

Pantheon Report

Generated at 2018-09-11 00:21:09 (UTC).

Data path: AWS India 1 on `ens5` (*local*) → India on `em1` (*remote*).

Repeated the test of 18 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

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

System info:

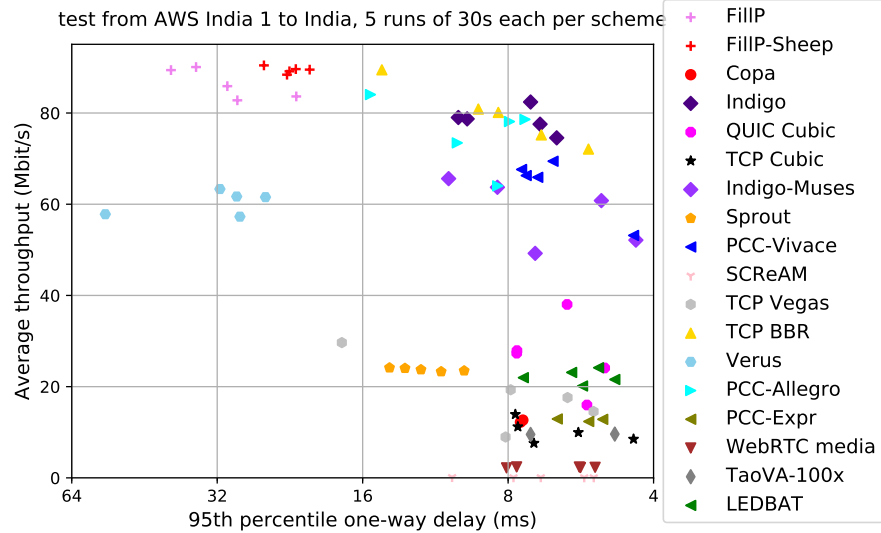
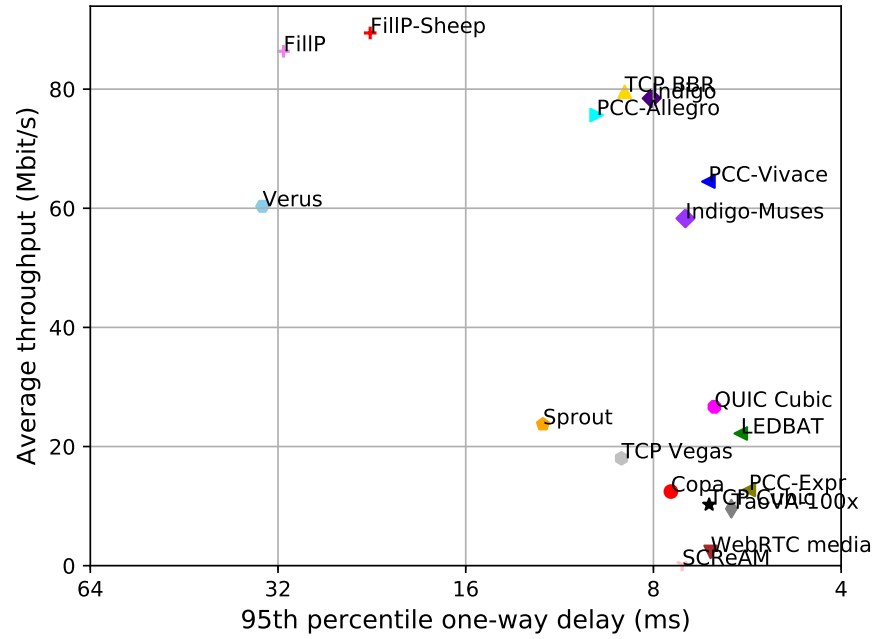
```
Linux 4.15.0-1020-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 184101 245469 368202
```

