

## Pantheon Report

Generated at 2018-03-15 03:54:08 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

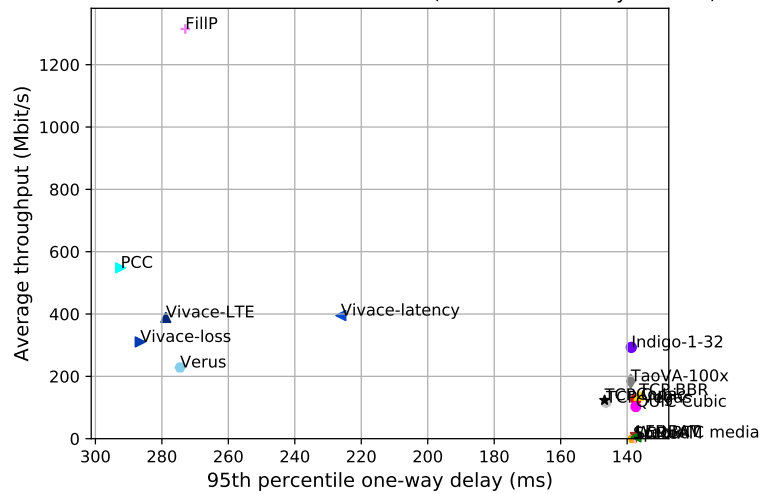
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

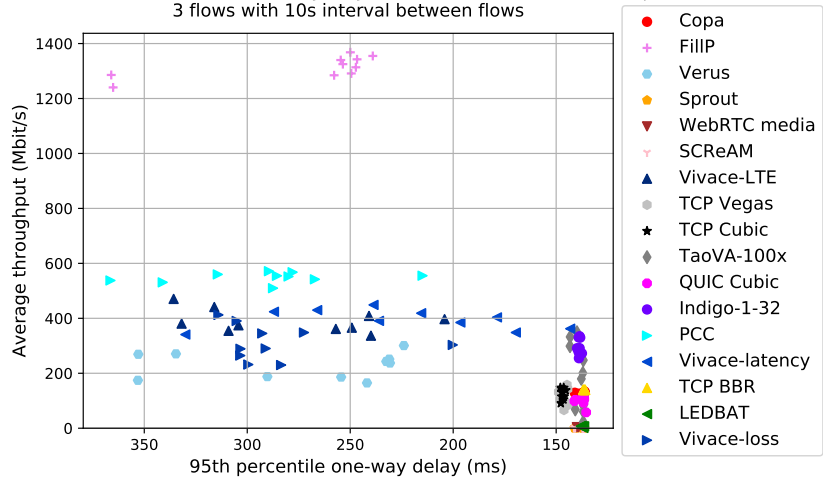
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ 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/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



| scheme         | # runs | mean avg tput (Mbit/s) |        |        | mean 95th-%ile delay (ms) |        |        | mean loss rate (%) |        |        |
|----------------|--------|------------------------|--------|--------|---------------------------|--------|--------|--------------------|--------|--------|
|                |        | flow 1                 | flow 2 | flow 3 | flow 1                    | flow 2 | flow 3 | flow 1             | flow 2 | flow 3 |
| TCP BBR        | 10     | 72.29                  | 70.36  | 63.46  | 136.40                    | 136.41 | 136.39 | 1.03               | 1.59   | 3.40   |
| TCP Cubic      | 10     | 74.28                  | 45.27  | 60.83  | 146.17                    | 145.35 | 147.36 | 0.91               | 3.30   | 4.34   |
| LEDBAT         | 10     | 4.21                   | 1.76   | 1.09   | 137.39                    | 137.04 | 136.88 | 1.76               | 3.01   | 5.44   |
| PCC            | 10     | 459.72                 | 92.23  | 84.93  | 298.19                    | 245.68 | 240.64 | 4.37               | 3.73   | 7.18   |
| QUIC Cubic     | 10     | 48.49                  | 60.38  | 44.06  | 136.78                    | 136.71 | 135.92 | 0.92               | 0.69   | 2.18   |
| SCReAM         | 10     | 0.22                   | 0.21   | 0.21   | 136.93                    | 137.04 | 136.29 | 0.83               | 1.42   | 2.61   |
| WebRTC media   | 10     | 2.02                   | 1.27   | 0.43   | 137.06                    | 136.66 | 136.77 | 1.10               | 1.87   | 5.26   |
| Sprout         | 10     | 0.41                   | 0.40   | 0.47   | 136.56                    | 137.68 | 137.56 | 0.80               | 1.16   | 2.58   |
| TaoVA-100x     | 10     | 80.88                  | 109.08 | 109.92 | 138.18                    | 139.69 | 139.35 | 0.78               | 1.04   | 3.54   |
| TCP Vegas      | 10     | 63.59                  | 54.58  | 49.67  | 145.20                    | 144.27 | 145.71 | 0.88               | 1.80   | 3.44   |
| Verus          | 10     | 146.24                 | 91.98  | 67.68  | 234.22                    | 271.50 | 262.03 | 2.70               | 4.60   | 4.23   |
| Copa           | 10     | 62.51                  | 67.25  | 56.80  | 137.23                    | 136.80 | 136.19 | 0.48               | 1.30   | 3.27   |
| FillP          | 10     | 688.69                 | 648.68 | 604.22 | 249.43                    | 275.96 | 292.43 | 12.93              | 14.82  | 16.58  |
| Indigo-1-32    | 10     | 144.80                 | 155.89 | 140.60 | 138.18                    | 139.54 | 140.15 | 0.92               | 1.38   | 3.40   |
| Vivace-latency | 10     | 224.78                 | 204.83 | 107.86 | 257.95                    | 184.66 | 211.43 | 2.22               | 1.96   | 6.91   |
| Vivace-loss    | 10     | 164.59                 | 154.83 | 135.71 | 300.48                    | 243.86 | 287.74 | 8.68               | 6.36   | 11.02  |
| Vivace-LTE     | 10     | 234.32                 | 170.91 | 129.61 | 260.61                    | 206.98 | 278.17 | 3.02               | 3.13   | 7.74   |

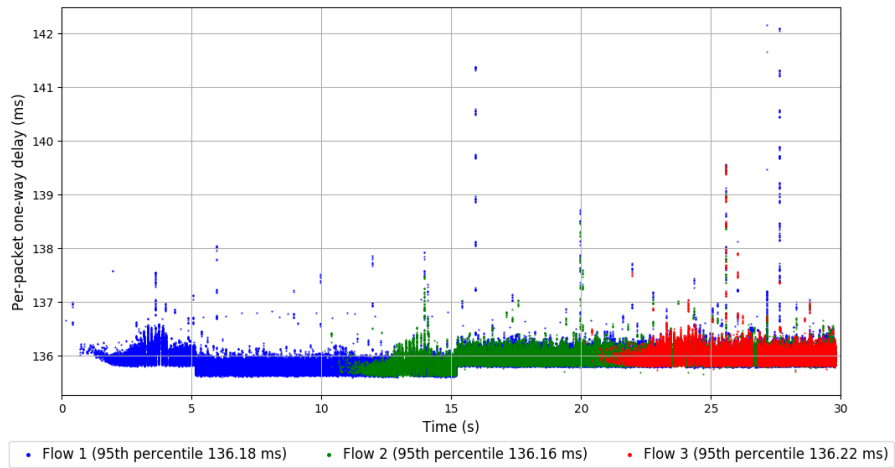
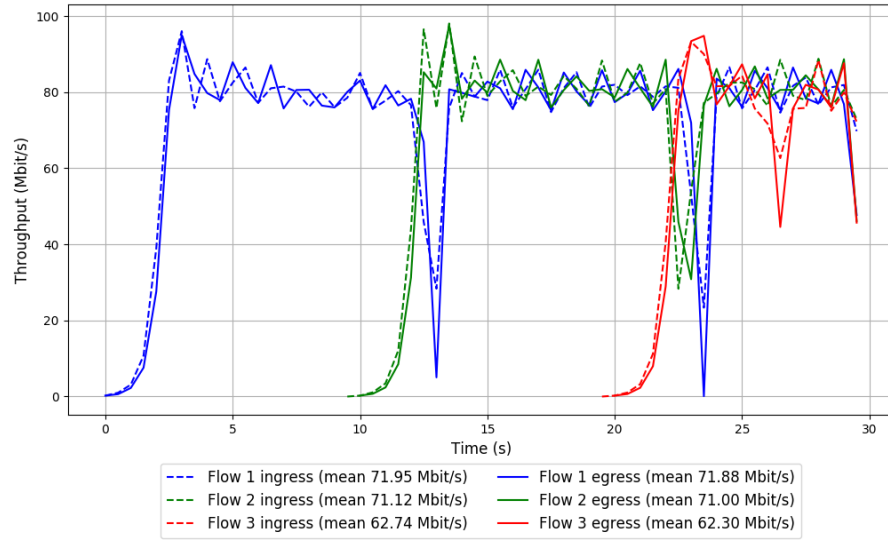
```
Run 1: Statistics of TCP BBR

Start at: 2018-03-14 18:46:05
End at: 2018-03-14 18:46:35

# Below is generated by plot.py at 2018-03-15 01:43:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 139.27 Mbit/s
95th percentile per-packet one-way delay: 136.178 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 71.88 Mbit/s
95th percentile per-packet one-way delay: 136.175 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 71.00 Mbit/s
95th percentile per-packet one-way delay: 136.155 ms
Loss rate: 1.55%
-- Flow 3:
Average throughput: 62.30 Mbit/s
95th percentile per-packet one-way delay: 136.225 ms
Loss rate: 3.49%
```



# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-14 19:06:21

End at: 2018-03-14 19:06:51

# Below is generated by plot.py at 2018-03-15 01:43:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 138.87 Mbit/s

95th percentile per-packet one-way delay: 136.771 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 71.95 Mbit/s

95th percentile per-packet one-way delay: 136.745 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 70.15 Mbit/s

95th percentile per-packet one-way delay: 136.780 ms

Loss rate: 1.61%

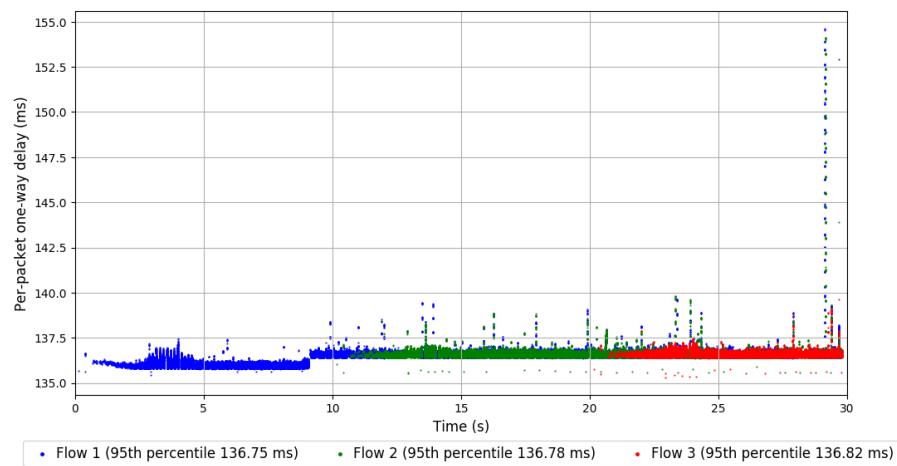
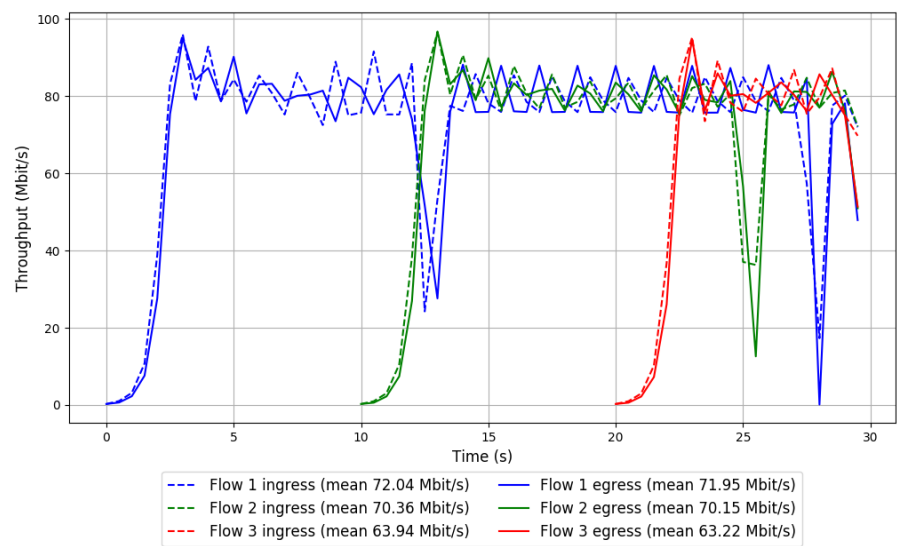
-- Flow 3:

Average throughput: 63.22 Mbit/s

95th percentile per-packet one-way delay: 136.821 ms

Loss rate: 3.41%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-14 19:26:22

End at: 2018-03-14 19:26:52

# Below is generated by plot.py at 2018-03-15 01:43:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.60 Mbit/s

95th percentile per-packet one-way delay: 136.880 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 72.42 Mbit/s

95th percentile per-packet one-way delay: 136.853 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 69.92 Mbit/s

95th percentile per-packet one-way delay: 136.863 ms

Loss rate: 1.53%

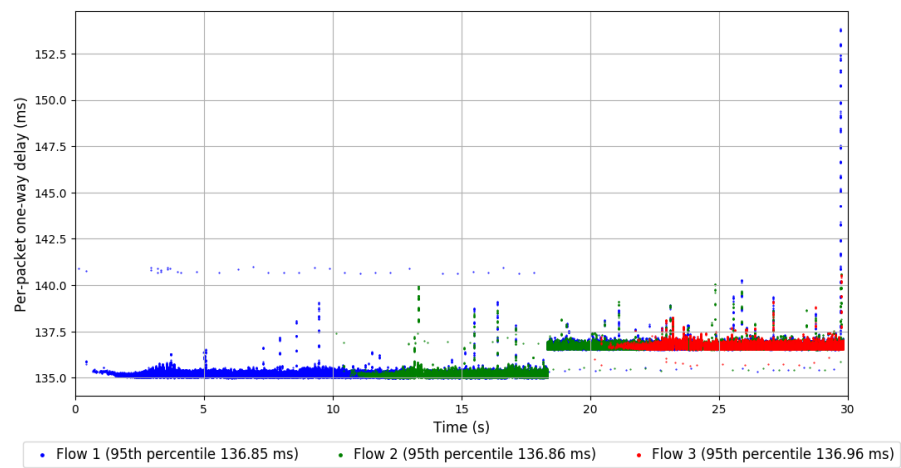
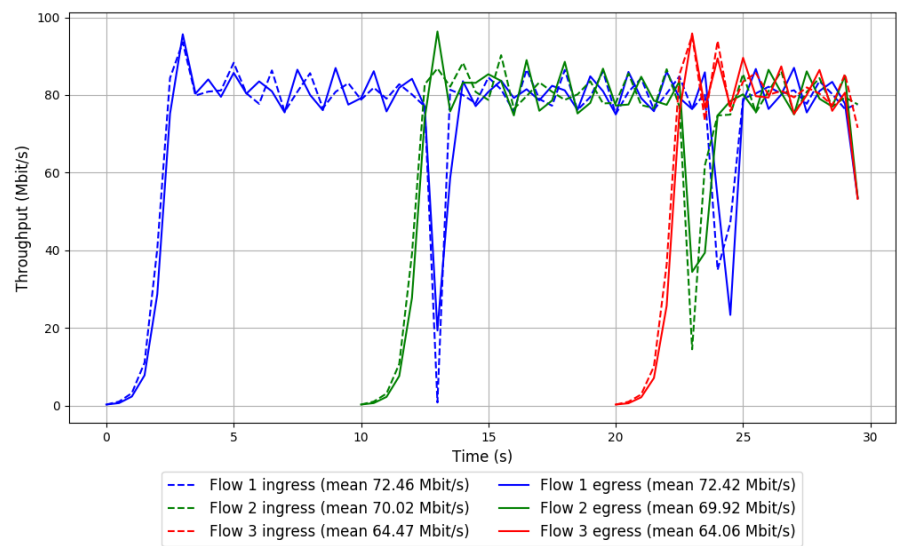
-- Flow 3:

Average throughput: 64.06 Mbit/s

95th percentile per-packet one-way delay: 136.959 ms

Loss rate: 3.36%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-14 19:46:05

End at: 2018-03-14 19:46:35

# Below is generated by plot.py at 2018-03-15 01:43:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 138.86 Mbit/s

95th percentile per-packet one-way delay: 136.884 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 71.97 Mbit/s

95th percentile per-packet one-way delay: 136.878 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 69.43 Mbit/s

95th percentile per-packet one-way delay: 136.876 ms

Loss rate: 1.55%

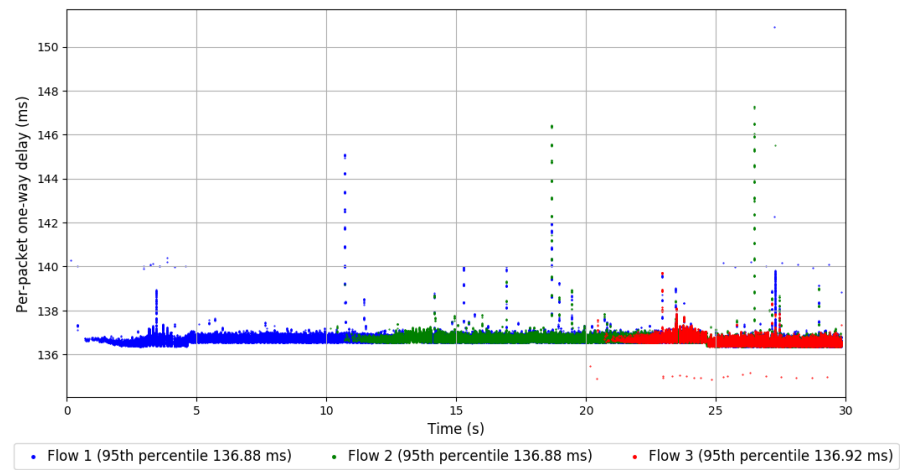
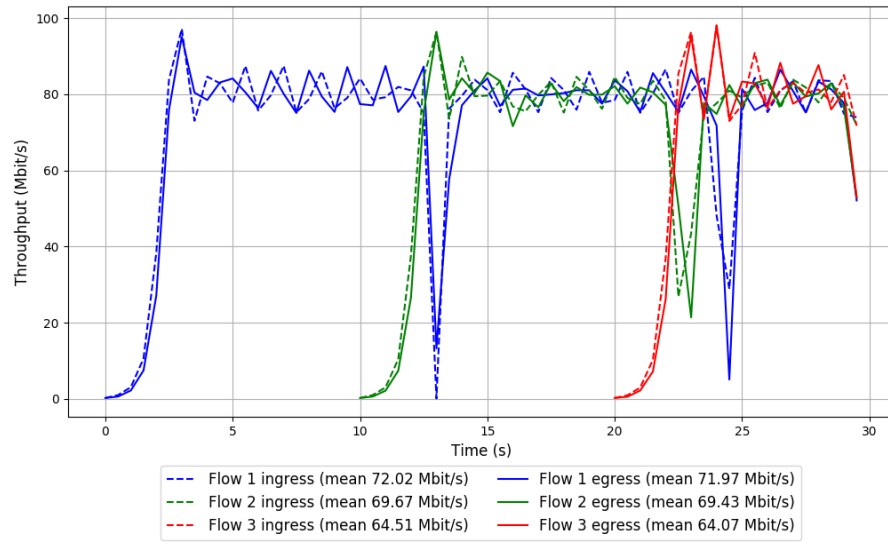
-- Flow 3:

Average throughput: 64.07 Mbit/s

95th percentile per-packet one-way delay: 136.924 ms

Loss rate: 3.39%

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



Run 5: Statistics of TCP BBR

Start at: 2018-03-14 20:06:13

End at: 2018-03-14 20:06:43

# Below is generated by plot.py at 2018-03-15 01:43:06

# Datalink statistics

-- Total of 3 flows:

Average throughput: 140.25 Mbit/s

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

Loss rate: 1.52%

-- Flow 1:

Average throughput: 73.70 Mbit/s

95th percentile per-packet one-way delay: 136.721 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 69.19 Mbit/s

95th percentile per-packet one-way delay: 136.734 ms

Loss rate: 1.54%

-- Flow 3:

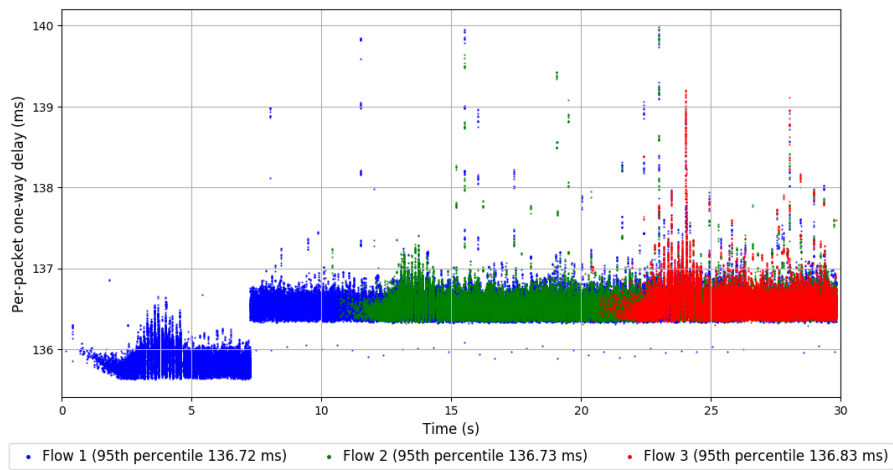
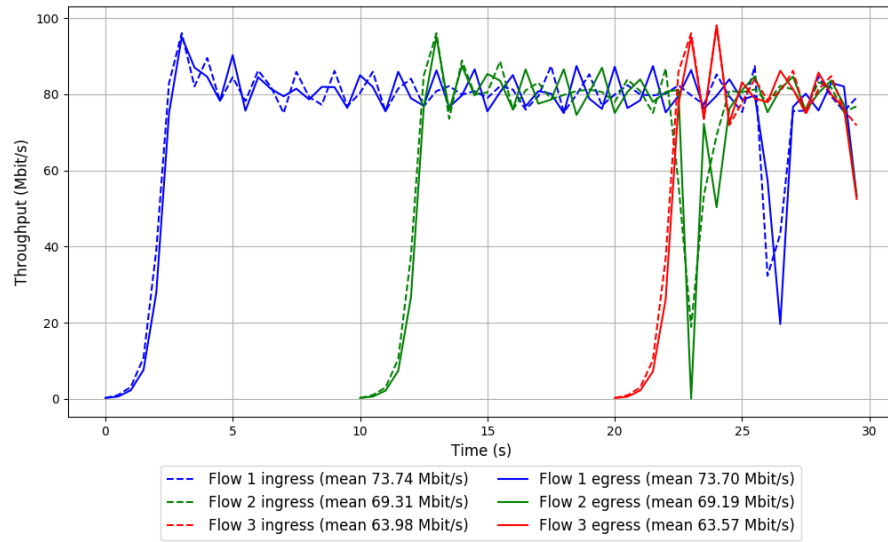
Average throughput: 63.57 Mbit/s

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

Loss rate: 3.36%



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



Run 6: Statistics of TCP BBR

Start at: 2018-03-14 20:26:23

End at: 2018-03-14 20:26:53

# Below is generated by plot.py at 2018-03-15 01:43:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 141.00 Mbit/s

95th percentile per-packet one-way delay: 136.087 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 72.17 Mbit/s

95th percentile per-packet one-way delay: 136.080 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 72.72 Mbit/s

95th percentile per-packet one-way delay: 136.084 ms

Loss rate: 1.47%

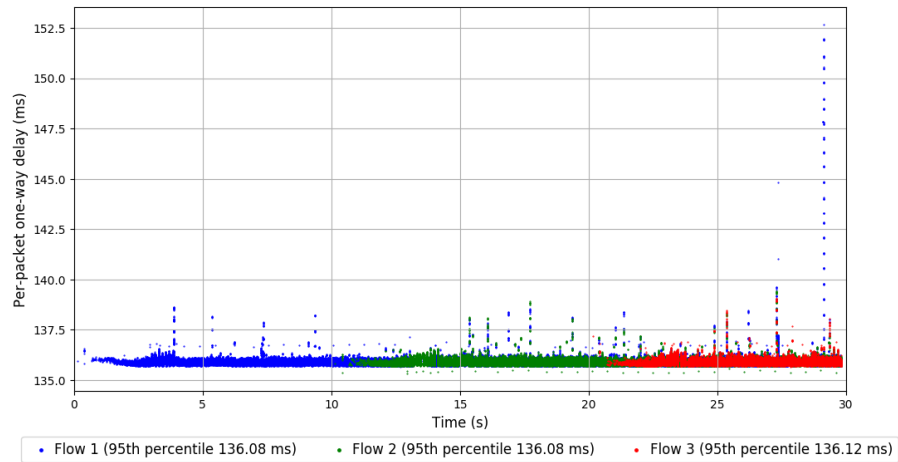
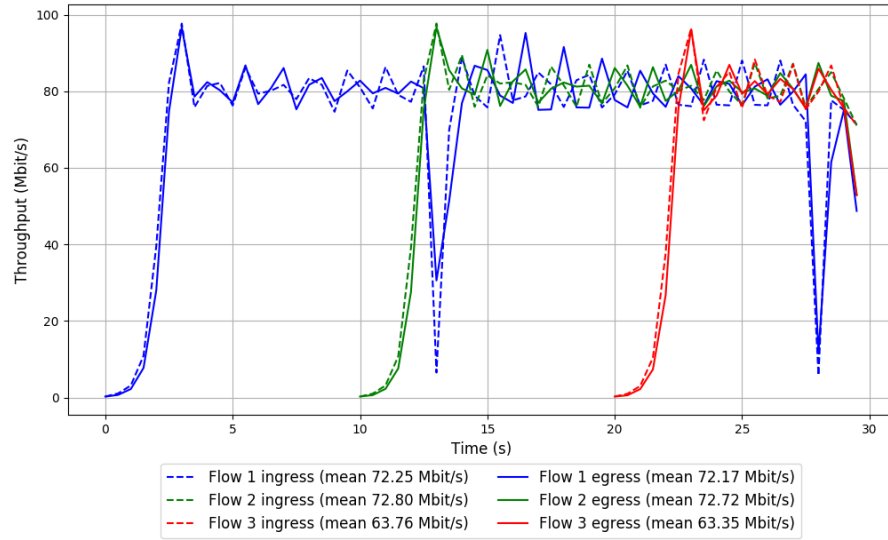
-- Flow 3:

Average throughput: 63.35 Mbit/s

95th percentile per-packet one-way delay: 136.119 ms

Loss rate: 3.37%

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



Run 7: Statistics of TCP BBR

Start at: 2018-03-14 20:46:30

End at: 2018-03-14 20:47:00

# Below is generated by plot.py at 2018-03-15 01:43:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.18 Mbit/s

95th percentile per-packet one-way delay: 135.964 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 72.24 Mbit/s

95th percentile per-packet one-way delay: 135.952 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 70.17 Mbit/s

95th percentile per-packet one-way delay: 135.974 ms

Loss rate: 1.71%

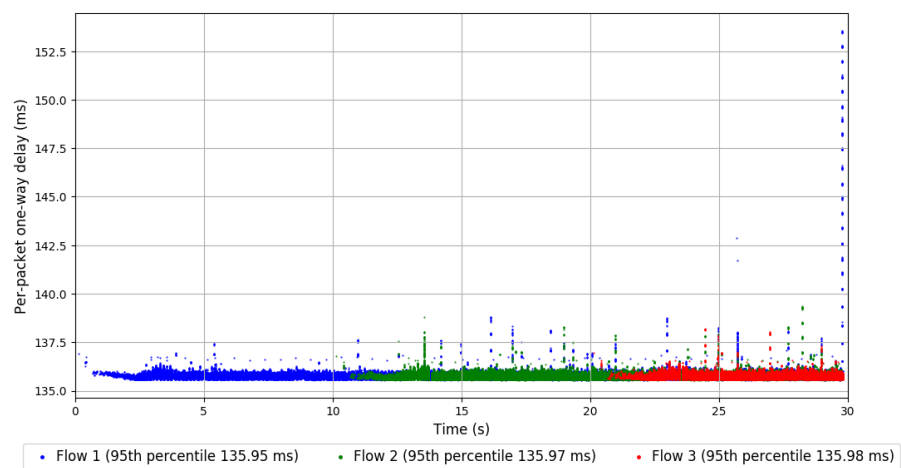
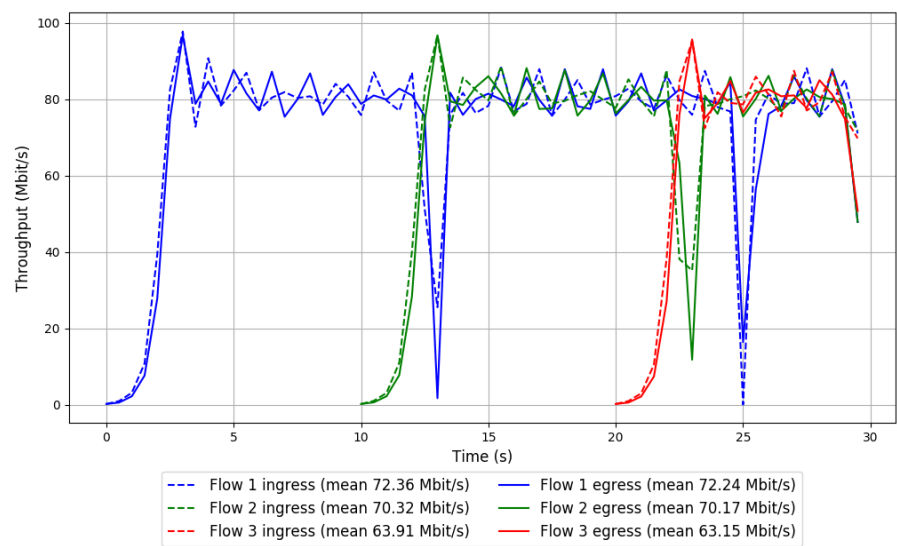
-- Flow 3:

Average throughput: 63.15 Mbit/s

95th percentile per-packet one-way delay: 135.982 ms

Loss rate: 3.44%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-14 21:06:07

End at: 2018-03-14 21:06:37

# Below is generated by plot.py at 2018-03-15 01:43:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.28 Mbit/s

95th percentile per-packet one-way delay: 135.898 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 72.12 Mbit/s

95th percentile per-packet one-way delay: 135.909 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 70.26 Mbit/s

95th percentile per-packet one-way delay: 135.880 ms

Loss rate: 1.52%

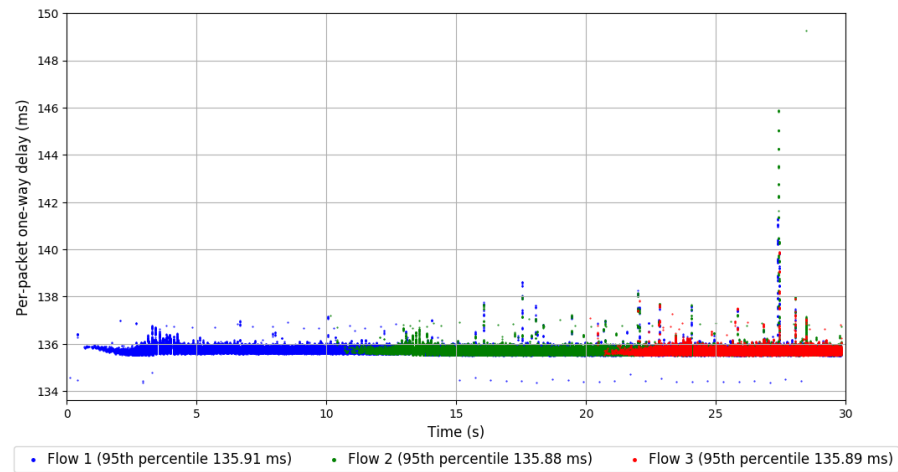
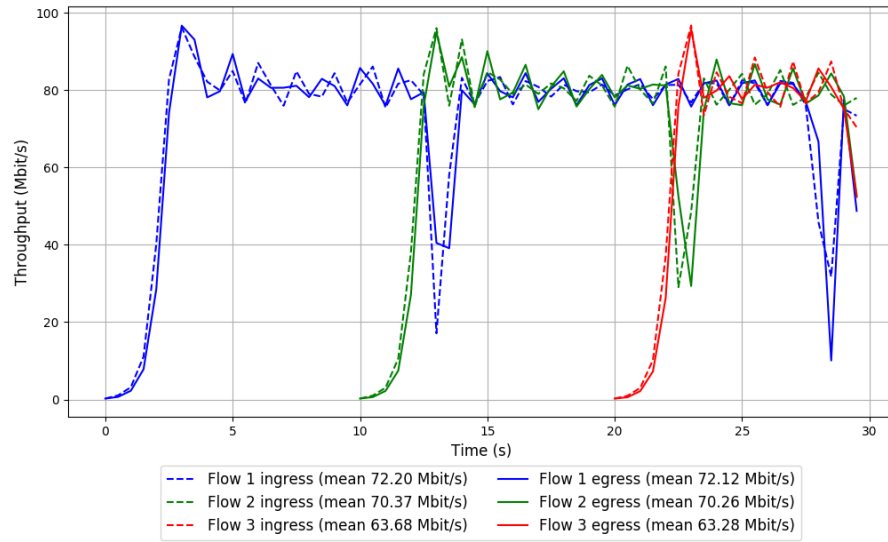
-- Flow 3:

Average throughput: 63.28 Mbit/s

95th percentile per-packet one-way delay: 135.892 ms

Loss rate: 3.36%

# Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-14 21:25:59

End at: 2018-03-14 21:26:29

# Below is generated by plot.py at 2018-03-15 01:46:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.44 Mbit/s

95th percentile per-packet one-way delay: 135.976 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 72.18 Mbit/s

95th percentile per-packet one-way delay: 135.975 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 70.00 Mbit/s

95th percentile per-packet one-way delay: 135.944 ms

Loss rate: 1.71%

-- Flow 3:

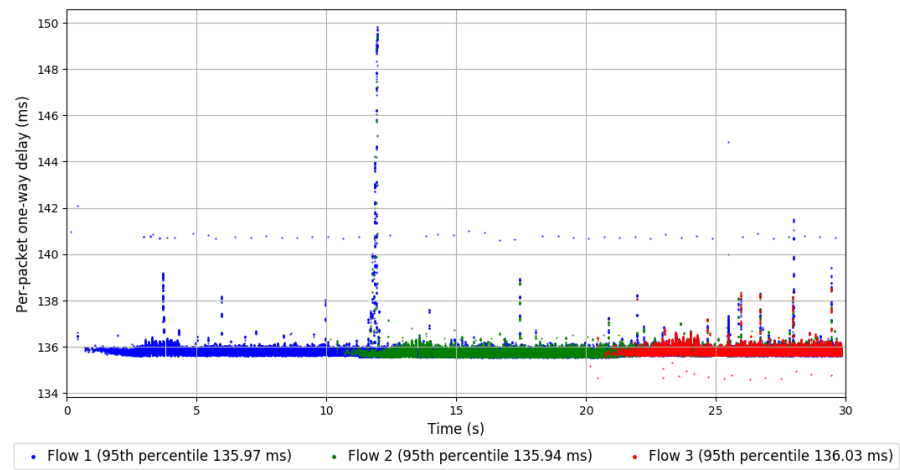
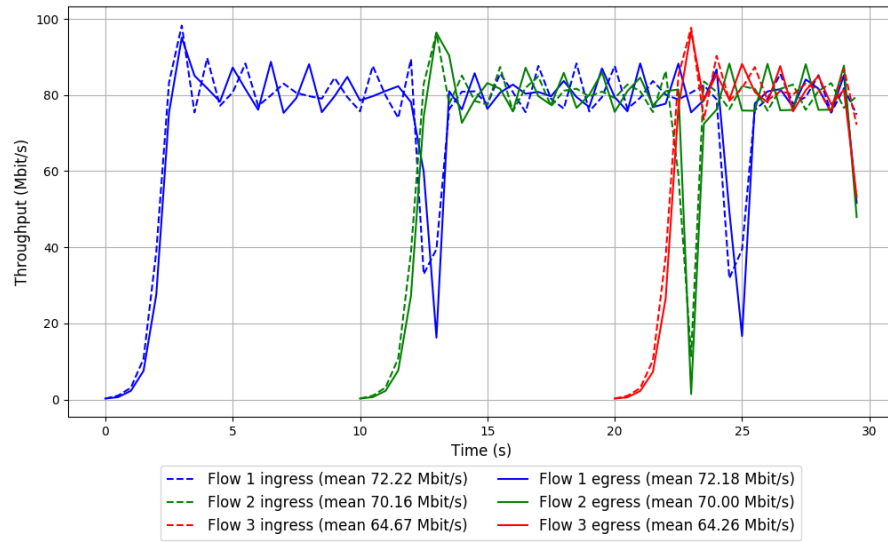
Average throughput: 64.26 Mbit/s

95th percentile per-packet one-way delay: 136.033 ms

Loss rate: 3.35%



# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-14 21:46:09

End at: 2018-03-14 21:46:39

# Below is generated by plot.py at 2018-03-15 01:46:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 139.72 Mbit/s

95th percentile per-packet one-way delay: 136.740 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 72.31 Mbit/s

95th percentile per-packet one-way delay: 136.709 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 70.80 Mbit/s

95th percentile per-packet one-way delay: 136.814 ms

Loss rate: 1.69%

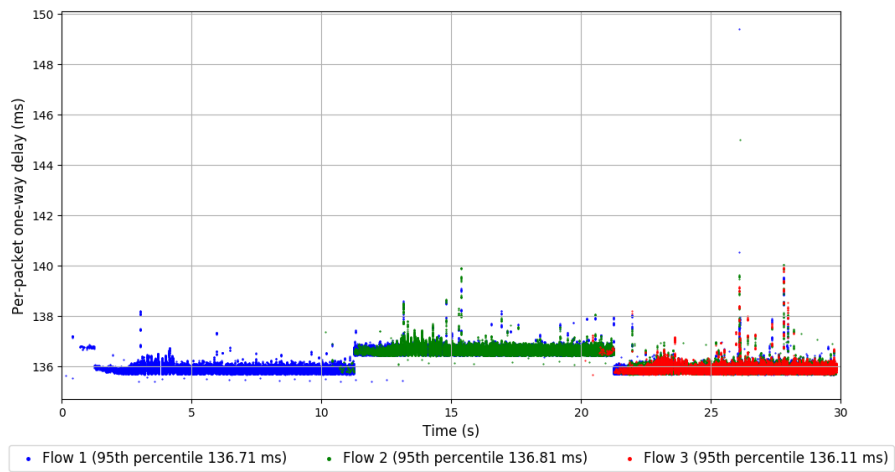
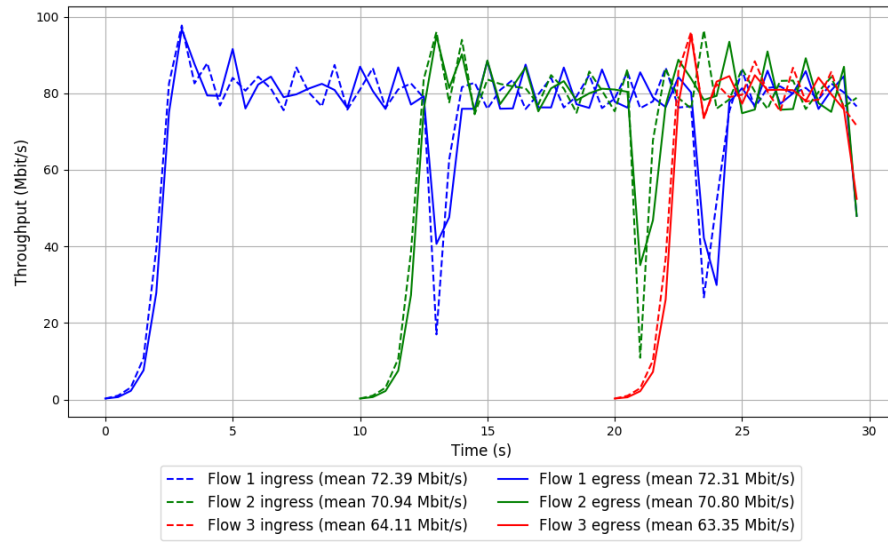
-- Flow 3:

Average throughput: 63.35 Mbit/s

95th percentile per-packet one-way delay: 136.111 ms

Loss rate: 3.43%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-14 18:50:10

End at: 2018-03-14 18:50:40

# Below is generated by plot.py at 2018-03-15 01:46:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.10 Mbit/s

95th percentile per-packet one-way delay: 146.449 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 83.08 Mbit/s

95th percentile per-packet one-way delay: 146.344 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 13.45 Mbit/s

95th percentile per-packet one-way delay: 142.431 ms

Loss rate: 6.65%

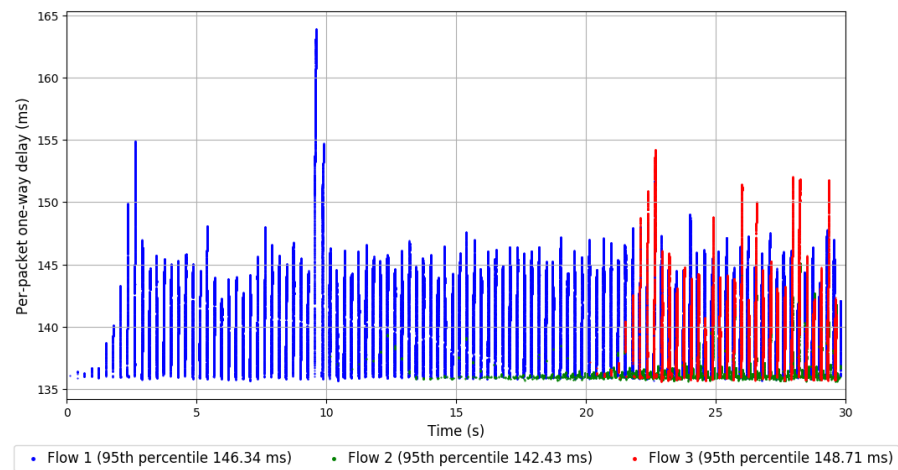
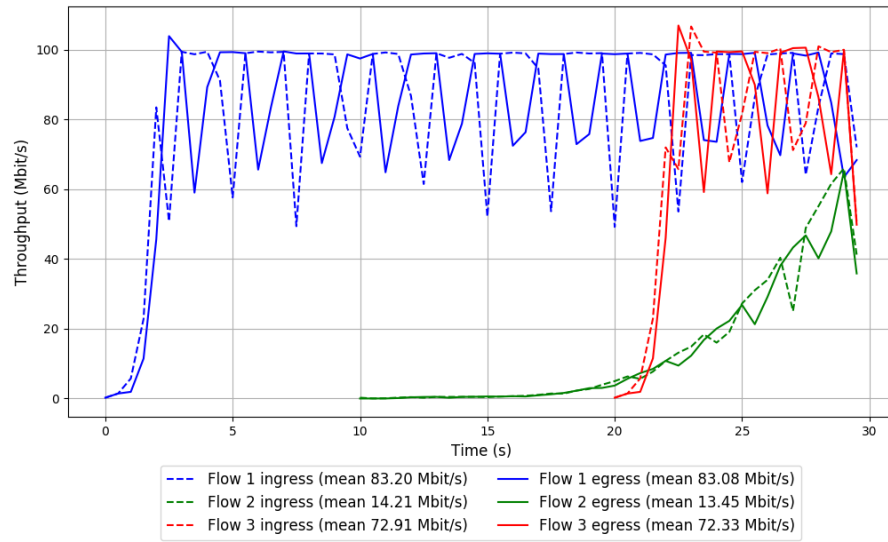
-- Flow 3:

Average throughput: 72.33 Mbit/s

95th percentile per-packet one-way delay: 148.708 ms

Loss rate: 3.55%

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



Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 19:10:30

End at: 2018-03-14 19:11:00

# Below is generated by plot.py at 2018-03-15 01:46:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.62 Mbit/s

95th percentile per-packet one-way delay: 147.119 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 53.72 Mbit/s

95th percentile per-packet one-way delay: 145.102 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 80.99 Mbit/s

95th percentile per-packet one-way delay: 148.036 ms

Loss rate: 1.56%

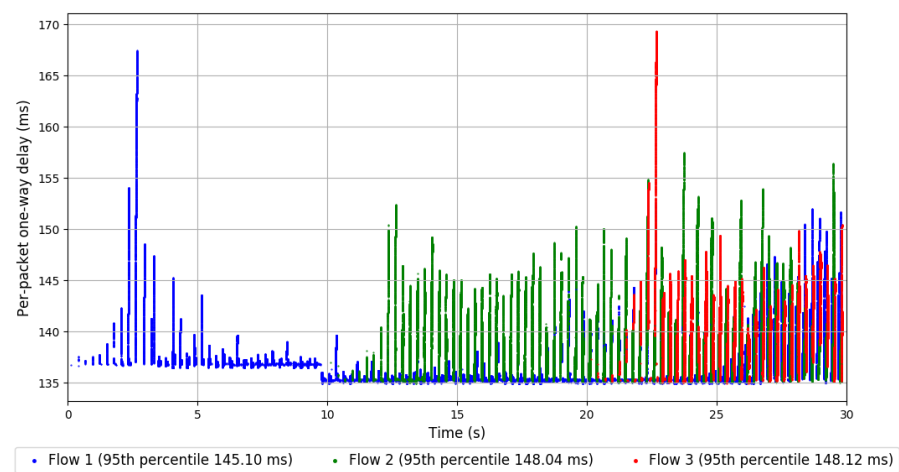
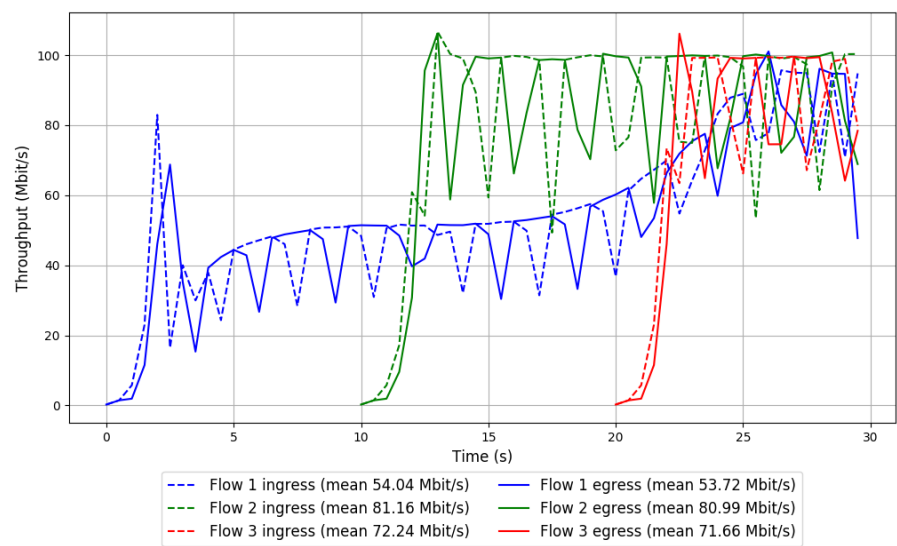
-- Flow 3:

Average throughput: 71.66 Mbit/s

95th percentile per-packet one-way delay: 148.121 ms

Loss rate: 3.54%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 19:30:33

End at: 2018-03-14 19:31:04

# Below is generated by plot.py at 2018-03-15 01:46:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 147.03 Mbit/s

95th percentile per-packet one-way delay: 146.366 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 83.47 Mbit/s

95th percentile per-packet one-way delay: 146.272 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 61.46 Mbit/s

95th percentile per-packet one-way delay: 145.997 ms

Loss rate: 1.04%

-- Flow 3:

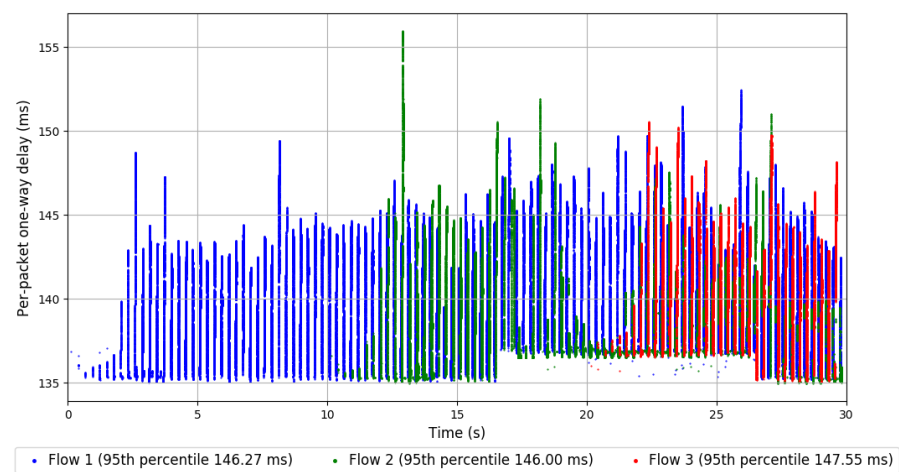
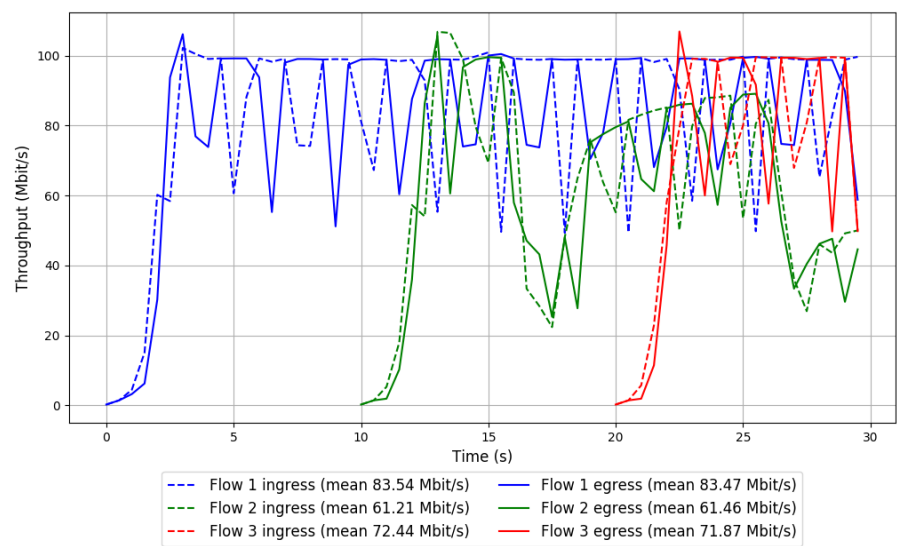
Average throughput: 71.87 Mbit/s

95th percentile per-packet one-way delay: 147.547 ms

Loss rate: 3.54%



Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 19:50:16

End at: 2018-03-14 19:50:46

# Below is generated by plot.py at 2018-03-15 01:46:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.03 Mbit/s

95th percentile per-packet one-way delay: 147.748 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 80.34 Mbit/s

95th percentile per-packet one-way delay: 148.209 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 16.14 Mbit/s

95th percentile per-packet one-way delay: 143.330 ms

Loss rate: 6.25%

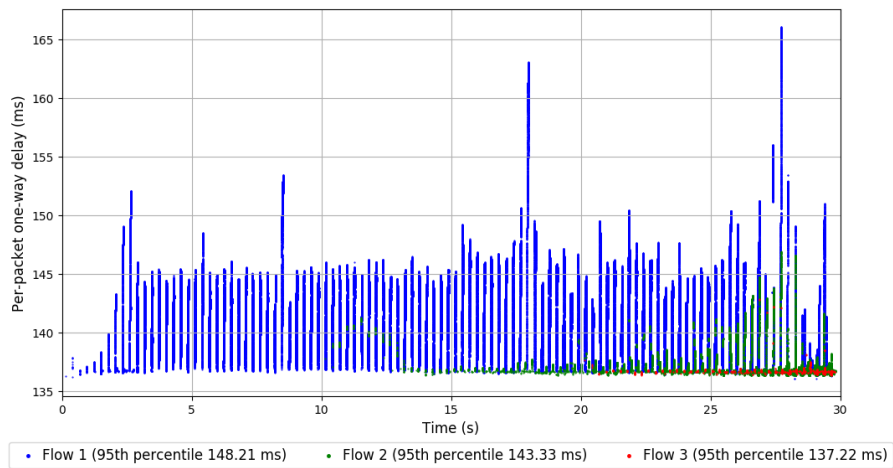
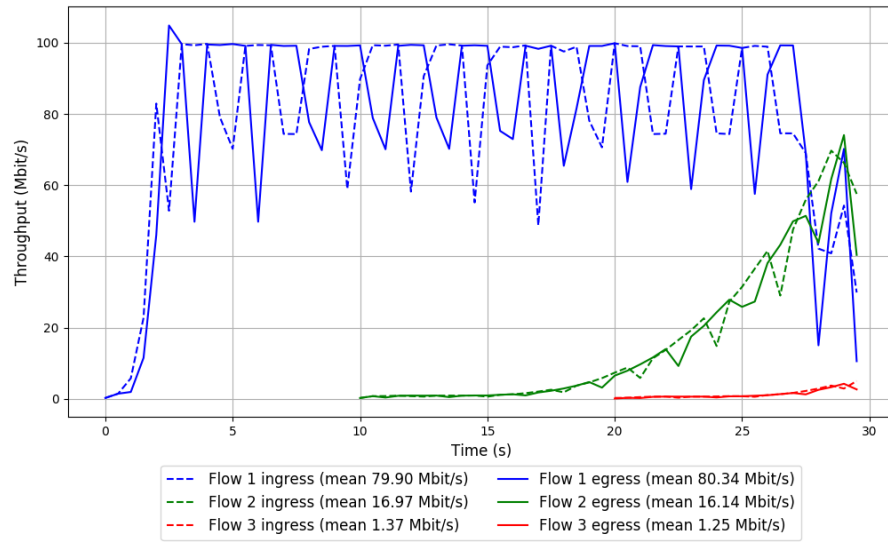
-- Flow 3:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 137.220 ms

Loss rate: 11.22%

# Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 20:10:21

End at: 2018-03-14 20:10:51

# Below is generated by plot.py at 2018-03-15 01:46:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 137.94 Mbit/s

95th percentile per-packet one-way delay: 145.385 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 83.79 Mbit/s

95th percentile per-packet one-way delay: 145.593 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 47.36 Mbit/s

95th percentile per-packet one-way delay: 142.456 ms

Loss rate: 1.67%

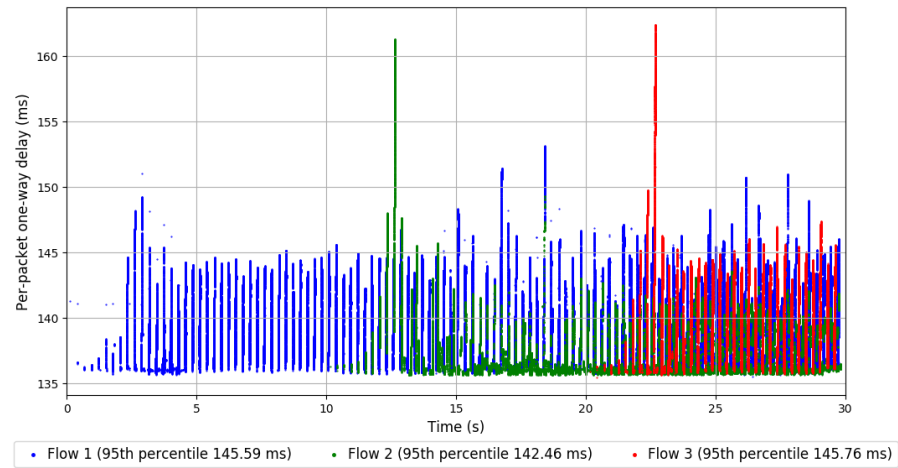
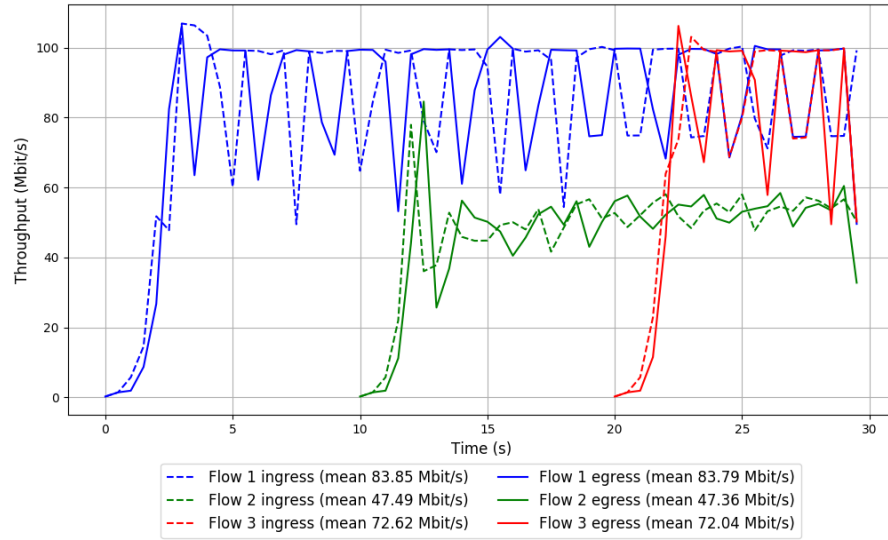
-- Flow 3:

Average throughput: 72.04 Mbit/s

95th percentile per-packet one-way delay: 145.758 ms

Loss rate: 3.54%

# Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 20:30:34

End at: 2018-03-14 20:31:04

# Below is generated by plot.py at 2018-03-15 01:46:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 131.77 Mbit/s

95th percentile per-packet one-way delay: 146.951 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 69.17 Mbit/s

95th percentile per-packet one-way delay: 146.230 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 78.47 Mbit/s

95th percentile per-packet one-way delay: 147.664 ms

Loss rate: 0.67%

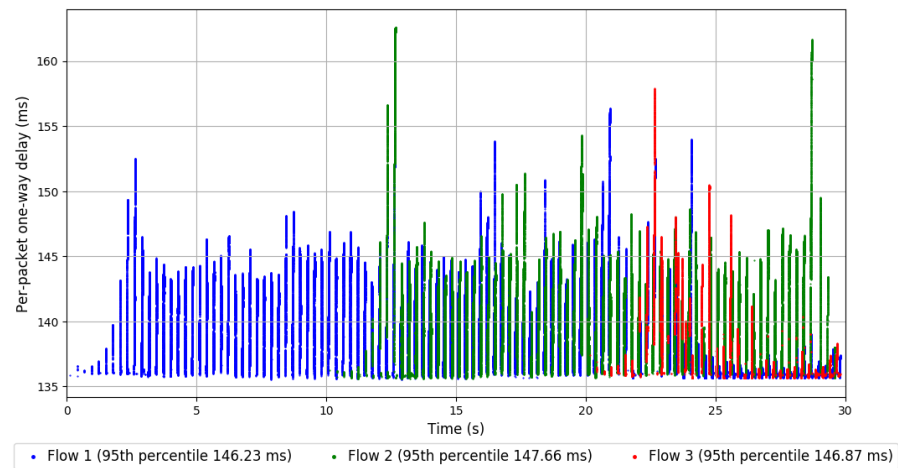
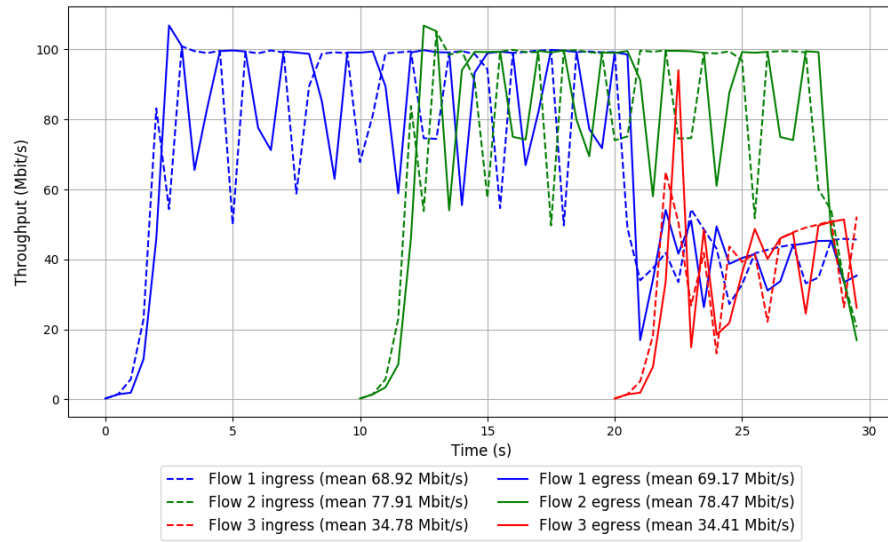
-- Flow 3:

Average throughput: 34.41 Mbit/s

95th percentile per-packet one-way delay: 146.871 ms

Loss rate: 3.79%

# Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-14 20:50:39

End at: 2018-03-14 20:51:09

# Below is generated by plot.py at 2018-03-15 01:47:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 104.58 Mbit/s

95th percentile per-packet one-way delay: 146.477 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 53.97 Mbit/s

95th percentile per-packet one-way delay: 145.138 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 42.26 Mbit/s

95th percentile per-packet one-way delay: 146.038 ms

Loss rate: 1.48%

-- Flow 3:

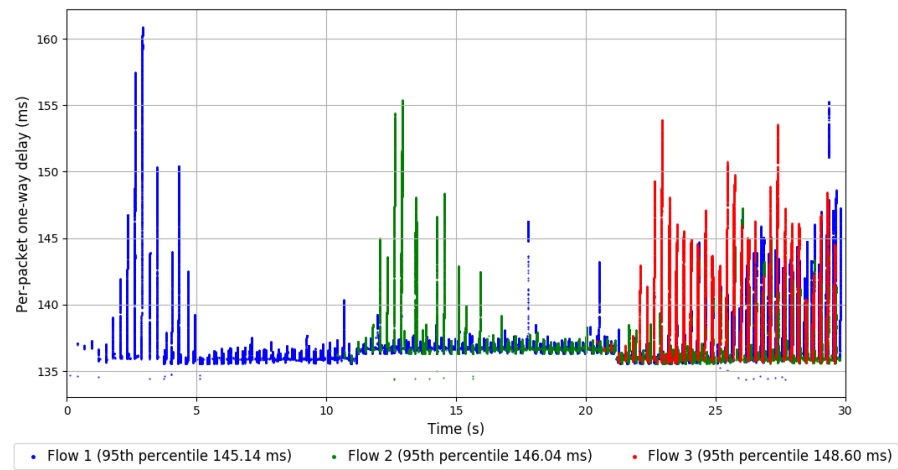
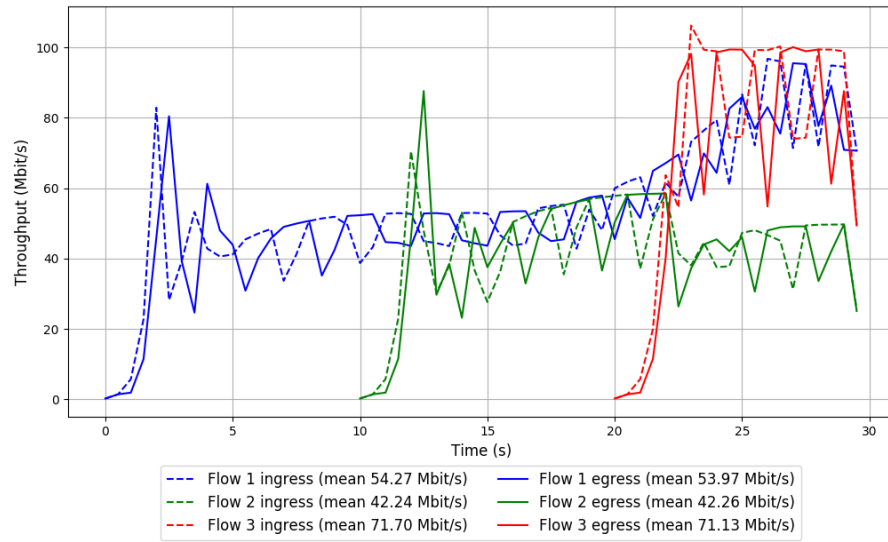
Average throughput: 71.13 Mbit/s

95th percentile per-packet one-way delay: 148.603 ms

Loss rate: 3.55%



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



Run 8: Statistics of TCP Cubic

Start at: 2018-03-14 21:10:17

End at: 2018-03-14 21:10:47

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 147.28 Mbit/s

95th percentile per-packet one-way delay: 147.950 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 71.83 Mbit/s

95th percentile per-packet one-way delay: 146.160 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 80.11 Mbit/s

95th percentile per-packet one-way delay: 148.472 ms

Loss rate: 1.51%

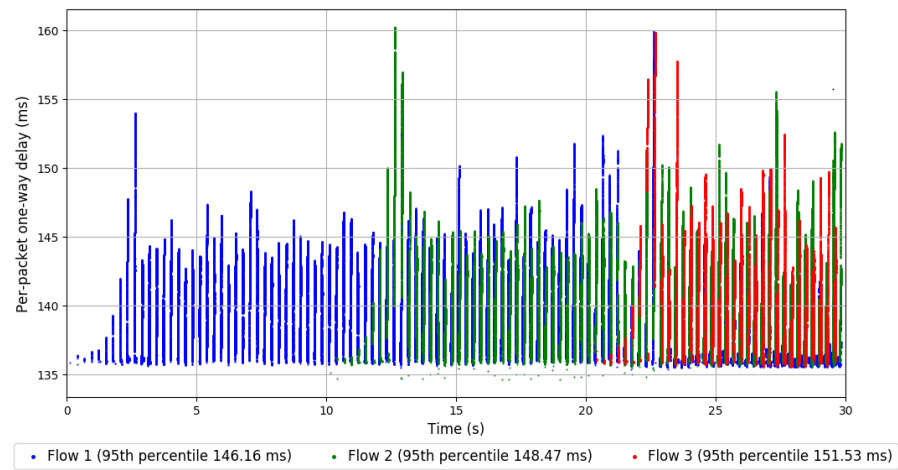
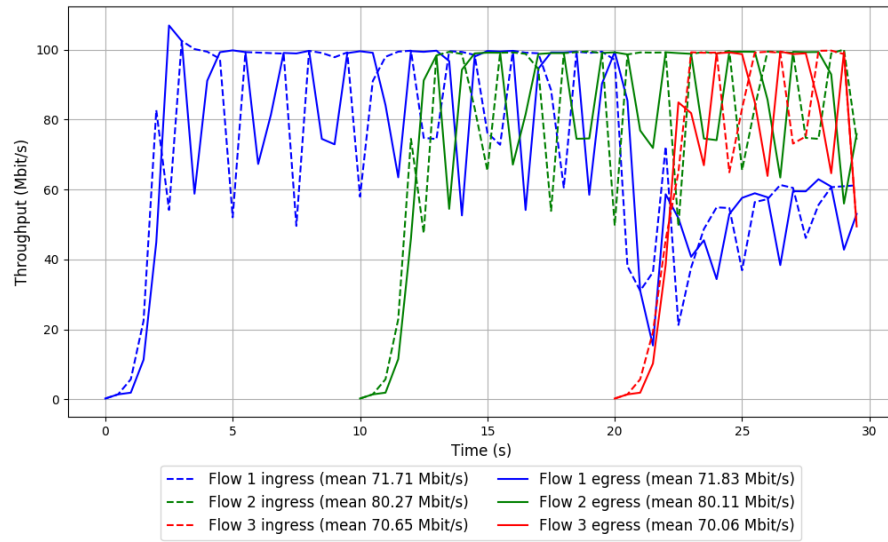
-- Flow 3:

Average throughput: 70.06 Mbit/s

95th percentile per-packet one-way delay: 151.533 ms

Loss rate: 3.60%

# Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-14 21:30:10

End at: 2018-03-14 21:30:40

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.14 Mbit/s

95th percentile per-packet one-way delay: 146.240 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 79.86 Mbit/s

95th percentile per-packet one-way delay: 145.571 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 18.95 Mbit/s

95th percentile per-packet one-way delay: 146.914 ms

Loss rate: 5.53%

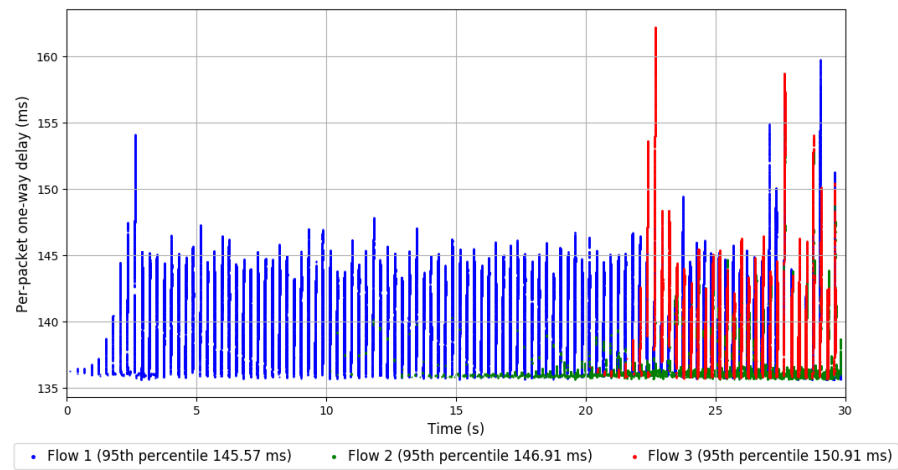
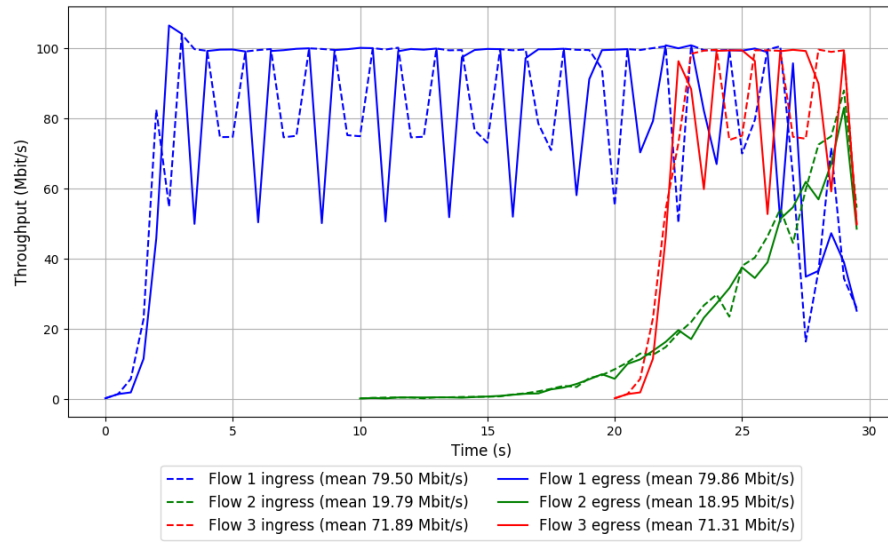
-- Flow 3:

Average throughput: 71.31 Mbit/s

95th percentile per-packet one-way delay: 150.914 ms

Loss rate: 3.56%

# Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-14 21:50:18

End at: 2018-03-14 21:50:48

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.09 Mbit/s

95th percentile per-packet one-way delay: 147.209 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 83.56 Mbit/s

95th percentile per-packet one-way delay: 147.075 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 13.54 Mbit/s

95th percentile per-packet one-way delay: 142.121 ms

Loss rate: 6.64%

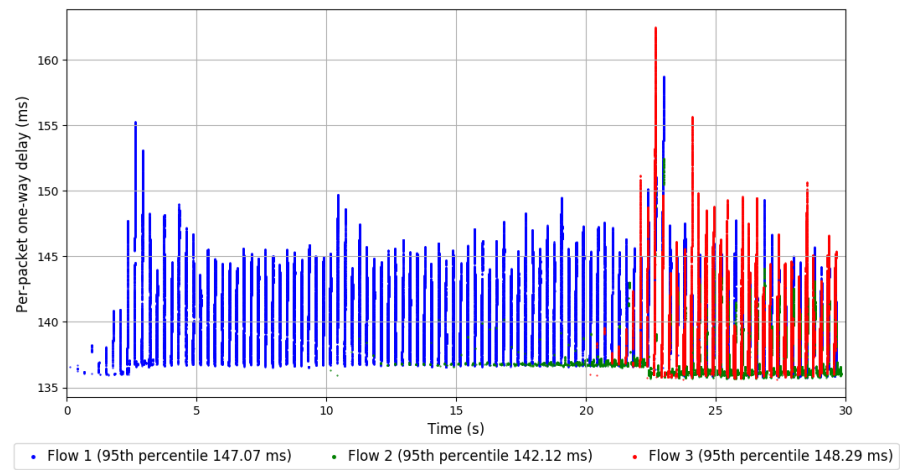
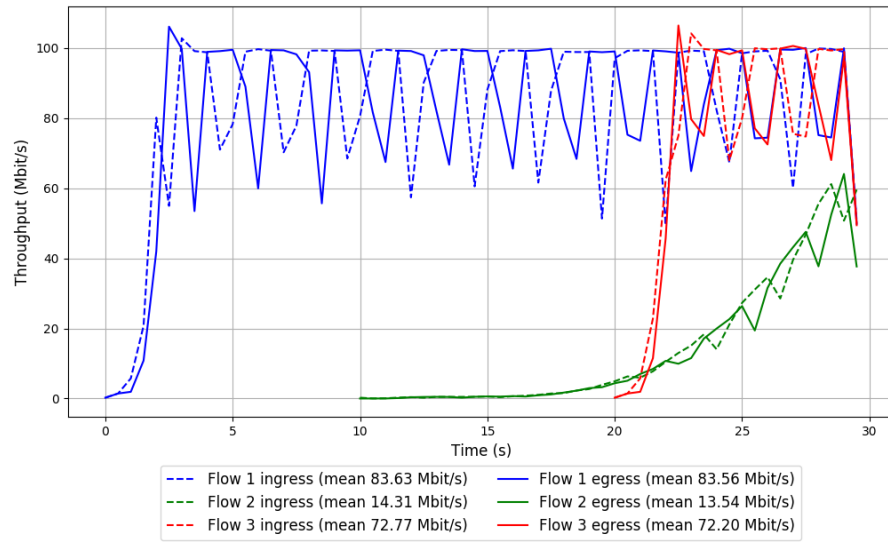
-- Flow 3:

Average throughput: 72.20 Mbit/s

95th percentile per-packet one-way delay: 148.288 ms

Loss rate: 3.52%

# Run 10: Report of TCP Cubic — Data Link



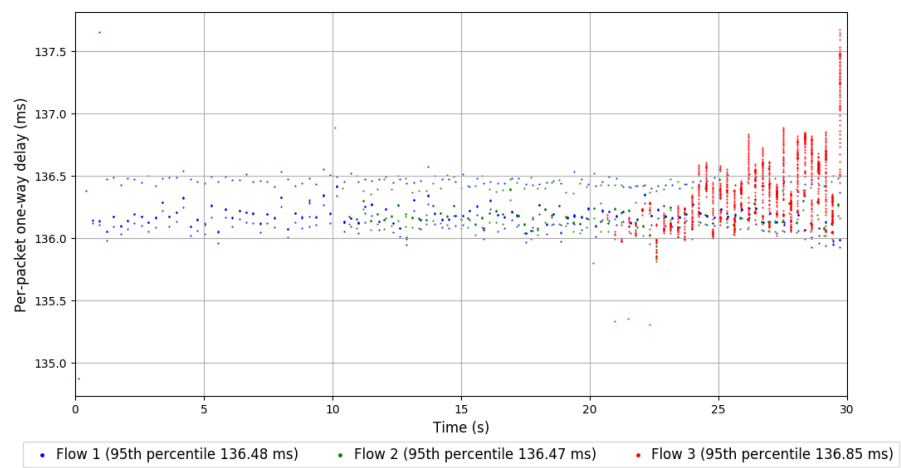
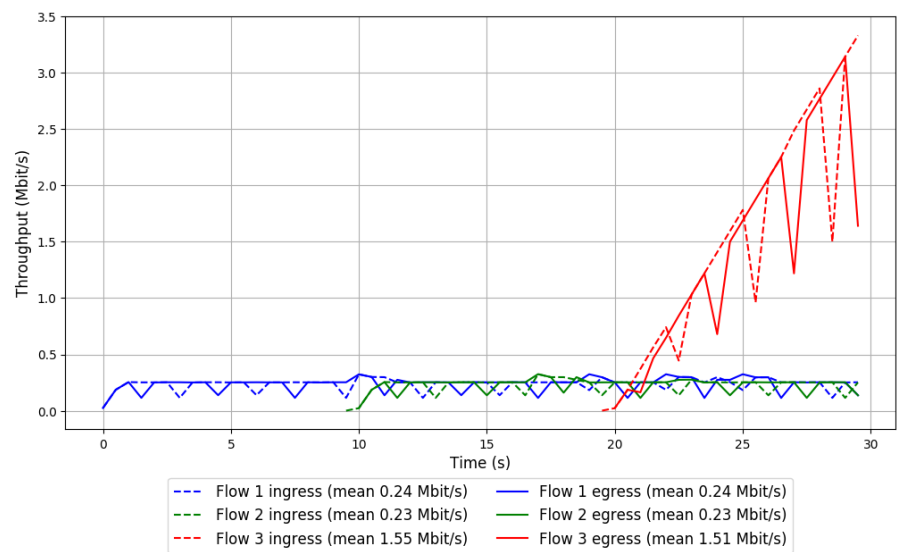
```
Run 1: Statistics of LEDBAT

Start at: 2018-03-14 19:01:10
End at: 2018-03-14 19:01:40

# Below is generated by plot.py at 2018-03-15 01:48:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 136.790 ms
Loss rate: 3.53%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 136.478 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 136.470 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 136.851 ms
Loss rate: 5.51%
```



Run 1: Report of LEDBAT — Data Link

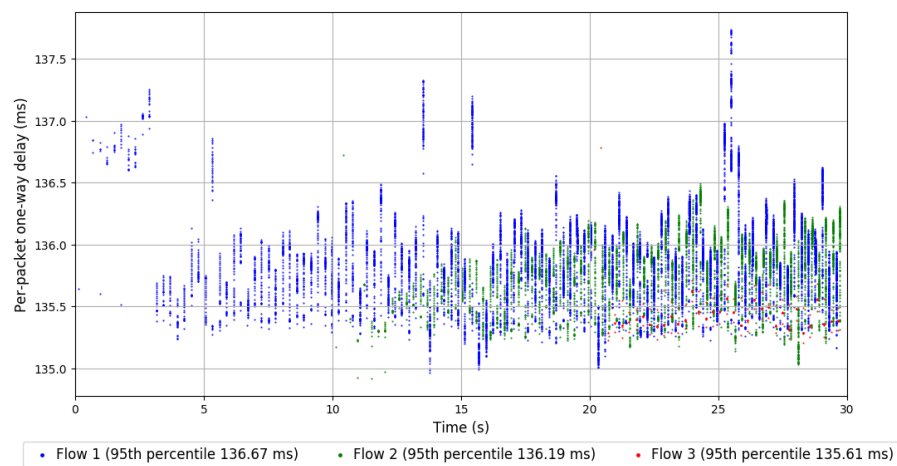
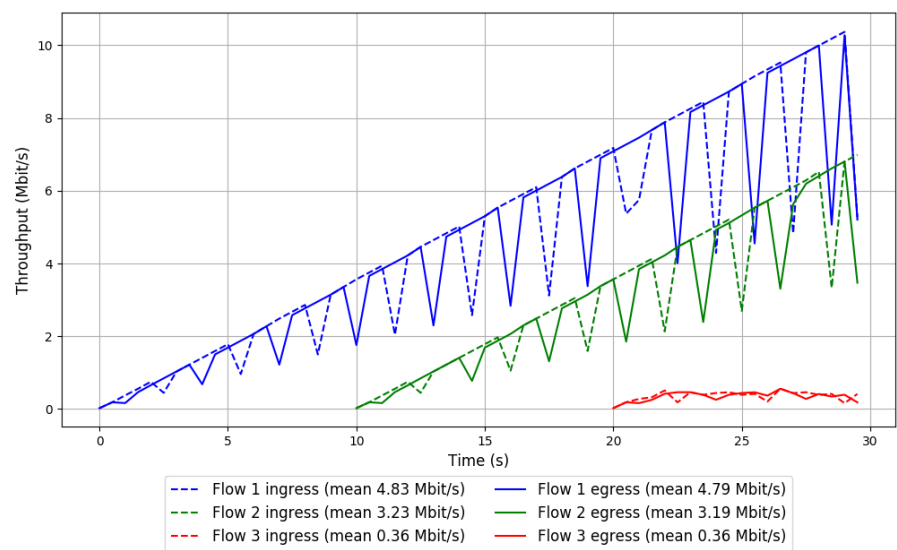


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 19:21:07
End at: 2018-03-14 19:21:37

# Below is generated by plot.py at 2018-03-15 01:48:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.99 Mbit/s
95th percentile per-packet one-way delay: 136.433 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 136.666 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 136.188 ms
Loss rate: 2.74%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 135.614 ms
Loss rate: 3.26%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-14 19:40:58

End at: 2018-03-14 19:41:28

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.09 Mbit/s

95th percentile per-packet one-way delay: 138.075 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 4.60 Mbit/s

95th percentile per-packet one-way delay: 138.188 ms

Loss rate: 1.87%

-- Flow 2:

Average throughput: 3.16 Mbit/s

95th percentile per-packet one-way delay: 137.800 ms

Loss rate: 2.74%

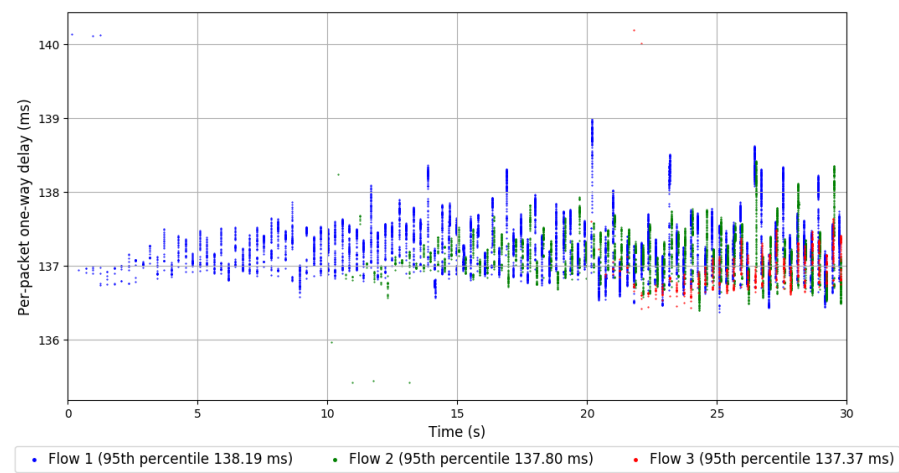
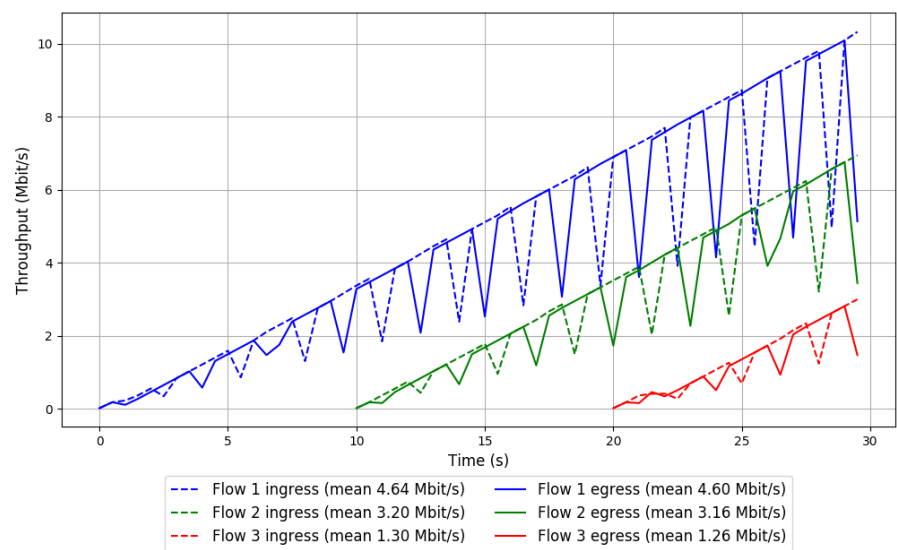
-- Flow 3:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 137.365 ms

Loss rate: 5.92%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-14 20:00:55

End at: 2018-03-14 20:01:25

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.40 Mbit/s

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

Loss rate: 2.72%

-- Flow 1:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 137.707 ms

Loss rate: 2.06%

-- Flow 2:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 137.287 ms

Loss rate: 3.56%

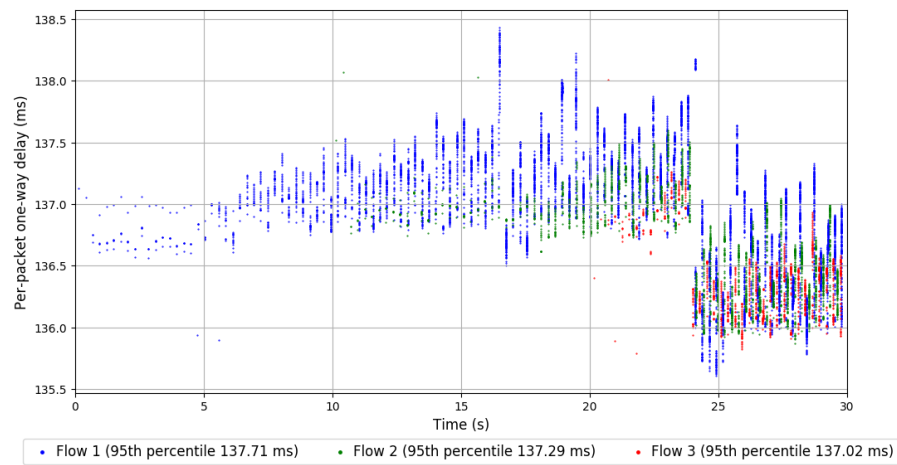
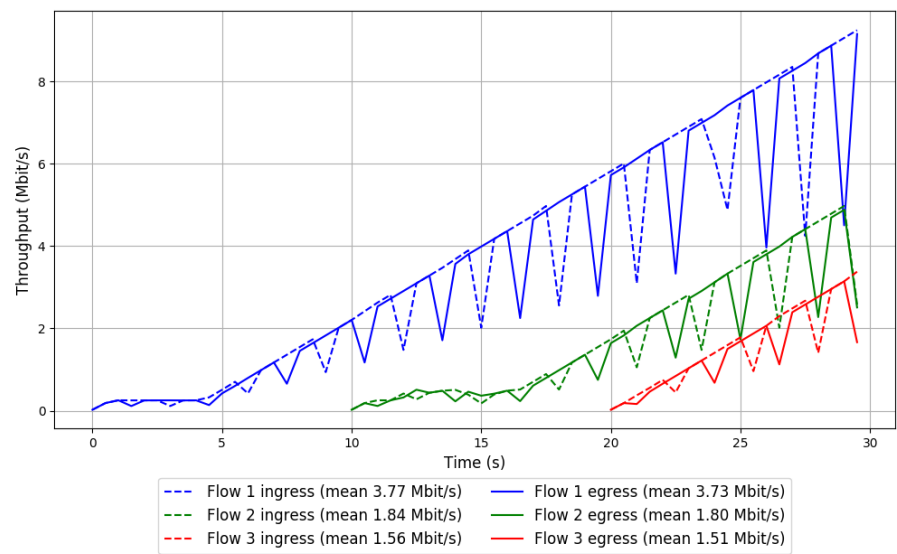
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 137.019 ms

Loss rate: 5.57%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-14 20:21:08

End at: 2018-03-14 20:21:38

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 6.60 Mbit/s

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

Loss rate: 2.43%

-- Flow 1:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 137.202 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 137.020 ms

Loss rate: 3.34%

-- Flow 3:

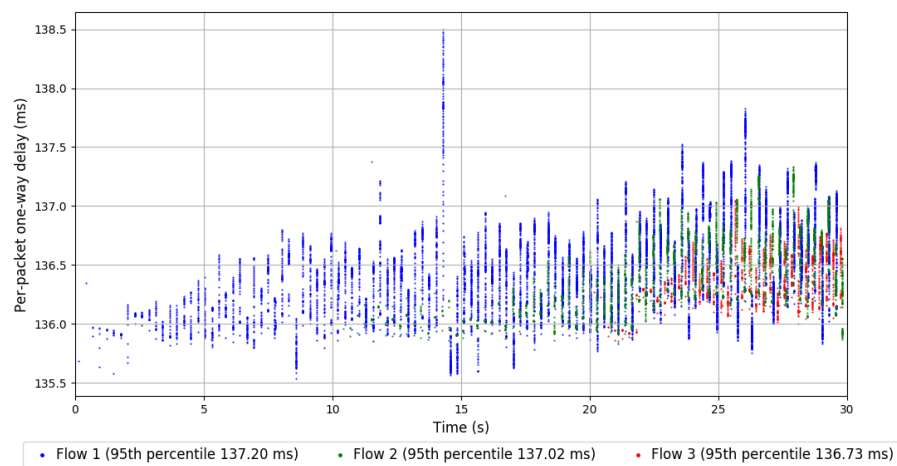
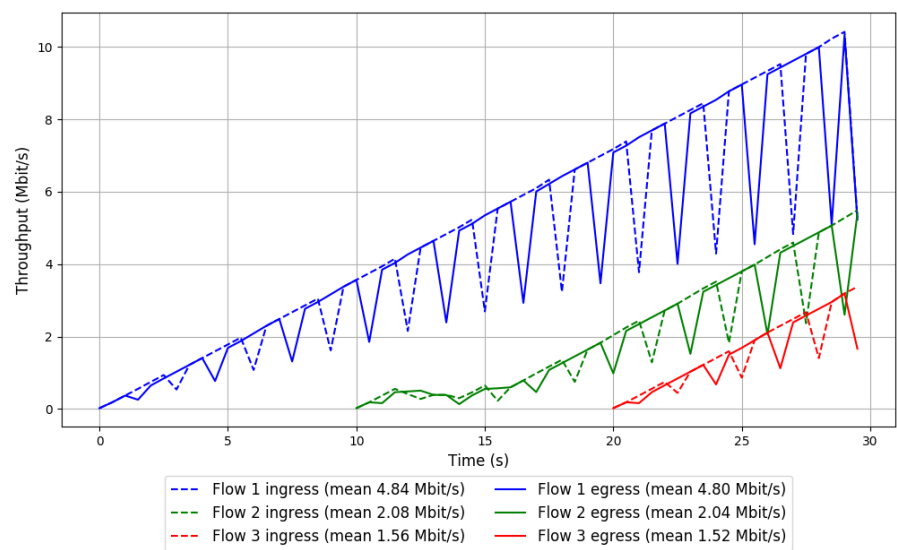
Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 136.733 ms

Loss rate: 5.55%



Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-14 20:41:15

End at: 2018-03-14 20:41:45

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 137.467 ms

Loss rate: 2.06%

-- Flow 1:

Average throughput: 4.77 Mbit/s

95th percentile per-packet one-way delay: 137.493 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 136.853 ms

Loss rate: 1.97%

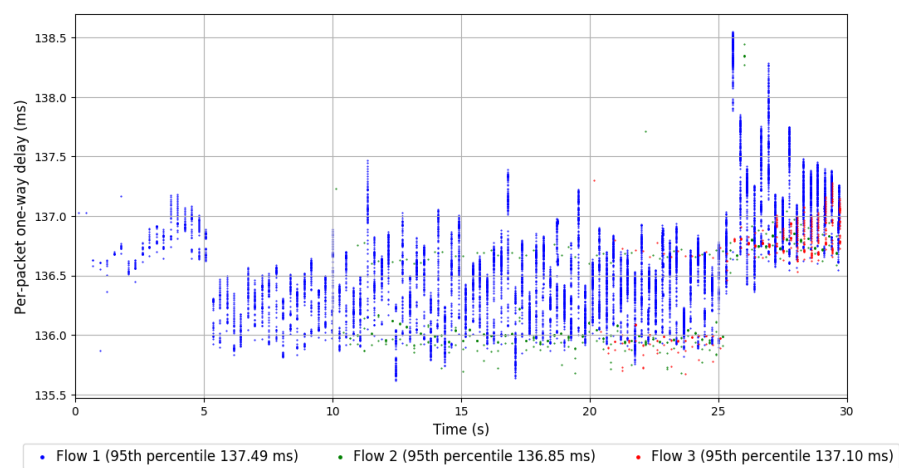
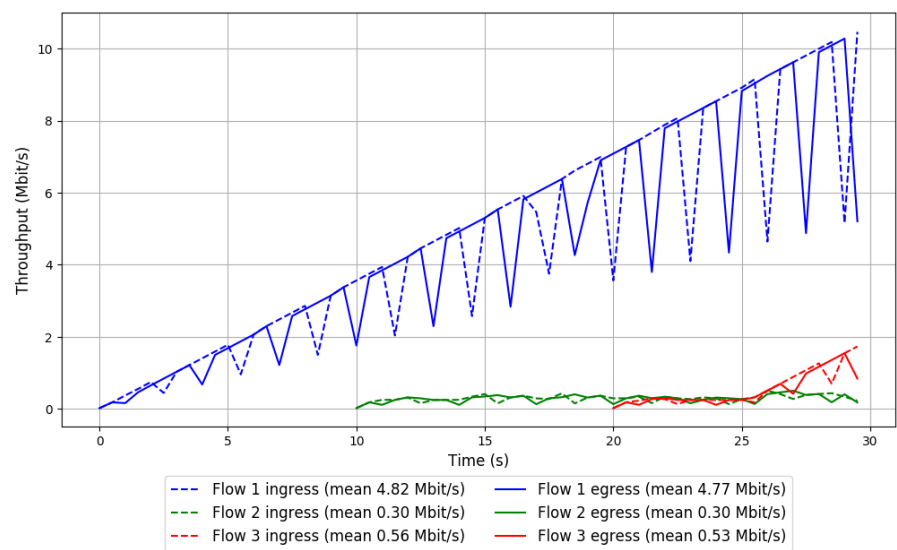
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 137.099 ms

Loss rate: 8.07%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-14 21:00:51

End at: 2018-03-14 21:01:21

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 137.263 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 137.275 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 136.632 ms

Loss rate: 5.26%

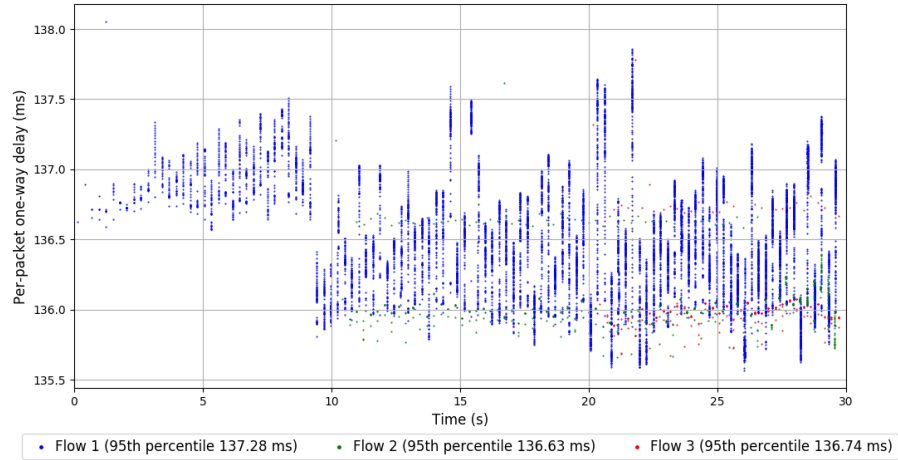
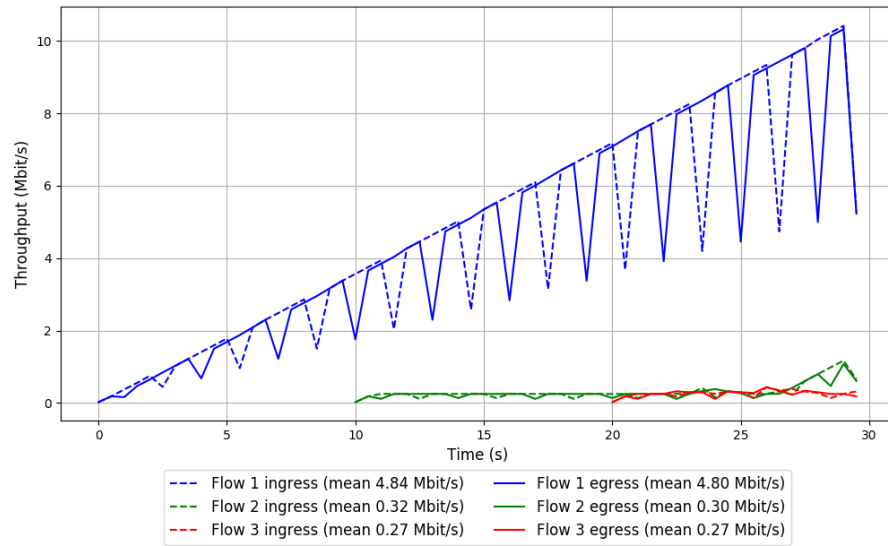
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 136.738 ms

Loss rate: 2.61%

# Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-14 21:20:46

End at: 2018-03-14 21:21:16

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 5.48 Mbit/s

95th percentile per-packet one-way delay: 137.050 ms

Loss rate: 2.26%

-- Flow 1:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 137.080 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 136.680 ms

Loss rate: 3.79%

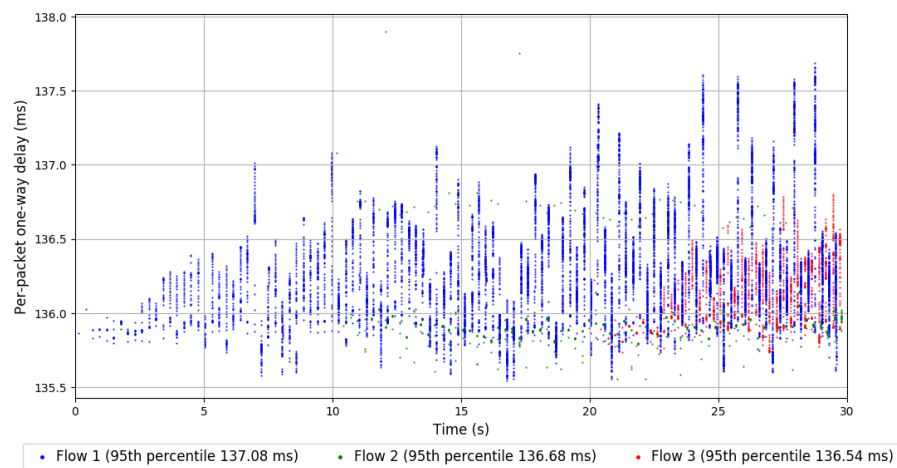
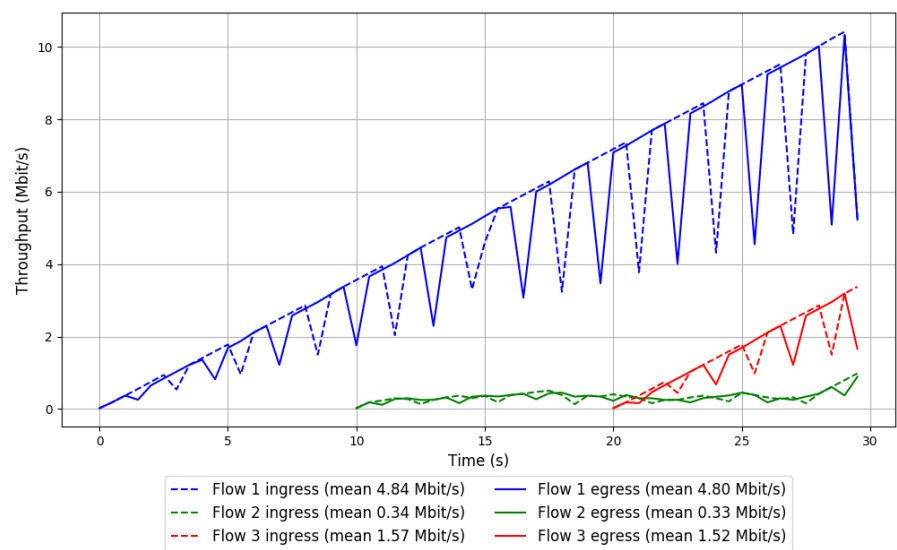
-- Flow 3:

Average throughput: 1.52 Mbit/s

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

Loss rate: 5.55%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-14 21:40:57

End at: 2018-03-14 21:41:27

# Below is generated by plot.py at 2018-03-15 01:48:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 7.16 Mbit/s

95th percentile per-packet one-way delay: 137.865 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 4.79 Mbit/s

95th percentile per-packet one-way delay: 137.881 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 3.18 Mbit/s

95th percentile per-packet one-way delay: 137.803 ms

Loss rate: 2.74%

-- Flow 3:

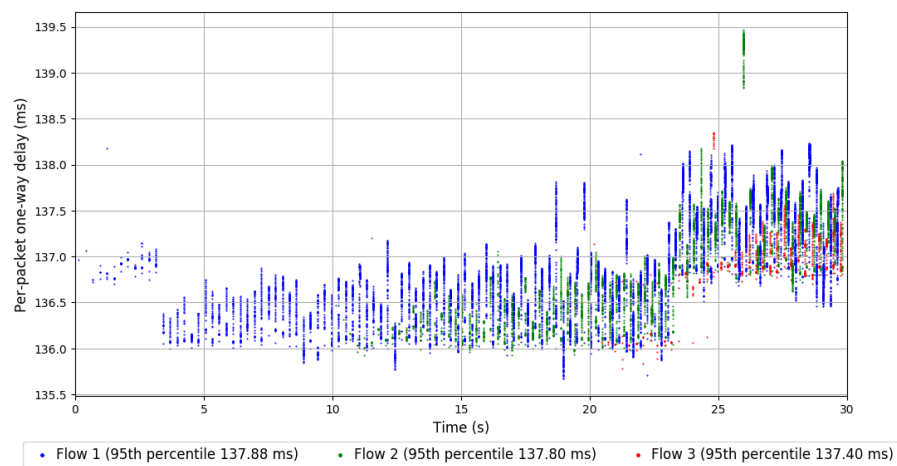
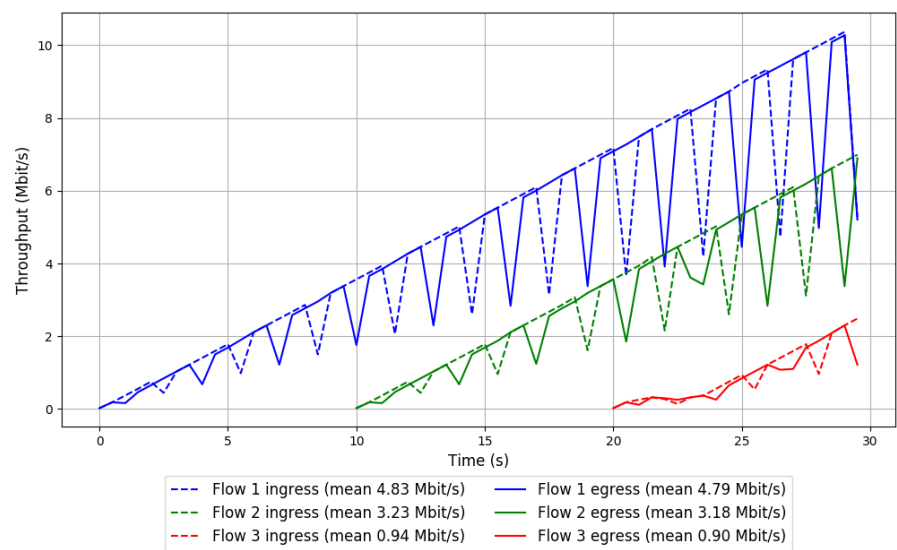
Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 137.404 ms

Loss rate: 6.84%



Run 9: Report of LEDBAT — Data Link

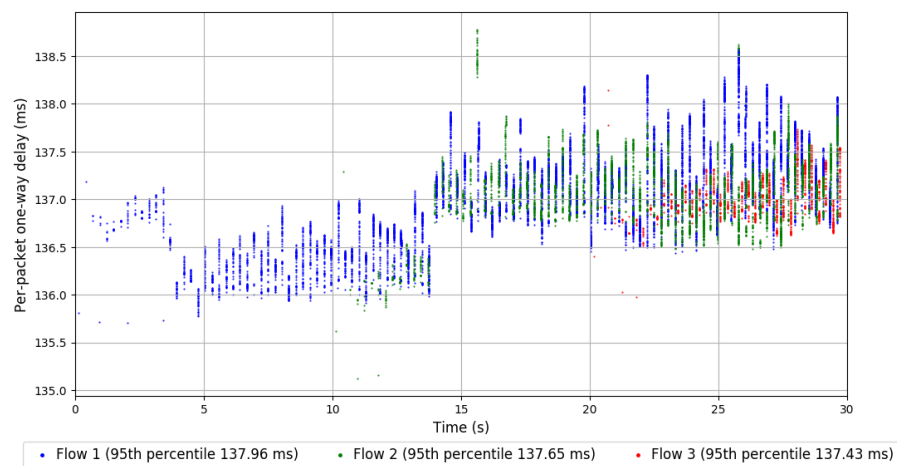
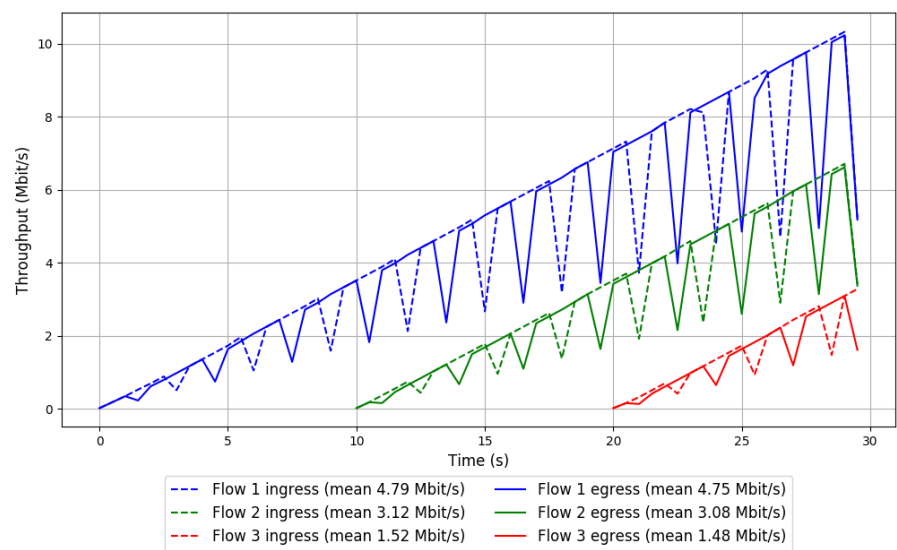


```
Run 10: Statistics of LEDBAT

Start at: 2018-03-14 22:00:36
End at: 2018-03-14 22:01:06

# Below is generated by plot.py at 2018-03-15 01:48:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 137.828 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 137.959 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 137.653 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 137.429 ms
Loss rate: 5.57%
```

Run 10: Report of LEDBAT — Data Link

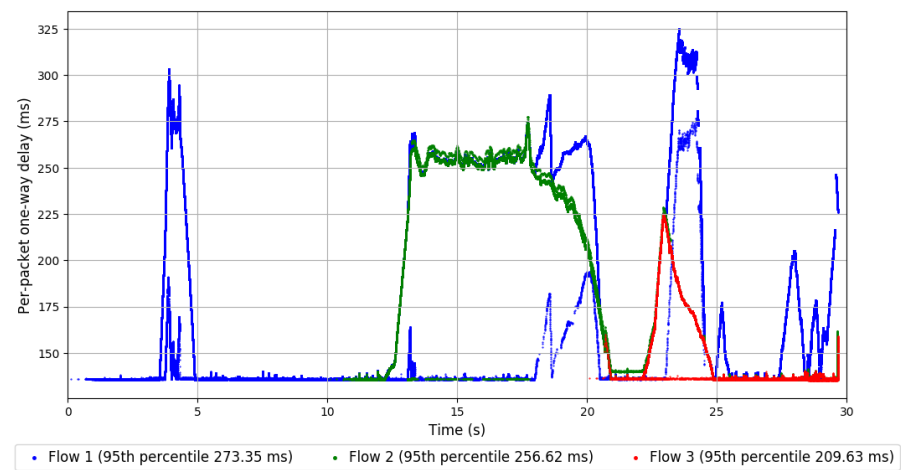
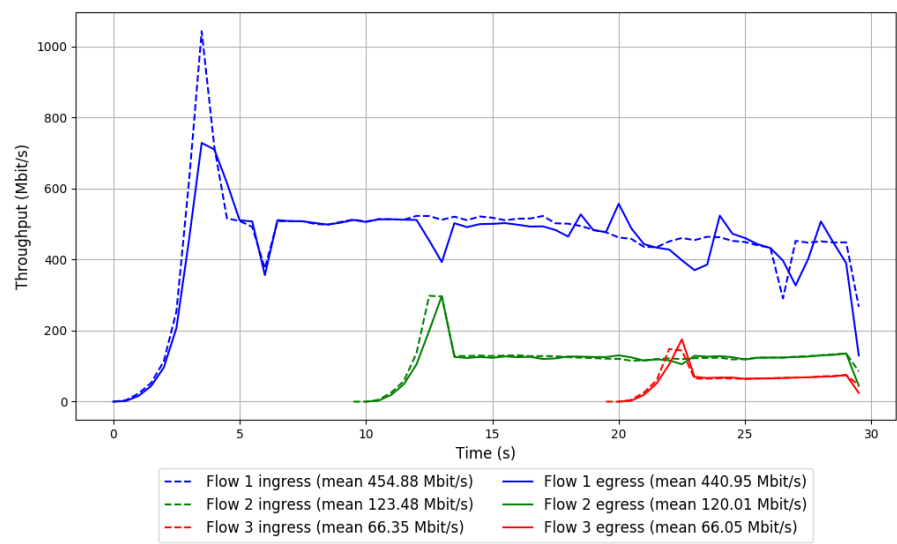


```
Run 1: Statistics of PCC

Start at: 2018-03-14 18:57:17
End at: 2018-03-14 18:57:47

# Below is generated by plot.py at 2018-03-15 01:58:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 541.96 Mbit/s
95th percentile per-packet one-way delay: 267.142 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 440.95 Mbit/s
95th percentile per-packet one-way delay: 273.349 ms
Loss rate: 3.95%
-- Flow 2:
Average throughput: 120.01 Mbit/s
95th percentile per-packet one-way delay: 256.617 ms
Loss rate: 4.15%
-- Flow 3:
Average throughput: 66.05 Mbit/s
95th percentile per-packet one-way delay: 209.626 ms
Loss rate: 3.21%
```

Run 1: Report of PCC — Data Link

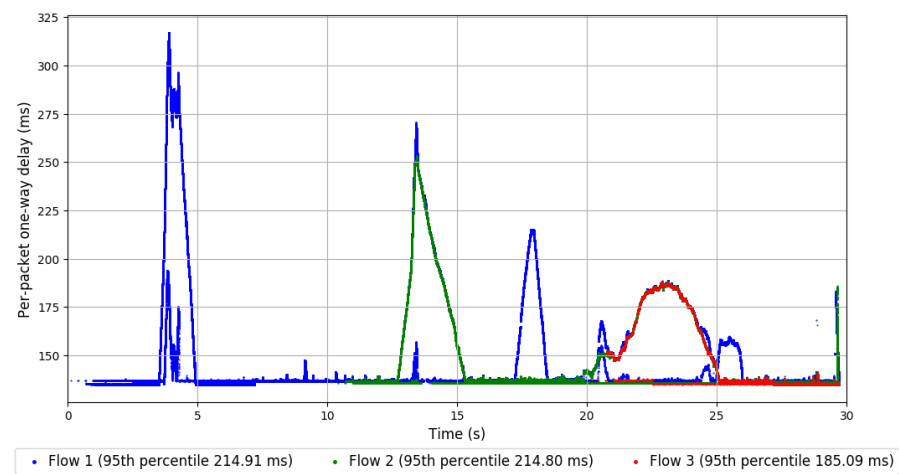
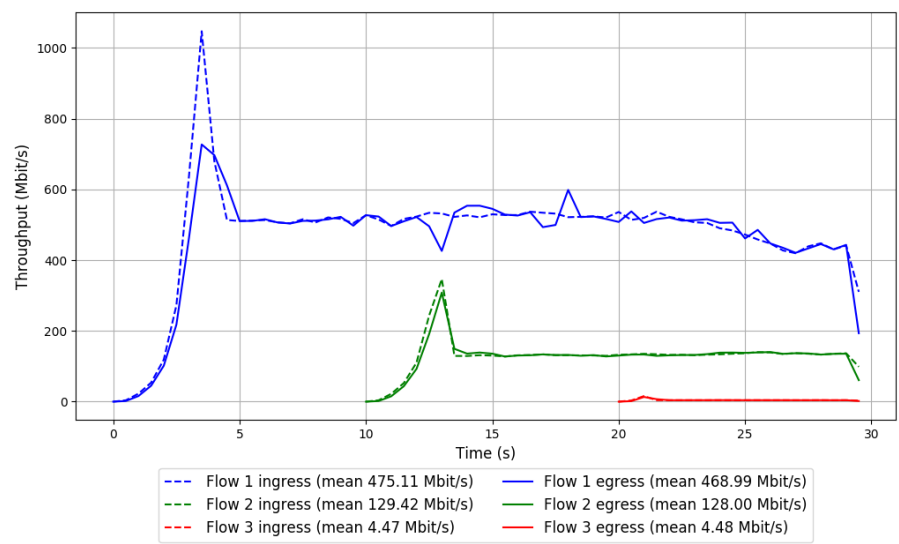


```
Run 2: Statistics of PCC

Start at: 2018-03-14 19:17:23
End at: 2018-03-14 19:17:53

# Below is generated by plot.py at 2018-03-15 01:59:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 555.11 Mbit/s
95th percentile per-packet one-way delay: 214.863 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 468.99 Mbit/s
95th percentile per-packet one-way delay: 214.913 ms
Loss rate: 2.19%
-- Flow 2:
Average throughput: 128.00 Mbit/s
95th percentile per-packet one-way delay: 214.799 ms
Loss rate: 2.46%
-- Flow 3:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 185.092 ms
Loss rate: 2.63%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-14 19:37:12

End at: 2018-03-14 19:37:42

# Below is generated by plot.py at 2018-03-15 01:59:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 530.85 Mbit/s

95th percentile per-packet one-way delay: 341.022 ms

Loss rate: 4.34%

-- Flow 1:

Average throughput: 465.80 Mbit/s

95th percentile per-packet one-way delay: 344.270 ms

Loss rate: 4.47%

-- Flow 2:

Average throughput: 67.13 Mbit/s

95th percentile per-packet one-way delay: 252.118 ms

Loss rate: 2.50%

-- Flow 3:

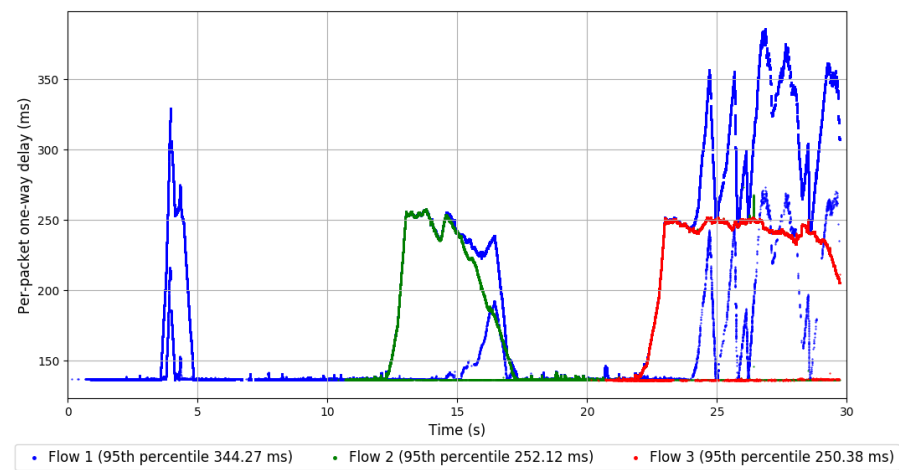
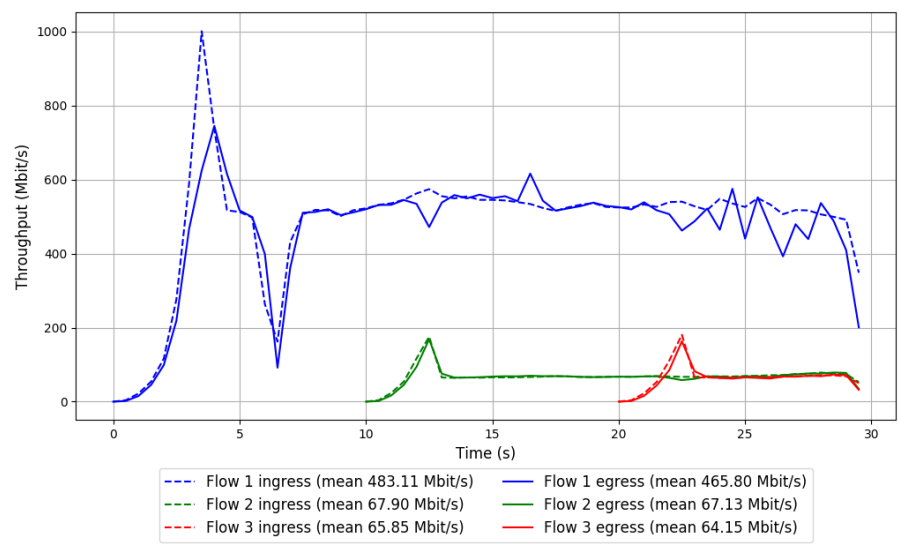
Average throughput: 64.15 Mbit/s

95th percentile per-packet one-way delay: 250.385 ms

Loss rate: 5.24%



Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-14 19:57:09

End at: 2018-03-14 19:57:39

# Below is generated by plot.py at 2018-03-15 01:59:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 552.28 Mbit/s

95th percentile per-packet one-way delay: 279.920 ms

Loss rate: 10.45%

-- Flow 1:

Average throughput: 411.45 Mbit/s

95th percentile per-packet one-way delay: 298.538 ms

Loss rate: 9.12%

-- Flow 2:

Average throughput: 118.40 Mbit/s

95th percentile per-packet one-way delay: 250.116 ms

Loss rate: 8.73%

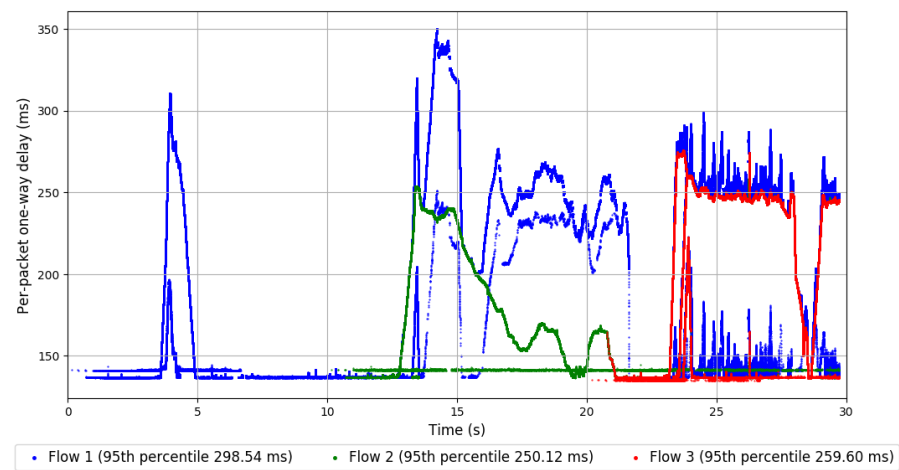
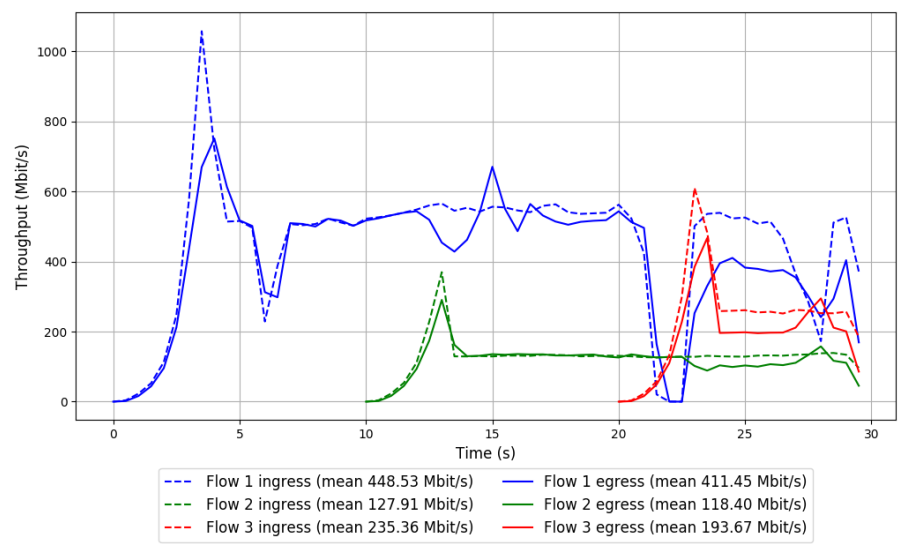
-- Flow 3:

Average throughput: 193.67 Mbit/s

95th percentile per-packet one-way delay: 259.598 ms

Loss rate: 20.01%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-14 20:17:12

End at: 2018-03-14 20:17:42

# Below is generated by plot.py at 2018-03-15 02:00:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 567.76 Mbit/s

95th percentile per-packet one-way delay: 277.947 ms

Loss rate: 3.66%

-- Flow 1:

Average throughput: 463.87 Mbit/s

95th percentile per-packet one-way delay: 283.117 ms

Loss rate: 3.36%

-- Flow 2:

Average throughput: 126.88 Mbit/s

95th percentile per-packet one-way delay: 249.457 ms

Loss rate: 4.65%

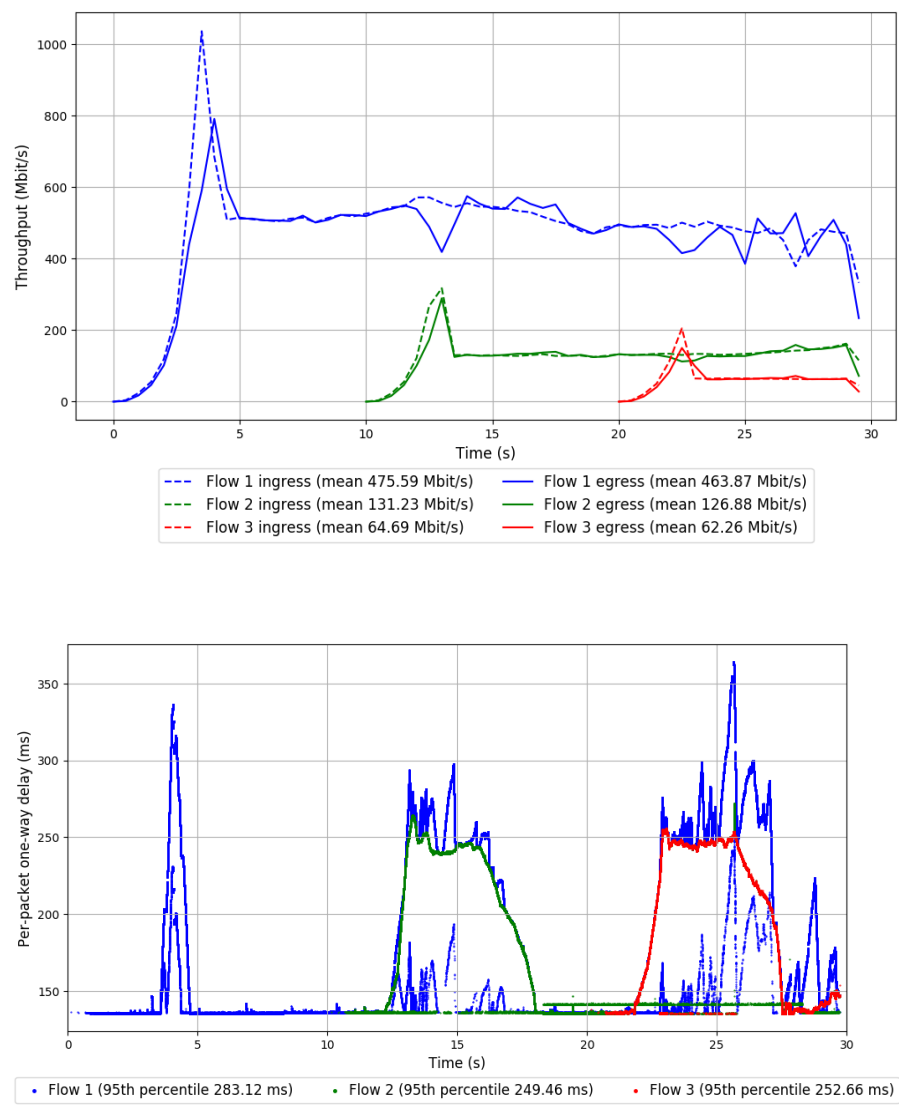
-- Flow 3:

Average throughput: 62.26 Mbit/s

95th percentile per-packet one-way delay: 252.658 ms

Loss rate: 6.38%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-14 20:37:29

End at: 2018-03-14 20:37:59

# Below is generated by plot.py at 2018-03-15 02:00:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 554.67 Mbit/s

95th percentile per-packet one-way delay: 285.561 ms

Loss rate: 3.65%

-- Flow 1:

Average throughput: 490.91 Mbit/s

95th percentile per-packet one-way delay: 290.008 ms

Loss rate: 3.61%

-- Flow 2:

Average throughput: 65.88 Mbit/s

95th percentile per-packet one-way delay: 250.221 ms

Loss rate: 2.73%

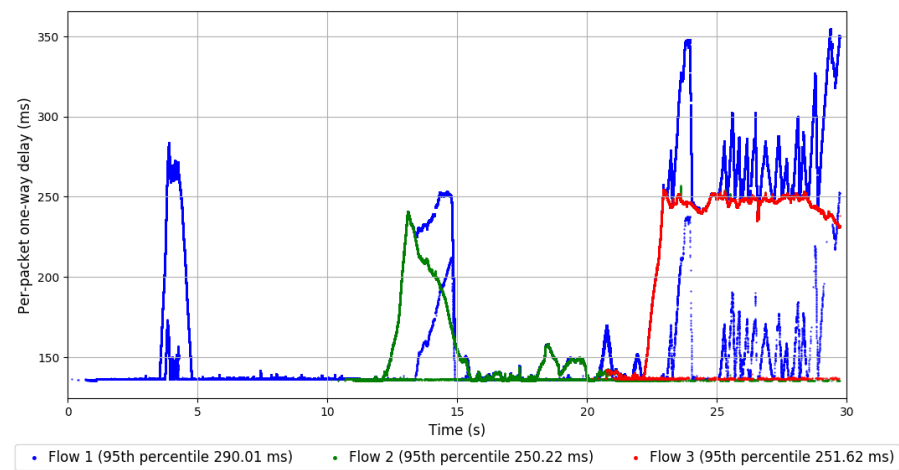
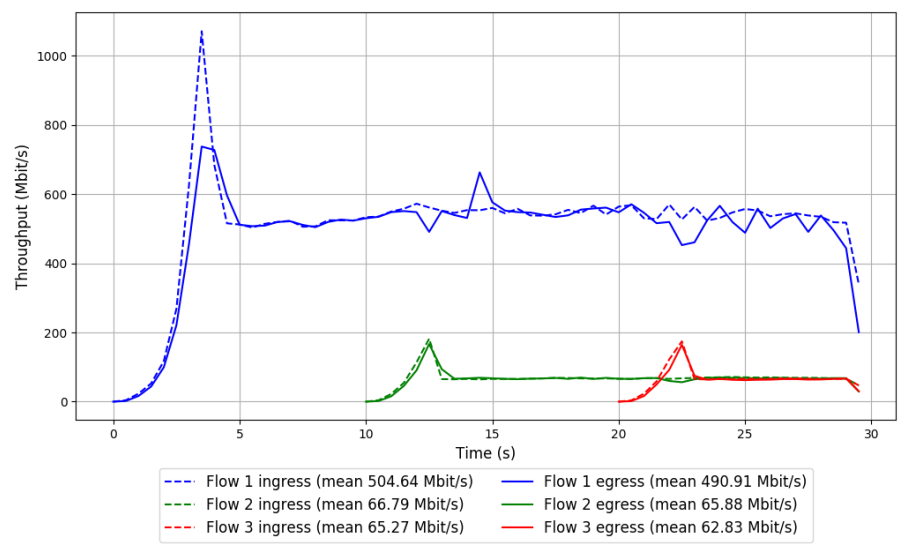
-- Flow 3:

Average throughput: 62.83 Mbit/s

95th percentile per-packet one-way delay: 251.618 ms

Loss rate: 6.37%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-14 20:57:04

End at: 2018-03-14 20:57:34

# Below is generated by plot.py at 2018-03-15 02:01:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 571.49 Mbit/s

95th percentile per-packet one-way delay: 289.460 ms

Loss rate: 2.80%

-- Flow 1:

Average throughput: 486.59 Mbit/s

95th percentile per-packet one-way delay: 293.476 ms

Loss rate: 2.72%

-- Flow 2:

Average throughput: 127.18 Mbit/s

95th percentile per-packet one-way delay: 246.413 ms

Loss rate: 3.30%

-- Flow 3:

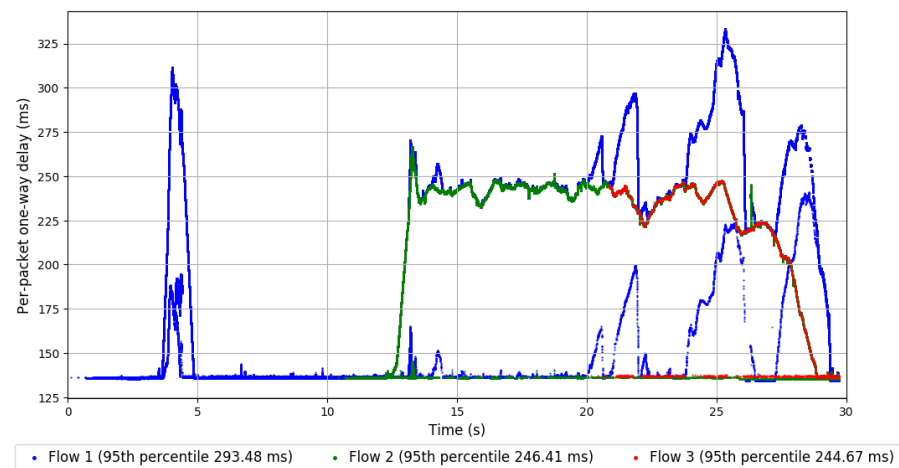
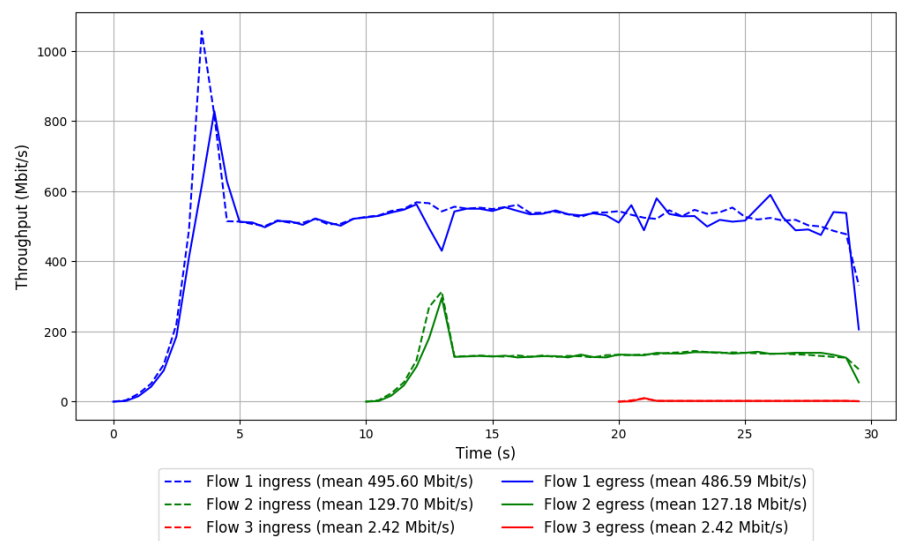
Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 244.669 ms

Loss rate: 2.76%



Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-14 21:16:51

End at: 2018-03-14 21:17:21

# Below is generated by plot.py at 2018-03-15 02:01:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 537.72 Mbit/s

95th percentile per-packet one-way delay: 366.394 ms

Loss rate: 4.99%

-- Flow 1:

Average throughput: 475.13 Mbit/s

95th percentile per-packet one-way delay: 368.014 ms

Loss rate: 5.07%

-- Flow 2:

Average throughput: 64.89 Mbit/s

95th percentile per-packet one-way delay: 250.731 ms

Loss rate: 2.99%

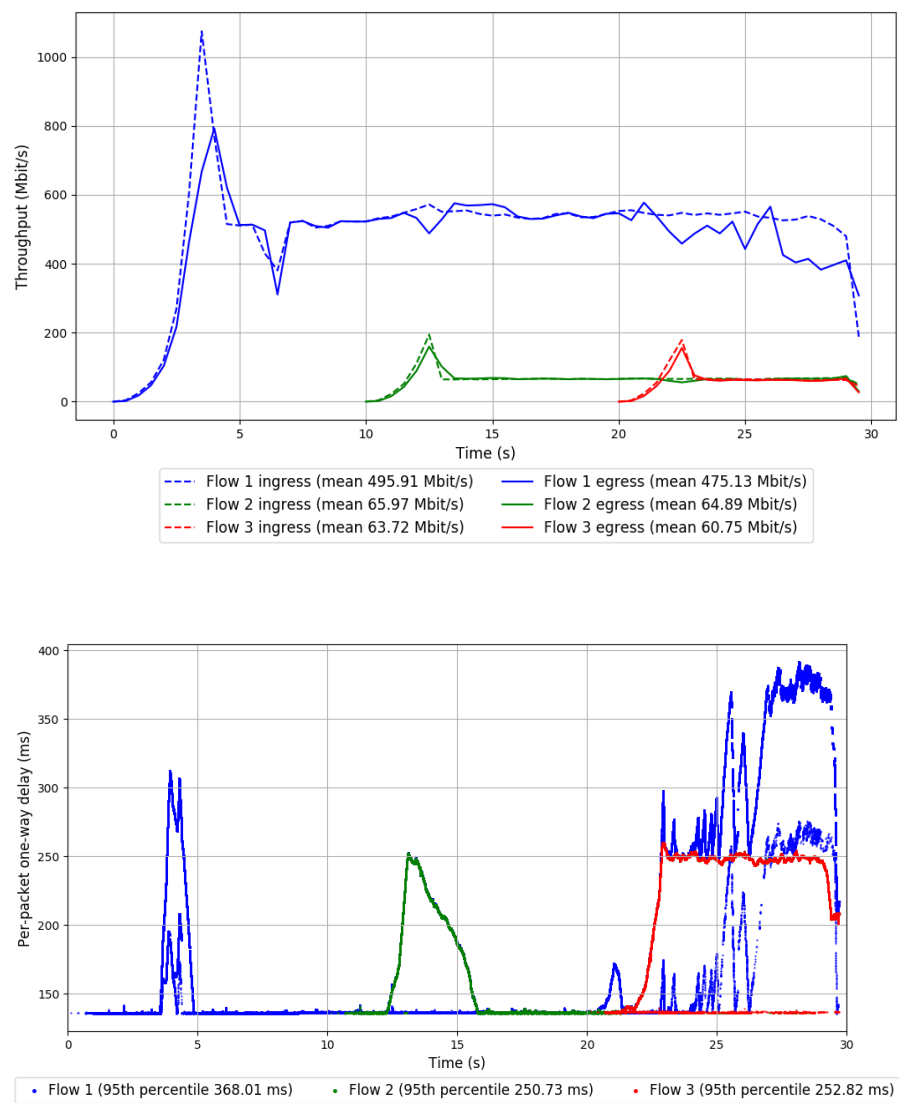
-- Flow 3:

Average throughput: 60.75 Mbit/s

95th percentile per-packet one-way delay: 252.819 ms

Loss rate: 7.33%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-14 21:37:04

End at: 2018-03-14 21:37:34

# Below is generated by plot.py at 2018-03-15 02:09:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 509.68 Mbit/s

95th percentile per-packet one-way delay: 287.475 ms

Loss rate: 5.16%

-- Flow 1:

Average throughput: 417.50 Mbit/s

95th percentile per-packet one-way delay: 289.672 ms

Loss rate: 4.13%

-- Flow 2:

Average throughput: 33.78 Mbit/s

95th percentile per-packet one-way delay: 245.671 ms

Loss rate: 3.59%

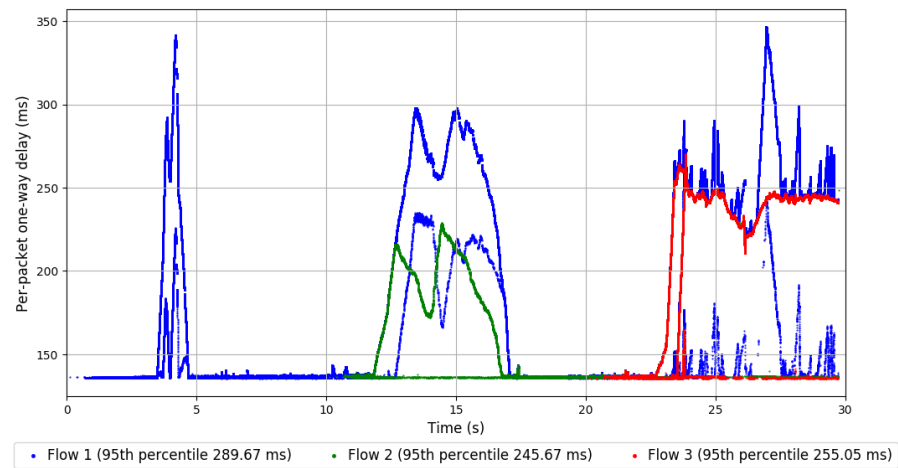
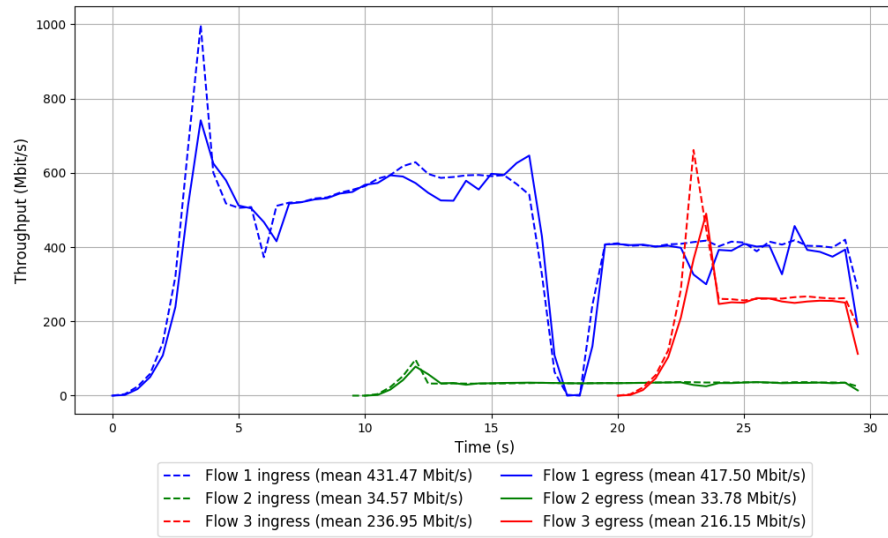
-- Flow 3:

Average throughput: 216.15 Mbit/s

95th percentile per-packet one-way delay: 255.052 ms

Loss rate: 11.31%

## Run 9: Report of PCC — Data Link

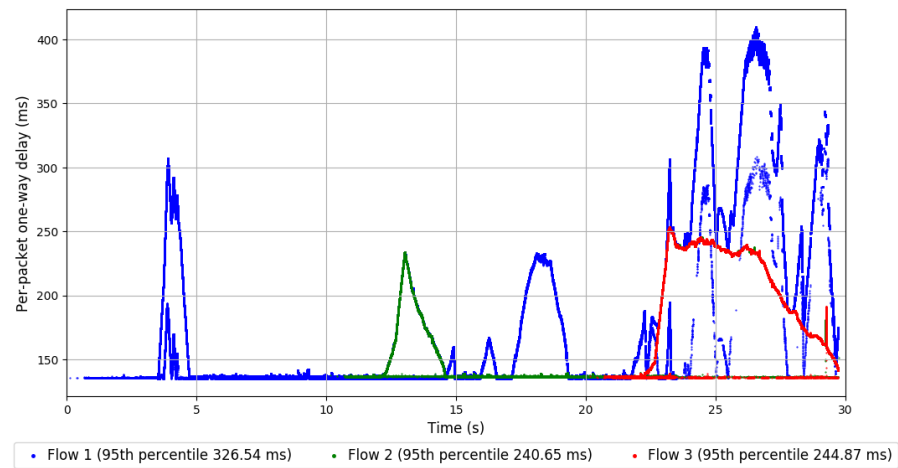
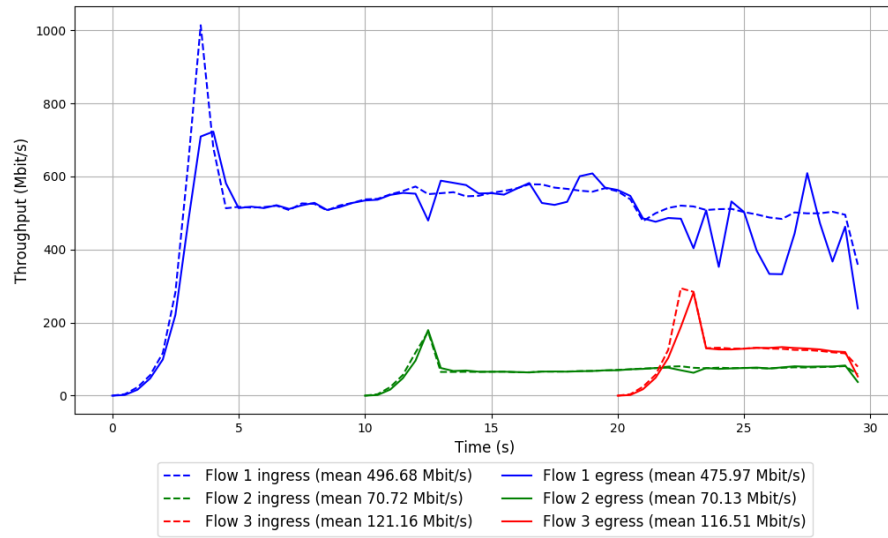


```
Run 10: Statistics of PCC

Start at: 2018-03-14 21:56:46
End at: 2018-03-14 21:57:16

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 559.83 Mbit/s
95th percentile per-packet one-way delay: 314.291 ms
Loss rate: 4.92%
-- Flow 1:
Average throughput: 475.97 Mbit/s
95th percentile per-packet one-way delay: 326.539 ms
Loss rate: 5.05%
-- Flow 2:
Average throughput: 70.13 Mbit/s
95th percentile per-packet one-way delay: 240.648 ms
Loss rate: 2.16%
-- Flow 3:
Average throughput: 116.51 Mbit/s
95th percentile per-packet one-way delay: 244.867 ms
Loss rate: 6.52%
```

# Run 10: Report of PCC — Data Link



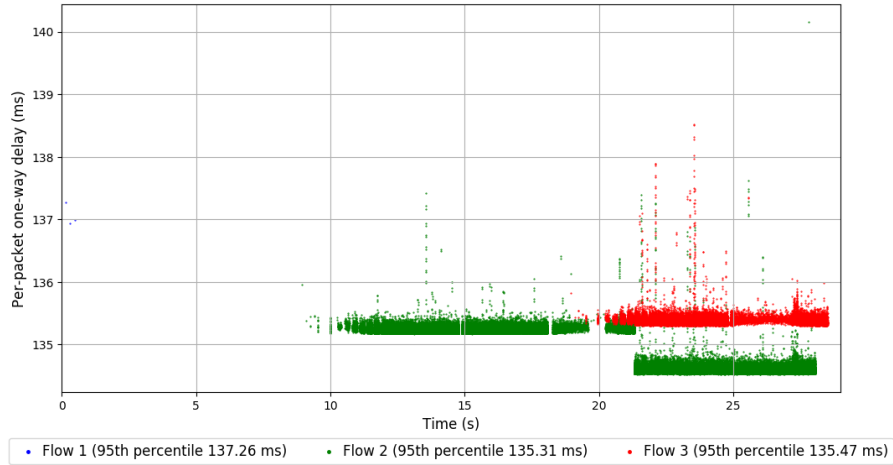
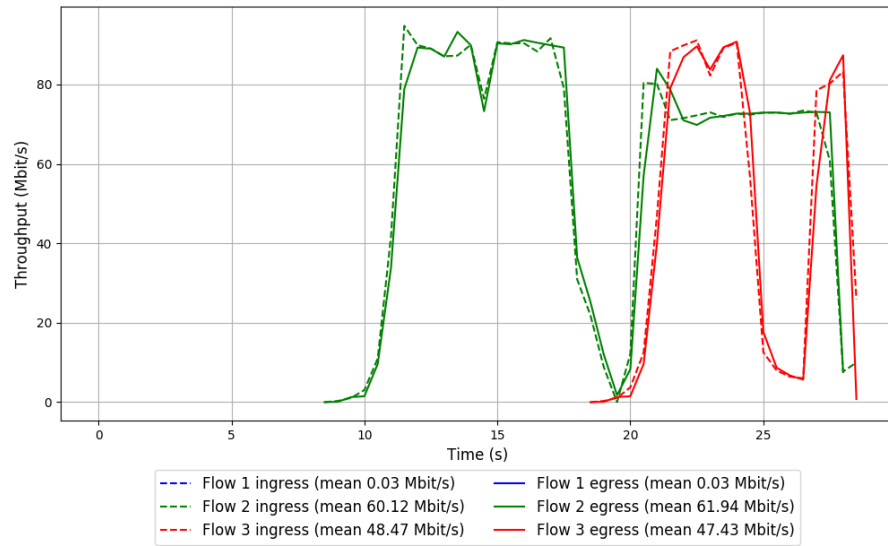
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-14 18:49:17
End at: 2018-03-14 18:49:47

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 57.70 Mbit/s
95th percentile per-packet one-way delay: 135.421 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 137.264 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 135.307 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 47.43 Mbit/s
95th percentile per-packet one-way delay: 135.474 ms
Loss rate: 4.83%
```



