

Pantheon Report

Generated at 2018-06-29 12:27:09 (UTC).

Data path: AWS India 1 Ethernet (*local*) → India ppp0 ppp0 (*remote*).

Repeated the test of 17 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

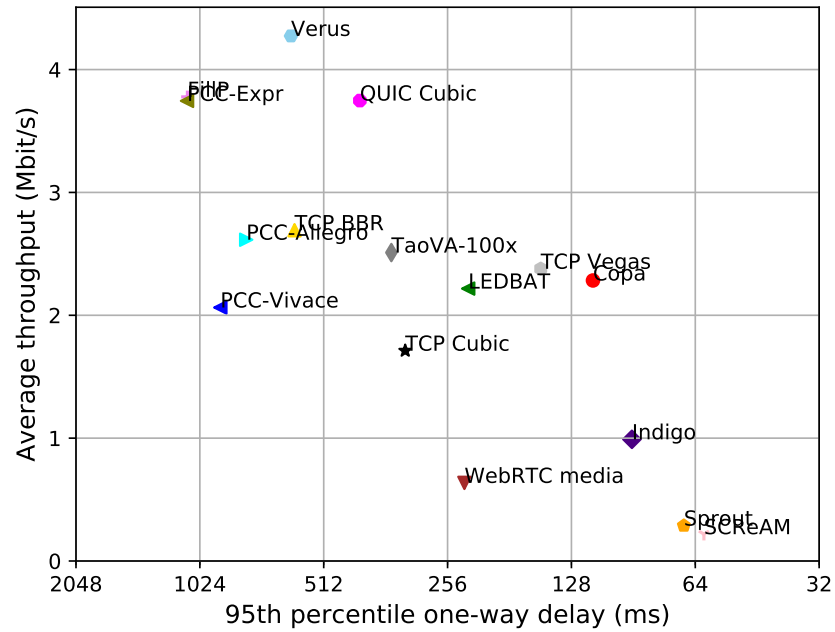
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

NTP offsets were measured against **nets.org.sg** and have been applied to correct the timestamps in logs.

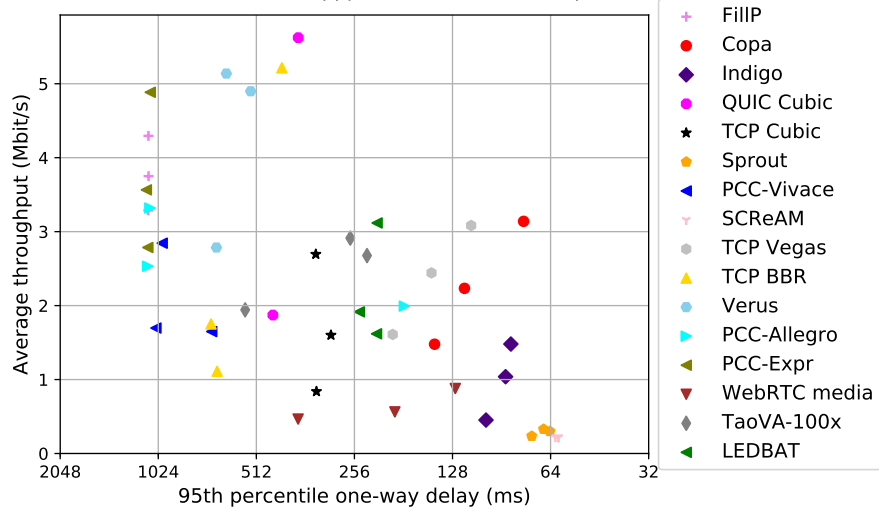
Git summary:

```
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 AWS India 1 to India ppp0, 3 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS India 1 to India ppp0, 3 runs of 30s each per scheme



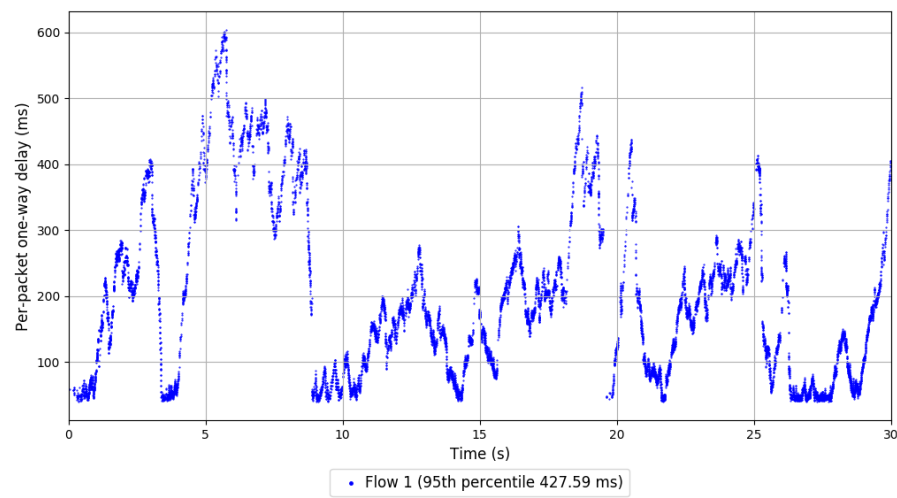
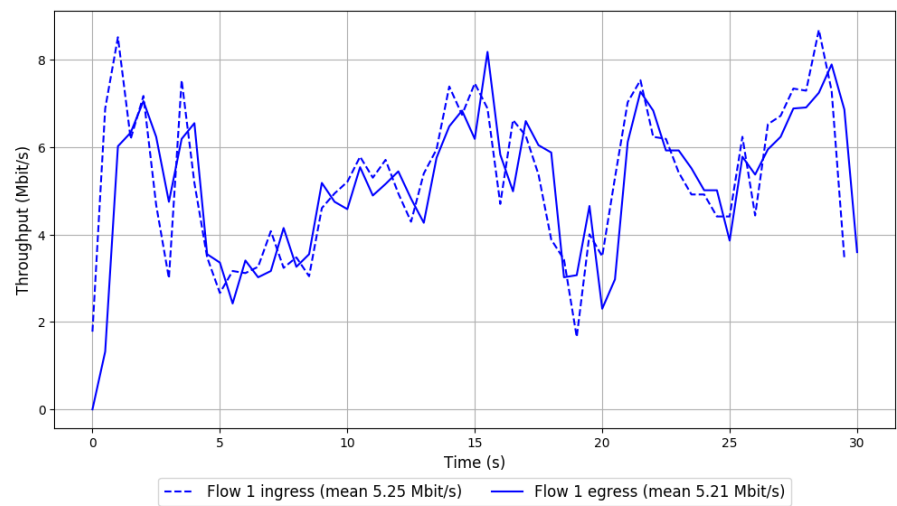
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	2.69	602.79	1.51
Copa	3	2.28	113.47	0.21
TCP Cubic	3	1.71	324.47	0.92
FillP	3	3.78	1097.82	60.33
FillP-Sheep	0	N/A	N/A	N/A
Indigo	3	0.99	91.24	0.08
LEDBAT	3	2.22	228.10	0.81
PCC-Allegro	3	2.61	789.94	21.04
PCC-Expr	3	3.75	1100.22	37.11
QUIC Cubic	2	3.75	418.22	0.85
SCReAM	3	0.22	60.99	0.21
Sprout	3	0.29	68.23	0.95
TaoVA-100x	3	2.51	350.65	0.75
TCP Vegas	3	2.38	151.98	0.16
Verus	3	4.28	614.97	1.81
PCC-Vivace	3	2.06	913.22	3.20
WebRTC media	3	0.64	233.00	0.19

Run 1: Statistics of TCP BBR

Start at: 2018-06-29 11:34:53
End at: 2018-06-29 11:35:23
Local clock offset: 2.397 ms
Remote clock offset: -20.857 ms

Below is generated by plot.py at 2018-06-29 12:26:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 427.589 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 427.589 ms
Loss rate: 0.91%

Run 1: Report of TCP BBR — Data Link

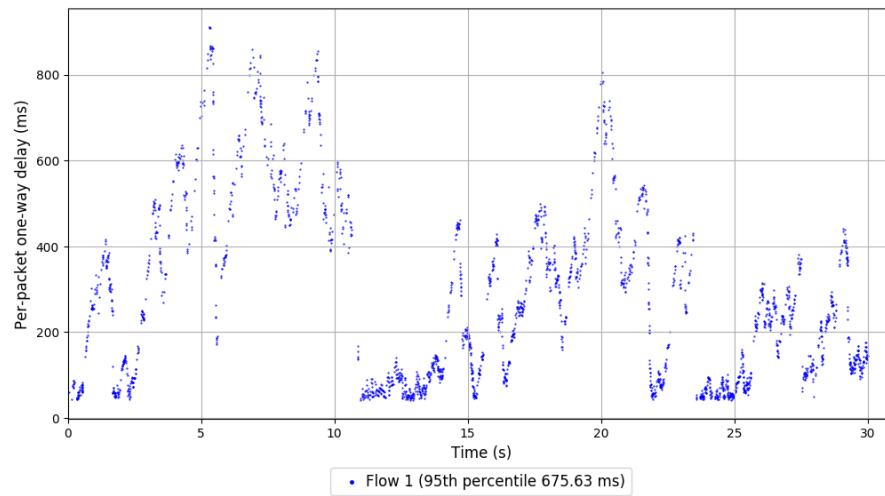
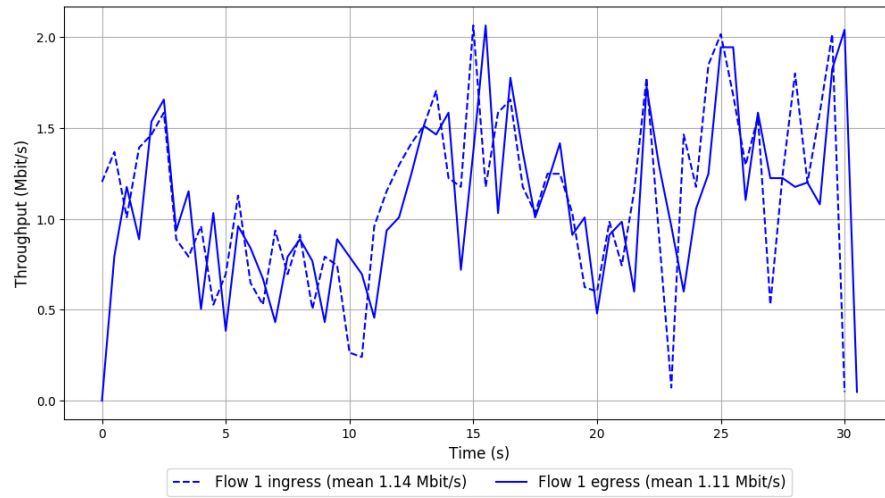


Run 2: Statistics of TCP BBR

Start at: 2018-06-29 11:53:21
End at: 2018-06-29 11:53:51
Local clock offset: 1.803 ms
Remote clock offset: -10.187 ms

Below is generated by plot.py at 2018-06-29 12:26:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 675.632 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 675.632 ms
Loss rate: 2.50%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-06-29 12:11:43

End at: 2018-06-29 12:12:13

Local clock offset: 1.345 ms

Remote clock offset: -2.894 ms

Below is generated by plot.py at 2018-06-29 12:26:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 705.155 ms

Loss rate: 1.11%

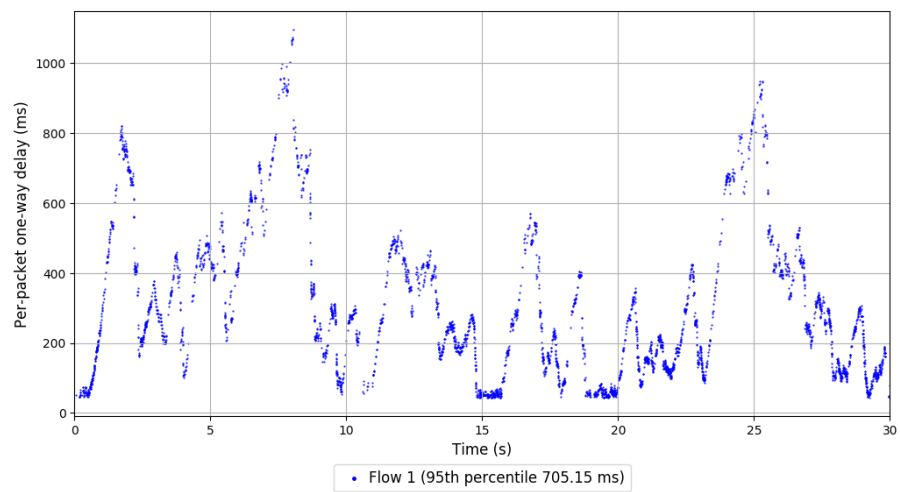
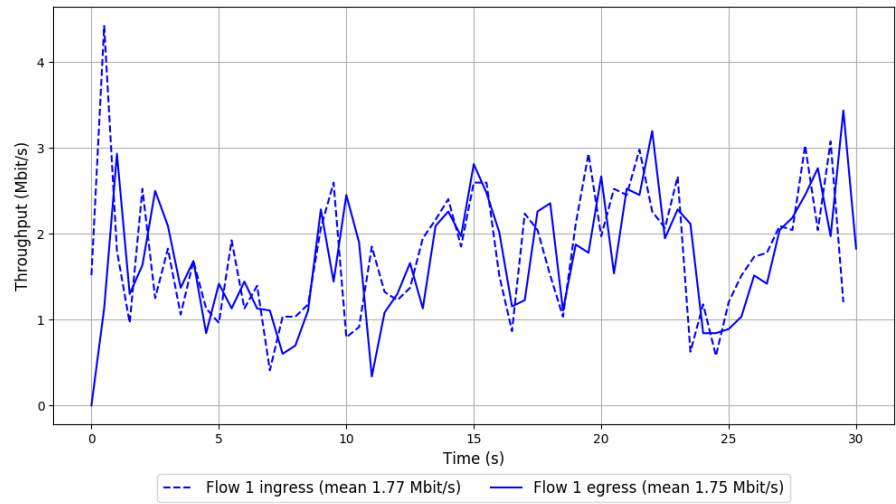
-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 705.155 ms

Loss rate: 1.11%

Run 3: Report of TCP BBR — Data Link

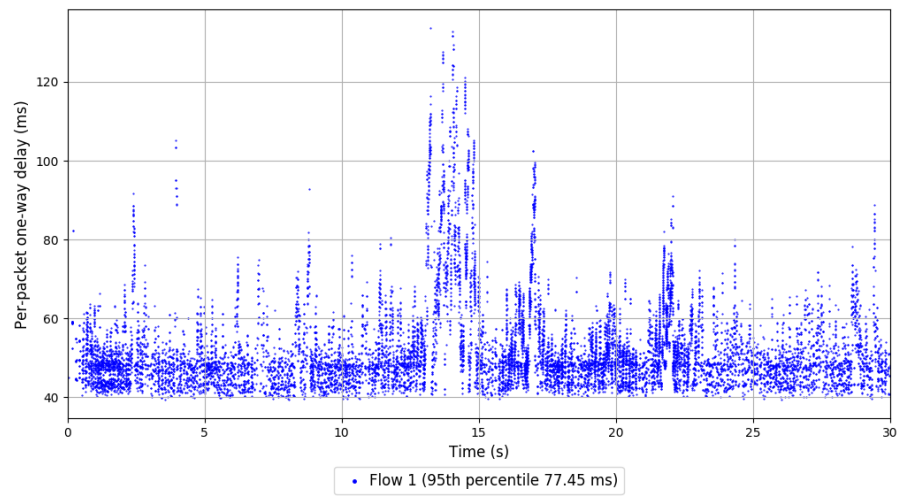
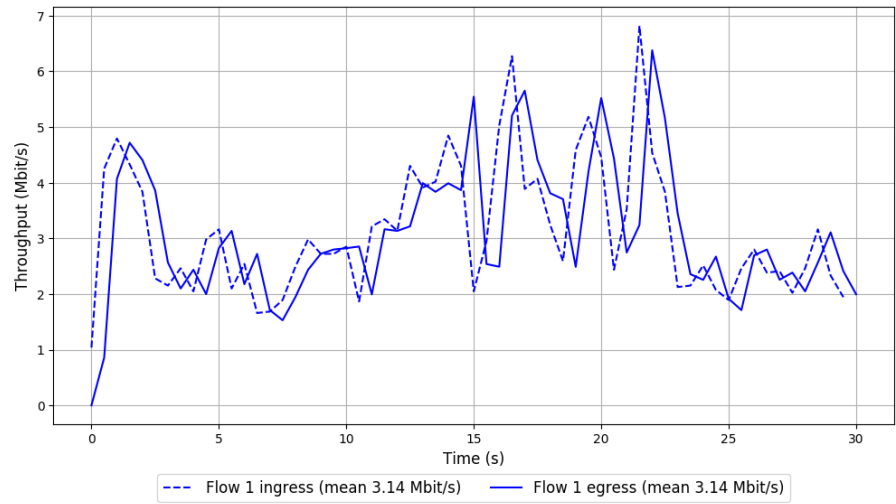


Run 1: Statistics of Copa

Start at: 2018-06-29 11:32:44
End at: 2018-06-29 11:33:14
Local clock offset: 3.762 ms
Remote clock offset: -17.785 ms

Below is generated by plot.py at 2018-06-29 12:26:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 77.455 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 77.455 ms
