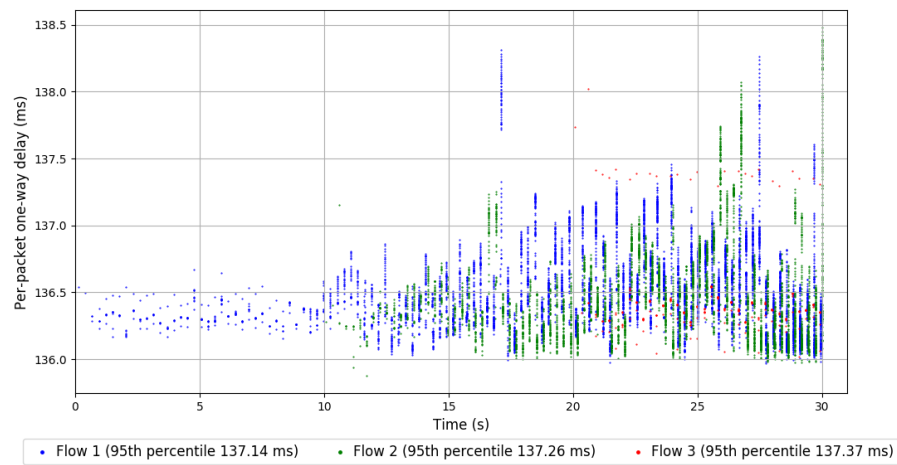
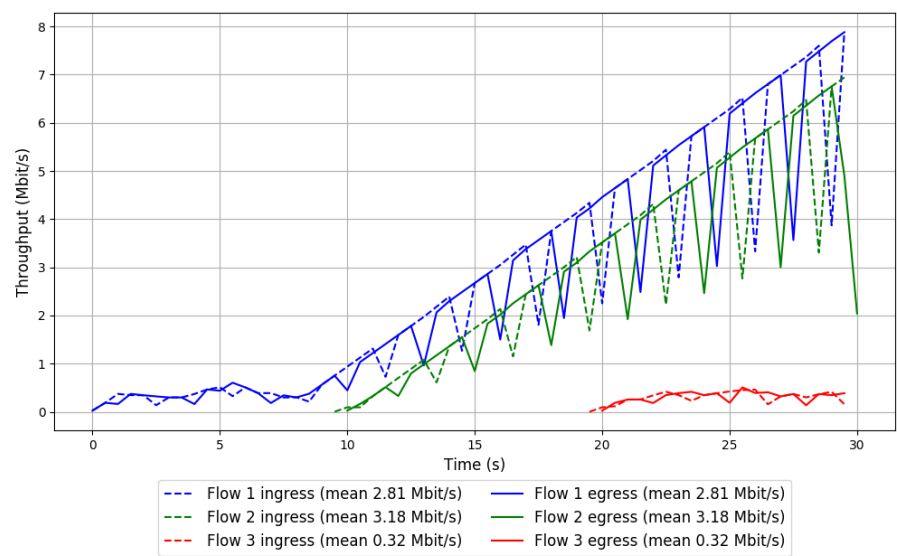


```
Run 10: Statistics of LEDBAT

Start at: 2017-09-08 15:29:32
End at: 2017-09-08 15:30:02

# Below is generated by plot.py at 2017-09-08 16:30:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.03 Mbit/s
95th percentile per-packet one-way delay: 137.177 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 137.140 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.18 Mbit/s
95th percentile per-packet one-way delay: 137.258 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 137.371 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

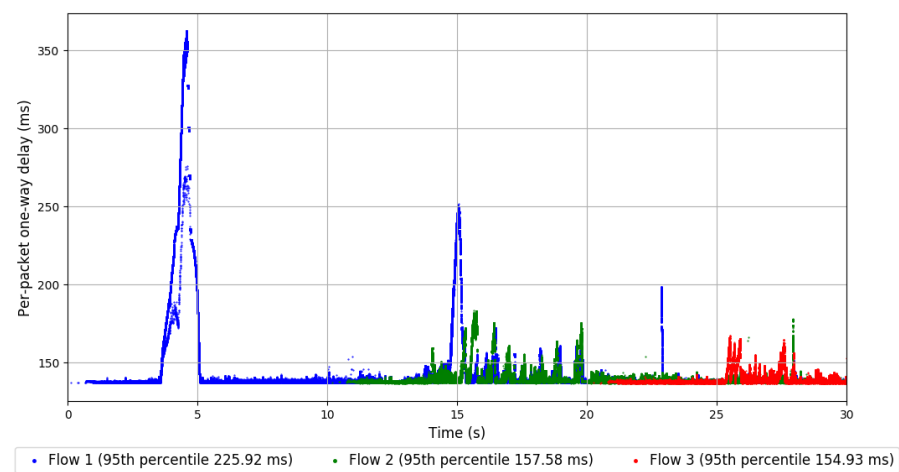
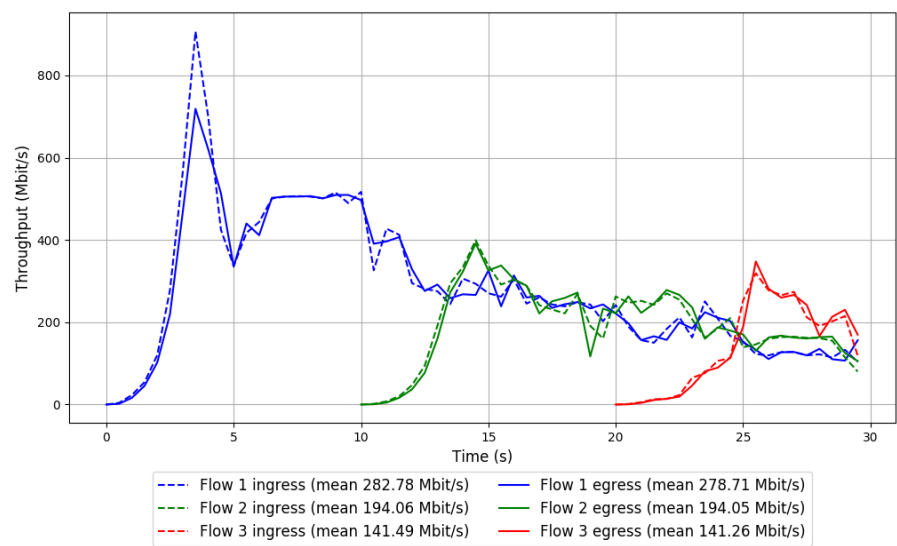


```
Run 1: Statistics of PCC

Start at: 2017-09-08 13:19:54
End at: 2017-09-08 13:20:24

# Below is generated by plot.py at 2017-09-08 16:31:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 453.04 Mbit/s
95th percentile per-packet one-way delay: 195.114 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 278.71 Mbit/s
95th percentile per-packet one-way delay: 225.920 ms
Loss rate: 1.44%
-- Flow 2:
Average throughput: 194.05 Mbit/s
95th percentile per-packet one-way delay: 157.581 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 141.26 Mbit/s
95th percentile per-packet one-way delay: 154.934 ms
Loss rate: 0.00%
```

Run 1: Report of PCC — Data Link

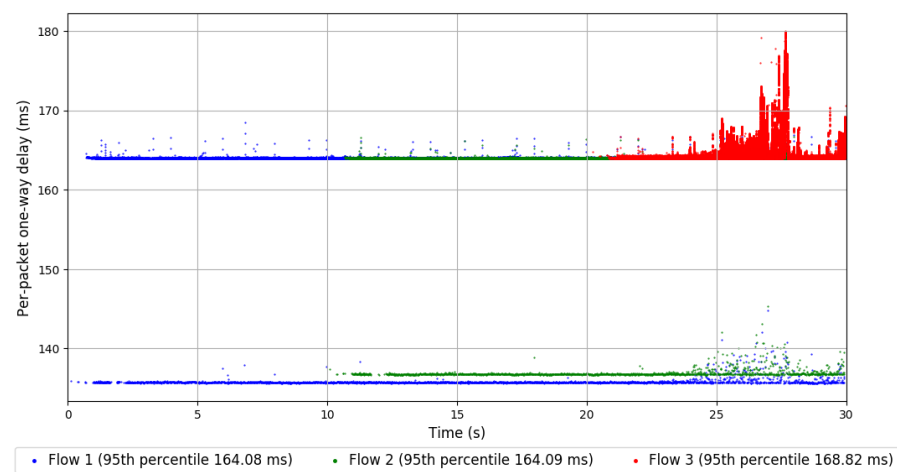
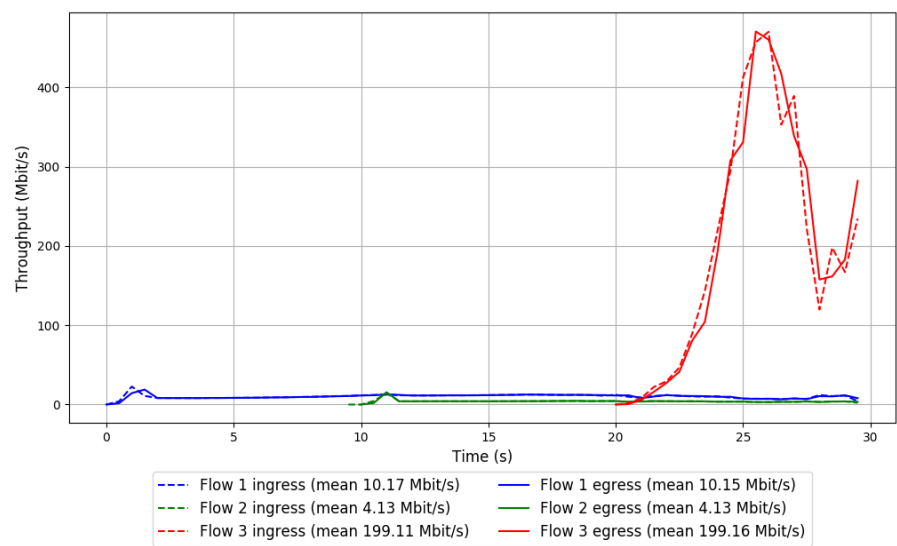


```
Run 2: Statistics of PCC

Start at: 2017-09-08 13:33:24
End at: 2017-09-08 13:33:54

# Below is generated by plot.py at 2017-09-08 16:31:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 77.87 Mbit/s
95th percentile per-packet one-way delay: 168.112 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 164.077 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 164.091 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 199.16 Mbit/s
95th percentile per-packet one-way delay: 168.820 ms
Loss rate: 0.03%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-09-08 13:46:47

End at: 2017-09-08 13:47:17

# Below is generated by plot.py at 2017-09-08 16:31:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 229.89 Mbit/s

95th percentile per-packet one-way delay: 171.116 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 5.26 Mbit/s

95th percentile per-packet one-way delay: 164.734 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 242.39 Mbit/s

95th percentile per-packet one-way delay: 169.681 ms

Loss rate: 0.03%

-- Flow 3:

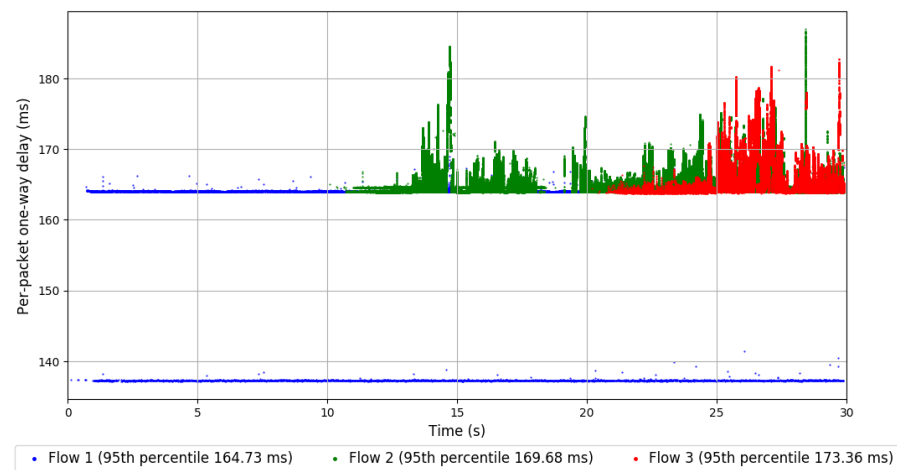
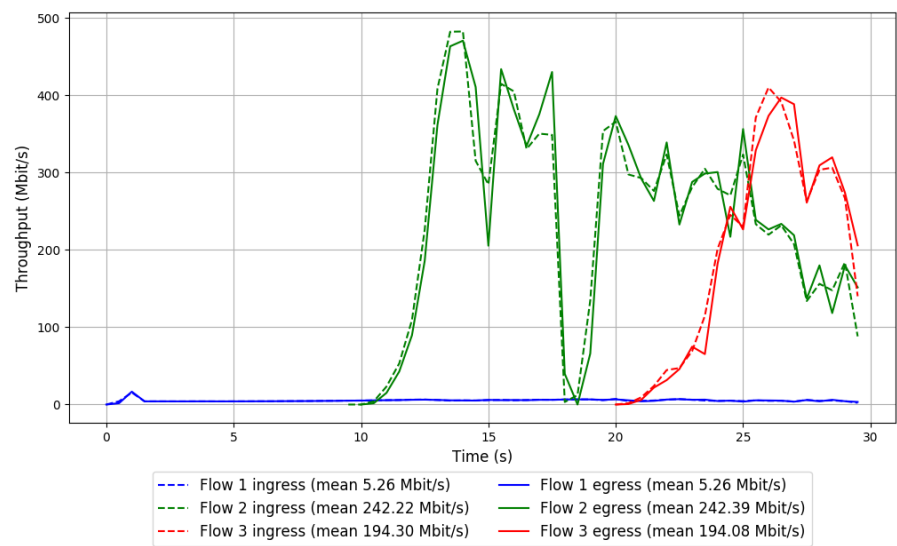
Average throughput: 194.08 Mbit/s

95th percentile per-packet one-way delay: 173.362 ms

Loss rate: 0.34%



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-08 14:00:52

End at: 2017-09-08 14:01:22

# Below is generated by plot.py at 2017-09-08 16:33:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 426.76 Mbit/s

95th percentile per-packet one-way delay: 161.972 ms

Loss rate: 2.24%

-- Flow 1:

Average throughput: 263.55 Mbit/s

95th percentile per-packet one-way delay: 226.995 ms

Loss rate: 3.57%

-- Flow 2:

Average throughput: 173.24 Mbit/s

95th percentile per-packet one-way delay: 140.081 ms

Loss rate: 0.01%

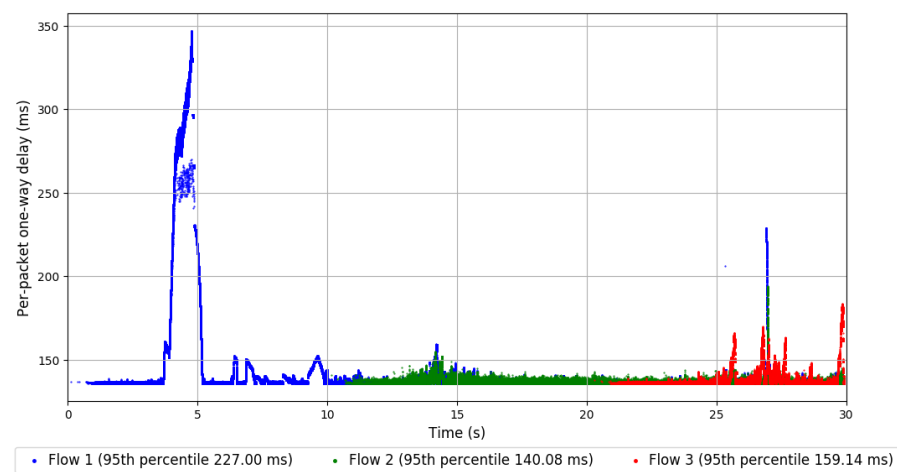
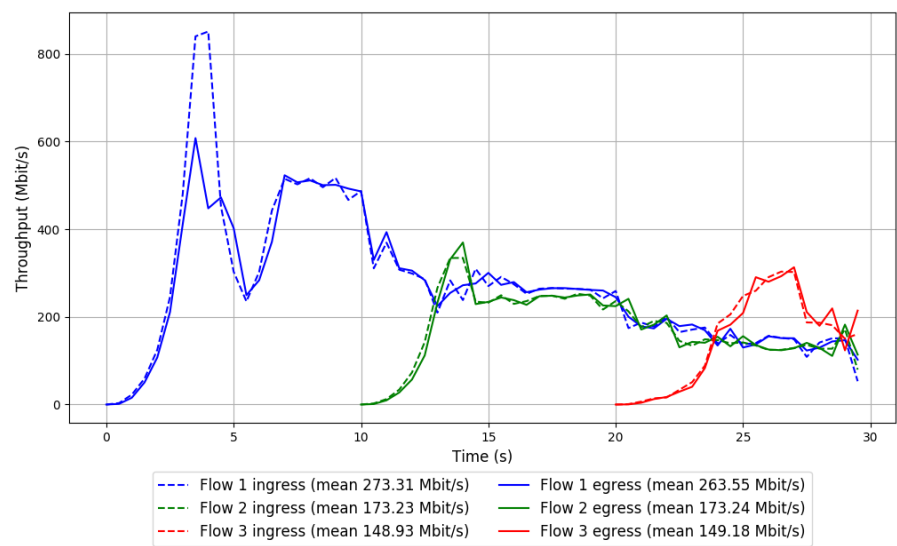
-- Flow 3:

Average throughput: 149.18 Mbit/s

95th percentile per-packet one-way delay: 159.137 ms

Loss rate: 0.01%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-08 14:15:11

End at: 2017-09-08 14:15:41

# Below is generated by plot.py at 2017-09-08 16:33:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 473.52 Mbit/s

95th percentile per-packet one-way delay: 192.214 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 287.43 Mbit/s

95th percentile per-packet one-way delay: 206.904 ms

Loss rate: 1.71%

-- Flow 2:

Average throughput: 211.91 Mbit/s

95th percentile per-packet one-way delay: 172.309 ms

Loss rate: 0.00%

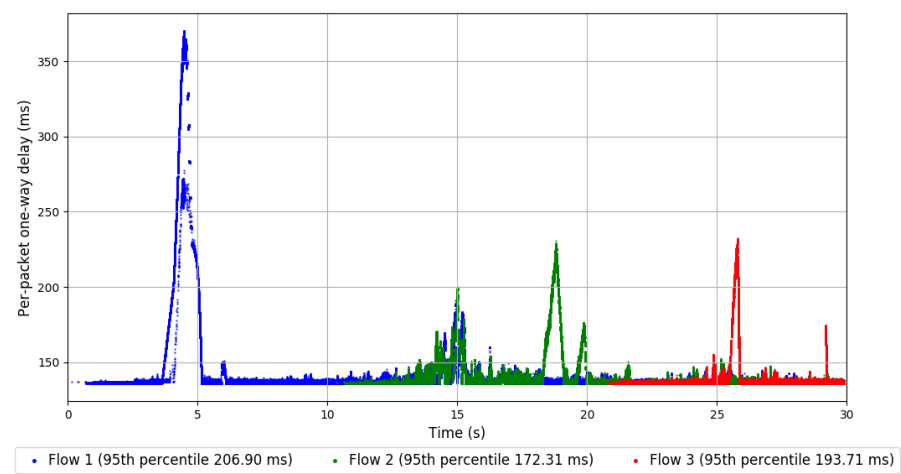
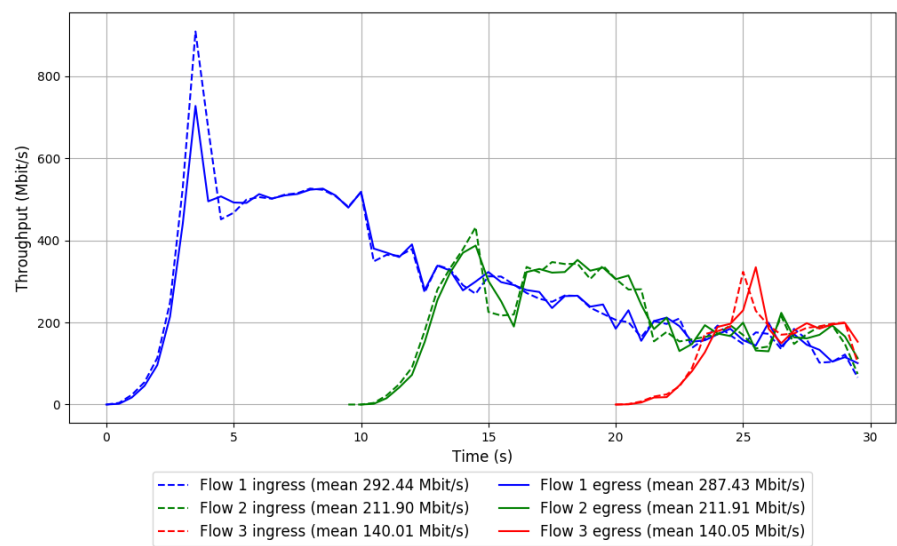
-- Flow 3:

Average throughput: 140.05 Mbit/s

95th percentile per-packet one-way delay: 193.706 ms

Loss rate: 0.00%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-08 14:29:08

End at: 2017-09-08 14:29:38

# Below is generated by plot.py at 2017-09-08 16:33:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 9.66 Mbit/s

95th percentile per-packet one-way delay: 163.581 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 4.47 Mbit/s

95th percentile per-packet one-way delay: 163.589 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 163.570 ms

Loss rate: 0.11%

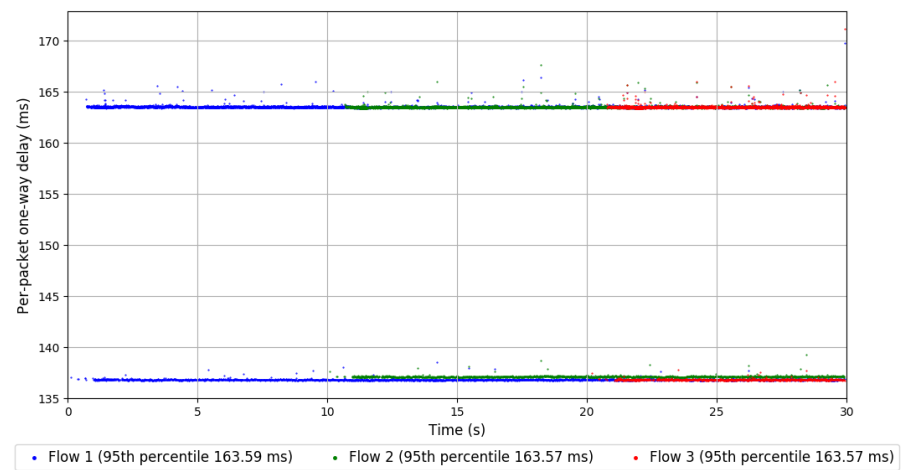
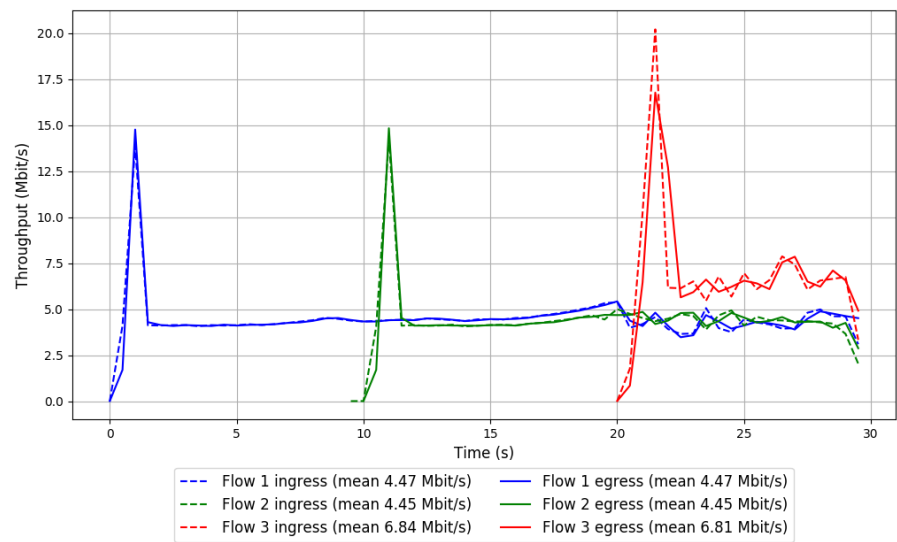
-- Flow 3:

Average throughput: 6.81 Mbit/s

95th percentile per-packet one-way delay: 163.571 ms

Loss rate: 0.27%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-08 14:42:23

End at: 2017-09-08 14:42:53

# Below is generated by plot.py at 2017-09-08 16:33:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 36.31 Mbit/s

95th percentile per-packet one-way delay: 163.538 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 31.21 Mbit/s

95th percentile per-packet one-way delay: 163.529 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 5.73 Mbit/s

95th percentile per-packet one-way delay: 163.565 ms

Loss rate: 0.16%

-- Flow 3:

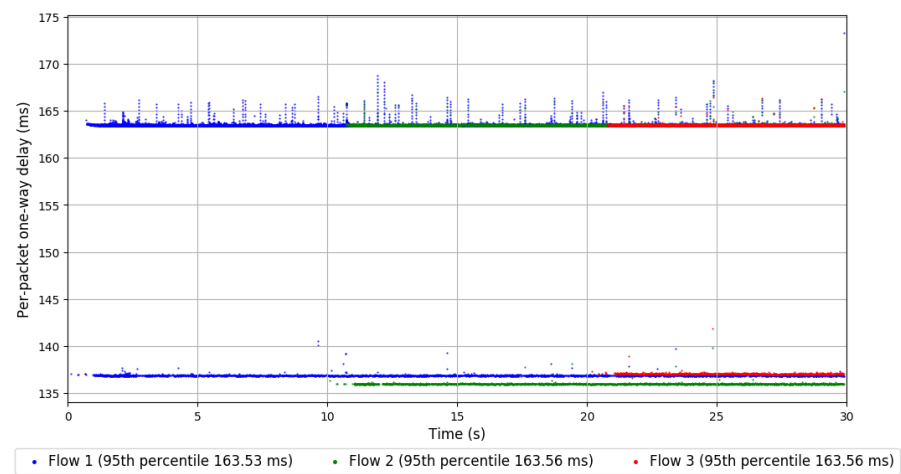
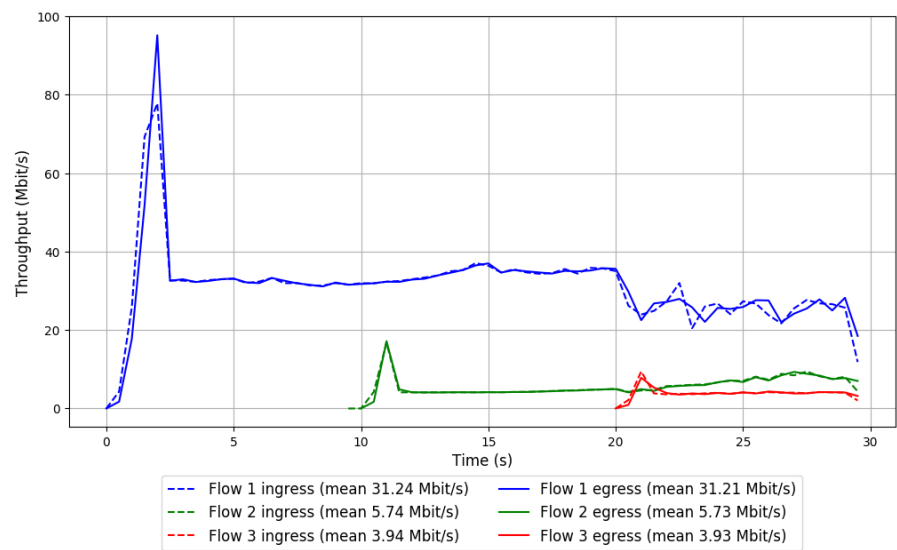
Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 163.562 ms

Loss rate: 0.19%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-08 14:55:47

End at: 2017-09-08 14:56:17

# Below is generated by plot.py at 2017-09-08 16:34:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 483.16 Mbit/s

95th percentile per-packet one-way delay: 203.668 ms

Loss rate: 3.27%

-- Flow 1:

Average throughput: 302.36 Mbit/s

95th percentile per-packet one-way delay: 217.984 ms

Loss rate: 5.05%

-- Flow 2:

Average throughput: 208.03 Mbit/s

95th percentile per-packet one-way delay: 173.451 ms

Loss rate: 0.00%

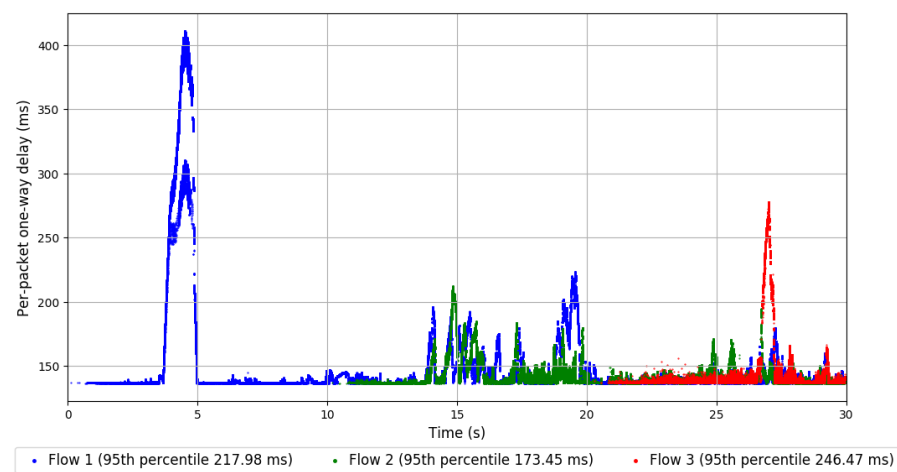
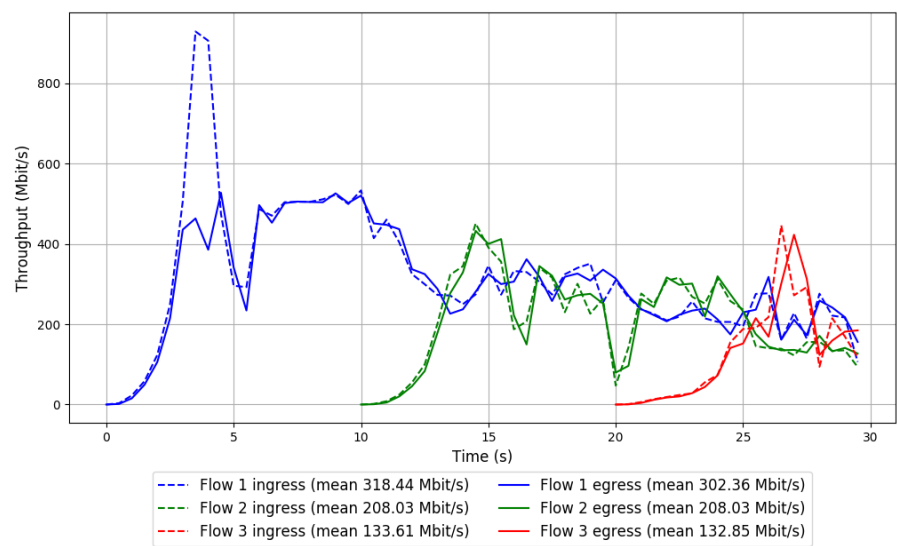
-- Flow 3:

Average throughput: 132.85 Mbit/s

95th percentile per-packet one-way delay: 246.466 ms

Loss rate: 0.58%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-08 15:09:50

End at: 2017-09-08 15:10:20

# Below is generated by plot.py at 2017-09-08 16:35:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 464.20 Mbit/s

95th percentile per-packet one-way delay: 162.704 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 301.61 Mbit/s

95th percentile per-packet one-way delay: 179.390 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 172.46 Mbit/s

