

Pantheon Report

Generated at 2018-09-25 06:57:25 (UTC).

Data path: AWS California 2 on **ens5** (*local*) → Mexico on **em1** (*remote*).

Repeated the test of 19 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against **time.stanford.edu** and have been applied to correct the timestamps in logs.

System info:

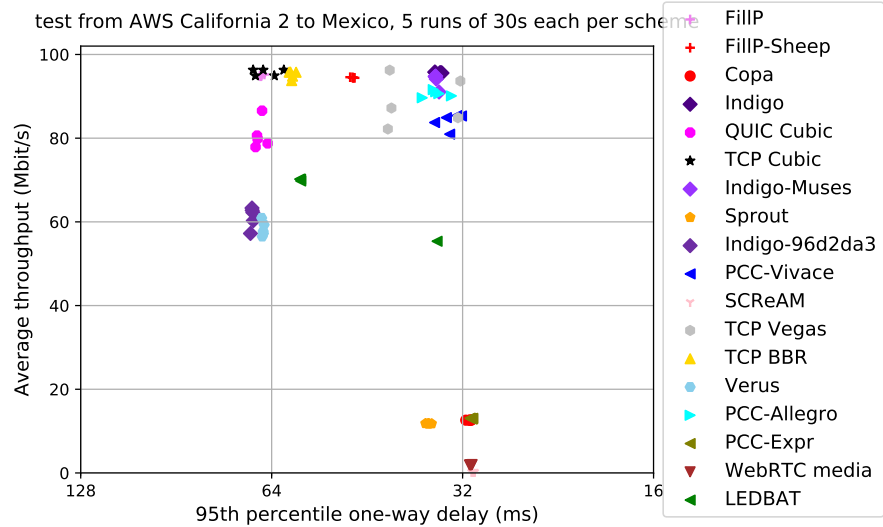
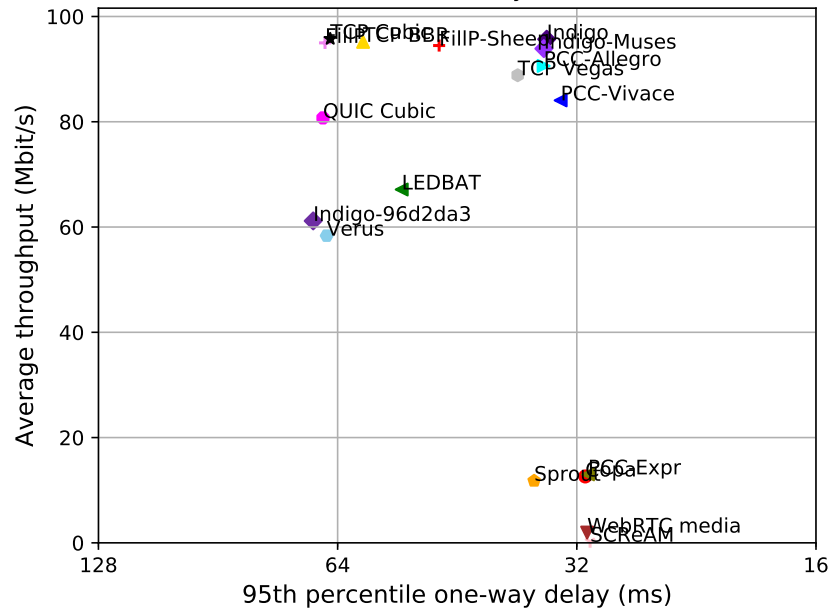
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 184101 245469 368202
```

Git summary:

```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ cbfce6db5ff5740dafa1771f813cd646339e1952
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-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
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/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS California 2 to Mexico, 5 runs of 30s each per scheme
(mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	95.18	59.45	0.96
Copa	5	12.61	31.23	70.70
TCP Cubic	5	95.74	65.39	0.57
FillP	5	94.98	66.38	9.68
FillP-Sheep	5	94.48	47.69	0.87
Indigo	5	95.68	34.92	0.02
Indigo-96d2da3	5	61.16	68.70	58.04
LEDBAT	5	67.13	53.16	0.01
Indigo-Muses	5	93.89	35.21	0.40
PCC-Allegro	5	90.61	35.23	0.71
PCC-Expr	5	13.01	30.98	44.42
QUIC Cubic	5	80.73	66.78	1.52
SCReAM	5	0.21	30.79	0.00
Sprout	5	11.79	36.21	0.00
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	88.84	37.98	0.37
Verus	5	58.36	66.06	24.62
PCC-Vivace	5	84.06	33.54	0.05
WebRTC media	5	1.95	31.06	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-09-25 04:42:51

End at: 2018-09-25 04:43:21

Local clock offset: -0.41 ms

Remote clock offset: -3.197 ms

Below is generated by plot.py at 2018-09-25 06:48:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.77 Mbit/s

95th percentile per-packet one-way delay: 59.517 ms

Loss rate: 0.84%

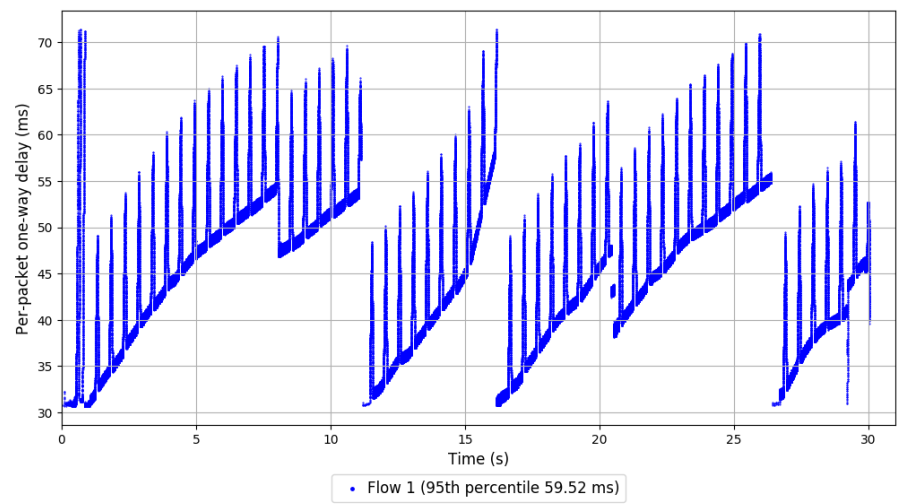
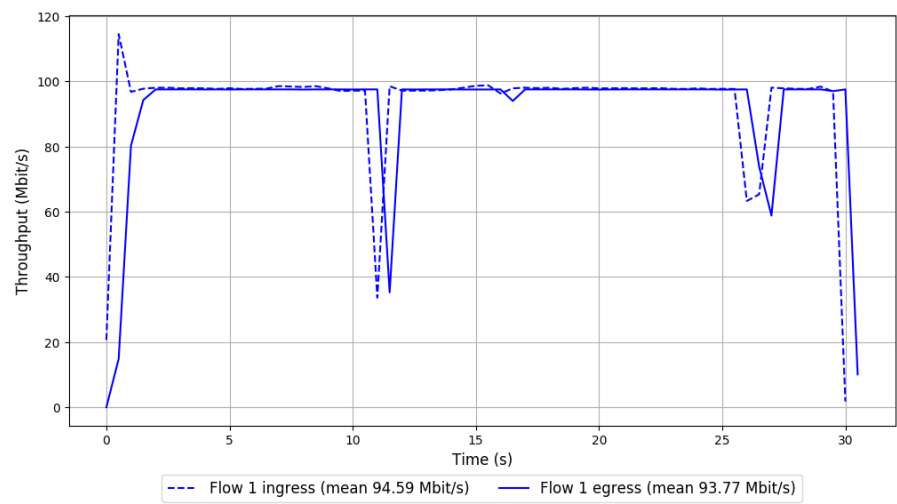
-- Flow 1:

Average throughput: 93.77 Mbit/s

95th percentile per-packet one-way delay: 59.517 ms

Loss rate: 0.84%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-09-25 05:08:03

End at: 2018-09-25 05:08:33

Local clock offset: 2.068 ms

Remote clock offset: -3.217 ms

Below is generated by plot.py at 2018-09-25 06:48:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.82 Mbit/s

95th percentile per-packet one-way delay: 59.328 ms

Loss rate: 1.02%

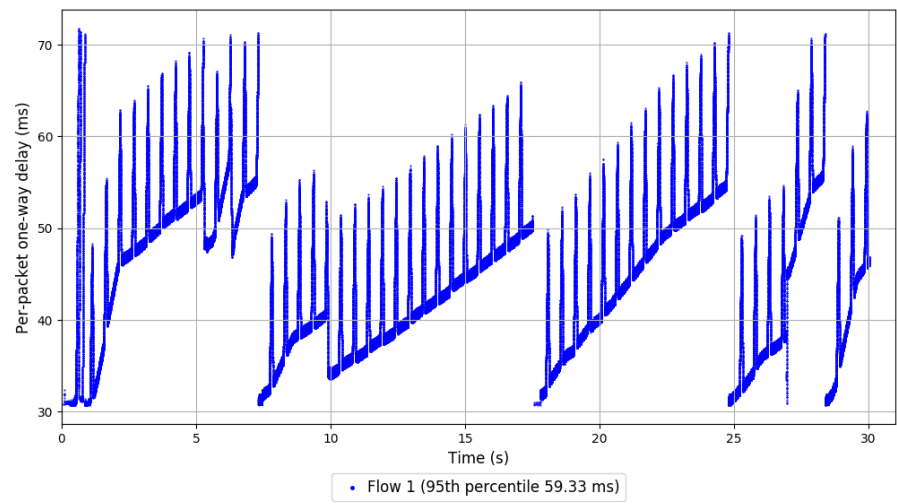
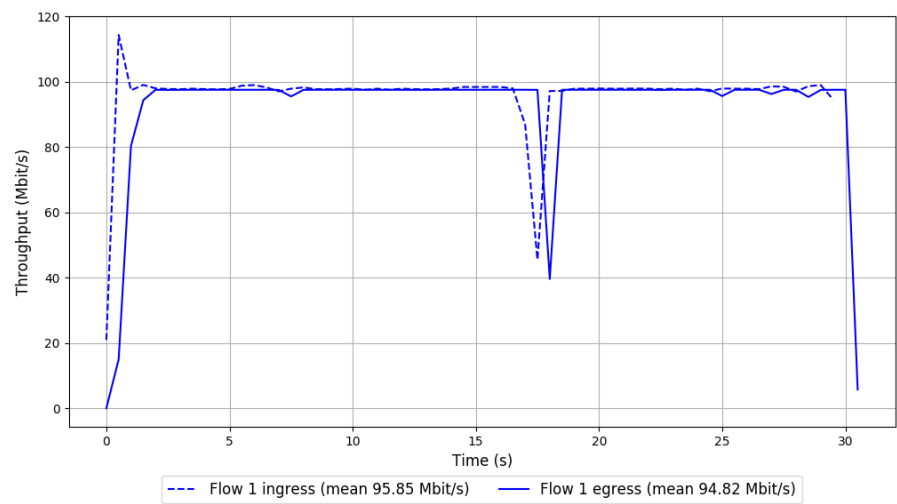
-- Flow 1:

Average throughput: 94.82 Mbit/s

95th percentile per-packet one-way delay: 59.328 ms

Loss rate: 1.02%

Run 2: Report of TCP BBR — Data Link

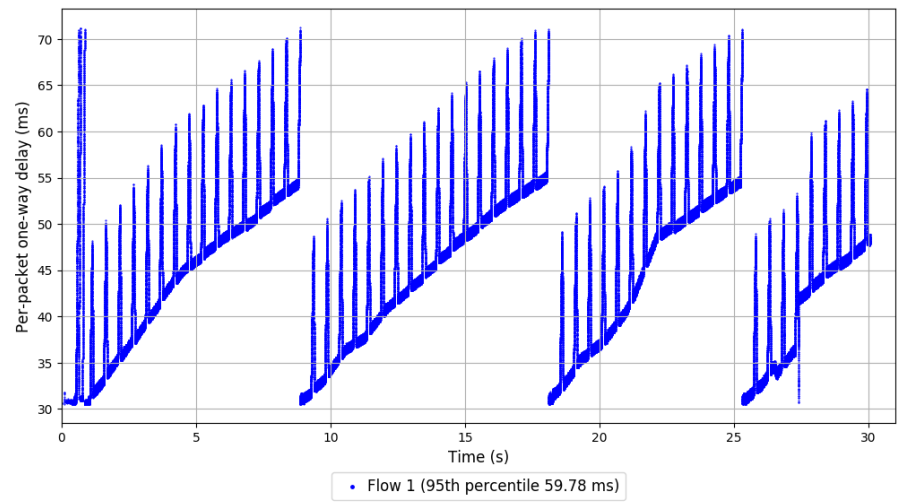
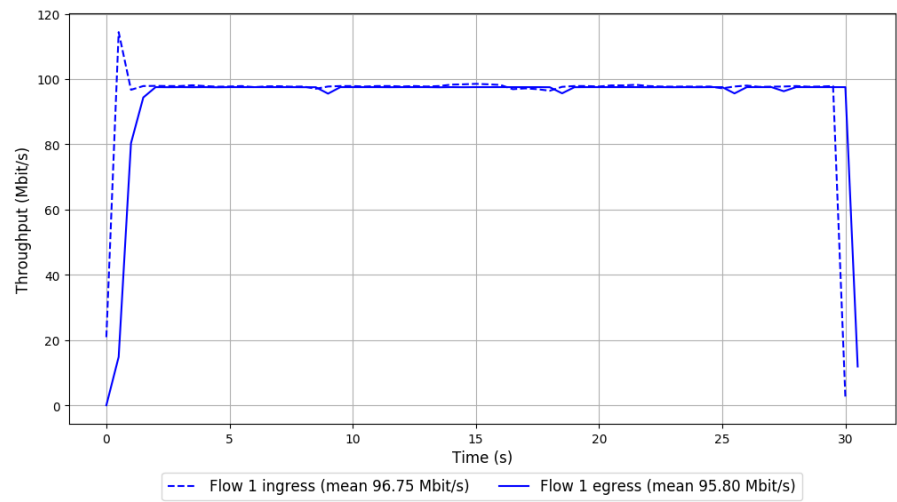


Run 3: Statistics of TCP BBR

Start at: 2018-09-25 05:33:17
End at: 2018-09-25 05:33:47
Local clock offset: 1.933 ms
Remote clock offset: -3.462 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 59.783 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 59.783 ms
Loss rate: 0.92%

Run 3: Report of TCP BBR — Data Link

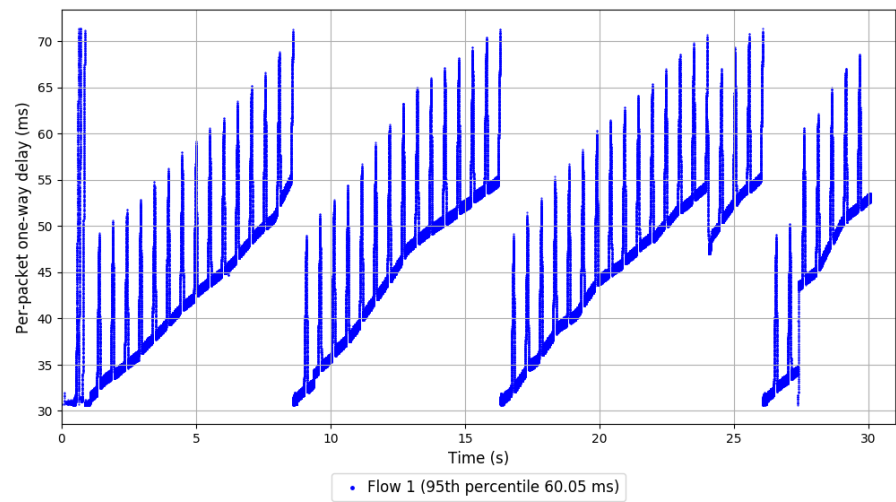
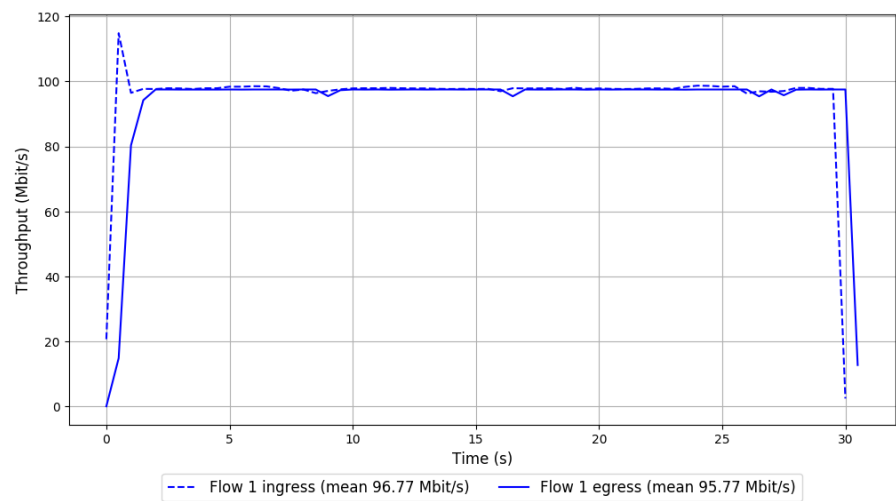


Run 4: Statistics of TCP BBR

Start at: 2018-09-25 05:58:21
End at: 2018-09-25 05:58:51
Local clock offset: -0.739 ms
Remote clock offset: -3.215 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 60.051 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 60.051 ms
Loss rate: 0.96%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-09-25 06:23:14

End at: 2018-09-25 06:23:44

Local clock offset: -0.545 ms

Remote clock offset: -2.97 ms

Below is generated by plot.py at 2018-09-25 06:48:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.76 Mbit/s

95th percentile per-packet one-way delay: 58.564 ms

Loss rate: 1.04%

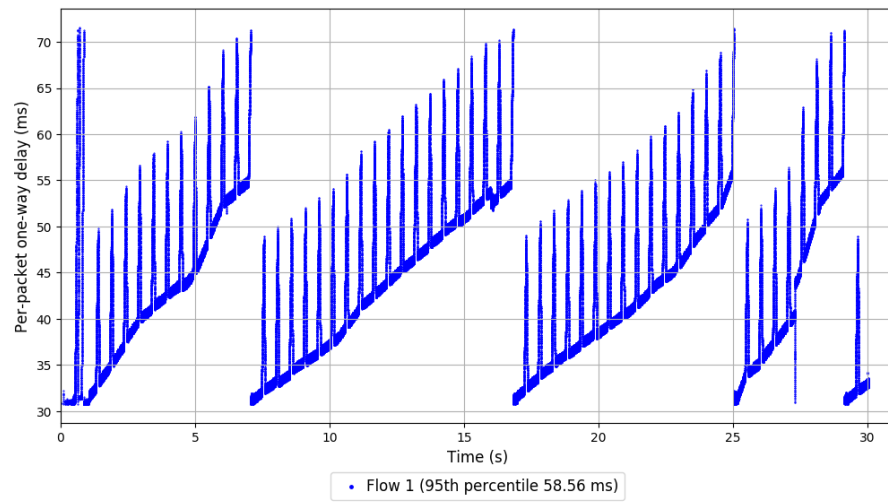
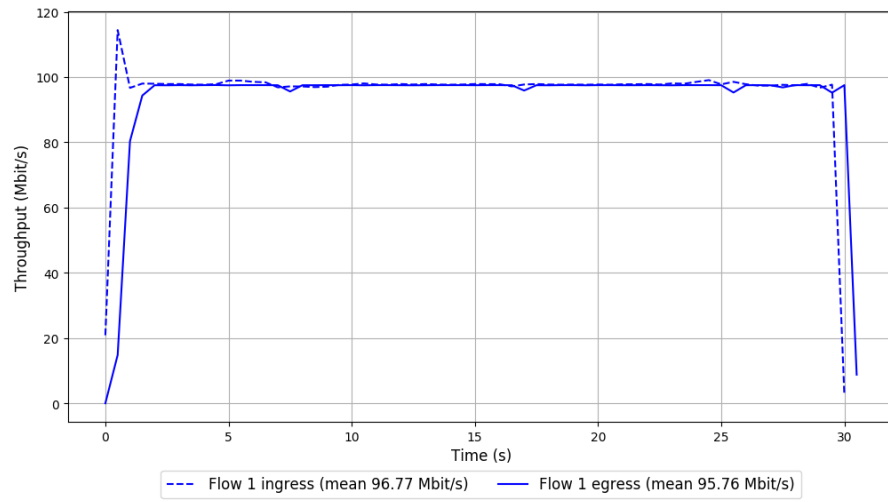
-- Flow 1:

Average throughput: 95.76 Mbit/s

95th percentile per-packet one-way delay: 58.564 ms

Loss rate: 1.04%

Run 5: Report of TCP BBR — Data Link

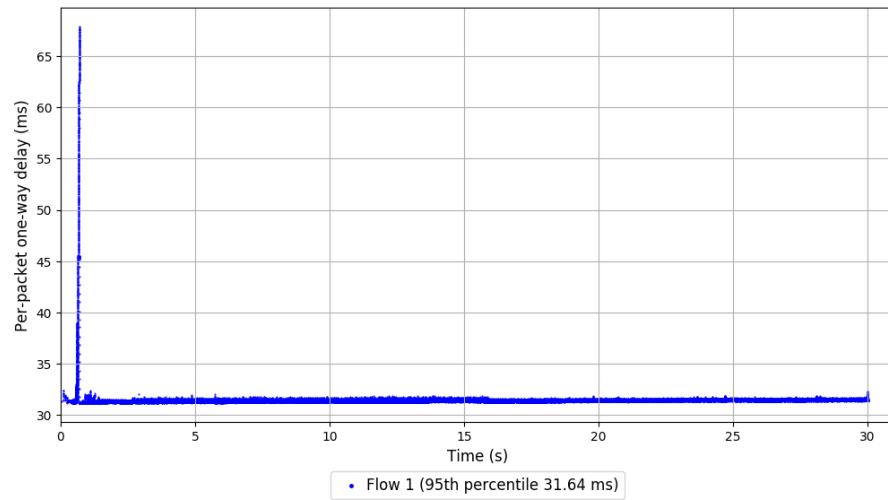
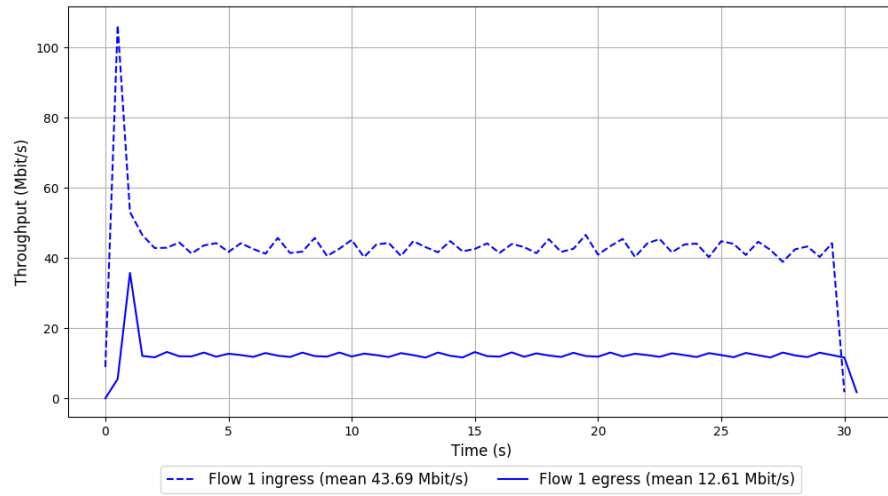


Run 1: Statistics of Copa

Start at: 2018-09-25 04:58:37
End at: 2018-09-25 04:59:07
Local clock offset: 0.375 ms
Remote clock offset: -3.096 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.640 ms
Loss rate: 71.13%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.640 ms
Loss rate: 71.13%

Run 1: Report of Copa — Data Link

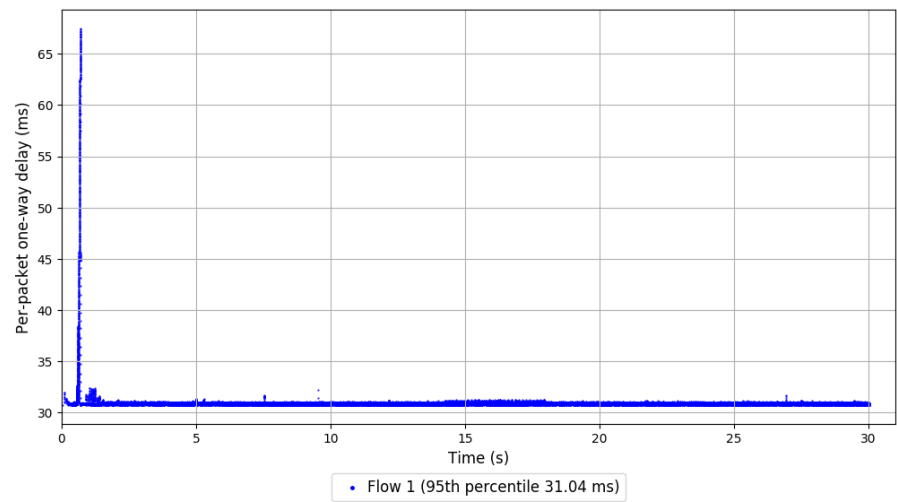
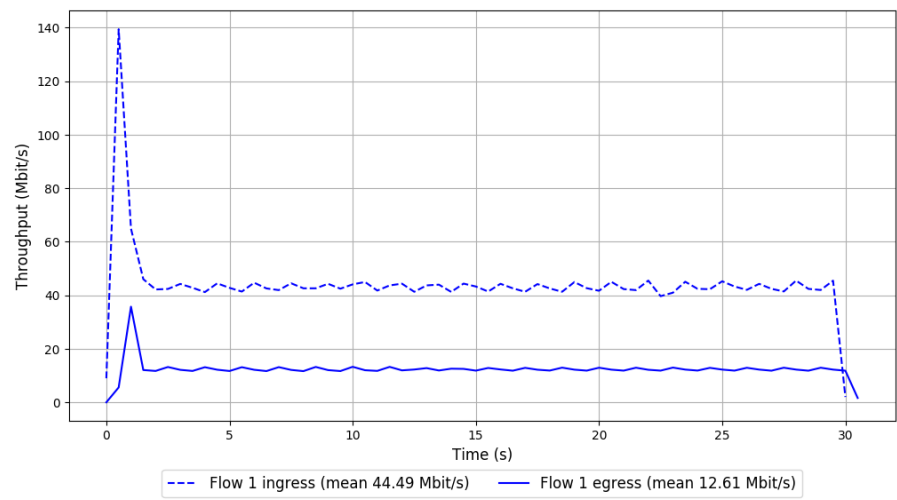


Run 2: Statistics of Copa

Start at: 2018-09-25 05:23:51
End at: 2018-09-25 05:24:21
Local clock offset: 2.209 ms
Remote clock offset: -3.226 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.041 ms
Loss rate: 71.65%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.041 ms
Loss rate: 71.65%

Run 2: Report of Copa — Data Link

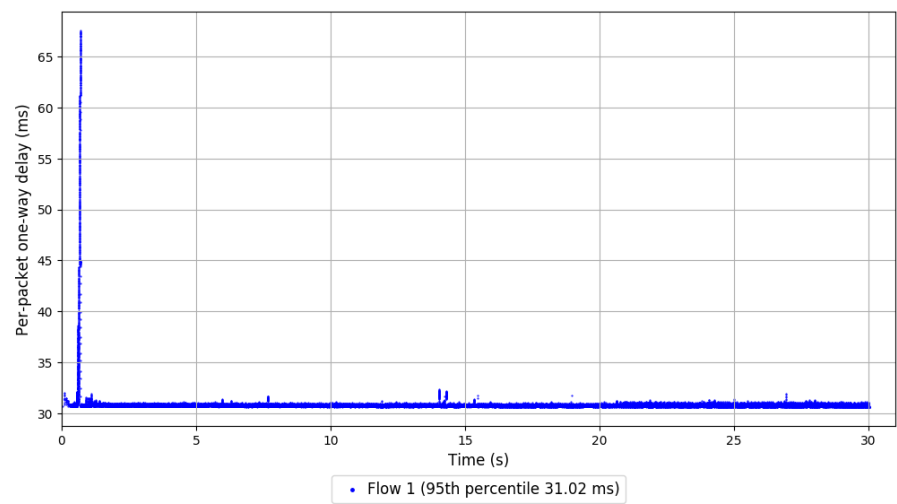
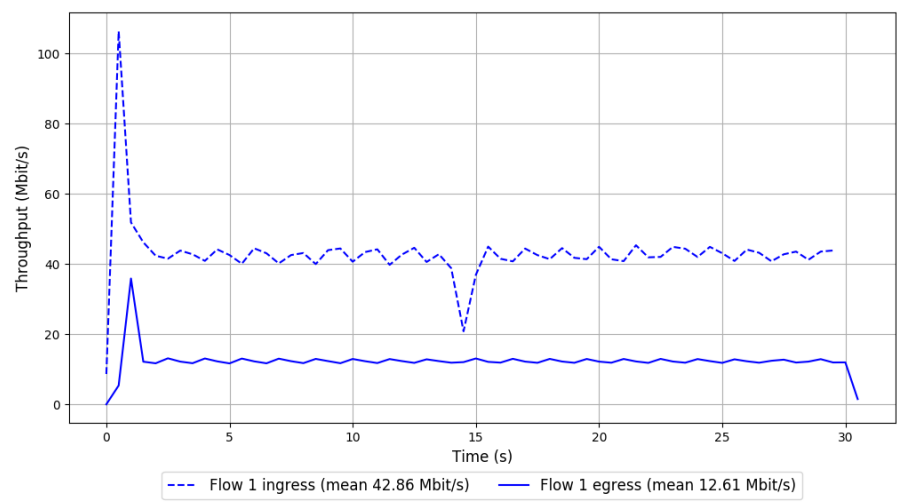


Run 3: Statistics of Copa

Start at: 2018-09-25 05:49:04
End at: 2018-09-25 05:49:34
Local clock offset: 0.16 ms
Remote clock offset: -3.222 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.020 ms
Loss rate: 70.58%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.020 ms
Loss rate: 70.58%

Run 3: Report of Copa — Data Link

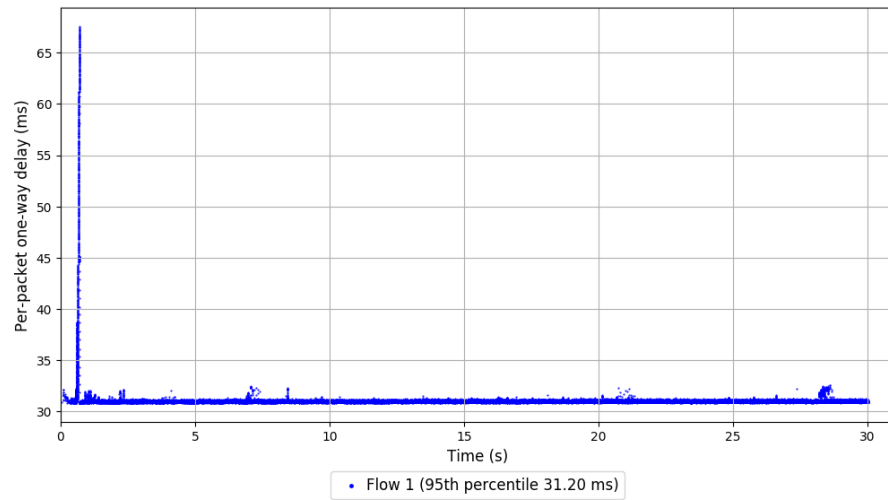
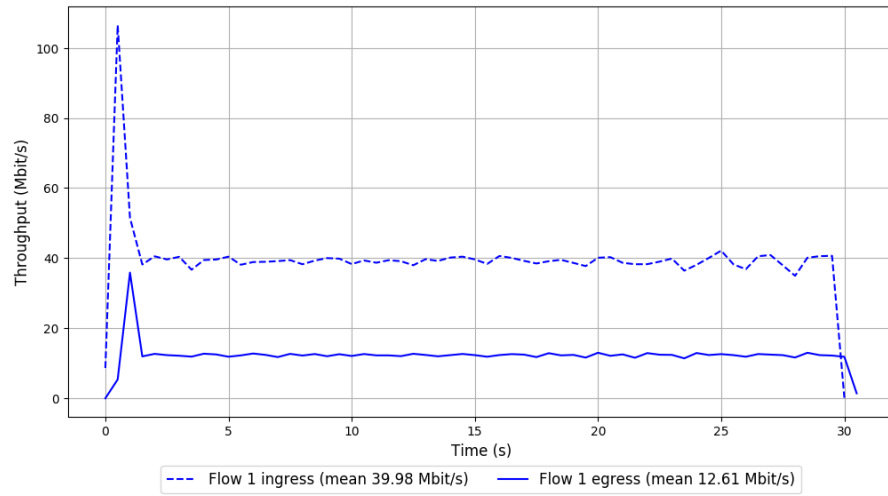


Run 4: Statistics of Copa

Start at: 2018-09-25 06:14:01
End at: 2018-09-25 06:14:31
Local clock offset: -0.953 ms
Remote clock offset: -3.023 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.200 ms
Loss rate: 68.46%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.200 ms
Loss rate: 68.46%

Run 4: Report of Copa — Data Link

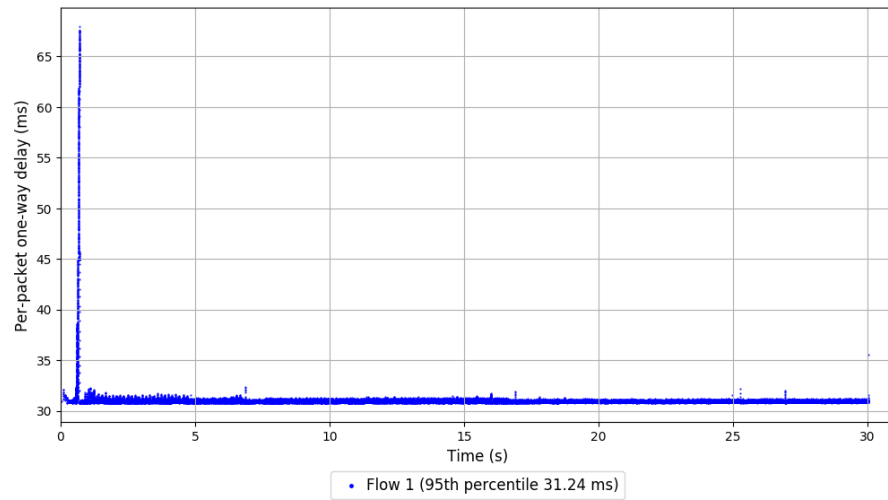
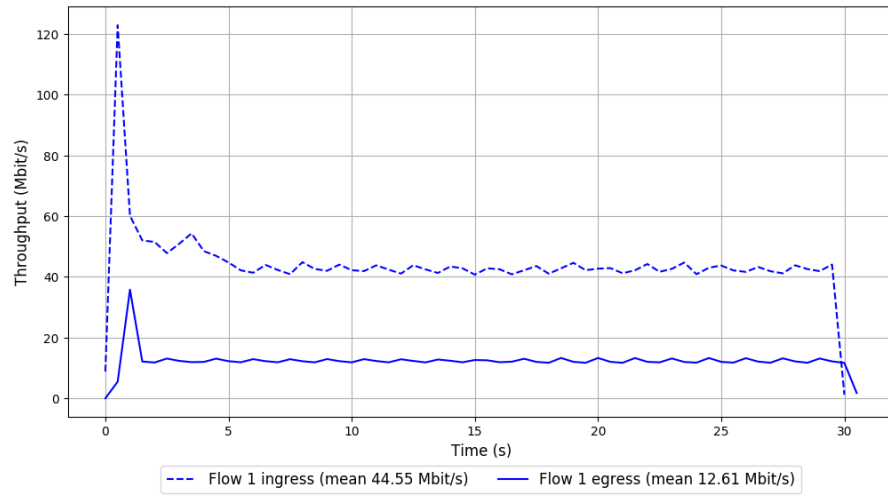


Run 5: Statistics of Copa

Start at: 2018-09-25 06:38:59
End at: 2018-09-25 06:39:29
Local clock offset: -0.8 ms
Remote clock offset: -2.886 ms

Below is generated by plot.py at 2018-09-25 06:48:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.236 ms
Loss rate: 71.69%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.236 ms
Loss rate: 71.69%

Run 5: Report of Copa — Data Link

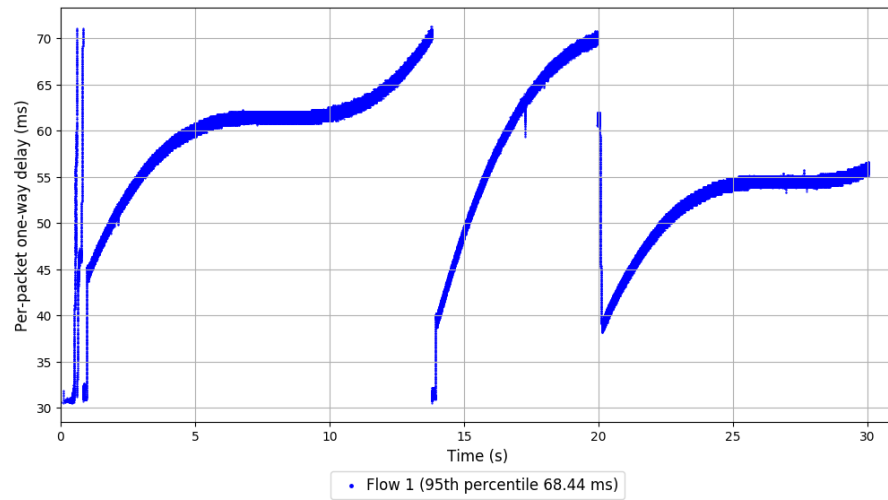
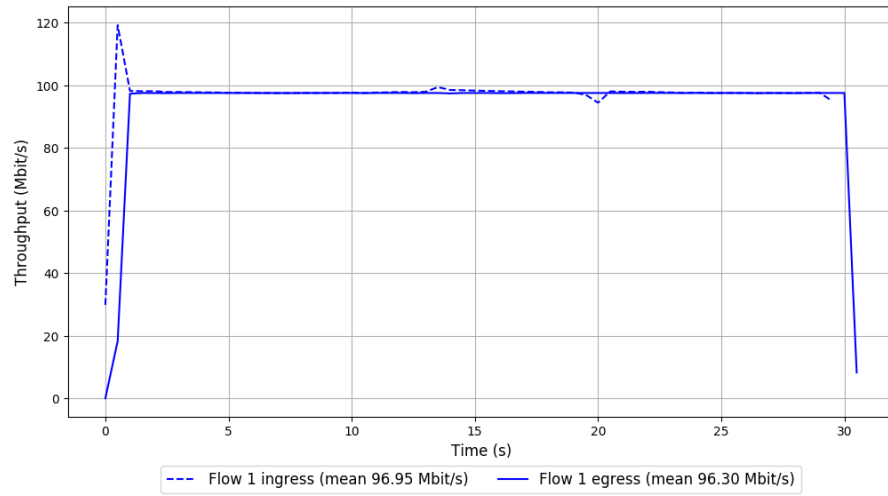


Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 04:41:30
End at: 2018-09-25 04:42:00
Local clock offset: -0.096 ms
Remote clock offset: -3.275 ms

Below is generated by plot.py at 2018-09-25 06:49:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 68.444 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 68.444 ms
Loss rate: 0.59%

Run 1: Report of TCP Cubic — Data Link

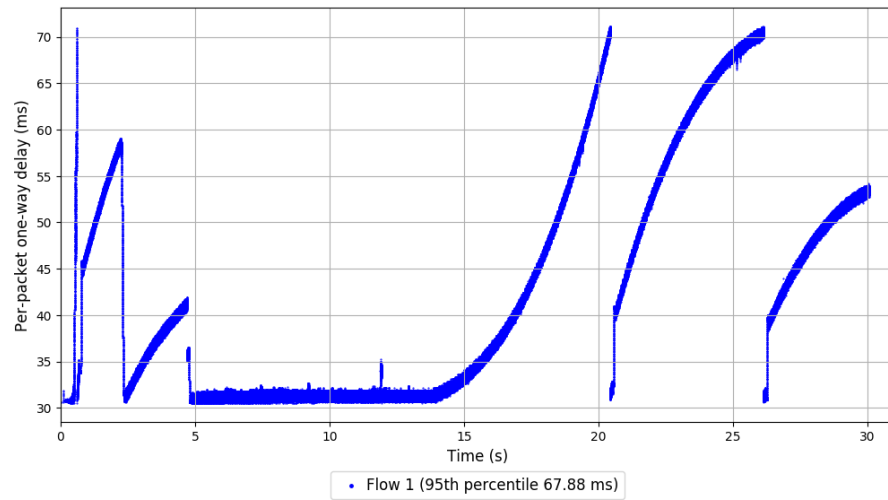
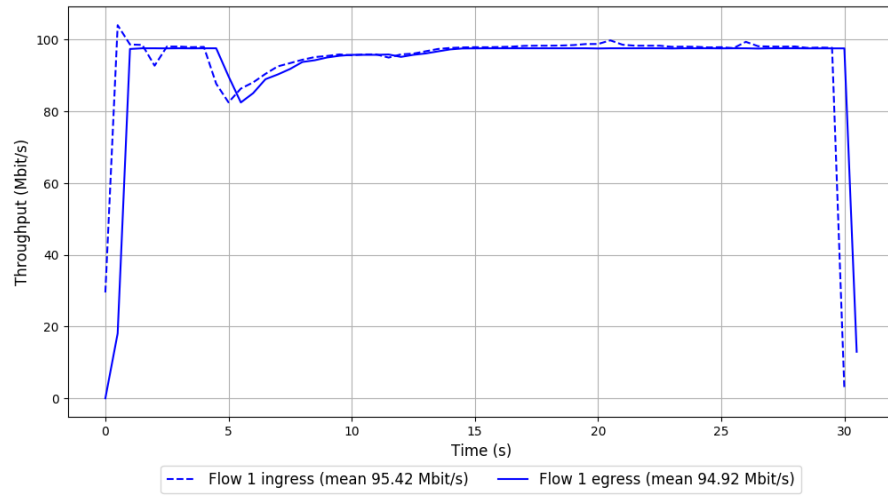


Run 2: Statistics of TCP Cubic

Start at: 2018-09-25 05:06:41
End at: 2018-09-25 05:07:11
Local clock offset: 2.034 ms
Remote clock offset: -3.456 ms

Below is generated by plot.py at 2018-09-25 06:49:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.92 Mbit/s
95th percentile per-packet one-way delay: 67.881 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 94.92 Mbit/s
95th percentile per-packet one-way delay: 67.881 ms
Loss rate: 0.45%

Run 2: Report of TCP Cubic — Data Link

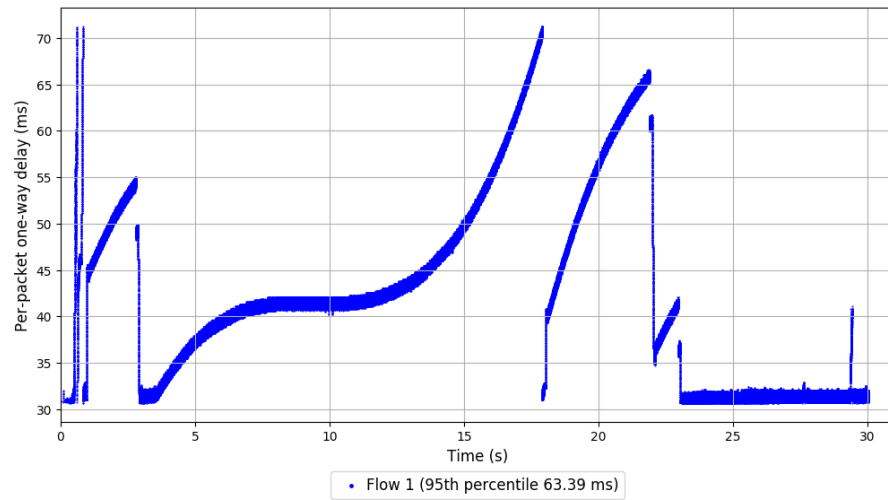
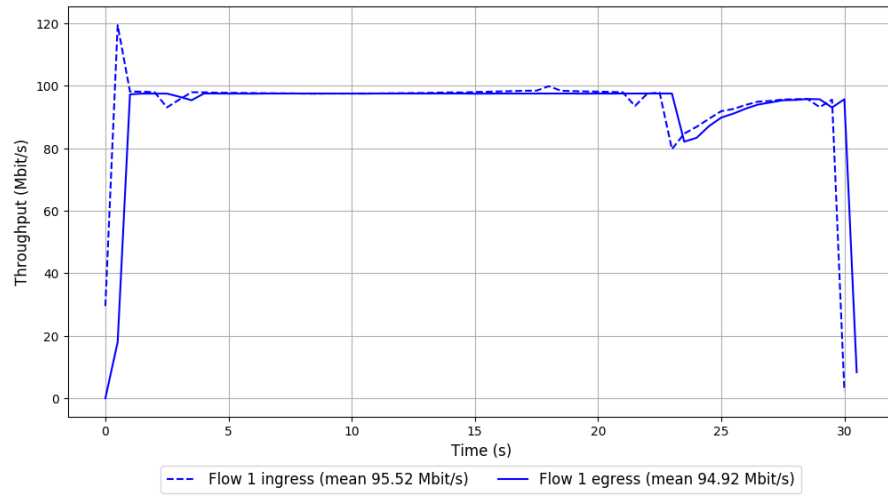


Run 3: Statistics of TCP Cubic

Start at: 2018-09-25 05:31:55
End at: 2018-09-25 05:32:25
Local clock offset: 1.987 ms
Remote clock offset: -3.229 ms

Below is generated by plot.py at 2018-09-25 06:49:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.92 Mbit/s
95th percentile per-packet one-way delay: 63.389 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 94.92 Mbit/s
95th percentile per-packet one-way delay: 63.389 ms
Loss rate: 0.62%

Run 3: Report of TCP Cubic — Data Link

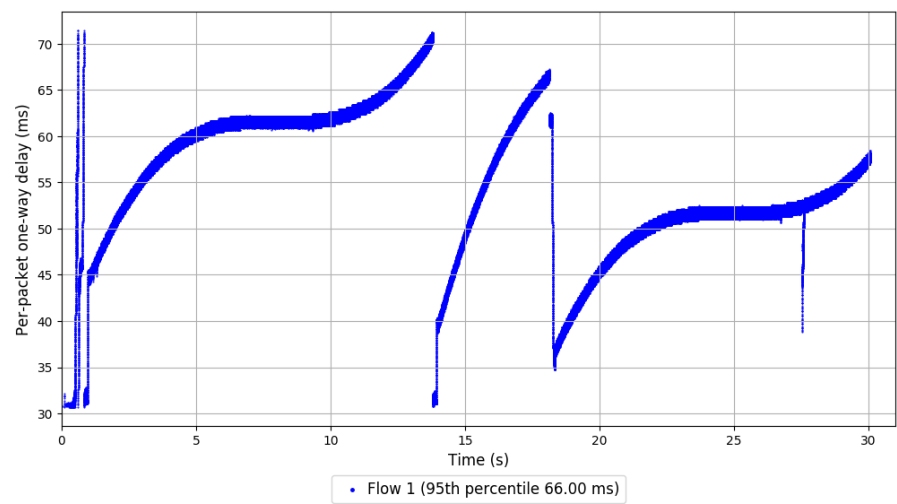
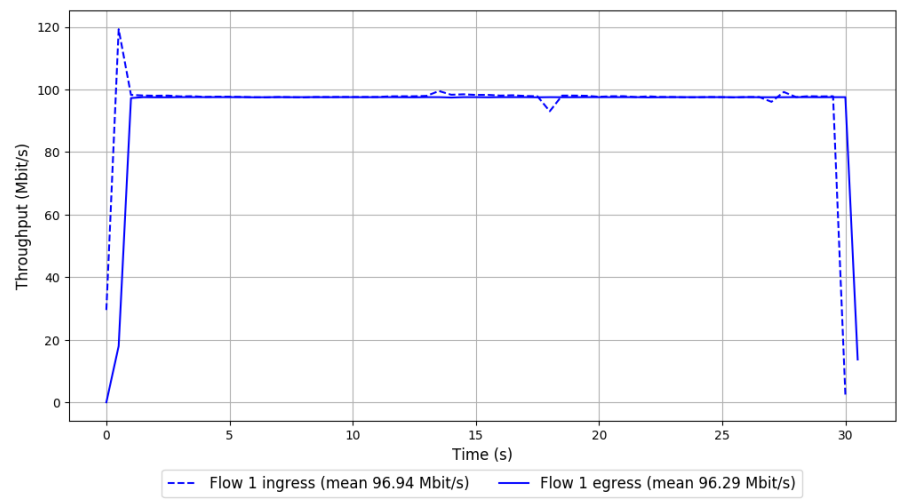


Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 05:57:01
End at: 2018-09-25 05:57:31
Local clock offset: -0.636 ms
Remote clock offset: -3.194 ms

Below is generated by plot.py at 2018-09-25 06:49:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 66.002 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 66.002 ms
Loss rate: 0.58%

Run 4: Report of TCP Cubic — Data Link

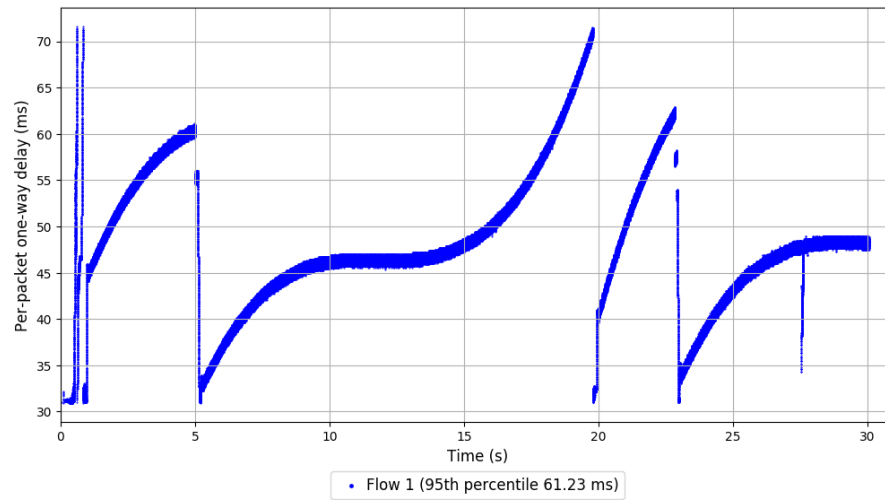
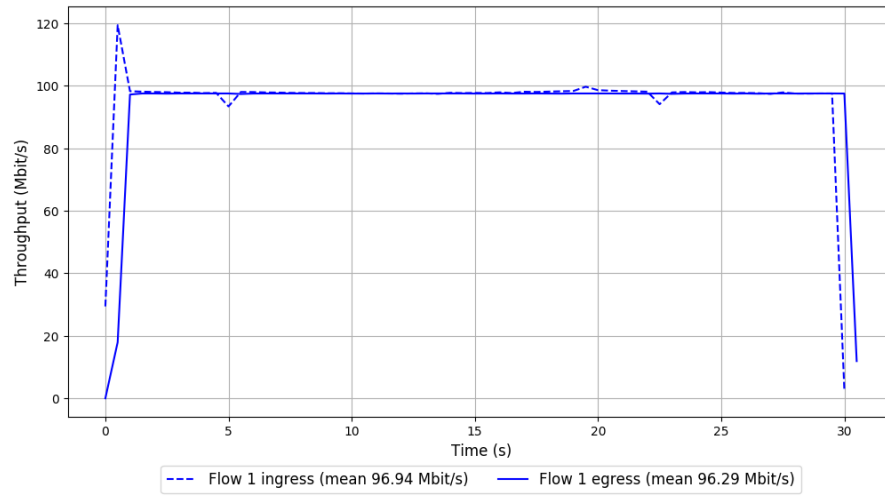


Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 06:21:54
End at: 2018-09-25 06:22:24
Local clock offset: -0.58 ms
Remote clock offset: -2.907 ms

Below is generated by plot.py at 2018-09-25 06:49:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 61.231 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 61.231 ms
Loss rate: 0.61%

Run 5: Report of TCP Cubic — Data Link

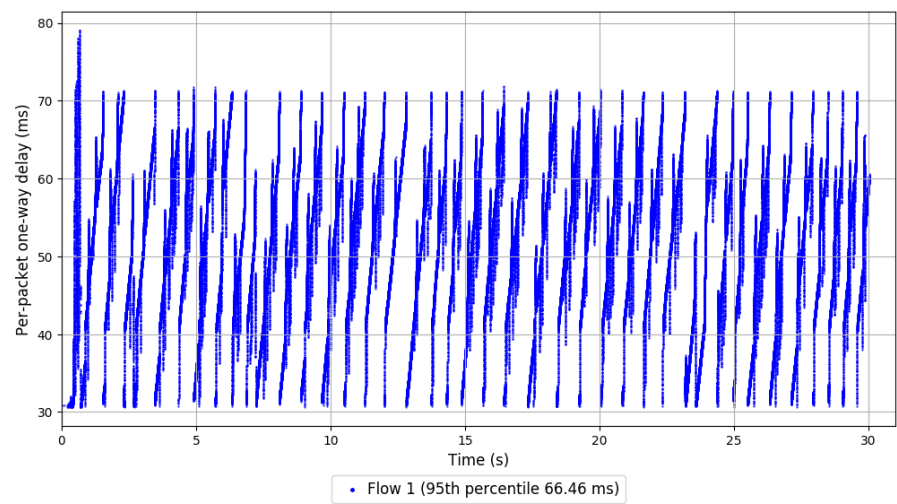
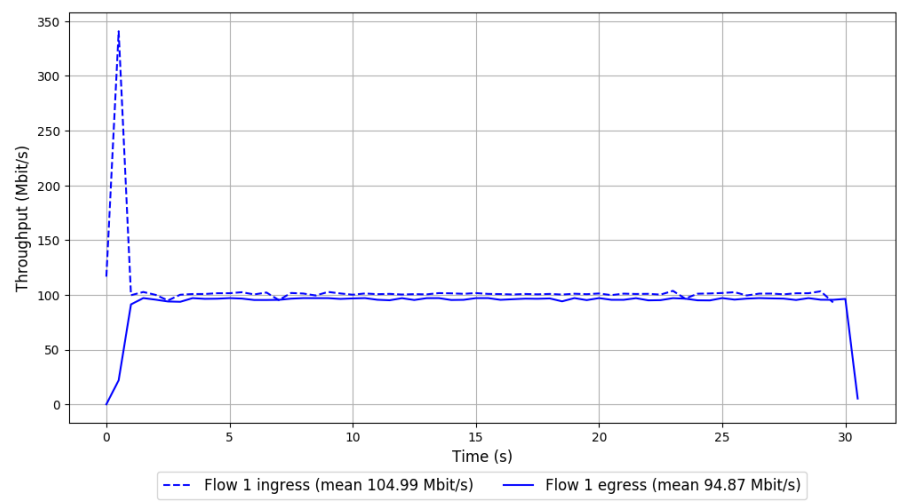


Run 1: Statistics of FillP

Start at: 2018-09-25 05:03:57
End at: 2018-09-25 05:04:27
Local clock offset: 1.844 ms
Remote clock offset: -3.238 ms

Below is generated by plot.py at 2018-09-25 06:50:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.87 Mbit/s
95th percentile per-packet one-way delay: 66.458 ms
Loss rate: 9.55%
-- Flow 1:
Average throughput: 94.87 Mbit/s
95th percentile per-packet one-way delay: 66.458 ms
Loss rate: 9.55%

Run 1: Report of FillP — Data Link

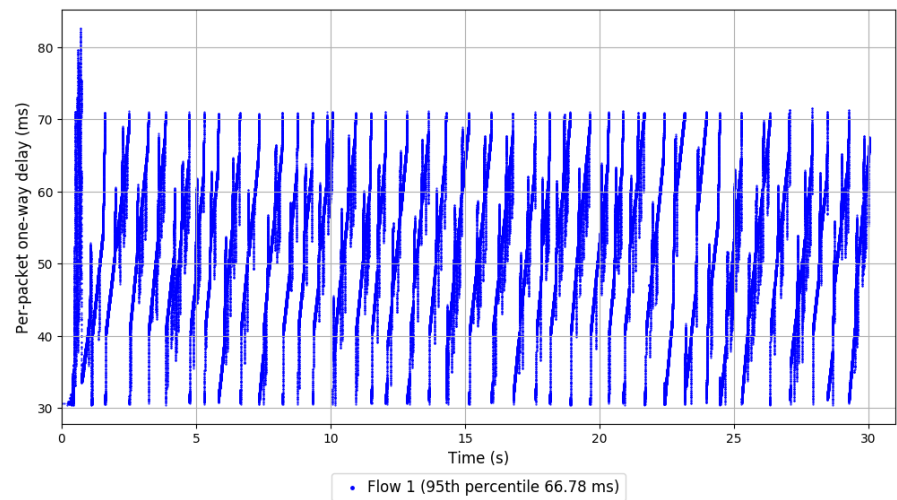
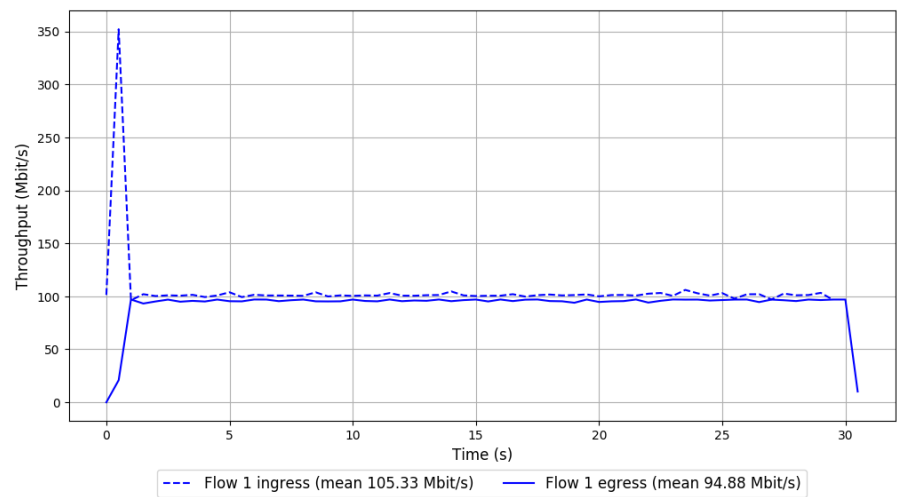


Run 2: Statistics of FillP

Start at: 2018-09-25 05:29:10
End at: 2018-09-25 05:29:40
Local clock offset: 2.067 ms
Remote clock offset: -3.412 ms

Below is generated by plot.py at 2018-09-25 06:50:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 66.782 ms
Loss rate: 9.81%
-- Flow 1:
Average throughput: 94.88 Mbit/s
95th percentile per-packet one-way delay: 66.782 ms
Loss rate: 9.81%

Run 2: Report of FillP — Data Link

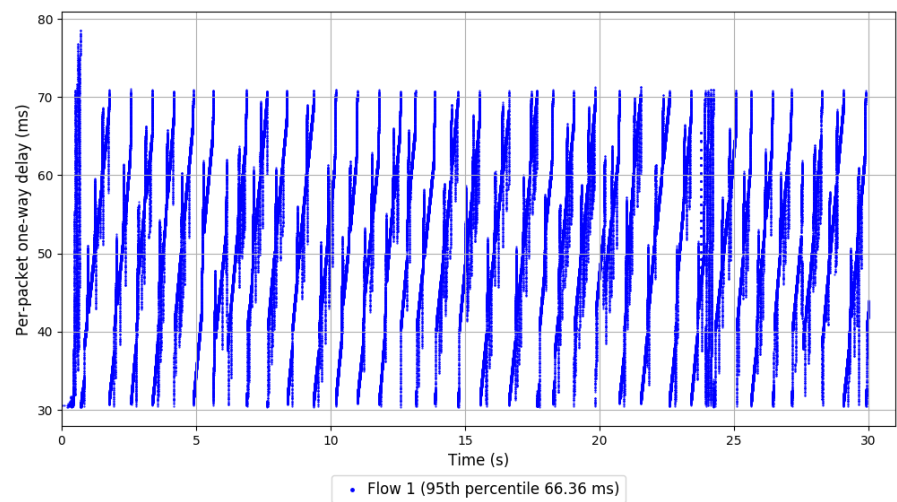
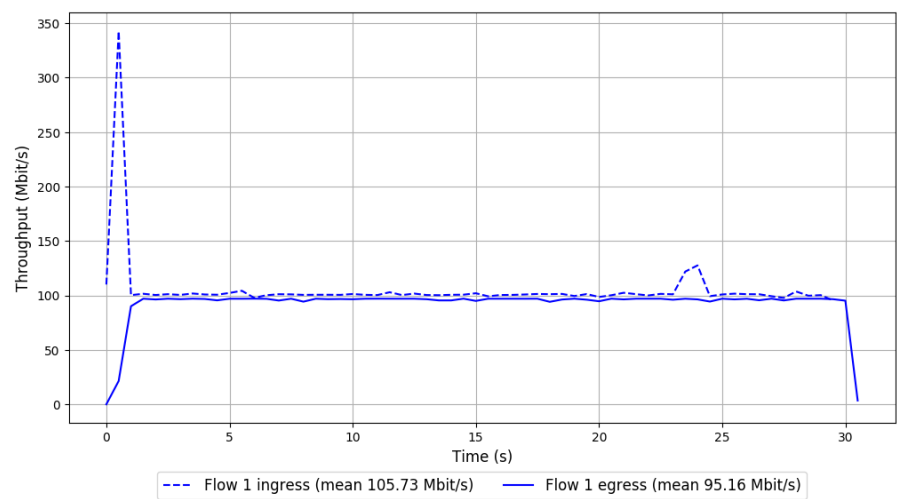


Run 3: Statistics of FillP

Start at: 2018-09-25 05:54:22
End at: 2018-09-25 05:54:52
Local clock offset: -0.381 ms
Remote clock offset: -3.387 ms

Below is generated by plot.py at 2018-09-25 06:50:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 66.364 ms
Loss rate: 9.96%
-- Flow 1:
Average throughput: 95.16 Mbit/s
95th percentile per-packet one-way delay: 66.364 ms
Loss rate: 9.96%

Run 3: Report of FillP — Data Link

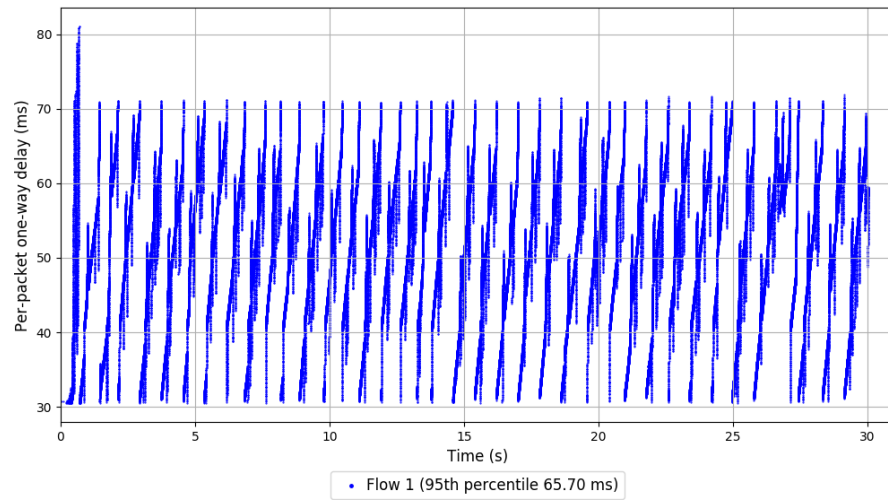
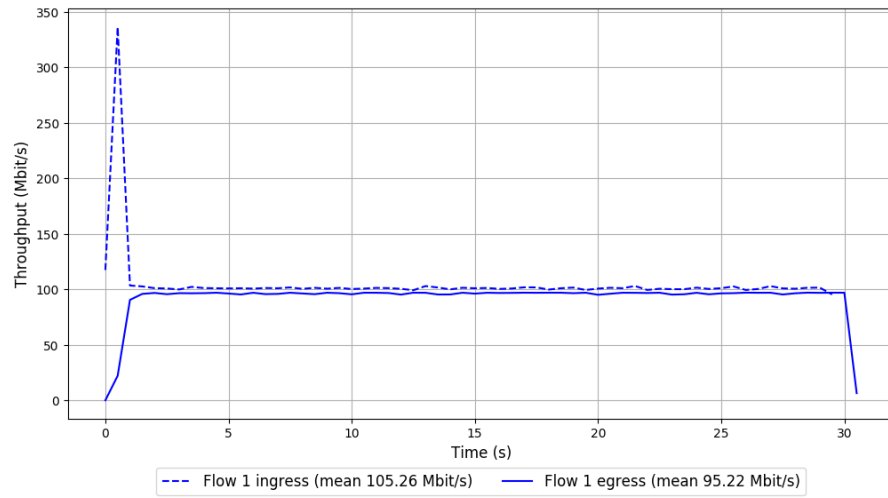


Run 4: Statistics of FillP

Start at: 2018-09-25 06:19:16
End at: 2018-09-25 06:19:46
Local clock offset: -0.643 ms
Remote clock offset: -3.206 ms

Below is generated by plot.py at 2018-09-25 06:50:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.22 Mbit/s
95th percentile per-packet one-way delay: 65.700 ms
Loss rate: 9.45%
-- Flow 1:
Average throughput: 95.22 Mbit/s
95th percentile per-packet one-way delay: 65.700 ms
Loss rate: 9.45%

Run 4: Report of FillP — Data Link

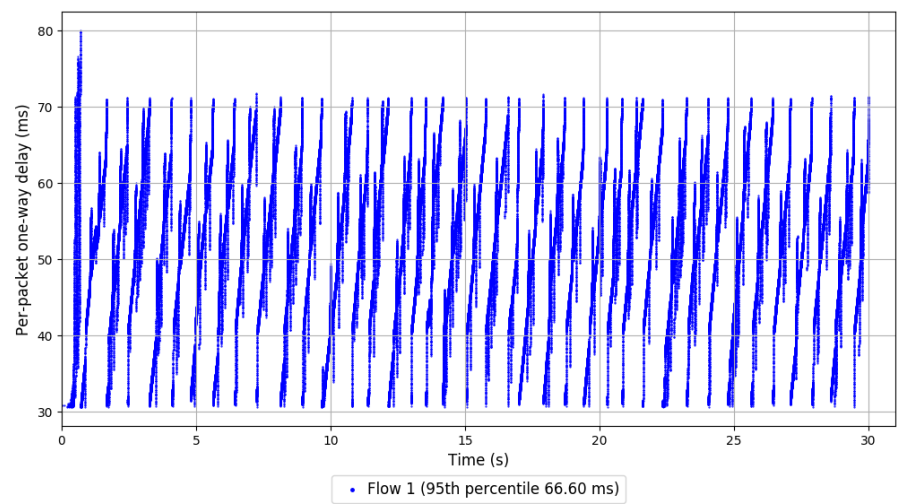
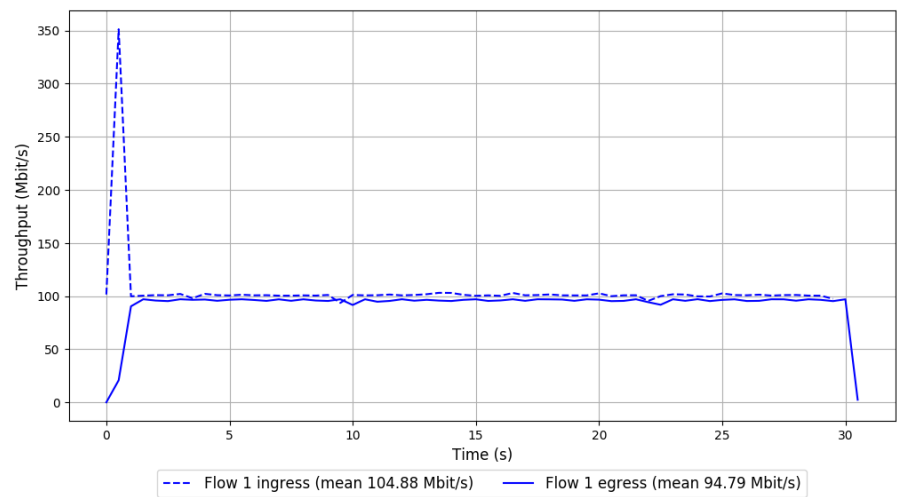


Run 5: Statistics of FillP

Start at: 2018-09-25 06:44:21
End at: 2018-09-25 06:44:51
Local clock offset: -0.487 ms
Remote clock offset: -2.958 ms

Below is generated by plot.py at 2018-09-25 06:50:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 66.600 ms
Loss rate: 9.61%
-- Flow 1:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 66.600 ms
Loss rate: 9.61%

Run 5: Report of FillP — Data Link

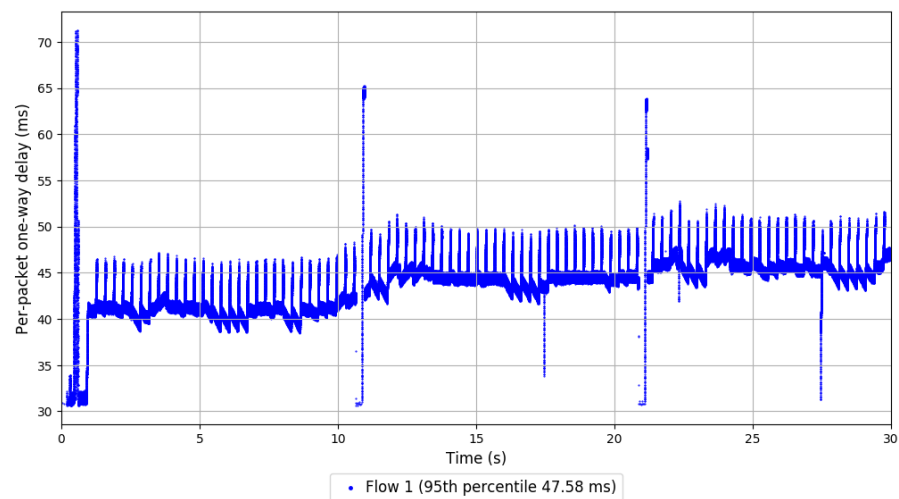
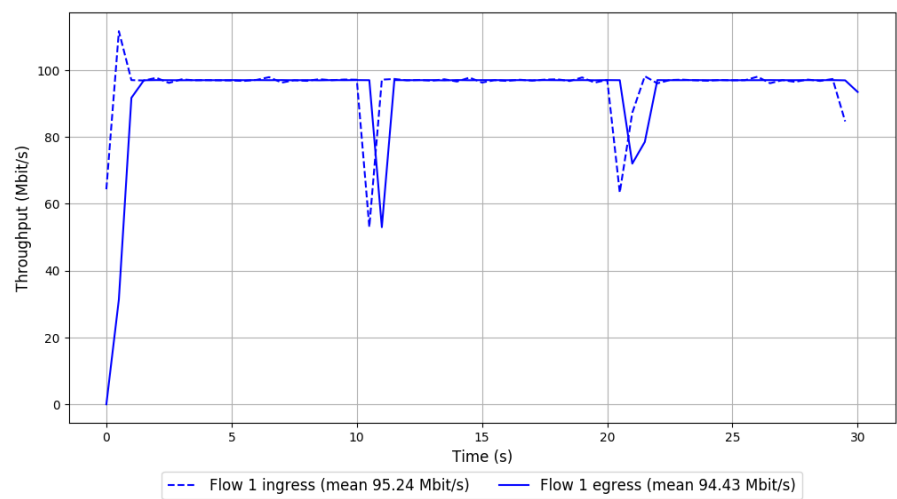


Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 05:05:19
End at: 2018-09-25 05:05:49
Local clock offset: 1.969 ms
Remote clock offset: -3.253 ms

Below is generated by plot.py at 2018-09-25 06:50:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.43 Mbit/s
95th percentile per-packet one-way delay: 47.582 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 94.43 Mbit/s
95th percentile per-packet one-way delay: 47.582 ms
Loss rate: 0.79%

Run 1: Report of FillP-Sheep — Data Link

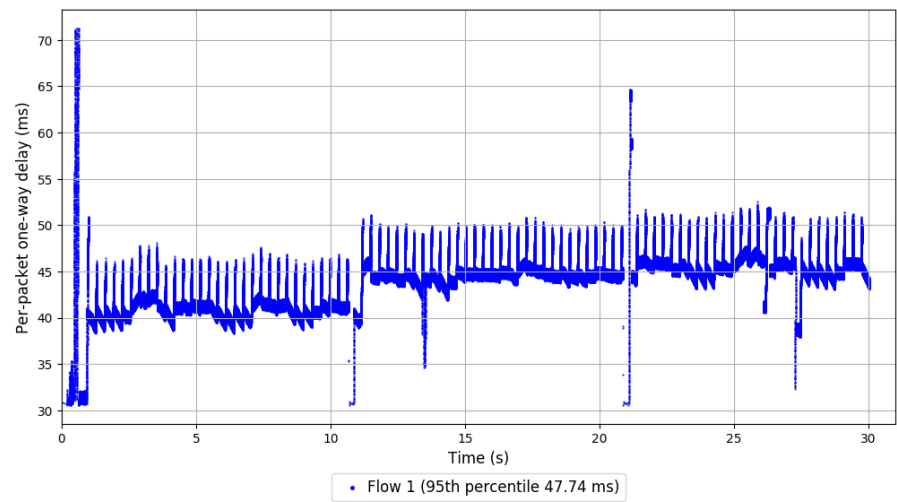
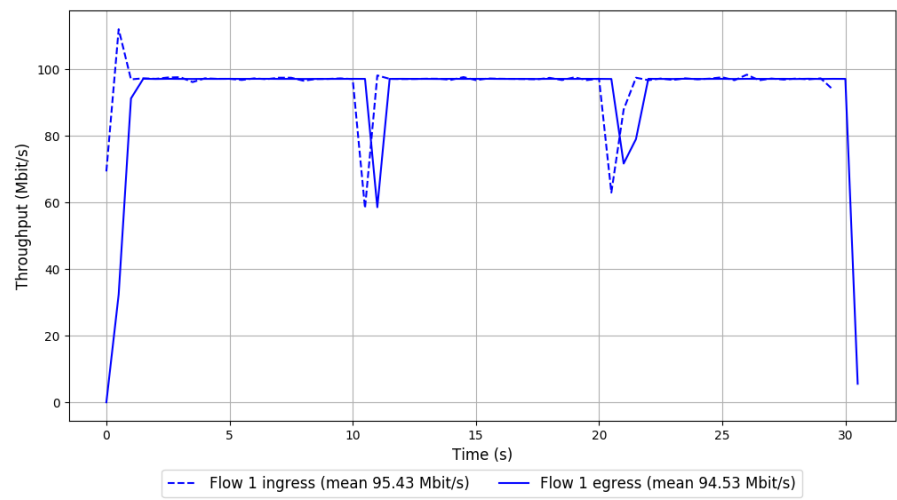


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 05:30:30
End at: 2018-09-25 05:31:00
Local clock offset: 2.024 ms
Remote clock offset: -3.281 ms

Below is generated by plot.py at 2018-09-25 06:51:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 47.740 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 47.740 ms
Loss rate: 0.89%

Run 2: Report of FillP-Sheep — Data Link

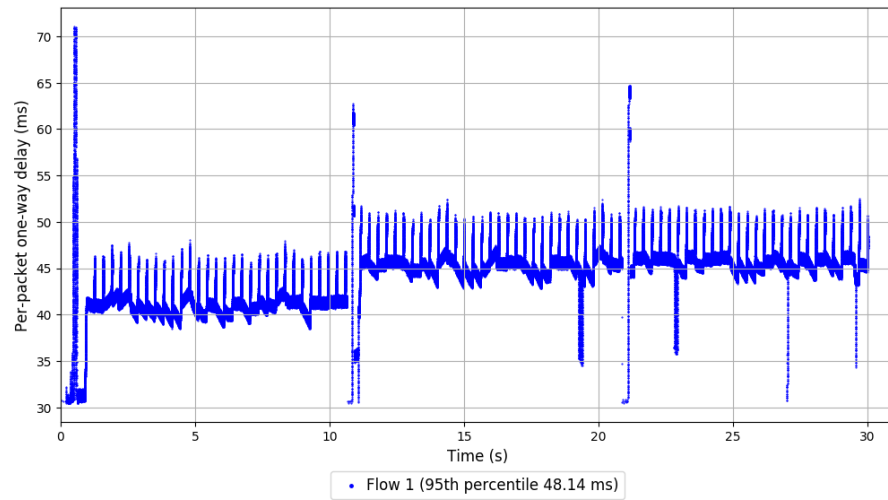
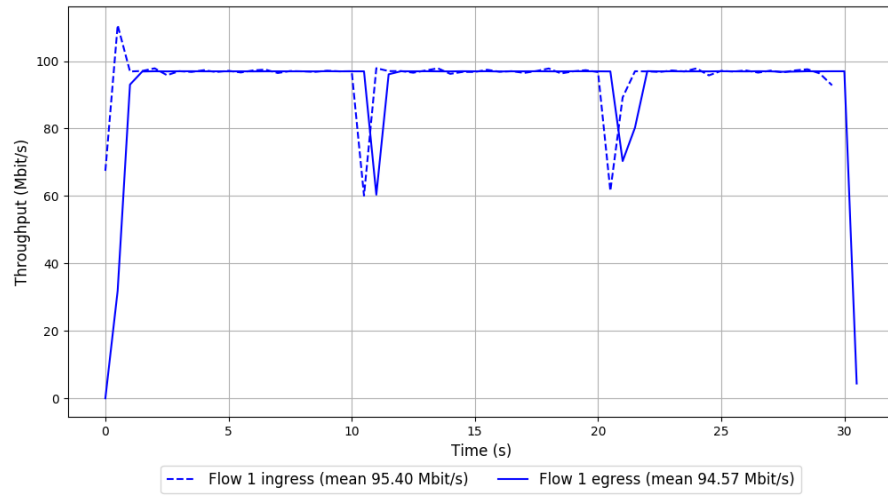


