

Pantheon Report

Generated at 2018-11-30 05:51:33 (UTC).

Data path: AWS Brazil 1 on `ens5` (*local*) → Brazil on `p4p1` (*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 `gps.ntp.br` and have been applied to correct the timestamps in logs.

System info:

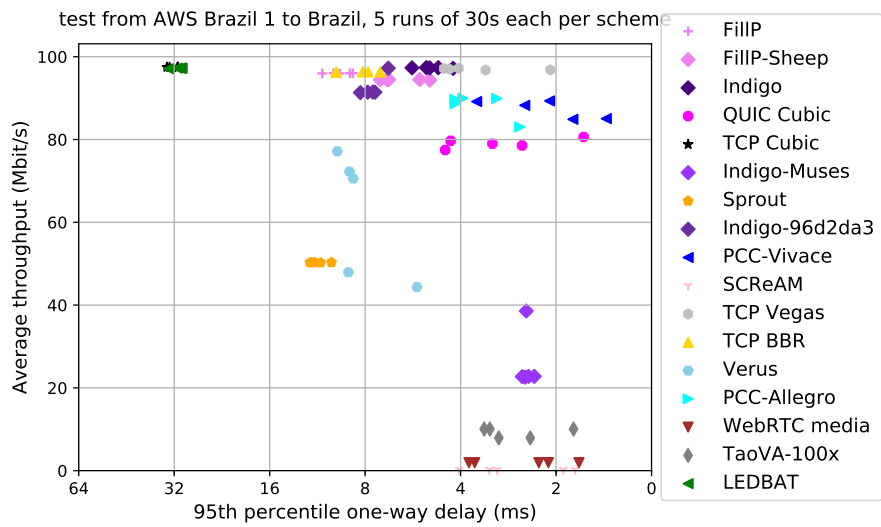
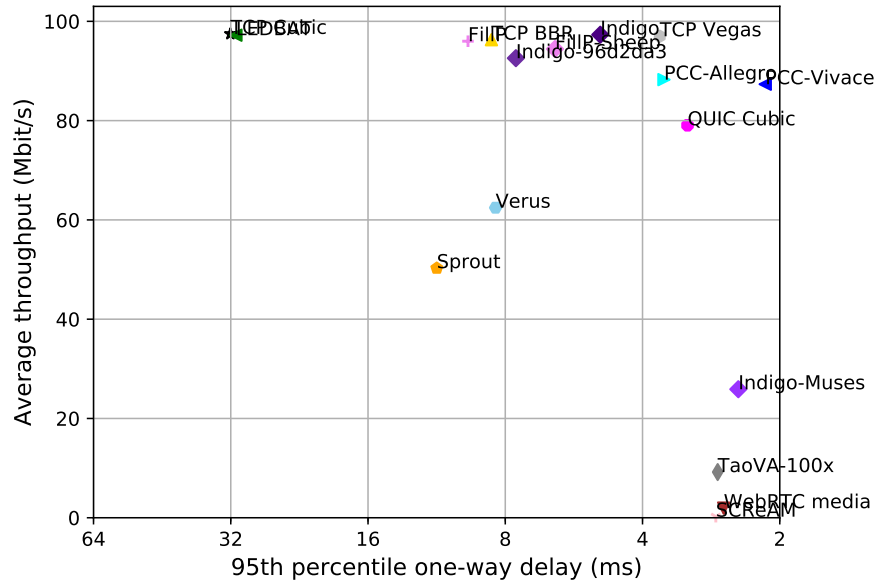
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
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 Brazil 1 to Brazil, 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	96.30	8.58	0.00
Copa	0	N/A	N/A	N/A
TCP Cubic	5	97.47	32.07	0.01
FillP	5	96.00	9.66	0.28
FillP-Sheep	5	94.44	6.22	0.08
Indigo	5	97.31	4.95	0.00
Indigo-96d2da3	5	92.58	7.58	0.00
LEDBAT	5	97.21	31.18	0.01
Indigo-Muses	5	25.89	2.47	0.00
PCC-Allegro	5	88.25	3.59	0.00
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	79.06	3.19	0.21
SCReAM	5	0.22	2.76	0.03
Sprout	5	50.28	11.31	0.00
TaoVA-100x	5	9.20	2.74	77.86
TCP Vegas	5	97.00	3.67	0.00
Verus	5	62.46	8.40	1.13
PCC-Vivace	5	87.33	2.15	0.00
WebRTC media	5	1.93	2.66	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-11-30 04:06:19

End at: 2018-11-30 04:06:49

Local clock offset: 0.487 ms

Remote clock offset: 0.408 ms

Below is generated by plot.py at 2018-11-30 05:42:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.28 Mbit/s

95th percentile per-packet one-way delay: 9.878 ms

Loss rate: 0.01%

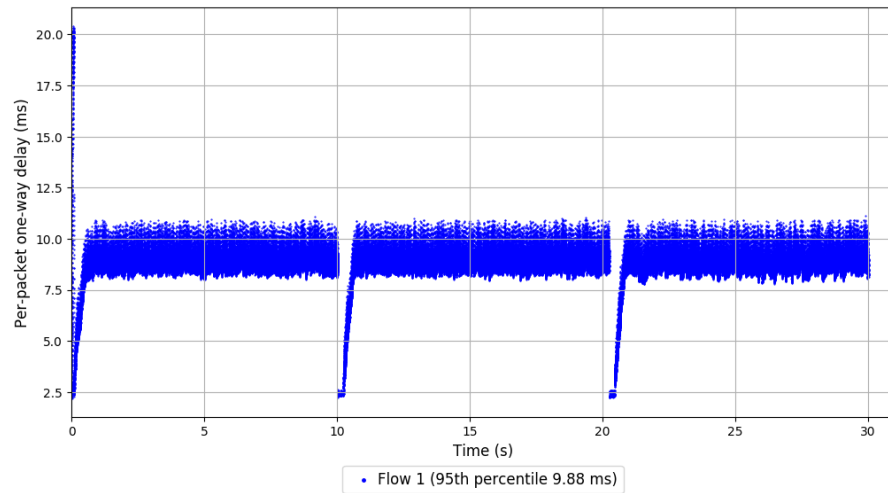
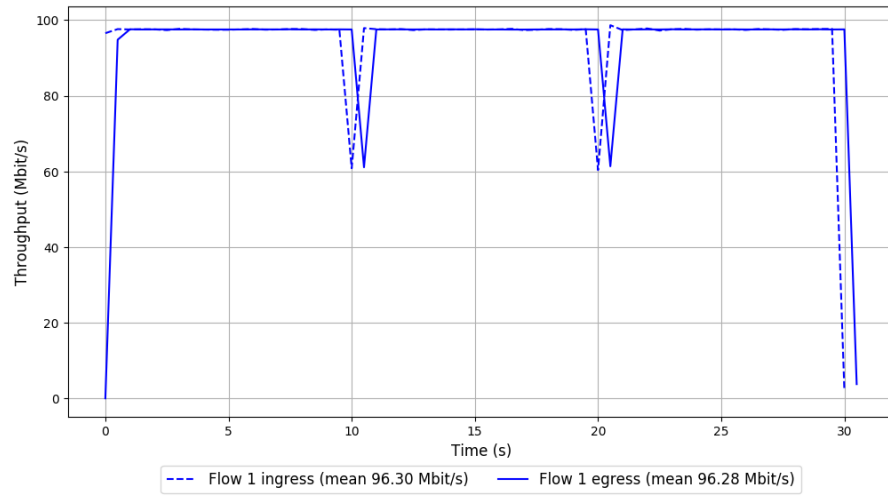
-- Flow 1:

Average throughput: 96.28 Mbit/s

95th percentile per-packet one-way delay: 9.878 ms

Loss rate: 0.01%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-11-30 04:27:28

End at: 2018-11-30 04:27:58

Local clock offset: -6.075 ms

Remote clock offset: 0.473 ms

Below is generated by plot.py at 2018-11-30 05:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 7.177 ms

Loss rate: 0.00%

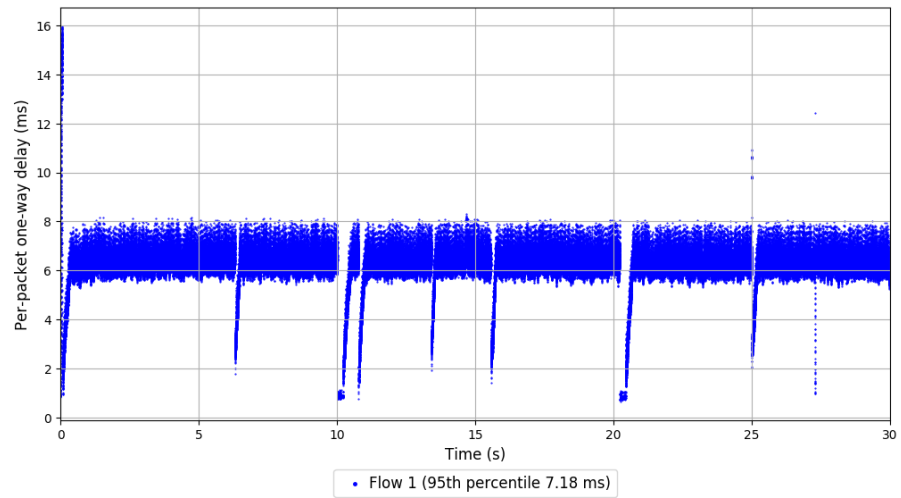
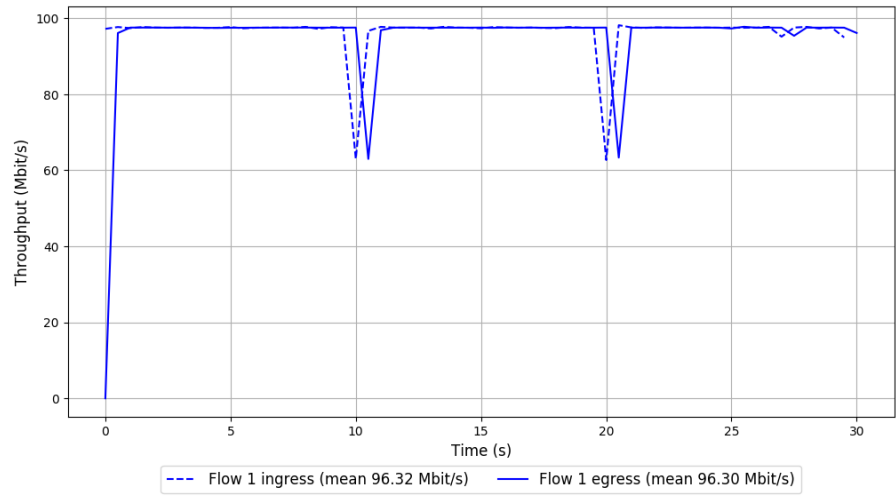
-- Flow 1:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 7.177 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link

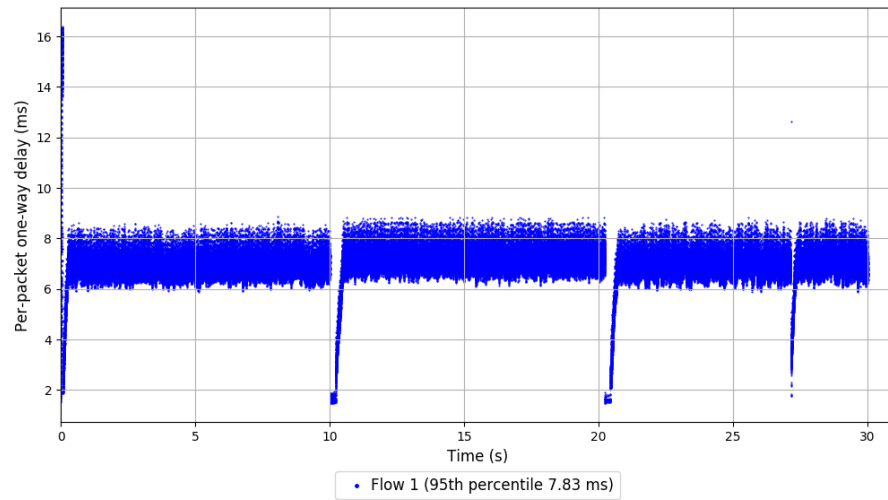
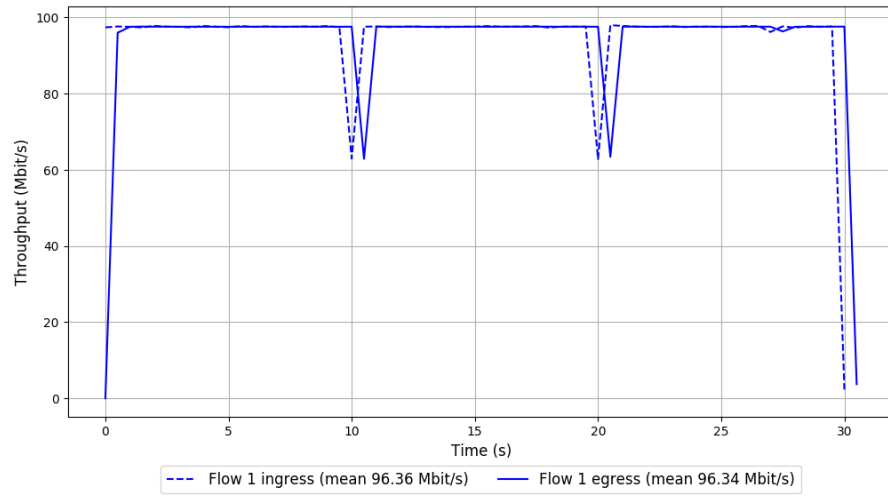


Run 3: Statistics of TCP BBR

Start at: 2018-11-30 04:48:38
End at: 2018-11-30 04:49:08
Local clock offset: -10.272 ms
Remote clock offset: 0.345 ms

Below is generated by plot.py at 2018-11-30 05:42:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 7.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.34 Mbit/s
95th percentile per-packet one-way delay: 7.827 ms
Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link

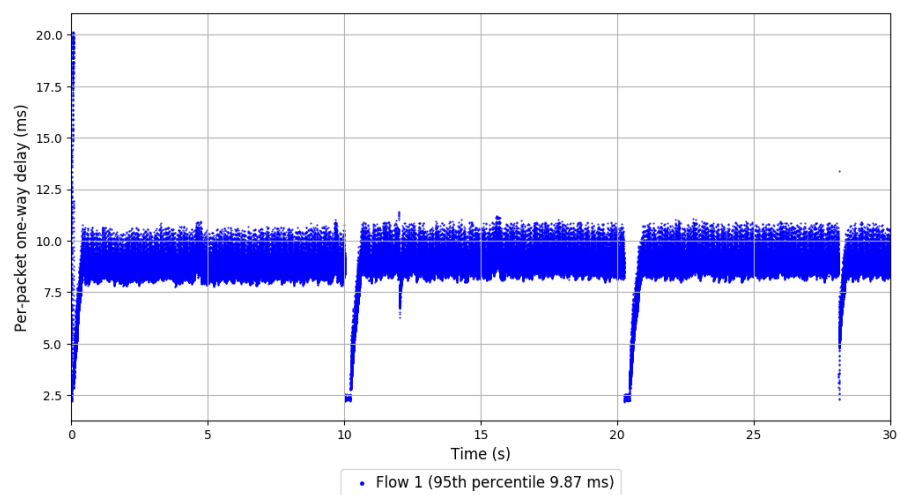
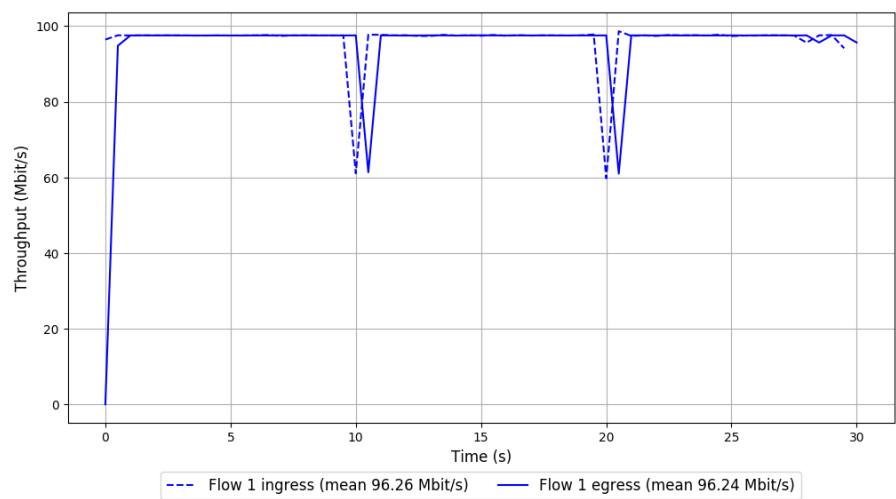


Run 4: Statistics of TCP BBR

Start at: 2018-11-30 05:09:47
End at: 2018-11-30 05:10:17
Local clock offset: -11.584 ms
Remote clock offset: 0.305 ms

Below is generated by plot.py at 2018-11-30 05:42:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 9.874 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 9.874 ms
Loss rate: 0.01%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-11-30 05:30:58

End at: 2018-11-30 05:31:28

Local clock offset: -3.375 ms

Remote clock offset: 0.313 ms

Below is generated by plot.py at 2018-11-30 05:42:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.35 Mbit/s

95th percentile per-packet one-way delay: 8.138 ms

Loss rate: 0.00%

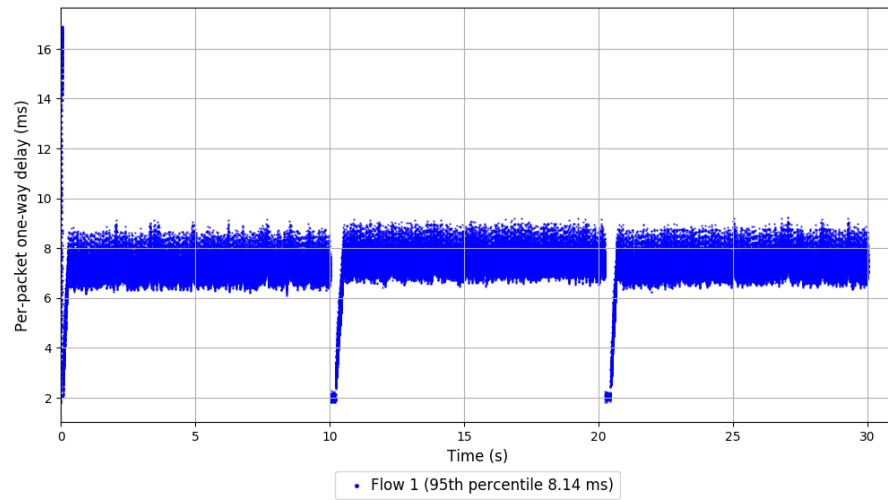
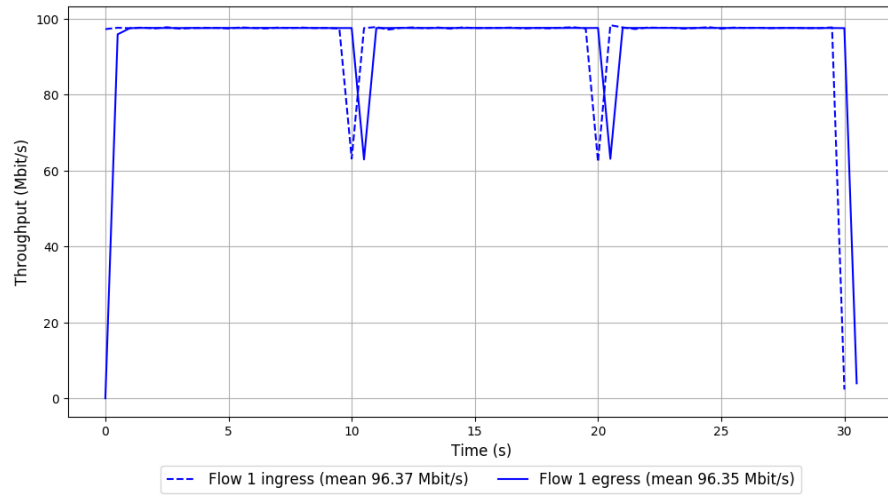
-- Flow 1:

Average throughput: 96.35 Mbit/s

95th percentile per-packet one-way delay: 8.138 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

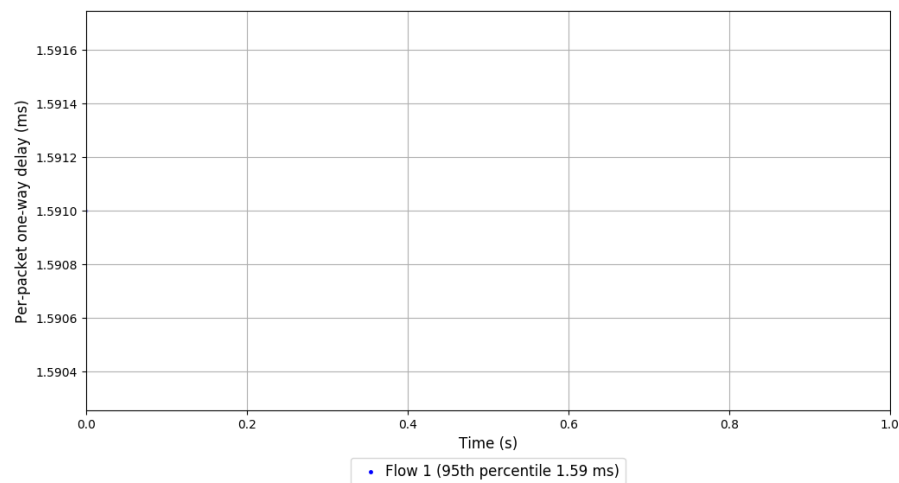
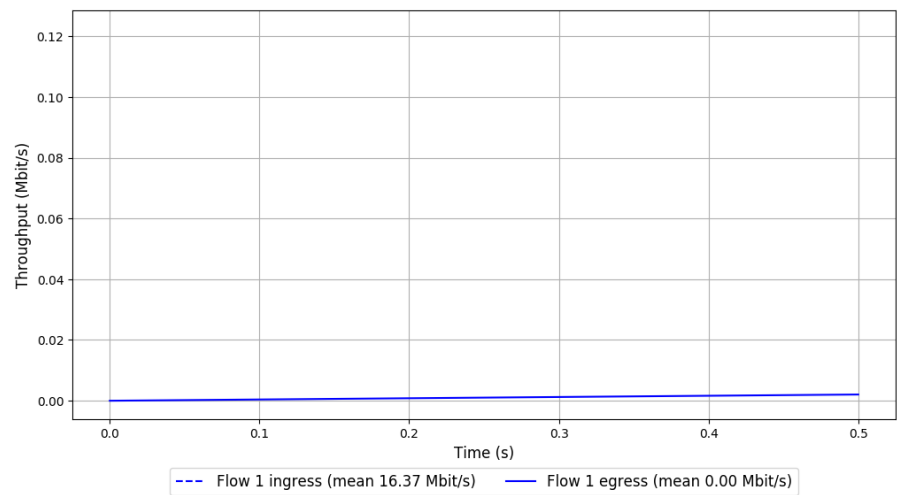
Start at: 2018-11-30 04:05:14

End at: 2018-11-30 04:05:44

Local clock offset: -0.404 ms

Remote clock offset: 0.424 ms

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

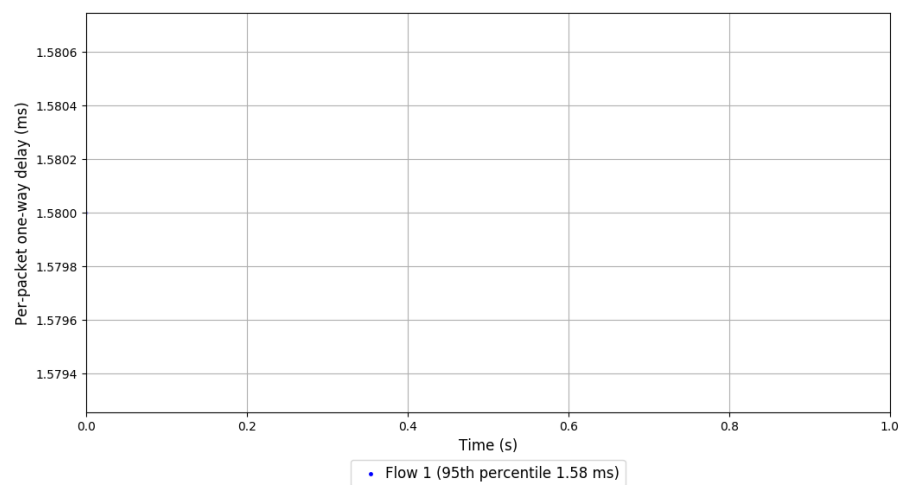
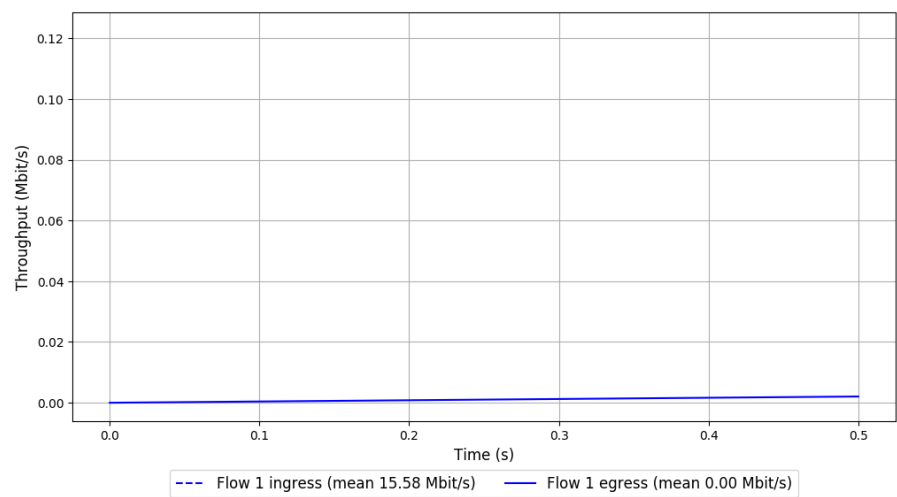
Start at: 2018-11-30 04:26:24

End at: 2018-11-30 04:26:54

Local clock offset: -6.404 ms

Remote clock offset: 0.464 ms

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

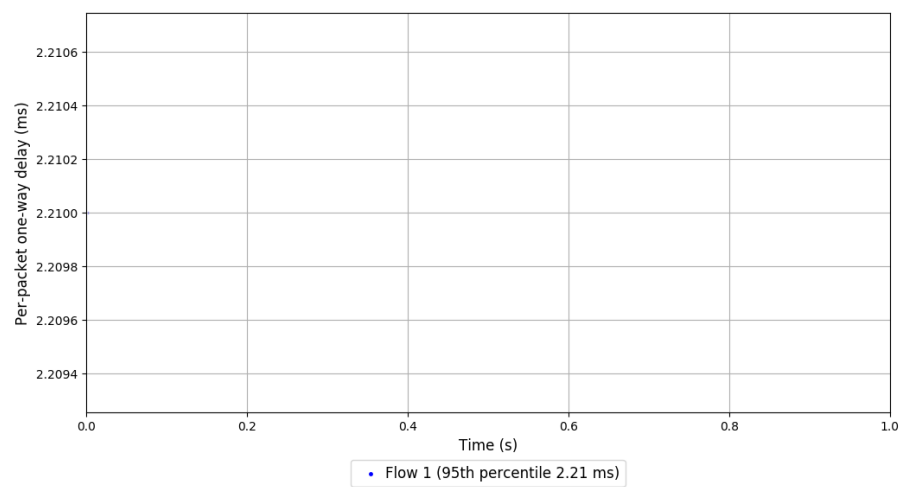
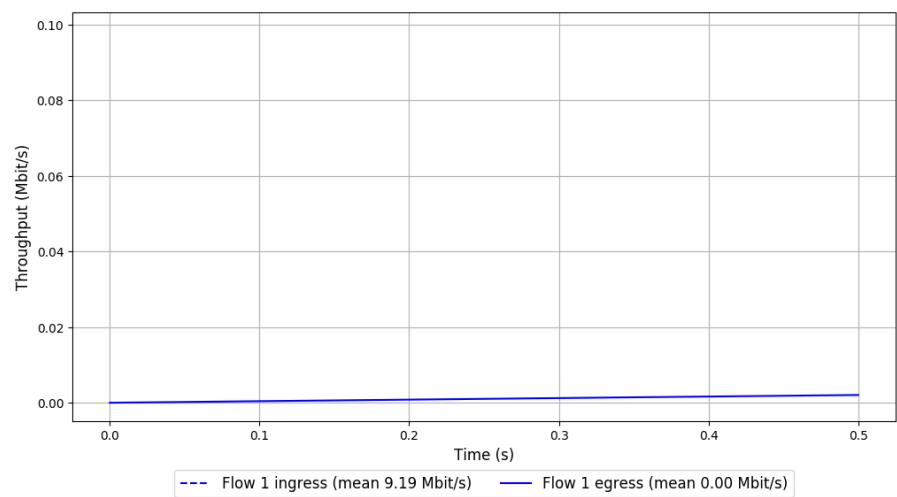
Start at: 2018-11-30 04:47:34

End at: 2018-11-30 04:48:04

Local clock offset: -9.388 ms

Remote clock offset: 0.378 ms

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

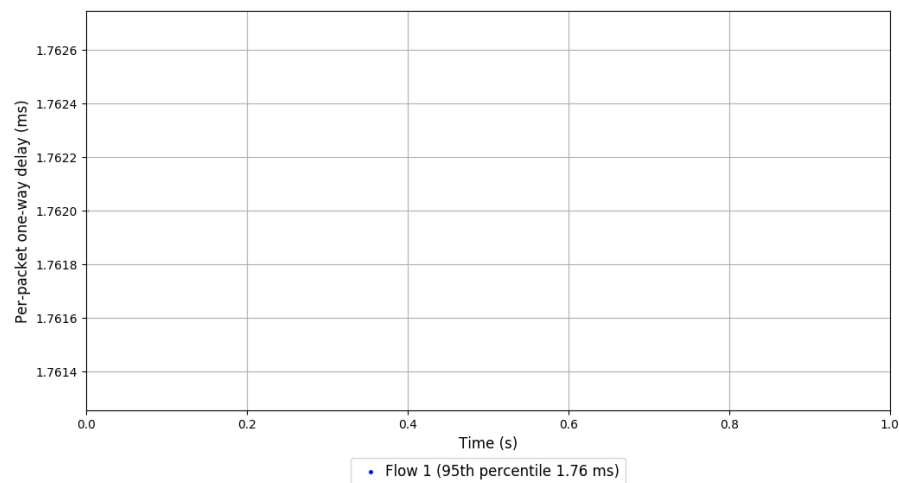
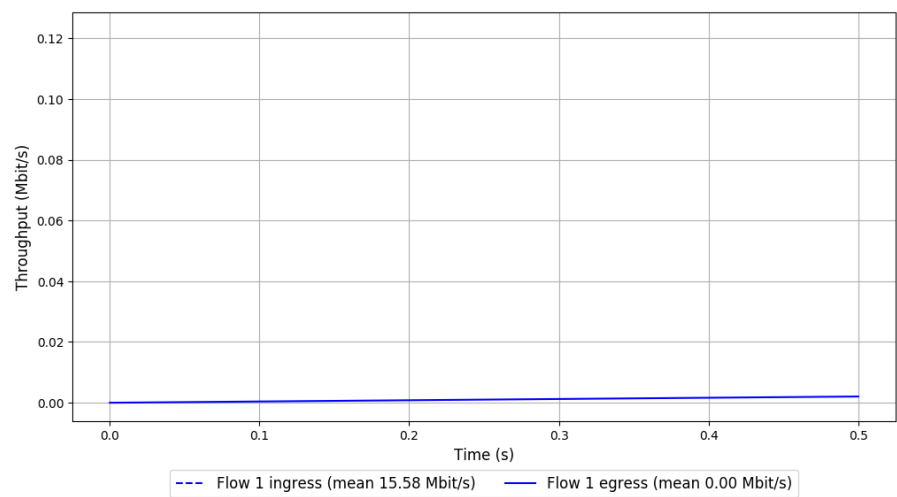
Start at: 2018-11-30 05:08:43

End at: 2018-11-30 05:09:13

Local clock offset: -12.265 ms

Remote clock offset: 0.373 ms

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

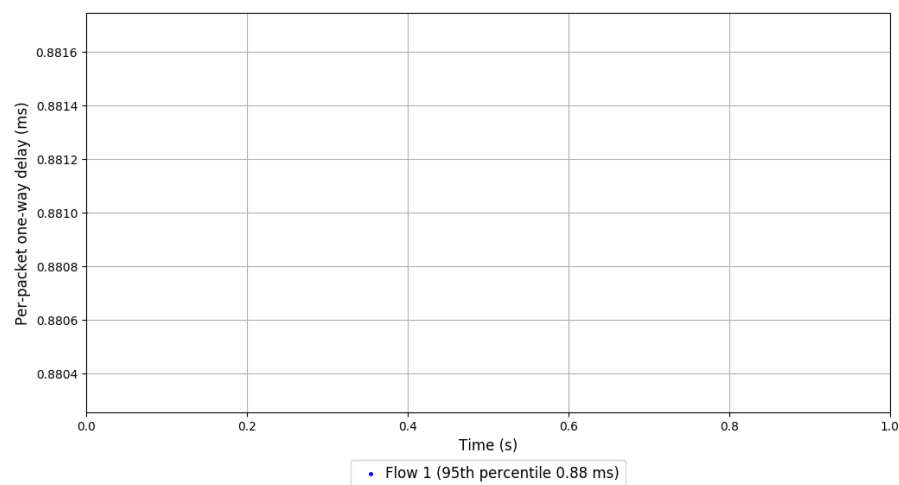
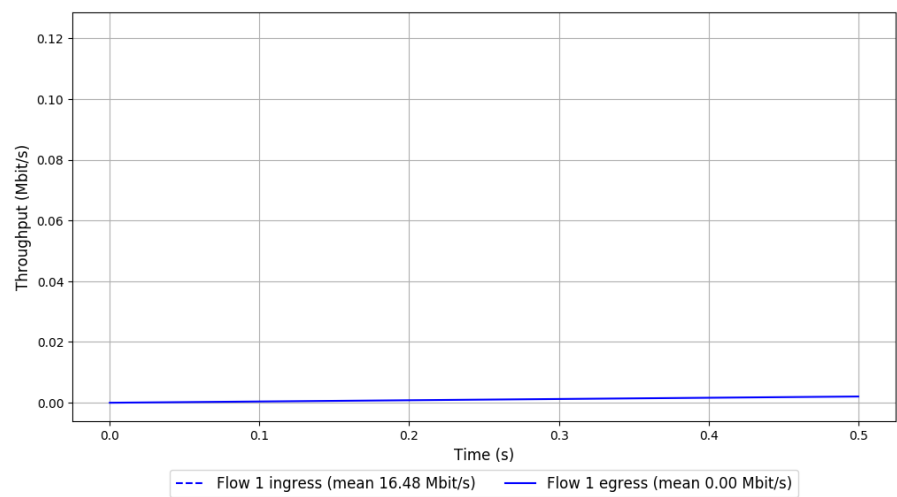
Start at: 2018-11-30 05:29:54

End at: 2018-11-30 05:30:24

Local clock offset: -2.859 ms

Remote clock offset: 0.249 ms

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 04:03:01

End at: 2018-11-30 04:03:31

Local clock offset: 0.325 ms

Remote clock offset: 0.399 ms

Below is generated by plot.py at 2018-11-30 05:42:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 31.162 ms

Loss rate: 0.01%

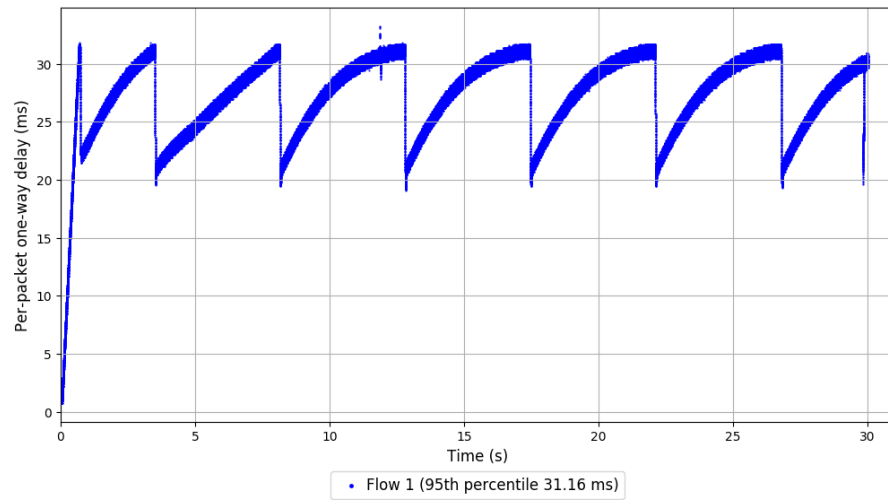
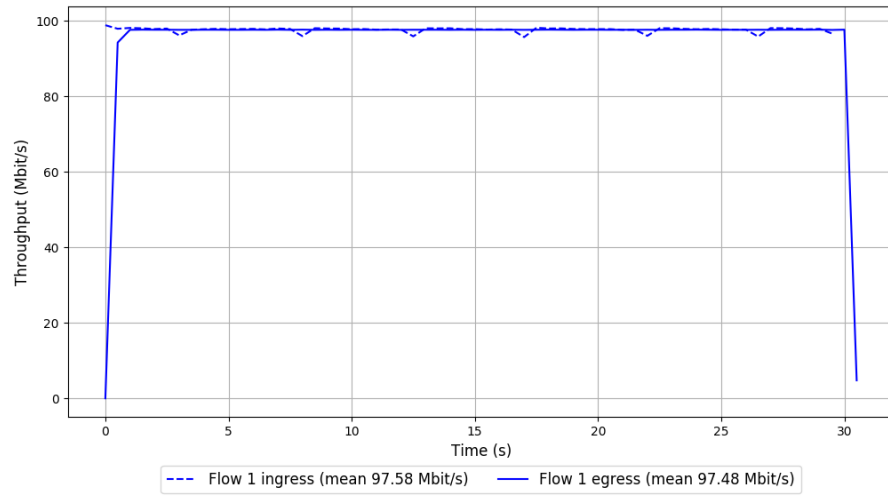
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 31.162 ms