95th percentile per-packet one-way delay: 147.370 ms

Loss rate: 0.00%

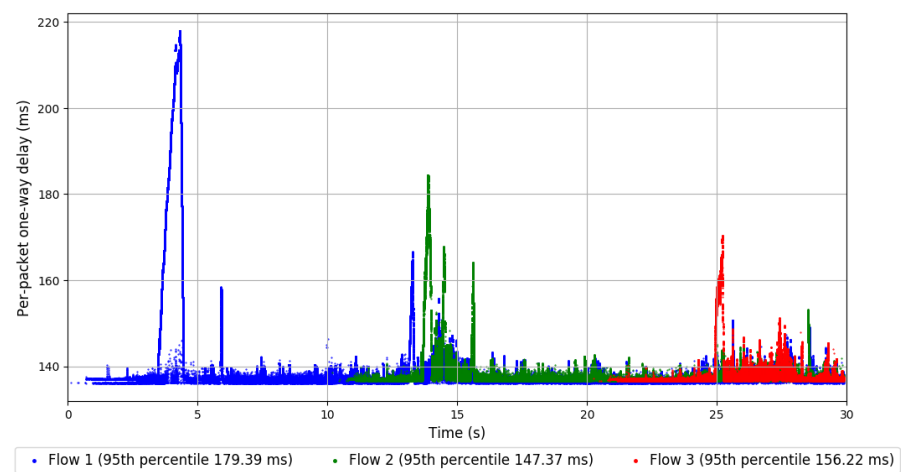
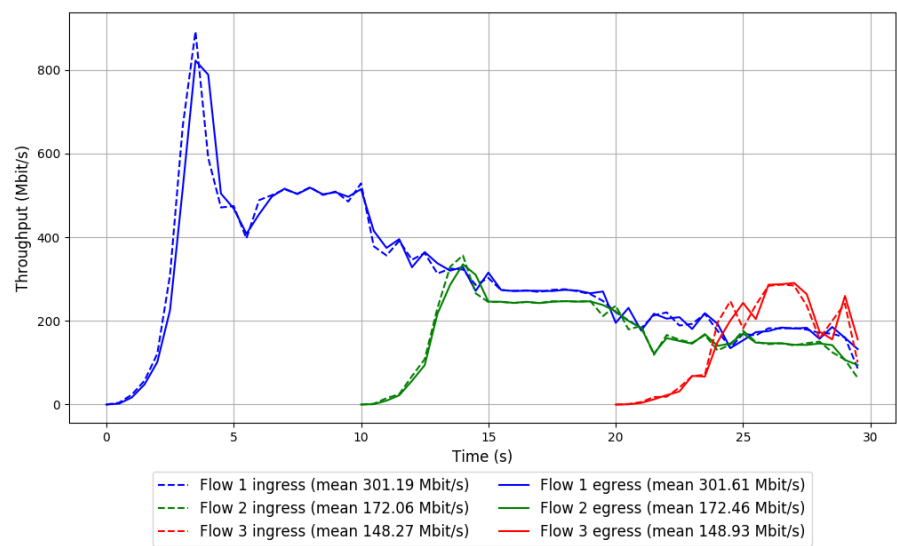
-- Flow 3:

Average throughput: 148.93 Mbit/s

95th percentile per-packet one-way delay: 156.223 ms

Loss rate: 0.01%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-09-08 15:23:40

End at: 2017-09-08 15:24:10

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 452.16 Mbit/s

95th percentile per-packet one-way delay: 202.812 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 318.81 Mbit/s

95th percentile per-packet one-way delay: 211.540 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 137.75 Mbit/s

95th percentile per-packet one-way delay: 142.584 ms

Loss rate: 0.00%

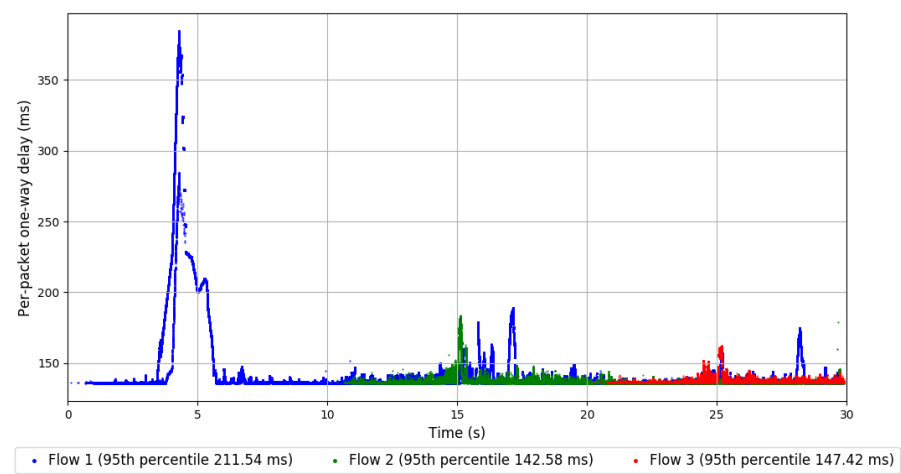
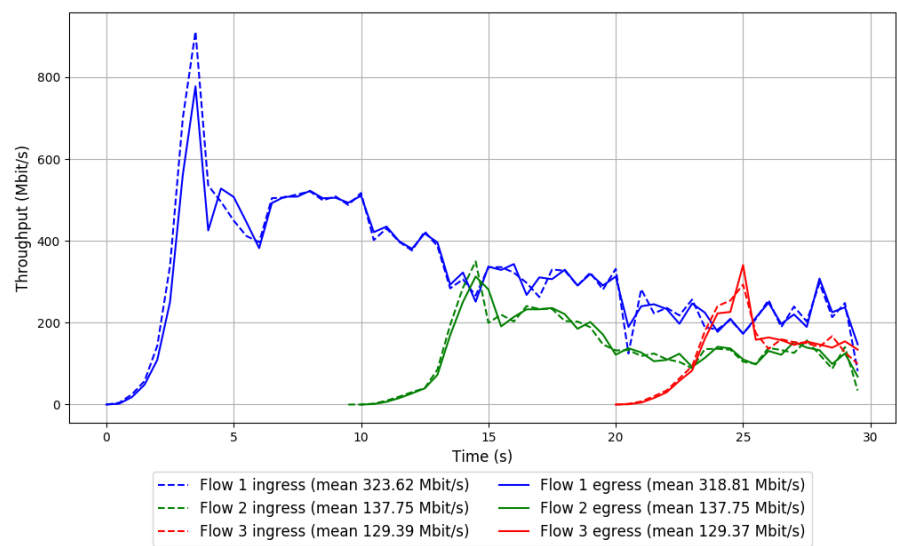
-- Flow 3:

Average throughput: 129.37 Mbit/s

95th percentile per-packet one-way delay: 147.422 ms

Loss rate: 0.00%

Run 10: Report of PCC — Data Link



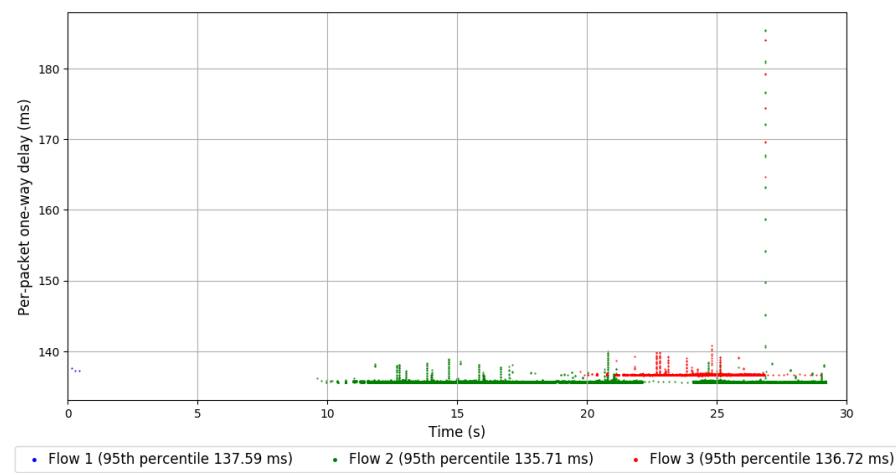
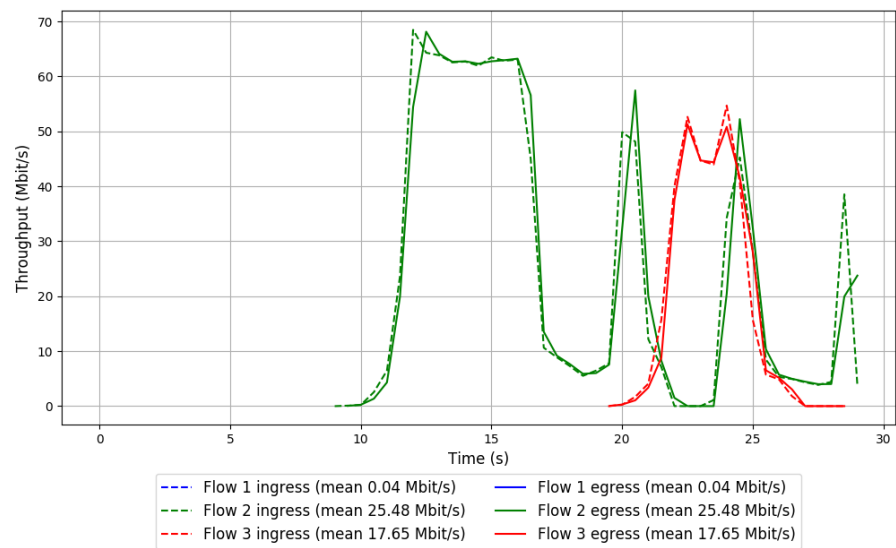
```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 13:23:38
End at: 2017-09-08 13:24:08

# Below is generated by plot.py at 2017-09-08 16:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.79 Mbit/s
95th percentile per-packet one-way delay: 136.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 137.595 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 135.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 17.65 Mbit/s
95th percentile per-packet one-way delay: 136.719 ms
Loss rate: 0.00%
```



Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 13:36:52

End at: 2017-09-08 13:37:22

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 20.47 Mbit/s

95th percentile per-packet one-way delay: 137.422 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.022 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.07 Mbit/s

95th percentile per-packet one-way delay: 137.075 ms

Loss rate: 0.00%

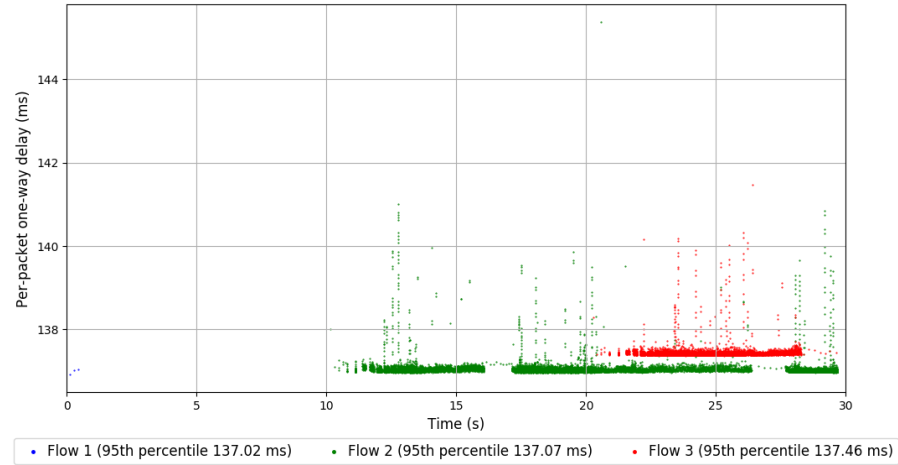
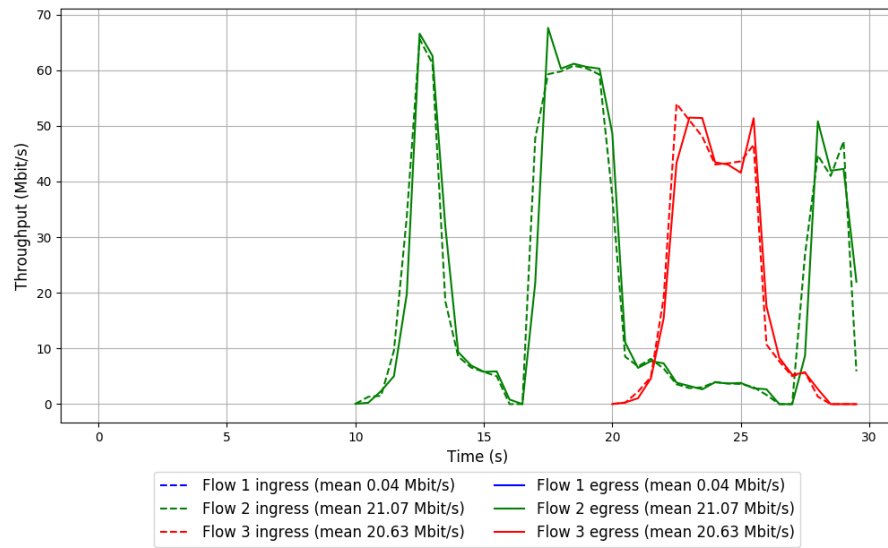
-- Flow 3:

Average throughput: 20.63 Mbit/s

95th percentile per-packet one-way delay: 137.455 ms

Loss rate: 0.00%

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



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 13:50:21

End at: 2017-09-08 13:50:51

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.82 Mbit/s

95th percentile per-packet one-way delay: 163.981 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.968 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.51 Mbit/s

95th percentile per-packet one-way delay: 162.803 ms

Loss rate: 0.00%

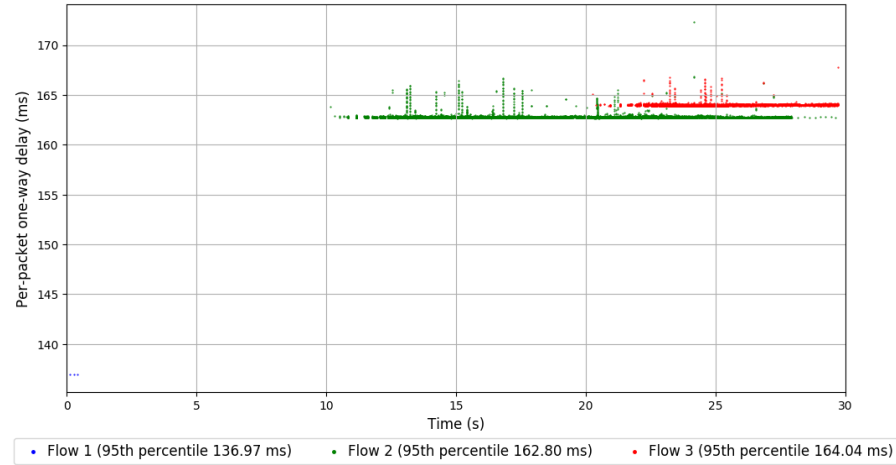
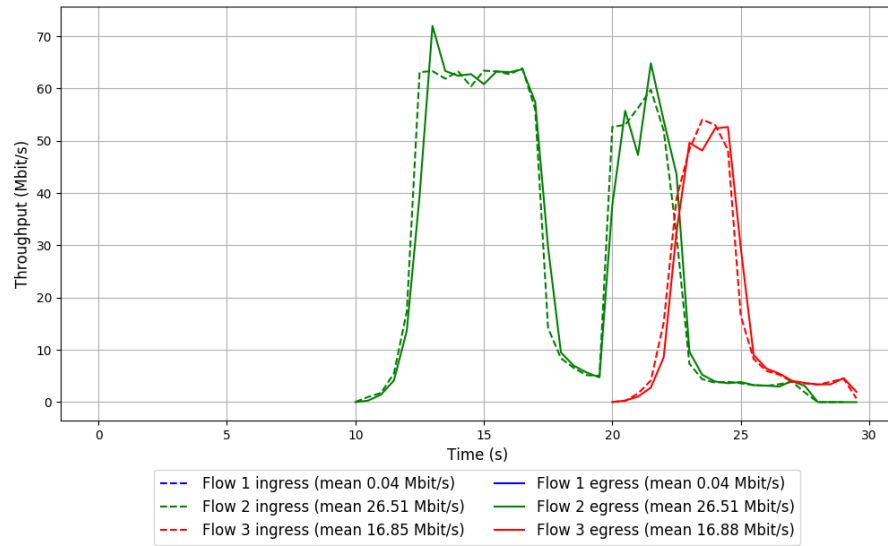
-- Flow 3:

Average throughput: 16.88 Mbit/s

95th percentile per-packet one-way delay: 164.045 ms

Loss rate: 0.06%

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



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 14:04:46

End at: 2017-09-08 14:05:16

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.11 Mbit/s

95th percentile per-packet one-way delay: 137.471 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.133 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.30 Mbit/s

95th percentile per-packet one-way delay: 137.310 ms

Loss rate: 0.00%

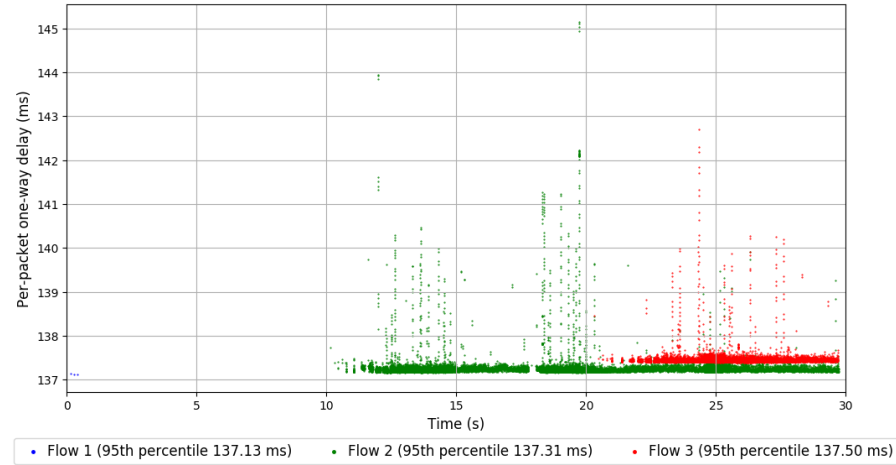
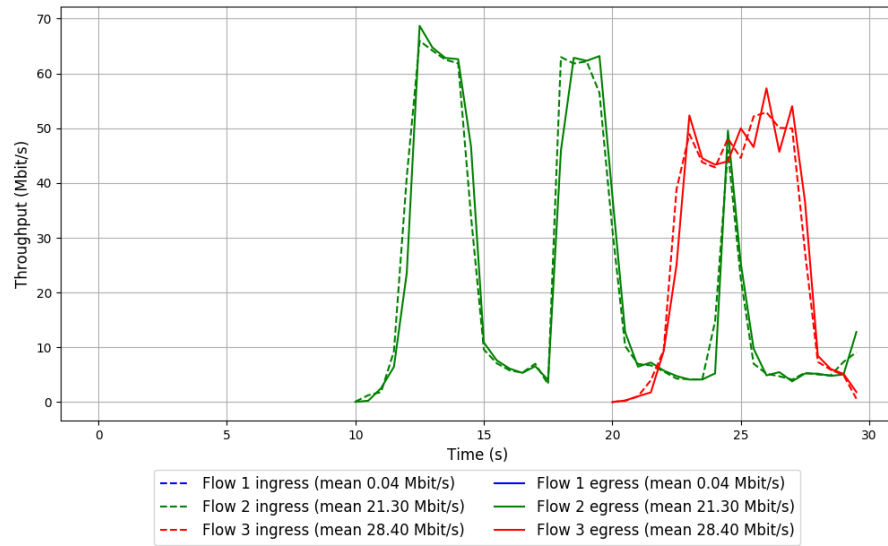
-- Flow 3:

Average throughput: 28.40 Mbit/s

95th percentile per-packet one-way delay: 137.504 ms

Loss rate: 0.00%

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



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 14:19:08

End at: 2017-09-08 14:19:38

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.51 Mbit/s

95th percentile per-packet one-way delay: 136.577 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.425 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.06 Mbit/s

95th percentile per-packet one-way delay: 136.050 ms

Loss rate: 0.00%

-- Flow 3:

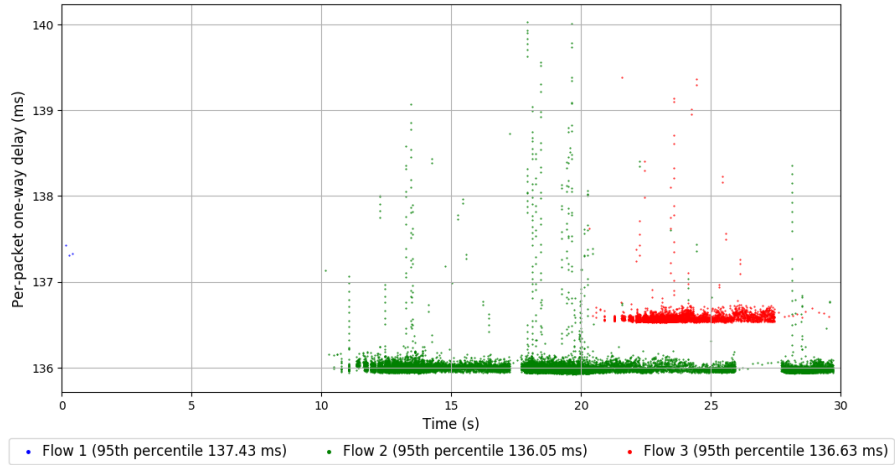
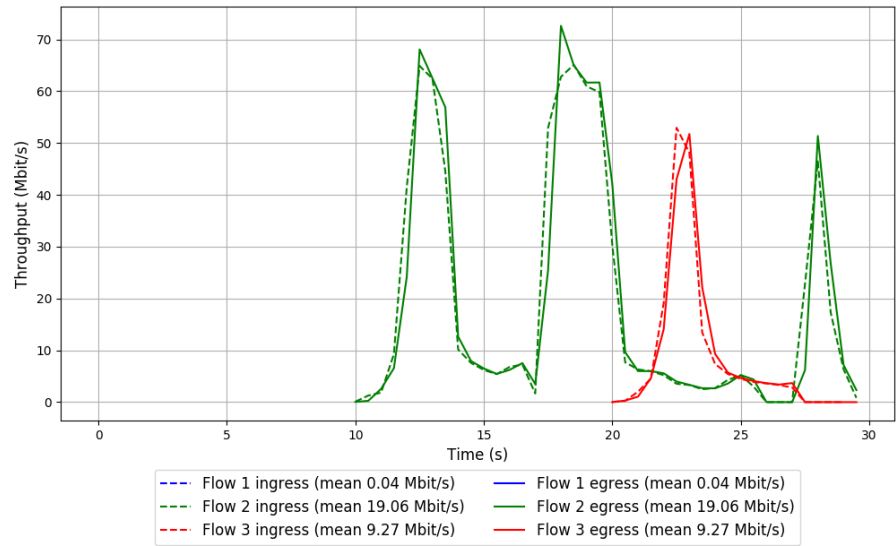
Average throughput: 9.27 Mbit/s

95th percentile per-packet one-way delay: 136.631 ms

Loss rate: 0.00%



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



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-08 14:32:33

End at: 2017-09-08 14:33:03

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.22 Mbit/s

95th percentile per-packet one-way delay: 137.061 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.072 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.59 Mbit/s

95th percentile per-packet one-way delay: 137.081 ms

Loss rate: 0.00%

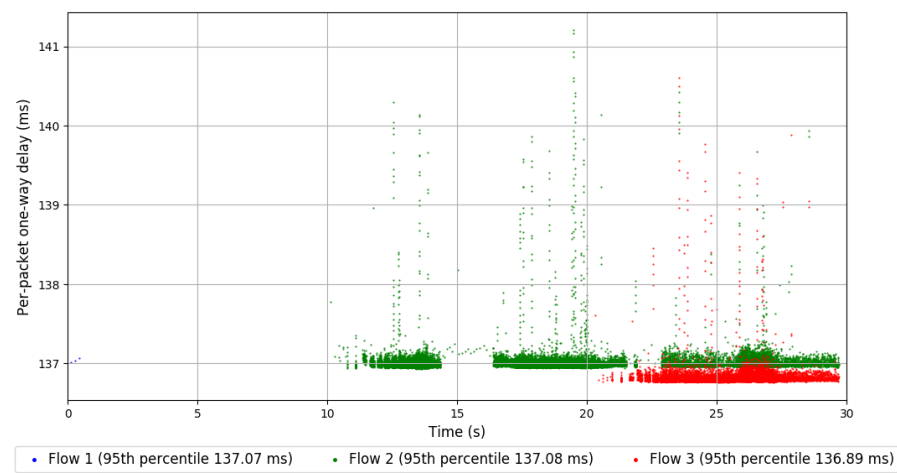
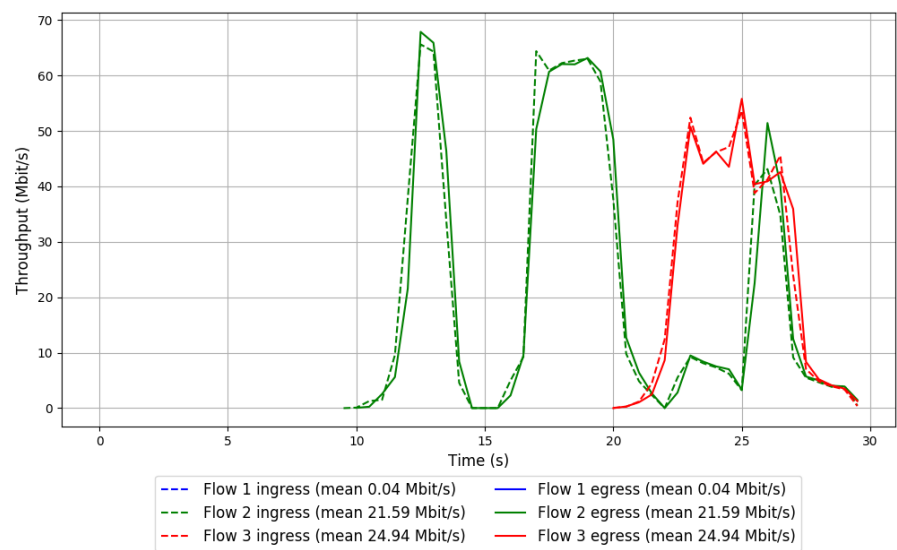
-- Flow 3:

Average throughput: 24.94 Mbit/s

95th percentile per-packet one-way delay: 136.889 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 14:45:45

End at: 2017-09-08 14:46:15

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.78 Mbit/s

95th percentile per-packet one-way delay: 136.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 137.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.26 Mbit/s

95th percentile per-packet one-way delay: 135.752 ms

Loss rate: 0.00%

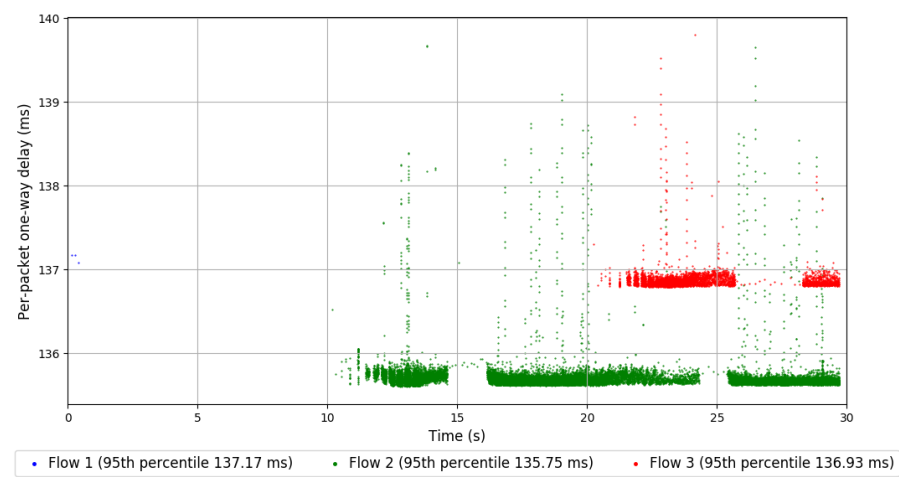
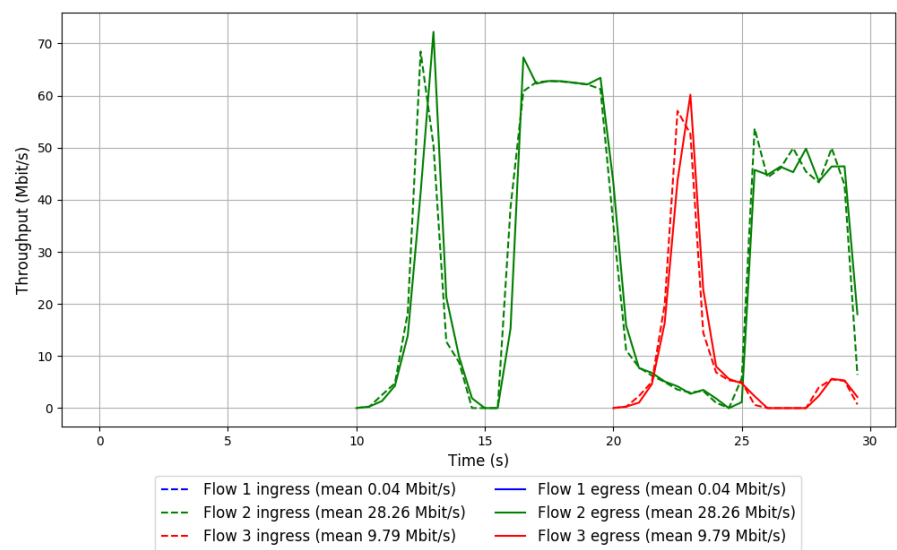
-- Flow 3:

Average throughput: 9.79 Mbit/s

95th percentile per-packet one-way delay: 136.930 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 14:59:36

End at: 2017-09-08 15:00:06

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 21.20 Mbit/s

95th percentile per-packet one-way delay: 137.169 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.537 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.26 Mbit/s

95th percentile per-packet one-way delay: 137.185 ms

Loss rate: 0.00%

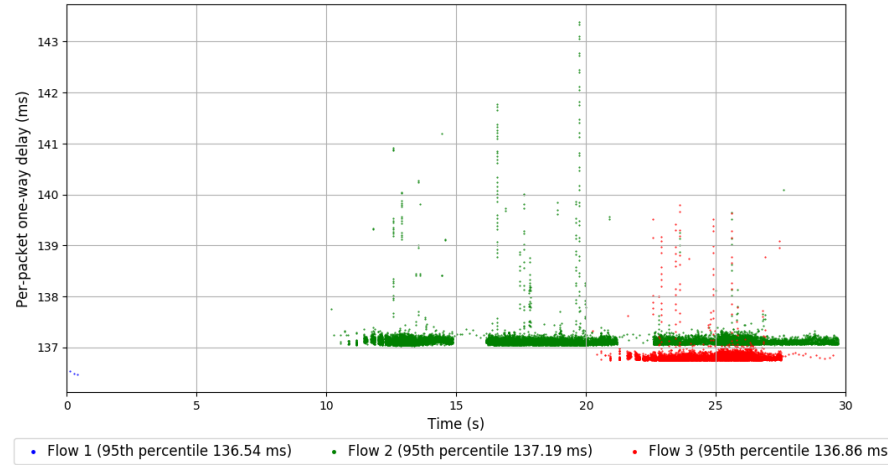
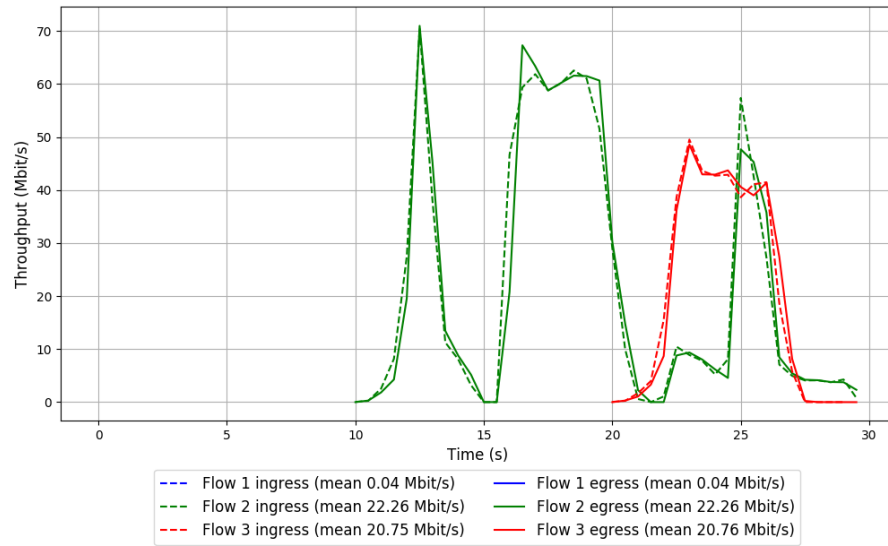
-- Flow 3:

Average throughput: 20.76 Mbit/s

95th percentile per-packet one-way delay: 136.860 ms

Loss rate: 0.00%

# Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 15:13:39

End at: 2017-09-08 15:14:09

# Below is generated by plot.py at 2017-09-08 16:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 16.54 Mbit/s

95th percentile per-packet one-way delay: 137.135 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 136.743 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.51 Mbit/s

95th percentile per-packet one-way delay: 137.147 ms

Loss rate: 0.00%

-- Flow 3:

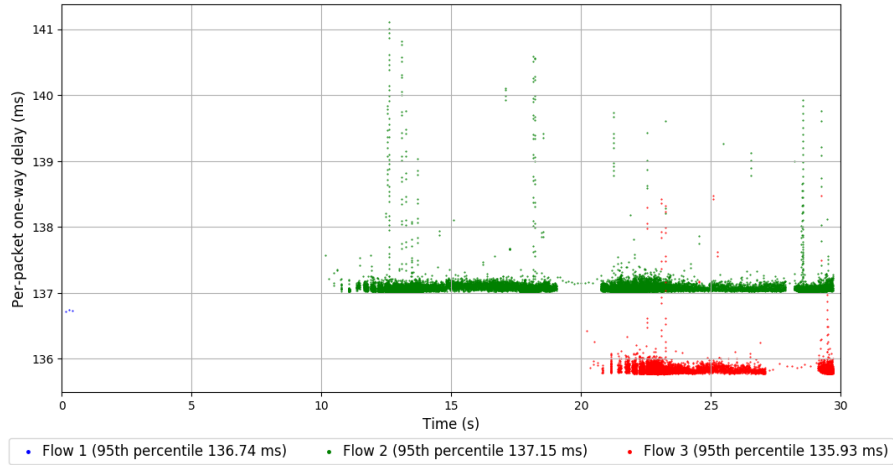
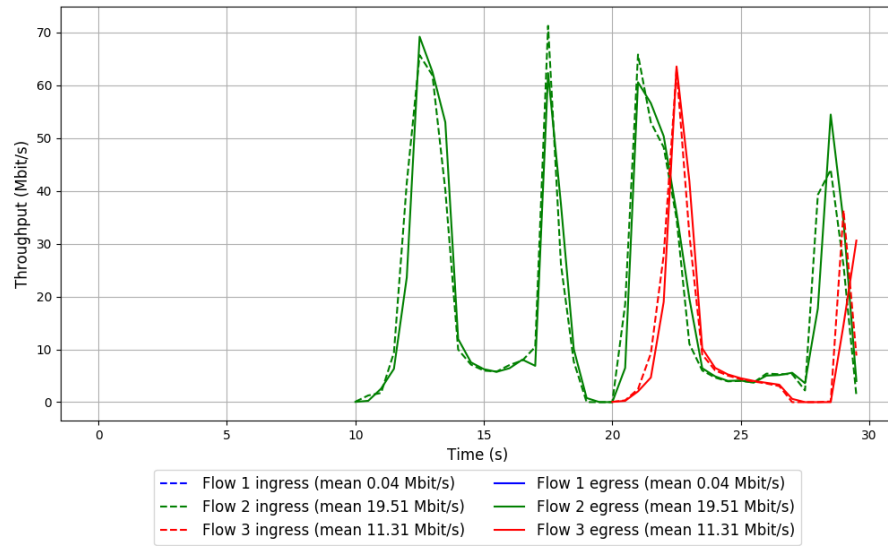
Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 135.930 ms

Loss rate: 0.00%



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

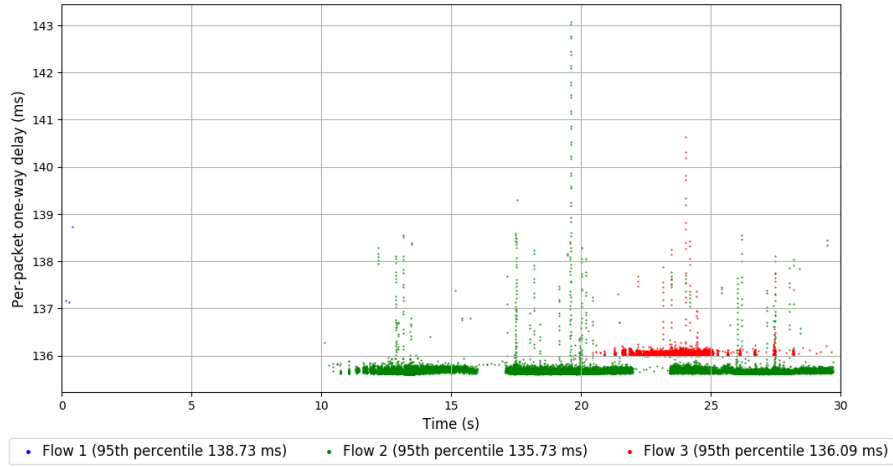
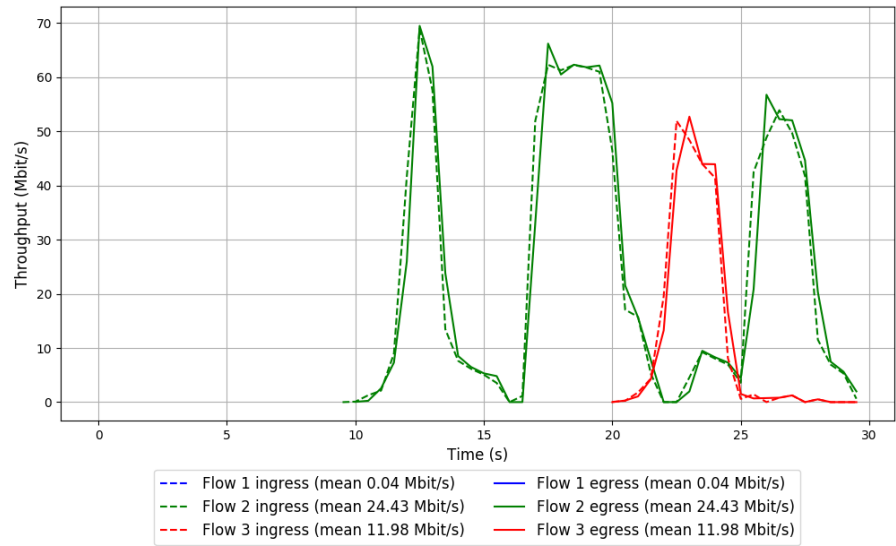


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 15:27:30
End at: 2017-09-08 15:28:00

# Below is generated by plot.py at 2017-09-08 16:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 136.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 138.727 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 24.43 Mbit/s
95th percentile per-packet one-way delay: 135.734 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 136.085 ms
Loss rate: 0.00%
```

# Run 10: Report of QUIC Cubic — Data Link

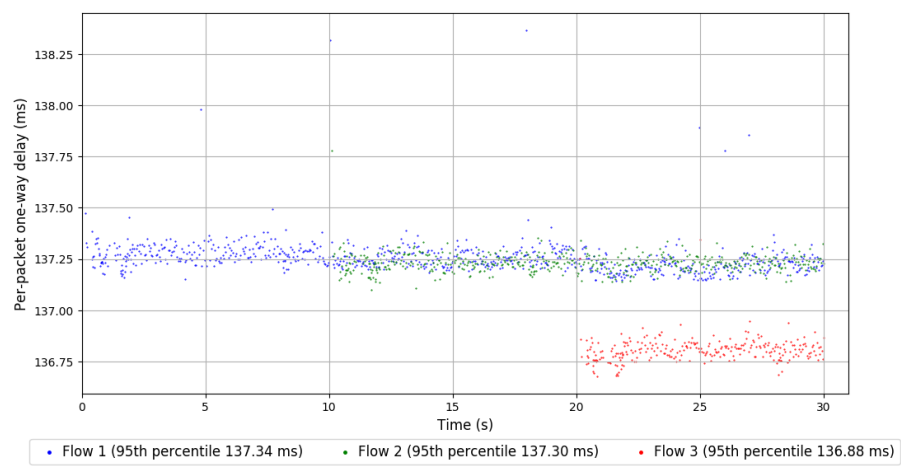
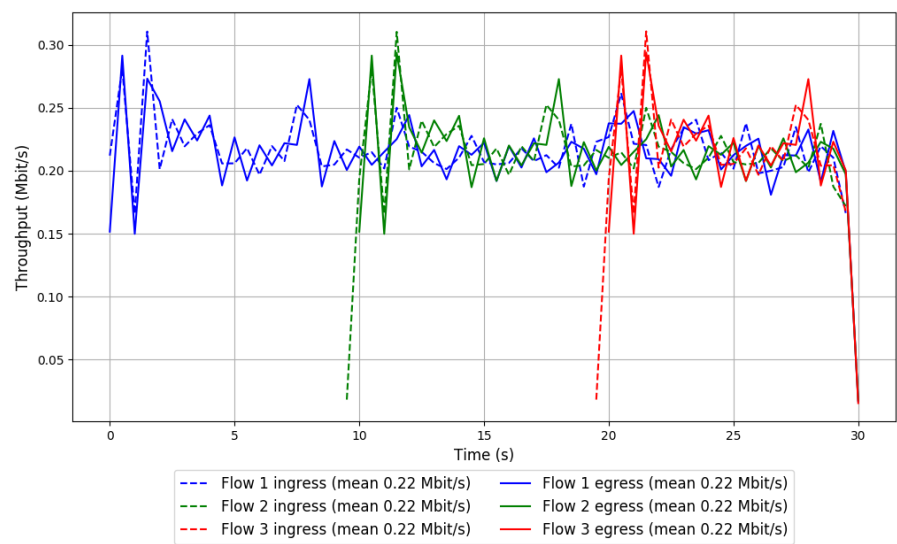


```
Run 1: Statistics of SCReAM

Start at: 2017-09-08 13:13:26
End at: 2017-09-08 13:13:56

# Below is generated by plot.py at 2017-09-08 16:36:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 137.321 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.342 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.299 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.879 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

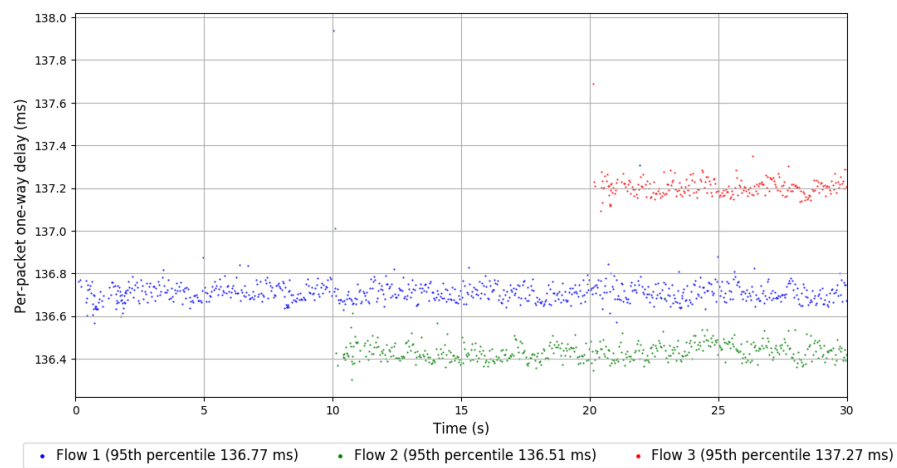
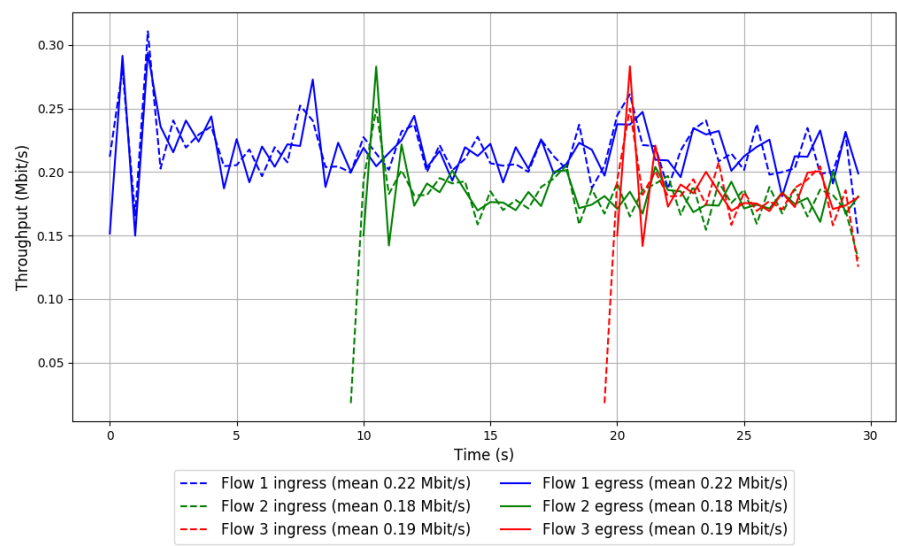


```
Run 2: Statistics of SReAM

Start at: 2017-09-08 13:27:18
End at: 2017-09-08 13:27:48

# Below is generated by plot.py at 2017-09-08 16:36:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 137.220 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.772 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 136.507 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 137.270 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-09-08 13:40:37

End at: 2017-09-08 13:41:07

# Below is generated by plot.py at 2017-09-08 16:36:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 164.073 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 163.779 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 164.097 ms

Loss rate: 0.20%

-- Flow 3:

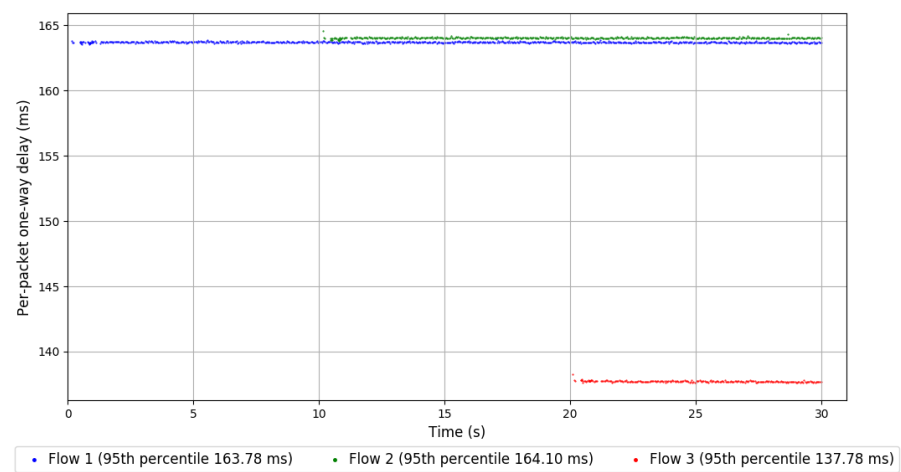
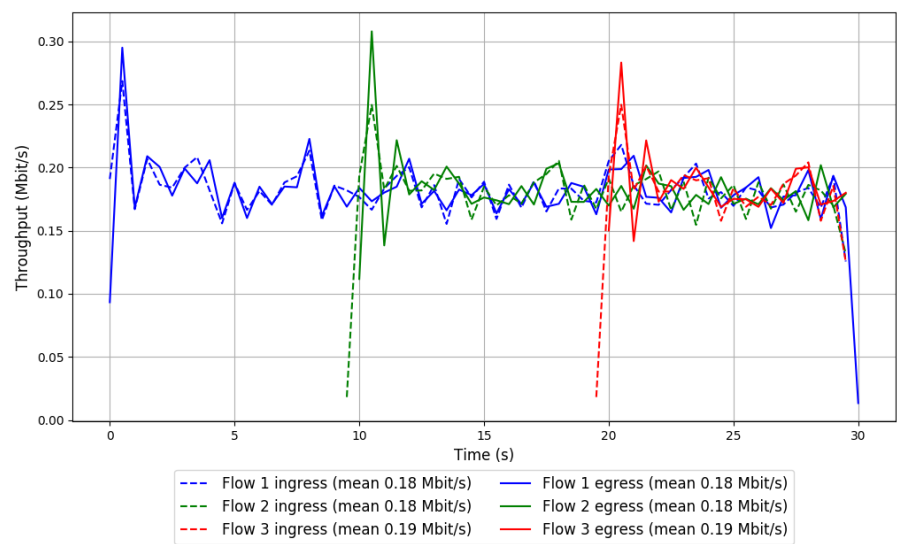
Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 137.783 ms

Loss rate: 0.00%



Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-09-08 13:54:06

End at: 2017-09-08 13:54:36

# Below is generated by plot.py at 2017-09-08 16:36:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.812 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.831 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.137 ms

Loss rate: 0.00%

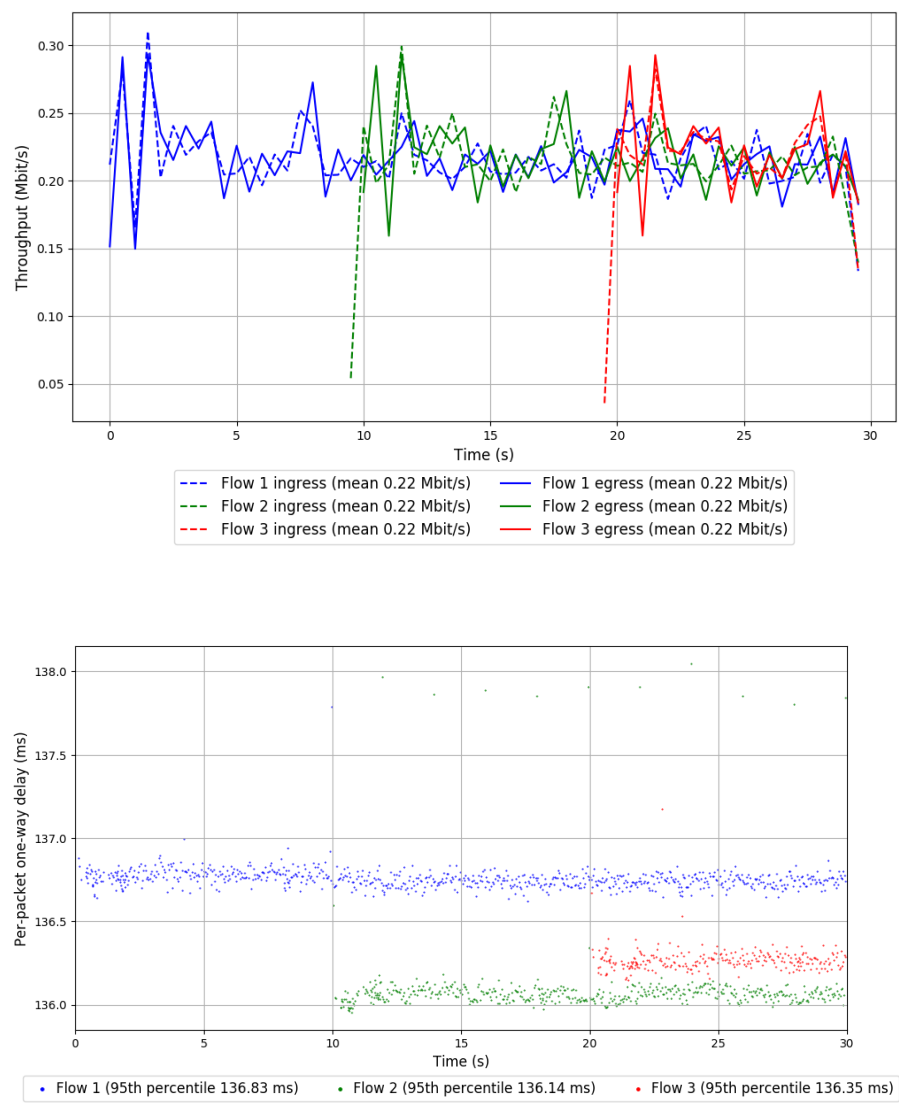
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.350 ms

Loss rate: 0.00%

Run 4: Report of SCRaM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-09-08 14:08:38

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

# Below is generated by plot.py at 2017-09-08 16:36:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 137.230 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.186 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.795 ms

Loss rate: 0.00%

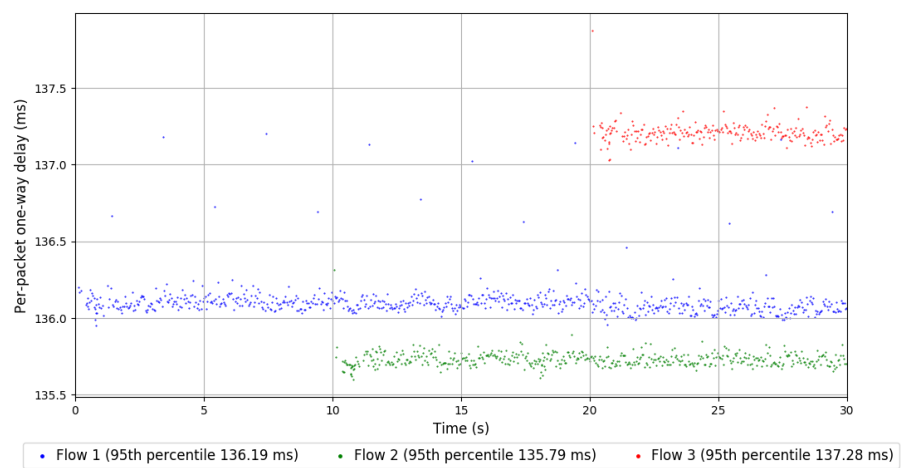
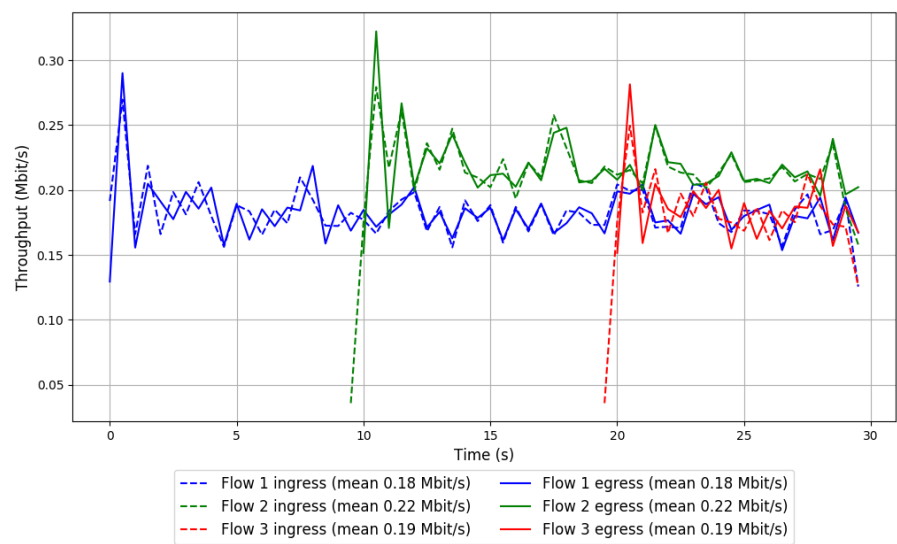
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 137.282 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-09-08 14:23:00

End at: 2017-09-08 14:23:30

# Below is generated by plot.py at 2017-09-08 16:36:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 163.992 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.770 ms

Loss rate: 0.00%

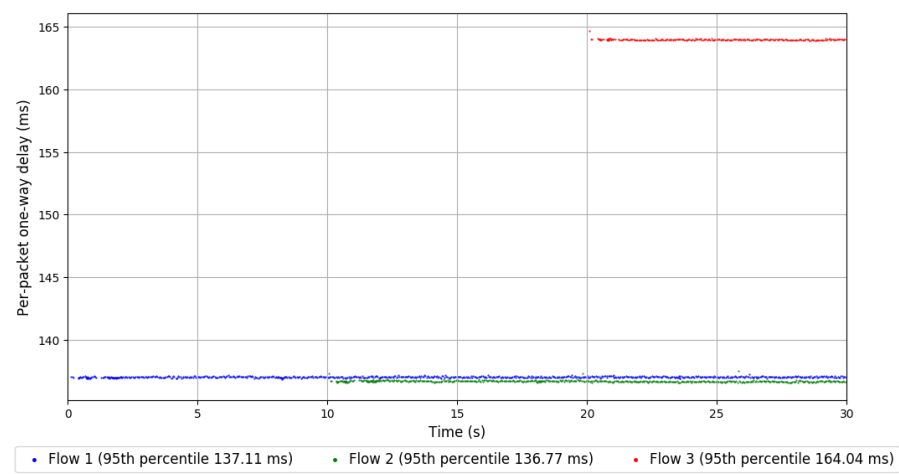
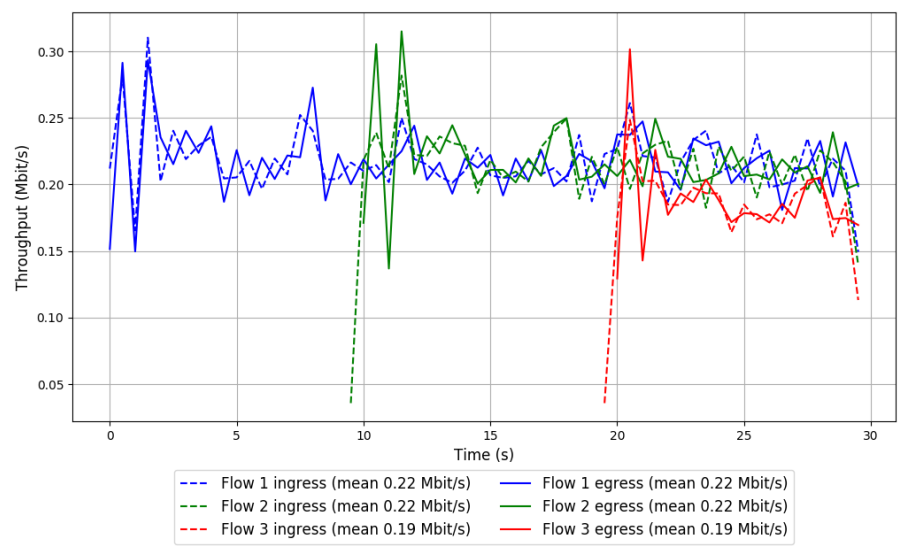
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 164.037 ms

Loss rate: 0.35%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-09-08 14:36:14

End at: 2017-09-08 14:36:44

# Below is generated by plot.py at 2017-09-08 16:36:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 163.654 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 163.668 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.899 ms

Loss rate: 0.00%

-- Flow 3:

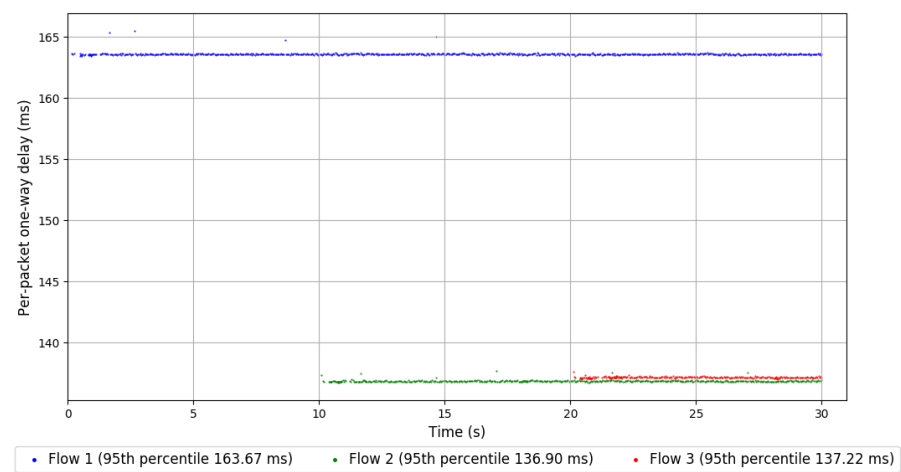
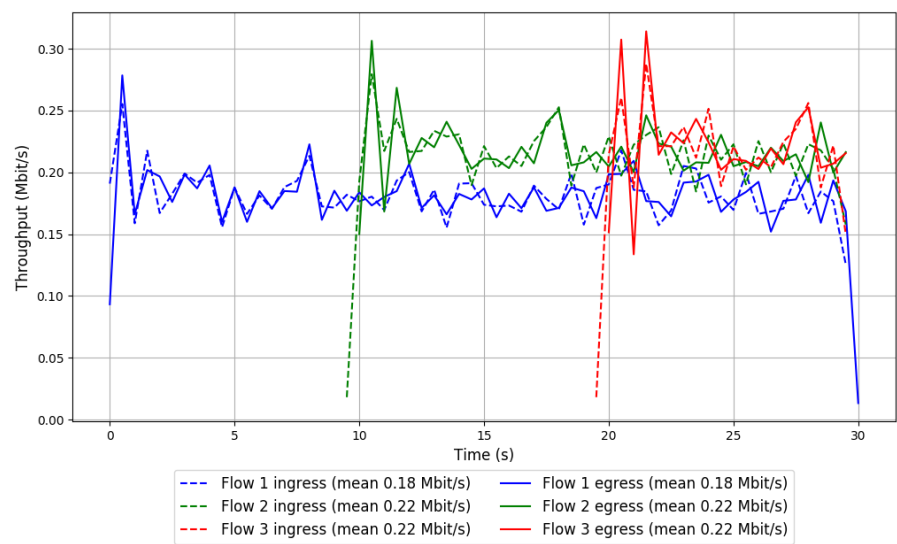
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.225 ms

Loss rate: 0.00%



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-09-08 14:49:25

End at: 2017-09-08 14:49:55

# Below is generated by plot.py at 2017-09-08 16:36:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.986 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.657 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.015 ms

Loss rate: 0.00%

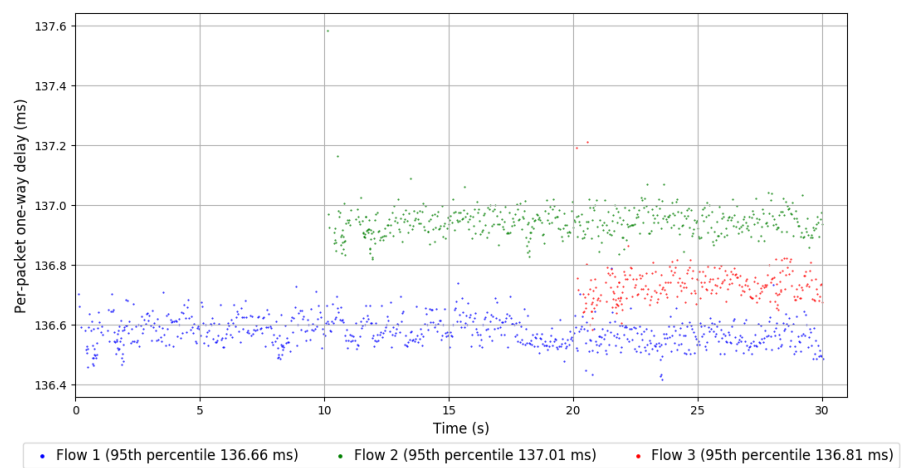
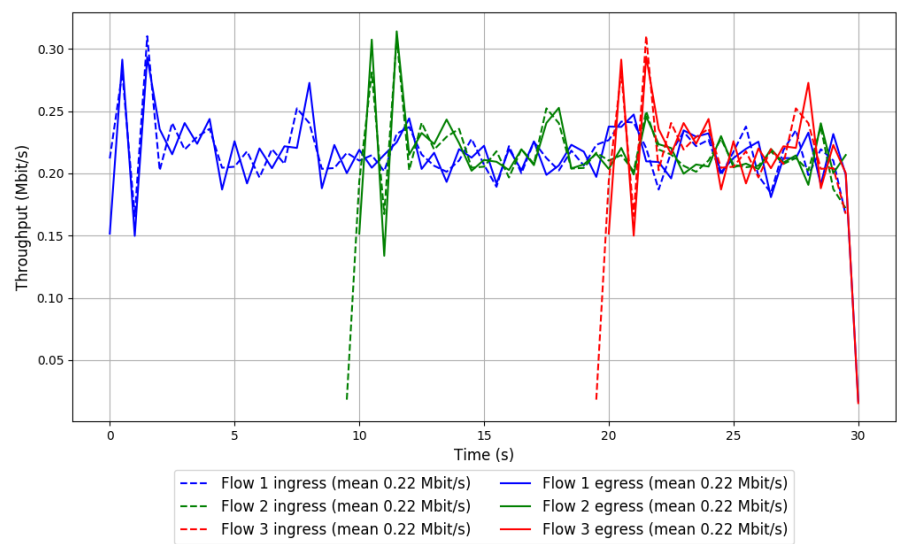
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.810 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-09-08 15:03:24

End at: 2017-09-08 15:03:54

# Below is generated by plot.py at 2017-09-08 16:36:19

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.517 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.513 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.523 ms

Loss rate: 0.00%

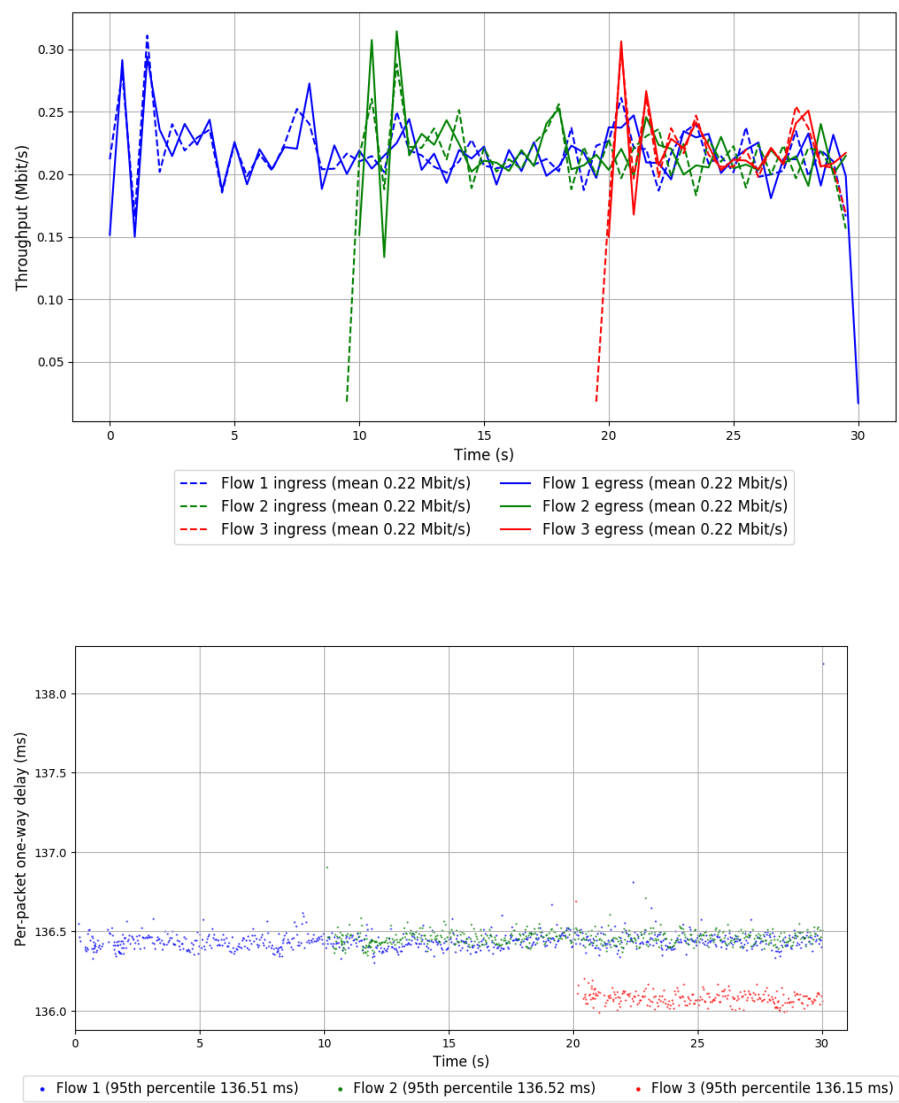
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.145 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

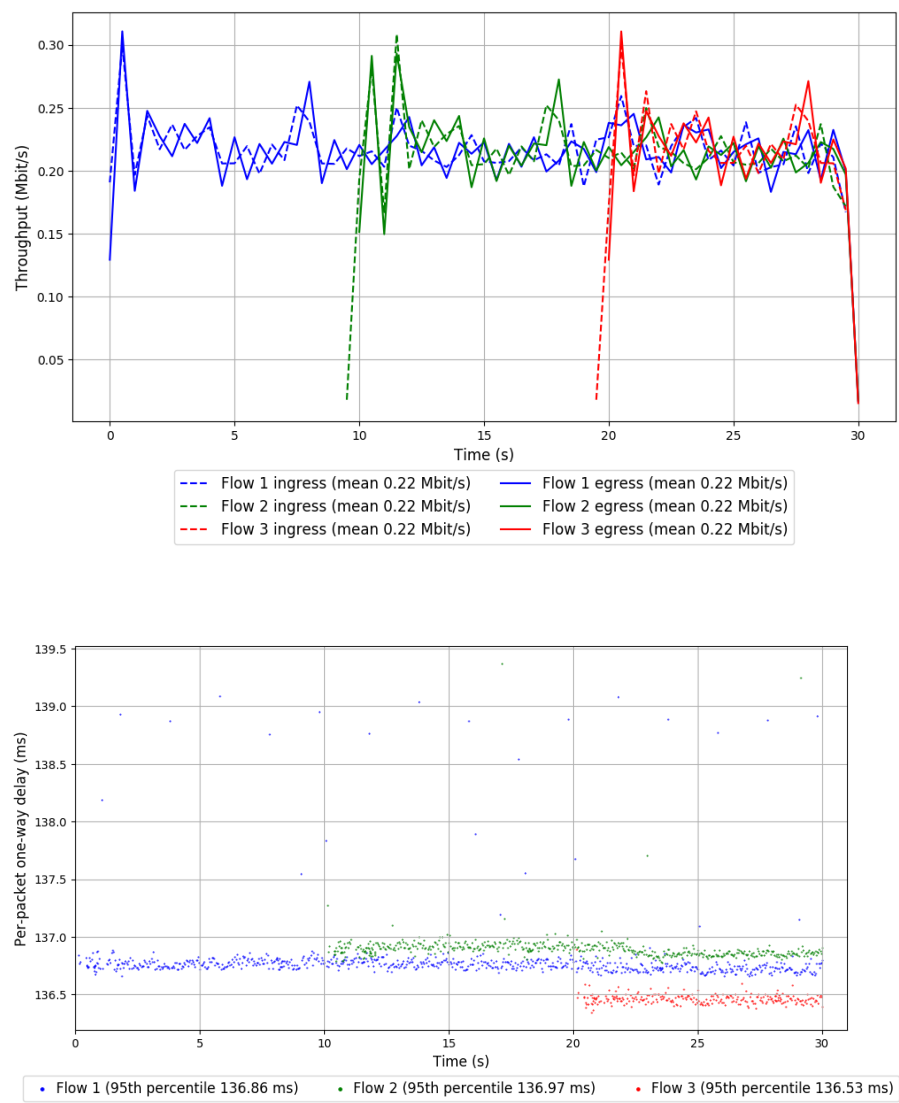


