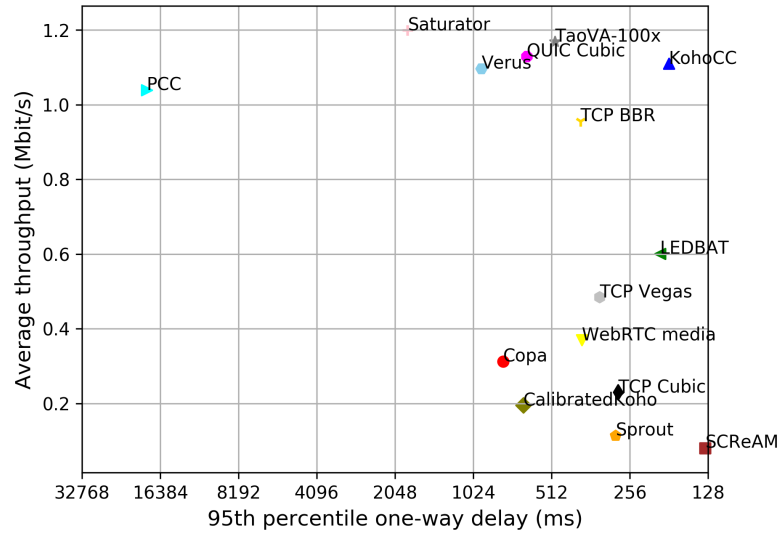


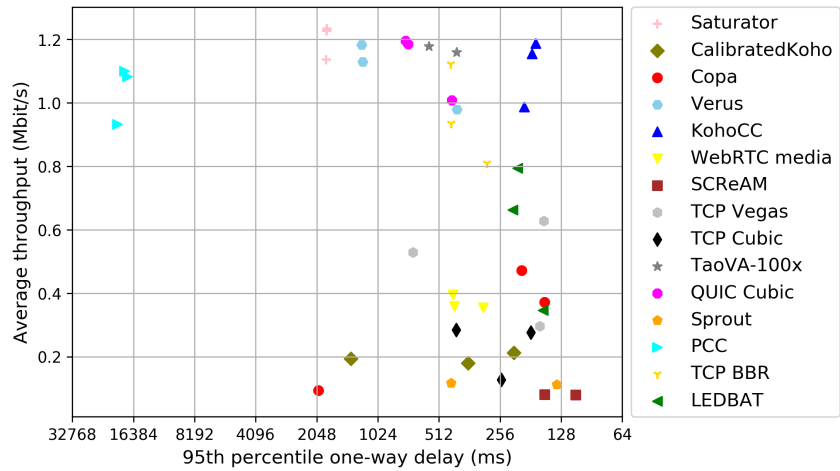
Pantheon Summary (Generated at Thu, 13 Jul 2017 21:52:46 +0000 with pantheon version d7b3554d9e52d3442ab19bc1e1c71f4629d4a0ac)
Repeated the test of 15 congestion control schemes 3 times.
Each test lasted for 30 seconds running 1 flow.
Data path: Colombia ppp0 (*remote*) → AWS Brazil 2 Ethernet (*local*).
NTP offset measured against gps.ntp.br and has been applied to correct the timestamps in logs.

```
git branch: master @ d7b3554d9e52d3442ab19bc1e1c71f4629d4a0ac
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ 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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from Colombia ppp0 to AWS Brazil 2 Ethernet, 3 runs of 30s each per scheme
(mean of all runs by scheme)



test from Colombia ppp0 to AWS Brazil 2 Ethernet, 3 runs of 30s each per scheme



| scheme | # runs | mean avg tput (Mbit/s) flow 1 | mean 95th-%ile delay (ms) flow 1 | mean loss rate (%) flow 1 |
|----------------|--------|----------------------------------|-------------------------------------|------------------------------|
| TCP BBR | 3 | 0.96 | 397.16 | 10.90 |
| CalibratedKoho | 3 | 0.19 | 658.66 | 7.66 |
| Copa | 3 | 0.31 | 787.42 | 3.85 |
| TCP Cubic | 3 | 0.23 | 284.73 | 8.76 |
| KohoCC | 3 | 1.11 | 181.41 | 4.53 |
| LEDBAT | 3 | 0.60 | 196.31 | 2.88 |
| PCC | 3 | 1.04 | 18460.61 | 96.33 |
| QUIC Cubic | 3 | 1.13 | 638.85 | 2.62 |
| Saturator | 3 | 1.20 | 1834.32 | 9.30 |
| SCReAM | 3 | 0.08 | 131.61 | 1.45 |
| Sprout | 3 | 0.11 | 290.84 | 1.50 |
| TaoVA-100x | 3 | 1.17 | 496.82 | 2.11 |
| TCP Vegas | 3 | 0.49 | 335.67 | 2.49 |
| Verus | 3 | 1.10 | 953.49 | 5.45 |
| WebRTC media | 3 | 0.37 | 392.27 | 3.27 |

Run 1: Statistics of TCP BBR

Start at: Thu, 13 Jul 2017 21:04:55 +0000

End at: Thu, 13 Jul 2017 21:05:25 +0000

Local clock offset: 0.836 ms

Remote clock offset: -2.322 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:18 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 447.731 ms

Loss rate: 5.70%

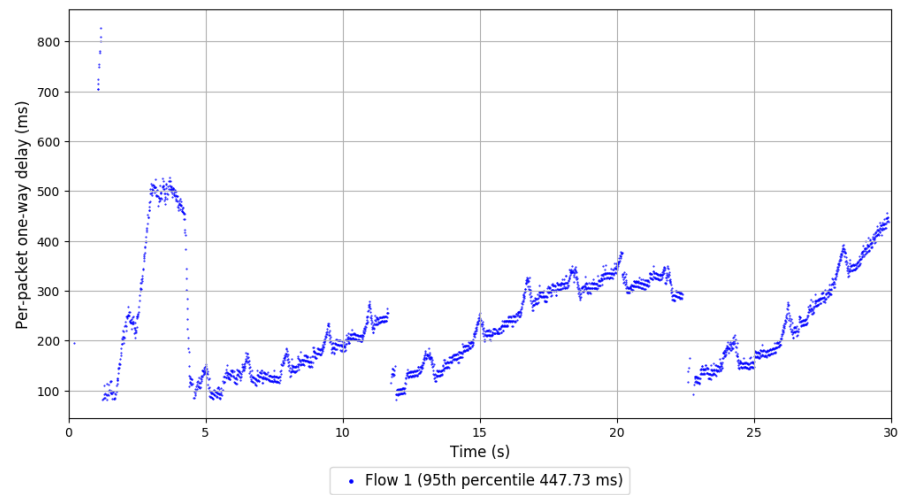
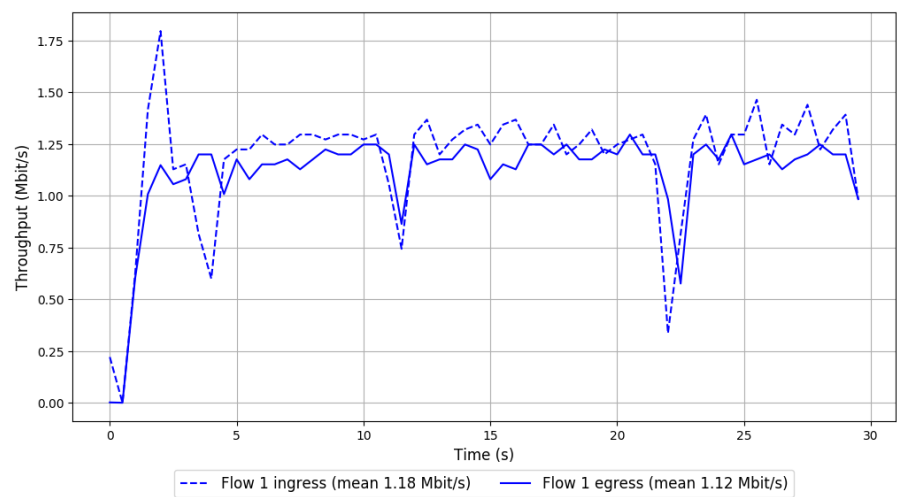
-- Flow 1:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 447.731 ms

Loss rate: 5.70%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: Thu, 13 Jul 2017 21:21:34 +0000

End at: Thu, 13 Jul 2017 21:22:04 +0000

Local clock offset: 0.809 ms

Remote clock offset: -1.116 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:18 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 446.063 ms

Loss rate: 12.55%

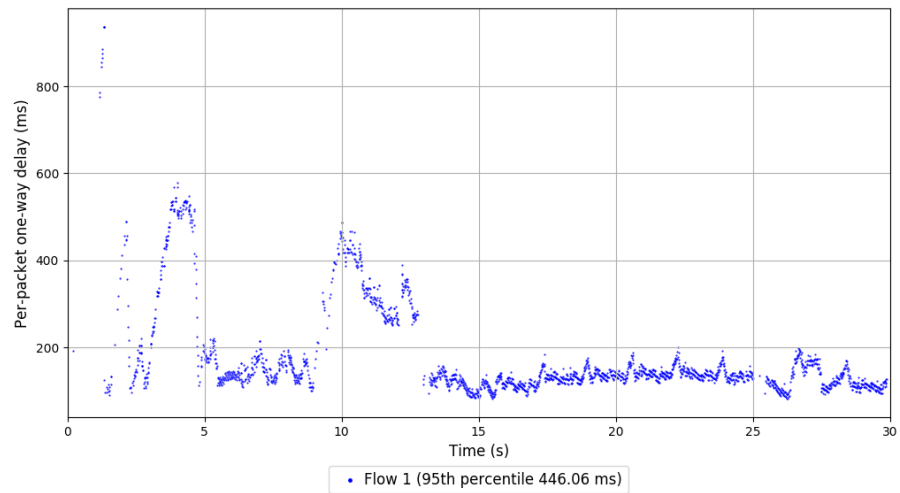
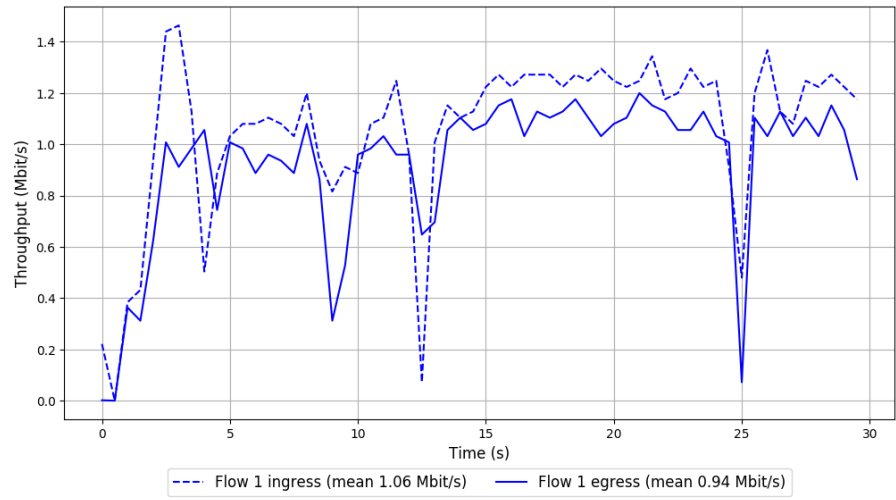
-- Flow 1:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 446.063 ms

Loss rate: 12.55%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: Thu, 13 Jul 2017 21:38:13 +0000

End at: Thu, 13 Jul 2017 21:38:43 +0000

Local clock offset: 0.799 ms

