

Pantheon Report

Generated at 2017-08-31 14:02:25 (UTC).

Data path: Colombia ppp0 (*remote*) → AWS Brazil 2 Ethernet (*local*).

Repeated the test of 15 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

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

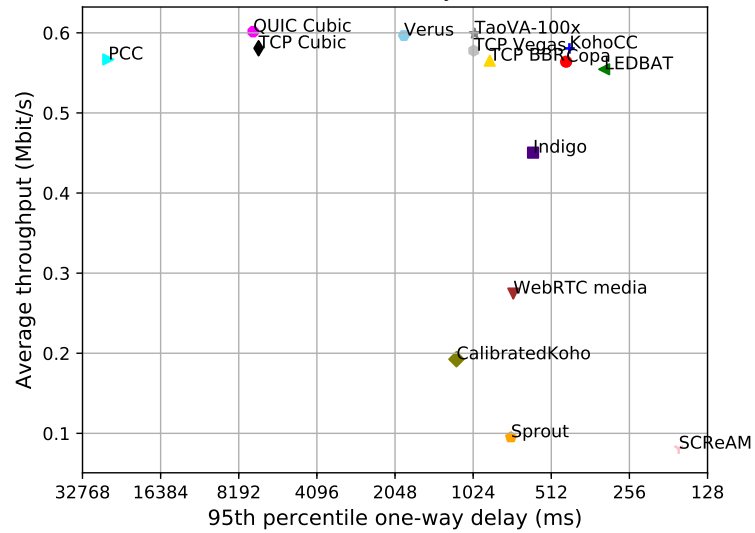
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

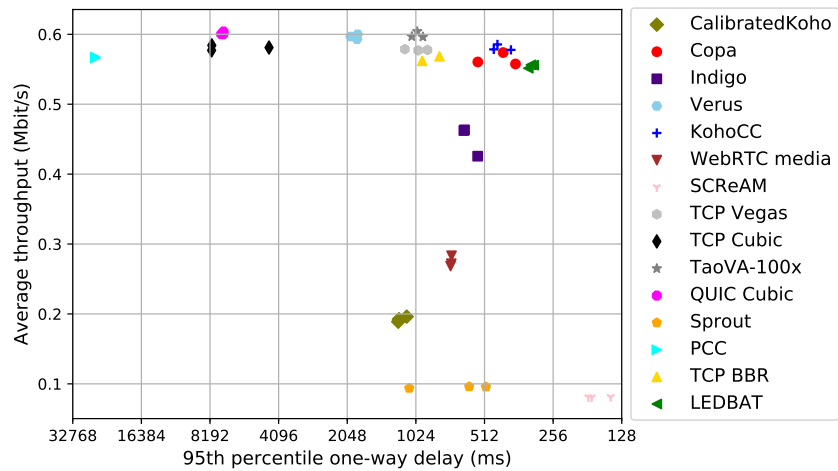
Git summary:

```
branch: master @ 5ea146acdebe79f5b9acfb2d9044554a7d2582ea
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 7ddb4adf480966042c0438984cb22a298bfa635f
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 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	2	0.56	883.66	2.21
CalibratedKoho	3	0.19	1187.39	1.50
Copa	3	0.56	448.77	1.77
TCP Cubic	3	0.58	6871.50	25.77
Indigo	3	0.45	601.94	0.76
KohoCC	3	0.58	435.81	1.24
LEDBAT	3	0.56	320.35	1.23
PCC	2	0.57	26065.49	98.59
QUIC Cubic	3	0.60	7207.78	28.02
SCReAM	3	0.08	165.31	0.70
Sprout	3	0.10	732.42	1.45
TaoVA-100x	3	0.60	1010.58	2.73
TCP Vegas	3	0.58	1018.87	1.61
Verus	3	0.60	1892.31	5.63
WebRTC media	3	0.27	717.18	1.23

Run 1: Statistics of TCP BBR

Start at: 2017-08-31 12:18:49

End at: 2017-08-31 12:19:19

Local clock offset: 0.053 ms

Remote clock offset: -7.696 ms

Below is generated by plot.py at 2017-08-31 14:01:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 806.816 ms

Loss rate: 2.17%

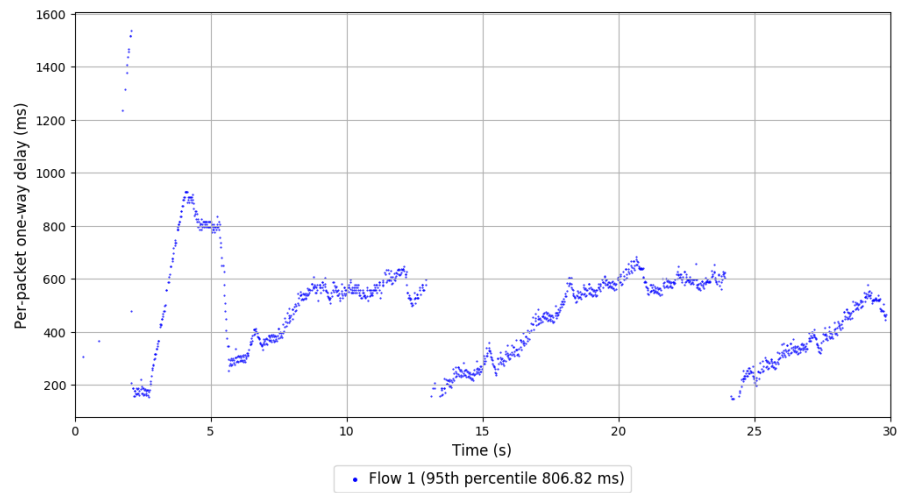
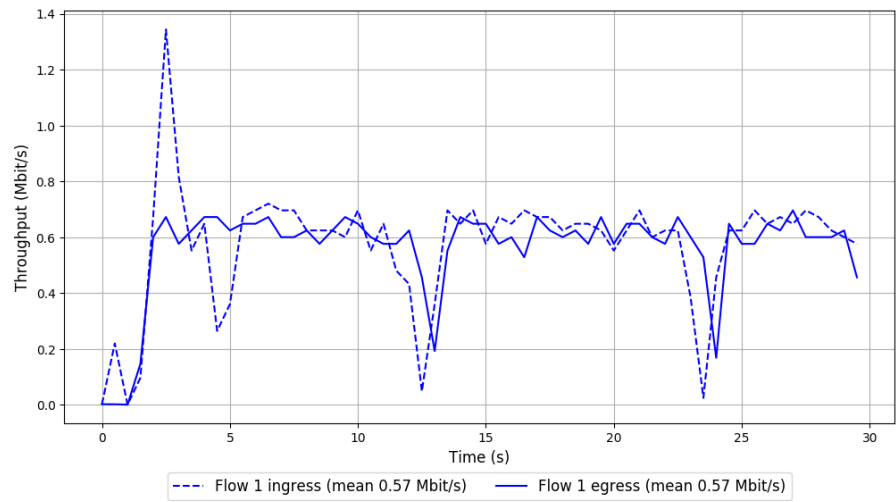
-- Flow 1:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 806.816 ms

Loss rate: 2.17%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-31 12:36:26

End at: 2017-08-31 12:36:56

Local clock offset: 0.029 ms

Remote clock offset: -6.301 ms

Below is generated by plot.py at 2017-08-31 14:01:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 960.512 ms

Loss rate: 2.26%

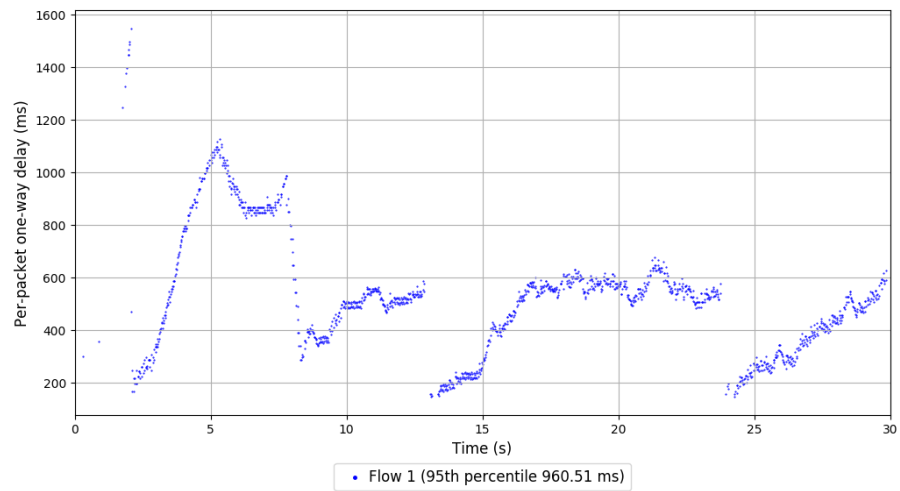
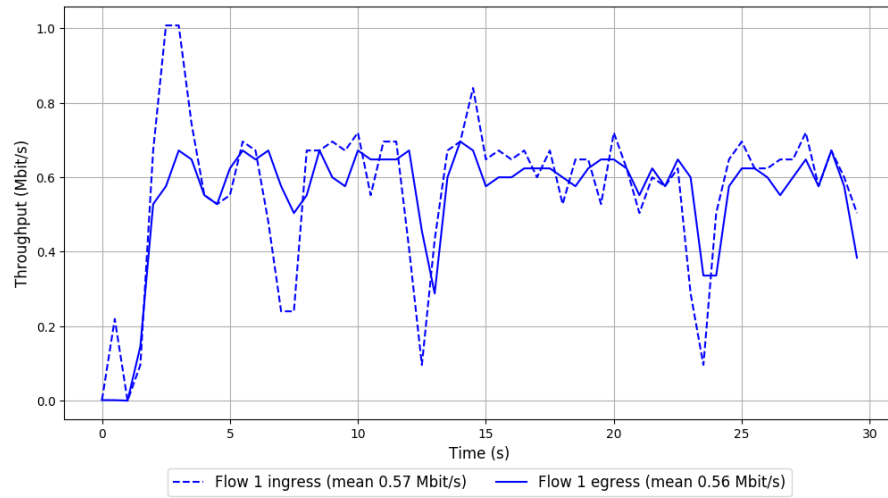
-- Flow 1:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 960.512 ms

Loss rate: 2.26%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

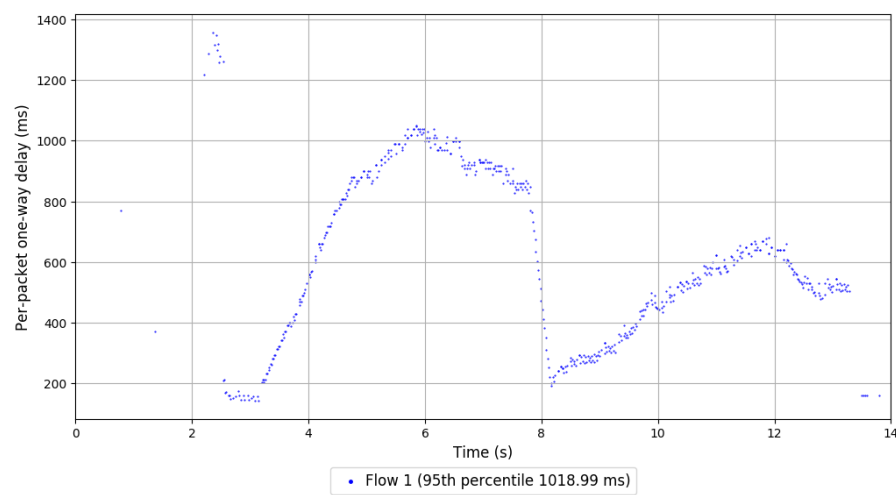
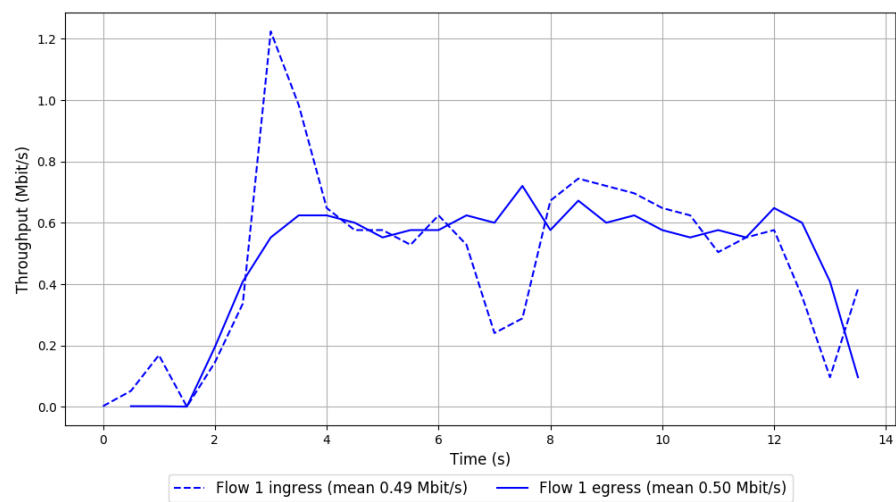
Start at: 2017-08-31 12:54:01

End at: 2017-08-31 12:54:31

Local clock offset: 0.046 ms

Remote clock offset: -5.982 ms

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-31 12:25:50

End at: 2017-08-31 12:26:20

Local clock offset: -0.047 ms

Remote clock offset: -6.63 ms

Below is generated by plot.py at 2017-08-31 14:01:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1214.805 ms

Loss rate: 1.51%

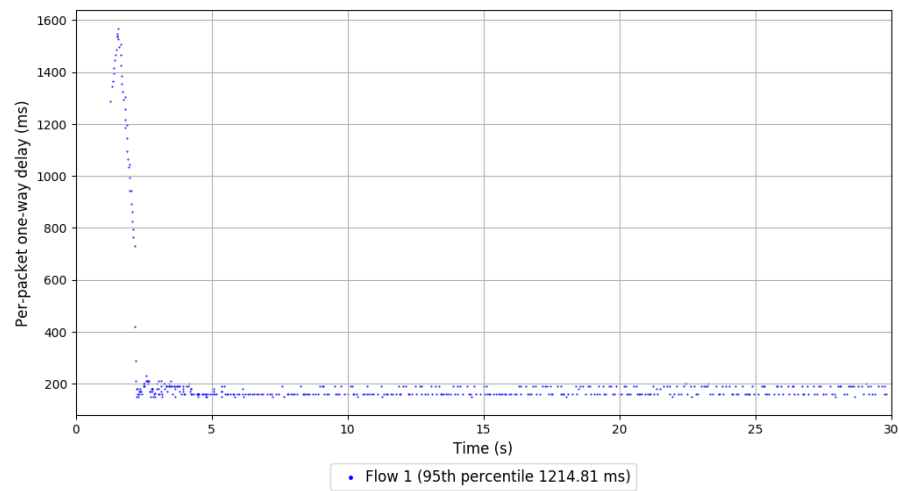
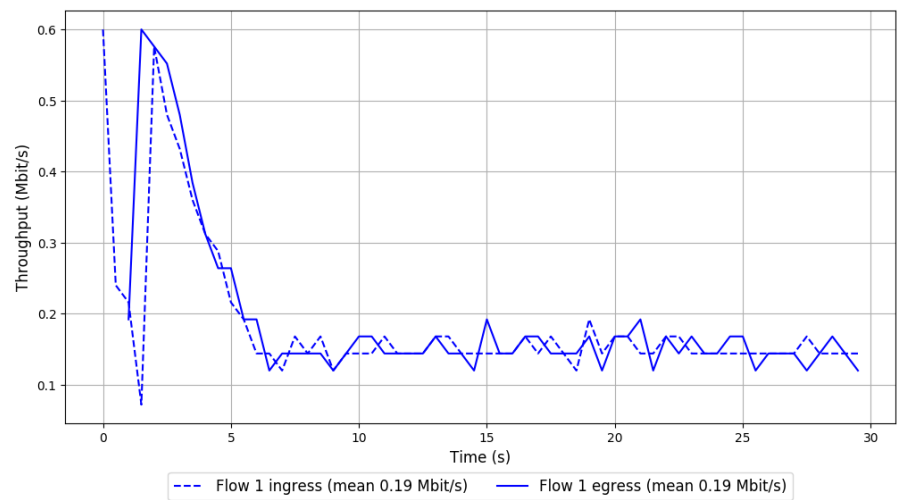
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1214.805 ms