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 05:55:42
End at: 2018-09-25 05:56:12
Local clock offset: -0.534 ms
Remote clock offset: -3.234 ms

Below is generated by plot.py at 2018-09-25 06:51:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 48.137 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 48.137 ms
Loss rate: 0.81%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 06:20:35

End at: 2018-09-25 06:21:05

Local clock offset: -0.578 ms

Remote clock offset: -2.97 ms

Below is generated by plot.py at 2018-09-25 06:51:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.44 Mbit/s

95th percentile per-packet one-way delay: 47.624 ms

Loss rate: 0.96%

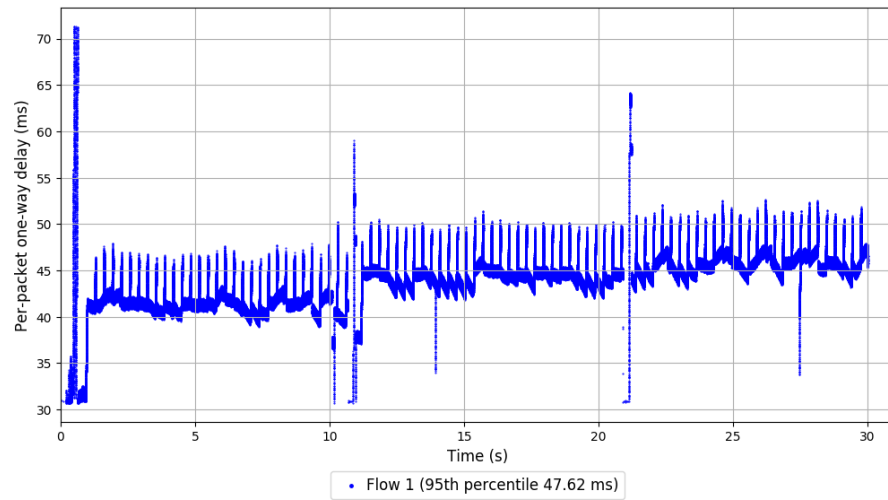
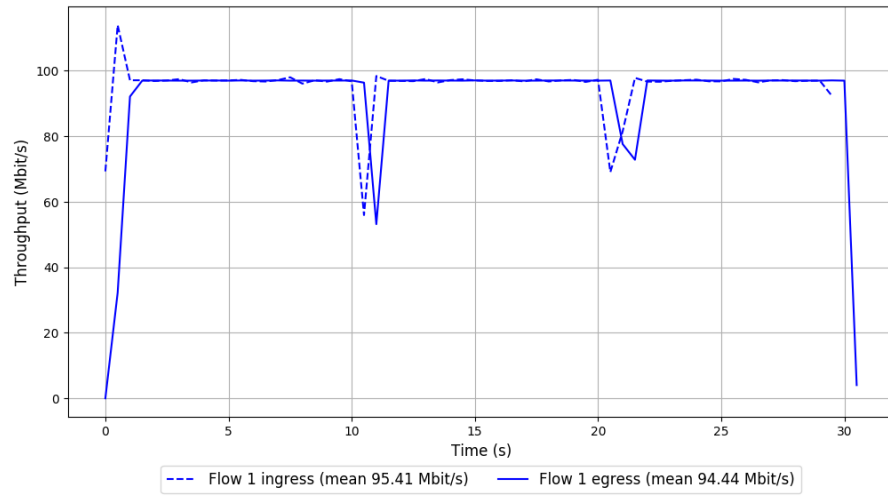
-- Flow 1:

Average throughput: 94.44 Mbit/s

95th percentile per-packet one-way delay: 47.624 ms

Loss rate: 0.96%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 06:45:42

End at: 2018-09-25 06:46:12

Local clock offset: -0.404 ms

Remote clock offset: -2.898 ms

Below is generated by plot.py at 2018-09-25 06:51:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.41 Mbit/s

95th percentile per-packet one-way delay: 47.357 ms

Loss rate: 0.89%

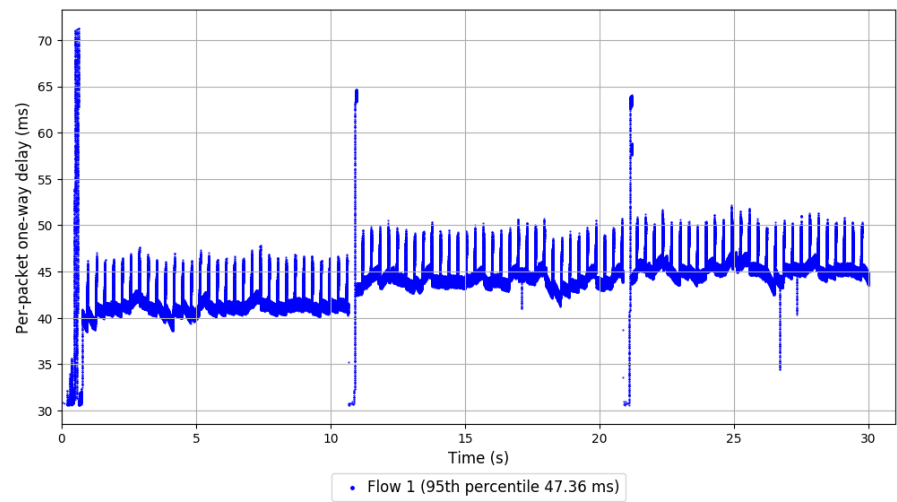
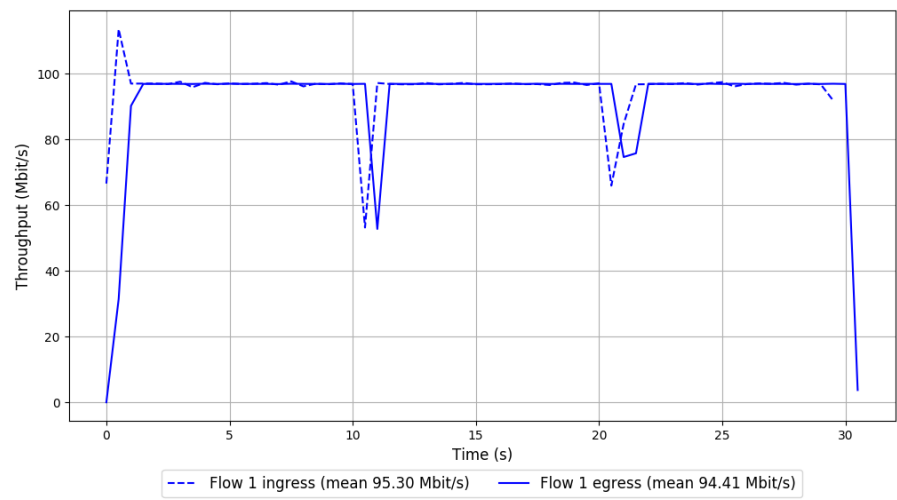
-- Flow 1:

Average throughput: 94.41 Mbit/s

95th percentile per-packet one-way delay: 47.357 ms

Loss rate: 0.89%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2018-09-25 04:59:54

End at: 2018-09-25 05:00:24

Local clock offset: 0.936 ms

Remote clock offset: -3.217 ms

Below is generated by plot.py at 2018-09-25 06:51:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.63 Mbit/s

95th percentile per-packet one-way delay: 34.752 ms

Loss rate: 0.00%

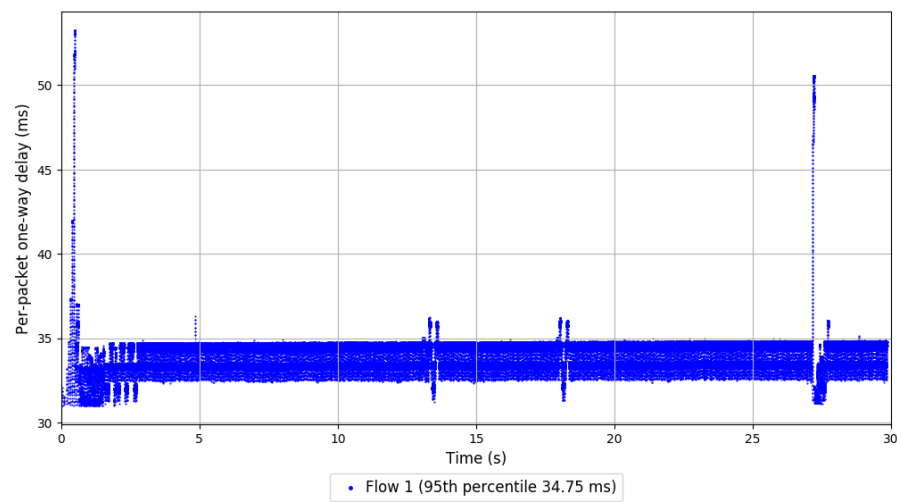
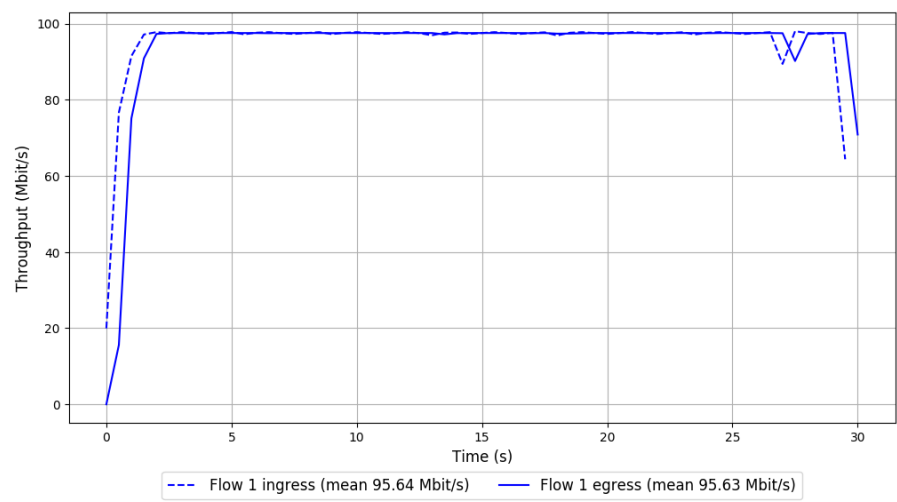
-- Flow 1:

Average throughput: 95.63 Mbit/s

95th percentile per-packet one-way delay: 34.752 ms

Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-09-25 05:25:09

End at: 2018-09-25 05:25:39

Local clock offset: 2.186 ms

Remote clock offset: -3.205 ms

Below is generated by plot.py at 2018-09-25 06:51:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.56 Mbit/s

95th percentile per-packet one-way delay: 34.486 ms

Loss rate: 0.01%

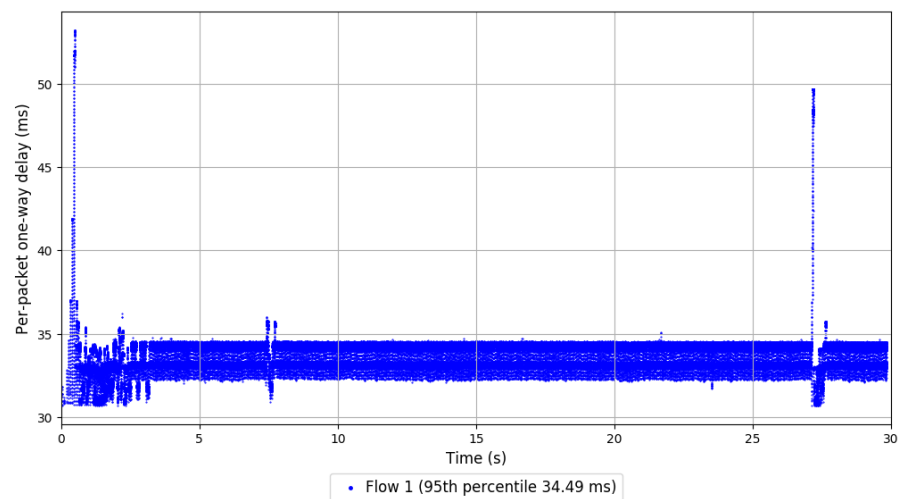
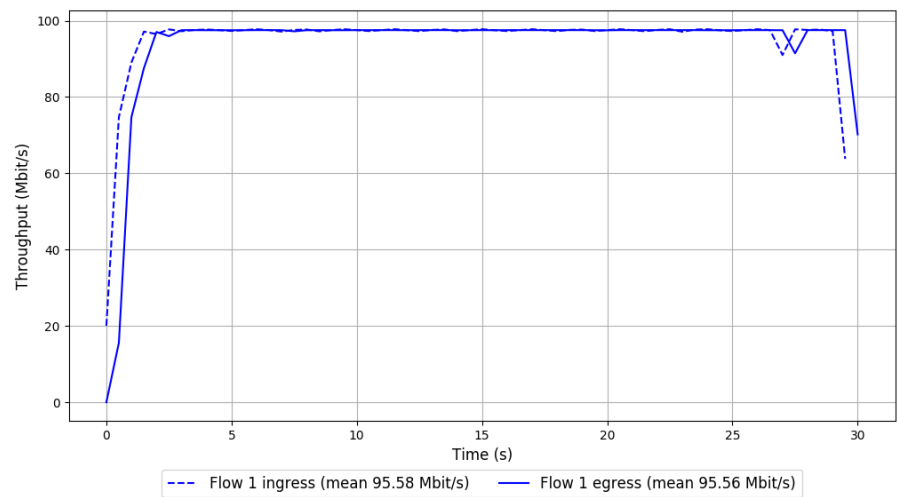
-- Flow 1:

Average throughput: 95.56 Mbit/s

95th percentile per-packet one-way delay: 34.486 ms

Loss rate: 0.01%

Run 2: Report of Indigo — Data Link

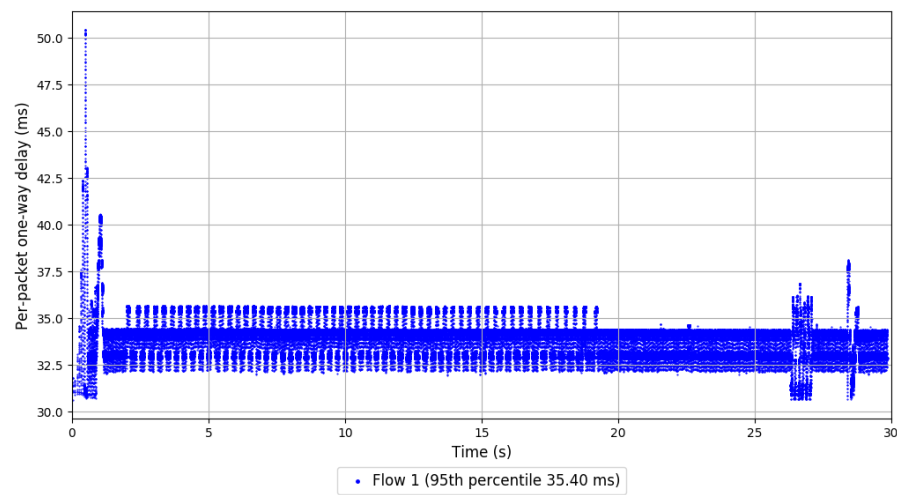
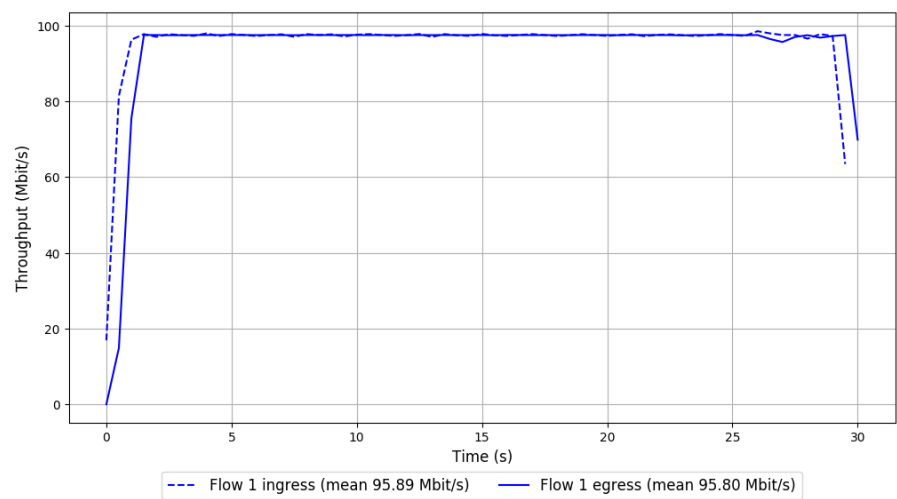


Run 3: Statistics of Indigo

Start at: 2018-09-25 05:50:22
End at: 2018-09-25 05:50:52
Local clock offset: -0.006 ms
Remote clock offset: -3.213 ms

Below is generated by plot.py at 2018-09-25 06:51:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 35.401 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 35.401 ms
Loss rate: 0.09%

Run 3: Report of Indigo — Data Link

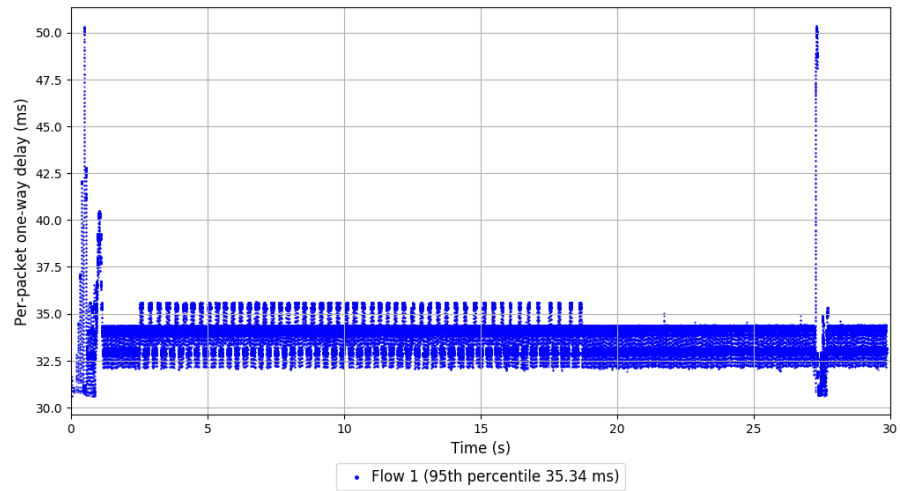
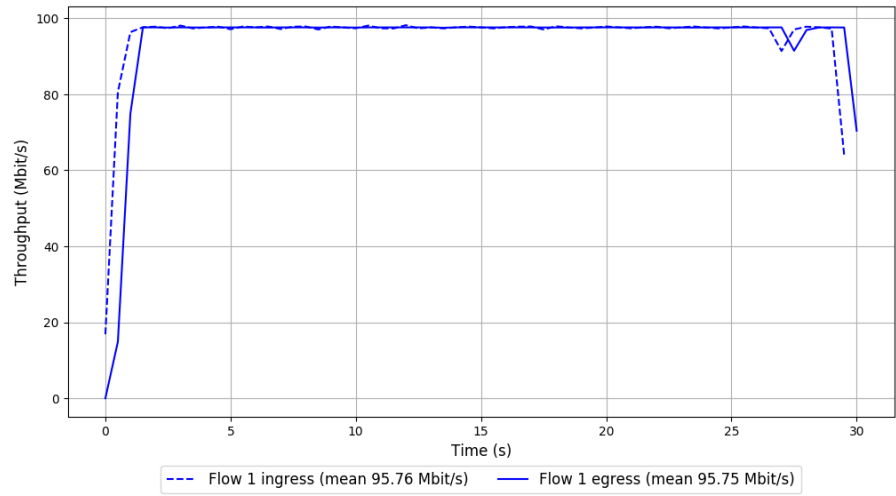


Run 4: Statistics of Indigo

Start at: 2018-09-25 06:15:18
End at: 2018-09-25 06:15:48
Local clock offset: -0.849 ms
Remote clock offset: -3.236 ms

Below is generated by plot.py at 2018-09-25 06:51:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 35.344 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 35.344 ms
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link

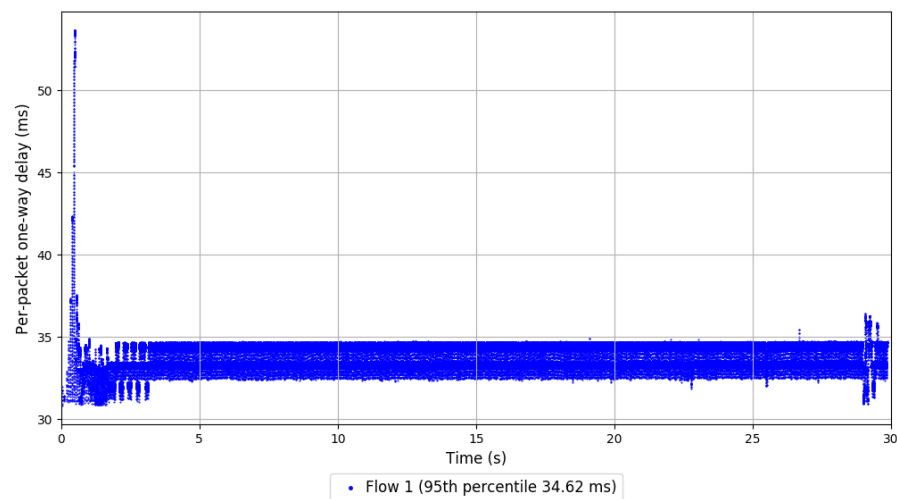
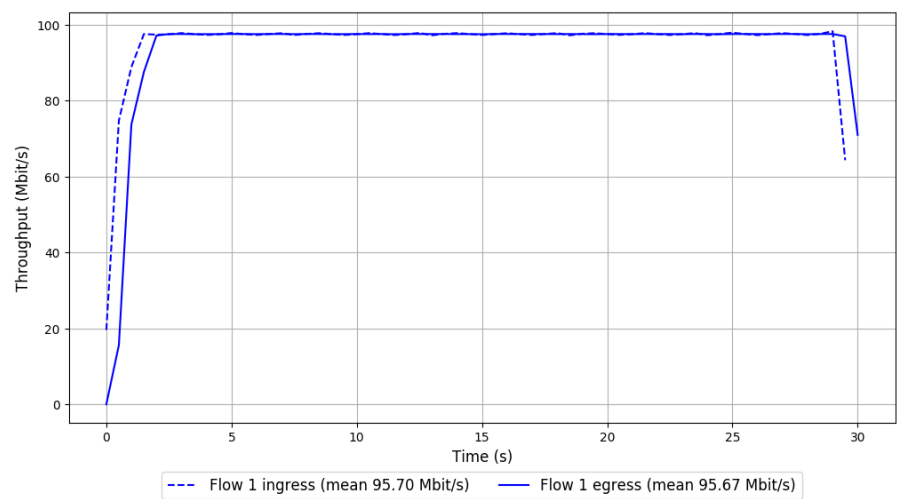


Run 5: Statistics of Indigo

Start at: 2018-09-25 06:40:16
End at: 2018-09-25 06:40:46
Local clock offset: -0.747 ms
Remote clock offset: -2.834 ms

Below is generated by plot.py at 2018-09-25 06:52:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 34.616 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 34.616 ms
Loss rate: 0.02%

Run 5: Report of Indigo — Data Link

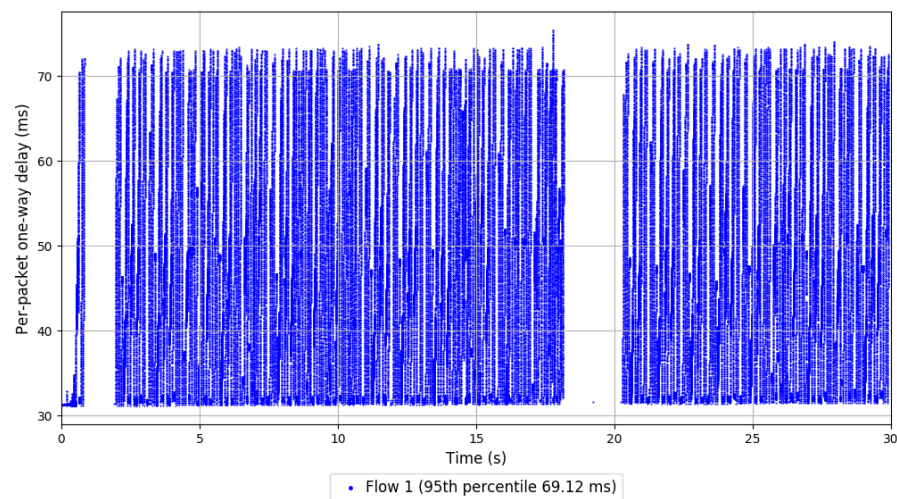
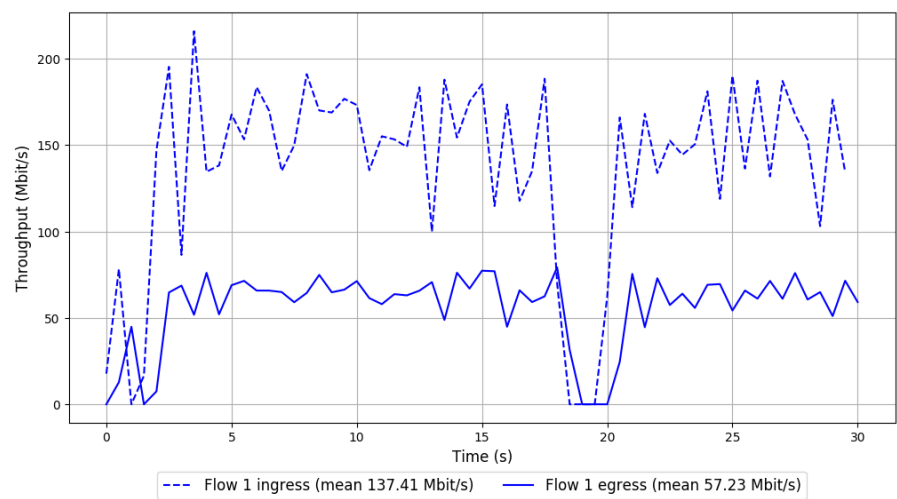


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 04:57:11
End at: 2018-09-25 04:57:41
Local clock offset: -0.47 ms
Remote clock offset: -3.182 ms

Below is generated by plot.py at 2018-09-25 06:52:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 69.118 ms
Loss rate: 58.34%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 69.118 ms
Loss rate: 58.34%

Run 1: Report of Indigo-96d2da3 — Data Link



Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 05:22:31

End at: 2018-09-25 05:23:01

Local clock offset: 2.259 ms

Remote clock offset: -3.23 ms

Below is generated by plot.py at 2018-09-25 06:52:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.25 Mbit/s

95th percentile per-packet one-way delay: 68.527 ms

Loss rate: 57.84%

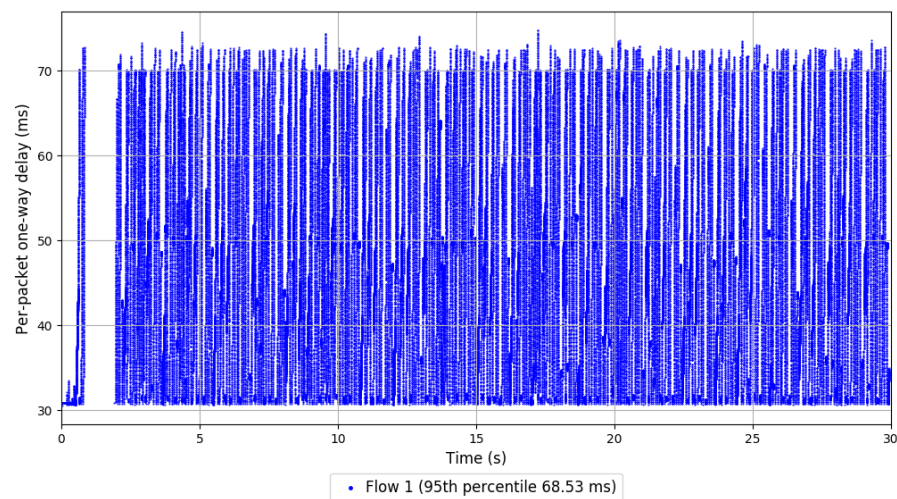
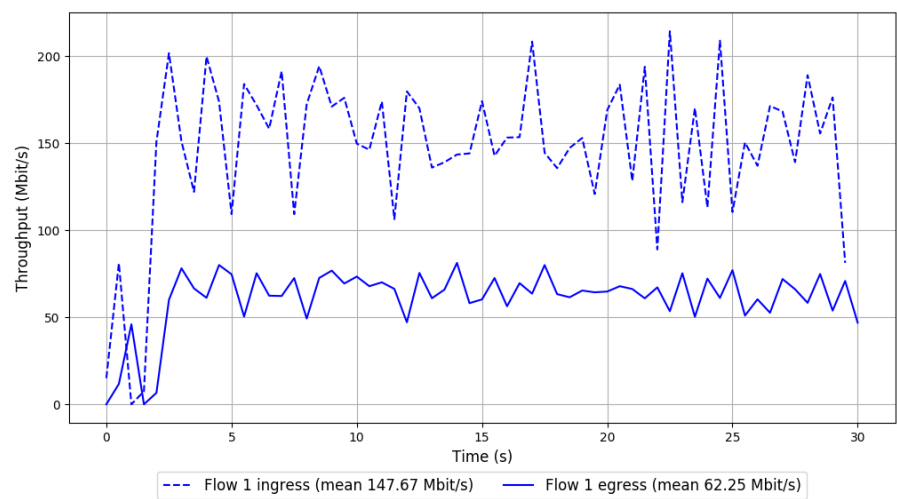
-- Flow 1:

Average throughput: 62.25 Mbit/s

95th percentile per-packet one-way delay: 68.527 ms

Loss rate: 57.84%

Run 2: Report of Indigo-96d2da3 — Data Link



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-25 05:47:45

End at: 2018-09-25 05:48:15

Local clock offset: 0.316 ms

Remote clock offset: -3.09 ms

Below is generated by plot.py at 2018-09-25 06:52:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.28 Mbit/s

95th percentile per-packet one-way delay: 68.420 ms

Loss rate: 58.10%

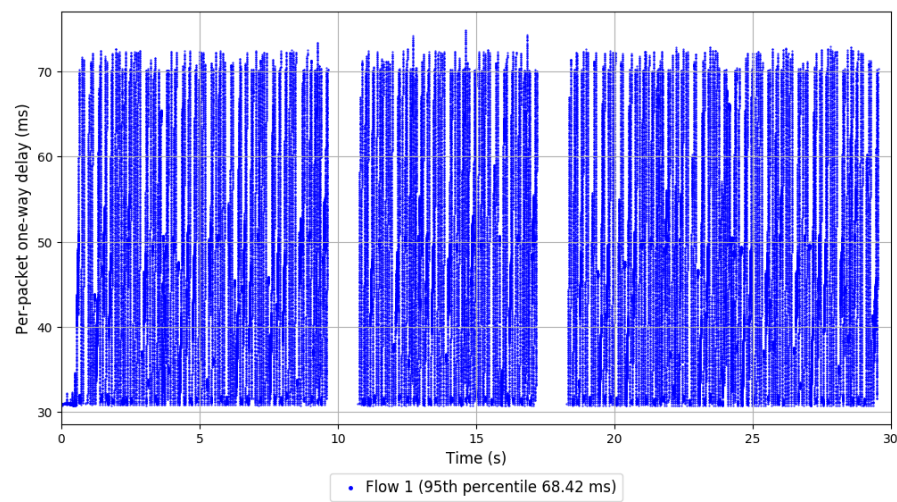
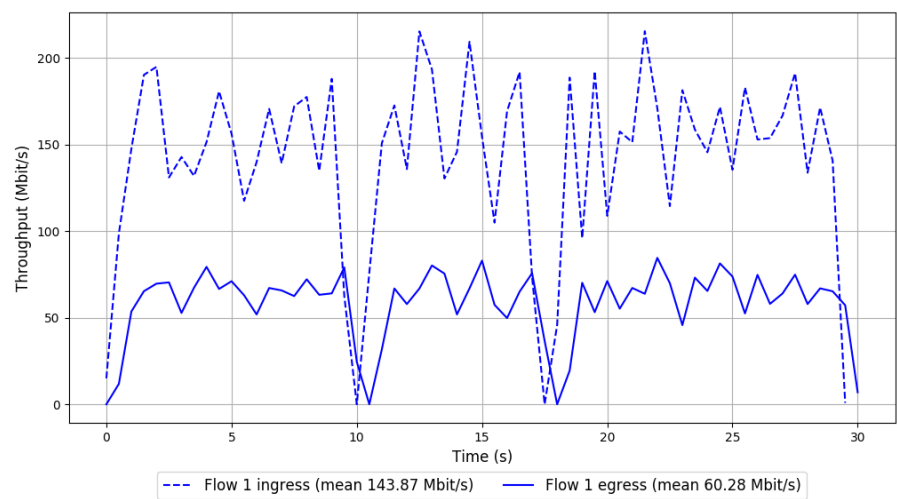
-- Flow 1:

Average throughput: 60.28 Mbit/s

95th percentile per-packet one-way delay: 68.420 ms

Loss rate: 58.10%

Run 3: Report of Indigo-96d2da3 — Data Link

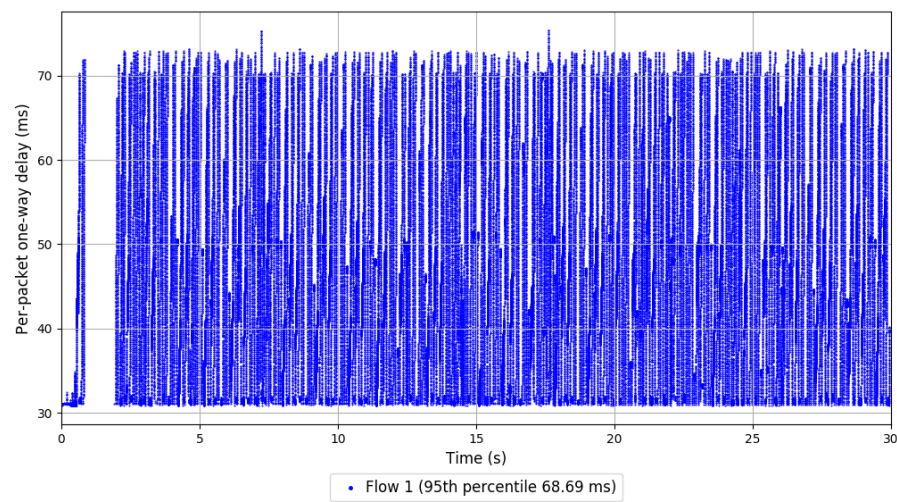
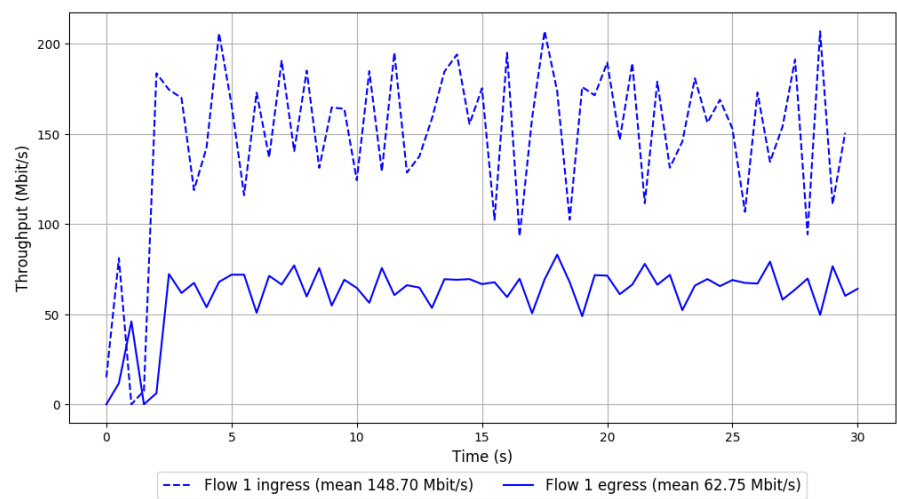


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 06:12:42
End at: 2018-09-25 06:13:12
Local clock offset: -1.136 ms
Remote clock offset: -3.036 ms

Below is generated by plot.py at 2018-09-25 06:52:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 62.75 Mbit/s
95th percentile per-packet one-way delay: 68.687 ms
Loss rate: 57.79%
-- Flow 1:
Average throughput: 62.75 Mbit/s
95th percentile per-packet one-way delay: 68.687 ms
Loss rate: 57.79%

