

Pantheon Report

Generated at 2018-06-30 06:11:32 (UTC).

Data path: China ppp0 ppp0 (*remote*) → AWS Korea Ethernet (*local*).

Repeated the test of 17 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

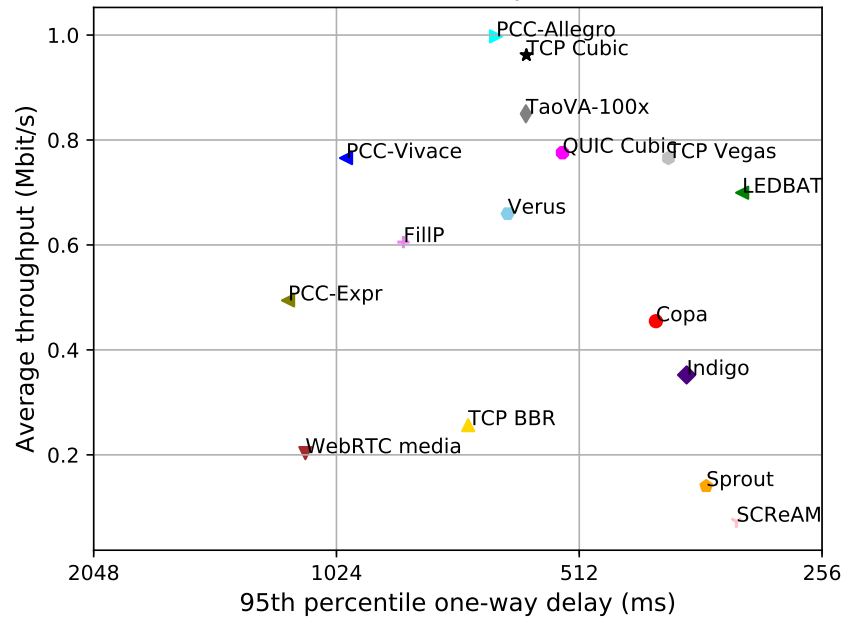
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

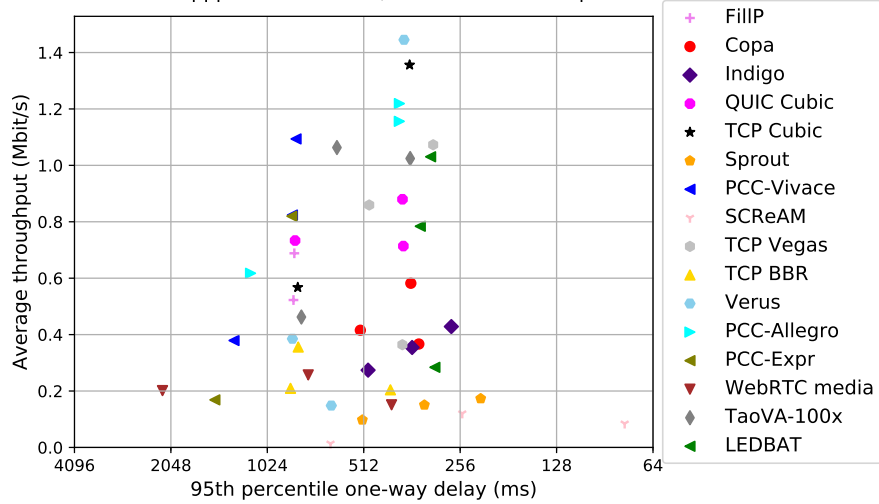
Git summary:

```
branch: master @ 715dc5f09d172e419699f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3db86198eac35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quirk @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
  M src/ScreamClient
  M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from China ppp0 to AWS Korea, 3 runs of 30s each per scheme
(mean of all runs by scheme)



test from China ppp0 to AWS Korea, 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	0.26	703.10	14.31
Copa	3	0.46	411.38	4.71
TCP Cubic	2	0.97	595.43	8.32
FillP	2	0.60	845.83	49.02
FillP-Sheep	0	N/A	N/A	N/A
Indigo	3	0.35	376.86	2.41
LEDBAT	3	0.70	321.59	1.89
PCC-Allegro	3	1.00	649.20	69.93
PCC-Expr	2	0.49	1175.78	92.13
QUIC Cubic	3	0.77	537.10	10.96
SCReAM	3	0.07	326.89	12.41
Sprout	3	0.14	356.32	7.48
TaoVA-100x	3	0.85	596.29	13.62
TCP Vegas	3	0.76	396.93	2.15
Verus	3	0.66	628.15	42.47
PCC-Vivace	3	0.76	996.41	47.10
WebRTC media	3	0.20	1119.13	23.24

Run 1: Statistics of TCP BBR

Start at: 2018-06-30 05:09:04

End at: 2018-06-30 05:09:34

Local clock offset: 9.054 ms

Remote clock offset: -8.477 ms

Below is generated by plot.py at 2018-06-30 06:11:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 422.632 ms

Loss rate: 14.40%

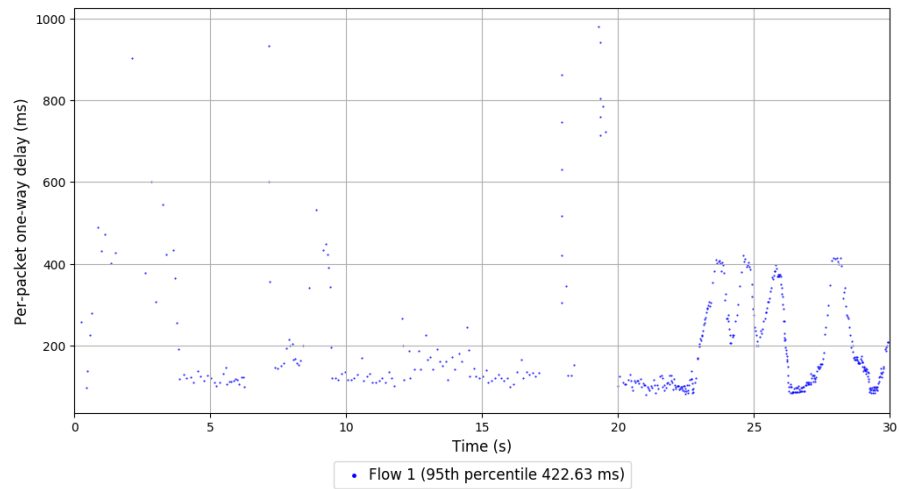
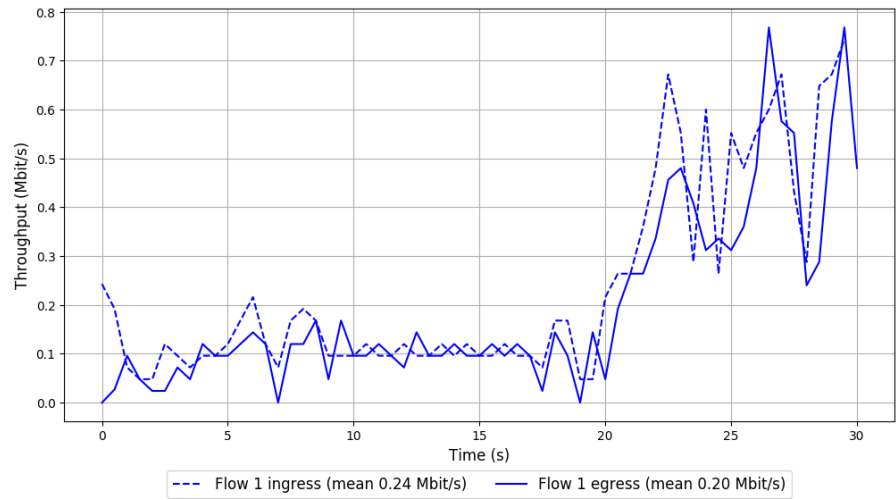
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 422.632 ms

Loss rate: 14.40%

Run 1: Report of TCP BBR — Data Link

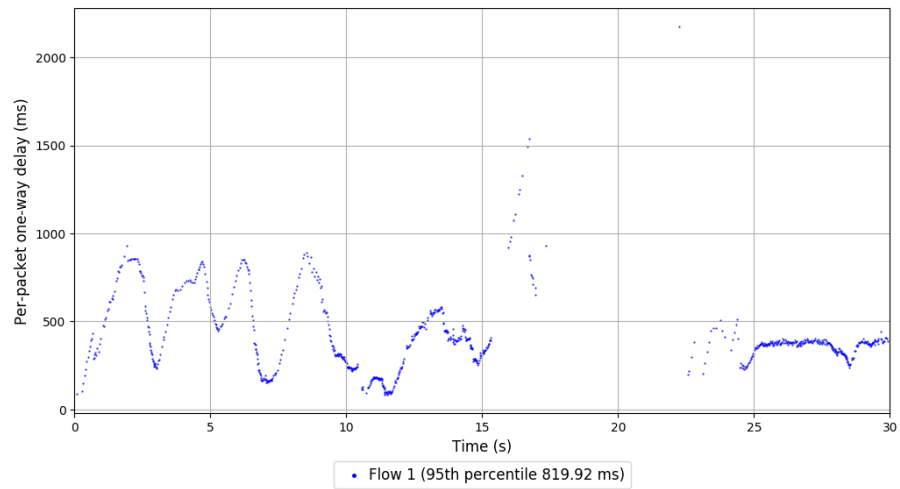
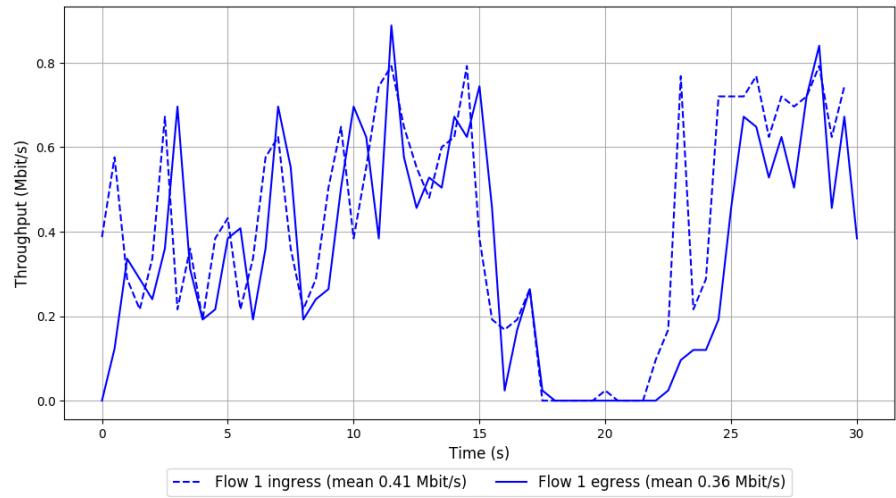


Run 2: Statistics of TCP BBR

Start at: 2018-06-30 05:32:01
End at: 2018-06-30 05:32:31
Local clock offset: -3.091 ms
Remote clock offset: -8.169 ms

Below is generated by plot.py at 2018-06-30 06:11:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 819.923 ms
Loss rate: 13.66%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 819.923 ms
Loss rate: 13.66%

Run 2: Report of TCP BBR — Data Link

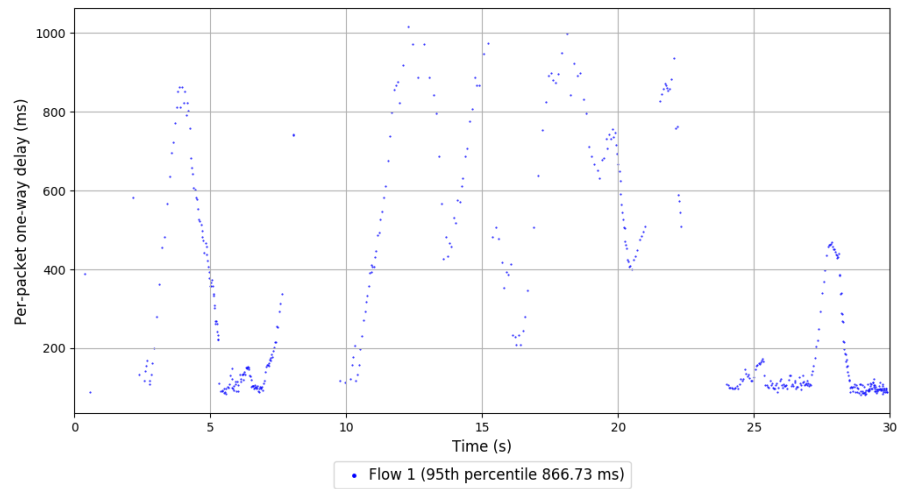
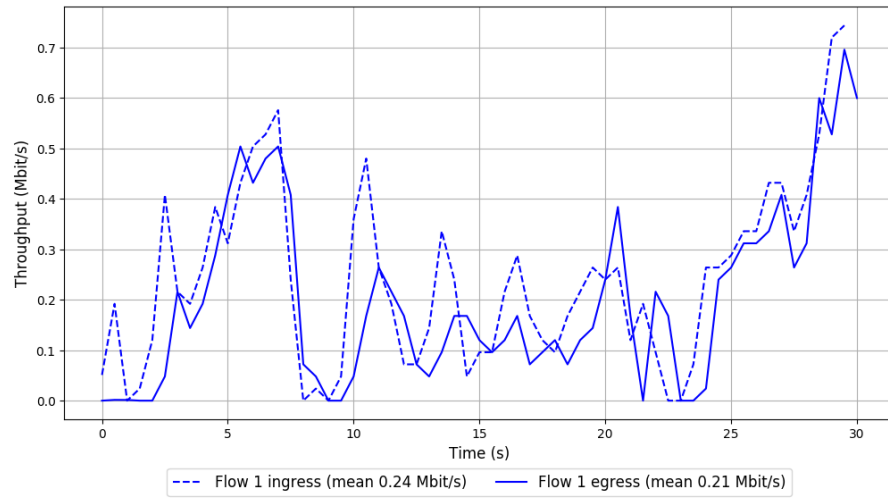


Run 3: Statistics of TCP BBR

Start at: 2018-06-30 05:54:30
End at: 2018-06-30 05:55:00
Local clock offset: -2.439 ms
Remote clock offset: -9.749 ms

Below is generated by plot.py at 2018-06-30 06:11:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 866.732 ms
Loss rate: 14.87%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 866.732 ms
Loss rate: 14.87%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-06-30 05:19:24

End at: 2018-06-30 05:19:54

Local clock offset: 4.51 ms

Remote clock offset: -8.311 ms

Below is generated by plot.py at 2018-06-30 06:11:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 364.955 ms

