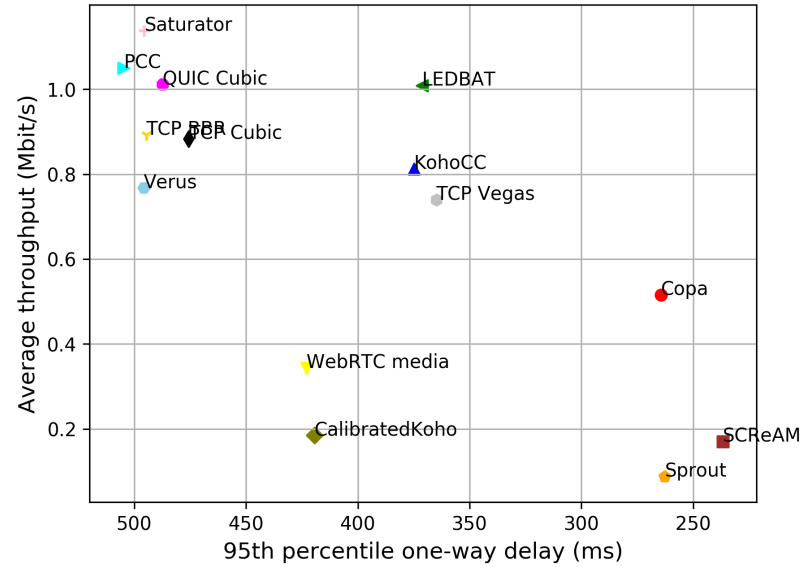


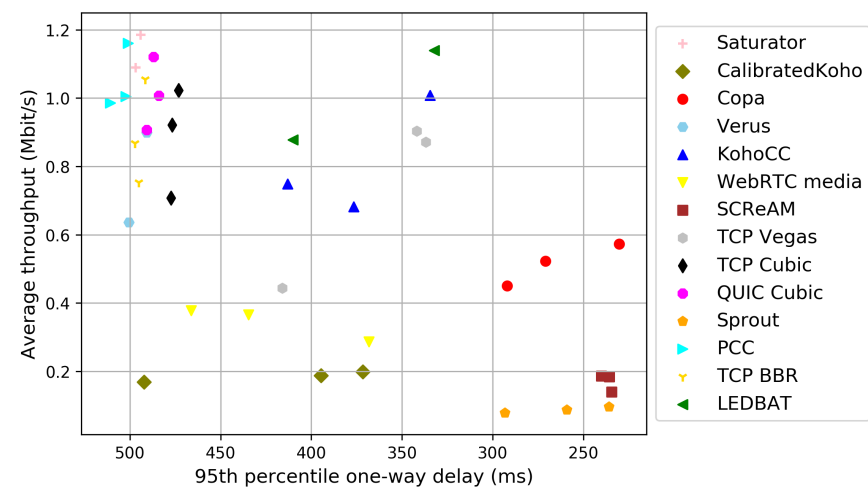
**Pantheon Summary** (Generated at Mon, 31 Jul 2017 23:59:49 +0000 with pantheon version 33c7b8d34ce04c76596315aa973f0b30d6129d55)  
Repeated the test of 15 congestion control schemes 3 times.  
Each test lasted for 30 seconds running 1 flow.  
Data path: China ppp0 (*remote*) →AWS Korea Ethernet (*local*).  
NTP offset measured against ntp.nict.jp and has been applied to correct the timestamps in logs.

```
git branch: master @ 33c7b8d34ce04c76596315aa973f0b30d6129d55
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 China ppp0 to AWS Korea Ethernet, 3 runs of 30s each per scheme  
(mean of all runs by scheme)



test from China ppp0 to AWS Korea 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	0.89	494.64	18.76
CalibratedKoho	3	0.19	419.44	3.74
Copa	3	0.51	264.45	0.72
TCP Cubic	3	0.88	475.74	4.22
KohoCC	3	0.81	374.80	1.91
LEDBAT	3	1.01	371.27	0.89
PCC	3	1.05	504.70	81.66
QUIC Cubic	3	1.01	487.29	7.74
Saturator	3	1.14	495.49	50.24
SCReAM	3	0.17	236.79	0.86
Sprout	3	0.09	262.79	3.73
TaoVA-100x	3	nan	nan	nan
TCP Vegas	3	0.74	364.94	2.00
Verus	3	0.77	495.76	61.62
WebRTC media	3	0.35	423.07	3.38

Run 1: Statistics of TCP BBR

Start at: Mon, 31 Jul 2017 23:19:40 +0000

End at: Mon, 31 Jul 2017 23:20:10 +0000

Local clock offset: -1.395 ms

Remote clock offset: 1.084 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:23 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 491.640 ms

Loss rate: 18.62%

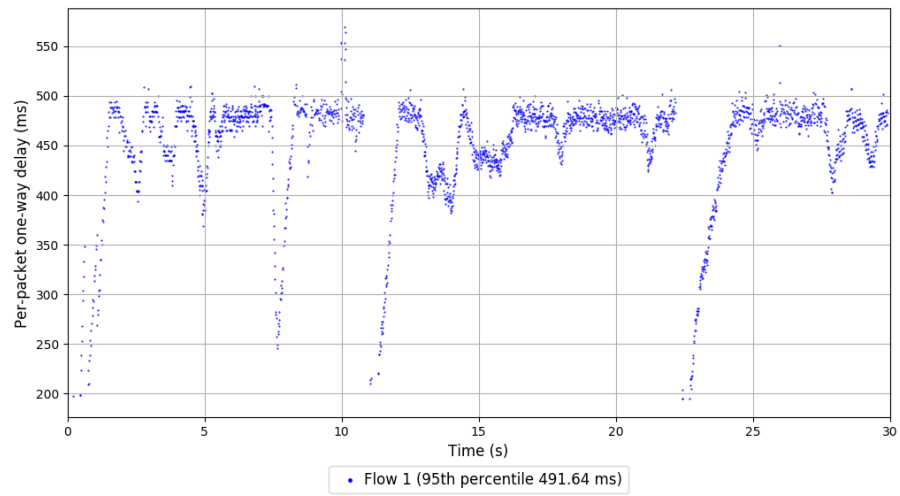
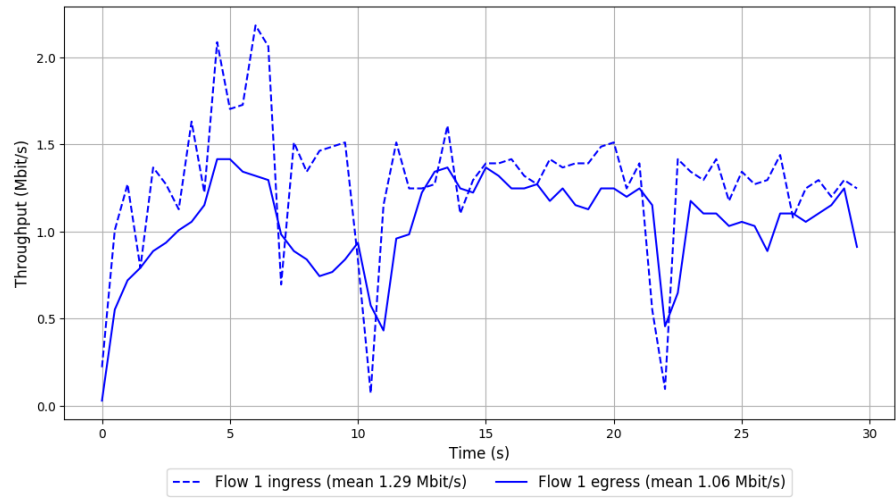
-- Flow 1:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 491.640 ms

Loss rate: 18.62%

# Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: Mon, 31 Jul 2017 23:37:57 +0000

End at: Mon, 31 Jul 2017 23:38:28 +0000

Local clock offset: -0.446 ms

Remote clock offset: 1.274 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:23 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 497.188 ms

Loss rate: 18.93%

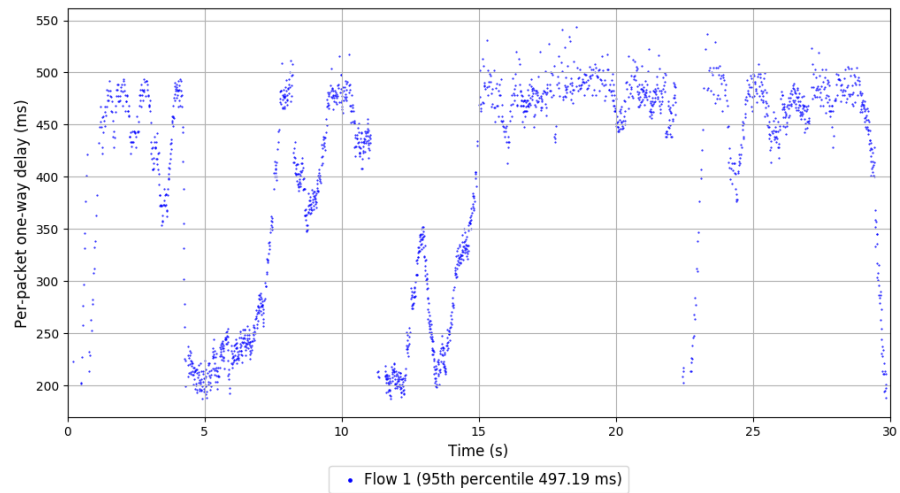
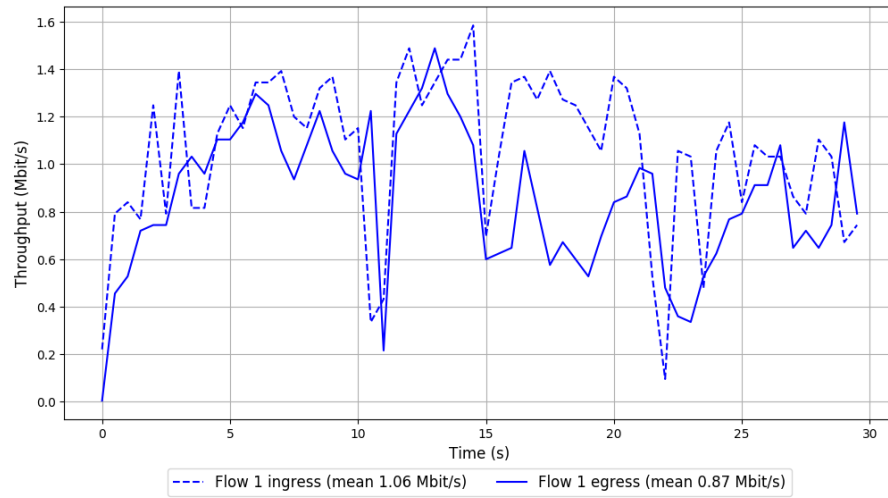
-- Flow 1:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 497.188 ms

Loss rate: 18.93%

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



Run 3: Statistics of TCP BBR

Start at: Mon, 31 Jul 2017 23:56:18 +0000

End at: Mon, 31 Jul 2017 23:56:48 +0000

Local clock offset: -1.383 ms

Remote clock offset: 1.458 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:24 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 495.088 ms

Loss rate: 18.72%

-- Flow 1:

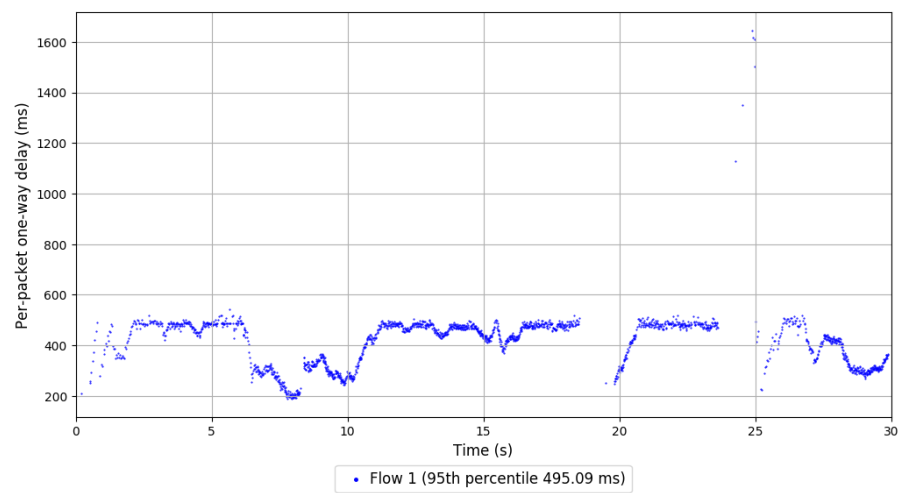
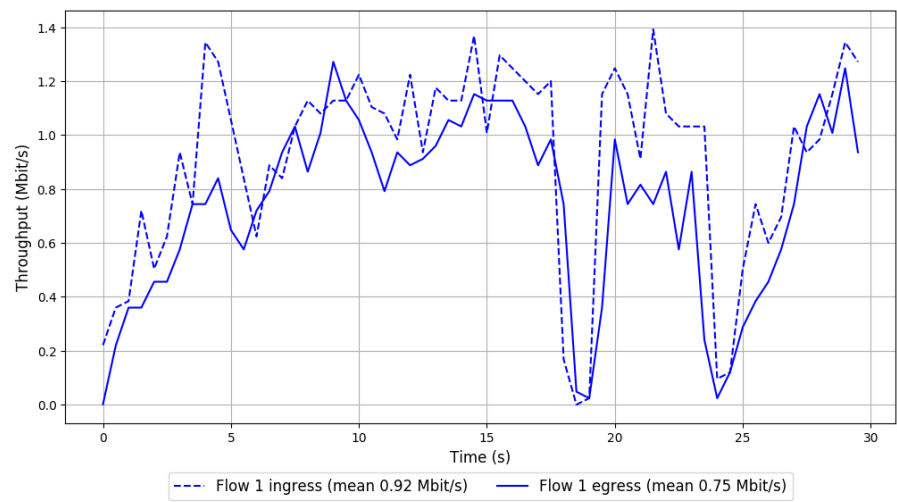
Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 495.088 ms

Loss rate: 18.72%



Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: Mon, 31 Jul 2017 23:12:20 +0000

End at: Mon, 31 Jul 2017 23:12:51 +0000

Local clock offset: -1.281 ms