Loss rate: 1.51%

Run 1: Report of CalibratedKoho — Data Link

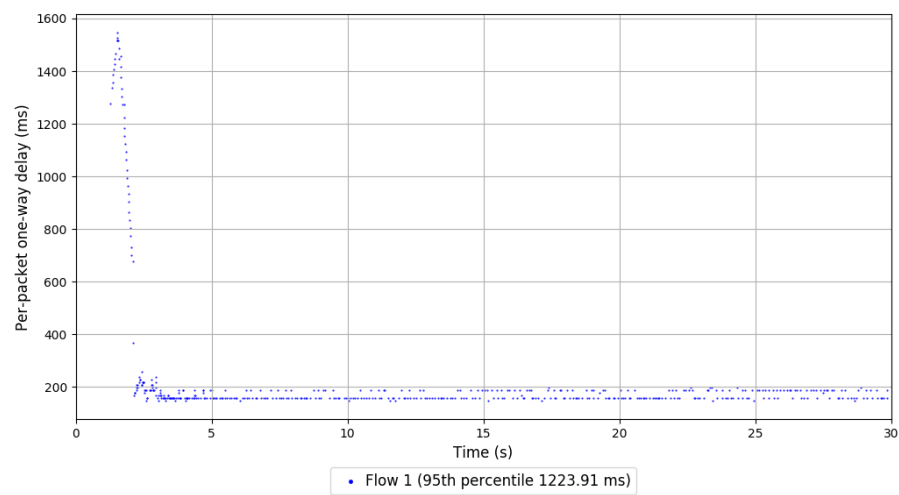
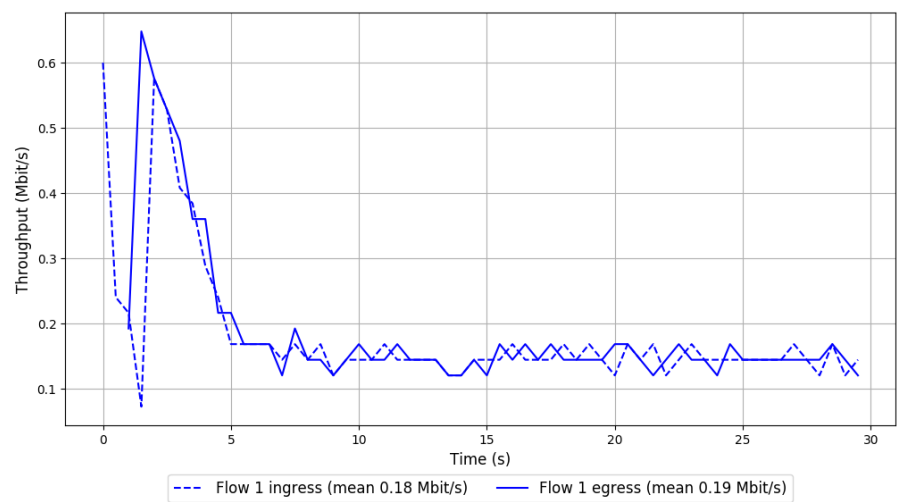


Run 2: Statistics of CalibratedKoho

Start at: 2017-08-31 12:43:27
End at: 2017-08-31 12:43:57
Local clock offset: 0.067 ms
Remote clock offset: -6.169 ms

Below is generated by plot.py at 2017-08-31 14:01:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 1223.908 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 1223.908 ms
Loss rate: 1.32%

Run 2: Report of CalibratedKoho — Data Link

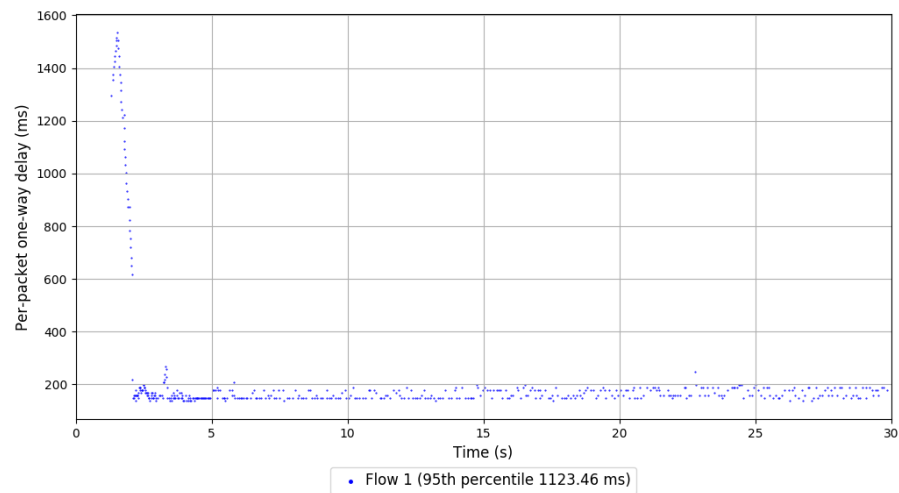
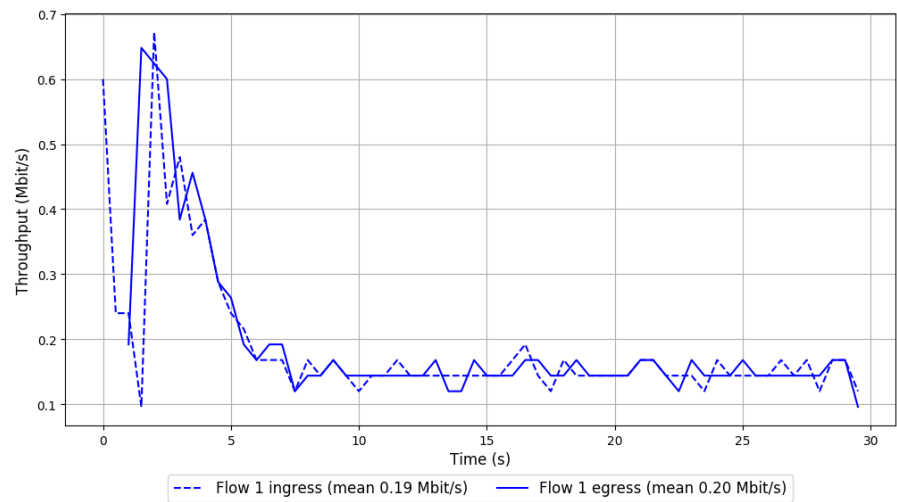


Run 3: Statistics of CalibratedKoho

Start at: 2017-08-31 13:01:02
End at: 2017-08-31 13:01:32
Local clock offset: 0.006 ms
Remote clock offset: -3.051 ms

Below is generated by plot.py at 2017-08-31 14:01:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 1123.464 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 1123.464 ms
Loss rate: 1.68%

Run 3: Report of CalibratedKoho — Data Link

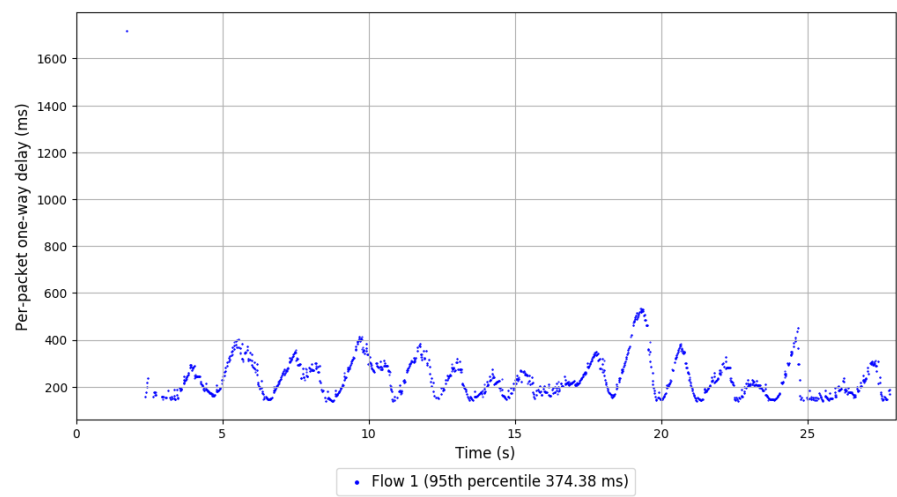
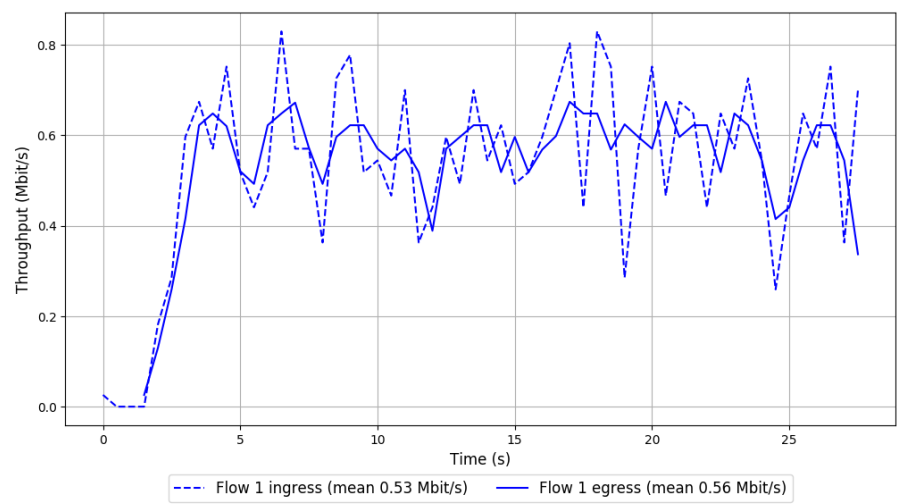


Run 1: Statistics of Copa

Start at: 2017-08-31 12:29:24
End at: 2017-08-31 12:29:54
Local clock offset: 0.019 ms
Remote clock offset: -2.509 ms

Below is generated by plot.py at 2017-08-31 14:02:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 374.377 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 374.377 ms
Loss rate: 1.75%

Run 1: Report of Copa — Data Link

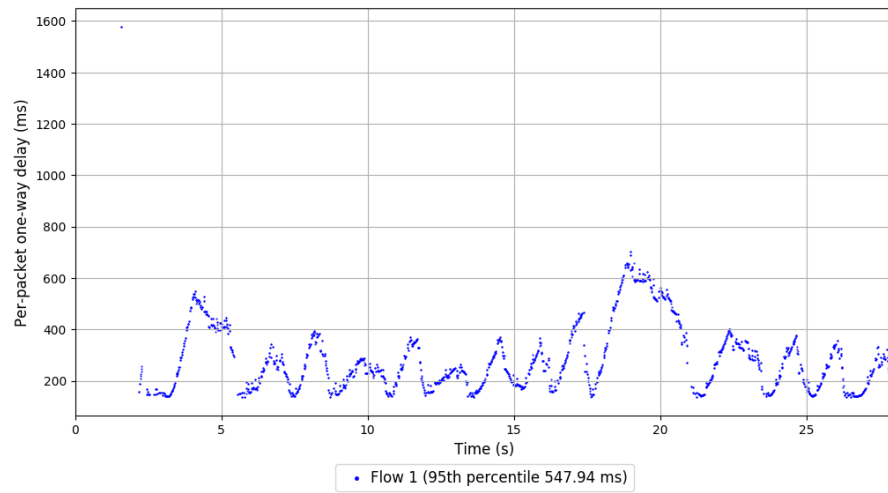
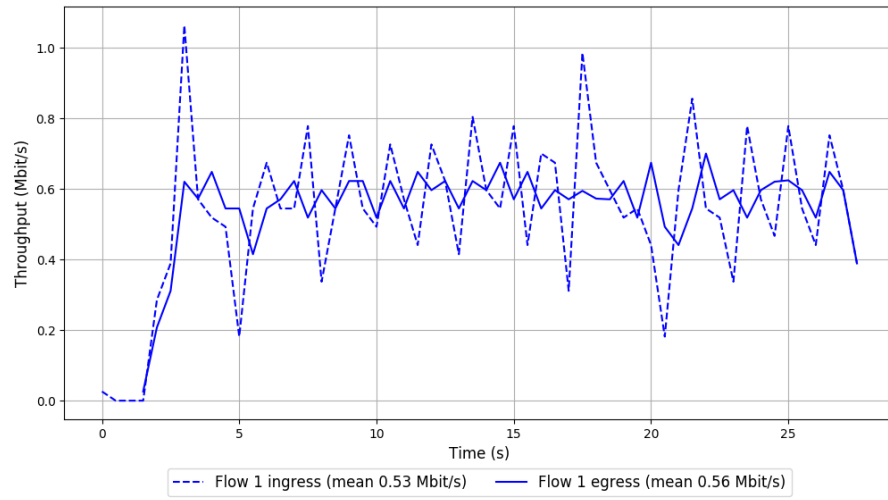


Run 2: Statistics of Copa

Start at: 2017-08-31 12:46:59
End at: 2017-08-31 12:47:29
Local clock offset: 0.058 ms
Remote clock offset: -1.281 ms

Below is generated by plot.py at 2017-08-31 14:02:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 547.936 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 547.936 ms
Loss rate: 0.96%

Run 2: Report of Copa — Data Link

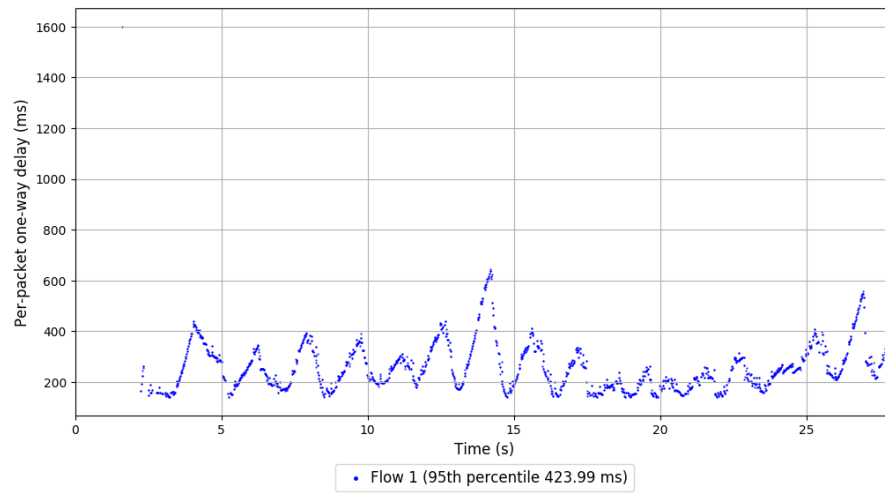
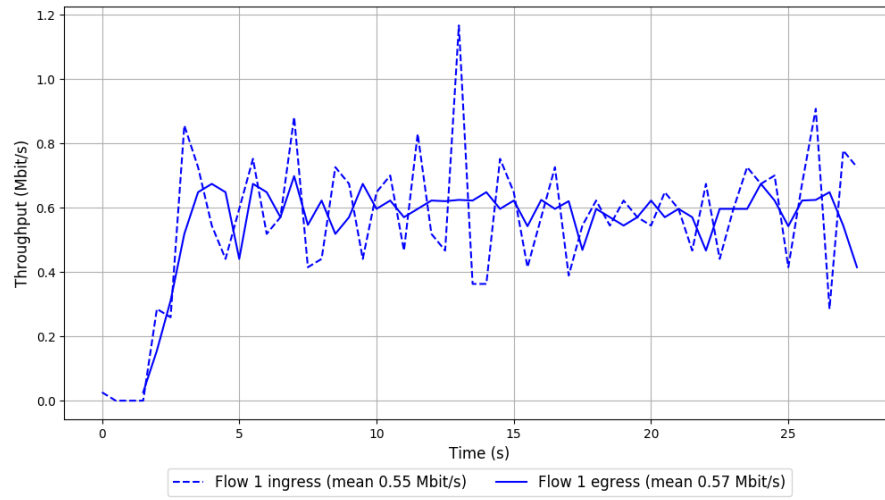


Run 3: Statistics of Copa

Start at: 2017-08-31 13:04:32
End at: 2017-08-31 13:05:02
Local clock offset: 0.035 ms
Remote clock offset: -2.889 ms

Below is generated by plot.py at 2017-08-31 14:02:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 423.986 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 423.986 ms
Loss rate: 2.60%

Run 3: Report of Copa — Data Link

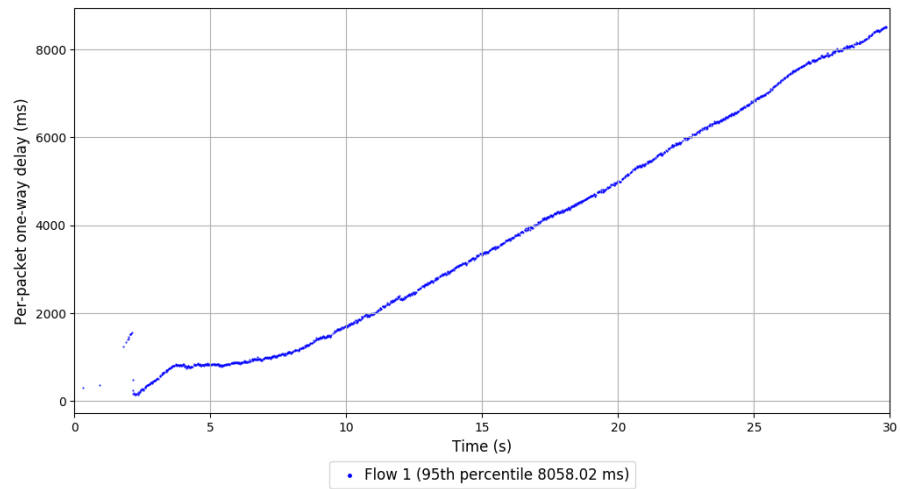
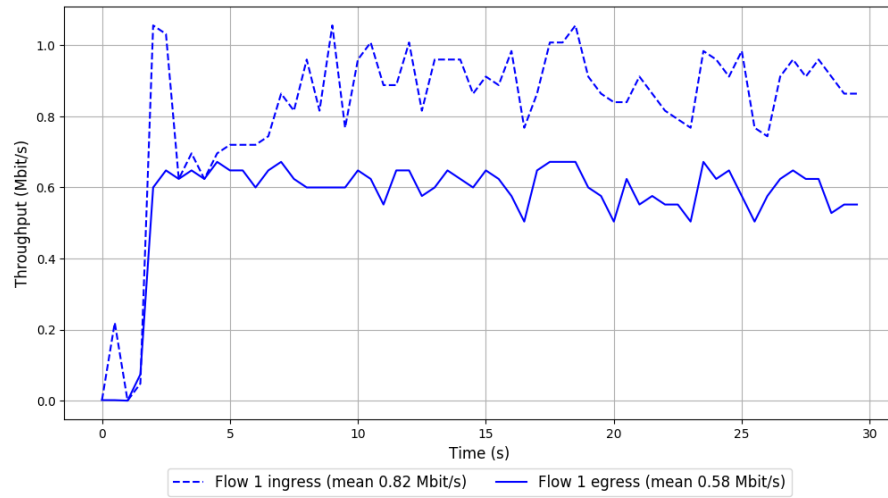


Run 1: Statistics of TCP Cubic

Start at: 2017-08-31 12:32:54
End at: 2017-08-31 12:33:24
Local clock offset: 0.052 ms
Remote clock offset: -2.604 ms