Loss rate: 0.01%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 04:24:10

End at: 2018-11-30 04:24:41

Local clock offset: -5.628 ms

Remote clock offset: 0.391 ms

Below is generated by plot.py at 2018-11-30 05:42:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 33.089 ms

Loss rate: 0.01%

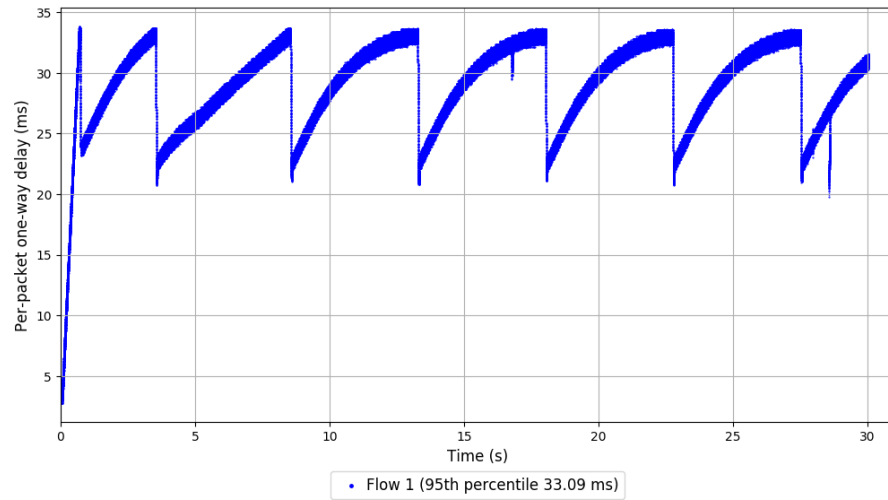
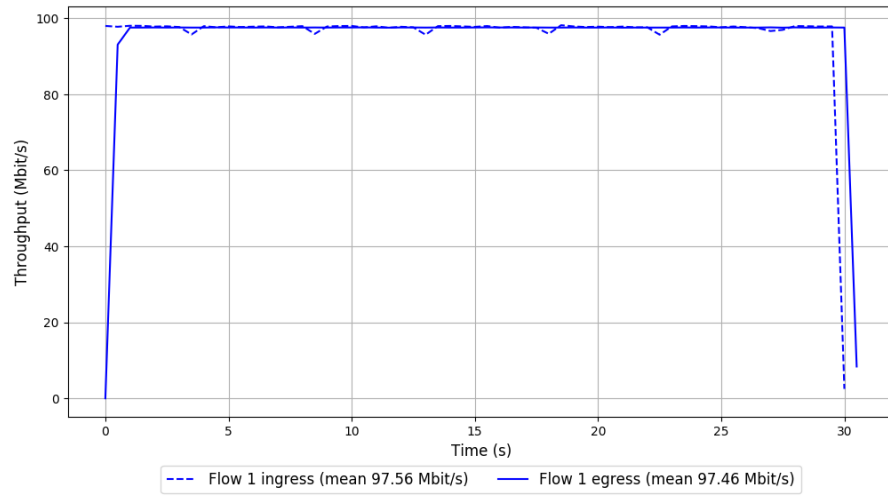
-- Flow 1:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 33.089 ms

Loss rate: 0.01%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 04:45:20

End at: 2018-11-30 04:45:50

Local clock offset: -9.19 ms

Remote clock offset: 0.451 ms

Below is generated by plot.py at 2018-11-30 05:43:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 31.239 ms

Loss rate: 0.01%

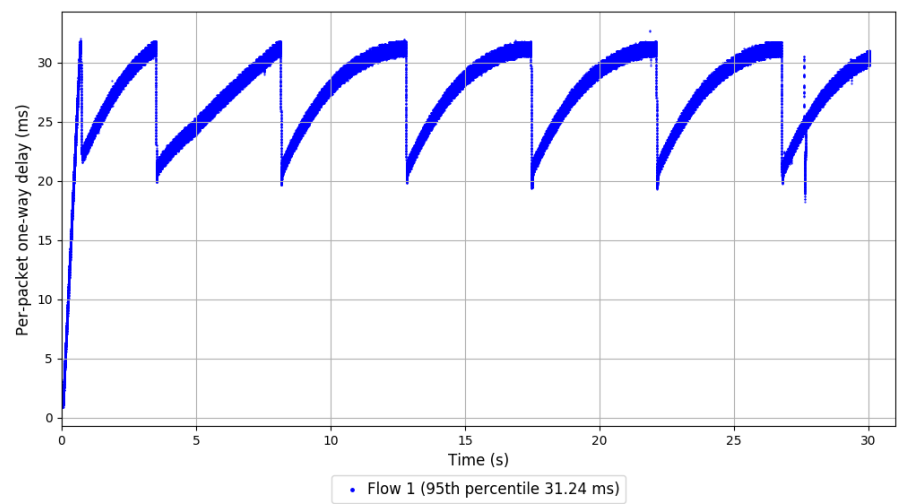
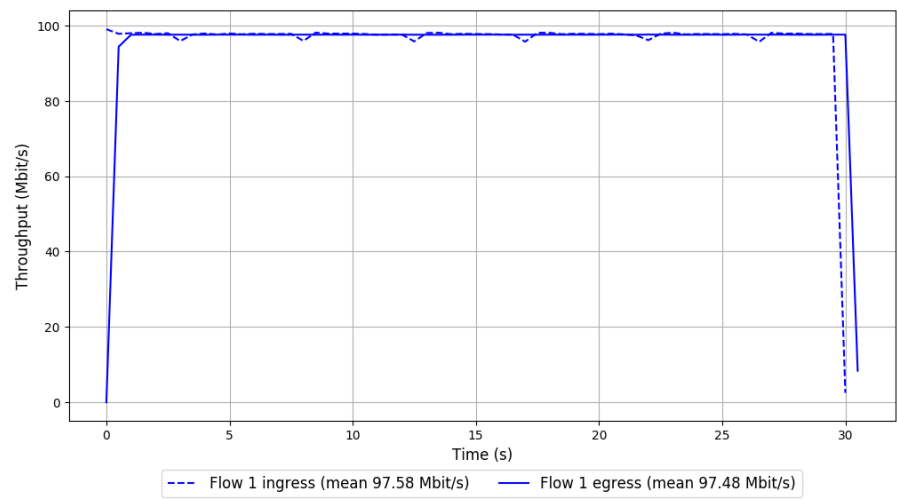
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 31.239 ms

Loss rate: 0.01%

Run 3: Report of TCP Cubic — Data Link

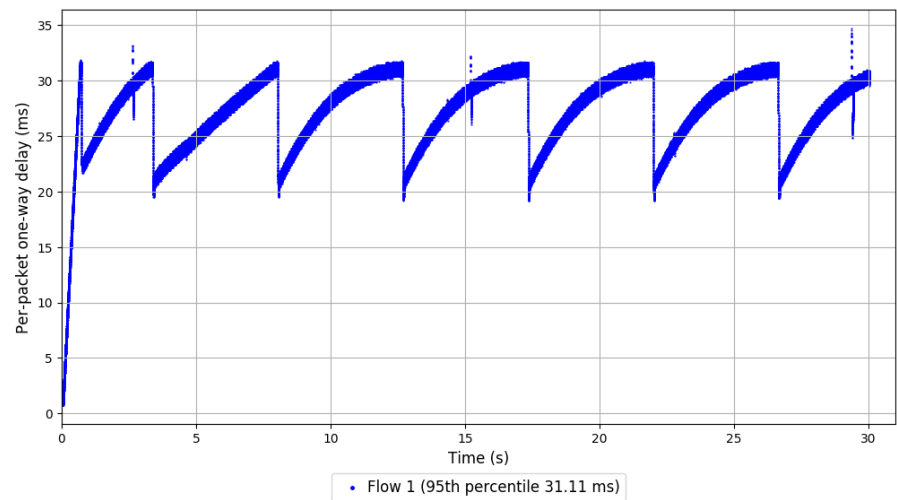
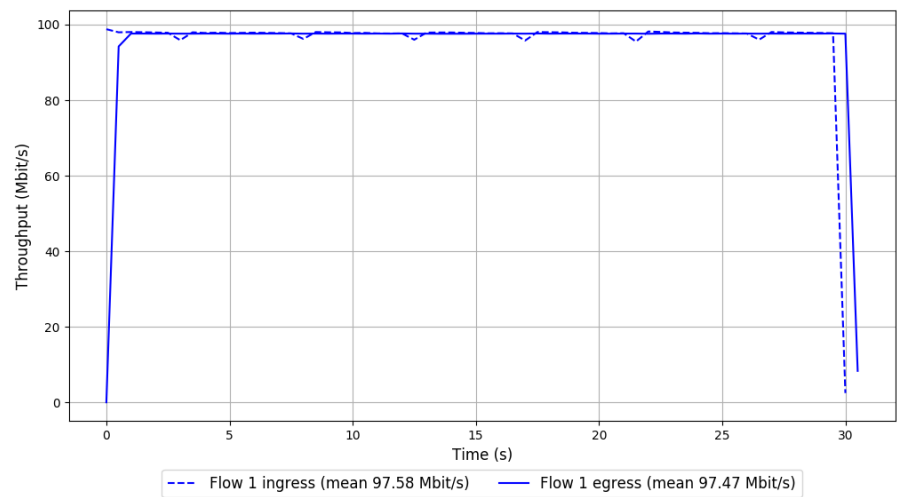


Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 05:06:29
End at: 2018-11-30 05:06:59
Local clock offset: -11.259 ms
Remote clock offset: 0.324 ms

Below is generated by plot.py at 2018-11-30 05:44:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 31.113 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.47 Mbit/s
95th percentile per-packet one-way delay: 31.113 ms
Loss rate: 0.01%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 05:27:40

End at: 2018-11-30 05:28:10

Local clock offset: -4.267 ms

Remote clock offset: 0.329 ms

Below is generated by plot.py at 2018-11-30 05:44:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.727 ms

Loss rate: 0.02%

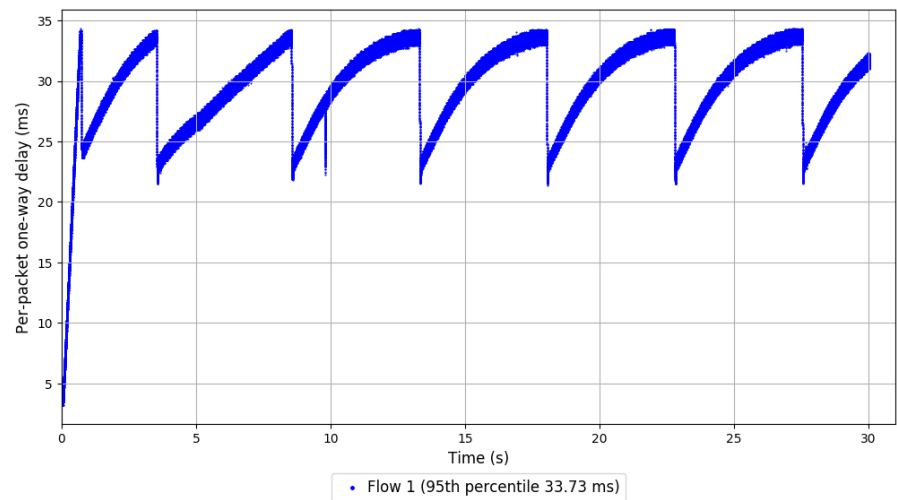
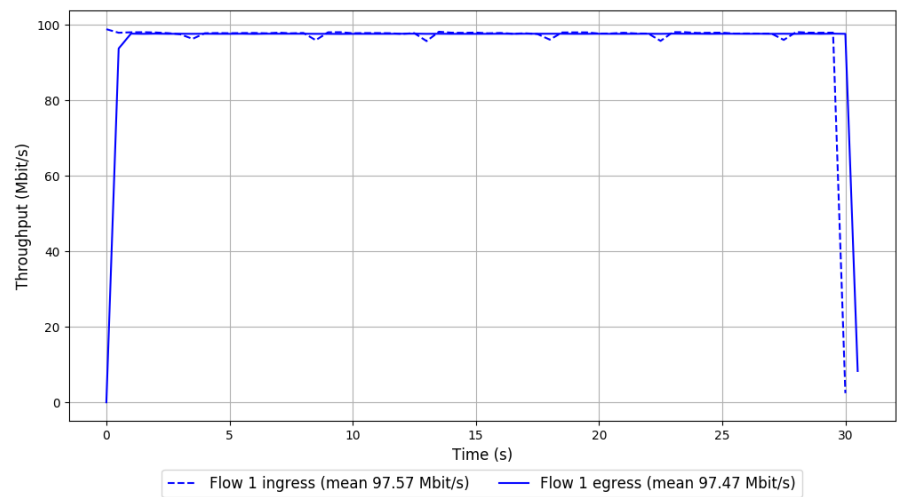
-- Flow 1:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.727 ms

Loss rate: 0.02%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-11-30 04:14:04

End at: 2018-11-30 04:14:34

Local clock offset: 0.851 ms

Remote clock offset: 0.461 ms

Below is generated by plot.py at 2018-11-30 05:44:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 10.066 ms

Loss rate: 0.26%

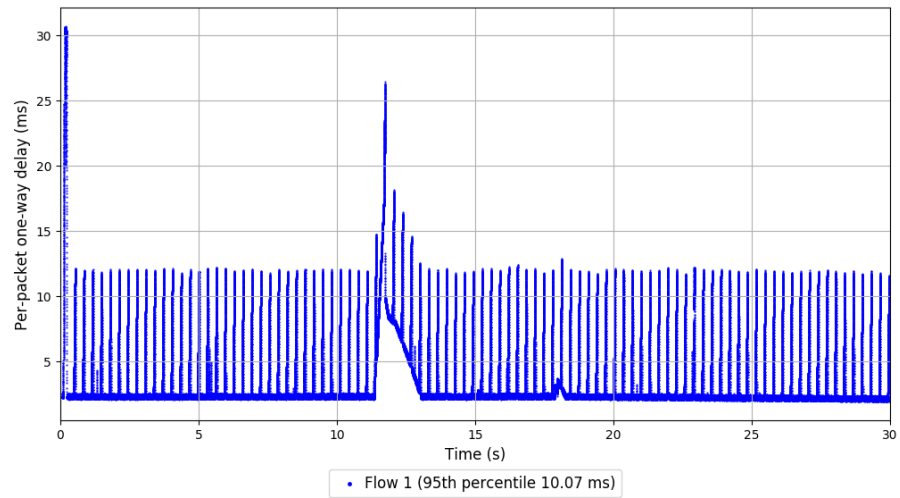
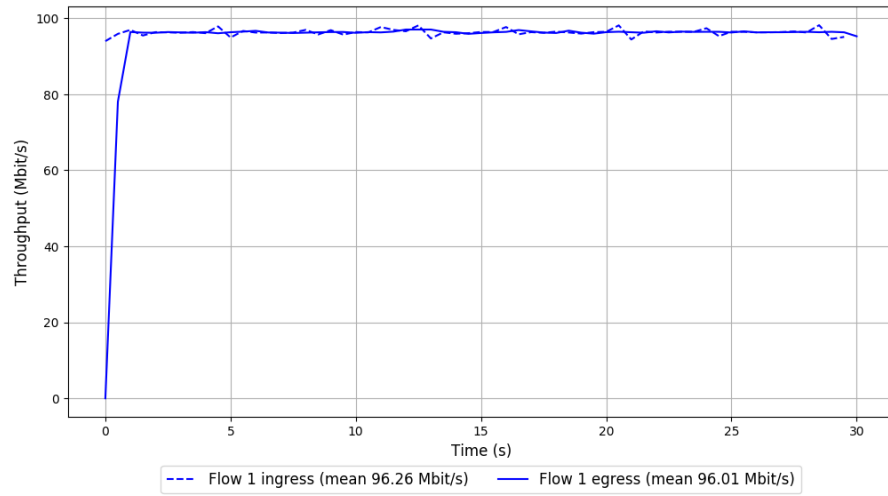
-- Flow 1:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 10.066 ms

Loss rate: 0.26%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-11-30 04:35:15

End at: 2018-11-30 04:35:45

Local clock offset: -7.731 ms

Remote clock offset: 0.37 ms

Below is generated by plot.py at 2018-11-30 05:44:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 8.743 ms

Loss rate: 0.31%

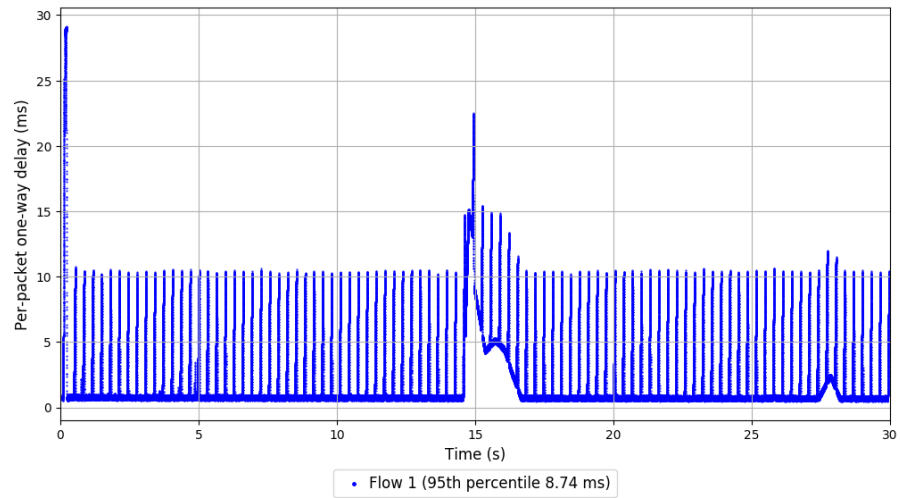
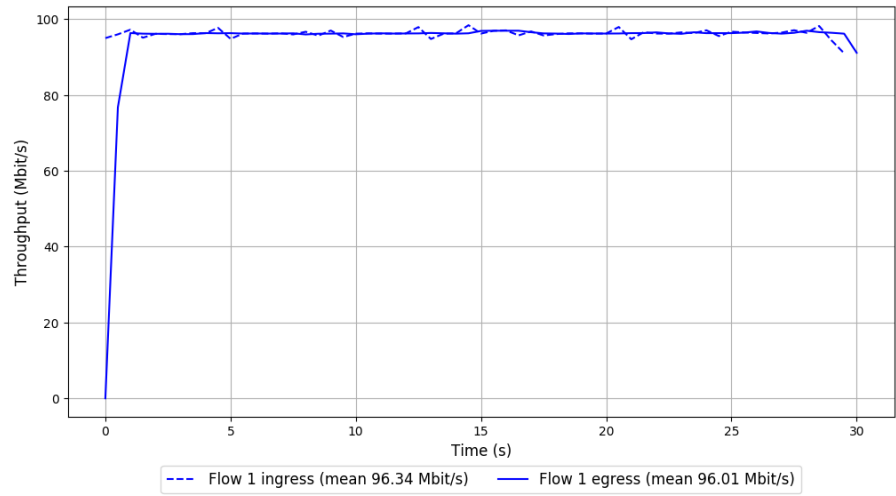
-- Flow 1:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 8.743 ms

Loss rate: 0.31%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-11-30 04:56:24

End at: 2018-11-30 04:56:54

Local clock offset: -10.31 ms

Remote clock offset: 0.254 ms

Below is generated by plot.py at 2018-11-30 05:44:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.03 Mbit/s

95th percentile per-packet one-way delay: 8.936 ms

Loss rate: 0.31%

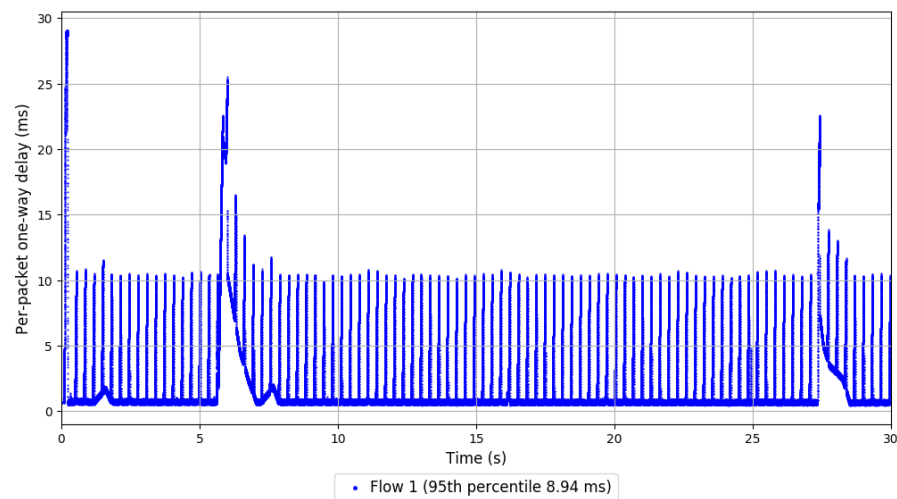
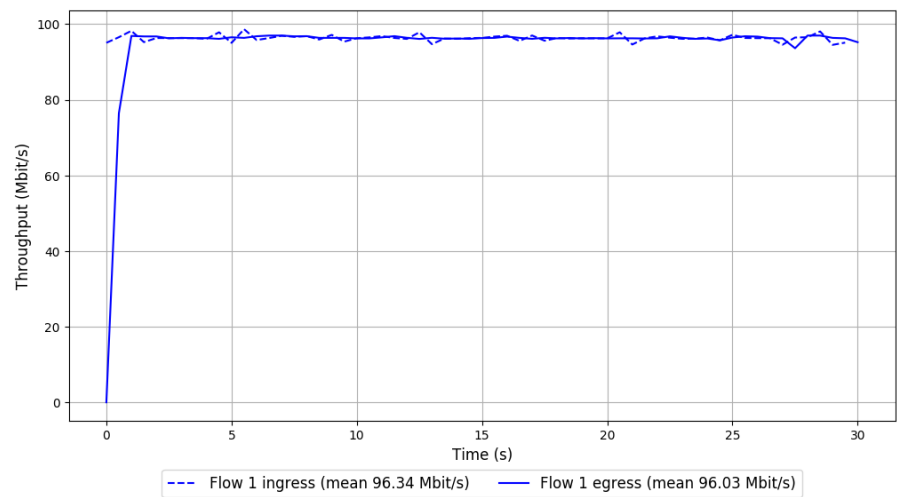
-- Flow 1:

Average throughput: 96.03 Mbit/s

95th percentile per-packet one-way delay: 8.936 ms

Loss rate: 0.31%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-11-30 05:17:34

End at: 2018-11-30 05:18:04

Local clock offset: -9.883 ms

Remote clock offset: 0.33 ms

Below is generated by plot.py at 2018-11-30 05:44:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.922 ms

Loss rate: 0.26%

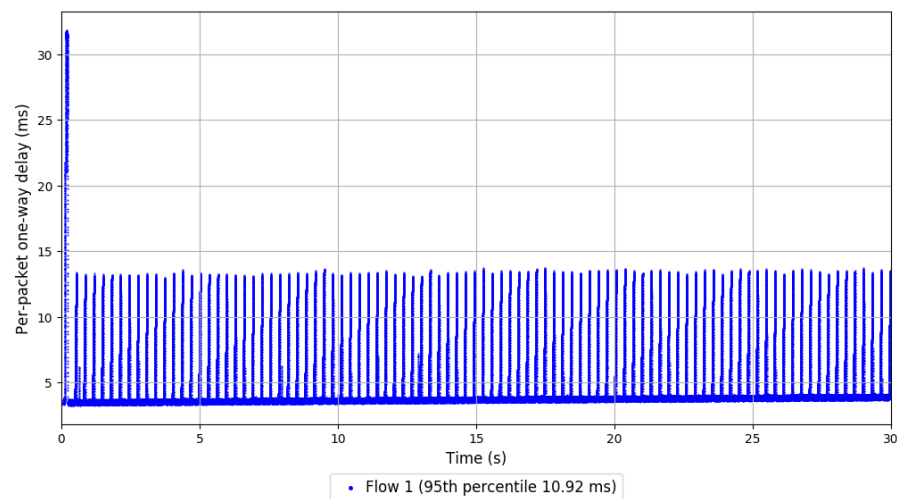
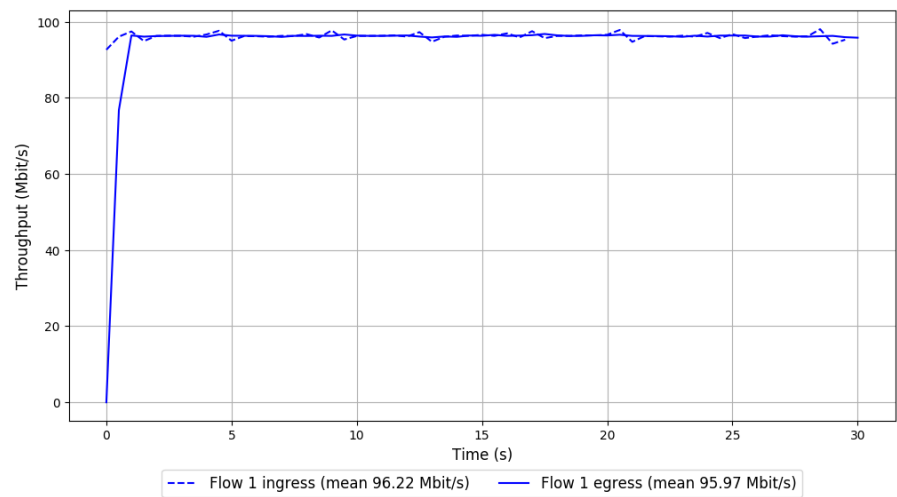
-- Flow 1:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.922 ms

Loss rate: 0.26%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-11-30 05:38:46

End at: 2018-11-30 05:39:16

Local clock offset: -1.032 ms

Remote clock offset: 0.203 ms

Below is generated by plot.py at 2018-11-30 05:44:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.96 Mbit/s

95th percentile per-packet one-way delay: 9.619 ms

Loss rate: 0.27%

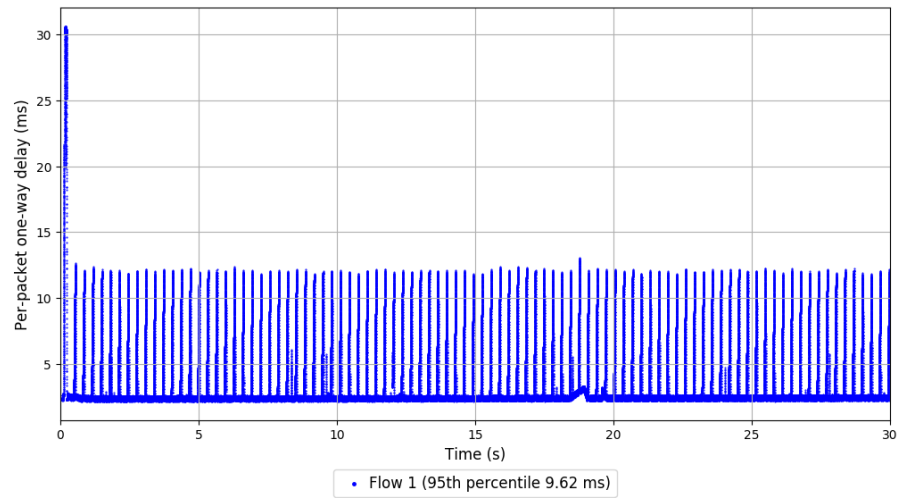
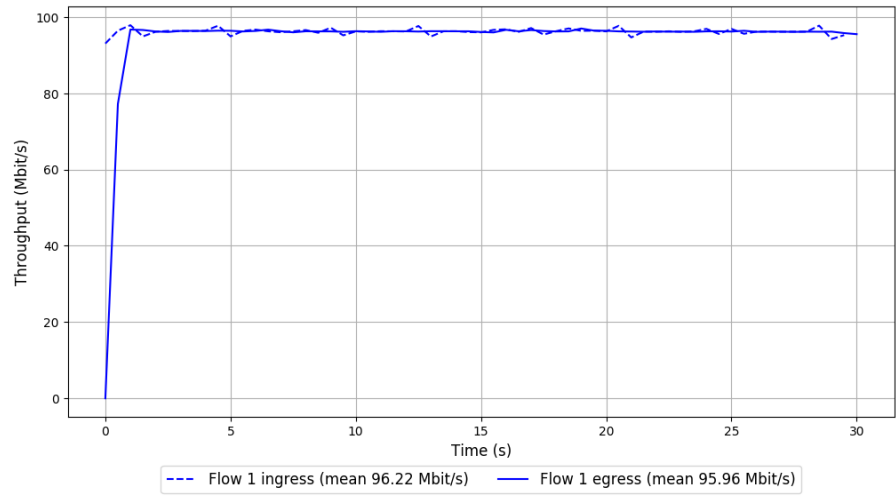
-- Flow 1:

Average throughput: 95.96 Mbit/s

95th percentile per-packet one-way delay: 9.619 ms

Loss rate: 0.27%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 03:57:21

End at: 2018-11-30 03:57:51

Local clock offset: -0.724 ms

Remote clock offset: 0.391 ms

Below is generated by plot.py at 2018-11-30 05:44:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.45 Mbit/s

95th percentile per-packet one-way delay: 6.827 ms

Loss rate: 0.09%

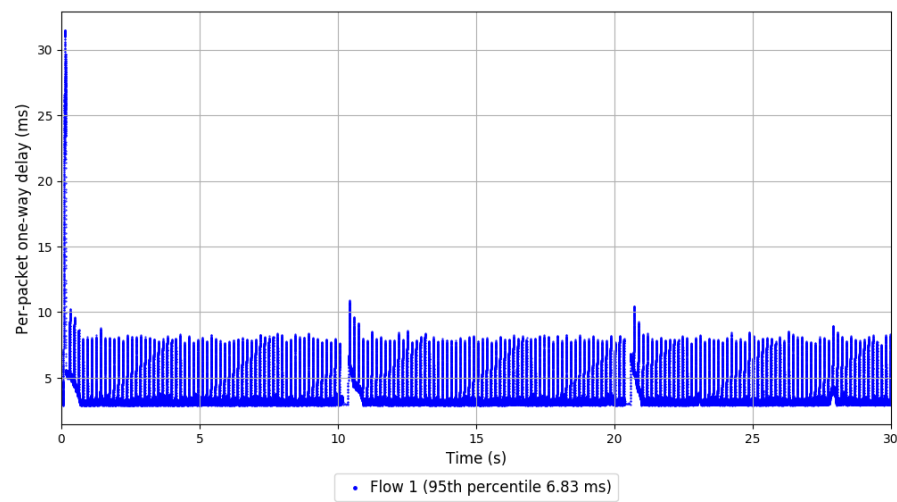
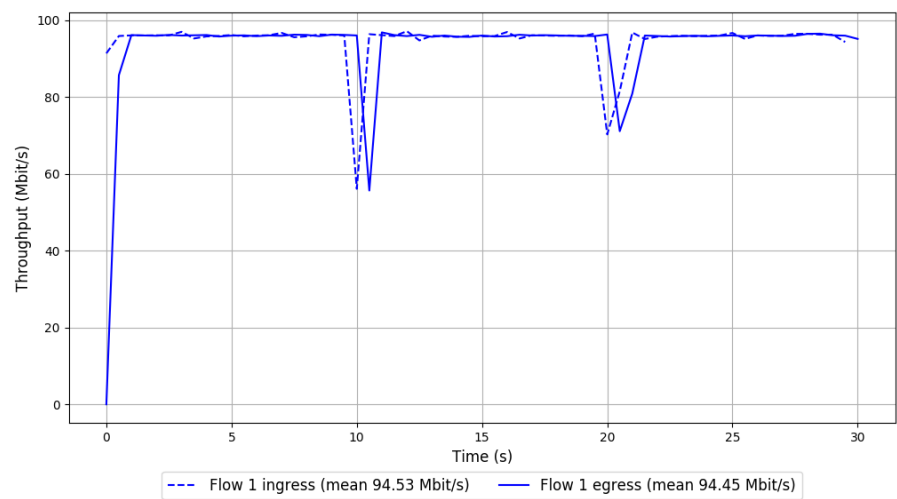
-- Flow 1:

Average throughput: 94.45 Mbit/s

95th percentile per-packet one-way delay: 6.827 ms

Loss rate: 0.09%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 04:18:30

End at: 2018-11-30 04:19:00

Local clock offset: -2.915 ms

Remote clock offset: 0.513 ms

Below is generated by plot.py at 2018-11-30 05:45:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 5.382 ms

Loss rate: 0.07%

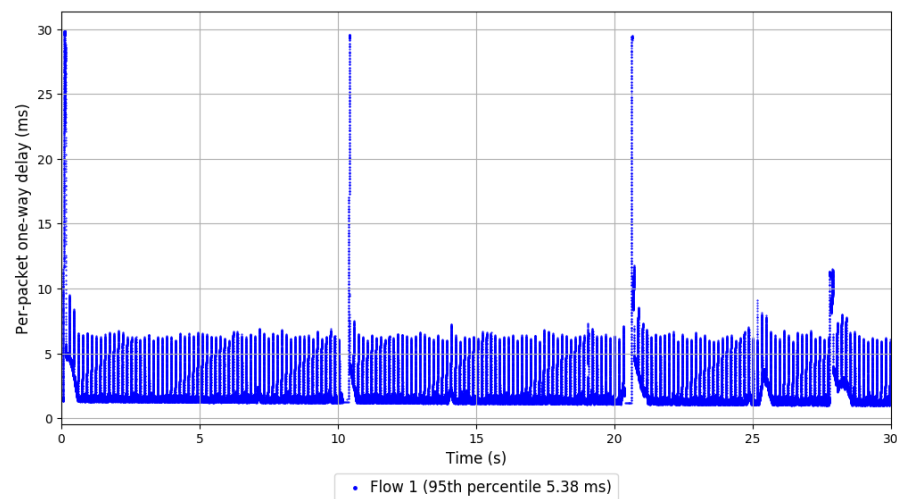
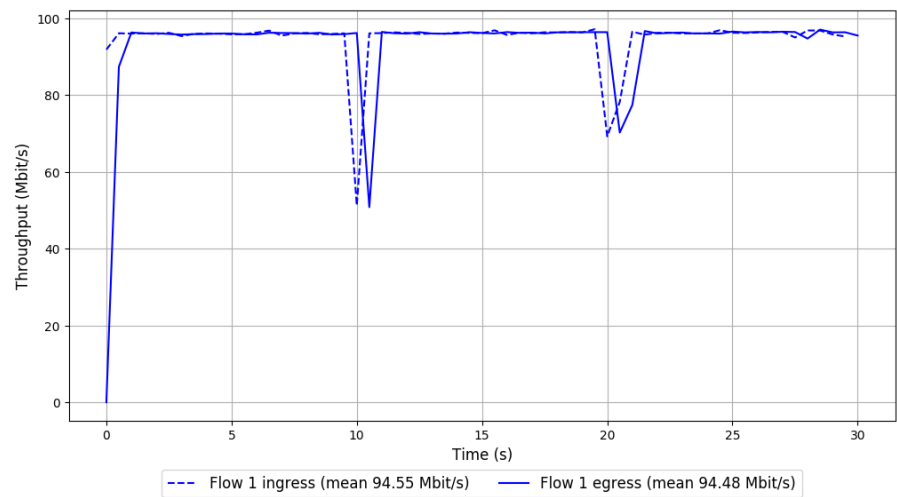
-- Flow 1:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 5.382 ms

Loss rate: 0.07%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 04:39:40

End at: 2018-11-30 04:40:10

Local clock offset: -9.202 ms

Remote clock offset: 0.367 ms

Below is generated by plot.py at 2018-11-30 05:45:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.43 Mbit/s

95th percentile per-packet one-way delay: 7.168 ms

Loss rate: 0.09%

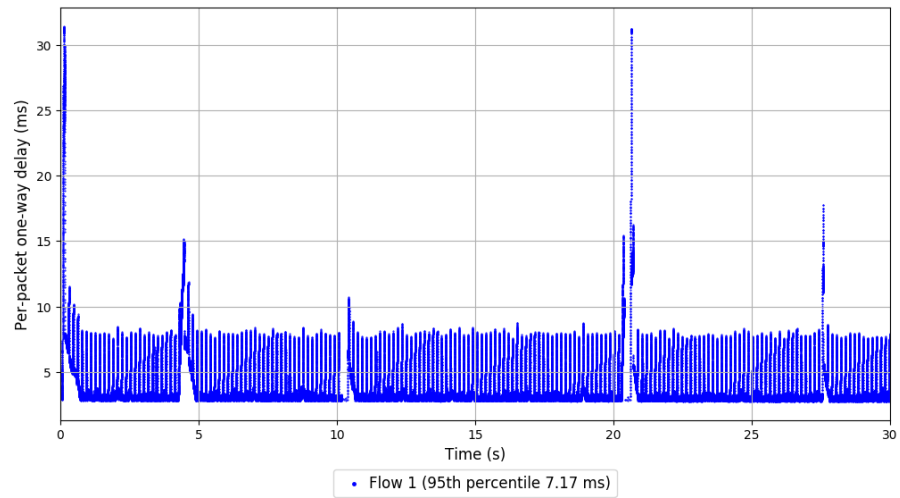
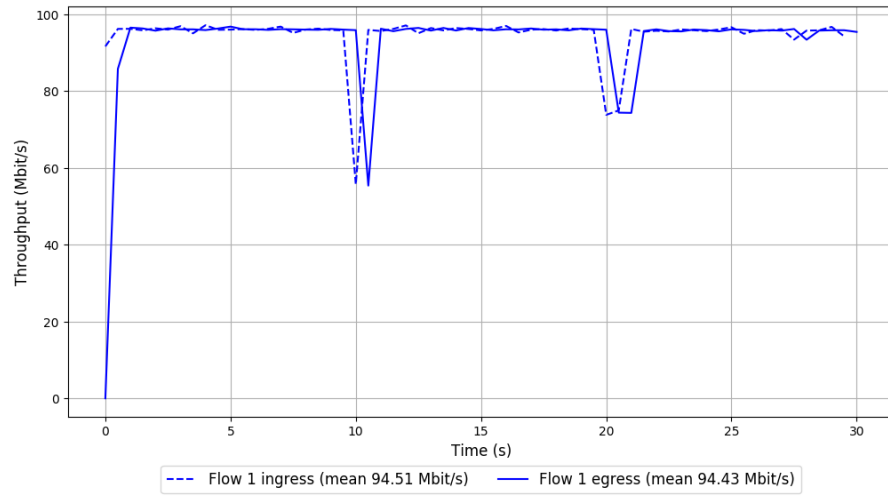
-- Flow 1:

Average throughput: 94.43 Mbit/s

95th percentile per-packet one-way delay: 7.168 ms

Loss rate: 0.09%

Run 3: Report of FillP-Sheep — Data Link

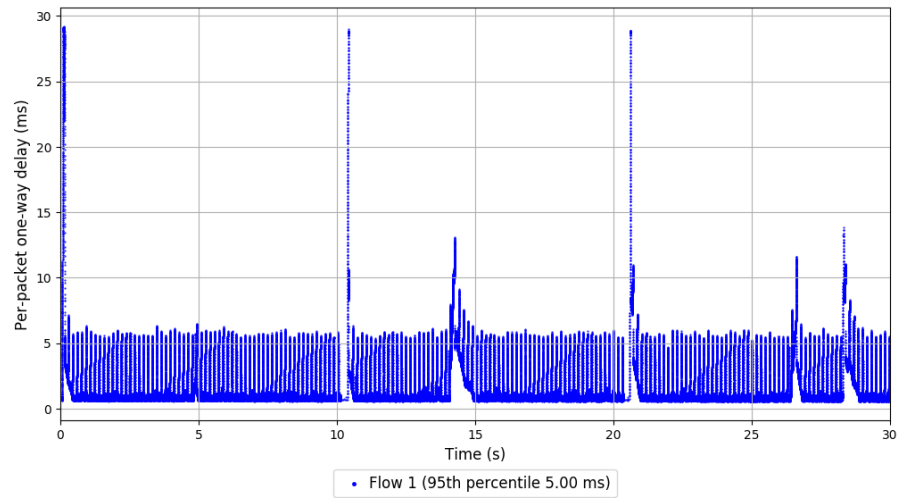
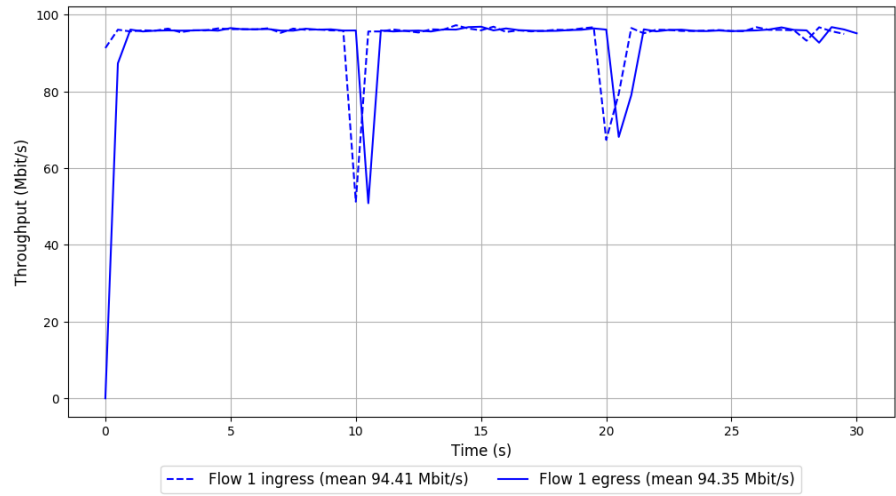


Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 05:00:49
End at: 2018-11-30 05:01:19
Local clock offset: -10.732 ms
Remote clock offset: 0.325 ms

Below is generated by plot.py at 2018-11-30 05:45:44
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 5.002 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 5.002 ms
Loss rate: 0.07%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 05:21:59

End at: 2018-11-30 05:22:29

Local clock offset: -6.006 ms

Remote clock offset: 0.3 ms

Below is generated by plot.py at 2018-11-30 05:45:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 6.742 ms

Loss rate: 0.09%

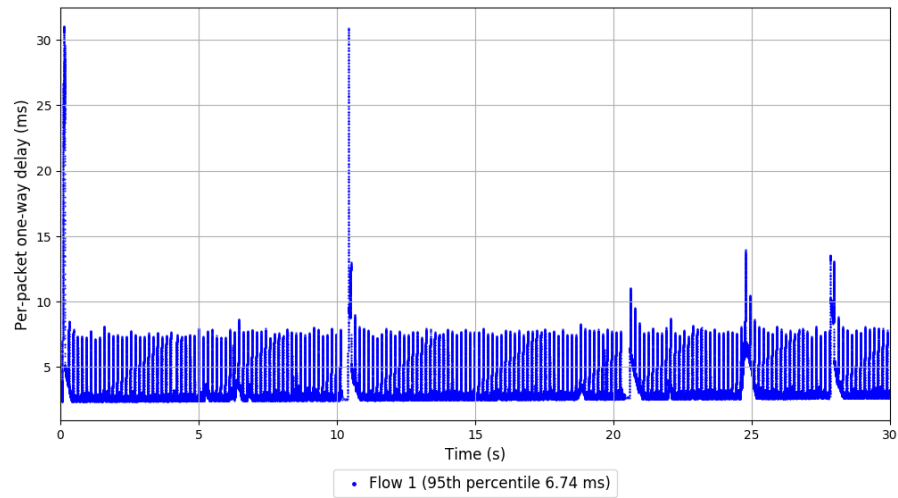
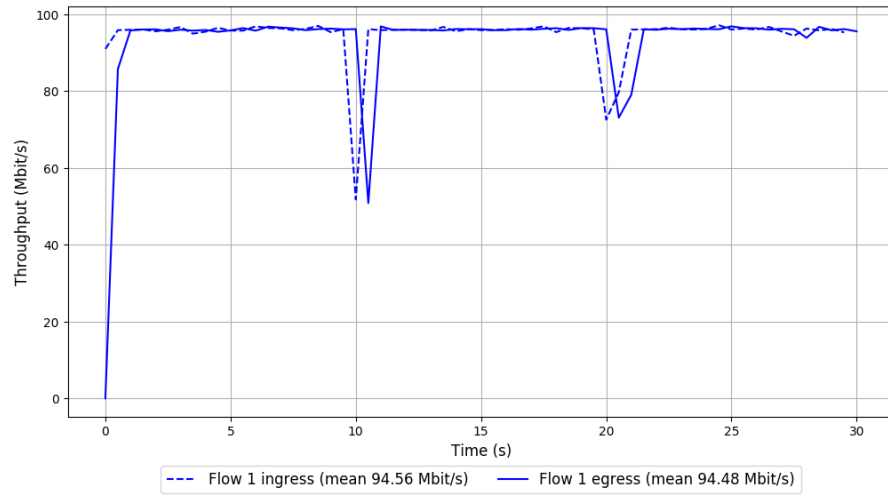
-- Flow 1:

Average throughput: 94.48 Mbit/s

95th percentile per-packet one-way delay: 6.742 ms

Loss rate: 0.09%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2018-11-30 03:59:37

End at: 2018-11-30 04:00:07

Local clock offset: -0.602 ms

Remote clock offset: 0.437 ms

Below is generated by plot.py at 2018-11-30 05:45:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.36 Mbit/s

95th percentile per-packet one-way delay: 4.706 ms

Loss rate: 0.00%

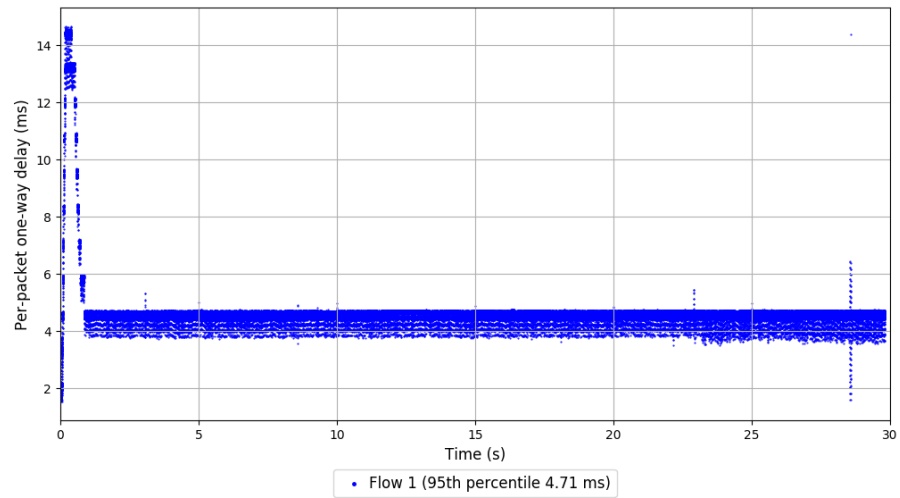
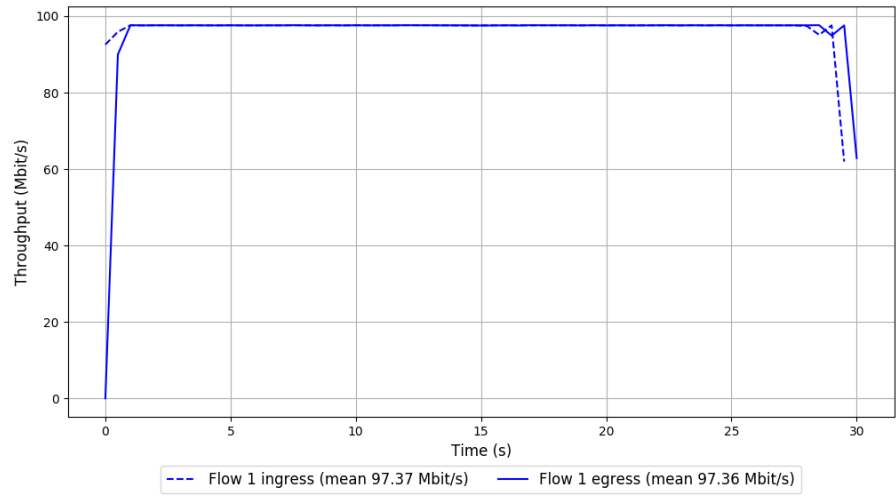
-- Flow 1:

Average throughput: 97.36 Mbit/s

95th percentile per-packet one-way delay: 4.706 ms

Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-11-30 04:20:46

End at: 2018-11-30 04:21:16

Local clock offset: -4.233 ms

Remote clock offset: 0.452 ms

Below is generated by plot.py at 2018-11-30 05:45:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 5.692 ms

Loss rate: 0.00%

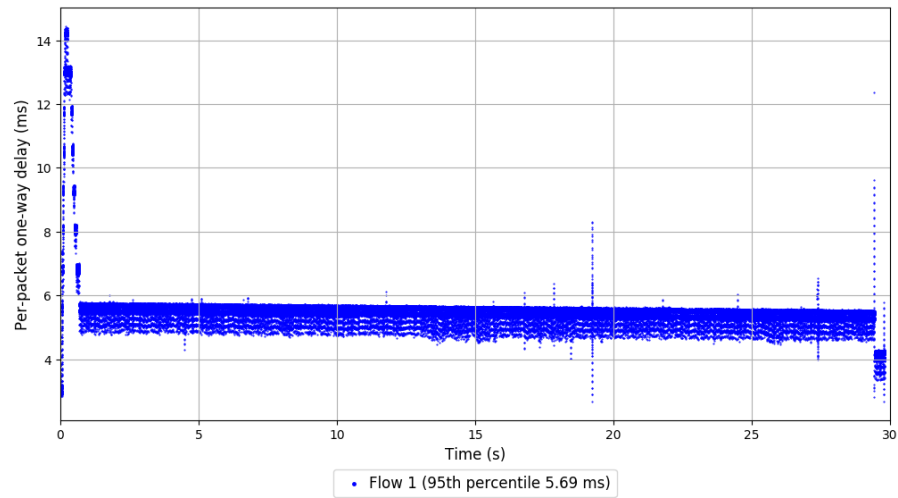
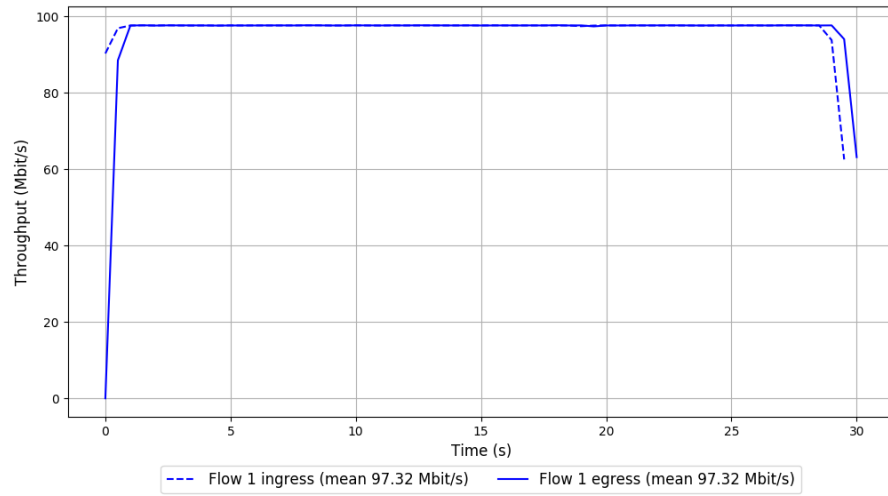
-- Flow 1:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 5.692 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-11-30 04:41:56

End at: 2018-11-30 04:42:26

Local clock offset: -8.713 ms

Remote clock offset: 0.347 ms

Below is generated by plot.py at 2018-11-30 05:45:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 5.006 ms

Loss rate: 0.00%

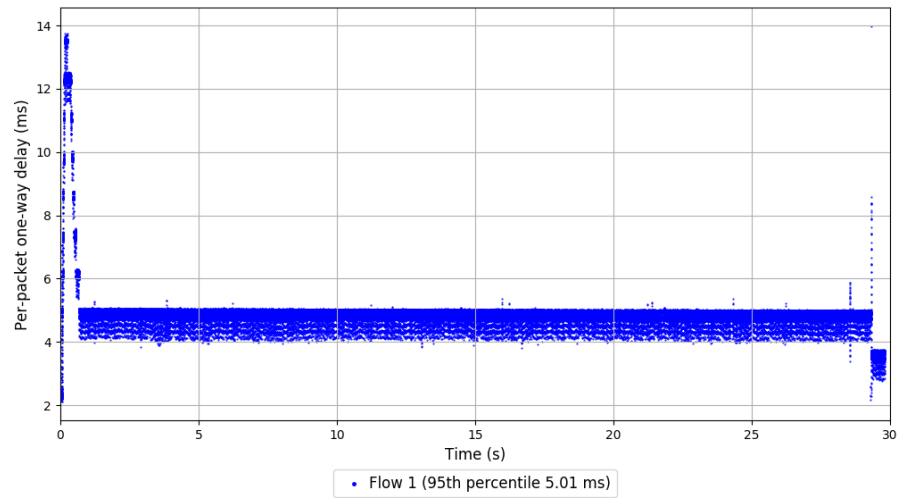
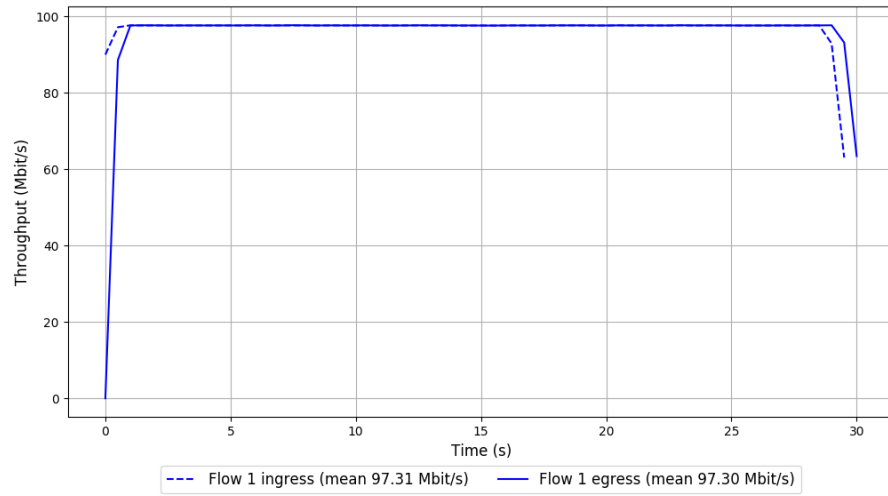
-- Flow 1:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 5.006 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-11-30 05:03:05

End at: 2018-11-30 05:03:35

Local clock offset: -11.02 ms

Remote clock offset: 0.313 ms

Below is generated by plot.py at 2018-11-30 05:45:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 5.129 ms

Loss rate: 0.00%

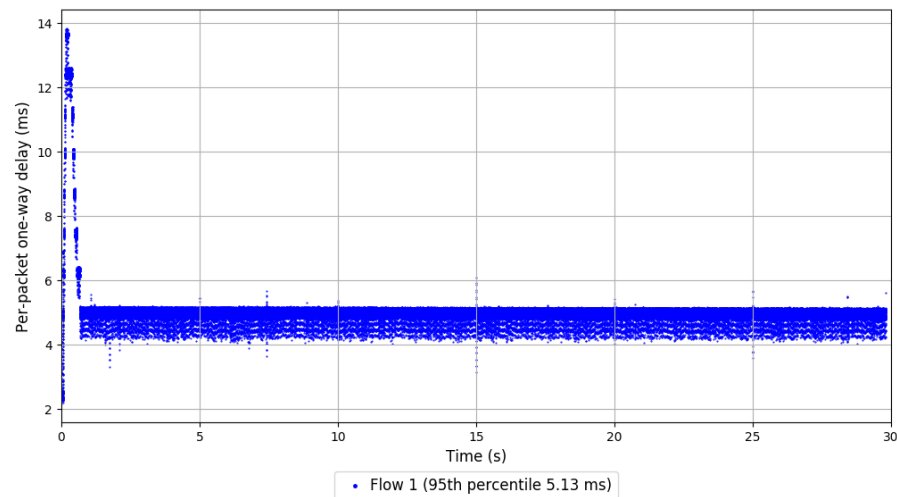
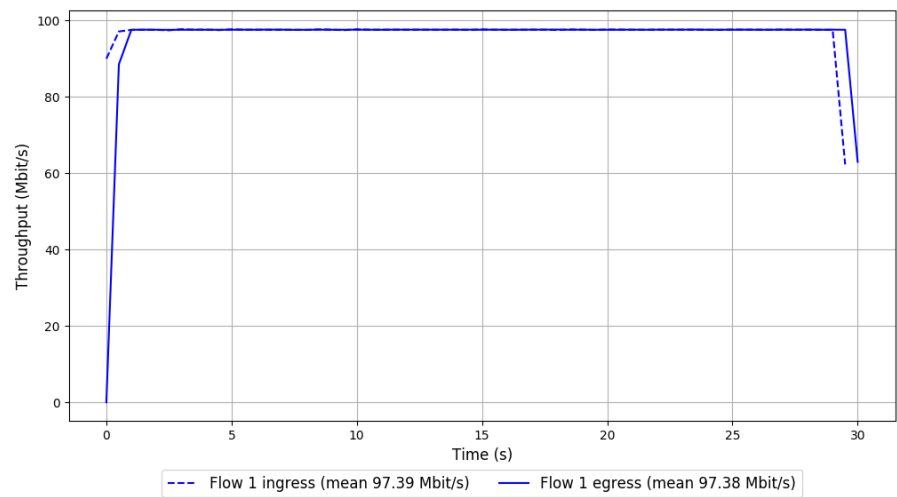
-- Flow 1:

Average throughput: 97.38 Mbit/s

95th percentile per-packet one-way delay: 5.129 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-11-30 05:24:16

End at: 2018-11-30 05:24:46

Local clock offset: -4.834 ms

Remote clock offset: 0.232 ms

Below is generated by plot.py at 2018-11-30 05:46:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.18 Mbit/s

95th percentile per-packet one-way delay: 4.223 ms

Loss rate: 0.00%

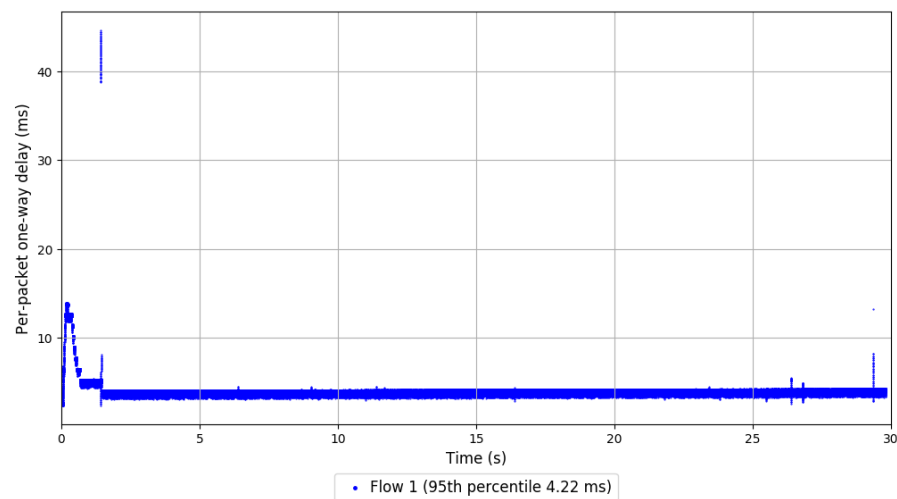
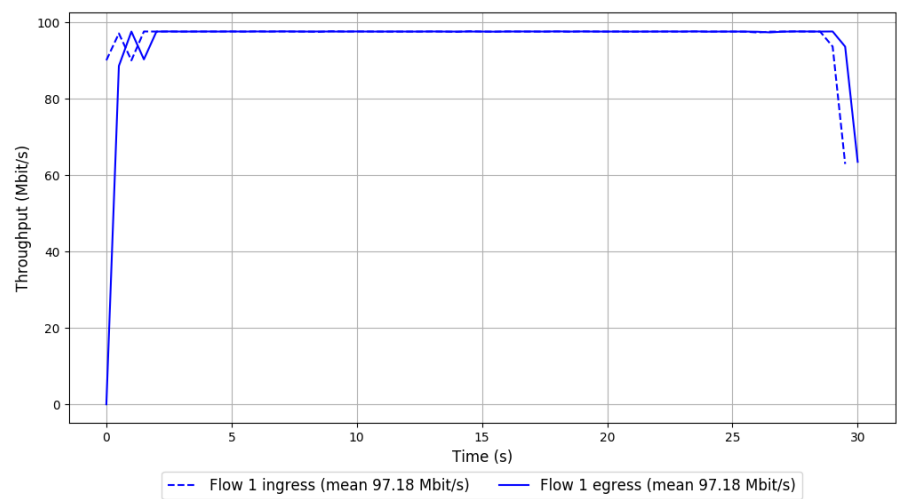
-- Flow 1:

Average throughput: 97.18 Mbit/s

95th percentile per-packet one-way delay: 4.223 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 04:00:47

End at: 2018-11-30 04:01:17

Local clock offset: 0.216 ms

Remote clock offset: 0.417 ms

Below is generated by plot.py at 2018-11-30 05:46:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 7.568 ms

Loss rate: 0.01%

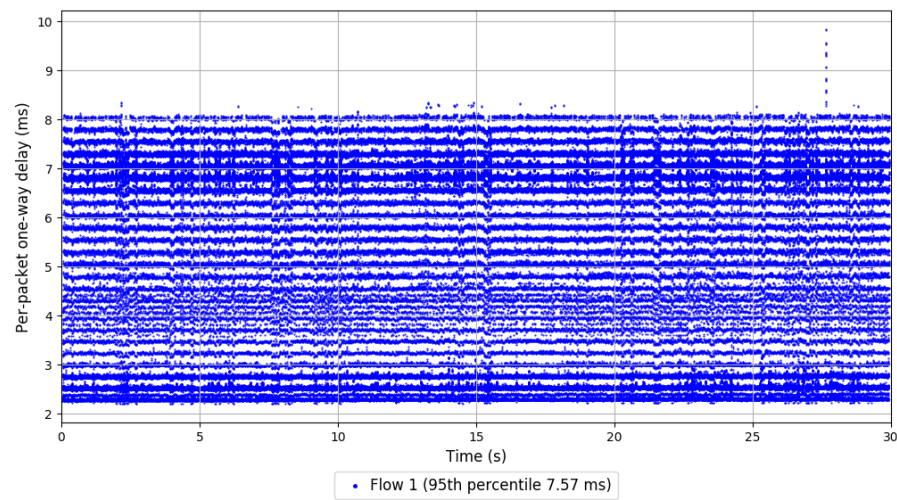
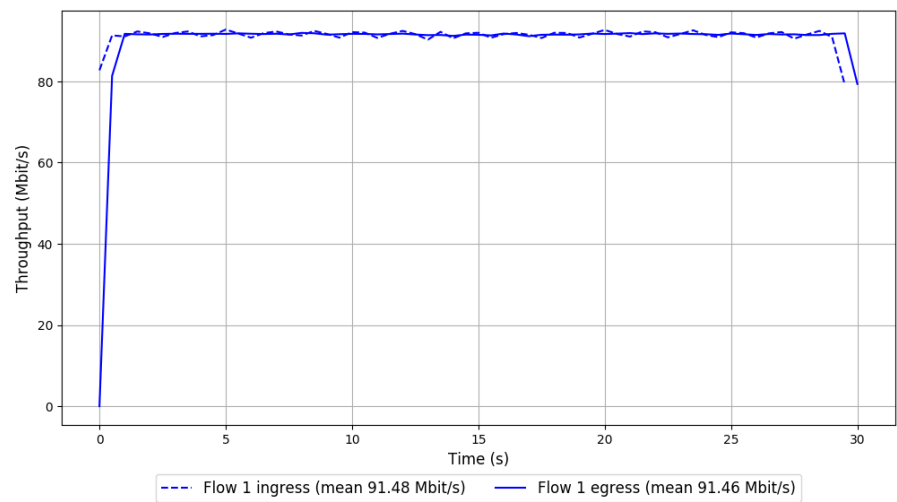
-- Flow 1:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 7.568 ms

Loss rate: 0.01%

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



Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 04:21:55

End at: 2018-11-30 04:22:25

Local clock offset: -3.962 ms

Remote clock offset: 0.424 ms

Below is generated by plot.py at 2018-11-30 05:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 6.762 ms

Loss rate: 0.00%

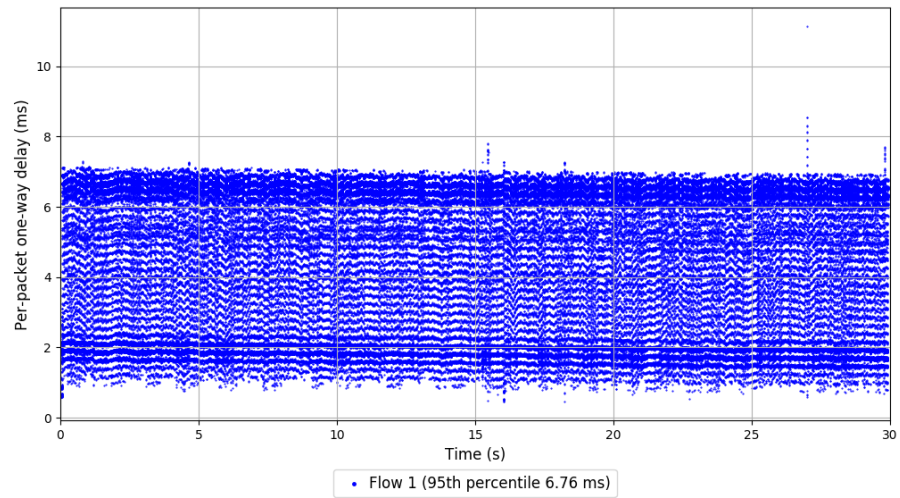
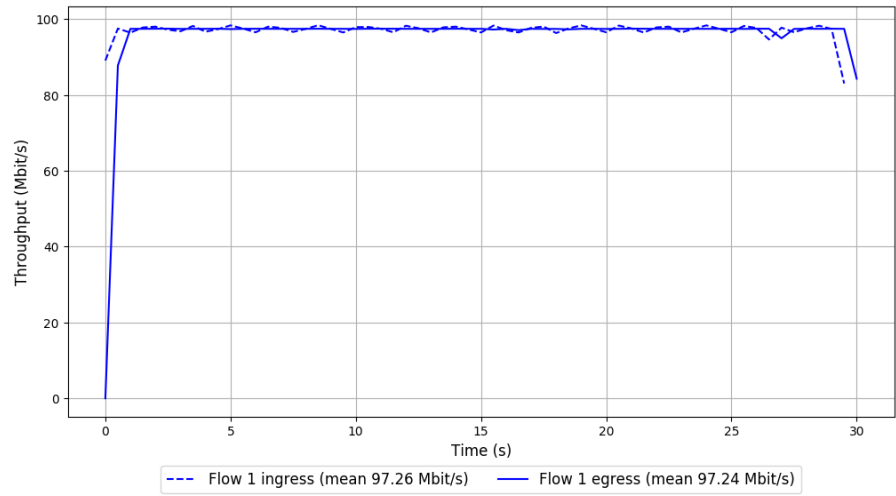
-- Flow 1:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 6.762 ms

Loss rate: 0.00%

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



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 04:43:06

End at: 2018-11-30 04:43:36

Local clock offset: -9.698 ms

Remote clock offset: 0.329 ms

Below is generated by plot.py at 2018-11-30 05:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.32 Mbit/s

95th percentile per-packet one-way delay: 8.282 ms

Loss rate: 0.00%

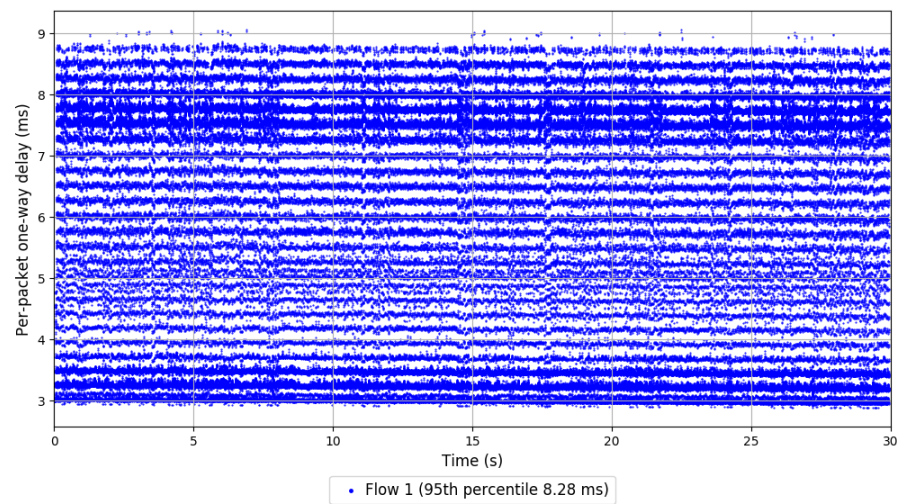
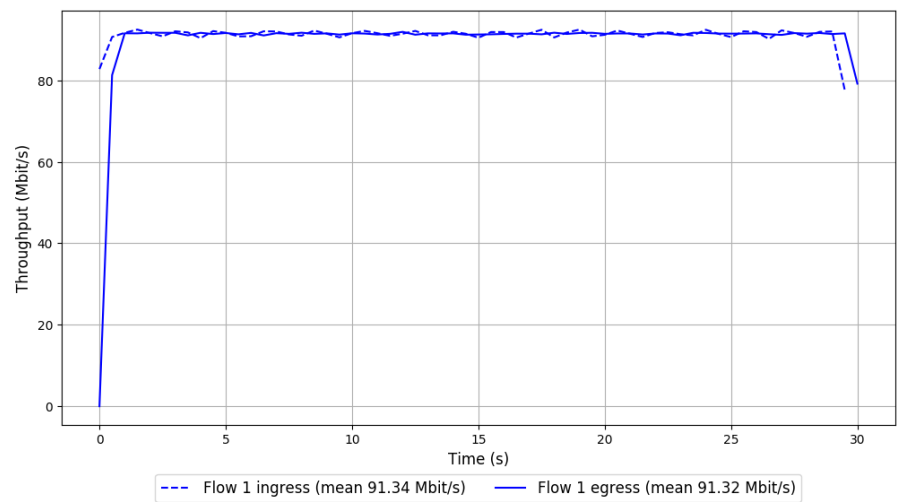
-- Flow 1:

Average throughput: 91.32 Mbit/s

95th percentile per-packet one-way delay: 8.282 ms

Loss rate: 0.00%

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

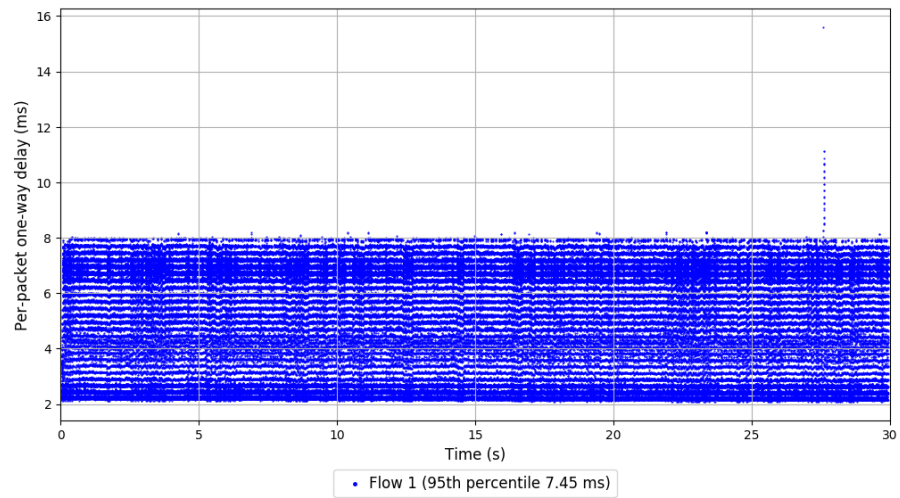
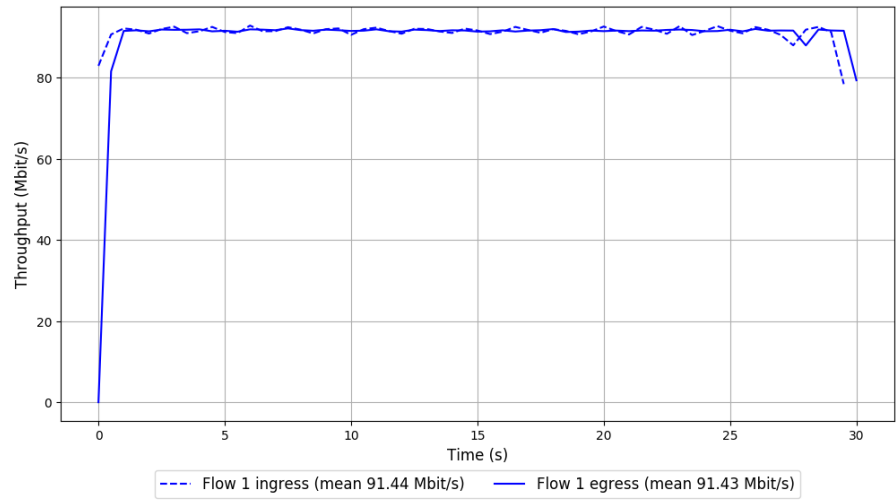


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 05:04:15
End at: 2018-11-30 05:04:45
Local clock offset: -11.053 ms
Remote clock offset: 0.288 ms

Below is generated by plot.py at 2018-11-30 05:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.43 Mbit/s
95th percentile per-packet one-way delay: 7.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 91.43 Mbit/s
95th percentile per-packet one-way delay: 7.450 ms
Loss rate: 0.00%

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



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 05:25:25

End at: 2018-11-30 05:25:55

Local clock offset: -4.377 ms

Remote clock offset: 0.27 ms

Below is generated by plot.py at 2018-11-30 05:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.44 Mbit/s

95th percentile per-packet one-way delay: 7.853 ms

Loss rate: 0.01%

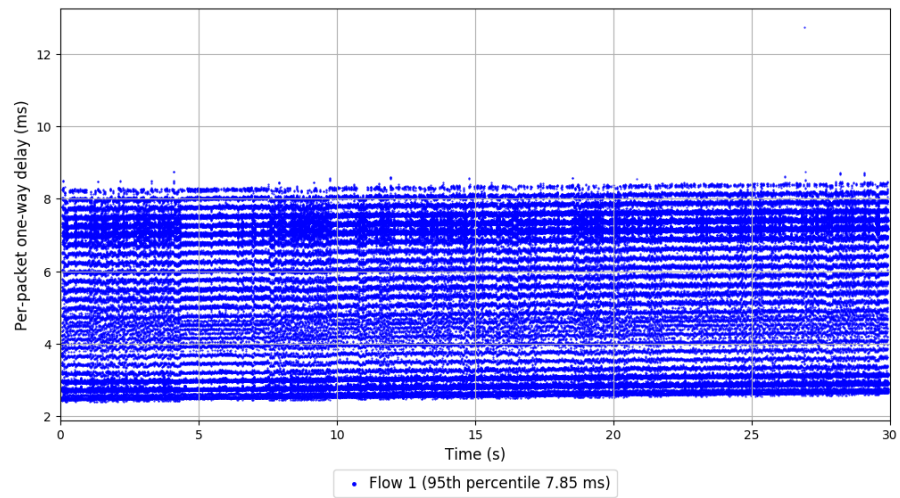
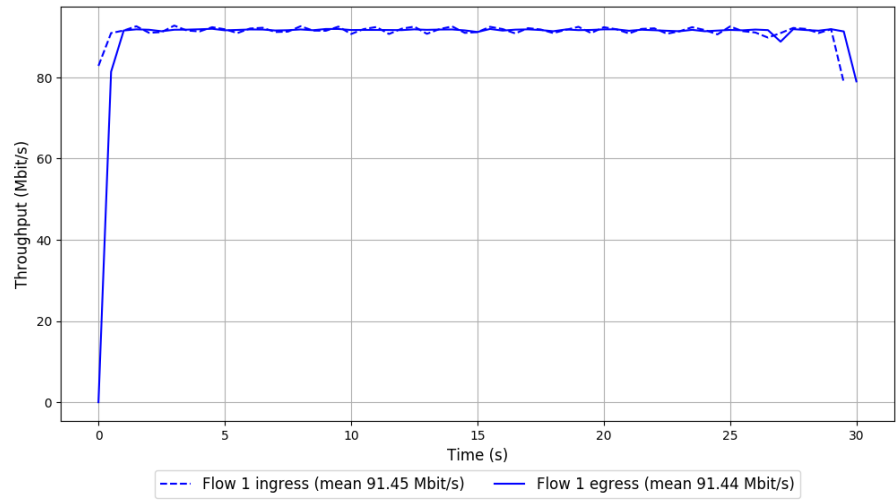
-- Flow 1:

Average throughput: 91.44 Mbit/s

95th percentile per-packet one-way delay: 7.853 ms

Loss rate: 0.01%

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



Run 1: Statistics of LEDBAT

Start at: 2018-11-30 04:12:55

End at: 2018-11-30 04:13:25

Local clock offset: 0.783 ms

Remote clock offset: 0.465 ms

Below is generated by plot.py at 2018-11-30 05:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 30.553 ms

Loss rate: 0.01%

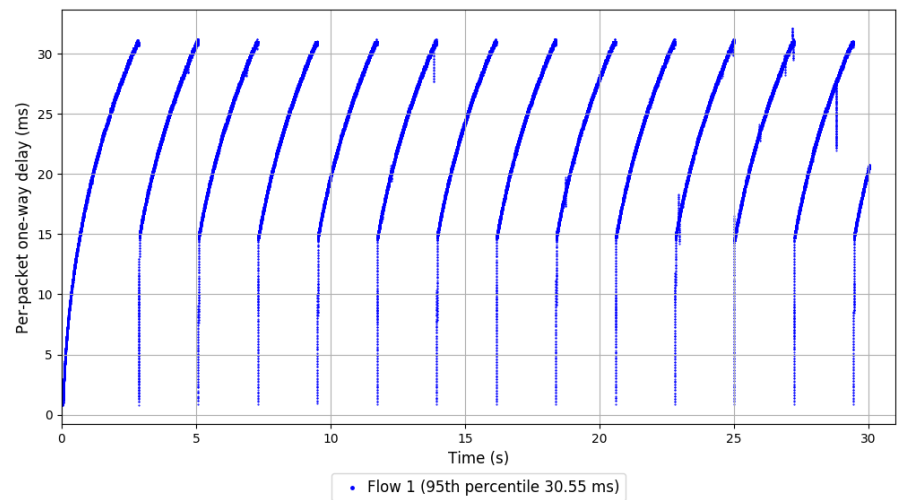
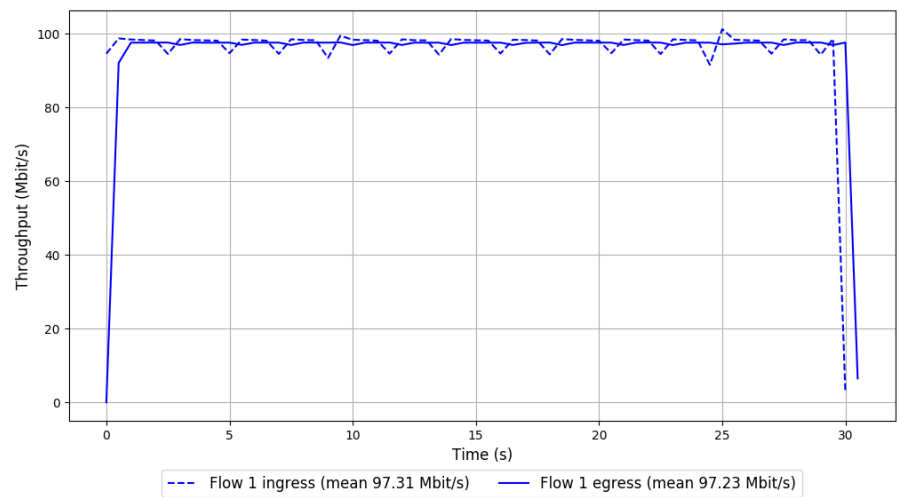
-- Flow 1:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 30.553 ms

Loss rate: 0.01%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-11-30 04:34:05

End at: 2018-11-30 04:34:35

Local clock offset: -7.524 ms

Remote clock offset: 0.438 ms

Below is generated by plot.py at 2018-11-30 05:47:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 30.509 ms

Loss rate: 0.01%

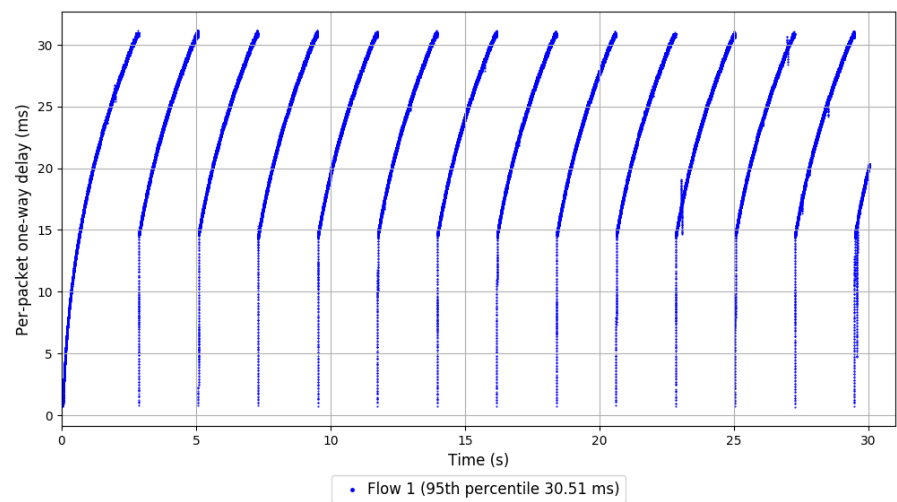
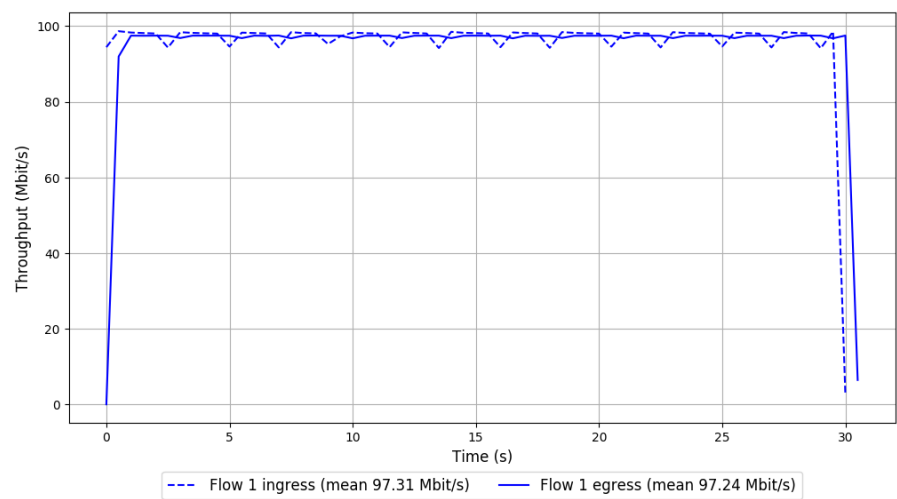
-- Flow 1:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 30.509 ms

Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-11-30 04:55:14

End at: 2018-11-30 04:55:44

Local clock offset: -10.96 ms

Remote clock offset: 0.413 ms

Below is generated by plot.py at 2018-11-30 05:47:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 31.290 ms

Loss rate: 0.01%

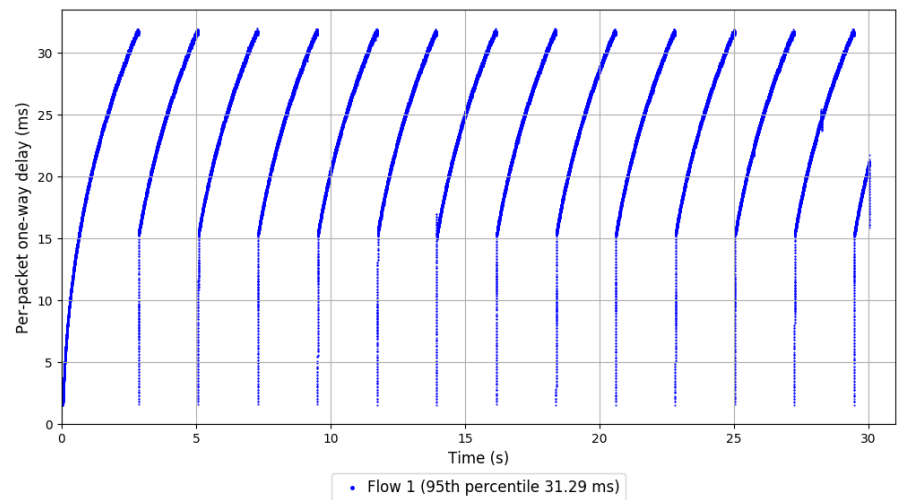
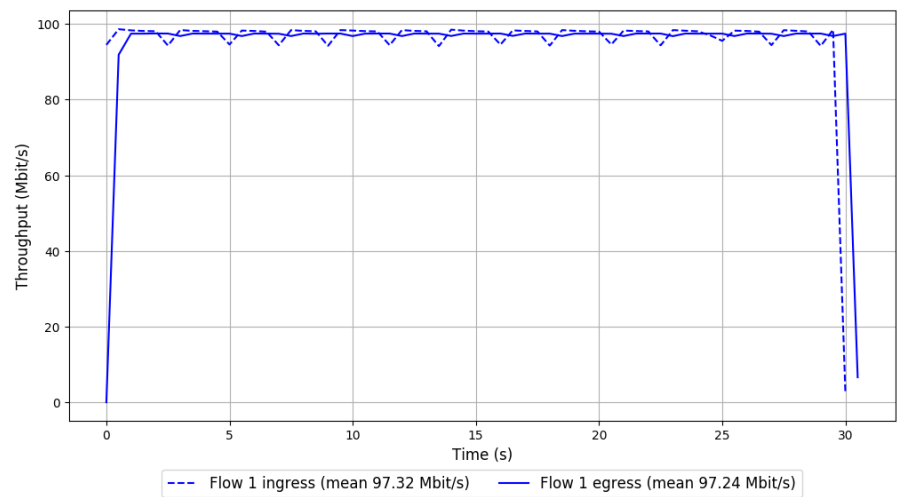
-- Flow 1:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 31.290 ms

Loss rate: 0.01%

Run 3: Report of LEDBAT — Data Link

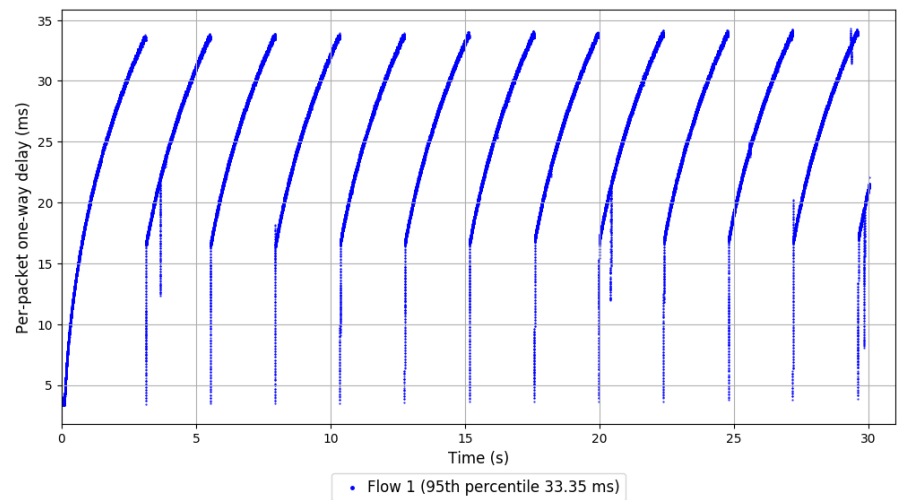
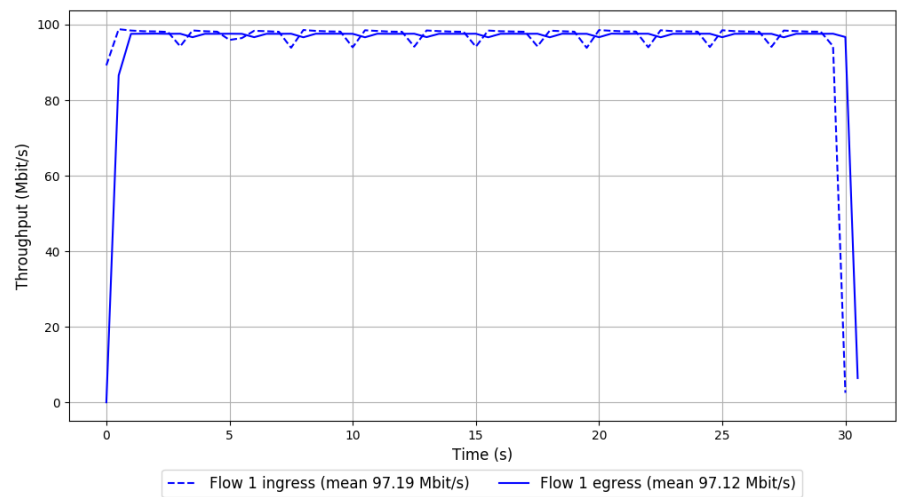


Run 4: Statistics of LEDBAT

Start at: 2018-11-30 05:16:25
End at: 2018-11-30 05:16:55
Local clock offset: -10.975 ms
Remote clock offset: 0.246 ms

Below is generated by plot.py at 2018-11-30 05:47:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 33.354 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.12 Mbit/s
95th percentile per-packet one-way delay: 33.354 ms
Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-11-30 05:37:36

End at: 2018-11-30 05:38:06

Local clock offset: -1.22 ms

Remote clock offset: 0.151 ms

Below is generated by plot.py at 2018-11-30 05:47:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.21 Mbit/s

95th percentile per-packet one-way delay: 30.213 ms

Loss rate: 0.01%

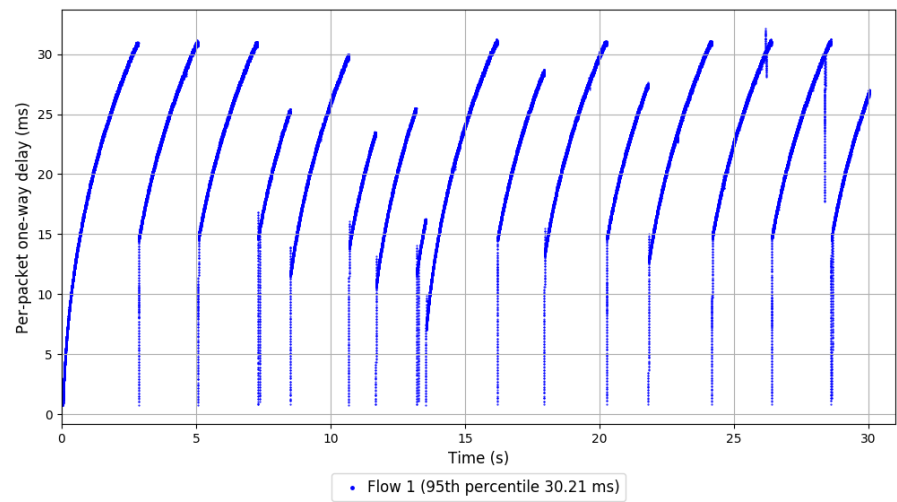
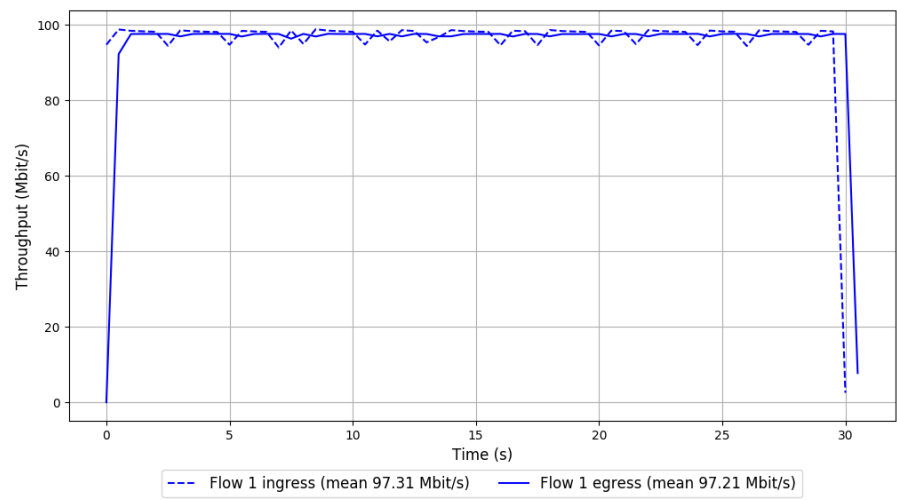
-- Flow 1:

Average throughput: 97.21 Mbit/s

95th percentile per-packet one-way delay: 30.213 ms

Loss rate: 0.01%

Run 5: Report of LEDBAT — Data Link

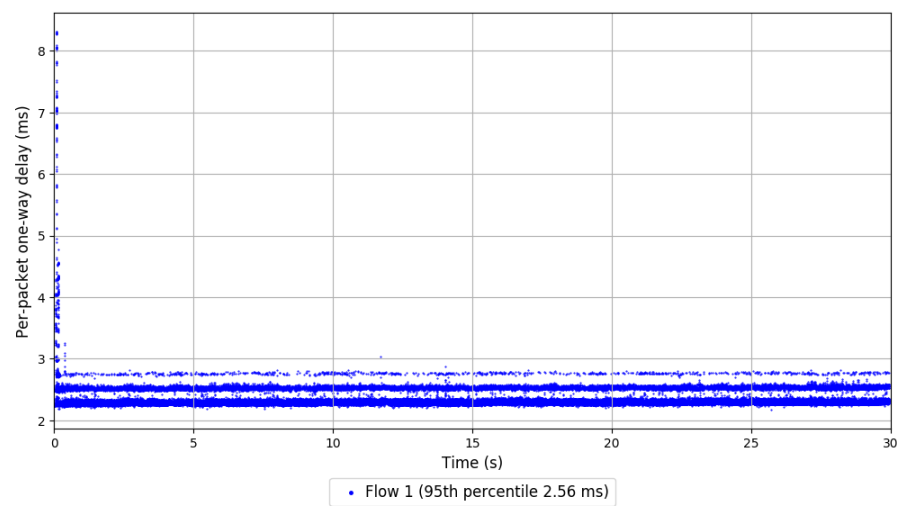
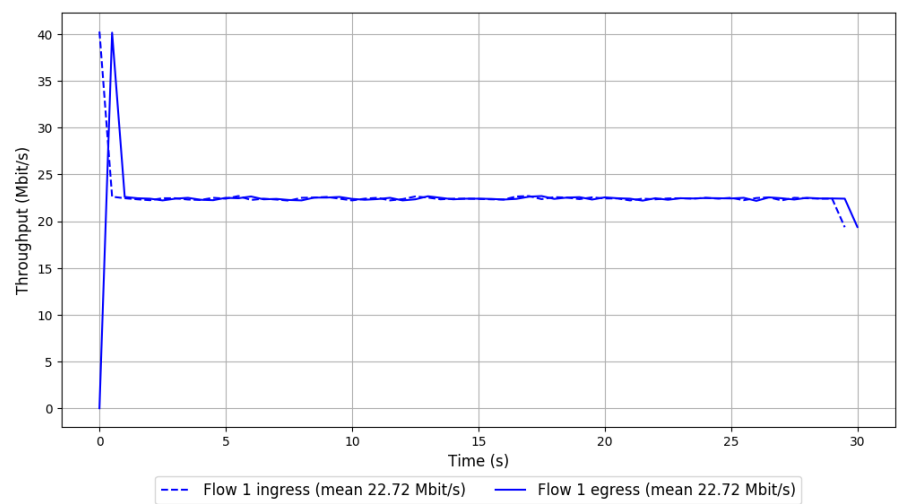



```
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 04:04:09
End at: 2018-11-30 04:04:39
Local clock offset: 0.364 ms
Remote clock offset: 0.407 ms

# Below is generated by plot.py at 2018-11-30 05:47:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 2.557 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 2.557 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo-Muses — Data Link



Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 04:25:19

End at: 2018-11-30 04:25:49

Local clock offset: -5.313 ms

Remote clock offset: 0.406 ms

Below is generated by plot.py at 2018-11-30 05:47:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 2.343 ms

Loss rate: 0.00%

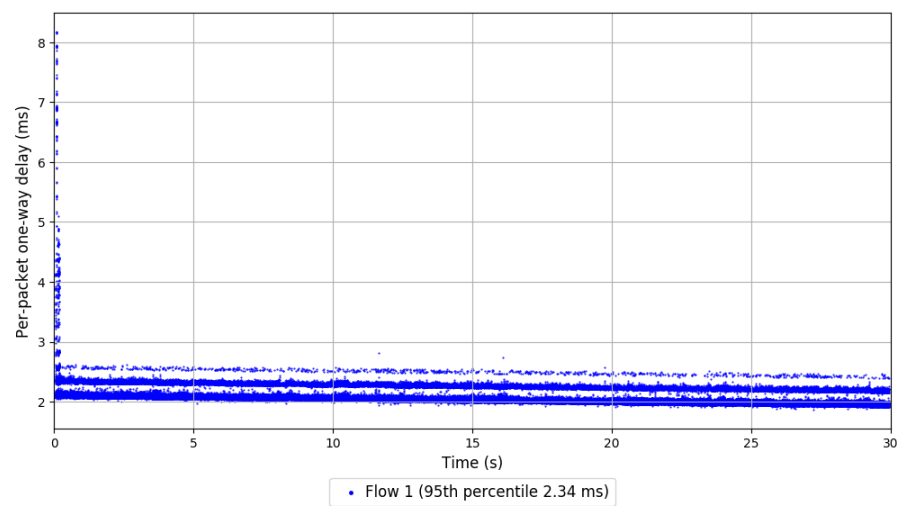
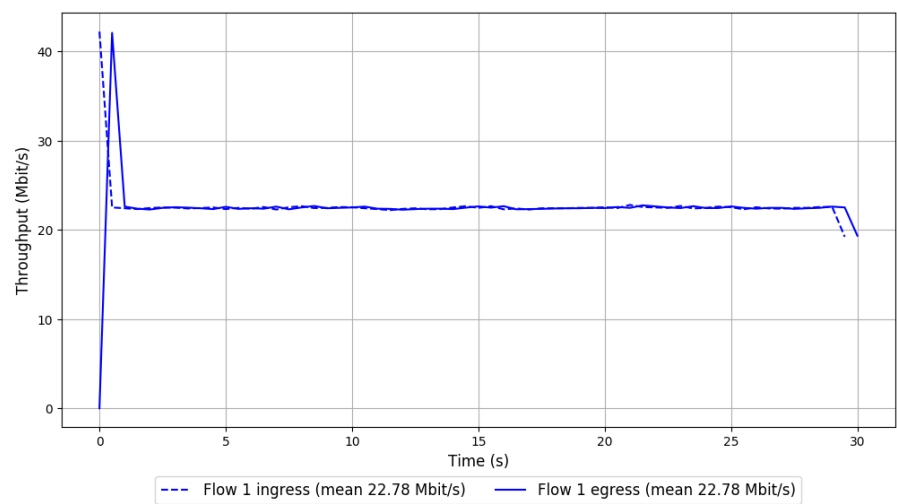
-- Flow 1:

Average throughput: 22.78 Mbit/s

95th percentile per-packet one-way delay: 2.343 ms

Loss rate: 0.00%

Run 2: Report of Indigo-Muses — Data Link



Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 04:46:28

End at: 2018-11-30 04:46:58

Local clock offset: -9.258 ms

Remote clock offset: 0.318 ms

Below is generated by plot.py at 2018-11-30 05:47:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.79 Mbit/s

95th percentile per-packet one-way delay: 2.443 ms

Loss rate: 0.00%

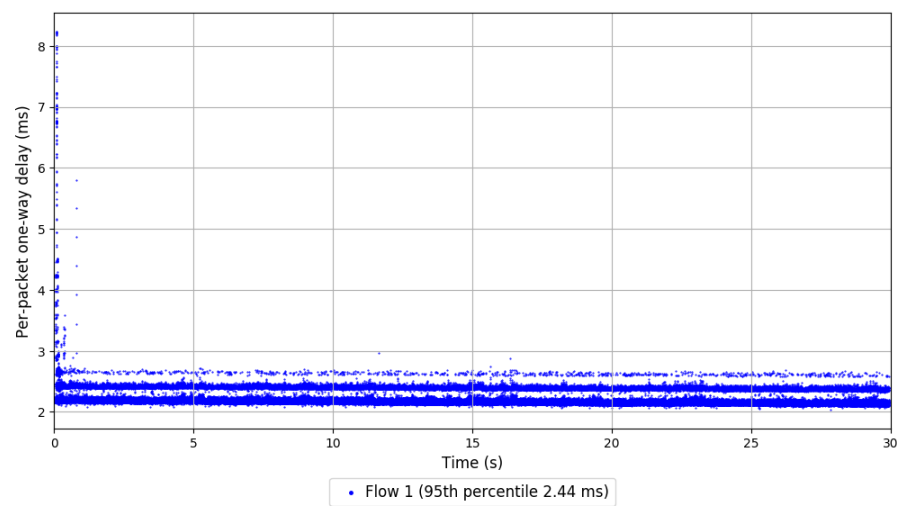
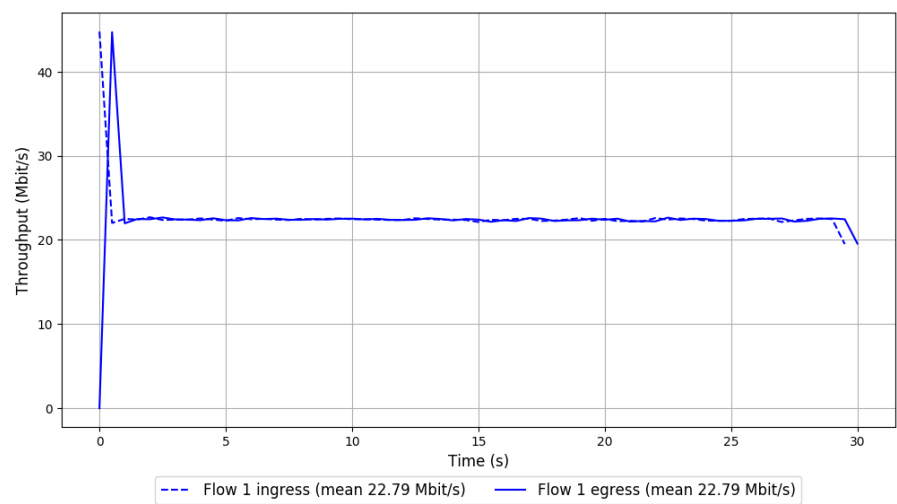
-- Flow 1:

Average throughput: 22.79 Mbit/s

95th percentile per-packet one-way delay: 2.443 ms

Loss rate: 0.00%

Run 3: Report of Indigo-Muses — Data Link

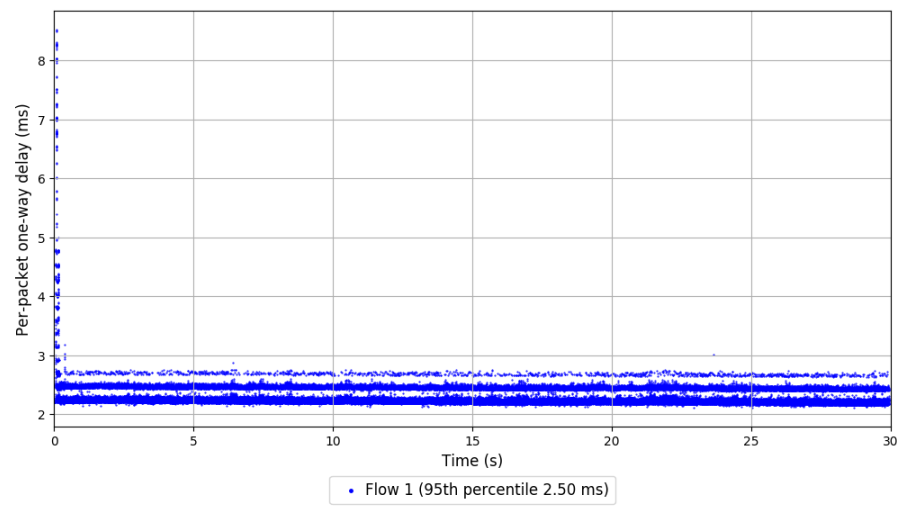
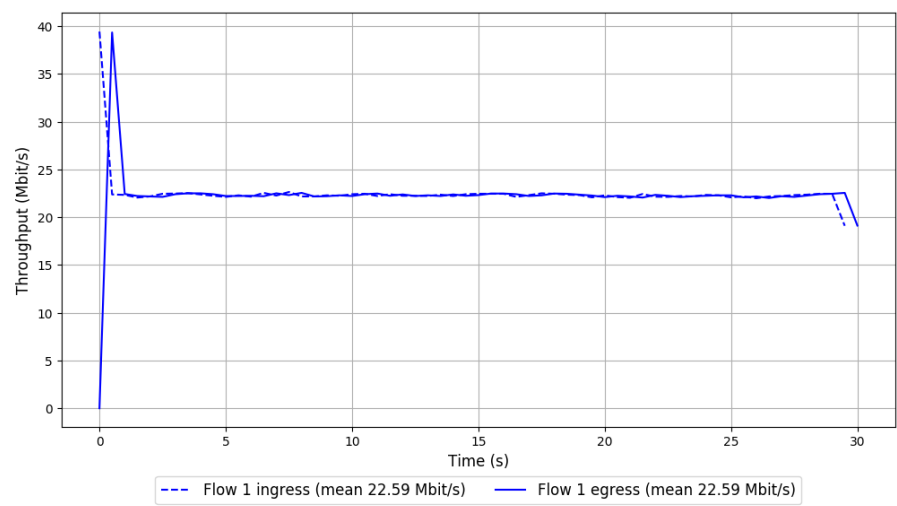


Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 05:07:37
End at: 2018-11-30 05:08:08
Local clock offset: -11.372 ms
Remote clock offset: 0.309 ms

Below is generated by plot.py at 2018-11-30 05:47:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 2.503 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 22.59 Mbit/s
95th percentile per-packet one-way delay: 2.503 ms
Loss rate: 0.00%

Run 4: Report of Indigo-Muses — Data Link



Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 05:28:48

End at: 2018-11-30 05:29:18

Local clock offset: -3.132 ms

Remote clock offset: 0.317 ms

Below is generated by plot.py at 2018-11-30 05:47:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.58 Mbit/s

95th percentile per-packet one-way delay: 2.483 ms

Loss rate: 0.00%

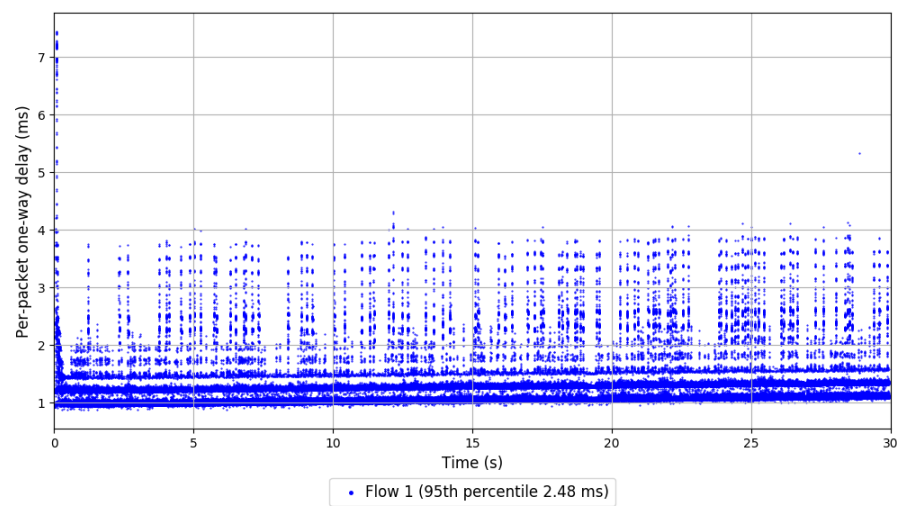
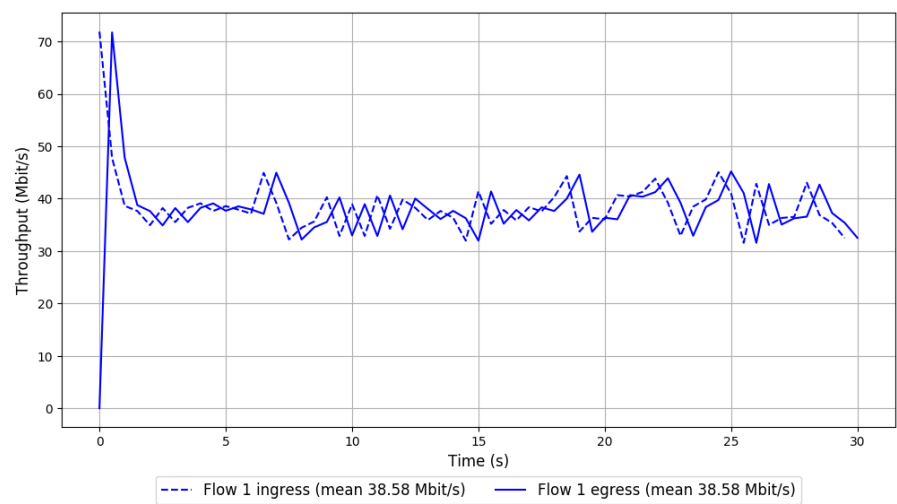
-- Flow 1:

Average throughput: 38.58 Mbit/s

95th percentile per-packet one-way delay: 2.483 ms

Loss rate: 0.00%

Run 5: Report of Indigo-Muses — Data Link

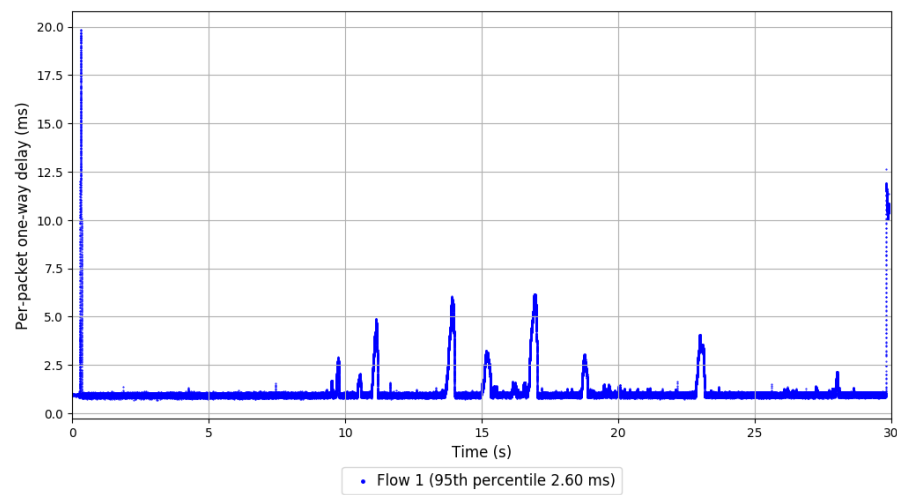
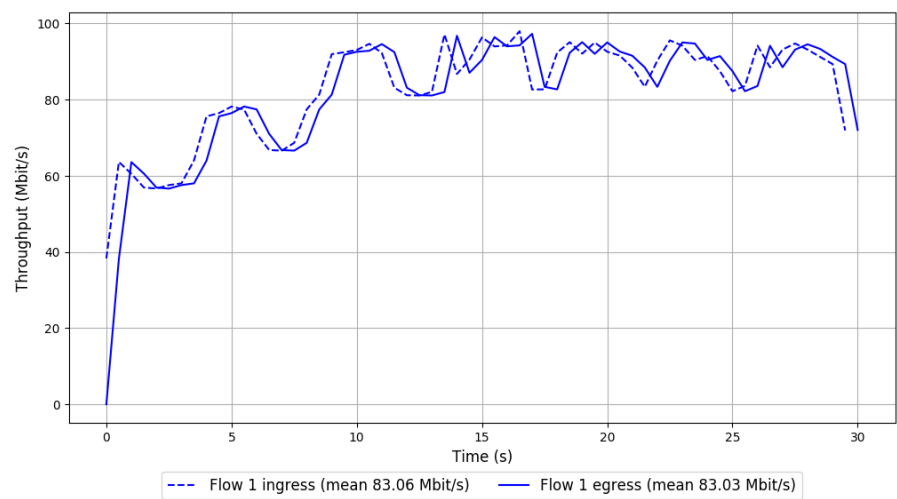


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 04:01:54
End at: 2018-11-30 04:02:25
Local clock offset: 0.21 ms
Remote clock offset: 0.442 ms

# Below is generated by plot.py at 2018-11-30 05:48:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.03 Mbit/s
95th percentile per-packet one-way delay: 2.604 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.03 Mbit/s
95th percentile per-packet one-way delay: 2.604 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 04:23:04

End at: 2018-11-30 04:23:34

Local clock offset: -5.333 ms

Remote clock offset: 0.432 ms

Below is generated by plot.py at 2018-11-30 05:48:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.98 Mbit/s

95th percentile per-packet one-way delay: 3.934 ms

Loss rate: 0.00%

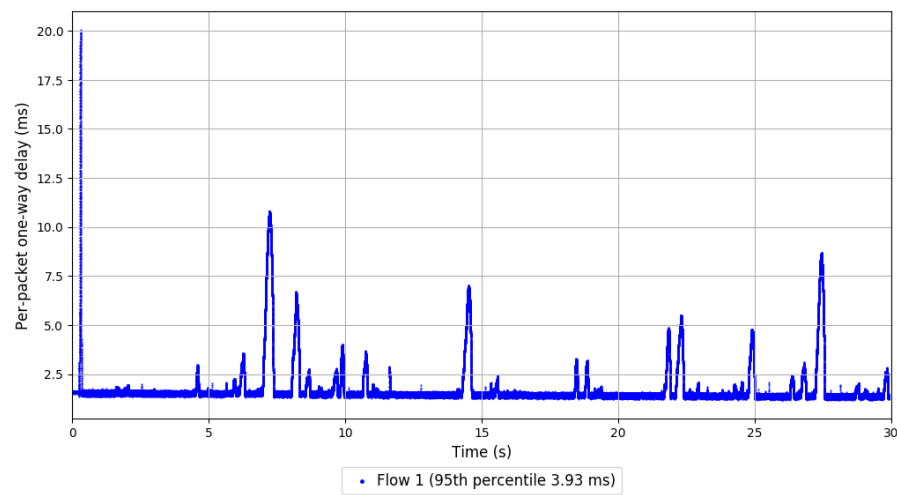
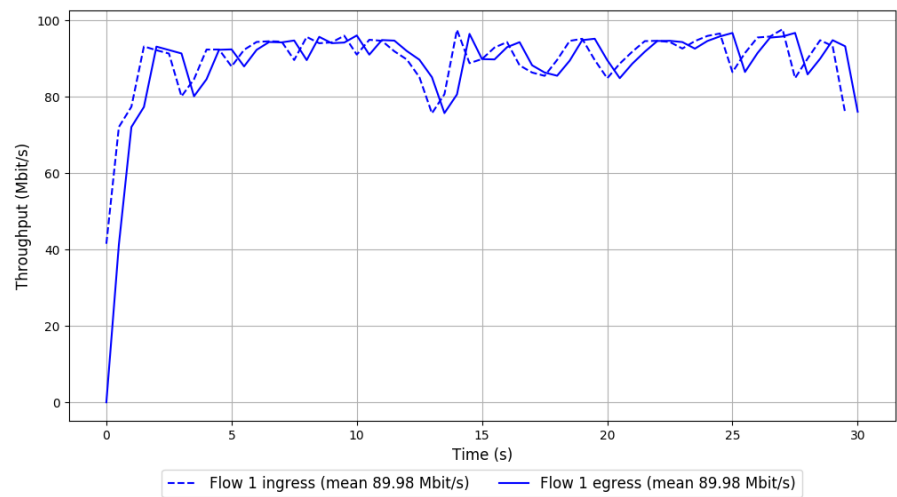
-- Flow 1:

Average throughput: 89.98 Mbit/s

95th percentile per-packet one-way delay: 3.934 ms

Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 04:44:13

End at: 2018-11-30 04:44:44

Local clock offset: -9.79 ms

Remote clock offset: 0.356 ms

Below is generated by plot.py at 2018-11-30 05:48:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.65 Mbit/s

95th percentile per-packet one-way delay: 4.161 ms

Loss rate: 0.00%

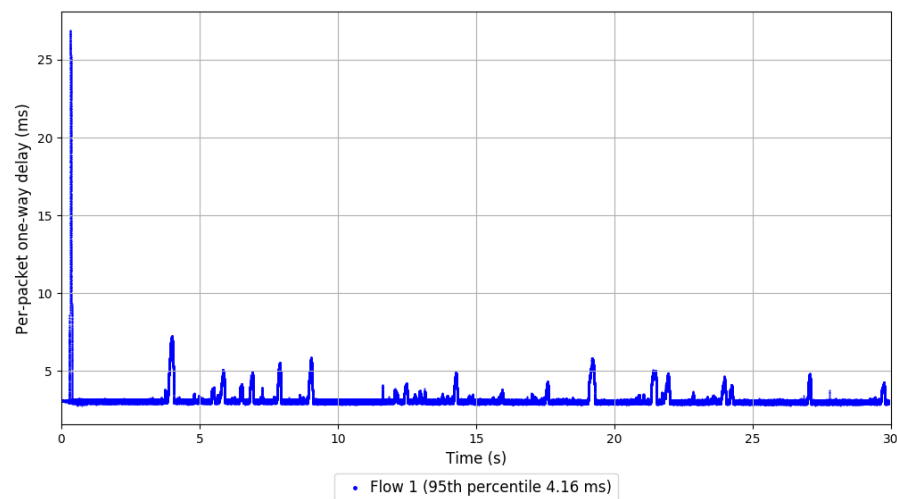
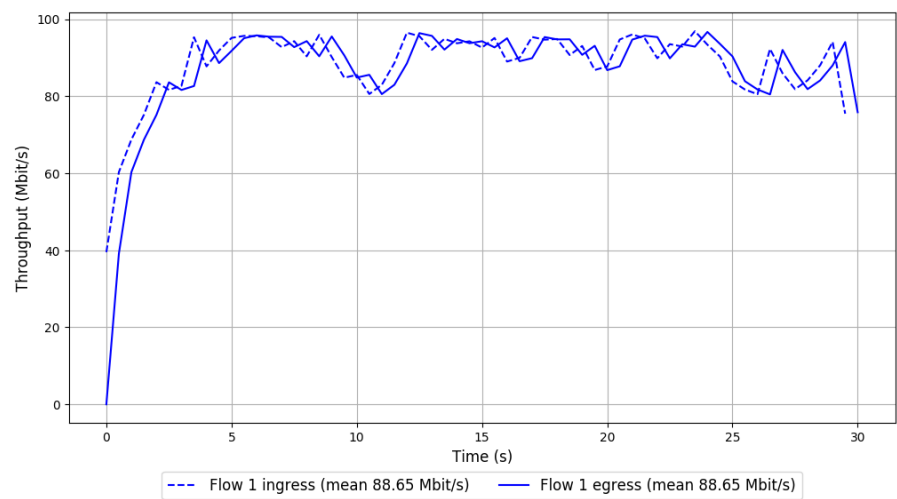
-- Flow 1:

Average throughput: 88.65 Mbit/s

95th percentile per-packet one-way delay: 4.161 ms

Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link

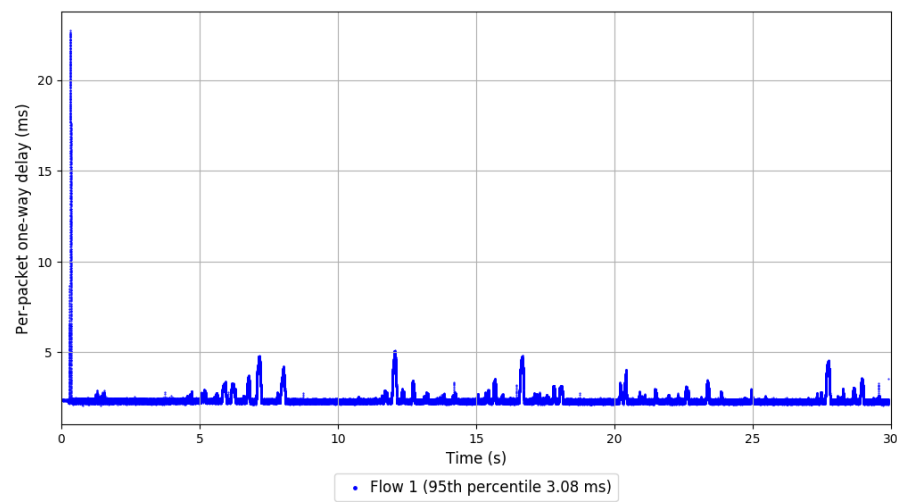
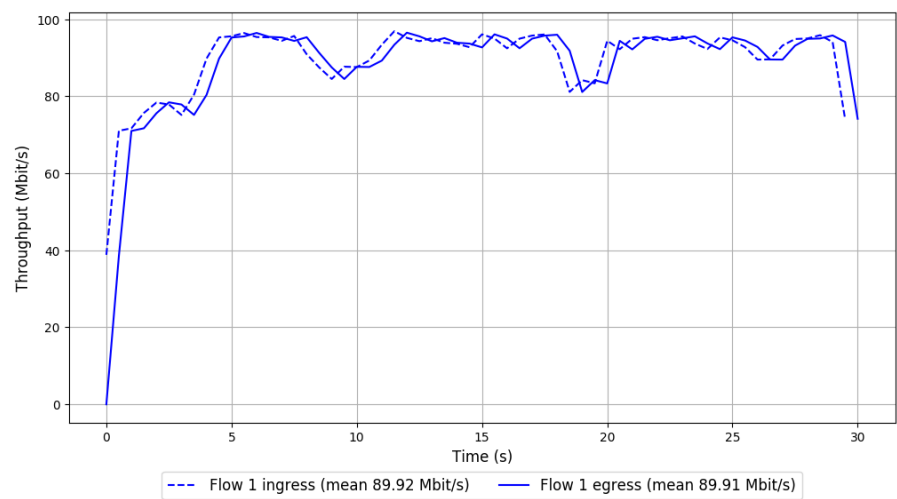


Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 05:05:22
End at: 2018-11-30 05:05:53
Local clock offset: -11.139 ms
Remote clock offset: 0.392 ms

Below is generated by plot.py at 2018-11-30 05:48:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 3.078 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 89.91 Mbit/s
95th percentile per-packet one-way delay: 3.078 ms
Loss rate: 0.01%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 05:26:33

End at: 2018-11-30 05:27:03

Local clock offset: -4.755 ms

Remote clock offset: 0.219 ms

Below is generated by plot.py at 2018-11-30 05:48:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.70 Mbit/s

95th percentile per-packet one-way delay: 4.169 ms

Loss rate: 0.00%

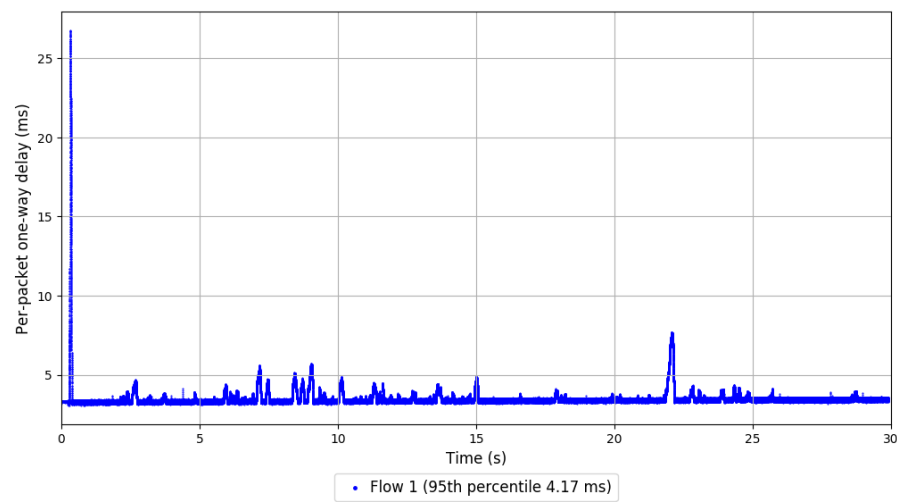
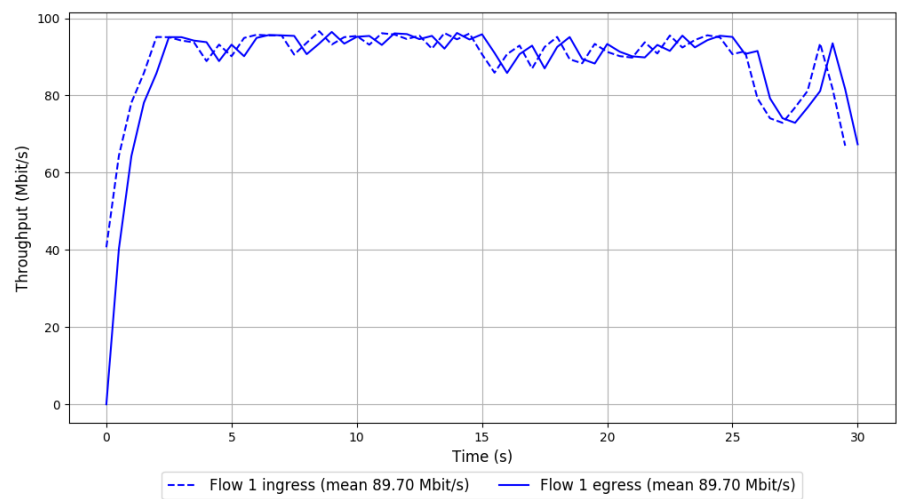
-- Flow 1:

Average throughput: 89.70 Mbit/s

95th percentile per-packet one-way delay: 4.169 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

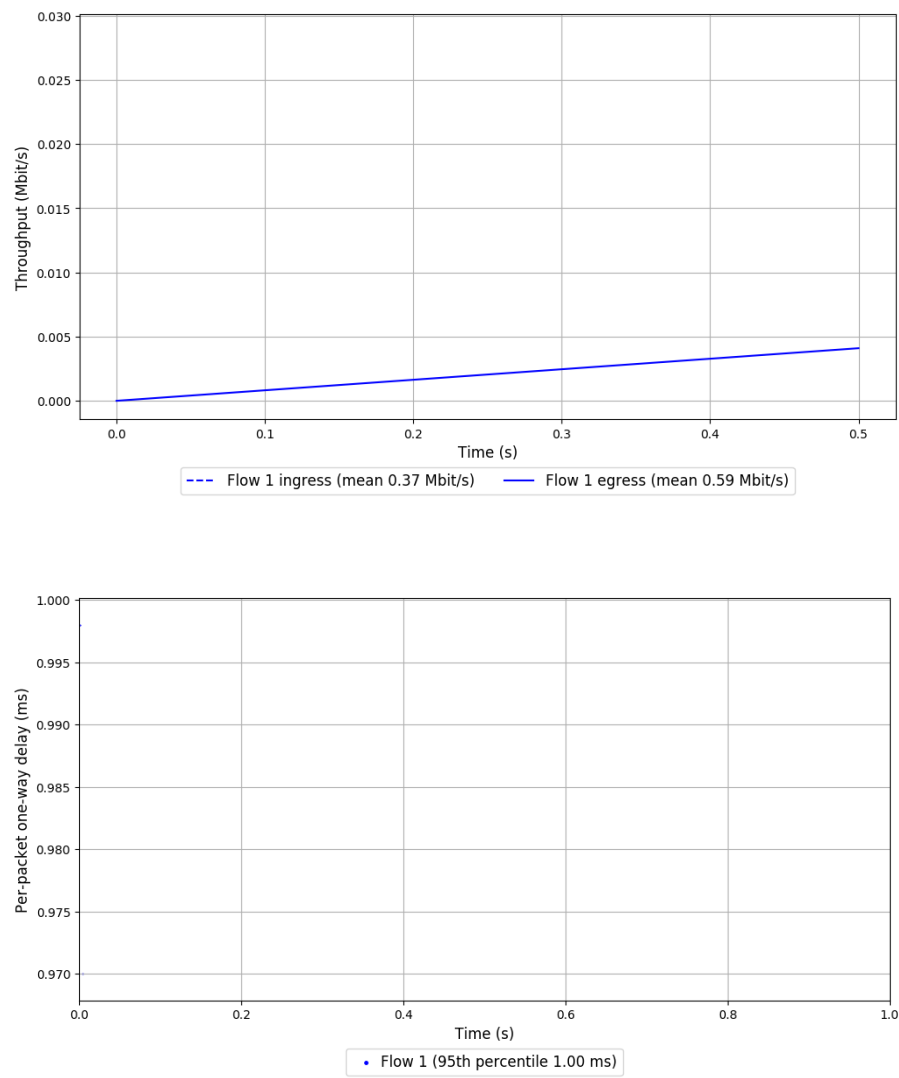
Start at: 2018-11-30 03:55:09

End at: 2018-11-30 03:55:39

Local clock offset: -0.117 ms

Remote clock offset: 0.424 ms

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

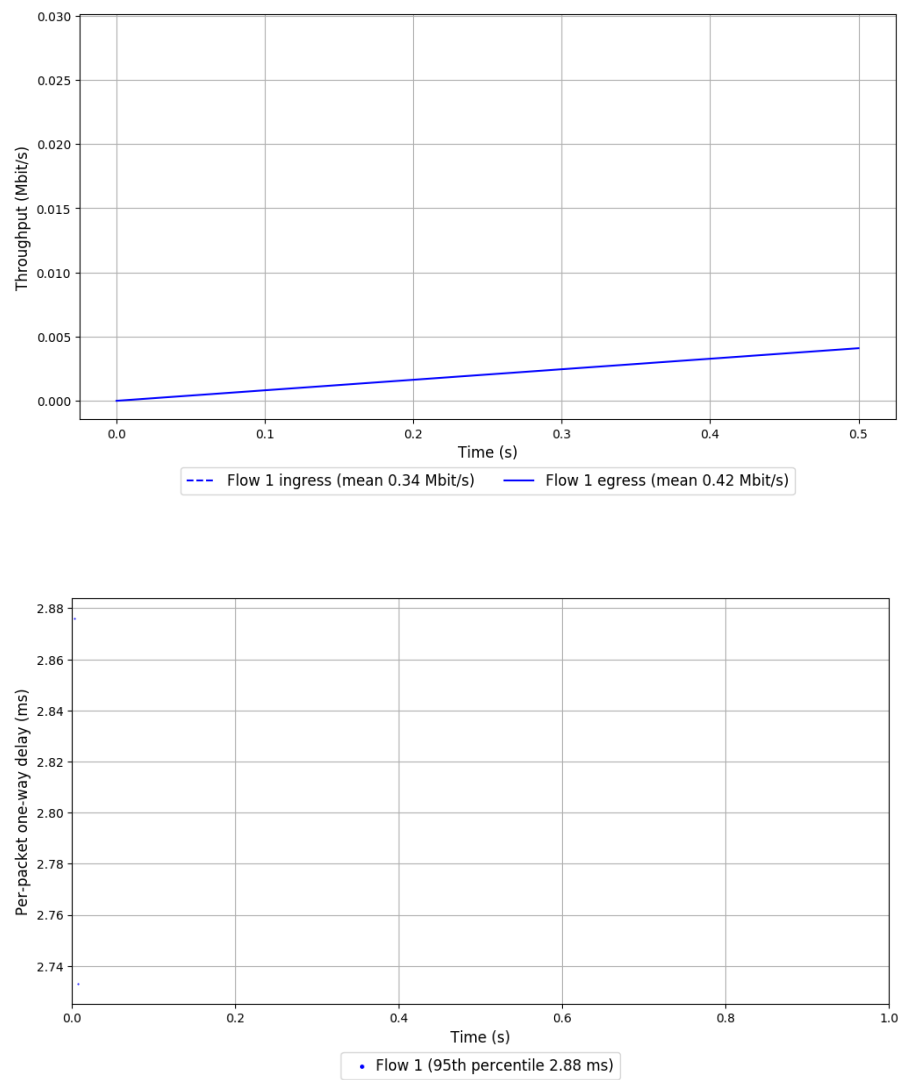
Start at: 2018-11-30 04:16:17

End at: 2018-11-30 04:16:47

Local clock offset: -1.24 ms

Remote clock offset: 0.435 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

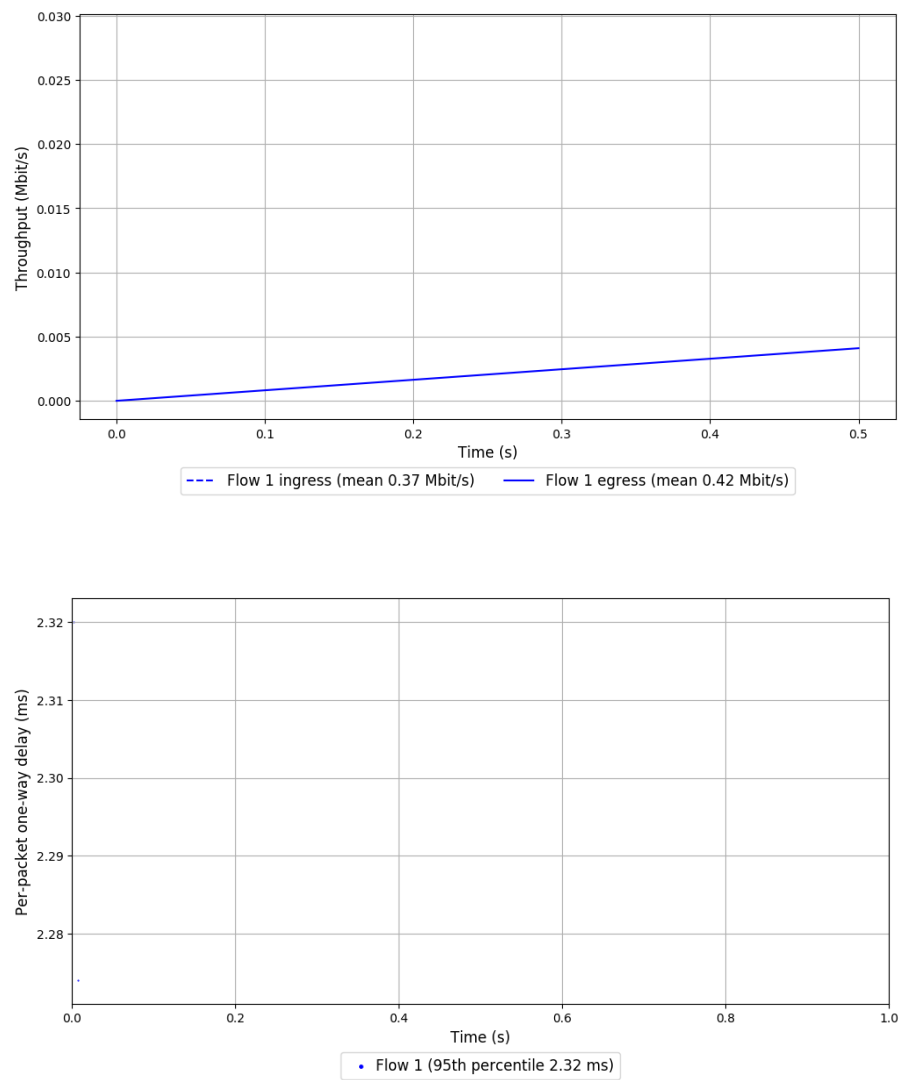
Start at: 2018-11-30 04:37:28

End at: 2018-11-30 04:37:58

Local clock offset: -8.082 ms

Remote clock offset: 0.393 ms

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

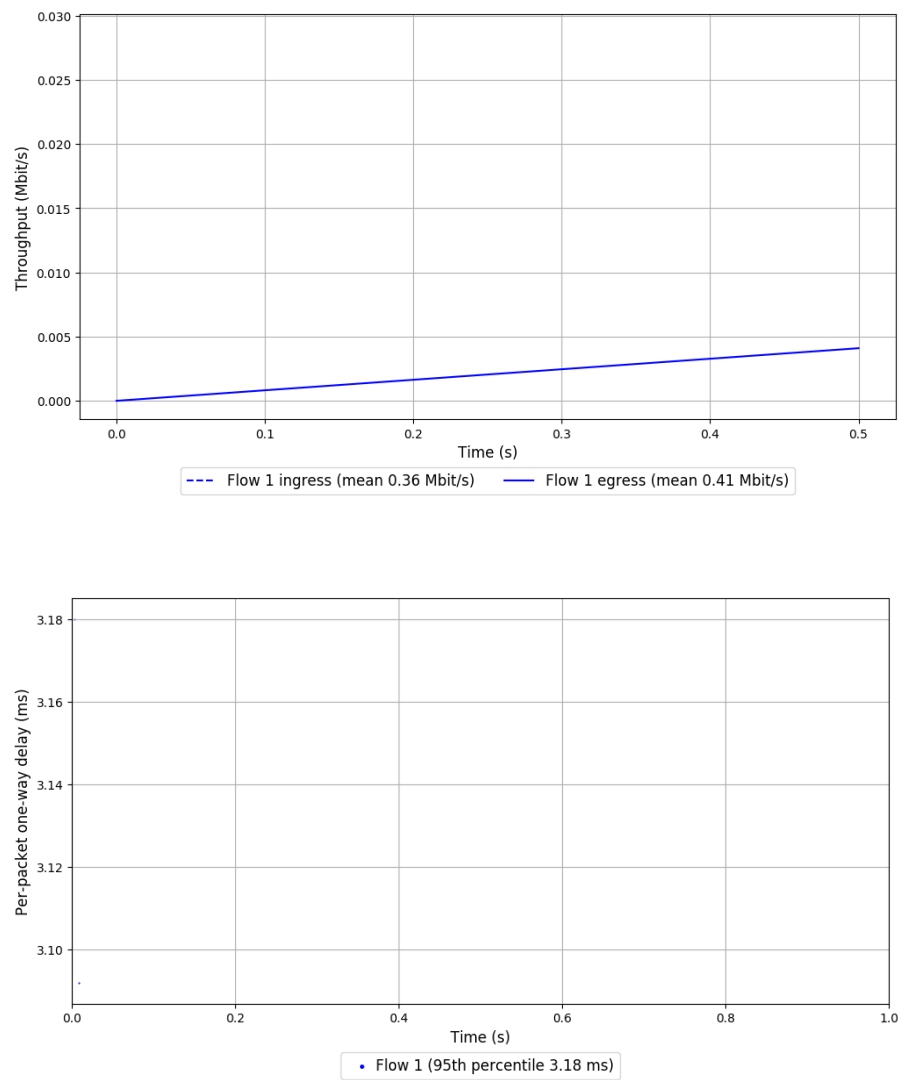
Start at: 2018-11-30 04:58:37

End at: 2018-11-30 04:59:07

Local clock offset: -11.295 ms

Remote clock offset: 0.323 ms

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

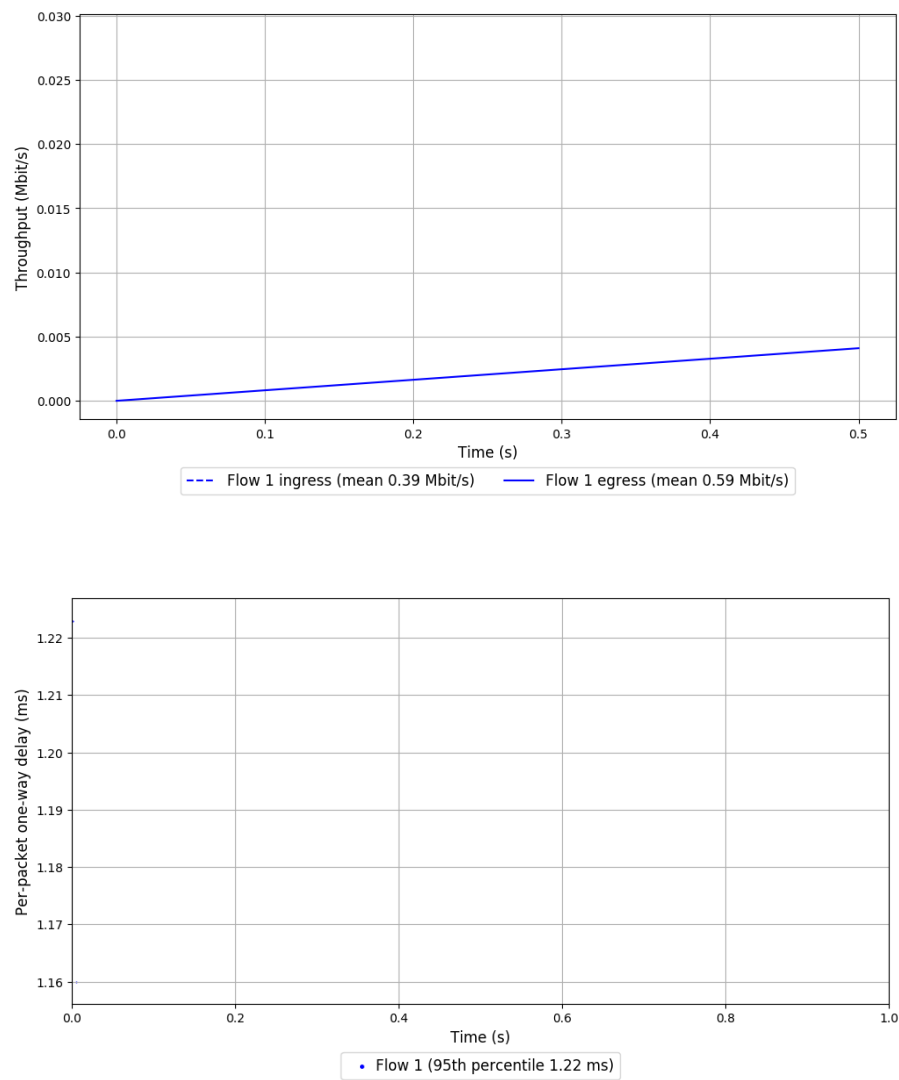
Start at: 2018-11-30 05:19:47

End at: 2018-11-30 05:20:17

Local clock offset: -7.303 ms

Remote clock offset: 0.321 ms

