

Pantheon Report

Generated at 2018-09-06 06:47:37 (UTC).

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

Repeated the test of 18 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

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

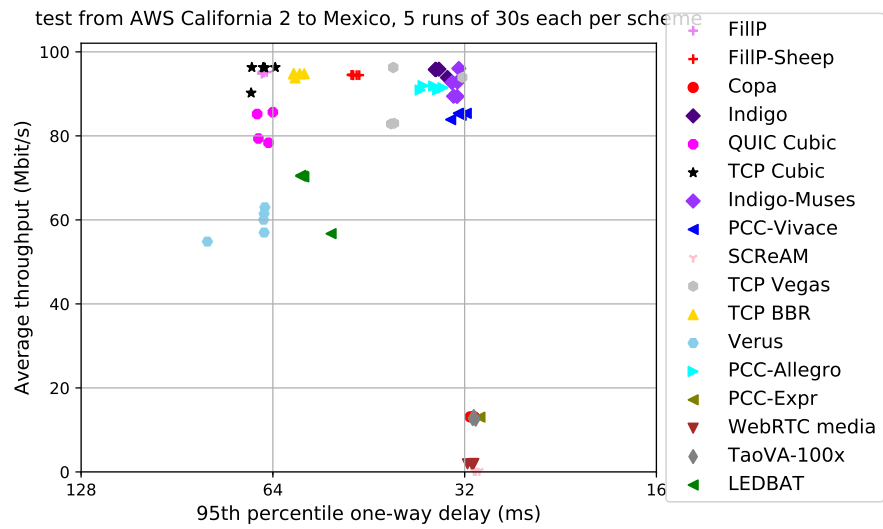
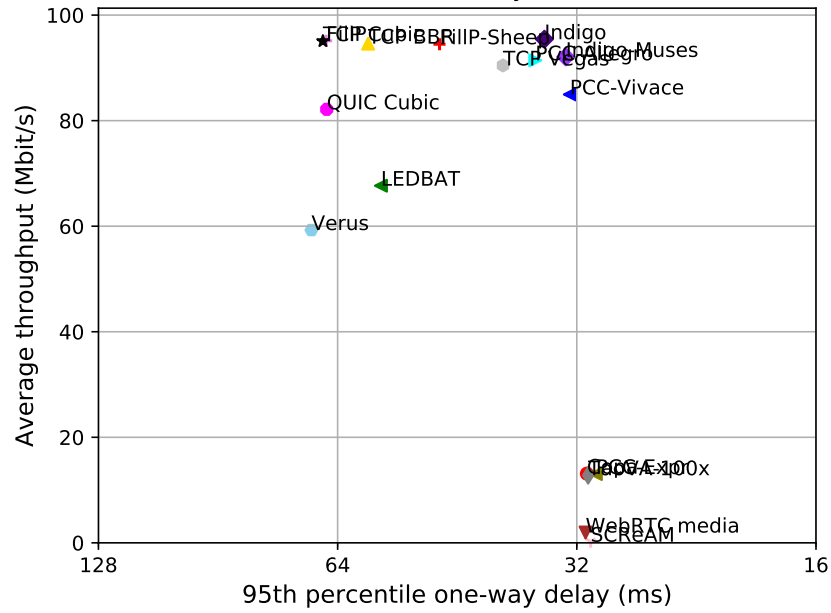
System info:

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

Git summary:

```
branch: muses @ f392ce15d580343f4432c3d7e068b3290f03eb4a
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd9c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ a28d20fb82a95a965a3da65fd1eb71b8994e9b84
third_party/pantheon-tunnel @ cbfce6db5ff5740d4fe1771f813cd646339e1952
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	94.60	58.59	0.88
Copa	5	13.11	31.08	71.33
TCP Cubic	5	95.07	66.79	0.56
FillP	5	95.12	66.16	9.18
FillP-Sheep	5	94.48	47.64	0.97
Indigo	5	95.43	35.15	0.00
LEDBAT	5	67.67	56.46	0.01
Indigo-Muses	5	92.08	33.04	0.25
PCC-Allegro	5	91.43	36.09	0.71
PCC-Expr	1	13.04	30.28	40.45
QUIC Cubic	4	82.15	66.05	1.37
SCReAM	5	0.21	30.74	0.00
Sprout	0	N/A	N/A	N/A
TaoVA-100x	4	12.81	30.97	78.52
TCP Vegas	5	90.46	39.63	0.36
Verus	5	59.27	69.05	32.73
PCC-Vivace	5	84.97	32.66	0.00
WebRTC media	5	1.95	31.20	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-09-06 04:45:45

End at: 2018-09-06 04:46:15

Local clock offset: 4.897 ms

Remote clock offset: -0.277 ms

Below is generated by plot.py at 2018-09-06 06:39:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.78 Mbit/s

95th percentile per-packet one-way delay: 57.123 ms

Loss rate: 0.86%

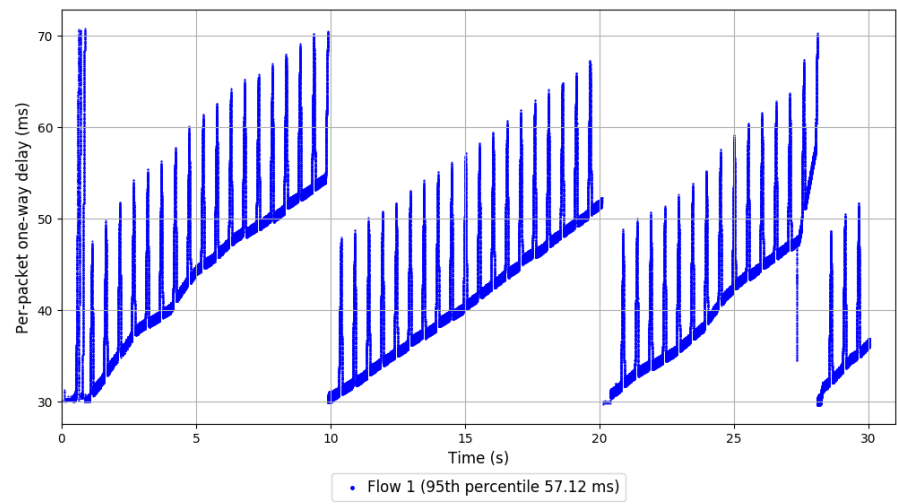
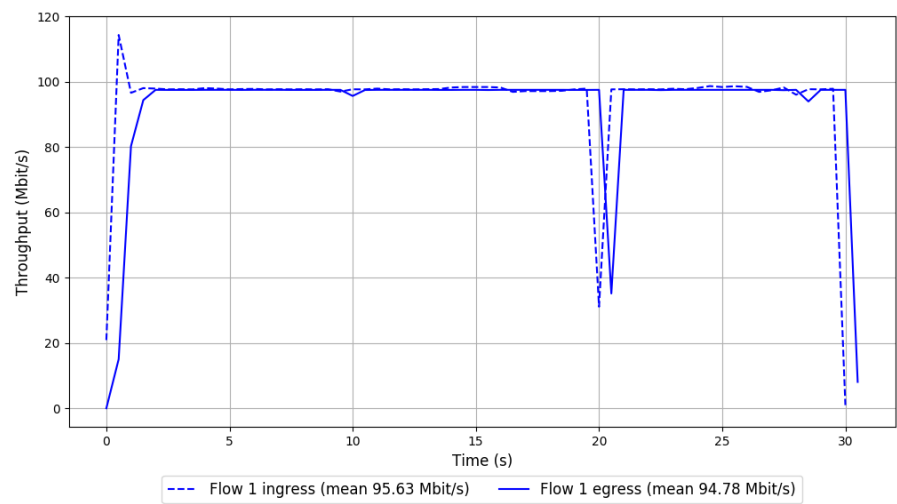
-- Flow 1:

Average throughput: 94.78 Mbit/s

95th percentile per-packet one-way delay: 57.123 ms

Loss rate: 0.86%

Run 1: Report of TCP BBR — Data Link

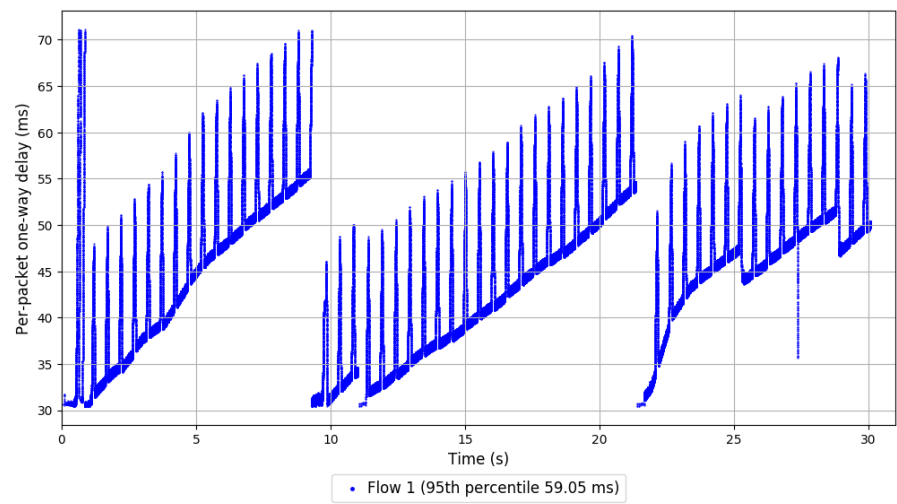
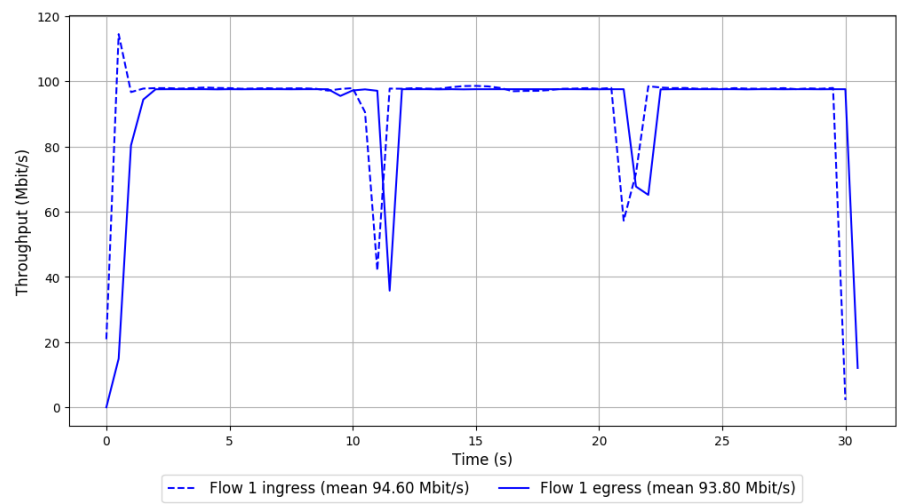


Run 2: Statistics of TCP BBR

Start at: 2018-09-06 05:09:14
End at: 2018-09-06 05:09:44
Local clock offset: -4.892 ms
Remote clock offset: -0.118 ms

Below is generated by plot.py at 2018-09-06 06:39:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 59.055 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 59.055 ms
Loss rate: 0.78%

Run 2: Report of TCP BBR — Data Link

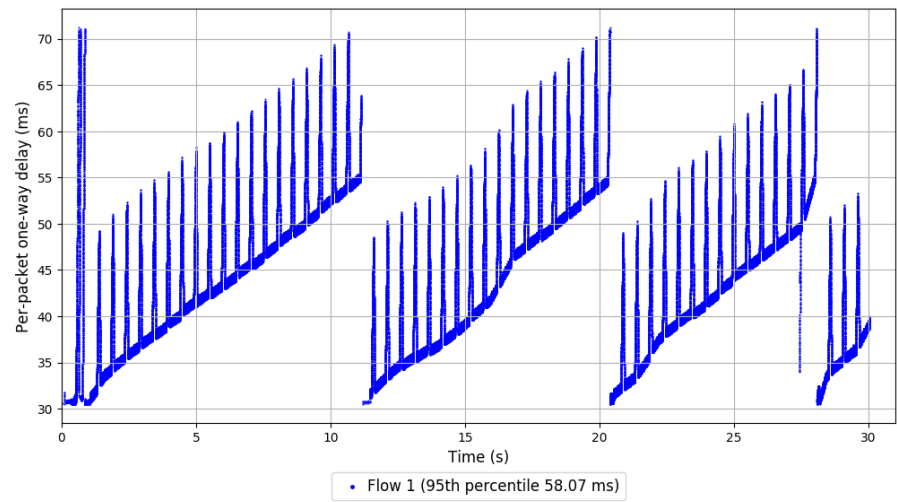
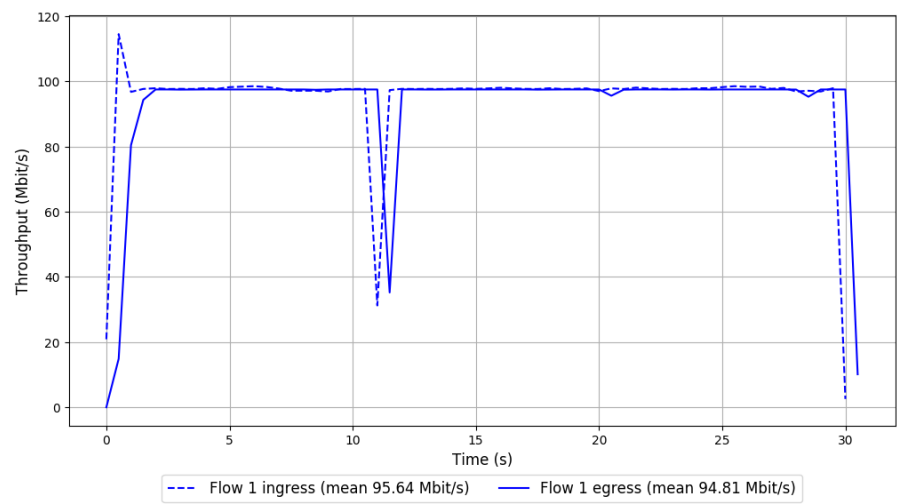


Run 3: Statistics of TCP BBR

Start at: 2018-09-06 05:32:49
End at: 2018-09-06 05:33:19
Local clock offset: -0.871 ms
Remote clock offset: -0.189 ms

Below is generated by plot.py at 2018-09-06 06:39:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 58.069 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 58.069 ms
Loss rate: 0.84%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-09-06 05:56:23

End at: 2018-09-06 05:56:53

Local clock offset: 2.407 ms

Remote clock offset: -0.129 ms

Below is generated by plot.py at 2018-09-06 06:39:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.86 Mbit/s

95th percentile per-packet one-way delay: 59.341 ms

Loss rate: 0.83%

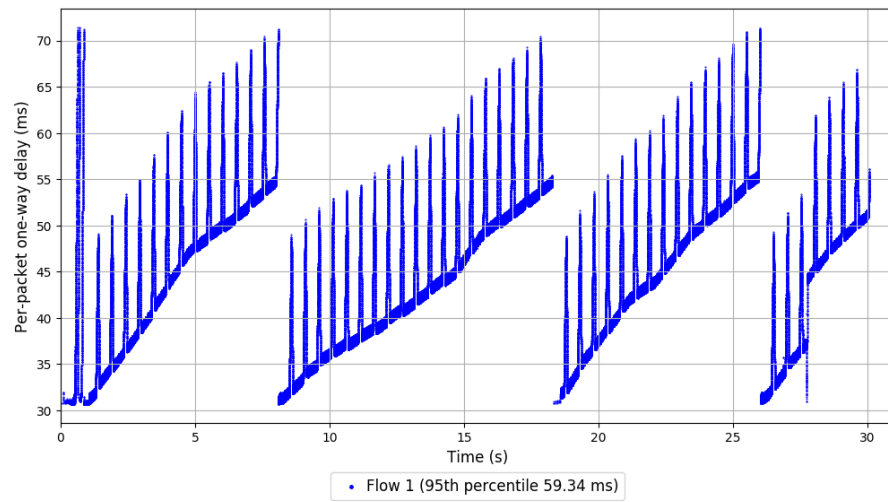
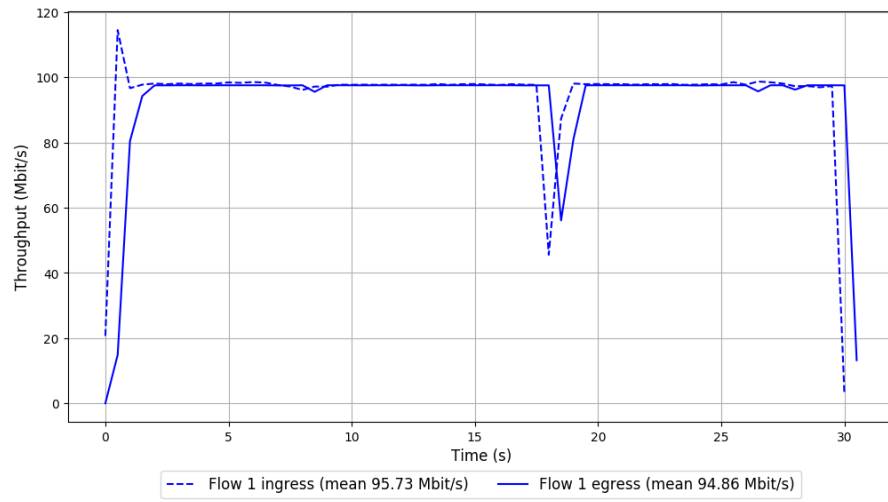
-- Flow 1:

Average throughput: 94.86 Mbit/s

95th percentile per-packet one-way delay: 59.341 ms

Loss rate: 0.83%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-09-06 06:19:54

End at: 2018-09-06 06:20:24

Local clock offset: 2.412 ms

Remote clock offset: -0.161 ms

Below is generated by plot.py at 2018-09-06 06:39:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.73 Mbit/s

95th percentile per-packet one-way delay: 59.374 ms

Loss rate: 1.07%

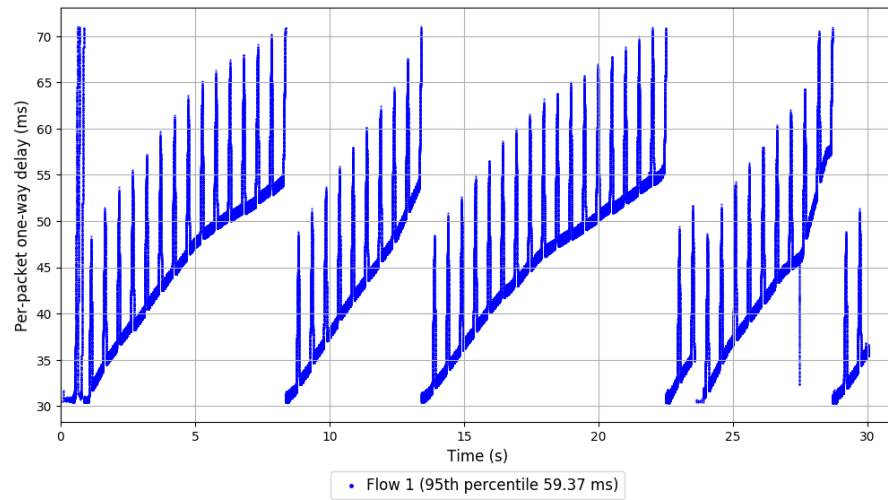
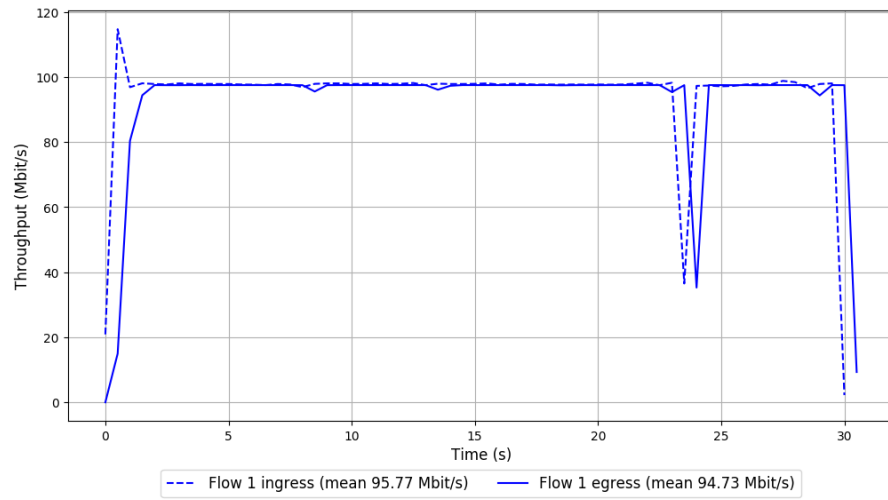
-- Flow 1:

Average throughput: 94.73 Mbit/s

95th percentile per-packet one-way delay: 59.374 ms

Loss rate: 1.07%

Run 5: Report of TCP BBR — Data Link

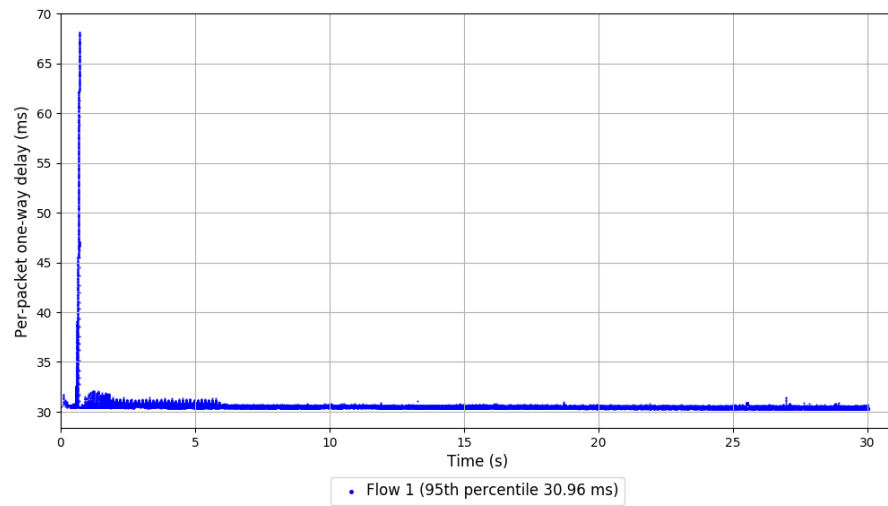
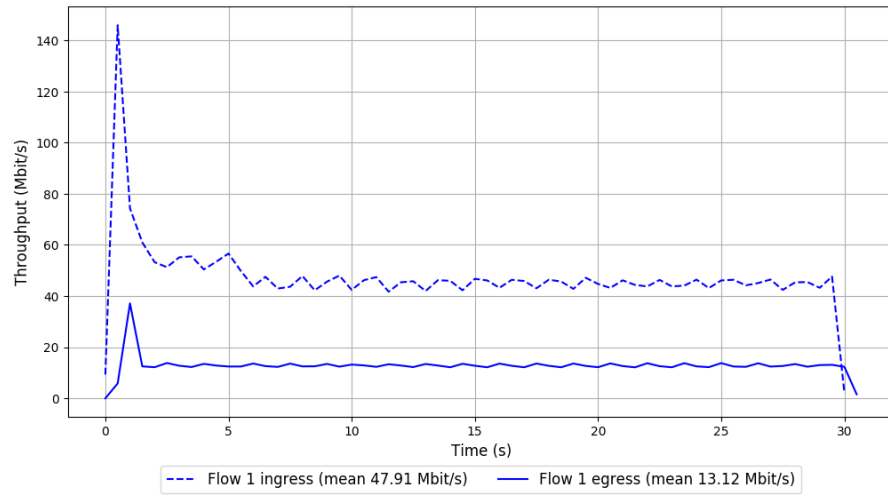


Run 1: Statistics of Copa

Start at: 2018-09-06 04:57:31
End at: 2018-09-06 04:58:01
Local clock offset: -2.067 ms