Below is generated by plot.py at 2017-08-31 14:02:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 8058.015 ms
Loss rate: 30.85%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 8058.015 ms
Loss rate: 30.85%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-31 12:50:29

End at: 2017-08-31 12:50:59

Local clock offset: 0.048 ms

Remote clock offset: -3.2 ms

Below is generated by plot.py at 2017-08-31 14:02:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 4512.949 ms

Loss rate: 15.53%

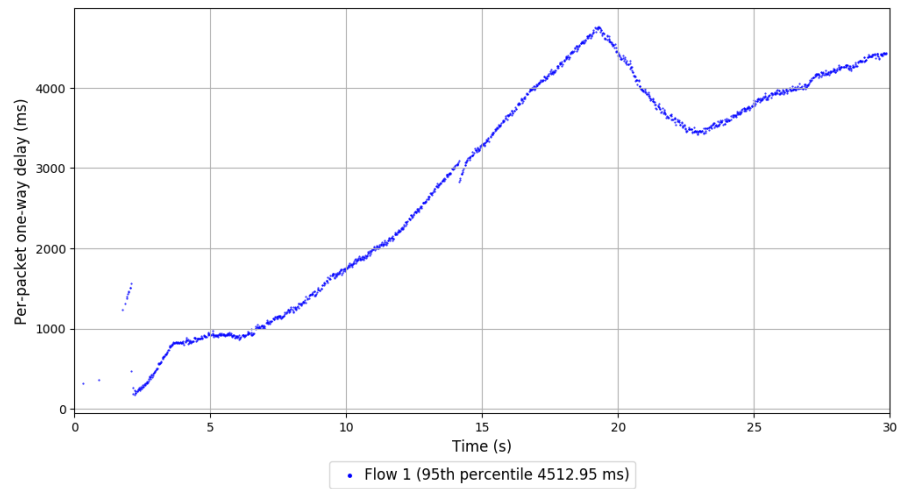
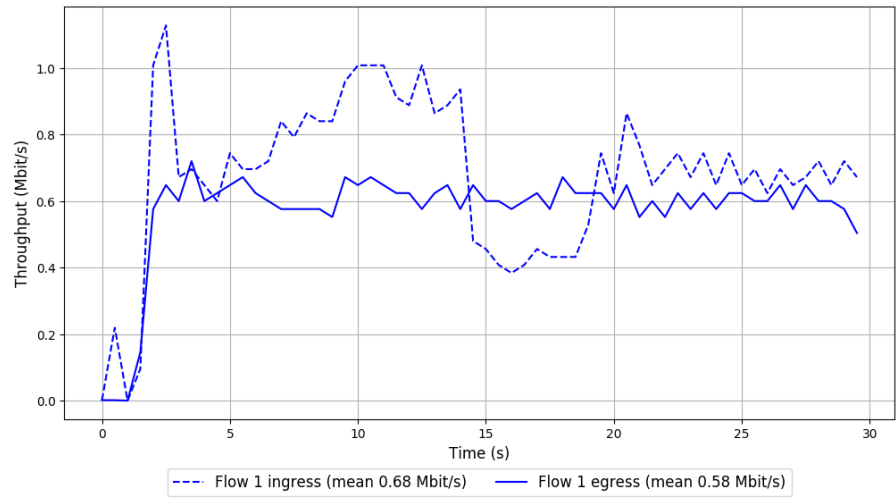
-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 4512.949 ms

Loss rate: 15.53%

Run 2: Report of TCP Cubic — Data Link

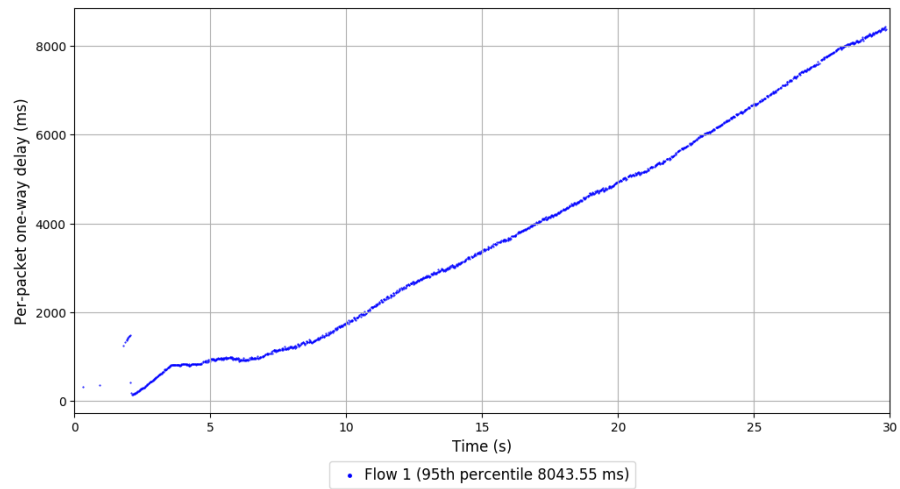
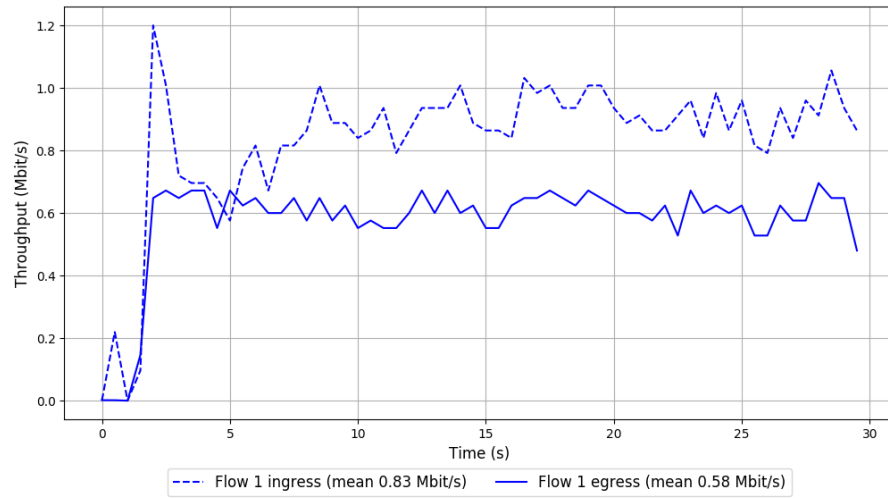


Run 3: Statistics of TCP Cubic

Start at: 2017-08-31 13:08:03
End at: 2017-08-31 13:08:33
Local clock offset: 0.028 ms
Remote clock offset: -6.921 ms

Below is generated by plot.py at 2017-08-31 14:02:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 8043.550 ms
Loss rate: 30.94%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 8043.550 ms
Loss rate: 30.94%

Run 3: Report of TCP Cubic — Data Link

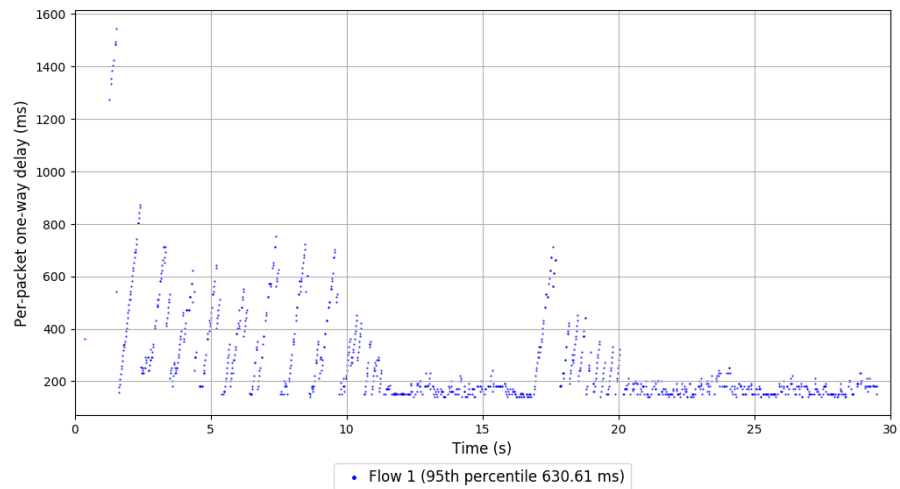
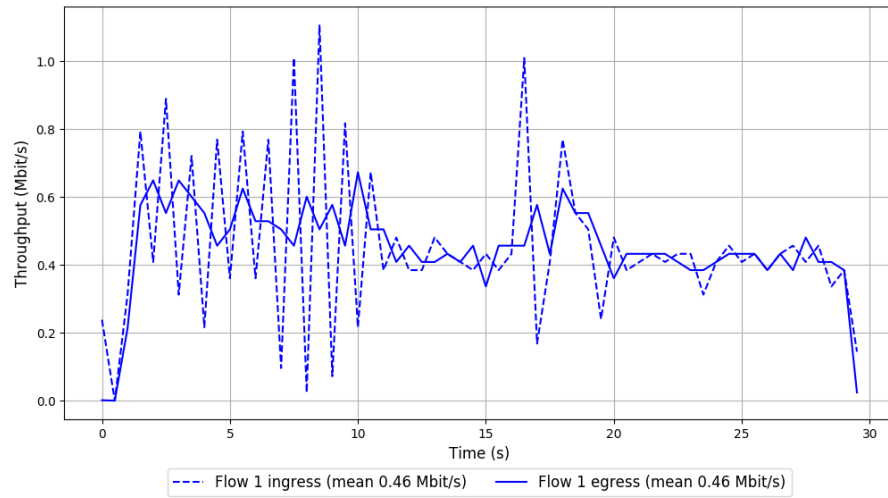


Run 1: Statistics of Indigo

Start at: 2017-08-31 12:28:14
End at: 2017-08-31 12:28:44
Local clock offset: -0.001 ms
Remote clock offset: -2.542 ms

Below is generated by plot.py at 2017-08-31 14:02:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 630.609 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 630.609 ms
Loss rate: 0.80%

Run 1: Report of Indigo — Data Link

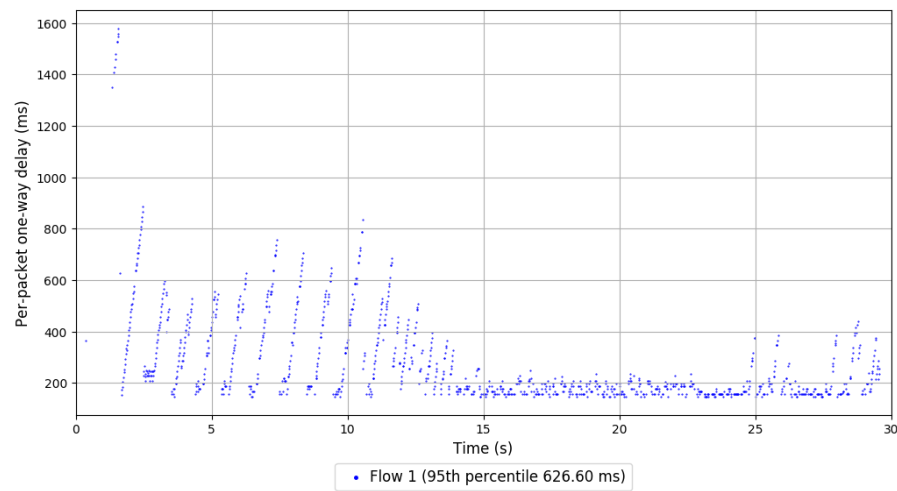
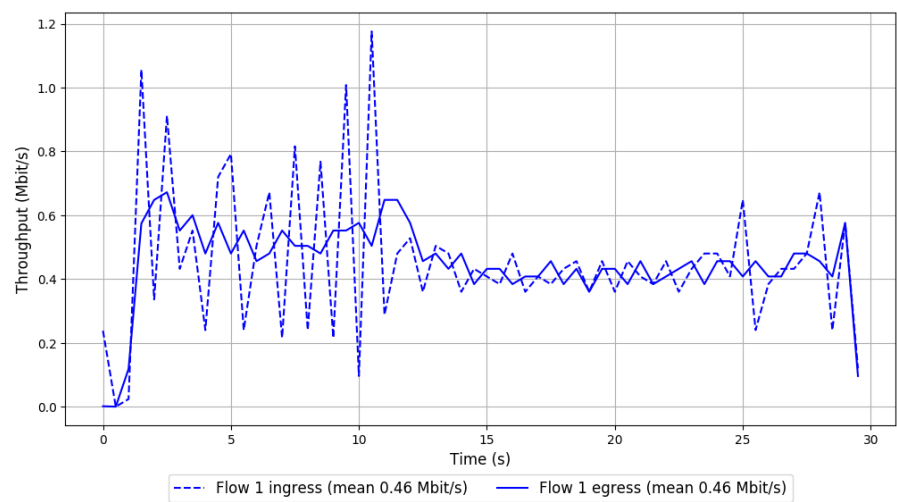


Run 2: Statistics of Indigo

Start at: 2017-08-31 12:45:49
End at: 2017-08-31 12:46:19
Local clock offset: 0.041 ms
Remote clock offset: -7.237 ms

Below is generated by plot.py at 2017-08-31 14:02:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 626.596 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 626.596 ms
Loss rate: 0.70%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-08-31 13:03:22

End at: 2017-08-31 13:03:52

Local clock offset: 0.042 ms

Remote clock offset: -5.965 ms

Below is generated by plot.py at 2017-08-31 14:02:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 548.622 ms

Loss rate: 0.77%

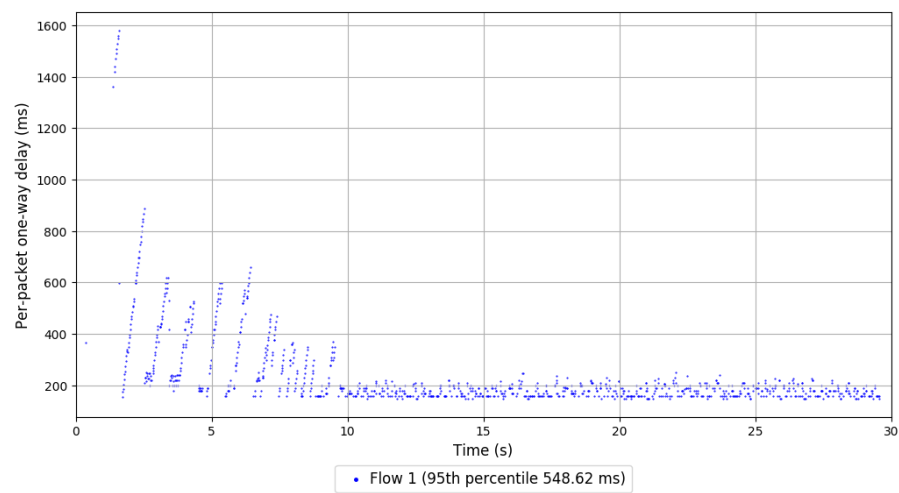
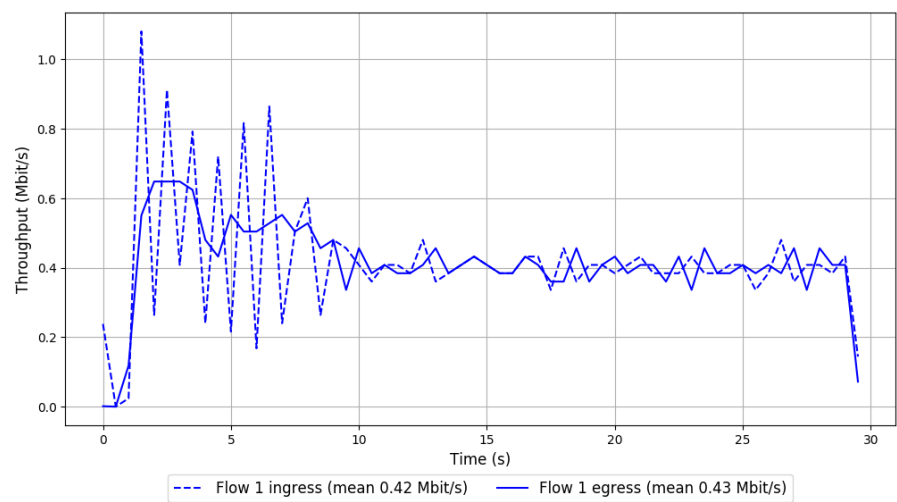
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 548.622 ms

Loss rate: 0.77%

Run 3: Report of Indigo — Data Link

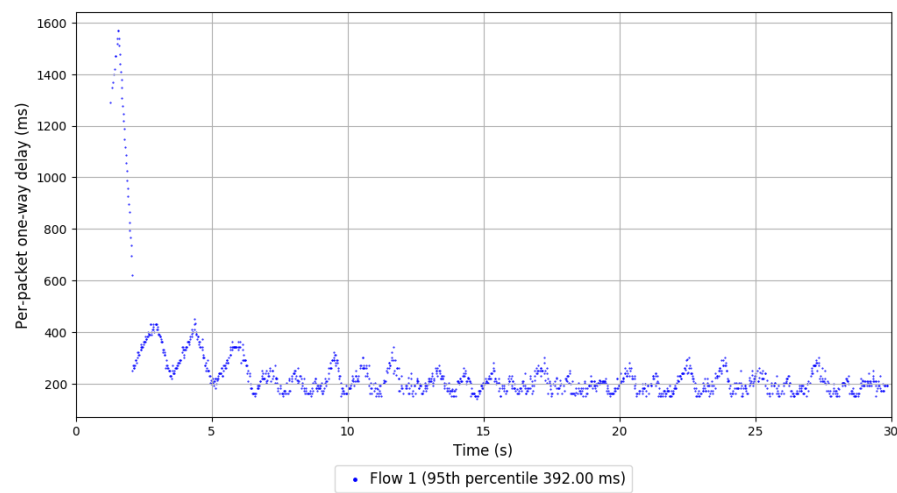
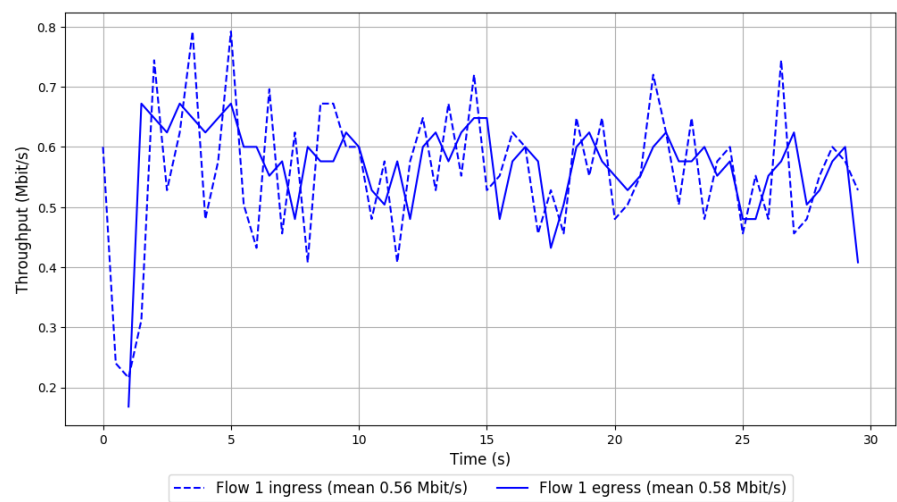


```
Run 1: Statistics of KohoCC

Start at: 2017-08-31 12:17:39