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 04:09:36

End at: 2018-11-30 04:10:06

Local clock offset: -0.131 ms

Remote clock offset: 0.494 ms

Below is generated by plot.py at 2018-11-30 05:49:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.68 Mbit/s

95th percentile per-packet one-way delay: 4.300 ms

Loss rate: 0.22%

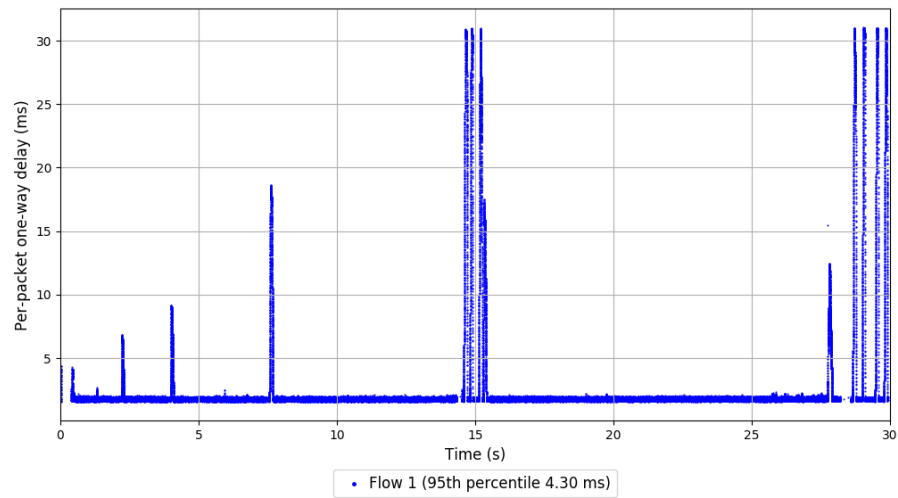
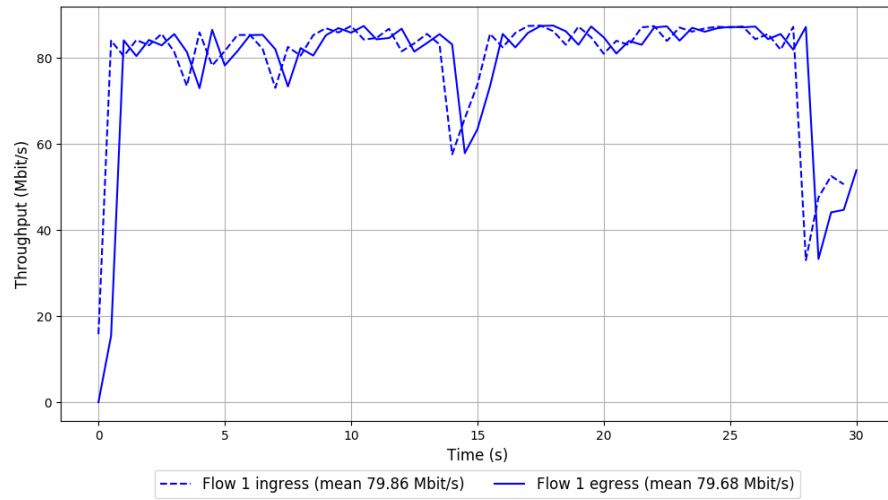
-- Flow 1:

Average throughput: 79.68 Mbit/s

95th percentile per-packet one-way delay: 4.300 ms

Loss rate: 0.22%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 04:30:45

End at: 2018-11-30 04:31:15

Local clock offset: -7.614 ms

Remote clock offset: 0.392 ms

Below is generated by plot.py at 2018-11-30 05:49:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.99 Mbit/s

95th percentile per-packet one-way delay: 3.175 ms

Loss rate: 0.22%

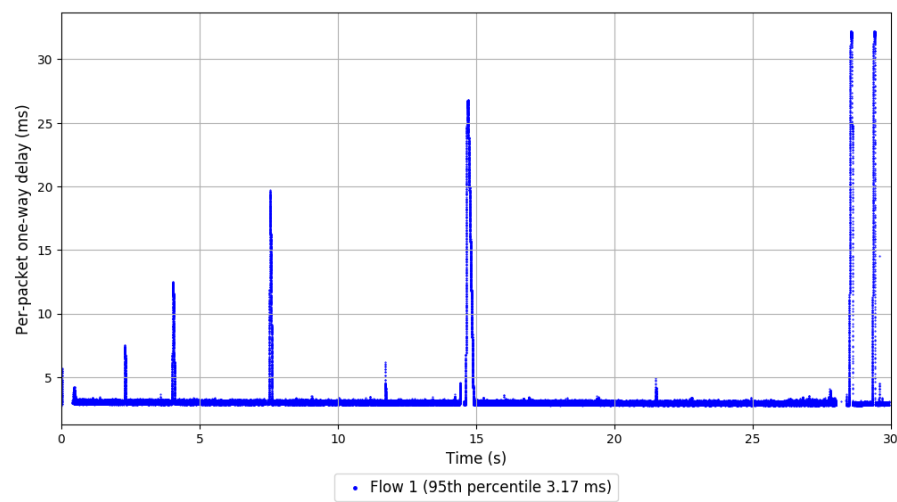
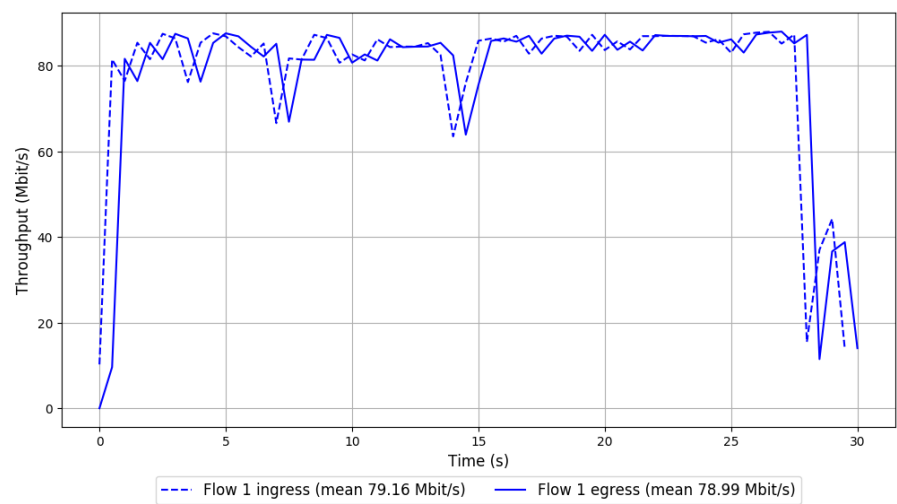
-- Flow 1:

Average throughput: 78.99 Mbit/s

95th percentile per-packet one-way delay: 3.175 ms

Loss rate: 0.22%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 04:51:56

End at: 2018-11-30 04:52:26

Local clock offset: -9.845 ms

Remote clock offset: 0.418 ms

Below is generated by plot.py at 2018-11-30 05:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.62 Mbit/s

95th percentile per-packet one-way delay: 1.423 ms

Loss rate: 0.02%

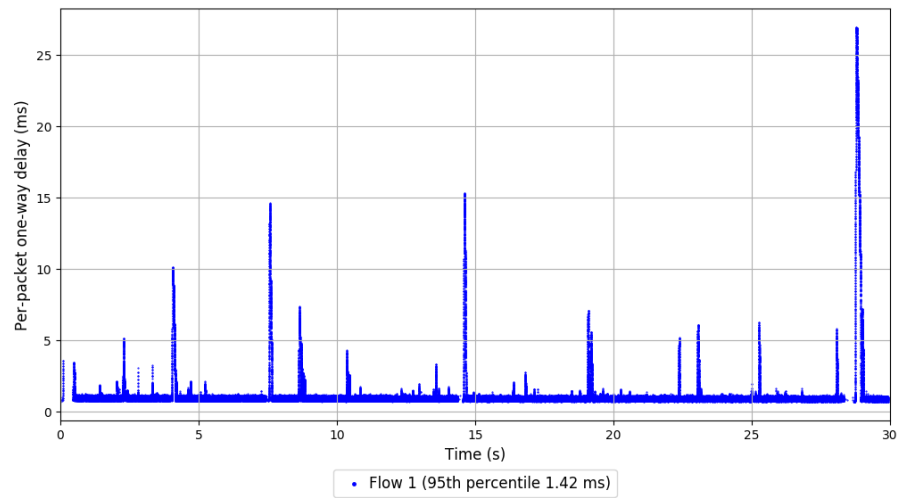
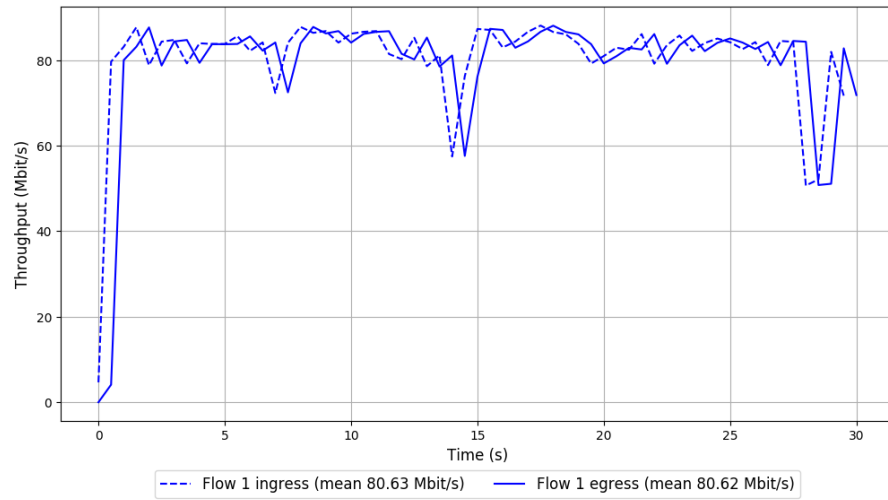
-- Flow 1:

Average throughput: 80.62 Mbit/s

95th percentile per-packet one-way delay: 1.423 ms

Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link

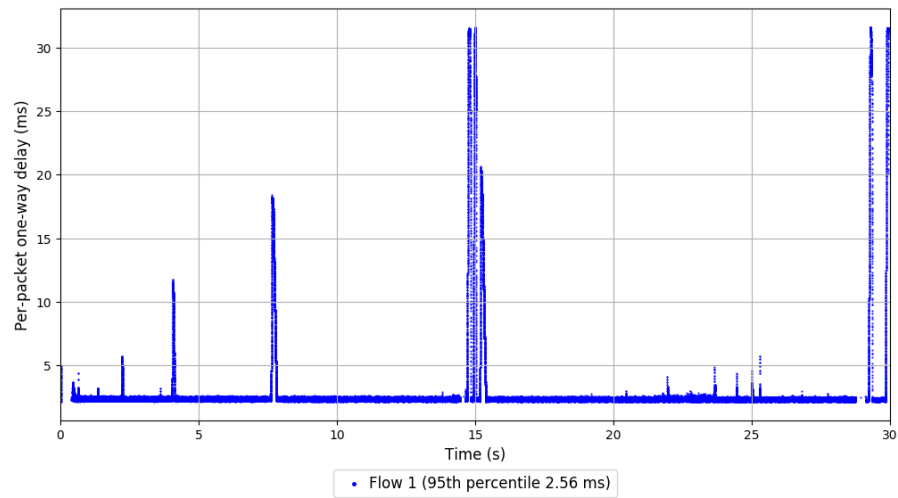
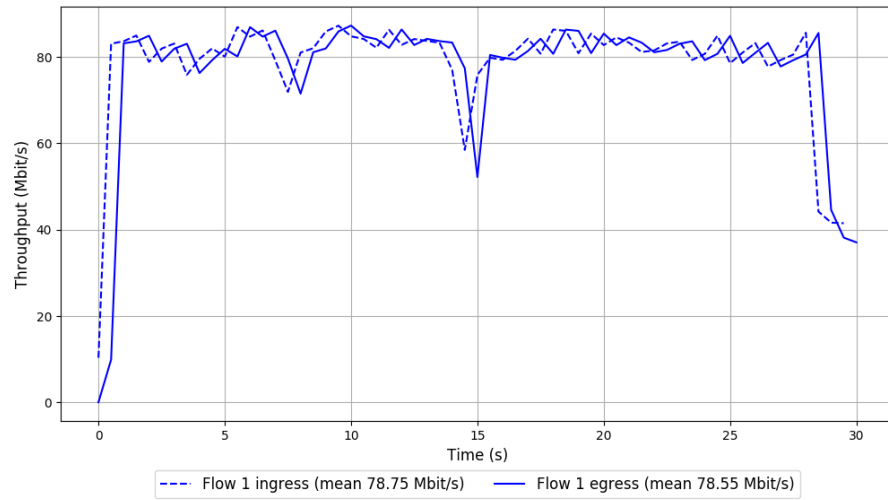


Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 05:13:05
End at: 2018-11-30 05:13:35
Local clock offset: -11.948 ms
Remote clock offset: 0.27 ms

Below is generated by plot.py at 2018-11-30 05:49:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 78.55 Mbit/s
95th percentile per-packet one-way delay: 2.561 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 78.55 Mbit/s
95th percentile per-packet one-way delay: 2.561 ms
Loss rate: 0.20%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 05:34:16

End at: 2018-11-30 05:34:46

Local clock offset: -1.9 ms

Remote clock offset: 0.145 ms

Below is generated by plot.py at 2018-11-30 05:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.46 Mbit/s

95th percentile per-packet one-way delay: 4.474 ms

Loss rate: 0.39%

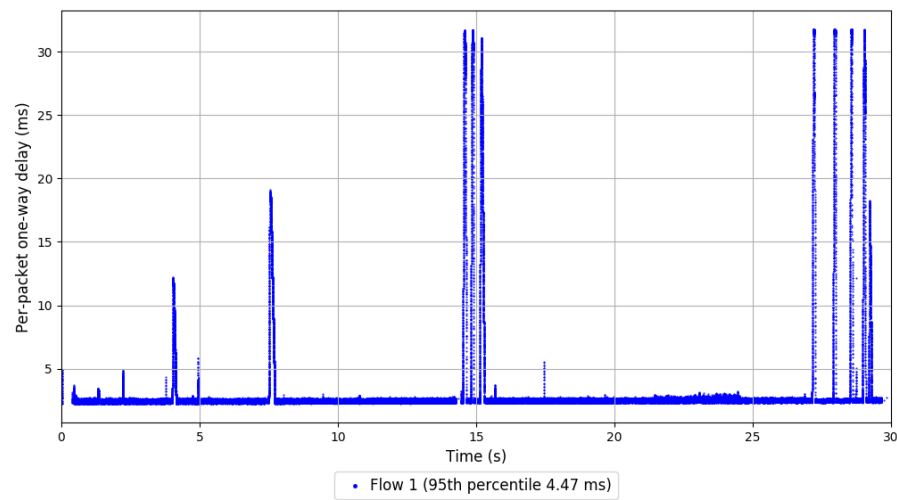
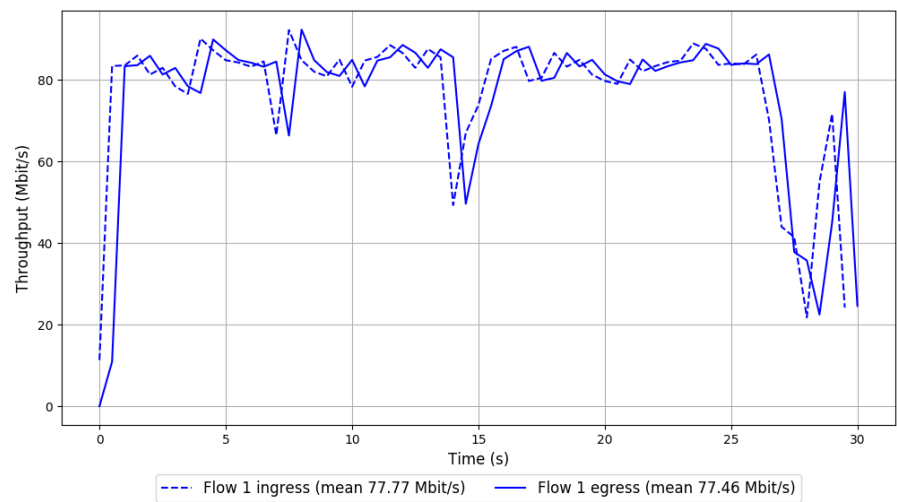
-- Flow 1:

Average throughput: 77.46 Mbit/s

95th percentile per-packet one-way delay: 4.474 ms

Loss rate: 0.39%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-11-30 04:11:51

End at: 2018-11-30 04:12:21

Local clock offset: -0.112 ms

Remote clock offset: 0.446 ms

Below is generated by plot.py at 2018-11-30 05:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.248 ms

Loss rate: 0.00%

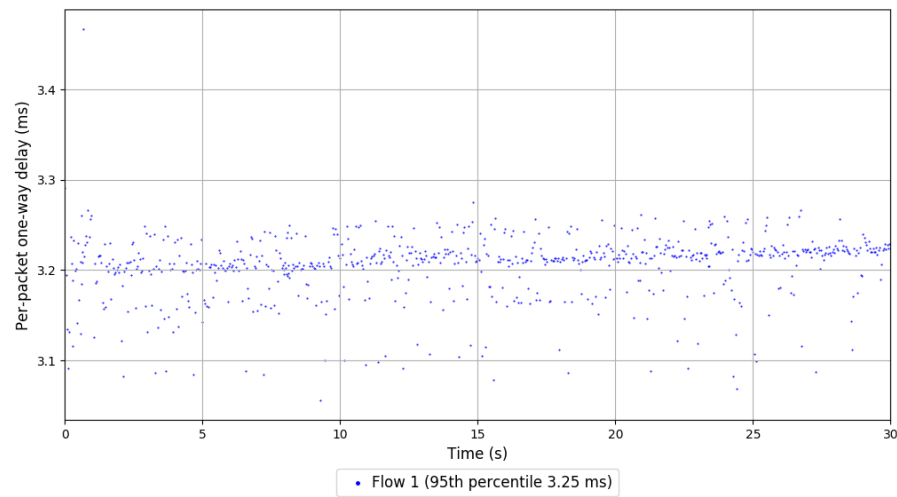
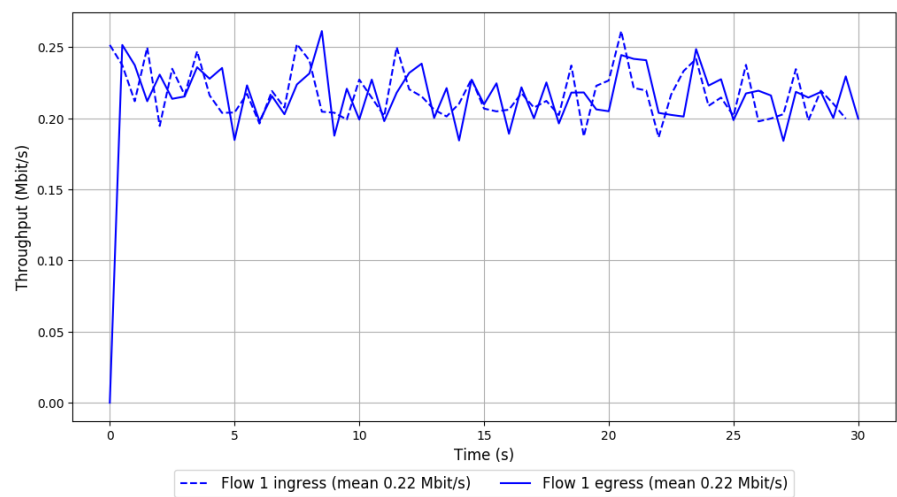
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.248 ms

Loss rate: 0.00%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-11-30 04:33:01

End at: 2018-11-30 04:33:31

Local clock offset: -8.099 ms

Remote clock offset: 0.389 ms

Below is generated by plot.py at 2018-11-30 05:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.603 ms

Loss rate: 0.00%

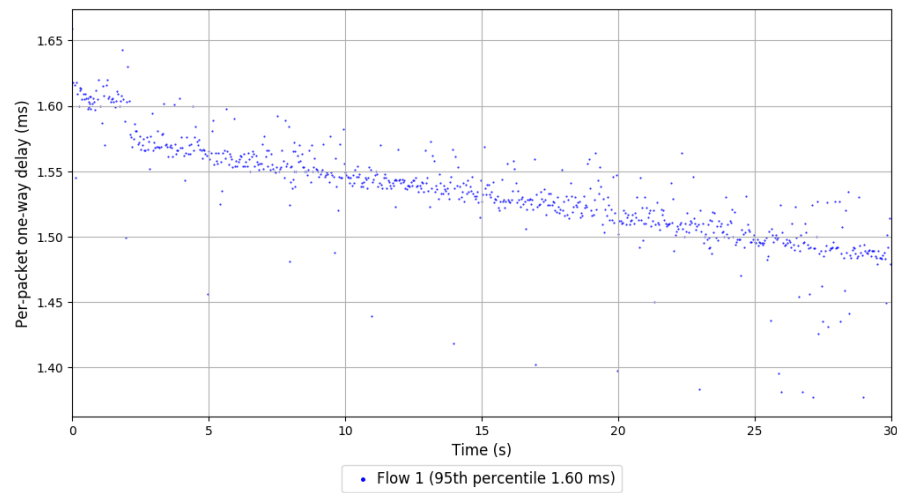
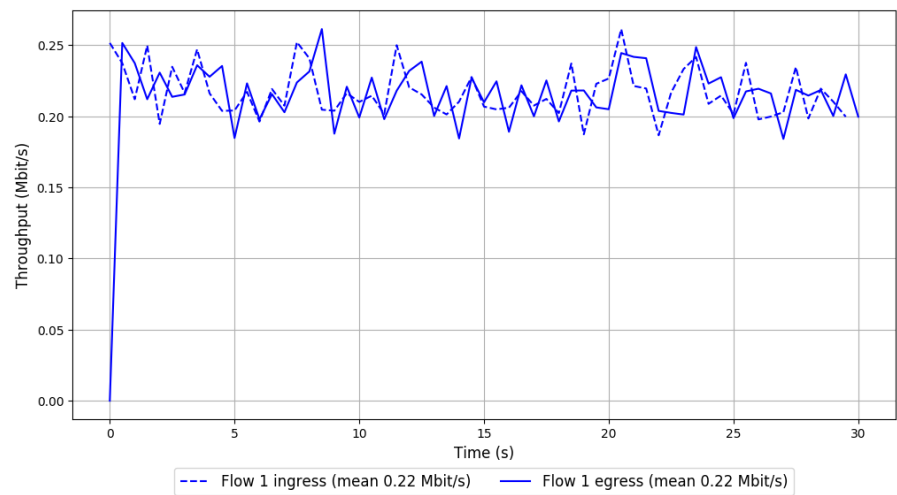
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.603 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

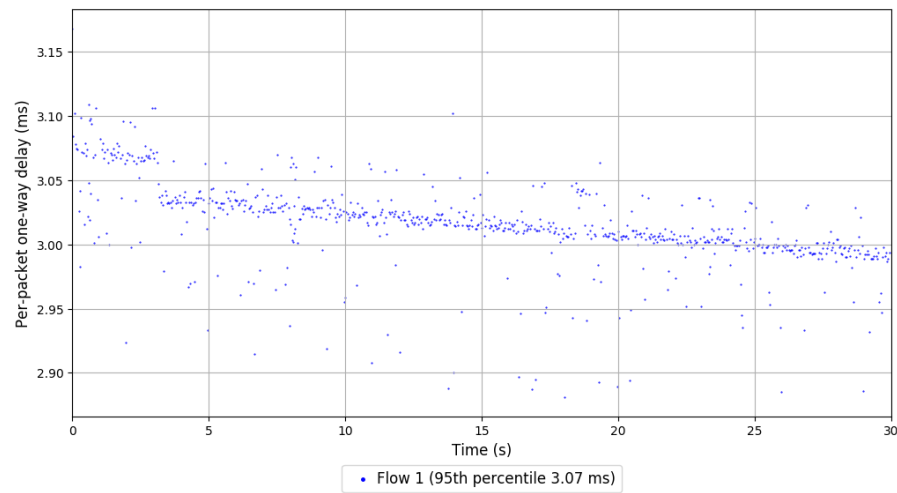
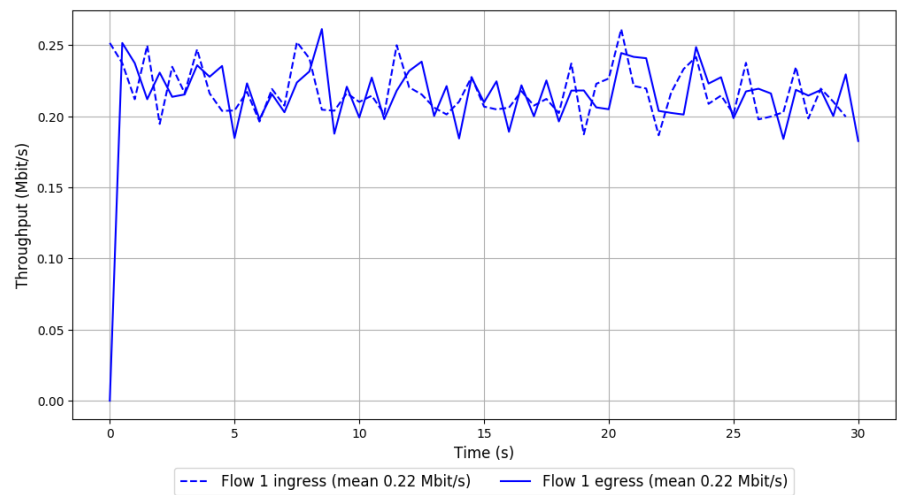


Run 3: Statistics of SCReAM

Start at: 2018-11-30 04:54:10
End at: 2018-11-30 04:54:40
Local clock offset: -10.811 ms
Remote clock offset: 0.362 ms

Below is generated by plot.py at 2018-11-30 05:49:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.070 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 3.070 ms
Loss rate: 0.13%

Run 3: Report of SReAM — Data Link

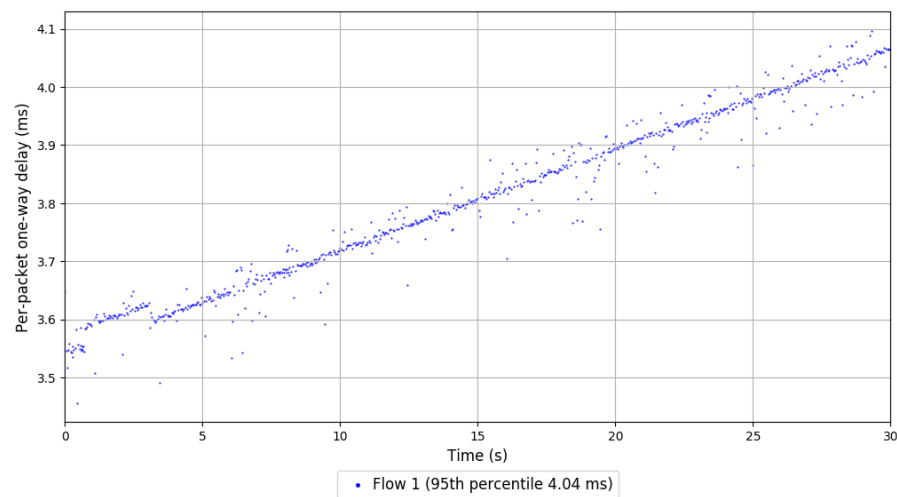
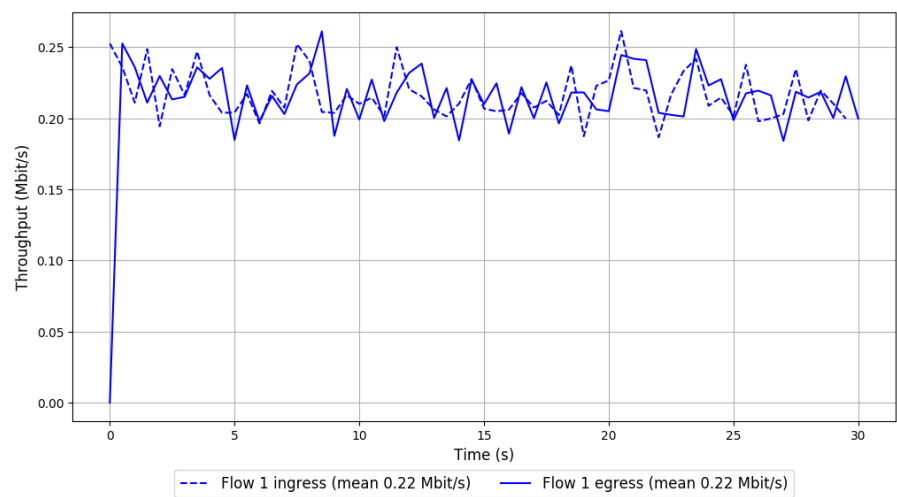


Run 4: Statistics of SCReAM

Start at: 2018-11-30 05:15:20
End at: 2018-11-30 05:15:50
Local clock offset: -12.098 ms
Remote clock offset: 0.295 ms

Below is generated by plot.py at 2018-11-30 05:49:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.039 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 4.039 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-11-30 05:36:32

End at: 2018-11-30 05:37:02

Local clock offset: -2.203 ms

Remote clock offset: 0.249 ms

Below is generated by plot.py at 2018-11-30 05:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.852 ms

Loss rate: 0.00%

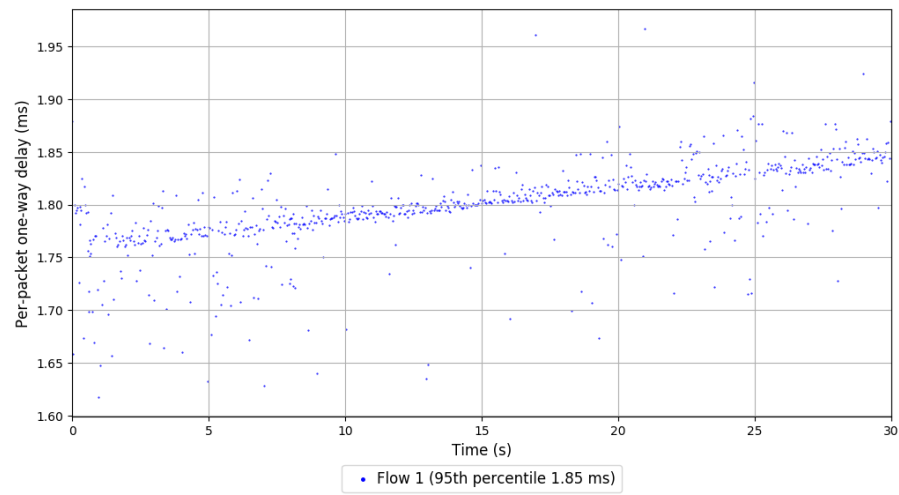
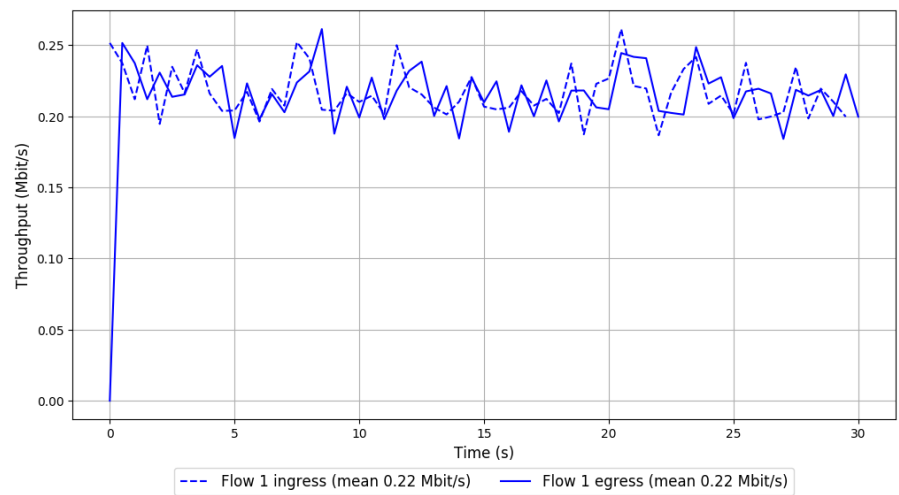
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.852 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-11-30 04:15:12

End at: 2018-11-30 04:15:42

Local clock offset: -0.232 ms

Remote clock offset: 0.442 ms

Below is generated by plot.py at 2018-11-30 05:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 11.785 ms

Loss rate: 0.00%

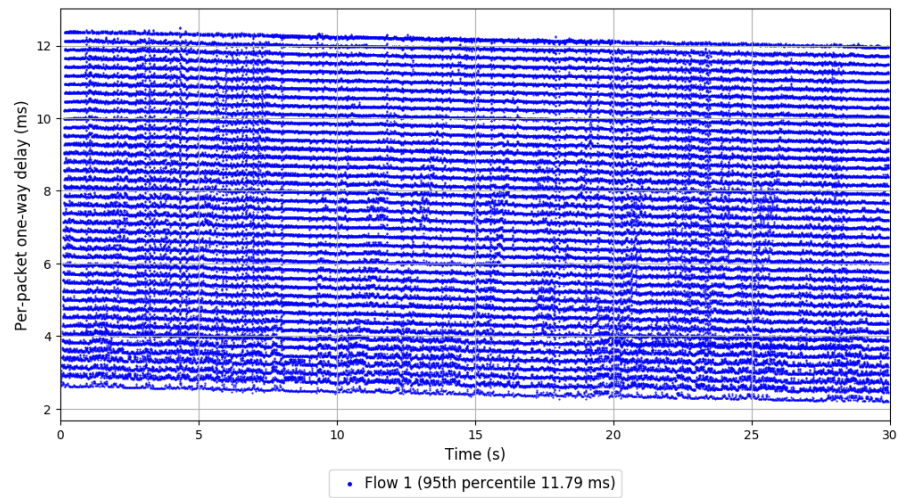
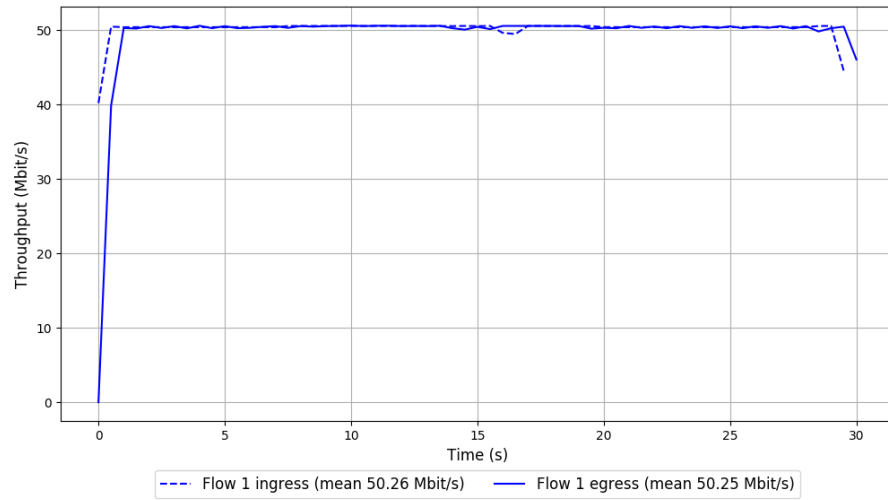
-- Flow 1:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 11.785 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

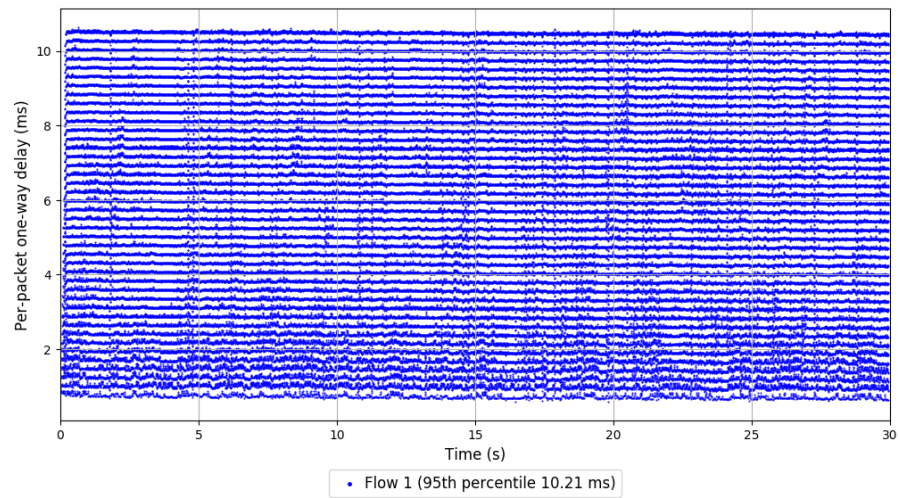
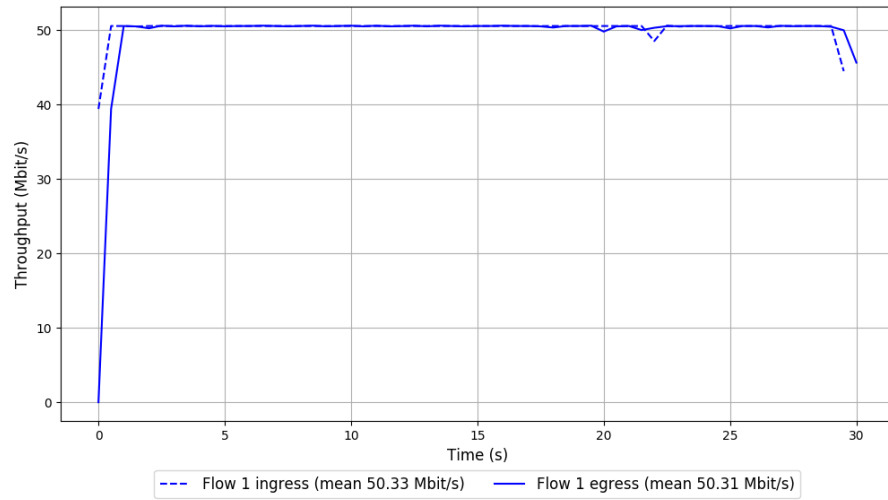


Run 2: Statistics of Sprout

Start at: 2018-11-30 04:36:22
End at: 2018-11-30 04:36:52
Local clock offset: -7.903 ms
Remote clock offset: 0.383 ms

Below is generated by plot.py at 2018-11-30 05:49:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.31 Mbit/s
95th percentile per-packet one-way delay: 10.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.31 Mbit/s
95th percentile per-packet one-way delay: 10.214 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-11-30 04:57:31

End at: 2018-11-30 04:58:01

Local clock offset: -11.25 ms

Remote clock offset: 0.292 ms

Below is generated by plot.py at 2018-11-30 05:49:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 11.060 ms

Loss rate: 0.01%

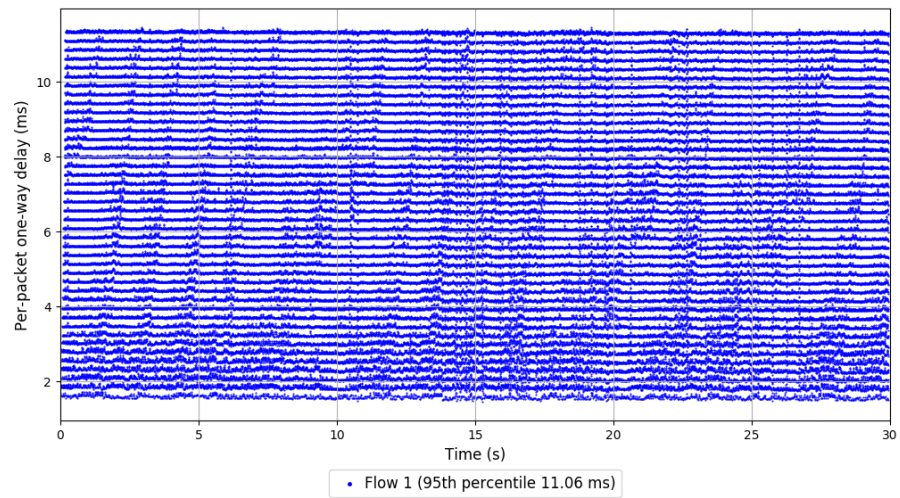
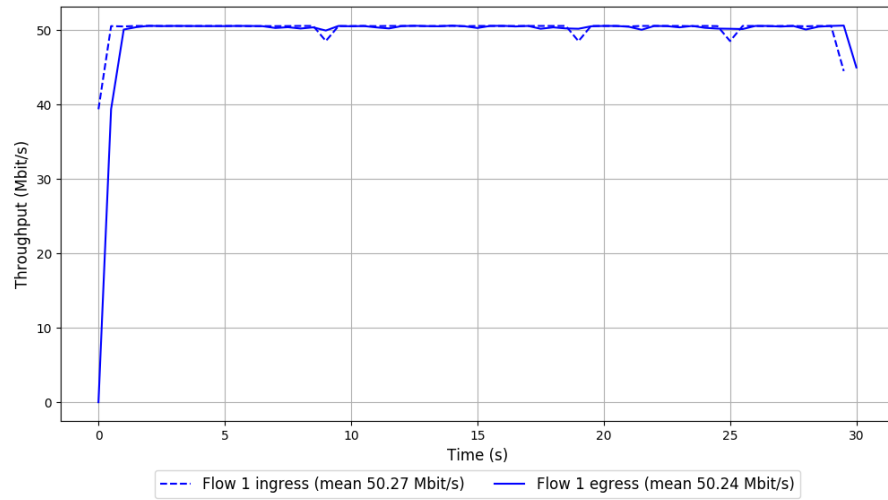
-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 11.060 ms

Loss rate: 0.01%

Run 3: Report of Sprout — Data Link

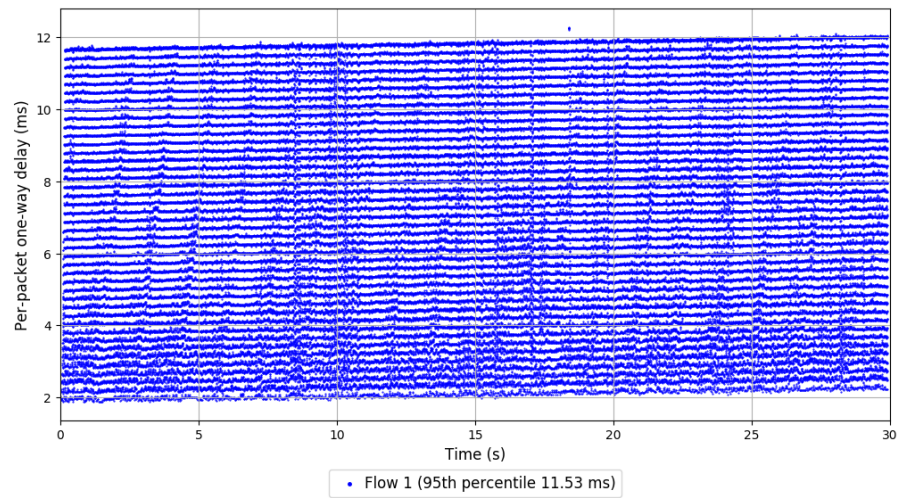
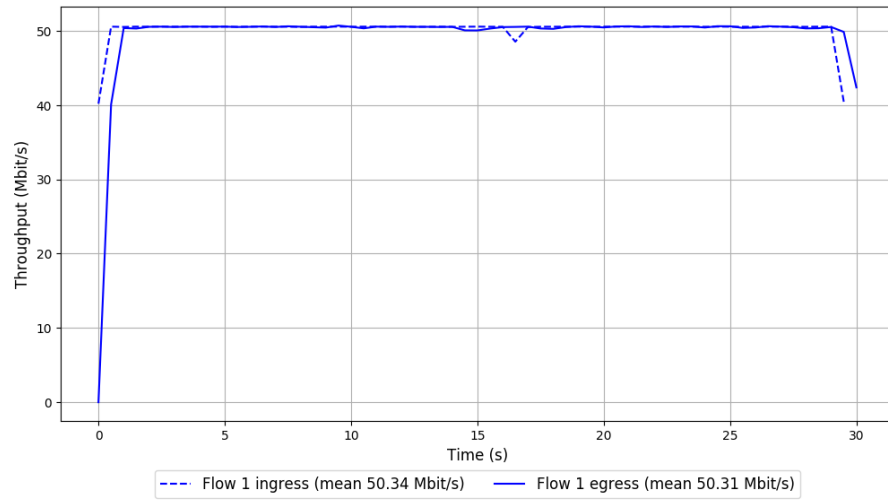


Run 4: Statistics of Sprout

Start at: 2018-11-30 05:18:42
