

Pantheon Report

Generated at 2018-11-02 19:56:15 (UTC).

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

System info:

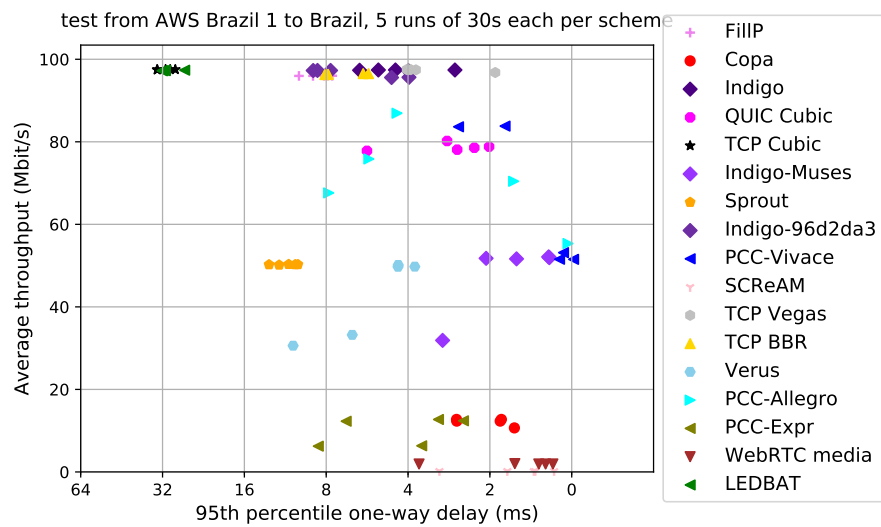
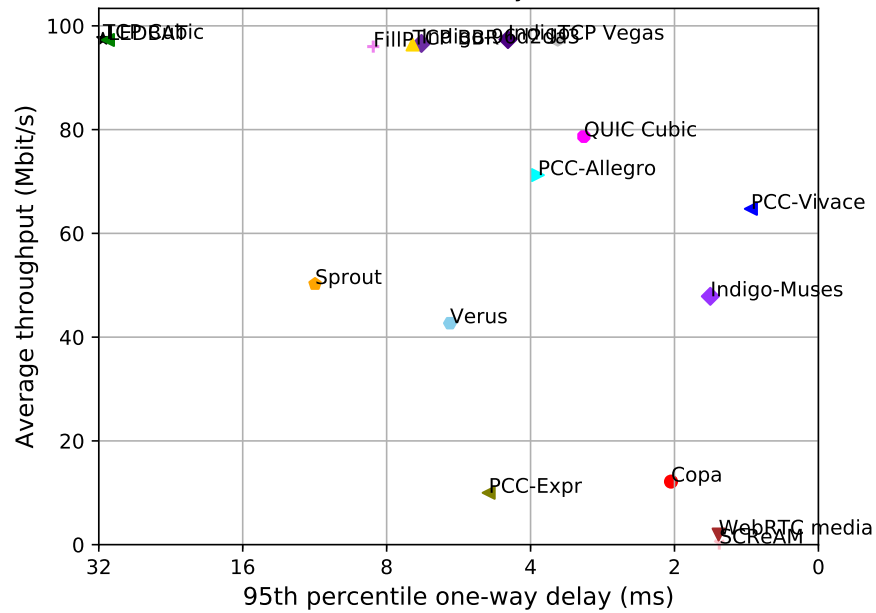
```
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 794ca3866981572cb73700a276691acf79c60f2b
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ 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	96.40	7.06	0.00
Copa	5	12.15	2.03	67.17
TCP Cubic	5	97.50	31.37	0.01
FillP	5	96.00	8.53	0.28
Indigo	5	97.36	4.46	0.00
Indigo-96d2da3	5	96.62	6.77	0.00
LEDBAT	5	97.27	30.62	0.01
Indigo-Muses	5	47.87	1.50	0.00
PCC-Allegro	5	71.23	3.86	0.00
PCC-Expr	5	10.00	4.89	27.23
QUIC Cubic	5	78.70	3.09	0.15
SCReAM	5	0.22	1.38	0.00
Sprout	5	50.25	11.29	0.00
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	97.34	3.51	0.00
Verus	5	42.69	5.90	1.50
PCC-Vivace	5	64.73	0.94	0.00
WebRTC media	5	1.95	1.39	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-11-02 18:21:13

End at: 2018-11-02 18:21:43

Local clock offset: -2.857 ms

Remote clock offset: 0.098 ms

Below is generated by plot.py at 2018-11-02 19:48:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.52 Mbit/s

95th percentile per-packet one-way delay: 5.592 ms

Loss rate: 0.00%

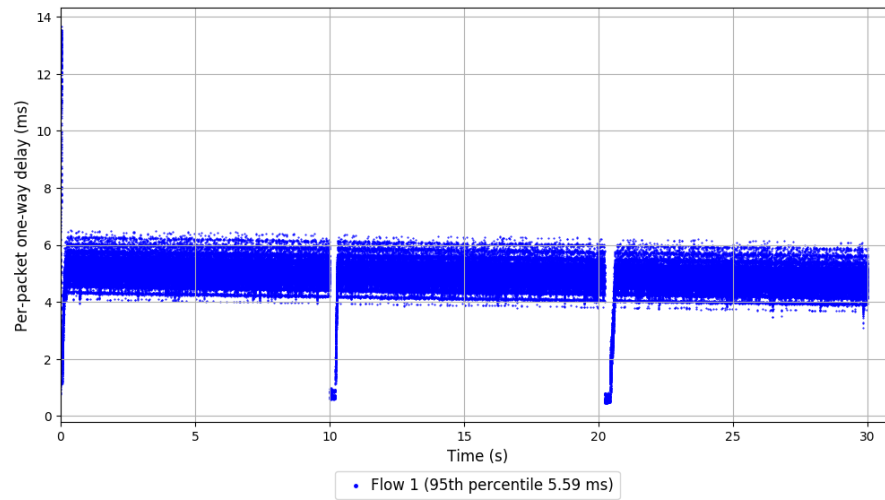
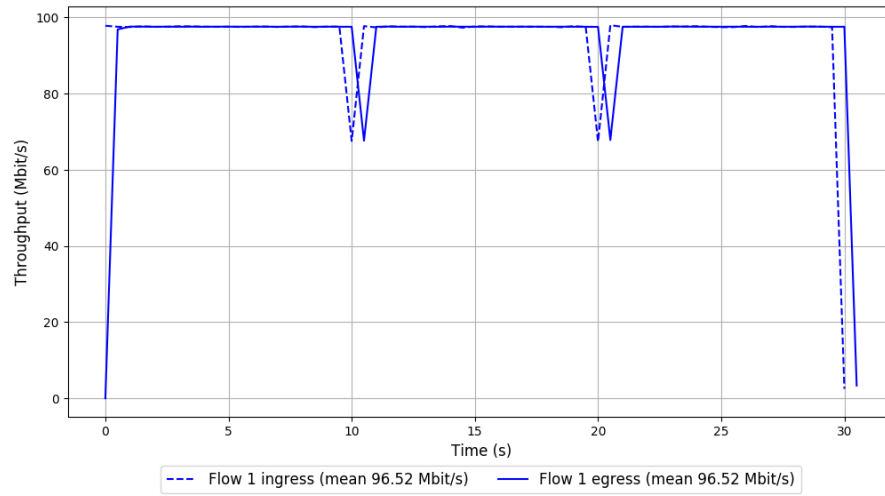
-- Flow 1:

Average throughput: 96.52 Mbit/s

95th percentile per-packet one-way delay: 5.592 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-11-02 18:41:29

End at: 2018-11-02 18:41:59

Local clock offset: -4.984 ms

Remote clock offset: 0.241 ms

Below is generated by plot.py at 2018-11-02 19:48:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 8.095 ms

Loss rate: 0.00%

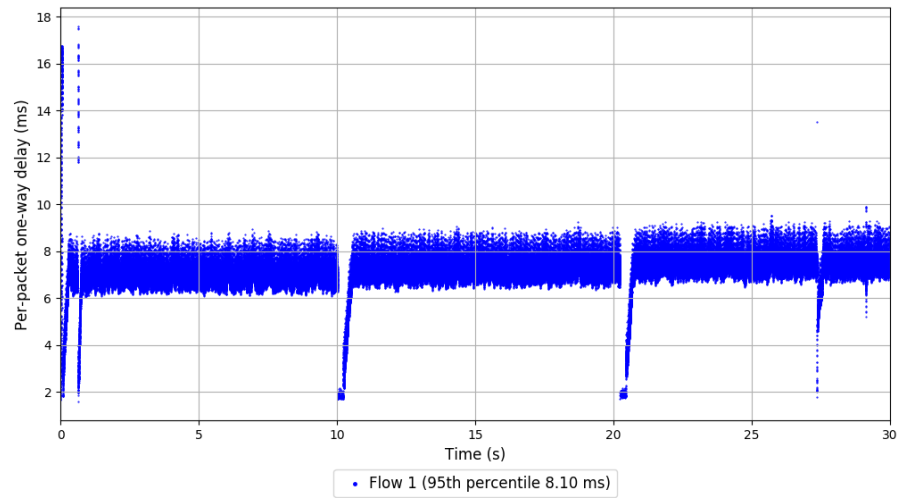
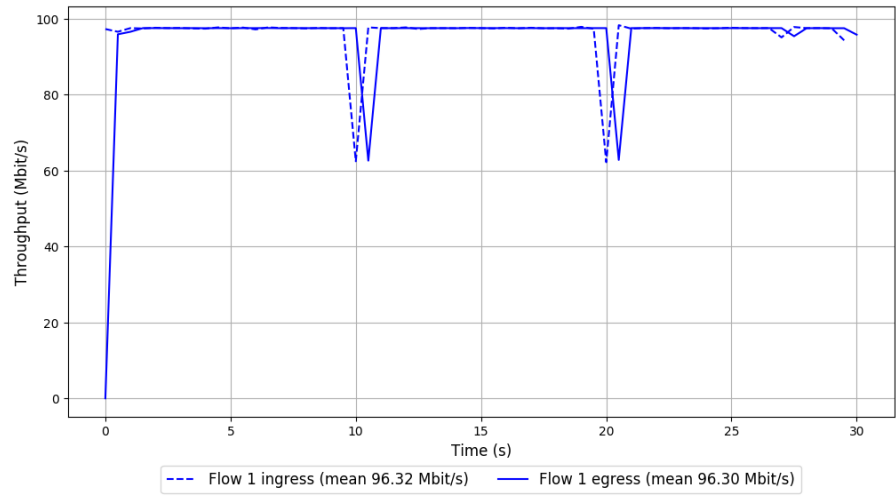
-- Flow 1:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 8.095 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-11-02 19:01:51

End at: 2018-11-02 19:02:21

Local clock offset: -5.834 ms

Remote clock offset: 0.225 ms

Below is generated by plot.py at 2018-11-02 19:48:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.53 Mbit/s

95th percentile per-packet one-way delay: 5.849 ms

Loss rate: 0.00%

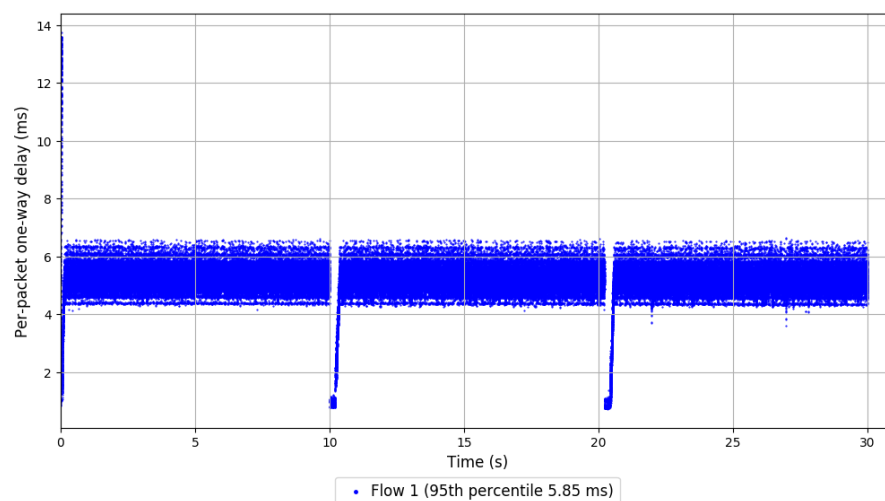
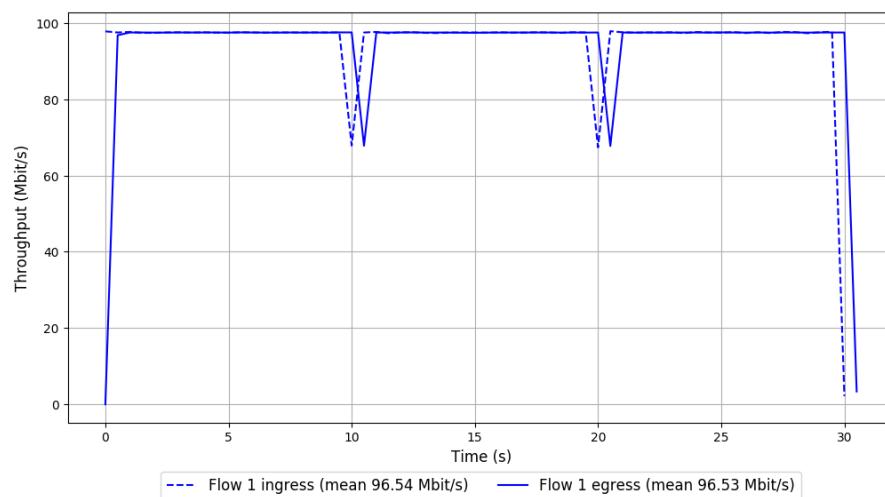
-- Flow 1:

Average throughput: 96.53 Mbit/s

95th percentile per-packet one-way delay: 5.849 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-11-02 19:22:07

End at: 2018-11-02 19:22:37

Local clock offset: -6.79 ms

Remote clock offset: 0.376 ms

Below is generated by plot.py at 2018-11-02 19:48:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.32 Mbit/s

95th percentile per-packet one-way delay: 7.904 ms

Loss rate: 0.00%

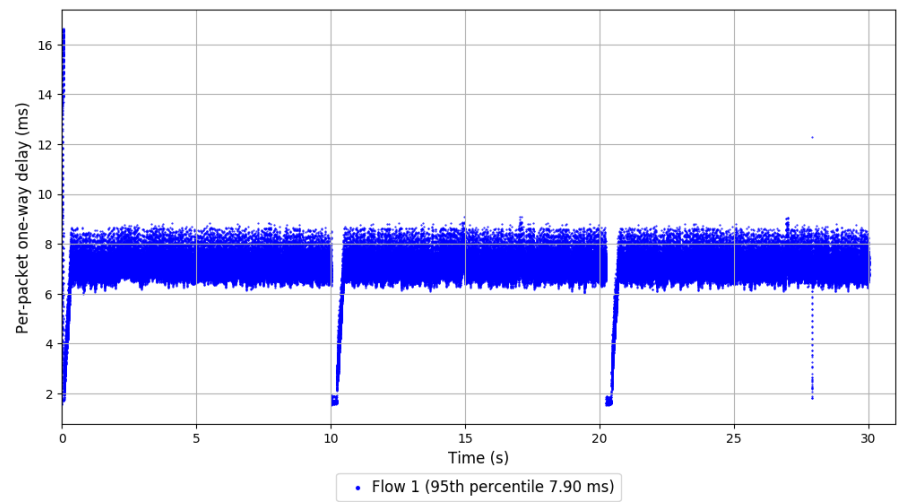
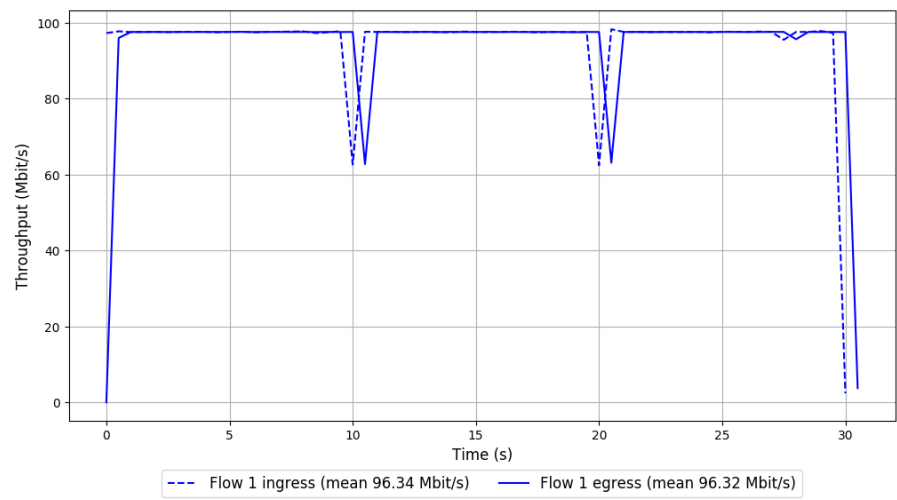
-- Flow 1:

Average throughput: 96.32 Mbit/s

95th percentile per-packet one-way delay: 7.904 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-11-02 19:42:25

End at: 2018-11-02 19:42:55

Local clock offset: -7.27 ms

Remote clock offset: 0.395 ms

Below is generated by plot.py at 2018-11-02 19:48:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.34 Mbit/s

95th percentile per-packet one-way delay: 7.869 ms

Loss rate: 0.00%

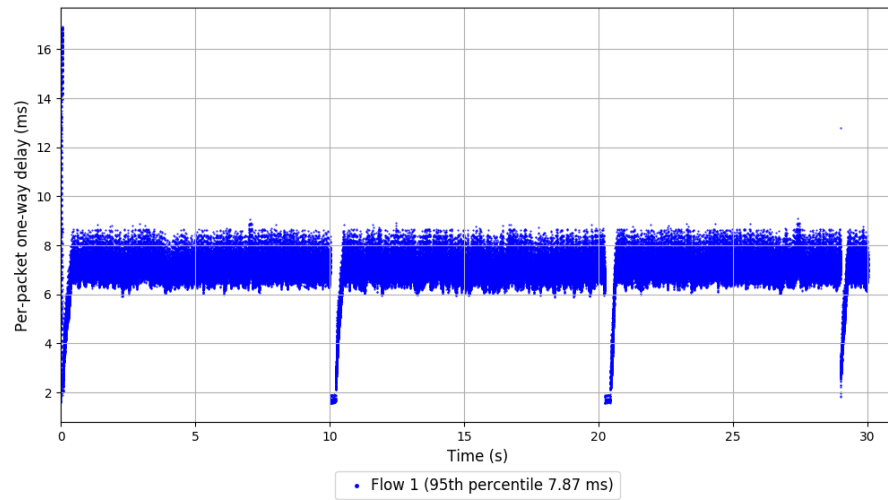
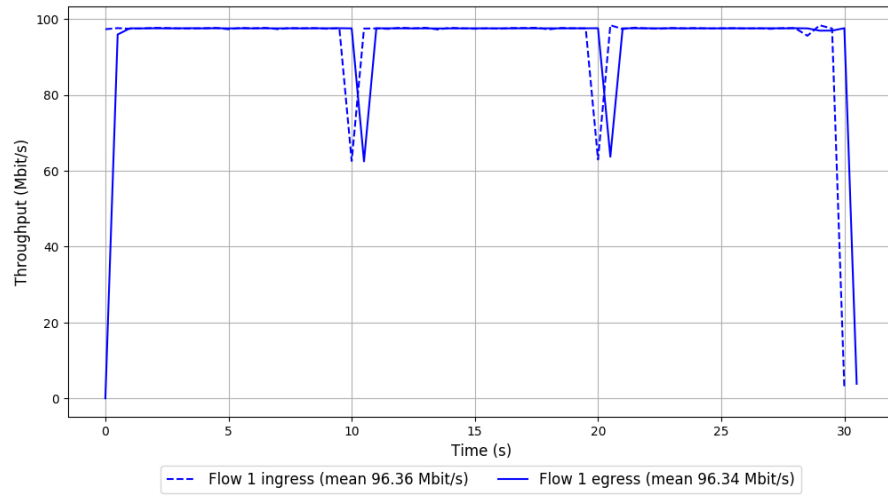
-- Flow 1:

Average throughput: 96.34 Mbit/s

95th percentile per-packet one-way delay: 7.869 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-11-02 18:13:26

End at: 2018-11-02 18:13:56

Local clock offset: -1.657 ms

Remote clock offset: 0.187 ms

Below is generated by plot.py at 2018-11-02 19:48:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 1.401 ms

Loss rate: 65.75%

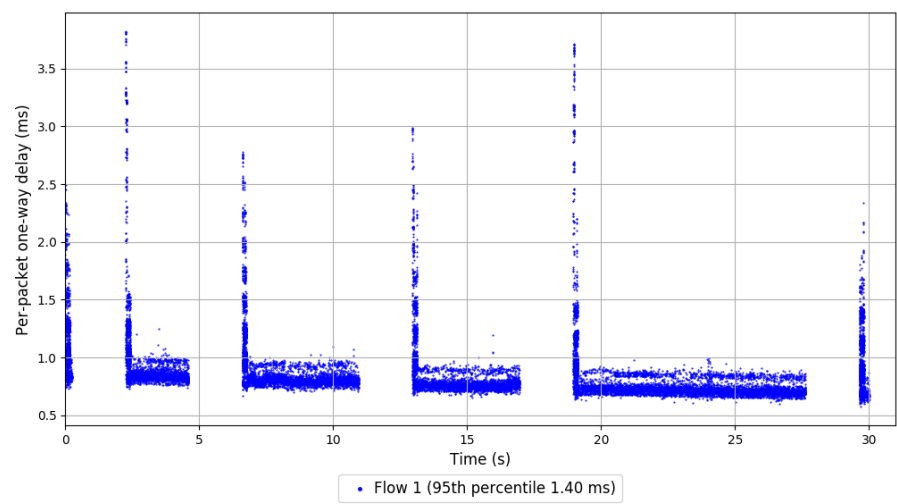
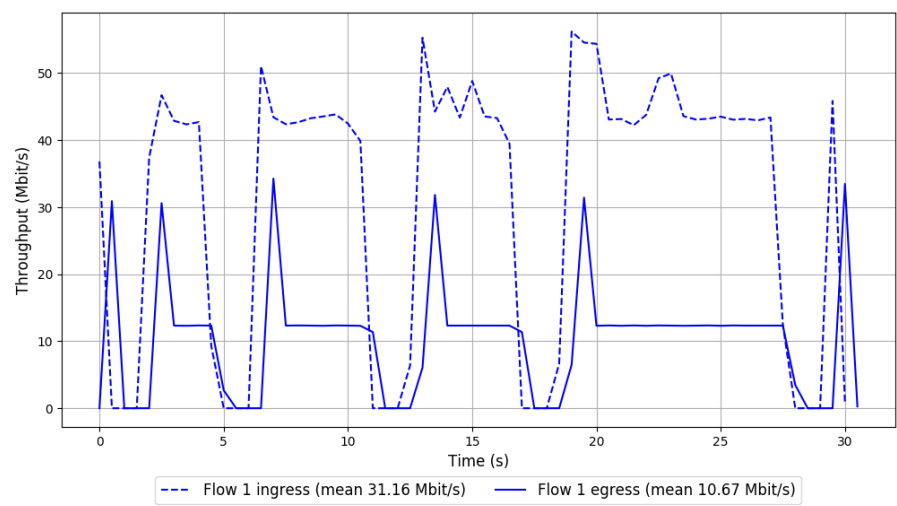
-- Flow 1:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 1.401 ms

Loss rate: 65.75%

Run 1: Report of Copa — Data Link

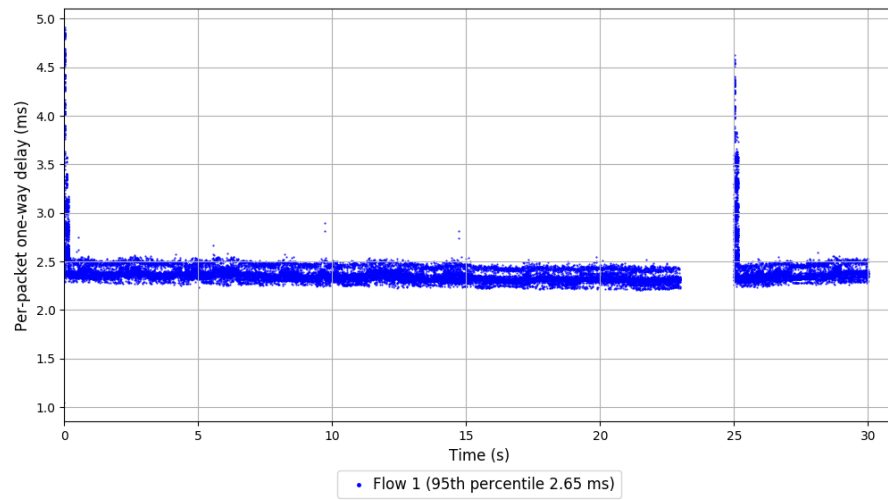
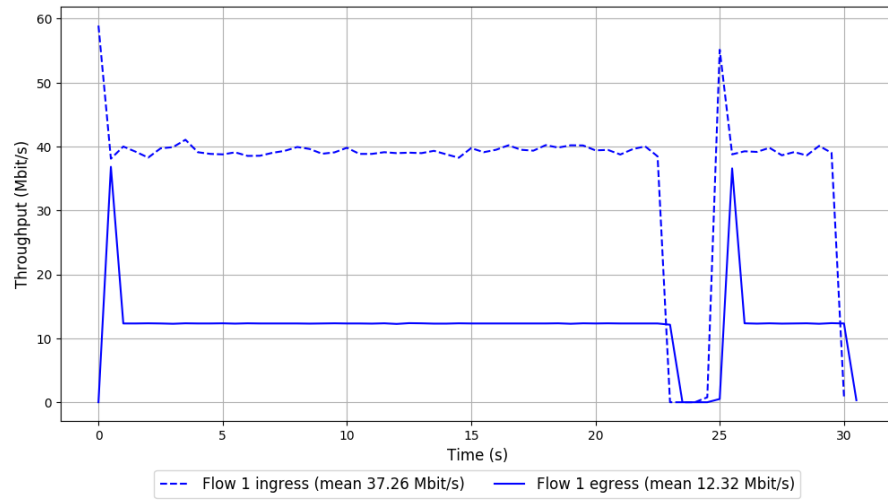


Run 2: Statistics of Copa

Start at: 2018-11-02 18:33:40
End at: 2018-11-02 18:34:10
Local clock offset: -7.789 ms
Remote clock offset: 0.23 ms

Below is generated by plot.py at 2018-11-02 19:48:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 2.648 ms
Loss rate: 66.94%
-- Flow 1:
Average throughput: 12.32 Mbit/s
95th percentile per-packet one-way delay: 2.648 ms
Loss rate: 66.94%

Run 2: Report of Copa — Data Link

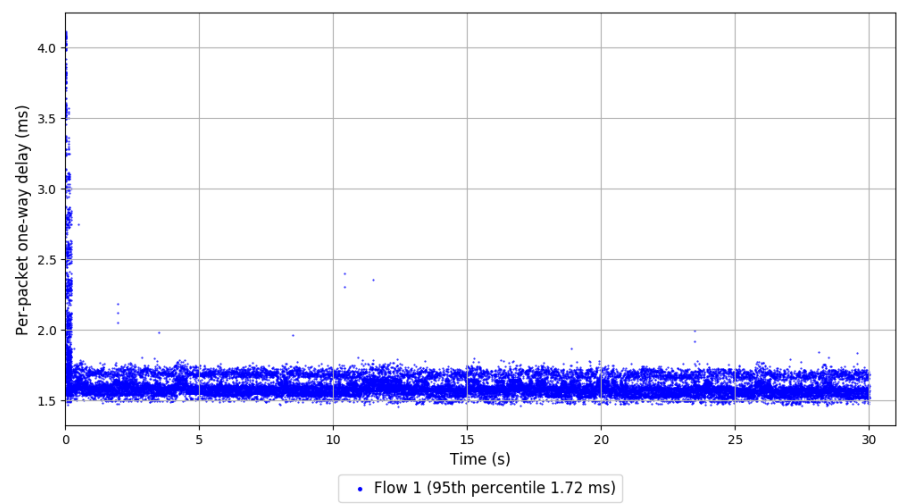
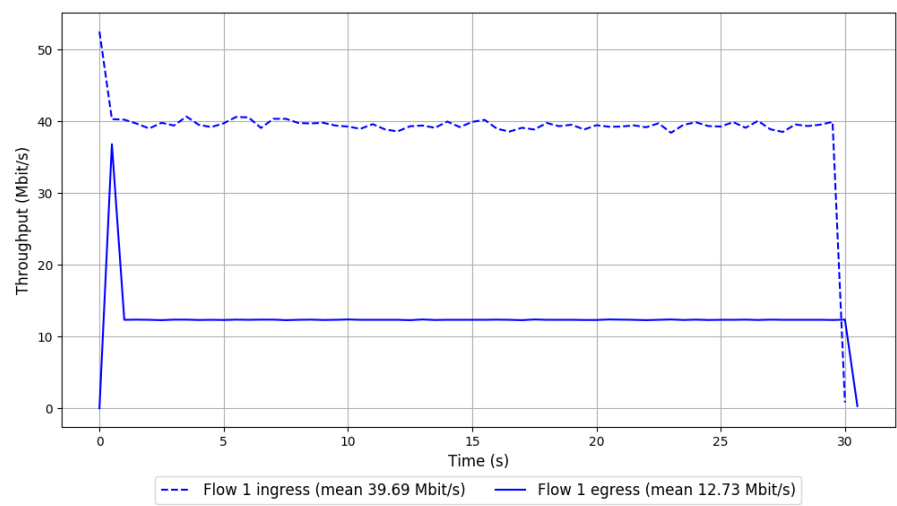


Run 3: Statistics of Copa

Start at: 2018-11-02 18:54:02
End at: 2018-11-02 18:54:32
Local clock offset: -4.508 ms
Remote clock offset: 0.297 ms

Below is generated by plot.py at 2018-11-02 19:48:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.719 ms
Loss rate: 67.92%
-- Flow 1:
Average throughput: 12.73 Mbit/s
95th percentile per-packet one-way delay: 1.719 ms
Loss rate: 67.92%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-11-02 19:14:20

End at: 2018-11-02 19:14:50

Local clock offset: -6.048 ms

Remote clock offset: 0.224 ms

Below is generated by plot.py at 2018-11-02 19:48:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.32 Mbit/s

95th percentile per-packet one-way delay: 1.748 ms

Loss rate: 67.24%

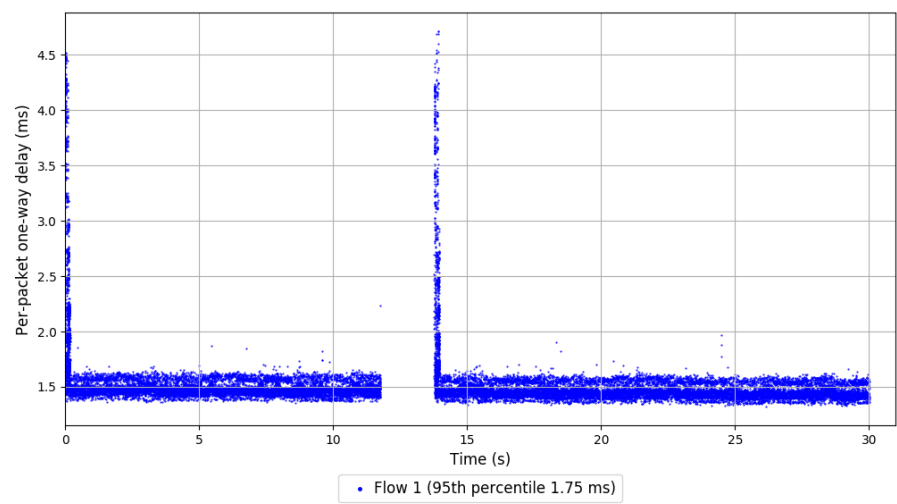
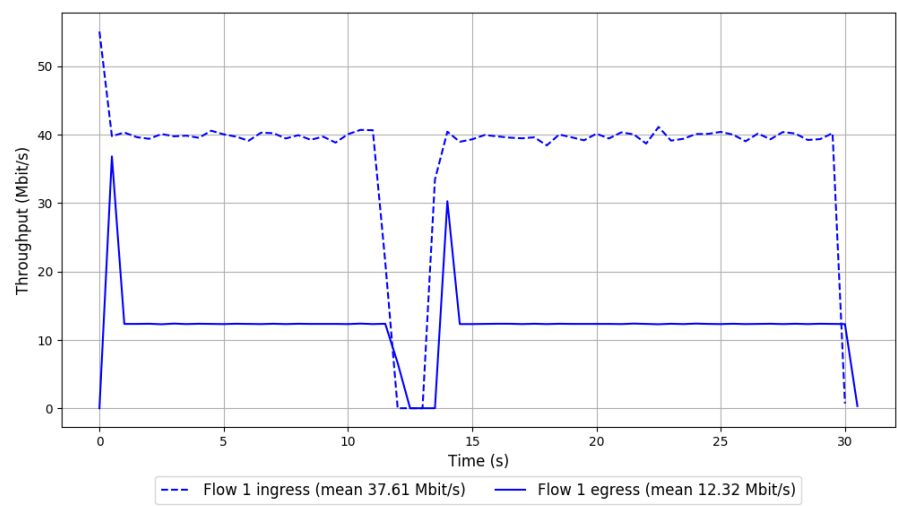
-- Flow 1:

Average throughput: 12.32 Mbit/s

95th percentile per-packet one-way delay: 1.748 ms

Loss rate: 67.24%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-11-02 19:34:37

End at: 2018-11-02 19:35:07