Git summary:

```
branch: muses @ f30bceca2aec2ef14a3cf71e25642f4a30905a03
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 India 1 to India, 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	79.56	8.90	9.74
Copa	2	12.45	7.50	67.37
TCP Cubic	5	10.24	6.51	0.68
FillP	5	86.36	31.36	12.07
FillP-Sheep	5	89.43	22.77	8.53
Indigo	5	78.45	8.05	7.47
LEDBAT	5	22.19	5.79	0.38
Indigo-Muses	5	58.29	7.11	6.43
PCC-Allegro	5	75.65	9.87	7.66
PCC-Expr	3	12.70	5.63	44.89
QUIC Cubic	5	26.67	6.39	1.60
SCReAM	5	0.12	7.20	1.05
Sprout	5	23.74	12.03	1.99
TaoVA-100x	2	9.56	6.00	81.93
TCP Vegas	5	18.02	9.00	0.84
Verus	5	60.33	33.89	16.91
PCC-Vivace	5	64.48	6.53	5.87
WebRTC media	5	2.31	6.48	0.59

Run 1: Statistics of TCP BBR

Start at: 2018-09-10 22:34:26

End at: 2018-09-10 22:34:56

Local clock offset: -3.409 ms

Remote clock offset: -1.127 ms

Below is generated by plot.py at 2018-09-11 00:15:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.13 Mbit/s

95th percentile per-packet one-way delay: 8.382 ms

Loss rate: 9.76%

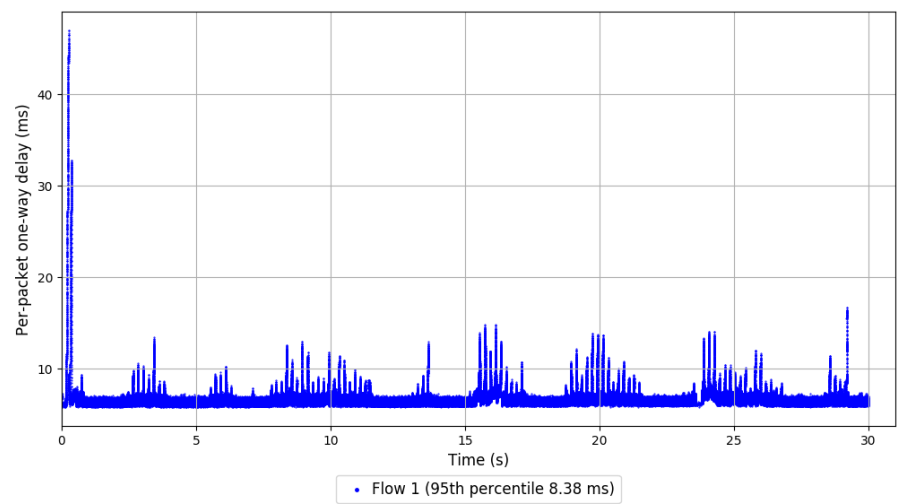
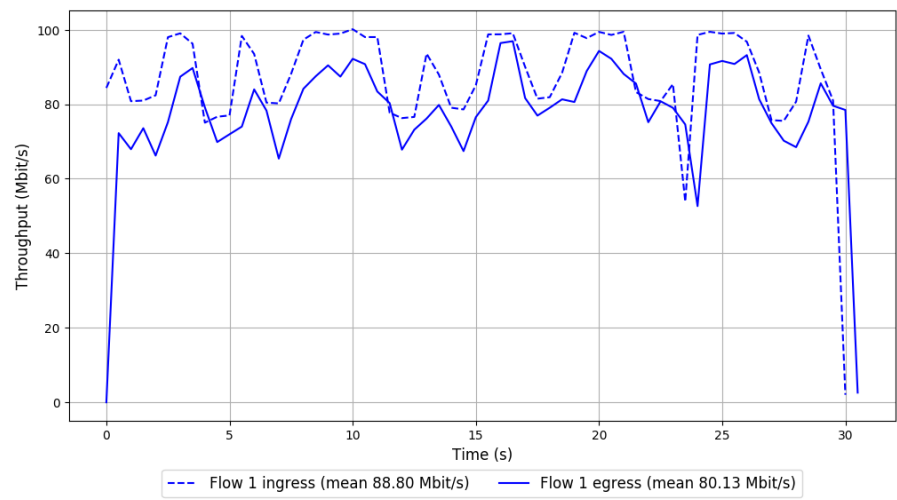
-- Flow 1:

Average throughput: 80.13 Mbit/s

95th percentile per-packet one-way delay: 8.382 ms

Loss rate: 9.76%

Run 1: Report of TCP BBR — Data Link

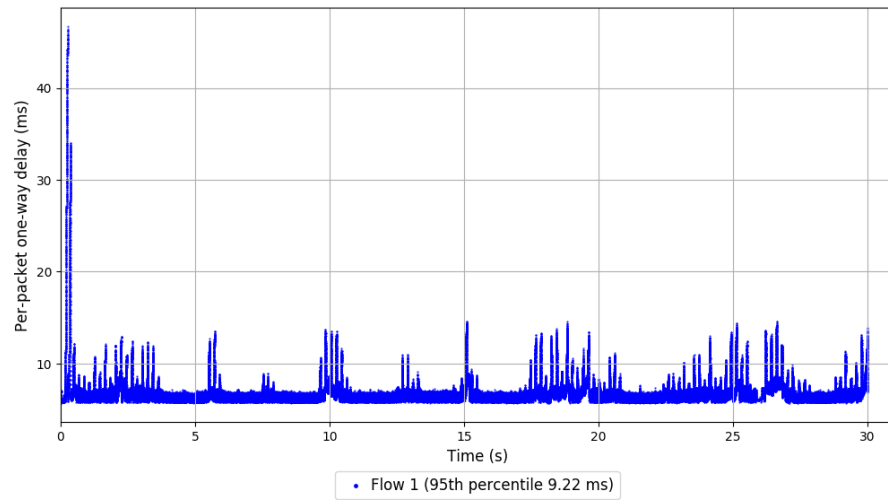
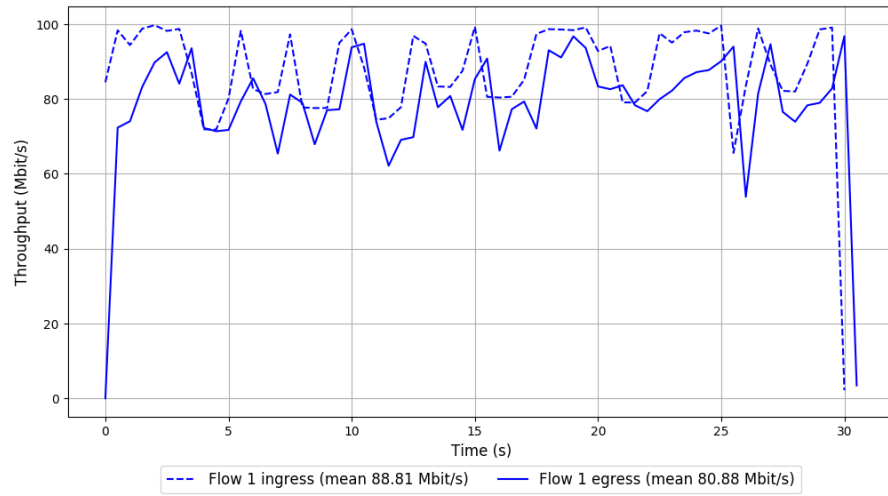


Run 2: Statistics of TCP BBR

Start at: 2018-09-10 22:54:49
End at: 2018-09-10 22:55:19
Local clock offset: -3.661 ms
Remote clock offset: -1.943 ms

Below is generated by plot.py at 2018-09-11 00:15:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 80.88 Mbit/s
95th percentile per-packet one-way delay: 9.219 ms
Loss rate: 8.94%
-- Flow 1:
Average throughput: 80.88 Mbit/s
95th percentile per-packet one-way delay: 9.219 ms
Loss rate: 8.94%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-09-10 23:15:11

End at: 2018-09-10 23:15:41

Local clock offset: 0.405 ms

Remote clock offset: -2.54 ms

Below is generated by plot.py at 2018-09-11 00:15:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.10 Mbit/s

95th percentile per-packet one-way delay: 5.455 ms

Loss rate: 11.77%

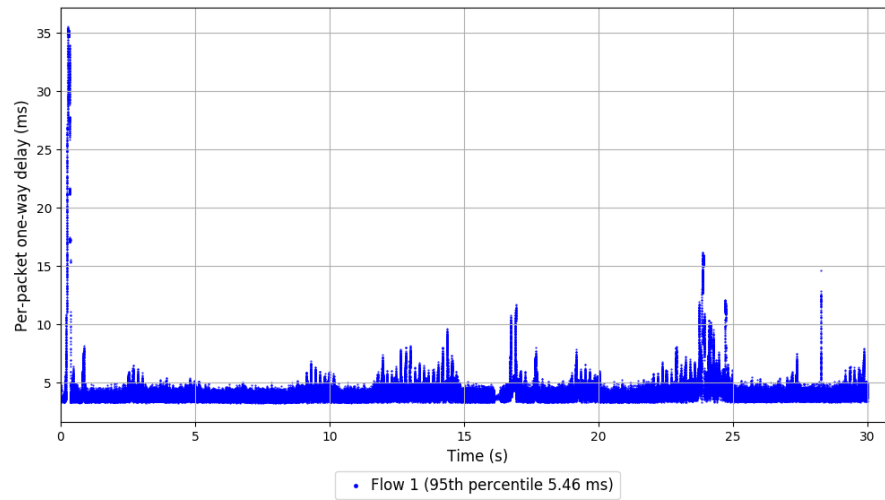
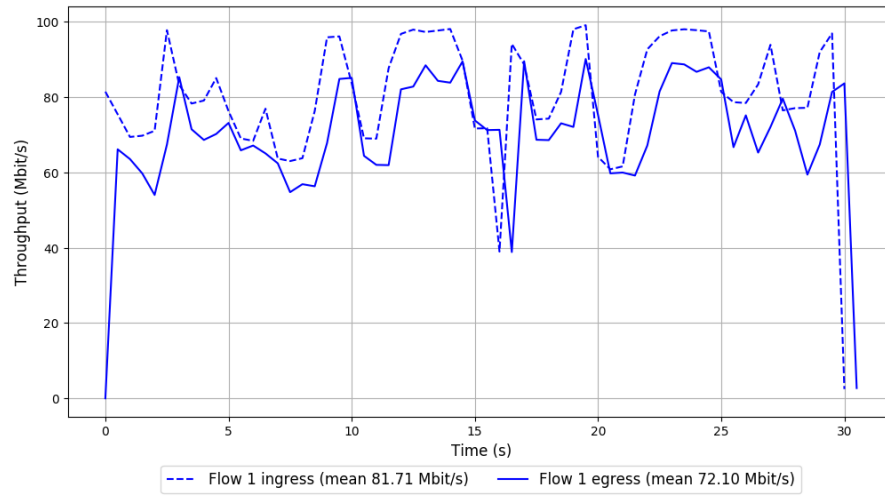
-- Flow 1:

Average throughput: 72.10 Mbit/s

95th percentile per-packet one-way delay: 5.455 ms

Loss rate: 11.77%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-09-10 23:35:16

End at: 2018-09-10 23:35:46

Local clock offset: 1.939 ms

Remote clock offset: -2.73 ms

Below is generated by plot.py at 2018-09-11 00:15:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.20 Mbit/s

95th percentile per-packet one-way delay: 6.830 ms

Loss rate: 11.17%

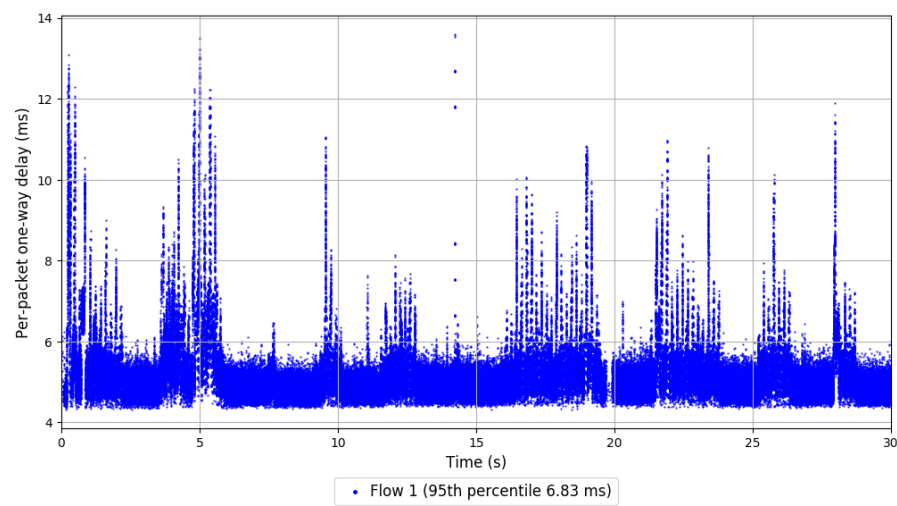
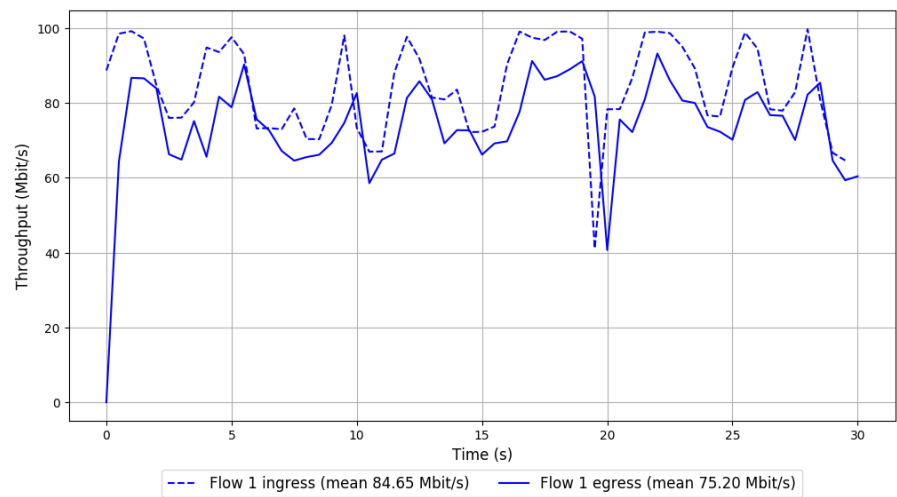
-- Flow 1:

Average throughput: 75.20 Mbit/s

95th percentile per-packet one-way delay: 6.830 ms

Loss rate: 11.17%

Run 4: Report of TCP BBR — Data Link

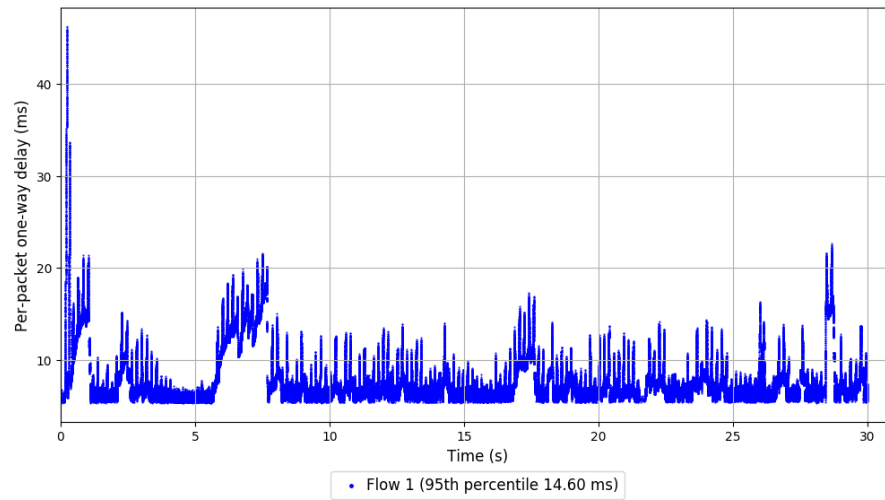
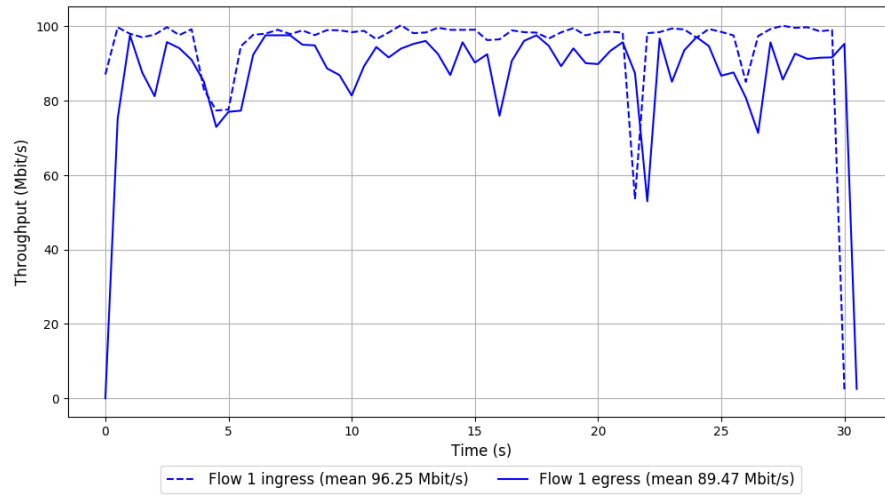


Run 5: Statistics of TCP BBR

Start at: 2018-09-10 23:55:23
End at: 2018-09-10 23:55:53
Local clock offset: 0.883 ms
Remote clock offset: -2.797 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 14.600 ms
Loss rate: 7.04%
-- Flow 1:
Average throughput: 89.47 Mbit/s
95th percentile per-packet one-way delay: 14.600 ms
Loss rate: 7.04%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

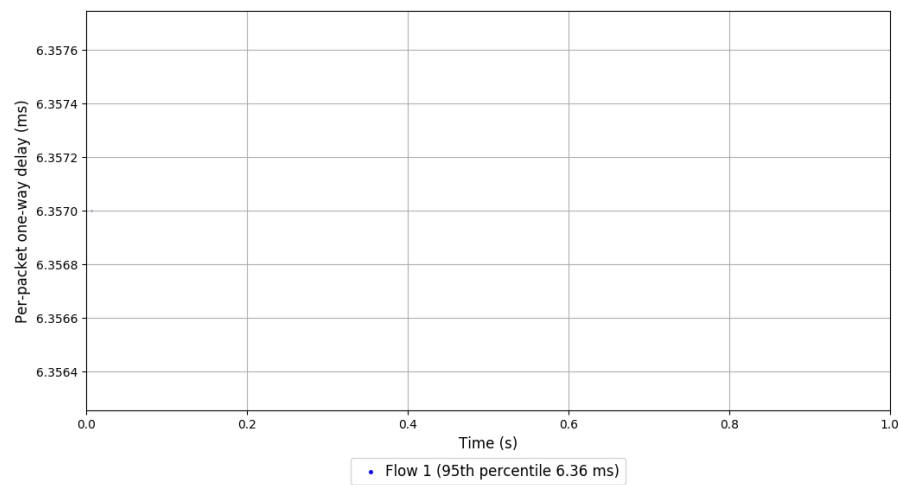
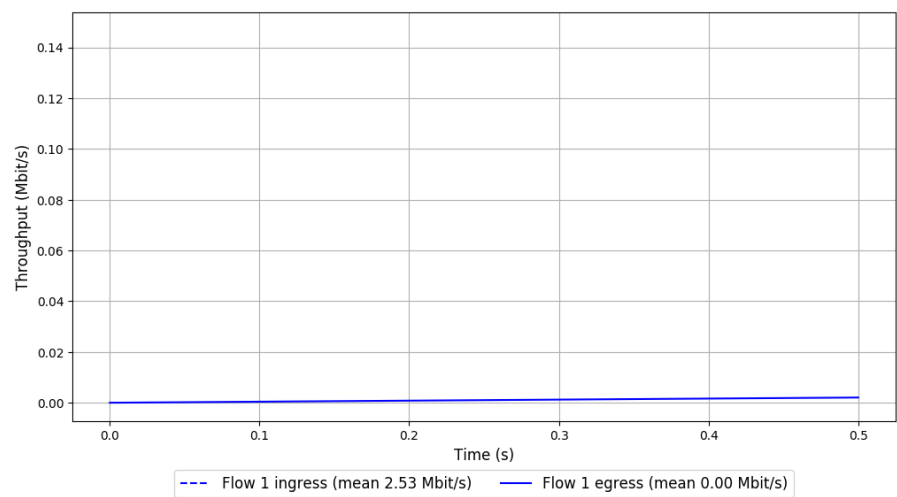
Start at: 2018-09-10 22:37:48

End at: 2018-09-10 22:38:18

Local clock offset: -3.278 ms

Remote clock offset: -1.967 ms

Run 1: Report of Copa — Data Link

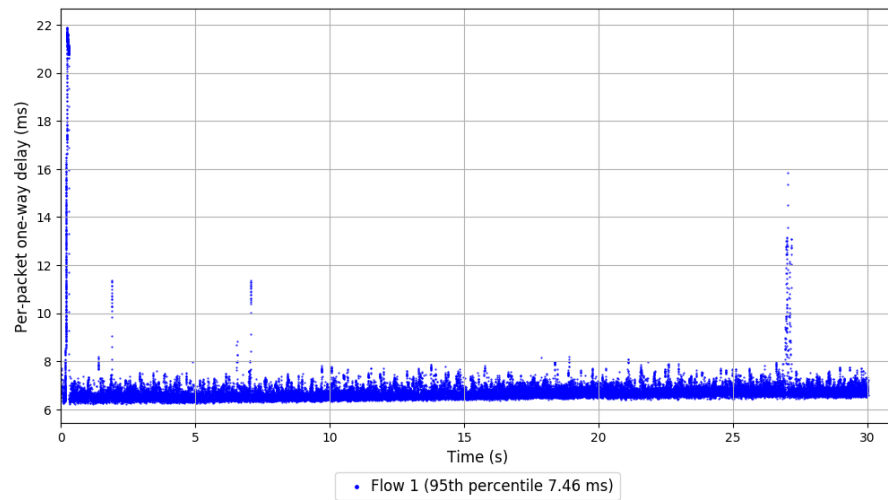
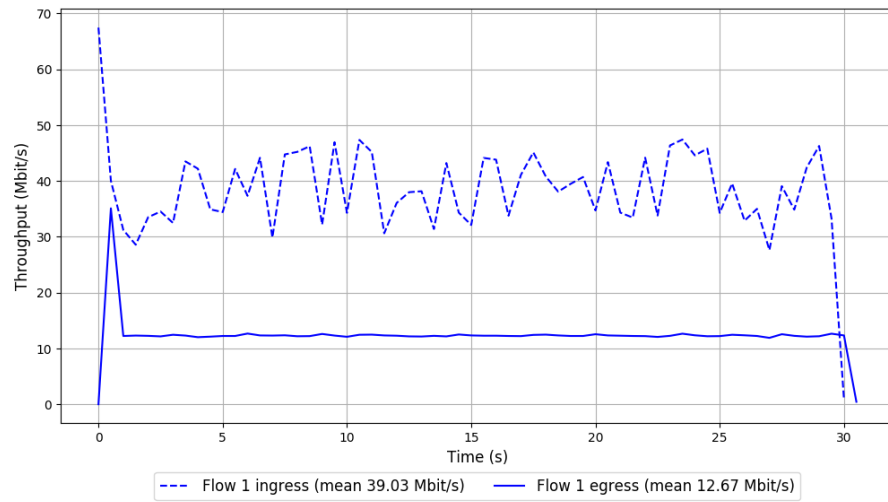


Run 2: Statistics of Copa

Start at: 2018-09-10 22:58:12
End at: 2018-09-10 22:58:42
Local clock offset: -5.349 ms
Remote clock offset: -0.964 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 7.458 ms
Loss rate: 67.54%
-- Flow 1:
Average throughput: 12.67 Mbit/s
95th percentile per-packet one-way delay: 7.458 ms
Loss rate: 67.54%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

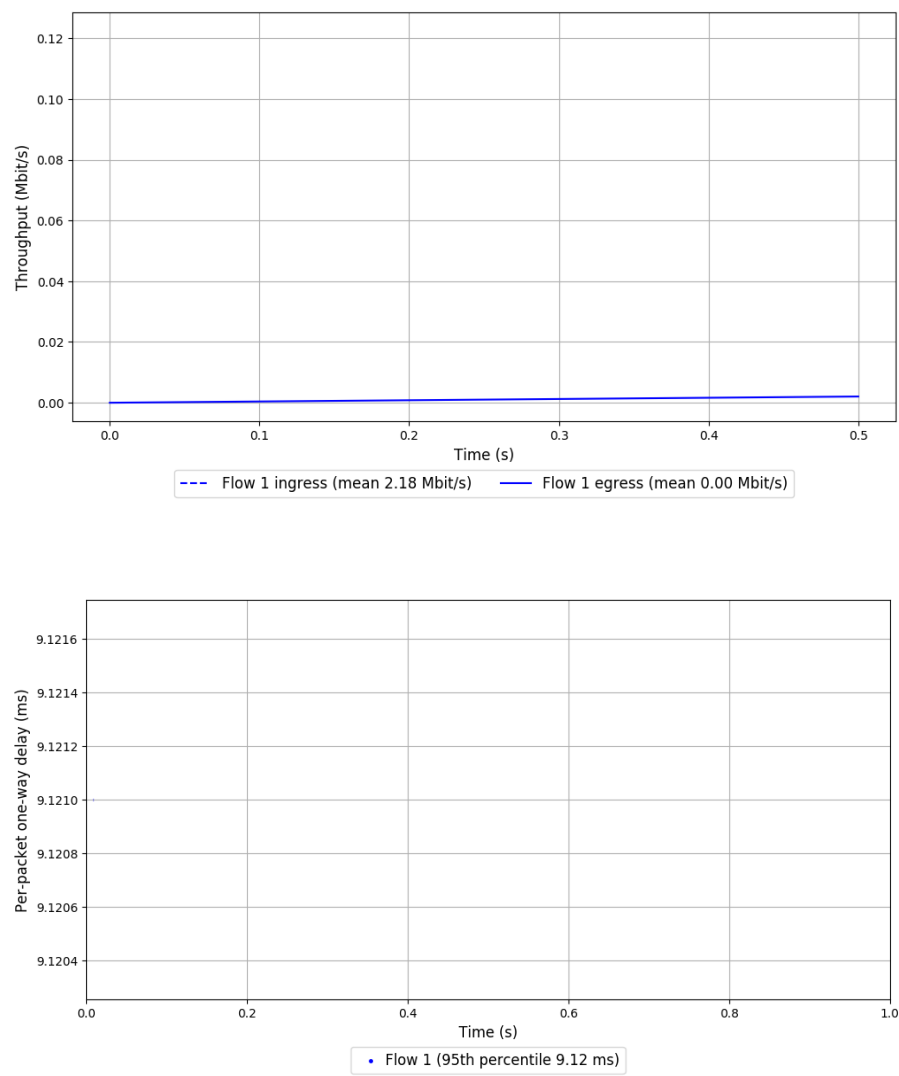
Start at: 2018-09-10 23:18:31

End at: 2018-09-10 23:19:01

Local clock offset: -2.644 ms

Remote clock offset: -2.295 ms

Run 3: Report of Copa — Data Link

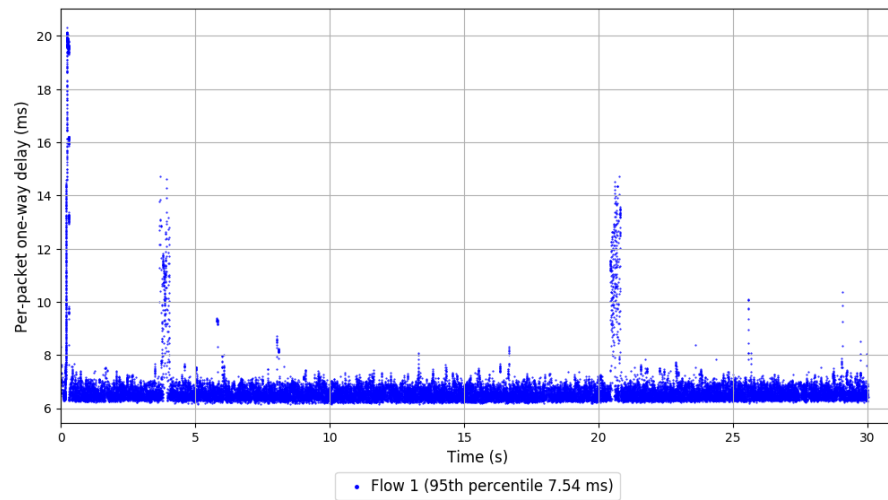
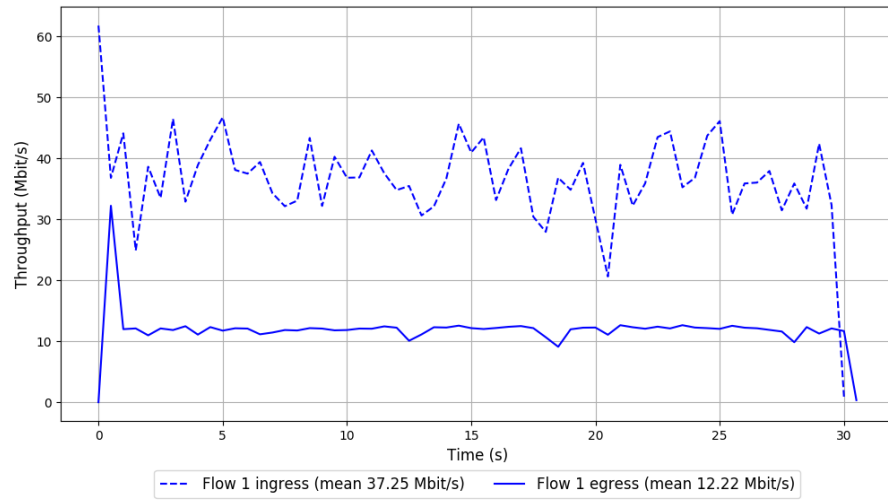


Run 4: Statistics of Copa

Start at: 2018-09-10 23:38:36
End at: 2018-09-10 23:39:06
Local clock offset: 0.392 ms
Remote clock offset: -1.592 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 7.543 ms
Loss rate: 67.20%
-- Flow 1:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 7.543 ms
Loss rate: 67.20%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

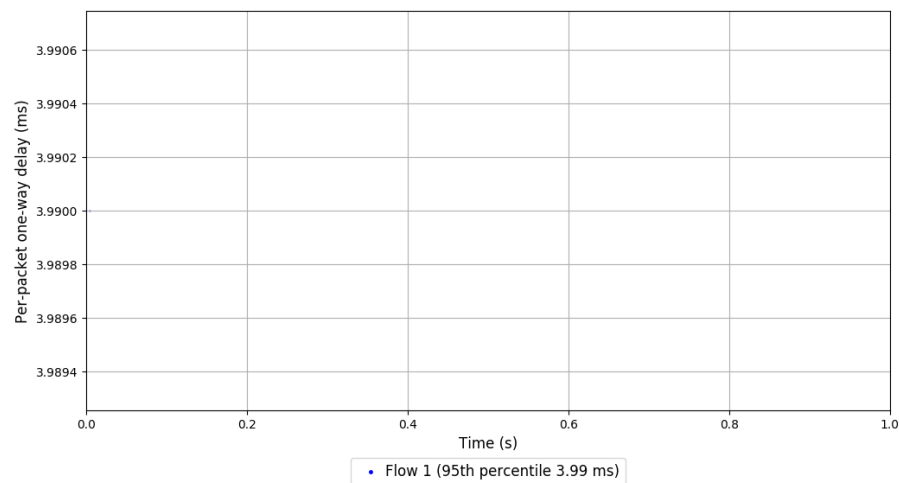
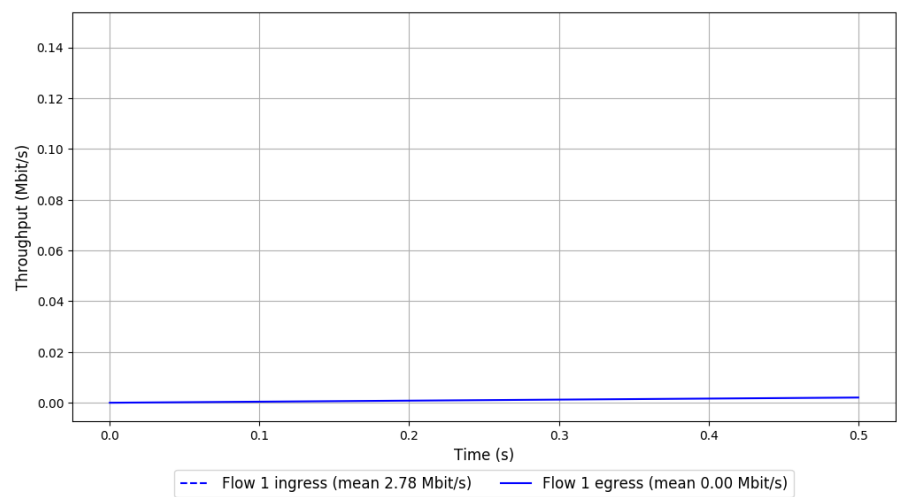
Start at: 2018-09-10 23:58:45

End at: 2018-09-10 23:59:15

Local clock offset: 3.386 ms

Remote clock offset: -2.278 ms

Run 5: Report of Copa — Data Link

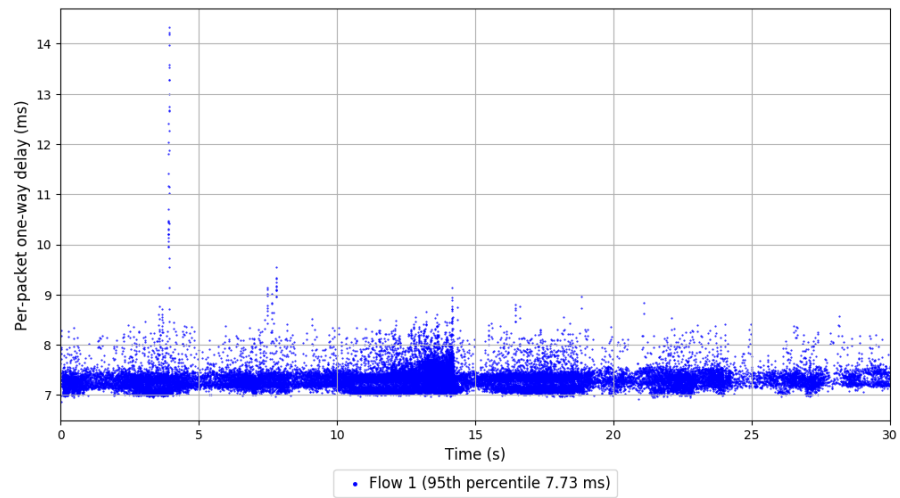
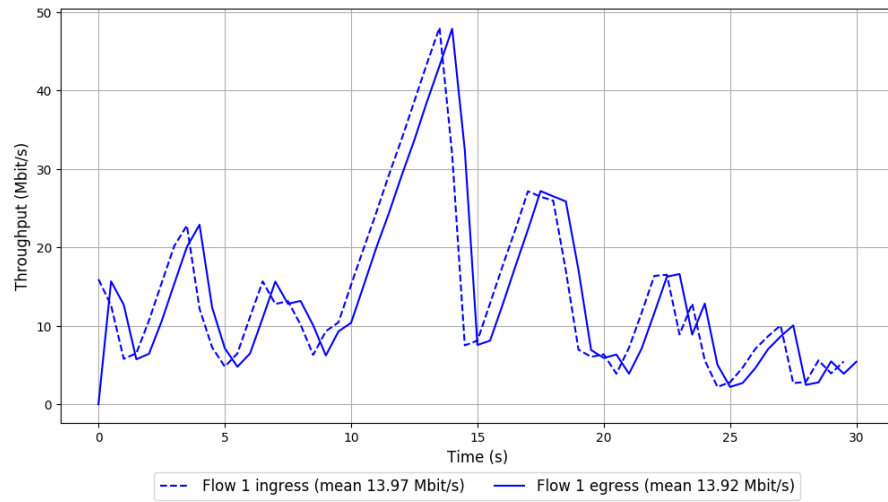


Run 1: Statistics of TCP Cubic

Start at: 2018-09-10 22:41:17
End at: 2018-09-10 22:41:47
Local clock offset: -4.703 ms
Remote clock offset: -1.885 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 7.728 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 13.92 Mbit/s
95th percentile per-packet one-way delay: 7.728 ms
Loss rate: 0.34%

Run 1: Report of TCP Cubic — Data Link

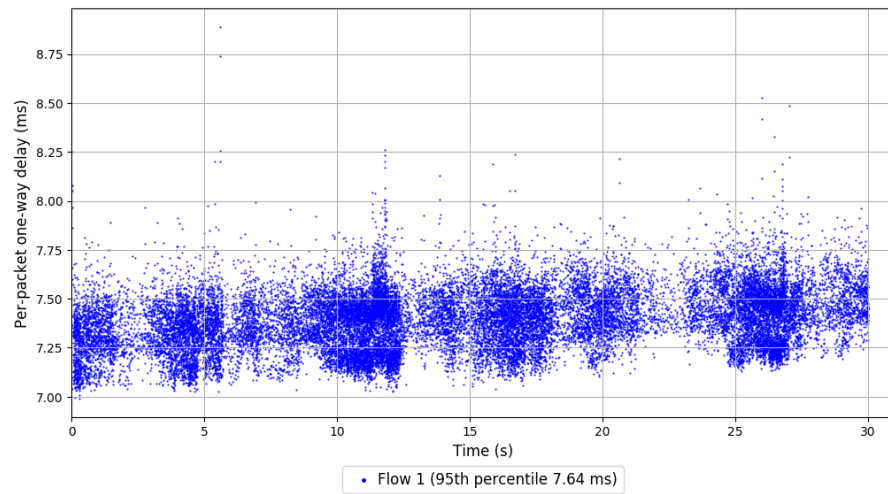
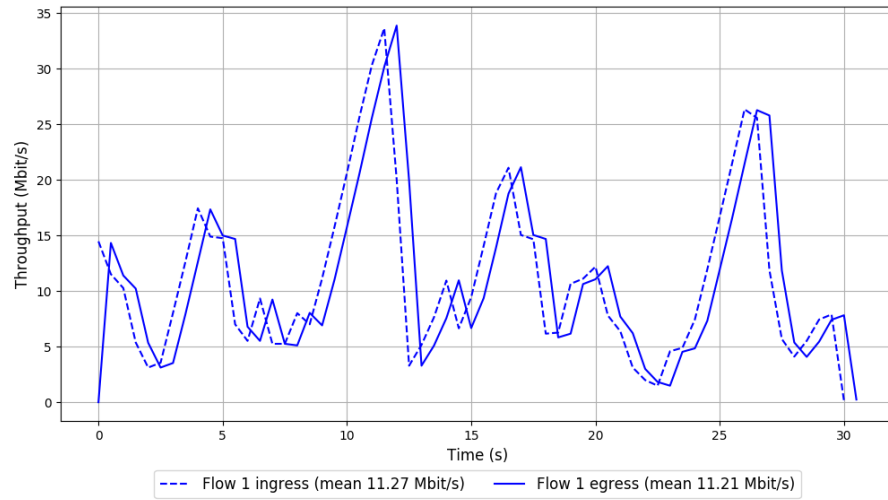


Run 2: Statistics of TCP Cubic

Start at: 2018-09-10 23:01:35
End at: 2018-09-10 23:02:05
Local clock offset: -2.568 ms
Remote clock offset: -1.123 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 7.637 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 11.21 Mbit/s
95th percentile per-packet one-way delay: 7.637 ms
Loss rate: 0.51%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-09-10 23:21:54

End at: 2018-09-10 23:22:24

Local clock offset: 1.833 ms

Remote clock offset: -2.11 ms

Below is generated by plot.py at 2018-09-11 00:15:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.51 Mbit/s

95th percentile per-packet one-way delay: 4.401 ms

Loss rate: 0.90%

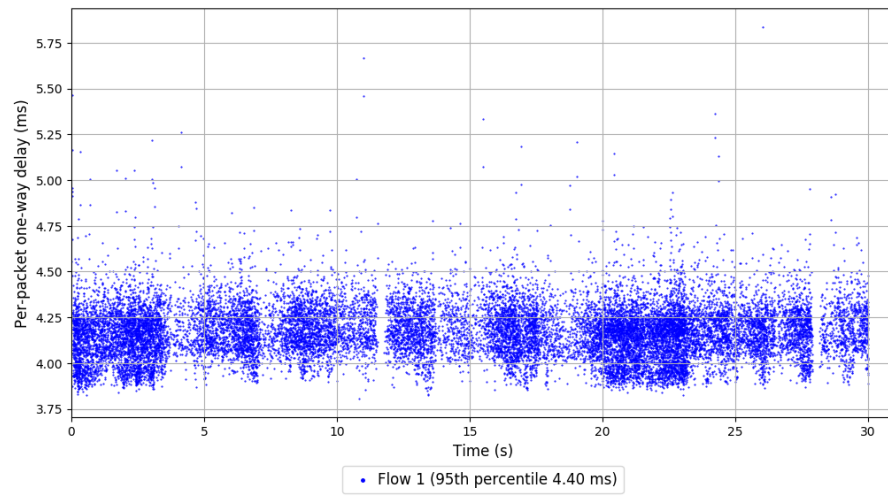
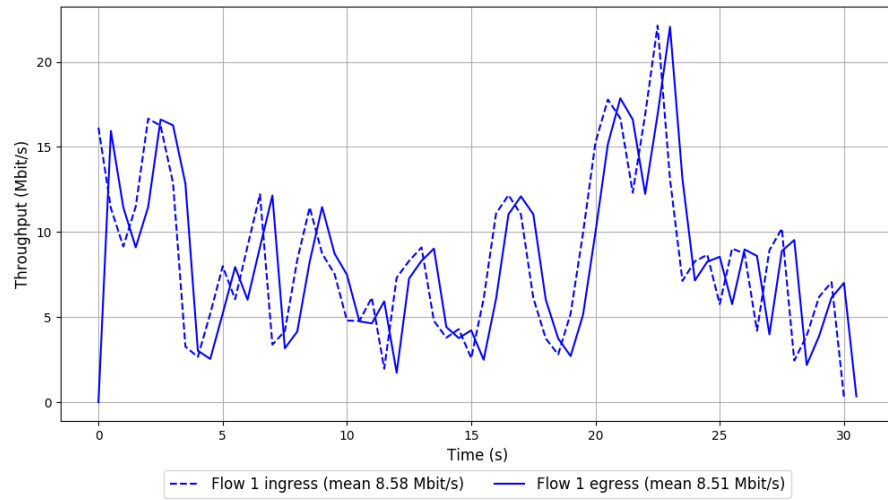
-- Flow 1:

Average throughput: 8.51 Mbit/s

95th percentile per-packet one-way delay: 4.401 ms

Loss rate: 0.90%

Run 3: Report of TCP Cubic — Data Link

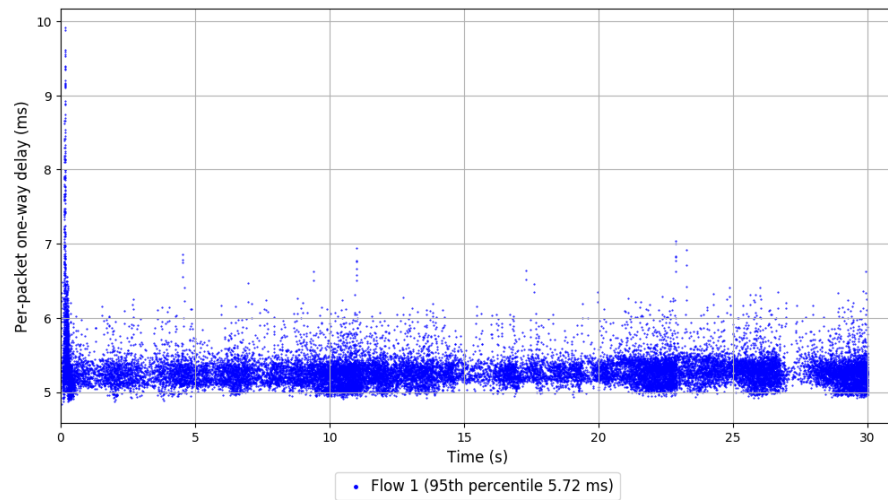
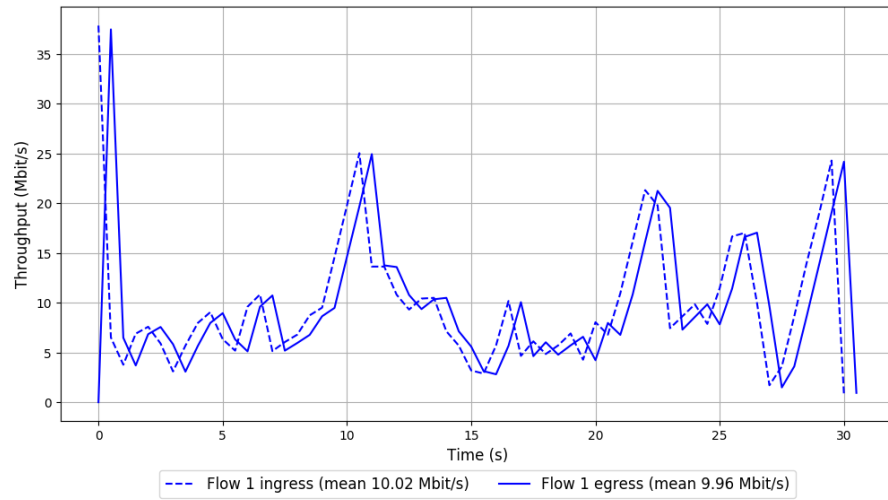


Run 4: Statistics of TCP Cubic

Start at: 2018-09-10 23:41:57
End at: 2018-09-10 23:42:27
Local clock offset: 1.32 ms
Remote clock offset: -3.264 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 5.724 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 5.724 ms
Loss rate: 0.62%

Run 4: Report of TCP Cubic — Data Link

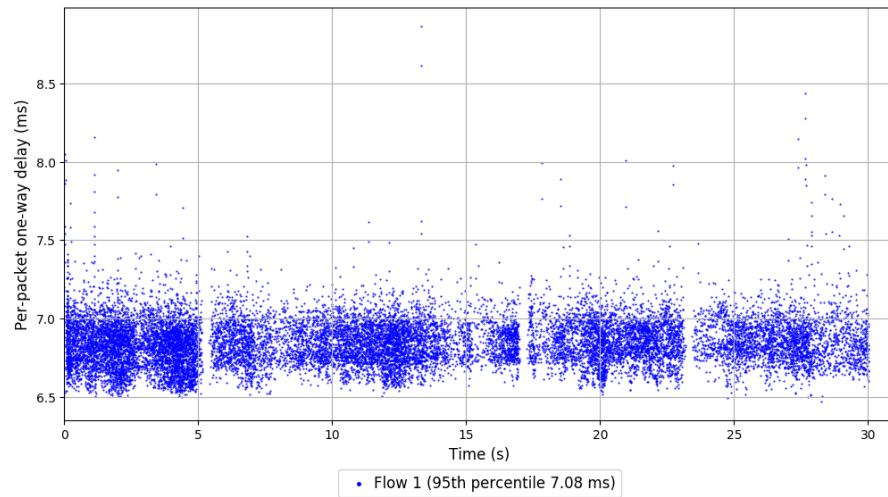
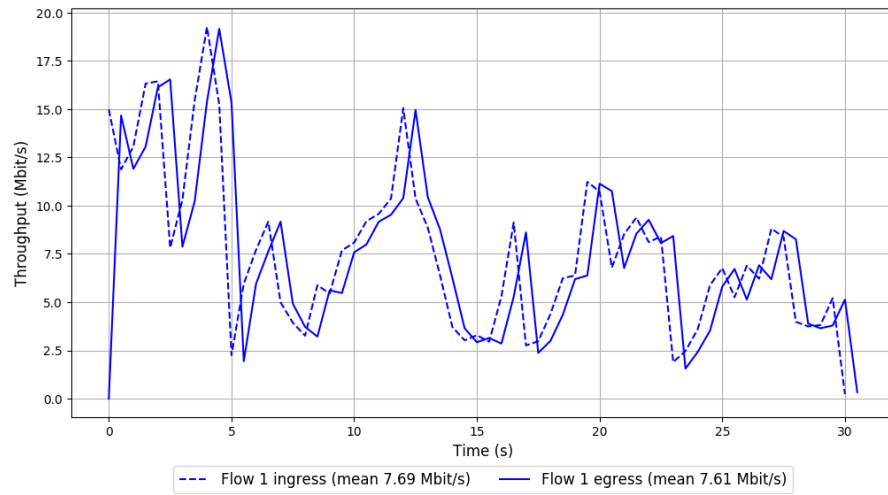


Run 5: Statistics of TCP Cubic

Start at: 2018-09-11 00:02:11
End at: 2018-09-11 00:02:41
Local clock offset: 0.633 ms
Remote clock offset: -2.564 ms

Below is generated by plot.py at 2018-09-11 00:15:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 7.075 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 7.075 ms
Loss rate: 1.01%

Run 5: Report of TCP Cubic — Data Link

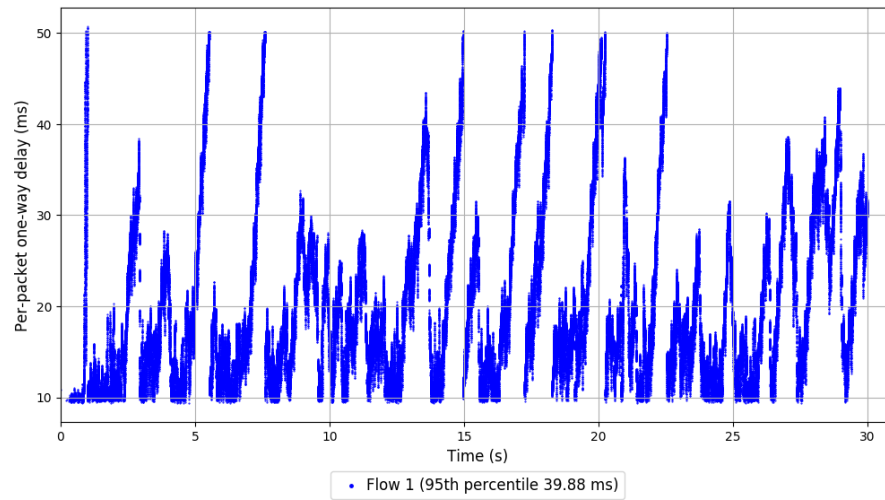
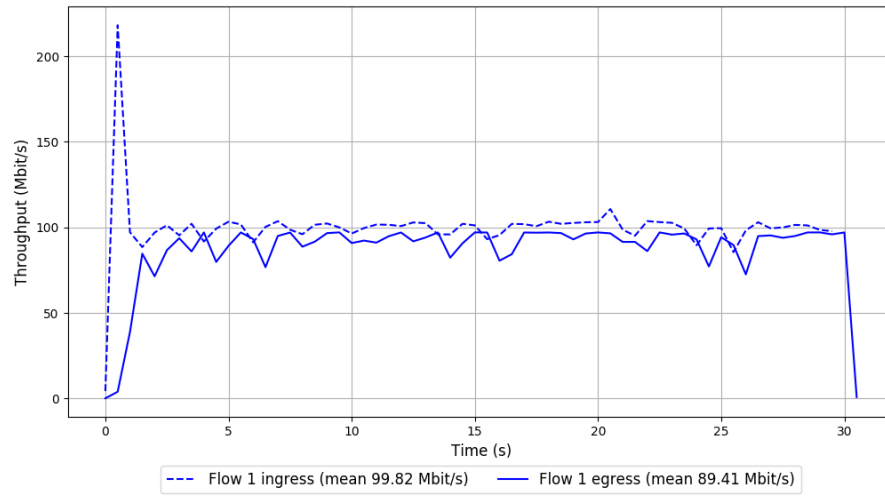


Run 1: Statistics of FillP

Start at: 2018-09-10 22:49:10
End at: 2018-09-10 22:49:40
Local clock offset: -6.46 ms
Remote clock offset: -1.007 ms

Below is generated by plot.py at 2018-09-11 00:16:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.41 Mbit/s
95th percentile per-packet one-way delay: 39.885 ms
Loss rate: 10.37%
-- Flow 1:
Average throughput: 89.41 Mbit/s
95th percentile per-packet one-way delay: 39.885 ms
Loss rate: 10.37%

Run 1: Report of FillP — Data Link

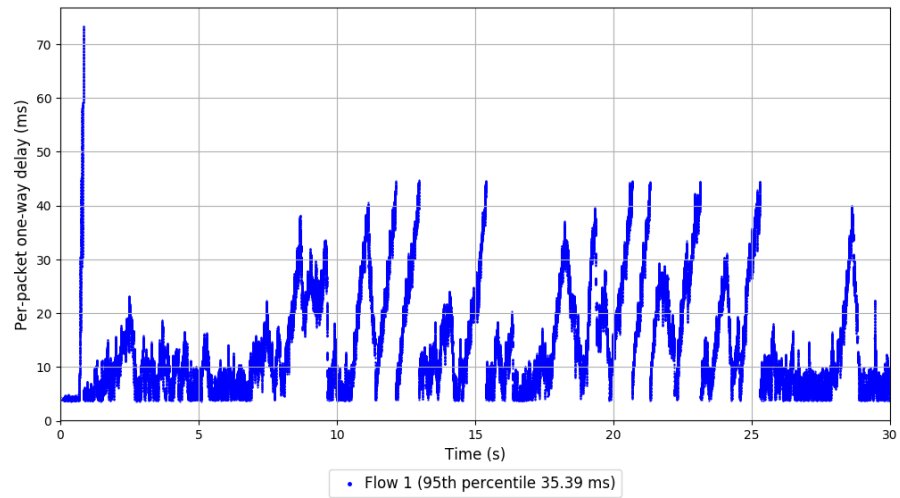
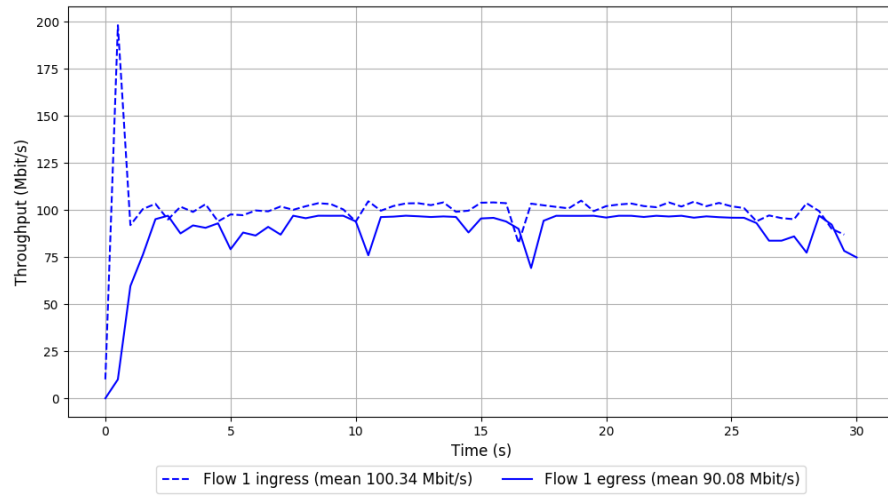


Run 2: Statistics of FillP

Start at: 2018-09-10 23:09:32
End at: 2018-09-10 23:10:02
Local clock offset: 0.043 ms
Remote clock offset: -1.581 ms

Below is generated by plot.py at 2018-09-11 00:16:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.08 Mbit/s
95th percentile per-packet one-way delay: 35.394 ms
Loss rate: 10.22%
-- Flow 1:
Average throughput: 90.08 Mbit/s
95th percentile per-packet one-way delay: 35.394 ms
Loss rate: 10.22%

Run 2: Report of FillP — Data Link

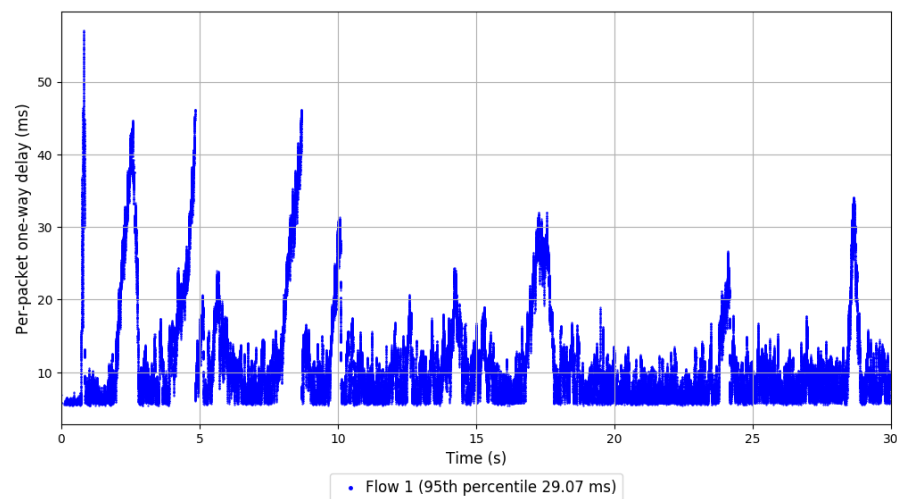
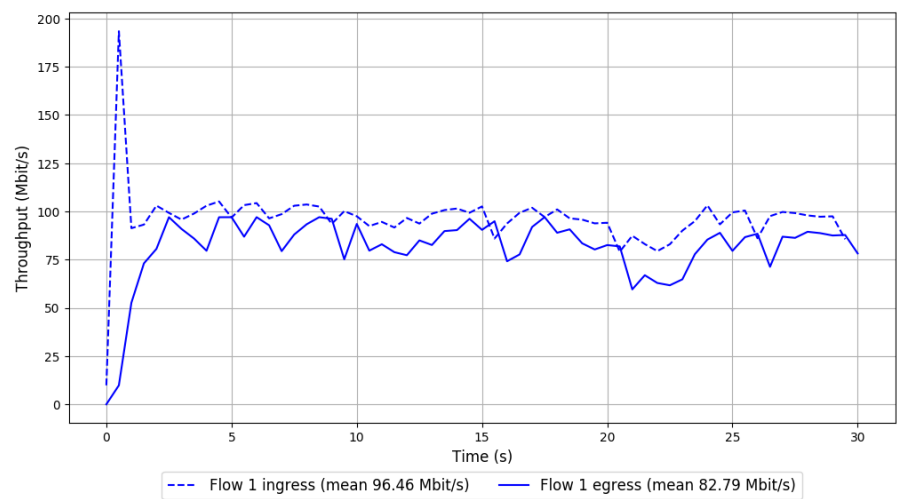


Run 3: Statistics of FillP

Start at: 2018-09-10 23:29:41
End at: 2018-09-10 23:30:11
Local clock offset: -0.491 ms
Remote clock offset: -2.043 ms

Below is generated by plot.py at 2018-09-11 00:16:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 29.071 ms
Loss rate: 14.17%
-- Flow 1:
Average throughput: 82.79 Mbit/s
95th percentile per-packet one-way delay: 29.071 ms
Loss rate: 14.17%

Run 3: Report of FillP — Data Link