```
Run 10: Statistics of SReAM

Start at: 2017-09-08 15:17:25
End at: 2017-09-08 15:17:55

# Below is generated by plot.py at 2017-09-08 16:36:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.952 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.856 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.970 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.533 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-09-08 13:17:59

End at: 2017-09-08 13:18:29

# Below is generated by plot.py at 2017-09-08 16:36:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 138.011 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 138.013 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 138.017 ms

Loss rate: 0.00%

-- Flow 3:

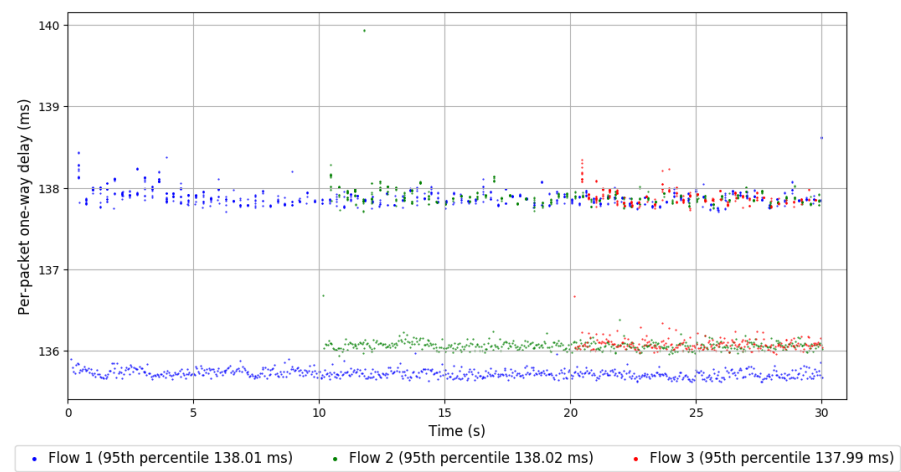
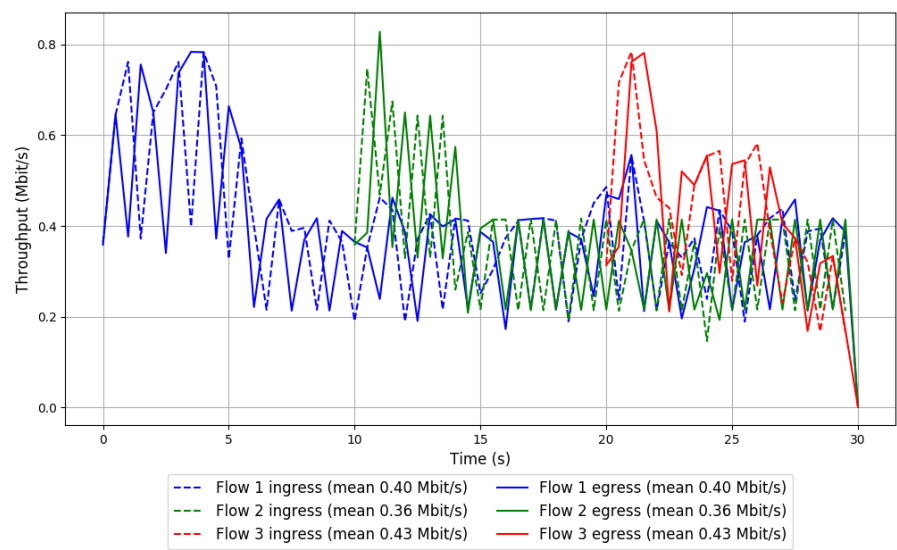
Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.992 ms

Loss rate: 0.00%



Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-08 13:31:45

End at: 2017-09-08 13:32:15

# Below is generated by plot.py at 2017-09-08 16:36:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 164.251 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 164.250 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 164.258 ms

Loss rate: 0.00%

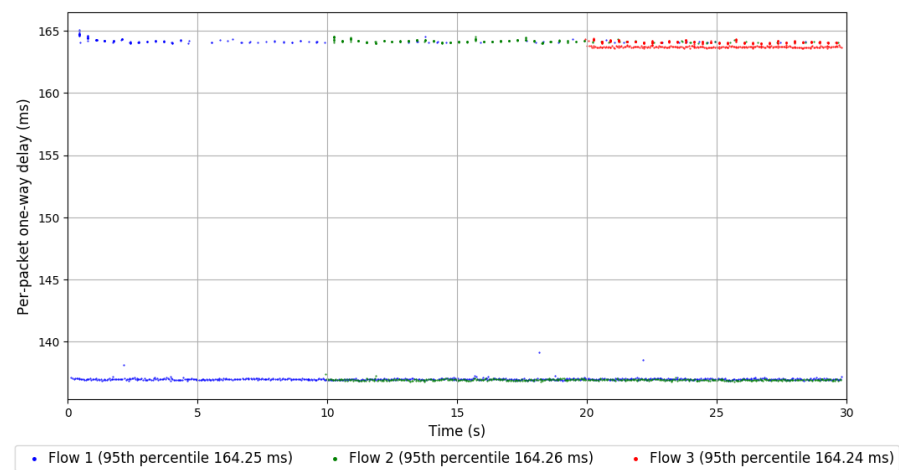
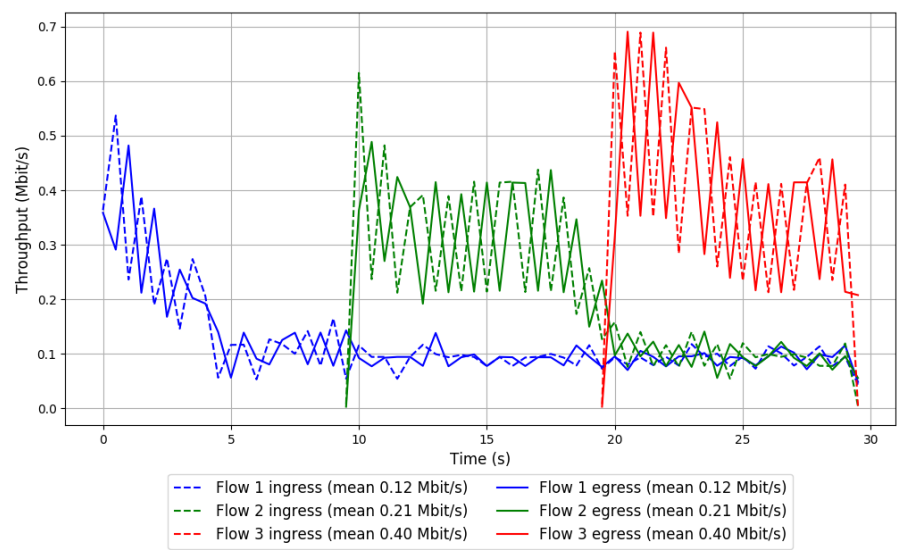
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 164.237 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

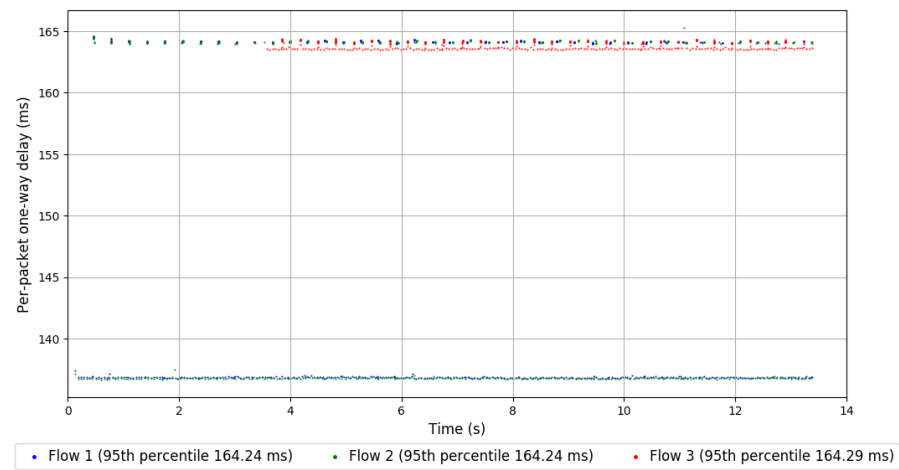
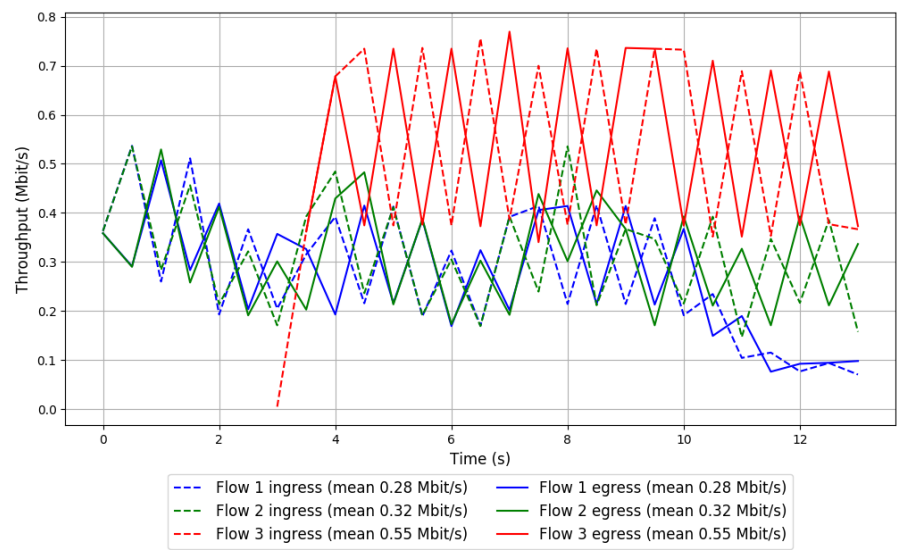


Run 3: Statistics of Sprout

Start at: 2017-09-08 13:45:08

End at: 2017-09-08 13:45:38

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-08 13:59:01

End at: 2017-09-08 13:59:31

# Below is generated by plot.py at 2017-09-08 16:36:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 137.161 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.941 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 136.363 ms

Loss rate: 0.00%

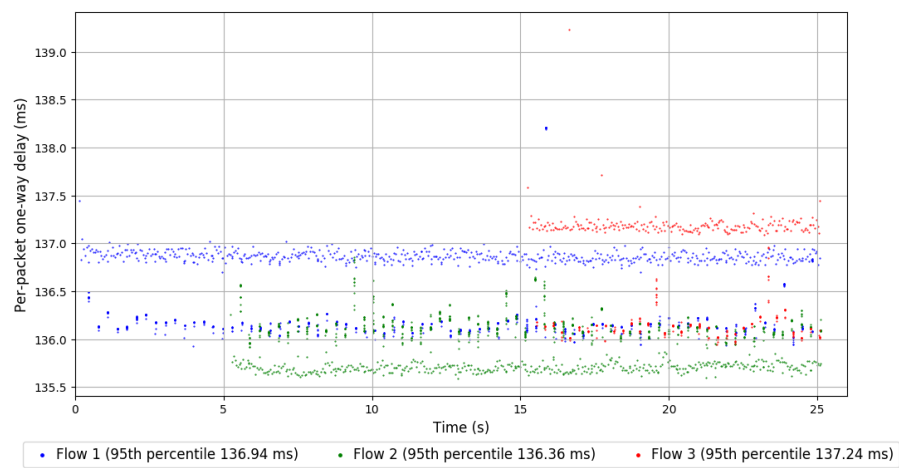
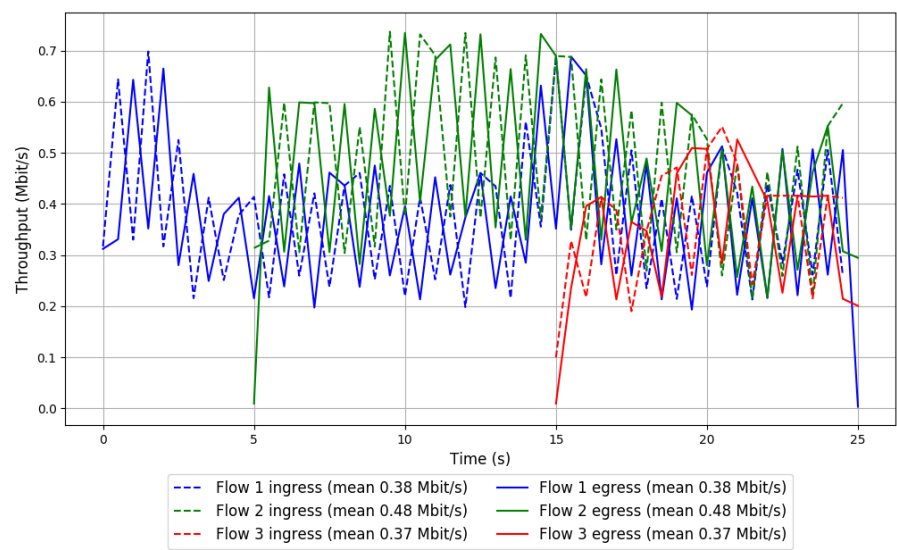
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 137.239 ms

Loss rate: 0.02%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-08 14:13:25

End at: 2017-09-08 14:13:55

# Below is generated by plot.py at 2017-09-08 16:36:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 137.084 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.230 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 137.116 ms

Loss rate: 0.00%

-- Flow 3:

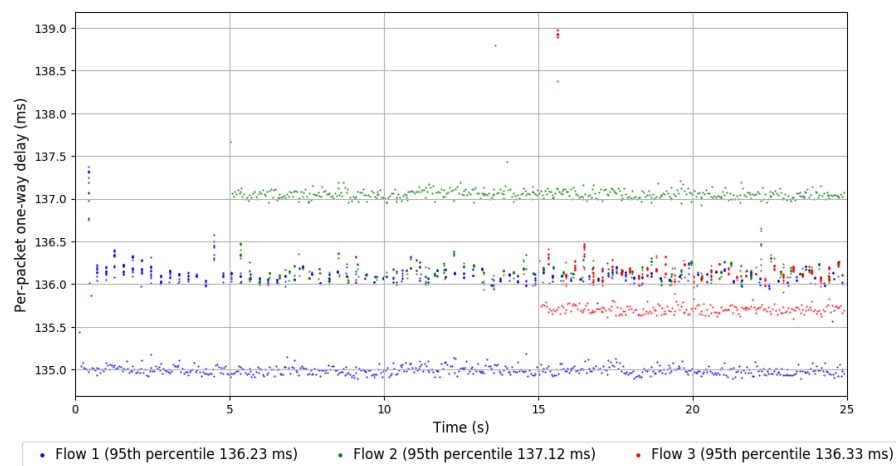
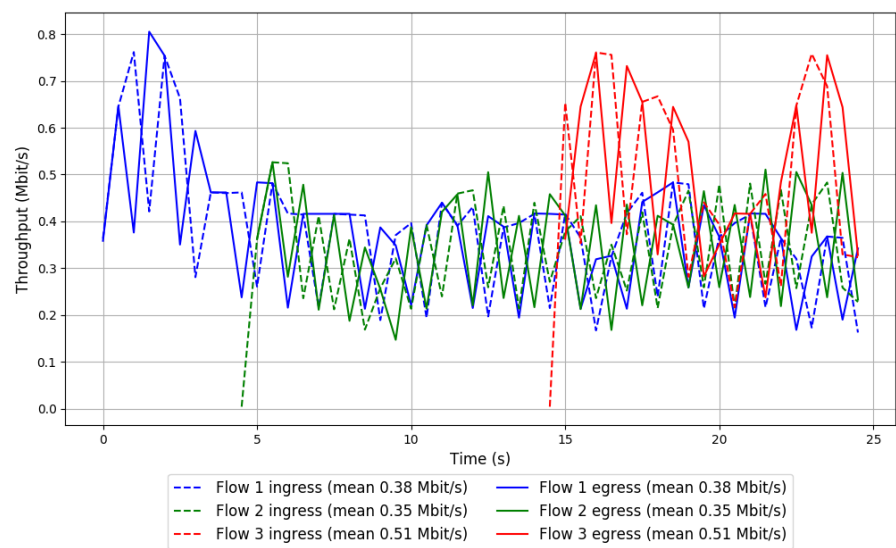
Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 136.326 ms

Loss rate: 0.00%



Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-08 14:27:29

End at: 2017-09-08 14:27:59

# Below is generated by plot.py at 2017-09-08 16:36:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 164.829 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 163.786 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 164.862 ms

Loss rate: 0.00%

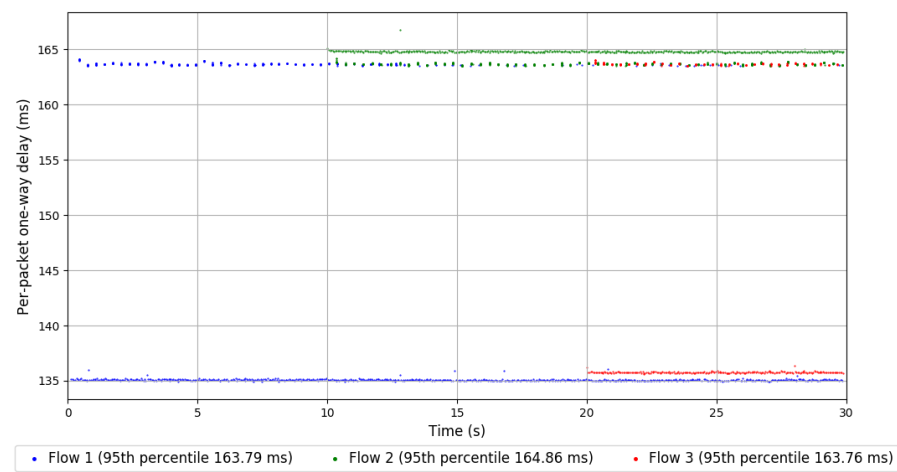
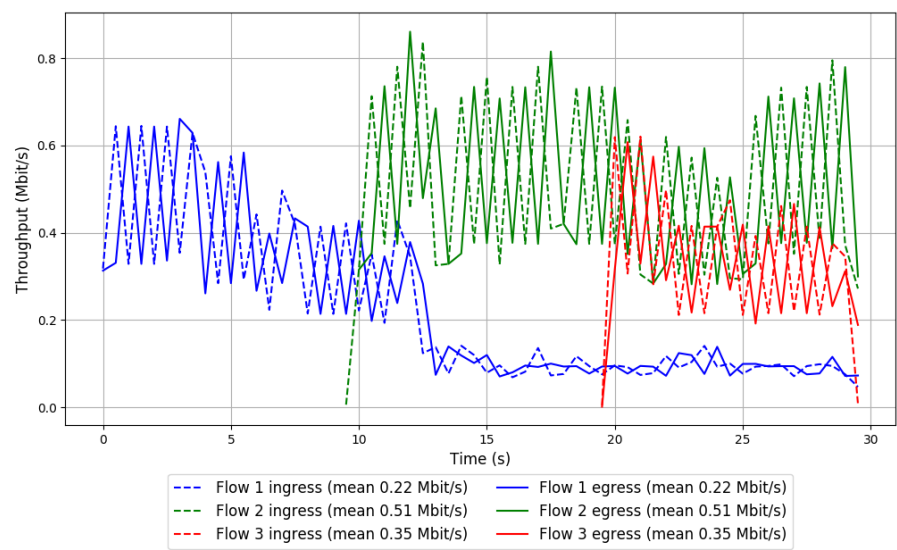
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 163.763 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-08 14:40:44

End at: 2017-09-08 14:41:14

# Below is generated by plot.py at 2017-09-08 16:36:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 163.853 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 163.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 163.934 ms

Loss rate: 0.00%

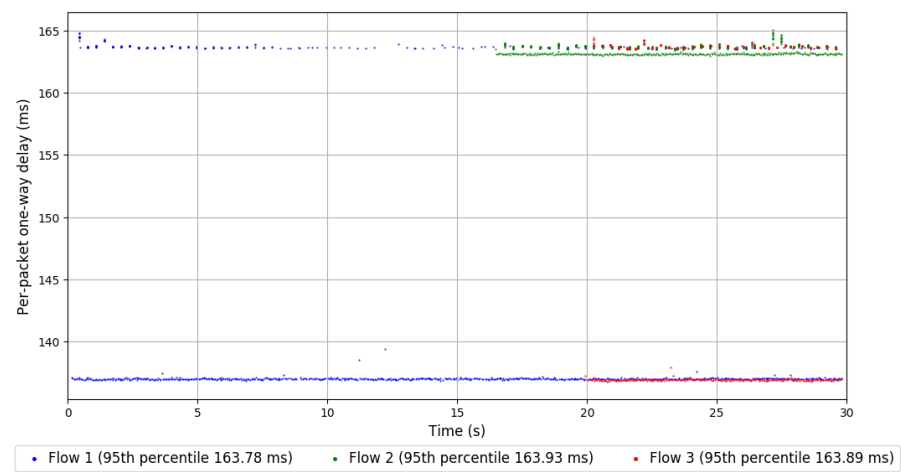
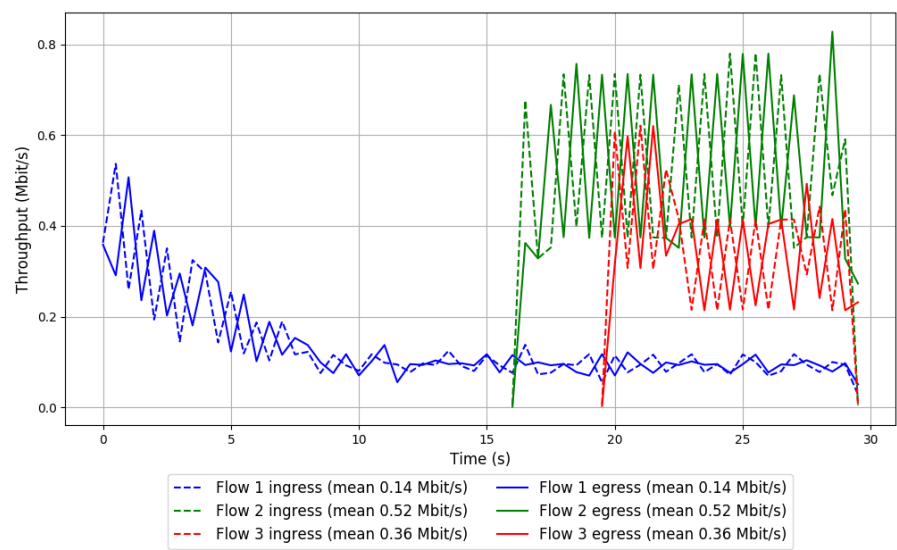
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 163.886 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link

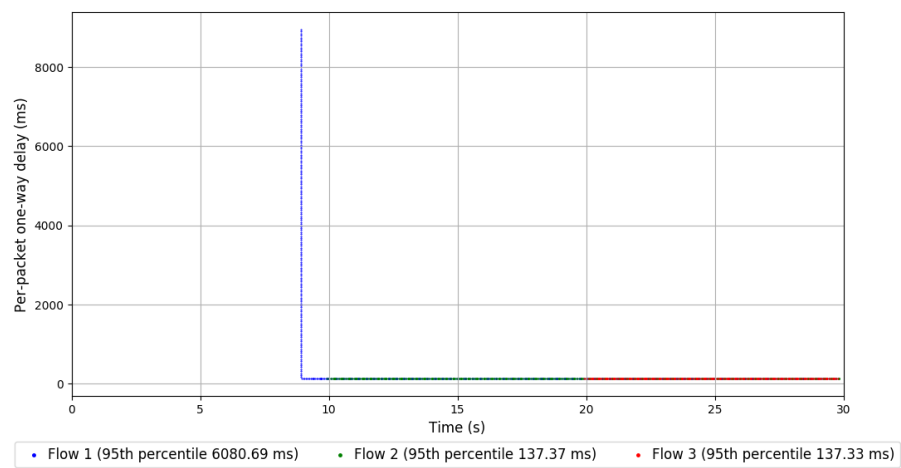
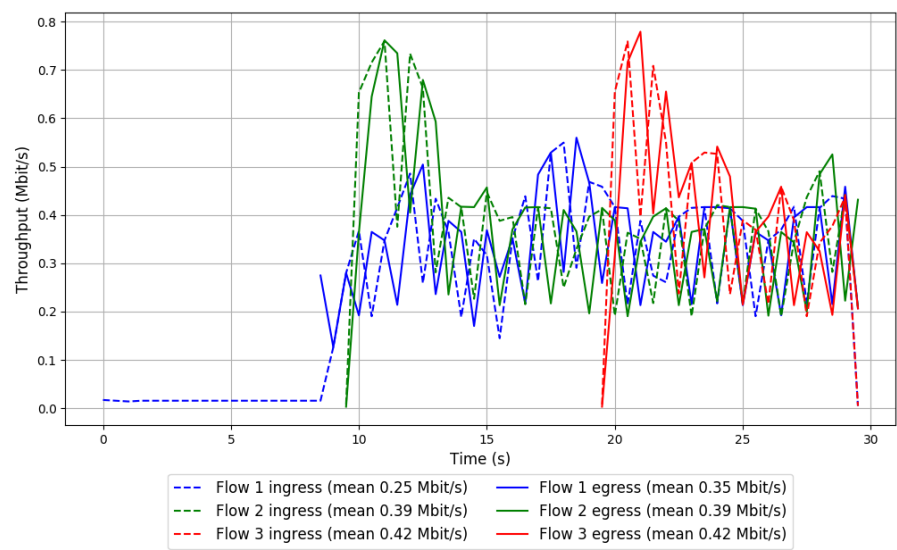


Run 8: Statistics of Sprout

Start at: 2017-09-08 14:54:00

End at: 2017-09-08 14:54:30

Run 8: Report of Sprout — Data Link



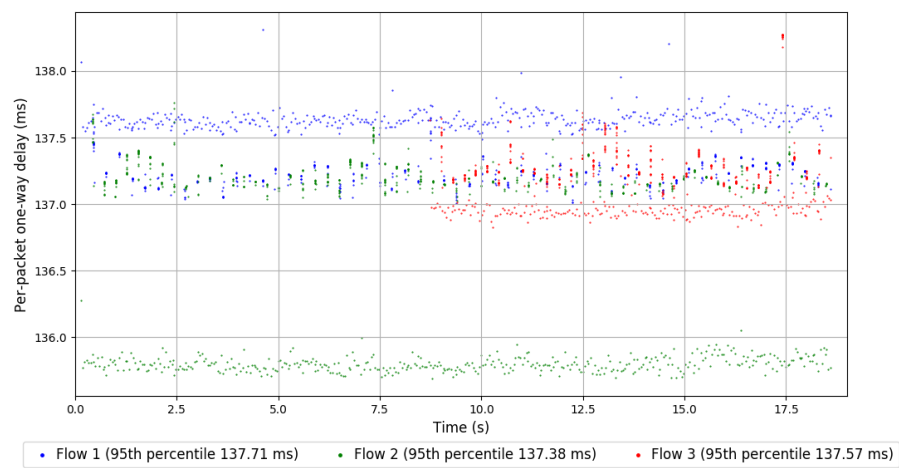
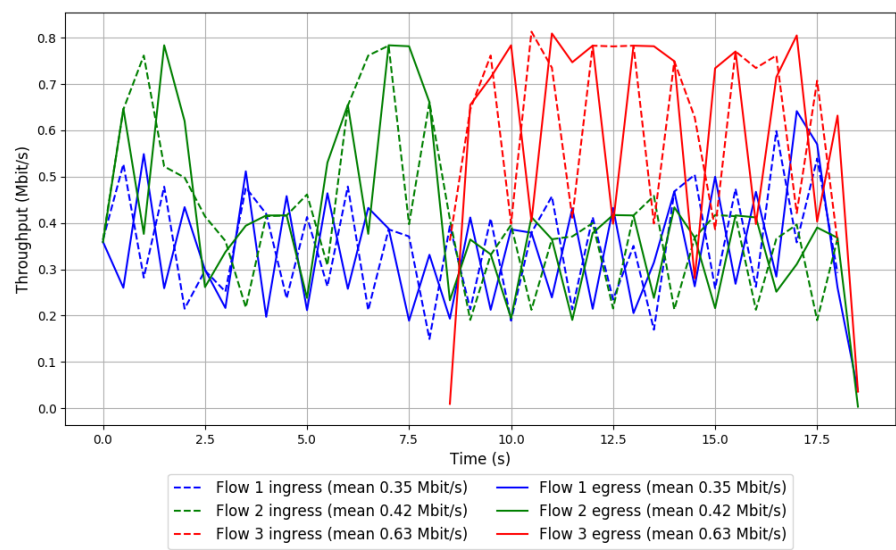
Run 9: Statistics of Sprout