Loss rate: 1.30%

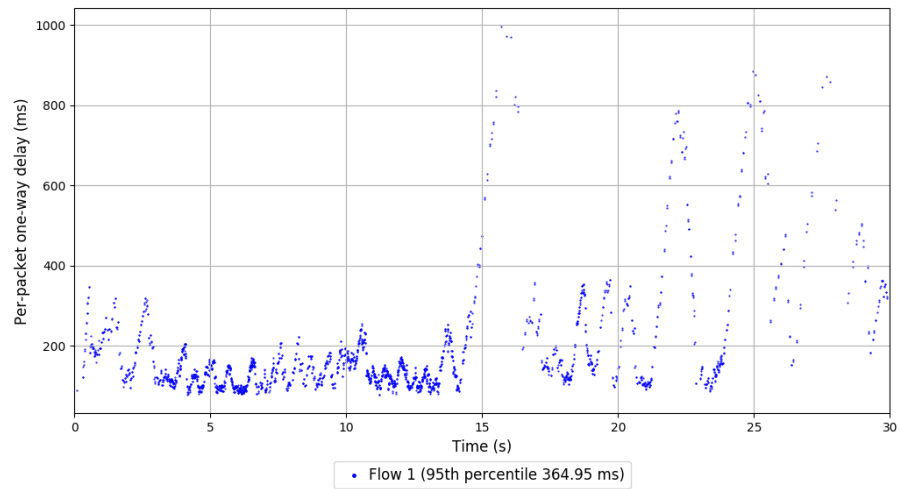
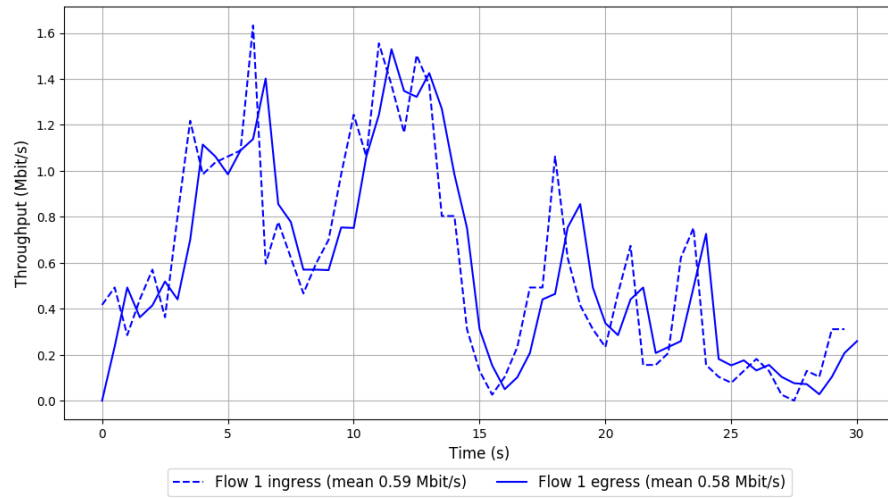
-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 364.955 ms

Loss rate: 1.30%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-06-30 05:42:25

End at: 2018-06-30 05:42:55

Local clock offset: -5.834 ms

Remote clock offset: -8.76 ms

Below is generated by plot.py at 2018-06-30 06:11:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 344.572 ms

Loss rate: 8.11%

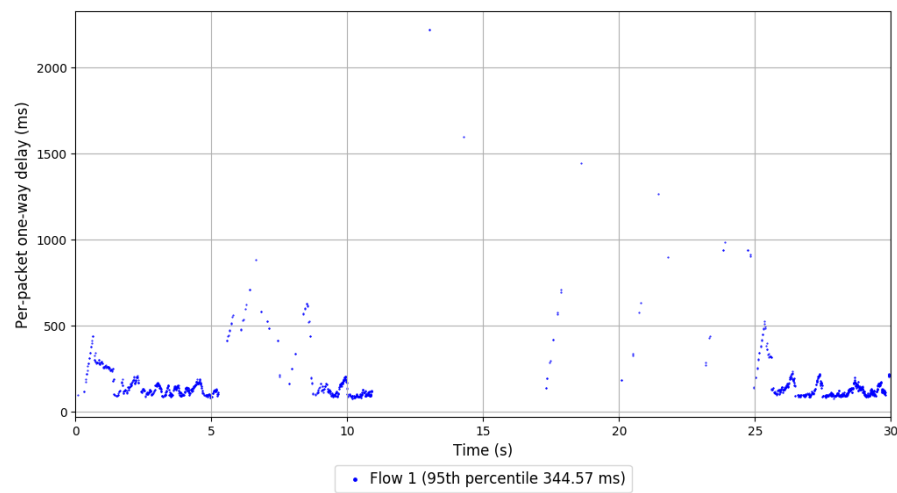
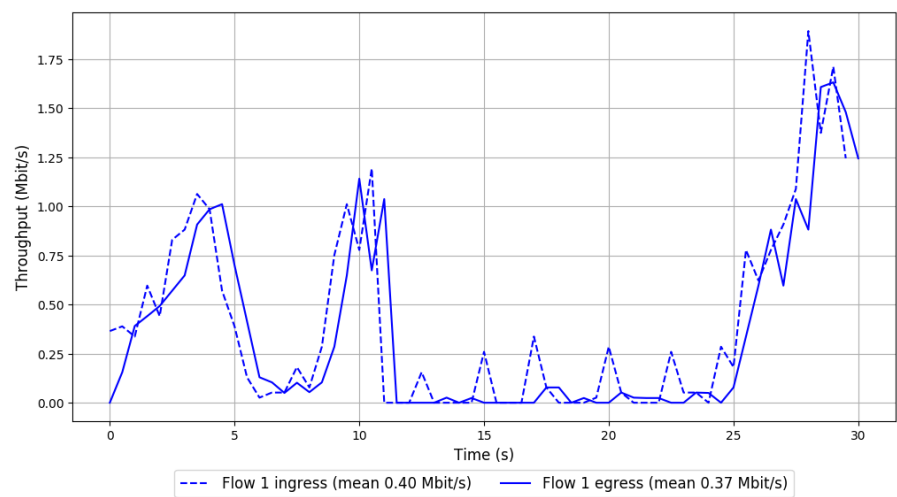
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 344.572 ms

Loss rate: 8.11%

Run 2: Report of Copa — Data Link

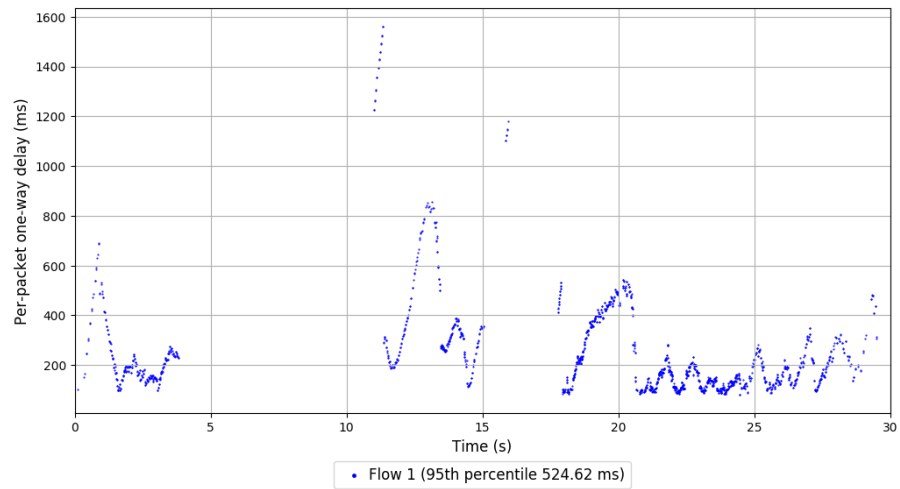
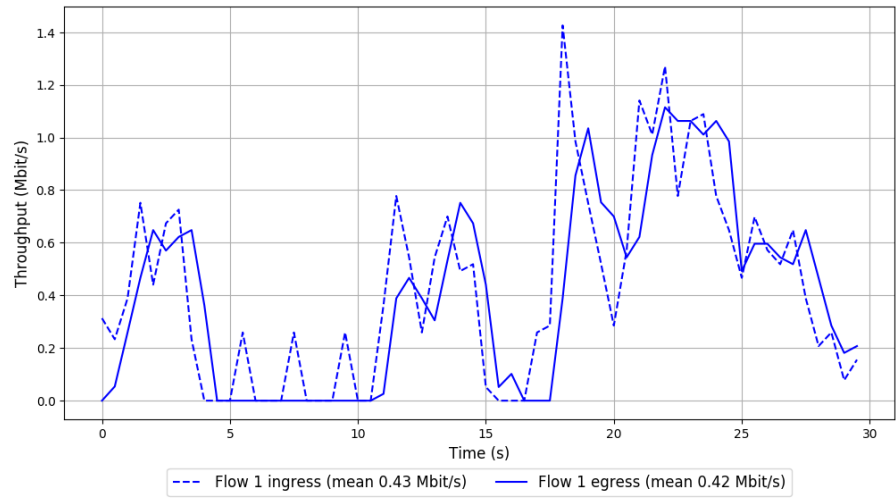


Run 3: Statistics of Copa

Start at: 2018-06-30 06:05:14
End at: 2018-06-30 06:05:44
Local clock offset: -1.299 ms
Remote clock offset: -10.112 ms

Below is generated by plot.py at 2018-06-30 06:11:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 524.621 ms
Loss rate: 4.73%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 524.621 ms
Loss rate: 4.73%

Run 3: Report of Copa — Data Link

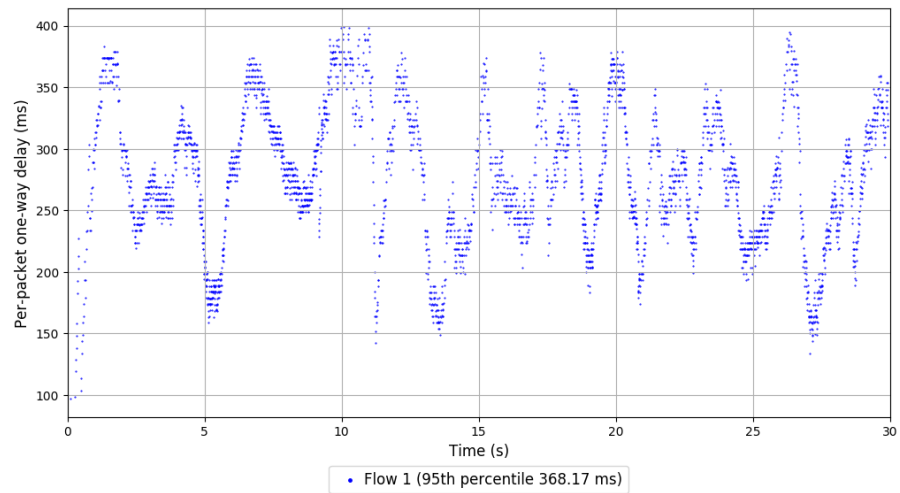
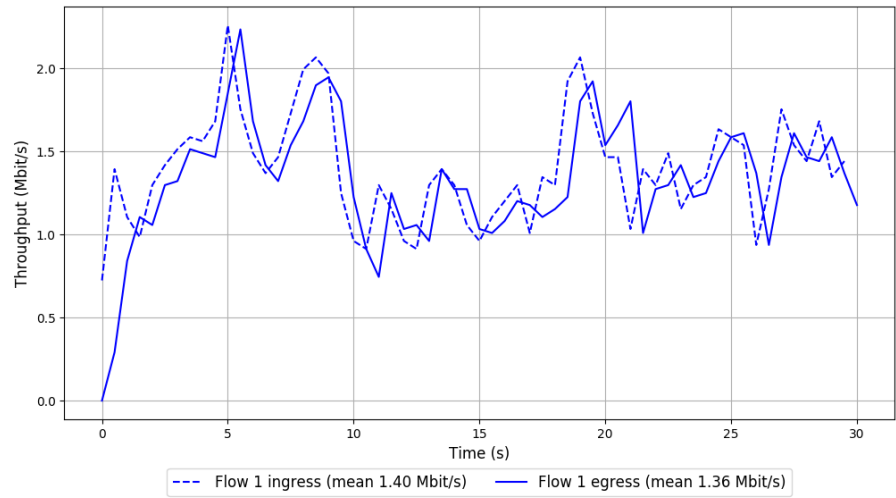


Run 1: Statistics of TCP Cubic

Start at: 2018-06-30 05:06:15
End at: 2018-06-30 05:06:46
Local clock offset: 9.078 ms
Remote clock offset: -8.419 ms

Below is generated by plot.py at 2018-06-30 06:11:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 368.167 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 368.167 ms
Loss rate: 3.46%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

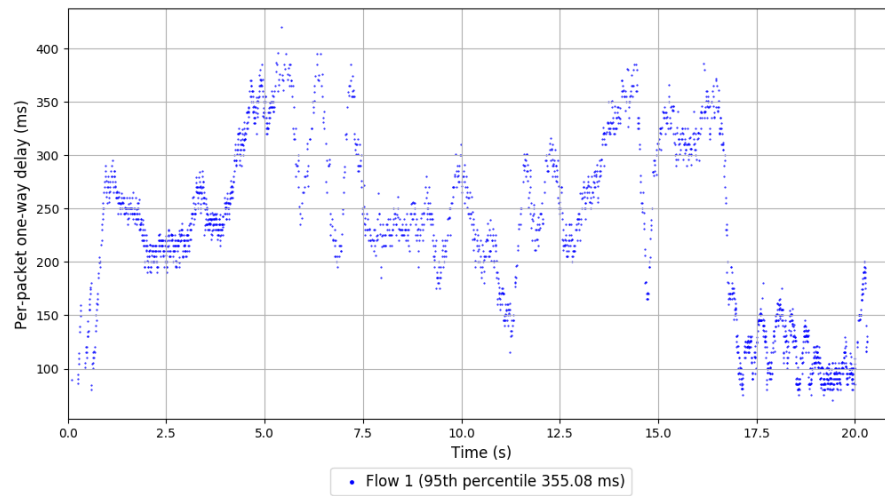
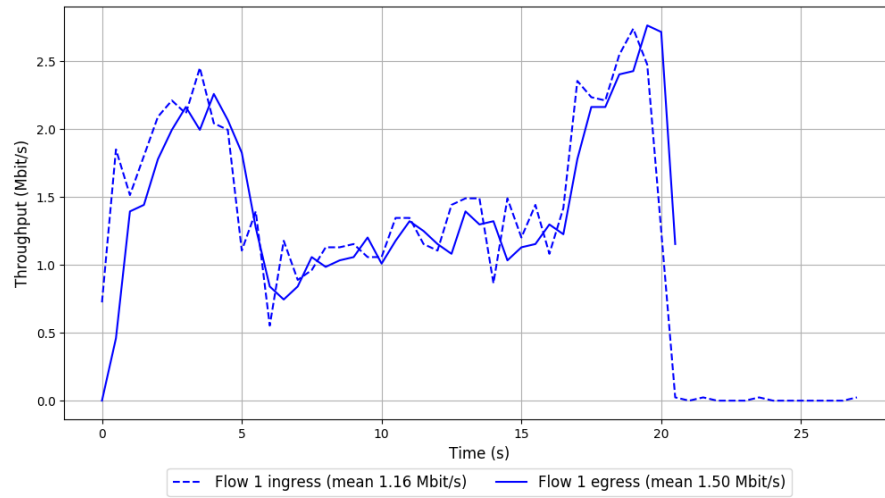
Start at: 2018-06-30 05:28:59

End at: 2018-06-30 05:29:29

Local clock offset: -2.223 ms

Remote clock offset: -8.201 ms

Run 2: Report of TCP Cubic — Data Link

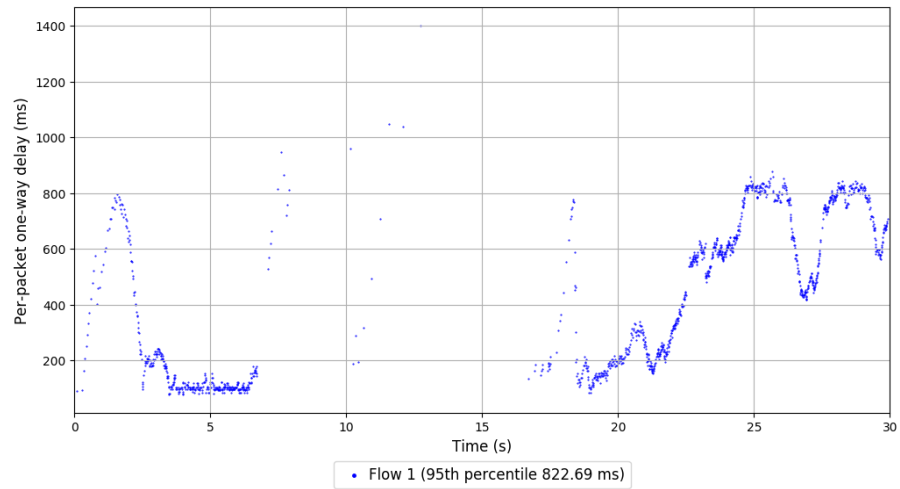
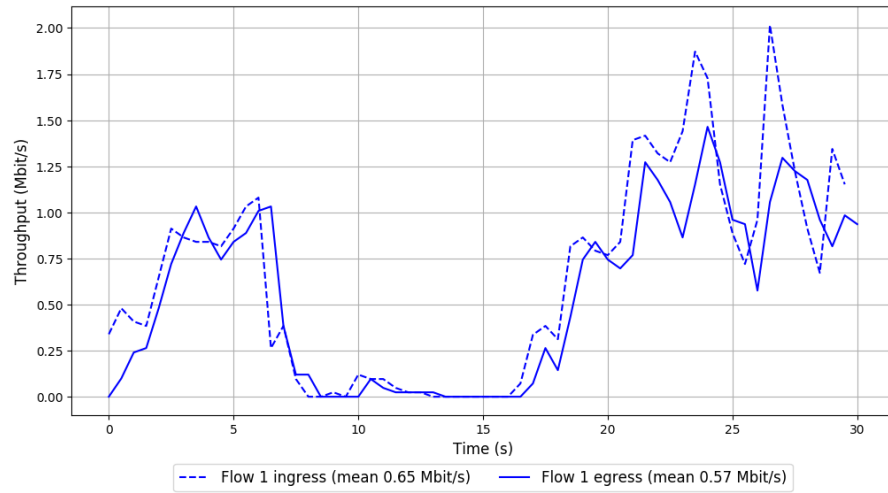


Run 3: Statistics of TCP Cubic

Start at: 2018-06-30 05:51:42
End at: 2018-06-30 05:52:12
Local clock offset: -3.197 ms
Remote clock offset: -9.723 ms

Below is generated by plot.py at 2018-06-30 06:11:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 822.691 ms
Loss rate: 13.18%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 822.691 ms
Loss rate: 13.18%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

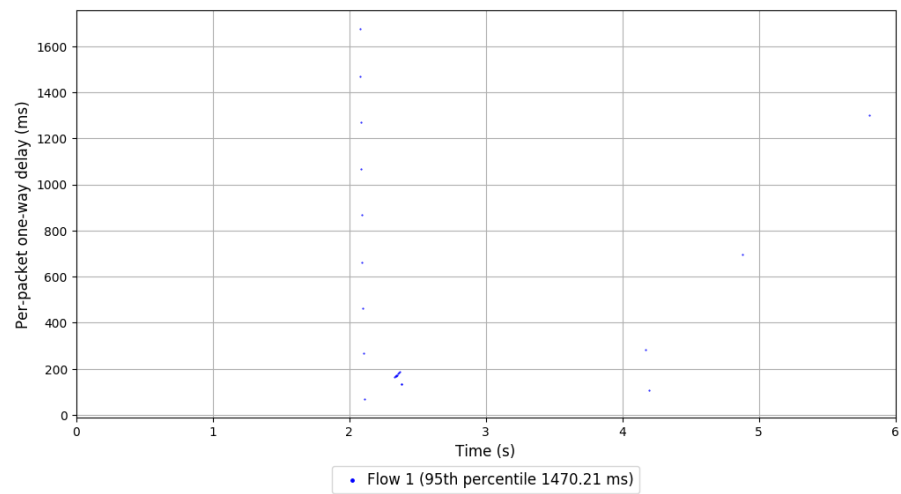
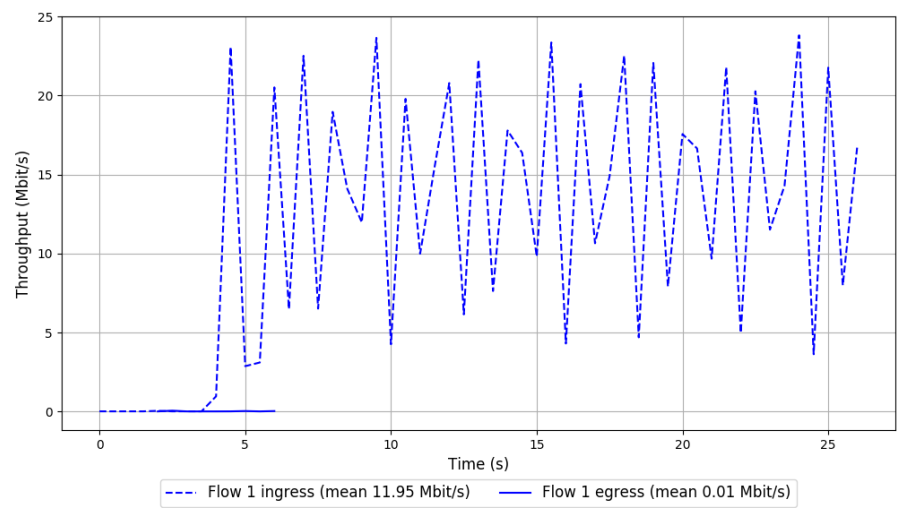
Start at: 2018-06-30 05:22:01

End at: 2018-06-30 05:22:31

Local clock offset: 2.125 ms

Remote clock offset: -8.314 ms

Run 1: Report of FillP — Data Link

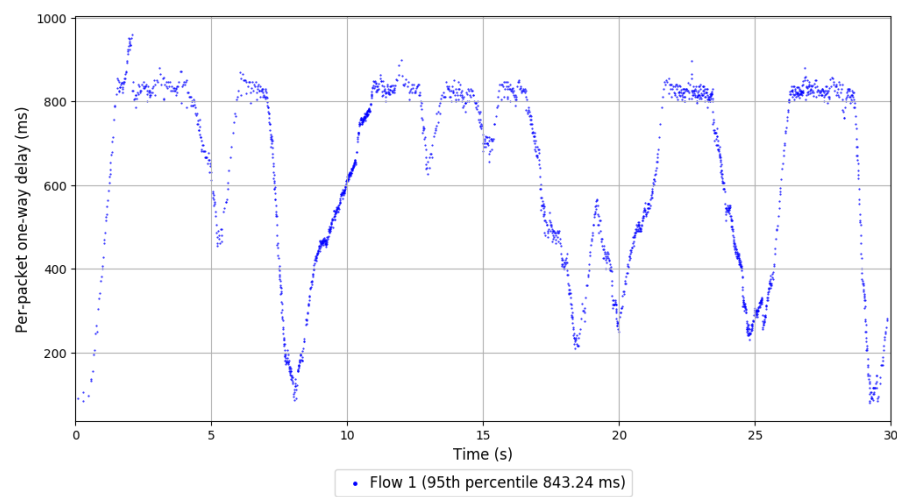
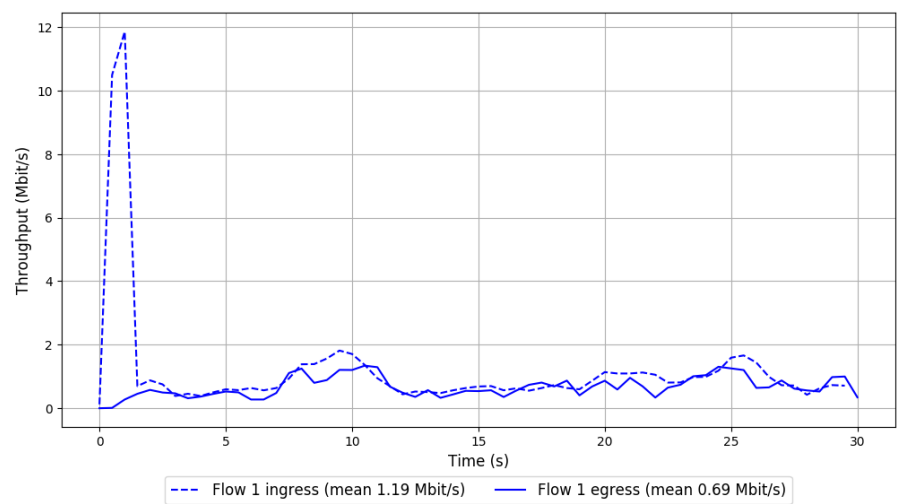


Run 2: Statistics of FillP

Start at: 2018-06-30 05:45:01
End at: 2018-06-30 05:45:31
Local clock offset: -6.442 ms
Remote clock offset: -9.109 ms