Run 4: Report of Indigo-96d2da3 — Data Link

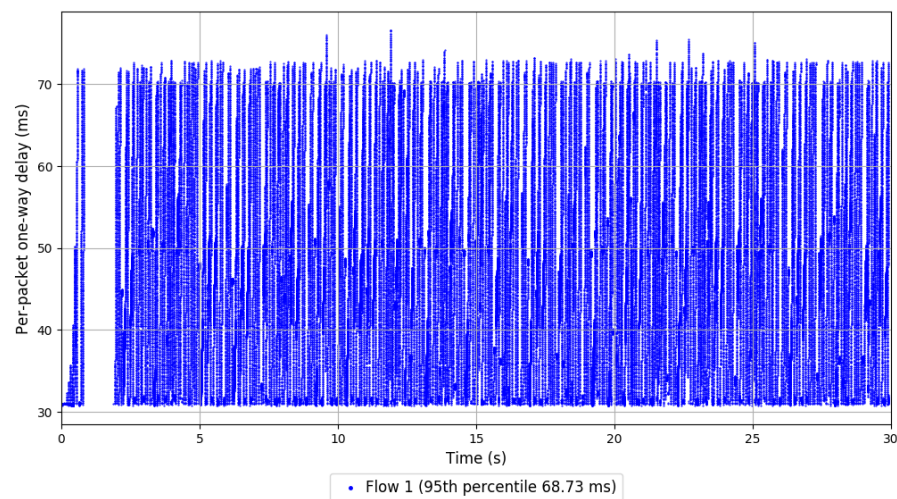
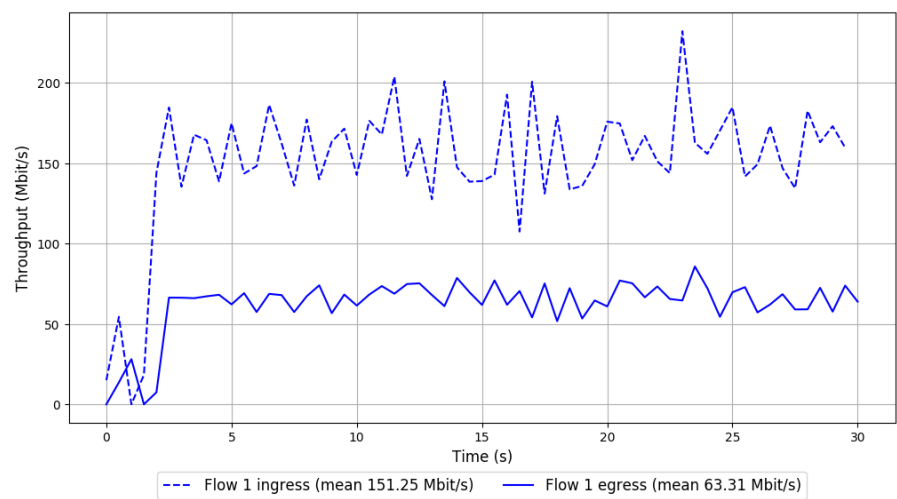


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 06:37:37
End at: 2018-09-25 06:38:07
Local clock offset: -0.752 ms
Remote clock offset: -2.887 ms

Below is generated by plot.py at 2018-09-25 06:52:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.31 Mbit/s
95th percentile per-packet one-way delay: 68.734 ms
Loss rate: 58.14%
-- Flow 1:
Average throughput: 63.31 Mbit/s
95th percentile per-packet one-way delay: 68.734 ms
Loss rate: 58.14%

Run 5: Report of Indigo-96d2da3 — Data Link

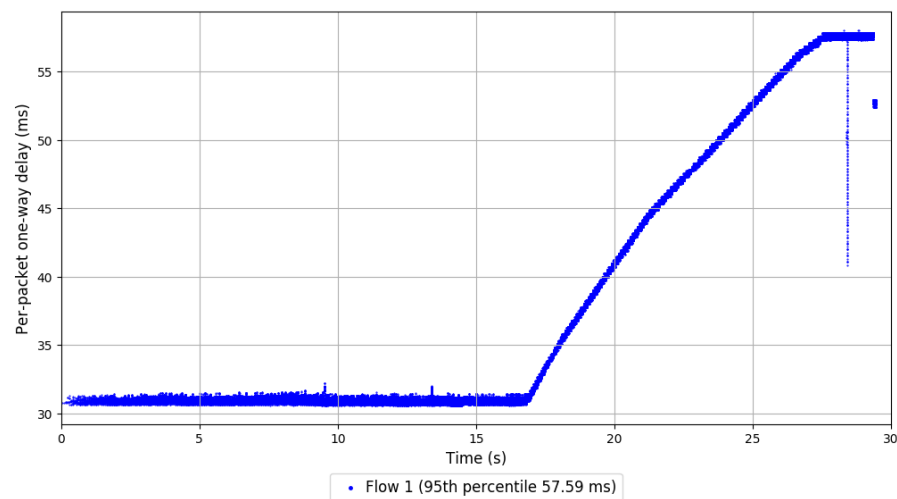
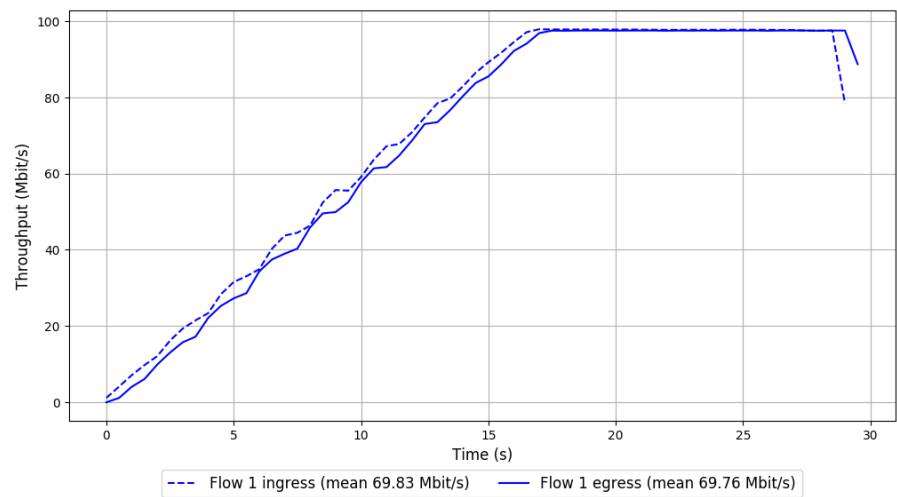


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-25 04:45:30
End at: 2018-09-25 04:46:00
Local clock offset: -0.524 ms
Remote clock offset: -3.22 ms

# Below is generated by plot.py at 2018-09-25 06:52:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.76 Mbit/s
95th percentile per-packet one-way delay: 57.592 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 69.76 Mbit/s
95th percentile per-packet one-way delay: 57.592 ms
Loss rate: 0.02%
```

Run 1: Report of LEDBAT — Data Link

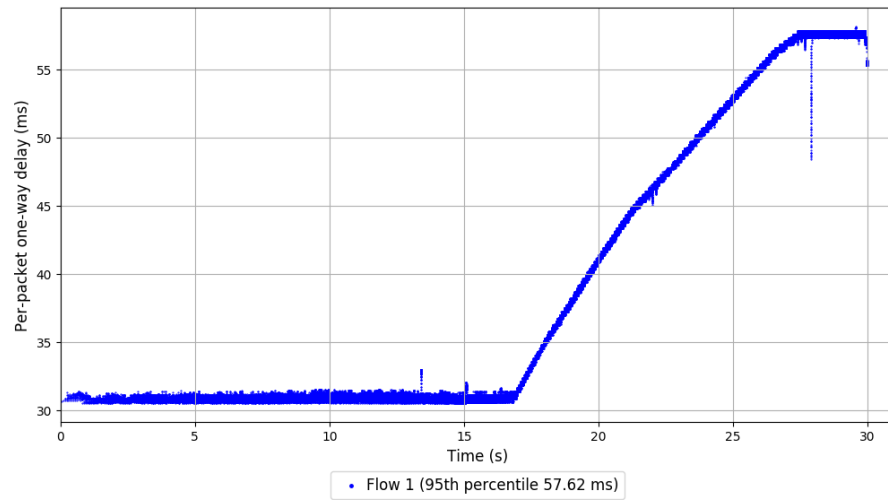
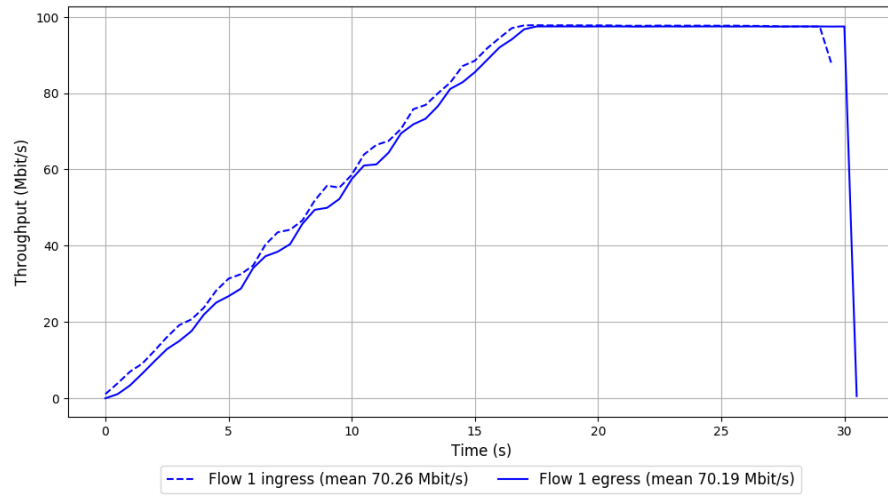


Run 2: Statistics of LEDBAT

Start at: 2018-09-25 05:10:46
End at: 2018-09-25 05:11:16
Local clock offset: 2.121 ms
Remote clock offset: -3.435 ms

Below is generated by plot.py at 2018-09-25 06:52:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.19 Mbit/s
95th percentile per-packet one-way delay: 57.620 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 70.19 Mbit/s
95th percentile per-packet one-way delay: 57.620 ms
Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link

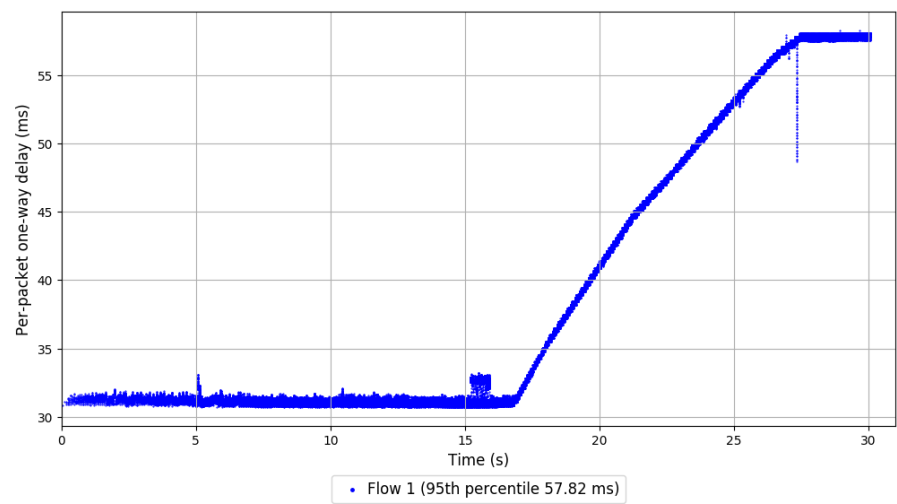
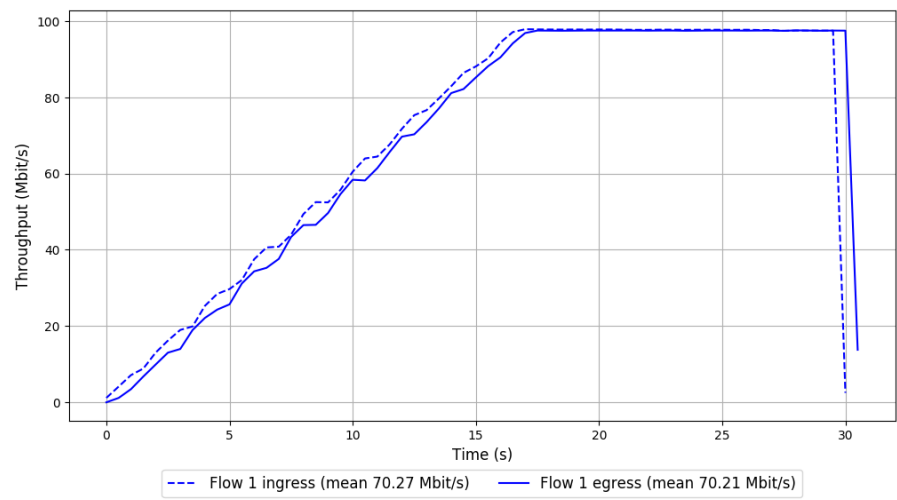


Run 3: Statistics of LEDBAT

Start at: 2018-09-25 05:36:02
End at: 2018-09-25 05:36:32
Local clock offset: 1.825 ms
Remote clock offset: -3.241 ms

Below is generated by plot.py at 2018-09-25 06:53:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.21 Mbit/s
95th percentile per-packet one-way delay: 57.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.21 Mbit/s
95th percentile per-packet one-way delay: 57.817 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

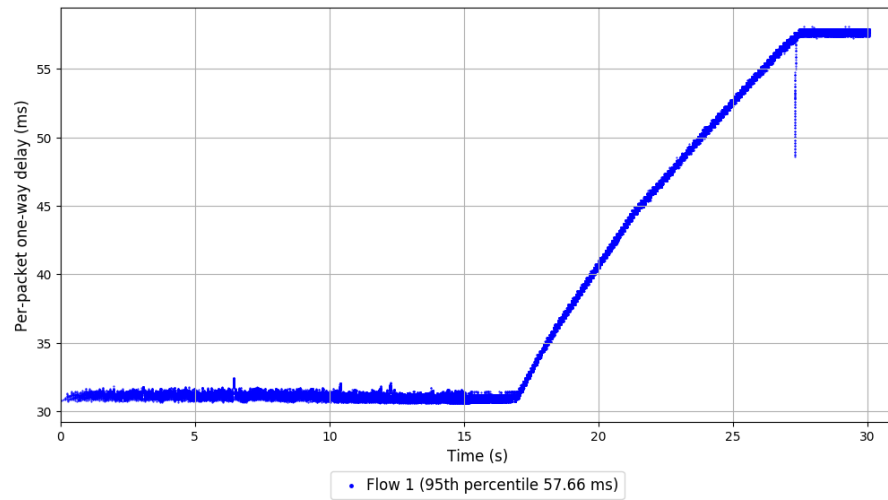
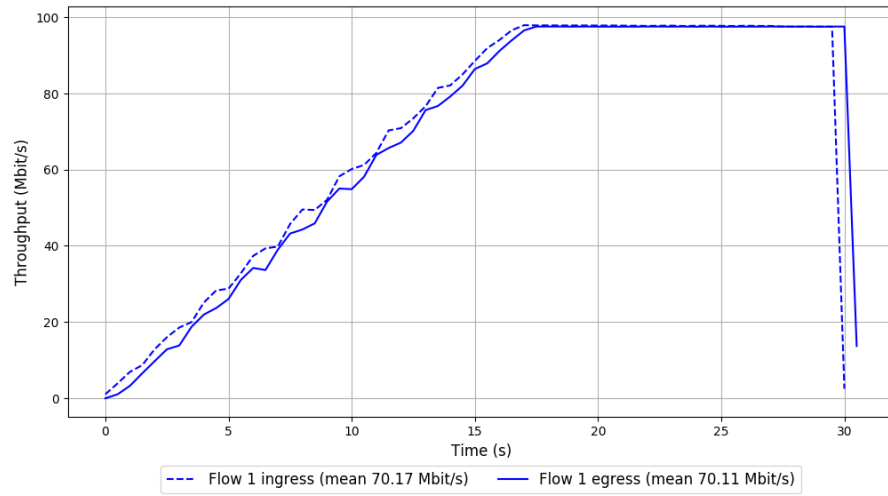


Run 4: Statistics of LEDBAT

Start at: 2018-09-25 06:01:00
End at: 2018-09-25 06:01:30
Local clock offset: -0.923 ms
Remote clock offset: -3.198 ms

Below is generated by plot.py at 2018-09-25 06:53:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 57.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 57.655 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

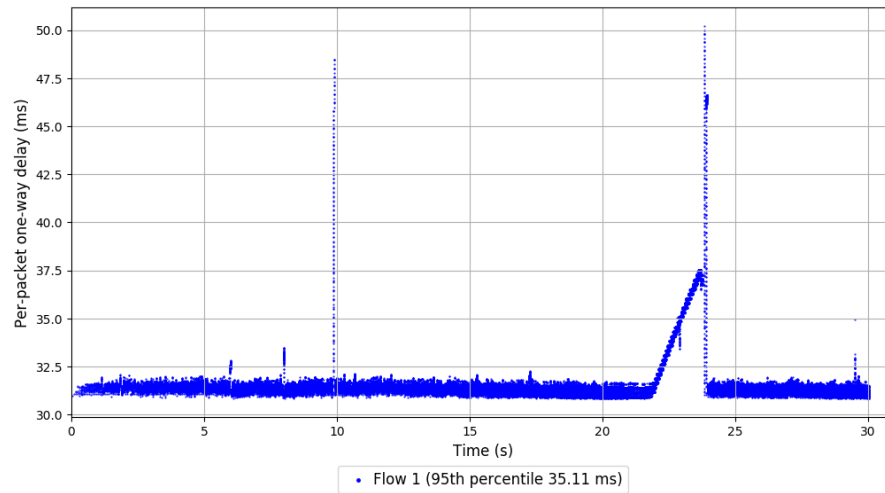
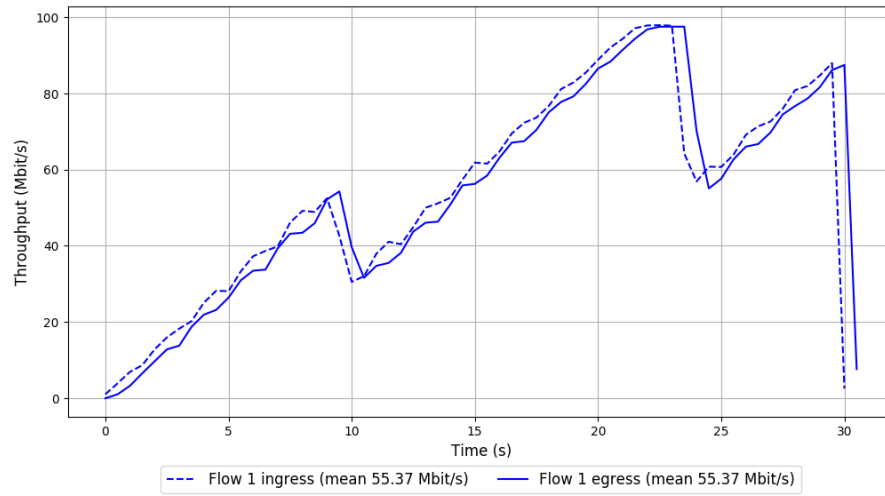


Run 5: Statistics of LEDBAT

Start at: 2018-09-25 06:25:53
End at: 2018-09-25 06:26:23
Local clock offset: -0.552 ms
Remote clock offset: -2.902 ms

Below is generated by plot.py at 2018-09-25 06:53:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 35.108 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 55.37 Mbit/s
95th percentile per-packet one-way delay: 35.108 ms
Loss rate: 0.01%

Run 5: Report of LEDBAT — Data Link

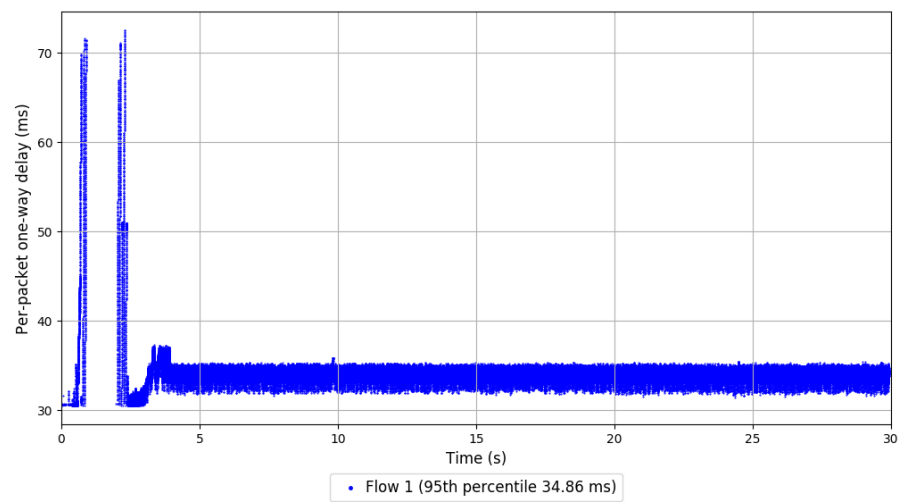
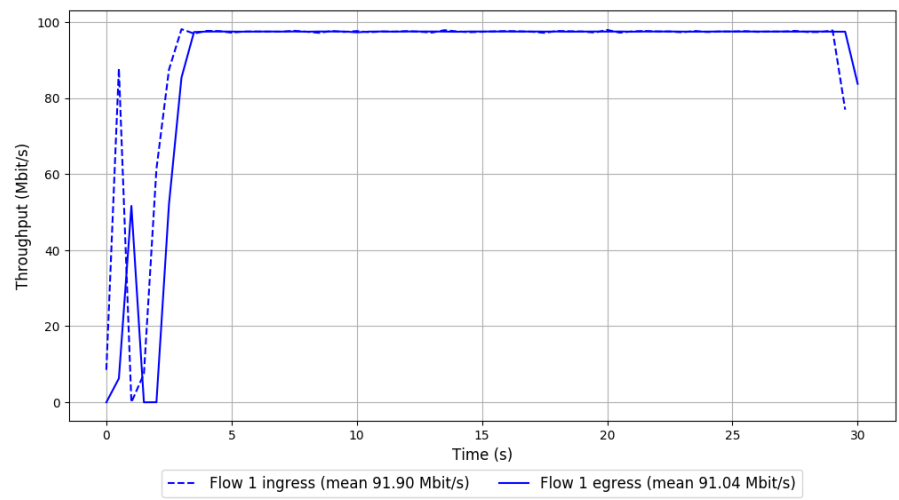



```
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 04:44:11
End at: 2018-09-25 04:44:41
Local clock offset: -0.418 ms
Remote clock offset: -3.427 ms