Local clock offset: -8.739 ms

Remote clock offset: 0.395 ms

Below is generated by plot.py at 2018-11-02 19:48:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.653 ms

Loss rate: 68.01%

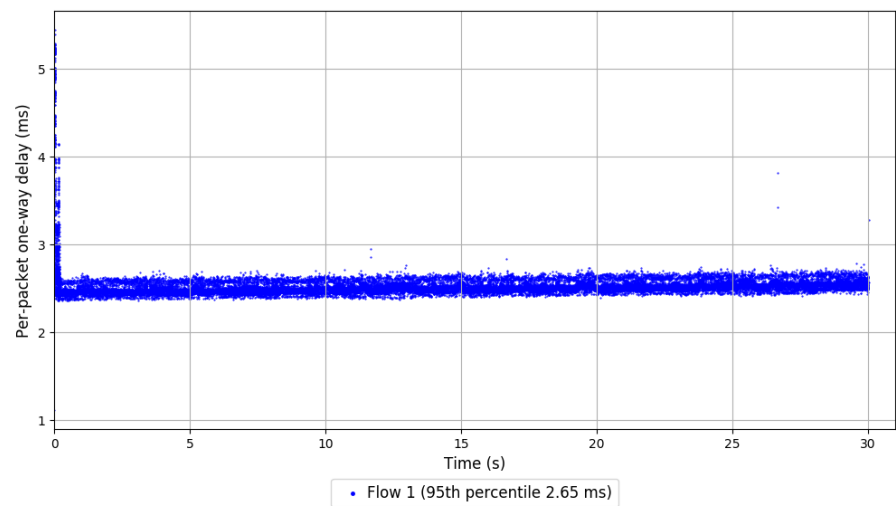
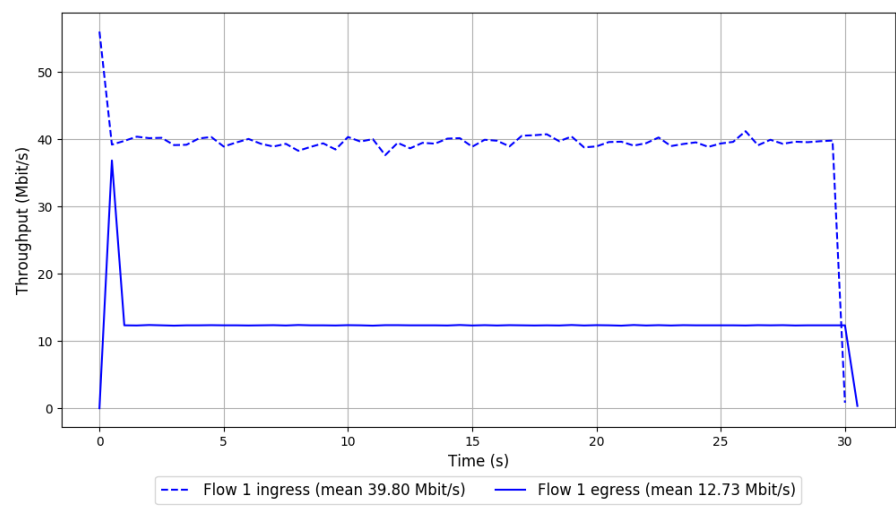
-- Flow 1:

Average throughput: 12.73 Mbit/s

95th percentile per-packet one-way delay: 2.653 ms

Loss rate: 68.01%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-11-02 18:24:40

End at: 2018-11-02 18:25:10

Local clock offset: -4.101 ms

Remote clock offset: 0.198 ms

Below is generated by plot.py at 2018-11-02 19:49:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.52 Mbit/s

95th percentile per-packet one-way delay: 29.988 ms

Loss rate: 0.01%

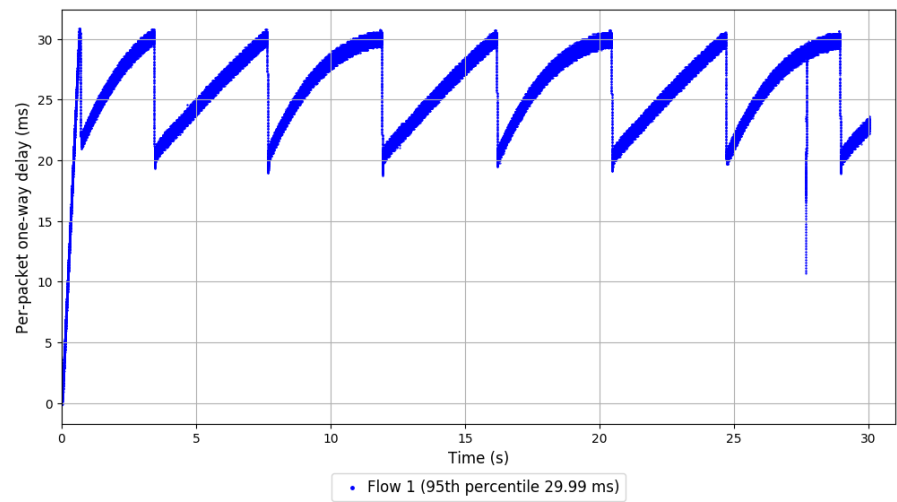
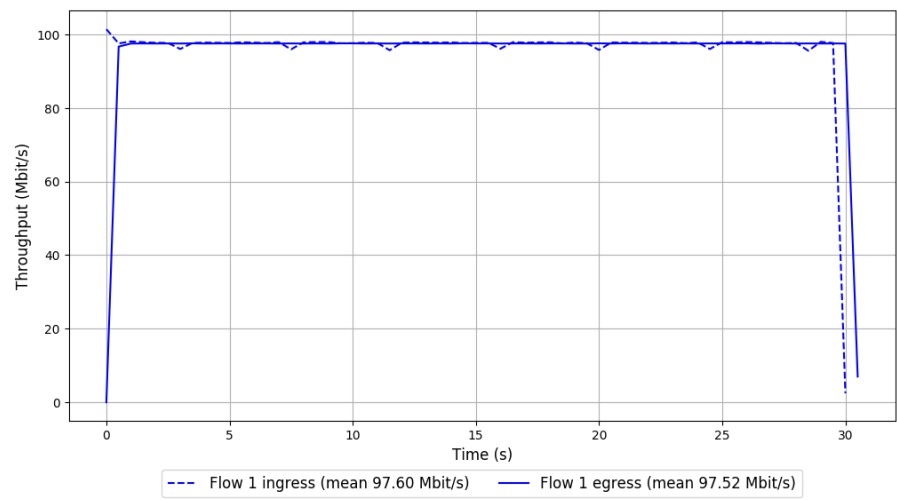
-- Flow 1:

Average throughput: 97.52 Mbit/s

95th percentile per-packet one-way delay: 29.988 ms

Loss rate: 0.01%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-11-02 18:45:00

End at: 2018-11-02 18:45:30

Local clock offset: -6.087 ms

Remote clock offset: 0.261 ms

Below is generated by plot.py at 2018-11-02 19:49:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.499 ms

Loss rate: 0.01%

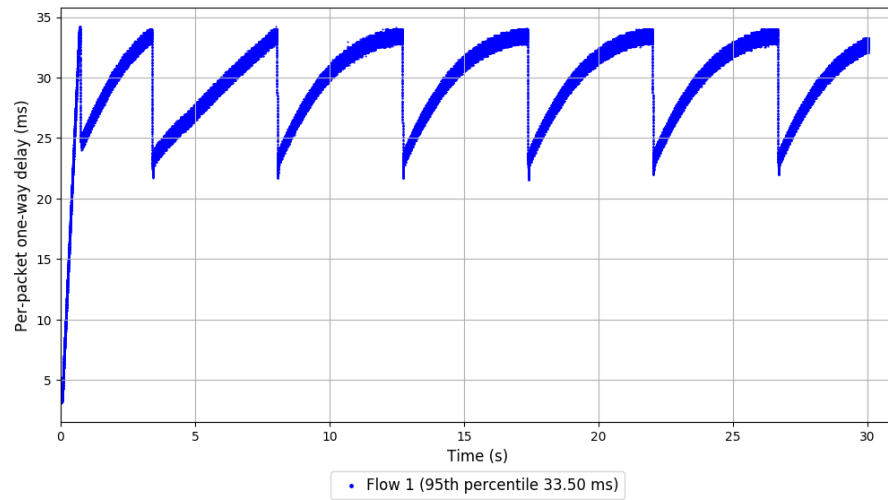
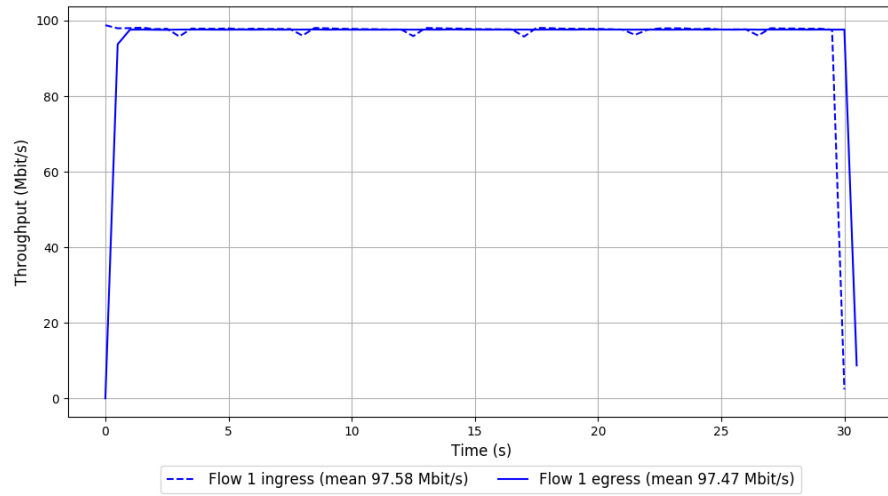
-- Flow 1:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.499 ms

Loss rate: 0.01%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-11-02 19:05:18

End at: 2018-11-02 19:05:48

Local clock offset: -6.919 ms

Remote clock offset: 0.338 ms

Below is generated by plot.py at 2018-11-02 19:49:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.457 ms

Loss rate: 0.01%

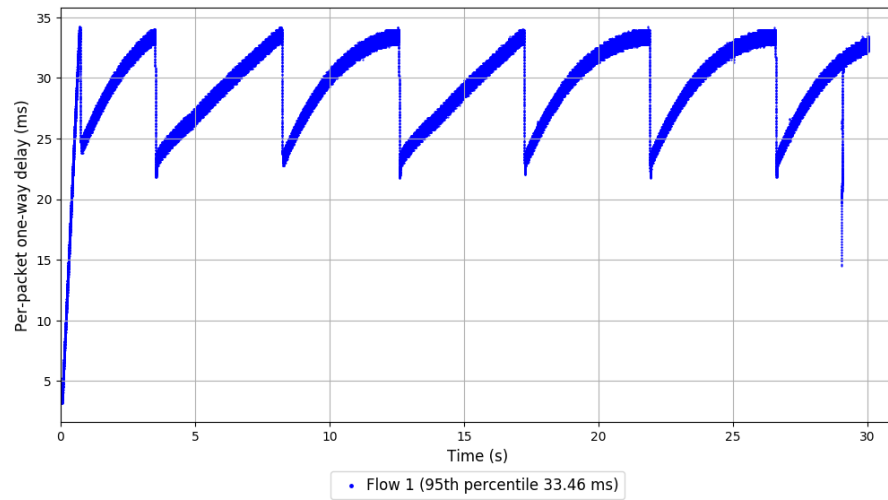
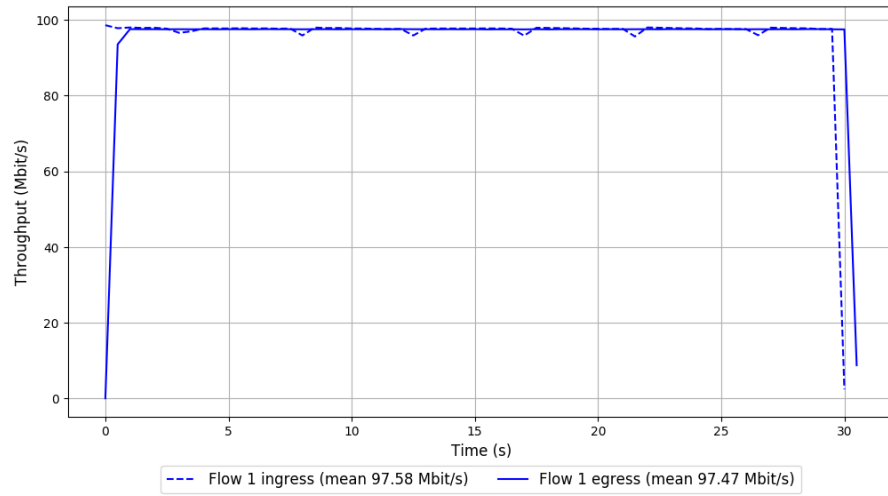
-- Flow 1:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 33.457 ms

Loss rate: 0.01%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-11-02 19:25:36

End at: 2018-11-02 19:26:06

Local clock offset: -8.741 ms

Remote clock offset: 0.356 ms

Below is generated by plot.py at 2018-11-02 19:49:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.51 Mbit/s

95th percentile per-packet one-way delay: 28.716 ms

Loss rate: 0.01%

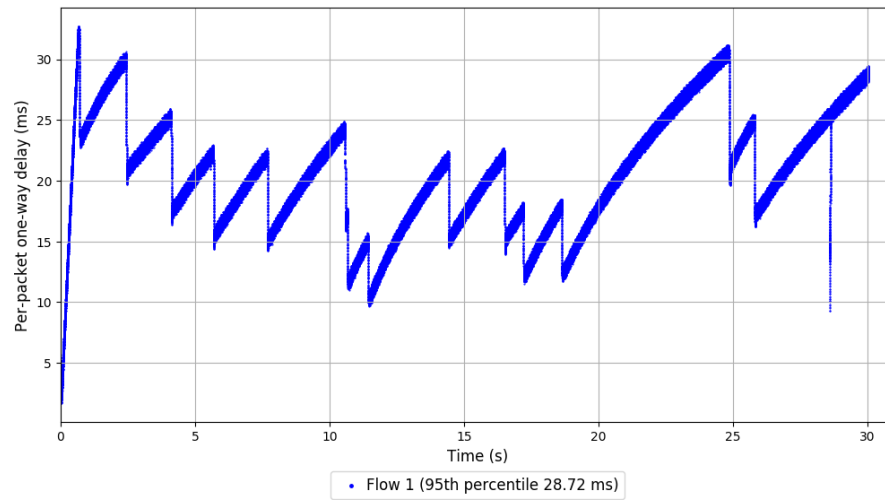
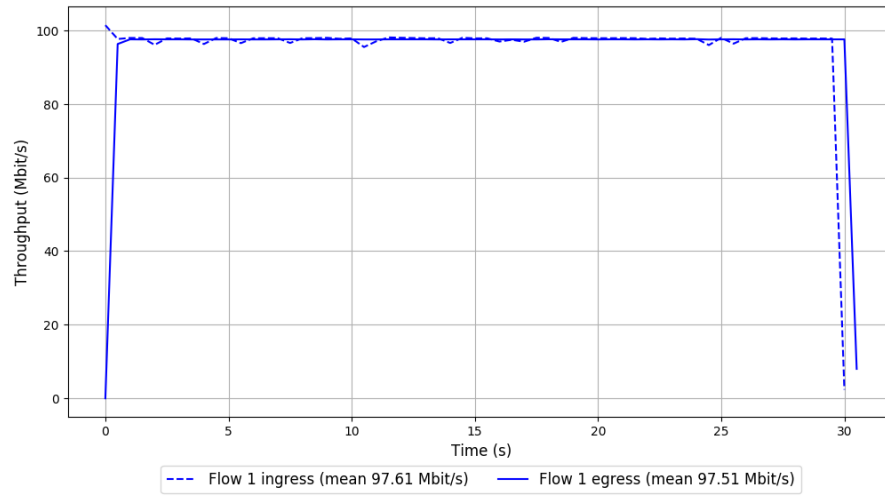
-- Flow 1:

Average throughput: 97.51 Mbit/s

95th percentile per-packet one-way delay: 28.716 ms

Loss rate: 0.01%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-11-02 19:45:52

End at: 2018-11-02 19:46:22

Local clock offset: -7.998 ms

Remote clock offset: 0.481 ms

Below is generated by plot.py at 2018-11-02 19:49:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.52 Mbit/s

95th percentile per-packet one-way delay: 31.186 ms

Loss rate: 0.01%

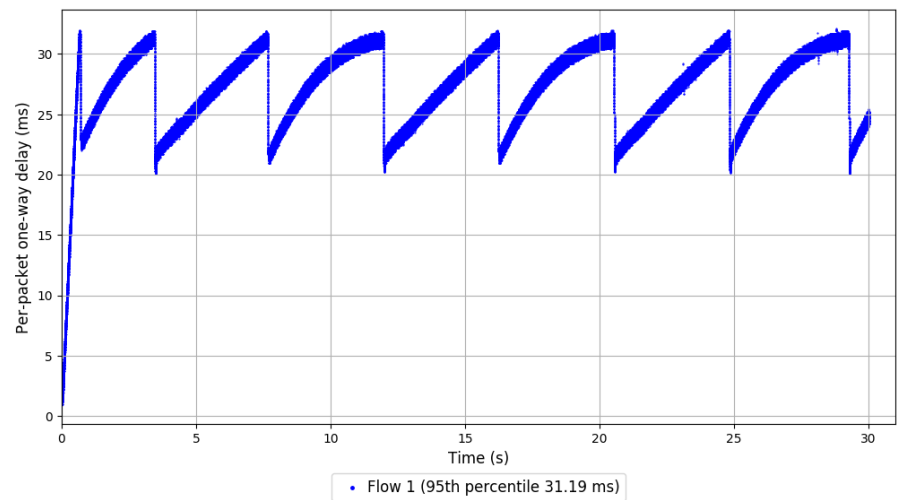
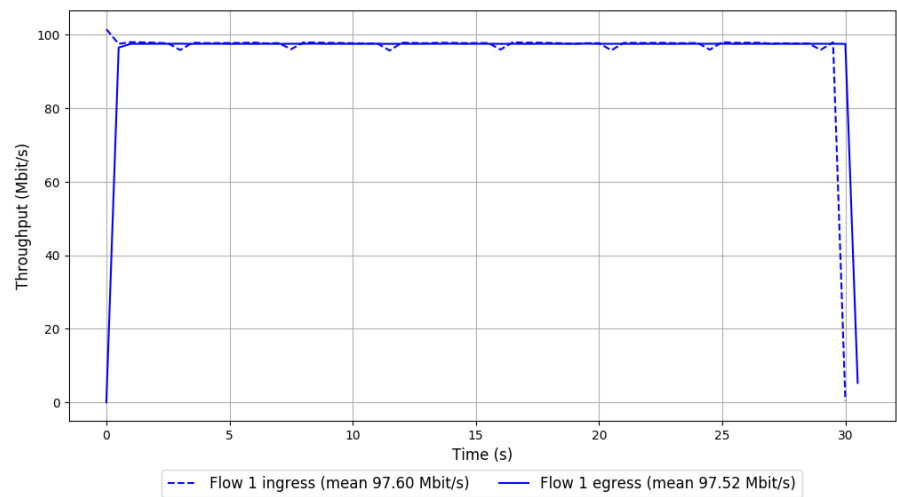
-- Flow 1:

Average throughput: 97.52 Mbit/s

95th percentile per-packet one-way delay: 31.186 ms

Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-11-02 18:20:05

End at: 2018-11-02 18:20:35

Local clock offset: -1.97 ms

Remote clock offset: 0.128 ms

Below is generated by plot.py at 2018-11-02 19:50:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.00 Mbit/s

95th percentile per-packet one-way delay: 7.601 ms

Loss rate: 0.21%

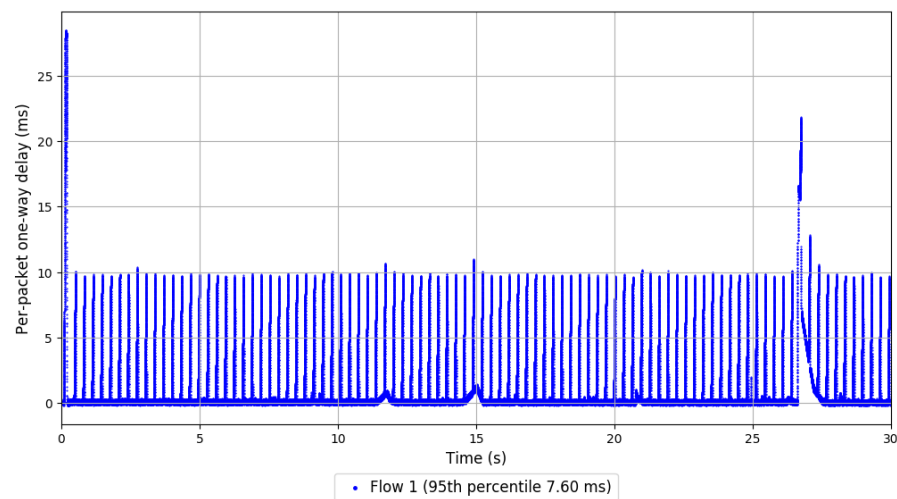
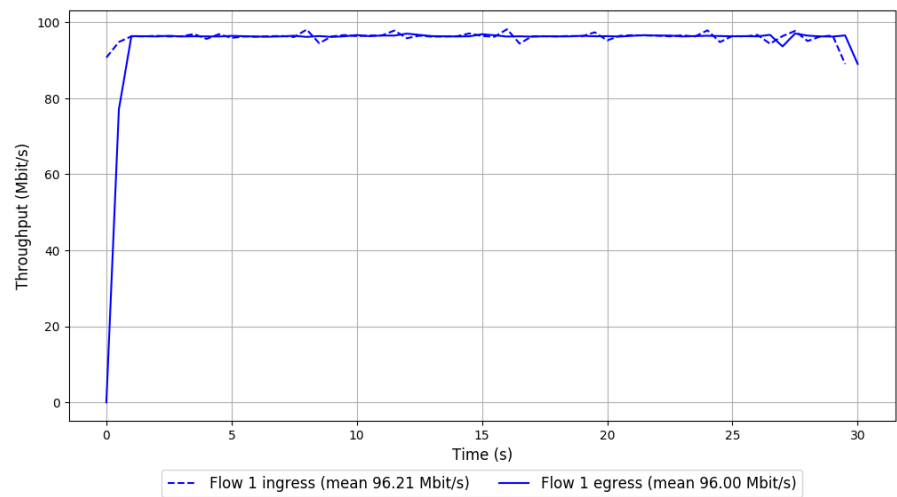
-- Flow 1:

Average throughput: 96.00 Mbit/s

95th percentile per-packet one-way delay: 7.601 ms

Loss rate: 0.21%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-11-02 18:40:21

End at: 2018-11-02 18:40:51

Local clock offset: -5.934 ms

Remote clock offset: 0.158 ms

Below is generated by plot.py at 2018-11-02 19:50:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.078 ms

Loss rate: 0.32%

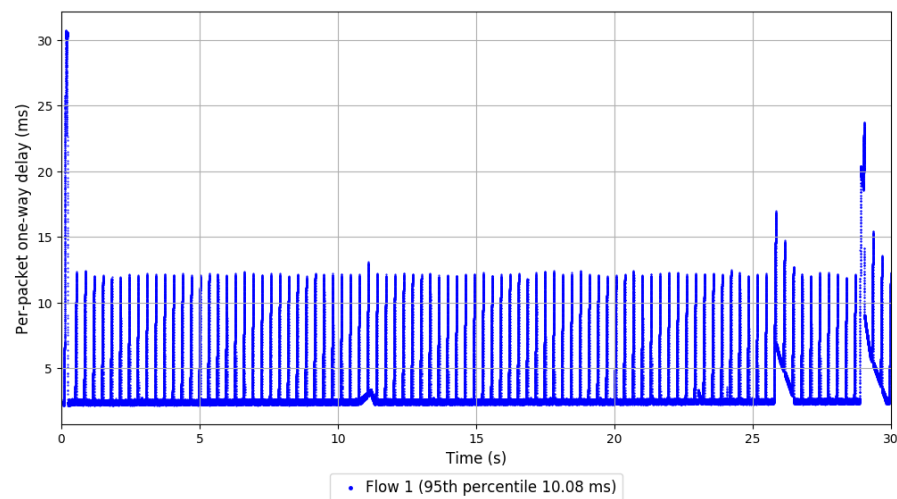
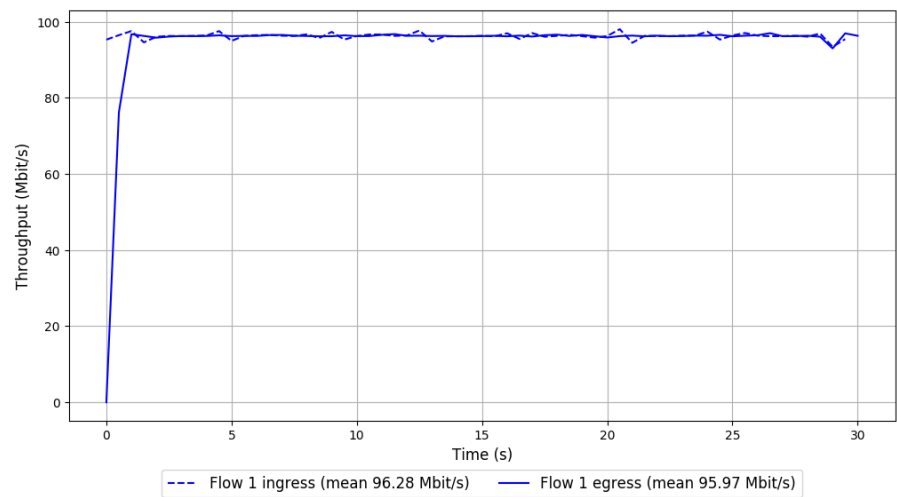
-- Flow 1:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.078 ms

Loss rate: 0.32%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-11-02 19:00:43

End at: 2018-11-02 19:01:13

Local clock offset: -4.941 ms

Remote clock offset: 0.184 ms

Below is generated by plot.py at 2018-11-02 19:50:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.04 Mbit/s

95th percentile per-packet one-way delay: 7.890 ms

Loss rate: 0.29%

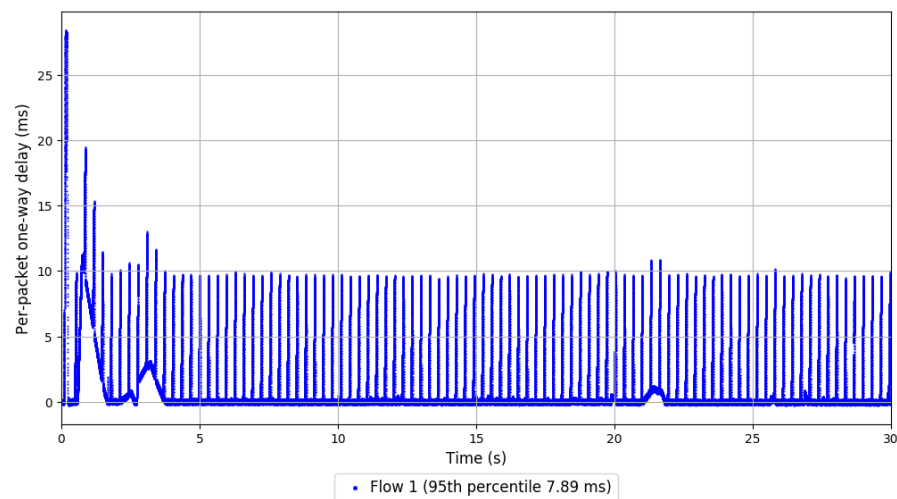
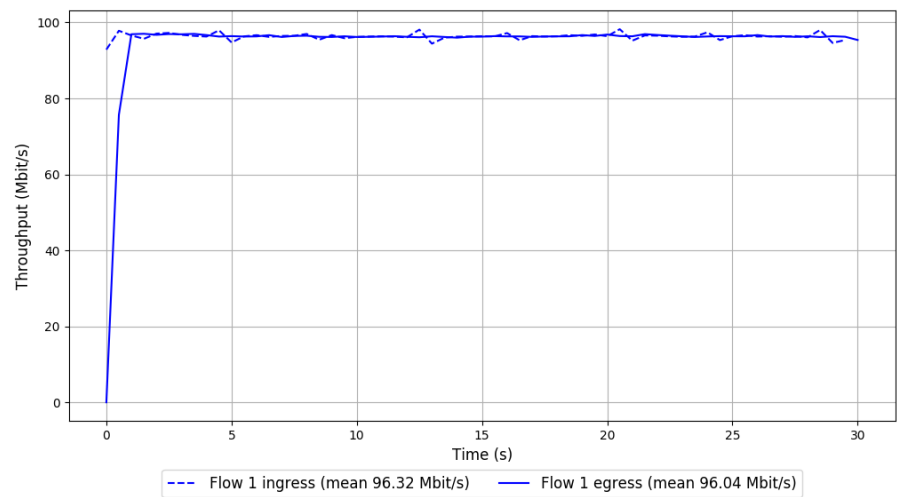
-- Flow 1:

Average throughput: 96.04 Mbit/s

95th percentile per-packet one-way delay: 7.890 ms

Loss rate: 0.29%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-11-02 19:20:59

End at: 2018-11-02 19:21:29

Local clock offset: -6.653 ms

Remote clock offset: 0.348 ms

Below is generated by plot.py at 2018-11-02 19:50:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 8.948 ms

Loss rate: 0.31%

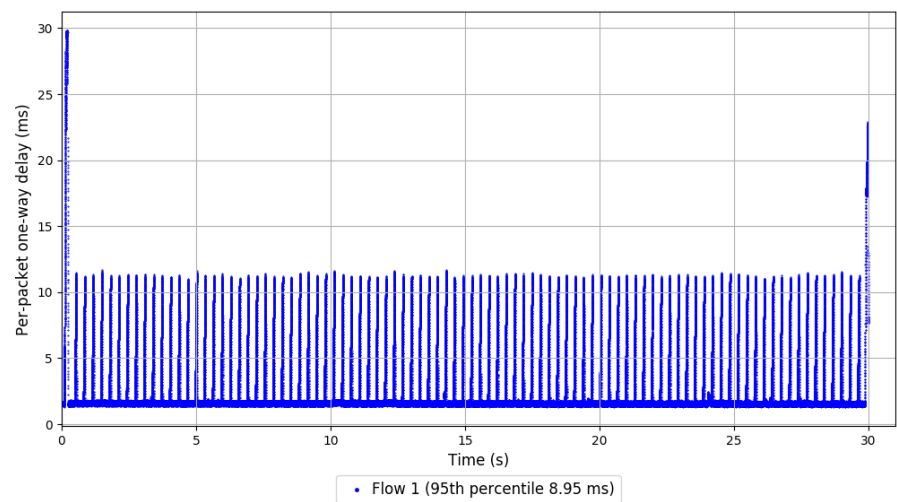
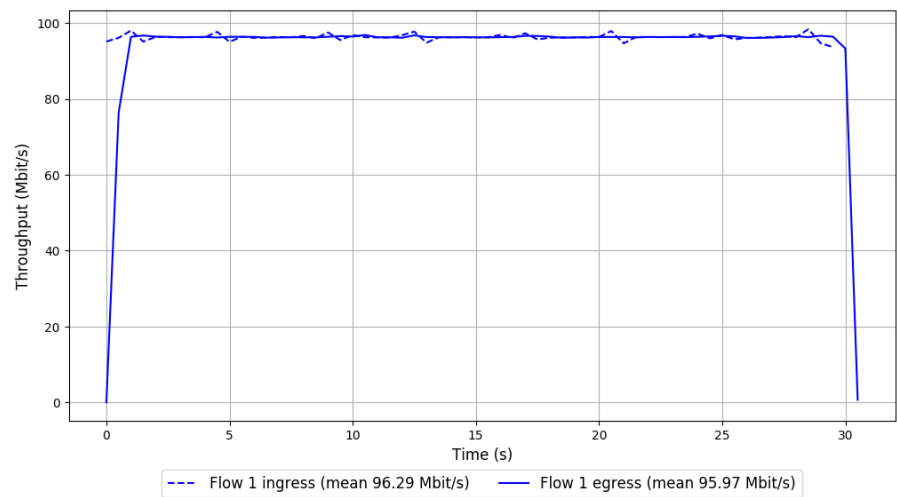
-- Flow 1:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 8.948 ms

Loss rate: 0.31%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-11-02 19:41:16

End at: 2018-11-02 19:41:46

Local clock offset: -8.065 ms

Remote clock offset: 0.327 ms

Below is generated by plot.py at 2018-11-02 19:50:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 8.143 ms

Loss rate: 0.29%

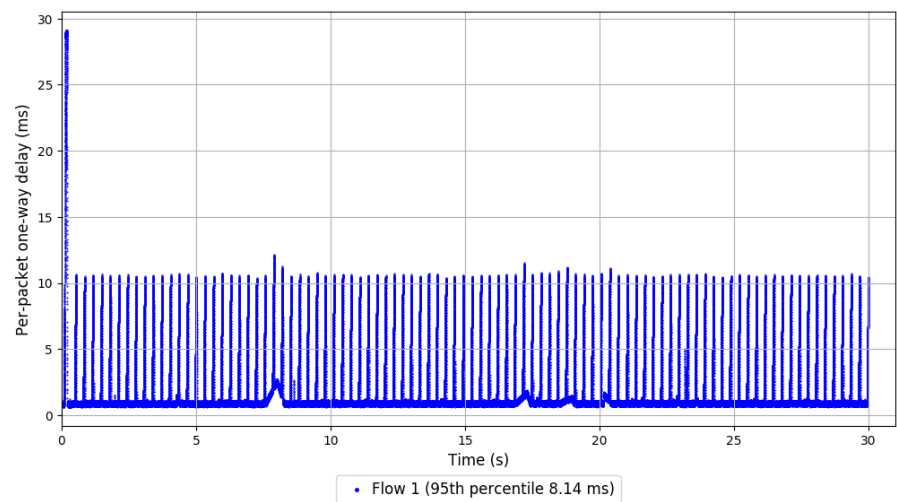
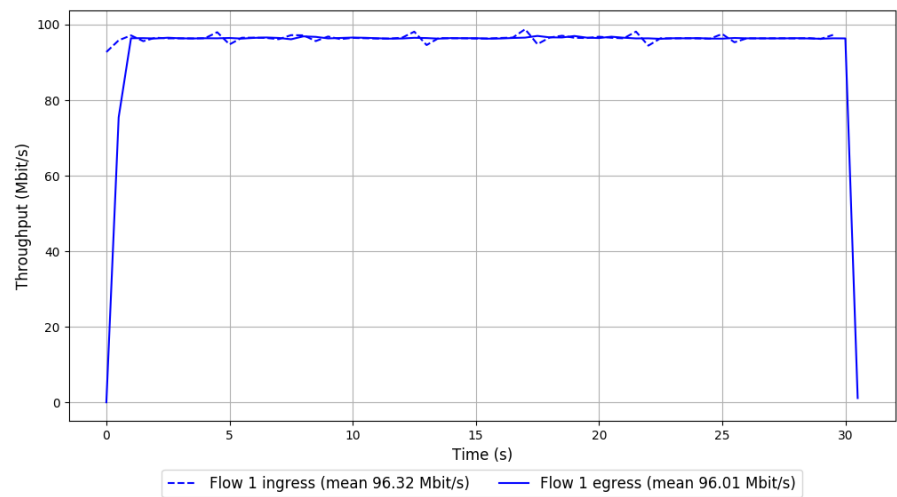
-- Flow 1:

Average throughput: 96.01 Mbit/s

95th percentile per-packet one-way delay: 8.143 ms

Loss rate: 0.29%

Run 5: Report of FillP — Data Link

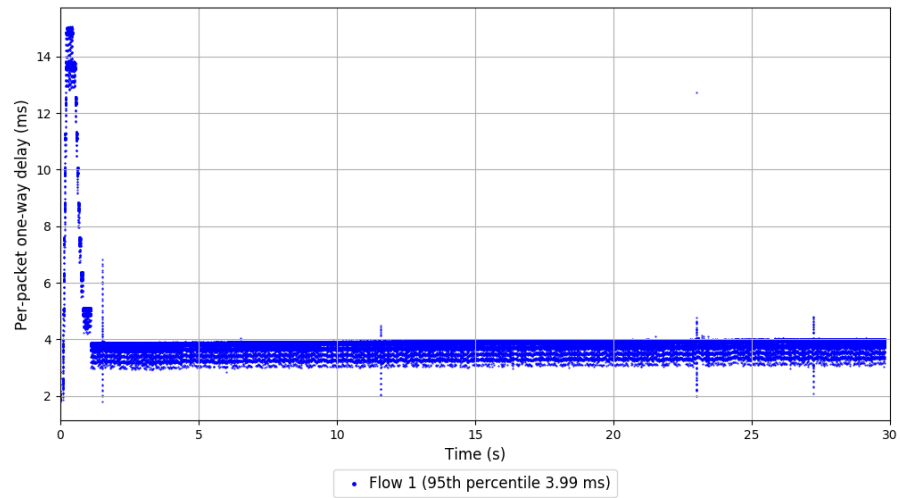
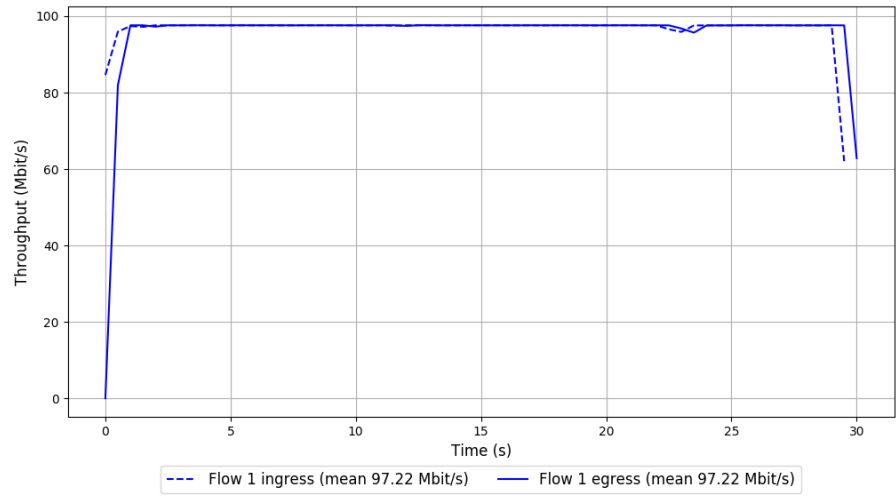