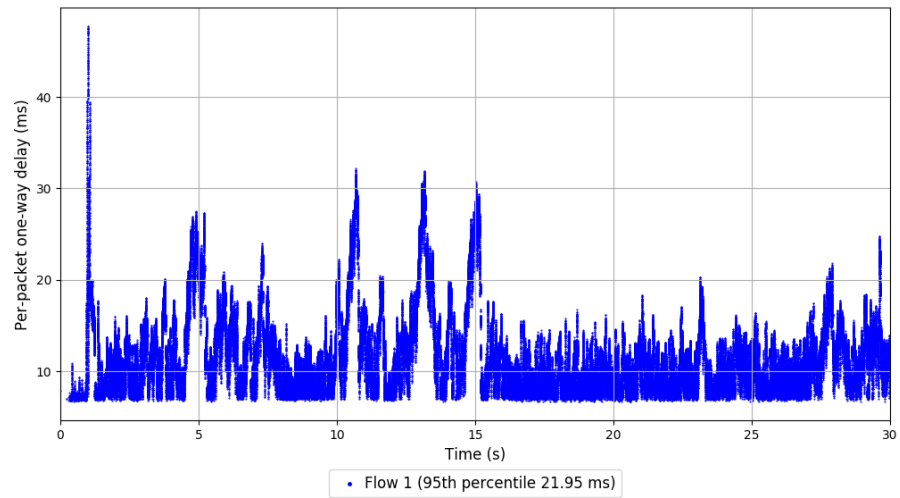
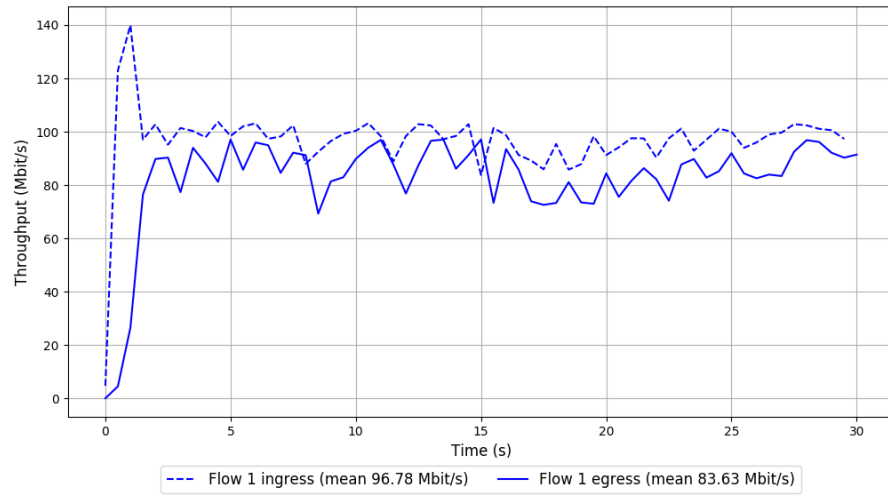


Run 4: Statistics of FillP

Start at: 2018-09-10 23:49:44
End at: 2018-09-10 23:50:14
Local clock offset: 1.26 ms
Remote clock offset: -1.742 ms

Below is generated by plot.py at 2018-09-11 00:17:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.63 Mbit/s
95th percentile per-packet one-way delay: 21.953 ms
Loss rate: 13.57%
-- Flow 1:
Average throughput: 83.63 Mbit/s
95th percentile per-packet one-way delay: 21.953 ms
Loss rate: 13.57%

Run 4: Report of FillP — Data Link

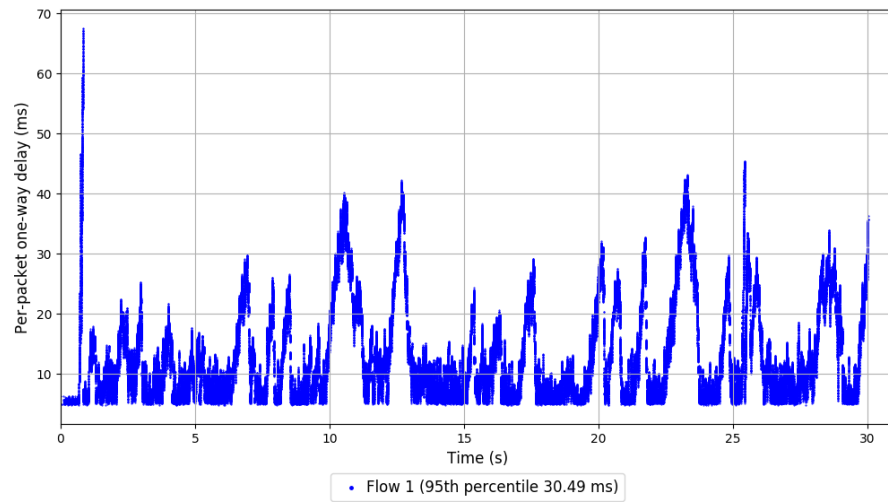
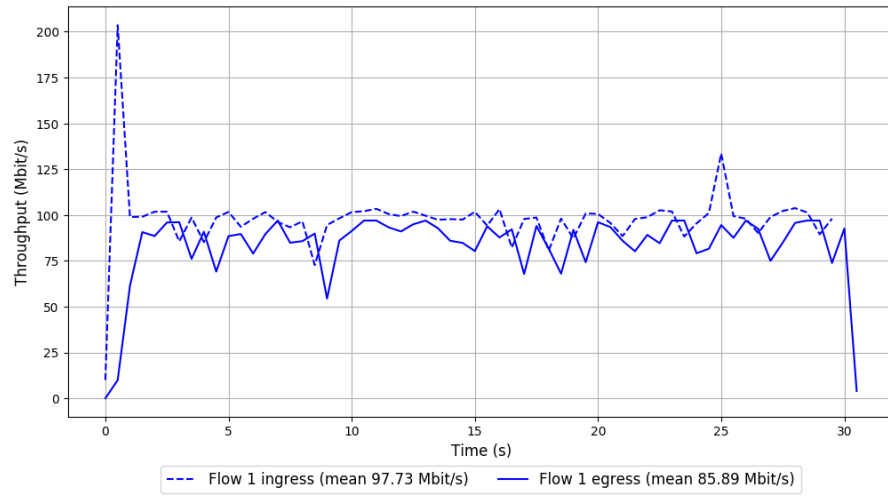


Run 5: Statistics of FillP

Start at: 2018-09-11 00:10:03
End at: 2018-09-11 00:10:33
Local clock offset: 0.868 ms
Remote clock offset: -2.381 ms

Below is generated by plot.py at 2018-09-11 00:17:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.89 Mbit/s
95th percentile per-packet one-way delay: 30.492 ms
Loss rate: 12.03%
-- Flow 1:
Average throughput: 85.89 Mbit/s
95th percentile per-packet one-way delay: 30.492 ms
Loss rate: 12.03%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-09-10 22:48:00

End at: 2018-09-10 22:48:30

Local clock offset: -4.817 ms

Remote clock offset: -1.19 ms

Below is generated by plot.py at 2018-09-11 00:17:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.44 Mbit/s

95th percentile per-packet one-way delay: 25.612 ms

Loss rate: 7.45%

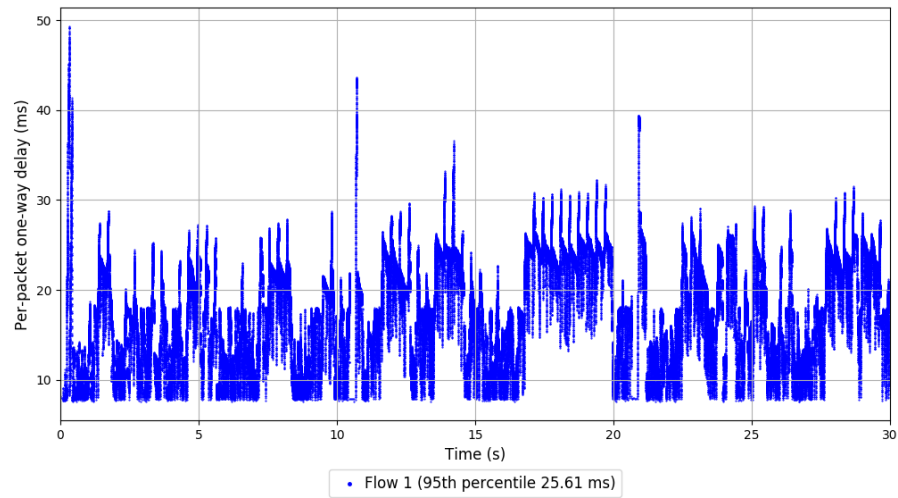
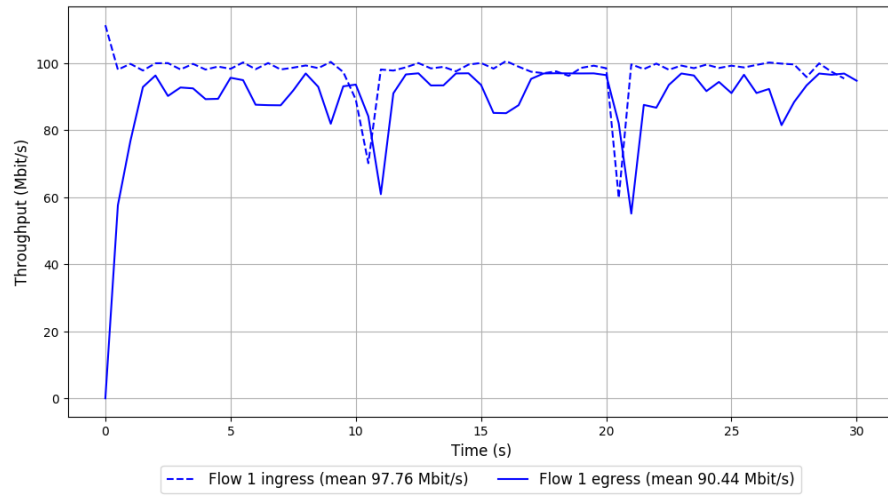
-- Flow 1:

Average throughput: 90.44 Mbit/s

95th percentile per-packet one-way delay: 25.612 ms

Loss rate: 7.45%

Run 1: Report of FillP-Sheep — Data Link

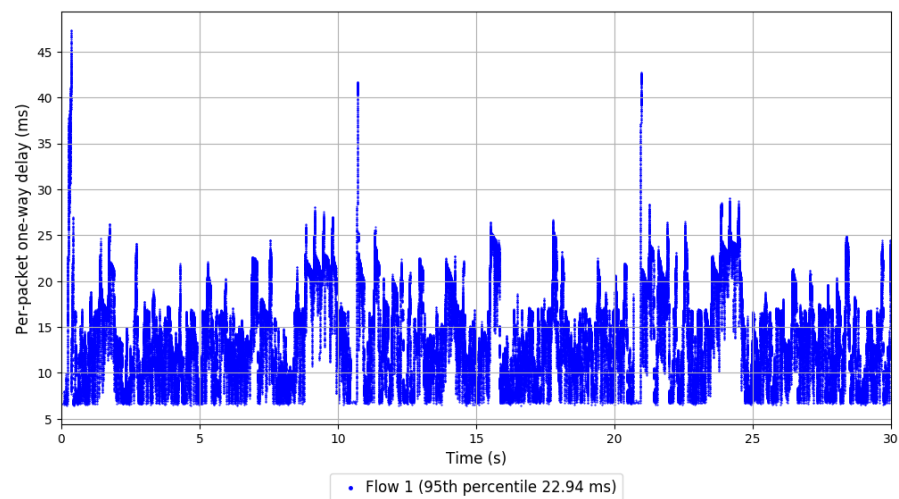
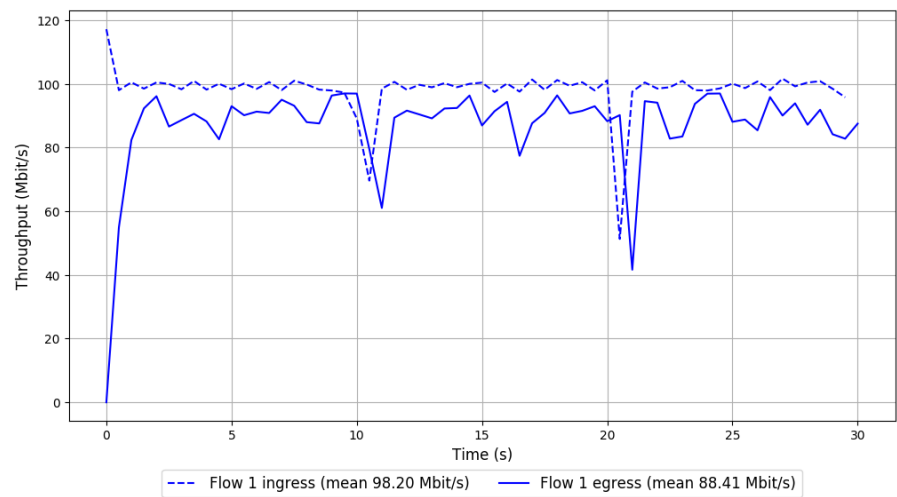


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-10 23:08:18
End at: 2018-09-10 23:08:48
Local clock offset: -1.544 ms
Remote clock offset: -2.239 ms

Below is generated by plot.py at 2018-09-11 00:17:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.41 Mbit/s
95th percentile per-packet one-way delay: 22.944 ms
Loss rate: 9.93%
-- Flow 1:
Average throughput: 88.41 Mbit/s
95th percentile per-packet one-way delay: 22.944 ms
Loss rate: 9.93%

Run 2: Report of FillP-Sheep — Data Link

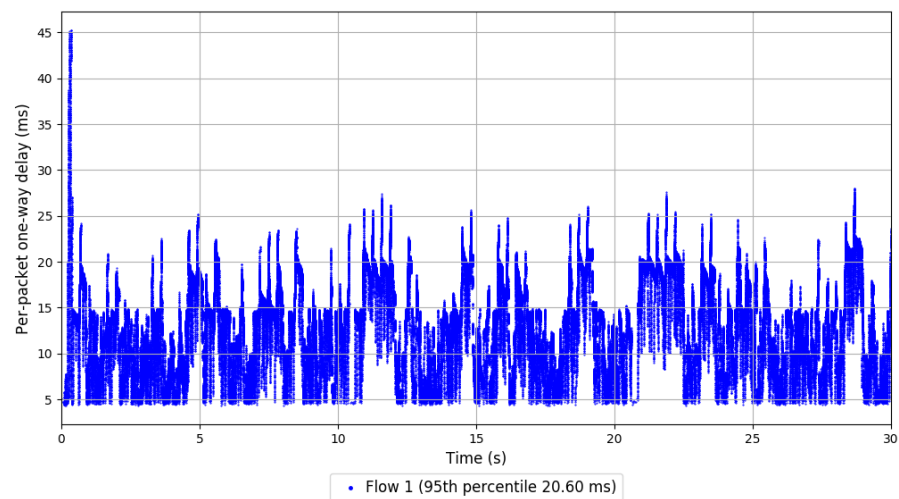
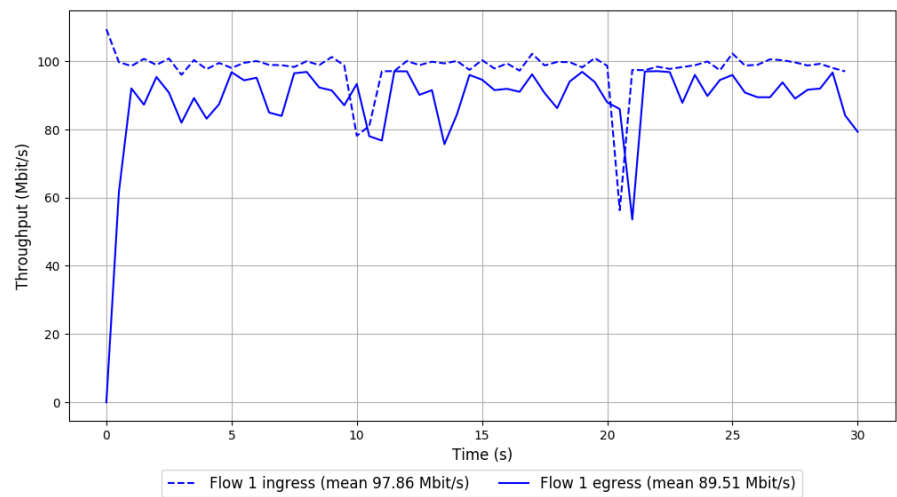


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-10 23:28:33
End at: 2018-09-10 23:29:03
Local clock offset: 0.958 ms
Remote clock offset: -2.7 ms

Below is generated by plot.py at 2018-09-11 00:17:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.51 Mbit/s
95th percentile per-packet one-way delay: 20.596 ms
Loss rate: 8.48%
-- Flow 1:
Average throughput: 89.51 Mbit/s
95th percentile per-packet one-way delay: 20.596 ms
Loss rate: 8.48%

Run 3: Report of FillP-Sheep — Data Link

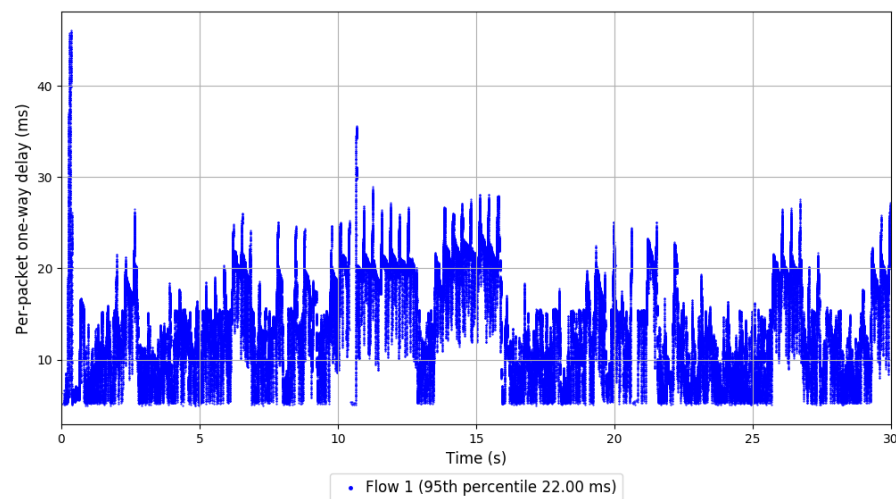
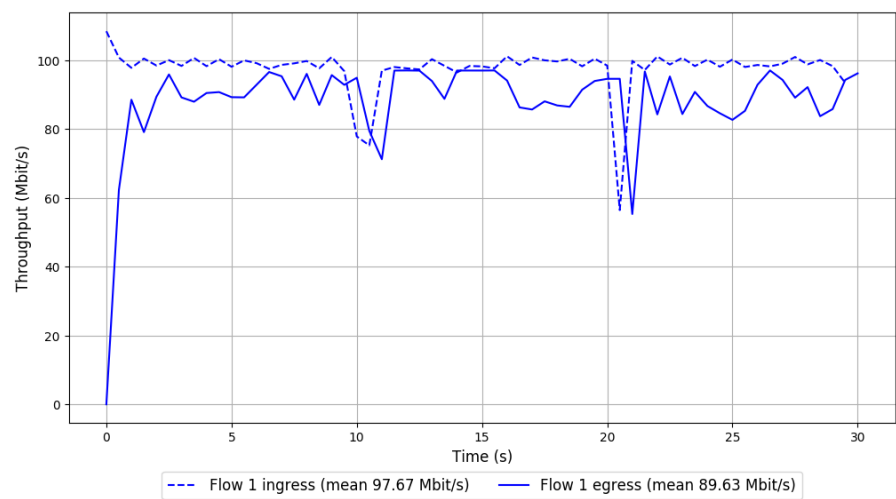


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-10 23:48:35
End at: 2018-09-10 23:49:05
Local clock offset: 1.8 ms
Remote clock offset: -2.881 ms

Below is generated by plot.py at 2018-09-11 00:17:58
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 22.002 ms
Loss rate: 8.19%
-- Flow 1:
Average throughput: 89.63 Mbit/s
95th percentile per-packet one-way delay: 22.002 ms
Loss rate: 8.19%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-11 00:08:54

End at: 2018-09-11 00:09:24

Local clock offset: 0.627 ms

Remote clock offset: -2.272 ms

Below is generated by plot.py at 2018-09-11 00:17:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 22.680 ms

Loss rate: 8.60%

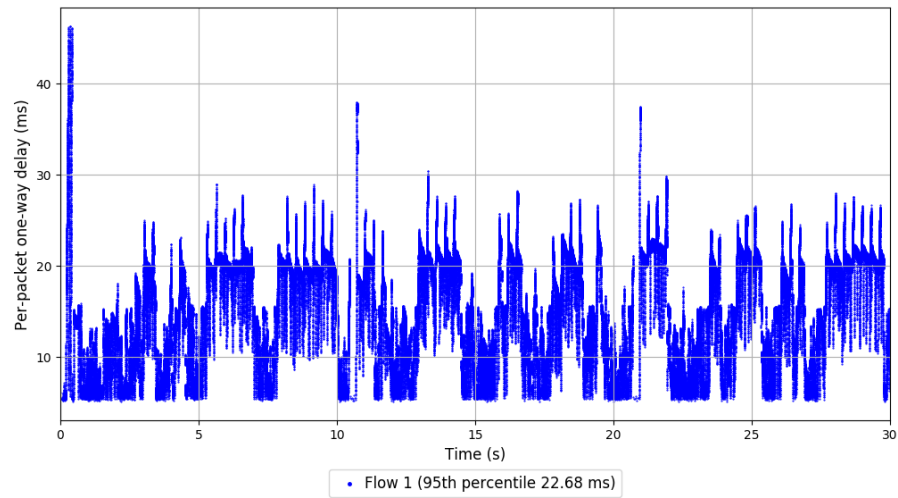
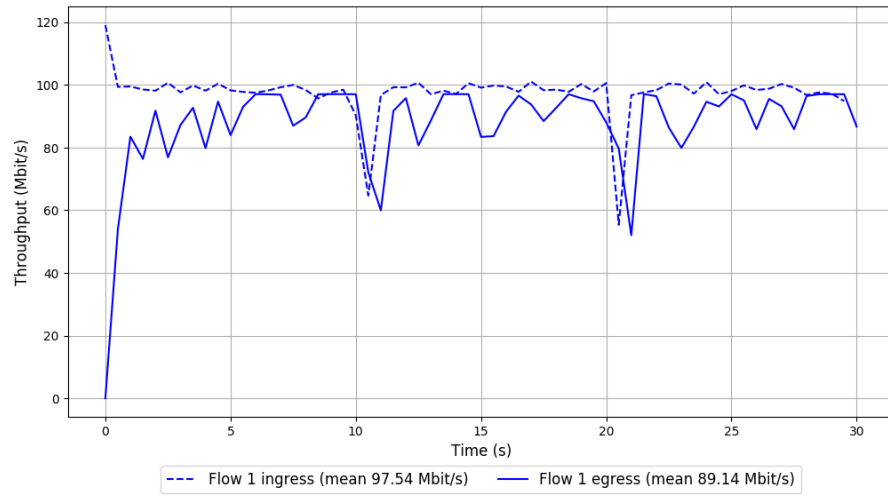
-- Flow 1:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 22.680 ms

Loss rate: 8.60%

Run 5: Report of FillP-Sheep — Data Link

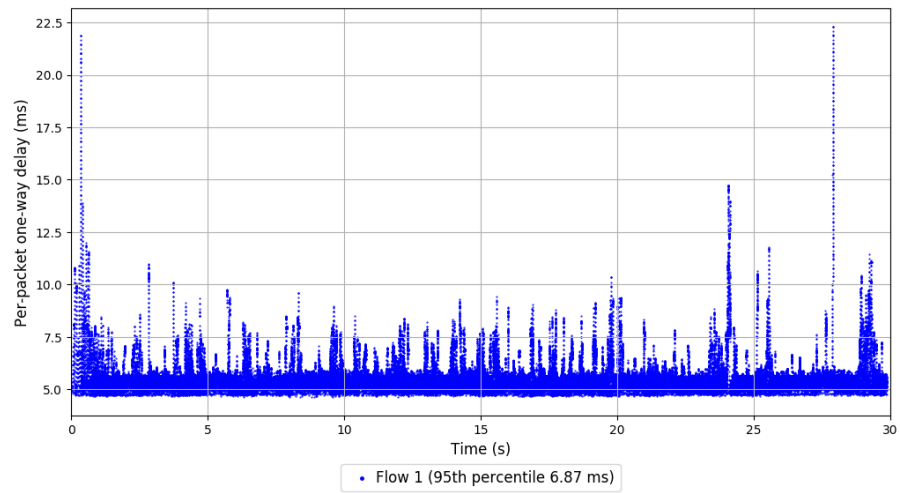
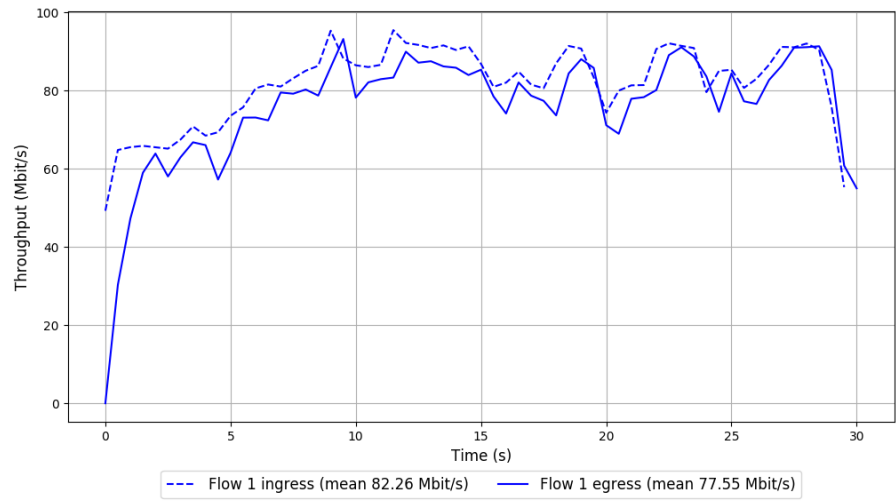


Run 1: Statistics of Indigo

Start at: 2018-09-10 22:40:01
End at: 2018-09-10 22:40:31
Local clock offset: -4.396 ms
Remote clock offset: -1.689 ms

Below is generated by plot.py at 2018-09-11 00:17:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 77.55 Mbit/s
95th percentile per-packet one-way delay: 6.870 ms
Loss rate: 5.73%
-- Flow 1:
Average throughput: 77.55 Mbit/s
95th percentile per-packet one-way delay: 6.870 ms
Loss rate: 5.73%

Run 1: Report of Indigo — Data Link

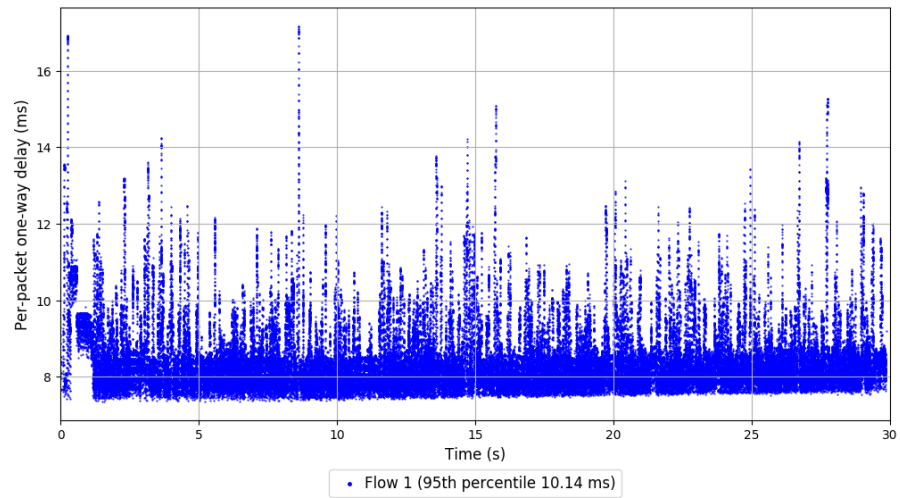
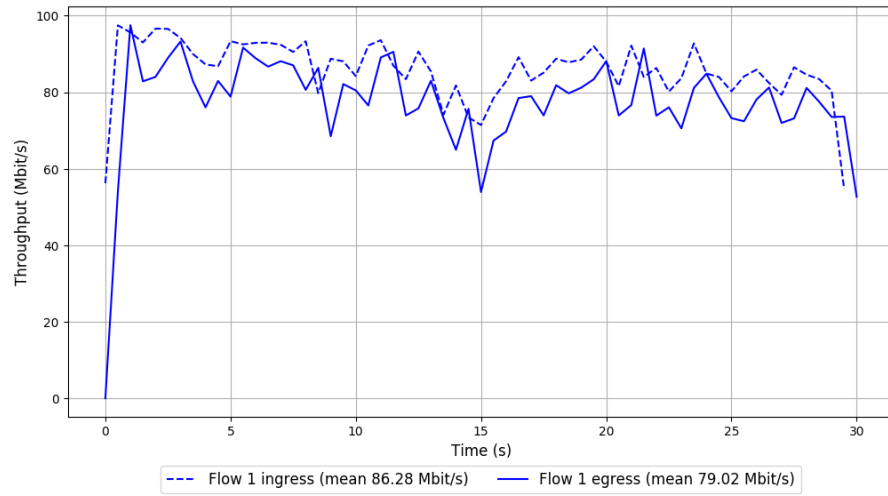


Run 2: Statistics of Indigo

Start at: 2018-09-10 23:00:25
End at: 2018-09-10 23:00:55
Local clock offset: -4.348 ms
Remote clock offset: -2.048 ms

Below is generated by plot.py at 2018-09-11 00:18:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 10.142 ms
Loss rate: 8.42%
-- Flow 1:
Average throughput: 79.02 Mbit/s
95th percentile per-packet one-way delay: 10.142 ms
Loss rate: 8.42%

Run 2: Report of Indigo — Data Link

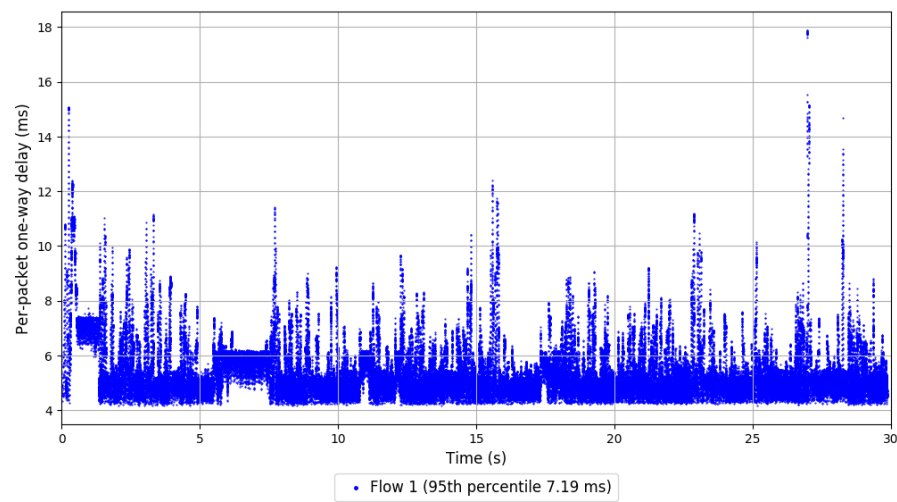
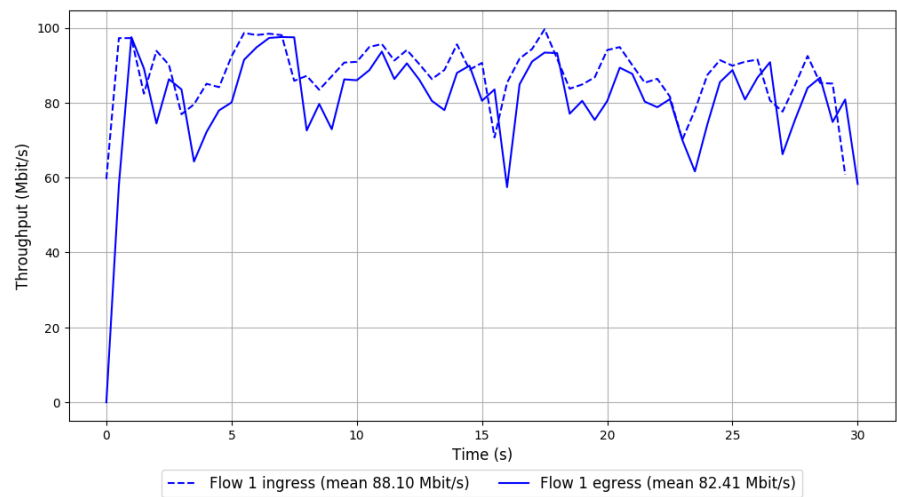


Run 3: Statistics of Indigo

Start at: 2018-09-10 23:20:43
End at: 2018-09-10 23:21:14
Local clock offset: -0.442 ms
Remote clock offset: -2.865 ms

Below is generated by plot.py at 2018-09-11 00:18:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 7.188 ms
Loss rate: 6.46%
-- Flow 1:
Average throughput: 82.41 Mbit/s
95th percentile per-packet one-way delay: 7.188 ms
Loss rate: 6.46%

Run 3: Report of Indigo — Data Link

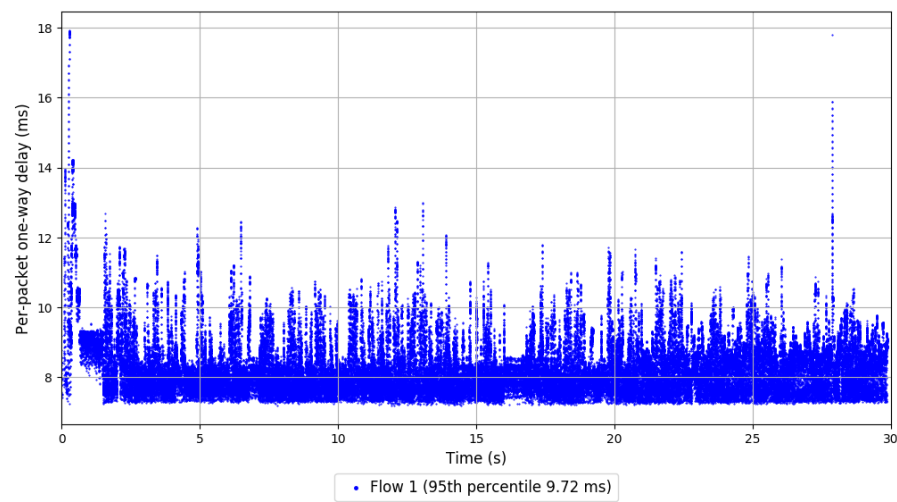
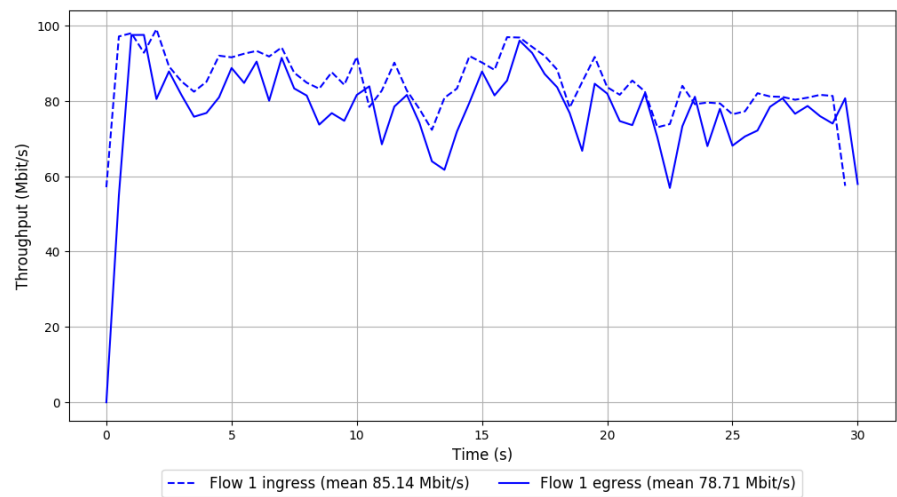


Run 4: Statistics of Indigo

Start at: 2018-09-10 23:40:47
End at: 2018-09-10 23:41:17
Local clock offset: 0.377 ms
Remote clock offset: -1.808 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 78.71 Mbit/s
95th percentile per-packet one-way delay: 9.724 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 78.71 Mbit/s
95th percentile per-packet one-way delay: 9.724 ms
Loss rate: 7.55%

Run 4: Report of Indigo — Data Link

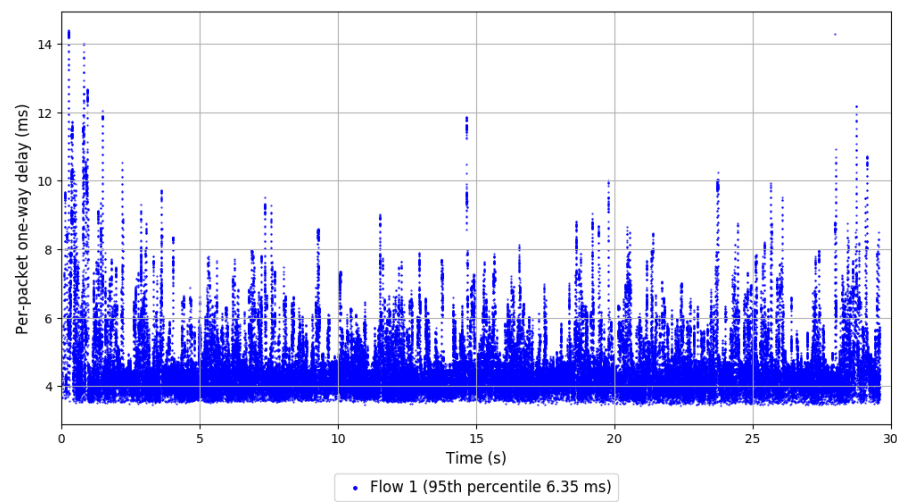
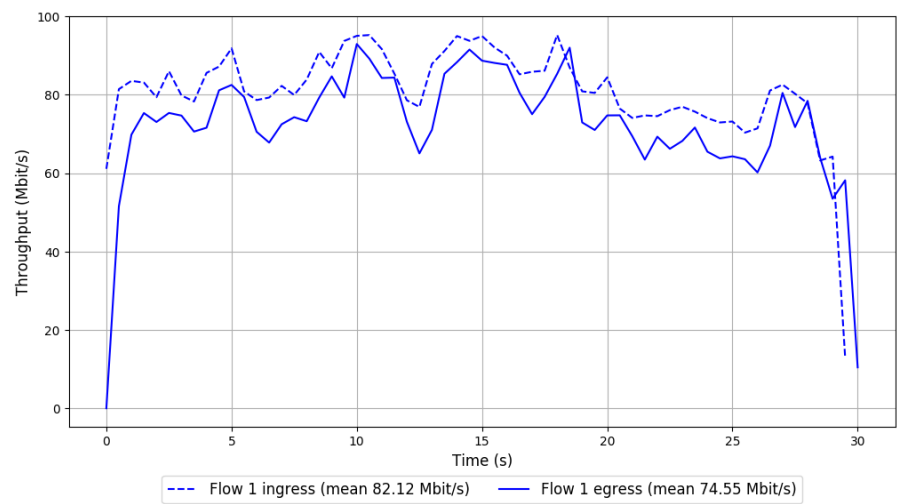


Run 5: Statistics of Indigo

Start at: 2018-09-11 00:00:56
End at: 2018-09-11 00:01:26
Local clock offset: 2.521 ms
Remote clock offset: -2.696 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.55 Mbit/s
95th percentile per-packet one-way delay: 6.347 ms
Loss rate: 9.21%
-- Flow 1:
Average throughput: 74.55 Mbit/s
95th percentile per-packet one-way delay: 6.347 ms
Loss rate: 9.21%

Run 5: Report of Indigo — Data Link

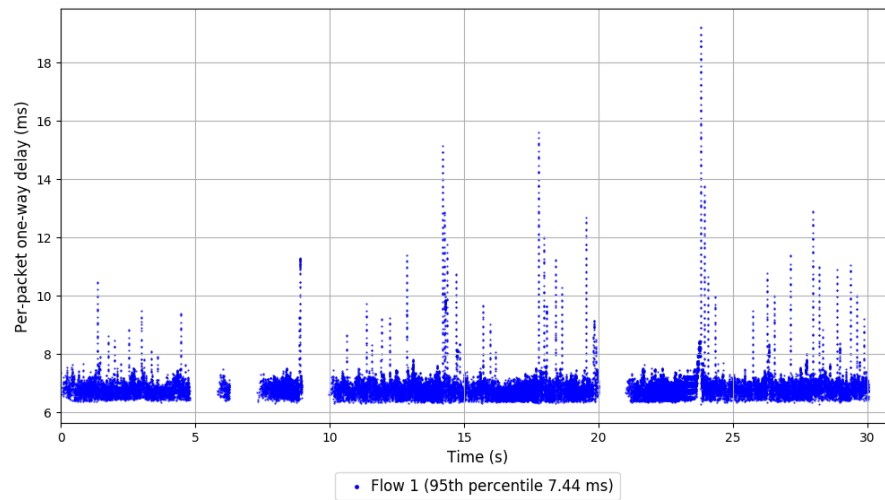
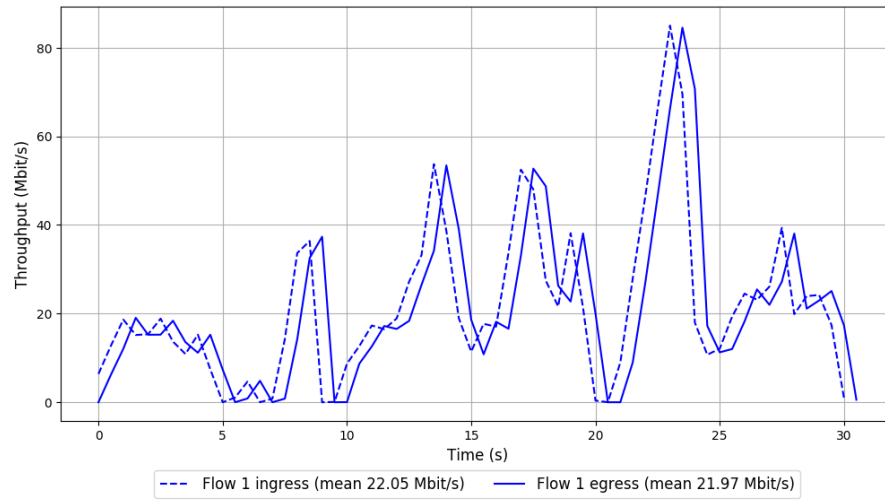


Run 1: Statistics of LEDBAT

Start at: 2018-09-10 22:46:53
End at: 2018-09-10 22:47:23
Local clock offset: -2.877 ms
Remote clock offset: -0.692 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 21.97 Mbit/s
95th percentile per-packet one-way delay: 7.441 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 21.97 Mbit/s
95th percentile per-packet one-way delay: 7.441 ms
Loss rate: 0.37%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-09-10 23:07:12

End at: 2018-09-10 23:07:42

Local clock offset: -0.711 ms

Remote clock offset: -2.05 ms

Below is generated by plot.py at 2018-09-11 00:18:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.57 Mbit/s

95th percentile per-packet one-way delay: 4.812 ms

Loss rate: 0.43%

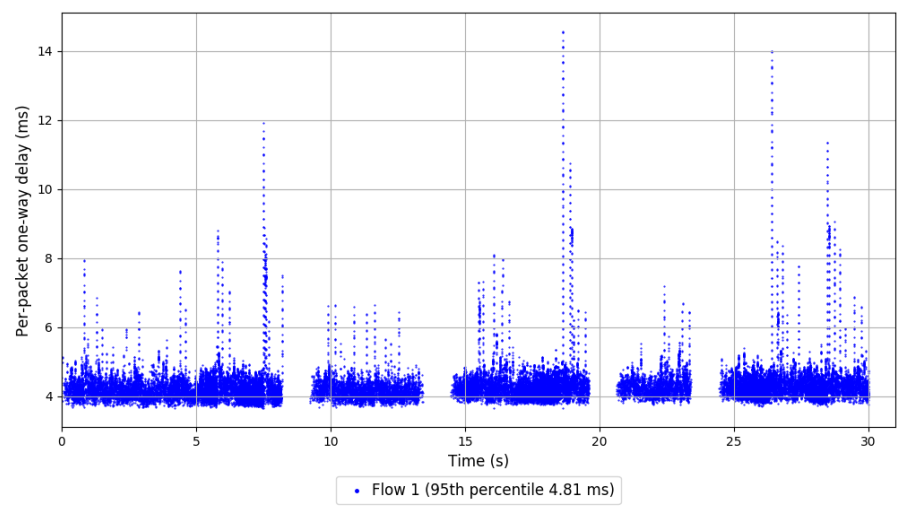
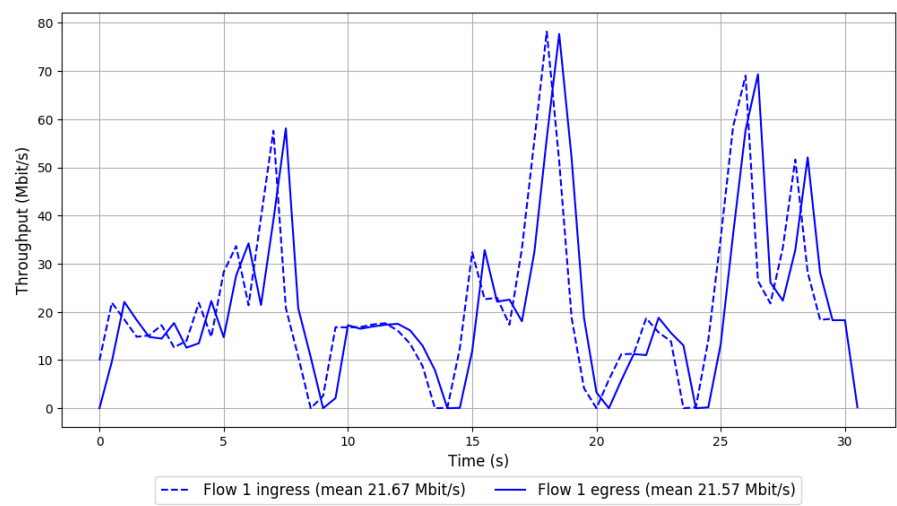
-- Flow 1:

Average throughput: 21.57 Mbit/s

95th percentile per-packet one-way delay: 4.812 ms

Loss rate: 0.43%

Run 2: Report of LEDBAT — Data Link

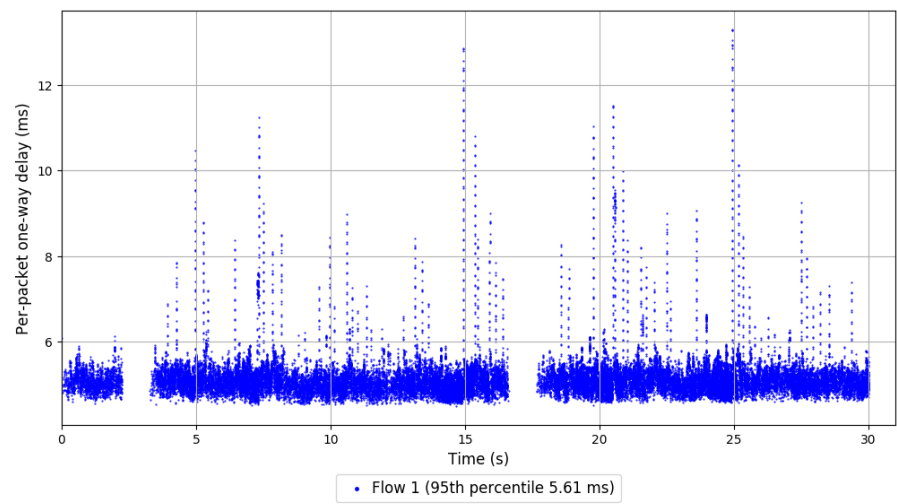
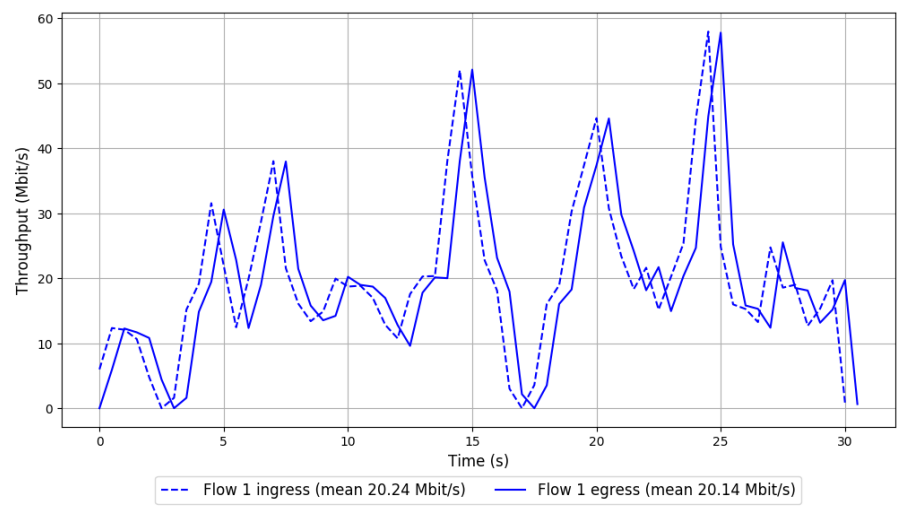


Run 3: Statistics of LEDBAT

Start at: 2018-09-10 23:27:27
End at: 2018-09-10 23:27:57
Local clock offset: 0.885 ms
Remote clock offset: -2.601 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.14 Mbit/s
95th percentile per-packet one-way delay: 5.612 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 20.14 Mbit/s
95th percentile per-packet one-way delay: 5.612 ms
Loss rate: 0.46%

Run 3: Report of LEDBAT — Data Link

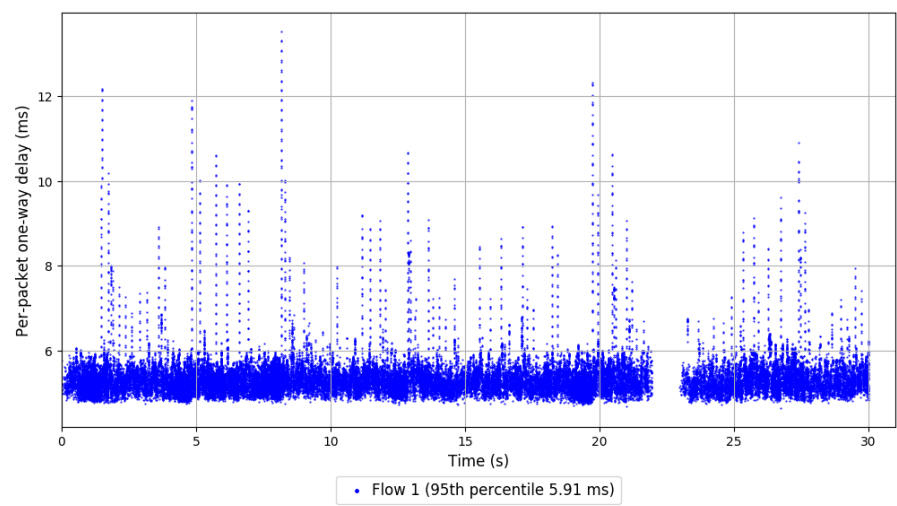
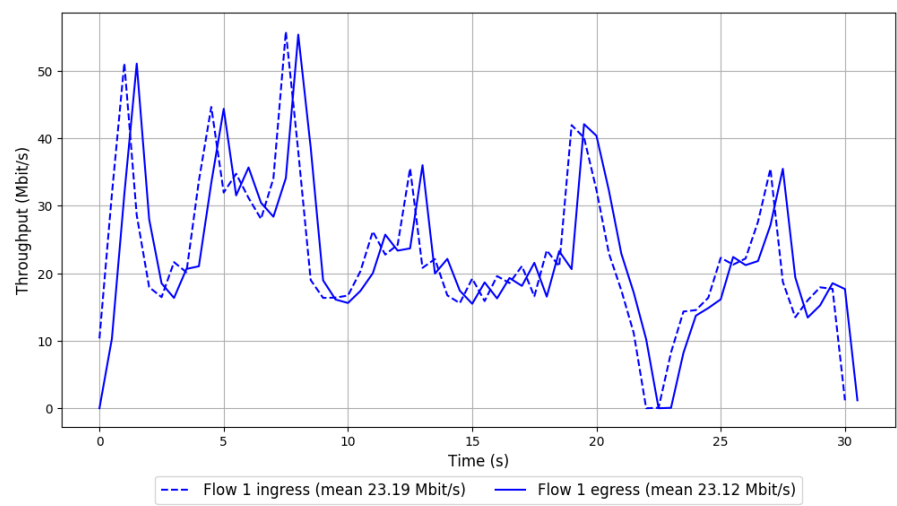


Run 4: Statistics of LEDBAT

Start at: 2018-09-10 23:47:29
End at: 2018-09-10 23:47:59
Local clock offset: 1.408 ms
Remote clock offset: -2.527 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 5.911 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 23.12 Mbit/s
95th percentile per-packet one-way delay: 5.911 ms
Loss rate: 0.32%

Run 4: Report of LEDBAT — Data Link

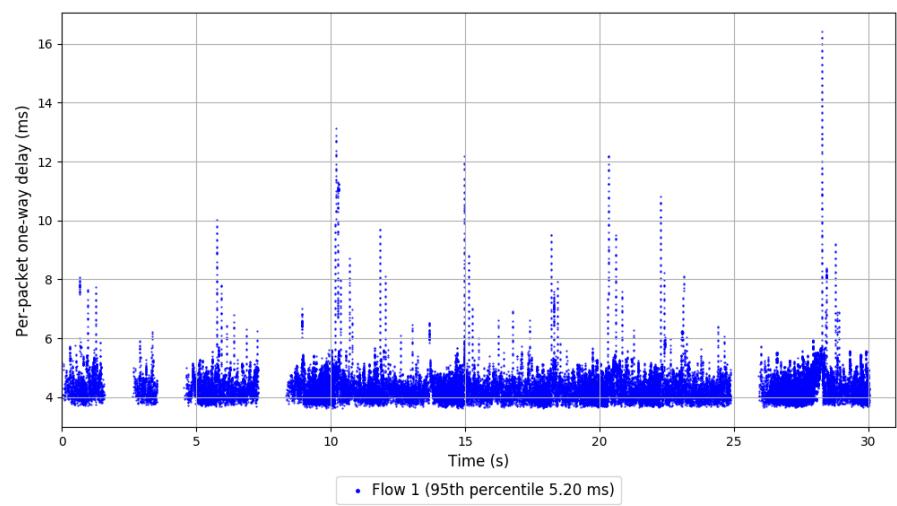
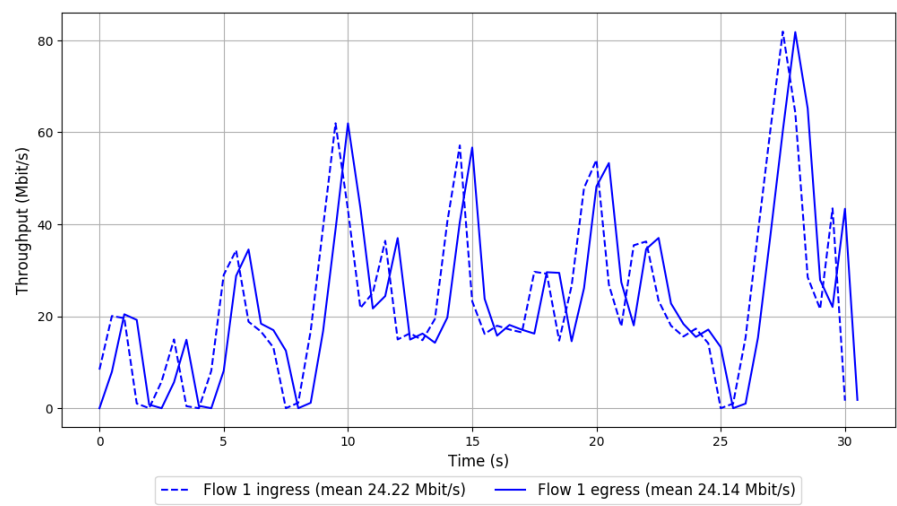


Run 5: Statistics of LEDBAT

Start at: 2018-09-11 00:07:48
End at: 2018-09-11 00:08:18
Local clock offset: 1.215 ms
Remote clock offset: -3.421 ms

Below is generated by plot.py at 2018-09-11 00:18:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 5.199 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 5.199 ms
Loss rate: 0.32%

Run 5: Report of LEDBAT — Data Link

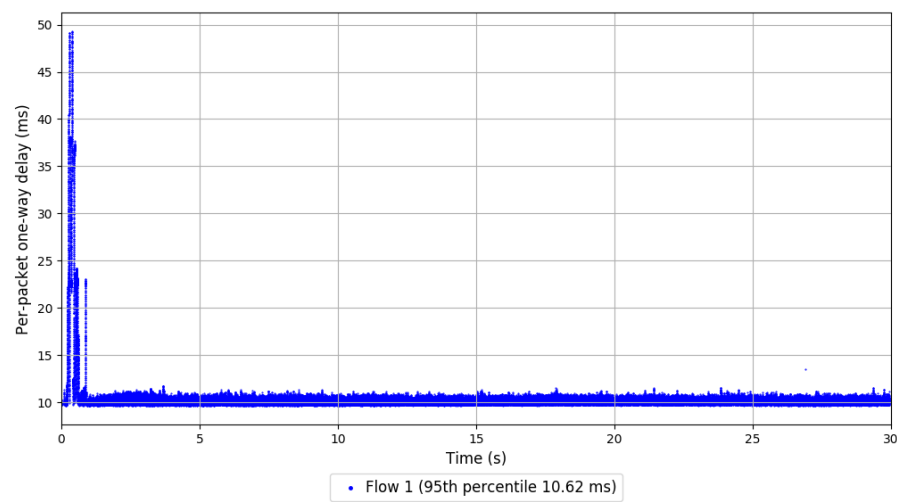
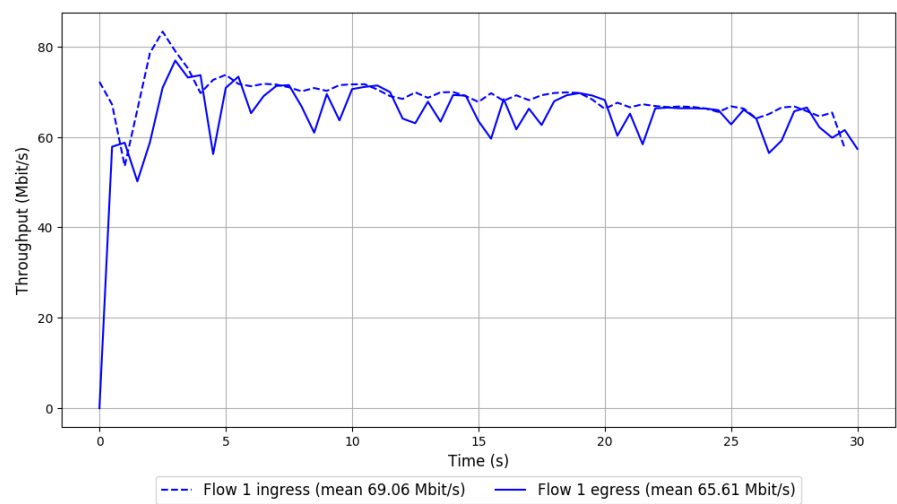