Remote clock offset: -0.458 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:19 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.81 Mbit/s

95th percentile per-packet one-way delay: 297.681 ms

Loss rate: 14.46%

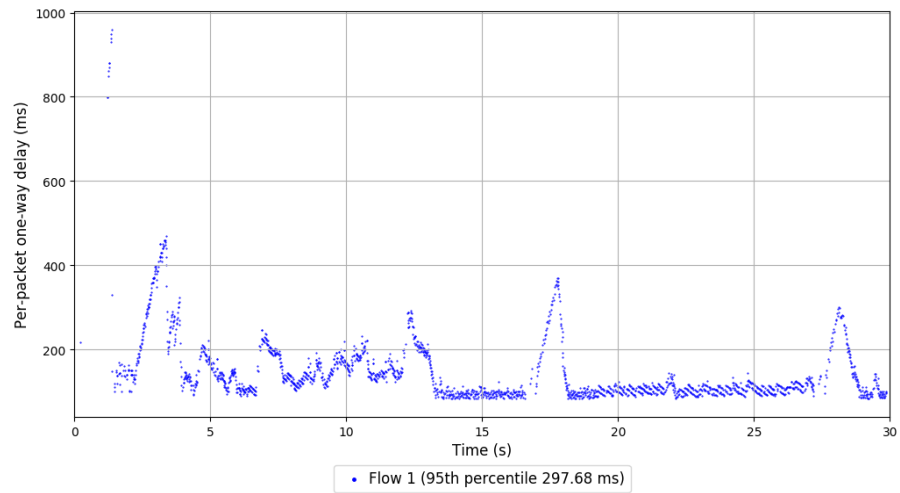
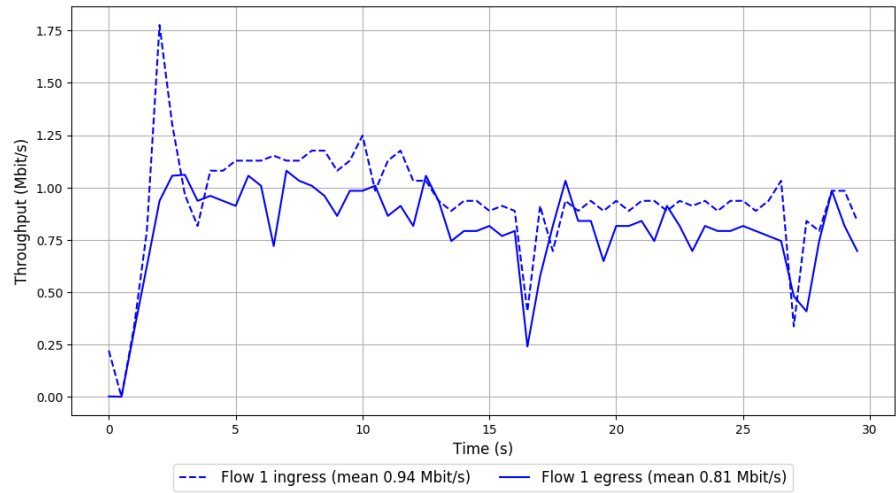
-- Flow 1:

Average throughput: 0.81 Mbit/s

95th percentile per-packet one-way delay: 297.681 ms

Loss rate: 14.46%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: Thu, 13 Jul 2017 21:06:02 +0000

End at: Thu, 13 Jul 2017 21:06:32 +0000

Local clock offset: 0.795 ms

Remote clock offset: -2.67 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:19 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 218.995 ms

Loss rate: 5.00%

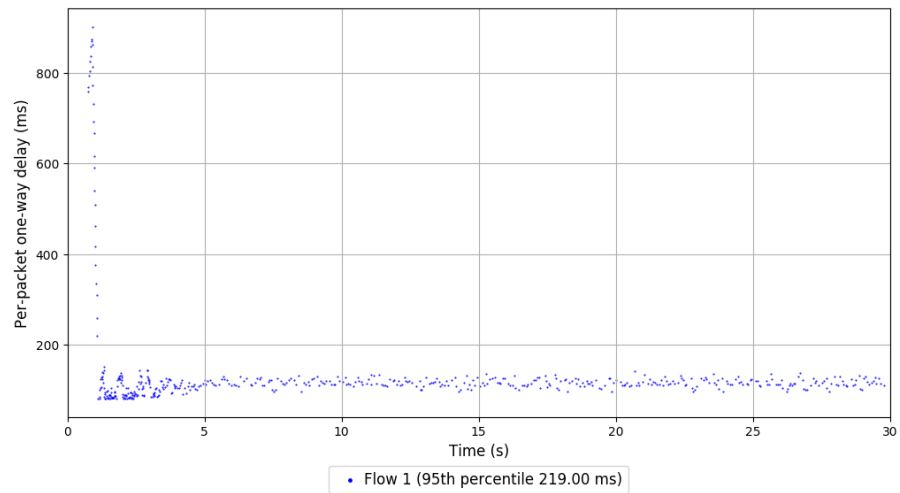
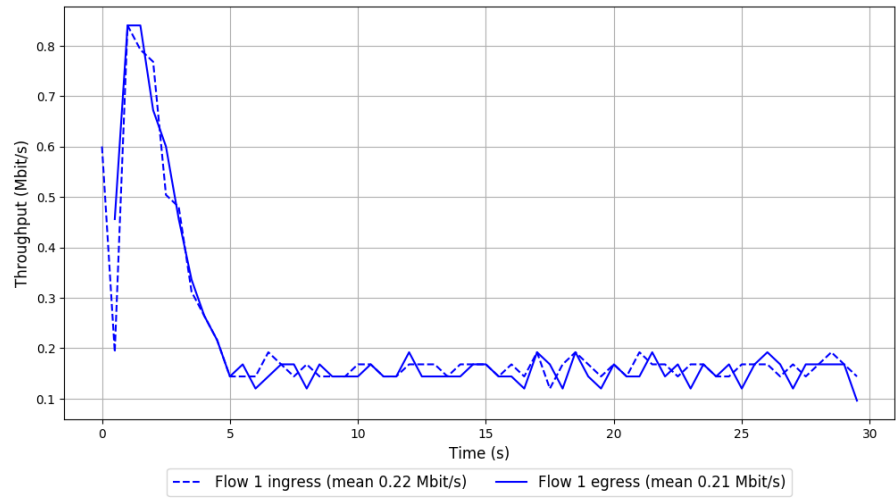
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 218.995 ms

Loss rate: 5.00%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: Thu, 13 Jul 2017 21:22:41 +0000

End at: Thu, 13 Jul 2017 21:23:11 +0000

Local clock offset: 0.821 ms

Remote clock offset: -1.541 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:20 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1388.172 ms

Loss rate: 2.11%

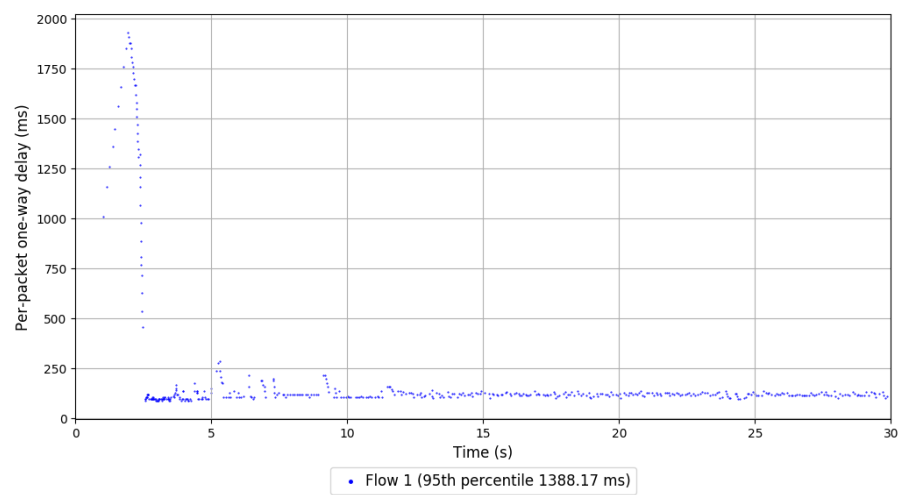
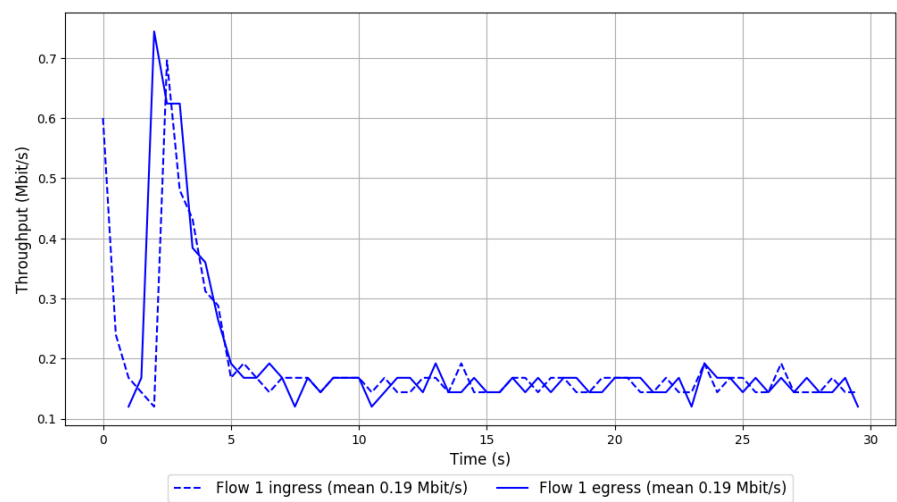
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1388.172 ms

Loss rate: 2.11%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: Thu, 13 Jul 2017 21:39:20 +0000

End at: Thu, 13 Jul 2017 21:39:50 +0000

Local clock offset: 0.744 ms

Remote clock offset: -0.118 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:20 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 368.826 ms

Loss rate: 15.86%

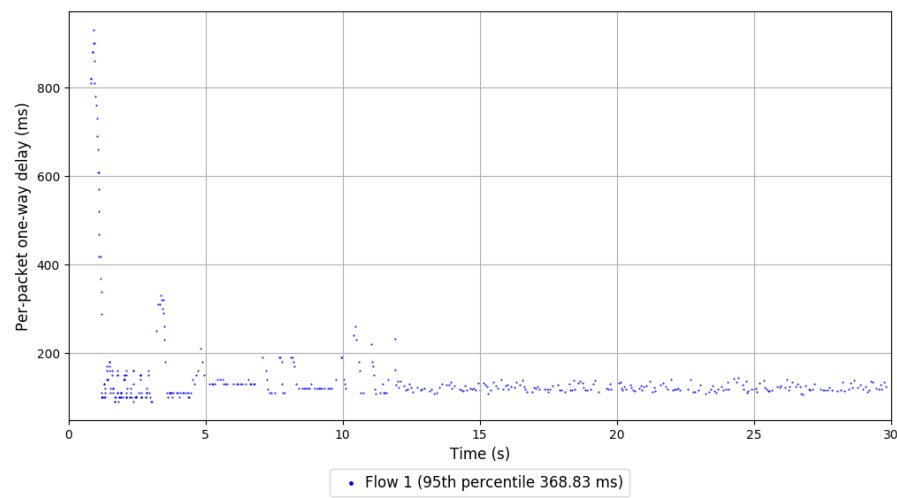
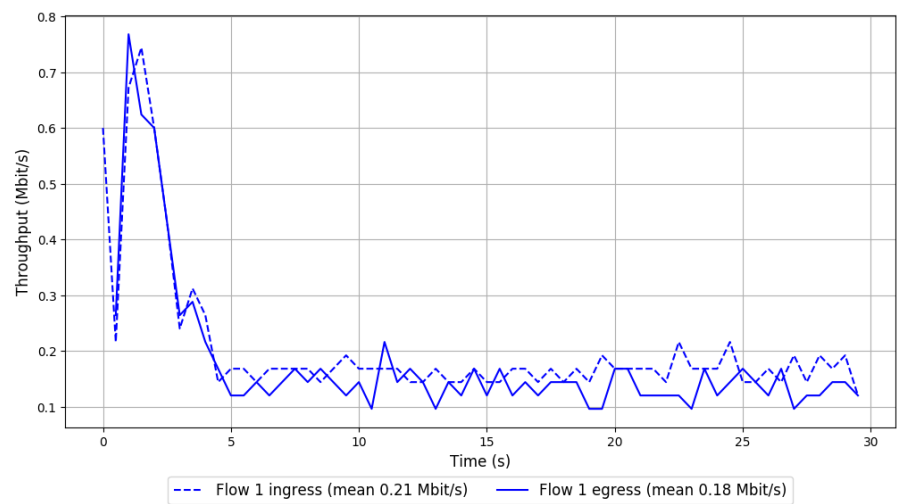
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 368.826 ms

Loss rate: 15.86%

Run 3: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: Thu, 13 Jul 2017 21:11:35 +0000

End at: Thu, 13 Jul 2017 21:12:05 +0000

Local clock offset: 0.908 ms

Remote clock offset: -1.592 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:21 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 200.372 ms

Loss rate: 3.69%

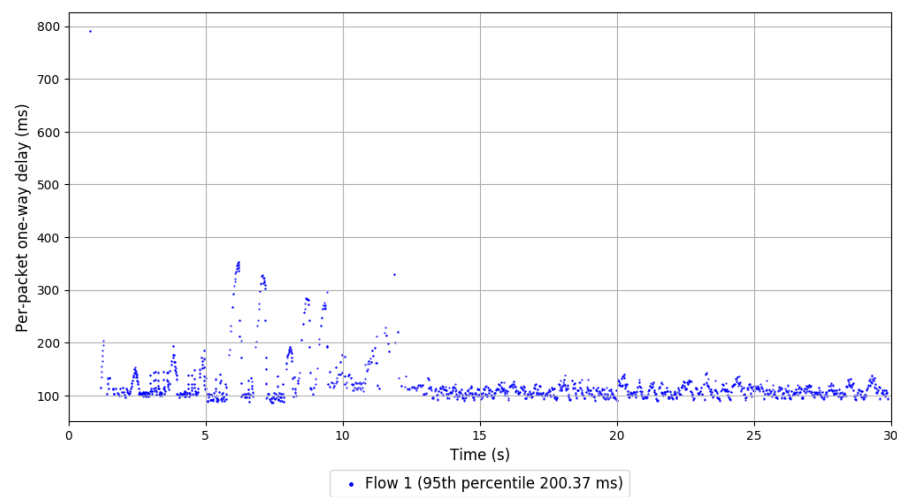
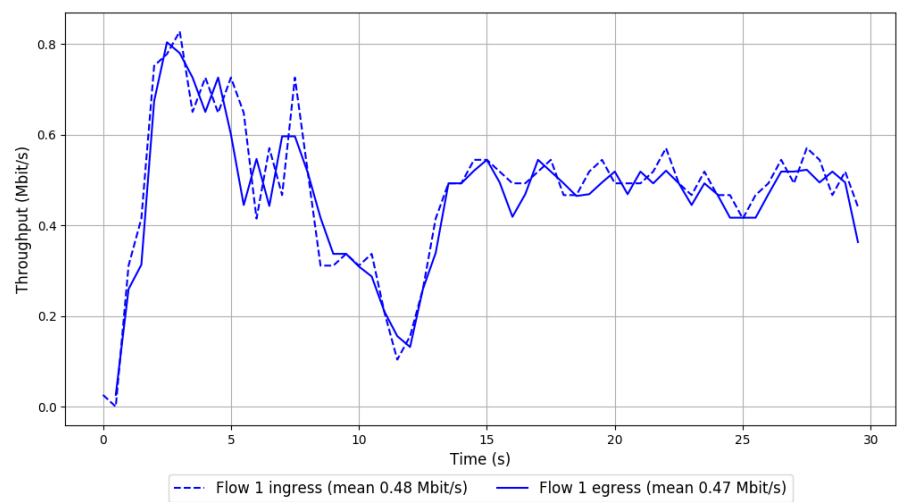
-- Flow 1:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 200.372 ms

Loss rate: 3.69%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: Thu, 13 Jul 2017 21:28:14 +0000

End at: Thu, 13 Jul 2017 21:28:44 +0000

Local clock offset: 0.744 ms

Remote clock offset: -1.193 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:21 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 154.347 ms

Loss rate: 6.48%

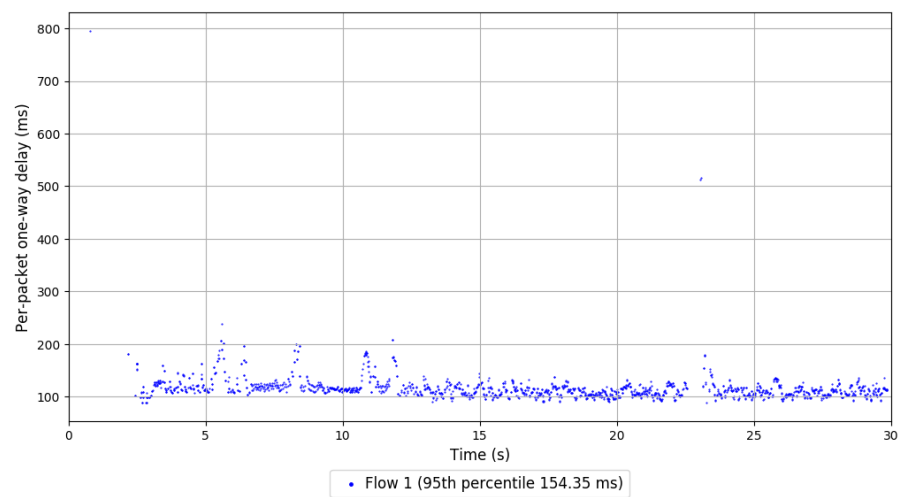
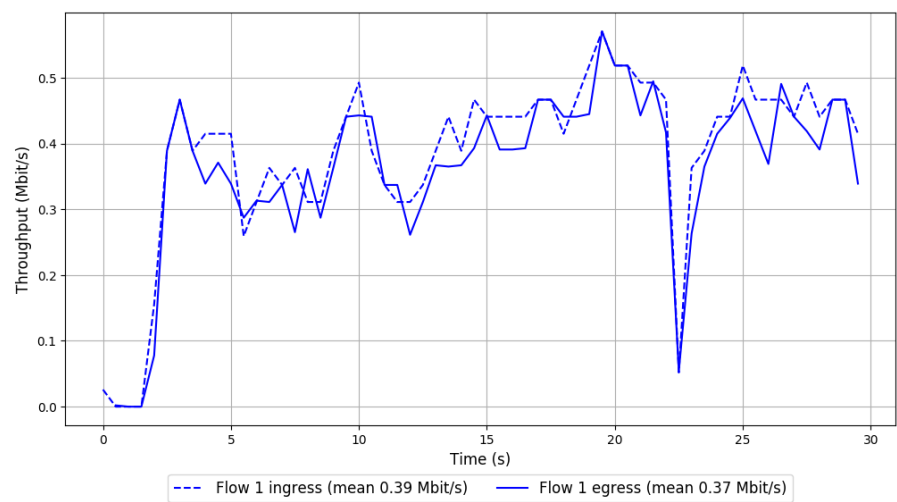
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 154.347 ms

Loss rate: 6.48%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: Thu, 13 Jul 2017 21:44:53 +0000

End at: Thu, 13 Jul 2017 21:45:23 +0000