End at: 2017-08-31 12:18:09
Local clock offset: 0.034 ms
Remote clock offset: -6.704 ms

# Below is generated by plot.py at 2017-08-31 14:02:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 392.003 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 392.003 ms
Loss rate: 1.29%
```

Run 1: Report of KohoCC — Data Link

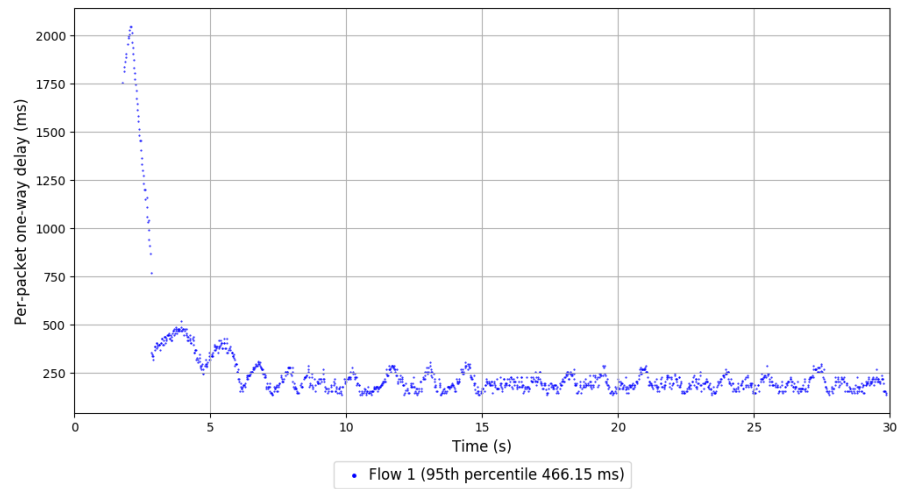
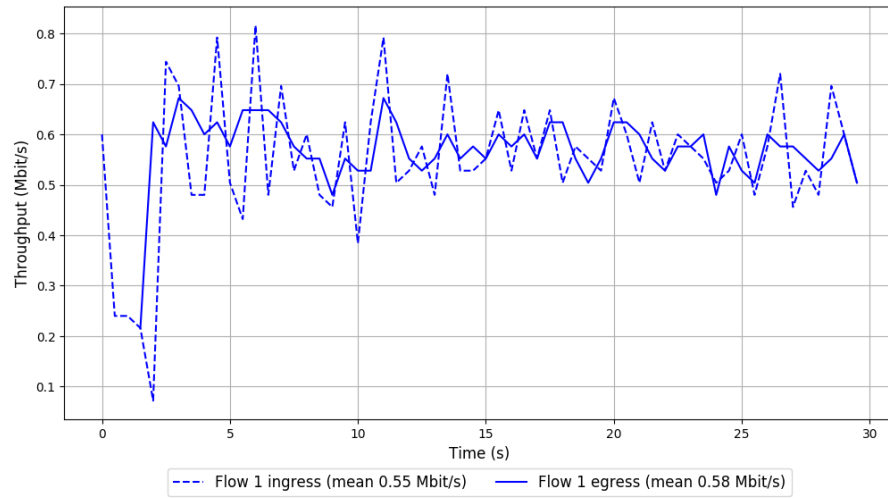


Run 2: Statistics of KohoCC

Start at: 2017-08-31 12:35:16
End at: 2017-08-31 12:35:46
Local clock offset: 0.028 ms
Remote clock offset: -1.445 ms

Below is generated by plot.py at 2017-08-31 14:02:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 466.154 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 466.154 ms
Loss rate: 1.17%

Run 2: Report of KohoCC — Data Link

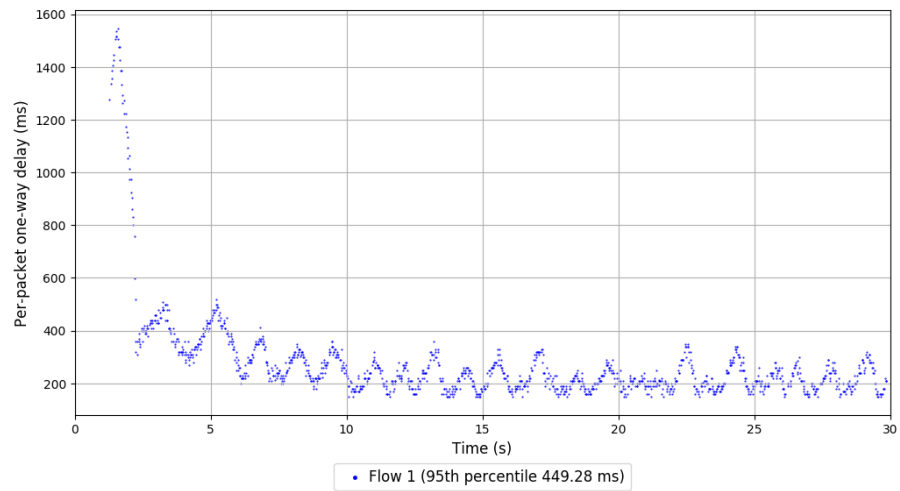
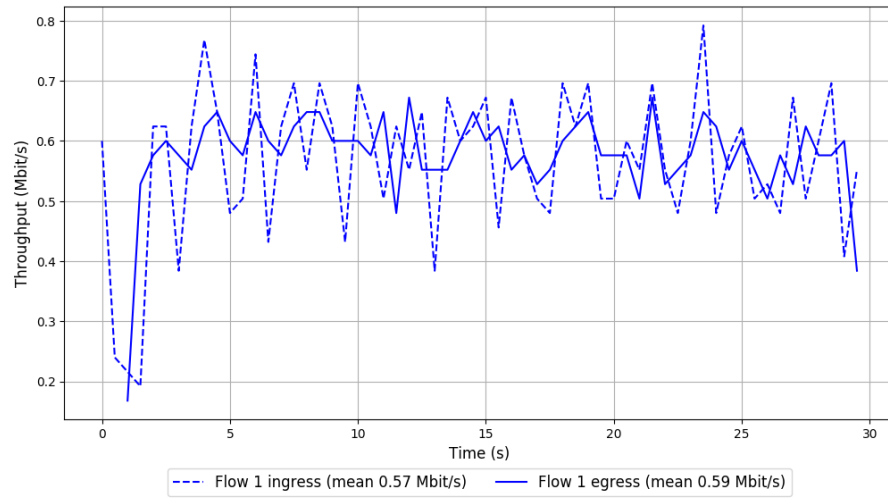


Run 3: Statistics of KohoCC

Start at: 2017-08-31 12:52:50
End at: 2017-08-31 12:53:20
Local clock offset: 0.072 ms
Remote clock offset: -6.023 ms

Below is generated by plot.py at 2017-08-31 14:02:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 449.281 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 449.281 ms
Loss rate: 1.27%

Run 3: Report of KohoCC — Data Link

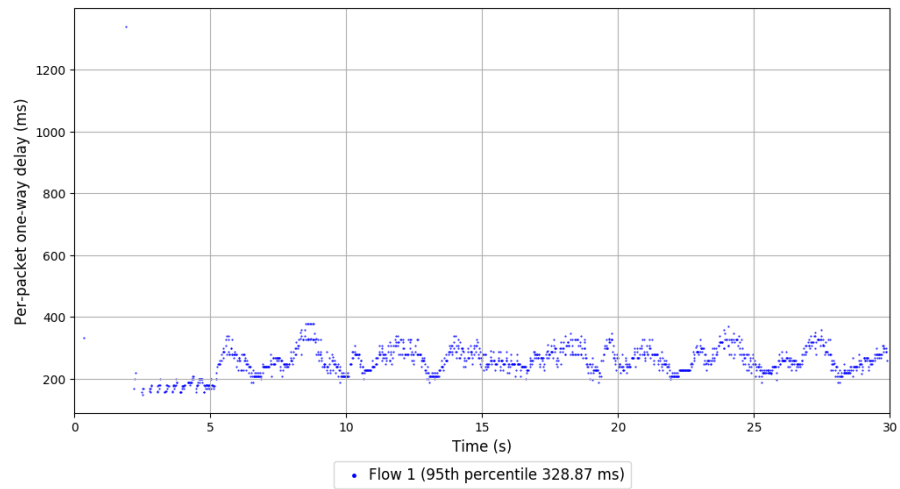
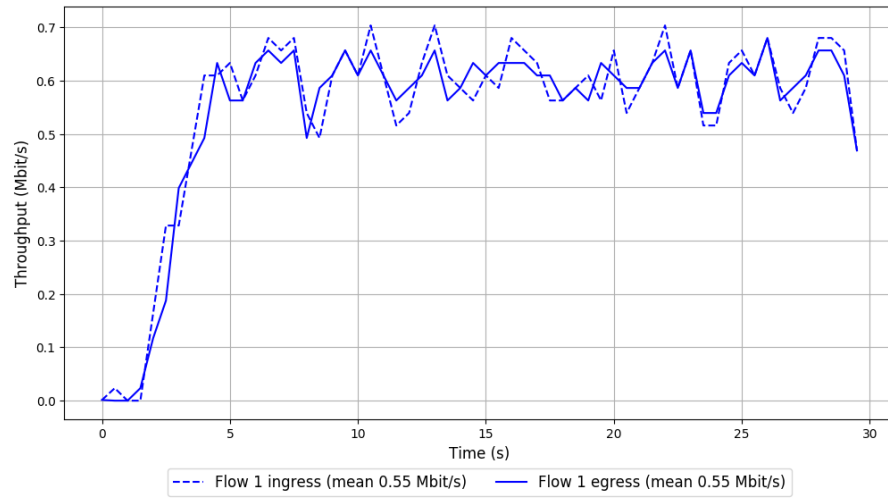


Run 1: Statistics of LEDBAT

Start at: 2017-08-31 12:31:44
End at: 2017-08-31 12:32:14
Local clock offset: 0.036 ms
Remote clock offset: -7.324 ms

Below is generated by plot.py at 2017-08-31 14:02:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 328.874 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 328.874 ms
Loss rate: 1.14%

Run 1: Report of LEDBAT — Data Link

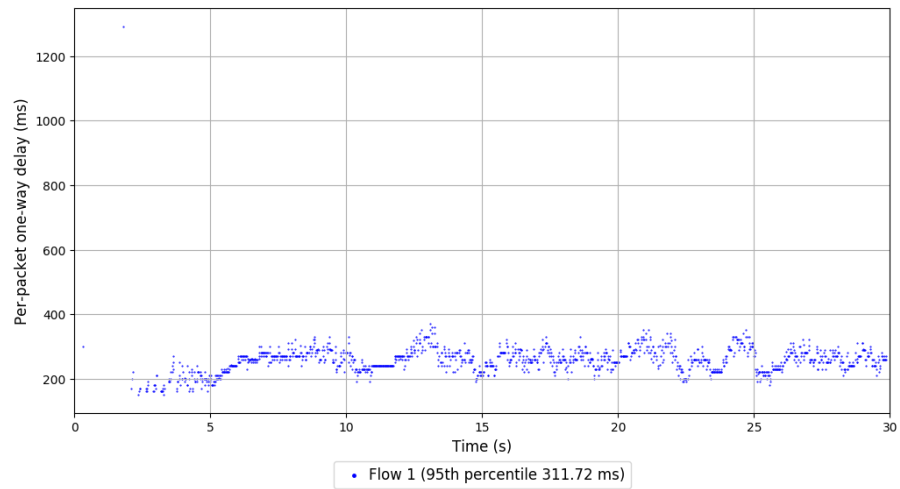
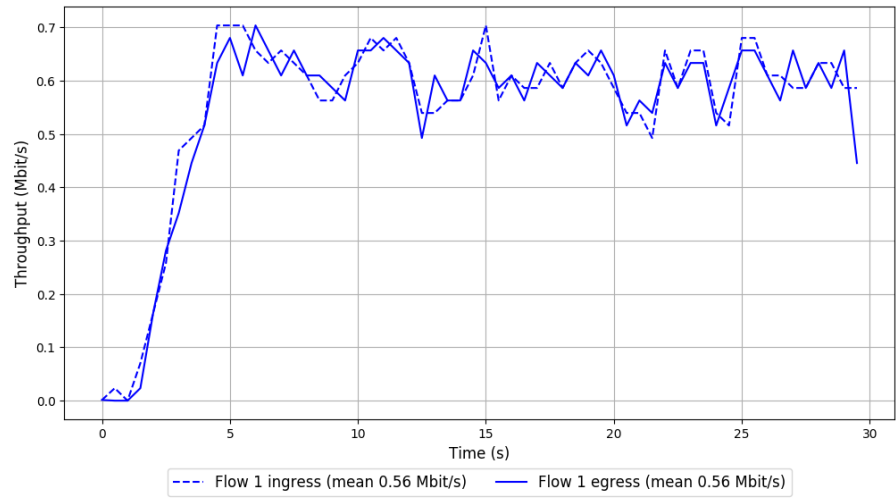


Run 2: Statistics of LEDBAT

Start at: 2017-08-31 12:49:19
End at: 2017-08-31 12:49:49
Local clock offset: 0.038 ms
Remote clock offset: -7.171 ms

Below is generated by plot.py at 2017-08-31 14:02:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 311.722 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 311.722 ms
Loss rate: 1.27%

Run 2: Report of LEDBAT — Data Link

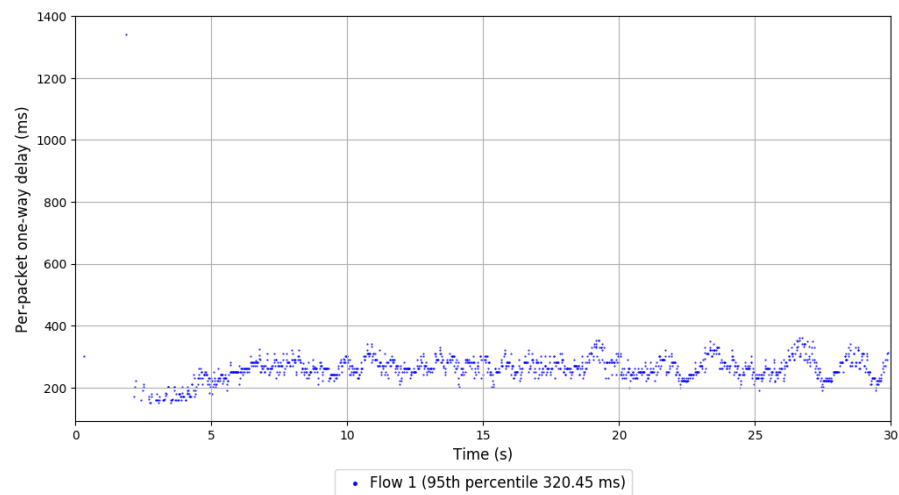
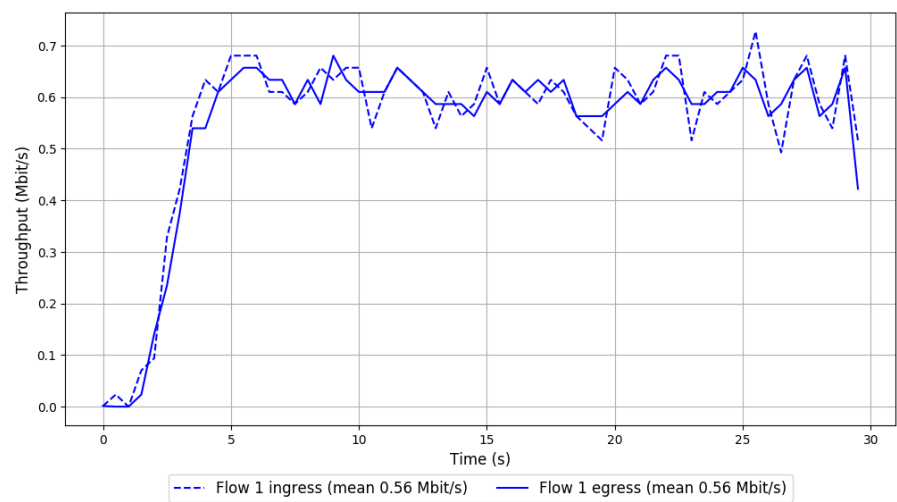


Run 3: Statistics of LEDBAT

Start at: 2017-08-31 13:06:53
End at: 2017-08-31 13:07:23
Local clock offset: 0.033 ms
Remote clock offset: -6.039 ms

Below is generated by plot.py at 2017-08-31 14:02:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 320.452 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 320.452 ms
Loss rate: 1.27%

Run 3: Report of LEDBAT — Data Link

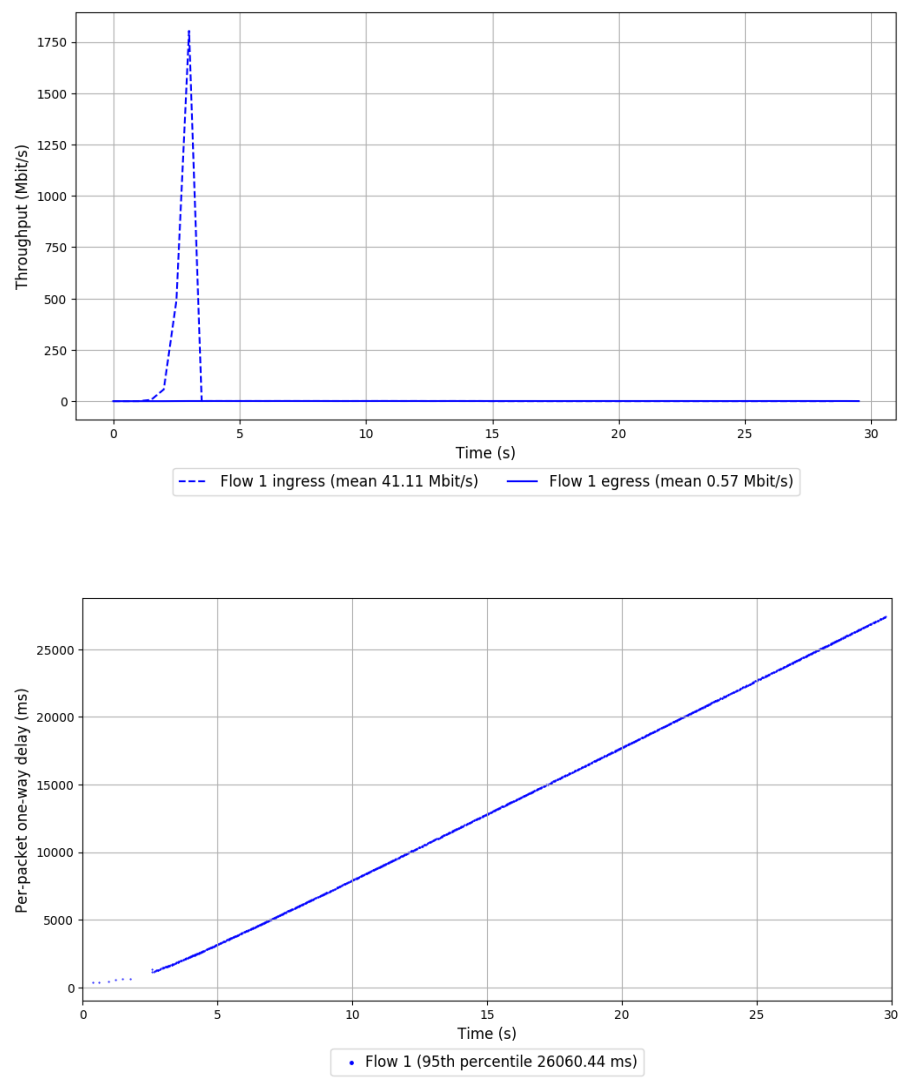