Below is generated by plot.py at 2018-06-30 06:11:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 843.242 ms
Loss rate: 42.22%
-- Flow 1:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 843.242 ms
Loss rate: 42.22%

Run 2: Report of FillP — Data Link

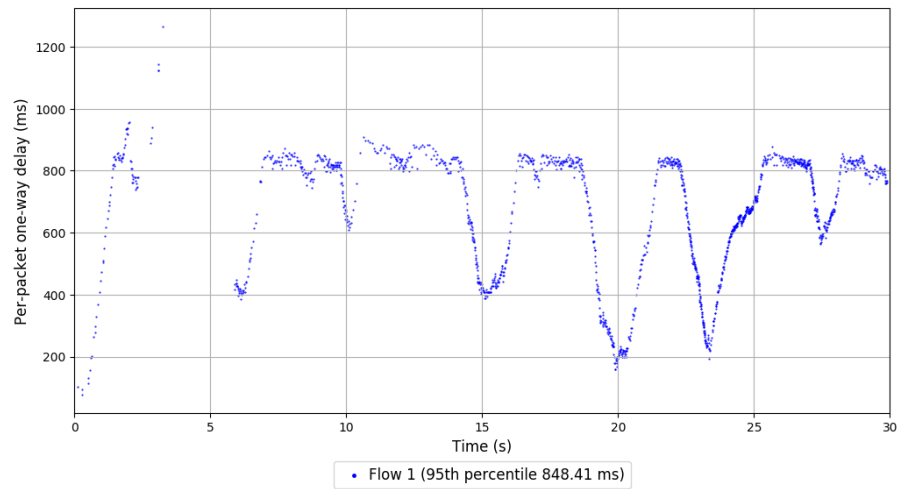
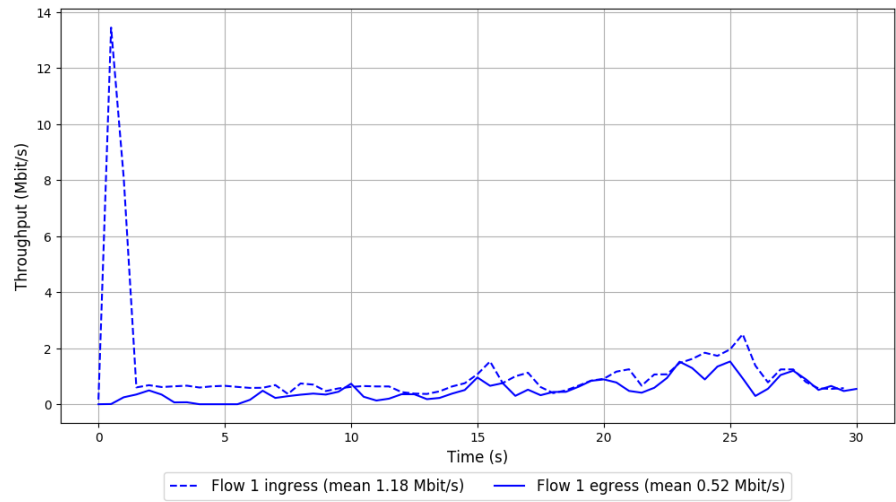


Run 3: Statistics of FillP

Start at: 2018-06-30 06:07:51
End at: 2018-06-30 06:08:22
Local clock offset: -1.077 ms
Remote clock offset: -10.223 ms

Below is generated by plot.py at 2018-06-30 06:11:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 848.409 ms
Loss rate: 55.82%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 848.409 ms
Loss rate: 55.82%

Run 3: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

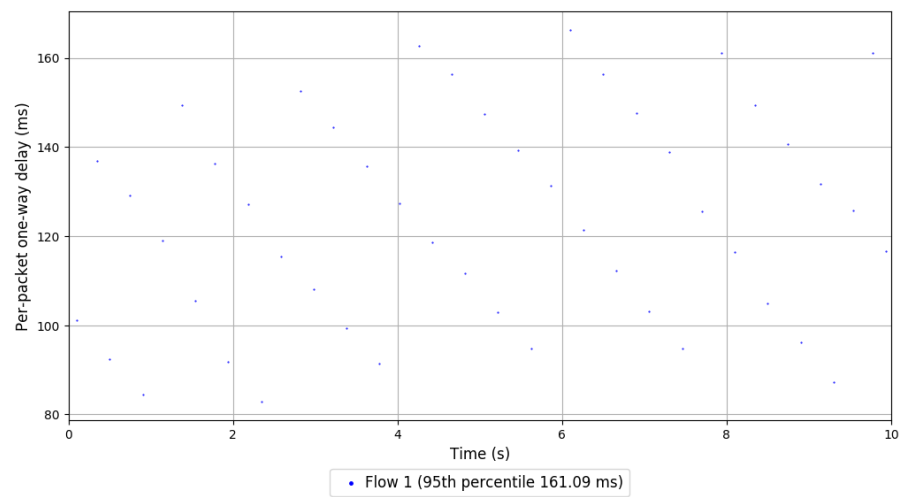
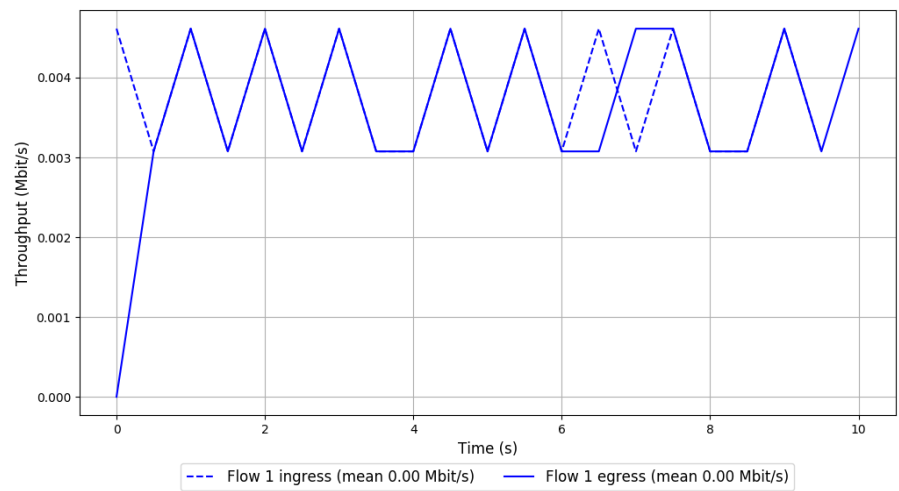
Start at: 2018-06-30 05:18:09

End at: 2018-06-30 05:18:39

Local clock offset: 5.977 ms

Remote clock offset: -7.953 ms

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

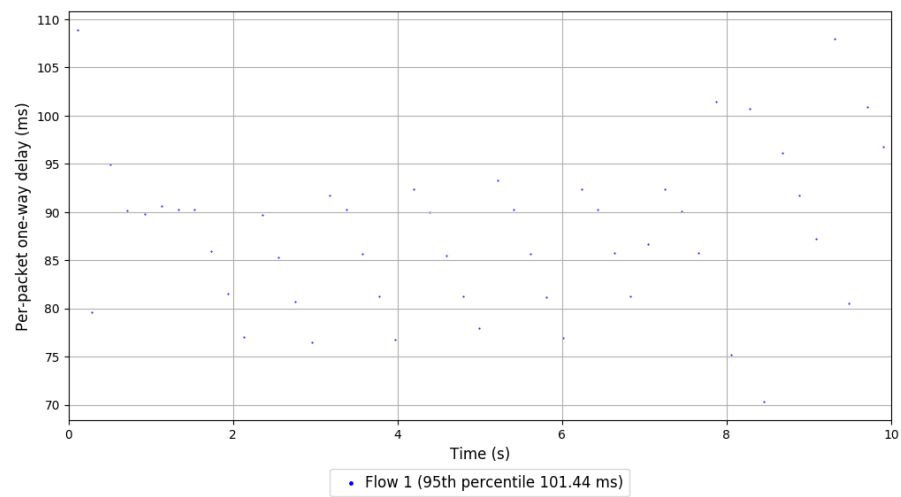
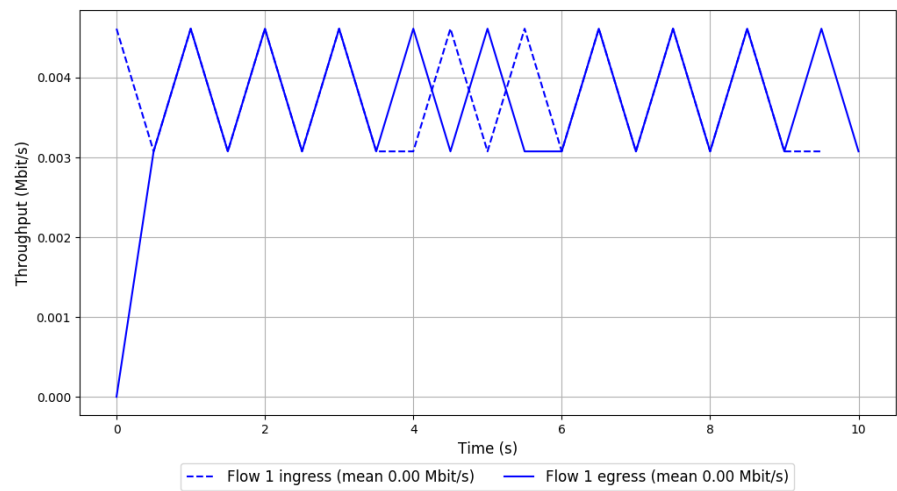
Start at: 2018-06-30 05:41:07

End at: 2018-06-30 05:41:37

Local clock offset: -5.723 ms

Remote clock offset: -8.567 ms

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

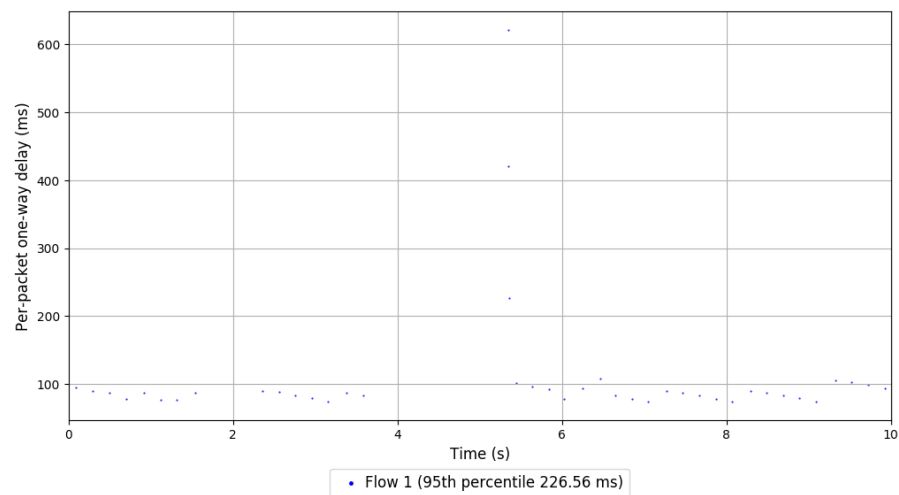
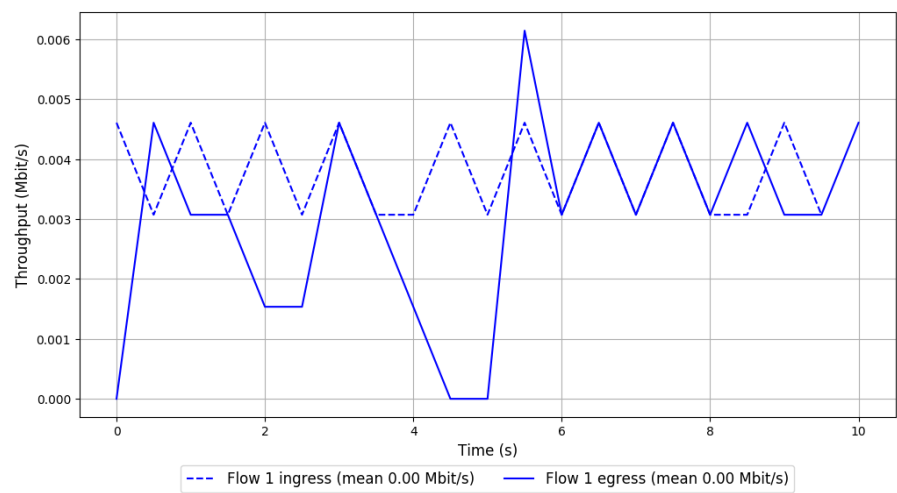
Start at: 2018-06-30 06:03:32

End at: 2018-06-30 06:04:02

Local clock offset: -1.337 ms

Remote clock offset: -9.707 ms

Run 3: Report of FillP-Sheep — Data Link

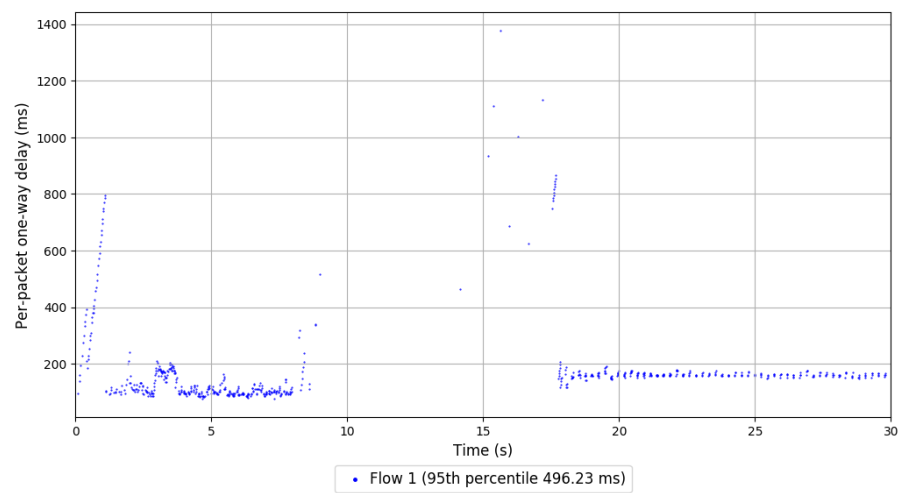
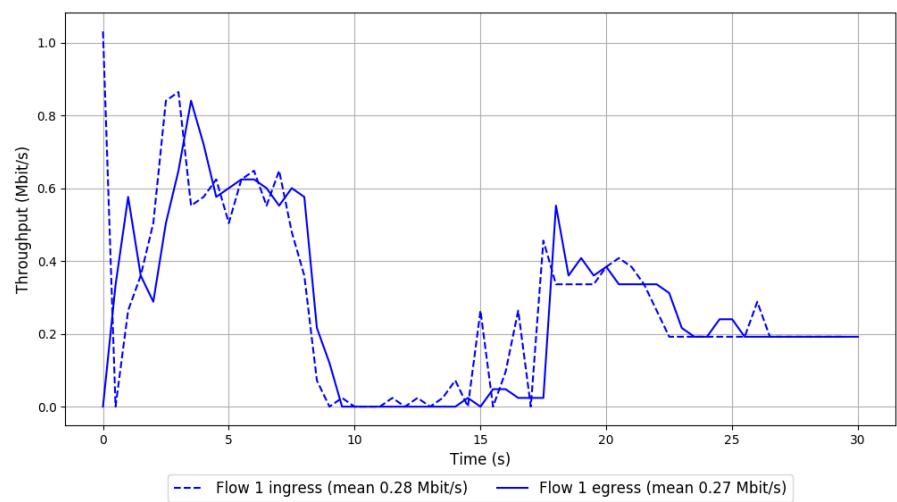


```
Run 1: Statistics of Indigo

Start at: 2018-06-30 05:11:36
End at: 2018-06-30 05:12:06
Local clock offset: 9.162 ms
Remote clock offset: -8.131 ms

# Below is generated by plot.py at 2018-06-30 06:11:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 496.233 ms
Loss rate: 3.42%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 496.233 ms
Loss rate: 3.42%
```

Run 1: Report of Indigo — Data Link

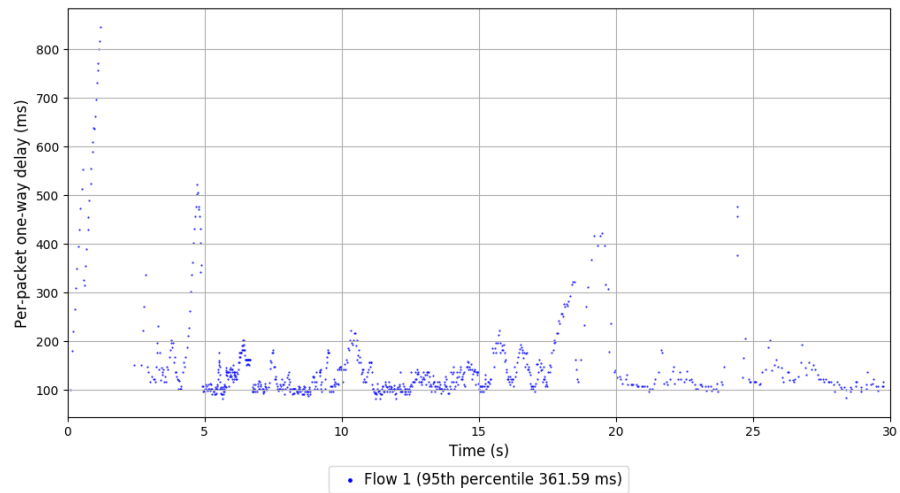
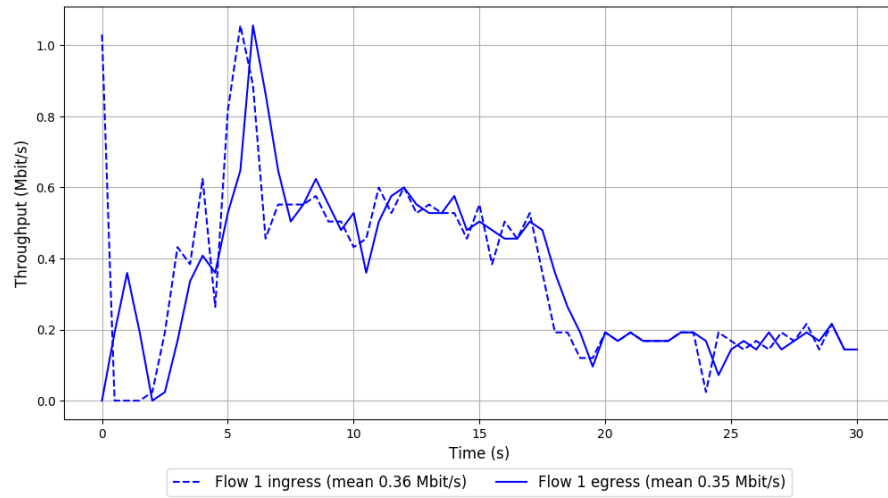


Run 2: Statistics of Indigo

Start at: 2018-06-30 05:34:34
End at: 2018-06-30 05:35:04
Local clock offset: -4.003 ms
Remote clock offset: -8.044 ms

Below is generated by plot.py at 2018-06-30 06:11:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 361.588 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 361.588 ms
Loss rate: 1.68%

Run 2: Report of Indigo — Data Link

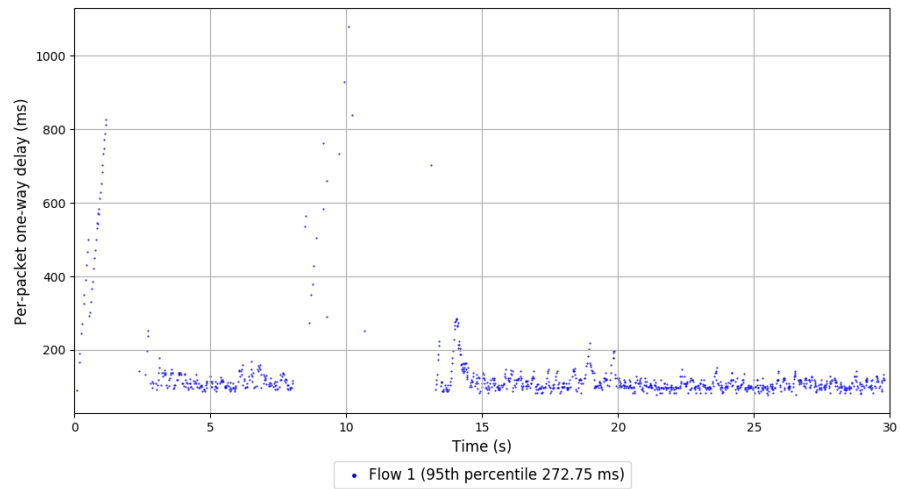
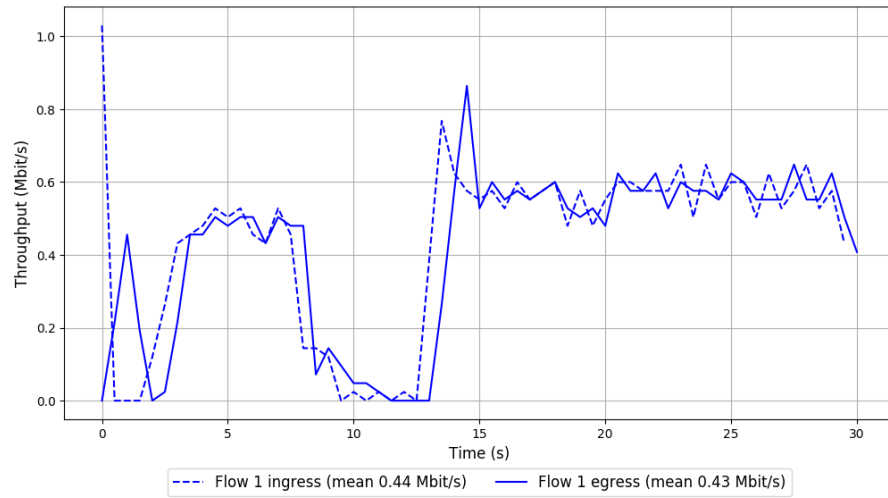


Run 3: Statistics of Indigo

Start at: 2018-06-30 05:57:01
End at: 2018-06-30 05:57:31
Local clock offset: -1.897 ms
Remote clock offset: -9.922 ms

Below is generated by plot.py at 2018-06-30 06:11:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 272.747 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 272.747 ms
Loss rate: 2.12%

Run 3: Report of Indigo — Data Link

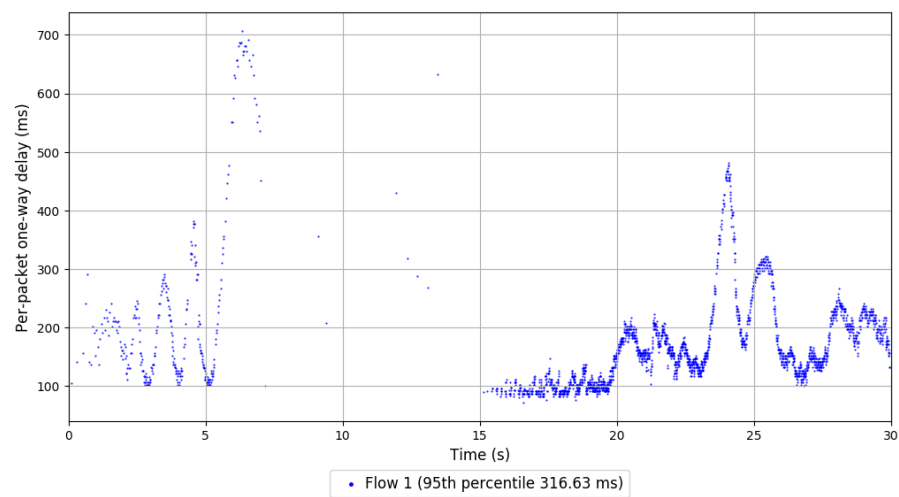