Remote clock offset: 0.879 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:24 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 371.585 ms

Loss rate: 2.82%

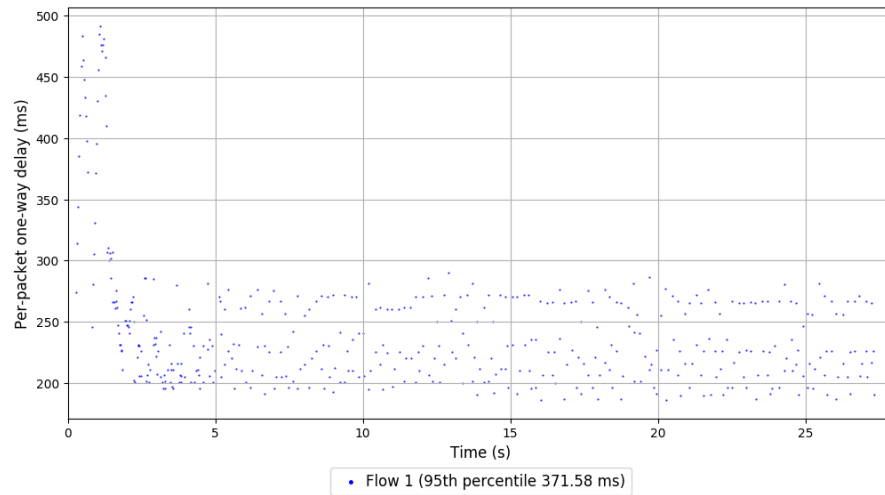
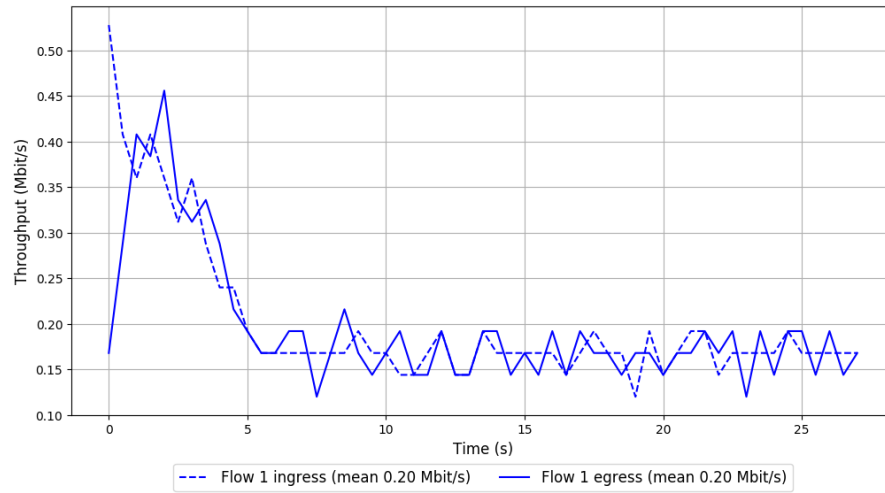
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 371.585 ms

Loss rate: 2.82%

# Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: Mon, 31 Jul 2017 23:30:39 +0000

End at: Mon, 31 Jul 2017 23:31:09 +0000

Local clock offset: -1.412 ms

Remote clock offset: 1.247 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:25 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 394.595 ms

Loss rate: 2.71%

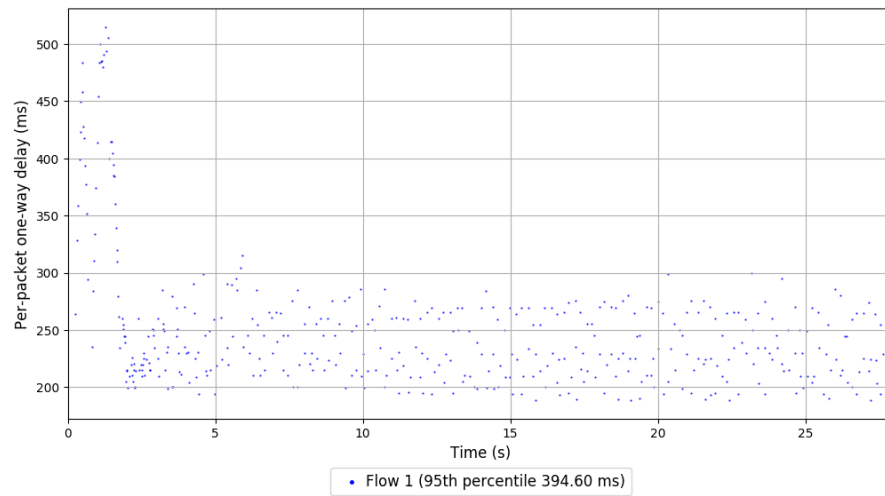
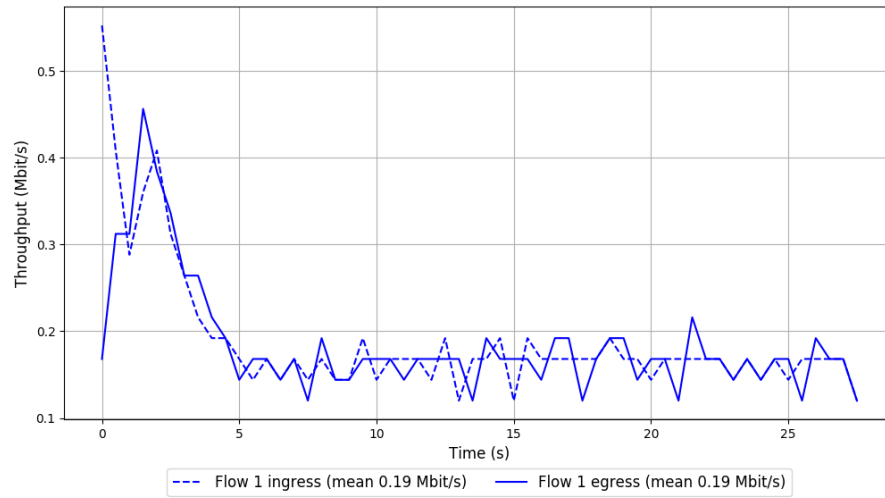
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 394.595 ms

Loss rate: 2.71%

## Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: Mon, 31 Jul 2017 23:48:55 +0000

End at: Mon, 31 Jul 2017 23:49:25 +0000

Local clock offset: -1.307 ms

Remote clock offset: 1.495 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:25 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 492.140 ms

Loss rate: 5.68%

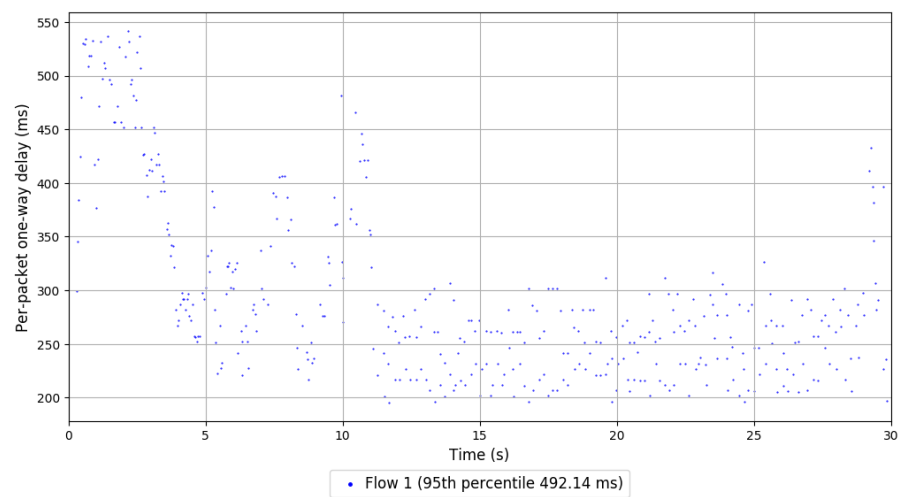
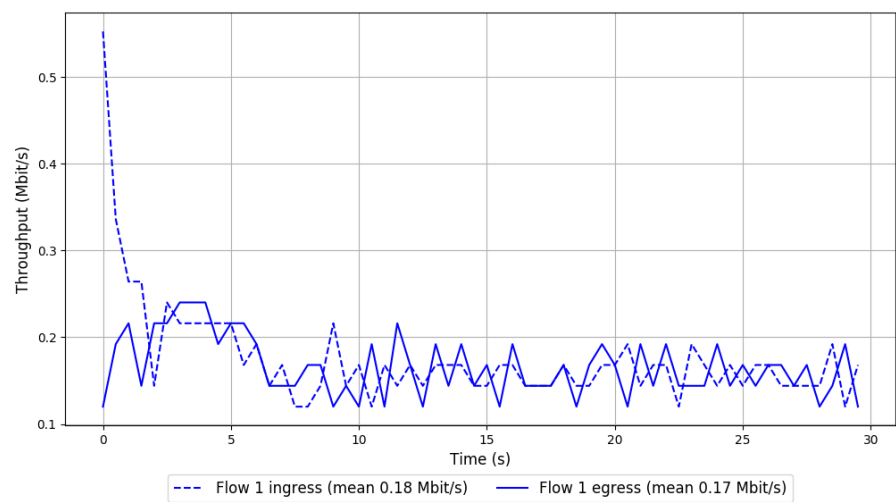
-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 492.140 ms

Loss rate: 5.68%

Run 3: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: Mon, 31 Jul 2017 23:16:00 +0000

End at: Mon, 31 Jul 2017 23:16:30 +0000

Local clock offset: -1.339 ms

Remote clock offset: 0.932 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:26 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 230.182 ms

Loss rate: 0.75%

-- Flow 1:

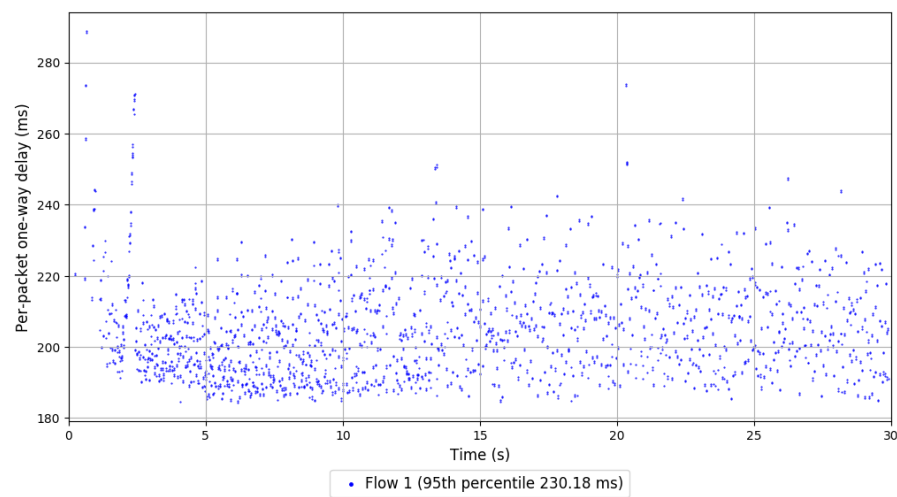
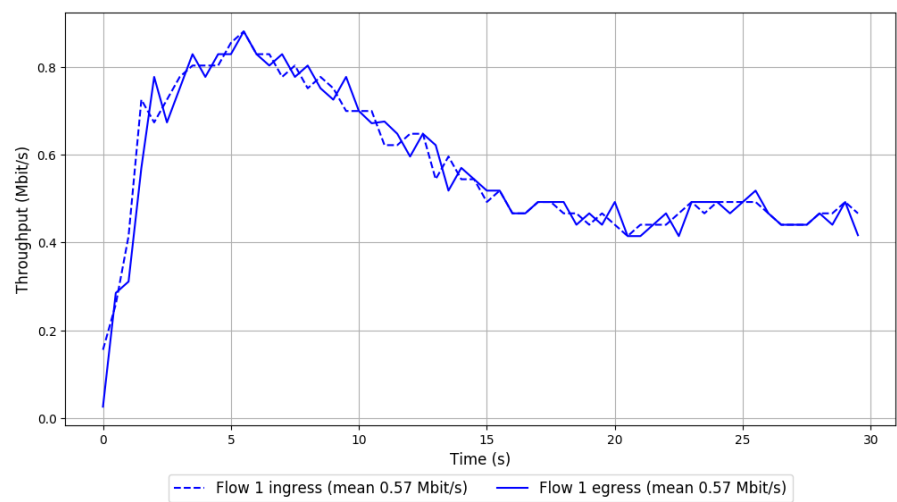
Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 230.182 ms

Loss rate: 0.75%



Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: Mon, 31 Jul 2017 23:34:18 +0000

End at: Mon, 31 Jul 2017 23:34:48 +0000

Local clock offset: -0.58 ms

Remote clock offset: 1.176 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:27 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 292.155 ms

Loss rate: 0.58%

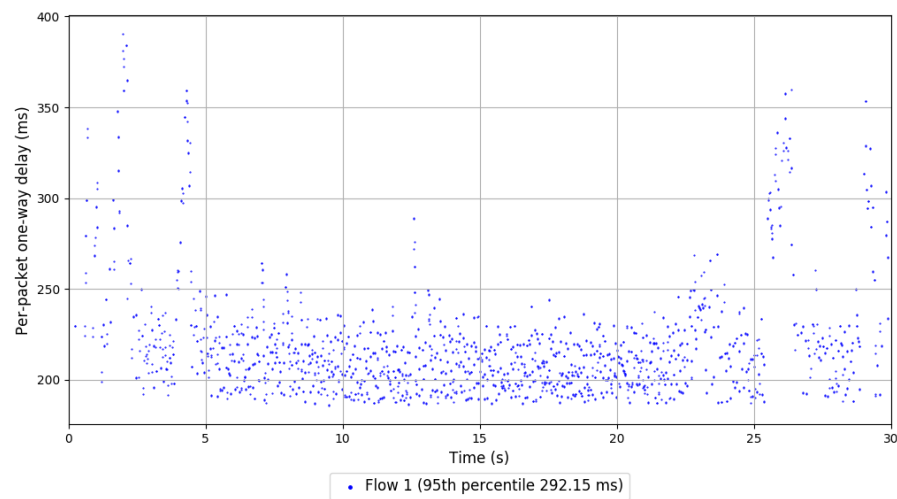
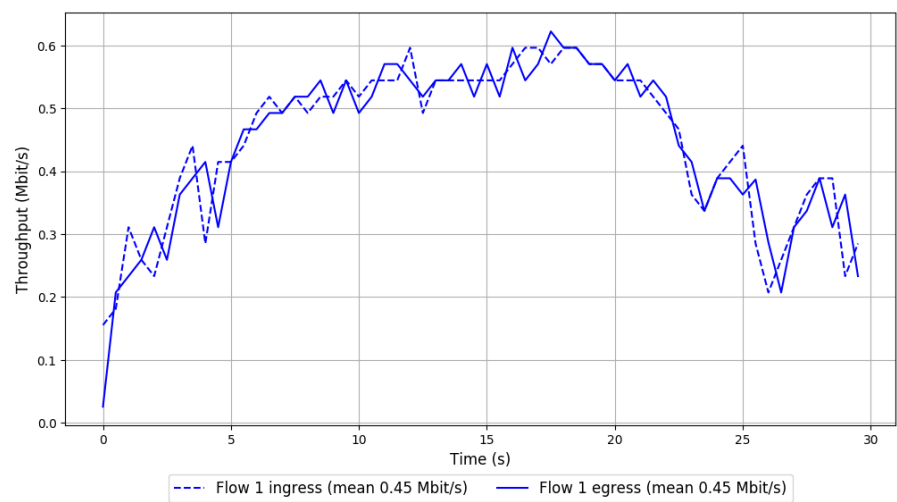
-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 292.155 ms

Loss rate: 0.58%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: Mon, 31 Jul 2017 23:52:34 +0000

End at: Mon, 31 Jul 2017 23:53:04 +0000

Local clock offset: -1.352 ms

Remote clock offset: 1.449 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:27 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 271.004 ms

Loss rate: 0.84%

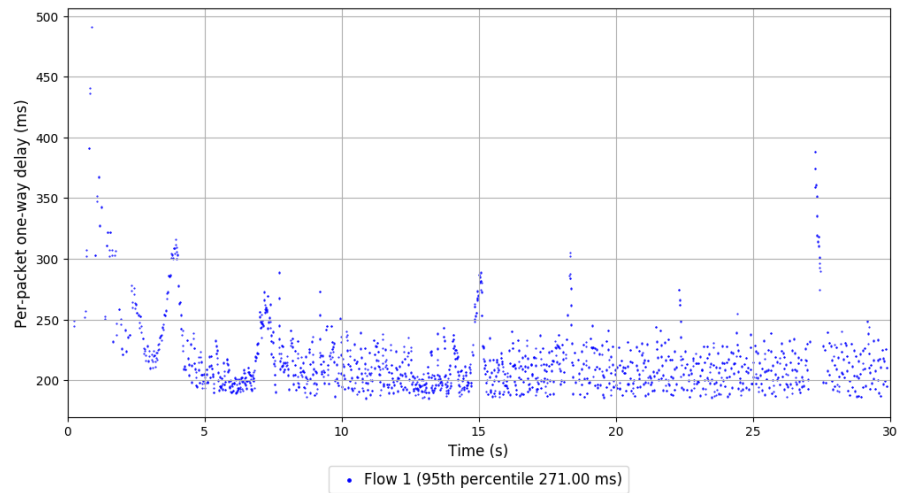
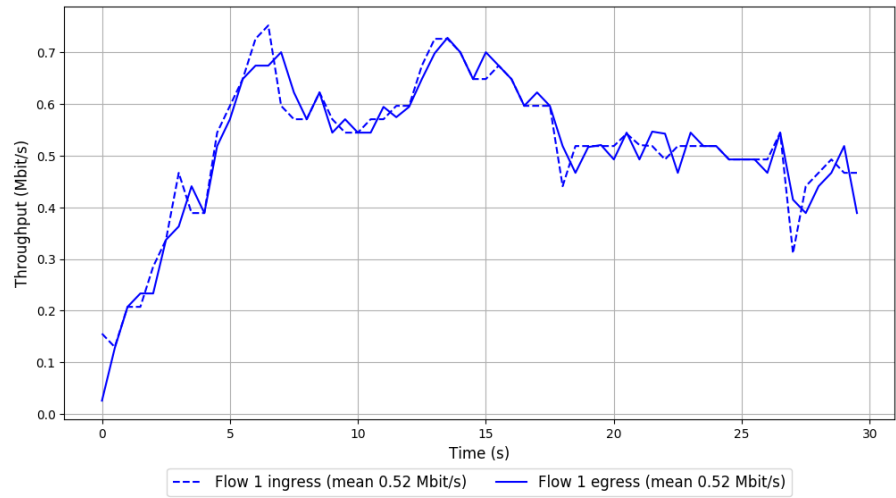
-- Flow 1:

Average throughput: 0.52 Mbit/s

95th percentile per-packet one-way delay: 271.004 ms

Loss rate: 0.84%

### Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: Mon, 31 Jul 2017 23:08:41 +0000

End at: Mon, 31 Jul 2017 23:09:11 +0000

Local clock offset: -0.487 ms

Remote clock offset: 0.897 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:28 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 473.093 ms

Loss rate: 3.10%

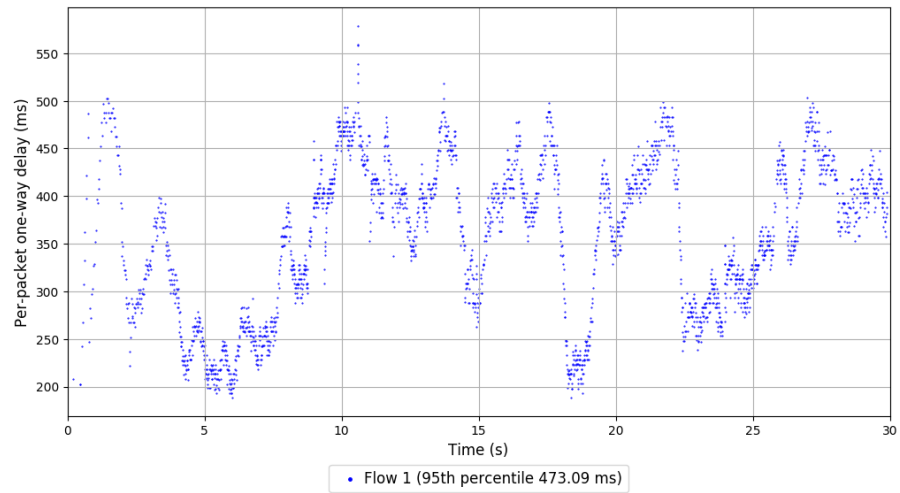
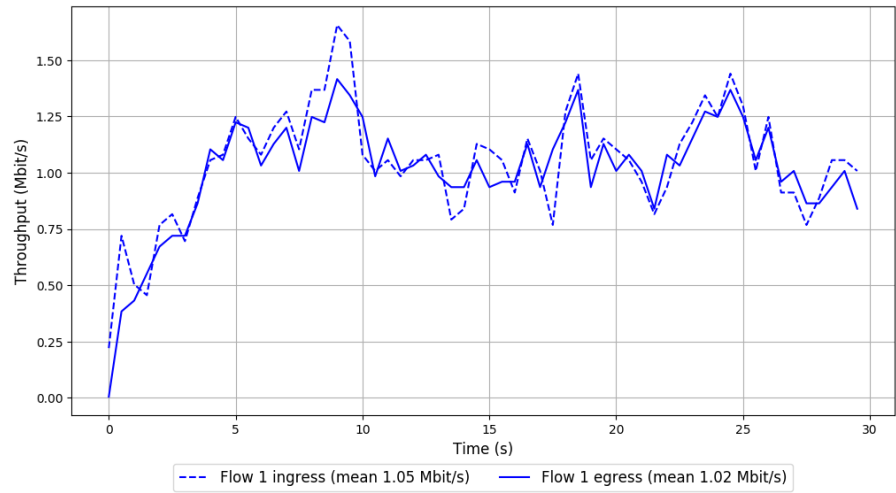
-- Flow 1:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 473.093 ms

Loss rate: 3.10%

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



Run 2: Statistics of TCP Cubic

Start at: Mon, 31 Jul 2017 23:26:59 +0000

End at: Mon, 31 Jul 2017 23:27:29 +0000

Local clock offset: -0.489 ms

Remote clock offset: 1.305 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:28 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 476.705 ms

Loss rate: 4.78%

-- Flow 1:

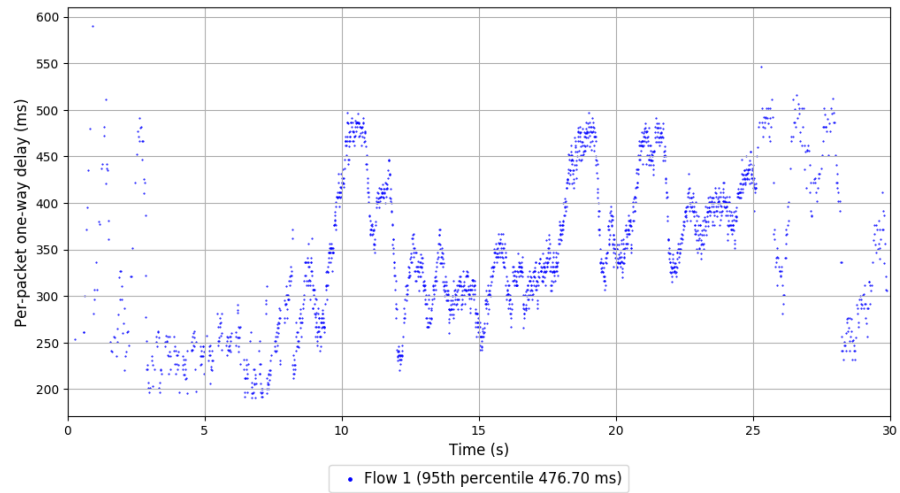
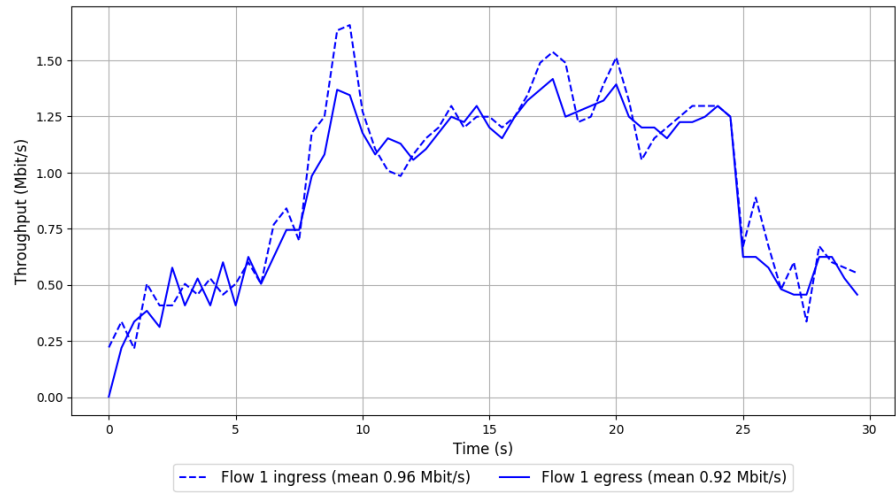
Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 476.705 ms

Loss rate: 4.78%



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



Run 3: Statistics of TCP Cubic

Start at: Mon, 31 Jul 2017 23:45:17 +0000

End at: Mon, 31 Jul 2017 23:45:47 +0000

Local clock offset: -0.45 ms

Remote clock offset: 1.511 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:29 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 477.414 ms

Loss rate: 4.79%

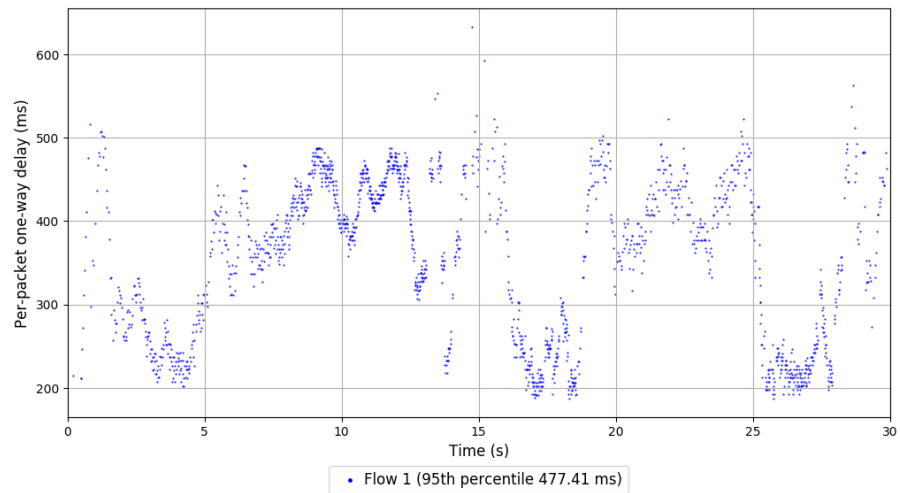
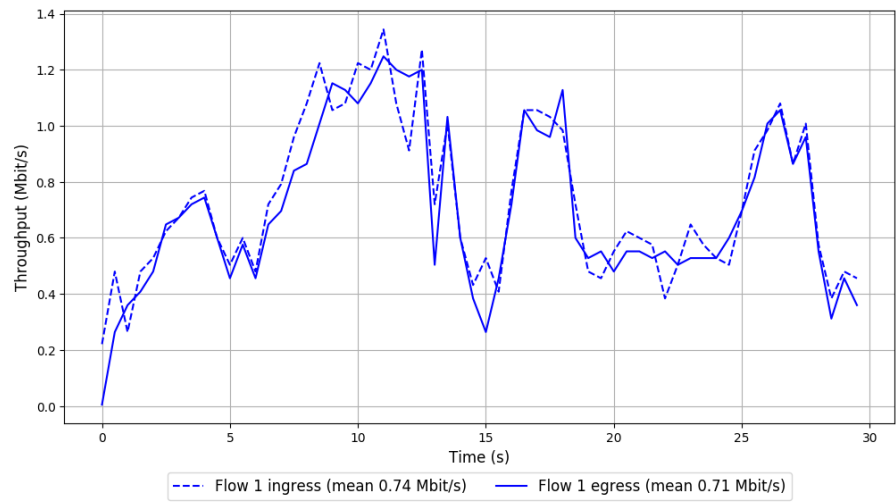
-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 477.414 ms

Loss rate: 4.79%

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



Run 1: Statistics of KohoCC

Start at: Mon, 31 Jul 2017 23:20:53 +0000

End at: Mon, 31 Jul 2017 23:21:23 +0000

Local clock offset: -0.544 ms

Remote clock offset: 1.212 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:29 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.01 Mbit/s

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

Loss rate: 1.23%

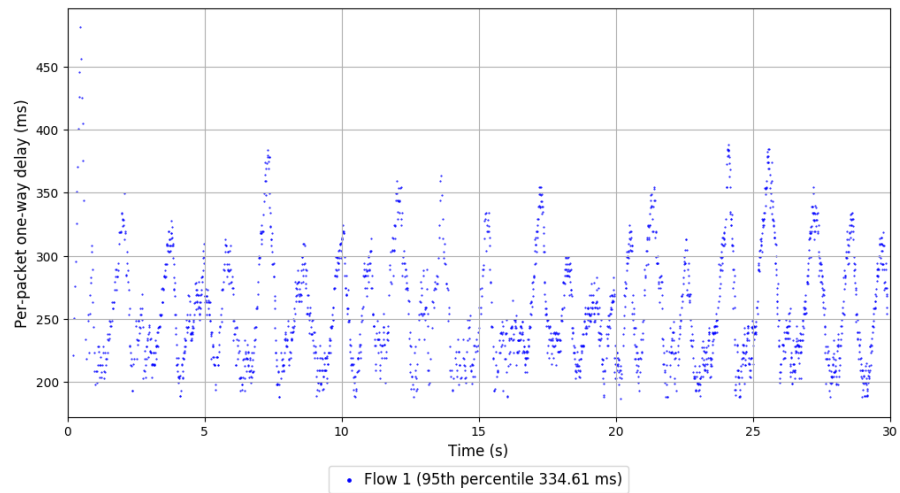
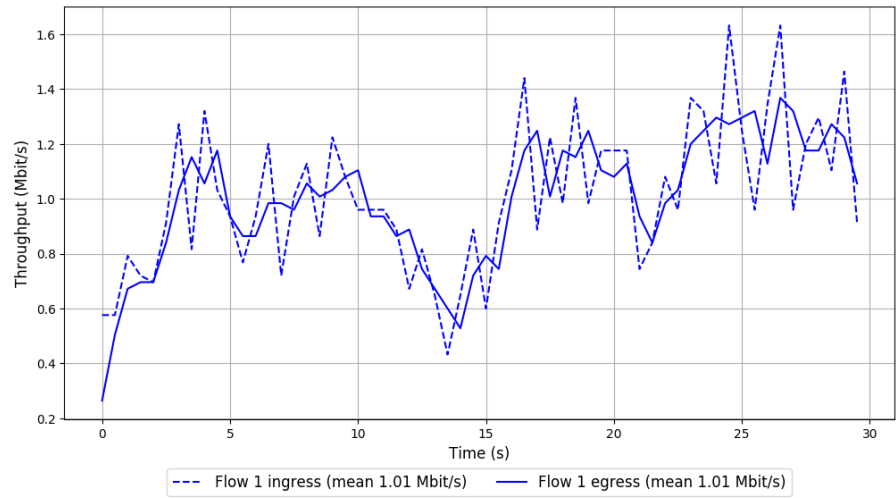
-- Flow 1:

Average throughput: 1.01 Mbit/s

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

Loss rate: 1.23%

## Run 1: Report of KohoCC — Data Link



Run 2: Statistics of KohoCC

Start at: Mon, 31 Jul 2017 23:39:11 +0000

End at: Mon, 31 Jul 2017 23:39:41 +0000

Local clock offset: -1.326 ms

Remote clock offset: 1.348 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:30 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 413.105 ms

Loss rate: 2.12%

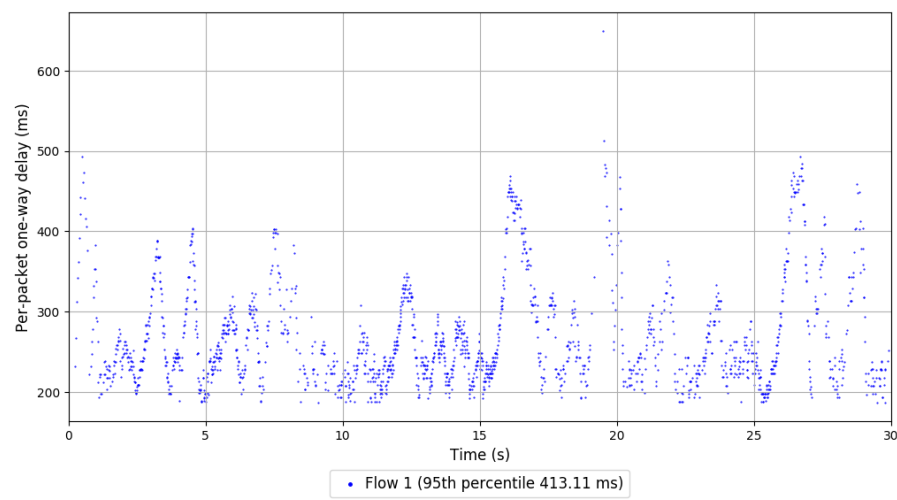
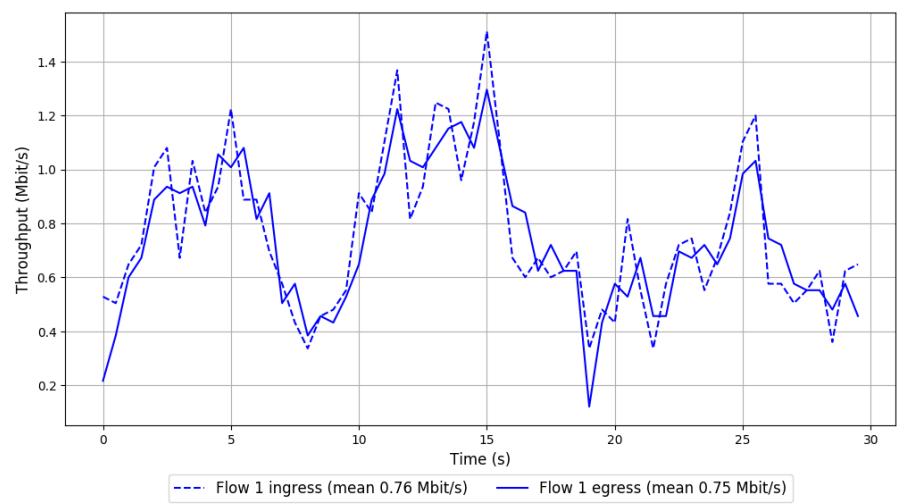
-- Flow 1:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 413.105 ms

Loss rate: 2.12%

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: Mon, 31 Jul 2017 23:57:31 +0000

End at: Mon, 31 Jul 2017 23:58:01 +0000

Local clock offset: -1.382 ms