Remote clock offset: -0.115 ms

Below is generated by plot.py at 2018-09-06 06:39:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 30.957 ms
Loss rate: 72.63%
-- Flow 1:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 30.957 ms
Loss rate: 72.63%

Run 1: Report of Copa — Data Link

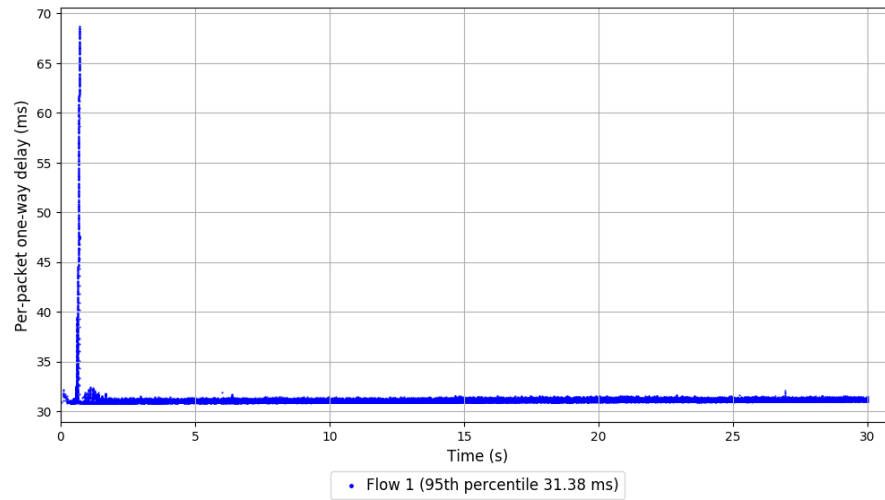
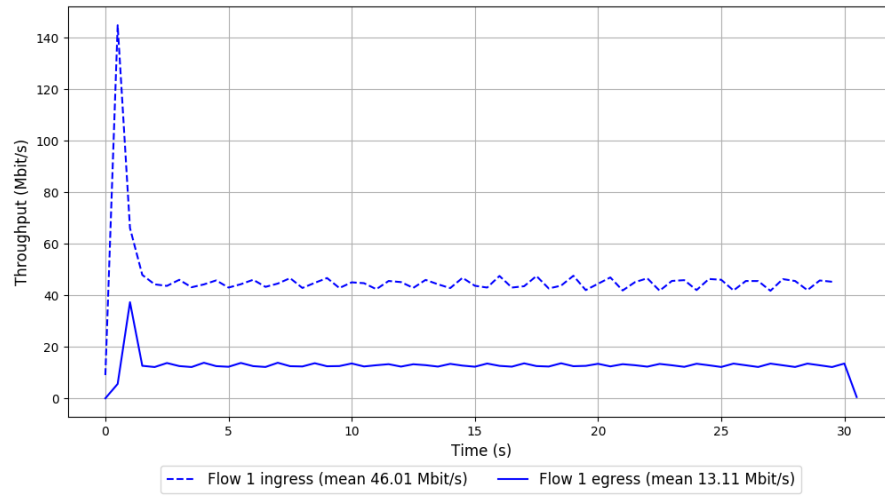


Run 2: Statistics of Copa

Start at: 2018-09-06 05:21:05
End at: 2018-09-06 05:21:35
Local clock offset: -3.067 ms
Remote clock offset: -0.055 ms

Below is generated by plot.py at 2018-09-06 06:39:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 31.384 ms
Loss rate: 71.50%
-- Flow 1:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 31.384 ms
Loss rate: 71.50%

Run 2: Report of Copa — Data Link

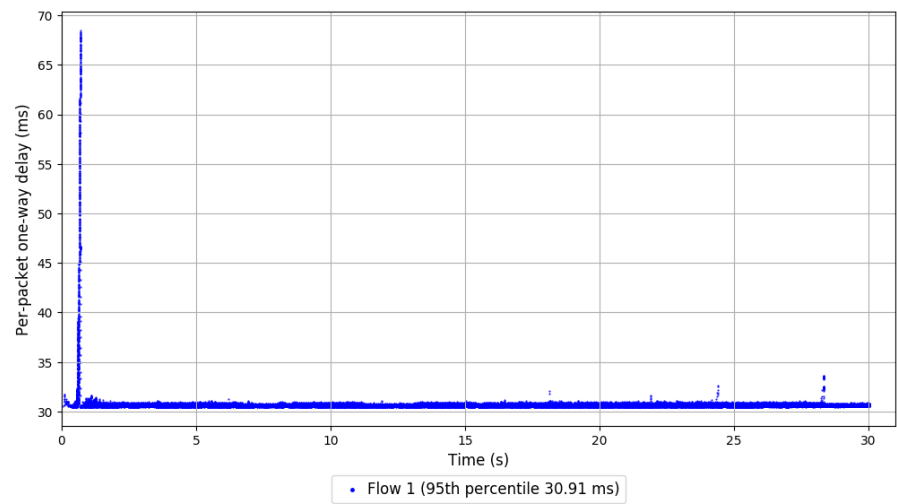
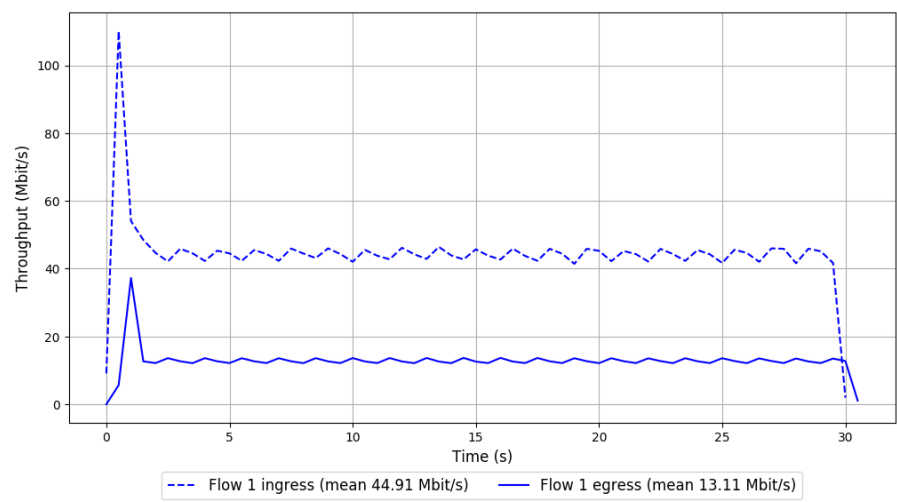


Run 3: Statistics of Copa

Start at: 2018-09-06 05:44:42
End at: 2018-09-06 05:45:12
Local clock offset: -0.478 ms
Remote clock offset: -0.239 ms

Below is generated by plot.py at 2018-09-06 06:39:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 30.911 ms
Loss rate: 70.80%
-- Flow 1:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 30.911 ms
Loss rate: 70.80%

Run 3: Report of Copa — Data Link

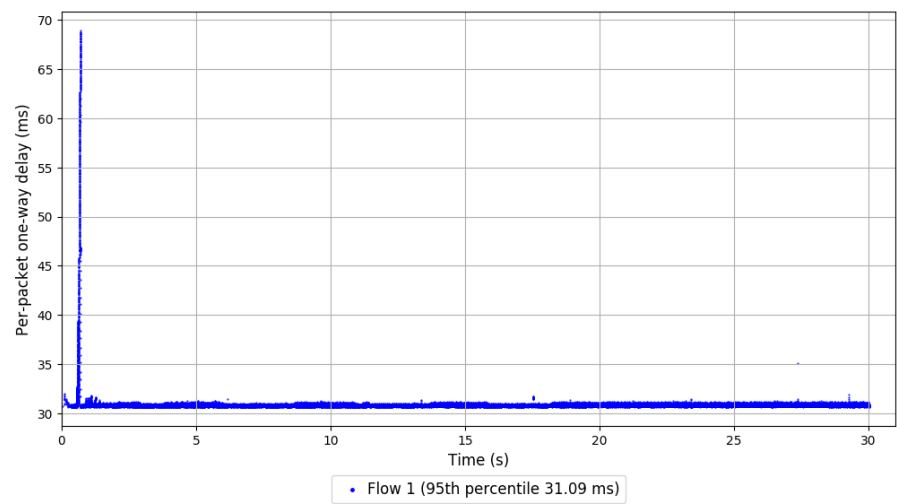
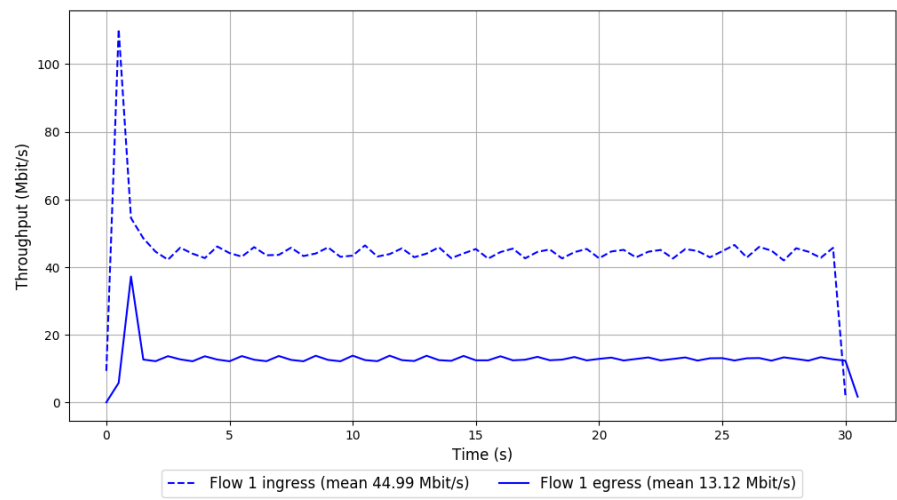


Run 4: Statistics of Copa

Start at: 2018-09-06 06:08:11
End at: 2018-09-06 06:08:41
Local clock offset: 3.549 ms
Remote clock offset: -0.161 ms

Below is generated by plot.py at 2018-09-06 06:39:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 31.087 ms
Loss rate: 70.85%
-- Flow 1:
Average throughput: 13.12 Mbit/s
95th percentile per-packet one-way delay: 31.087 ms
Loss rate: 70.85%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-09-06 06:31:47

End at: 2018-09-06 06:32:17

Local clock offset: 0.47 ms

Remote clock offset: -0.14 ms

Below is generated by plot.py at 2018-09-06 06:39:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 31.052 ms

Loss rate: 70.89%

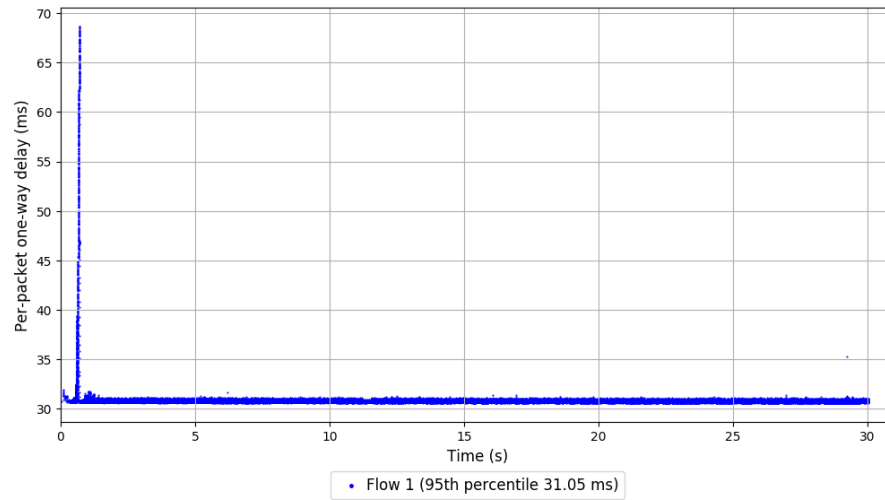
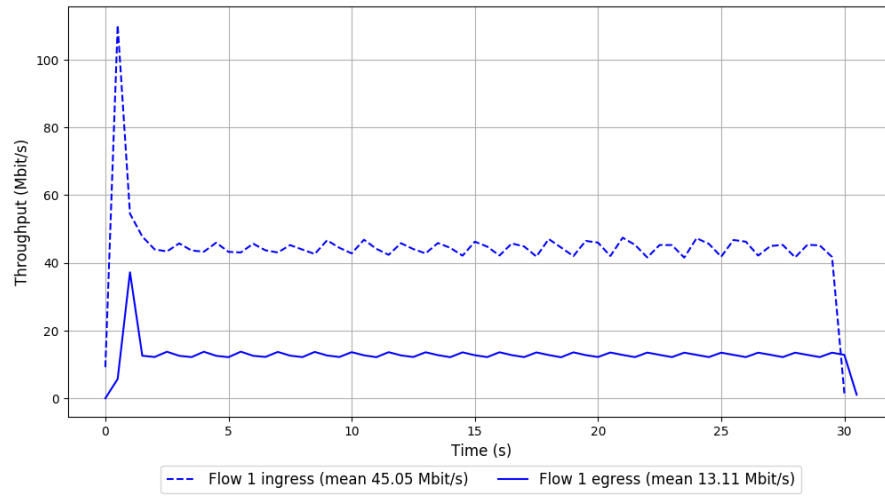
-- Flow 1:

Average throughput: 13.11 Mbit/s

95th percentile per-packet one-way delay: 31.052 ms

Loss rate: 70.89%

Run 5: Report of Copa — Data Link

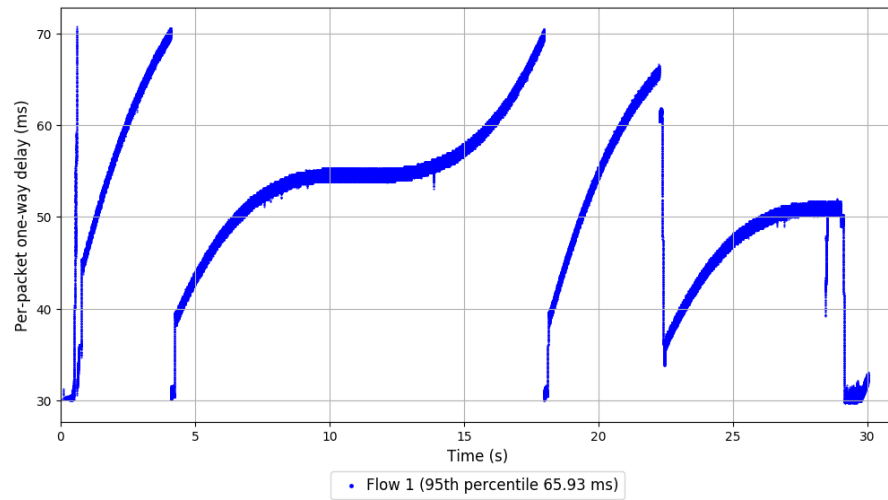
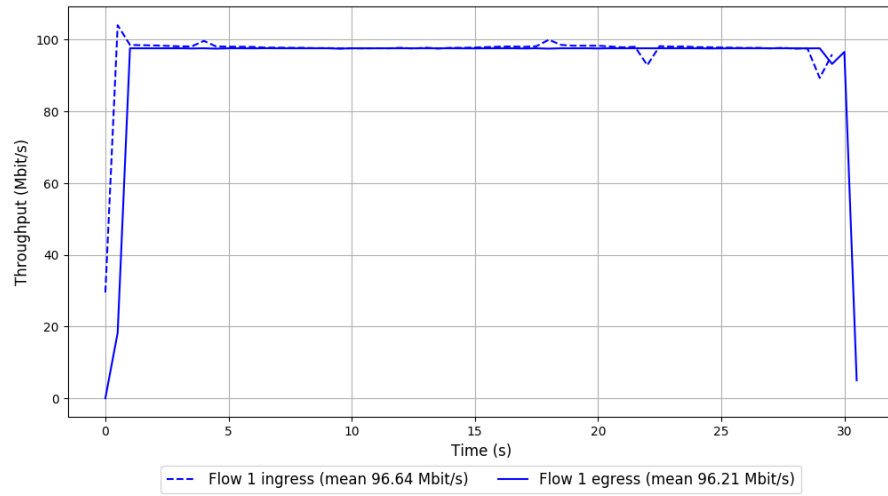


Run 1: Statistics of TCP Cubic

Start at: 2018-09-06 04:49:39
End at: 2018-09-06 04:50:09
Local clock offset: 1.71 ms
Remote clock offset: -0.351 ms

Below is generated by plot.py at 2018-09-06 06:40:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.21 Mbit/s
95th percentile per-packet one-way delay: 65.926 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 96.21 Mbit/s
95th percentile per-packet one-way delay: 65.926 ms
Loss rate: 0.44%

Run 1: Report of TCP Cubic — Data Link

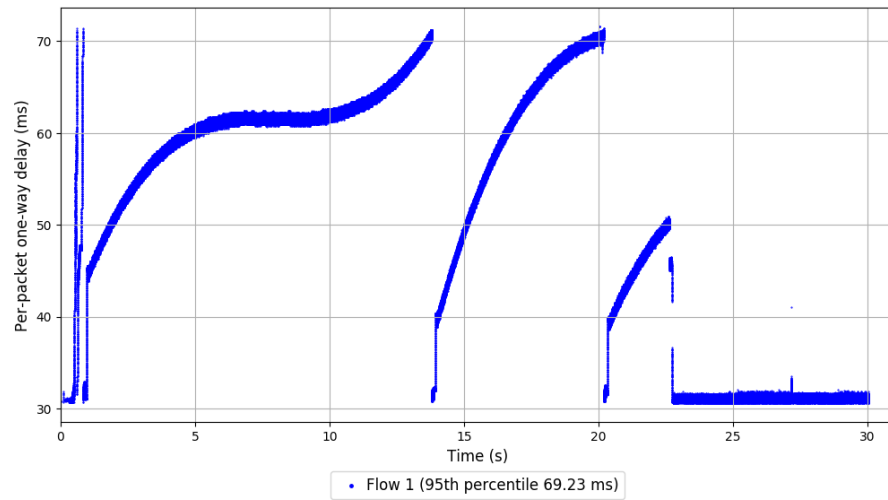
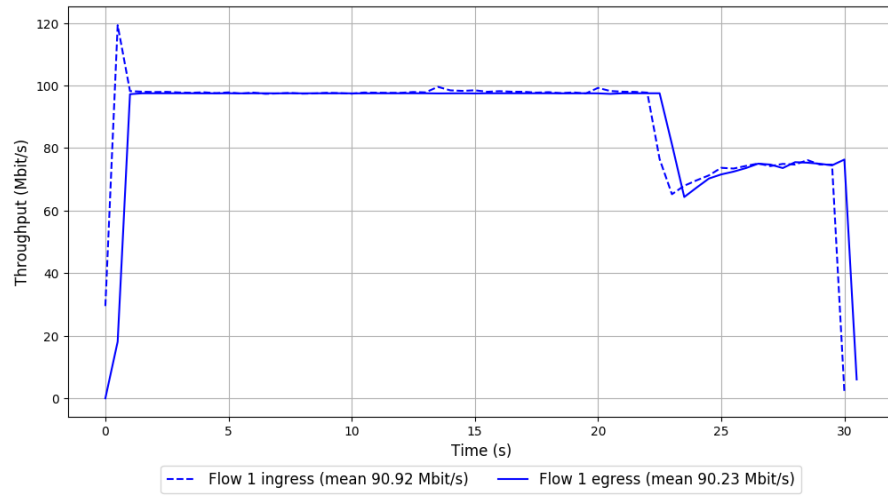


Run 2: Statistics of TCP Cubic

Start at: 2018-09-06 05:13:11
End at: 2018-09-06 05:13:41
Local clock offset: -5.655 ms
Remote clock offset: -0.028 ms

Below is generated by plot.py at 2018-09-06 06:40:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.23 Mbit/s
95th percentile per-packet one-way delay: 69.233 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 90.23 Mbit/s
95th percentile per-packet one-way delay: 69.233 ms
Loss rate: 0.77%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-09-06 05:36:47

End at: 2018-09-06 05:37:17

Local clock offset: -0.648 ms

Remote clock offset: -0.19 ms

Below is generated by plot.py at 2018-09-06 06:40:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 63.449 ms

Loss rate: 0.46%

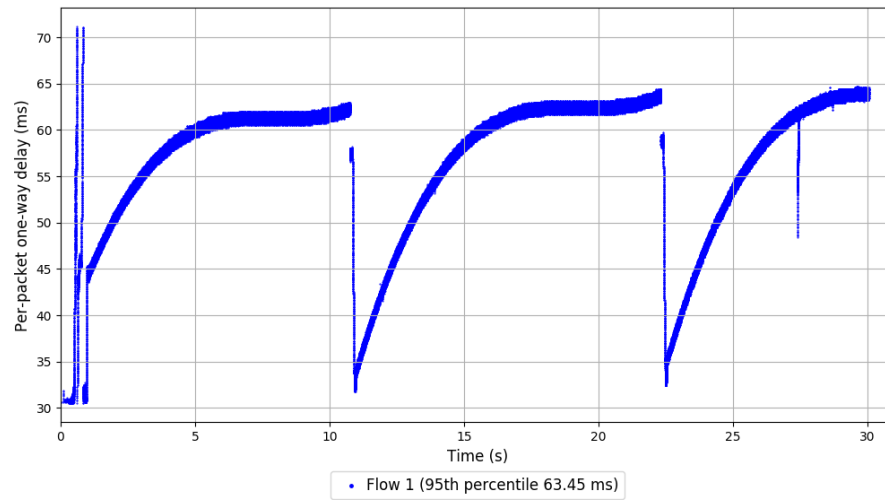