```
Run 1: Statistics of Indigo

Start at: 2018-11-02 18:11:08
End at: 2018-11-02 18:11:38
Local clock offset: -2.693 ms
Remote clock offset: 0.181 ms

# Below is generated by plot.py at 2018-11-02 19:50:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 3.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 3.988 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-11-02 18:31:22

End at: 2018-11-02 18:31:52

Local clock offset: -7.213 ms

Remote clock offset: 0.128 ms

Below is generated by plot.py at 2018-11-02 19:51:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 5.143 ms

Loss rate: 0.00%

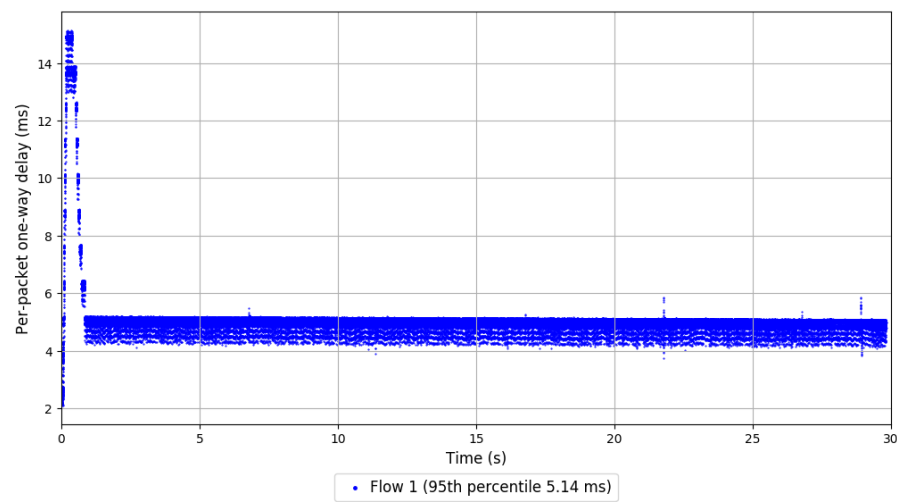
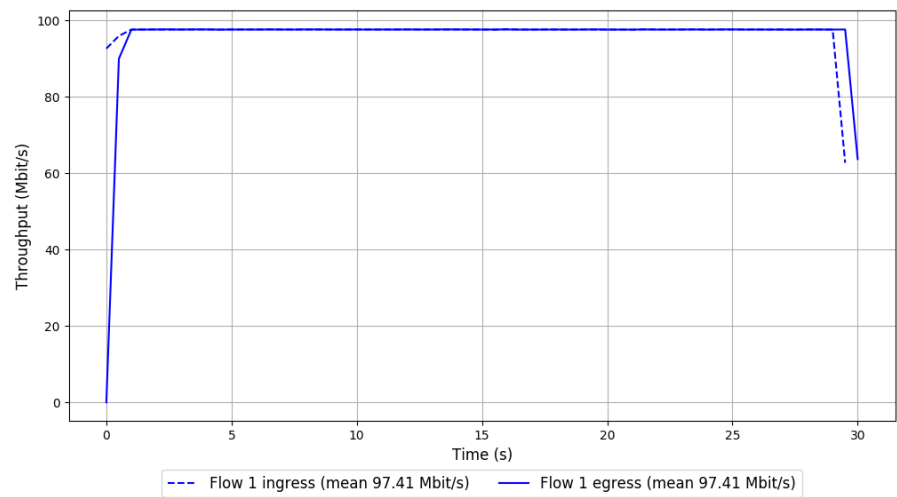
-- Flow 1:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 5.143 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-11-02 18:51:44

End at: 2018-11-02 18:52:14

Local clock offset: -6.05 ms

Remote clock offset: 0.133 ms

Below is generated by plot.py at 2018-11-02 19:51:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 6.030 ms

Loss rate: 0.00%

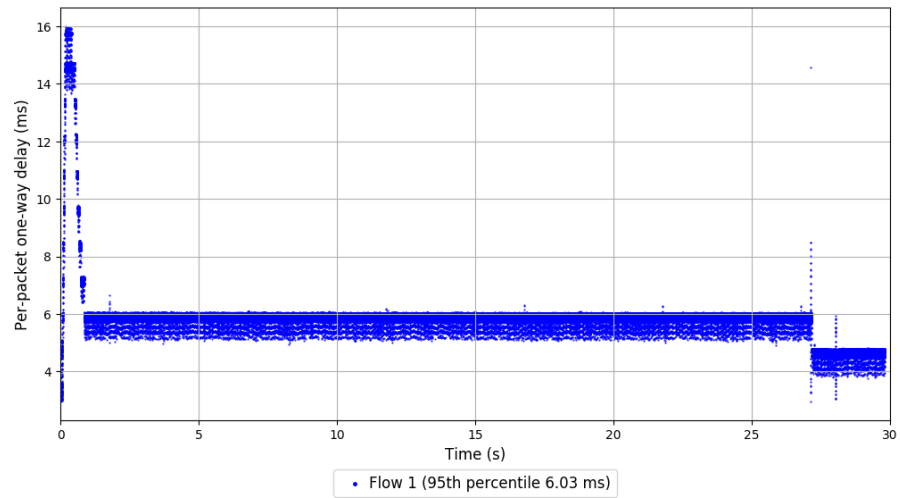
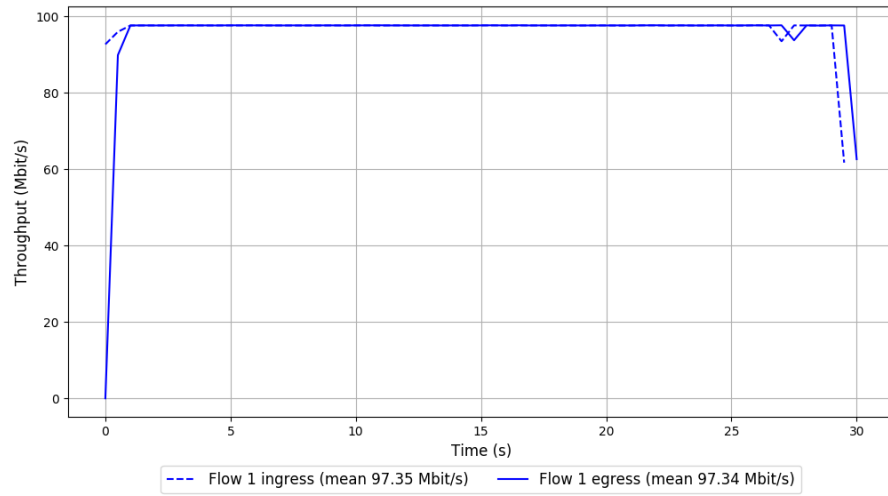
-- Flow 1:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 6.030 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-11-02 19:12:02

End at: 2018-11-02 19:12:32

Local clock offset: -6.604 ms

Remote clock offset: 0.199 ms

Below is generated by plot.py at 2018-11-02 19:51:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.40 Mbit/s

95th percentile per-packet one-way delay: 2.689 ms

Loss rate: 0.00%

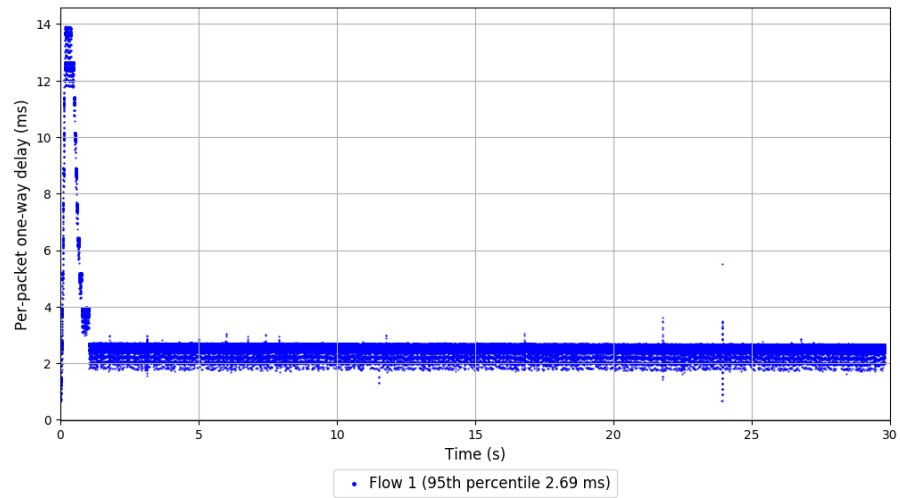
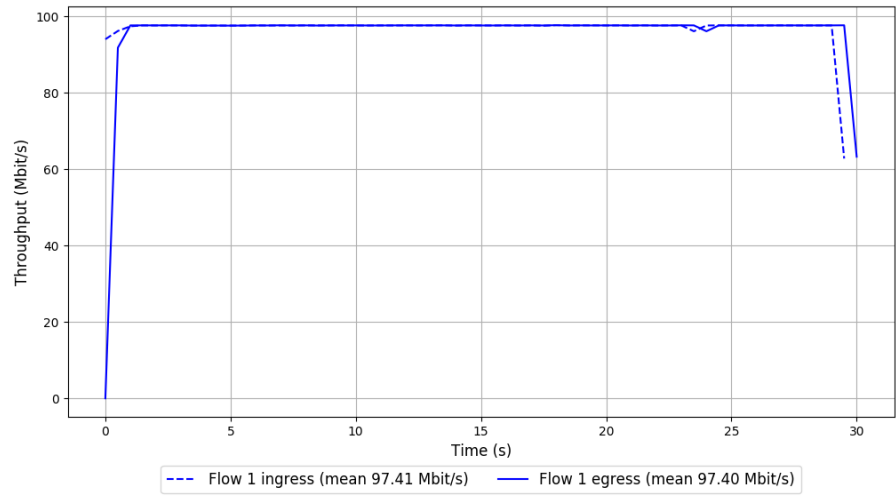
-- Flow 1:

Average throughput: 97.40 Mbit/s

95th percentile per-packet one-way delay: 2.689 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-11-02 19:32:19

End at: 2018-11-02 19:32:49

Local clock offset: -7.789 ms

Remote clock offset: 0.294 ms

Below is generated by plot.py at 2018-11-02 19:51:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 4.451 ms

Loss rate: 0.00%

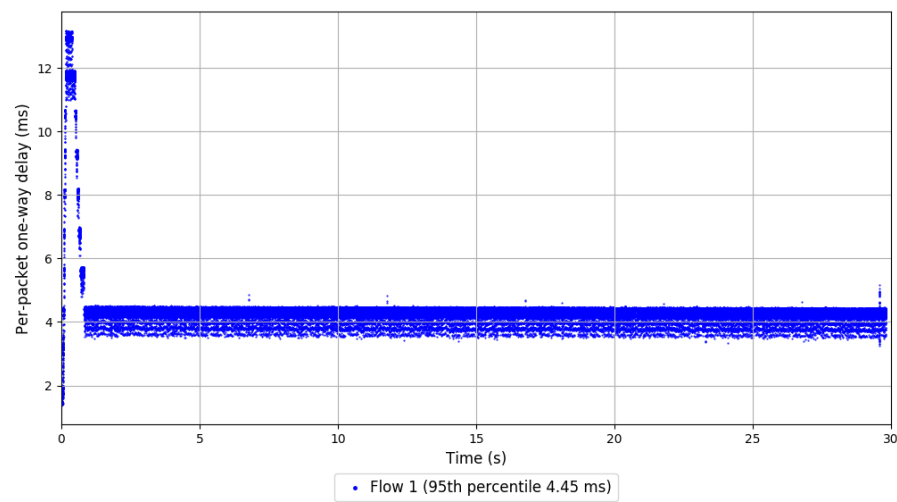
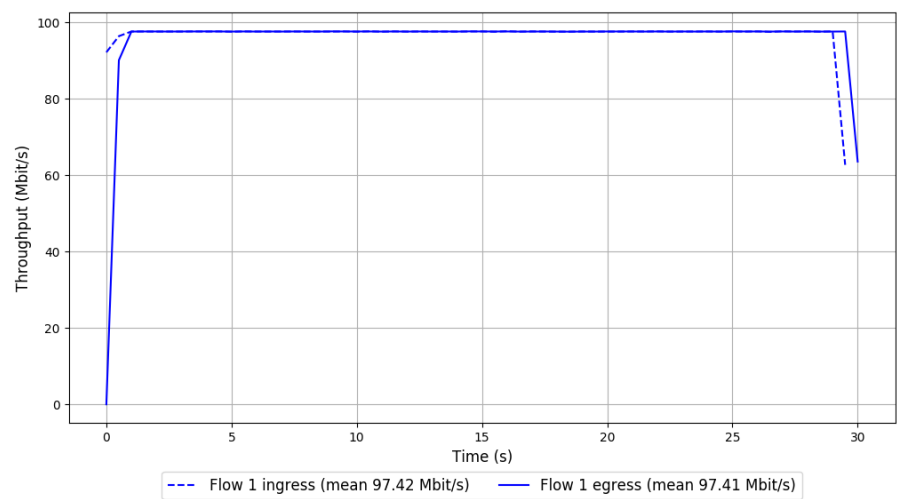
-- Flow 1:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 4.451 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-02 18:23:31

End at: 2018-11-02 18:24:01

Local clock offset: -5.1 ms

Remote clock offset: 0.135 ms

Below is generated by plot.py at 2018-11-02 19:51:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 8.933 ms

Loss rate: 0.00%

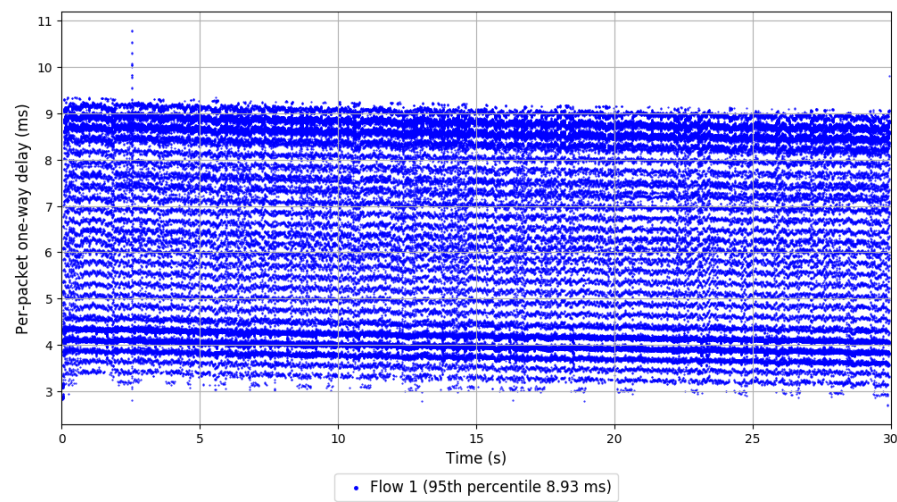
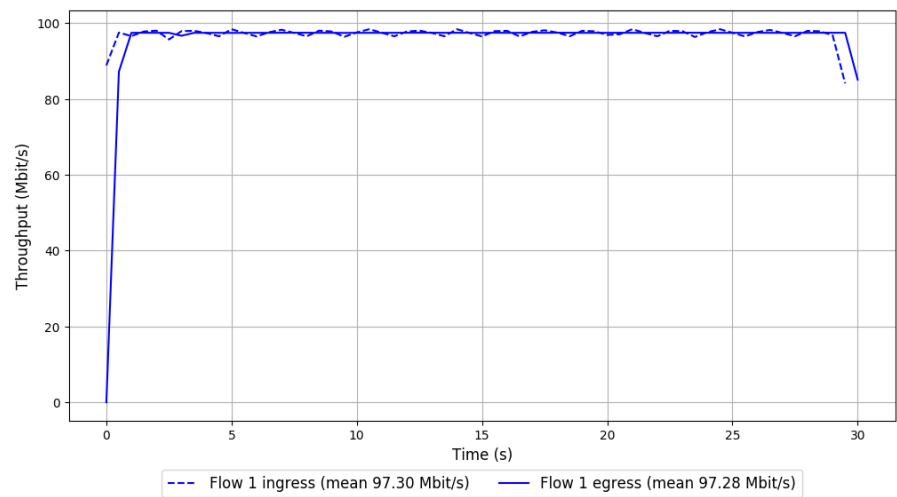
-- Flow 1:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 8.933 ms

Loss rate: 0.00%

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



Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-02 18:43:50

End at: 2018-11-02 18:44:20

Local clock offset: -5.423 ms

Remote clock offset: 0.264 ms

Below is generated by plot.py at 2018-11-02 19:51:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.63 Mbit/s

95th percentile per-packet one-way delay: 3.969 ms

Loss rate: 0.00%

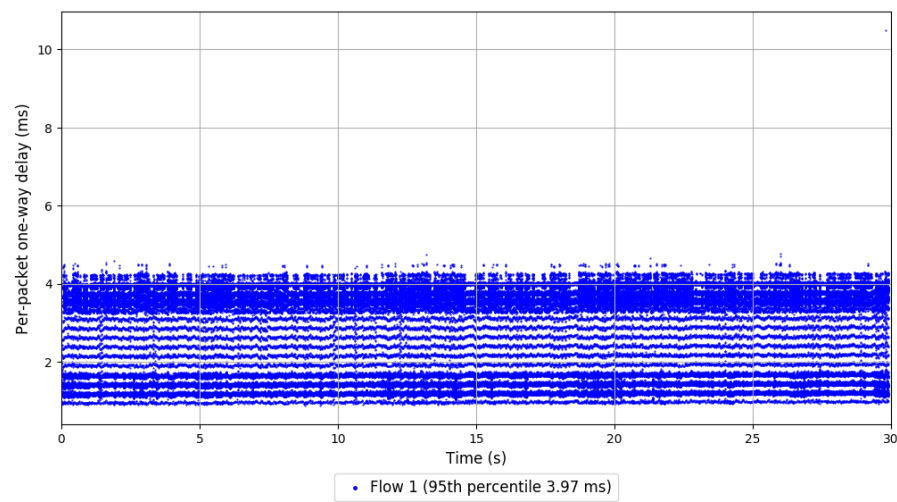
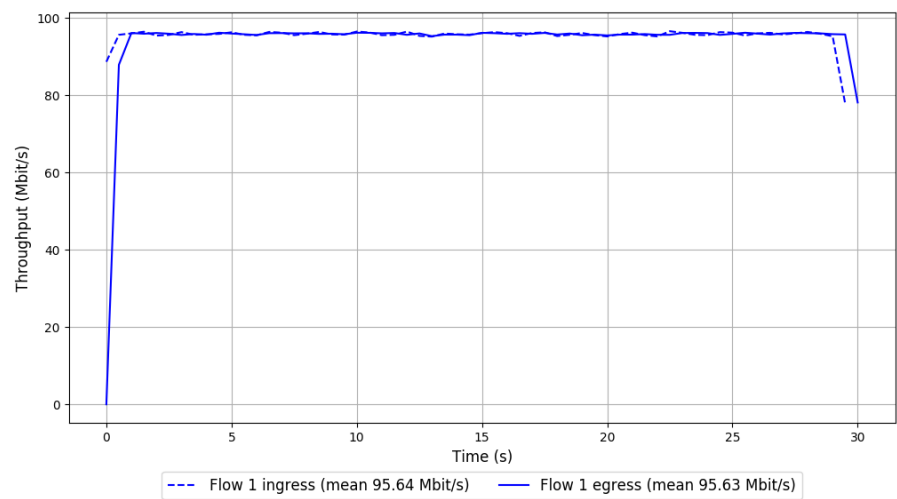
-- Flow 1:

Average throughput: 95.63 Mbit/s

95th percentile per-packet one-way delay: 3.969 ms

Loss rate: 0.00%

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



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-02 19:04:09

End at: 2018-11-02 19:04:39

Local clock offset: -5.253 ms

Remote clock offset: 0.283 ms

Below is generated by plot.py at 2018-11-02 19:51:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.29 Mbit/s

95th percentile per-packet one-way delay: 7.710 ms

Loss rate: 0.00%

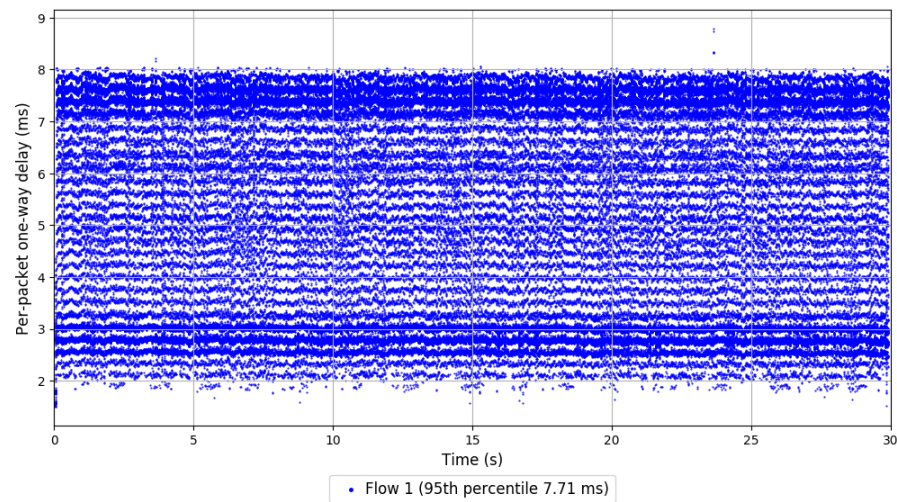
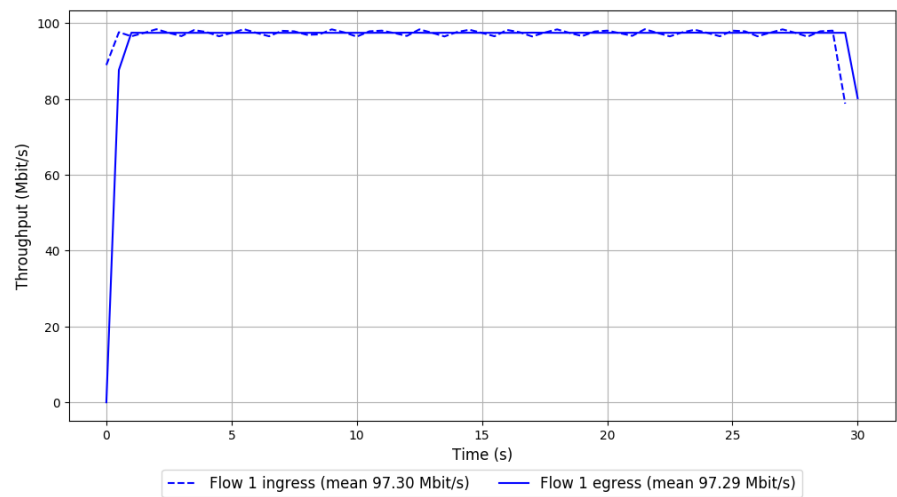
-- Flow 1:

Average throughput: 97.29 Mbit/s

95th percentile per-packet one-way delay: 7.710 ms

Loss rate: 0.00%

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



Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-02 19:24:27

End at: 2018-11-02 19:24:57

Local clock offset: -8.616 ms

Remote clock offset: 0.286 ms

Below is generated by plot.py at 2018-11-02 19:51:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.58 Mbit/s

95th percentile per-packet one-way delay: 4.600 ms

Loss rate: 0.00%

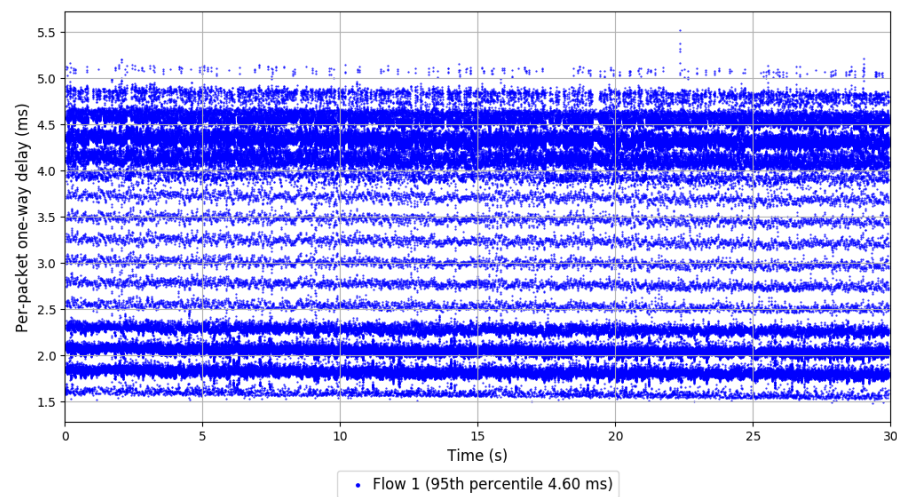
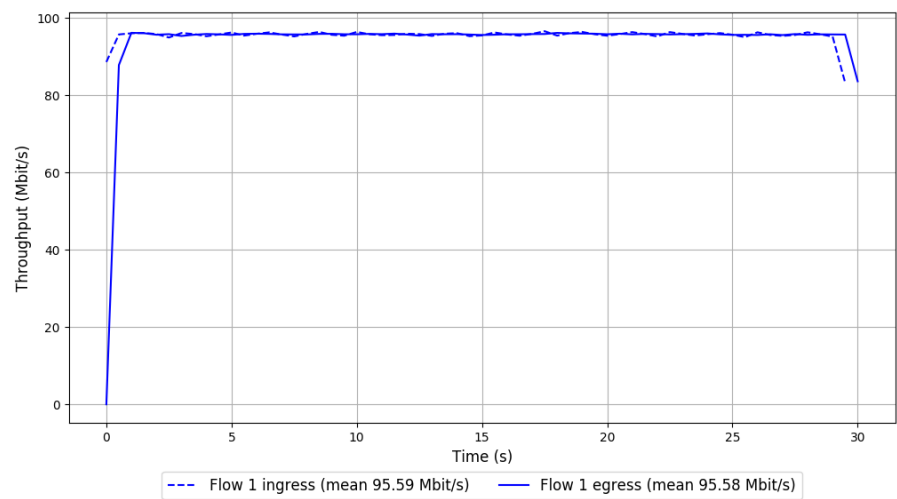
-- Flow 1:

Average throughput: 95.58 Mbit/s

95th percentile per-packet one-way delay: 4.600 ms

Loss rate: 0.00%

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



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-02 19:44:42

End at: 2018-11-02 19:45:12

Local clock offset: -8.054 ms

Remote clock offset: 0.45 ms

Below is generated by plot.py at 2018-11-02 19:52:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 8.614 ms

Loss rate: 0.00%

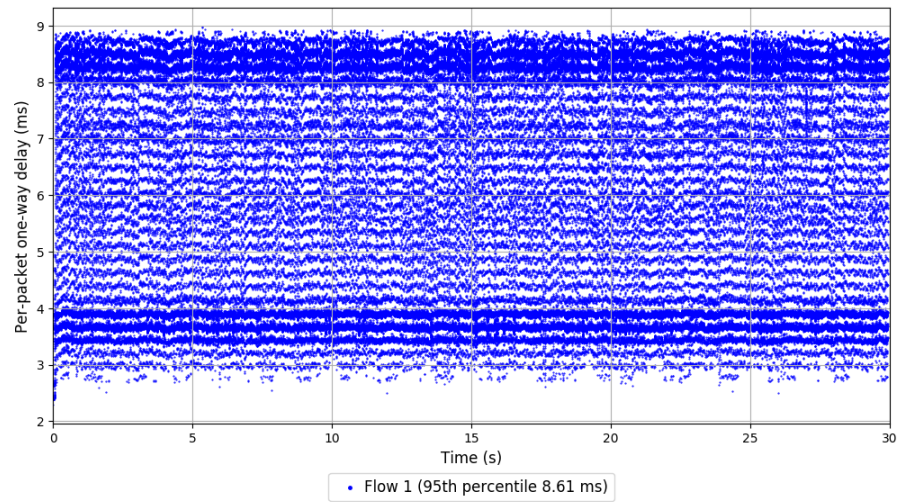
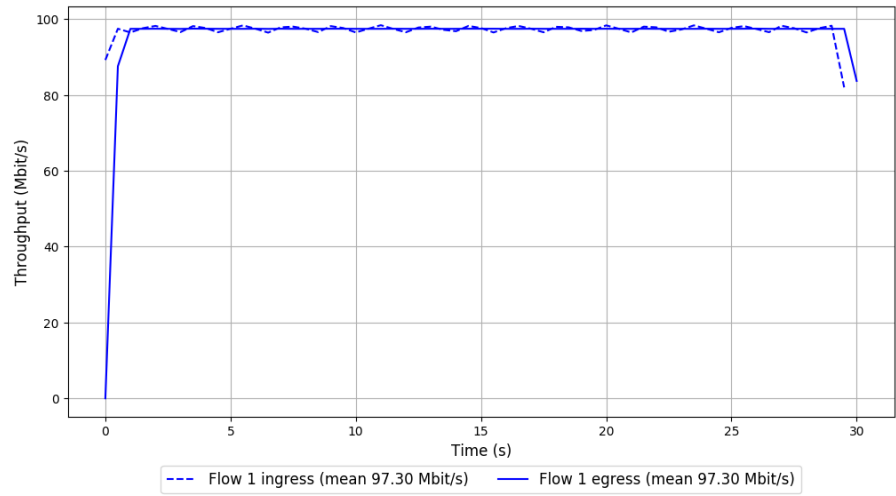
-- Flow 1:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 8.614 ms