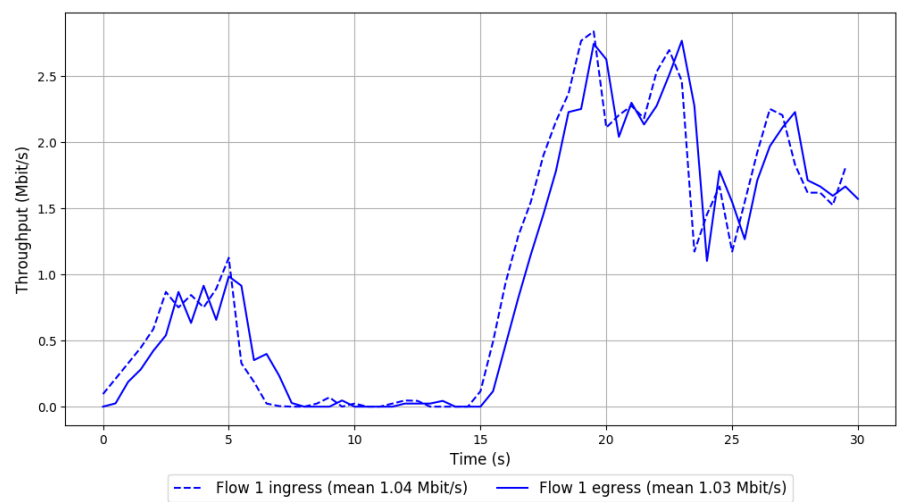


Run 1: Statistics of LEDBAT

Start at: 2018-06-30 05:16:50
End at: 2018-06-30 05:17:20
Local clock offset: 7.805 ms
Remote clock offset: -8.347 ms

Below is generated by plot.py at 2018-06-30 06:11:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 316.635 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 316.635 ms
Loss rate: 1.39%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-06-30 05:39:50

End at: 2018-06-30 05:40:20

Local clock offset: -5.219 ms

Remote clock offset: -8.25 ms

Below is generated by plot.py at 2018-06-30 06:11:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 307.048 ms

Loss rate: 3.74%

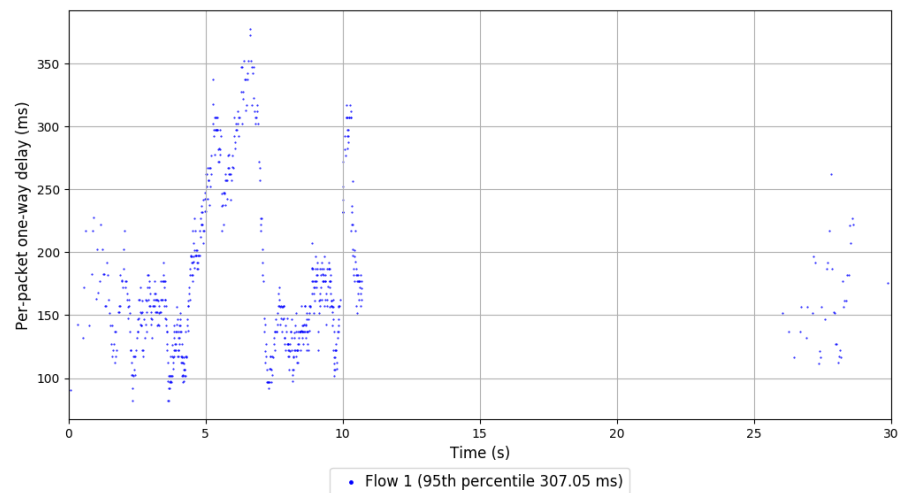
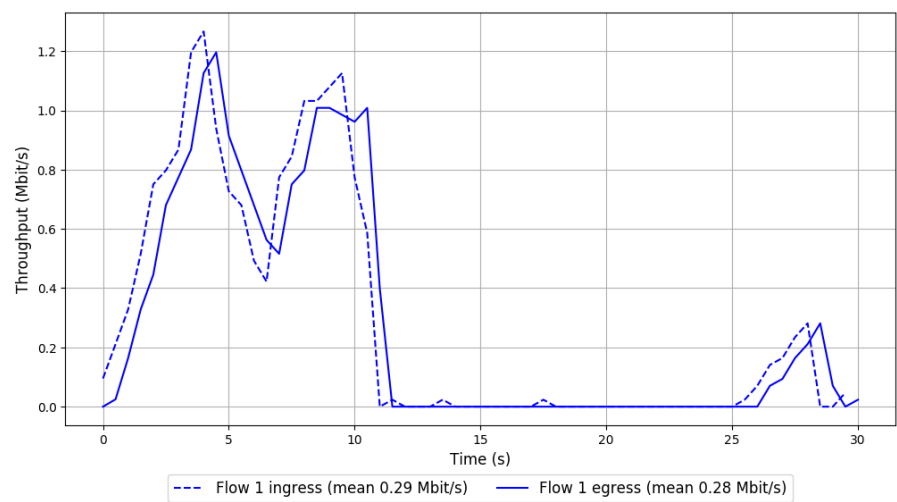
-- Flow 1:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 307.048 ms

Loss rate: 3.74%

Run 2: Report of LEDBAT — Data Link

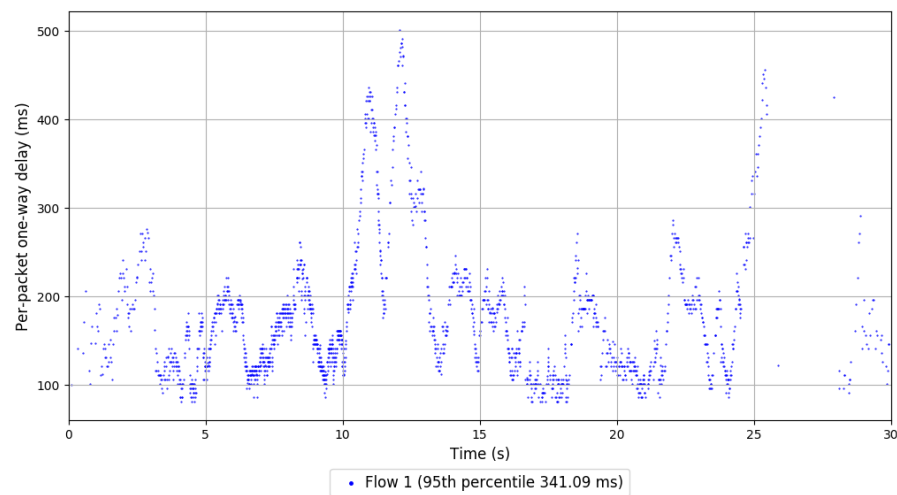
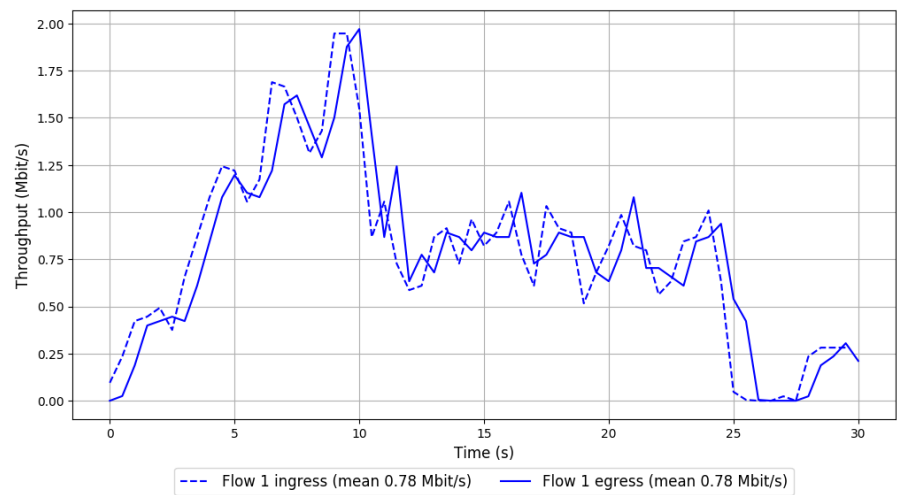


Run 3: Statistics of LEDBAT

Start at: 2018-06-30 06:02:14
End at: 2018-06-30 06:02:45
Local clock offset: -1.499 ms
Remote clock offset: -9.975 ms

Below is generated by plot.py at 2018-06-30 06:11:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 341.089 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 341.089 ms
Loss rate: 0.55%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-06-30 05:20:41

End at: 2018-06-30 05:21:11

Local clock offset: 3.324 ms

Remote clock offset: -8.297 ms

Below is generated by plot.py at 2018-06-30 06:11:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 1155.008 ms

Loss rate: 83.28%

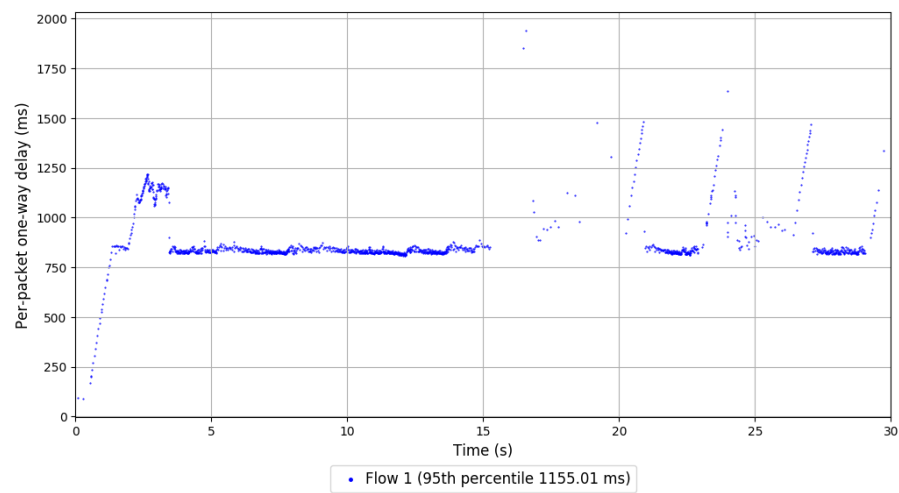
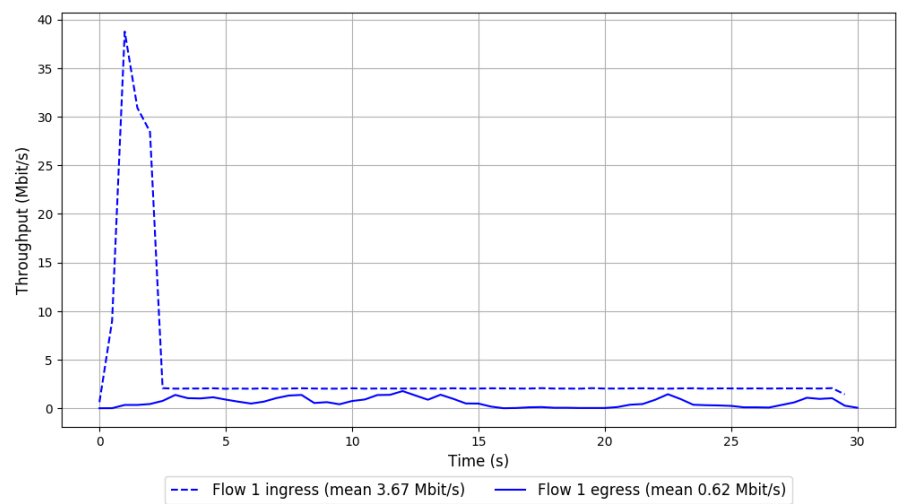
-- Flow 1:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 1155.008 ms

Loss rate: 83.28%

Run 1: Report of PCC-Allegro — Data Link

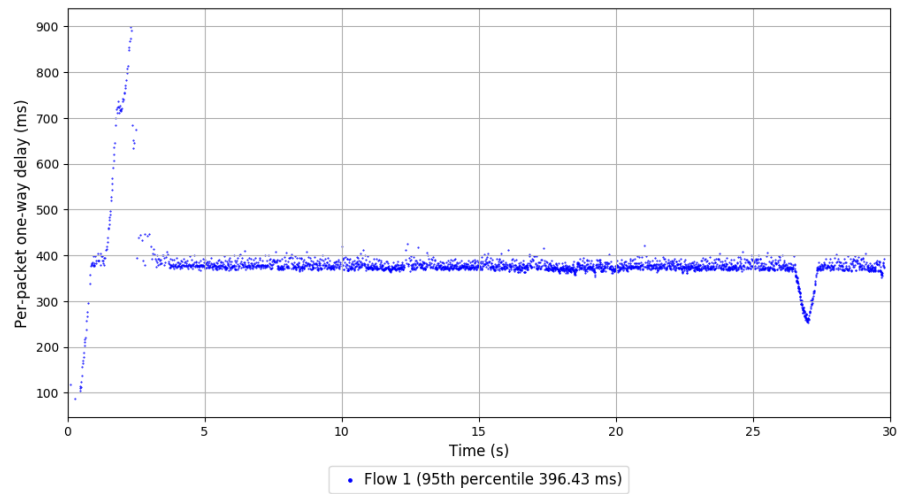
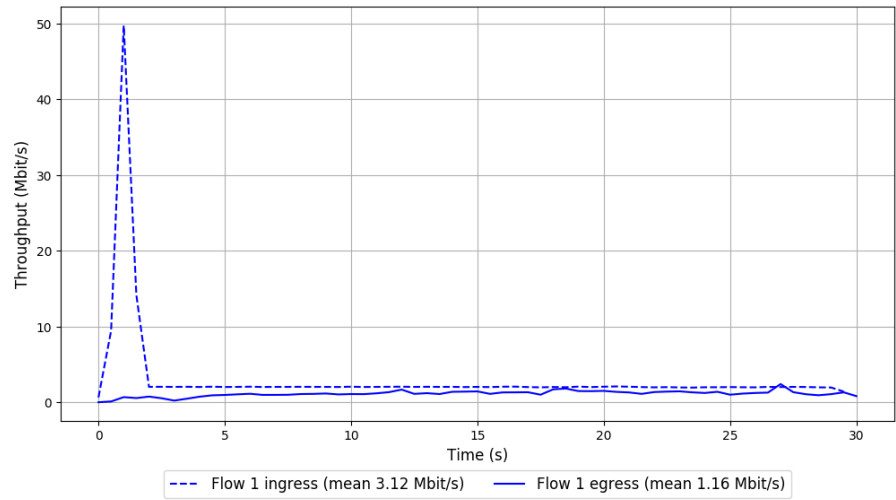


Run 2: Statistics of PCC-Allegro

Start at: 2018-06-30 05:43:41
End at: 2018-06-30 05:44:11
Local clock offset: -5.969 ms
Remote clock offset: -8.965 ms

Below is generated by plot.py at 2018-06-30 06:11:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 396.432 ms
Loss rate: 63.17%
-- Flow 1:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 396.432 ms
Loss rate: 63.17%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-06-30 06:06:32

End at: 2018-06-30 06:07:02

Local clock offset: -1.245 ms

Remote clock offset: -10.103 ms

Below is generated by plot.py at 2018-06-30 06:11:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 396.172 ms

Loss rate: 63.33%

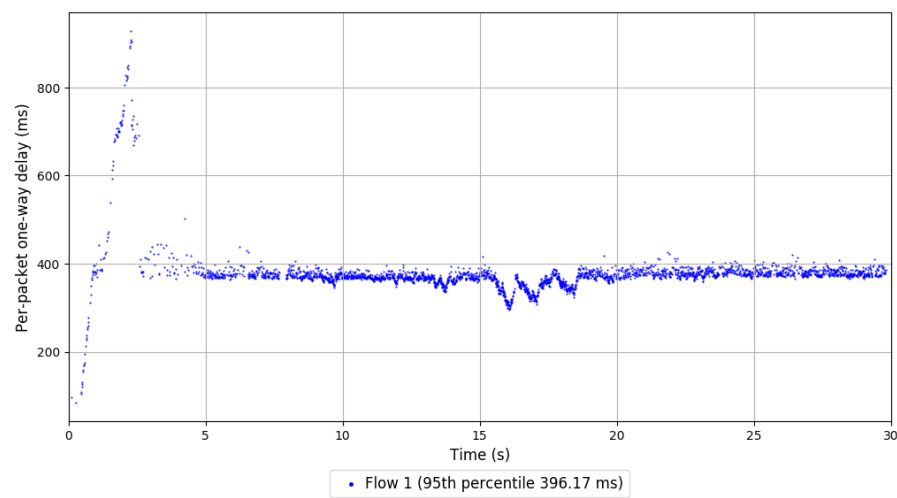
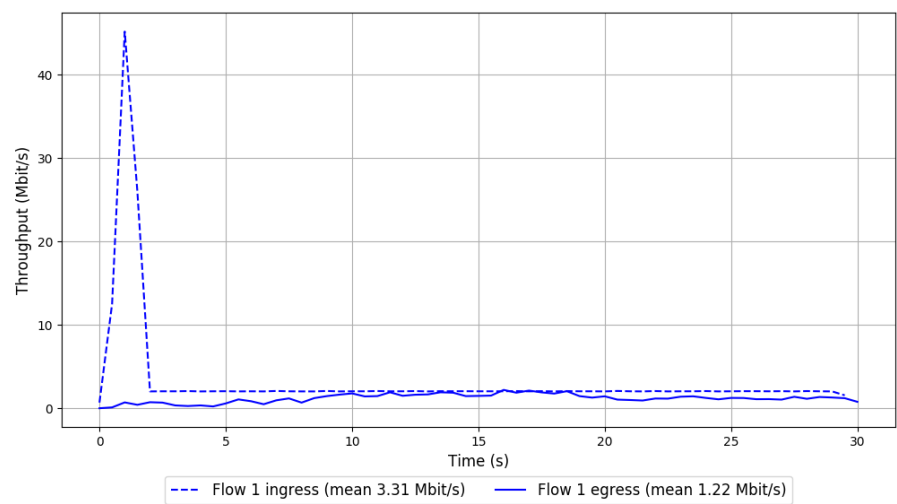
-- Flow 1:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 396.172 ms

Loss rate: 63.33%

Run 3: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-06-30 05:07:34

End at: 2018-06-30 05:08:04

Local clock offset: 9.275 ms

Remote clock offset: -8.428 ms