# Below is generated by plot.py at 2018-09-25 06:53:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 34.859 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 91.04 Mbit/s
95th percentile per-packet one-way delay: 34.859 ms
Loss rate: 0.93%
```

Run 1: Report of Indigo-Muses — Data Link

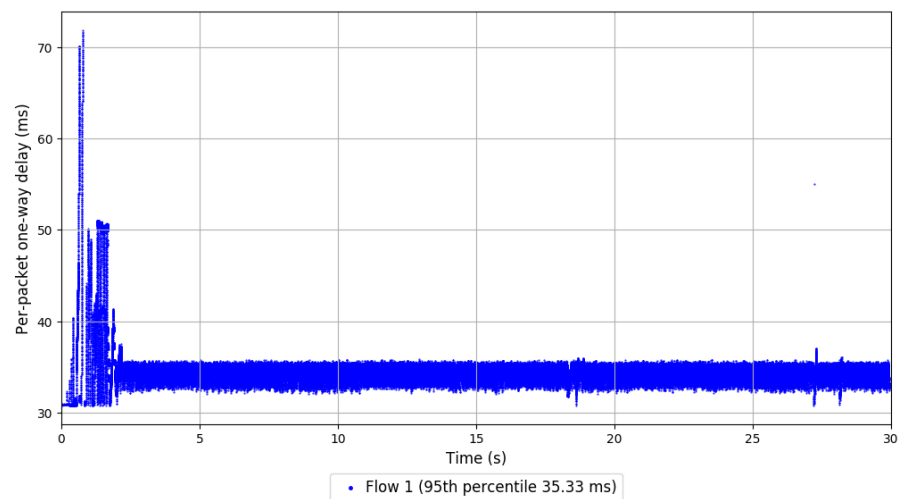
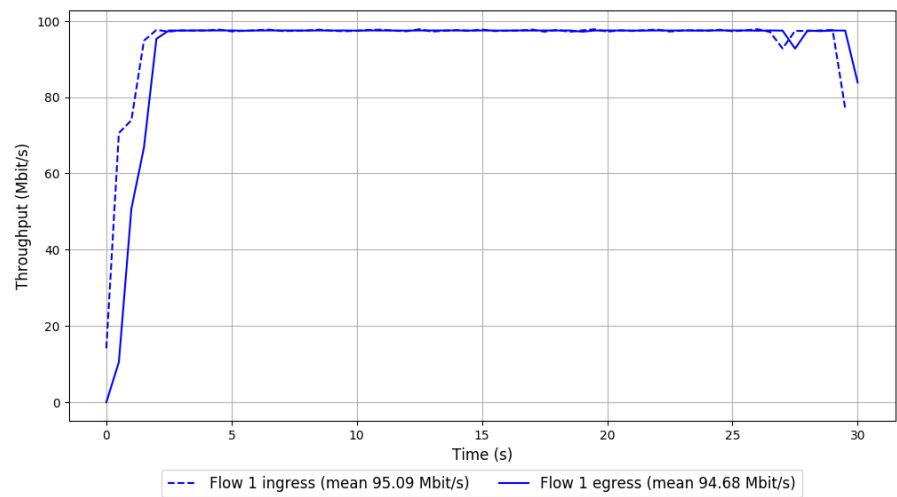


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 05:09:25
End at: 2018-09-25 05:09:55
Local clock offset: 2.07 ms
Remote clock offset: -3.236 ms

Below is generated by plot.py at 2018-09-25 06:53:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.68 Mbit/s
95th percentile per-packet one-way delay: 35.330 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 94.68 Mbit/s
95th percentile per-packet one-way delay: 35.330 ms
Loss rate: 0.42%

Run 2: Report of Indigo-Muses — Data Link

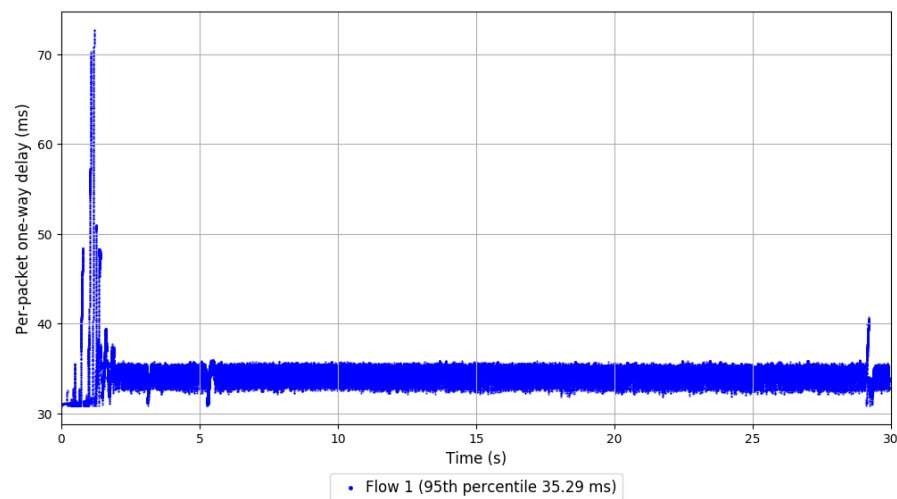
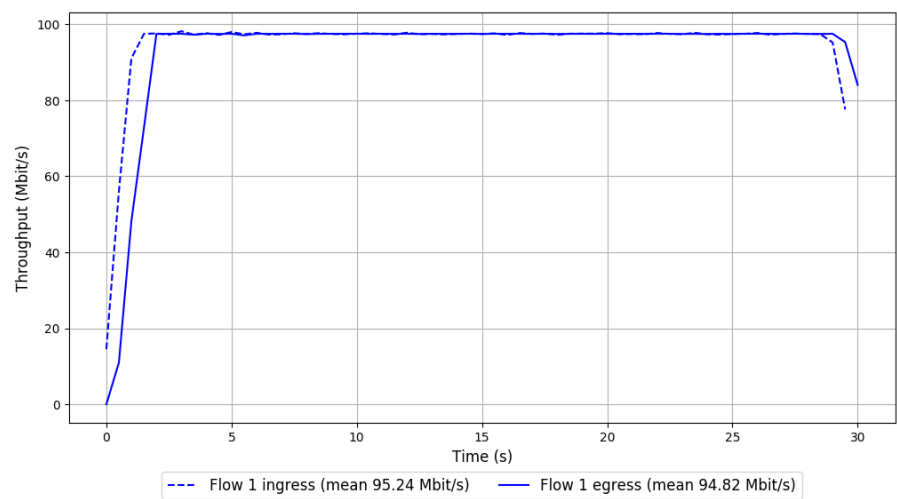


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 05:34:43
End at: 2018-09-25 05:35:13
Local clock offset: 1.904 ms
Remote clock offset: -3.111 ms

Below is generated by plot.py at 2018-09-25 06:53:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.82 Mbit/s
95th percentile per-packet one-way delay: 35.288 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 94.82 Mbit/s
95th percentile per-packet one-way delay: 35.288 ms
Loss rate: 0.43%

Run 3: Report of Indigo-Muses — Data Link

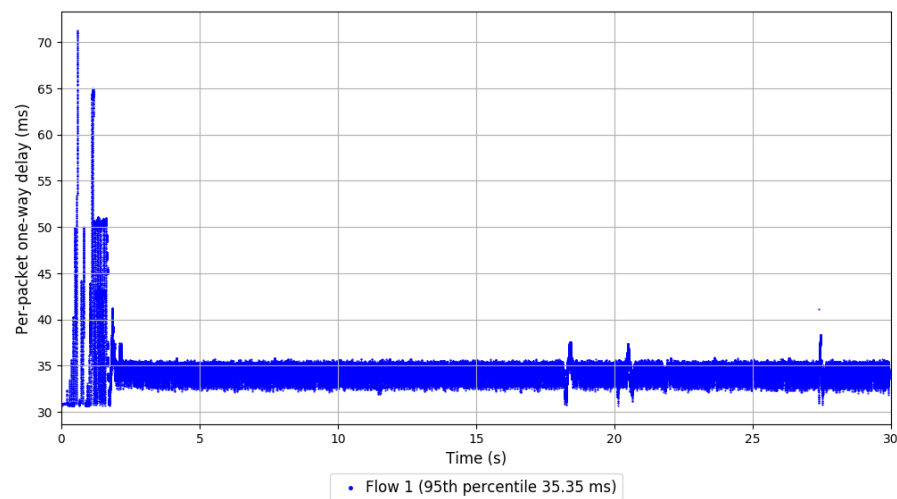
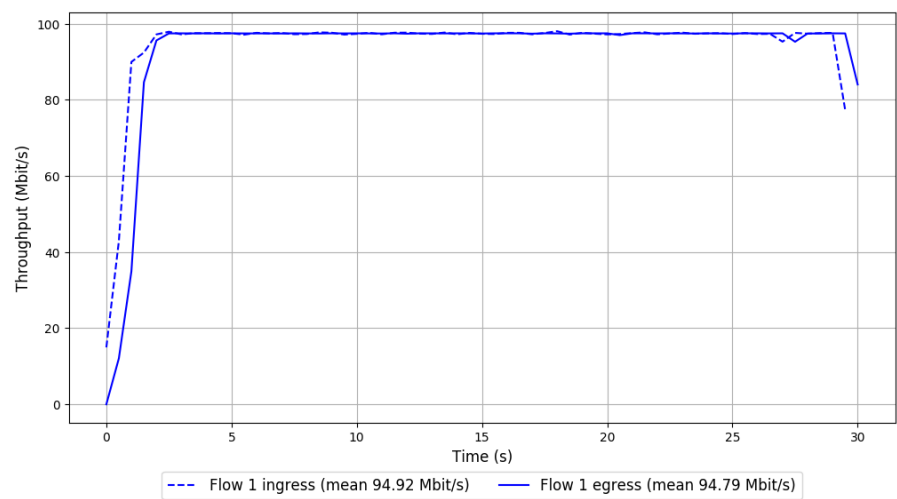


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 05:59:40
End at: 2018-09-25 06:00:10
Local clock offset: -0.839 ms
Remote clock offset: -3.129 ms

Below is generated by plot.py at 2018-09-25 06:53:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 35.347 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 35.347 ms
Loss rate: 0.12%

Run 4: Report of Indigo-Muses — Data Link

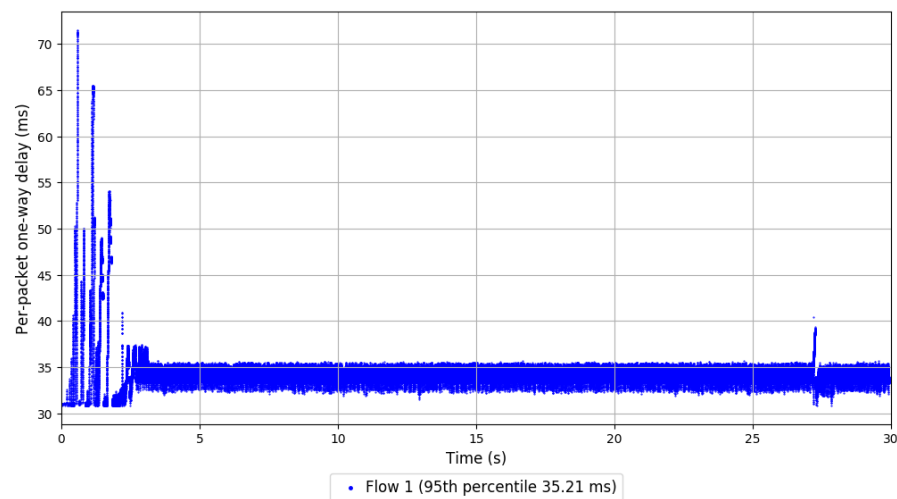
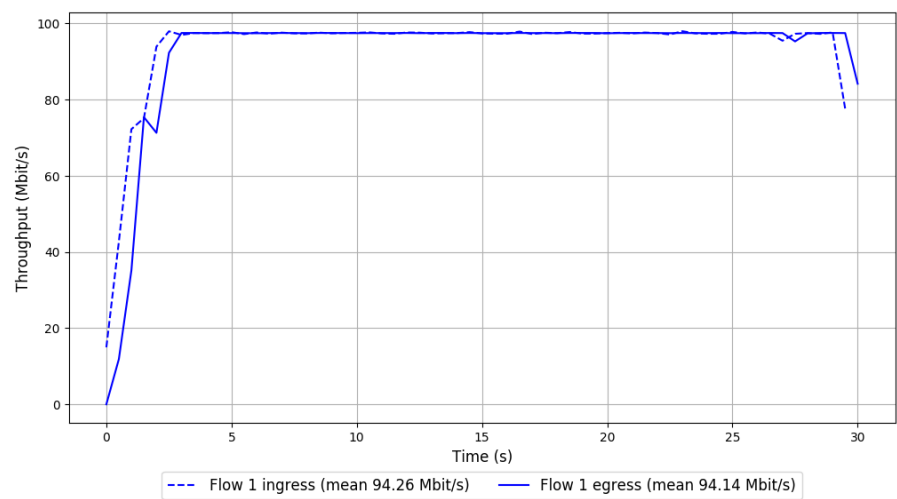


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 06:24:33
End at: 2018-09-25 06:25:03
Local clock offset: -0.559 ms
Remote clock offset: -2.963 ms

Below is generated by plot.py at 2018-09-25 06:53:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 35.212 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 94.14 Mbit/s
95th percentile per-packet one-way delay: 35.212 ms
Loss rate: 0.11%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 05:01:17

End at: 2018-09-25 05:01:47

Local clock offset: 1.377 ms

Remote clock offset: -3.232 ms

Below is generated by plot.py at 2018-09-25 06:54:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.65 Mbit/s

95th percentile per-packet one-way delay: 37.050 ms

Loss rate: 0.73%

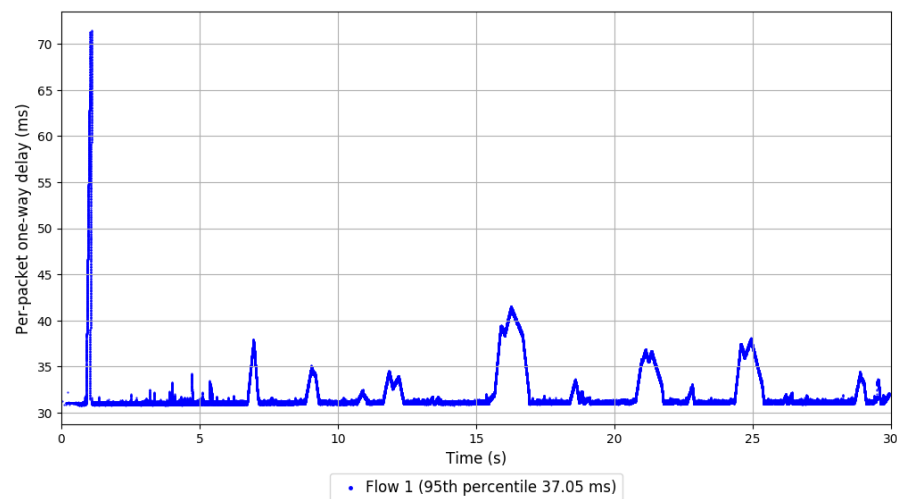
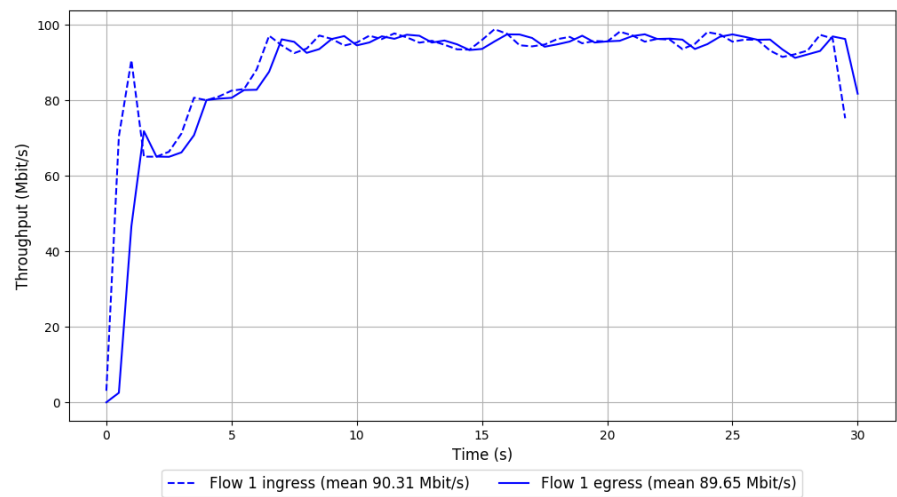
-- Flow 1:

Average throughput: 89.65 Mbit/s

95th percentile per-packet one-way delay: 37.050 ms

Loss rate: 0.73%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 05:26:31

End at: 2018-09-25 05:27:01

Local clock offset: 2.135 ms

Remote clock offset: -3.217 ms

Below is generated by plot.py at 2018-09-25 06:54:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 33.325 ms

Loss rate: 0.68%

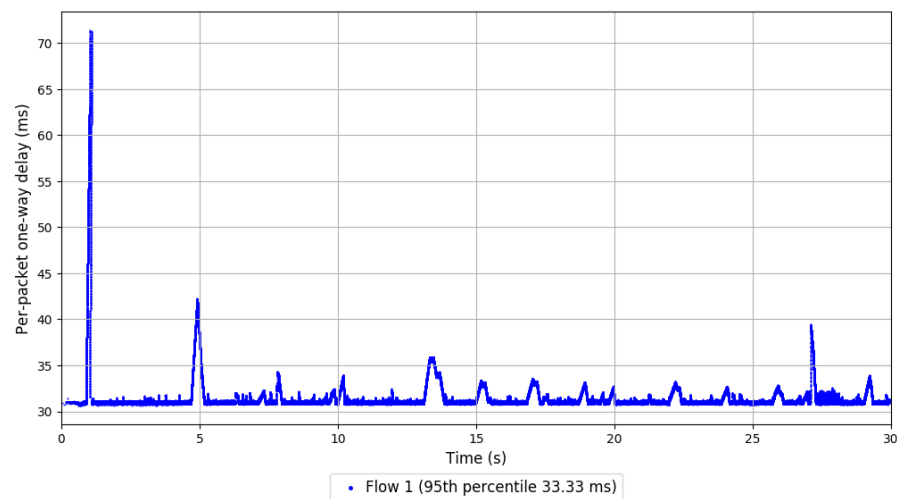
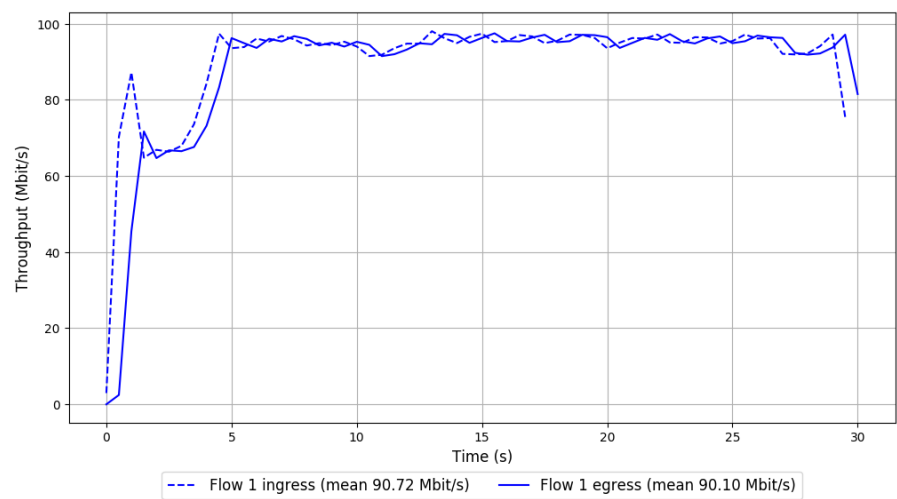
-- Flow 1:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 33.325 ms

Loss rate: 0.68%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 05:51:43

End at: 2018-09-25 05:52:13

Local clock offset: -0.145 ms

Remote clock offset: -3.217 ms

Below is generated by plot.py at 2018-09-25 06:54:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.61 Mbit/s

95th percentile per-packet one-way delay: 35.597 ms

Loss rate: 0.71%

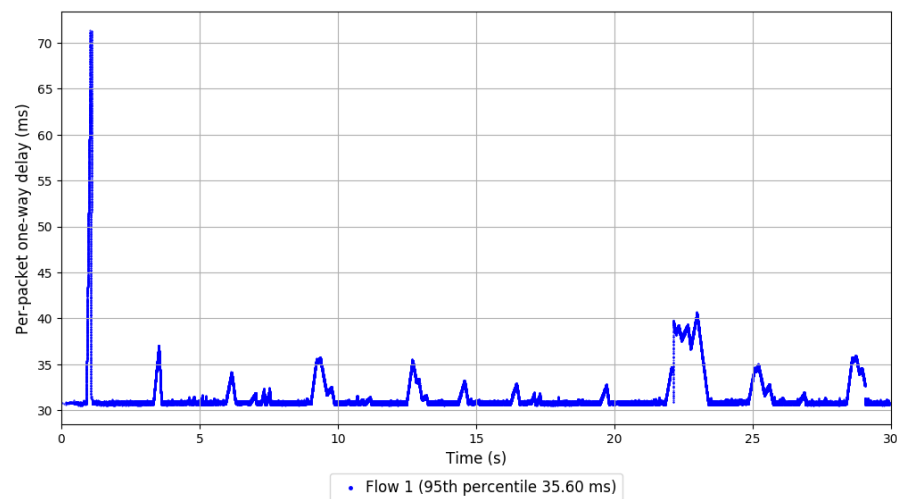
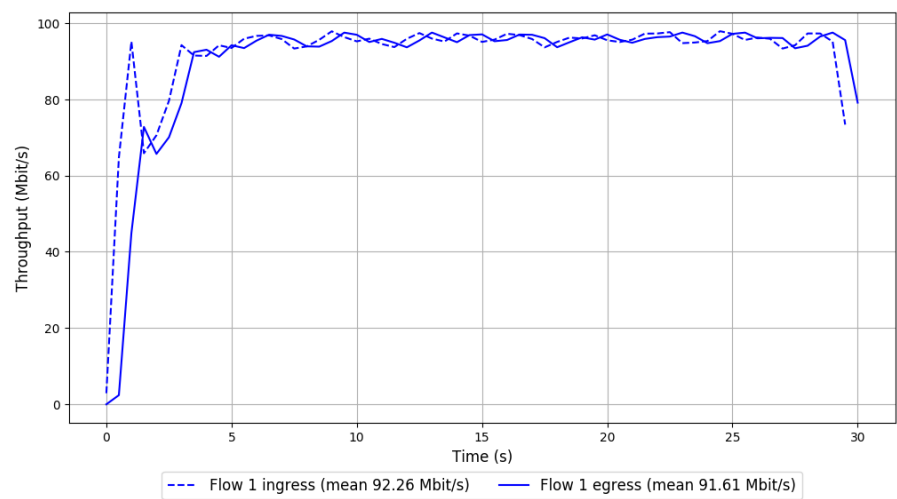
-- Flow 1:

Average throughput: 91.61 Mbit/s

95th percentile per-packet one-way delay: 35.597 ms

Loss rate: 0.71%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 06:16:38

End at: 2018-09-25 06:17:09

Local clock offset: -0.754 ms

Remote clock offset: -3.254 ms

Below is generated by plot.py at 2018-09-25 06:54:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 35.275 ms

Loss rate: 0.73%

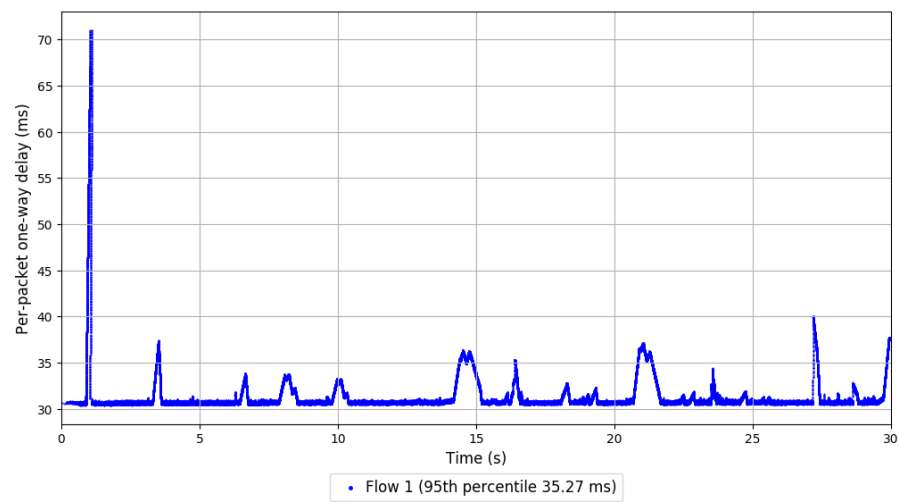
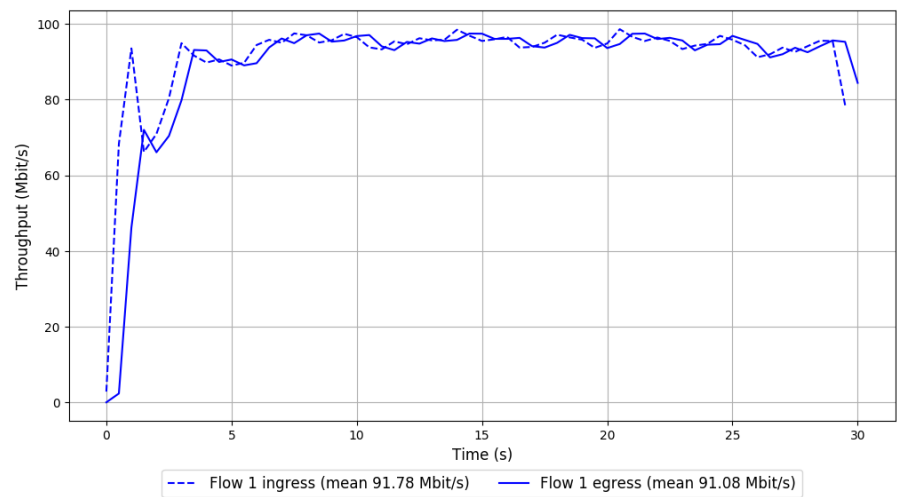
-- Flow 1:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 35.275 ms

Loss rate: 0.73%

Run 4: Report of PCC-Allegro — Data Link

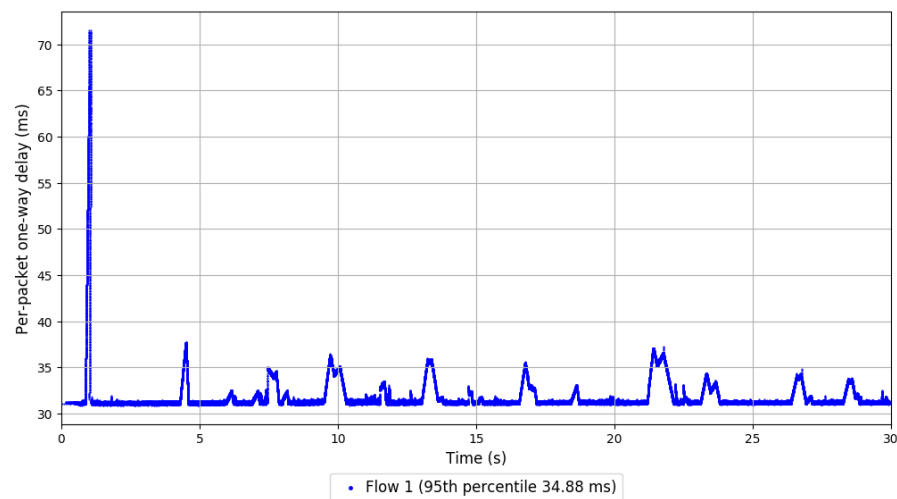
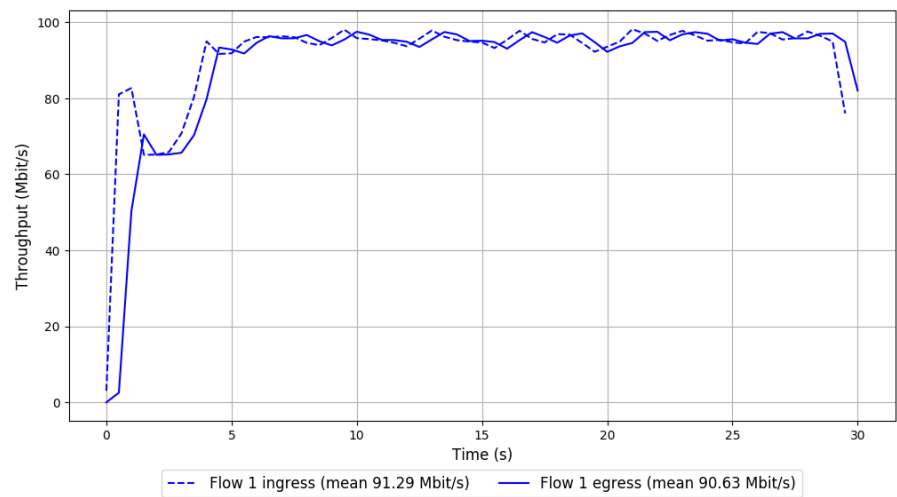


Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 06:41:41
End at: 2018-09-25 06:42:11
Local clock offset: -0.642 ms
Remote clock offset: -2.697 ms

Below is generated by plot.py at 2018-09-25 06:55:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 34.883 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 34.883 ms
Loss rate: 0.72%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-09-25 04:54:33
End at: 2018-09-25 04:55:03
Local clock offset: -1.09 ms
Remote clock offset: -3.193 ms

Below is generated by plot.py at 2018-09-25 06:55:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.99 Mbit/s

95th percentile per-packet one-way delay: 30.860 ms

Loss rate: 41.11%

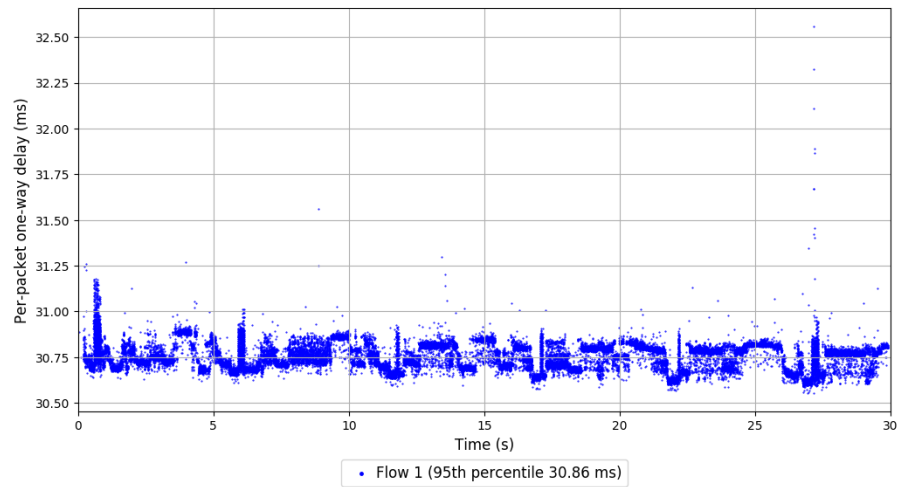
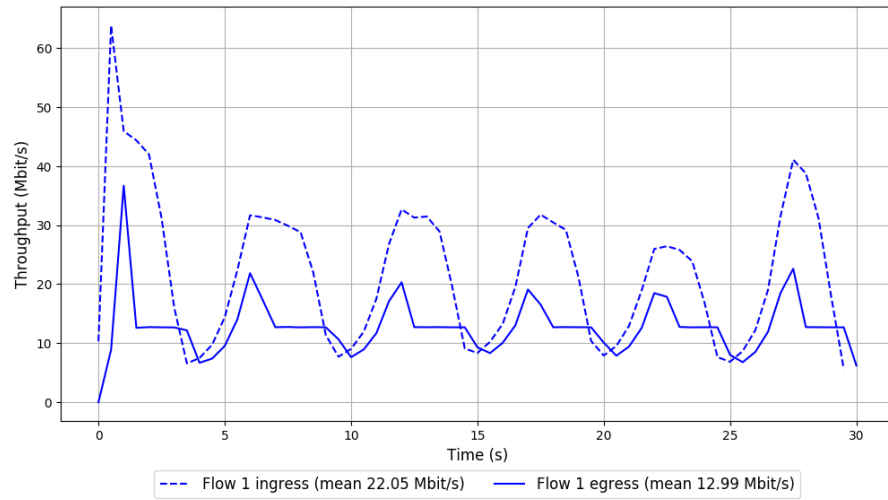
-- Flow 1:

Average throughput: 12.99 Mbit/s

95th percentile per-packet one-way delay: 30.860 ms

Loss rate: 41.11%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-09-25 05:19:53

End at: 2018-09-25 05:20:23

Local clock offset: 2.272 ms

Remote clock offset: -3.26 ms

Below is generated by plot.py at 2018-09-25 06:55:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 30.924 ms

Loss rate: 39.08%

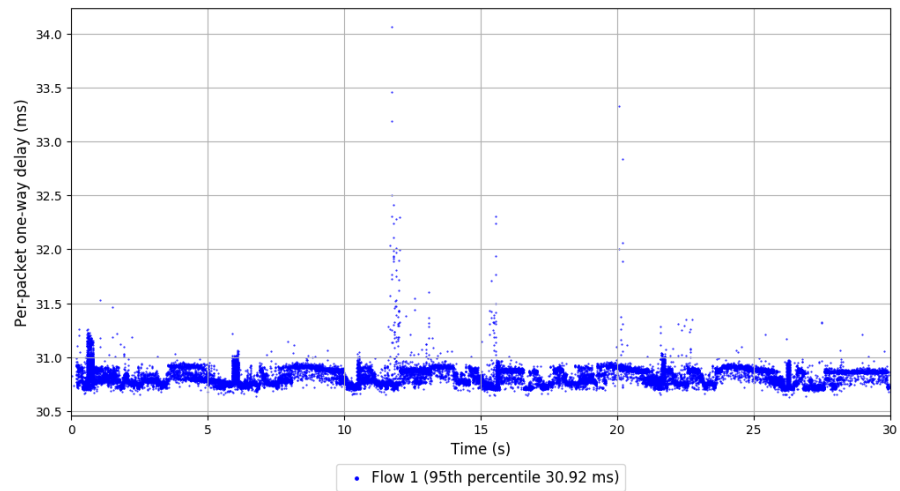
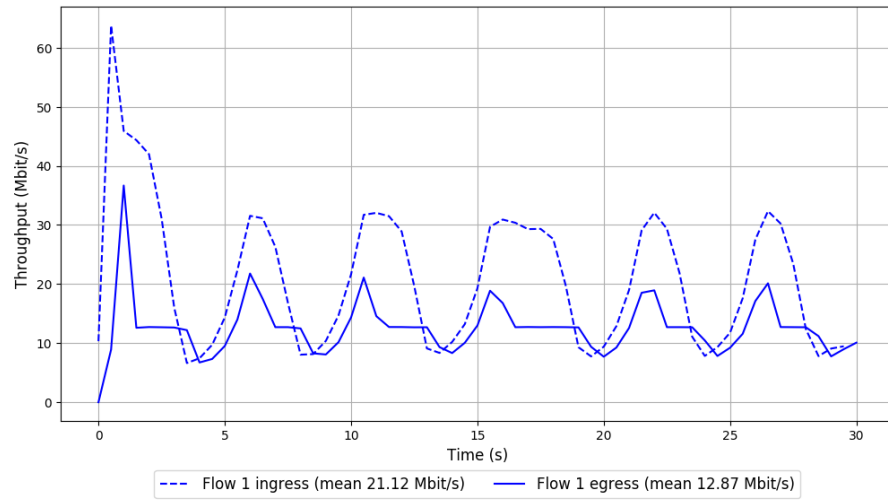
-- Flow 1:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 30.924 ms

Loss rate: 39.08%

Run 2: Report of PCC-Expr — Data Link

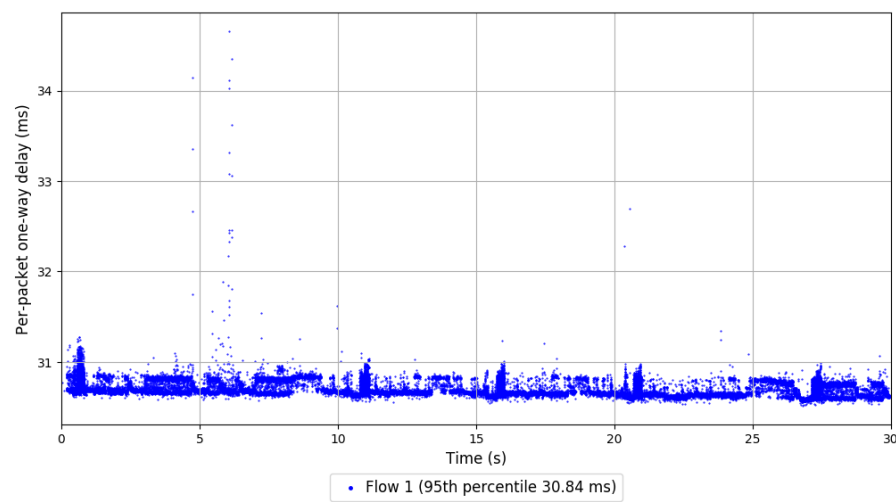
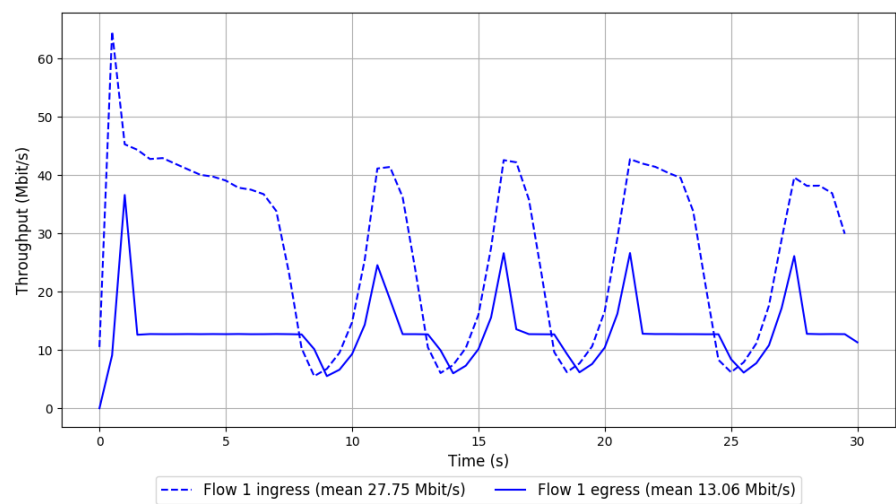


Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 05:45:06
End at: 2018-09-25 05:45:36
Local clock offset: 0.71 ms
Remote clock offset: -3.204 ms

Below is generated by plot.py at 2018-09-25 06:55:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.845 ms
Loss rate: 52.93%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.845 ms
Loss rate: 52.93%

Run 3: Report of PCC-Expr — Data Link

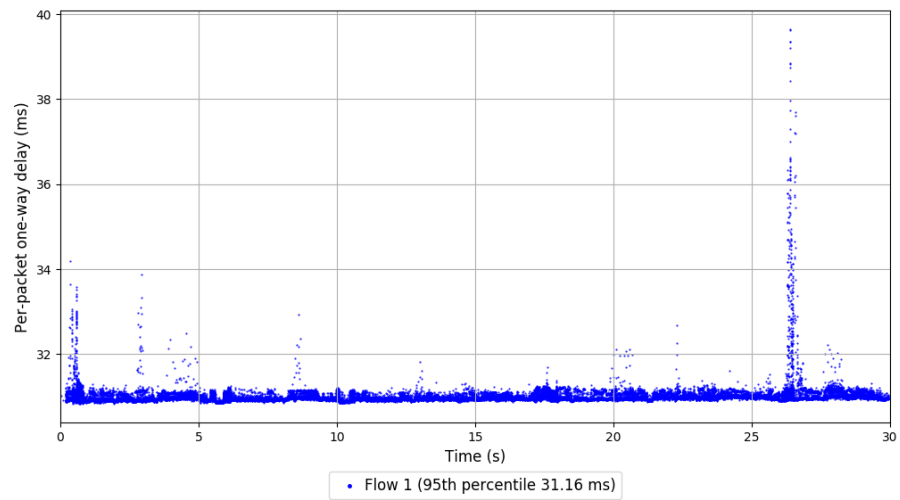
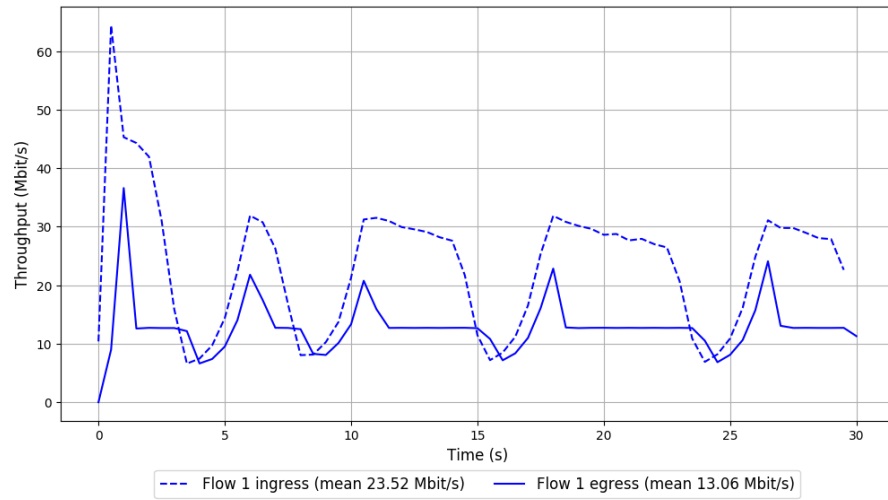


Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 06:10:05
End at: 2018-09-25 06:10:35
Local clock offset: -1.467 ms
Remote clock offset: -3.057 ms

Below is generated by plot.py at 2018-09-25 06:55:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.163 ms
Loss rate: 44.47%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.163 ms
Loss rate: 44.47%

Run 4: Report of PCC-Expr — Data Link

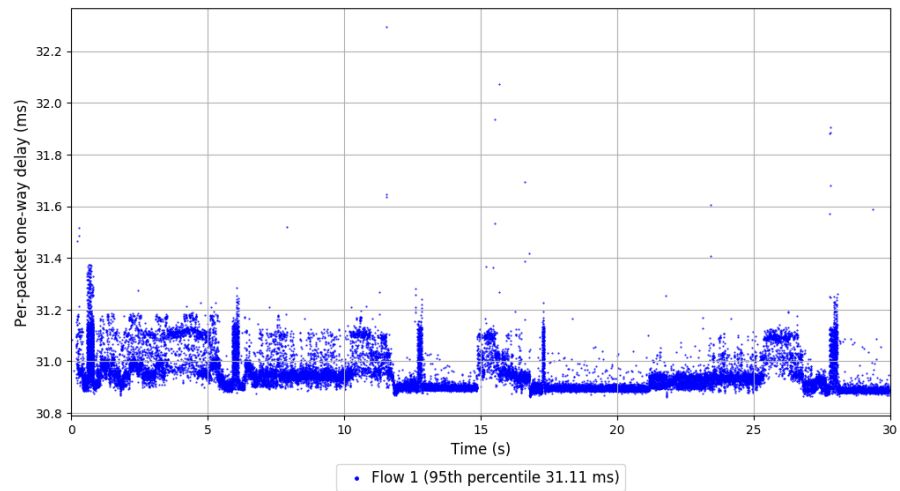
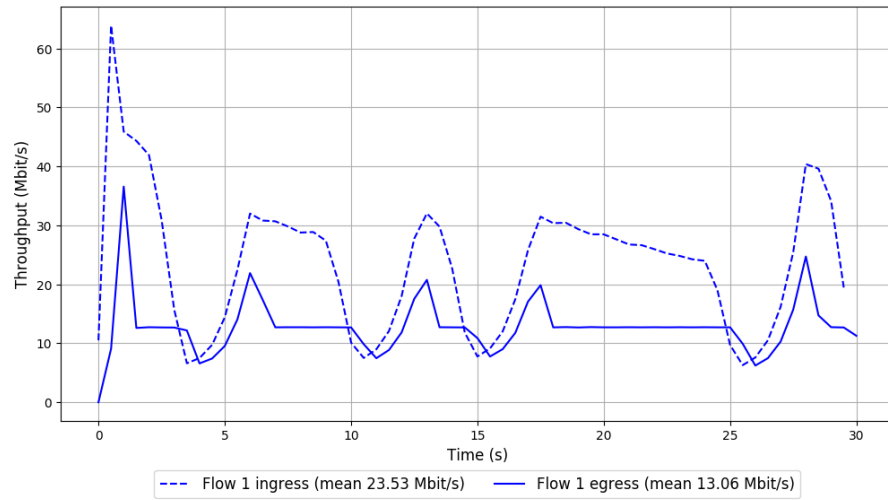


Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 06:34:55
End at: 2018-09-25 06:35:25
Local clock offset: -0.682 ms
Remote clock offset: -2.754 ms

Below is generated by plot.py at 2018-09-25 06:55:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.108 ms
Loss rate: 44.49%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.108 ms
Loss rate: 44.49%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 04:48:06

End at: 2018-09-25 04:48:36

Local clock offset: -0.862 ms

Remote clock offset: -3.384 ms

Below is generated by plot.py at 2018-09-25 06:55:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.88 Mbit/s

95th percentile per-packet one-way delay: 67.849 ms

Loss rate: 1.26%

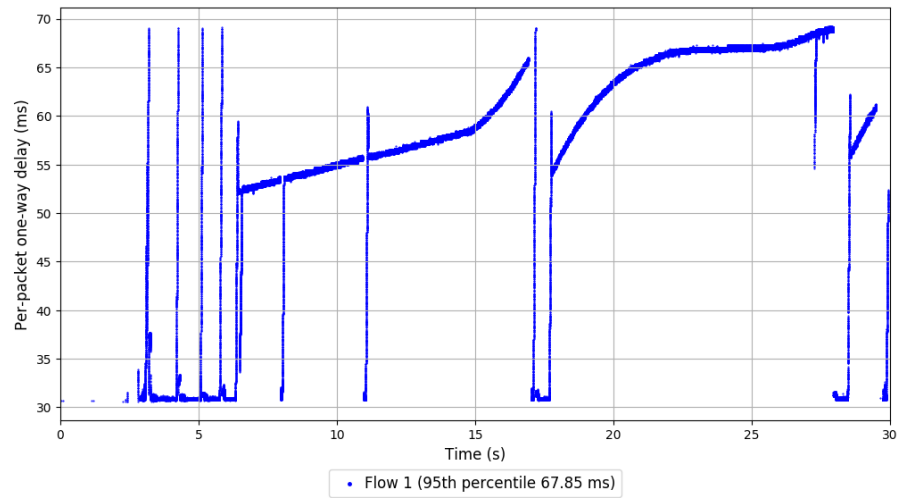
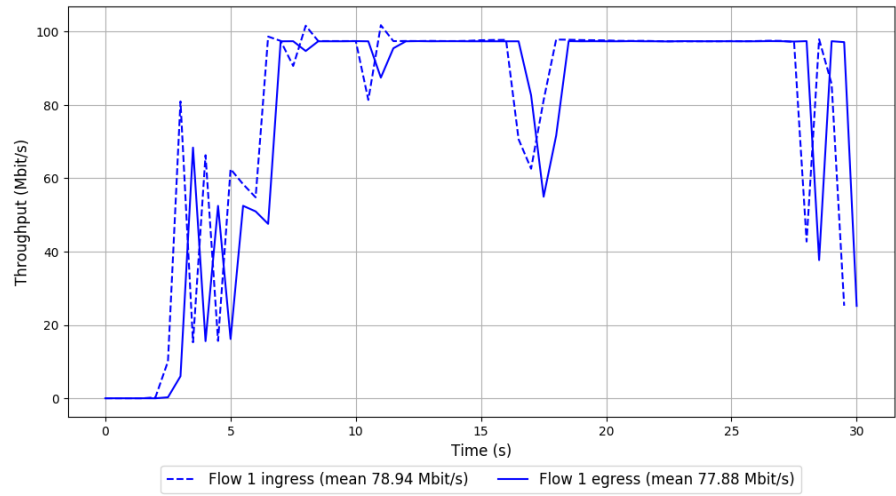
-- Flow 1:

Average throughput: 77.88 Mbit/s

95th percentile per-packet one-way delay: 67.849 ms

Loss rate: 1.26%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 05:13:23

End at: 2018-09-25 05:13:53

Local clock offset: 2.226 ms

Remote clock offset: -3.432 ms

Below is generated by plot.py at 2018-09-25 06:55:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.61 Mbit/s

95th percentile per-packet one-way delay: 67.492 ms

Loss rate: 1.74%

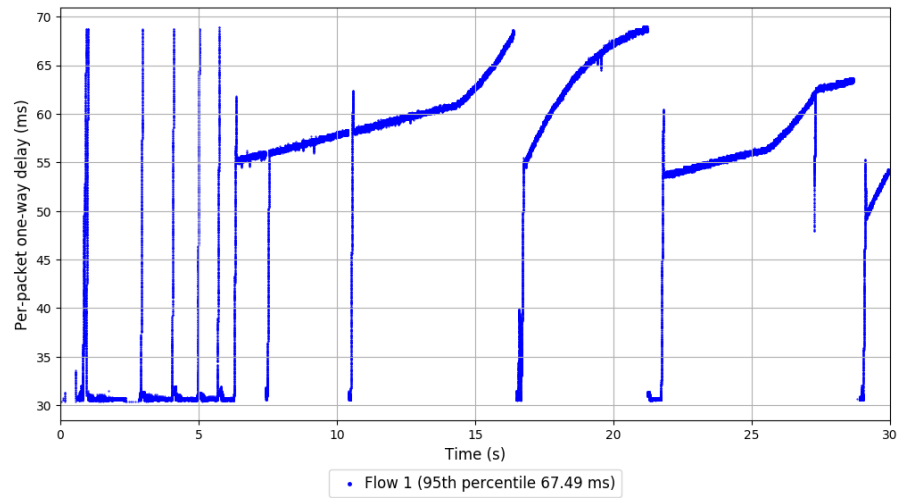
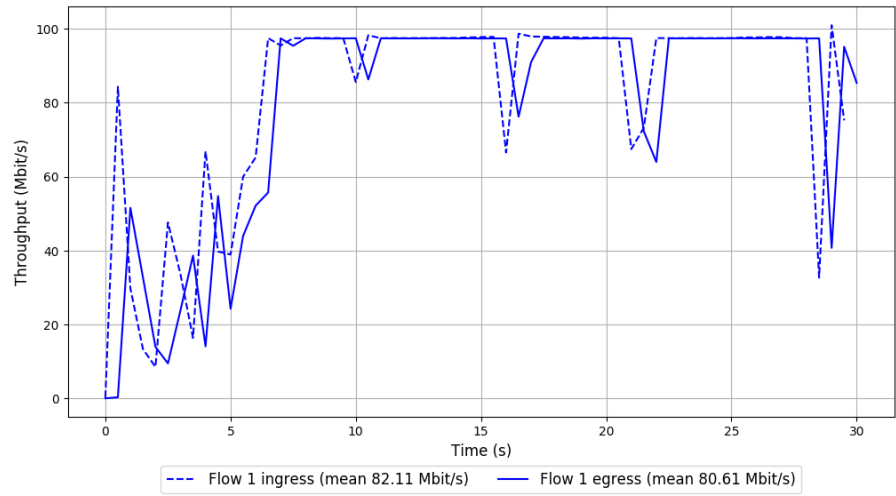
-- Flow 1:

Average throughput: 80.61 Mbit/s

95th percentile per-packet one-way delay: 67.492 ms

Loss rate: 1.74%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 05:38:38

End at: 2018-09-25 05:39:08

Local clock offset: 1.748 ms

Remote clock offset: -3.28 ms

Below is generated by plot.py at 2018-09-25 06:55:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.57 Mbit/s

95th percentile per-packet one-way delay: 66.271 ms

Loss rate: 0.97%

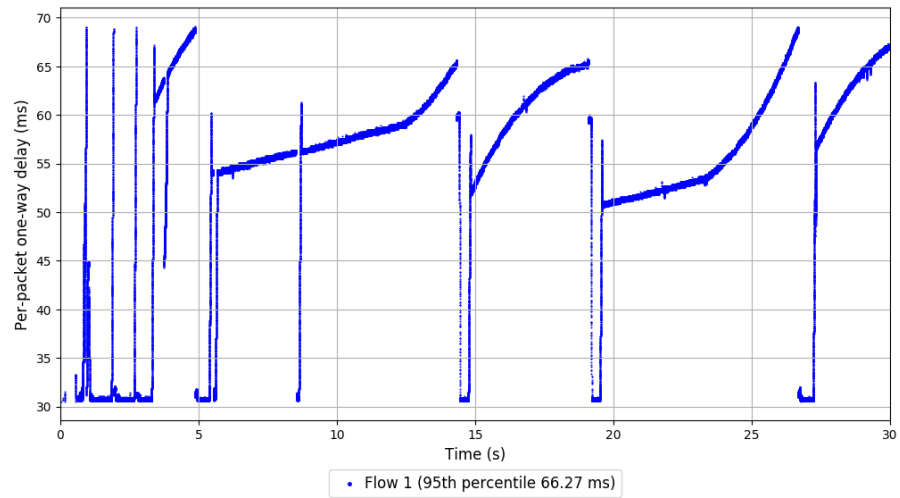
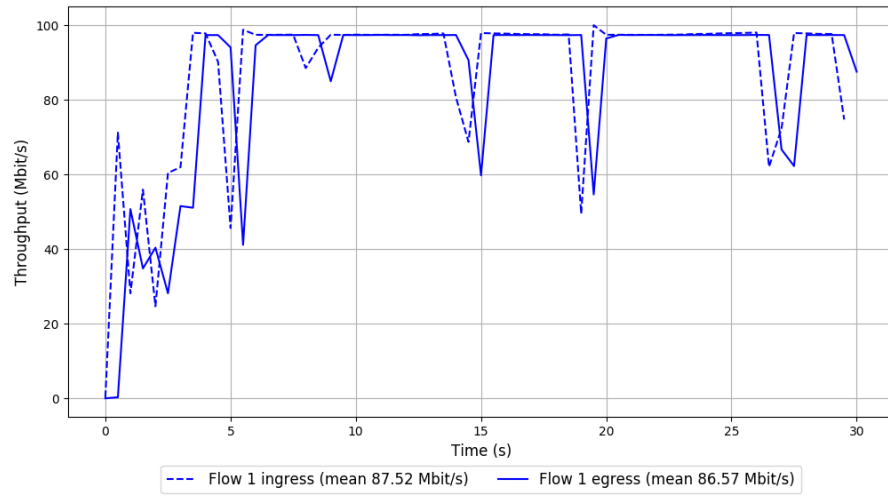
-- Flow 1:

Average throughput: 86.57 Mbit/s

95th percentile per-packet one-way delay: 66.271 ms

Loss rate: 0.97%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 06:03:35

End at: 2018-09-25 06:04:05

Local clock offset: -1.136 ms

Remote clock offset: -3.303 ms

Below is generated by plot.py at 2018-09-25 06:55:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.84 Mbit/s

95th percentile per-packet one-way delay: 67.349 ms

Loss rate: 1.79%

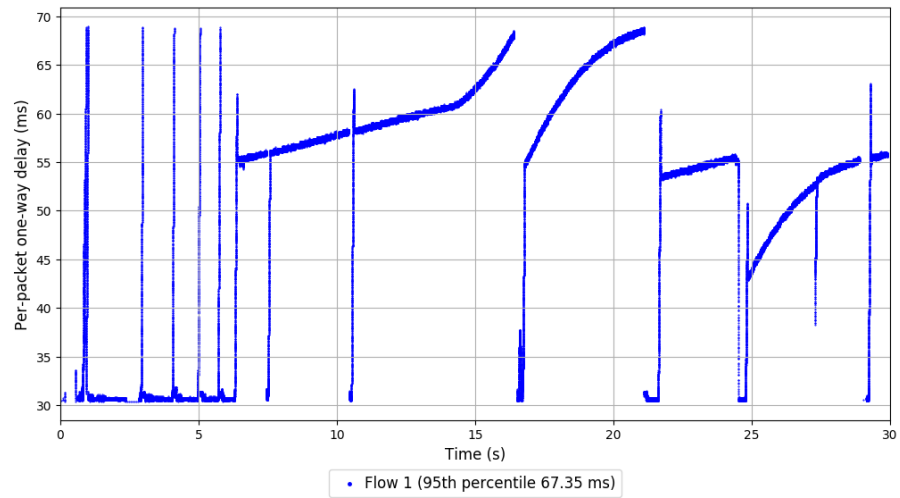
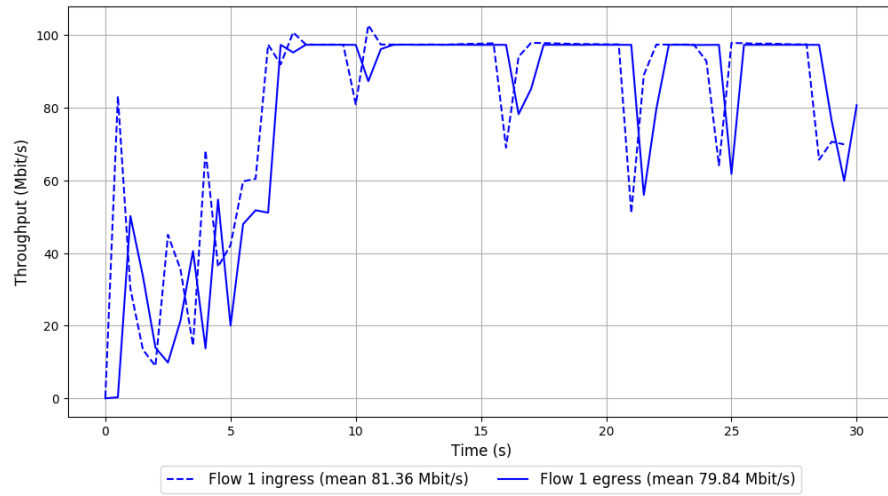
-- Flow 1:

Average throughput: 79.84 Mbit/s

95th percentile per-packet one-way delay: 67.349 ms

Loss rate: 1.79%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 06:28:27

End at: 2018-09-25 06:28:57

Local clock offset: -0.568 ms

Remote clock offset: -2.91 ms

Below is generated by plot.py at 2018-09-25 06:55:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.77 Mbit/s

95th percentile per-packet one-way delay: 64.937 ms

Loss rate: 1.82%

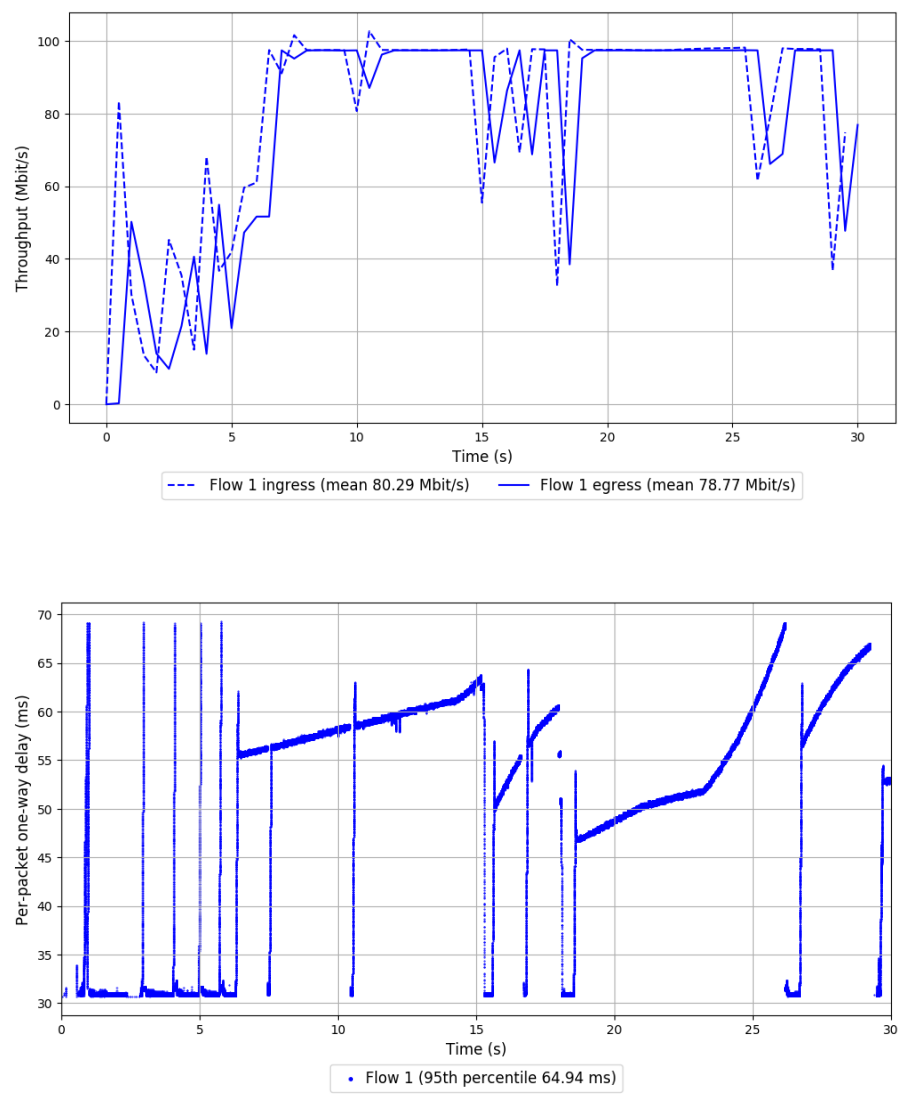
-- Flow 1:

Average throughput: 78.77 Mbit/s

95th percentile per-packet one-way delay: 64.937 ms

Loss rate: 1.82%

Run 5: Report of QUIC Cubic — Data Link

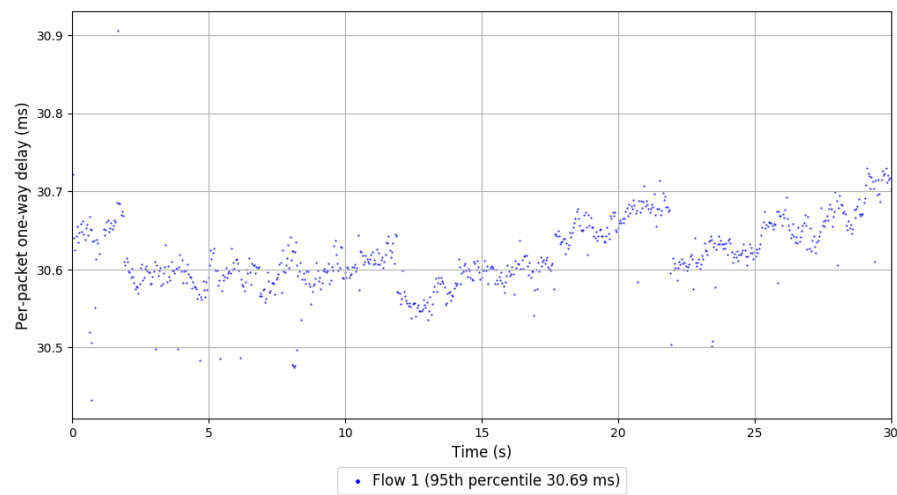
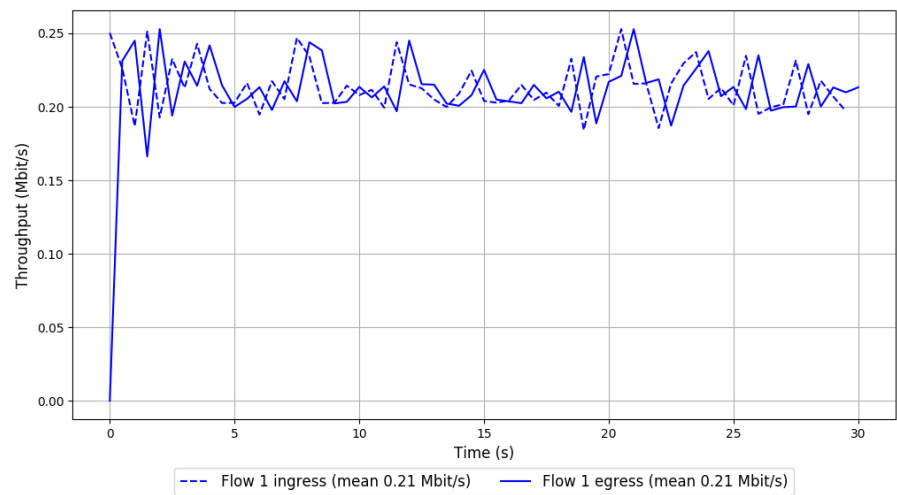