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

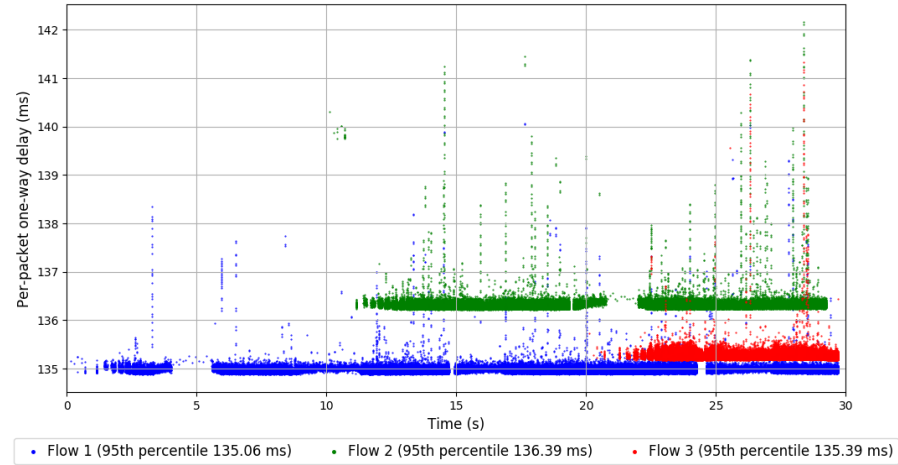
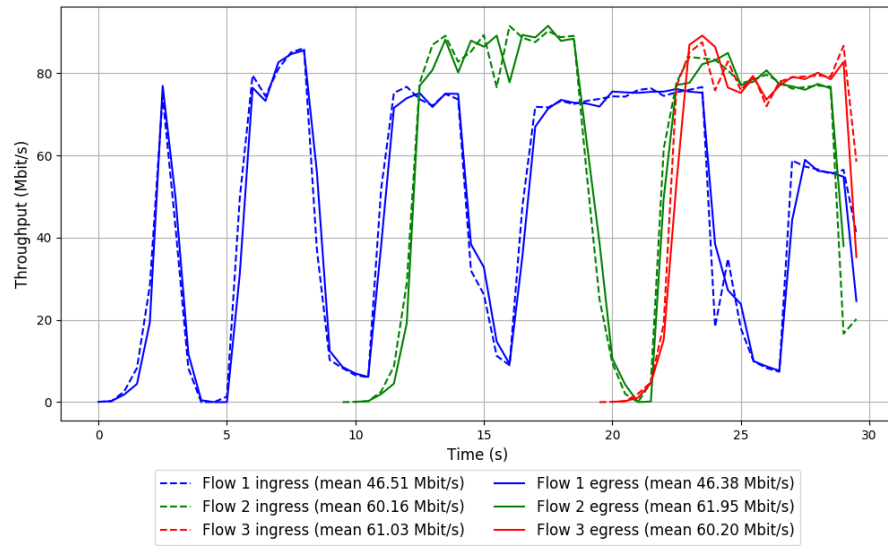


```
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 19:09:34
End at: 2018-03-14 19:10:04

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 105.91 Mbit/s
95th percentile per-packet one-way delay: 136.351 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 46.38 Mbit/s
95th percentile per-packet one-way delay: 135.055 ms
Loss rate: 1.19%
-- Flow 2:
Average throughput: 61.95 Mbit/s
95th percentile per-packet one-way delay: 136.391 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 60.20 Mbit/s
95th percentile per-packet one-way delay: 135.387 ms
Loss rate: 4.07%
```

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



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 19:29:37

End at: 2018-03-14 19:30:07

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 116.36 Mbit/s

95th percentile per-packet one-way delay: 136.626 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 57.86 Mbit/s

95th percentile per-packet one-way delay: 136.654 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 61.45 Mbit/s

95th percentile per-packet one-way delay: 135.455 ms

Loss rate: 0.72%

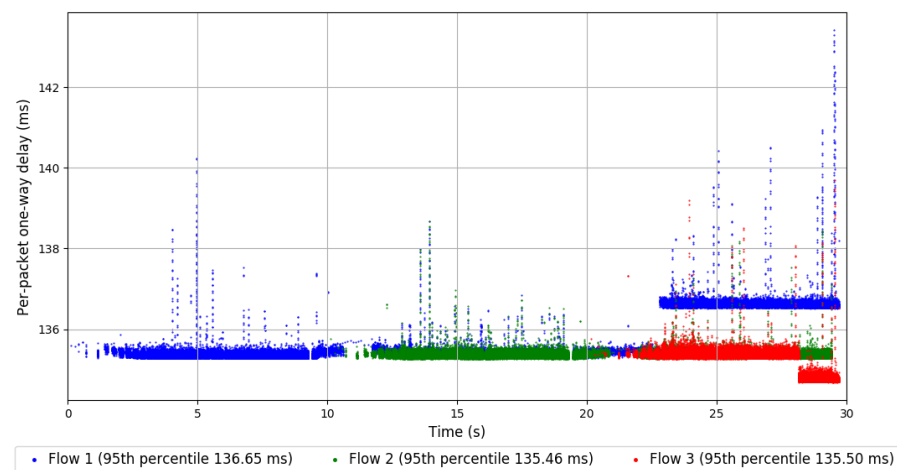
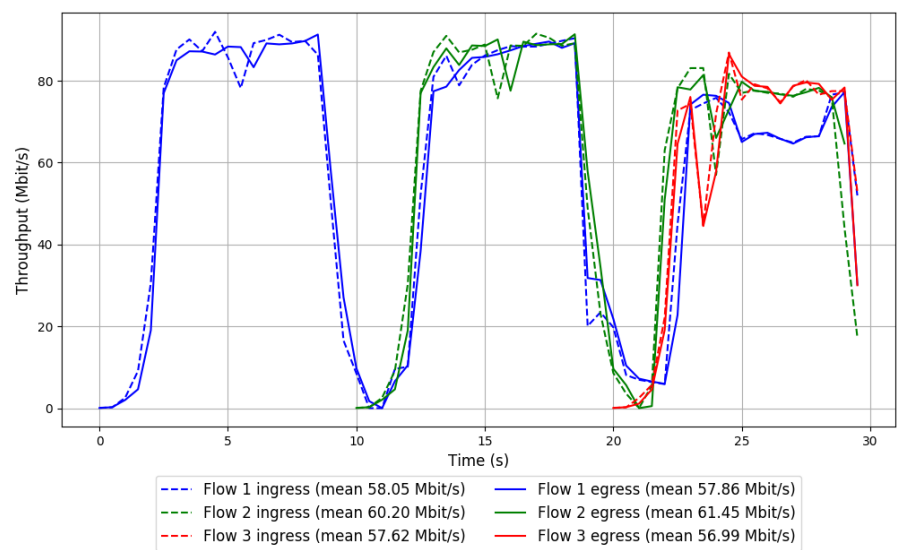
-- Flow 3:

Average throughput: 56.99 Mbit/s

95th percentile per-packet one-way delay: 135.497 ms

Loss rate: 3.82%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 19:49:20

End at: 2018-03-14 19:49:50

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 113.59 Mbit/s

95th percentile per-packet one-way delay: 136.948 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 61.82 Mbit/s

95th percentile per-packet one-way delay: 136.876 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 62.04 Mbit/s

95th percentile per-packet one-way delay: 136.991 ms

Loss rate: 0.39%

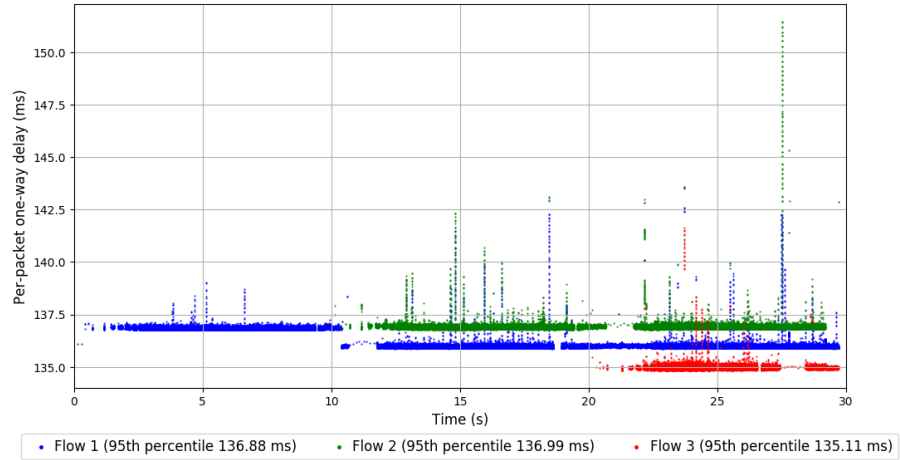
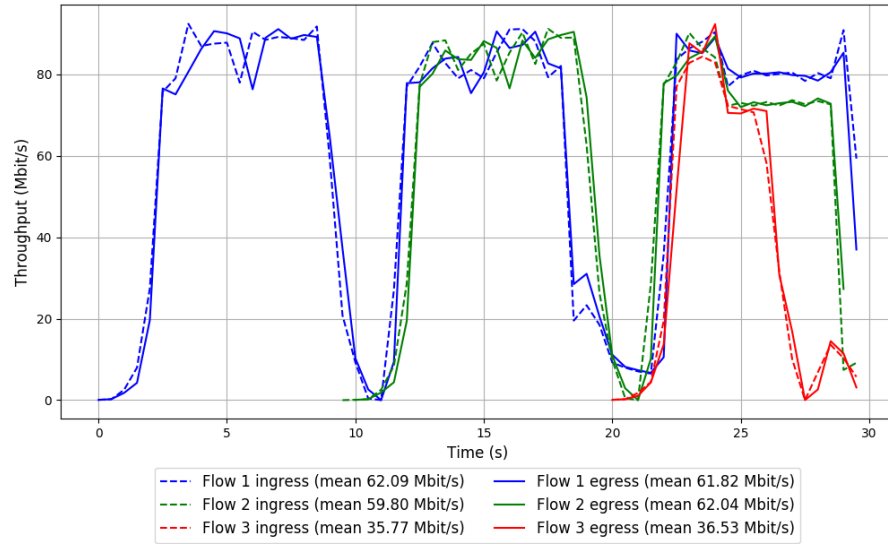
-- Flow 3:

Average throughput: 36.53 Mbit/s

95th percentile per-packet one-way delay: 135.107 ms

Loss rate: 0.68%

# Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 20:09:26

End at: 2018-03-14 20:09:56

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 98.68 Mbit/s

95th percentile per-packet one-way delay: 141.129 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 52.83 Mbit/s

95th percentile per-packet one-way delay: 136.508 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 51.50 Mbit/s

95th percentile per-packet one-way delay: 141.184 ms

Loss rate: 2.33%

-- Flow 3:

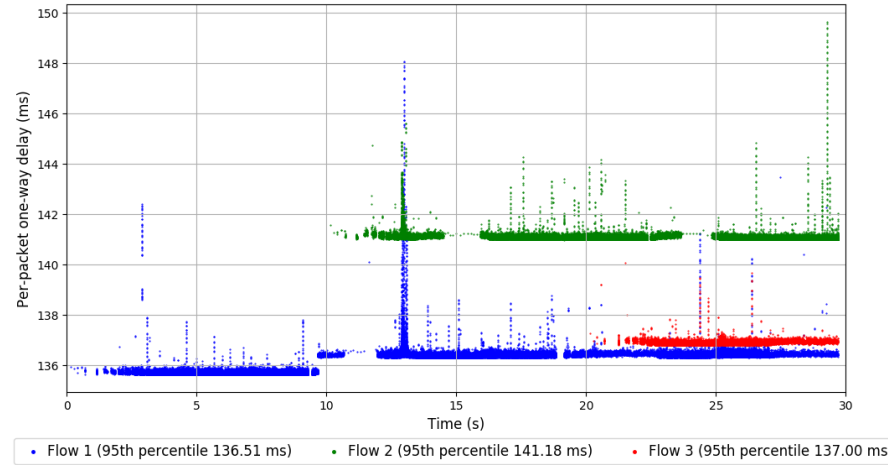
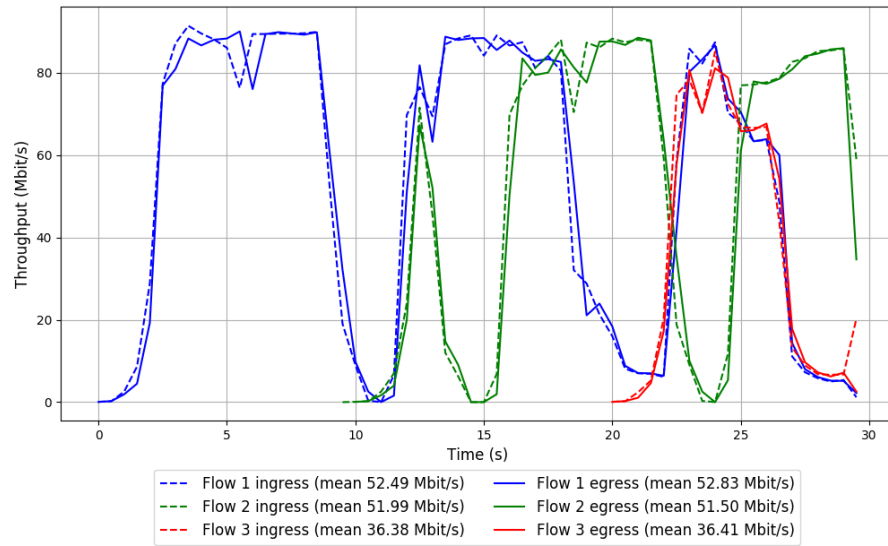
Average throughput: 36.41 Mbit/s

95th percentile per-packet one-way delay: 137.002 ms

Loss rate: 2.72%



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



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 20:29:37

End at: 2018-03-14 20:30:07

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.85 Mbit/s

95th percentile per-packet one-way delay: 136.754 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 58.98 Mbit/s

95th percentile per-packet one-way delay: 136.775 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 135.619 ms

Loss rate: 0.69%

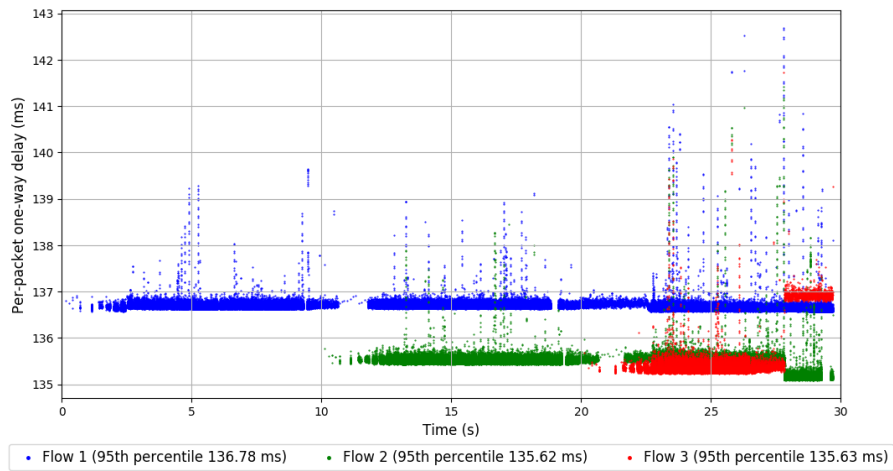
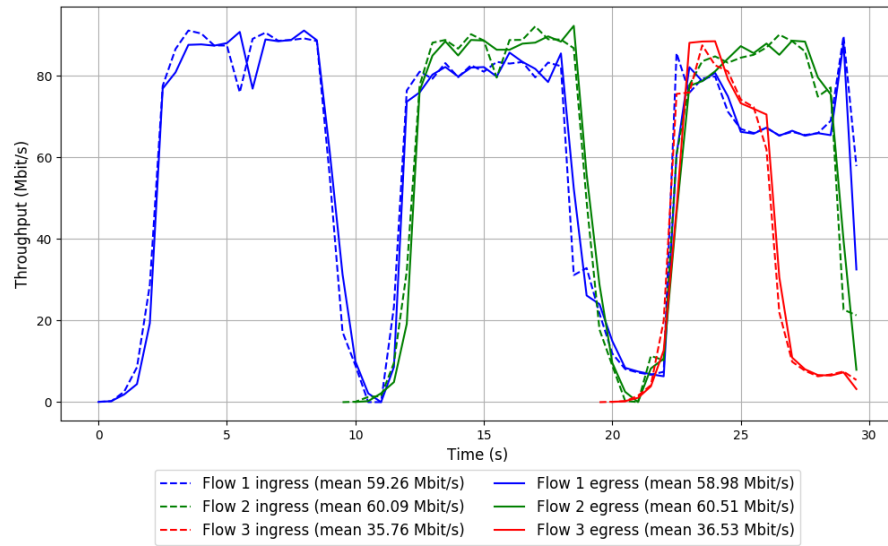
-- Flow 3:

Average throughput: 36.53 Mbit/s

95th percentile per-packet one-way delay: 135.635 ms

Loss rate: 0.62%

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



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-14 20:49:44

End at: 2018-03-14 20:50:14

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.79 Mbit/s

95th percentile per-packet one-way delay: 136.700 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 41.51 Mbit/s

95th percentile per-packet one-way delay: 135.463 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 60.76 Mbit/s

95th percentile per-packet one-way delay: 136.735 ms

Loss rate: 0.66%

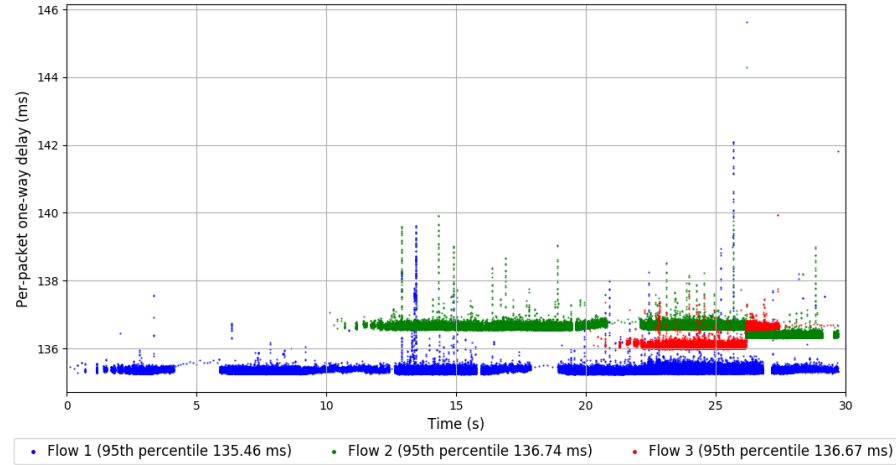
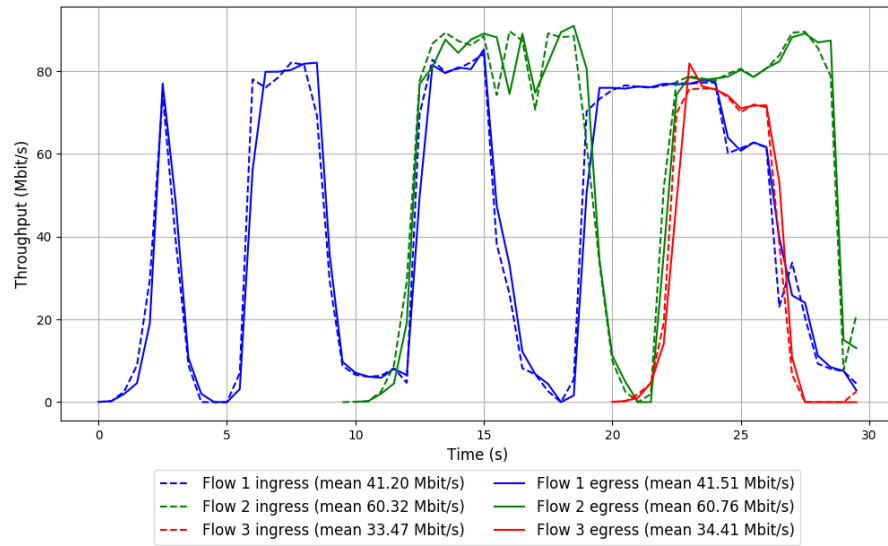
-- Flow 3:

Average throughput: 34.41 Mbit/s

95th percentile per-packet one-way delay: 136.671 ms

Loss rate: 0.39%

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



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-14 21:09:20

End at: 2018-03-14 21:09:50

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 110.12 Mbit/s

95th percentile per-packet one-way delay: 136.636 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 58.25 Mbit/s

95th percentile per-packet one-way delay: 136.666 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 61.96 Mbit/s

95th percentile per-packet one-way delay: 135.770 ms

Loss rate: 0.20%

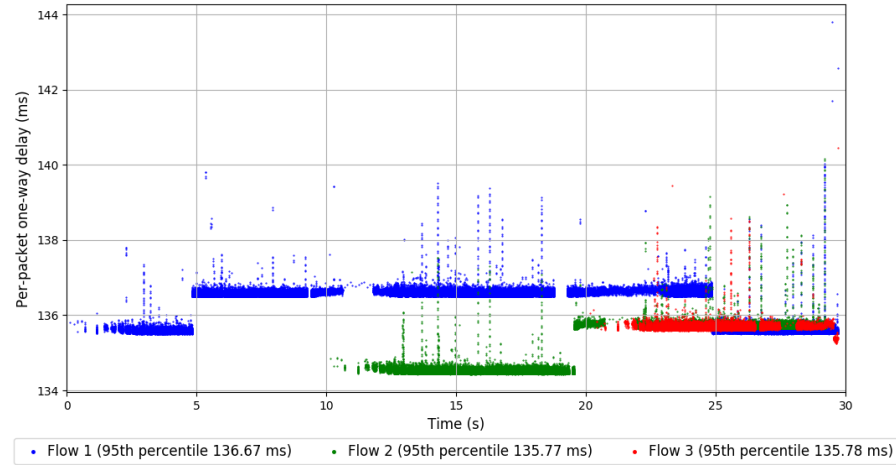
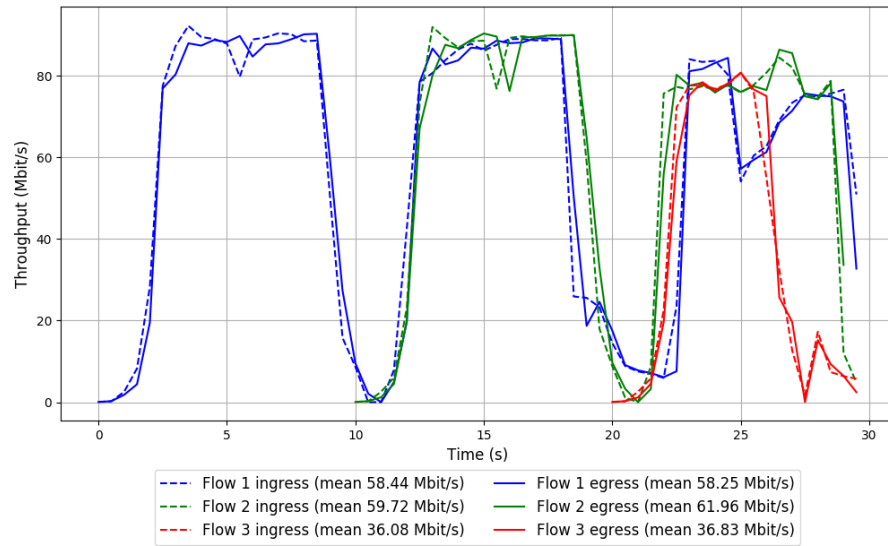
-- Flow 3:

Average throughput: 36.83 Mbit/s

95th percentile per-packet one-way delay: 135.778 ms

Loss rate: 0.71%

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



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-14 21:29:14

End at: 2018-03-14 21:29:44

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 114.32 Mbit/s

95th percentile per-packet one-way delay: 136.720 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 63.30 Mbit/s

95th percentile per-packet one-way delay: 135.724 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 60.47 Mbit/s

95th percentile per-packet one-way delay: 136.759 ms

Loss rate: 0.00%

-- Flow 3:

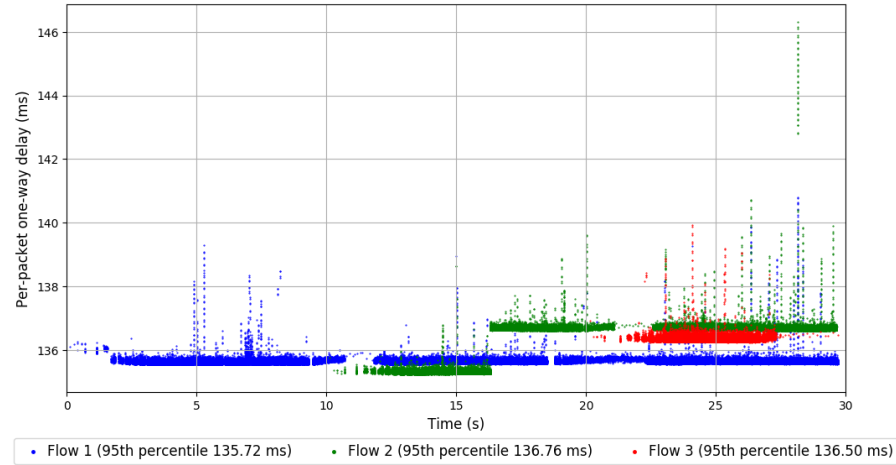
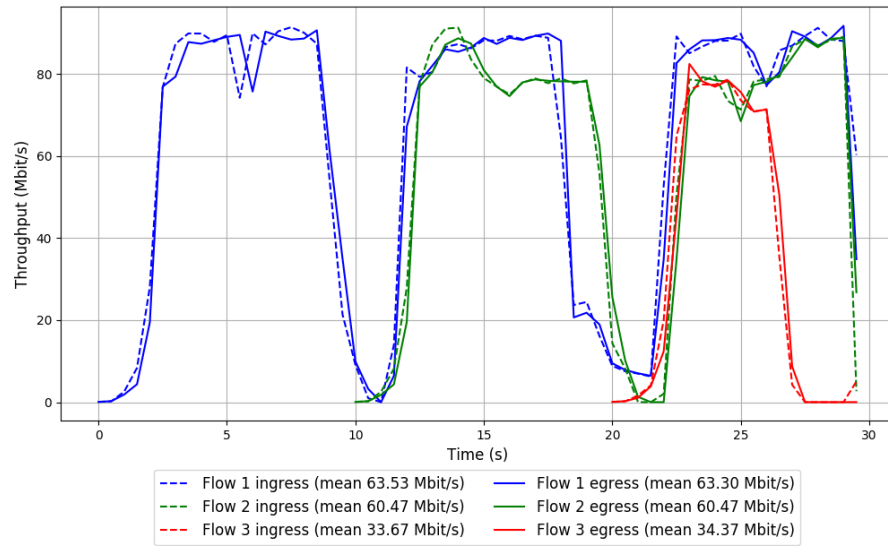
Average throughput: 34.37 Mbit/s

95th percentile per-packet one-way delay: 136.498 ms

Loss rate: 0.76%



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

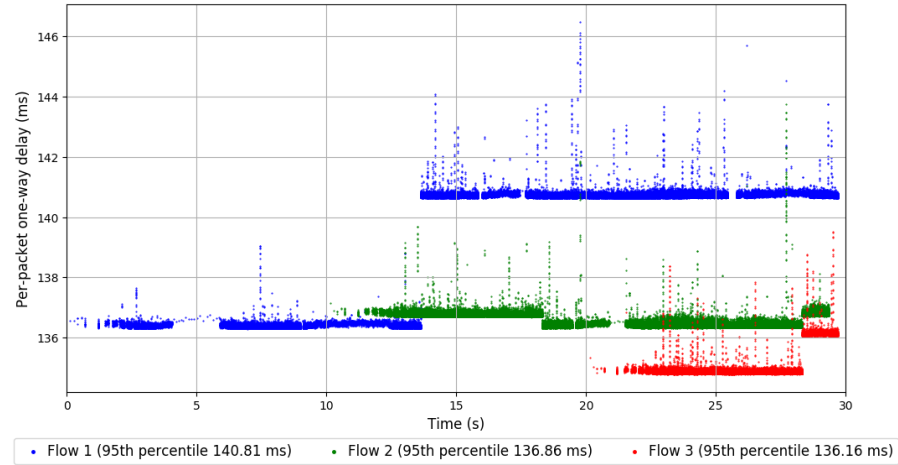
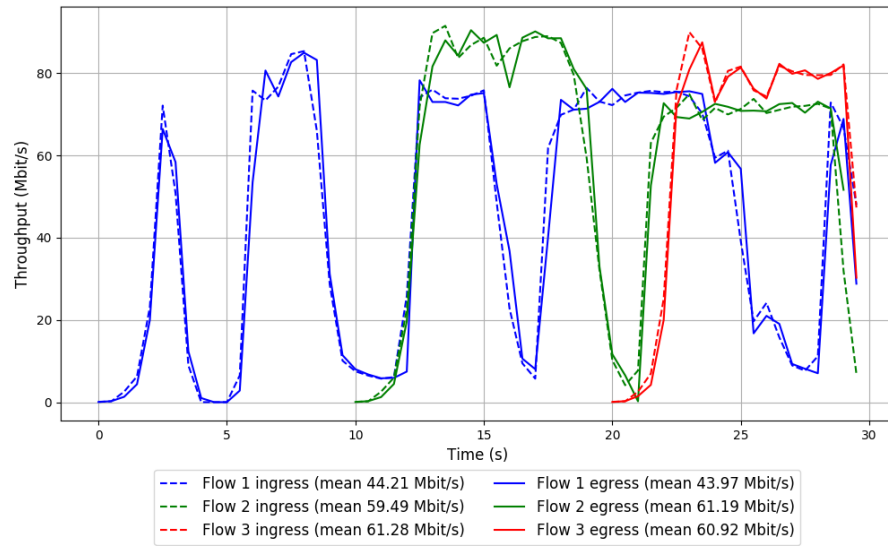


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-14 21:49:22
End at: 2018-03-14 21:49:52

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.44 Mbit/s
95th percentile per-packet one-way delay: 140.767 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 43.97 Mbit/s
95th percentile per-packet one-way delay: 140.807 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 61.19 Mbit/s
95th percentile per-packet one-way delay: 136.859 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 60.92 Mbit/s
95th percentile per-packet one-way delay: 136.155 ms
Loss rate: 3.23%
```

# Run 10: Report of QUIC Cubic — Data Link

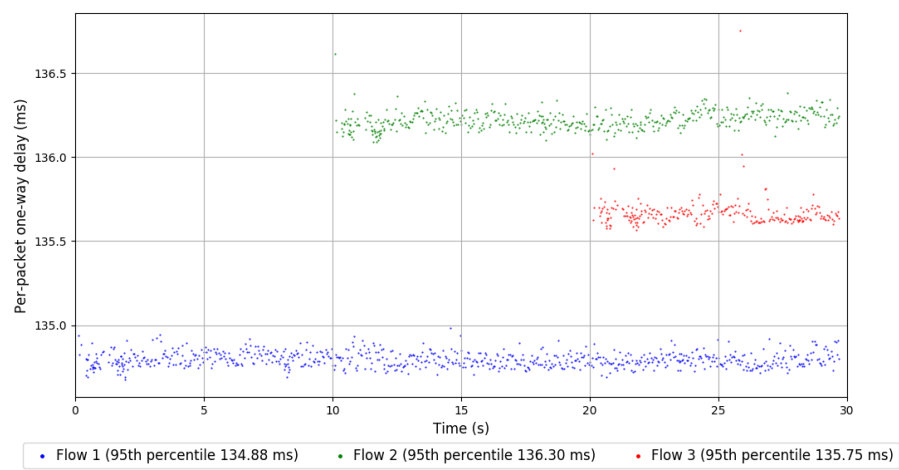
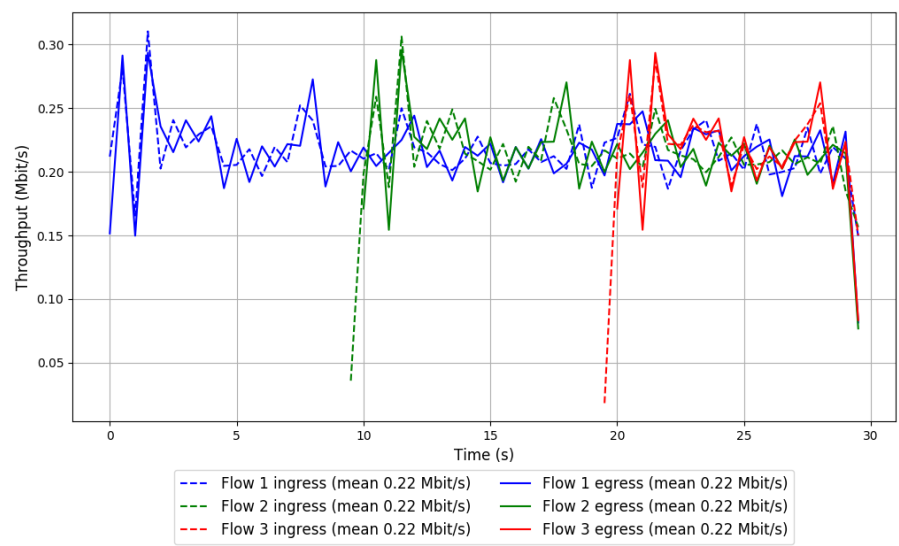


```
Run 1: Statistics of SCReAM

Start at: 2018-03-14 18:52:32
End at: 2018-03-14 18:53:02

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 136.273 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.881 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.298 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.753 ms
Loss rate: 2.63%
```

Run 1: Report of SReAM — Data Link

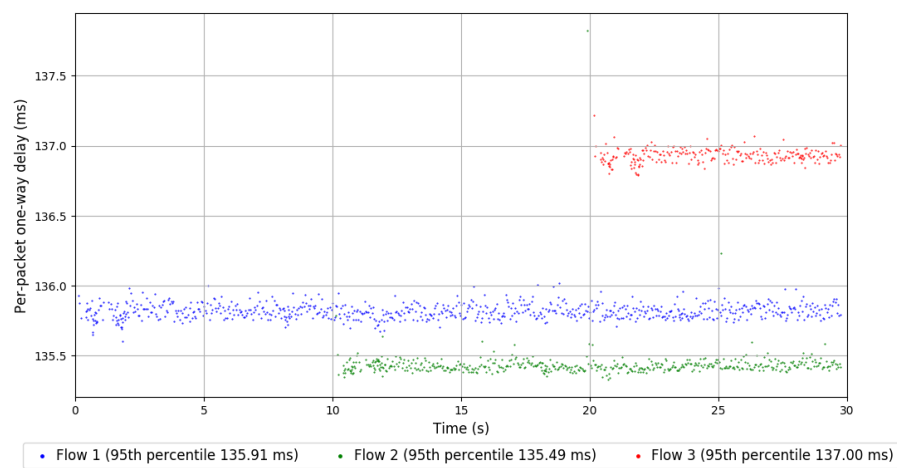
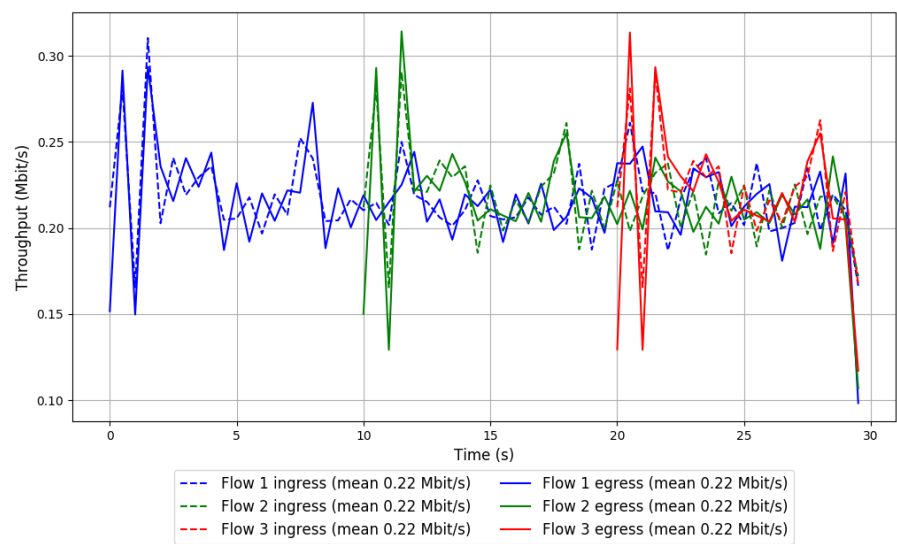


```
Run 2: Statistics of SReAM

Start at: 2018-03-14 19:12:43
End at: 2018-03-14 19:13:13

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.953 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.909 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.490 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.001 ms
Loss rate: 2.63%
```

Run 2: Report of SReAM — Data Link



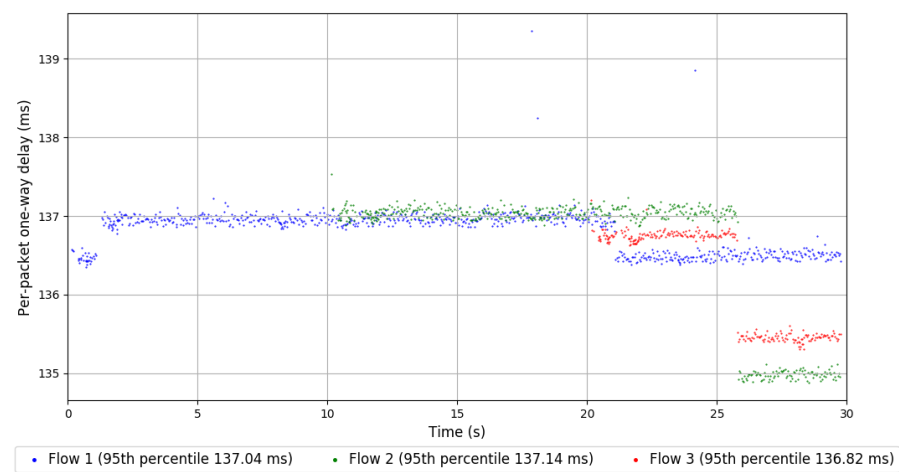
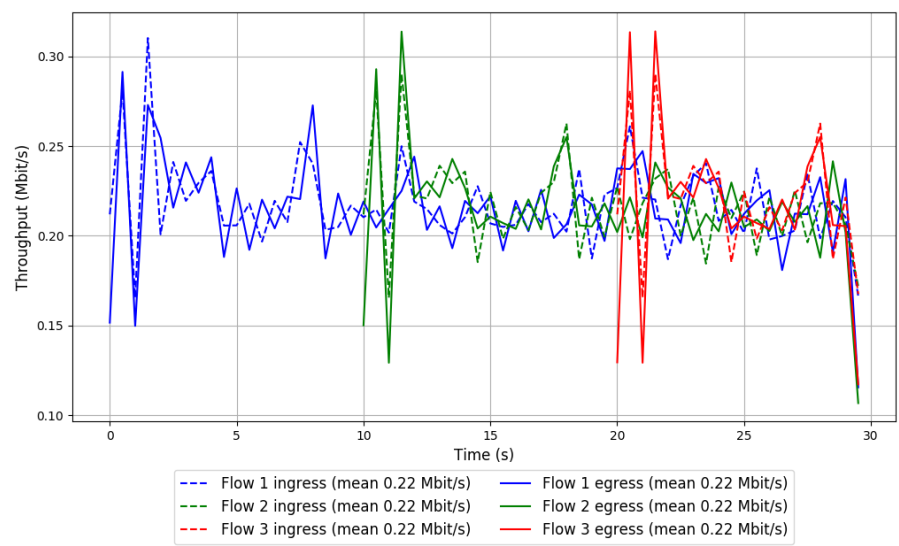
```
Run 3: Statistics of SCReAM

Start at: 2018-03-14 19:32:24
End at: 2018-03-14 19:32:54

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.106 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.045 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.136 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.816 ms
Loss rate: 2.63%
```



Run 3: Report of SReAM — Data Link

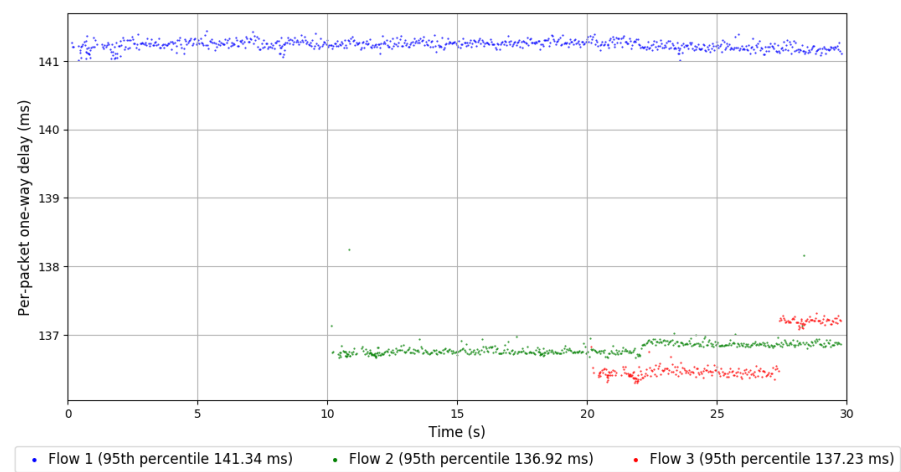
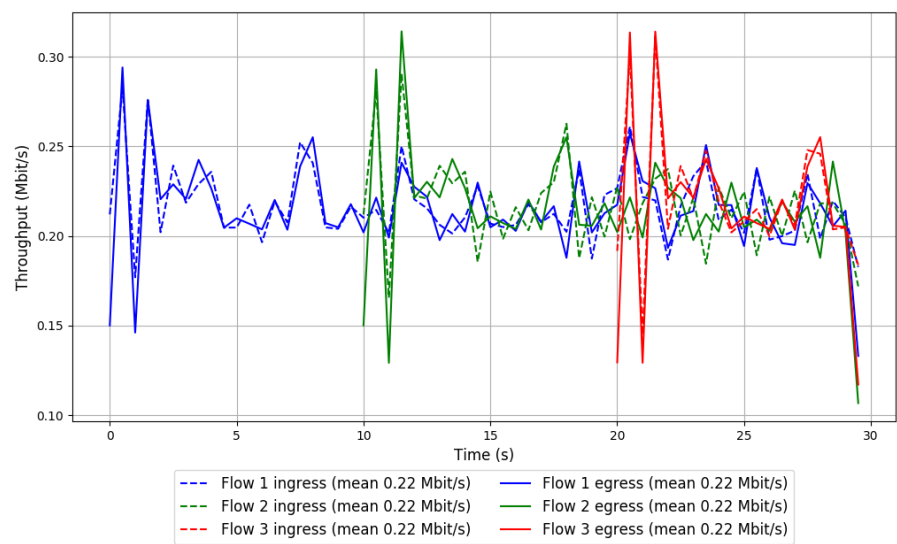


```
Run 4: Statistics of SCReAM

Start at: 2018-03-14 19:52:38
End at: 2018-03-14 19:53:08

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 141.312 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.336 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.924 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.232 ms
Loss rate: 2.63%
```

Run 4: Report of SReAM — Data Link

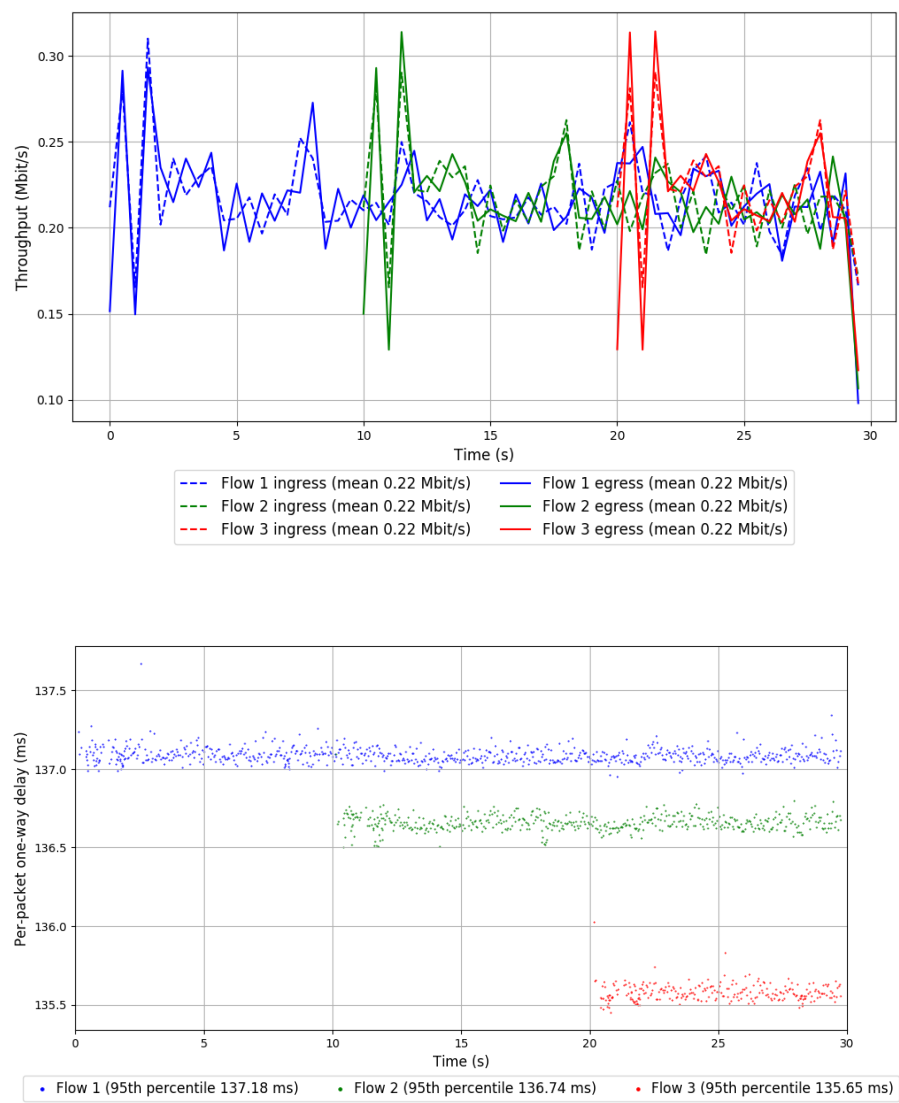


```
Run 5: Statistics of SReAM

Start at: 2018-03-14 20:12:30
End at: 2018-03-14 20:13:00

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.143 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.175 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.740 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.653 ms
Loss rate: 2.63%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-14 20:32:53

End at: 2018-03-14 20:33:23

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.877 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.870 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.898 ms

Loss rate: 1.42%

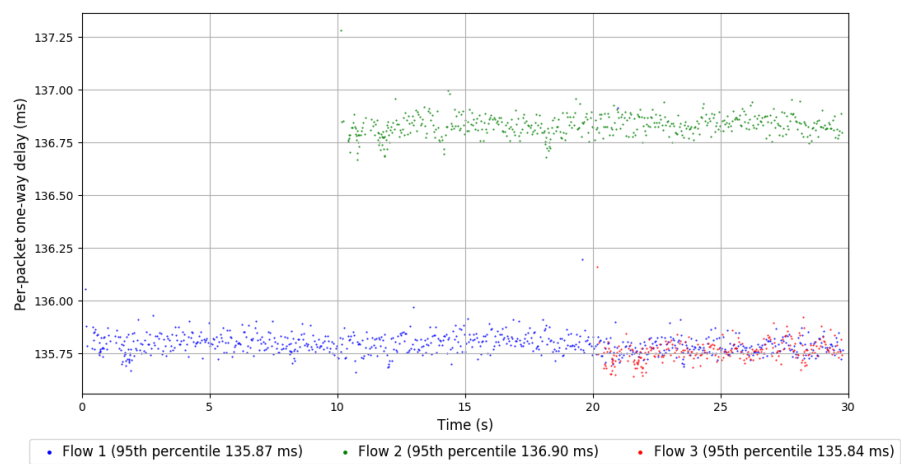
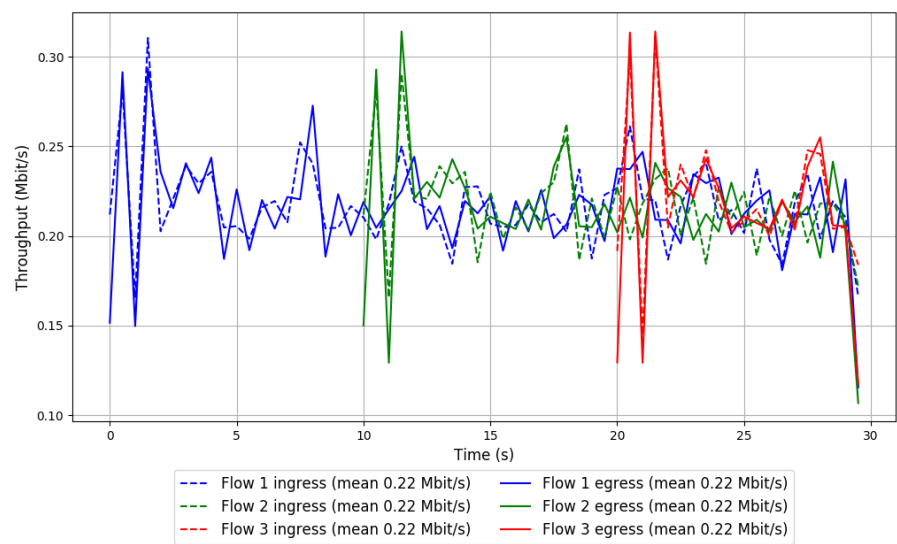
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.836 ms

Loss rate: 2.63%

Run 6: Report of SReAM — Data Link



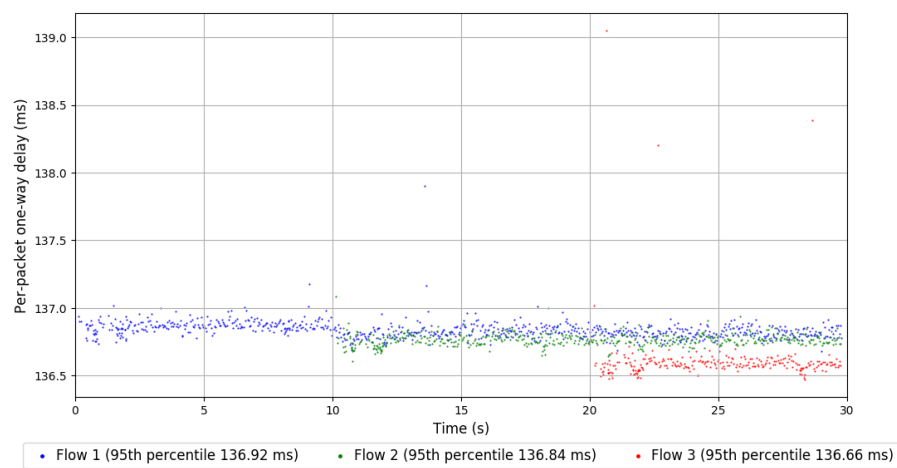
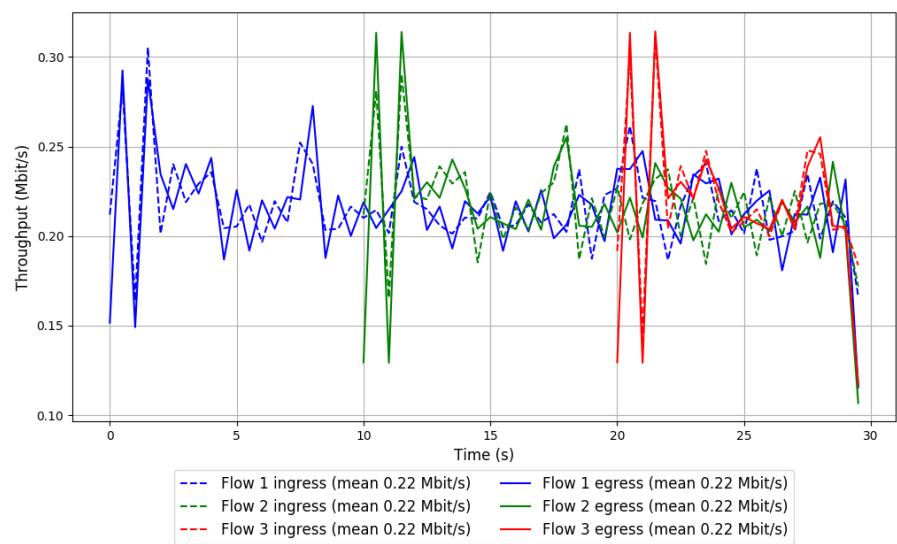
```
Run 7: Statistics of SReAM

Start at: 2018-03-14 20:52:30
End at: 2018-03-14 20:53:00

# Below is generated by plot.py at 2018-03-15 02:10:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.905 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.921 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.840 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.665 ms
Loss rate: 2.63%
```



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-14 21:12:14

End at: 2018-03-14 21:12:44

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.009 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.881 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.042 ms

Loss rate: 1.42%

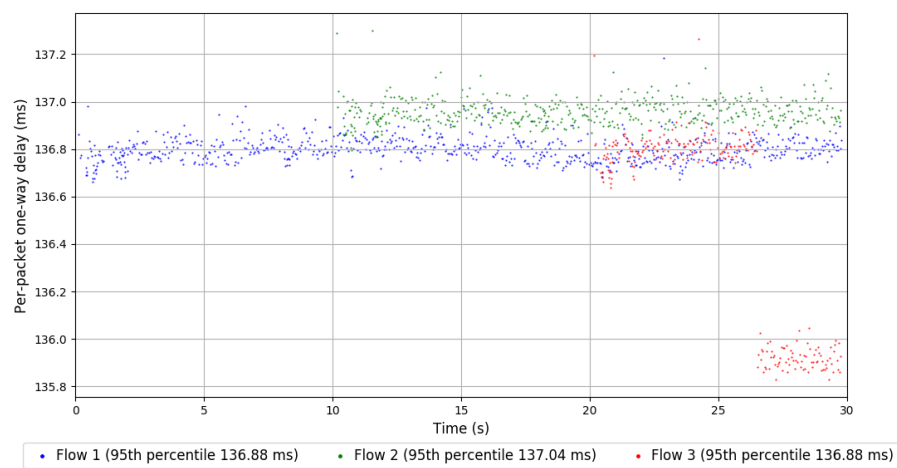
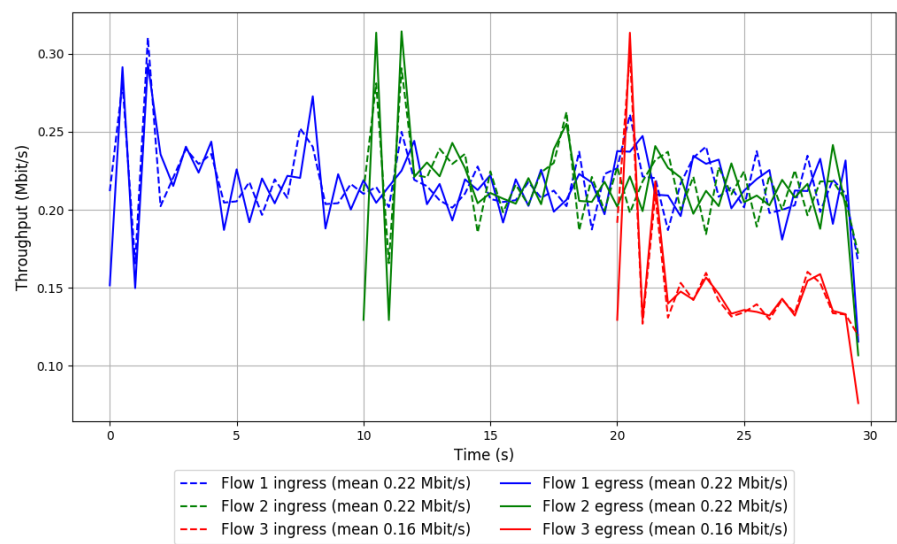
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 136.879 ms

Loss rate: 2.46%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-03-14 21:32:15

End at: 2018-03-14 21:32:45

# Below is generated by plot.py at 2018-03-15 02:10:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 140.823 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.760 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 140.870 ms

Loss rate: 1.39%

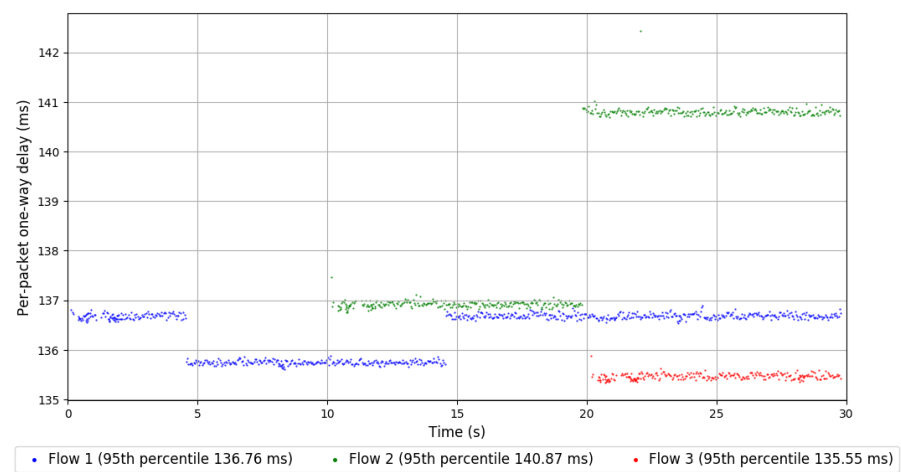
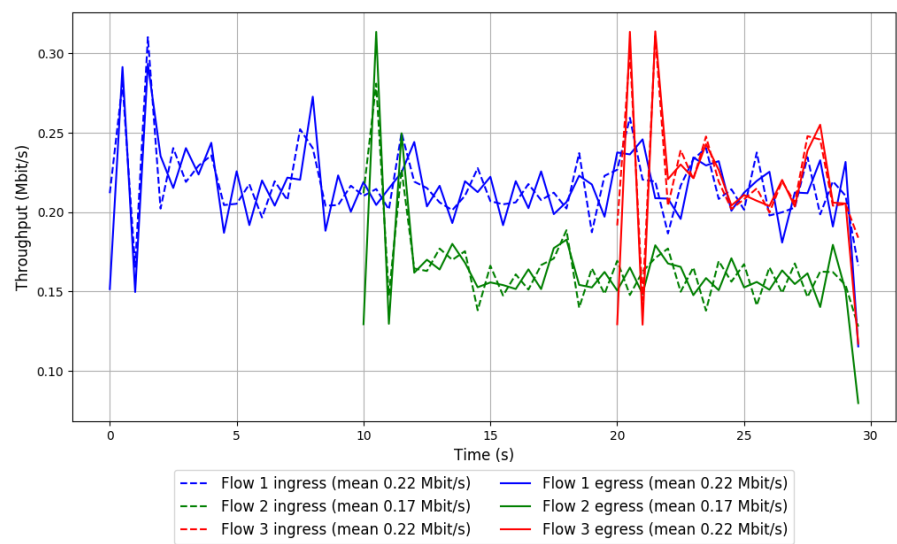
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.548 ms

Loss rate: 2.63%

Run 9: Report of SReAM — Data Link

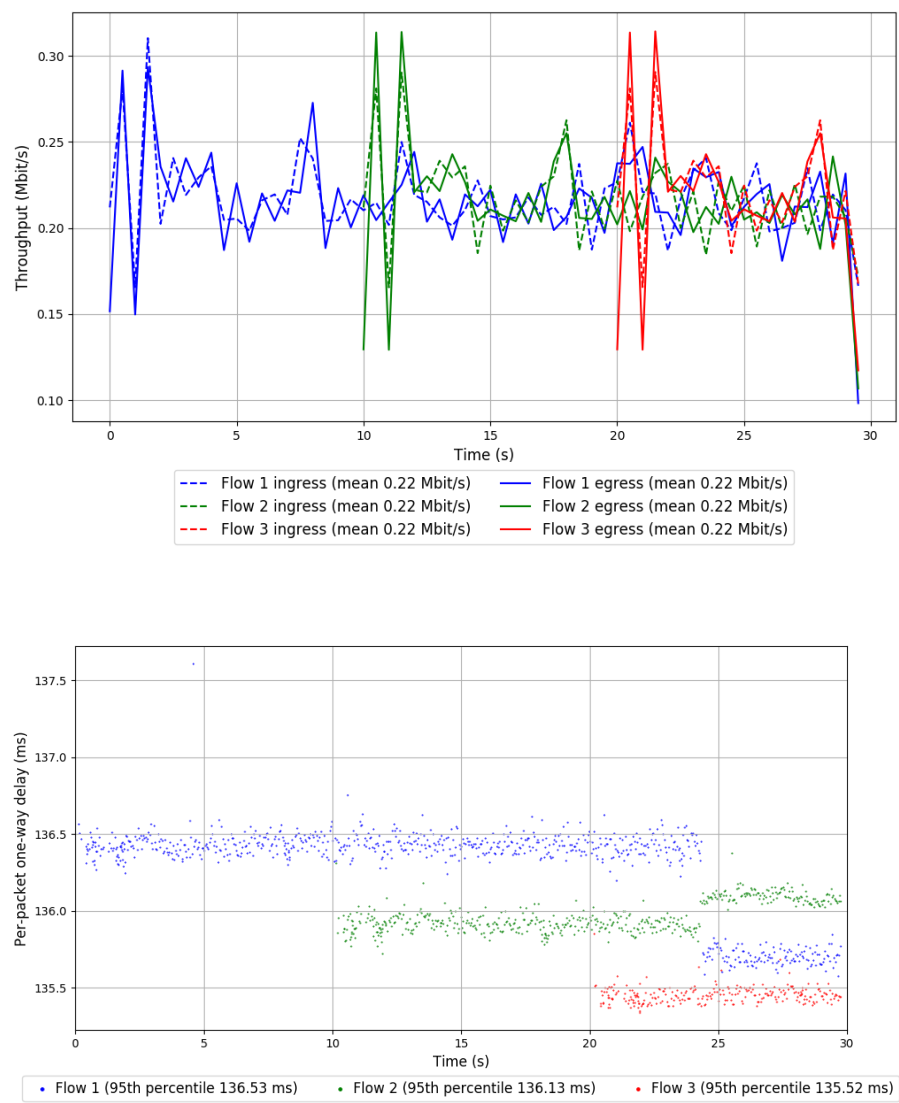


```
Run 10: Statistics of SCReAM

Start at: 2018-03-14 21:52:11
End at: 2018-03-14 21:52:41

# Below is generated by plot.py at 2018-03-15 02:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.501 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.534 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.130 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.523 ms
Loss rate: 2.63%
```

Run 10: Report of SReAM — Data Link



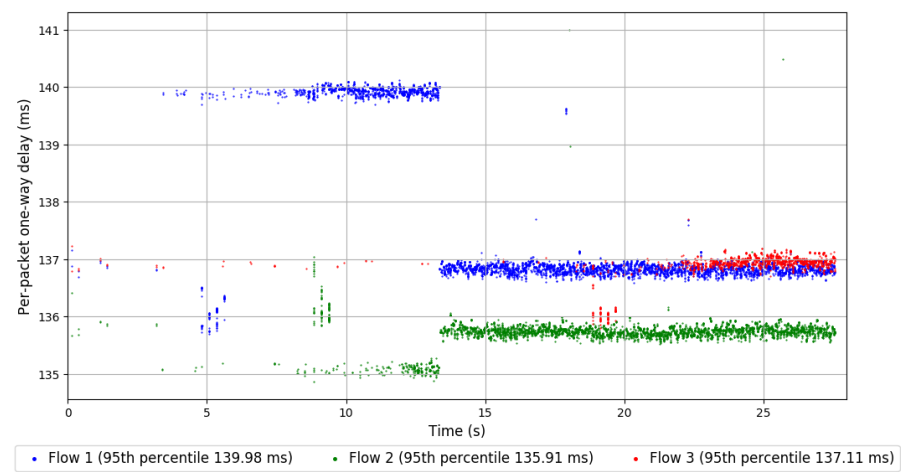
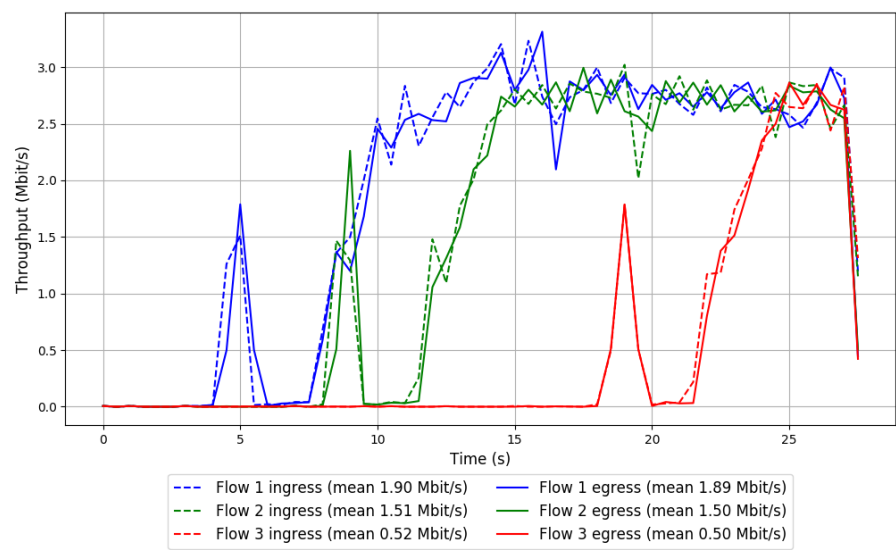
```
Run 1: Statistics of WebRTC media

Start at: 2018-03-14 18:54:10
End at: 2018-03-14 18:54:40

# Below is generated by plot.py at 2018-03-15 02:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 139.941 ms
Loss rate: 2.06%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 139.982 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 135.912 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 137.106 ms
Loss rate: 5.25%
```