Loss rate: 0.06%

Run 1: Report of Copa — Data Link

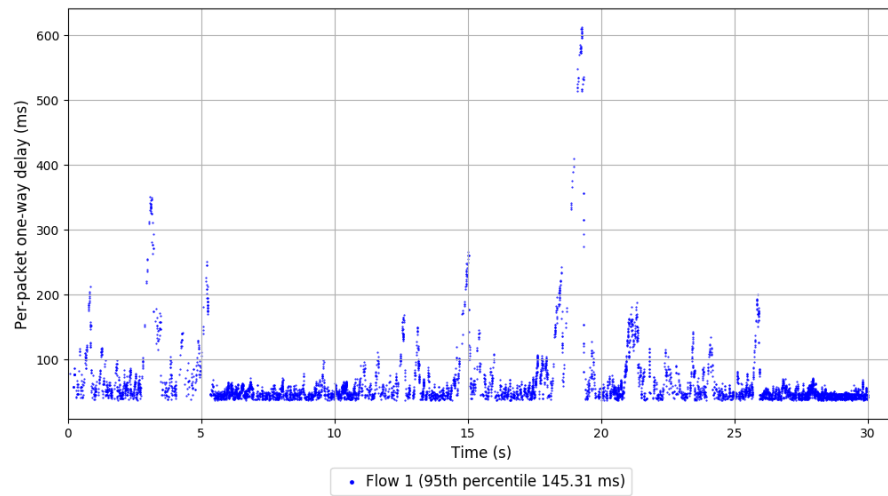
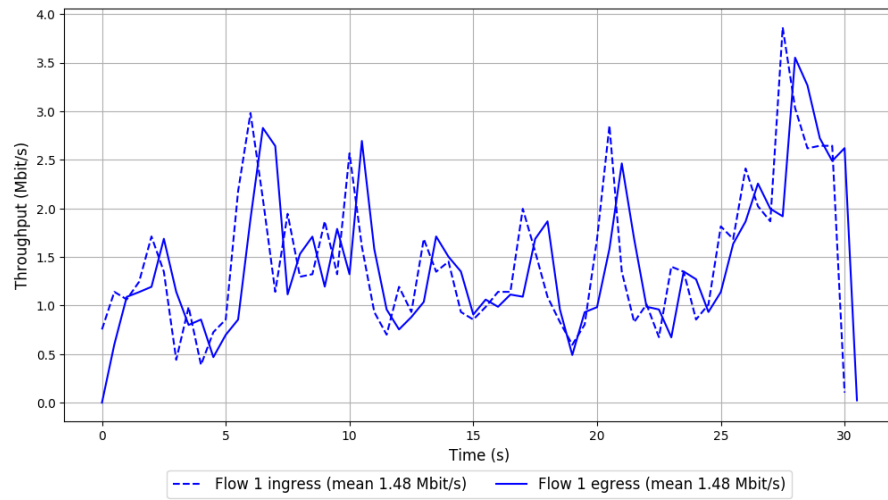


Run 2: Statistics of Copa

Start at: 2018-06-29 11:51:12
End at: 2018-06-29 11:51:42
Local clock offset: 1.714 ms
Remote clock offset: -11.789 ms

Below is generated by plot.py at 2018-06-29 12:26:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 145.308 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 145.308 ms
Loss rate: 0.44%

Run 2: Report of Copa — Data Link

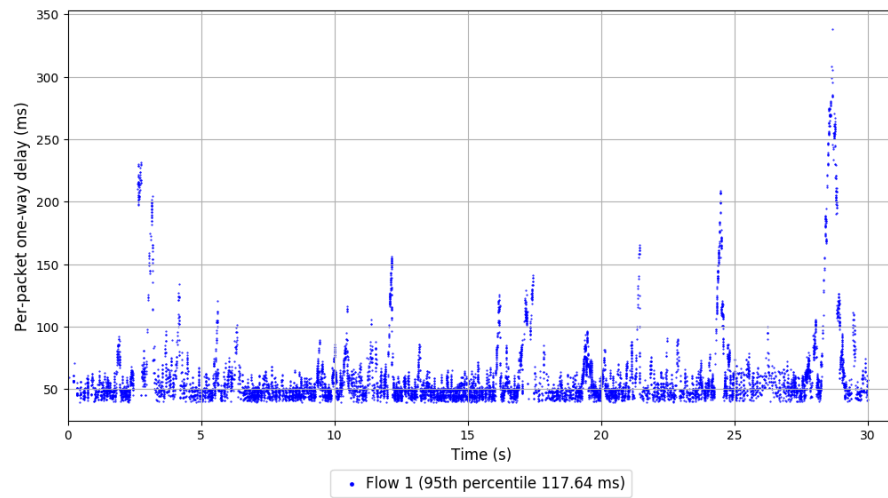
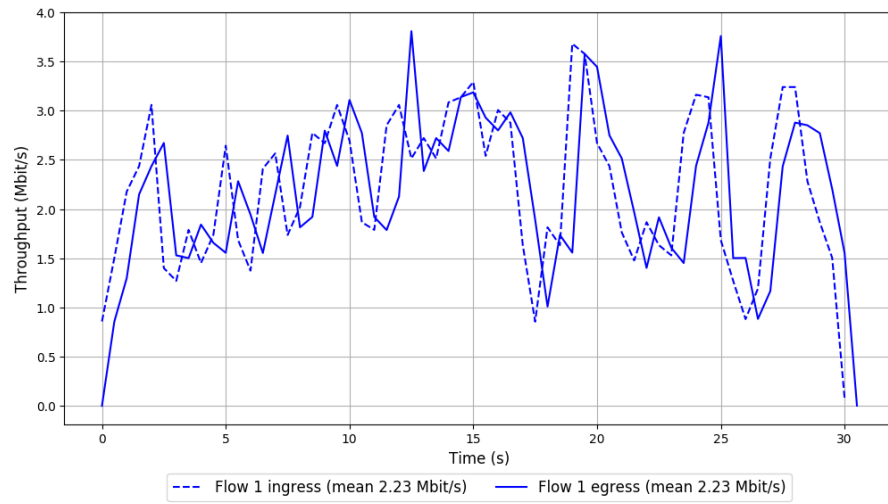


Run 3: Statistics of Copa

Start at: 2018-06-29 12:09:34
End at: 2018-06-29 12:10:04
Local clock offset: 0.169 ms
Remote clock offset: -4.399 ms

Below is generated by plot.py at 2018-06-29 12:26:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 117.640 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 117.640 ms
Loss rate: 0.14%

Run 3: Report of Copa — Data Link

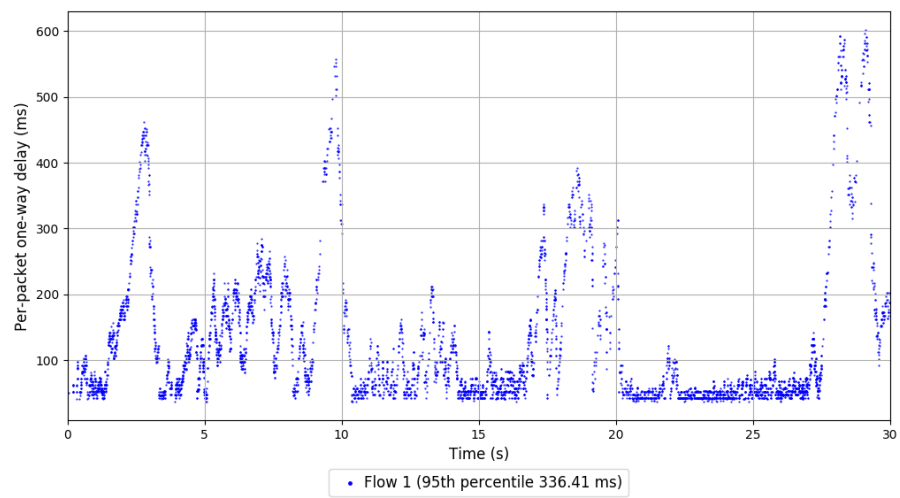
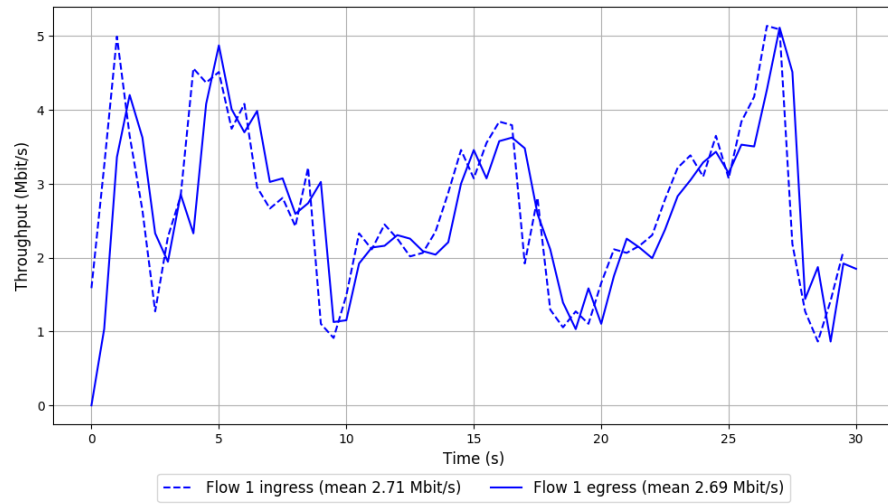


Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 11:35:58
End at: 2018-06-29 11:36:28
Local clock offset: 3.499 ms
Remote clock offset: -21.246 ms

Below is generated by plot.py at 2018-06-29 12:26:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 336.409 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 336.409 ms
Loss rate: 0.74%

Run 1: Report of TCP Cubic — Data Link

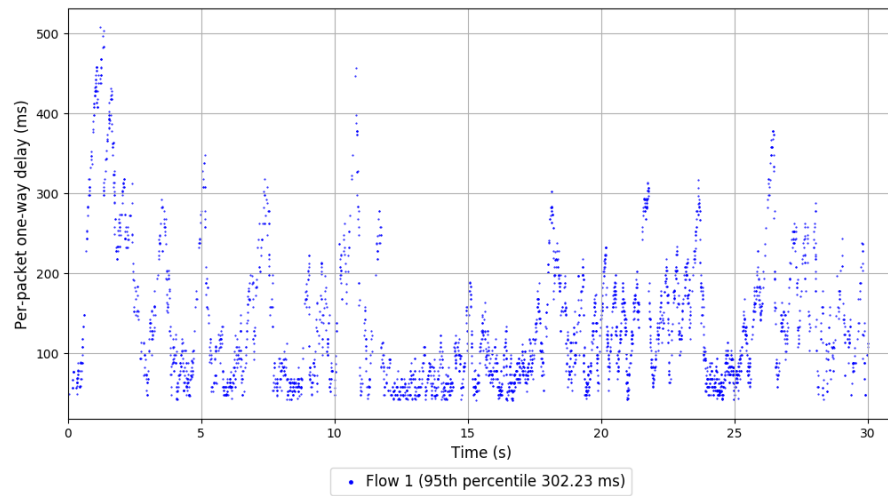
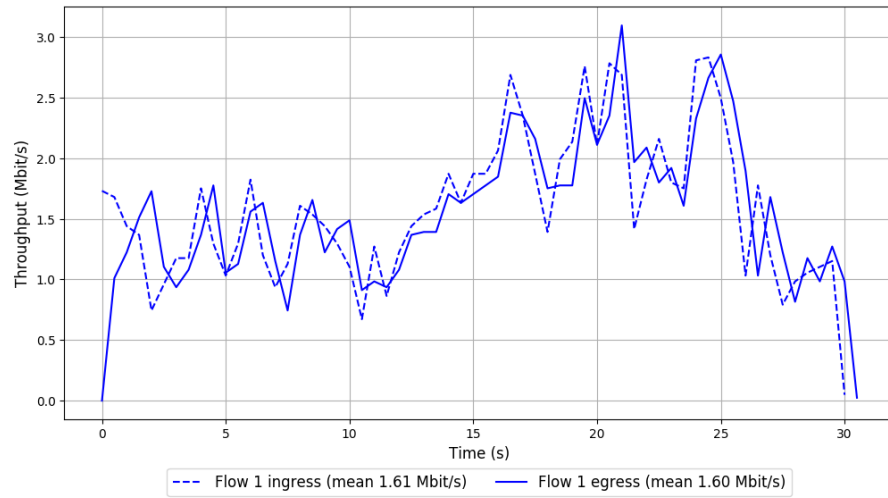


Run 2: Statistics of TCP Cubic

Start at: 2018-06-29 11:54:25
End at: 2018-06-29 11:54:55
Local clock offset: 3.659 ms
Remote clock offset: -8.804 ms

Below is generated by plot.py at 2018-06-29 12:26:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 302.226 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 302.226 ms
Loss rate: 0.70%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-06-29 12:12:54

End at: 2018-06-29 12:13:24

Local clock offset: 3.01 ms

Remote clock offset: -2.66 ms

Below is generated by plot.py at 2018-06-29 12:26:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 334.781 ms

Loss rate: 1.32%

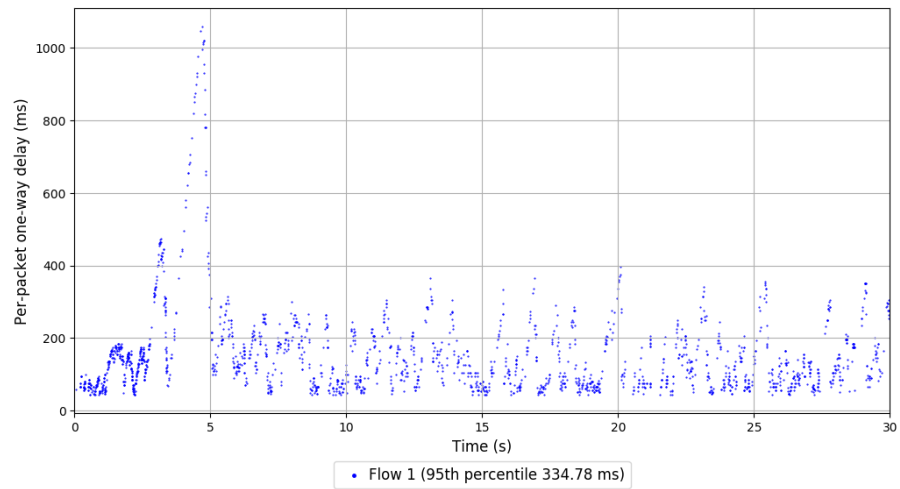
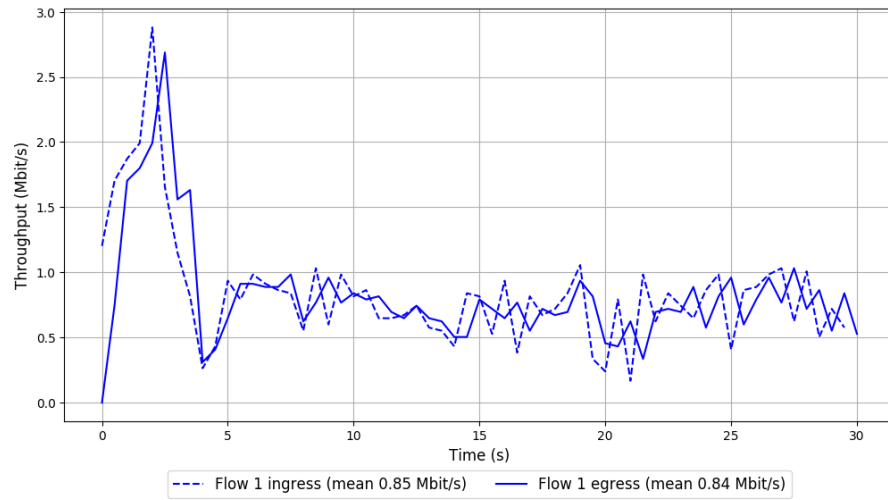
-- Flow 1:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 334.781 ms

Loss rate: 1.32%

Run 3: Report of TCP Cubic — Data Link

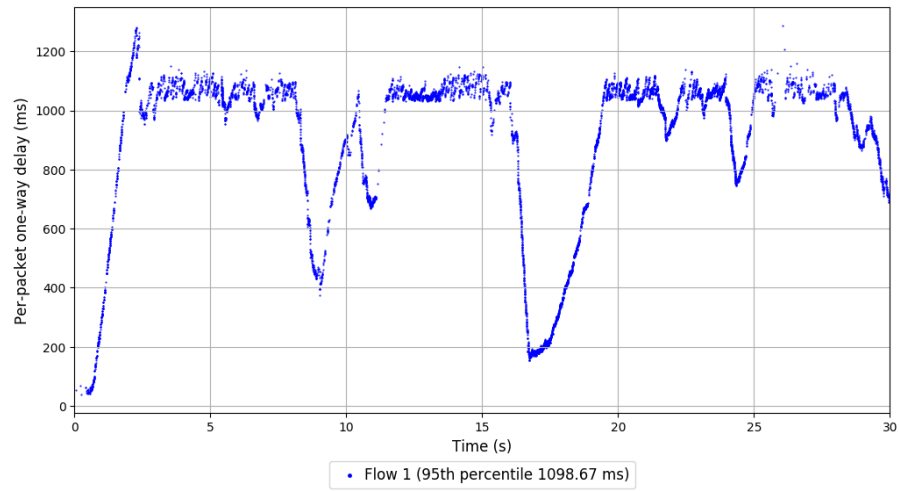
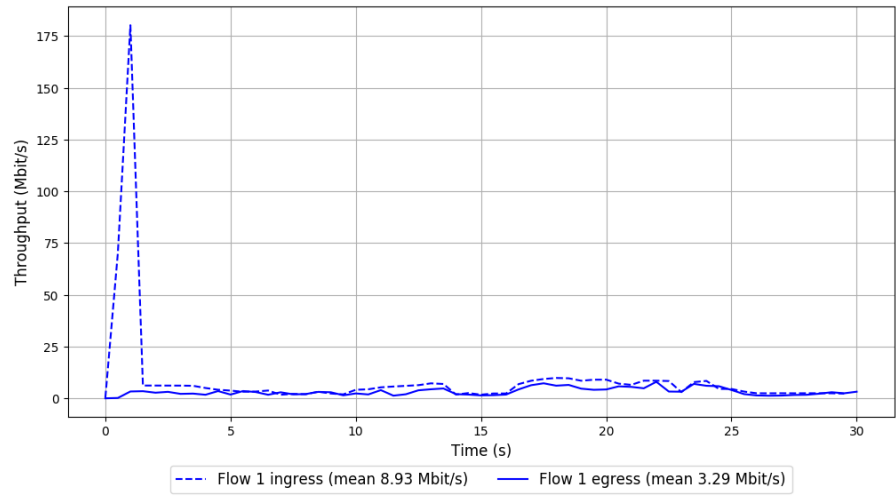


Run 1: Statistics of FillP

Start at: 2018-06-29 11:47:58
End at: 2018-06-29 11:48:28
Local clock offset: 2.512 ms
Remote clock offset: -15.637 ms

Below is generated by plot.py at 2018-06-29 12:26:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 1098.670 ms
Loss rate: 63.25%
-- Flow 1:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 1098.670 ms
Loss rate: 63.25%

Run 1: Report of FillP — Data Link

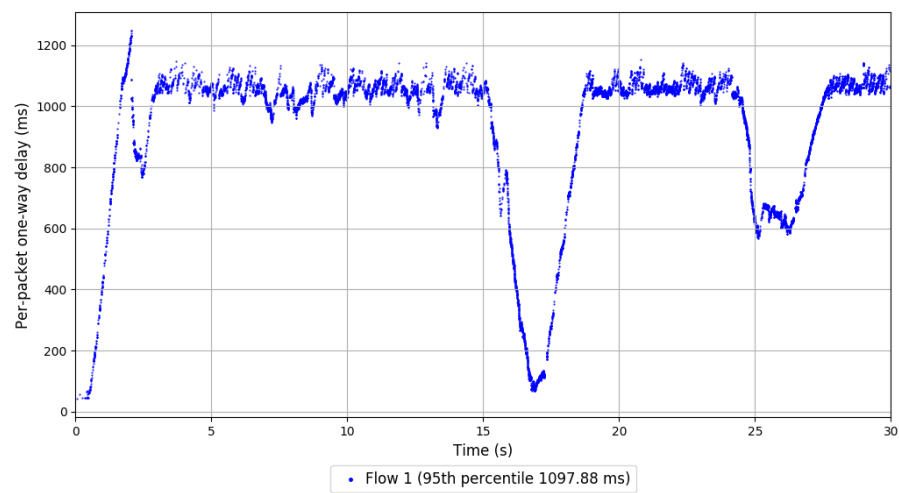
