

Pantheon Report

Generated at 2018-04-18 10:09:56 (UTC).

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

Repeated the test of 16 congestion control schemes 10 times.

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

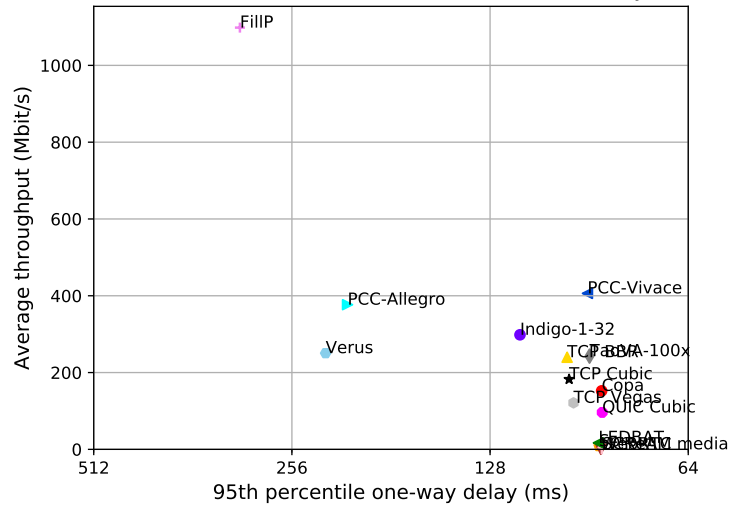
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

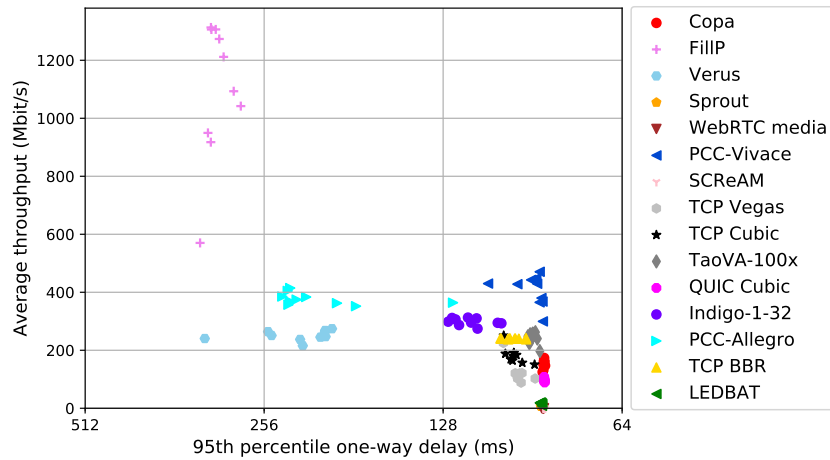
Git summary:

```
branch: master @ b3d6e7098641364fd3a292656a51aa81e316d0b4
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ 11f8c46a2bf1dc797253db7e8ca04076272b2a44
third_party/genericCC @ d223989828276fa83a807da6e0341dc0c7b89aec
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeab30b267cde681
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 @ f271183af822eee5d0031620f4bebf38aedc5581
```

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



Run 1: Statistics of TCP BBR

Start at: 2018-04-18 04:21:40

End at: 2018-04-18 04:22:10

Below is generated by plot.py at 2018-04-18 08:49:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.90 Mbit/s

95th percentile per-packet one-way delay: 92.872 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 124.55 Mbit/s

95th percentile per-packet one-way delay: 91.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 119.75 Mbit/s

95th percentile per-packet one-way delay: 93.233 ms

Loss rate: 0.01%

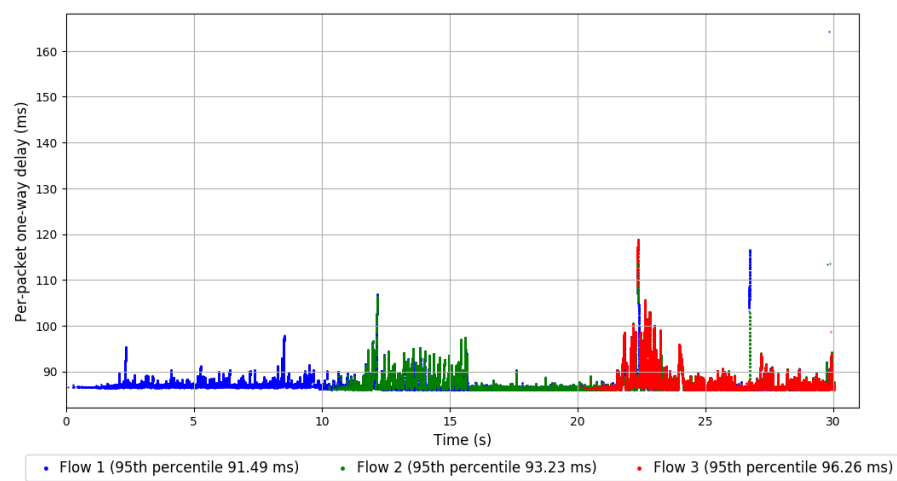
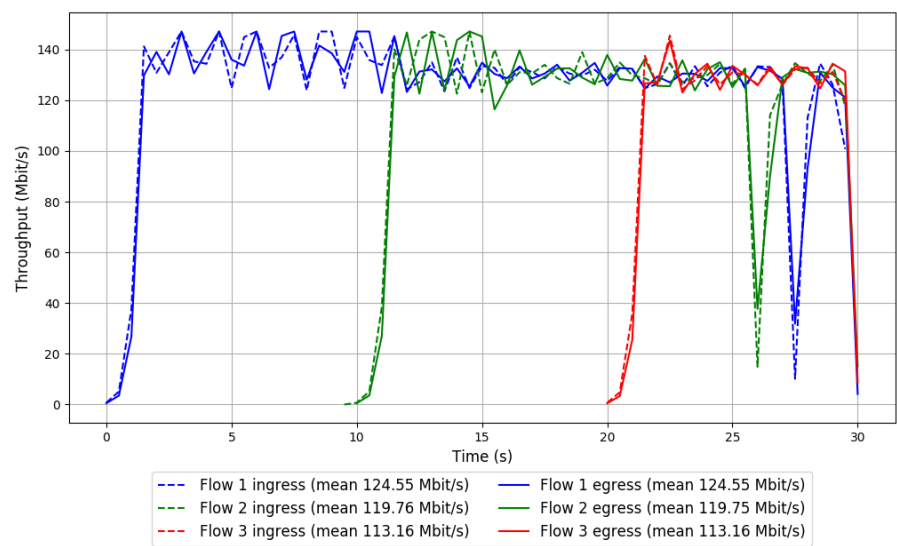
-- Flow 3:

Average throughput: 113.16 Mbit/s

95th percentile per-packet one-way delay: 96.259 ms

Loss rate: 0.01%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-04-18 04:38:07

End at: 2018-04-18 04:38:37

Below is generated by plot.py at 2018-04-18 08:49:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.69 Mbit/s

95th percentile per-packet one-way delay: 92.794 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 122.66 Mbit/s

95th percentile per-packet one-way delay: 91.232 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 117.85 Mbit/s

95th percentile per-packet one-way delay: 92.595 ms

Loss rate: 0.01%

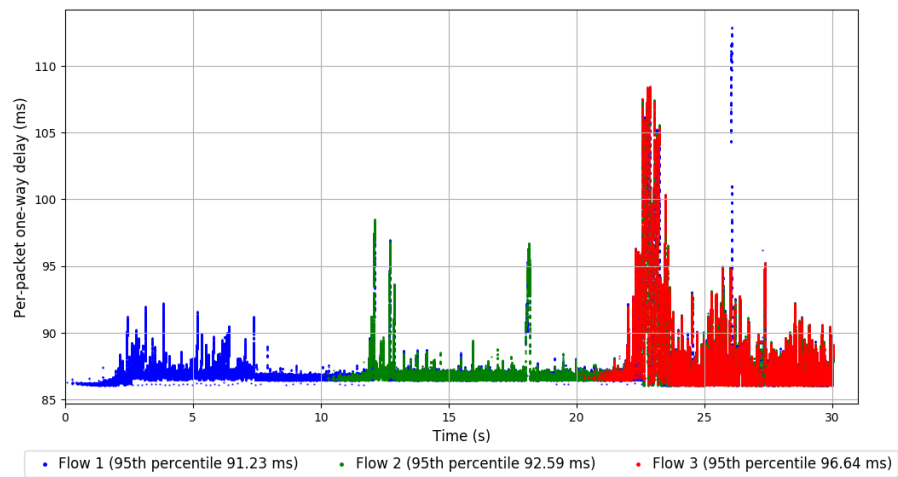
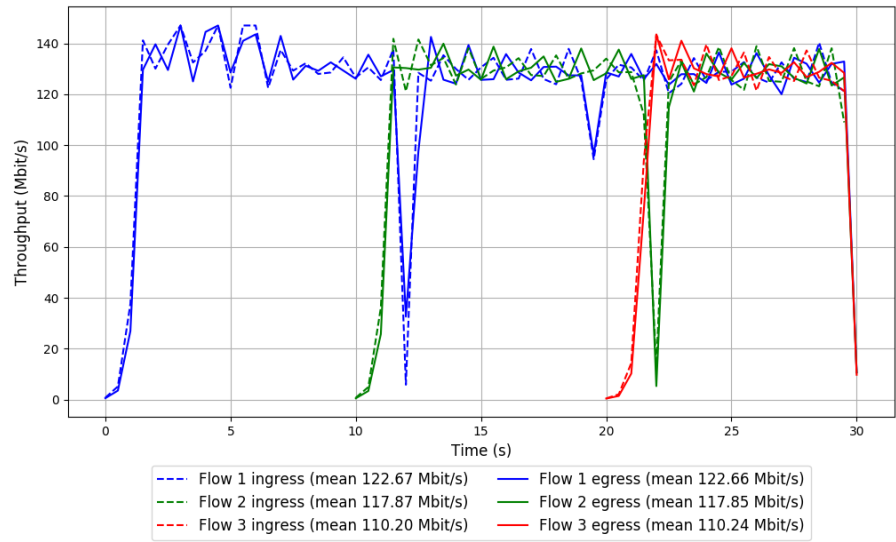
-- Flow 3:

Average throughput: 110.24 Mbit/s

95th percentile per-packet one-way delay: 96.640 ms

Loss rate: 0.03%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-04-18 04:54:35

End at: 2018-04-18 04:55:05

Below is generated by plot.py at 2018-04-18 08:49:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.63 Mbit/s

95th percentile per-packet one-way delay: 96.795 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 123.89 Mbit/s

95th percentile per-packet one-way delay: 94.329 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 118.79 Mbit/s

95th percentile per-packet one-way delay: 97.329 ms

Loss rate: 0.02%

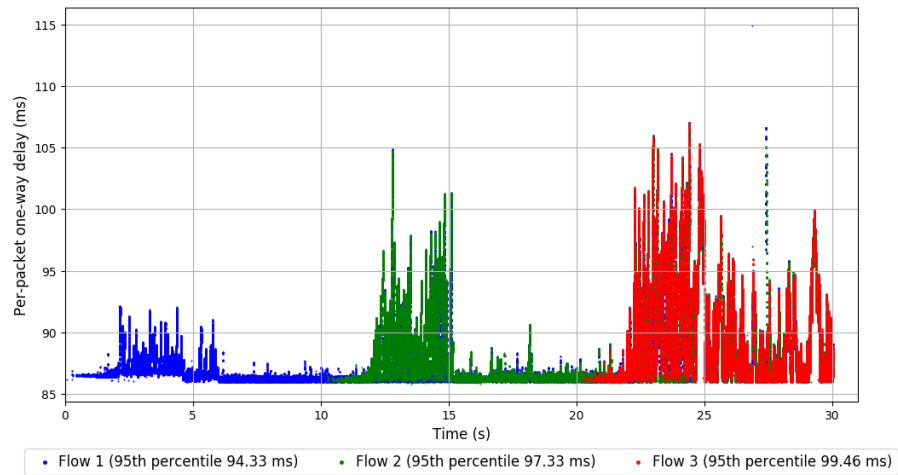
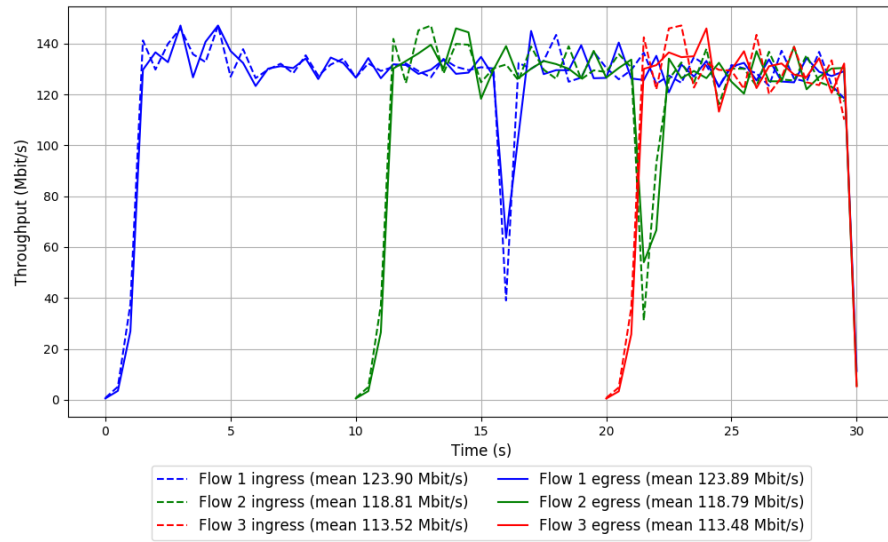
-- Flow 3:

Average throughput: 113.48 Mbit/s

95th percentile per-packet one-way delay: 99.460 ms

Loss rate: 0.03%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-04-18 05:10:41

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

Below is generated by plot.py at 2018-04-18 08:49:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.53 Mbit/s

95th percentile per-packet one-way delay: 102.541 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.23 Mbit/s

95th percentile per-packet one-way delay: 100.943 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 119.35 Mbit/s

95th percentile per-packet one-way delay: 102.155 ms

Loss rate: 0.00%

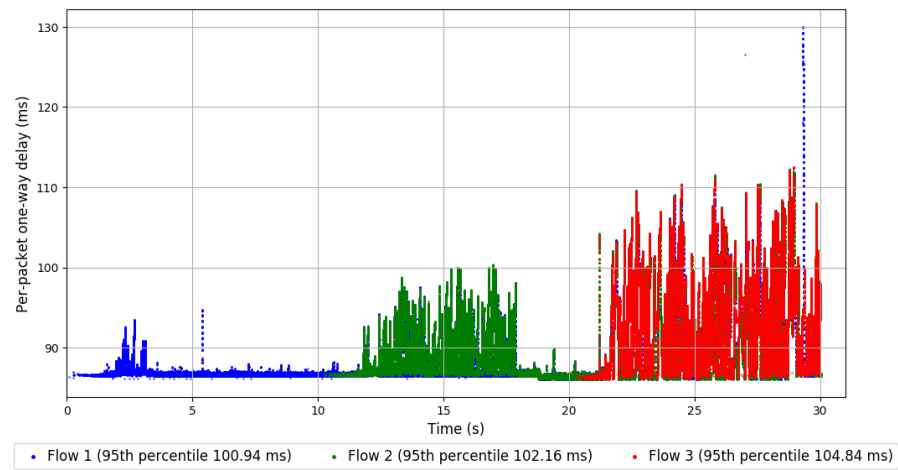
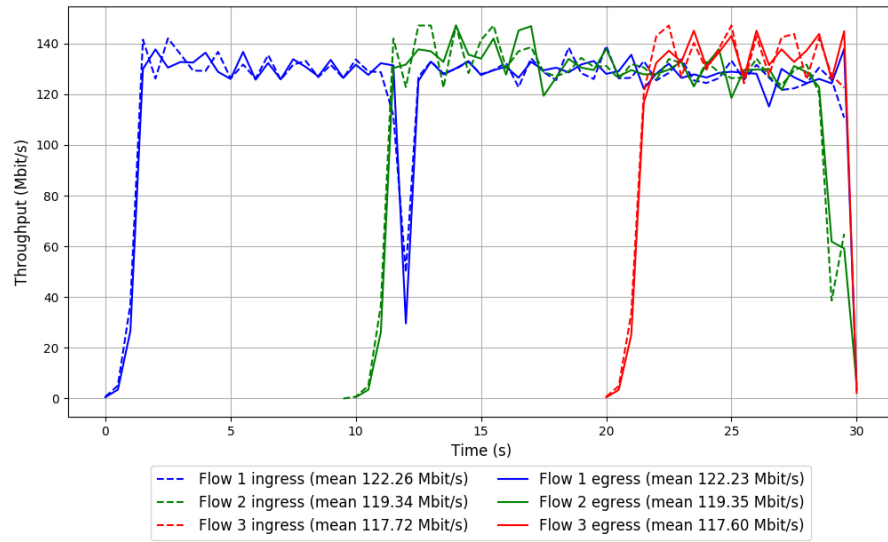
-- Flow 3:

Average throughput: 117.60 Mbit/s

95th percentile per-packet one-way delay: 104.837 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-04-18 05:27:09

End at: 2018-04-18 05:27:39

Below is generated by plot.py at 2018-04-18 08:49:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.03 Mbit/s

95th percentile per-packet one-way delay: 102.217 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 123.91 Mbit/s

95th percentile per-packet one-way delay: 100.062 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 116.65 Mbit/s

95th percentile per-packet one-way delay: 101.571 ms

Loss rate: 0.05%

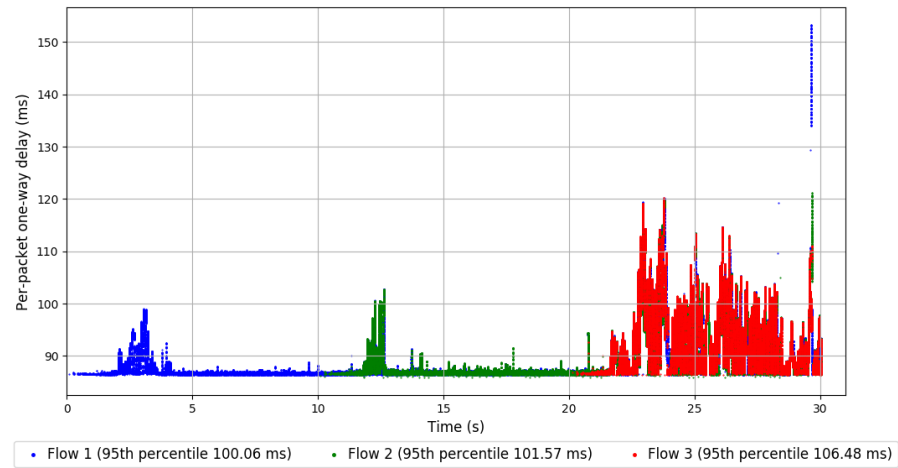
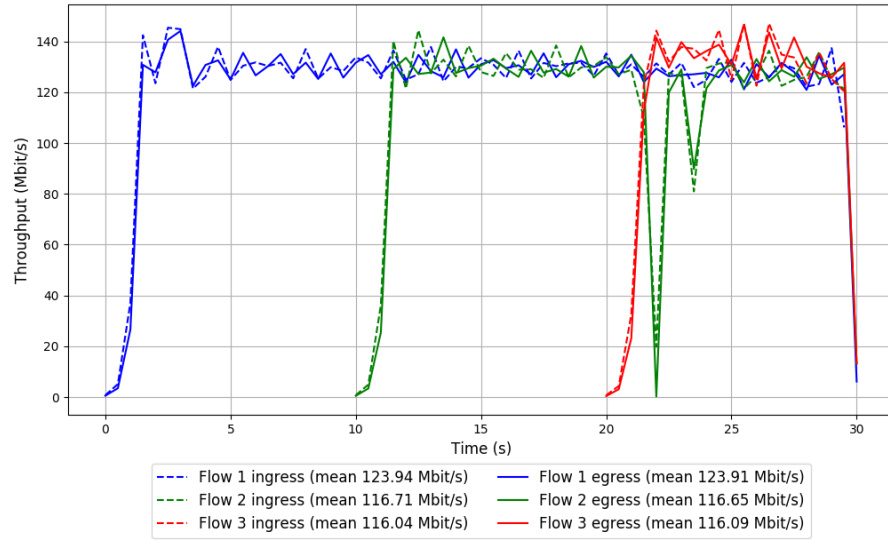
-- Flow 3:

Average throughput: 116.09 Mbit/s

95th percentile per-packet one-way delay: 106.482 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-04-18 05:43:35

End at: 2018-04-18 05:44:05

Below is generated by plot.py at 2018-04-18 08:49:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.75 Mbit/s

95th percentile per-packet one-way delay: 99.509 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 119.99 Mbit/s

95th percentile per-packet one-way delay: 97.204 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 121.47 Mbit/s

95th percentile per-packet one-way delay: 99.888 ms

Loss rate: 0.04%

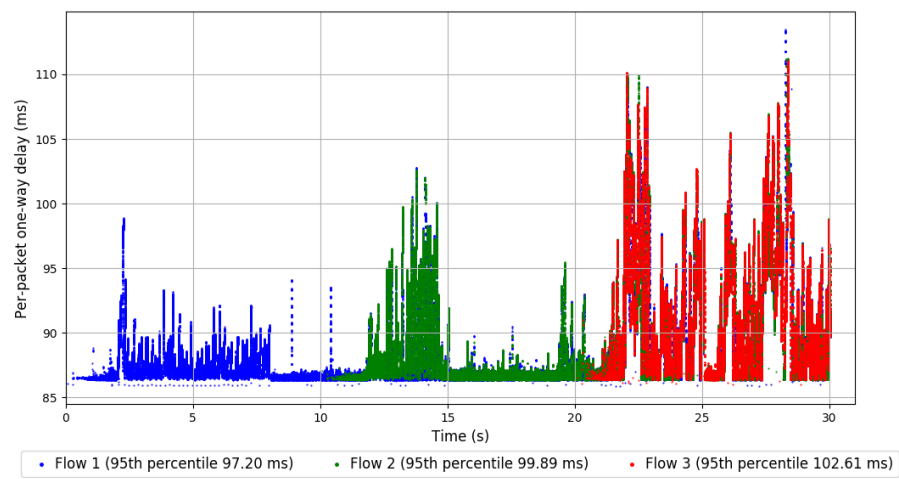
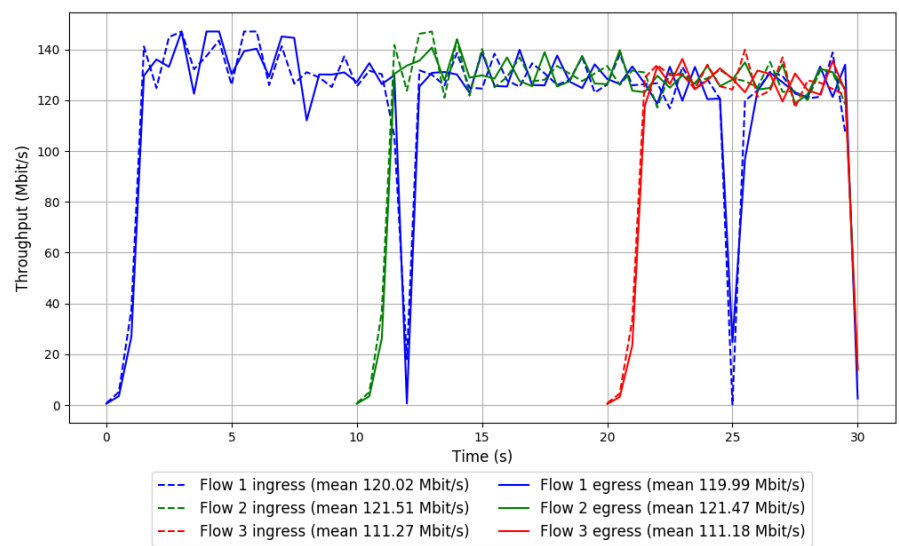
-- Flow 3:

Average throughput: 111.18 Mbit/s

95th percentile per-packet one-way delay: 102.615 ms

Loss rate: 0.08%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-04-18 05:59:56

End at: 2018-04-18 06:00:26

Below is generated by plot.py at 2018-04-18 08:49:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.44 Mbit/s

95th percentile per-packet one-way delay: 98.847 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.99 Mbit/s

95th percentile per-packet one-way delay: 97.410 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.65 Mbit/s

95th percentile per-packet one-way delay: 98.395 ms

Loss rate: 0.00%

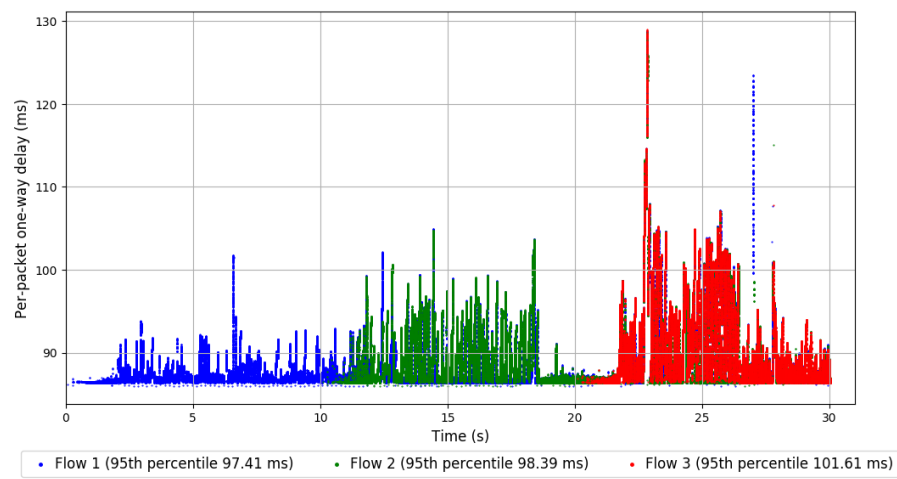
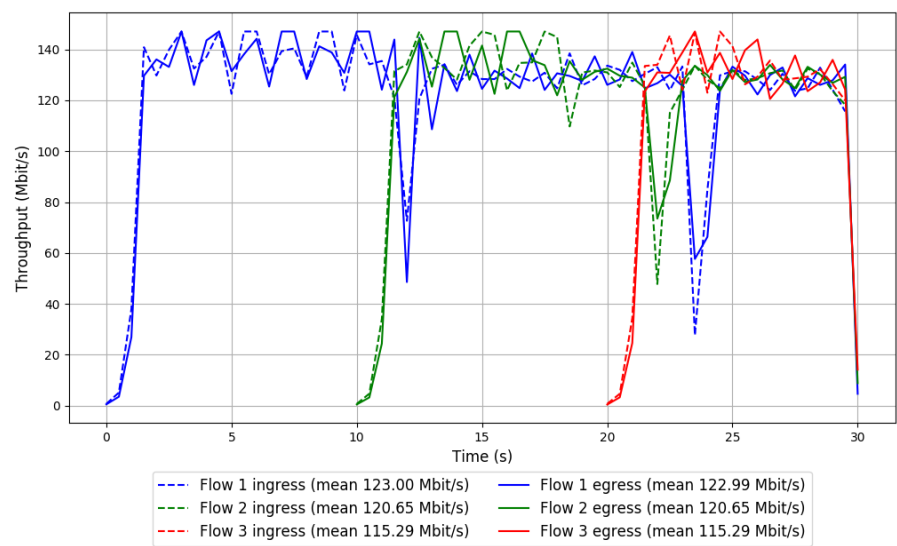
-- Flow 3:

Average throughput: 115.29 Mbit/s

95th percentile per-packet one-way delay: 101.615 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-04-18 06:16:07

End at: 2018-04-18 06:16:37

Below is generated by plot.py at 2018-04-18 08:49:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.90 Mbit/s

95th percentile per-packet one-way delay: 95.489 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 124.47 Mbit/s

95th percentile per-packet one-way delay: 94.505 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 117.26 Mbit/s

95th percentile per-packet one-way delay: 95.355 ms

Loss rate: 0.01%

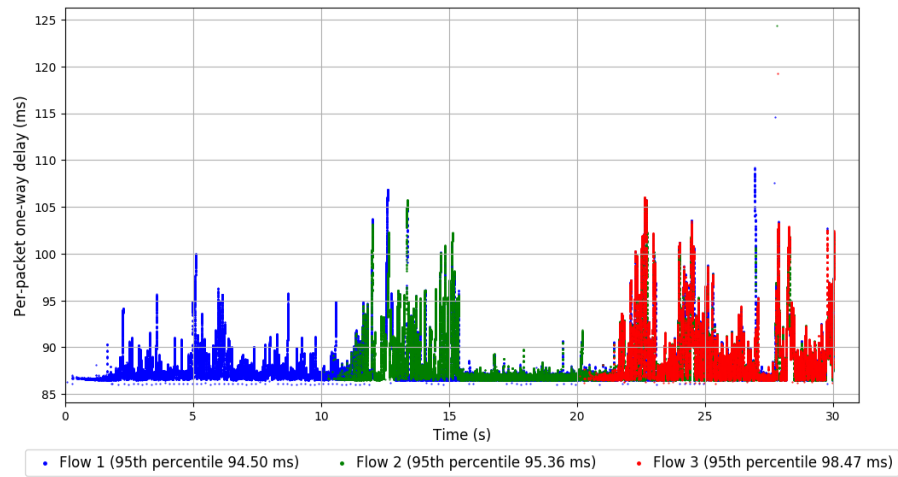
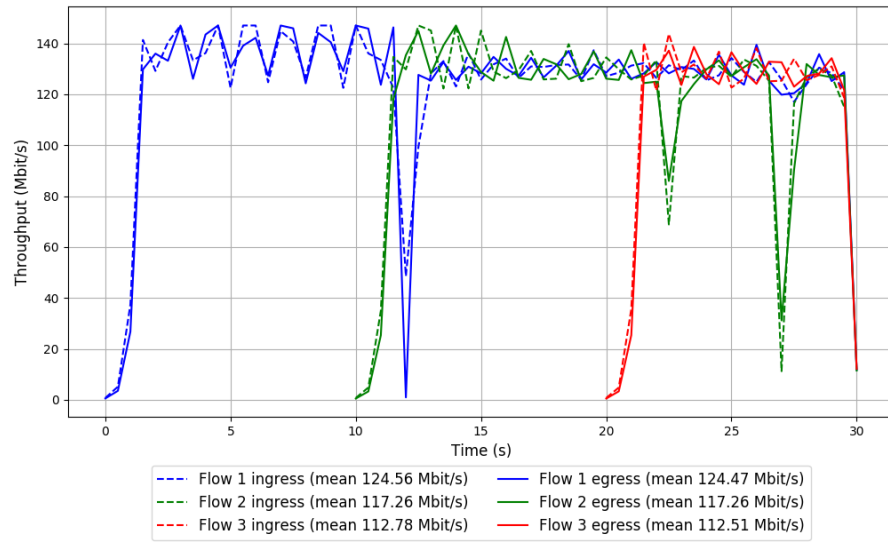
-- Flow 3:

Average throughput: 112.51 Mbit/s

95th percentile per-packet one-way delay: 98.468 ms

Loss rate: 0.24%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-04-18 06:32:25

End at: 2018-04-18 06:32:55

Below is generated by plot.py at 2018-04-18 08:53:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.50 Mbit/s

95th percentile per-packet one-way delay: 99.546 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 122.98 Mbit/s

95th percentile per-packet one-way delay: 96.891 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 118.41 Mbit/s

95th percentile per-packet one-way delay: 100.780 ms

Loss rate: 0.00%

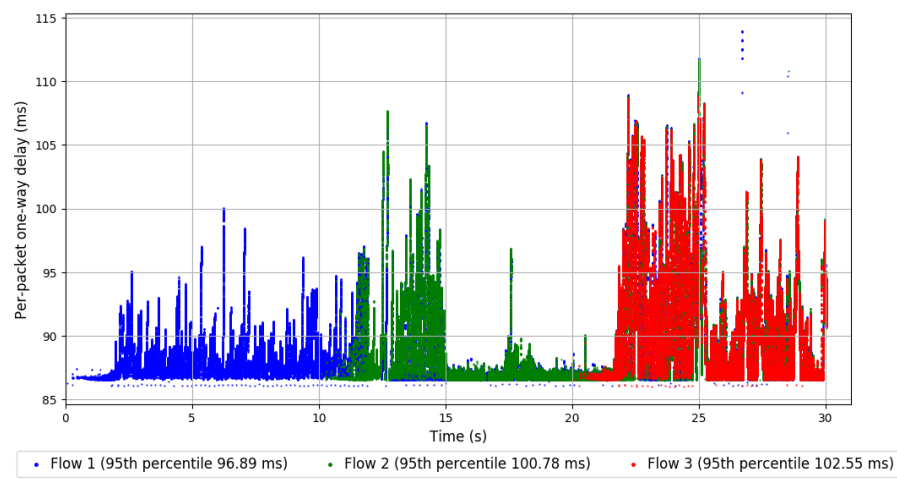
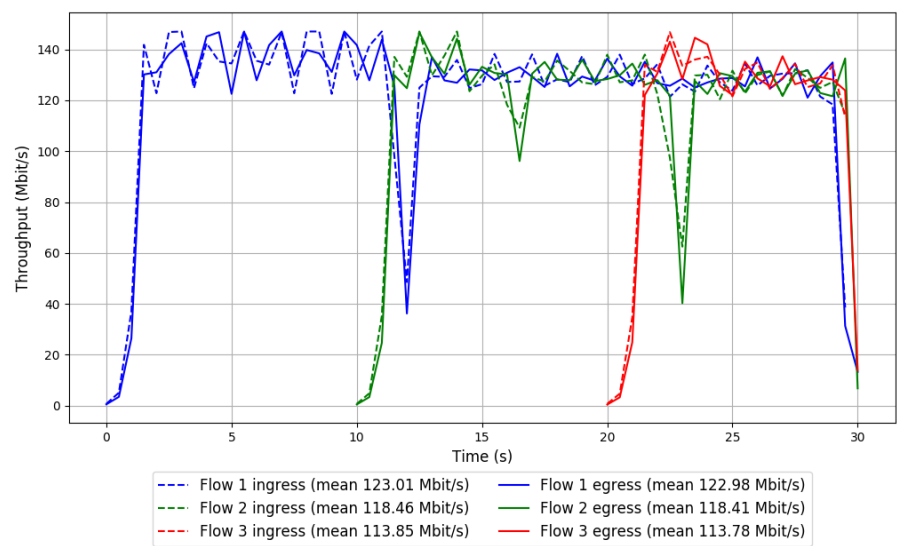
-- Flow 3:

Average throughput: 113.78 Mbit/s

95th percentile per-packet one-way delay: 102.548 ms

Loss rate: 0.06%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-04-18 06:48:44

End at: 2018-04-18 06:49:14

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.07 Mbit/s

95th percentile per-packet one-way delay: 97.000 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 123.26 Mbit/s

95th percentile per-packet one-way delay: 94.022 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 118.62 Mbit/s

95th percentile per-packet one-way delay: 97.271 ms

Loss rate: 0.01%

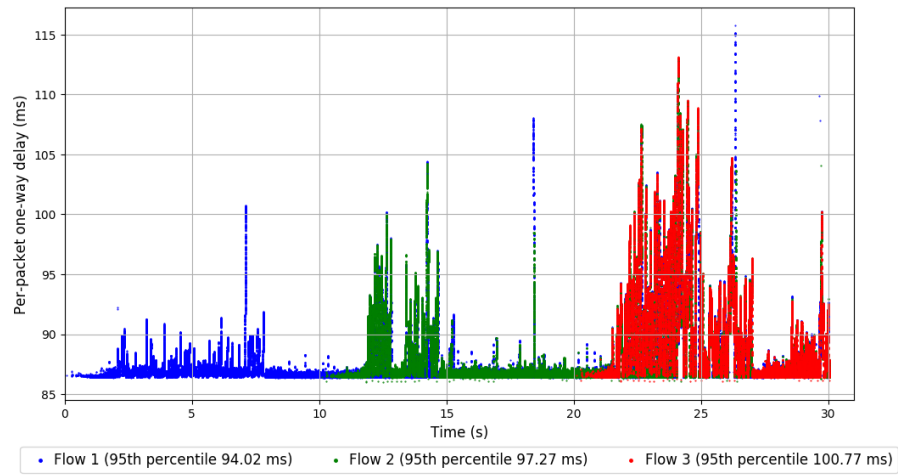
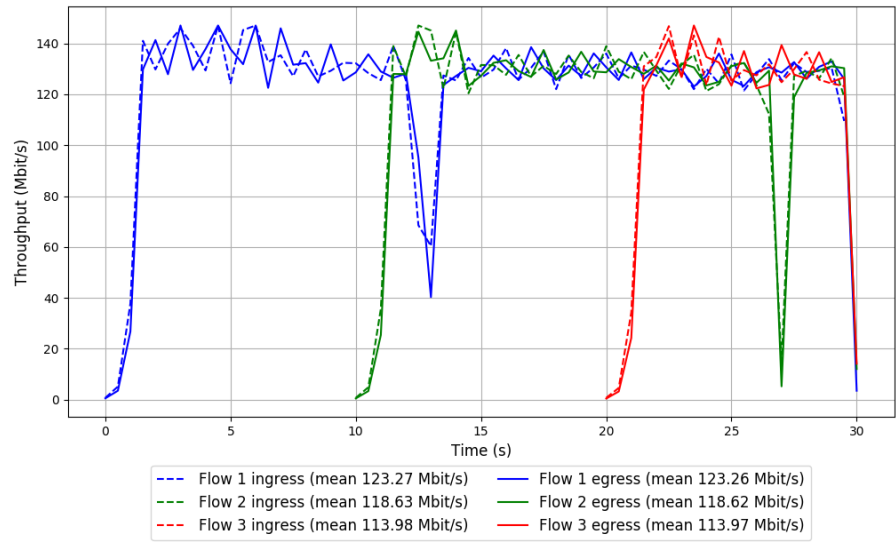
-- Flow 3:

Average throughput: 113.97 Mbit/s

95th percentile per-packet one-way delay: 100.770 ms

Loss rate: 0.01%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-04-18 04:14:23

End at: 2018-04-18 04:14:53

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.66 Mbit/s

95th percentile per-packet one-way delay: 89.829 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 86.84 Mbit/s

95th percentile per-packet one-way delay: 88.955 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.57 Mbit/s

95th percentile per-packet one-way delay: 92.922 ms

Loss rate: 0.00%

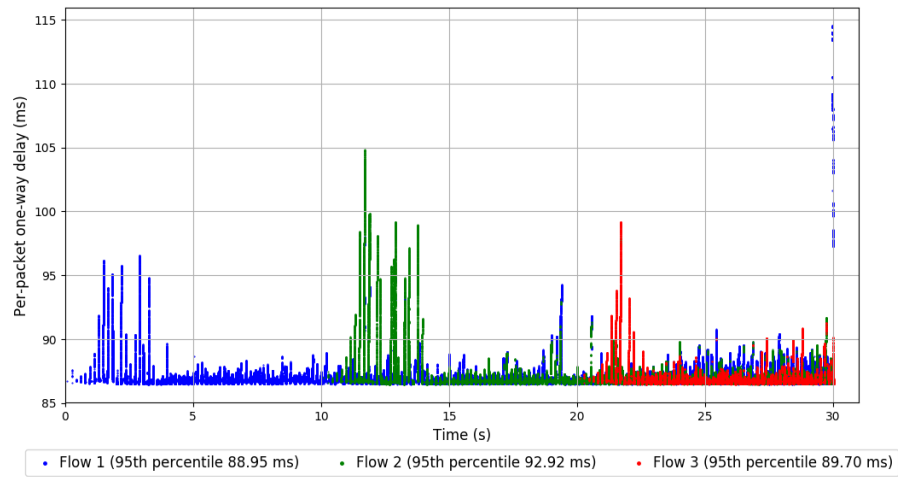
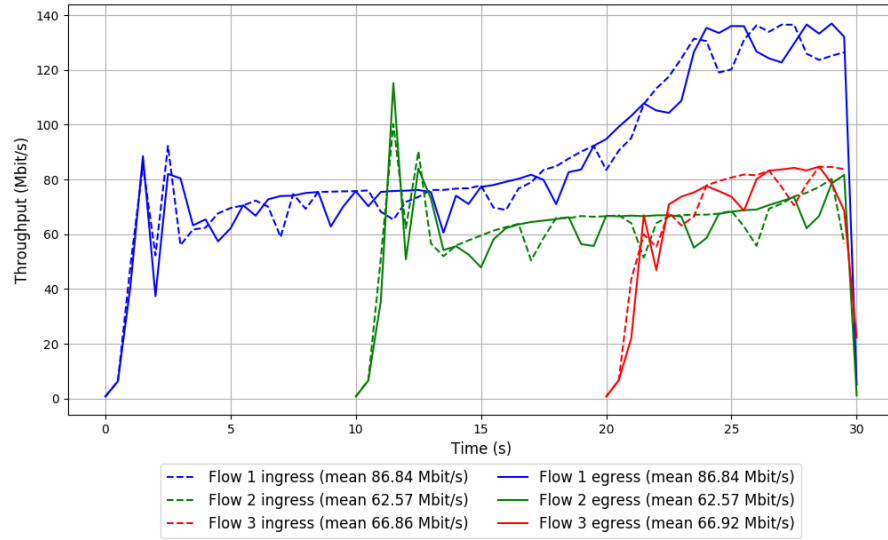
-- Flow 3:

Average throughput: 66.92 Mbit/s

95th percentile per-packet one-way delay: 89.696 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-04-18 04:30:46

End at: 2018-04-18 04:31:16

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 168.80 Mbit/s

95th percentile per-packet one-way delay: 98.522 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 91.38 Mbit/s

95th percentile per-packet one-way delay: 98.027 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 81.24 Mbit/s

95th percentile per-packet one-way delay: 97.557 ms

Loss rate: 0.00%

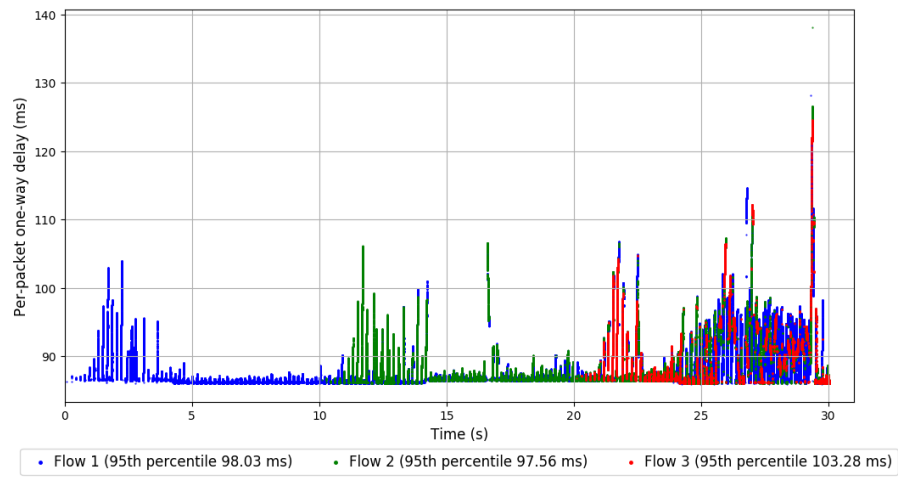
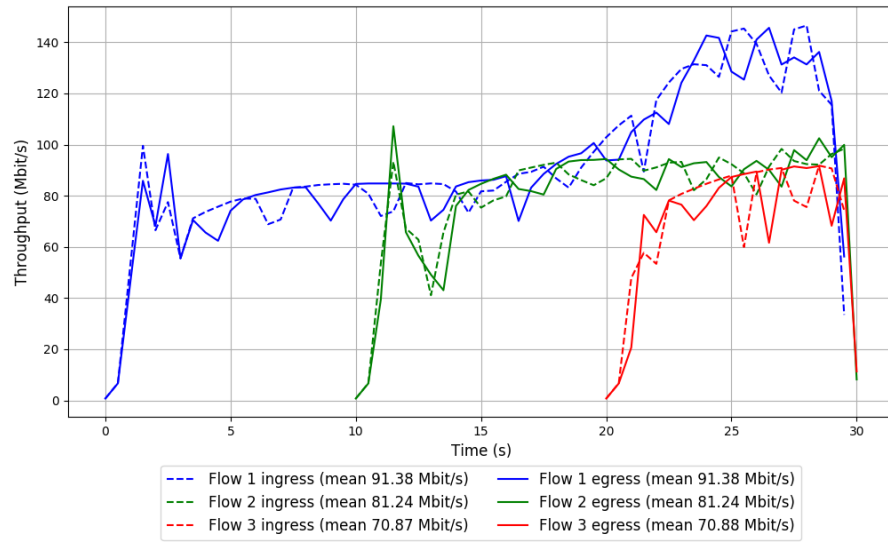
-- Flow 3:

Average throughput: 70.88 Mbit/s

95th percentile per-packet one-way delay: 103.282 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-04-18 04:47:14

End at: 2018-04-18 04:47:44

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.33 Mbit/s

95th percentile per-packet one-way delay: 97.346 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 84.42 Mbit/s

95th percentile per-packet one-way delay: 96.167 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 129.45 Mbit/s

95th percentile per-packet one-way delay: 97.652 ms

Loss rate: 0.00%

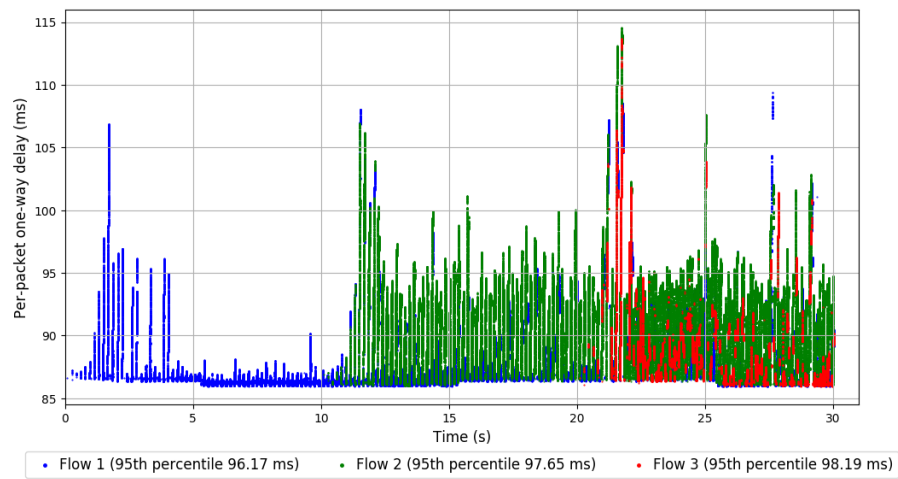
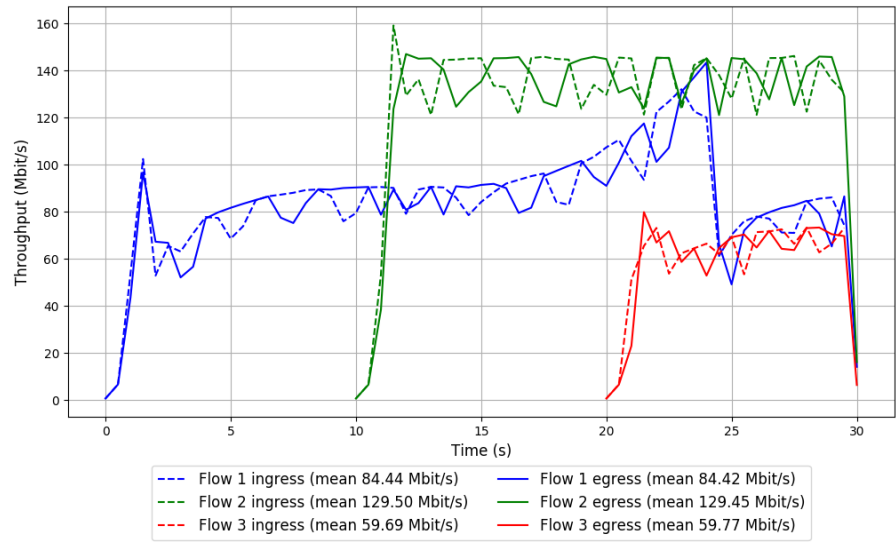
-- Flow 3:

Average throughput: 59.77 Mbit/s

95th percentile per-packet one-way delay: 98.192 ms

Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-04-18 05:03:26

End at: 2018-04-18 05:03:56

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.91 Mbit/s

95th percentile per-packet one-way delay: 96.364 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 102.75 Mbit/s

95th percentile per-packet one-way delay: 95.810 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.69 Mbit/s

95th percentile per-packet one-way delay: 97.076 ms

Loss rate: 0.00%

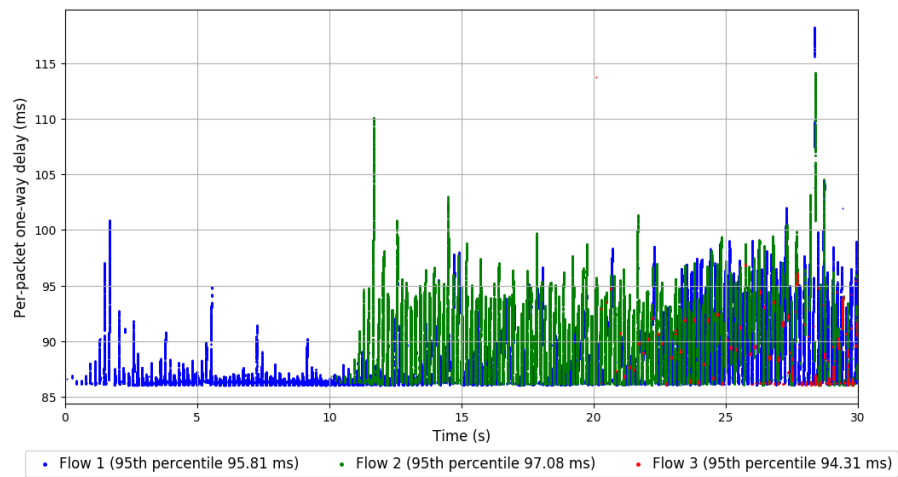
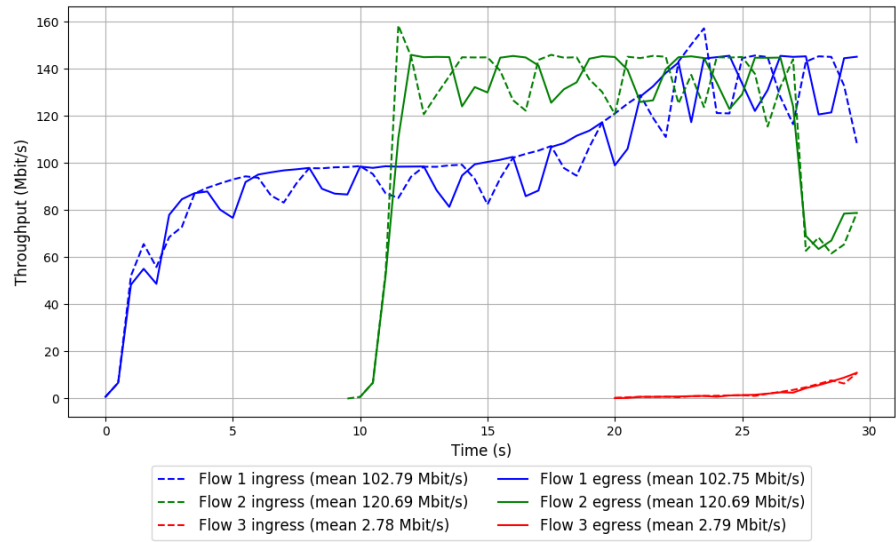
-- Flow 3:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 94.311 ms

Loss rate: 0.30%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-04-18 05:19:50

End at: 2018-04-18 05:20:20

Below is generated by plot.py at 2018-04-18 08:53:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 188.12 Mbit/s

95th percentile per-packet one-way delay: 100.574 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 87.73 Mbit/s

95th percentile per-packet one-way delay: 98.164 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 92.09 Mbit/s

95th percentile per-packet one-way delay: 100.504 ms

Loss rate: 0.00%

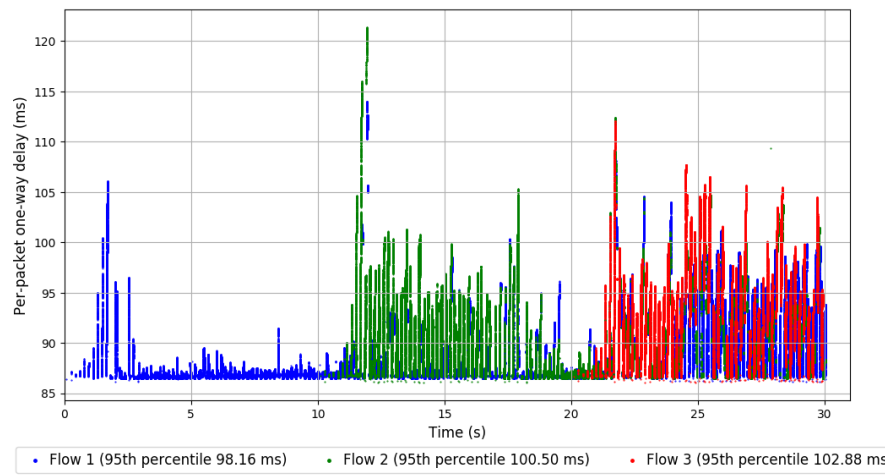
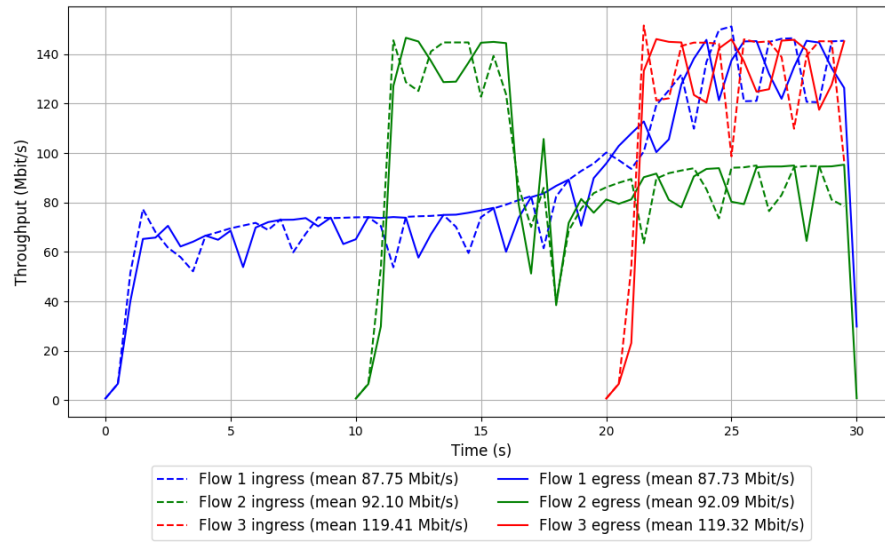
-- Flow 3:

Average throughput: 119.32 Mbit/s

95th percentile per-packet one-way delay: 102.879 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-04-18 05:36:11

End at: 2018-04-18 05:36:41

Below is generated by plot.py at 2018-04-18 08:53:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.51 Mbit/s

95th percentile per-packet one-way delay: 101.251 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 126.07 Mbit/s

95th percentile per-packet one-way delay: 99.047 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 128.03 Mbit/s

95th percentile per-packet one-way delay: 102.356 ms

Loss rate: 0.00%

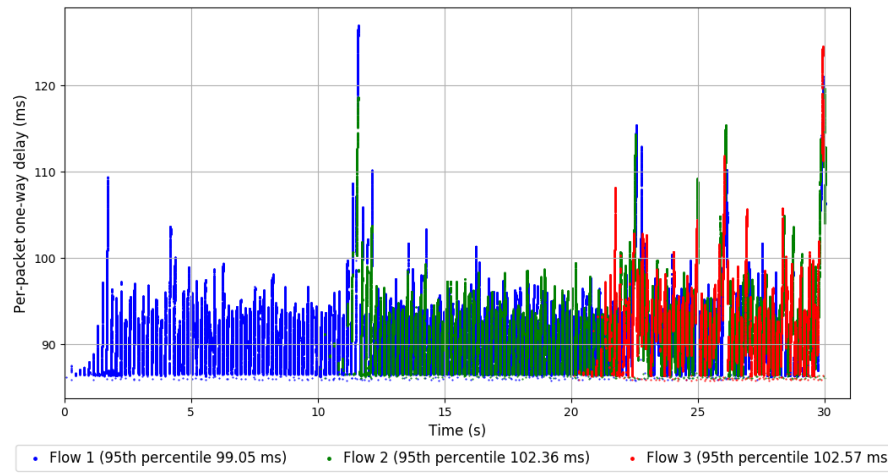
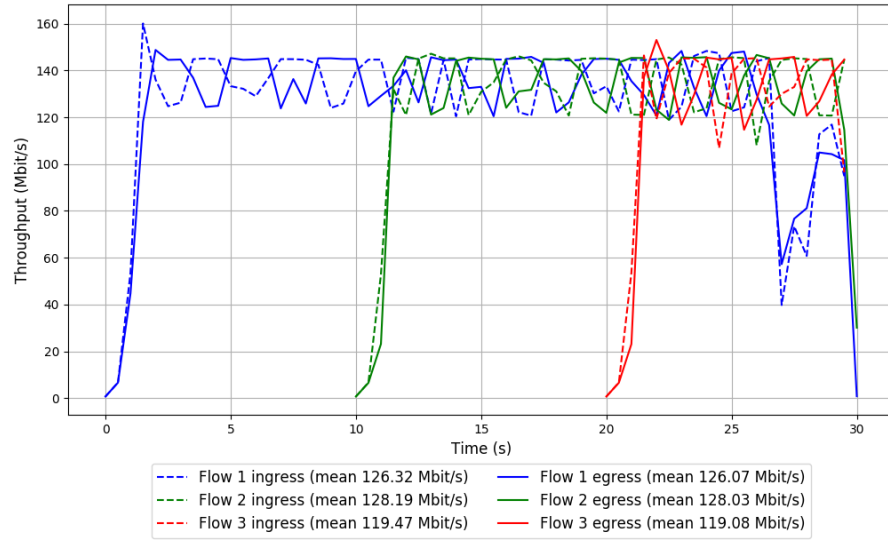
-- Flow 3:

Average throughput: 119.08 Mbit/s

95th percentile per-packet one-way delay: 102.573 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-04-18 05:52:38

End at: 2018-04-18 05:53:08

Below is generated by plot.py at 2018-04-18 08:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.26 Mbit/s

95th percentile per-packet one-way delay: 97.553 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 74.97 Mbit/s

95th percentile per-packet one-way delay: 96.881 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.07 Mbit/s

95th percentile per-packet one-way delay: 97.371 ms

Loss rate: 0.02%

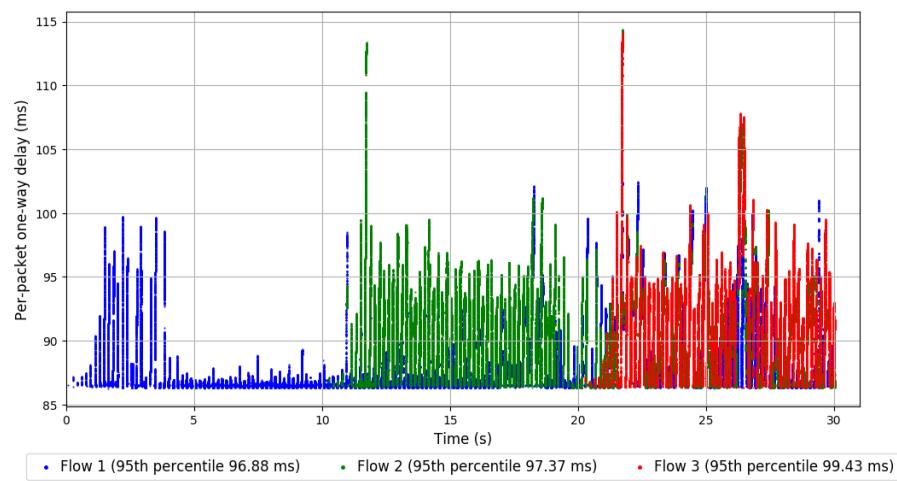
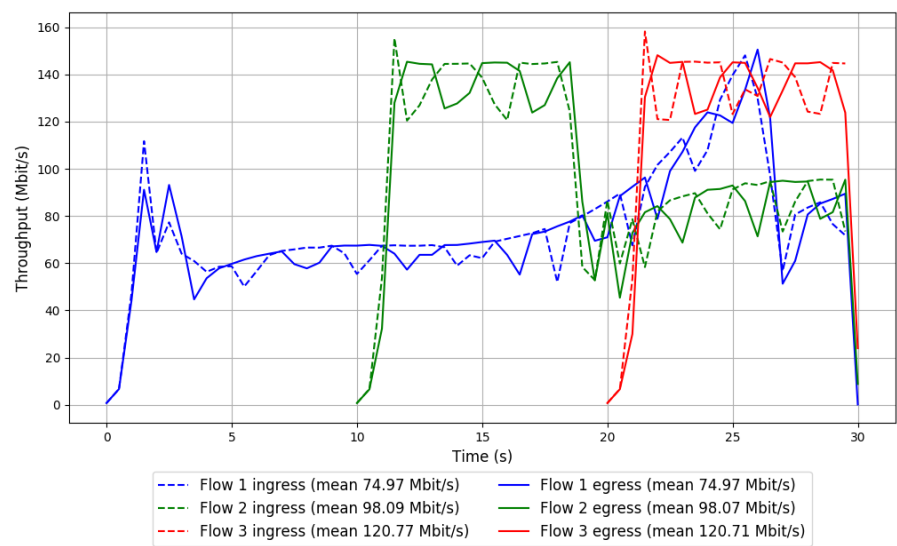
-- Flow 3:

Average throughput: 120.71 Mbit/s

95th percentile per-packet one-way delay: 99.428 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-04-18 06:08:49

End at: 2018-04-18 06:09:19

Below is generated by plot.py at 2018-04-18 08:54:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.89 Mbit/s

95th percentile per-packet one-way delay: 94.201 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 80.46 Mbit/s

95th percentile per-packet one-way delay: 92.873 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.77 Mbit/s

95th percentile per-packet one-way delay: 94.429 ms

Loss rate: 0.00%

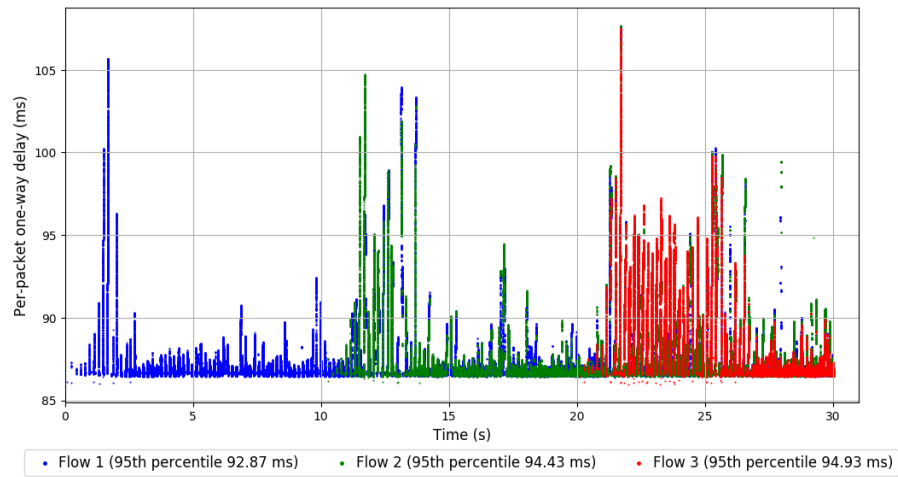
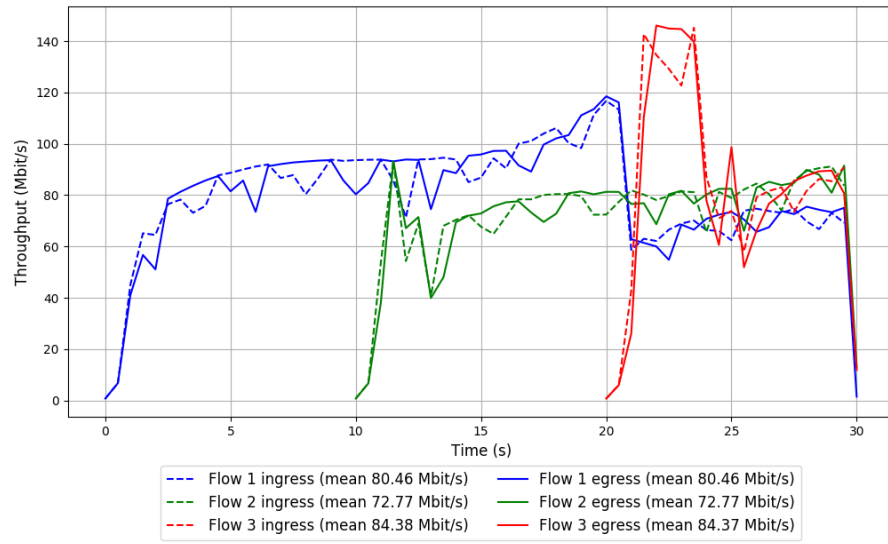
-- Flow 3:

Average throughput: 84.37 Mbit/s

95th percentile per-packet one-way delay: 94.932 ms

Loss rate: 0.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-04-18 06:25:06

End at: 2018-04-18 06:25:36

Below is generated by plot.py at 2018-04-18 08:55:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 164.49 Mbit/s

95th percentile per-packet one-way delay: 97.836 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 108.34 Mbit/s

95th percentile per-packet one-way delay: 98.831 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 83.32 Mbit/s

95th percentile per-packet one-way delay: 95.944 ms

Loss rate: 0.00%

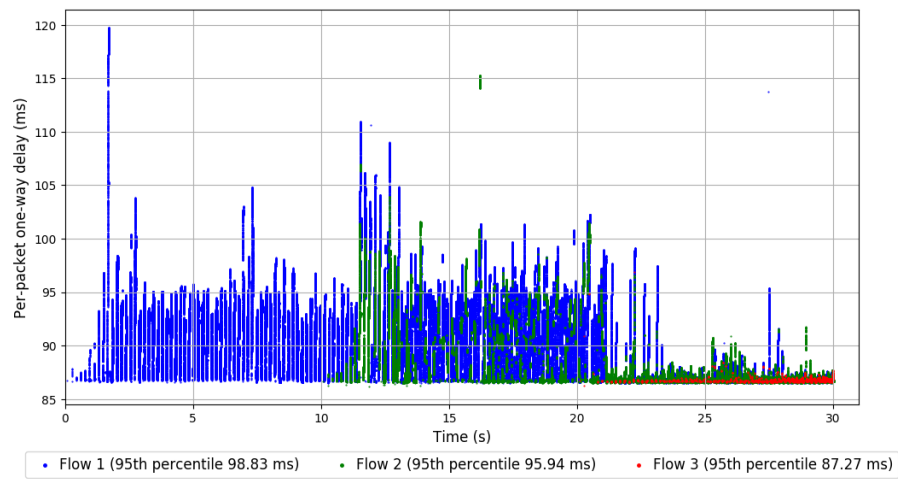
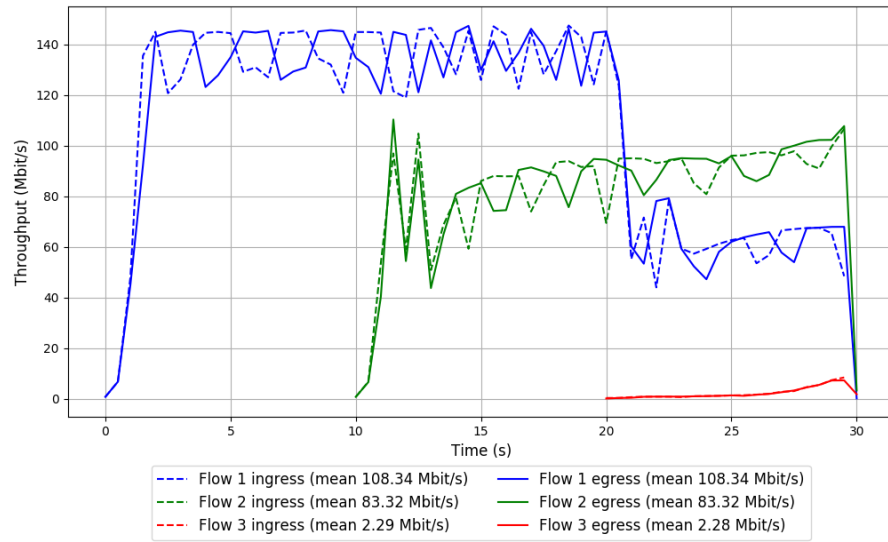
-- Flow 3:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 87.274 ms

Loss rate: 0.48%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-04-18 06:41:23

End at: 2018-04-18 06:41:53

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 191.07 Mbit/s

95th percentile per-packet one-way delay: 97.353 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 96.004 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 85.83 Mbit/s

95th percentile per-packet one-way delay: 97.223 ms

Loss rate: 0.04%

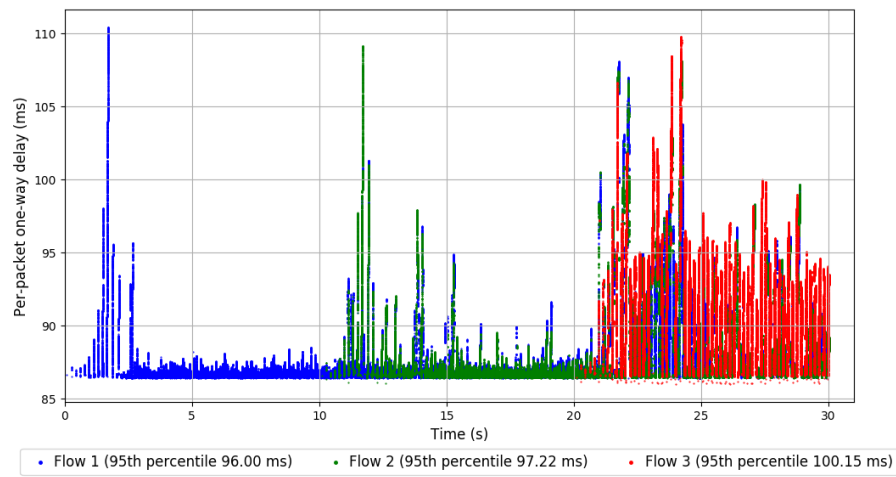
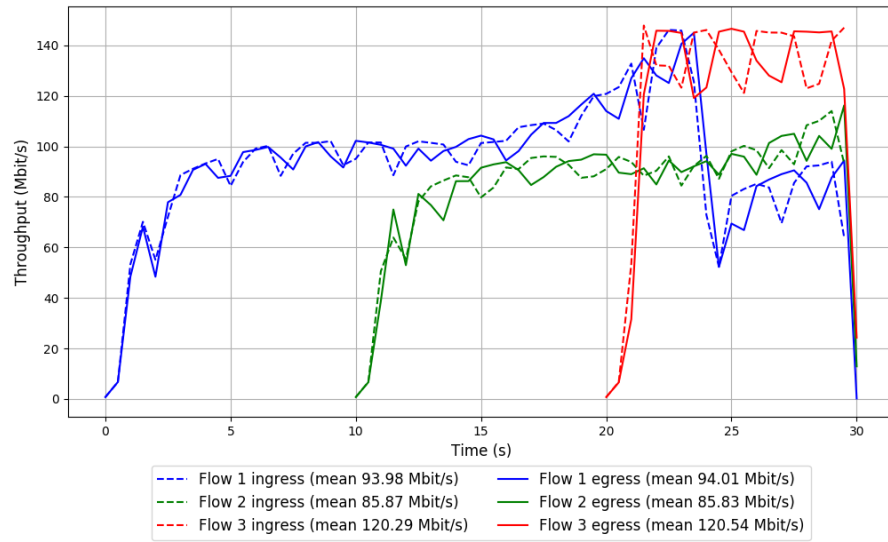
-- Flow 3:

Average throughput: 120.54 Mbit/s

95th percentile per-packet one-way delay: 100.151 ms

Loss rate: 0.00%

Run 10: Report of TCP Cubic — Data Link

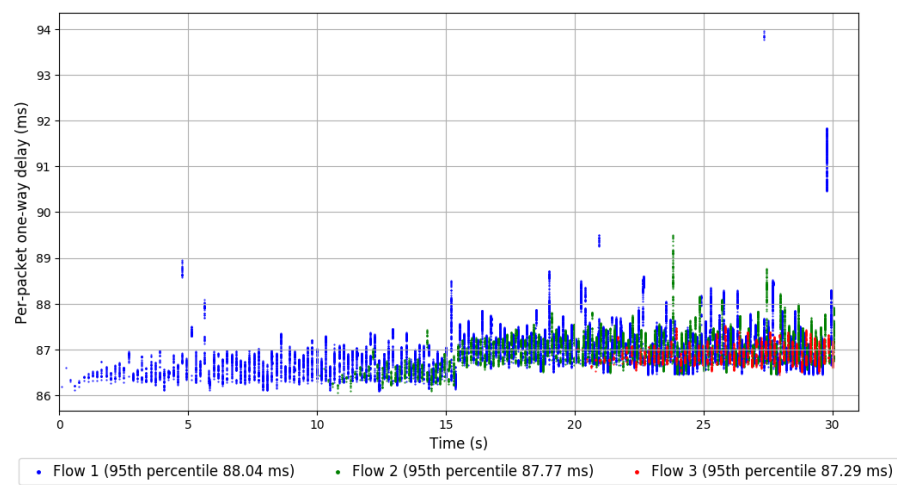
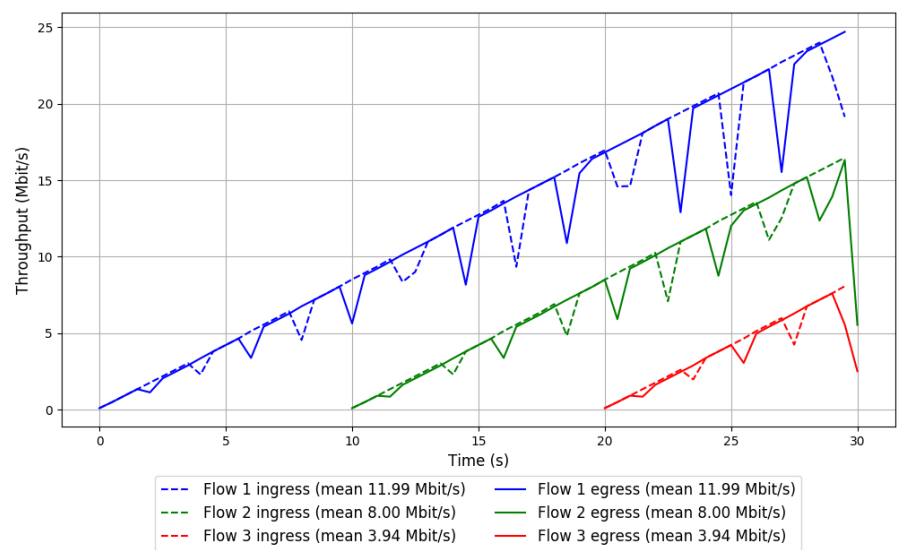


```
Run 1: Statistics of LEDBAT

Start at: 2018-04-18 04:16:14
End at: 2018-04-18 04:16:44

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.58 Mbit/s
95th percentile per-packet one-way delay: 87.899 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 88.040 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 8.00 Mbit/s
95th percentile per-packet one-way delay: 87.770 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 87.291 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

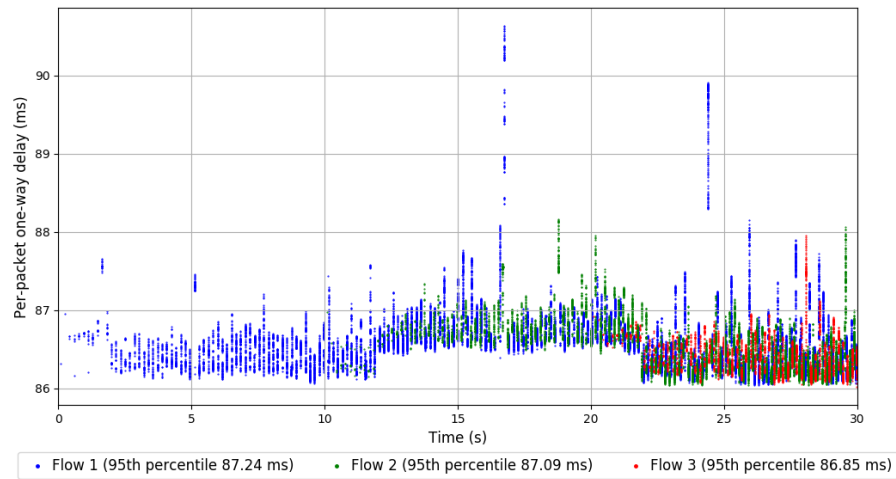
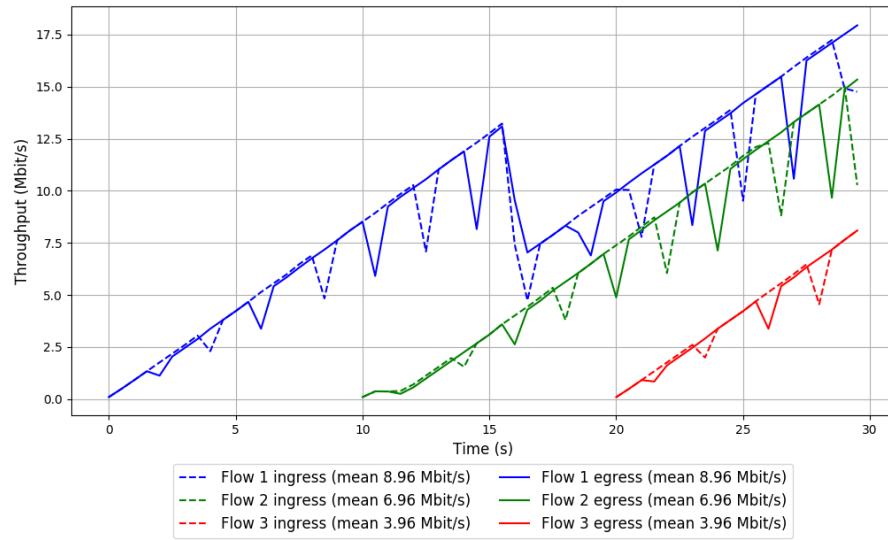


```
Run 2: Statistics of LEDBAT

Start at: 2018-04-18 04:32:38
End at: 2018-04-18 04:33:08

# Below is generated by plot.py at 2018-04-18 08:55:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 14.86 Mbit/s
95th percentile per-packet one-way delay: 87.174 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 87.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 87.090 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 3.96 Mbit/s
95th percentile per-packet one-way delay: 86.851 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-04-18 04:49:07

End at: 2018-04-18 04:49:37

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.30 Mbit/s

95th percentile per-packet one-way delay: 87.809 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 87.709 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.05 Mbit/s

95th percentile per-packet one-way delay: 87.887 ms

Loss rate: 0.00%

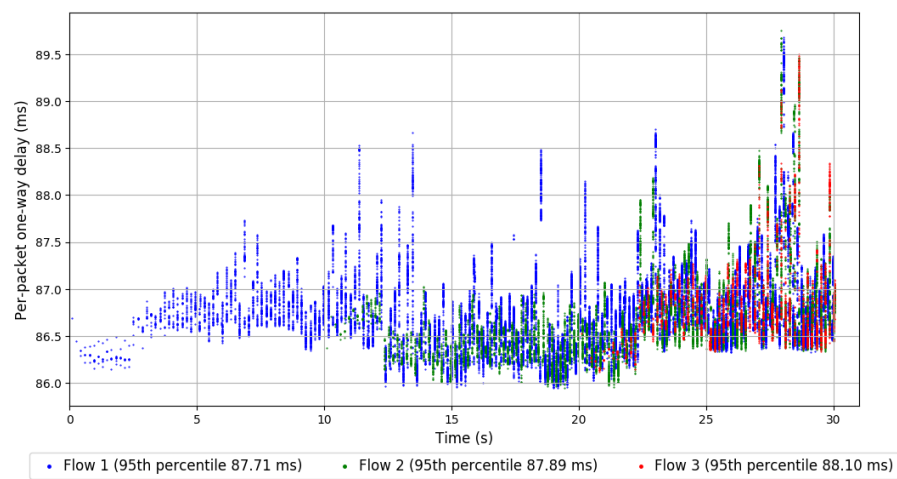
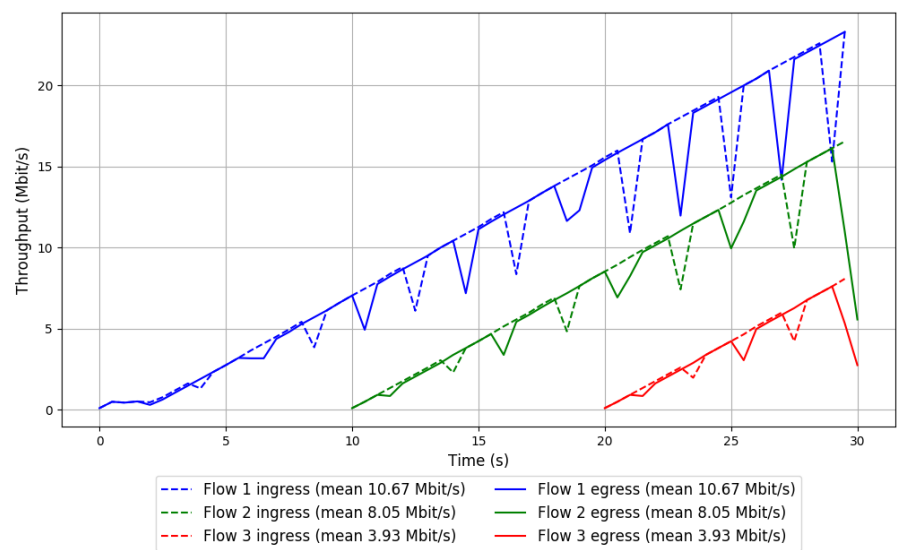
-- Flow 3:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 88.104 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

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

End at: 2018-04-18 05:05:48

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.53 Mbit/s

95th percentile per-packet one-way delay: 87.289 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 87.361 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.03 Mbit/s

95th percentile per-packet one-way delay: 87.280 ms

Loss rate: 0.00%

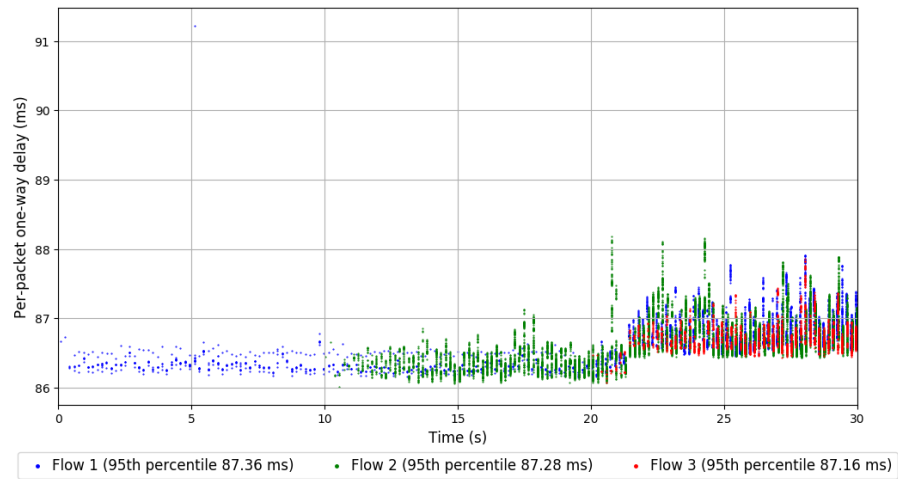
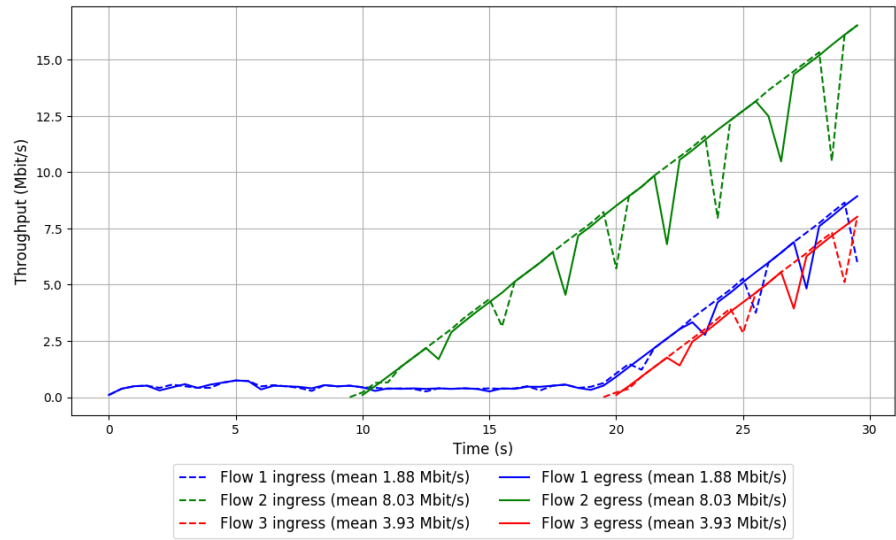
-- Flow 3:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 87.159 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-04-18 05:21:45

End at: 2018-04-18 05:22:15

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.48 Mbit/s

95th percentile per-packet one-way delay: 87.585 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 12.00 Mbit/s

95th percentile per-packet one-way delay: 87.671 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.85 Mbit/s

95th percentile per-packet one-way delay: 87.515 ms

Loss rate: 0.15%

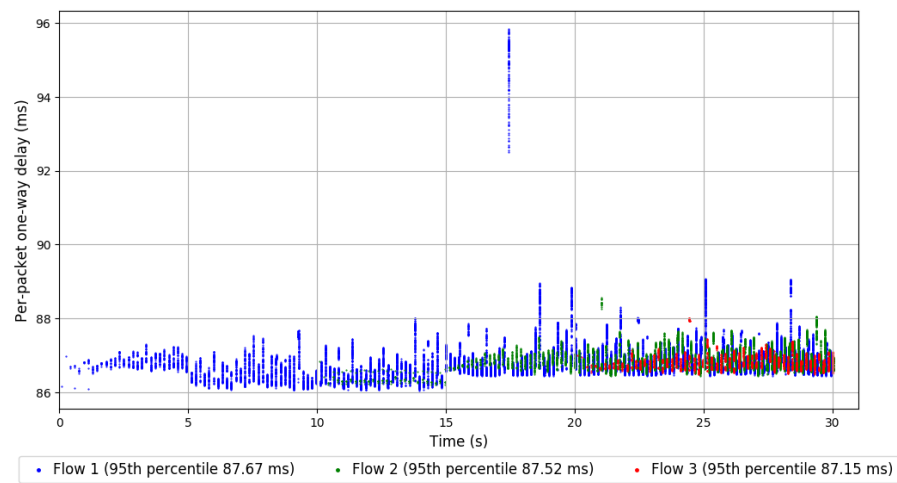
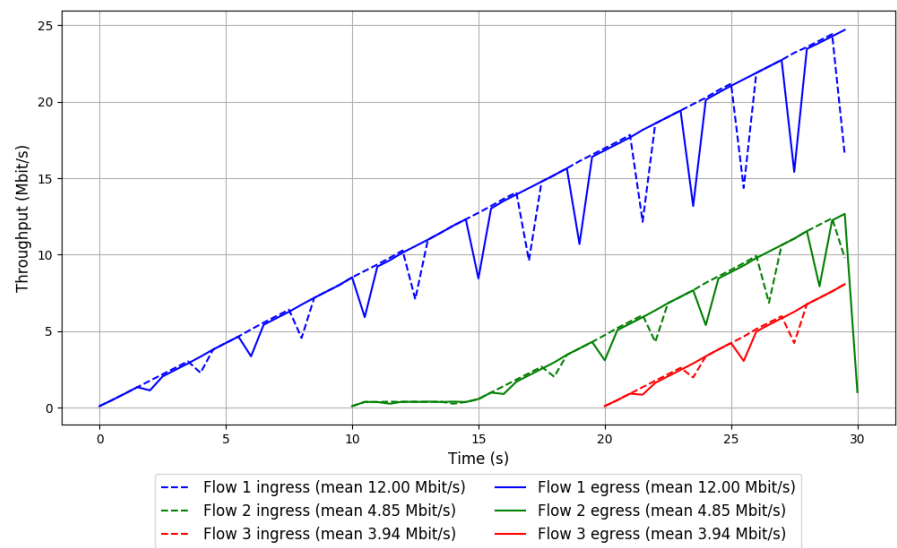
-- Flow 3:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.146 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-04-18 05:38:08

End at: 2018-04-18 05:38:38

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.49 Mbit/s

95th percentile per-packet one-way delay: 87.572 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.01 Mbit/s

95th percentile per-packet one-way delay: 87.662 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 87.476 ms

Loss rate: 0.00%

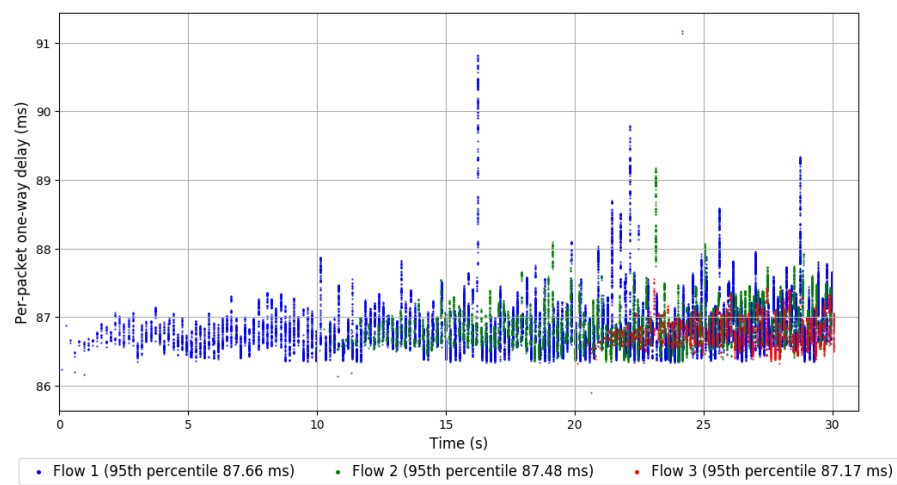
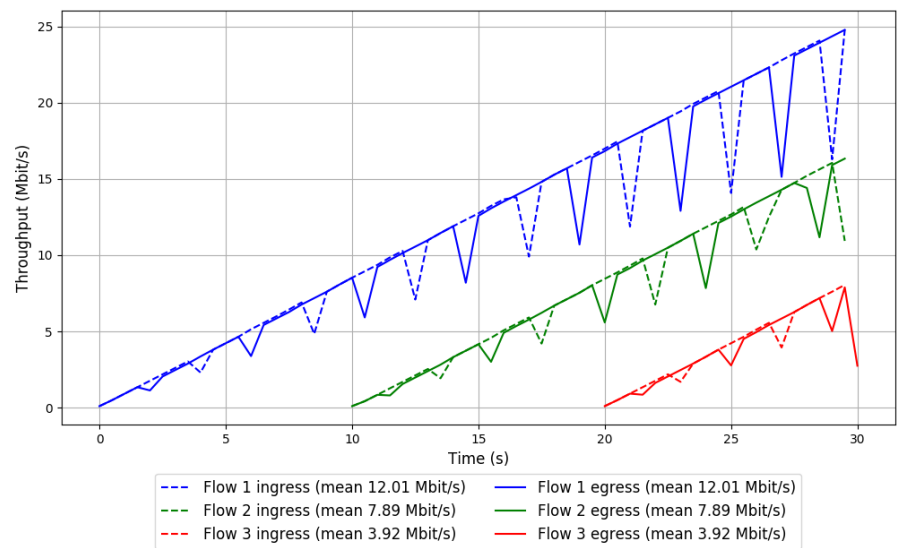
-- Flow 3:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 87.168 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-04-18 05:54:31

End at: 2018-04-18 05:55:01

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.56 Mbit/s

95th percentile per-packet one-way delay: 87.544 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.01 Mbit/s

95th percentile per-packet one-way delay: 87.601 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 87.479 ms

Loss rate: 0.00%

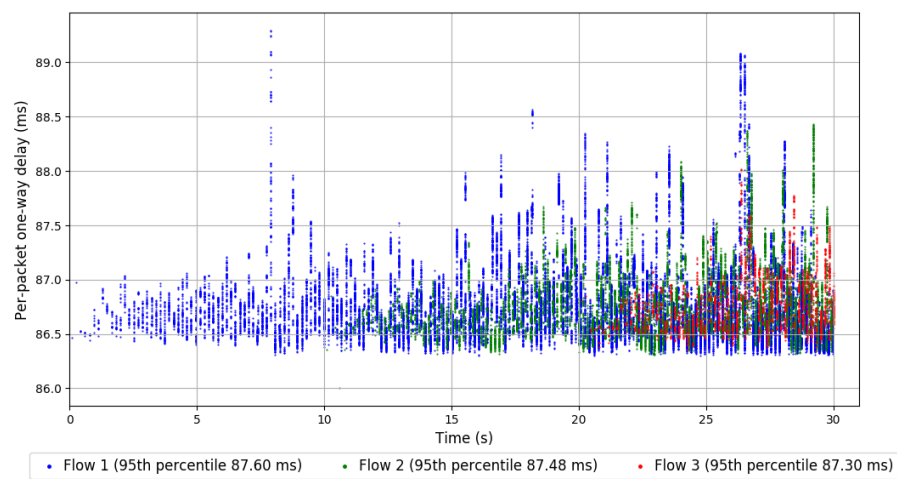
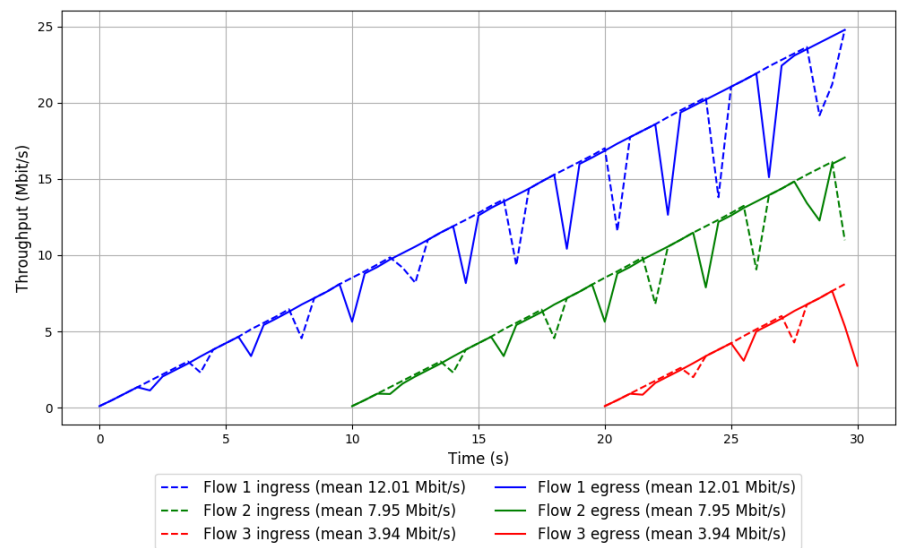
-- Flow 3:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.301 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-04-18 06:10:42

End at: 2018-04-18 06:11:12

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.53 Mbit/s

95th percentile per-packet one-way delay: 87.596 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 12.04 Mbit/s

95th percentile per-packet one-way delay: 87.641 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 87.520 ms

Loss rate: 0.19%

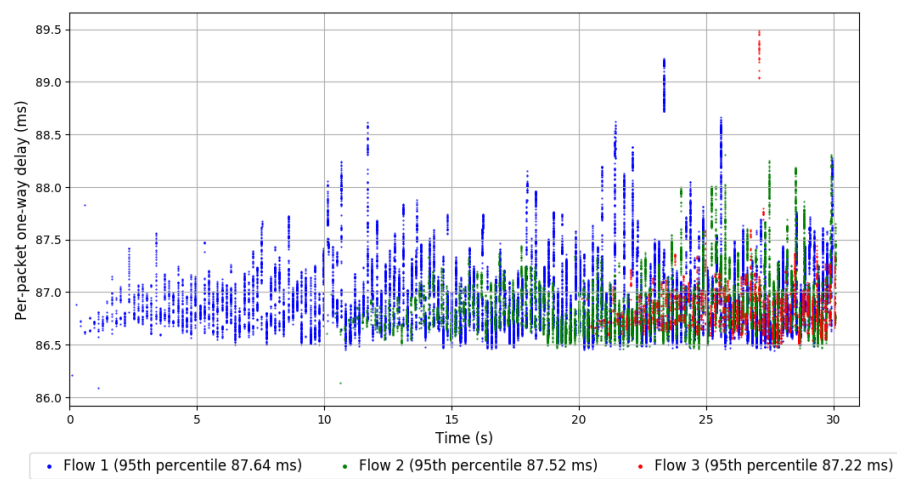
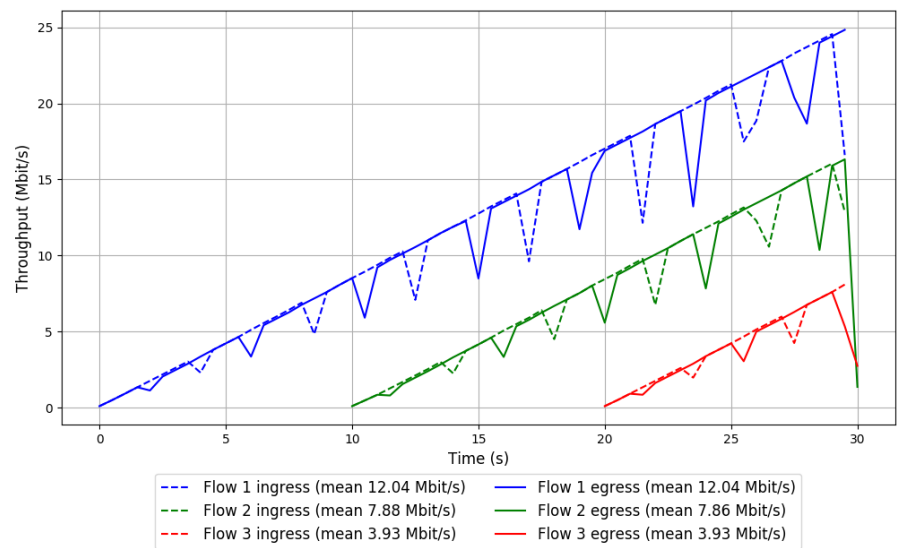
-- Flow 3:

Average throughput: 3.93 Mbit/s

95th percentile per-packet one-way delay: 87.215 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-04-18 06:26:58

End at: 2018-04-18 06:27:28

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.65 Mbit/s

95th percentile per-packet one-way delay: 88.049 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 12.04 Mbit/s

95th percentile per-packet one-way delay: 88.135 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 87.891 ms

Loss rate: 0.00%

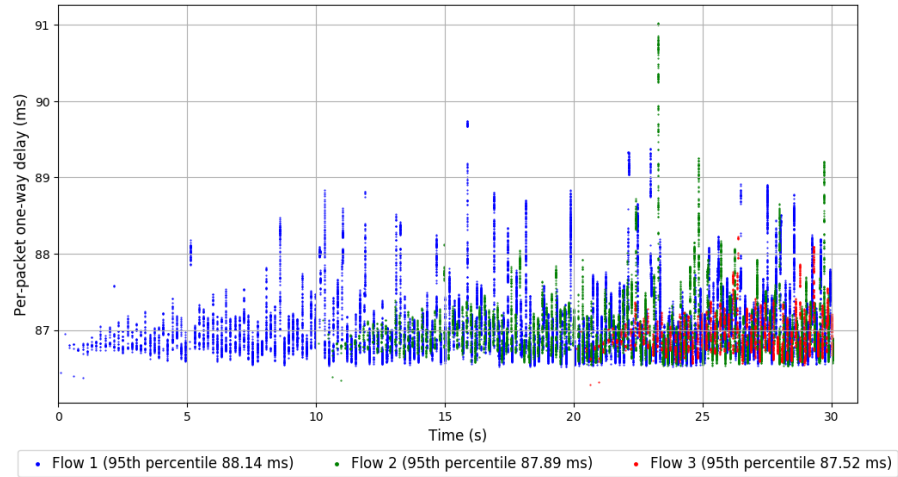
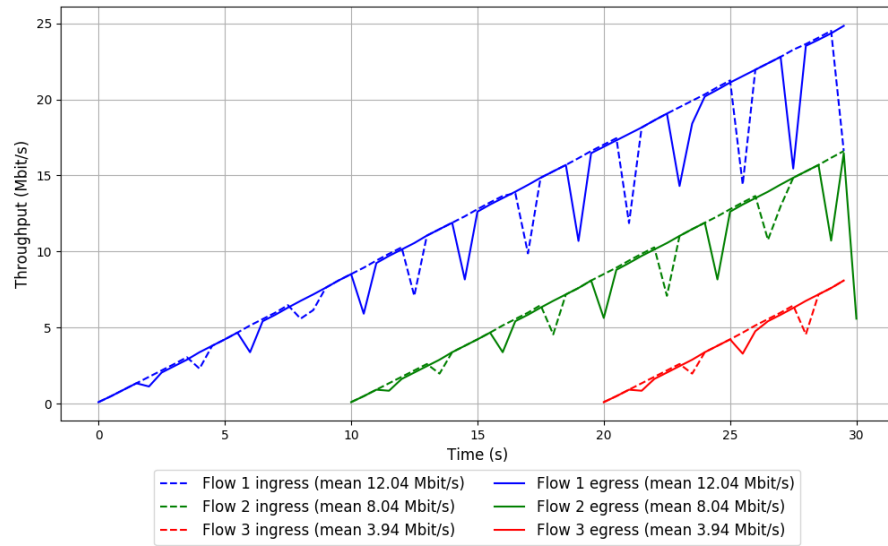
-- Flow 3:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 87.517 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-04-18 06:43:16

End at: 2018-04-18 06:43:46

Below is generated by plot.py at 2018-04-18 08:55:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.60 Mbit/s

95th percentile per-packet one-way delay: 87.882 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 12.00 Mbit/s

95th percentile per-packet one-way delay: 88.044 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 87.654 ms

Loss rate: 0.03%

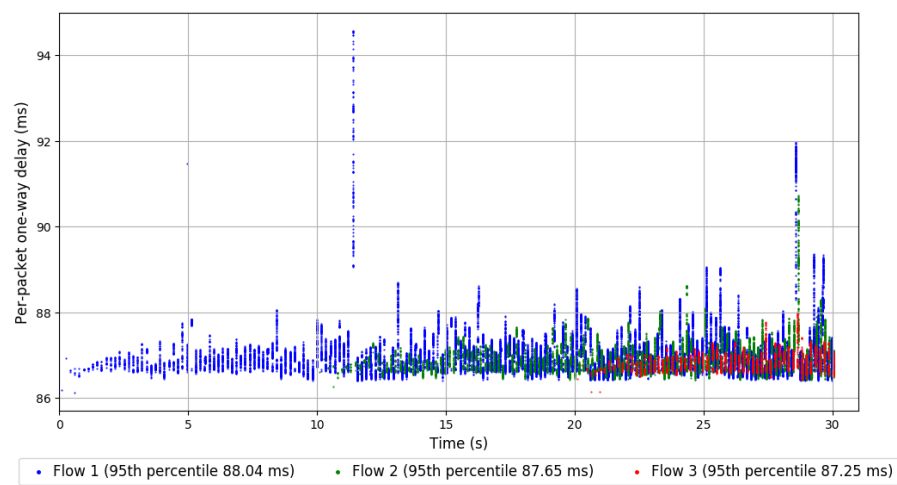
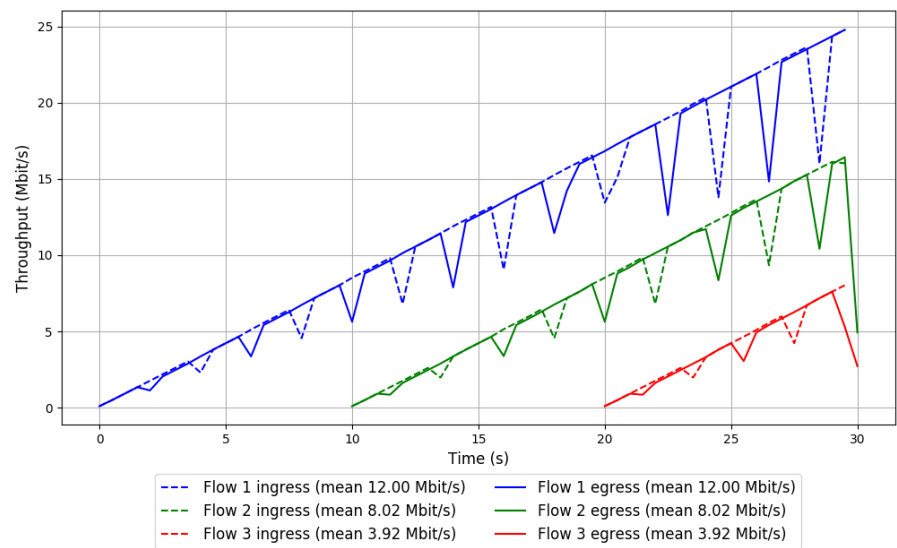
-- Flow 3:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 87.252 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

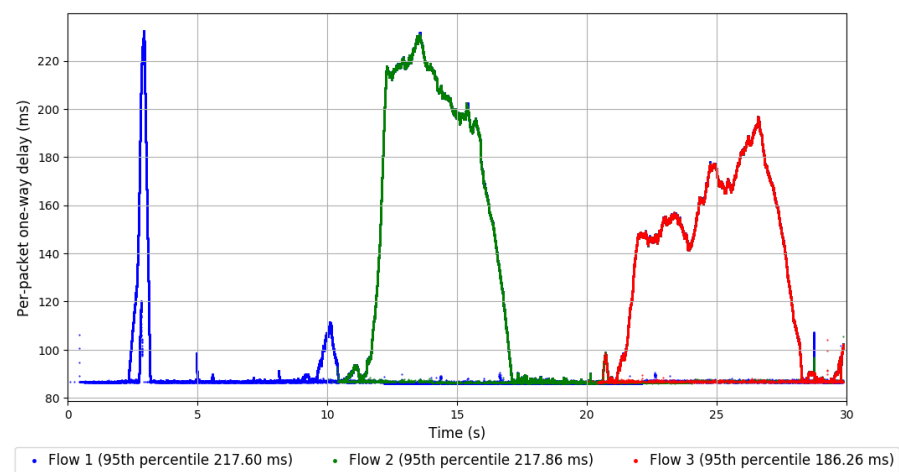
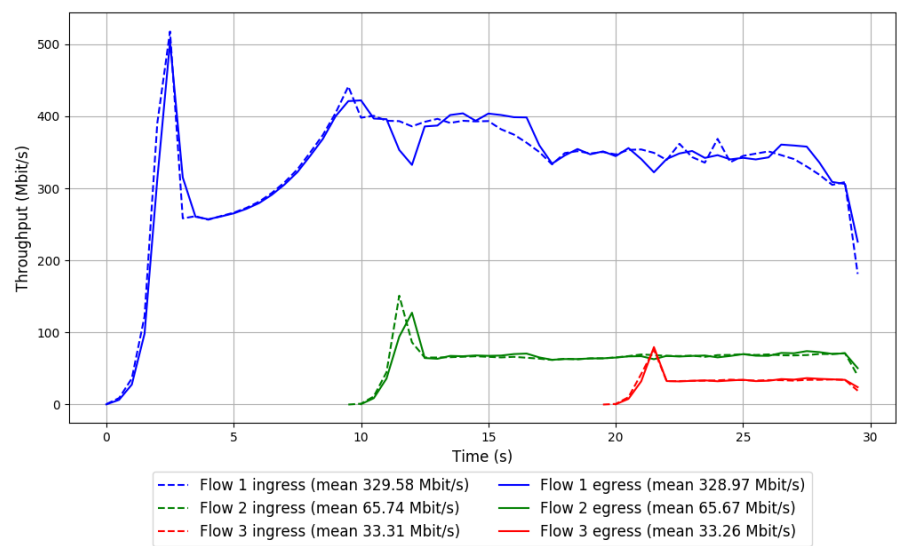


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-04-18 04:15:16
End at: 2018-04-18 04:15:46

# Below is generated by plot.py at 2018-04-18 09:00:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.65 Mbit/s
95th percentile per-packet one-way delay: 217.532 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 328.97 Mbit/s
95th percentile per-packet one-way delay: 217.602 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 65.67 Mbit/s
95th percentile per-packet one-way delay: 217.863 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 33.26 Mbit/s
95th percentile per-packet one-way delay: 186.261 ms
Loss rate: 0.16%
```

Run 1: Report of PCC-Allegro — Data Link

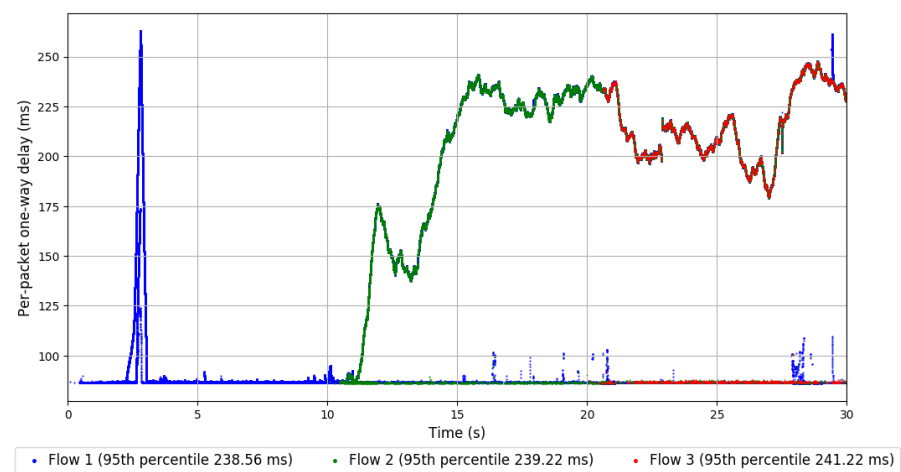
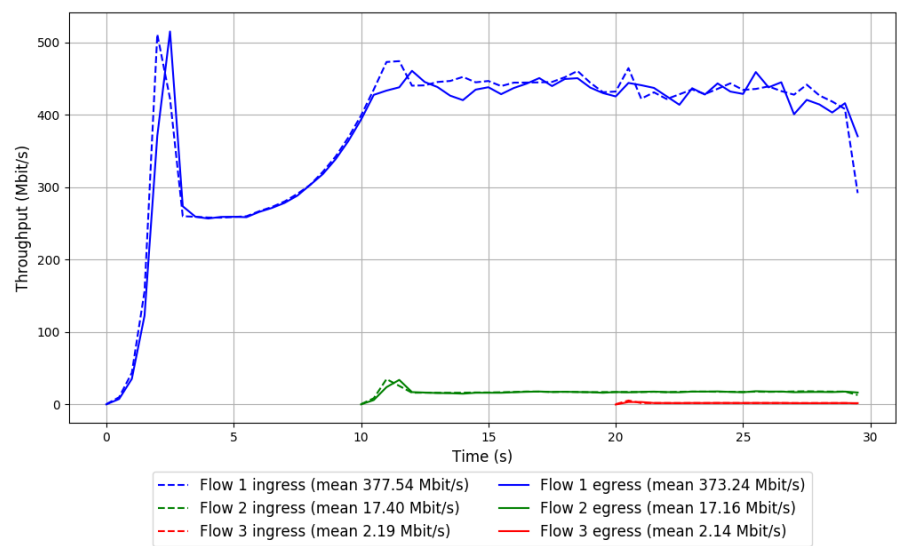


```
Run 2: Statistics of PCC-Allegro

Start at: 2018-04-18 04:31:39
End at: 2018-04-18 04:32:09

# Below is generated by plot.py at 2018-04-18 09:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 385.31 Mbit/s
95th percentile per-packet one-way delay: 238.589 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 373.24 Mbit/s
95th percentile per-packet one-way delay: 238.565 ms
Loss rate: 1.14%
-- Flow 2:
Average throughput: 17.16 Mbit/s
95th percentile per-packet one-way delay: 239.218 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 241.220 ms
Loss rate: 2.23%
```

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-04-18 04:48:10

End at: 2018-04-18 04:48:40

Below is generated by plot.py at 2018-04-18 09:00:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 352.02 Mbit/s

95th percentile per-packet one-way delay: 179.325 ms

Loss rate: 0.32%

-- Flow 1:

Average throughput: 330.14 Mbit/s

95th percentile per-packet one-way delay: 179.343 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 30.84 Mbit/s

95th percentile per-packet one-way delay: 179.256 ms

Loss rate: 0.07%

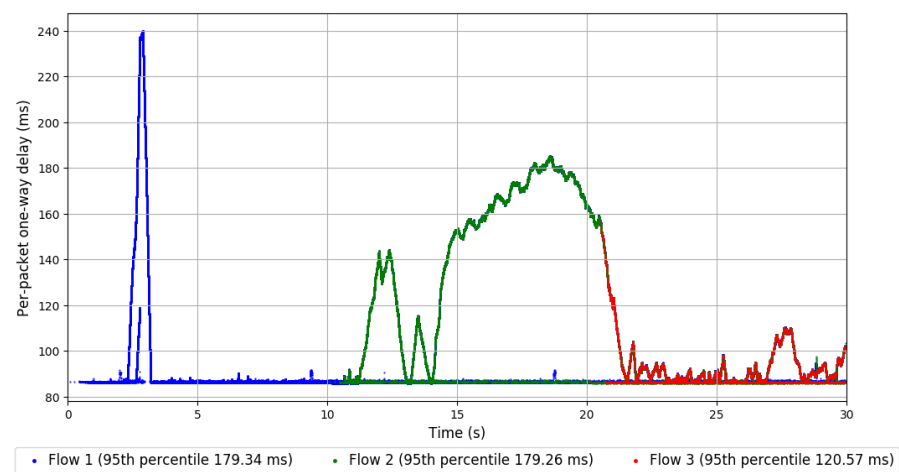
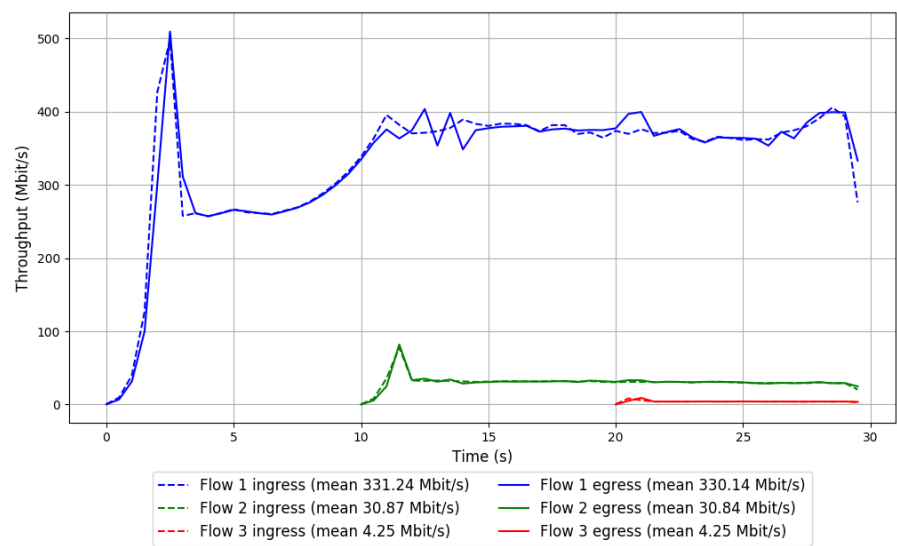
-- Flow 3:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 120.567 ms

Loss rate: 0.14%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-04-18 05:04:20

End at: 2018-04-18 05:04:50

Below is generated by plot.py at 2018-04-18 09:00:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 364.10 Mbit/s

95th percentile per-packet one-way delay: 123.176 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 341.96 Mbit/s

95th percentile per-packet one-way delay: 123.012 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 17.26 Mbit/s

95th percentile per-packet one-way delay: 116.387 ms

Loss rate: 0.01%

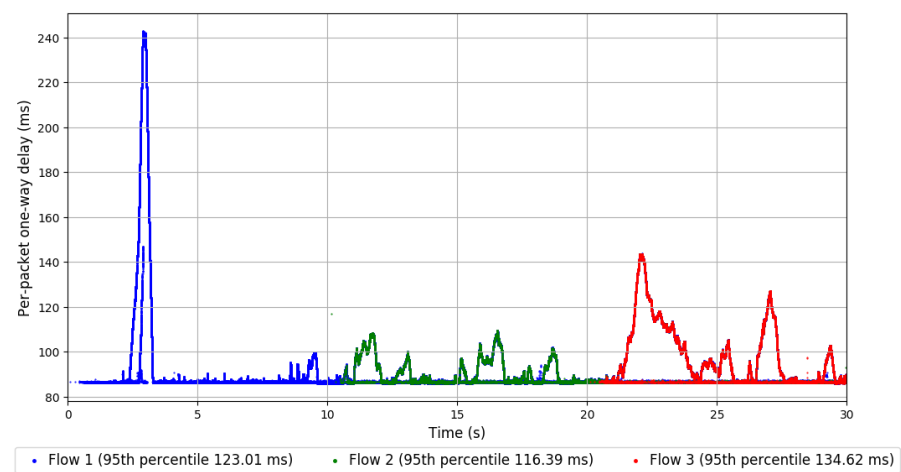
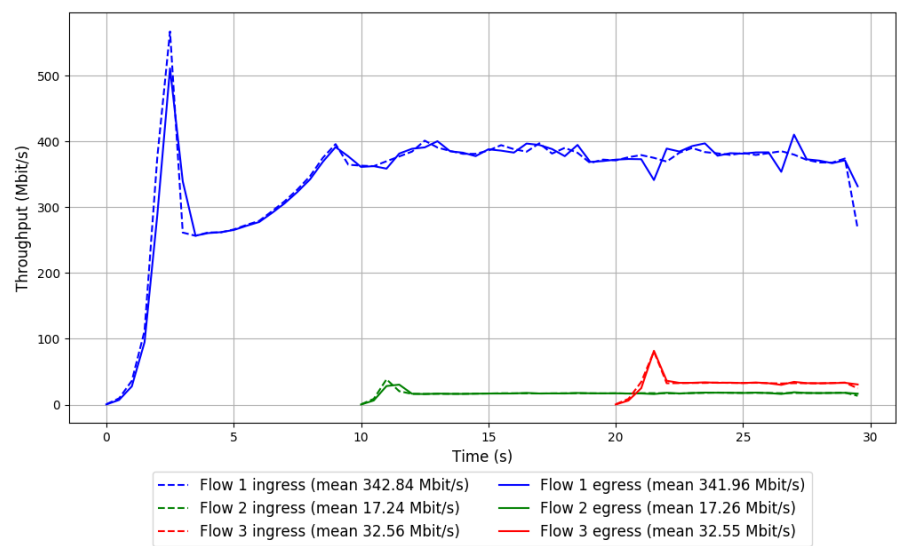
-- Flow 3:

Average throughput: 32.55 Mbit/s

95th percentile per-packet one-way delay: 134.615 ms

Loss rate: 0.03%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-04-18 05:20:45

End at: 2018-04-18 05:21:15

Below is generated by plot.py at 2018-04-18 09:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 404.65 Mbit/s

95th percentile per-packet one-way delay: 233.601 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 382.67 Mbit/s

95th percentile per-packet one-way delay: 233.578 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 31.95 Mbit/s

95th percentile per-packet one-way delay: 233.845 ms

Loss rate: 1.35%

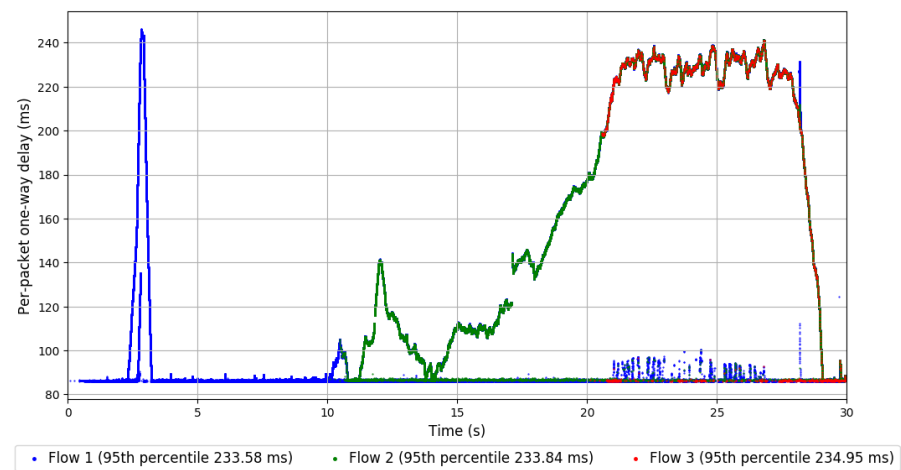
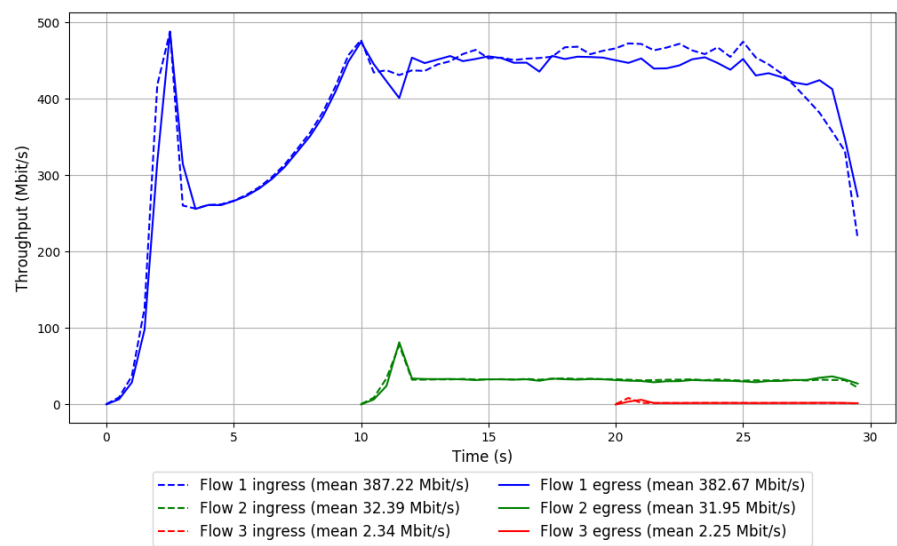
-- Flow 3:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 234.949 ms

Loss rate: 3.50%

Run 5: Report of PCC-Allegro — Data Link



Run 6: Statistics of PCC-Allegro

Start at: 2018-04-18 05:37:10

End at: 2018-04-18 05:37:40

Below is generated by plot.py at 2018-04-18 09:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 368.89 Mbit/s

95th percentile per-packet one-way delay: 231.755 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 346.93 Mbit/s

95th percentile per-packet one-way delay: 231.235 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 17.39 Mbit/s

95th percentile per-packet one-way delay: 233.699 ms

Loss rate: 0.12%

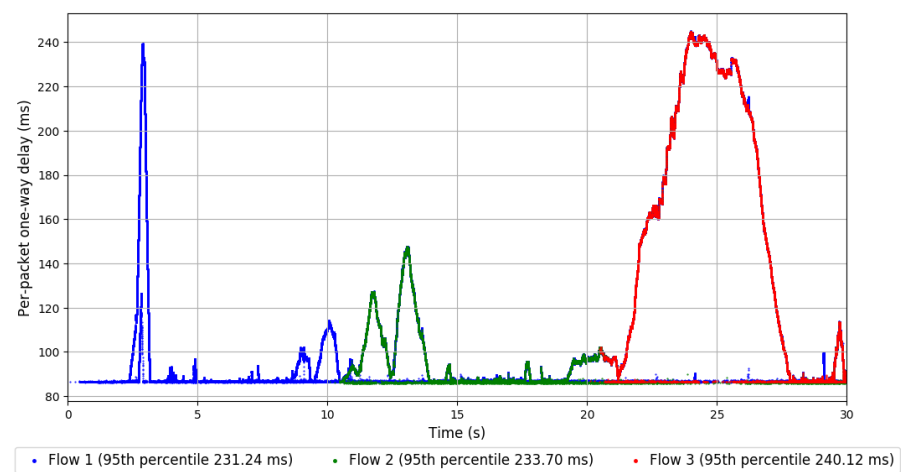
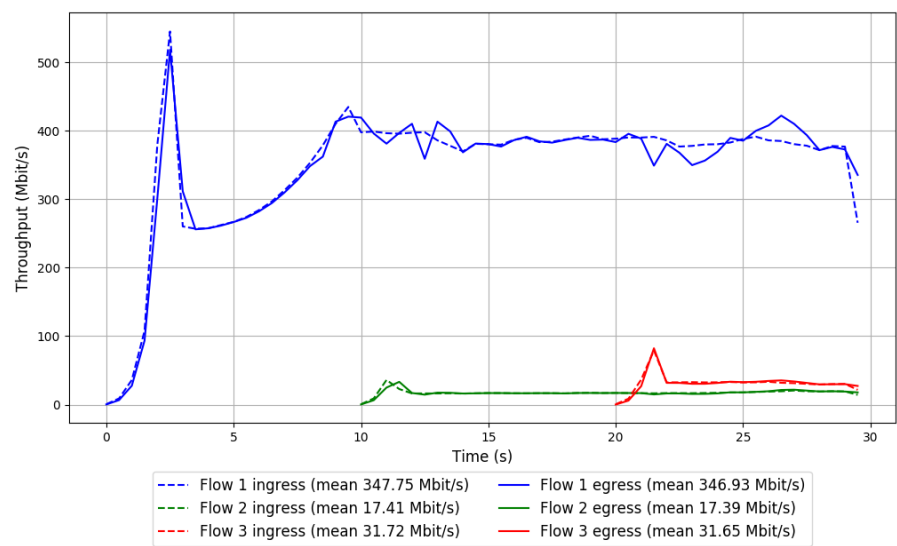
-- Flow 3:

Average throughput: 31.65 Mbit/s

95th percentile per-packet one-way delay: 240.118 ms

Loss rate: 0.19%

Run 6: Report of PCC-Allegro — Data Link



Run 7: Statistics of PCC-Allegro

Start at: 2018-04-18 05:53:33

End at: 2018-04-18 05:54:03

Below is generated by plot.py at 2018-04-18 09:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.15 Mbit/s

95th percentile per-packet one-way delay: 232.975 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 294.94 Mbit/s

95th percentile per-packet one-way delay: 232.514 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 63.38 Mbit/s

95th percentile per-packet one-way delay: 233.276 ms

Loss rate: 0.31%

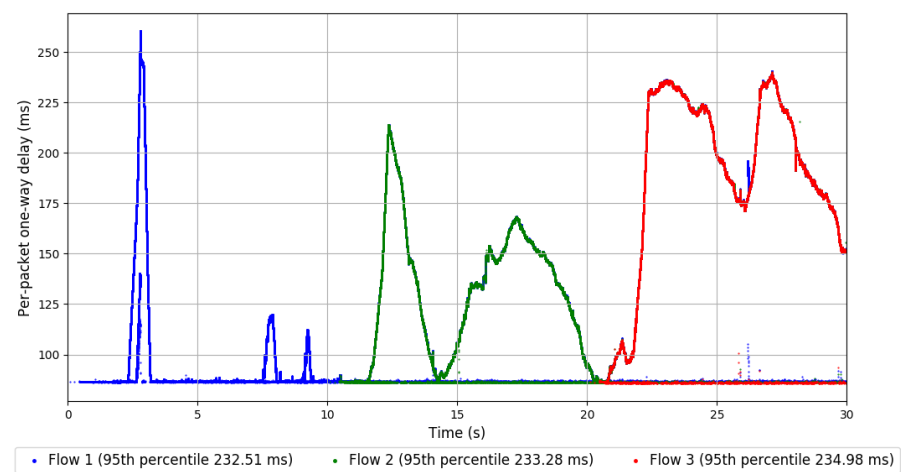
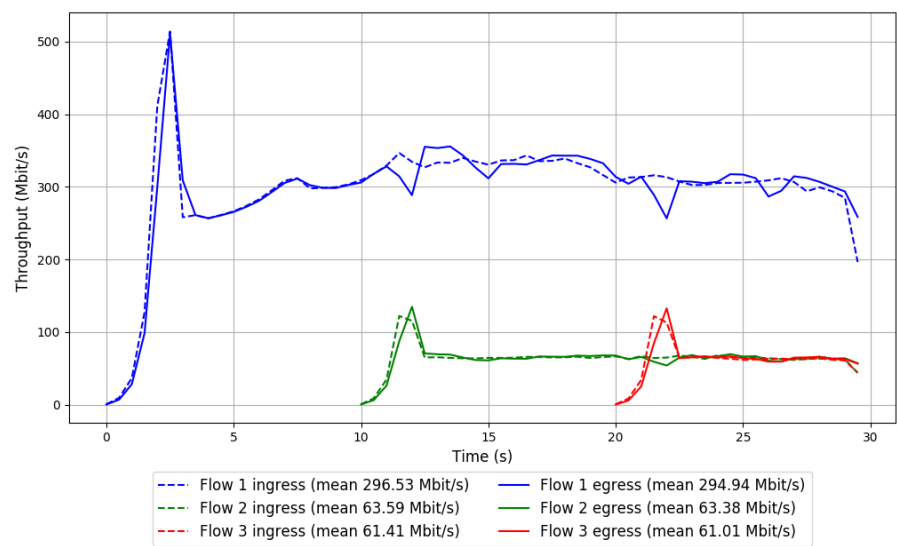
-- Flow 3:

Average throughput: 61.01 Mbit/s

95th percentile per-packet one-way delay: 234.980 ms

Loss rate: 0.65%

Run 7: Report of PCC-Allegro — Data Link



Run 8: Statistics of PCC-Allegro

Start at: 2018-04-18 06:09:42

End at: 2018-04-18 06:10:12

Below is generated by plot.py at 2018-04-18 09:03:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 414.55 Mbit/s

95th percentile per-packet one-way delay: 231.401 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 411.23 Mbit/s

95th percentile per-packet one-way delay: 231.406 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 3.94 Mbit/s

95th percentile per-packet one-way delay: 230.960 ms

Loss rate: 1.36%

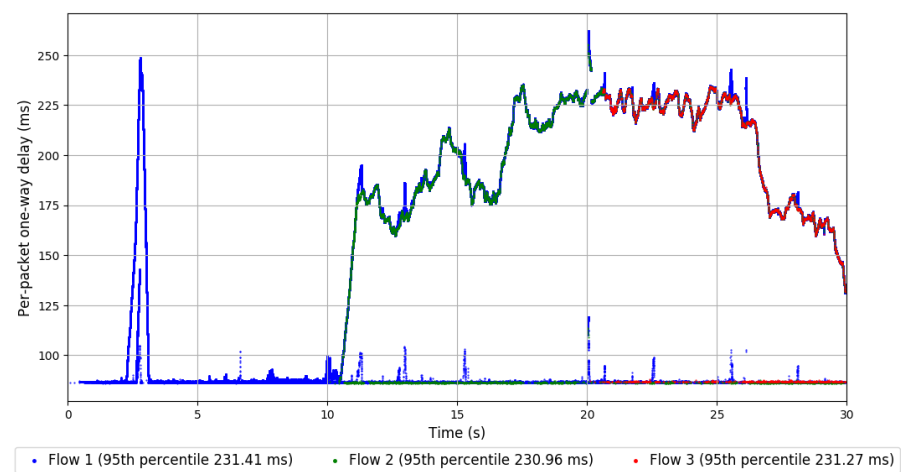
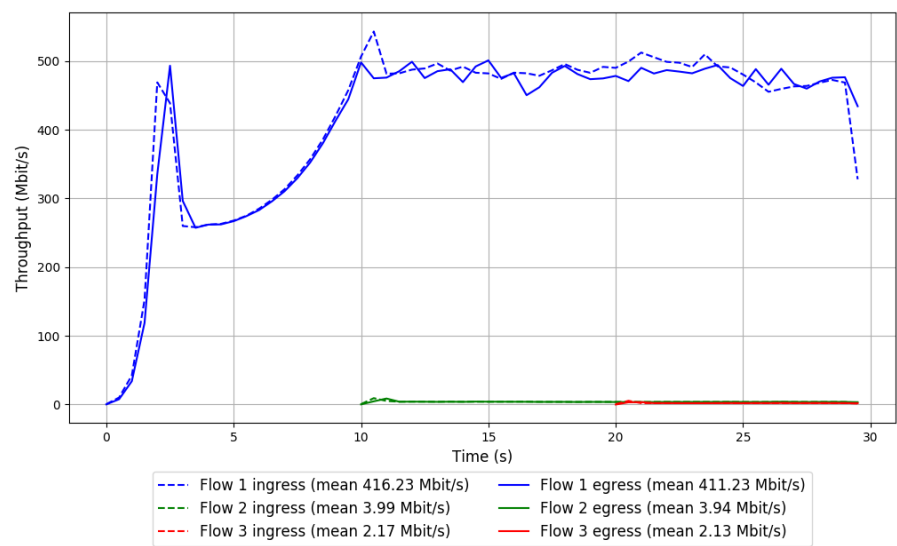
-- Flow 3:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 231.272 ms

Loss rate: 2.13%

Run 8: Report of PCC-Allegro — Data Link



Run 9: Statistics of PCC-Allegro

Start at: 2018-04-18 06:25:59

End at: 2018-04-18 06:26:29

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.72 Mbit/s

95th percentile per-packet one-way delay: 225.688 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 352.57 Mbit/s

95th percentile per-packet one-way delay: 225.458 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 17.48 Mbit/s

95th percentile per-packet one-way delay: 226.445 ms

Loss rate: 0.13%

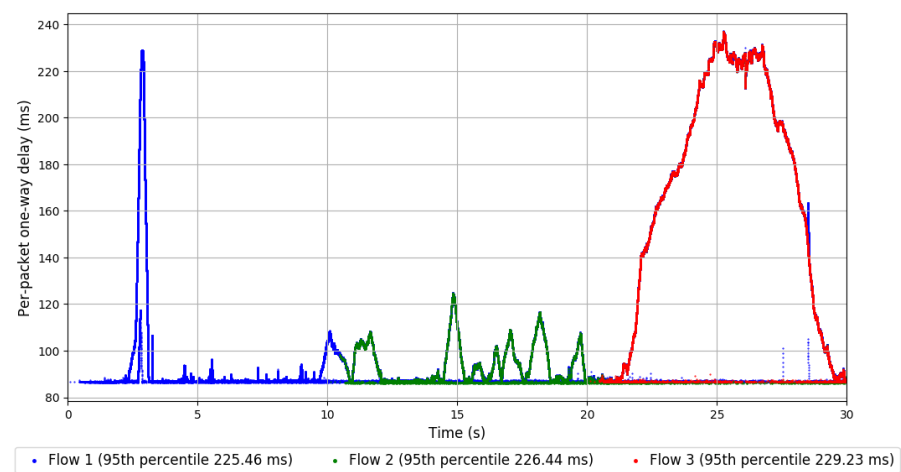
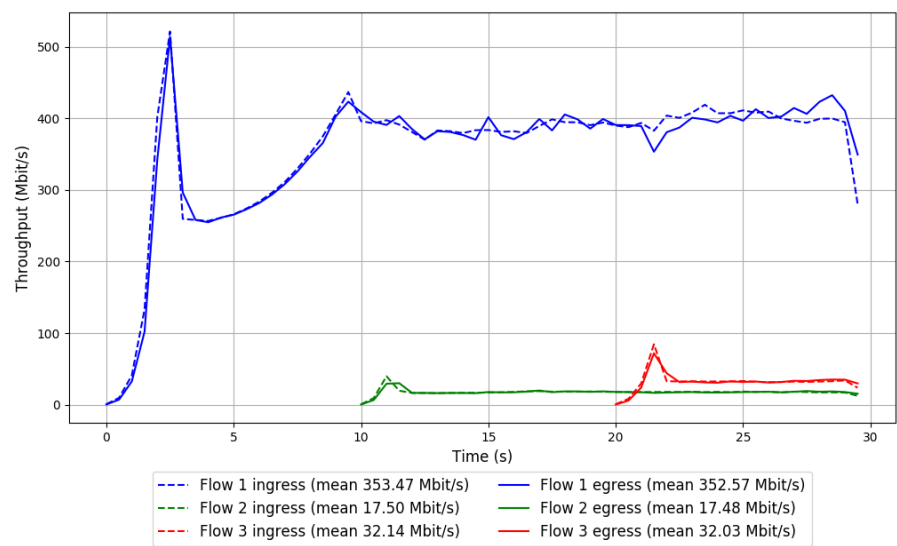
-- Flow 3:

Average throughput: 32.03 Mbit/s

95th percentile per-packet one-way delay: 229.228 ms

Loss rate: 0.32%

Run 9: Report of PCC-Allegro — Data Link

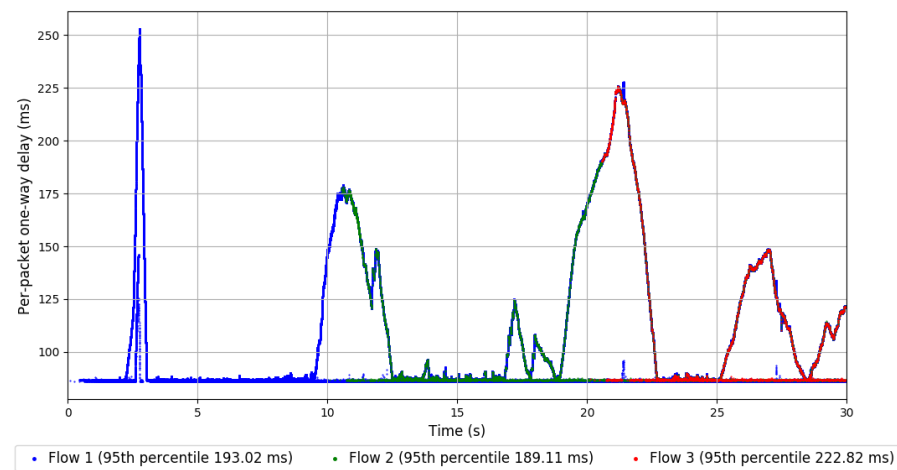
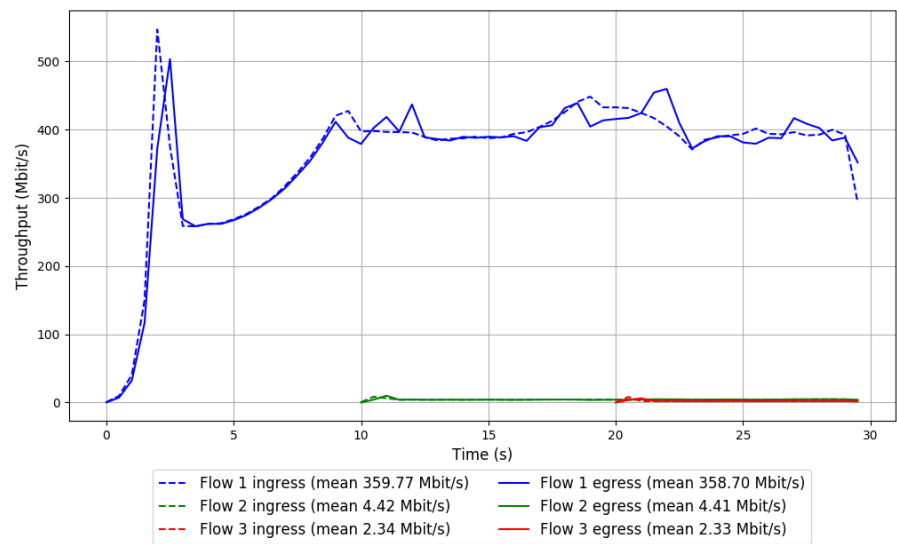