Start at: 2017-09-08 15:08:01

End at: 2017-09-08 15:08:32



Run 9: Report of Sprout — Data Link

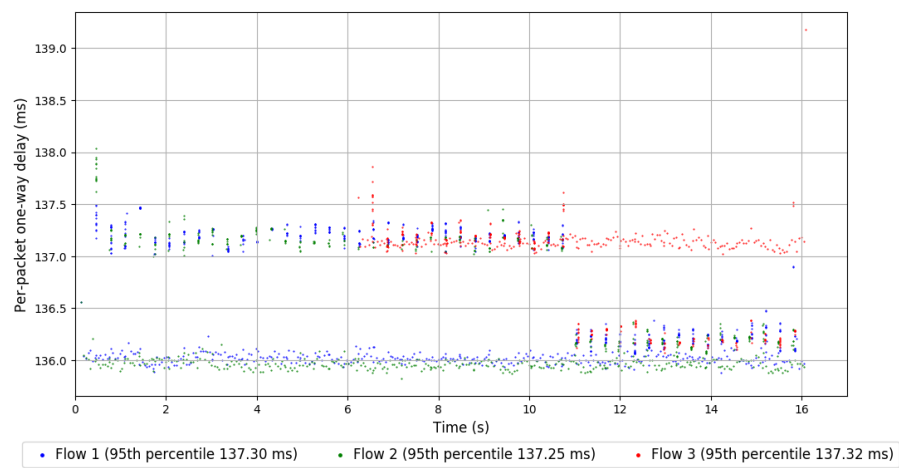
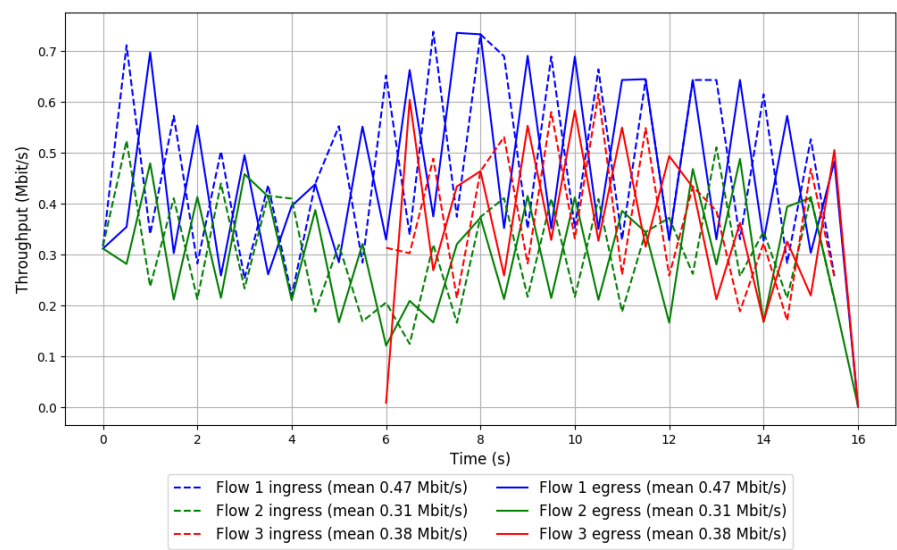


Run 10: Statistics of Sprout

Start at: 2017-09-08 15:21:59

End at: 2017-09-08 15:22:29

Run 10: Report of Sprout — Data Link

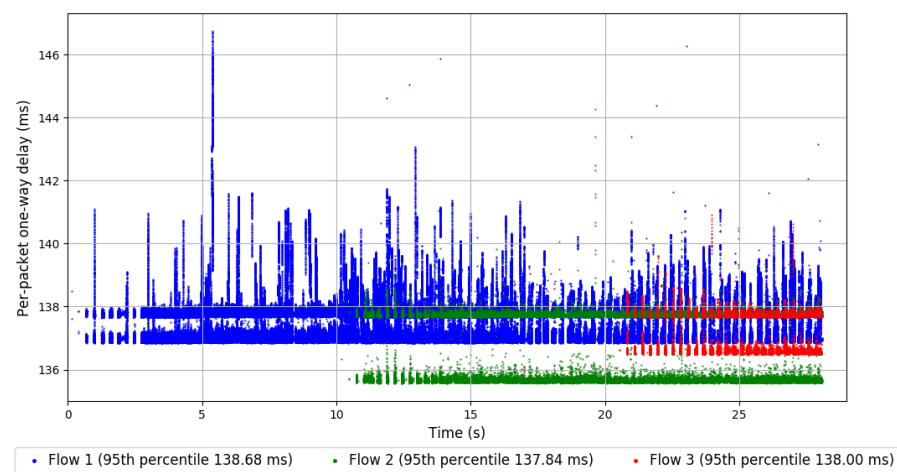
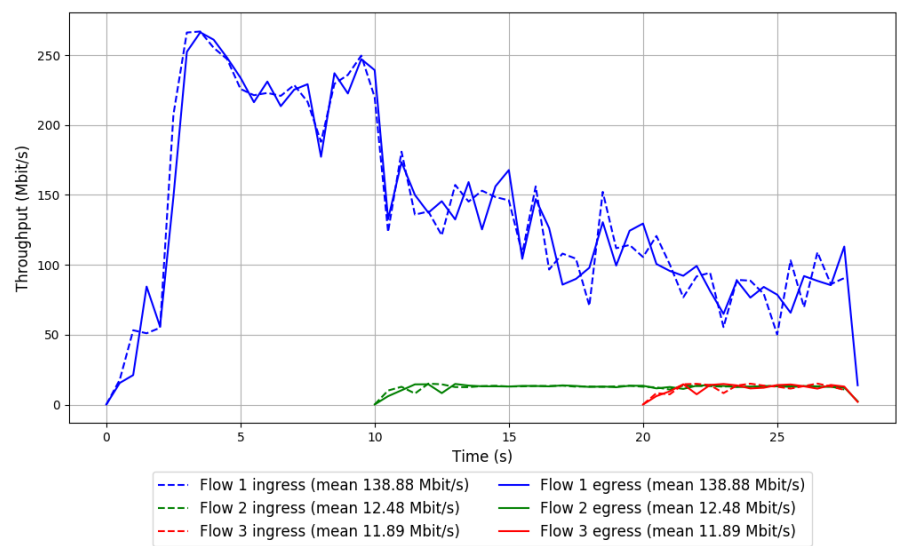


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 13:18:47
End at: 2017-09-08 13:19:17

# Below is generated by plot.py at 2017-09-08 16:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 150.18 Mbit/s
95th percentile per-packet one-way delay: 138.630 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 138.88 Mbit/s
95th percentile per-packet one-way delay: 138.678 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.48 Mbit/s
95th percentile per-packet one-way delay: 137.836 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.89 Mbit/s
95th percentile per-packet one-way delay: 138.004 ms
Loss rate: 0.00%
```

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

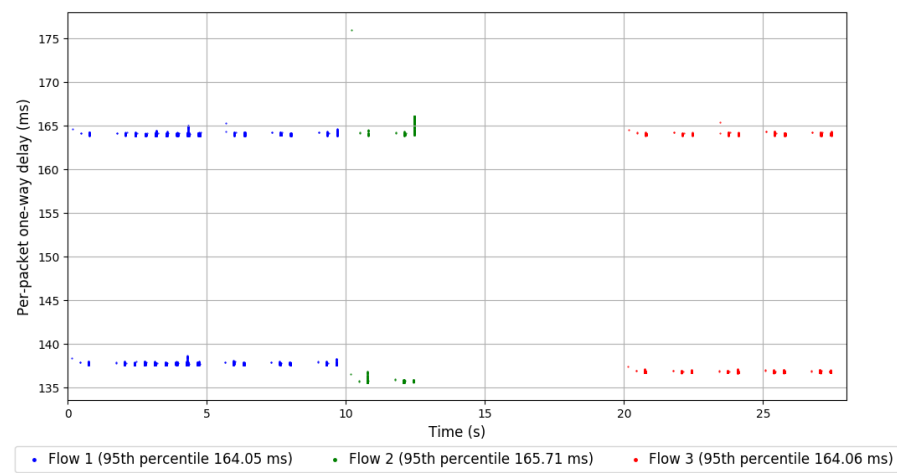
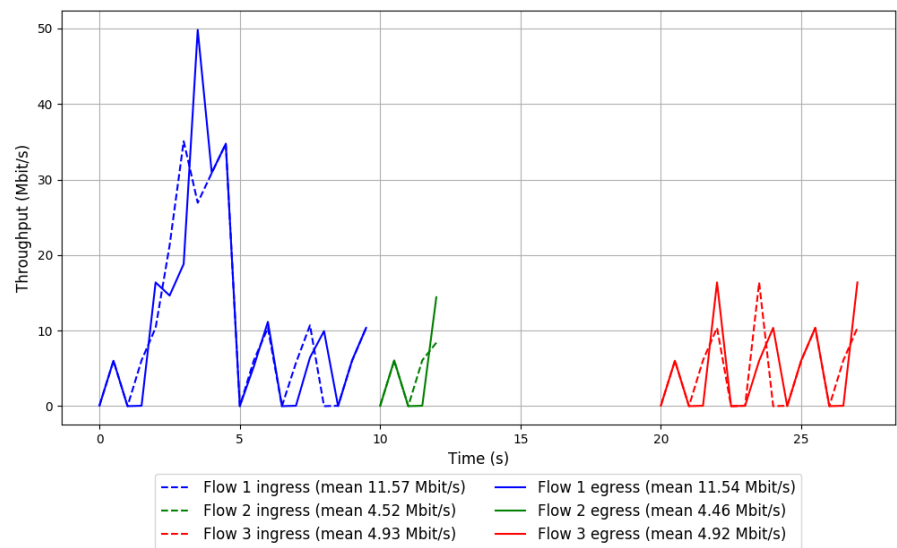


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 13:32:34
End at: 2017-09-08 13:33:04

# Below is generated by plot.py at 2017-09-08 16:37:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.73 Mbit/s
95th percentile per-packet one-way delay: 164.069 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.54 Mbit/s
95th percentile per-packet one-way delay: 164.054 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 165.710 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 164.059 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 13:45:56

End at: 2017-09-08 13:46:26

# Below is generated by plot.py at 2017-09-08 16:37:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 164.136 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 15.10 Mbit/s

95th percentile per-packet one-way delay: 164.084 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 5.34 Mbit/s

95th percentile per-packet one-way delay: 164.159 ms

Loss rate: 0.00%

-- Flow 3:

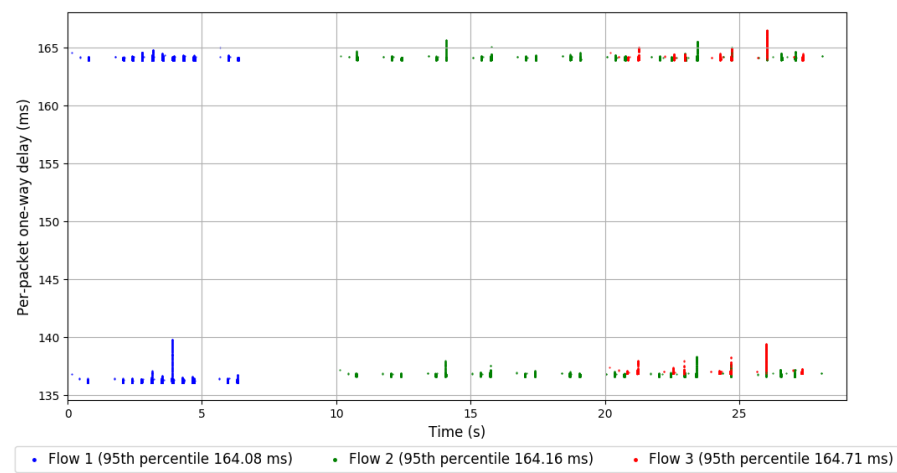
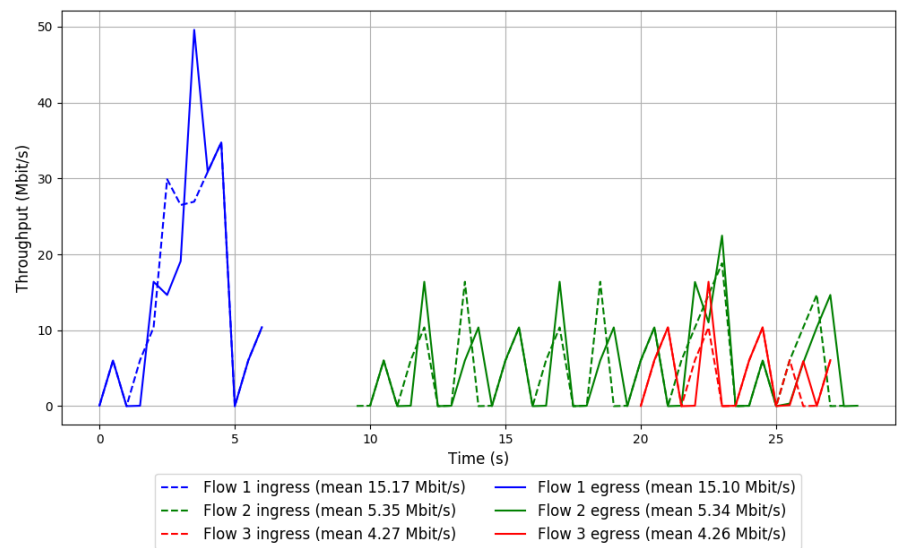
Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 164.705 ms

Loss rate: 0.00%



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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 13:59:51

End at: 2017-09-08 14:00:21

# Below is generated by plot.py at 2017-09-08 16:37:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.65 Mbit/s

95th percentile per-packet one-way delay: 139.051 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.81 Mbit/s

95th percentile per-packet one-way delay: 136.027 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 99.36 Mbit/s

95th percentile per-packet one-way delay: 139.487 ms

Loss rate: 0.00%

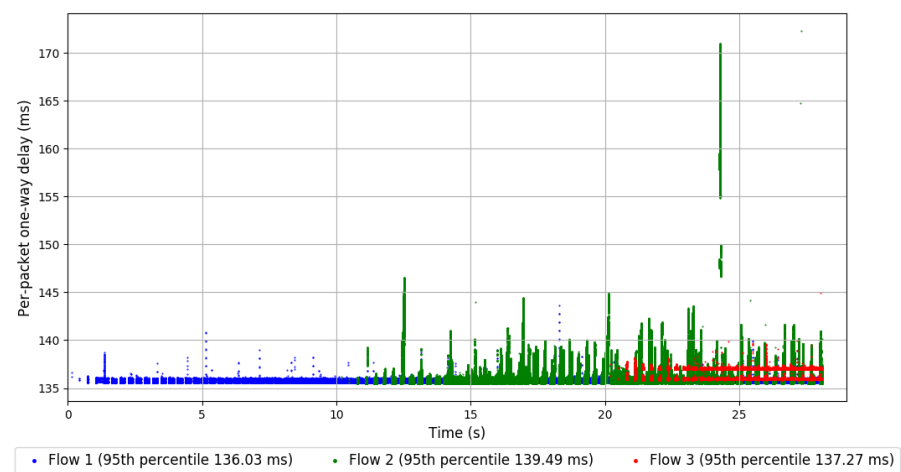
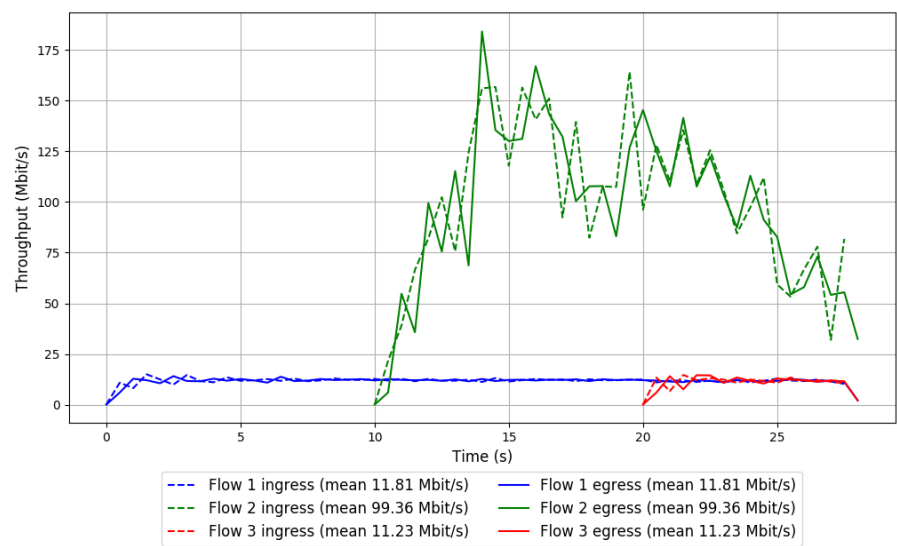
-- Flow 3:

Average throughput: 11.23 Mbit/s

95th percentile per-packet one-way delay: 137.266 ms

Loss rate: 0.00%

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

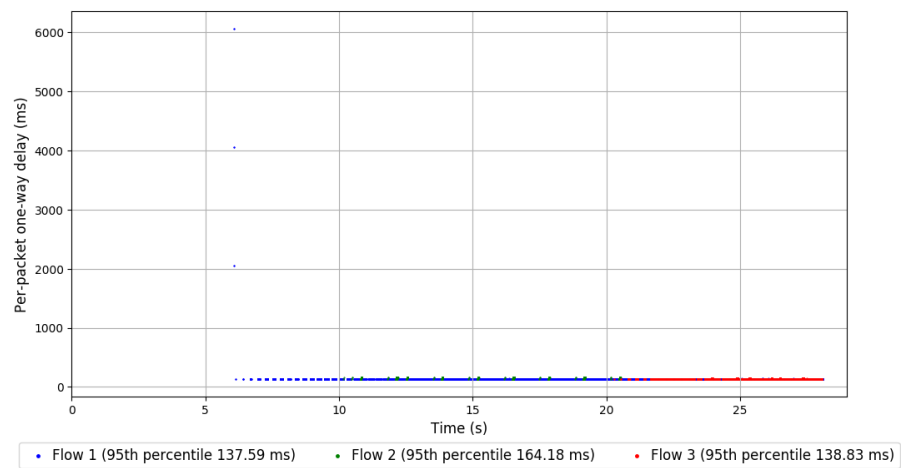
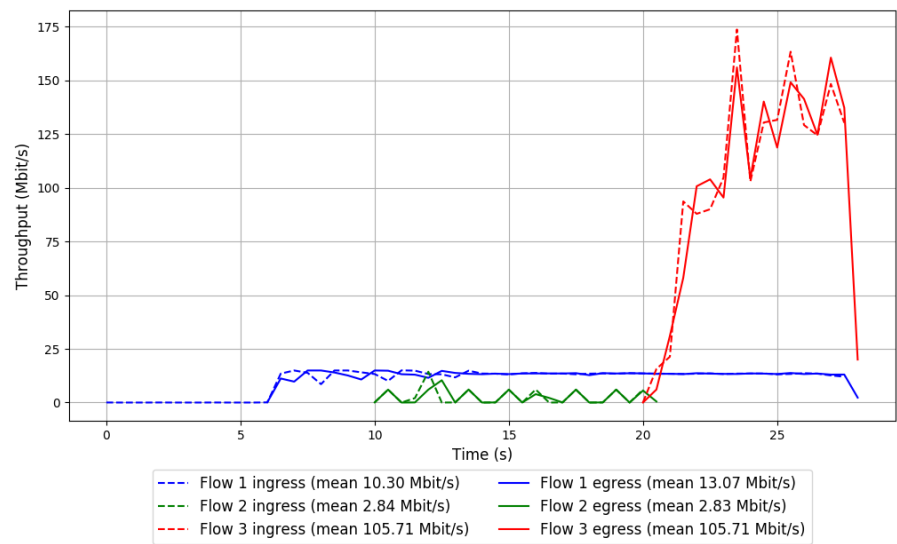


Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 14:14:15

End at: 2017-09-08 14:14:45

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-08 14:28:19

End at: 2017-09-08 14:28:49

# Below is generated by plot.py at 2017-09-08 16:37:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.12 Mbit/s

95th percentile per-packet one-way delay: 163.568 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 163.557 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 163.789 ms

Loss rate: 0.00%

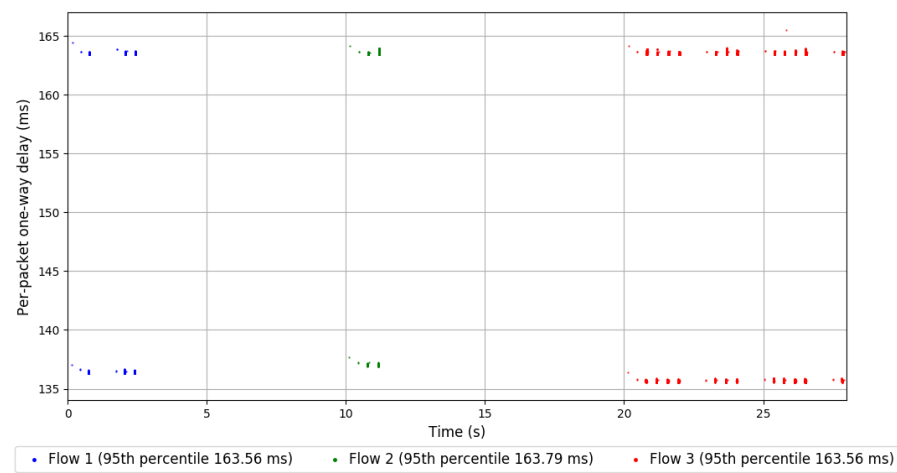
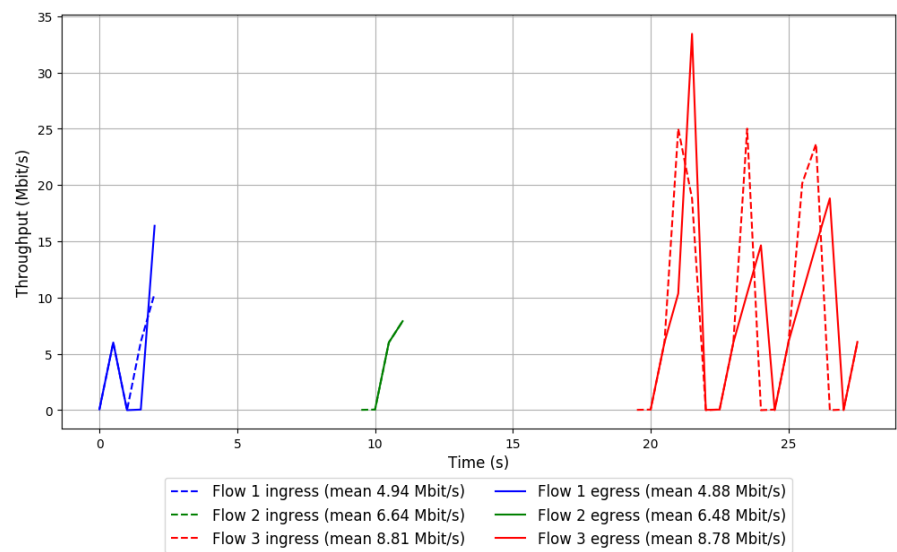
-- Flow 3:

Average throughput: 8.78 Mbit/s

95th percentile per-packet one-way delay: 163.563 ms

Loss rate: 0.00%

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



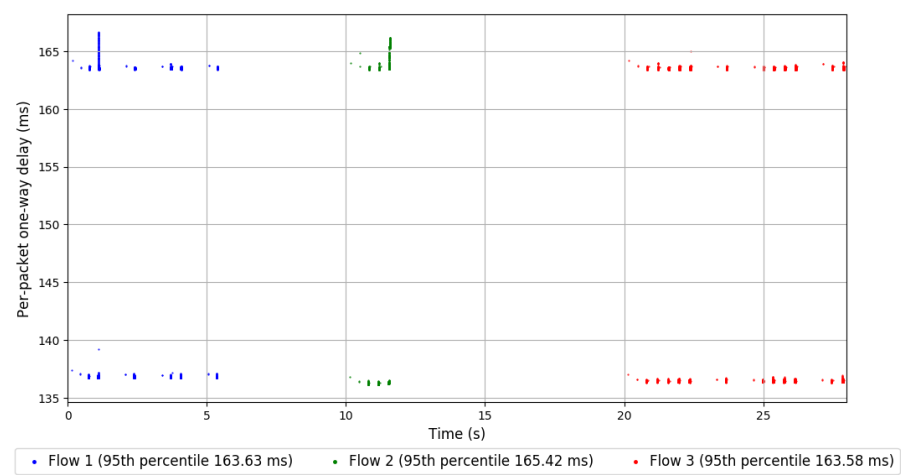
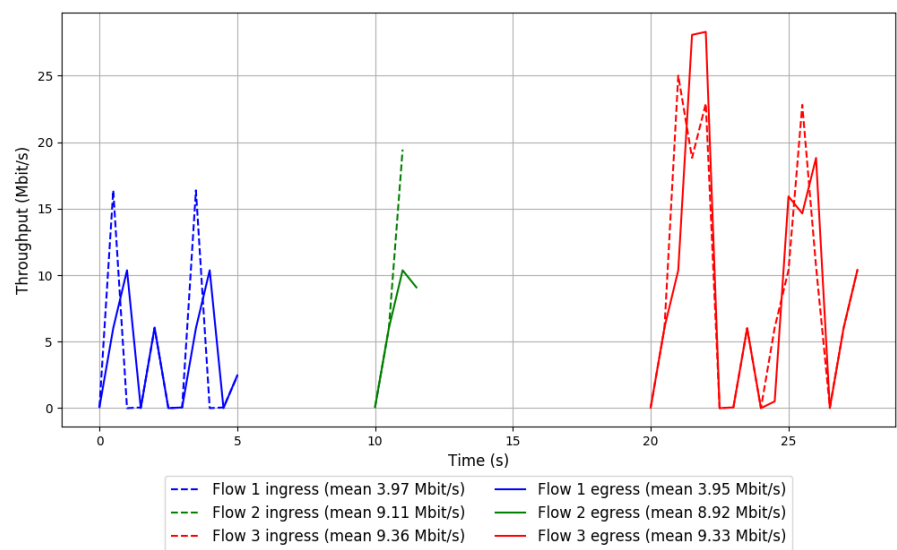
```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 14:41:33
End at: 2017-09-08 14:42:03

# Below is generated by plot.py at 2017-09-08 16:37:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.82 Mbit/s
95th percentile per-packet one-way delay: 163.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 163.628 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.92 Mbit/s
95th percentile per-packet one-way delay: 165.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 9.33 Mbit/s
95th percentile per-packet one-way delay: 163.579 ms
Loss rate: 0.00%
```



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



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 14:54:49

End at: 2017-09-08 14:55:19

# Below is generated by plot.py at 2017-09-08 16:37:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 75.98 Mbit/s

95th percentile per-packet one-way delay: 140.335 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 11.88 Mbit/s

95th percentile per-packet one-way delay: 137.113 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 95.05 Mbit/s

95th percentile per-packet one-way delay: 140.820 ms

Loss rate: 0.00%

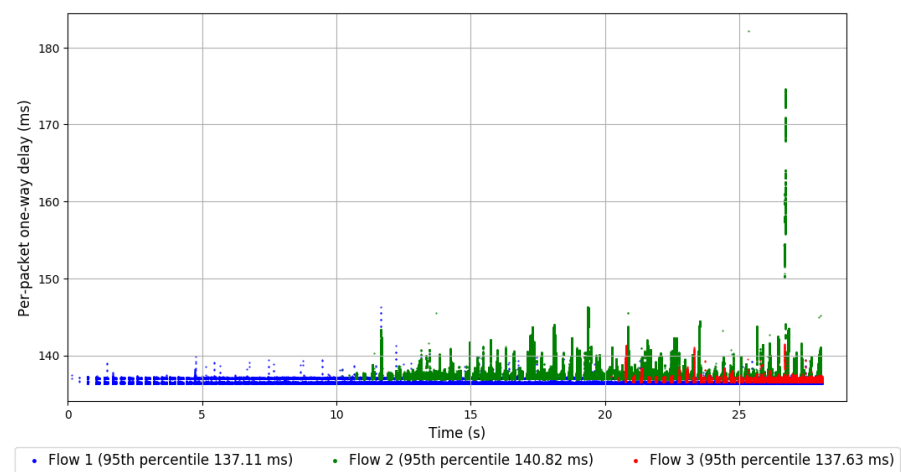
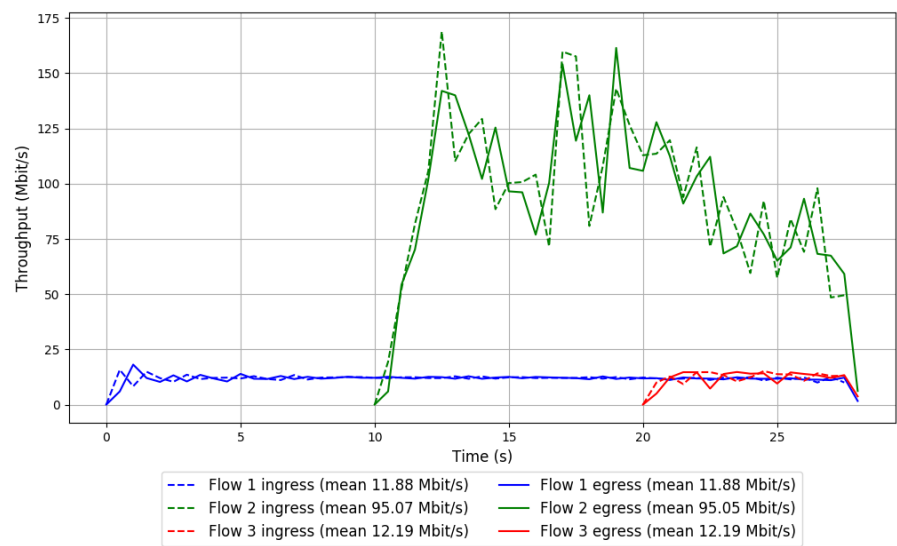
-- Flow 3:

Average throughput: 12.19 Mbit/s

95th percentile per-packet one-way delay: 137.627 ms

Loss rate: 0.00%

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

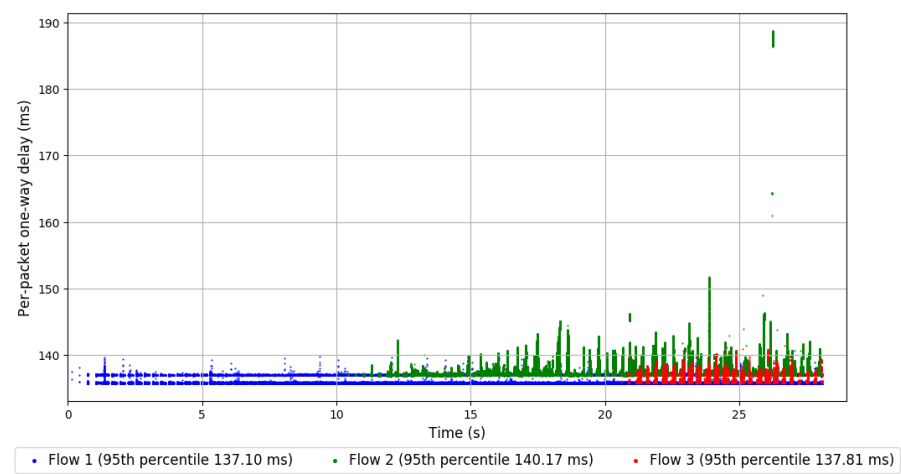
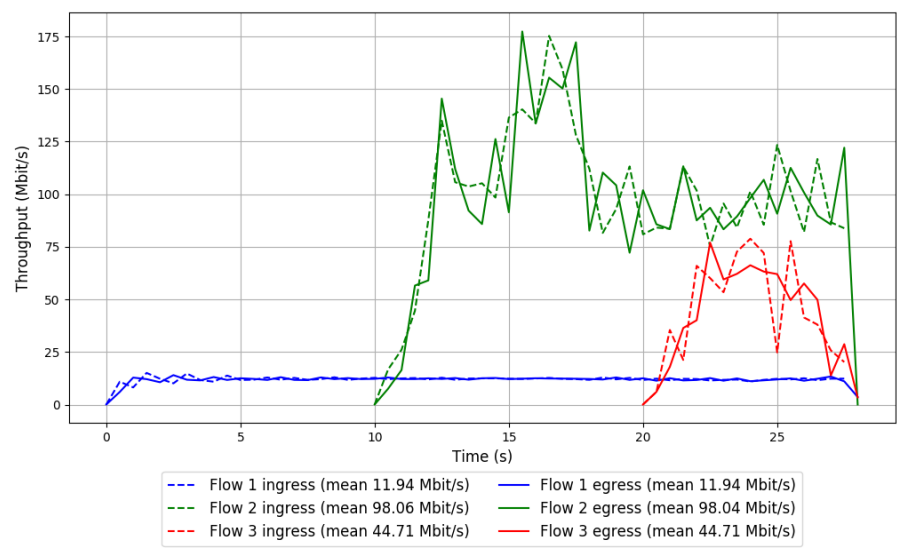


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 15:08:50
End at: 2017-09-08 15:09:20

# Below is generated by plot.py at 2017-09-08 16:37:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 139.633 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 137.104 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.04 Mbit/s
95th percentile per-packet one-way delay: 140.174 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 44.71 Mbit/s
95th percentile per-packet one-way delay: 137.807 ms
Loss rate: 0.00%
```