Run 1: Statistics of PCC

Start at: 2017-08-31 12:27:00
End at: 2017-08-31 12:27:30
Local clock offset: -0.031 ms
Remote clock offset: -3.391 ms

Below is generated by plot.py at 2017-08-31 14:02:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26060.439 ms
Loss rate: 98.59%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26060.439 ms
Loss rate: 98.59%

Run 1: Report of PCC — Data Link

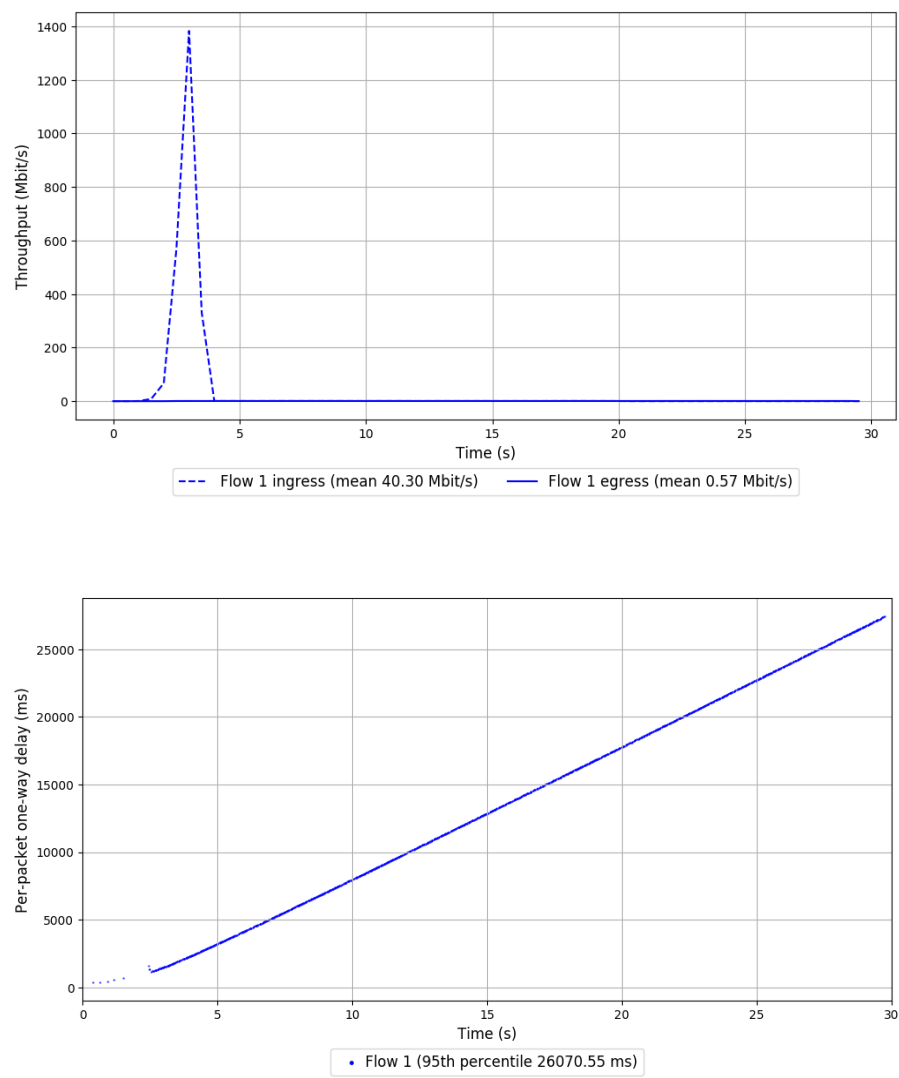


Run 2: Statistics of PCC

Start at: 2017-08-31 12:44:37
End at: 2017-08-31 12:45:07
Local clock offset: 0.062 ms
Remote clock offset: -6.297 ms

Below is generated by plot.py at 2017-08-31 14:02:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26070.546 ms
Loss rate: 98.60%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 26070.546 ms
Loss rate: 98.60%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

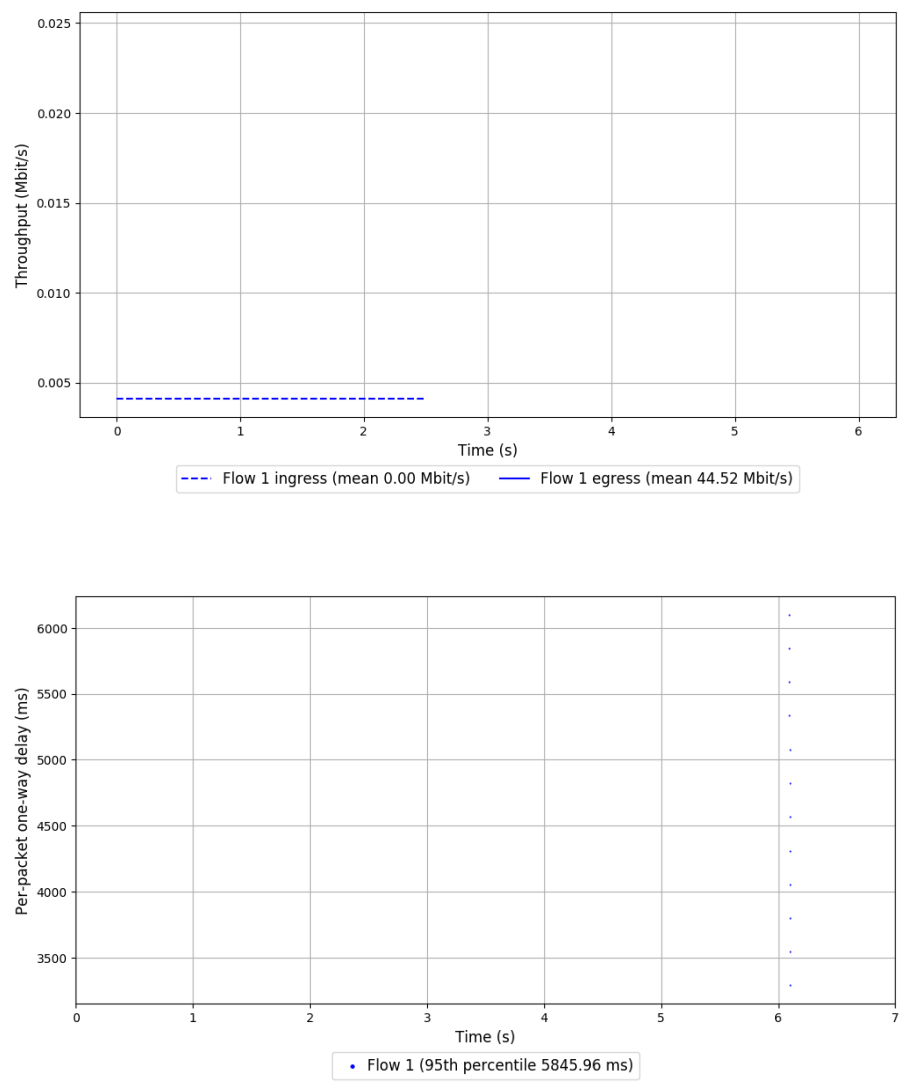
Start at: 2017-08-31 13:02:12

End at: 2017-08-31 13:02:42

Local clock offset: -0.008 ms

Remote clock offset: -7.143 ms

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2017-08-31 12:16:28

End at: 2017-08-31 12:16:58

Local clock offset: -0.013 ms

Remote clock offset: -6.875 ms

Below is generated by plot.py at 2017-08-31 14:02:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7145.750 ms

Loss rate: 25.55%

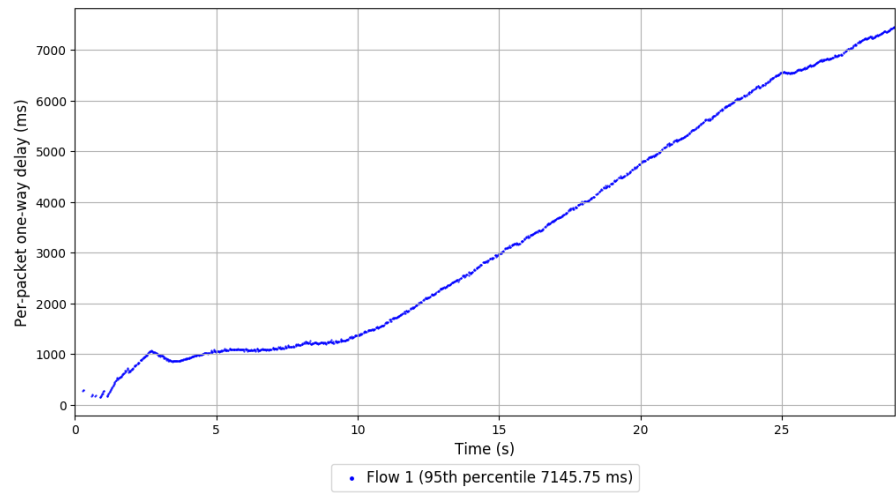
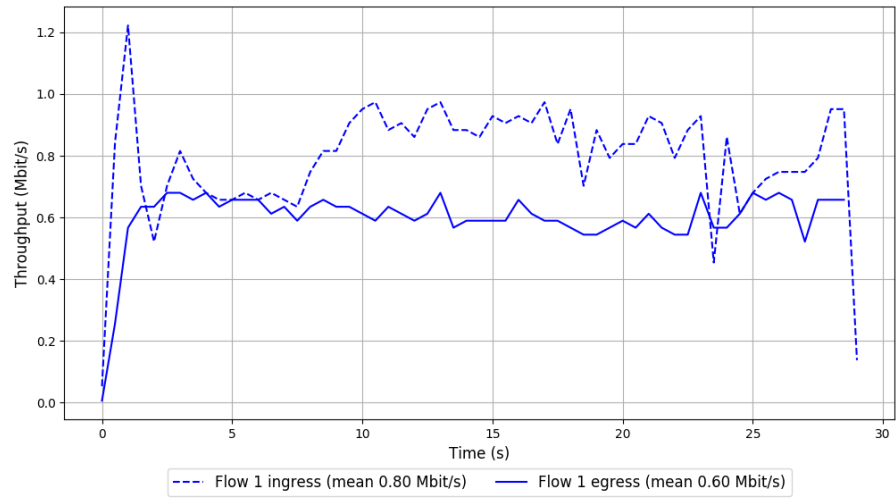
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7145.750 ms

Loss rate: 25.55%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-31 12:34:05

End at: 2017-08-31 12:34:35

Local clock offset: 0.052 ms

Remote clock offset: -6.397 ms

Below is generated by plot.py at 2017-08-31 14:02:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7313.266 ms

Loss rate: 29.25%

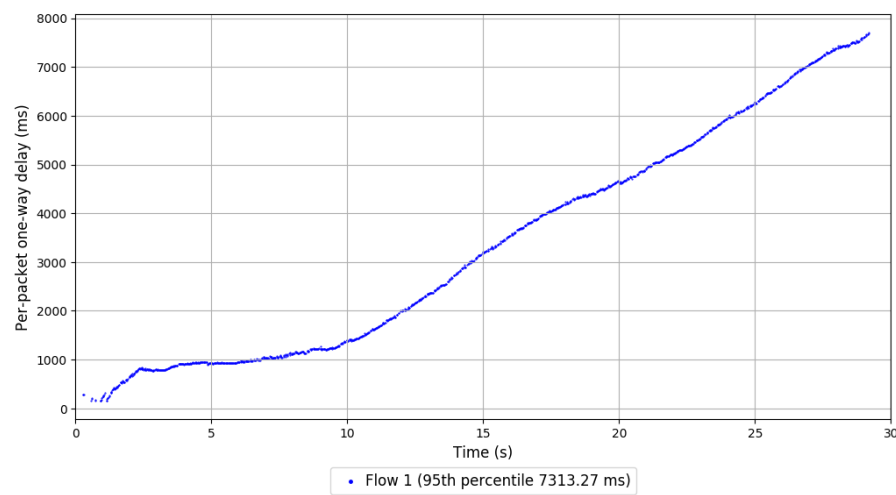
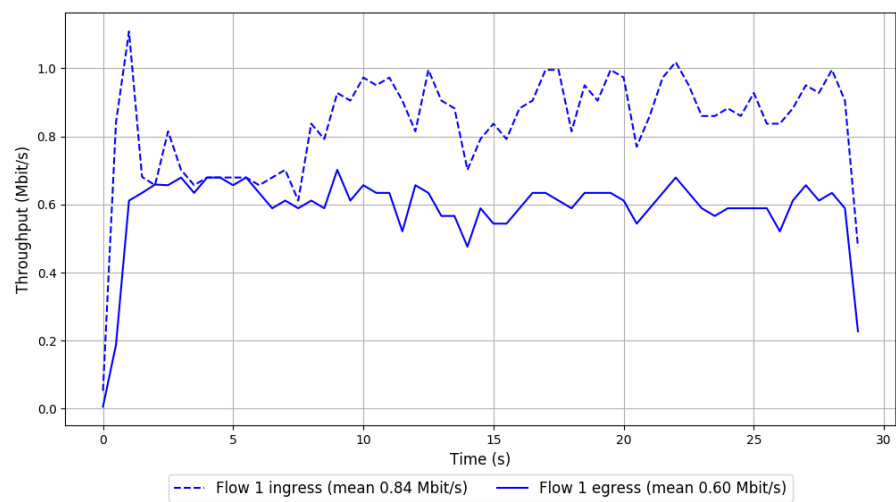
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7313.266 ms

Loss rate: 29.25%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-31 12:51:40

End at: 2017-08-31 12:52:10

Local clock offset: -0.02 ms

Remote clock offset: -7.163 ms

Below is generated by plot.py at 2017-08-31 14:02:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7164.309 ms

Loss rate: 29.27%

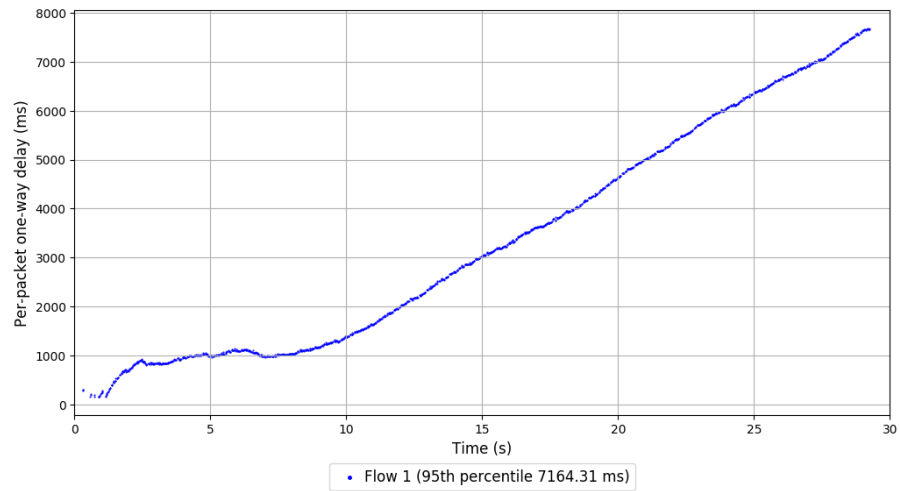
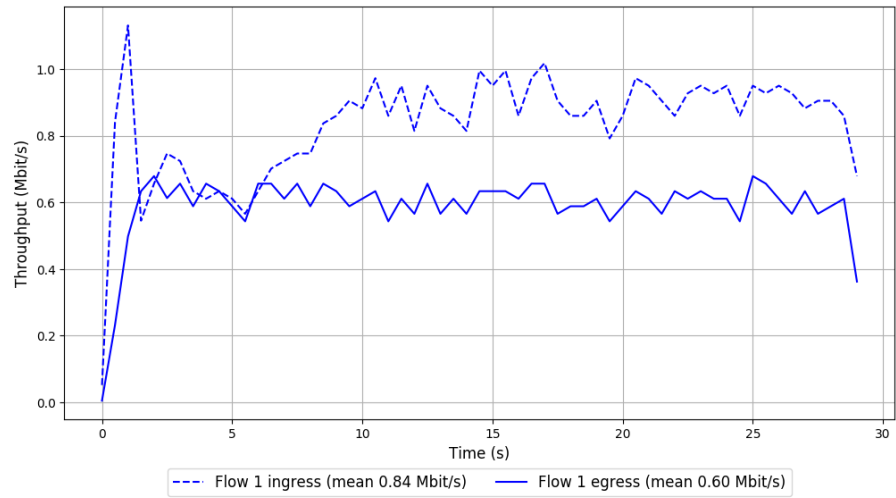
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 7164.309 ms

Loss rate: 29.27%

Run 3: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2017-08-31 12:22:19

End at: 2017-08-31 12:22:49

Local clock offset: 0.06 ms

Remote clock offset: -1.87 ms

Below is generated by plot.py at 2017-08-31 14:02:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 143.110 ms

Loss rate: 0.66%