Run 1: Report of WebRTC media — Data Link

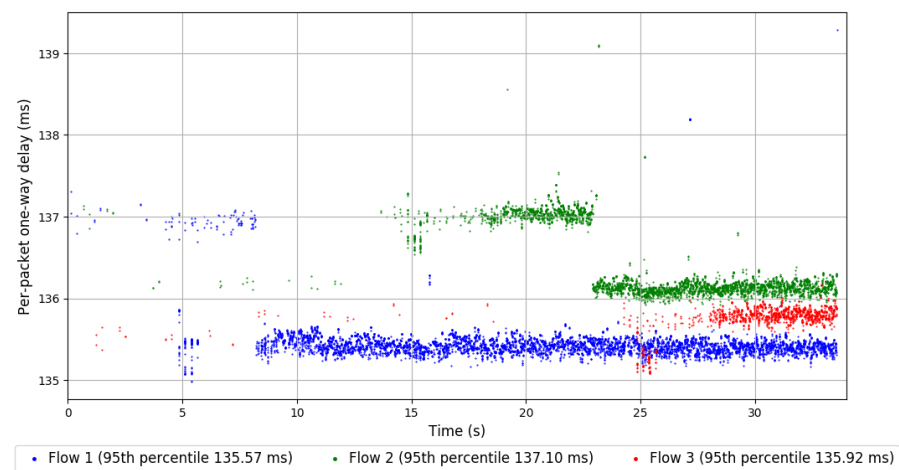
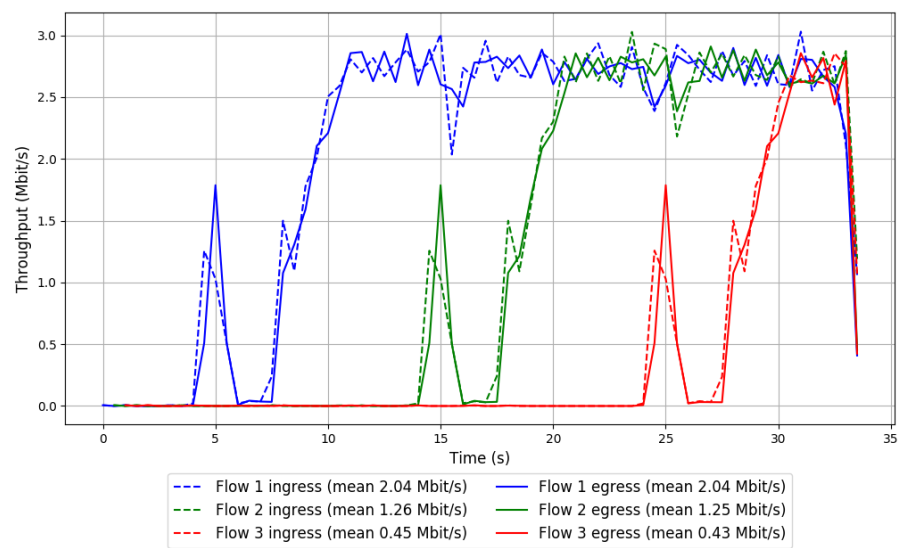


```
Run 2: Statistics of WebRTC media

Start at: 2018-03-14 19:14:21
End at: 2018-03-14 19:14:51

# Below is generated by plot.py at 2018-03-15 02:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.68 Mbit/s
95th percentile per-packet one-way delay: 137.032 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 135.575 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 137.096 ms
Loss rate: 1.95%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 135.920 ms
Loss rate: 4.98%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-14 19:34:02

End at: 2018-03-14 19:34:32

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.67 Mbit/s

95th percentile per-packet one-way delay: 137.138 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 136.937 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 137.204 ms

Loss rate: 1.72%

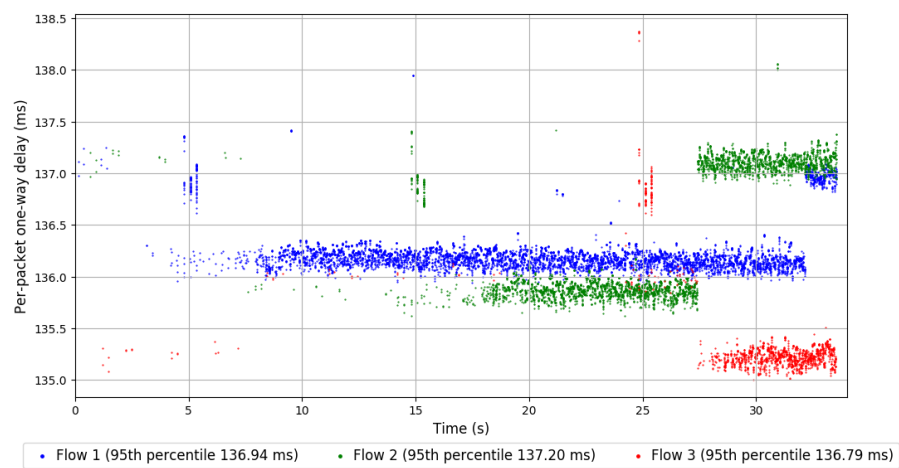
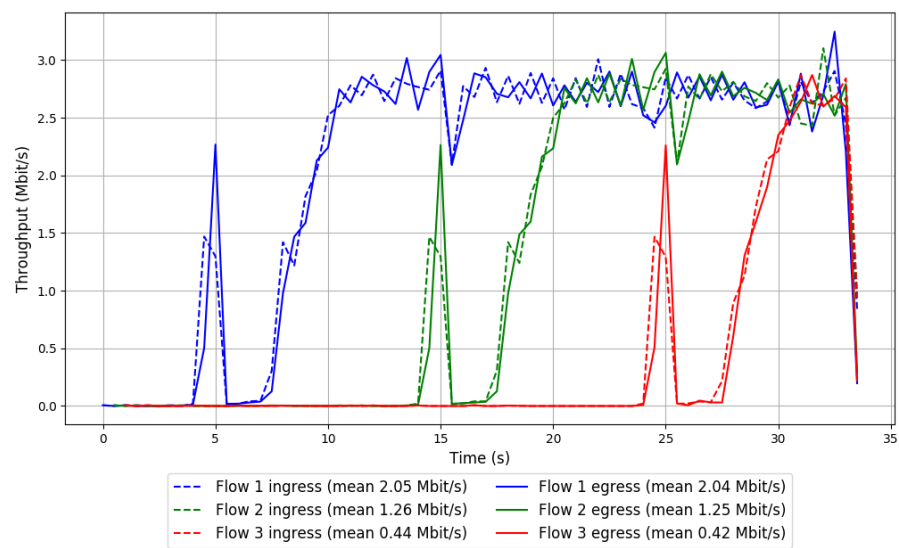
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 136.788 ms

Loss rate: 5.62%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-14 19:54:15

End at: 2018-03-14 19:54:45

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 137.160 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 135.984 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 137.214 ms

Loss rate: 1.87%

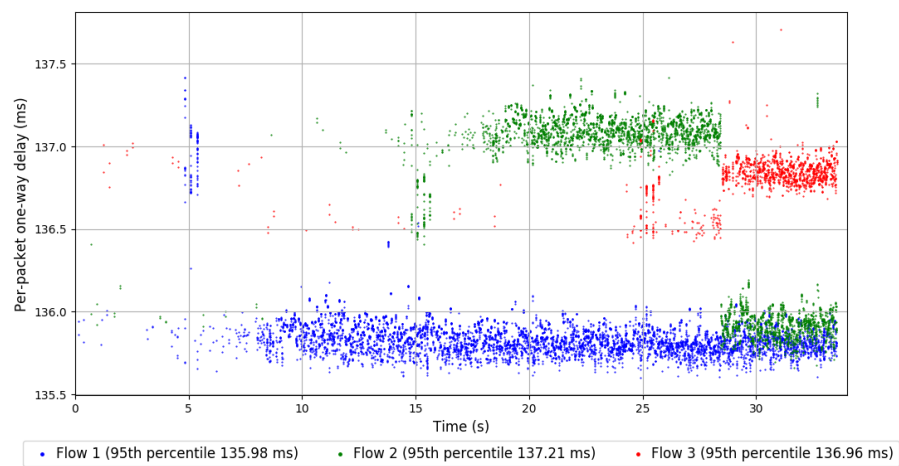
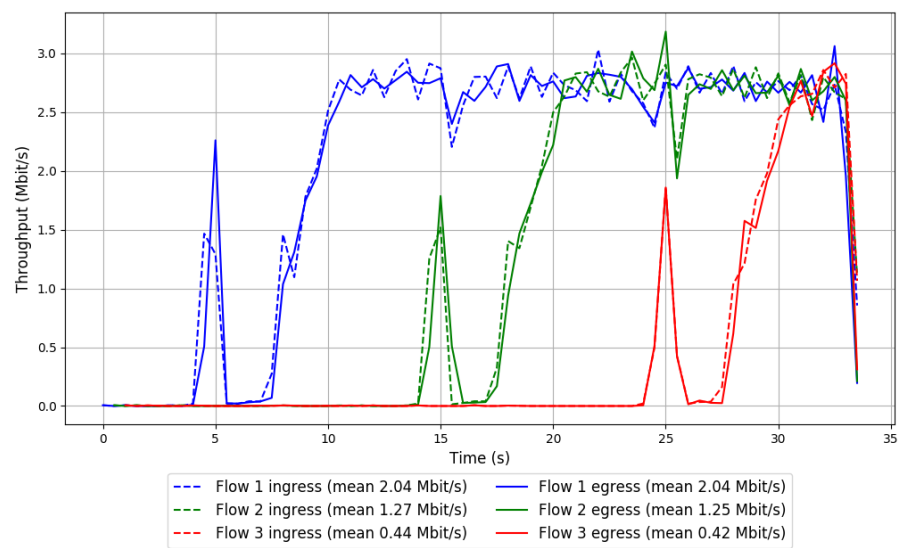
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 136.961 ms

Loss rate: 5.19%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-14 20:14:07

End at: 2018-03-14 20:14:37

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 136.477 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 135.980 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 1.25 Mbit/s

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

Loss rate: 1.86%

-- Flow 3:

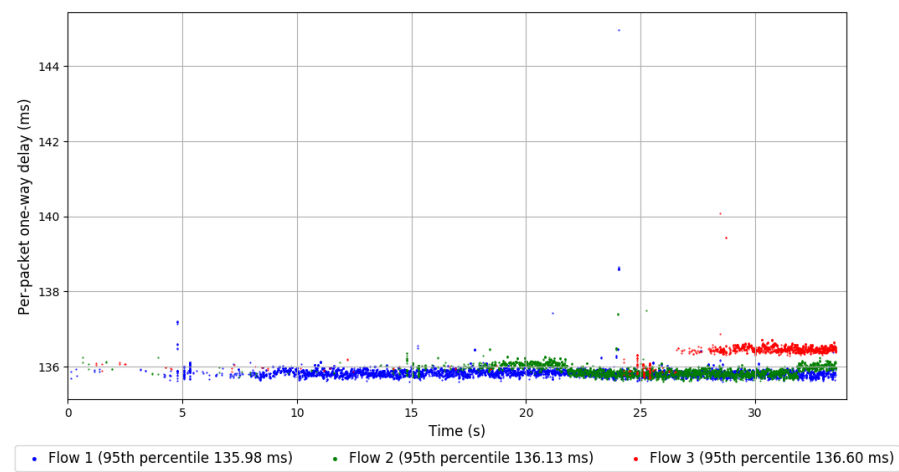
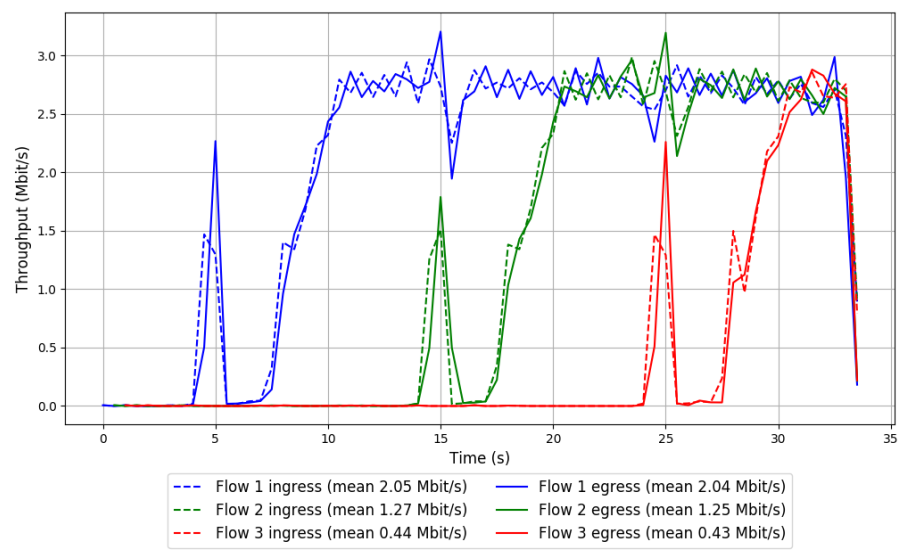
Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.601 ms

Loss rate: 4.76%



Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-14 20:34:31

End at: 2018-03-14 20:35:01

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 137.076 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 137.091 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 136.446 ms

Loss rate: 1.93%

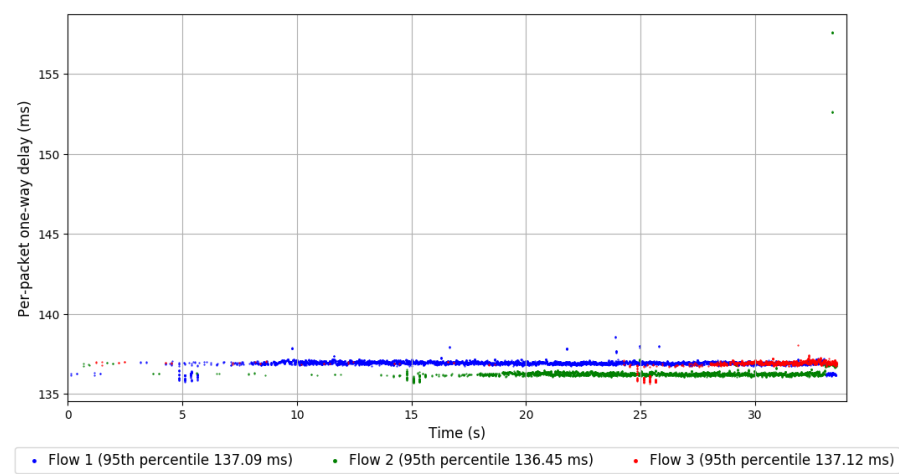
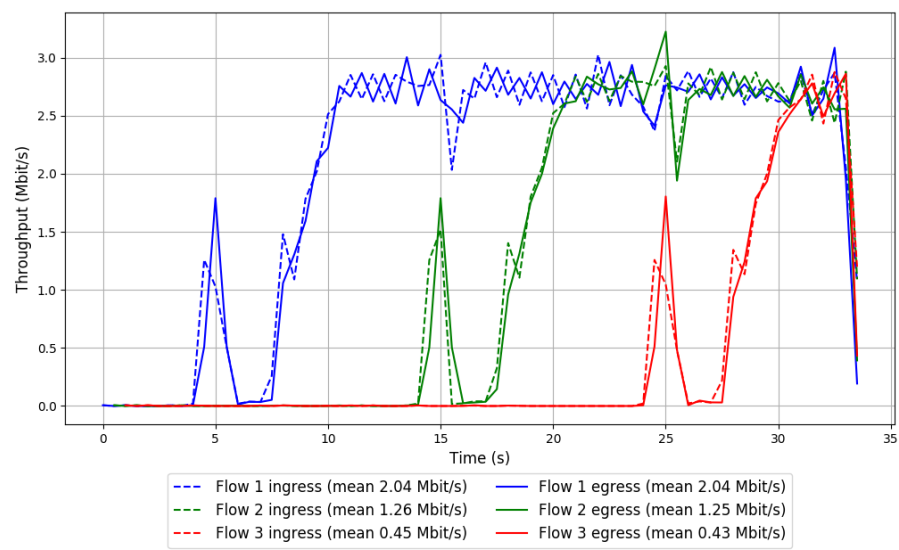
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.121 ms

Loss rate: 4.86%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-14 20:54:08

End at: 2018-03-14 20:54:38

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.67 Mbit/s

95th percentile per-packet one-way delay: 139.192 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 139.221 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 136.967 ms

Loss rate: 1.96%

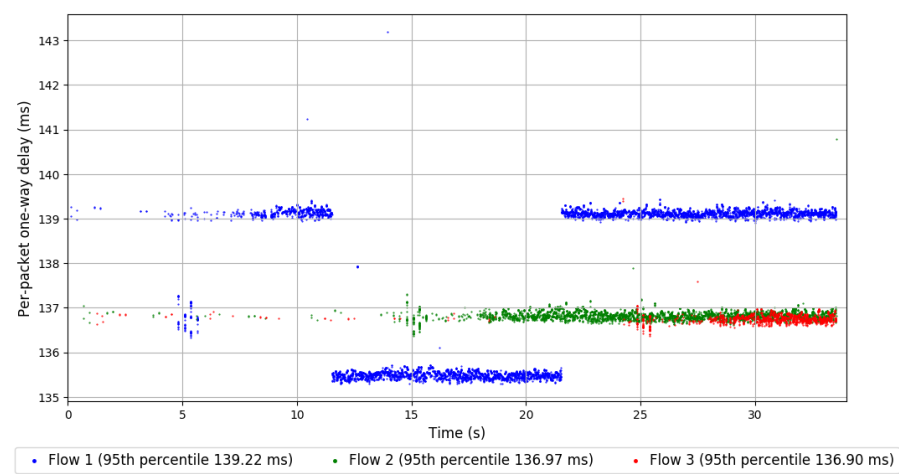
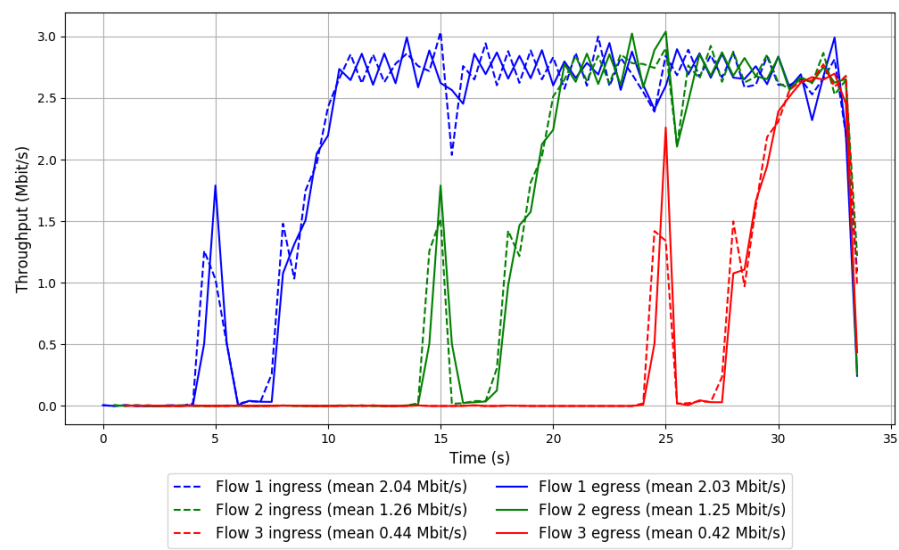
-- Flow 3:

Average throughput: 0.42 Mbit/s

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

Loss rate: 4.99%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-14 21:13:51

End at: 2018-03-14 21:14:21

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 136.916 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 136.004 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 136.963 ms

Loss rate: 1.96%

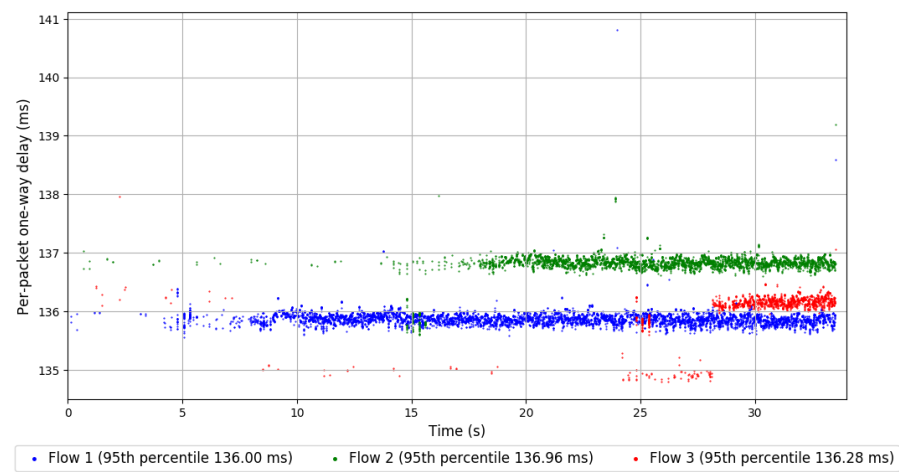
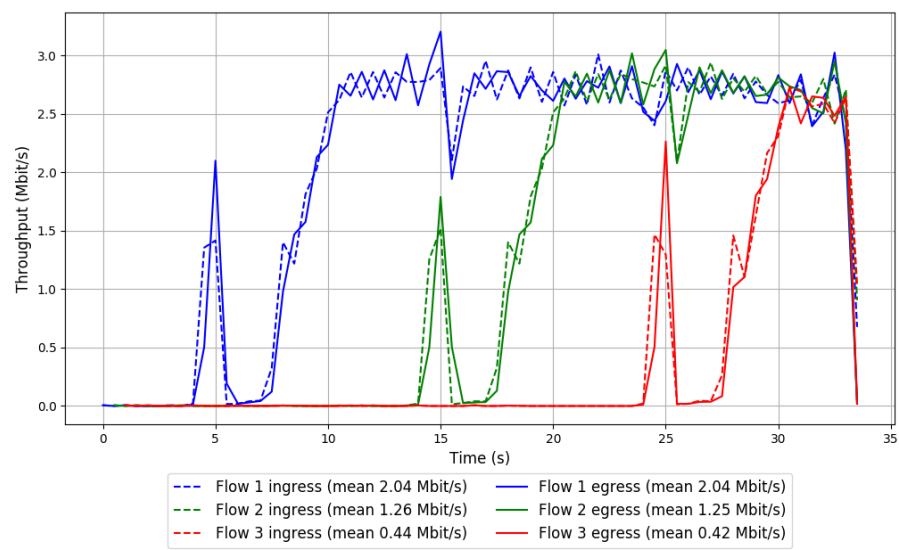
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 136.282 ms

Loss rate: 5.94%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-14 21:33:53

End at: 2018-03-14 21:34:23

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.68 Mbit/s

95th percentile per-packet one-way delay: 137.091 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 137.118 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 136.715 ms

Loss rate: 1.93%

-- Flow 3:

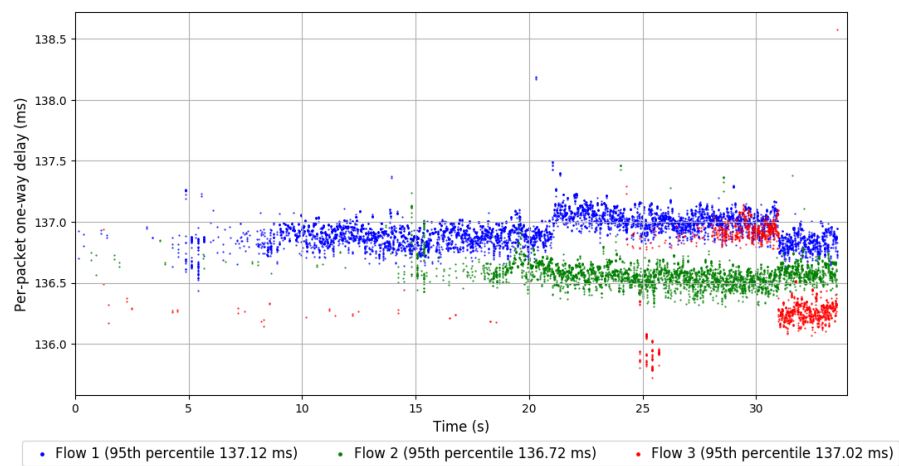
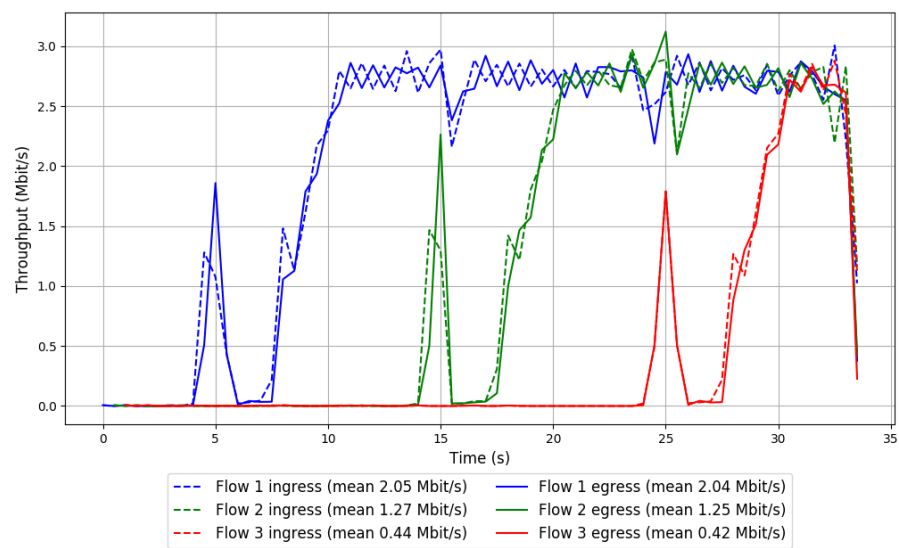
Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.016 ms

Loss rate: 5.47%



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-14 21:53:48

End at: 2018-03-14 21:54:18

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 3.68 Mbit/s

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

Loss rate: 1.85%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 136.754 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 135.972 ms

Loss rate: 1.91%

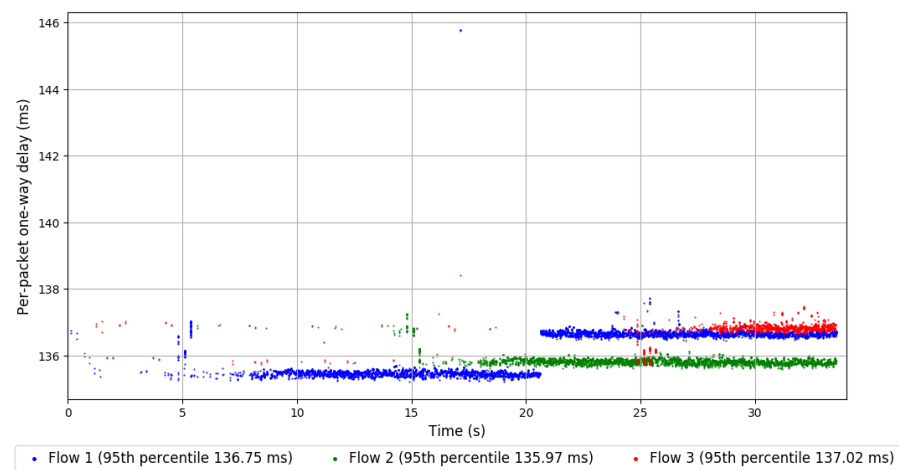
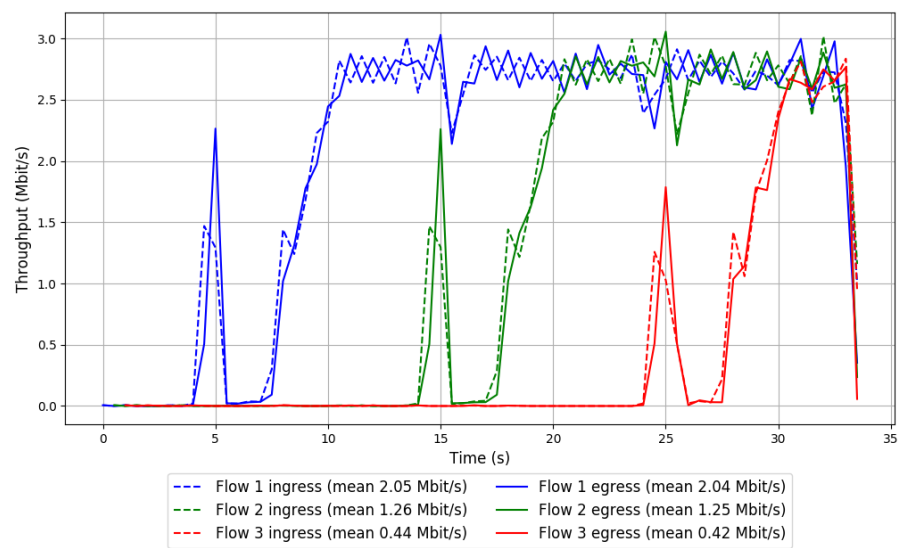
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.018 ms

Loss rate: 5.56%

Run 10: Report of WebRTC media — Data Link

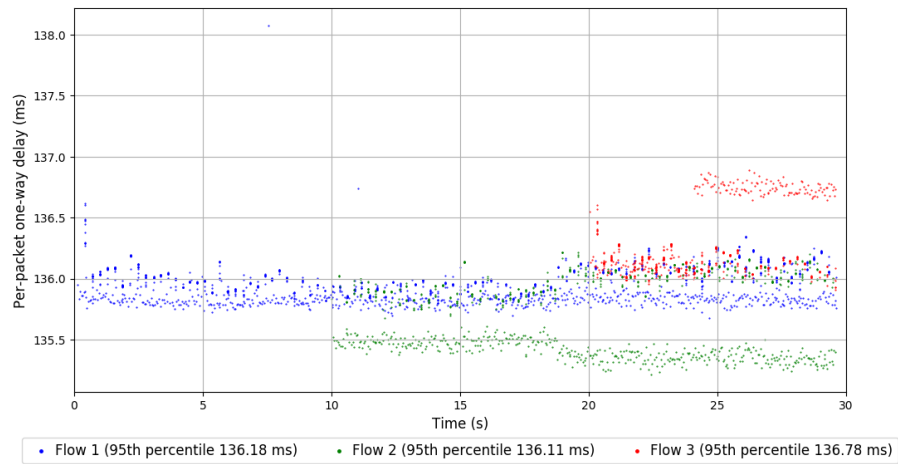
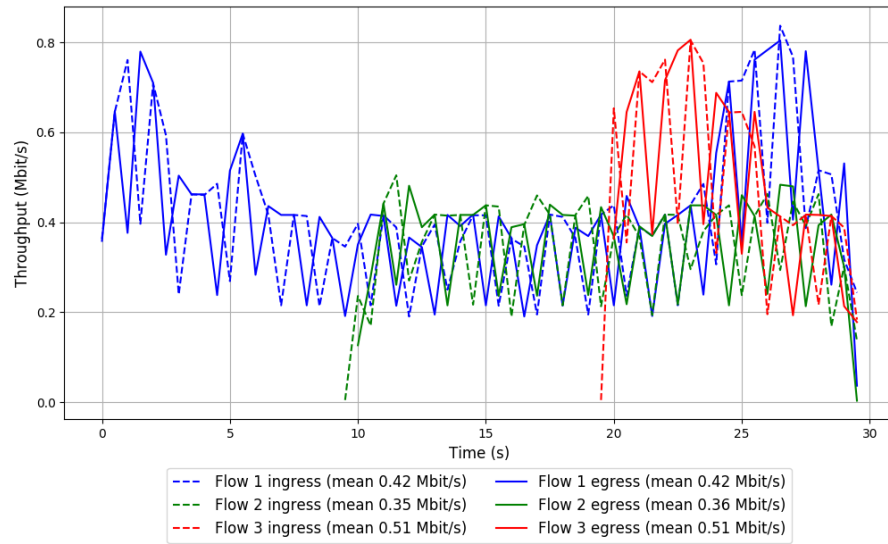


```
Run 1: Statistics of Sprout

Start at: 2018-03-14 18:53:21
End at: 2018-03-14 18:53:51

# Below is generated by plot.py at 2018-03-15 02:10:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 136.283 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 136.182 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 136.113 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 136.782 ms
Loss rate: 1.85%
```

## Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-14 19:13:32

End at: 2018-03-14 19:14:02

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 137.038 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 136.811 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 136.924 ms

Loss rate: 1.29%

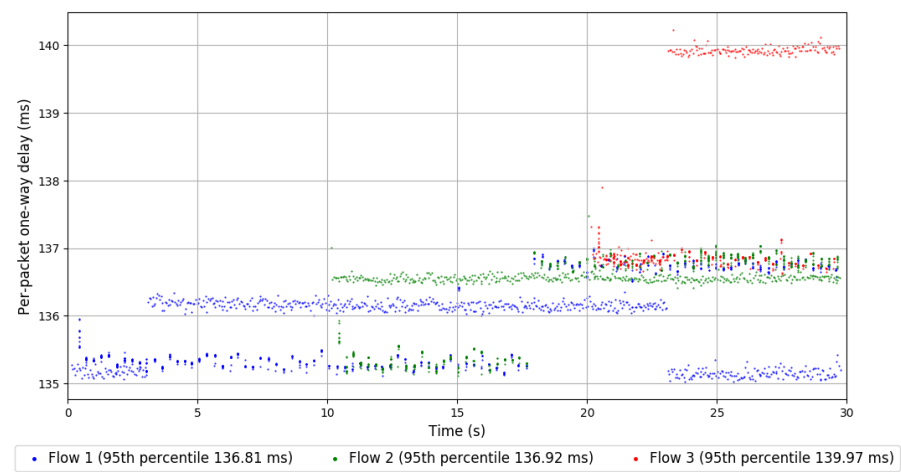
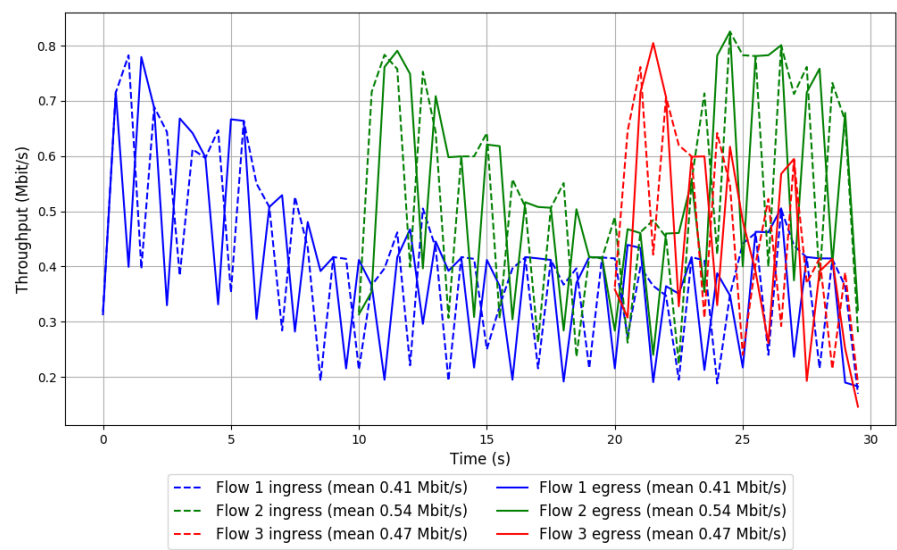
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 139.965 ms

Loss rate: 1.99%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-14 19:33:13

End at: 2018-03-14 19:33:43

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 140.776 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 135.769 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 140.823 ms

Loss rate: 1.42%

-- Flow 3:

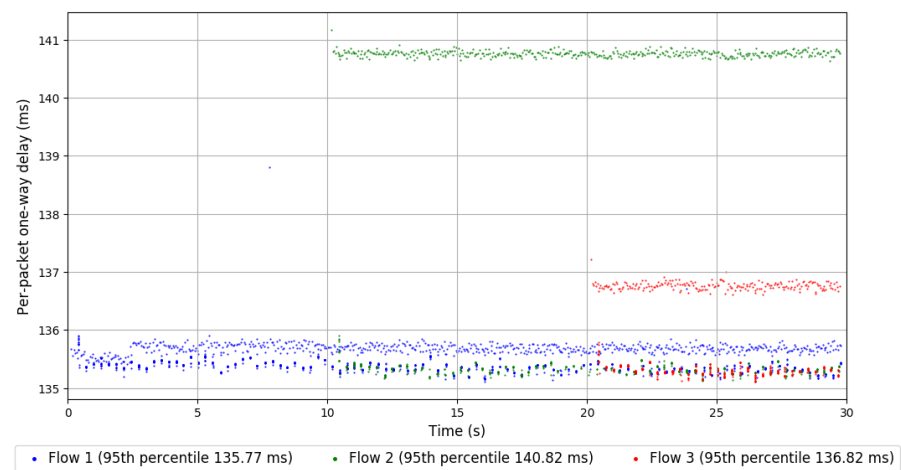
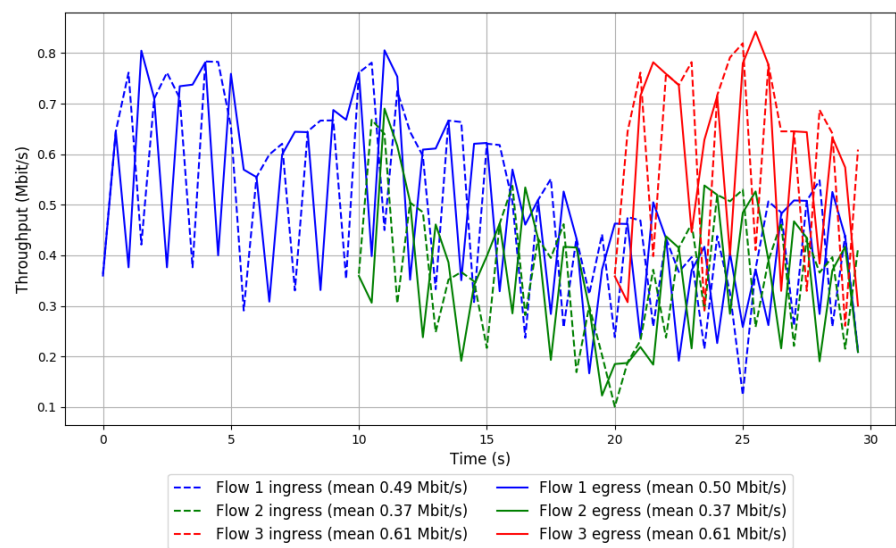
Average throughput: 0.61 Mbit/s

95th percentile per-packet one-way delay: 136.823 ms

Loss rate: 2.58%



Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-14 19:53:27

End at: 2018-03-14 19:53:57

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.81 Mbit/s

95th percentile per-packet one-way delay: 141.062 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 136.908 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 141.122 ms

Loss rate: 1.16%

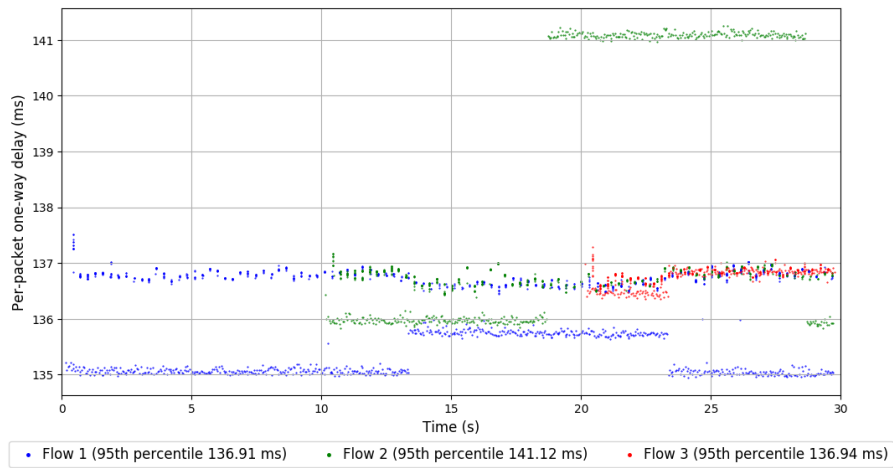
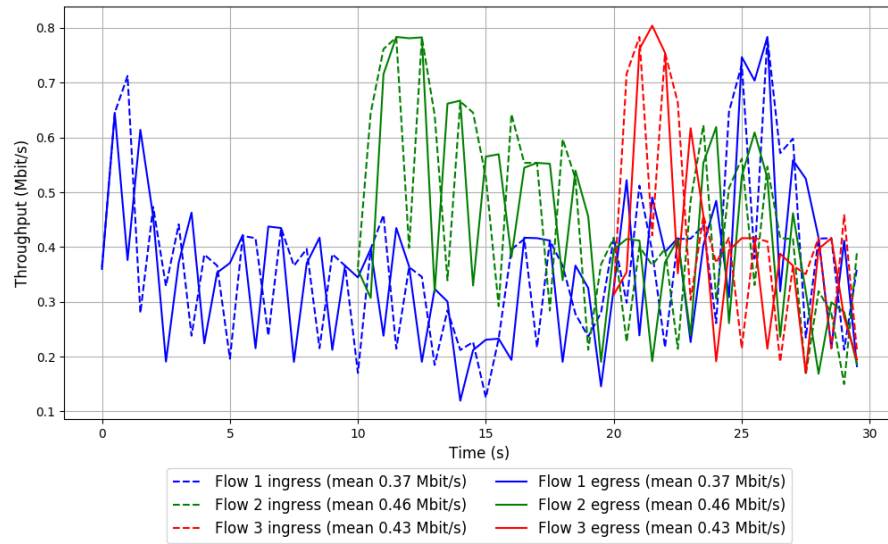
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.937 ms

Loss rate: 2.43%

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



Run 5: Statistics of Sprout

Start at: 2018-03-14 20:13:19

End at: 2018-03-14 20:13:49

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 141.000 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 136.208 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 136.373 ms

Loss rate: 1.10%

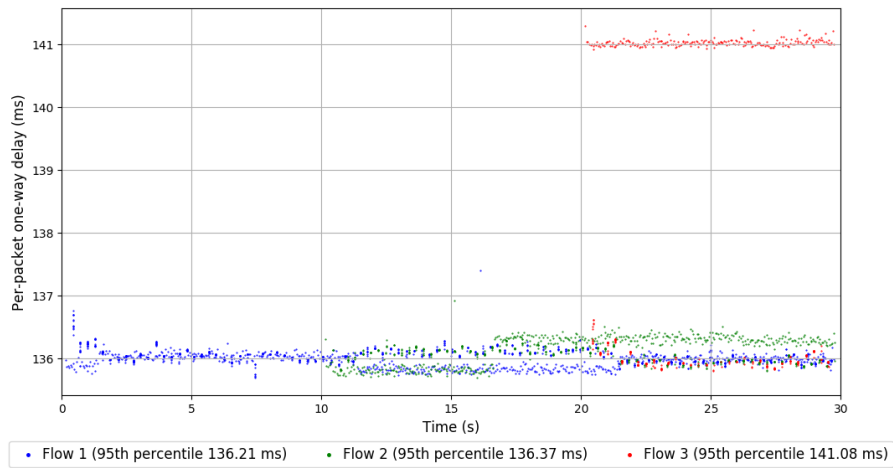
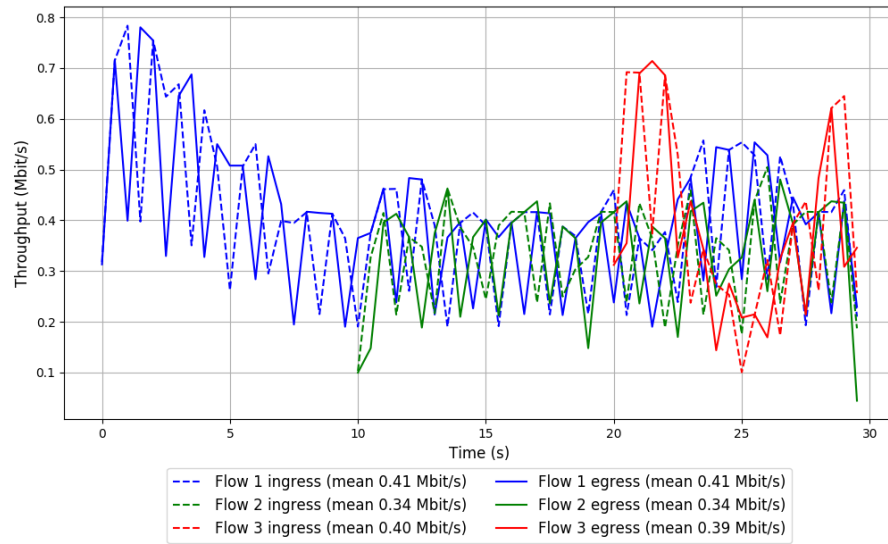
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 141.077 ms

Loss rate: 3.22%

## Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-14 20:33:42

End at: 2018-03-14 20:34:12

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 136.608 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.623 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 136.579 ms

Loss rate: 1.32%

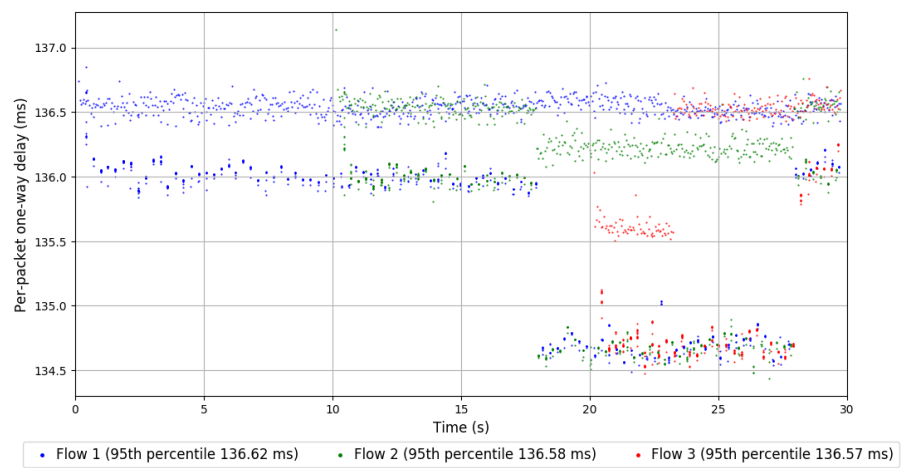
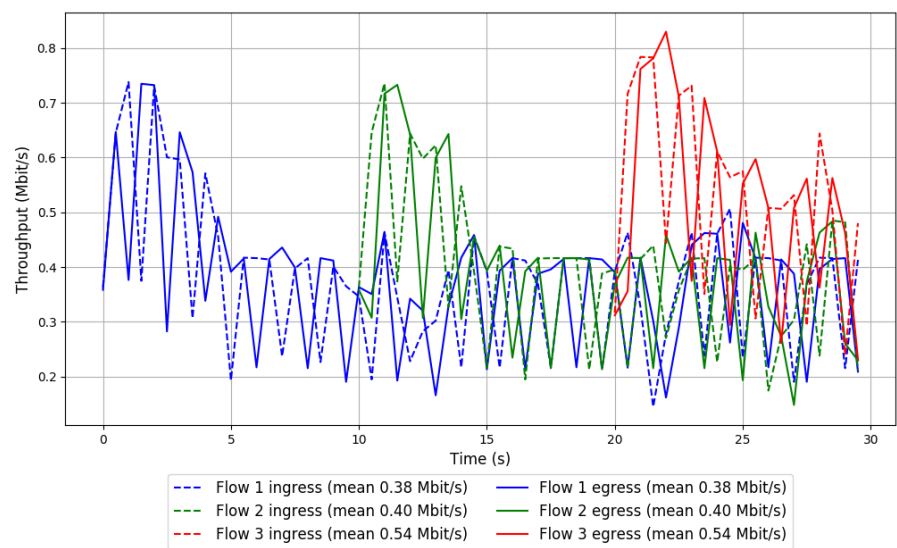
-- Flow 3:

Average throughput: 0.54 Mbit/s

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

Loss rate: 2.39%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-14 20:53:19

End at: 2018-03-14 20:53:49

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 139.141 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 136.689 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 139.199 ms

Loss rate: 1.66%

-- Flow 3:

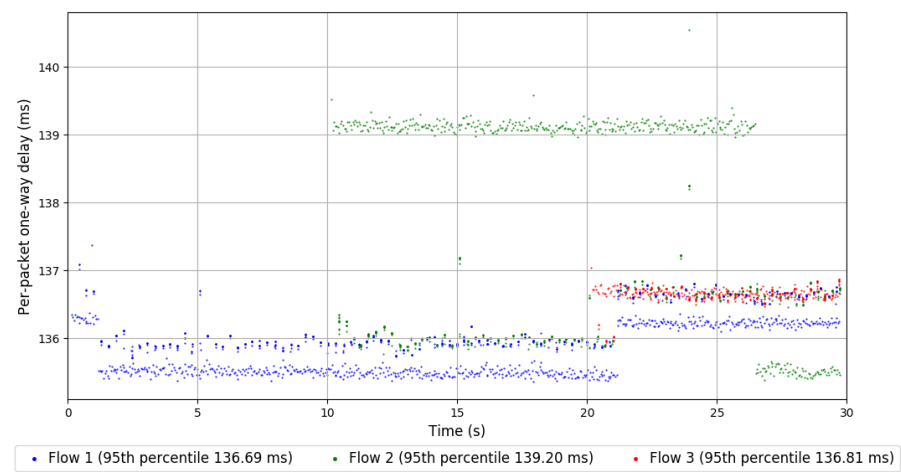
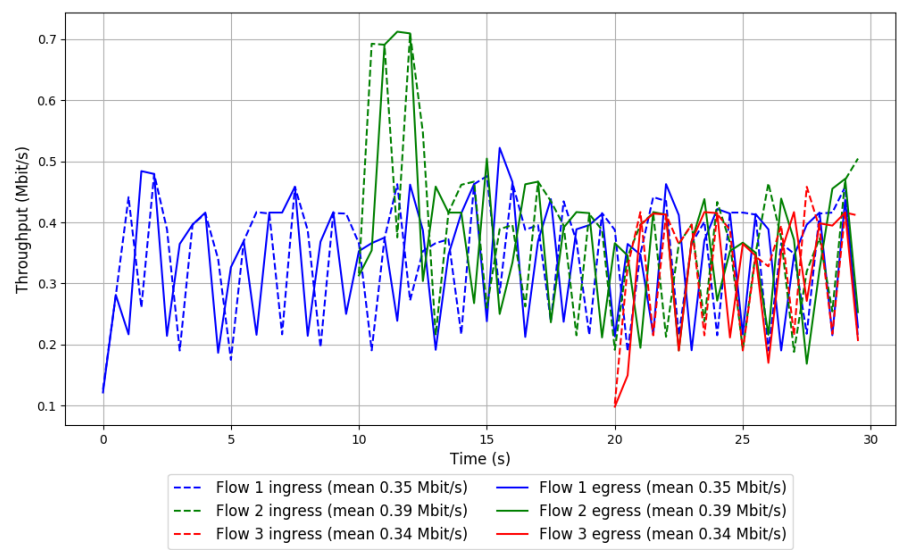
Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 136.807 ms

Loss rate: 3.16%



Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-14 21:13:02

End at: 2018-03-14 21:13:32

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.85 Mbit/s

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

Loss rate: 0.95%

-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 136.840 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 135.979 ms

Loss rate: 0.27%

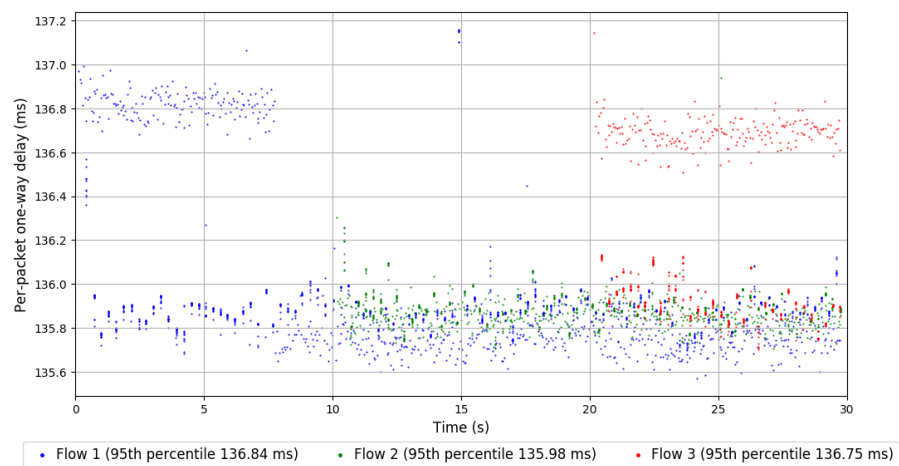
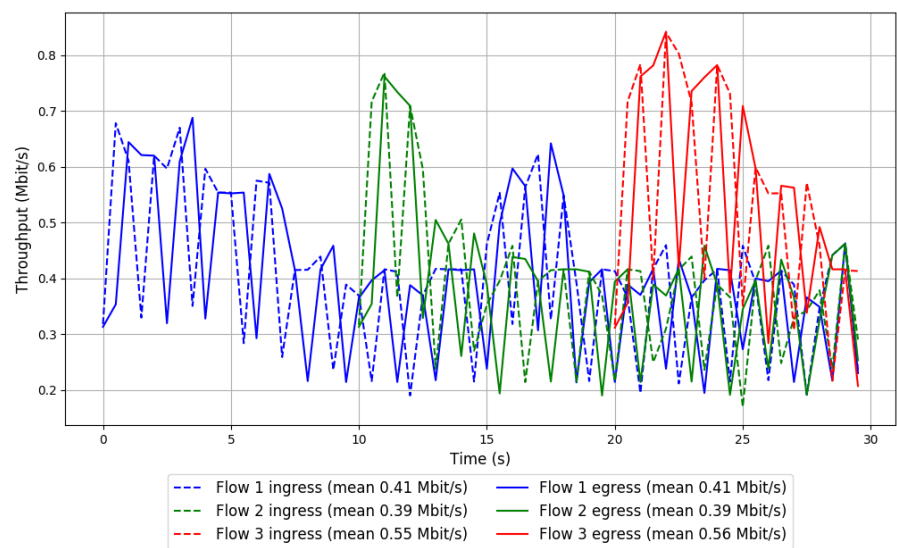
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 136.746 ms

Loss rate: 1.91%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-14 21:33:04

End at: 2018-03-14 21:33:34

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 136.797 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 136.765 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 136.738 ms

Loss rate: 1.53%

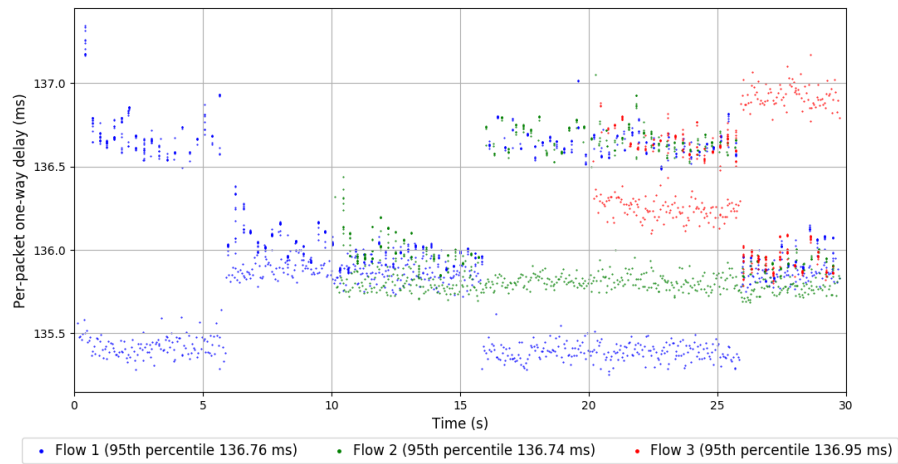
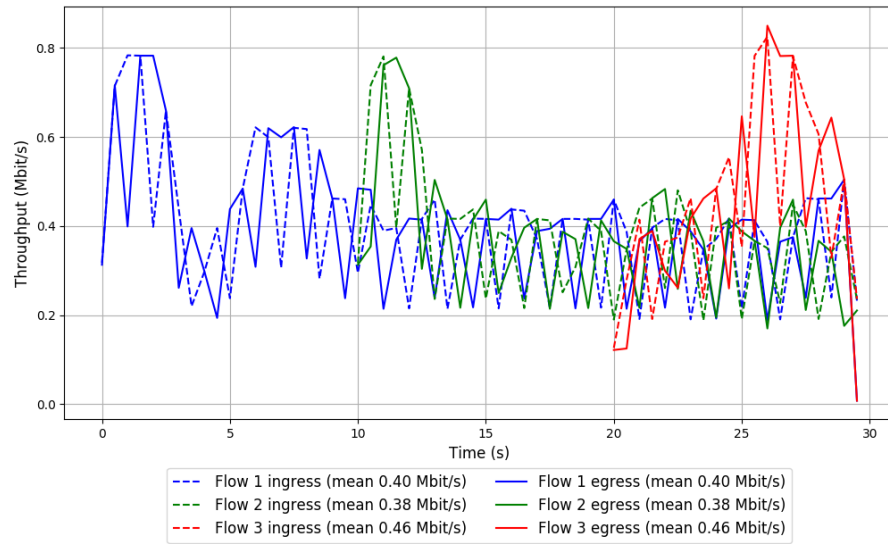
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 136.946 ms

Loss rate: 2.58%

## Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-14 21:53:00

End at: 2018-03-14 21:53:30

# Below is generated by plot.py at 2018-03-15 02:10:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 136.903 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 0.41 Mbit/s

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

Loss rate: 0.86%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 136.949 ms

Loss rate: 0.87%

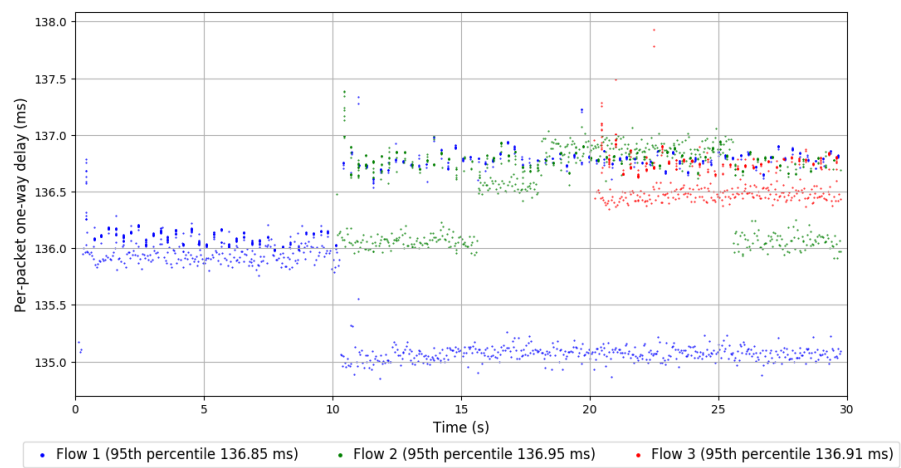
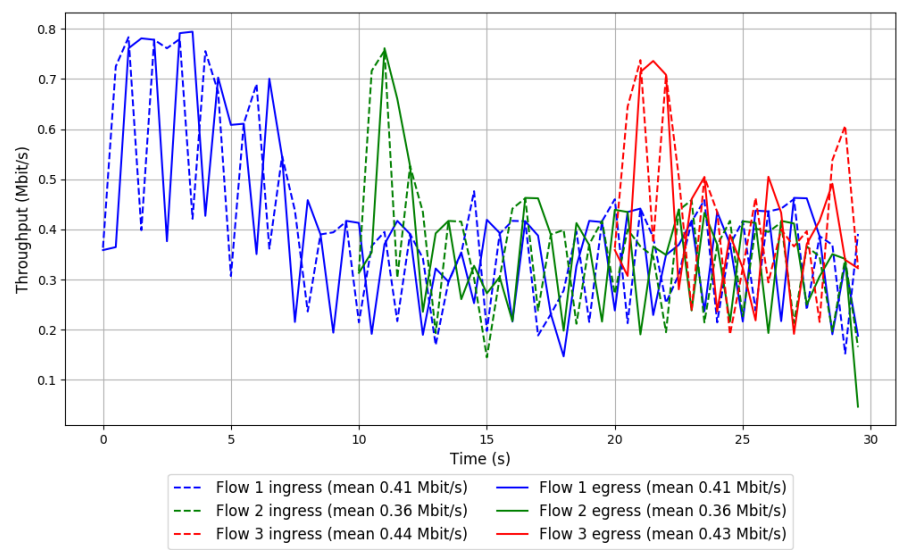
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.913 ms

Loss rate: 3.71%

Run 10: Report of Sprout — Data Link



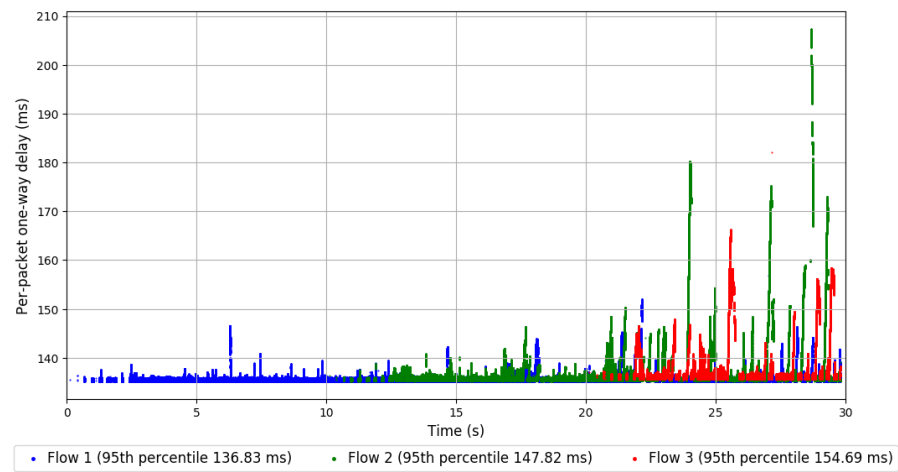
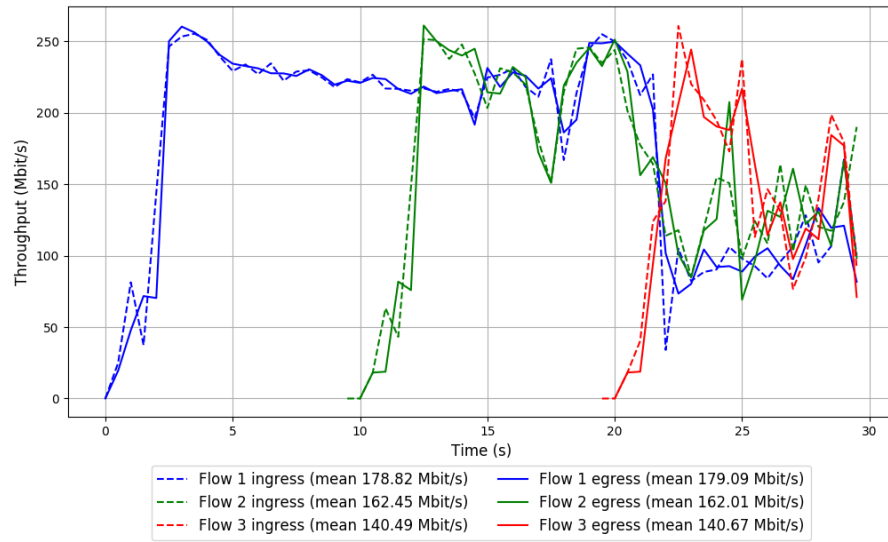
```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-14 18:51:07
End at: 2018-03-14 18:51:37

# Below is generated by plot.py at 2018-03-15 02:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 332.38 Mbit/s
95th percentile per-packet one-way delay: 143.212 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 179.09 Mbit/s
95th percentile per-packet one-way delay: 136.828 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 162.01 Mbit/s
95th percentile per-packet one-way delay: 147.816 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 140.67 Mbit/s
95th percentile per-packet one-way delay: 154.689 ms
Loss rate: 2.63%
```



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

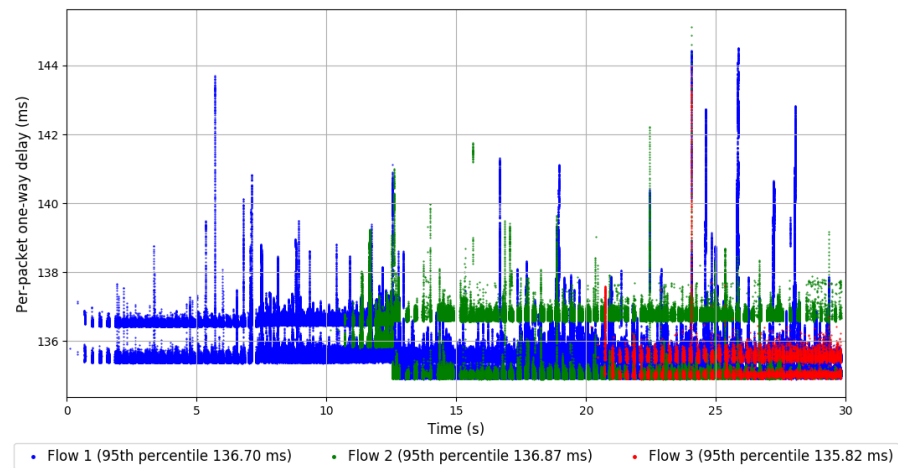
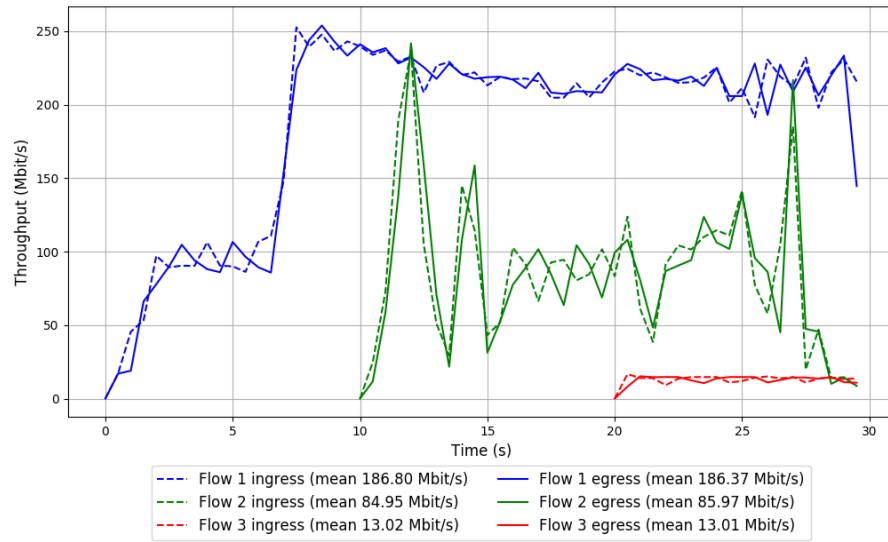


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-14 19:11:27
End at: 2018-03-14 19:11:57

# Below is generated by plot.py at 2018-03-15 02:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 247.54 Mbit/s
95th percentile per-packet one-way delay: 136.810 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 186.37 Mbit/s
95th percentile per-packet one-way delay: 136.700 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 85.97 Mbit/s
95th percentile per-packet one-way delay: 136.865 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 13.01 Mbit/s
95th percentile per-packet one-way delay: 135.824 ms
Loss rate: 2.84%
```

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

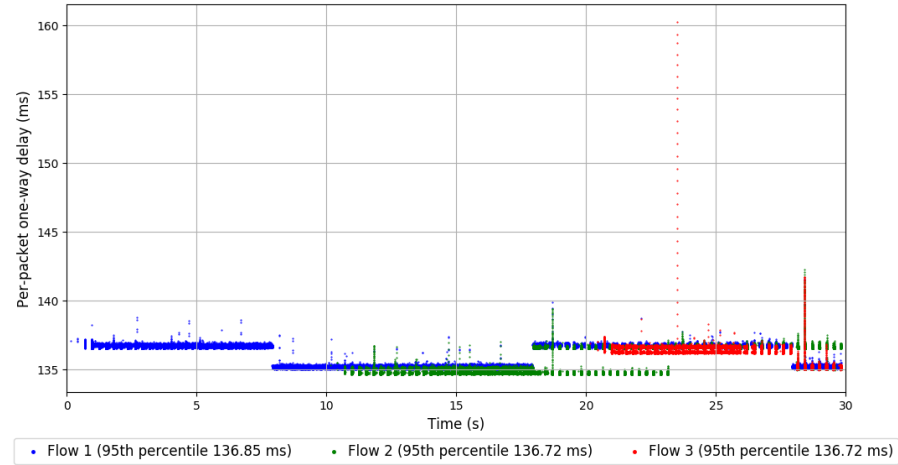
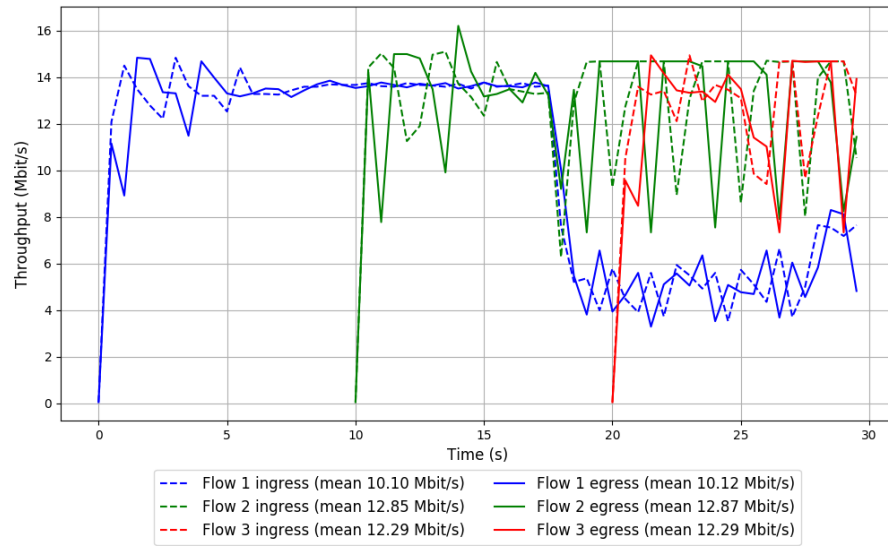


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 19:31:32
End at: 2018-03-14 19:32:02

# Below is generated by plot.py at 2018-03-15 02:18:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.65 Mbit/s
95th percentile per-packet one-way delay: 136.820 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 136.854 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 12.87 Mbit/s
95th percentile per-packet one-way delay: 136.719 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 12.29 Mbit/s
95th percentile per-packet one-way delay: 136.715 ms
Loss rate: 2.72%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-14 19:51:11

End at: 2018-03-14 19:51:41

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 349.31 Mbit/s

95th percentile per-packet one-way delay: 139.899 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 180.22 Mbit/s

95th percentile per-packet one-way delay: 137.650 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 174.93 Mbit/s

95th percentile per-packet one-way delay: 145.662 ms

Loss rate: 0.65%

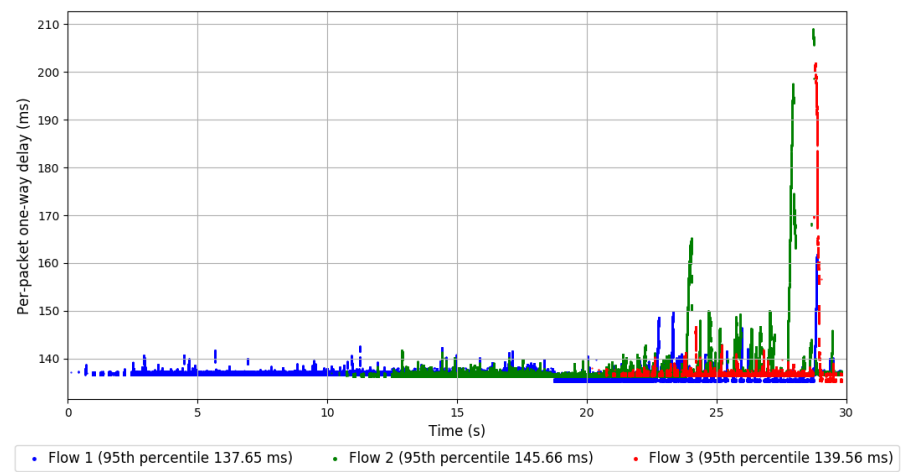
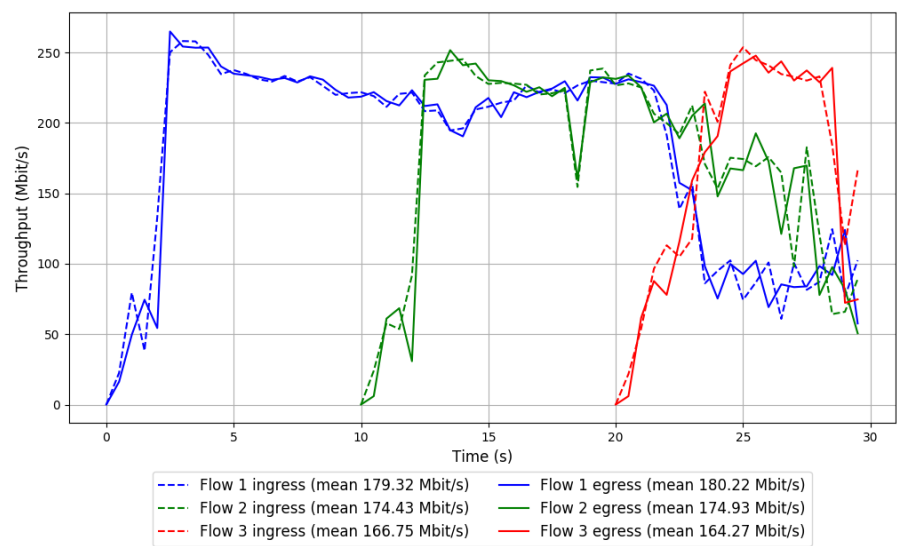
-- Flow 3:

Average throughput: 164.27 Mbit/s

95th percentile per-packet one-way delay: 139.560 ms

Loss rate: 4.22%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 20:11:19

End at: 2018-03-14 20:11:49

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 200.67 Mbit/s

95th percentile per-packet one-way delay: 137.039 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 11.44 Mbit/s

95th percentile per-packet one-way delay: 136.154 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 199.36 Mbit/s

95th percentile per-packet one-way delay: 137.038 ms

Loss rate: 1.64%

-- Flow 3:

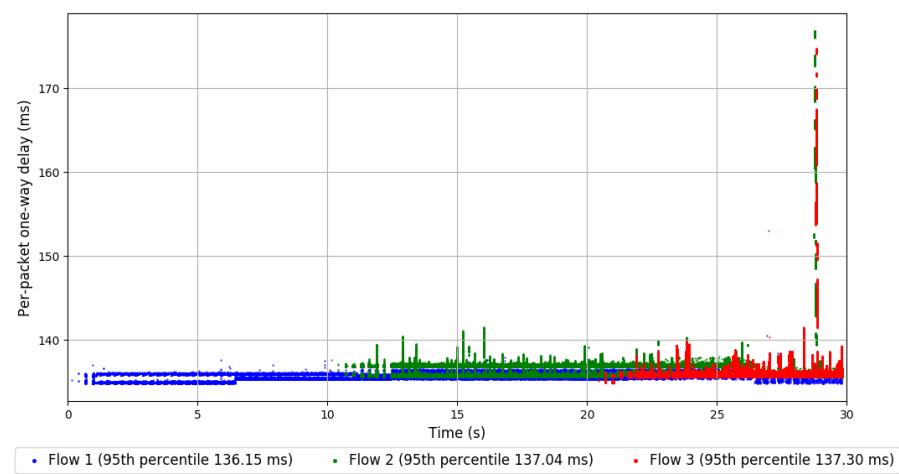
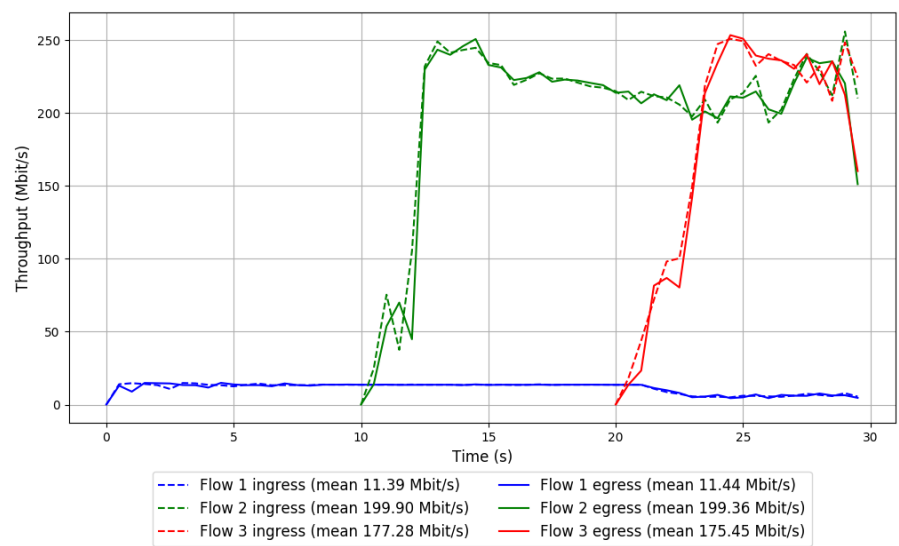
Average throughput: 175.45 Mbit/s

95th percentile per-packet one-way delay: 137.304 ms

Loss rate: 3.74%



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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-14 20:31:31

End at: 2018-03-14 20:32:01

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 298.63 Mbit/s

95th percentile per-packet one-way delay: 143.280 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 193.36 Mbit/s

95th percentile per-packet one-way delay: 146.551 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 119.13 Mbit/s

95th percentile per-packet one-way delay: 137.693 ms

Loss rate: 0.16%

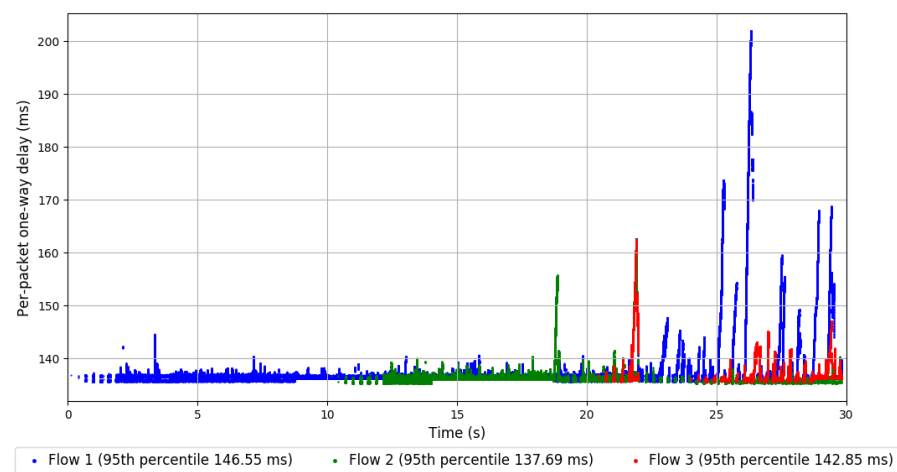
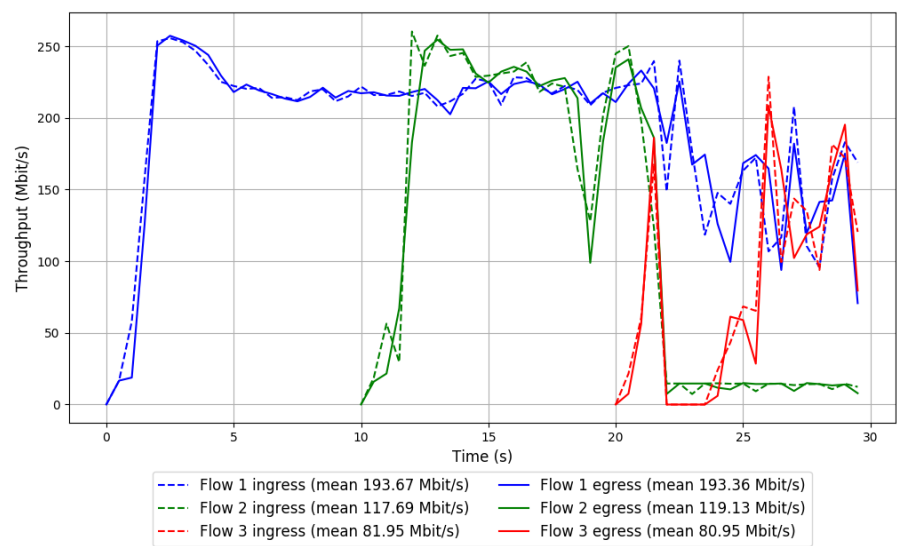
-- Flow 3:

Average throughput: 80.95 Mbit/s

95th percentile per-packet one-way delay: 142.853 ms

Loss rate: 3.97%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-14 20:51:34

End at: 2018-03-14 20:52:04

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 60.09 Mbit/s

95th percentile per-packet one-way delay: 136.782 ms

Loss rate: 3.98%

-- Flow 1:

Average throughput: 13.29 Mbit/s

95th percentile per-packet one-way delay: 136.823 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 13.18 Mbit/s