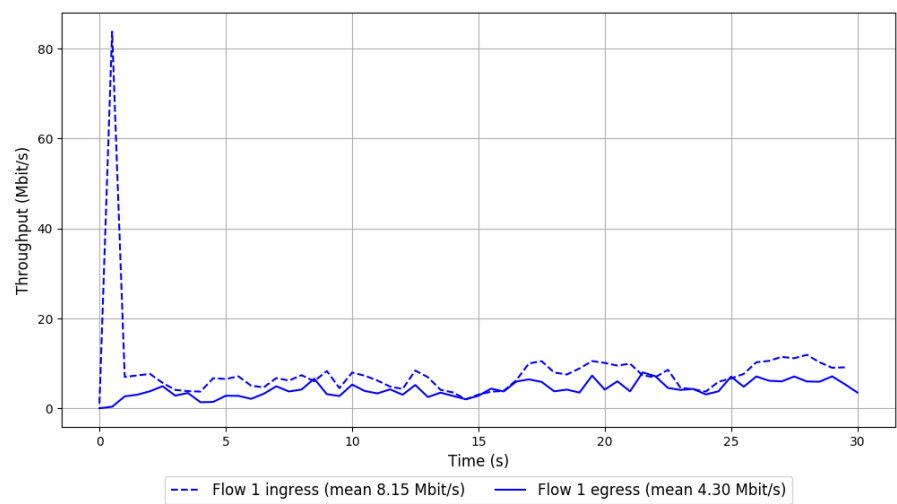


Run 2: Statistics of FillP

Start at: 2018-06-29 12:06:20
End at: 2018-06-29 12:06:50
Local clock offset: 3.331 ms
Remote clock offset: -4.174 ms

Below is generated by plot.py at 2018-06-29 12:26:43
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 1097.879 ms
Loss rate: 47.35%
-- Flow 1:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 1097.879 ms
Loss rate: 47.35%

Run 2: Report of FillP — Data Link

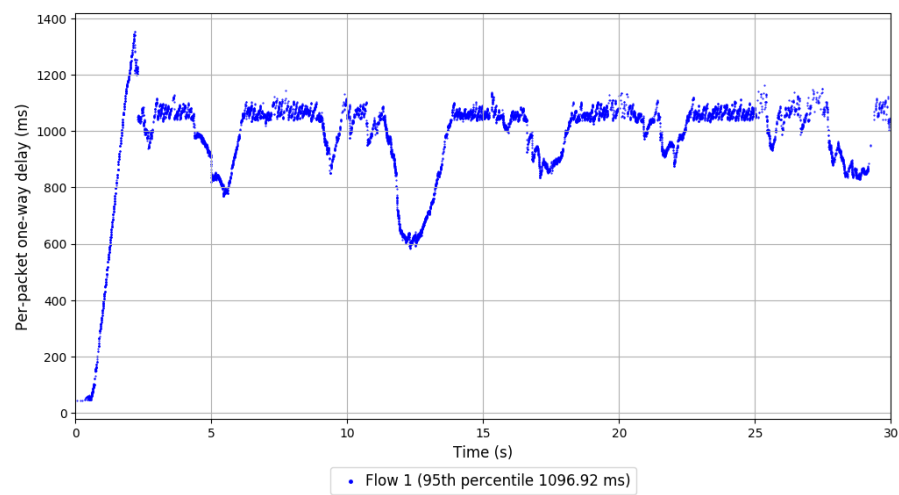
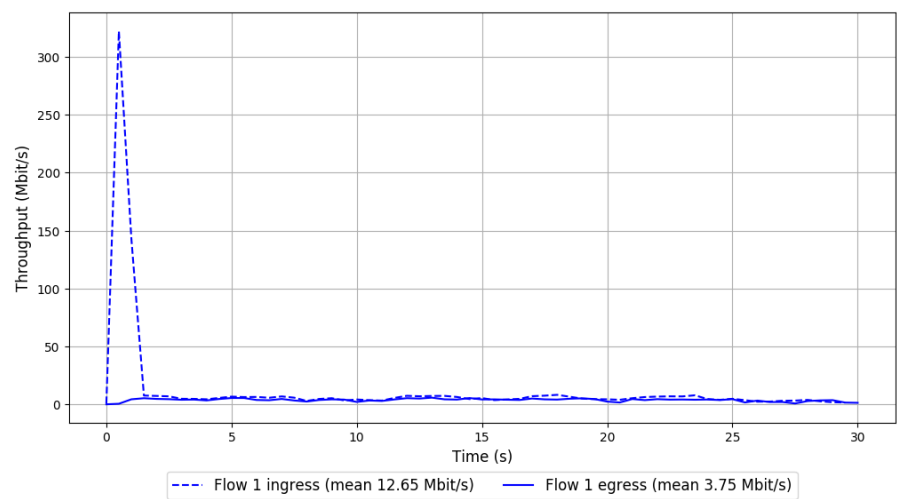


Run 3: Statistics of FillP

Start at: 2018-06-29 12:24:46
End at: 2018-06-29 12:25:16
Local clock offset: 0.57 ms
Remote clock offset: -6.035 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 1096.925 ms
Loss rate: 70.39%
-- Flow 1:
Average throughput: 3.75 Mbit/s
95th percentile per-packet one-way delay: 1096.925 ms
Loss rate: 70.39%

Run 3: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

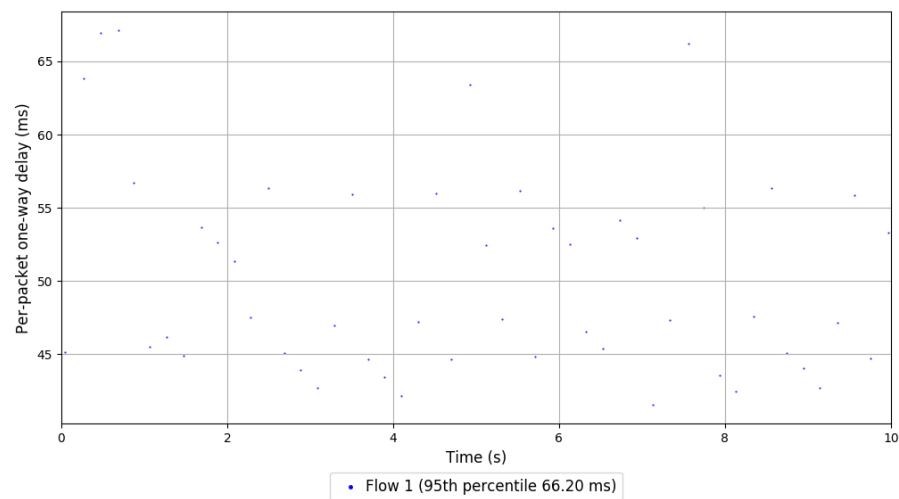
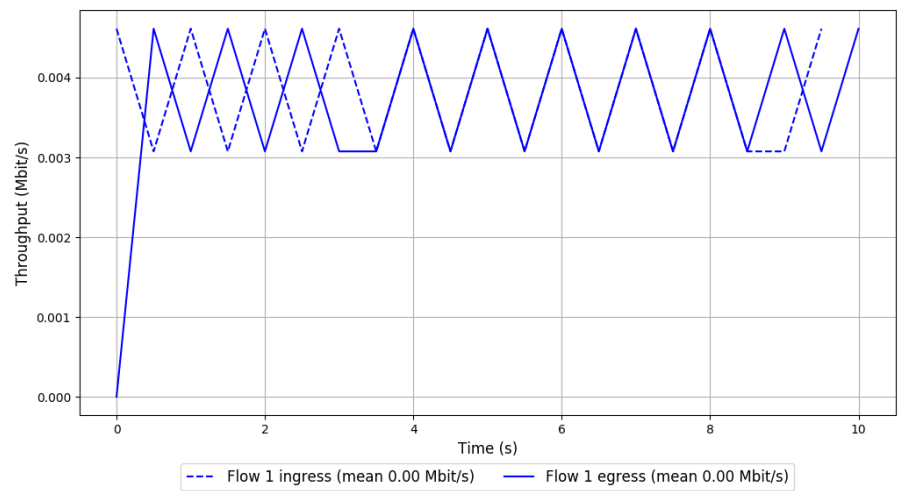
Start at: 2018-06-29 11:40:16

End at: 2018-06-29 11:40:46

Local clock offset: 0.148 ms

Remote clock offset: -19.766 ms

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

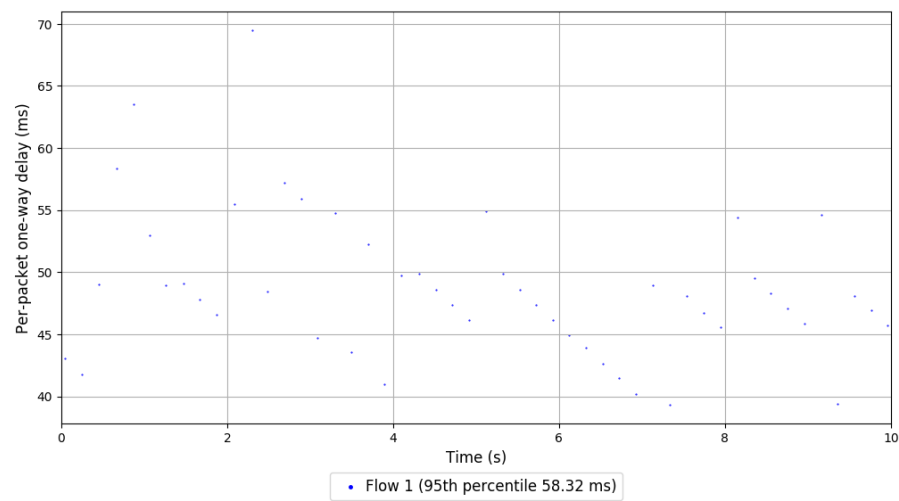
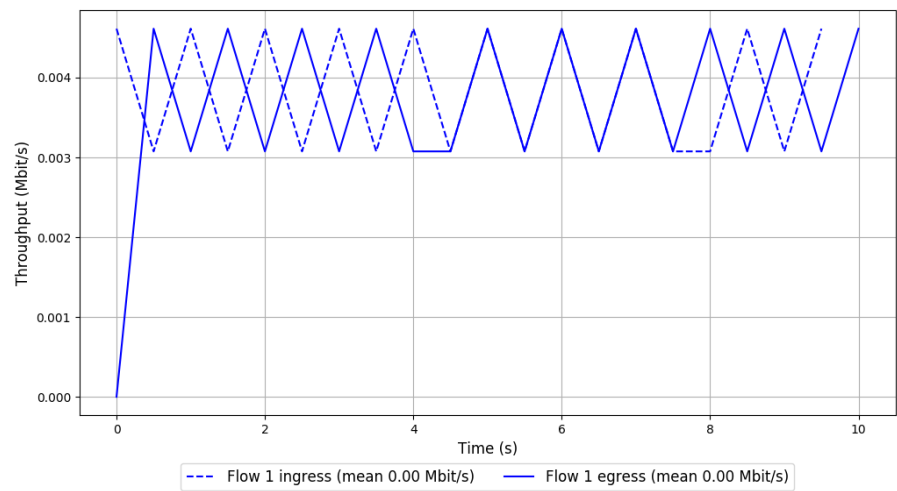
Start at: 2018-06-29 11:58:45

End at: 2018-06-29 11:59:15

Local clock offset: 2.077 ms

Remote clock offset: -6.669 ms

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

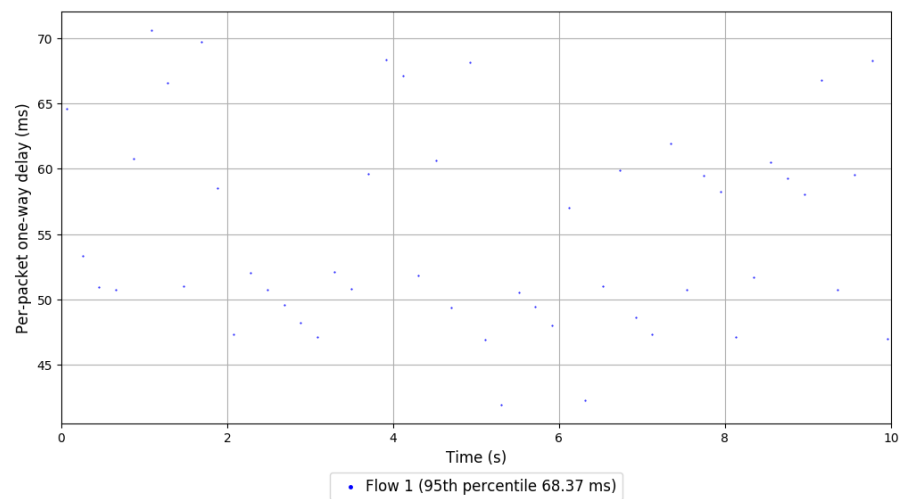
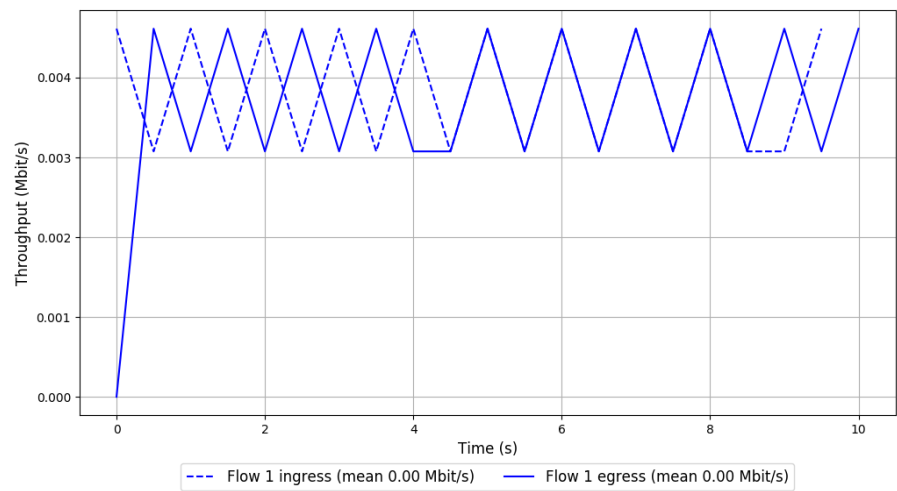
Start at: 2018-06-29 12:17:13

End at: 2018-06-29 12:17:43

Local clock offset: 3.882 ms

Remote clock offset: 2.216 ms

Run 3: Report of FillP-Sheep — Data Link

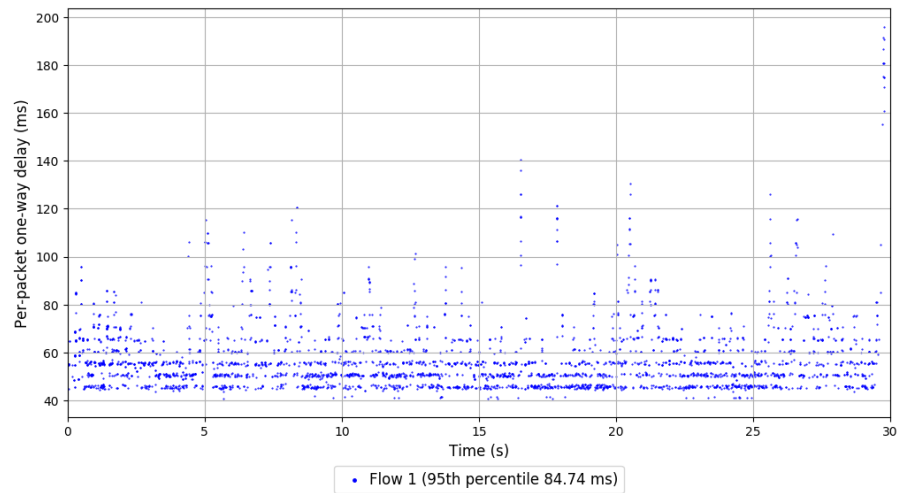
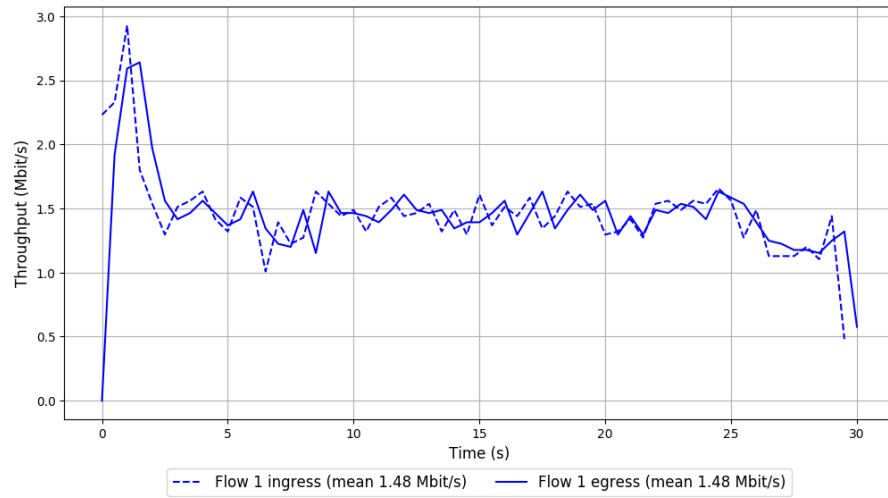


```
Run 1: Statistics of Indigo

Start at: 2018-06-29 11:33:49
End at: 2018-06-29 11:34:19
Local clock offset: -0.069 ms
Remote clock offset: -20.071 ms

# Below is generated by plot.py at 2018-06-29 12:26:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 84.737 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 84.737 ms
Loss rate: 0.08%
```

Run 1: Report of Indigo — Data Link

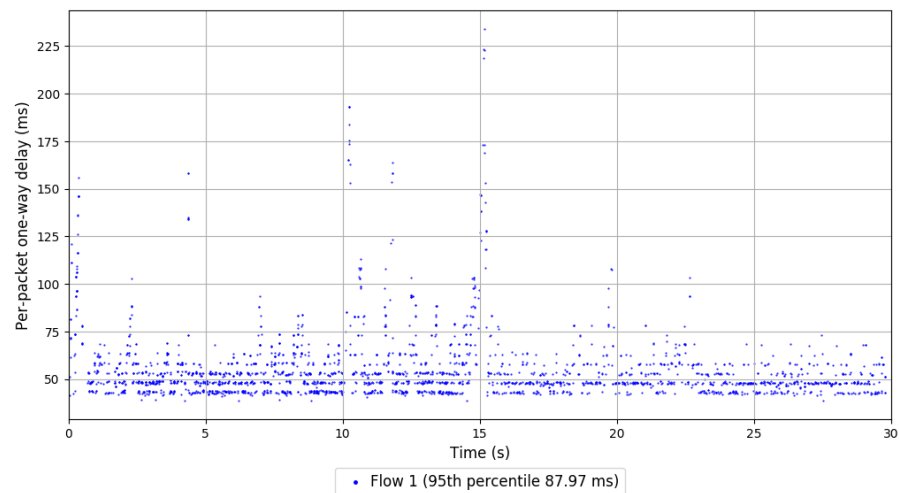
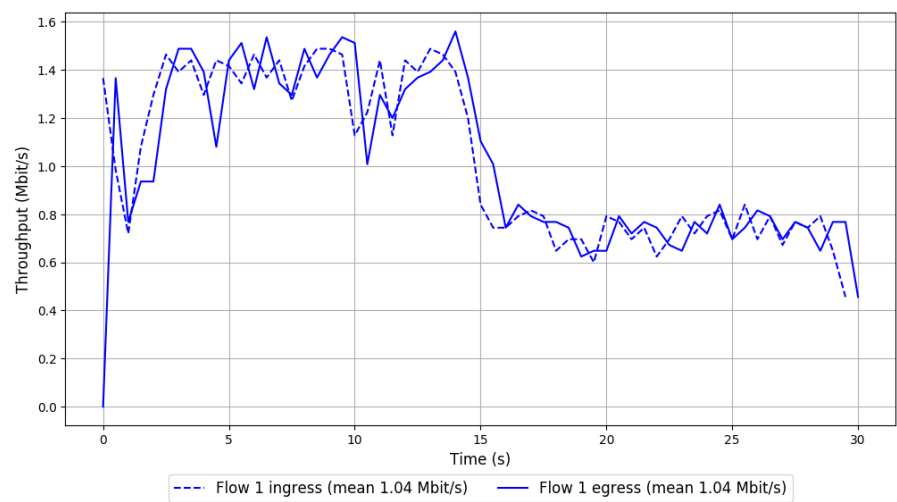


Run 2: Statistics of Indigo

Start at: 2018-06-29 11:52:17
End at: 2018-06-29 11:52:47
Local clock offset: 1.857 ms
Remote clock offset: -10.154 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 87.974 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 87.974 ms
Loss rate: 0.08%

Run 2: Report of Indigo — Data Link

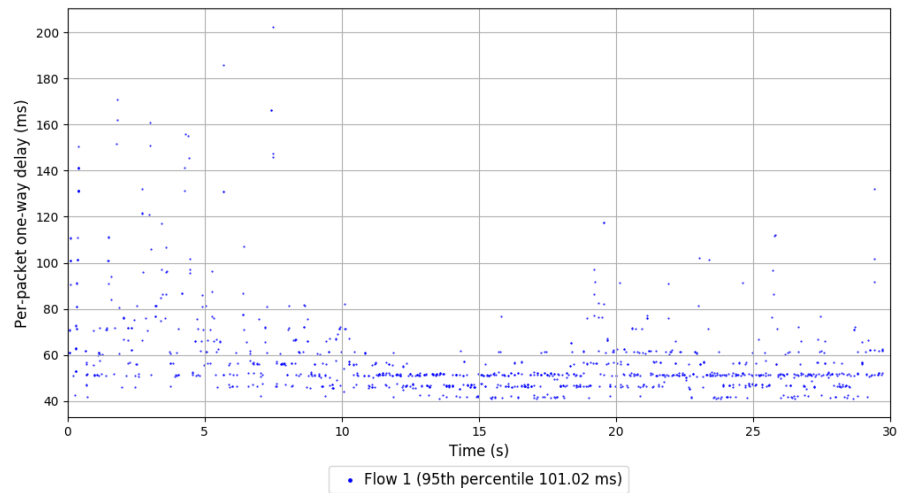
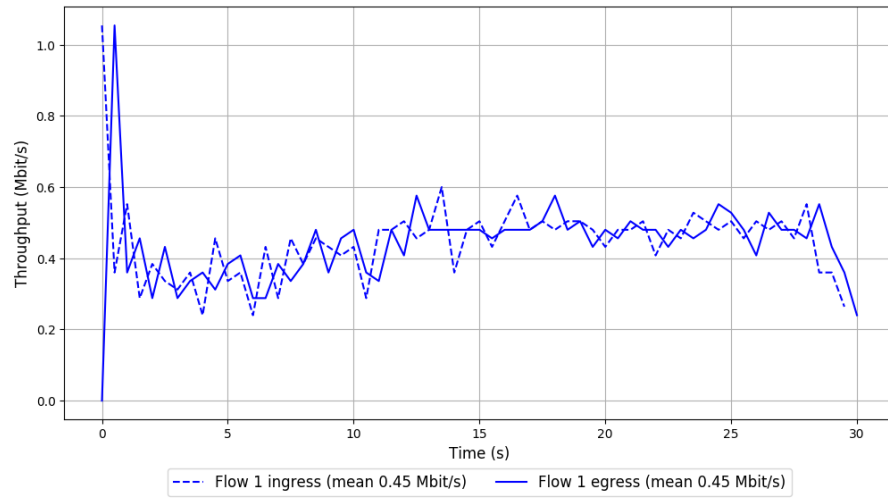


Run 3: Statistics of Indigo

Start at: 2018-06-29 12:10:39
End at: 2018-06-29 12:11:09
Local clock offset: 1.164 ms
Remote clock offset: -2.432 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 101.023 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 101.023 ms