```
Run 10: Statistics of PCC-Allegro

Start at: 2018-04-18 06:42:19
End at: 2018-04-18 06:42:49

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 362.40 Mbit/s
95th percentile per-packet one-way delay: 193.052 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 358.70 Mbit/s
95th percentile per-packet one-way delay: 193.020 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 4.41 Mbit/s
95th percentile per-packet one-way delay: 189.111 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 222.822 ms
Loss rate: 0.31%
```

Run 10: Report of PCC-Allegro — Data Link

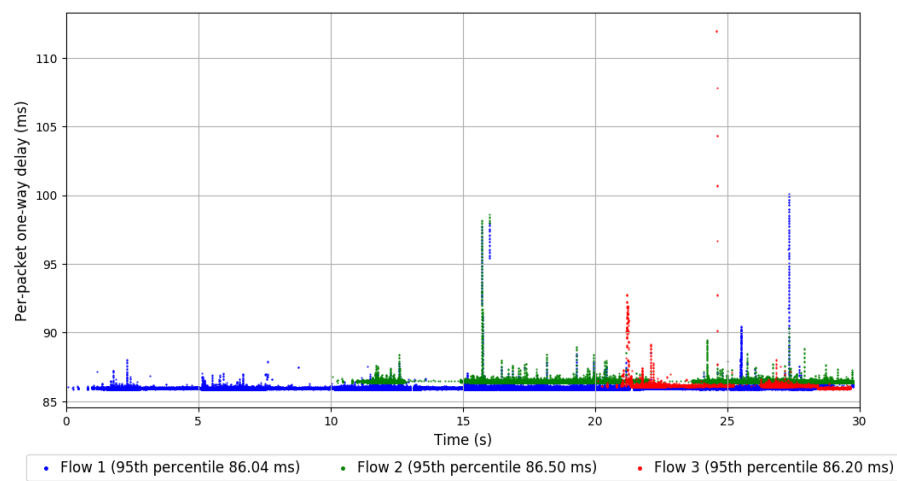
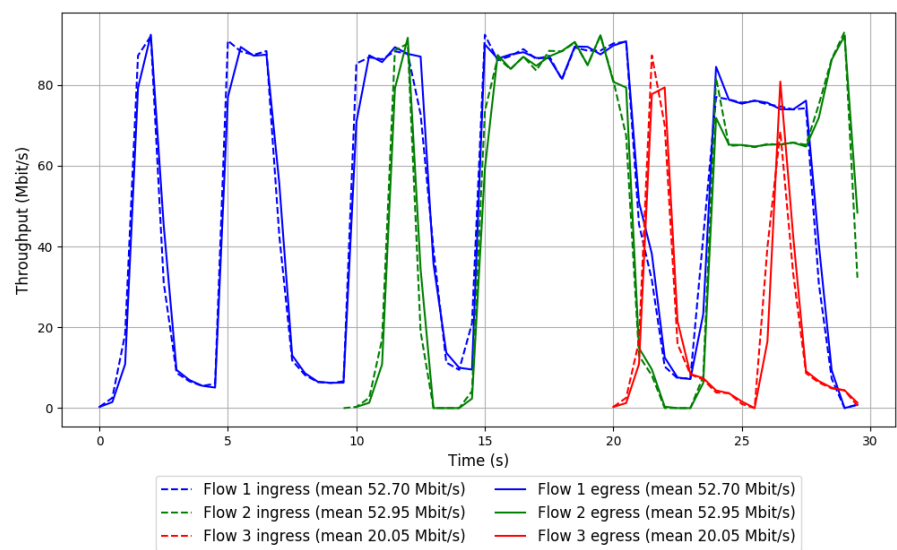


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-04-18 04:16:59
End at: 2018-04-18 04:17:29

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.27 Mbit/s
95th percentile per-packet one-way delay: 86.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.70 Mbit/s
95th percentile per-packet one-way delay: 86.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 52.95 Mbit/s
95th percentile per-packet one-way delay: 86.501 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 86.204 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link

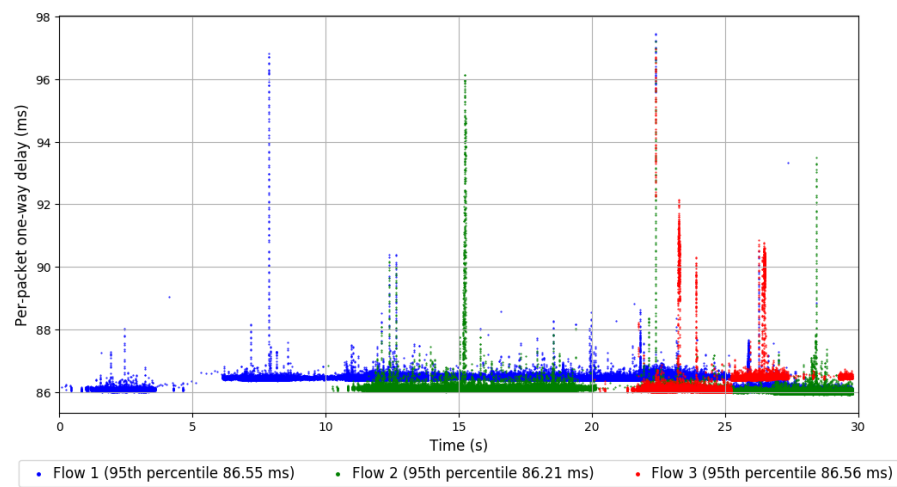
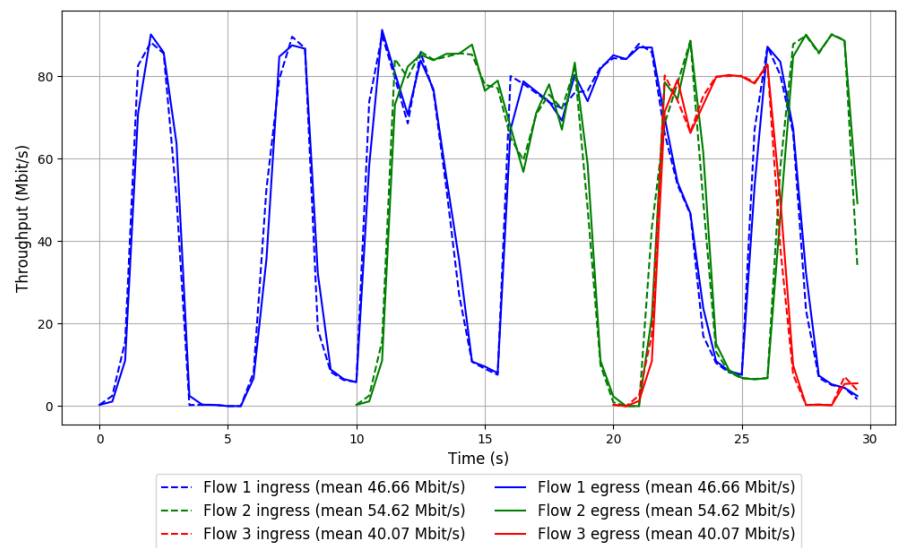


```
Run 2: Statistics of QUIC Cubic

Start at: 2018-04-18 04:33:22
End at: 2018-04-18 04:33:52

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 86.528 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.66 Mbit/s
95th percentile per-packet one-way delay: 86.551 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 54.62 Mbit/s
95th percentile per-packet one-way delay: 86.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 40.07 Mbit/s
95th percentile per-packet one-way delay: 86.558 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-04-18 04:49:52

End at: 2018-04-18 04:50:22

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.57 Mbit/s

95th percentile per-packet one-way delay: 86.334 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.37 Mbit/s

95th percentile per-packet one-way delay: 86.099 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.42 Mbit/s

95th percentile per-packet one-way delay: 85.971 ms

Loss rate: 0.00%

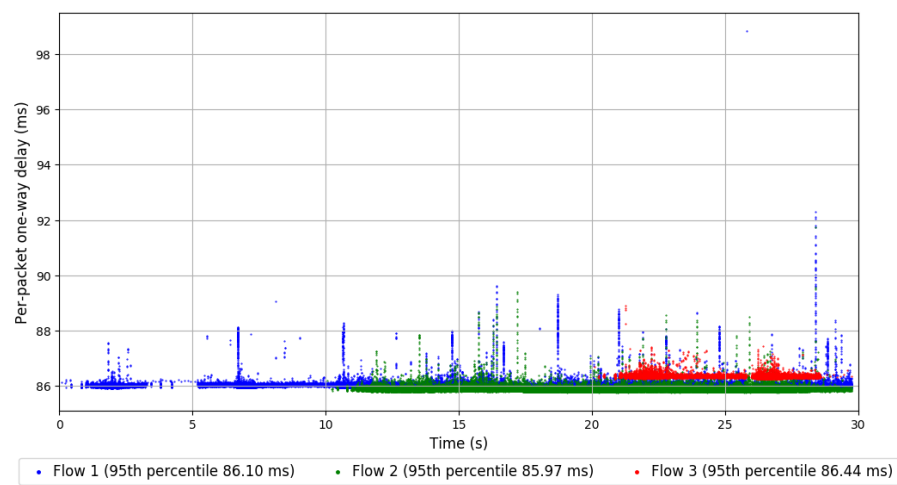
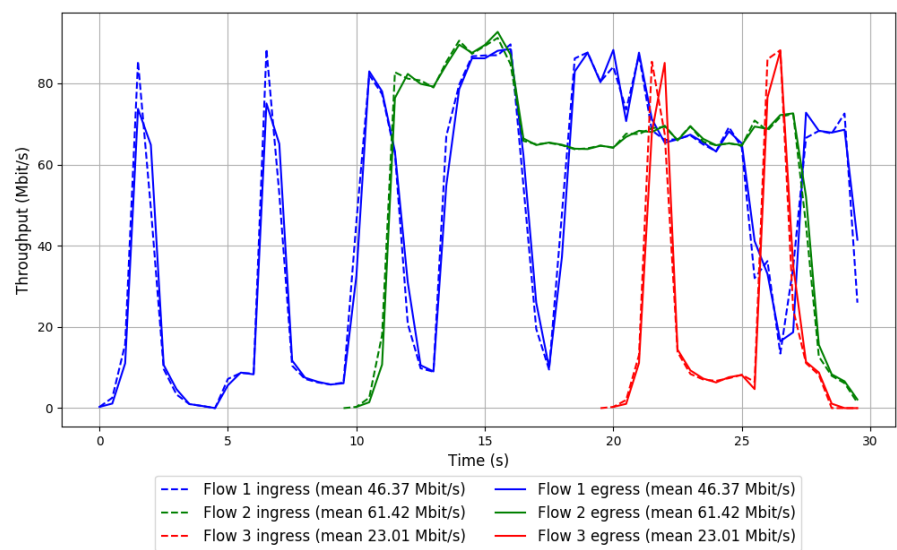
-- Flow 3:

Average throughput: 23.01 Mbit/s

95th percentile per-packet one-way delay: 86.438 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-04-18 05:06:02

End at: 2018-04-18 05:06:32

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.84 Mbit/s

95th percentile per-packet one-way delay: 86.392 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.40 Mbit/s

95th percentile per-packet one-way delay: 86.163 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.93 Mbit/s

95th percentile per-packet one-way delay: 86.453 ms

Loss rate: 0.00%

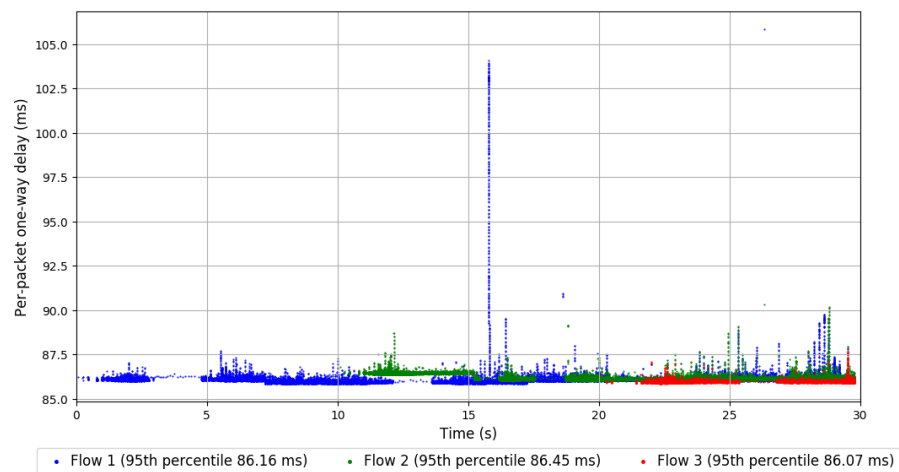
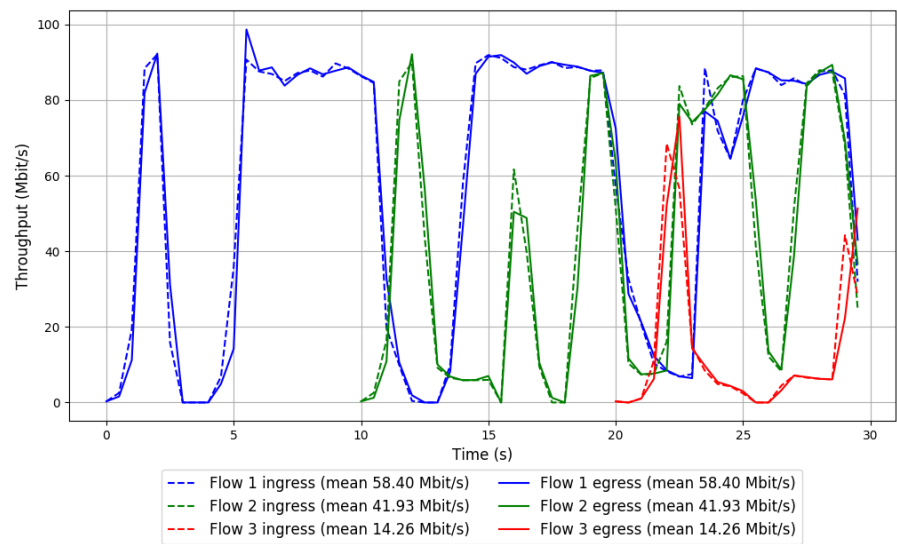
-- Flow 3:

Average throughput: 14.26 Mbit/s

95th percentile per-packet one-way delay: 86.068 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-04-18 05:22:29

End at: 2018-04-18 05:22:59

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.17 Mbit/s

95th percentile per-packet one-way delay: 86.534 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.95 Mbit/s

95th percentile per-packet one-way delay: 86.470 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.79 Mbit/s

95th percentile per-packet one-way delay: 86.567 ms

Loss rate: 0.00%

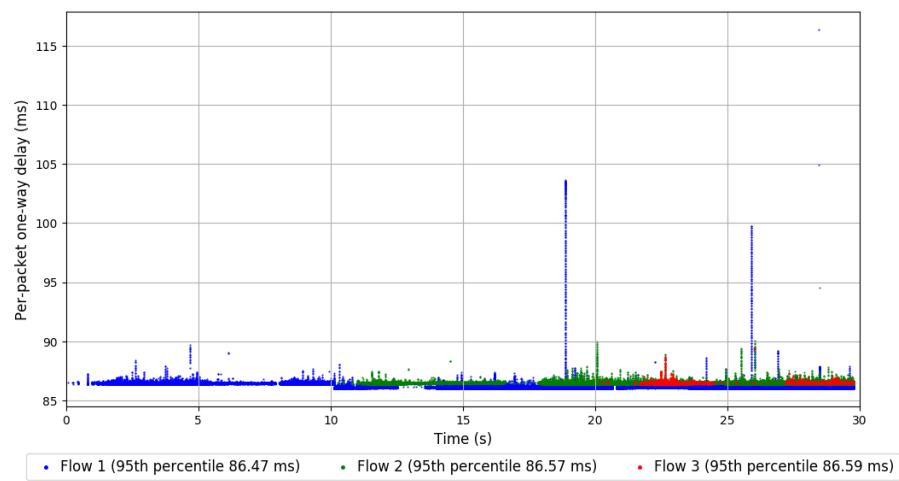
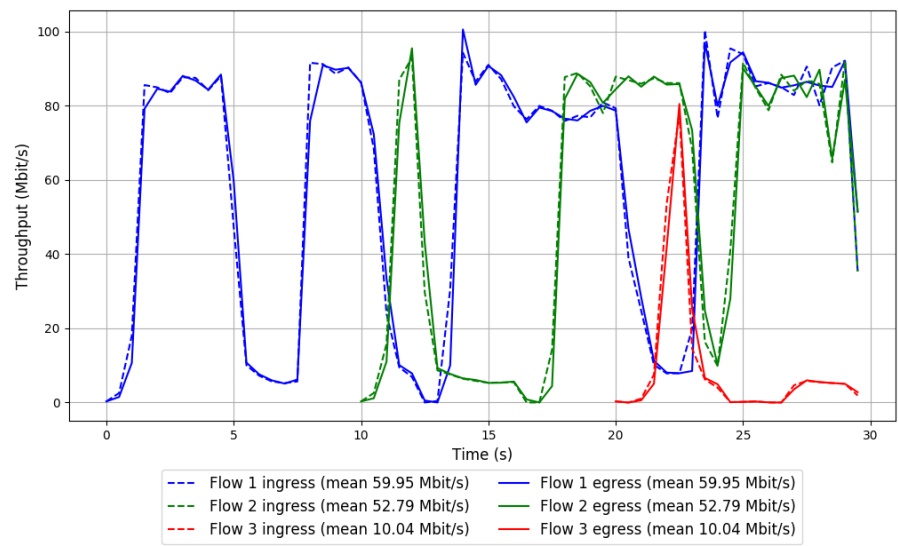
-- Flow 3:

Average throughput: 10.04 Mbit/s

95th percentile per-packet one-way delay: 86.587 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-04-18 05:38:53

End at: 2018-04-18 05:39:23

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.89 Mbit/s

95th percentile per-packet one-way delay: 86.493 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.39 Mbit/s

95th percentile per-packet one-way delay: 86.111 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.06 Mbit/s

95th percentile per-packet one-way delay: 86.651 ms

Loss rate: 0.00%

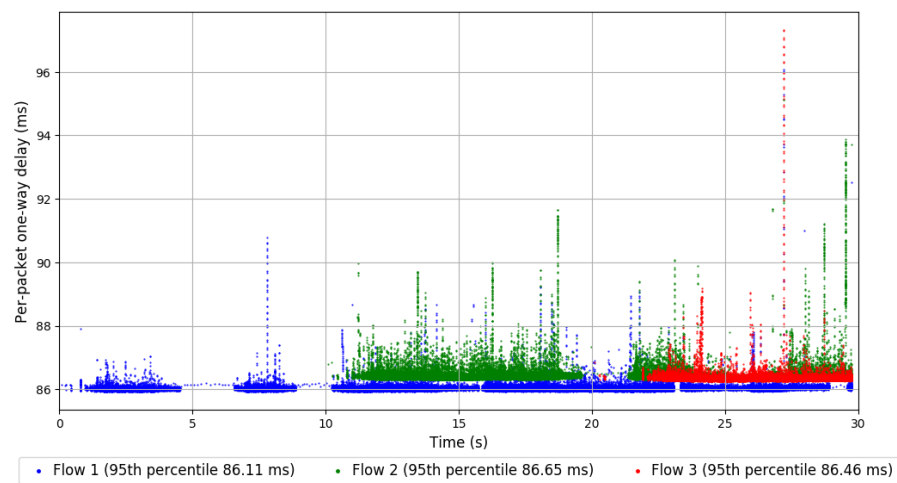
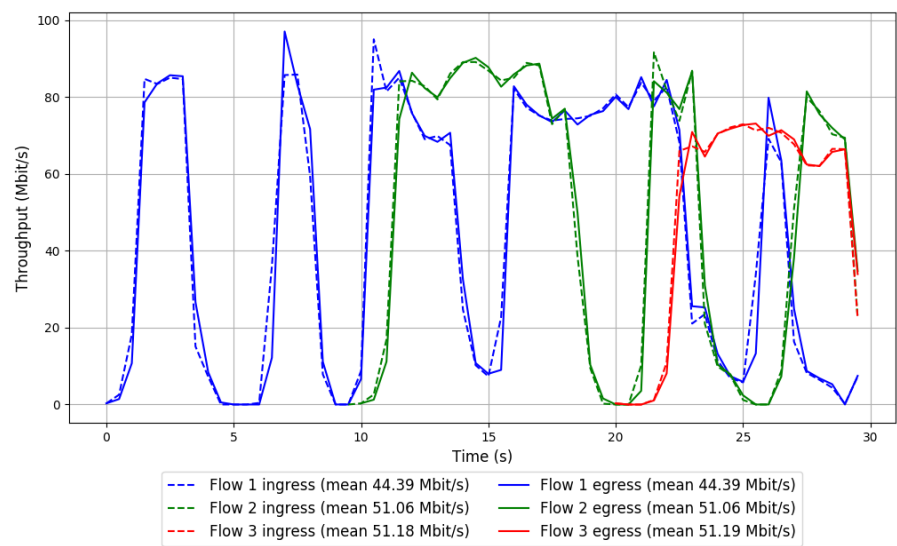
-- Flow 3:

Average throughput: 51.19 Mbit/s

95th percentile per-packet one-way delay: 86.458 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-04-18 05:55:16

End at: 2018-04-18 05:55:46

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.89 Mbit/s

95th percentile per-packet one-way delay: 86.397 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.96 Mbit/s

95th percentile per-packet one-way delay: 86.091 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.31 Mbit/s

95th percentile per-packet one-way delay: 86.434 ms

Loss rate: 0.00%

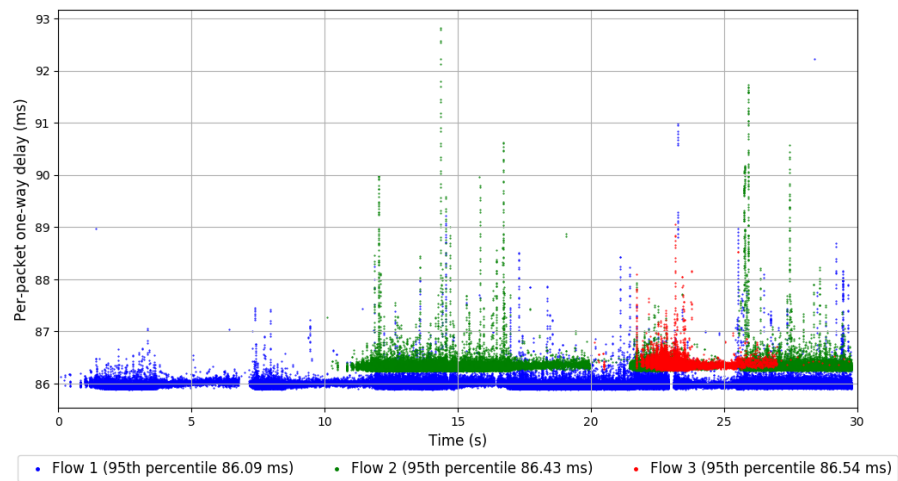
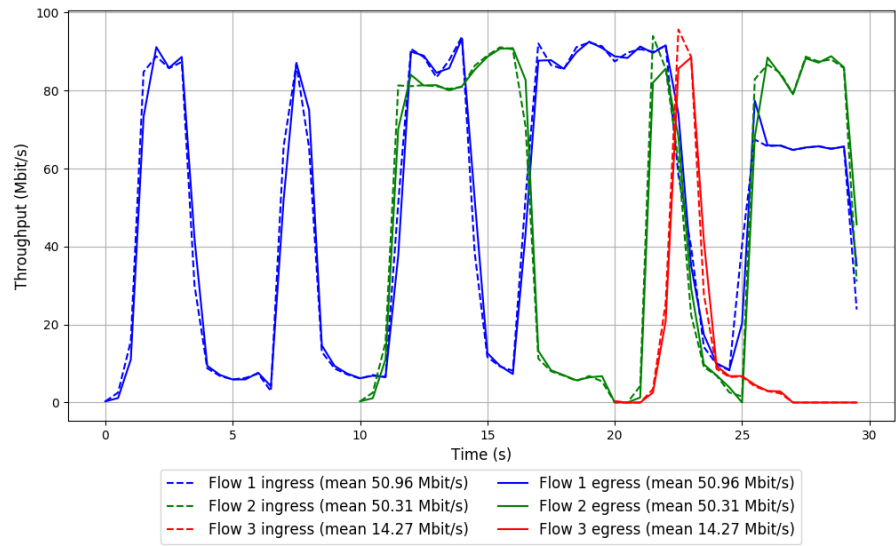
-- Flow 3:

Average throughput: 14.27 Mbit/s

95th percentile per-packet one-way delay: 86.543 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-04-18 06:11:27

End at: 2018-04-18 06:11:57

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.13 Mbit/s

95th percentile per-packet one-way delay: 86.561 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.31 Mbit/s

95th percentile per-packet one-way delay: 86.225 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.68 Mbit/s

95th percentile per-packet one-way delay: 86.569 ms

Loss rate: 0.00%

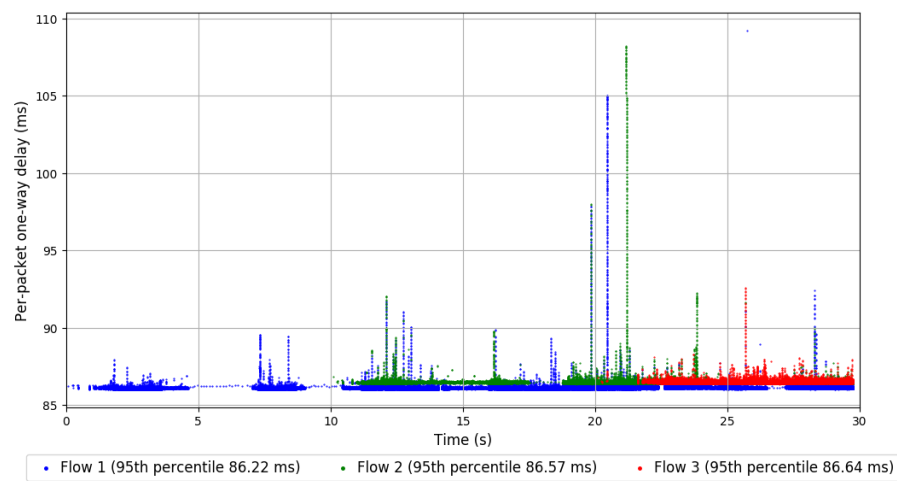
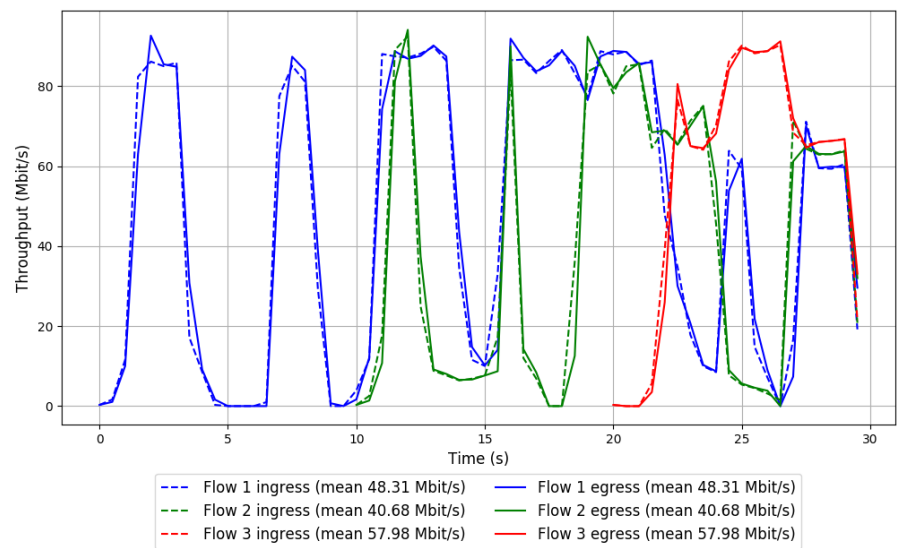
-- Flow 3:

Average throughput: 57.98 Mbit/s

95th percentile per-packet one-way delay: 86.637 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-04-18 06:27:43

End at: 2018-04-18 06:28:13

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.29 Mbit/s

95th percentile per-packet one-way delay: 86.573 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.53 Mbit/s

95th percentile per-packet one-way delay: 86.269 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.21 Mbit/s

95th percentile per-packet one-way delay: 86.628 ms

Loss rate: 0.00%

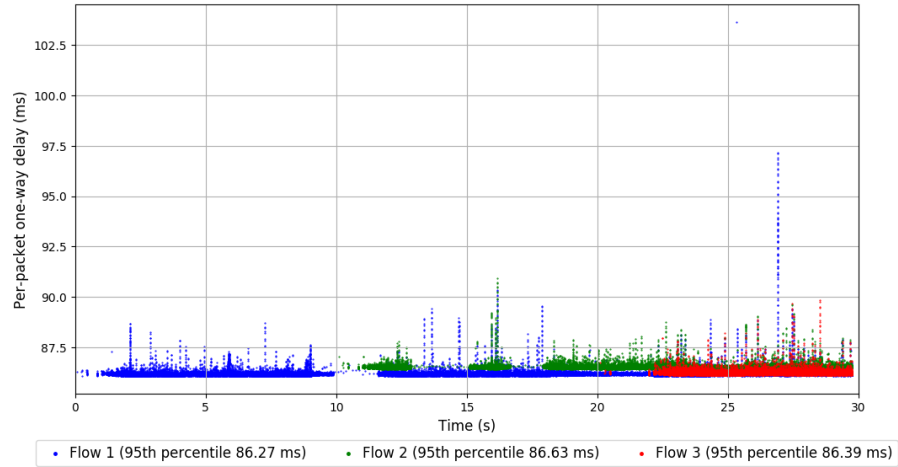
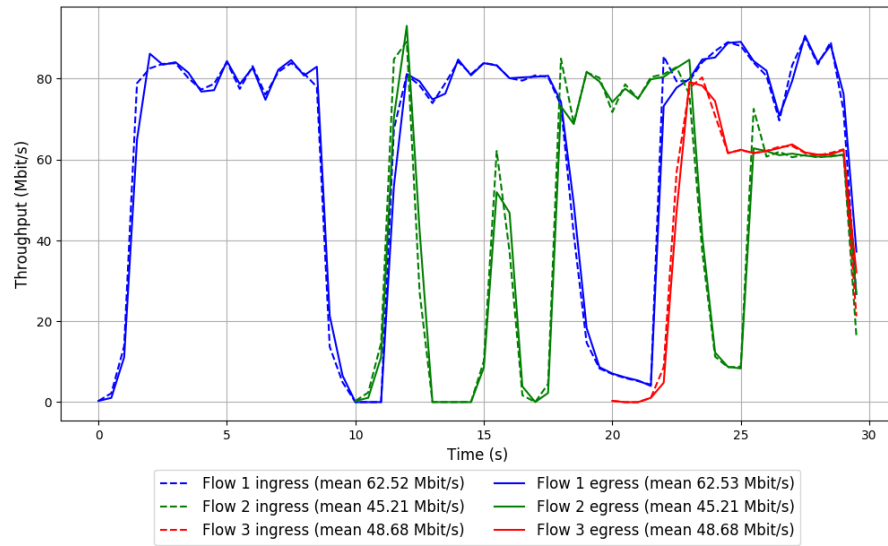
-- Flow 3:

Average throughput: 48.68 Mbit/s

95th percentile per-packet one-way delay: 86.386 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

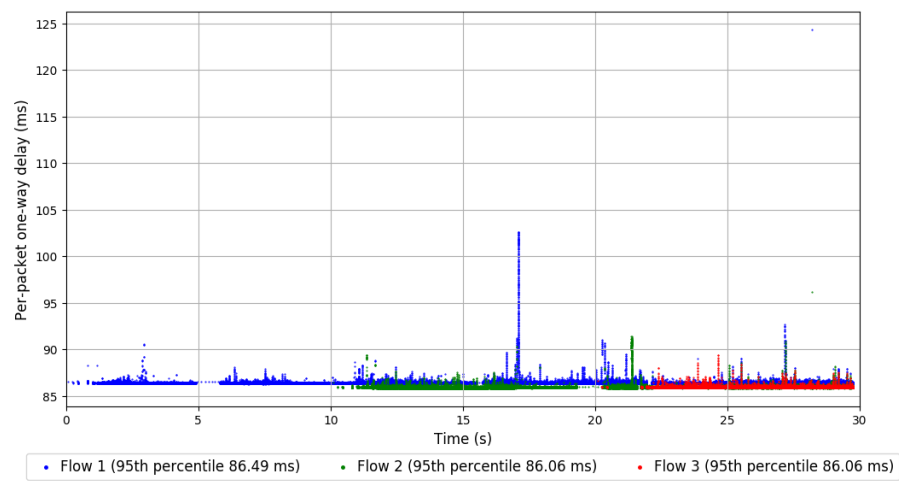
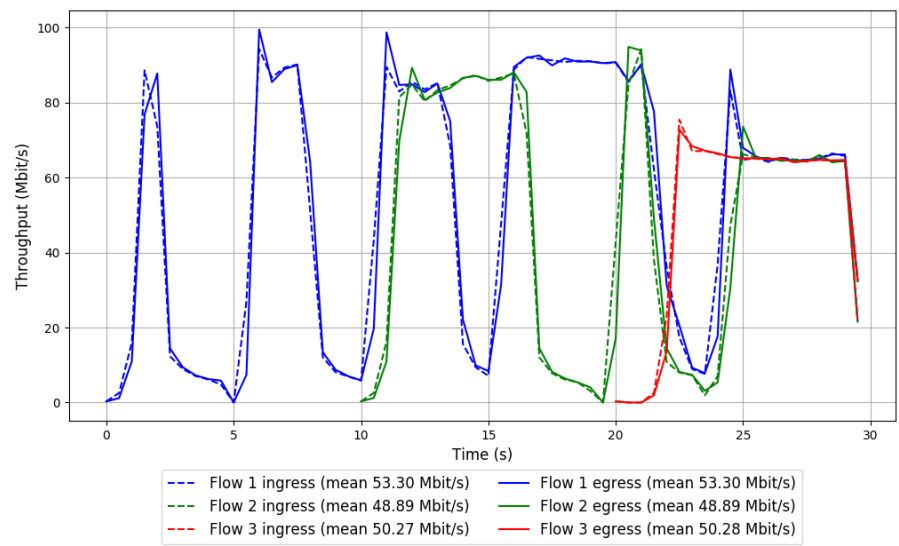


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-04-18 06:44:01
End at: 2018-04-18 06:44:31

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.04 Mbit/s
95th percentile per-packet one-way delay: 86.466 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 53.30 Mbit/s
95th percentile per-packet one-way delay: 86.494 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.89 Mbit/s
95th percentile per-packet one-way delay: 86.062 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 50.28 Mbit/s
95th percentile per-packet one-way delay: 86.064 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

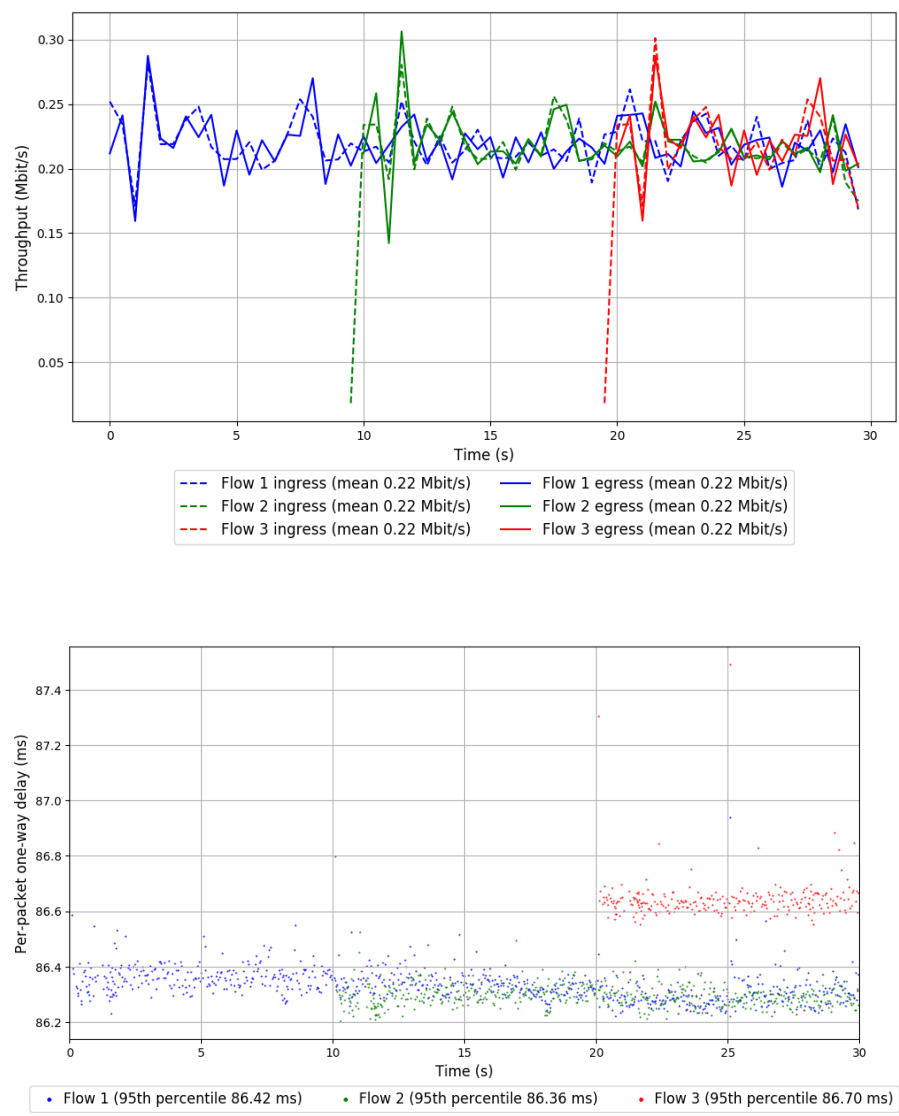


```
Run 1: Statistics of SReAM

Start at: 2018-04-18 04:09:53
End at: 2018-04-18 04:10:23

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.651 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.419 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.362 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.696 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

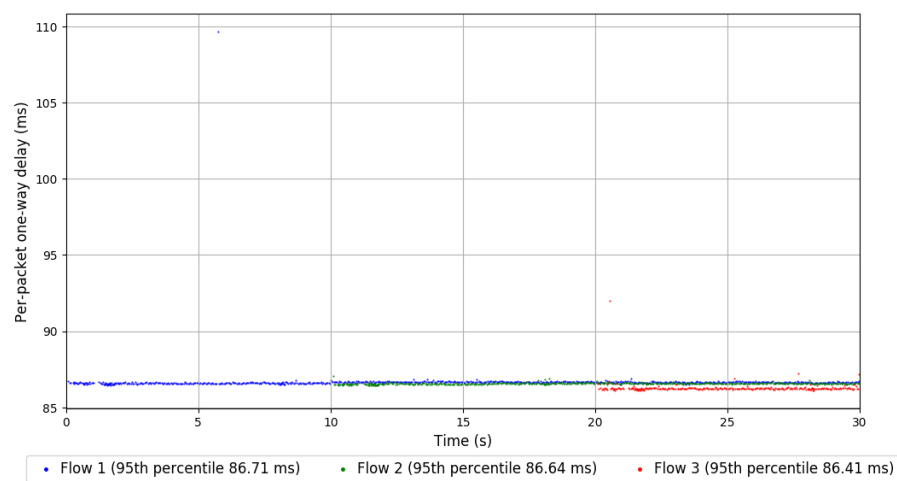
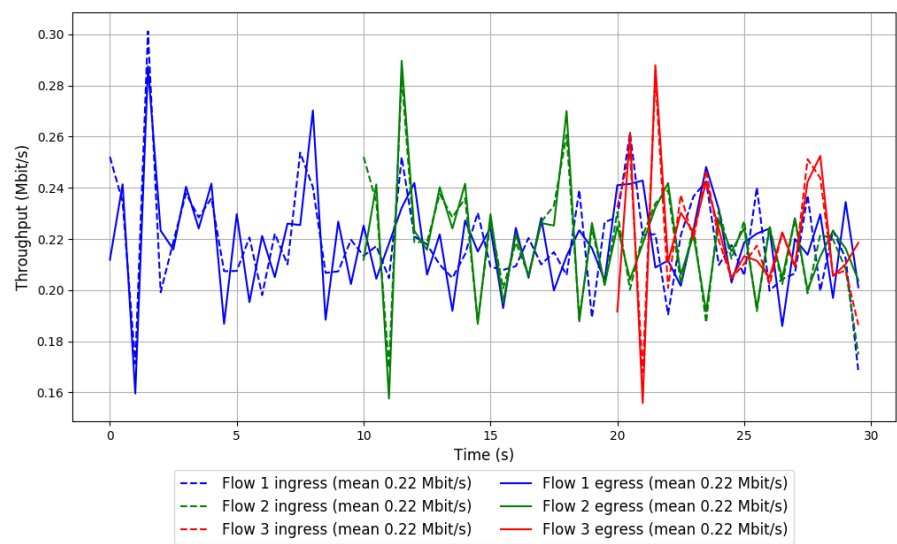


```
Run 2: Statistics of SReAM

Start at: 2018-04-18 04:25:44
End at: 2018-04-18 04:26:14

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.697 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.709 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.635 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.406 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link

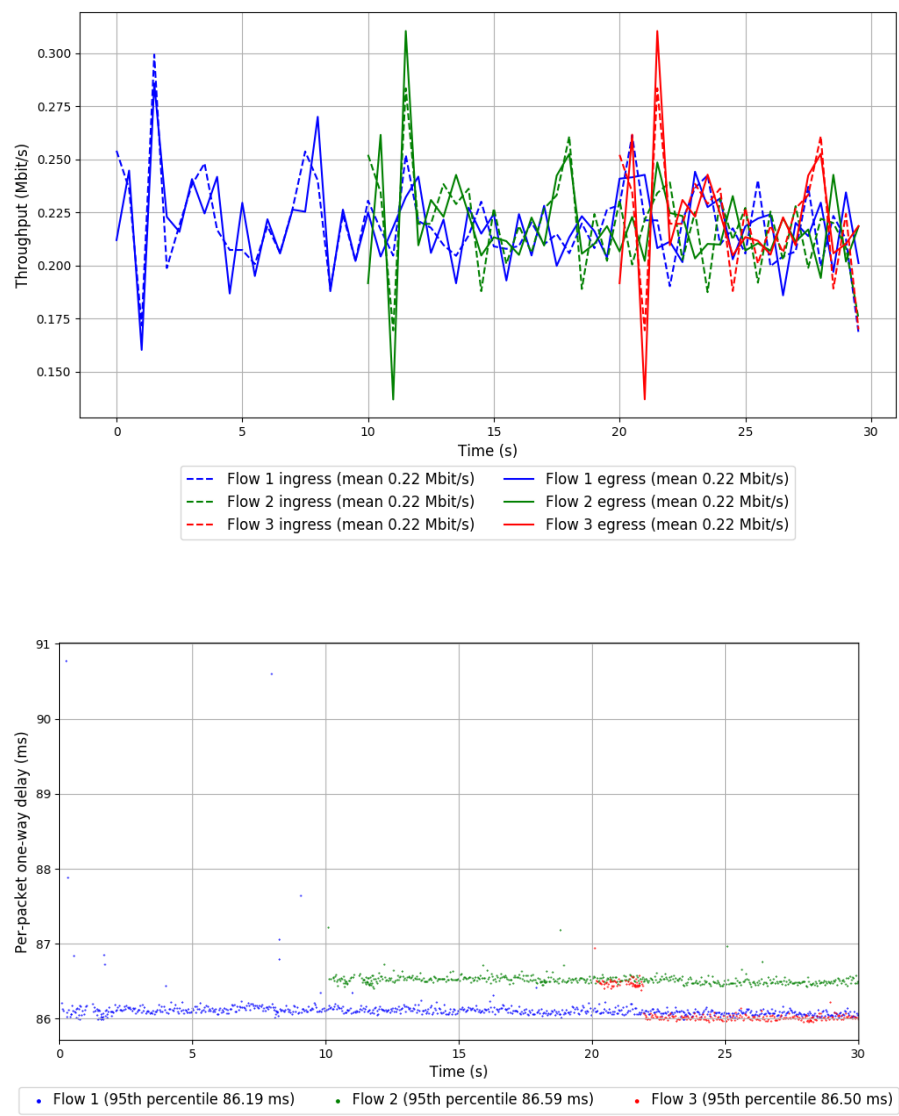


```
Run 3: Statistics of SCReAM

Start at: 2018-04-18 04:42:16
End at: 2018-04-18 04:42:46

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.563 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.591 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.500 ms
Loss rate: 0.00%
```


Run 3: Report of SReAM — Data Link

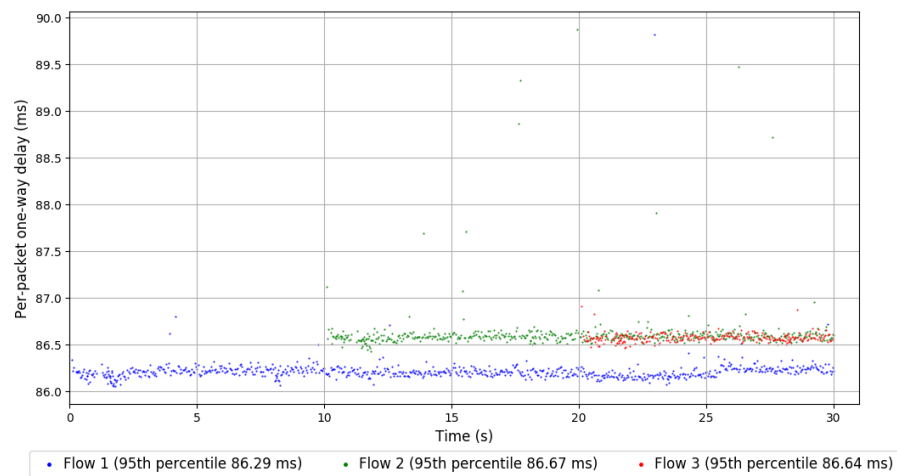
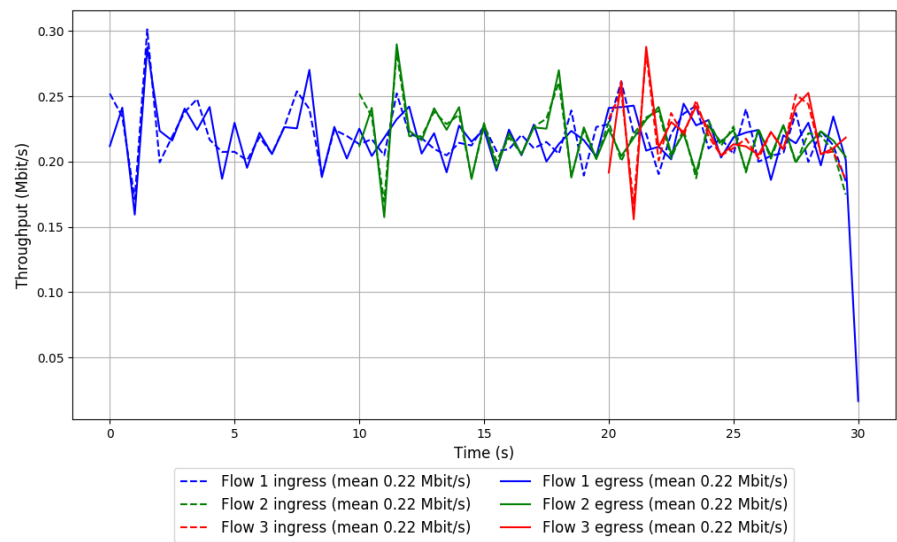


```
Run 4: Statistics of SReAM

Start at: 2018-04-18 04:58:39
End at: 2018-04-18 04:59:09

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.291 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.675 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.00%
```

Run 4: Report of SReAM — Data Link

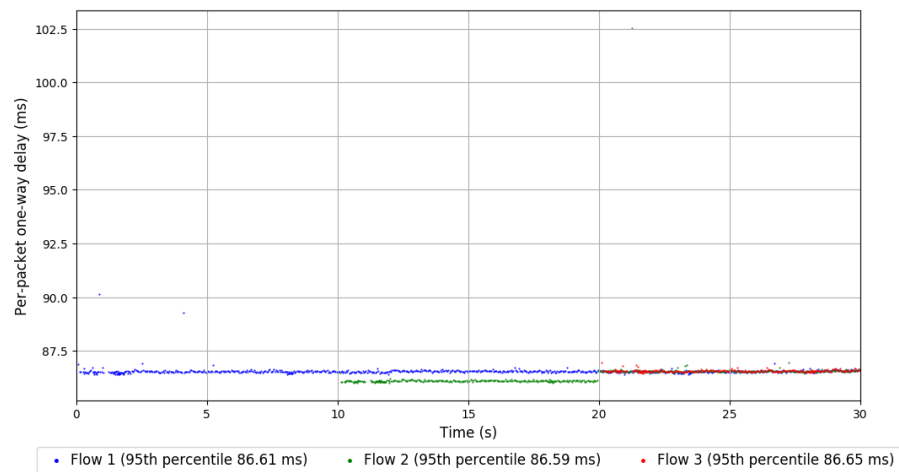
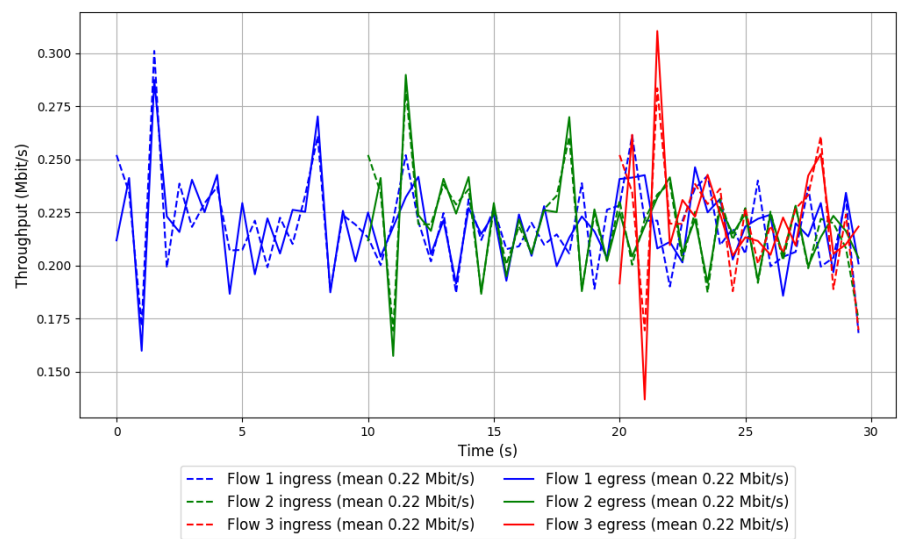


```
Run 5: Statistics of SCReAM

Start at: 2018-04-18 05:14:48
End at: 2018-04-18 05:15:18

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.613 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.612 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.593 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.649 ms
Loss rate: 0.00%
```

Run 5: Report of SReAM — Data Link

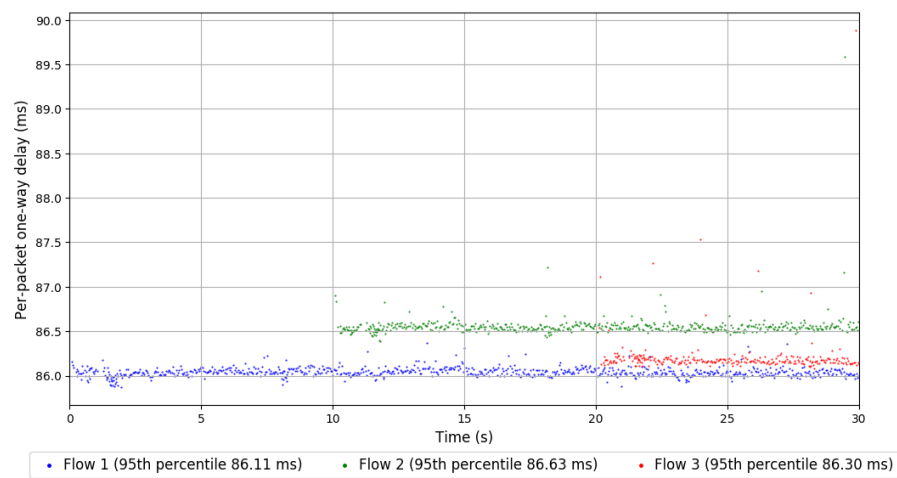
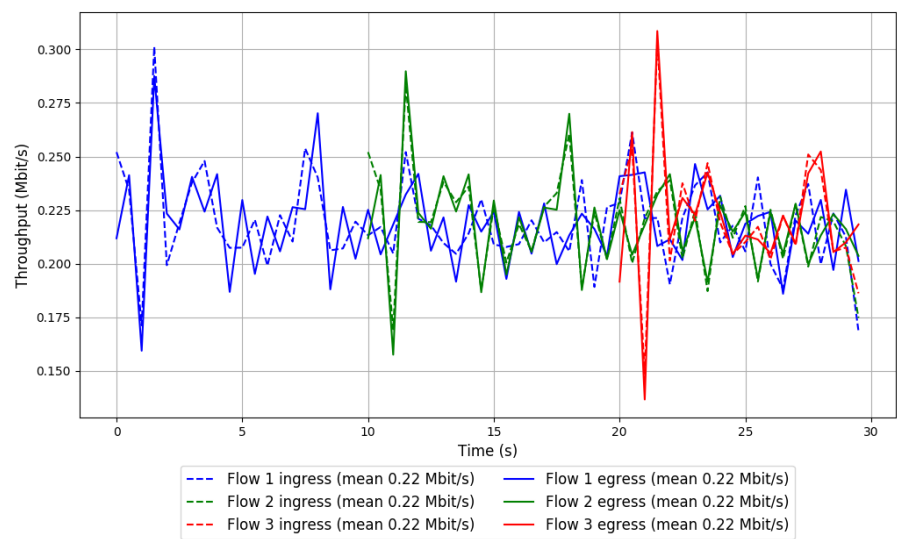


```
Run 6: Statistics of SReAM

Start at: 2018-04-18 05:31:16
End at: 2018-04-18 05:31:46

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.587 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.112 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.627 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.295 ms
Loss rate: 0.00%
```