Local clock offset: 0.776 ms

Remote clock offset: -0.121 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:22 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 2007.542 ms

Loss rate: 1.39%

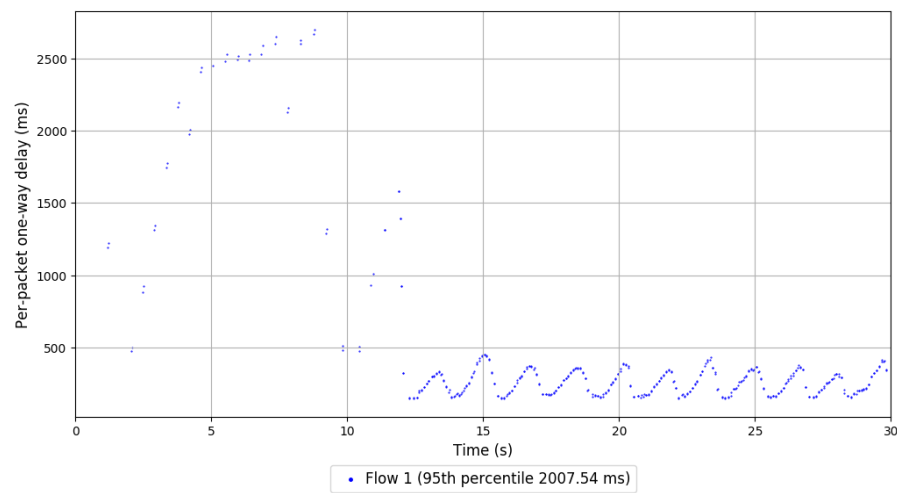
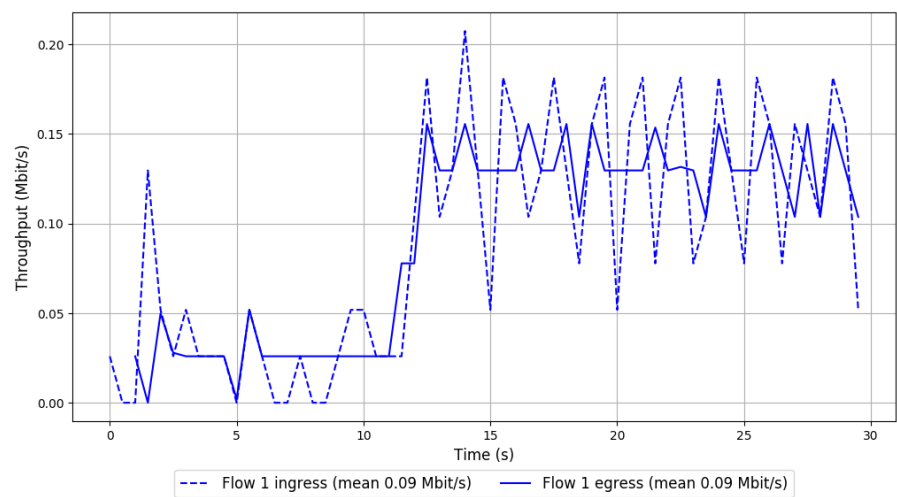
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 2007.542 ms

Loss rate: 1.39%

Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: Thu, 13 Jul 2017 21:07:09 +0000

End at: Thu, 13 Jul 2017 21:07:39 +0000

Local clock offset: 0.89 ms

Remote clock offset: -2.38 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:22 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 180.648 ms

Loss rate: 5.41%

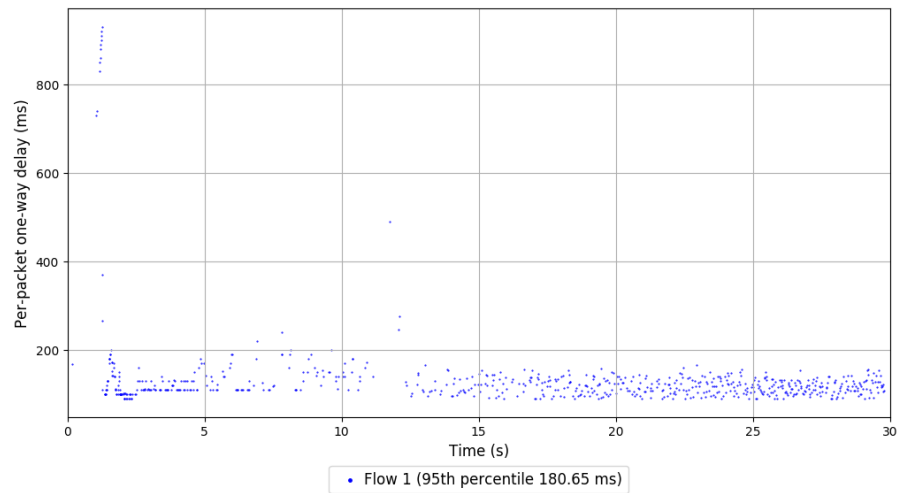
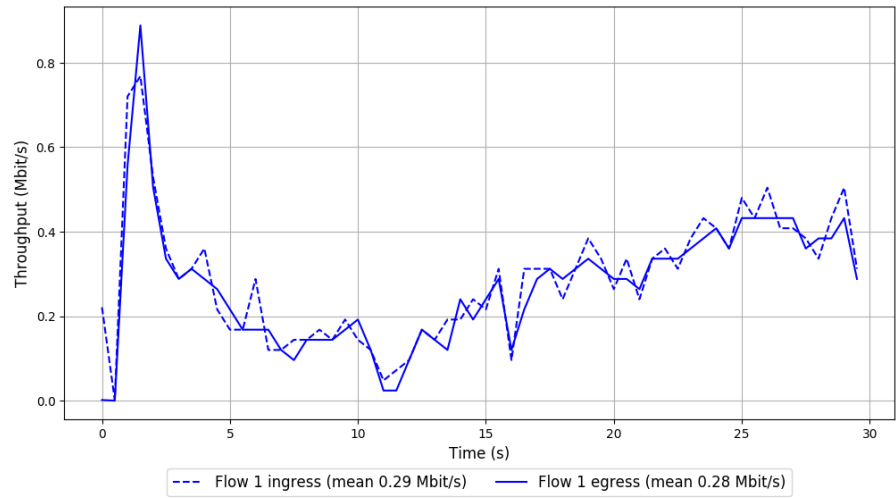
-- Flow 1:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 180.648 ms

Loss rate: 5.41%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: Thu, 13 Jul 2017 21:23:47 +0000

End at: Thu, 13 Jul 2017 21:24:17 +0000

Local clock offset: 0.77 ms

Remote clock offset: -0.842 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:23 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 420.823 ms

Loss rate: 7.89%

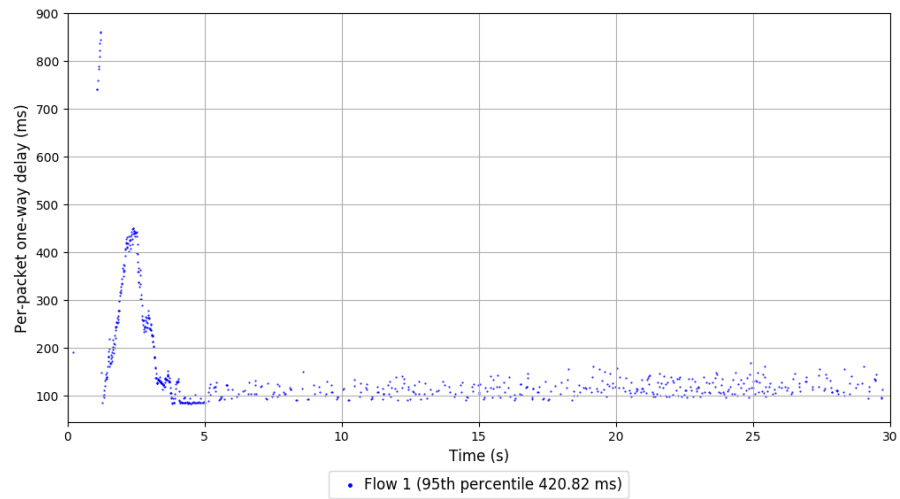
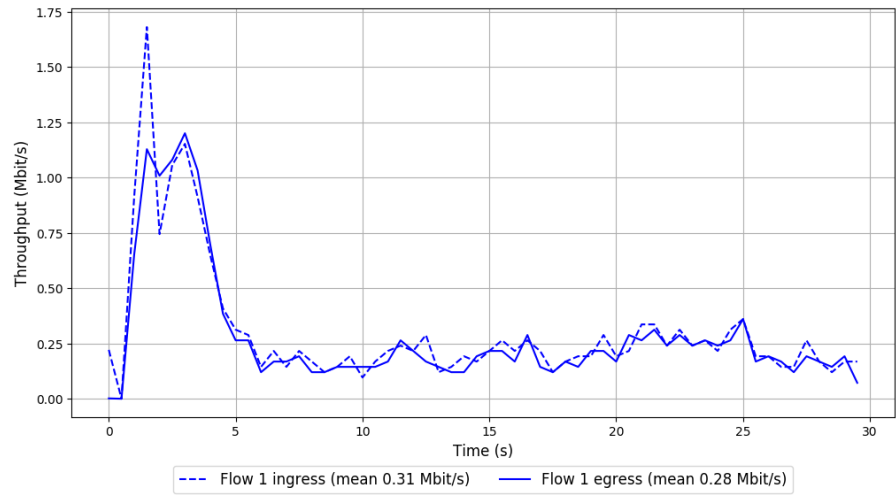
-- Flow 1:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 420.823 ms

Loss rate: 7.89%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: Thu, 13 Jul 2017 21:40:26 +0000

End at: Thu, 13 Jul 2017 21:40:56 +0000

Local clock offset: 0.698 ms

Remote clock offset: -0.222 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:23 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 252.721 ms

Loss rate: 12.97%

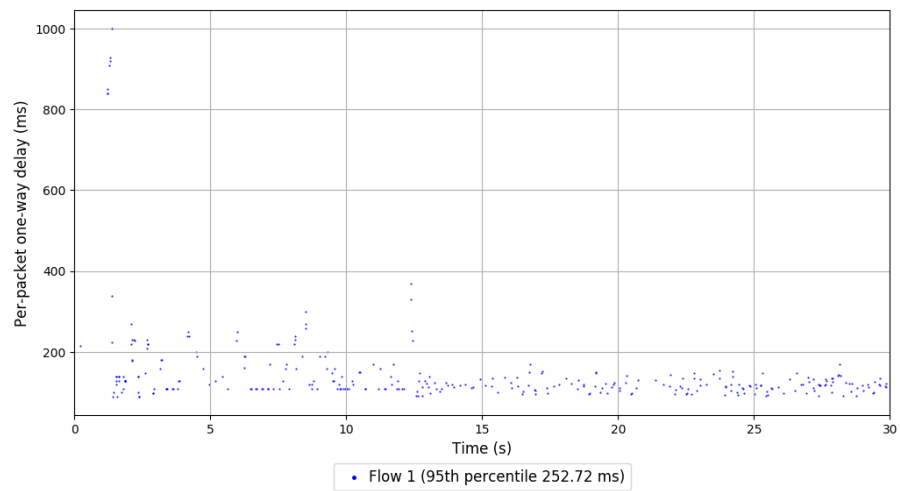
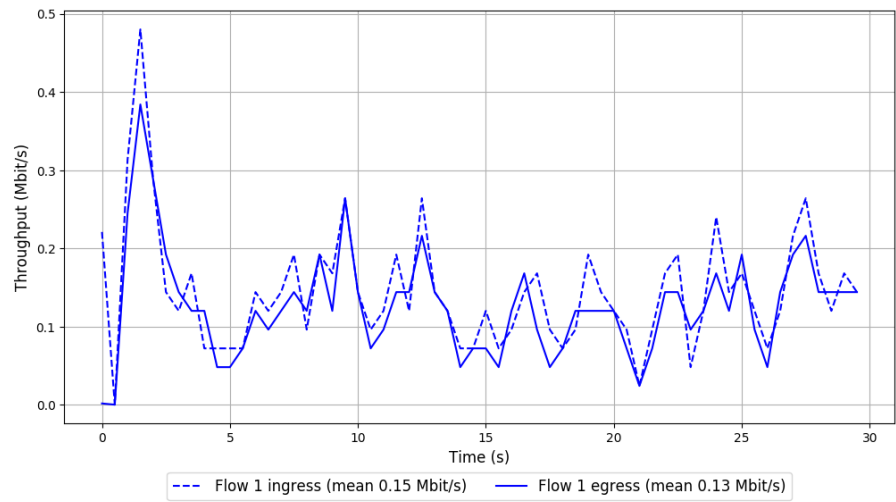
-- Flow 1:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 252.721 ms

Loss rate: 12.97%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of KohoCC

Start at: Thu, 13 Jul 2017 21:17:08 +0000

End at: Thu, 13 Jul 2017 21:17:38 +0000

Local clock offset: 0.93 ms

Remote clock offset: -1.77 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:25 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 171.192 ms

Loss rate: 1.20%

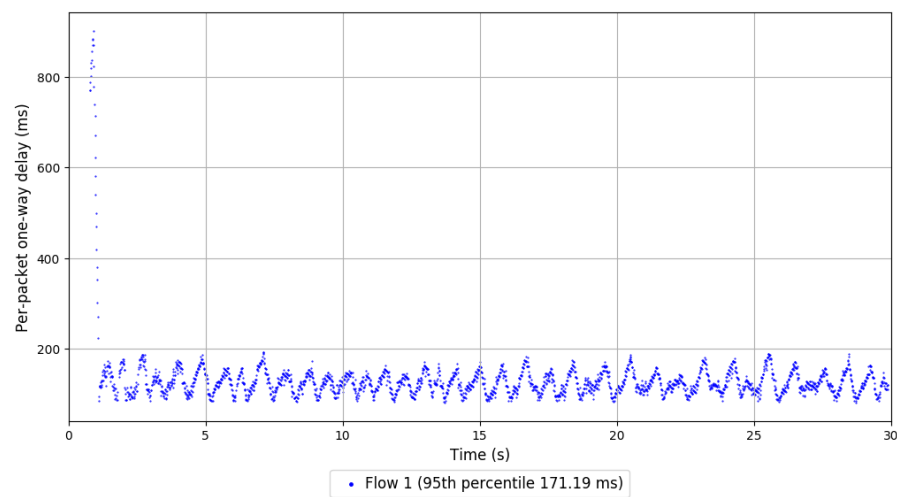
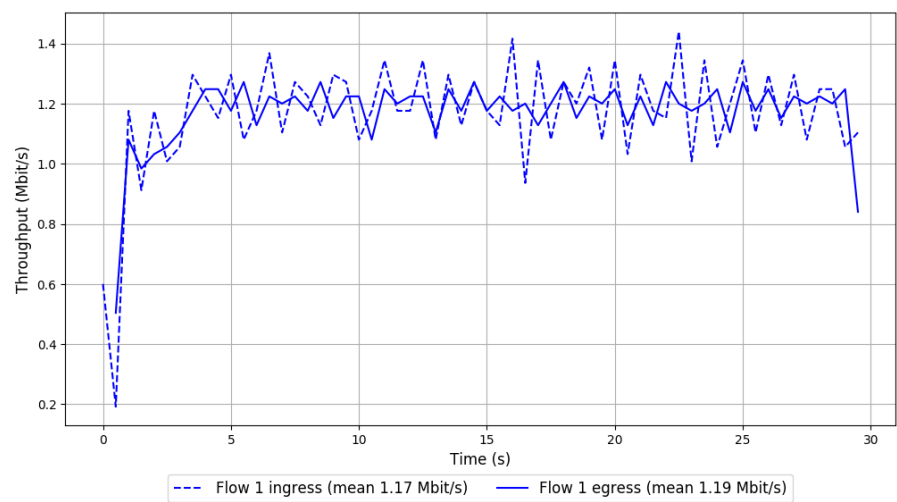
-- Flow 1:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 171.192 ms

Loss rate: 1.20%

Run 1: Report of KohoCC — Data Link



Run 2: Statistics of KohoCC

Start at: Thu, 13 Jul 2017 21:33:47 +0000

End at: Thu, 13 Jul 2017 21:34:17 +0000

Local clock offset: 0.815 ms

Remote clock offset: -0.599 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:25 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 194.754 ms

Loss rate: 10.74%

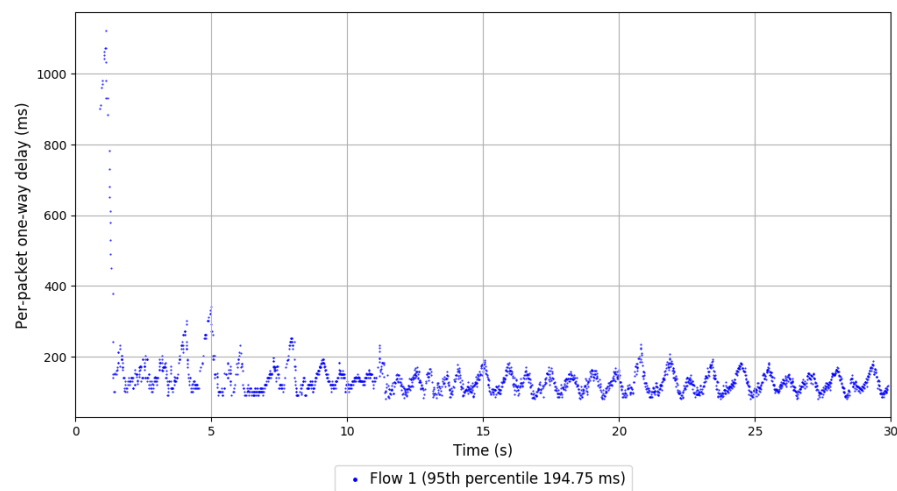
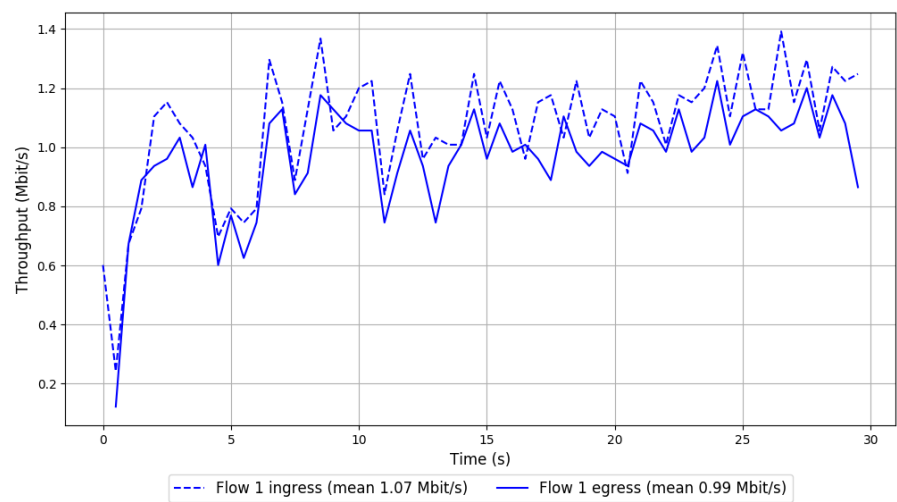
-- Flow 1:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 194.754 ms

Loss rate: 10.74%

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: Thu, 13 Jul 2017 21:50:26 +0000