Loss rate: 0.09%

Run 3: Report of Indigo — Data Link

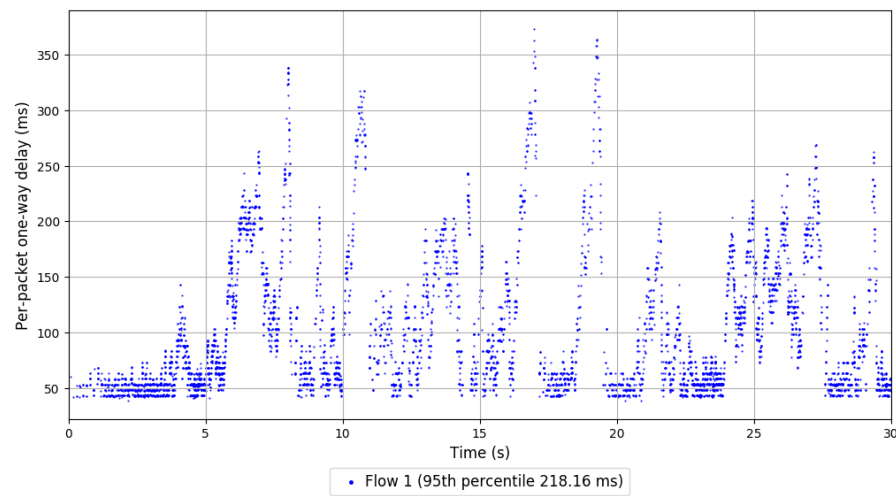
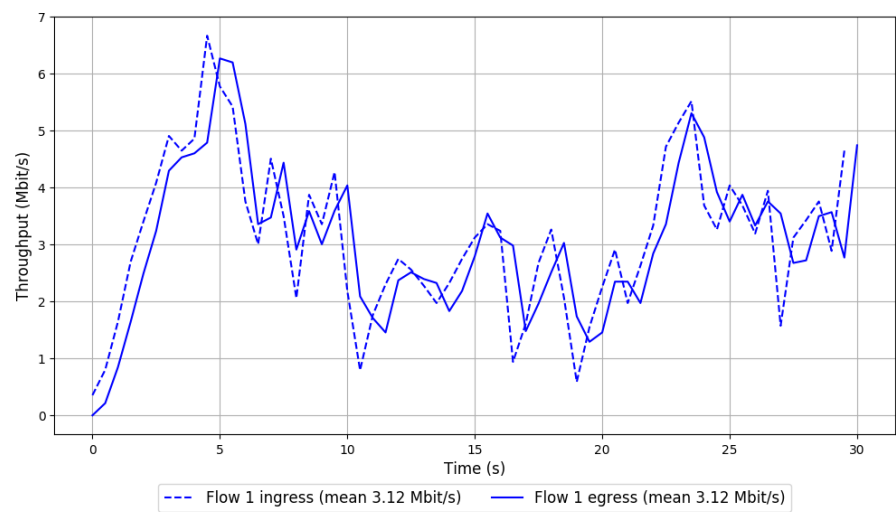


Run 1: Statistics of LEDBAT

Start at: 2018-06-29 11:37:02
End at: 2018-06-29 11:37:32
Local clock offset: 1.729 ms
Remote clock offset: -20.668 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 218.155 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 218.155 ms
Loss rate: 0.35%

Run 1: Report of LEDBAT — Data Link

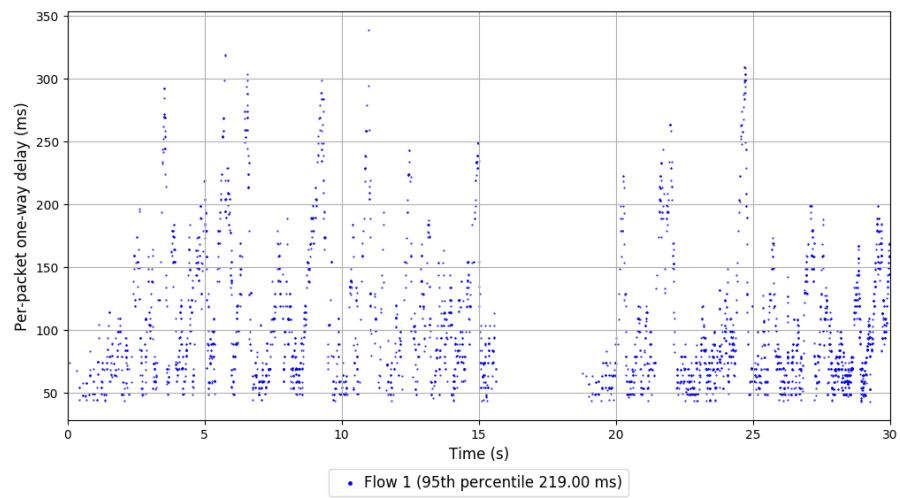
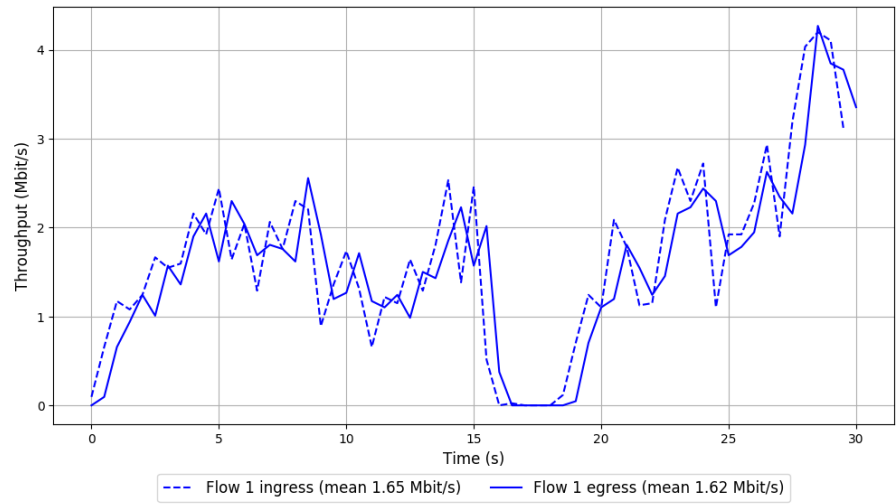


Run 2: Statistics of LEDBAT

Start at: 2018-06-29 11:55:30
End at: 2018-06-29 11:56:00
Local clock offset: -0.77 ms
Remote clock offset: -7.879 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 219.003 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 219.003 ms
Loss rate: 1.83%

Run 2: Report of LEDBAT — Data Link

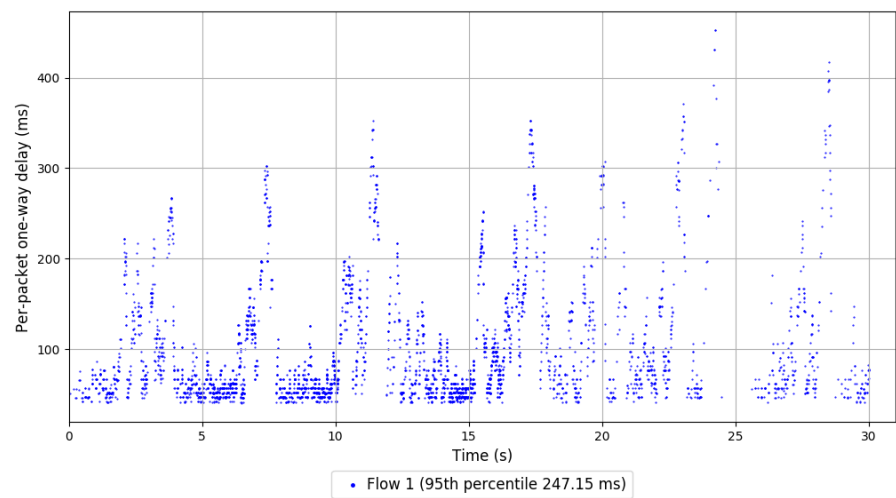
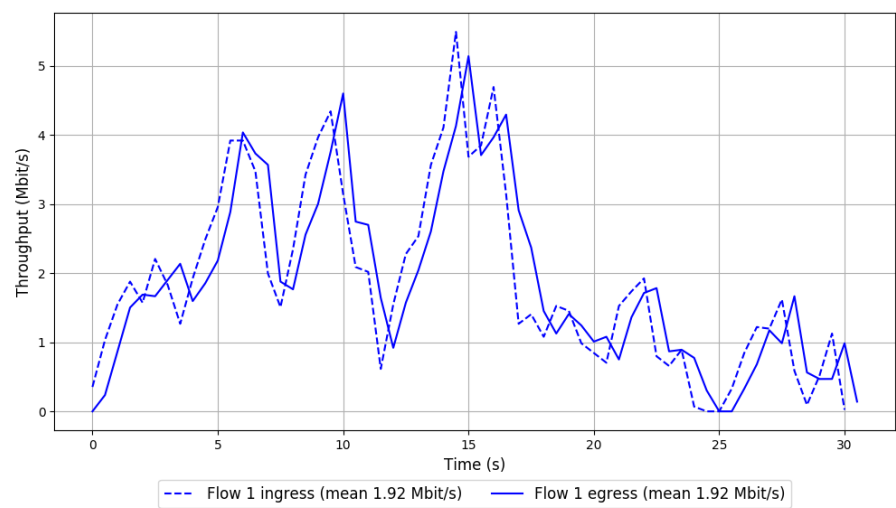


Run 3: Statistics of LEDBAT

Start at: 2018-06-29 12:13:59
End at: 2018-06-29 12:14:29
Local clock offset: 2.396 ms
Remote clock offset: -1.616 ms

Below is generated by plot.py at 2018-06-29 12:26:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 247.153 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 247.153 ms
Loss rate: 0.24%

Run 3: Report of LEDBAT — Data Link

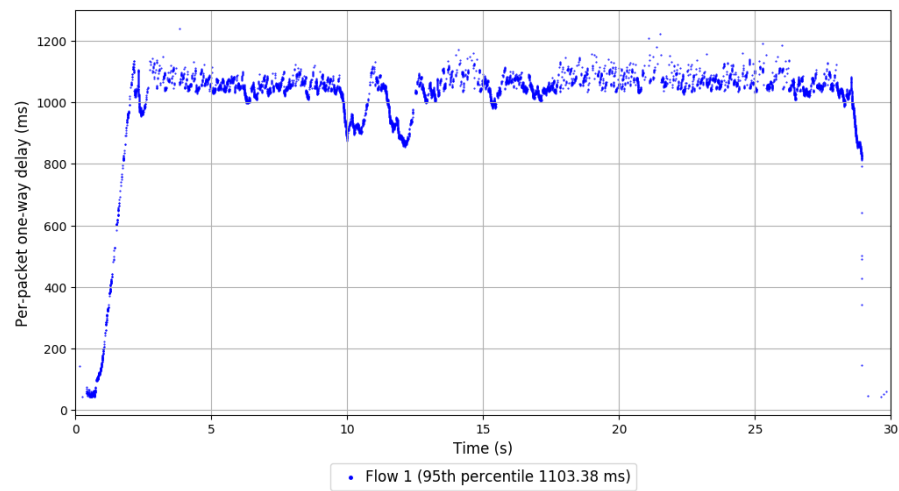
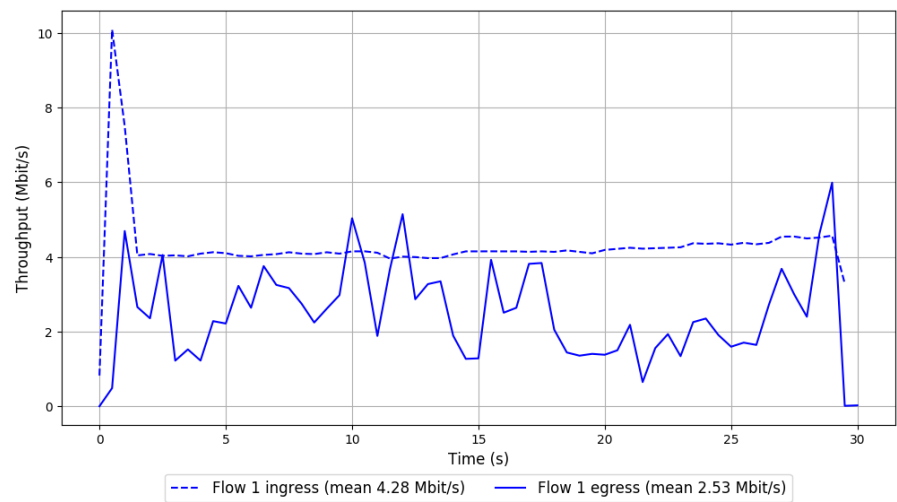


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-29 11:44:34
End at: 2018-06-29 11:45:04
Local clock offset: -0.723 ms
Remote clock offset: -19.739 ms

# Below is generated by plot.py at 2018-06-29 12:26:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 1103.378 ms
Loss rate: 41.23%
-- Flow 1:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 1103.378 ms
Loss rate: 41.23%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 12:03:06

End at: 2018-06-29 12:03:36

Local clock offset: 0.431 ms

Remote clock offset: -4.813 ms

Below is generated by plot.py at 2018-06-29 12:26:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 179.855 ms

Loss rate: 0.37%

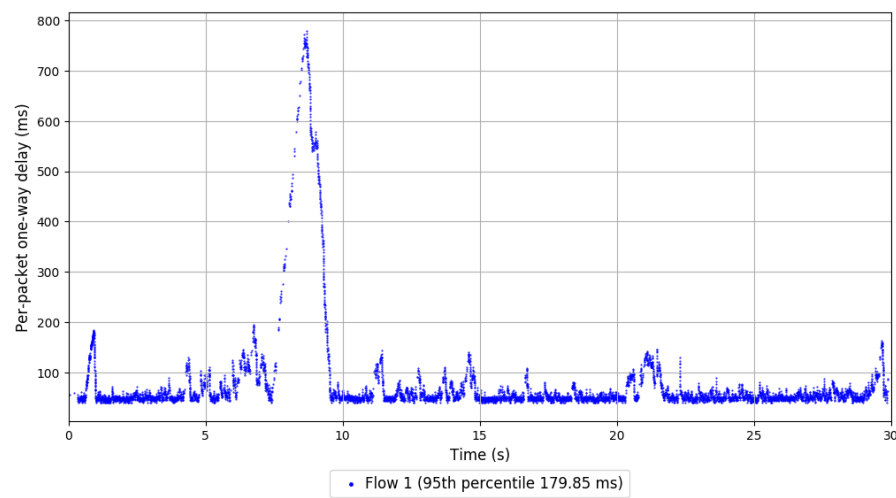
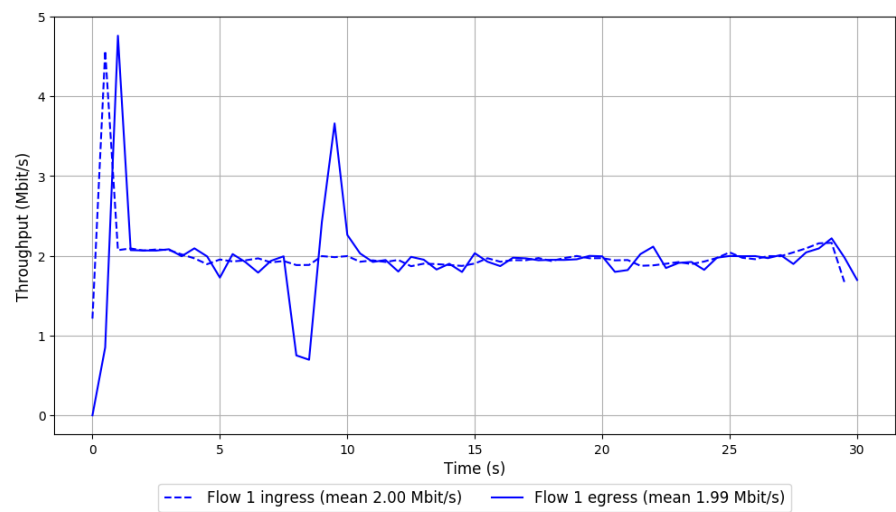
-- Flow 1:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 179.855 ms

Loss rate: 0.37%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 12:21:32

End at: 2018-06-29 12:22:02

Local clock offset: 2.48 ms

Remote clock offset: -3.294 ms

Below is generated by plot.py at 2018-06-29 12:26:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.32 Mbit/s

95th percentile per-packet one-way delay: 1086.579 ms

Loss rate: 21.51%

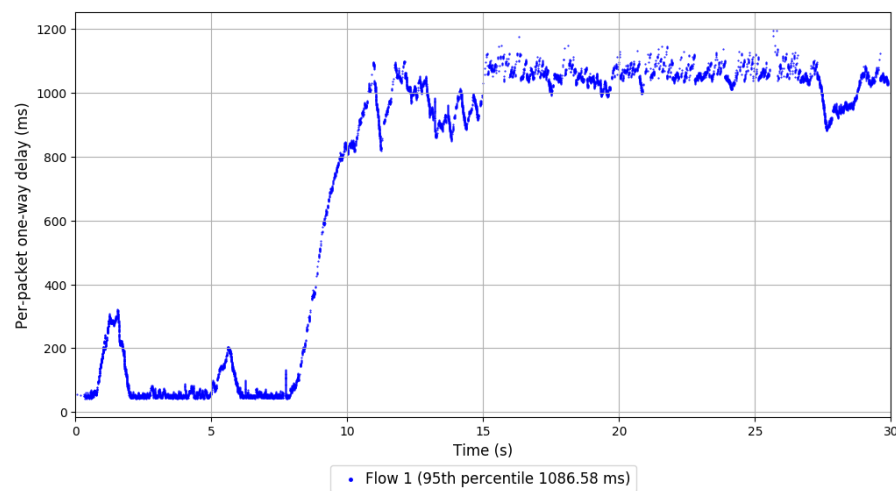
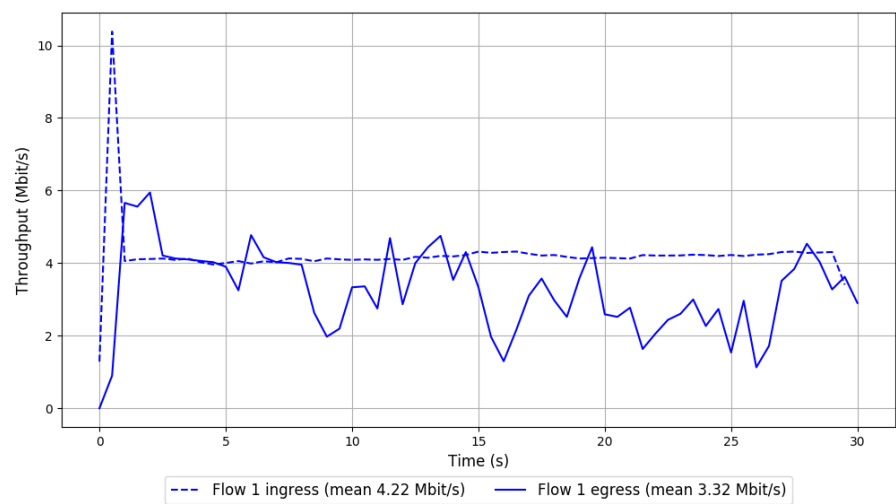
-- Flow 1:

Average throughput: 3.32 Mbit/s

95th percentile per-packet one-way delay: 1086.579 ms

Loss rate: 21.51%

Run 3: Report of PCC-Allegro — Data Link

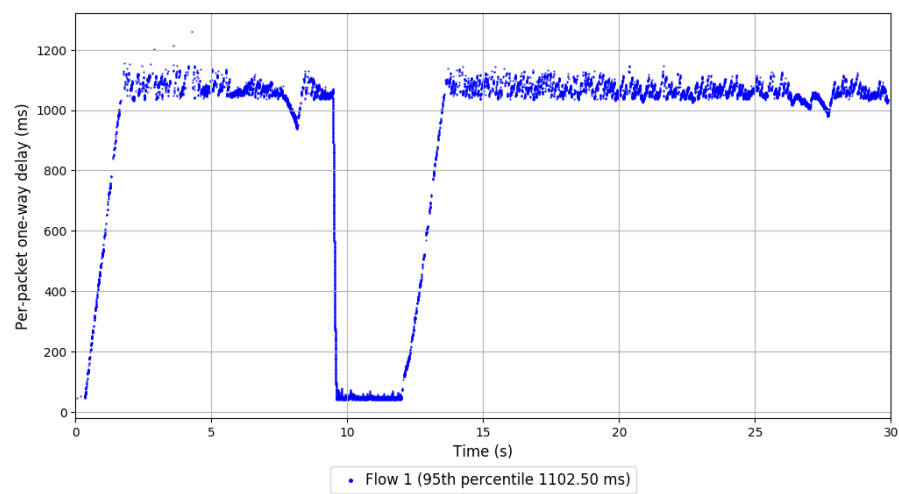
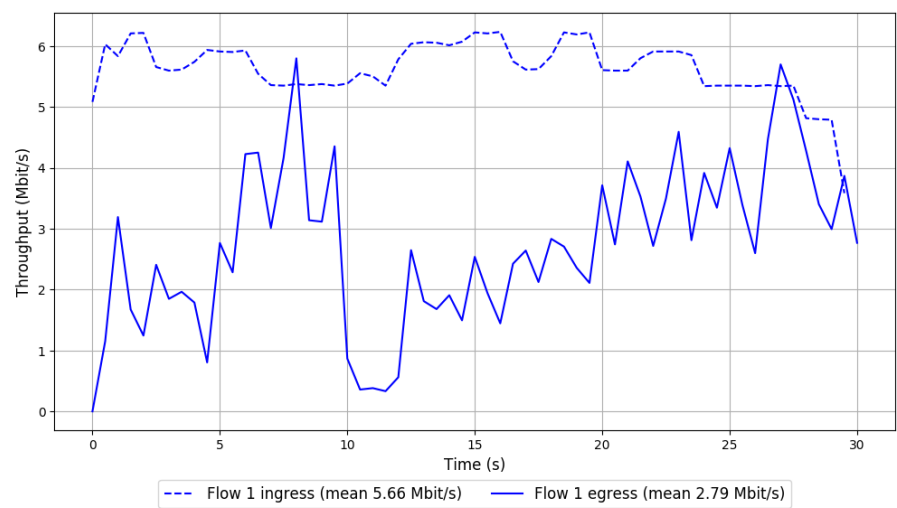