Below is generated by plot.py at 2018-06-30 06:11:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 858.423 ms

Loss rate: 86.90%

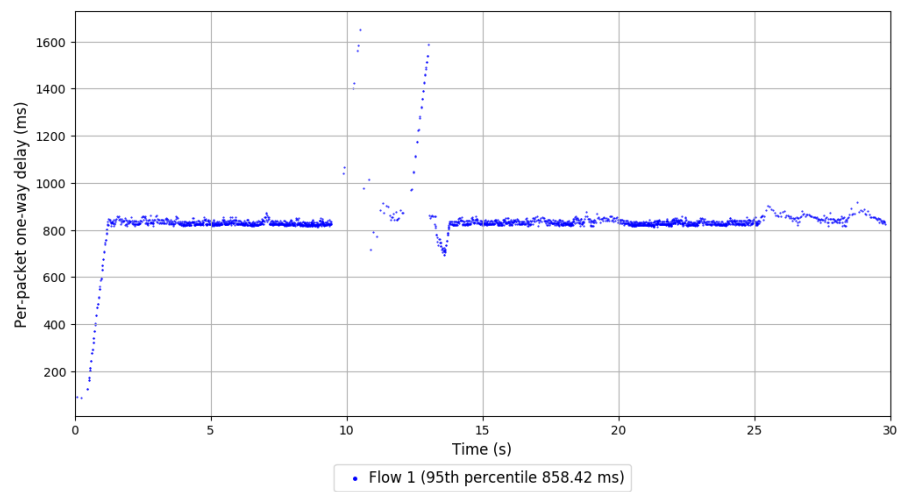
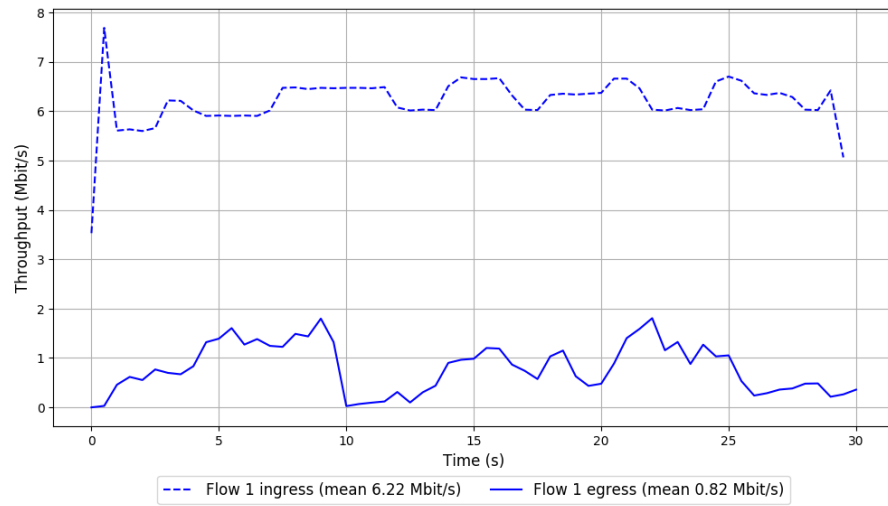
-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 858.423 ms

Loss rate: 86.90%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

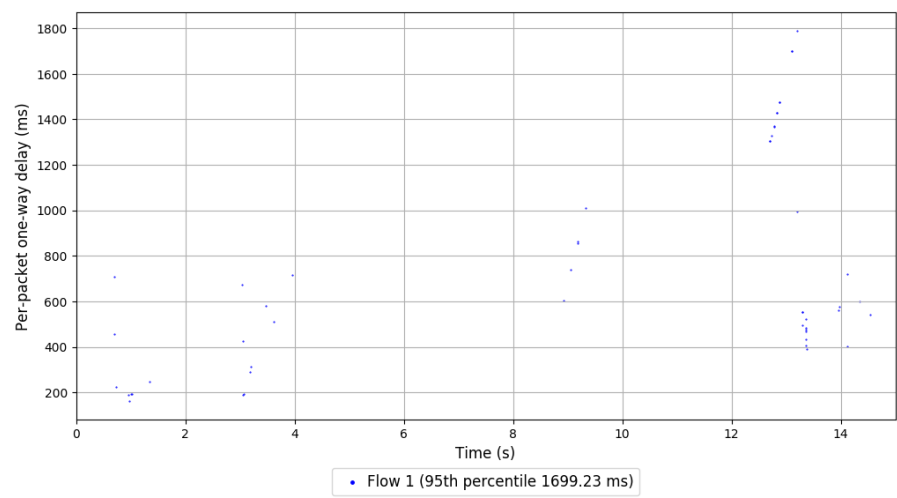
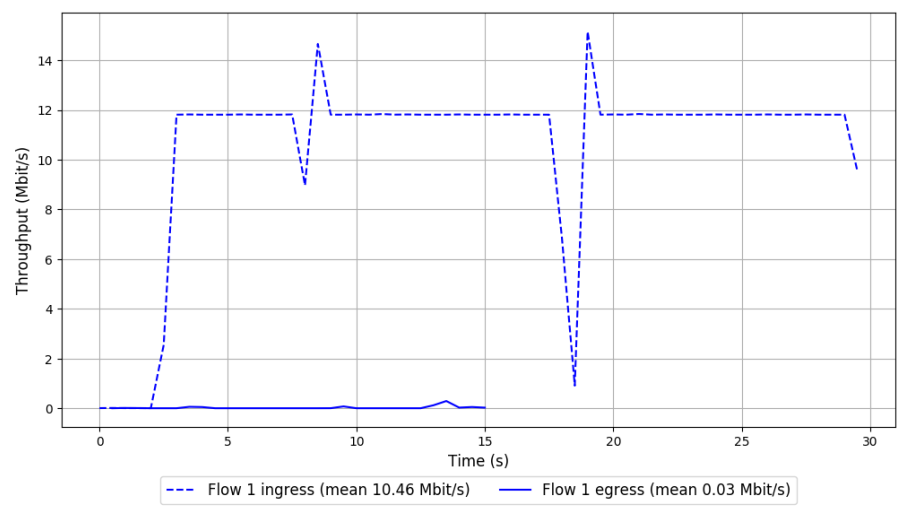
Start at: 2018-06-30 05:30:20

End at: 2018-06-30 05:30:50

Local clock offset: -2.695 ms

Remote clock offset: -8.156 ms

Run 2: Report of PCC-Expr — Data Link

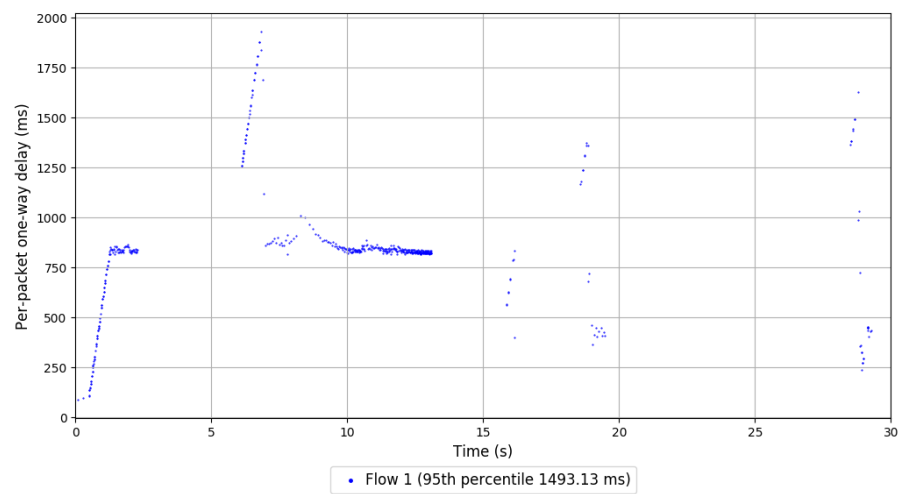
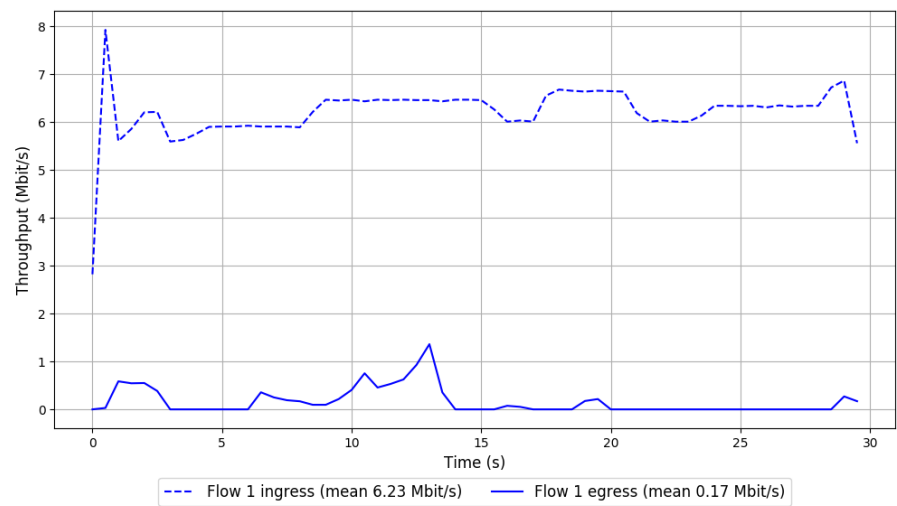


Run 3: Statistics of PCC-Expr

Start at: 2018-06-30 05:52:57
End at: 2018-06-30 05:53:27
Local clock offset: -3.076 ms
Remote clock offset: -9.713 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 1493.135 ms
Loss rate: 97.36%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 1493.135 ms
Loss rate: 97.36%

Run 3: Report of PCC-Expr — Data Link

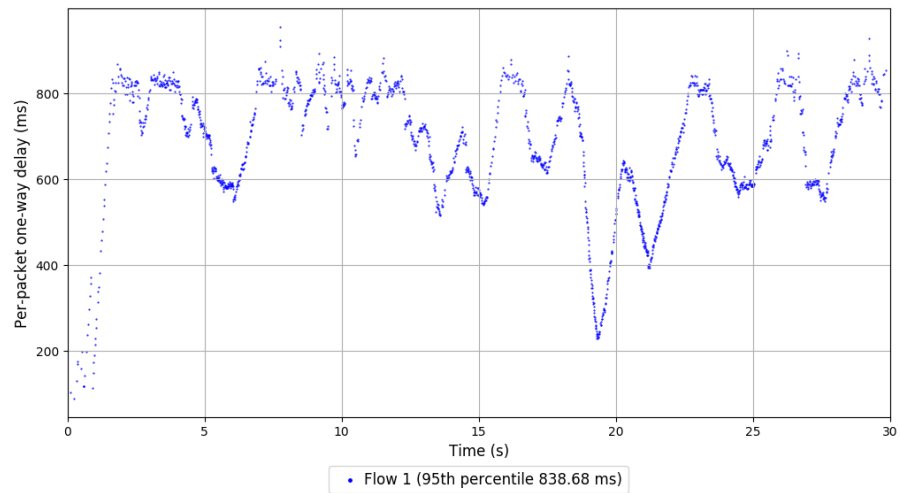
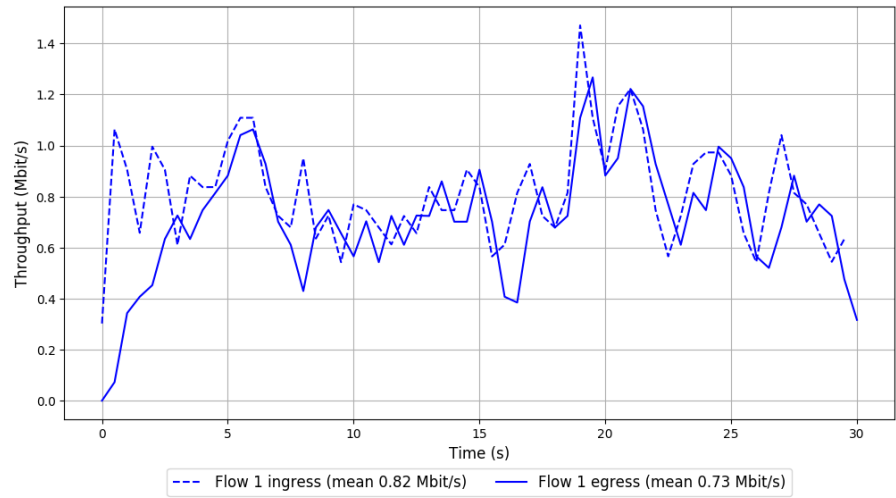


Run 1: Statistics of QUIC Cubic

Start at: 2018-06-30 05:14:11
End at: 2018-06-30 05:14:41
Local clock offset: 9.434 ms
Remote clock offset: -8.407 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 838.685 ms
Loss rate: 10.78%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 838.685 ms
Loss rate: 10.78%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-06-30 05:37:14

End at: 2018-06-30 05:37:44

Local clock offset: -4.837 ms

Remote clock offset: -7.959 ms

Below is generated by plot.py at 2018-06-30 06:11:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 387.532 ms

Loss rate: 12.43%

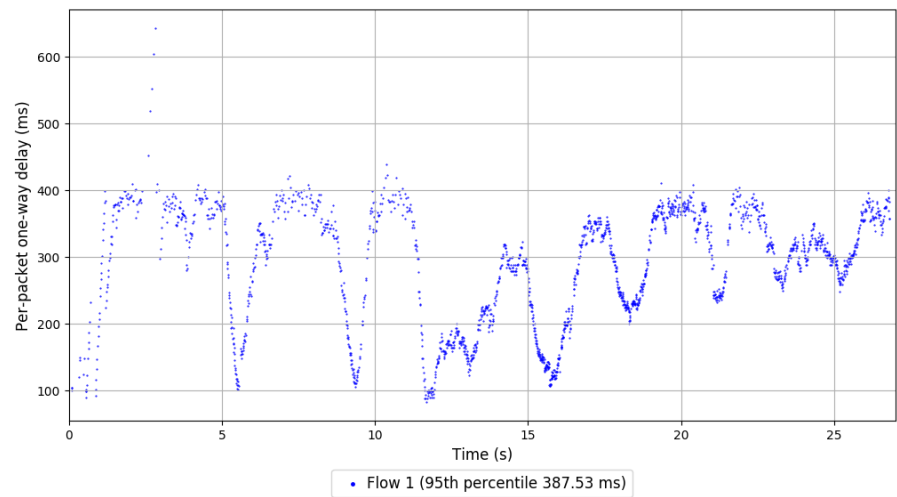
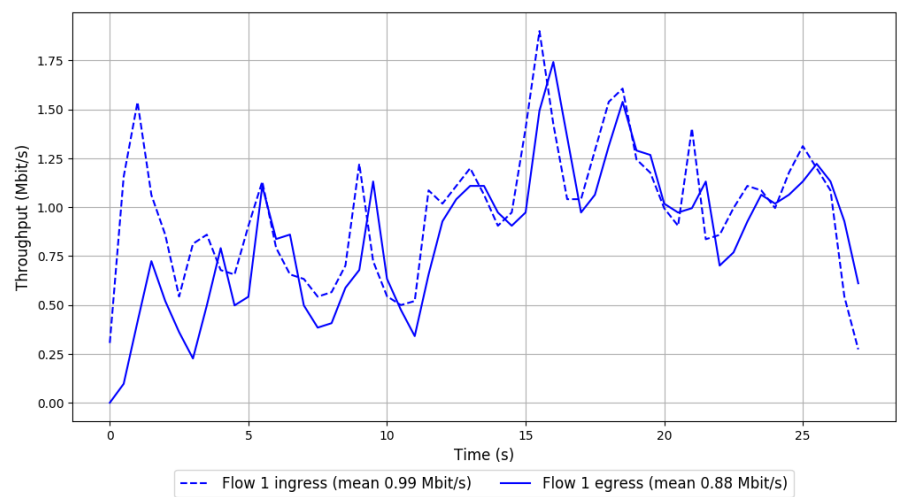
-- Flow 1:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 387.532 ms

Loss rate: 12.43%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-06-30 05:59:40

End at: 2018-06-30 06:00:10

Local clock offset: -1.693 ms

Remote clock offset: -9.897 ms

Below is generated by plot.py at 2018-06-30 06:11:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 385.098 ms

Loss rate: 9.66%

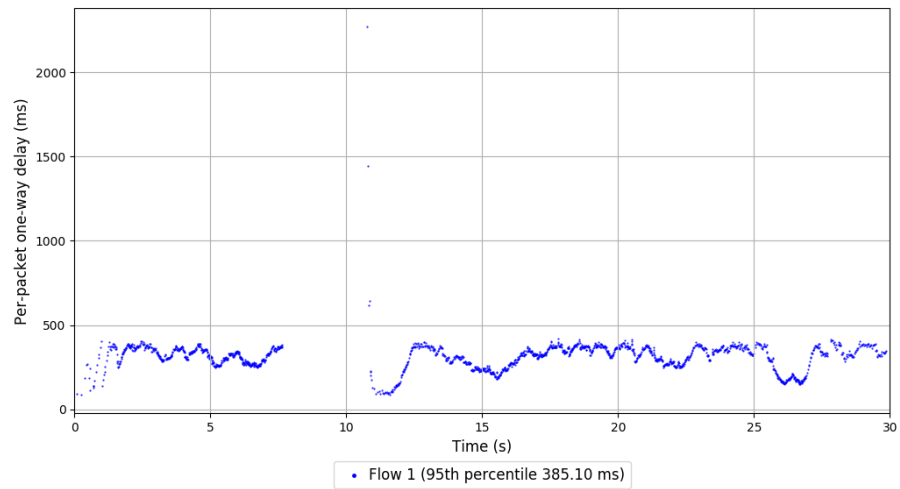
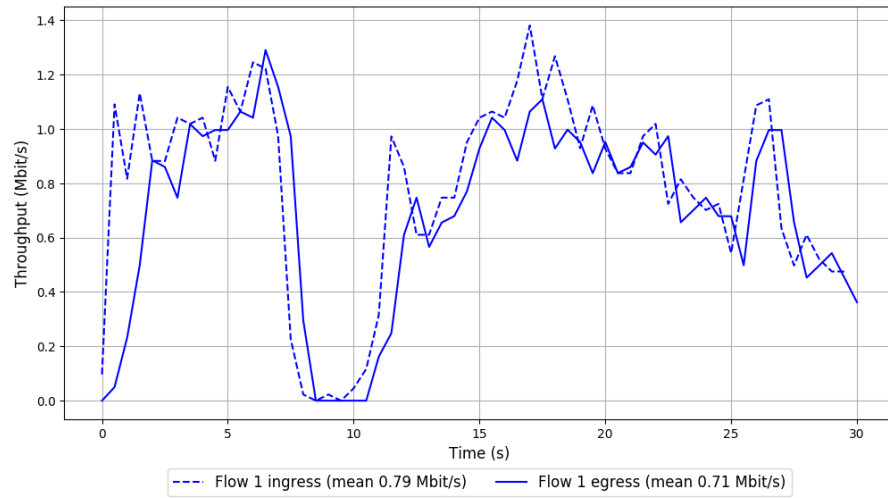
-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 385.098 ms

Loss rate: 9.66%

Run 3: Report of QUIC Cubic — Data Link

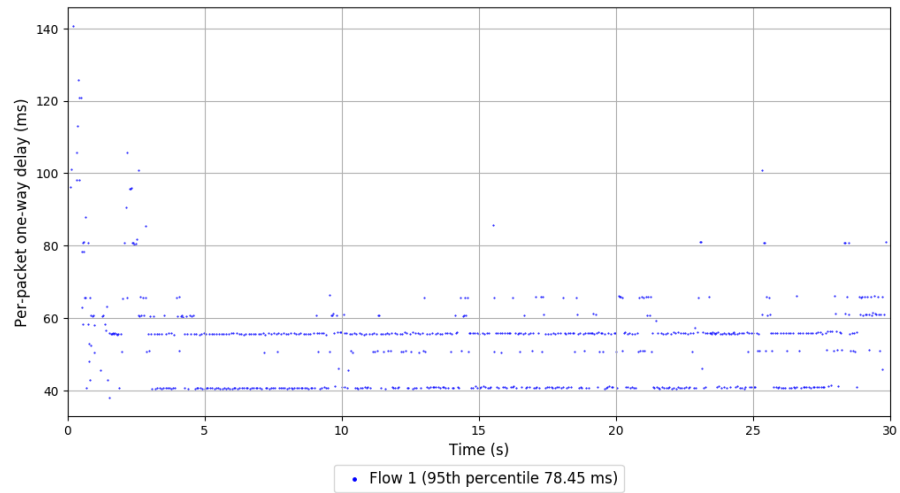
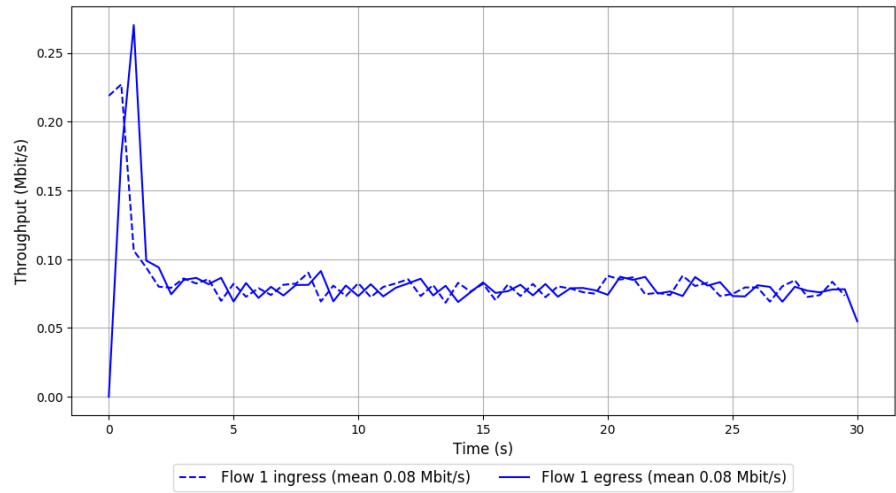


```
Run 1: Statistics of SCReAM

Start at: 2018-06-30 05:25:02
End at: 2018-06-30 05:25:32
Local clock offset: 0.123 ms
Remote clock offset: 34.733 ms

# Below is generated by plot.py at 2018-06-30 06:11:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 78.451 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 78.451 ms
Loss rate: 0.61%
```

Run 1: Report of SReAM — Data Link

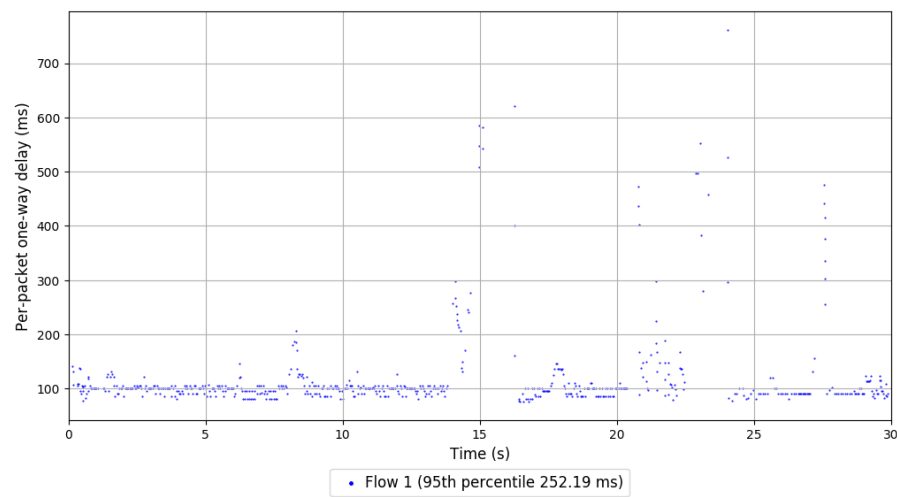
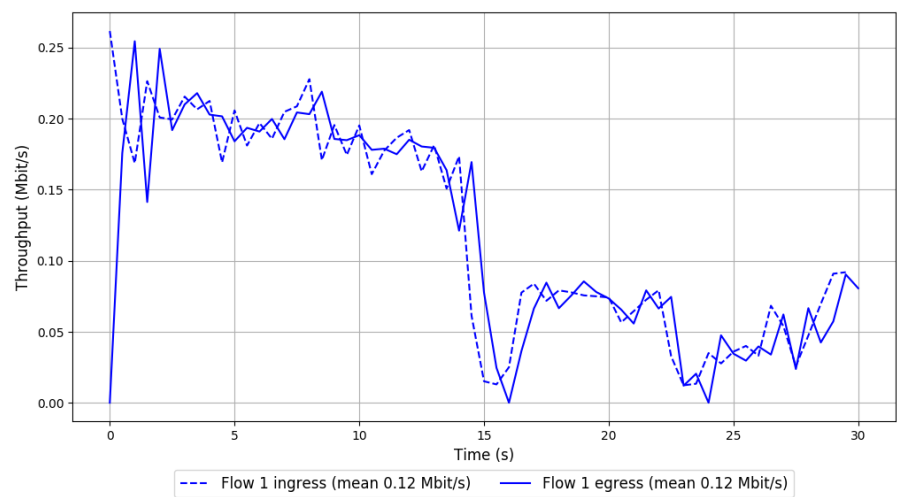


Run 2: Statistics of SCReAM