Loss rate: 0.00%

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

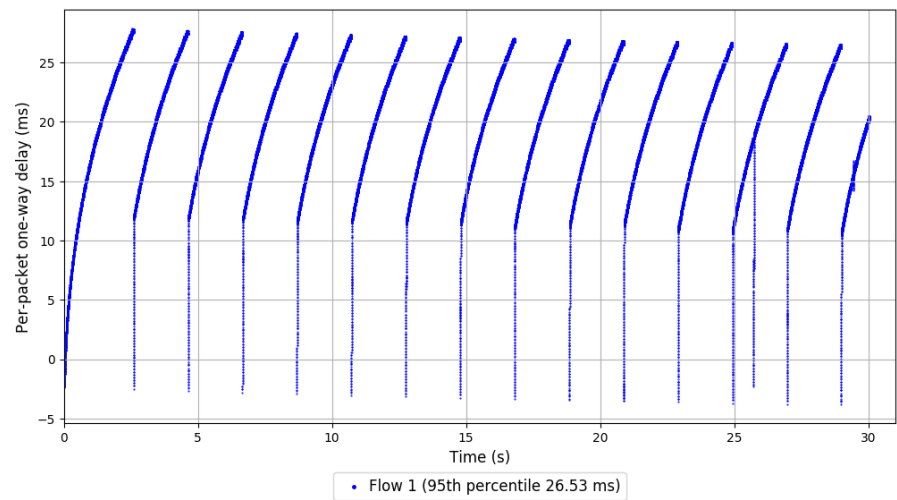
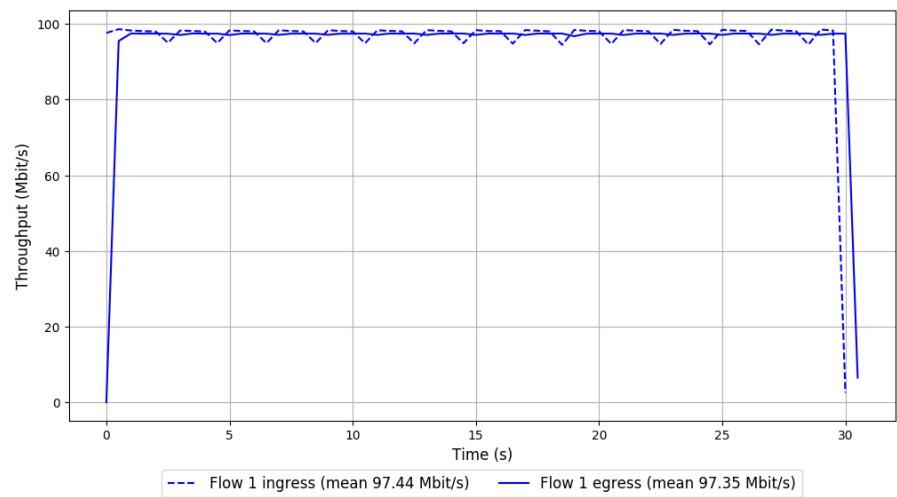


```
Run 1: Statistics of LEDBAT

Start at: 2018-11-02 18:06:40
End at: 2018-11-02 18:07:10
Local clock offset: -0.981 ms
Remote clock offset: 0.174 ms

# Below is generated by plot.py at 2018-11-02 19:52:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 26.528 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 97.35 Mbit/s
95th percentile per-packet one-way delay: 26.528 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-11-02 18:26:55

End at: 2018-11-02 18:27:25

Local clock offset: -5.949 ms

Remote clock offset: 0.204 ms

Below is generated by plot.py at 2018-11-02 19:52:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.22 Mbit/s

95th percentile per-packet one-way delay: 31.873 ms

Loss rate: 0.01%

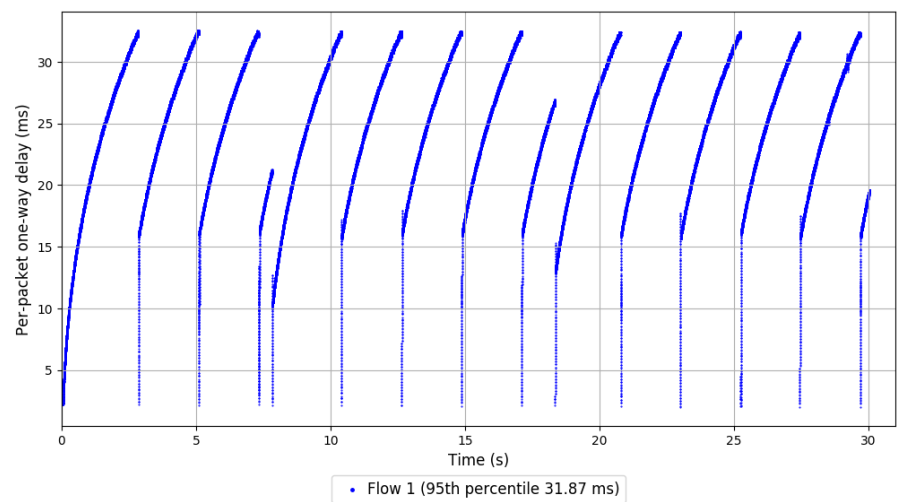
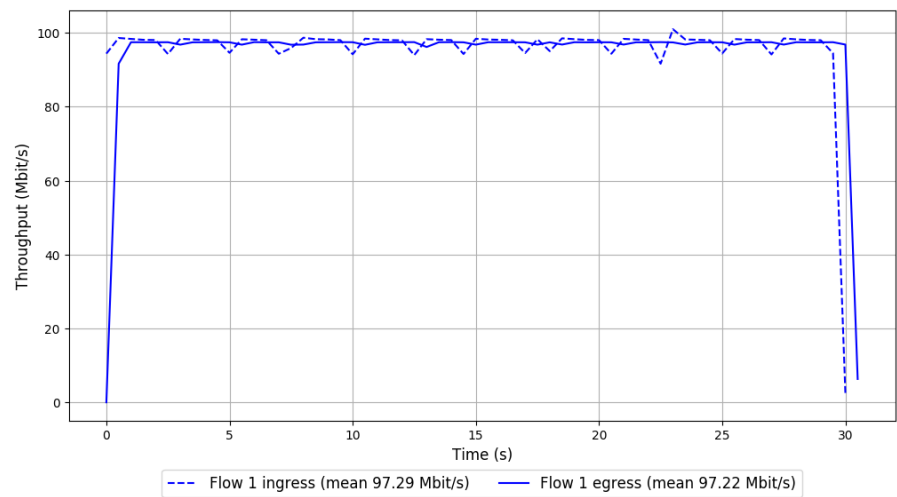
-- Flow 1:

Average throughput: 97.22 Mbit/s

95th percentile per-packet one-way delay: 31.873 ms

Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-11-02 18:47:16

End at: 2018-11-02 18:47:46

Local clock offset: -5.241 ms

Remote clock offset: 0.221 ms

Below is generated by plot.py at 2018-11-02 19:52:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 32.140 ms

Loss rate: 0.01%

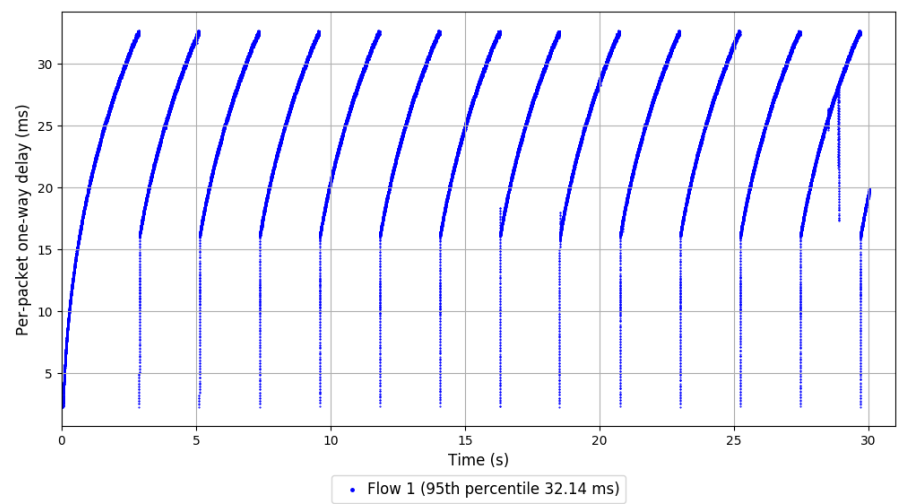
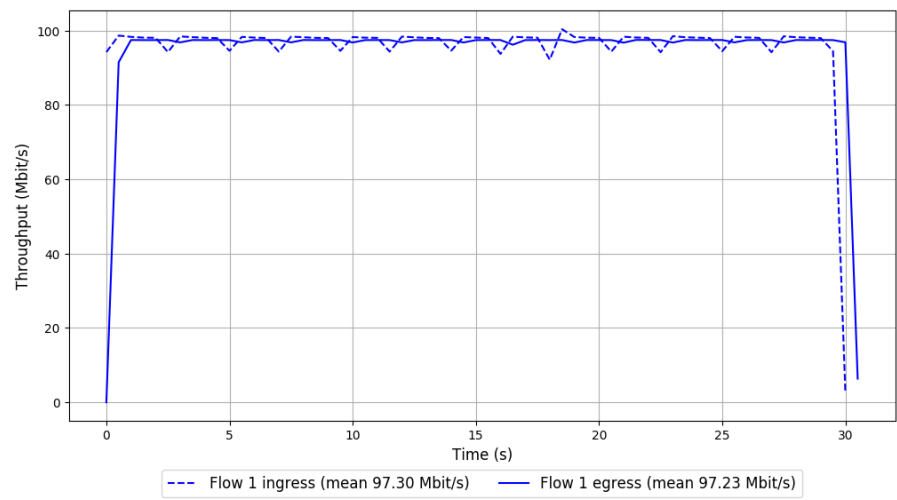
-- Flow 1:

Average throughput: 97.23 Mbit/s

95th percentile per-packet one-way delay: 32.140 ms

Loss rate: 0.01%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-11-02 19:07:34

End at: 2018-11-02 19:08:04

Local clock offset: -7.073 ms

Remote clock offset: 0.164 ms

Below is generated by plot.py at 2018-11-02 19:52:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.33 Mbit/s

95th percentile per-packet one-way delay: 31.264 ms

Loss rate: 0.01%

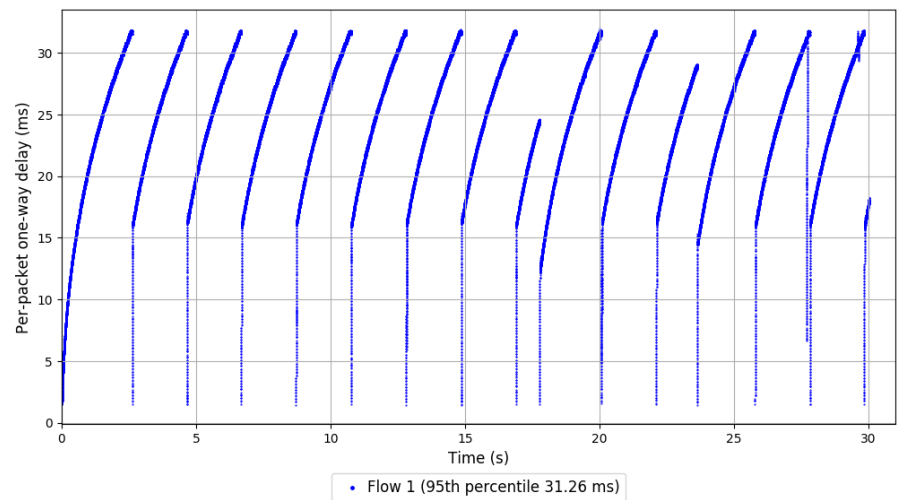
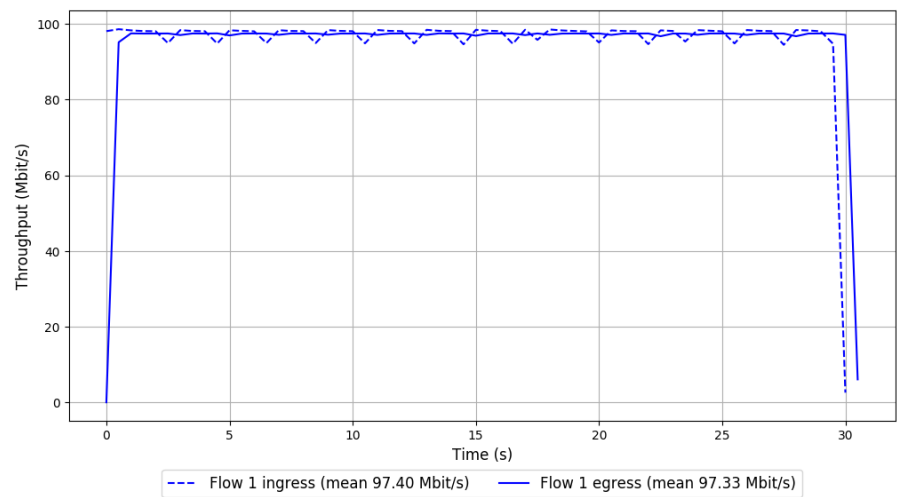
-- Flow 1:

Average throughput: 97.33 Mbit/s

95th percentile per-packet one-way delay: 31.264 ms

Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-11-02 19:27:52

End at: 2018-11-02 19:28:22

Local clock offset: -7.37 ms

Remote clock offset: 0.32 ms

Below is generated by plot.py at 2018-11-02 19:52:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 31.272 ms

Loss rate: 0.01%

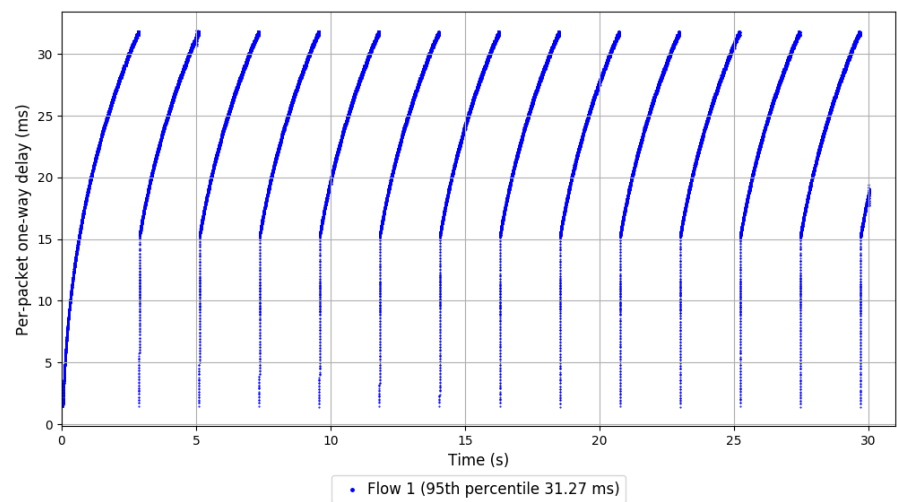
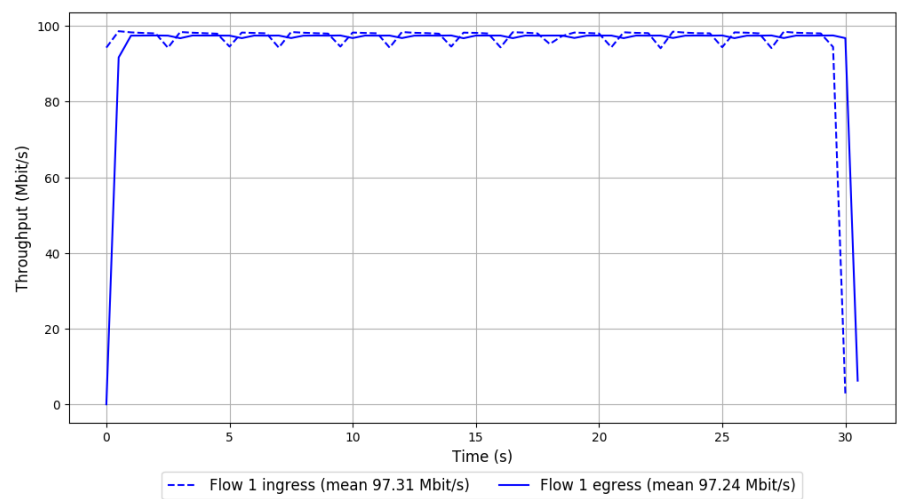
-- Flow 1:

Average throughput: 97.24 Mbit/s

95th percentile per-packet one-way delay: 31.272 ms

Loss rate: 0.01%

Run 5: Report of LEDBAT — Data Link

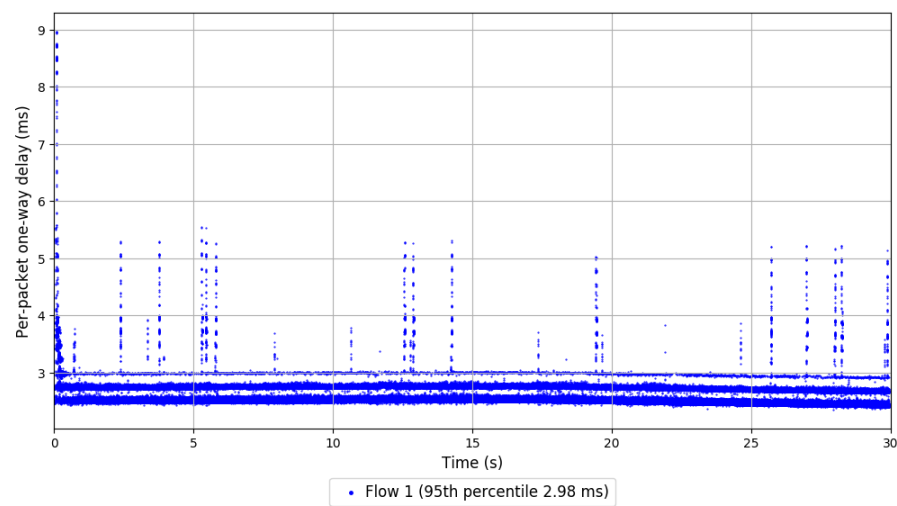
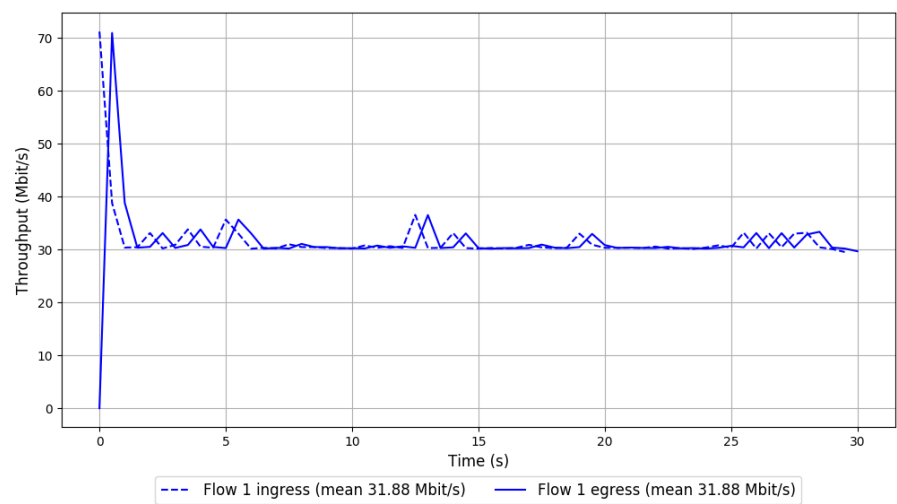


```
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-02 18:12:19
End at: 2018-11-02 18:12:49
Local clock offset: -1.602 ms
Remote clock offset: 0.183 ms

# Below is generated by plot.py at 2018-11-02 19:52:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 2.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.88 Mbit/s
95th percentile per-packet one-way delay: 2.985 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-Muses — Data Link



Run 2: Statistics of Indigo-Muses

Start at: 2018-11-02 18:32:33

End at: 2018-11-02 18:33:03

Local clock offset: -7.585 ms

Remote clock offset: 0.221 ms

Below is generated by plot.py at 2018-11-02 19:52:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.64 Mbit/s

95th percentile per-packet one-way delay: 1.349 ms

Loss rate: 0.00%

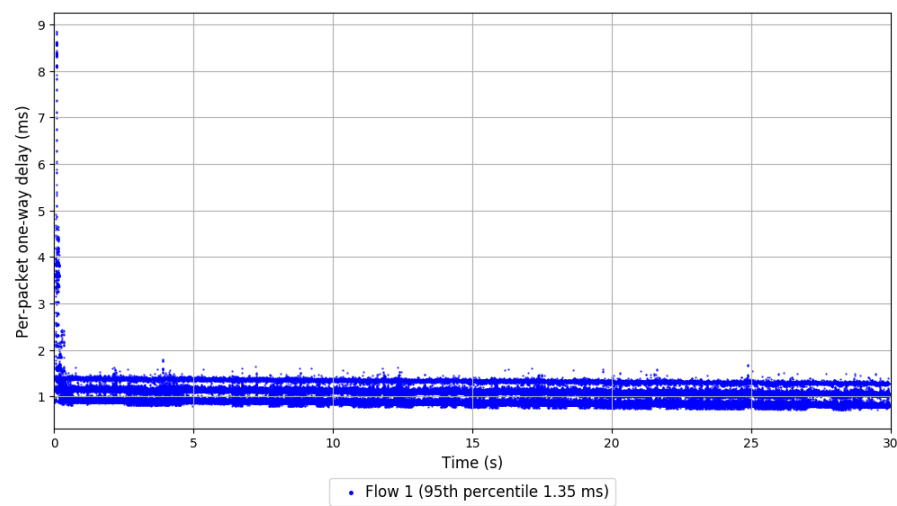
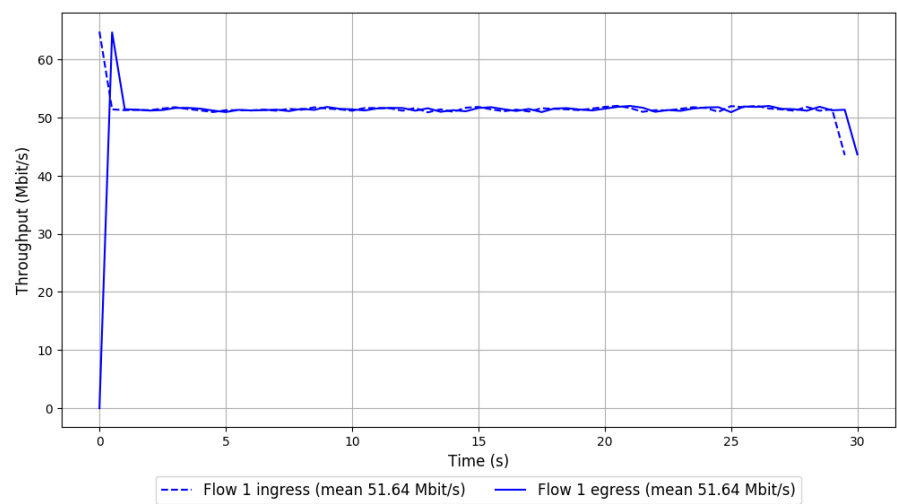
-- Flow 1:

Average throughput: 51.64 Mbit/s

95th percentile per-packet one-way delay: 1.349 ms

Loss rate: 0.00%

Run 2: Report of Indigo-Muses — Data Link



Run 3: Statistics of Indigo-Muses

Start at: 2018-11-02 18:52:55

End at: 2018-11-02 18:53:25

Local clock offset: -6.028 ms

Remote clock offset: 0.216 ms

Below is generated by plot.py at 2018-11-02 19:52:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.77 Mbit/s

95th percentile per-packet one-way delay: 2.065 ms

Loss rate: 0.00%

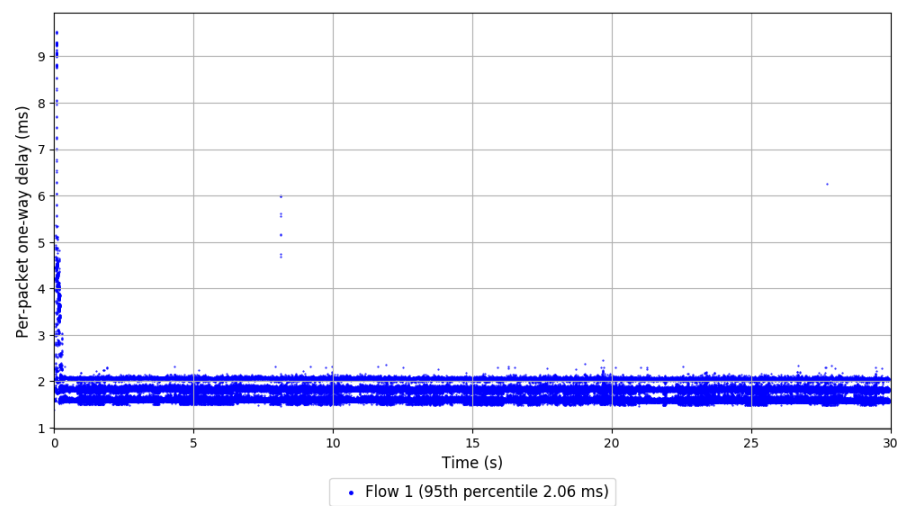
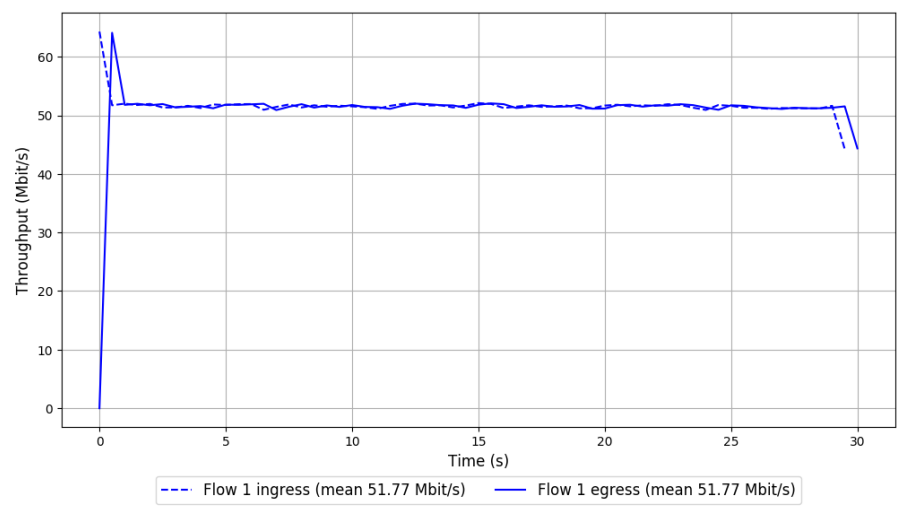
-- Flow 1:

Average throughput: 51.77 Mbit/s

95th percentile per-packet one-way delay: 2.065 ms

Loss rate: 0.00%

Run 3: Report of Indigo-Muses — Data Link



Run 4: Statistics of Indigo-Muses

Start at: 2018-11-02 19:13:13

End at: 2018-11-02 19:13:43

Local clock offset: -5.951 ms

Remote clock offset: 0.34 ms

Below is generated by plot.py at 2018-11-02 19:52:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.12 Mbit/s

95th percentile per-packet one-way delay: 0.564 ms

Loss rate: 0.00%

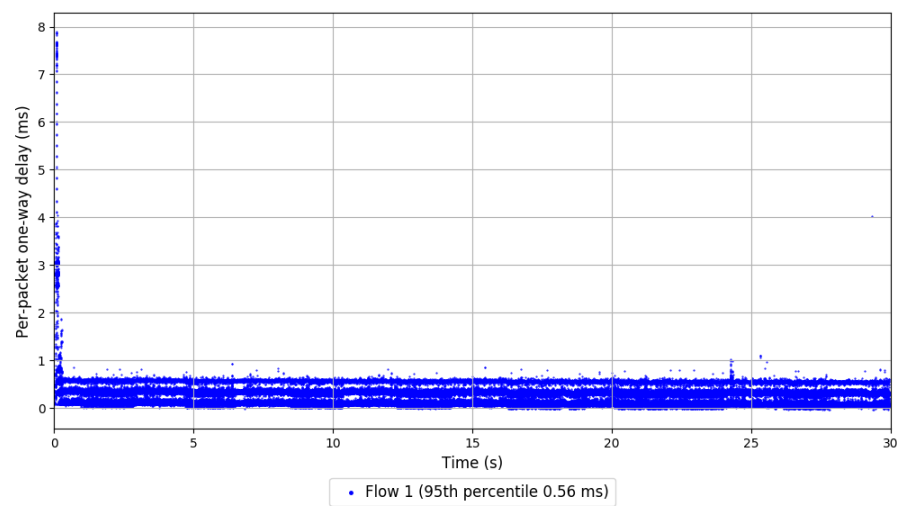
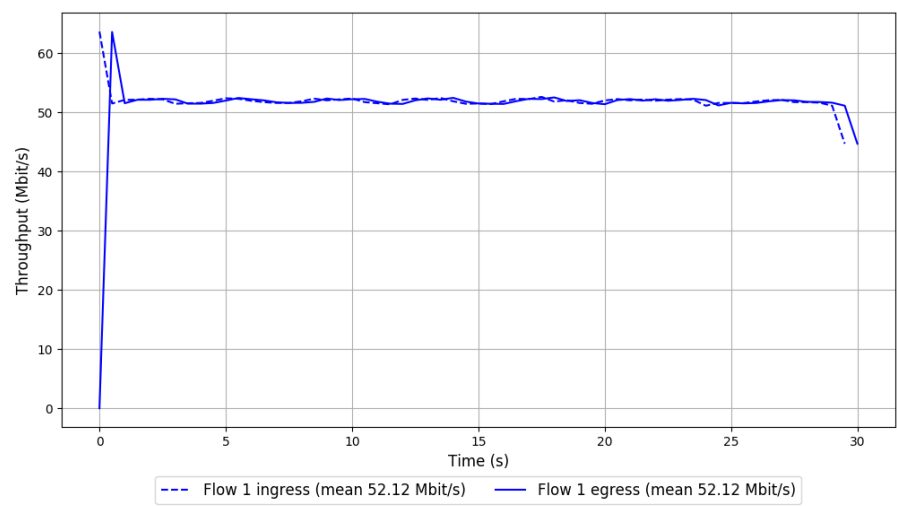
-- Flow 1:

Average throughput: 52.12 Mbit/s

95th percentile per-packet one-way delay: 0.564 ms

Loss rate: 0.00%

Run 4: Report of Indigo-Muses — Data Link



Run 5: Statistics of Indigo-Muses

Start at: 2018-11-02 19:33:30

End at: 2018-11-02 19:34:00

Local clock offset: -7.897 ms

Remote clock offset: 0.406 ms

Below is generated by plot.py at 2018-11-02 19:52:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.93 Mbit/s

95th percentile per-packet one-way delay: 0.547 ms

Loss rate: 0.00%

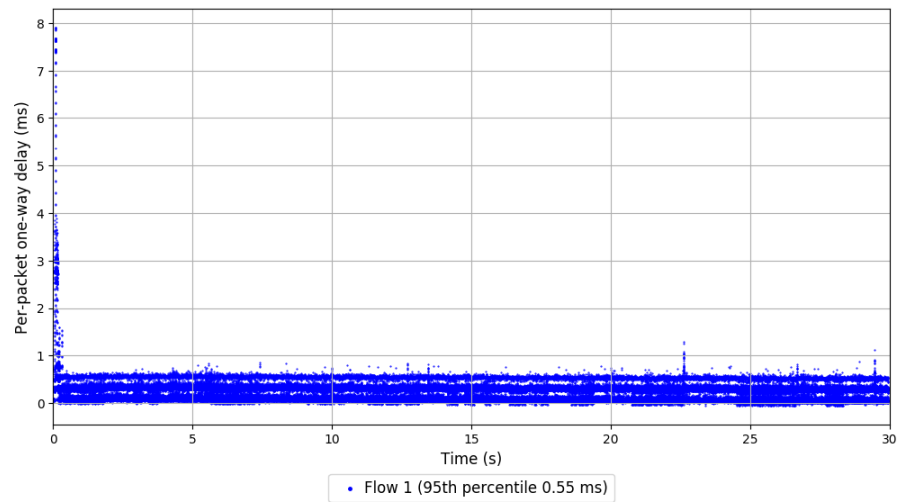
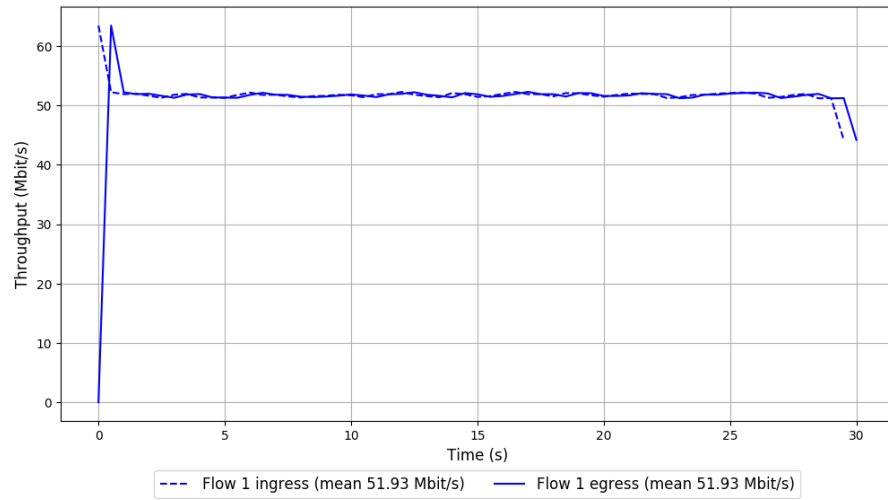
-- Flow 1:

Average throughput: 51.93 Mbit/s

95th percentile per-packet one-way delay: 0.547 ms

Loss rate: 0.00%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-11-02 18:08:56

End at: 2018-11-02 18:09:26

Local clock offset: -6.186 ms

Remote clock offset: 0.182 ms

Below is generated by plot.py at 2018-11-02 19:53:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.84 Mbit/s

95th percentile per-packet one-way delay: 5.574 ms

Loss rate: 0.00%

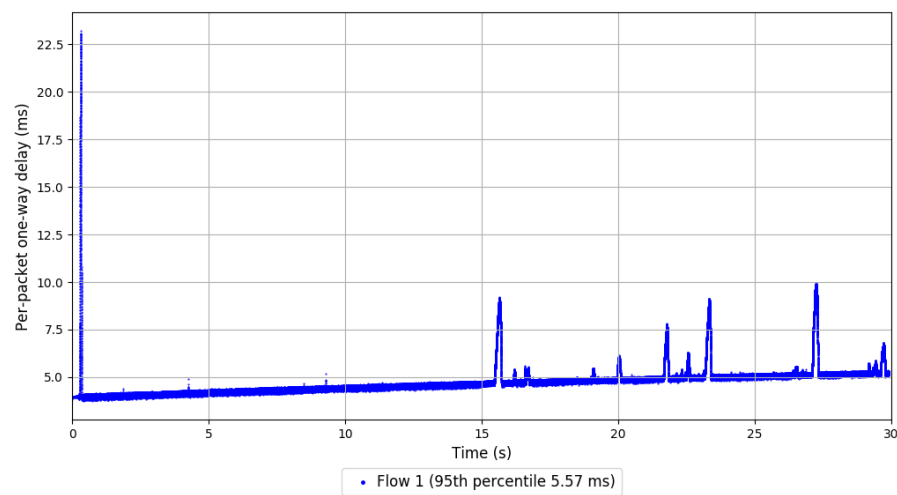
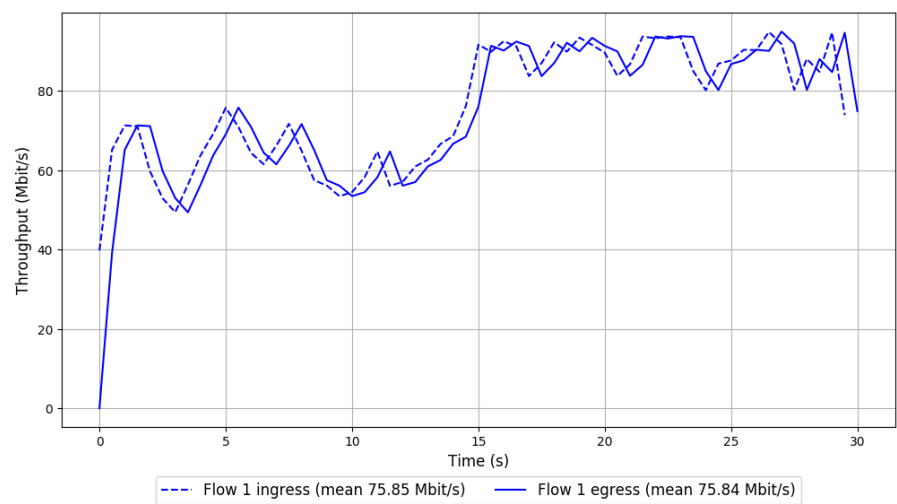
-- Flow 1:

Average throughput: 75.84 Mbit/s

95th percentile per-packet one-way delay: 5.574 ms

Loss rate: 0.00%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-11-02 18:29:11

End at: 2018-11-02 18:29:41

Local clock offset: -5.912 ms

Remote clock offset: 0.148 ms

Below is generated by plot.py at 2018-11-02 19:53:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.35 Mbit/s

95th percentile per-packet one-way delay: 0.090 ms

Loss rate: 0.00%

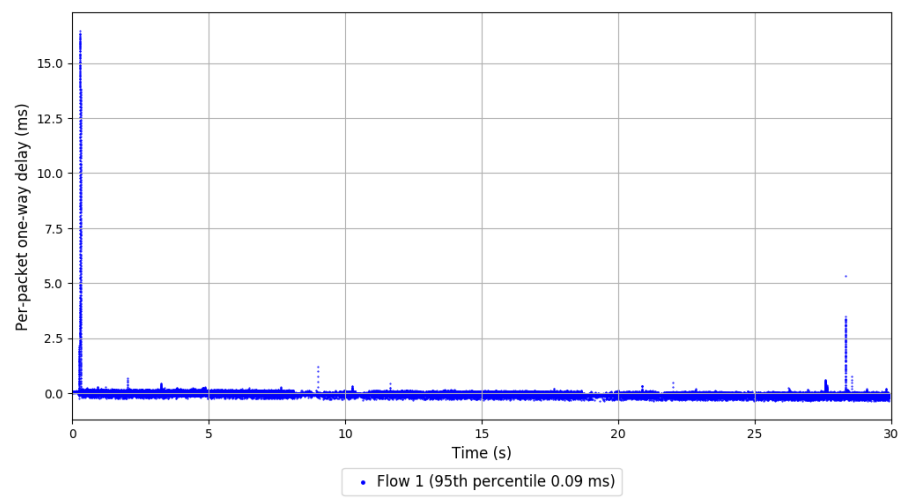
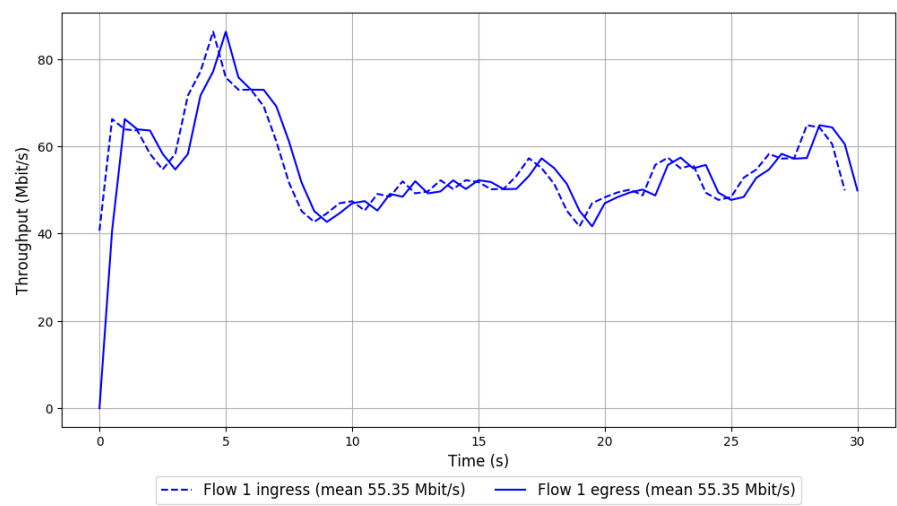
-- Flow 1:

Average throughput: 55.35 Mbit/s

95th percentile per-packet one-way delay: 0.090 ms

Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-11-02 18:49:31

End at: 2018-11-02 18:50:01

Local clock offset: -6.028 ms

Remote clock offset: 0.296 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.93 Mbit/s

95th percentile per-packet one-way delay: 4.392 ms

Loss rate: 0.00%

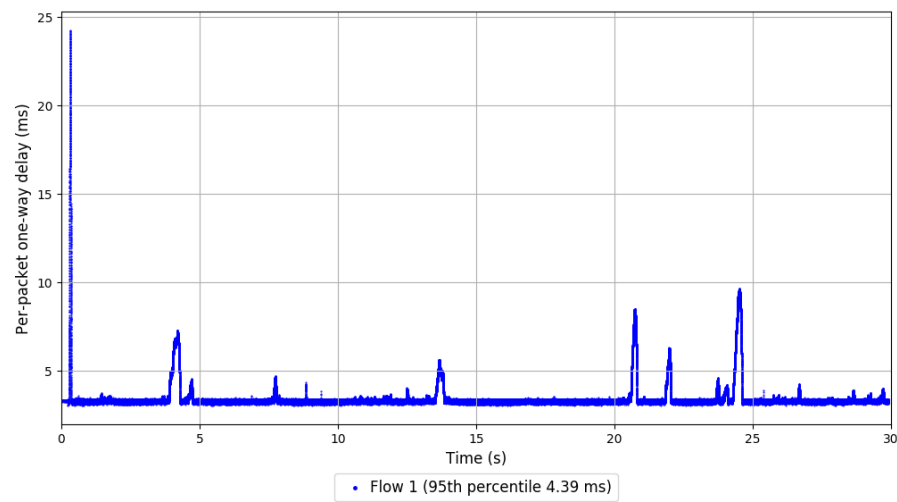
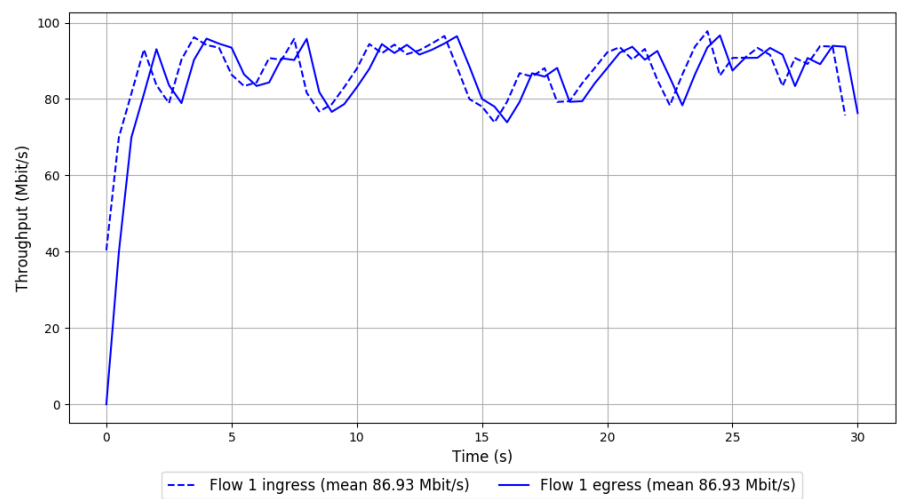
-- Flow 1:

Average throughput: 86.93 Mbit/s

95th percentile per-packet one-way delay: 4.392 ms

Loss rate: 0.00%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-11-02 19:09:49

End at: 2018-11-02 19:10:19

Local clock offset: -6.432 ms

Remote clock offset: 0.236 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.43 Mbit/s