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 11:42:25
End at: 2018-06-29 11:42:55
Local clock offset: 1.122 ms
Remote clock offset: -19.15 ms

# Below is generated by plot.py at 2018-06-29 12:26:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 1102.504 ms
Loss rate: 50.86%
-- Flow 1:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 1102.504 ms
Loss rate: 50.86%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-06-29 12:00:55

End at: 2018-06-29 12:01:25

Local clock offset: 0.211 ms

Remote clock offset: -5.7 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 1084.152 ms

Loss rate: 21.51%

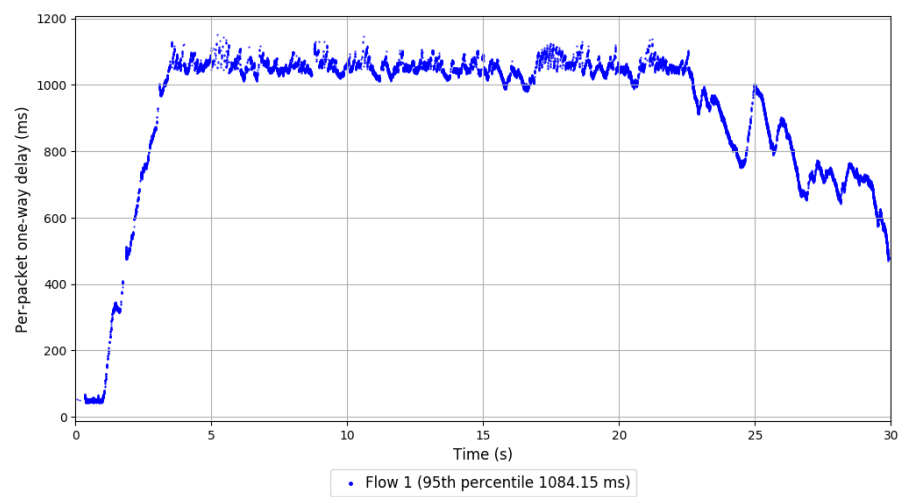
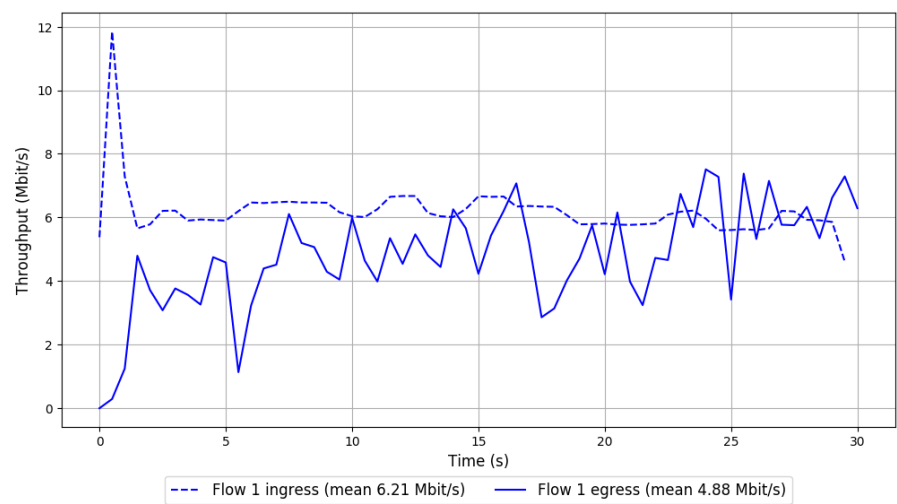
-- Flow 1:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 1084.152 ms

Loss rate: 21.51%

Run 2: Report of PCC-Expr — Data Link

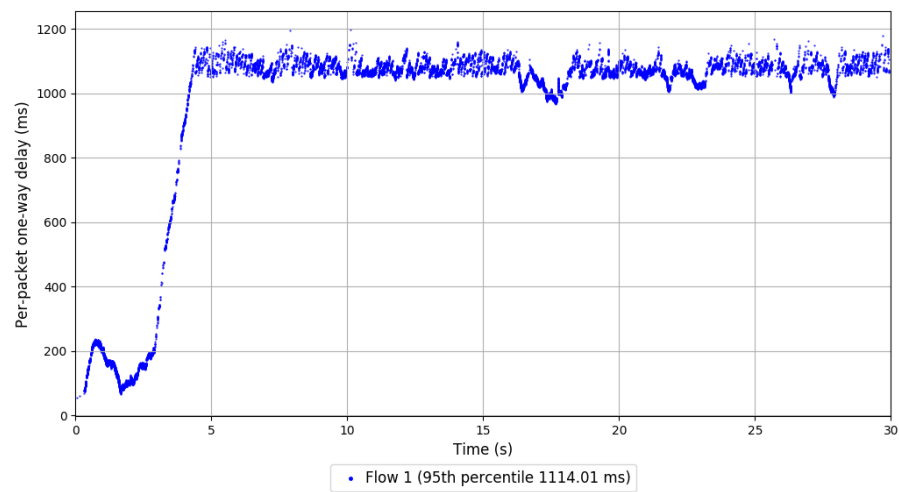
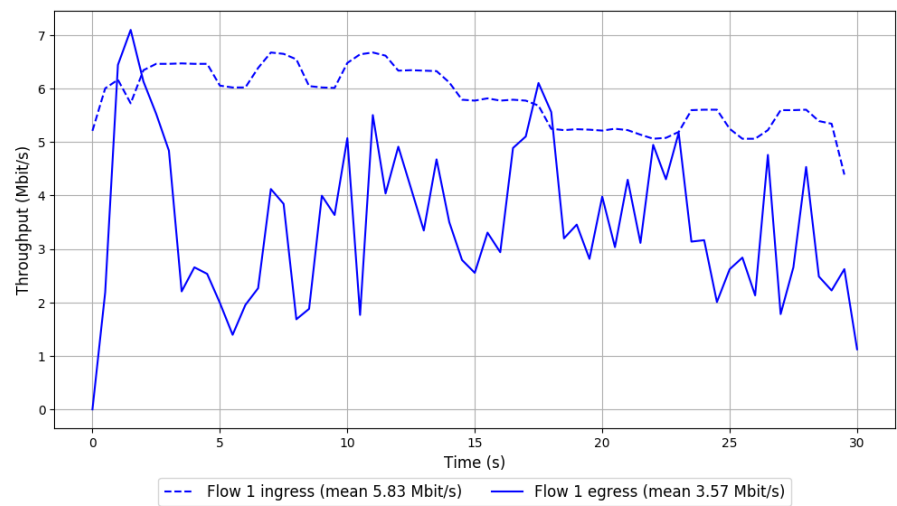


Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 12:19:23
End at: 2018-06-29 12:19:53
Local clock offset: 2.248 ms
Remote clock offset: 10.808 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 1114.005 ms
Loss rate: 38.95%
-- Flow 1:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 1114.005 ms
Loss rate: 38.95%

Run 3: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

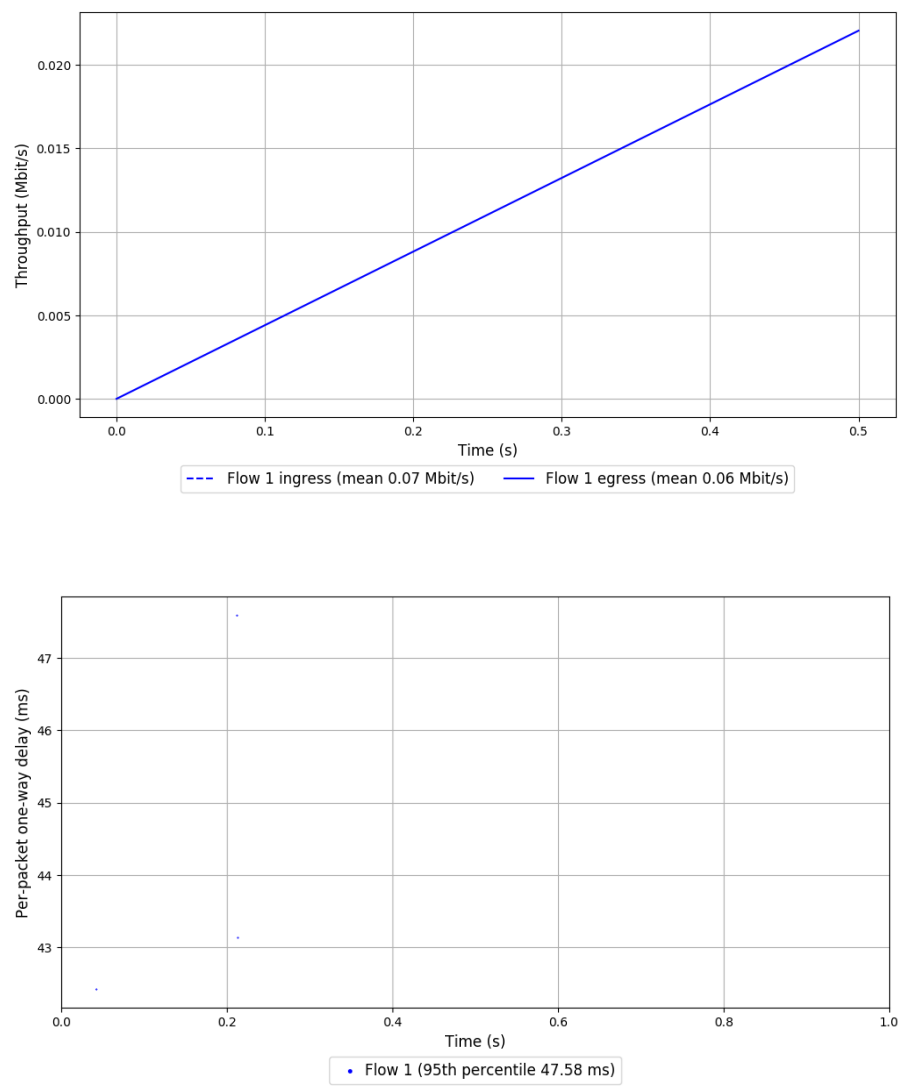
Start at: 2018-06-29 11:38:07

End at: 2018-06-29 11:38:37

Local clock offset: 1.417 ms

Remote clock offset: -20.724 ms

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-06-29 11:56:35

End at: 2018-06-29 11:57:05

Local clock offset: 0.766 ms

Remote clock offset: -7.653 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 380.847 ms

Loss rate: 0.71%

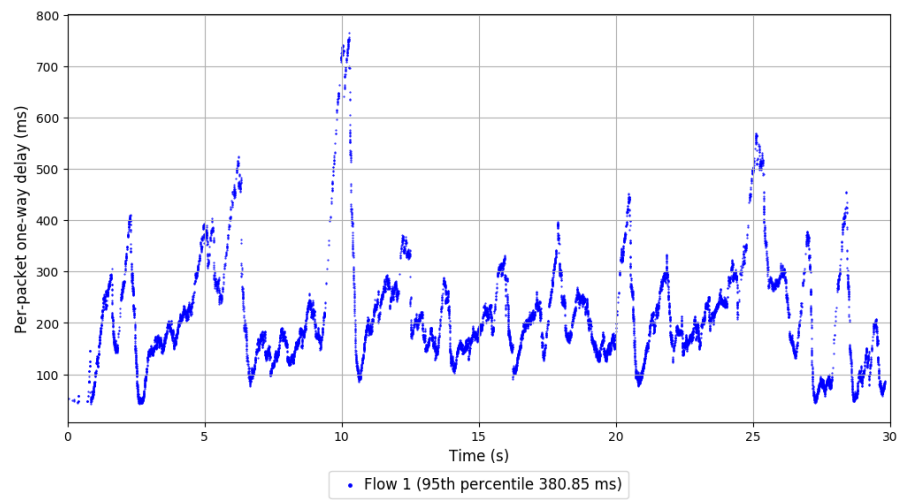
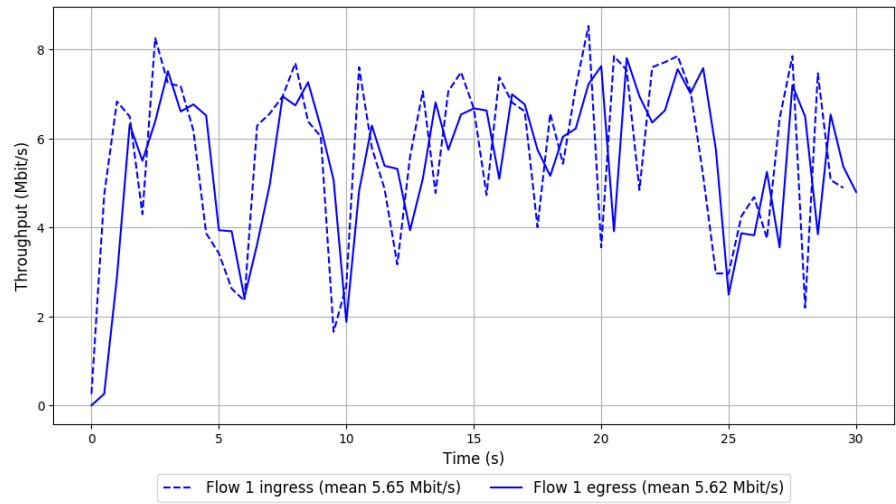
-- Flow 1:

Average throughput: 5.62 Mbit/s

95th percentile per-packet one-way delay: 380.847 ms

Loss rate: 0.71%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-06-29 12:15:03

End at: 2018-06-29 12:15:33

Local clock offset: 4.35 ms

Remote clock offset: -1.57 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 455.594 ms

Loss rate: 0.99%

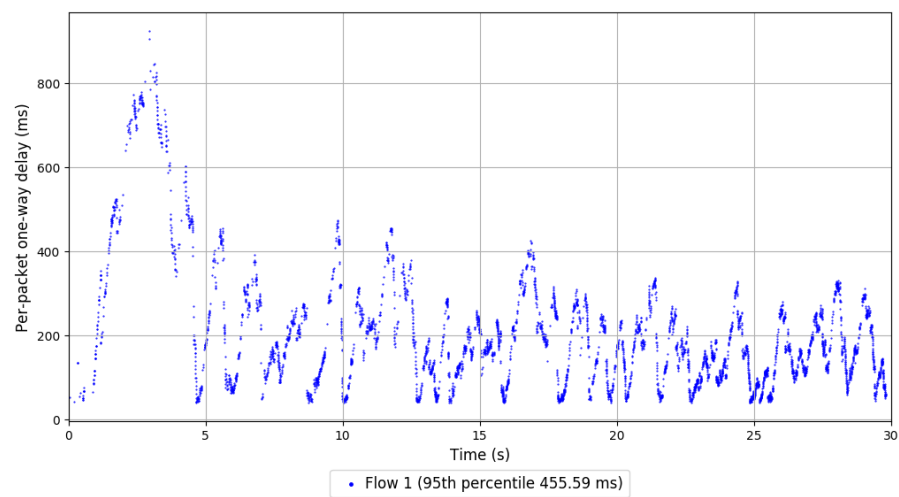
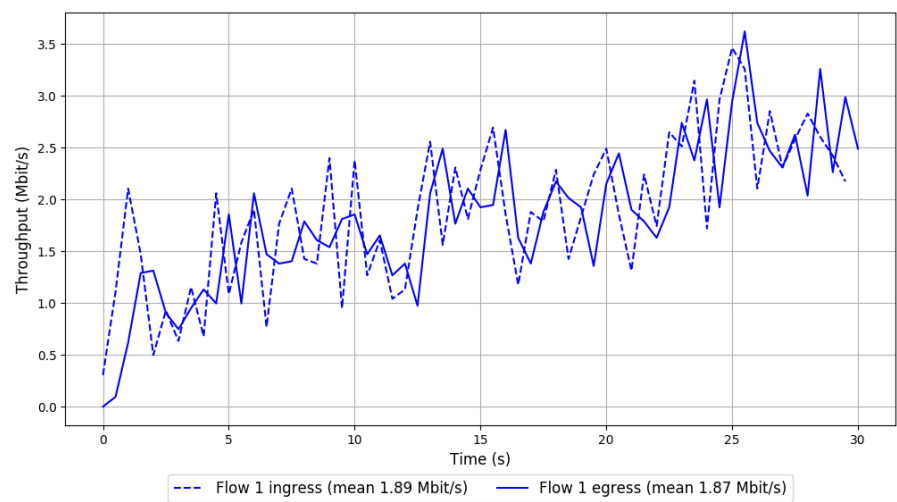
-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 455.594 ms

Loss rate: 0.99%

Run 3: Report of QUIC Cubic — Data Link

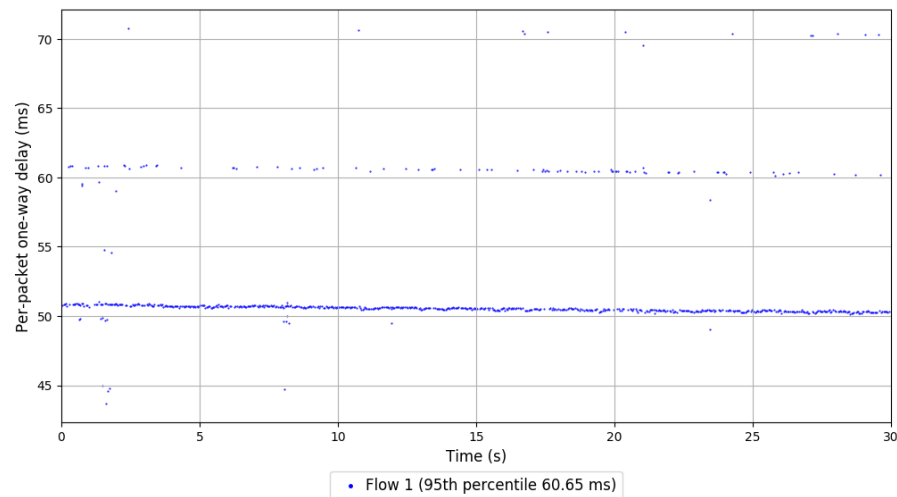
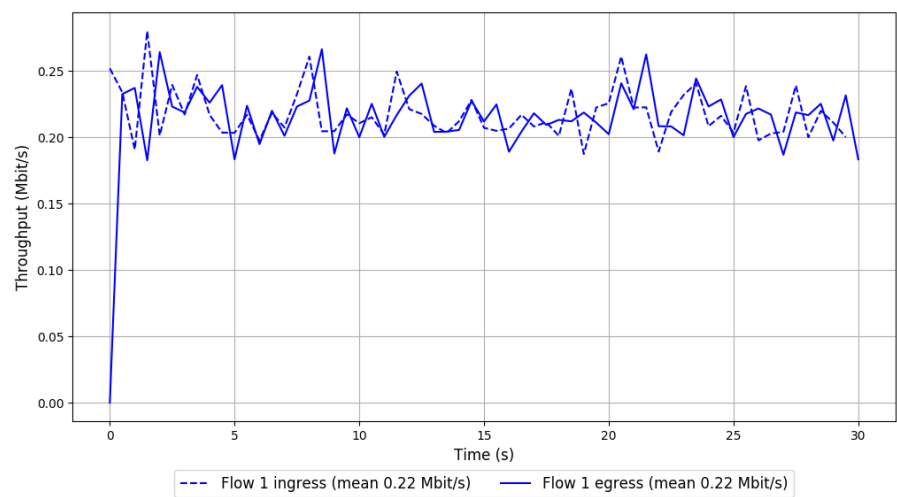


```
Run 1: Statistics of SCReAM

Start at: 2018-06-29 11:45:44
End at: 2018-06-29 11:46:14
Local clock offset: 0.204 ms
Remote clock offset: -16.606 ms

# Below is generated by plot.py at 2018-06-29 12:27:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.650 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.650 ms
Loss rate: 0.26%
```


Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-06-29 12:04:11

End at: 2018-06-29 12:04:41

Local clock offset: 0.523 ms