```
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-10 22:43:27
End at: 2018-09-10 22:43:57
Local clock offset: -6.384 ms
Remote clock offset: -0.925 ms

# Below is generated by plot.py at 2018-09-11 00:18:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.61 Mbit/s
95th percentile per-packet one-way delay: 10.623 ms
Loss rate: 5.00%
-- Flow 1:
Average throughput: 65.61 Mbit/s
95th percentile per-packet one-way delay: 10.623 ms
Loss rate: 5.00%
```

Run 1: Report of Indigo-Muses — Data Link

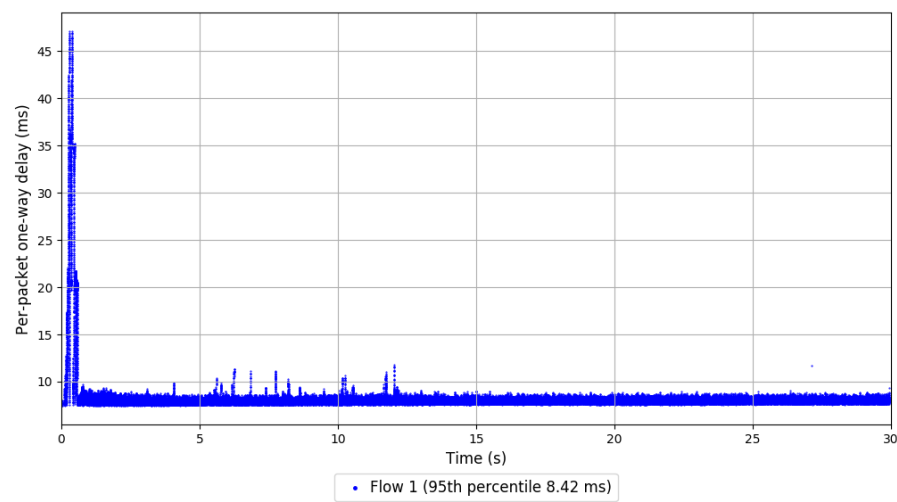
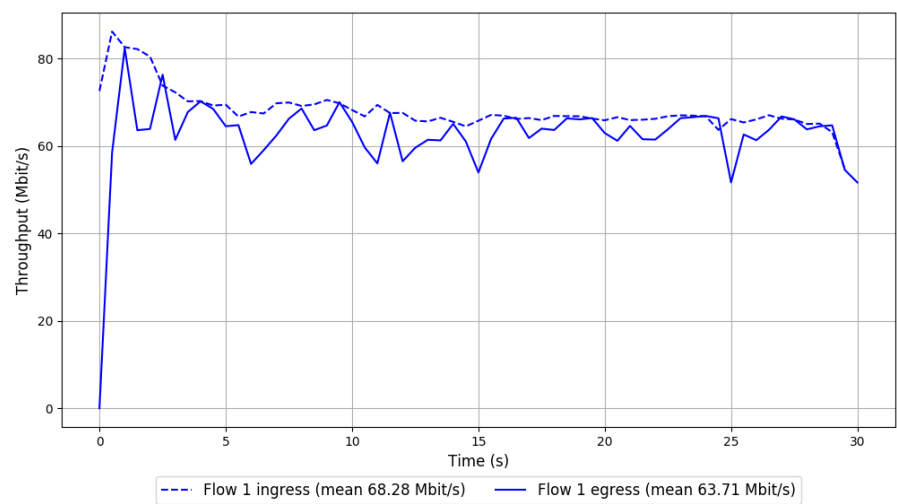


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-10 23:03:45
End at: 2018-09-10 23:04:15
Local clock offset: -2.878 ms
Remote clock offset: -1.705 ms

Below is generated by plot.py at 2018-09-11 00:18:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.71 Mbit/s
95th percentile per-packet one-way delay: 8.419 ms
Loss rate: 6.69%
-- Flow 1:
Average throughput: 63.71 Mbit/s
95th percentile per-packet one-way delay: 8.419 ms
Loss rate: 6.69%

Run 2: Report of Indigo-Muses — Data Link

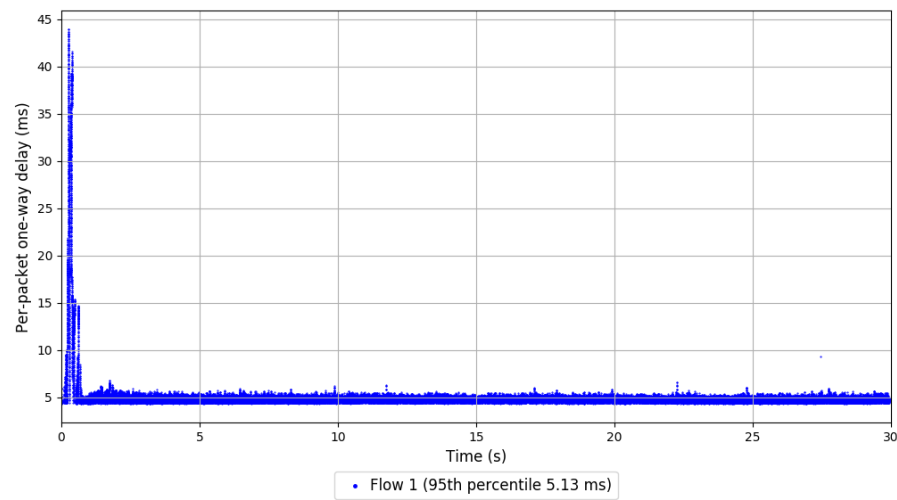
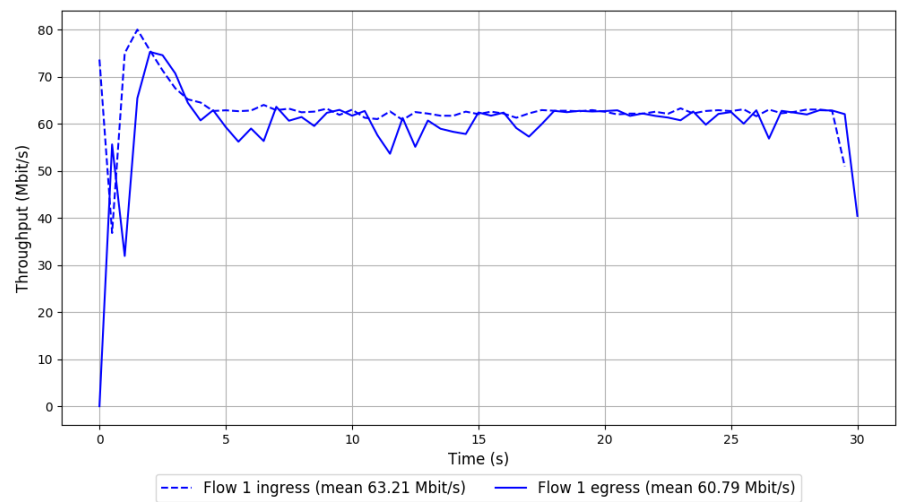


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-10 23:24:04
End at: 2018-09-10 23:24:34
Local clock offset: 1.701 ms
Remote clock offset: -1.823 ms

Below is generated by plot.py at 2018-09-11 00:18:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 5.130 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 60.79 Mbit/s
95th percentile per-packet one-way delay: 5.130 ms
Loss rate: 3.83%

Run 3: Report of Indigo-Muses — Data Link

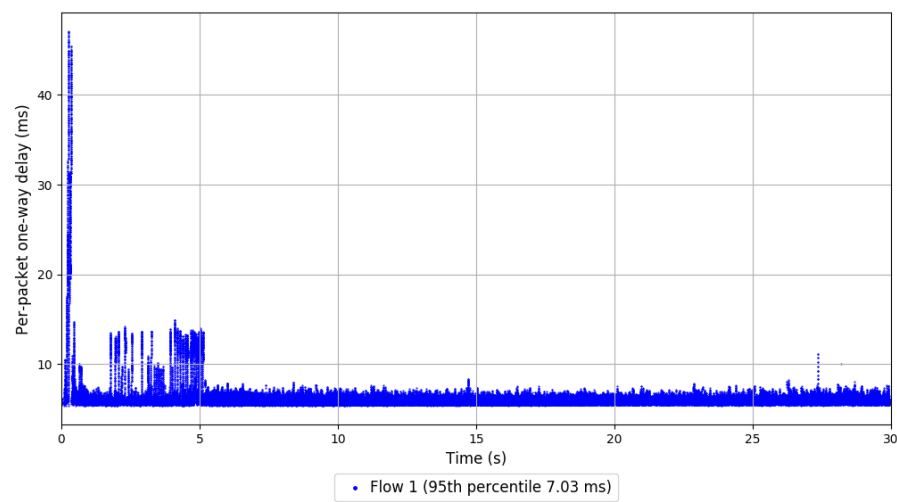
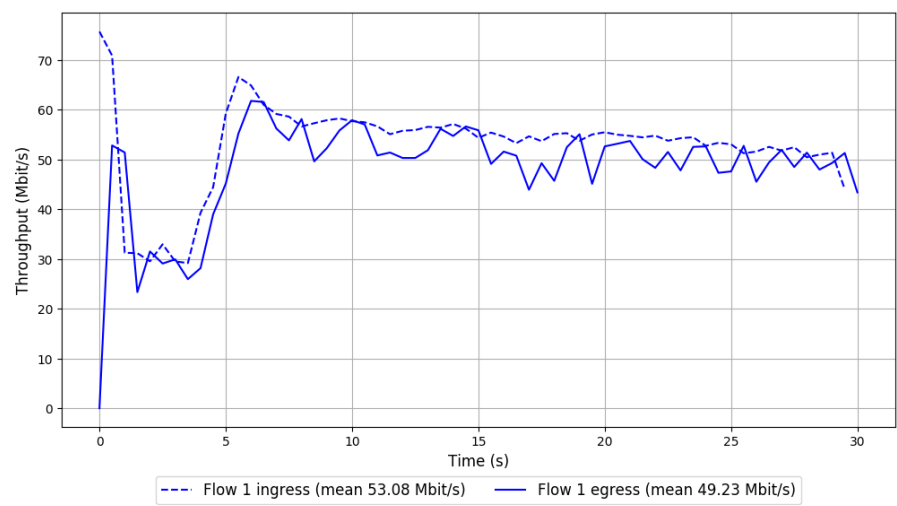


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-10 23:44:07
End at: 2018-09-10 23:44:37
Local clock offset: 1.573 ms
Remote clock offset: -1.545 ms

Below is generated by plot.py at 2018-09-11 00:18:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 7.032 ms
Loss rate: 7.26%
-- Flow 1:
Average throughput: 49.23 Mbit/s
95th percentile per-packet one-way delay: 7.032 ms
Loss rate: 7.26%

Run 4: Report of Indigo-Muses — Data Link

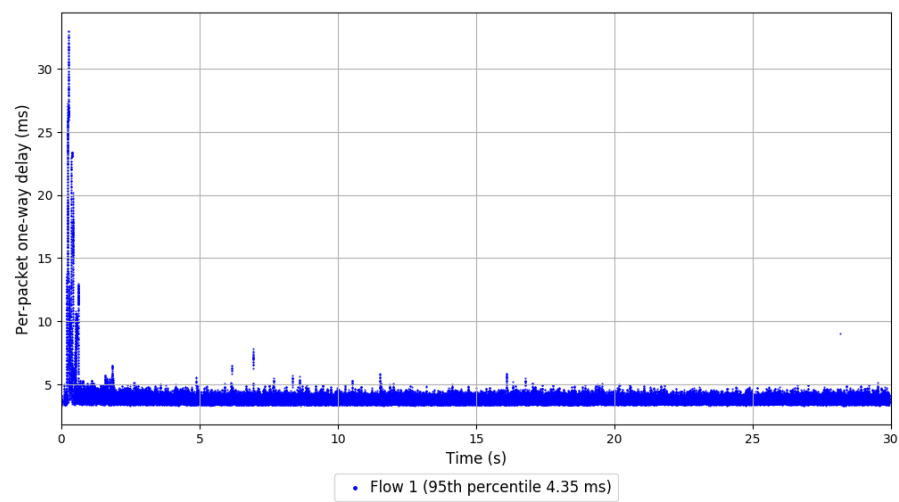
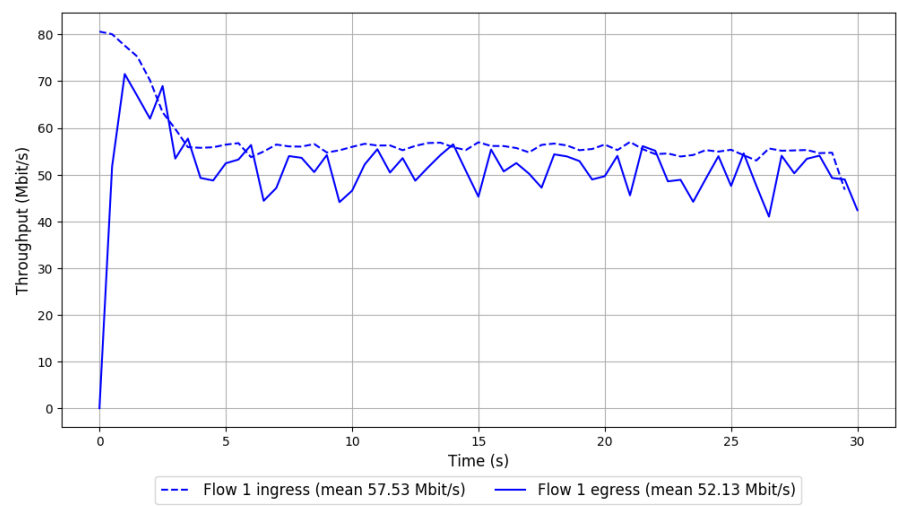


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-11 00:04:21
End at: 2018-09-11 00:04:51
Local clock offset: 2.441 ms
Remote clock offset: -2.645 ms

Below is generated by plot.py at 2018-09-11 00:18:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.13 Mbit/s
95th percentile per-packet one-way delay: 4.352 ms
Loss rate: 9.38%
-- Flow 1:
Average throughput: 52.13 Mbit/s
95th percentile per-packet one-way delay: 4.352 ms
Loss rate: 9.38%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-09-10 22:33:17

End at: 2018-09-10 22:33:47

Local clock offset: -4.632 ms

Remote clock offset: -0.085 ms

Below is generated by plot.py at 2018-09-11 00:19:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.03 Mbit/s

95th percentile per-packet one-way delay: 8.407 ms

Loss rate: 9.09%

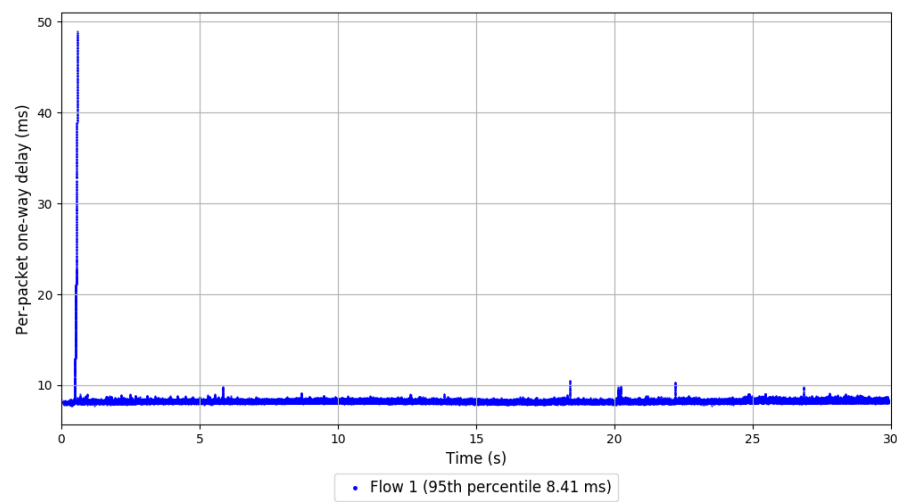
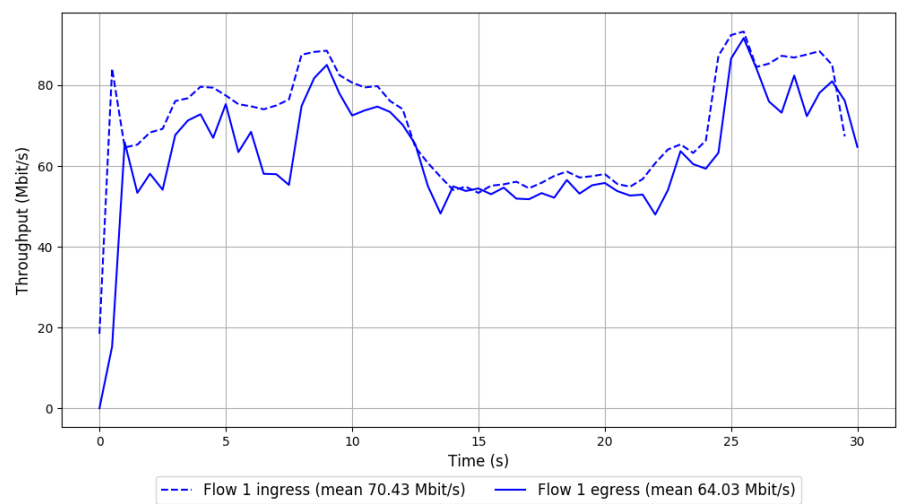
-- Flow 1:

Average throughput: 64.03 Mbit/s

95th percentile per-packet one-way delay: 8.407 ms

Loss rate: 9.09%

Run 1: Report of PCC-Allegro — Data Link

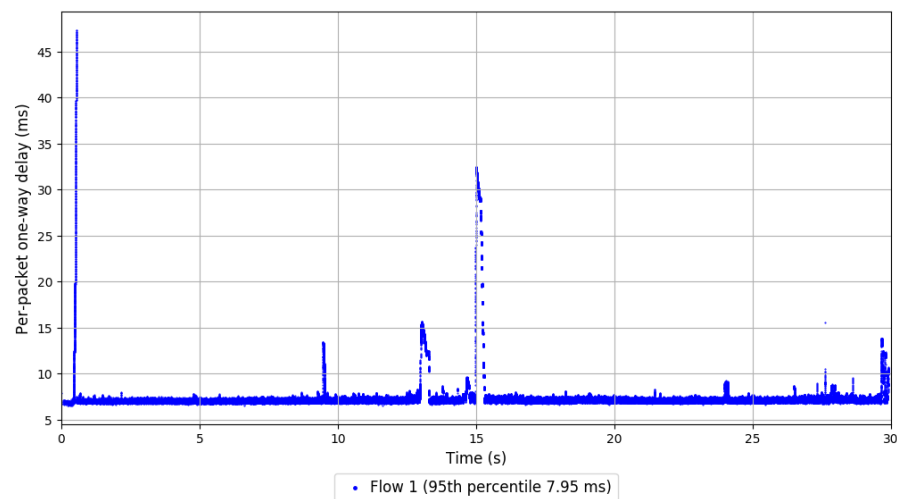
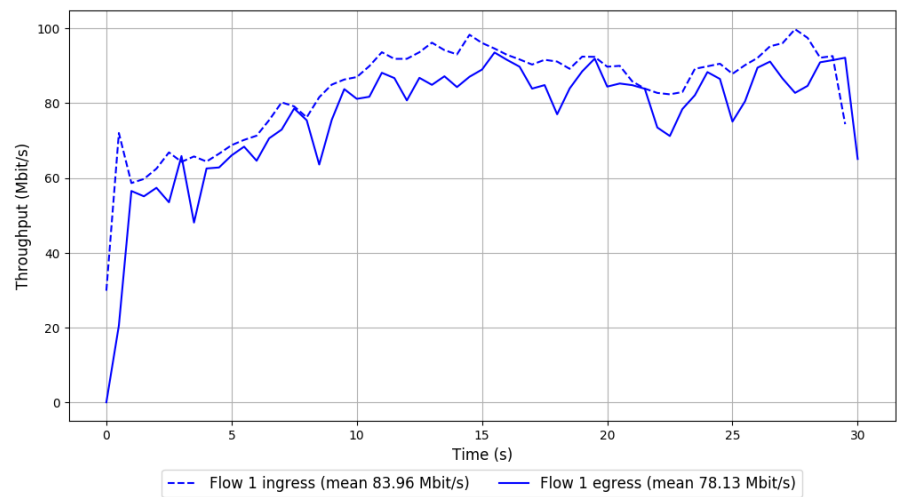


Run 2: Statistics of PCC-Allegro

Start at: 2018-09-10 22:53:41
End at: 2018-09-10 22:54:11
Local clock offset: -6.488 ms
Remote clock offset: -1.705 ms

Below is generated by plot.py at 2018-09-11 00:19:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 7.948 ms
Loss rate: 6.95%
-- Flow 1:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 7.948 ms
Loss rate: 6.95%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-10 23:14:03

End at: 2018-09-10 23:14:33

Local clock offset: -1.198 ms

Remote clock offset: -1.37 ms

Below is generated by plot.py at 2018-09-11 00:19:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.60 Mbit/s

95th percentile per-packet one-way delay: 7.381 ms

Loss rate: 6.83%

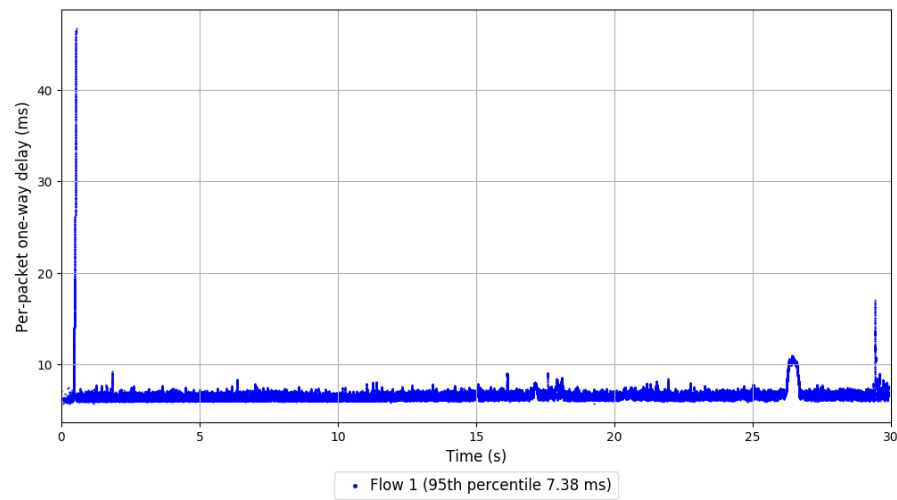
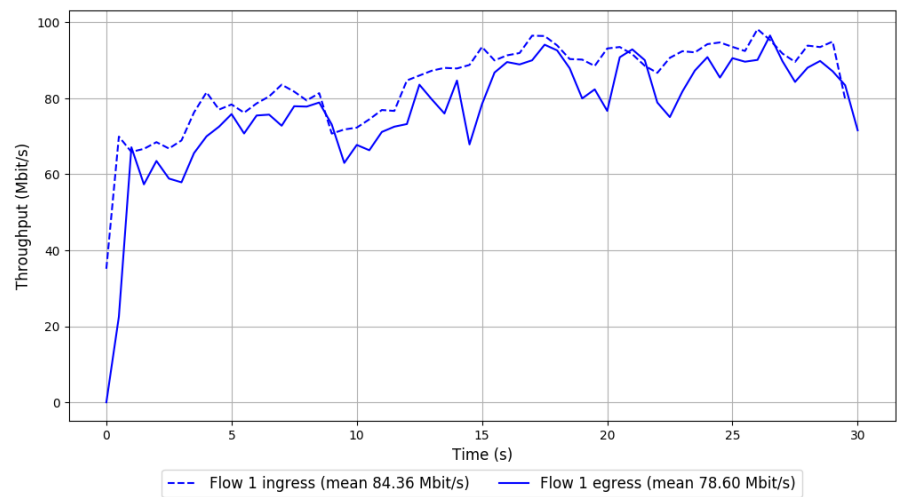
-- Flow 1:

Average throughput: 78.60 Mbit/s

95th percentile per-packet one-way delay: 7.381 ms

Loss rate: 6.83%

Run 3: Report of PCC-Allegro — Data Link

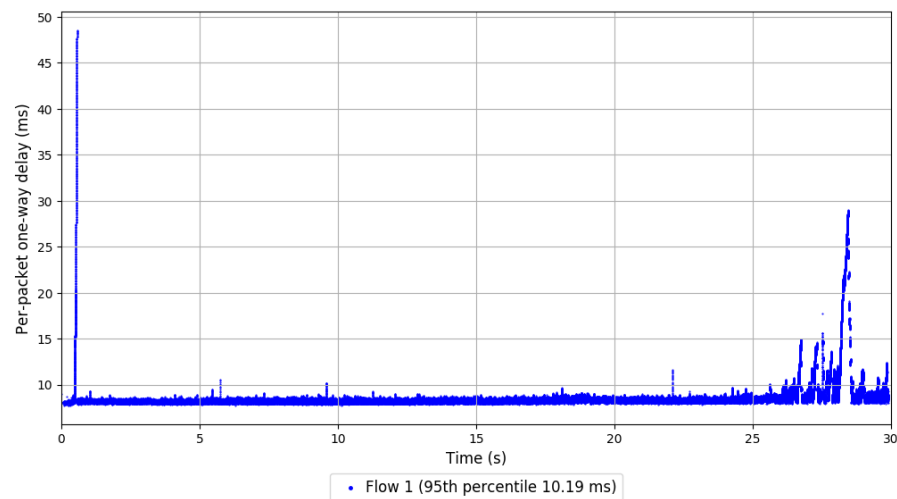
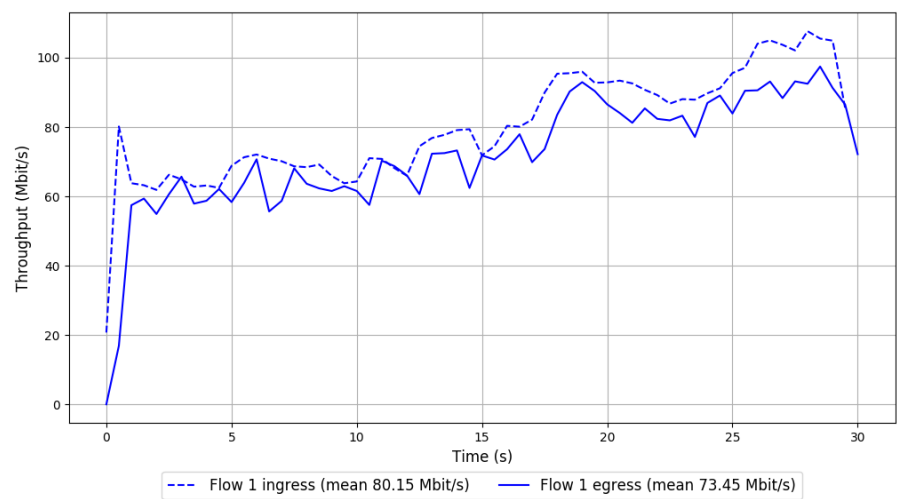


Run 4: Statistics of PCC-Allegro

Start at: 2018-09-10 23:34:09
End at: 2018-09-10 23:34:39
Local clock offset: -0.006 ms
Remote clock offset: -1.049 ms

Below is generated by plot.py at 2018-09-11 00:19:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.45 Mbit/s
95th percentile per-packet one-way delay: 10.191 ms
Loss rate: 8.37%
-- Flow 1:
Average throughput: 73.45 Mbit/s
95th percentile per-packet one-way delay: 10.191 ms
Loss rate: 8.37%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-10 23:54:14

End at: 2018-09-10 23:54:44

Local clock offset: 3.299 ms

Remote clock offset: -2.323 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.04 Mbit/s

95th percentile per-packet one-way delay: 15.415 ms

Loss rate: 7.06%

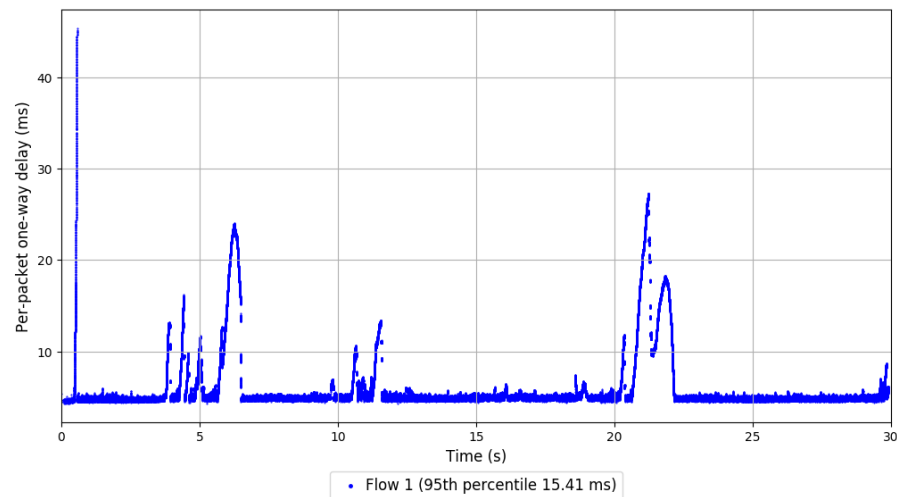
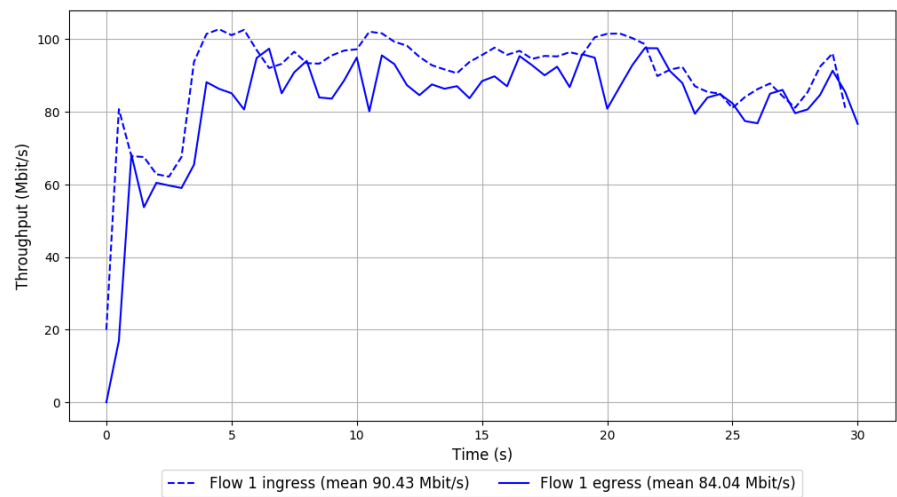
-- Flow 1:

Average throughput: 84.04 Mbit/s

95th percentile per-packet one-way delay: 15.415 ms

Loss rate: 7.06%

Run 5: Report of PCC-Allegro — Data Link

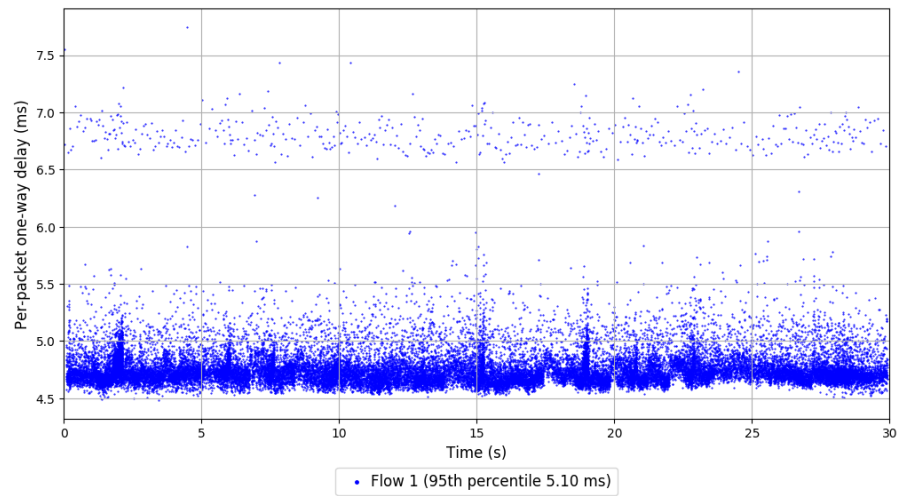
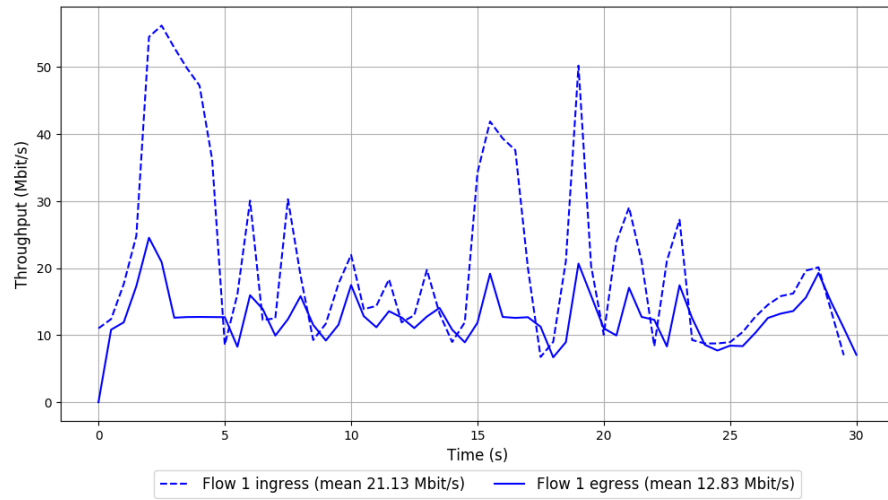