95th percentile per-packet one-way delay: 136.471 ms

Loss rate: 1.39%

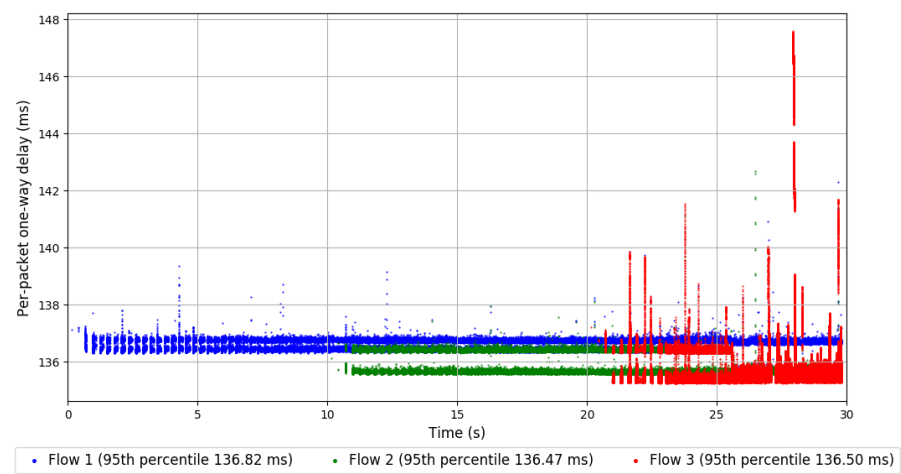
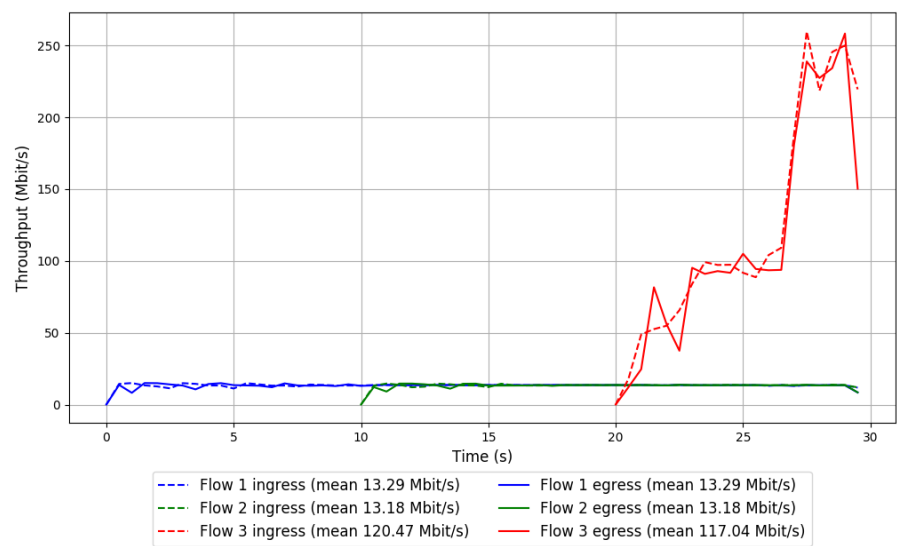
-- Flow 3:

Average throughput: 117.04 Mbit/s

95th percentile per-packet one-way delay: 136.499 ms

Loss rate: 5.57%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-14 21:11:15

End at: 2018-03-14 21:11:45

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 82.64 Mbit/s

95th percentile per-packet one-way delay: 136.803 ms

Loss rate: 2.88%

-- Flow 1:

Average throughput: 13.03 Mbit/s

95th percentile per-packet one-way delay: 136.642 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 13.16 Mbit/s

95th percentile per-packet one-way delay: 137.251 ms

Loss rate: 1.41%

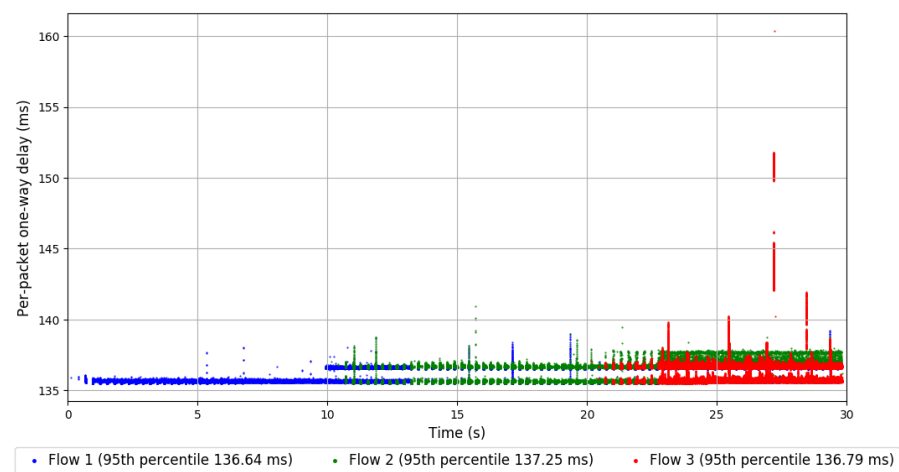
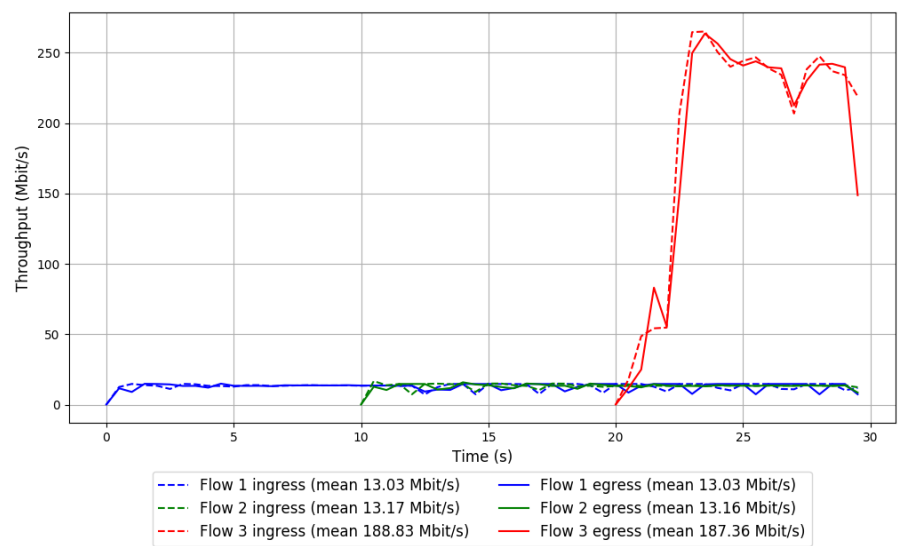
-- Flow 3:

Average throughput: 187.36 Mbit/s

95th percentile per-packet one-way delay: 136.793 ms

Loss rate: 3.49%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-14 21:31:07

End at: 2018-03-14 21:31:37

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 179.75 Mbit/s

95th percentile per-packet one-way delay: 137.777 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 12.85 Mbit/s

95th percentile per-packet one-way delay: 136.963 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 155.96 Mbit/s

95th percentile per-packet one-way delay: 140.700 ms

Loss rate: 2.06%

-- Flow 3:

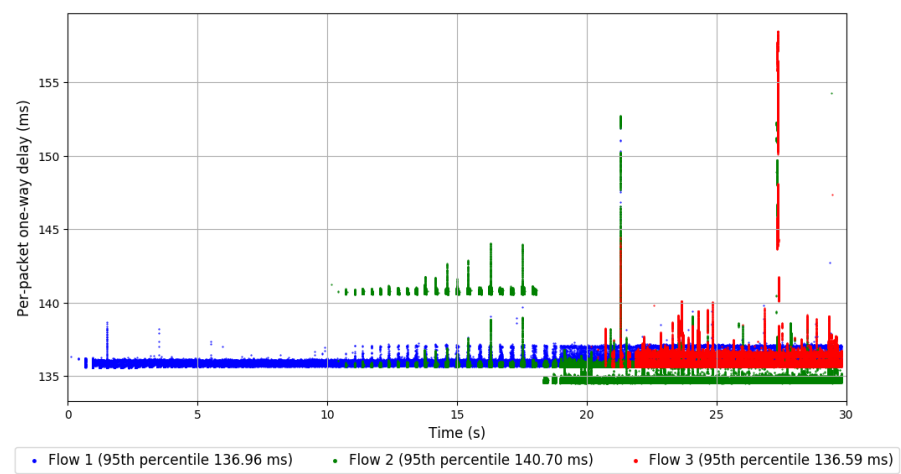
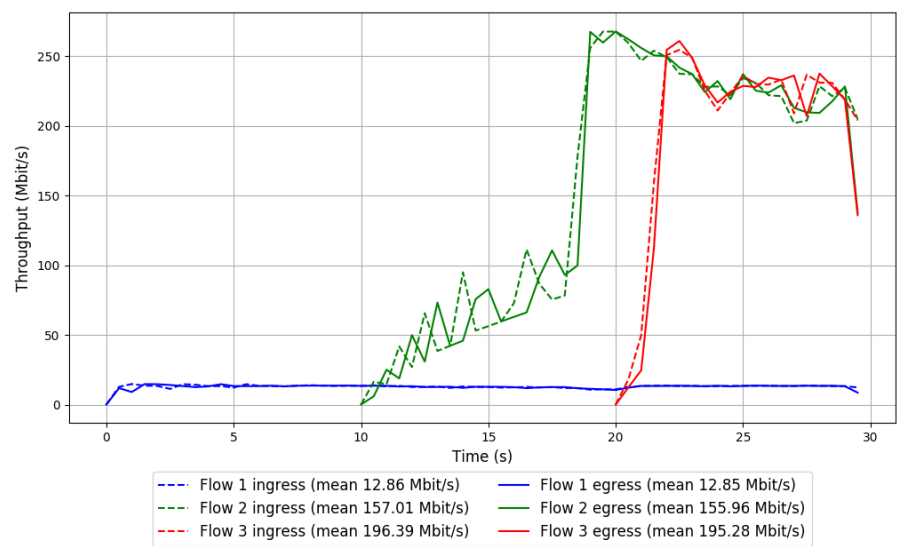
Average throughput: 195.28 Mbit/s

95th percentile per-packet one-way delay: 136.593 ms

Loss rate: 3.31%



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

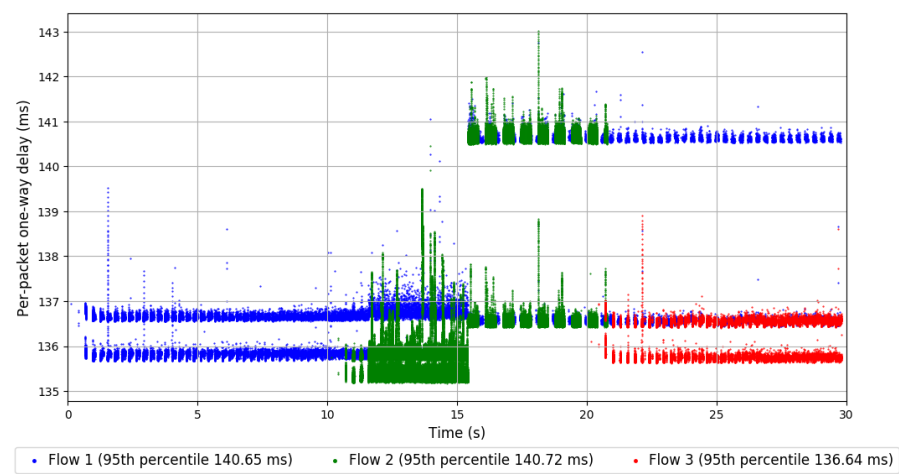
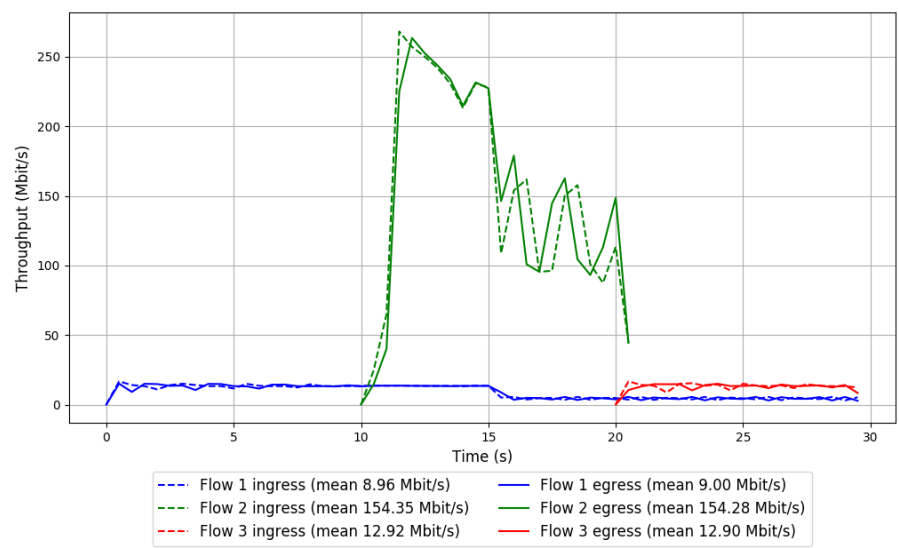


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-14 21:51:15
End at: 2018-03-14 21:51:45

# Below is generated by plot.py at 2018-03-15 02:18:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.44 Mbit/s
95th percentile per-packet one-way delay: 140.707 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 9.00 Mbit/s
95th percentile per-packet one-way delay: 140.647 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 154.28 Mbit/s
95th percentile per-packet one-way delay: 140.717 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 136.640 ms
Loss rate: 2.87%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-14 18:54:59

End at: 2018-03-14 18:55:29

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 142.57 Mbit/s

95th percentile per-packet one-way delay: 144.381 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 82.58 Mbit/s

95th percentile per-packet one-way delay: 144.217 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 79.43 Mbit/s

95th percentile per-packet one-way delay: 144.504 ms

Loss rate: 1.53%

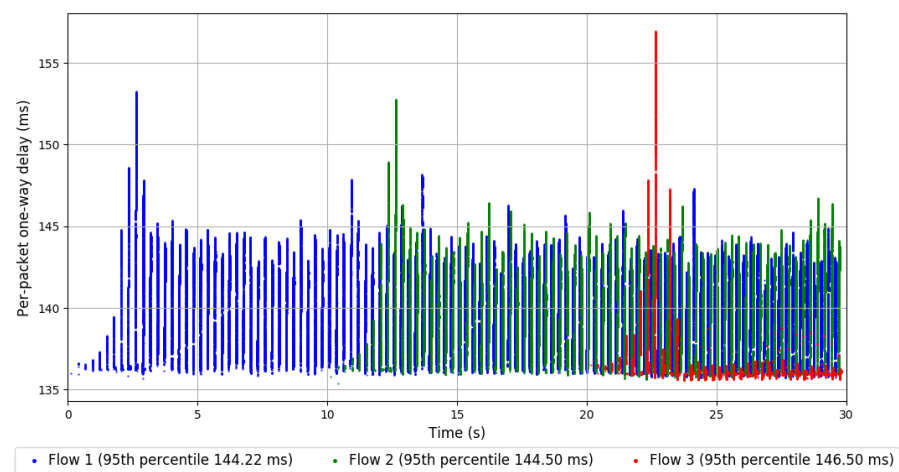
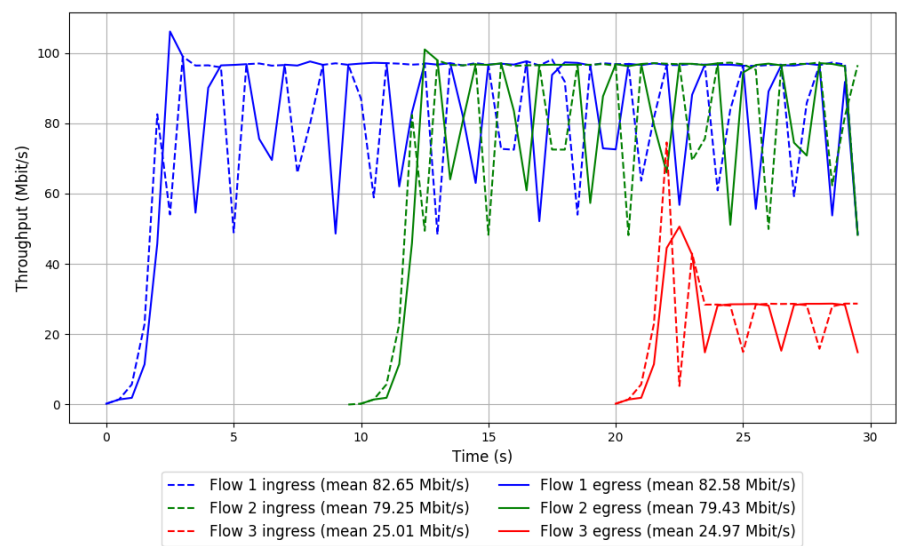
-- Flow 3:

Average throughput: 24.97 Mbit/s

95th percentile per-packet one-way delay: 146.500 ms

Loss rate: 2.90%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 19:15:10

End at: 2018-03-14 19:15:40

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 131.91 Mbit/s

95th percentile per-packet one-way delay: 148.834 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 70.49 Mbit/s

95th percentile per-packet one-way delay: 148.118 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 78.96 Mbit/s

95th percentile per-packet one-way delay: 149.791 ms

Loss rate: 1.56%

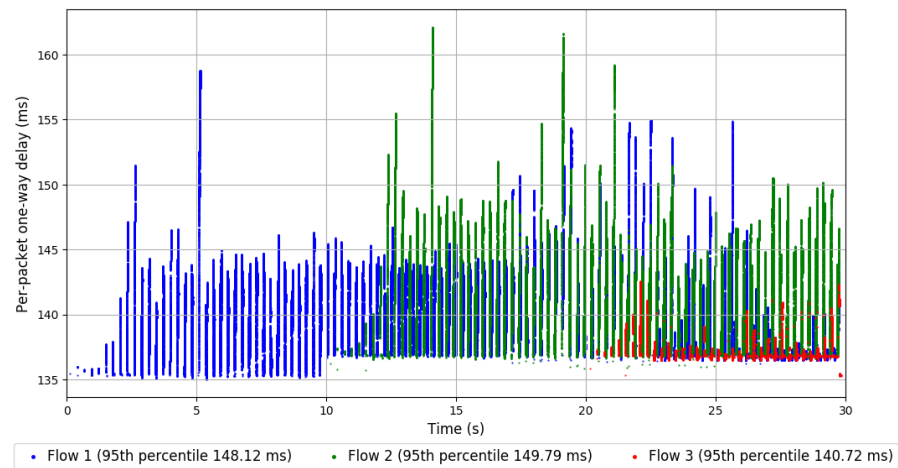
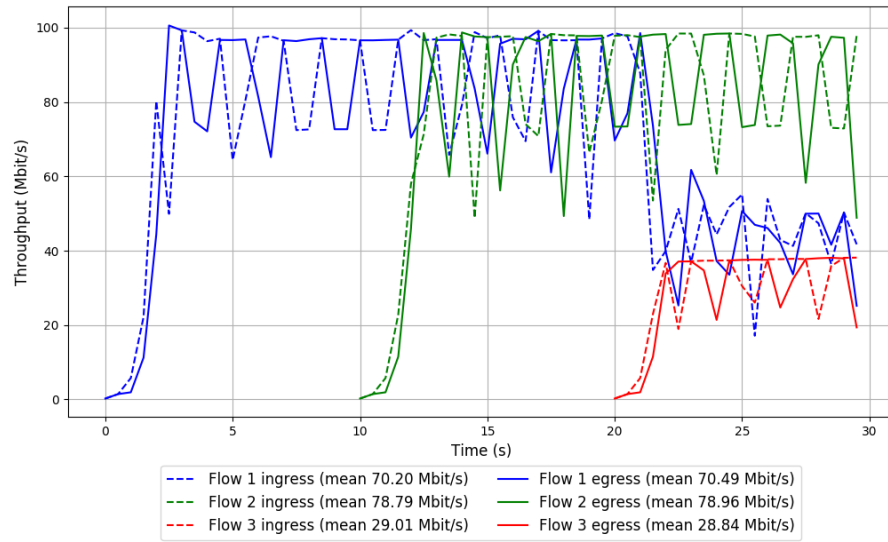
-- Flow 3:

Average throughput: 28.84 Mbit/s

95th percentile per-packet one-way delay: 140.722 ms

Loss rate: 3.32%

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



Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 19:34:51

End at: 2018-03-14 19:35:21

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 157.82 Mbit/s

95th percentile per-packet one-way delay: 144.722 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 82.04 Mbit/s

95th percentile per-packet one-way delay: 144.972 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 79.85 Mbit/s

95th percentile per-packet one-way delay: 144.094 ms

Loss rate: 1.52%

-- Flow 3:

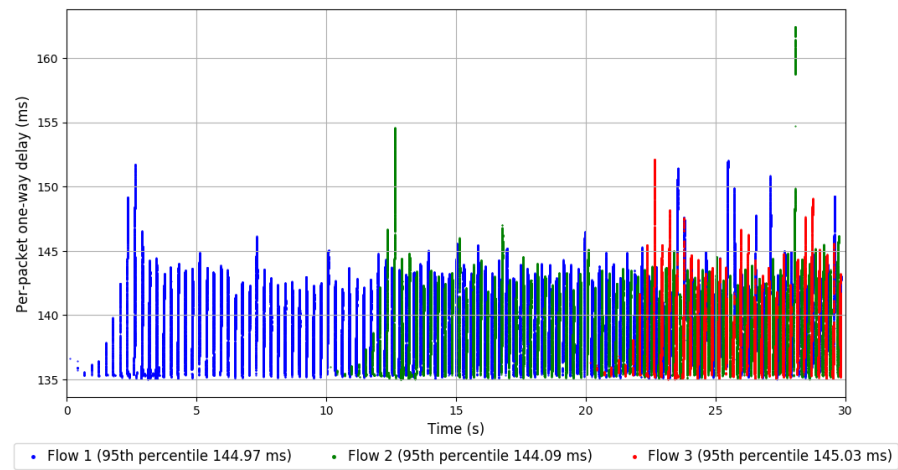
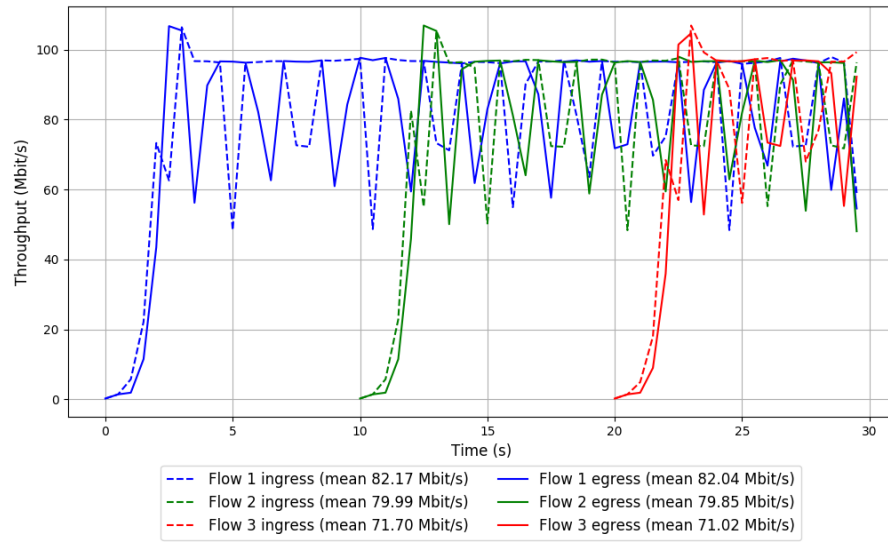
Average throughput: 71.02 Mbit/s

95th percentile per-packet one-way delay: 145.030 ms

Loss rate: 3.62%



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



Run 4: Statistics of TCP Vegas

Start at: 2018-03-14 19:55:05

End at: 2018-03-14 19:55:35

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.53 Mbit/s

95th percentile per-packet one-way delay: 144.154 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 34.50 Mbit/s

95th percentile per-packet one-way delay: 143.332 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 40.01 Mbit/s

95th percentile per-packet one-way delay: 141.011 ms

Loss rate: 1.52%

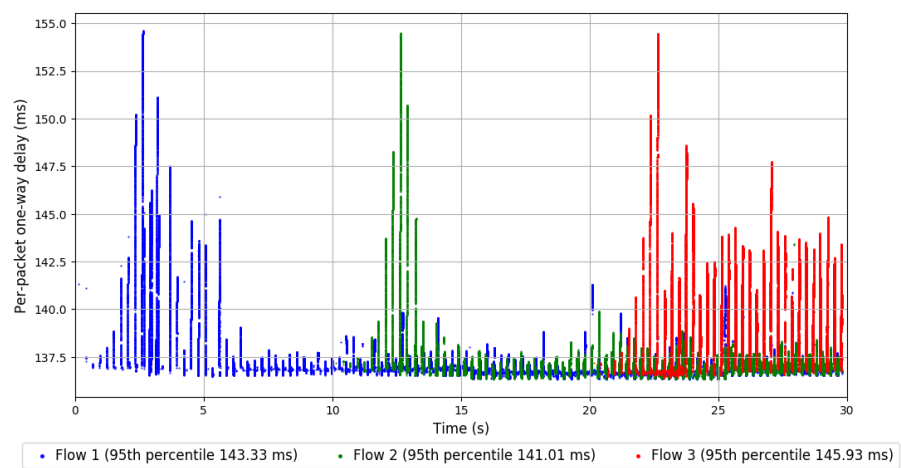
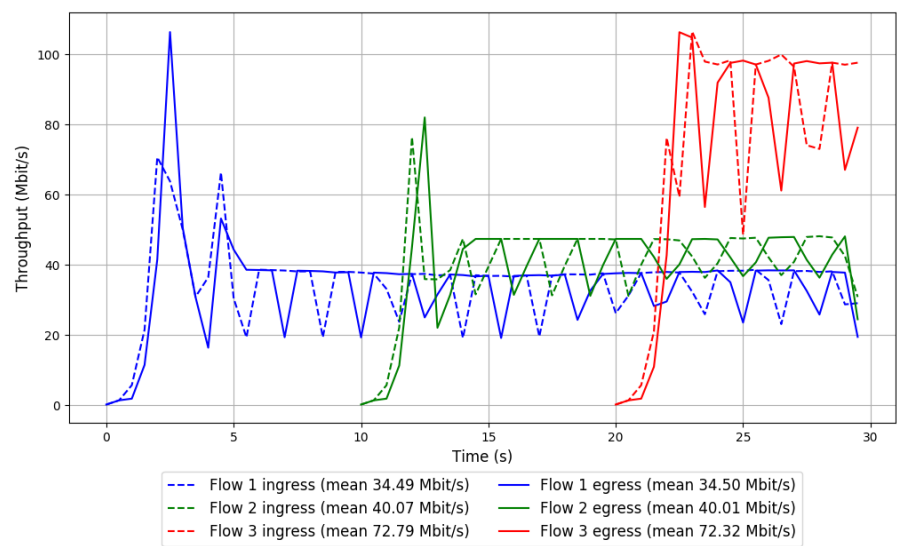
-- Flow 3:

Average throughput: 72.32 Mbit/s

95th percentile per-packet one-way delay: 145.926 ms

Loss rate: 3.36%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 20:14:57

End at: 2018-03-14 20:15:27

# Below is generated by plot.py at 2018-03-15 02:18:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 109.71 Mbit/s

95th percentile per-packet one-way delay: 146.417 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 36.41 Mbit/s

95th percentile per-packet one-way delay: 146.397 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 75.56 Mbit/s

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

Loss rate: 0.58%

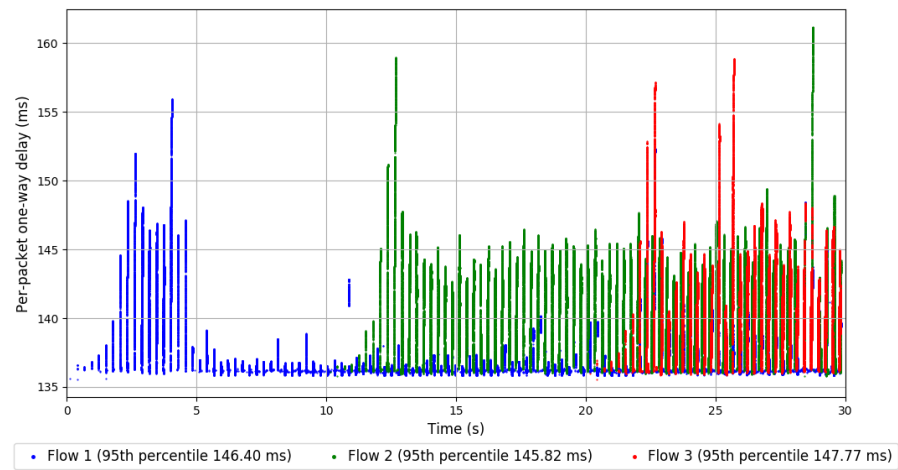
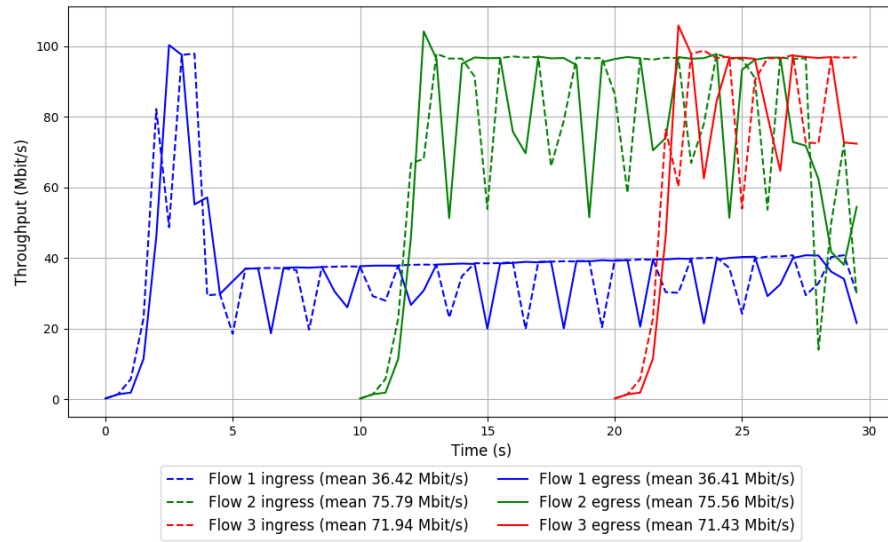
-- Flow 3:

Average throughput: 71.43 Mbit/s

95th percentile per-packet one-way delay: 147.772 ms

Loss rate: 3.39%

# Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-14 20:35:20

End at: 2018-03-14 20:35:50

# Below is generated by plot.py at 2018-03-15 02:19:15

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.56 Mbit/s

95th percentile per-packet one-way delay: 148.156 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 80.12 Mbit/s

95th percentile per-packet one-way delay: 147.993 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 142.227 ms

Loss rate: 3.31%

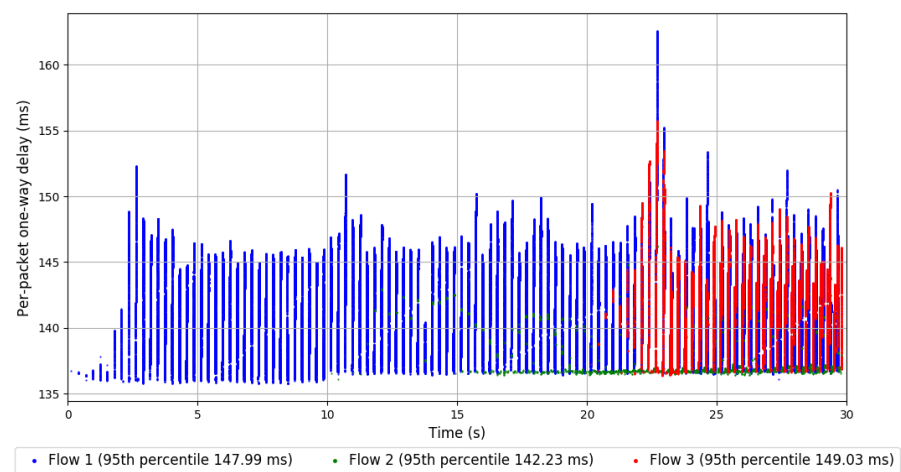
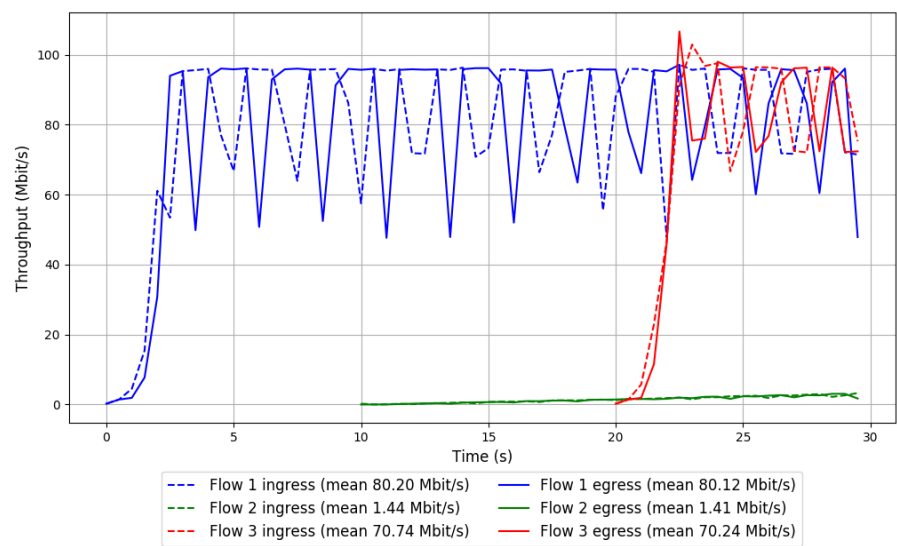
-- Flow 3:

Average throughput: 70.24 Mbit/s

95th percentile per-packet one-way delay: 149.026 ms

Loss rate: 3.41%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-14 20:54:57

End at: 2018-03-14 20:55:27

# Below is generated by plot.py at 2018-03-15 02:19:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 130.33 Mbit/s

95th percentile per-packet one-way delay: 148.463 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 65.37 Mbit/s

95th percentile per-packet one-way delay: 143.287 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 78.01 Mbit/s

95th percentile per-packet one-way delay: 149.559 ms

Loss rate: 1.70%

-- Flow 3:

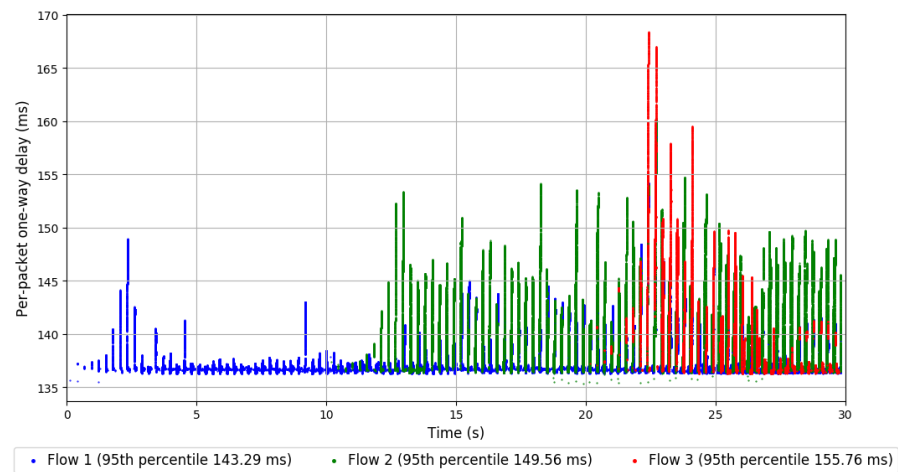
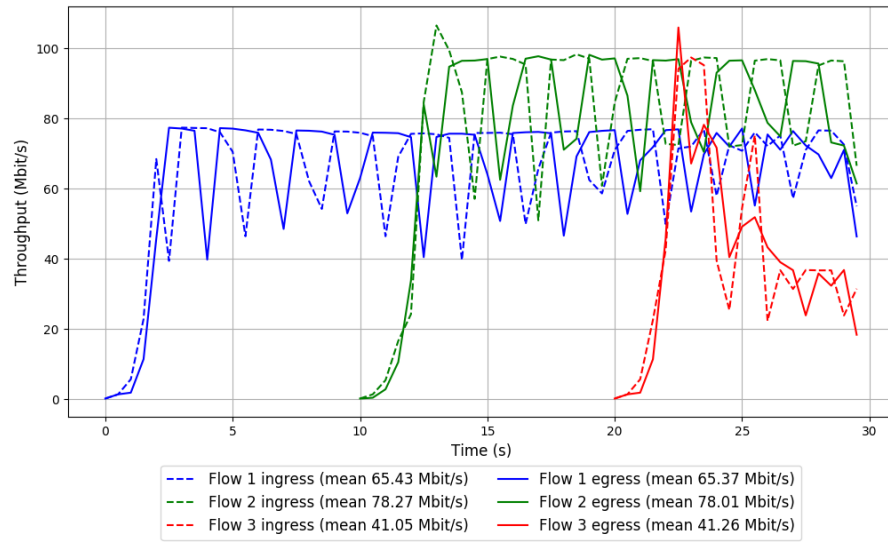
Average throughput: 41.26 Mbit/s

95th percentile per-packet one-way delay: 155.762 ms

Loss rate: 2.27%



# Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-14 21:14:40

End at: 2018-03-14 21:15:10

# Below is generated by plot.py at 2018-03-15 02:19:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 94.89 Mbit/s

95th percentile per-packet one-way delay: 145.325 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 51.76 Mbit/s

95th percentile per-packet one-way delay: 141.291 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 31.46 Mbit/s

95th percentile per-packet one-way delay: 142.324 ms

Loss rate: 1.46%

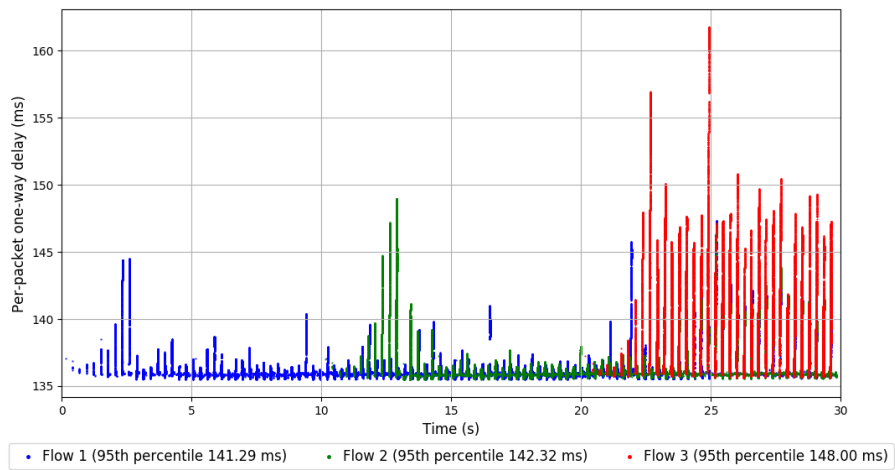
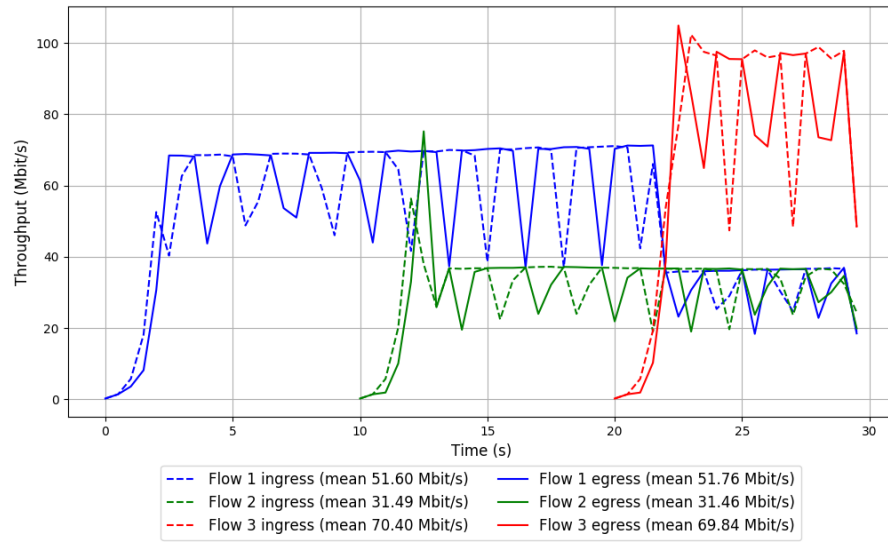
-- Flow 3:

Average throughput: 69.84 Mbit/s

95th percentile per-packet one-way delay: 147.999 ms

Loss rate: 3.51%

# Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-14 21:34:42

End at: 2018-03-14 21:35:12

# Below is generated by plot.py at 2018-03-15 02:20:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 134.68 Mbit/s

95th percentile per-packet one-way delay: 146.498 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 82.49 Mbit/s

95th percentile per-packet one-way delay: 145.898 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 79.70 Mbit/s

95th percentile per-packet one-way delay: 147.073 ms

Loss rate: 1.55%

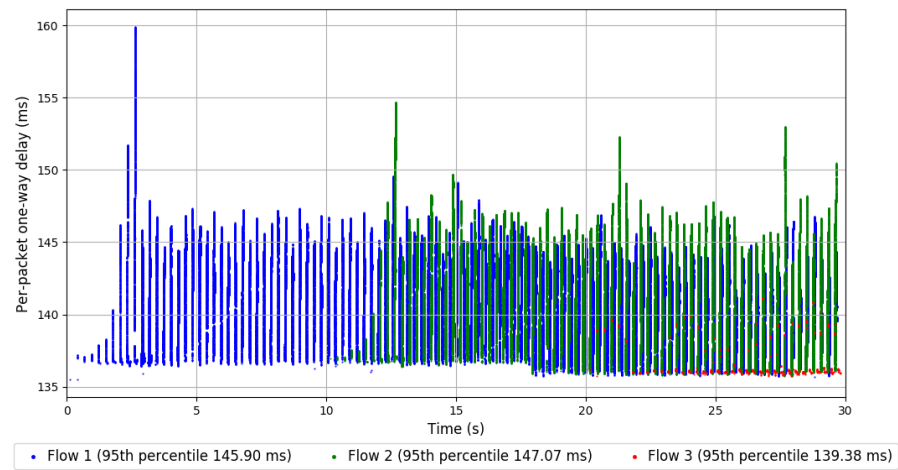
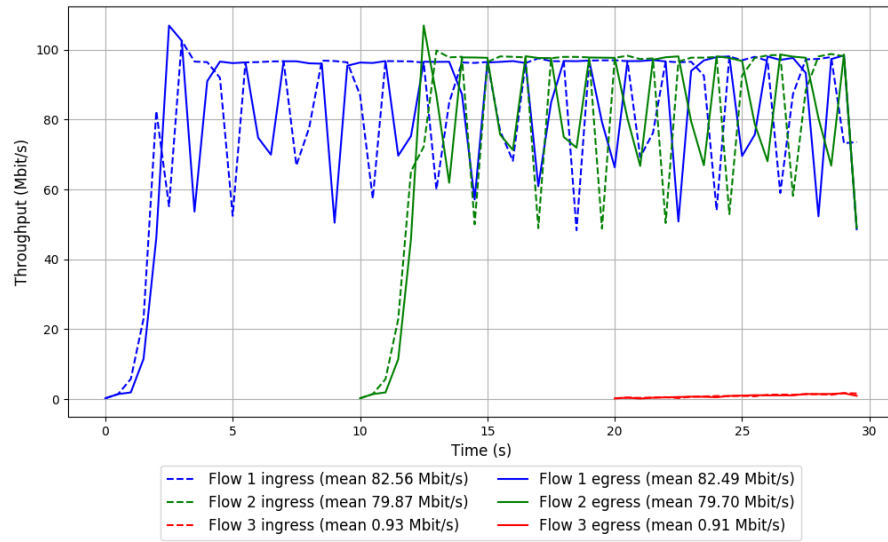
-- Flow 3:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 139.383 ms

Loss rate: 5.18%

# Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-14 21:54:38

End at: 2018-03-14 21:55:08

# Below is generated by plot.py at 2018-03-15 02:20:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 66.03 Mbit/s

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

Loss rate: 1.32%

-- Flow 1:

Average throughput: 50.18 Mbit/s

95th percentile per-packet one-way delay: 146.497 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 136.274 ms

Loss rate: 3.24%

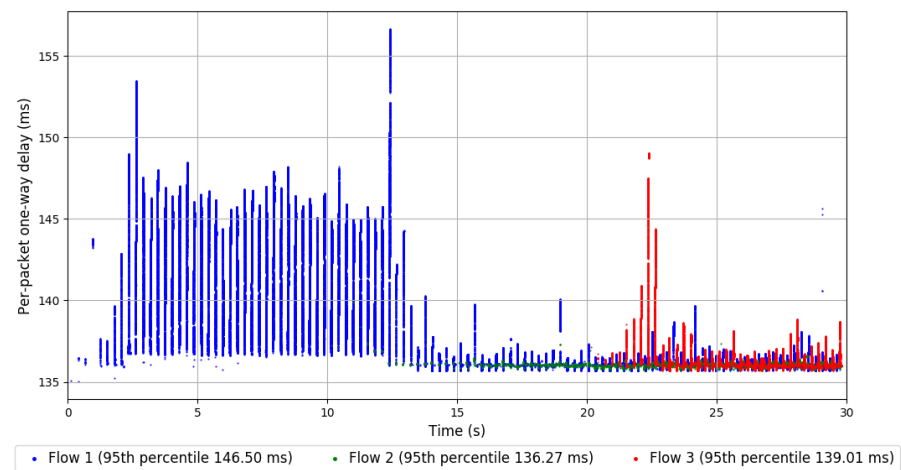
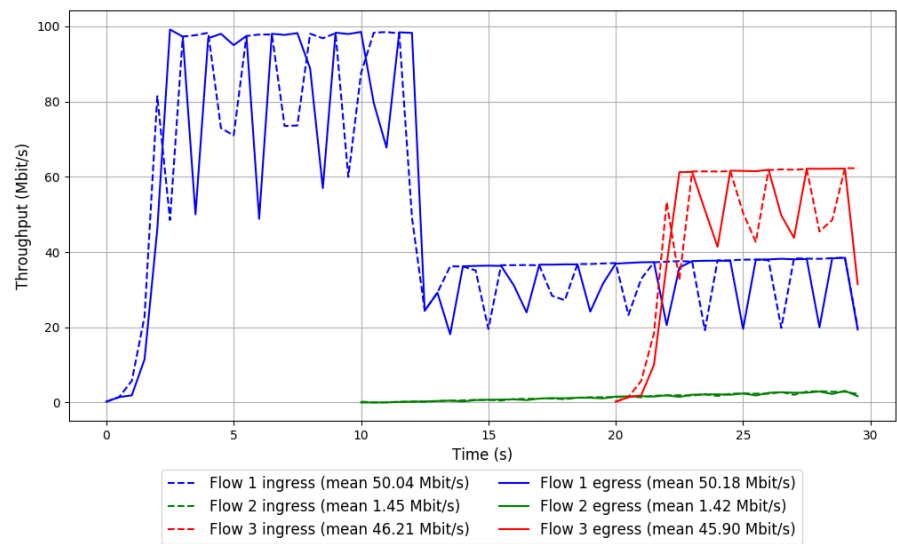
-- Flow 3:

Average throughput: 45.90 Mbit/s

95th percentile per-packet one-way delay: 139.007 ms

Loss rate: 3.41%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-14 19:01:59

End at: 2018-03-14 19:02:29

# Below is generated by plot.py at 2018-03-15 02:22:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 186.15 Mbit/s

95th percentile per-packet one-way delay: 254.398 ms

Loss rate: 3.41%

-- Flow 1:

Average throughput: 80.59 Mbit/s

95th percentile per-packet one-way delay: 203.549 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 151.91 Mbit/s

95th percentile per-packet one-way delay: 299.907 ms

Loss rate: 5.02%

-- Flow 3:

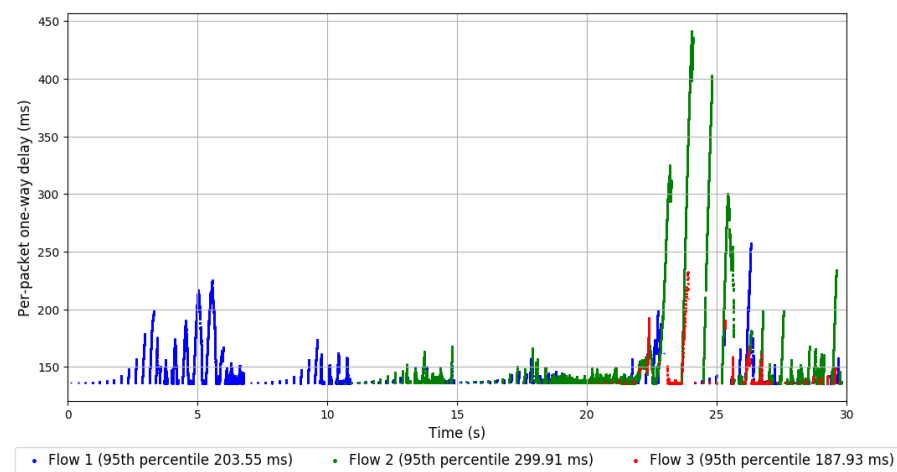
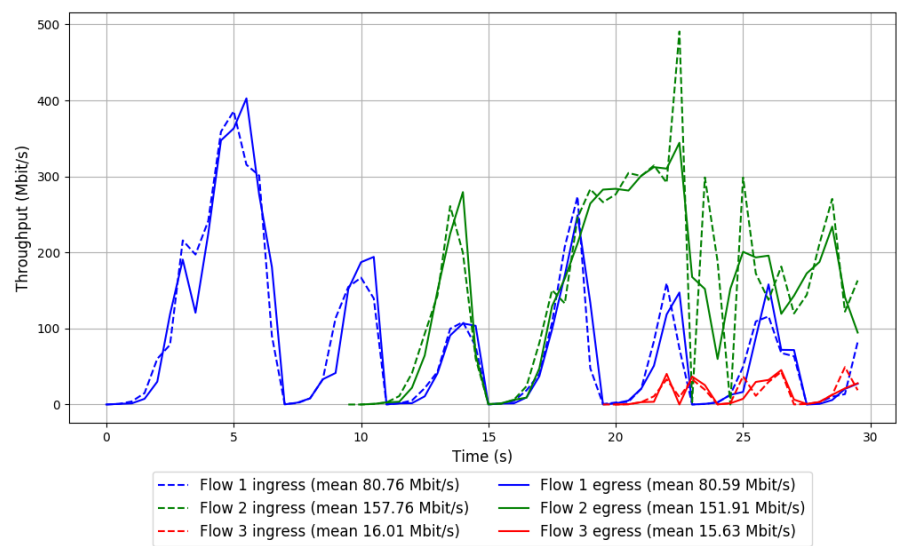
Average throughput: 15.63 Mbit/s

95th percentile per-packet one-way delay: 187.934 ms

Loss rate: 5.91%



Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-14 19:21:57

End at: 2018-03-14 19:22:27

# Below is generated by plot.py at 2018-03-15 02:23:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 237.30 Mbit/s

95th percentile per-packet one-way delay: 230.684 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 155.94 Mbit/s

95th percentile per-packet one-way delay: 225.684 ms

Loss rate: 1.96%

-- Flow 2:

Average throughput: 111.49 Mbit/s

95th percentile per-packet one-way delay: 233.461 ms

Loss rate: 0.72%

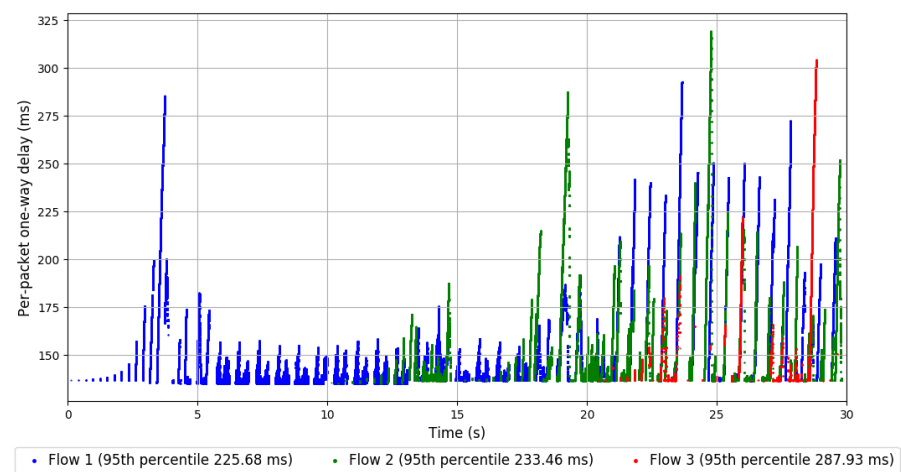
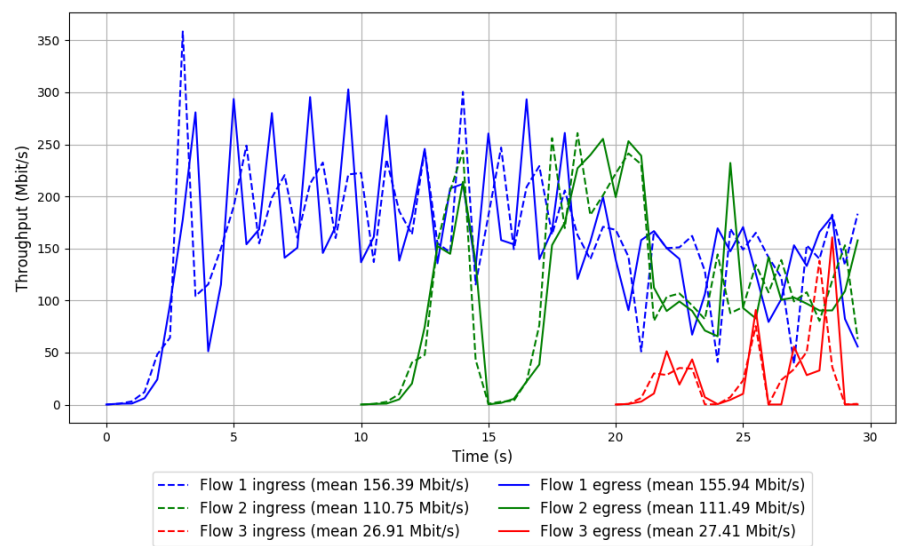
-- Flow 3:

Average throughput: 27.41 Mbit/s

95th percentile per-packet one-way delay: 287.933 ms

Loss rate: 1.08%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-14 19:41:48

End at: 2018-03-14 19:42:18

# Below is generated by plot.py at 2018-03-15 02:23:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 164.86 Mbit/s

95th percentile per-packet one-way delay: 241.849 ms

Loss rate: 3.03%

-- Flow 1:

Average throughput: 108.87 Mbit/s

95th percentile per-packet one-way delay: 176.291 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.95 Mbit/s

95th percentile per-packet one-way delay: 208.203 ms

Loss rate: 2.57%

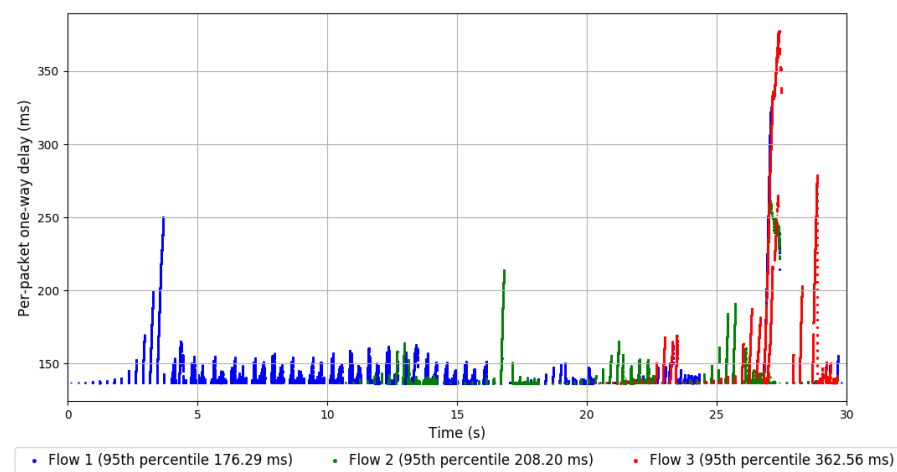
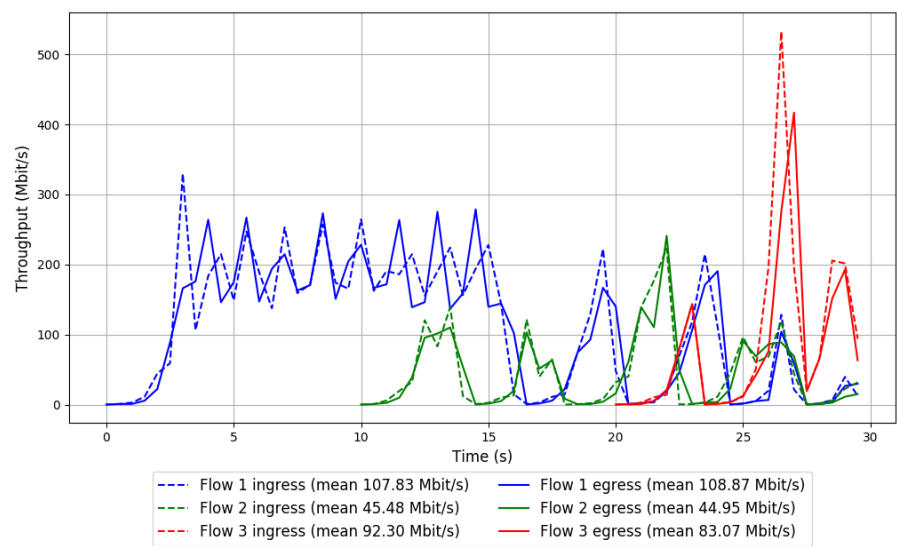
-- Flow 3:

Average throughput: 83.07 Mbit/s

95th percentile per-packet one-way delay: 362.557 ms

Loss rate: 14.19%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-14 20:01:45

End at: 2018-03-14 20:02:15

# Below is generated by plot.py at 2018-03-15 02:25:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 270.67 Mbit/s

95th percentile per-packet one-way delay: 334.613 ms

Loss rate: 6.85%

-- Flow 1:

Average throughput: 139.81 Mbit/s

95th percentile per-packet one-way delay: 263.445 ms

Loss rate: 3.65%

-- Flow 2:

Average throughput: 141.72 Mbit/s

95th percentile per-packet one-way delay: 387.123 ms

Loss rate: 12.46%

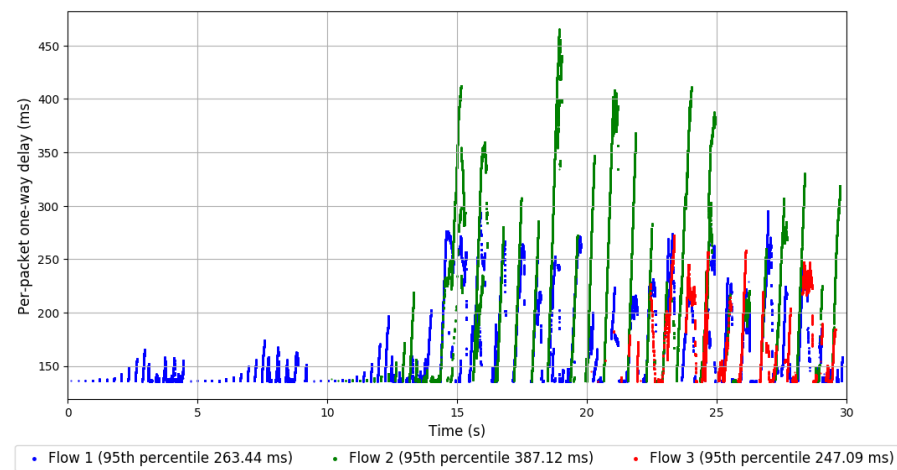
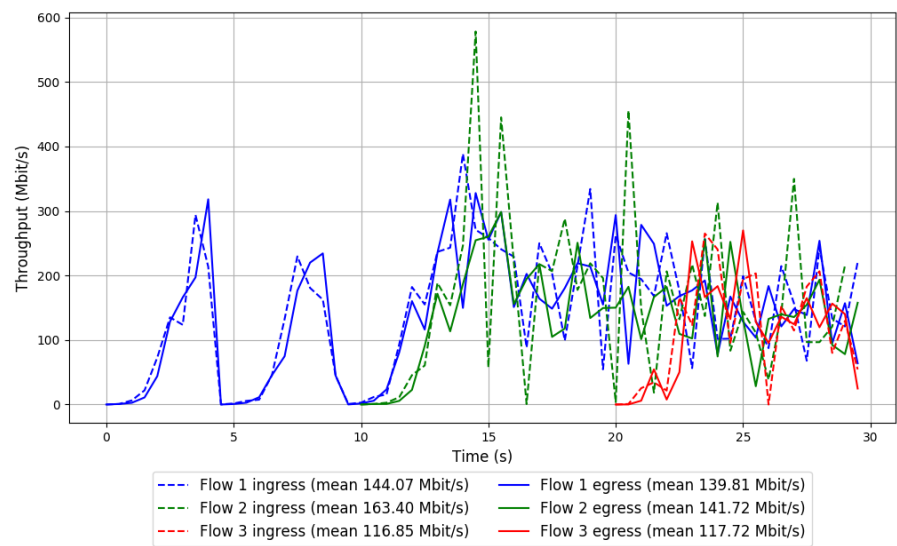
-- Flow 3:

Average throughput: 117.72 Mbit/s

95th percentile per-packet one-way delay: 247.091 ms

Loss rate: 3.37%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-14 20:21:58

End at: 2018-03-14 20:22:28

# Below is generated by plot.py at 2018-03-15 02:25:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 187.84 Mbit/s

95th percentile per-packet one-way delay: 290.228 ms

Loss rate: 4.66%

-- Flow 1:

Average throughput: 136.00 Mbit/s

95th percentile per-packet one-way delay: 286.686 ms

Loss rate: 5.06%

-- Flow 2:

Average throughput: 65.66 Mbit/s

95th percentile per-packet one-way delay: 326.363 ms

Loss rate: 4.29%

-- Flow 3:

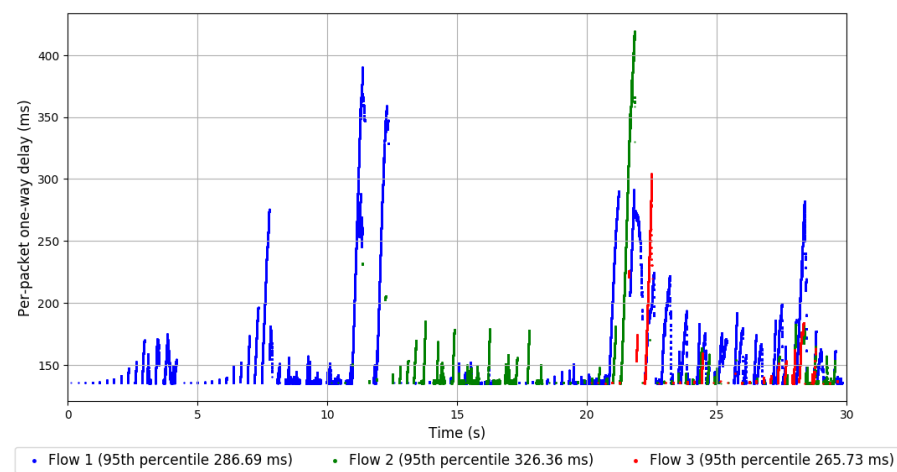
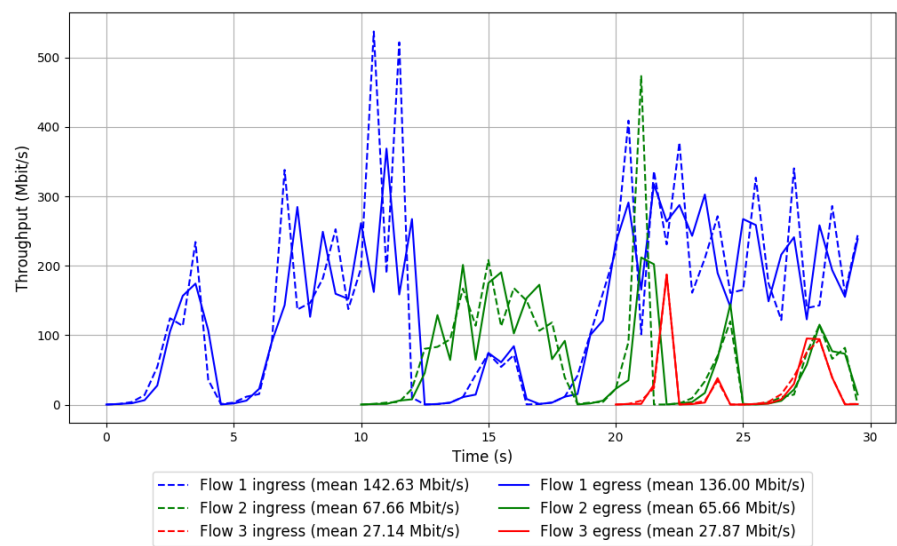
Average throughput: 27.87 Mbit/s

95th percentile per-packet one-way delay: 265.730 ms

Loss rate: 0.17%



Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-14 20:42:04

End at: 2018-03-14 20:42:35

# Below is generated by plot.py at 2018-03-15 02:26:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 300.78 Mbit/s

95th percentile per-packet one-way delay: 223.943 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 237.74 Mbit/s

95th percentile per-packet one-way delay: 196.697 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 74.11 Mbit/s

95th percentile per-packet one-way delay: 294.942 ms

Loss rate: 4.93%

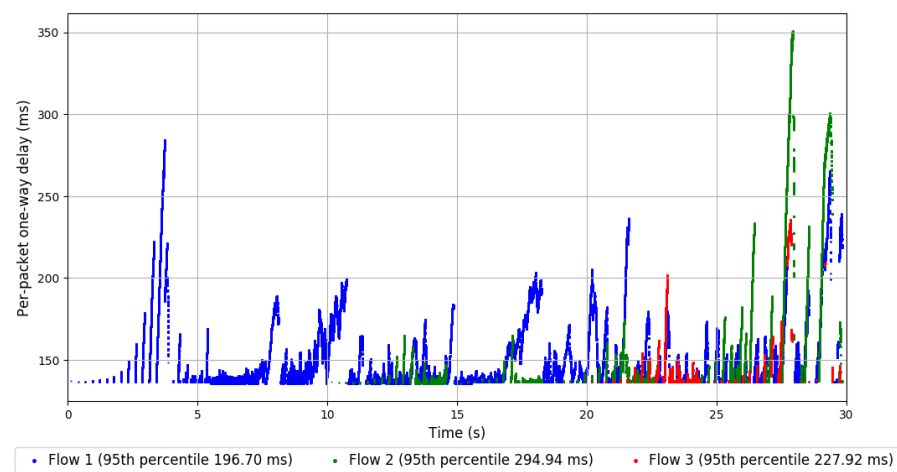
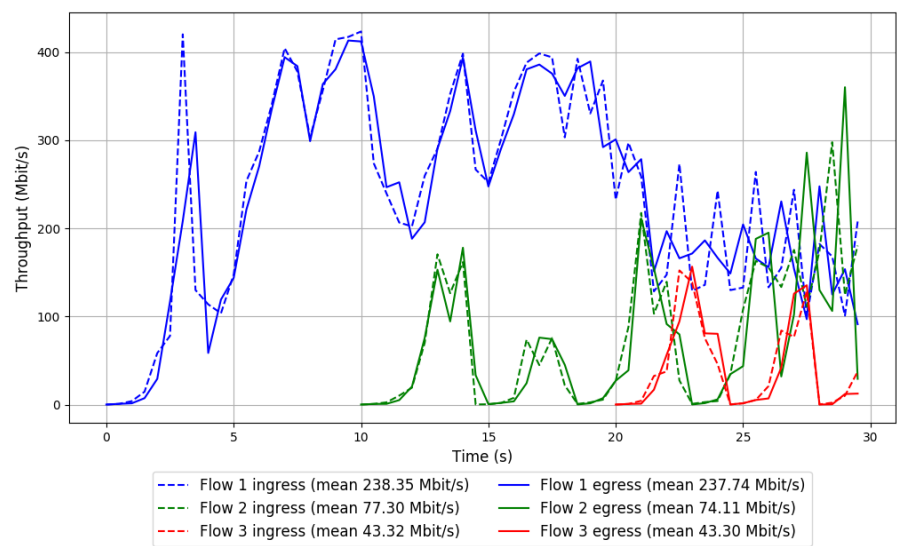
-- Flow 3:

Average throughput: 43.30 Mbit/s

95th percentile per-packet one-way delay: 227.919 ms

Loss rate: 2.92%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-14 21:01:40

End at: 2018-03-14 21:02:11

# Below is generated by plot.py at 2018-03-15 02:26:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 269.13 Mbit/s

95th percentile per-packet one-way delay: 352.896 ms

Loss rate: 5.18%

-- Flow 1:

Average throughput: 172.48 Mbit/s

95th percentile per-packet one-way delay: 223.424 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 132.66 Mbit/s

95th percentile per-packet one-way delay: 378.511 ms

Loss rate: 11.46%

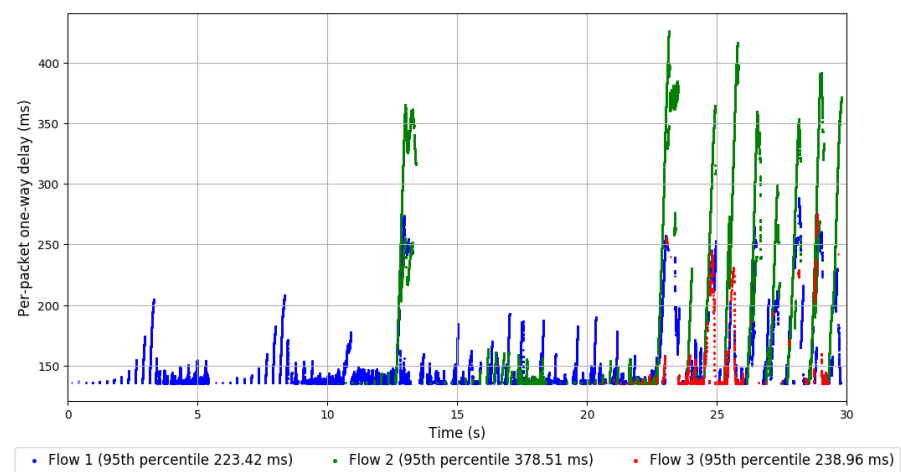
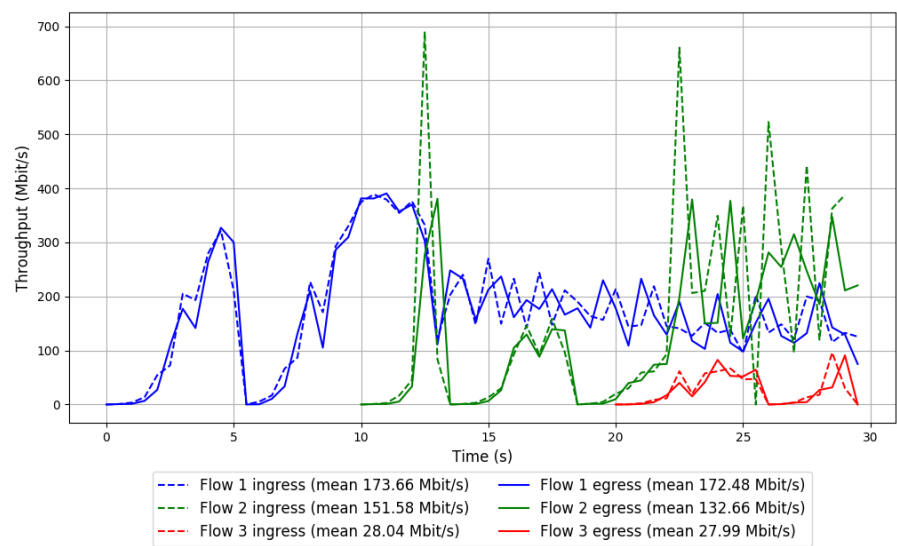
-- Flow 3:

Average throughput: 27.99 Mbit/s

95th percentile per-packet one-way delay: 238.961 ms

Loss rate: 2.97%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-14 21:21:36

End at: 2018-03-14 21:22:06

# Below is generated by plot.py at 2018-03-15 02:26:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 243.00 Mbit/s

95th percentile per-packet one-way delay: 232.491 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 160.26 Mbit/s

95th percentile per-packet one-way delay: 203.212 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 54.71 Mbit/s