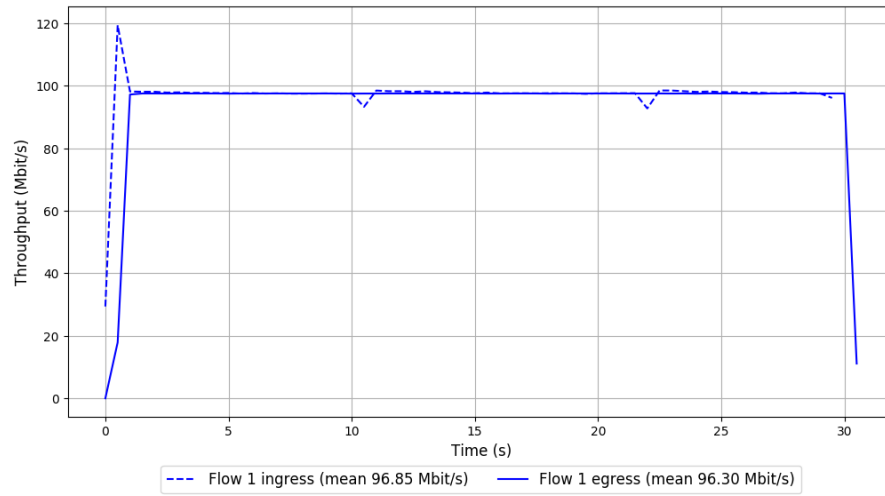
-- Flow 1:

Average throughput: 96.30 Mbit/s

95th percentile per-packet one-way delay: 63.449 ms

Loss rate: 0.46%

Run 3: Report of TCP Cubic — Data Link

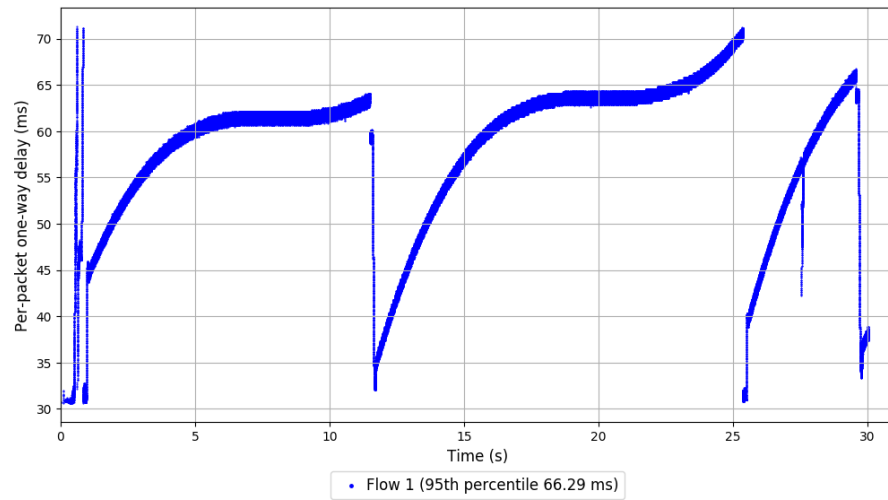
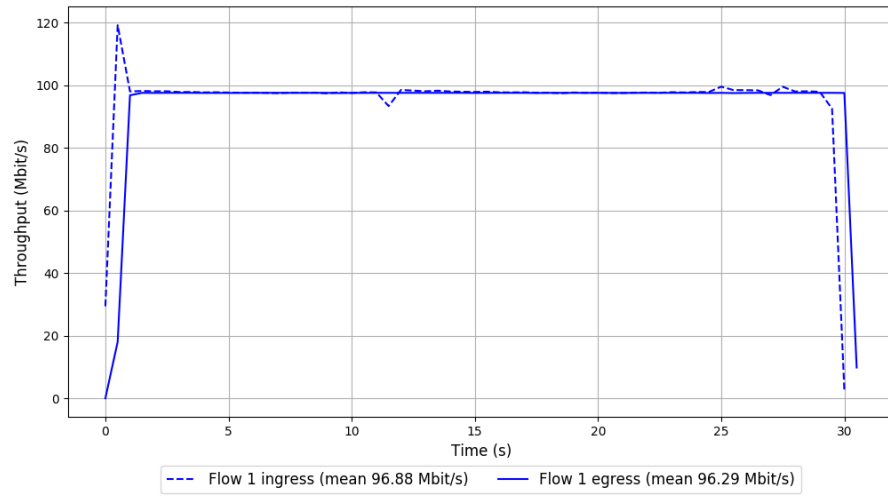


Run 4: Statistics of TCP Cubic

Start at: 2018-09-06 06:00:18
End at: 2018-09-06 06:00:48
Local clock offset: 2.939 ms
Remote clock offset: -0.132 ms

Below is generated by plot.py at 2018-09-06 06:40:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 66.288 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 66.288 ms
Loss rate: 0.58%

Run 4: Report of TCP Cubic — Data Link

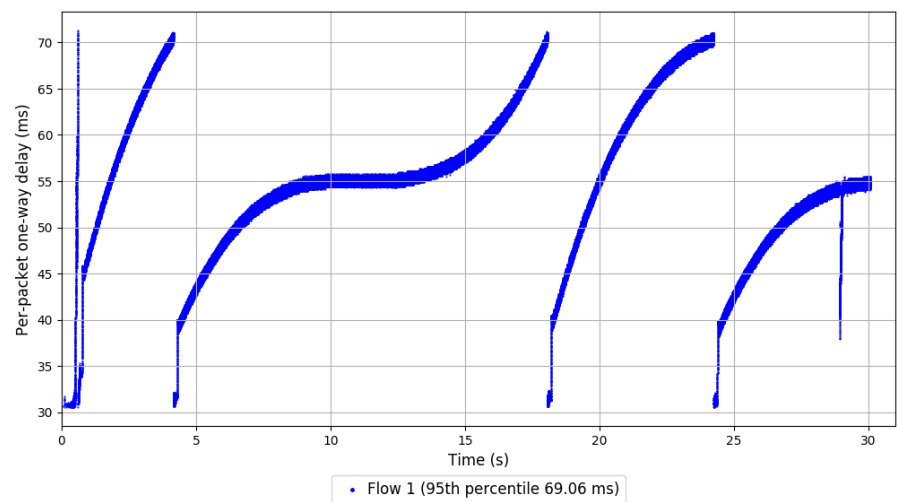
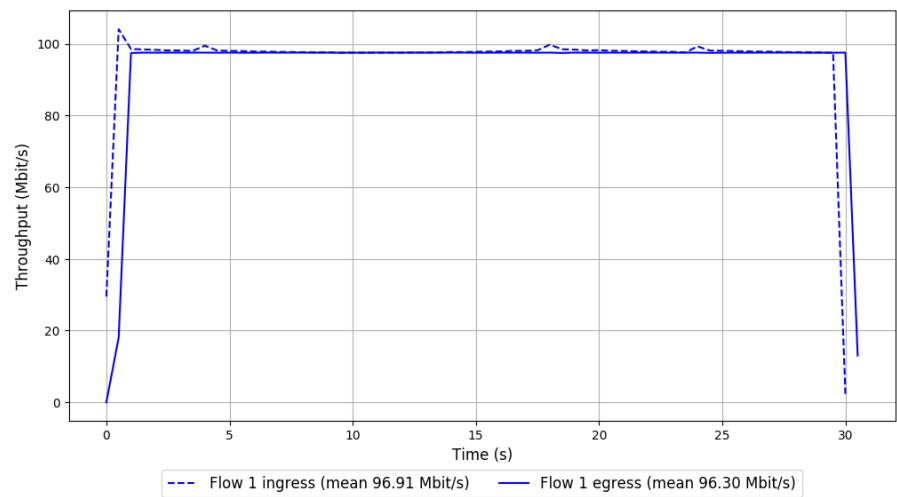


Run 5: Statistics of TCP Cubic

Start at: 2018-09-06 06:23:51
End at: 2018-09-06 06:24:21
Local clock offset: 1.574 ms
Remote clock offset: -0.102 ms

Below is generated by plot.py at 2018-09-06 06:40:58
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 69.055 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 69.055 ms
Loss rate: 0.55%

Run 5: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-09-06 04:47:04

End at: 2018-09-06 04:47:34

Local clock offset: 3.836 ms

Remote clock offset: -0.162 ms

Below is generated by plot.py at 2018-09-06 06:41:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.21 Mbit/s

95th percentile per-packet one-way delay: 65.422 ms

Loss rate: 9.10%

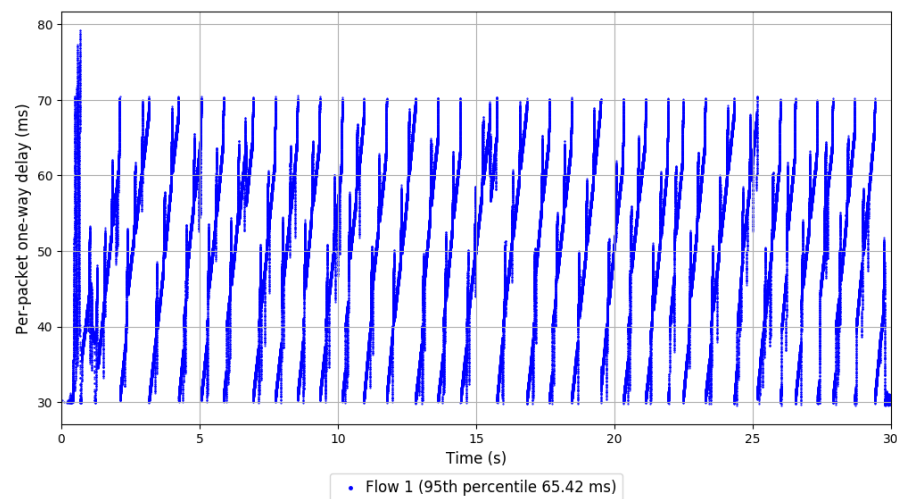
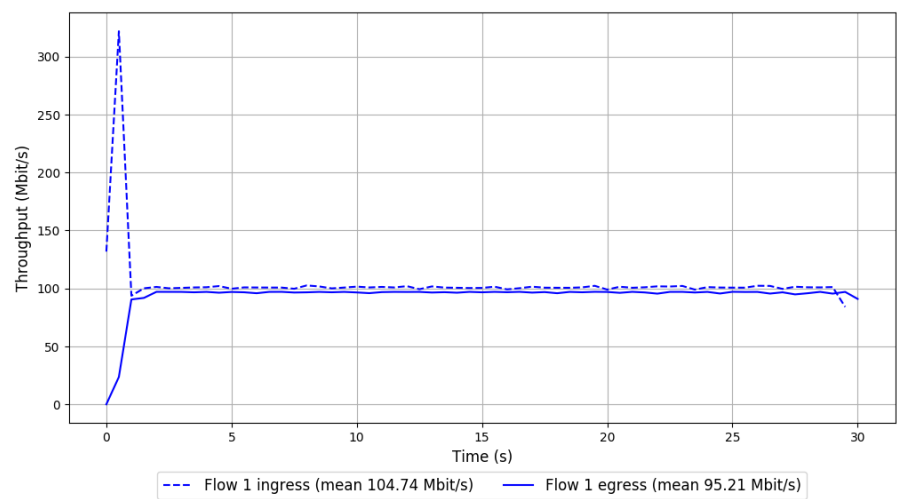
-- Flow 1:

Average throughput: 95.21 Mbit/s

95th percentile per-packet one-way delay: 65.422 ms

Loss rate: 9.10%

Run 1: Report of FillP — Data Link

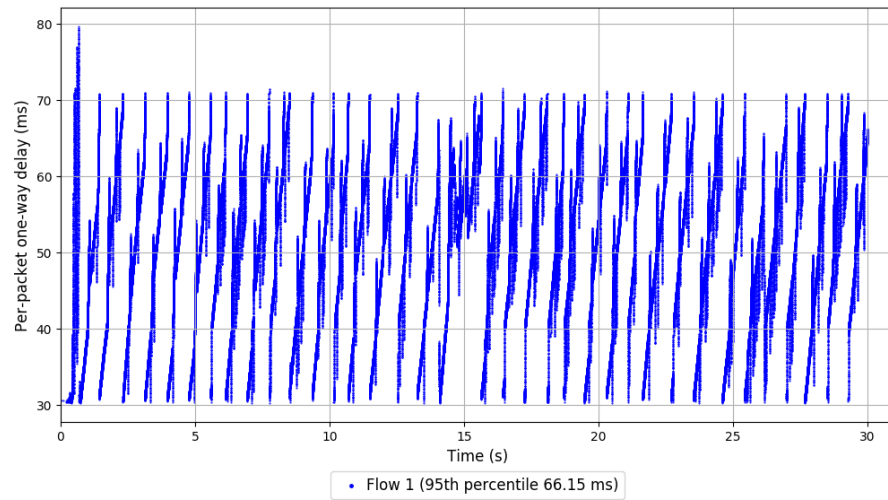
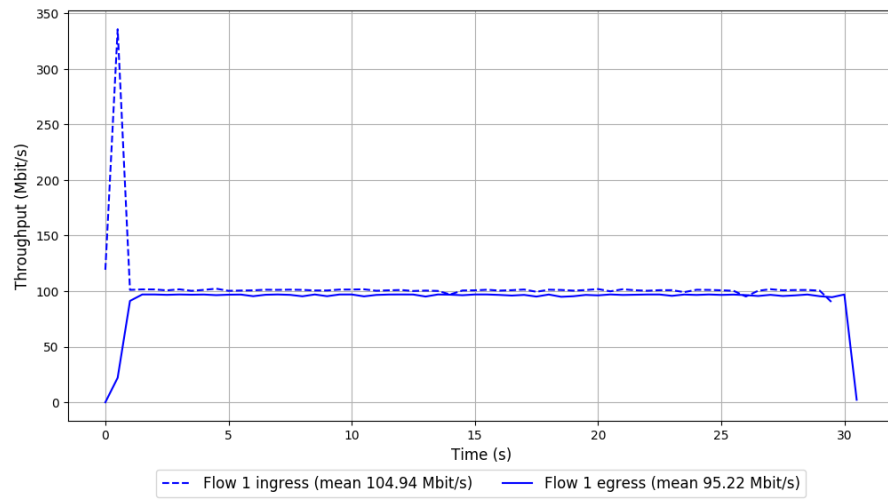


Run 2: Statistics of FillP

Start at: 2018-09-06 05:10:34
End at: 2018-09-06 05:11:04
Local clock offset: -5.238 ms
Remote clock offset: -0.267 ms

Below is generated by plot.py at 2018-09-06 06:41:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.22 Mbit/s
95th percentile per-packet one-way delay: 66.153 ms
Loss rate: 9.15%
-- Flow 1:
Average throughput: 95.22 Mbit/s
95th percentile per-packet one-way delay: 66.153 ms
Loss rate: 9.15%

Run 2: Report of FillP — Data Link

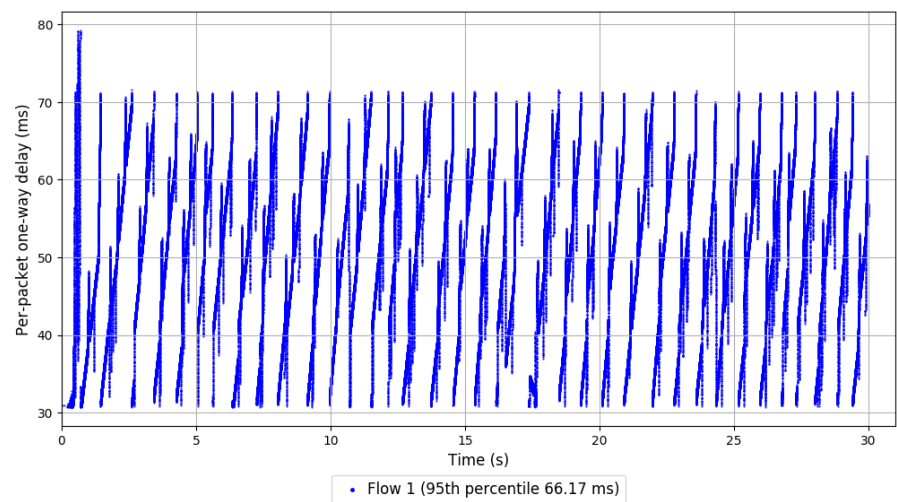
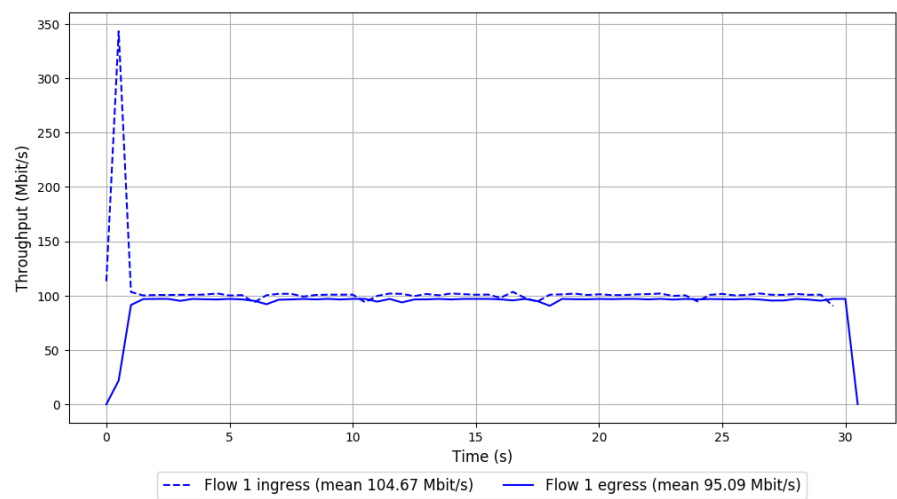


Run 3: Statistics of FillP

Start at: 2018-09-06 05:34:10
End at: 2018-09-06 05:34:40
Local clock offset: -0.867 ms
Remote clock offset: 0.02 ms

Below is generated by plot.py at 2018-09-06 06:41:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.09 Mbit/s
95th percentile per-packet one-way delay: 66.171 ms
Loss rate: 9.08%
-- Flow 1:
Average throughput: 95.09 Mbit/s
95th percentile per-packet one-way delay: 66.171 ms
Loss rate: 9.08%

Run 3: Report of FillP — Data Link

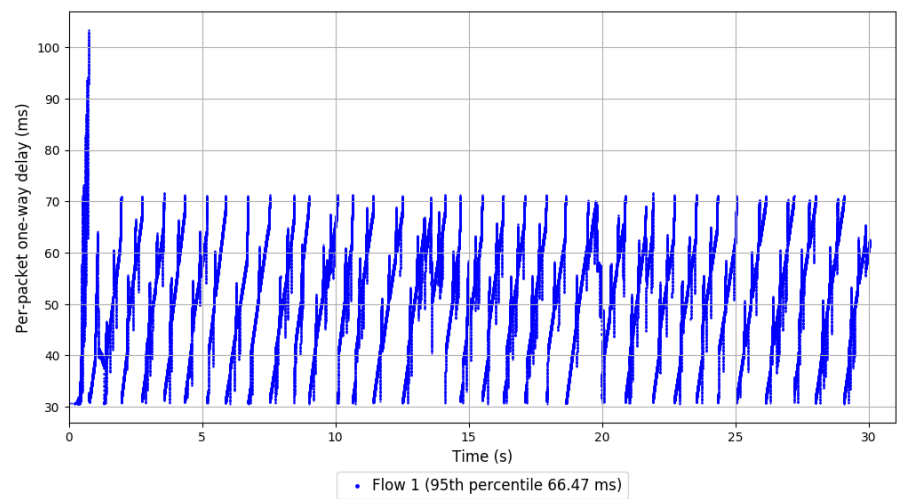
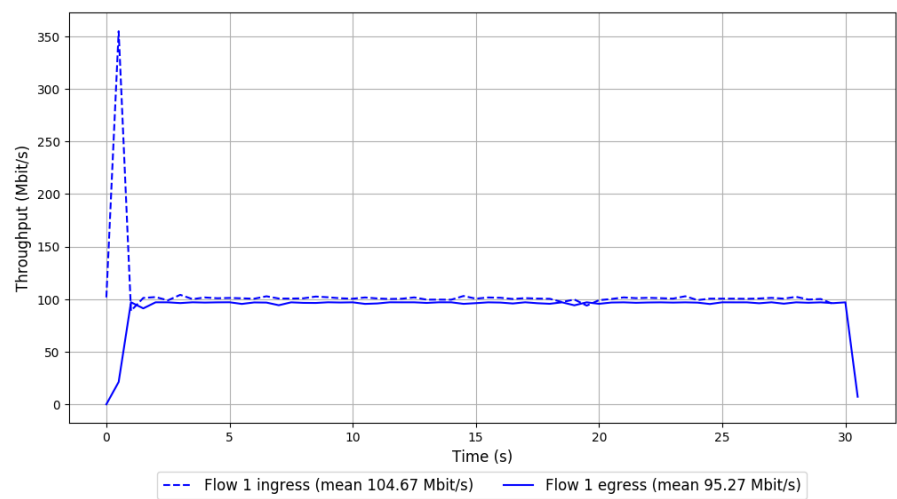


Run 4: Statistics of FillP

Start at: 2018-09-06 05:57:42
End at: 2018-09-06 05:58:13
Local clock offset: 2.632 ms
Remote clock offset: -0.128 ms

Below is generated by plot.py at 2018-09-06 06:41:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 66.472 ms
Loss rate: 8.89%
-- Flow 1:
Average throughput: 95.27 Mbit/s
95th percentile per-packet one-way delay: 66.472 ms
Loss rate: 8.89%

Run 4: Report of FillP — Data Link

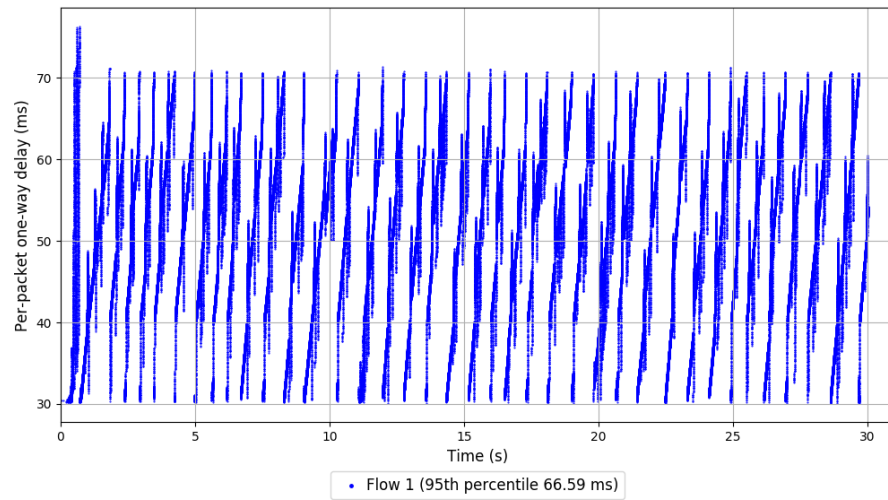
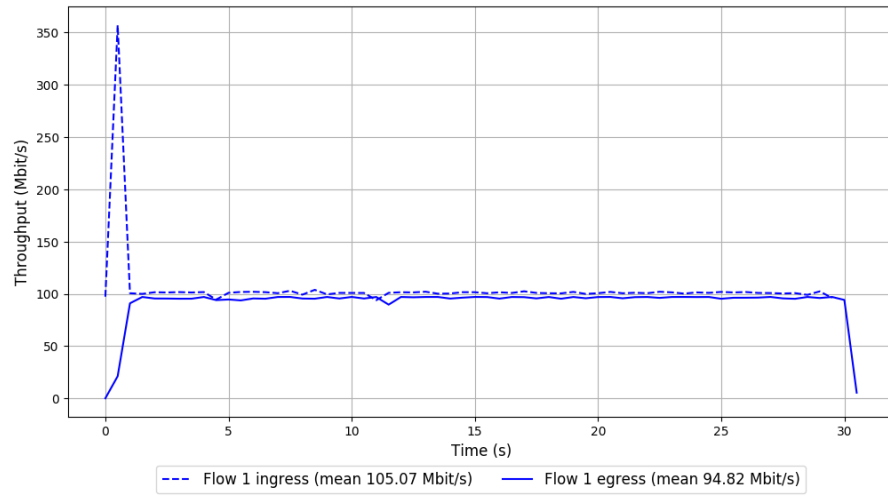


Run 5: Statistics of FillP

Start at: 2018-09-06 06:21:14
End at: 2018-09-06 06:21:44
Local clock offset: 2.14 ms
Remote clock offset: -0.281 ms

Below is generated by plot.py at 2018-09-06 06:41:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.82 Mbit/s
95th percentile per-packet one-way delay: 66.588 ms