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

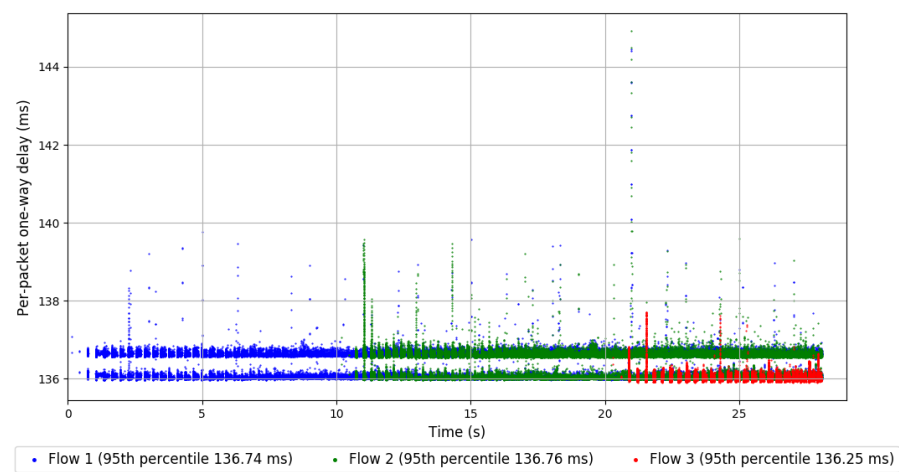
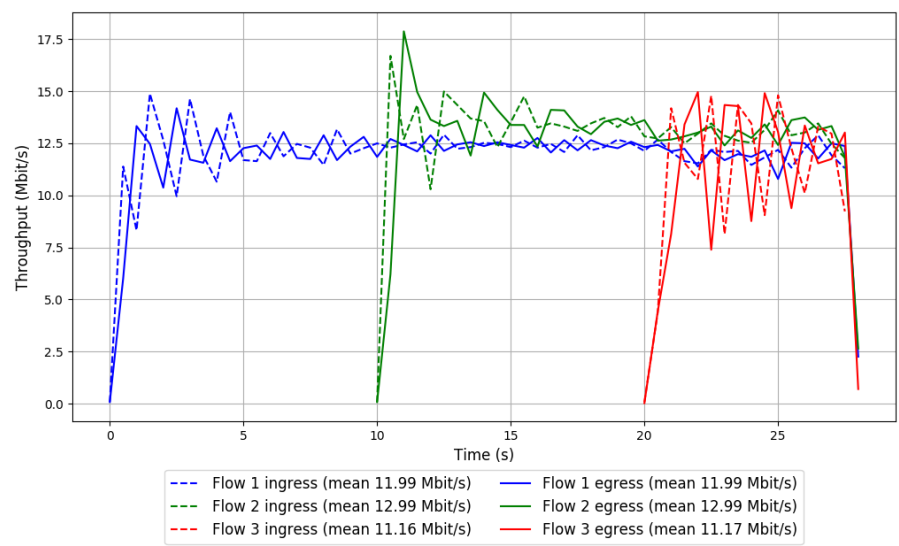


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 15:22:47
End at: 2017-09-08 15:23:17

# Below is generated by plot.py at 2017-09-08 16:37:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.42 Mbit/s
95th percentile per-packet one-way delay: 136.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 136.742 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 12.99 Mbit/s
95th percentile per-packet one-way delay: 136.765 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.17 Mbit/s
95th percentile per-packet one-way delay: 136.251 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-08 13:12:32

End at: 2017-09-08 13:13:02

# Below is generated by plot.py at 2017-09-08 16:38:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 63.32 Mbit/s

95th percentile per-packet one-way delay: 140.179 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.29 Mbit/s

95th percentile per-packet one-way delay: 139.728 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 139.693 ms

Loss rate: 0.00%

-- Flow 3:

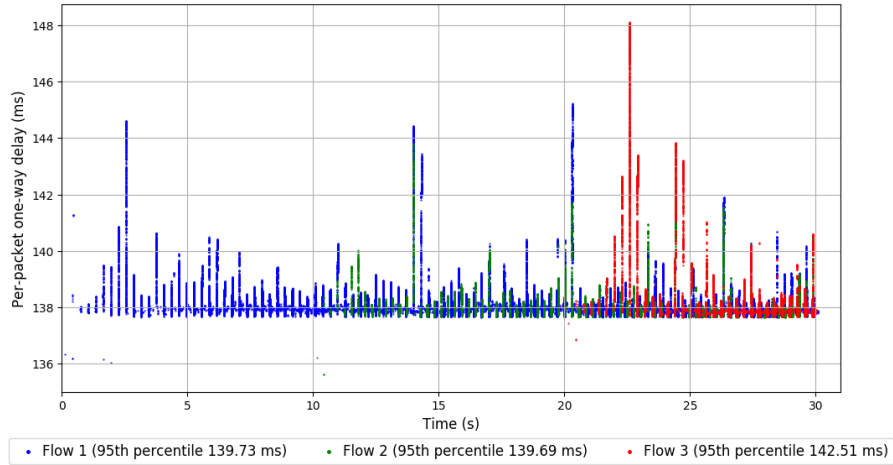
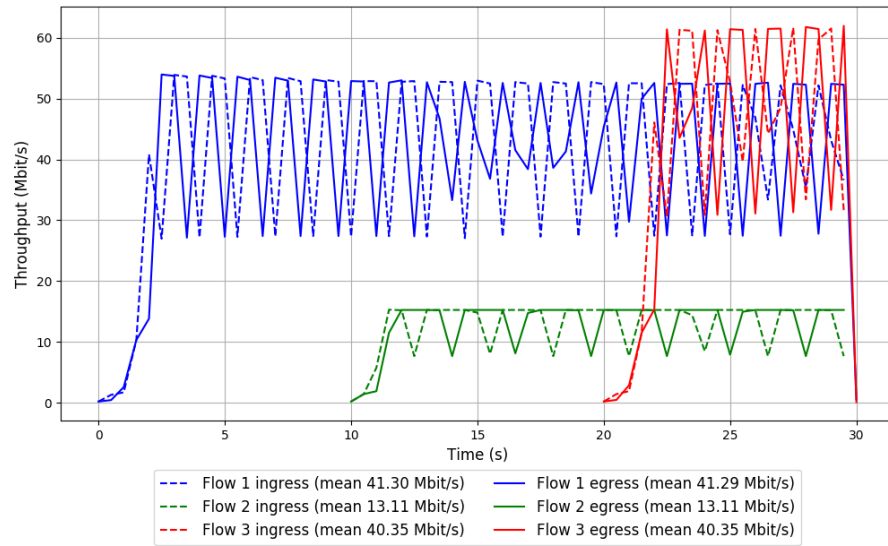
Average throughput: 40.35 Mbit/s

95th percentile per-packet one-way delay: 142.510 ms

Loss rate: 0.00%



# Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 13:26:28

End at: 2017-09-08 13:26:58

# Below is generated by plot.py at 2017-09-08 16:38:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 8.71 Mbit/s

95th percentile per-packet one-way delay: 166.800 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 164.398 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 164.317 ms

Loss rate: 0.15%

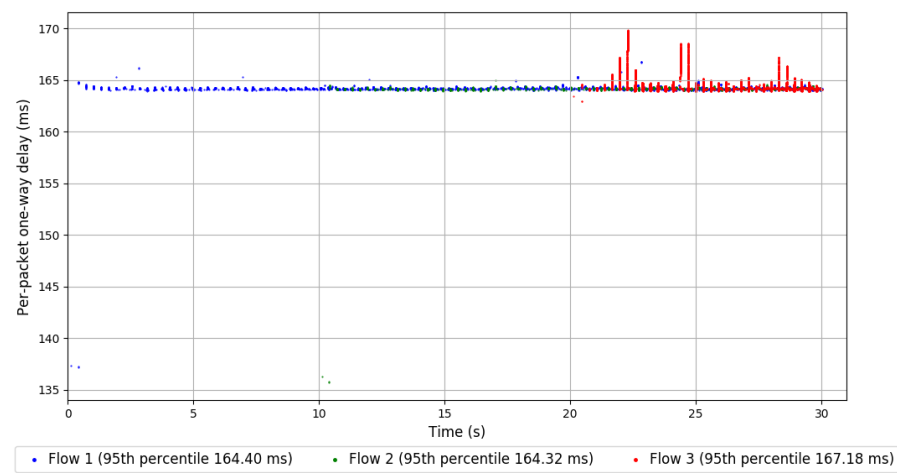
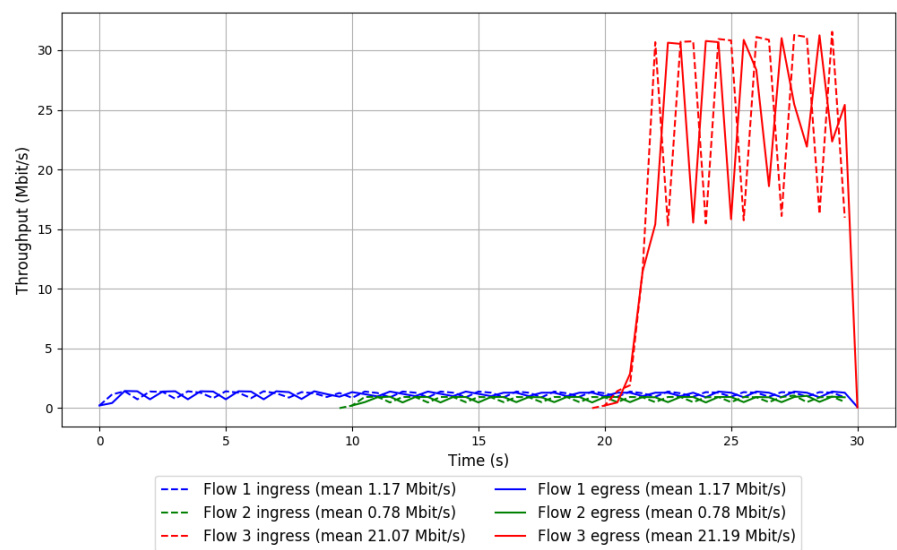
-- Flow 3:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 167.184 ms

Loss rate: 0.01%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 13:39:41

End at: 2017-09-08 13:40:11

# Below is generated by plot.py at 2017-09-08 16:38:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 76.35 Mbit/s

95th percentile per-packet one-way delay: 175.166 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.08 Mbit/s

95th percentile per-packet one-way delay: 175.392 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.40 Mbit/s

95th percentile per-packet one-way delay: 169.730 ms

Loss rate: 0.04%

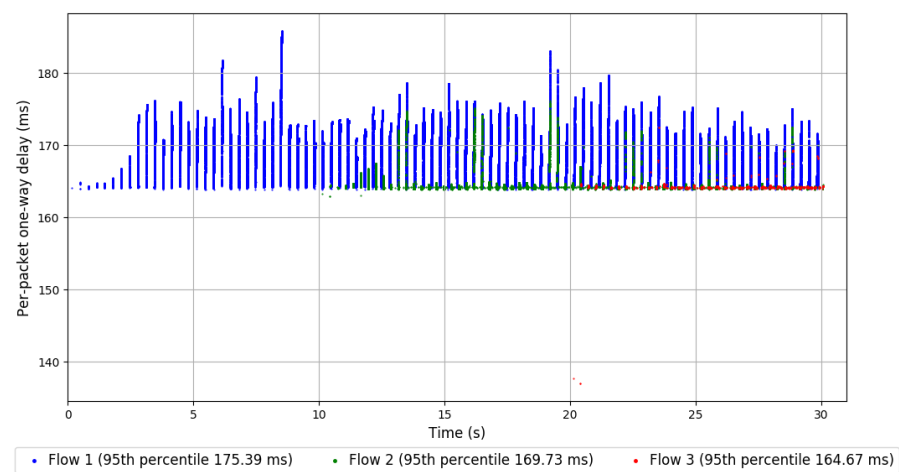
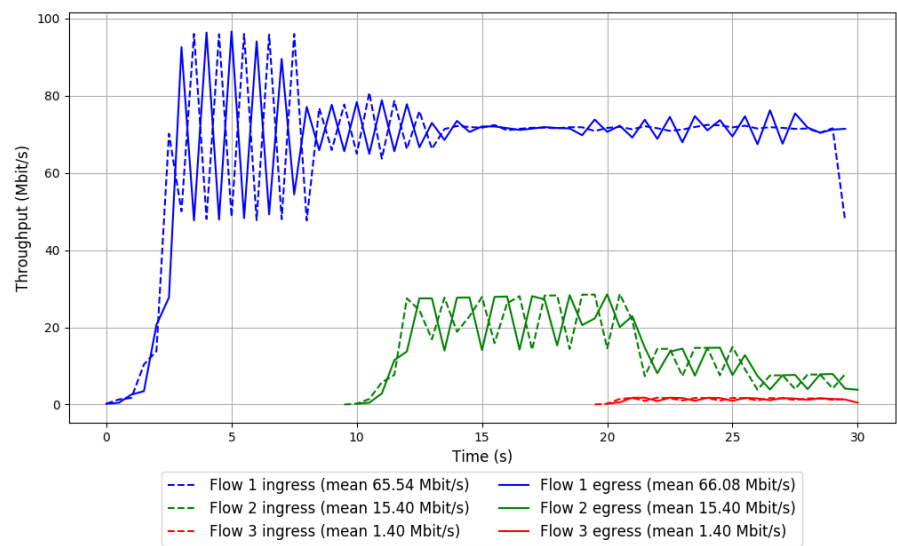
-- Flow 3:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 164.672 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 13:53:10

End at: 2017-09-08 13:53:40

# Below is generated by plot.py at 2017-09-08 16:38:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 144.789 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 42.82 Mbit/s

95th percentile per-packet one-way delay: 143.706 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.20 Mbit/s

95th percentile per-packet one-way delay: 143.158 ms

Loss rate: 0.00%

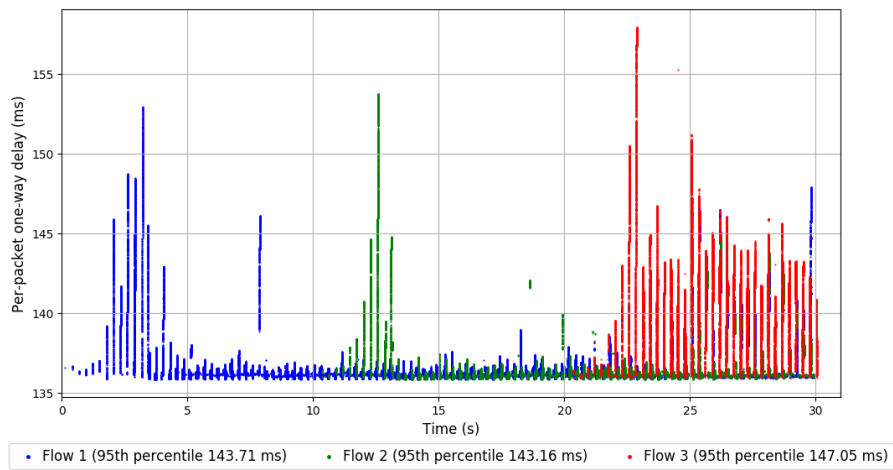
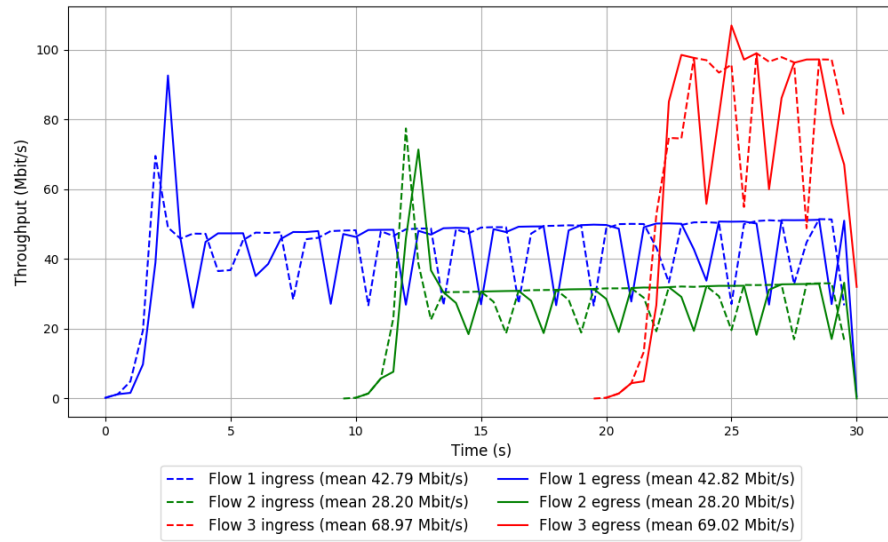
-- Flow 3:

Average throughput: 69.02 Mbit/s

95th percentile per-packet one-way delay: 147.052 ms

Loss rate: 0.00%

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



Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 14:07:44

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

# Below is generated by plot.py at 2017-09-08 16:38:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 42.97 Mbit/s

95th percentile per-packet one-way delay: 145.823 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 18.72 Mbit/s

95th percentile per-packet one-way delay: 137.523 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.47 Mbit/s

95th percentile per-packet one-way delay: 151.672 ms

Loss rate: 0.01%

-- Flow 3:

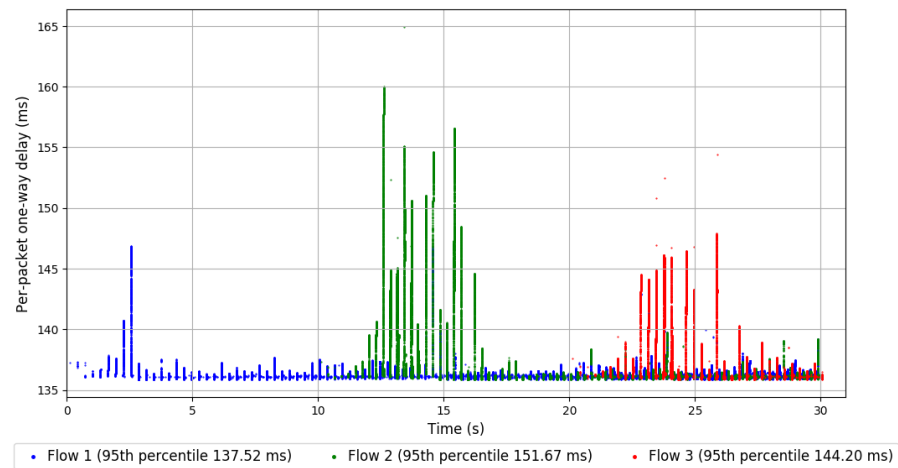
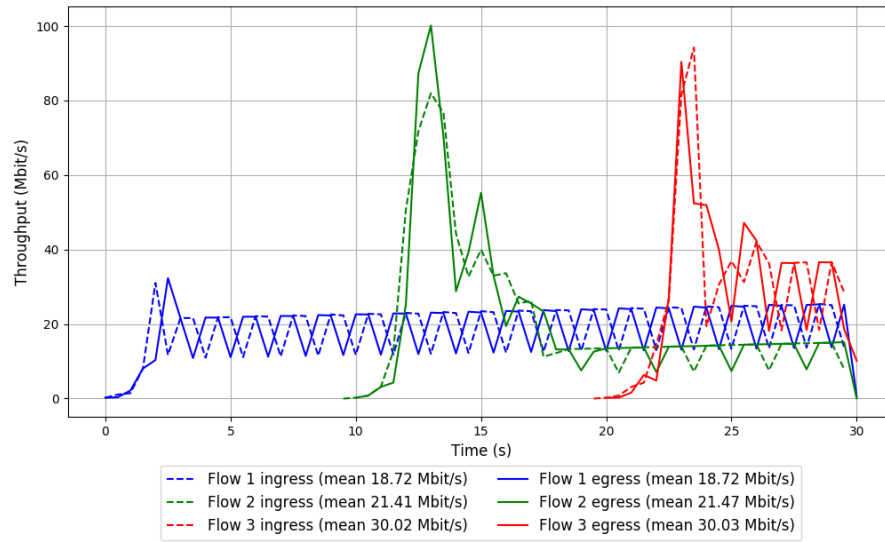
Average throughput: 30.03 Mbit/s

95th percentile per-packet one-way delay: 144.204 ms

Loss rate: 0.00%



# Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 14:22:04

End at: 2017-09-08 14:22:34

# Below is generated by plot.py at 2017-09-08 16:38:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 59.74 Mbit/s

95th percentile per-packet one-way delay: 163.828 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 42.77 Mbit/s

95th percentile per-packet one-way delay: 163.703 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.08 Mbit/s

95th percentile per-packet one-way delay: 164.084 ms

Loss rate: 0.00%

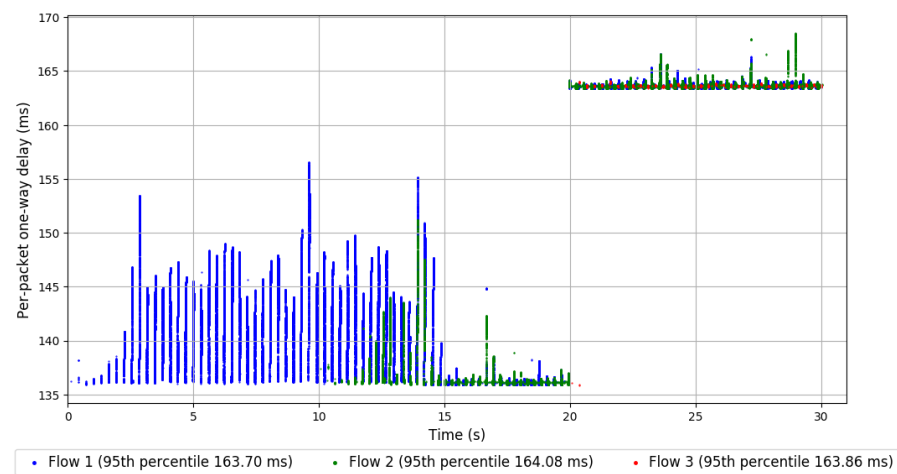
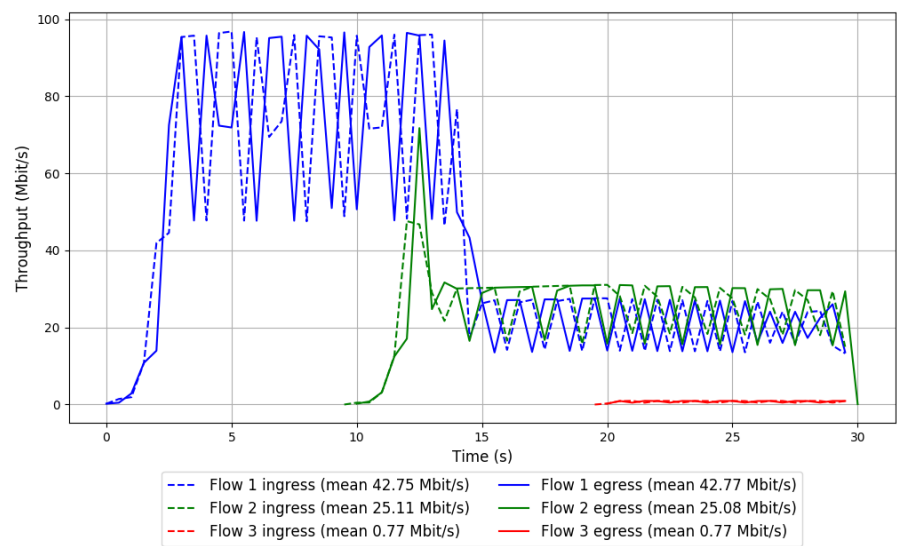
-- Flow 3:

Average throughput: 0.77 Mbit/s

95th percentile per-packet one-way delay: 163.862 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 14:35:25

End at: 2017-09-08 14:35:55

# Below is generated by plot.py at 2017-09-08 16:38:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 163.853 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 163.864 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 163.814 ms

Loss rate: 0.18%

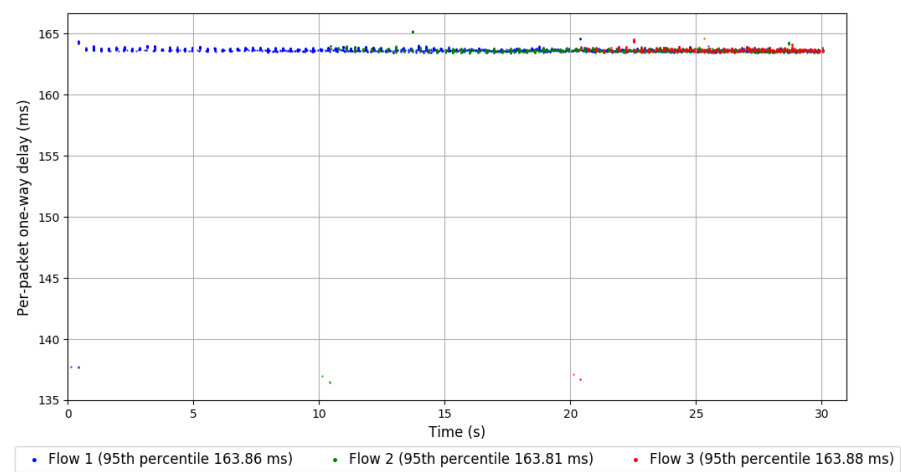
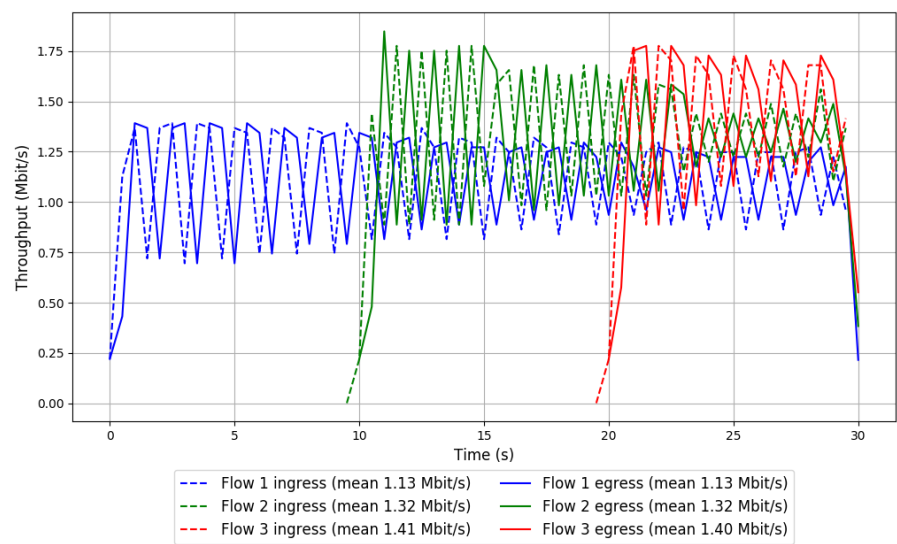
-- Flow 3:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 163.878 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 14:48:36

End at: 2017-09-08 14:49:06

# Below is generated by plot.py at 2017-09-08 16:38:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 163.946 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.95 Mbit/s

95th percentile per-packet one-way delay: 163.933 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 163.954 ms

Loss rate: 0.00%

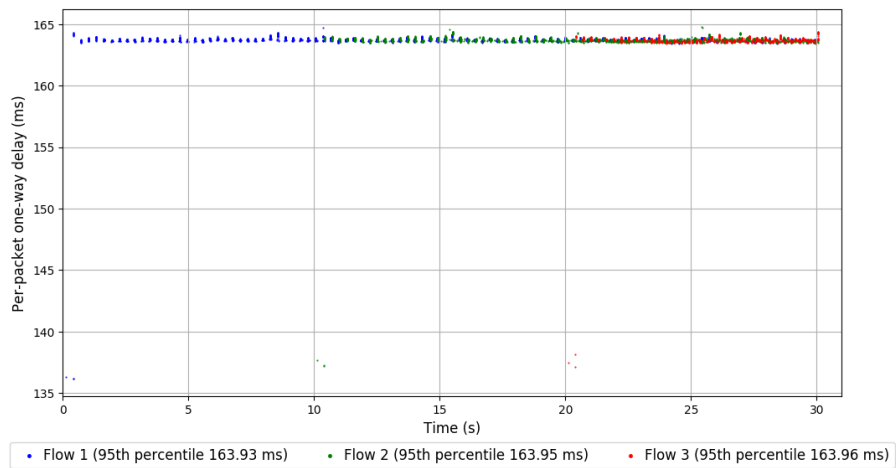
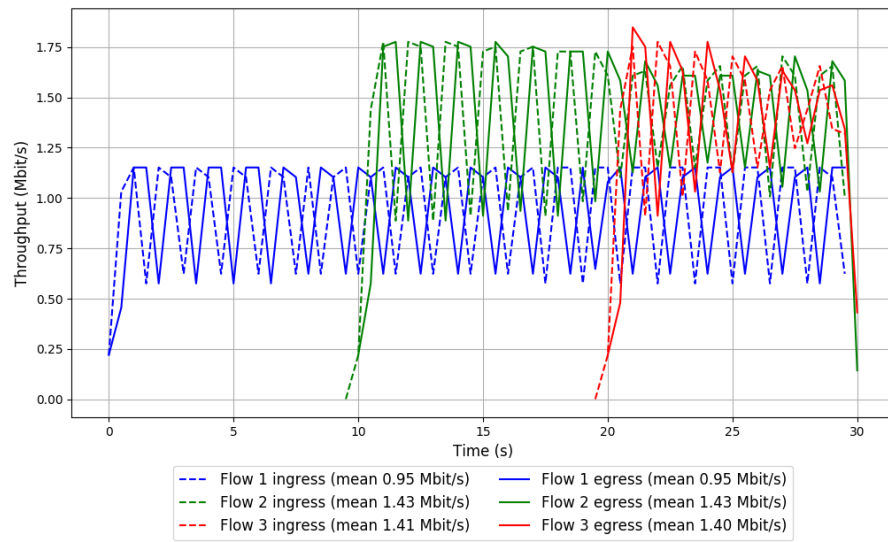
-- Flow 3:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 163.961 ms

Loss rate: 0.00%

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



Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 15:02:28

End at: 2017-09-08 15:02:58

# Below is generated by plot.py at 2017-09-08 16:38:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.12 Mbit/s

95th percentile per-packet one-way delay: 146.121 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.32 Mbit/s

95th percentile per-packet one-way delay: 145.470 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 78.95 Mbit/s

95th percentile per-packet one-way delay: 145.645 ms

Loss rate: 0.00%

-- Flow 3:

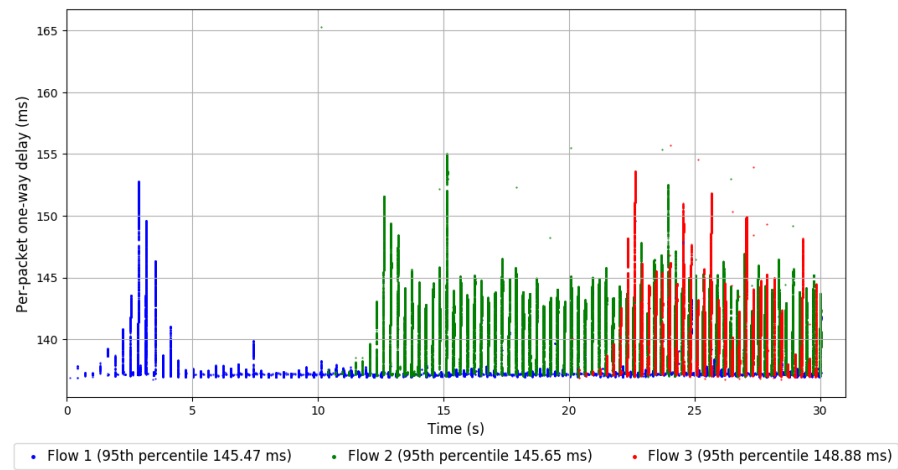
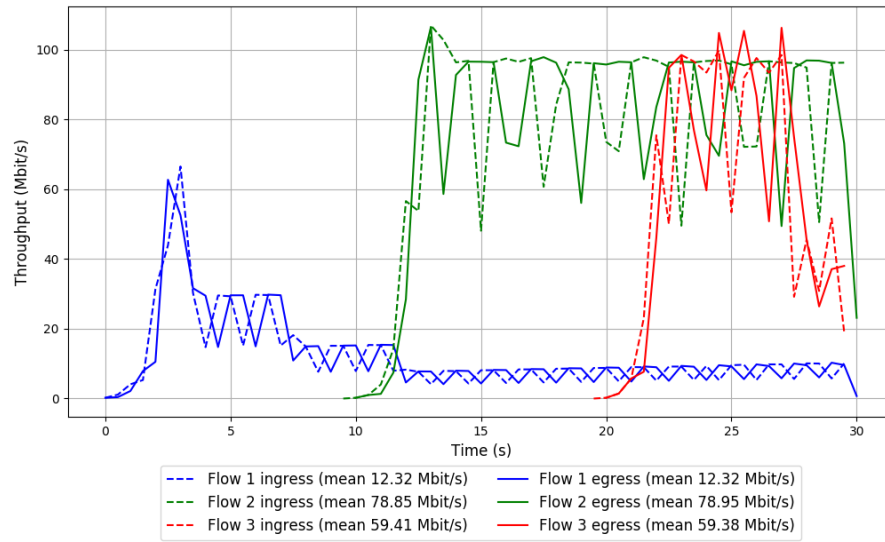
Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 148.876 ms