95th percentile per-packet one-way delay: 205.759 ms

Loss rate: 1.89%

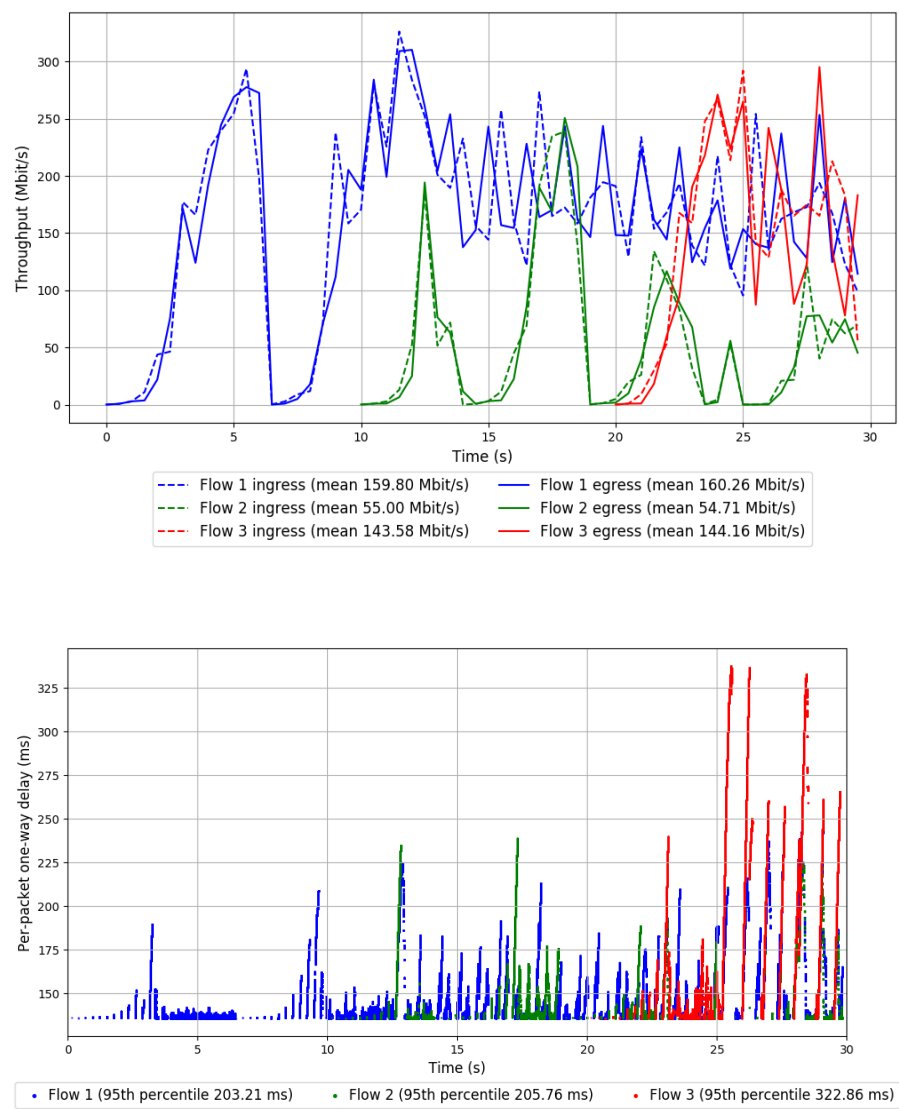
-- Flow 3:

Average throughput: 144.16 Mbit/s

95th percentile per-packet one-way delay: 322.856 ms

Loss rate: 3.31%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-14 21:41:47

End at: 2018-03-14 21:42:17

# Below is generated by plot.py at 2018-03-15 02:28:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 251.38 Mbit/s

95th percentile per-packet one-way delay: 231.029 ms

Loss rate: 3.29%

-- Flow 1:

Average throughput: 152.42 Mbit/s

95th percentile per-packet one-way delay: 201.071 ms

Loss rate: 3.60%

-- Flow 2:

Average throughput: 104.89 Mbit/s

95th percentile per-packet one-way delay: 216.681 ms

Loss rate: 2.31%

-- Flow 3:

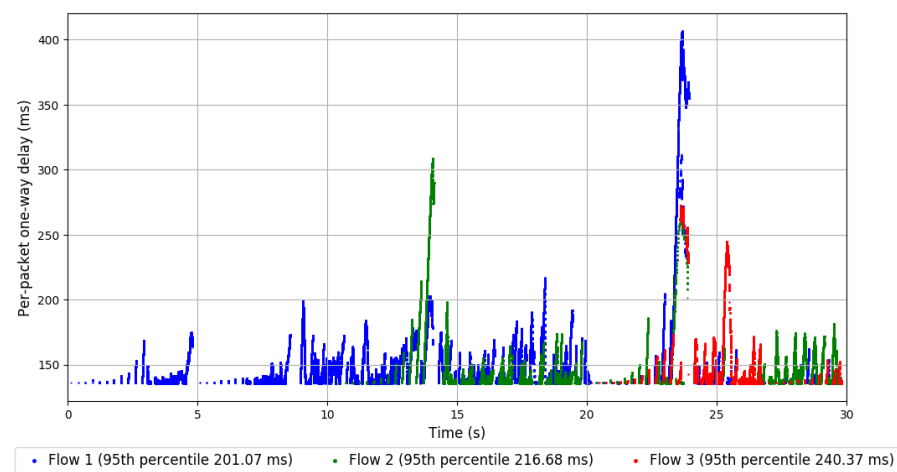
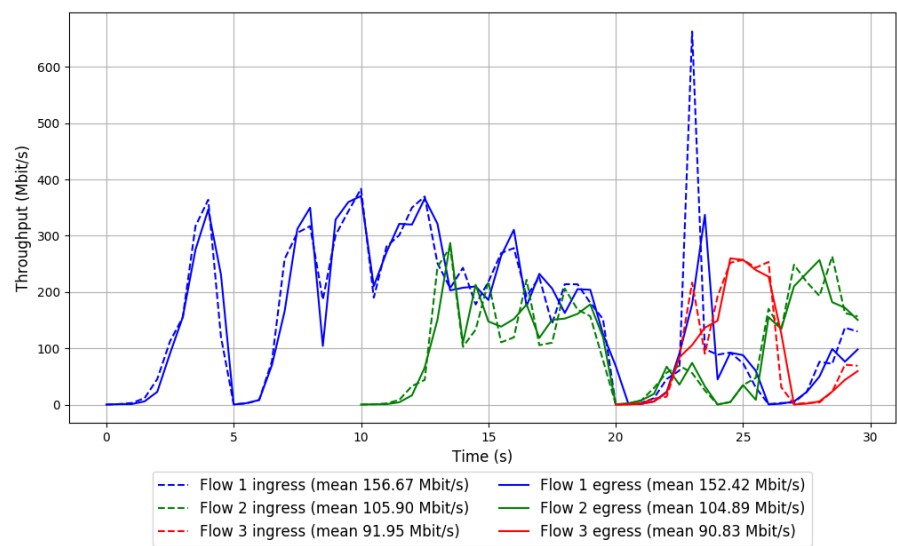
Average throughput: 90.83 Mbit/s

95th percentile per-packet one-way delay: 240.374 ms

Loss rate: 3.94%



Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-14 22:01:26

End at: 2018-03-14 22:01:56

# Below is generated by plot.py at 2018-03-15 02:28:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 174.42 Mbit/s

95th percentile per-packet one-way delay: 353.089 ms

Loss rate: 6.68%

-- Flow 1:

Average throughput: 118.28 Mbit/s

95th percentile per-packet one-way delay: 362.156 ms

Loss rate: 8.48%

-- Flow 2:

Average throughput: 37.74 Mbit/s

95th percentile per-packet one-way delay: 164.035 ms

Loss rate: 0.34%

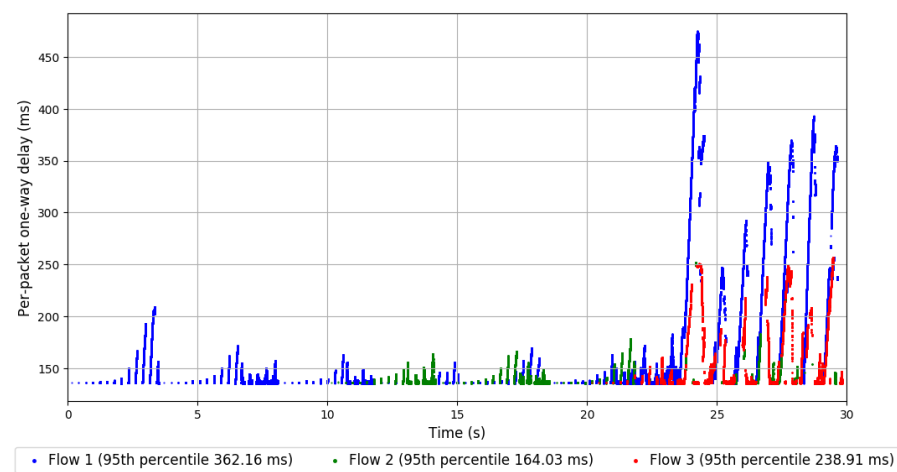
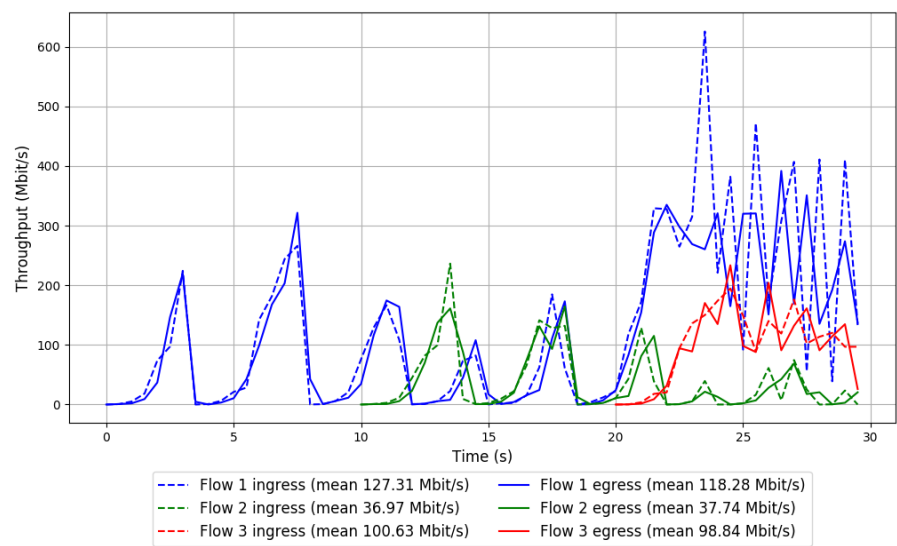
-- Flow 3:

Average throughput: 98.84 Mbit/s

95th percentile per-packet one-way delay: 238.914 ms

Loss rate: 4.48%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-14 18:47:03

End at: 2018-03-14 18:47:33

# Below is generated by plot.py at 2018-03-15 02:28:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 132.62 Mbit/s

95th percentile per-packet one-way delay: 136.287 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 66.18 Mbit/s

95th percentile per-packet one-way delay: 136.047 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 66.05 Mbit/s

95th percentile per-packet one-way delay: 136.430 ms

Loss rate: 1.04%

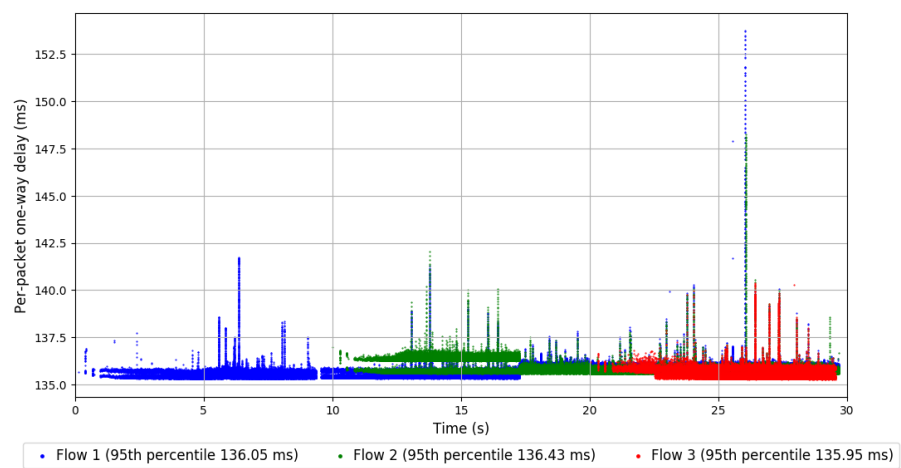
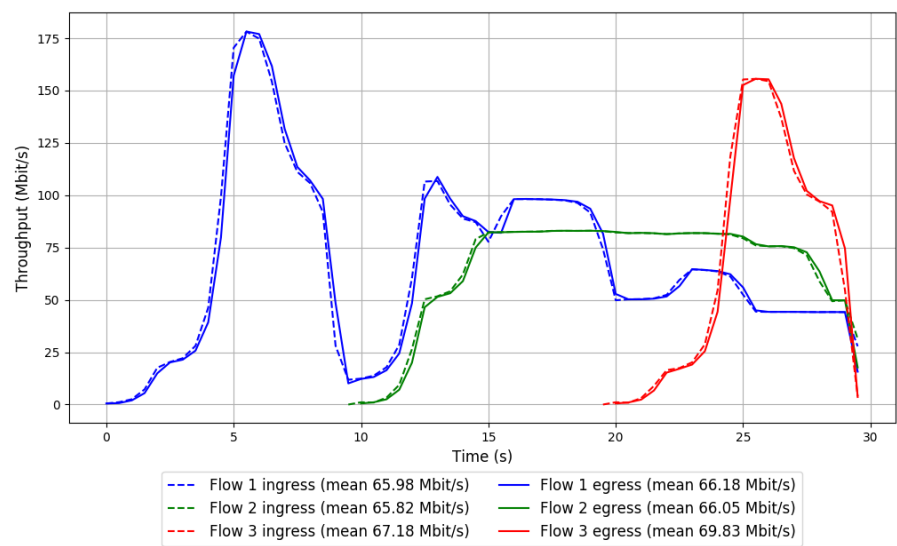
-- Flow 3:

Average throughput: 69.83 Mbit/s

95th percentile per-packet one-way delay: 135.953 ms

Loss rate: 0.30%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-14 19:07:19

End at: 2018-03-14 19:07:49

# Below is generated by plot.py at 2018-03-15 02:28:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 120.02 Mbit/s

95th percentile per-packet one-way delay: 136.566 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 66.49 Mbit/s

95th percentile per-packet one-way delay: 136.508 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 65.66 Mbit/s

95th percentile per-packet one-way delay: 139.755 ms

Loss rate: 0.20%

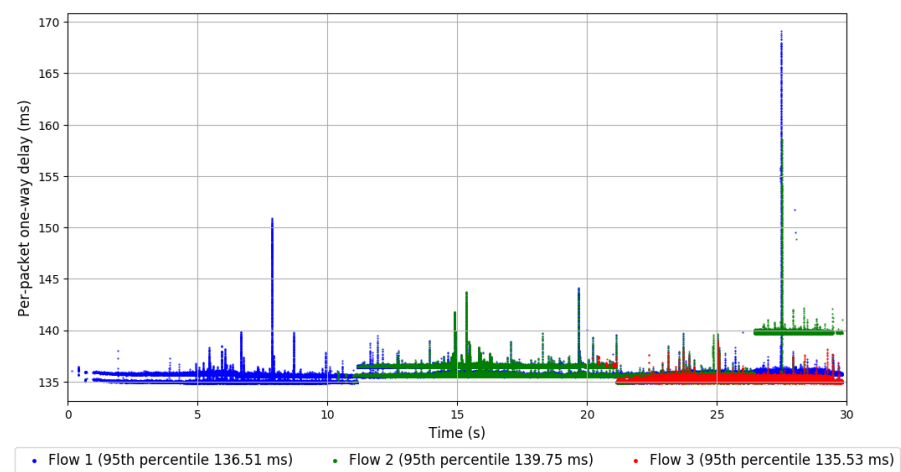
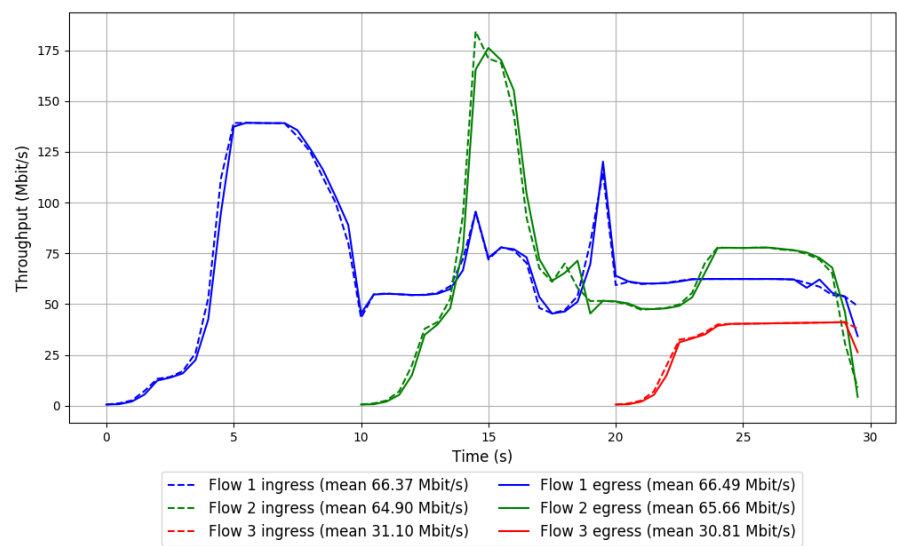
-- Flow 3:

Average throughput: 30.81 Mbit/s

95th percentile per-packet one-way delay: 135.529 ms

Loss rate: 3.67%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-14 19:27:20

End at: 2018-03-14 19:27:50

# Below is generated by plot.py at 2018-03-15 02:30:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.74 Mbit/s

95th percentile per-packet one-way delay: 136.972 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 70.31 Mbit/s

95th percentile per-packet one-way delay: 137.012 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 69.45 Mbit/s

95th percentile per-packet one-way delay: 136.915 ms

Loss rate: 1.46%

-- Flow 3:

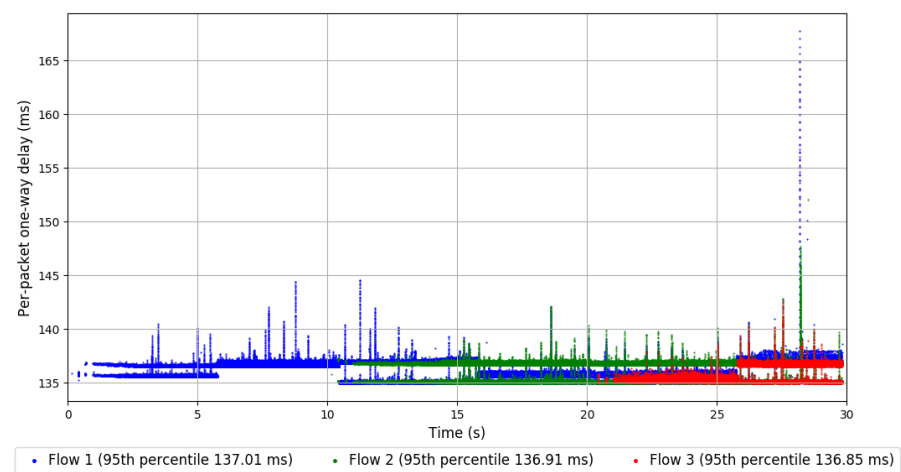
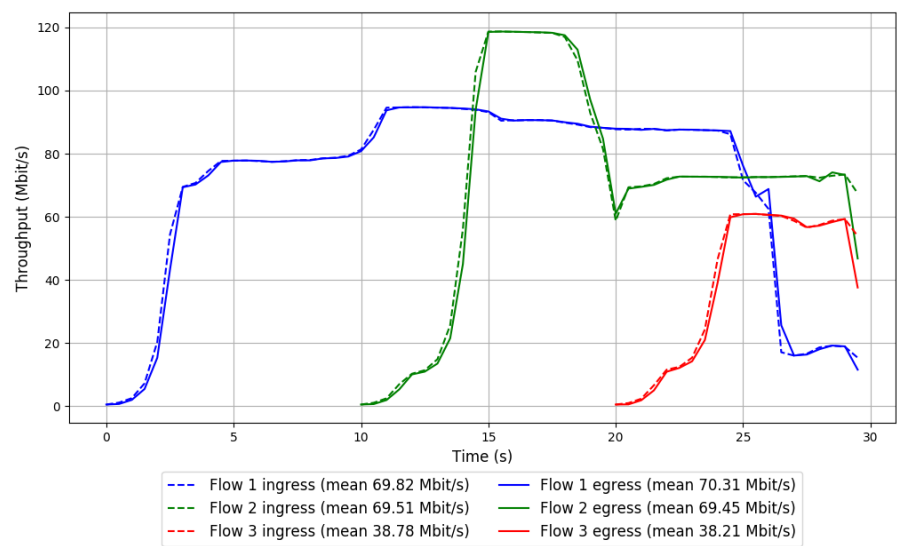
Average throughput: 38.21 Mbit/s

95th percentile per-packet one-way delay: 136.847 ms

Loss rate: 4.20%



Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-14 19:47:03

End at: 2018-03-14 19:47:33

# Below is generated by plot.py at 2018-03-15 02:31:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.41 Mbit/s

95th percentile per-packet one-way delay: 136.872 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 59.70 Mbit/s

95th percentile per-packet one-way delay: 136.919 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 72.03 Mbit/s

95th percentile per-packet one-way delay: 136.706 ms

Loss rate: 1.71%

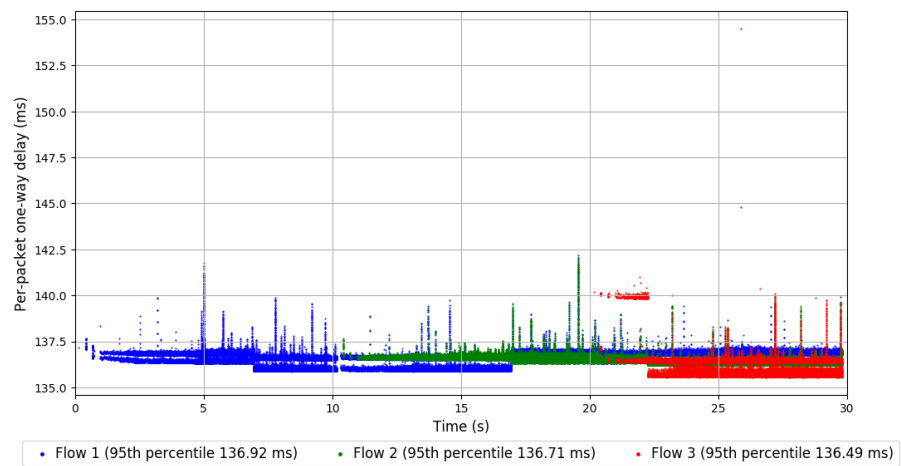
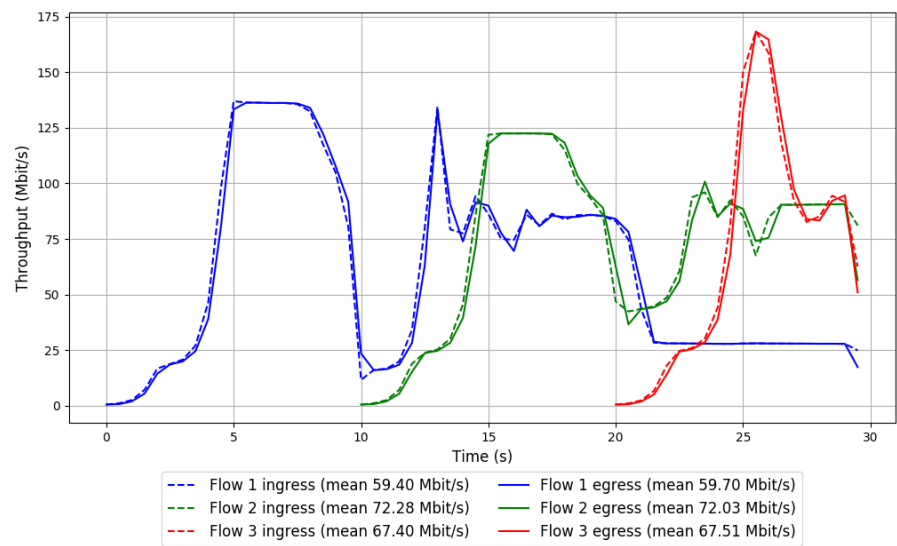
-- Flow 3:

Average throughput: 67.51 Mbit/s

95th percentile per-packet one-way delay: 136.493 ms

Loss rate: 2.62%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-14 20:07:11

End at: 2018-03-14 20:07:41

# Below is generated by plot.py at 2018-03-15 02:31:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 129.03 Mbit/s

95th percentile per-packet one-way delay: 140.950 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 65.49 Mbit/s

95th percentile per-packet one-way delay: 141.001 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 67.87 Mbit/s

95th percentile per-packet one-way delay: 135.818 ms

Loss rate: 1.00%

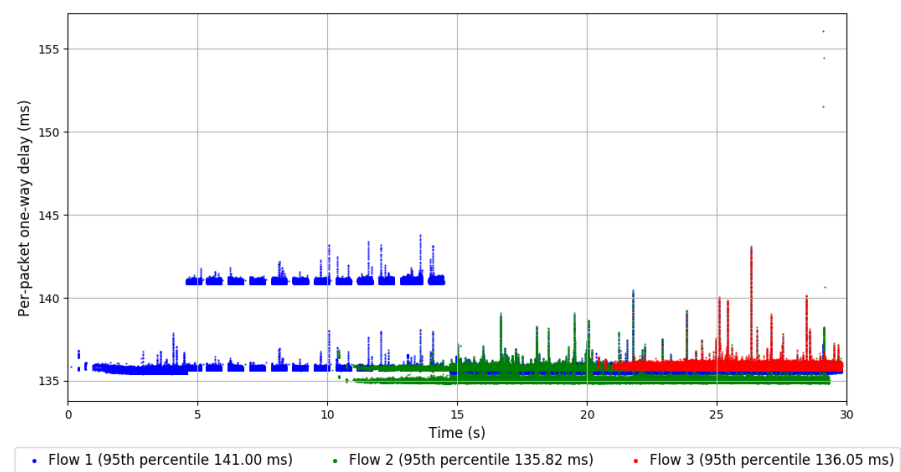
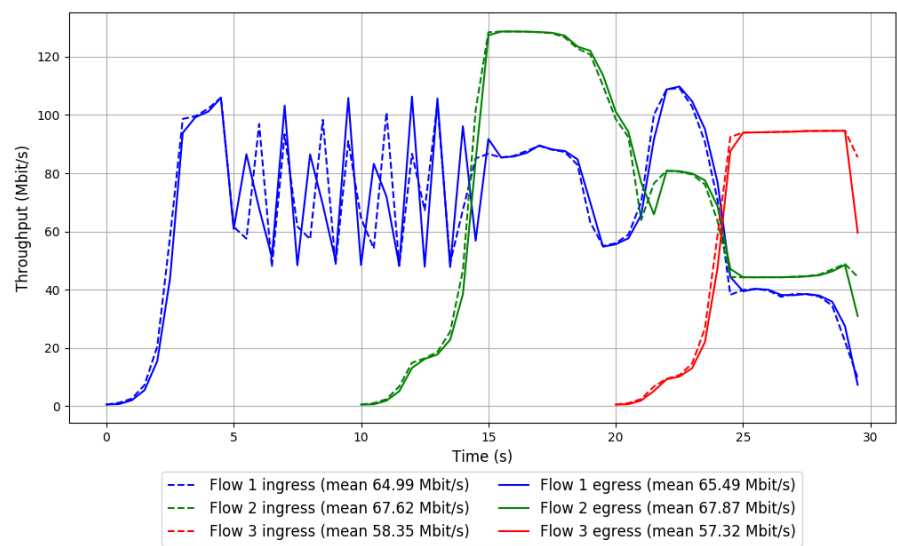
-- Flow 3:

Average throughput: 57.32 Mbit/s

95th percentile per-packet one-way delay: 136.051 ms

Loss rate: 4.46%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-14 20:27:21

End at: 2018-03-14 20:27:51

# Below is generated by plot.py at 2018-03-15 02:31:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.50 Mbit/s

95th percentile per-packet one-way delay: 139.034 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 62.85 Mbit/s

95th percentile per-packet one-way delay: 139.103 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 61.27 Mbit/s

95th percentile per-packet one-way delay: 135.823 ms

Loss rate: 2.63%

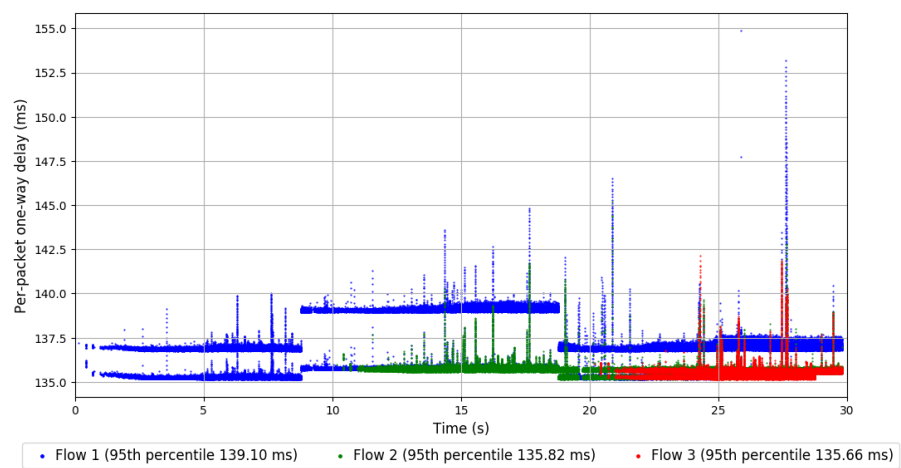
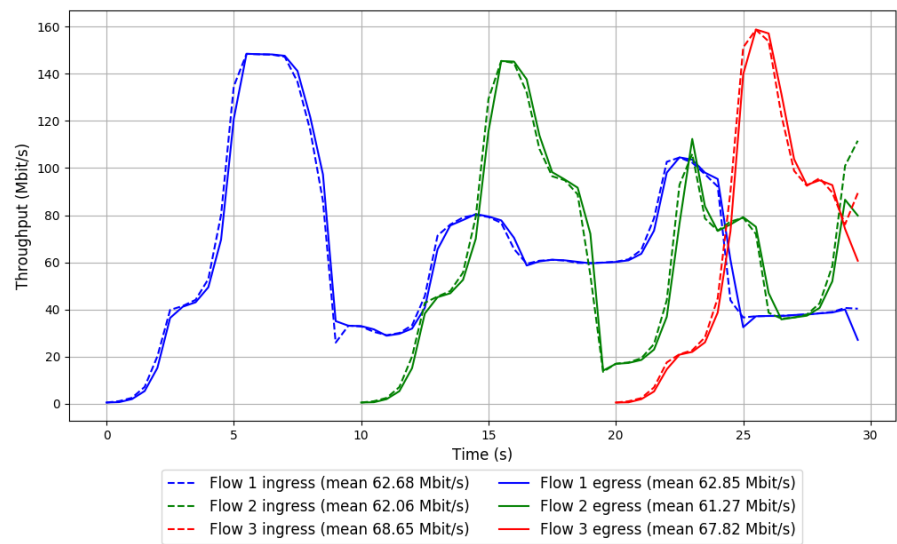
-- Flow 3:

Average throughput: 67.82 Mbit/s

95th percentile per-packet one-way delay: 135.660 ms

Loss rate: 3.93%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-14 20:47:28

End at: 2018-03-14 20:47:58

# Below is generated by plot.py at 2018-03-15 02:31:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 115.15 Mbit/s

95th percentile per-packet one-way delay: 136.772 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 55.63 Mbit/s

95th percentile per-packet one-way delay: 136.466 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 70.80 Mbit/s

95th percentile per-packet one-way delay: 136.486 ms

Loss rate: 1.55%

-- Flow 3:

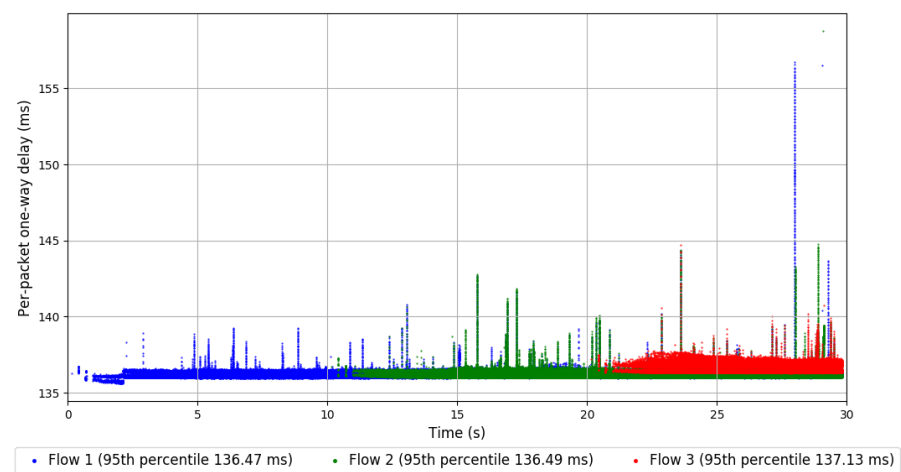
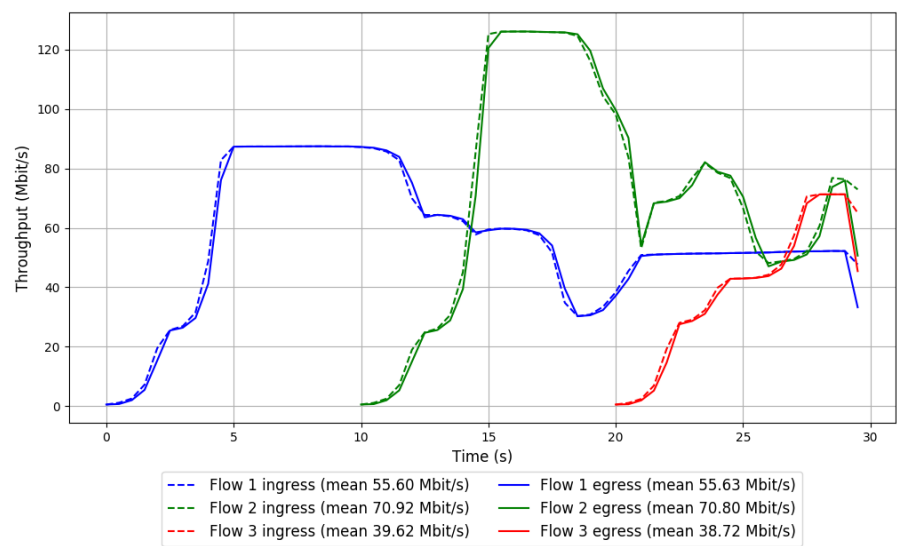
Average throughput: 38.72 Mbit/s

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

Loss rate: 4.96%



Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-14 21:07:05

End at: 2018-03-14 21:07:35

# Below is generated by plot.py at 2018-03-15 02:33:25

# Datalink statistics

-- Total of 3 flows:

Average throughput: 125.43 Mbit/s

95th percentile per-packet one-way delay: 136.745 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 64.95 Mbit/s

95th percentile per-packet one-way delay: 136.679 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 60.88 Mbit/s

95th percentile per-packet one-way delay: 136.791 ms

Loss rate: 0.55%

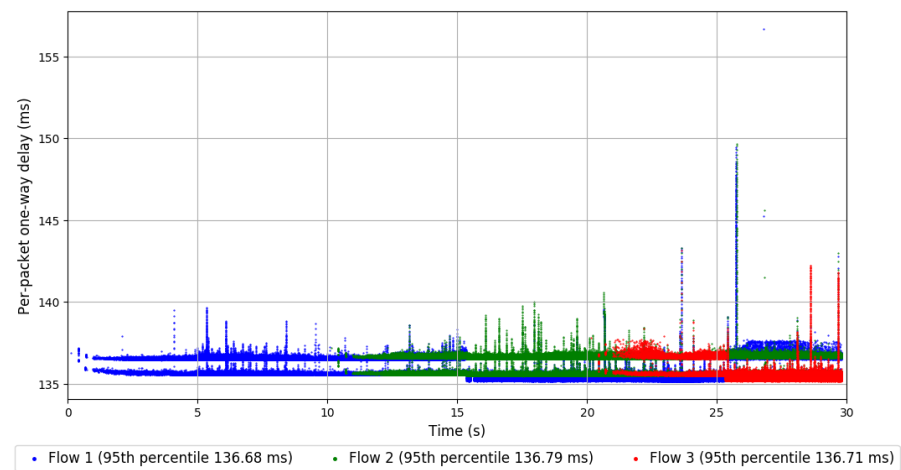
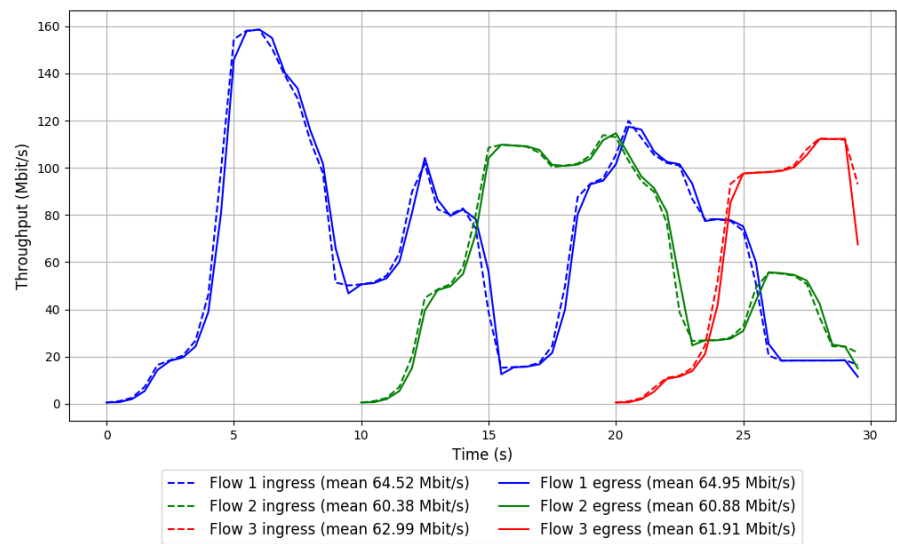
-- Flow 3:

Average throughput: 61.91 Mbit/s

95th percentile per-packet one-way delay: 136.705 ms

Loss rate: 4.44%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-14 21:26:57

End at: 2018-03-14 21:27:27

# Below is generated by plot.py at 2018-03-15 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 133.09 Mbit/s

95th percentile per-packet one-way delay: 136.190 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 69.11 Mbit/s

95th percentile per-packet one-way delay: 135.833 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 62.26 Mbit/s

95th percentile per-packet one-way delay: 136.339 ms

Loss rate: 1.55%

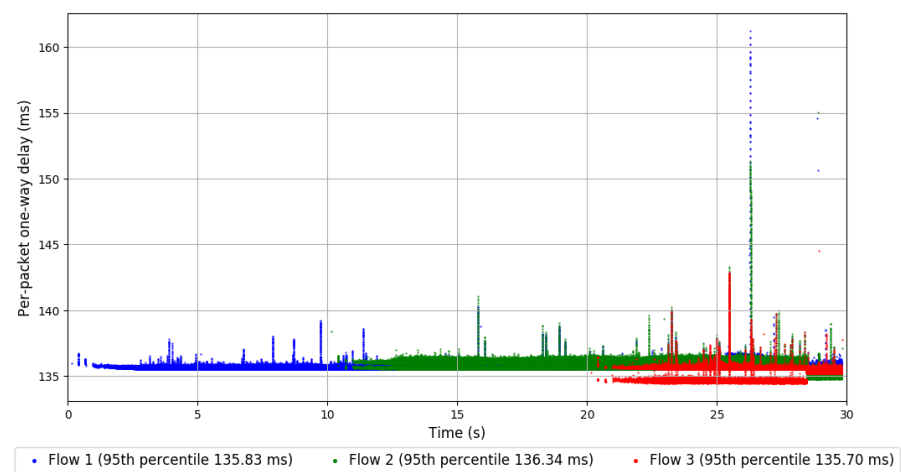
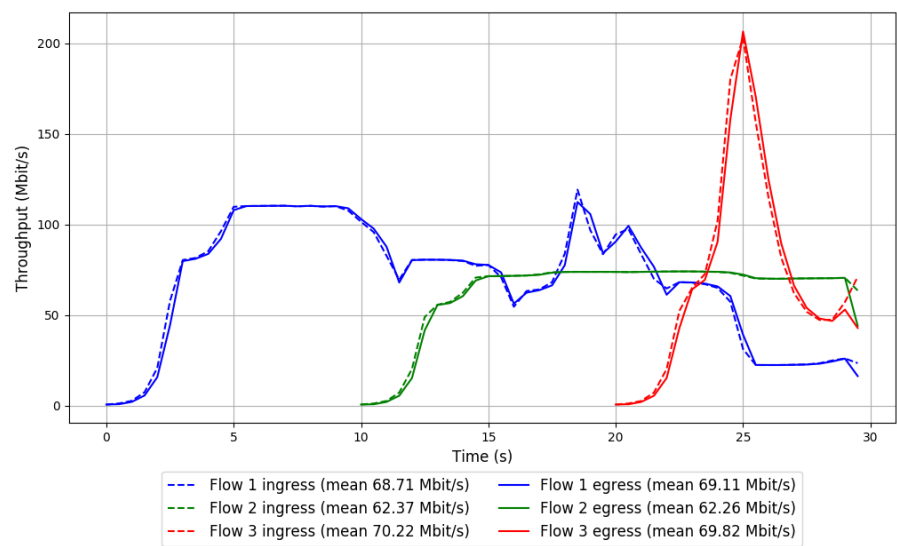
-- Flow 3:

Average throughput: 69.82 Mbit/s

95th percentile per-packet one-way delay: 135.698 ms

Loss rate: 3.27%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-14 21:47:07

End at: 2018-03-14 21:47:37

# Below is generated by plot.py at 2018-03-15 02:34:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 116.36 Mbit/s

95th percentile per-packet one-way delay: 136.868 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 44.34 Mbit/s

95th percentile per-packet one-way delay: 136.759 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 76.27 Mbit/s

95th percentile per-packet one-way delay: 136.943 ms

Loss rate: 1.33%

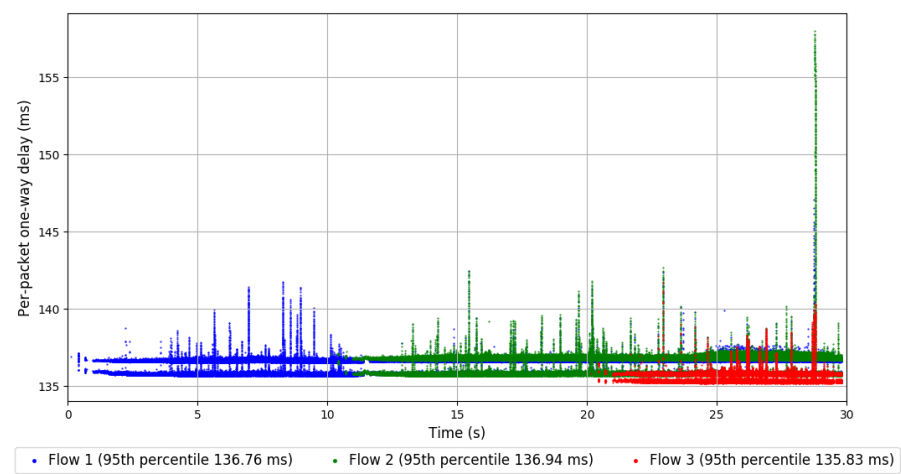
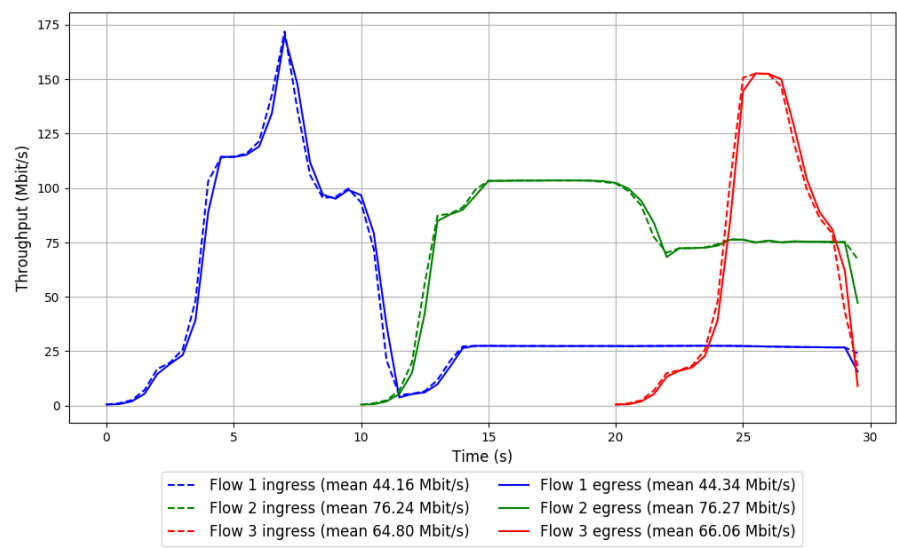
-- Flow 3:

Average throughput: 66.06 Mbit/s

95th percentile per-packet one-way delay: 135.833 ms

Loss rate: 0.86%

Run 10: Report of Copa — Data Link



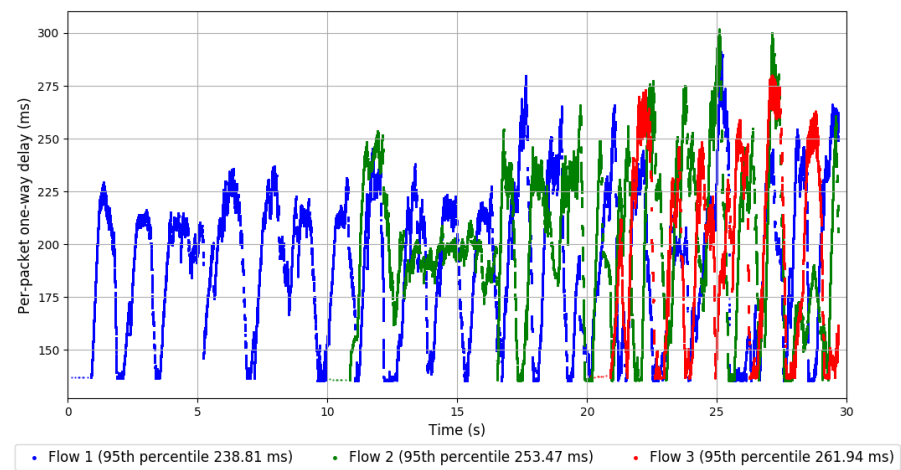
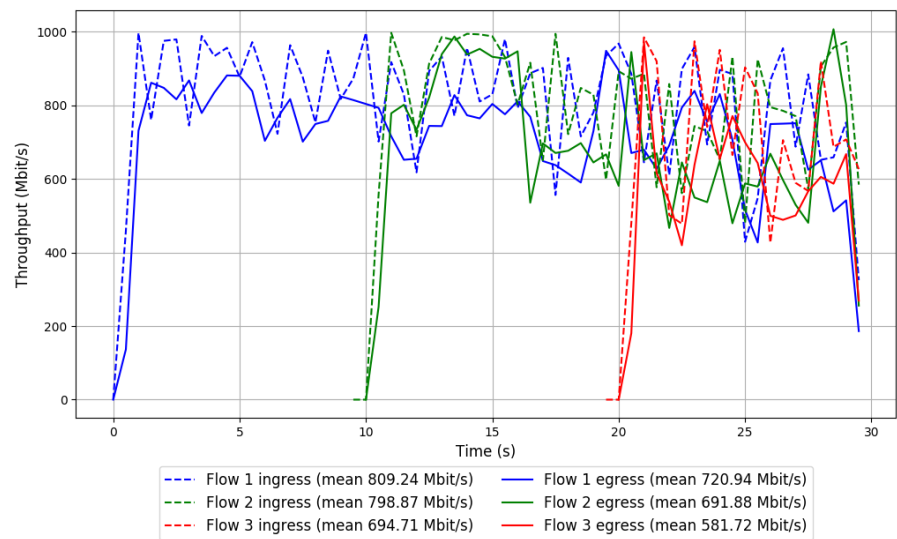
```
Run 1: Statistics of FillP

Start at: 2018-03-14 18:42:43
End at: 2018-03-14 18:43:13

# Below is generated by plot.py at 2018-03-15 03:04:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1368.11 Mbit/s
95th percentile per-packet one-way delay: 249.936 ms
Loss rate: 13.70%
-- Flow 1:
Average throughput: 720.94 Mbit/s
95th percentile per-packet one-way delay: 238.812 ms
Loss rate: 11.73%
-- Flow 2:
Average throughput: 691.88 Mbit/s
95th percentile per-packet one-way delay: 253.469 ms
Loss rate: 14.59%
-- Flow 3:
Average throughput: 581.72 Mbit/s
95th percentile per-packet one-way delay: 261.939 ms
Loss rate: 18.61%
```



Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-14 19:03:05

End at: 2018-03-14 19:03:35

# Below is generated by plot.py at 2018-03-15 03:04:27

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1291.18 Mbit/s

95th percentile per-packet one-way delay: 249.485 ms

Loss rate: 14.55%

-- Flow 1:

Average throughput: 677.20 Mbit/s

95th percentile per-packet one-way delay: 245.564 ms

Loss rate: 12.70%

-- Flow 2:

Average throughput: 619.58 Mbit/s

95th percentile per-packet one-way delay: 254.967 ms

Loss rate: 16.48%

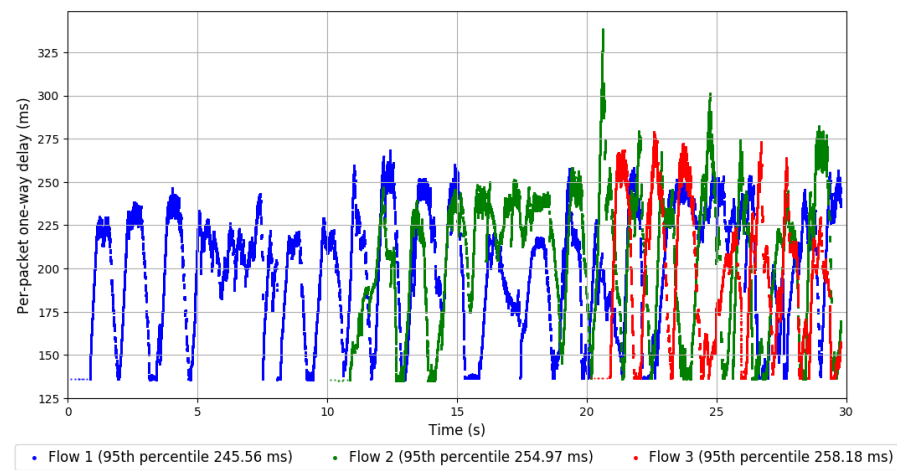
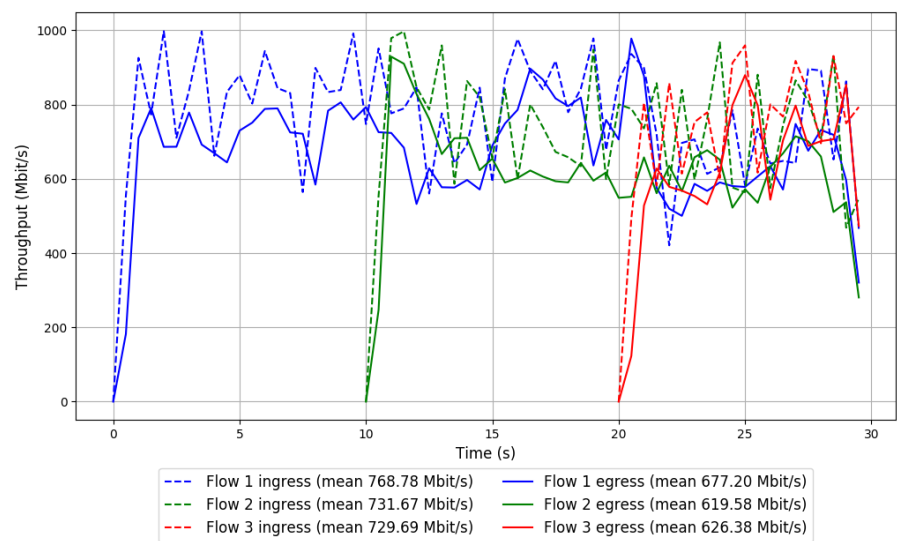
-- Flow 3:

Average throughput: 626.38 Mbit/s

95th percentile per-packet one-way delay: 258.176 ms

Loss rate: 16.54%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-14 19:23:07

End at: 2018-03-14 19:23:37

# Below is generated by plot.py at 2018-03-15 03:04:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1354.84 Mbit/s

95th percentile per-packet one-way delay: 239.034 ms

Loss rate: 12.91%

-- Flow 1:

Average throughput: 706.10 Mbit/s

95th percentile per-packet one-way delay: 233.787 ms

Loss rate: 11.87%

-- Flow 2:

Average throughput: 651.11 Mbit/s

95th percentile per-packet one-way delay: 243.601 ms

Loss rate: 15.01%

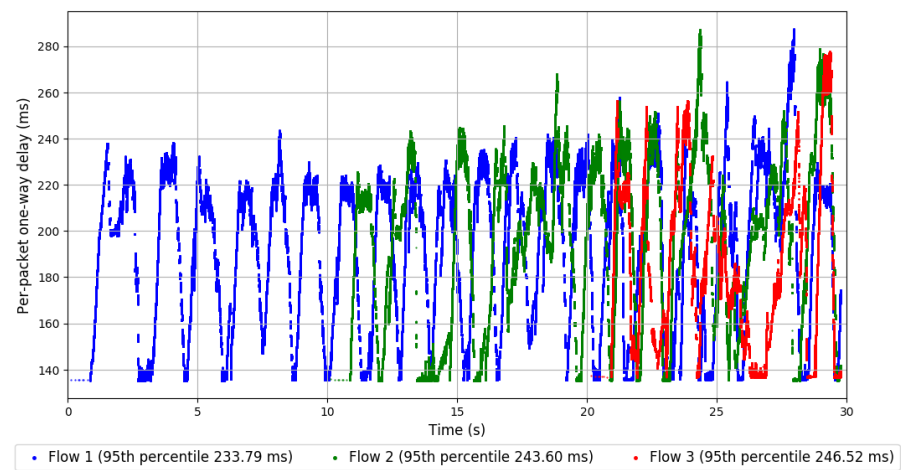
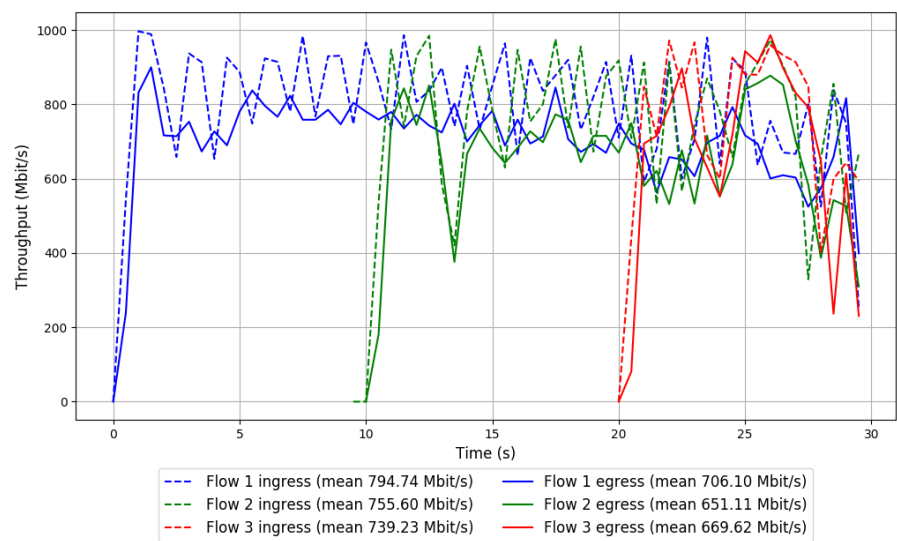
-- Flow 3:

Average throughput: 669.62 Mbit/s

95th percentile per-packet one-way delay: 246.521 ms

Loss rate: 11.93%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-14 19:42:52

End at: 2018-03-14 19:43:22

# Below is generated by plot.py at 2018-03-15 03:04:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1240.34 Mbit/s

95th percentile per-packet one-way delay: 365.125 ms

Loss rate: 14.03%

-- Flow 1:

Average throughput: 671.41 Mbit/s

95th percentile per-packet one-way delay: 246.542 ms

Loss rate: 13.33%

-- Flow 2:

Average throughput: 586.58 Mbit/s

95th percentile per-packet one-way delay: 376.985 ms

Loss rate: 16.65%

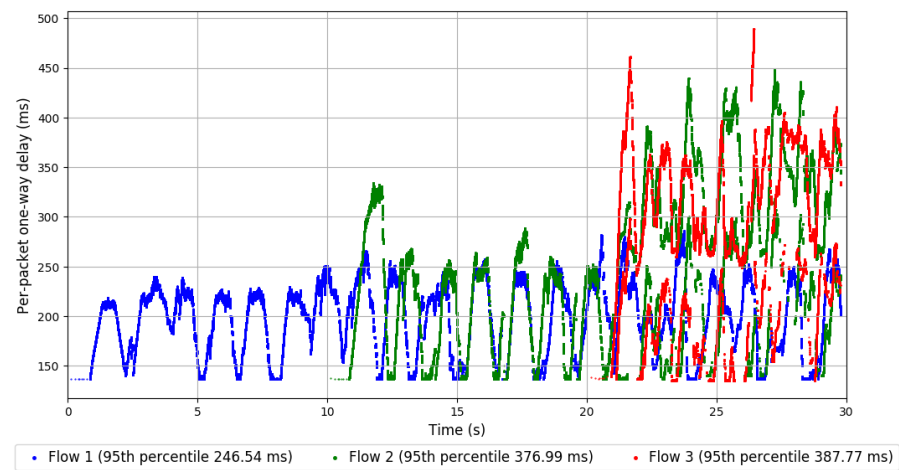
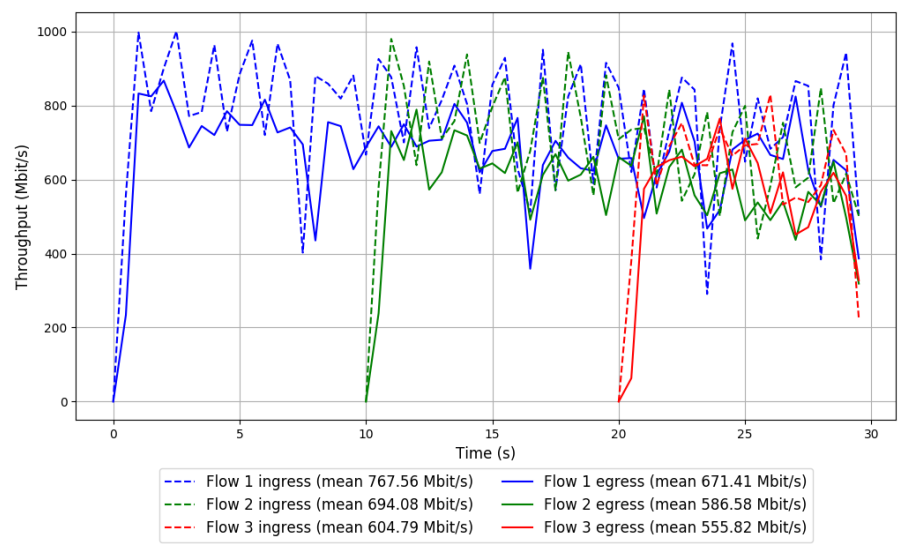
-- Flow 3:

Average throughput: 555.82 Mbit/s

95th percentile per-packet one-way delay: 387.773 ms

Loss rate: 10.66%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-14 20:02:58

End at: 2018-03-14 20:03:28

# Below is generated by plot.py at 2018-03-15 03:04:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1339.95 Mbit/s

95th percentile per-packet one-way delay: 254.599 ms

Loss rate: 14.04%

-- Flow 1:

Average throughput: 699.84 Mbit/s

95th percentile per-packet one-way delay: 241.164 ms

Loss rate: 13.01%

-- Flow 2:

Average throughput: 658.28 Mbit/s

95th percentile per-packet one-way delay: 254.784 ms

Loss rate: 14.33%

-- Flow 3:

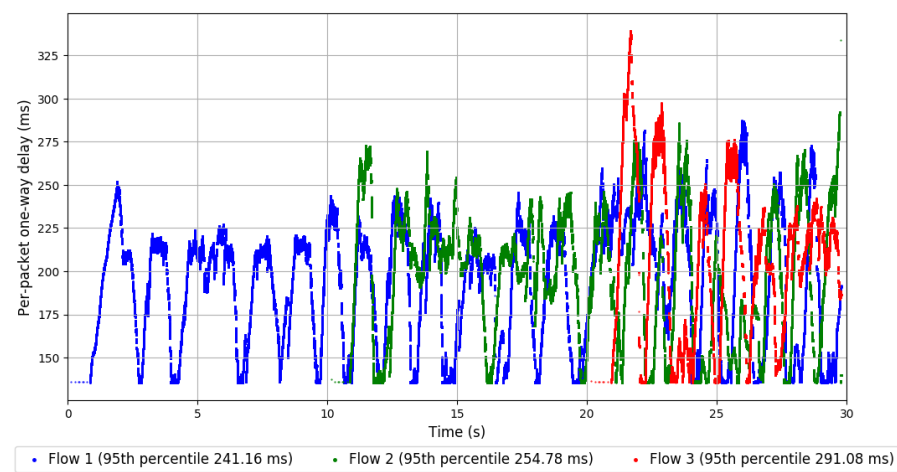
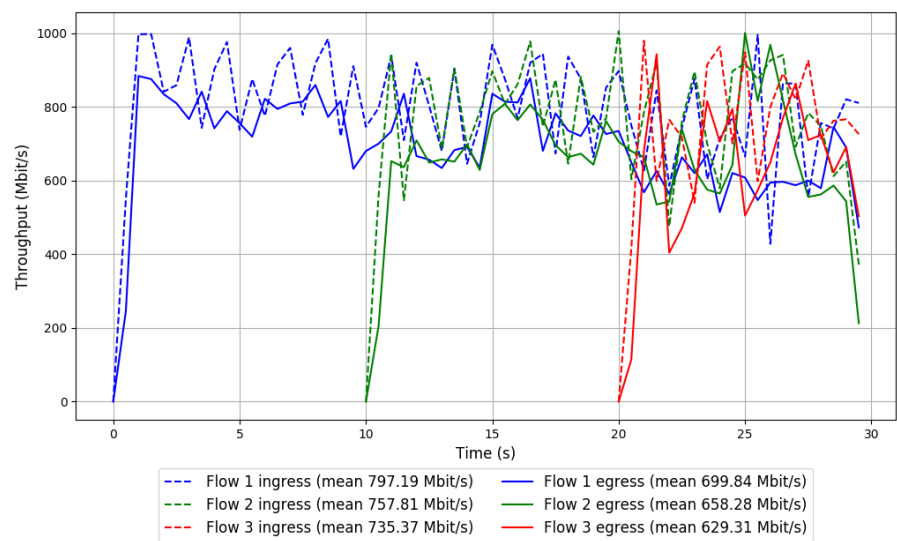
Average throughput: 629.31 Mbit/s

95th percentile per-packet one-way delay: 291.080 ms

Loss rate: 16.79%



Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-14 20:23:04

End at: 2018-03-14 20:23:34

# Below is generated by plot.py at 2018-03-15 03:06:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1325.10 Mbit/s

95th percentile per-packet one-way delay: 253.567 ms

Loss rate: 15.11%

-- Flow 1:

Average throughput: 686.68 Mbit/s

95th percentile per-packet one-way delay: 251.868 ms

Loss rate: 14.32%

-- Flow 2:

Average throughput: 639.00 Mbit/s

95th percentile per-packet one-way delay: 253.515 ms

Loss rate: 16.65%

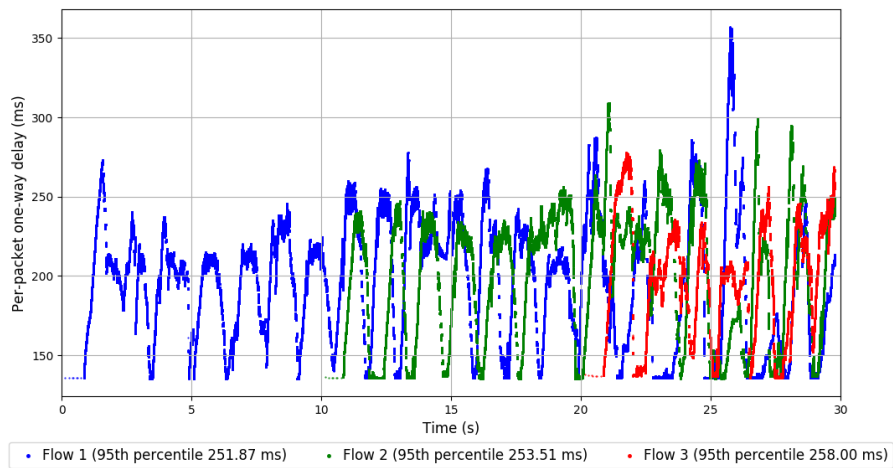
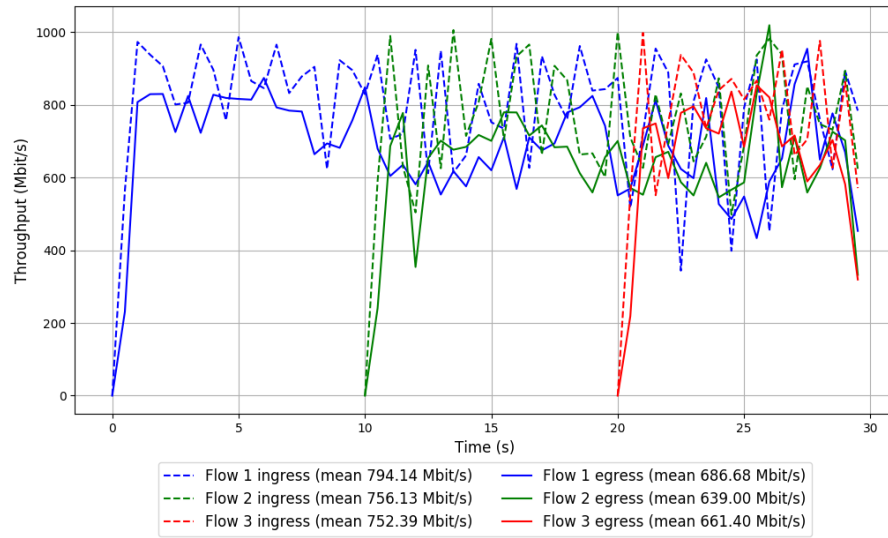
-- Flow 3:

Average throughput: 661.40 Mbit/s

95th percentile per-packet one-way delay: 258.001 ms

Loss rate: 14.54%

## Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-14 20:43:19

End at: 2018-03-14 20:43:49

# Below is generated by plot.py at 2018-03-15 03:06:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1285.67 Mbit/s

95th percentile per-packet one-way delay: 366.039 ms

Loss rate: 13.79%

-- Flow 1:

Average throughput: 679.67 Mbit/s

95th percentile per-packet one-way delay: 310.905 ms

Loss rate: 13.38%

-- Flow 2:

Average throughput: 667.81 Mbit/s

95th percentile per-packet one-way delay: 365.025 ms

Loss rate: 11.38%

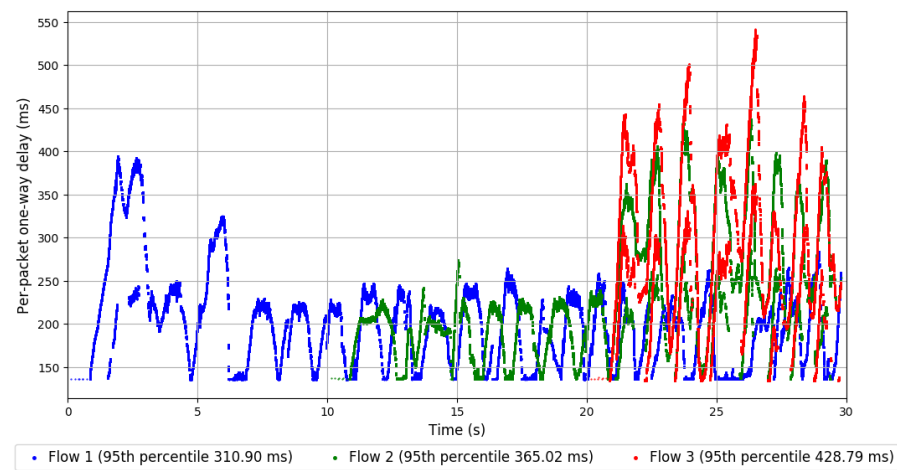
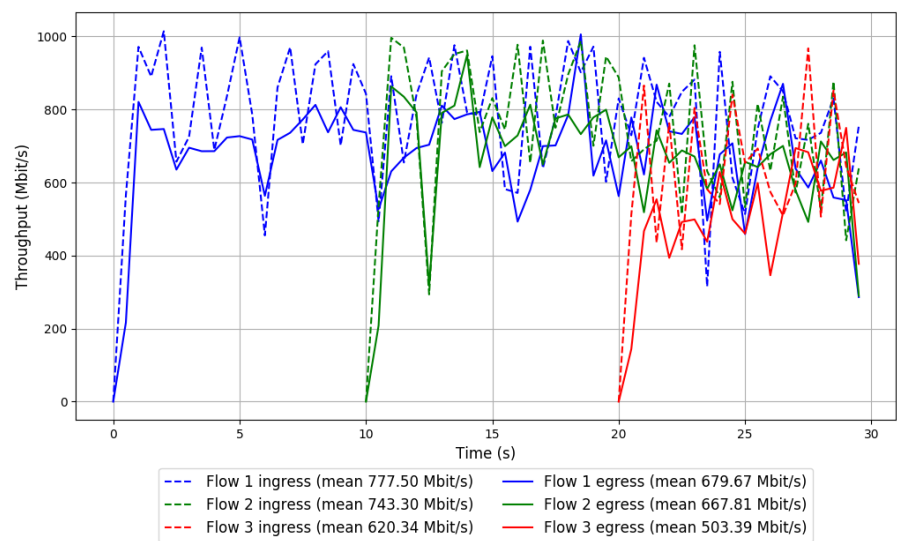
-- Flow 3:

Average throughput: 503.39 Mbit/s

95th percentile per-packet one-way delay: 428.786 ms

Loss rate: 21.10%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-14 21:02:54

End at: 2018-03-14 21:03:24

# Below is generated by plot.py at 2018-03-15 03:07:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1313.58 Mbit/s

95th percentile per-packet one-way delay: 247.257 ms

Loss rate: 14.83%

-- Flow 1:

Average throughput: 676.70 Mbit/s

95th percentile per-packet one-way delay: 241.092 ms

Loss rate: 13.87%

-- Flow 2:

Average throughput: 665.89 Mbit/s

95th percentile per-packet one-way delay: 246.514 ms

Loss rate: 14.27%

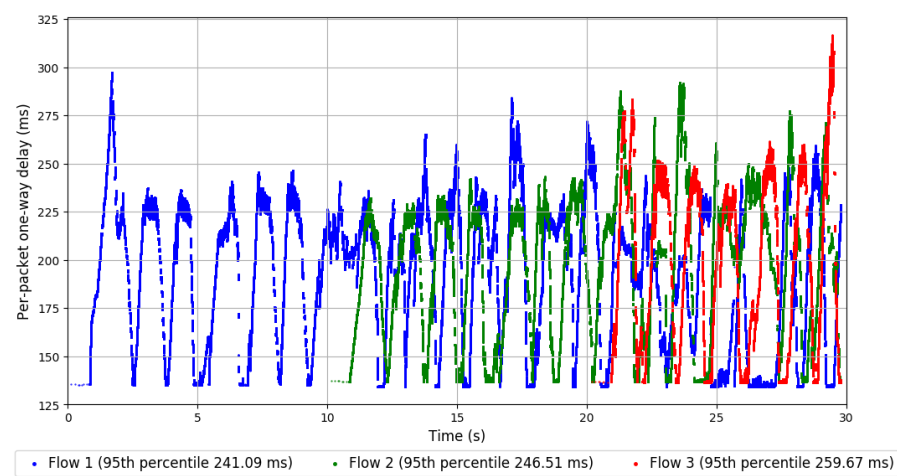
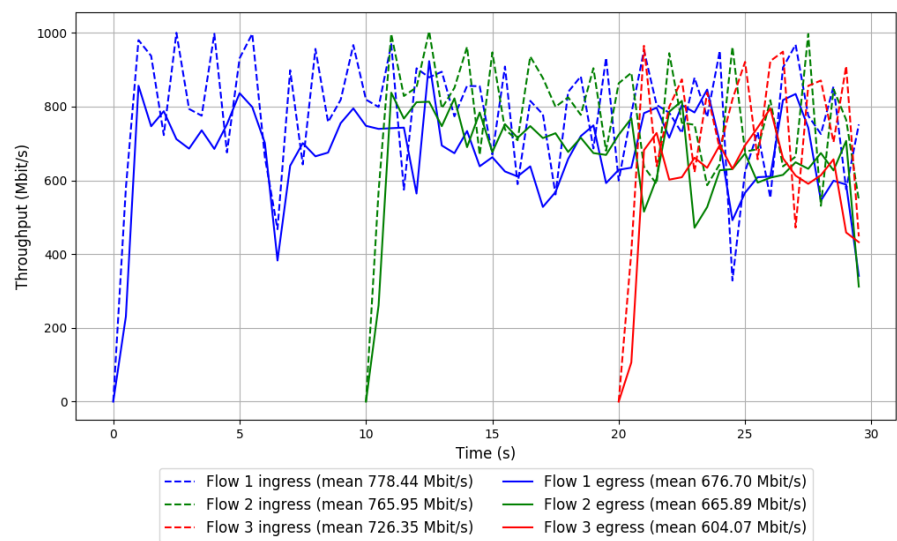
-- Flow 3:

Average throughput: 604.07 Mbit/s

95th percentile per-packet one-way delay: 259.674 ms

Loss rate: 19.16%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-14 21:22:46