Loss rate: 9.68%
-- Flow 1:
Average throughput: 94.82 Mbit/s
95th percentile per-packet one-way delay: 66.588 ms
Loss rate: 9.68%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-09-06 04:56:12

End at: 2018-09-06 04:56:42

Local clock offset: -1.656 ms

Remote clock offset: -0.096 ms

Below is generated by plot.py at 2018-09-06 06:41:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.47 Mbit/s

95th percentile per-packet one-way delay: 46.831 ms

Loss rate: 0.87%

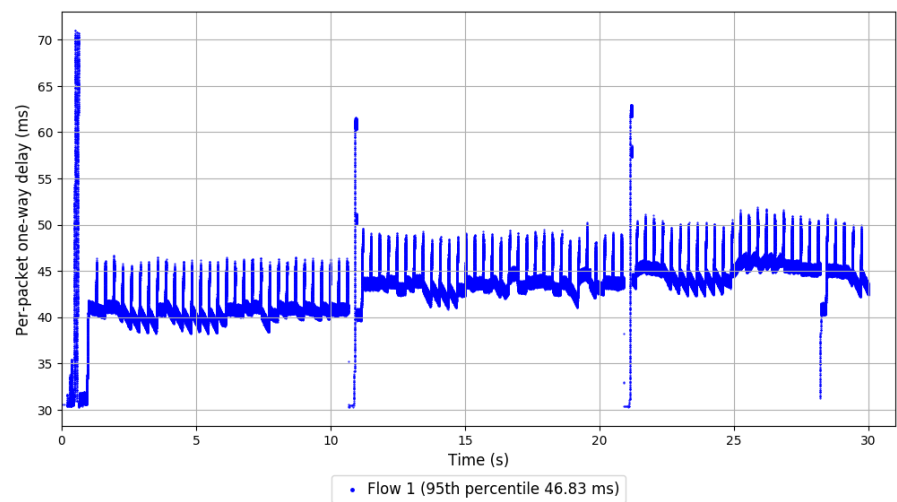
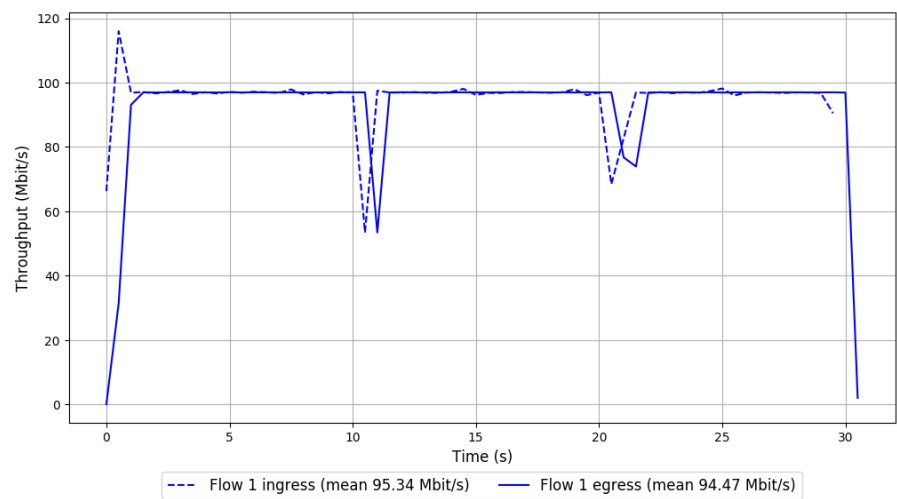
-- Flow 1:

Average throughput: 94.47 Mbit/s

95th percentile per-packet one-way delay: 46.831 ms

Loss rate: 0.87%

Run 1: Report of FillP-Sheep — Data Link

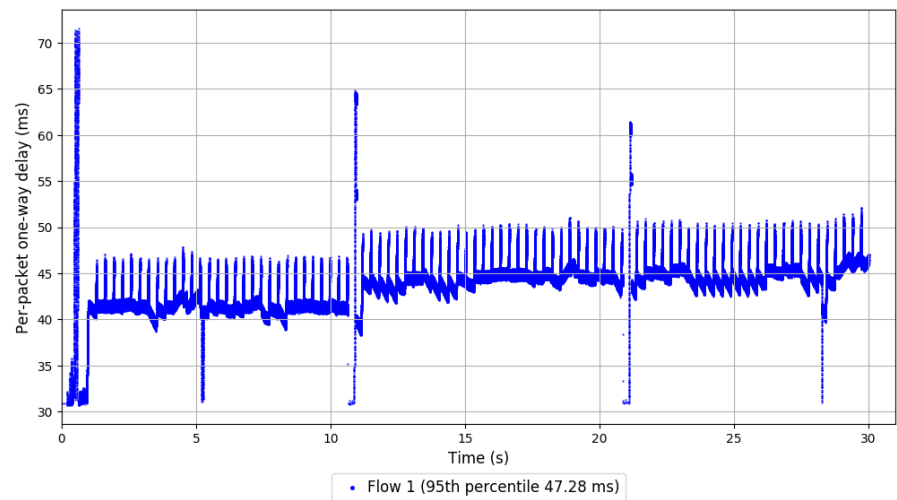
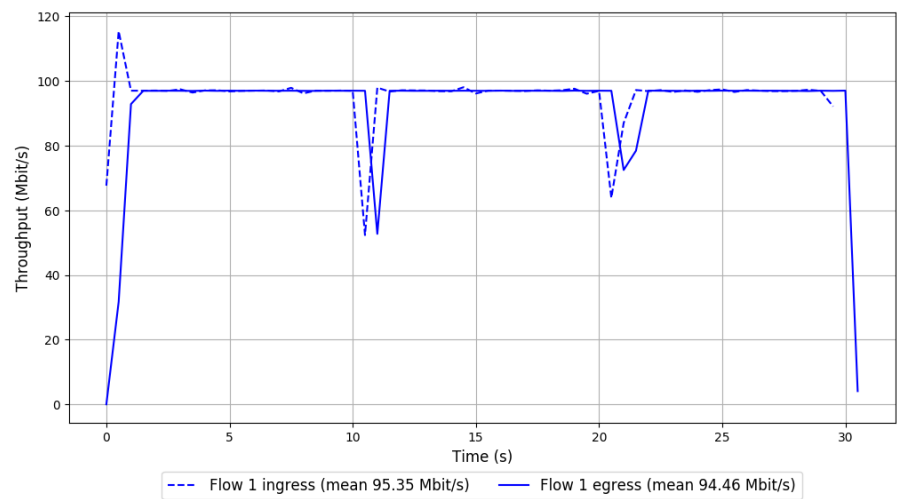


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-06 05:19:46
End at: 2018-09-06 05:20:16
Local clock offset: -3.63 ms
Remote clock offset: -0.112 ms

Below is generated by plot.py at 2018-09-06 06:42:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 47.284 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 47.284 ms
Loss rate: 0.88%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-09-06 05:43:23

End at: 2018-09-06 05:43:53

Local clock offset: -0.586 ms

Remote clock offset: -0.1 ms

Below is generated by plot.py at 2018-09-06 06:42:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.51 Mbit/s

95th percentile per-packet one-way delay: 48.174 ms

Loss rate: 0.79%

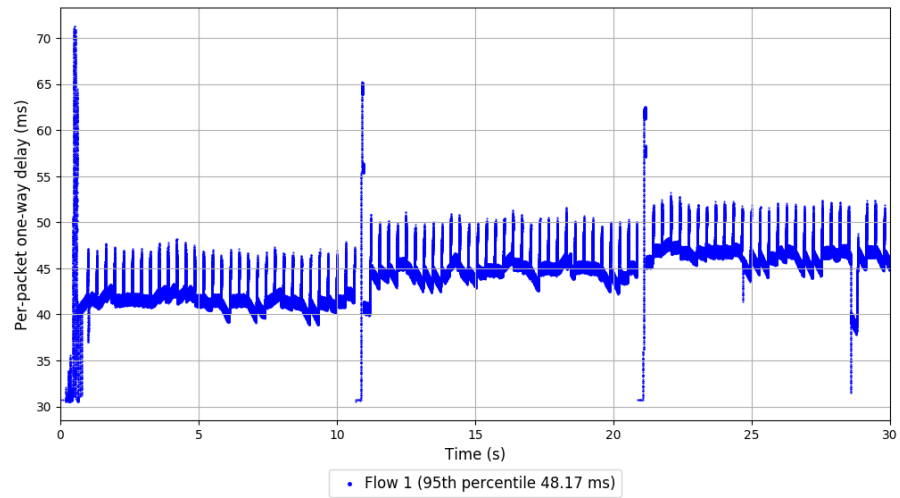
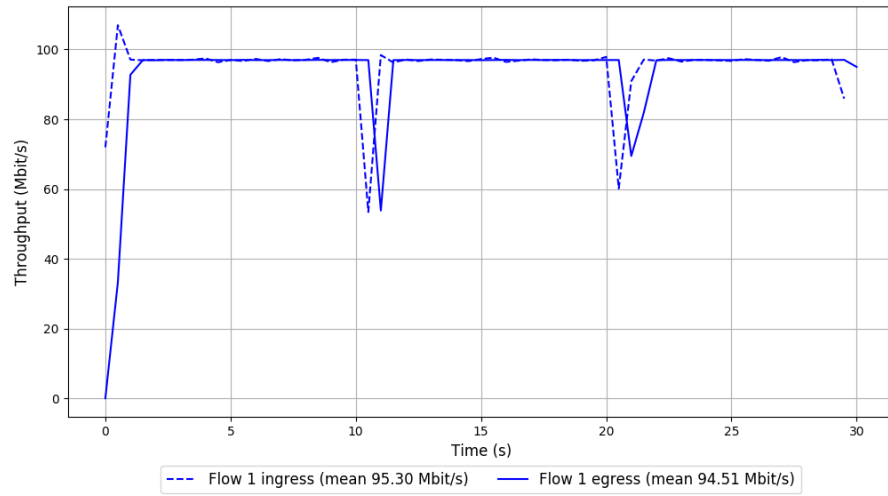
-- Flow 1:

Average throughput: 94.51 Mbit/s

95th percentile per-packet one-way delay: 48.174 ms

Loss rate: 0.79%

Run 3: Report of FillP-Sheep — Data Link

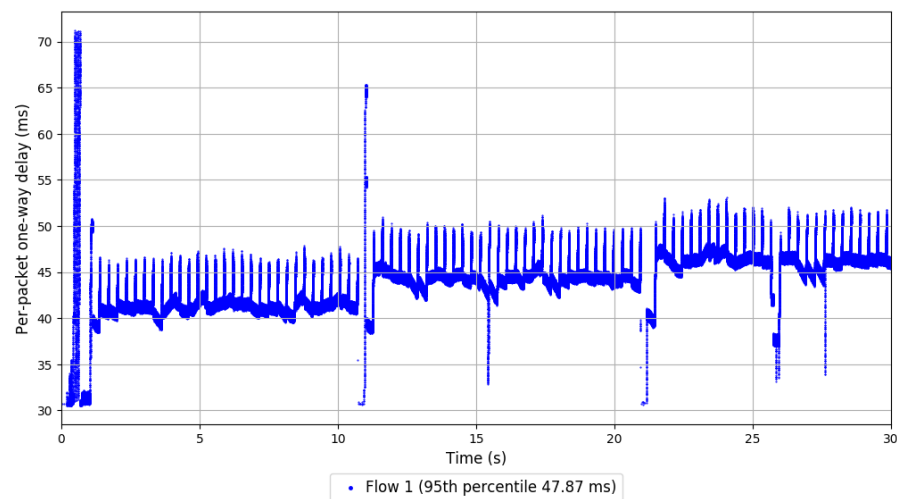
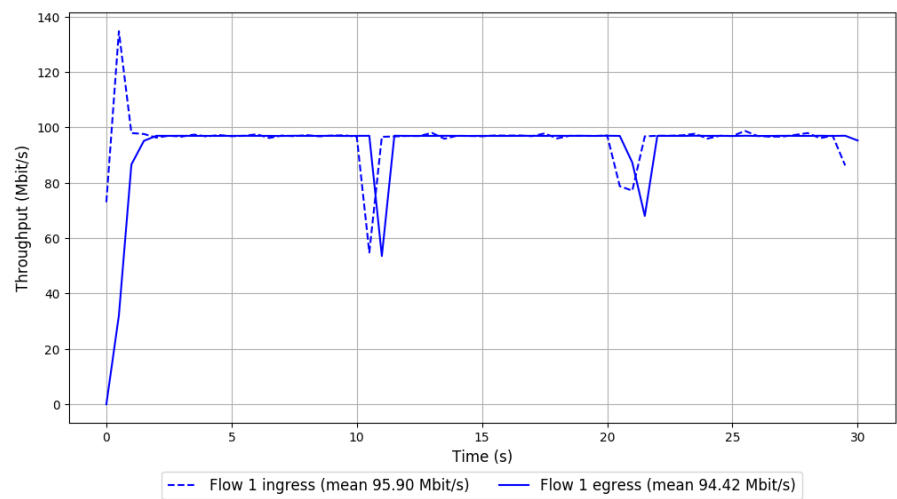


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-06 06:06:52
End at: 2018-09-06 06:07:22
Local clock offset: 3.479 ms
Remote clock offset: -0.115 ms

Below is generated by plot.py at 2018-09-06 06:42:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 47.867 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 47.867 ms
Loss rate: 1.49%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-06 06:30:28

End at: 2018-09-06 06:30:58

Local clock offset: 0.552 ms

Remote clock offset: -0.159 ms

Below is generated by plot.py at 2018-09-06 06:42:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.55 Mbit/s

95th percentile per-packet one-way delay: 48.031 ms

Loss rate: 0.80%

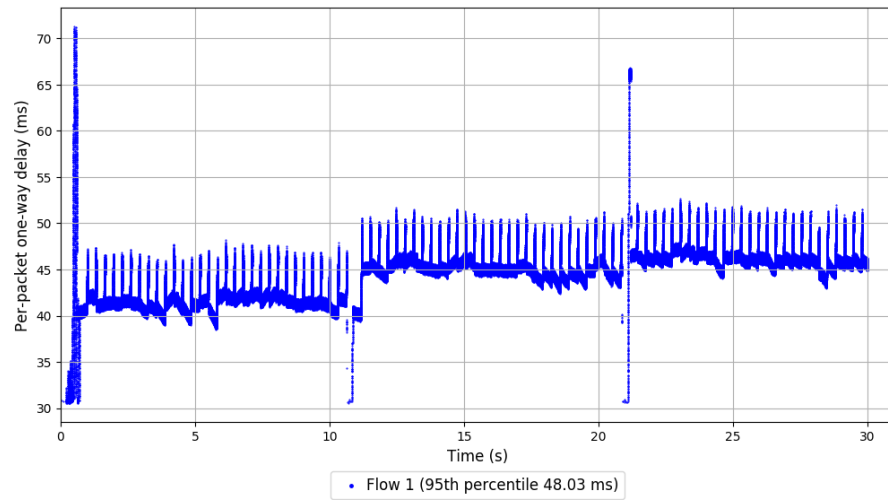
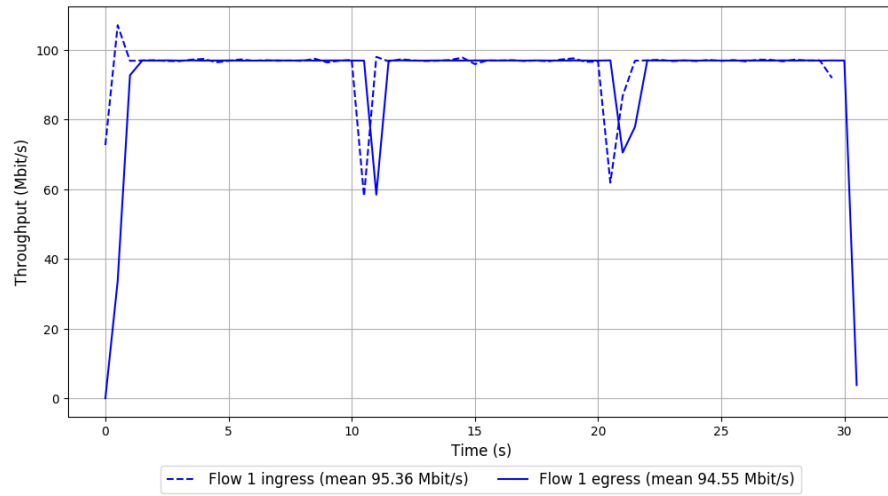
-- Flow 1:

Average throughput: 94.55 Mbit/s

95th percentile per-packet one-way delay: 48.031 ms

Loss rate: 0.80%

Run 5: Report of FillP-Sheep — Data Link

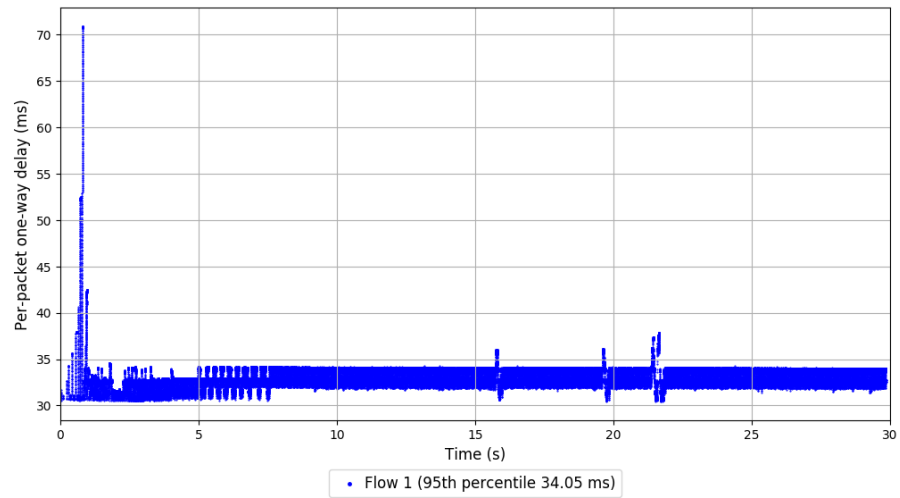
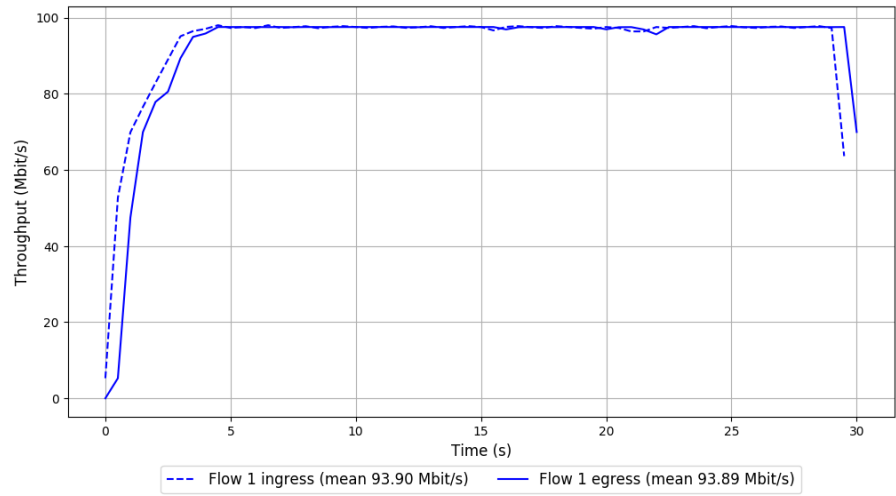


Run 1: Statistics of Indigo

Start at: 2018-09-06 04:54:51
End at: 2018-09-06 04:55:21
Local clock offset: -1.194 ms
Remote clock offset: -0.119 ms

Below is generated by plot.py at 2018-09-06 06:42:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 34.055 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 34.055 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

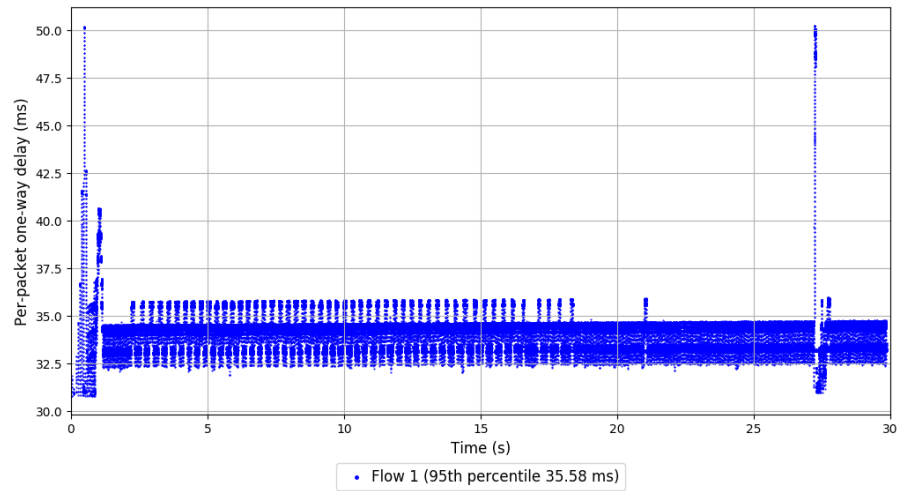
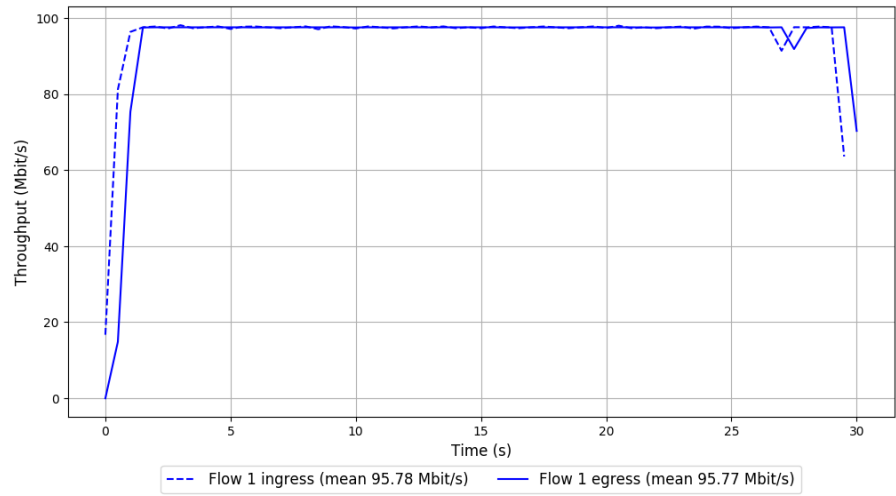


Run 2: Statistics of Indigo

Start at: 2018-09-06 05:18:25
End at: 2018-09-06 05:18:55
Local clock offset: -4.208 ms
Remote clock offset: -0.134 ms

Below is generated by plot.py at 2018-09-06 06:42:43
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 35.582 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 35.582 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

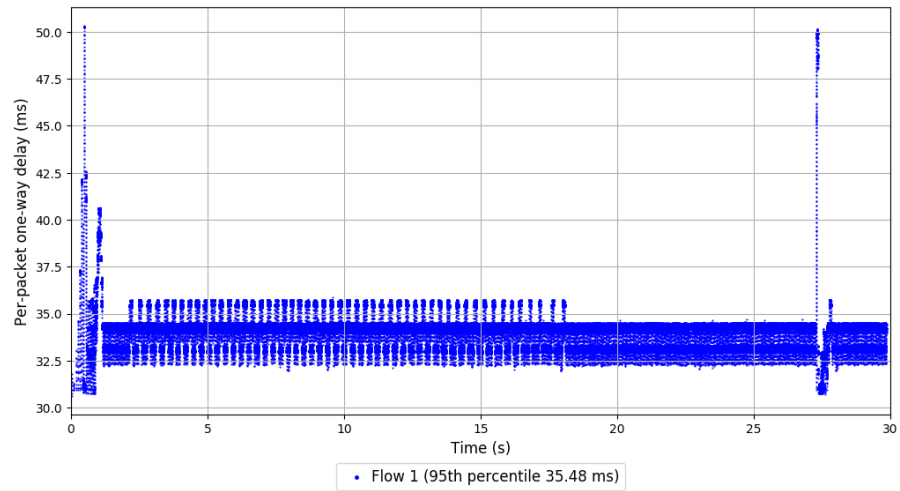