```
Run 1: Statistics of SCReAM

Start at: 2018-09-25 04:46:50
End at: 2018-09-25 04:47:20
Local clock offset: -0.761 ms
Remote clock offset: -3.21 ms

# Below is generated by plot.py at 2018-09-25 06:55:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.688 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.688 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

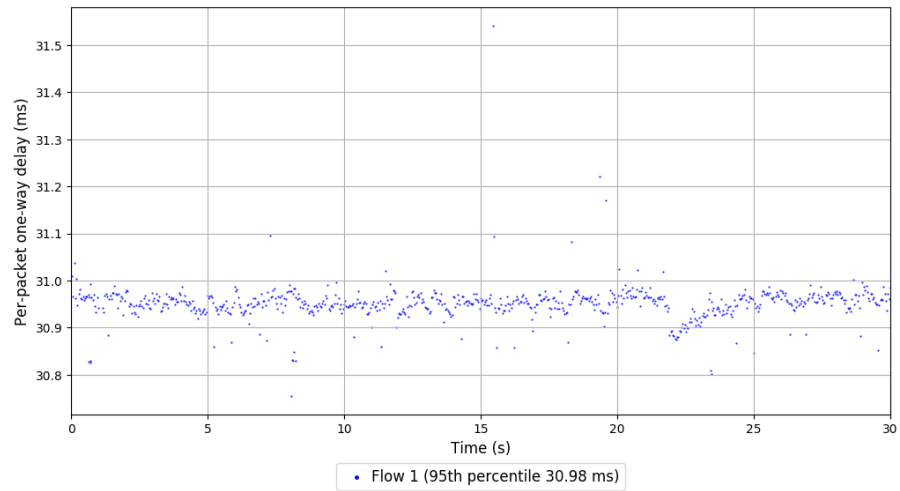
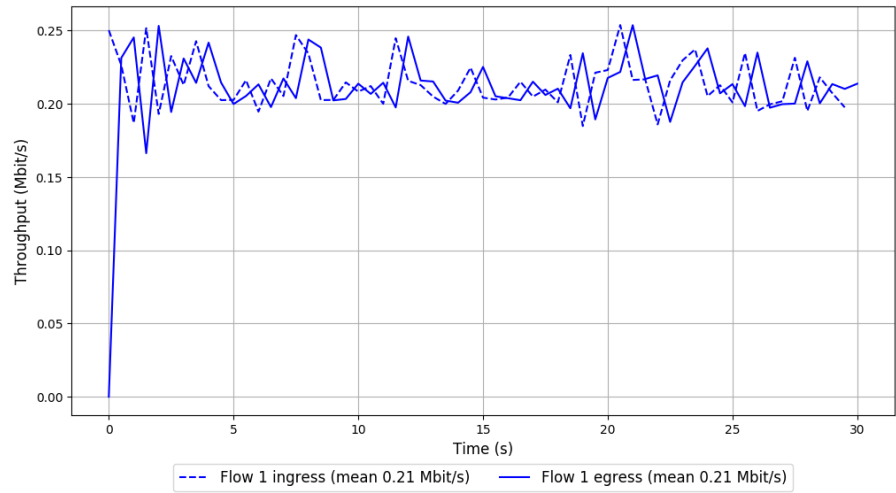


Run 2: Statistics of SReAM

Start at: 2018-09-25 05:12:07
End at: 2018-09-25 05:12:37
Local clock offset: 2.183 ms
Remote clock offset: -3.215 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.982 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.982 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

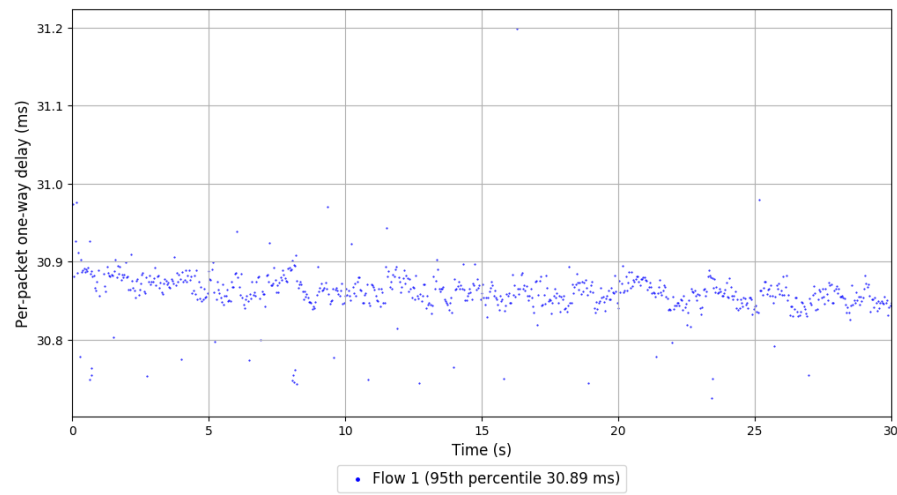
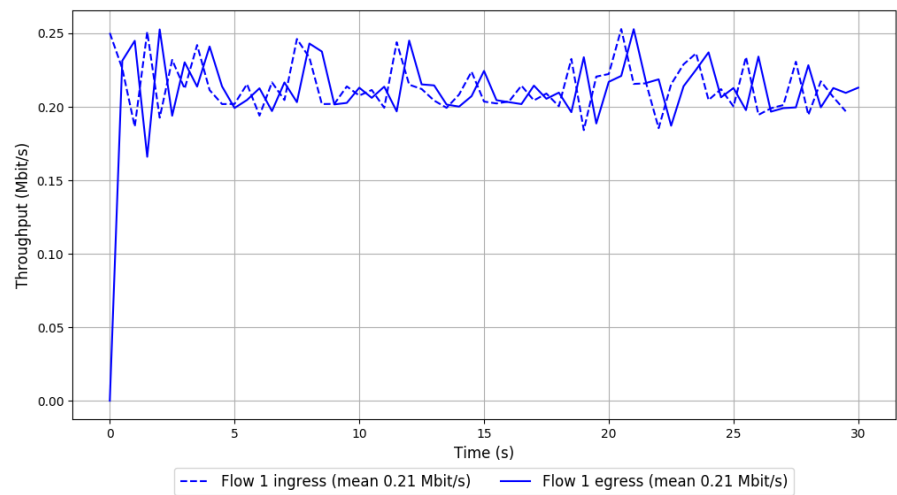


Run 3: Statistics of SCReAM

Start at: 2018-09-25 05:37:22
End at: 2018-09-25 05:37:52
Local clock offset: 1.796 ms
Remote clock offset: -3.263 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.891 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

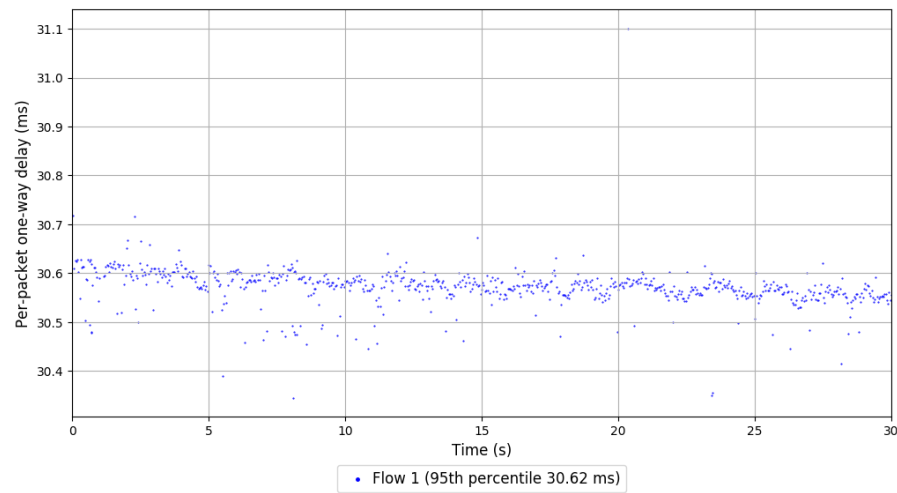
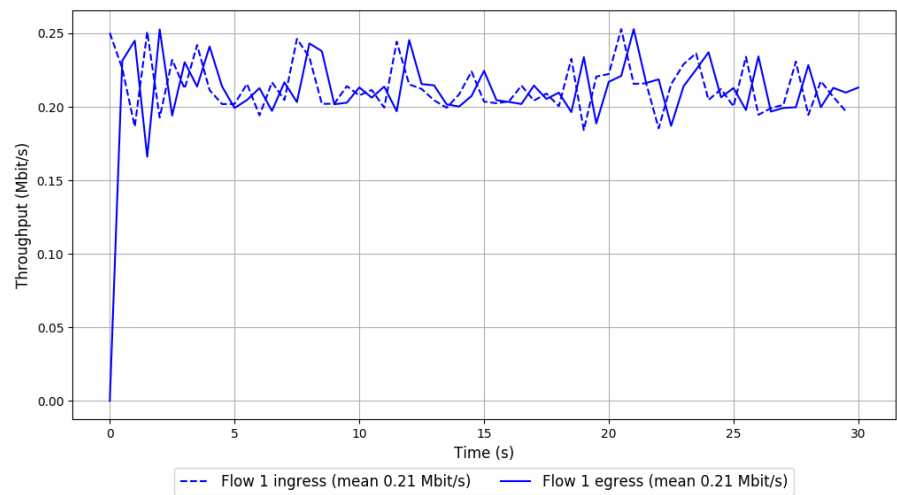


Run 4: Statistics of SCReAM

Start at: 2018-09-25 06:02:19
End at: 2018-09-25 06:02:49
Local clock offset: -1.032 ms
Remote clock offset: -3.339 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.616 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

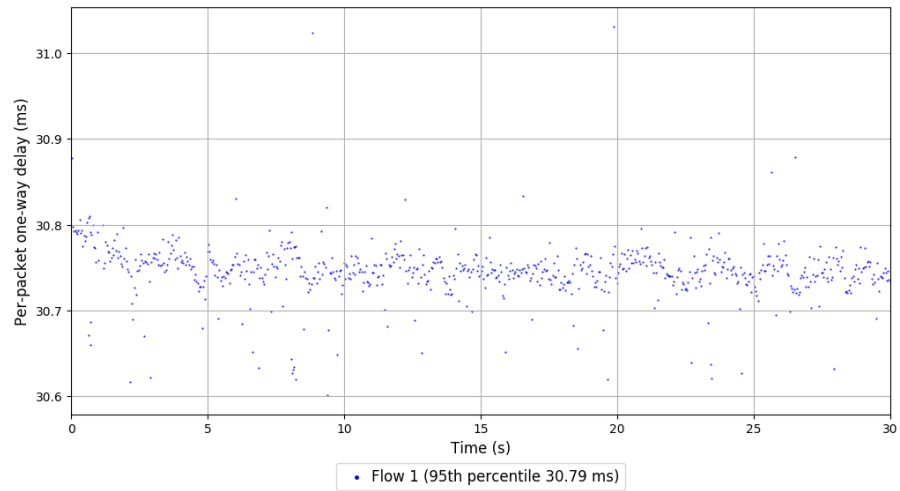
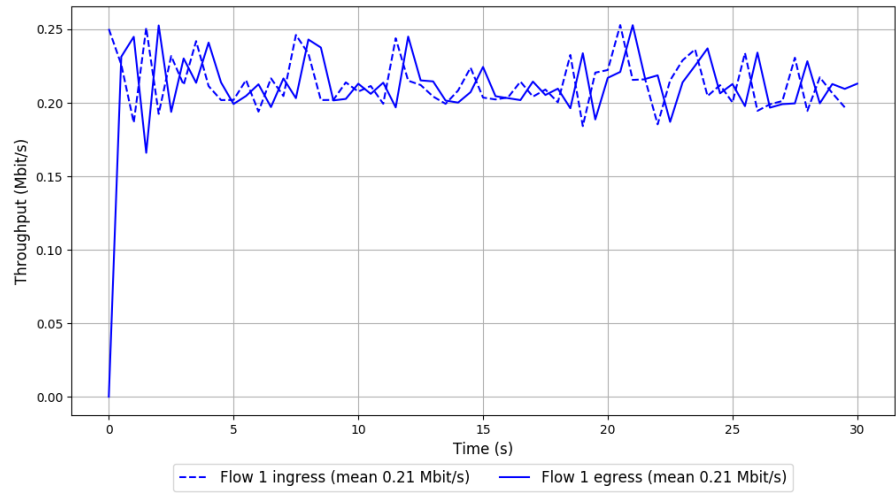


Run 5: Statistics of SCReAM

Start at: 2018-09-25 06:27:11
End at: 2018-09-25 06:27:41
Local clock offset: -0.559 ms
Remote clock offset: -3.077 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.785 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.785 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

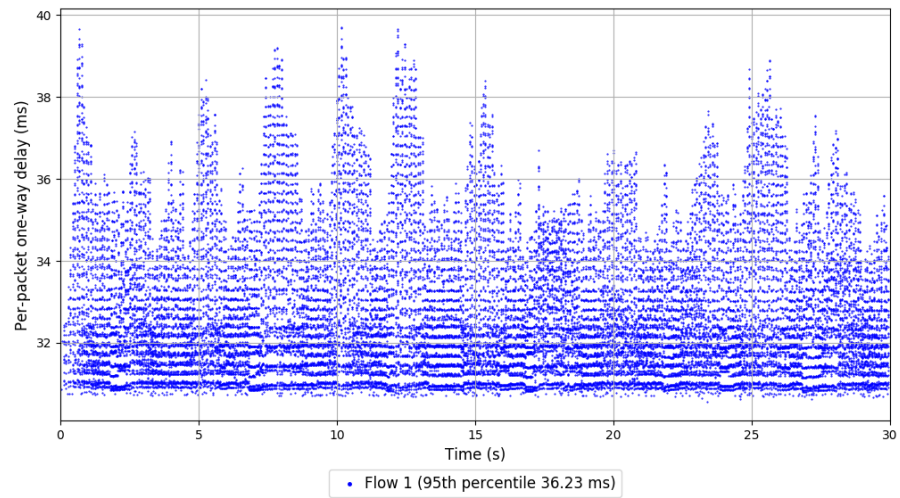
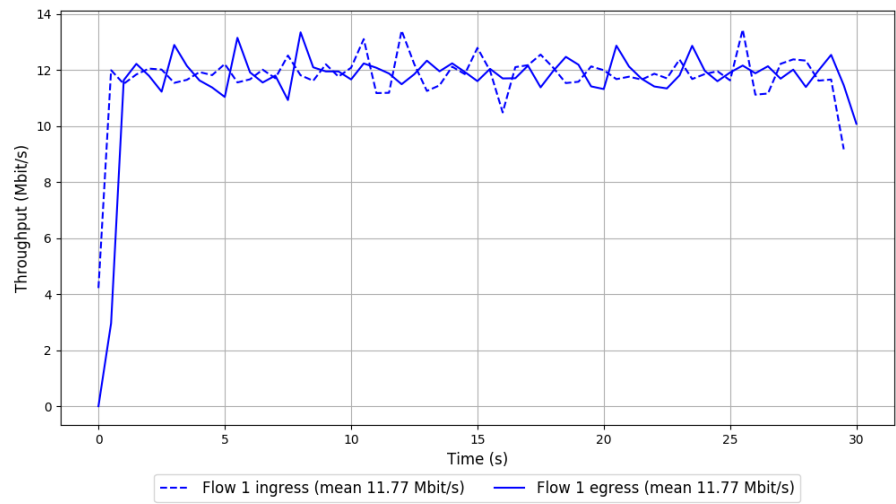


Run 1: Statistics of Sprout

Start at: 2018-09-25 04:50:41
End at: 2018-09-25 04:51:11
Local clock offset: -0.632 ms
Remote clock offset: -3.202 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 36.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 36.228 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

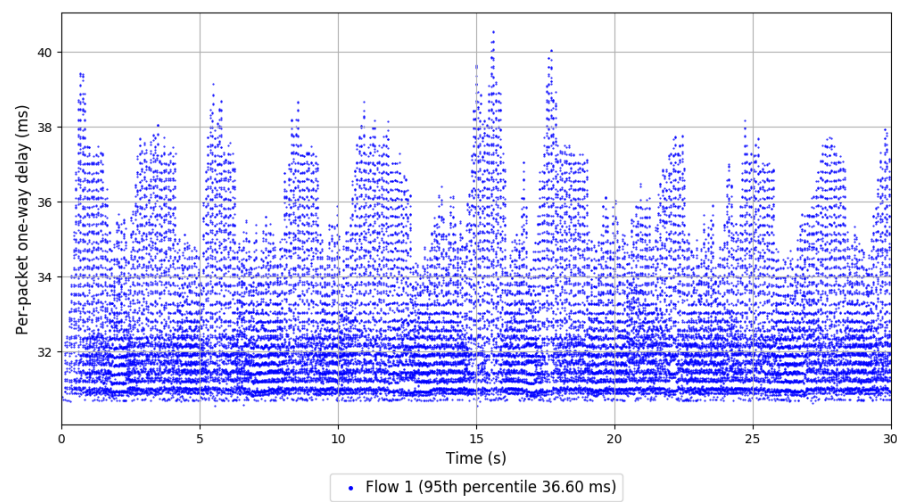
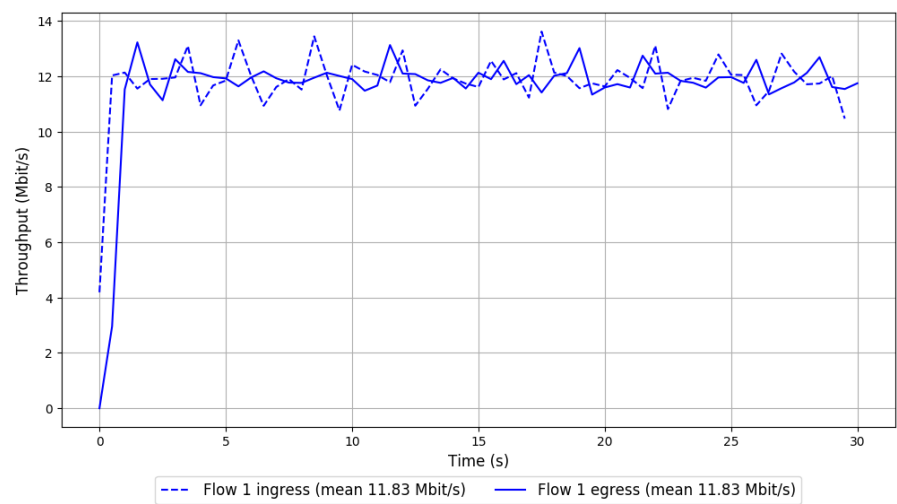


Run 2: Statistics of Sprout

Start at: 2018-09-25 05:16:00
End at: 2018-09-25 05:16:30
Local clock offset: 2.28 ms
Remote clock offset: -3.268 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.604 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

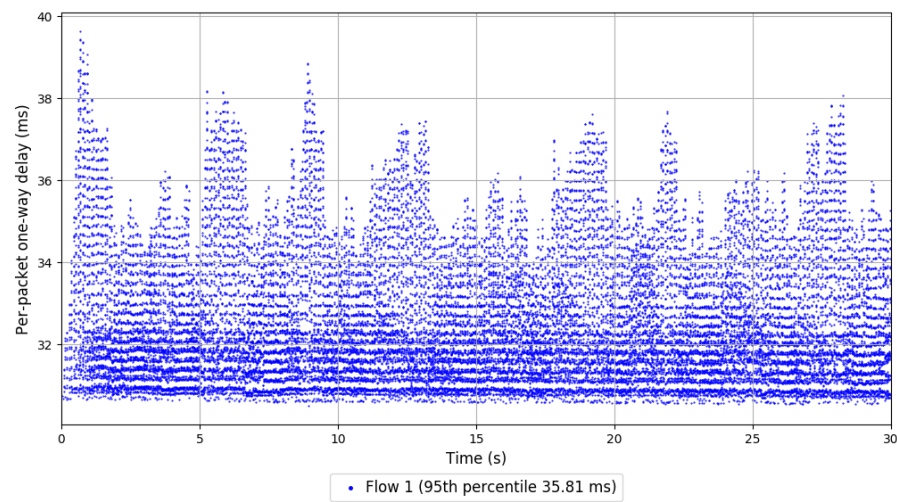
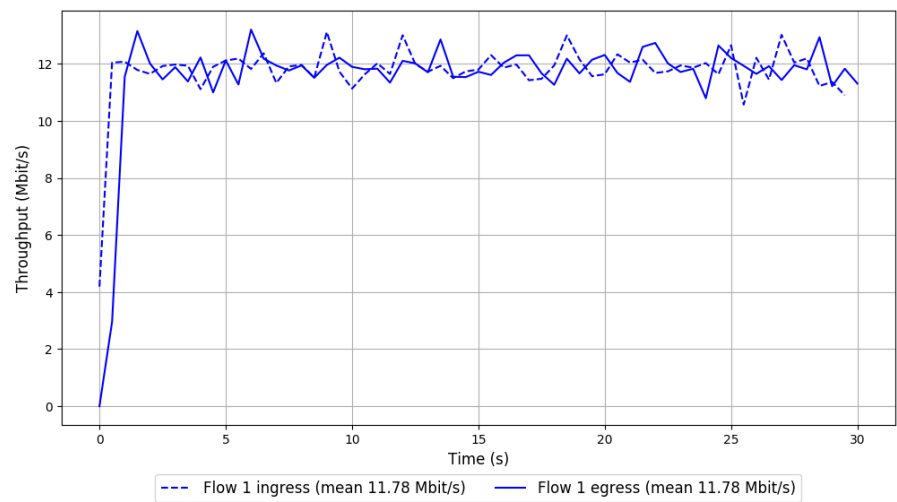


Run 3: Statistics of Sprout

Start at: 2018-09-25 05:41:14
End at: 2018-09-25 05:41:44
Local clock offset: 1.378 ms
Remote clock offset: -3.237 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 35.810 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 35.810 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

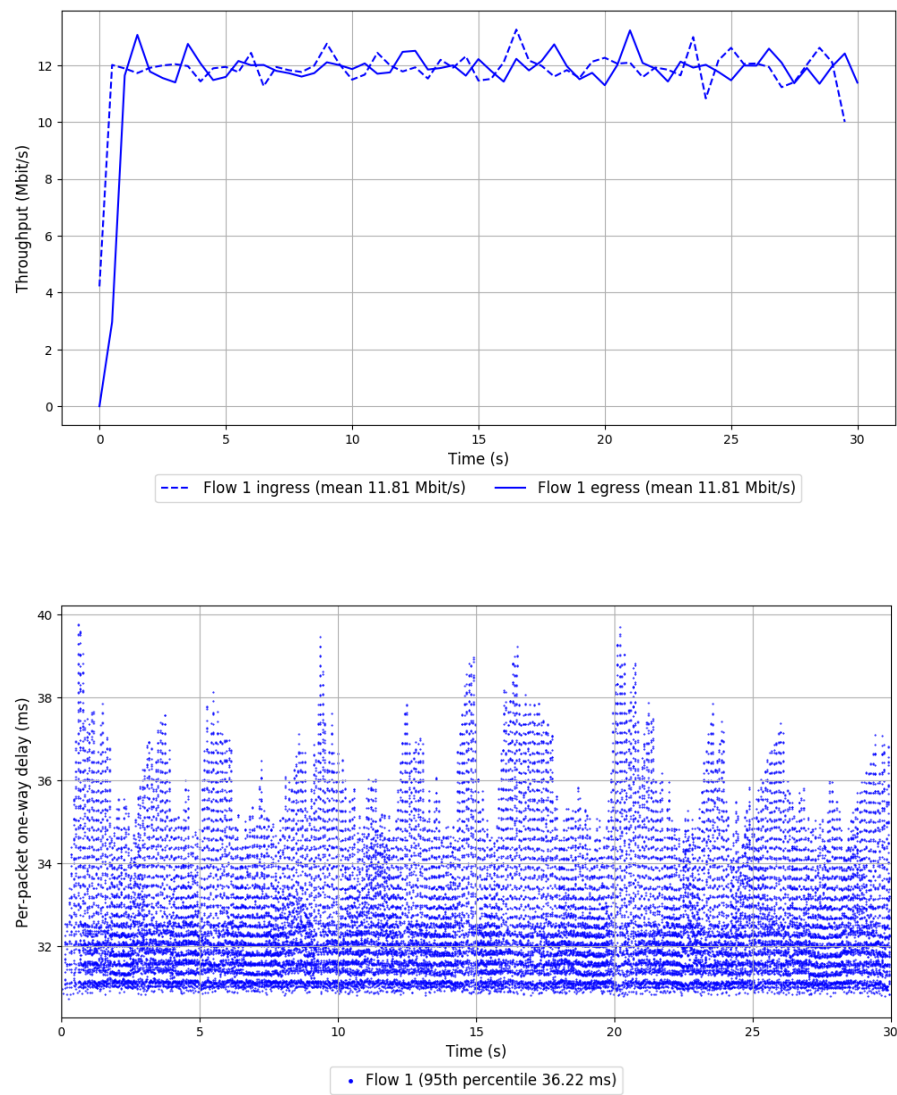


Run 4: Statistics of Sprout

Start at: 2018-09-25 06:06:15
End at: 2018-09-25 06:06:45
Local clock offset: -1.327 ms
Remote clock offset: -2.973 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 36.218 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 36.218 ms
Loss rate: 0.02%

Run 4: Report of Sprout — Data Link

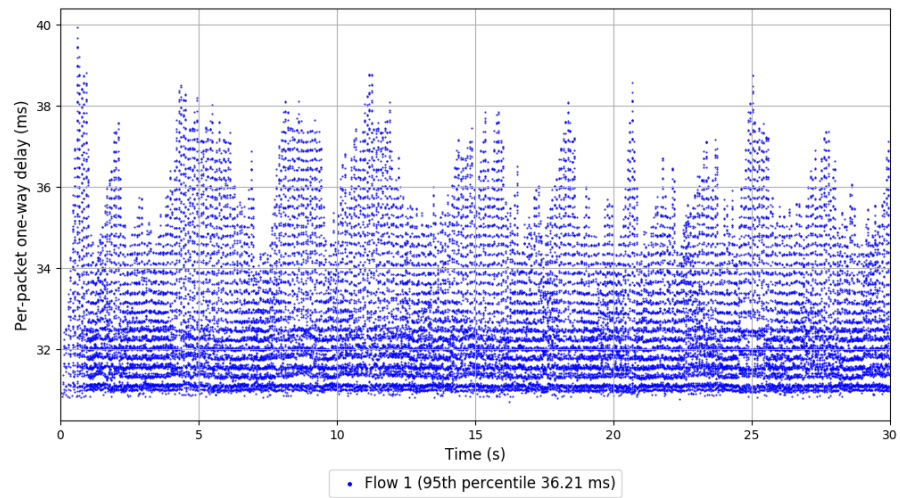
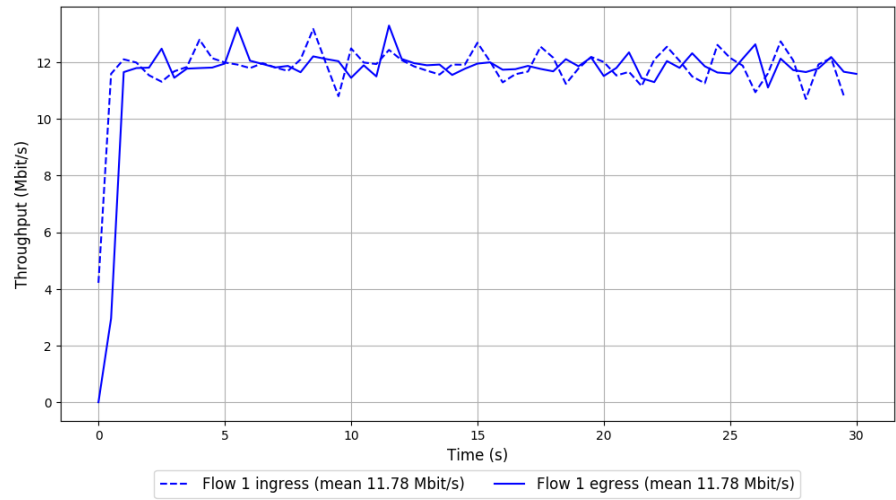


Run 5: Statistics of Sprout

Start at: 2018-09-25 06:31:01
End at: 2018-09-25 06:31:31
Local clock offset: -0.618 ms
Remote clock offset: -2.923 ms

Below is generated by plot.py at 2018-09-25 06:55:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 36.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 36.208 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