```
Run 1: Statistics of PCC-Expr

Start at: 2018-09-10 22:44:36
End at: 2018-09-10 22:45:06
Local clock offset: -4.474 ms
Remote clock offset: -2.013 ms

# Below is generated by plot.py at 2018-09-11 00:20:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 5.097 ms
Loss rate: 39.29%
-- Flow 1:
Average throughput: 12.83 Mbit/s
95th percentile per-packet one-way delay: 5.097 ms
Loss rate: 39.29%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

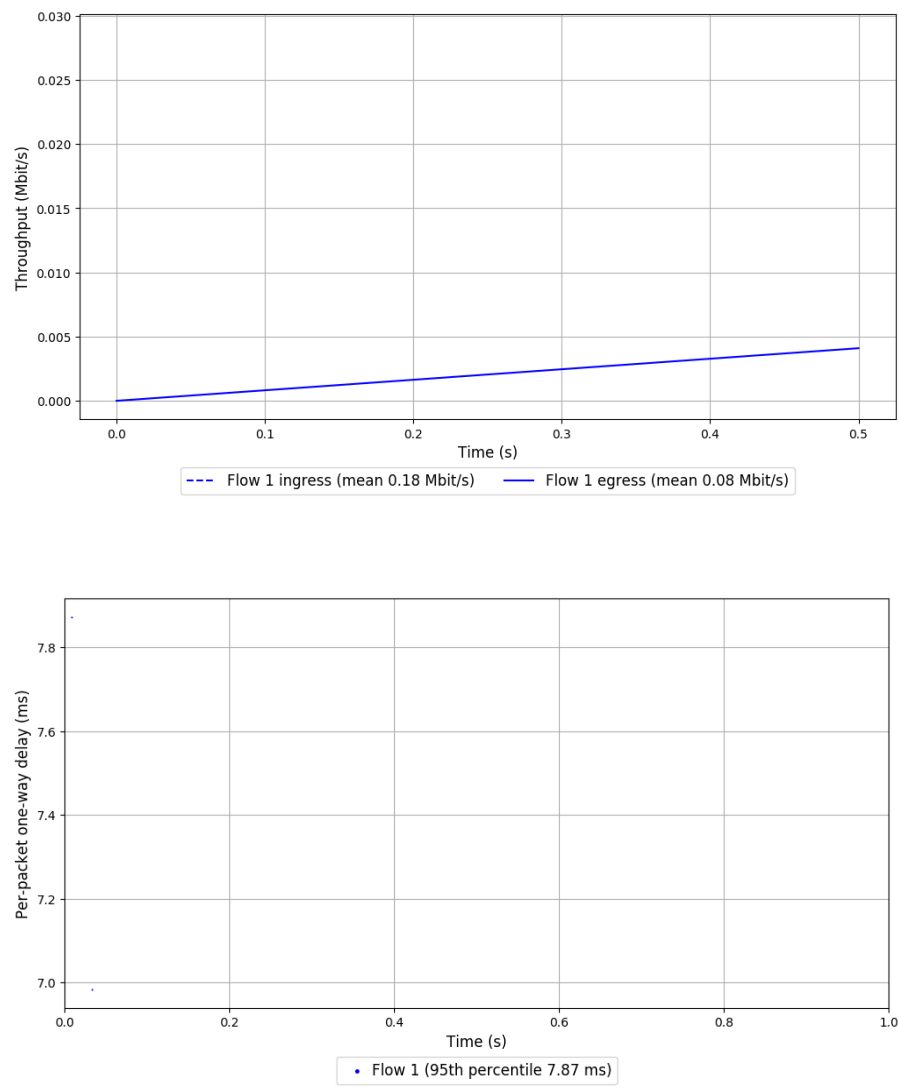
Start at: 2018-09-10 23:04:55

End at: 2018-09-10 23:05:25

Local clock offset: -2.563 ms

Remote clock offset: -2.266 ms

Run 2: Report of PCC-Expr — Data Link

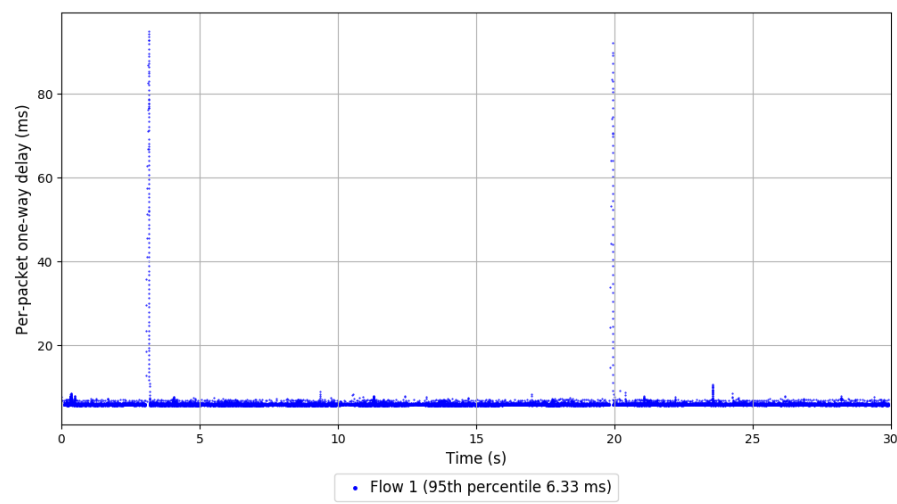
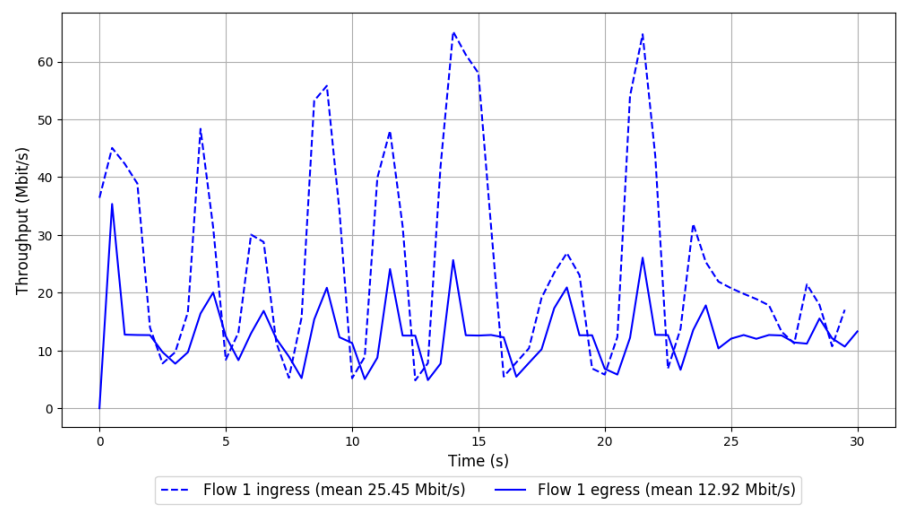


Run 3: Statistics of PCC-Expr

Start at: 2018-09-10 23:25:12
End at: 2018-09-10 23:25:42
Local clock offset: -0.853 ms
Remote clock offset: -2.156 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.92 Mbit/s
95th percentile per-packet one-way delay: 6.330 ms
Loss rate: 49.24%
-- Flow 1:
Average throughput: 12.92 Mbit/s
95th percentile per-packet one-way delay: 6.330 ms
Loss rate: 49.24%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

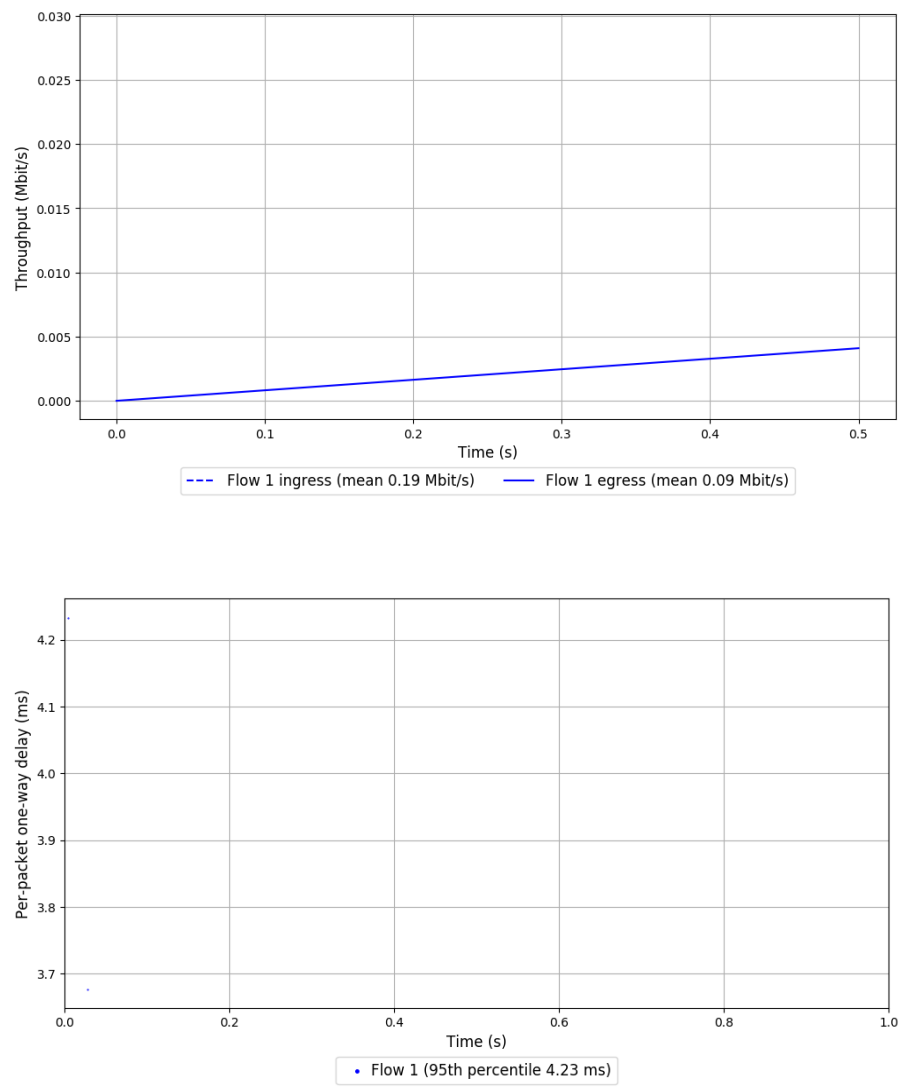
Start at: 2018-09-10 23:45:15

End at: 2018-09-10 23:45:45

Local clock offset: 2.487 ms

Remote clock offset: -2.486 ms

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-09-11 00:05:28

End at: 2018-09-11 00:05:58

Local clock offset: 0.857 ms

Remote clock offset: -3.014 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.36 Mbit/s

95th percentile per-packet one-way delay: 5.449 ms

Loss rate: 46.13%

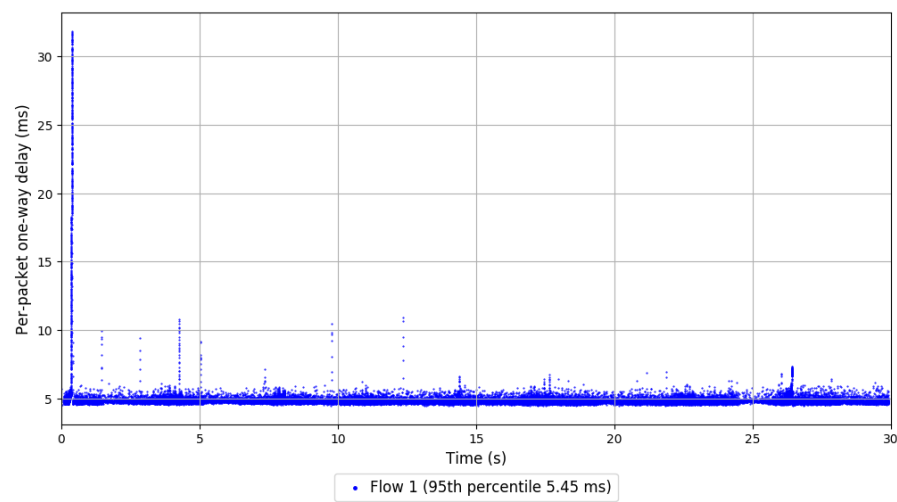
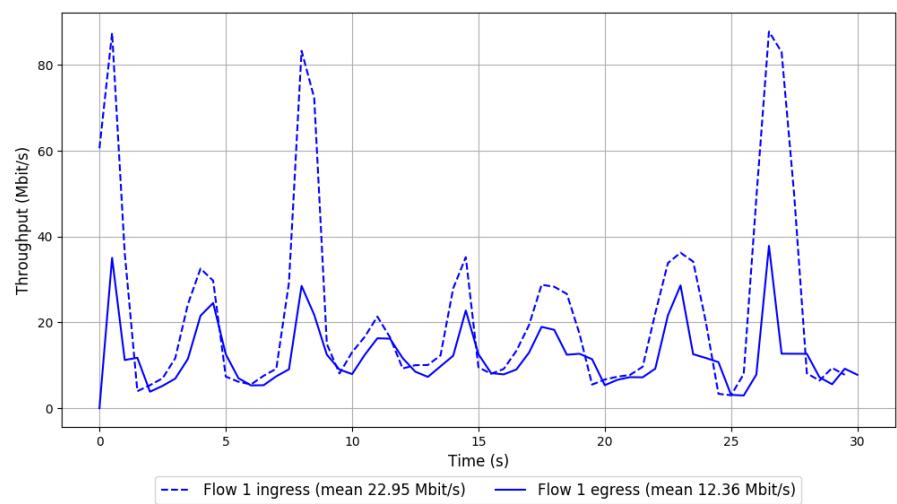
-- Flow 1:

Average throughput: 12.36 Mbit/s

95th percentile per-packet one-way delay: 5.449 ms

Loss rate: 46.13%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-10 22:38:53

End at: 2018-09-10 22:39:23

Local clock offset: -4.982 ms

Remote clock offset: -1.828 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 6.040 ms

Loss rate: 1.59%

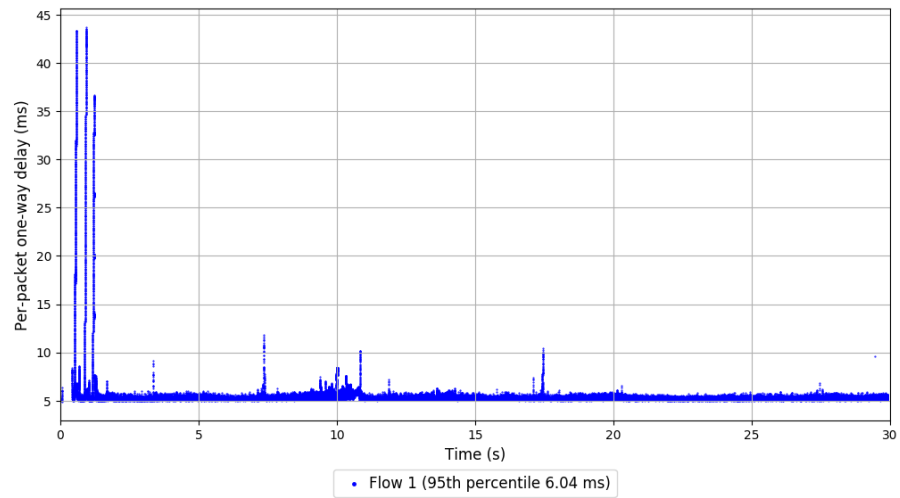
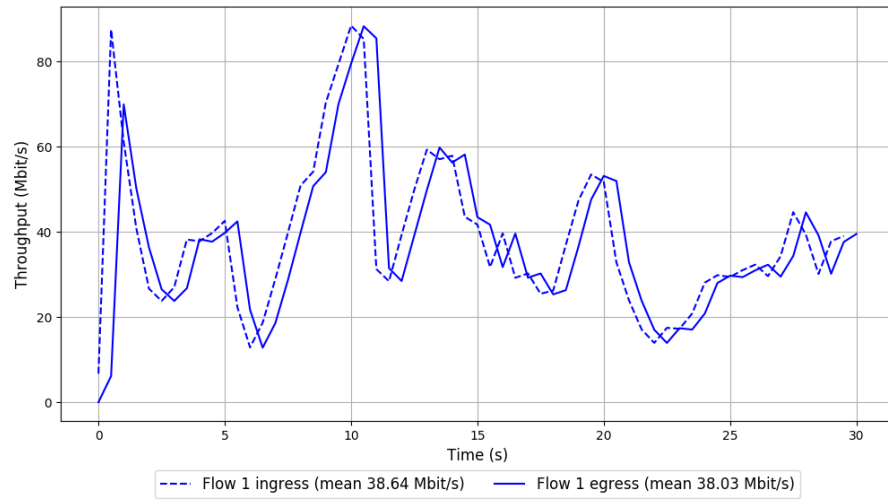
-- Flow 1:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 6.040 ms

Loss rate: 1.59%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-10 22:59:18

End at: 2018-09-10 22:59:48

Local clock offset: -5.153 ms

Remote clock offset: -0.615 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 27.34 Mbit/s

95th percentile per-packet one-way delay: 7.678 ms

Loss rate: 0.42%

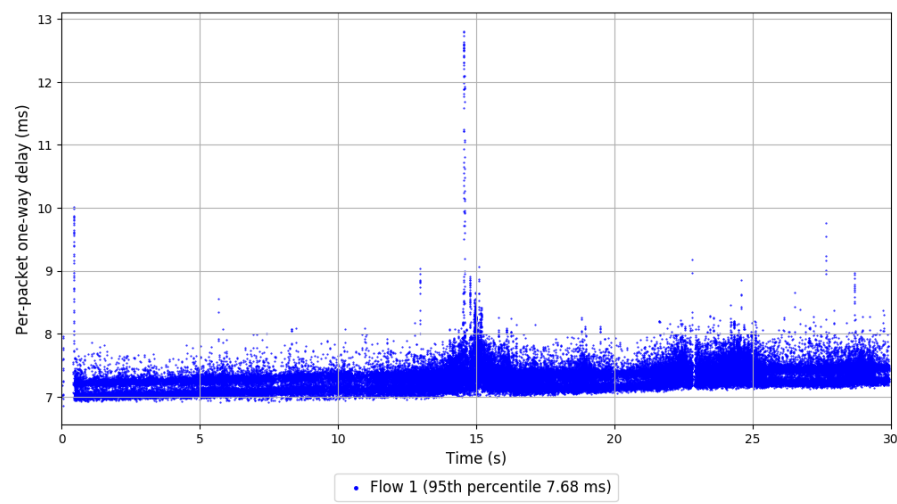
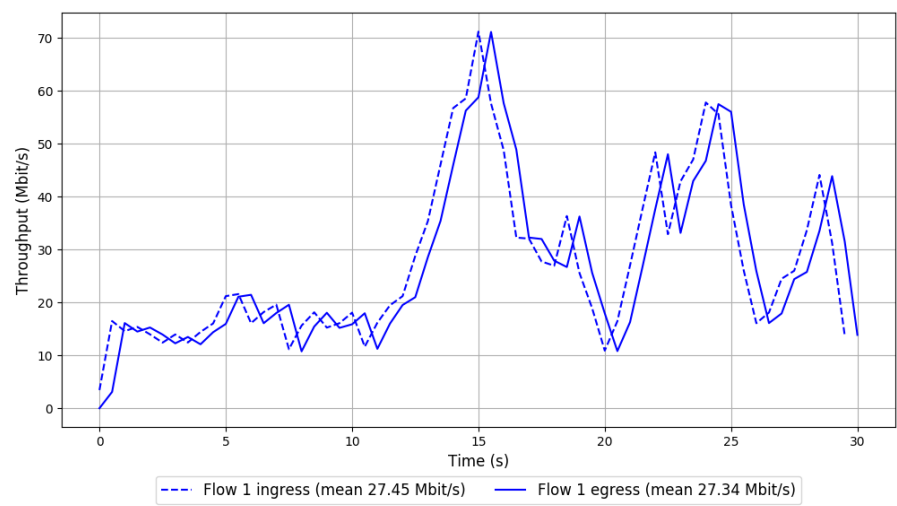
-- Flow 1:

Average throughput: 27.34 Mbit/s

95th percentile per-packet one-way delay: 7.678 ms

Loss rate: 0.42%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-10 23:19:36

End at: 2018-09-10 23:20:06

Local clock offset: -1.006 ms

Remote clock offset: -1.562 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 27.91 Mbit/s

95th percentile per-packet one-way delay: 7.670 ms

Loss rate: 0.63%

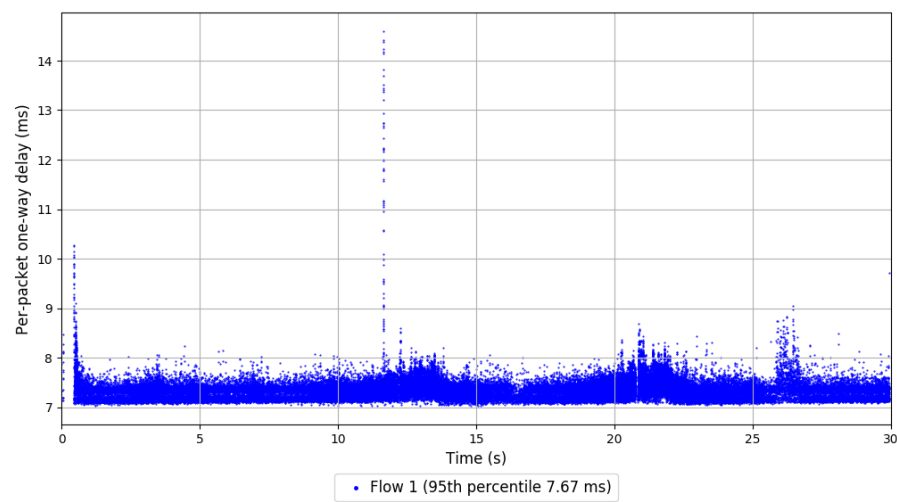
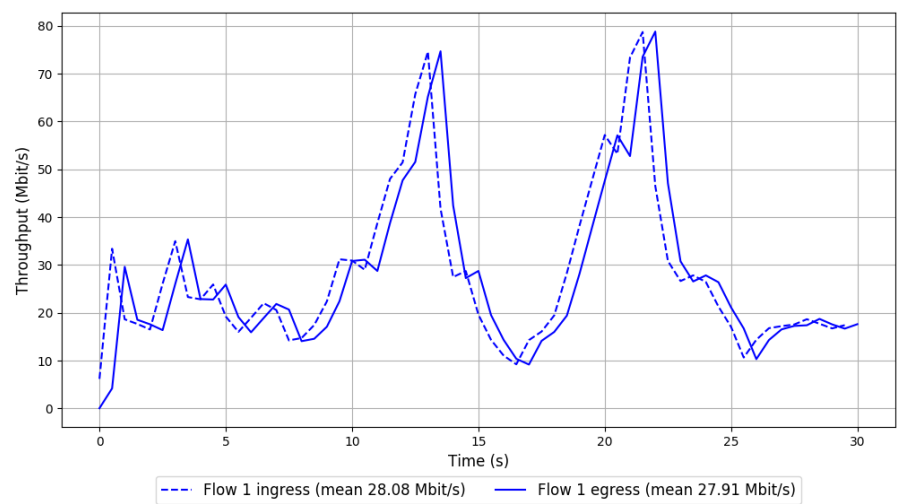
-- Flow 1:

Average throughput: 27.91 Mbit/s

95th percentile per-packet one-way delay: 7.670 ms

Loss rate: 0.63%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-10 23:39:42

End at: 2018-09-10 23:40:12

Local clock offset: 1.887 ms

Remote clock offset: -1.938 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 5.495 ms

Loss rate: 4.22%

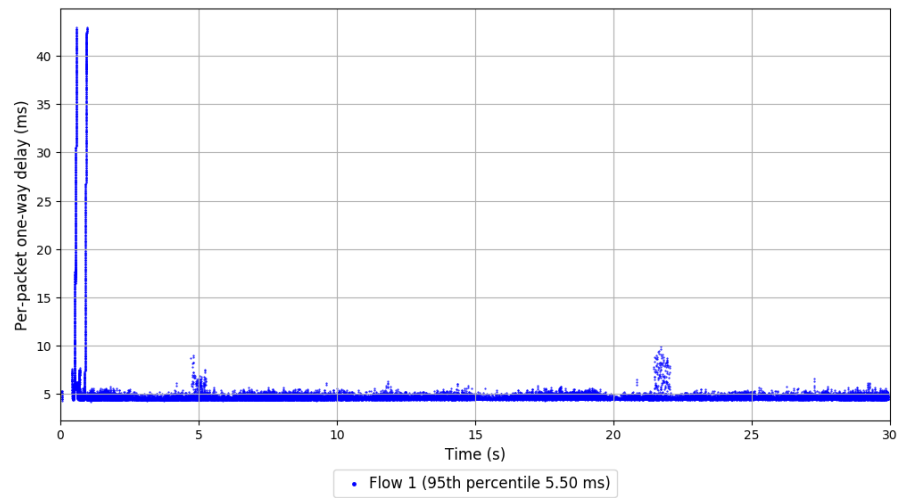
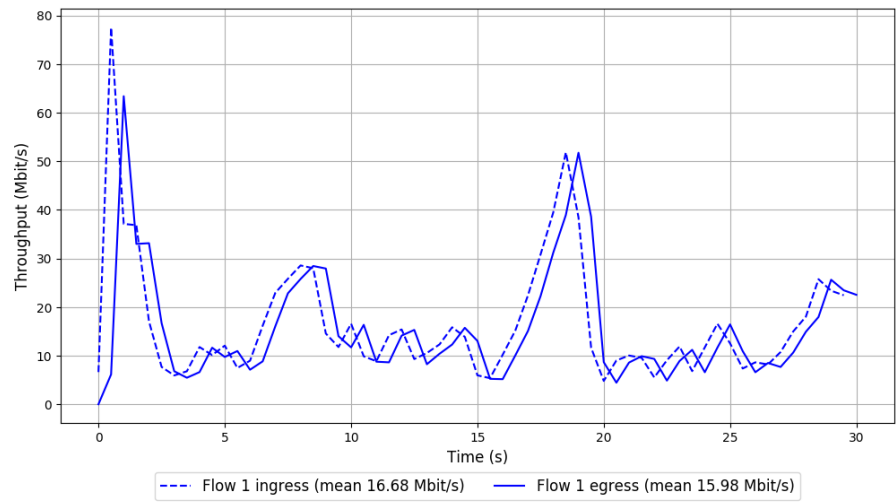
-- Flow 1:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 5.495 ms

Loss rate: 4.22%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-10 23:59:49

End at: 2018-09-11 00:00:19

Local clock offset: 1.799 ms

Remote clock offset: -3.151 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.10 Mbit/s

95th percentile per-packet one-way delay: 5.049 ms

Loss rate: 1.14%

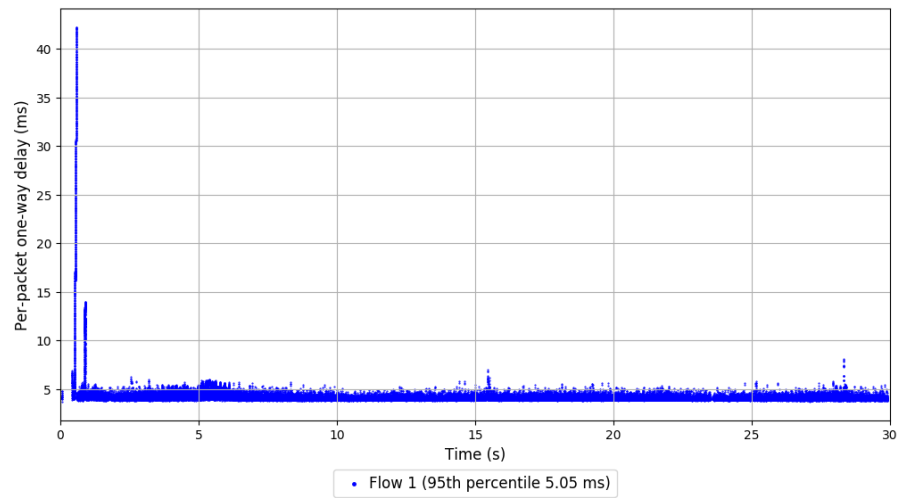
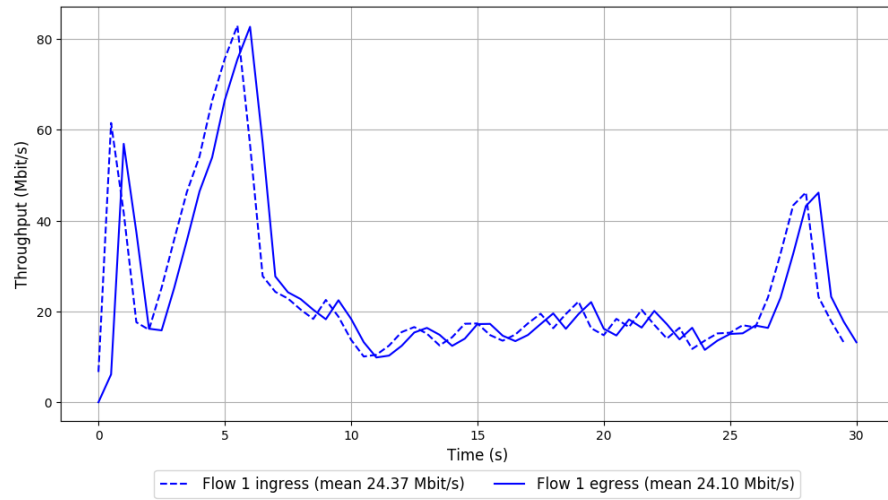
-- Flow 1:

Average throughput: 24.10 Mbit/s

95th percentile per-packet one-way delay: 5.049 ms

Loss rate: 1.14%

Run 5: Report of QUIC Cubic — Data Link

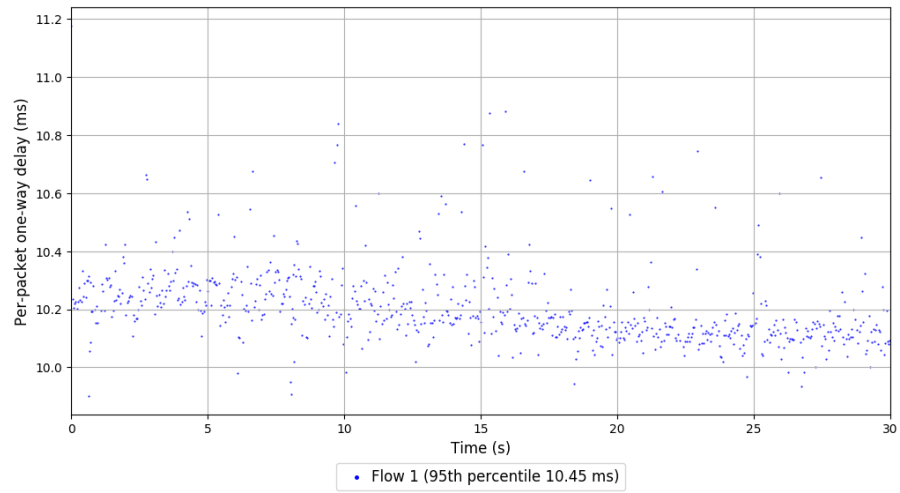
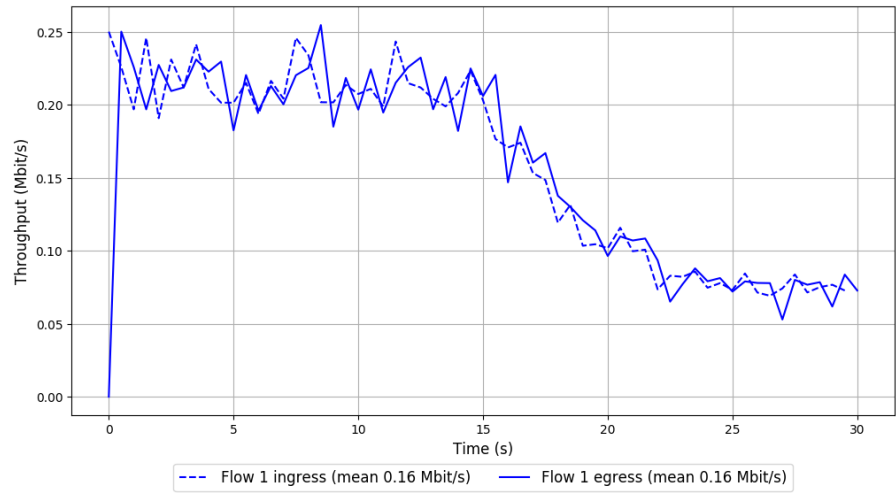


```
Run 1: Statistics of SCReAM

Start at: 2018-09-10 22:42:22
End at: 2018-09-10 22:42:52
Local clock offset: -6.659 ms
Remote clock offset: -0.816 ms

# Below is generated by plot.py at 2018-09-11 00:20:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 10.448 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 10.448 ms
Loss rate: 0.50%
```

Run 1: Report of SReAM — Data Link

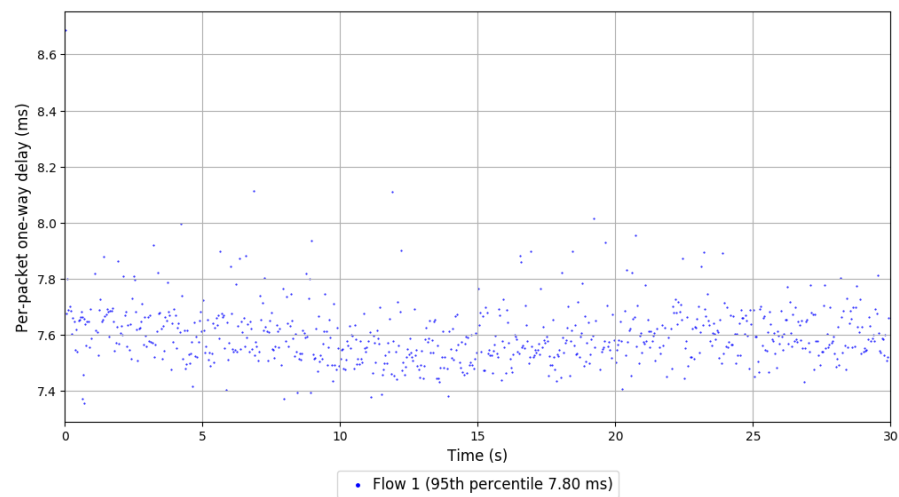
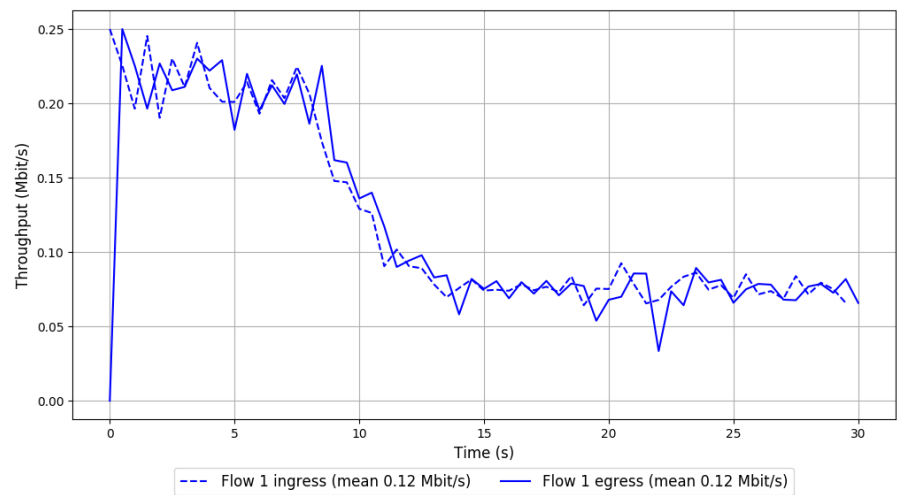


Run 2: Statistics of SCReAM

Start at: 2018-09-10 23:02:40
End at: 2018-09-10 23:03:10
Local clock offset: -3.518 ms
Remote clock offset: -2.074 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 7.798 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 7.798 ms
Loss rate: 1.50%

Run 2: Report of SReAM — Data Link

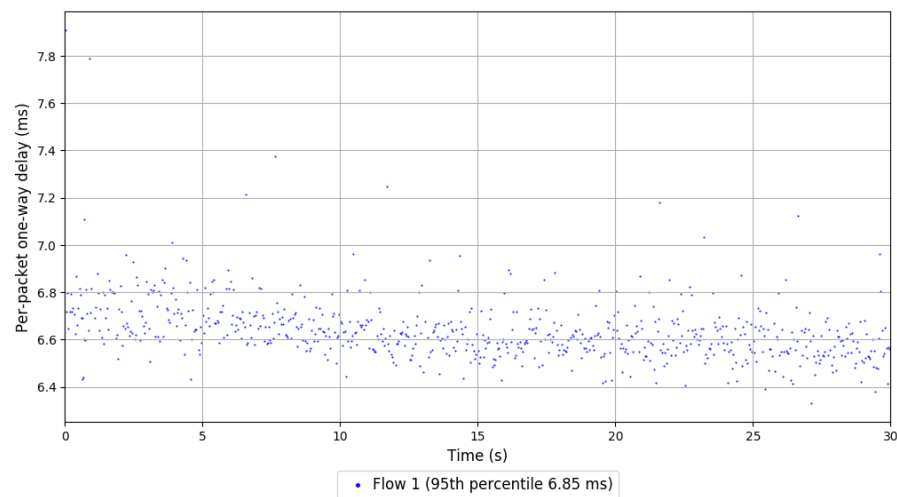
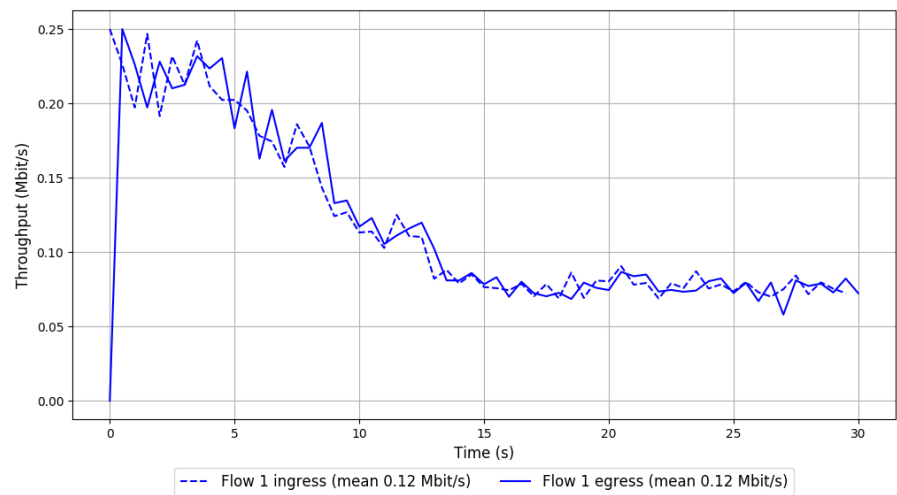


Run 3: Statistics of SCReAM

Start at: 2018-09-10 23:22:59
End at: 2018-09-10 23:23:29
Local clock offset: -0.543 ms
Remote clock offset: -1.898 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 6.846 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 6.846 ms
Loss rate: 0.78%

Run 3: Report of SReAM — Data Link

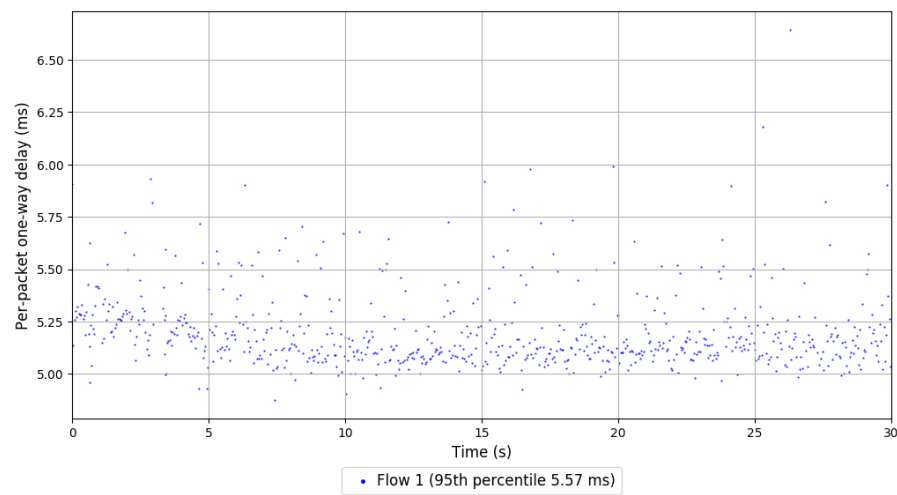
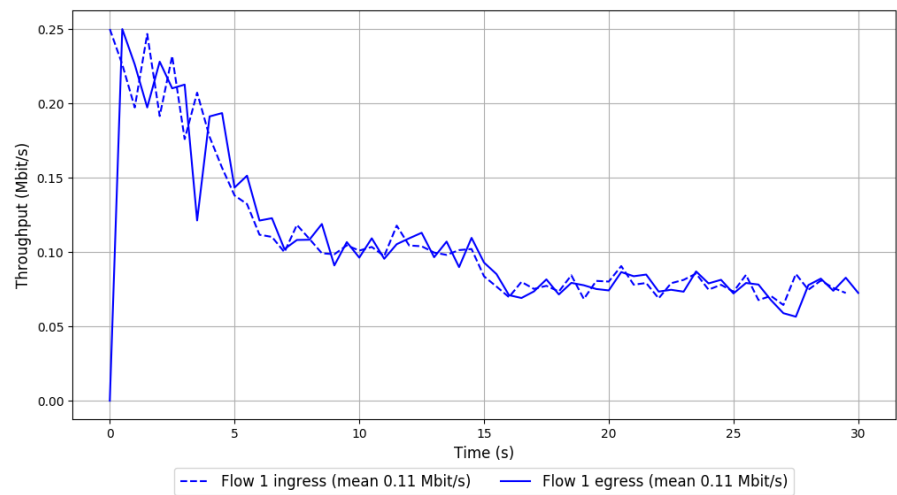


Run 4: Statistics of SCReAM

Start at: 2018-09-10 23:43:02
End at: 2018-09-10 23:43:32
Local clock offset: 1.07 ms
Remote clock offset: -2.368 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.567 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.567 ms
Loss rate: 1.74%

Run 4: Report of SReAM — Data Link

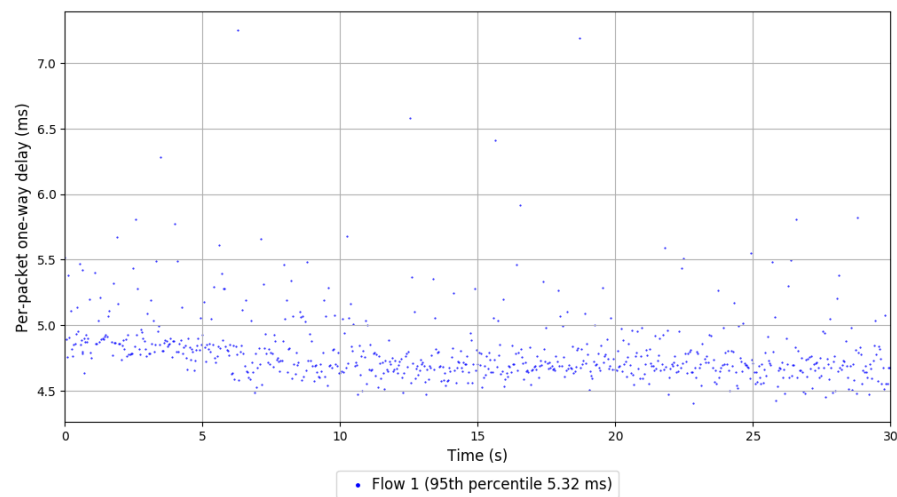
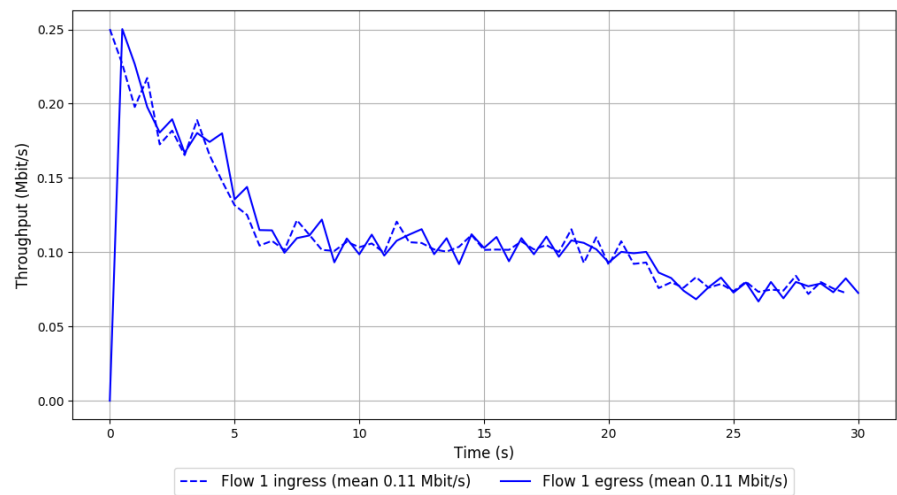


Run 5: Statistics of SCReAM

Start at: 2018-09-11 00:03:16
End at: 2018-09-11 00:03:46
Local clock offset: 1.412 ms
Remote clock offset: -2.483 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.319 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 5.319 ms
Loss rate: 0.71%

Run 5: Report of SReAM — Data Link

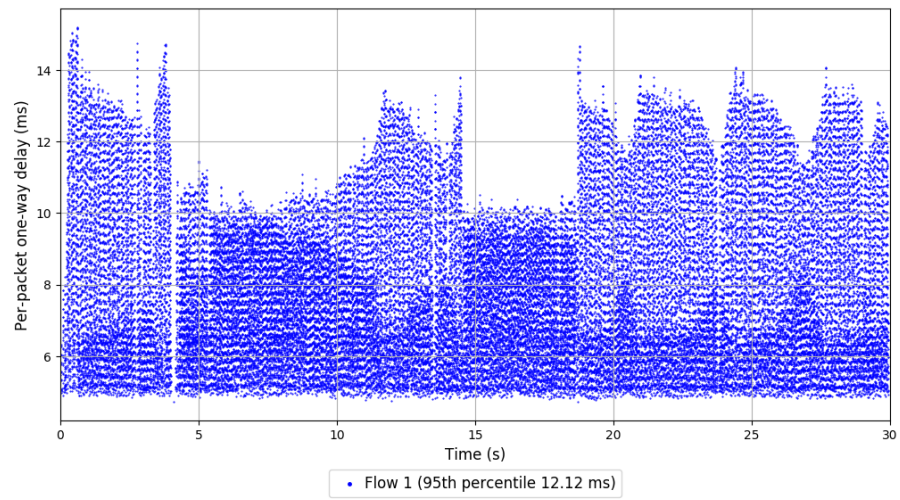
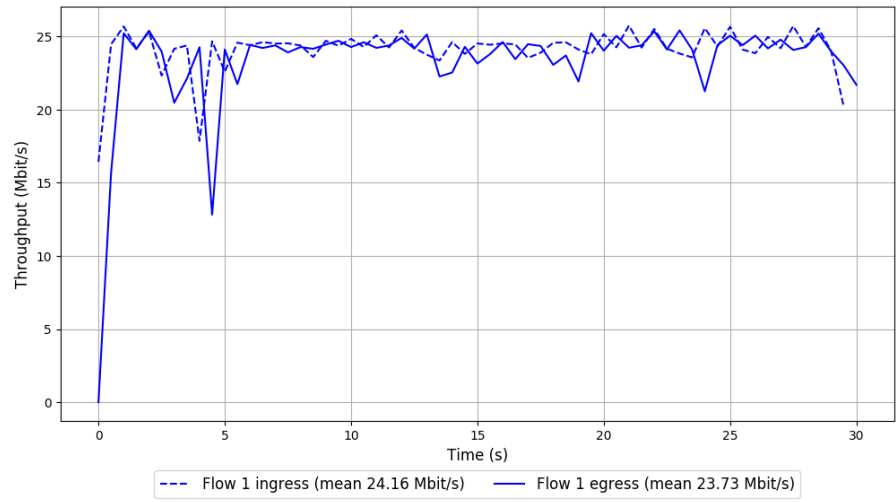


Run 1: Statistics of Sprout

Start at: 2018-09-10 22:52:35
End at: 2018-09-10 22:53:05
Local clock offset: -5.077 ms
Remote clock offset: -2.253 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.73 Mbit/s
95th percentile per-packet one-way delay: 12.119 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 23.73 Mbit/s
95th percentile per-packet one-way delay: 12.119 ms
Loss rate: 1.78%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-09-10 23:12:57

End at: 2018-09-10 23:13:27

Local clock offset: -1.215 ms

Remote clock offset: -1.85 ms

Below is generated by plot.py at 2018-09-11 00:20:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.03 Mbit/s

95th percentile per-packet one-way delay: 13.079 ms

Loss rate: 1.46%

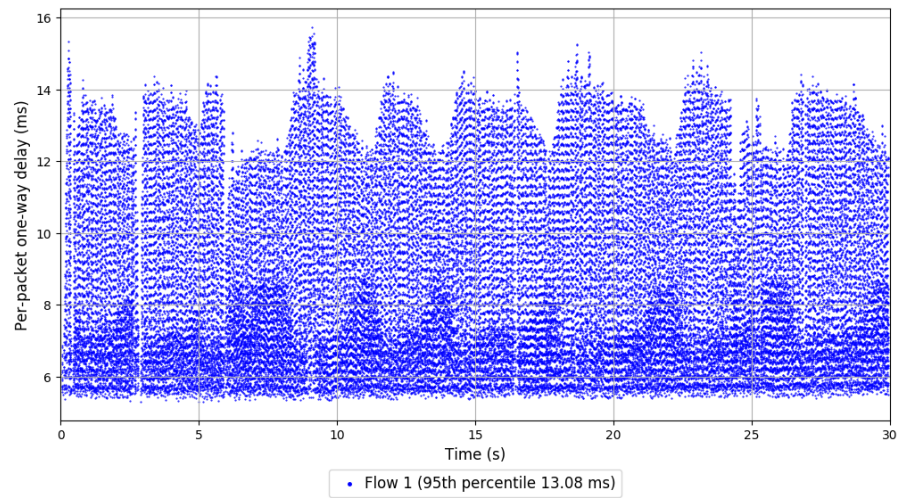
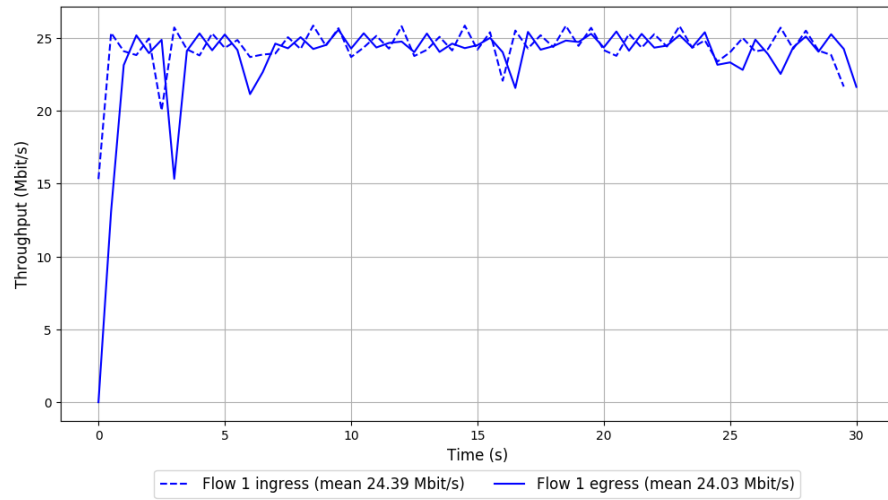
-- Flow 1:

Average throughput: 24.03 Mbit/s

95th percentile per-packet one-way delay: 13.079 ms

Loss rate: 1.46%

Run 2: Report of Sprout — Data Link

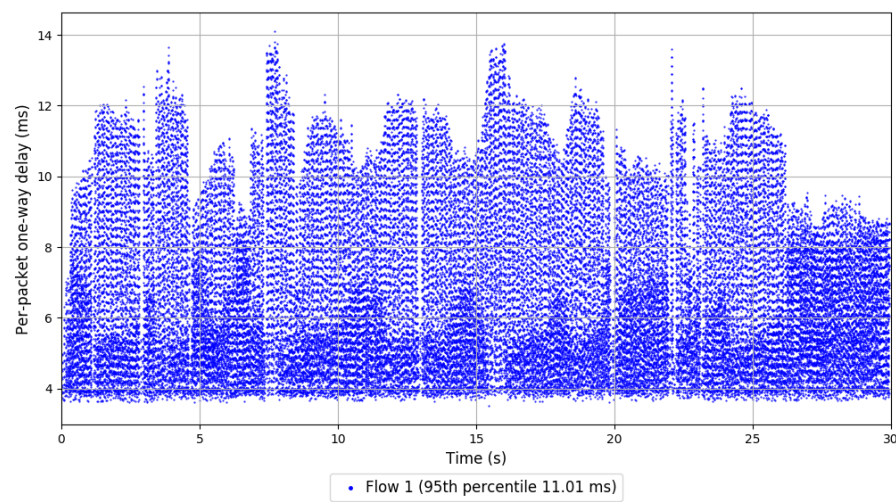
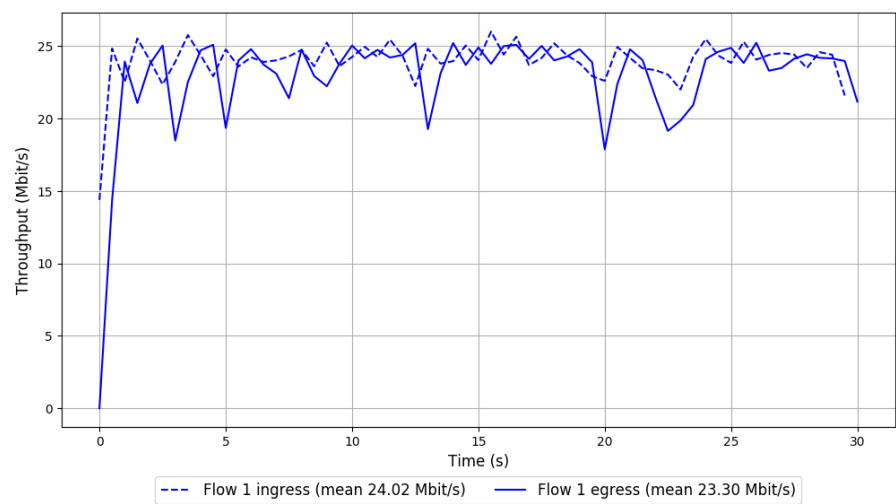


Run 3: Statistics of Sprout

Start at: 2018-09-10 23:33:03
End at: 2018-09-10 23:33:33
Local clock offset: 2.112 ms
Remote clock offset: -3.092 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 11.007 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 23.30 Mbit/s
95th percentile per-packet one-way delay: 11.007 ms
Loss rate: 3.01%

Run 3: Report of Sprout — Data Link

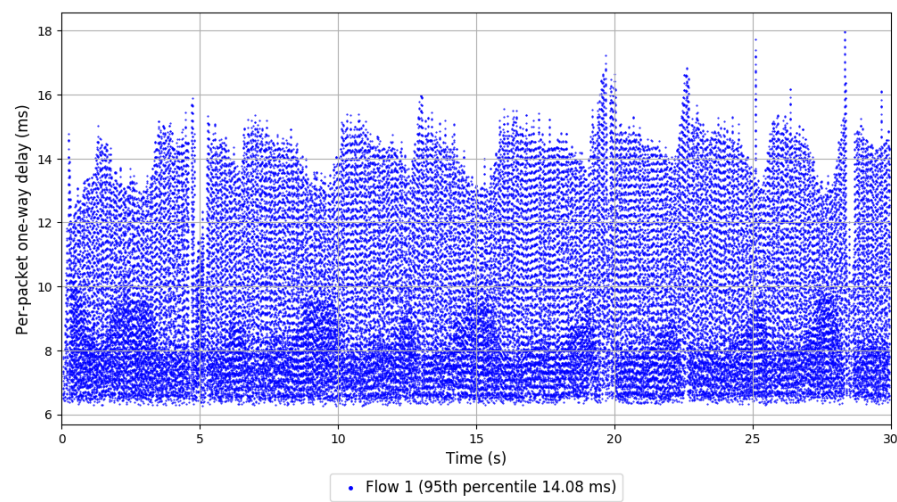
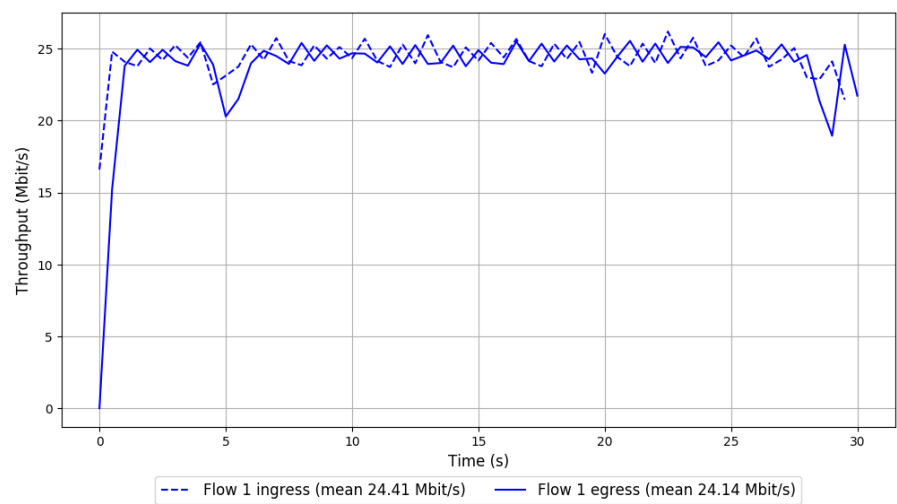


Run 4: Statistics of Sprout

Start at: 2018-09-10 23:53:08
End at: 2018-09-10 23:53:38
Local clock offset: 0.858 ms
Remote clock offset: -1.841 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 14.078 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 24.14 Mbit/s
95th percentile per-packet one-way delay: 14.078 ms
Loss rate: 1.09%

Run 4: Report of Sprout — Data Link

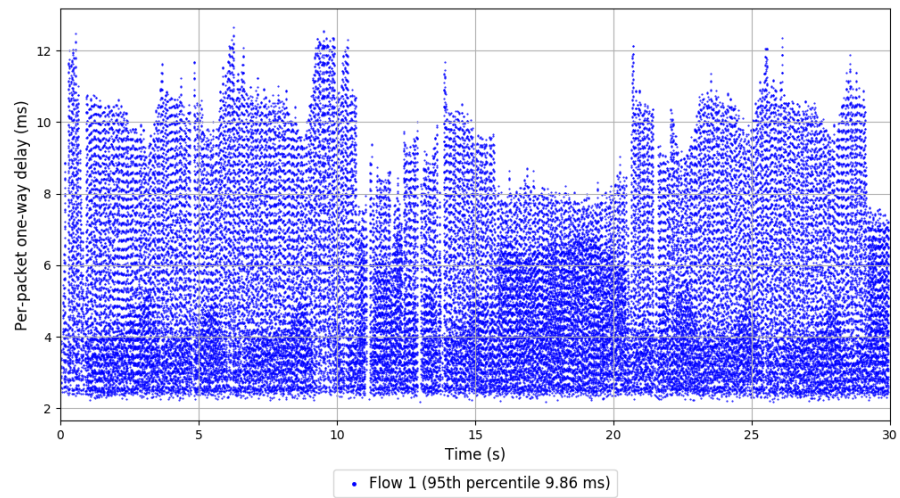
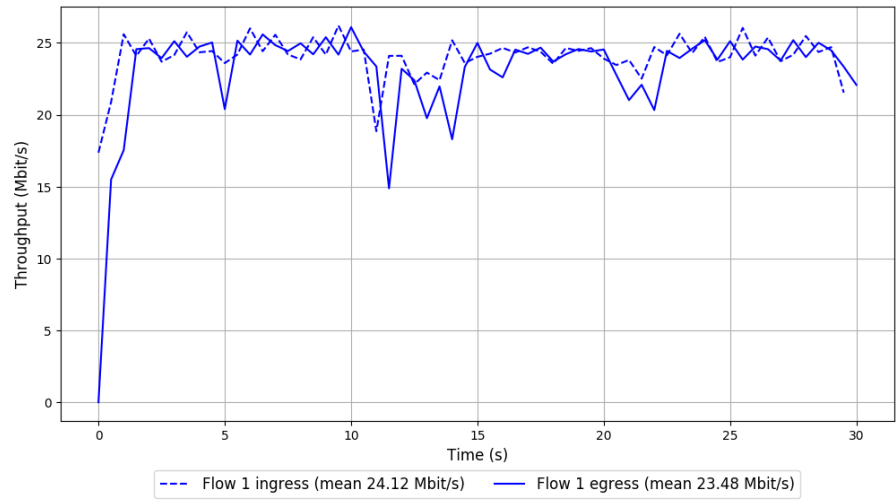


Run 5: Statistics of Sprout

Start at: 2018-09-11 00:13:27
End at: 2018-09-11 00:13:57
Local clock offset: 2.605 ms
Remote clock offset: -3.443 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 9.864 ms
Loss rate: 2.63%
-- Flow 1:
Average throughput: 23.48 Mbit/s
95th percentile per-packet one-way delay: 9.864 ms
Loss rate: 2.63%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

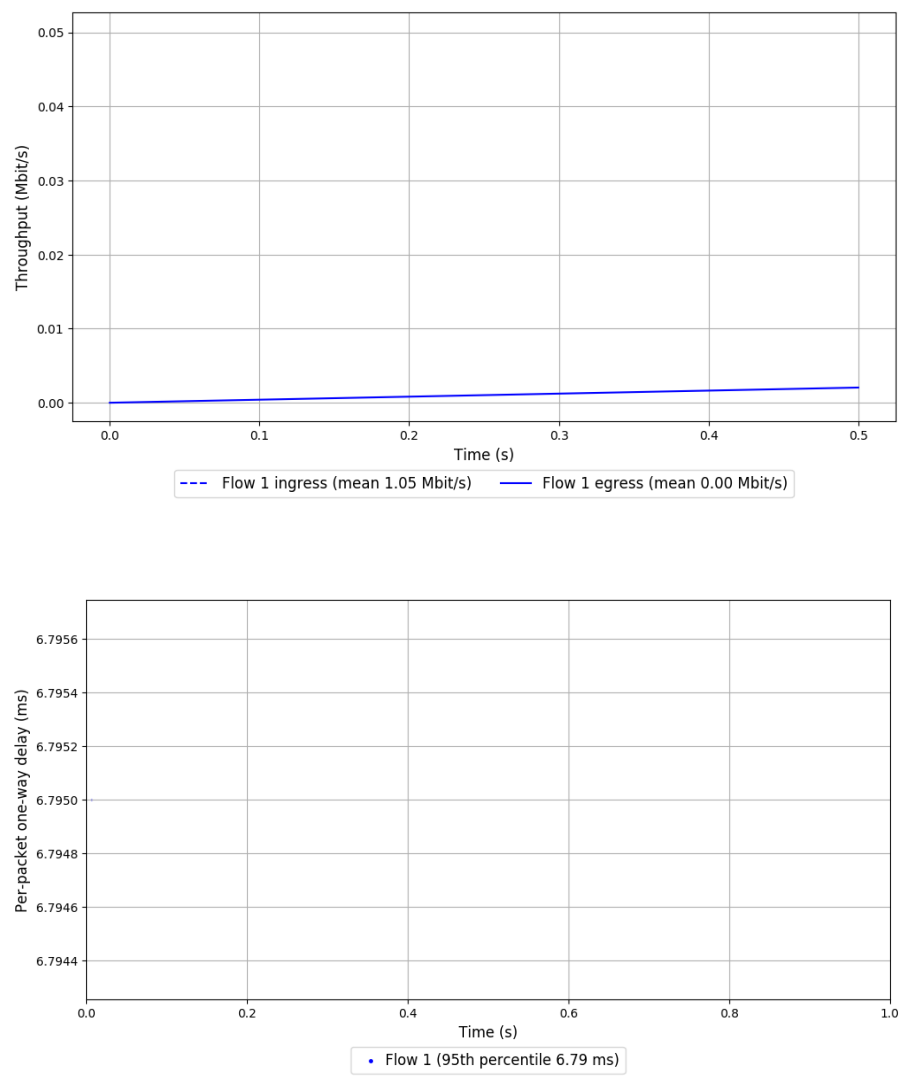
Start at: 2018-09-10 22:51:30

End at: 2018-09-10 22:52:00

Local clock offset: -4.789 ms

Remote clock offset: -0.733 ms

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

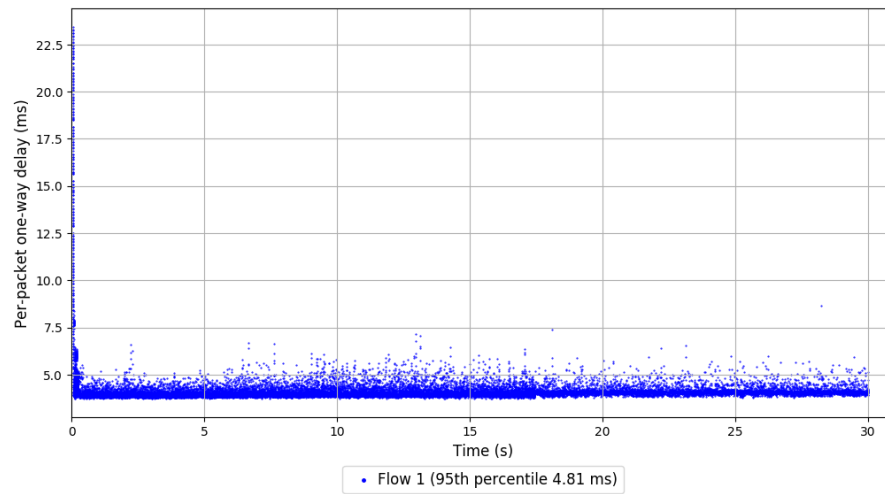
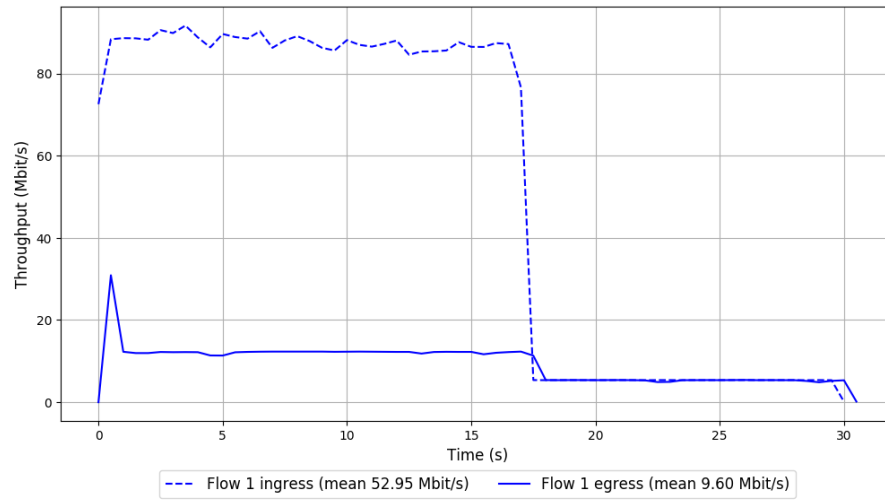