Loss rate: 0.00%



# Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 15:16:30

End at: 2017-09-08 15:17:00

# Below is generated by plot.py at 2017-09-08 16:38:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 69.40 Mbit/s

95th percentile per-packet one-way delay: 140.443 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 140.058 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.23 Mbit/s

95th percentile per-packet one-way delay: 141.064 ms

Loss rate: 0.00%

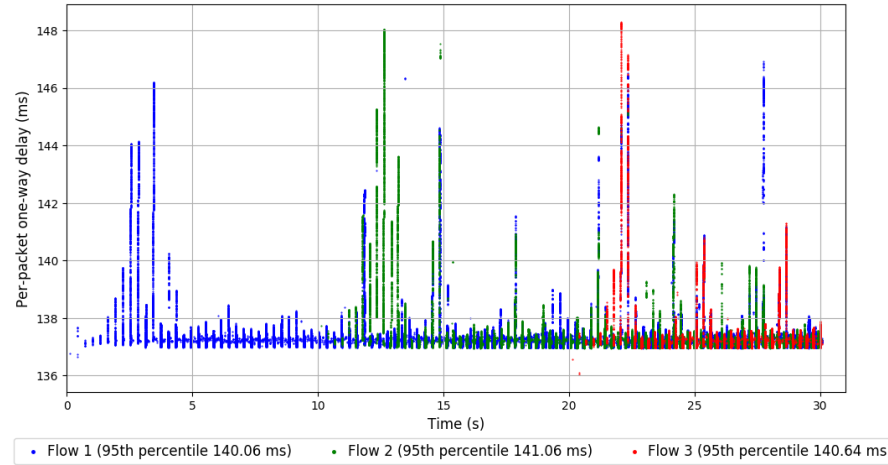
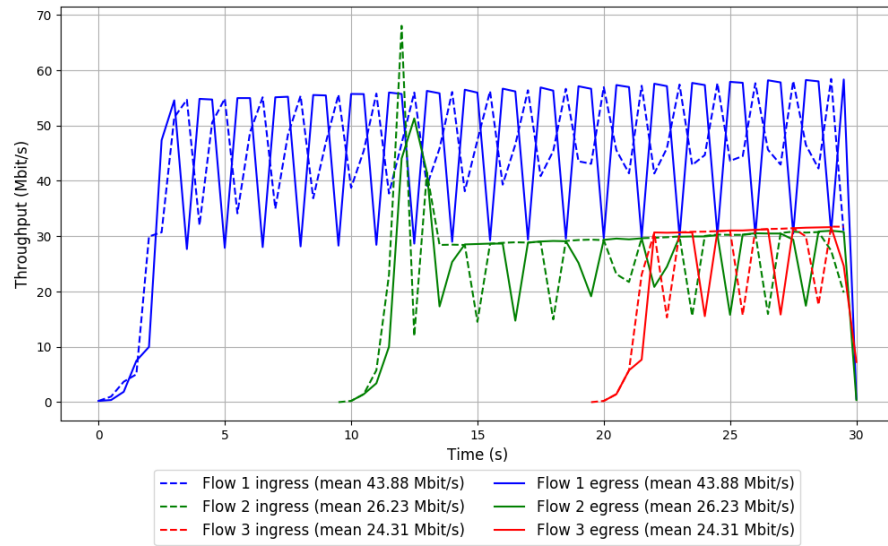
-- Flow 3:

Average throughput: 24.31 Mbit/s

95th percentile per-packet one-way delay: 140.644 ms

Loss rate: 0.00%

# Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-09-08 13:17:00

End at: 2017-09-08 13:17:30

# Below is generated by plot.py at 2017-09-08 16:39:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.15 Mbit/s

95th percentile per-packet one-way delay: 202.230 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 59.24 Mbit/s

95th percentile per-packet one-way delay: 169.285 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.78 Mbit/s

95th percentile per-packet one-way delay: 308.304 ms

Loss rate: 1.34%

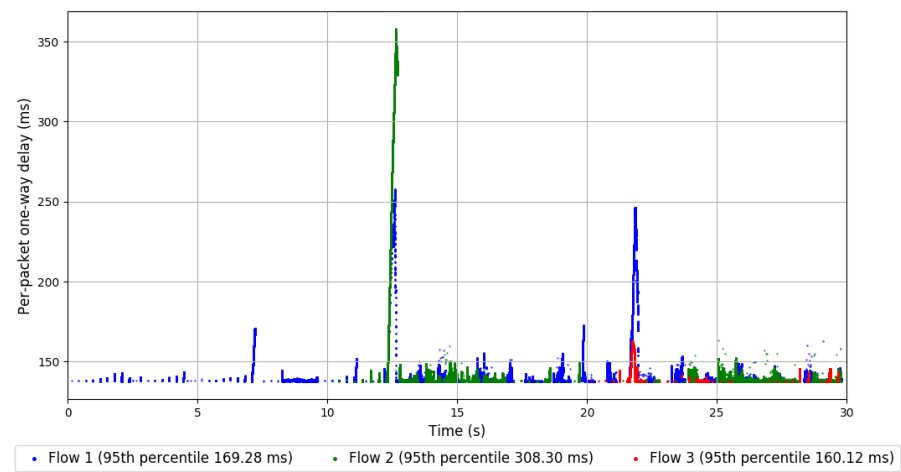
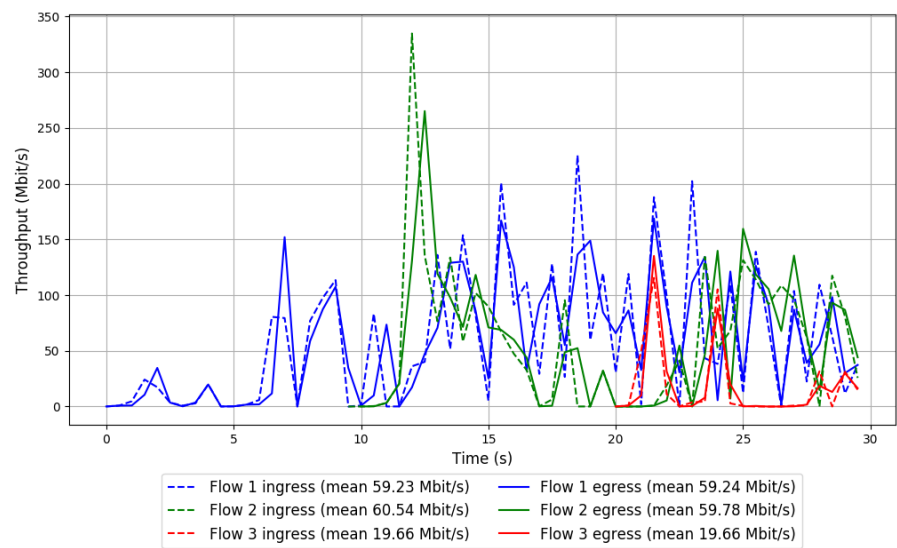
-- Flow 3:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 160.124 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-08 13:30:47

End at: 2017-09-08 13:31:17

# Below is generated by plot.py at 2017-09-08 16:39:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.35 Mbit/s

95th percentile per-packet one-way delay: 214.243 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 36.75 Mbit/s

95th percentile per-packet one-way delay: 195.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 83.11 Mbit/s

95th percentile per-packet one-way delay: 230.297 ms

Loss rate: 0.47%

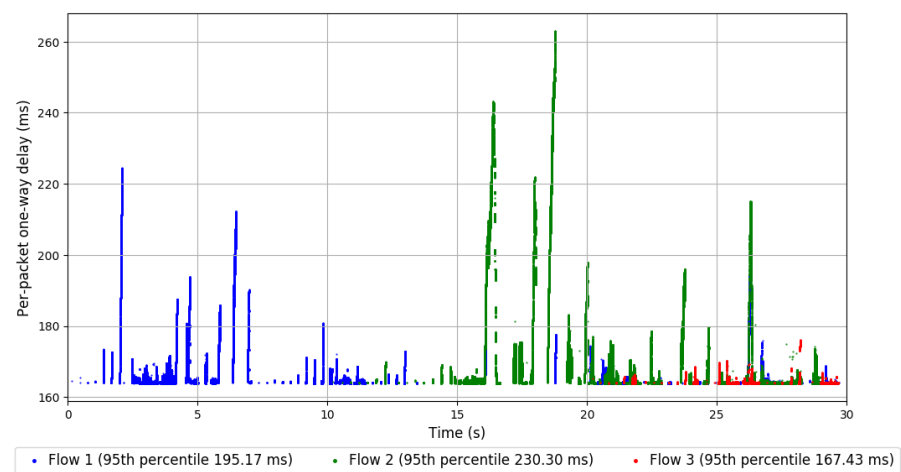
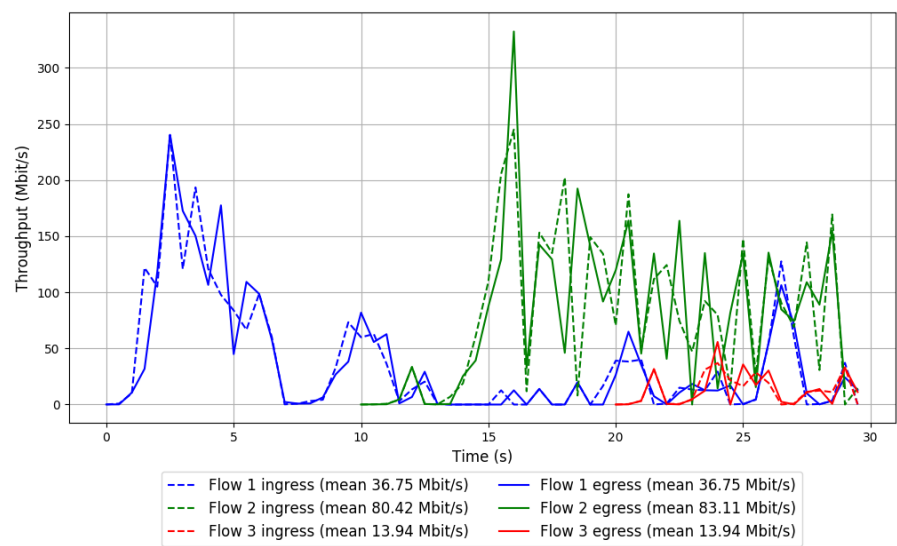
-- Flow 3:

Average throughput: 13.94 Mbit/s

95th percentile per-packet one-way delay: 167.434 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-08 13:44:09

End at: 2017-09-08 13:44:39

# Below is generated by plot.py at 2017-09-08 16:39:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.67 Mbit/s

95th percentile per-packet one-way delay: 180.415 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 64.53 Mbit/s

95th percentile per-packet one-way delay: 175.033 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 21.87 Mbit/s

95th percentile per-packet one-way delay: 183.886 ms

Loss rate: 0.00%

-- Flow 3:

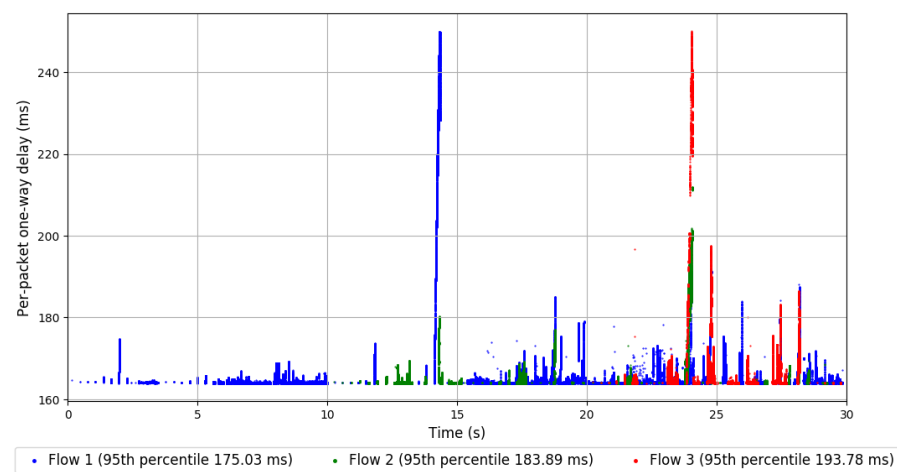
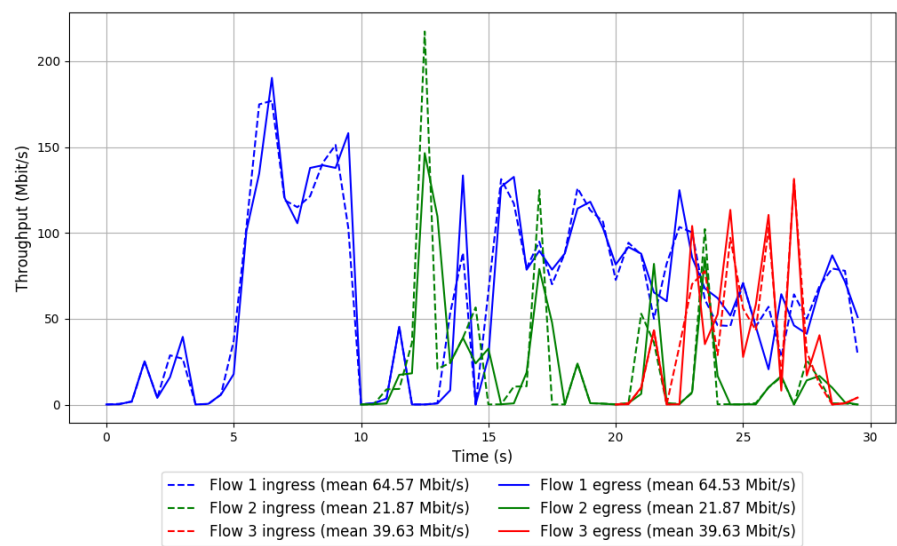
Average throughput: 39.63 Mbit/s

95th percentile per-packet one-way delay: 193.785 ms

Loss rate: 0.00%



Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-08 13:58:00

End at: 2017-09-08 13:58:30

# Below is generated by plot.py at 2017-09-08 16:39:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.88 Mbit/s

95th percentile per-packet one-way delay: 183.311 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.36 Mbit/s

95th percentile per-packet one-way delay: 182.277 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.17 Mbit/s

95th percentile per-packet one-way delay: 268.721 ms

Loss rate: 0.00%

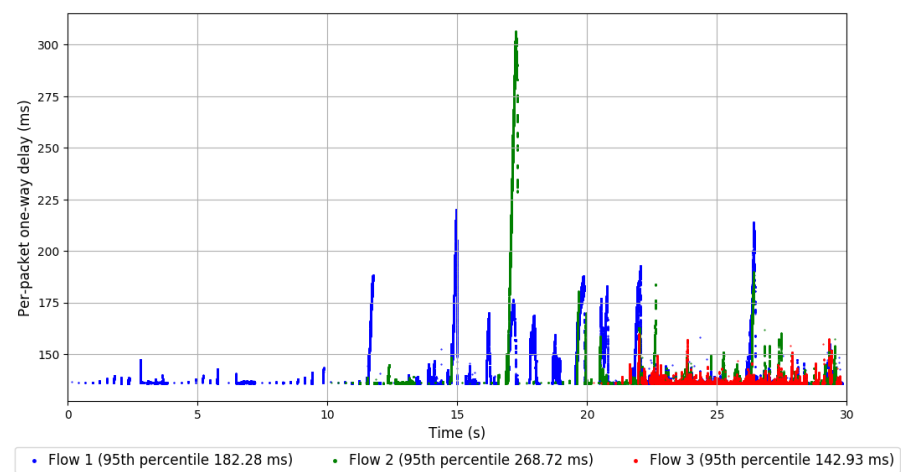
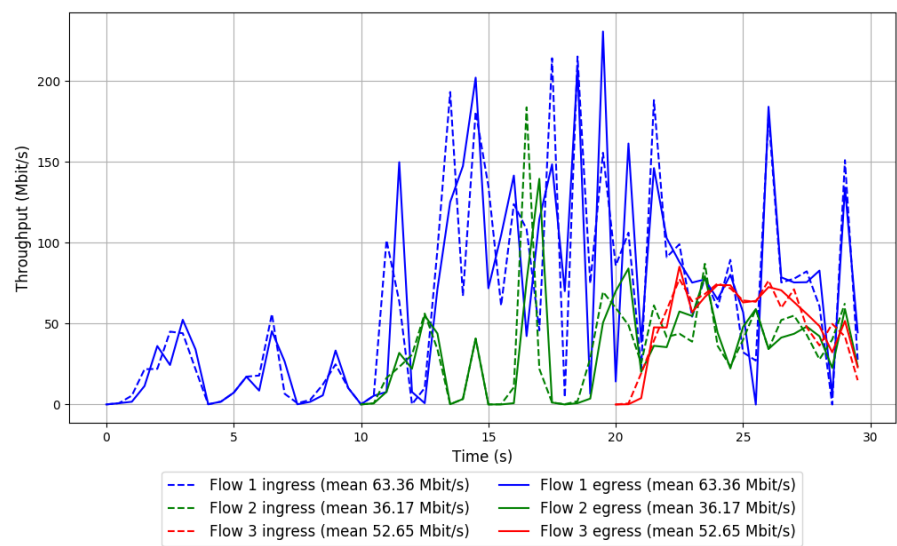
-- Flow 3:

Average throughput: 52.65 Mbit/s

95th percentile per-packet one-way delay: 142.925 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-08 14:12:25

End at: 2017-09-08 14:12:55

# Below is generated by plot.py at 2017-09-08 16:39:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 101.98 Mbit/s

95th percentile per-packet one-way delay: 173.422 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 66.34 Mbit/s

95th percentile per-packet one-way delay: 144.397 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.20 Mbit/s

95th percentile per-packet one-way delay: 271.969 ms

Loss rate: 0.87%

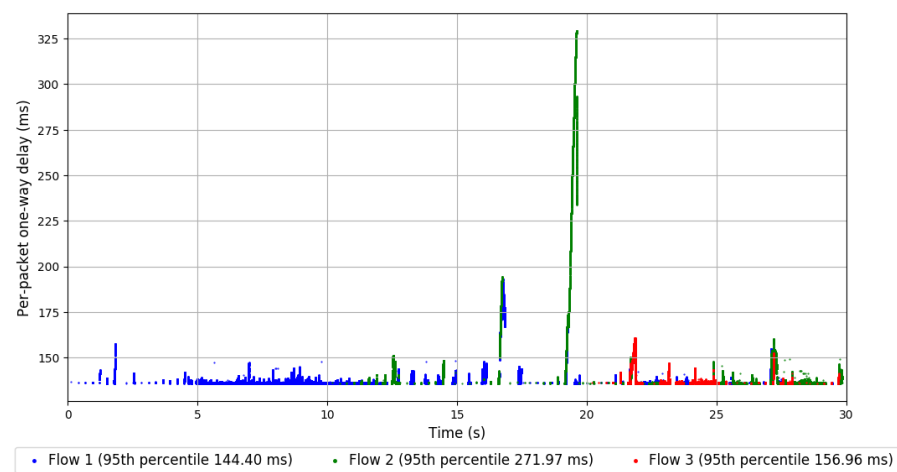
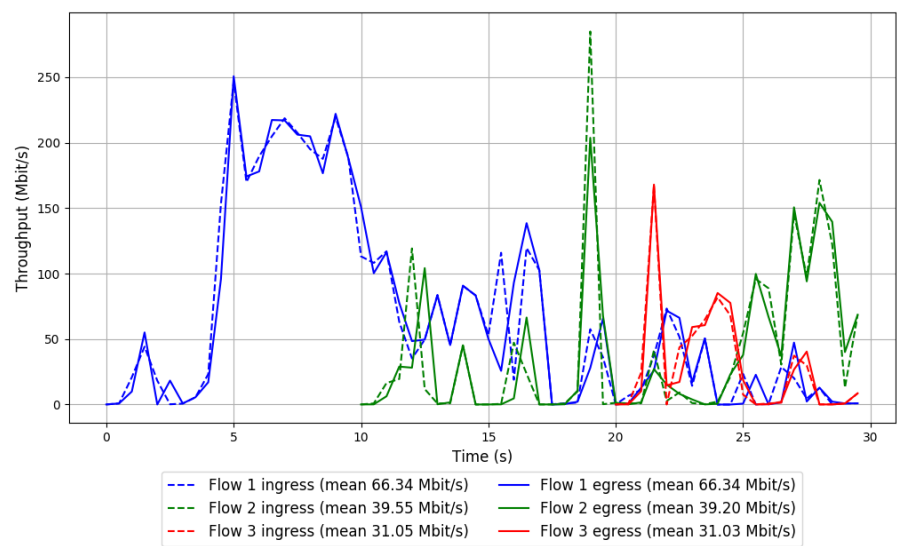
-- Flow 3:

Average throughput: 31.03 Mbit/s

95th percentile per-packet one-way delay: 156.960 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-08 14:26:31

End at: 2017-09-08 14:27:01

# Below is generated by plot.py at 2017-09-08 16:40:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 100.62 Mbit/s

95th percentile per-packet one-way delay: 211.597 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 68.05 Mbit/s

95th percentile per-packet one-way delay: 226.399 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 29.12 Mbit/s

95th percentile per-packet one-way delay: 182.796 ms

Loss rate: 0.00%

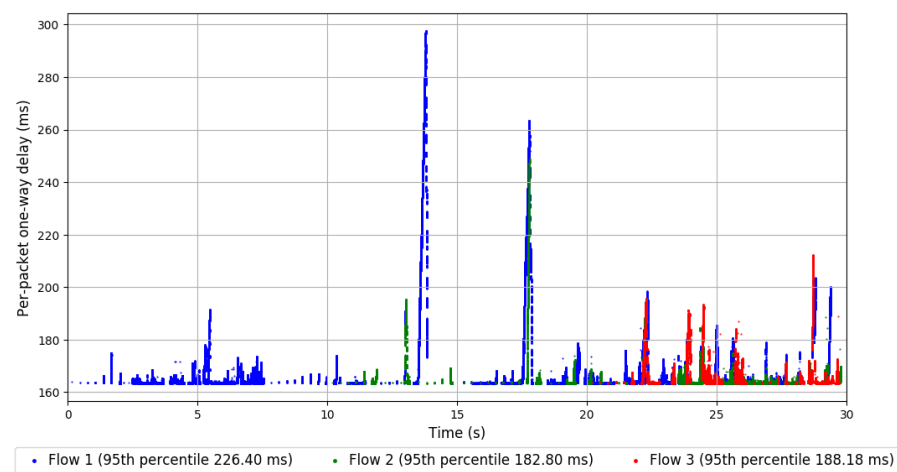
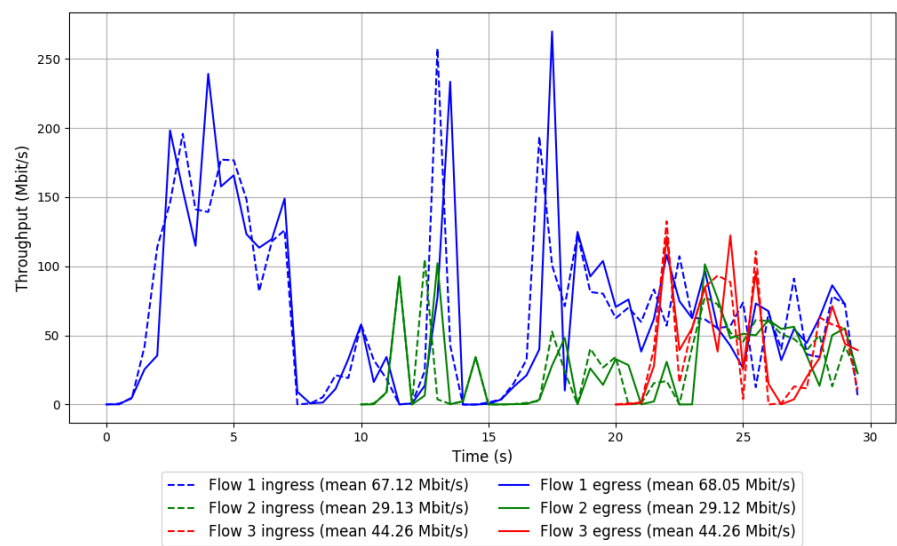
-- Flow 3:

Average throughput: 44.26 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-08 14:39:46

End at: 2017-09-08 14:40:16

# Below is generated by plot.py at 2017-09-08 16:40:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 87.91 Mbit/s

95th percentile per-packet one-way delay: 209.230 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 38.77 Mbit/s

95th percentile per-packet one-way delay: 302.871 ms

Loss rate: 3.96%

-- Flow 2:

Average throughput: 61.30 Mbit/s

95th percentile per-packet one-way delay: 186.403 ms

Loss rate: 1.30%

-- Flow 3:

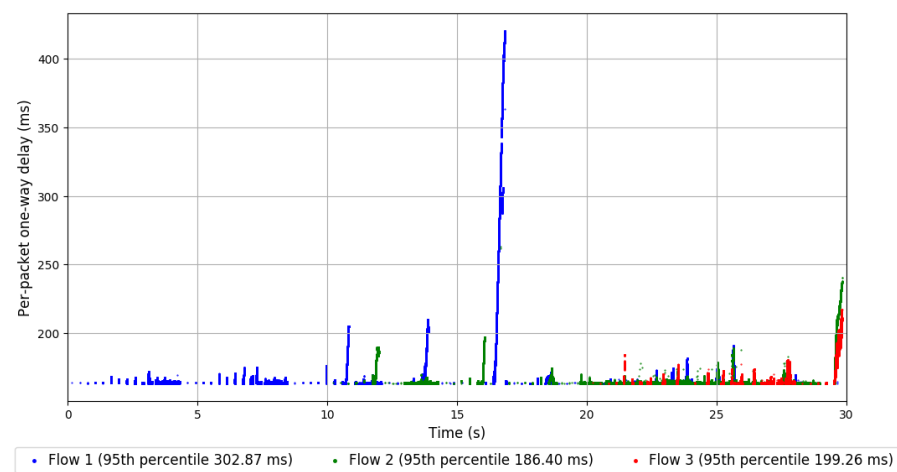
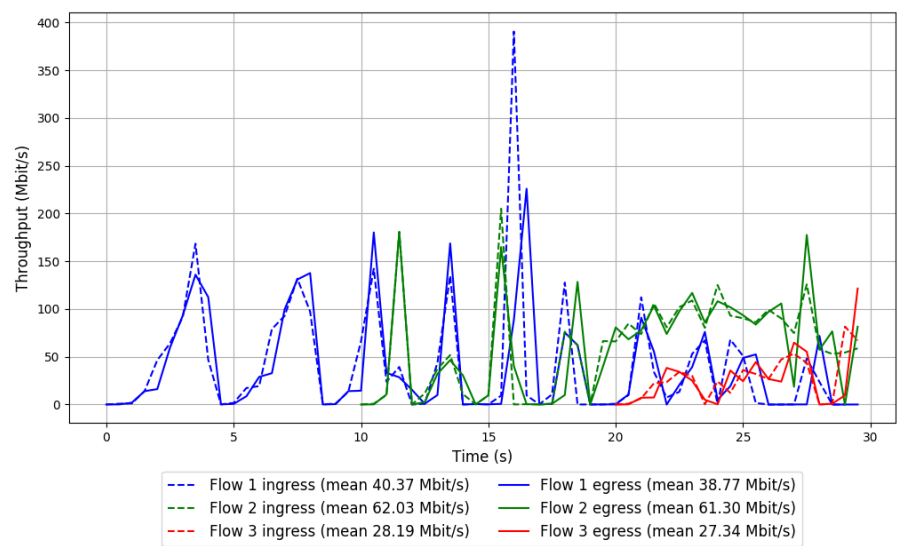
Average throughput: 27.34 Mbit/s

95th percentile per-packet one-way delay: 199.257 ms

Loss rate: 3.26%



Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-08 14:53:00

End at: 2017-09-08 14:53:30

# Below is generated by plot.py at 2017-09-08 16:40:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 117.96 Mbit/s

95th percentile per-packet one-way delay: 184.015 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 79.95 Mbit/s

95th percentile per-packet one-way delay: 191.342 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 49.07 Mbit/s

95th percentile per-packet one-way delay: 158.469 ms

Loss rate: 0.00%

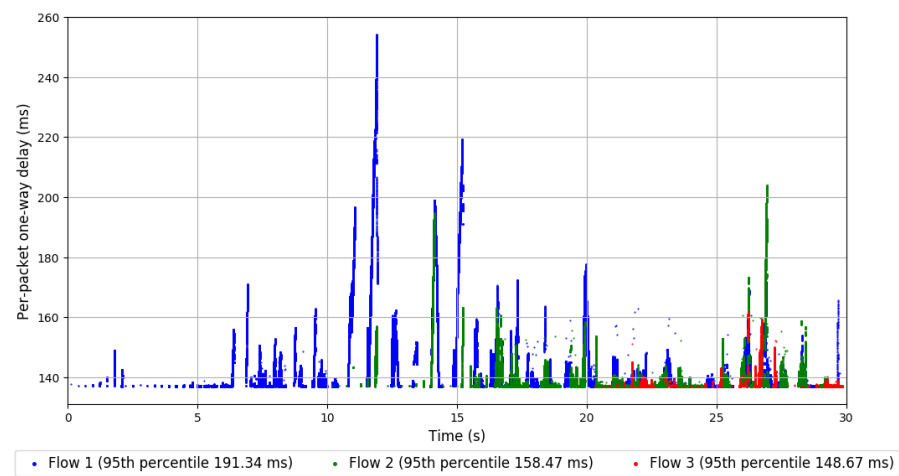
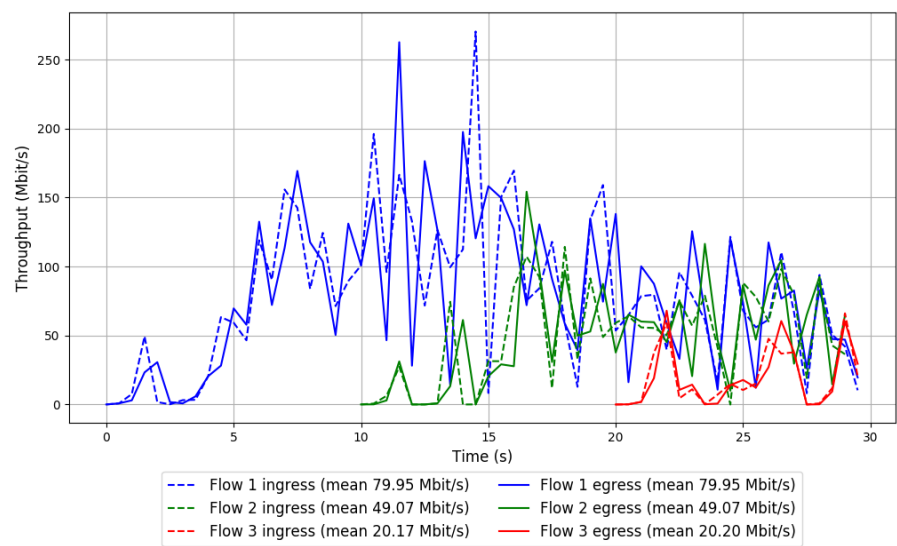
-- Flow 3:

Average throughput: 20.20 Mbit/s

95th percentile per-packet one-way delay: 148.670 ms

Loss rate: 0.01%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

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

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

# Below is generated by plot.py at 2017-09-08 16:40:32

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.31 Mbit/s

95th percentile per-packet one-way delay: 230.941 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 38.09 Mbit/s

95th percentile per-packet one-way delay: 193.935 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.80 Mbit/s