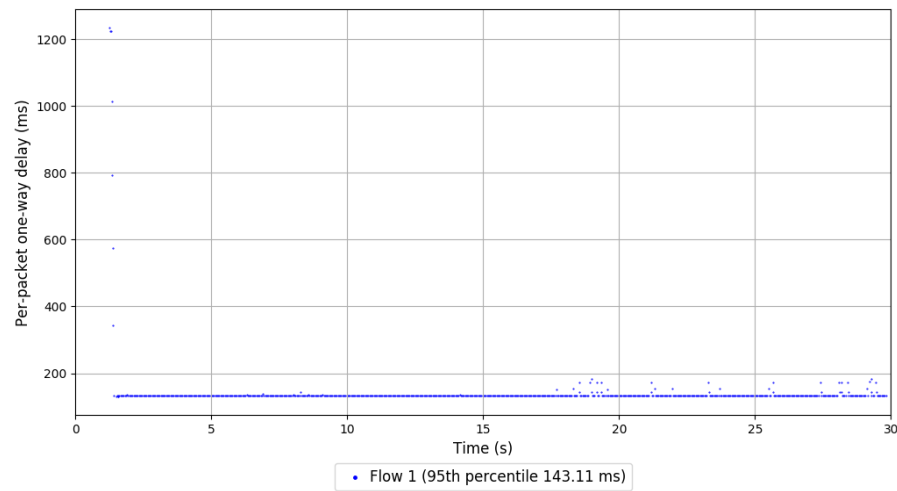
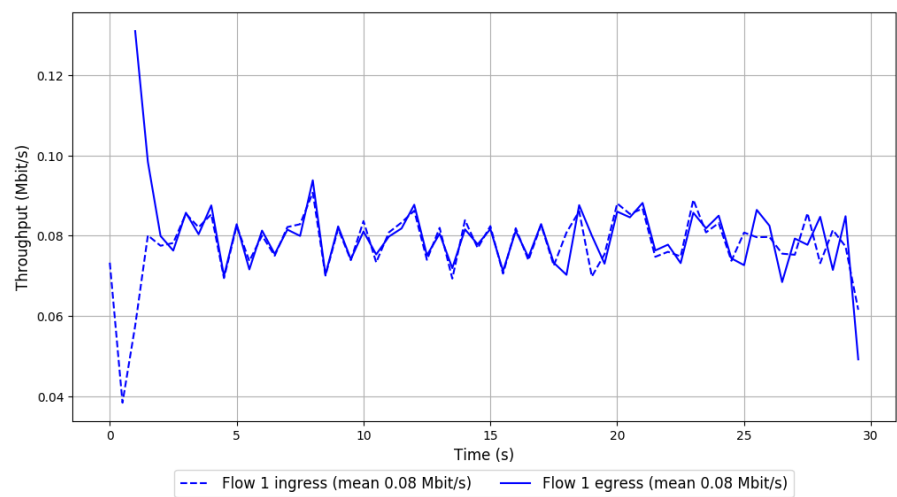
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 143.110 ms

Loss rate: 0.66%

Run 1: Report of SReAM — Data Link

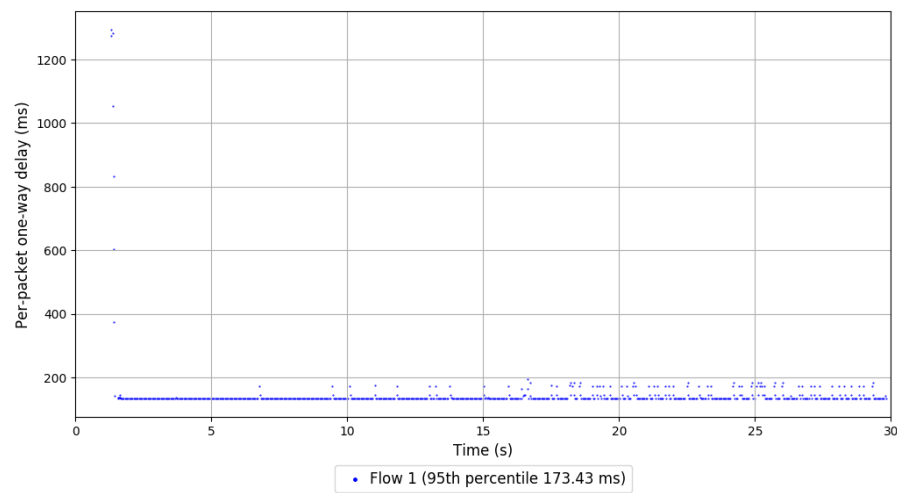
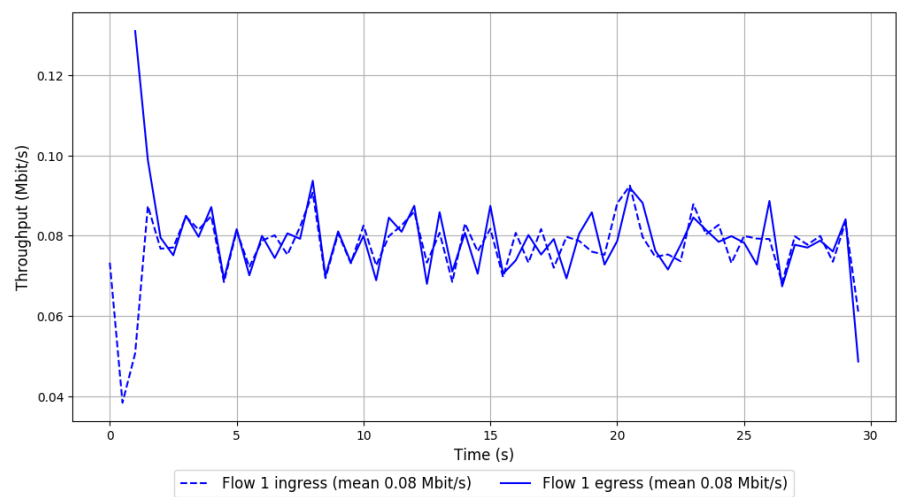


Run 2: Statistics of SCReAM

Start at: 2017-08-31 12:39:57
End at: 2017-08-31 12:40:27
Local clock offset: 0.039 ms
Remote clock offset: -2.352 ms

Below is generated by plot.py at 2017-08-31 14:02:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 173.432 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 173.432 ms
Loss rate: 0.66%

Run 2: Report of SReAM — Data Link

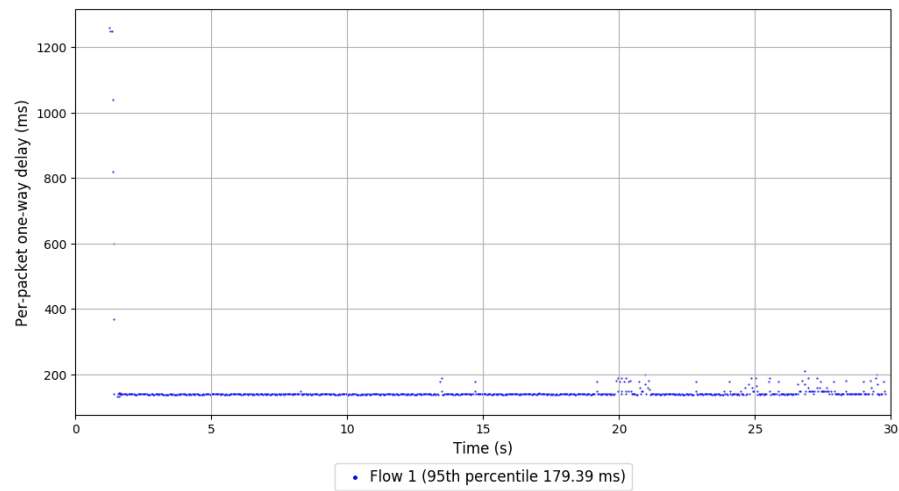
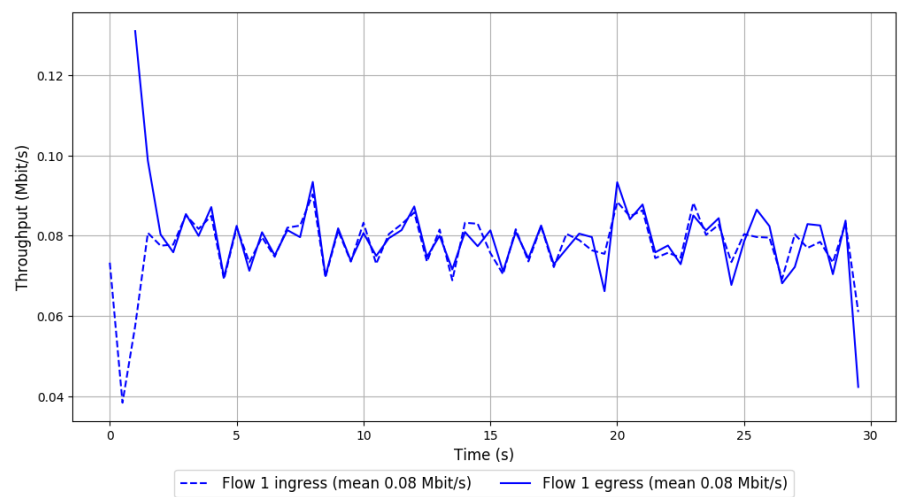


Run 3: Statistics of SCReAM

Start at: 2017-08-31 12:57:31
End at: 2017-08-31 12:58:01
Local clock offset: 0.044 ms
Remote clock offset: -7.053 ms

Below is generated by plot.py at 2017-08-31 14:02:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 179.391 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 179.391 ms
Loss rate: 0.79%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-31 12:21:09

End at: 2017-08-31 12:21:39

Local clock offset: 0.043 ms

Remote clock offset: -6.7 ms

Below is generated by plot.py at 2017-08-31 14:02:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 1094.941 ms

Loss rate: 1.49%

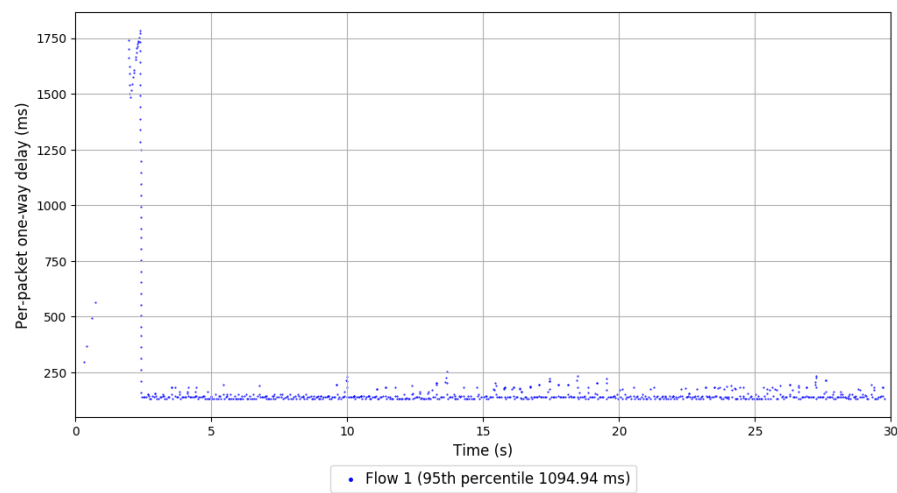
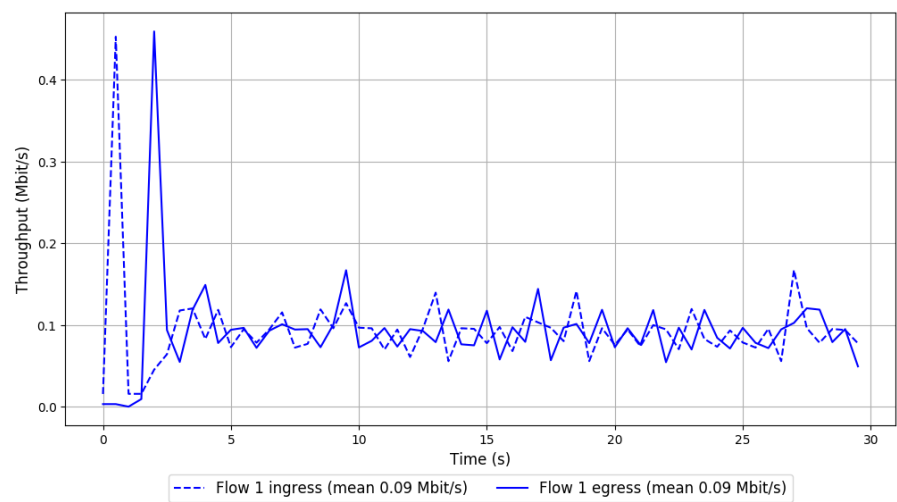
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 1094.941 ms

Loss rate: 1.49%

Run 1: Report of Sprout — Data Link

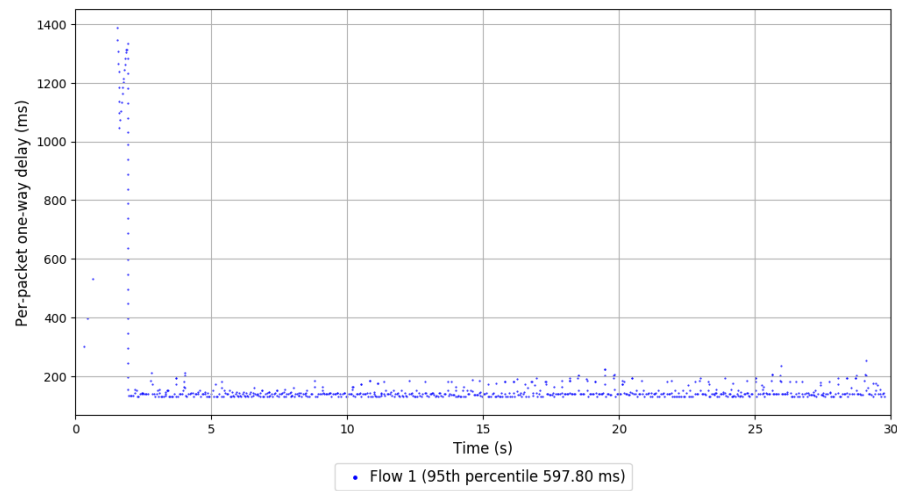
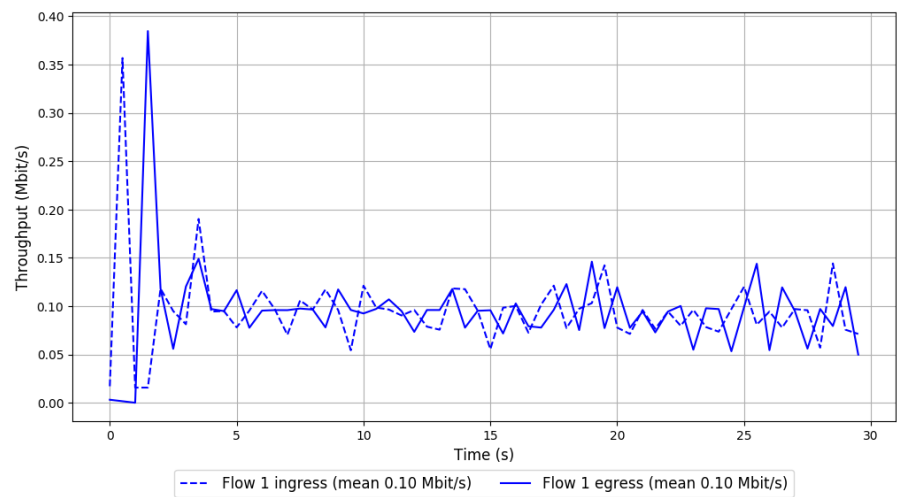


Run 2: Statistics of Sprout

Start at: 2017-08-31 12:38:46
End at: 2017-08-31 12:39:16
Local clock offset: -0.064 ms
Remote clock offset: -6.304 ms

Below is generated by plot.py at 2017-08-31 14:02:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 597.802 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 597.802 ms
Loss rate: 1.01%

Run 2: Report of Sprout — Data Link

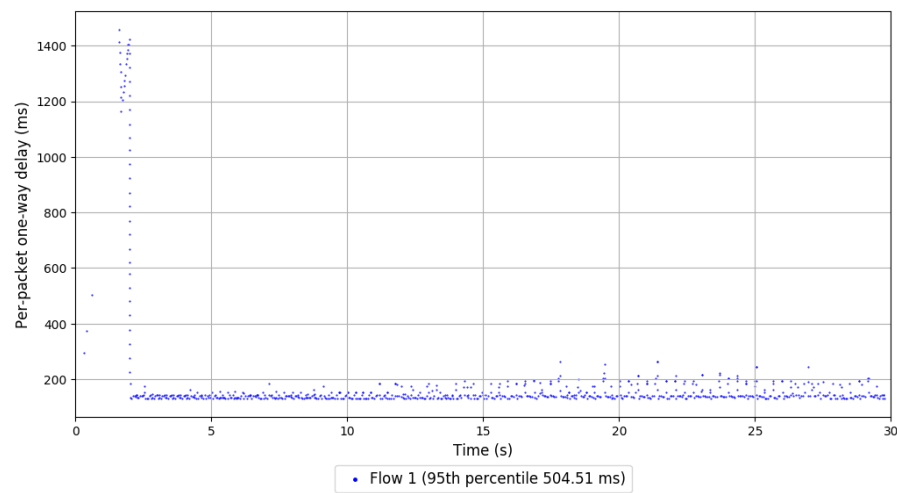
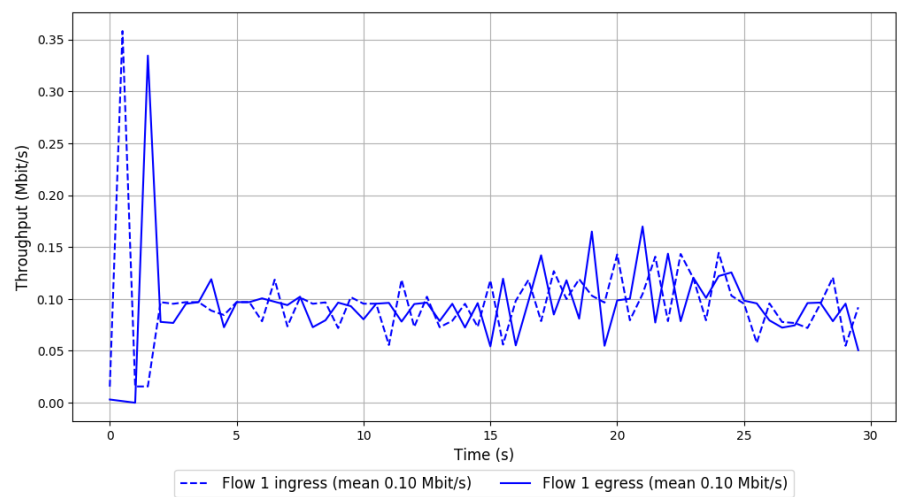


Run 3: Statistics of Sprout

Start at: 2017-08-31 12:56:21
End at: 2017-08-31 12:56:51
Local clock offset: 0.027 ms
Remote clock offset: -6.098 ms

Below is generated by plot.py at 2017-08-31 14:02:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 504.507 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 504.507 ms
Loss rate: 1.84%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2017-08-31 12:24:40

End at: 2017-08-31 12:25:10

Local clock offset: 0.043 ms

Remote clock offset: -1.76 ms