End at: Thu, 13 Jul 2017 21:50:56 +0000

Local clock offset: 0.686 ms

Remote clock offset: -0.001 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:26 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 178.285 ms

Loss rate: 1.65%

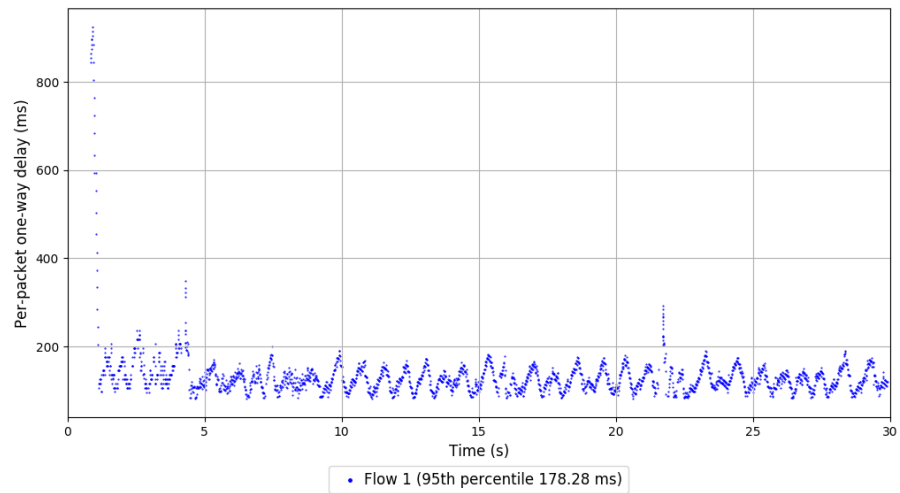
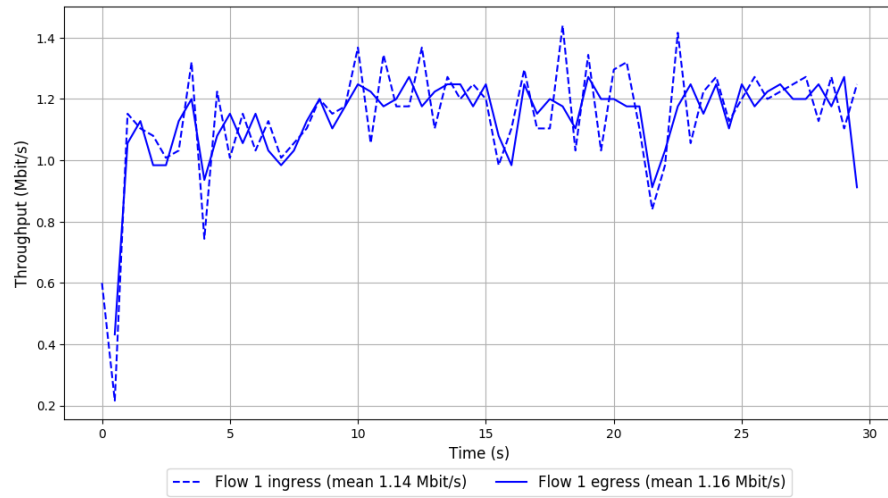
-- Flow 1:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 178.285 ms

Loss rate: 1.65%

Run 3: Report of KohoCC — Data Link



Run 1: Statistics of LEDBAT

Start at: Thu, 13 Jul 2017 21:01:36 +0000

End at: Thu, 13 Jul 2017 21:02:06 +0000

Local clock offset: 0.82 ms

Remote clock offset: -3.217 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:26 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 156.938 ms

Loss rate: 5.48%

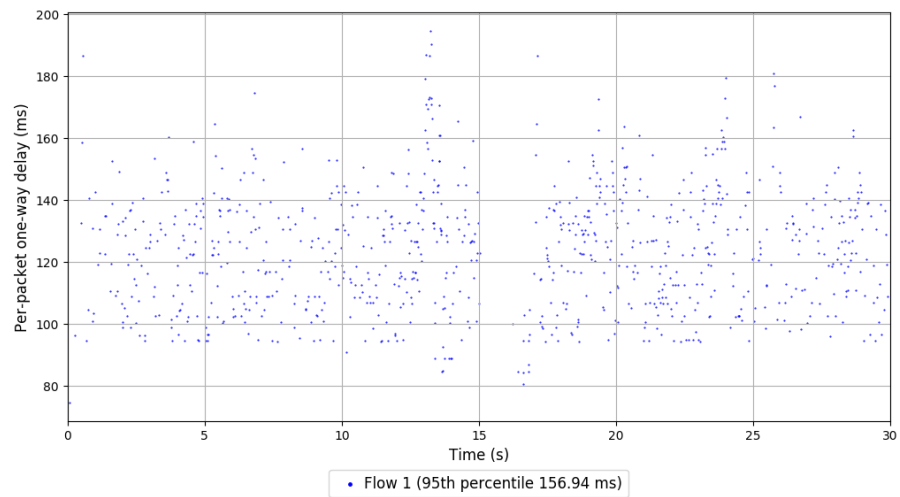
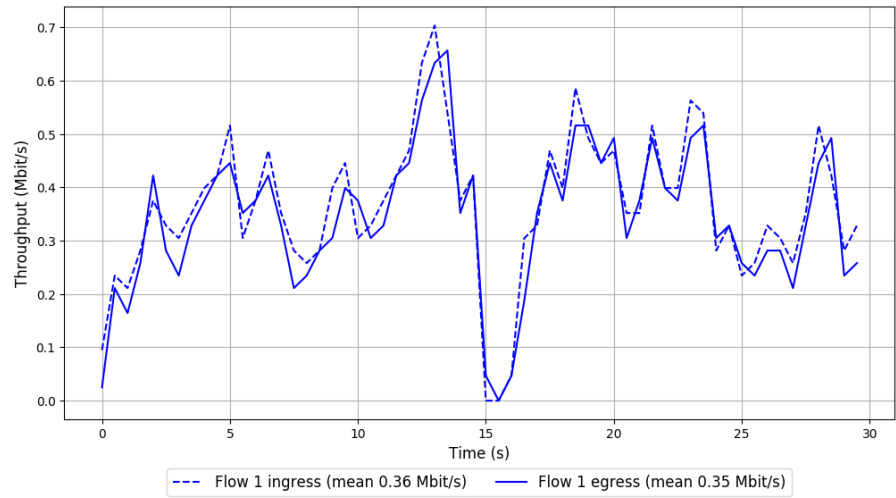
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 156.938 ms

Loss rate: 5.48%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: Thu, 13 Jul 2017 21:18:14 +0000

End at: Thu, 13 Jul 2017 21:18:44 +0000

Local clock offset: 0.901 ms

Remote clock offset: -1.44 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:27 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 210.148 ms

Loss rate: 1.47%

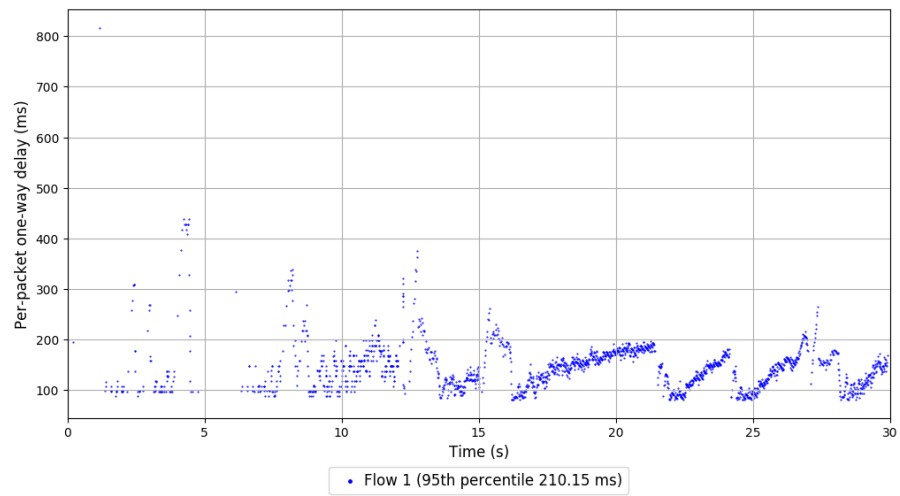
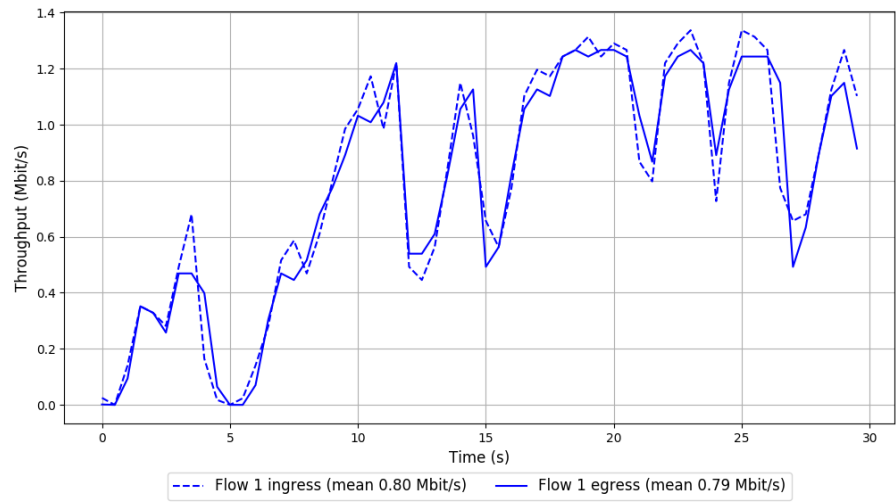
-- Flow 1:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 210.148 ms

Loss rate: 1.47%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: Thu, 13 Jul 2017 21:34:53 +0000

End at: Thu, 13 Jul 2017 21:35:23 +0000

Local clock offset: 0.861 ms

Remote clock offset: -0.728 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:27 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 221.835 ms

Loss rate: 1.70%

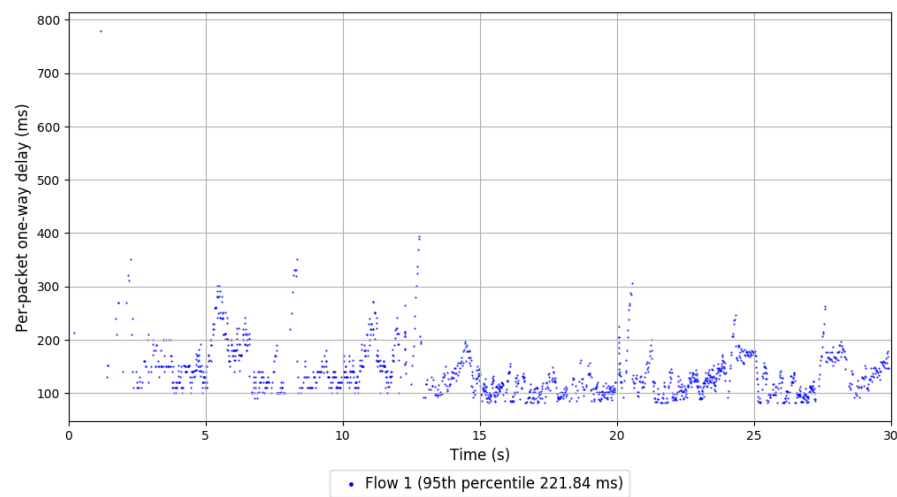
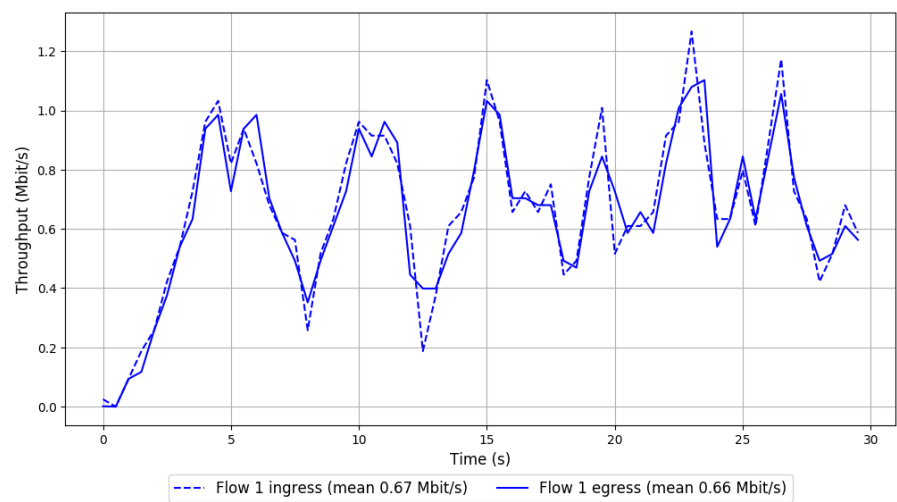
-- Flow 1:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 221.835 ms

Loss rate: 1.70%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: Thu, 13 Jul 2017 21:09:21 +0000

End at: Thu, 13 Jul 2017 21:09:51 +0000

Local clock offset: 0.866 ms

Remote clock offset: -1.822 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:28 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 18196.823 ms

Loss rate: 94.51%

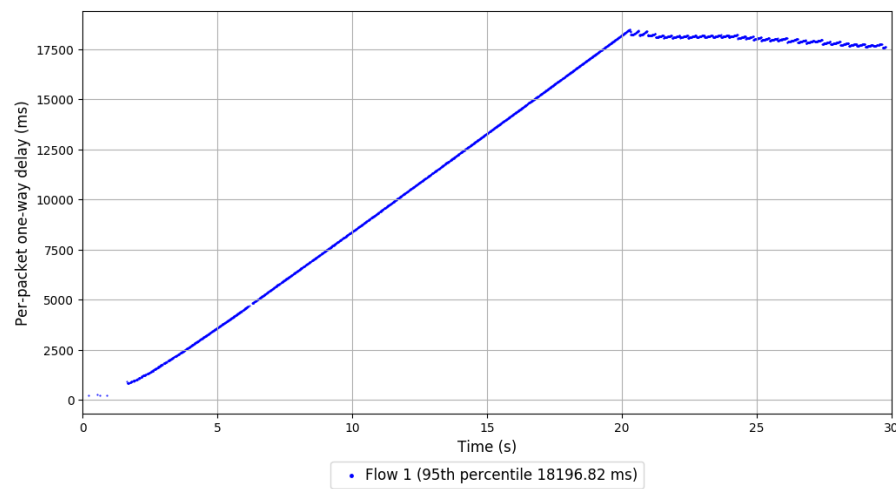
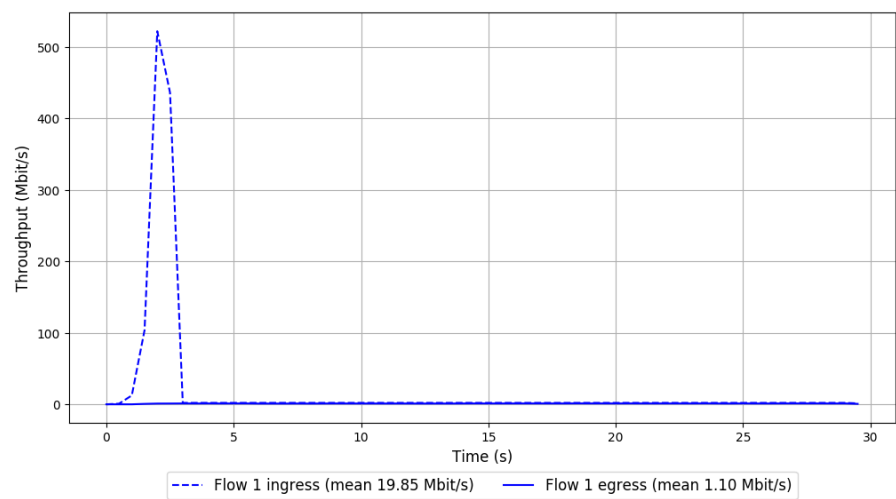
-- Flow 1:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 18196.823 ms

Loss rate: 94.51%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: Thu, 13 Jul 2017 21:26:00 +0000

End at: Thu, 13 Jul 2017 21:26:30 +0000

Local clock offset: 0.838 ms

Remote clock offset: -0.982 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:29 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.08 Mbit/s

95th percentile per-packet one-way delay: 17537.941 ms

Loss rate: 96.74%

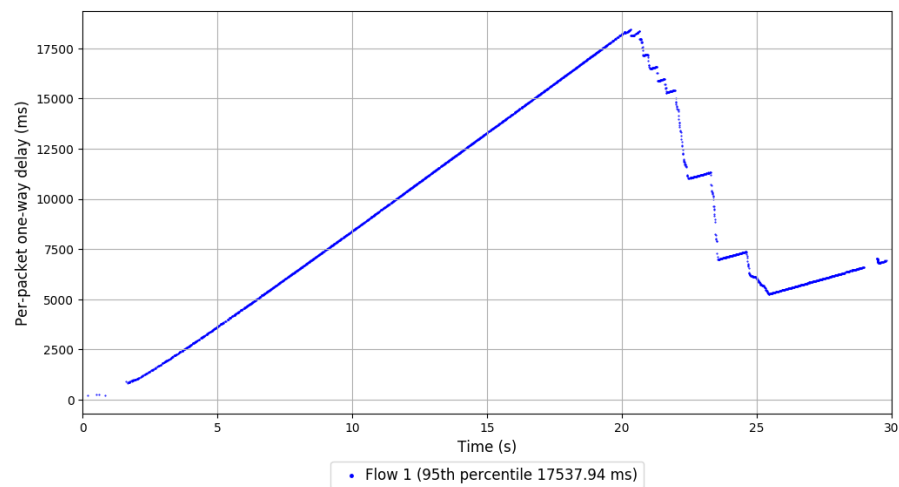
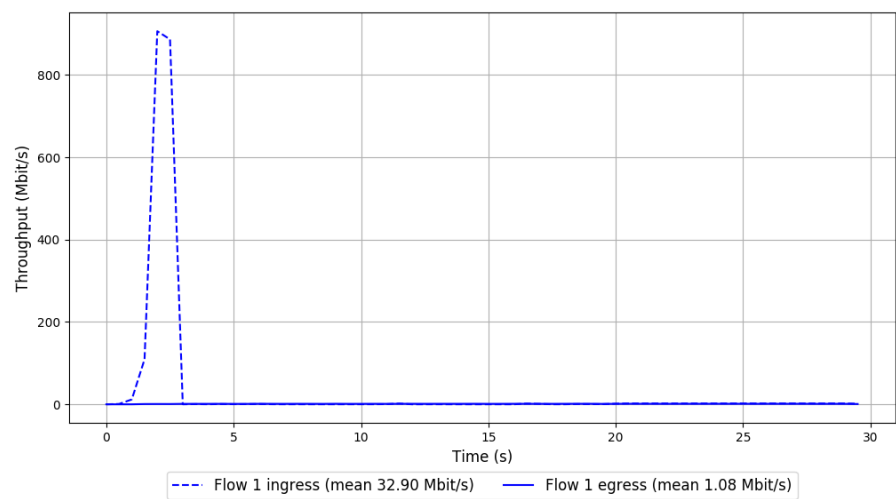
-- Flow 1:

Average throughput: 1.08 Mbit/s