95th percentile per-packet one-way delay: 1.419 ms

Loss rate: 0.00%

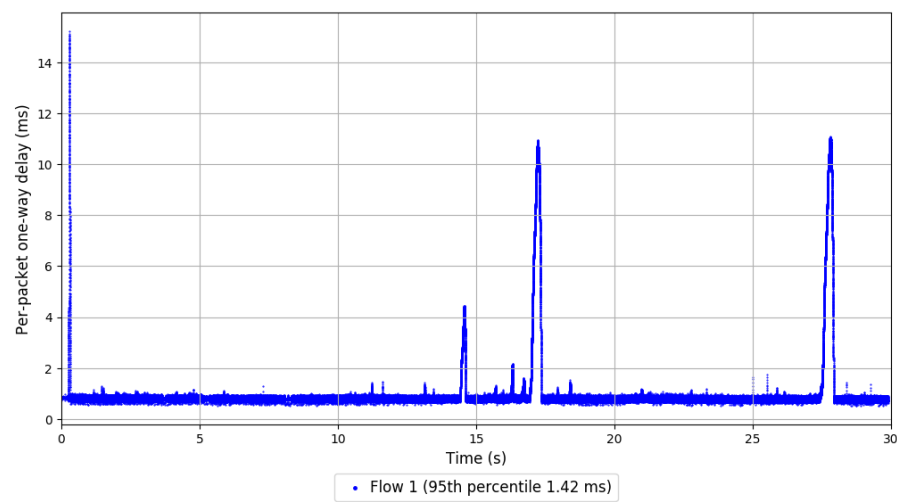
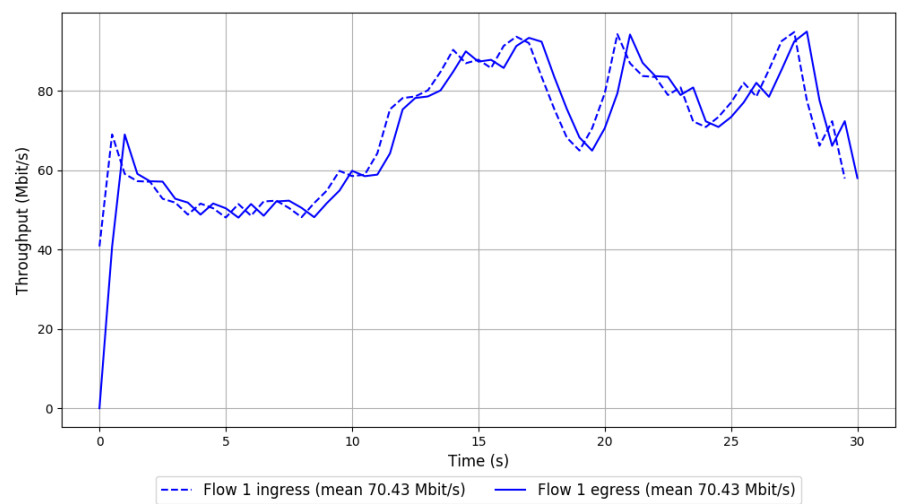
-- Flow 1:

Average throughput: 70.43 Mbit/s

95th percentile per-packet one-way delay: 1.419 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-02 19:30:07

End at: 2018-11-02 19:30:37

Local clock offset: -8.36 ms

Remote clock offset: 0.419 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 7.834 ms

Loss rate: 0.00%

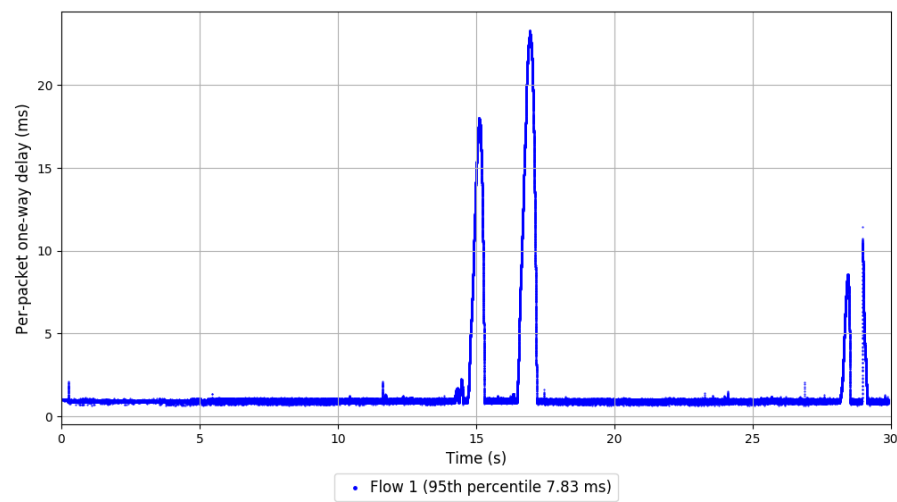
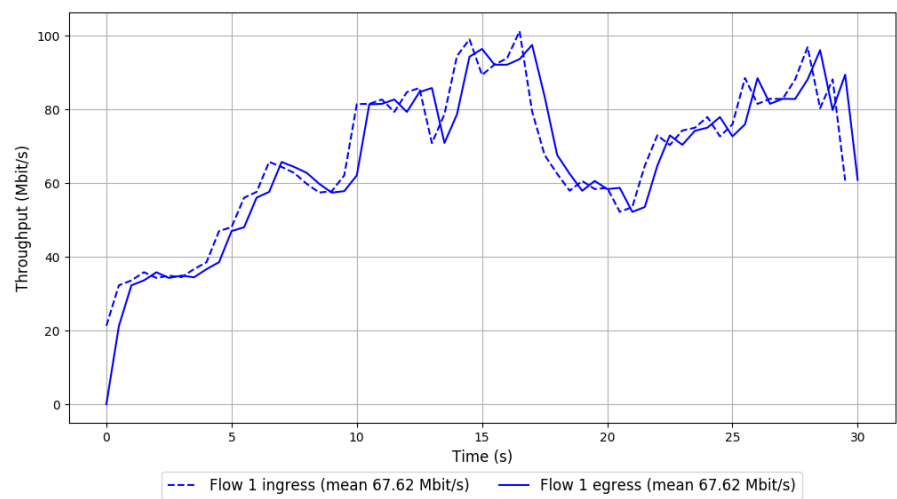
-- Flow 1:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 7.834 ms