Below is generated by plot.py at 2017-08-31 14:02:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1067.164 ms

Loss rate: 2.74%

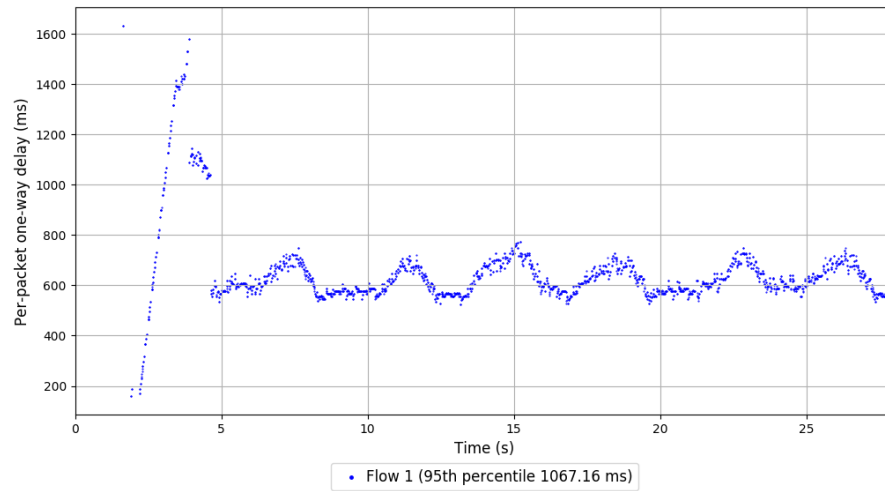
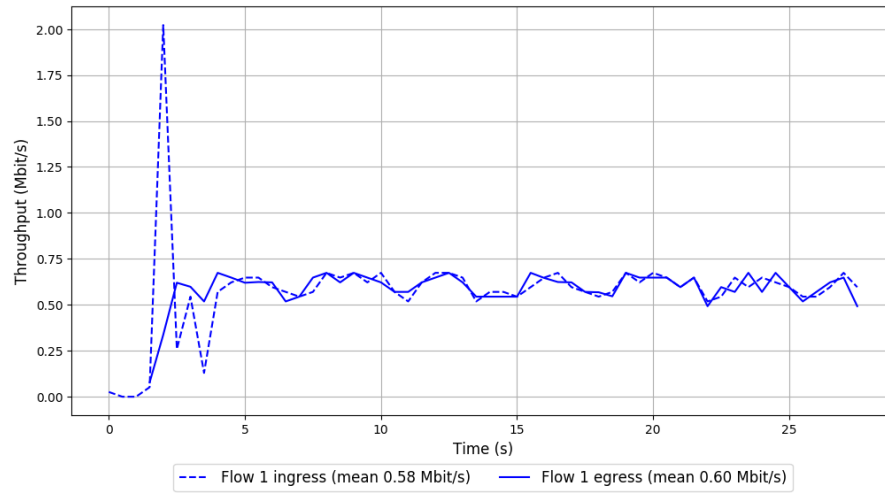
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1067.164 ms

Loss rate: 2.74%

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

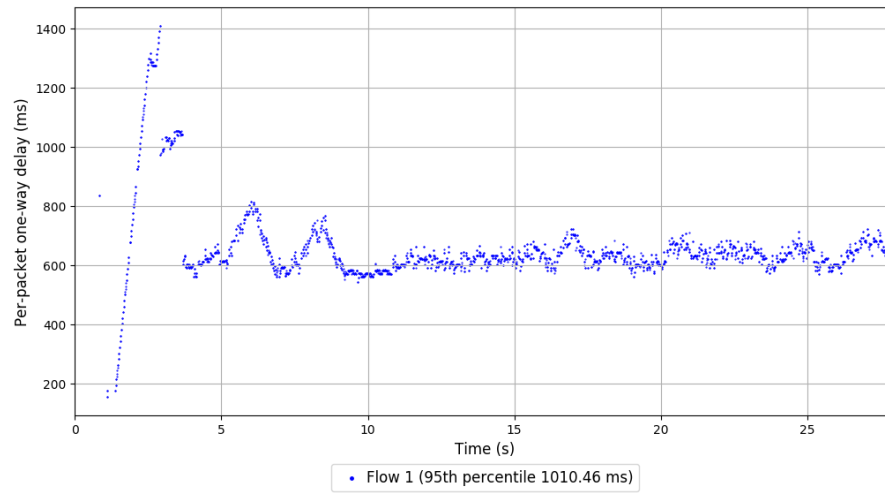
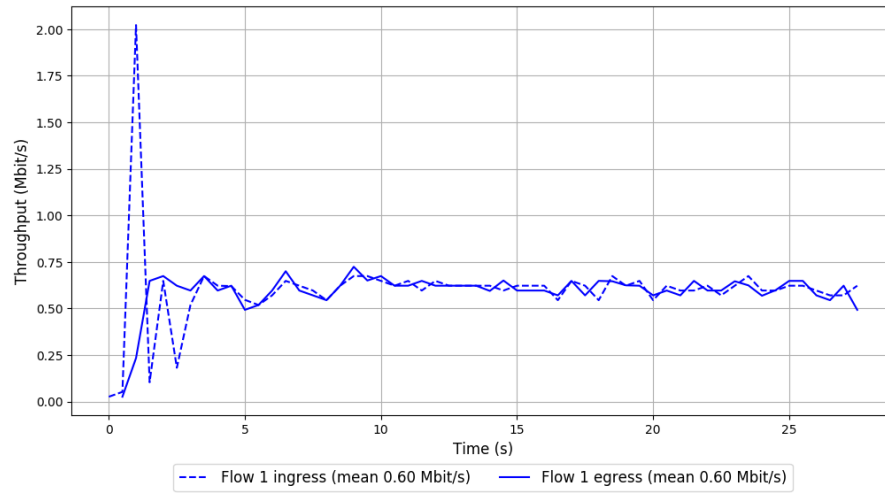


Run 2: Statistics of TaoVA-100x

Start at: 2017-08-31 12:42:17
End at: 2017-08-31 12:42:47
Local clock offset: -0.035 ms
Remote clock offset: -7.074 ms

Below is generated by plot.py at 2017-08-31 14:02:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1010.461 ms
Loss rate: 2.63%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1010.461 ms
Loss rate: 2.63%

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-31 12:59:52

End at: 2017-08-31 13:00:22

Local clock offset: 0.048 ms

Remote clock offset: -3.136 ms

Below is generated by plot.py at 2017-08-31 14:02:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 954.117 ms

Loss rate: 2.82%

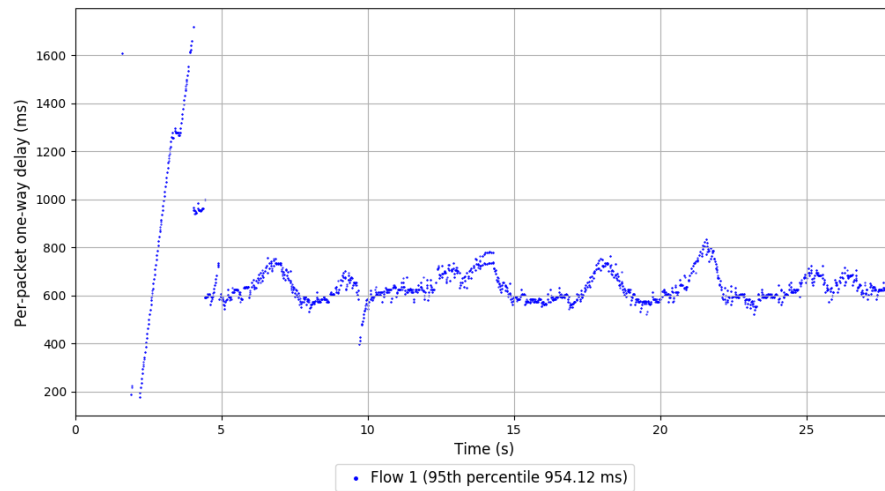
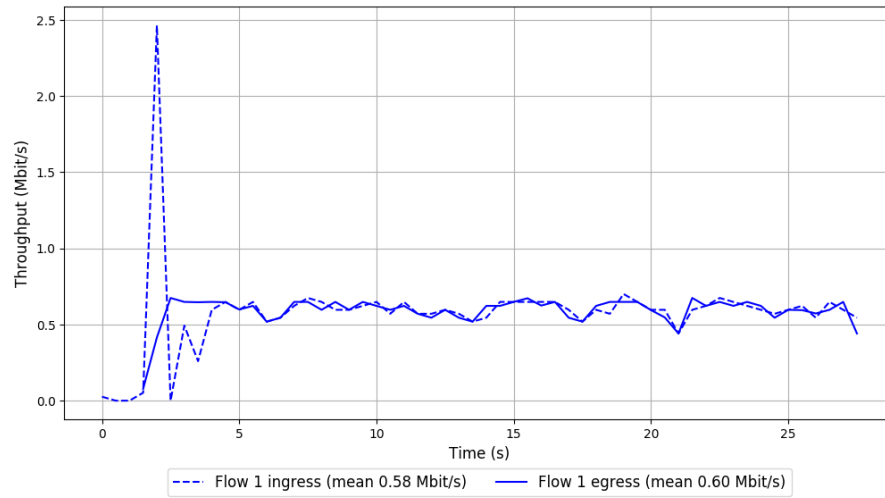
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 954.117 ms

Loss rate: 2.82%

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

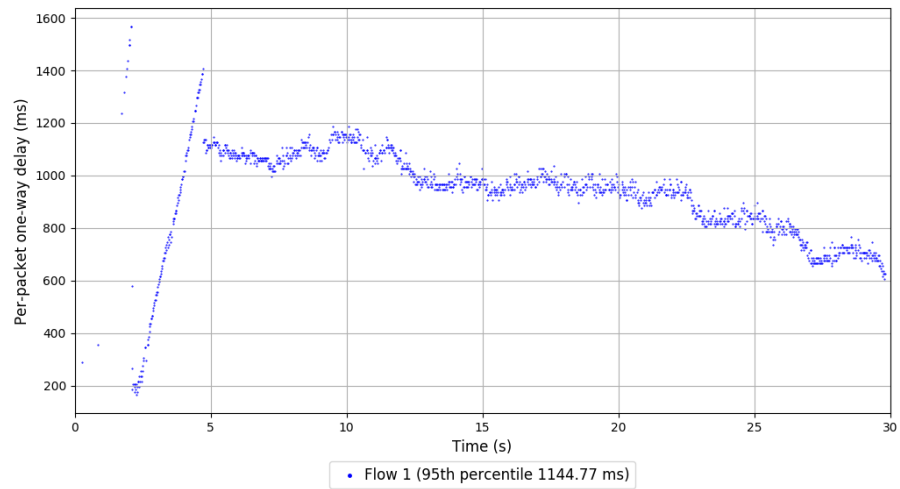
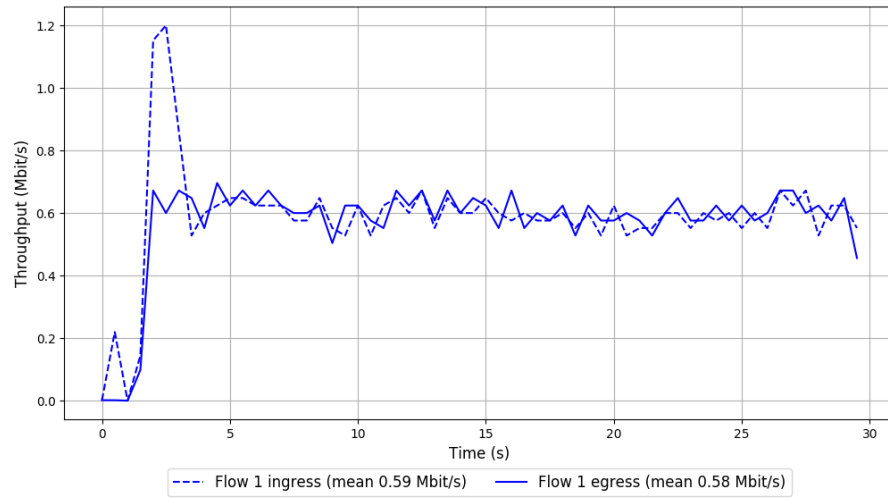


Run 1: Statistics of TCP Vegas

Start at: 2017-08-31 12:19:59
End at: 2017-08-31 12:20:29
Local clock offset: 0.037 ms
Remote clock offset: -3.638 ms

Below is generated by plot.py at 2017-08-31 14:02:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1144.767 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1144.767 ms
Loss rate: 2.67%

Run 1: Report of TCP Vegas — Data Link

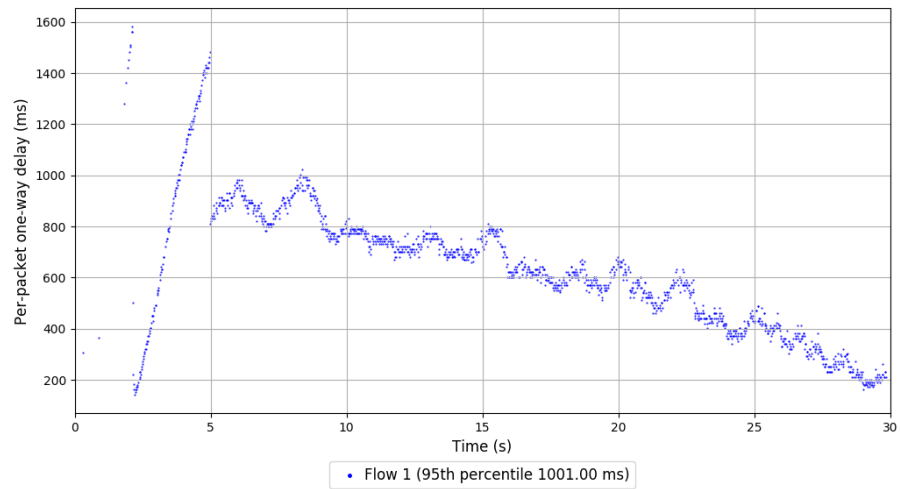
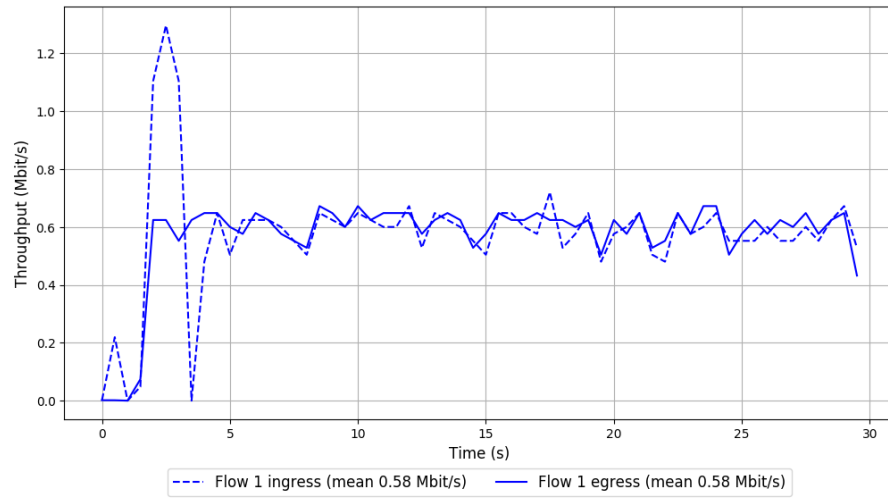


Run 2: Statistics of TCP Vegas

Start at: 2017-08-31 12:37:36
End at: 2017-08-31 12:38:06
Local clock offset: 0.003 ms
Remote clock offset: -3.376 ms

Below is generated by plot.py at 2017-08-31 14:02:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1000.998 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 1000.998 ms
Loss rate: 1.05%

Run 2: Report of TCP Vegas — Data Link

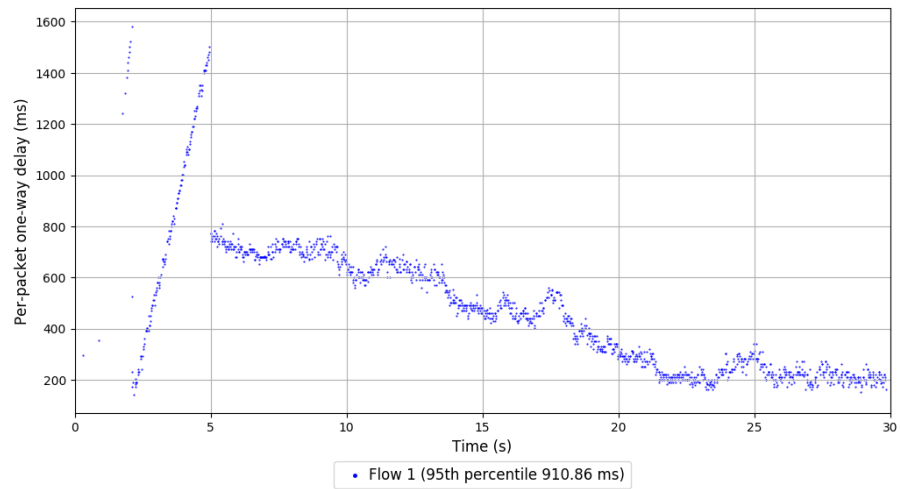
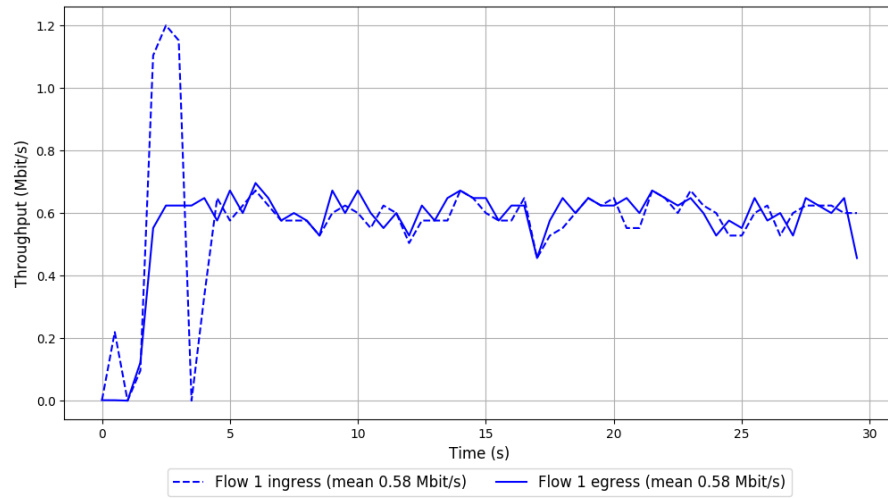


Run 3: Statistics of TCP Vegas

Start at: 2017-08-31 12:55:11
End at: 2017-08-31 12:55:41
Local clock offset: 0.024 ms
Remote clock offset: -6.028 ms

Below is generated by plot.py at 2017-08-31 14:02:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 910.855 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 910.855 ms
Loss rate: 1.11%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-31 12:23:30