Run 6: Report of SReAM — Data Link

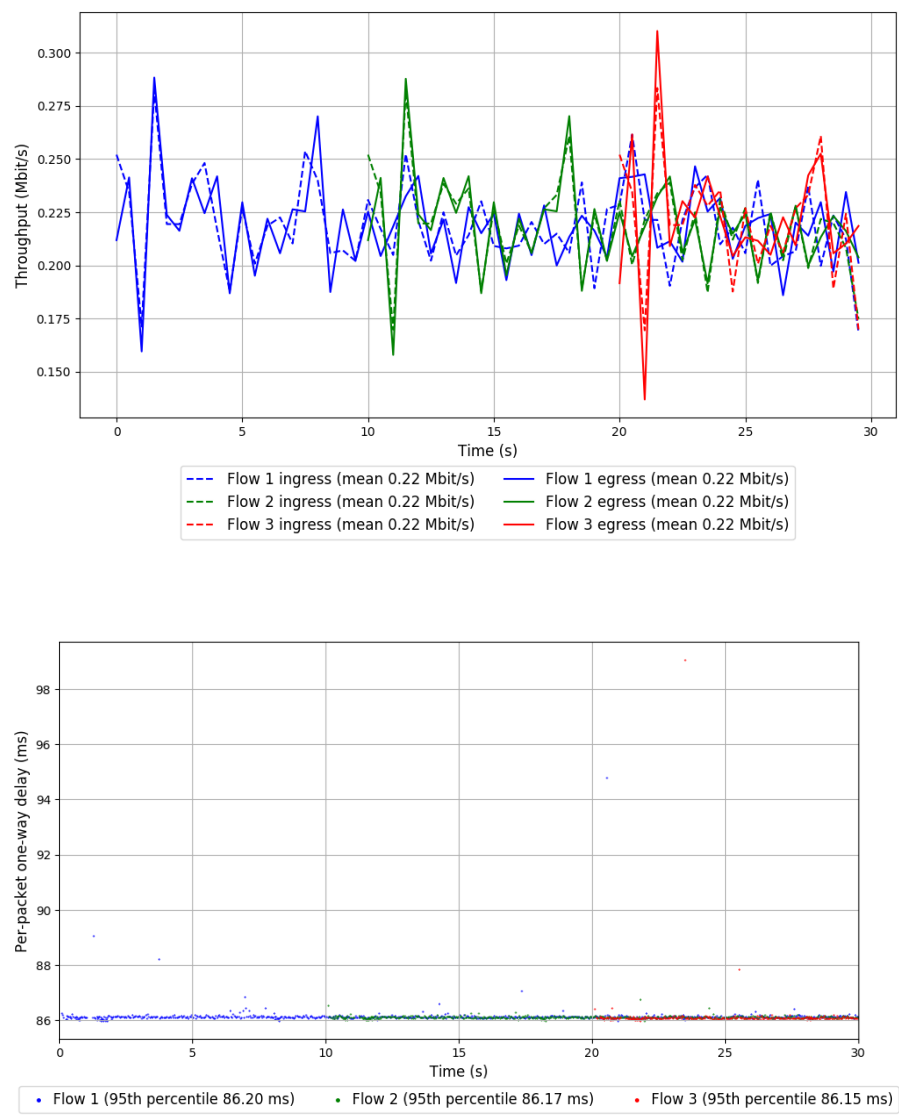


```
Run 7: Statistics of SReAM

Start at: 2018-04-18 05:47:38
End at: 2018-04-18 05:48:08

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.178 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.168 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.151 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link

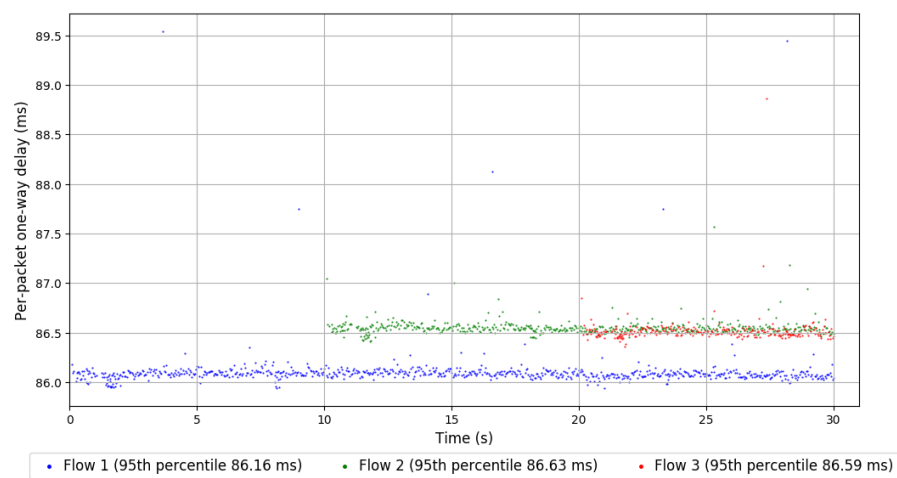
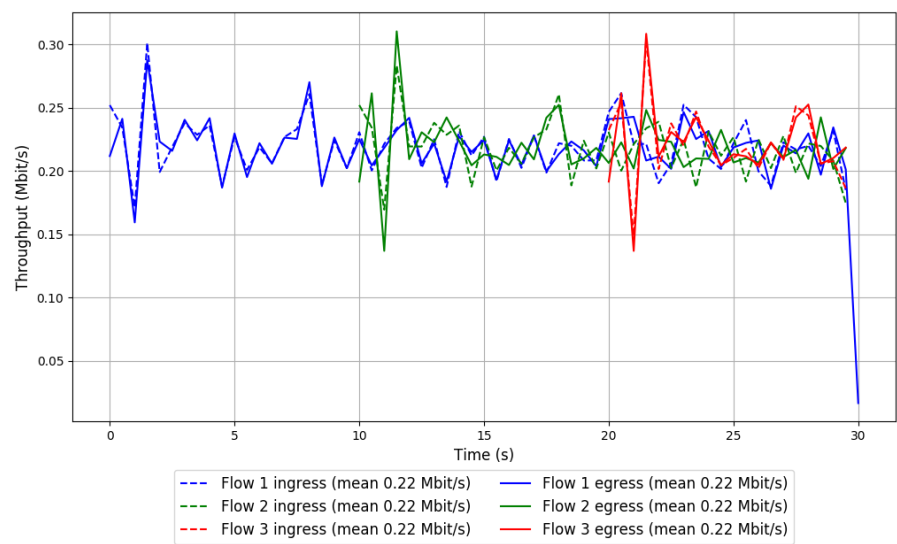


```
Run 8: Statistics of SReAM

Start at: 2018-04-18 06:03:52
End at: 2018-04-18 06:04:22

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.591 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.163 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.628 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.591 ms
Loss rate: 0.00%
```

Run 8: Report of SReAM — Data Link

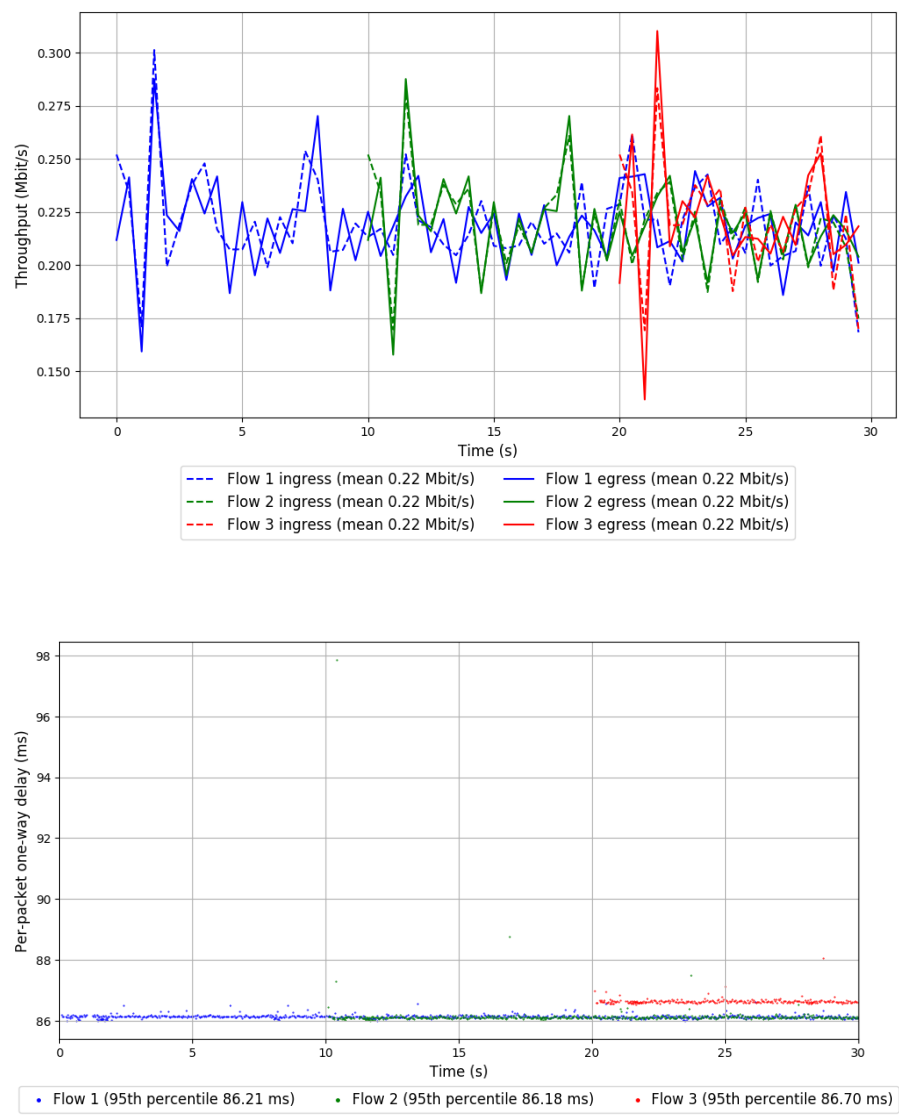


```
Run 9: Statistics of SCReAM

Start at: 2018-04-18 06:20:14
End at: 2018-04-18 06:20:44

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.646 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.210 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.176 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.703 ms
Loss rate: 0.00%
```

Run 9: Report of SReAM — Data Link

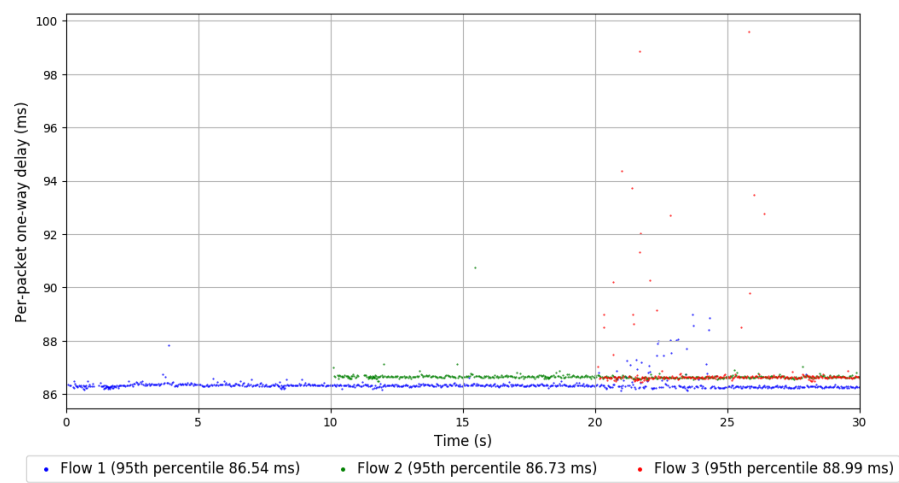
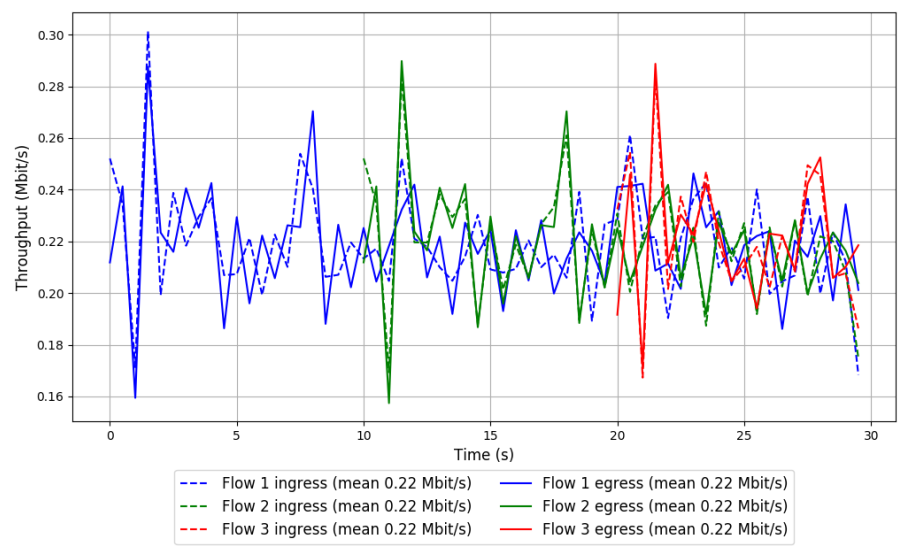


```
Run 10: Statistics of SReAM

Start at: 2018-04-18 06:36:33
End at: 2018-04-18 06:37:03

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 86.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.542 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.732 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.990 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

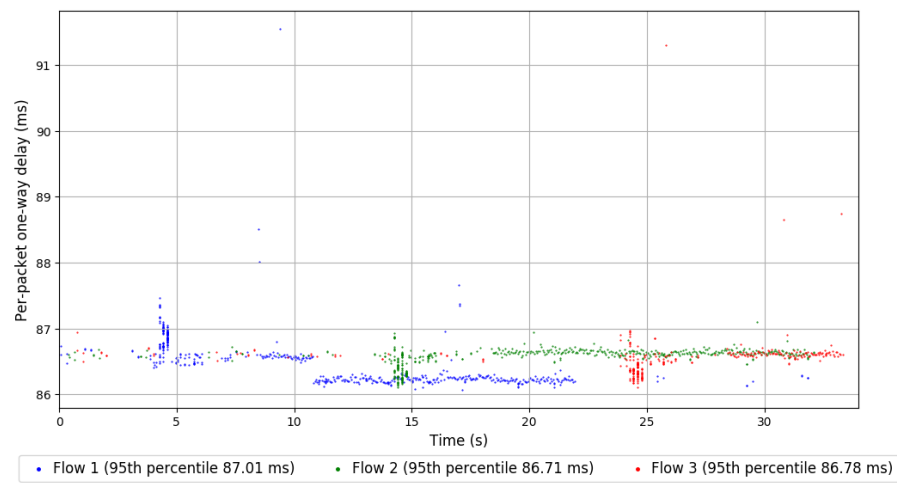
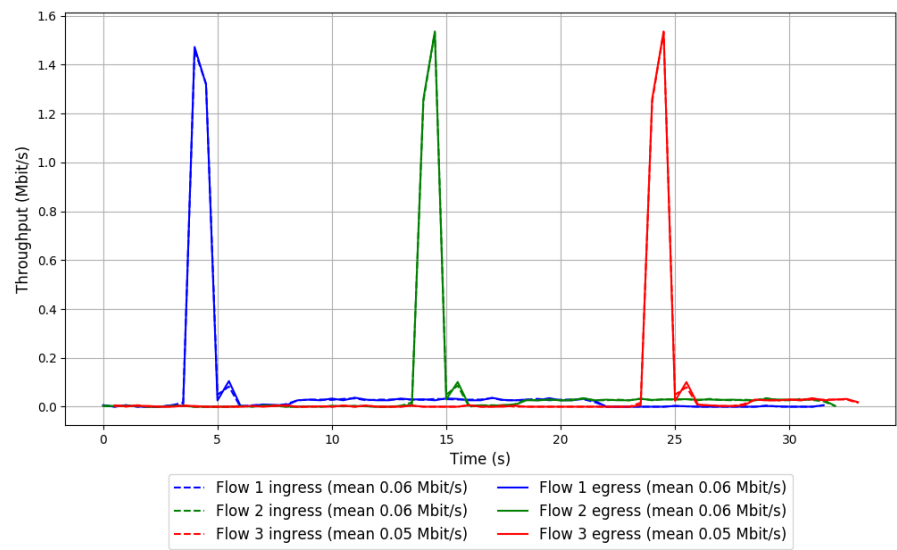


```
Run 1: Statistics of WebRTC media

Start at: 2018-04-18 04:13:40
End at: 2018-04-18 04:14:10

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 86.931 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 87.014 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 86.708 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 86.782 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-04-18 04:30:03

End at: 2018-04-18 04:30:33

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 87.051 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.066 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.099 ms

Loss rate: 0.00%

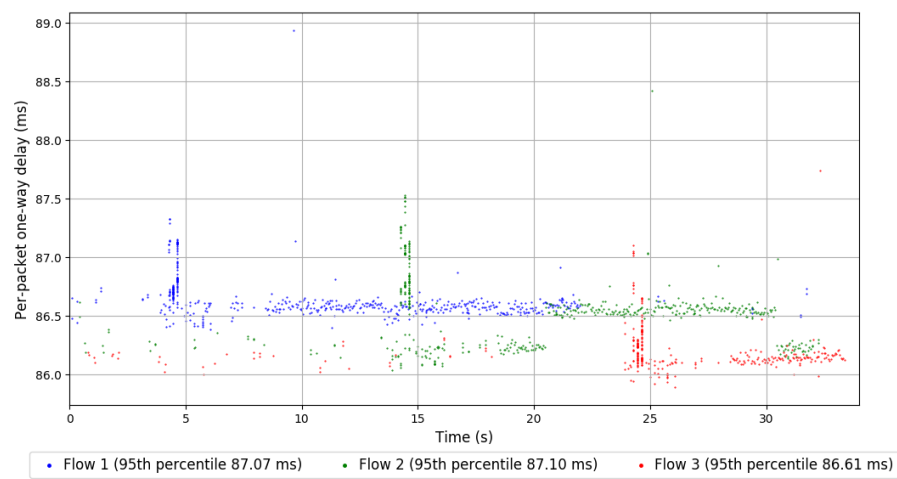
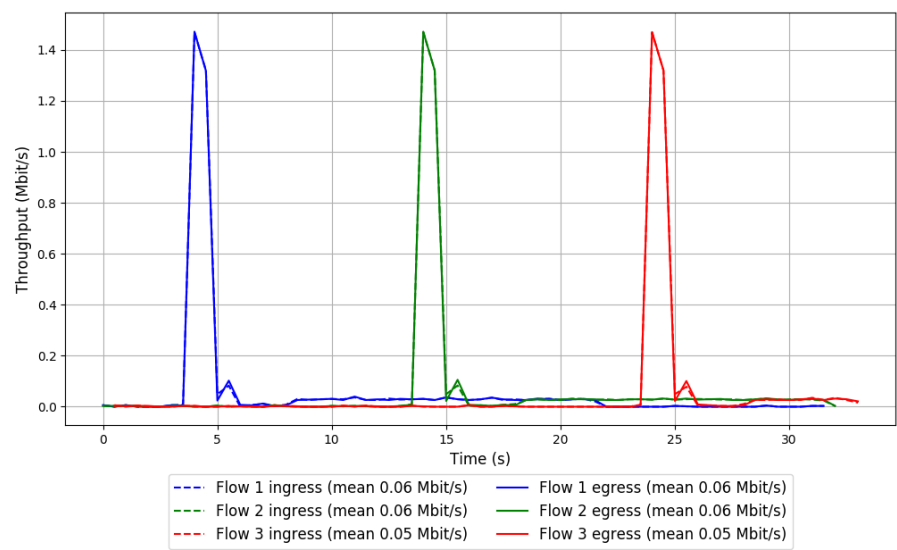
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.606 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-04-18 04:46:32

End at: 2018-04-18 04:47:02

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.667 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.732 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.450 ms

Loss rate: 0.00%

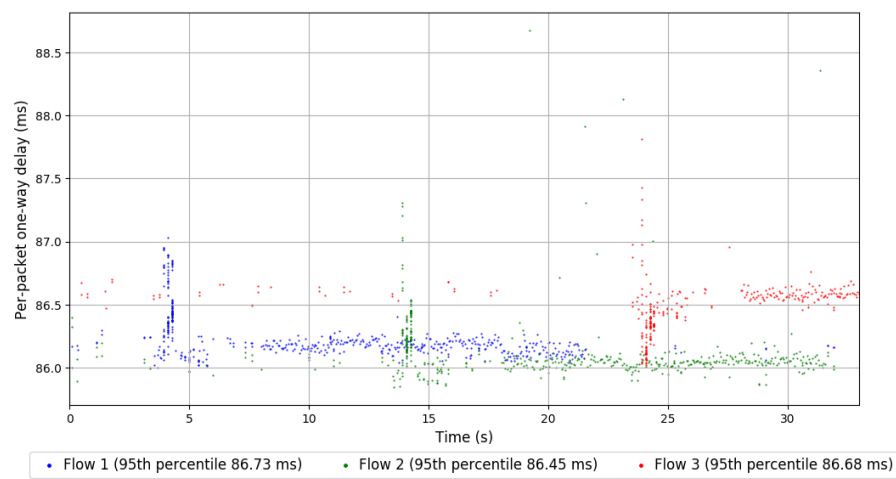
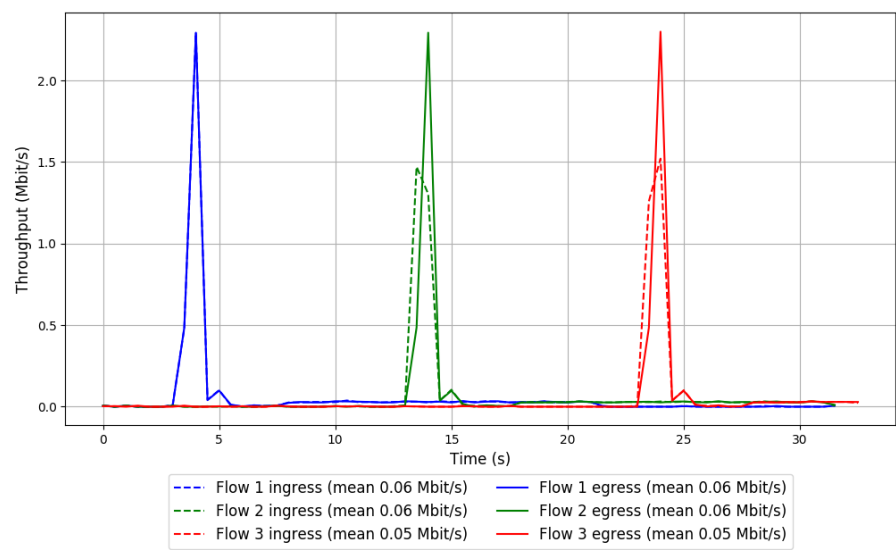
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.681 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-04-18 05:02:43

End at: 2018-04-18 05:03:13

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 86.701 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 86.669 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.781 ms

Loss rate: 0.00%

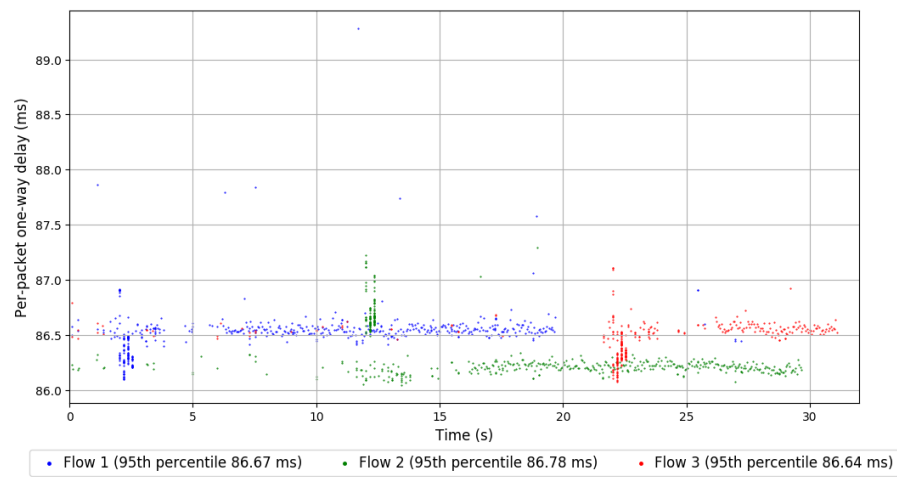
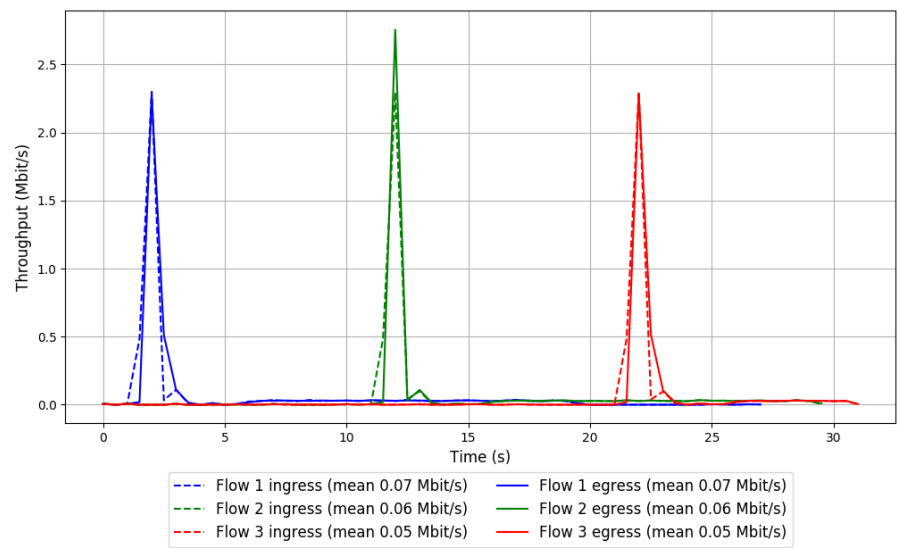
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.641 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-04-18 05:19:07

End at: 2018-04-18 05:19:37

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.608 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.468 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.584 ms

Loss rate: 0.00%

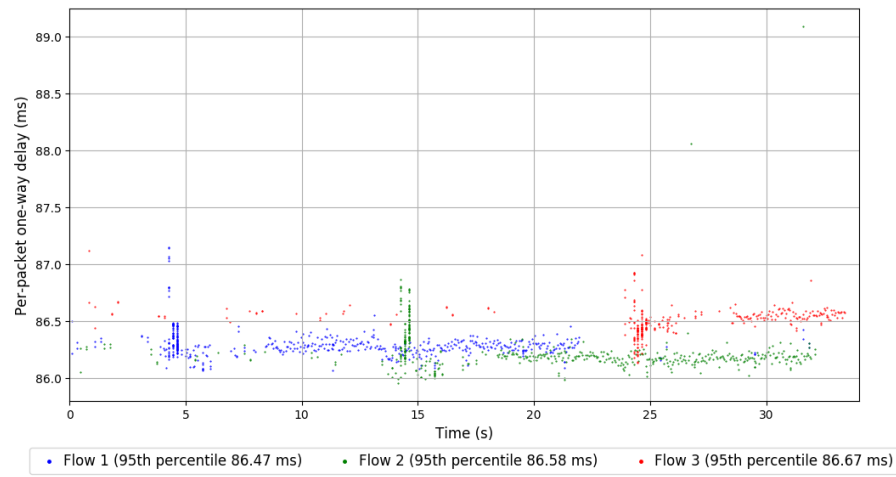
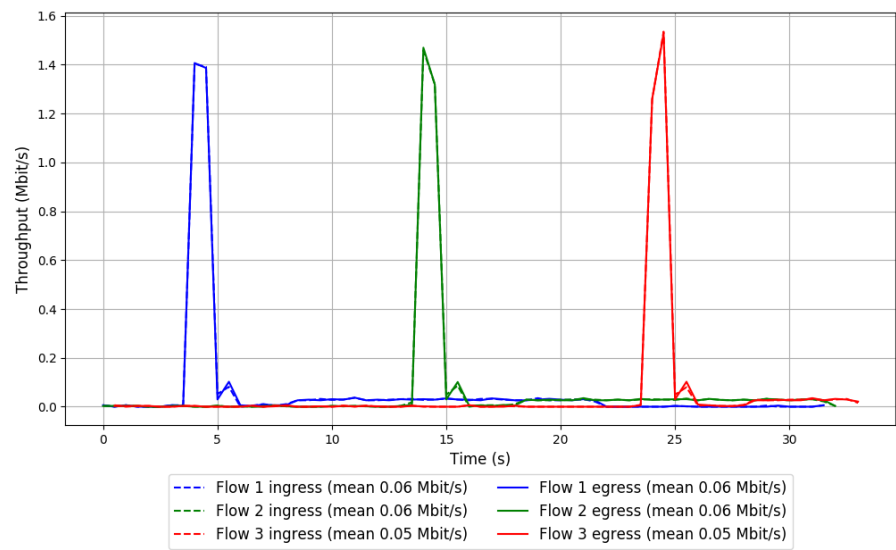
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.665 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-04-18 05:35:28

End at: 2018-04-18 05:35:58

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.743 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.853 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.680 ms

Loss rate: 0.00%

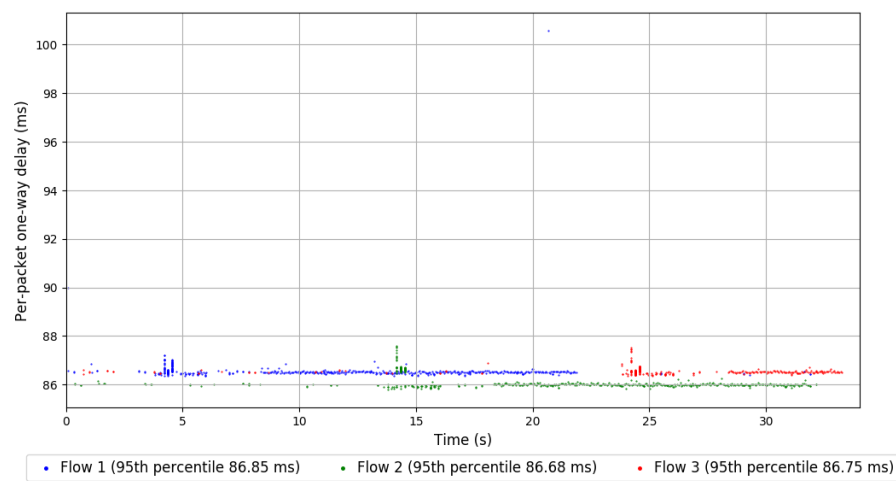
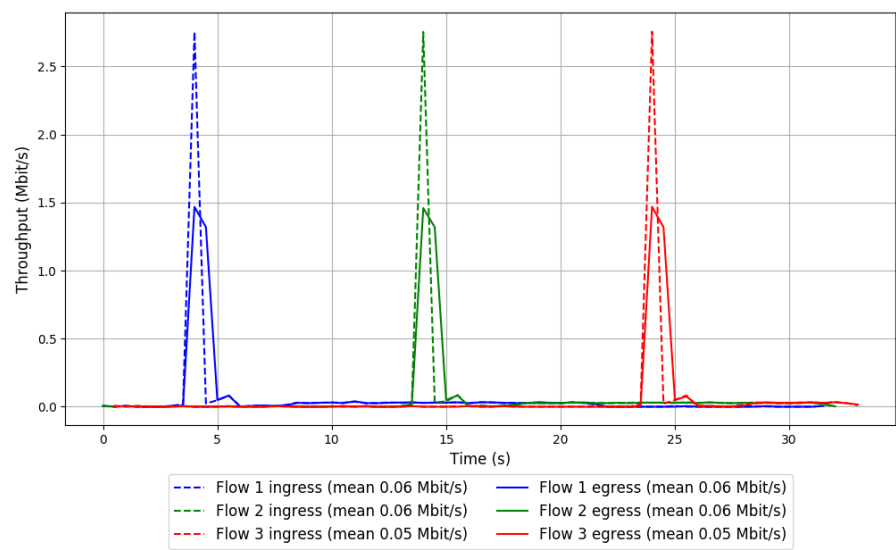
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.745 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-04-18 05:51:56

End at: 2018-04-18 05:52:26

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.872 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.698 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.913 ms

Loss rate: 0.00%

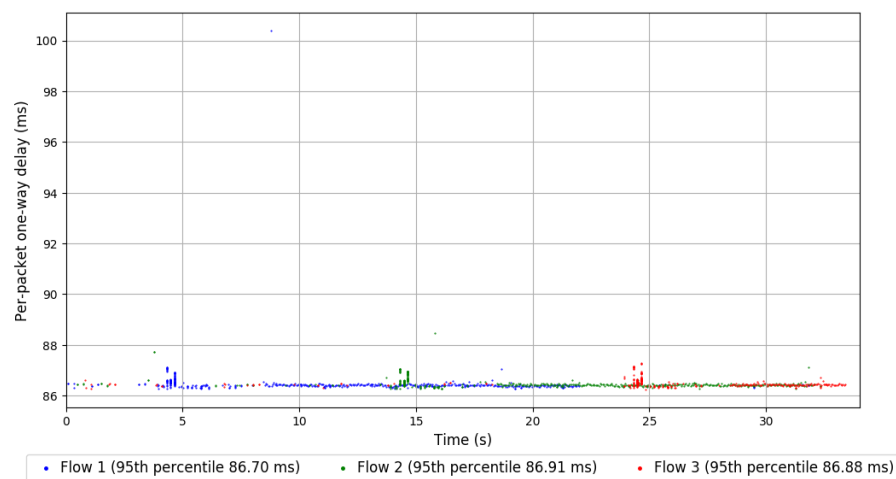
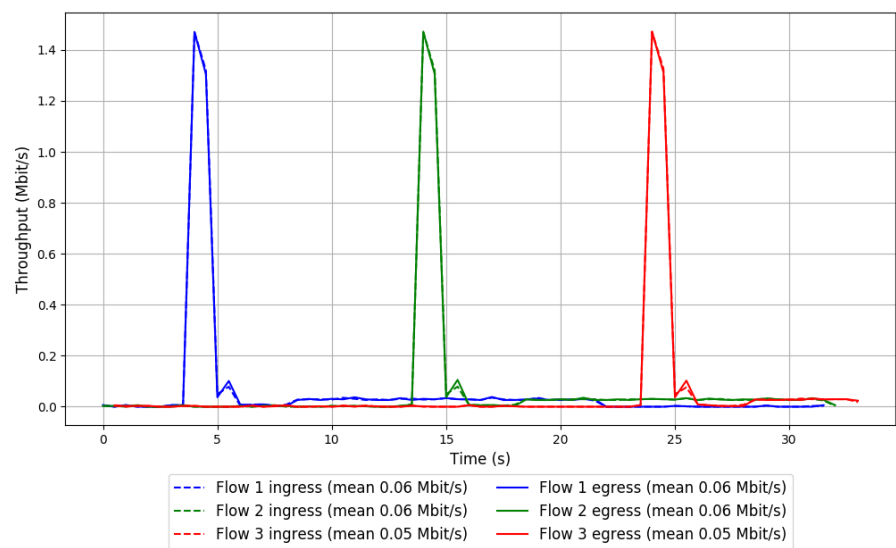
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.881 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-04-18 06:08:06

End at: 2018-04-18 06:08:36

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.945 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.945 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.914 ms

Loss rate: 0.00%

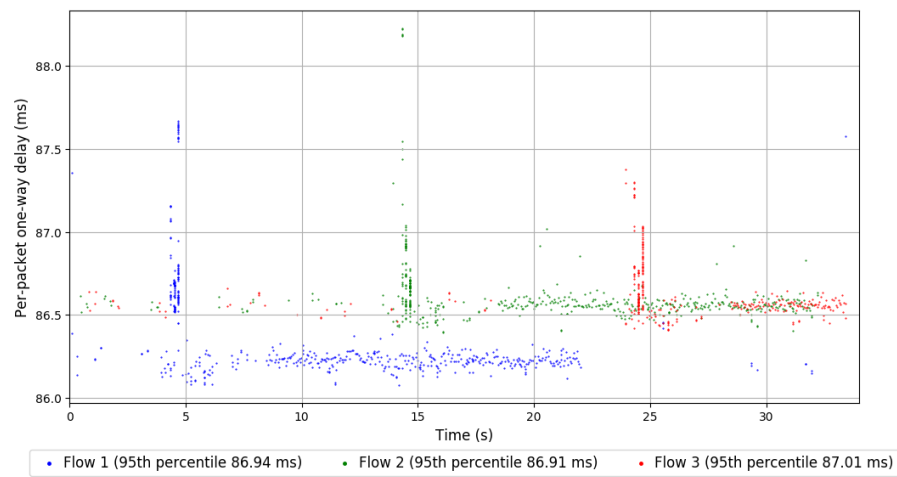
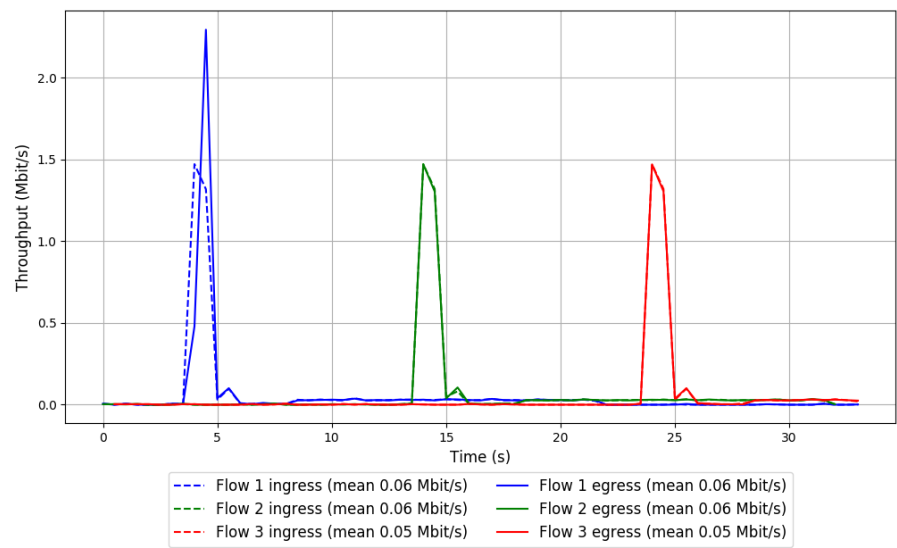
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.006 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-04-18 06:24:23

End at: 2018-04-18 06:24:53

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 87.351 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.001 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.370 ms

Loss rate: 0.00%

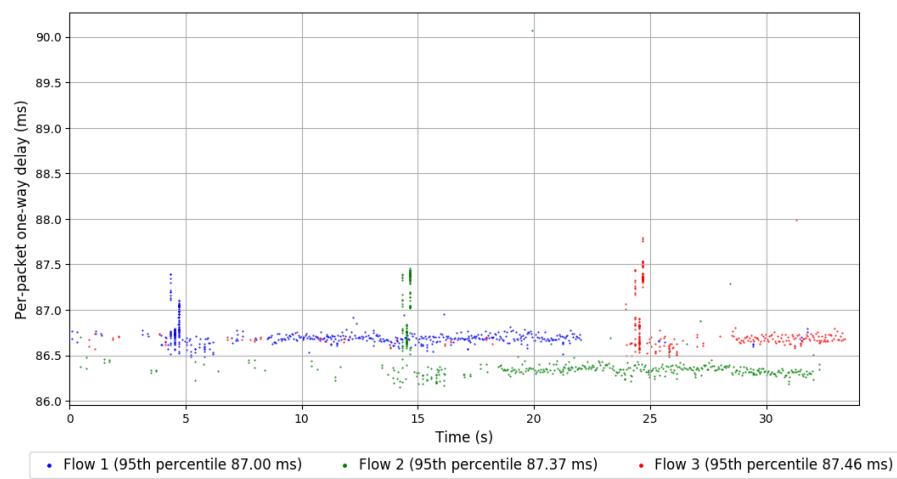
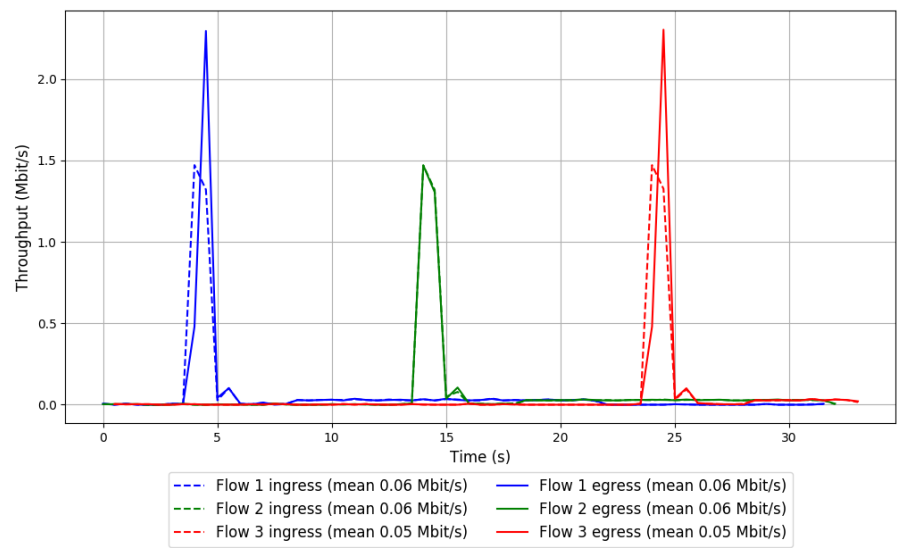
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 87.463 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-04-18 06:40:41

End at: 2018-04-18 06:41:11

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 86.974 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 87.101 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 86.913 ms

Loss rate: 0.00%

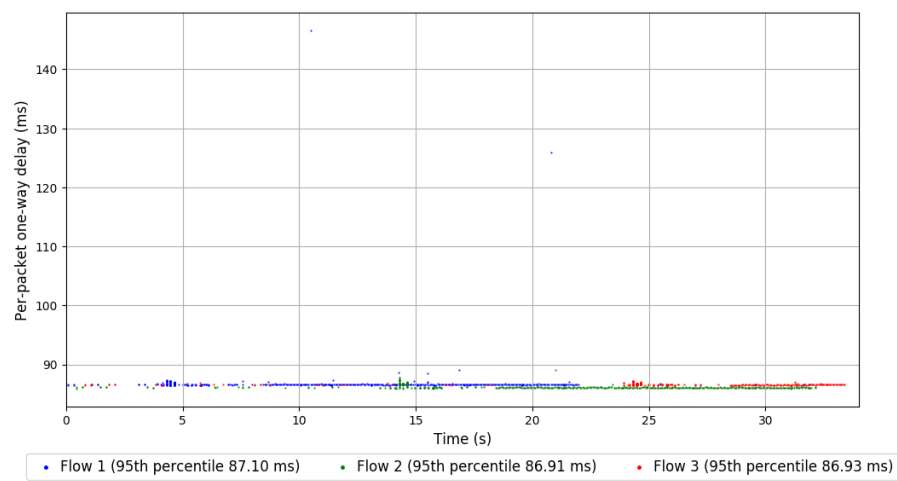
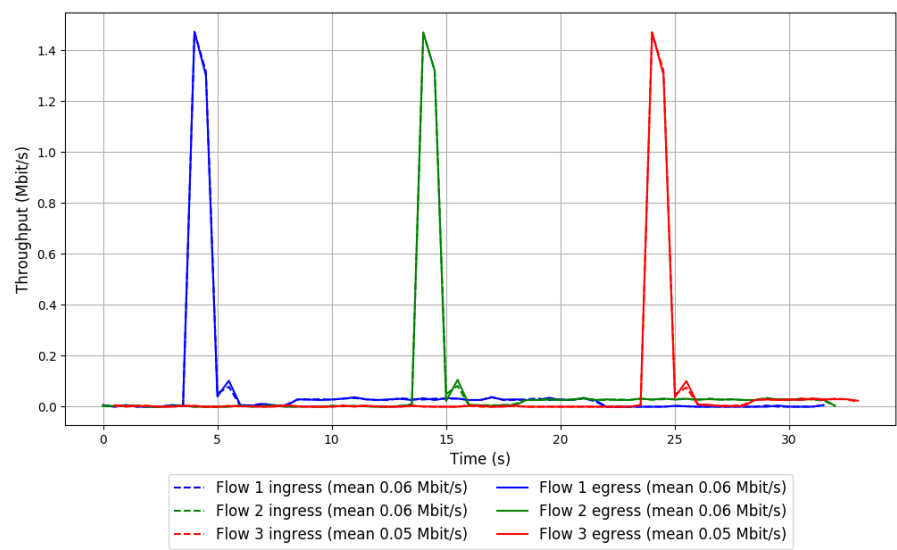
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 86.927 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

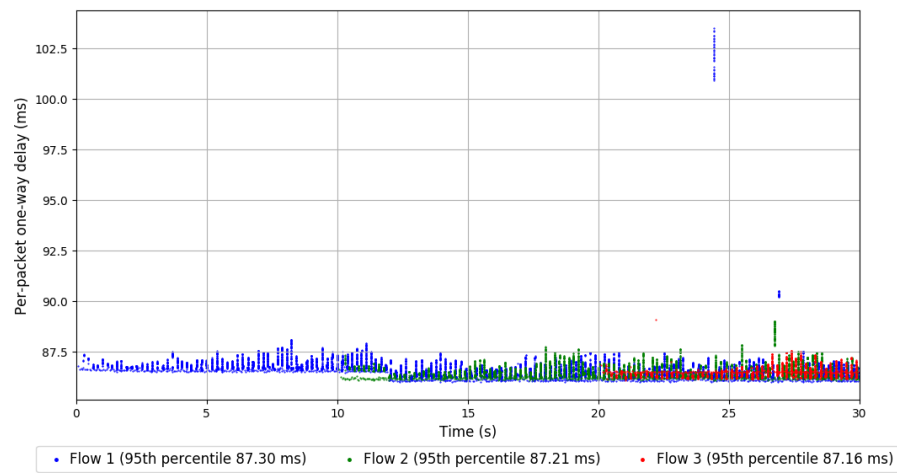
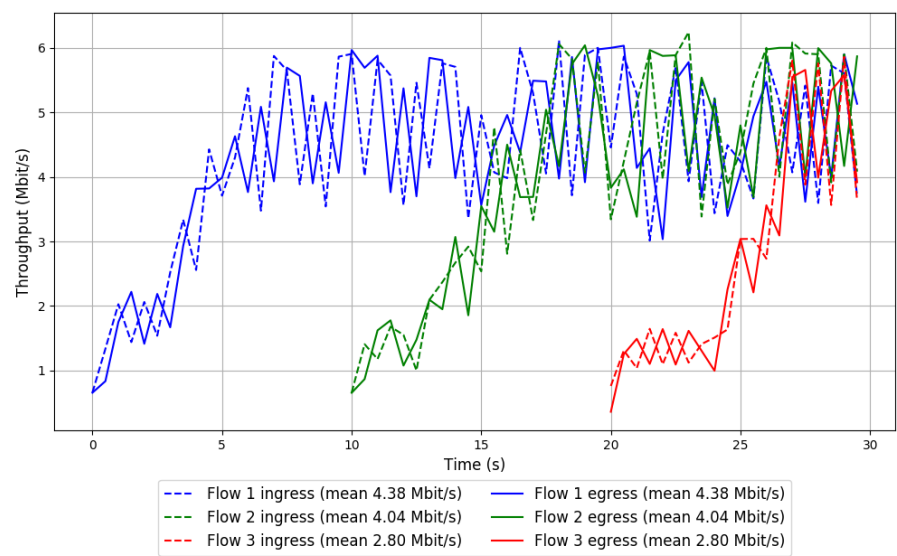


```
Run 1: Statistics of Sprout

Start at: 2018-04-18 04:22:38
End at: 2018-04-18 04:23:08

# Below is generated by plot.py at 2018-04-18 09:07:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.99 Mbit/s
95th percentile per-packet one-way delay: 87.244 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 87.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 87.206 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 87.160 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-04-18 04:39:04

End at: 2018-04-18 04:39:34

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.17 Mbit/s

95th percentile per-packet one-way delay: 87.505 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 87.464 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 87.595 ms

Loss rate: 0.00%

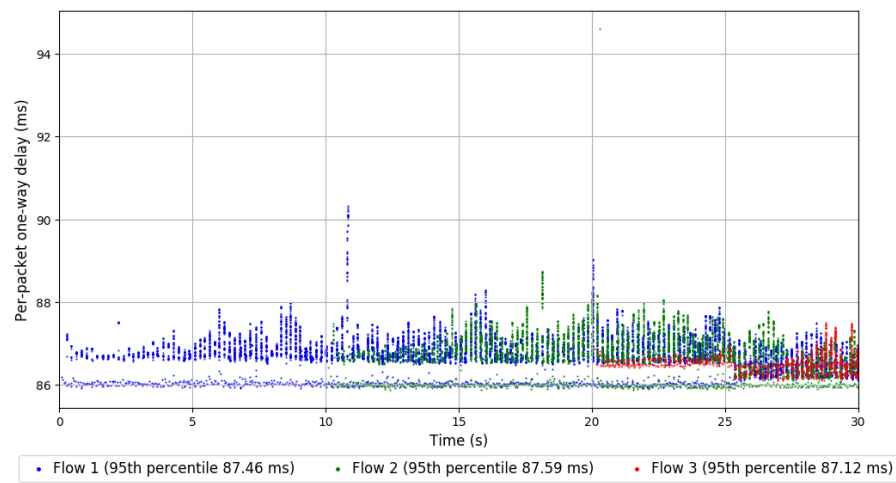
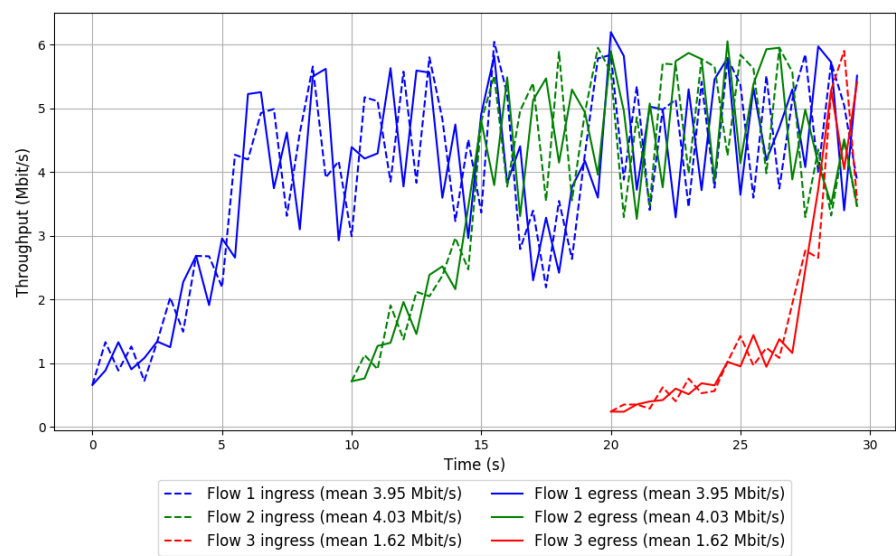
-- Flow 3:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 87.117 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-04-18 04:55:33

End at: 2018-04-18 04:56:03

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 87.106 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 87.165 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 87.102 ms

Loss rate: 0.00%

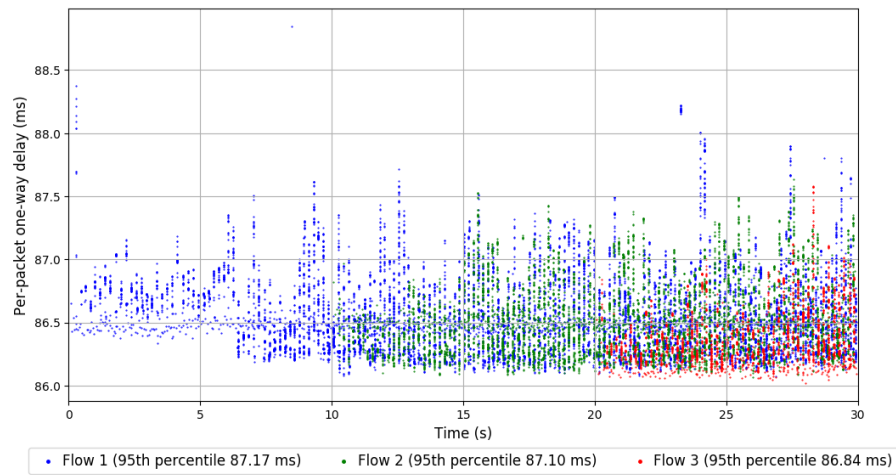
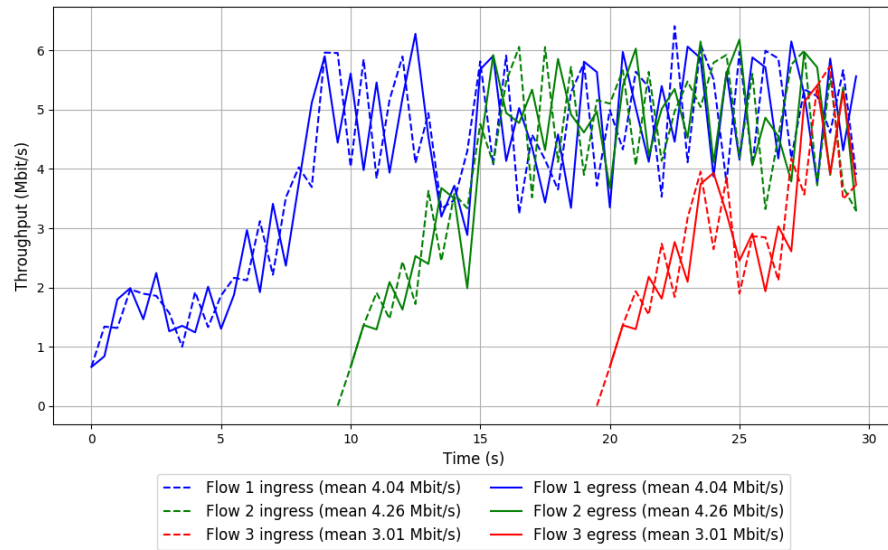
-- Flow 3:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 86.842 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-04-18 05:11:38

End at: 2018-04-18 05:12:08

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 87.343 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 87.424 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 87.266 ms

Loss rate: 0.00%

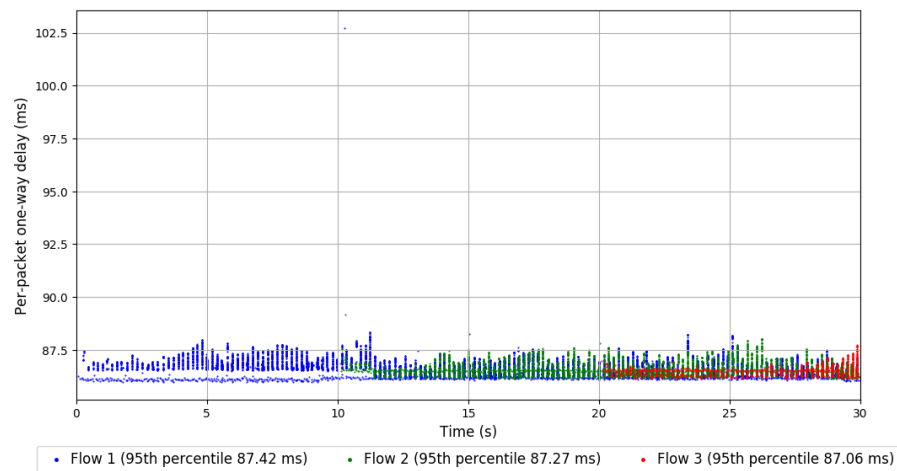
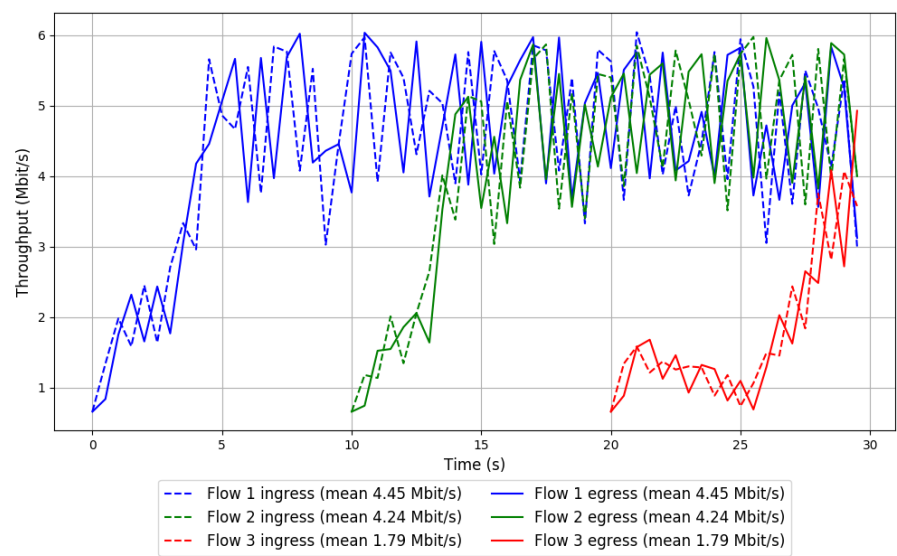
-- Flow 3:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 87.060 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-04-18 05:28:07

End at: 2018-04-18 05:28:37

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.24 Mbit/s

95th percentile per-packet one-way delay: 87.716 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.42 Mbit/s

95th percentile per-packet one-way delay: 87.549 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 87.768 ms

Loss rate: 0.00%

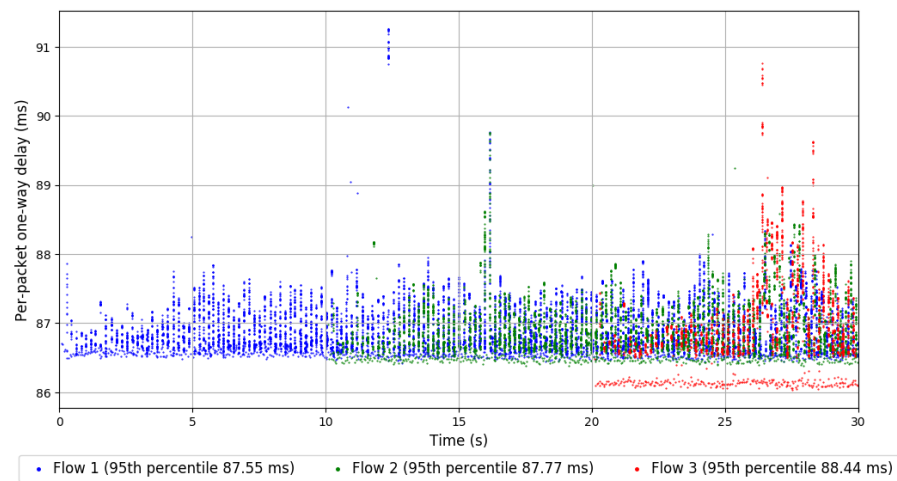
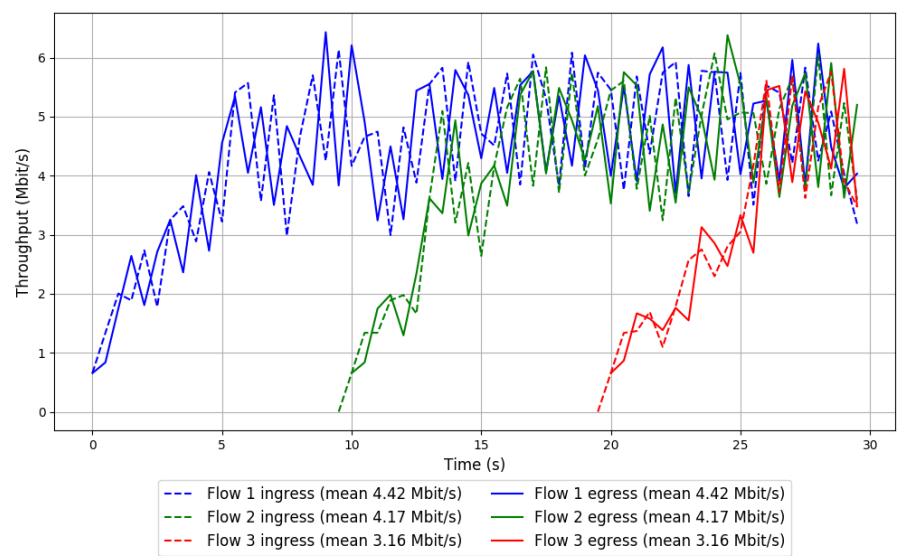
-- Flow 3:

Average throughput: 3.16 Mbit/s

95th percentile per-packet one-way delay: 88.445 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-04-18 05:44:32

End at: 2018-04-18 05:45:02

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.24 Mbit/s

95th percentile per-packet one-way delay: 87.549 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.41 Mbit/s

95th percentile per-packet one-way delay: 87.565 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.09 Mbit/s

95th percentile per-packet one-way delay: 87.604 ms

Loss rate: 0.00%

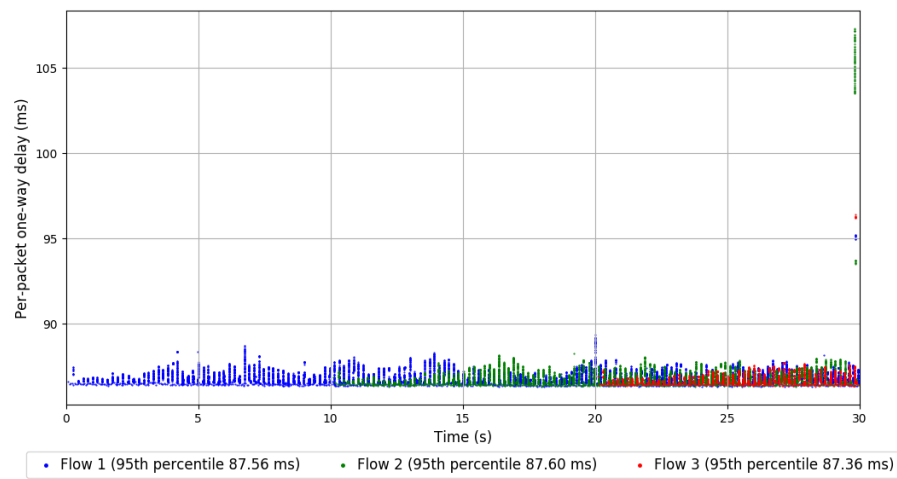
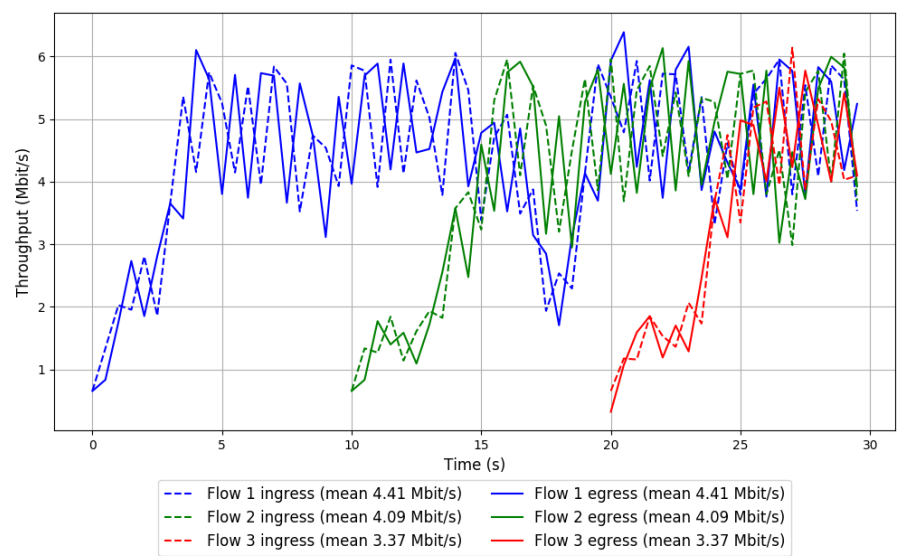
-- Flow 3:

Average throughput: 3.37 Mbit/s

95th percentile per-packet one-way delay: 87.362 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-04-18 06:00:54

End at: 2018-04-18 06:01:24

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 87.454 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 87.346 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 87.541 ms