95th percentile per-packet one-way delay: 17537.941 ms

Loss rate: 96.74%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: Thu, 13 Jul 2017 21:42:39 +0000

End at: Thu, 13 Jul 2017 21:43:09 +0000

Local clock offset: 0.702 ms

Remote clock offset: -0.286 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 19647.058 ms

Loss rate: 97.74%

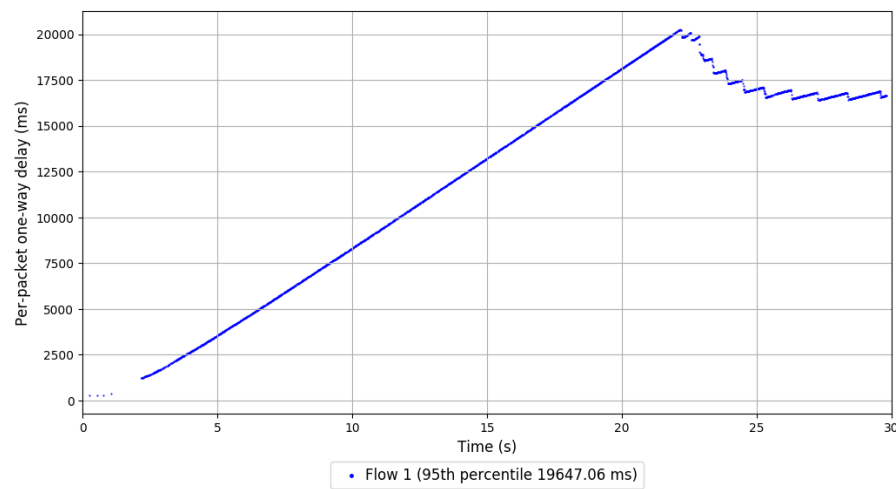
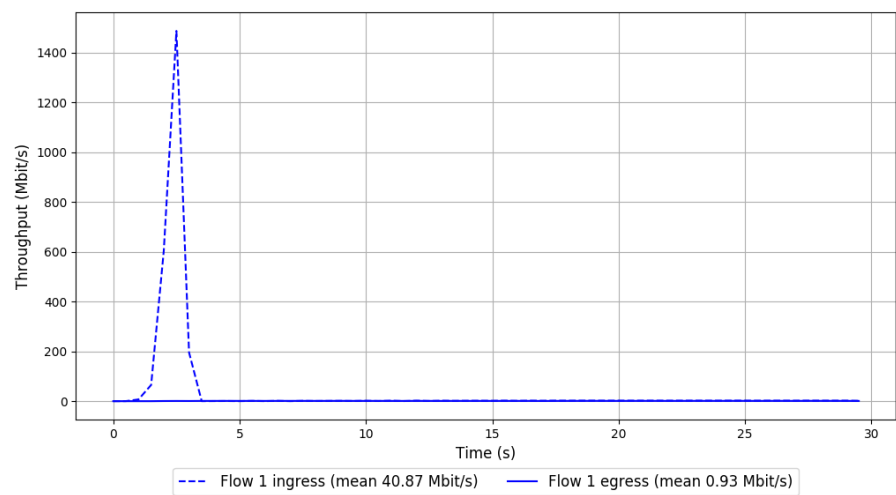
-- Flow 1:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 19647.058 ms

Loss rate: 97.74%

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: Thu, 13 Jul 2017 21:16:01 +0000

End at: Thu, 13 Jul 2017 21:16:31 +0000

Local clock offset: 0.91 ms

Remote clock offset: -1.516 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 443.532 ms

Loss rate: 2.99%

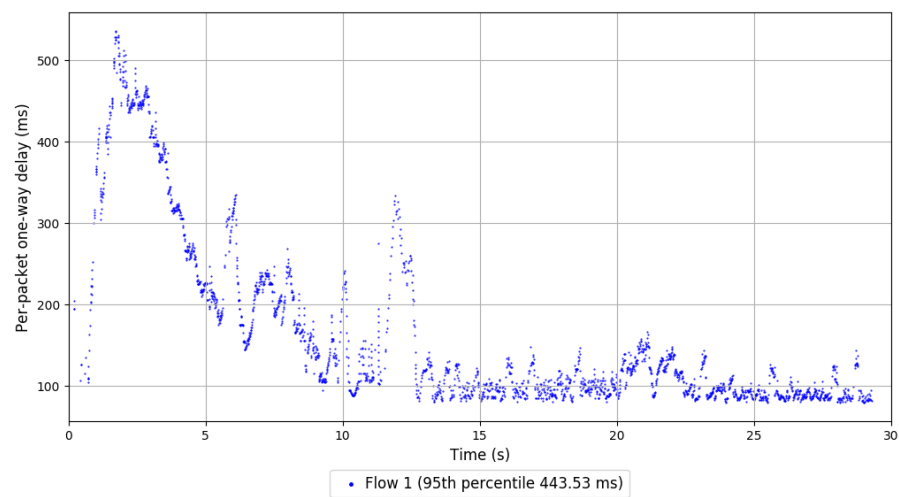
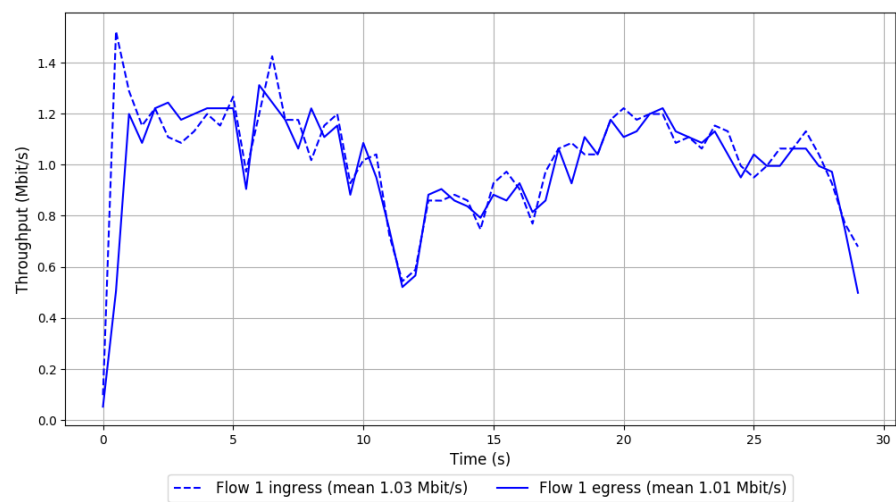
-- Flow 1:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 443.532 ms

Loss rate: 2.99%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: Thu, 13 Jul 2017 21:32:40 +0000

End at: Thu, 13 Jul 2017 21:33:10 +0000

Local clock offset: 0.831 ms

Remote clock offset: -0.175 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 726.559 ms

Loss rate: 2.46%

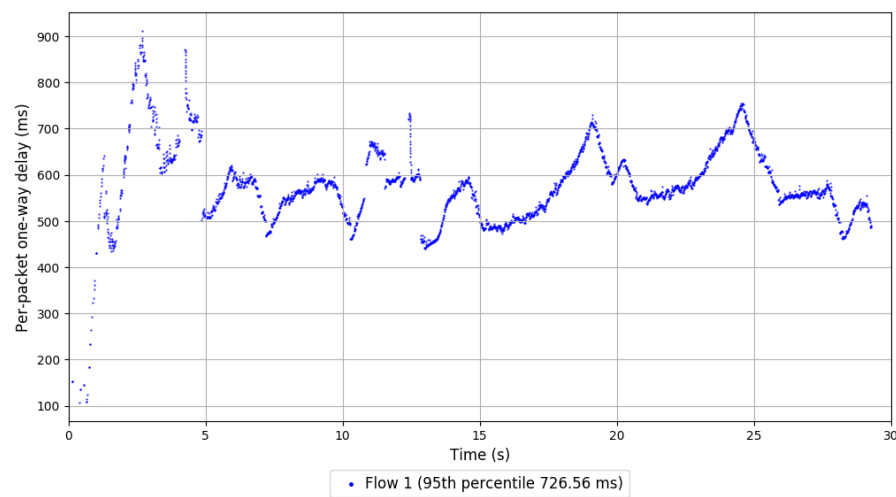
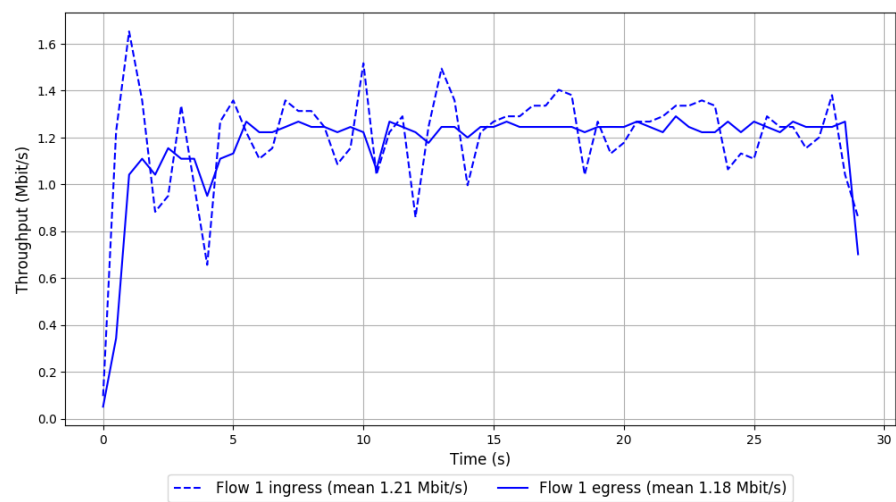
-- Flow 1:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 726.559 ms

Loss rate: 2.46%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: Thu, 13 Jul 2017 21:49:19 +0000

End at: Thu, 13 Jul 2017 21:49:49 +0000

Local clock offset: 0.79 ms

Remote clock offset: 0.123 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 746.448 ms

Loss rate: 2.40%

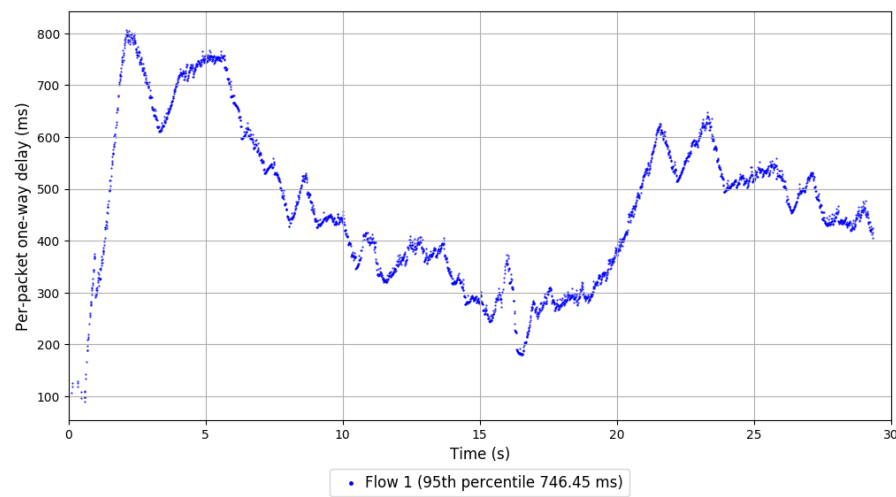
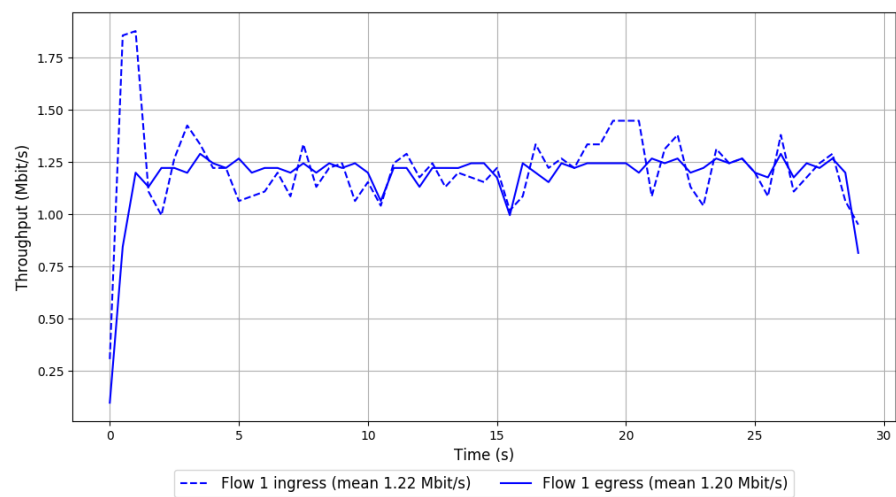
-- Flow 1:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 746.448 ms

Loss rate: 2.40%

Run 3: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: Thu, 13 Jul 2017 21:03:49 +0000

End at: Thu, 13 Jul 2017 21:04:19 +0000

Local clock offset: 0.765 ms

Remote clock offset: -2.491 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 1828.916 ms

Loss rate: 7.01%

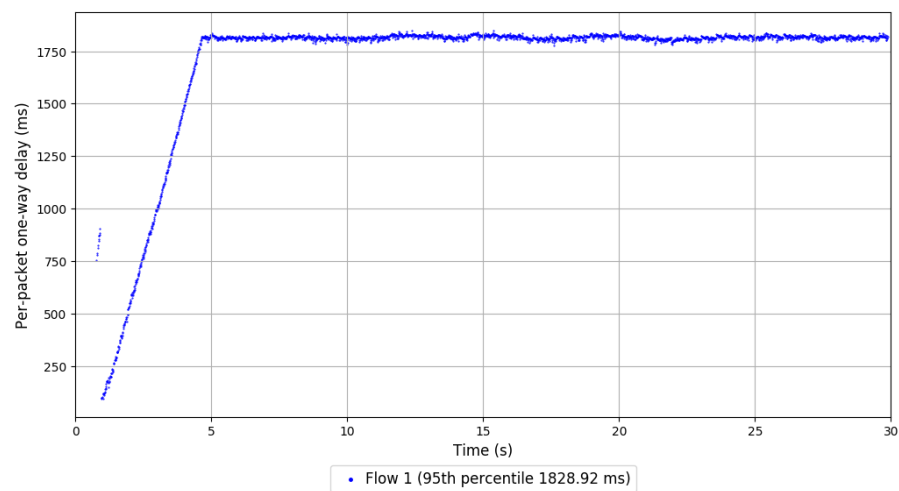
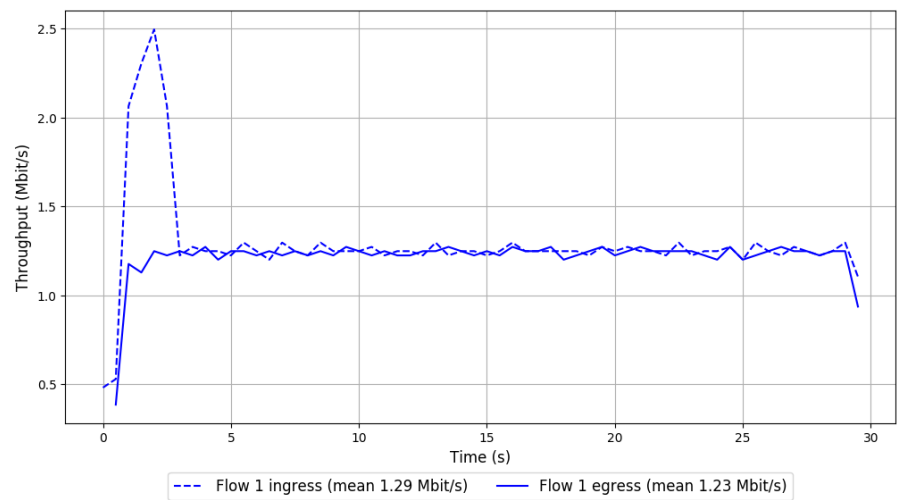
-- Flow 1:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 1828.916 ms

Loss rate: 7.01%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: Thu, 13 Jul 2017 21:20:27 +0000

End at: Thu, 13 Jul 2017 21:20:57 +0000

Local clock offset: 0.879 ms

Remote clock offset: -1.22 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:33 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 1842.801 ms

Loss rate: 14.02%

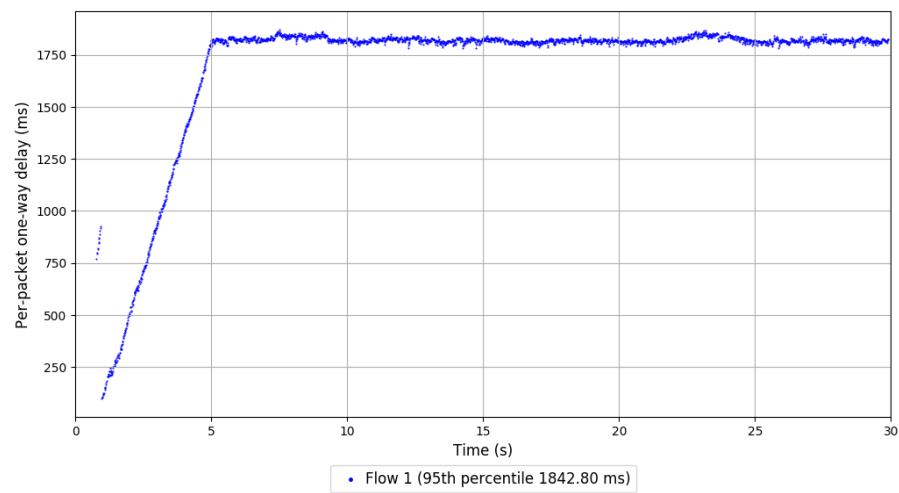
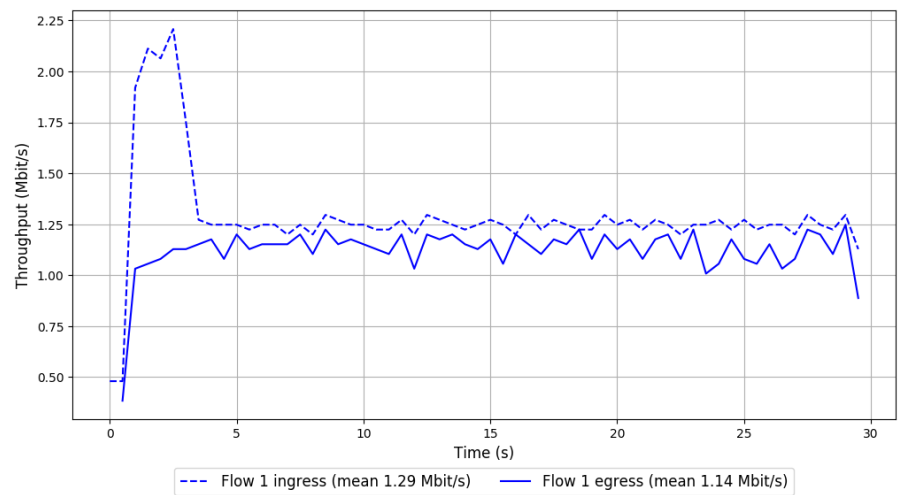
-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 1842.801 ms

Loss rate: 14.02%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: Thu, 13 Jul 2017 21:37:06 +0000

End at: Thu, 13 Jul 2017 21:37:36 +0000

Local clock offset: 0.835 ms