Remote clock offset: -6.01 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.477 ms

Loss rate: 0.13%

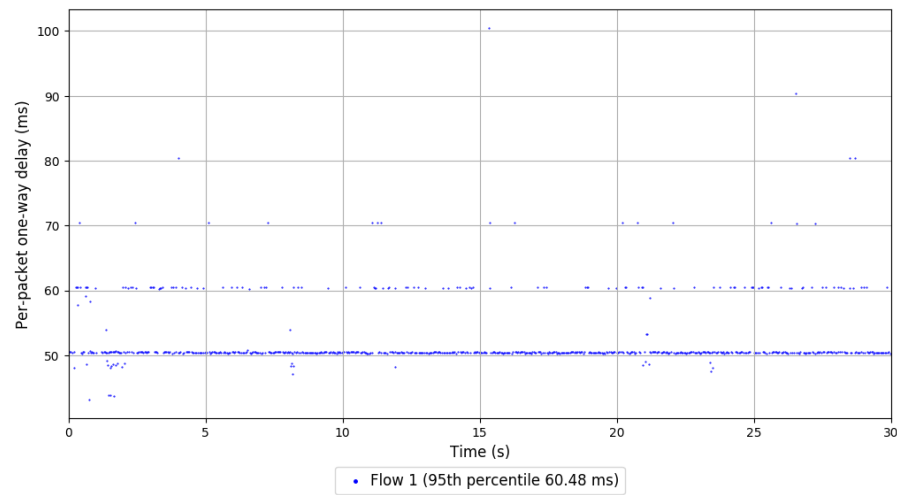
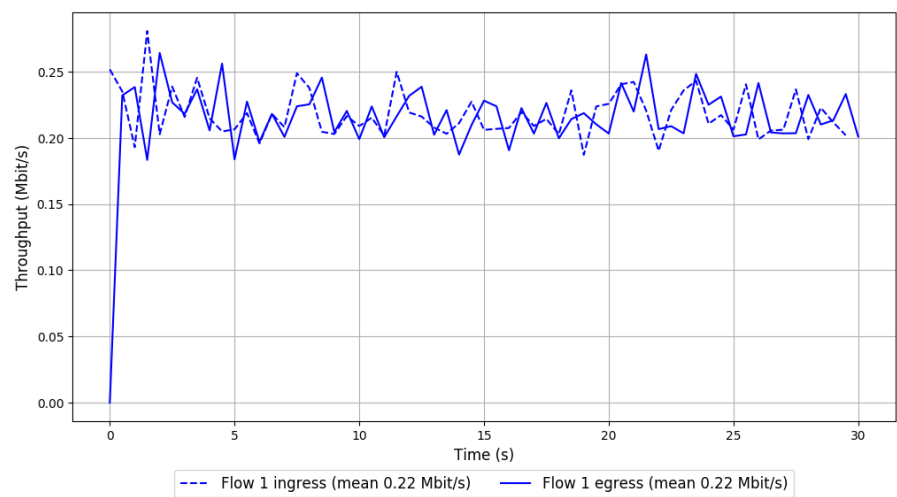
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 60.477 ms

Loss rate: 0.13%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-06-29 12:22:37

End at: 2018-06-29 12:23:07

Local clock offset: 0.148 ms

Remote clock offset: -4.73 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.836 ms

Loss rate: 0.25%

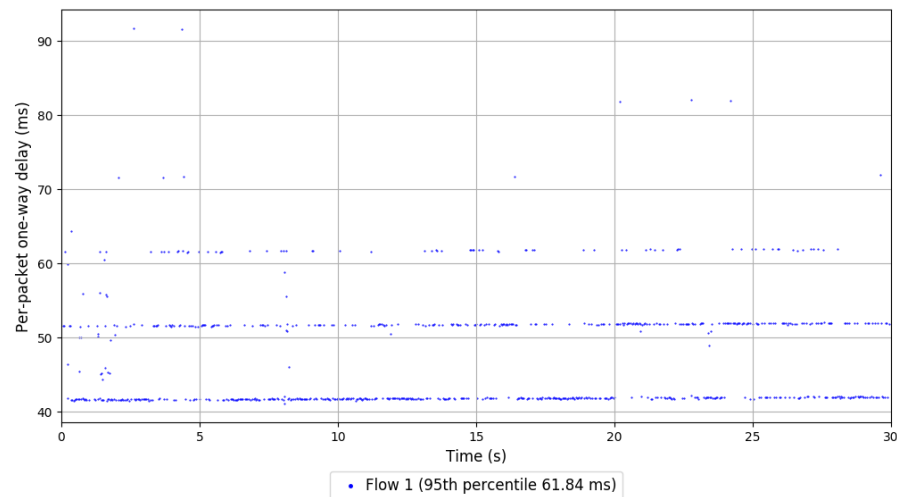
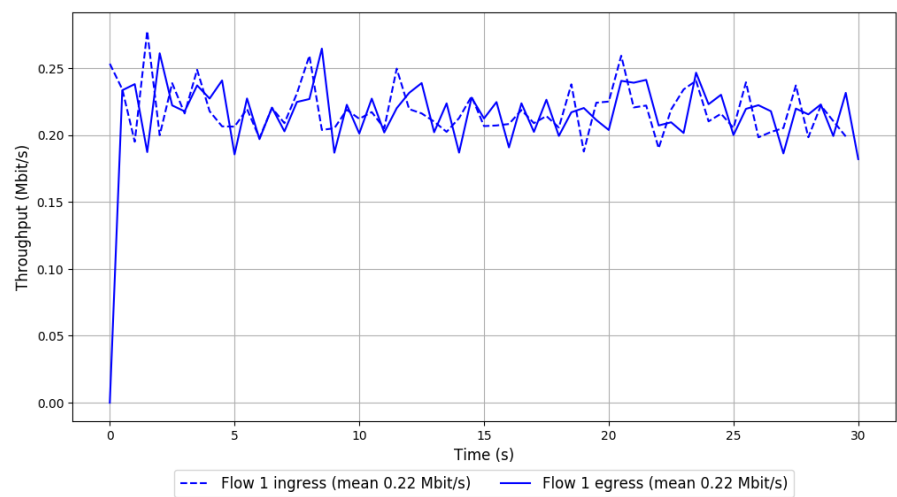
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.836 ms

Loss rate: 0.25%

Run 3: Report of SReAM — Data Link

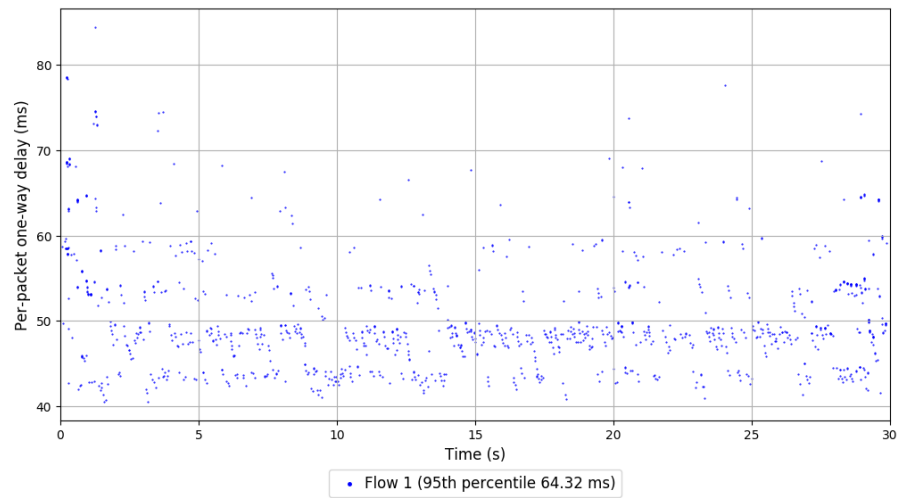
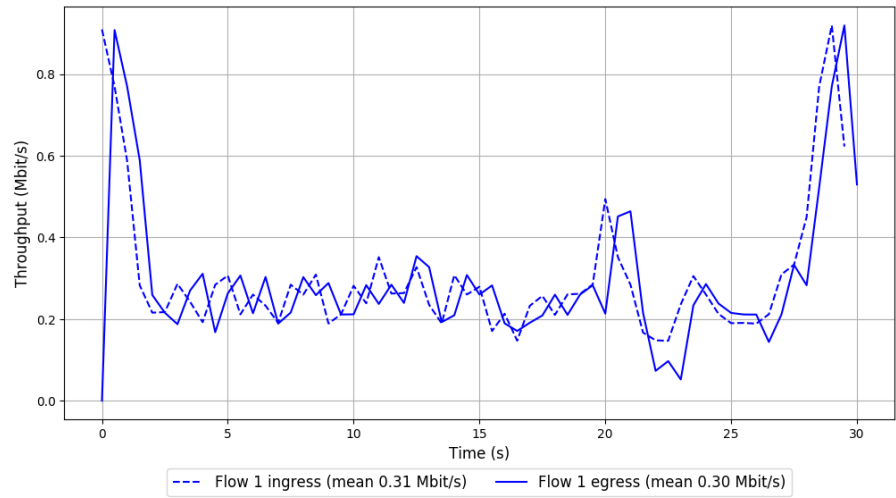


Run 1: Statistics of Sprout

Start at: 2018-06-29 11:31:40
End at: 2018-06-29 11:32:10
Local clock offset: 0.305 ms
Remote clock offset: -20.589 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 64.319 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 64.319 ms
Loss rate: 2.21%

Run 1: Report of Sprout — Data Link

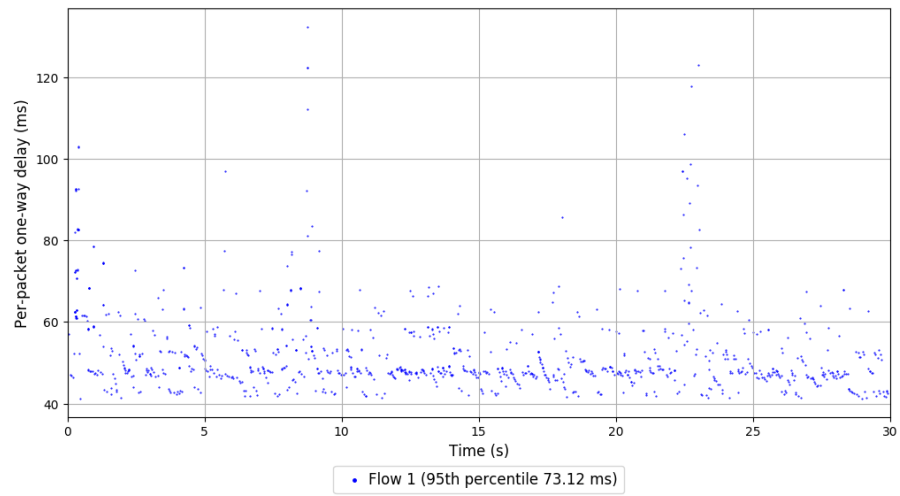
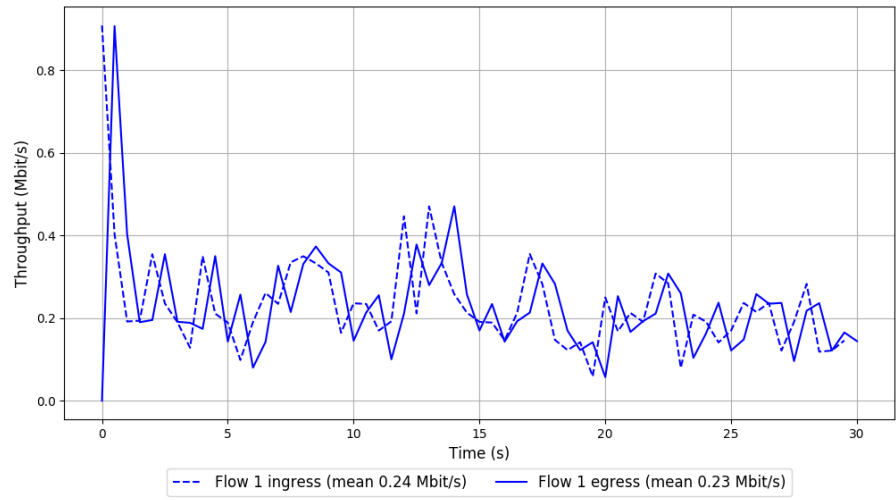


Run 2: Statistics of Sprout

Start at: 2018-06-29 11:50:07
End at: 2018-06-29 11:50:37
Local clock offset: -0.186 ms
Remote clock offset: -12.755 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 73.125 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 73.125 ms
Loss rate: 0.52%

Run 2: Report of Sprout — Data Link

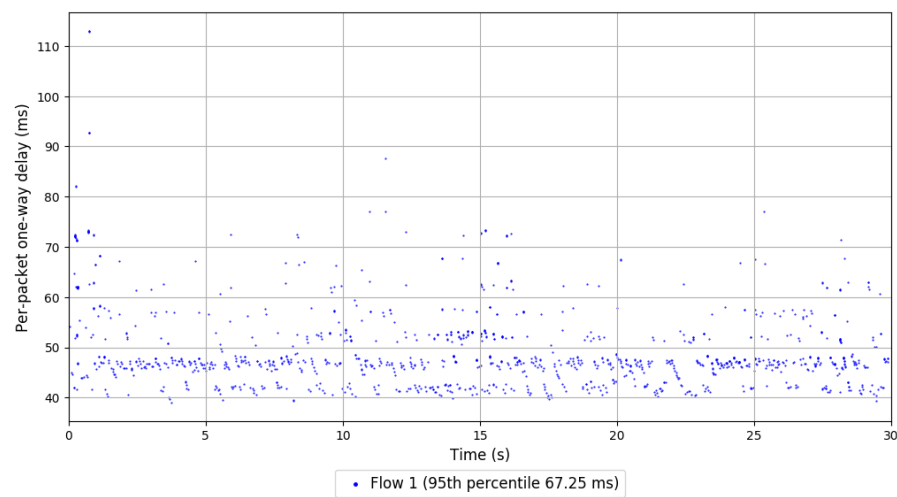
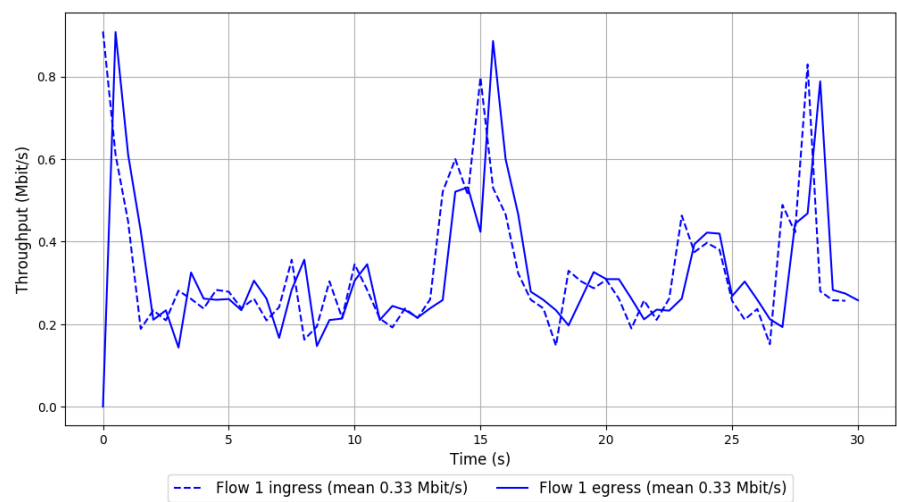


Run 3: Statistics of Sprout

Start at: 2018-06-29 12:08:30
End at: 2018-06-29 12:09:00
Local clock offset: 3.447 ms
Remote clock offset: -3.937 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 67.254 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 67.254 ms
Loss rate: 0.11%

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-06-29 11:49:03

End at: 2018-06-29 11:49:33

Local clock offset: 2.604 ms

Remote clock offset: -12.84 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 234.191 ms

Loss rate: 1.13%

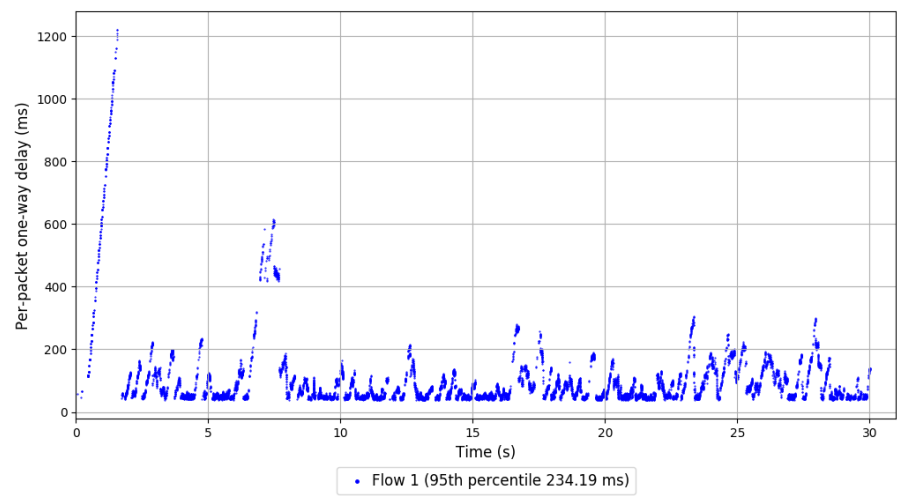
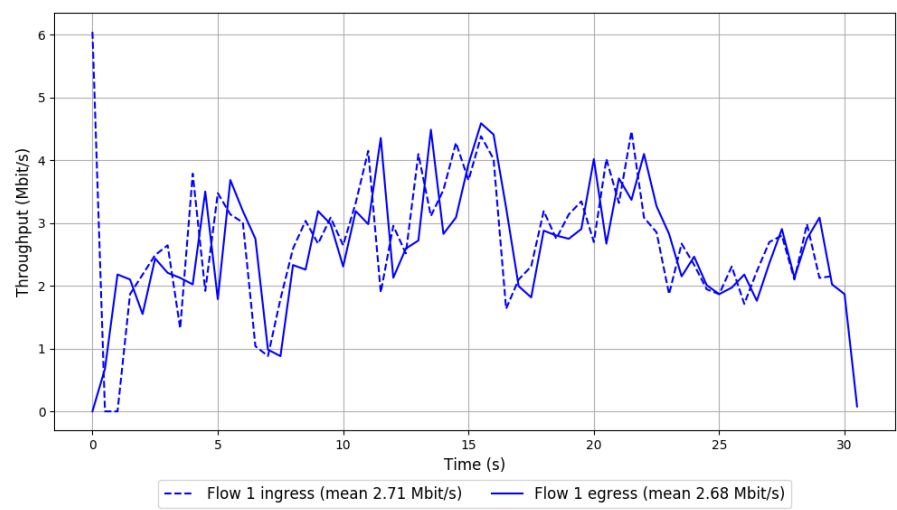
-- Flow 1:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 234.191 ms

Loss rate: 1.13%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-06-29 12:07:25

End at: 2018-06-29 12:07:55

Local clock offset: -0.79 ms

Remote clock offset: -3.528 ms

Below is generated by plot.py at 2018-06-29 12:27:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 263.601 ms

Loss rate: 0.45%

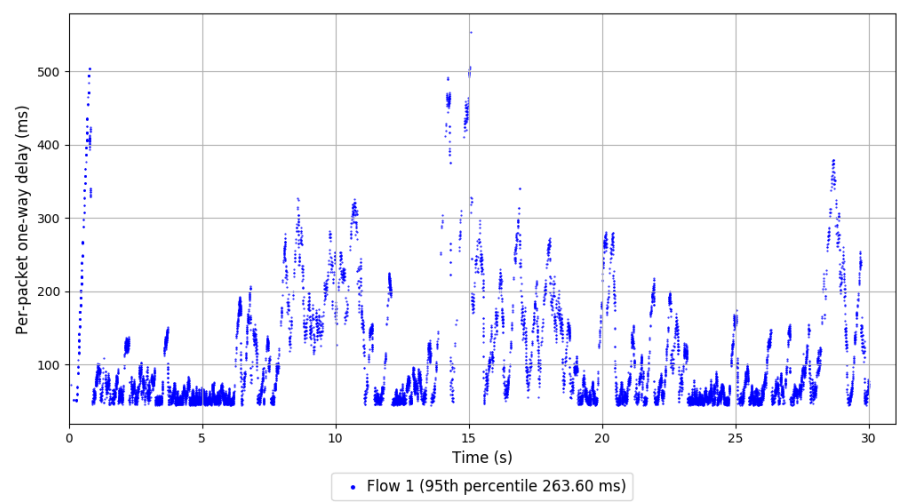
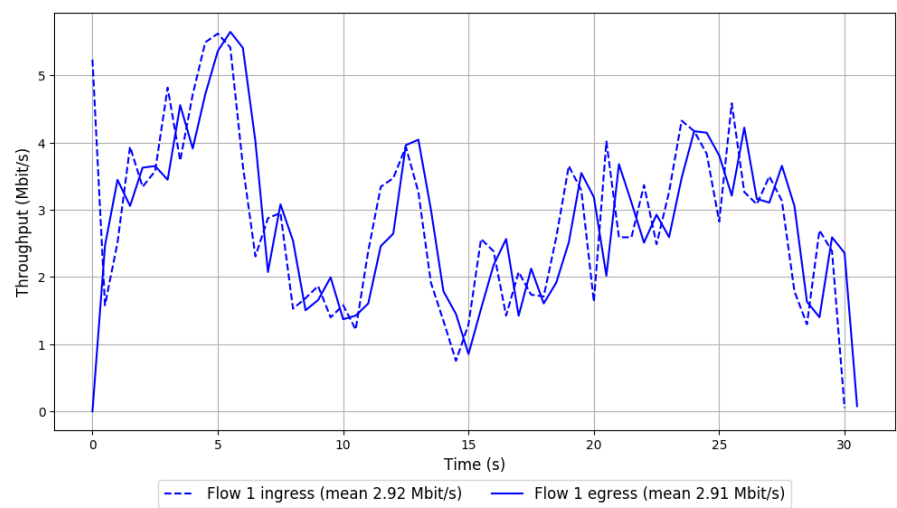
-- Flow 1:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 263.601 ms

Loss rate: 0.45%

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

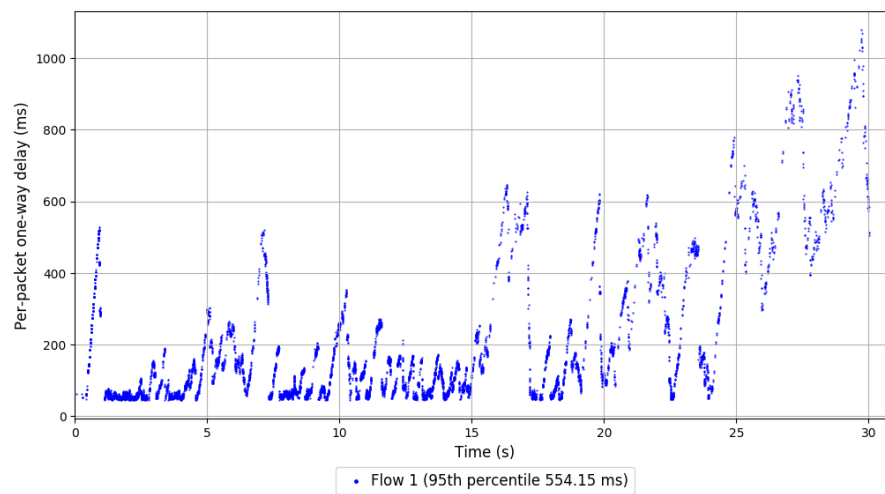
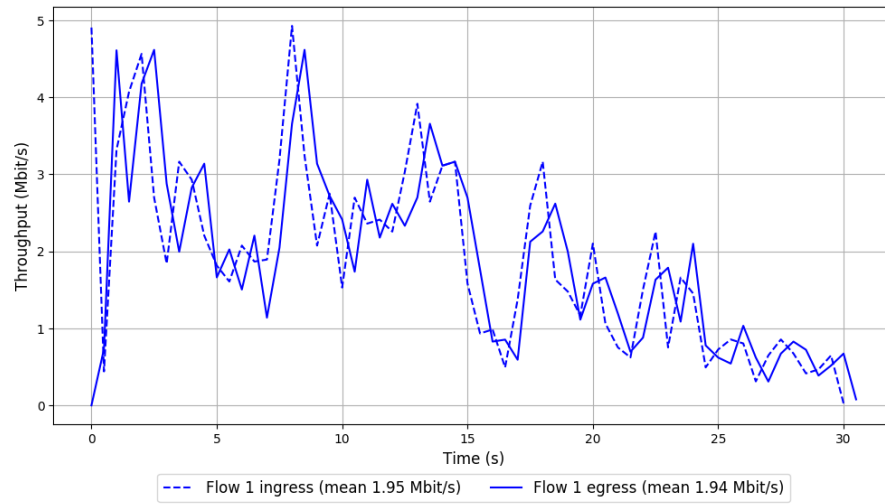


Run 3: Statistics of TaoVA-100x

Start at: 2018-06-29 12:25:51