Loss rate: 0.00%

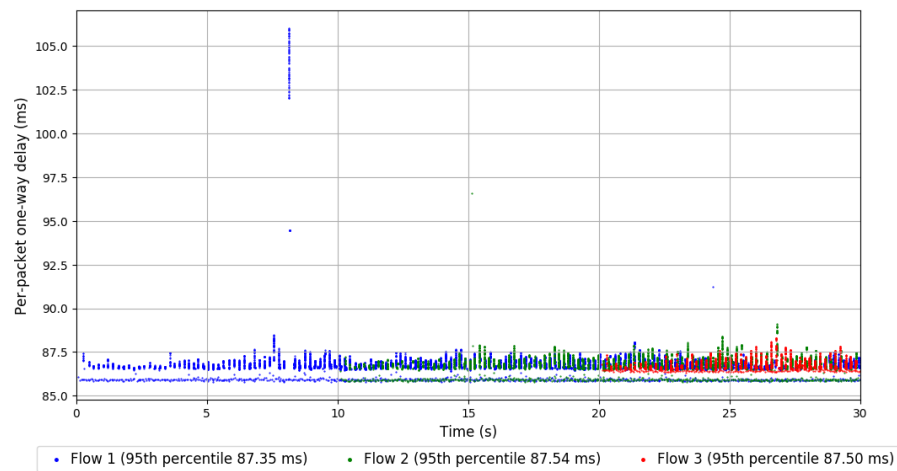
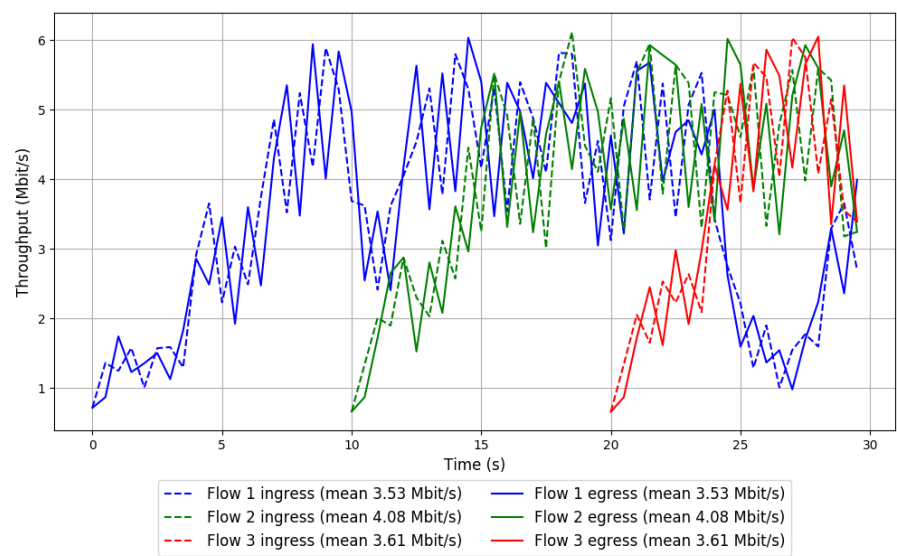
-- Flow 3:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 87.498 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-04-18 06:17:04

End at: 2018-04-18 06:17:34

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.18 Mbit/s

95th percentile per-packet one-way delay: 87.535 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 87.452 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.29 Mbit/s

95th percentile per-packet one-way delay: 87.576 ms

Loss rate: 0.00%

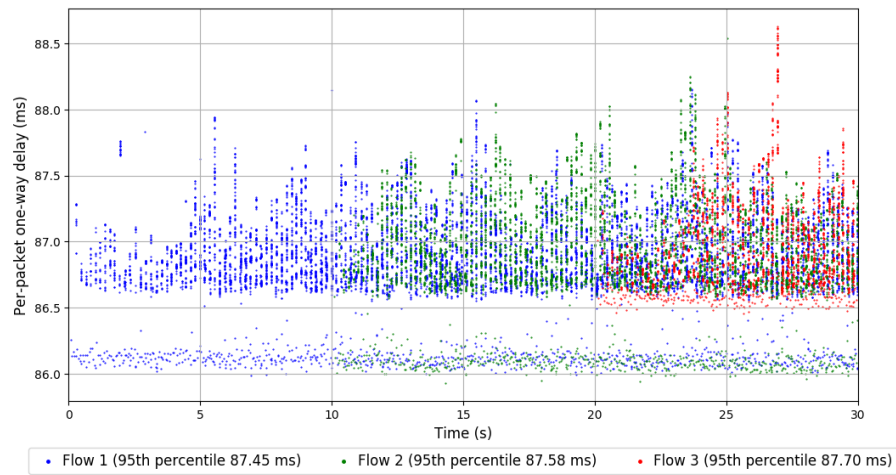
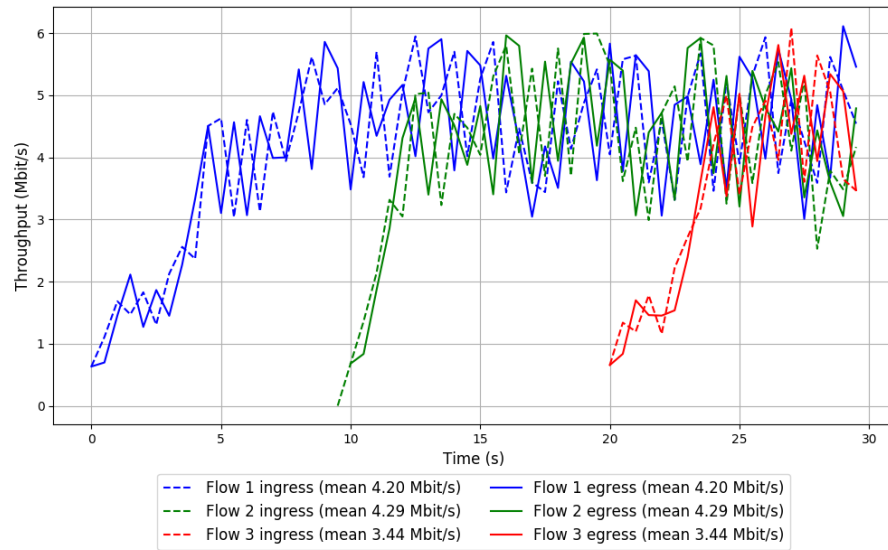
-- Flow 3:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 87.701 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-04-18 06:33:23

End at: 2018-04-18 06:33:53

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 87.723 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.83 Mbit/s

95th percentile per-packet one-way delay: 87.628 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 87.873 ms

Loss rate: 0.00%

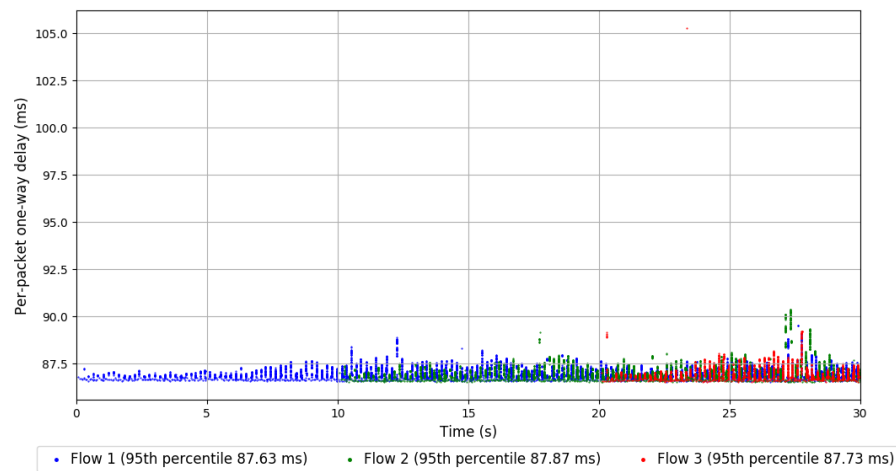
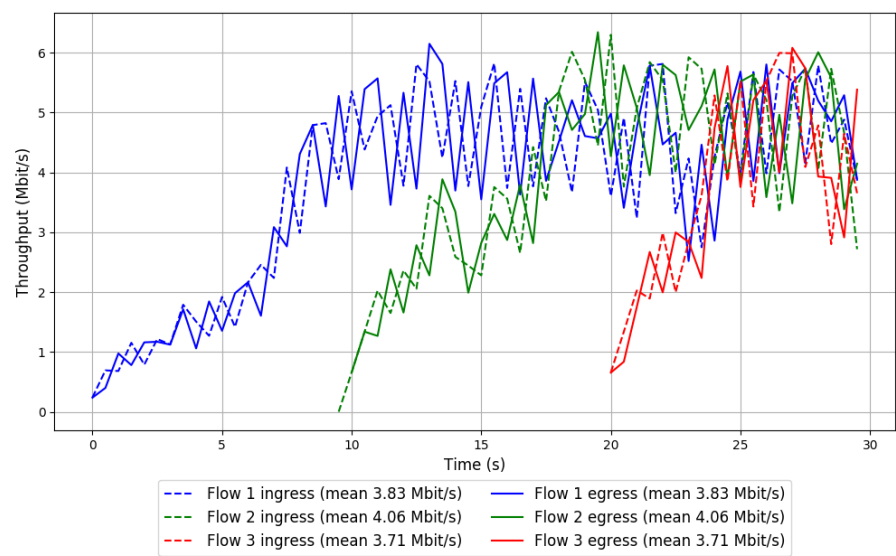
-- Flow 3:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 87.727 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-04-18 06:49:43

End at: 2018-04-18 06:50:13

Below is generated by plot.py at 2018-04-18 09:07:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 87.412 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 3.98 Mbit/s

95th percentile per-packet one-way delay: 87.422 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 87.408 ms

Loss rate: 0.00%

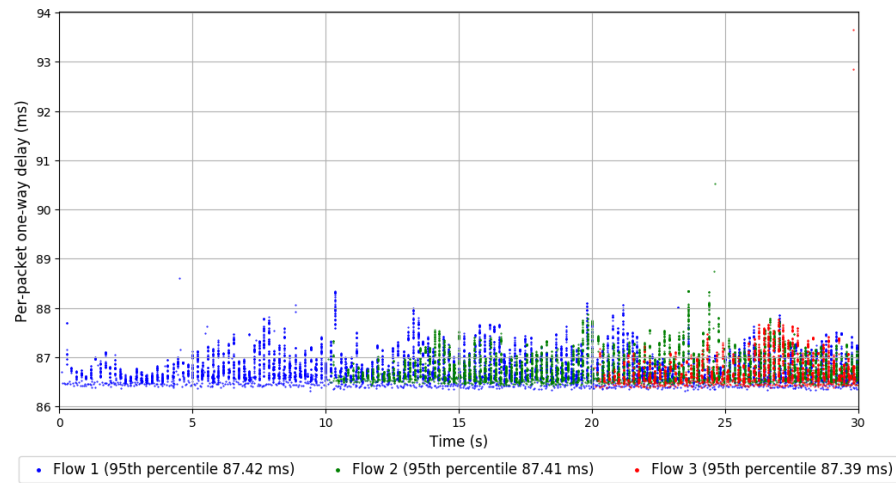
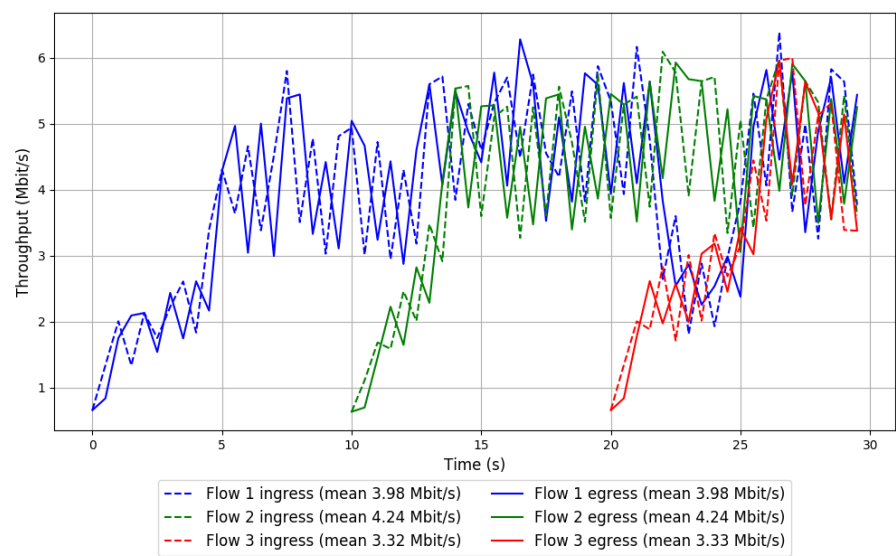
-- Flow 3:

Average throughput: 3.33 Mbit/s

95th percentile per-packet one-way delay: 87.390 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

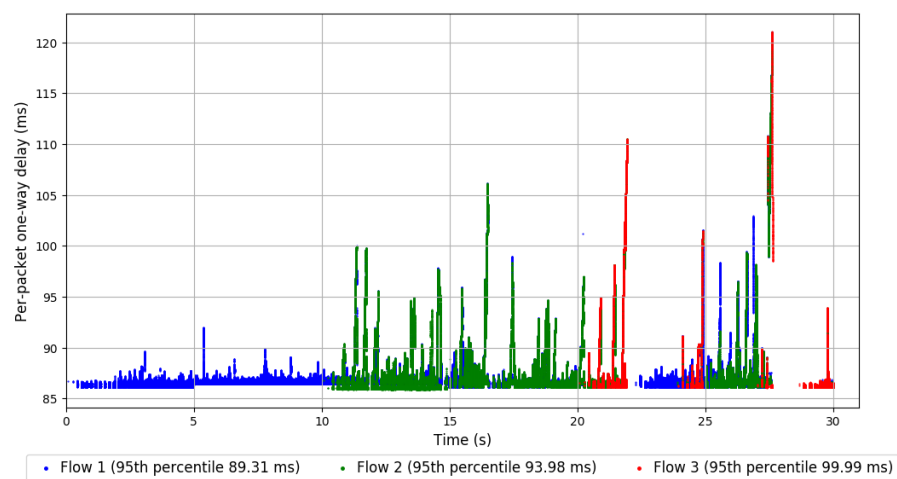
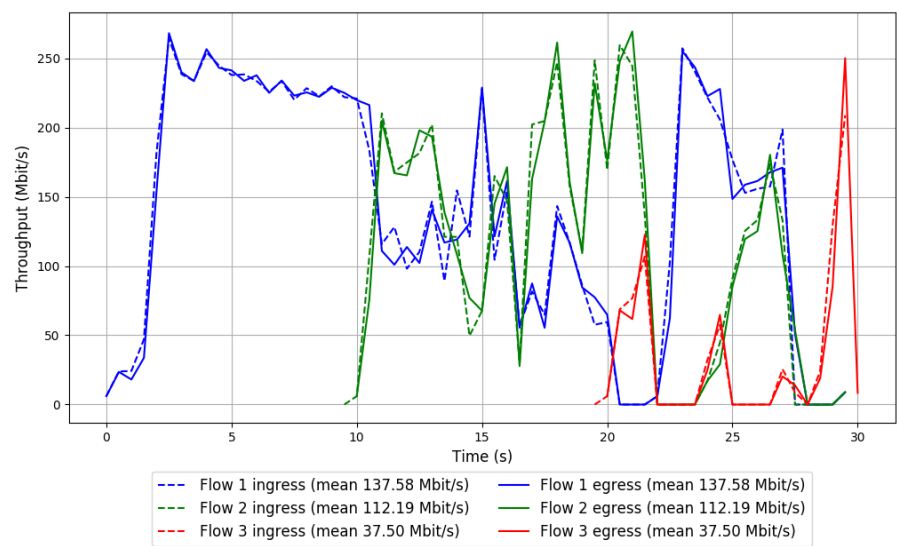


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-04-18 04:12:35
End at: 2018-04-18 04:13:05

# Below is generated by plot.py at 2018-04-18 09:11:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 224.19 Mbit/s
95th percentile per-packet one-way delay: 91.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.58 Mbit/s
95th percentile per-packet one-way delay: 89.313 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.19 Mbit/s
95th percentile per-packet one-way delay: 93.983 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 37.50 Mbit/s
95th percentile per-packet one-way delay: 99.988 ms
Loss rate: 0.00%
```


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

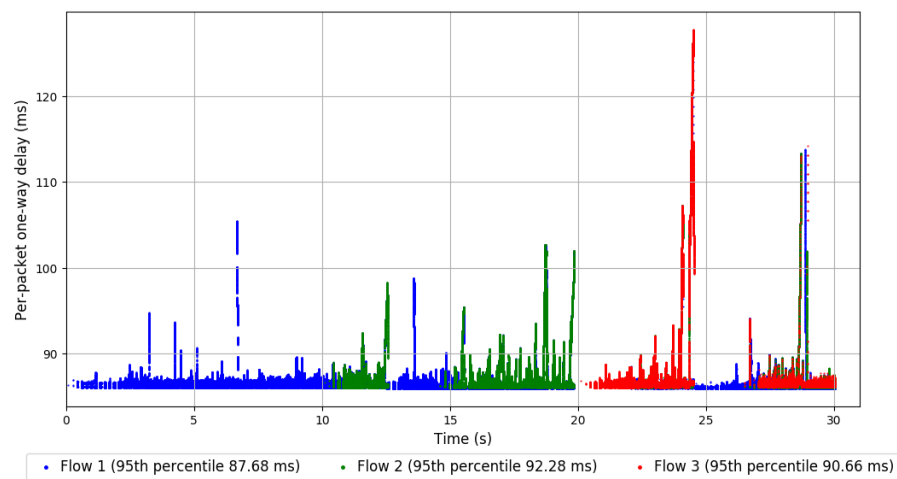
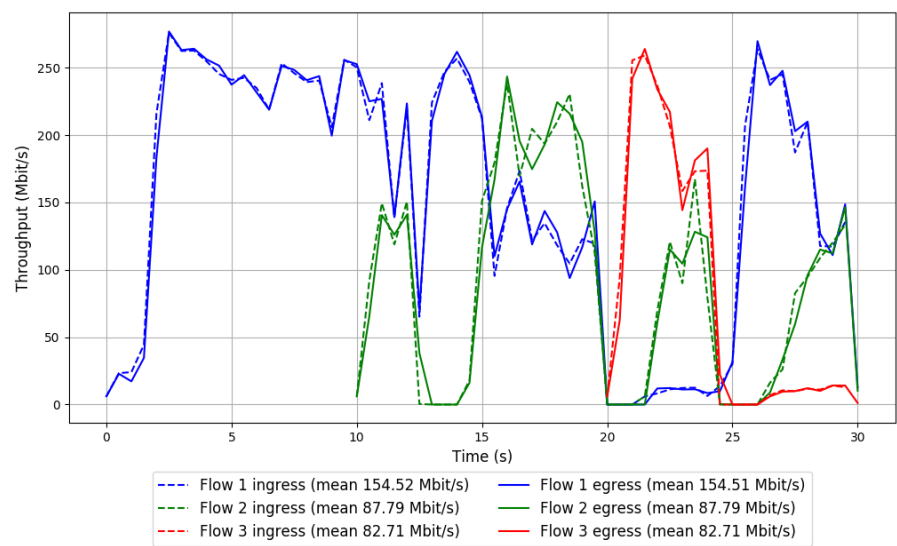


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-04-18 04:28:56
End at: 2018-04-18 04:29:26

# Below is generated by plot.py at 2018-04-18 09:11:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 240.36 Mbit/s
95th percentile per-packet one-way delay: 88.870 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 154.51 Mbit/s
95th percentile per-packet one-way delay: 87.682 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 87.79 Mbit/s
95th percentile per-packet one-way delay: 92.276 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 82.71 Mbit/s
95th percentile per-packet one-way delay: 90.660 ms
Loss rate: 0.00%
```

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

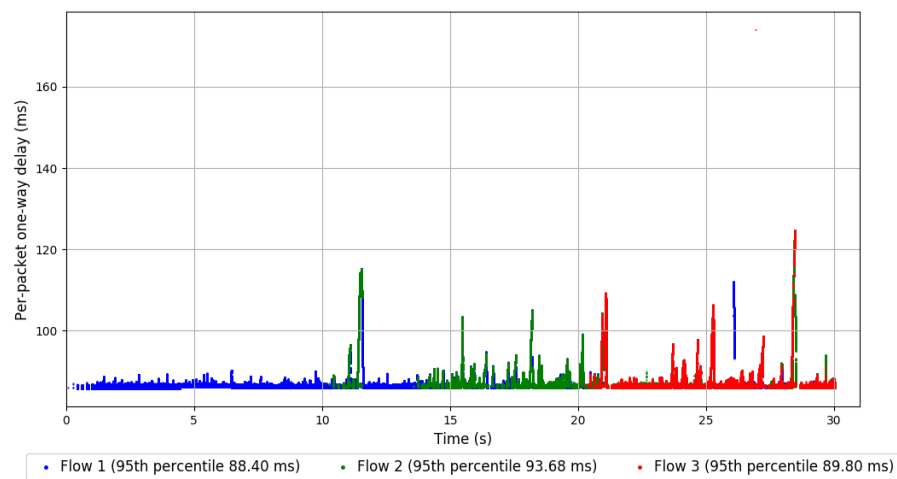
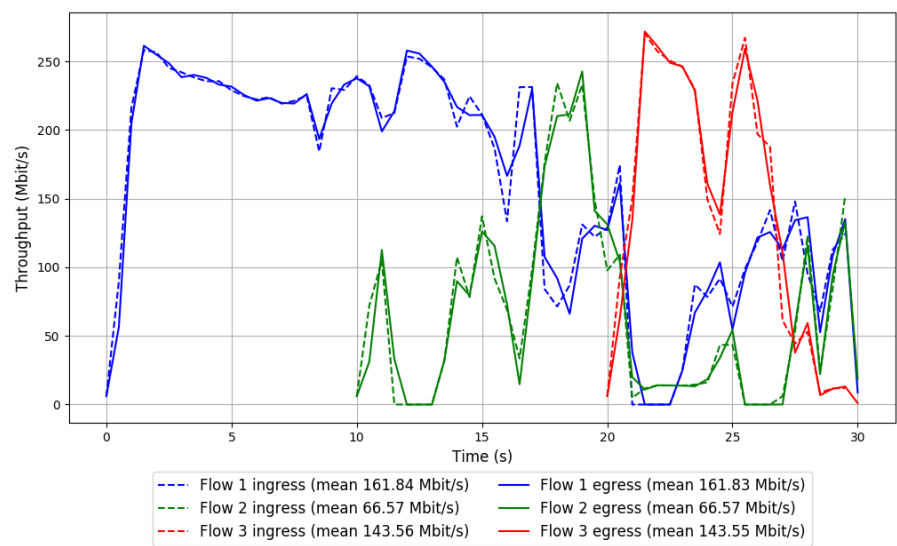


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-04-18 04:45:23
End at: 2018-04-18 04:45:53

# Below is generated by plot.py at 2018-04-18 09:12:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.74 Mbit/s
95th percentile per-packet one-way delay: 89.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.83 Mbit/s
95th percentile per-packet one-way delay: 88.397 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 66.57 Mbit/s
95th percentile per-packet one-way delay: 93.684 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 143.55 Mbit/s
95th percentile per-packet one-way delay: 89.800 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-04-18 05:01:35

End at: 2018-04-18 05:02:05

Below is generated by plot.py at 2018-04-18 09:13:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 255.15 Mbit/s

95th percentile per-packet one-way delay: 91.393 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 170.89 Mbit/s

95th percentile per-packet one-way delay: 91.272 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 117.91 Mbit/s

95th percentile per-packet one-way delay: 90.776 ms

Loss rate: 0.00%

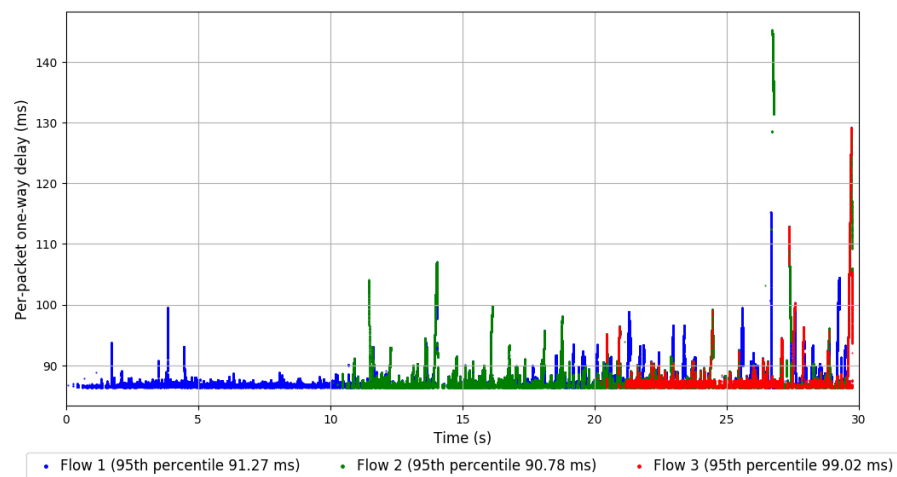
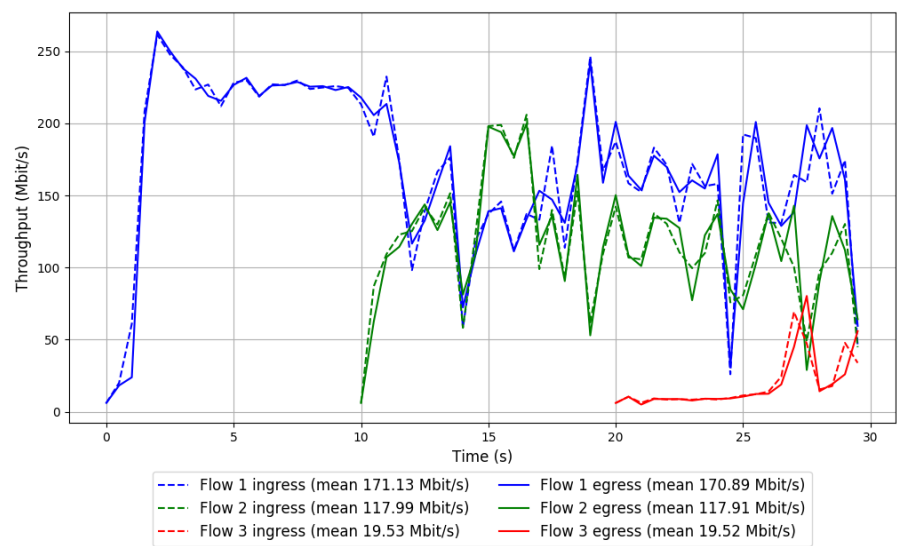
-- Flow 3:

Average throughput: 19.52 Mbit/s

95th percentile per-packet one-way delay: 99.015 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-04-18 05:17:59

End at: 2018-04-18 05:18:29

Below is generated by plot.py at 2018-04-18 09:13:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 262.40 Mbit/s

95th percentile per-packet one-way delay: 89.535 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 167.79 Mbit/s

95th percentile per-packet one-way delay: 88.553 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 76.38 Mbit/s

95th percentile per-packet one-way delay: 90.259 ms

Loss rate: 0.00%

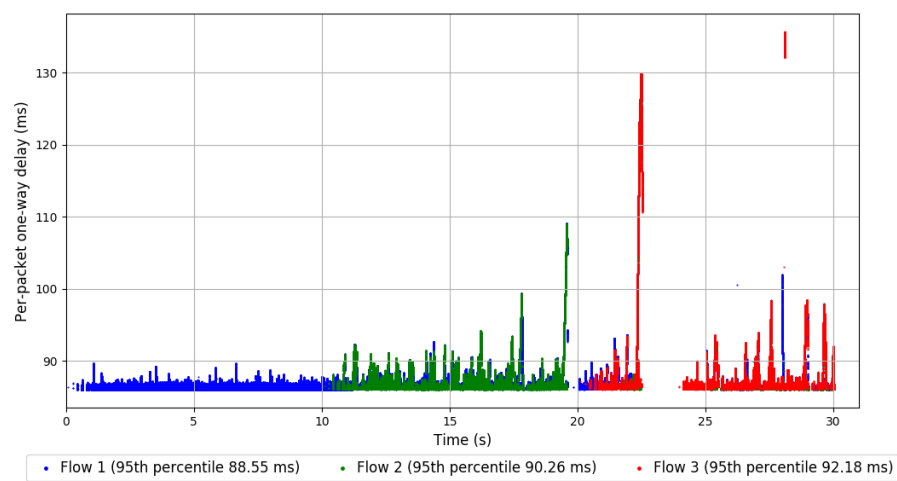
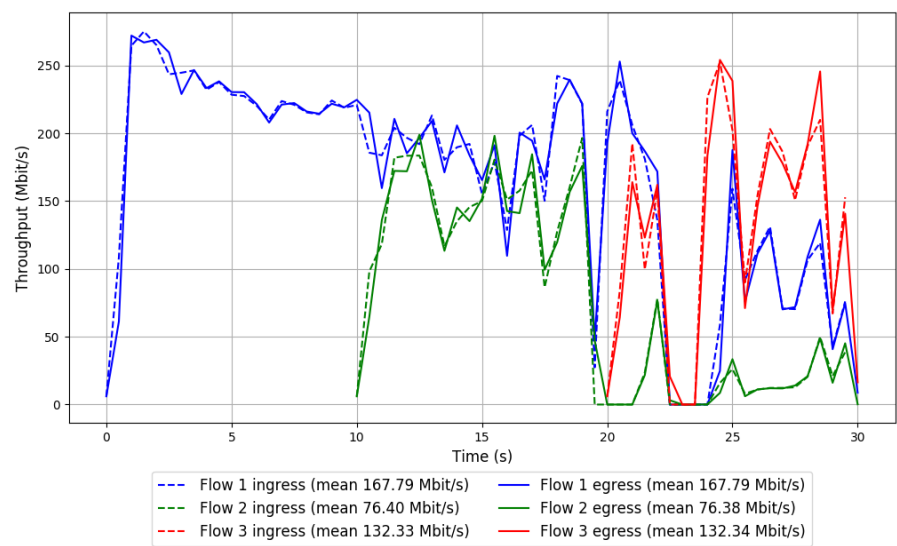
-- Flow 3:

Average throughput: 132.34 Mbit/s

95th percentile per-packet one-way delay: 92.176 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-04-18 05:34:26

End at: 2018-04-18 05:34:56

Below is generated by plot.py at 2018-04-18 09:13:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 197.19 Mbit/s

95th percentile per-packet one-way delay: 88.023 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 104.89 Mbit/s

95th percentile per-packet one-way delay: 87.735 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.85 Mbit/s

95th percentile per-packet one-way delay: 92.241 ms

Loss rate: 0.00%

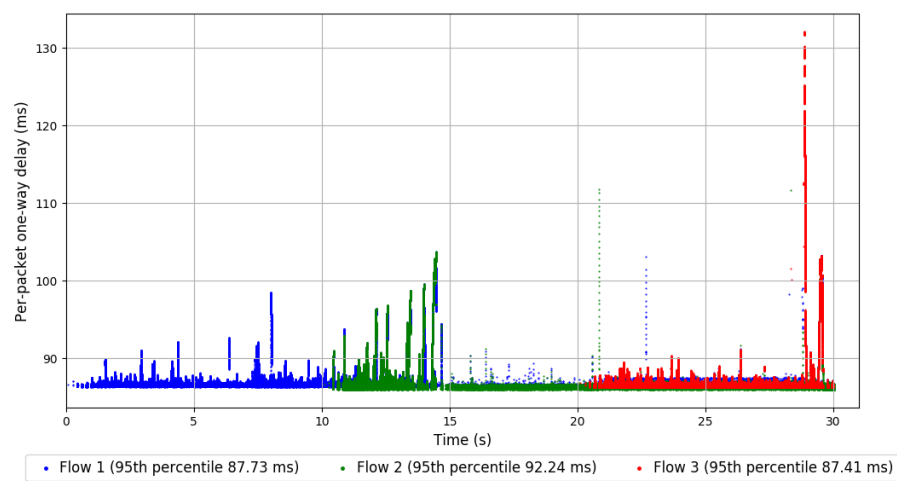
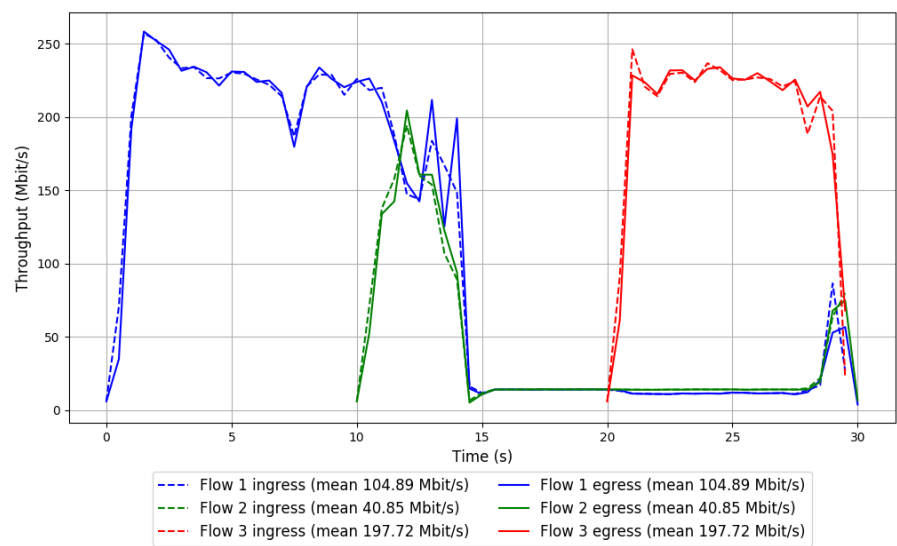
-- Flow 3:

Average throughput: 197.72 Mbit/s

95th percentile per-packet one-way delay: 87.409 ms

Loss rate: 0.00%

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

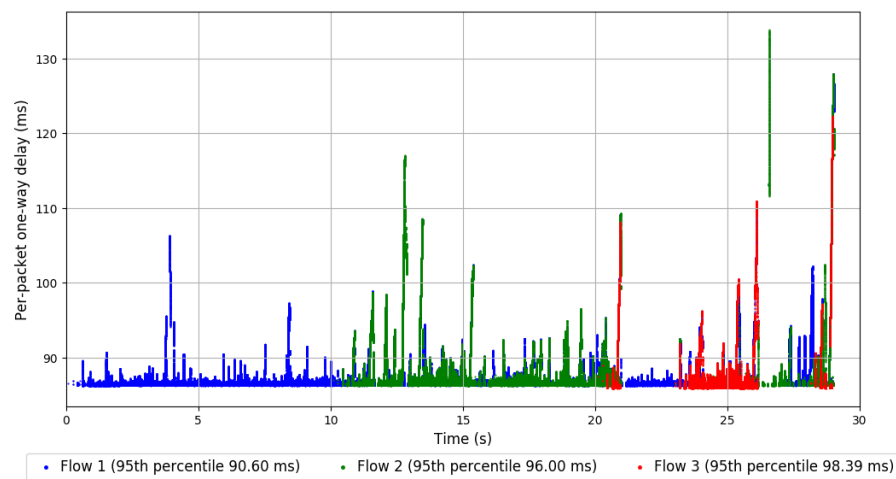
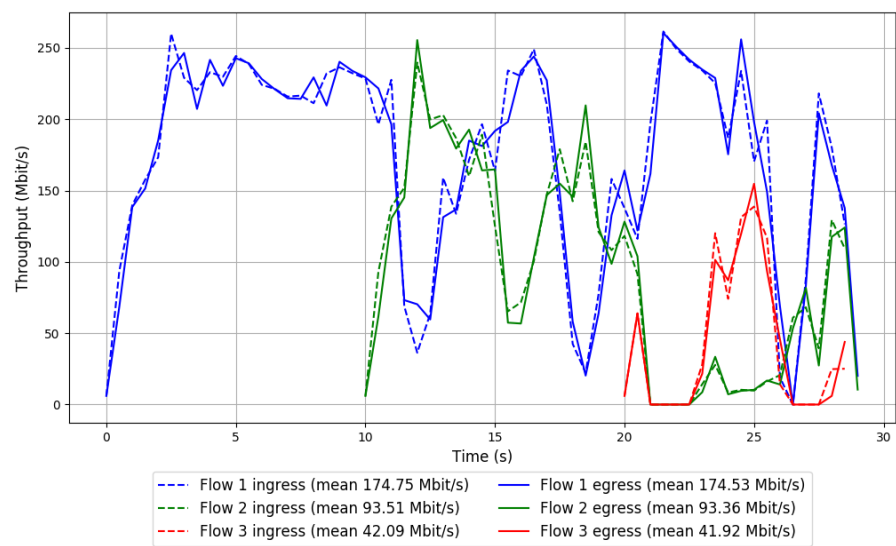


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-04-18 05:50:48
End at: 2018-04-18 05:51:18

# Below is generated by plot.py at 2018-04-18 09:14:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.41 Mbit/s
95th percentile per-packet one-way delay: 92.165 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.53 Mbit/s
95th percentile per-packet one-way delay: 90.596 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.36 Mbit/s
95th percentile per-packet one-way delay: 95.997 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.92 Mbit/s
95th percentile per-packet one-way delay: 98.385 ms
Loss rate: 0.00%
```

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



Run 8: Statistics of TaoVA-100x

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

End at: 2018-04-18 06:07:29

Below is generated by plot.py at 2018-04-18 09:14:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.22 Mbit/s

95th percentile per-packet one-way delay: 91.118 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 142.74 Mbit/s

95th percentile per-packet one-way delay: 89.865 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 109.90 Mbit/s

95th percentile per-packet one-way delay: 92.036 ms

Loss rate: 0.00%

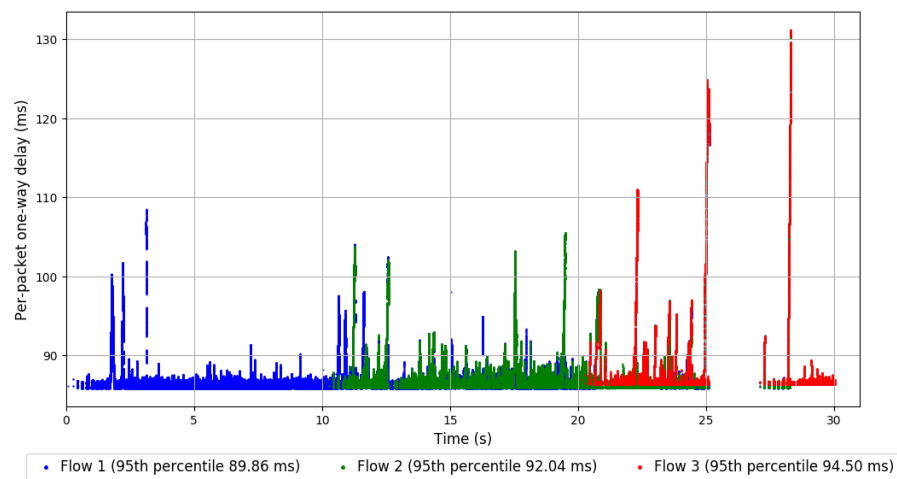
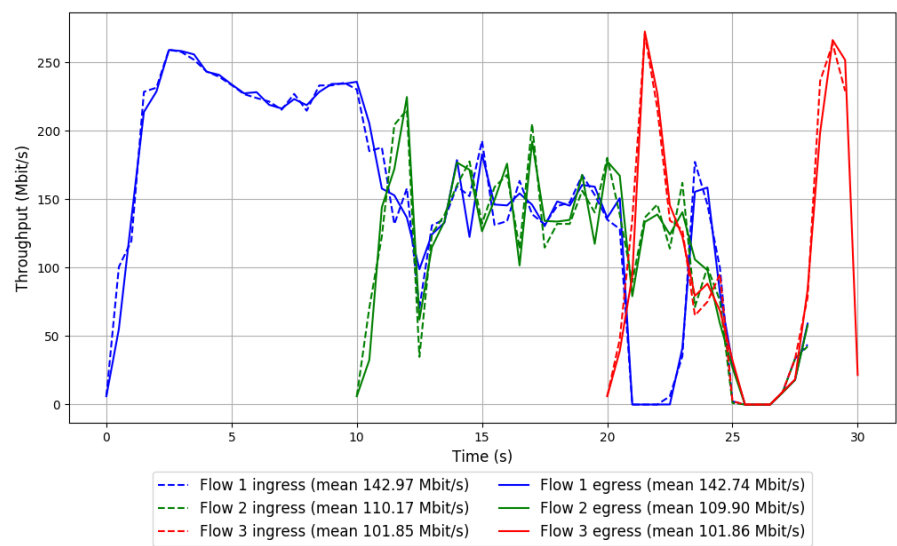
-- Flow 3:

Average throughput: 101.86 Mbit/s

95th percentile per-packet one-way delay: 94.499 ms

Loss rate: 0.00%

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

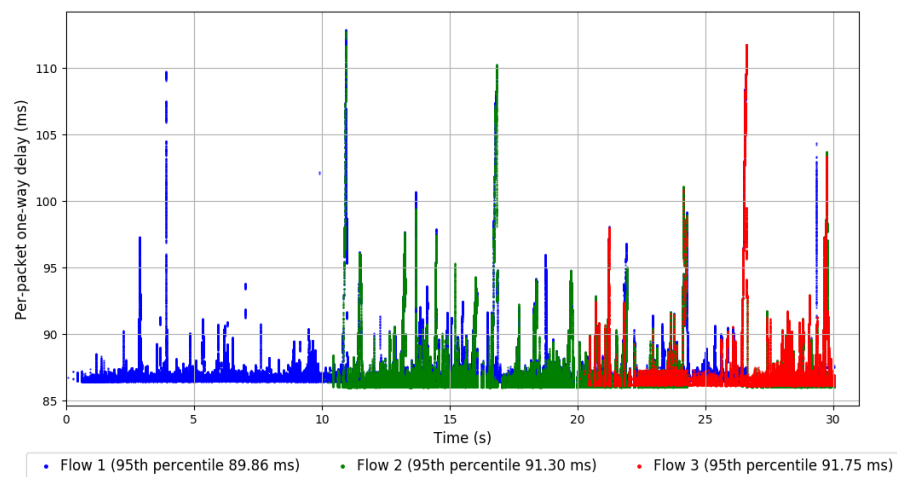
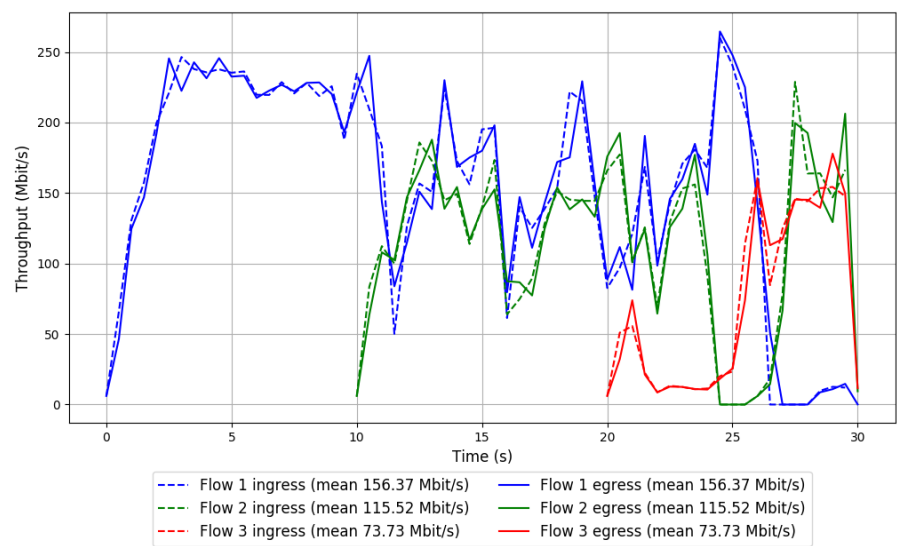


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-04-18 06:23:14
End at: 2018-04-18 06:23:44

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.72 Mbit/s
95th percentile per-packet one-way delay: 90.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 156.37 Mbit/s
95th percentile per-packet one-way delay: 89.863 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.52 Mbit/s
95th percentile per-packet one-way delay: 91.298 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.73 Mbit/s
95th percentile per-packet one-way delay: 91.751 ms
Loss rate: 0.00%
```


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

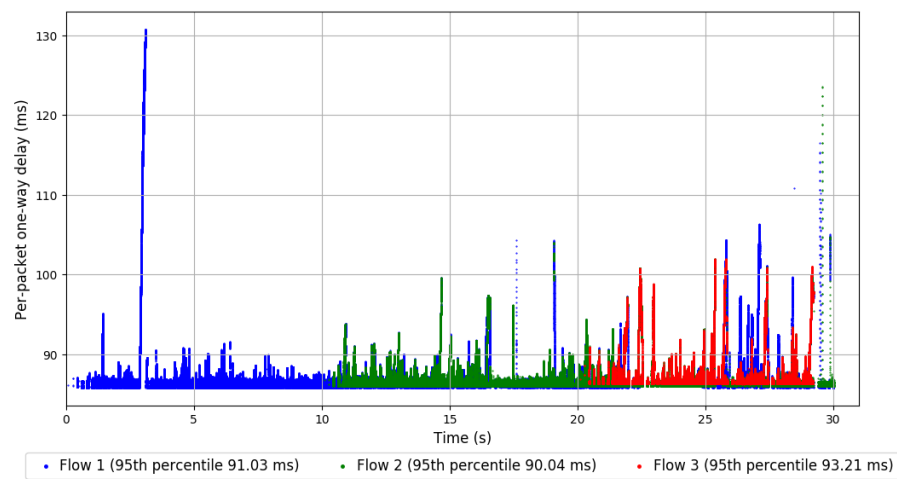
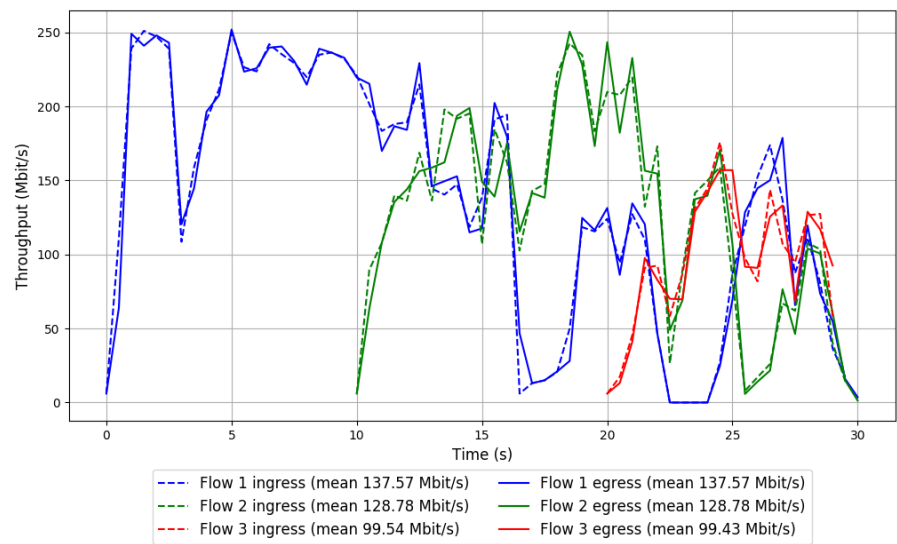


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-04-18 06:39:32
End at: 2018-04-18 06:40:02

# Below is generated by plot.py at 2018-04-18 09:20:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.43 Mbit/s
95th percentile per-packet one-way delay: 90.927 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.57 Mbit/s
95th percentile per-packet one-way delay: 91.031 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 128.78 Mbit/s
95th percentile per-packet one-way delay: 90.038 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 99.43 Mbit/s
95th percentile per-packet one-way delay: 93.208 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-04-18 04:11:45

End at: 2018-04-18 04:12:15

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.51 Mbit/s

95th percentile per-packet one-way delay: 95.881 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 38.25 Mbit/s

95th percentile per-packet one-way delay: 93.449 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 95.45 Mbit/s

95th percentile per-packet one-way delay: 96.672 ms

Loss rate: 0.00%

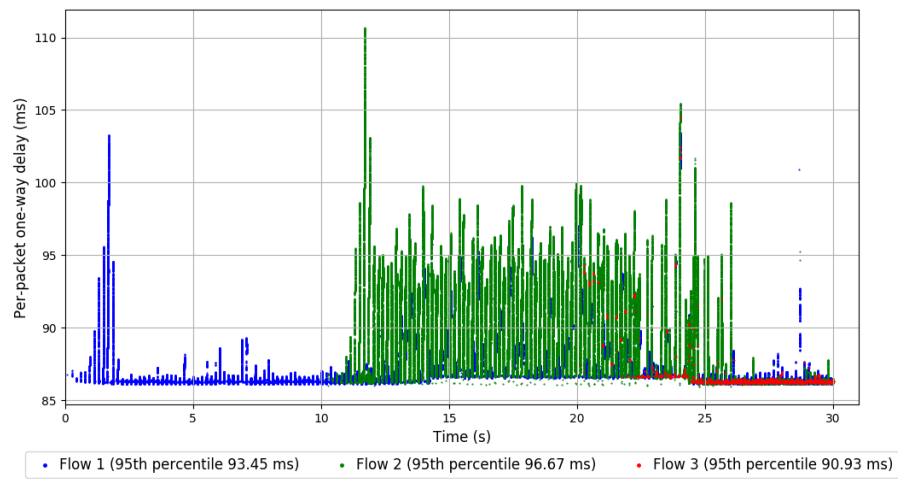
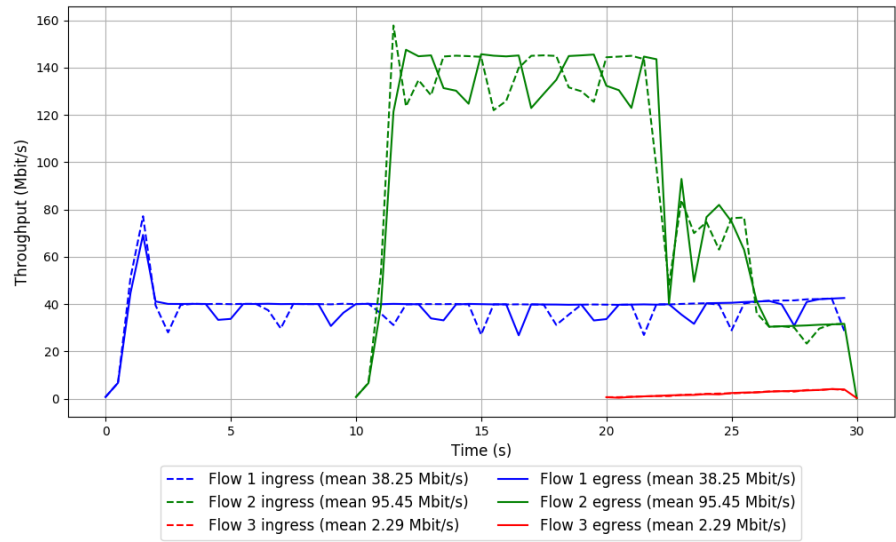
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 90.926 ms

Loss rate: 0.05%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-04-18 04:28:07

End at: 2018-04-18 04:28:37

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 94.634 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.99 Mbit/s

95th percentile per-packet one-way delay: 92.239 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.96 Mbit/s

95th percentile per-packet one-way delay: 92.852 ms

Loss rate: 0.00%

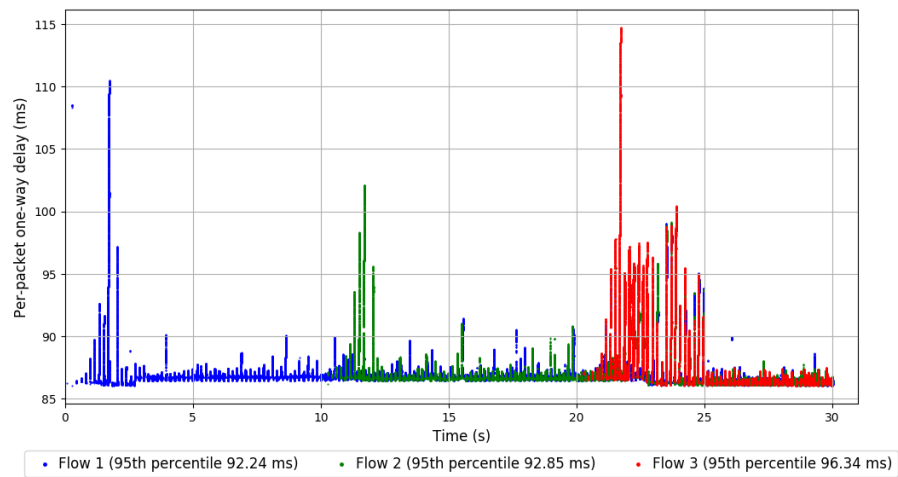
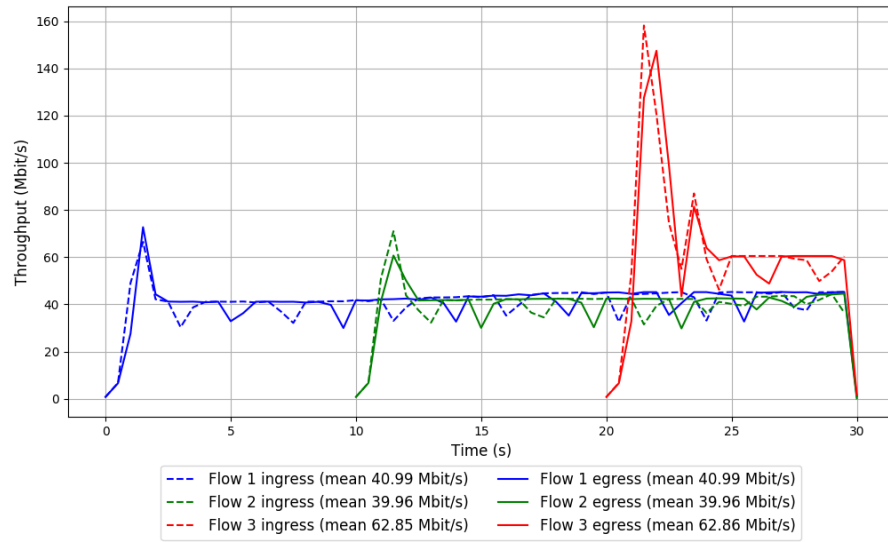
-- Flow 3:

Average throughput: 62.86 Mbit/s

95th percentile per-packet one-way delay: 96.342 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-04-18 04:44:34

End at: 2018-04-18 04:45:04

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.29 Mbit/s

95th percentile per-packet one-way delay: 96.046 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.86 Mbit/s

95th percentile per-packet one-way delay: 96.054 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.16 Mbit/s

95th percentile per-packet one-way delay: 94.487 ms

Loss rate: 0.00%

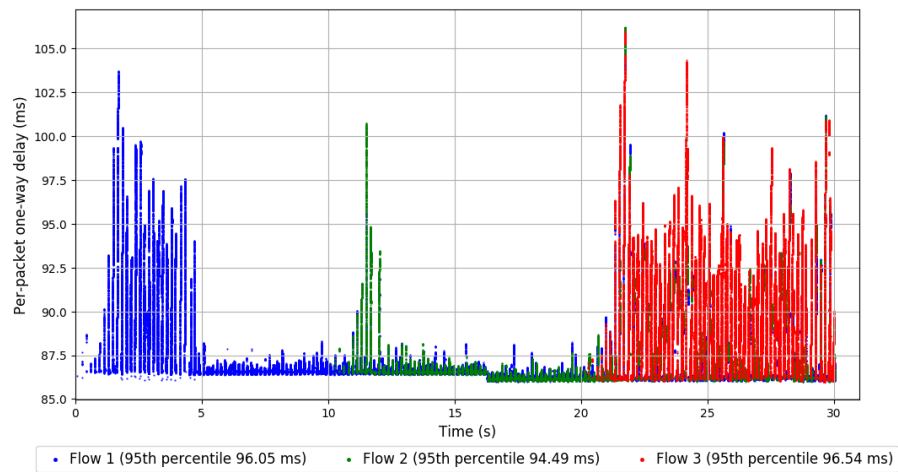
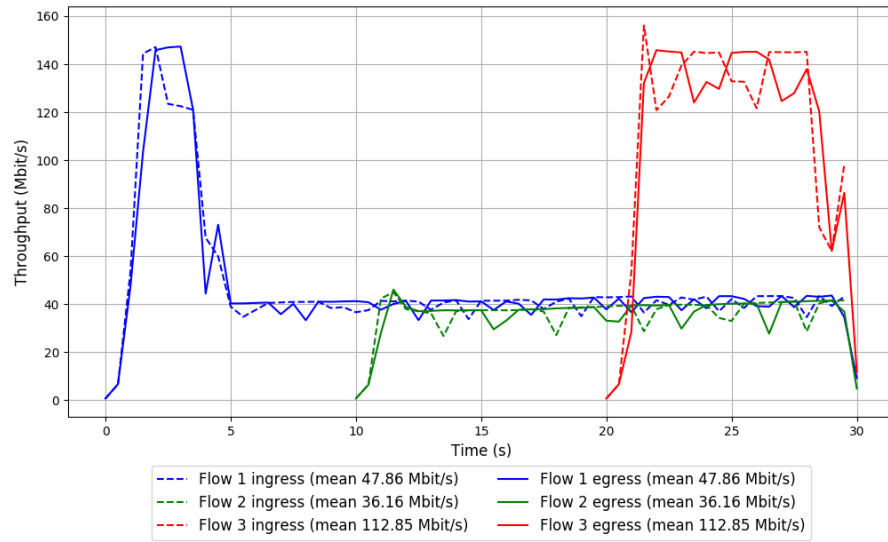
-- Flow 3:

Average throughput: 112.85 Mbit/s

95th percentile per-packet one-way delay: 96.536 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-04-18 05:00:45

End at: 2018-04-18 05:01:15

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.42 Mbit/s

95th percentile per-packet one-way delay: 95.217 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 38.91 Mbit/s

95th percentile per-packet one-way delay: 92.971 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.51 Mbit/s

95th percentile per-packet one-way delay: 93.841 ms

Loss rate: 0.00%

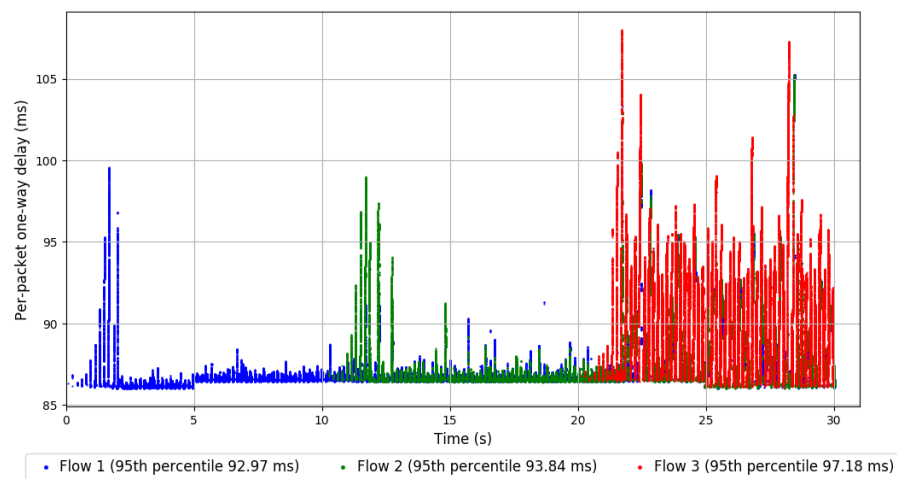
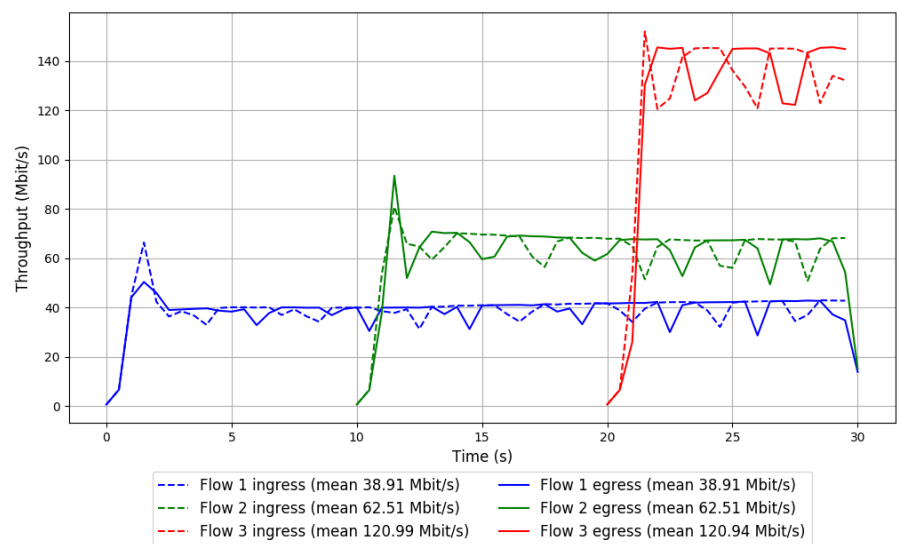
-- Flow 3:

Average throughput: 120.94 Mbit/s

95th percentile per-packet one-way delay: 97.182 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-04-18 05:17:08

End at: 2018-04-18 05:17:38

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.87 Mbit/s

95th percentile per-packet one-way delay: 96.410 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.09 Mbit/s

95th percentile per-packet one-way delay: 94.966 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.52 Mbit/s

95th percentile per-packet one-way delay: 96.682 ms

Loss rate: 0.00%

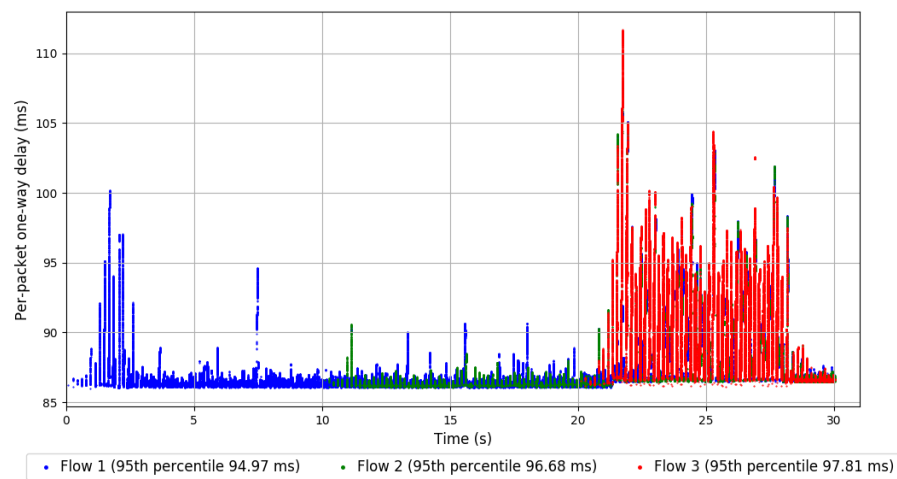
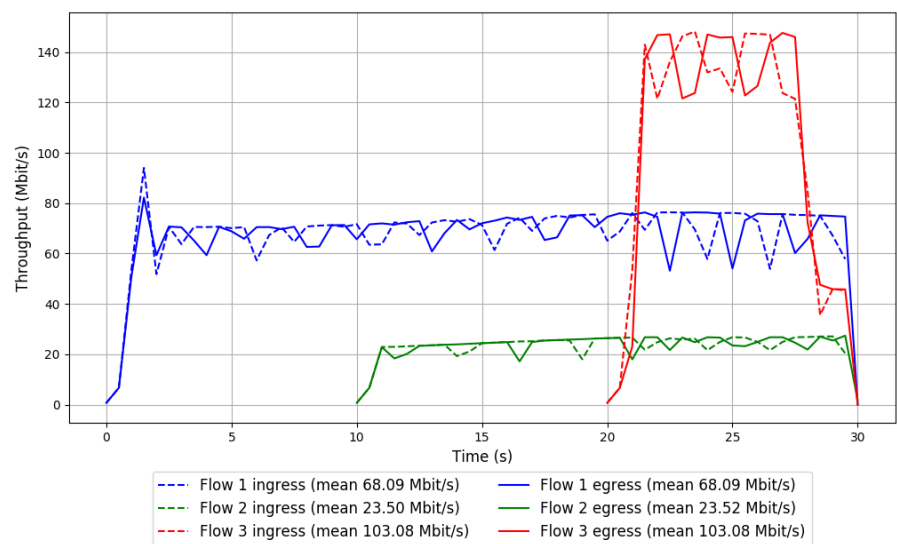
-- Flow 3:

Average throughput: 103.08 Mbit/s

95th percentile per-packet one-way delay: 97.812 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-04-18 05:33:36

End at: 2018-04-18 05:34:06

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.76 Mbit/s

95th percentile per-packet one-way delay: 96.816 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 39.47 Mbit/s

95th percentile per-packet one-way delay: 95.643 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.47 Mbit/s