Remote clock offset: -0.179 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:34 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 1831.229 ms

Loss rate: 6.86%

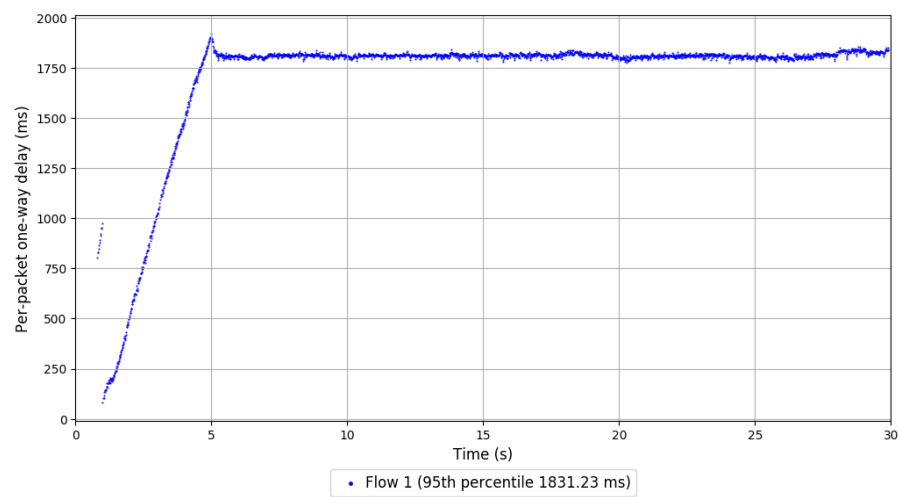
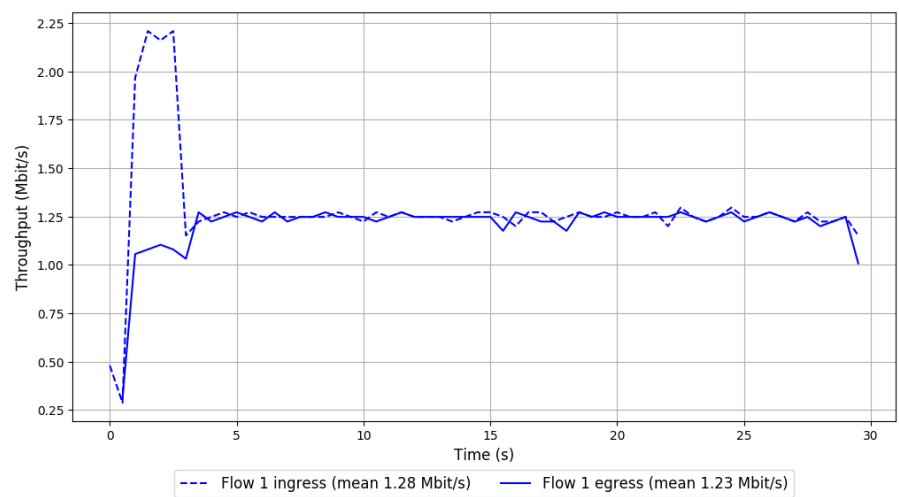
-- Flow 1:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 1831.229 ms

Loss rate: 6.86%

Run 3: Report of Saturator — Data Link



Run 1: Statistics of SCReAM

Start at: Thu, 13 Jul 2017 21:13:48 +0000

End at: Thu, 13 Jul 2017 21:14:18 +0000

Local clock offset: 0.892 ms

Remote clock offset: -1.545 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:34 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 154.661 ms

Loss rate: 0.67%

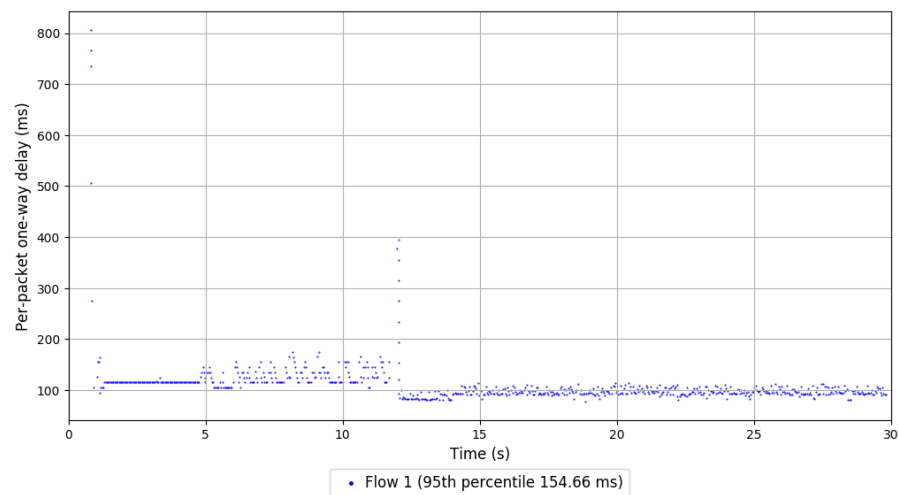
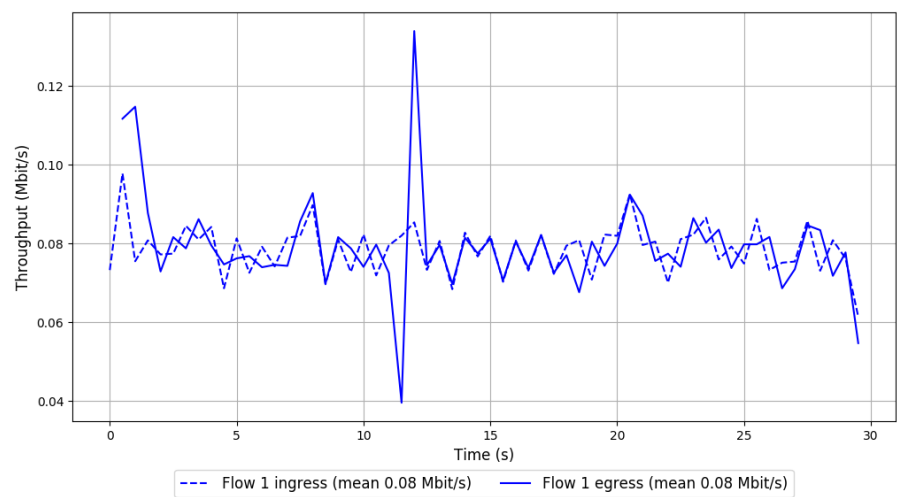
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 154.661 ms

Loss rate: 0.67%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

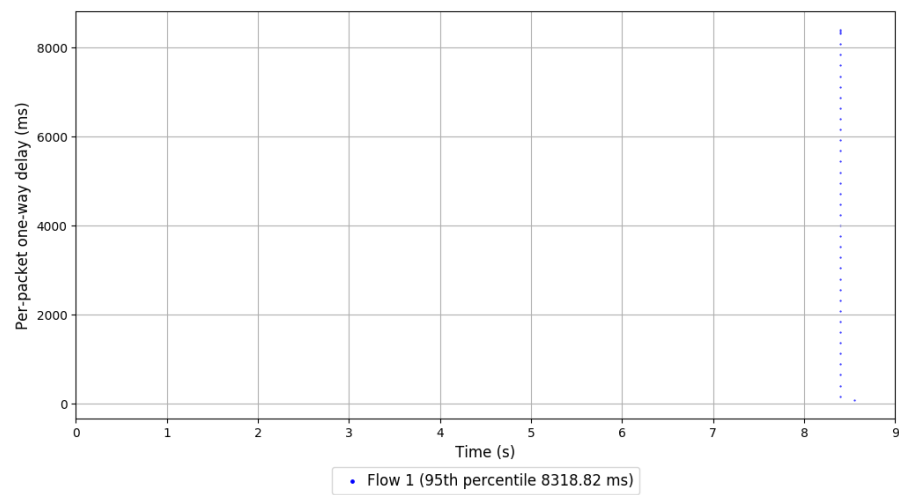
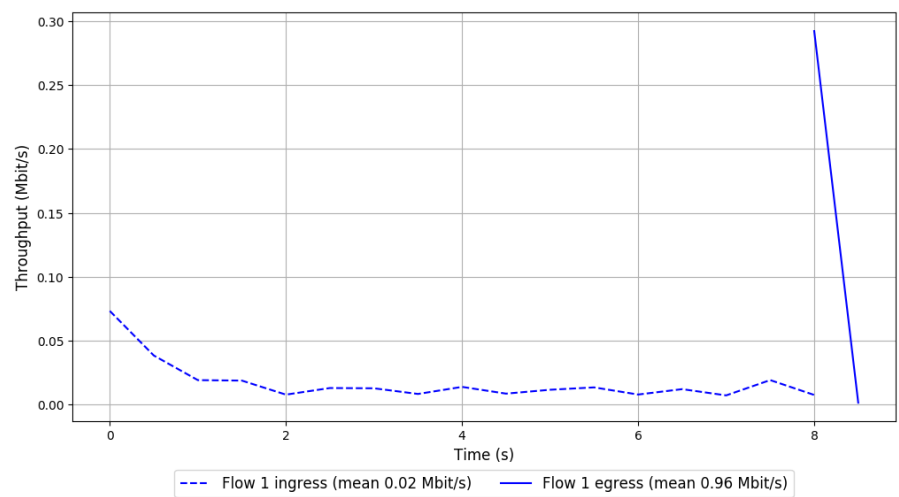
Start at: Thu, 13 Jul 2017 21:30:27 +0000

End at: Thu, 13 Jul 2017 21:30:57 +0000

Local clock offset: 0.845 ms

Remote clock offset: -0.682 ms

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: Thu, 13 Jul 2017 21:47:06 +0000

End at: Thu, 13 Jul 2017 21:47:36 +0000

Local clock offset: 0.78 ms

Remote clock offset: 0.285 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:36 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 108.551 ms

Loss rate: 2.23%

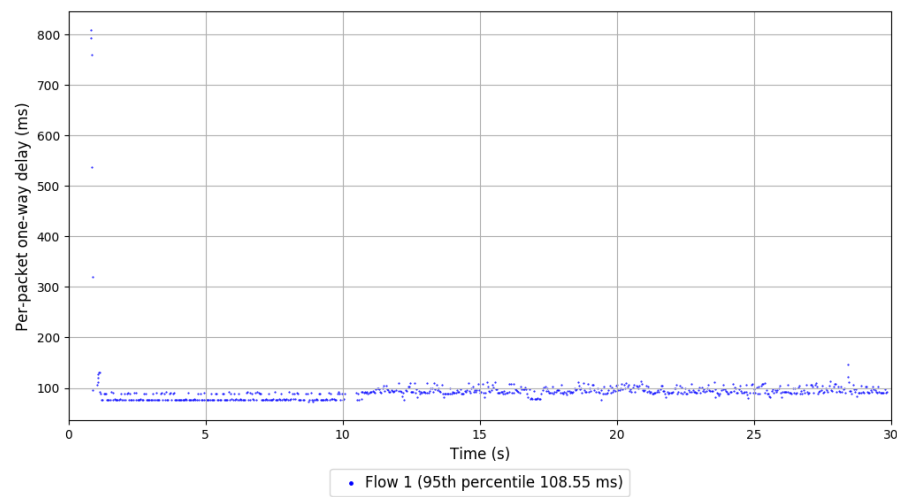
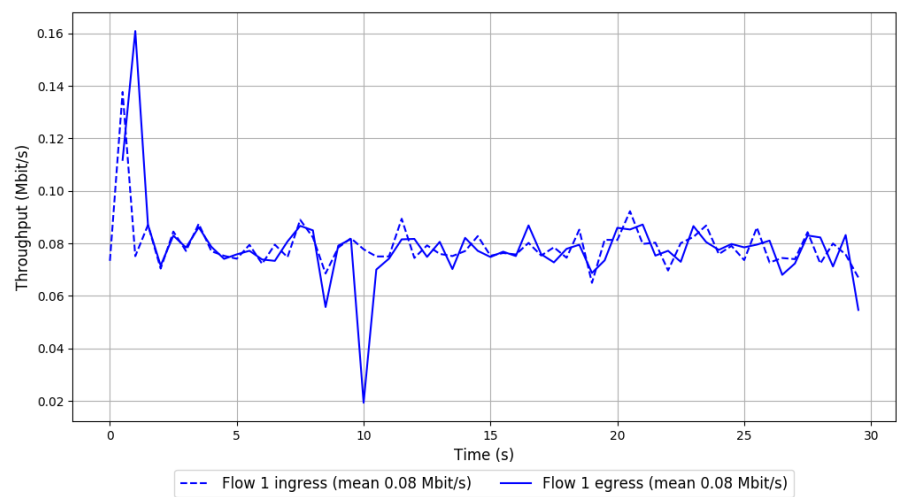
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 108.551 ms

Loss rate: 2.23%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: Thu, 13 Jul 2017 21:02:42 +0000

End at: Thu, 13 Jul 2017 21:03:12 +0000

Local clock offset: 0.852 ms

Remote clock offset: -3.174 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:36 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 134.617 ms

Loss rate: 1.40%

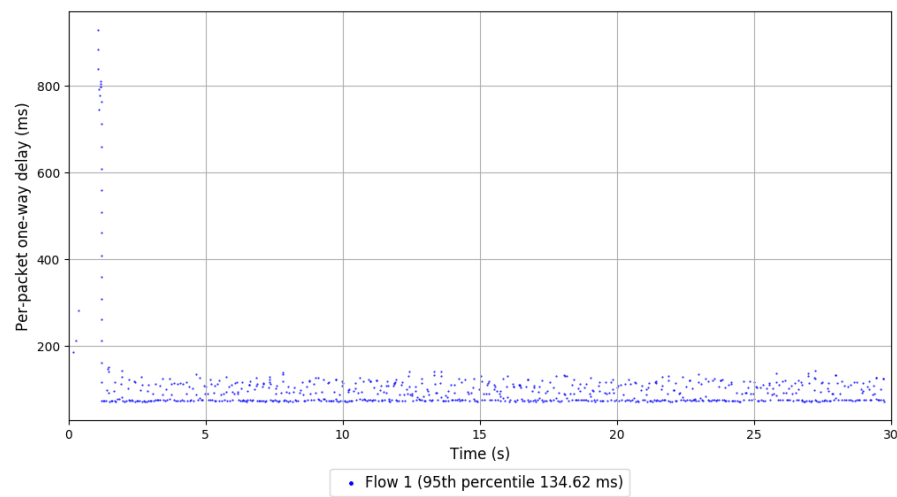
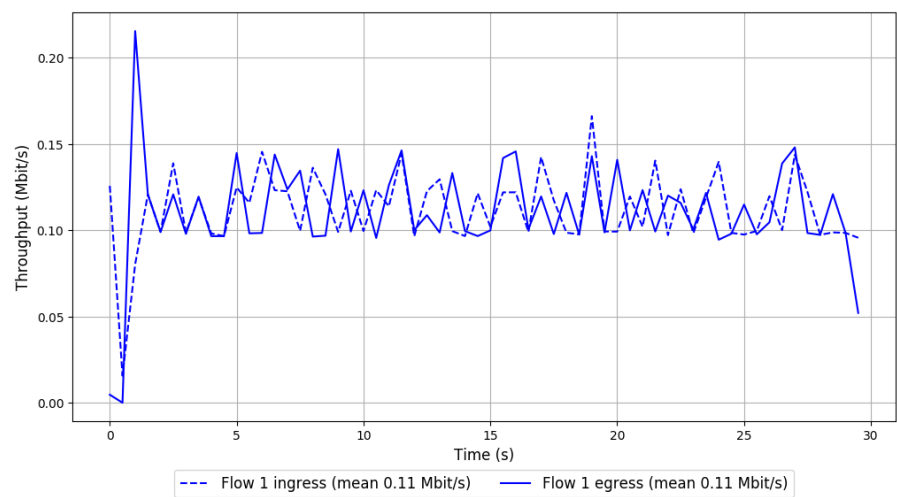
-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 134.617 ms

Loss rate: 1.40%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

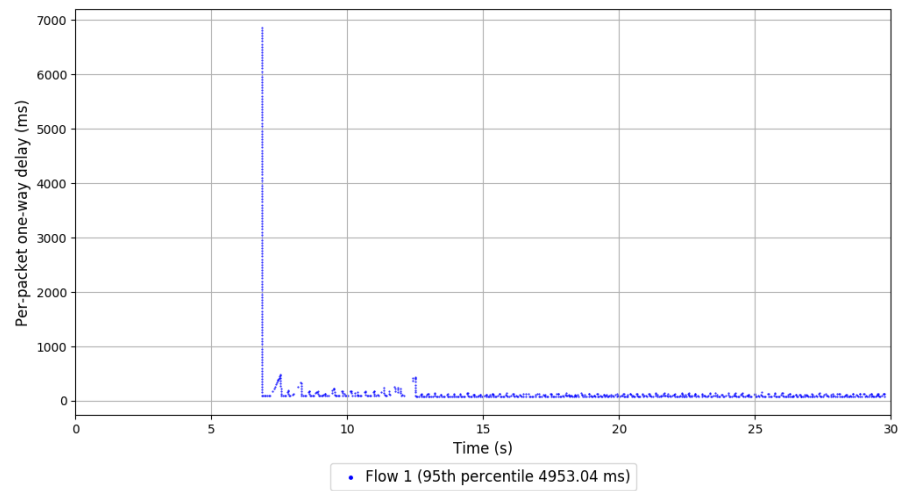
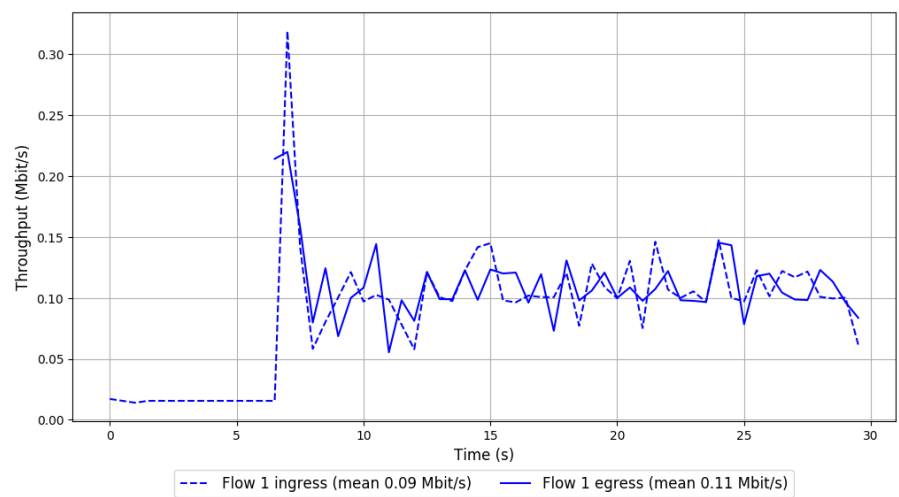
Start at: Thu, 13 Jul 2017 21:19:21 +0000

End at: Thu, 13 Jul 2017 21:19:51 +0000

Local clock offset: 0.866 ms

Remote clock offset: -1.694 ms

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: Thu, 13 Jul 2017 21:36:00 +0000

End at: Thu, 13 Jul 2017 21:36:30 +0000

Local clock offset: 0.759 ms

Remote clock offset: -0.691 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:37 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 447.057 ms

Loss rate: 1.61%

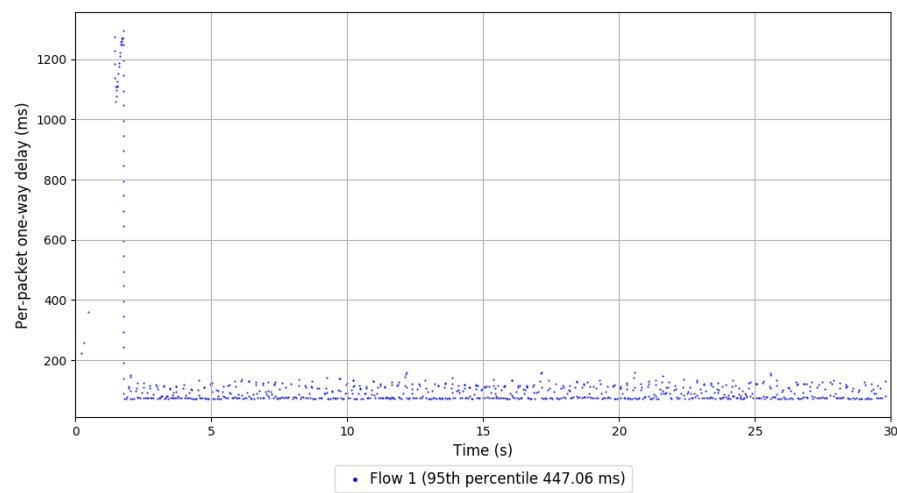
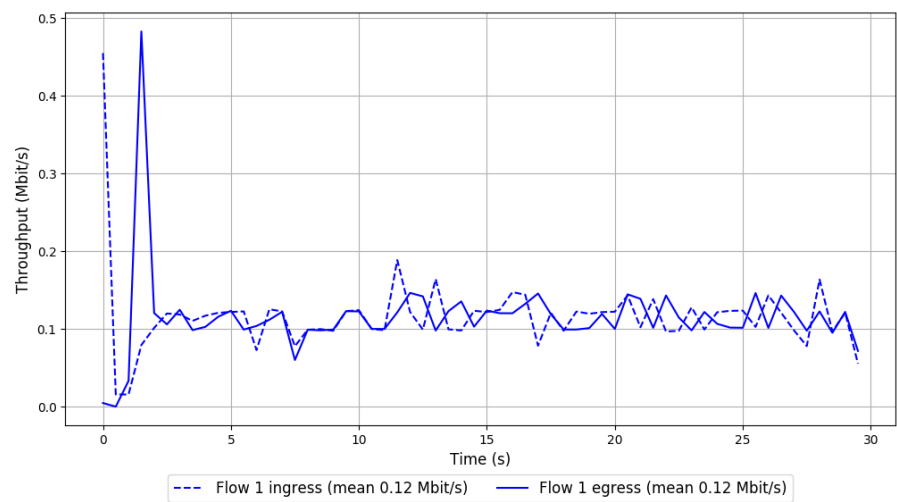
-- Flow 1:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 447.057 ms

Loss rate: 1.61%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