Remote clock offset: 1.501 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:31 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 376.687 ms

Loss rate: 2.38%

-- Flow 1:

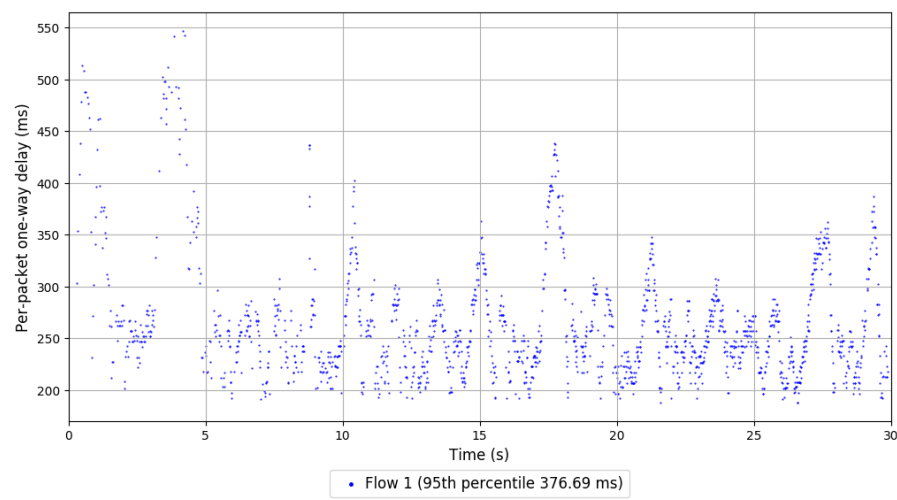
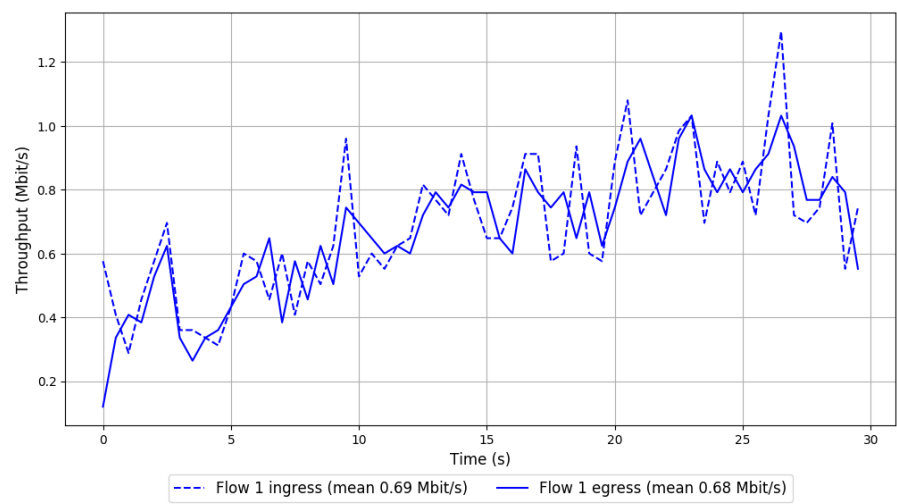
Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 376.687 ms

Loss rate: 2.38%



Run 3: Report of KohoCC — Data Link



Run 1: Statistics of LEDBAT

Start at: Mon, 31 Jul 2017 23:13:33 +0000

End at: Mon, 31 Jul 2017 23:14:03 +0000

Local clock offset: -0.497 ms

Remote clock offset: 0.844 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:31 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 332.287 ms

Loss rate: 0.93%

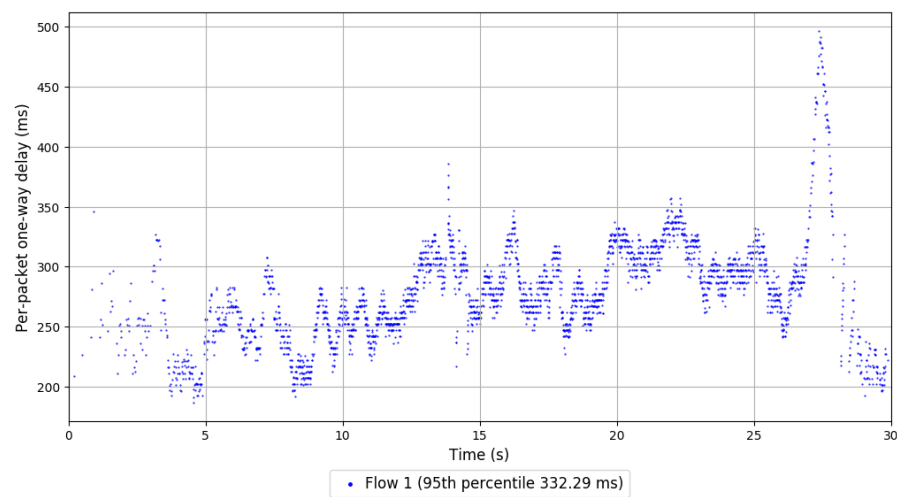
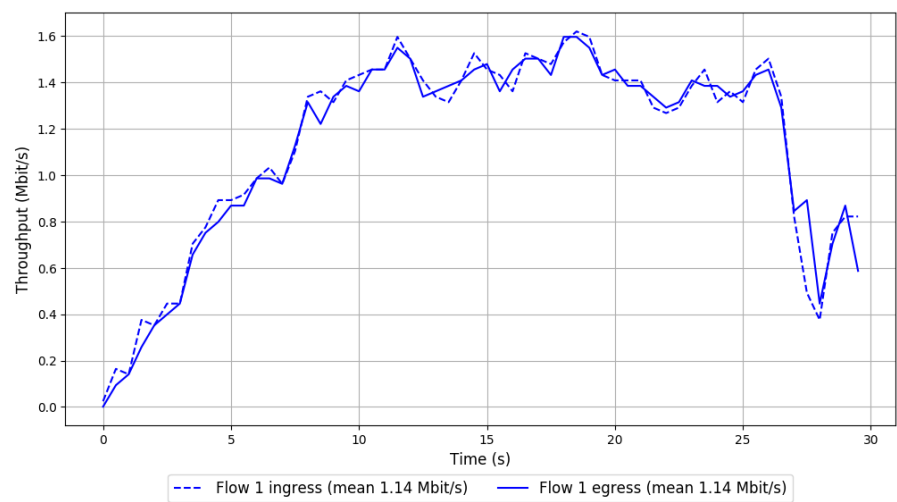
-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 332.287 ms

Loss rate: 0.93%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: Mon, 31 Jul 2017 23:31:51 +0000

End at: Mon, 31 Jul 2017 23:32:21 +0000

Local clock offset: -1.4 ms

Remote clock offset: 1.202 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:32 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 410.250 ms

Loss rate: 0.85%

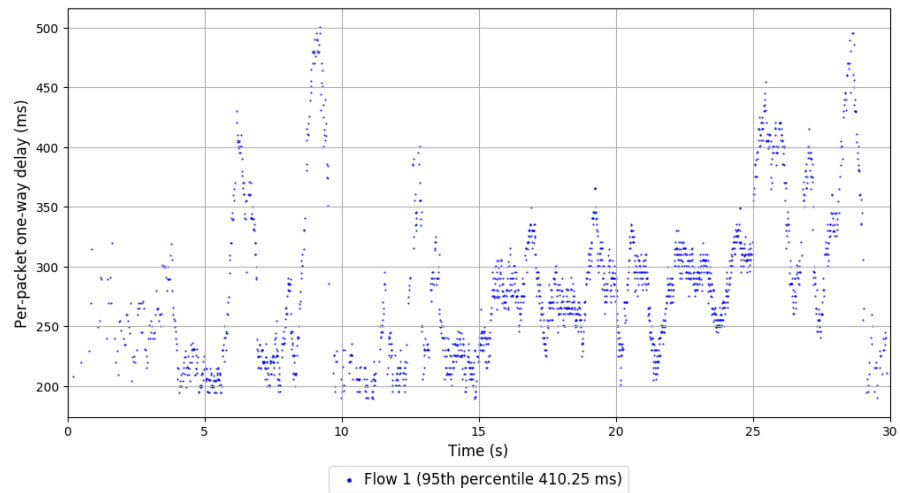
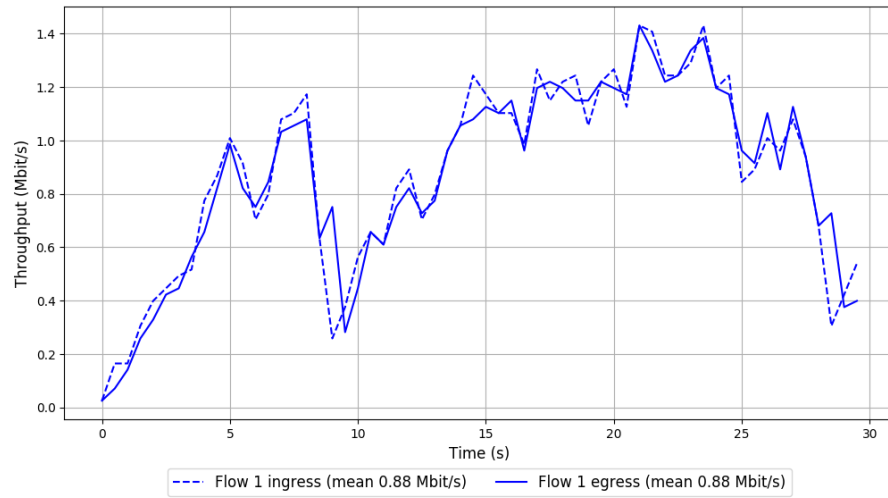
-- Flow 1:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 410.250 ms

Loss rate: 0.85%

## Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

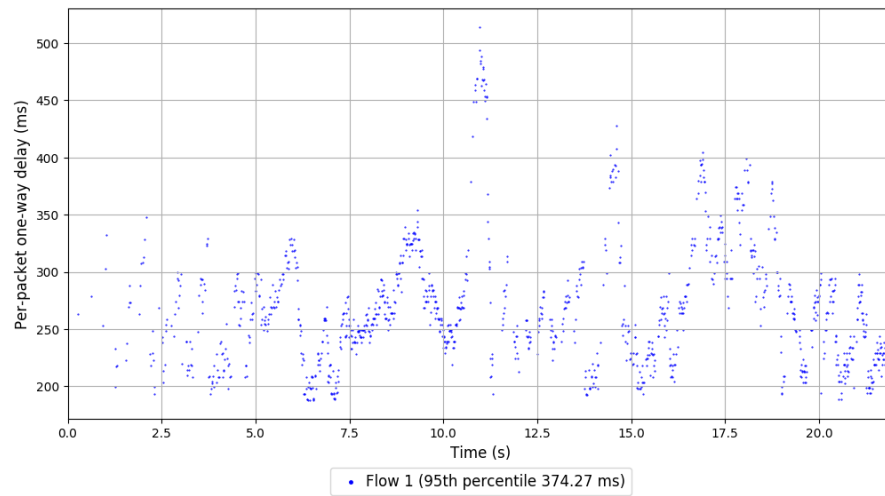
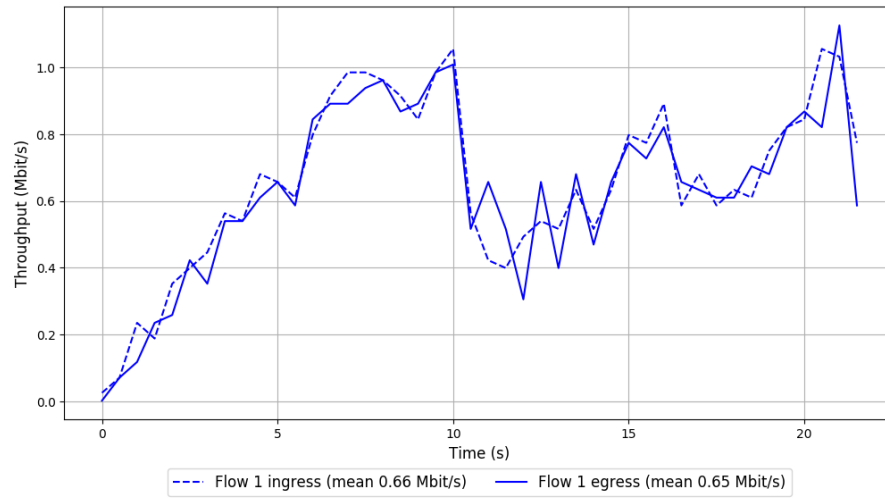
Start at: Mon, 31 Jul 2017 23:50:08 +0000

End at: Mon, 31 Jul 2017 23:50:38 +0000

Local clock offset: -1.332 ms

Remote clock offset: 1.439 ms

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



Run 1: Statistics of PCC

Start at: Mon, 31 Jul 2017 23:07:28 +0000

End at: Mon, 31 Jul 2017 23:07:58 +0000

Local clock offset: -1.375 ms

Remote clock offset: 0.877 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:33 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 502.249 ms

Loss rate: 76.31%

-- Flow 1:

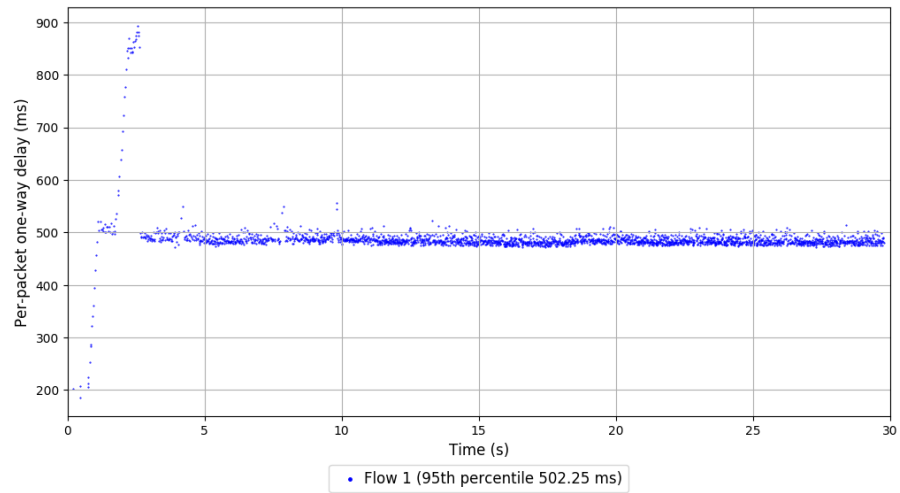
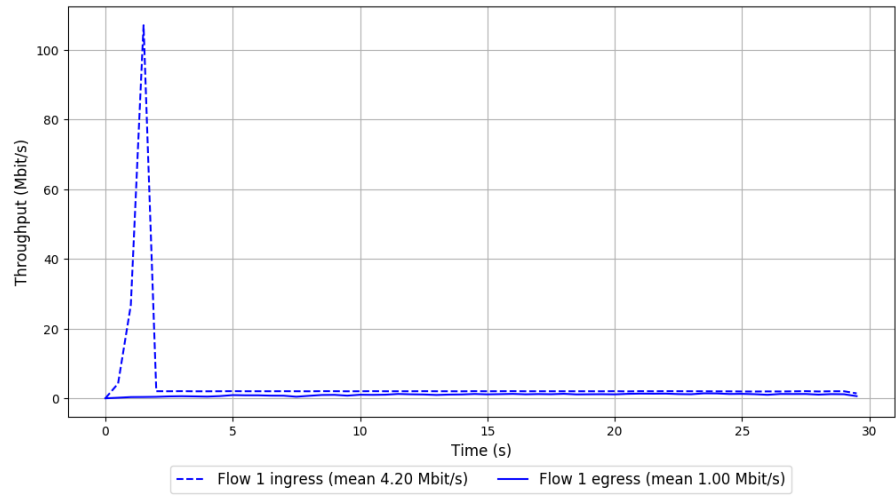
Average throughput: 1.00 Mbit/s

95th percentile per-packet one-way delay: 502.249 ms

Loss rate: 76.31%



### Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: Mon, 31 Jul 2017 23:25:46 +0000

End at: Mon, 31 Jul 2017 23:26:16 +0000

Local clock offset: -1.399 ms

Remote clock offset: 1.412 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:34 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 501.050 ms

Loss rate: 76.60%

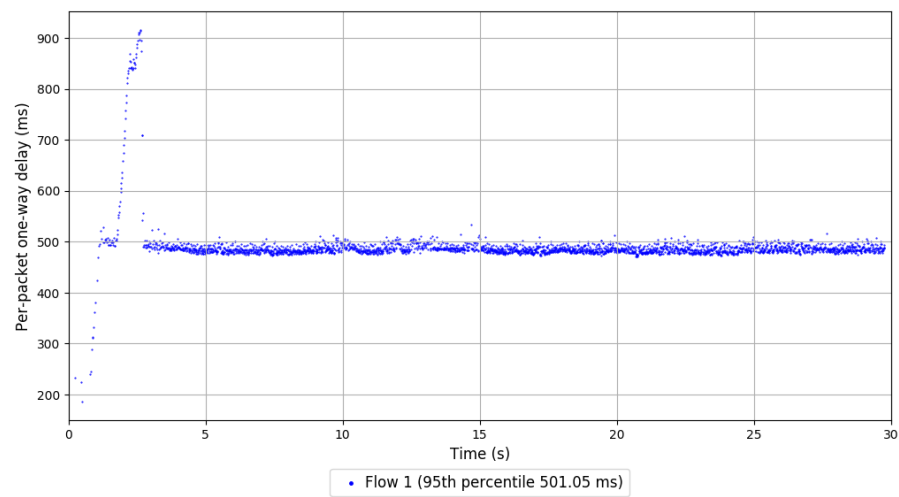
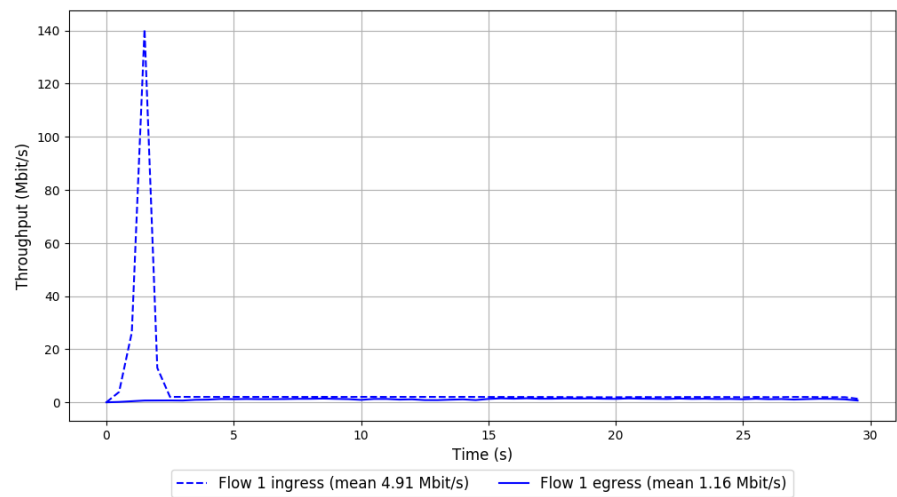
-- Flow 1:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 501.050 ms

Loss rate: 76.60%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: Mon, 31 Jul 2017 23:44:03 +0000

End at: Mon, 31 Jul 2017 23:44:33 +0000

Local clock offset: -0.488 ms