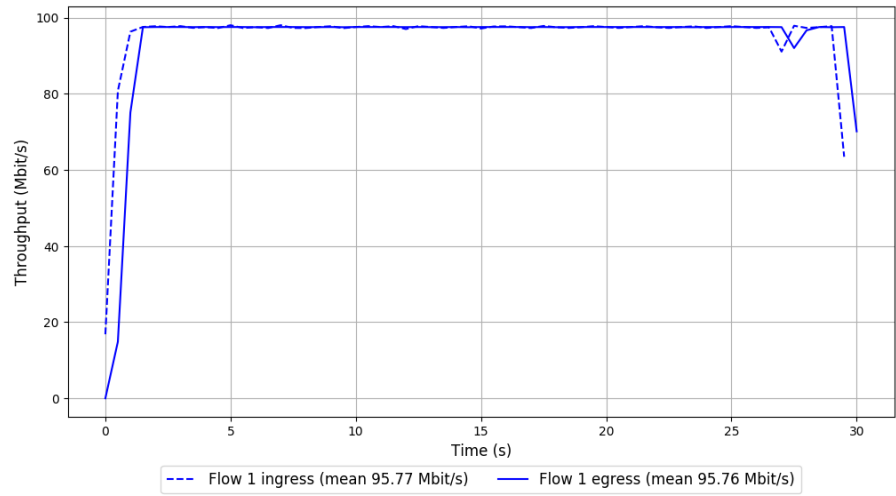


Run 3: Statistics of Indigo

Start at: 2018-09-06 05:42:03
End at: 2018-09-06 05:42:33
Local clock offset: -0.616 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2018-09-06 06:42:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 35.477 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 35.477 ms
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-09-06 06:05:31

End at: 2018-09-06 06:06:01

Local clock offset: 3.395 ms

Remote clock offset: -0.02 ms

Below is generated by plot.py at 2018-09-06 06:42:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.86 Mbit/s

95th percentile per-packet one-way delay: 35.531 ms

Loss rate: 0.01%

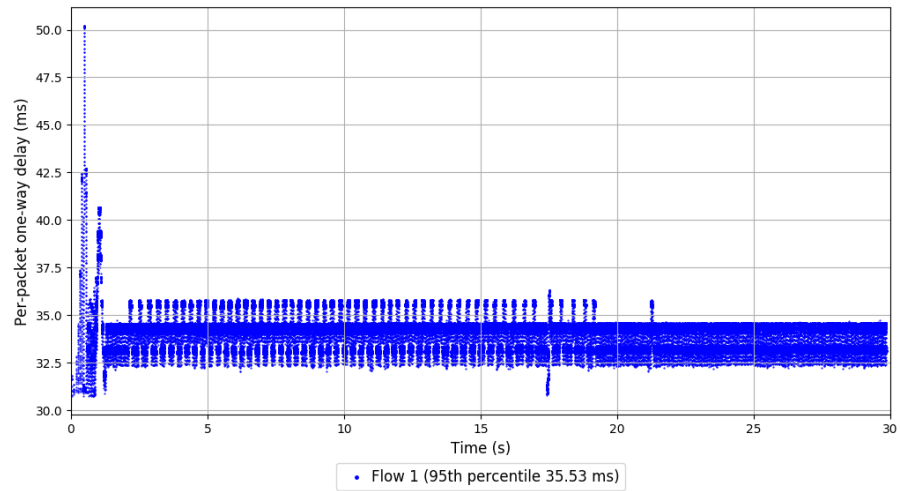
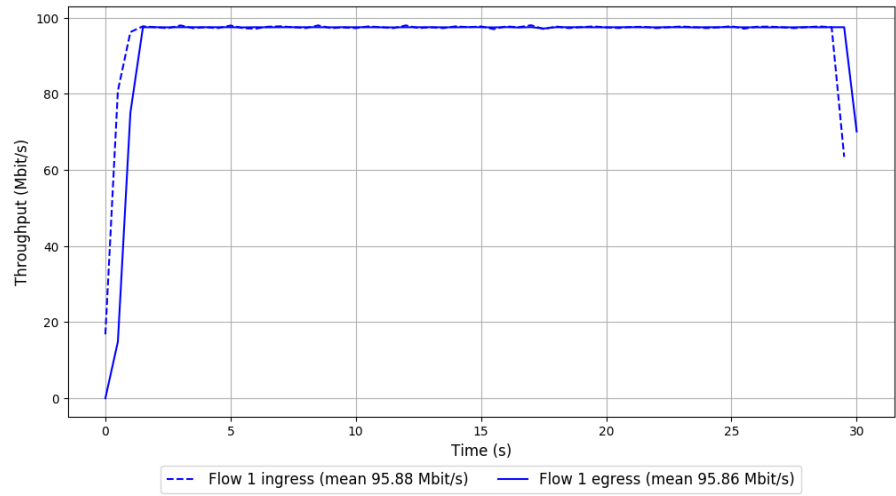
-- Flow 1:

Average throughput: 95.86 Mbit/s

95th percentile per-packet one-way delay: 35.531 ms

Loss rate: 0.01%

Run 4: Report of Indigo — Data Link

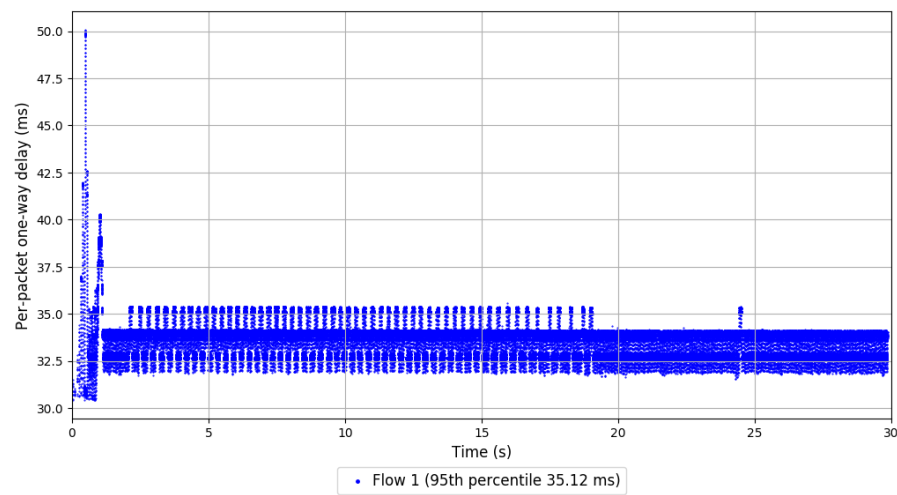
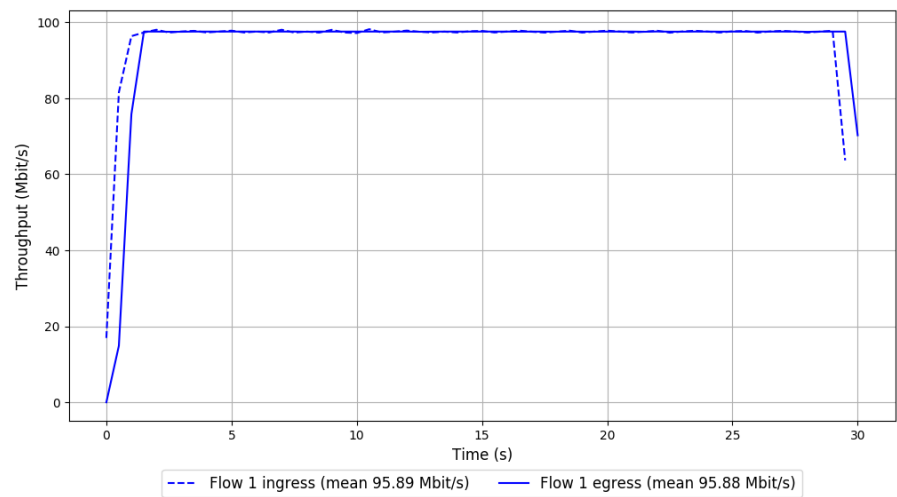


Run 5: Statistics of Indigo

Start at: 2018-09-06 06:29:07
End at: 2018-09-06 06:29:37
Local clock offset: 0.787 ms
Remote clock offset: -0.325 ms

Below is generated by plot.py at 2018-09-06 06:43:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.88 Mbit/s
95th percentile per-packet one-way delay: 35.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.88 Mbit/s
95th percentile per-packet one-way delay: 35.117 ms
Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

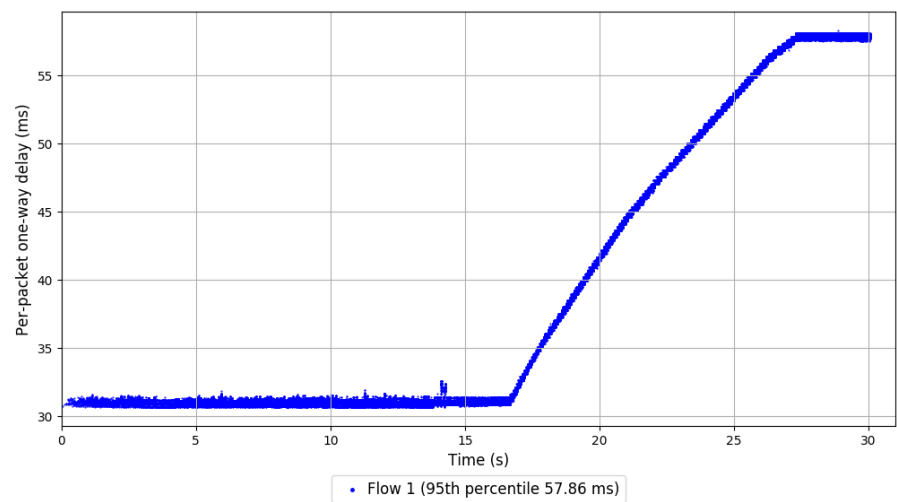
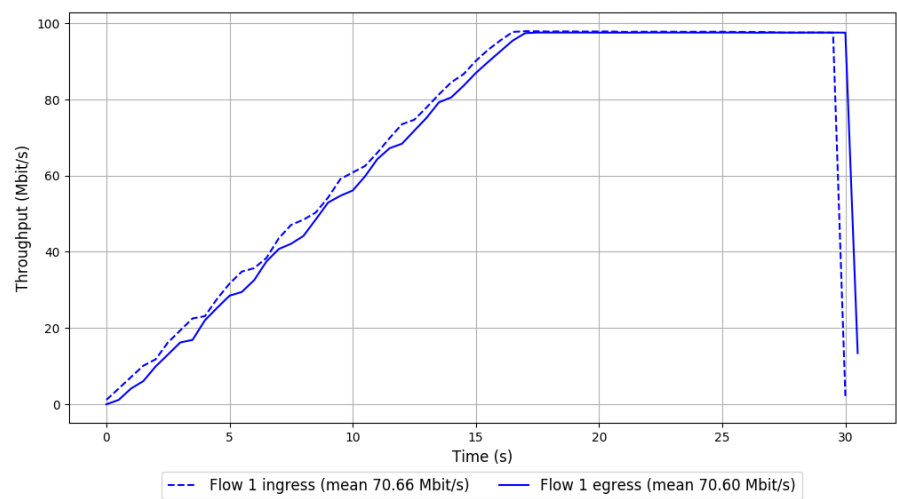


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-06 04:41:51
End at: 2018-09-06 04:42:21
Local clock offset: 4.948 ms
Remote clock offset: -0.037 ms

# Below is generated by plot.py at 2018-09-06 06:43:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.60 Mbit/s
95th percentile per-packet one-way delay: 57.863 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.60 Mbit/s
95th percentile per-packet one-way delay: 57.863 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

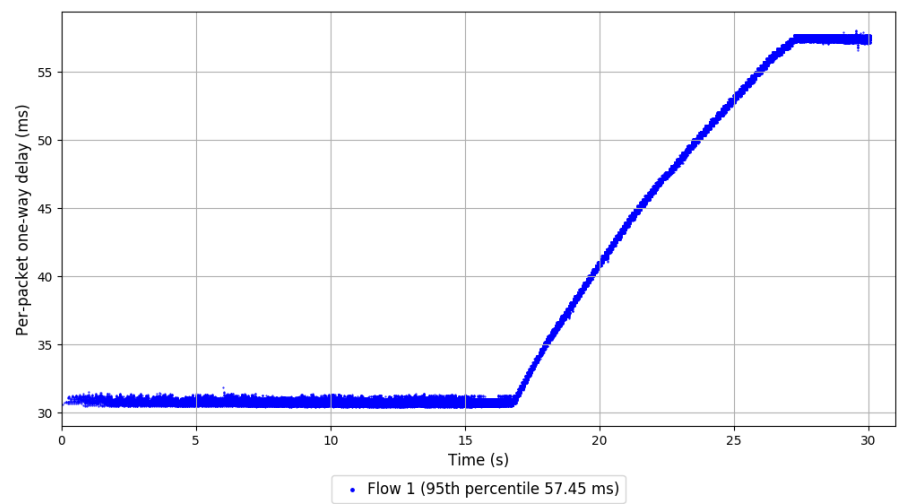
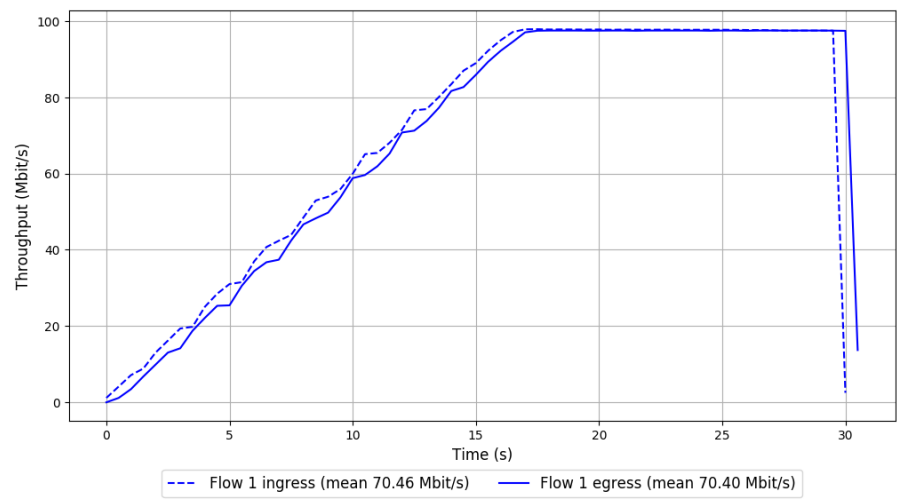


Run 2: Statistics of LEDBAT

Start at: 2018-09-06 05:05:20
End at: 2018-09-06 05:05:50
Local clock offset: -4.153 ms
Remote clock offset: -0.116 ms

Below is generated by plot.py at 2018-09-06 06:43:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.40 Mbit/s
95th percentile per-packet one-way delay: 57.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.40 Mbit/s
95th percentile per-packet one-way delay: 57.449 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-09-06 05:28:54

End at: 2018-09-06 05:29:24

Local clock offset: -1.279 ms

Remote clock offset: 0.037 ms

Below is generated by plot.py at 2018-09-06 06:43:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.41 Mbit/s

95th percentile per-packet one-way delay: 57.881 ms

Loss rate: 0.00%

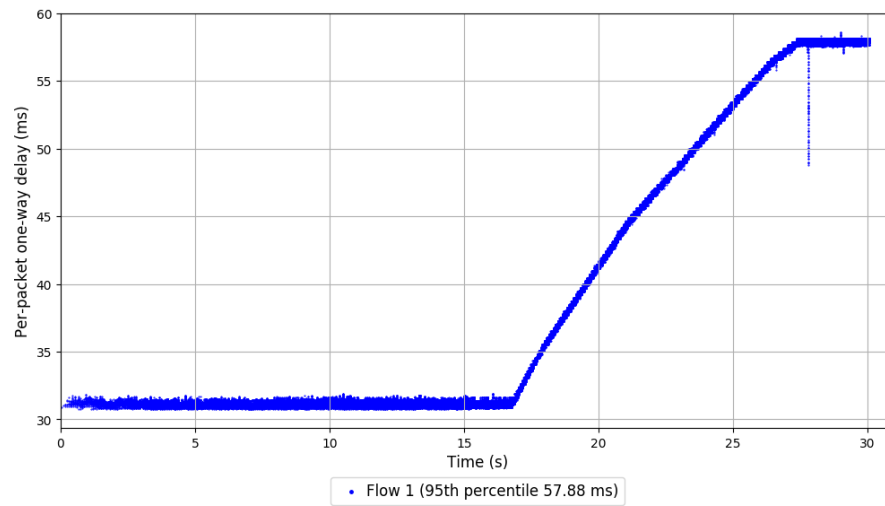
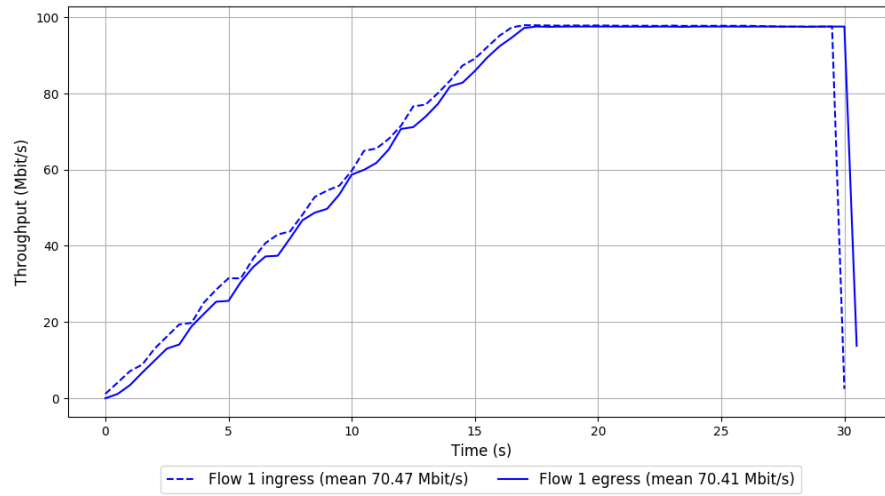
-- Flow 1:

Average throughput: 70.41 Mbit/s

95th percentile per-packet one-way delay: 57.881 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

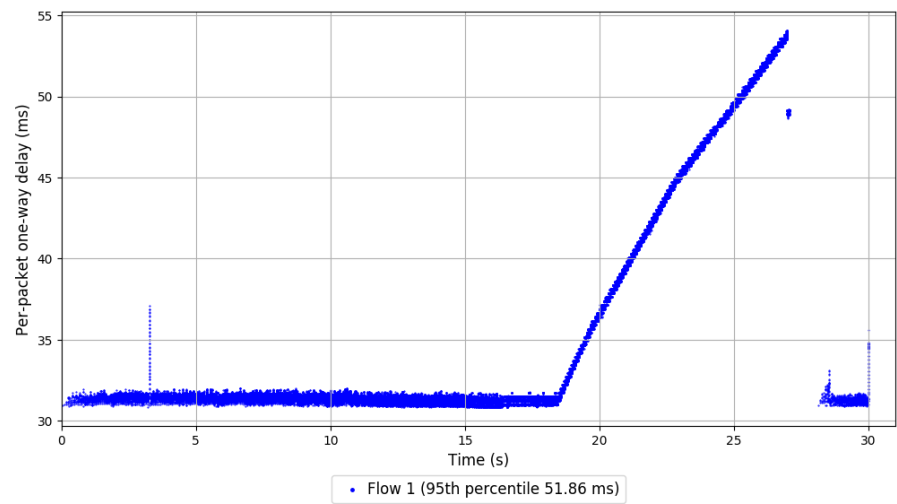
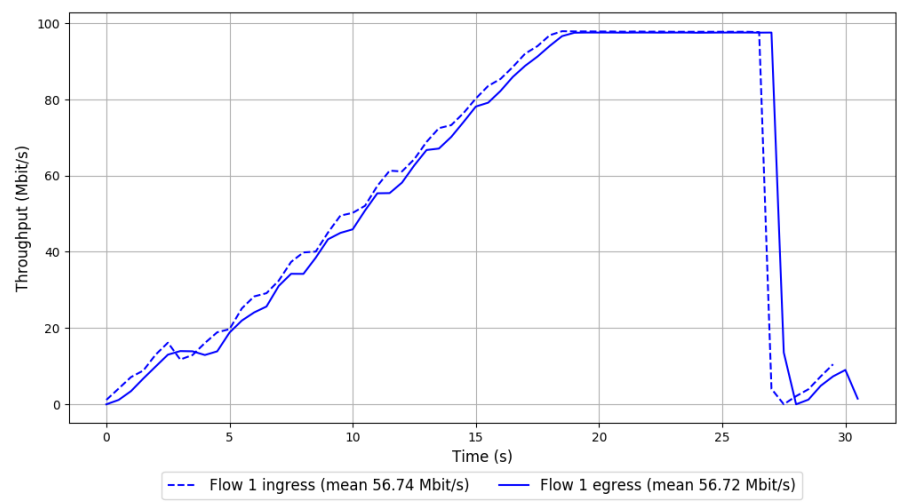


Run 4: Statistics of LEDBAT

Start at: 2018-09-06 05:52:30
End at: 2018-09-06 05:53:00
Local clock offset: 1.624 ms
Remote clock offset: -0.066 ms

Below is generated by plot.py at 2018-09-06 06:43:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 51.863 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 56.72 Mbit/s
95th percentile per-packet one-way delay: 51.863 ms
Loss rate: 0.03%

Run 4: Report of LEDBAT — Data Link

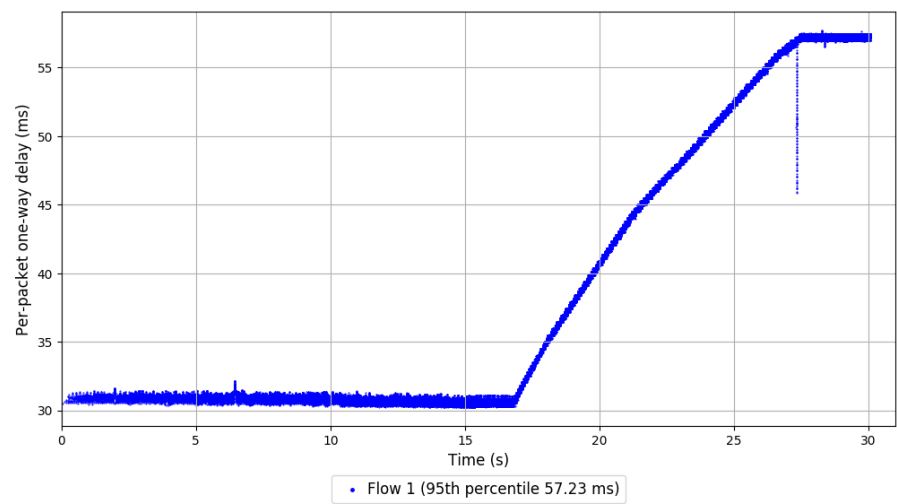