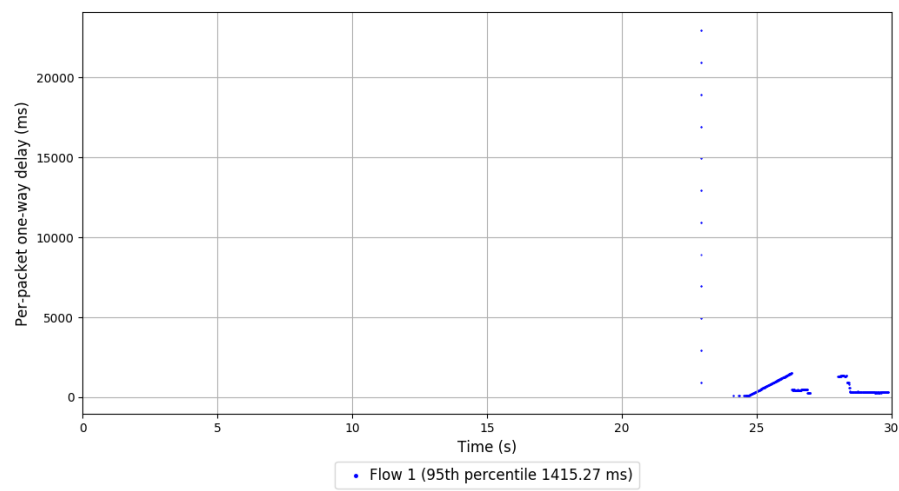
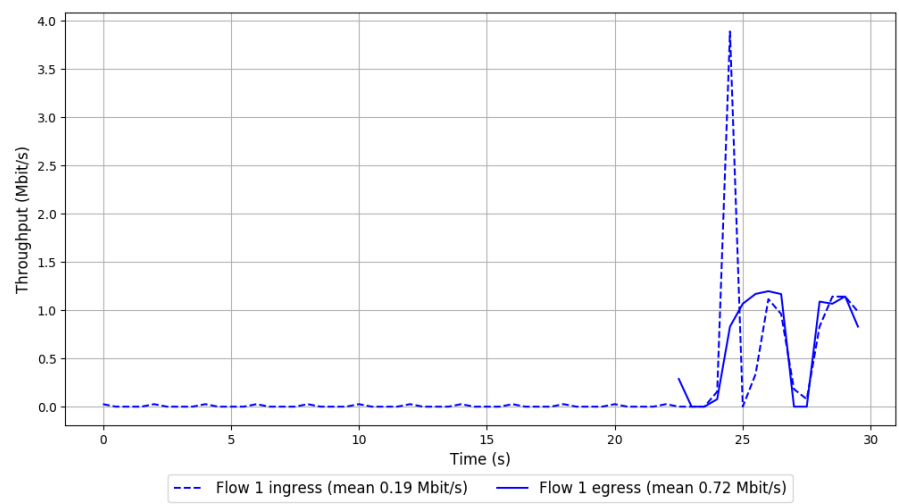
Start at: Thu, 13 Jul 2017 21:10:29 +0000

End at: Thu, 13 Jul 2017 21:10:59 +0000

Local clock offset: 0.89 ms

Remote clock offset: -1.968 ms

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



Run 2: Statistics of TaoVA-100x

Start at: Thu, 13 Jul 2017 21:27:08 +0000

End at: Thu, 13 Jul 2017 21:27:38 +0000

Local clock offset: 0.809 ms

Remote clock offset: -0.907 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:39 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 418.573 ms

Loss rate: 2.07%

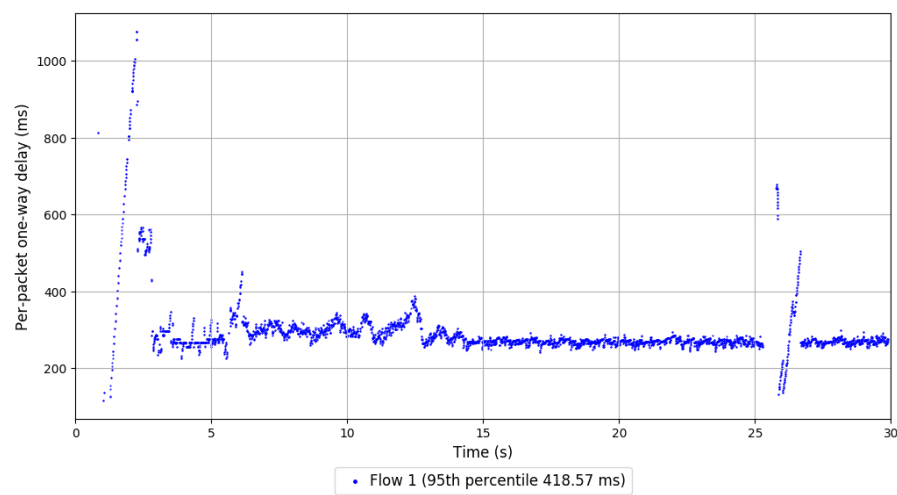
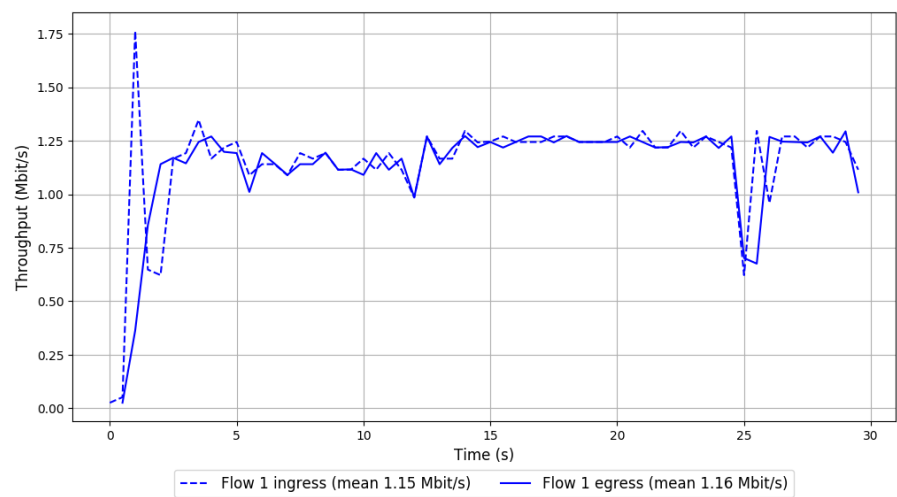
-- Flow 1:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 418.573 ms

Loss rate: 2.07%

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



Run 3: Statistics of TaoVA-100x

Start at: Thu, 13 Jul 2017 21:43:47 +0000

End at: Thu, 13 Jul 2017 21:44:17 +0000

Local clock offset: 0.769 ms

Remote clock offset: -0.083 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:39 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 575.067 ms

Loss rate: 2.15%

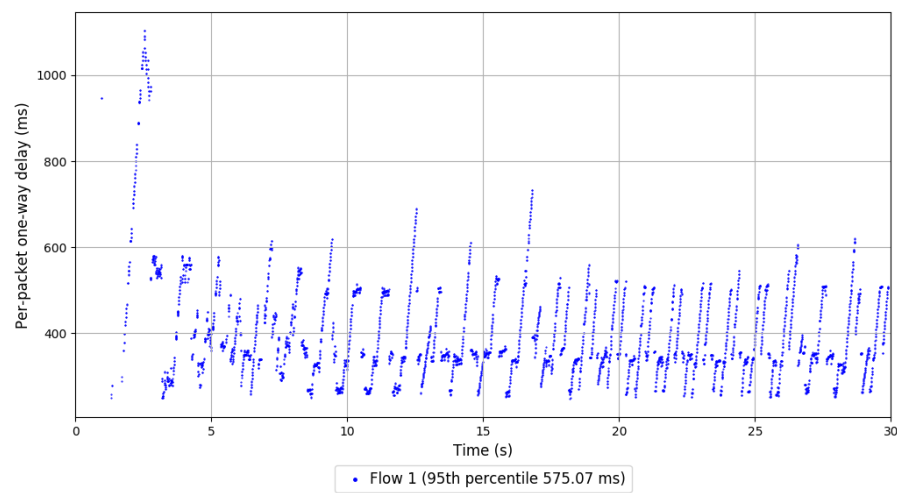
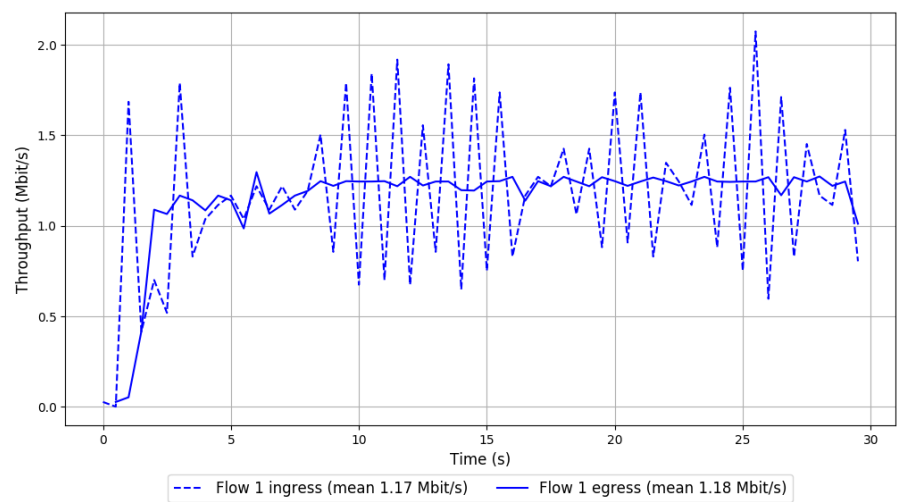
-- Flow 1:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 575.067 ms

Loss rate: 2.15%

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



Run 1: Statistics of TCP Vegas

Start at: Thu, 13 Jul 2017 21:08:15 +0000

End at: Thu, 13 Jul 2017 21:08:45 +0000

Local clock offset: 0.87 ms

Remote clock offset: -2.16 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:40 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 163.237 ms

Loss rate: 3.94%

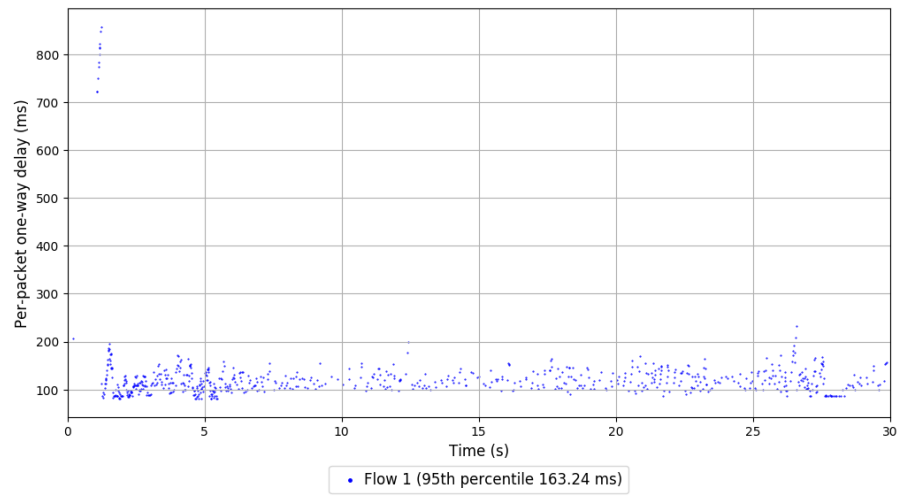
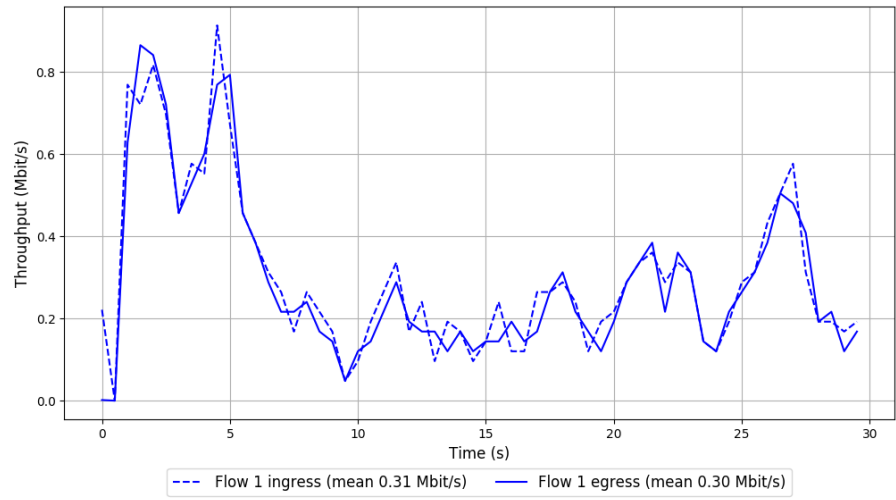
-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 163.237 ms

Loss rate: 3.94%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: Thu, 13 Jul 2017 21:24:53 +0000

End at: Thu, 13 Jul 2017 21:25:23 +0000

Local clock offset: 0.877 ms

Remote clock offset: -1.069 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:40 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 156.202 ms

Loss rate: 1.96%

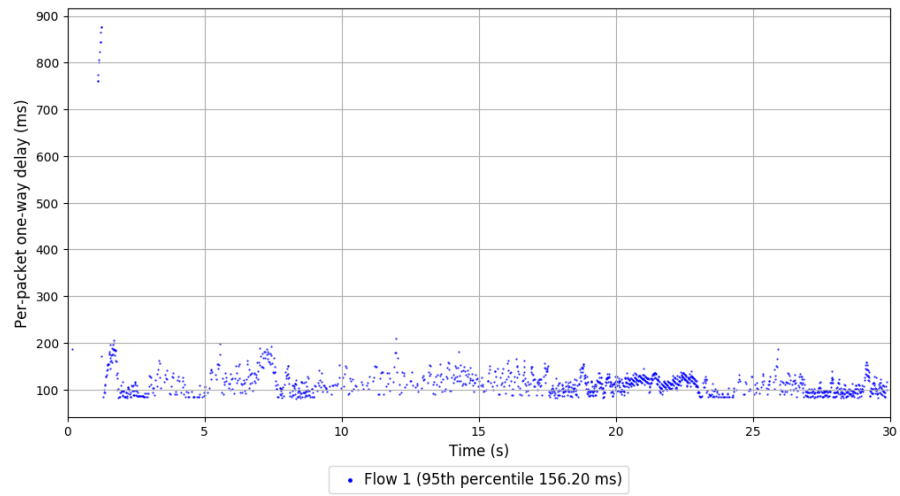
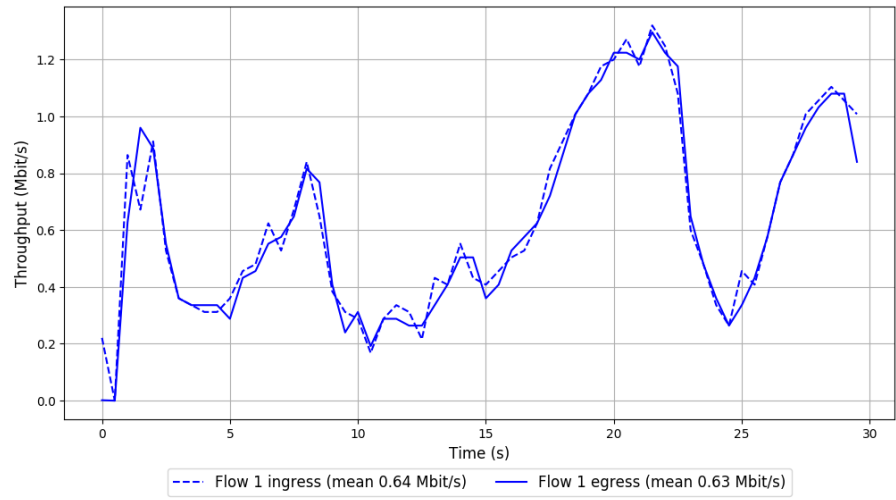
-- Flow 1:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 156.202 ms

Loss rate: 1.96%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: Thu, 13 Jul 2017 21:41:32 +0000

End at: Thu, 13 Jul 2017 21:42:02 +0000

Local clock offset: 0.789 ms

Remote clock offset: -0.271 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:41 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 687.580 ms

Loss rate: 1.58%

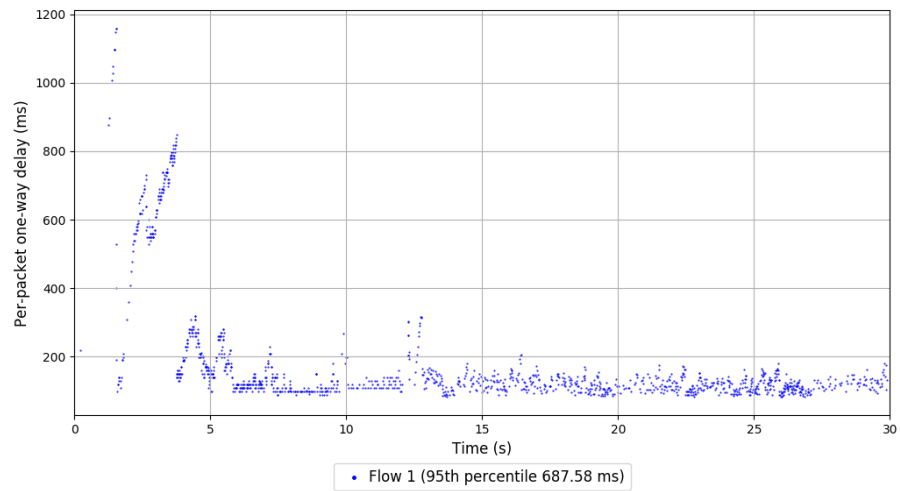
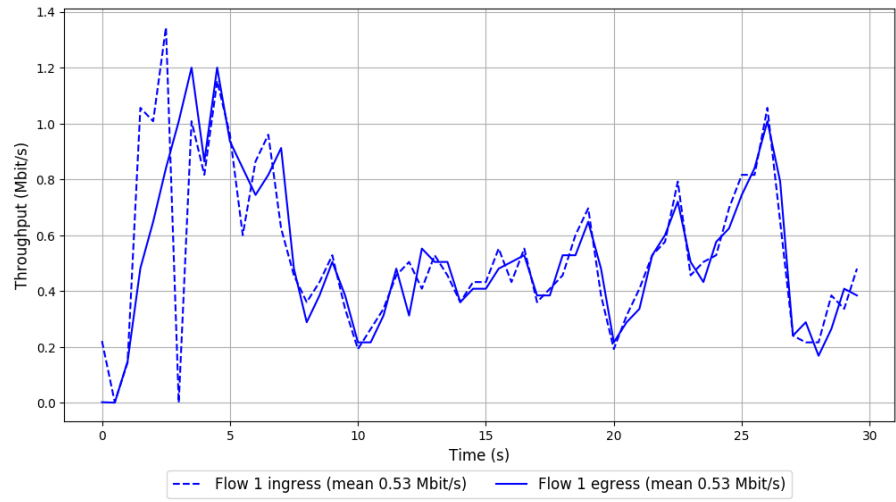
-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 687.580 ms

Loss rate: 1.58%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: Thu, 13 Jul 2017 21:14:55 +0000