Remote clock offset: 1.514 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:34 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 510.797 ms

Loss rate: 92.06%

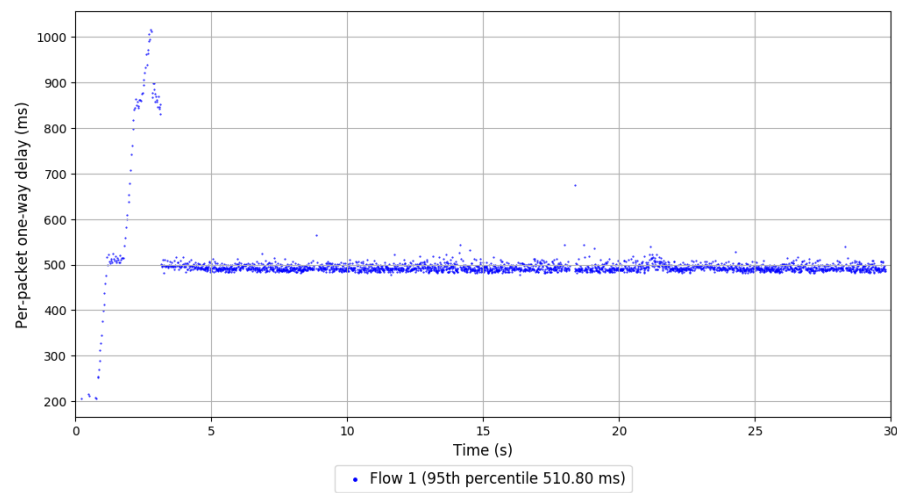
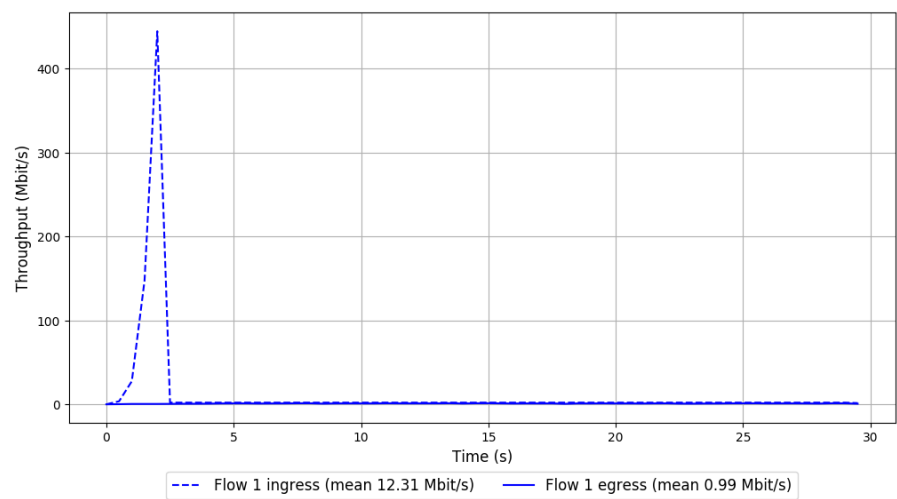
-- Flow 1:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 510.797 ms

Loss rate: 92.06%

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: Mon, 31 Jul 2017 23:05:02 +0000

End at: Mon, 31 Jul 2017 23:05:32 +0000

Local clock offset: -1.307 ms

Remote clock offset: 0.79 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:35 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 486.991 ms

Loss rate: 8.65%

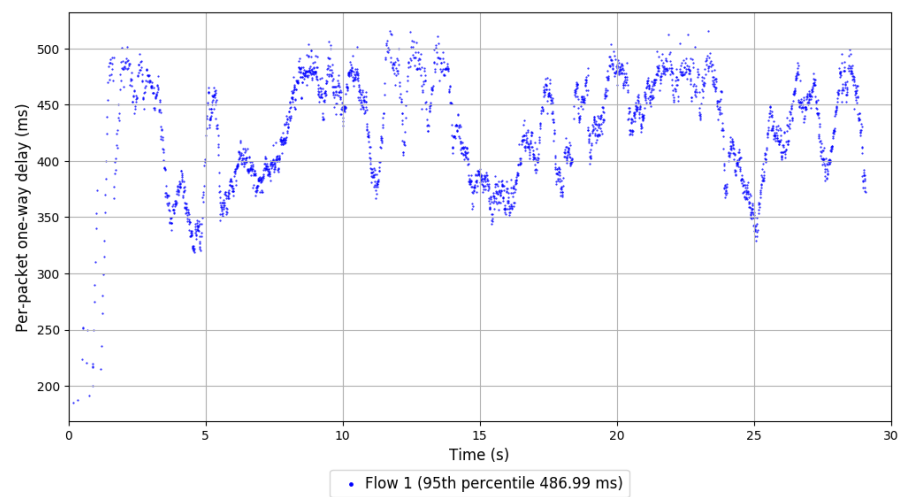
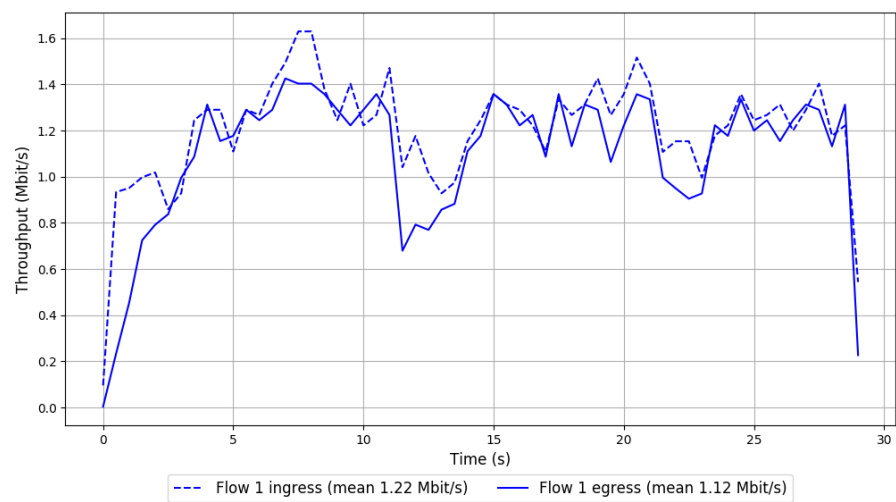
-- Flow 1:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 486.991 ms

Loss rate: 8.65%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: Mon, 31 Jul 2017 23:23:20 +0000

End at: Mon, 31 Jul 2017 23:23:50 +0000

Local clock offset: -0.437 ms

Remote clock offset: 1.263 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:35 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 490.802 ms

Loss rate: 8.60%

-- Flow 1:

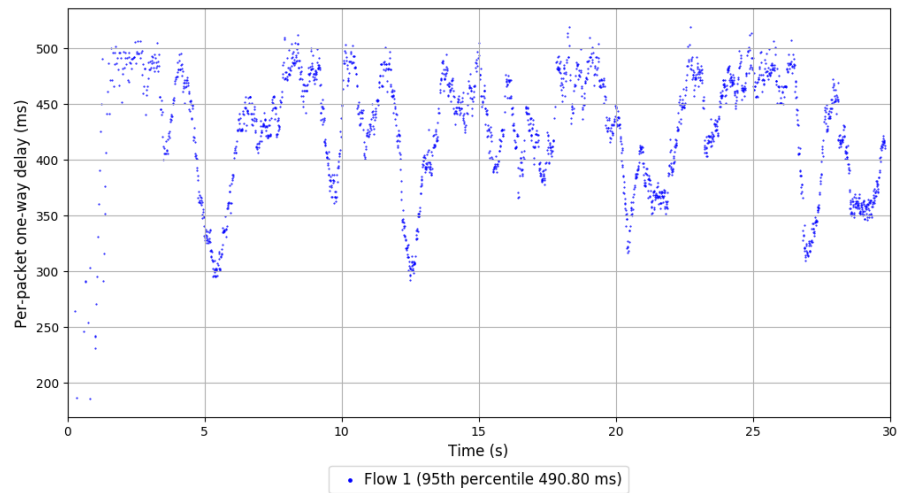
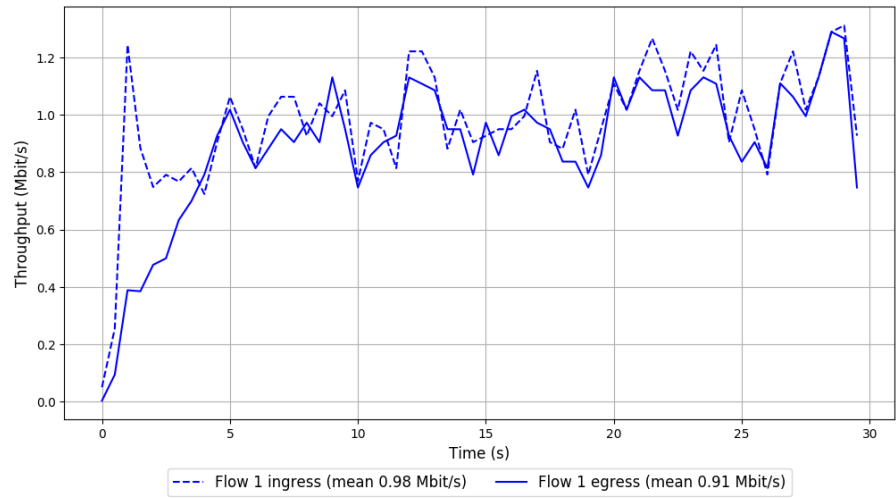
Average throughput: 0.91 Mbit/s

95th percentile per-packet one-way delay: 490.802 ms

Loss rate: 8.60%



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



Run 3: Statistics of QUIC Cubic

Start at: Mon, 31 Jul 2017 23:41:37 +0000

End at: Mon, 31 Jul 2017 23:42:07 +0000

Local clock offset: -1.298 ms

Remote clock offset: 1.409 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:36 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 484.088 ms

Loss rate: 5.98%

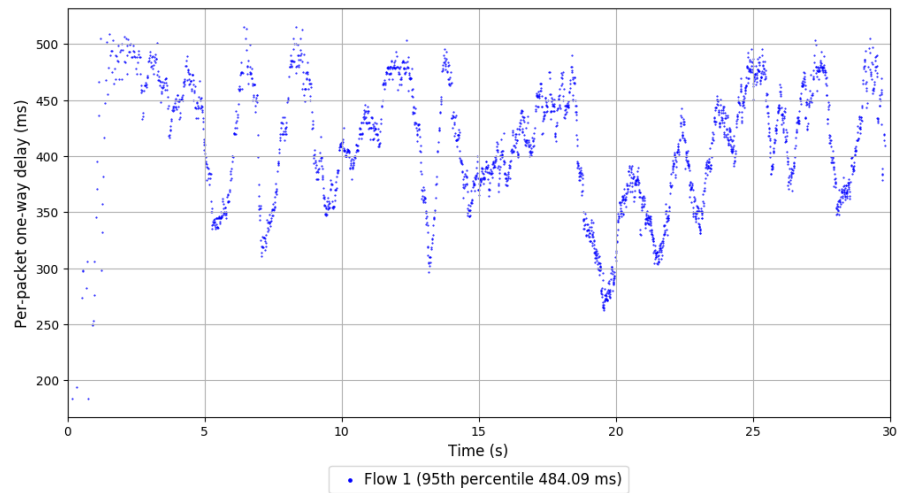
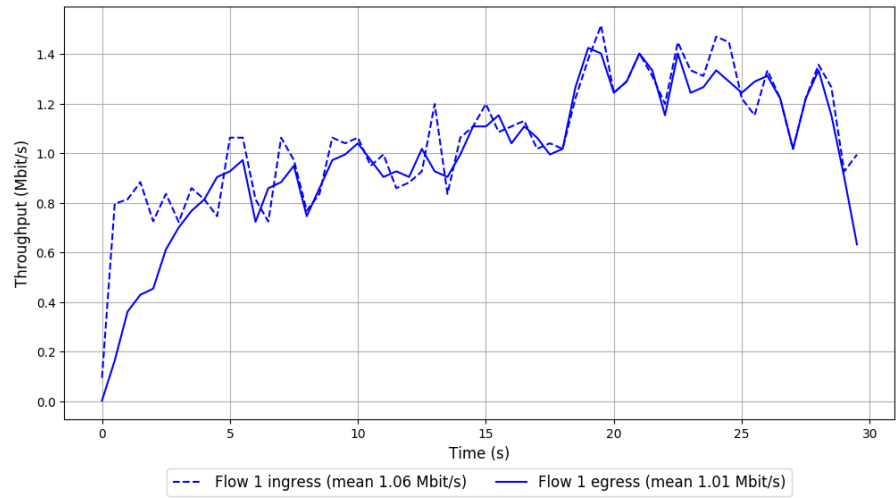
-- Flow 1:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 484.088 ms

Loss rate: 5.98%

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



Run 1: Statistics of Saturator

Start at: Mon, 31 Jul 2017 23:03:48 +0000

End at: Mon, 31 Jul 2017 23:04:18 +0000

Local clock offset: -1.283 ms

Remote clock offset: 0.748 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:37 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 494.086 ms

Loss rate: 50.17%

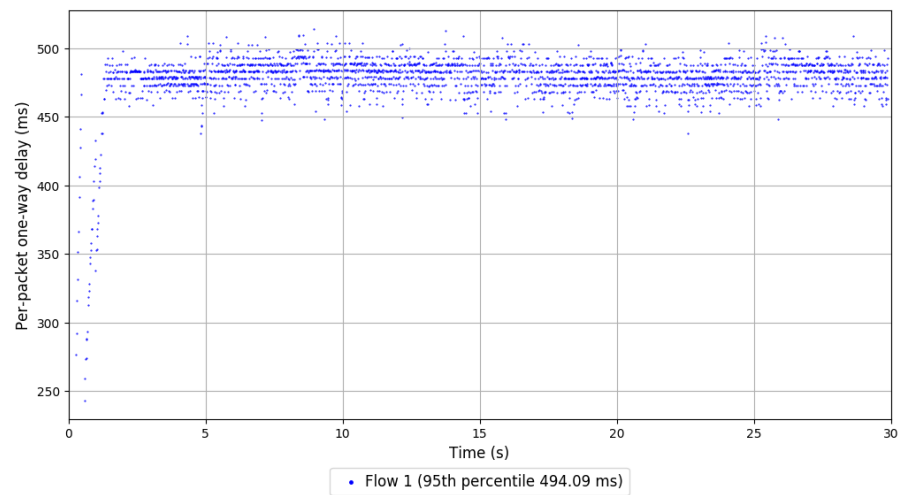
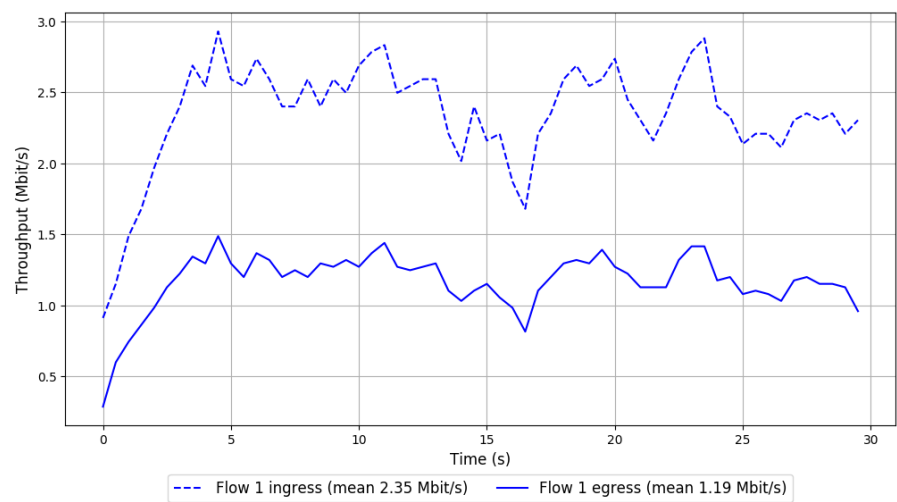
-- Flow 1:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 494.086 ms

Loss rate: 50.17%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: Mon, 31 Jul 2017 23:22:06 +0000

End at: Mon, 31 Jul 2017 23:22:36 +0000

Local clock offset: -1.351 ms

Remote clock offset: 1.217 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:38 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 496.896 ms

Loss rate: 50.31%

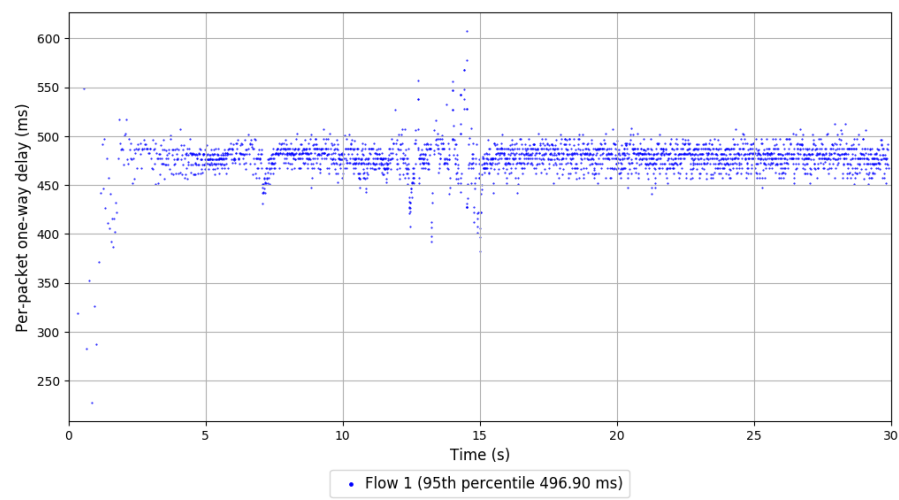
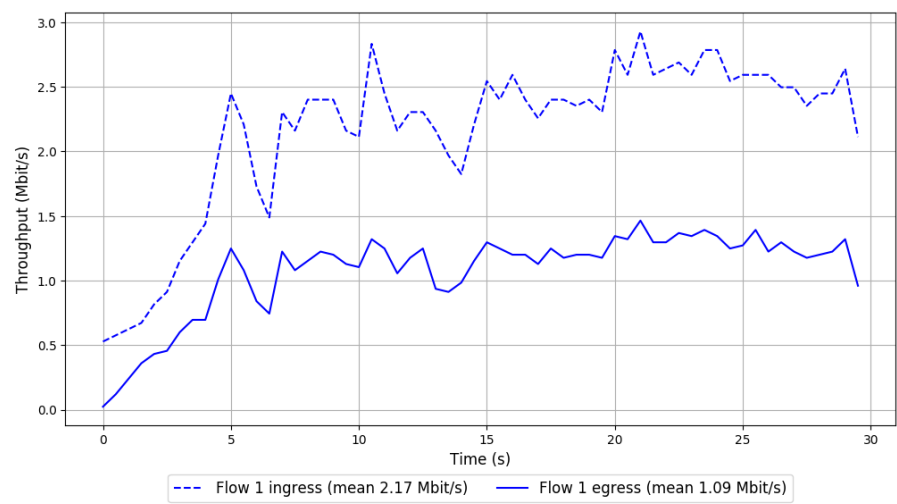
-- Flow 1:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 496.896 ms