End at: 2018-11-30 05:19:12
Local clock offset: -8.889 ms
Remote clock offset: 0.324 ms

Below is generated by plot.py at 2018-11-30 05:49:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.31 Mbit/s
95th percentile per-packet one-way delay: 11.527 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.31 Mbit/s
95th percentile per-packet one-way delay: 11.527 ms
Loss rate: 0.01%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-11-30 05:39:53

End at: 2018-11-30 05:40:23

Local clock offset: -0.891 ms

Remote clock offset: 0.28 ms

Below is generated by plot.py at 2018-11-30 05:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.28 Mbit/s

95th percentile per-packet one-way delay: 11.946 ms

Loss rate: 0.00%

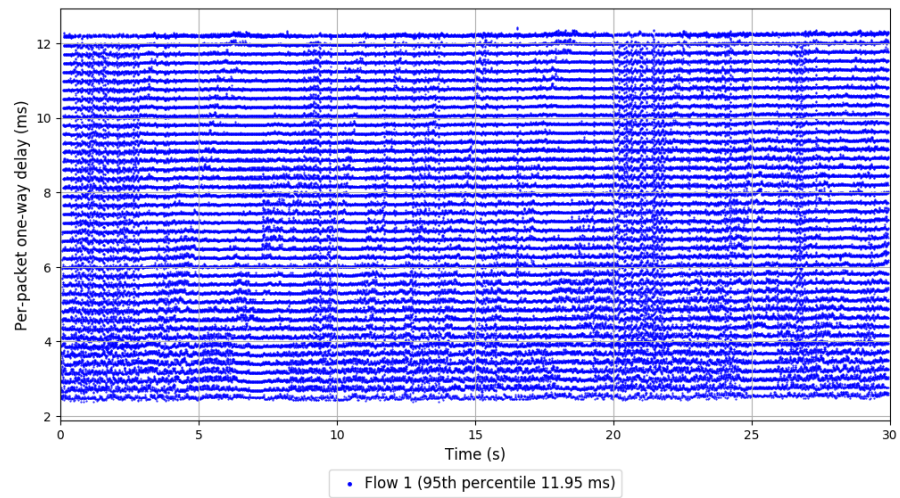
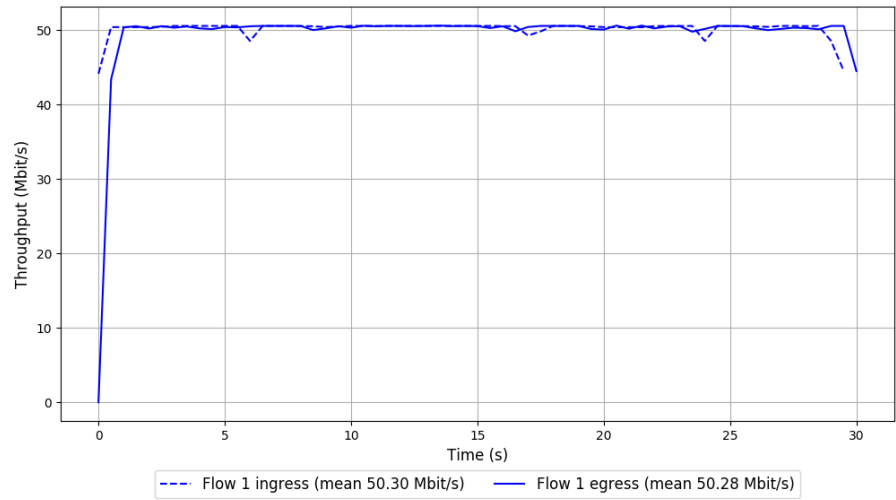
-- Flow 1:

Average throughput: 50.28 Mbit/s

95th percentile per-packet one-way delay: 11.946 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 04:07:27

End at: 2018-11-30 04:07:57

Local clock offset: 0.536 ms

Remote clock offset: 0.446 ms

Below is generated by plot.py at 2018-11-30 05:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 2.412 ms

Loss rate: 72.94%

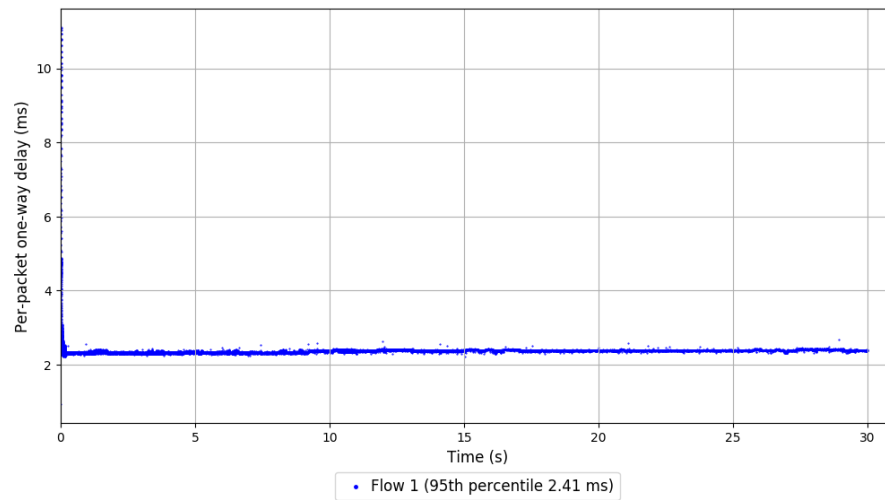
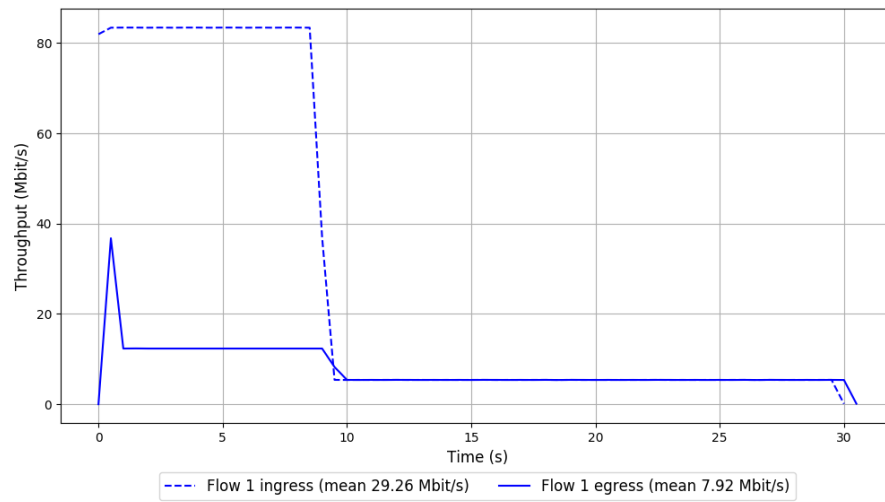
-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 2.412 ms

Loss rate: 72.94%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 04:28:36

End at: 2018-11-30 04:29:06

Local clock offset: -7.107 ms

Remote clock offset: 0.401 ms

Below is generated by plot.py at 2018-11-30 05:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 3.032 ms

Loss rate: 72.95%

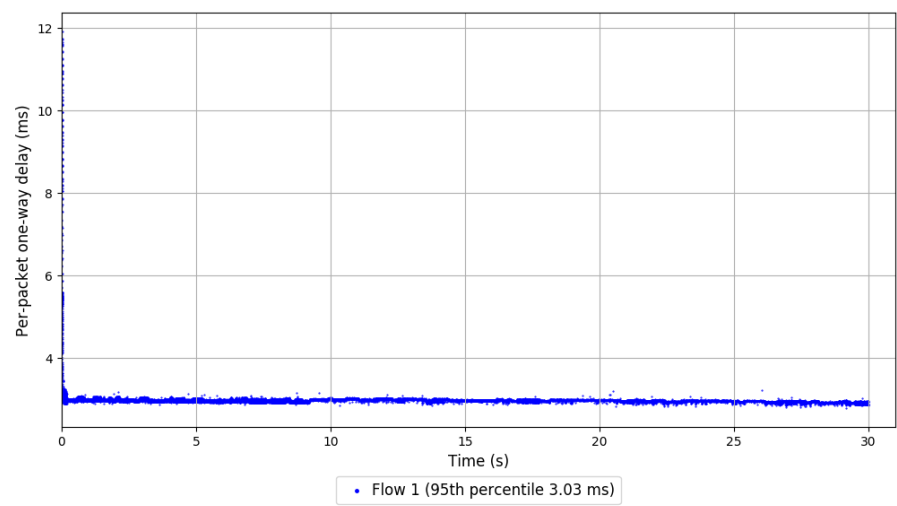
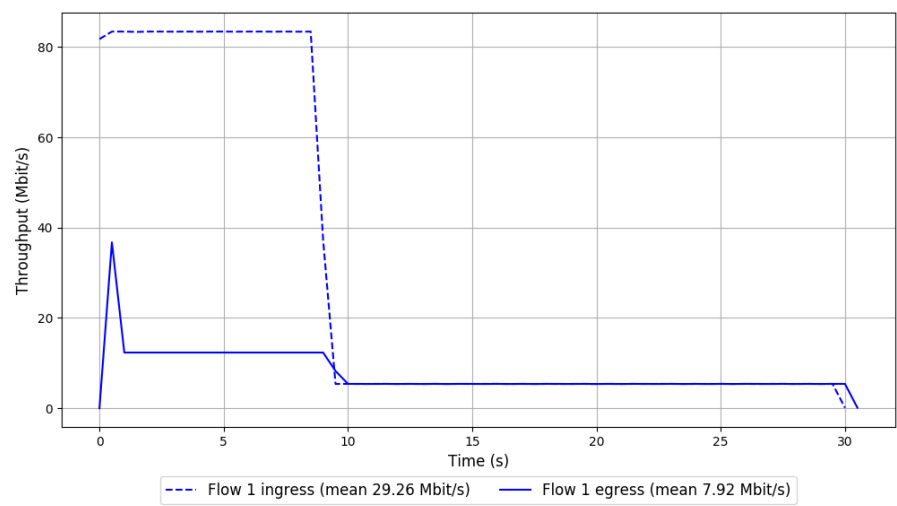
-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 3.032 ms

Loss rate: 72.95%

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

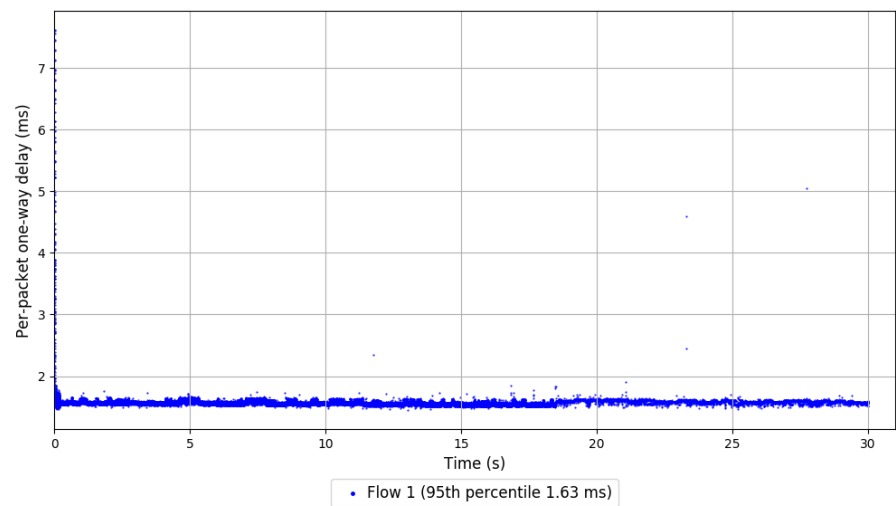
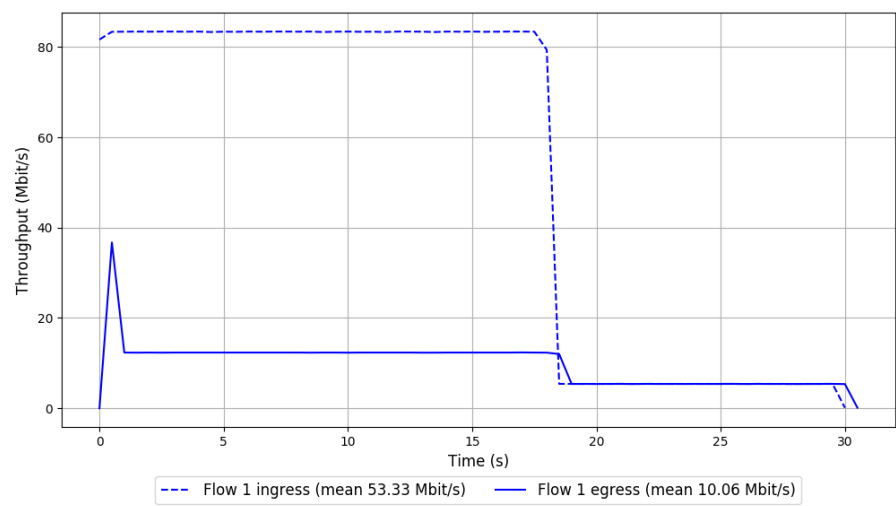


Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 04:49:46
End at: 2018-11-30 04:50:16
Local clock offset: -10.461 ms
Remote clock offset: 0.309 ms

Below is generated by plot.py at 2018-11-30 05:49:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 81.14%
-- Flow 1:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 1.634 ms
Loss rate: 81.14%

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

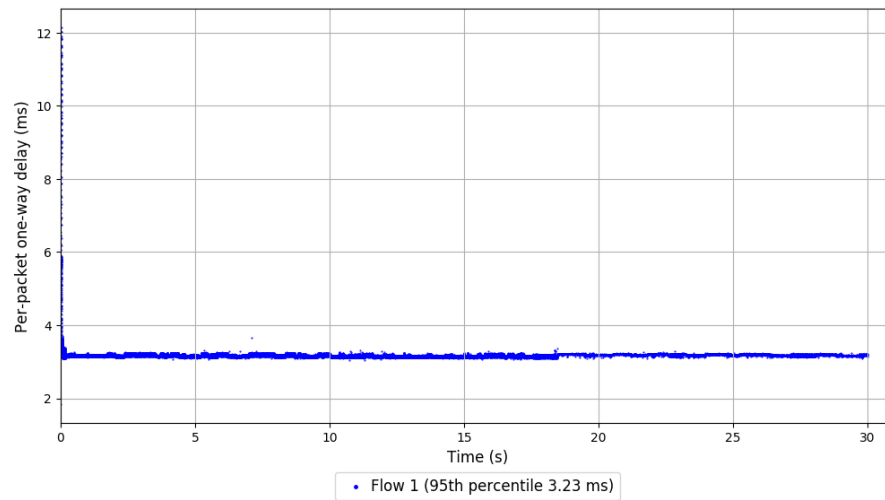
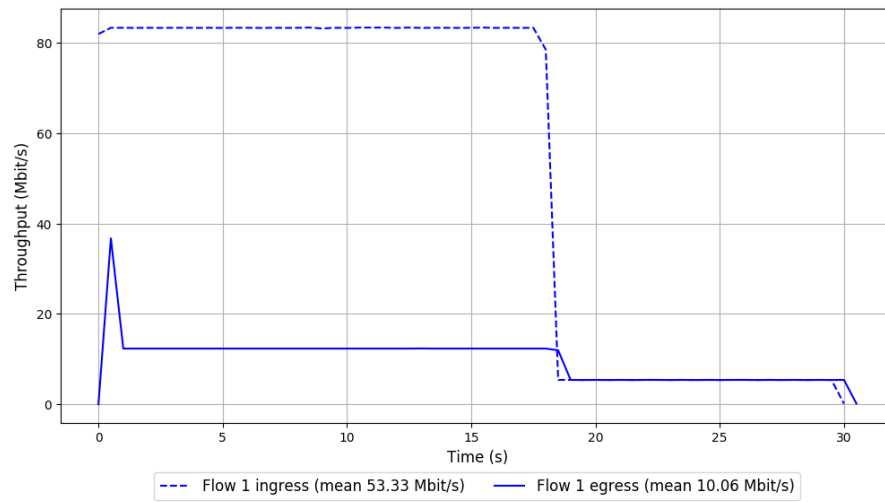


Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 05:10:55
End at: 2018-11-30 05:11:25
Local clock offset: -12.535 ms
Remote clock offset: 0.364 ms

Below is generated by plot.py at 2018-11-30 05:49:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 3.234 ms
Loss rate: 81.14%
-- Flow 1:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 3.234 ms
Loss rate: 81.14%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 05:32:06

End at: 2018-11-30 05:32:36

Local clock offset: -3.056 ms

Remote clock offset: 0.298 ms

Below is generated by plot.py at 2018-11-30 05:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 3.371 ms

Loss rate: 81.14%

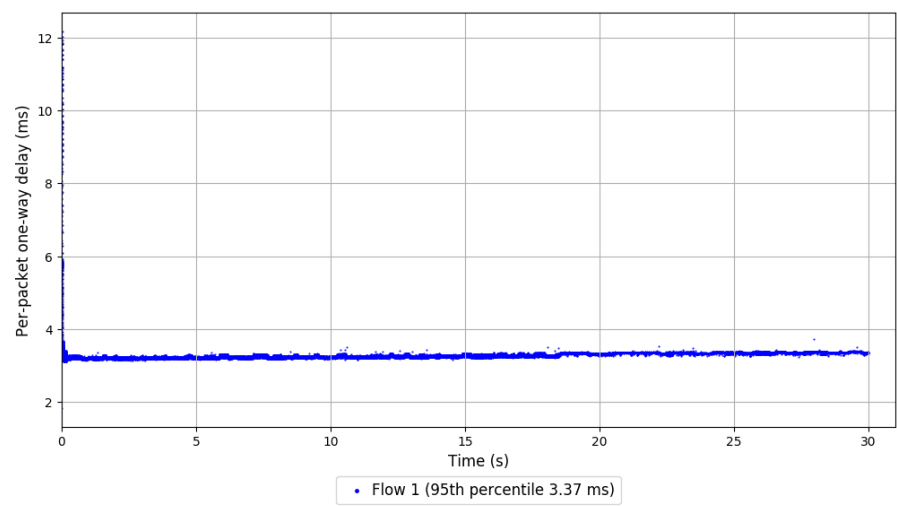
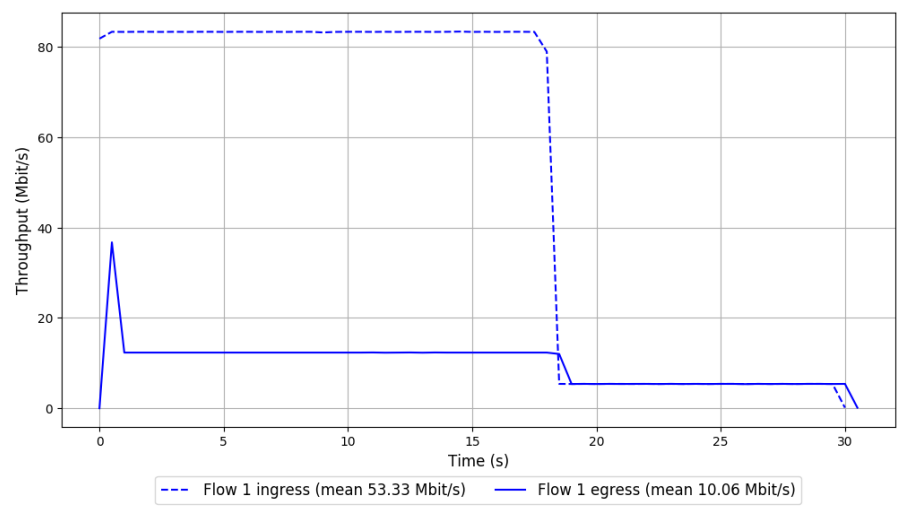
-- Flow 1:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 3.371 ms

Loss rate: 81.14%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 03:56:13

End at: 2018-11-30 03:56:43

Local clock offset: -0.76 ms

Remote clock offset: 0.419 ms

Below is generated by plot.py at 2018-11-30 05:50:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.16 Mbit/s

95th percentile per-packet one-way delay: 4.512 ms

Loss rate: 0.01%

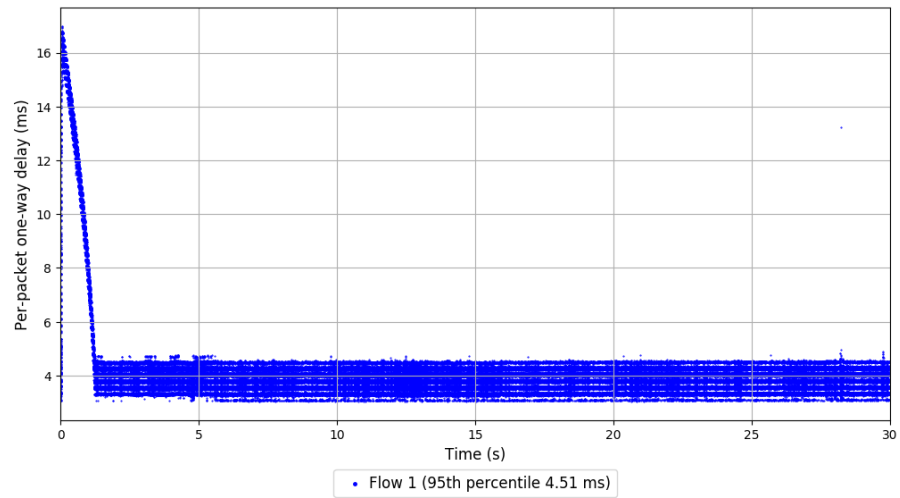
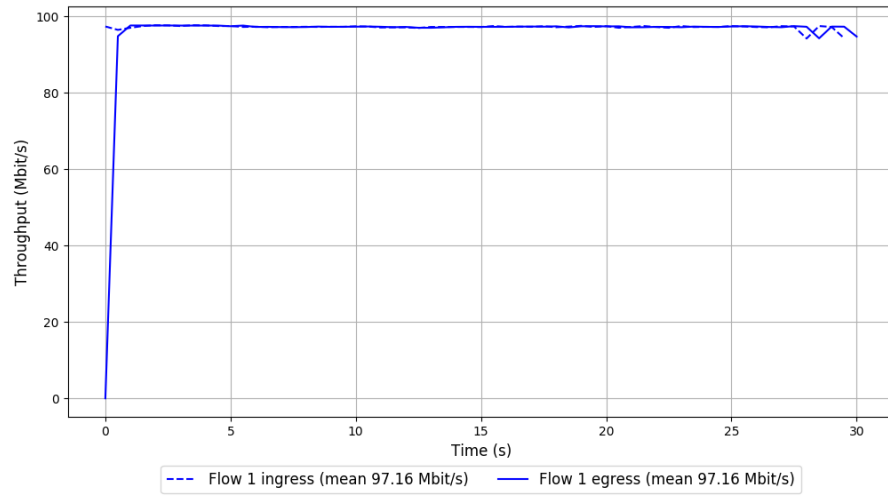
-- Flow 1:

Average throughput: 97.16 Mbit/s

95th percentile per-packet one-way delay: 4.512 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 04:17:22

End at: 2018-11-30 04:17:52

Local clock offset: -2.009 ms

Remote clock offset: 0.448 ms

Below is generated by plot.py at 2018-11-30 05:50:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 4.059 ms

Loss rate: 0.00%

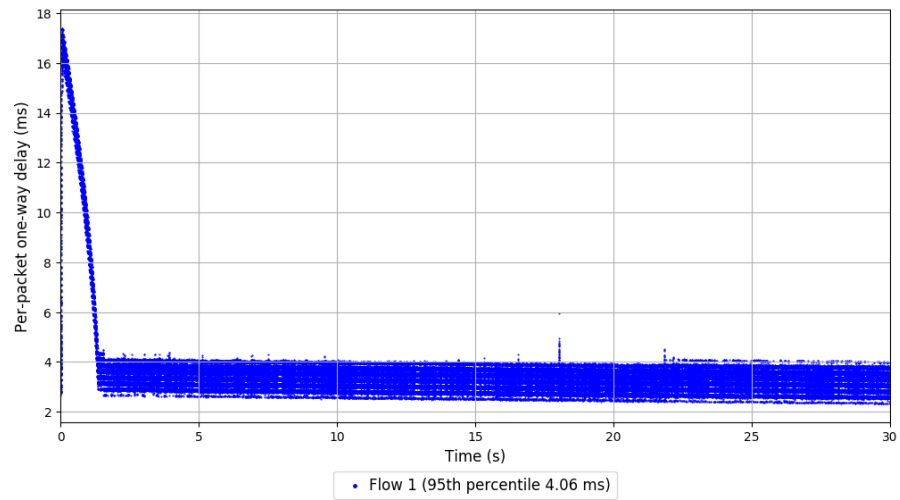
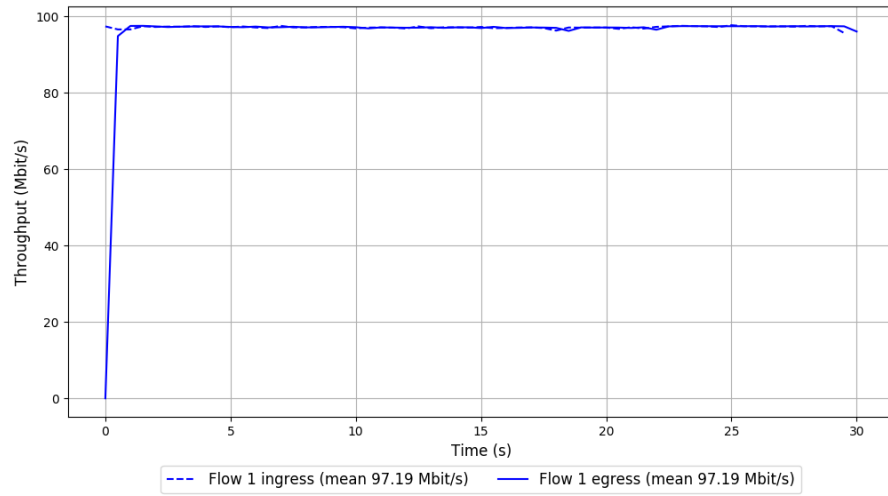
-- Flow 1:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 4.059 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 04:38:32

End at: 2018-11-30 04:39:02

Local clock offset: -9.019 ms

Remote clock offset: 0.376 ms

Below is generated by plot.py at 2018-11-30 05:50:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.02 Mbit/s

95th percentile per-packet one-way delay: 4.341 ms

Loss rate: 0.00%

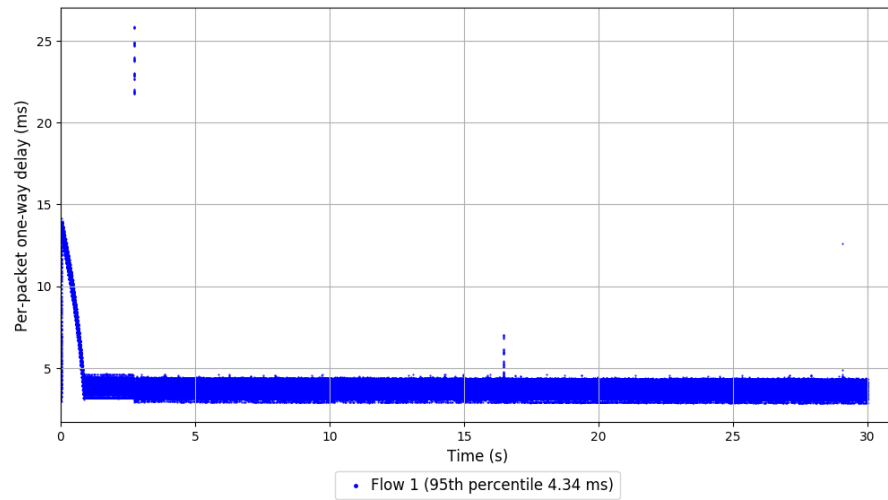
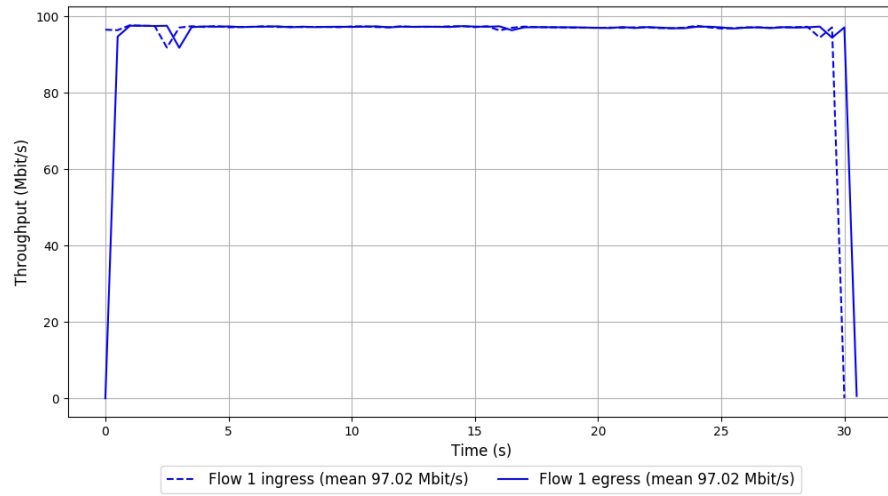
-- Flow 1:

Average throughput: 97.02 Mbit/s

95th percentile per-packet one-way delay: 4.341 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 04:59:41

End at: 2018-11-30 05:00:11

Local clock offset: -10.6 ms

Remote clock offset: 0.327 ms

Below is generated by plot.py at 2018-11-30 05:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.82 Mbit/s

95th percentile per-packet one-way delay: 2.084 ms

Loss rate: 0.00%

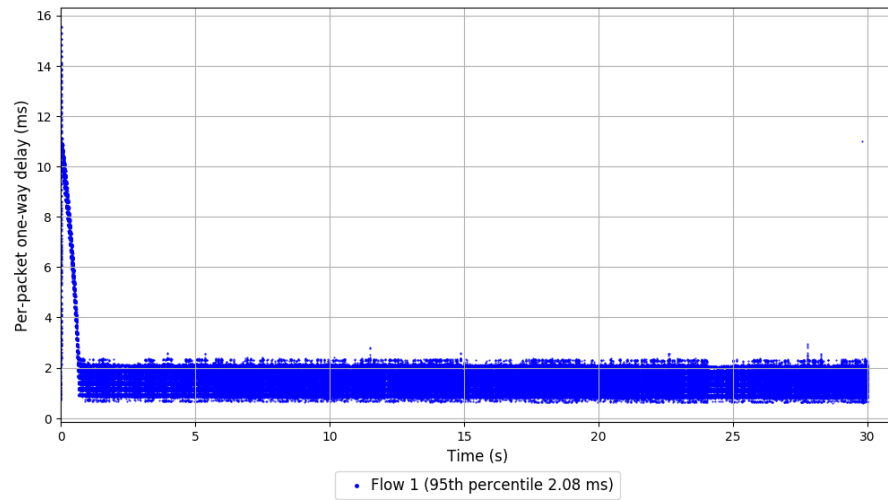
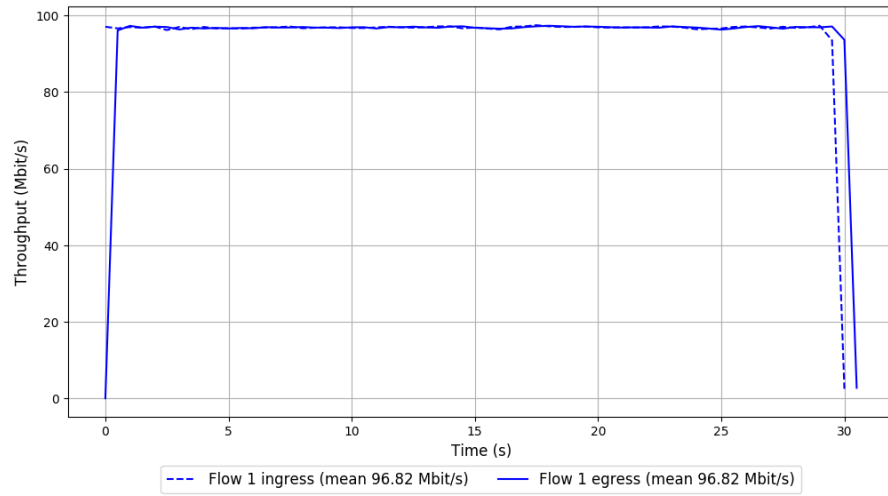
-- Flow 1:

Average throughput: 96.82 Mbit/s

95th percentile per-packet one-way delay: 2.084 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 05:20:51

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

Local clock offset: -7.47 ms

Remote clock offset: 0.19 ms

Below is generated by plot.py at 2018-11-30 05:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 3.337 ms

Loss rate: 0.00%

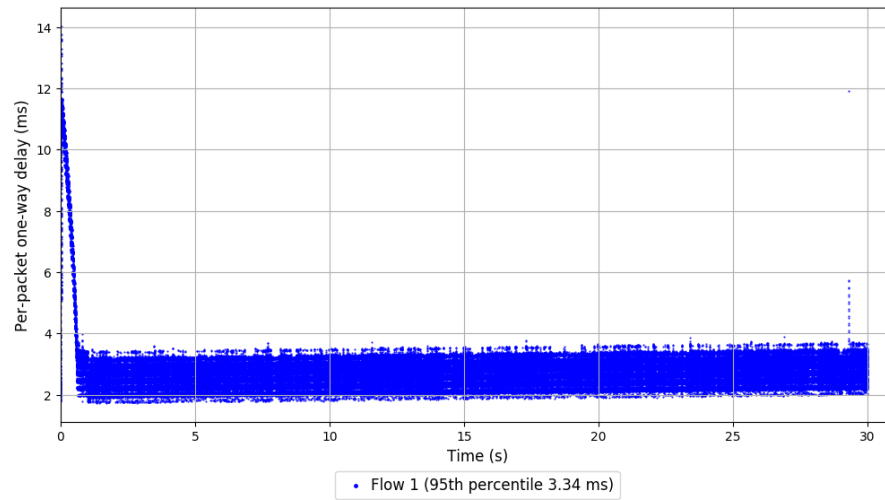
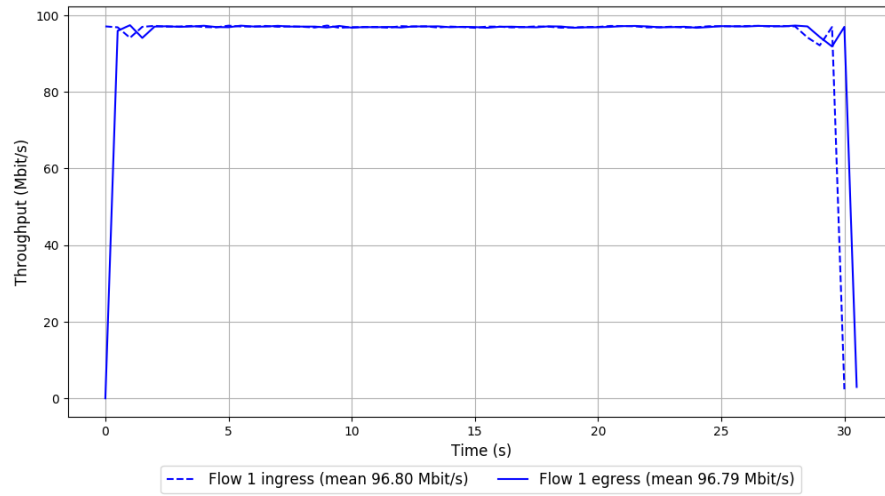
-- Flow 1:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 3.337 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-11-30 04:10:44

End at: 2018-11-30 04:11:14

Local clock offset: -0.083 ms

Remote clock offset: 0.388 ms

Below is generated by plot.py at 2018-11-30 05:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 47.93 Mbit/s

95th percentile per-packet one-way delay: 9.035 ms

Loss rate: 1.39%

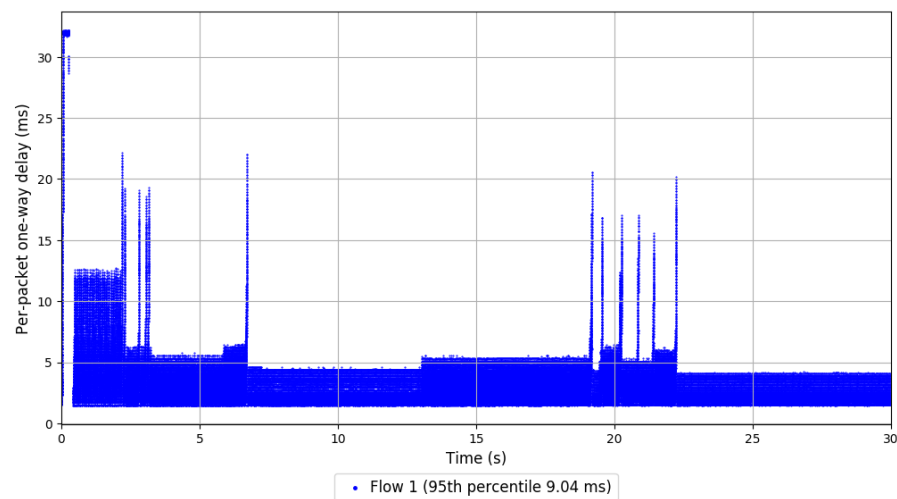
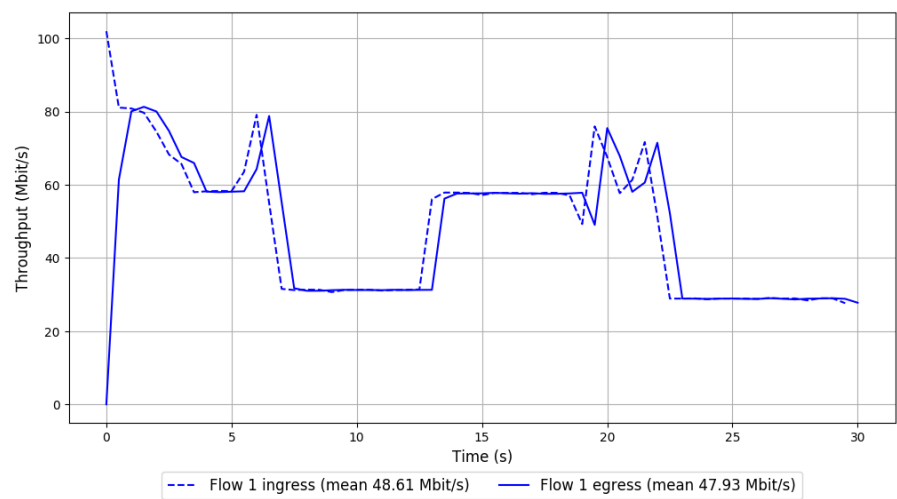
-- Flow 1:

Average throughput: 47.93 Mbit/s

95th percentile per-packet one-way delay: 9.035 ms

Loss rate: 1.39%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-11-30 04:31:53

End at: 2018-11-30 04:32:23

Local clock offset: -7.086 ms

Remote clock offset: 0.365 ms

Below is generated by plot.py at 2018-11-30 05:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.56 Mbit/s