Run 2: Statistics of TaoVA-100x

Start at: 2018-09-10 23:11:51
End at: 2018-09-10 23:12:21
Local clock offset: 0.87 ms
Remote clock offset: -1.226 ms

Below is generated by plot.py at 2018-09-11 00:20:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 4.812 ms
Loss rate: 81.87%
-- Flow 1:
Average throughput: 9.60 Mbit/s
95th percentile per-packet one-way delay: 4.812 ms
Loss rate: 81.87%

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



Run 3: Statistics of TaoVA-100x

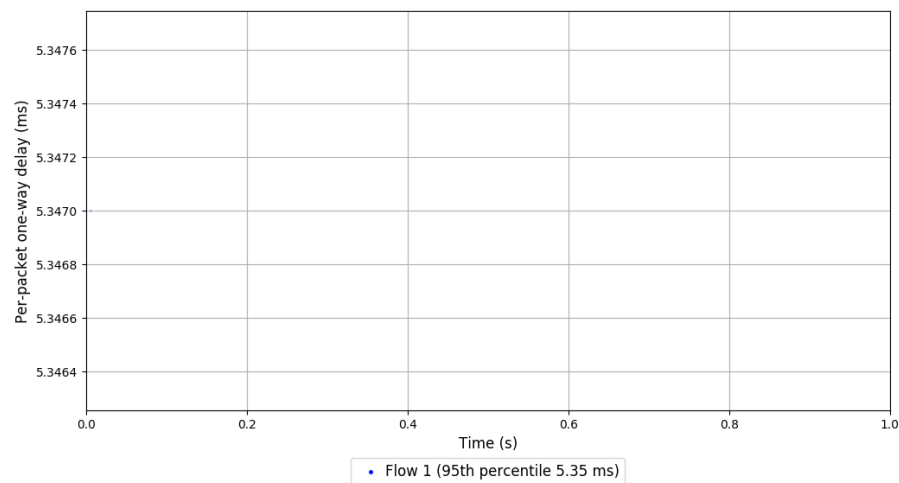
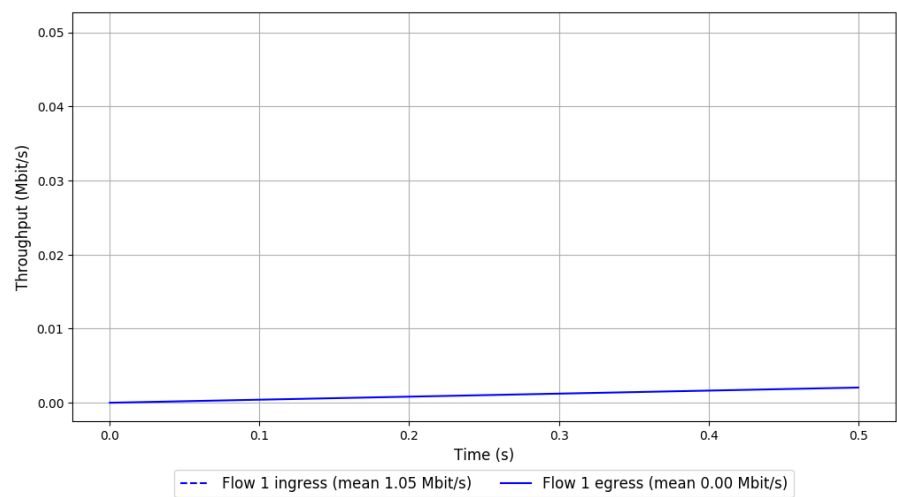
Start at: 2018-09-10 23:31:58

End at: 2018-09-10 23:32:28

Local clock offset: 0.36 ms

Remote clock offset: -2.327 ms

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

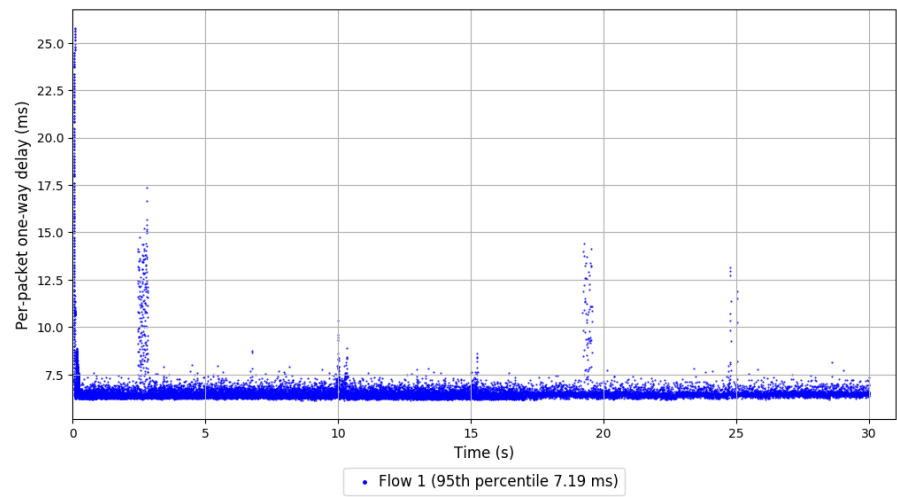
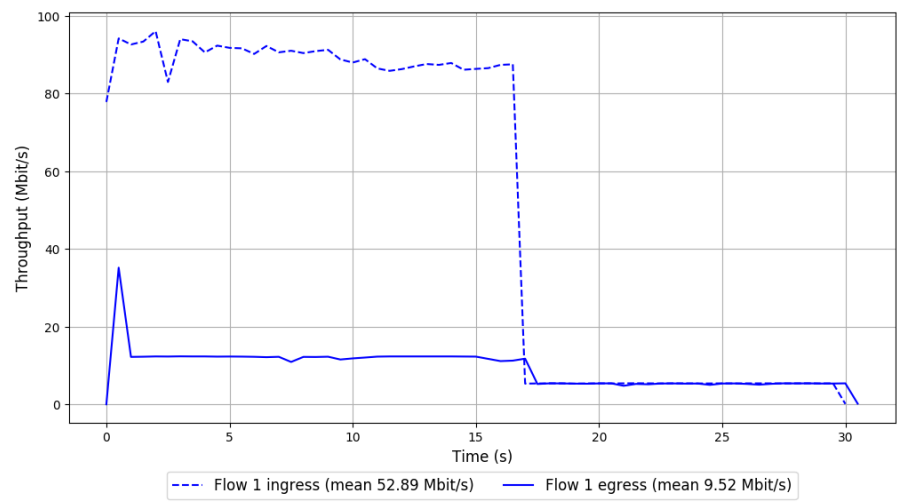


Run 4: Statistics of TaoVA-100x

Start at: 2018-09-10 23:52:01
End at: 2018-09-10 23:52:31
Local clock offset: 0.773 ms
Remote clock offset: -1.959 ms

Below is generated by plot.py at 2018-09-11 00:20:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 7.188 ms
Loss rate: 81.99%
-- Flow 1:
Average throughput: 9.52 Mbit/s
95th percentile per-packet one-way delay: 7.188 ms
Loss rate: 81.99%

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



Run 5: Statistics of TaoVA-100x

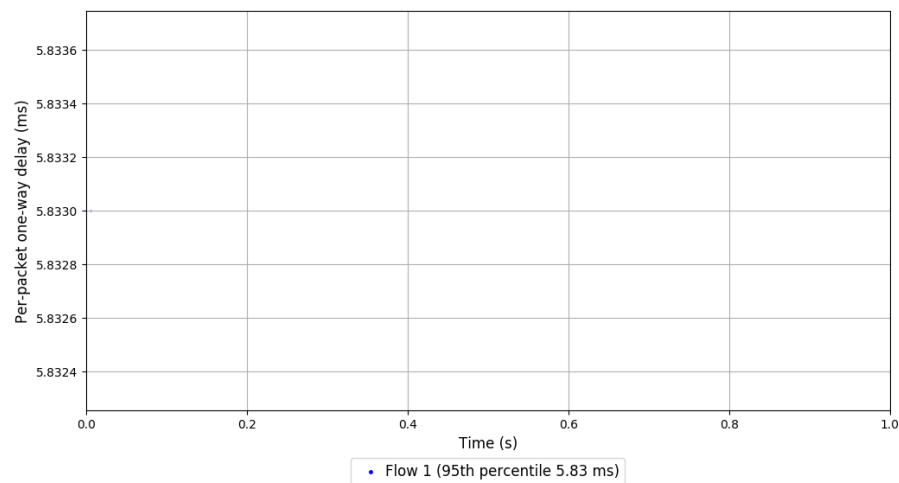
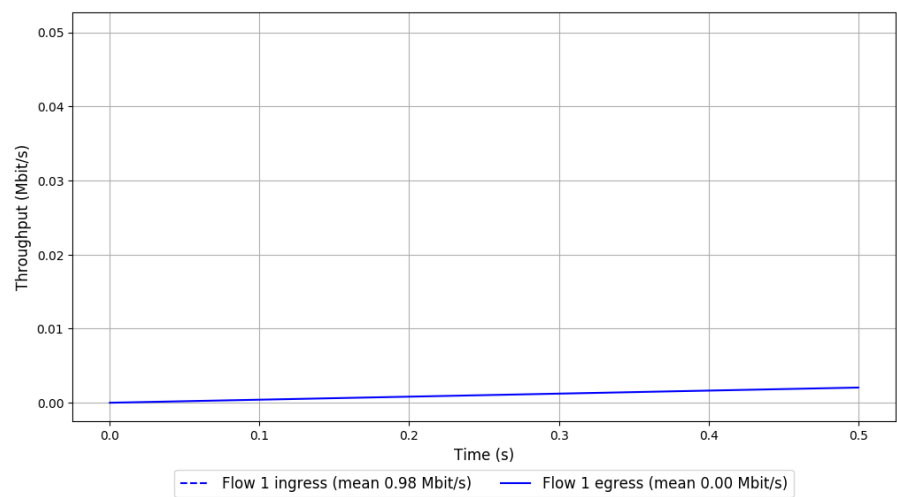
Start at: 2018-09-11 00:12:22

End at: 2018-09-11 00:12:52

Local clock offset: 1.153 ms

Remote clock offset: -3.334 ms

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

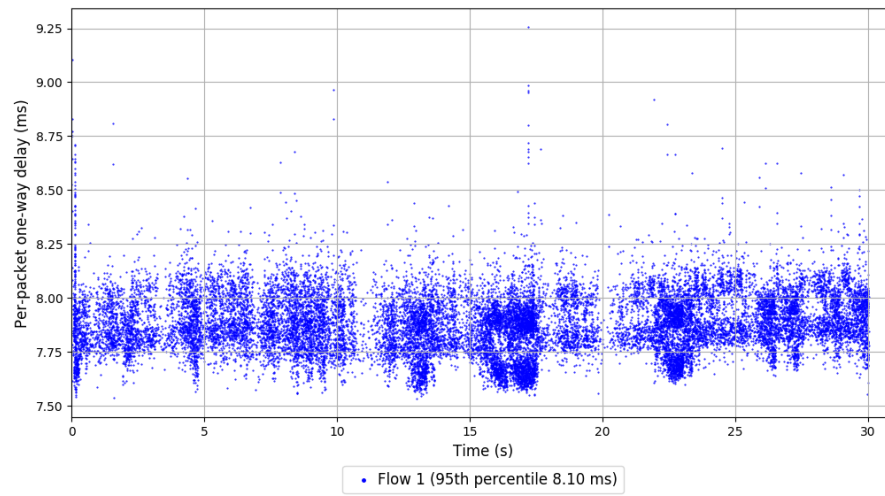
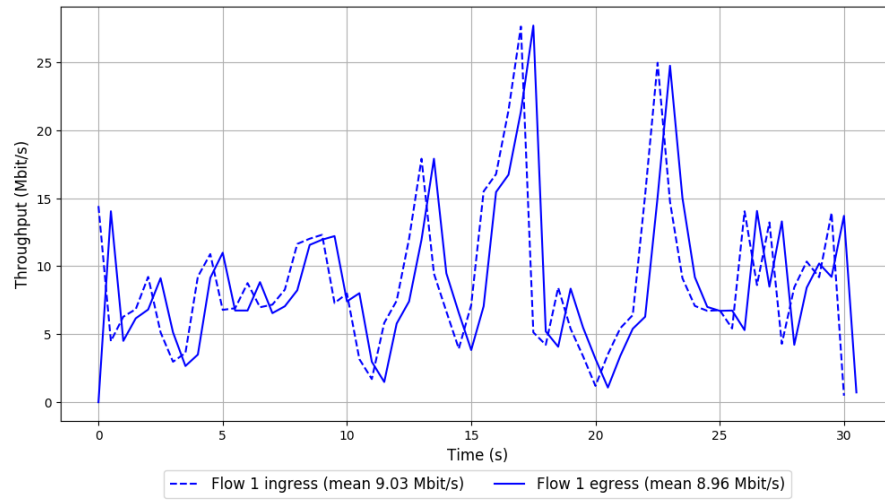


Run 1: Statistics of TCP Vegas

Start at: 2018-09-10 22:35:38
End at: 2018-09-10 22:36:08
Local clock offset: -5.098 ms
Remote clock offset: -1.229 ms

Below is generated by plot.py at 2018-09-11 00:20:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 8.098 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 8.098 ms
Loss rate: 0.73%

Run 1: Report of TCP Vegas — Data Link

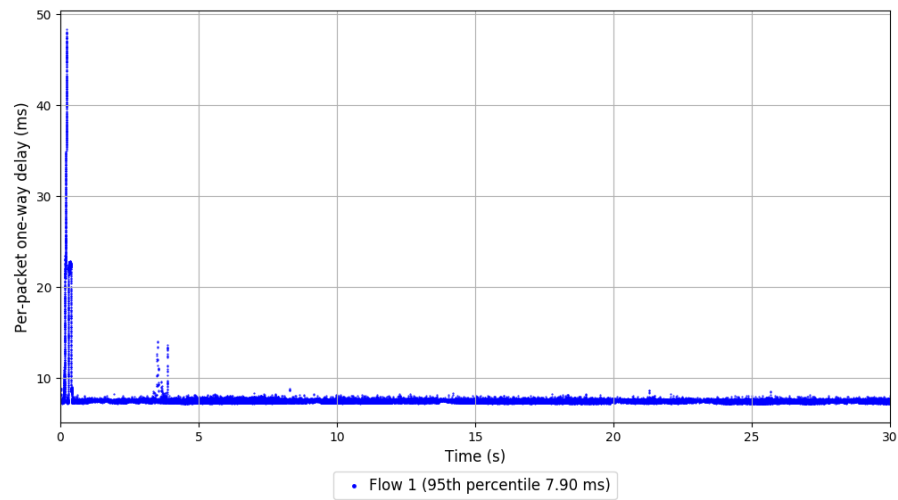
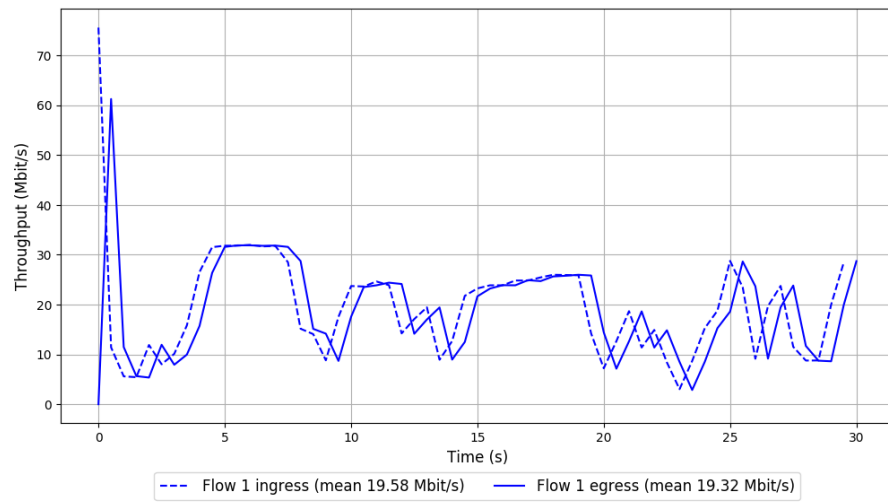


Run 2: Statistics of TCP Vegas

Start at: 2018-09-10 22:56:00
End at: 2018-09-10 22:56:30
Local clock offset: -6.951 ms
Remote clock offset: -1.593 ms

Below is generated by plot.py at 2018-09-11 00:20:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.32 Mbit/s
95th percentile per-packet one-way delay: 7.902 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 19.32 Mbit/s
95th percentile per-packet one-way delay: 7.902 ms
Loss rate: 1.30%

Run 2: Report of TCP Vegas — Data Link

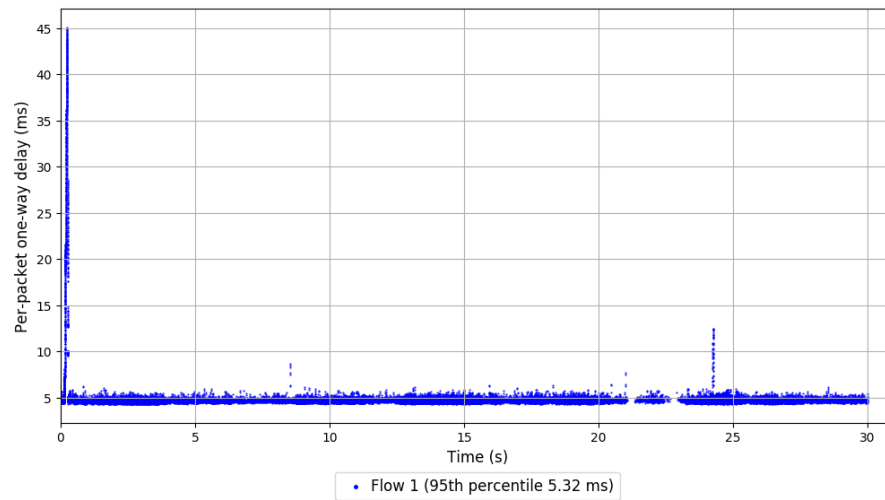
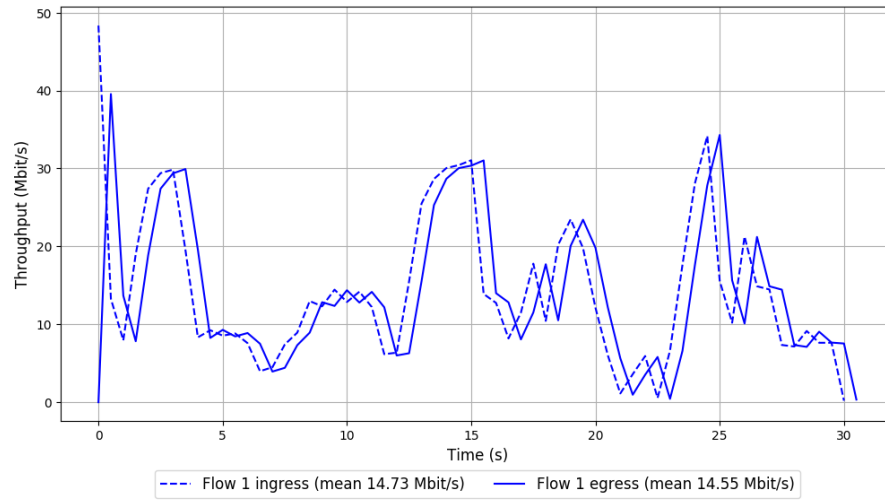


Run 3: Statistics of TCP Vegas

Start at: 2018-09-10 23:16:20
End at: 2018-09-10 23:16:50
Local clock offset: -0.231 ms
Remote clock offset: -2.236 ms

Below is generated by plot.py at 2018-09-11 00:20:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.55 Mbit/s
95th percentile per-packet one-way delay: 5.324 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 14.55 Mbit/s
95th percentile per-packet one-way delay: 5.324 ms
Loss rate: 1.24%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-09-10 23:36:25

End at: 2018-09-10 23:36:55

Local clock offset: 0.199 ms

Remote clock offset: -2.73 ms

Below is generated by plot.py at 2018-09-11 00:20:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 17.61 Mbit/s

95th percentile per-packet one-way delay: 6.027 ms

Loss rate: 0.31%

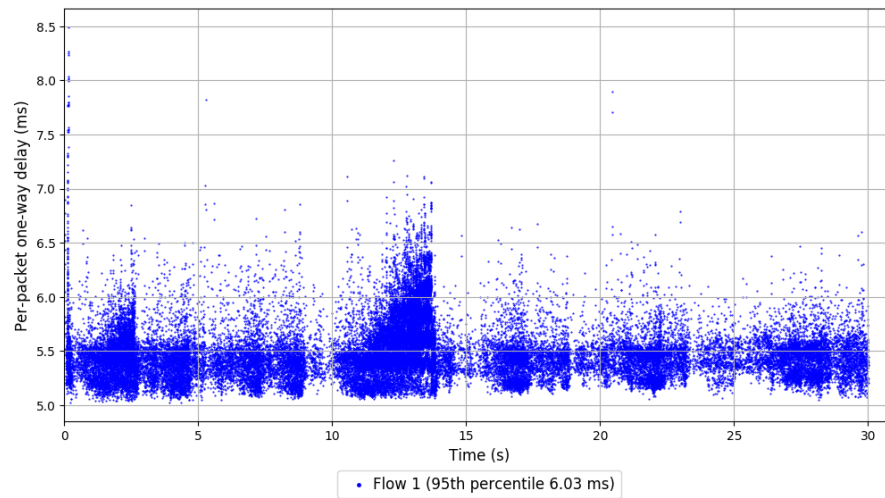
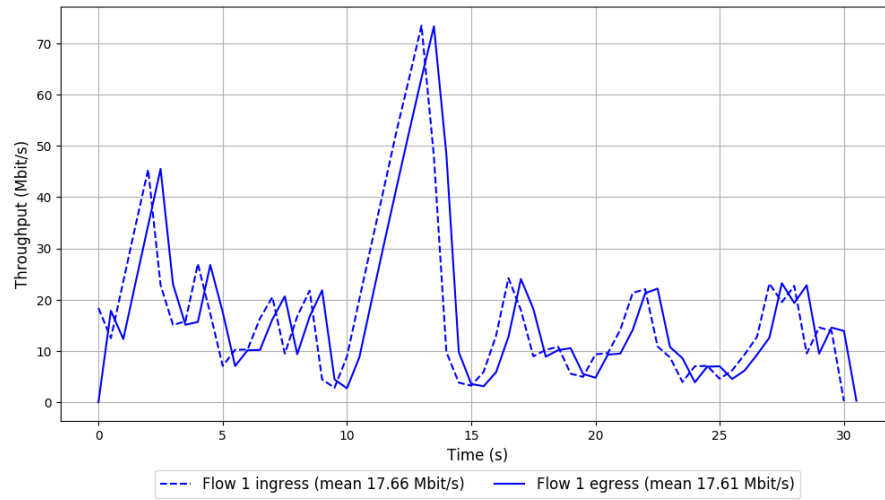
-- Flow 1:

Average throughput: 17.61 Mbit/s

95th percentile per-packet one-way delay: 6.027 ms

Loss rate: 0.31%

Run 4: Report of TCP Vegas — Data Link

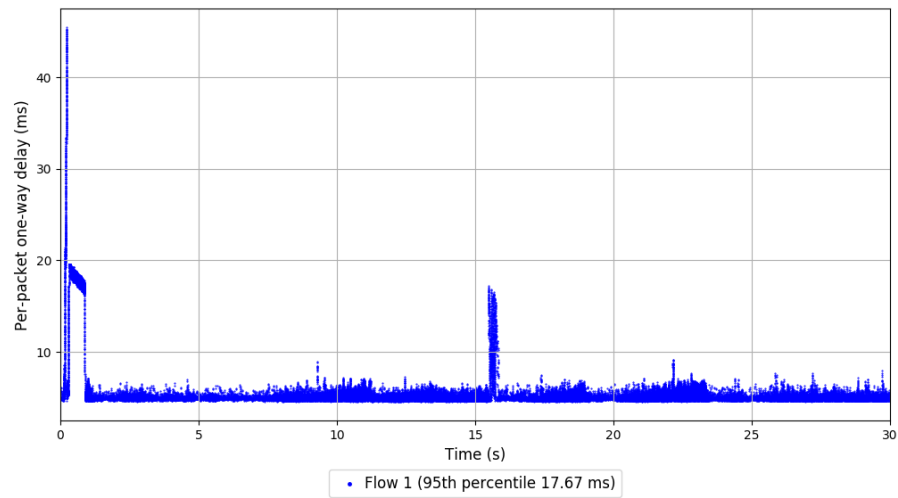
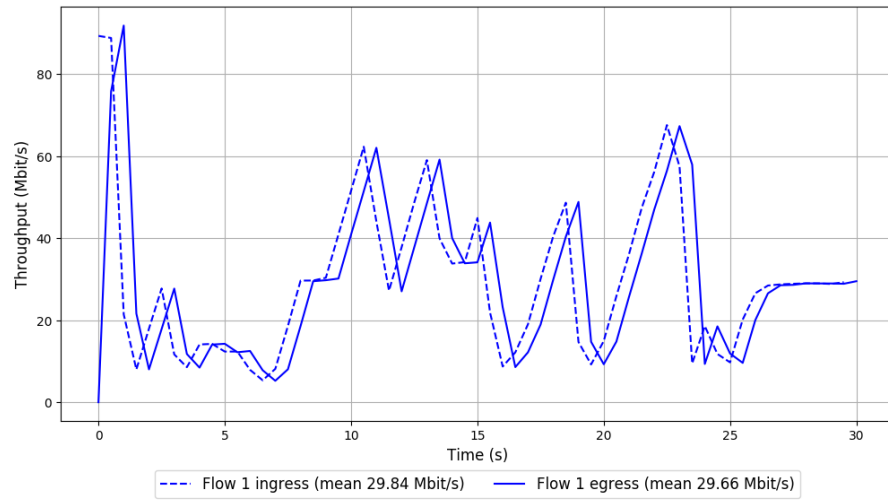


Run 5: Statistics of TCP Vegas

Start at: 2018-09-10 23:56:33
End at: 2018-09-10 23:57:03
Local clock offset: 1.556 ms
Remote clock offset: -2.947 ms

Below is generated by plot.py at 2018-09-11 00:20:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 17.669 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 29.66 Mbit/s
95th percentile per-packet one-way delay: 17.669 ms
Loss rate: 0.63%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-09-10 22:45:42

End at: 2018-09-10 22:46:12

Local clock offset: -4.307 ms

Remote clock offset: -2.08 ms

Below is generated by plot.py at 2018-09-11 00:20:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.27 Mbit/s

95th percentile per-packet one-way delay: 28.717 ms

Loss rate: 9.07%

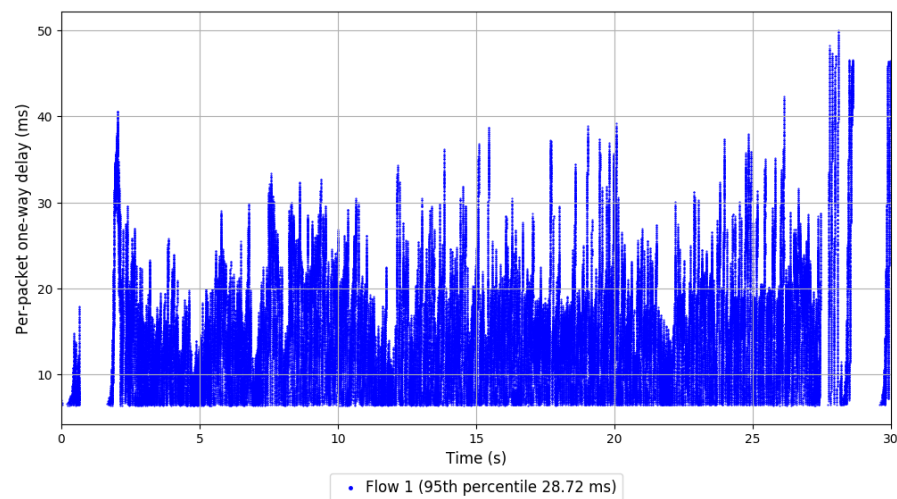
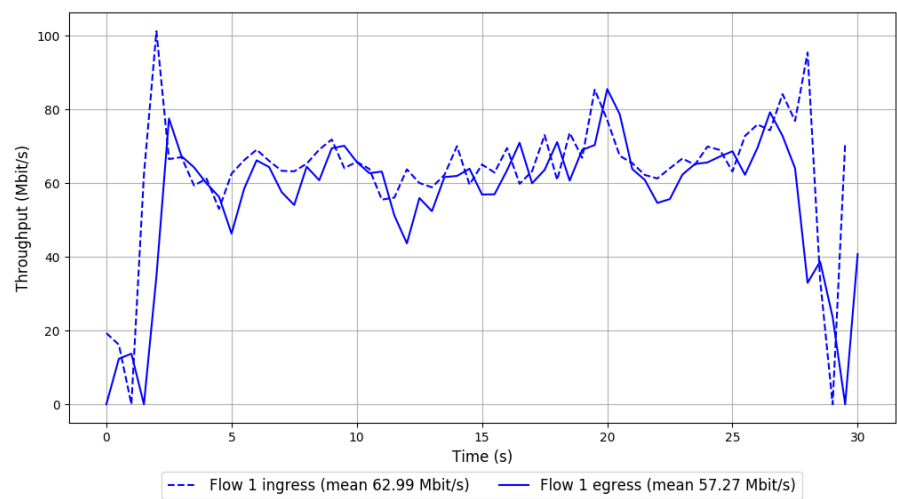
-- Flow 1:

Average throughput: 57.27 Mbit/s

95th percentile per-packet one-way delay: 28.717 ms

Loss rate: 9.07%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-09-10 23:06:00

End at: 2018-09-10 23:06:30

Local clock offset: -2.187 ms

Remote clock offset: -1.98 ms

Below is generated by plot.py at 2018-09-11 00:20:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.69 Mbit/s

95th percentile per-packet one-way delay: 29.161 ms

Loss rate: 8.31%

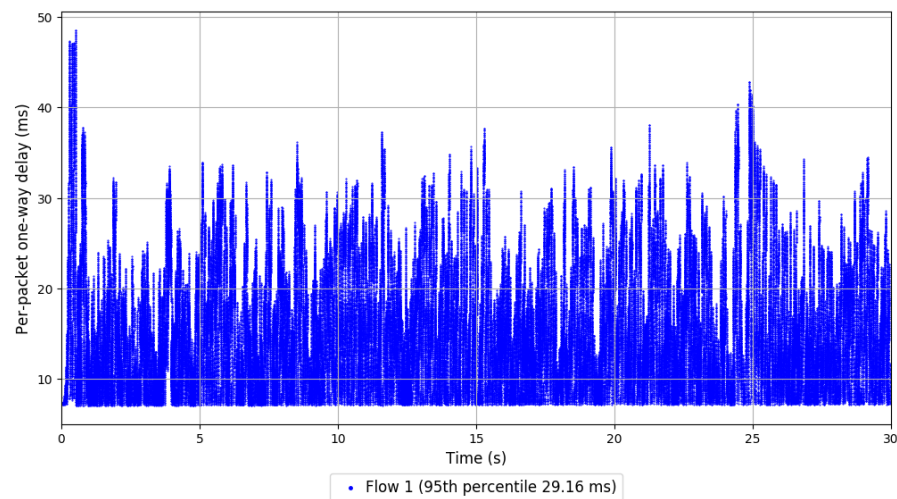
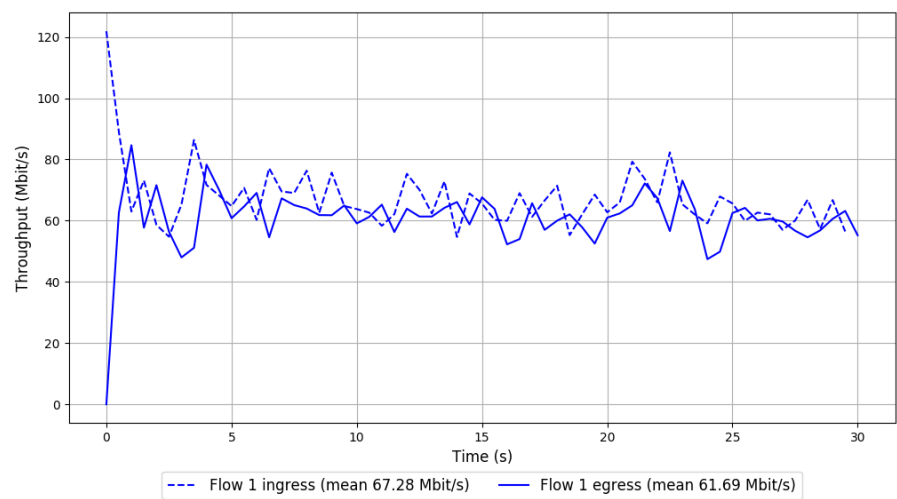
-- Flow 1:

Average throughput: 61.69 Mbit/s

95th percentile per-packet one-way delay: 29.161 ms

Loss rate: 8.31%

Run 2: Report of Verus — Data Link

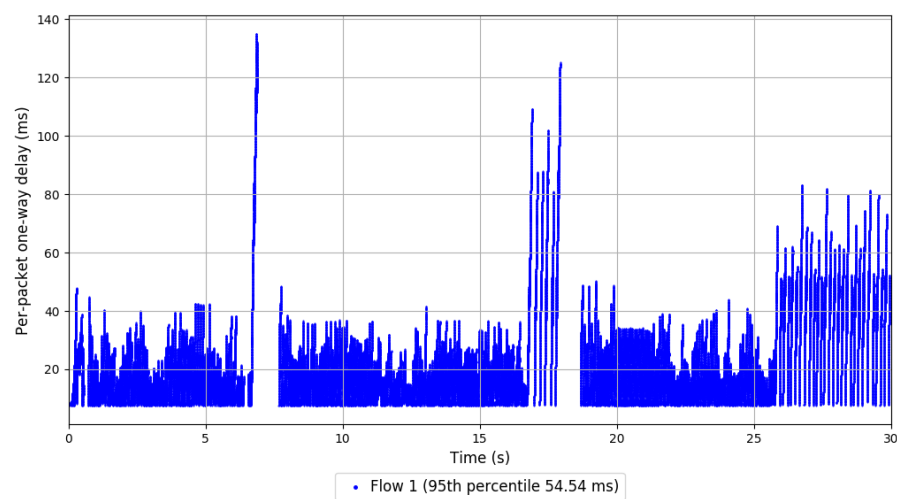
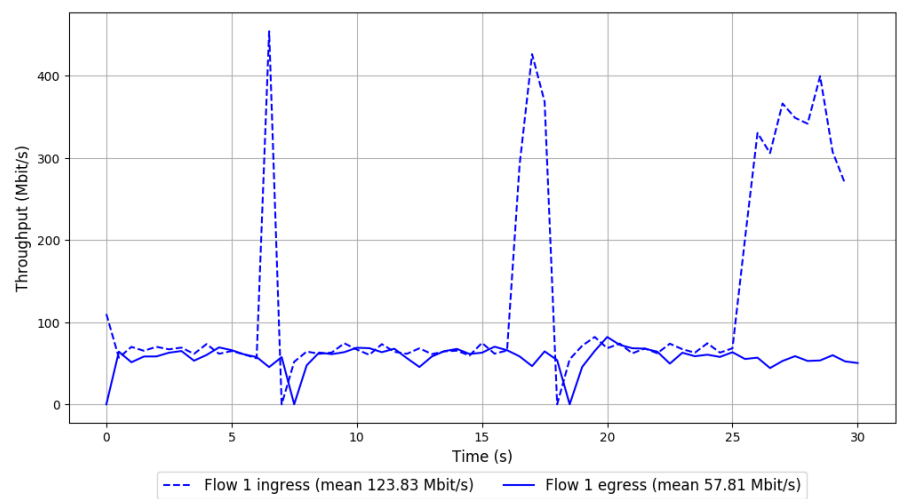


Run 3: Statistics of Verus

Start at: 2018-09-10 23:26:18
End at: 2018-09-10 23:26:48
Local clock offset: -1.887 ms
Remote clock offset: -1.354 ms