Start at: 2018-06-30 05:47:52
End at: 2018-06-30 05:48:22
Local clock offset: -5.0 ms
Remote clock offset: -9.373 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 252.188 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 252.188 ms
Loss rate: 1.47%

Run 2: Report of SReAM — Data Link

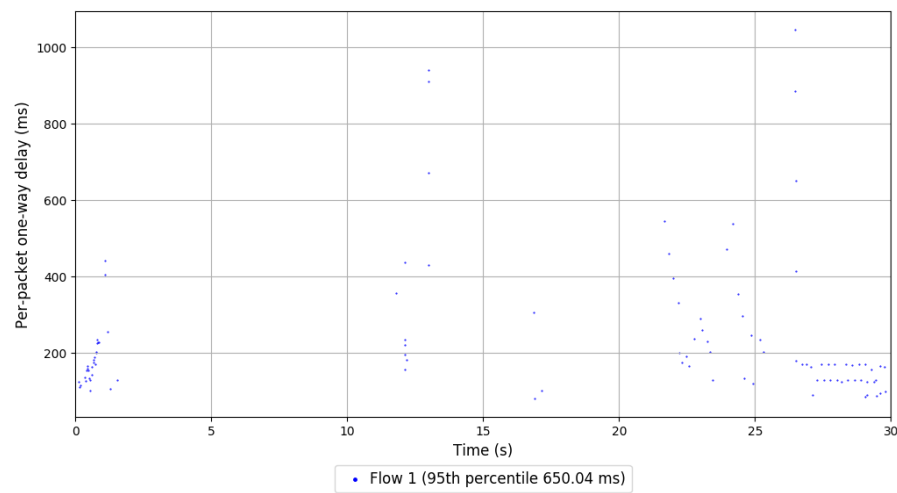
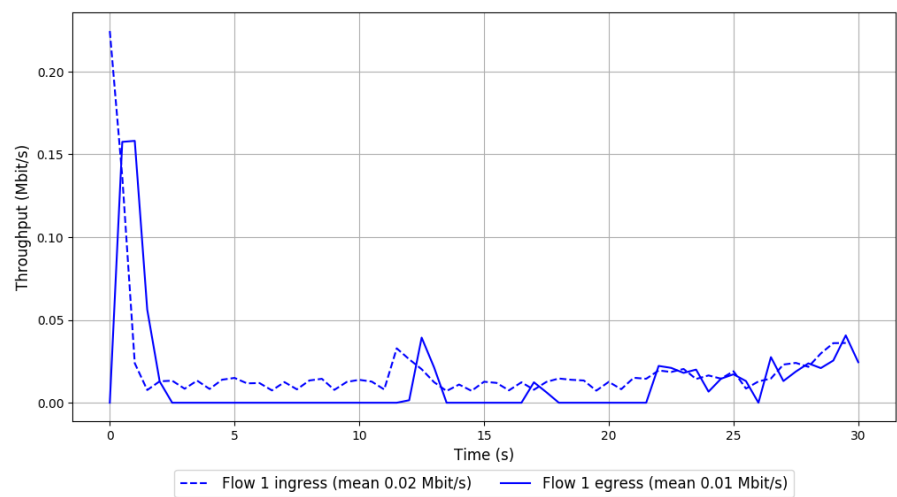


Run 3: Statistics of SCReAM

Start at: 2018-06-30 06:10:25
End at: 2018-06-30 06:10:55
Local clock offset: -1.164 ms
Remote clock offset: -10.227 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 650.044 ms
Loss rate: 35.15%
-- Flow 1:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 650.044 ms
Loss rate: 35.15%

Run 3: Report of SReAM — Data Link

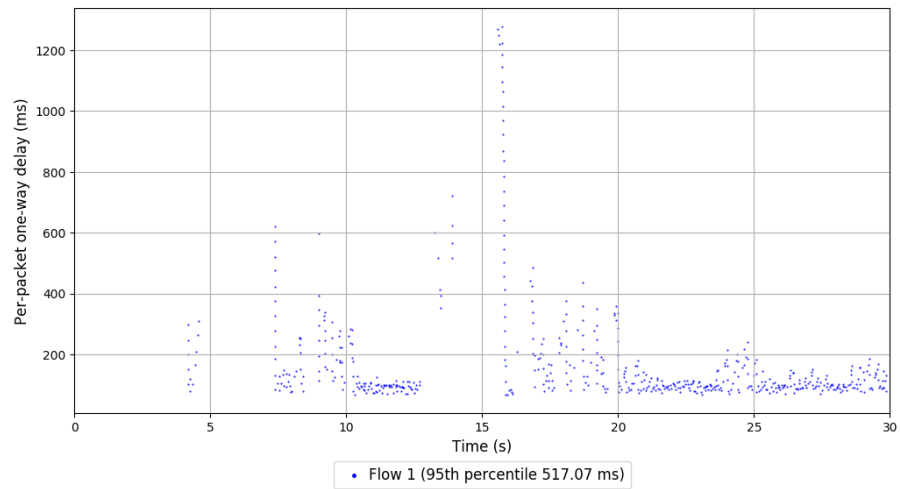
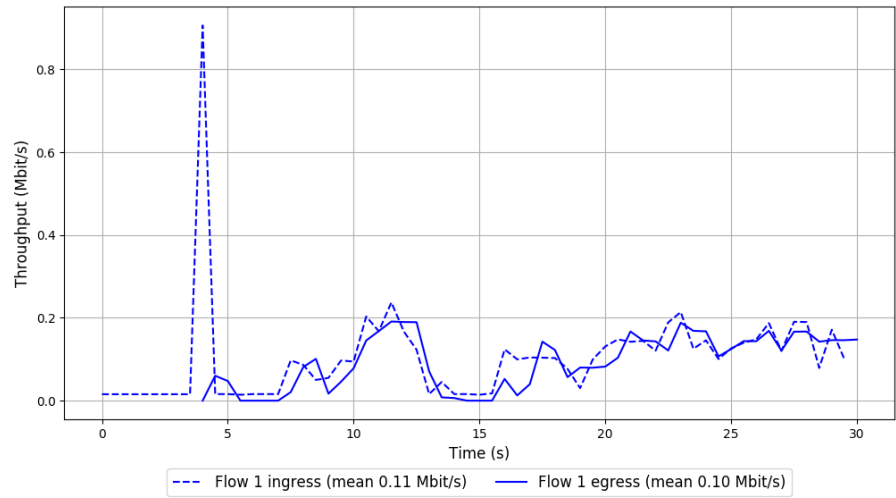


Run 1: Statistics of Sprout

Start at: 2018-06-30 05:03:43
End at: 2018-06-30 05:04:13
Local clock offset: 8.962 ms
Remote clock offset: -8.423 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 517.066 ms
Loss rate: 20.12%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 517.066 ms
Loss rate: 20.12%

Run 1: Report of Sprout — Data Link

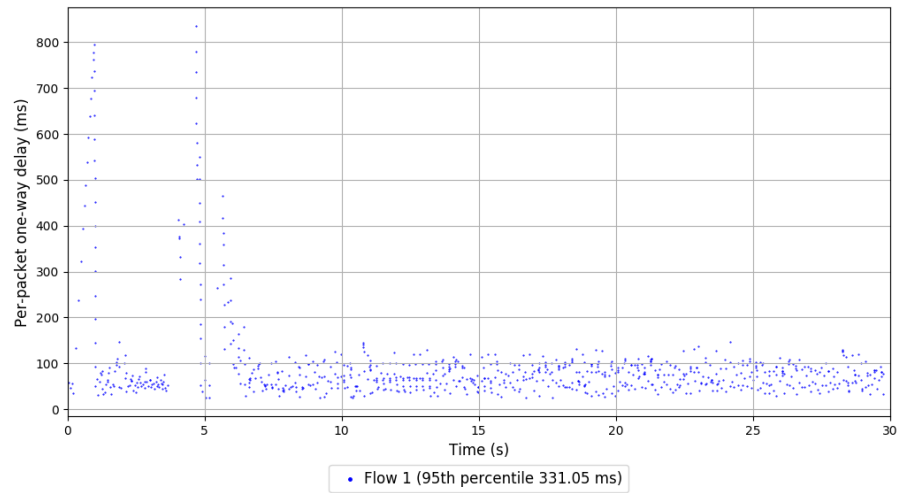
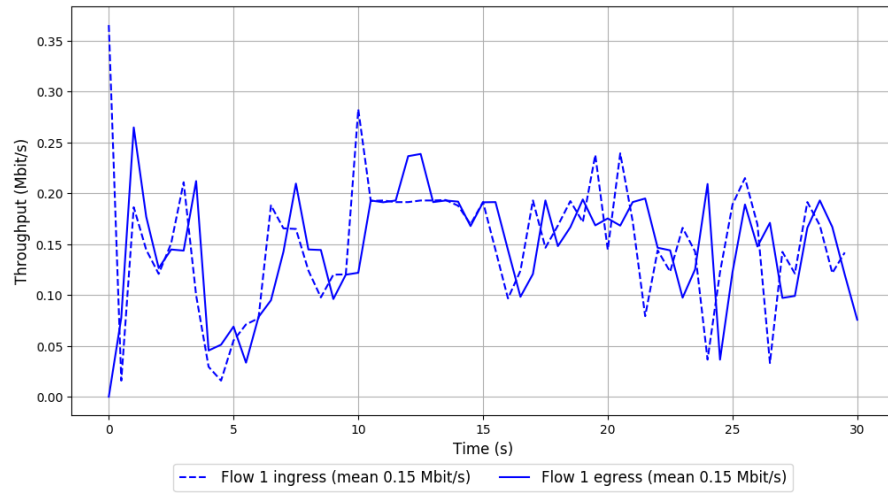


Run 2: Statistics of Sprout

Start at: 2018-06-30 05:26:22
End at: 2018-06-30 05:26:52
Local clock offset: -0.644 ms
Remote clock offset: 34.801 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 331.053 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 331.053 ms
Loss rate: 1.04%

Run 2: Report of Sprout — Data Link

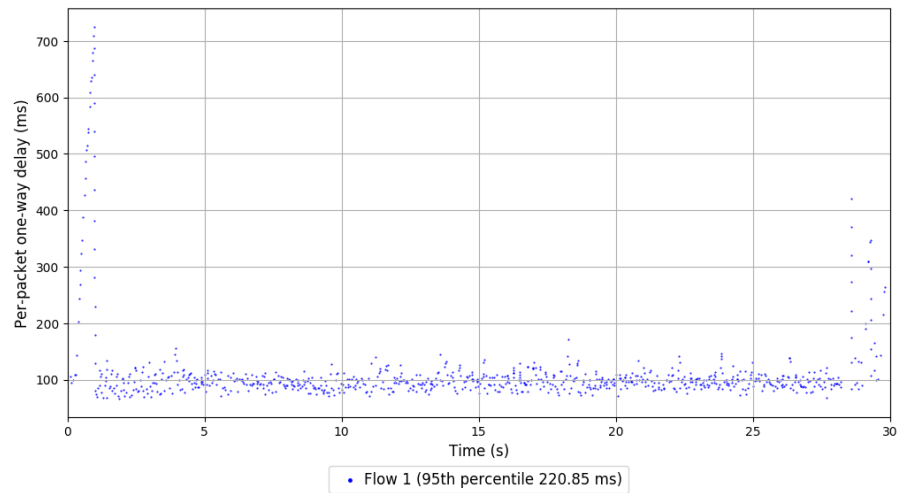
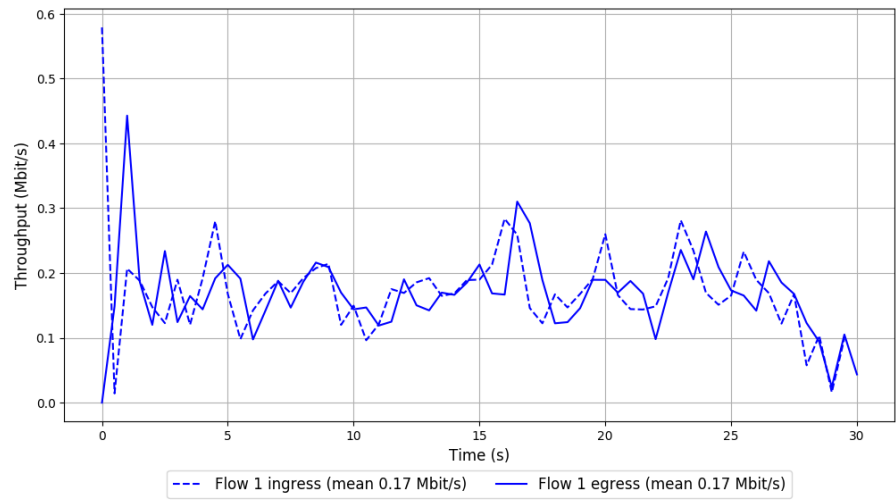


Run 3: Statistics of Sprout

Start at: 2018-06-30 05:49:09
End at: 2018-06-30 05:49:39
Local clock offset: -4.522 ms
Remote clock offset: -9.121 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 220.846 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 220.846 ms
Loss rate: 1.27%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-06-30 05:15:30

End at: 2018-06-30 05:16:00

Local clock offset: 9.477 ms

Remote clock offset: -8.365 ms

Below is generated by plot.py at 2018-06-30 06:11:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 366.661 ms

Loss rate: 13.25%

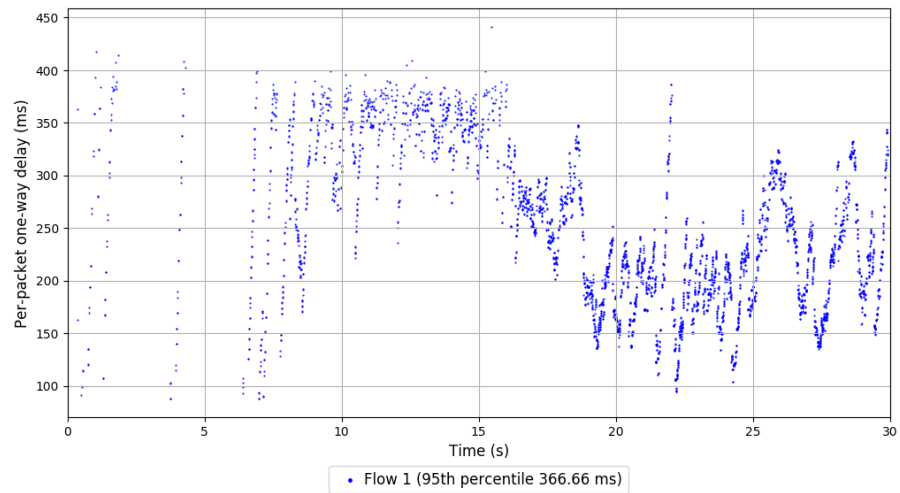
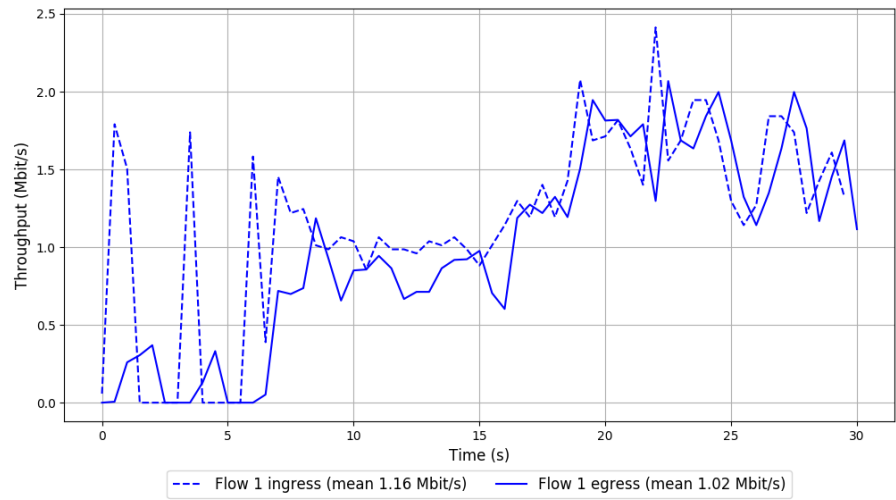
-- Flow 1:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 366.661 ms

Loss rate: 13.25%

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

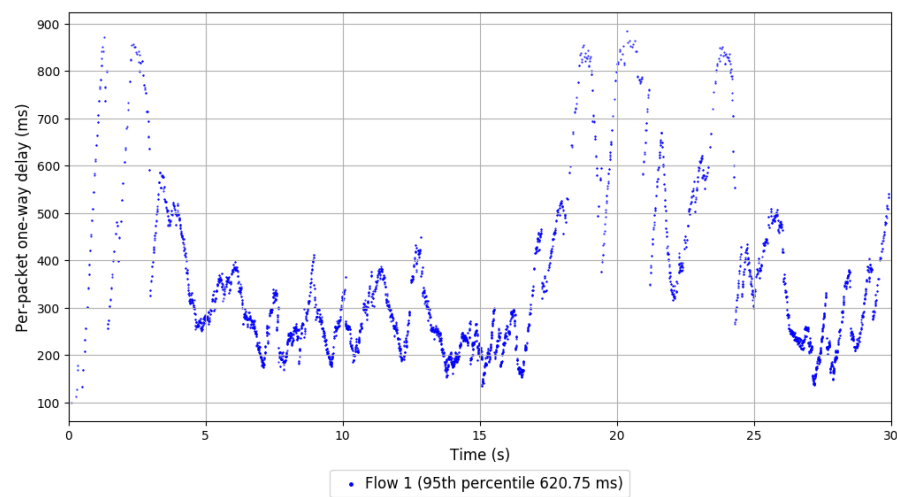
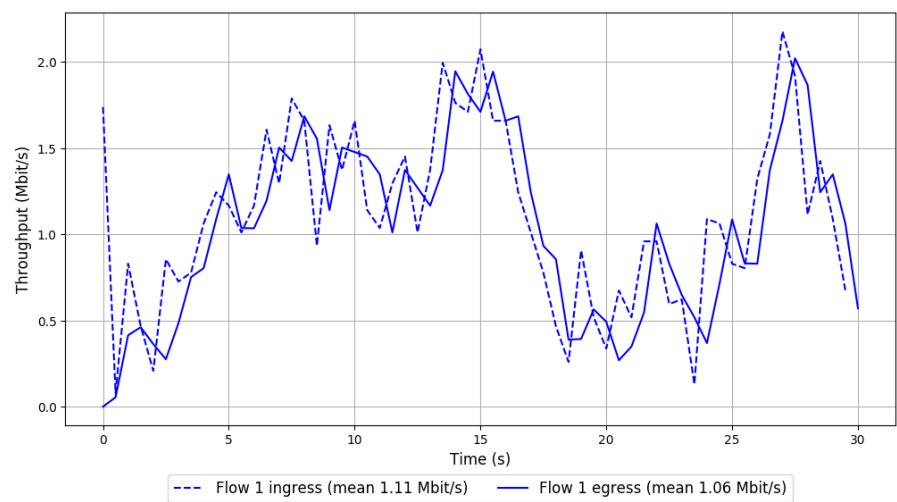


Run 2: Statistics of TaoVA-100x

Start at: 2018-06-30 05:38:31
End at: 2018-06-30 05:39:01
Local clock offset: -4.985 ms
Remote clock offset: -8.032 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 620.755 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 620.755 ms
Loss rate: 4.65%

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

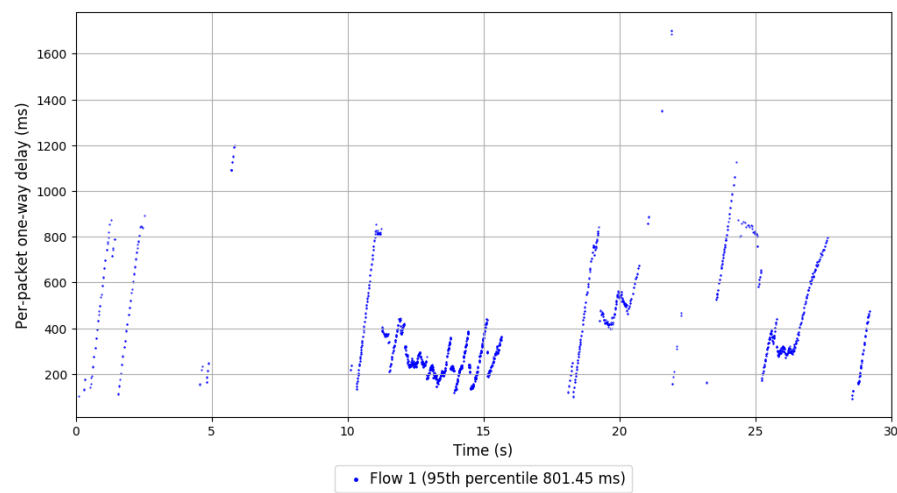