95th percentile per-packet one-way delay: 96.552 ms

Loss rate: 0.00%

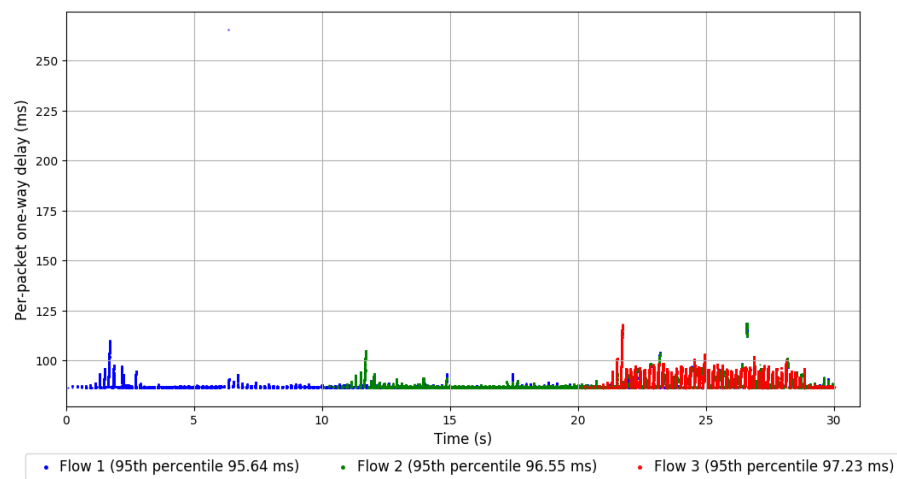
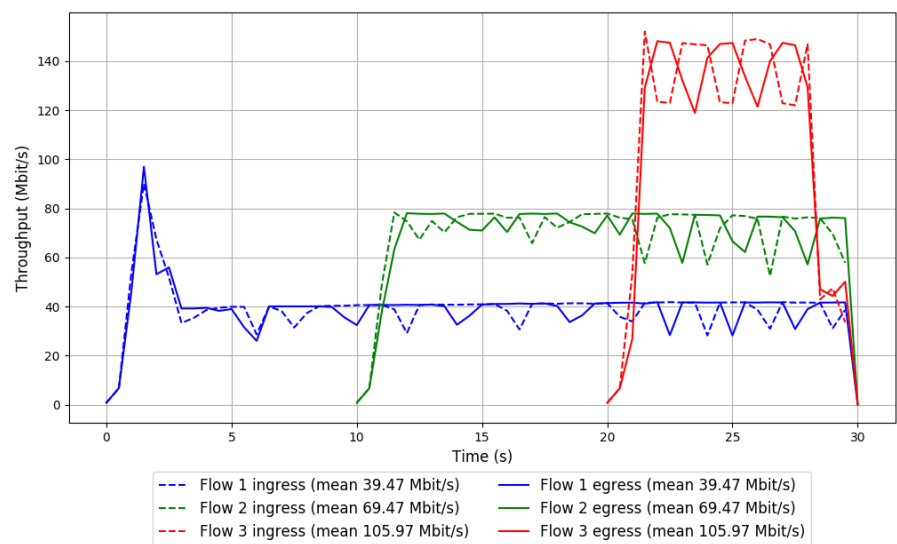
-- Flow 3:

Average throughput: 105.97 Mbit/s

95th percentile per-packet one-way delay: 97.227 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-04-18 05:49:59

End at: 2018-04-18 05:50:29

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.79 Mbit/s

95th percentile per-packet one-way delay: 95.755 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 41.22 Mbit/s

95th percentile per-packet one-way delay: 92.203 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 41.45 Mbit/s

95th percentile per-packet one-way delay: 94.330 ms

Loss rate: 0.02%

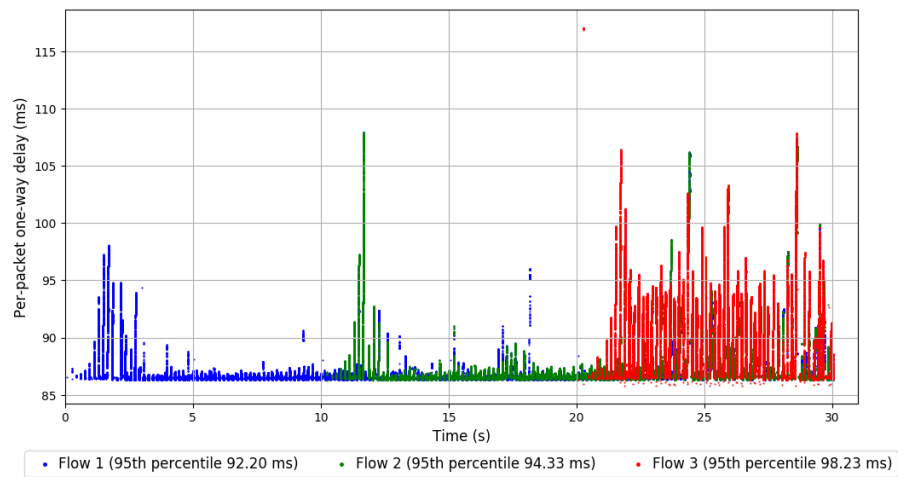
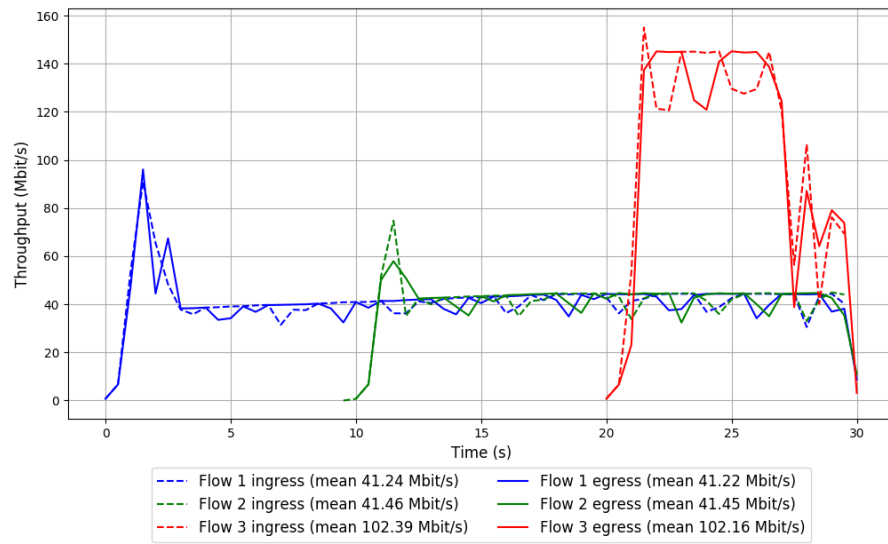
-- Flow 3:

Average throughput: 102.16 Mbit/s

95th percentile per-packet one-way delay: 98.235 ms

Loss rate: 0.22%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-04-18 06:06:03

End at: 2018-04-18 06:06:33

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 225.21 Mbit/s

95th percentile per-packet one-way delay: 101.362 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 131.12 Mbit/s

95th percentile per-packet one-way delay: 102.032 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 83.26 Mbit/s

95th percentile per-packet one-way delay: 100.838 ms

Loss rate: 0.00%

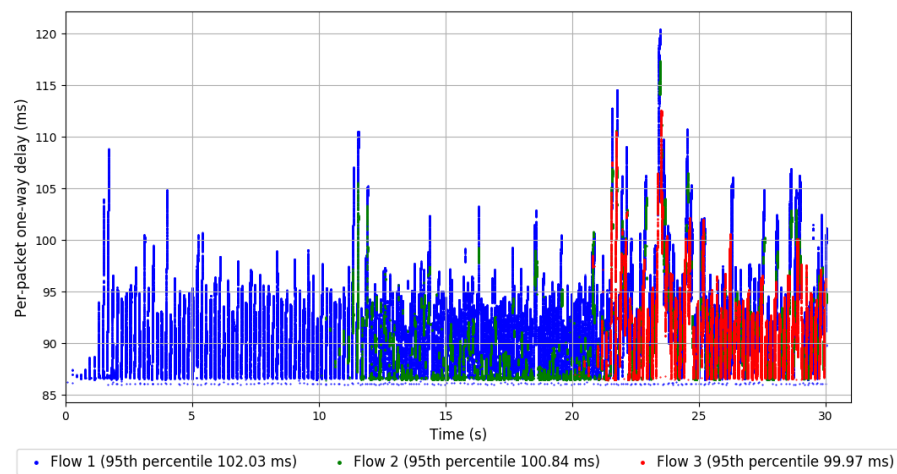
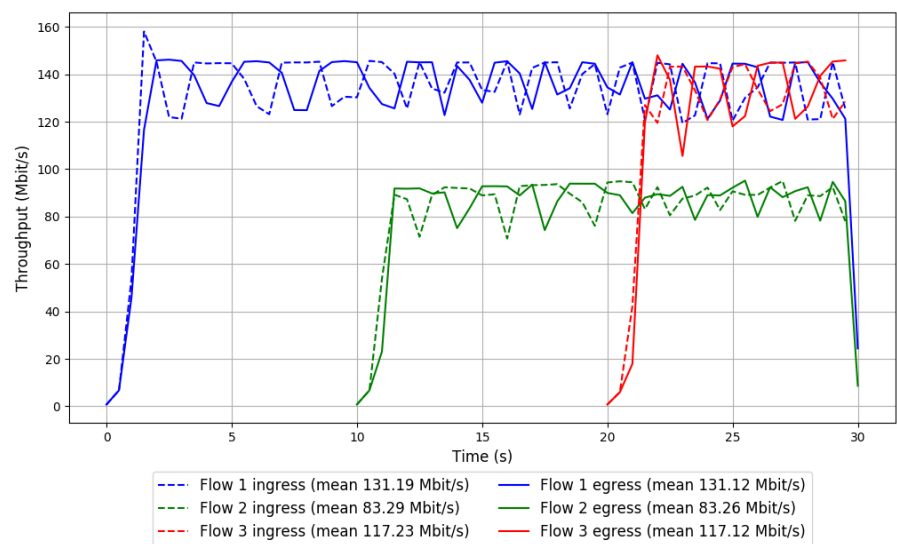
-- Flow 3:

Average throughput: 117.12 Mbit/s

95th percentile per-packet one-way delay: 99.967 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-04-18 06:22:25

End at: 2018-04-18 06:22:55

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.51 Mbit/s

95th percentile per-packet one-way delay: 89.613 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.98 Mbit/s

95th percentile per-packet one-way delay: 89.363 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.09 Mbit/s

95th percentile per-packet one-way delay: 89.771 ms

Loss rate: 0.00%

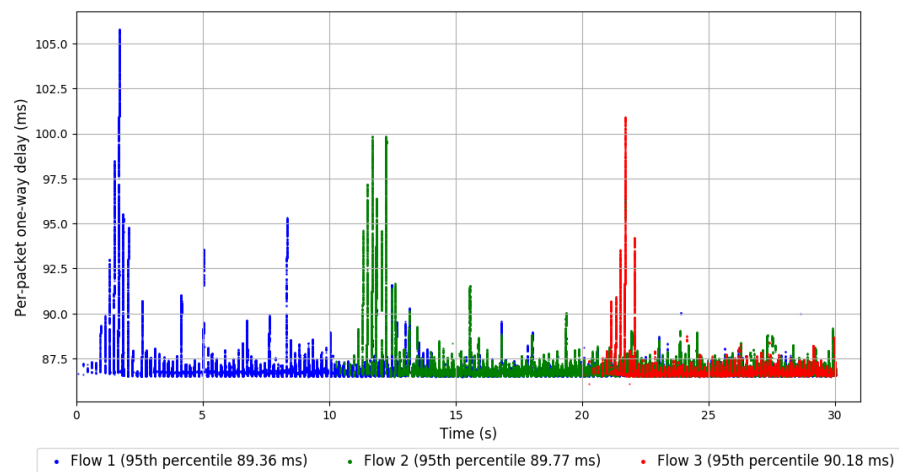
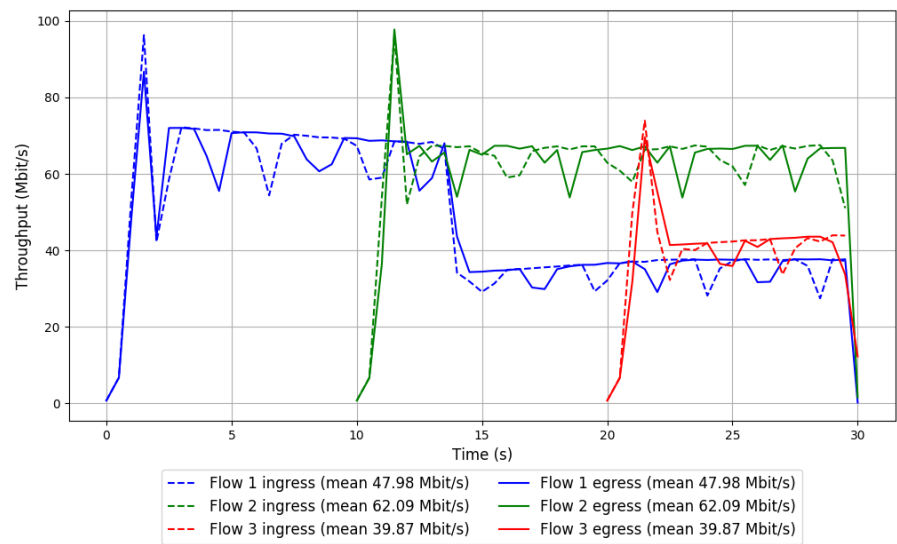
-- Flow 3:

Average throughput: 39.87 Mbit/s

95th percentile per-packet one-way delay: 90.183 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-04-18 06:38:42

End at: 2018-04-18 06:39:12

Below is generated by plot.py at 2018-04-18 09:20:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.30 Mbit/s

95th percentile per-packet one-way delay: 94.317 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.21 Mbit/s

95th percentile per-packet one-way delay: 95.173 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.39 Mbit/s

95th percentile per-packet one-way delay: 90.258 ms

Loss rate: 0.00%

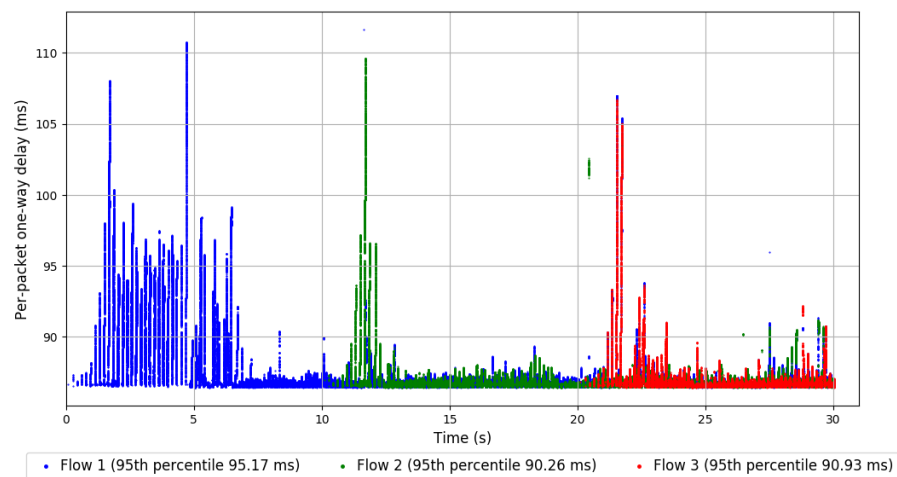
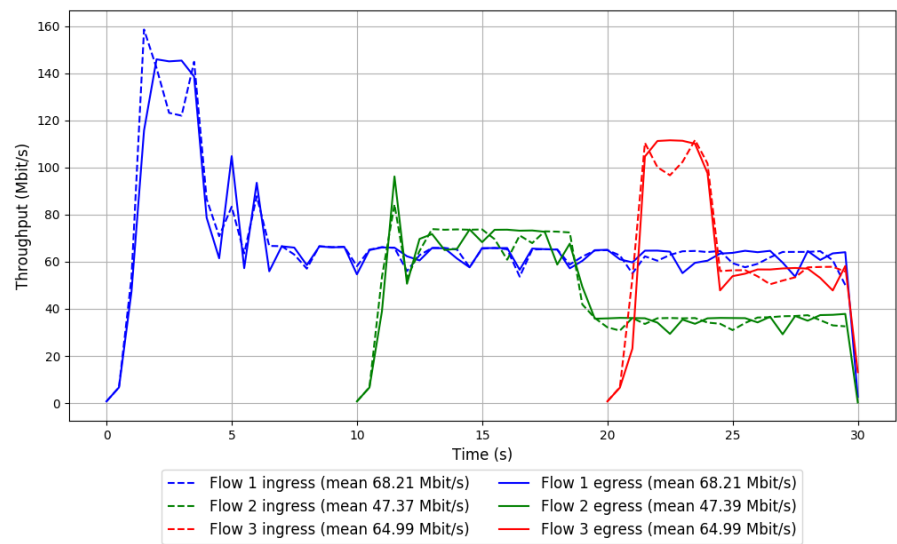
-- Flow 3:

Average throughput: 64.99 Mbit/s

95th percentile per-packet one-way delay: 90.929 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link

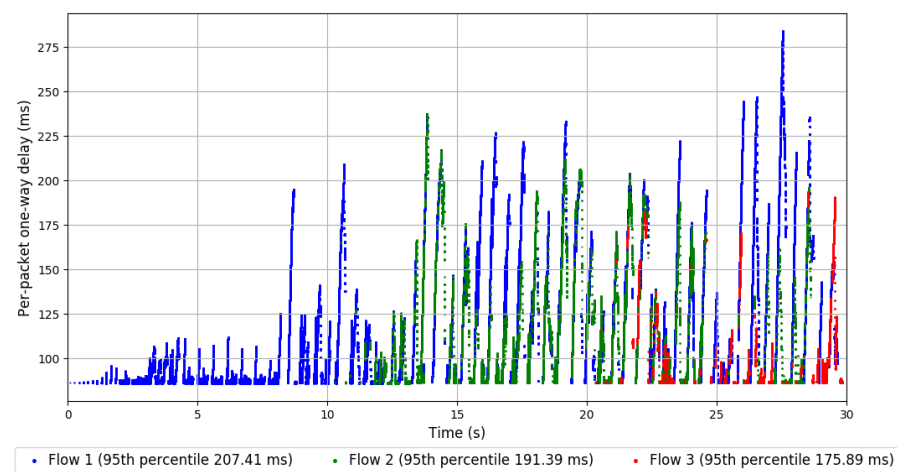
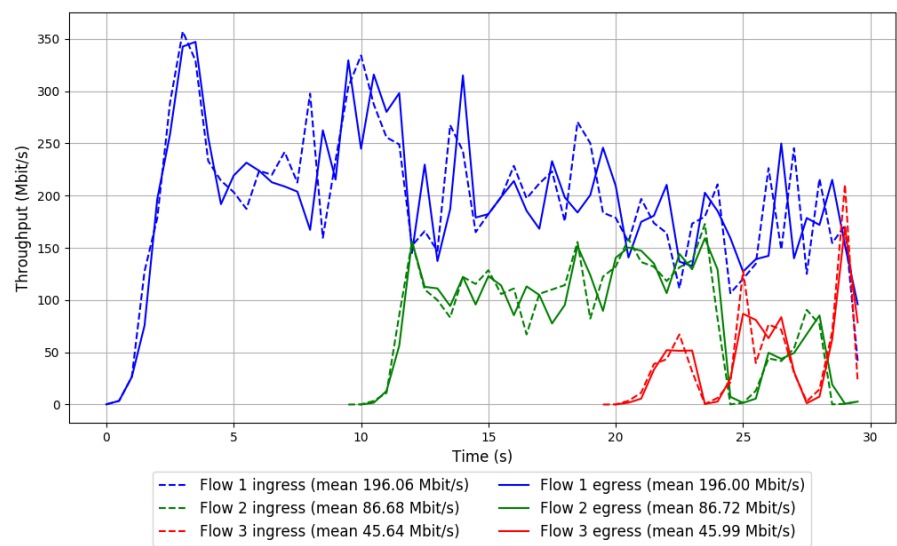


```
Run 1: Statistics of Verus

Start at: 2018-04-18 04:20:36
End at: 2018-04-18 04:21:06

# Below is generated by plot.py at 2018-04-18 09:20:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 268.26 Mbit/s
95th percentile per-packet one-way delay: 202.152 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 196.00 Mbit/s
95th percentile per-packet one-way delay: 207.406 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 86.72 Mbit/s
95th percentile per-packet one-way delay: 191.391 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 45.99 Mbit/s
95th percentile per-packet one-way delay: 175.894 ms
Loss rate: 0.00%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-04-18 04:37:03

End at: 2018-04-18 04:37:33

Below is generated by plot.py at 2018-04-18 09:21:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.34 Mbit/s

95th percentile per-packet one-way delay: 196.833 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 222.39 Mbit/s

95th percentile per-packet one-way delay: 188.245 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 50.49 Mbit/s

95th percentile per-packet one-way delay: 199.237 ms

Loss rate: 0.29%

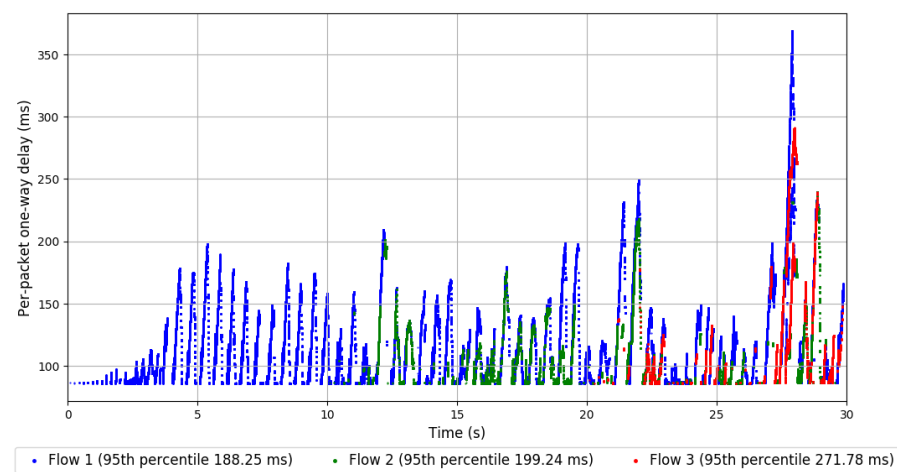
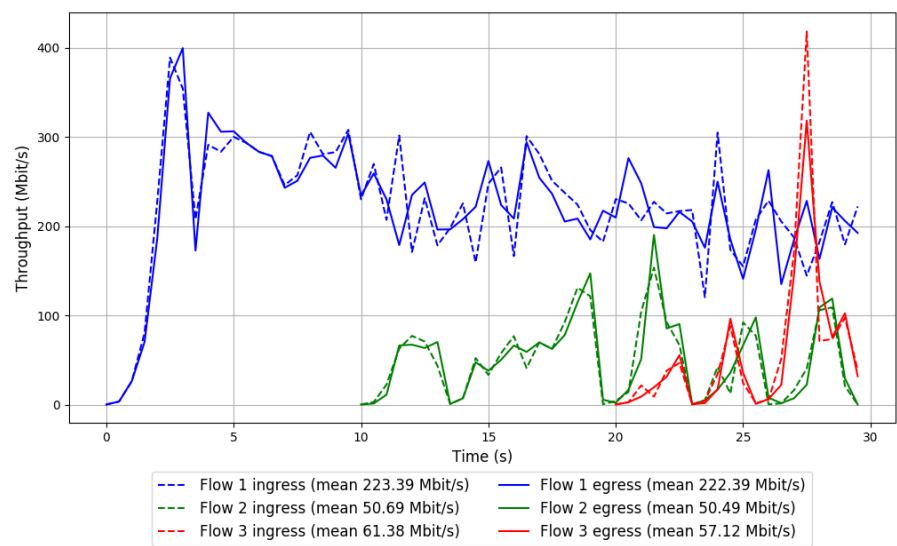
-- Flow 3:

Average throughput: 57.12 Mbit/s

95th percentile per-packet one-way delay: 271.781 ms

Loss rate: 7.26%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-04-18 04:53:34

End at: 2018-04-18 04:54:04

Below is generated by plot.py at 2018-04-18 09:21:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.38 Mbit/s

95th percentile per-packet one-way delay: 222.707 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 179.44 Mbit/s

95th percentile per-packet one-way delay: 236.469 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 64.93 Mbit/s

95th percentile per-packet one-way delay: 206.538 ms

Loss rate: 1.42%

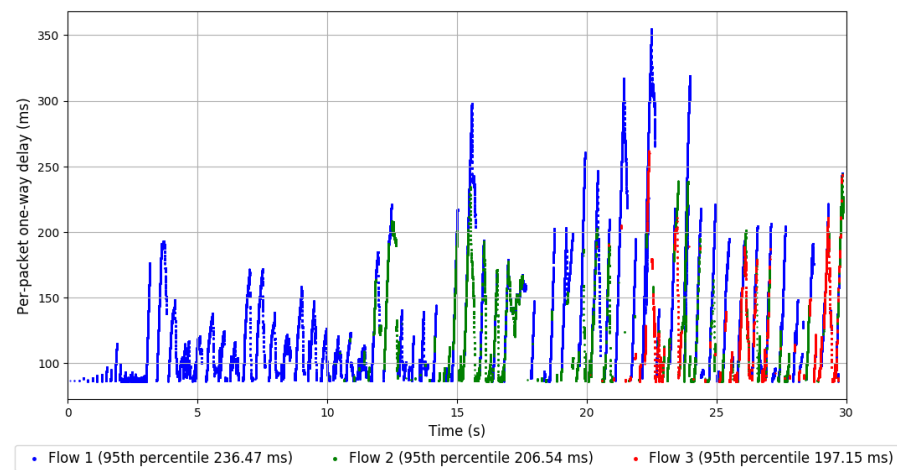
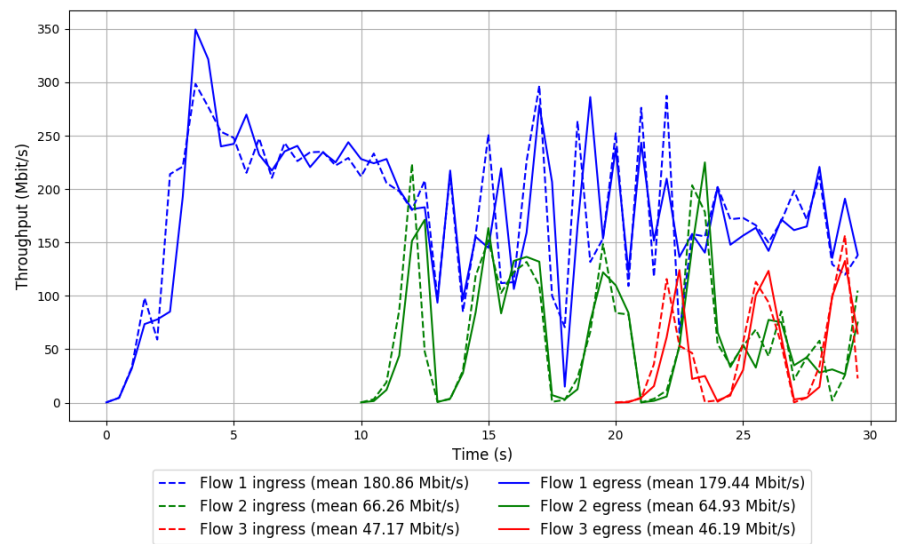
-- Flow 3:

Average throughput: 46.19 Mbit/s

95th percentile per-packet one-way delay: 197.153 ms

Loss rate: 0.50%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-04-18 05:09:38

End at: 2018-04-18 05:10:08

Below is generated by plot.py at 2018-04-18 09:21:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.10 Mbit/s

95th percentile per-packet one-way delay: 201.752 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 113.15 Mbit/s

95th percentile per-packet one-way delay: 194.402 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 155.82 Mbit/s

95th percentile per-packet one-way delay: 210.115 ms

Loss rate: 0.14%

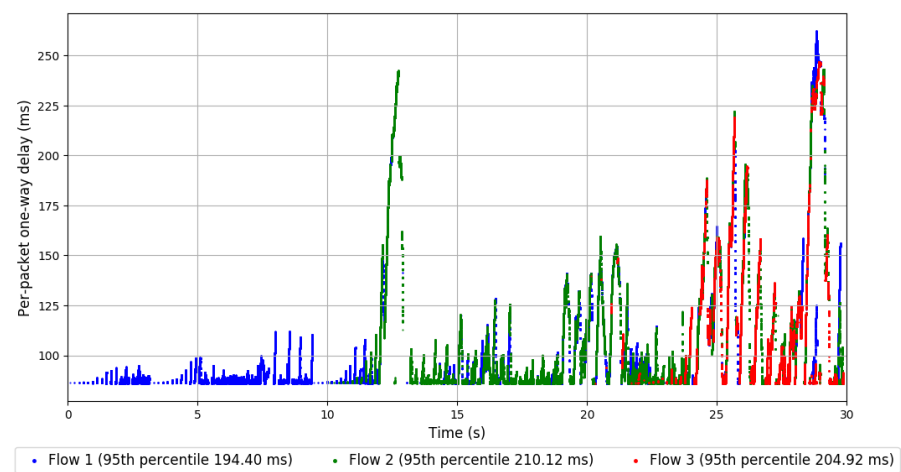
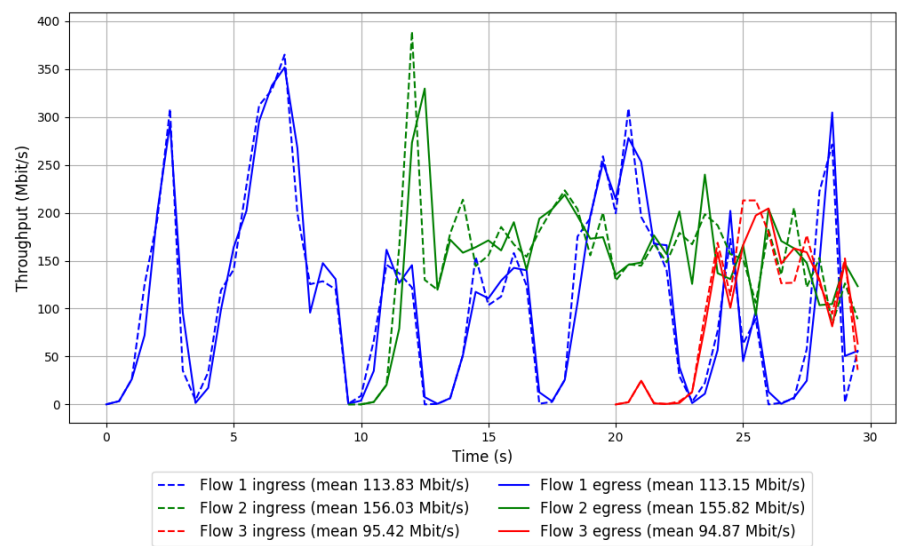
-- Flow 3:

Average throughput: 94.87 Mbit/s

95th percentile per-packet one-way delay: 204.916 ms

Loss rate: 1.12%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-04-18 05:26:08

End at: 2018-04-18 05:26:38

Below is generated by plot.py at 2018-04-18 09:21:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 215.66 Mbit/s

95th percentile per-packet one-way delay: 220.412 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 130.89 Mbit/s

95th percentile per-packet one-way delay: 214.917 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 104.46 Mbit/s

95th percentile per-packet one-way delay: 265.831 ms

Loss rate: 1.49%

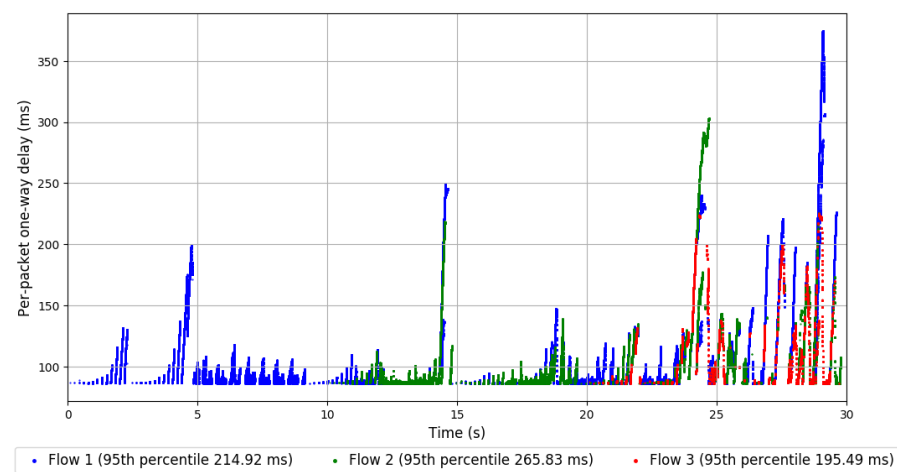
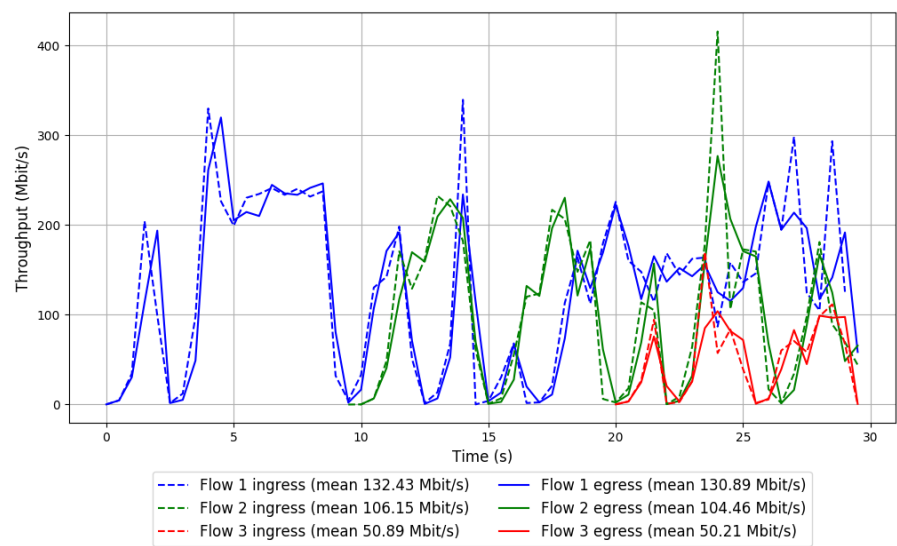
-- Flow 3:

Average throughput: 50.21 Mbit/s

95th percentile per-packet one-way delay: 195.494 ms

Loss rate: 1.33%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-04-18 05:42:34

End at: 2018-04-18 05:43:04

Below is generated by plot.py at 2018-04-18 09:23:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.51 Mbit/s

95th percentile per-packet one-way delay: 322.166 ms

Loss rate: 4.71%

-- Flow 1:

Average throughput: 208.89 Mbit/s

95th percentile per-packet one-way delay: 327.165 ms

Loss rate: 5.19%

-- Flow 2:

Average throughput: 24.93 Mbit/s

95th percentile per-packet one-way delay: 239.701 ms

Loss rate: 1.99%

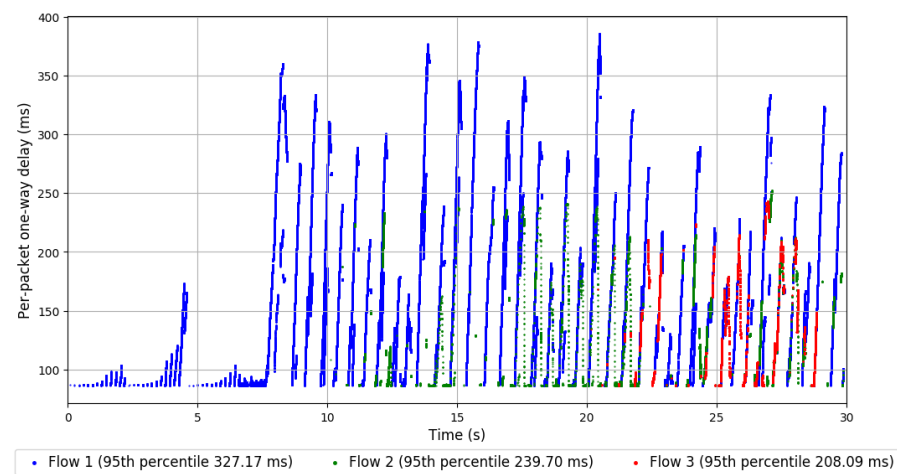
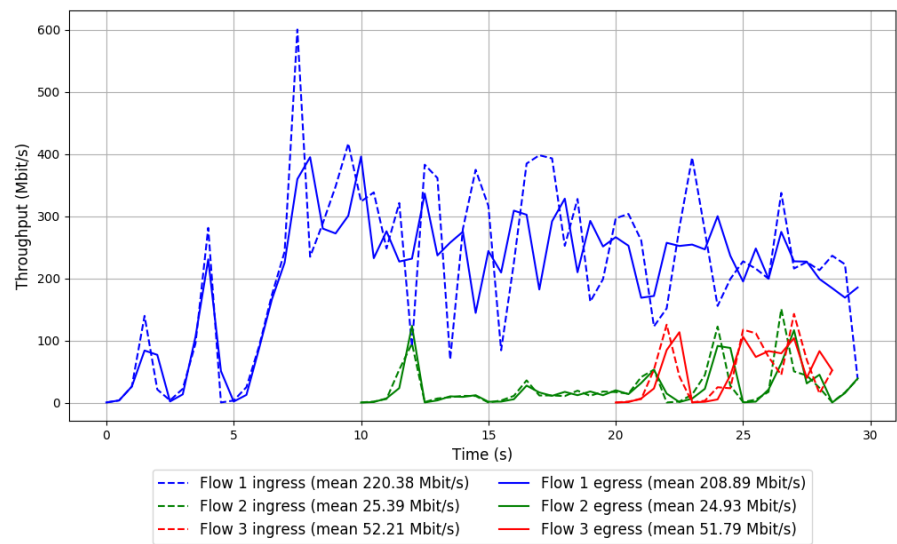
-- Flow 3:

Average throughput: 51.79 Mbit/s

95th percentile per-packet one-way delay: 208.087 ms

Loss rate: 0.65%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-04-18 05:58:54

End at: 2018-04-18 05:59:24

Below is generated by plot.py at 2018-04-18 09:24:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.15 Mbit/s

95th percentile per-packet one-way delay: 205.880 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 167.67 Mbit/s

95th percentile per-packet one-way delay: 221.586 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 88.72 Mbit/s

95th percentile per-packet one-way delay: 181.730 ms

Loss rate: 1.28%

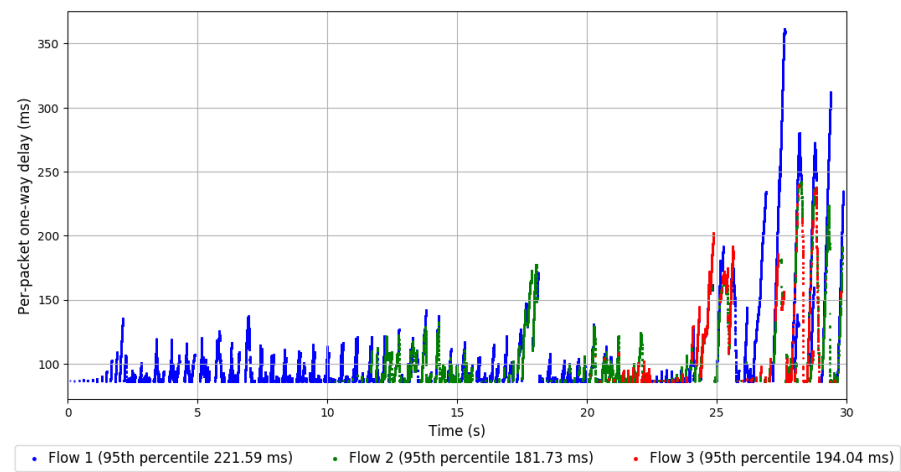
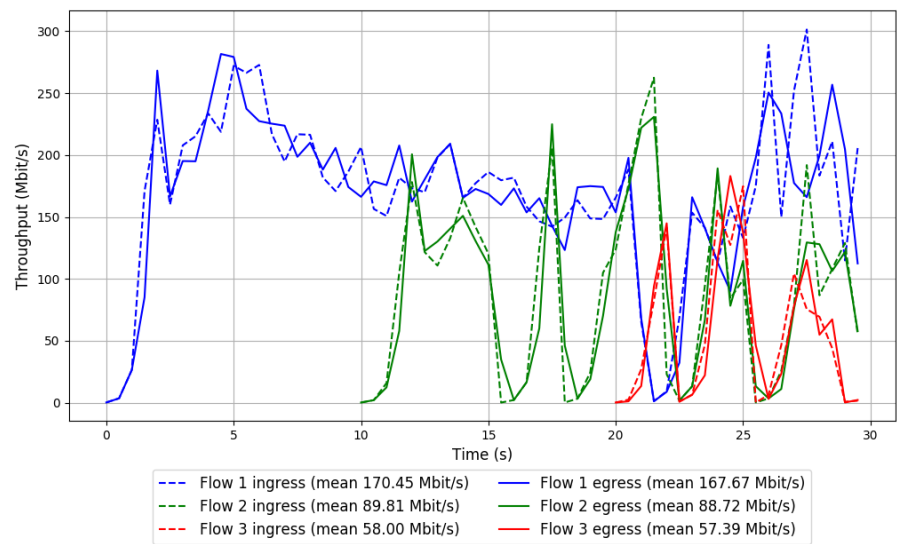
-- Flow 3:

Average throughput: 57.39 Mbit/s

95th percentile per-packet one-way delay: 194.041 ms

Loss rate: 0.38%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-04-18 06:15:04

End at: 2018-04-18 06:15:34

Below is generated by plot.py at 2018-04-18 09:24:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 264.21 Mbit/s

95th percentile per-packet one-way delay: 252.141 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 197.41 Mbit/s

95th percentile per-packet one-way delay: 198.929 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 90.02 Mbit/s

95th percentile per-packet one-way delay: 329.269 ms

Loss rate: 3.62%

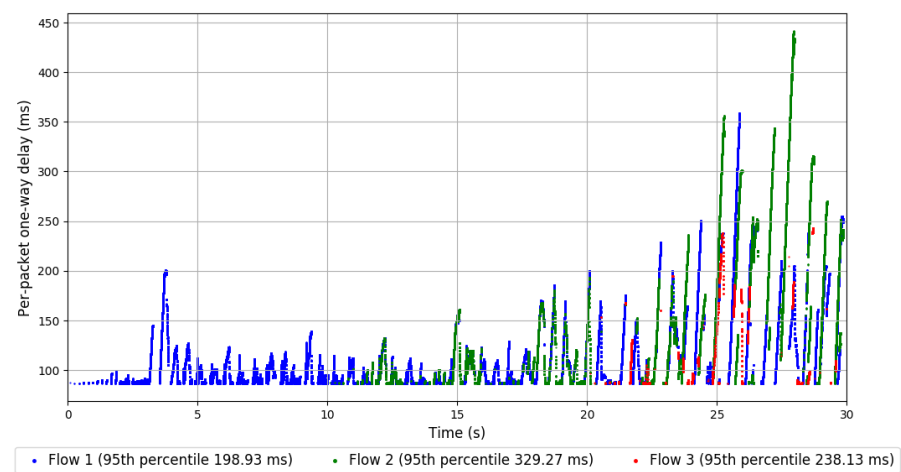
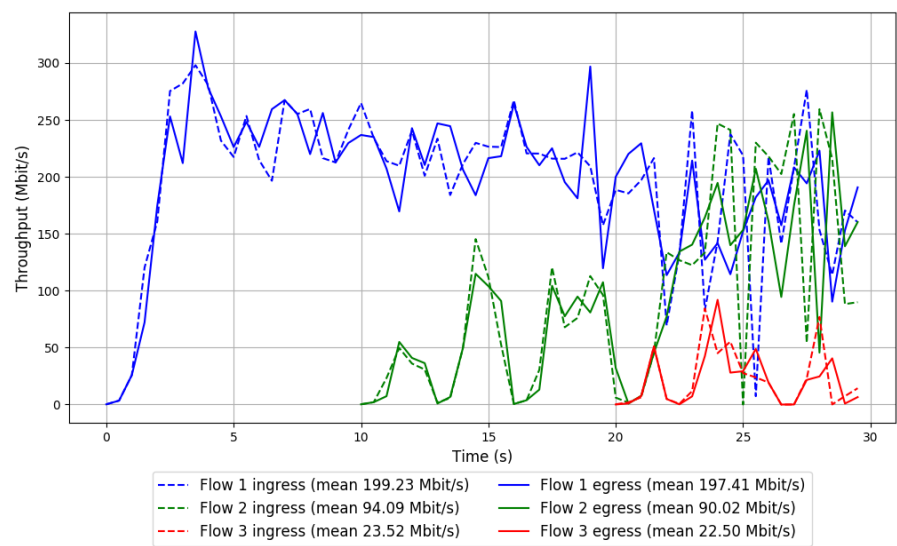
-- Flow 3:

Average throughput: 22.50 Mbit/s

95th percentile per-packet one-way delay: 238.130 ms

Loss rate: 6.15%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-04-18 06:31:23

End at: 2018-04-18 06:31:53

Below is generated by plot.py at 2018-04-18 09:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 261.71 Mbit/s

95th percentile per-packet one-way delay: 202.407 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 210.04 Mbit/s

95th percentile per-packet one-way delay: 208.929 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.71 Mbit/s

95th percentile per-packet one-way delay: 164.503 ms

Loss rate: 1.96%

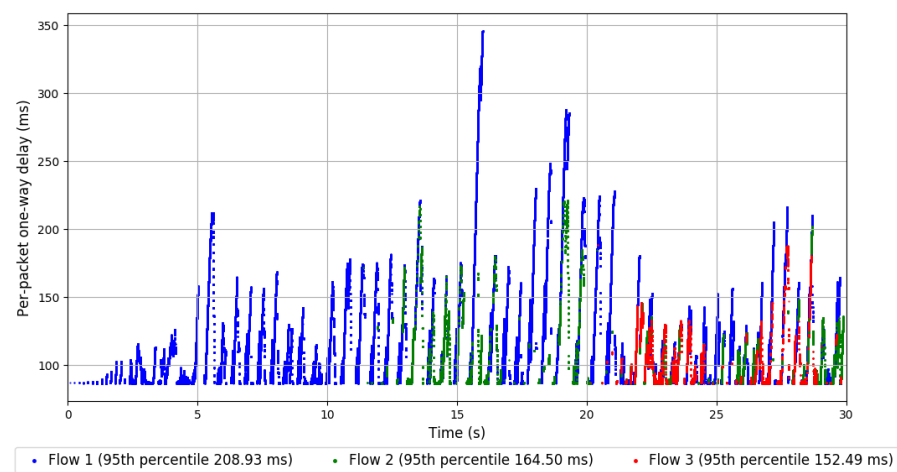
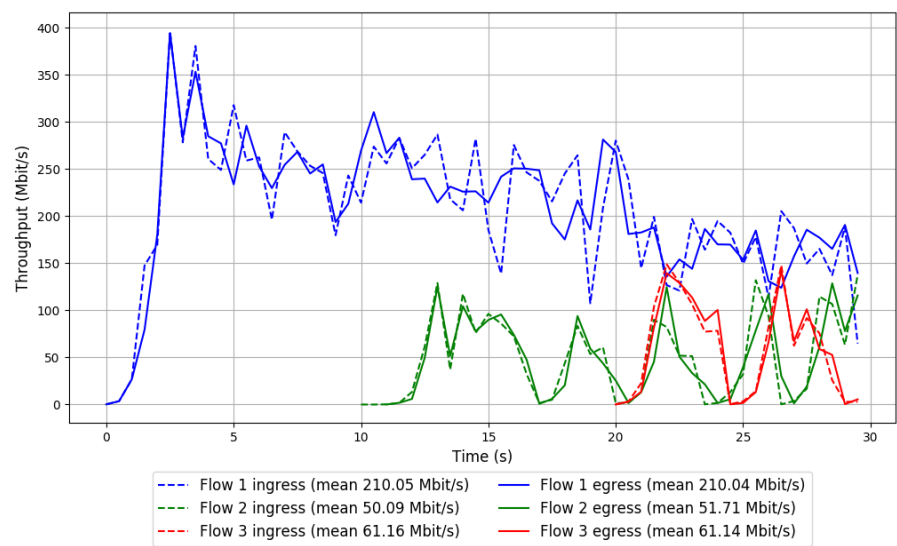
-- Flow 3:

Average throughput: 61.14 Mbit/s

95th percentile per-packet one-way delay: 152.494 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-04-18 06:47:41

End at: 2018-04-18 06:48:11

Below is generated by plot.py at 2018-04-18 09:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.91 Mbit/s

95th percentile per-packet one-way delay: 248.711 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 174.23 Mbit/s

95th percentile per-packet one-way delay: 270.095 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 101.09 Mbit/s

95th percentile per-packet one-way delay: 208.142 ms

Loss rate: 0.81%

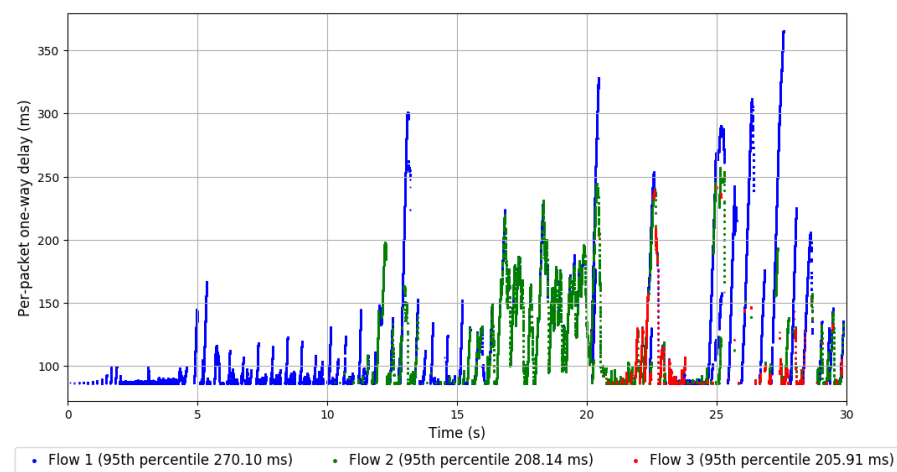
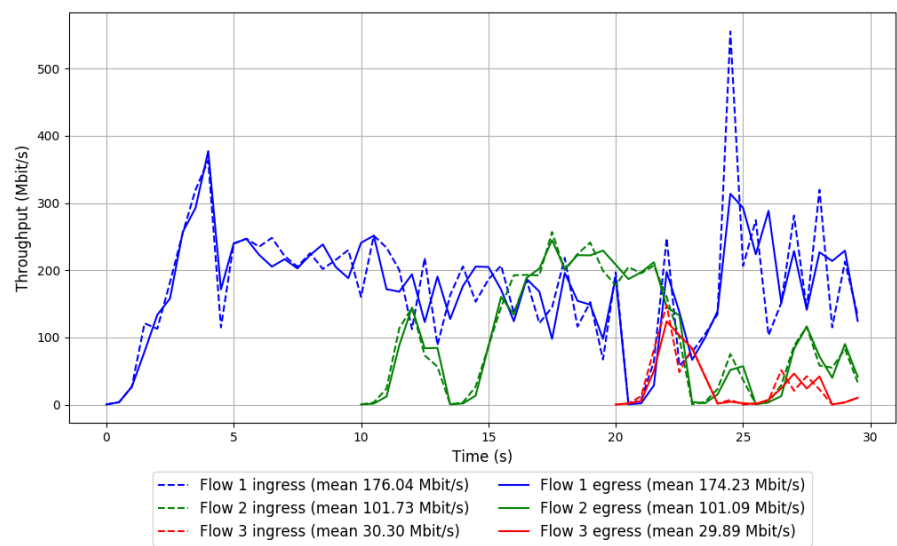
-- Flow 3:

Average throughput: 29.89 Mbit/s

95th percentile per-packet one-way delay: 205.913 ms

Loss rate: 1.58%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-04-18 04:18:55

End at: 2018-04-18 04:19:25

Below is generated by plot.py at 2018-04-18 09:25:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.14 Mbit/s

95th percentile per-packet one-way delay: 86.250 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 82.91 Mbit/s

95th percentile per-packet one-way delay: 86.221 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 55.99 Mbit/s

95th percentile per-packet one-way delay: 86.376 ms

Loss rate: 0.00%

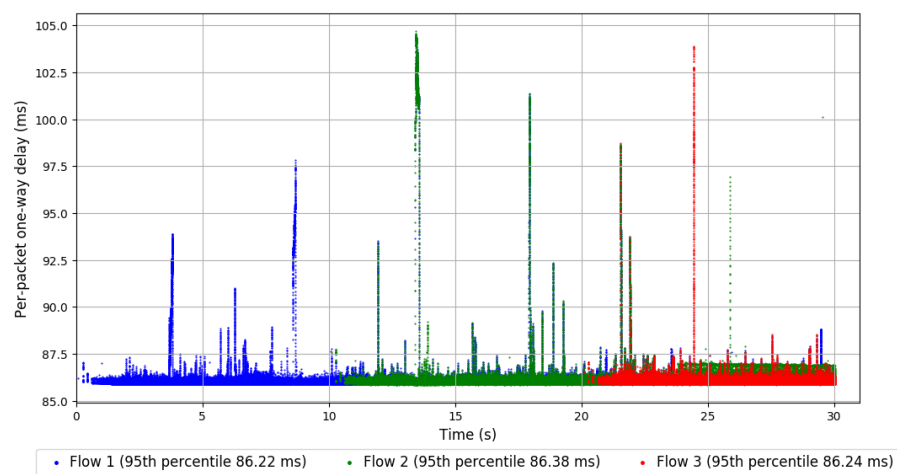
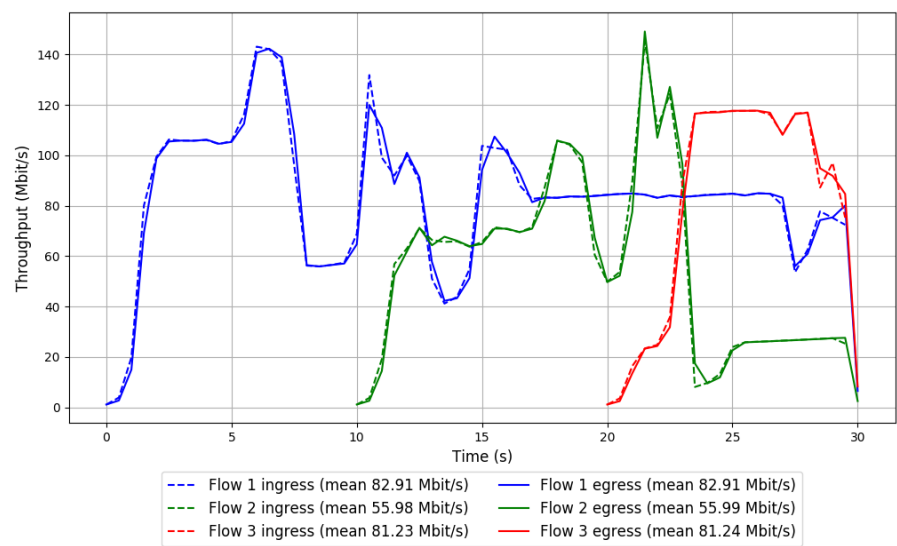
-- Flow 3:

Average throughput: 81.24 Mbit/s

95th percentile per-packet one-way delay: 86.244 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

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

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

Below is generated by plot.py at 2018-04-18 09:26:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 155.46 Mbit/s

95th percentile per-packet one-way delay: 86.625 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 88.19 Mbit/s

95th percentile per-packet one-way delay: 86.677 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.87 Mbit/s

95th percentile per-packet one-way delay: 86.265 ms

Loss rate: 0.00%

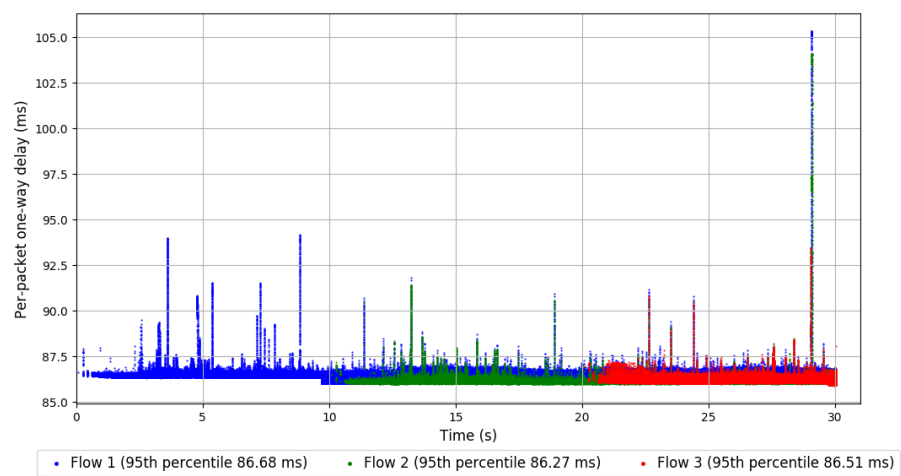
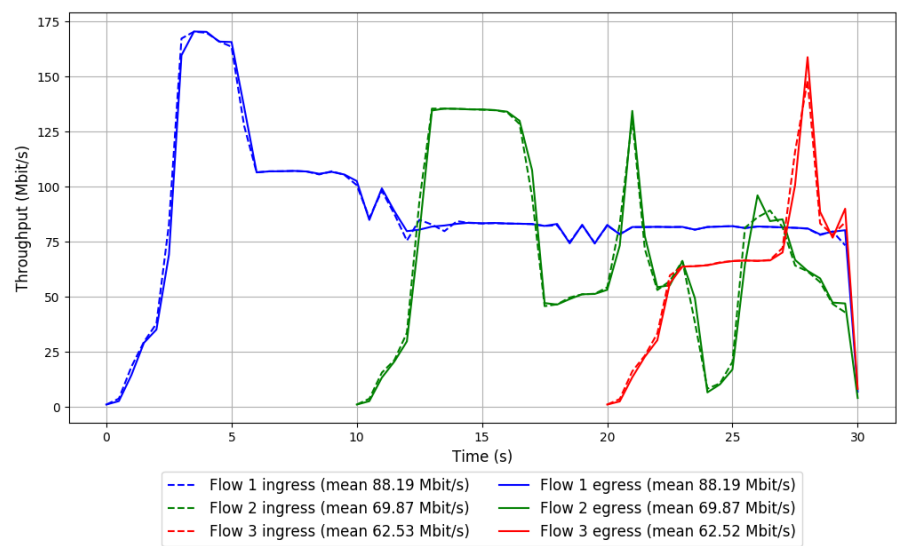
-- Flow 3:

Average throughput: 62.52 Mbit/s

95th percentile per-packet one-way delay: 86.506 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-04-18 04:51:50

End at: 2018-04-18 04:52:20

Below is generated by plot.py at 2018-04-18 09:26:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.98 Mbit/s

95th percentile per-packet one-way delay: 86.507 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 82.85 Mbit/s

95th percentile per-packet one-way delay: 86.472 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 84.09 Mbit/s

95th percentile per-packet one-way delay: 86.507 ms

Loss rate: 0.00%

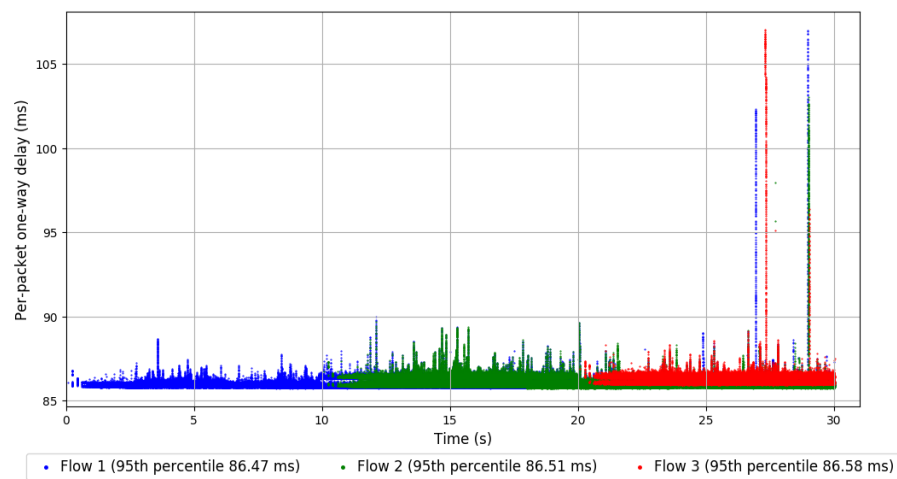
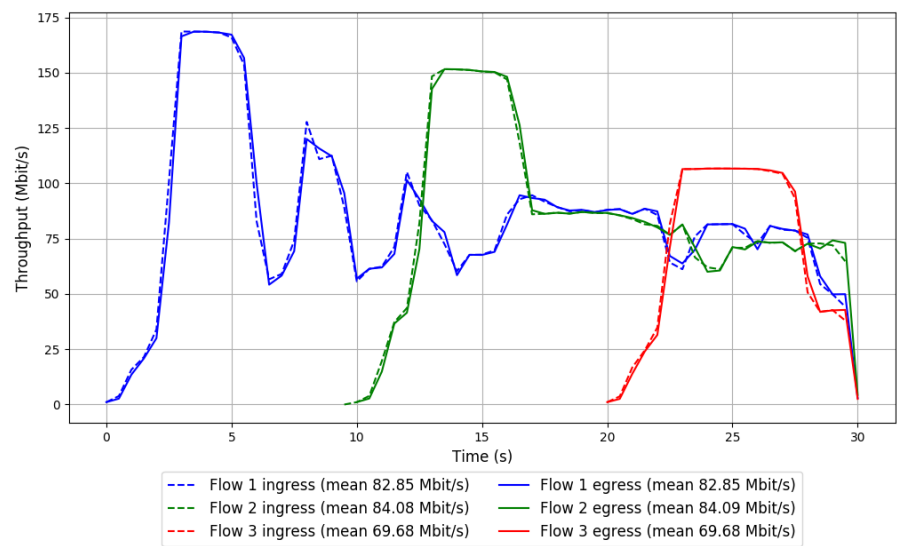
-- Flow 3:

Average throughput: 69.68 Mbit/s

95th percentile per-packet one-way delay: 86.579 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-04-18 05:07:59

End at: 2018-04-18 05:08:29

Below is generated by plot.py at 2018-04-18 09:27:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.14 Mbit/s

95th percentile per-packet one-way delay: 87.073 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.75 Mbit/s

95th percentile per-packet one-way delay: 86.664 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.27 Mbit/s

95th percentile per-packet one-way delay: 89.131 ms

Loss rate: 0.00%

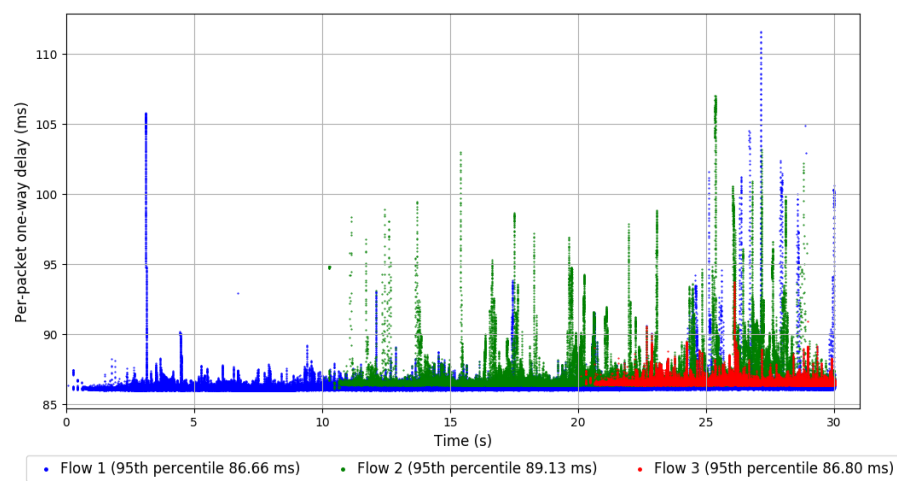
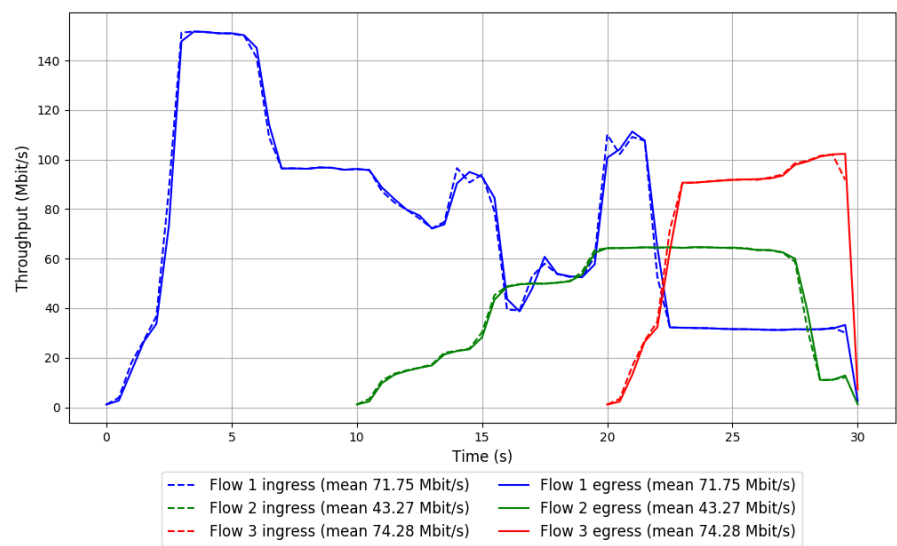
-- Flow 3:

Average throughput: 74.28 Mbit/s

95th percentile per-packet one-way delay: 86.797 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-04-18 05:24:26

End at: 2018-04-18 05:24:56

Below is generated by plot.py at 2018-04-18 09:29:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.77 Mbit/s

95th percentile per-packet one-way delay: 86.611 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 79.41 Mbit/s

95th percentile per-packet one-way delay: 86.521 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.94 Mbit/s

95th percentile per-packet one-way delay: 86.708 ms

Loss rate: 0.00%

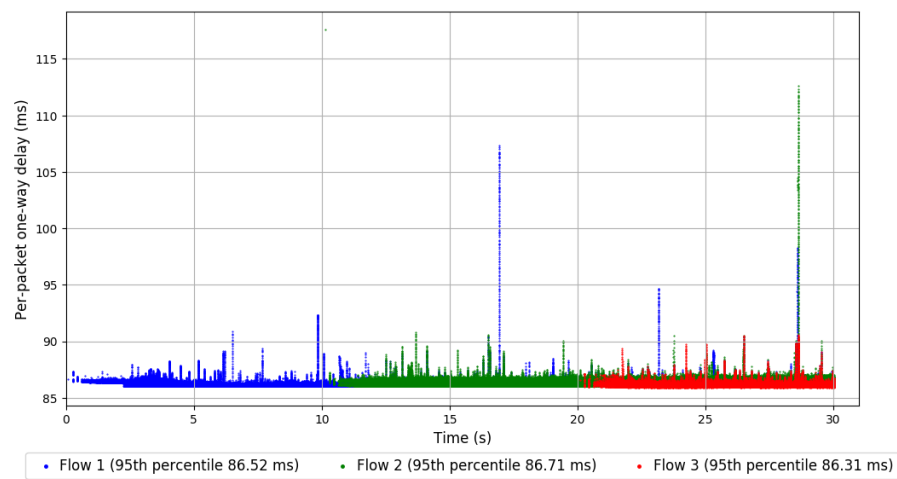
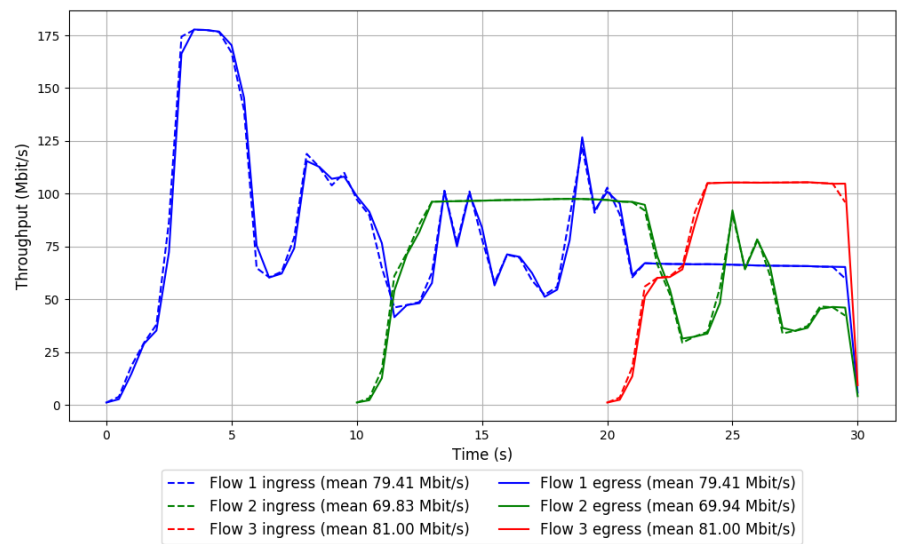
-- Flow 3:

Average throughput: 81.00 Mbit/s

95th percentile per-packet one-way delay: 86.306 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-04-18 05:40:49

End at: 2018-04-18 05:41:19

Below is generated by plot.py at 2018-04-18 09:30:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.47 Mbit/s

95th percentile per-packet one-way delay: 86.558 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 86.552 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 83.54 Mbit/s

95th percentile per-packet one-way delay: 86.576 ms

Loss rate: 0.00%

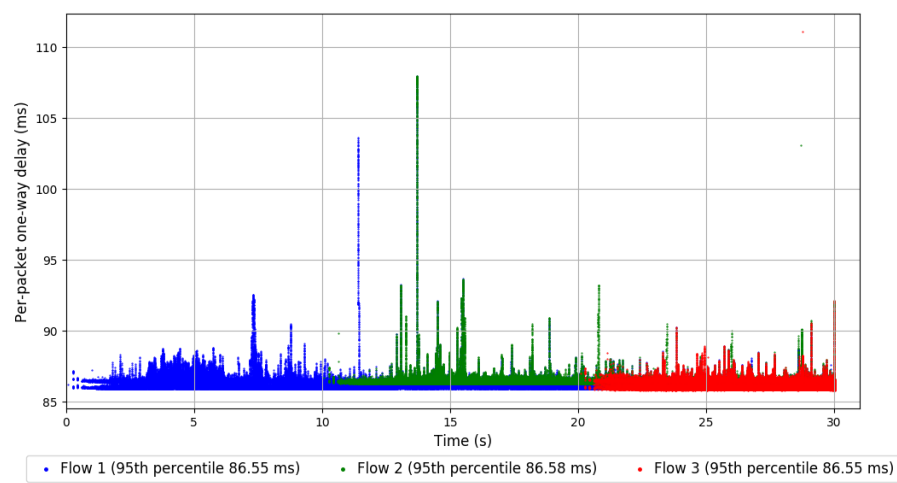
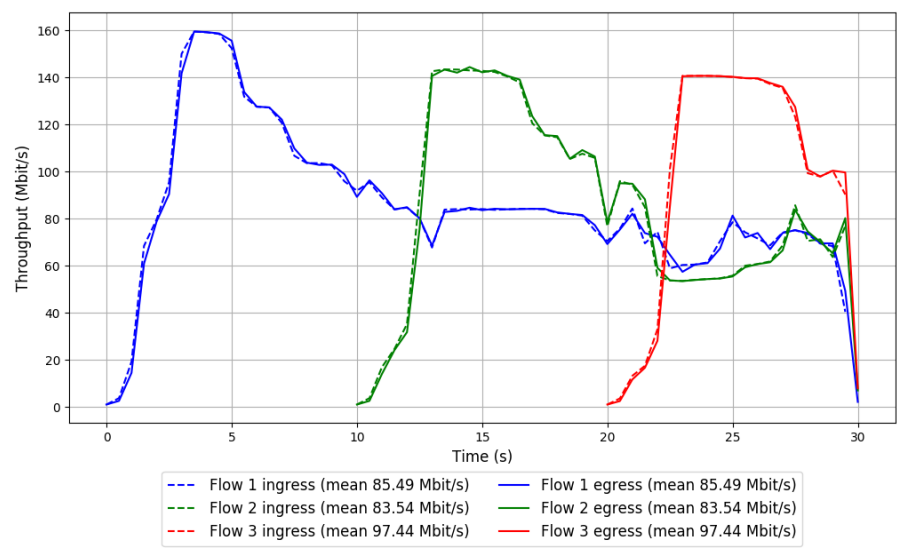
-- Flow 3:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 86.546 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-04-18 05:57:11

End at: 2018-04-18 05:57:41

Below is generated by plot.py at 2018-04-18 09:30:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.15 Mbit/s

95th percentile per-packet one-way delay: 86.542 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 84.28 Mbit/s

95th percentile per-packet one-way delay: 86.496 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.09 Mbit/s

95th percentile per-packet one-way delay: 86.617 ms

Loss rate: 0.00%

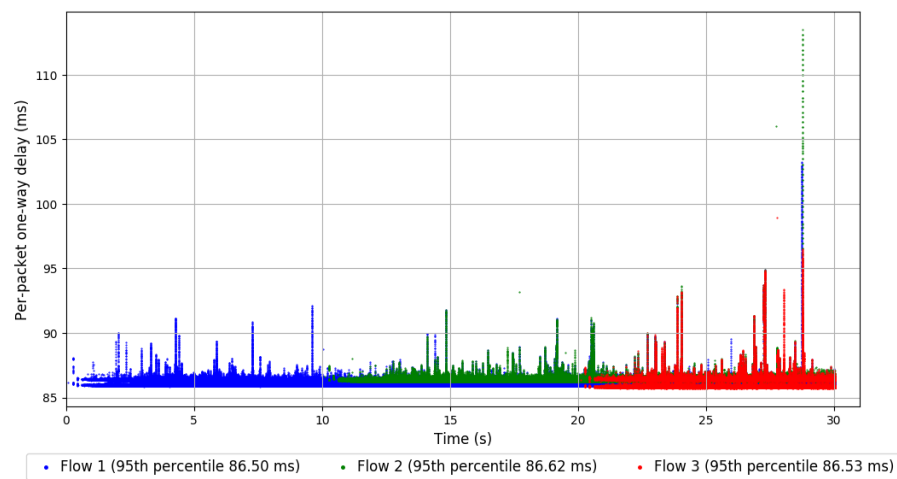
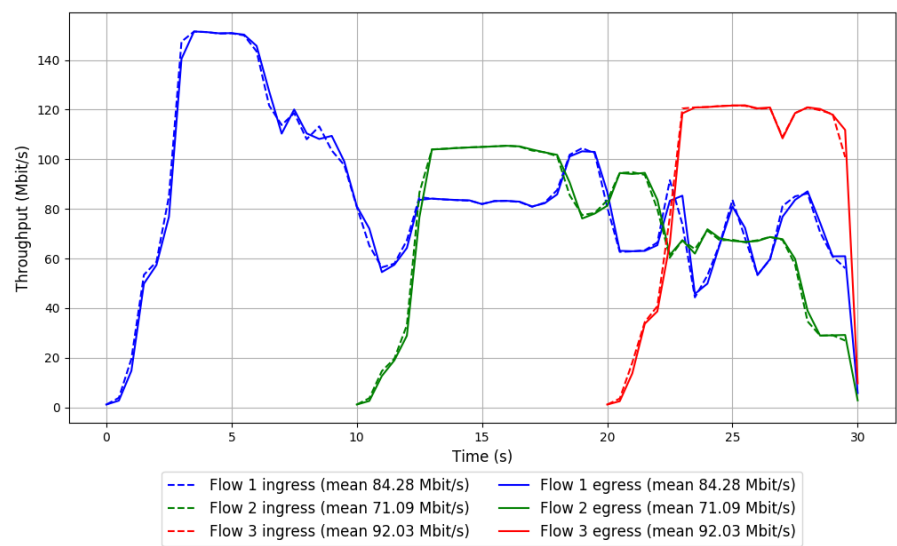
-- Flow 3:

Average throughput: 92.03 Mbit/s

95th percentile per-packet one-way delay: 86.526 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-04-18 06:13:23

End at: 2018-04-18 06:13:53

Below is generated by plot.py at 2018-04-18 09:30:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.32 Mbit/s

95th percentile per-packet one-way delay: 86.825 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.49 Mbit/s

95th percentile per-packet one-way delay: 86.775 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.32 Mbit/s

95th percentile per-packet one-way delay: 86.906 ms

Loss rate: 0.00%

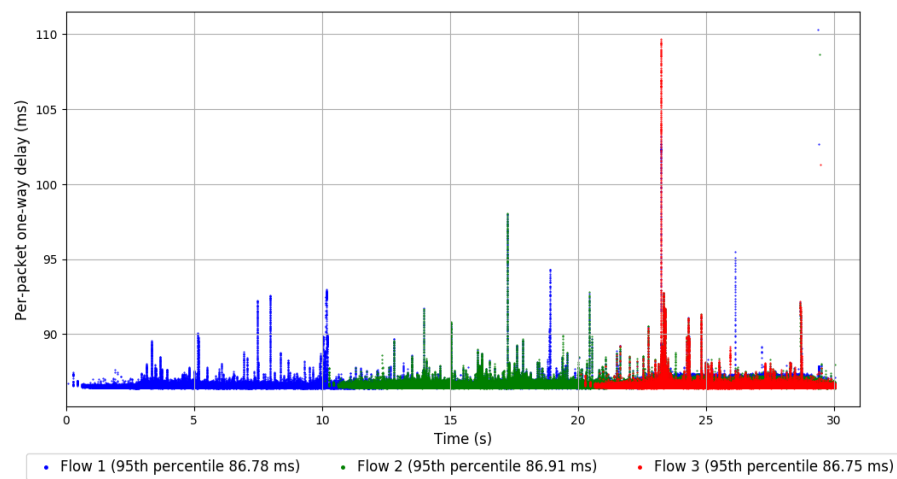
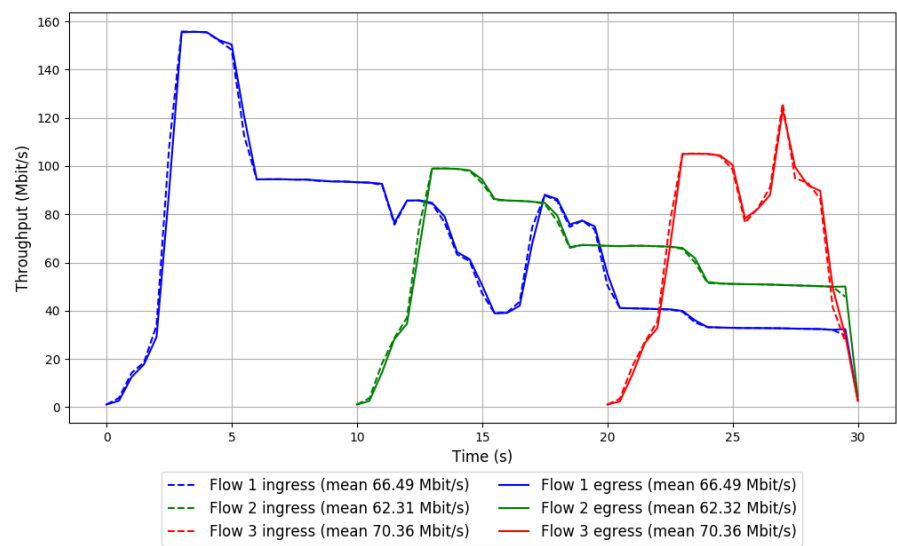
-- Flow 3:

Average throughput: 70.36 Mbit/s

95th percentile per-packet one-way delay: 86.755 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-04-18 06:29:40

End at: 2018-04-18 06:30:10

Below is generated by plot.py at 2018-04-18 09:30:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.98 Mbit/s

95th percentile per-packet one-way delay: 86.785 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 78.47 Mbit/s

95th percentile per-packet one-way delay: 86.824 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.51 Mbit/s

95th percentile per-packet one-way delay: 86.749 ms

Loss rate: 0.00%

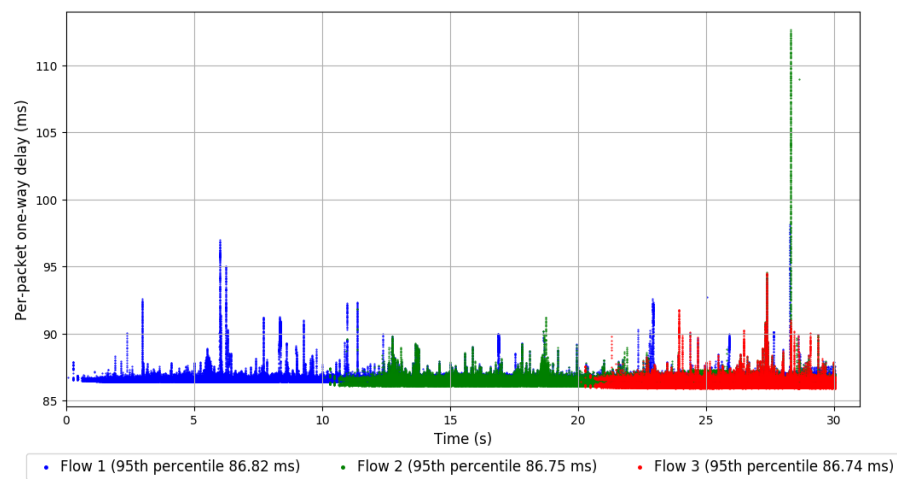
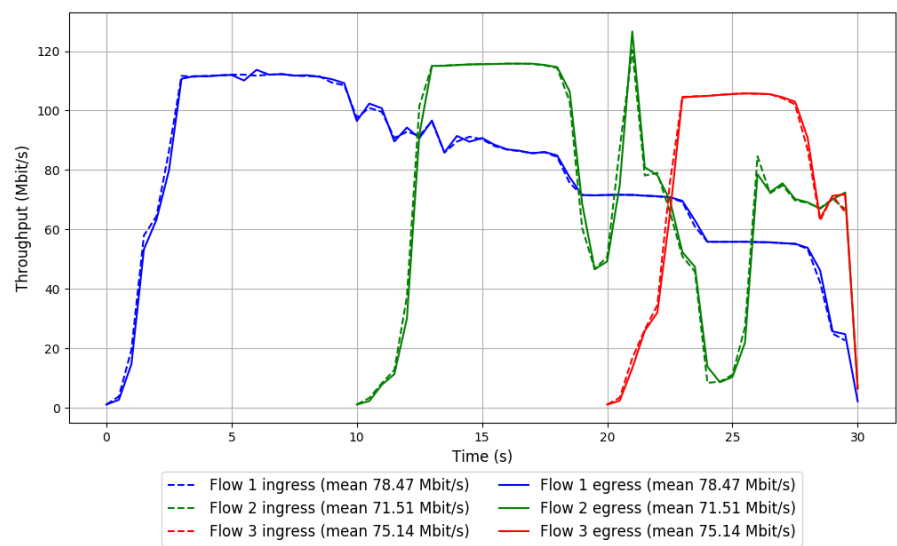
-- Flow 3:

Average throughput: 75.14 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-04-18 06:45:58

End at: 2018-04-18 06:46:28

Below is generated by plot.py at 2018-04-18 09:31:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.75 Mbit/s

95th percentile per-packet one-way delay: 86.643 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 89.06 Mbit/s

95th percentile per-packet one-way delay: 86.598 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 76.04 Mbit/s

95th percentile per-packet one-way delay: 86.618 ms

Loss rate: 0.00%

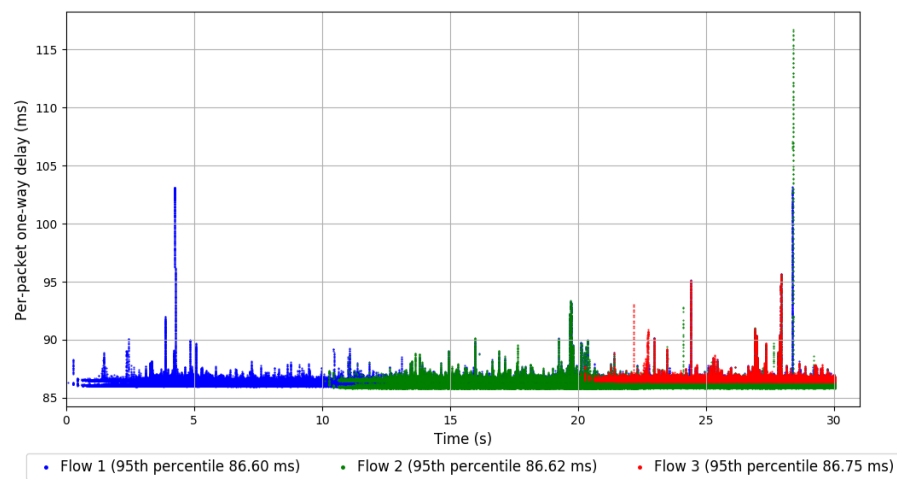
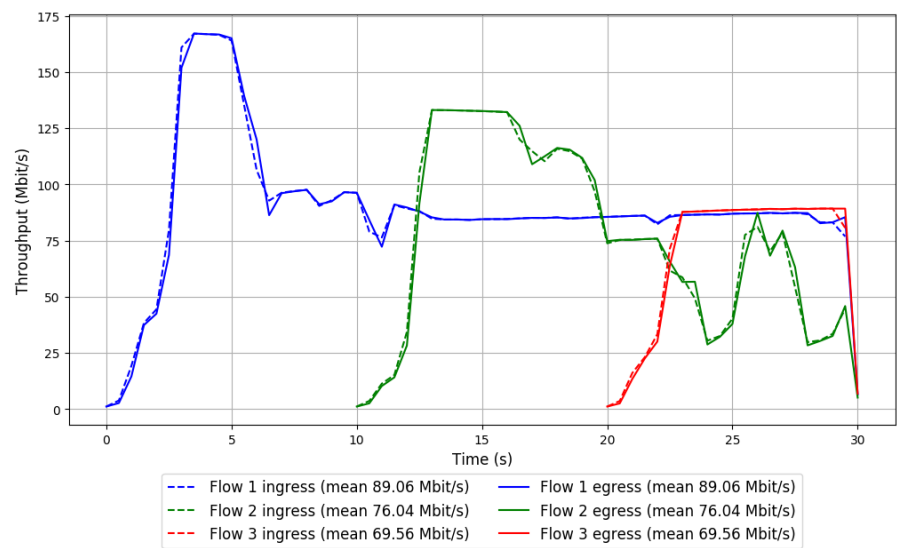
-- Flow 3:

Average throughput: 69.56 Mbit/s

95th percentile per-packet one-way delay: 86.747 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

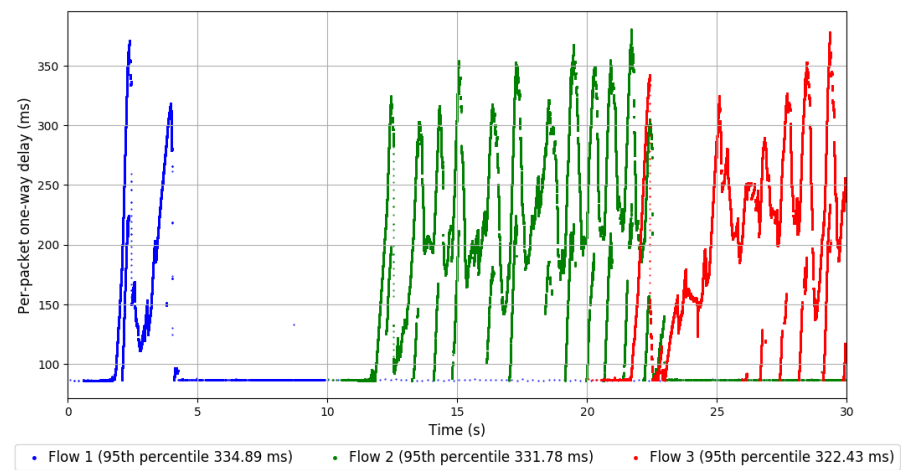
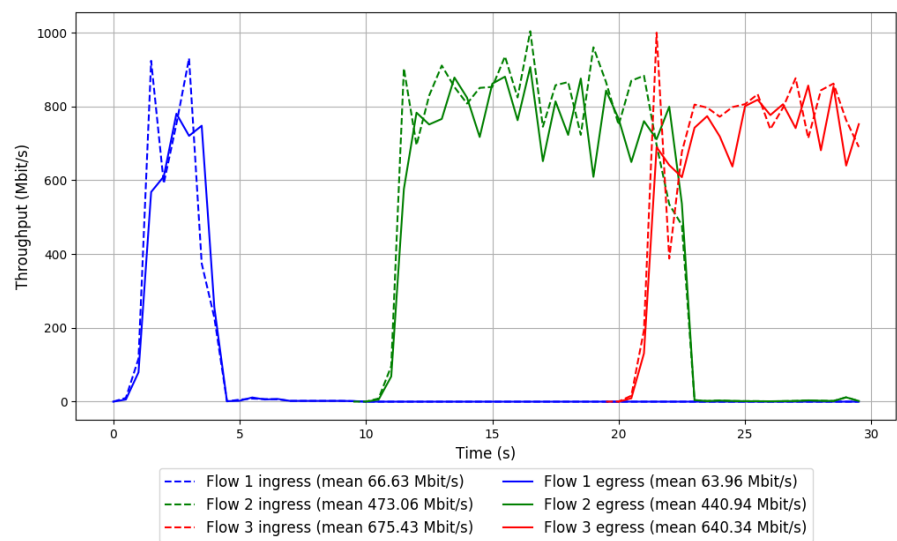