95th percentile per-packet one-way delay: 236.995 ms

Loss rate: 0.45%

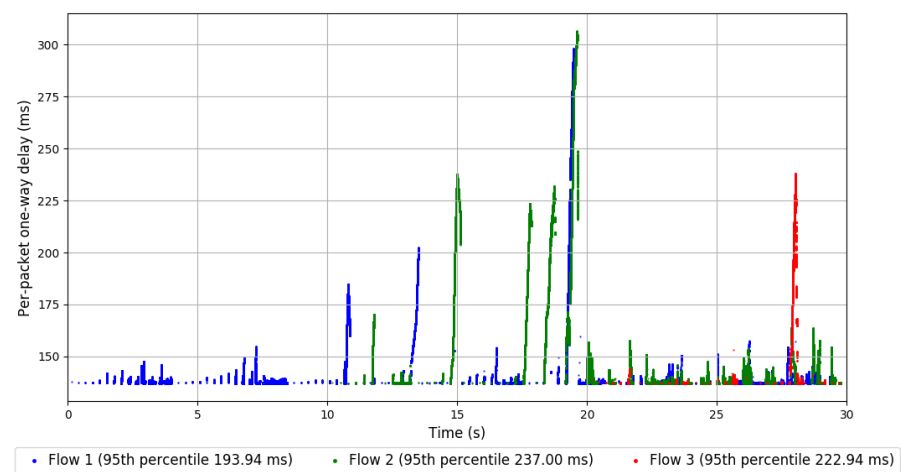
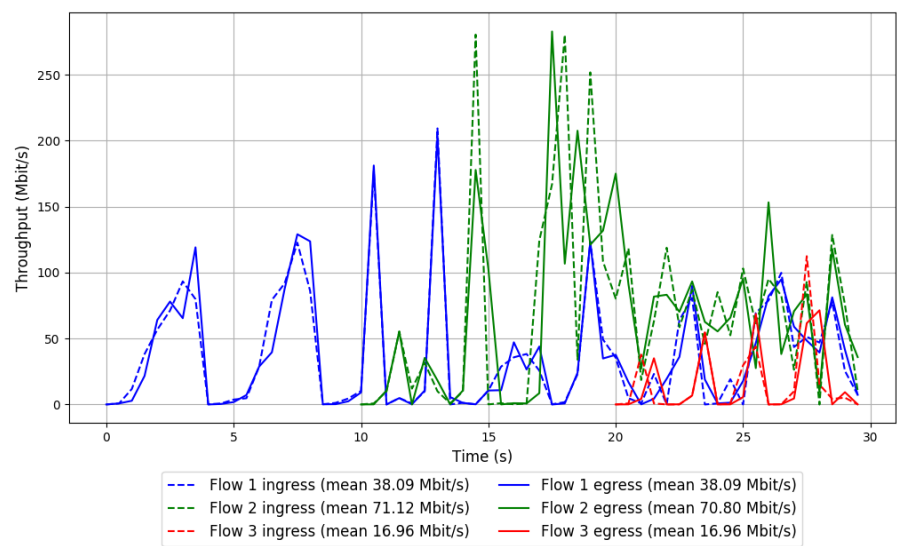
-- Flow 3:

Average throughput: 16.96 Mbit/s

95th percentile per-packet one-way delay: 222.941 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-08 15:21:01

End at: 2017-09-08 15:21:31

# Below is generated by plot.py at 2017-09-08 16:40:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 169.256 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 173.593 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.04 Mbit/s

95th percentile per-packet one-way delay: 166.934 ms

Loss rate: 0.00%

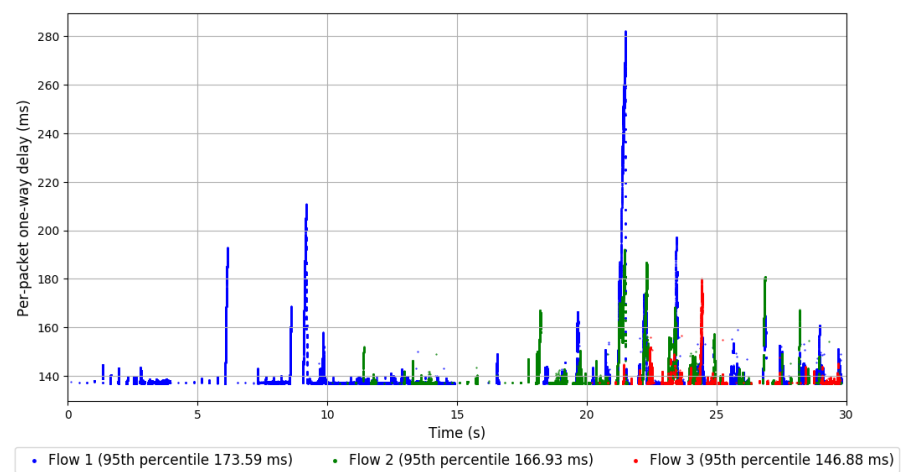
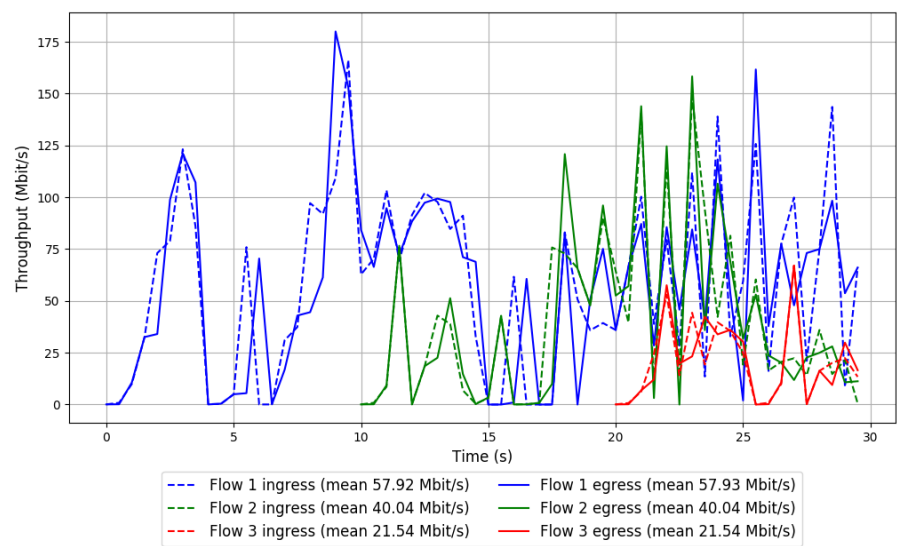
-- Flow 3:

Average throughput: 21.54 Mbit/s

95th percentile per-packet one-way delay: 146.884 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link



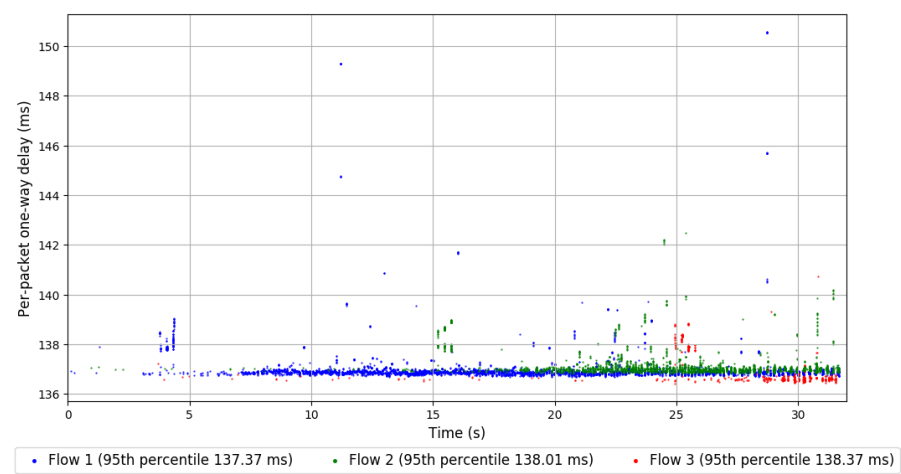
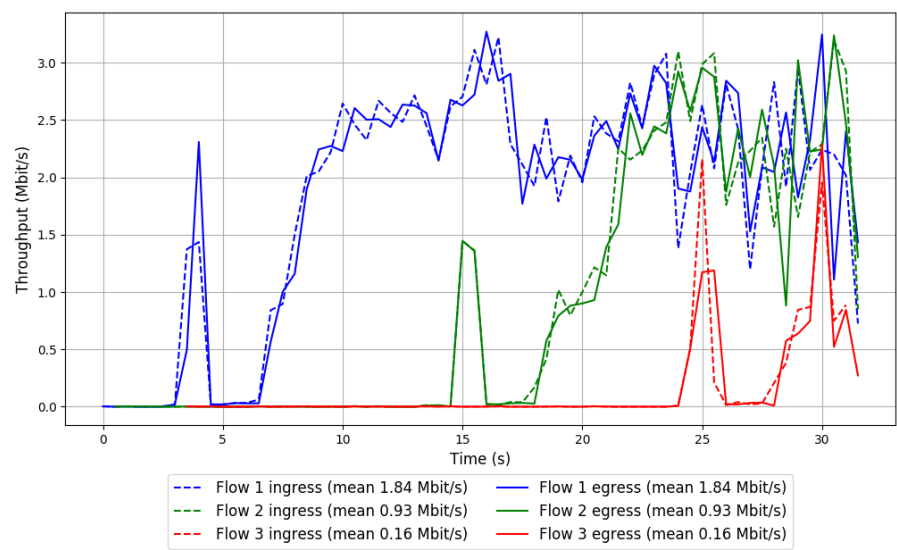
```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 13:21:56
End at: 2017-09-08 13:22:26

# Below is generated by plot.py at 2017-09-08 16:40:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 137.878 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 137.365 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.93 Mbit/s
95th percentile per-packet one-way delay: 138.011 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 138.370 ms
Loss rate: 0.00%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-08 13:35:08

End at: 2017-09-08 13:35:38

# Below is generated by plot.py at 2017-09-08 16:40:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.07 Mbit/s

95th percentile per-packet one-way delay: 164.695 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 164.300 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 164.644 ms

Loss rate: 0.00%

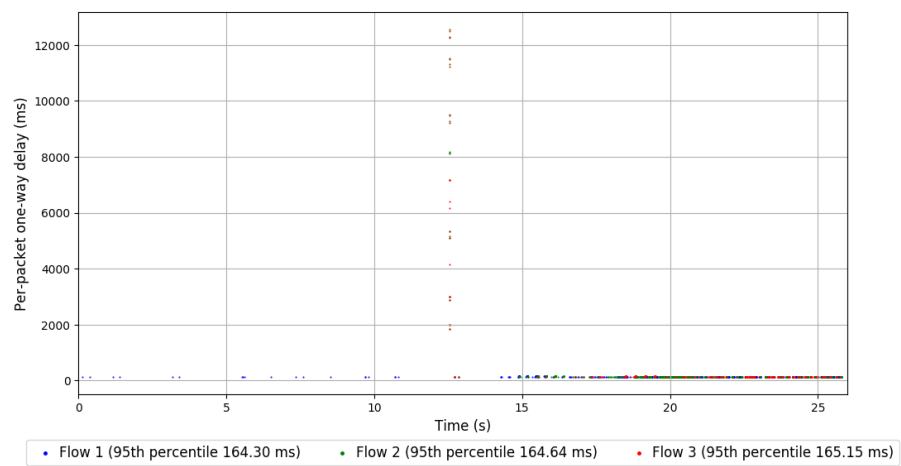
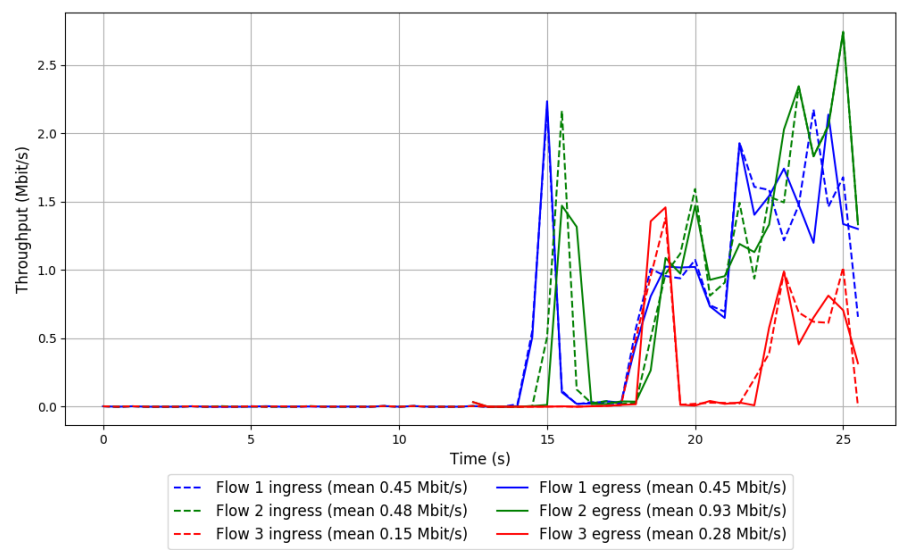
-- Flow 3:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 165.147 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-08 13:48:39

End at: 2017-09-08 13:49:09

# Below is generated by plot.py at 2017-09-08 16:40:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 164.334 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 164.564 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 137.686 ms

Loss rate: 0.00%

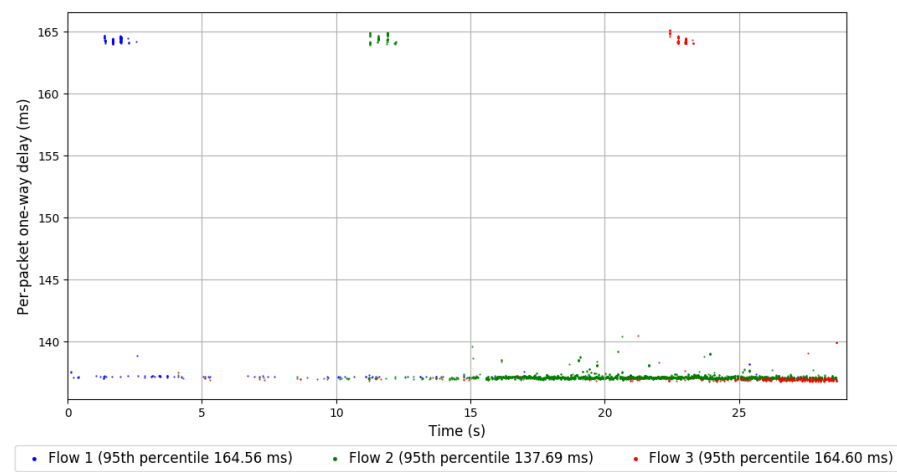
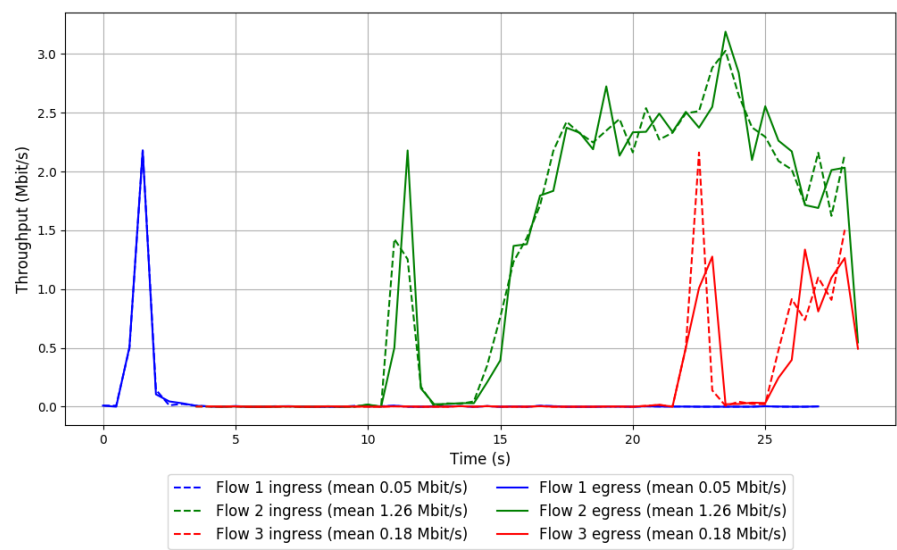
-- Flow 3:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 164.596 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-08 14:02:58

End at: 2017-09-08 14:03:28

# Below is generated by plot.py at 2017-09-08 16:40:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 164.986 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 136.503 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 165.000 ms

Loss rate: 0.00%

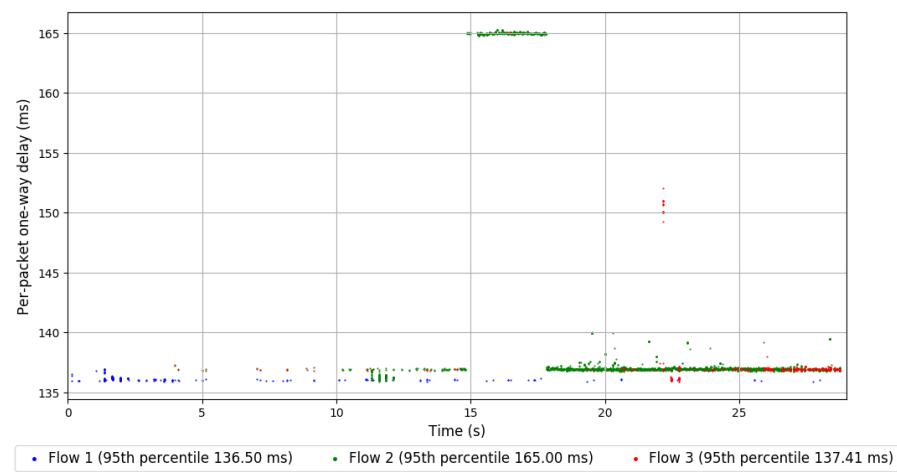
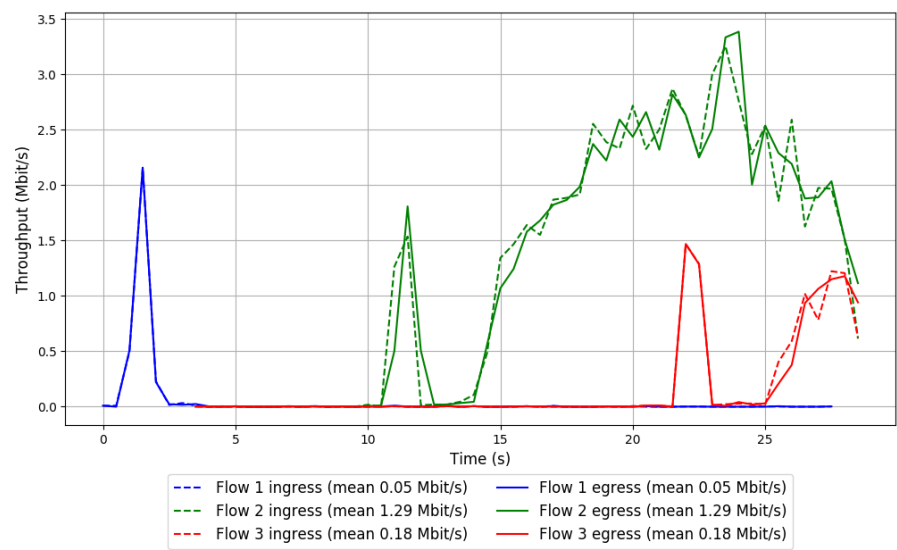
-- Flow 3:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 137.408 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-08 14:17:19

End at: 2017-09-08 14:17:49

# Below is generated by plot.py at 2017-09-08 16:40:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 136.860 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 137.226 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 136.291 ms

Loss rate: 0.00%

-- Flow 3:

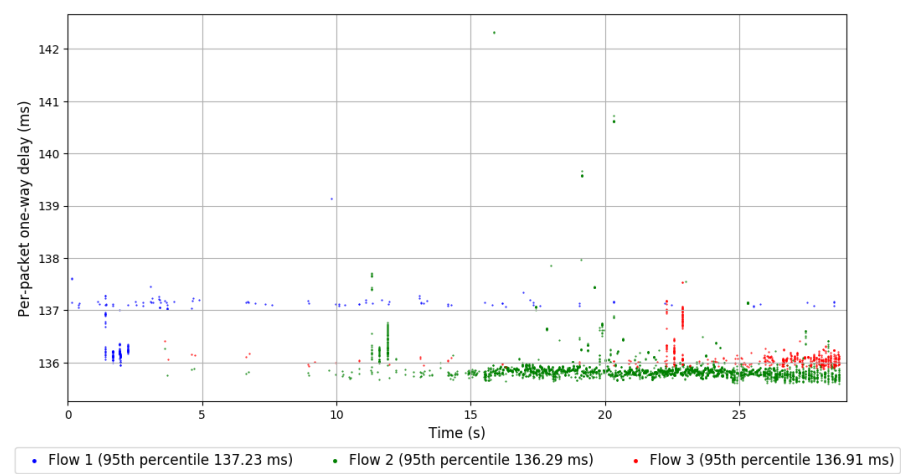
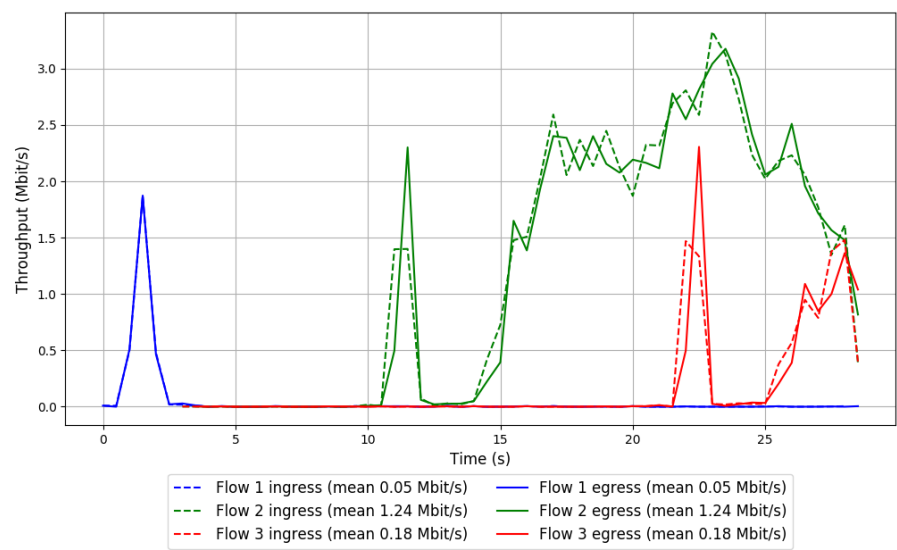
Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 136.907 ms

Loss rate: 0.02%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-08 14:30:48

End at: 2017-09-08 14:31:18

# Below is generated by plot.py at 2017-09-08 16:40:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 163.668 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 163.977 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 138.912 ms

Loss rate: 0.00%

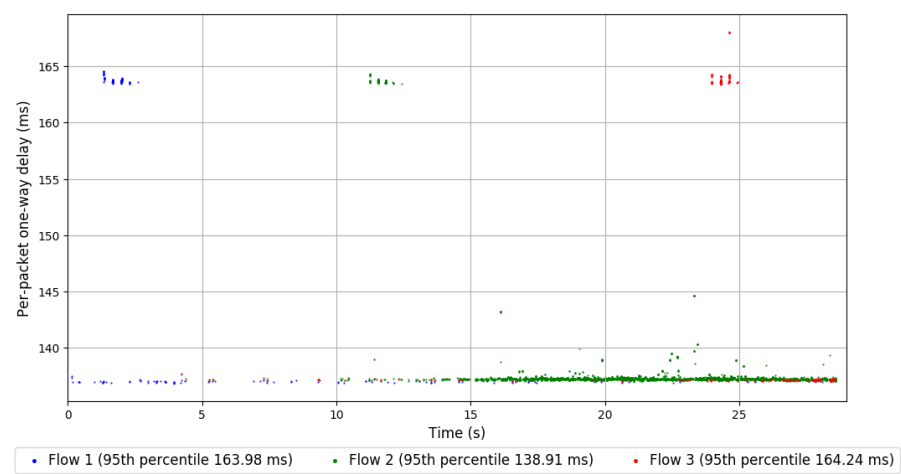
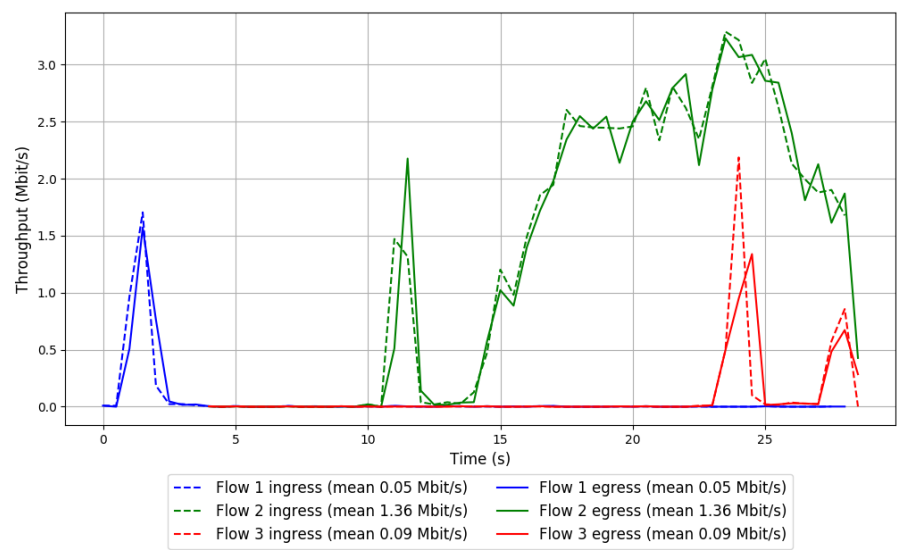
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 164.240 ms

Loss rate: 0.03%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-08 14:44:04

End at: 2017-09-08 14:44:34

# Below is generated by plot.py at 2017-09-08 16:40:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 165.386 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 164.431 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 163.941 ms

Loss rate: 0.00%

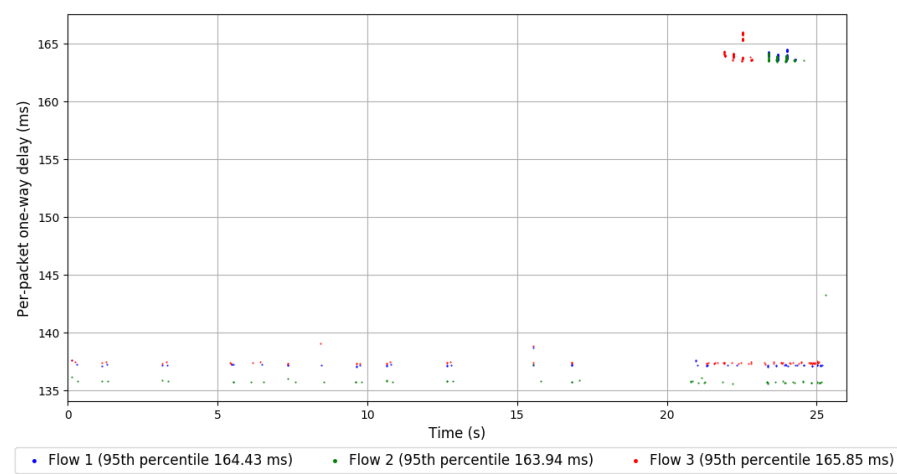
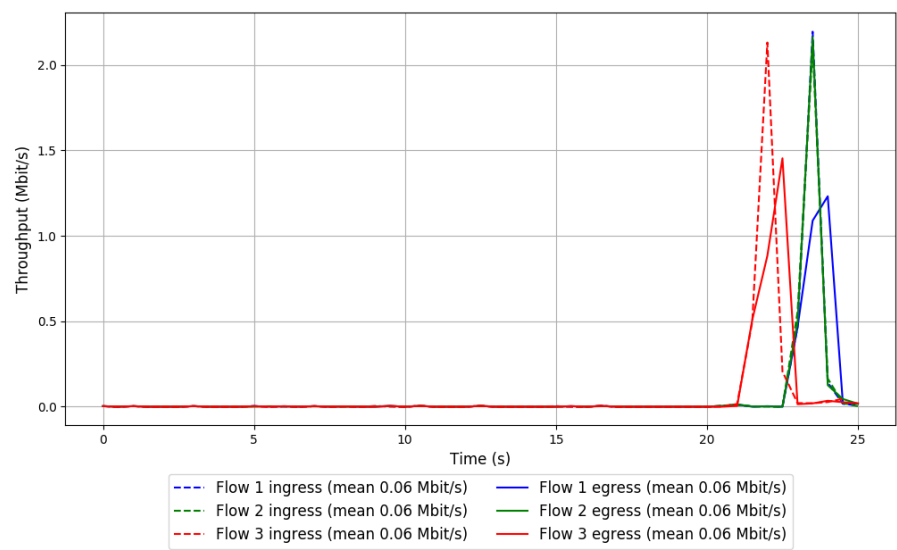
-- Flow 3:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 165.855 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link

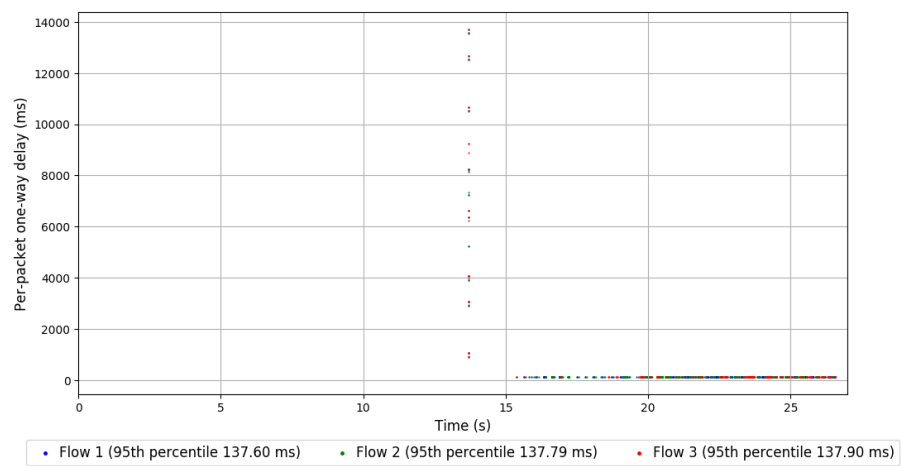
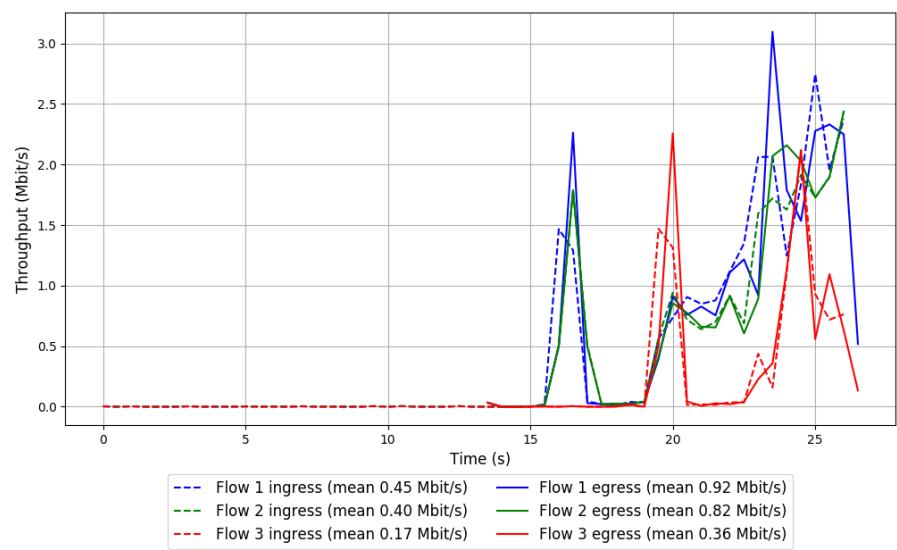


Run 8: Statistics of WebRTC media

Start at: 2017-09-08 14:57:52

End at: 2017-09-08 14:58:22

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-08 15:11:52

End at: 2017-09-08 15:12:22



Run 9: Report of WebRTC media — Data Link

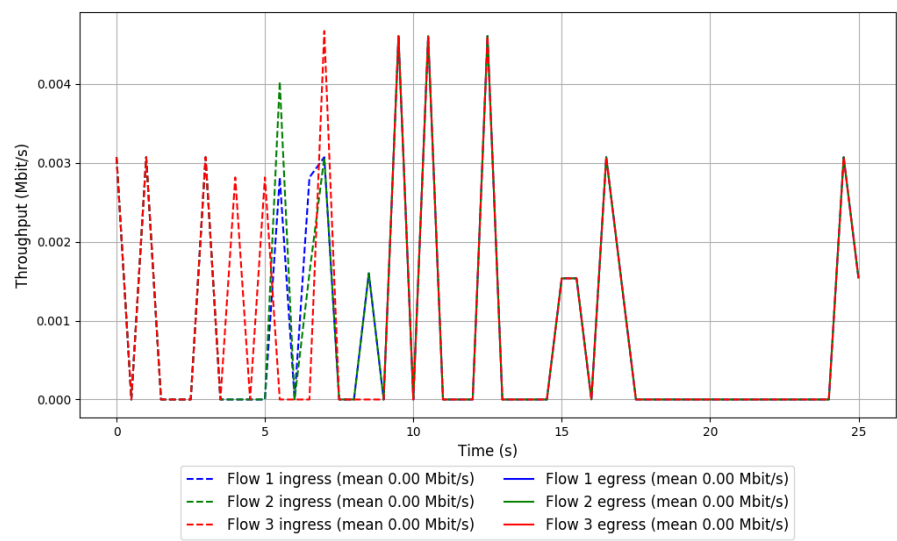


Figure is missing

Run 10: Statistics of WebRTC media

Start at: 2017-09-08 15:25:43

End at: 2017-09-08 15:26:13

Run 10: Report of WebRTC media — Data Link