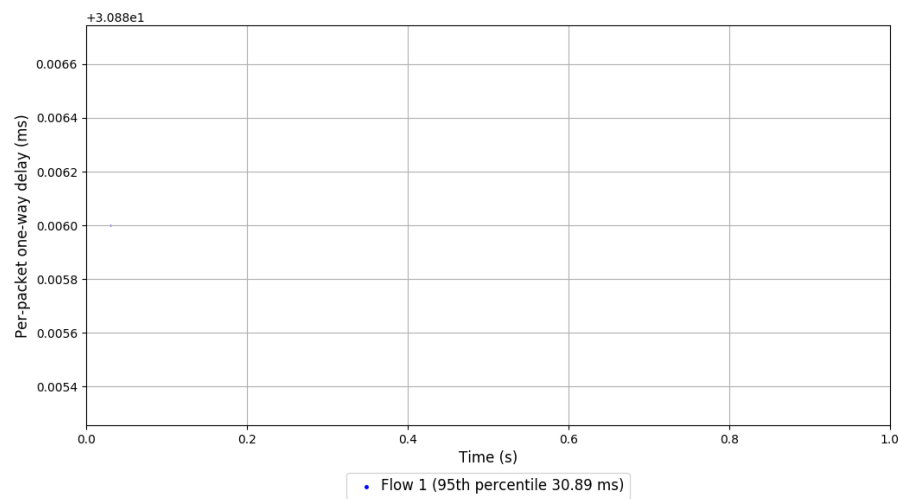
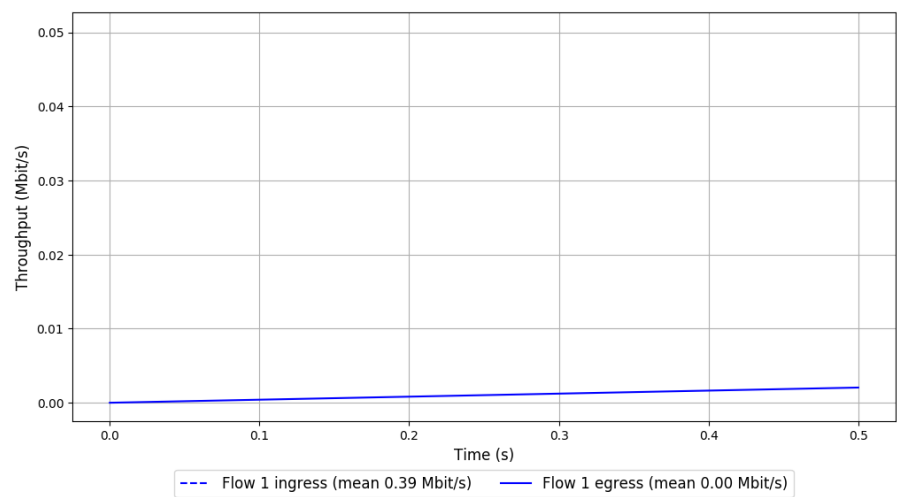
Start at: 2018-09-25 04:49:25

End at: 2018-09-25 04:49:55

Local clock offset: -0.653 ms

Remote clock offset: -3.164 ms

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



Run 2: Statistics of TaoVA-100x

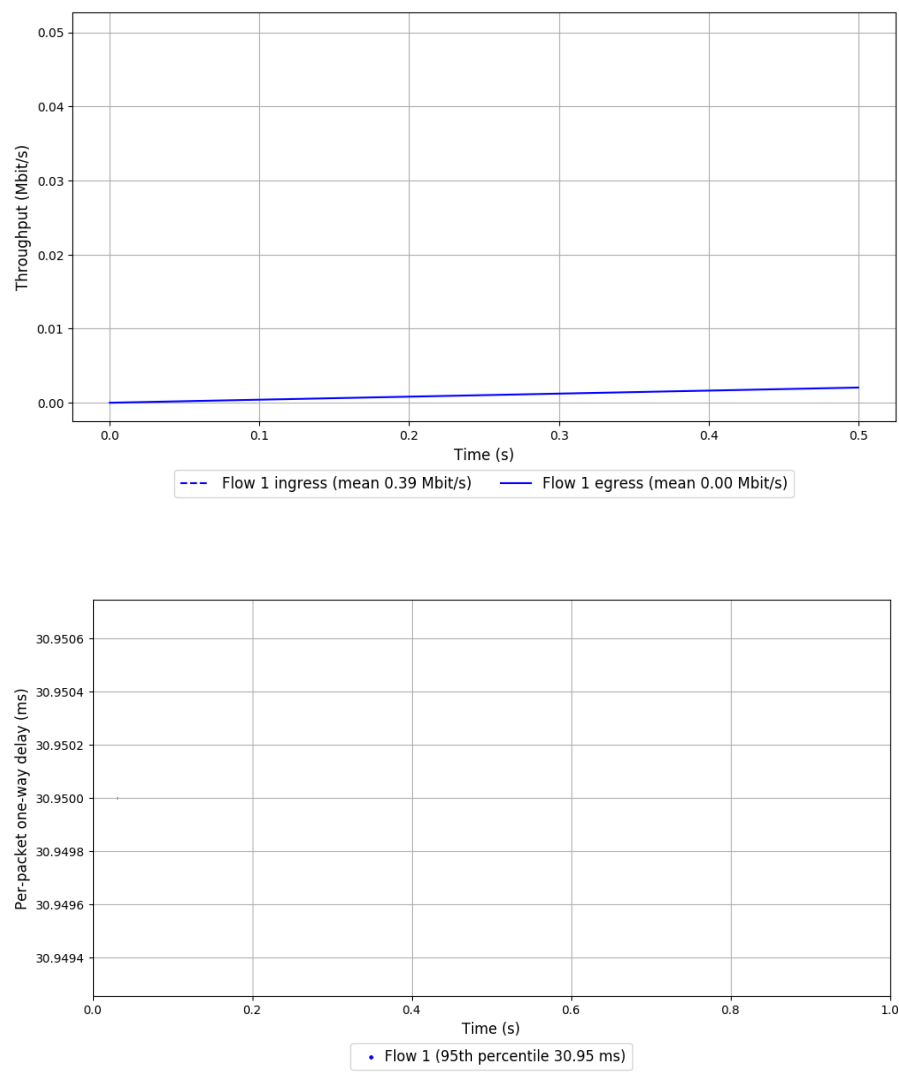
Start at: 2018-09-25 05:14:43

End at: 2018-09-25 05:15:13

Local clock offset: 2.269 ms

Remote clock offset: -3.16 ms

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



Run 3: Statistics of TaoVA-100x

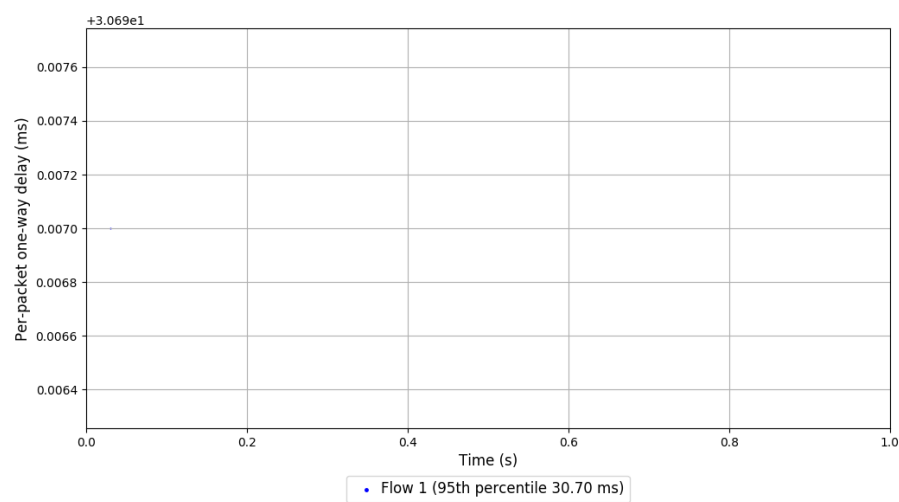
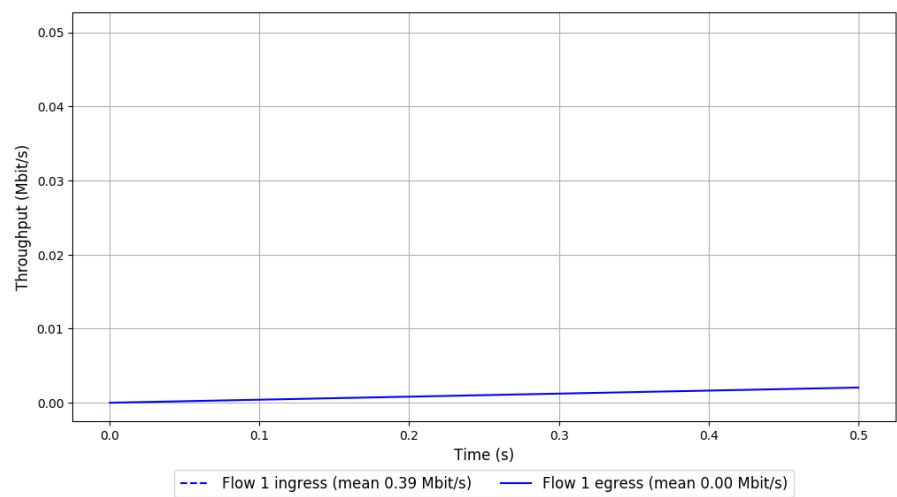
Start at: 2018-09-25 05:39:58

End at: 2018-09-25 05:40:28

Local clock offset: 1.618 ms

Remote clock offset: -3.27 ms

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



Run 4: Statistics of TaoVA-100x

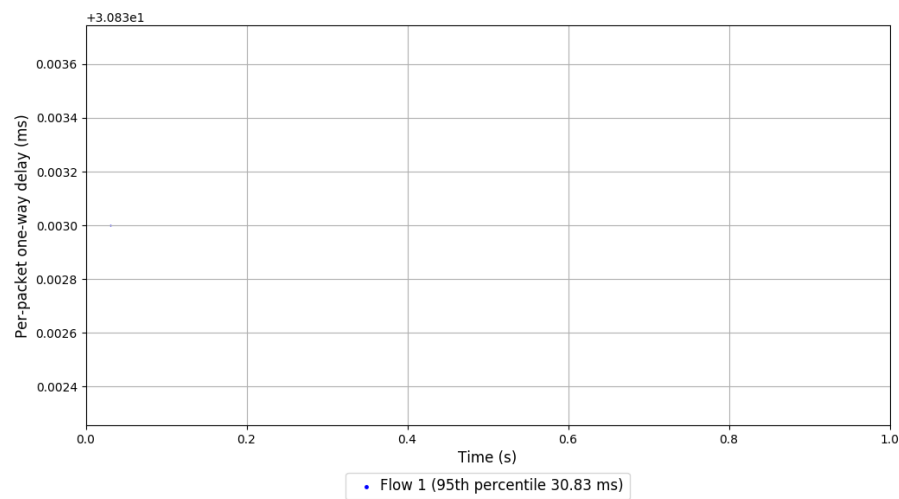
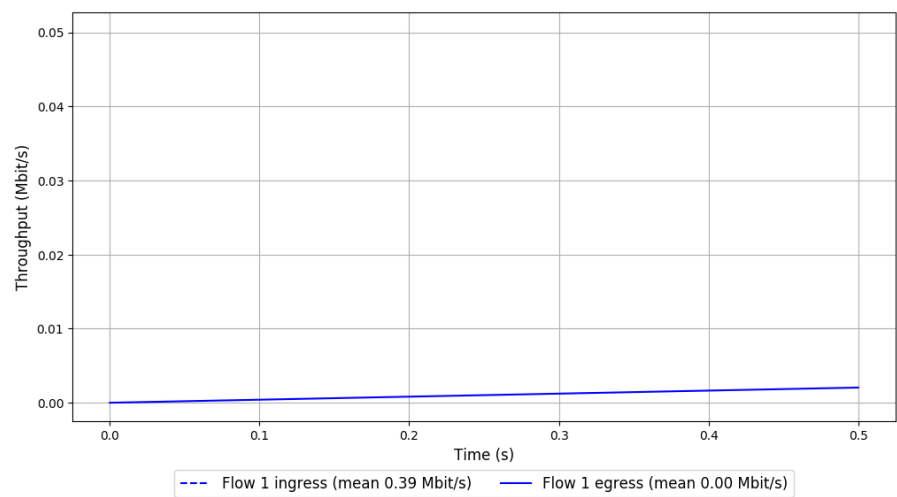
Start at: 2018-09-25 06:04:59

End at: 2018-09-25 06:05:29

Local clock offset: -1.241 ms

Remote clock offset: -3.084 ms

Run 4: Report of TaoVA-100x — Data Link



Run 5: Statistics of TaoVA-100x

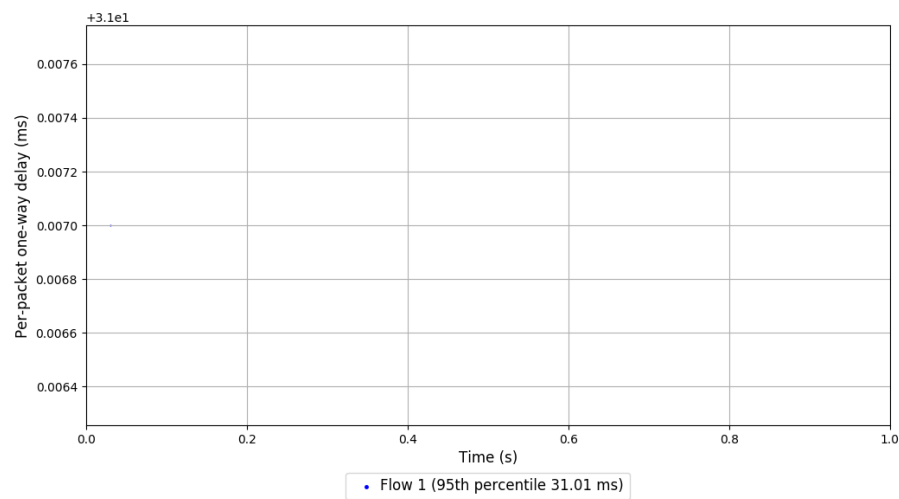
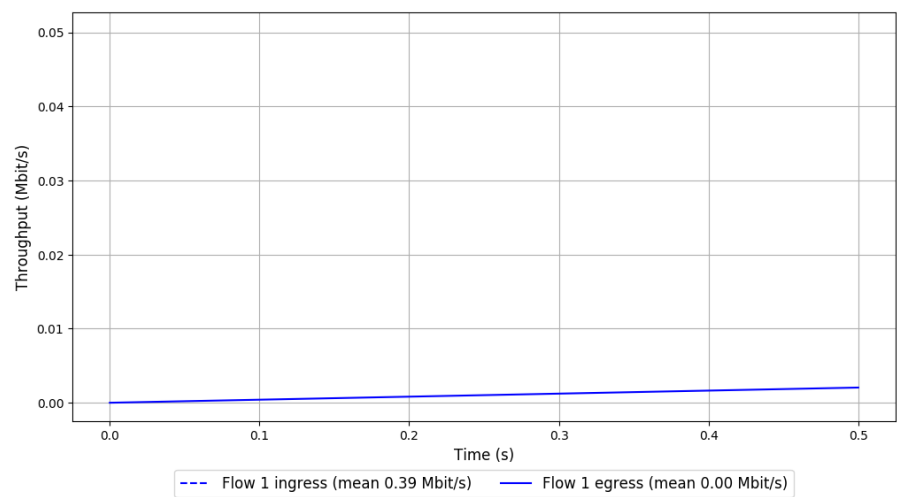
Start at: 2018-09-25 06:29:46

End at: 2018-09-25 06:30:16

Local clock offset: -0.585 ms

Remote clock offset: -2.877 ms

Run 5: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 05:02:36

End at: 2018-09-25 05:03:07

Local clock offset: 1.672 ms

Remote clock offset: -3.276 ms

Below is generated by plot.py at 2018-09-25 06:56:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.25 Mbit/s

95th percentile per-packet one-way delay: 41.691 ms

Loss rate: 0.27%

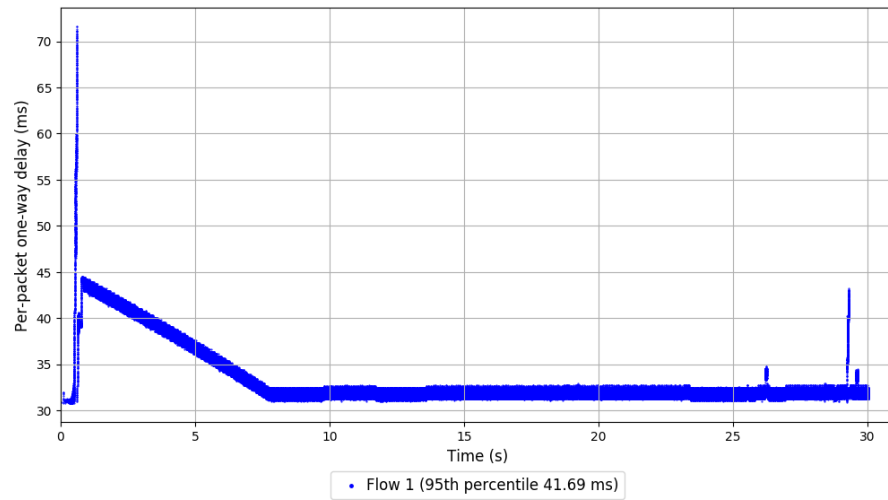
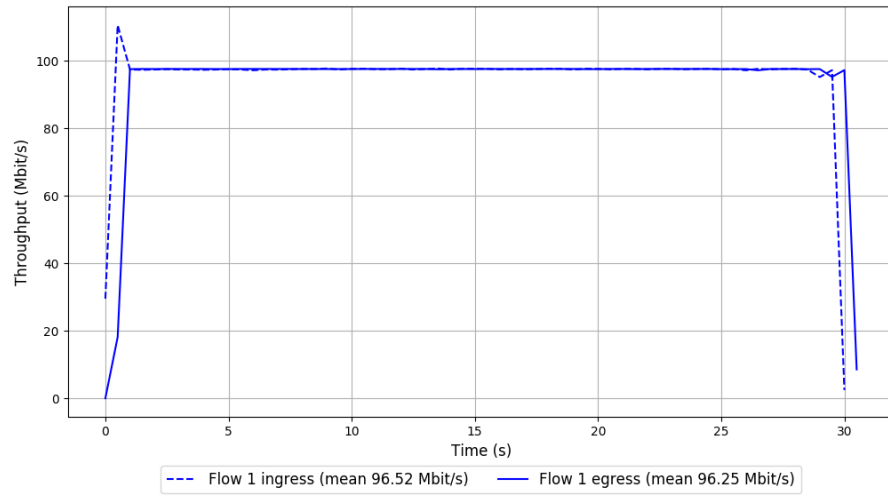
-- Flow 1:

Average throughput: 96.25 Mbit/s

95th percentile per-packet one-way delay: 41.691 ms

Loss rate: 0.27%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 05:27:50

End at: 2018-09-25 05:28:20

Local clock offset: 2.106 ms

Remote clock offset: -3.23 ms

Below is generated by plot.py at 2018-09-25 06:56:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.88 Mbit/s

95th percentile per-packet one-way delay: 32.546 ms

Loss rate: 0.32%

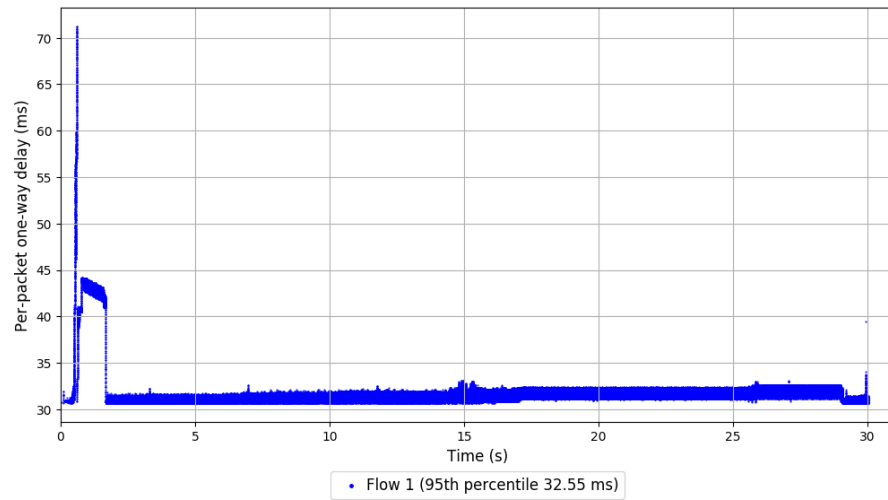
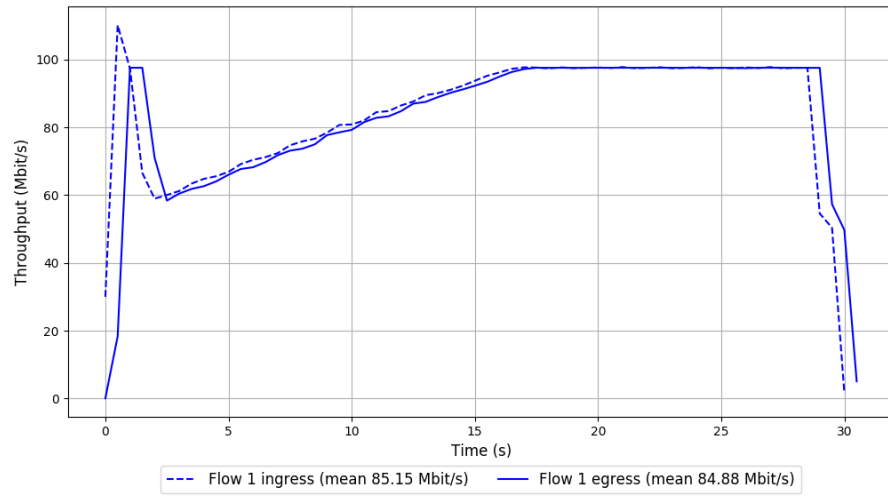
-- Flow 1:

Average throughput: 84.88 Mbit/s

95th percentile per-packet one-way delay: 32.546 ms

Loss rate: 0.32%

Run 2: Report of TCP Vegas — Data Link

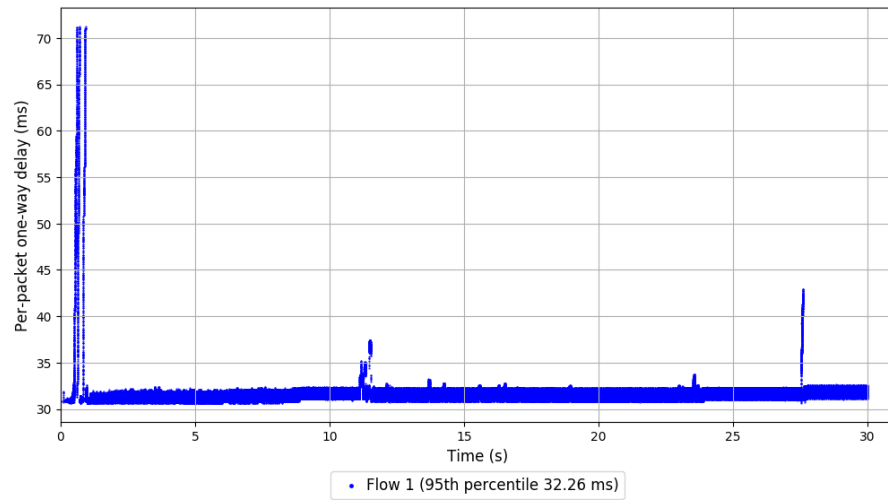
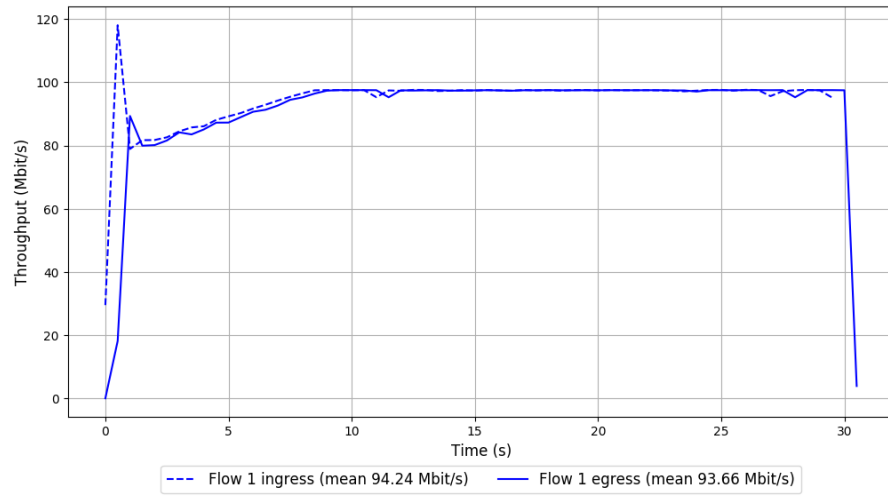


Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 05:53:03
End at: 2018-09-25 05:53:33
Local clock offset: -0.268 ms
Remote clock offset: -3.183 ms

Below is generated by plot.py at 2018-09-25 06:56:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.66 Mbit/s
95th percentile per-packet one-way delay: 32.262 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 93.66 Mbit/s
95th percentile per-packet one-way delay: 32.262 ms
Loss rate: 0.62%

Run 3: Report of TCP Vegas — Data Link

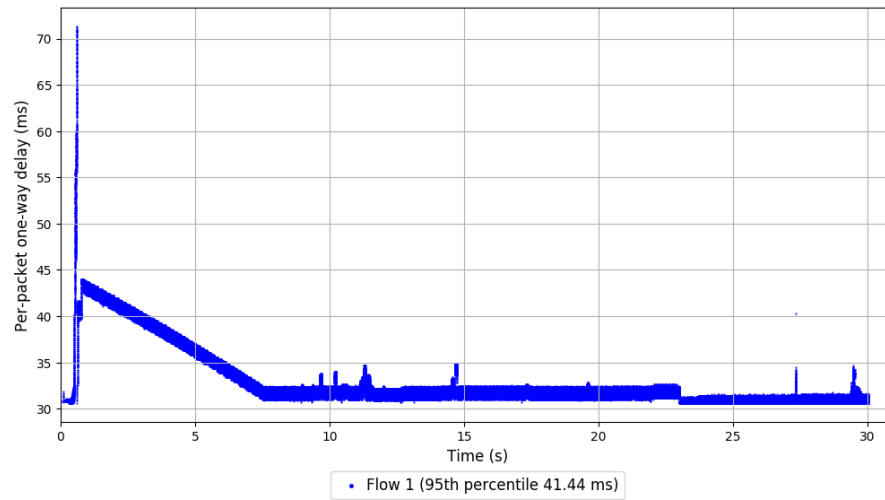
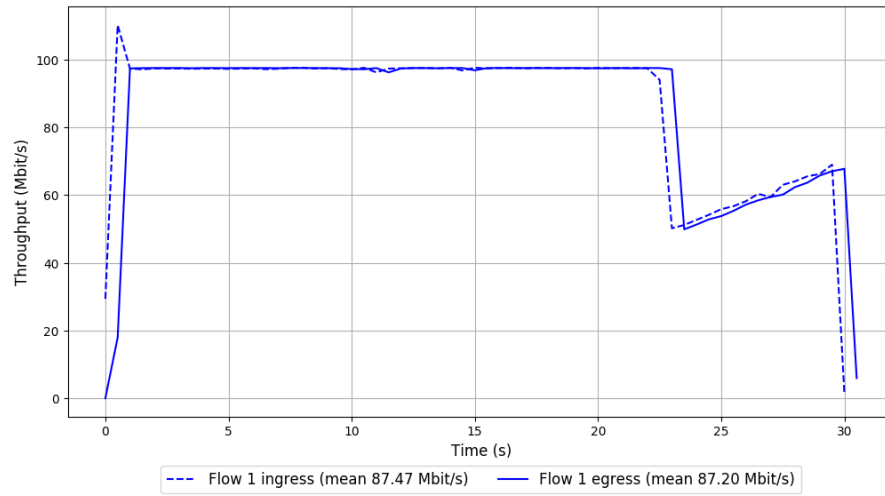


Run 4: Statistics of TCP Vegas

Start at: 2018-09-25 06:17:57
End at: 2018-09-25 06:18:27
Local clock offset: -0.685 ms
Remote clock offset: -3.233 ms

Below is generated by plot.py at 2018-09-25 06:56:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 87.20 Mbit/s
95th percentile per-packet one-way delay: 41.435 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 87.20 Mbit/s
95th percentile per-packet one-way delay: 41.435 ms
Loss rate: 0.30%

Run 4: Report of TCP Vegas — Data Link

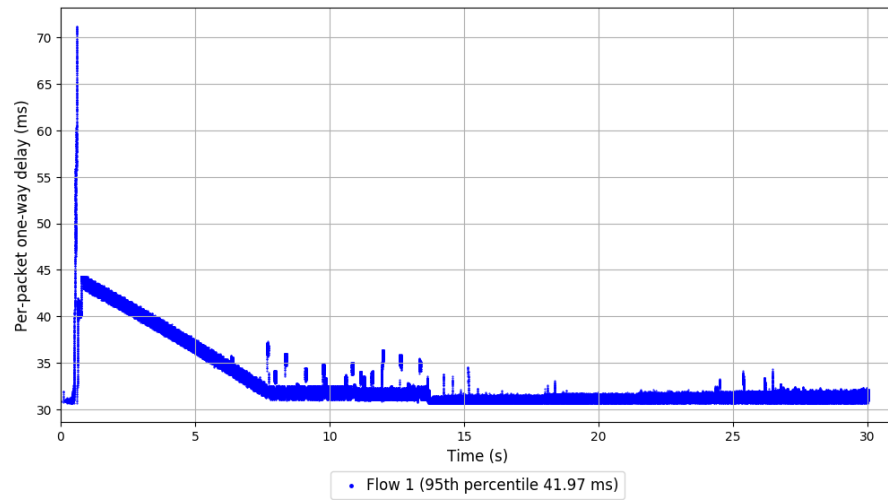
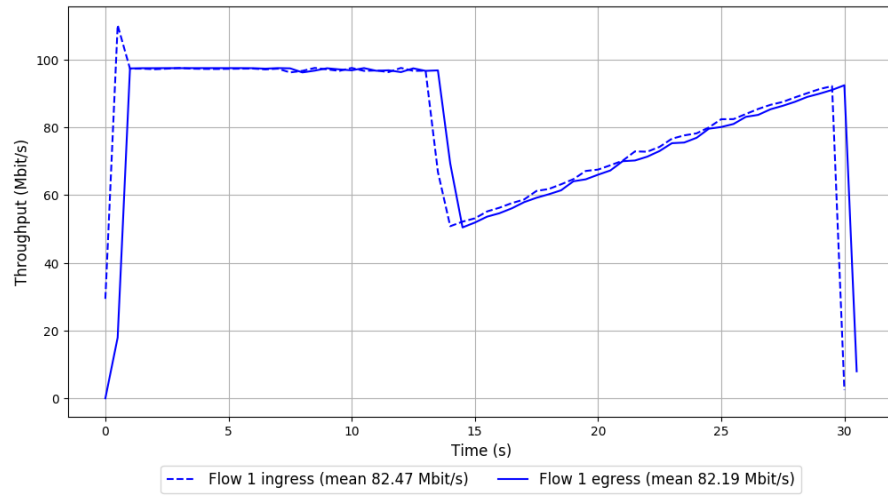


Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 06:43:01
End at: 2018-09-25 06:43:31
Local clock offset: -0.553 ms
Remote clock offset: -2.986 ms

Below is generated by plot.py at 2018-09-25 06:56:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.19 Mbit/s
95th percentile per-packet one-way delay: 41.974 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 82.19 Mbit/s
95th percentile per-packet one-way delay: 41.974 ms
Loss rate: 0.33%

Run 5: Report of TCP Vegas — Data Link

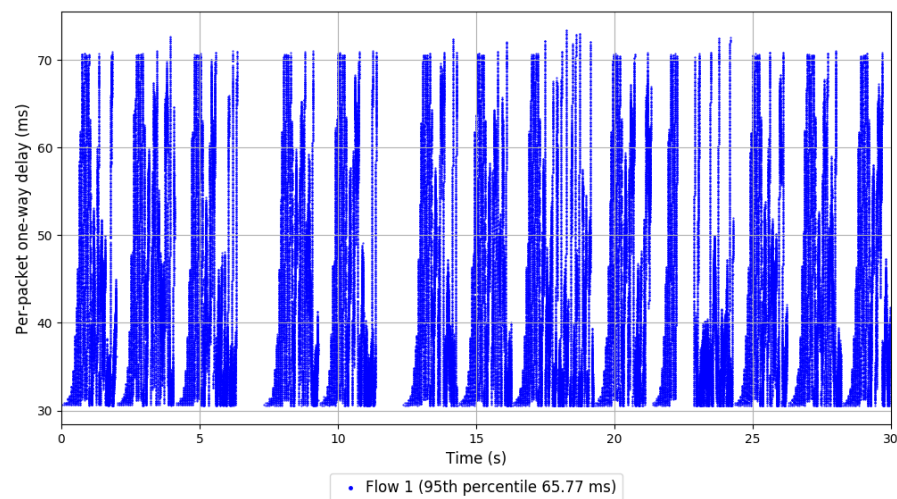
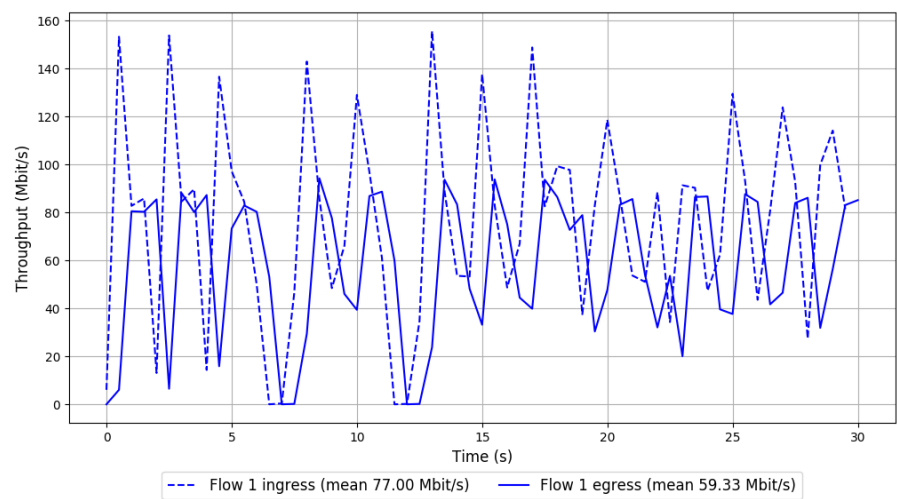


Run 1: Statistics of Verus

Start at: 2018-09-25 04:51:57
End at: 2018-09-25 04:52:27
Local clock offset: -0.735 ms
Remote clock offset: -3.268 ms

Below is generated by plot.py at 2018-09-25 06:56:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 65.774 ms
Loss rate: 22.93%
-- Flow 1:
Average throughput: 59.33 Mbit/s
95th percentile per-packet one-way delay: 65.774 ms
Loss rate: 22.93%

Run 1: Report of Verus — Data Link

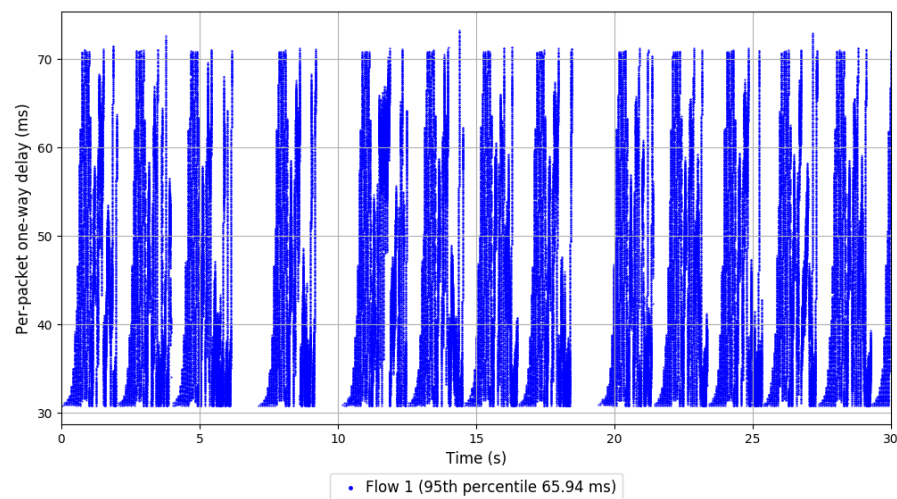
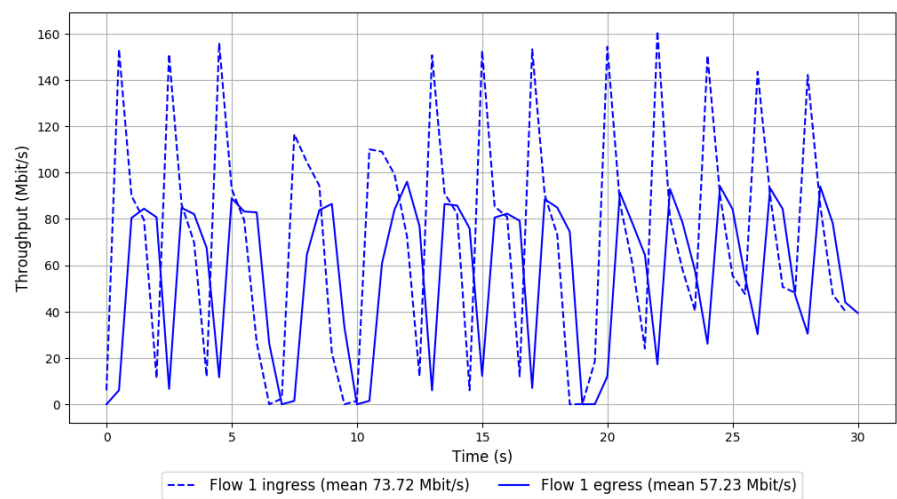


Run 2: Statistics of Verus

Start at: 2018-09-25 05:17:16
End at: 2018-09-25 05:17:46
Local clock offset: 2.288 ms
Remote clock offset: -3.102 ms

Below is generated by plot.py at 2018-09-25 06:56:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 65.937 ms
Loss rate: 22.26%
-- Flow 1:
Average throughput: 57.23 Mbit/s
95th percentile per-packet one-way delay: 65.937 ms
Loss rate: 22.26%