```
Run 1: Statistics of FillP

Start at: 2018-04-18 04:10:37
End at: 2018-04-18 04:11:07

# Below is generated by plot.py at 2018-04-18 09:36:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 570.18 Mbit/s
95th percentile per-packet one-way delay: 328.077 ms
Loss rate: 5.89%
-- Flow 1:
Average throughput: 63.96 Mbit/s
95th percentile per-packet one-way delay: 334.886 ms
Loss rate: 4.00%
-- Flow 2:
Average throughput: 440.94 Mbit/s
95th percentile per-packet one-way delay: 331.776 ms
Loss rate: 6.79%
-- Flow 3:
Average throughput: 640.34 Mbit/s
95th percentile per-packet one-way delay: 322.425 ms
Loss rate: 5.19%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-04-18 04:26:27

End at: 2018-04-18 04:26:57

Below is generated by plot.py at 2018-04-18 09:50:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 1306.42 Mbit/s

95th percentile per-packet one-way delay: 308.767 ms

Loss rate: 5.58%

-- Flow 1:

Average throughput: 696.86 Mbit/s

95th percentile per-packet one-way delay: 245.816 ms

Loss rate: 4.59%

-- Flow 2:

Average throughput: 635.33 Mbit/s

95th percentile per-packet one-way delay: 344.838 ms

Loss rate: 6.79%

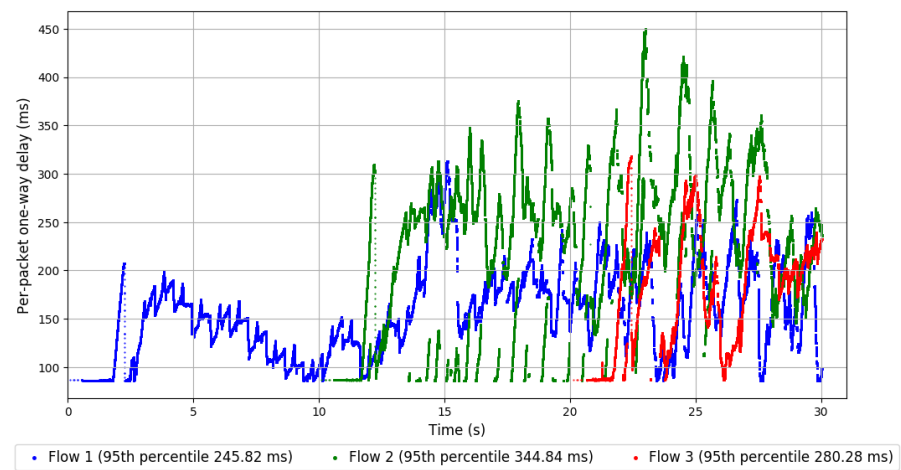
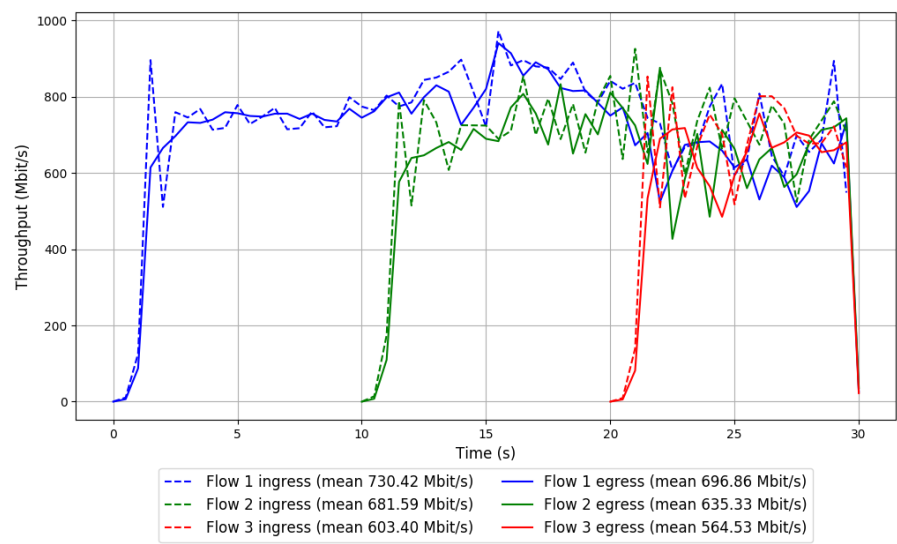
-- Flow 3:

Average throughput: 564.53 Mbit/s

95th percentile per-packet one-way delay: 280.282 ms

Loss rate: 6.45%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-04-18 04:42:59

End at: 2018-04-18 04:43:29

Below is generated by plot.py at 2018-04-18 09:50:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 1211.71 Mbit/s

95th percentile per-packet one-way delay: 299.492 ms

Loss rate: 5.53%

-- Flow 1:

Average throughput: 587.39 Mbit/s

95th percentile per-packet one-way delay: 280.468 ms

Loss rate: 5.47%

-- Flow 2:

Average throughput: 637.24 Mbit/s

95th percentile per-packet one-way delay: 308.735 ms

Loss rate: 4.72%

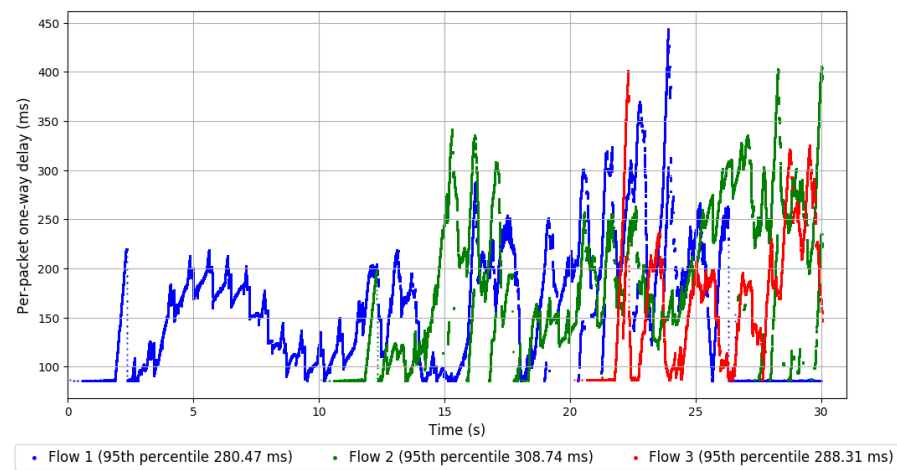
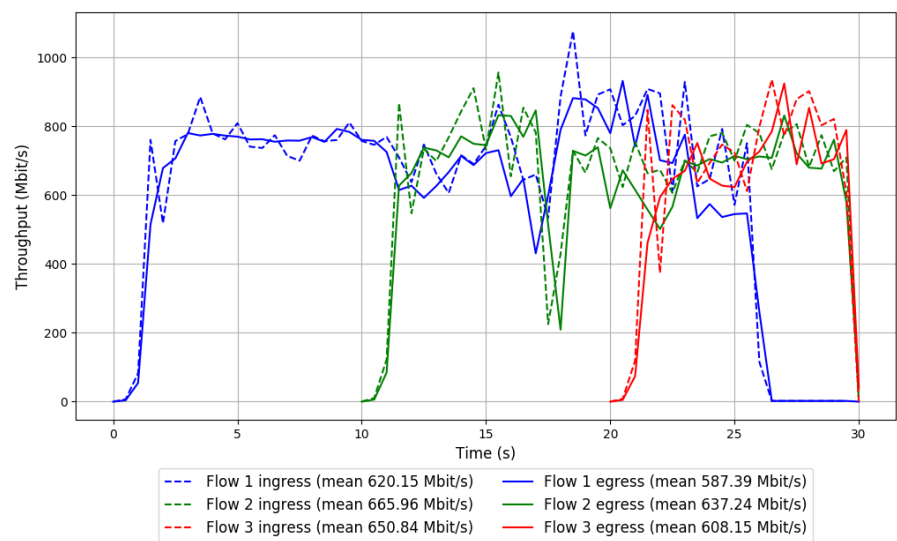
-- Flow 3:

Average throughput: 608.15 Mbit/s

95th percentile per-packet one-way delay: 288.305 ms

Loss rate: 7.36%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-04-18 04:59:22

End at: 2018-04-18 04:59:52

Below is generated by plot.py at 2018-04-18 09:50:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 917.64 Mbit/s

95th percentile per-packet one-way delay: 314.701 ms

Loss rate: 5.28%

-- Flow 1:

Average throughput: 252.18 Mbit/s

95th percentile per-packet one-way delay: 355.698 ms

Loss rate: 9.10%

-- Flow 2:

Average throughput: 707.61 Mbit/s

95th percentile per-packet one-way delay: 220.718 ms

Loss rate: 2.88%

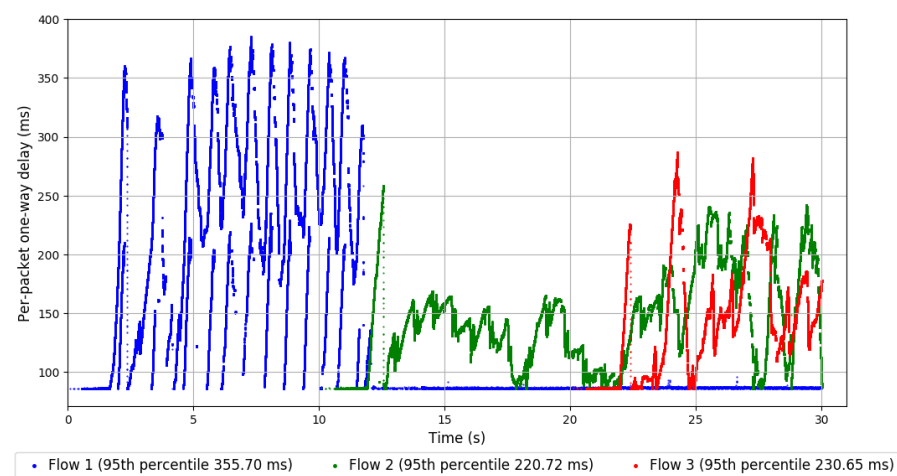
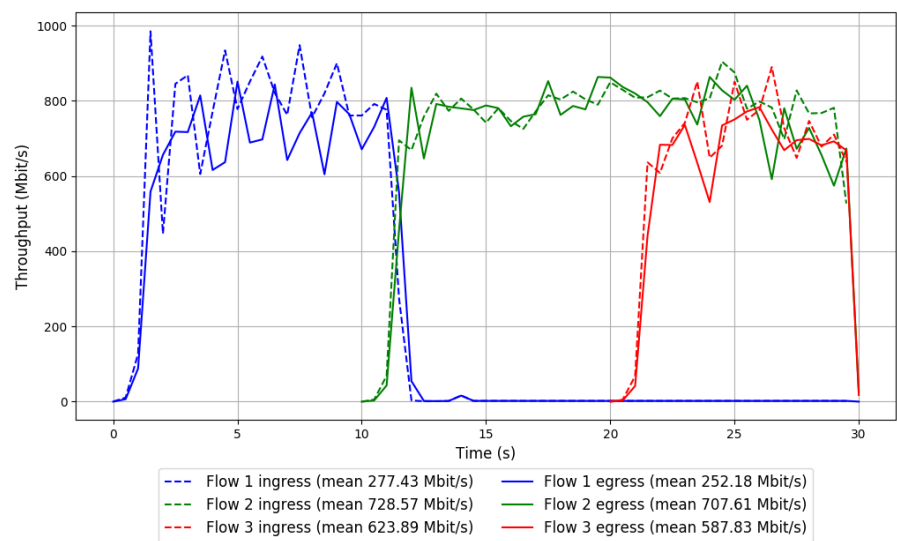
-- Flow 3:

Average throughput: 587.83 Mbit/s

95th percentile per-packet one-way delay: 230.648 ms

Loss rate: 5.78%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-04-18 05:15:31

End at: 2018-04-18 05:16:01

Below is generated by plot.py at 2018-04-18 09:53:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 1313.14 Mbit/s

95th percentile per-packet one-way delay: 314.544 ms

Loss rate: 5.80%

-- Flow 1:

Average throughput: 731.50 Mbit/s

95th percentile per-packet one-way delay: 283.099 ms

Loss rate: 3.66%

-- Flow 2:

Average throughput: 593.54 Mbit/s

95th percentile per-packet one-way delay: 354.972 ms

Loss rate: 7.48%

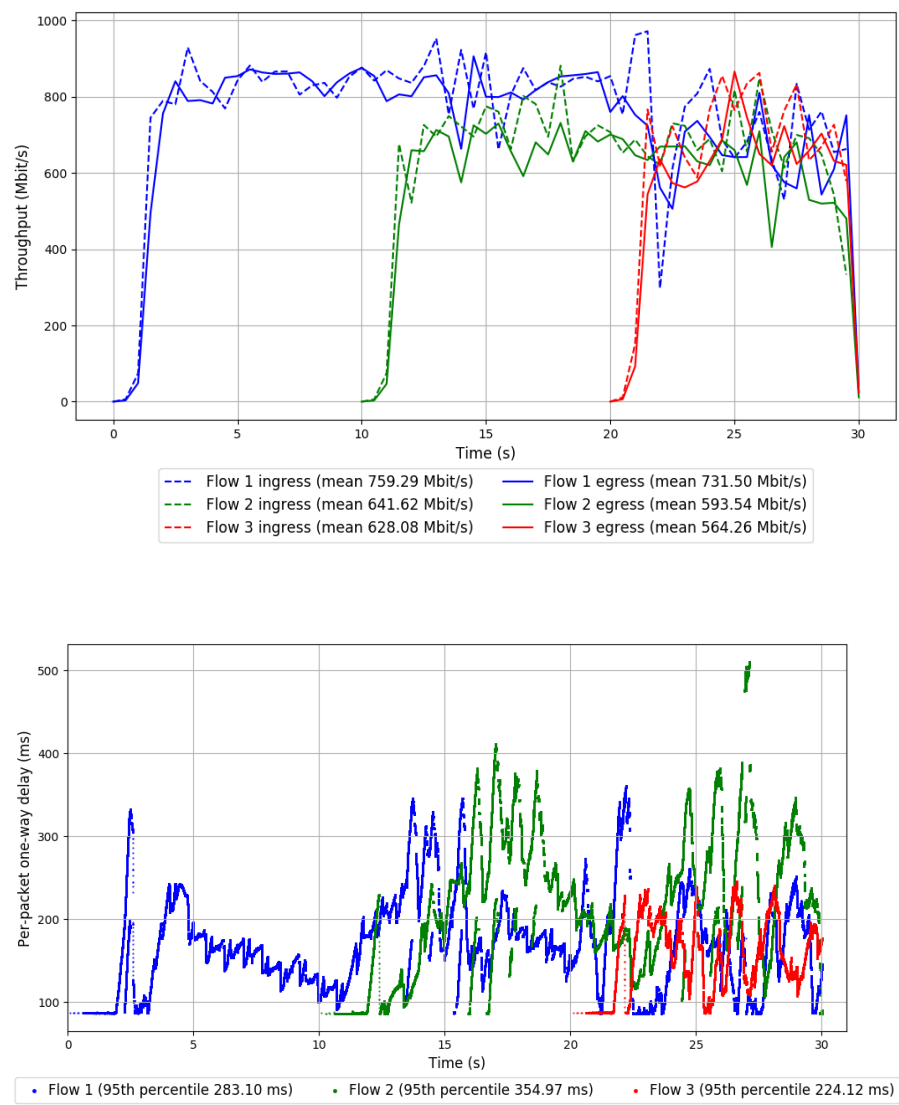
-- Flow 3:

Average throughput: 564.26 Mbit/s

95th percentile per-packet one-way delay: 224.121 ms

Loss rate: 10.16%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-04-18 05:32:00

End at: 2018-04-18 05:32:30

Below is generated by plot.py at 2018-04-18 09:53:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 1273.48 Mbit/s

95th percentile per-packet one-way delay: 304.594 ms

Loss rate: 6.54%

-- Flow 1:

Average throughput: 657.05 Mbit/s

95th percentile per-packet one-way delay: 288.837 ms

Loss rate: 5.73%

-- Flow 2:

Average throughput: 662.87 Mbit/s

95th percentile per-packet one-way delay: 324.383 ms

Loss rate: 6.03%

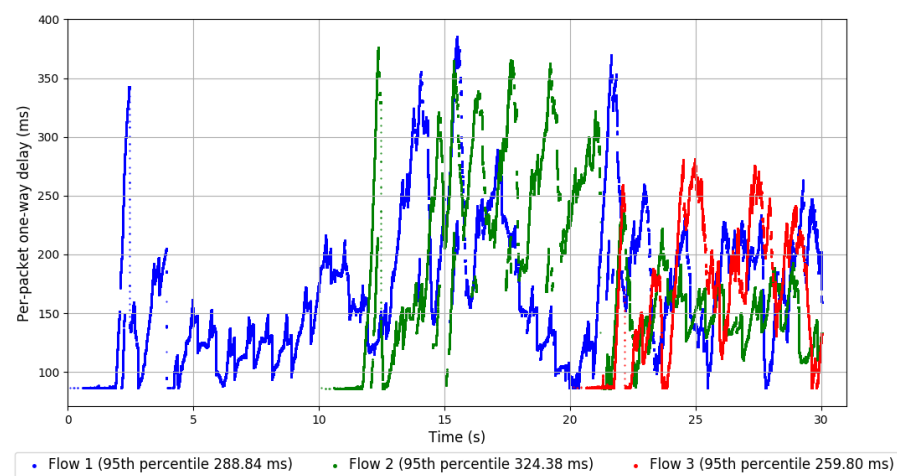
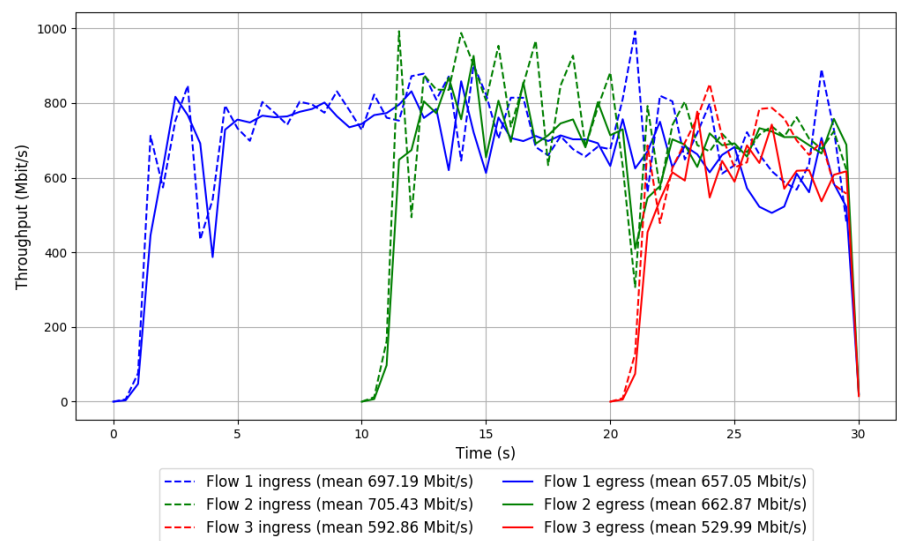
-- Flow 3:

Average throughput: 529.99 Mbit/s

95th percentile per-packet one-way delay: 259.801 ms

Loss rate: 10.61%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-04-18 05:48:21

End at: 2018-04-18 05:48:51

Below is generated by plot.py at 2018-04-18 09:54:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1306.14 Mbit/s

95th percentile per-packet one-way delay: 314.023 ms

Loss rate: 8.16%

-- Flow 1:

Average throughput: 695.56 Mbit/s

95th percentile per-packet one-way delay: 314.446 ms

Loss rate: 8.55%

-- Flow 2:

Average throughput: 642.46 Mbit/s

95th percentile per-packet one-way delay: 316.409 ms

Loss rate: 6.72%

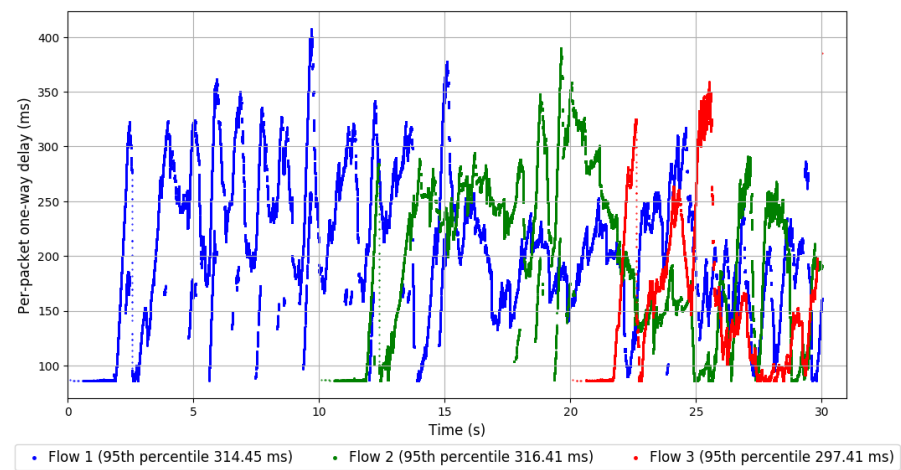
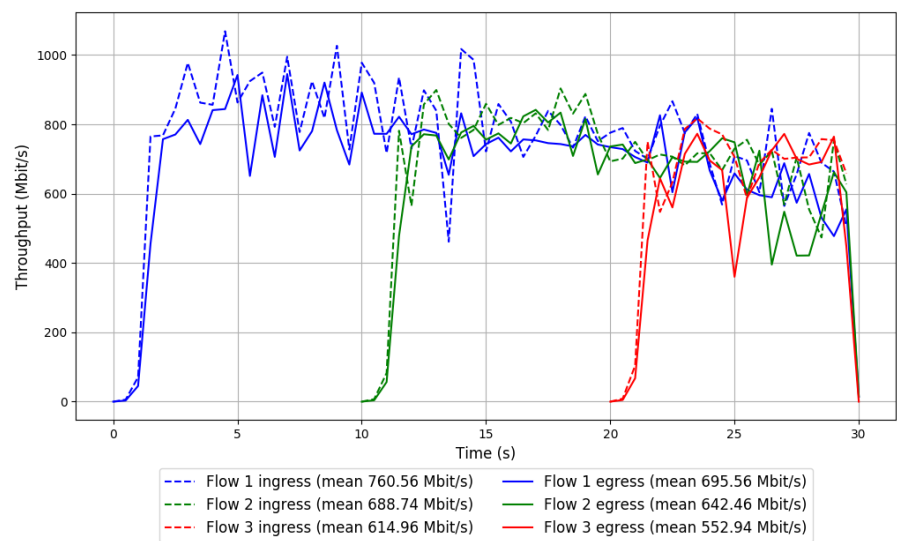
-- Flow 3:

Average throughput: 552.94 Mbit/s

95th percentile per-packet one-way delay: 297.406 ms

Loss rate: 9.98%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-04-18 06:04:35

End at: 2018-04-18 06:05:06

Below is generated by plot.py at 2018-04-18 09:54:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1041.97 Mbit/s

95th percentile per-packet one-way delay: 280.212 ms

Loss rate: 4.55%

-- Flow 1:

Average throughput: 389.13 Mbit/s

95th percentile per-packet one-way delay: 286.378 ms

Loss rate: 3.17%

-- Flow 2:

Average throughput: 646.61 Mbit/s

95th percentile per-packet one-way delay: 246.938 ms

Loss rate: 5.97%

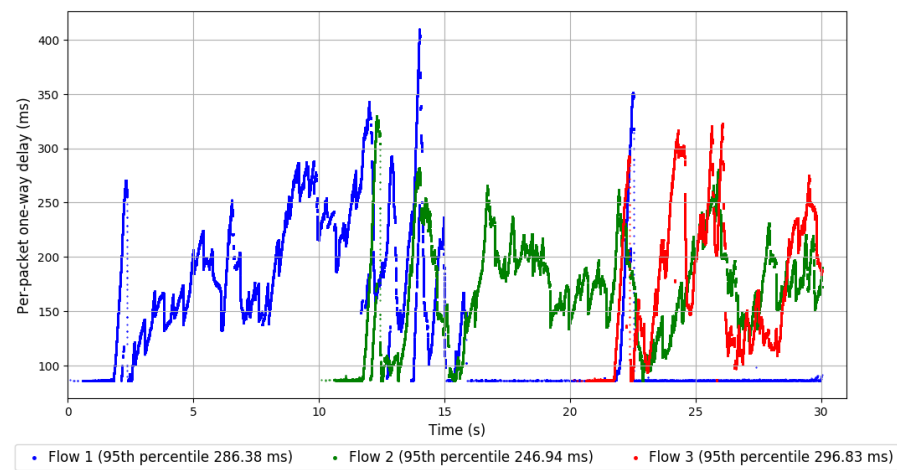
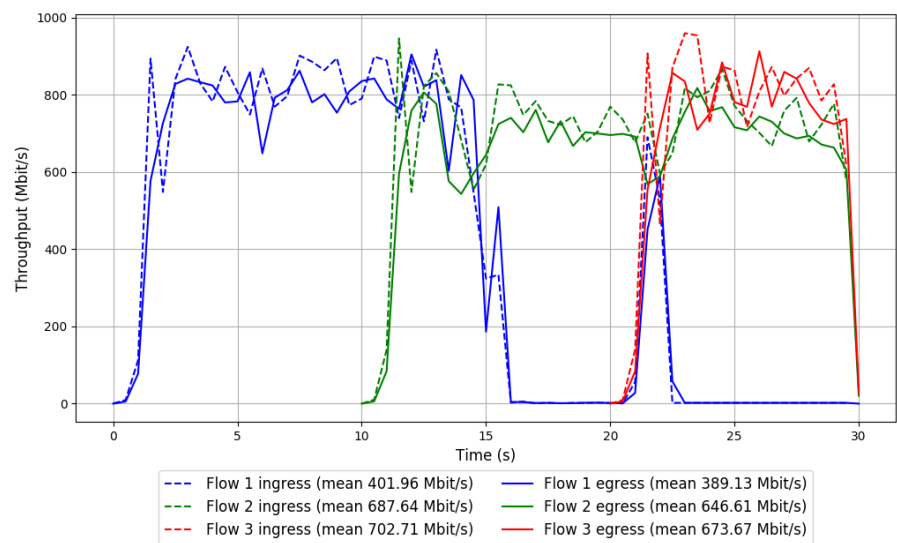
-- Flow 3:

Average throughput: 673.67 Mbit/s

95th percentile per-packet one-way delay: 296.835 ms

Loss rate: 4.14%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-04-18 06:20:57

End at: 2018-04-18 06:21:27

Below is generated by plot.py at 2018-04-18 09:58:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 1093.27 Mbit/s

95th percentile per-packet one-way delay: 288.009 ms

Loss rate: 3.71%

-- Flow 1:

Average throughput: 433.23 Mbit/s

95th percentile per-packet one-way delay: 303.219 ms

Loss rate: 2.10%

-- Flow 2:

Average throughput: 664.87 Mbit/s

95th percentile per-packet one-way delay: 230.299 ms

Loss rate: 4.36%

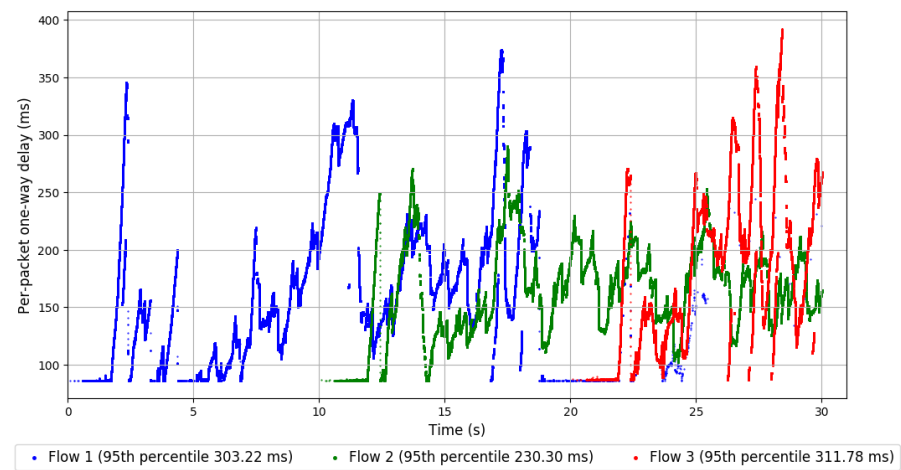
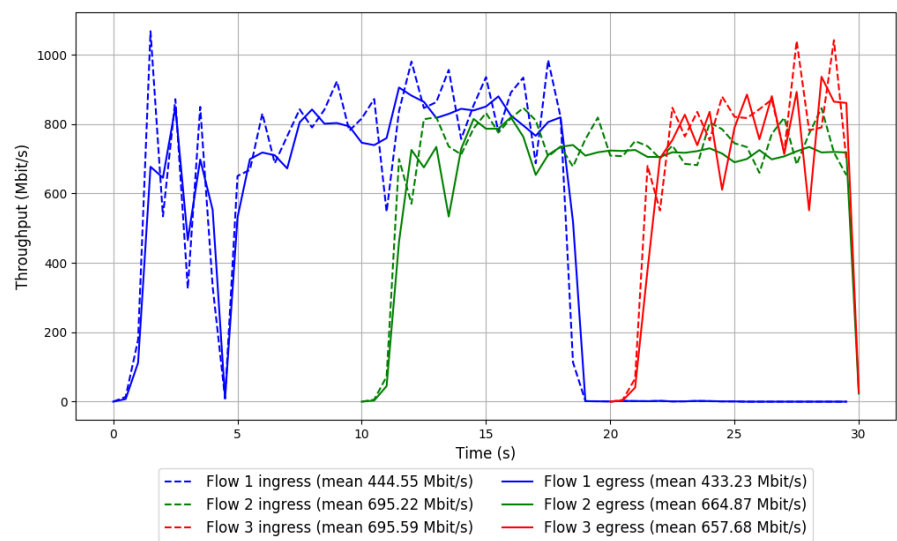
-- Flow 3:

Average throughput: 657.68 Mbit/s

95th percentile per-packet one-way delay: 311.779 ms

Loss rate: 5.45%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-04-18 06:37:16

End at: 2018-04-18 06:37:46

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 949.56 Mbit/s

95th percentile per-packet one-way delay: 318.227 ms

Loss rate: 6.01%

-- Flow 1:

Average throughput: 292.21 Mbit/s

95th percentile per-packet one-way delay: 345.950 ms

Loss rate: 4.81%

-- Flow 2:

Average throughput: 672.48 Mbit/s

95th percentile per-packet one-way delay: 249.371 ms

Loss rate: 7.14%

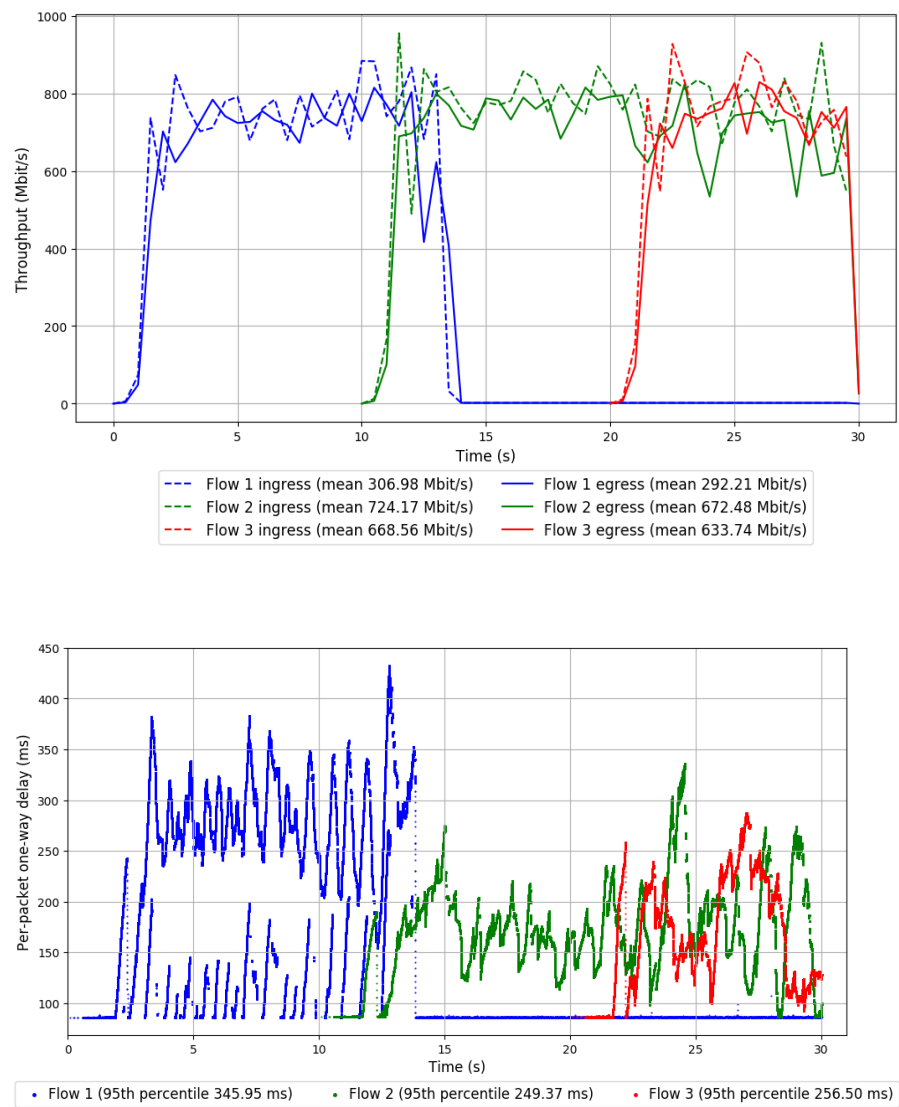
-- Flow 3:

Average throughput: 633.74 Mbit/s

95th percentile per-packet one-way delay: 256.495 ms

Loss rate: 5.20%

Run 10: Report of FillP — Data Link

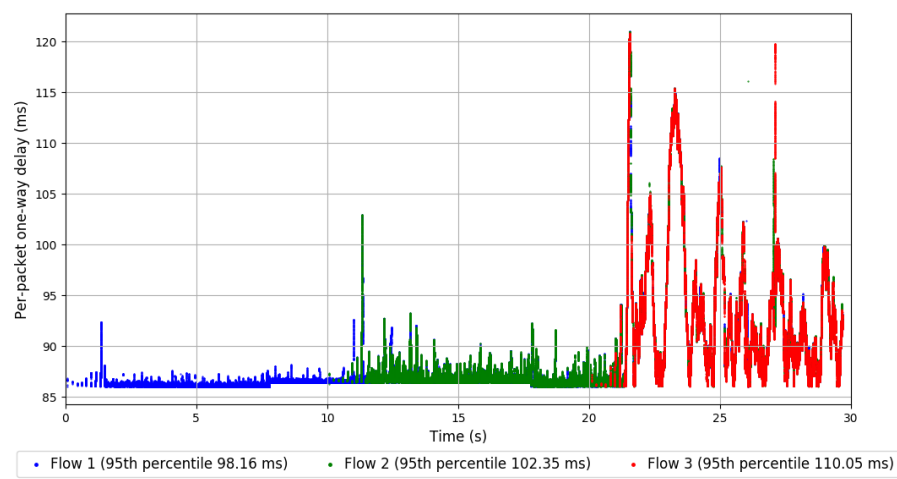
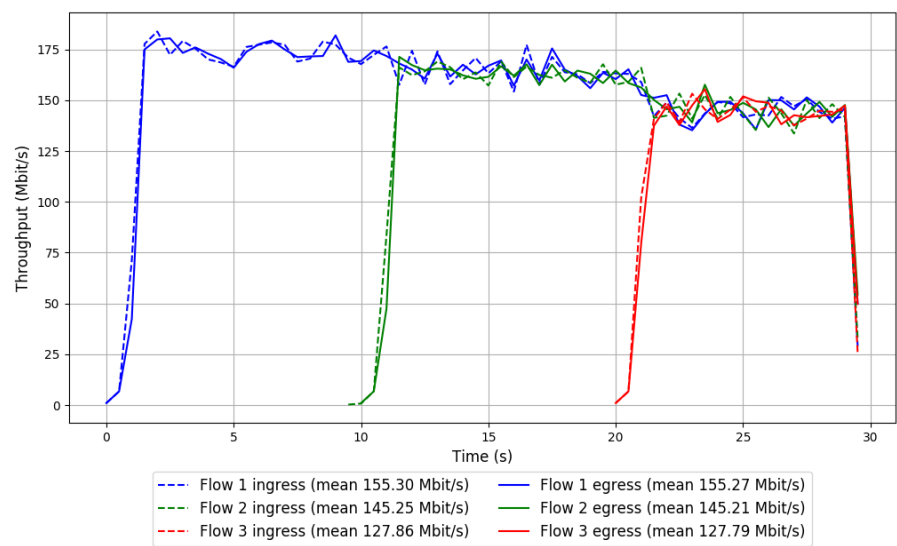


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-04-18 04:23:22
End at: 2018-04-18 04:23:52

# Below is generated by plot.py at 2018-04-18 10:05:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 292.92 Mbit/s
95th percentile per-packet one-way delay: 102.146 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 155.27 Mbit/s
95th percentile per-packet one-way delay: 98.160 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 145.21 Mbit/s
95th percentile per-packet one-way delay: 102.347 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 127.79 Mbit/s
95th percentile per-packet one-way delay: 110.046 ms
Loss rate: 0.04%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-04-18 04:39:48

End at: 2018-04-18 04:40:18

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.98 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 170.55 Mbit/s

95th percentile per-packet one-way delay: 108.669 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 150.66 Mbit/s

95th percentile per-packet one-way delay: 113.041 ms

Loss rate: 0.06%

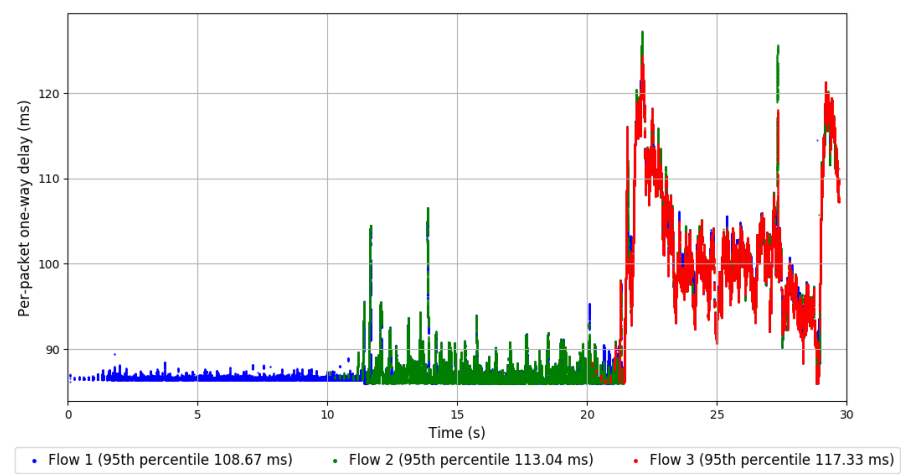
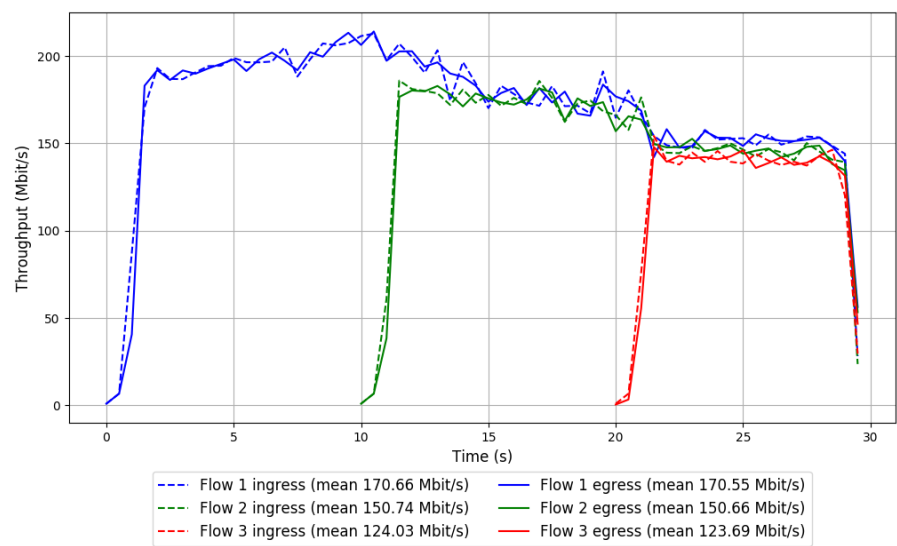
-- Flow 3:

Average throughput: 123.69 Mbit/s

95th percentile per-packet one-way delay: 117.331 ms

Loss rate: 0.23%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

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

End at: 2018-04-18 04:56:47

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 294.63 Mbit/s

95th percentile per-packet one-way delay: 103.616 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 157.16 Mbit/s

95th percentile per-packet one-way delay: 99.005 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 145.02 Mbit/s

95th percentile per-packet one-way delay: 103.589 ms

Loss rate: 0.02%

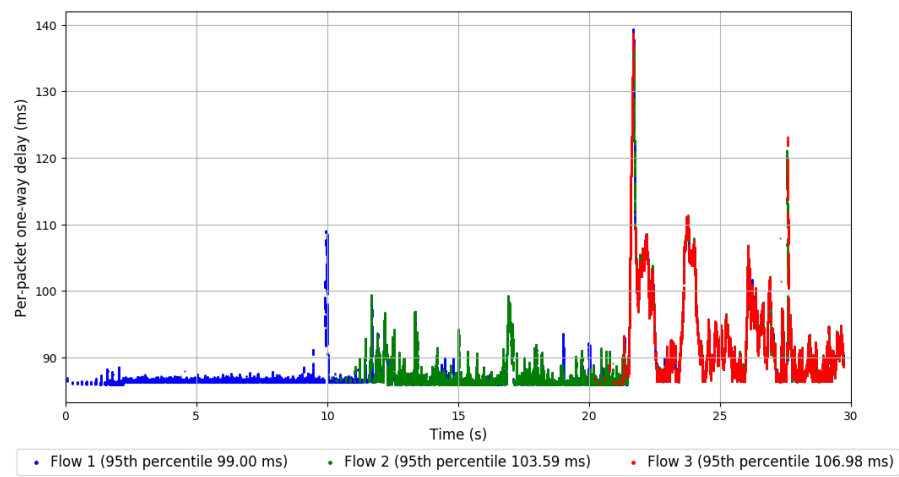
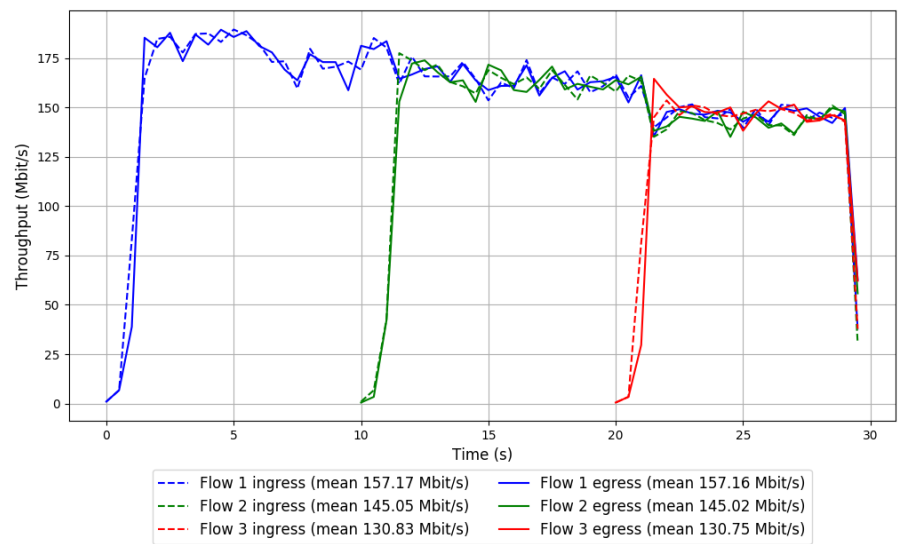
-- Flow 3:

Average throughput: 130.75 Mbit/s

95th percentile per-packet one-way delay: 106.983 ms

Loss rate: 0.05%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-04-18 05:12:22

End at: 2018-04-18 05:12:52

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.67 Mbit/s

95th percentile per-packet one-way delay: 116.256 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 172.52 Mbit/s

95th percentile per-packet one-way delay: 112.848 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 153.10 Mbit/s

95th percentile per-packet one-way delay: 116.440 ms

Loss rate: 0.07%

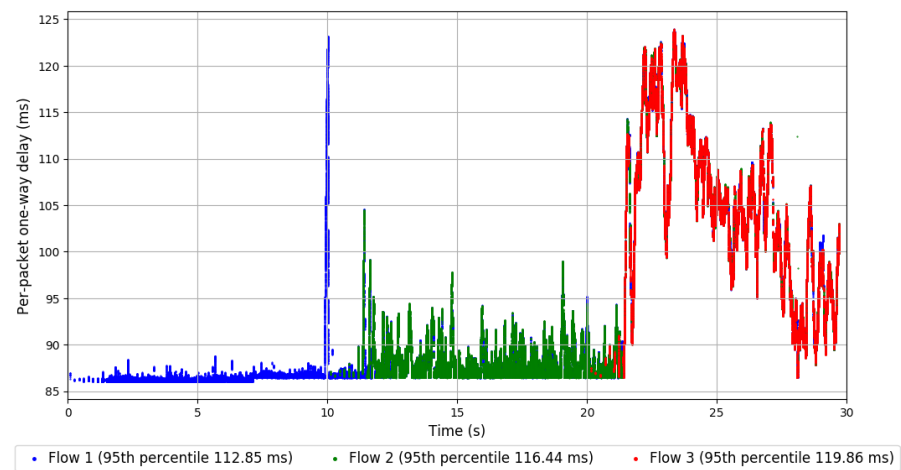
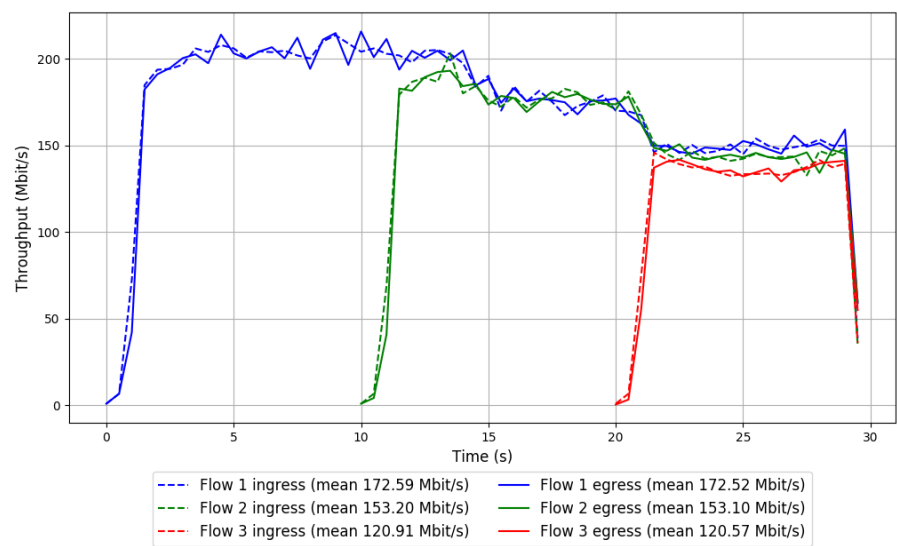
-- Flow 3:

Average throughput: 120.57 Mbit/s

95th percentile per-packet one-way delay: 119.858 ms

Loss rate: 0.29%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-04-18 05:28:51

End at: 2018-04-18 05:29:21

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 295.41 Mbit/s

95th percentile per-packet one-way delay: 114.848 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 167.82 Mbit/s

95th percentile per-packet one-way delay: 111.496 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 141.06 Mbit/s

95th percentile per-packet one-way delay: 115.374 ms

Loss rate: 0.10%

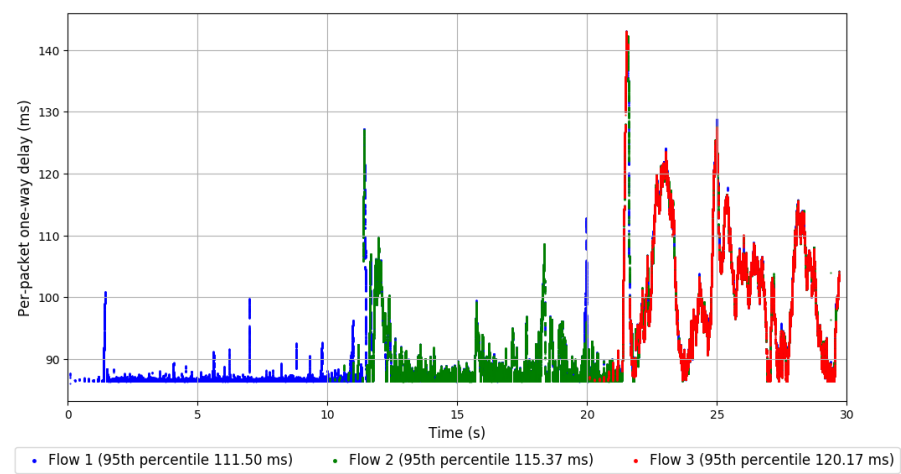
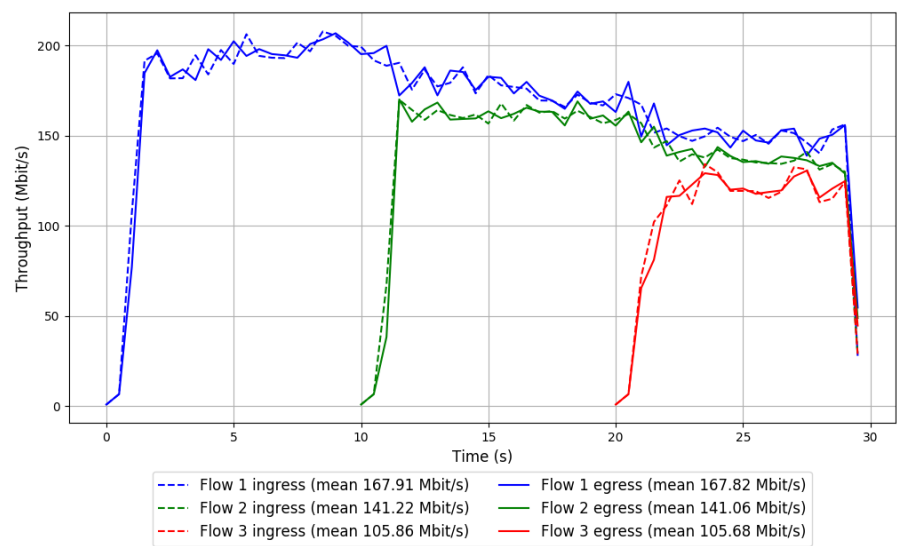
-- Flow 3:

Average throughput: 105.68 Mbit/s

95th percentile per-packet one-way delay: 120.175 ms

Loss rate: 0.20%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-04-18 05:45:16

End at: 2018-04-18 05:45:46

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 298.56 Mbit/s

95th percentile per-packet one-way delay: 125.507 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 164.19 Mbit/s

95th percentile per-packet one-way delay: 122.307 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 146.26 Mbit/s

95th percentile per-packet one-way delay: 125.750 ms

Loss rate: 0.11%

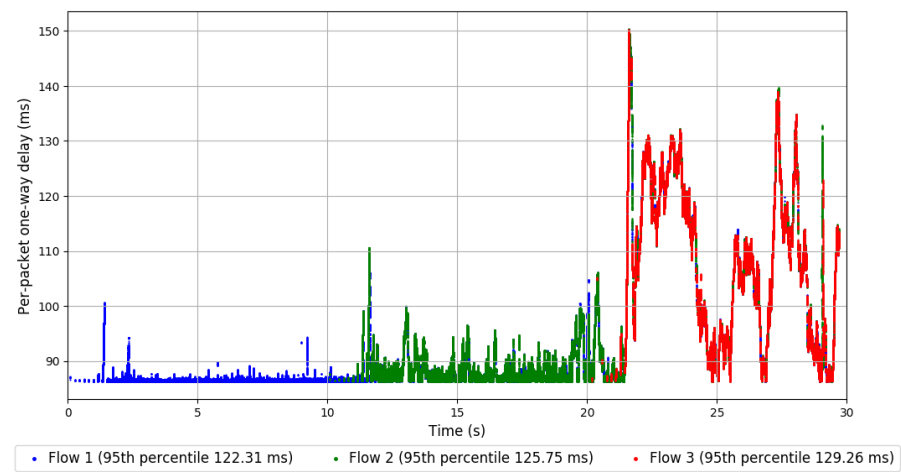
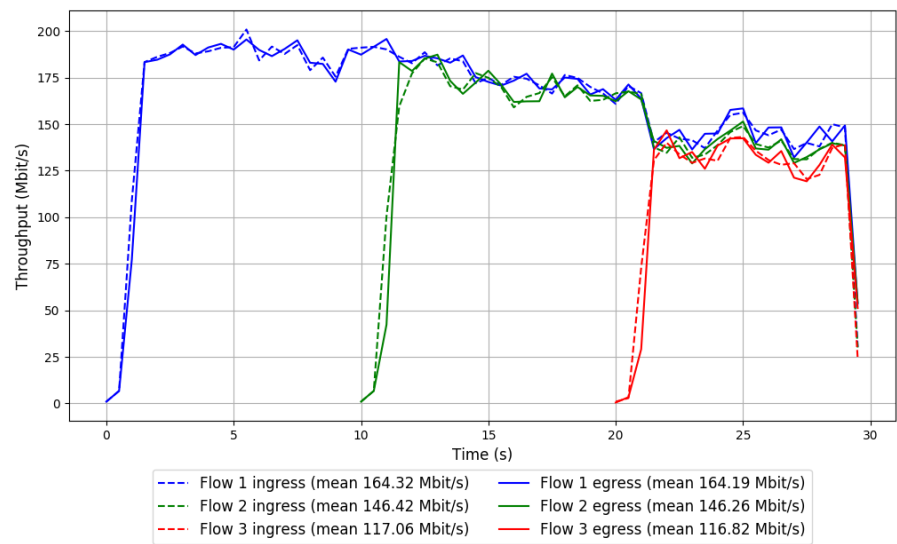
-- Flow 3:

Average throughput: 116.82 Mbit/s

95th percentile per-packet one-way delay: 129.261 ms

Loss rate: 0.20%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-04-18 06:01:38

End at: 2018-04-18 06:02:08

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 274.63 Mbit/s

95th percentile per-packet one-way delay: 112.036 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 132.00 Mbit/s

95th percentile per-packet one-way delay: 108.339 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 153.12 Mbit/s

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

Loss rate: 0.01%

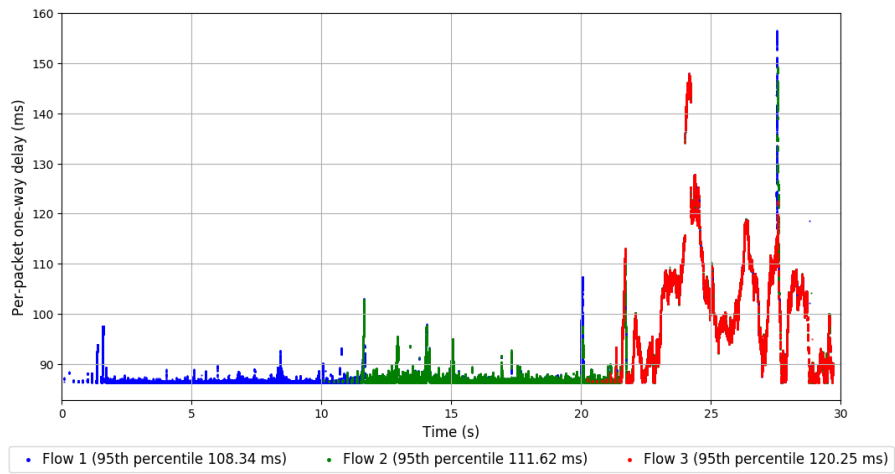
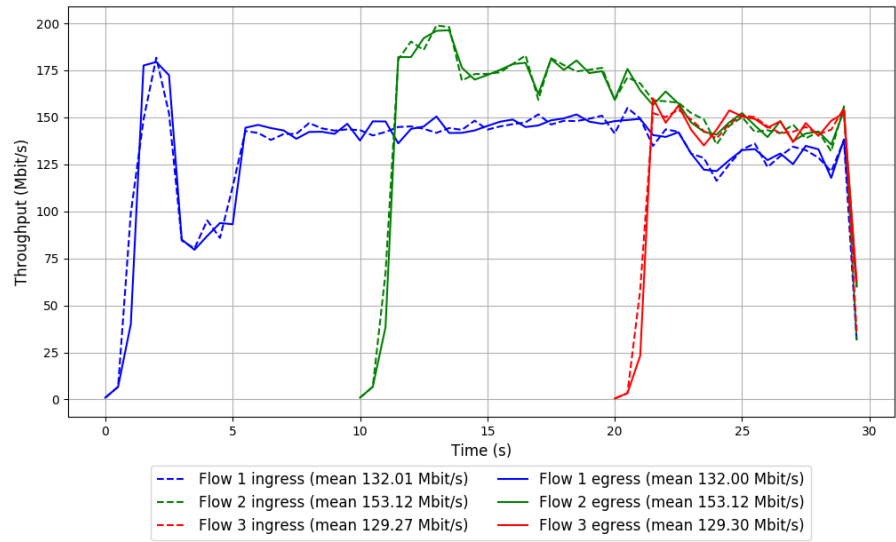
-- Flow 3:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 120.246 ms

Loss rate: 0.01%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-04-18 06:17:48

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

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.43 Mbit/s

95th percentile per-packet one-way delay: 123.646 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 169.89 Mbit/s

95th percentile per-packet one-way delay: 115.921 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 149.84 Mbit/s

95th percentile per-packet one-way delay: 124.174 ms

Loss rate: 0.05%

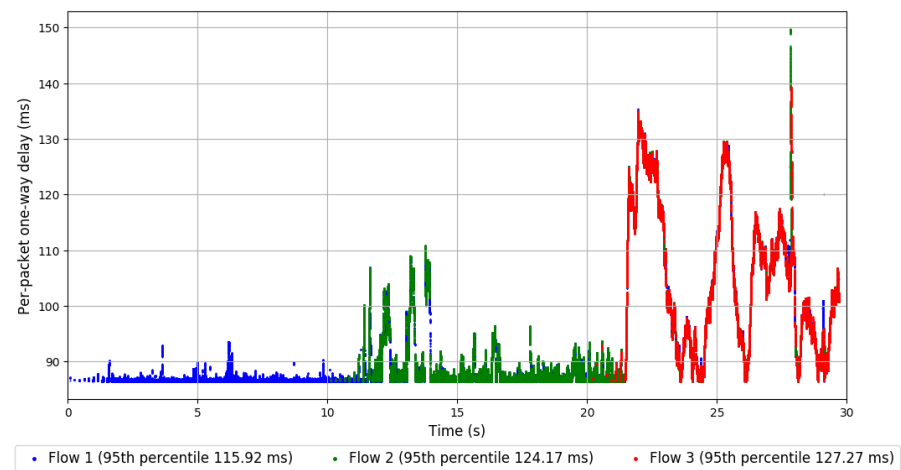
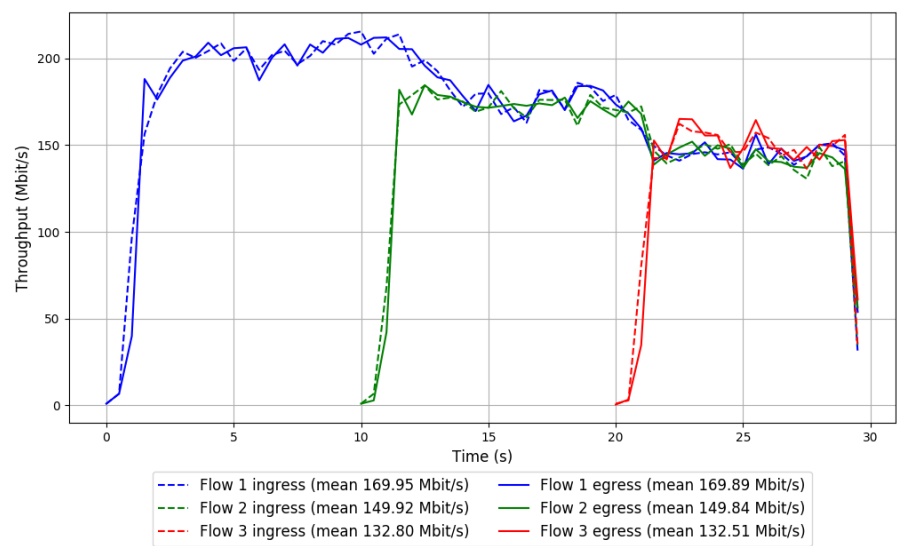
-- Flow 3:

Average throughput: 132.51 Mbit/s

95th percentile per-packet one-way delay: 127.267 ms

Loss rate: 0.19%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-04-18 06:34:07

End at: 2018-04-18 06:34:37

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.32 Mbit/s

95th percentile per-packet one-way delay: 122.008 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 167.95 Mbit/s

95th percentile per-packet one-way delay: 111.045 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 151.29 Mbit/s

95th percentile per-packet one-way delay: 122.414 ms

Loss rate: 0.04%

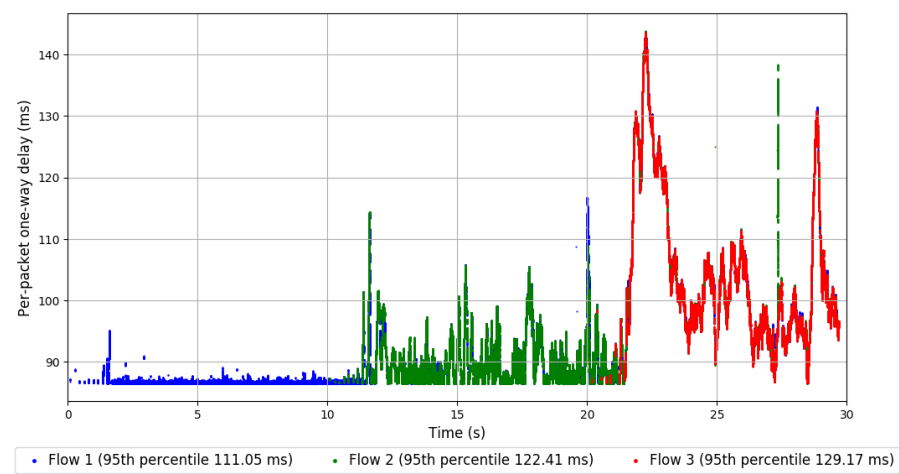
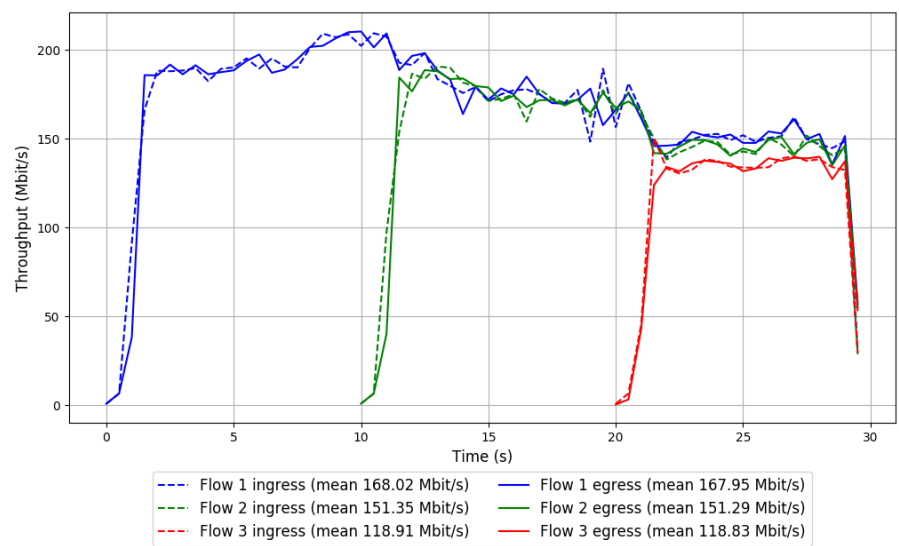
-- Flow 3:

Average throughput: 118.83 Mbit/s

95th percentile per-packet one-way delay: 129.167 ms

Loss rate: 0.07%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-04-18 06:50:27

End at: 2018-04-18 06:50:57

Below is generated by plot.py at 2018-04-18 10:05:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.88 Mbit/s

95th percentile per-packet one-way delay: 120.338 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 150.13 Mbit/s

95th percentile per-packet one-way delay: 114.984 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 143.32 Mbit/s

95th percentile per-packet one-way delay: 120.485 ms

Loss rate: 0.07%

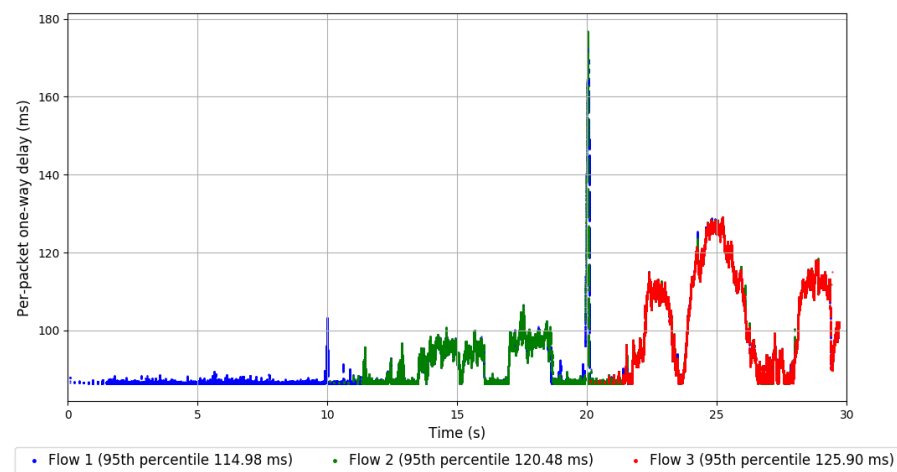
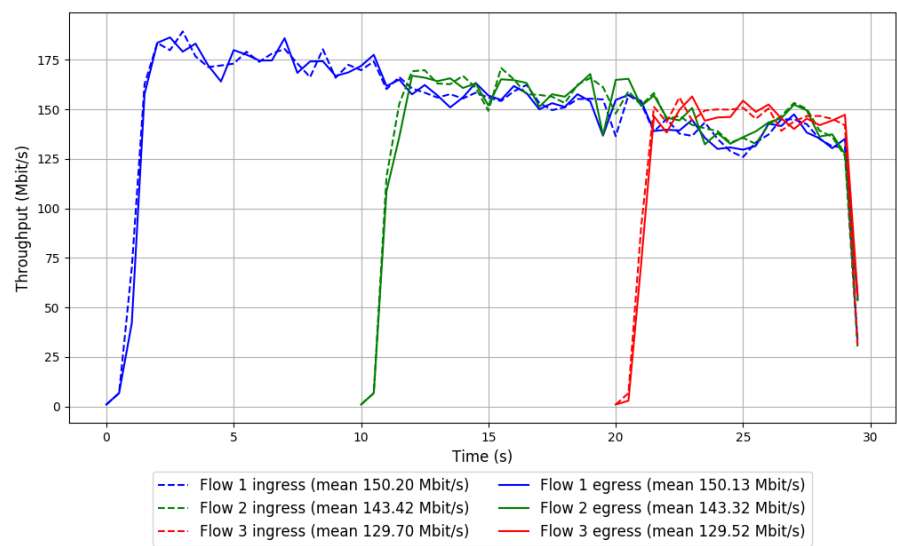
-- Flow 3:

Average throughput: 129.52 Mbit/s

95th percentile per-packet one-way delay: 125.903 ms

Loss rate: 0.14%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of PCC-Vivace

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

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

Below is generated by plot.py at 2018-04-18 10:06:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 427.89 Mbit/s

95th percentile per-packet one-way delay: 96.021 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 246.35 Mbit/s

95th percentile per-packet one-way delay: 99.241 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 204.42 Mbit/s

95th percentile per-packet one-way delay: 88.829 ms

Loss rate: 0.00%

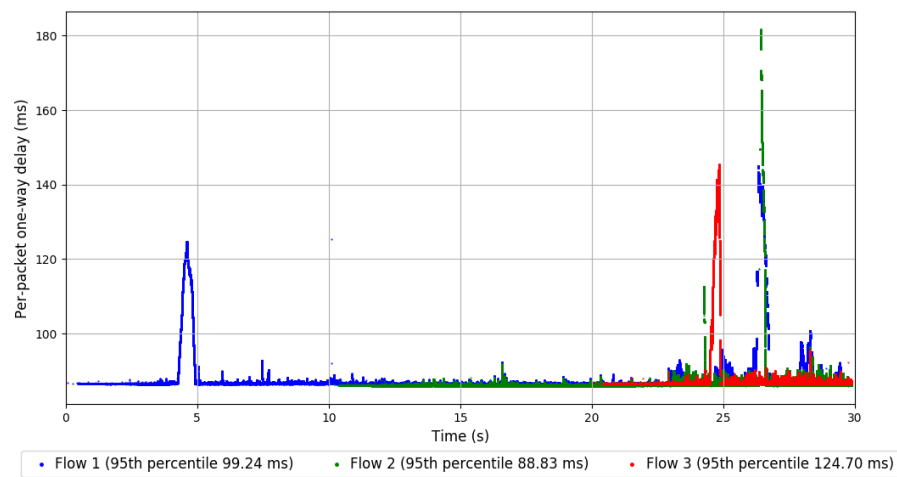
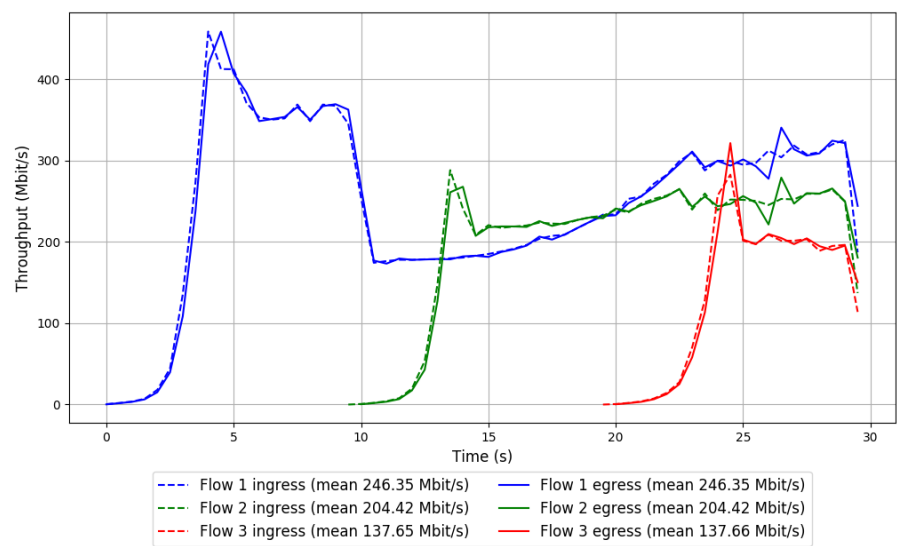
-- Flow 3:

Average throughput: 137.66 Mbit/s

95th percentile per-packet one-way delay: 124.702 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-04-18 04:24:28

End at: 2018-04-18 04:24:58

Below is generated by plot.py at 2018-04-18 10:06:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 380.06 Mbit/s

95th percentile per-packet one-way delay: 87.490 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 223.13 Mbit/s

95th percentile per-packet one-way delay: 87.099 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.24 Mbit/s

95th percentile per-packet one-way delay: 88.268 ms

Loss rate: 0.00%

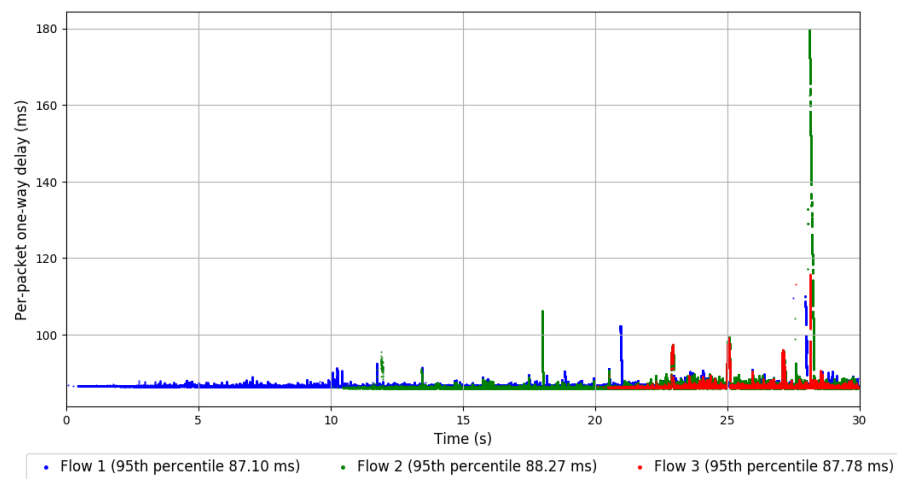
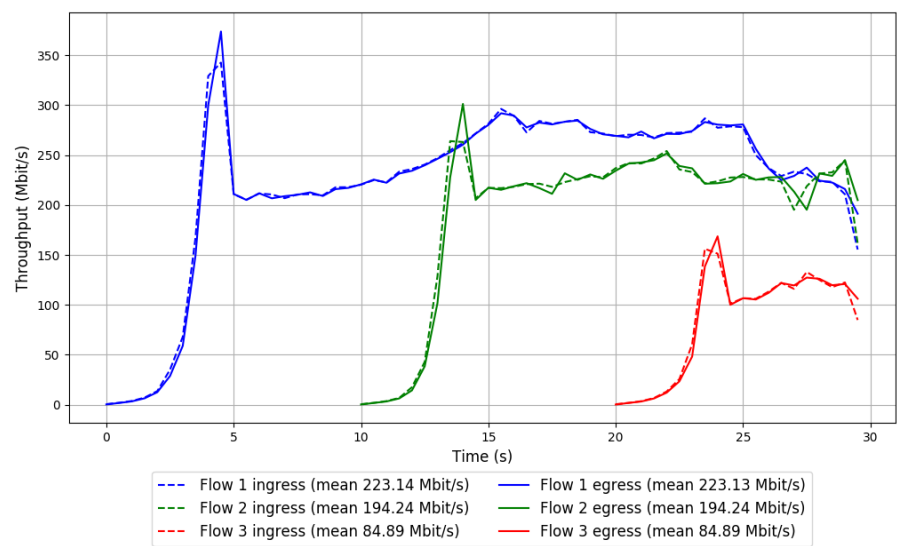
-- Flow 3:

Average throughput: 84.89 Mbit/s

95th percentile per-packet one-way delay: 87.785 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-04-18 04:40:58

End at: 2018-04-18 04:41:28

Below is generated by plot.py at 2018-04-18 10:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.37 Mbit/s

95th percentile per-packet one-way delay: 88.941 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 251.18 Mbit/s

95th percentile per-packet one-way delay: 89.233 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 188.13 Mbit/s

95th percentile per-packet one-way delay: 87.369 ms

Loss rate: 0.00%

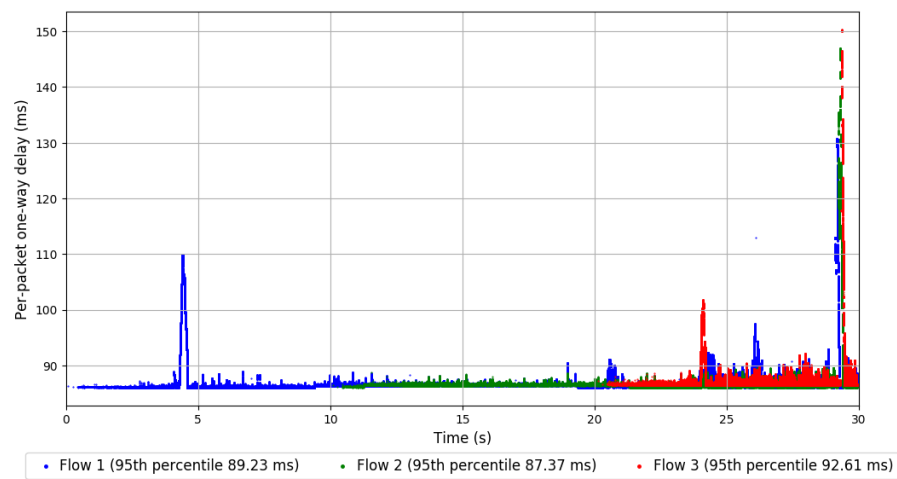
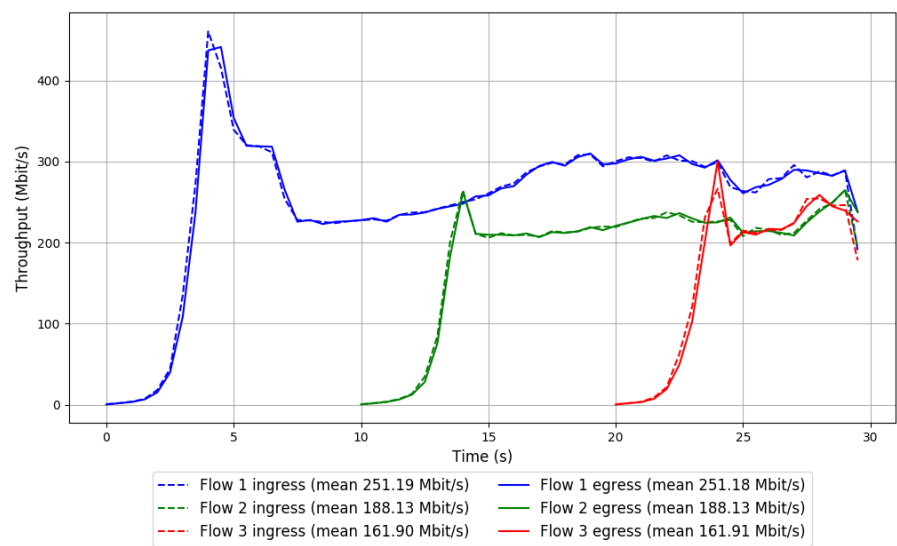
-- Flow 3:

Average throughput: 161.91 Mbit/s

95th percentile per-packet one-way delay: 92.605 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-04-18 04:57:27

End at: 2018-04-18 04:57:57

Below is generated by plot.py at 2018-04-18 10:07:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 365.17 Mbit/s

95th percentile per-packet one-way delay: 88.117 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 184.97 Mbit/s

95th percentile per-packet one-way delay: 87.587 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.23 Mbit/s

95th percentile per-packet one-way delay: 88.588 ms

Loss rate: 0.00%

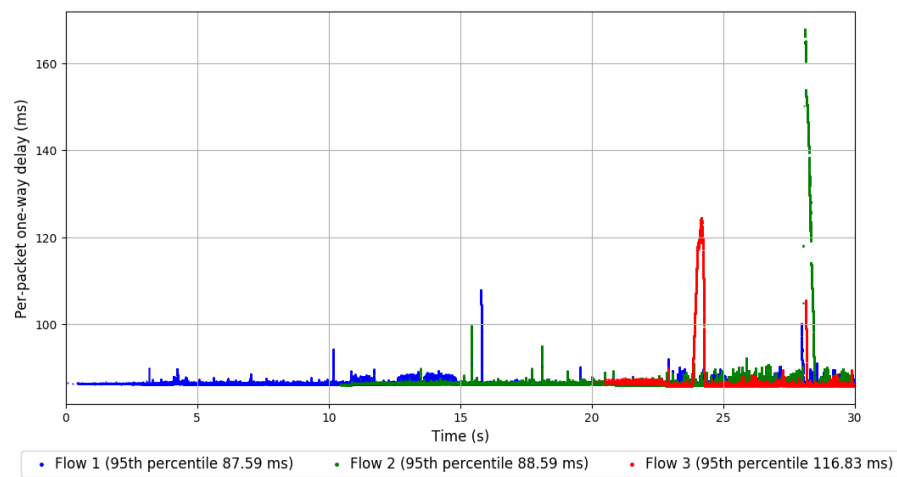
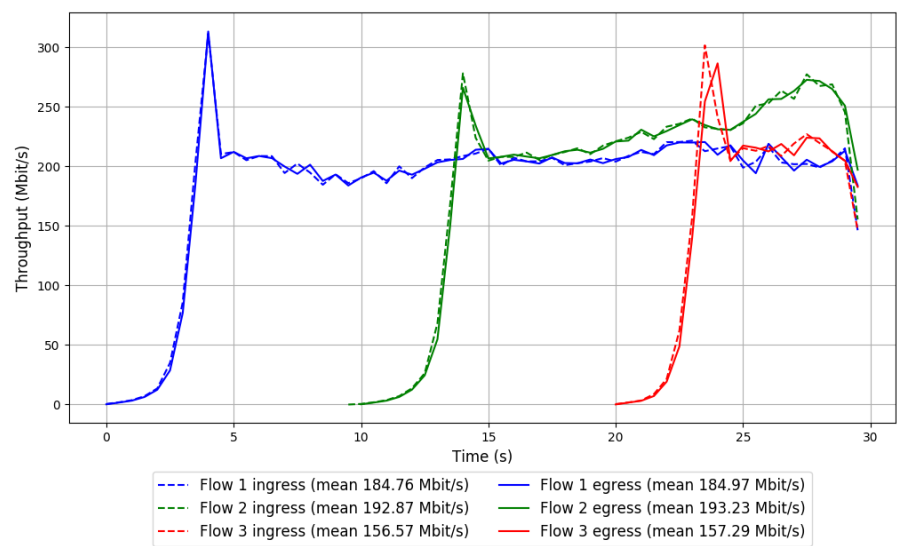
-- Flow 3:

Average throughput: 157.29 Mbit/s

95th percentile per-packet one-way delay: 116.834 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-04-18 05:13:30

End at: 2018-04-18 05:14:00

Below is generated by plot.py at 2018-04-18 10:08:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 442.58 Mbit/s

95th percentile per-packet one-way delay: 91.041 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 227.84 Mbit/s

95th percentile per-packet one-way delay: 90.471 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 242.18 Mbit/s

95th percentile per-packet one-way delay: 102.568 ms

Loss rate: 0.00%

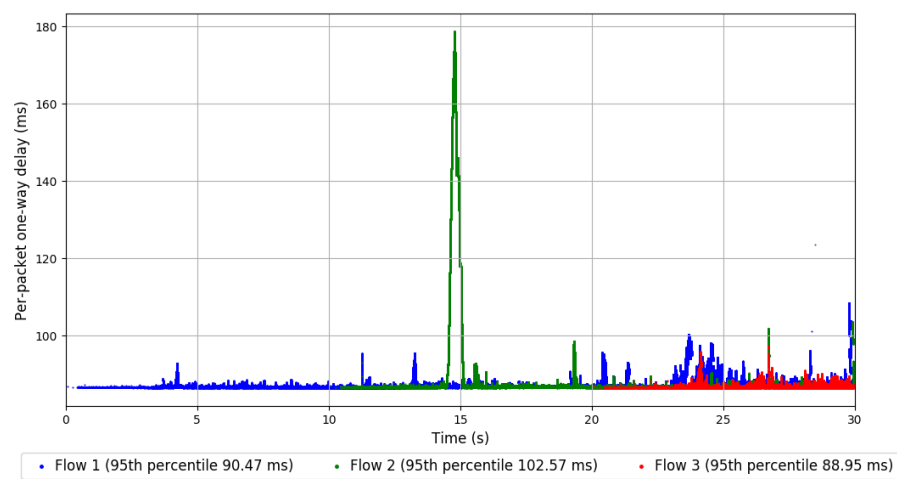
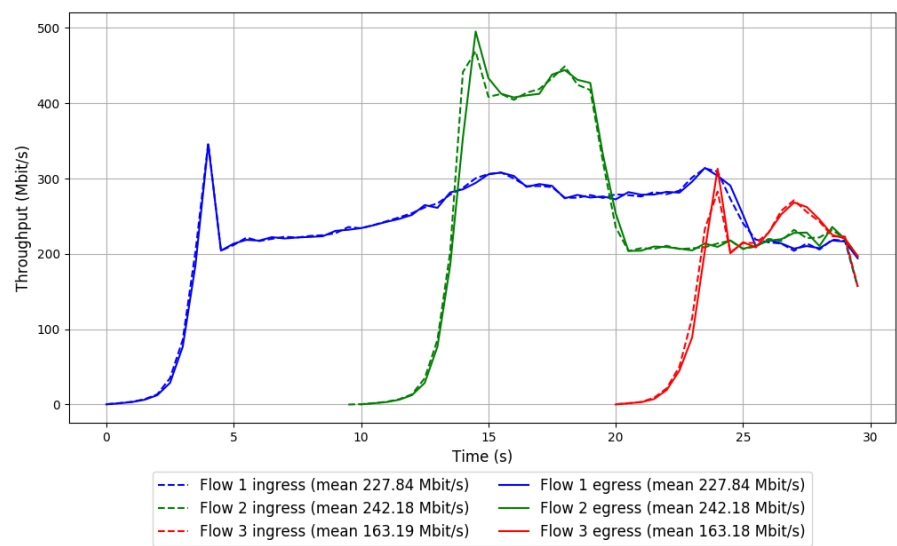
-- Flow 3:

Average throughput: 163.18 Mbit/s

95th percentile per-packet one-way delay: 88.951 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 6: Statistics of PCC-Vivace

Start at: 2018-04-18 05:29:59

End at: 2018-04-18 05:30:29

Below is generated by plot.py at 2018-04-18 10:08:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.94 Mbit/s

95th percentile per-packet one-way delay: 107.571 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 245.55 Mbit/s

95th percentile per-packet one-way delay: 154.077 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 204.18 Mbit/s

95th percentile per-packet one-way delay: 88.199 ms

Loss rate: 0.00%

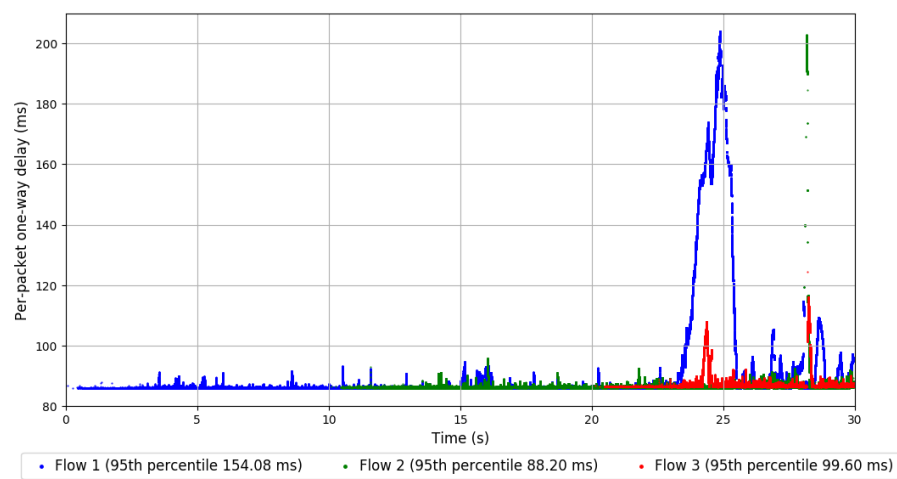
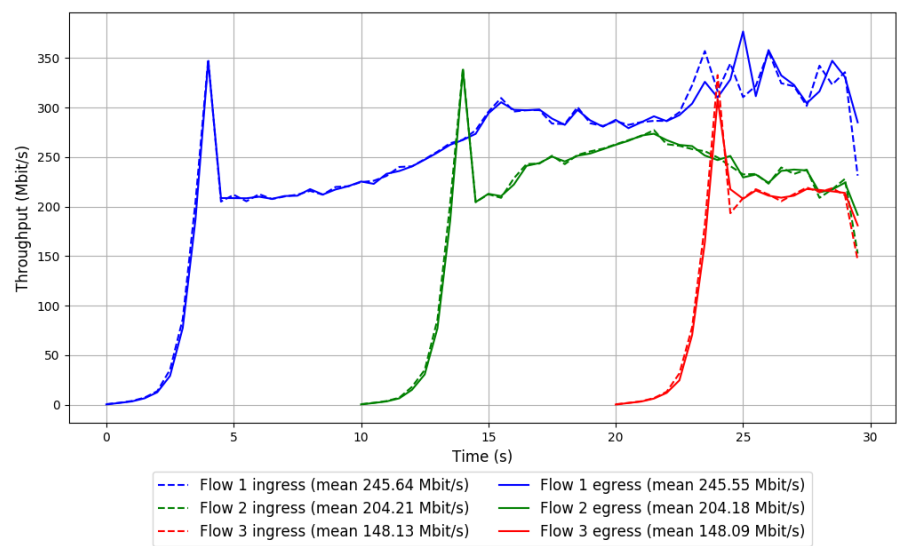
-- Flow 3:

Average throughput: 148.09 Mbit/s

95th percentile per-packet one-way delay: 99.604 ms

Loss rate: 0.04%

Run 6: Report of PCC-Vivace — Data Link



Run 7: Statistics of PCC-Vivace

Start at: 2018-04-18 05:46:25

End at: 2018-04-18 05:46:55

Below is generated by plot.py at 2018-04-18 10:09:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 367.88 Mbit/s

95th percentile per-packet one-way delay: 87.122 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 224.66 Mbit/s

95th percentile per-packet one-way delay: 86.991 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.65 Mbit/s

95th percentile per-packet one-way delay: 87.514 ms

Loss rate: 0.01%

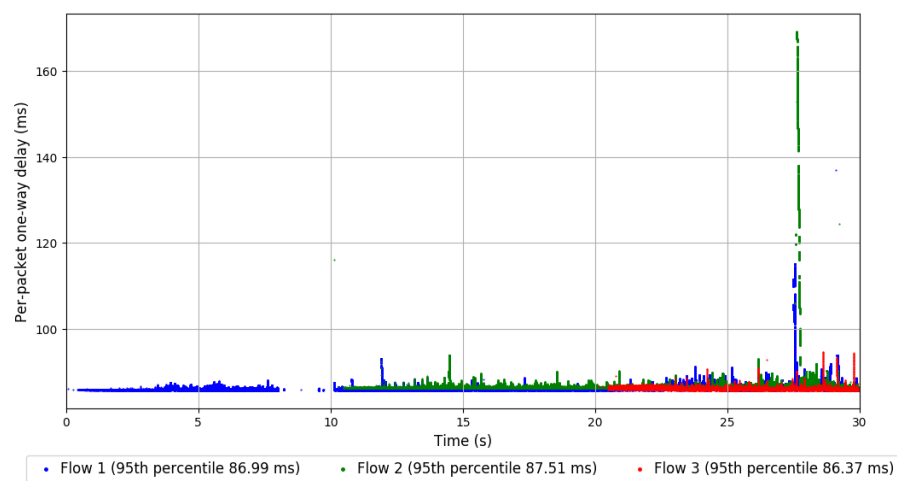
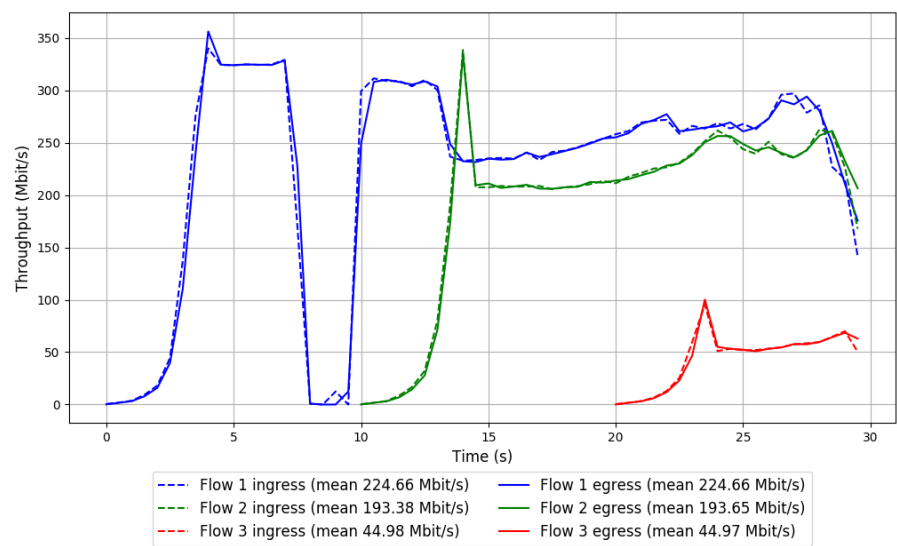
-- Flow 3:

Average throughput: 44.97 Mbit/s

95th percentile per-packet one-way delay: 86.368 ms

Loss rate: 0.00%

Run 7: Report of PCC-Vivace — Data Link



Run 8: Statistics of PCC-Vivace

Start at: 2018-04-18 06:02:44

End at: 2018-04-18 06:03:14

Below is generated by plot.py at 2018-04-18 10:09:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.54 Mbit/s

95th percentile per-packet one-way delay: 86.998 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.03 Mbit/s

95th percentile per-packet one-way delay: 86.474 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 187.43 Mbit/s

95th percentile per-packet one-way delay: 87.417 ms

Loss rate: 0.00%

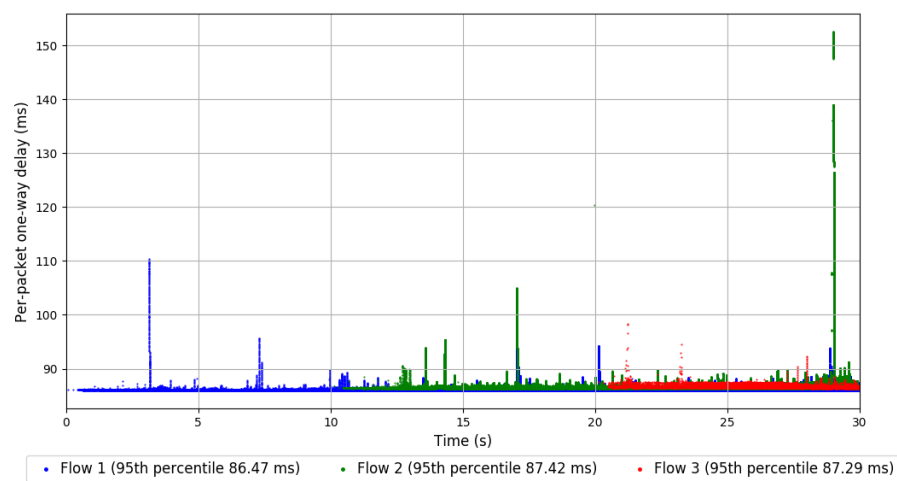
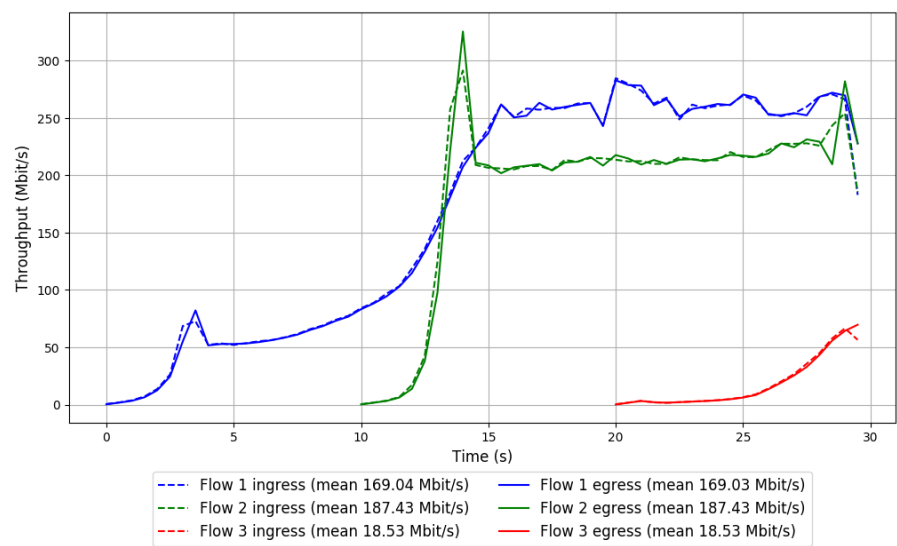
-- Flow 3:

Average throughput: 18.53 Mbit/s

95th percentile per-packet one-way delay: 87.294 ms

Loss rate: 0.00%

Run 8: Report of PCC-Vivace — Data Link



Run 9: Statistics of PCC-Vivace

Start at: 2018-04-18 06:18:55

End at: 2018-04-18 06:19:25

Below is generated by plot.py at 2018-04-18 10:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 448.52 Mbit/s

95th percentile per-packet one-way delay: 89.251 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 298.06 Mbit/s

95th percentile per-packet one-way delay: 88.149 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 212.35 Mbit/s

95th percentile per-packet one-way delay: 117.211 ms

Loss rate: 0.00%

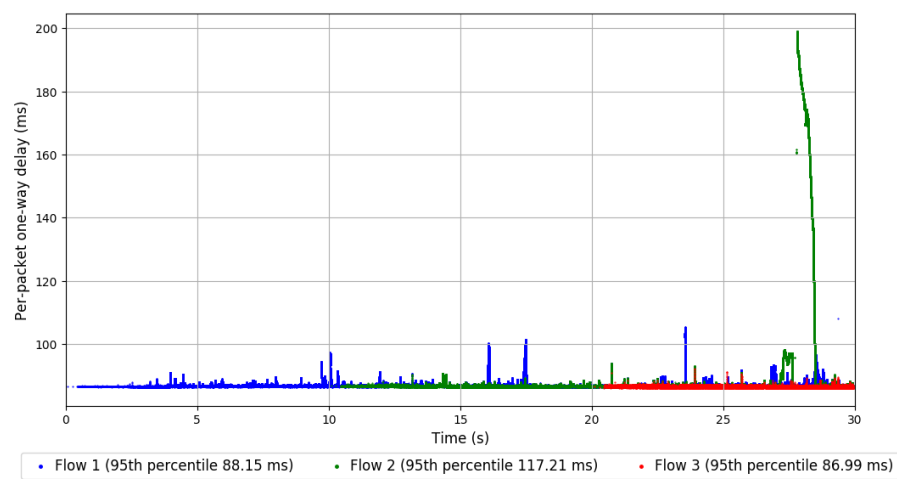
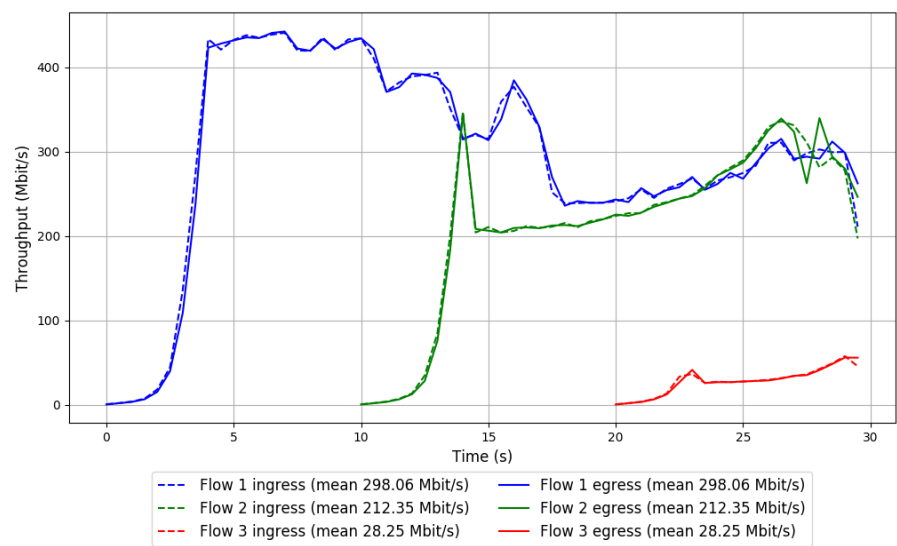
-- Flow 3:

Average throughput: 28.25 Mbit/s

95th percentile per-packet one-way delay: 86.994 ms

Loss rate: 0.00%

Run 9: Report of PCC-Vivace — Data Link



Run 10: Statistics of PCC-Vivace

Start at: 2018-04-18 06:35:14

End at: 2018-04-18 06:35:44

Below is generated by plot.py at 2018-04-18 10:09:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 470.68 Mbit/s

95th percentile per-packet one-way delay: 88.084 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 284.80 Mbit/s

95th percentile per-packet one-way delay: 88.316 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.96 Mbit/s

95th percentile per-packet one-way delay: 86.994 ms

Loss rate: 0.00%

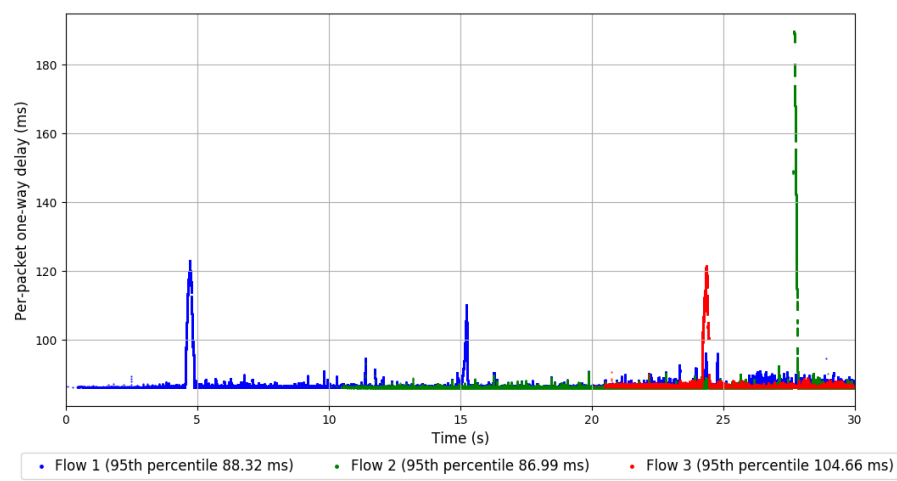
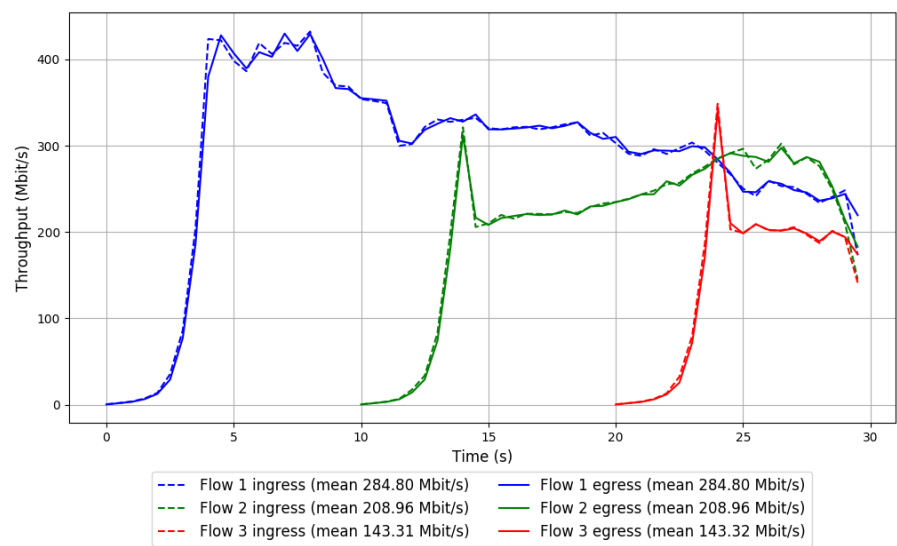
-- Flow 3:

Average throughput: 143.32 Mbit/s

95th percentile per-packet one-way delay: 104.658 ms

Loss rate: 0.00%

Run 10: Report of PCC-Vivace — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-04-18 04:19:53

End at: 2018-04-18 04:20:23

Run 1: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of PCC-Expr

Start at: 2018-04-18 04:36:20

End at: 2018-04-18 04:36:50

Run 2: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of PCC-Expr

Start at: 2018-04-18 04:52:51

End at: 2018-04-18 04:53:21

Run 3: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of PCC-Expr

Start at: 2018-04-18 05:08:56

End at: 2018-04-18 05:09:26

Run 4: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of PCC-Expr

Start at: 2018-04-18 05:25:26

End at: 2018-04-18 05:25:56

Run 5: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 6: Statistics of PCC-Expr

Start at: 2018-04-18 05:41:51

End at: 2018-04-18 05:42:21

Run 6: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 7: Statistics of PCC-Expr

Start at: 2018-04-18 05:58:11

End at: 2018-04-18 05:58:41

Run 7: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 8: Statistics of PCC-Expr

Start at: 2018-04-18 06:14:21

End at: 2018-04-18 06:14:51

Run 8: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 9: Statistics of PCC-Expr

Start at: 2018-04-18 06:30:40

End at: 2018-04-18 06:31:10

Run 9: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing

Run 10: Statistics of PCC-Expr

Start at: 2018-04-18 06:46:59

End at: 2018-04-18 06:47:29

Run 10: Report of PCC-Expr — Data Link

Figure is missing

Figure is missing