End at: 2018-03-14 21:23:16

# Below is generated by plot.py at 2018-03-15 03:36:41

# Datalink statistics

-- Total of 3 flows:

Average throughput: 1342.56 Mbit/s

95th percentile per-packet one-way delay: 246.677 ms

Loss rate: 12.85%

-- Flow 1:

Average throughput: 681.31 Mbit/s

95th percentile per-packet one-way delay: 243.363 ms

Loss rate: 12.48%

-- Flow 2:

Average throughput: 694.02 Mbit/s

95th percentile per-packet one-way delay: 244.536 ms

Loss rate: 12.16%

-- Flow 3:

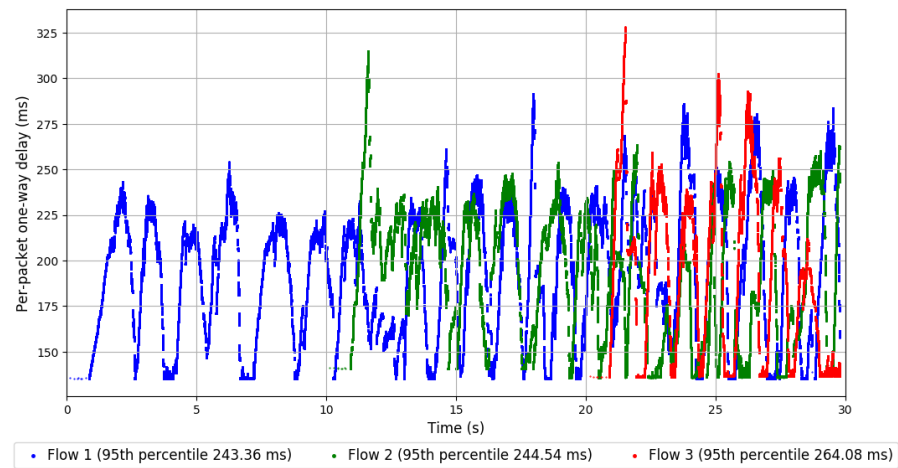
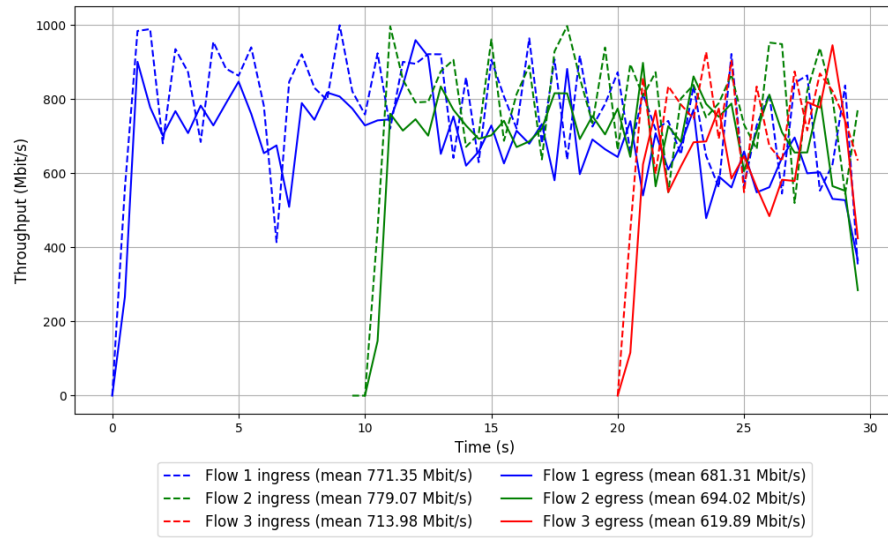
Average throughput: 619.89 Mbit/s

95th percentile per-packet one-way delay: 264.084 ms

Loss rate: 15.58%



# Run 9: Report of FillP — Data Link

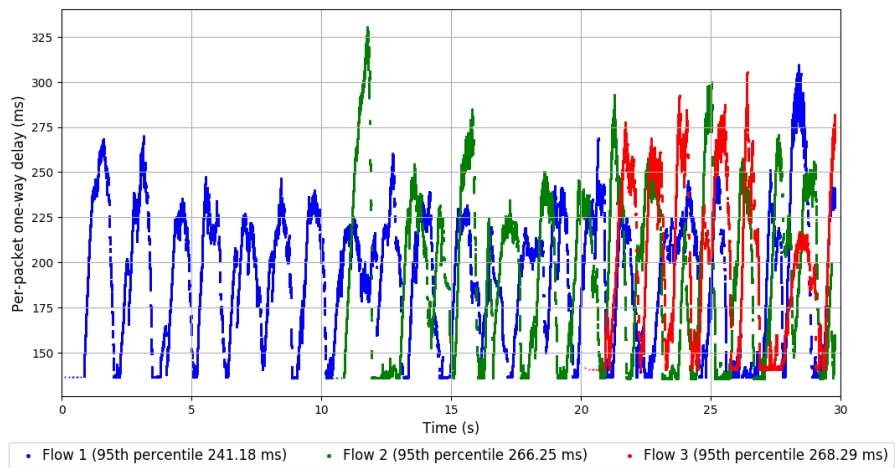
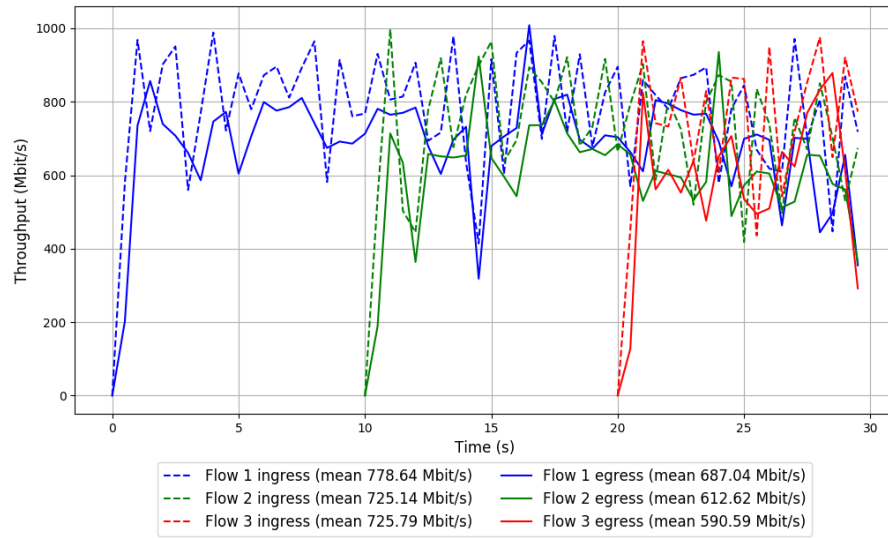


```
Run 10: Statistics of FillP

Start at: 2018-03-14 21:42:58
End at: 2018-03-14 21:43:28

# Below is generated by plot.py at 2018-03-15 03:36:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1284.51 Mbit/s
95th percentile per-packet one-way delay: 257.817 ms
Loss rate: 15.23%
-- Flow 1:
Average throughput: 687.04 Mbit/s
95th percentile per-packet one-way delay: 241.176 ms
Loss rate: 12.58%
-- Flow 2:
Average throughput: 612.62 Mbit/s
95th percentile per-packet one-way delay: 266.245 ms
Loss rate: 16.68%
-- Flow 3:
Average throughput: 590.59 Mbit/s
95th percentile per-packet one-way delay: 268.293 ms
Loss rate: 20.93%
```

# Run 10: Report of FillP — Data Link

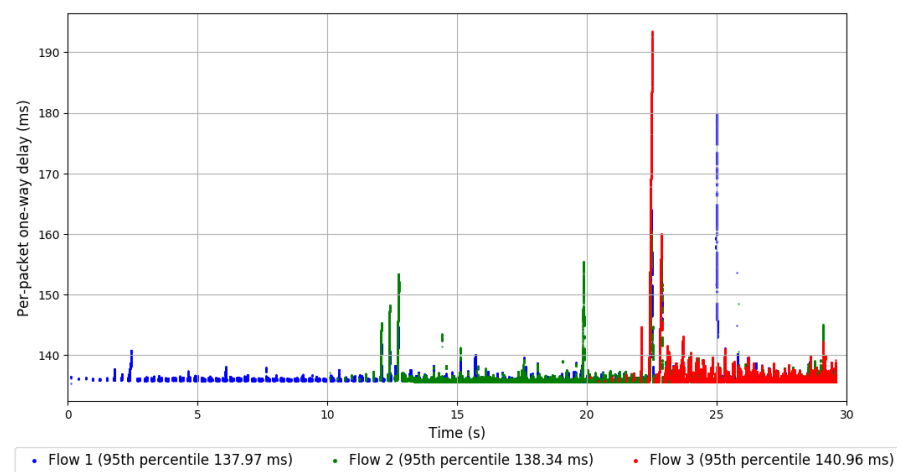
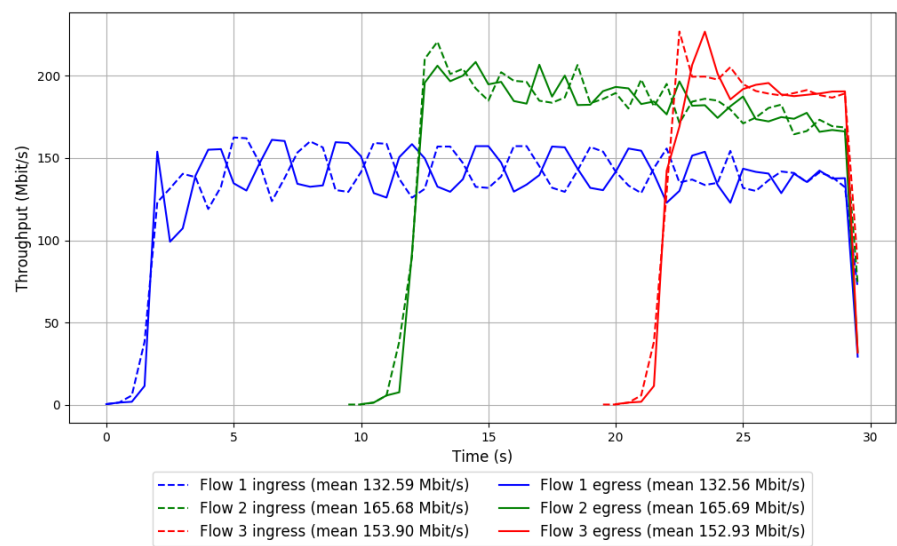


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-14 18:59:56
End at: 2018-03-14 19:00:26

# Below is generated by plot.py at 2018-03-15 03:36:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 291.31 Mbit/s
95th percentile per-packet one-way delay: 138.607 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 132.56 Mbit/s
95th percentile per-packet one-way delay: 137.969 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 165.69 Mbit/s
95th percentile per-packet one-way delay: 138.337 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 152.93 Mbit/s
95th percentile per-packet one-way delay: 140.960 ms
Loss rate: 3.41%
```

Run 1: Report of Indigo-1-32 — Data Link

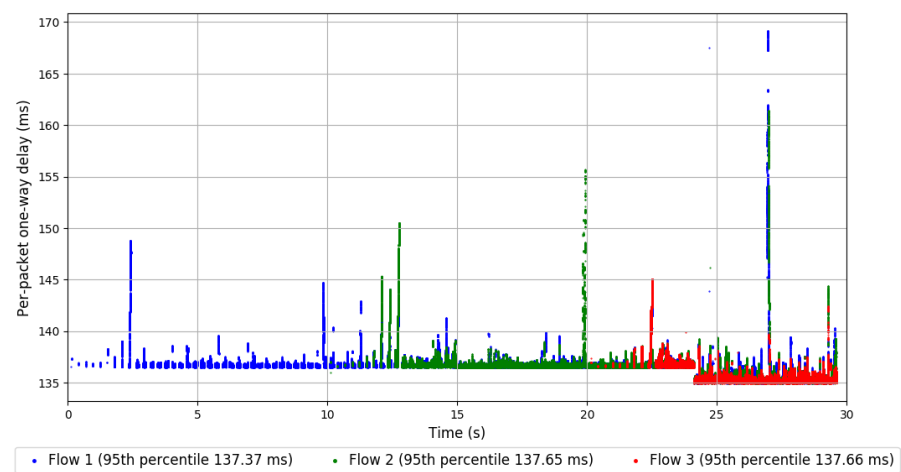
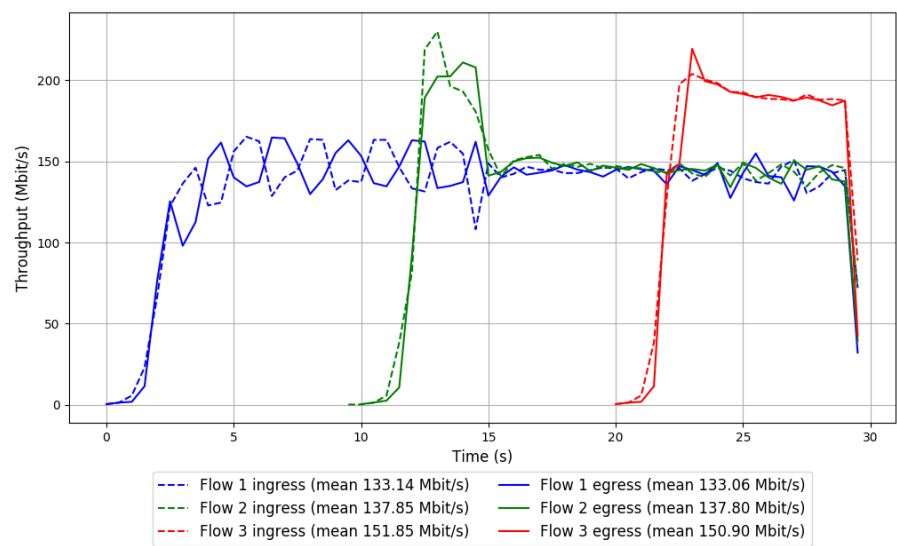


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 19:19:56
End at: 2018-03-14 19:20:26

# Below is generated by plot.py at 2018-03-15 03:36:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 272.47 Mbit/s
95th percentile per-packet one-way delay: 137.493 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 133.06 Mbit/s
95th percentile per-packet one-way delay: 137.371 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 137.80 Mbit/s
95th percentile per-packet one-way delay: 137.648 ms
Loss rate: 1.44%
-- Flow 3:
Average throughput: 150.90 Mbit/s
95th percentile per-packet one-way delay: 137.656 ms
Loss rate: 3.43%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 19:39:48

End at: 2018-03-14 19:40:18

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 254.90 Mbit/s

95th percentile per-packet one-way delay: 138.949 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 130.50 Mbit/s

95th percentile per-packet one-way delay: 138.457 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 123.94 Mbit/s

95th percentile per-packet one-way delay: 138.586 ms

Loss rate: 1.48%

-- Flow 3:

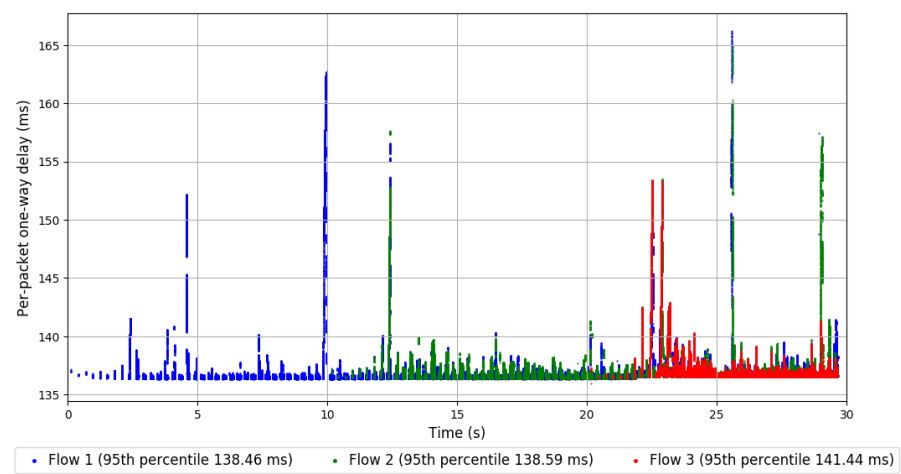
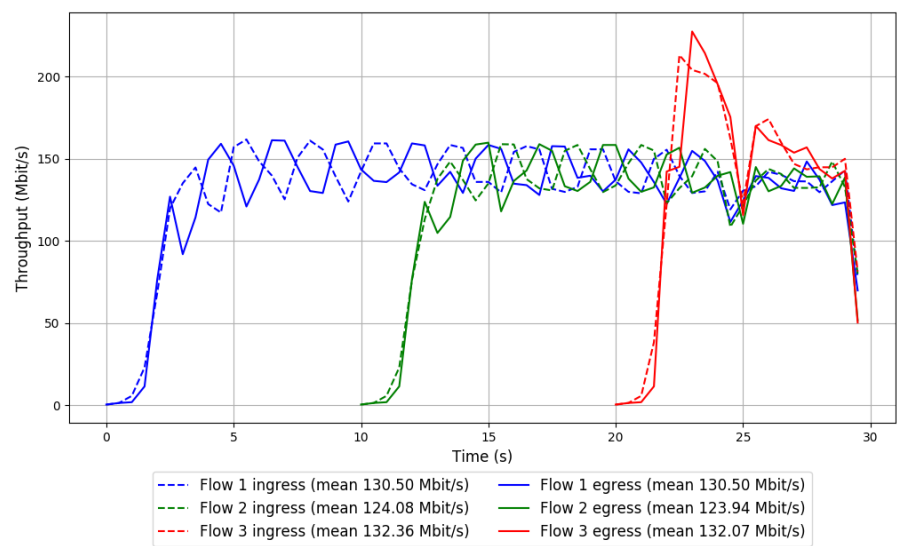
Average throughput: 132.07 Mbit/s

95th percentile per-packet one-way delay: 141.444 ms

Loss rate: 3.01%



Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-14 19:59:43

End at: 2018-03-14 20:00:13

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 277.33 Mbit/s

95th percentile per-packet one-way delay: 139.081 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 133.00 Mbit/s

95th percentile per-packet one-way delay: 138.819 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 166.00 Mbit/s

95th percentile per-packet one-way delay: 139.335 ms

Loss rate: 1.29%

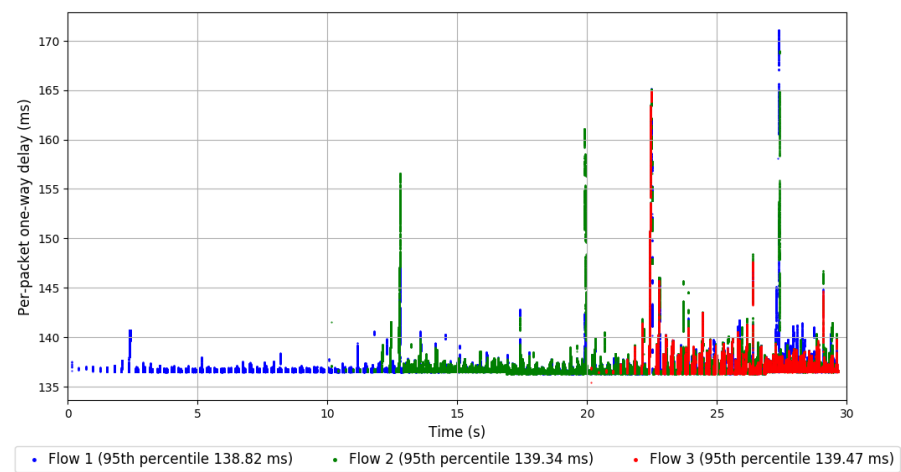
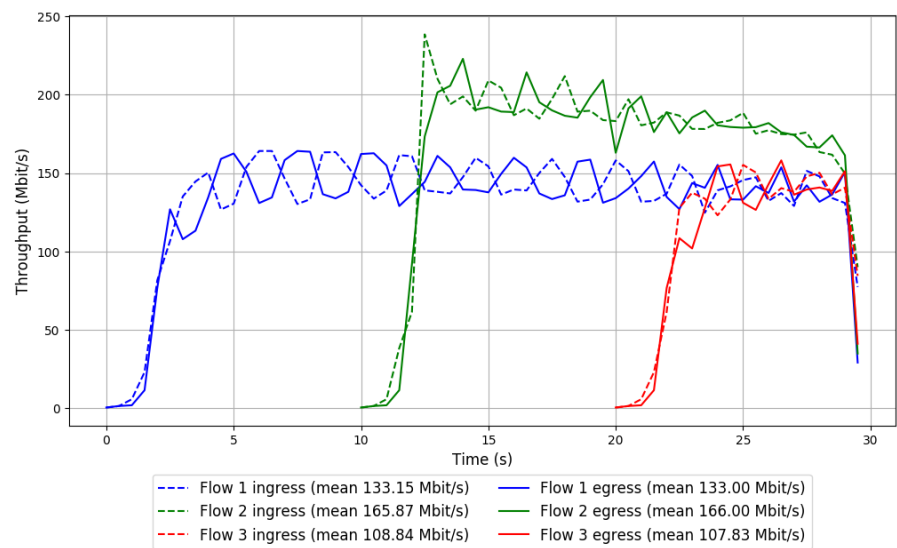
-- Flow 3:

Average throughput: 107.83 Mbit/s

95th percentile per-packet one-way delay: 139.468 ms

Loss rate: 3.69%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 20:19:52

End at: 2018-03-14 20:20:22

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 330.24 Mbit/s

95th percentile per-packet one-way delay: 139.032 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 173.67 Mbit/s

95th percentile per-packet one-way delay: 137.979 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 165.33 Mbit/s

95th percentile per-packet one-way delay: 140.158 ms

Loss rate: 1.32%

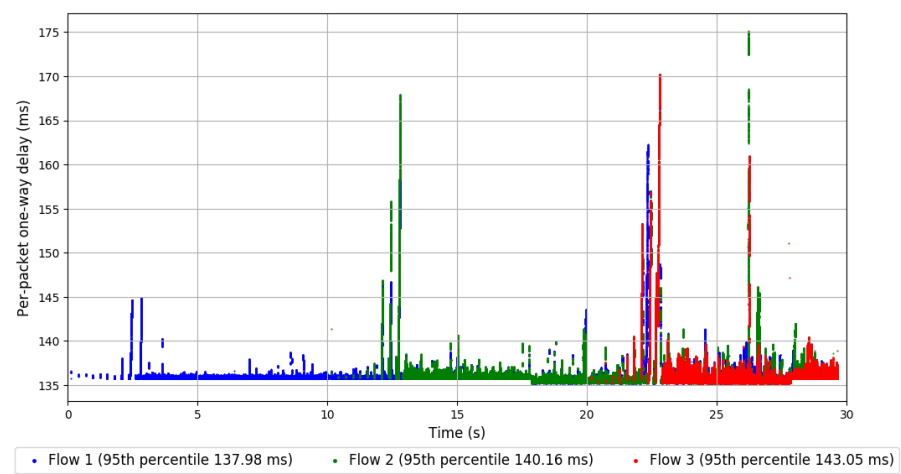
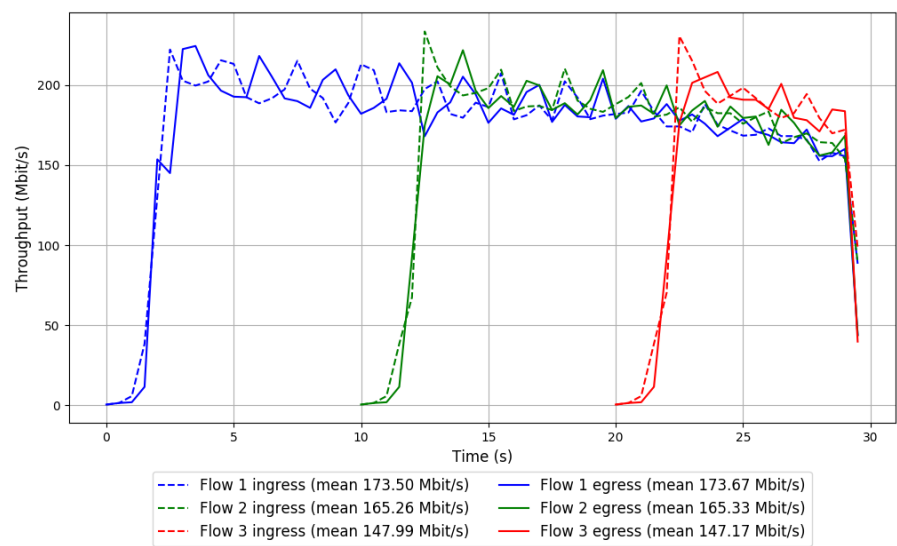
-- Flow 3:

Average throughput: 147.17 Mbit/s

95th percentile per-packet one-way delay: 143.046 ms

Loss rate: 3.33%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 20:40:02

End at: 2018-03-14 20:40:32

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 281.05 Mbit/s

95th percentile per-packet one-way delay: 139.035 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 134.26 Mbit/s

95th percentile per-packet one-way delay: 138.930 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 168.91 Mbit/s

95th percentile per-packet one-way delay: 139.062 ms

Loss rate: 1.38%

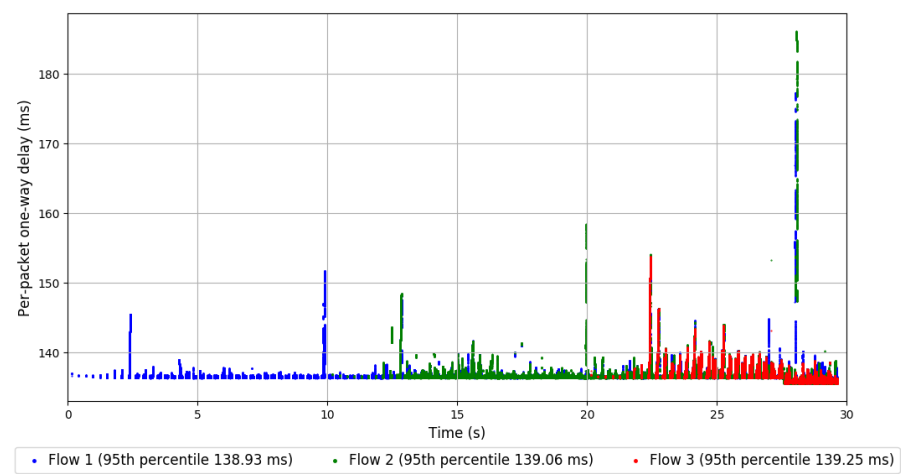
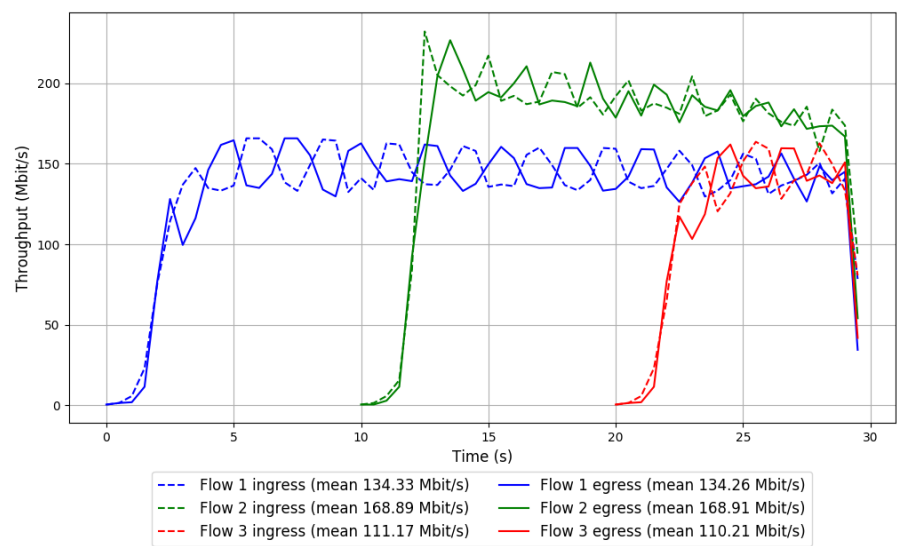
-- Flow 3:

Average throughput: 110.21 Mbit/s

95th percentile per-packet one-way delay: 139.250 ms

Loss rate: 3.65%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-14 20:59:39

End at: 2018-03-14 21:00:09

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 266.49 Mbit/s

95th percentile per-packet one-way delay: 138.422 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 133.01 Mbit/s

95th percentile per-packet one-way delay: 137.775 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 128.82 Mbit/s

95th percentile per-packet one-way delay: 138.612 ms

Loss rate: 1.53%

-- Flow 3:

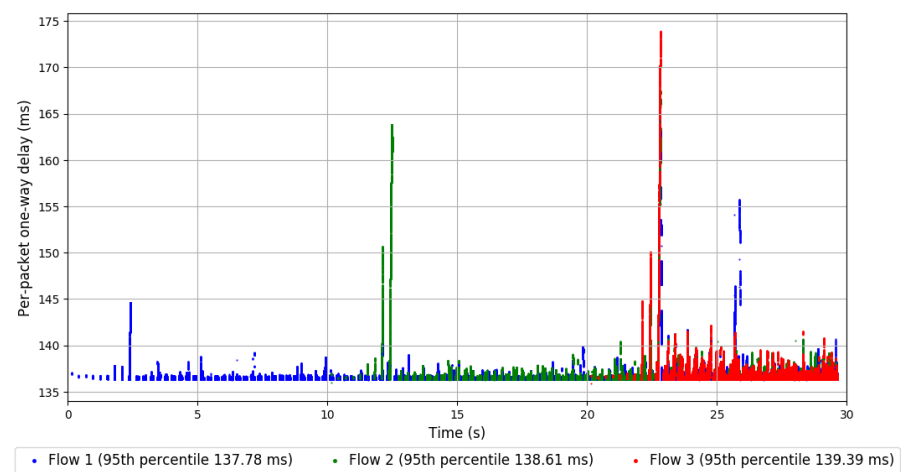
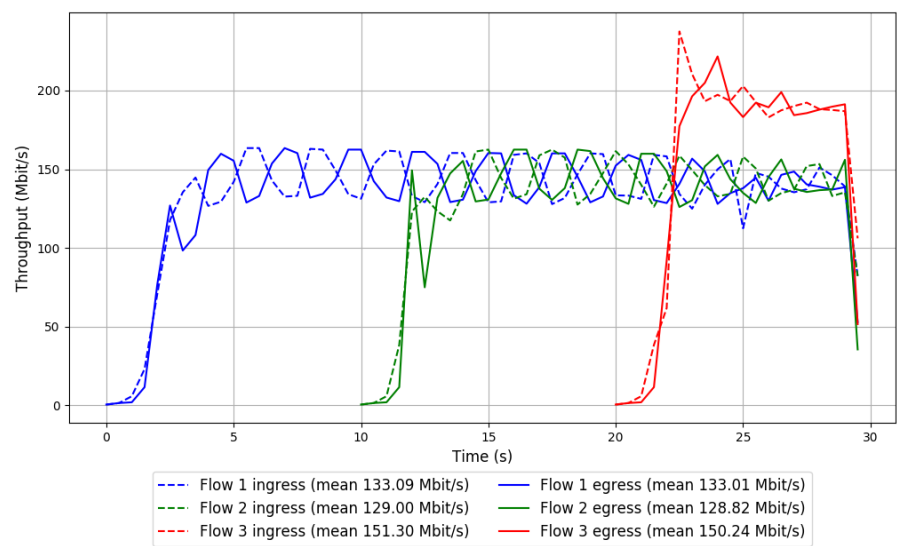
Average throughput: 150.24 Mbit/s

95th percentile per-packet one-way delay: 139.392 ms

Loss rate: 3.47%



Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-14 21:19:30

End at: 2018-03-14 21:20:00

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 329.78 Mbit/s

95th percentile per-packet one-way delay: 138.326 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 170.89 Mbit/s

95th percentile per-packet one-way delay: 137.486 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 166.00 Mbit/s

95th percentile per-packet one-way delay: 141.117 ms

Loss rate: 1.27%

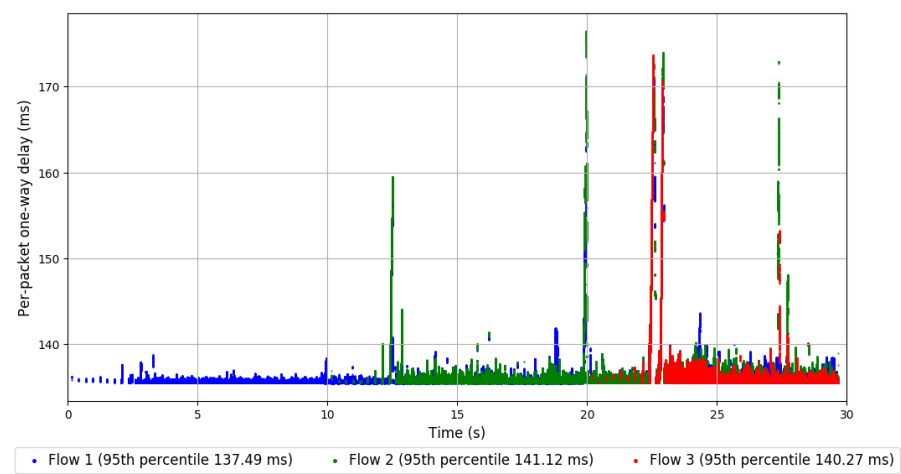
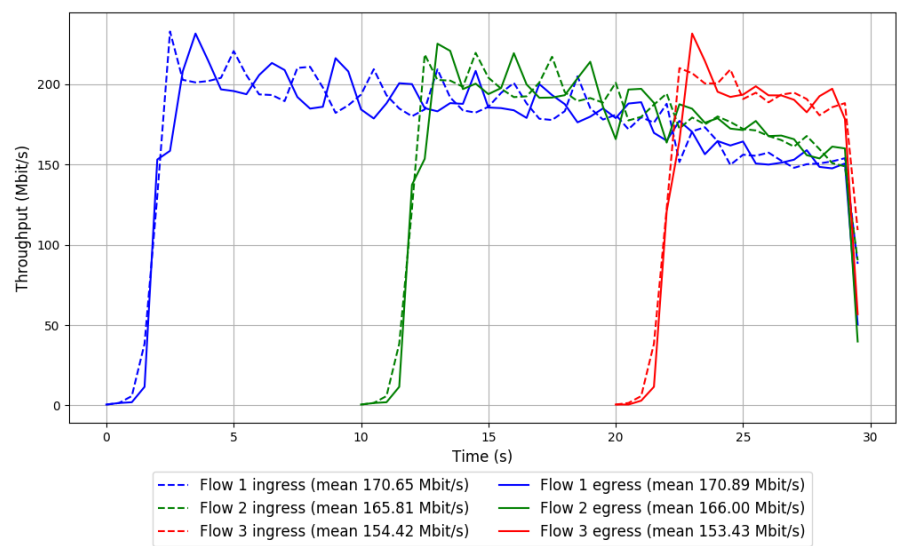
-- Flow 3:

Average throughput: 153.43 Mbit/s

95th percentile per-packet one-way delay: 140.272 ms

Loss rate: 3.39%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-14 21:39:40

End at: 2018-03-14 21:40:10

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 334.68 Mbit/s

95th percentile per-packet one-way delay: 138.649 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 173.75 Mbit/s

95th percentile per-packet one-way delay: 138.289 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 171.55 Mbit/s

95th percentile per-packet one-way delay: 139.195 ms

Loss rate: 1.37%

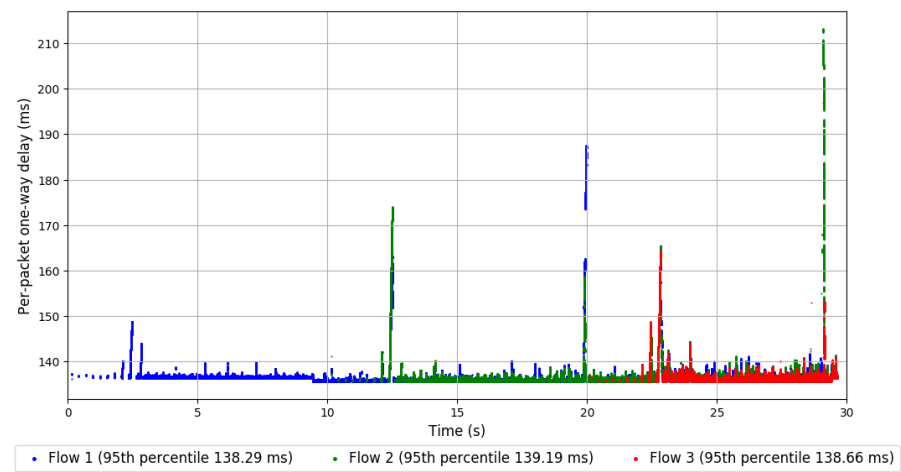
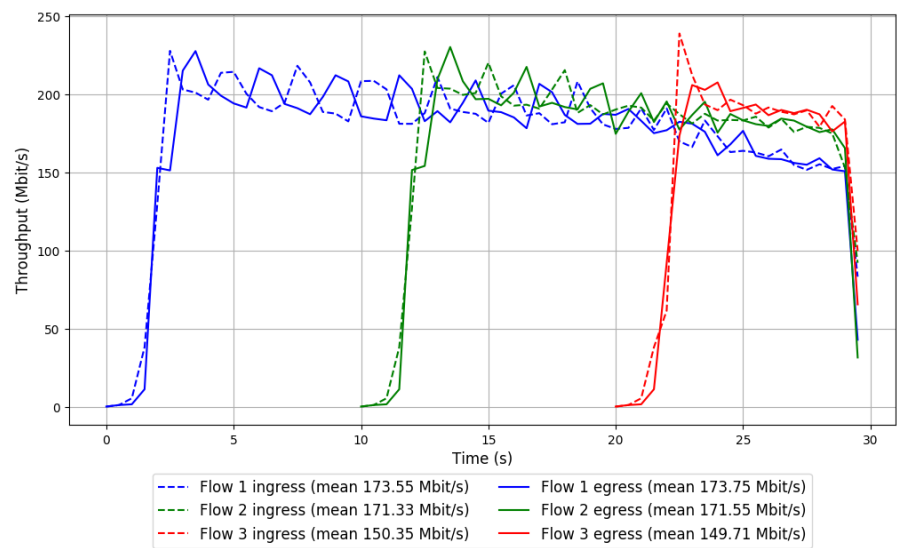
-- Flow 3:

Average throughput: 149.71 Mbit/s

95th percentile per-packet one-way delay: 138.656 ms

Loss rate: 3.22%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-14 21:59:23

End at: 2018-03-14 21:59:53

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 291.06 Mbit/s

95th percentile per-packet one-way delay: 139.872 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 133.30 Mbit/s

95th percentile per-packet one-way delay: 138.744 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 164.87 Mbit/s

95th percentile per-packet one-way delay: 143.311 ms

Loss rate: 1.29%

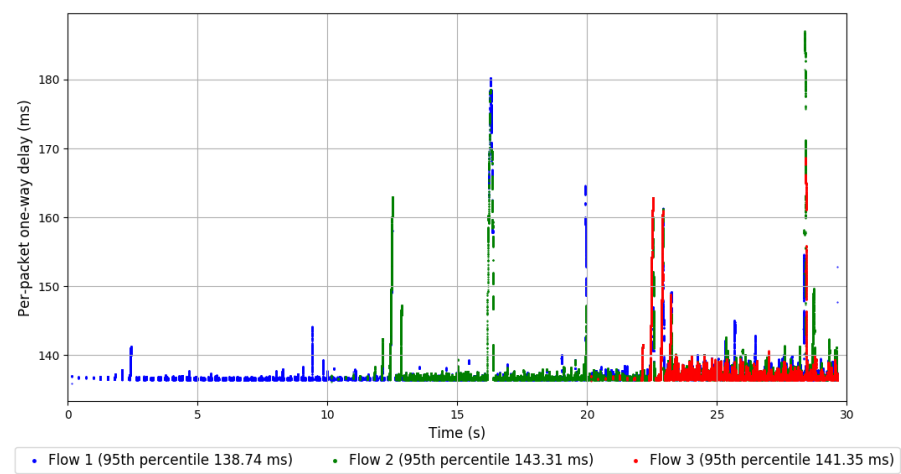
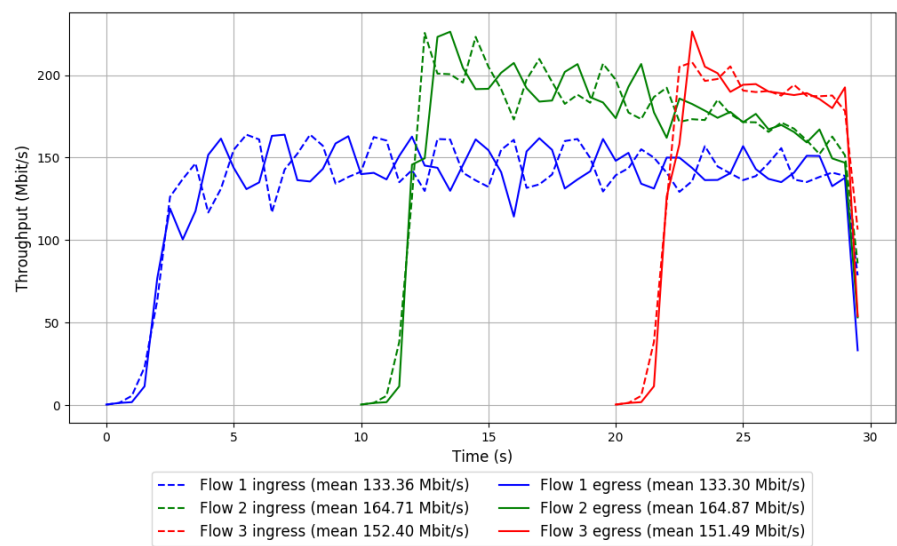
-- Flow 3:

Average throughput: 151.49 Mbit/s

95th percentile per-packet one-way delay: 141.352 ms

Loss rate: 3.37%

Run 10: Report of Indigo-1-32 — Data Link



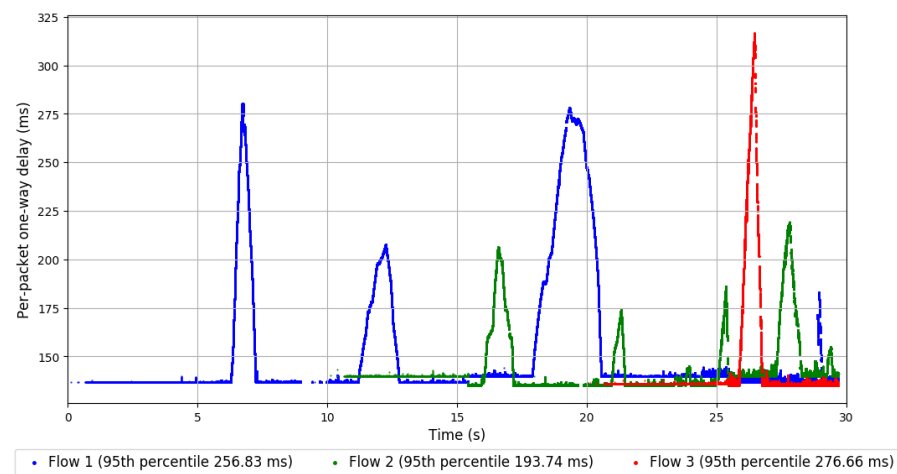
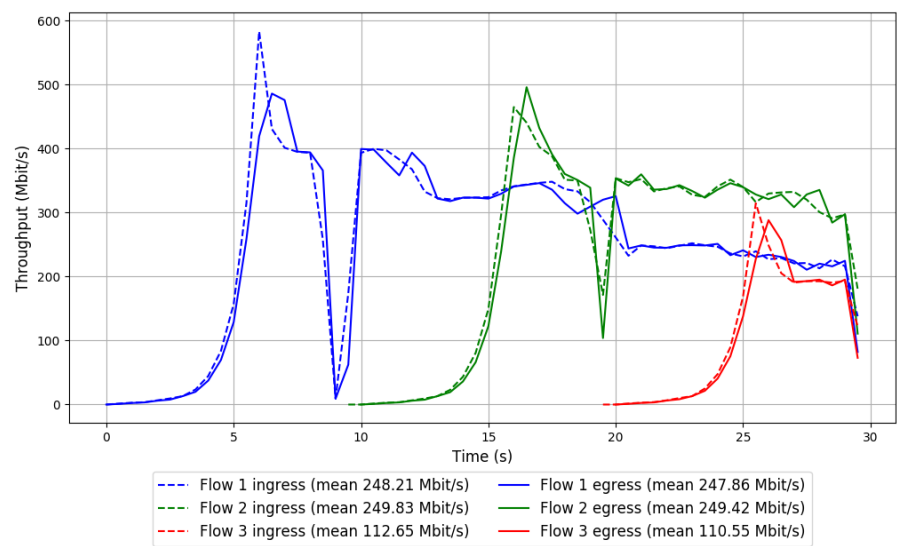
```
Run 1: Statistics of Vivace-latency

Start at: 2018-03-14 18:58:30
End at: 2018-03-14 18:59:00

# Below is generated by plot.py at 2018-03-15 03:36:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 448.83 Mbit/s
95th percentile per-packet one-way delay: 238.696 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 247.86 Mbit/s
95th percentile per-packet one-way delay: 256.830 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 249.42 Mbit/s
95th percentile per-packet one-way delay: 193.744 ms
Loss rate: 1.56%
-- Flow 3:
Average throughput: 110.55 Mbit/s
95th percentile per-packet one-way delay: 276.659 ms
Loss rate: 4.61%
```



Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-14 19:18:37

End at: 2018-03-14 19:19:07

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 340.93 Mbit/s

95th percentile per-packet one-way delay: 330.070 ms

Loss rate: 4.22%

-- Flow 1:

Average throughput: 192.51 Mbit/s

95th percentile per-packet one-way delay: 414.922 ms

Loss rate: 2.95%

-- Flow 2:

Average throughput: 175.95 Mbit/s

95th percentile per-packet one-way delay: 173.282 ms

Loss rate: 2.75%

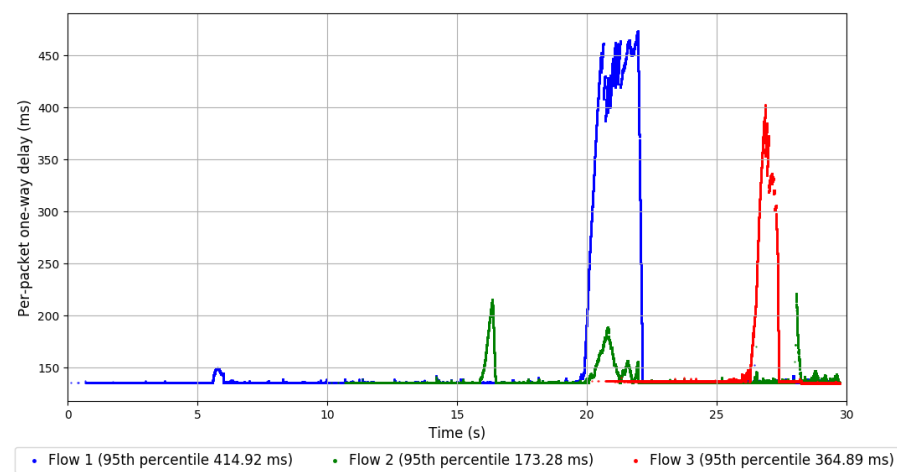
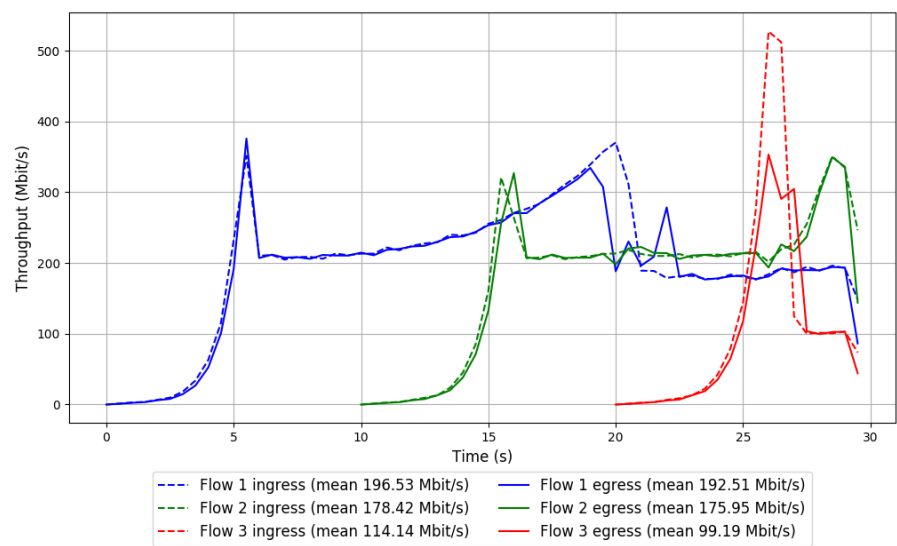
-- Flow 3:

Average throughput: 99.19 Mbit/s

95th percentile per-packet one-way delay: 364.889 ms

Loss rate: 15.53%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 19:38:24

End at: 2018-03-14 19:38:55

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 403.36 Mbit/s

95th percentile per-packet one-way delay: 178.759 ms

Loss rate: 2.47%

-- Flow 1:

Average throughput: 241.89 Mbit/s

95th percentile per-packet one-way delay: 226.745 ms

Loss rate: 2.00%

-- Flow 2:

Average throughput: 180.78 Mbit/s

95th percentile per-packet one-way delay: 143.297 ms

Loss rate: 2.66%

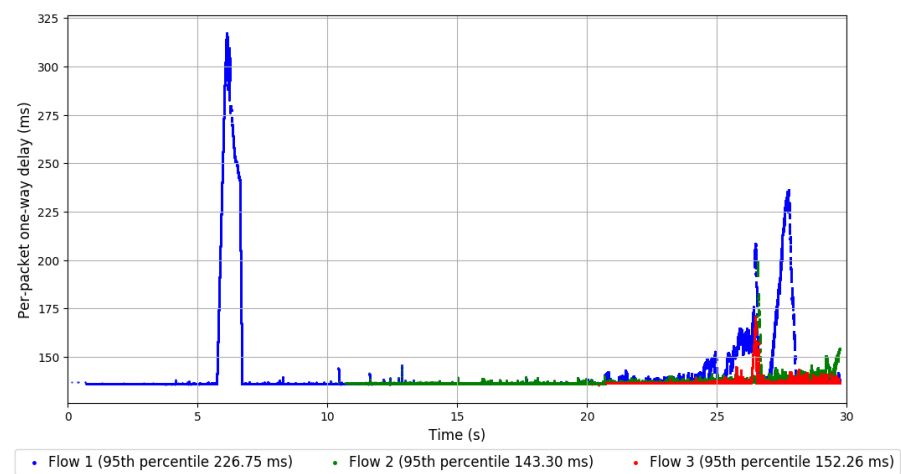
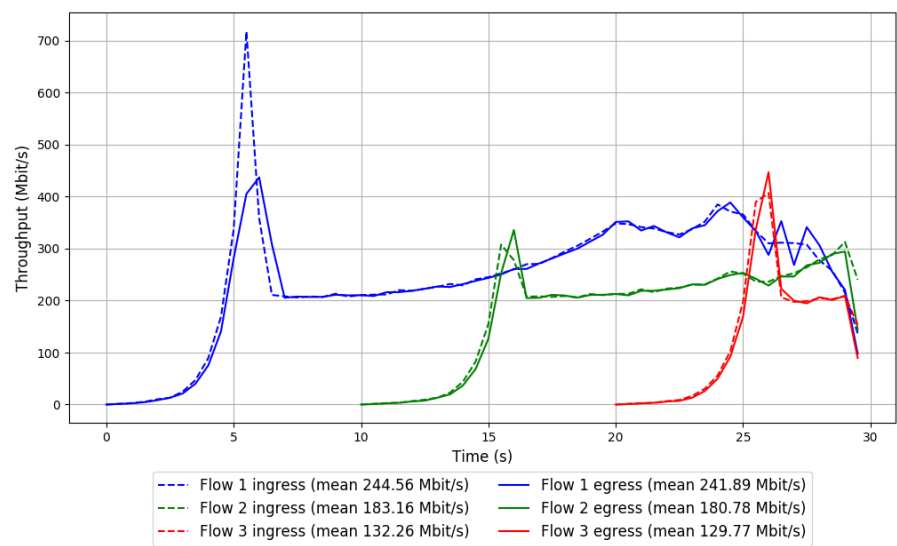
-- Flow 3:

Average throughput: 129.77 Mbit/s

95th percentile per-packet one-way delay: 152.264 ms

Loss rate: 4.61%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-14 19:58:24

End at: 2018-03-14 19:58:54

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.30 Mbit/s

95th percentile per-packet one-way delay: 169.604 ms

Loss rate: 3.22%

-- Flow 1:

Average throughput: 156.71 Mbit/s

95th percentile per-packet one-way delay: 241.557 ms

Loss rate: 4.47%

-- Flow 2:

Average throughput: 231.05 Mbit/s

95th percentile per-packet one-way delay: 166.079 ms

Loss rate: 1.42%

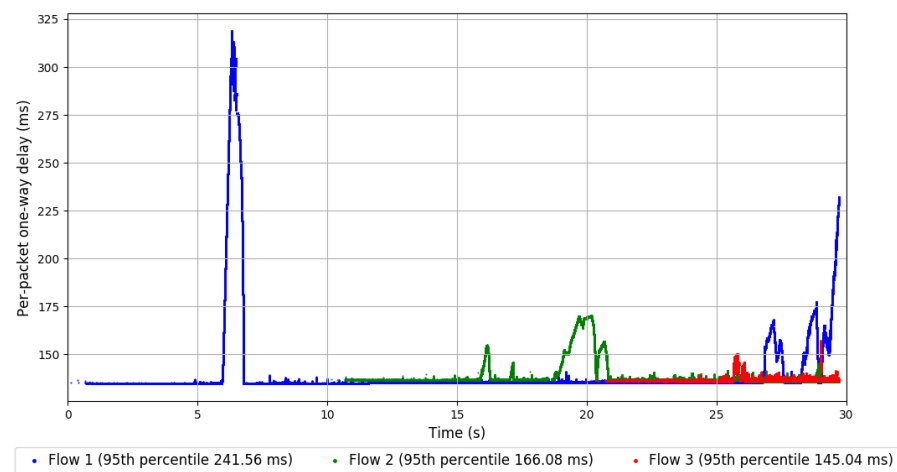
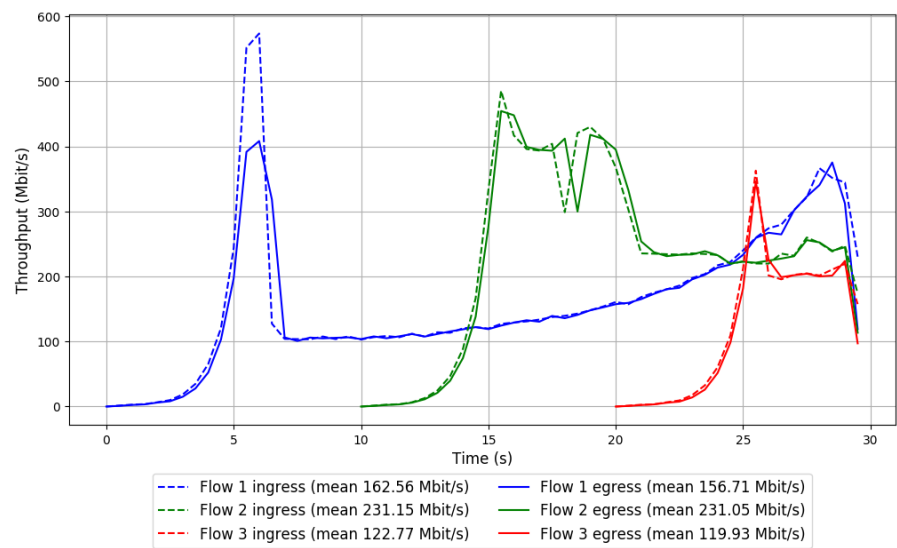
-- Flow 3:

Average throughput: 119.93 Mbit/s

95th percentile per-packet one-way delay: 145.042 ms

Loss rate: 5.03%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-14 20:18:26

End at: 2018-03-14 20:18:56

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 429.81 Mbit/s

95th percentile per-packet one-way delay: 266.040 ms

Loss rate: 2.16%

-- Flow 1:

Average throughput: 237.28 Mbit/s

95th percentile per-packet one-way delay: 185.080 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 233.15 Mbit/s

95th percentile per-packet one-way delay: 340.735 ms

Loss rate: 3.36%

-- Flow 3:

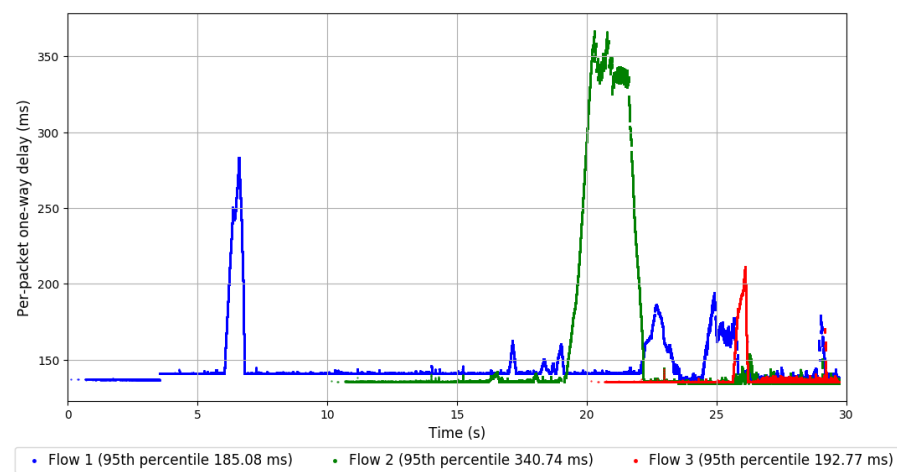
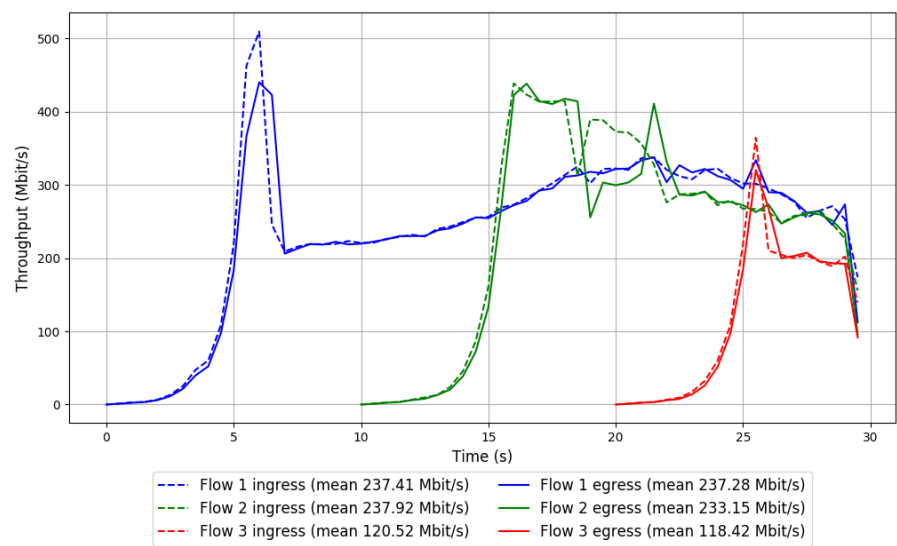
Average throughput: 118.42 Mbit/s

95th percentile per-packet one-way delay: 192.768 ms

Loss rate: 4.48%



Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 20:38:43

End at: 2018-03-14 20:39:13

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 362.21 Mbit/s

95th percentile per-packet one-way delay: 143.190 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 220.97 Mbit/s

95th percentile per-packet one-way delay: 144.288 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 182.35 Mbit/s

95th percentile per-packet one-way delay: 144.368 ms

Loss rate: 1.28%

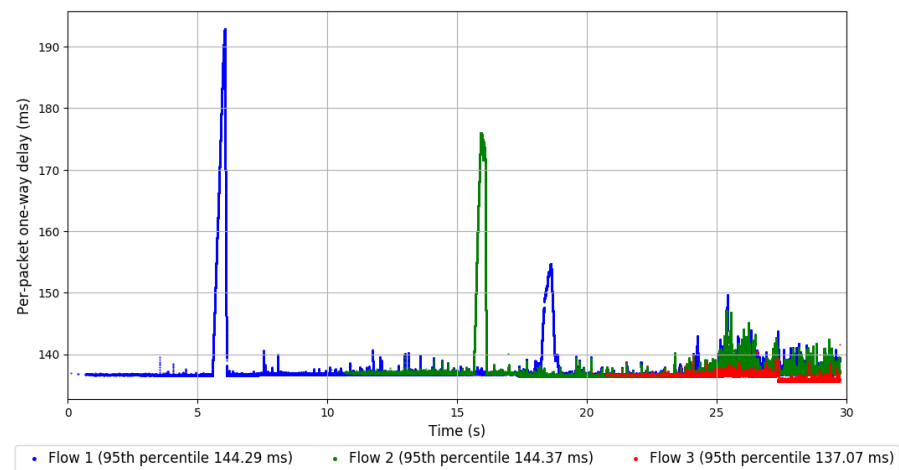
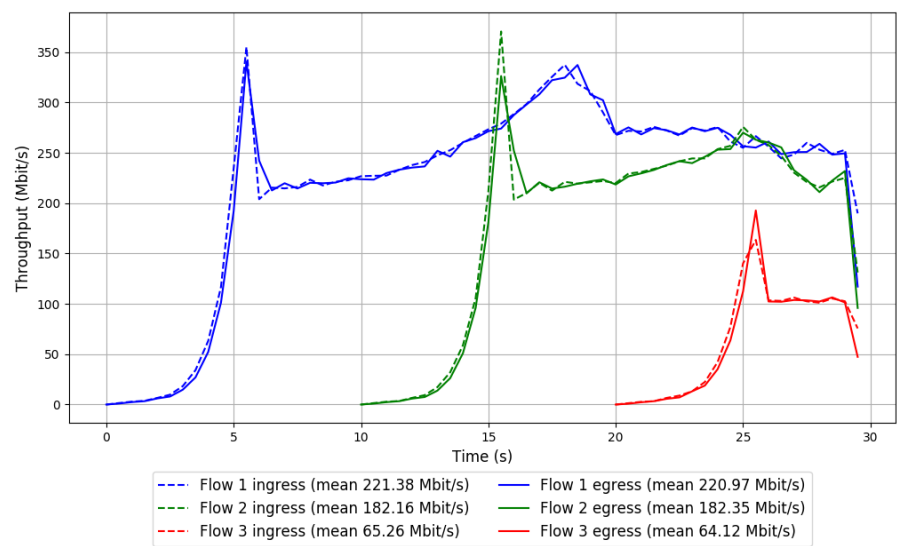
-- Flow 3:

Average throughput: 64.12 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 4.43%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-14 20:58:18

End at: 2018-03-14 20:58:48

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 384.75 Mbit/s

95th percentile per-packet one-way delay: 196.526 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 216.55 Mbit/s

95th percentile per-packet one-way delay: 241.927 ms

Loss rate: 2.66%

-- Flow 2:

Average throughput: 197.11 Mbit/s

95th percentile per-packet one-way delay: 145.589 ms

Loss rate: 2.11%

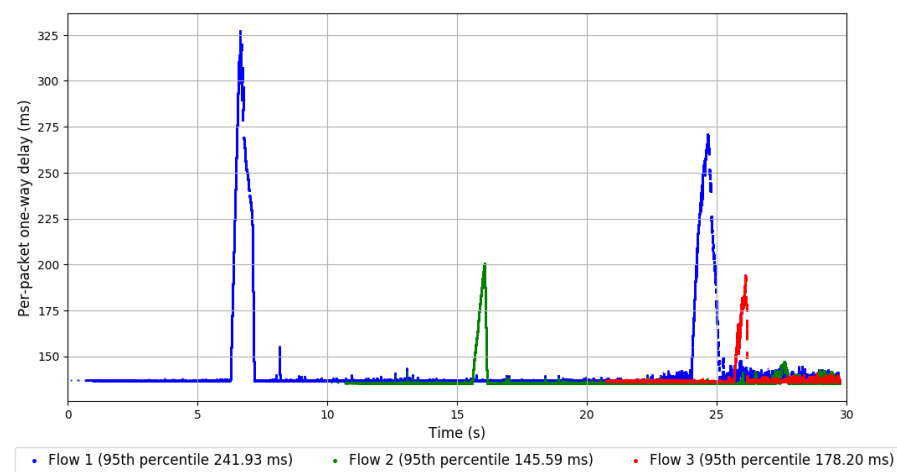
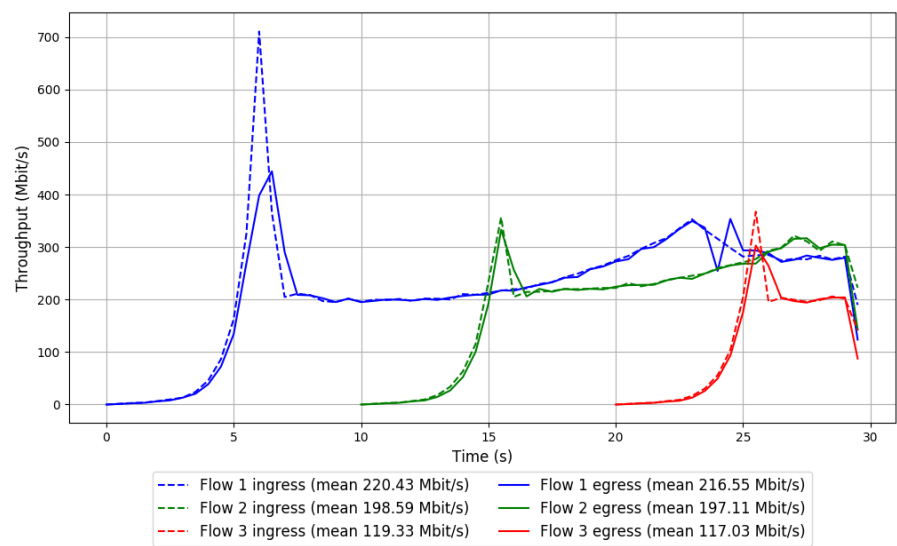
-- Flow 3:

Average throughput: 117.03 Mbit/s

95th percentile per-packet one-way delay: 178.197 ms

Loss rate: 4.67%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-14 21:18:04

End at: 2018-03-14 21:18:34

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 423.87 Mbit/s

95th percentile per-packet one-way delay: 287.043 ms

Loss rate: 3.34%

-- Flow 1:

Average throughput: 236.39 Mbit/s

95th percentile per-packet one-way delay: 301.096 ms

Loss rate: 3.13%

-- Flow 2:

Average throughput: 240.87 Mbit/s

95th percentile per-packet one-way delay: 218.866 ms

Loss rate: 0.79%

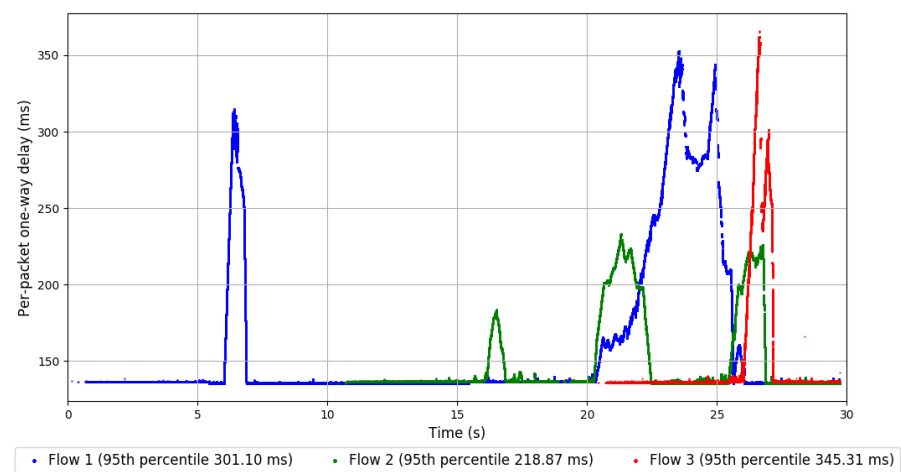
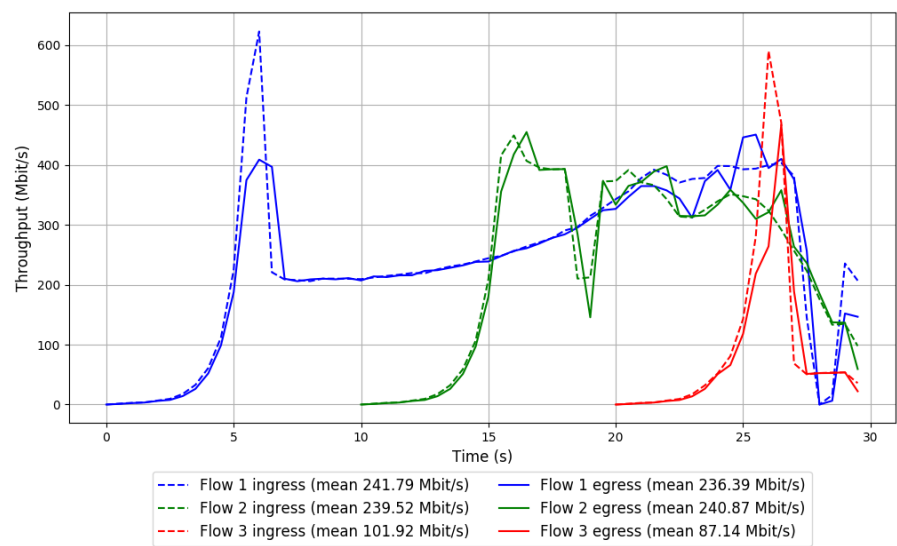
-- Flow 3:

Average throughput: 87.14 Mbit/s

95th percentile per-packet one-way delay: 345.310 ms

Loss rate: 16.89%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-14 21:38:16

End at: 2018-03-14 21:38:46

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 418.57 Mbit/s

95th percentile per-packet one-way delay: 215.559 ms

Loss rate: 2.60%

-- Flow 1:

Average throughput: 255.99 Mbit/s

95th percentile per-packet one-way delay: 270.476 ms

Loss rate: 2.37%

-- Flow 2:

Average throughput: 186.15 Mbit/s

95th percentile per-packet one-way delay: 181.443 ms

Loss rate: 2.56%

-- Flow 3:

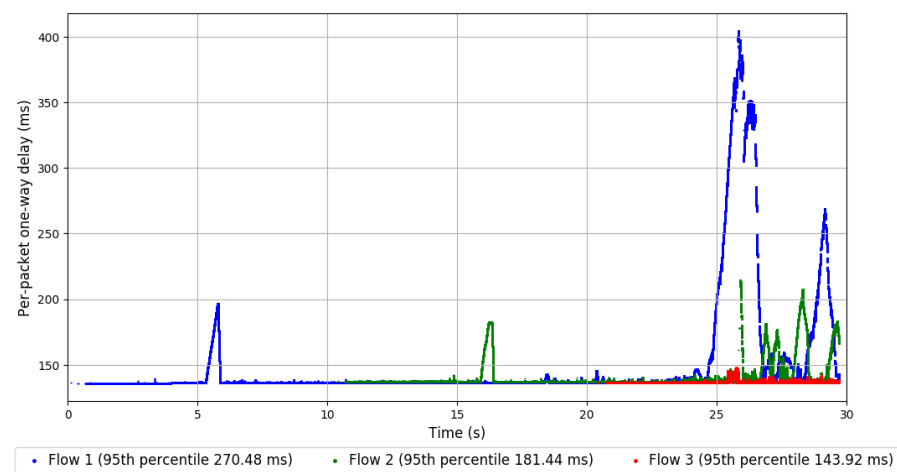
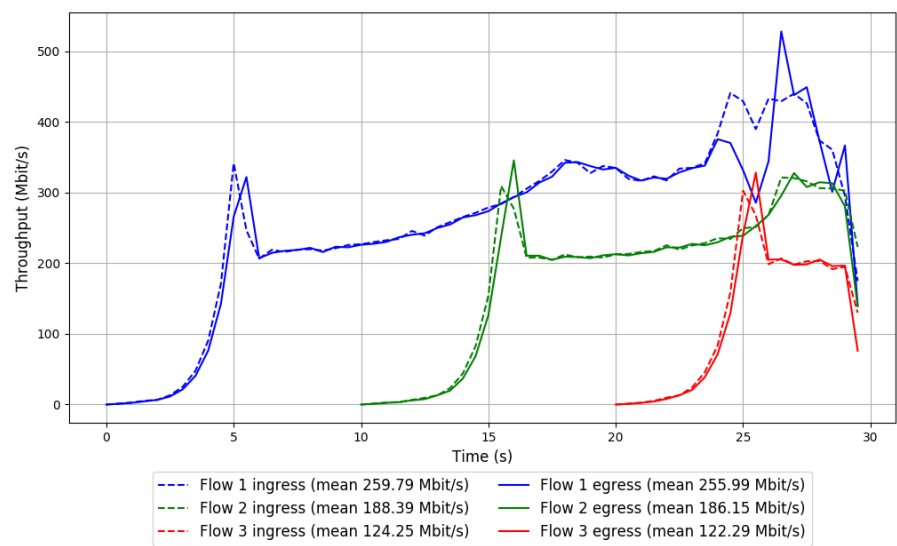
Average throughput: 122.29 Mbit/s

95th percentile per-packet one-way delay: 143.917 ms

Loss rate: 4.25%



Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-14 21:58:01

End at: 2018-03-14 21:58:31

# Below is generated by plot.py at 2018-03-15 03:36:42

# Datalink statistics

-- Total of 3 flows:

Average throughput: 390.70 Mbit/s

95th percentile per-packet one-way delay: 236.026 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 241.69 Mbit/s

95th percentile per-packet one-way delay: 296.538 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 171.48 Mbit/s

95th percentile per-packet one-way delay: 139.226 ms

Loss rate: 1.16%

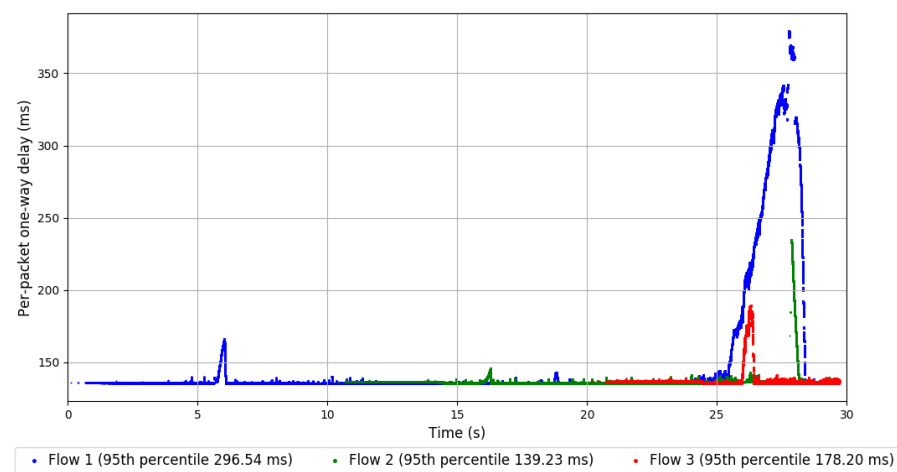
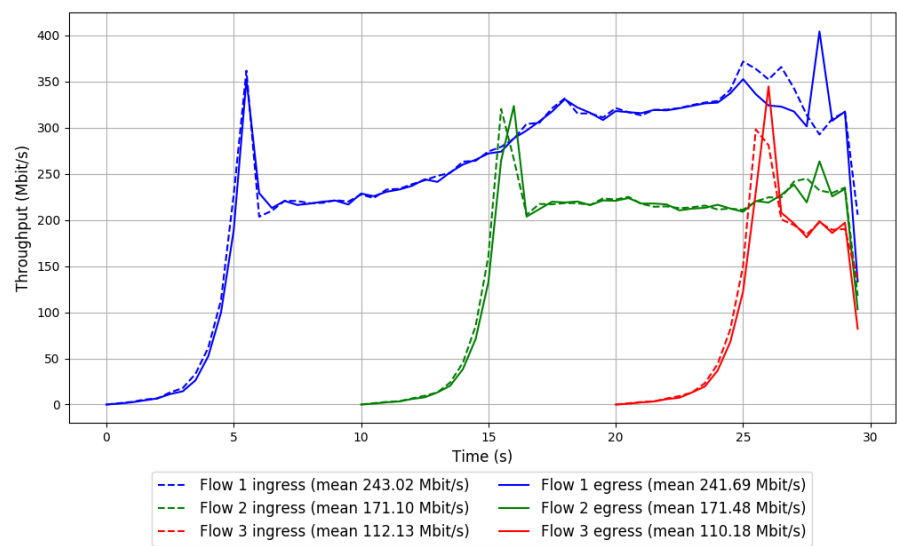
-- Flow 3:

Average throughput: 110.18 Mbit/s

95th percentile per-packet one-way delay: 178.203 ms

Loss rate: 4.64%

Run 10: Report of Vivace-latency — Data Link

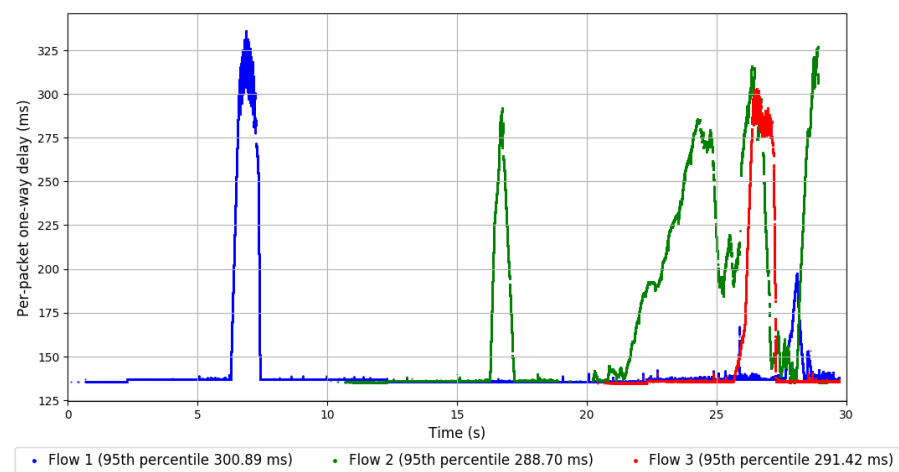
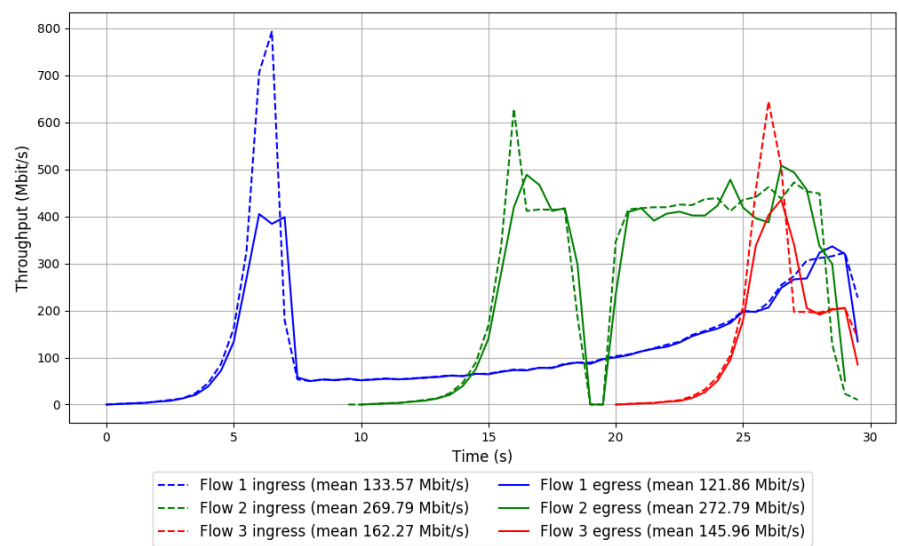


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-14 18:55:58
End at: 2018-03-14 18:56:28

# Below is generated by plot.py at 2018-03-15 03:36:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 345.02 Mbit/s
95th percentile per-packet one-way delay: 292.701 ms
Loss rate: 6.39%
-- Flow 1:
Average throughput: 121.86 Mbit/s
95th percentile per-packet one-way delay: 300.892 ms
Loss rate: 9.60%
-- Flow 2:
Average throughput: 272.79 Mbit/s
95th percentile per-packet one-way delay: 288.702 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 145.96 Mbit/s
95th percentile per-packet one-way delay: 291.415 ms
Loss rate: 12.55%
```