Loss rate: 0.00%

Run 5: Report of PCC-Allegro — Data Link

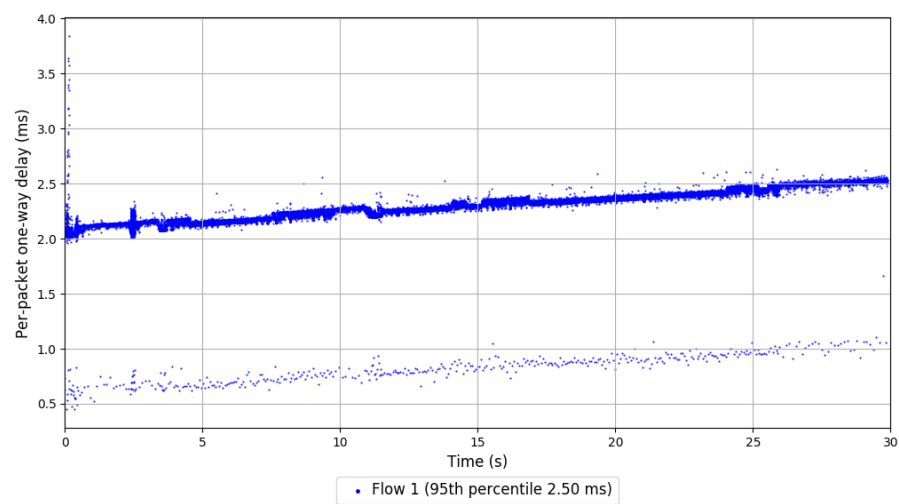
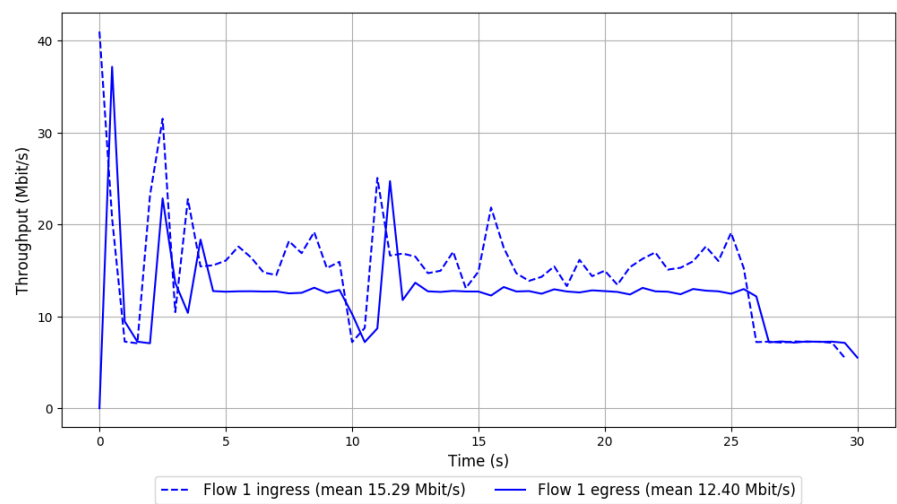


```
Run 1: Statistics of PCC-Expr

Start at: 2018-11-02 18:10:03
End at: 2018-11-02 18:10:33
Local clock offset: -2.228 ms
Remote clock offset: 0.079 ms

# Below is generated by plot.py at 2018-11-02 19:53:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 2.502 ms
Loss rate: 18.90%
-- Flow 1:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 2.502 ms
Loss rate: 18.90%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-11-02 18:30:17

End at: 2018-11-02 18:30:47

Local clock offset: -6.929 ms

Remote clock offset: 0.217 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.25 Mbit/s

95th percentile per-packet one-way delay: 8.557 ms

Loss rate: 25.98%

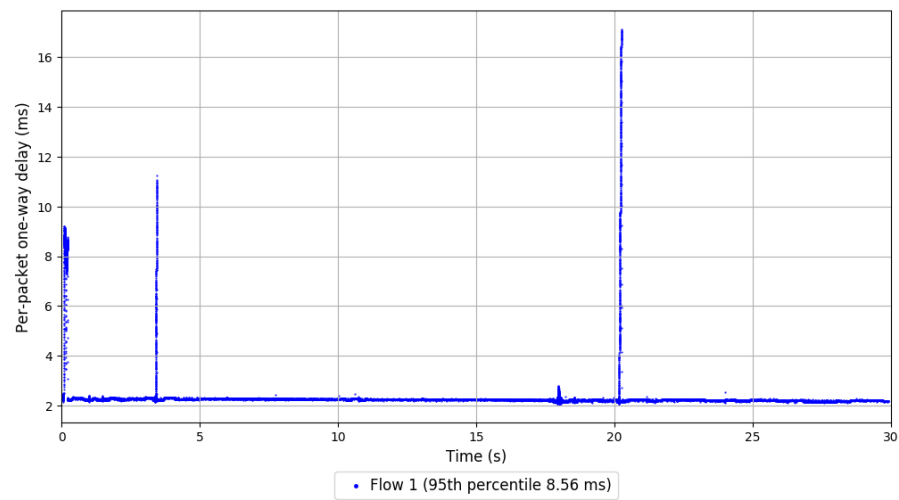
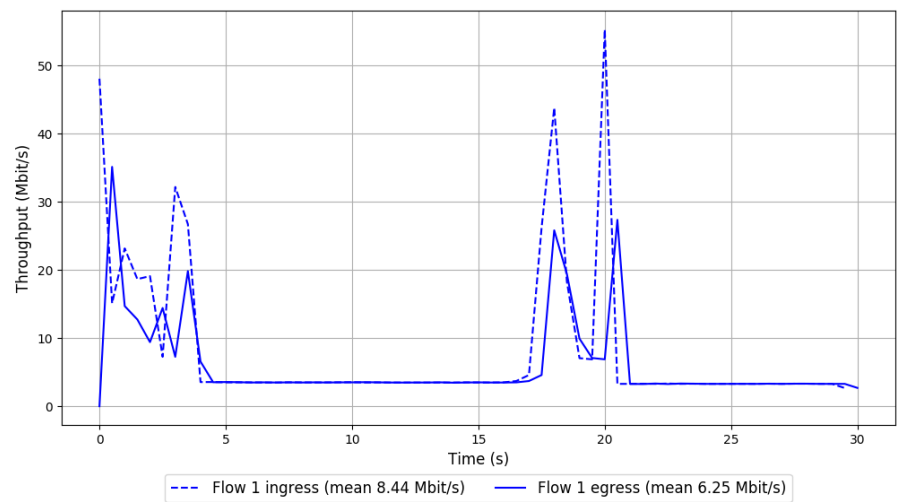
-- Flow 1:

Average throughput: 6.25 Mbit/s

95th percentile per-packet one-way delay: 8.557 ms

Loss rate: 25.98%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-11-02 18:50:39

End at: 2018-11-02 18:51:09

Local clock offset: -5.197 ms

Remote clock offset: 0.311 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.34 Mbit/s

95th percentile per-packet one-way delay: 3.564 ms

Loss rate: 29.38%

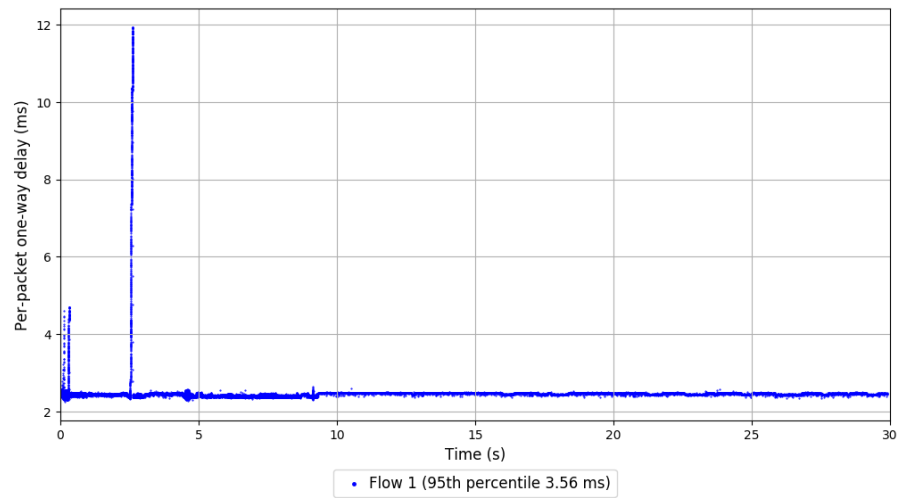
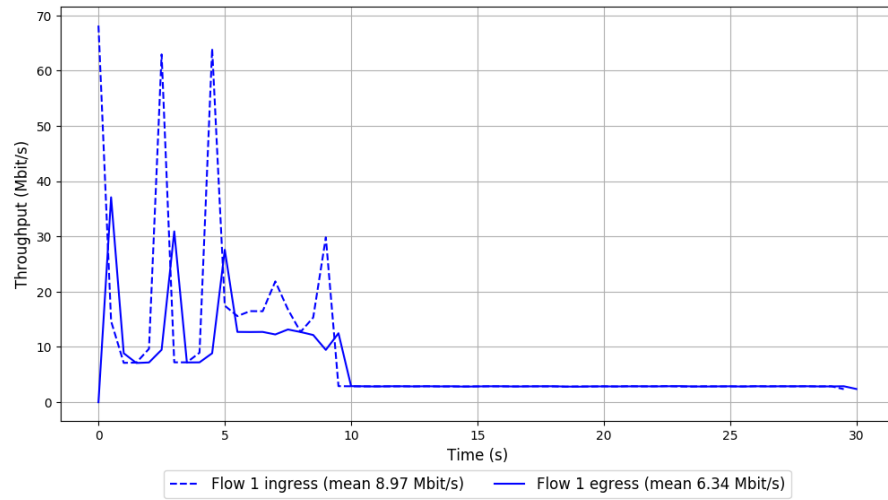
-- Flow 1:

Average throughput: 6.34 Mbit/s

95th percentile per-packet one-way delay: 3.564 ms

Loss rate: 29.38%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-11-02 19:10:56

End at: 2018-11-02 19:11:26

Local clock offset: -5.76 ms

Remote clock offset: 0.246 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.72 Mbit/s

95th percentile per-packet one-way delay: 3.092 ms

Loss rate: 31.00%

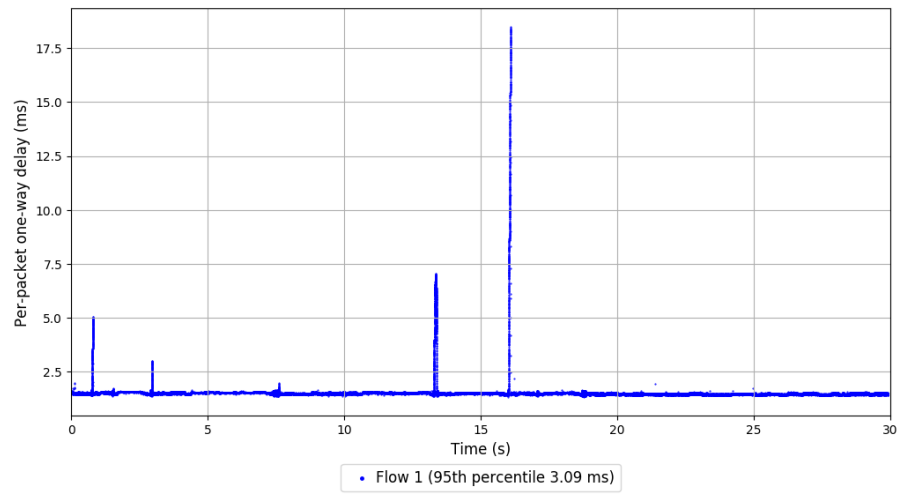
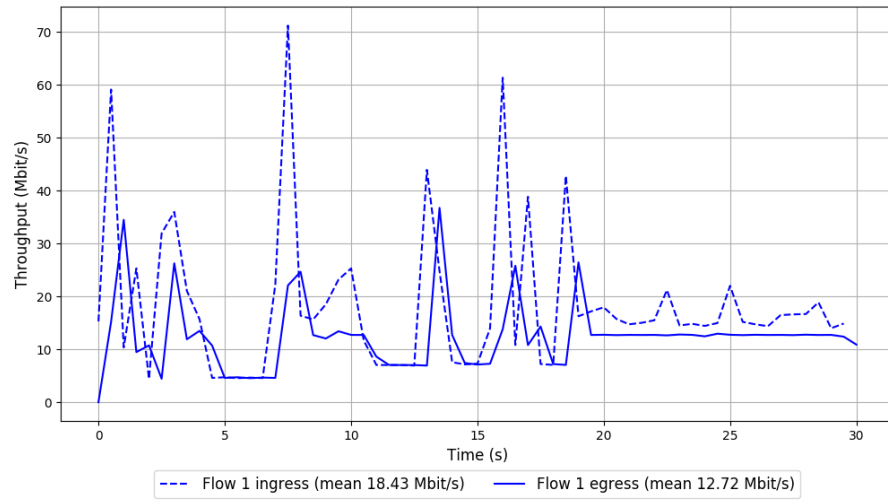
-- Flow 1:

Average throughput: 12.72 Mbit/s

95th percentile per-packet one-way delay: 3.092 ms

Loss rate: 31.00%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-11-02 19:31:14

End at: 2018-11-02 19:31:44

Local clock offset: -8.438 ms

Remote clock offset: 0.348 ms

Below is generated by plot.py at 2018-11-02 19:53:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.29 Mbit/s

95th percentile per-packet one-way delay: 6.758 ms

Loss rate: 30.87%

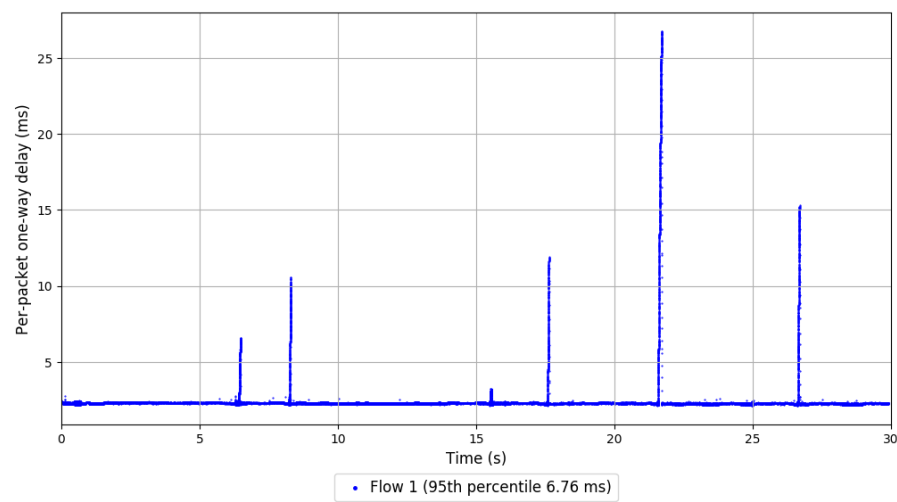
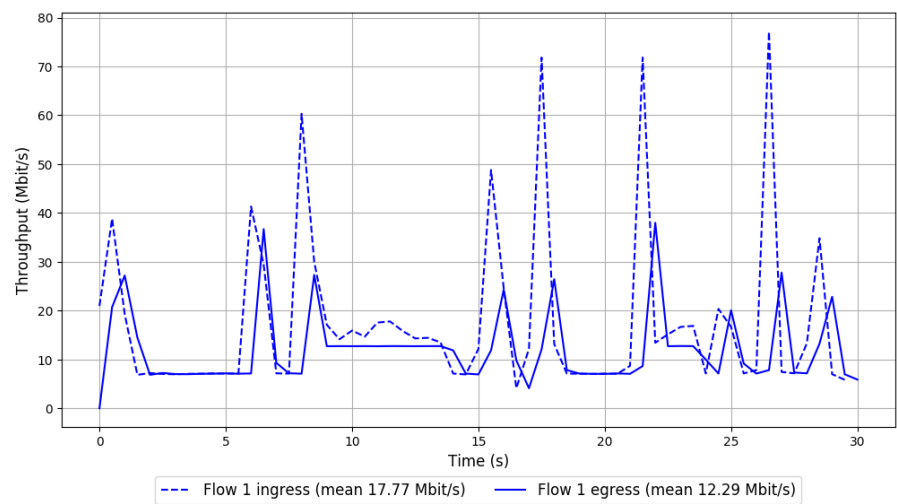
-- Flow 1:

Average throughput: 12.29 Mbit/s

95th percentile per-packet one-way delay: 6.758 ms

Loss rate: 30.87%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-11-02 18:18:56

End at: 2018-11-02 18:19:26

Local clock offset: -3.485 ms

Remote clock offset: 0.18 ms

Below is generated by plot.py at 2018-11-02 19:54:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.81 Mbit/s

95th percentile per-packet one-way delay: 5.665 ms

Loss rate: 0.15%

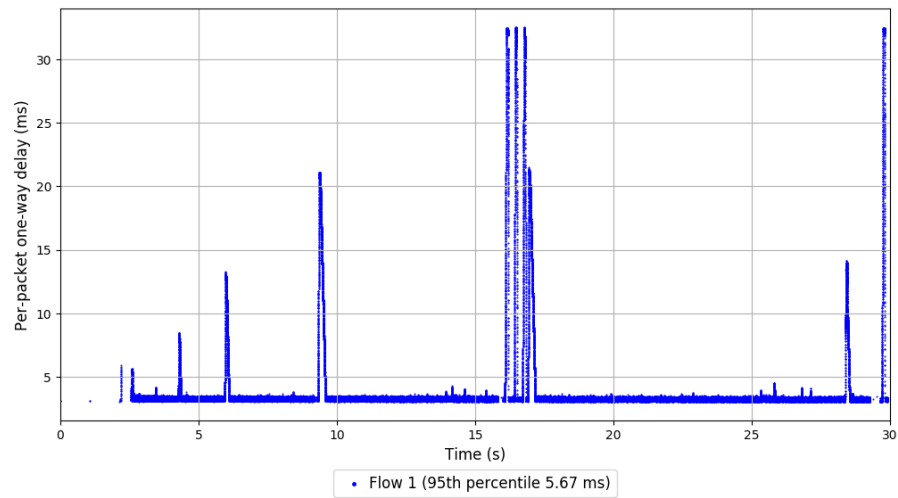
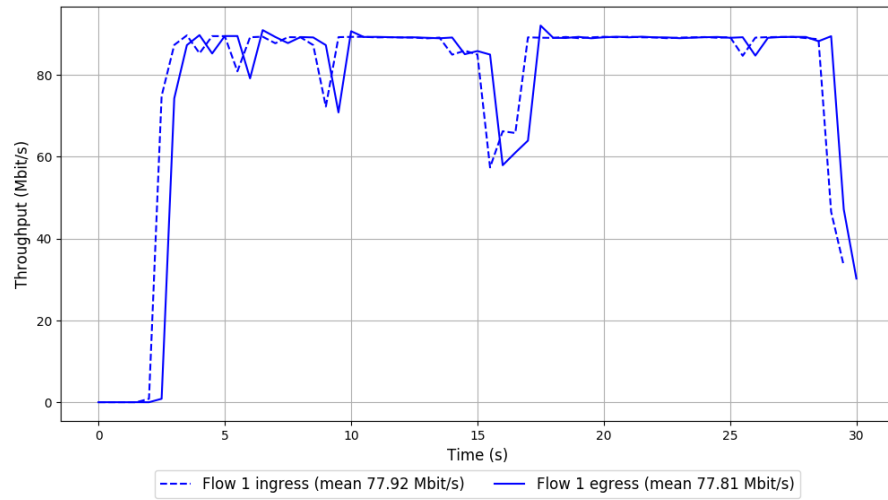
-- Flow 1:

Average throughput: 77.81 Mbit/s

95th percentile per-packet one-way delay: 5.665 ms

Loss rate: 0.15%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-11-02 18:39:12

End at: 2018-11-02 18:39:42

Local clock offset: -6.211 ms

Remote clock offset: 0.157 ms

Below is generated by plot.py at 2018-11-02 19:54:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.20 Mbit/s

95th percentile per-packet one-way delay: 2.874 ms

Loss rate: 0.11%

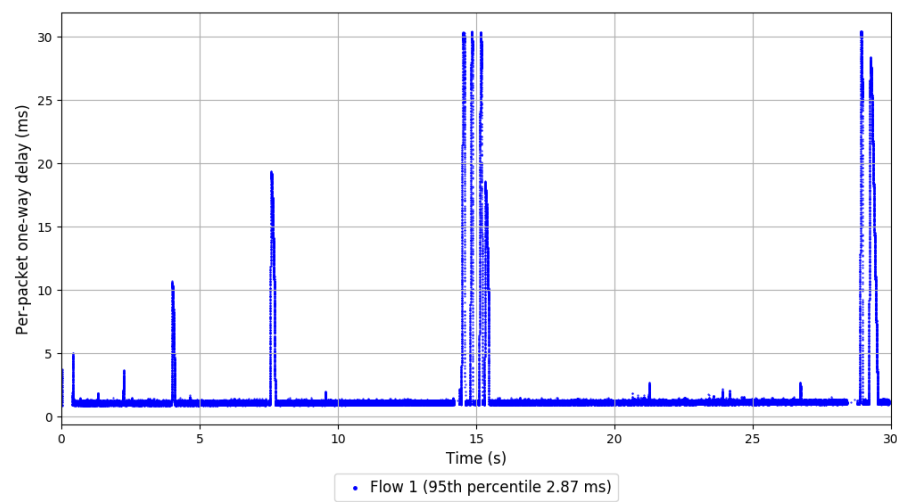
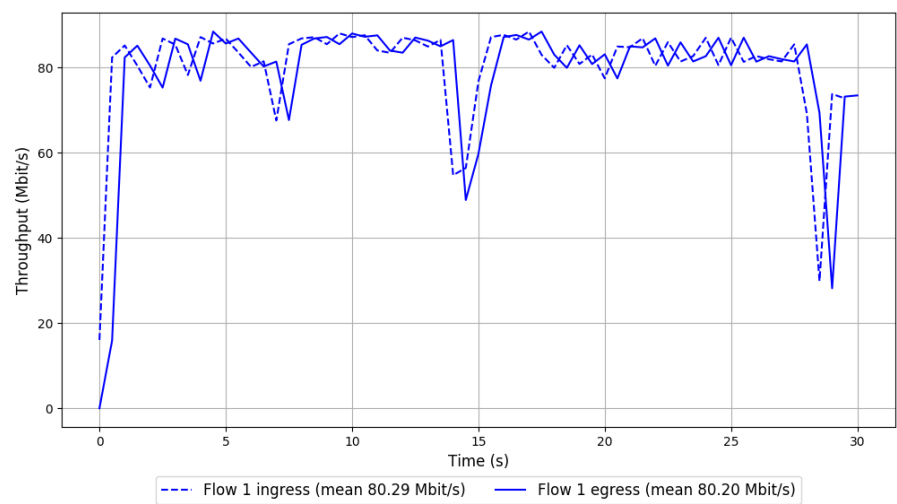
-- Flow 1:

Average throughput: 80.20 Mbit/s

95th percentile per-packet one-way delay: 2.874 ms

Loss rate: 0.11%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-11-02 18:59:34

End at: 2018-11-02 19:00:04

Local clock offset: -6.398 ms

Remote clock offset: 0.306 ms

Below is generated by plot.py at 2018-11-02 19:54:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.57 Mbit/s

95th percentile per-packet one-way delay: 2.282 ms

Loss rate: 0.23%

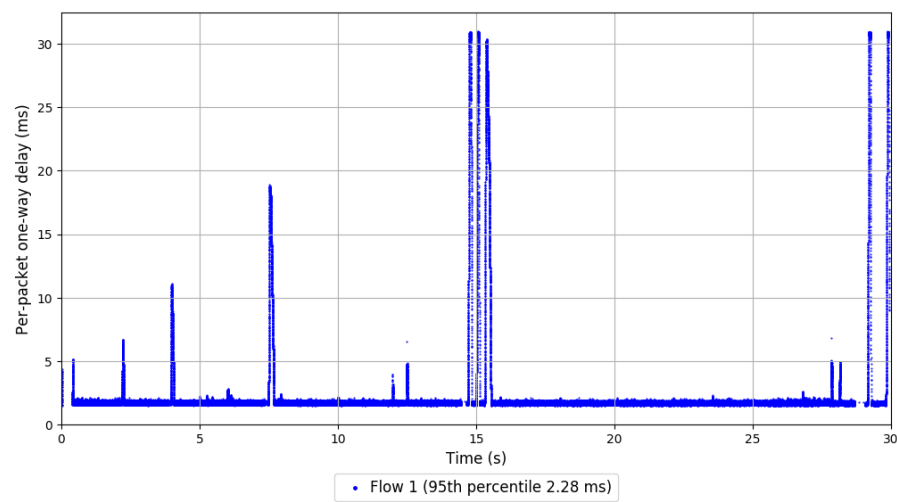
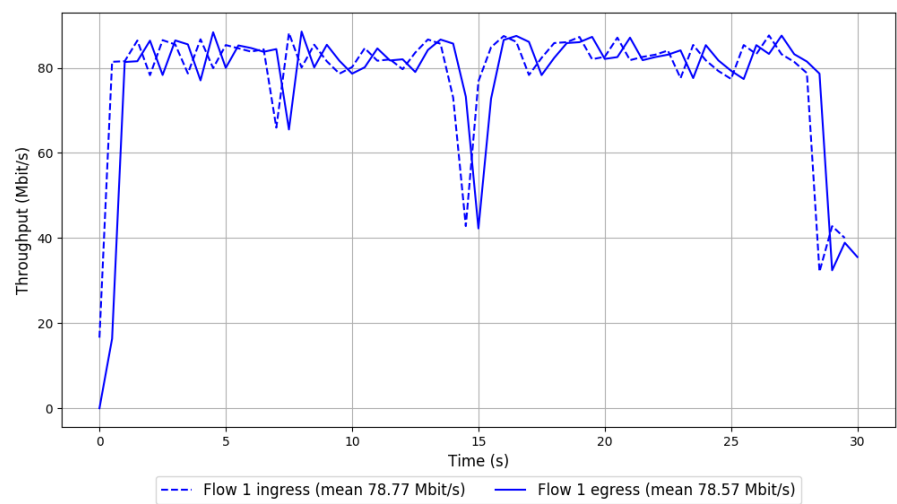
-- Flow 1:

Average throughput: 78.57 Mbit/s

95th percentile per-packet one-way delay: 2.282 ms

Loss rate: 0.23%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-11-02 19:19:50

End at: 2018-11-02 19:20:20

Local clock offset: -6.548 ms

Remote clock offset: 0.352 ms

Below is generated by plot.py at 2018-11-02 19:54:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.83 Mbit/s

95th percentile per-packet one-way delay: 2.013 ms

Loss rate: 0.21%

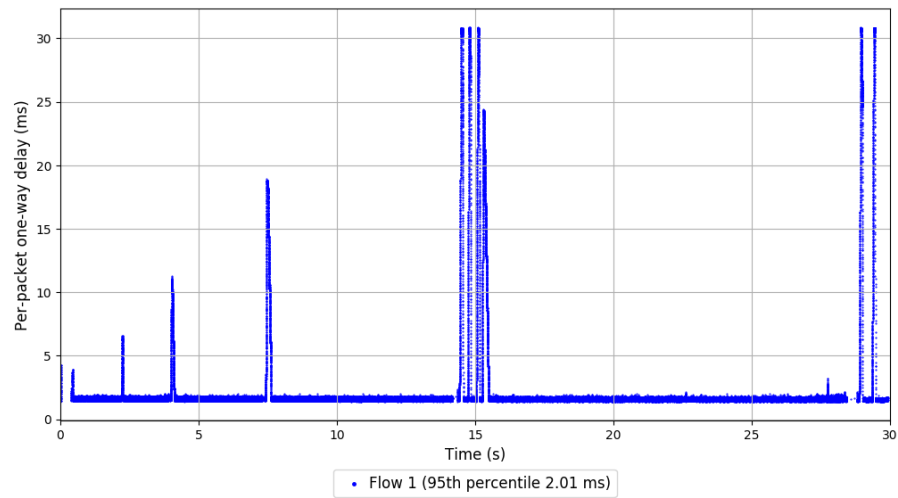
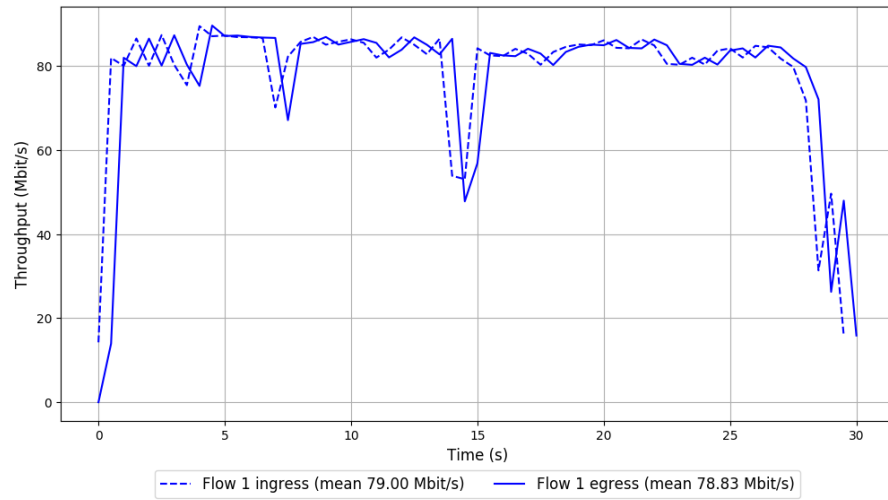
-- Flow 1:

Average throughput: 78.83 Mbit/s

95th percentile per-packet one-way delay: 2.013 ms

Loss rate: 0.21%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-02 19:40:07

End at: 2018-11-02 19:40:37

Local clock offset: -8.124 ms

Remote clock offset: 0.409 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.10 Mbit/s

95th percentile per-packet one-way delay: 2.638 ms

Loss rate: 0.07%

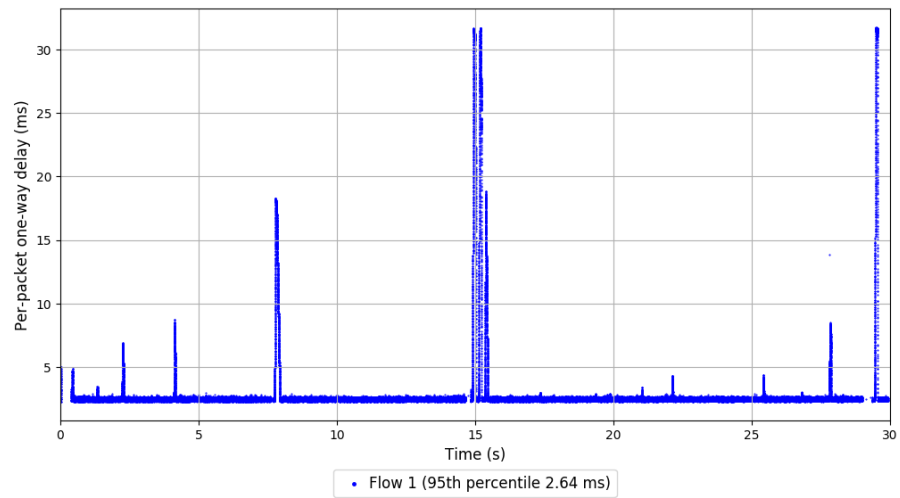
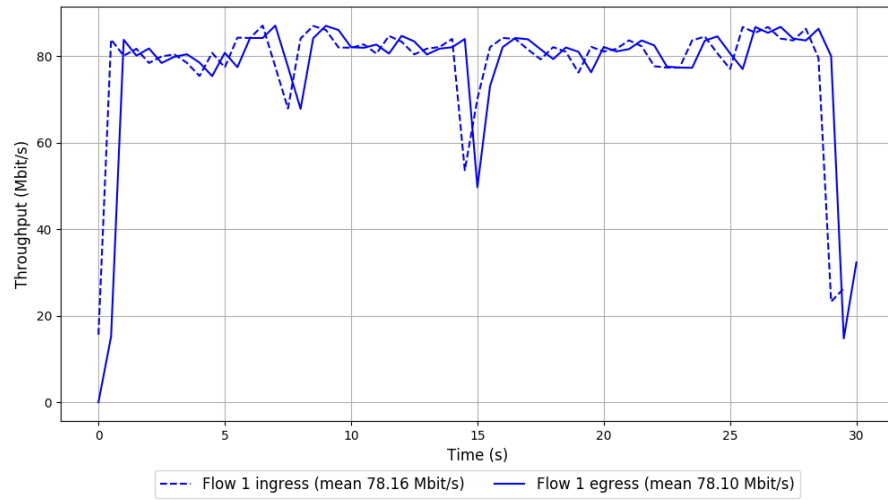
-- Flow 1:

Average throughput: 78.10 Mbit/s

95th percentile per-packet one-way delay: 2.638 ms

Loss rate: 0.07%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-11-02 18:16:48

End at: 2018-11-02 18:17:18

Local clock offset: -2.458 ms

Remote clock offset: 0.113 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.926 ms

Loss rate: 0.00%

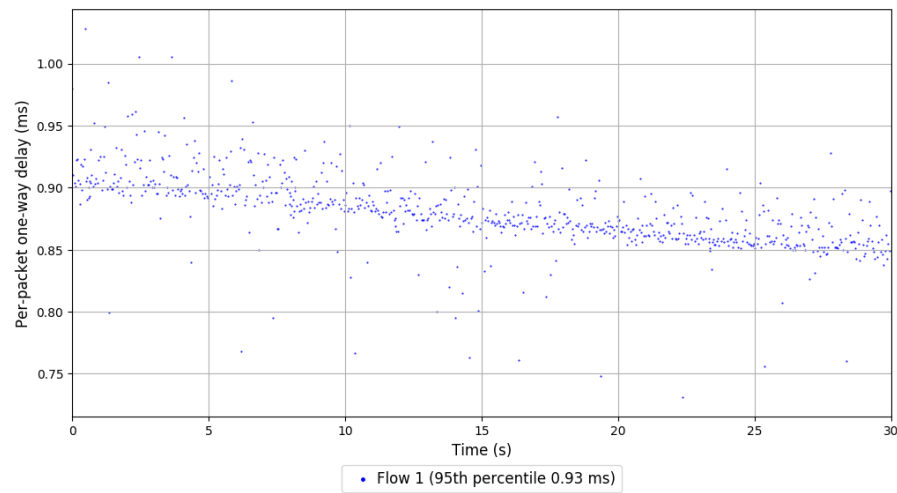
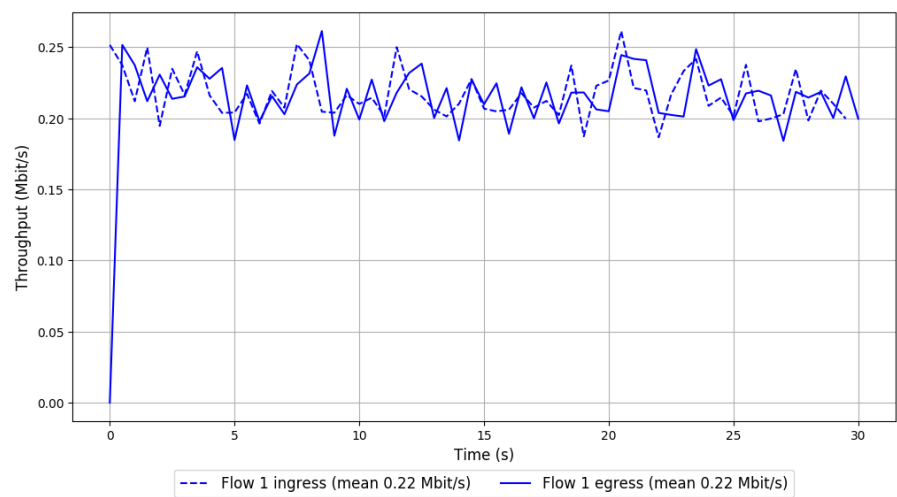
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.926 ms

Loss rate: 0.00%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-11-02 18:37:03

End at: 2018-11-02 18:37:33

Local clock offset: -6.049 ms

Remote clock offset: 0.16 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.431 ms

Loss rate: 0.00%

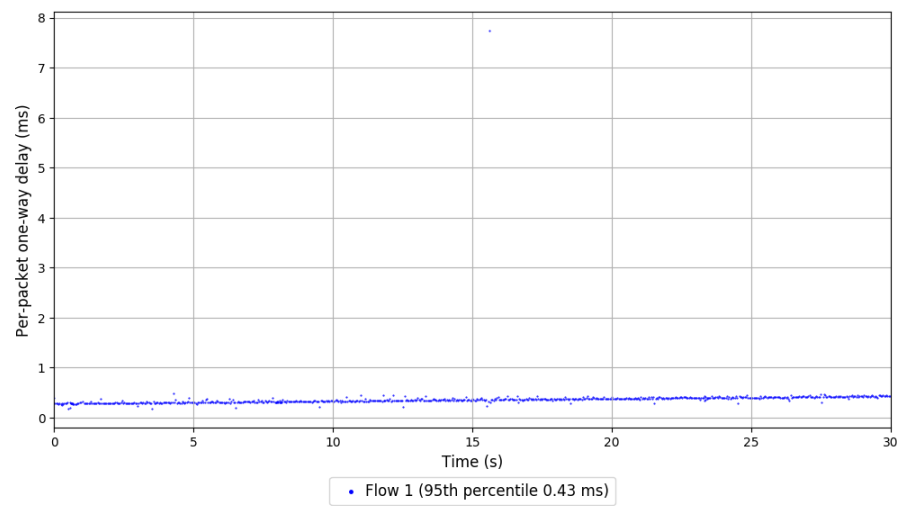
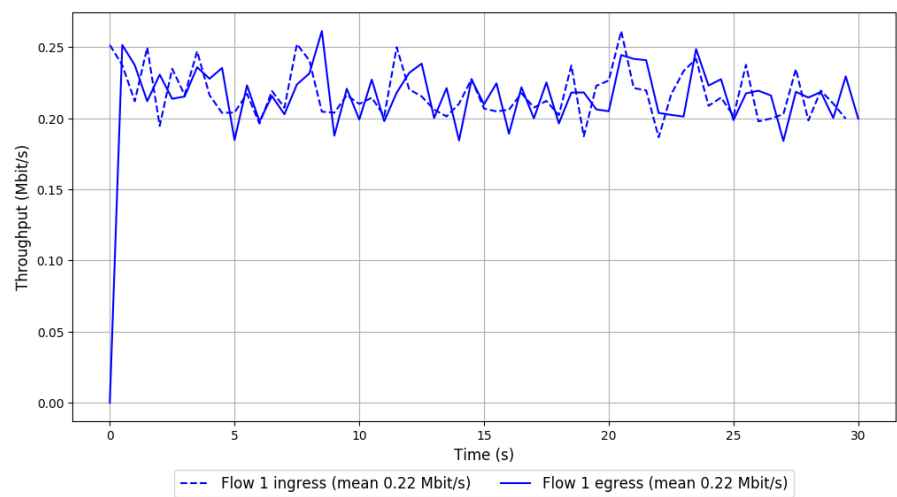
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.431 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-11-02 18:57:25

End at: 2018-11-02 18:57:55

Local clock offset: -4.706 ms

Remote clock offset: 0.251 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.573 ms

Loss rate: 0.00%

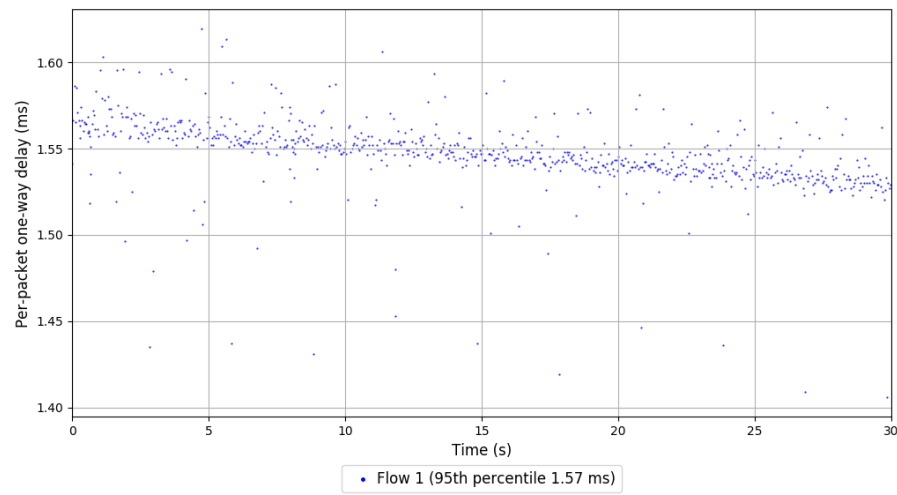
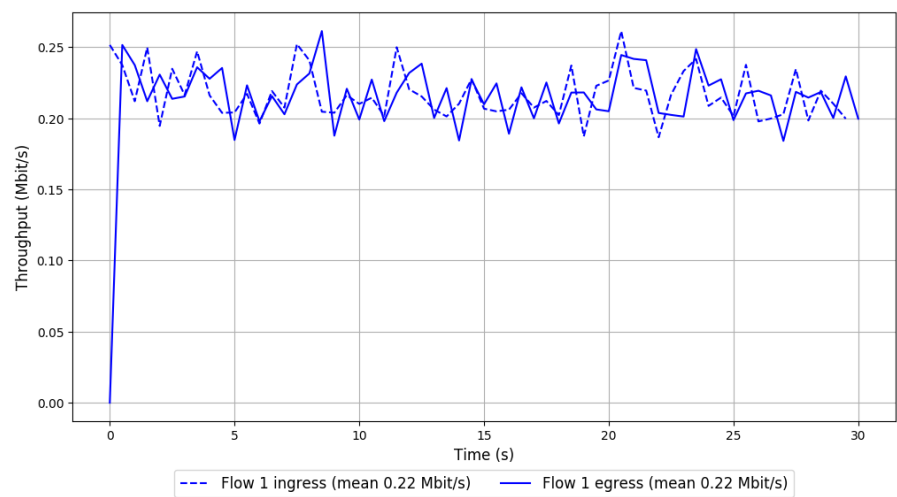
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.573 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-11-02 19:17:41

End at: 2018-11-02 19:18:12

Local clock offset: -7.974 ms

Remote clock offset: 0.183 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.067 ms

Loss rate: 0.00%

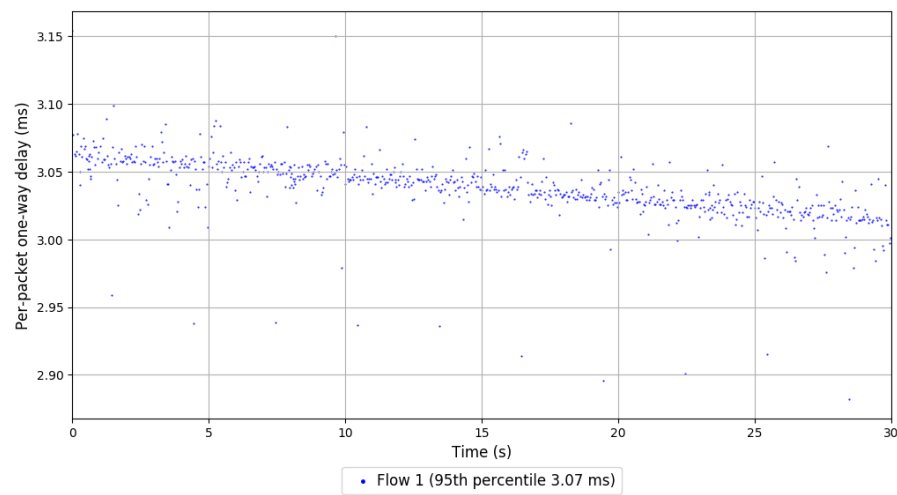
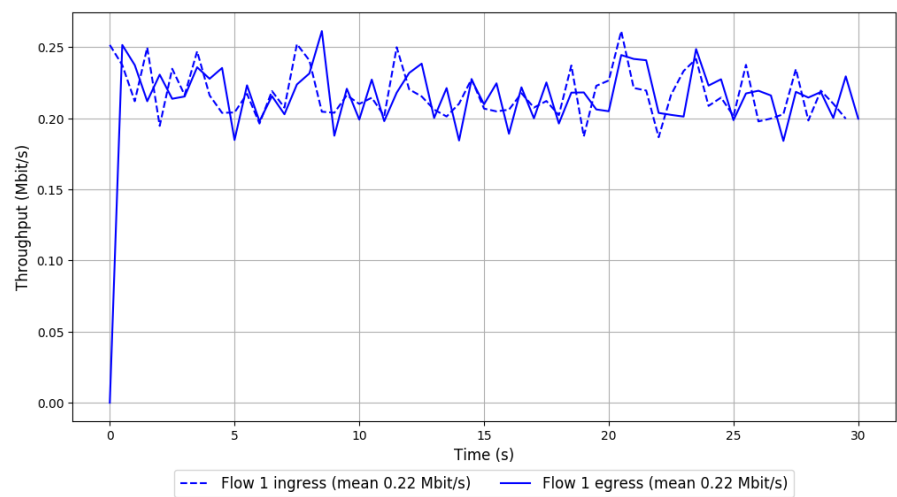
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 3.067 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-11-02 19:37:59