End at: 2018-06-29 12:26:21
Local clock offset: -2.573 ms
Remote clock offset: -5.649 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 554.155 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 554.155 ms
Loss rate: 0.67%

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

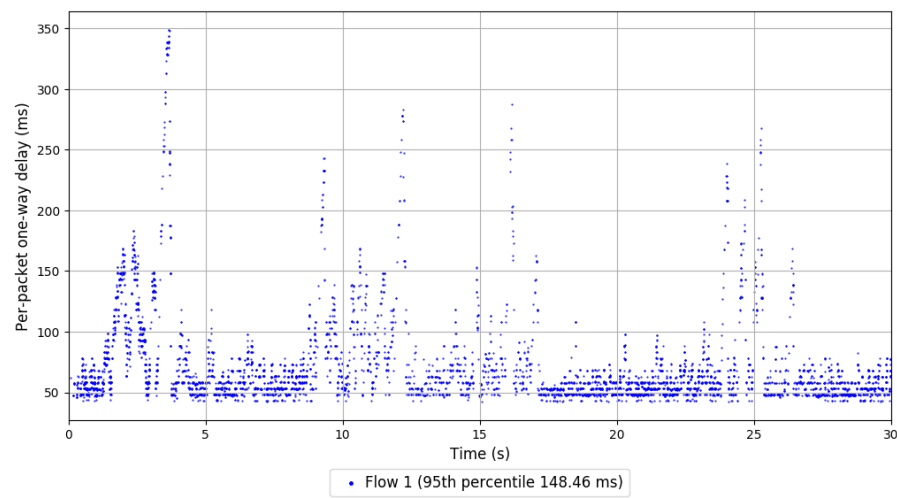
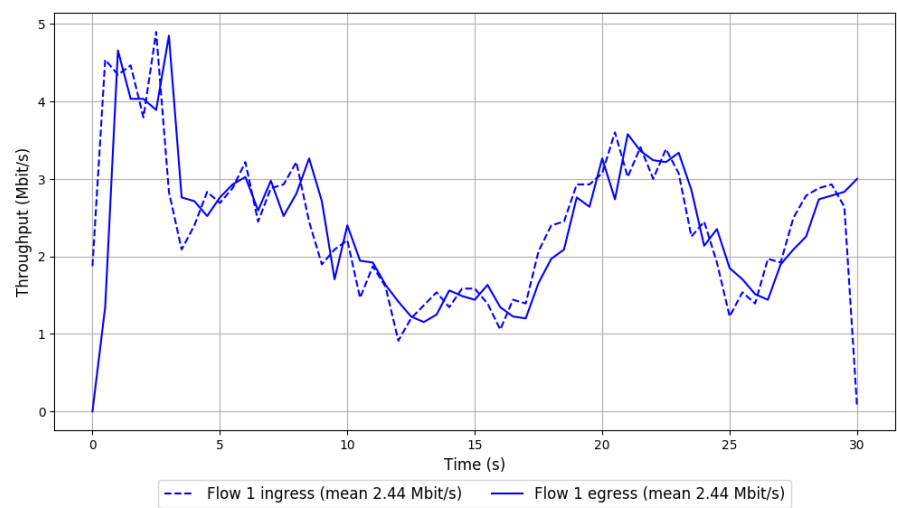


Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 11:43:29
End at: 2018-06-29 11:43:59
Local clock offset: 1.122 ms
Remote clock offset: -18.823 ms

Below is generated by plot.py at 2018-06-29 12:27:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 148.461 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 148.461 ms
Loss rate: 0.20%

Run 1: Report of TCP Vegas — Data Link

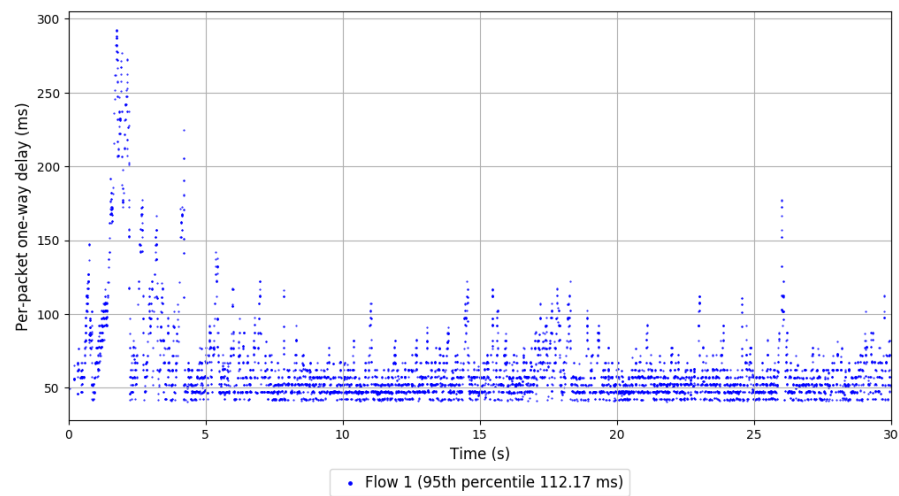
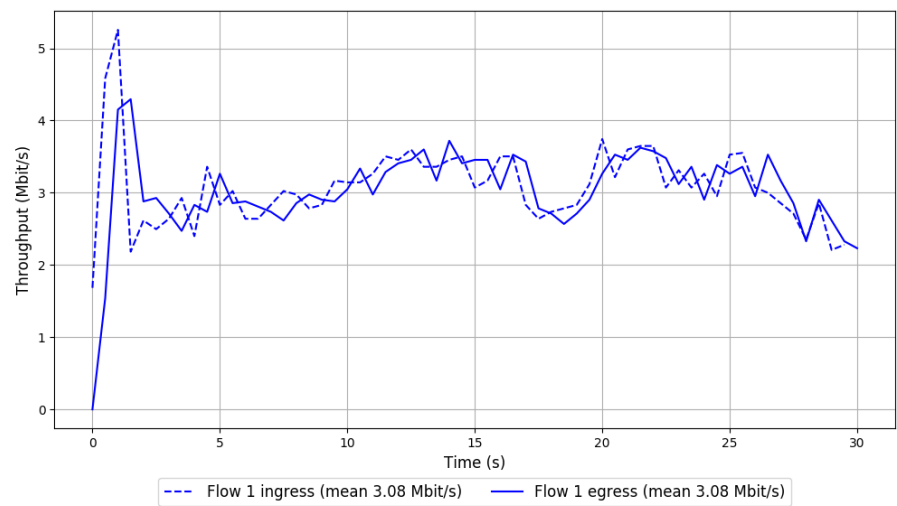


Run 2: Statistics of TCP Vegas

Start at: 2018-06-29 12:02:01
End at: 2018-06-29 12:02:31
Local clock offset: 3.423 ms
Remote clock offset: -4.785 ms

Below is generated by plot.py at 2018-06-29 12:27:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 112.174 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 112.174 ms
Loss rate: 0.14%

Run 2: Report of TCP Vegas — Data Link

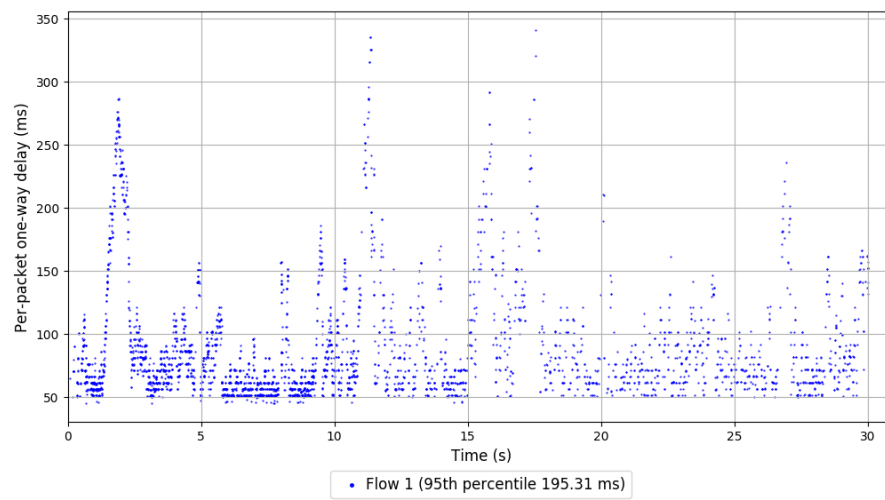
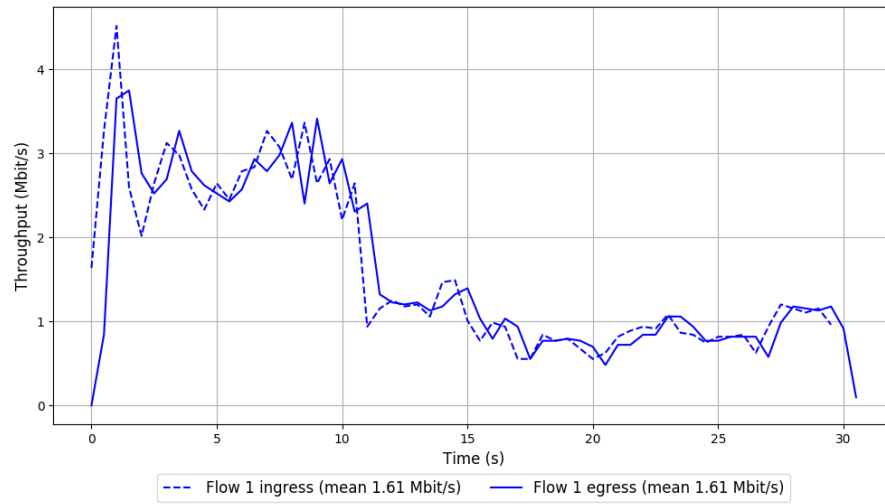


Run 3: Statistics of TCP Vegas

Start at: 2018-06-29 12:20:28
End at: 2018-06-29 12:20:58
Local clock offset: 0.939 ms
Remote clock offset: -0.003 ms

Below is generated by plot.py at 2018-06-29 12:27:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 195.308 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 195.308 ms
Loss rate: 0.15%

Run 3: Report of TCP Vegas — Data Link

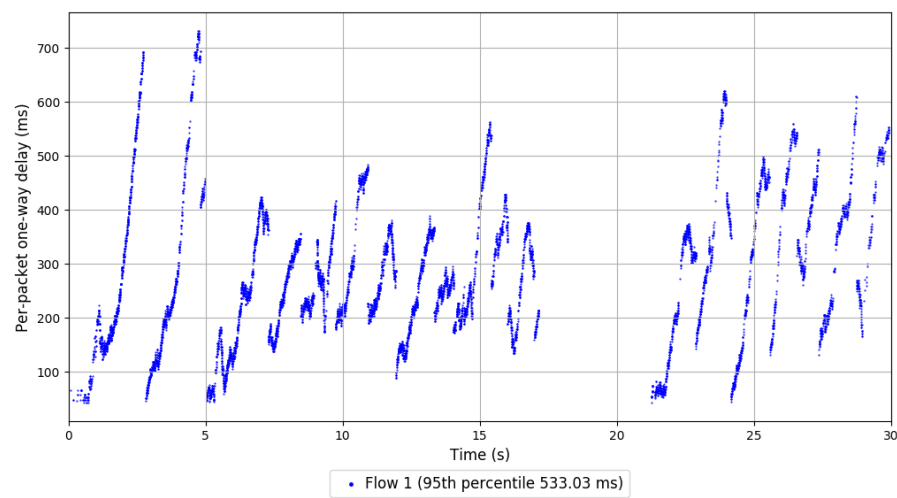
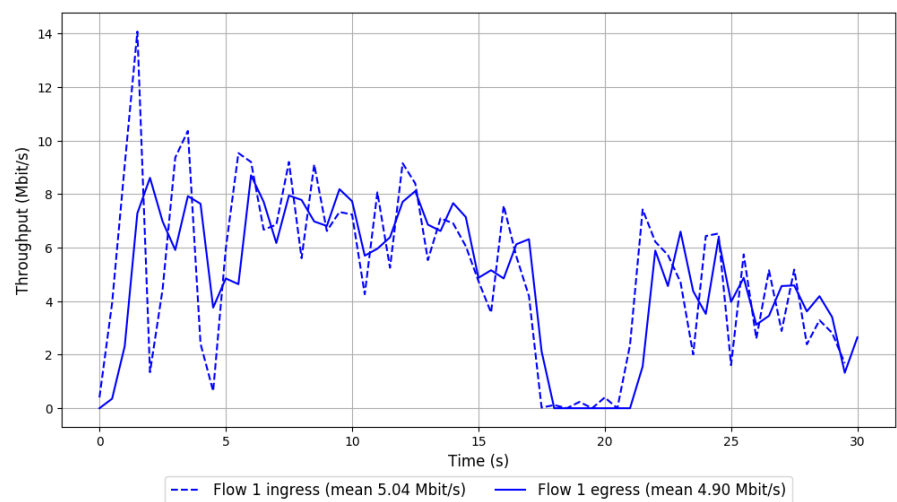


Run 1: Statistics of Verus

Start at: 2018-06-29 11:41:20
End at: 2018-06-29 11:41:50
Local clock offset: 1.492 ms
Remote clock offset: -18.703 ms

Below is generated by plot.py at 2018-06-29 12:27:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.90 Mbit/s
95th percentile per-packet one-way delay: 533.029 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 4.90 Mbit/s
95th percentile per-packet one-way delay: 533.029 ms
Loss rate: 2.95%

Run 1: Report of Verus — Data Link

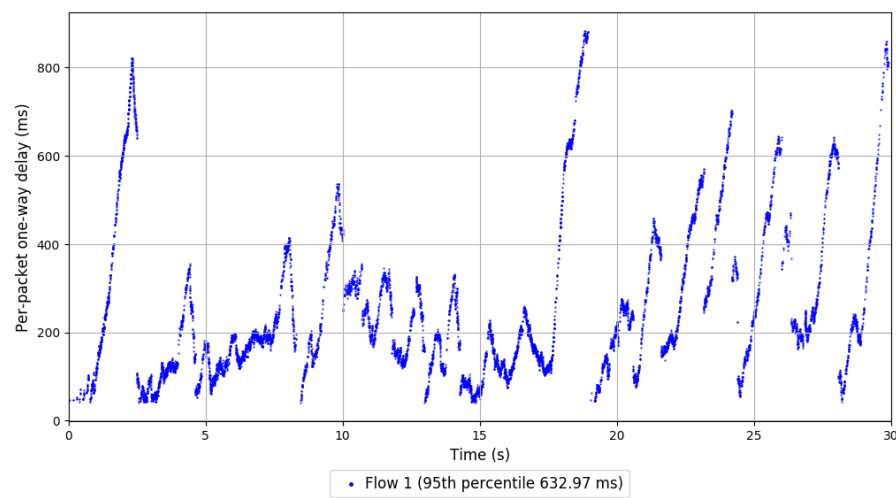
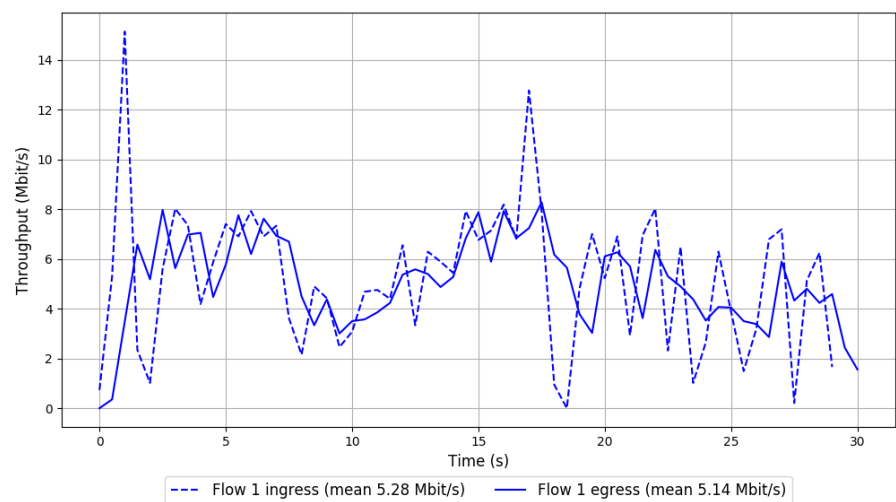


Run 2: Statistics of Verus

Start at: 2018-06-29 11:59:49
End at: 2018-06-29 12:00:19
Local clock offset: 1.903 ms
Remote clock offset: -8.346 ms

Below is generated by plot.py at 2018-06-29 12:27:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 632.973 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 632.973 ms
Loss rate: 0.64%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-06-29 12:18:18

End at: 2018-06-29 12:18:48

Local clock offset: 2.485 ms

Remote clock offset: 3.35 ms

Below is generated by plot.py at 2018-06-29 12:27:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 678.893 ms