End at: 2017-08-31 12:24:00

Local clock offset: 0.039 ms

Remote clock offset: -1.82 ms

Below is generated by plot.py at 2017-08-31 14:02:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1842.627 ms

Loss rate: 6.12%

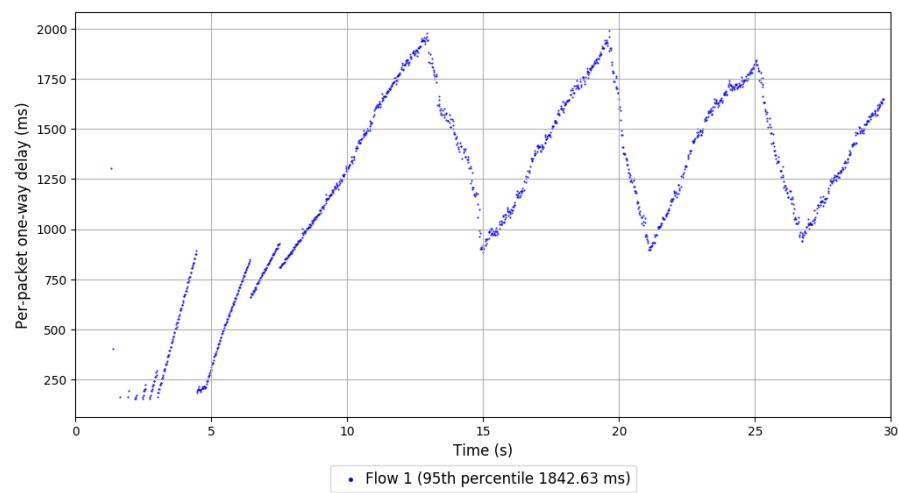
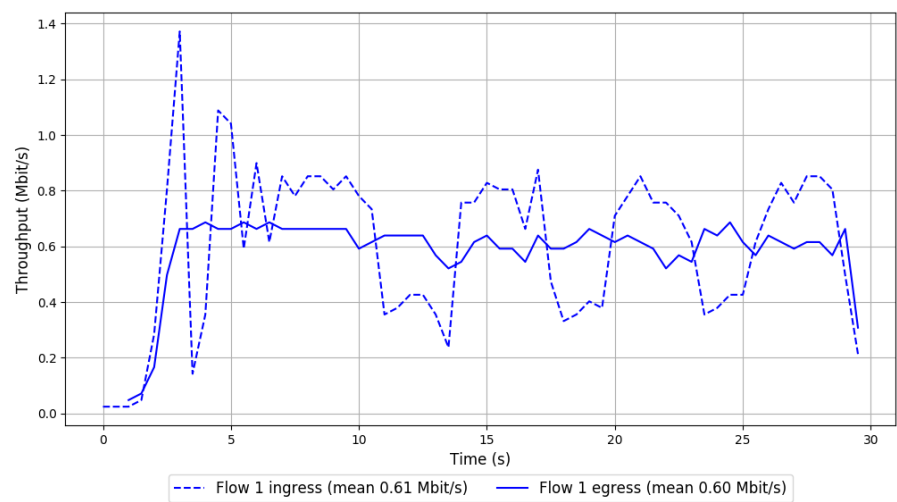
-- Flow 1:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1842.627 ms

Loss rate: 6.12%

Run 1: Report of Verus — Data Link

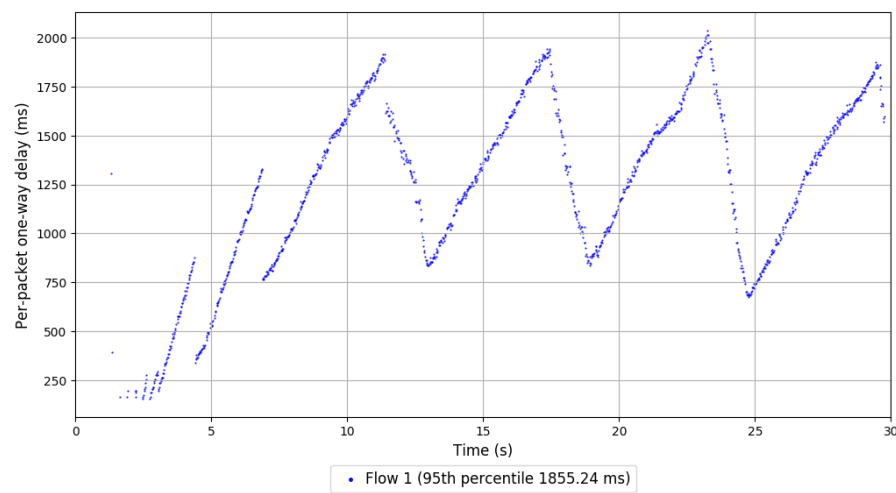
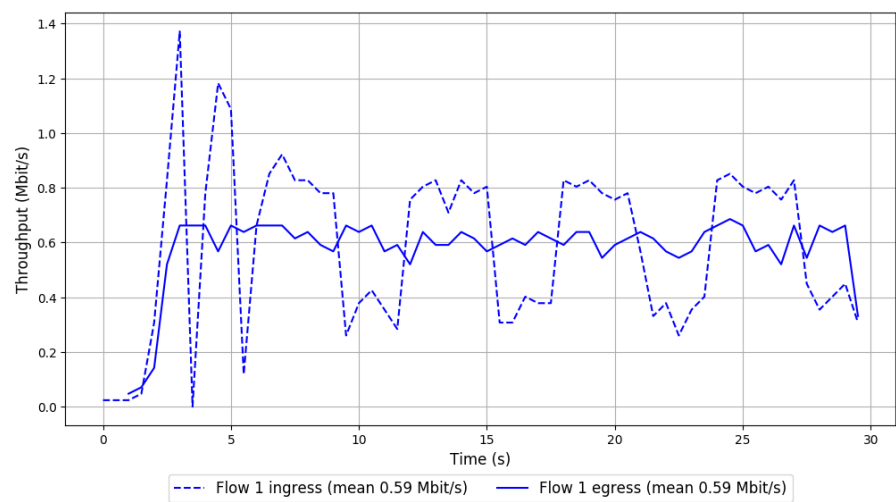


Run 2: Statistics of Verus

Start at: 2017-08-31 12:41:07
End at: 2017-08-31 12:41:37
Local clock offset: 0.031 ms
Remote clock offset: -6.312 ms

Below is generated by plot.py at 2017-08-31 14:02:21
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1855.241 ms
Loss rate: 3.91%
-- Flow 1:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1855.241 ms
Loss rate: 3.91%

Run 2: Report of Verus — Data Link

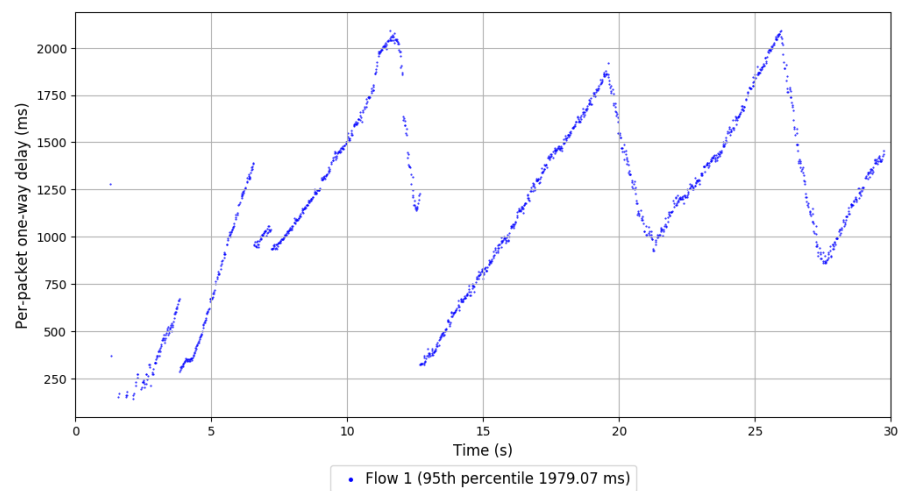
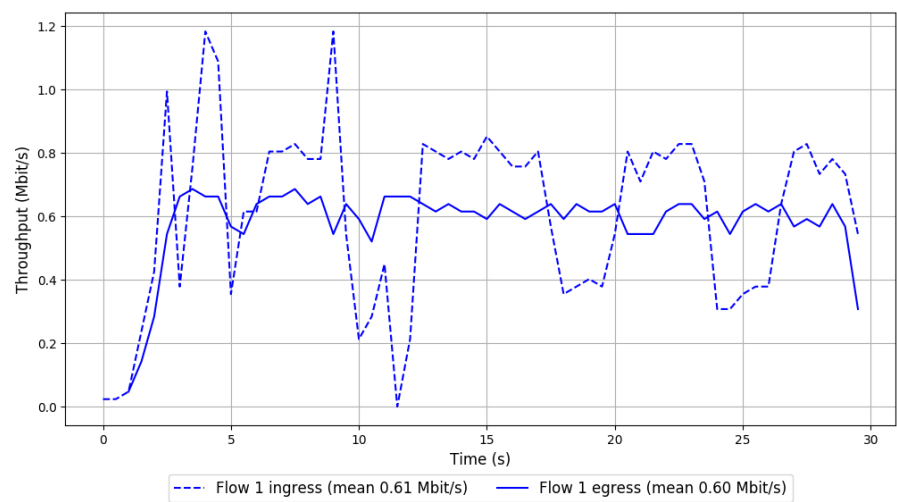


Run 3: Statistics of Verus

Start at: 2017-08-31 12:58:41
End at: 2017-08-31 12:59:11
Local clock offset: 0.029 ms
Remote clock offset: -2.068 ms

Below is generated by plot.py at 2017-08-31 14:02:21
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1979.069 ms
Loss rate: 6.87%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 1979.069 ms
Loss rate: 6.87%

Run 3: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-08-31 12:30:34

End at: 2017-08-31 12:31:04

Local clock offset: 0.009 ms

Remote clock offset: -3.335 ms

Below is generated by plot.py at 2017-08-31 14:02:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 721.352 ms

Loss rate: 0.01%

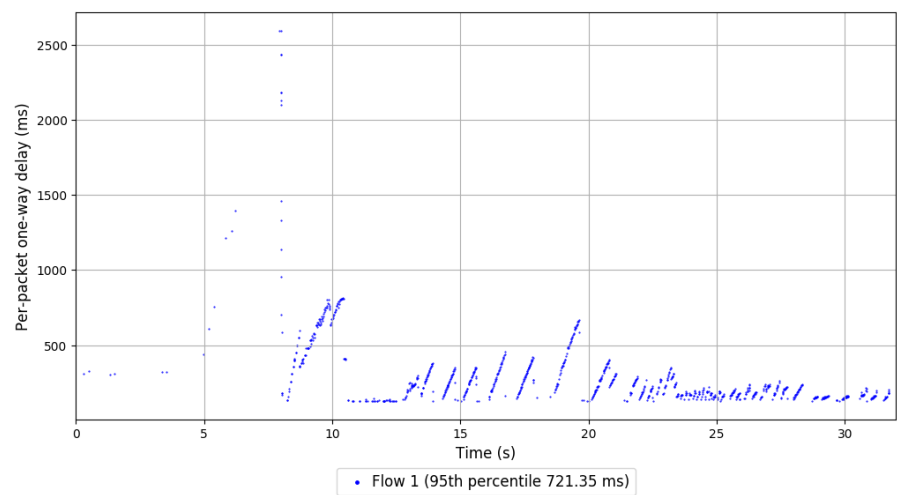
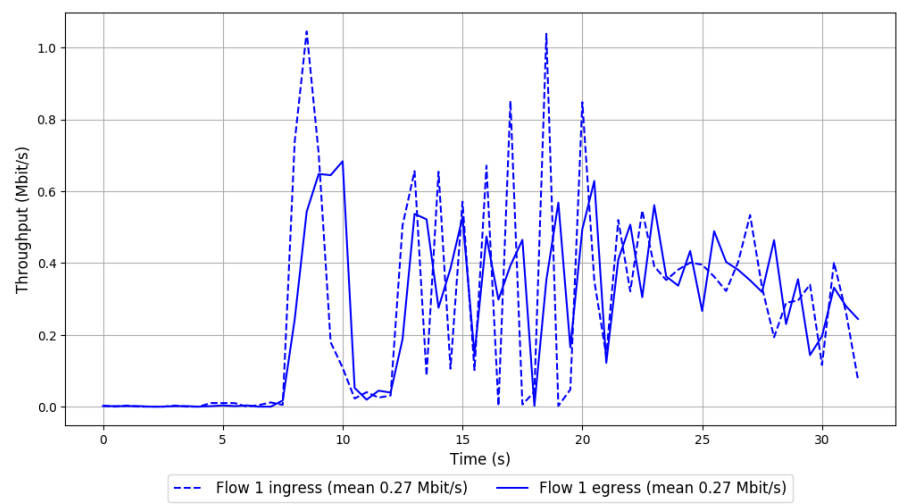
-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 721.352 ms

Loss rate: 0.01%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-31 12:48:09

End at: 2017-08-31 12:48:39

Local clock offset: 0.05 ms

Remote clock offset: -2.29 ms

Below is generated by plot.py at 2017-08-31 14:02:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 715.988 ms

Loss rate: 1.46%

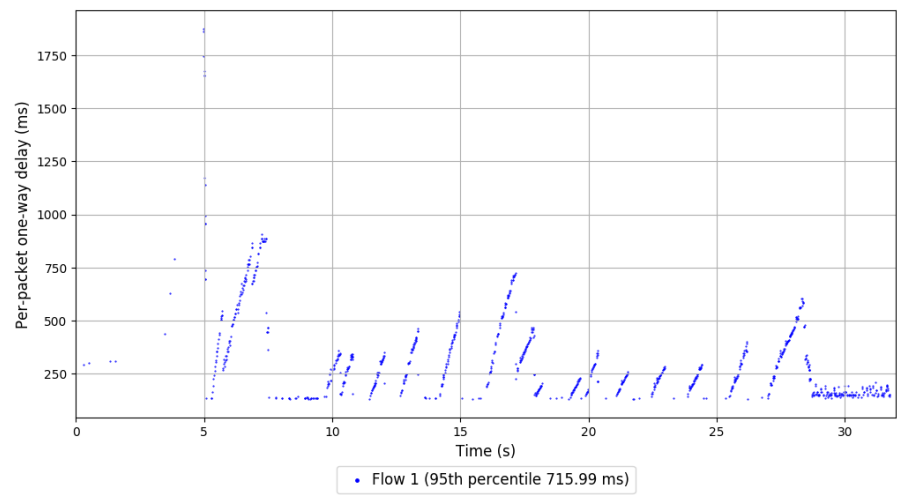
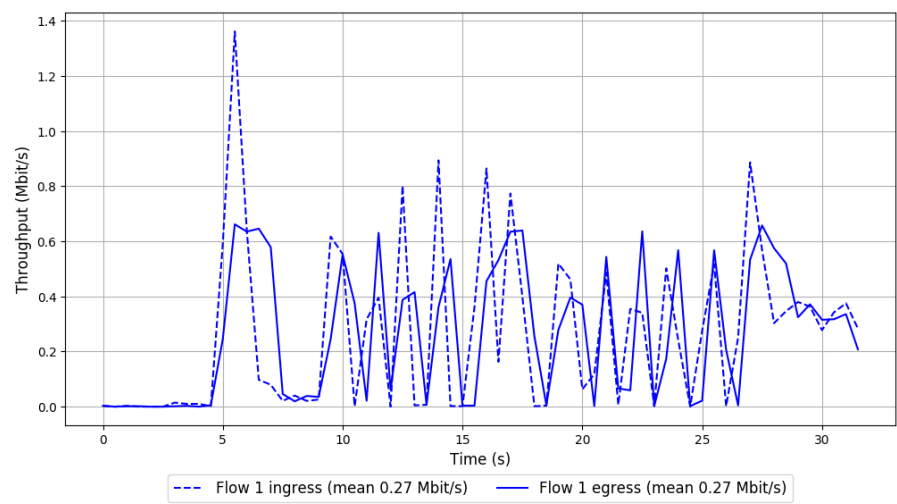
-- Flow 1:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 715.988 ms

Loss rate: 1.46%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-31 13:05:43
End at: 2017-08-31 13:06:13
Local clock offset: 0.039 ms
Remote clock offset: -2.974 ms

Below is generated by plot.py at 2017-08-31 14:02:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 714.196 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 714.196 ms
Loss rate: 2.21%

Run 3: Report of WebRTC media — Data Link