End at: 2018-11-02 19:38:29

Local clock offset: -8.277 ms

Remote clock offset: 0.263 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.890 ms

Loss rate: 0.00%

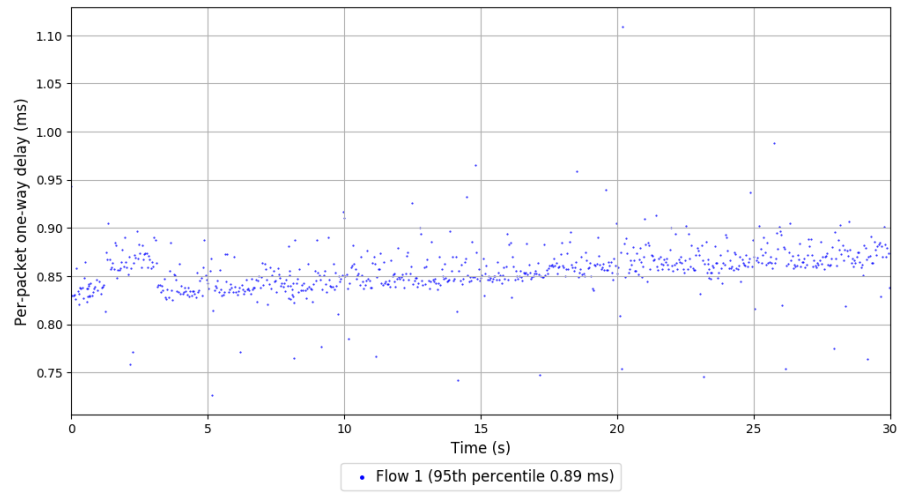
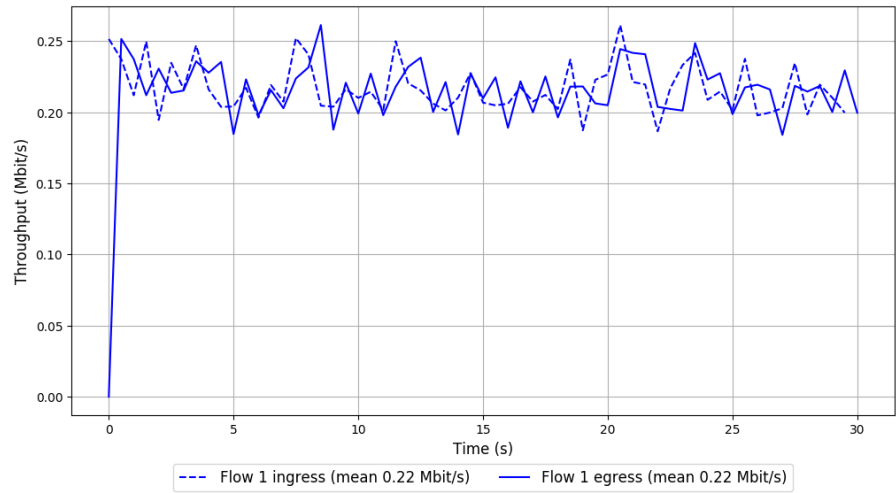
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 0.890 ms

Loss rate: 0.00%

Run 5: Report of SCRaM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-11-02 18:05:34

End at: 2018-11-02 18:06:04

Local clock offset: -2.281 ms

Remote clock offset: 0.194 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 12.982 ms

Loss rate: 0.00%

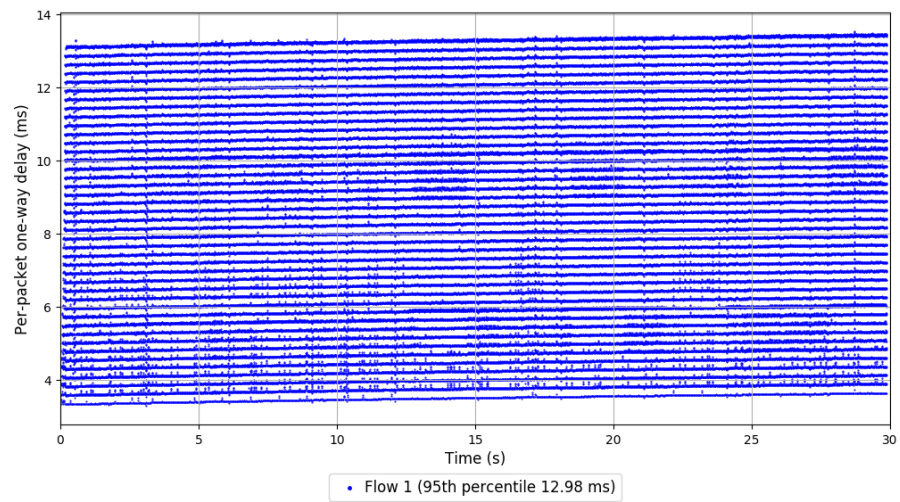
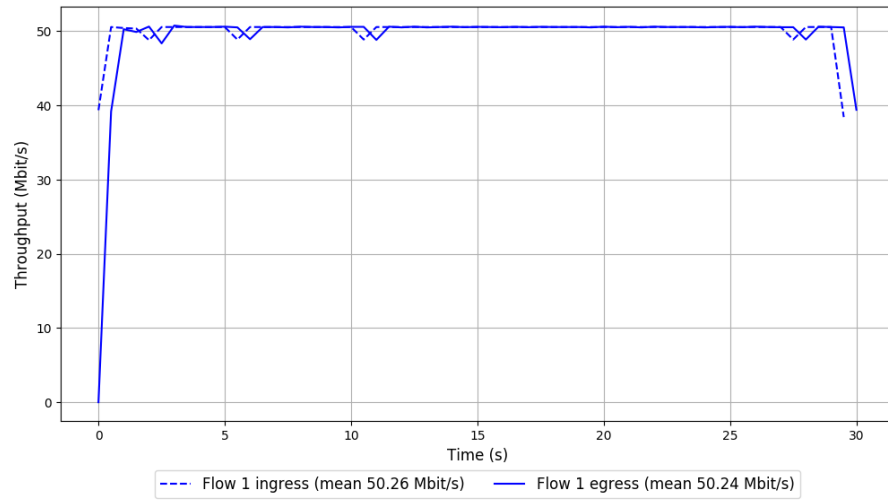
-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 12.982 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-11-02 18:25:49

End at: 2018-11-02 18:26:19

Local clock offset: -5.536 ms

Remote clock offset: 0.206 ms

Below is generated by plot.py at 2018-11-02 19:54:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.27 Mbit/s

95th percentile per-packet one-way delay: 10.167 ms

Loss rate: 0.00%

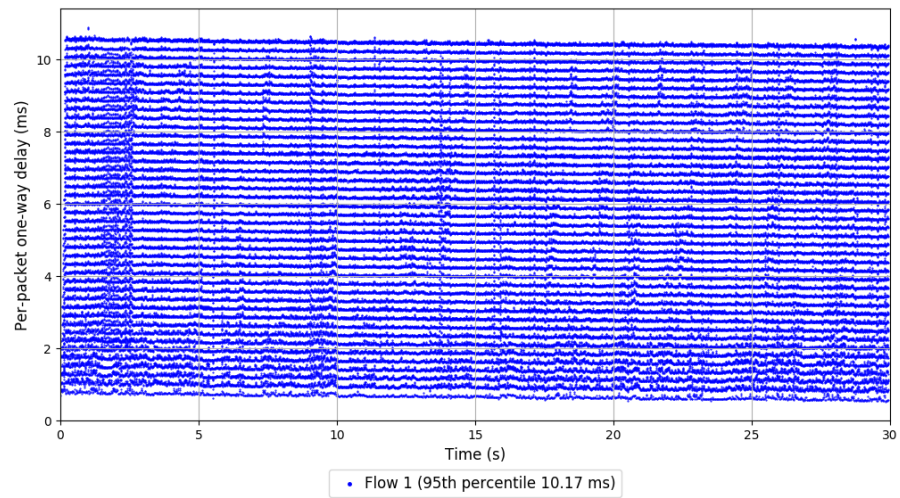
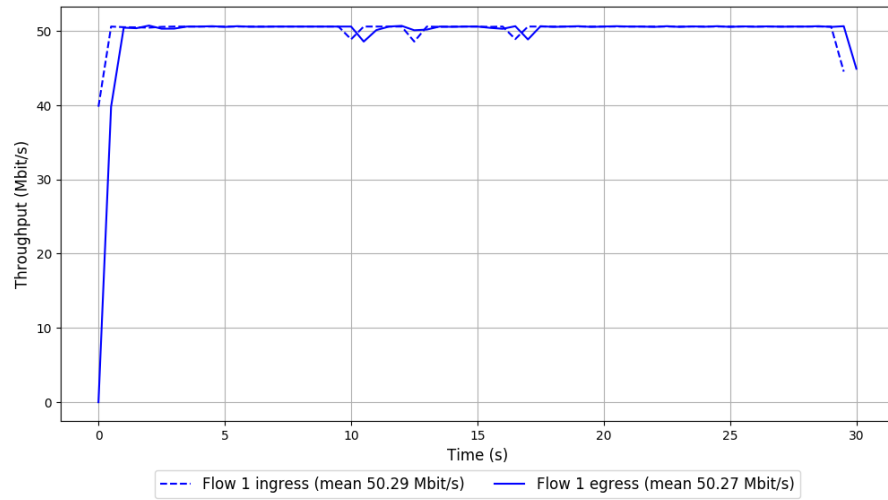
-- Flow 1:

Average throughput: 50.27 Mbit/s

95th percentile per-packet one-way delay: 10.167 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

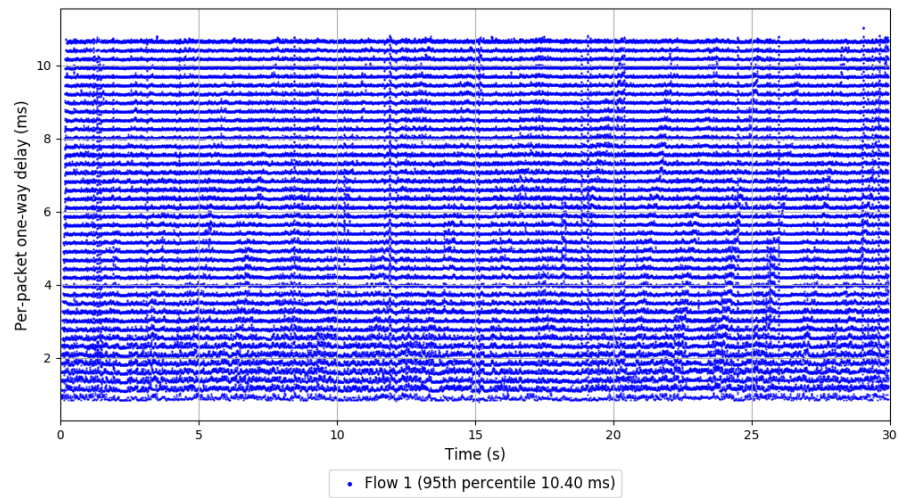
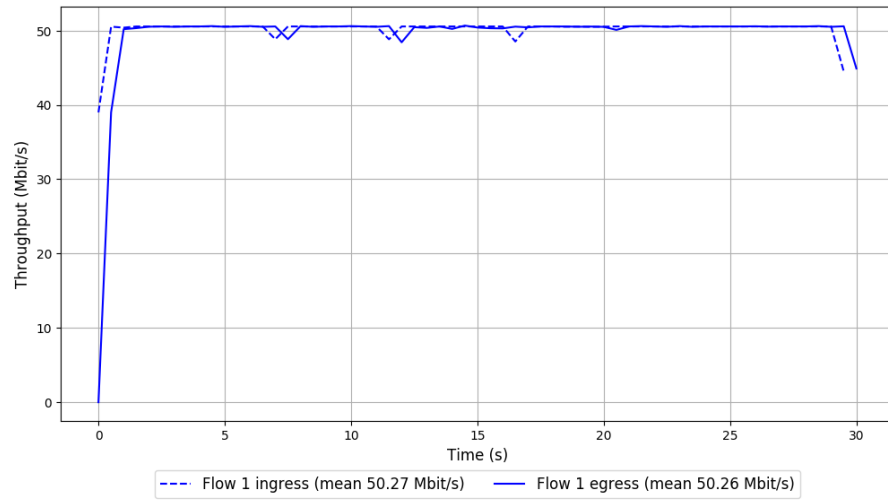


Run 3: Statistics of Sprout

Start at: 2018-11-02 18:46:10
End at: 2018-11-02 18:46:40
Local clock offset: -5.25 ms
Remote clock offset: 0.216 ms

Below is generated by plot.py at 2018-11-02 19:54:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 10.398 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.26 Mbit/s
95th percentile per-packet one-way delay: 10.398 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-11-02 19:06:28

End at: 2018-11-02 19:06:58

Local clock offset: -5.406 ms

Remote clock offset: 0.245 ms

Below is generated by plot.py at 2018-11-02 19:54:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.31 Mbit/s

95th percentile per-packet one-way delay: 10.995 ms

Loss rate: 0.00%

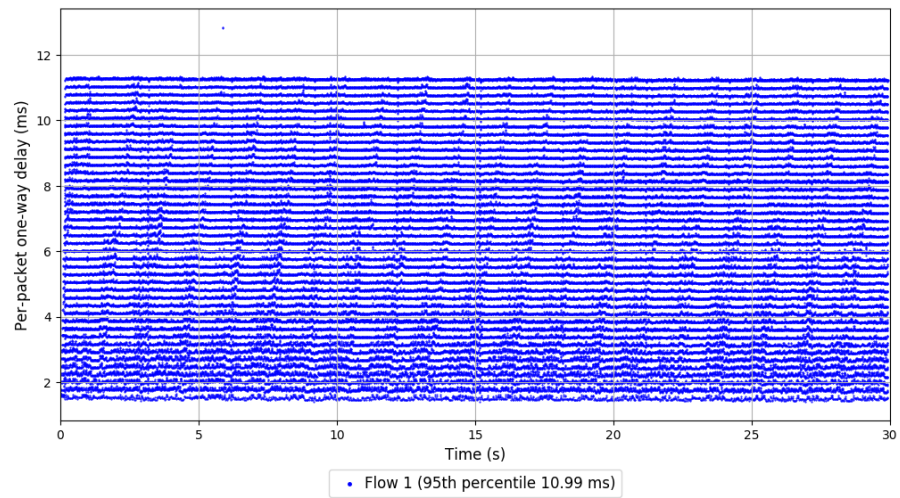
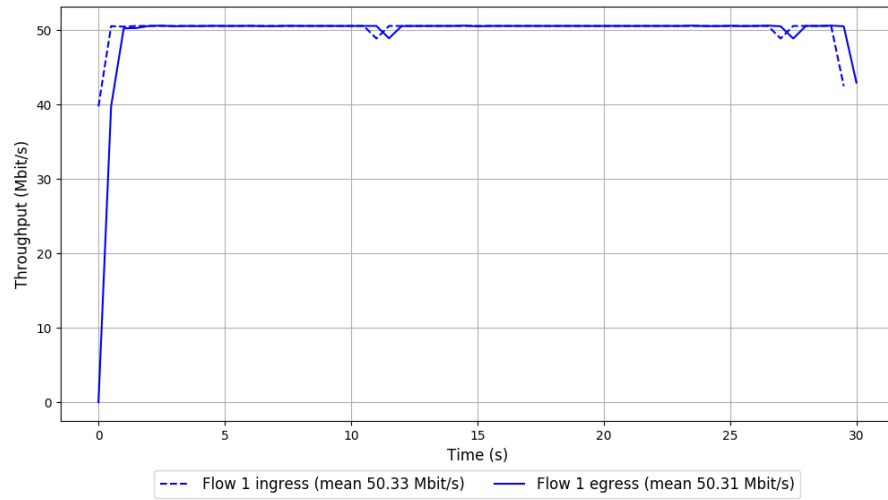
-- Flow 1:

Average throughput: 50.31 Mbit/s

95th percentile per-packet one-way delay: 10.995 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-11-02 19:26:46

End at: 2018-11-02 19:27:16

Local clock offset: -8.095 ms

Remote clock offset: 0.379 ms

Below is generated by plot.py at 2018-11-02 19:54:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.15 Mbit/s

95th percentile per-packet one-way delay: 11.917 ms

Loss rate: 0.00%

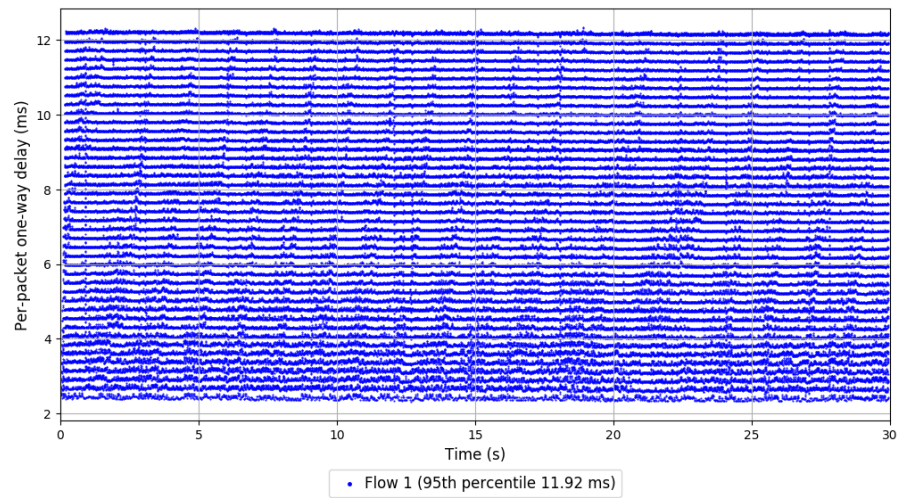
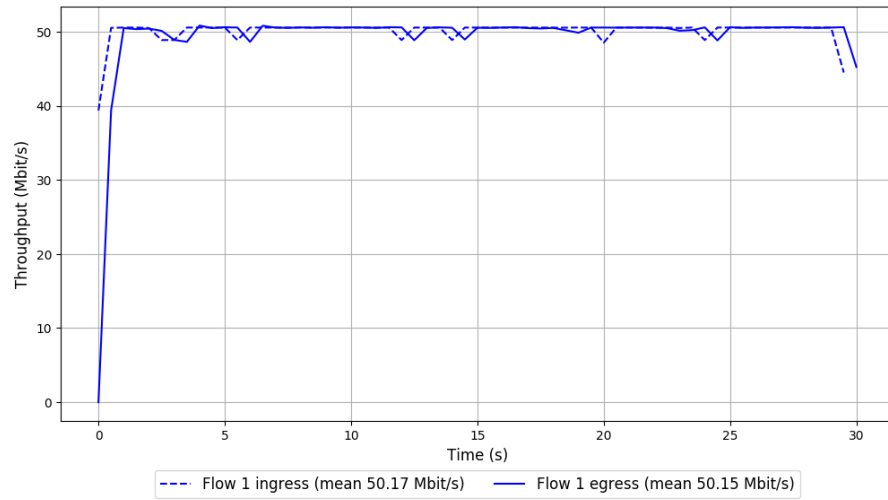
-- Flow 1:

Average throughput: 50.15 Mbit/s

95th percentile per-packet one-way delay: 11.917 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

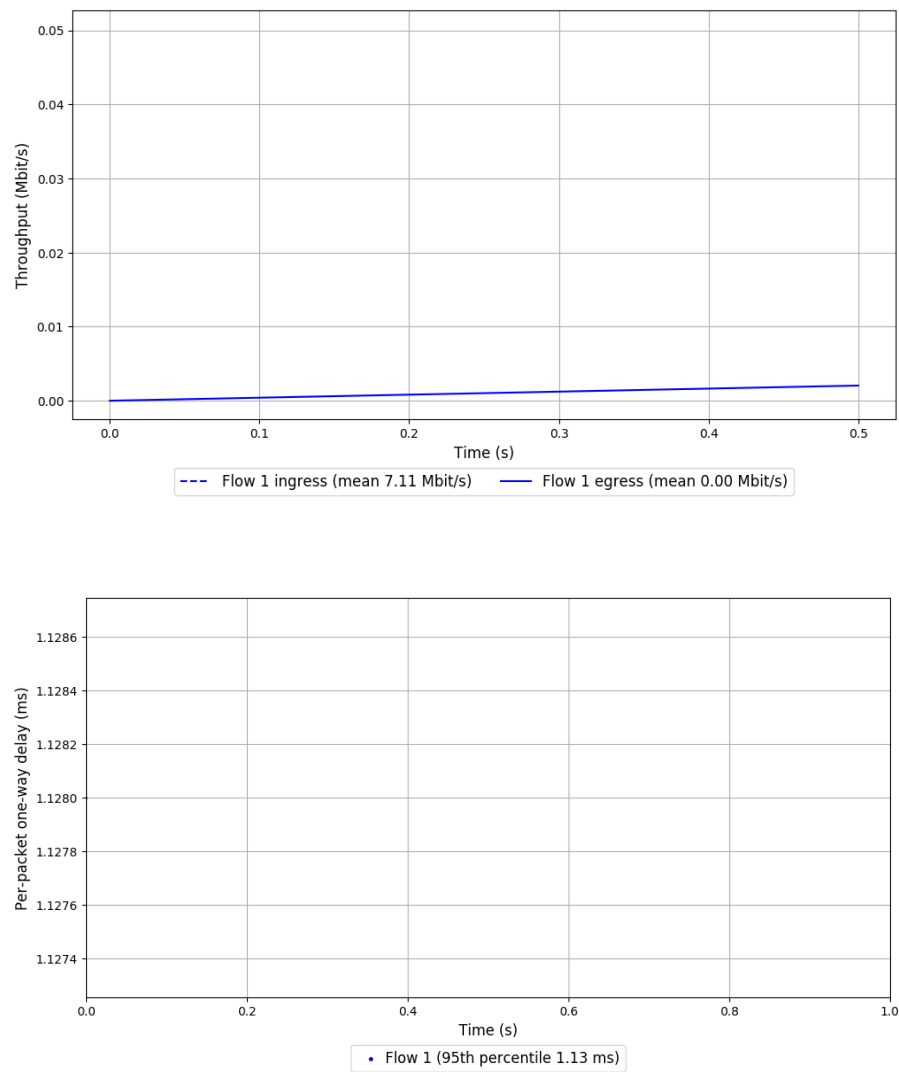
Start at: 2018-11-02 18:07:52

End at: 2018-11-02 18:08:22

Local clock offset: -5.377 ms

Remote clock offset: 0.174 ms

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



Run 2: Statistics of TaoVA-100x

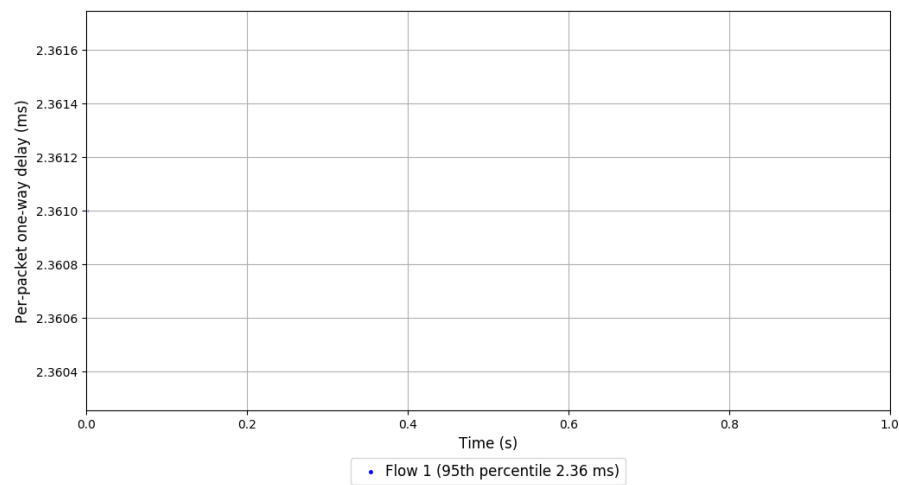
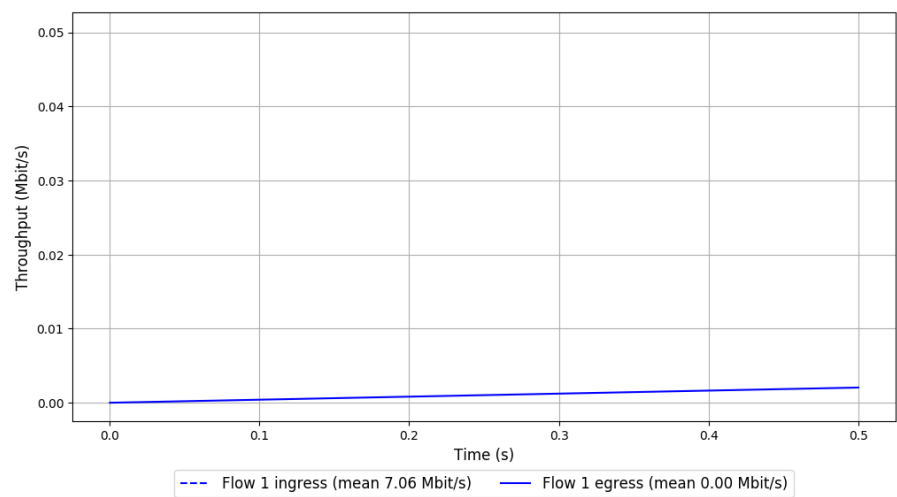
Start at: 2018-11-02 18:28:06

End at: 2018-11-02 18:28:36

Local clock offset: -6.353 ms

Remote clock offset: 0.219 ms

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



Run 3: Statistics of TaoVA-100x

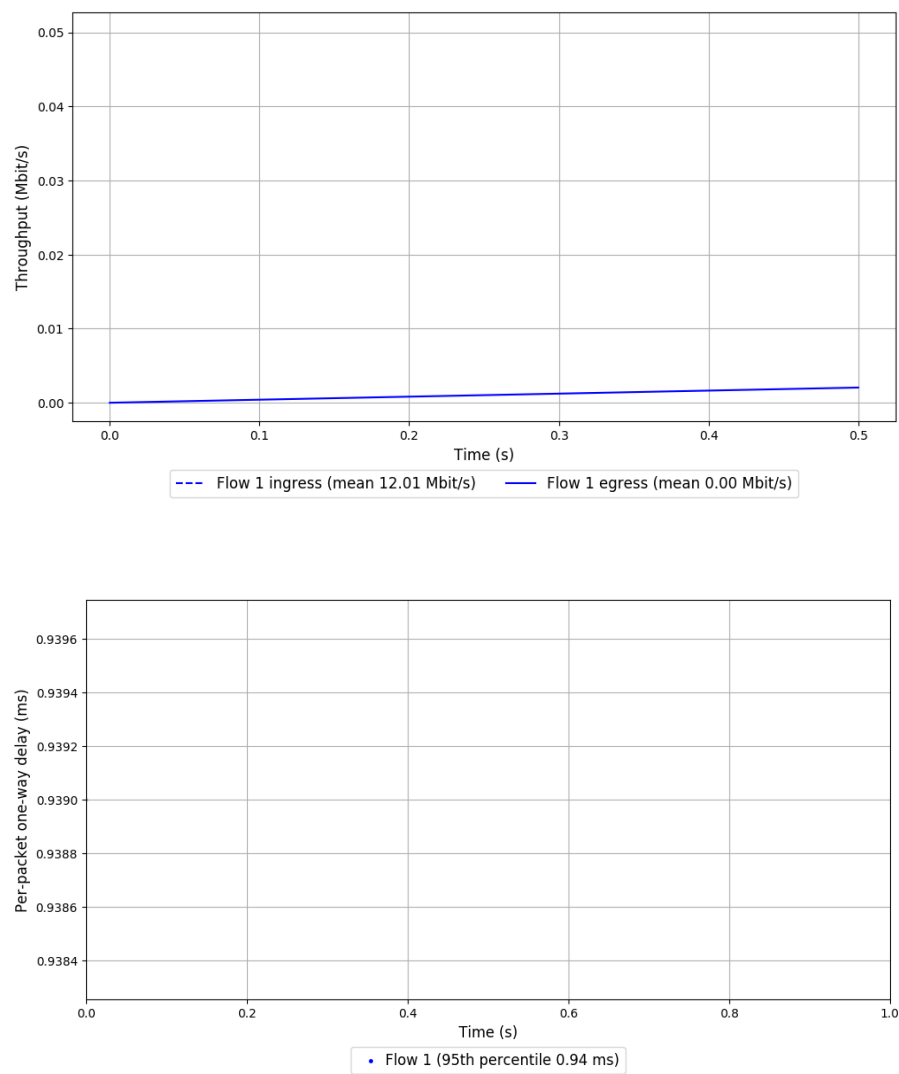
Start at: 2018-11-02 18:48:27

End at: 2018-11-02 18:48:57

Local clock offset: -5.194 ms

Remote clock offset: 0.227 ms

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



Run 4: Statistics of TaoVA-100x

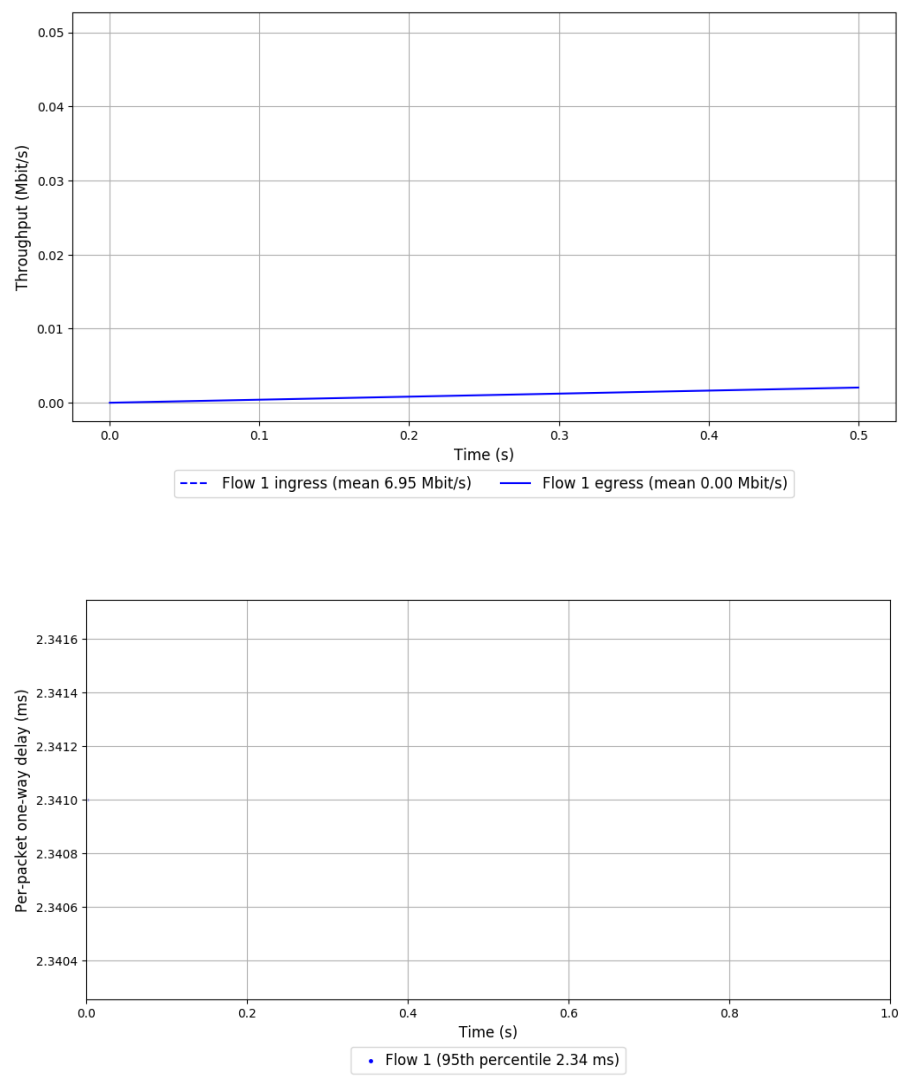
Start at: 2018-11-02 19:08:45

End at: 2018-11-02 19:09:15

Local clock offset: -6.342 ms

Remote clock offset: 0.186 ms

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



Run 5: Statistics of TaoVA-100x

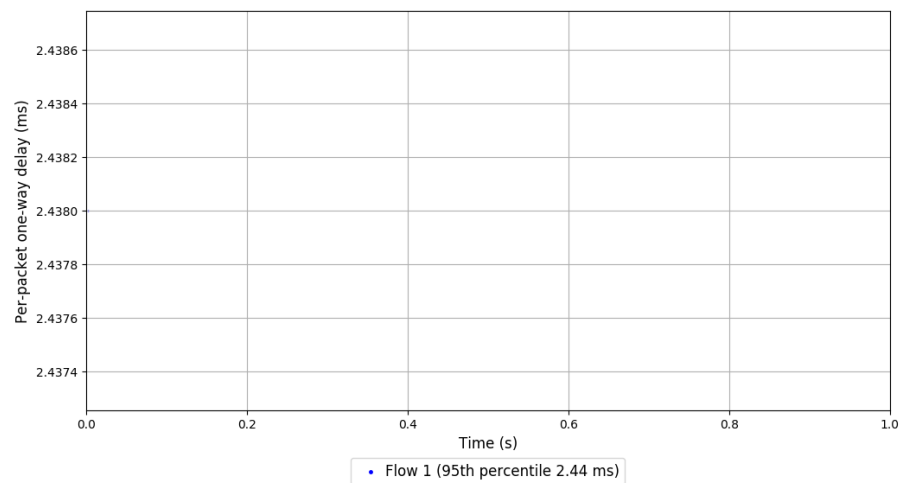
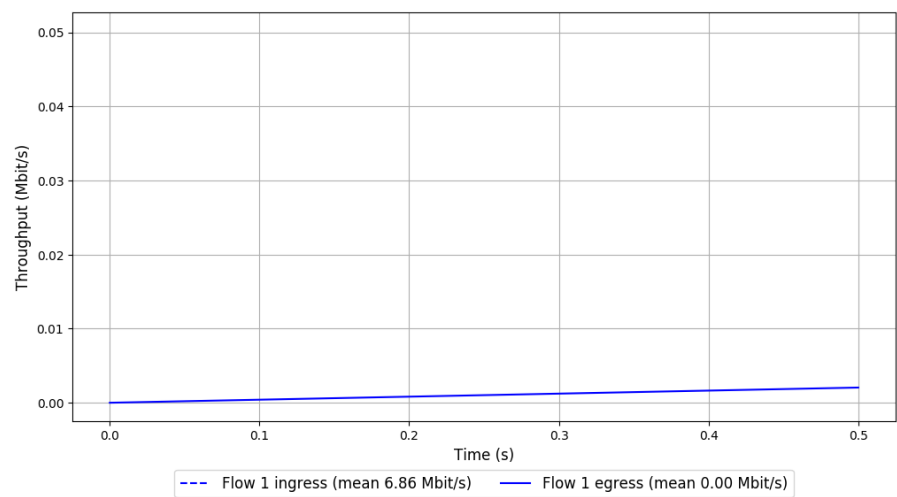
Start at: 2018-11-02 19:29:03

End at: 2018-11-02 19:29:33

Local clock offset: -8.253 ms

Remote clock offset: 0.31 ms

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



Run 1: Statistics of TCP Vegas

Start at: 2018-11-02 18:15:38

End at: 2018-11-02 18:16:08

Local clock offset: -2.186 ms

Remote clock offset: 0.183 ms

Below is generated by plot.py at 2018-11-02 19:55:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 3.743 ms

Loss rate: 0.00%

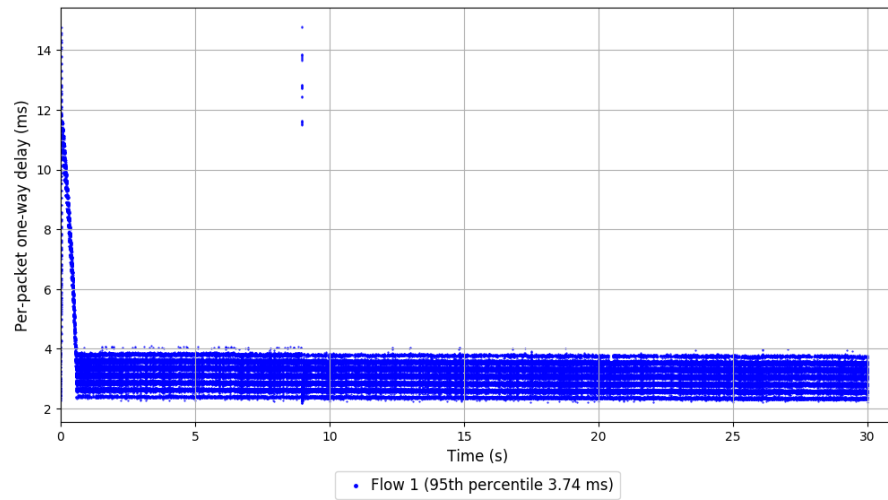
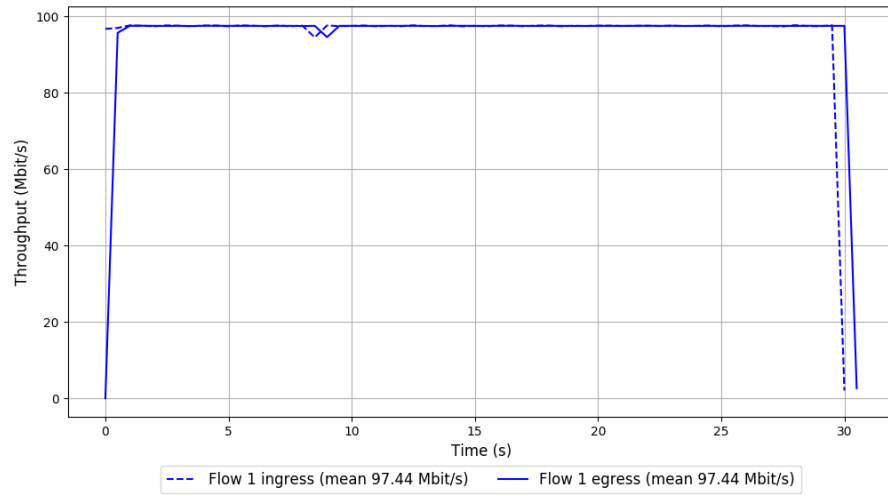
-- Flow 1:

Average throughput: 97.44 Mbit/s

95th percentile per-packet one-way delay: 3.743 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-11-02 18:35:53

End at: 2018-11-02 18:36:23

Local clock offset: -7.254 ms

Remote clock offset: 0.193 ms

Below is generated by plot.py at 2018-11-02 19:55:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 3.987 ms

Loss rate: 0.00%

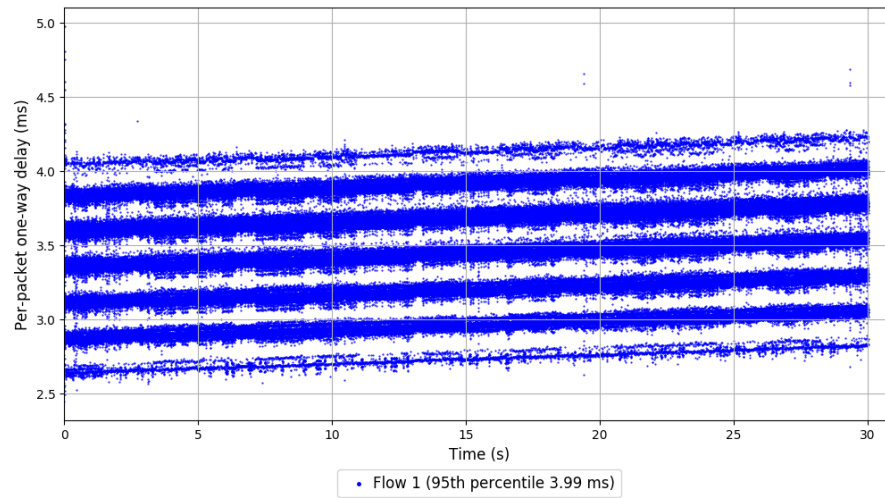
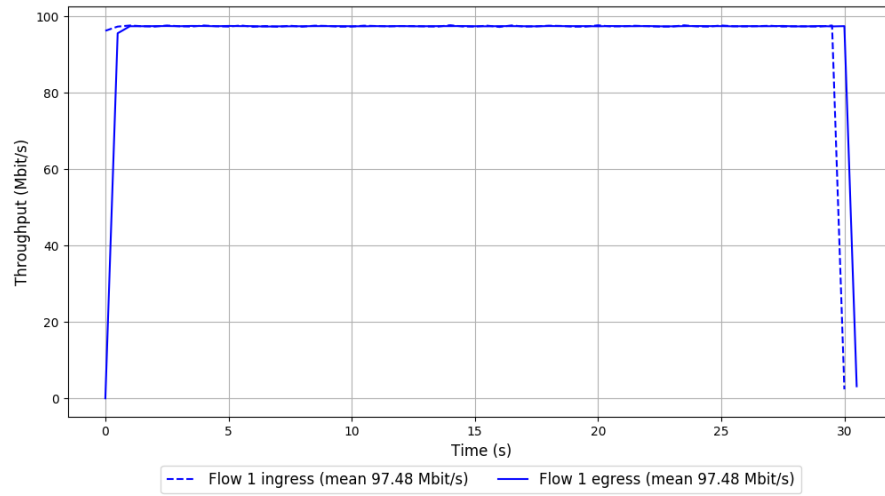
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 3.987 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

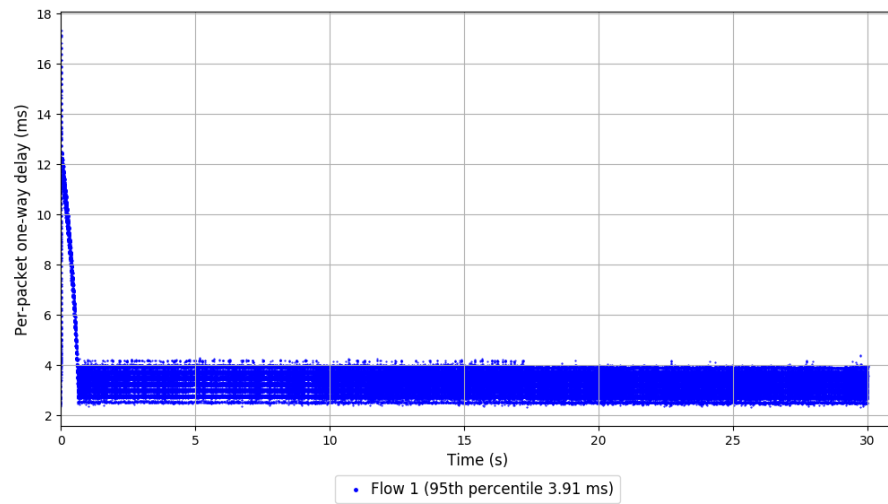
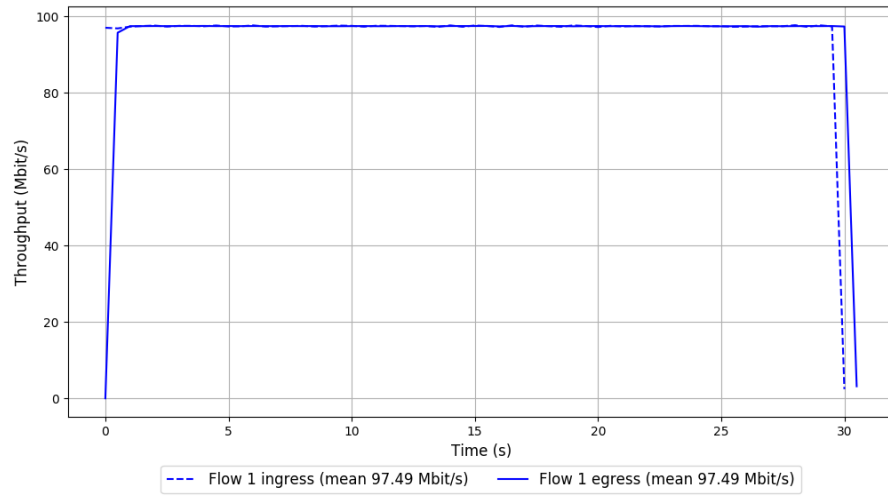


Run 3: Statistics of TCP Vegas

Start at: 2018-11-02 18:56:16
End at: 2018-11-02 18:56:46
Local clock offset: -5.417 ms
Remote clock offset: 0.322 ms

Below is generated by plot.py at 2018-11-02 19:55:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 3.908 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.49 Mbit/s
95th percentile per-packet one-way delay: 3.908 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-11-02 19:16:32

End at: 2018-11-02 19:17:02

Local clock offset: -6.997 ms

Remote clock offset: 0.299 ms

Below is generated by plot.py at 2018-11-02 19:55:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 1.868 ms

Loss rate: 0.00%

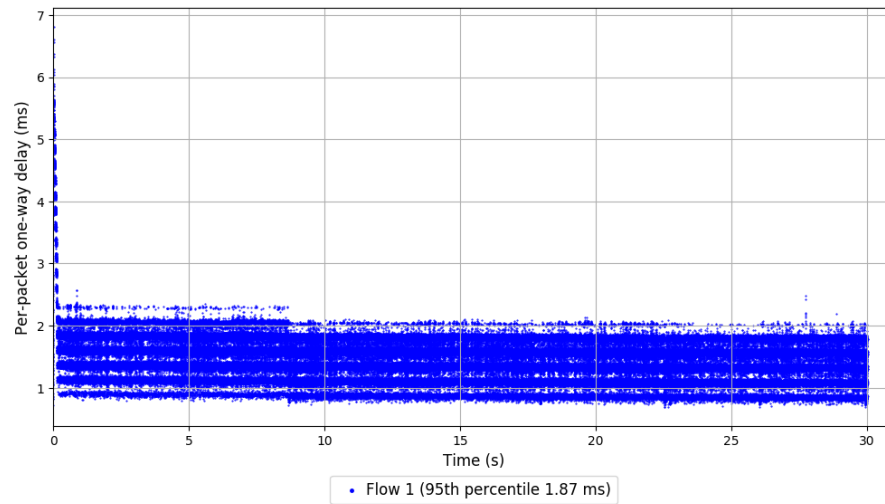
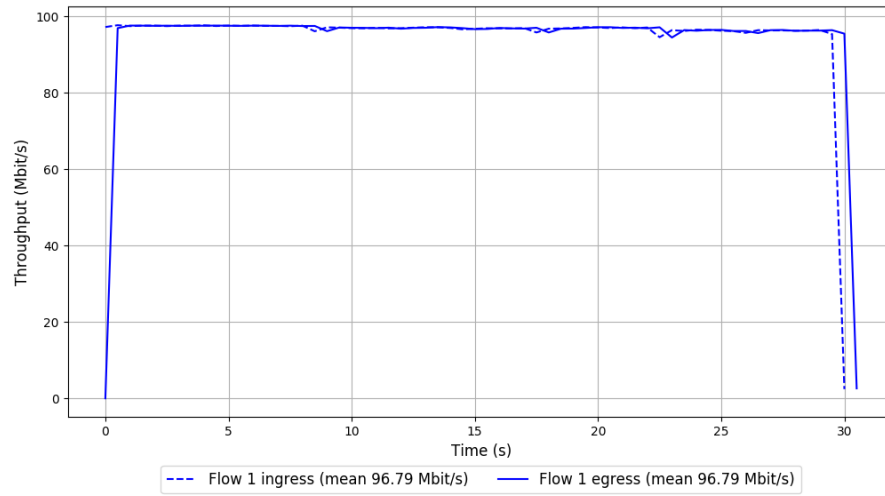
-- Flow 1:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 1.868 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-11-02 19:36:49

End at: 2018-11-02 19:37:19

Local clock offset: -8.433 ms

Remote clock offset: 0.419 ms

Below is generated by plot.py at 2018-11-02 19:55:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 4.044 ms

Loss rate: 0.00%

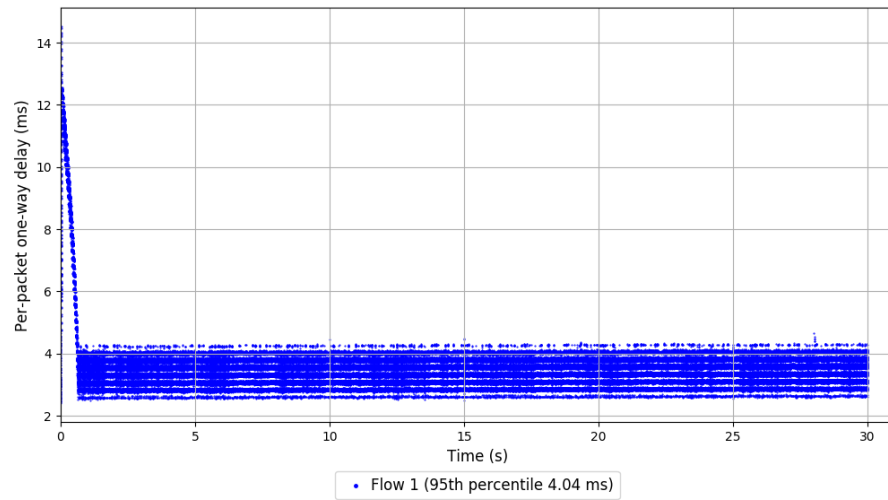
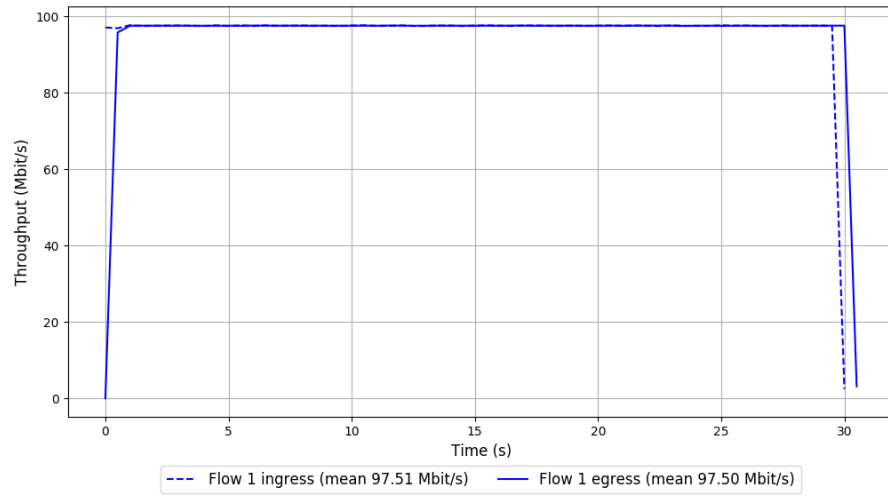
-- Flow 1:

Average throughput: 97.50 Mbit/s

95th percentile per-packet one-way delay: 4.044 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-11-02 18:14:31

End at: 2018-11-02 18:15:01

Local clock offset: -2.02 ms

Remote clock offset: 0.182 ms

Below is generated by plot.py at 2018-11-02 19:55:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.72 Mbit/s