Loss rate: 50.31%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: Mon, 31 Jul 2017 23:40:24 +0000

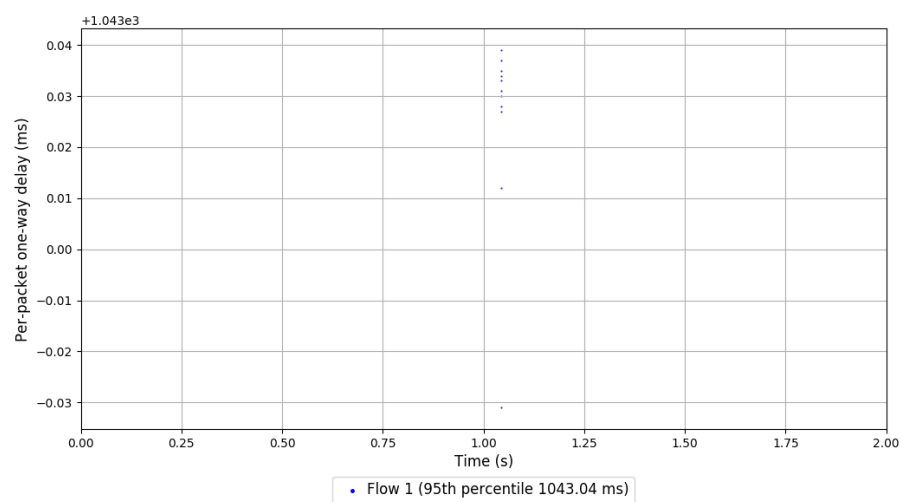
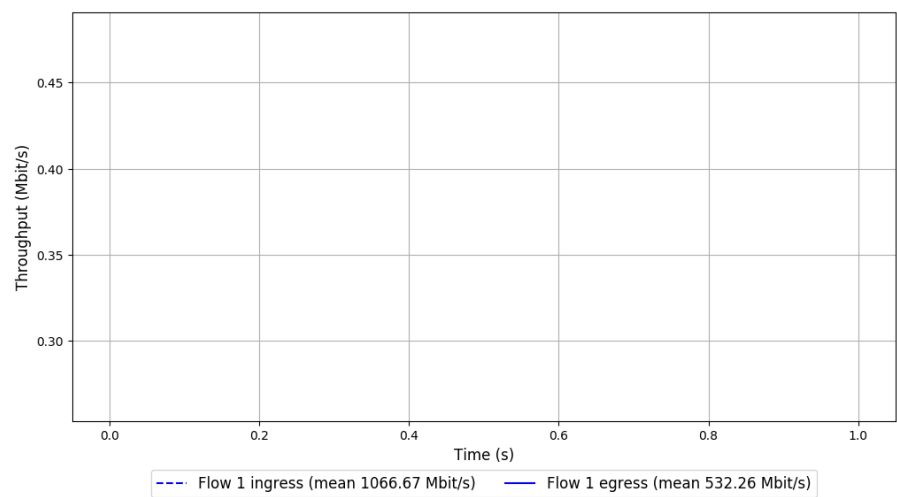
End at: Mon, 31 Jul 2017 23:40:54 +0000

Local clock offset: -1.39 ms

Remote clock offset: 1.383 ms



Run 3: Report of Saturator — Data Link



Run 1: Statistics of SCReAM

Start at: Mon, 31 Jul 2017 23:06:15 +0000

End at: Mon, 31 Jul 2017 23:06:45 +0000

Local clock offset: -1.348 ms

Remote clock offset: 0.833 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:39 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 240.204 ms

Loss rate: 0.90%

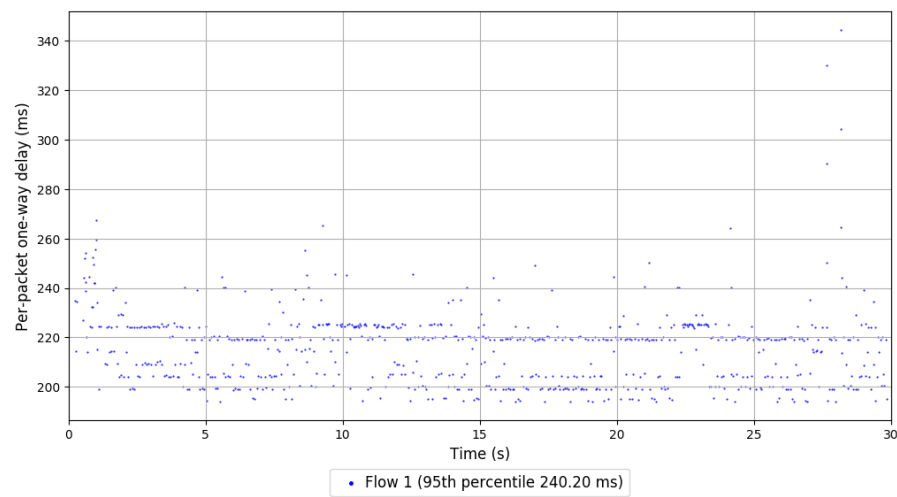
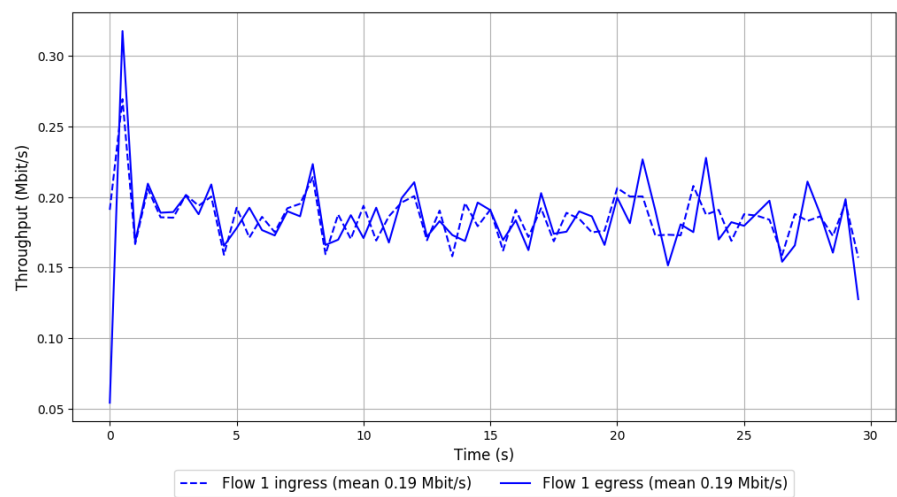
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 240.204 ms

Loss rate: 0.90%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: Mon, 31 Jul 2017 23:24:33 +0000

End at: Mon, 31 Jul 2017 23:25:03 +0000

Local clock offset: -1.369 ms

Remote clock offset: 1.387 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:39 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 235.676 ms

Loss rate: 0.90%

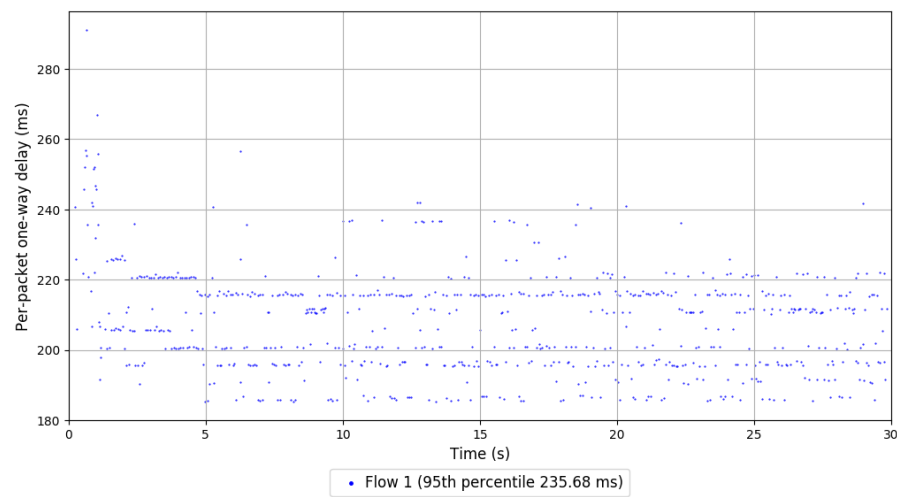
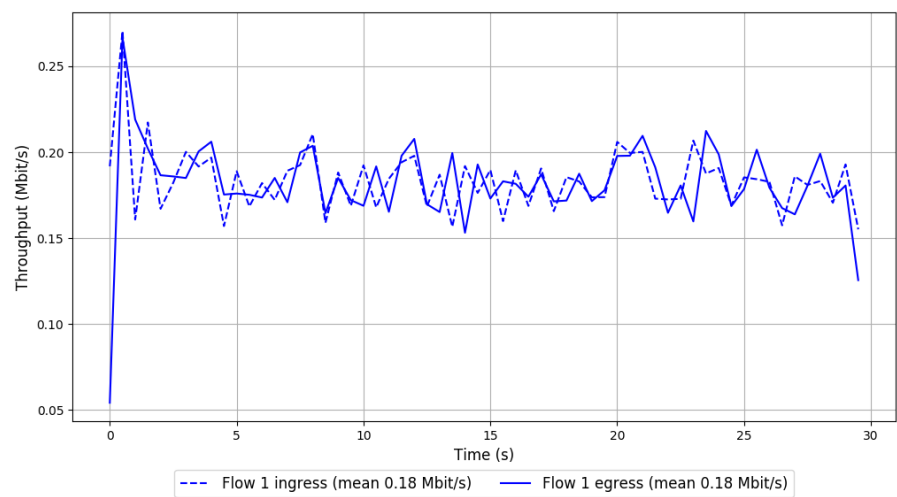
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 235.676 ms

Loss rate: 0.90%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: Mon, 31 Jul 2017 23:42:50 +0000

End at: Mon, 31 Jul 2017 23:43:20 +0000

Local clock offset: -1.371 ms

Remote clock offset: 1.489 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:40 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 234.501 ms

Loss rate: 0.79%

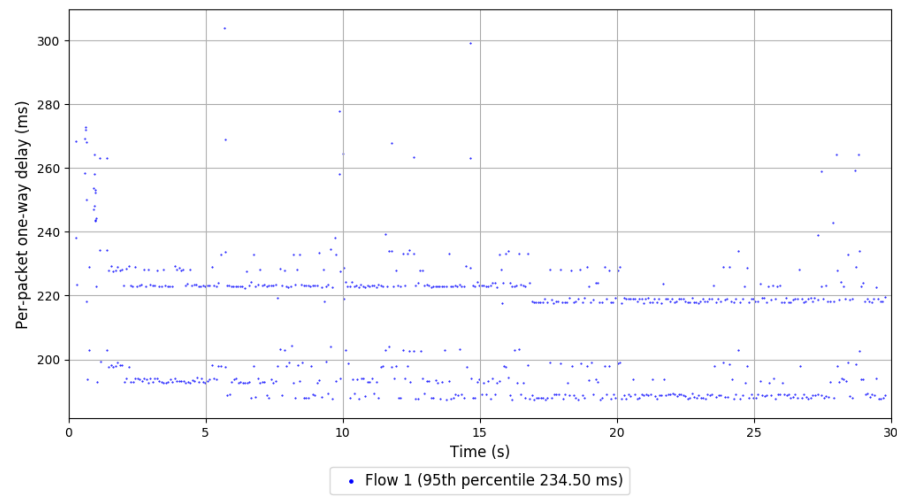
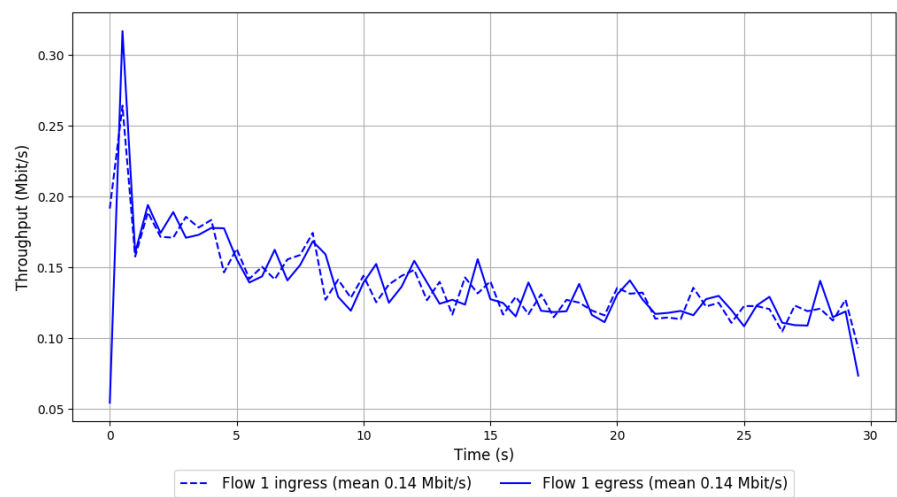
-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 234.501 ms

Loss rate: 0.79%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: Mon, 31 Jul 2017 23:17:13 +0000

End at: Mon, 31 Jul 2017 23:17:43 +0000

Local clock offset: -1.333 ms

Remote clock offset: 1.016 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:40 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 259.135 ms

Loss rate: 3.83%

-- Flow 1:

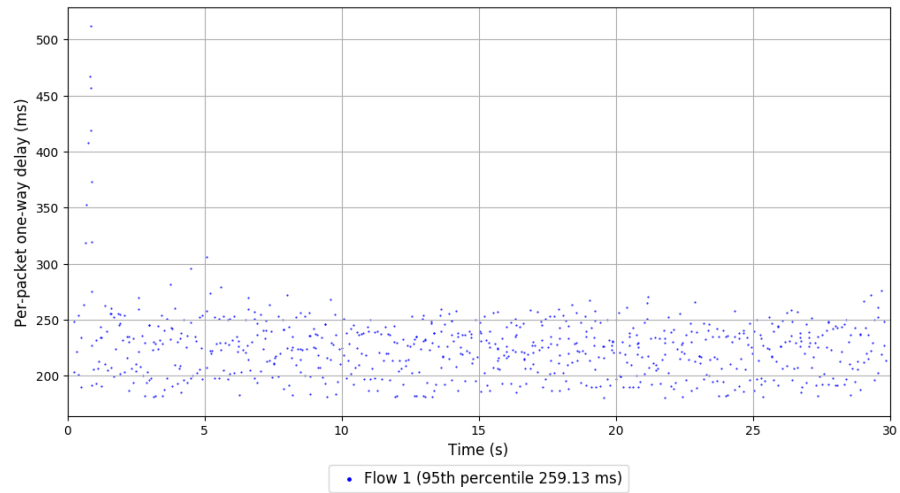
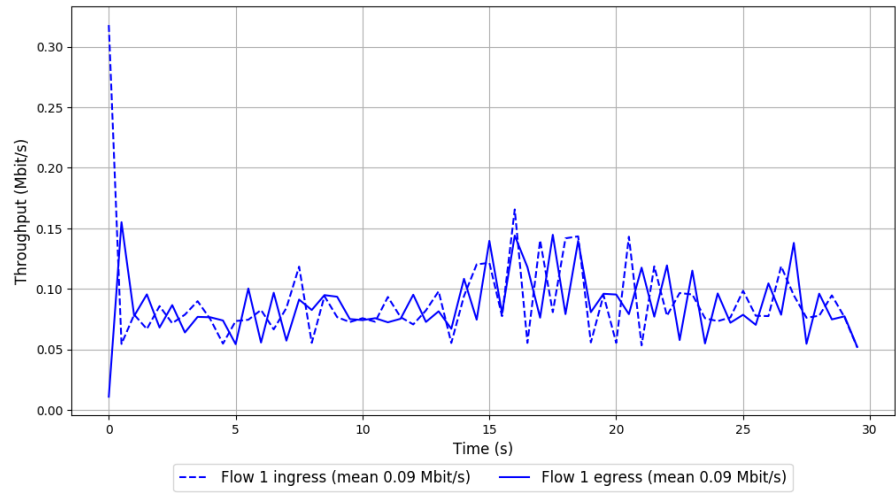
Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 259.135 ms

Loss rate: 3.83%



## Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: Mon, 31 Jul 2017 23:35:31 +0000

End at: Mon, 31 Jul 2017 23:36:01 +0000

Local clock offset: -1.394 ms

Remote clock offset: 1.23 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:41 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 235.954 ms

Loss rate: 3.52%

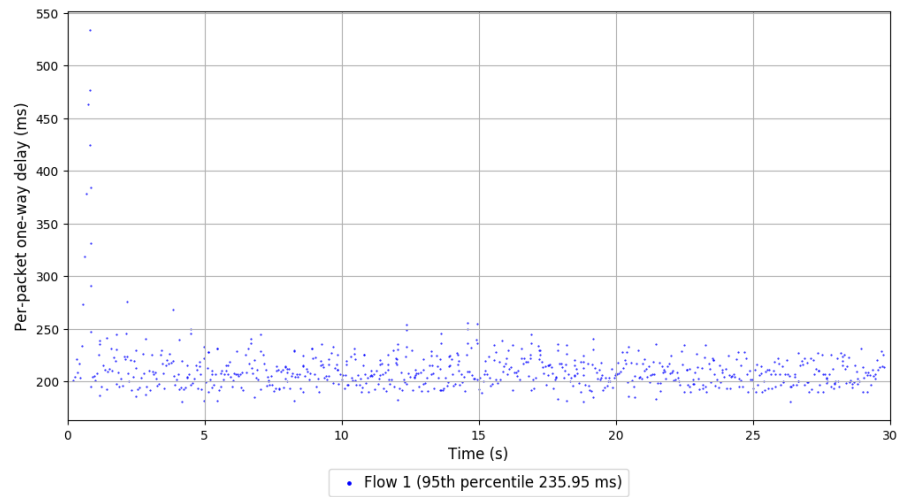
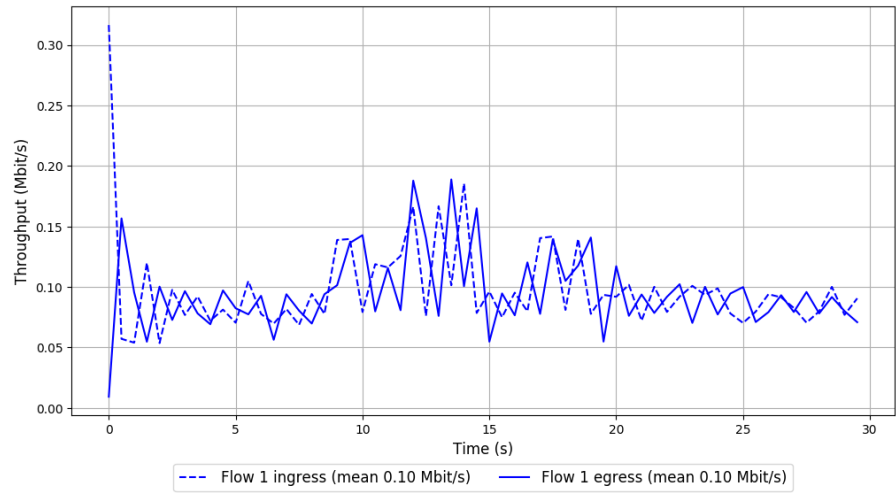
-- Flow 1:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 235.954 ms

Loss rate: 3.52%

## Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: Mon, 31 Jul 2017 23:53:51 +0000