Loss rate: 1.84%

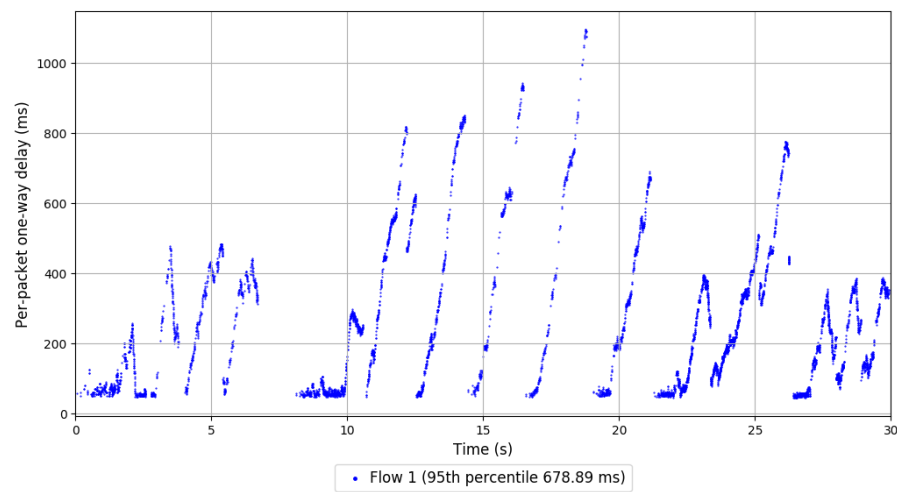
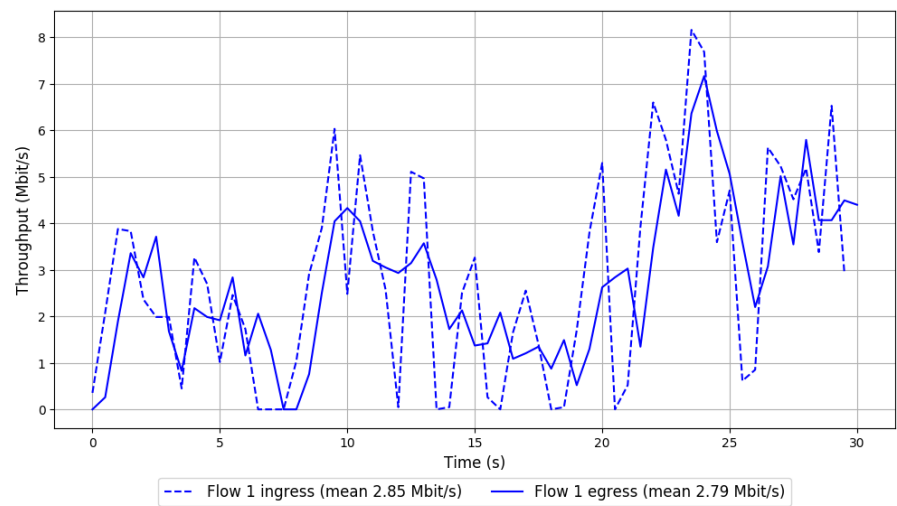
-- Flow 1:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 678.893 ms

Loss rate: 1.84%

Run 3: Report of Verus — Data Link

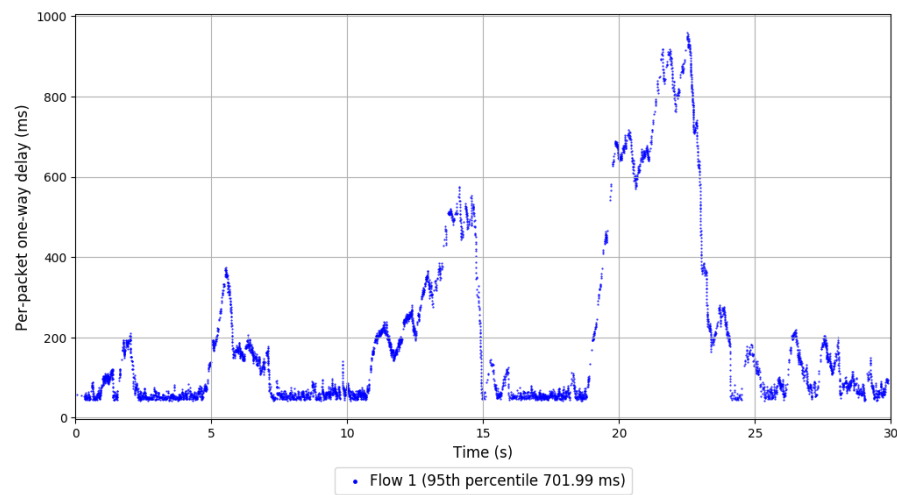
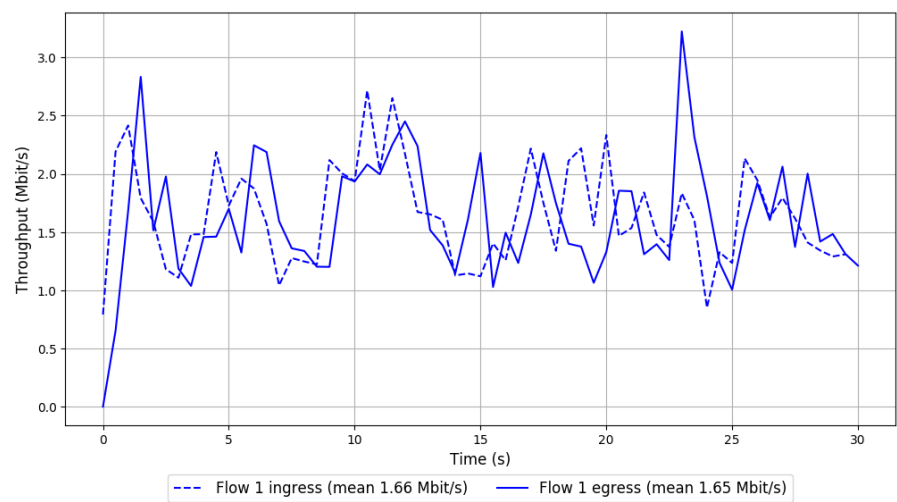


Run 1: Statistics of PCC-Vivace

Start at: 2018-06-29 11:39:11
End at: 2018-06-29 11:39:41
Local clock offset: 1.917 ms
Remote clock offset: -18.667 ms

Below is generated by plot.py at 2018-06-29 12:27:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 701.993 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 701.993 ms
Loss rate: 0.63%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-06-29 11:57:40

End at: 2018-06-29 11:58:10

Local clock offset: 1.799 ms

Remote clock offset: -8.03 ms

Below is generated by plot.py at 2018-06-29 12:27:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 1041.402 ms

Loss rate: 7.71%

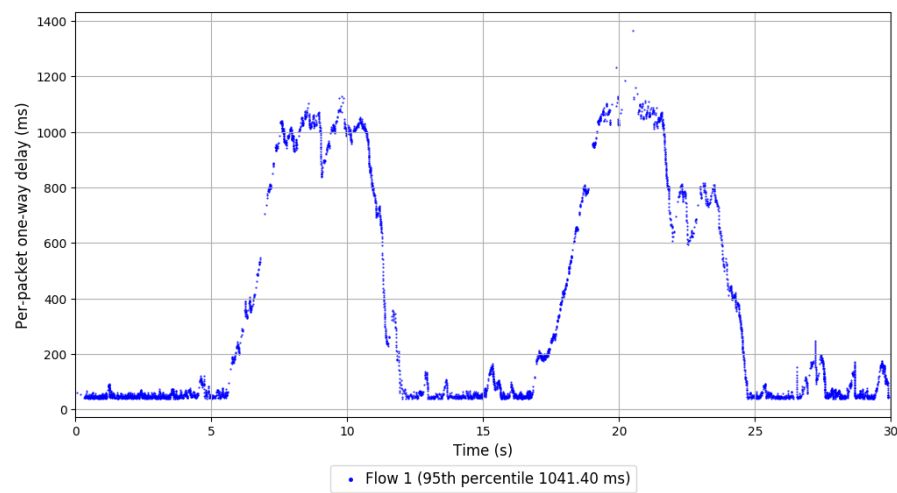
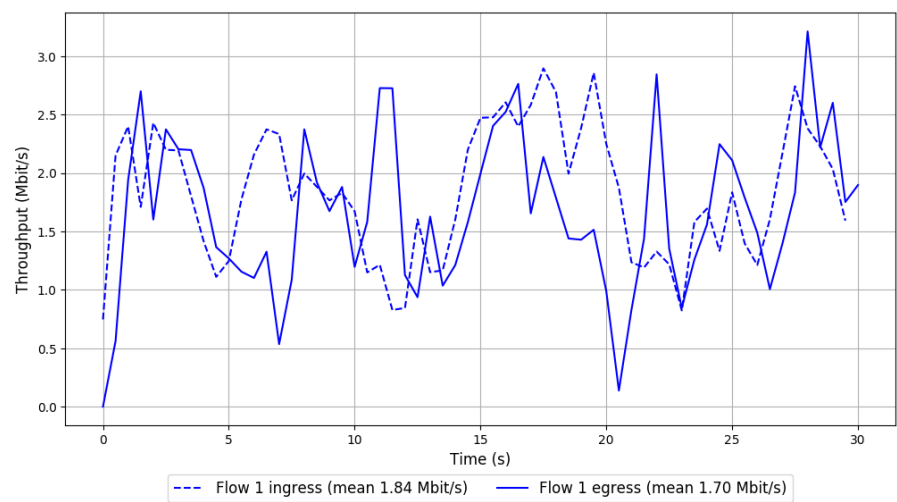
-- Flow 1:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 1041.402 ms

Loss rate: 7.71%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 12:16:08

End at: 2018-06-29 12:16:38

Local clock offset: 0.376 ms

Remote clock offset: -6.602 ms

Below is generated by plot.py at 2018-06-29 12:27:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 996.252 ms

Loss rate: 1.25%

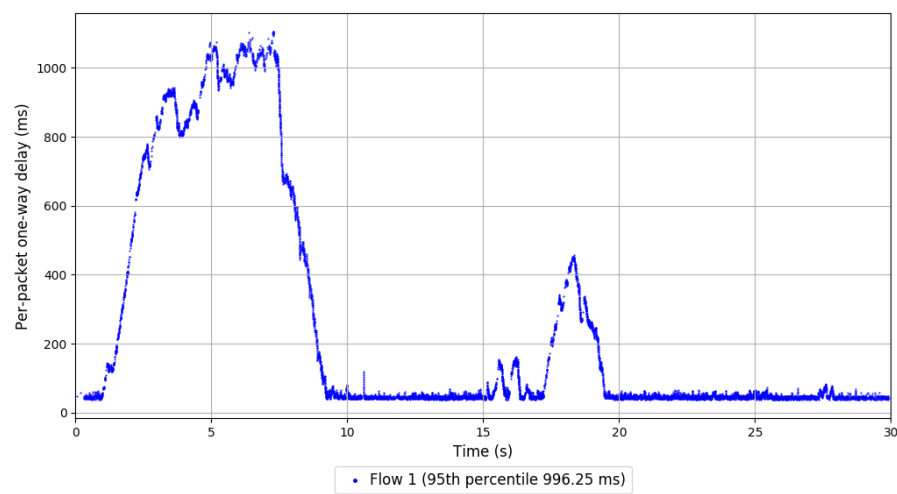
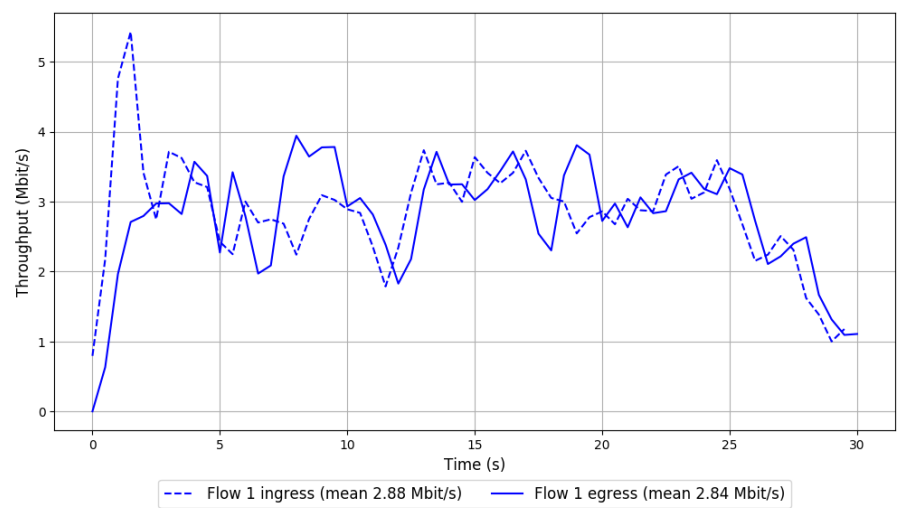
-- Flow 1:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 996.252 ms

Loss rate: 1.25%

Run 3: Report of PCC-Vivace — Data Link

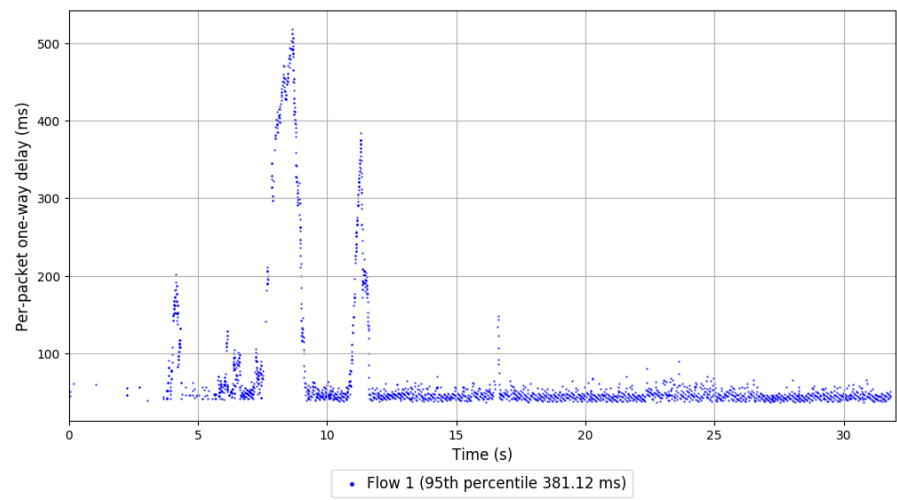
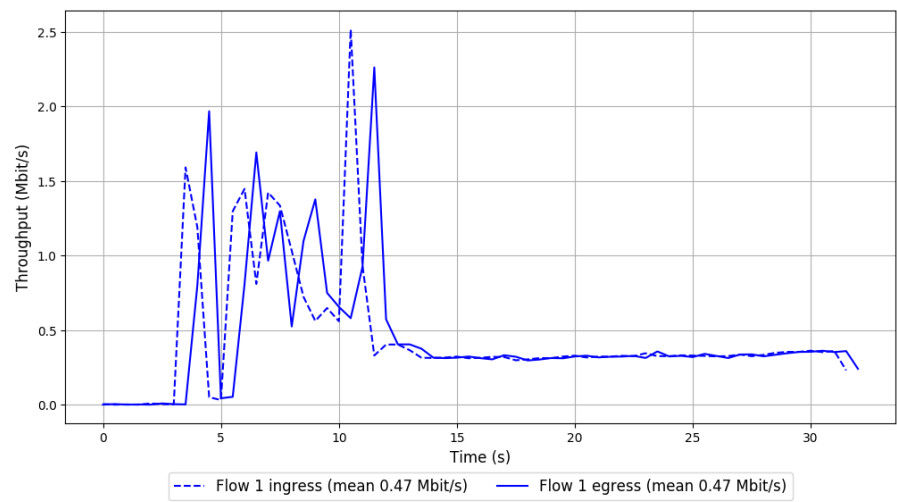


Run 1: Statistics of WebRTC media

Start at: 2018-06-29 11:46:53
End at: 2018-06-29 11:47:23
Local clock offset: 1.139 ms
Remote clock offset: -16.048 ms

Below is generated by plot.py at 2018-06-29 12:27:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 381.118 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 381.118 ms
Loss rate: 0.31%

Run 1: Report of WebRTC media — Data Link

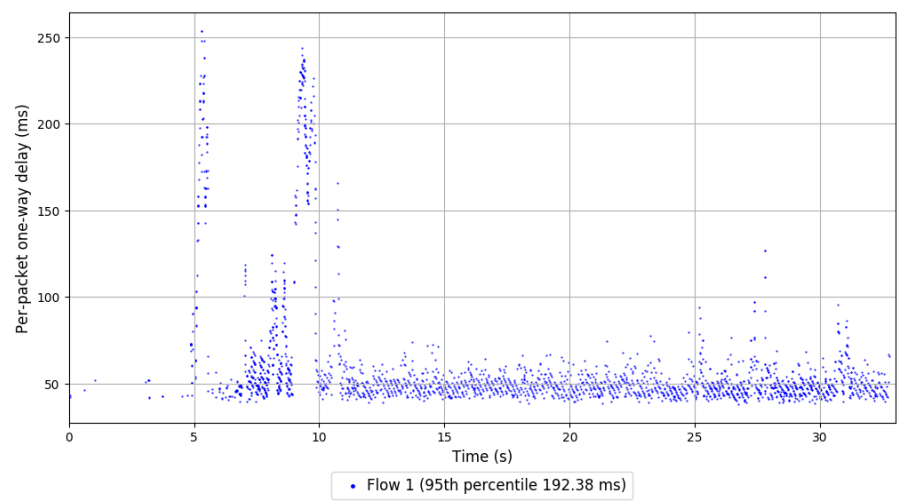
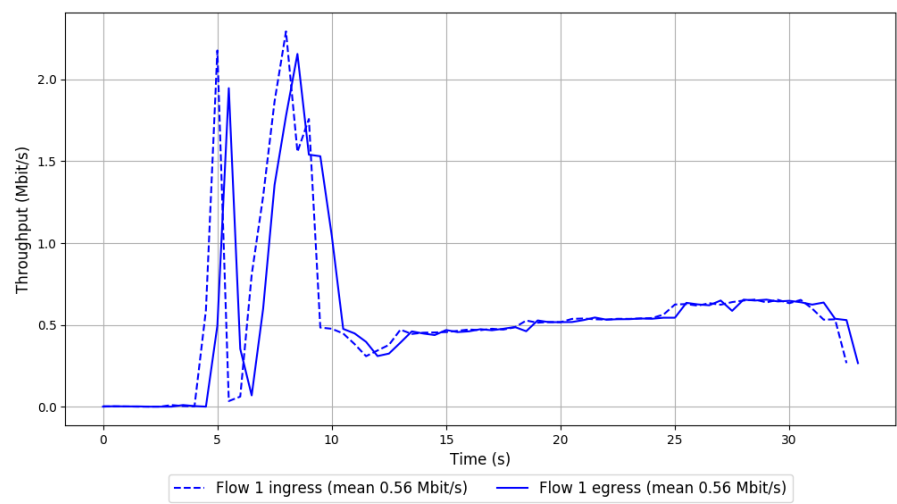


Run 2: Statistics of WebRTC media

Start at: 2018-06-29 12:05:15
End at: 2018-06-29 12:05:45
Local clock offset: 1.492 ms
Remote clock offset: -4.442 ms

Below is generated by plot.py at 2018-06-29 12:27:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 192.378 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 192.378 ms
Loss rate: 0.14%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-29 12:23:41
End at: 2018-06-29 12:24:11
Local clock offset: 0.333 ms
Remote clock offset: -4.715 ms

Below is generated by plot.py at 2018-06-29 12:27:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 125.506 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 125.506 ms
Loss rate: 0.11%

Run 3: Report of WebRTC media — Data Link