Below is generated by plot.py at 2018-09-11 00:21:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 54.542 ms
Loss rate: 53.28%
-- Flow 1:
Average throughput: 57.81 Mbit/s
95th percentile per-packet one-way delay: 54.542 ms
Loss rate: 53.28%

Run 3: Report of Verus — Data Link

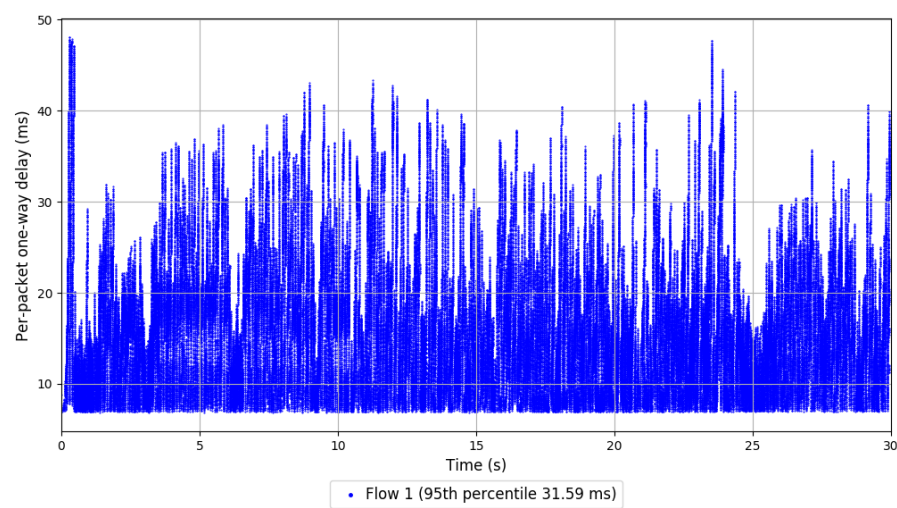
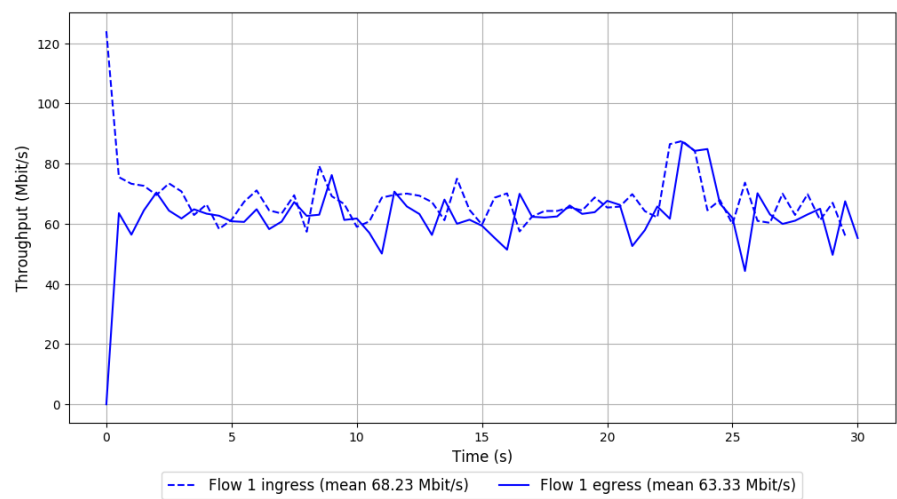


Run 4: Statistics of Verus

Start at: 2018-09-10 23:46:19
End at: 2018-09-10 23:46:49
Local clock offset: 0.152 ms
Remote clock offset: -1.593 ms

Below is generated by plot.py at 2018-09-11 00:21:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.33 Mbit/s
95th percentile per-packet one-way delay: 31.590 ms
Loss rate: 7.17%
-- Flow 1:
Average throughput: 63.33 Mbit/s
95th percentile per-packet one-way delay: 31.590 ms
Loss rate: 7.17%

Run 4: Report of Verus — Data Link

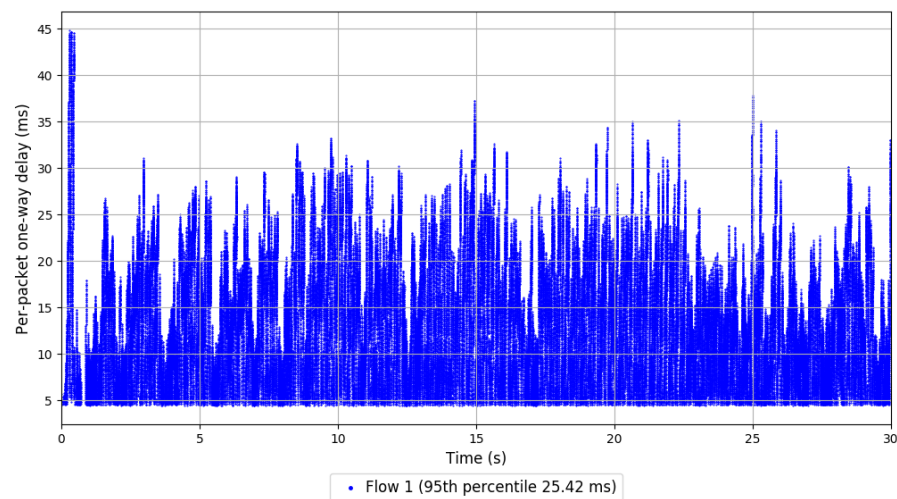
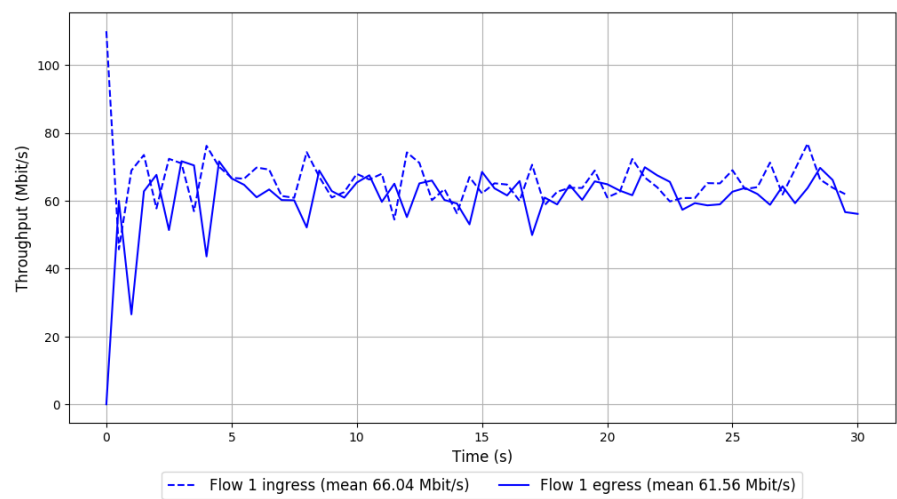


Run 5: Statistics of Verus

Start at: 2018-09-11 00:06:34
End at: 2018-09-11 00:07:04
Local clock offset: 2.38 ms
Remote clock offset: -2.584 ms

Below is generated by plot.py at 2018-09-11 00:21:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 25.423 ms
Loss rate: 6.70%
-- Flow 1:
Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 25.423 ms
Loss rate: 6.70%

Run 5: Report of Verus — Data Link

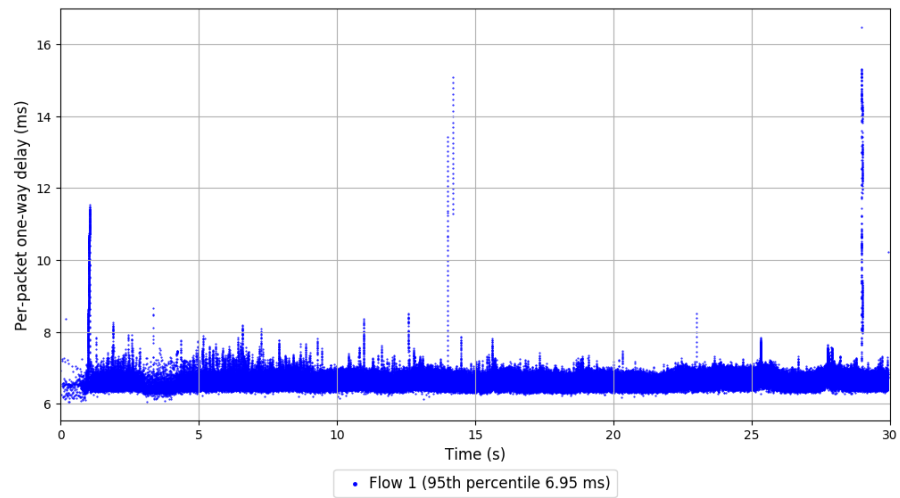
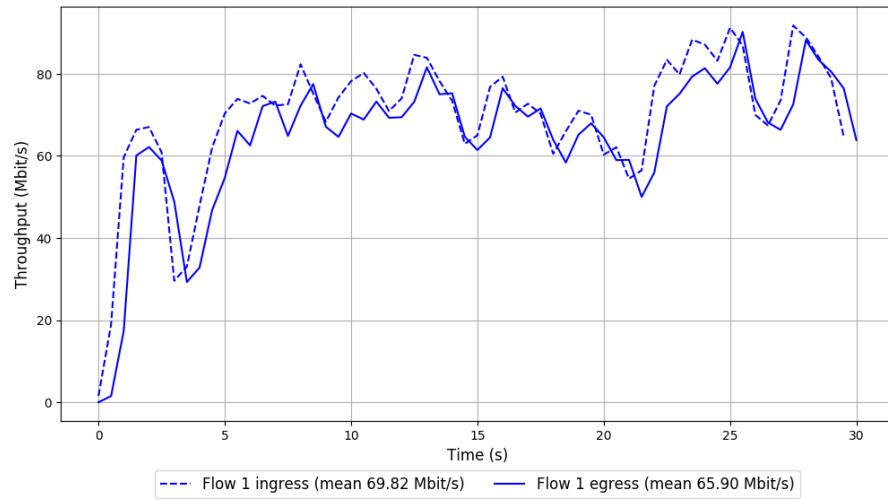


Run 1: Statistics of PCC-Vivace

Start at: 2018-09-10 22:50:20
End at: 2018-09-10 22:50:50
Local clock offset: -4.424 ms
Remote clock offset: -0.136 ms

Below is generated by plot.py at 2018-09-11 00:21:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.90 Mbit/s
95th percentile per-packet one-way delay: 6.947 ms
Loss rate: 5.61%
-- Flow 1:
Average throughput: 65.90 Mbit/s
95th percentile per-packet one-way delay: 6.947 ms
Loss rate: 5.61%

Run 1: Report of PCC-Vivace — Data Link

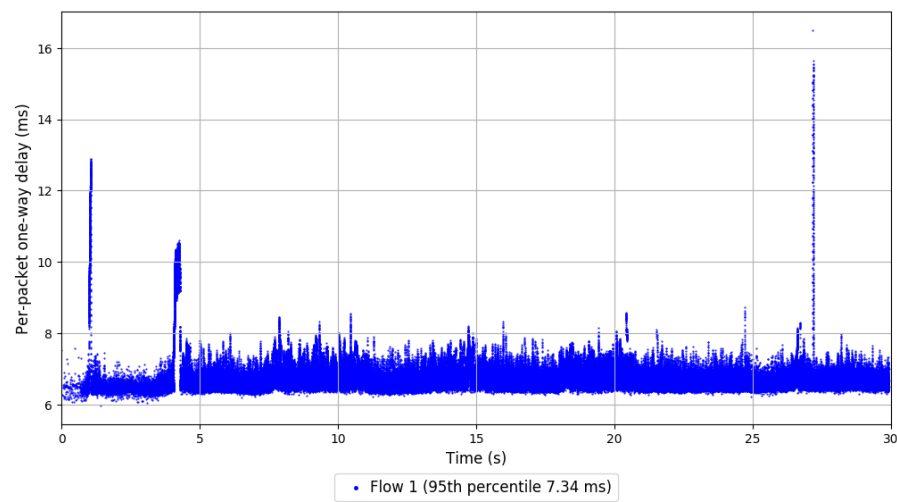
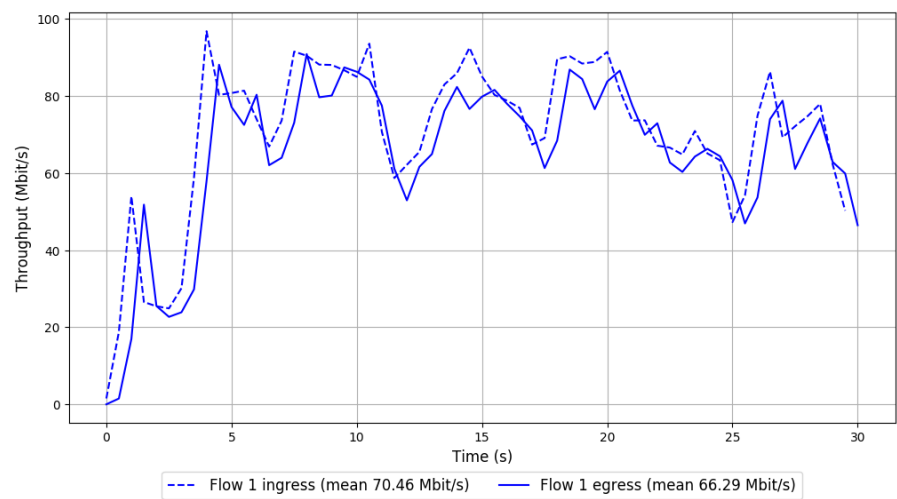


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-10 23:10:40
End at: 2018-09-10 23:11:10
Local clock offset: -2.623 ms
Remote clock offset: -2.018 ms

Below is generated by plot.py at 2018-09-11 00:21:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.29 Mbit/s
95th percentile per-packet one-way delay: 7.341 ms
Loss rate: 5.93%
-- Flow 1:
Average throughput: 66.29 Mbit/s
95th percentile per-packet one-way delay: 7.341 ms
Loss rate: 5.93%

Run 2: Report of PCC-Vivace — Data Link

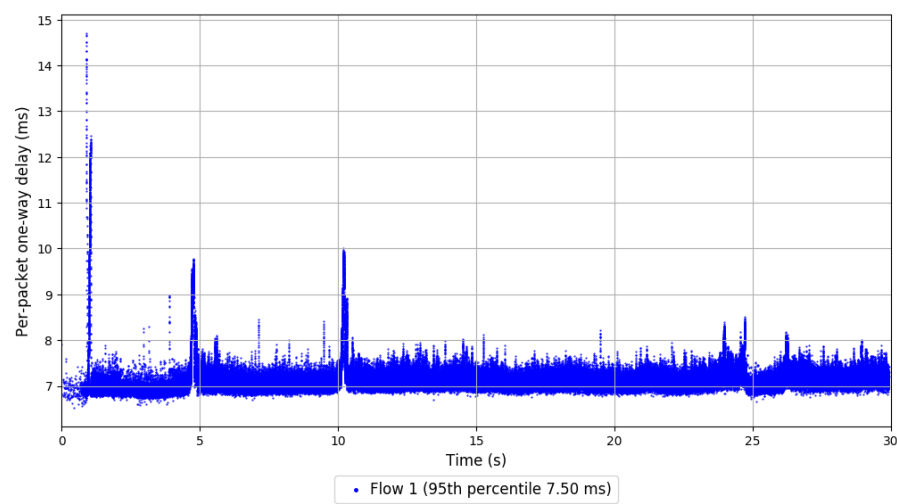
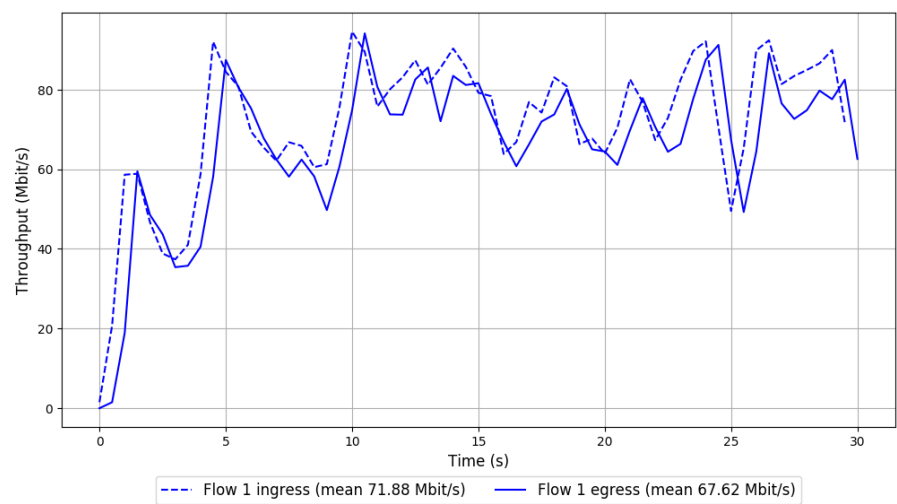


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-10 23:30:49
End at: 2018-09-10 23:31:19
Local clock offset: -5.051 ms
Remote clock offset: -6.805 ms

Below is generated by plot.py at 2018-09-11 00:21:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.62 Mbit/s
95th percentile per-packet one-way delay: 7.504 ms
Loss rate: 5.93%
-- Flow 1:
Average throughput: 67.62 Mbit/s
95th percentile per-packet one-way delay: 7.504 ms
Loss rate: 5.93%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-09-10 23:50:52

End at: 2018-09-10 23:51:22

Local clock offset: 3.515 ms

Remote clock offset: -2.027 ms

Below is generated by plot.py at 2018-09-11 00:21:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.15 Mbit/s

95th percentile per-packet one-way delay: 4.400 ms

Loss rate: 4.85%

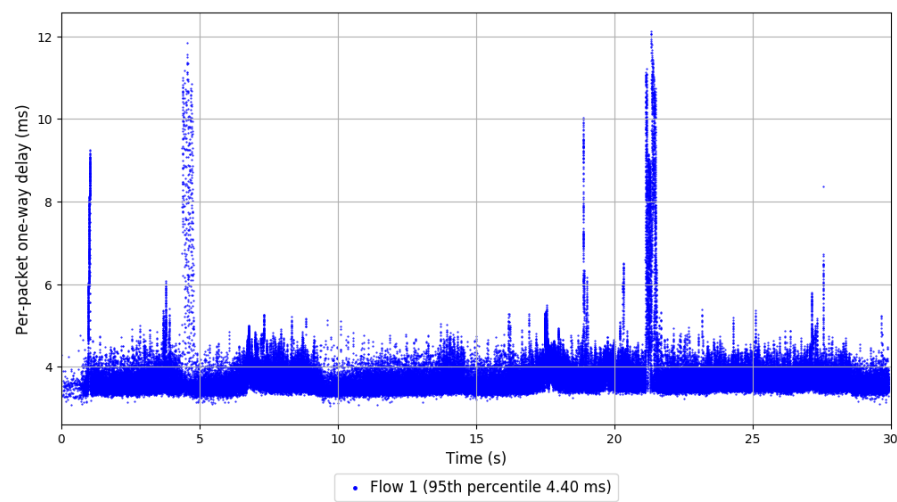
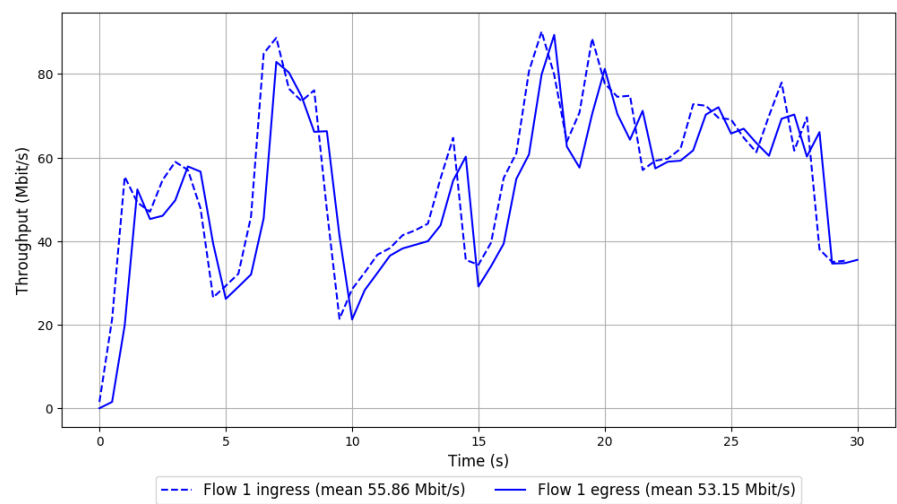
-- Flow 1:

Average throughput: 53.15 Mbit/s

95th percentile per-packet one-way delay: 4.400 ms

Loss rate: 4.85%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-09-11 00:11:12

End at: 2018-09-11 00:11:42

Local clock offset: 0.043 ms

Remote clock offset: -2.79 ms

Below is generated by plot.py at 2018-09-11 00:21:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.43 Mbit/s

95th percentile per-packet one-way delay: 6.459 ms

Loss rate: 7.02%

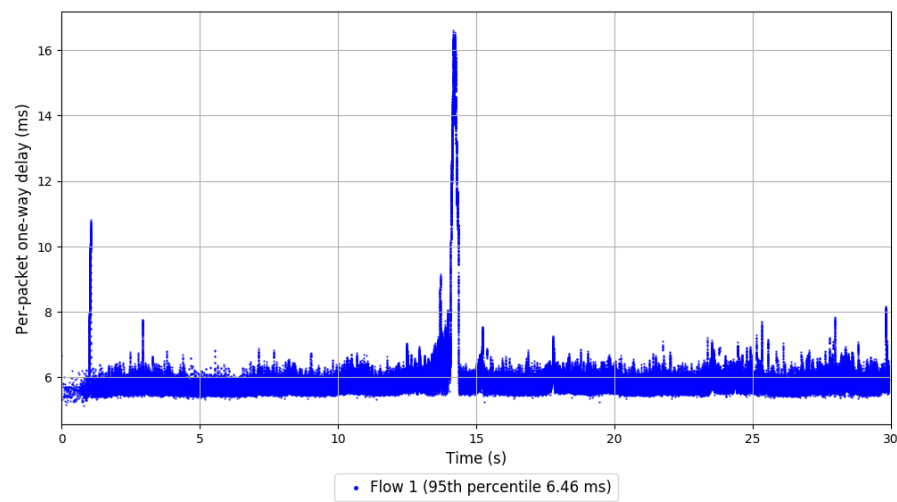
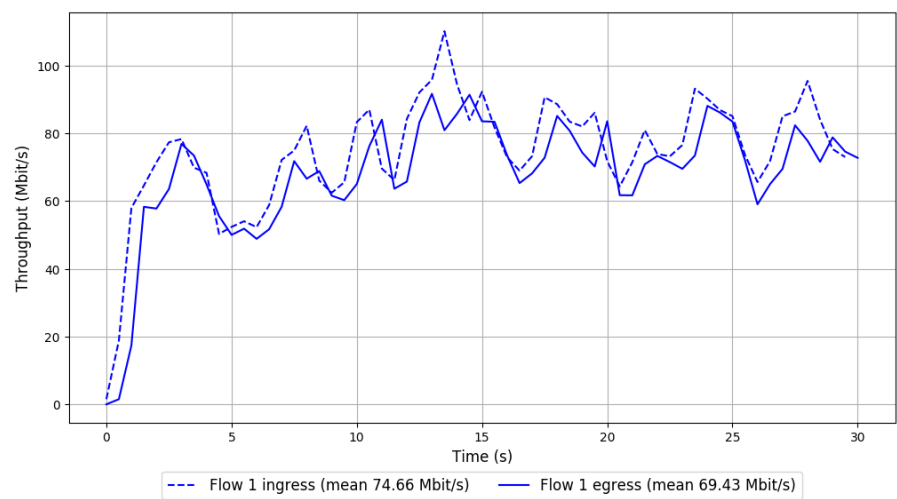
-- Flow 1:

Average throughput: 69.43 Mbit/s

95th percentile per-packet one-way delay: 6.459 ms

Loss rate: 7.02%

Run 5: Report of PCC-Vivace — Data Link

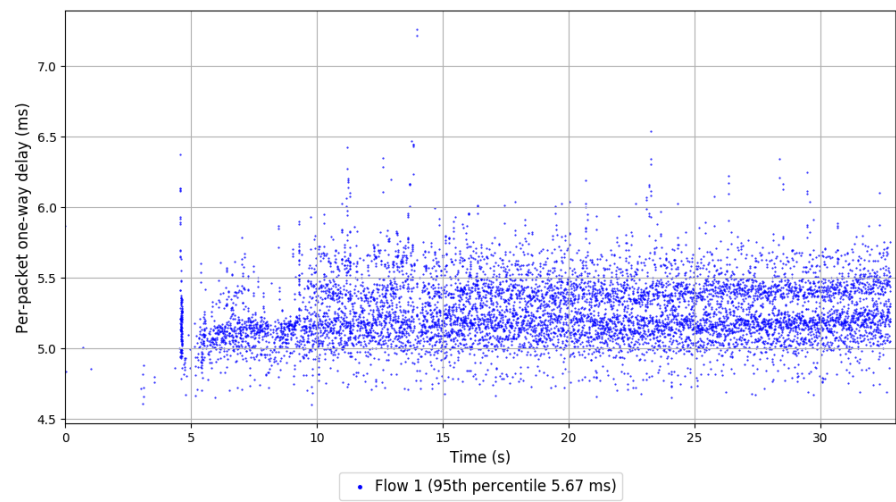
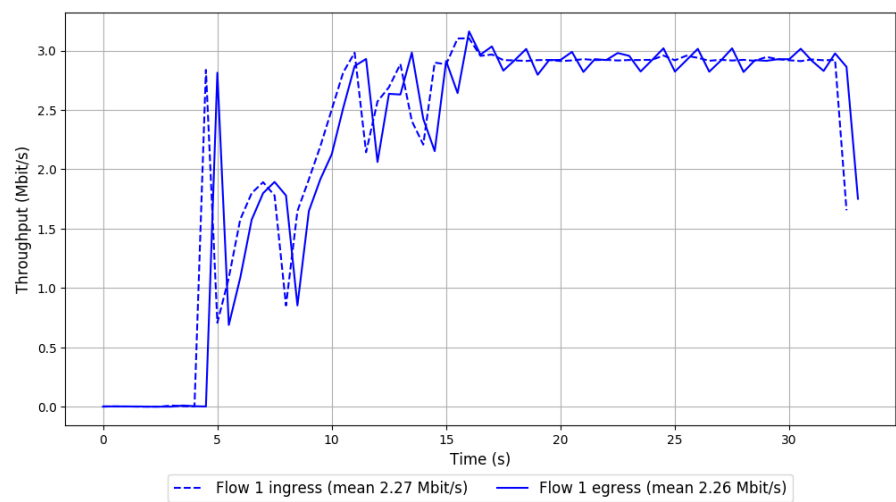


Run 1: Statistics of WebRTC media

Start at: 2018-09-10 22:36:43
End at: 2018-09-10 22:37:13
Local clock offset: -4.473 ms
Remote clock offset: -1.268 ms

Below is generated by plot.py at 2018-09-11 00:21:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 5.668 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 5.668 ms
Loss rate: 0.36%

Run 1: Report of WebRTC media — Data Link

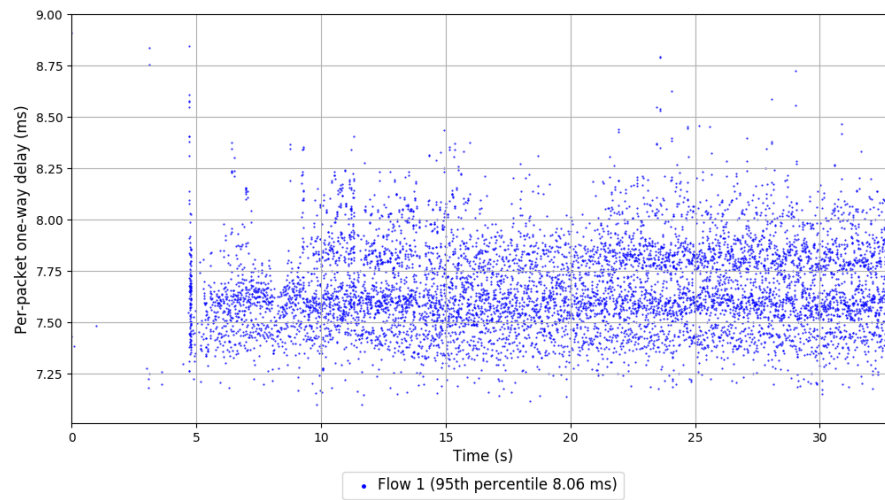
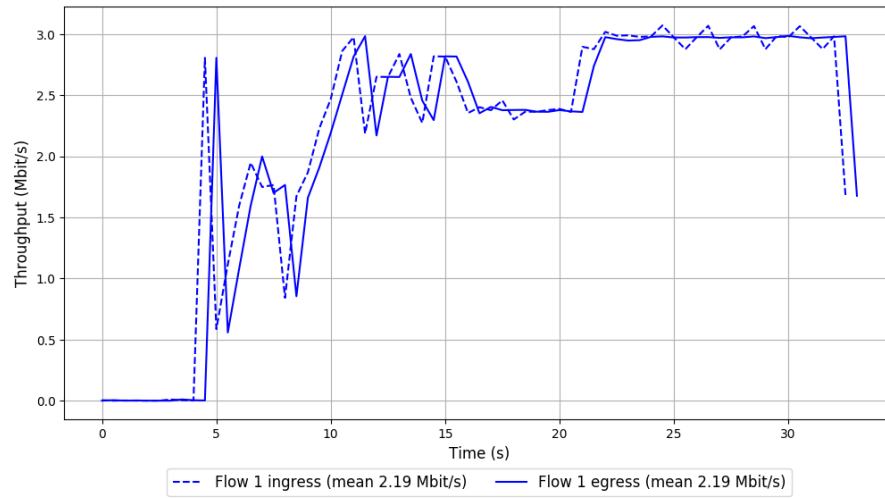


Run 2: Statistics of WebRTC media

Start at: 2018-09-10 22:57:07
End at: 2018-09-10 22:57:37
Local clock offset: -4.512 ms
Remote clock offset: -1.115 ms

Below is generated by plot.py at 2018-09-11 00:21:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 8.059 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 8.059 ms
Loss rate: 0.20%

Run 2: Report of WebRTC media — Data Link

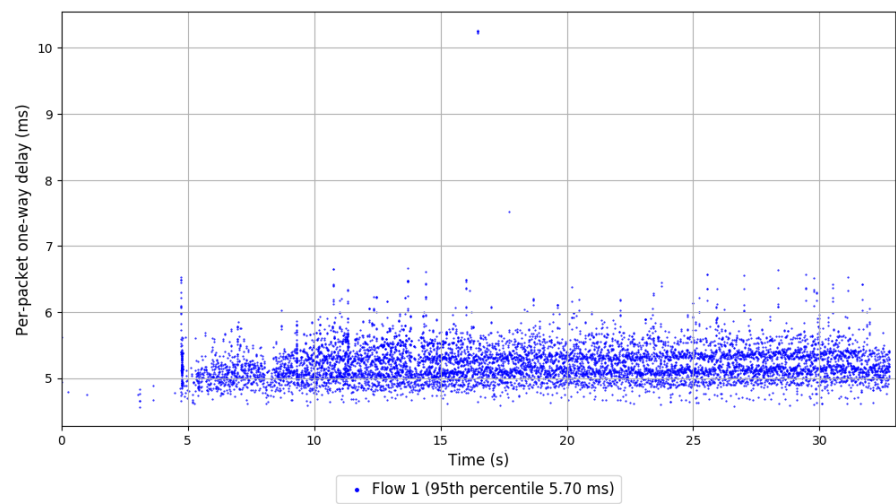
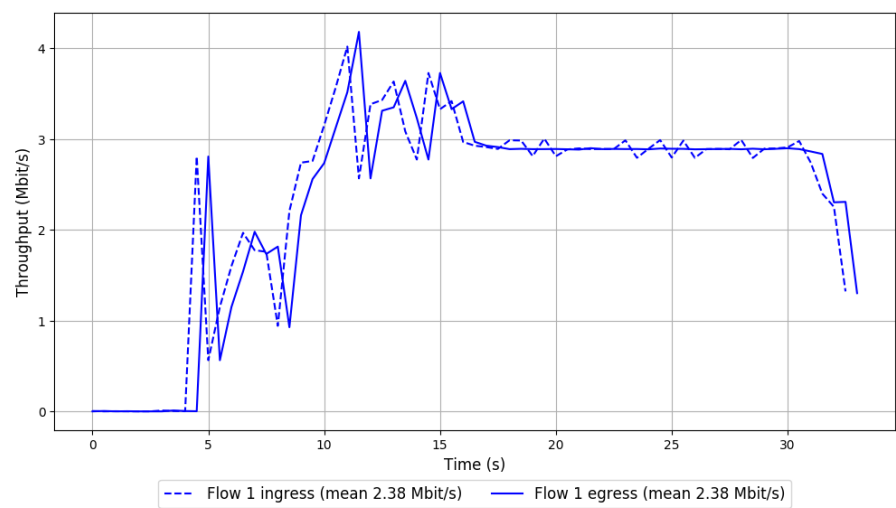


Run 3: Statistics of WebRTC media

Start at: 2018-09-10 23:17:26
End at: 2018-09-10 23:17:56
Local clock offset: -0.88 ms
Remote clock offset: -2.451 ms

Below is generated by plot.py at 2018-09-11 00:21:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 5.697 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.38 Mbit/s
95th percentile per-packet one-way delay: 5.697 ms
Loss rate: 0.30%

Run 3: Report of WebRTC media — Data Link

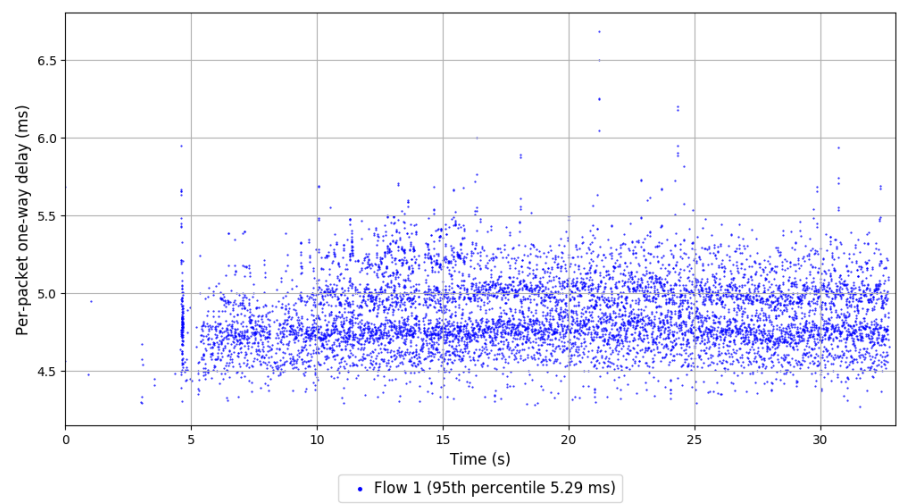
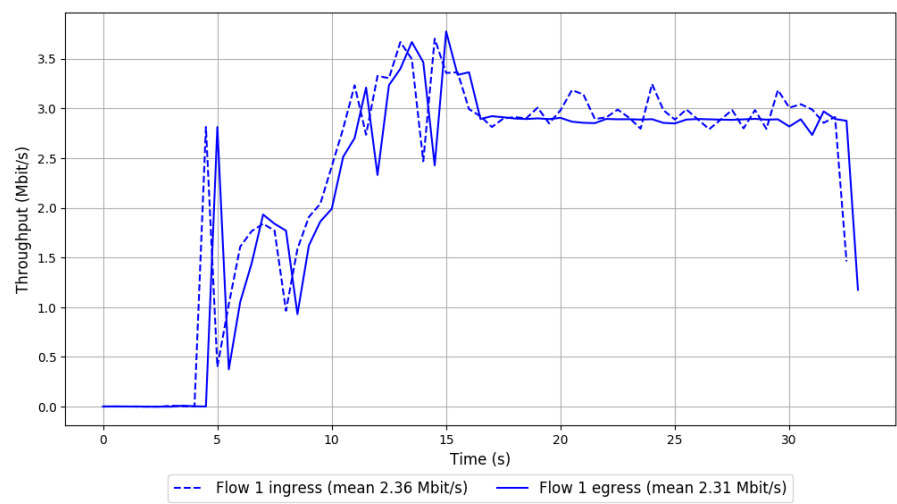


Run 4: Statistics of WebRTC media

Start at: 2018-09-10 23:37:31
End at: 2018-09-10 23:38:01
Local clock offset: 2.2 ms
Remote clock offset: -2.516 ms

Below is generated by plot.py at 2018-09-11 00:21:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 5.285 ms
Loss rate: 1.95%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 5.285 ms
Loss rate: 1.95%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-10 23:57:40
End at: 2018-09-10 23:58:10
Local clock offset: 0.711 ms
Remote clock offset: -2.606 ms

Below is generated by plot.py at 2018-09-11 00:21:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 7.682 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 7.682 ms
Loss rate: 0.13%

Run 5: Report of WebRTC media — Data Link