End at: Mon, 31 Jul 2017 23:54:21 +0000

Local clock offset: -1.374 ms

Remote clock offset: 1.472 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:41 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 293.268 ms

Loss rate: 3.85%

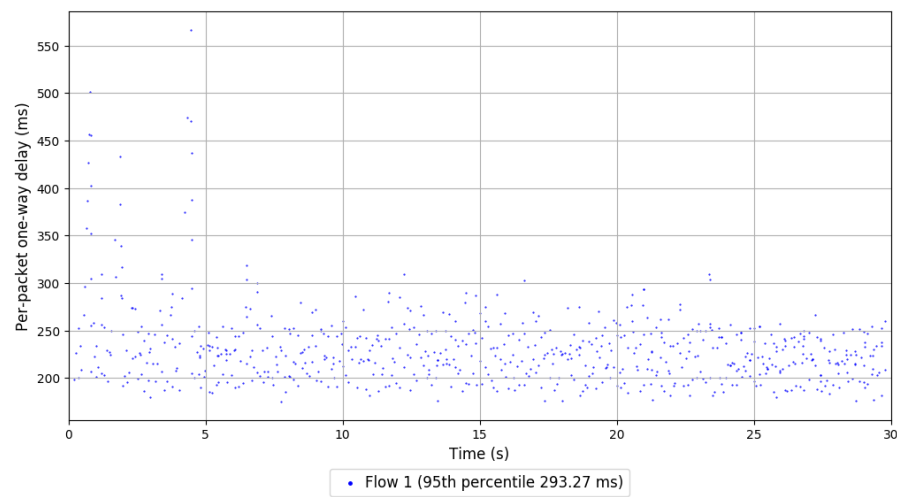
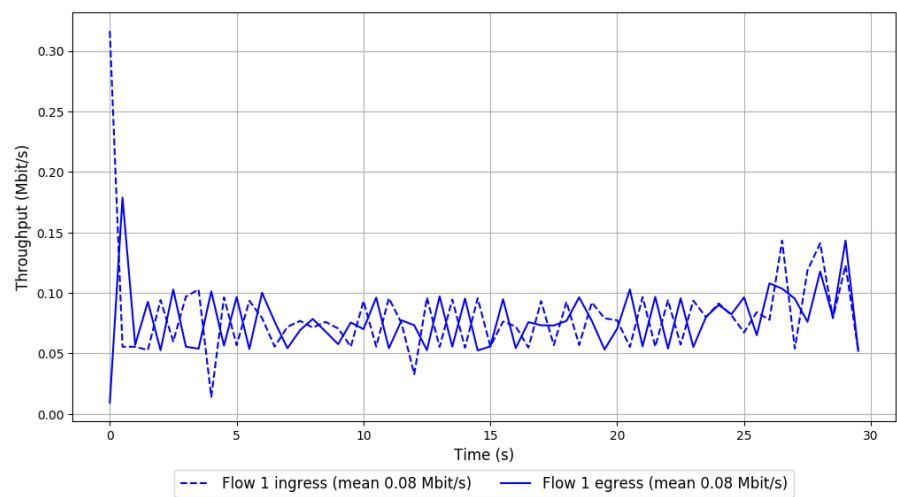
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 293.268 ms

Loss rate: 3.85%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

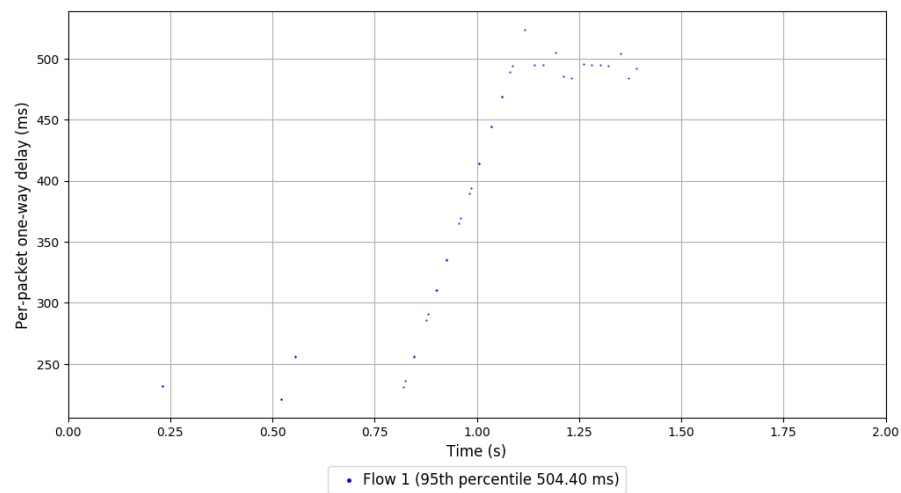
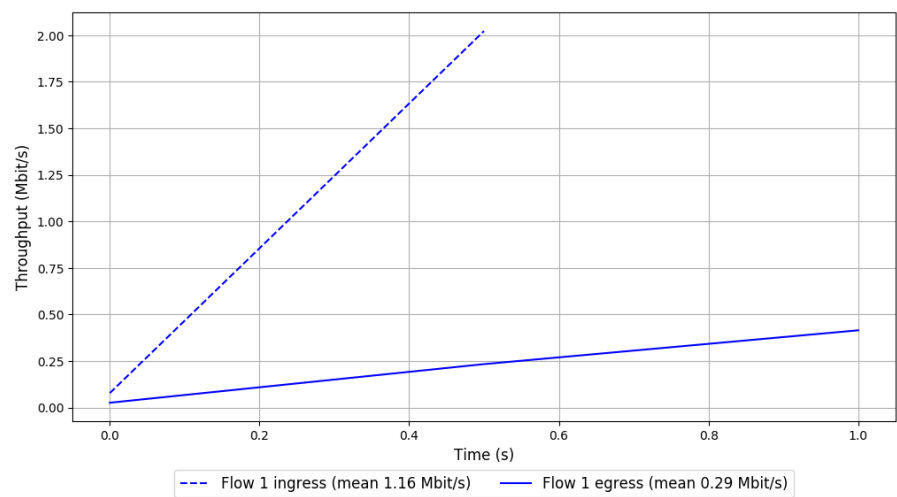
Start at: Mon, 31 Jul 2017 23:11:08 +0000

End at: Mon, 31 Jul 2017 23:11:38 +0000

Local clock offset: -0.471 ms

Remote clock offset: 0.864 ms

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



Run 2: Statistics of TaoVA-100x

Start at: Mon, 31 Jul 2017 23:29:26 +0000

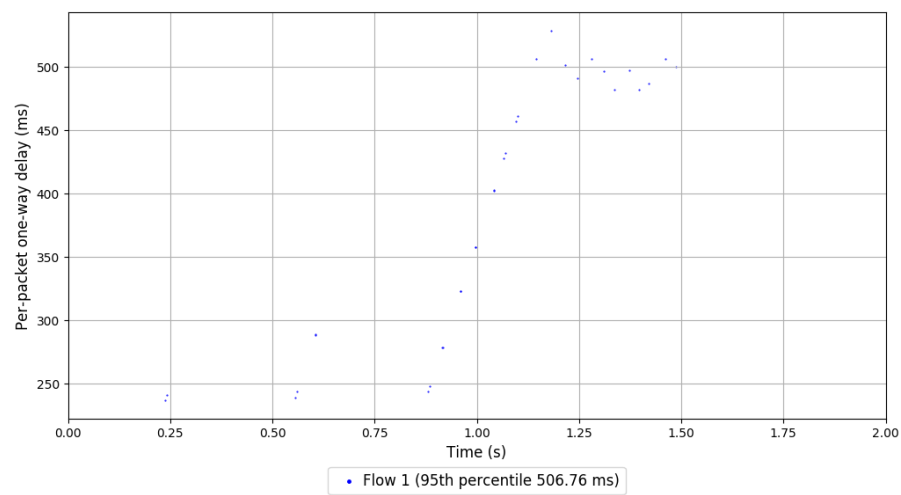
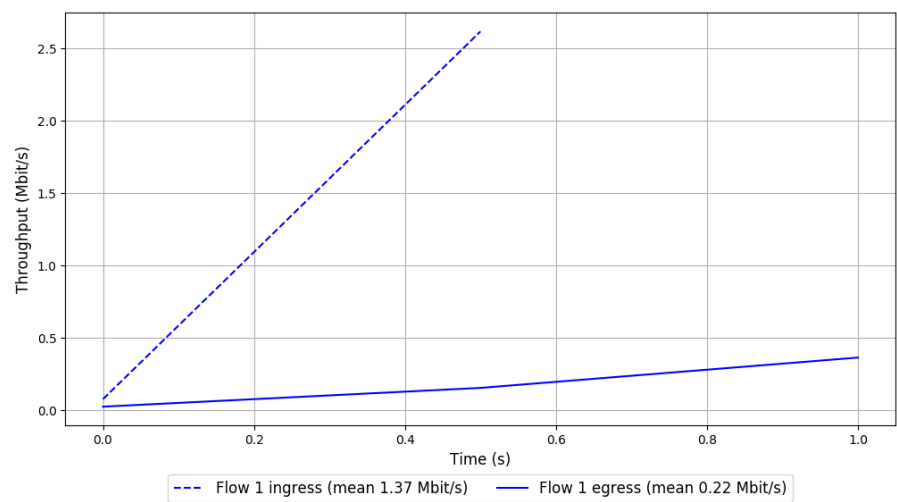
End at: Mon, 31 Jul 2017 23:29:56 +0000

Local clock offset: -1.38 ms

Remote clock offset: 1.198 ms



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



Run 3: Statistics of TaoVA-100x

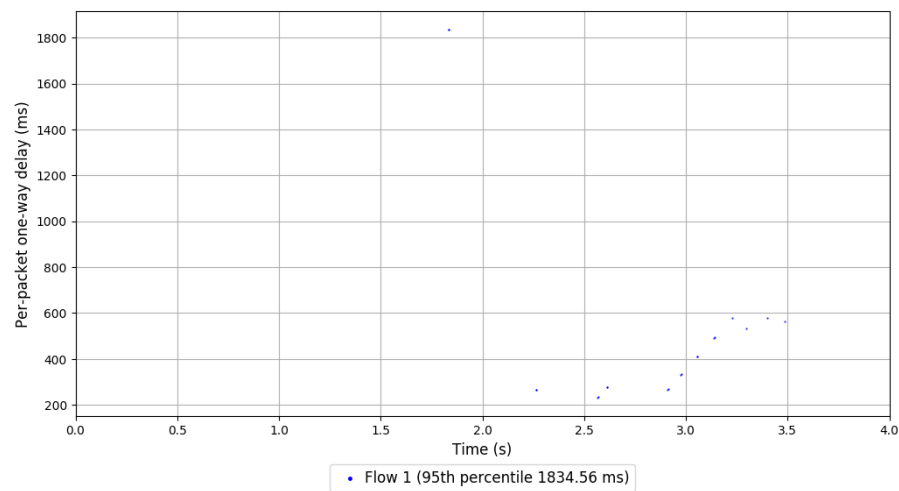
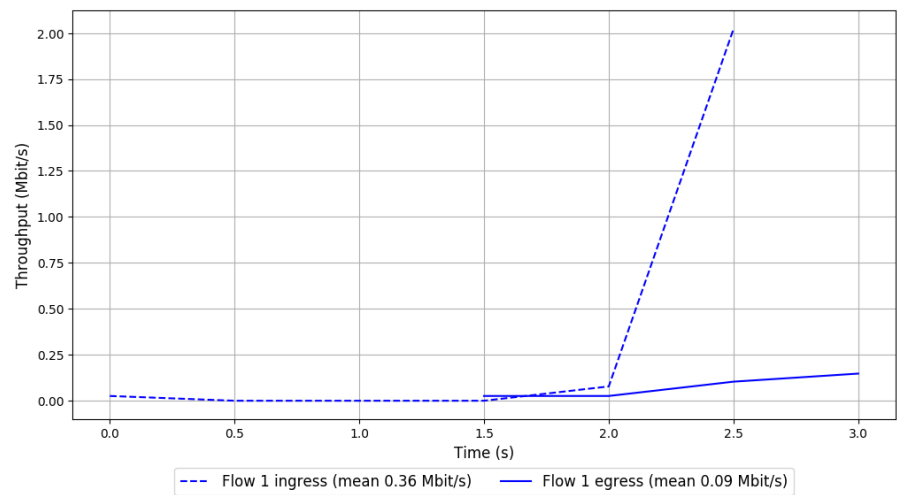
Start at: Mon, 31 Jul 2017 23:47:43 +0000

End at: Mon, 31 Jul 2017 23:48:13 +0000

Local clock offset: -1.365 ms

Remote clock offset: 1.536 ms

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



Run 1: Statistics of TCP Vegas

Start at: Mon, 31 Jul 2017 23:09:55 +0000

End at: Mon, 31 Jul 2017 23:10:25 +0000

Local clock offset: -1.356 ms

Remote clock offset: 0.822 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:44 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 341.945 ms

Loss rate: 1.63%

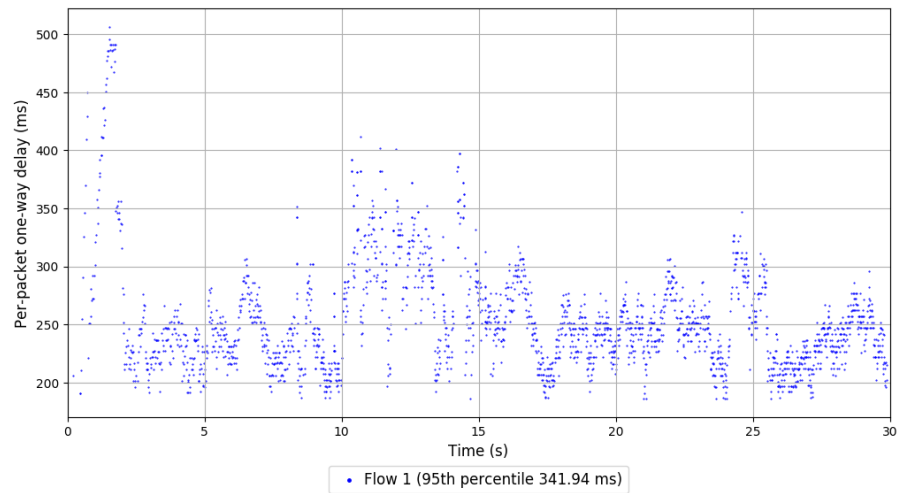
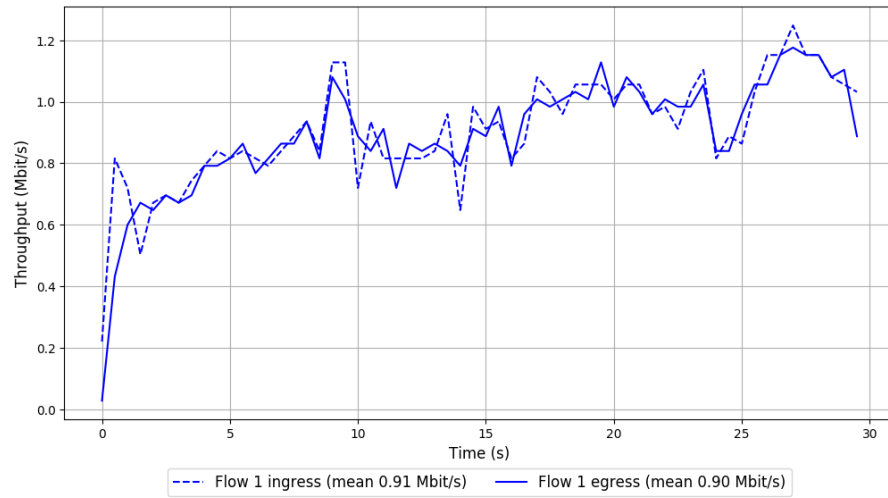
-- Flow 1:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 341.945 ms

Loss rate: 1.63%

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



Run 2: Statistics of TCP Vegas

Start at: Mon, 31 Jul 2017 23:28:13 +0000

End at: Mon, 31 Jul 2017 23:28:43 +0000

Local clock offset: -0.451 ms

Remote clock offset: 1.306 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:44 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 336.813 ms

Loss rate: 1.29%

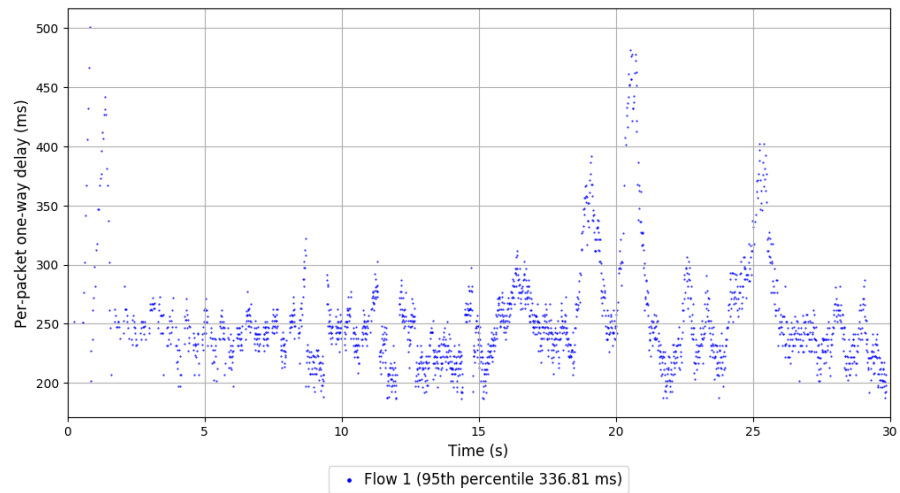
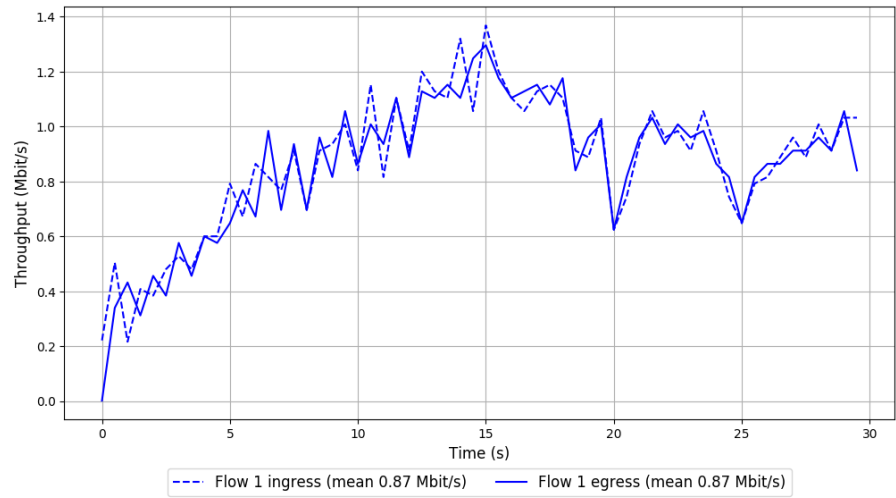
-- Flow 1:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 336.813 ms

Loss rate: 1.29%

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



Run 3: Statistics of TCP Vegas

Start at: Mon, 31 Jul 2017 23:46:30 +0000

End at: Mon, 31 Jul 2017 23:47:00 +0000

Local clock offset: -1.329 ms

Remote clock offset: 1.508 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:45 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 416.067 ms

Loss rate: 3.09%

-- Flow 1:

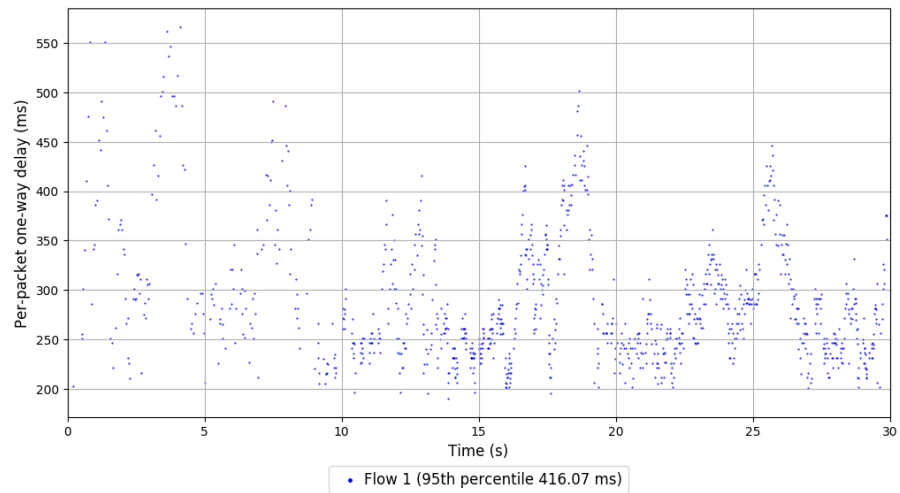
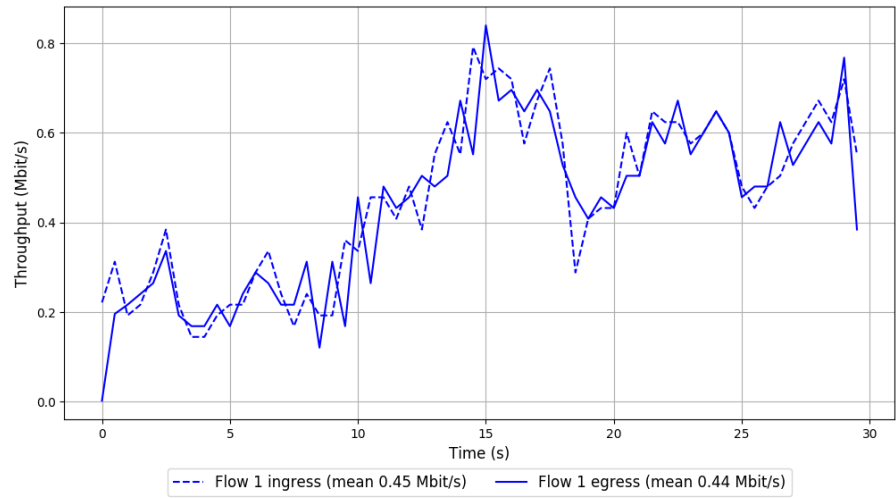
Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 416.067 ms

Loss rate: 3.09%



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



Run 1: Statistics of Verus

Start at: Mon, 31 Jul 2017 23:14:46 +0000

End at: Mon, 31 Jul 2017 23:15:16 +0000

Local clock offset: -1.327 ms

Remote clock offset: 0.897 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:46 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 490.869 ms

Loss rate: 74.40%

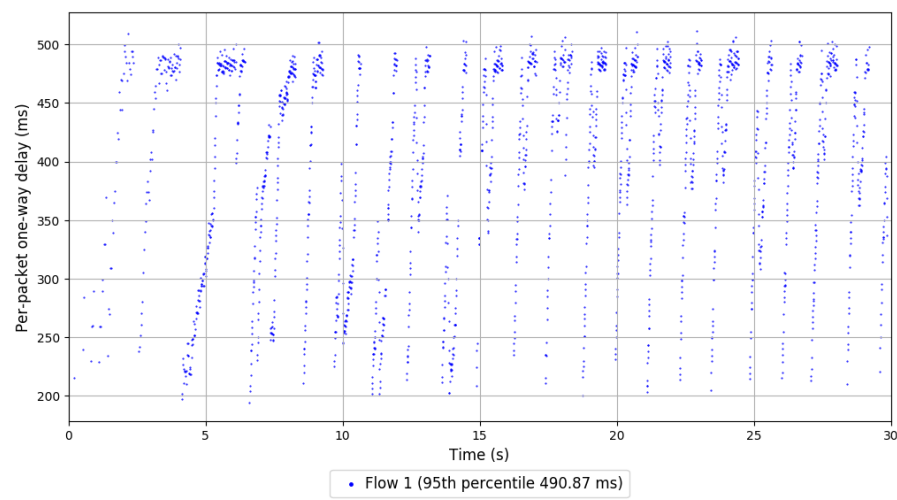
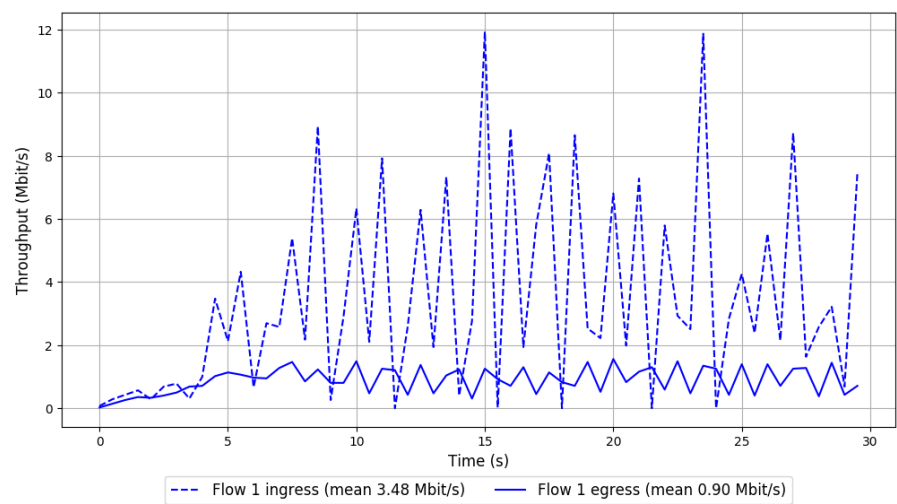
-- Flow 1:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 490.869 ms

Loss rate: 74.40%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: Mon, 31 Jul 2017 23:33:05 +0000

End at: Mon, 31 Jul 2017 23:33:35 +0000

Local clock offset: -0.501 ms

Remote clock offset: 1.197 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:46 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 500.643 ms

Loss rate: 48.83%

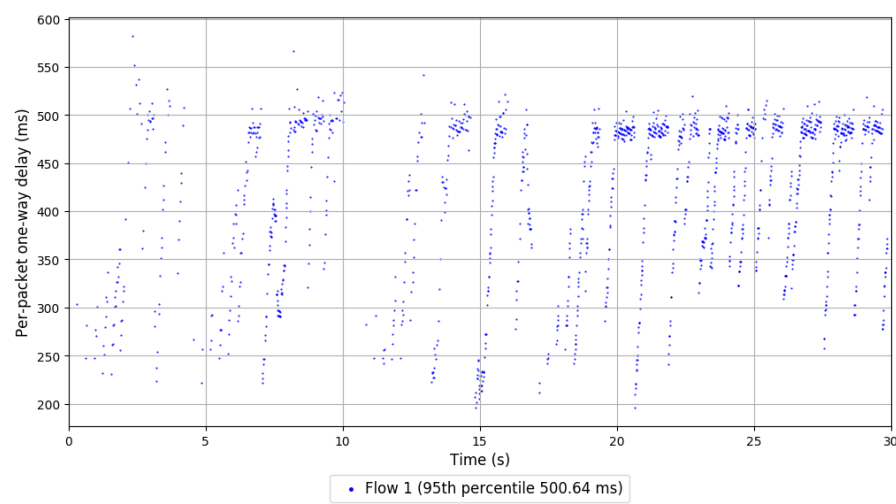
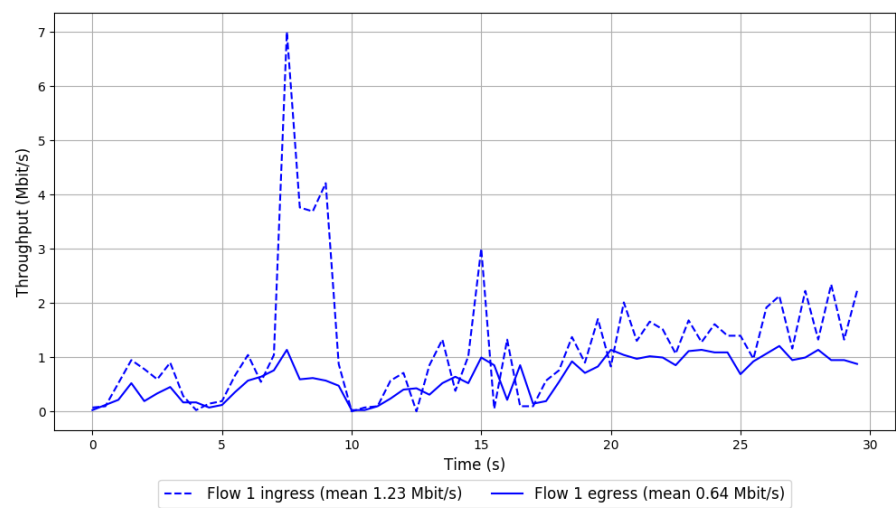
-- Flow 1:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 500.643 ms

Loss rate: 48.83%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

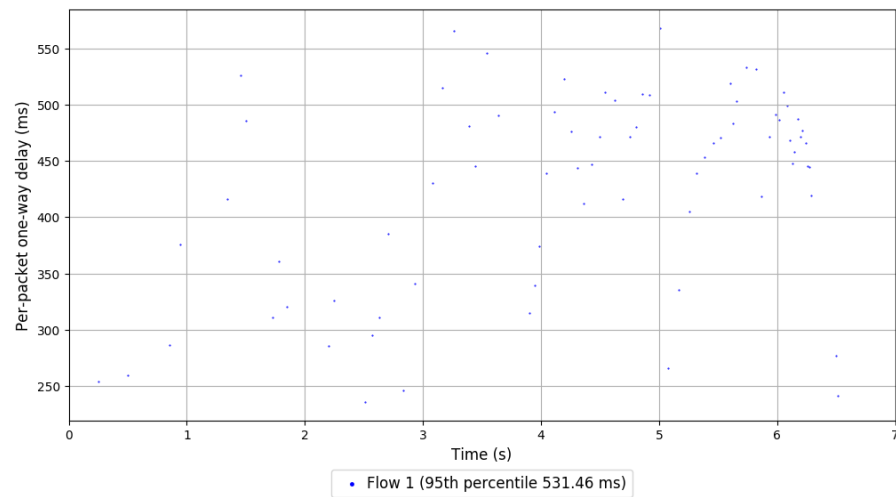
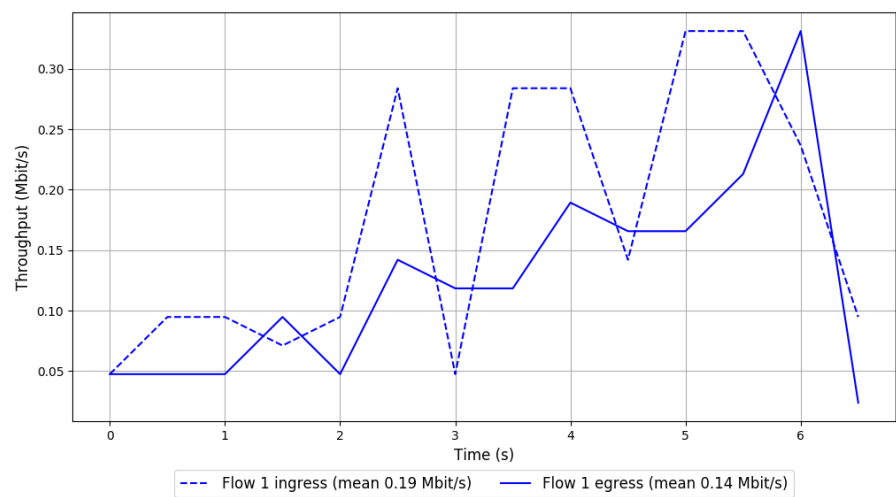
Start at: Mon, 31 Jul 2017 23:51:21 +0000

End at: Mon, 31 Jul 2017 23:51:51 +0000

Local clock offset: -0.462 ms

Remote clock offset: 1.437 ms

Run 3: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: Mon, 31 Jul 2017 23:18:26 +0000

End at: Mon, 31 Jul 2017 23:18:56 +0000

Local clock offset: -1.411 ms

Remote clock offset: 1.105 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:47 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 368.315 ms

Loss rate: 1.93%

-- Flow 1:

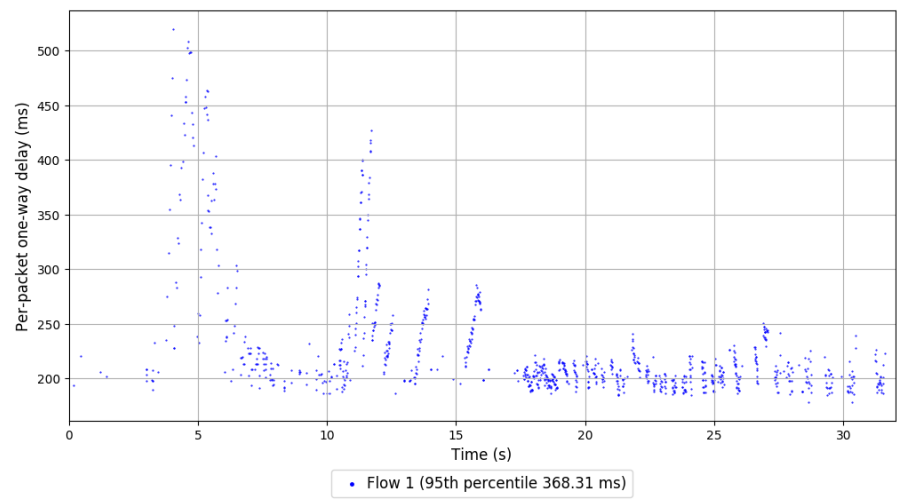
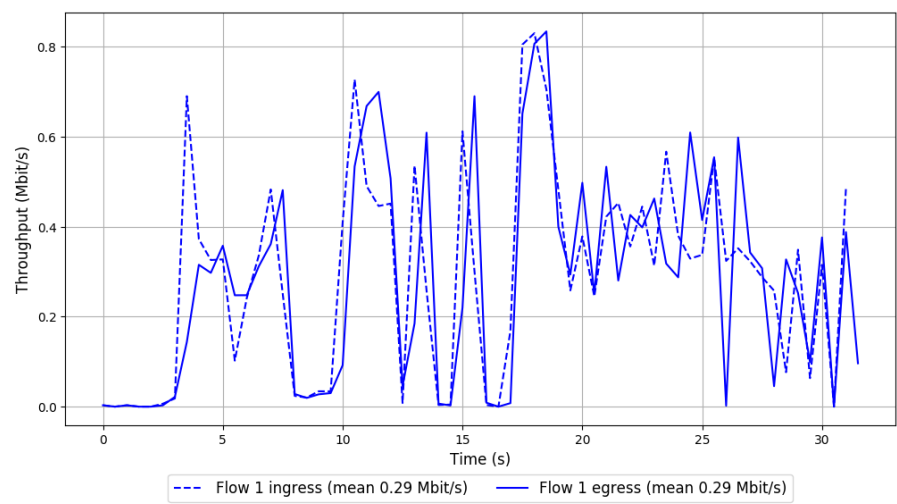
Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 368.315 ms

Loss rate: 1.93%



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: Mon, 31 Jul 2017 23:36:44 +0000

End at: Mon, 31 Jul 2017 23:37:14 +0000

Local clock offset: -1.337 ms

Remote clock offset: 1.257 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:48 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 466.175 ms

Loss rate: 4.32%

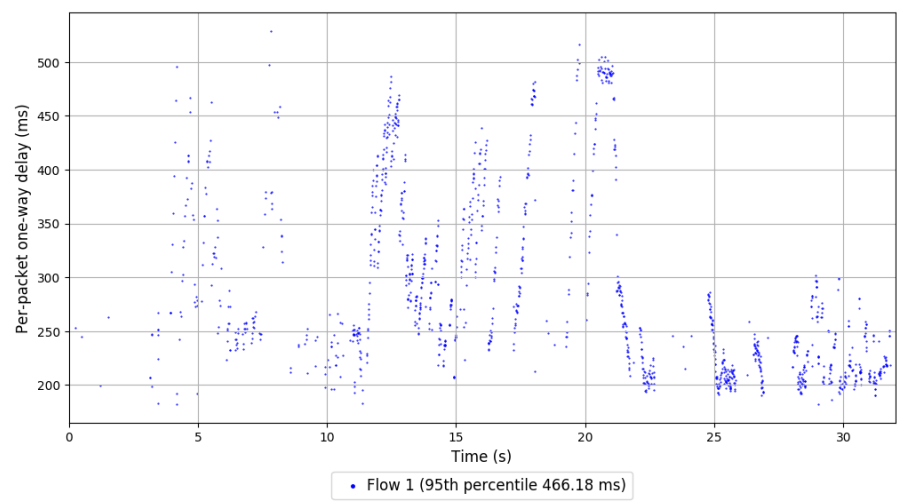
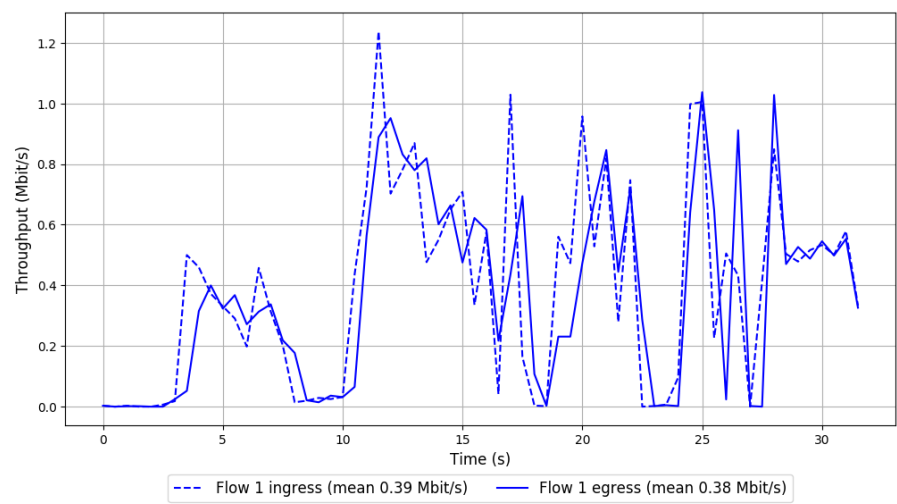
-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 466.175 ms

Loss rate: 4.32%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: Mon, 31 Jul 2017 23:55:05 +0000

End at: Mon, 31 Jul 2017 23:55:35 +0000

Local clock offset: -0.466 ms

Remote clock offset: 1.436 ms

# Below is generated by plot.py at Mon, 31 Jul 2017 23:59:48 +0000

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 434.718 ms

Loss rate: 3.90%

-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 434.718 ms

Loss rate: 3.90%

Run 3: Report of WebRTC media — Data Link