End at: Thu, 13 Jul 2017 21:15:25 +0000

Local clock offset: 0.889 ms

Remote clock offset: -1.929 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:41 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 1229.613 ms

Loss rate: 2.12%

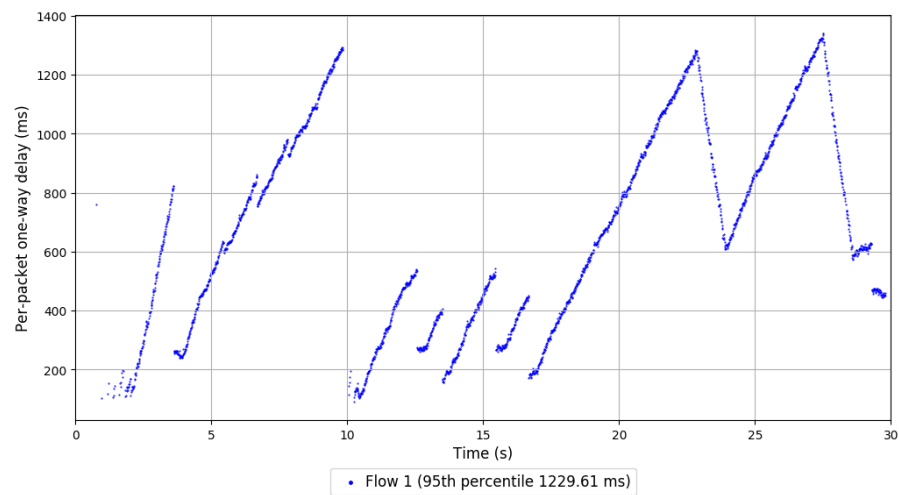
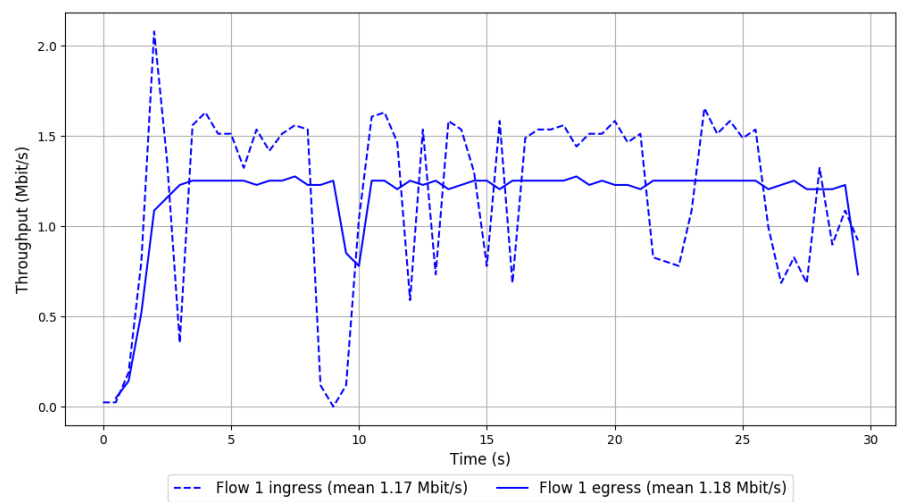
-- Flow 1:

Average throughput: 1.18 Mbit/s

95th percentile per-packet one-way delay: 1229.613 ms

Loss rate: 2.12%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: Thu, 13 Jul 2017 21:31:33 +0000

End at: Thu, 13 Jul 2017 21:32:03 +0000

Local clock offset: 0.857 ms

Remote clock offset: -1.01 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:42 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.98 Mbit/s

95th percentile per-packet one-way delay: 417.064 ms

Loss rate: 12.11%

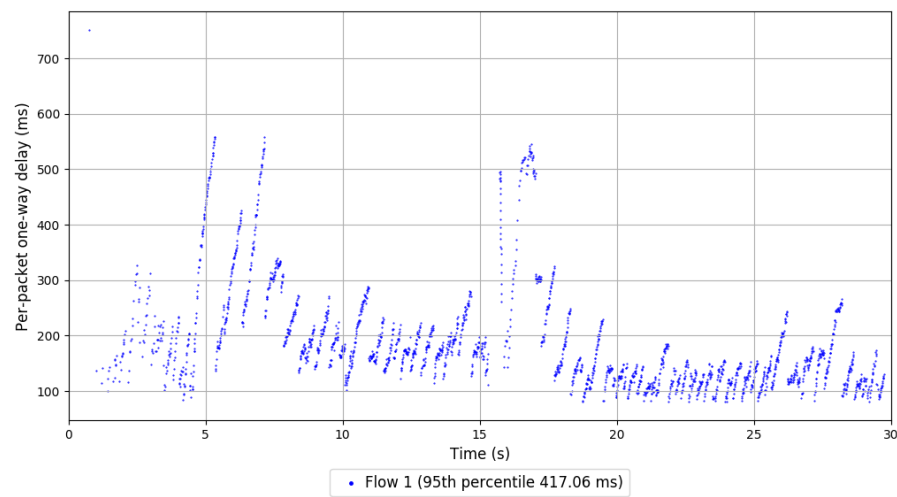
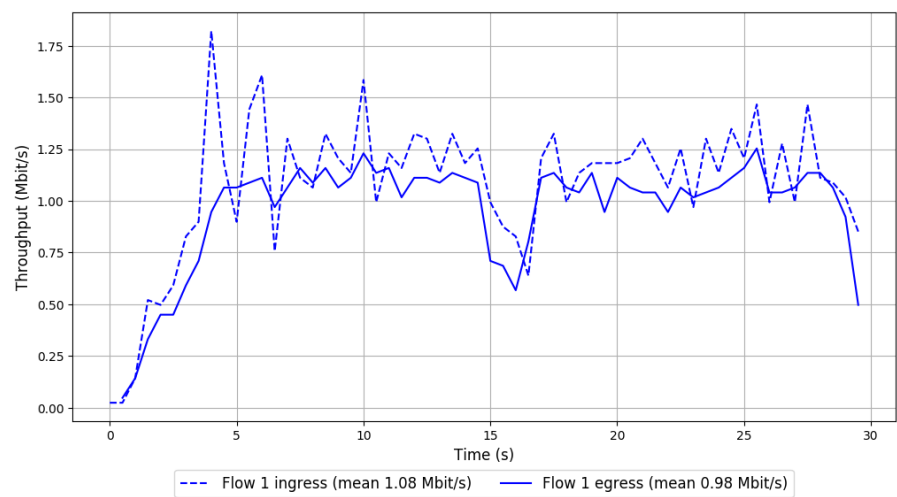
-- Flow 1:

Average throughput: 0.98 Mbit/s

95th percentile per-packet one-way delay: 417.064 ms

Loss rate: 12.11%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: Thu, 13 Jul 2017 21:48:13 +0000

End at: Thu, 13 Jul 2017 21:48:43 +0000

Local clock offset: 0.722 ms

Remote clock offset: 0.412 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:42 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 1213.804 ms

Loss rate: 2.12%

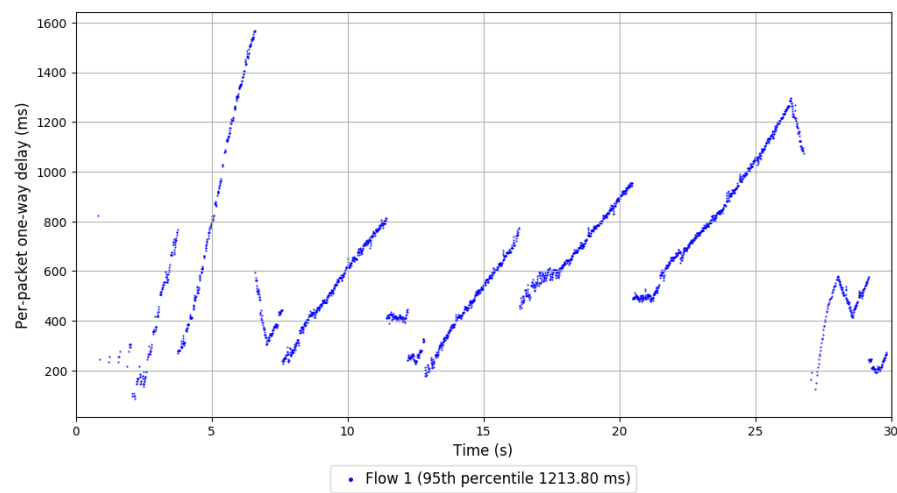
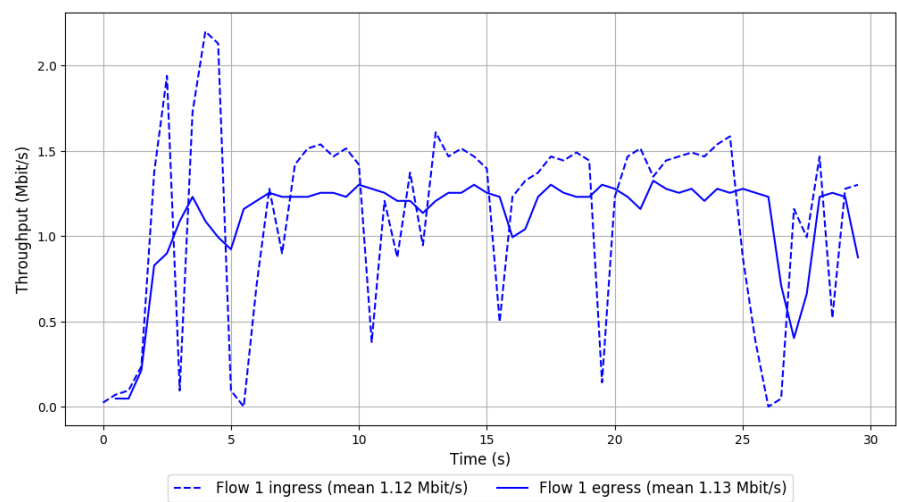
-- Flow 1:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 1213.804 ms

Loss rate: 2.12%

Run 3: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: Thu, 13 Jul 2017 21:12:42 +0000

End at: Thu, 13 Jul 2017 21:13:12 +0000

Local clock offset: 0.889 ms

Remote clock offset: -1.888 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:43 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 310.315 ms

Loss rate: 2.76%

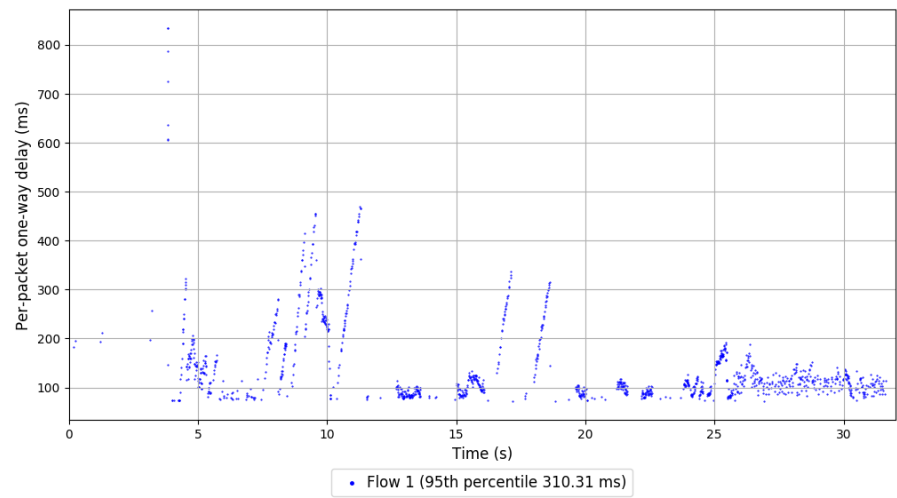
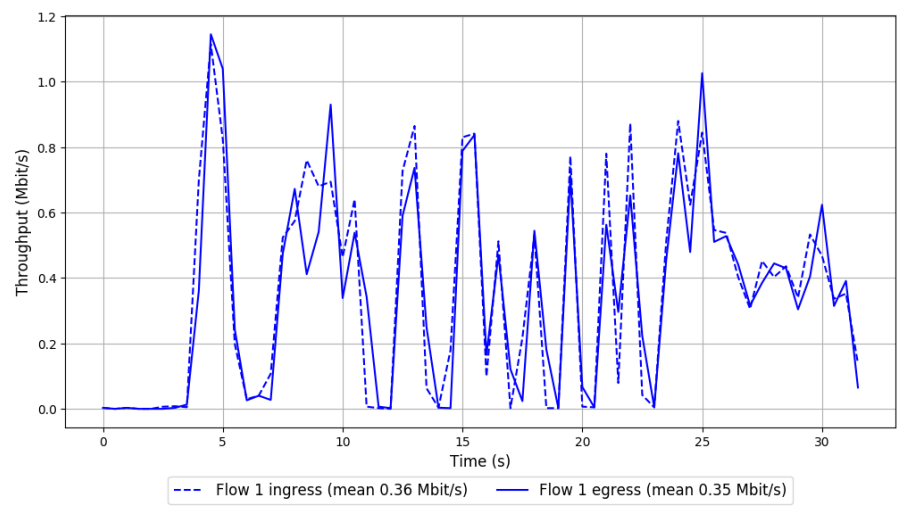
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 310.315 ms

Loss rate: 2.76%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: Thu, 13 Jul 2017 21:29:21 +0000

End at: Thu, 13 Jul 2017 21:29:51 +0000

Local clock offset: 0.798 ms

Remote clock offset: -0.8 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:44 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 429.788 ms

Loss rate: 1.57%

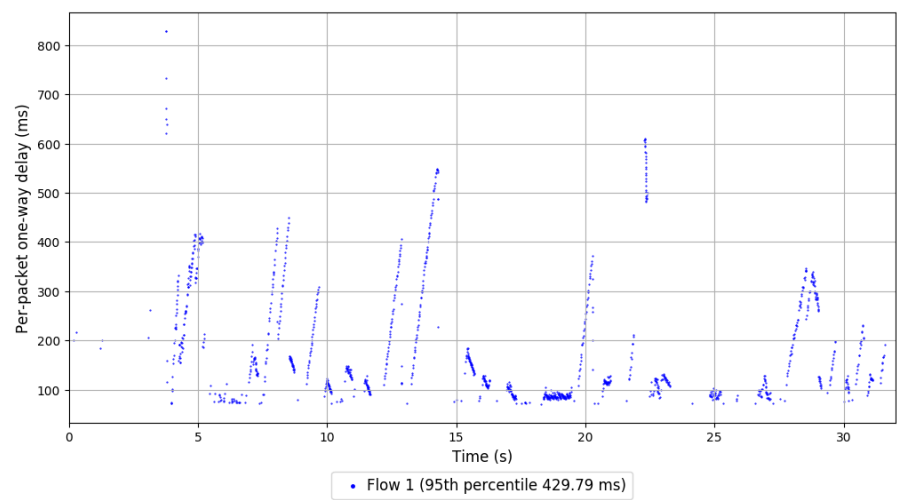
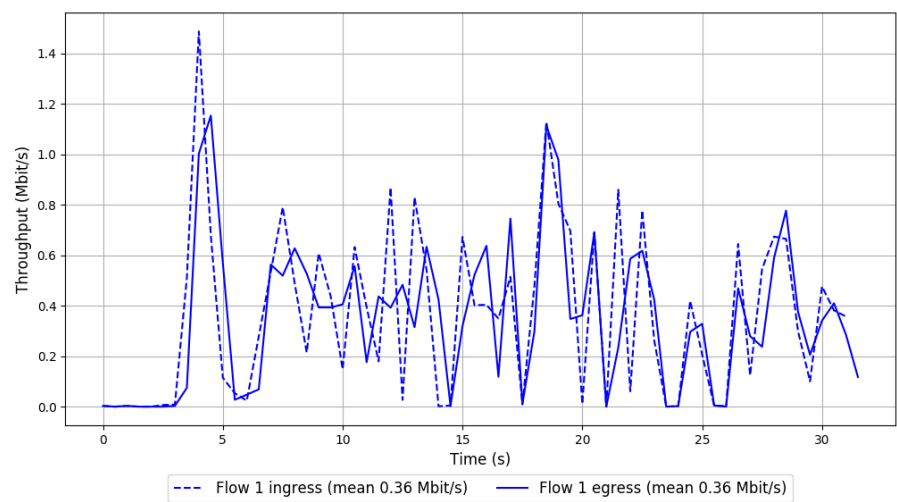
-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 429.788 ms

Loss rate: 1.57%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: Thu, 13 Jul 2017 21:46:00 +0000

End at: Thu, 13 Jul 2017 21:46:30 +0000

Local clock offset: 0.782 ms

Remote clock offset: -0.55 ms

Below is generated by plot.py at Thu, 13 Jul 2017 21:52:44 +0000

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 436.706 ms

Loss rate: 5.49%

-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 436.706 ms

Loss rate: 5.49%

Run 3: Report of WebRTC media — Data Link