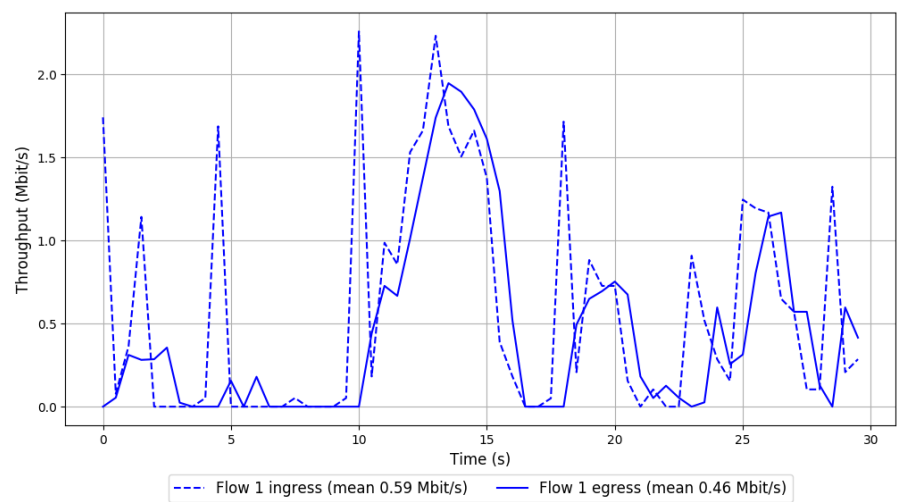


Run 3: Statistics of TaoVA-100x

Start at: 2018-06-30 06:00:57
End at: 2018-06-30 06:01:27
Local clock offset: -1.427 ms
Remote clock offset: -9.737 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 801.447 ms
Loss rate: 22.96%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 801.447 ms
Loss rate: 22.96%

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

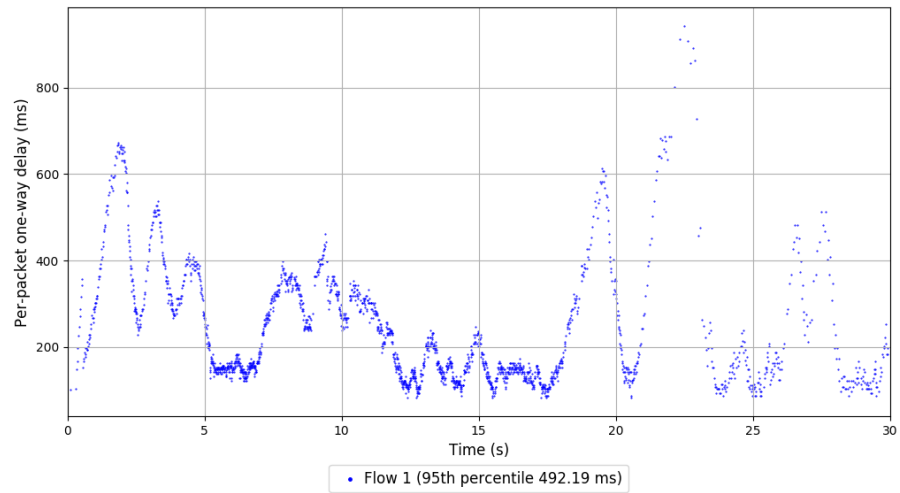
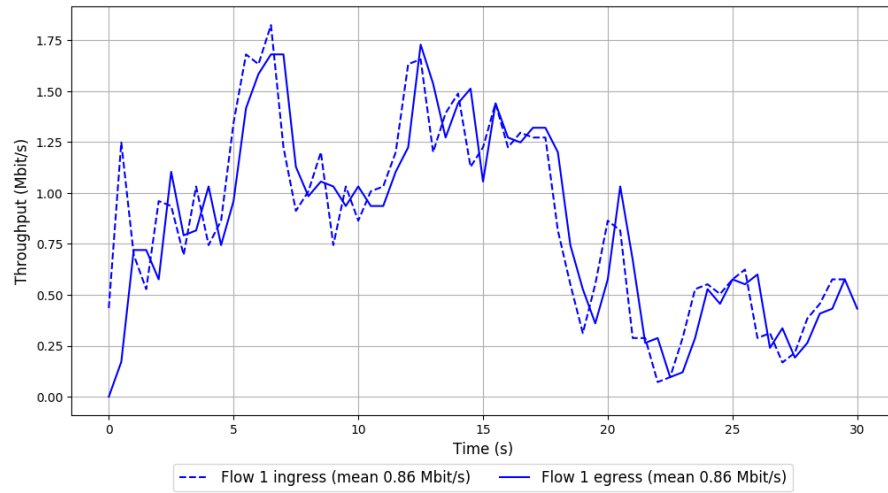


Run 1: Statistics of TCP Vegas

Start at: 2018-06-30 05:23:41
End at: 2018-06-30 05:24:11
Local clock offset: 0.726 ms
Remote clock offset: -7.917 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 492.192 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 492.192 ms
Loss rate: 0.97%

Run 1: Report of TCP Vegas — Data Link

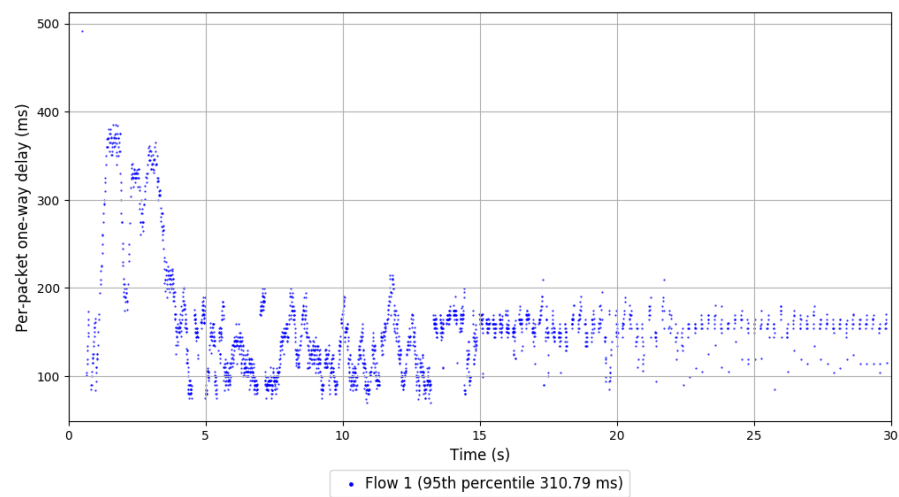
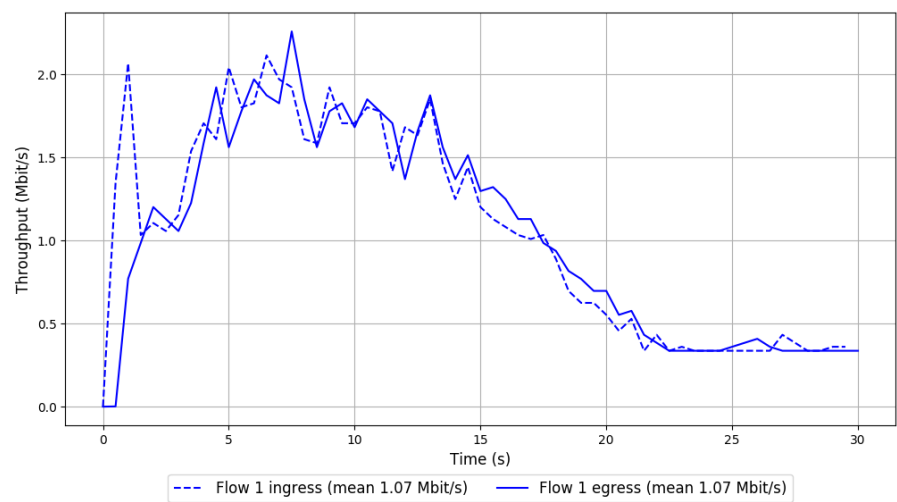


Run 2: Statistics of TCP Vegas

Start at: 2018-06-30 05:46:34
End at: 2018-06-30 05:47:04
Local clock offset: -5.817 ms
Remote clock offset: -9.221 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 310.792 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 310.792 ms
Loss rate: 1.54%

Run 2: Report of TCP Vegas — Data Link

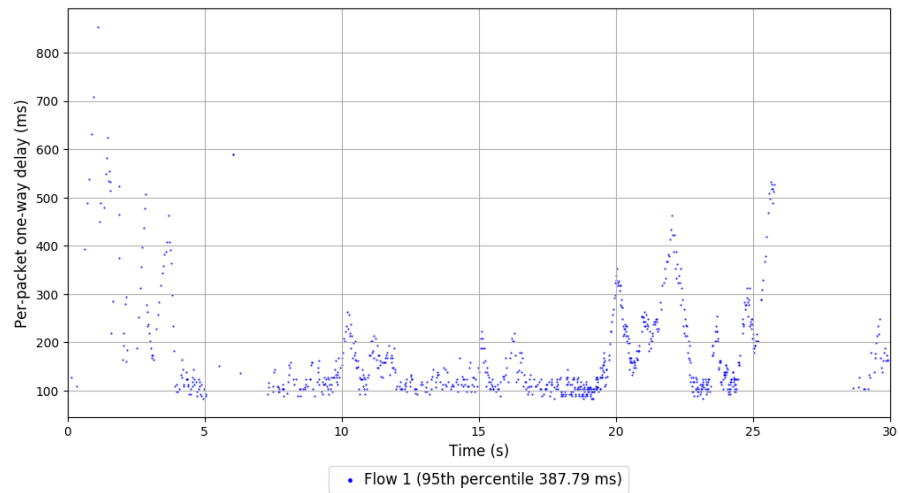
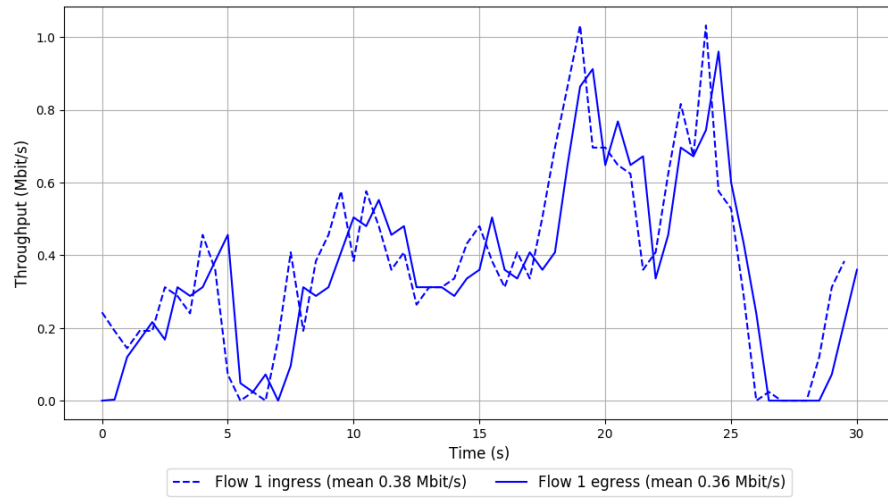


Run 3: Statistics of TCP Vegas

Start at: 2018-06-30 06:09:10
End at: 2018-06-30 06:09:40
Local clock offset: -1.151 ms
Remote clock offset: -10.183 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 387.793 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 387.793 ms
Loss rate: 3.93%

Run 3: Report of TCP Vegas — Data Link

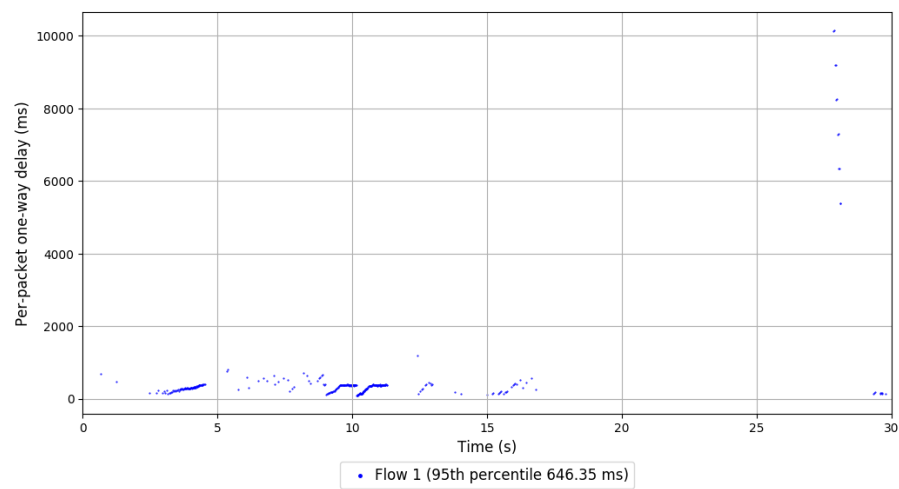
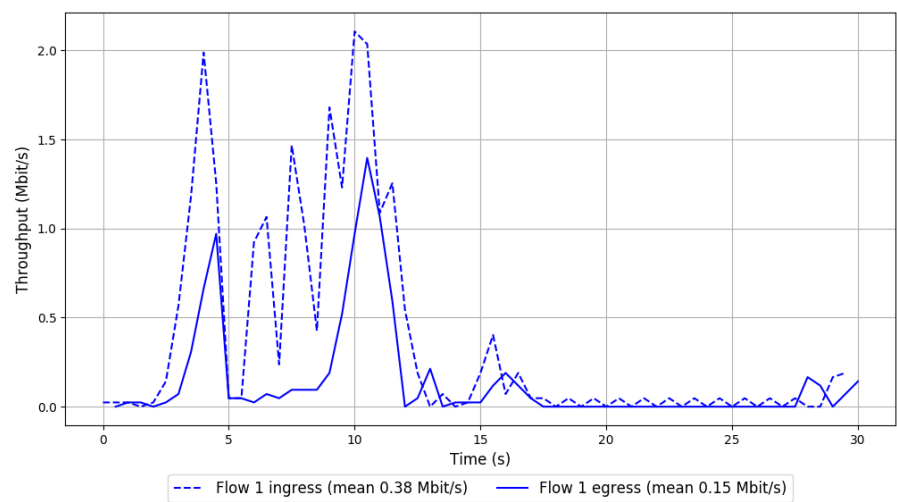


Run 1: Statistics of Verus

Start at: 2018-06-30 05:05:00
End at: 2018-06-30 05:05:30
Local clock offset: 9.146 ms
Remote clock offset: -8.434 ms

Below is generated by plot.py at 2018-06-30 06:11:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 646.347 ms
Loss rate: 61.54%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 646.347 ms
Loss rate: 61.54%

Run 1: Report of Verus — Data Link

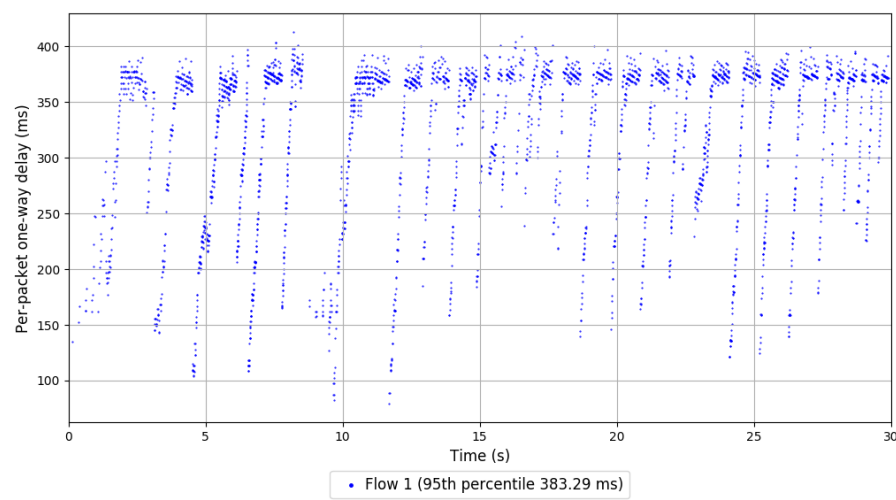
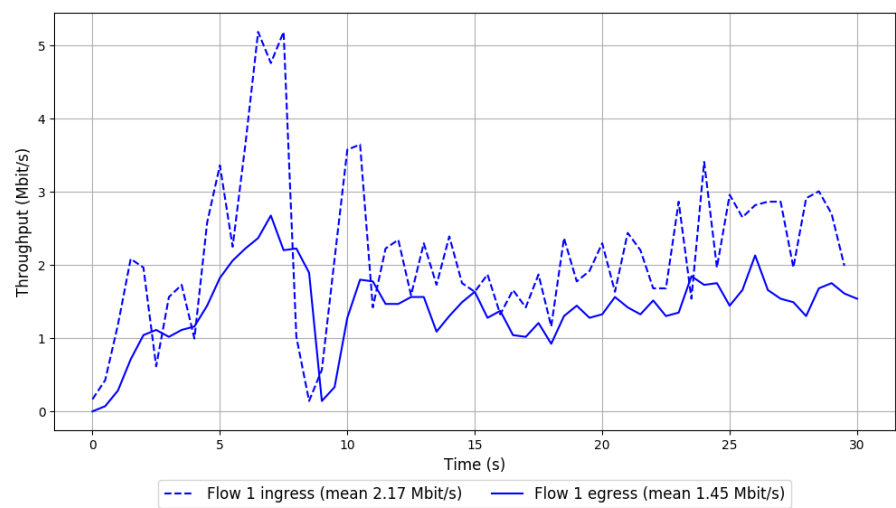


Run 2: Statistics of Verus

Start at: 2018-06-30 05:27:38
End at: 2018-06-30 05:28:09
Local clock offset: -1.532 ms
Remote clock offset: -8.242 ms

Below is generated by plot.py at 2018-06-30 06:11:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 383.291 ms
Loss rate: 33.70%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 383.291 ms
Loss rate: 33.70%

Run 2: Report of Verus — Data Link

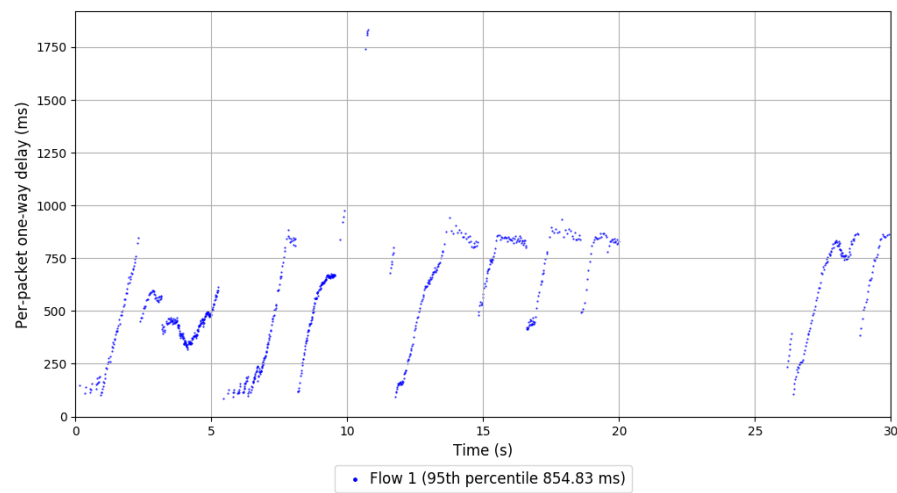
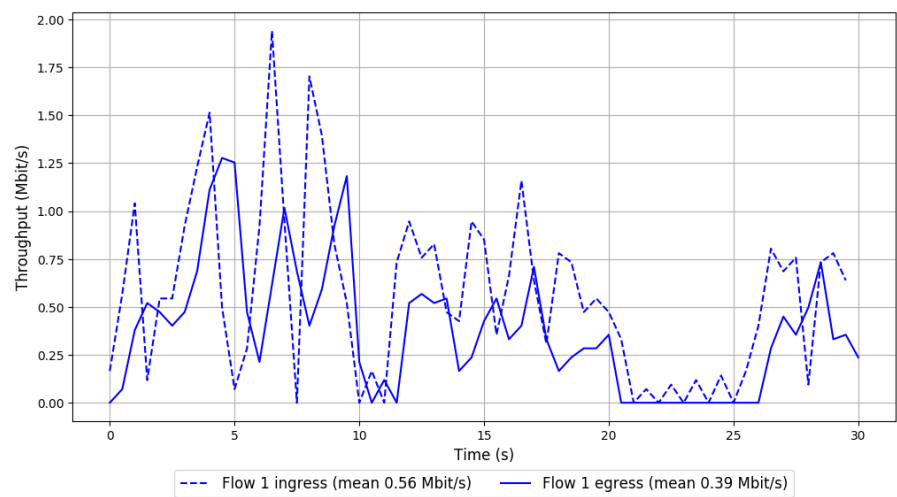


Run 3: Statistics of Verus

Start at: 2018-06-30 05:50:25
End at: 2018-06-30 05:50:55
Local clock offset: -3.83 ms
Remote clock offset: -9.618 ms

Below is generated by plot.py at 2018-06-30 06:11:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 854.826 ms