95th percentile per-packet one-way delay: 8.723 ms

Loss rate: 0.97%

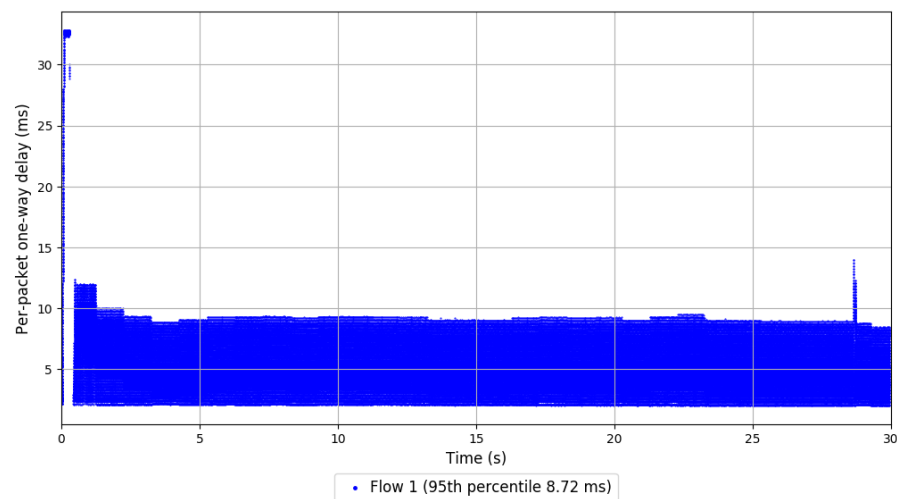
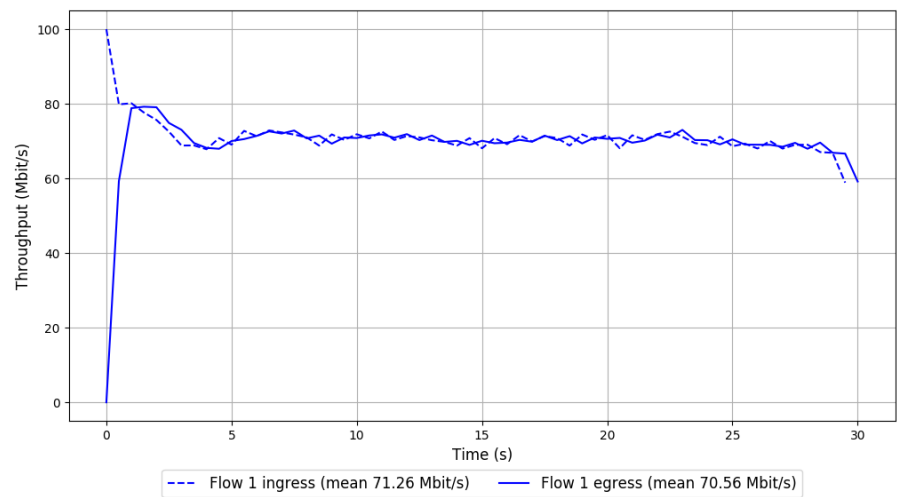
-- Flow 1:

Average throughput: 70.56 Mbit/s

95th percentile per-packet one-way delay: 8.723 ms

Loss rate: 0.97%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-11-30 04:53:03

End at: 2018-11-30 04:53:33

Local clock offset: -9.962 ms

Remote clock offset: 0.394 ms

Below is generated by plot.py at 2018-11-30 05:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.37 Mbit/s

95th percentile per-packet one-way delay: 5.491 ms

Loss rate: 1.47%

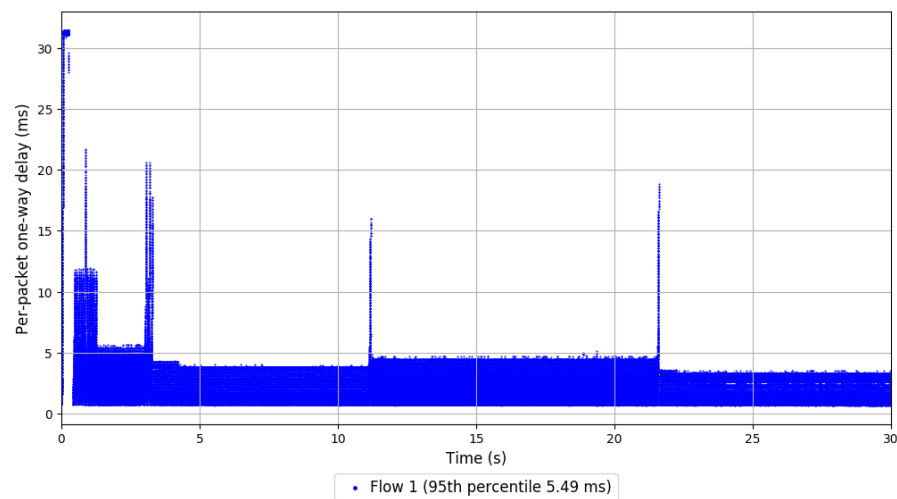
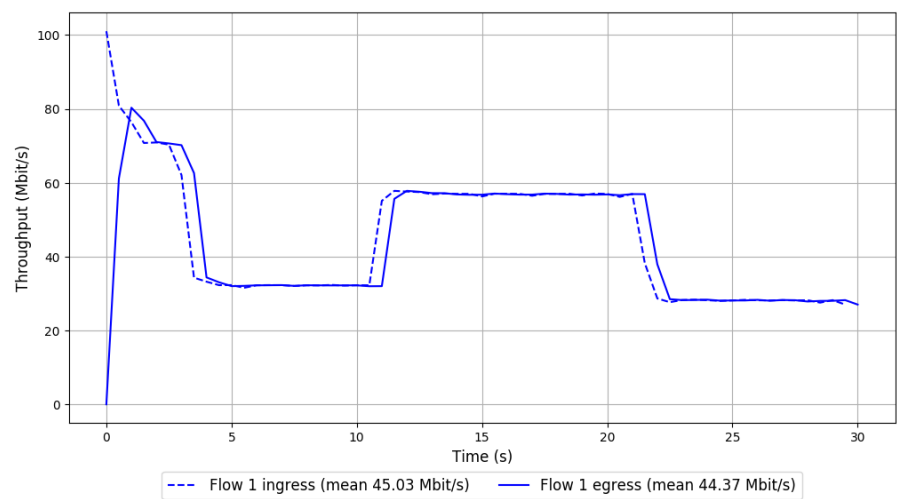
-- Flow 1:

Average throughput: 44.37 Mbit/s

95th percentile per-packet one-way delay: 5.491 ms

Loss rate: 1.47%

Run 3: Report of Verus — Data Link

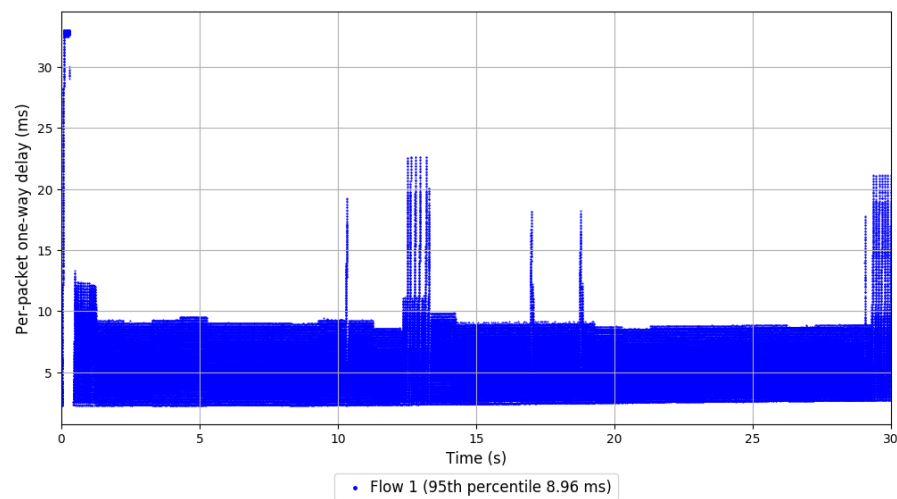
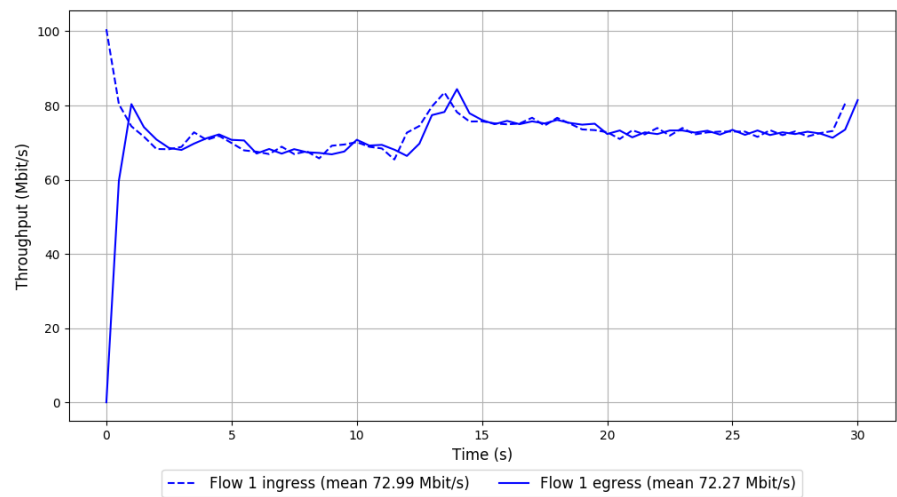


Run 4: Statistics of Verus

Start at: 2018-11-30 05:14:12
End at: 2018-11-30 05:14:42
Local clock offset: -12.056 ms
Remote clock offset: 0.344 ms

Below is generated by plot.py at 2018-11-30 05:51:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 8.963 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 72.27 Mbit/s
95th percentile per-packet one-way delay: 8.963 ms
Loss rate: 0.93%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-11-30 05:35:23

End at: 2018-11-30 05:35:53

Local clock offset: -2.407 ms

Remote clock offset: 0.191 ms

Below is generated by plot.py at 2018-11-30 05:51:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.15 Mbit/s

95th percentile per-packet one-way delay: 9.797 ms

Loss rate: 0.89%

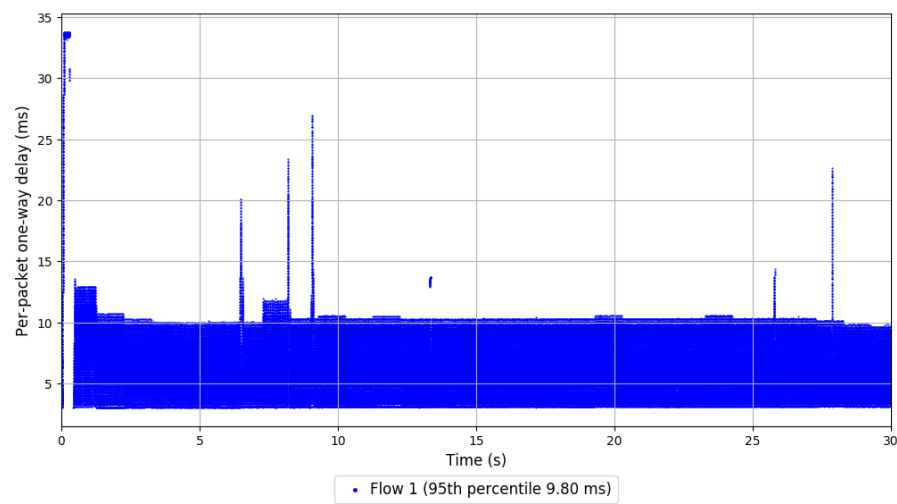
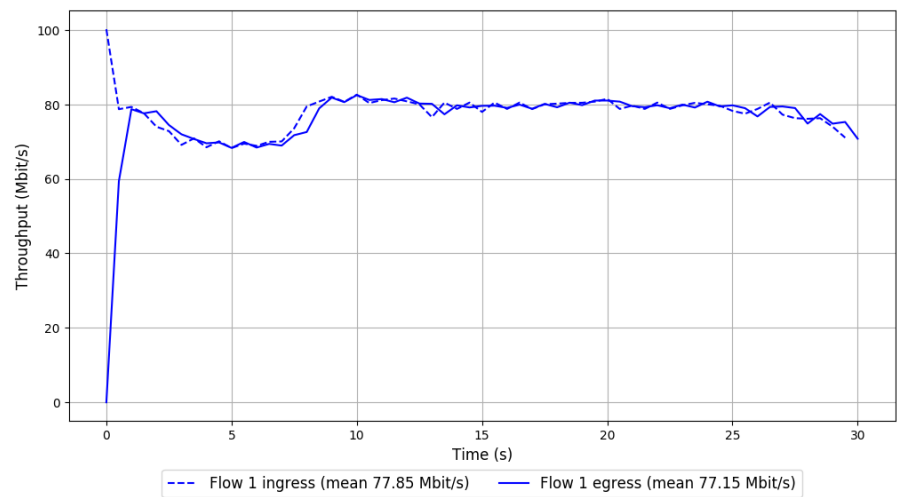
-- Flow 1:

Average throughput: 77.15 Mbit/s

95th percentile per-packet one-way delay: 9.797 ms

Loss rate: 0.89%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 03:58:28

End at: 2018-11-30 03:58:58

Local clock offset: 0.097 ms

Remote clock offset: 0.329 ms

Below is generated by plot.py at 2018-11-30 05:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.04 Mbit/s

95th percentile per-packet one-way delay: 0.948 ms

Loss rate: 0.00%

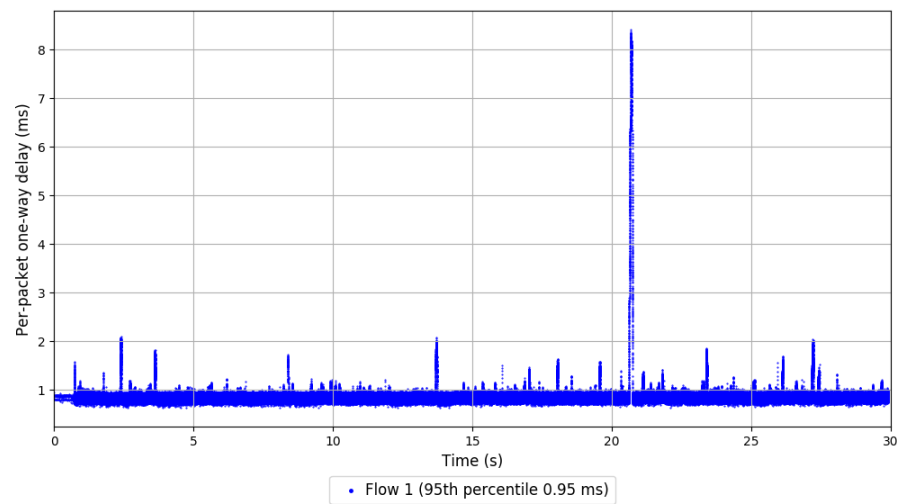
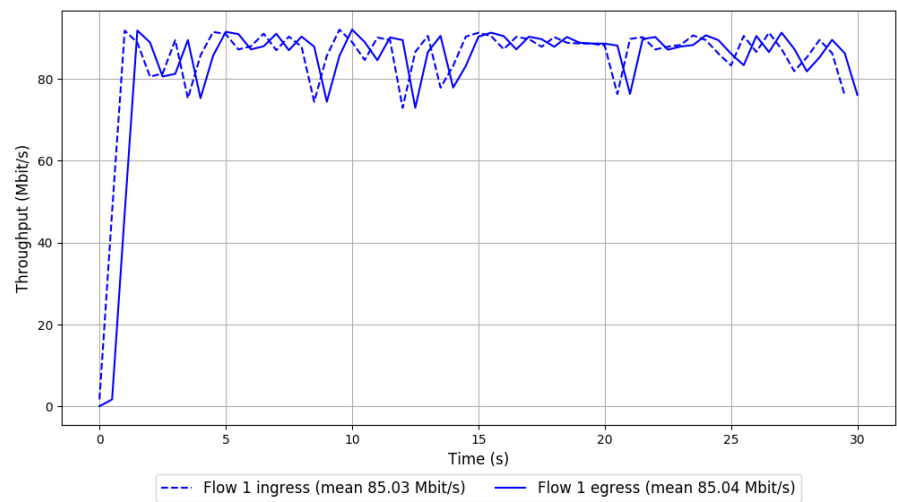
-- Flow 1:

Average throughput: 85.04 Mbit/s

95th percentile per-packet one-way delay: 0.948 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 04:19:37

End at: 2018-11-30 04:20:07

Local clock offset: -2.799 ms

Remote clock offset: 0.368 ms

Below is generated by plot.py at 2018-11-30 05:51:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.32 Mbit/s

95th percentile per-packet one-way delay: 2.096 ms

Loss rate: 0.01%

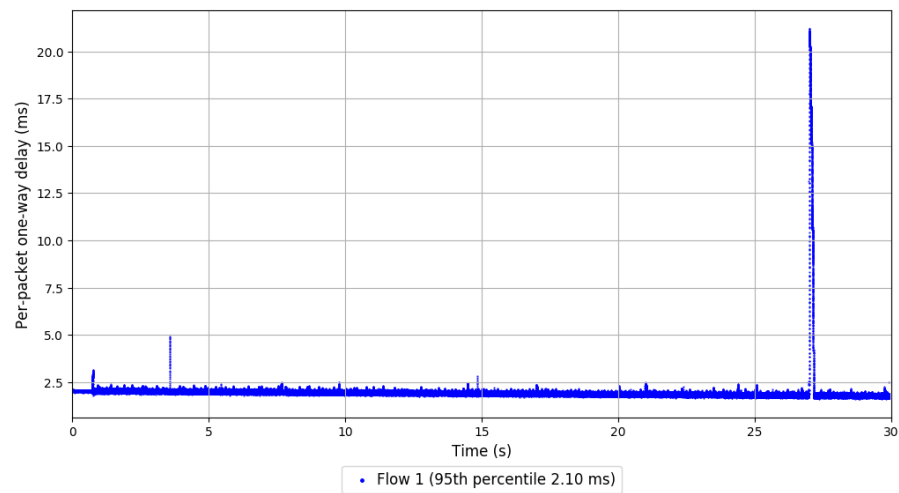
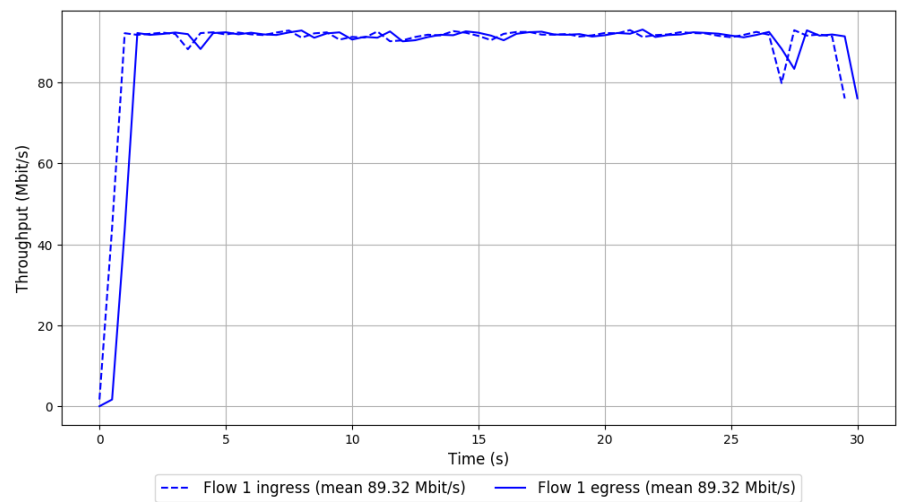
-- Flow 1:

Average throughput: 89.32 Mbit/s

95th percentile per-packet one-way delay: 2.096 ms

Loss rate: 0.01%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 04:40:47

End at: 2018-11-30 04:41:17

Local clock offset: -9.321 ms

Remote clock offset: 0.38 ms

Below is generated by plot.py at 2018-11-30 05:51:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.88 Mbit/s

95th percentile per-packet one-way delay: 1.648 ms

Loss rate: 0.00%

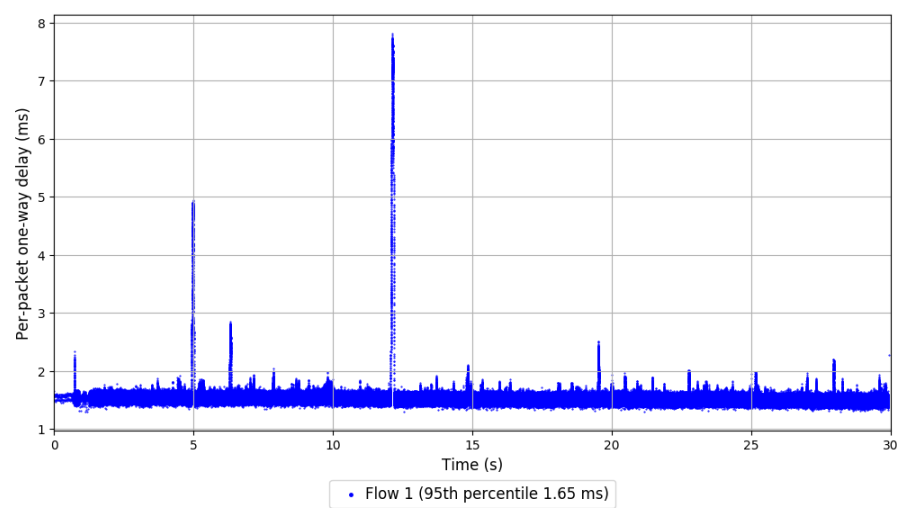
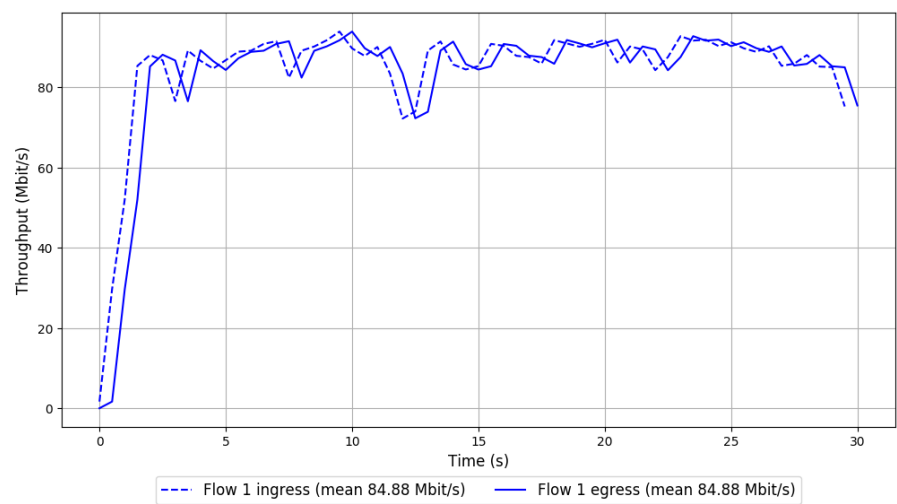
-- Flow 1:

Average throughput: 84.88 Mbit/s

95th percentile per-packet one-way delay: 1.648 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

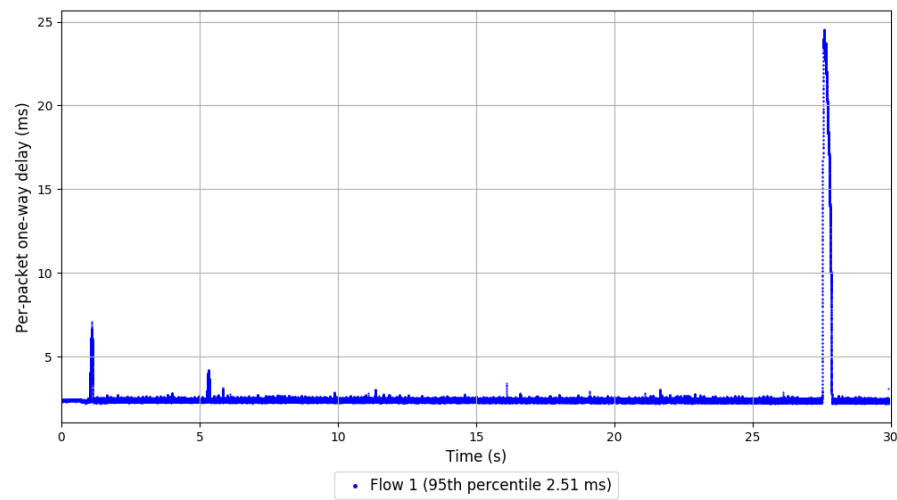
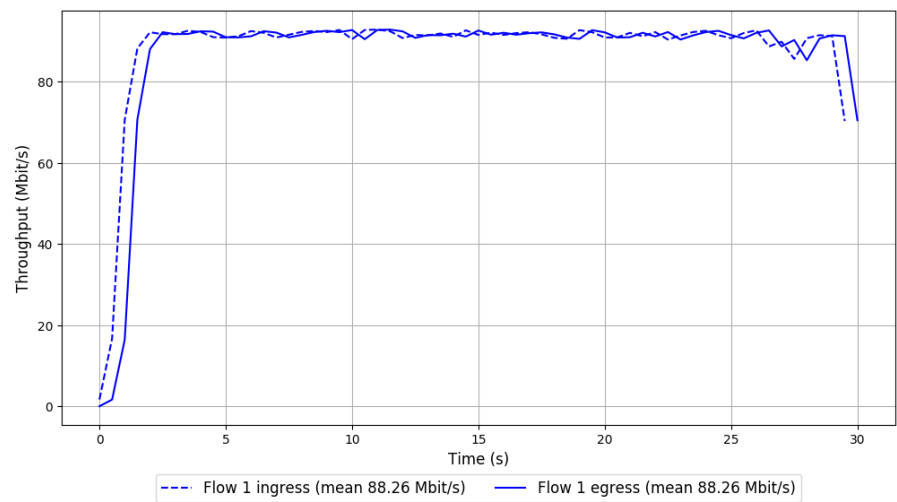


Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 05:01:56
End at: 2018-11-30 05:02:26
Local clock offset: -10.878 ms
Remote clock offset: 0.407 ms

Below is generated by plot.py at 2018-11-30 05:51:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 2.511 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 88.26 Mbit/s
95th percentile per-packet one-way delay: 2.511 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 05:23:07

End at: 2018-11-30 05:23:37

Local clock offset: -6.153 ms

Remote clock offset: 0.246 ms

Below is generated by plot.py at 2018-11-30 05:51:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.17 Mbit/s

95th percentile per-packet one-way delay: 3.560 ms

Loss rate: 0.00%

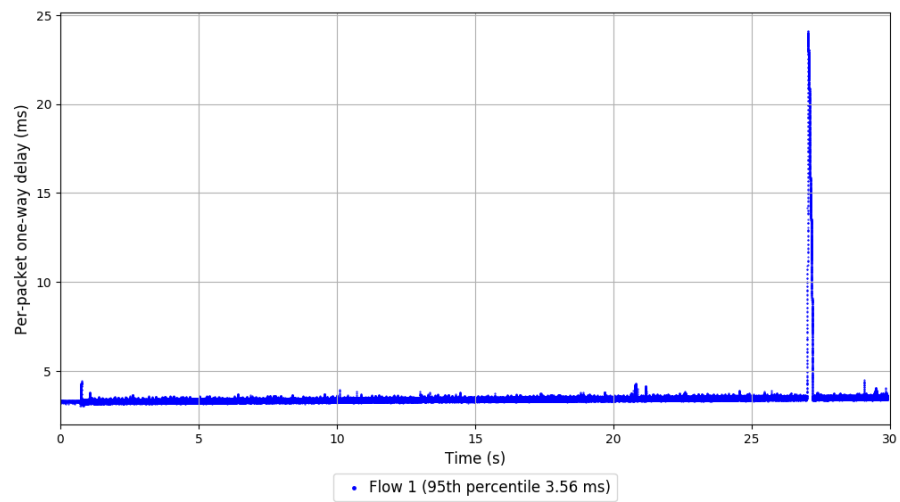
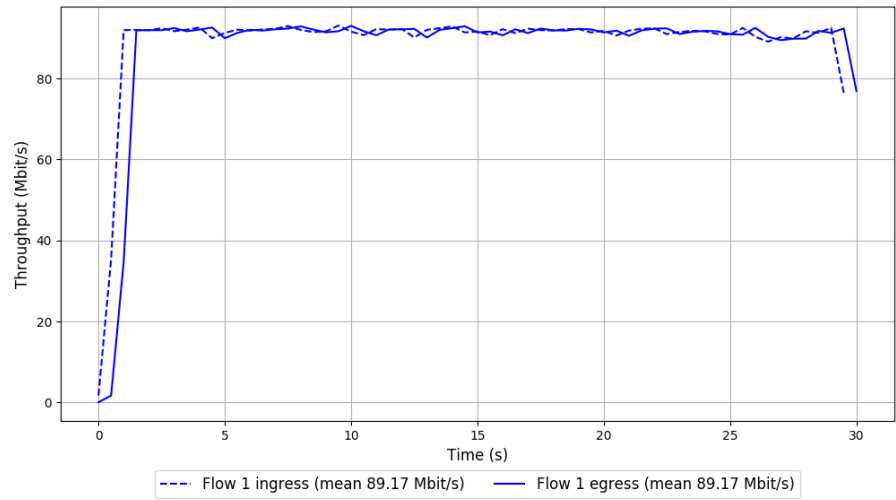
-- Flow 1:

Average throughput: 89.17 Mbit/s

95th percentile per-packet one-way delay: 3.560 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-11-30 04:08:32

End at: 2018-11-30 04:09:02

Local clock offset: 0.526 ms

Remote clock offset: 0.437 ms

Below is generated by plot.py at 2018-11-30 05:51:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 1.520 ms

Loss rate: 0.00%

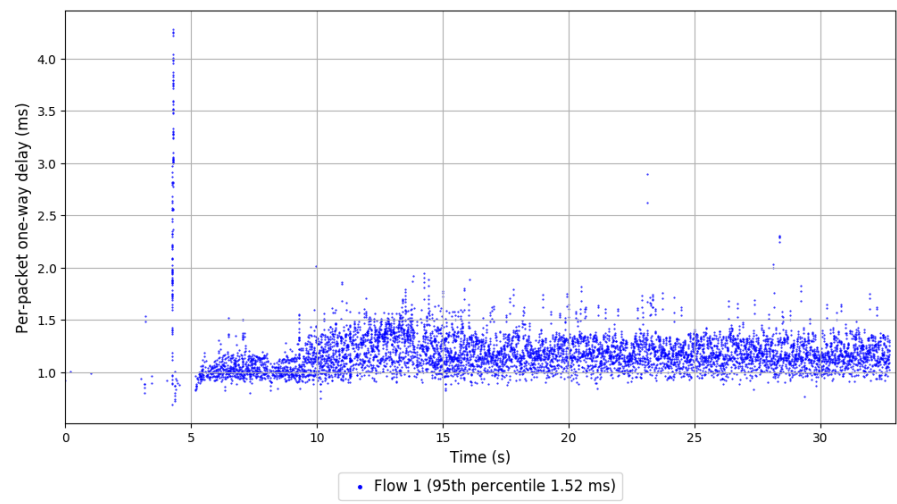
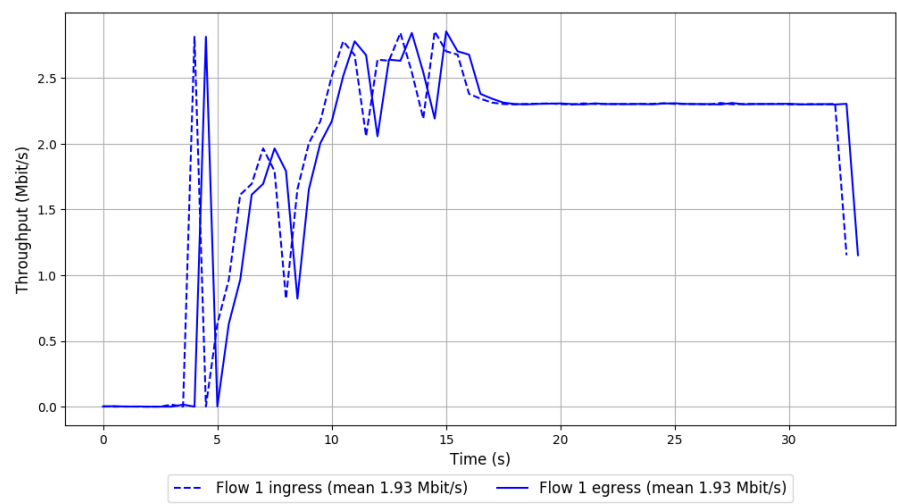
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 1.520 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-11-30 04:29:41

End at: 2018-11-30 04:30:11

Local clock offset: -7.396 ms

Remote clock offset: 0.449 ms

Below is generated by plot.py at 2018-11-30 05:51:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.610 ms

Loss rate: 0.00%

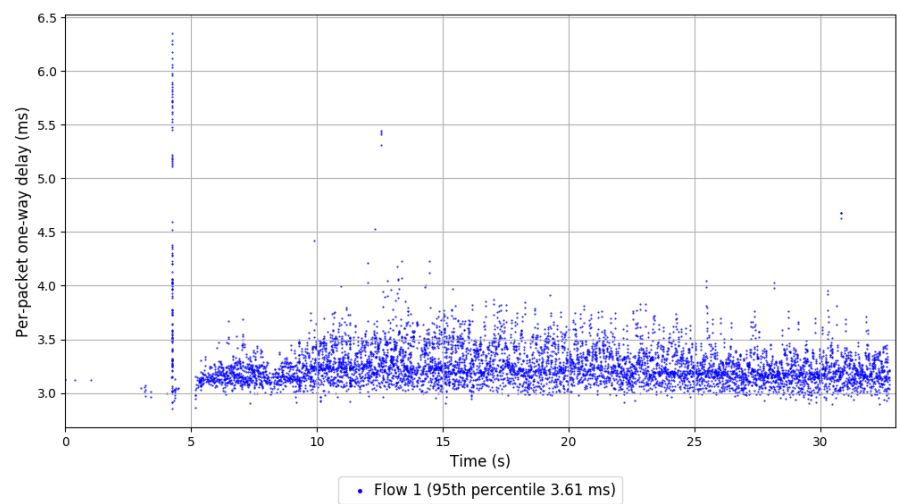
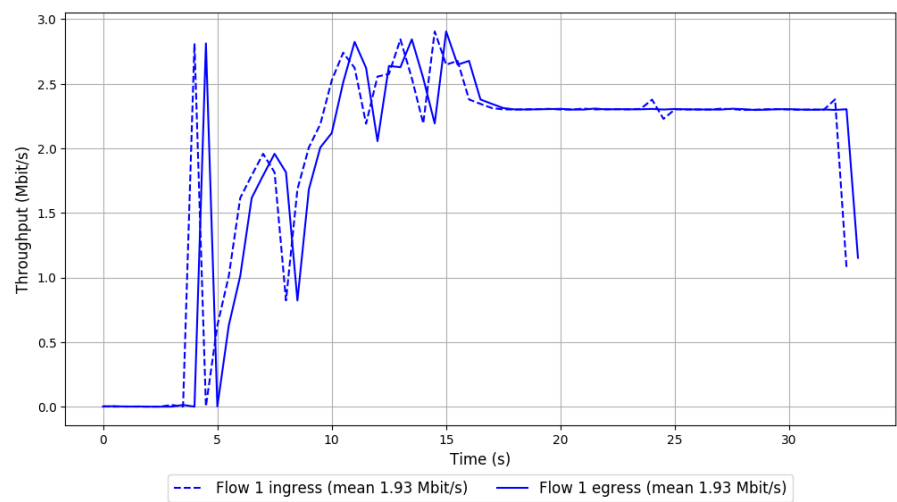
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.610 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

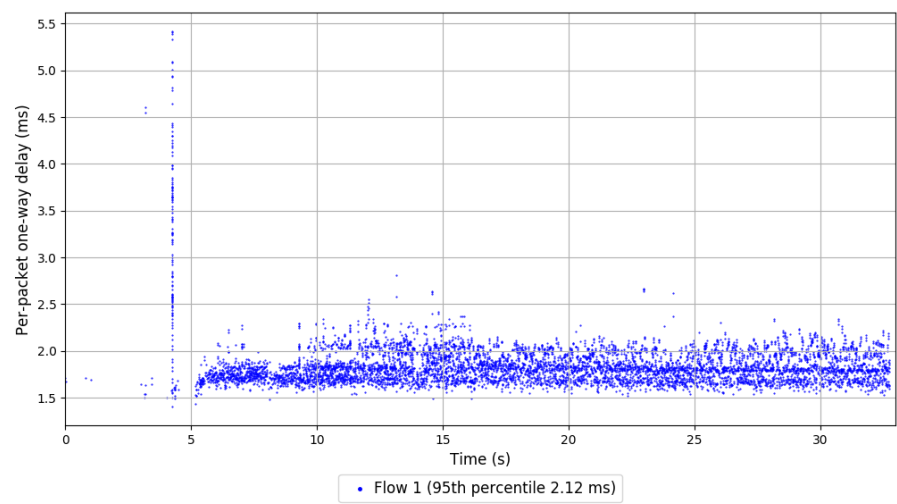
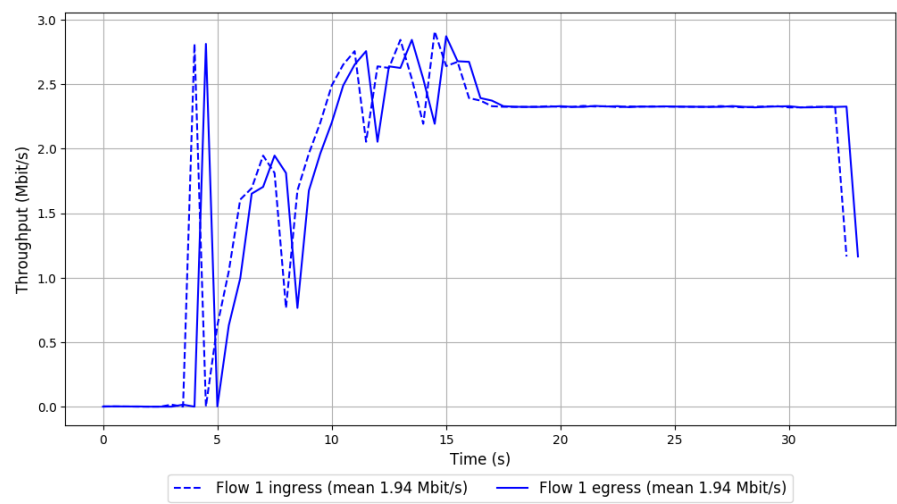


Run 3: Statistics of WebRTC media

Start at: 2018-11-30 04:50:51
End at: 2018-11-30 04:51:21
Local clock offset: -10.494 ms
Remote clock offset: 0.439 ms

Below is generated by plot.py at 2018-11-30 05:51:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 2.115 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 2.115 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

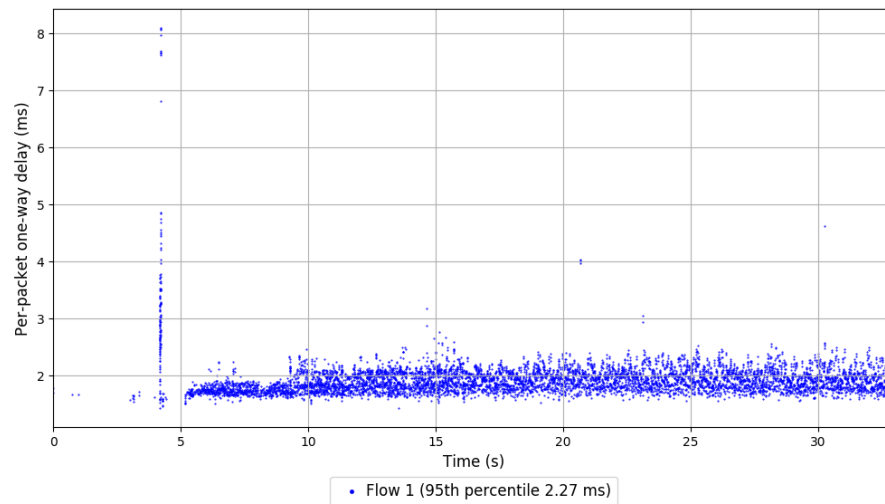
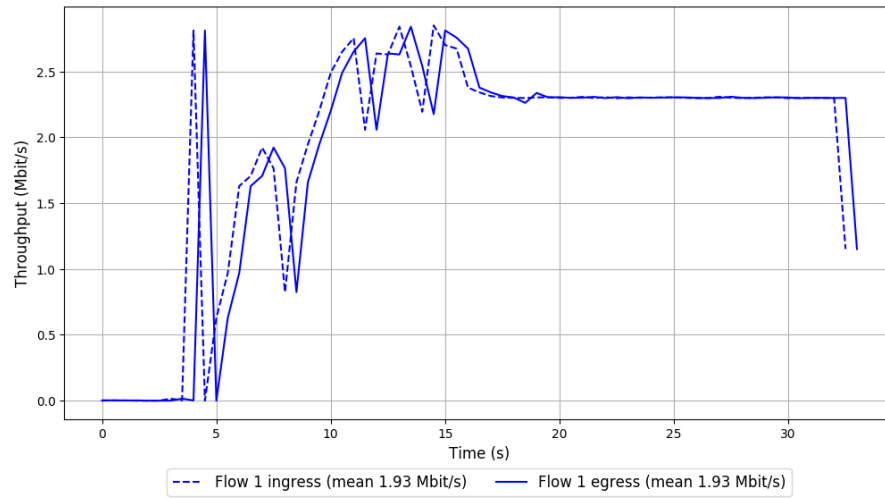


Run 4: Statistics of WebRTC media

Start at: 2018-11-30 05:12:00
End at: 2018-11-30 05:12:30
Local clock offset: -12.588 ms
Remote clock offset: 0.323 ms

Below is generated by plot.py at 2018-11-30 05:51:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 2.267 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 05:33:12

End at: 2018-11-30 05:33:42

Local clock offset: -2.855 ms

Remote clock offset: 0.278 ms

Below is generated by plot.py at 2018-11-30 05:51:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.765 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.765 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