95th percentile per-packet one-way delay: 4.354 ms

Loss rate: 1.31%

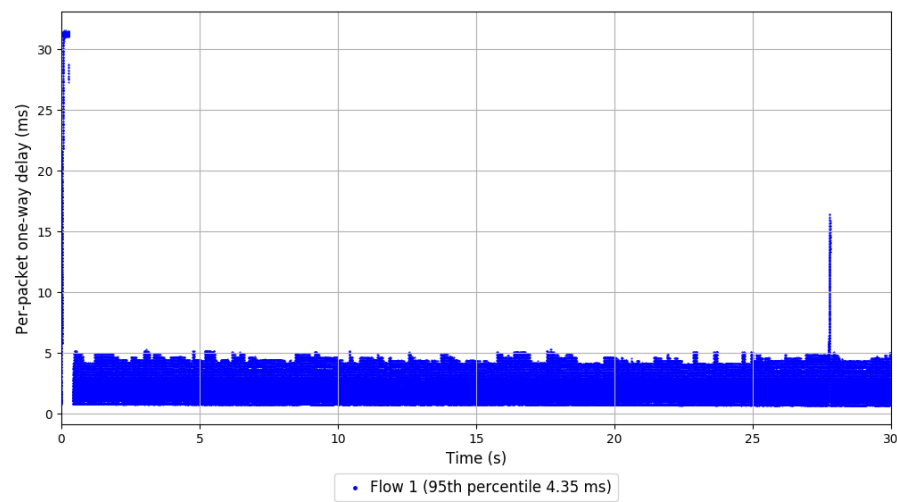
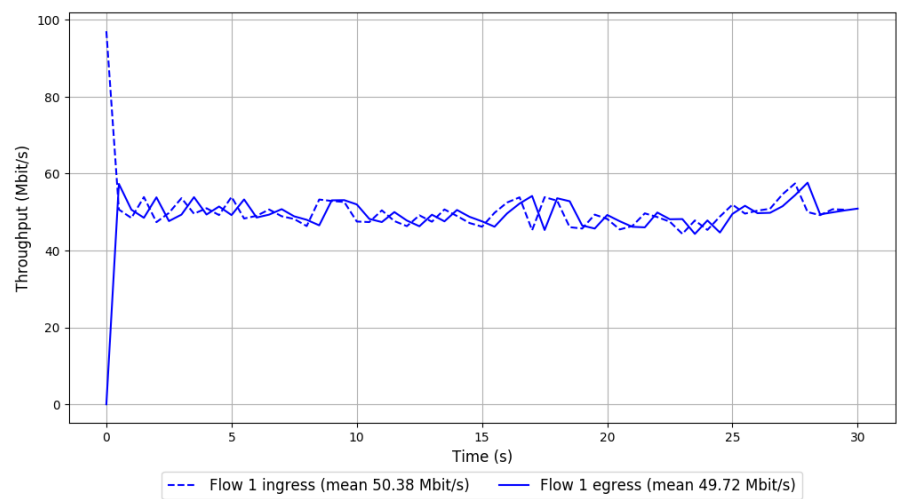
-- Flow 1:

Average throughput: 49.72 Mbit/s

95th percentile per-packet one-way delay: 4.354 ms

Loss rate: 1.31%

Run 1: Report of Verus — Data Link

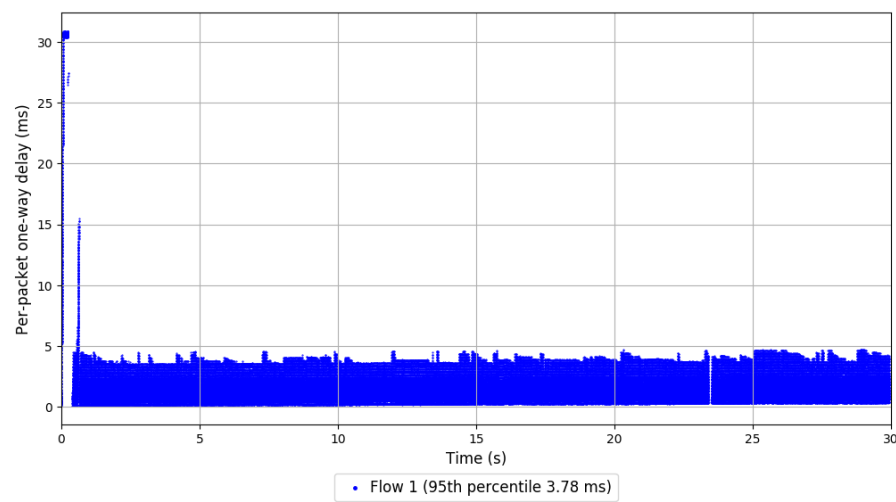
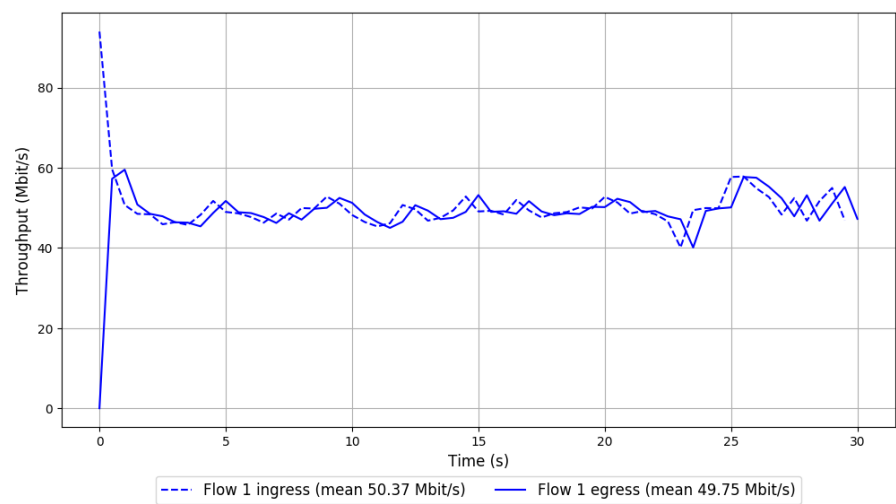


Run 2: Statistics of Verus

Start at: 2018-11-02 18:34:45
End at: 2018-11-02 18:35:15
Local clock offset: -6.965 ms
Remote clock offset: 0.086 ms

Below is generated by plot.py at 2018-11-02 19:55:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 3.778 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 49.75 Mbit/s
95th percentile per-packet one-way delay: 3.778 ms
Loss rate: 1.22%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-11-02 18:55:08

End at: 2018-11-02 18:55:38

Local clock offset: -5.401 ms

Remote clock offset: 0.193 ms

Below is generated by plot.py at 2018-11-02 19:55:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.16 Mbit/s

95th percentile per-packet one-way delay: 4.347 ms

Loss rate: 0.86%

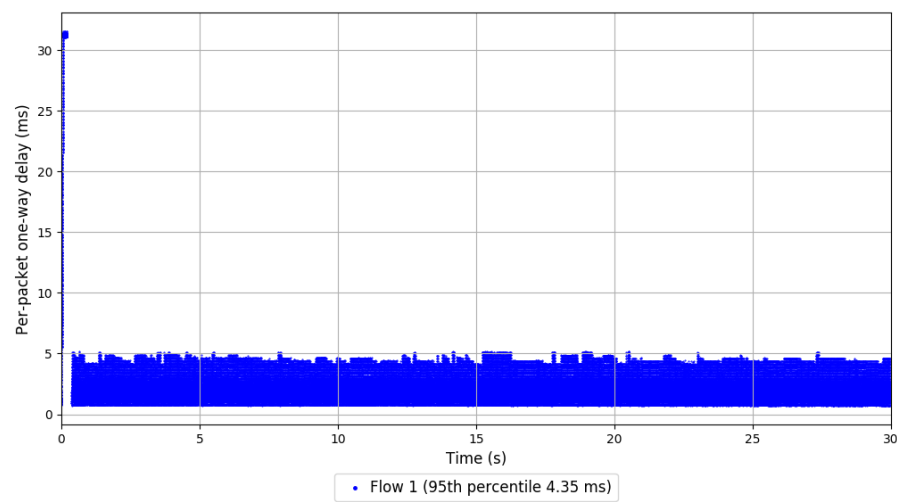
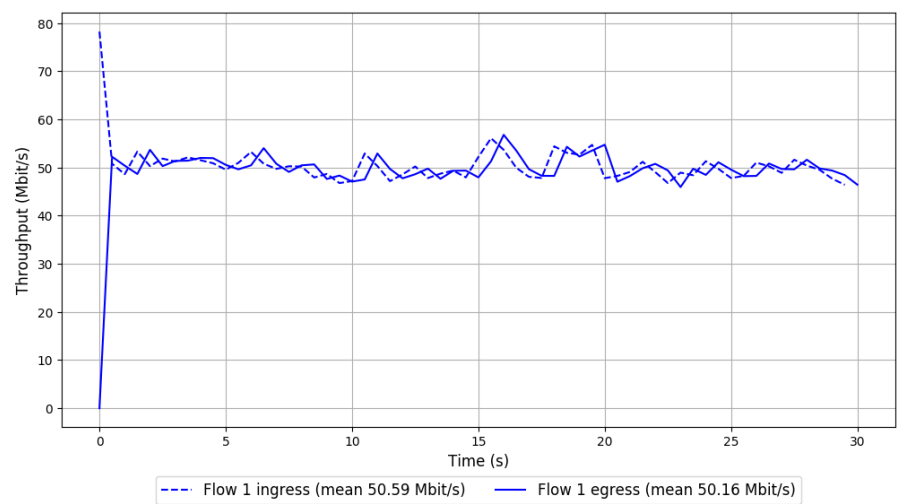
-- Flow 1:

Average throughput: 50.16 Mbit/s

95th percentile per-packet one-way delay: 4.347 ms

Loss rate: 0.86%

Run 3: Report of Verus — Data Link

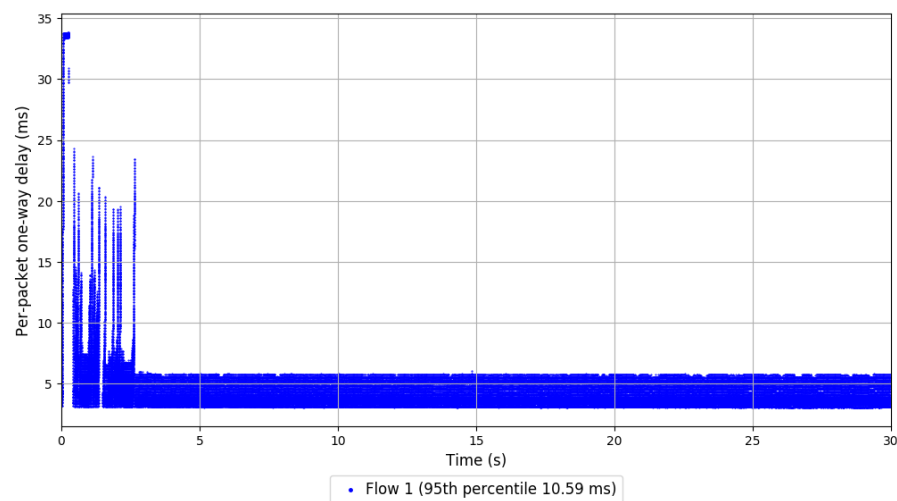
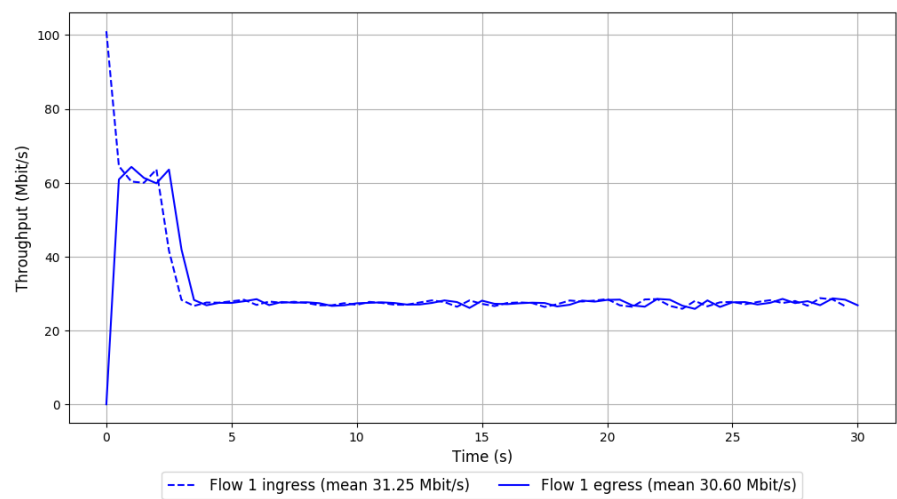


Run 4: Statistics of Verus

Start at: 2018-11-02 19:15:26
End at: 2018-11-02 19:15:56
Local clock offset: -7.764 ms
Remote clock offset: 0.354 ms

Below is generated by plot.py at 2018-11-02 19:55:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 10.587 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 30.60 Mbit/s
95th percentile per-packet one-way delay: 10.587 ms
Loss rate: 2.09%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-11-02 19:35:43

End at: 2018-11-02 19:36:13

Local clock offset: -7.773 ms

Remote clock offset: 0.37 ms

Below is generated by plot.py at 2018-11-02 19:55:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.22 Mbit/s

95th percentile per-packet one-way delay: 6.416 ms

Loss rate: 2.00%

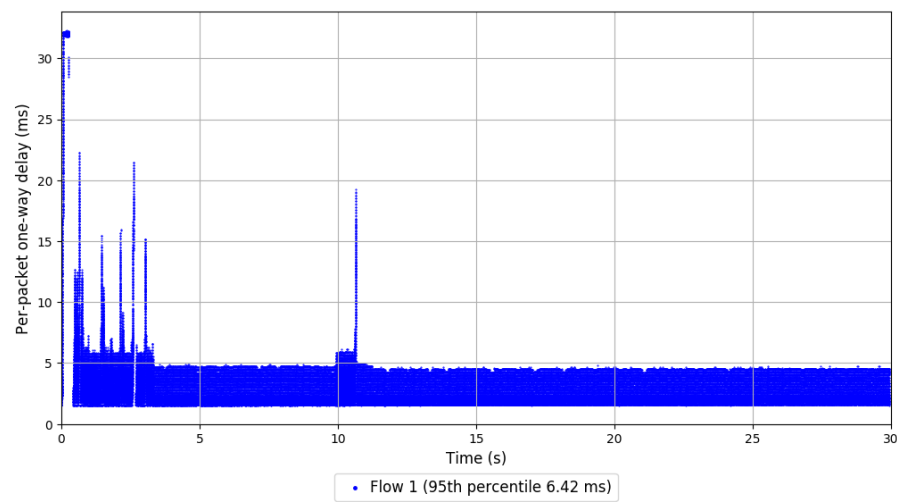
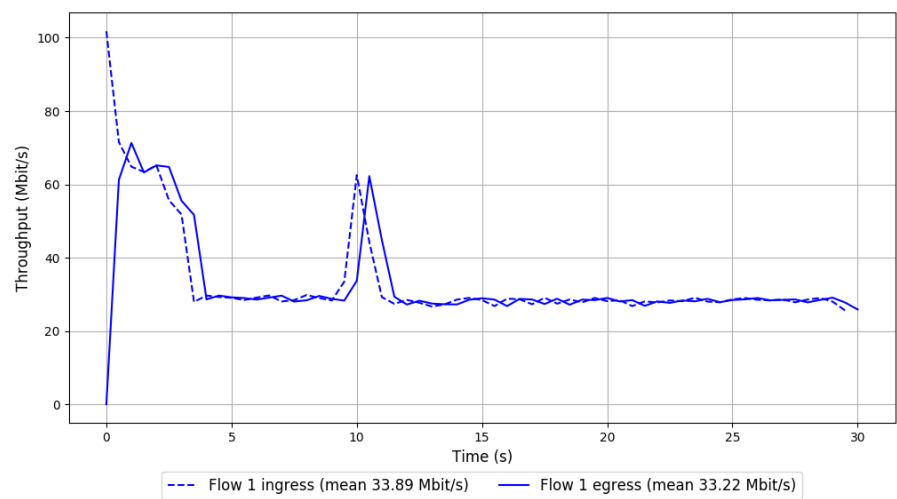
-- Flow 1:

Average throughput: 33.22 Mbit/s

95th percentile per-packet one-way delay: 6.416 ms

Loss rate: 2.00%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-11-02 18:22:22

End at: 2018-11-02 18:22:52

Local clock offset: -2.777 ms

Remote clock offset: 0.196 ms

Below is generated by plot.py at 2018-11-02 19:56:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.52 Mbit/s

95th percentile per-packet one-way delay: -0.045 ms

Loss rate: 0.00%

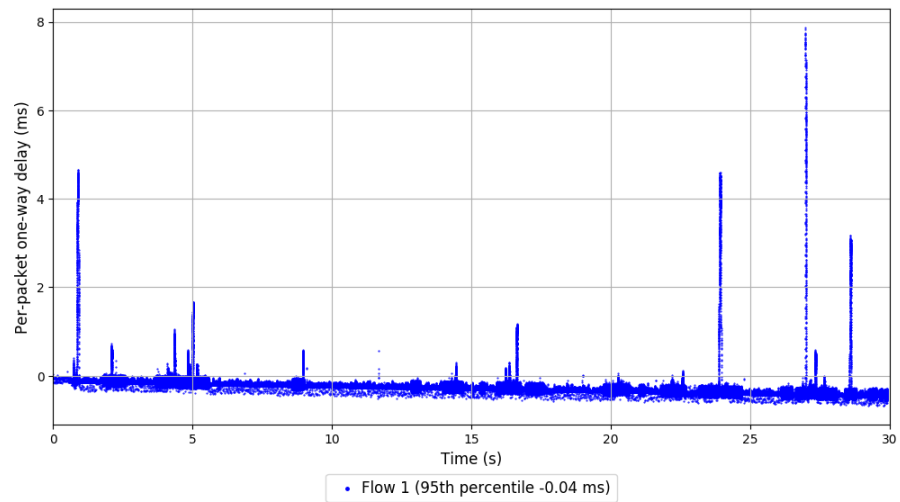
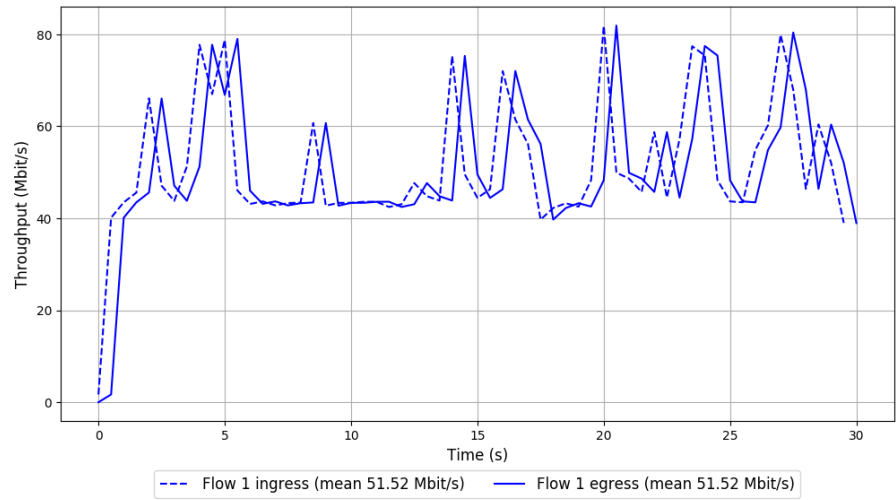
-- Flow 1:

Average throughput: 51.52 Mbit/s

95th percentile per-packet one-way delay: -0.045 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-11-02 18:42:39

End at: 2018-11-02 18:43:09

Local clock offset: -5.543 ms

Remote clock offset: 0.253 ms

Below is generated by plot.py at 2018-11-02 19:56:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.64 Mbit/s

95th percentile per-packet one-way delay: 2.609 ms

Loss rate: 0.00%

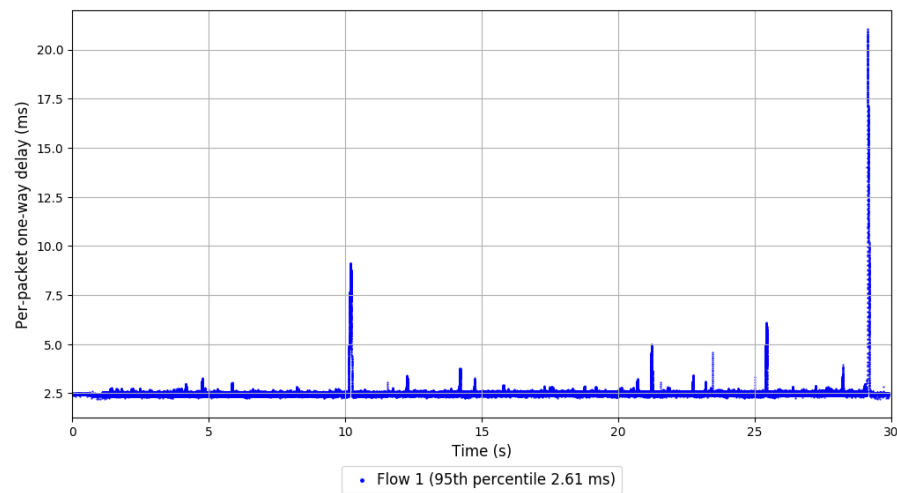
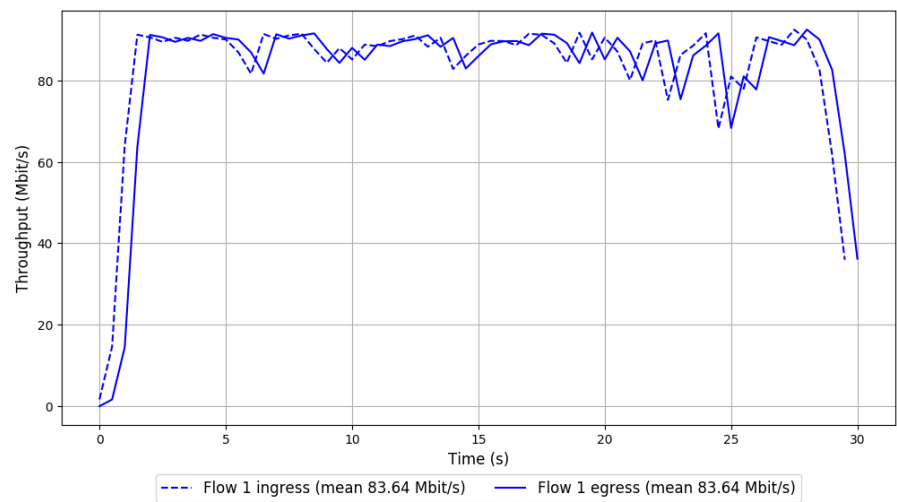
-- Flow 1:

Average throughput: 83.64 Mbit/s

95th percentile per-packet one-way delay: 2.609 ms

Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-11-02 19:03:01

End at: 2018-11-02 19:03:31

Local clock offset: -5.147 ms

Remote clock offset: 0.238 ms

Below is generated by plot.py at 2018-11-02 19:56:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.14 Mbit/s

95th percentile per-packet one-way delay: 0.201 ms

Loss rate: 0.00%

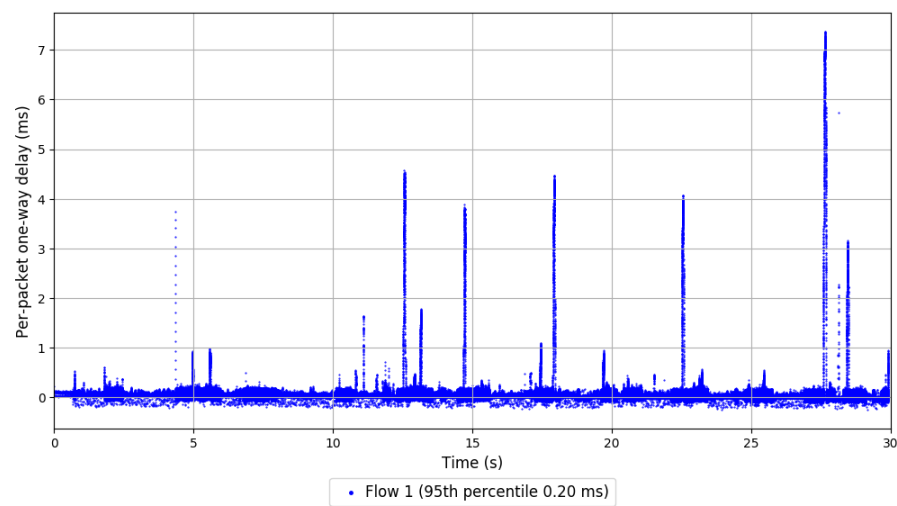
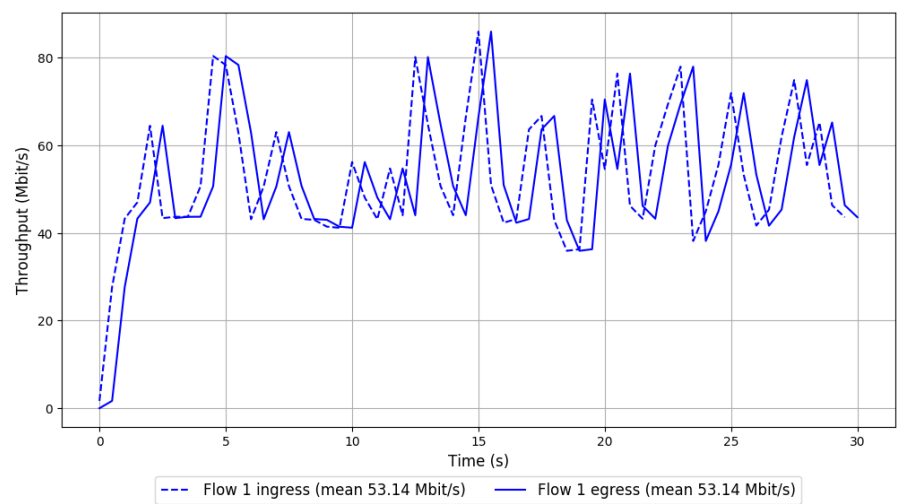
-- Flow 1:

Average throughput: 53.14 Mbit/s

95th percentile per-packet one-way delay: 0.201 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-11-02 19:23:16

End at: 2018-11-02 19:23:46

Local clock offset: -6.895 ms

Remote clock offset: 0.269 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.81 Mbit/s

95th percentile per-packet one-way delay: 1.630 ms

Loss rate: 0.00%

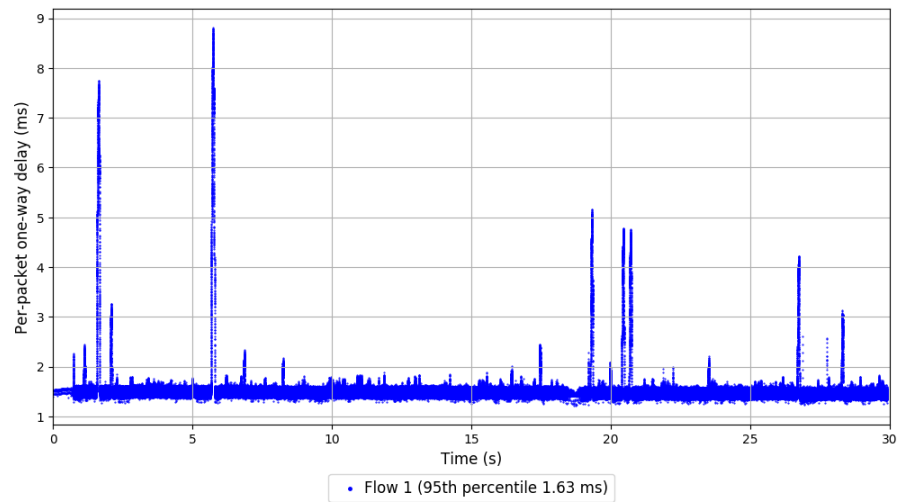
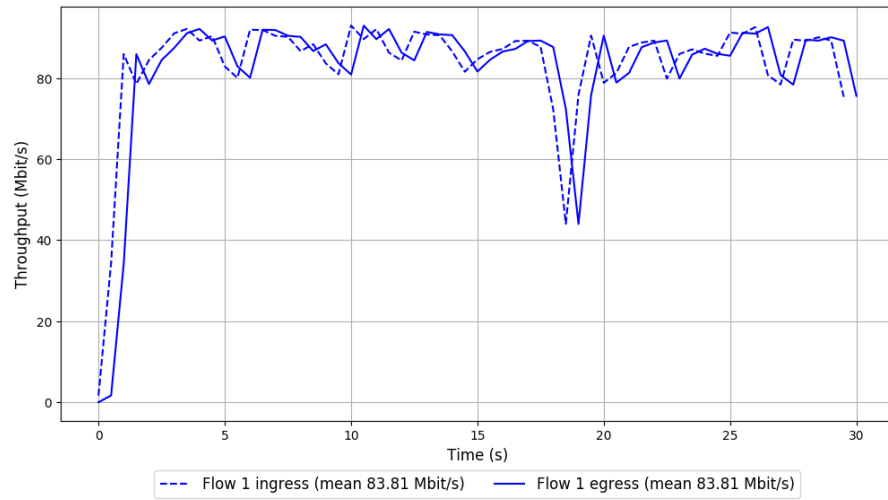
-- Flow 1:

Average throughput: 83.81 Mbit/s

95th percentile per-packet one-way delay: 1.630 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-11-02 19:43:34

End at: 2018-11-02 19:44:04

Local clock offset: -7.237 ms

Remote clock offset: 0.437 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.54 Mbit/s

95th percentile per-packet one-way delay: 0.298 ms

Loss rate: 0.00%

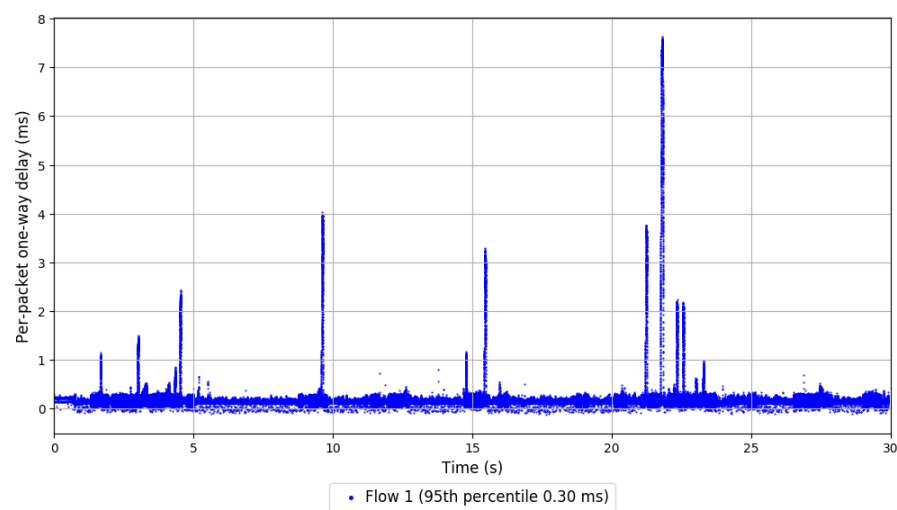
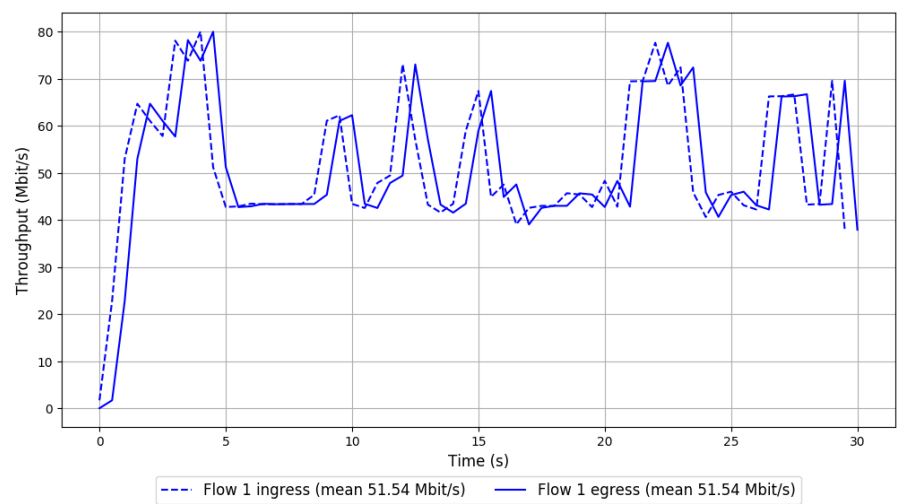
-- Flow 1:

Average throughput: 51.54 Mbit/s

95th percentile per-packet one-way delay: 0.298 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-11-02 18:17:52

End at: 2018-11-02 18:18:22

Local clock offset: -2.53 ms

Remote clock offset: 0.181 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 1.390 ms

Loss rate: 0.00%

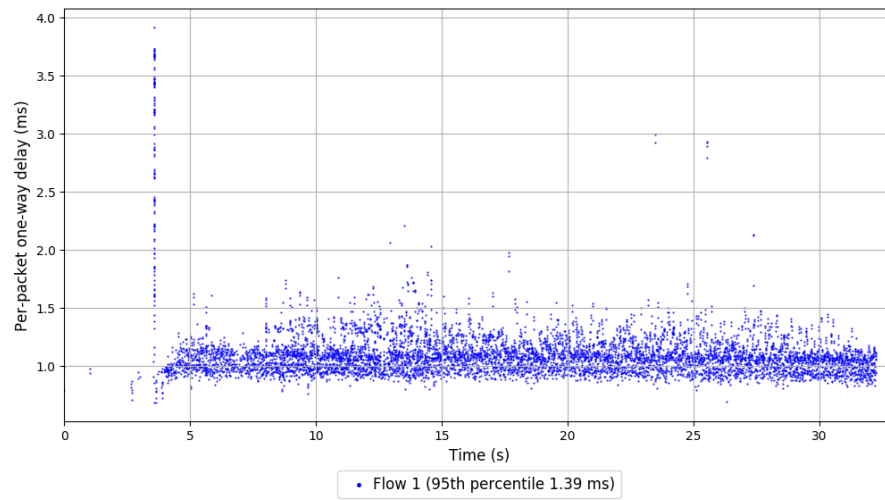
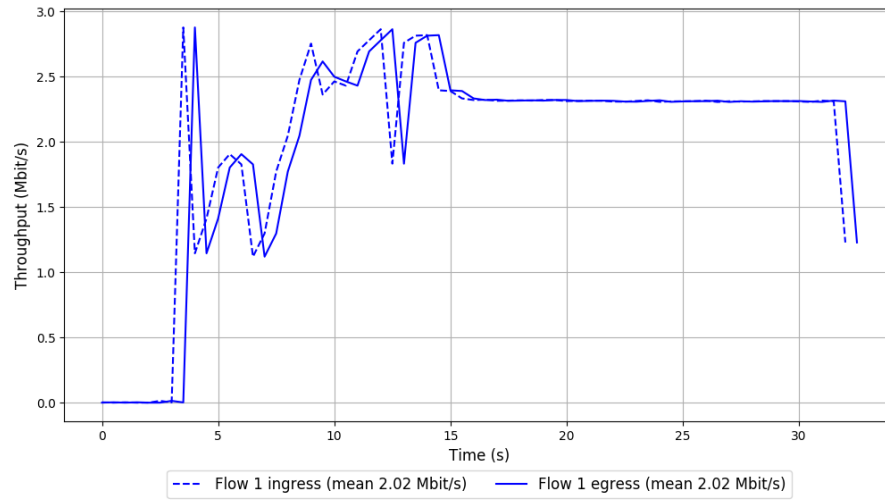
-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 1.390 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-11-02 18:38:08

End at: 2018-11-02 18:38:38

Local clock offset: -5.729 ms

Remote clock offset: 0.155 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 0.805 ms

Loss rate: 0.00%

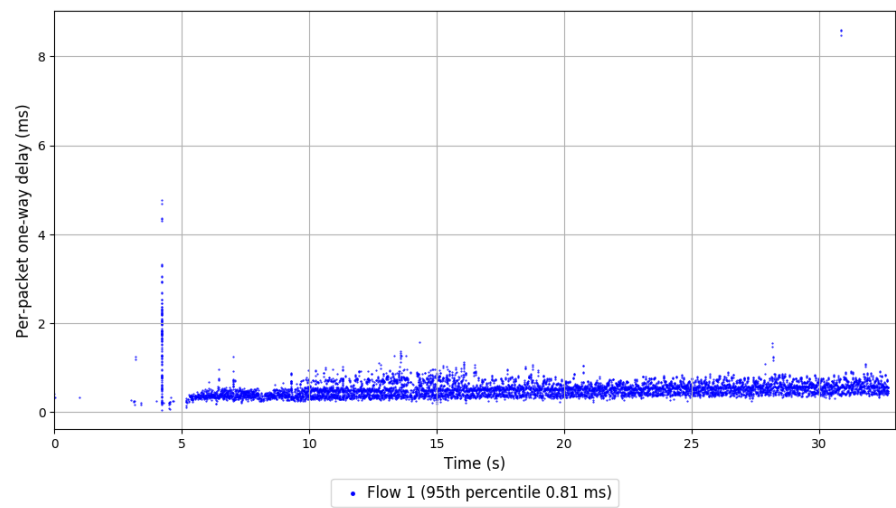
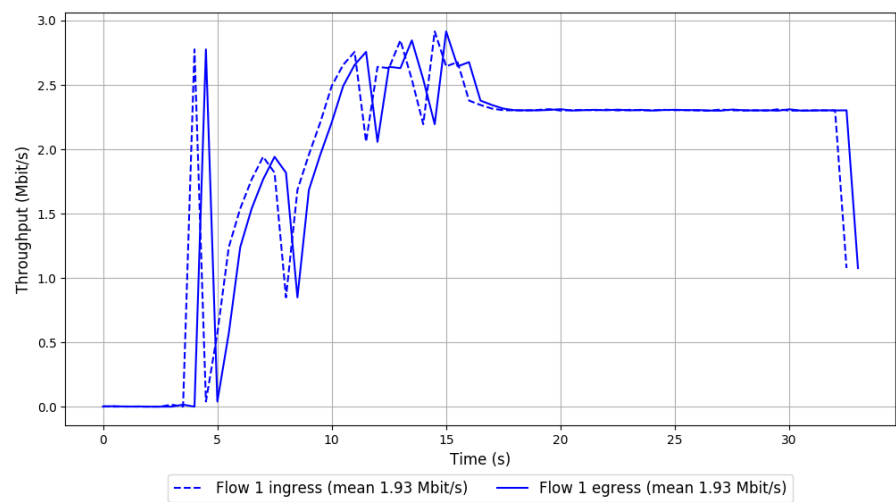
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 0.805 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-11-02 18:58:29

End at: 2018-11-02 18:58:59

Local clock offset: -6.385 ms

Remote clock offset: 0.303 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.643 ms

Loss rate: 0.00%

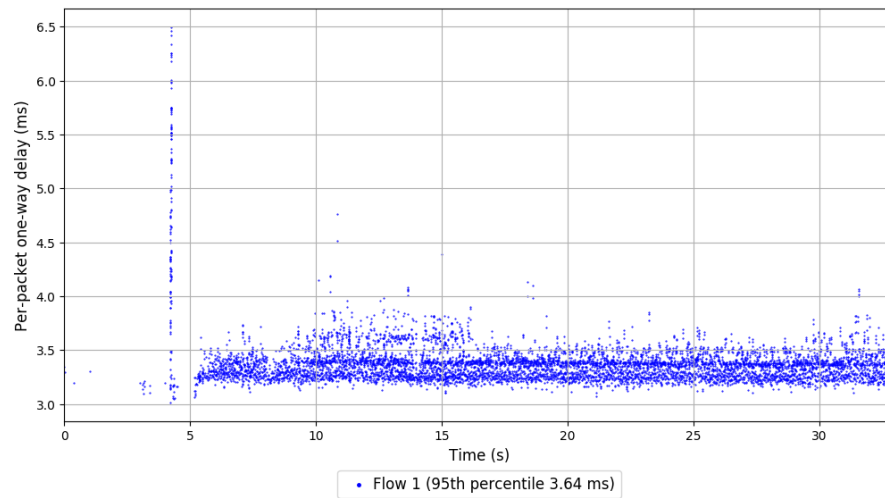
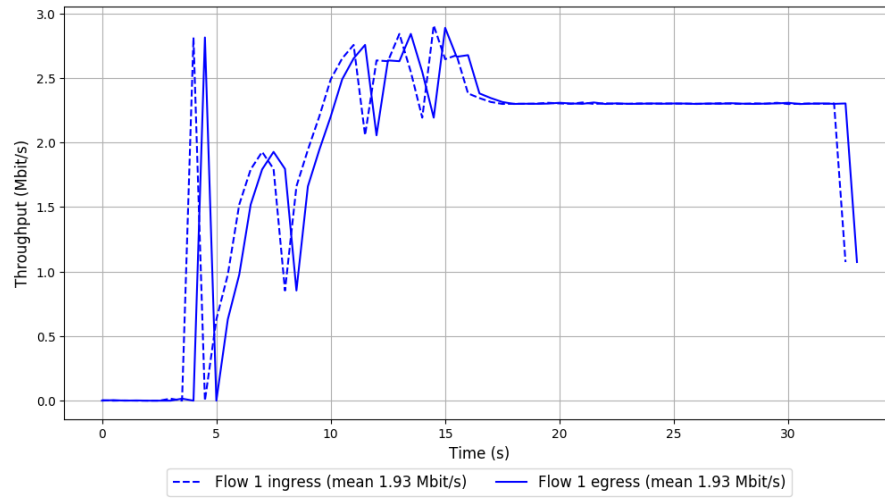
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 3.643 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-11-02 19:18:46

End at: 2018-11-02 19:19:16

Local clock offset: -6.464 ms

Remote clock offset: 0.196 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 0.460 ms

Loss rate: 0.00%

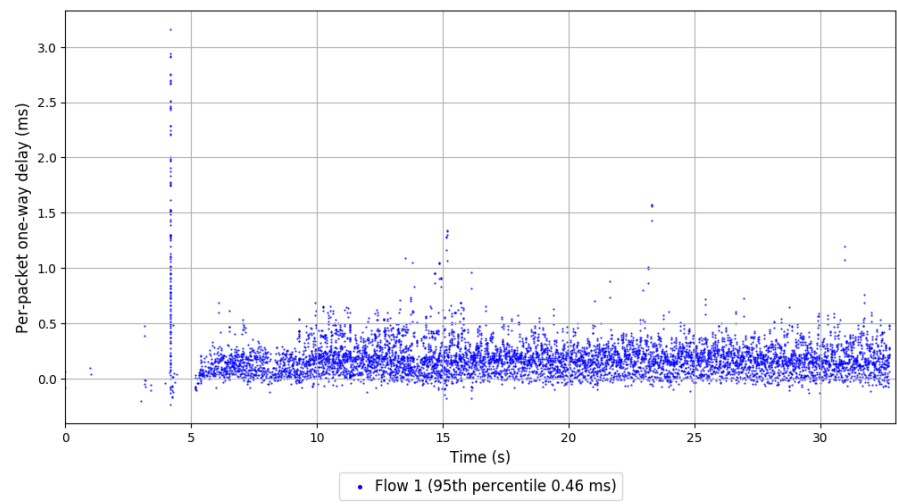
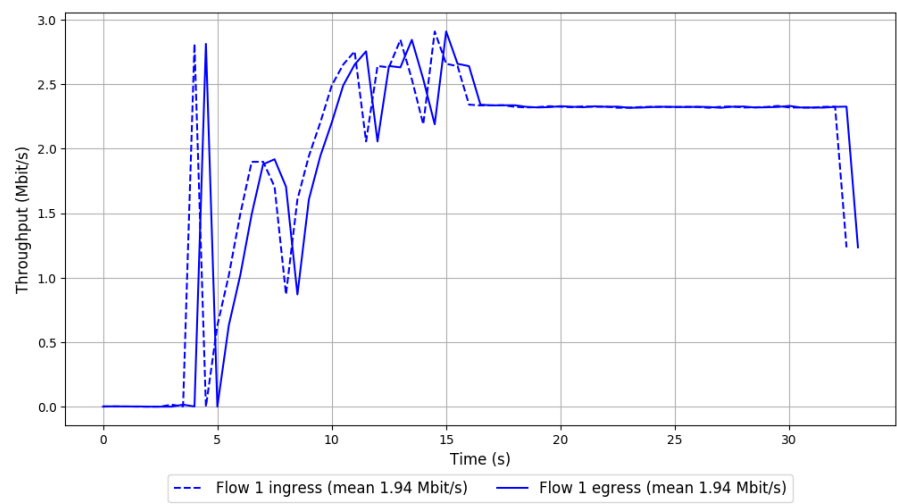
-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 0.460 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-02 19:39:03

End at: 2018-11-02 19:39:33

Local clock offset: -7.434 ms

Remote clock offset: 0.32 ms

Below is generated by plot.py at 2018-11-02 19:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 0.639 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 0.639 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