Run 2: Report of Verus — Data Link

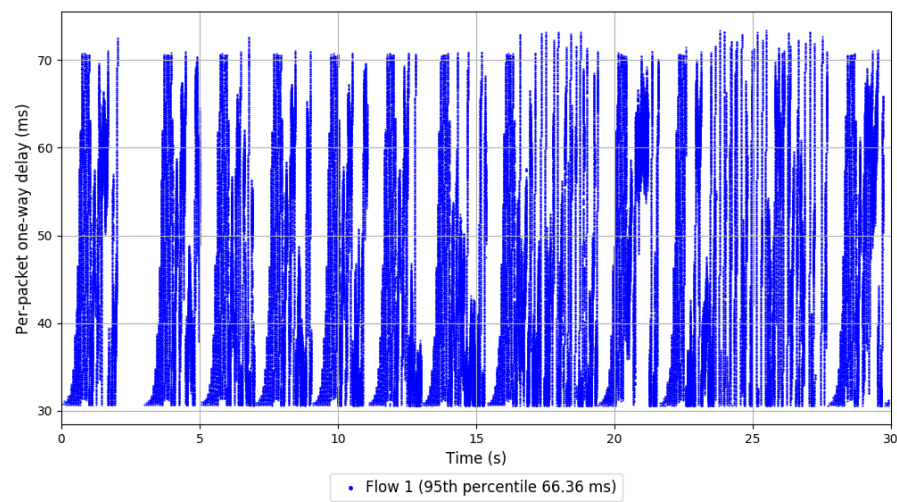
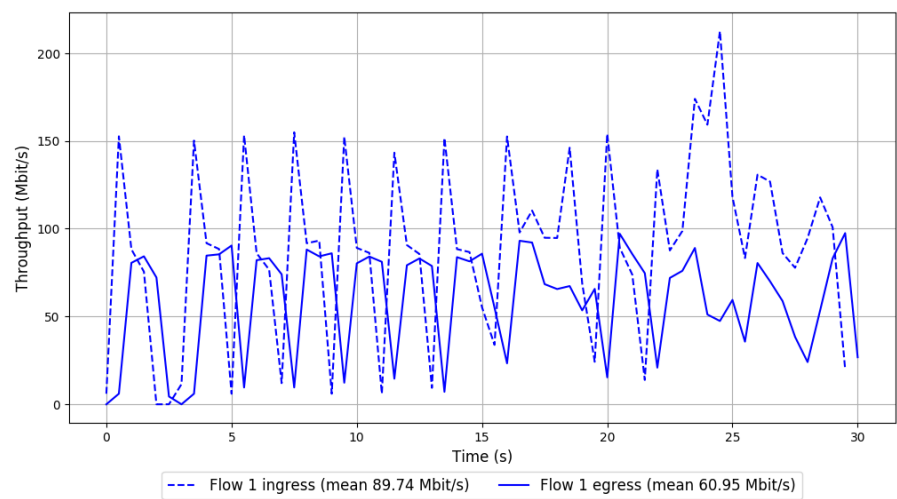


Run 3: Statistics of Verus

Start at: 2018-09-25 05:42:30
End at: 2018-09-25 05:43:00
Local clock offset: 1.085 ms
Remote clock offset: -3.281 ms

Below is generated by plot.py at 2018-09-25 06:56:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 60.95 Mbit/s
95th percentile per-packet one-way delay: 66.363 ms
Loss rate: 32.08%
-- Flow 1:
Average throughput: 60.95 Mbit/s
95th percentile per-packet one-way delay: 66.363 ms
Loss rate: 32.08%

Run 3: Report of Verus — Data Link

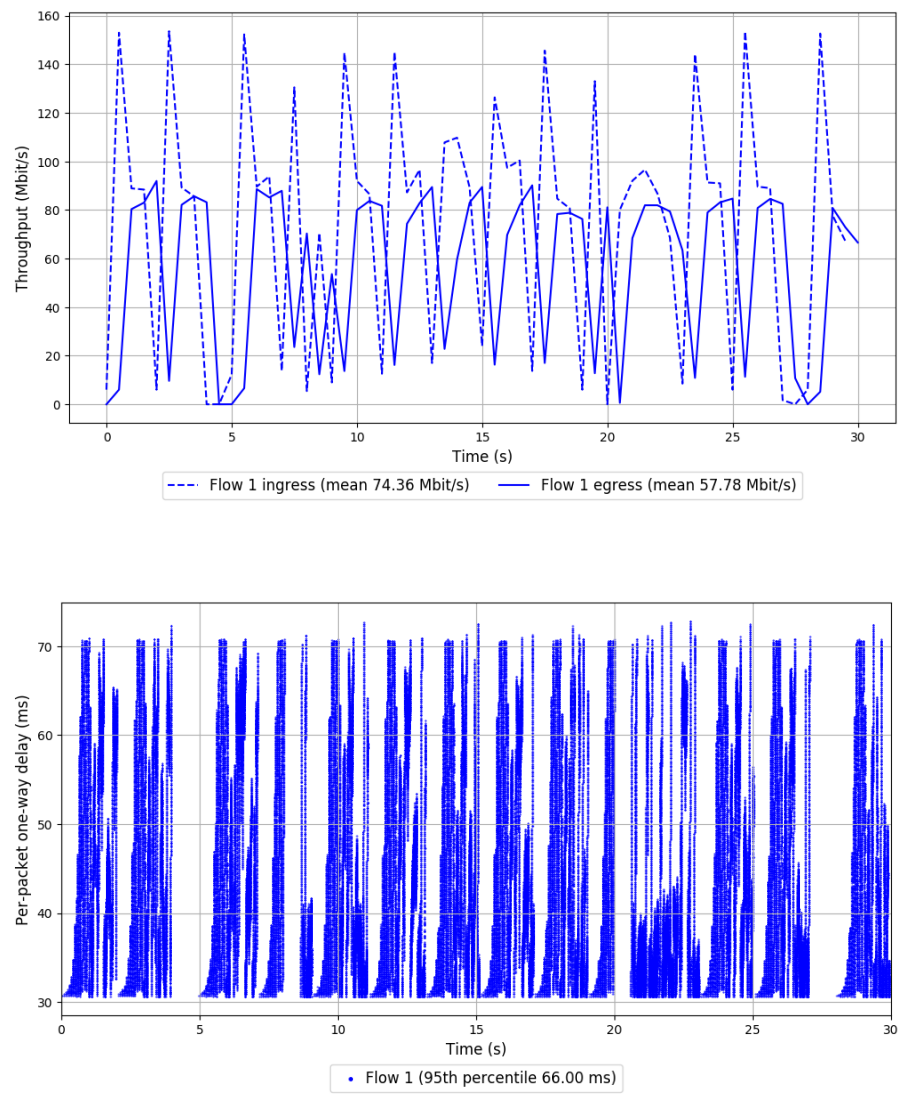


Run 4: Statistics of Verus

Start at: 2018-09-25 06:07:31
End at: 2018-09-25 06:08:01
Local clock offset: -1.419 ms
Remote clock offset: -3.151 ms

Below is generated by plot.py at 2018-09-25 06:56:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 65.998 ms
Loss rate: 22.30%
-- Flow 1:
Average throughput: 57.78 Mbit/s
95th percentile per-packet one-way delay: 65.998 ms
Loss rate: 22.30%

Run 4: Report of Verus — Data Link

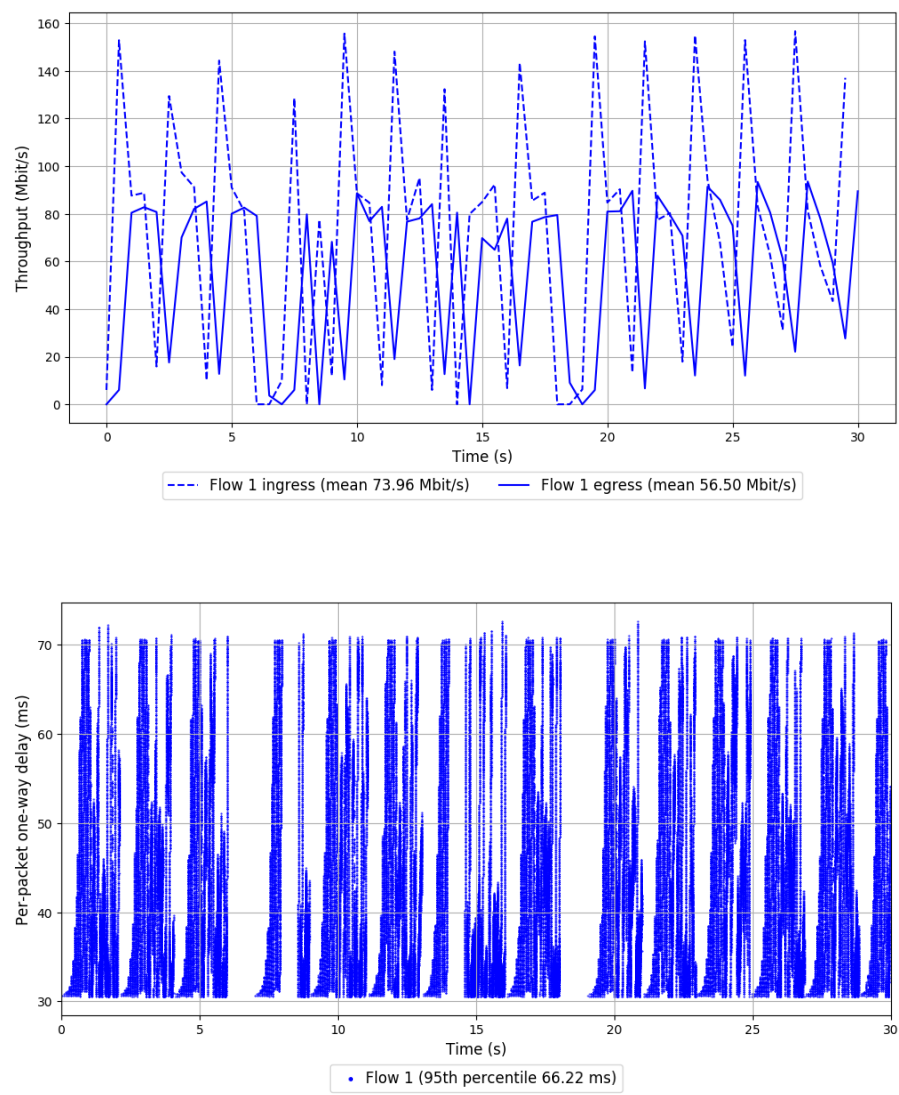


Run 5: Statistics of Verus

Start at: 2018-09-25 06:32:17
End at: 2018-09-25 06:32:47
Local clock offset: -0.642 ms
Remote clock offset: -3.099 ms

Below is generated by plot.py at 2018-09-25 06:56:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 66.221 ms
Loss rate: 23.55%
-- Flow 1:
Average throughput: 56.50 Mbit/s
95th percentile per-packet one-way delay: 66.221 ms
Loss rate: 23.55%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-09-25 04:55:50

End at: 2018-09-25 04:56:20

Local clock offset: -1.312 ms

Remote clock offset: -3.12 ms

Below is generated by plot.py at 2018-09-25 06:57:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.91 Mbit/s

95th percentile per-packet one-way delay: 33.946 ms

Loss rate: 0.00%

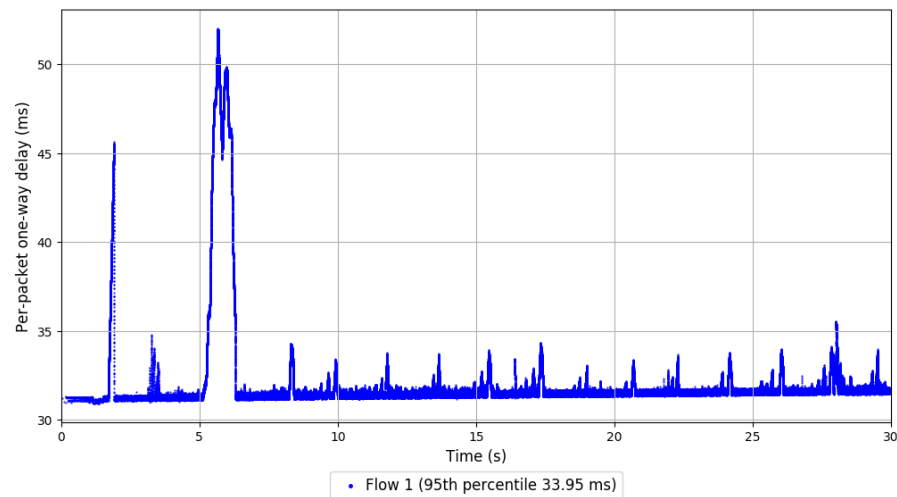
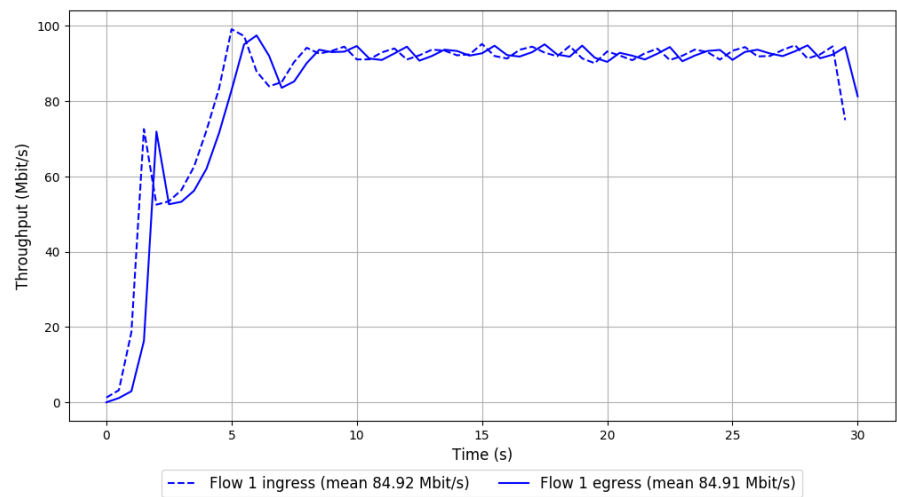
-- Flow 1:

Average throughput: 84.91 Mbit/s

95th percentile per-packet one-way delay: 33.946 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 05:21:10

End at: 2018-09-25 05:21:40

Local clock offset: 2.256 ms

Remote clock offset: -3.237 ms

Below is generated by plot.py at 2018-09-25 06:57:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.96 Mbit/s

95th percentile per-packet one-way delay: 33.541 ms

Loss rate: 0.23%

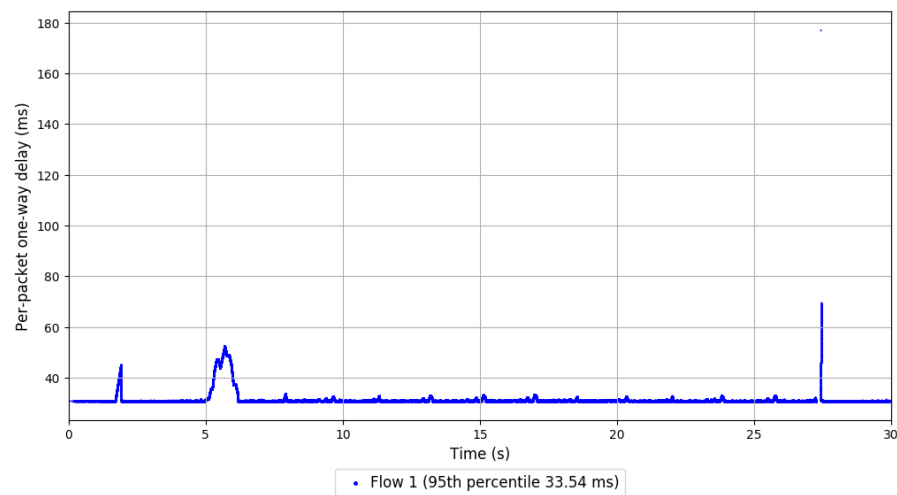
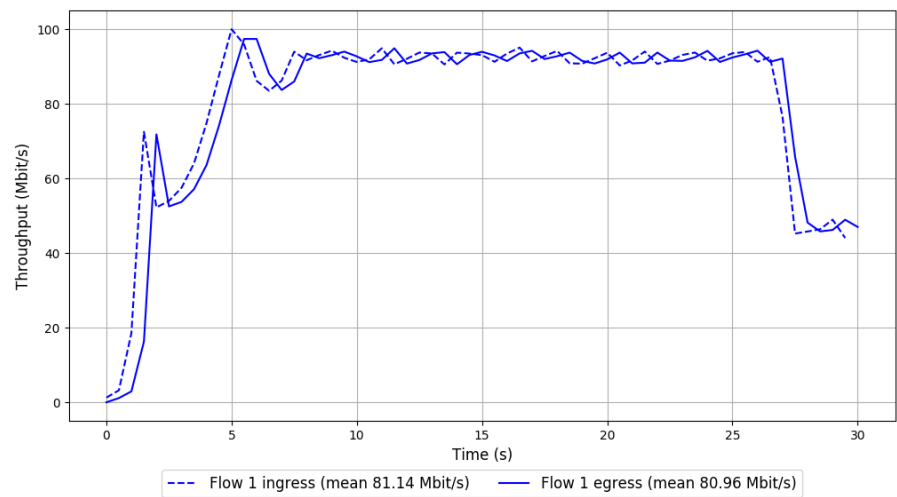
-- Flow 1:

Average throughput: 80.96 Mbit/s

95th percentile per-packet one-way delay: 33.541 ms

Loss rate: 0.23%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 05:46:23

End at: 2018-09-25 05:46:53

Local clock offset: 0.508 ms

Remote clock offset: -3.255 ms

Below is generated by plot.py at 2018-09-25 06:57:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.30 Mbit/s

95th percentile per-packet one-way delay: 32.132 ms

Loss rate: 0.00%

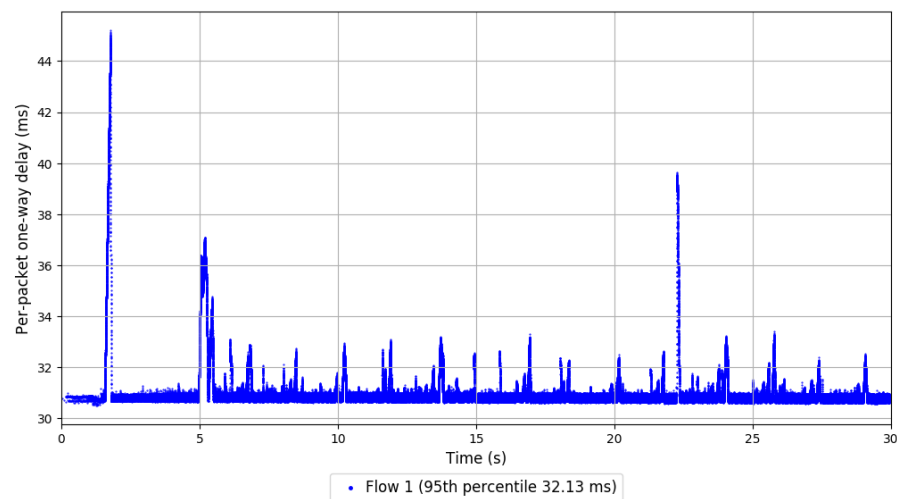
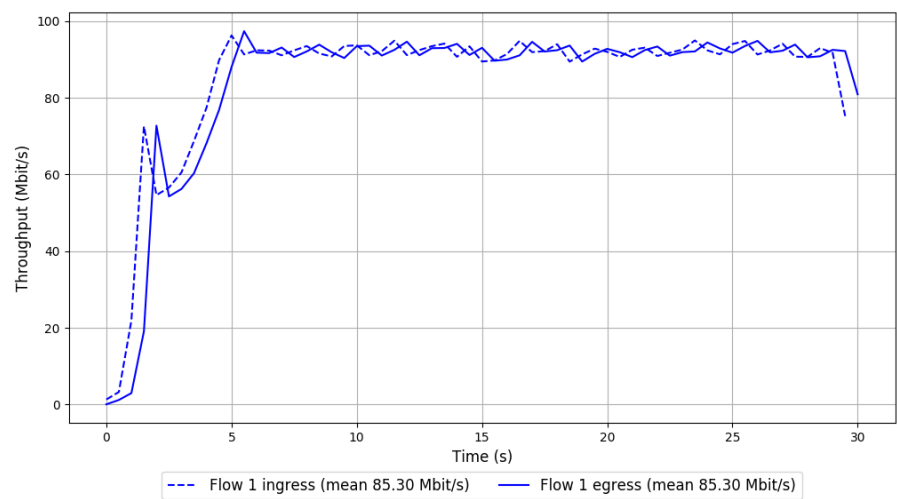
-- Flow 1:

Average throughput: 85.30 Mbit/s

95th percentile per-packet one-way delay: 32.132 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

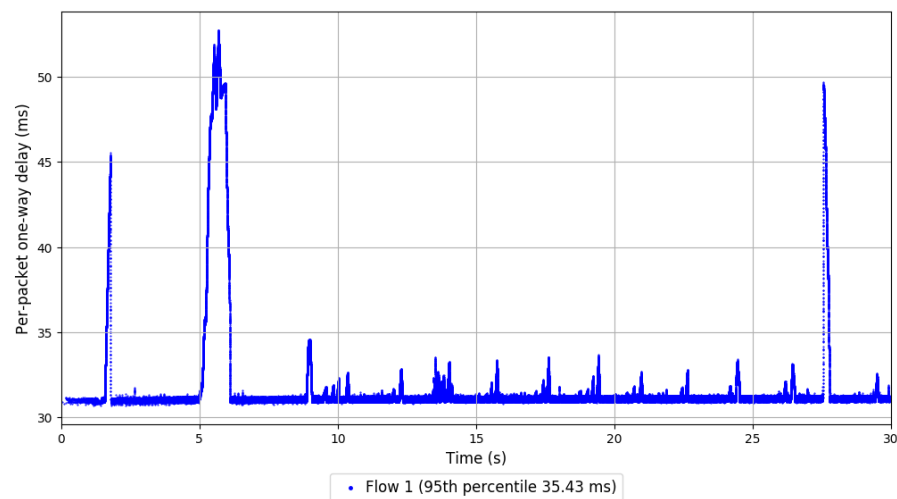
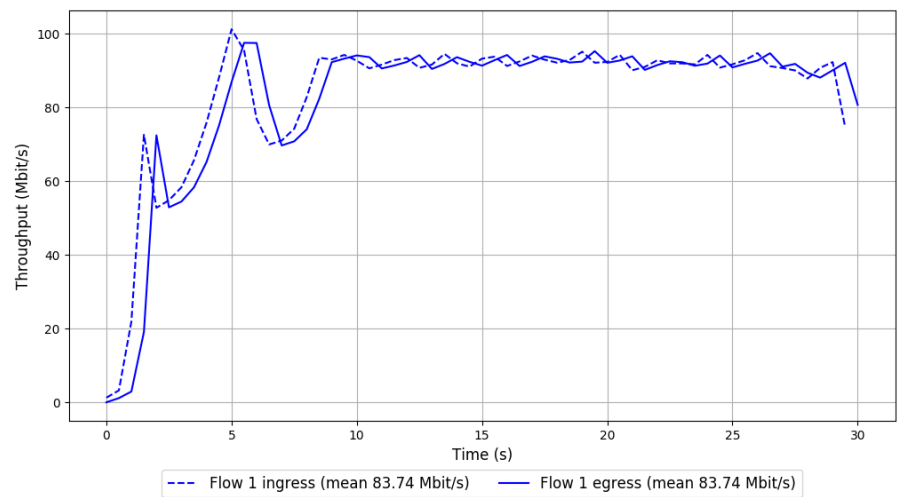


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 06:11:22
End at: 2018-09-25 06:11:52
Local clock offset: -1.291 ms
Remote clock offset: -3.048 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.74 Mbit/s
95th percentile per-packet one-way delay: 35.428 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.74 Mbit/s
95th percentile per-packet one-way delay: 35.428 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

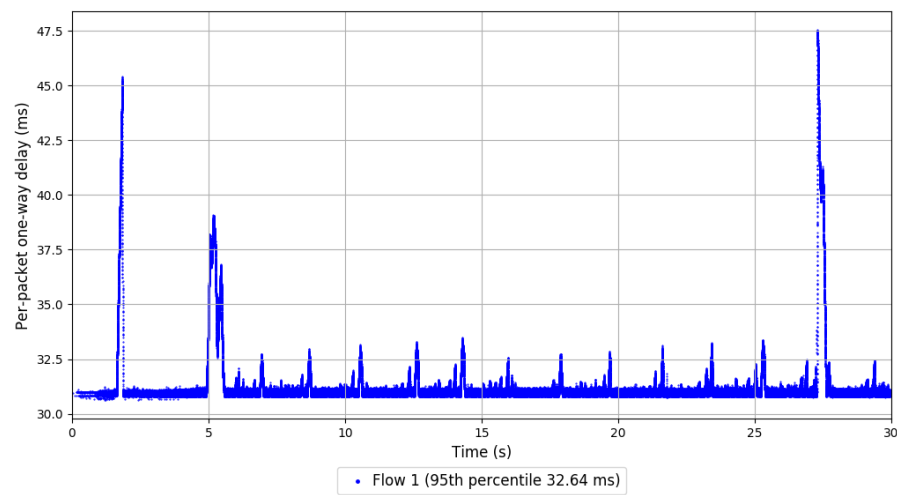
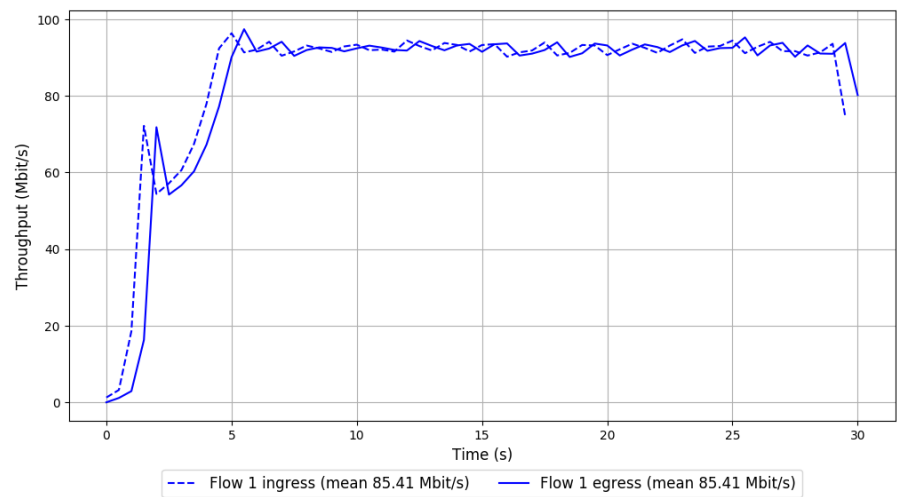


Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 06:36:12
End at: 2018-09-25 06:36:42
Local clock offset: -0.711 ms
Remote clock offset: -2.886 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.41 Mbit/s
95th percentile per-packet one-way delay: 32.641 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.41 Mbit/s
95th percentile per-packet one-way delay: 32.641 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

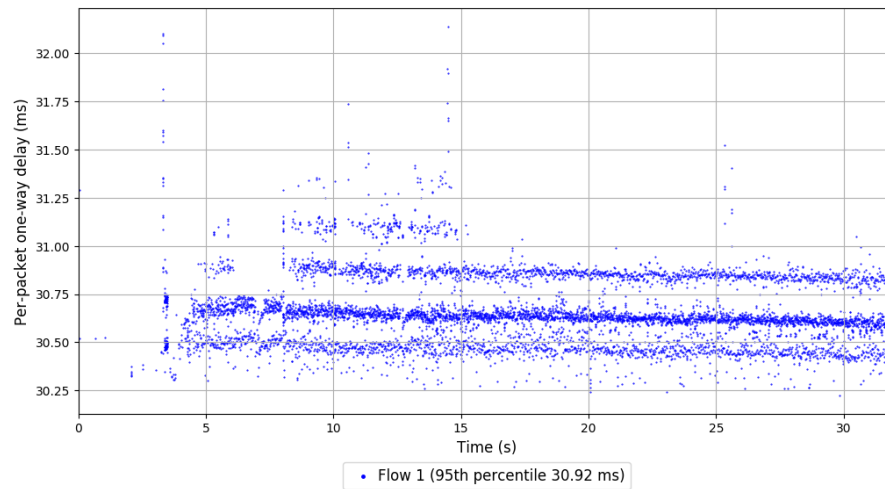
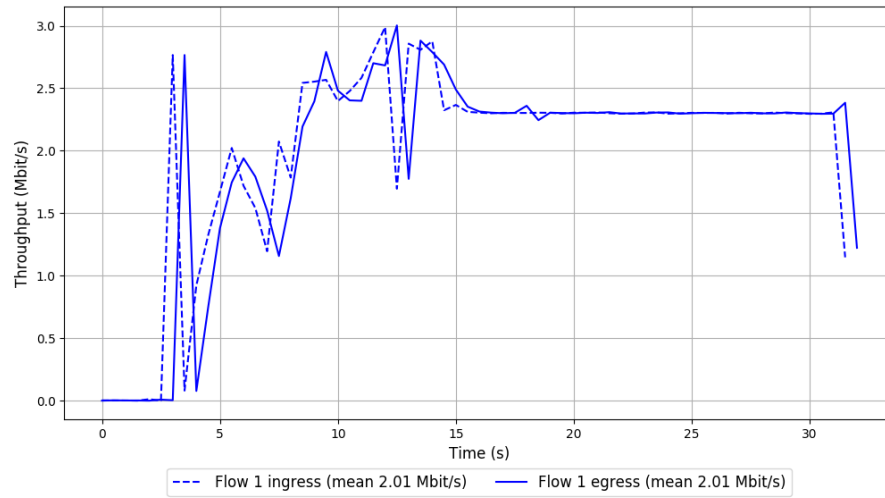


Run 1: Statistics of WebRTC media

Start at: 2018-09-25 04:53:17
End at: 2018-09-25 04:53:47
Local clock offset: -0.91 ms
Remote clock offset: -3.401 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 30.919 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 30.919 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

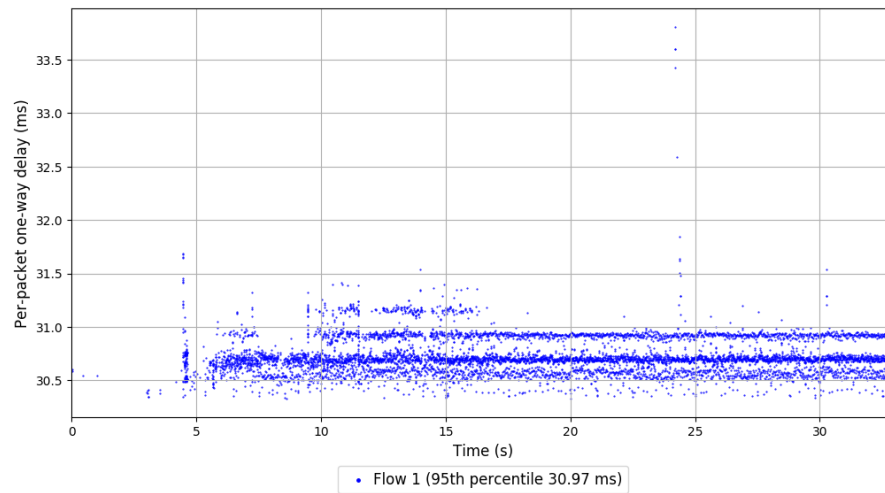
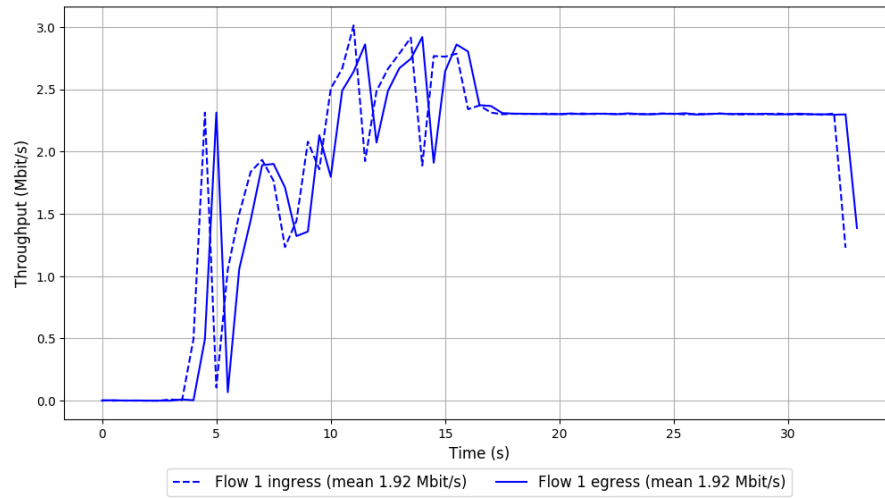


Run 2: Statistics of WebRTC media

Start at: 2018-09-25 05:18:37
End at: 2018-09-25 05:19:07
Local clock offset: 2.286 ms
Remote clock offset: -3.444 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 30.968 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 30.968 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

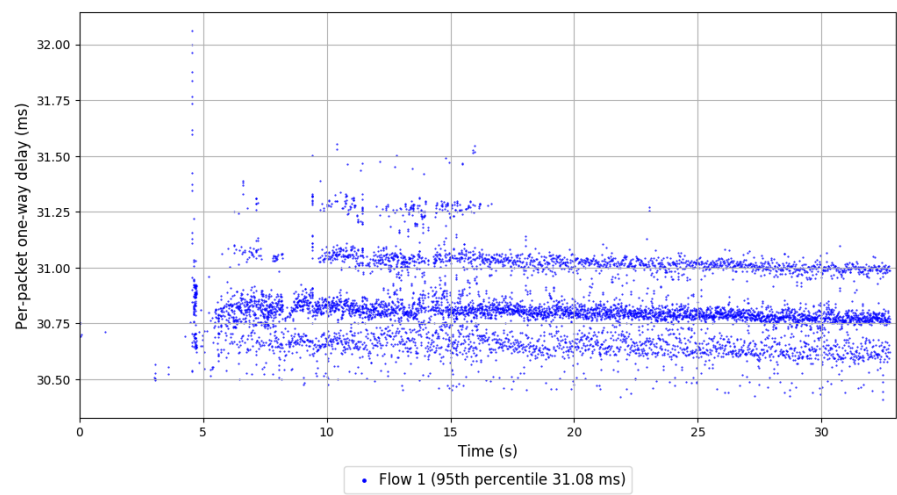
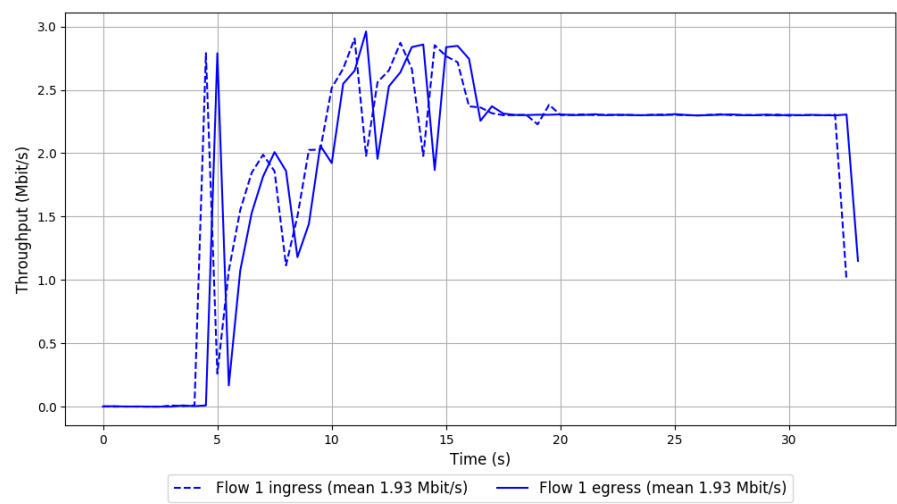


Run 3: Statistics of WebRTC media

Start at: 2018-09-25 05:43:50
End at: 2018-09-25 05:44:20
Local clock offset: 0.903 ms
Remote clock offset: -3.192 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.079 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

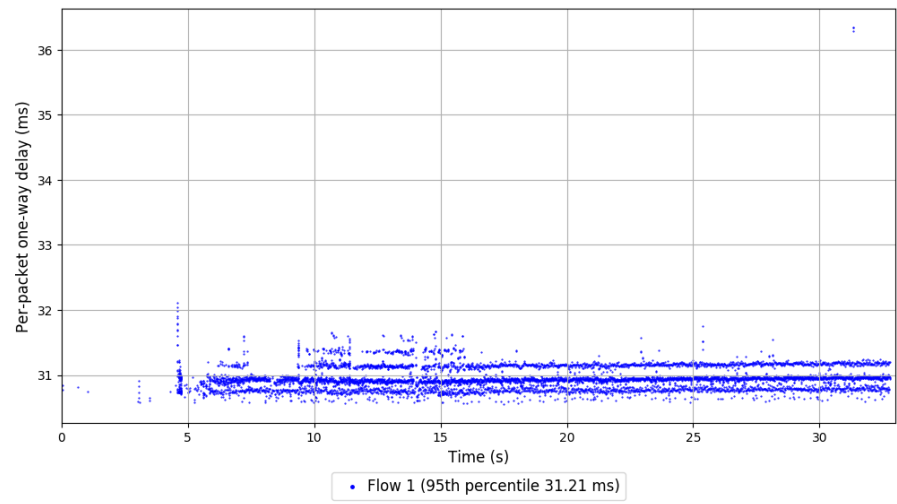
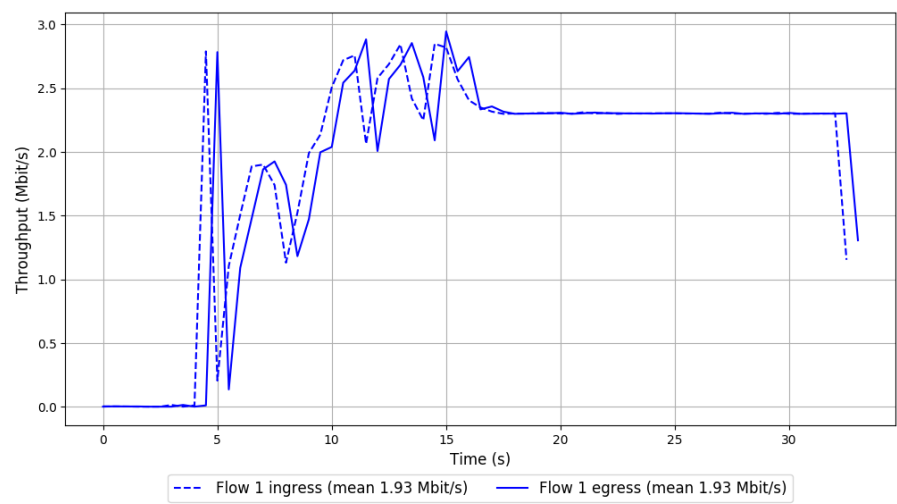


Run 4: Statistics of WebRTC media

Start at: 2018-09-25 06:08:50
End at: 2018-09-25 06:09:20
Local clock offset: -1.518 ms
Remote clock offset: -3.047 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.210 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 06:33:39
End at: 2018-09-25 06:34:09
Local clock offset: -0.669 ms
Remote clock offset: -3.044 ms

Below is generated by plot.py at 2018-09-25 06:57:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 31.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 31.112 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