Loss rate: 32.17%
-- Flow 1:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 854.826 ms
Loss rate: 32.17%

Run 3: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-06-30 05:12:52

End at: 2018-06-30 05:13:22

Local clock offset: 9.244 ms

Remote clock offset: -8.347 ms

Below is generated by plot.py at 2018-06-30 06:11:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 854.983 ms

Loss rate: 40.11%

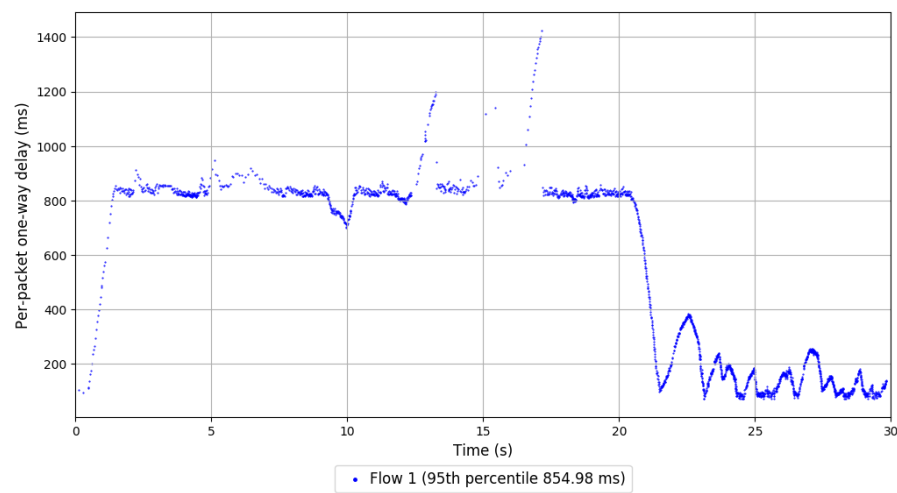
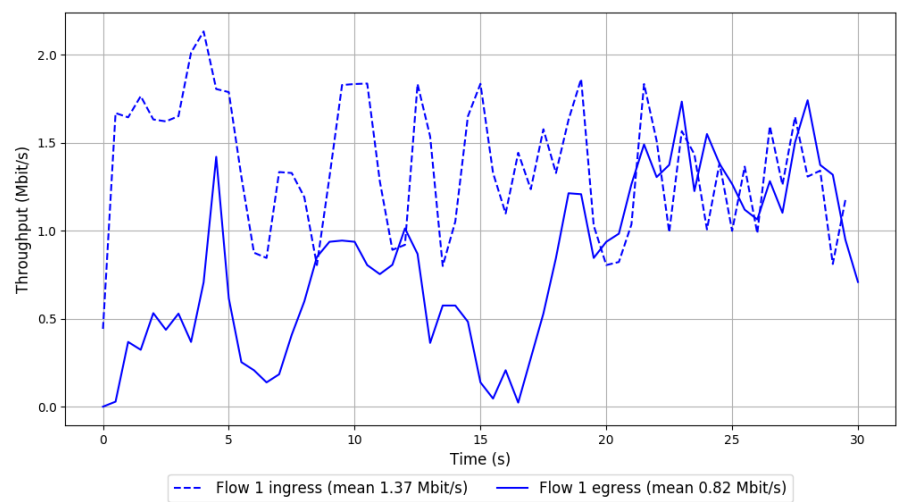
-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 854.983 ms

Loss rate: 40.11%

Run 1: Report of PCC-Vivace — Data Link

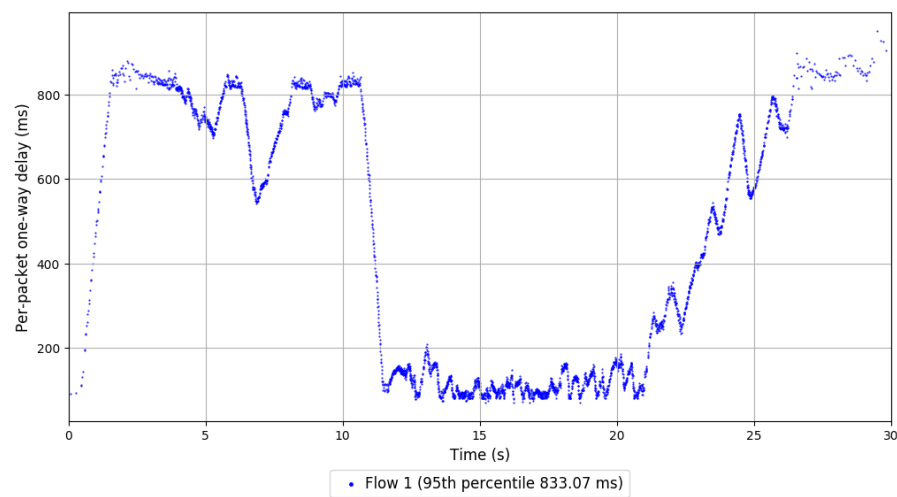
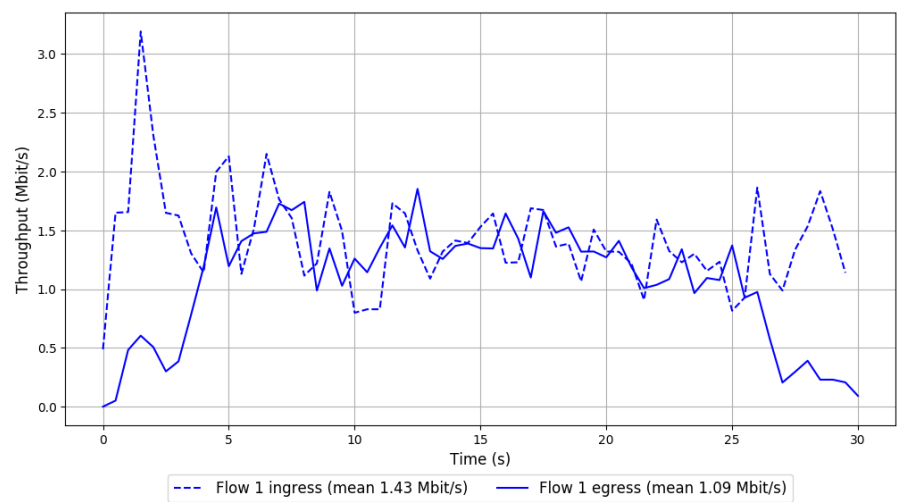


Run 2: Statistics of PCC-Vivace

Start at: 2018-06-30 05:35:51
End at: 2018-06-30 05:36:21
Local clock offset: -4.384 ms
Remote clock offset: -7.992 ms

Below is generated by plot.py at 2018-06-30 06:11:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 833.073 ms
Loss rate: 23.76%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 833.073 ms
Loss rate: 23.76%

Run 2: Report of PCC-Vivace — Data Link

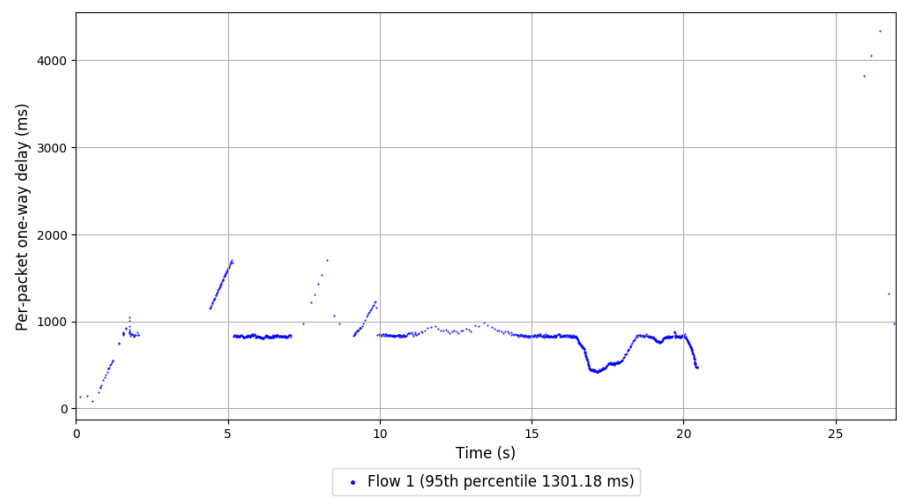
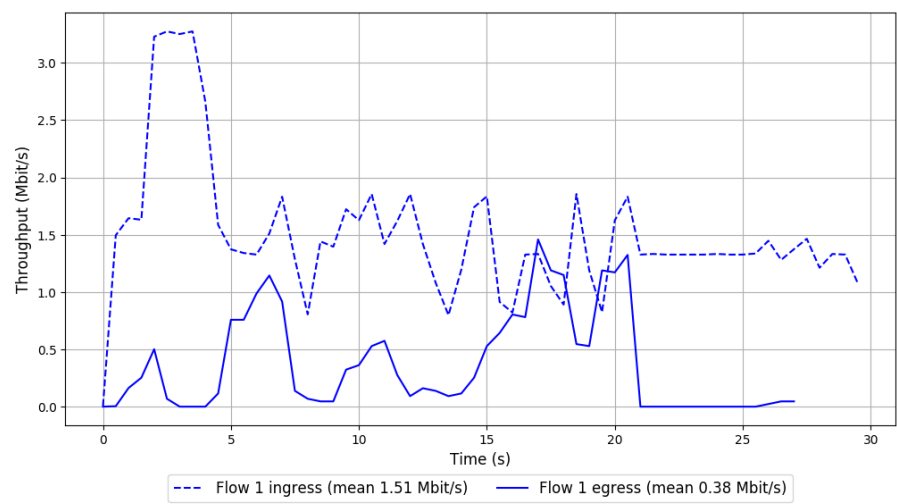


Run 3: Statistics of PCC-Vivace

Start at: 2018-06-30 05:58:17
End at: 2018-06-30 05:58:47
Local clock offset: -1.749 ms
Remote clock offset: -9.548 ms

Below is generated by plot.py at 2018-06-30 06:11:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1301.181 ms
Loss rate: 77.43%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 1301.181 ms
Loss rate: 77.43%

Run 3: Report of PCC-Vivace — Data Link

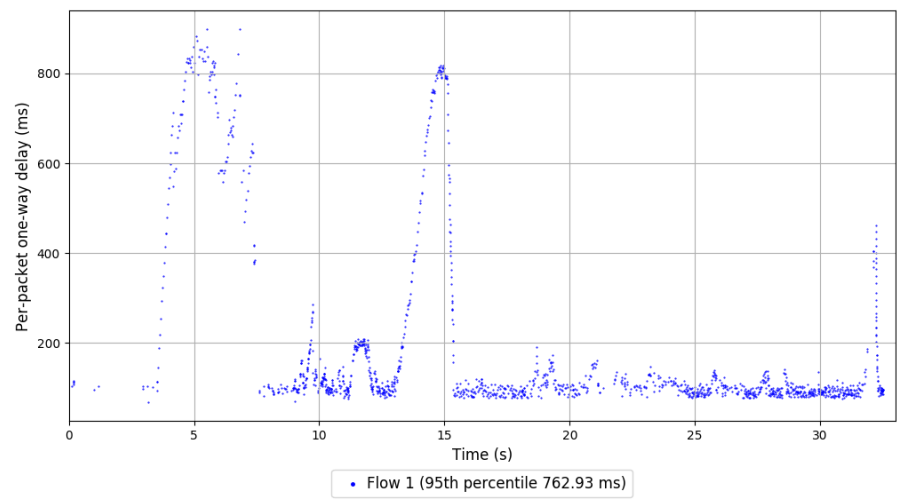
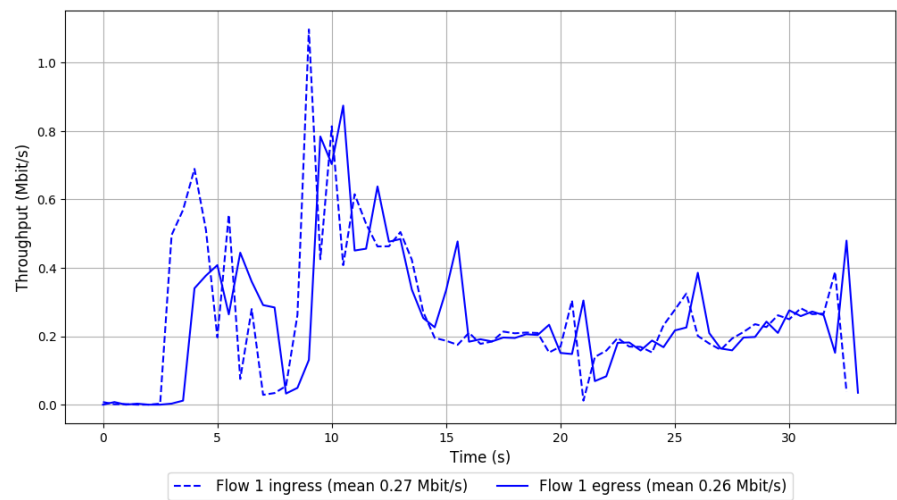


Run 1: Statistics of WebRTC media

Start at: 2018-06-30 05:10:20
End at: 2018-06-30 05:10:50
Local clock offset: 9.347 ms
Remote clock offset: -8.433 ms

Below is generated by plot.py at 2018-06-30 06:11:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 762.935 ms
Loss rate: 4.01%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 762.935 ms
Loss rate: 4.01%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-06-30 05:33:18

End at: 2018-06-30 05:33:48

Local clock offset: -3.65 ms

Remote clock offset: -8.106 ms

Below is generated by plot.py at 2018-06-30 06:11:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 419.183 ms

Loss rate: 24.75%

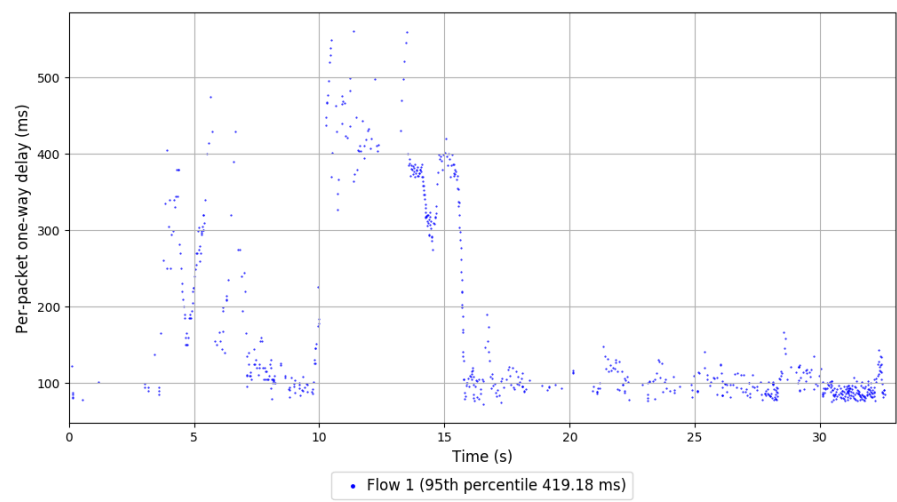
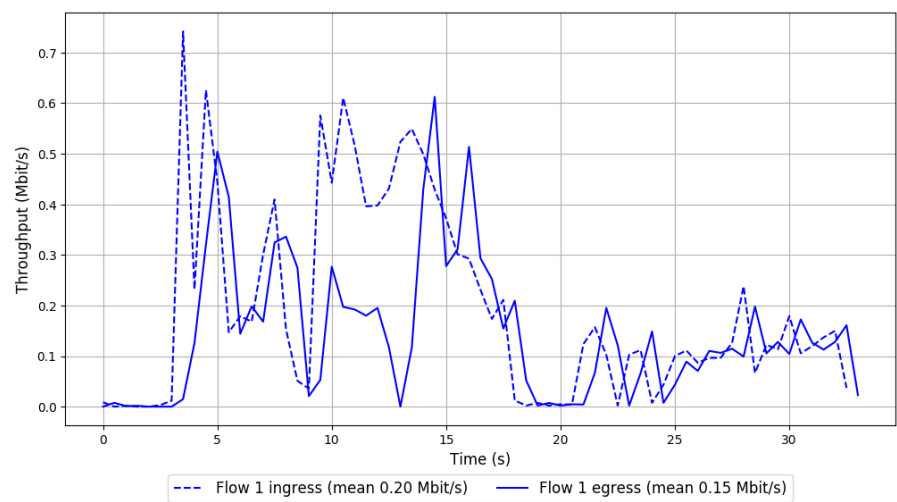
-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 419.183 ms

Loss rate: 24.75%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-30 05:55:45
End at: 2018-06-30 05:56:15
Local clock offset: -2.297 ms
Remote clock offset: -9.527 ms

Below is generated by plot.py at 2018-06-30 06:11:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 2175.271 ms
Loss rate: 40.95%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 2175.271 ms
Loss rate: 40.95%

Run 3: Report of WebRTC media — Data Link