Run 1: Report of Vivace-loss — Data Link

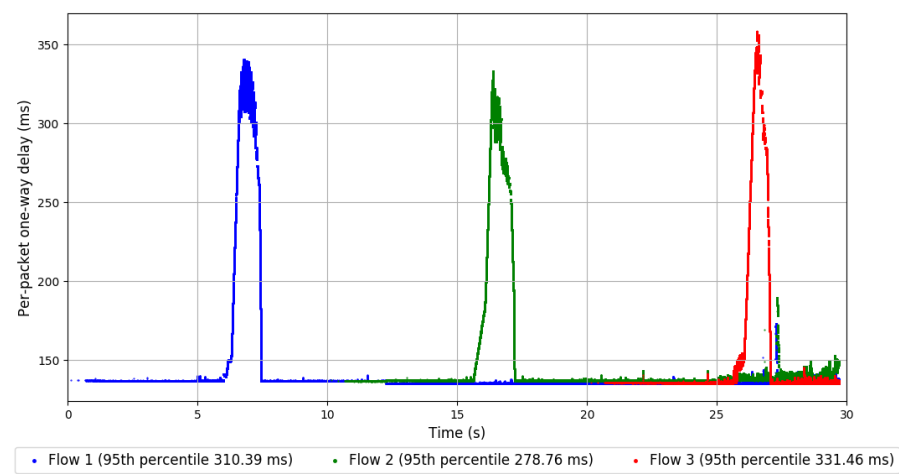
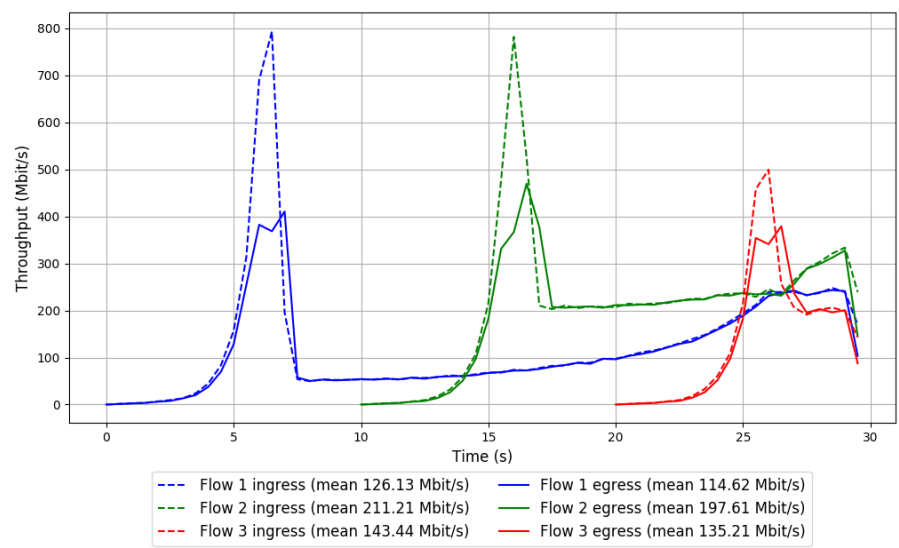


```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 19:16:08
End at: 2018-03-14 19:16:38

# Below is generated by plot.py at 2018-03-15 03:36:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.10 Mbit/s
95th percentile per-packet one-way delay: 303.276 ms
Loss rate: 8.72%
-- Flow 1:
Average throughput: 114.62 Mbit/s
95th percentile per-packet one-way delay: 310.388 ms
Loss rate: 9.96%
-- Flow 2:
Average throughput: 197.61 Mbit/s
95th percentile per-packet one-way delay: 278.765 ms
Loss rate: 7.73%
-- Flow 3:
Average throughput: 135.21 Mbit/s
95th percentile per-packet one-way delay: 331.458 ms
Loss rate: 8.35%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 19:35:50

End at: 2018-03-14 19:36:20

# Below is generated by plot.py at 2018-03-15 03:41:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 390.34 Mbit/s

95th percentile per-packet one-way delay: 305.118 ms

Loss rate: 6.36%

-- Flow 1:

Average throughput: 290.02 Mbit/s

95th percentile per-packet one-way delay: 303.085 ms

Loss rate: 4.25%

-- Flow 2:

Average throughput: 83.15 Mbit/s

95th percentile per-packet one-way delay: 327.320 ms

Loss rate: 17.64%

-- Flow 3:

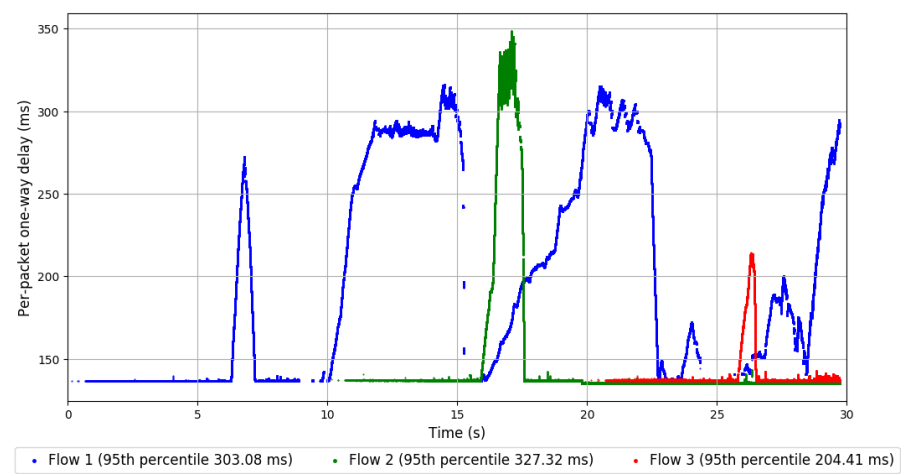
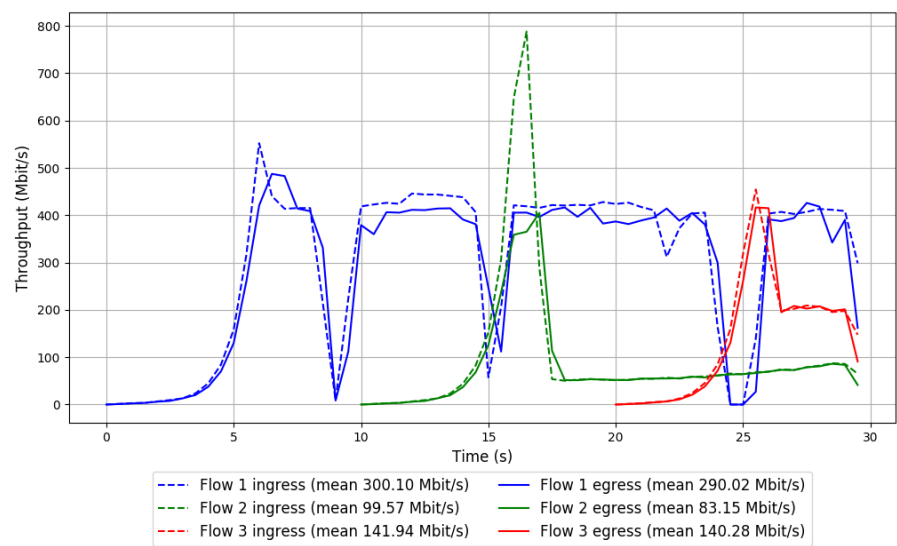
Average throughput: 140.28 Mbit/s

95th percentile per-packet one-way delay: 204.413 ms

Loss rate: 3.93%



Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 19:55:59

End at: 2018-03-14 19:56:29

# Below is generated by plot.py at 2018-03-15 03:41:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 231.71 Mbit/s

95th percentile per-packet one-way delay: 299.470 ms

Loss rate: 10.25%

-- Flow 1:

Average throughput: 126.86 Mbit/s

95th percentile per-packet one-way delay: 297.085 ms

Loss rate: 10.52%

-- Flow 2:

Average throughput: 82.72 Mbit/s

95th percentile per-packet one-way delay: 309.749 ms

Loss rate: 13.64%

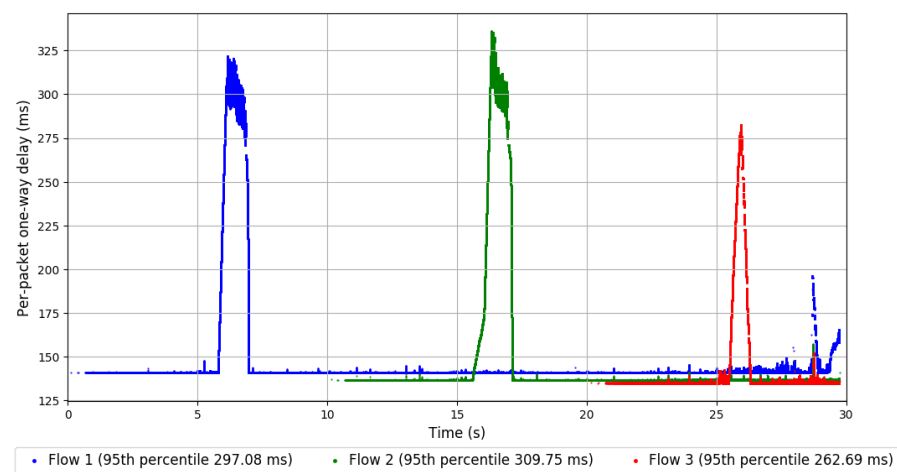
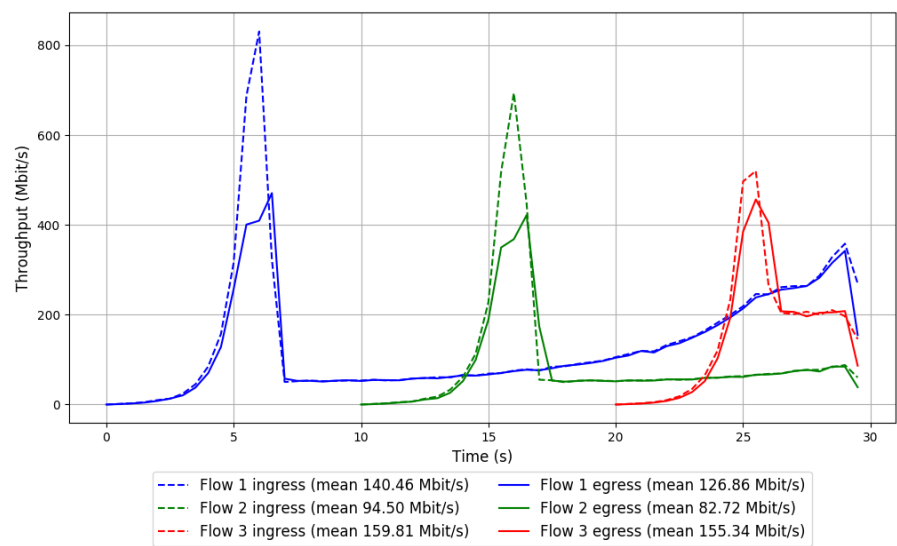
-- Flow 3:

Average throughput: 155.34 Mbit/s

95th percentile per-packet one-way delay: 262.693 ms

Loss rate: 5.47%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 20:15:52

End at: 2018-03-14 20:16:22

# Below is generated by plot.py at 2018-03-15 03:43:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 348.25 Mbit/s

95th percentile per-packet one-way delay: 272.444 ms

Loss rate: 6.96%

-- Flow 1:

Average throughput: 158.11 Mbit/s

95th percentile per-packet one-way delay: 291.890 ms

Loss rate: 9.56%

-- Flow 2:

Average throughput: 197.69 Mbit/s

95th percentile per-packet one-way delay: 204.356 ms

Loss rate: 2.17%

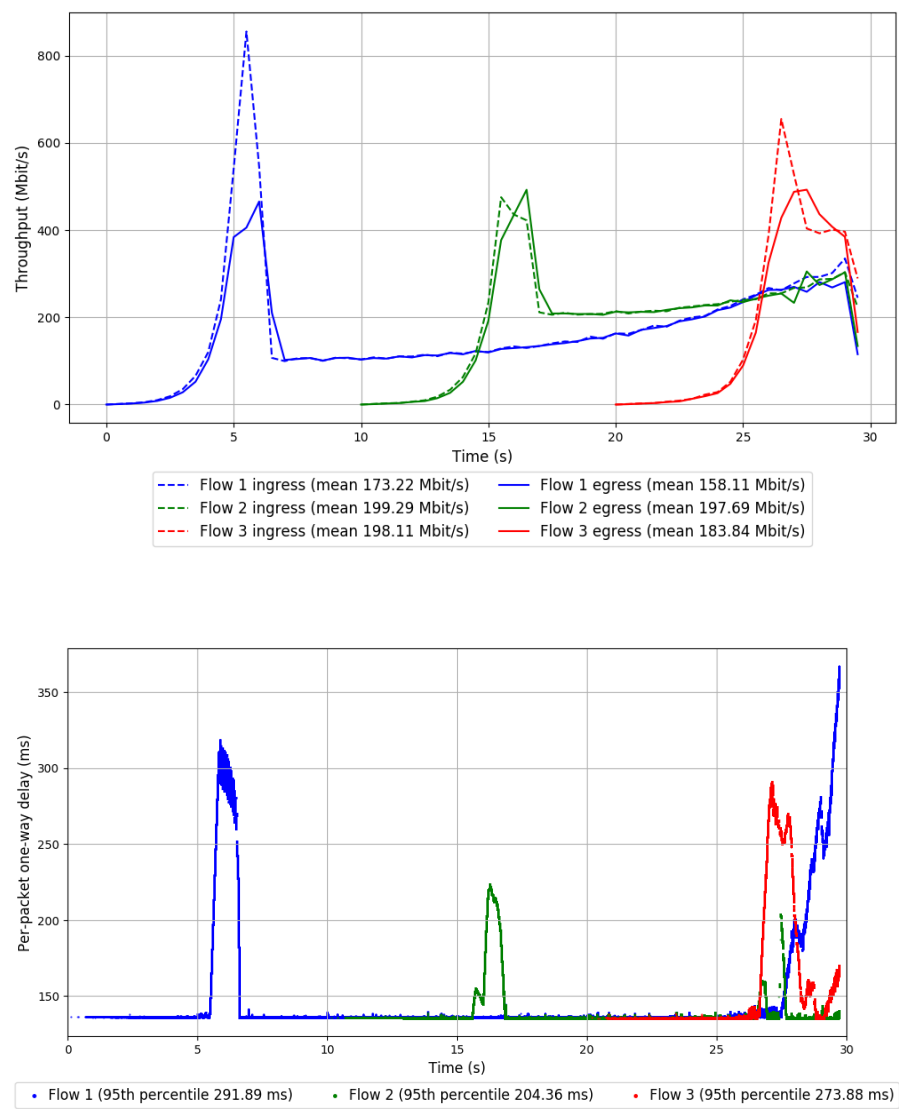
-- Flow 3:

Average throughput: 183.84 Mbit/s

95th percentile per-packet one-way delay: 273.881 ms

Loss rate: 9.78%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 20:36:16

End at: 2018-03-14 20:36:46

# Below is generated by plot.py at 2018-03-15 03:43:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 264.44 Mbit/s

95th percentile per-packet one-way delay: 303.376 ms

Loss rate: 10.78%

-- Flow 1:

Average throughput: 157.84 Mbit/s

95th percentile per-packet one-way delay: 281.017 ms

Loss rate: 7.32%

-- Flow 2:

Average throughput: 116.56 Mbit/s

95th percentile per-packet one-way delay: 306.992 ms

Loss rate: 9.29%

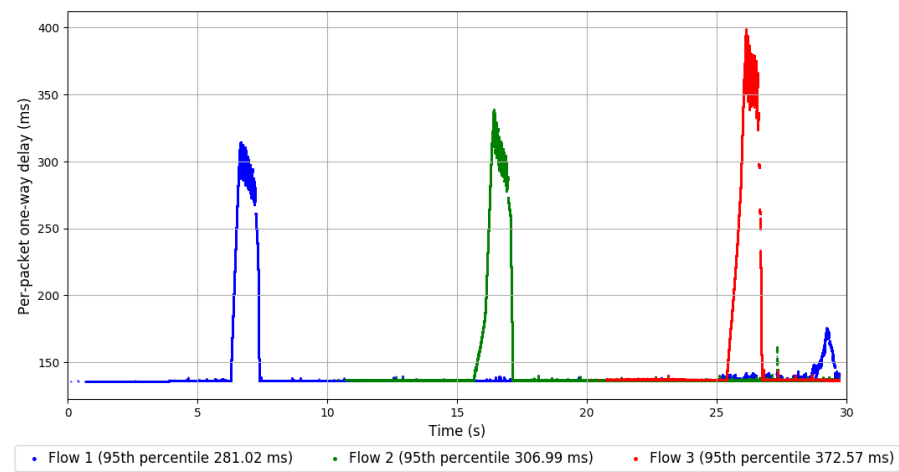
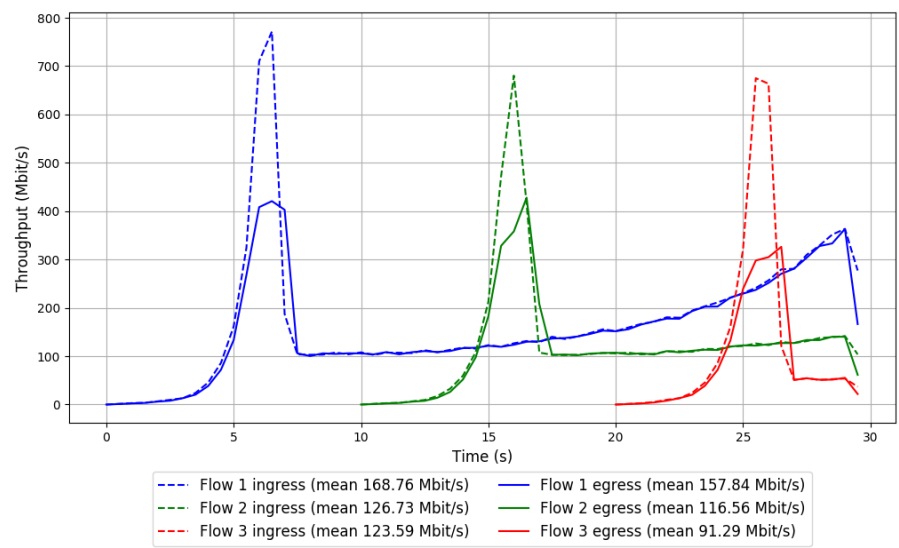
-- Flow 3:

Average throughput: 91.29 Mbit/s

95th percentile per-packet one-way delay: 372.572 ms

Loss rate: 28.17%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-14 20:55:54

End at: 2018-03-14 20:56:24

# Below is generated by plot.py at 2018-03-15 03:43:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 229.95 Mbit/s

95th percentile per-packet one-way delay: 283.547 ms

Loss rate: 8.27%

-- Flow 1:

Average throughput: 125.69 Mbit/s

95th percentile per-packet one-way delay: 316.145 ms

Loss rate: 10.69%

-- Flow 2:

Average throughput: 105.69 Mbit/s

95th percentile per-packet one-way delay: 139.053 ms

Loss rate: 1.91%

-- Flow 3:

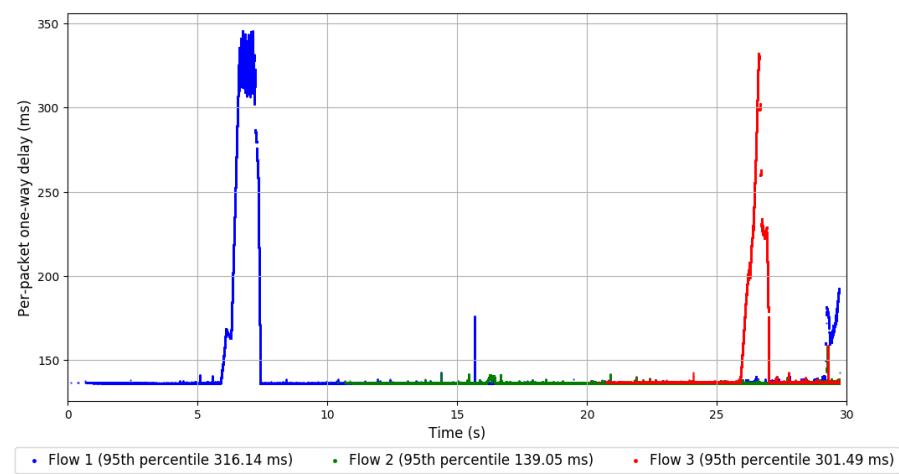
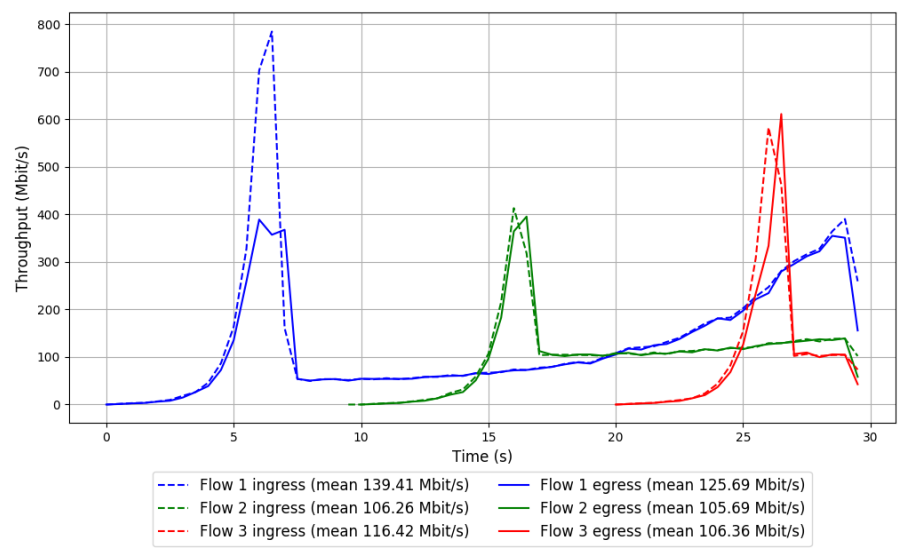
Average throughput: 106.36 Mbit/s

95th percentile per-packet one-way delay: 301.491 ms

Loss rate: 11.19%



Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-14 21:15:35

End at: 2018-03-14 21:16:05

# Below is generated by plot.py at 2018-03-15 03:43:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 303.10 Mbit/s

95th percentile per-packet one-way delay: 200.185 ms

Loss rate: 6.53%

-- Flow 1:

Average throughput: 122.80 Mbit/s

95th percentile per-packet one-way delay: 295.749 ms

Loss rate: 10.86%

-- Flow 2:

Average throughput: 189.24 Mbit/s

95th percentile per-packet one-way delay: 143.787 ms

Loss rate: 1.92%

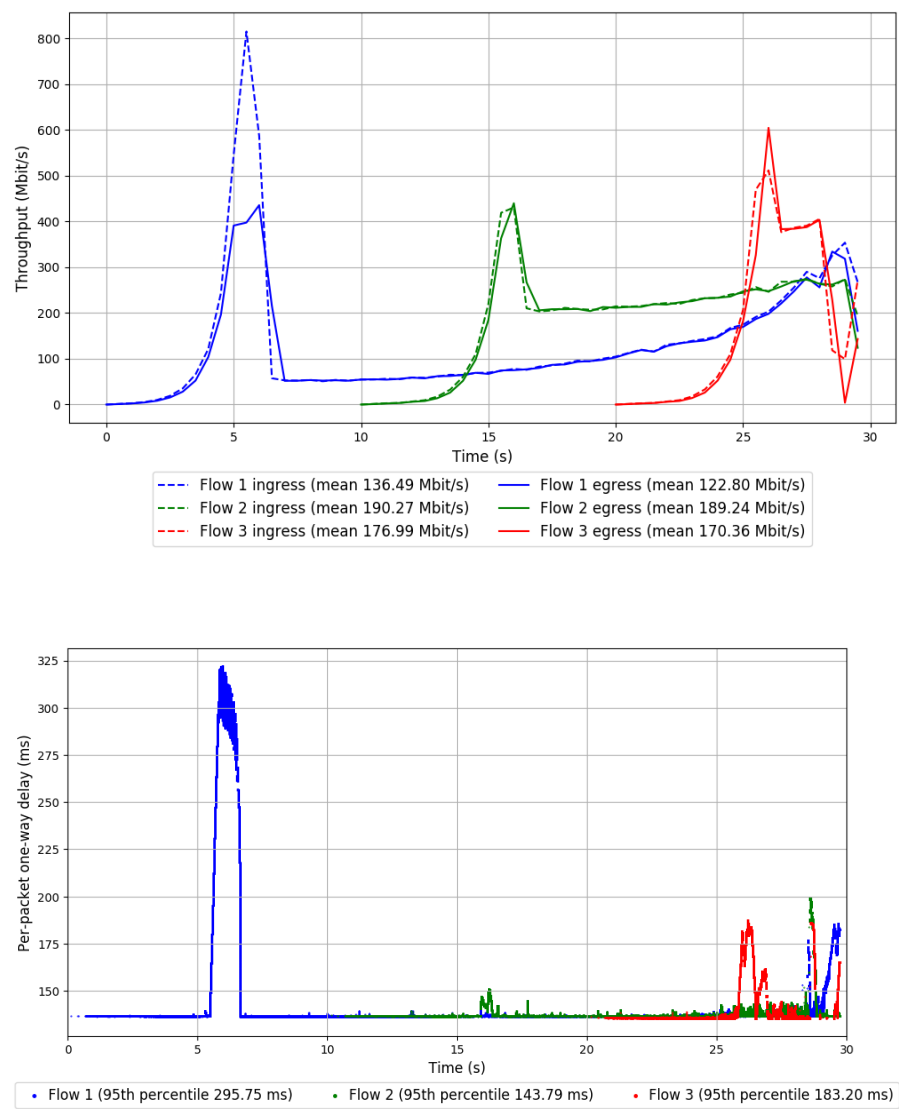
-- Flow 3:

Average throughput: 170.36 Mbit/s

95th percentile per-packet one-way delay: 183.199 ms

Loss rate: 6.40%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-14 21:35:40

End at: 2018-03-14 21:36:10

# Below is generated by plot.py at 2018-03-15 03:46:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 412.44 Mbit/s

95th percentile per-packet one-way delay: 313.983 ms

Loss rate: 5.77%

-- Flow 1:

Average throughput: 291.07 Mbit/s

95th percentile per-packet one-way delay: 316.369 ms

Loss rate: 5.79%

-- Flow 2:

Average throughput: 113.02 Mbit/s

95th percentile per-packet one-way delay: 293.894 ms

Loss rate: 4.86%

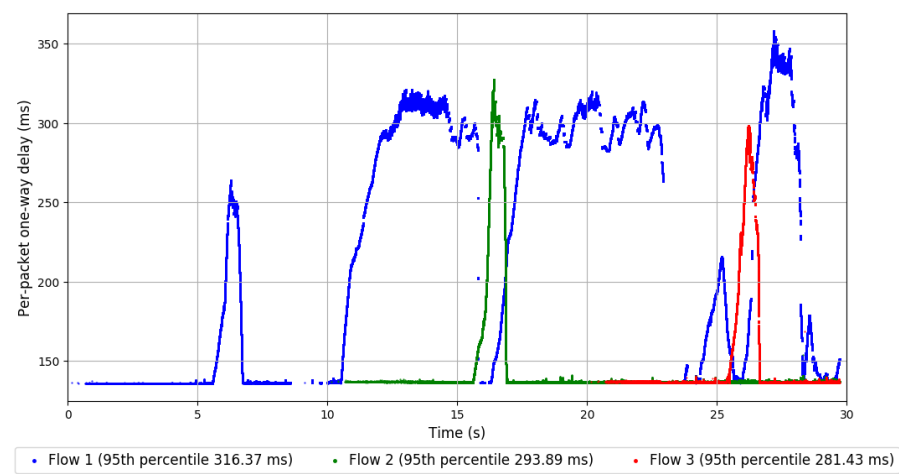
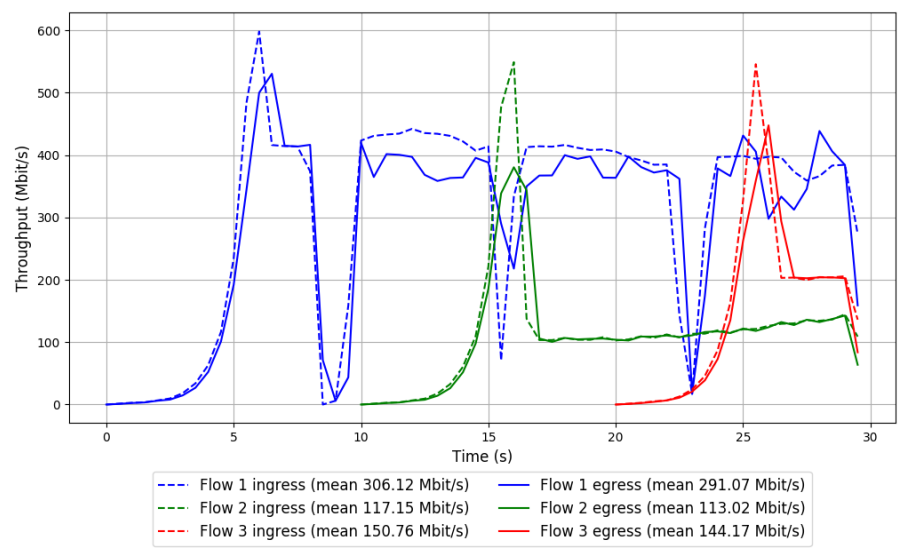
-- Flow 3:

Average throughput: 144.17 Mbit/s

95th percentile per-packet one-way delay: 281.430 ms

Loss rate: 7.05%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-14 21:55:31

End at: 2018-03-14 21:56:01

# Below is generated by plot.py at 2018-03-15 03:46:16

# Datalink statistics

-- Total of 3 flows:

Average throughput: 290.17 Mbit/s

95th percentile per-packet one-way delay: 291.029 ms

Loss rate: 6.76%

-- Flow 1:

Average throughput: 137.05 Mbit/s

95th percentile per-packet one-way delay: 292.185 ms

Loss rate: 8.24%

-- Flow 2:

Average throughput: 189.80 Mbit/s

95th percentile per-packet one-way delay: 146.023 ms

Loss rate: 2.35%

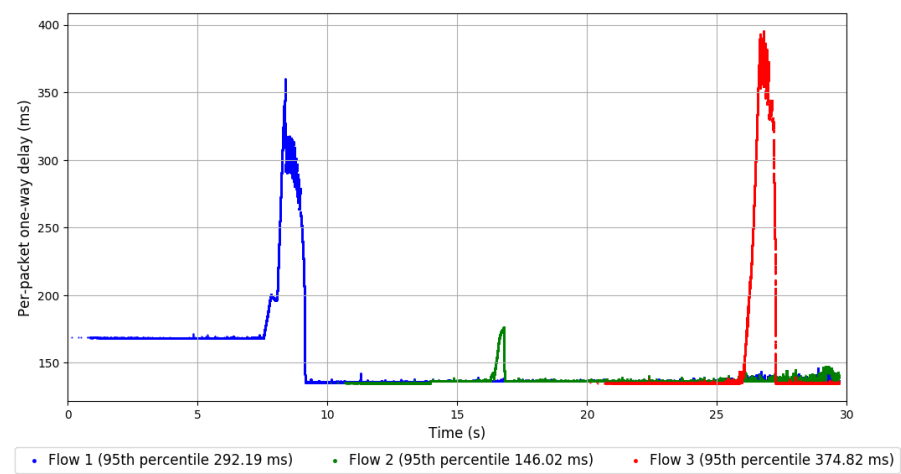
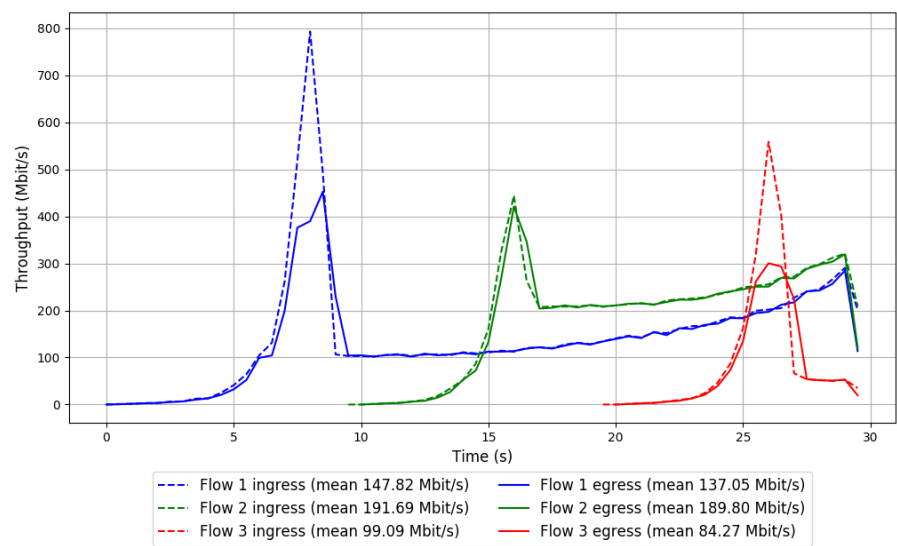
-- Flow 3:

Average throughput: 84.27 Mbit/s

95th percentile per-packet one-way delay: 374.816 ms

Loss rate: 17.30%

Run 10: Report of Vivace-loss — Data Link



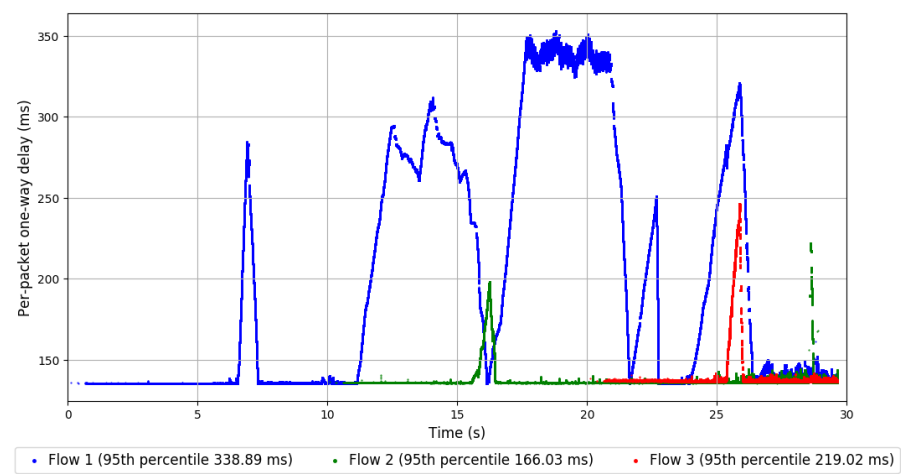
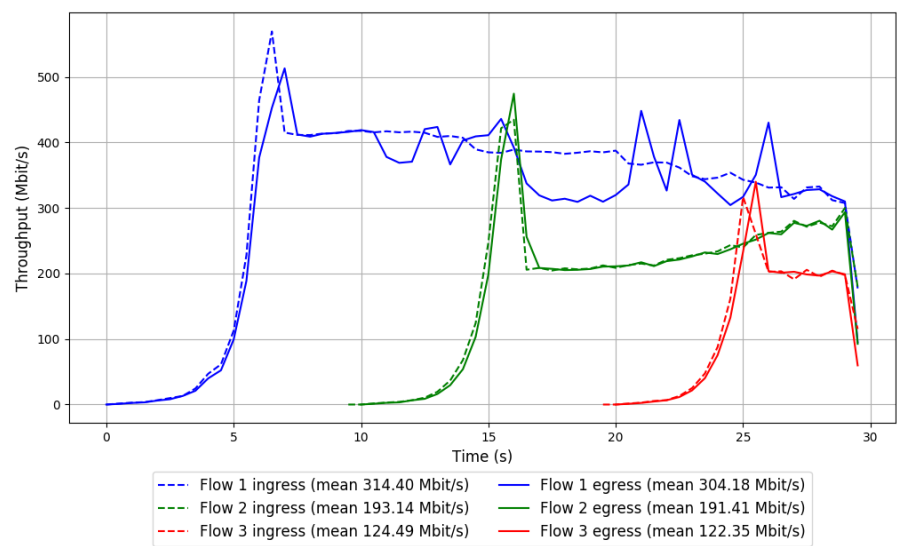
```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-14 18:44:36
End at: 2018-03-14 18:45:06

# Below is generated by plot.py at 2018-03-15 03:51:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.64 Mbit/s
95th percentile per-packet one-way delay: 335.743 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 304.18 Mbit/s
95th percentile per-packet one-way delay: 338.889 ms
Loss rate: 4.14%
-- Flow 2:
Average throughput: 191.41 Mbit/s
95th percentile per-packet one-way delay: 166.034 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 122.35 Mbit/s
95th percentile per-packet one-way delay: 219.022 ms
Loss rate: 4.50%
```



Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 19:04:56

End at: 2018-03-14 19:05:26

# Below is generated by plot.py at 2018-03-15 03:51:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 408.70 Mbit/s

95th percentile per-packet one-way delay: 240.876 ms

Loss rate: 2.62%

-- Flow 1:

Average throughput: 252.98 Mbit/s

95th percentile per-packet one-way delay: 251.065 ms

Loss rate: 2.55%

-- Flow 2:

Average throughput: 180.62 Mbit/s

95th percentile per-packet one-way delay: 147.576 ms

Loss rate: 2.06%

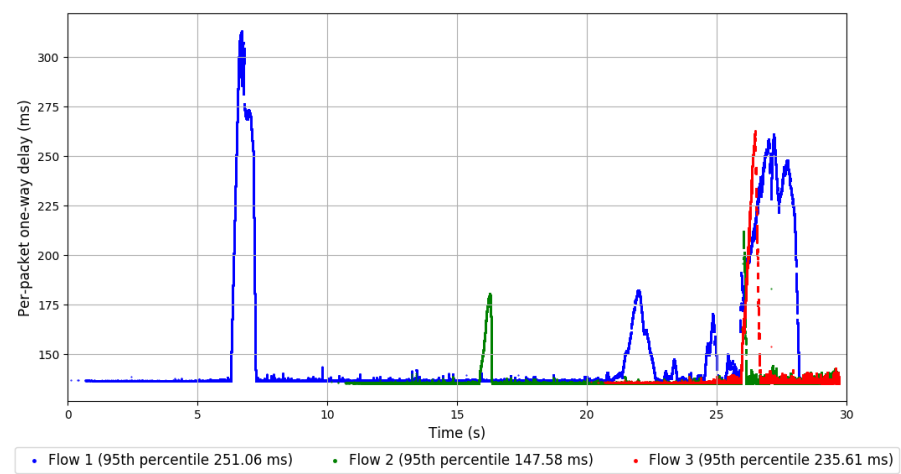
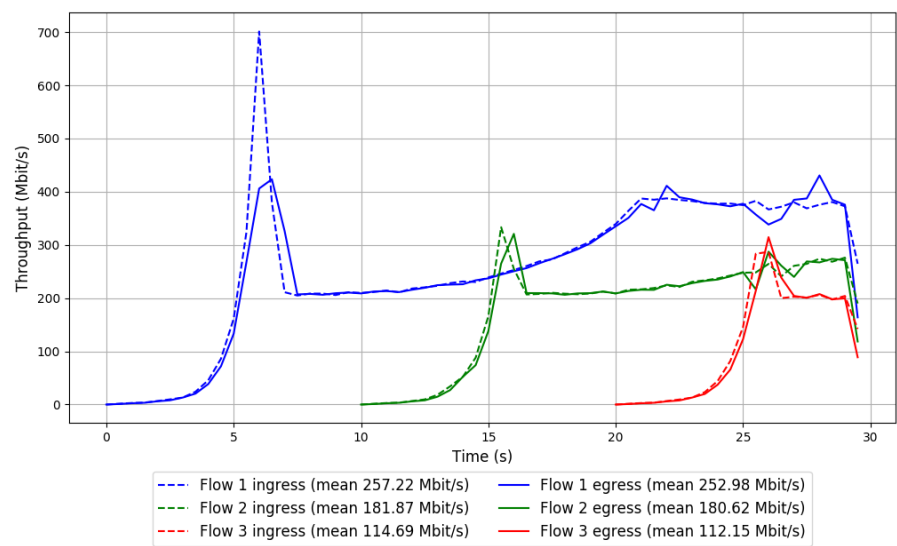
-- Flow 3:

Average throughput: 112.15 Mbit/s

95th percentile per-packet one-way delay: 235.613 ms

Loss rate: 4.94%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-14 19:25:00

End at: 2018-03-14 19:25:30

# Below is generated by plot.py at 2018-03-15 03:51:24

# Datalink statistics

-- Total of 3 flows:

Average throughput: 374.61 Mbit/s

95th percentile per-packet one-way delay: 304.260 ms

Loss rate: 5.32%

-- Flow 1:

Average throughput: 239.95 Mbit/s

95th percentile per-packet one-way delay: 313.798 ms

Loss rate: 3.98%

-- Flow 2:

Average throughput: 115.69 Mbit/s

95th percentile per-packet one-way delay: 298.132 ms

Loss rate: 7.02%

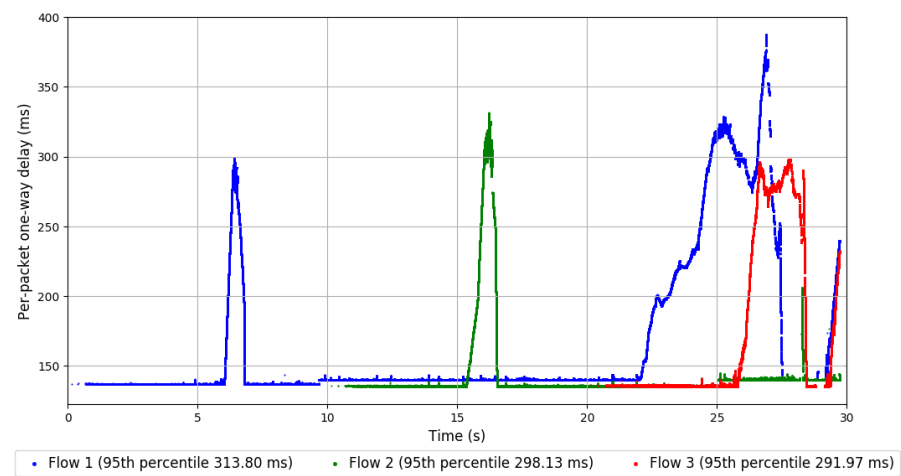
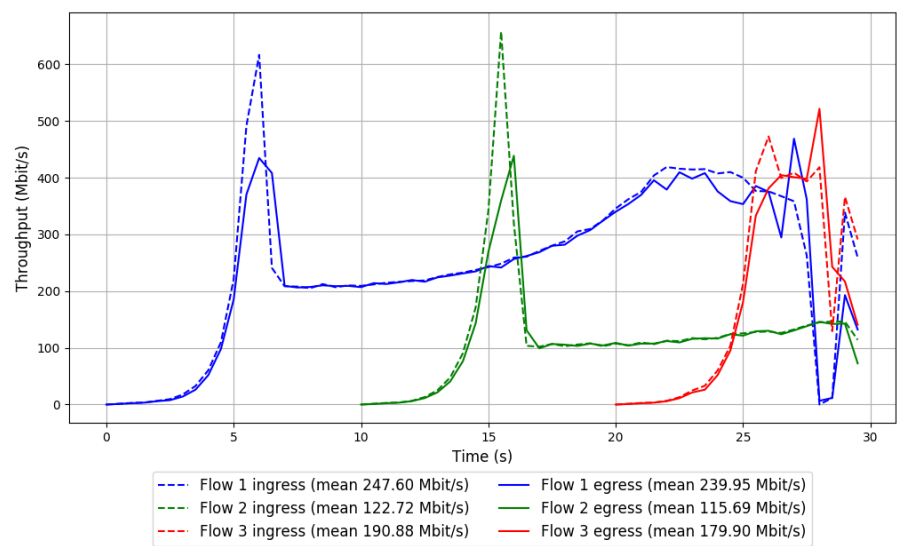
-- Flow 3:

Average throughput: 179.90 Mbit/s

95th percentile per-packet one-way delay: 291.970 ms

Loss rate: 8.37%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 19:44:42

End at: 2018-03-14 19:45:12

# Below is generated by plot.py at 2018-03-15 03:51:33

# Datalink statistics

-- Total of 3 flows:

Average throughput: 397.01 Mbit/s

95th percentile per-packet one-way delay: 204.187 ms

Loss rate: 3.47%

-- Flow 1:

Average throughput: 244.18 Mbit/s

95th percentile per-packet one-way delay: 170.471 ms

Loss rate: 2.31%

-- Flow 2:

Average throughput: 188.04 Mbit/s

95th percentile per-packet one-way delay: 147.587 ms

Loss rate: 2.13%

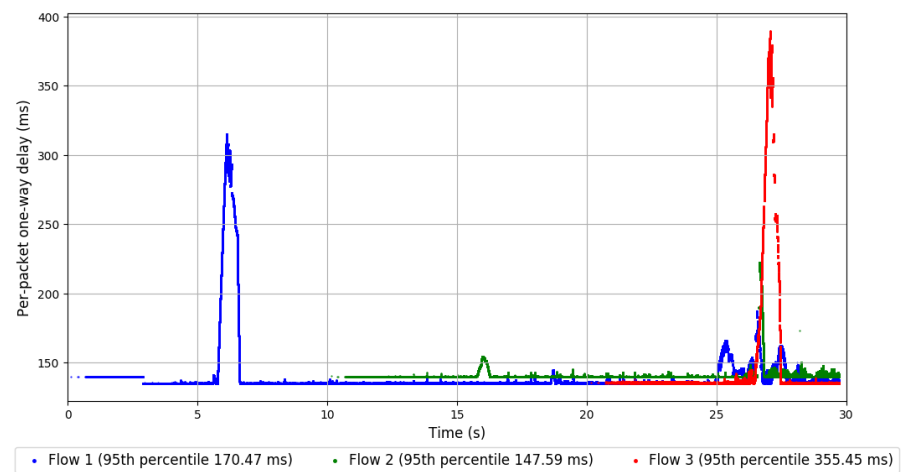
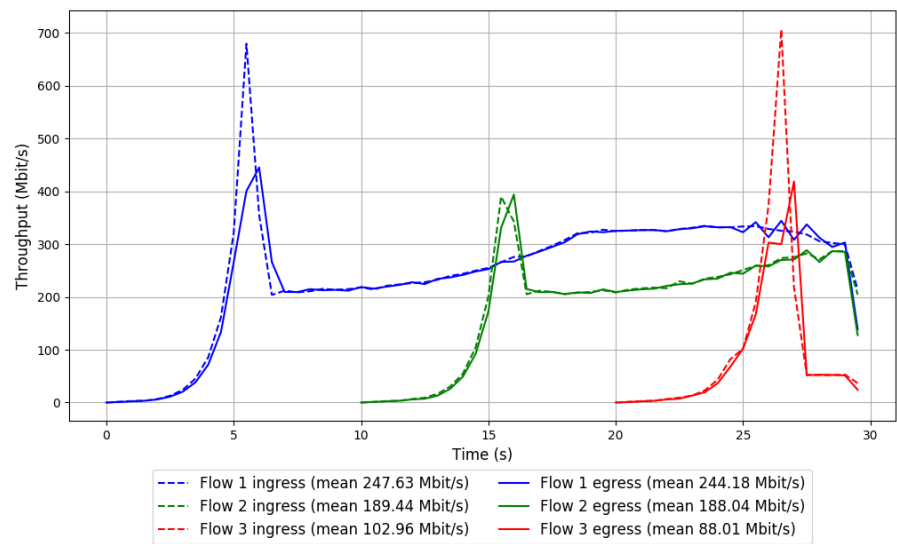
-- Flow 3:

Average throughput: 88.01 Mbit/s

95th percentile per-packet one-way delay: 355.452 ms

Loss rate: 16.90%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-14 20:04:52

End at: 2018-03-14 20:05:22

# Below is generated by plot.py at 2018-03-15 03:51:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 365.92 Mbit/s

95th percentile per-packet one-way delay: 249.229 ms

Loss rate: 3.71%

-- Flow 1:

Average throughput: 207.67 Mbit/s

95th percentile per-packet one-way delay: 202.484 ms

Loss rate: 3.09%

-- Flow 2:

Average throughput: 188.01 Mbit/s

95th percentile per-packet one-way delay: 210.644 ms

Loss rate: 1.74%

-- Flow 3:

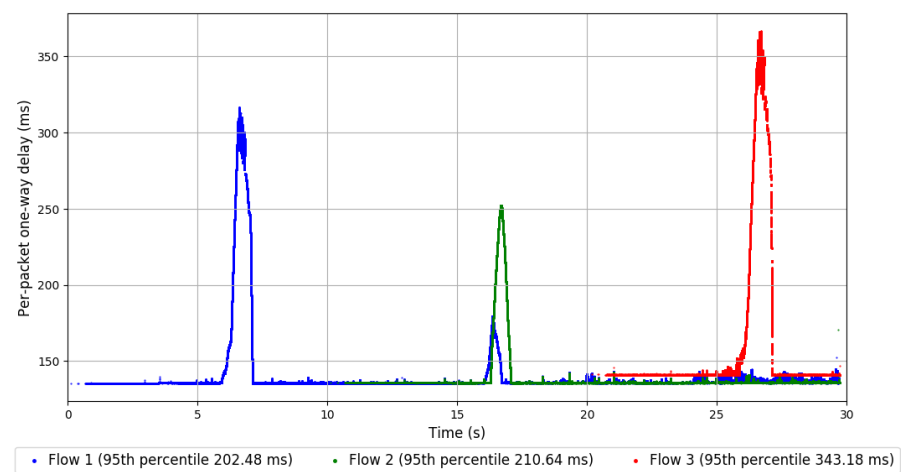
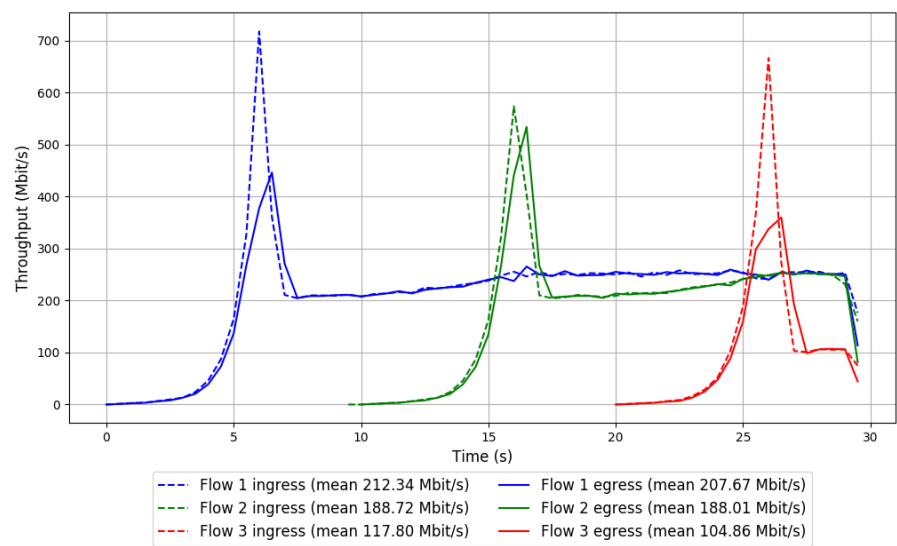
Average throughput: 104.86 Mbit/s

95th percentile per-packet one-way delay: 343.177 ms

Loss rate: 13.44%



Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-14 20:24:57

End at: 2018-03-14 20:25:27

# Below is generated by plot.py at 2018-03-15 03:52:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 441.09 Mbit/s

95th percentile per-packet one-way delay: 315.992 ms

Loss rate: 4.81%

-- Flow 1:

Average throughput: 225.92 Mbit/s

95th percentile per-packet one-way delay: 203.763 ms

Loss rate: 2.56%

-- Flow 2:

Average throughput: 245.67 Mbit/s

95th percentile per-packet one-way delay: 327.924 ms

Loss rate: 6.85%

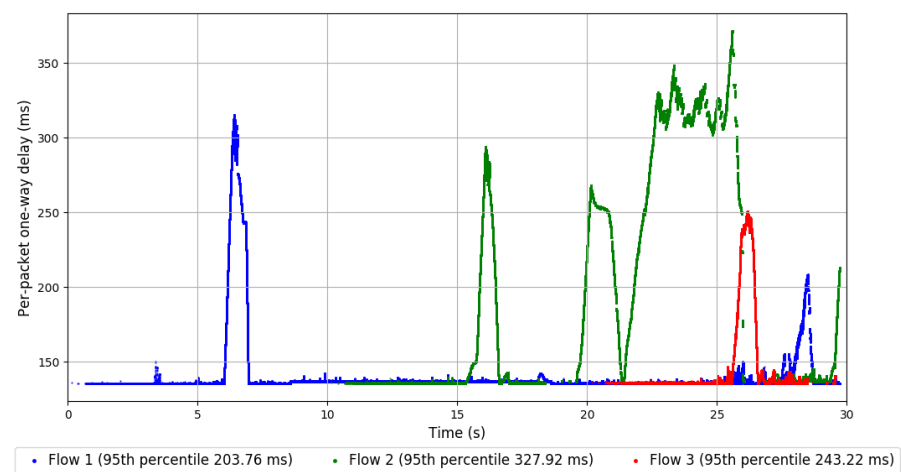
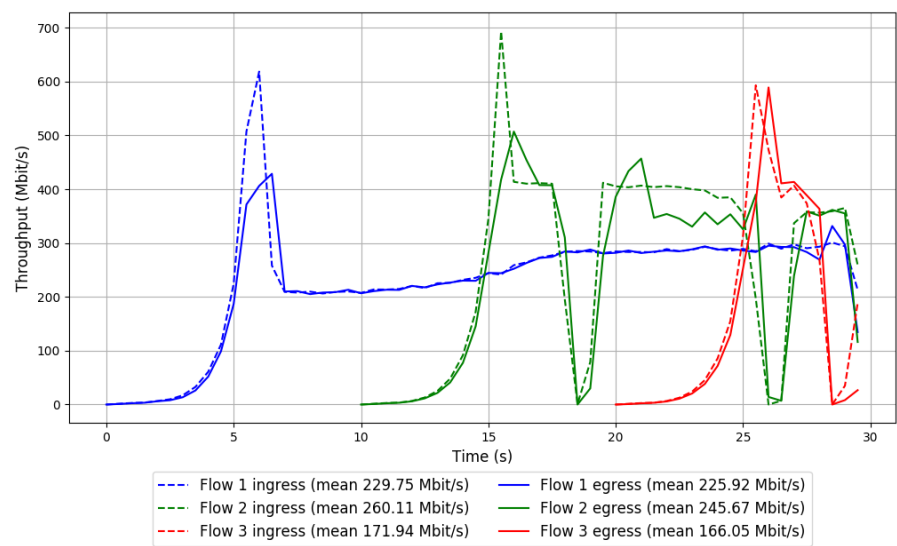
-- Flow 3:

Average throughput: 166.05 Mbit/s

95th percentile per-packet one-way delay: 243.218 ms

Loss rate: 7.73%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-14 20:45:11

End at: 2018-03-14 20:45:41

# Below is generated by plot.py at 2018-03-15 03:52:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 336.80 Mbit/s

95th percentile per-packet one-way delay: 239.930 ms

Loss rate: 3.06%

-- Flow 1:

Average throughput: 157.20 Mbit/s

95th percentile per-packet one-way delay: 266.675 ms

Loss rate: 4.69%

-- Flow 2:

Average throughput: 192.02 Mbit/s

95th percentile per-packet one-way delay: 177.057 ms

Loss rate: 2.08%

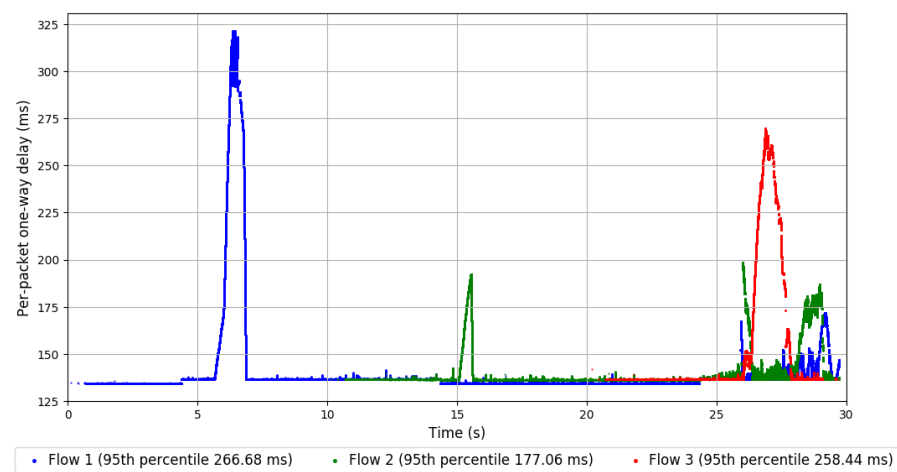
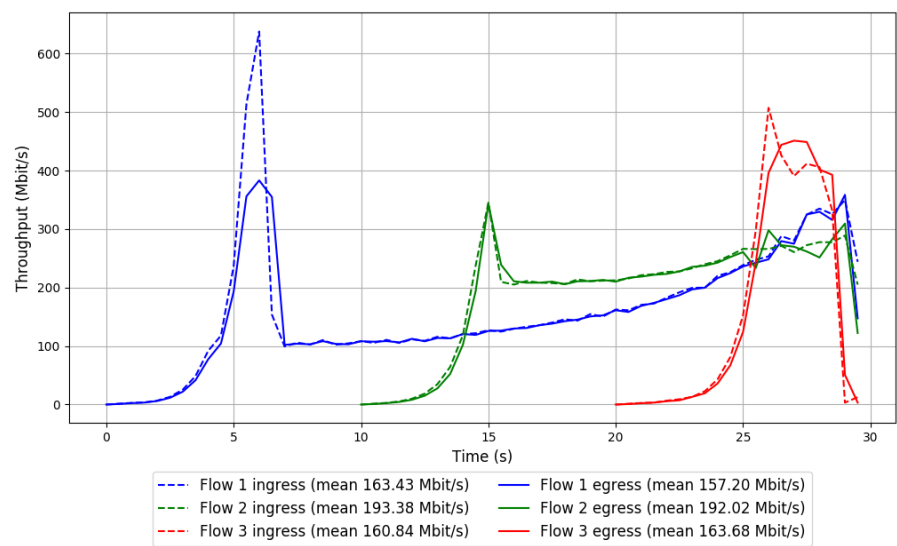
-- Flow 3:

Average throughput: 163.68 Mbit/s

95th percentile per-packet one-way delay: 258.445 ms

Loss rate: 0.40%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-14 21:04:45

End at: 2018-03-14 21:05:15

# Below is generated by plot.py at 2018-03-15 03:53:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 380.74 Mbit/s

95th percentile per-packet one-way delay: 331.865 ms

Loss rate: 2.76%

-- Flow 1:

Average throughput: 223.49 Mbit/s

95th percentile per-packet one-way delay: 342.234 ms

Loss rate: 2.88%

-- Flow 2:

Average throughput: 185.16 Mbit/s

95th percentile per-packet one-way delay: 145.821 ms

Loss rate: 1.93%

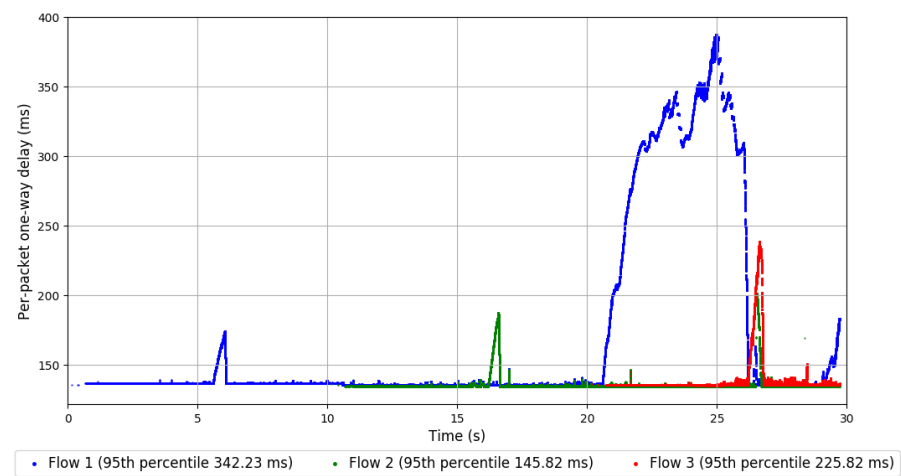
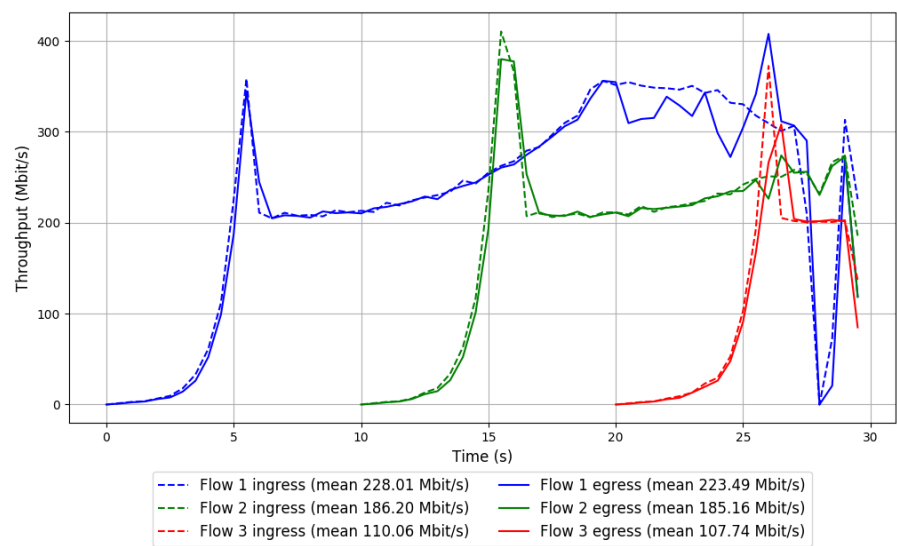
-- Flow 3:

Average throughput: 107.74 Mbit/s

95th percentile per-packet one-way delay: 225.824 ms

Loss rate: 4.83%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-14 21:24:39

End at: 2018-03-14 21:25:09

# Below is generated by plot.py at 2018-03-15 03:53:59

# Datalink statistics

-- Total of 3 flows:

Average throughput: 361.41 Mbit/s

95th percentile per-packet one-way delay: 256.990 ms

Loss rate: 2.88%

-- Flow 1:

Average throughput: 251.14 Mbit/s

95th percentile per-packet one-way delay: 198.649 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 114.11 Mbit/s

95th percentile per-packet one-way delay: 297.864 ms

Loss rate: 3.54%

-- Flow 3:

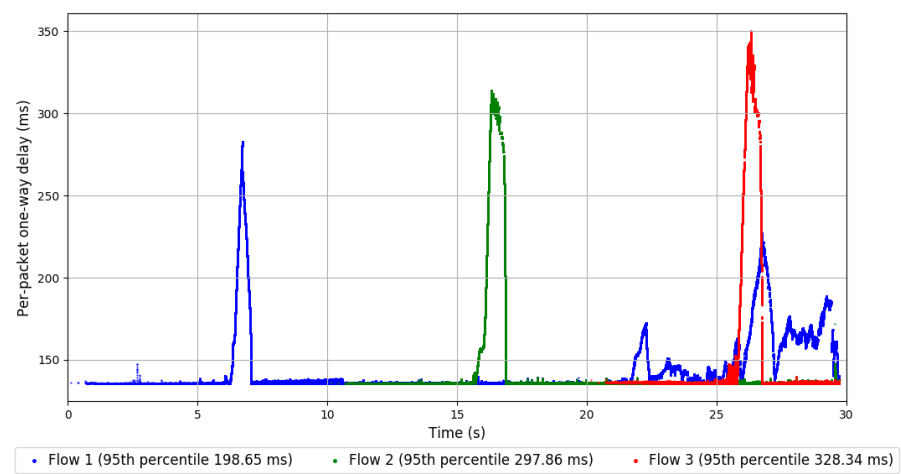
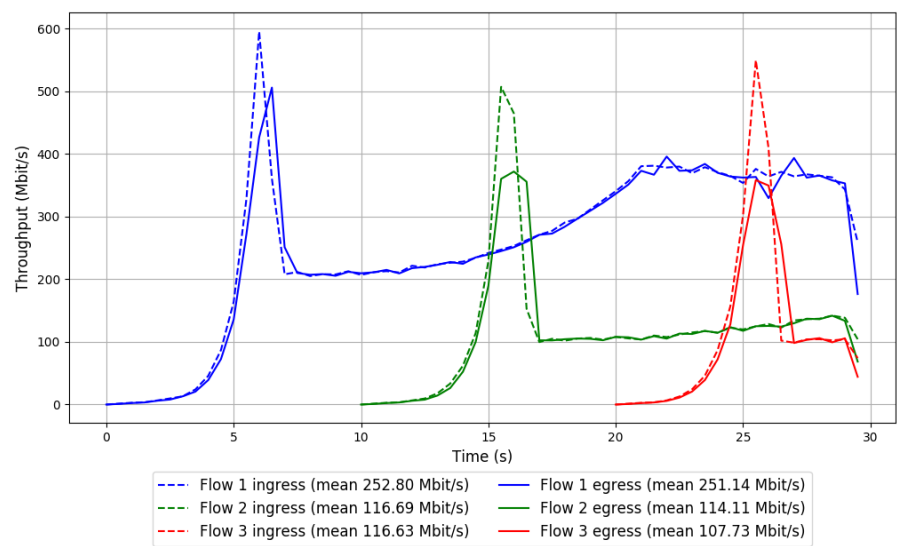
Average throughput: 107.73 Mbit/s

95th percentile per-packet one-way delay: 328.342 ms

Loss rate: 10.20%



Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-14 21:44:49

End at: 2018-03-14 21:45:19

# Below is generated by plot.py at 2018-03-15 03:54:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 354.55 Mbit/s

95th percentile per-packet one-way delay: 309.074 ms

Loss rate: 2.81%

-- Flow 1:

Average throughput: 236.54 Mbit/s

95th percentile per-packet one-way delay: 318.106 ms

Loss rate: 2.48%

-- Flow 2:

Average throughput: 108.33 Mbit/s

95th percentile per-packet one-way delay: 151.138 ms

Loss rate: 1.70%

-- Flow 3:

Average throughput: 143.59 Mbit/s

95th percentile per-packet one-way delay: 280.669 ms

Loss rate: 6.06%

Run 10: Report of Vivace-LTE — Data Link