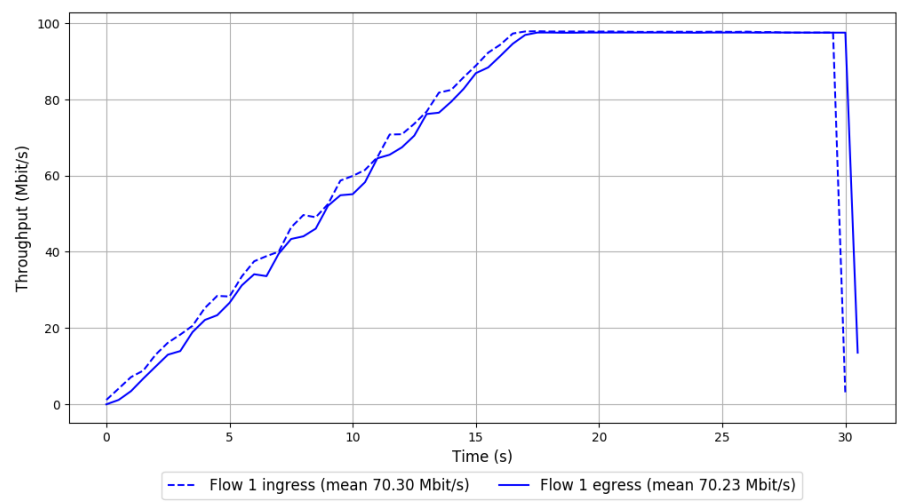


Run 5: Statistics of LEDBAT

Start at: 2018-09-06 06:16:00
End at: 2018-09-06 06:16:30
Local clock offset: 3.741 ms
Remote clock offset: -0.335 ms

Below is generated by plot.py at 2018-09-06 06:43:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 57.233 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 57.233 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

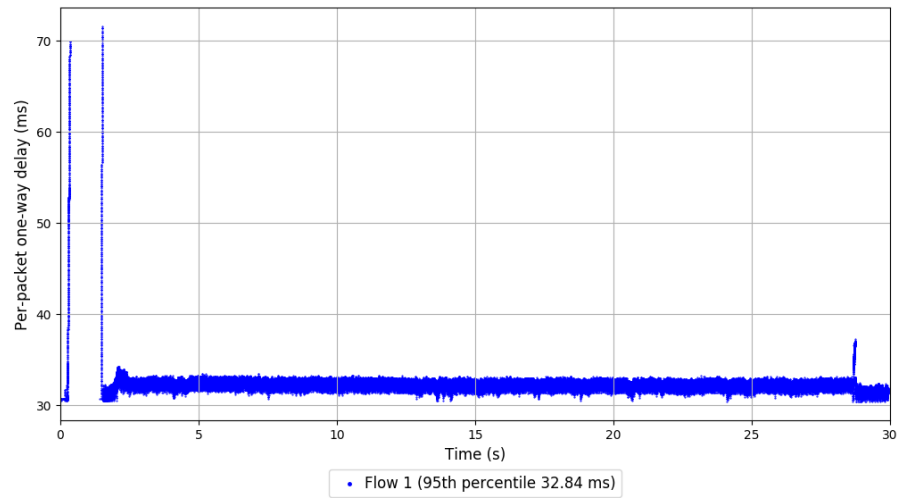
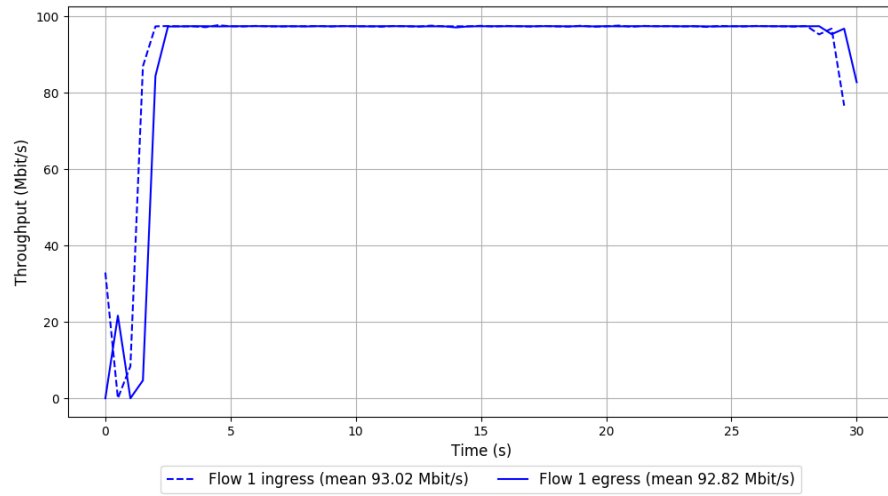


Run 1: Statistics of Indigo-Muses

Start at: 2018-09-06 04:58:48
End at: 2018-09-06 04:59:18
Local clock offset: -2.598 ms
Remote clock offset: -0.162 ms

Below is generated by plot.py at 2018-09-06 06:44:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.82 Mbit/s
95th percentile per-packet one-way delay: 32.840 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 92.82 Mbit/s
95th percentile per-packet one-way delay: 32.840 ms
Loss rate: 0.21%

Run 1: Report of Indigo-Muses — Data Link

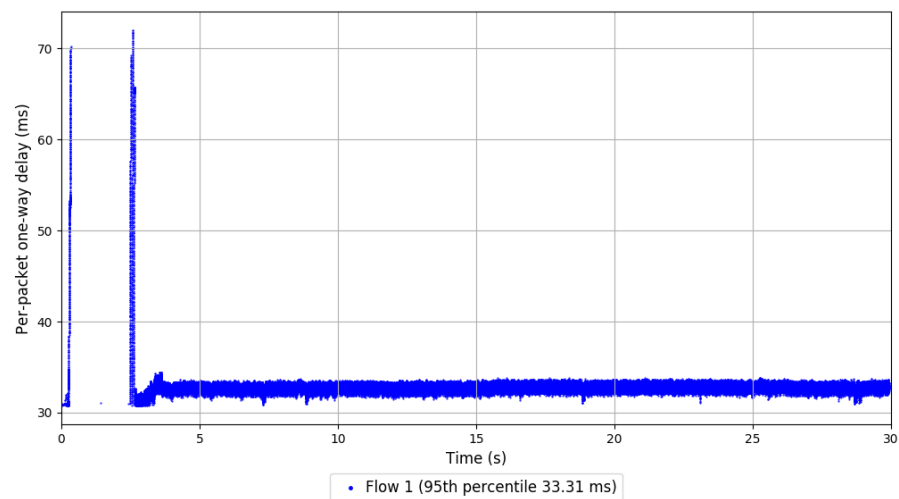
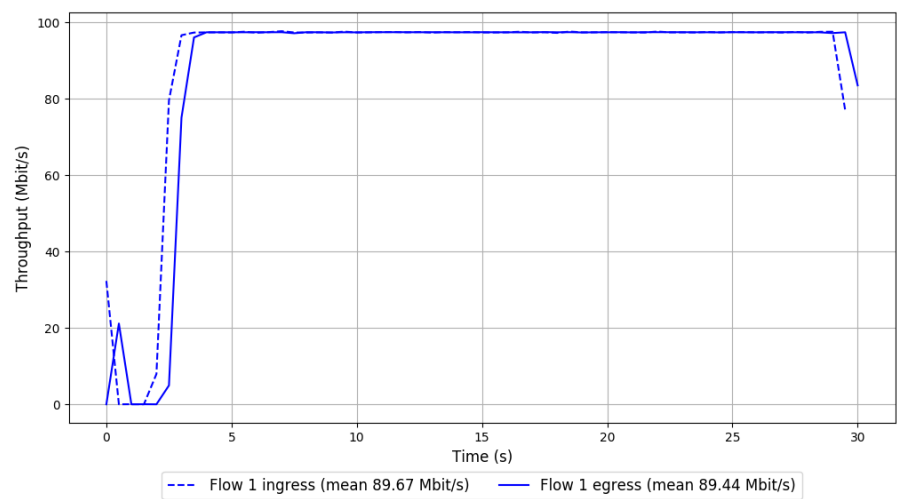


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-06 05:22:22
End at: 2018-09-06 05:22:52
Local clock offset: -2.68 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2018-09-06 06:44:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.44 Mbit/s
95th percentile per-packet one-way delay: 33.311 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 89.44 Mbit/s
95th percentile per-packet one-way delay: 33.311 ms
Loss rate: 0.25%

Run 2: Report of Indigo-Muses — Data Link

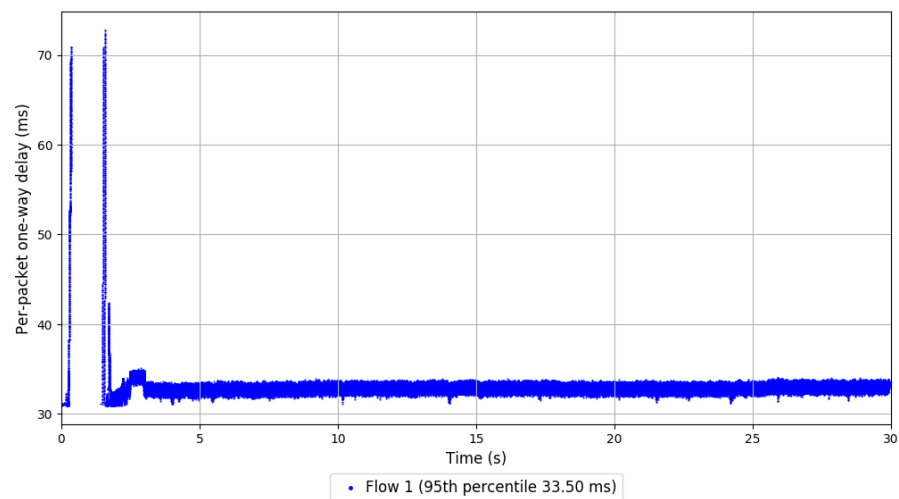
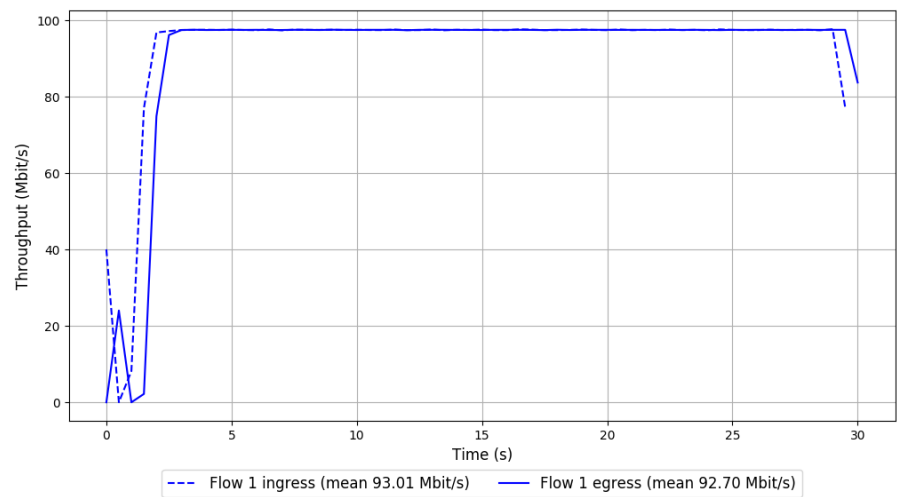


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-06 05:45:59
End at: 2018-09-06 05:46:29
Local clock offset: -0.44 ms
Remote clock offset: -0.103 ms

Below is generated by plot.py at 2018-09-06 06:44:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 33.504 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 92.70 Mbit/s
95th percentile per-packet one-way delay: 33.504 ms
Loss rate: 0.33%

Run 3: Report of Indigo-Muses — Data Link

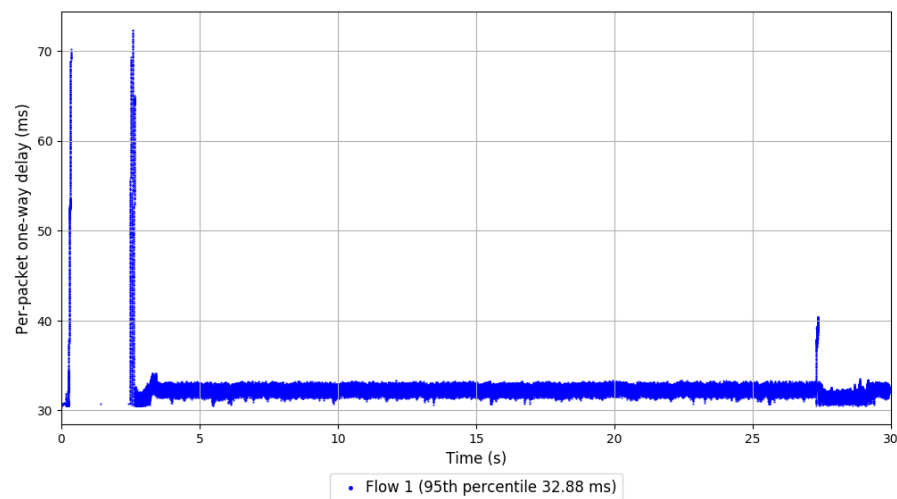
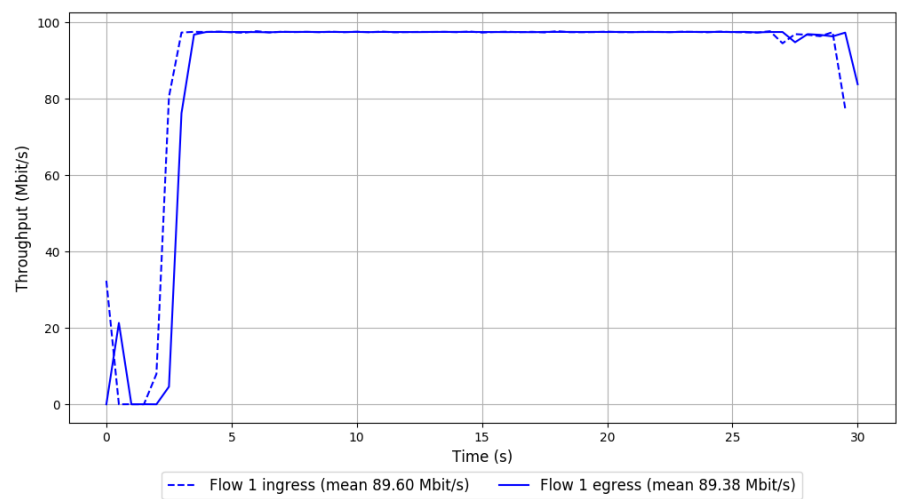


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-06 06:09:28
End at: 2018-09-06 06:09:58
Local clock offset: 3.571 ms
Remote clock offset: -0.286 ms

Below is generated by plot.py at 2018-09-06 06:44:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 32.884 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 89.38 Mbit/s
95th percentile per-packet one-way delay: 32.884 ms
Loss rate: 0.24%

Run 4: Report of Indigo-Muses — Data Link

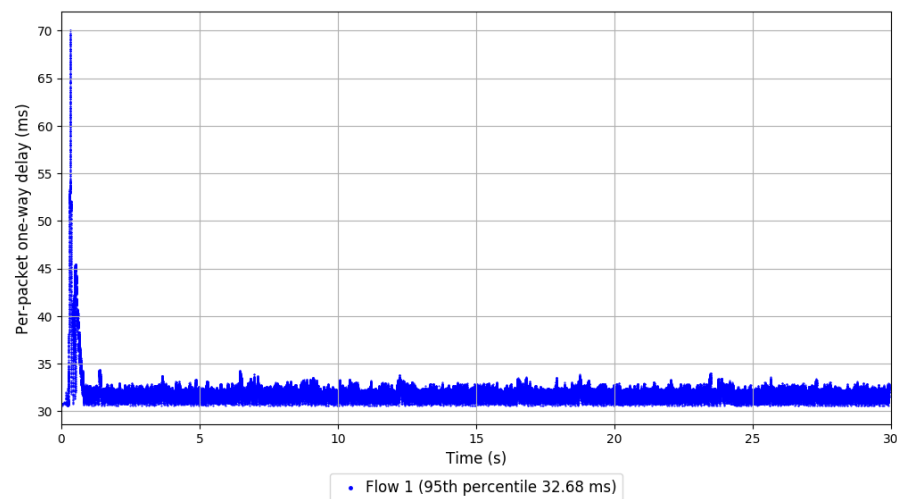
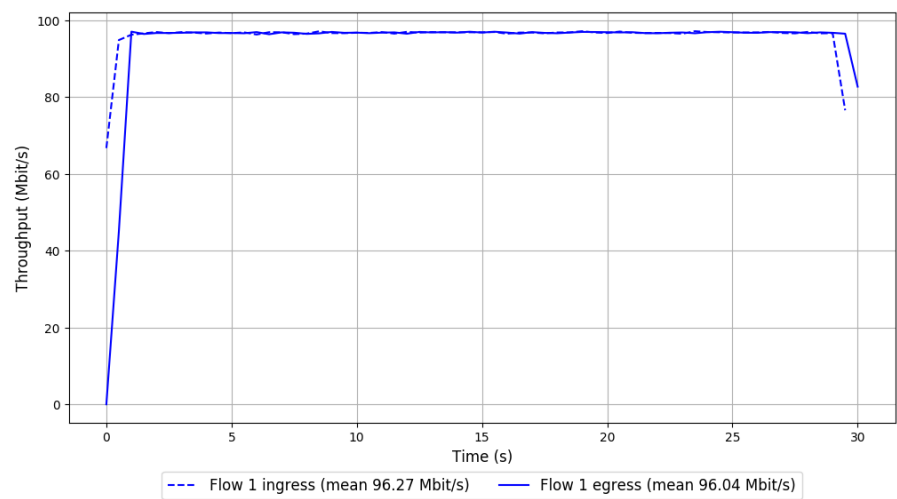


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-06 06:33:04
End at: 2018-09-06 06:33:35
Local clock offset: 0.291 ms
Remote clock offset: -0.199 ms

Below is generated by plot.py at 2018-09-06 06:44:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.04 Mbit/s
95th percentile per-packet one-way delay: 32.683 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 96.04 Mbit/s
95th percentile per-packet one-way delay: 32.683 ms
Loss rate: 0.23%

Run 5: Report of Indigo-Muses — Data Link

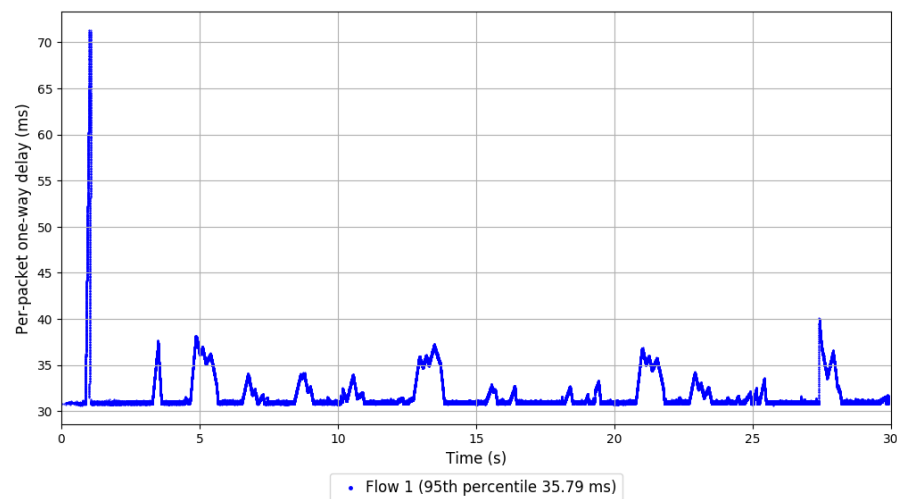
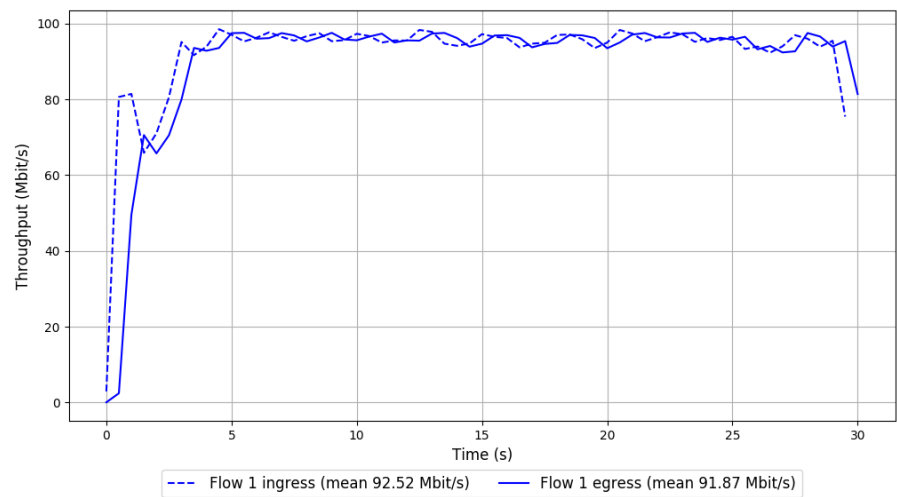


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-09-06 04:43:11
End at: 2018-09-06 04:43:41
Local clock offset: 4.903 ms
Remote clock offset: -0.098 ms

# Below is generated by plot.py at 2018-09-06 06:44:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 35.786 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 91.87 Mbit/s
95th percentile per-packet one-way delay: 35.786 ms
Loss rate: 0.69%
```


Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-06 05:06:39

End at: 2018-09-06 05:07:09

Local clock offset: -4.455 ms

Remote clock offset: -0.102 ms

Below is generated by plot.py at 2018-09-06 06:44:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.95 Mbit/s

95th percentile per-packet one-way delay: 37.182 ms

Loss rate: 0.72%

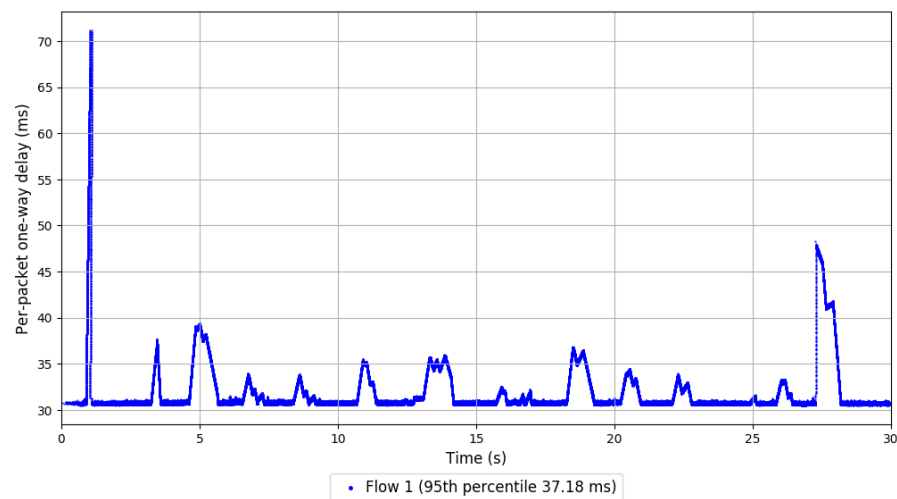
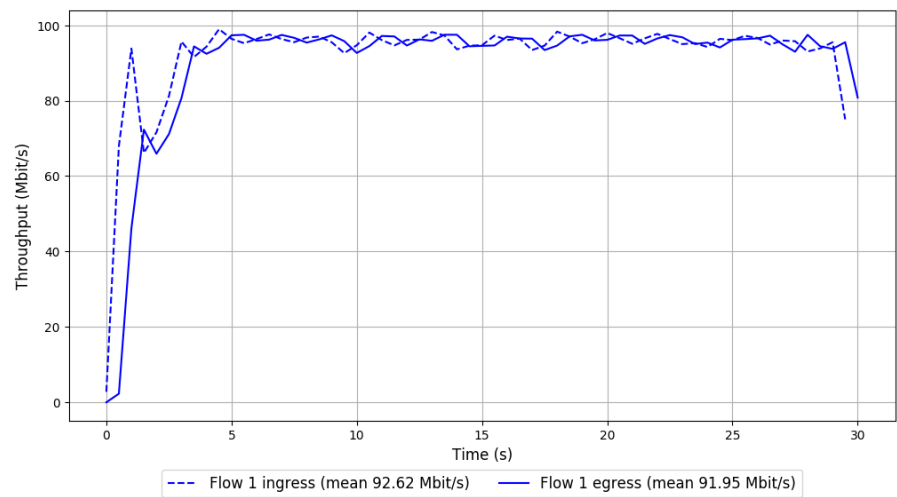
-- Flow 1:

Average throughput: 91.95 Mbit/s

95th percentile per-packet one-way delay: 37.182 ms

Loss rate: 0.72%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-06 05:30:14

End at: 2018-09-06 05:30:44

Local clock offset: -1.094 ms

Remote clock offset: -0.027 ms

Below is generated by plot.py at 2018-09-06 06:44:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.97 Mbit/s

95th percentile per-packet one-way delay: 35.269 ms

Loss rate: 0.74%

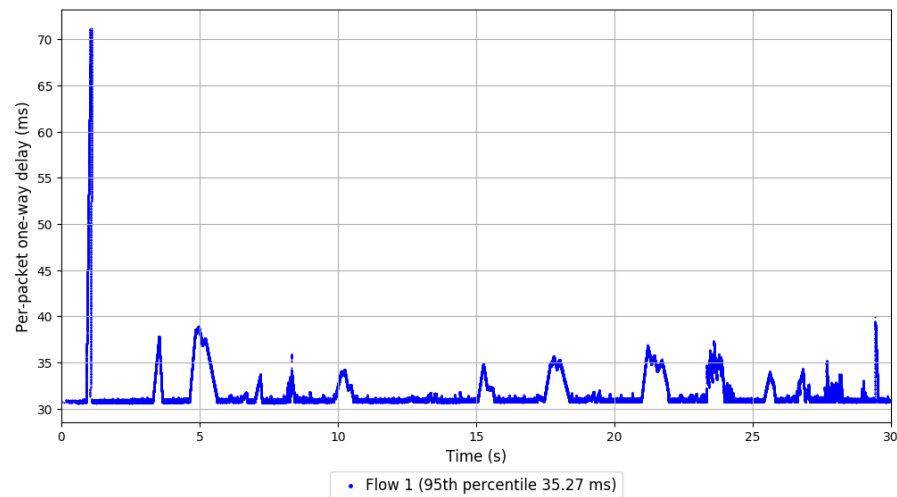
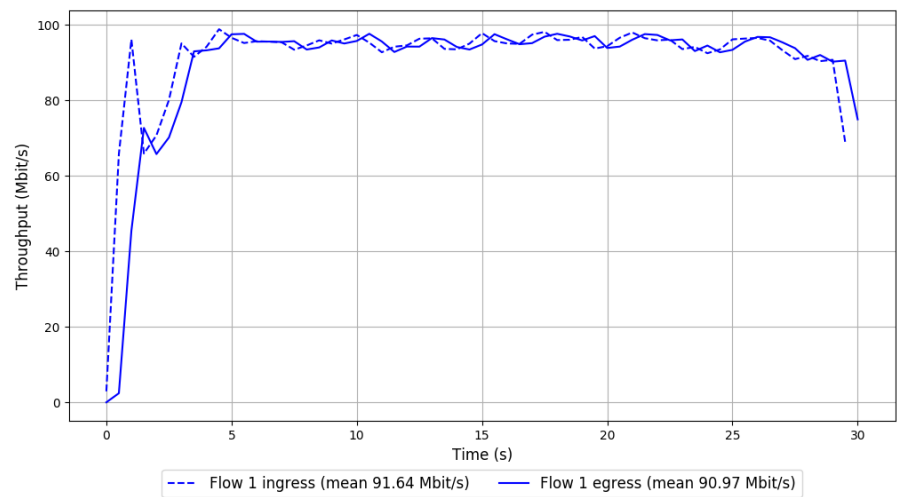
-- Flow 1:

Average throughput: 90.97 Mbit/s

95th percentile per-packet one-way delay: 35.269 ms

Loss rate: 0.74%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-09-06 05:53:49

End at: 2018-09-06 05:54:19

Local clock offset: 1.99 ms

Remote clock offset: -0.091 ms

Below is generated by plot.py at 2018-09-06 06:45:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 37.581 ms

Loss rate: 0.75%

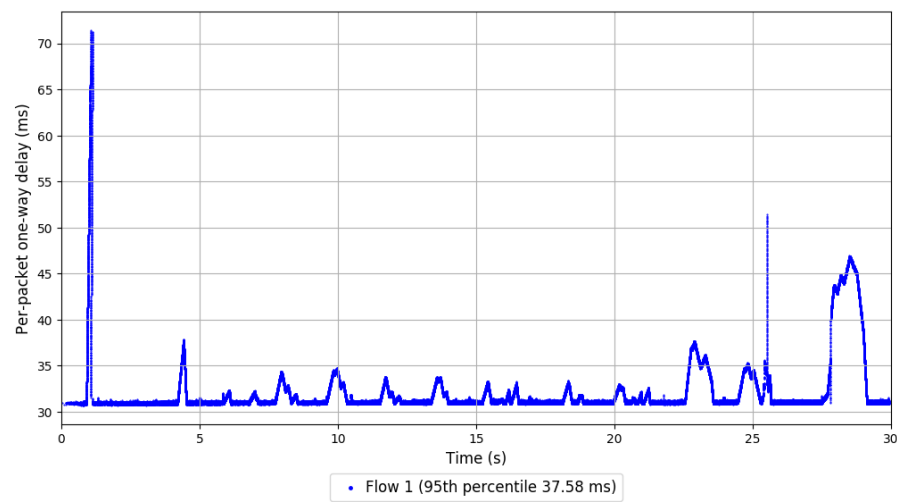
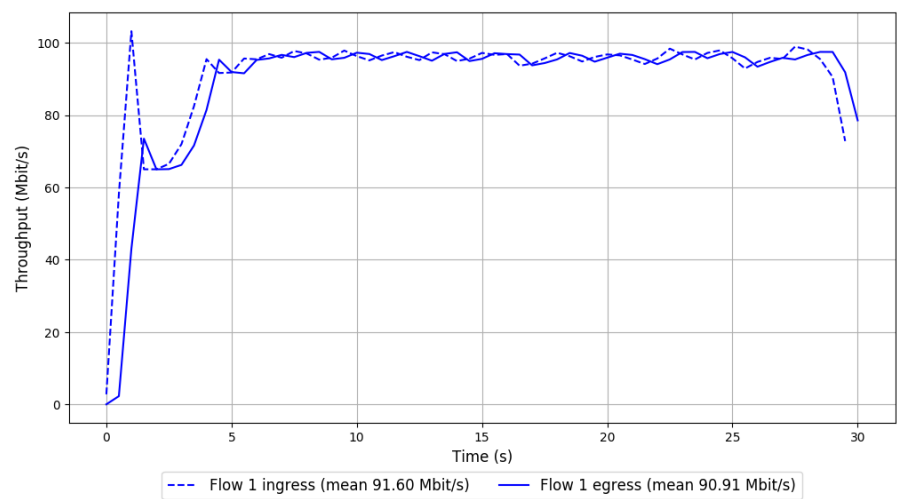
-- Flow 1:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 37.581 ms

Loss rate: 0.75%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-06 06:17:20

End at: 2018-09-06 06:17:50

Local clock offset: 3.358 ms

Remote clock offset: -0.13 ms

Below is generated by plot.py at 2018-09-06 06:45:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.47 Mbit/s

95th percentile per-packet one-way delay: 34.616 ms

Loss rate: 0.67%

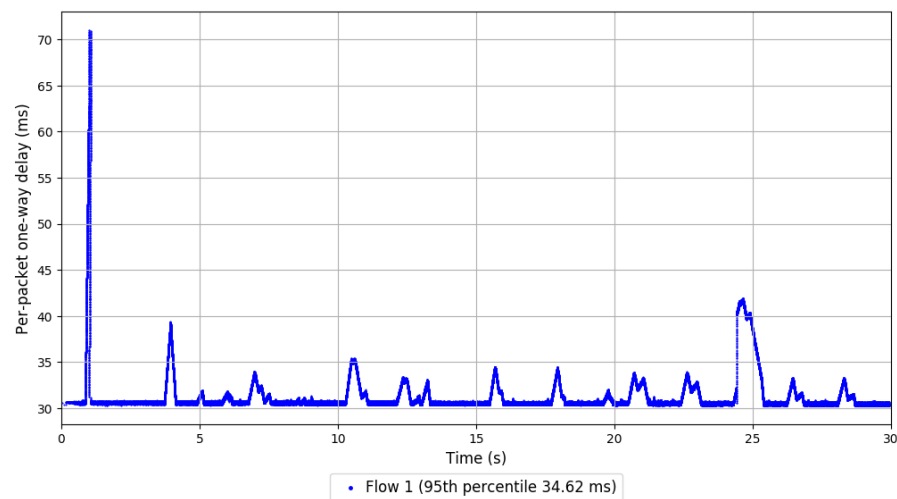
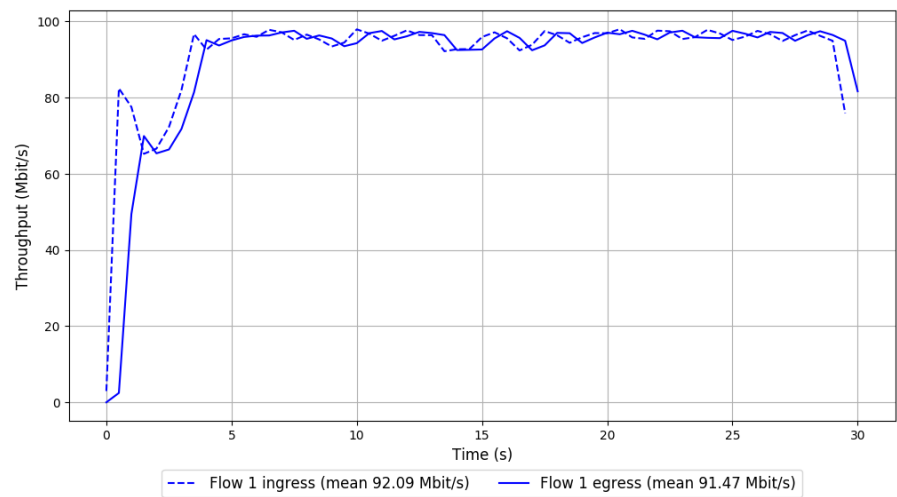
-- Flow 1:

Average throughput: 91.47 Mbit/s

95th percentile per-packet one-way delay: 34.616 ms

Loss rate: 0.67%

Run 5: Report of PCC-Allegro — Data Link

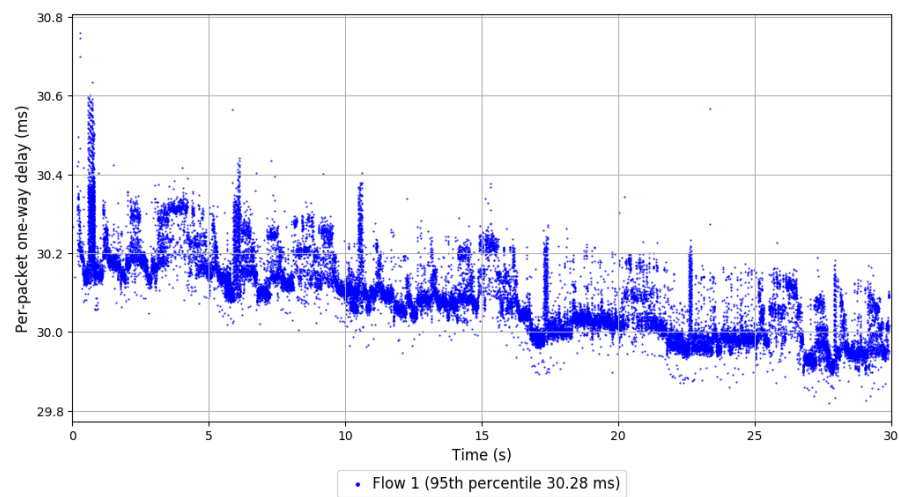
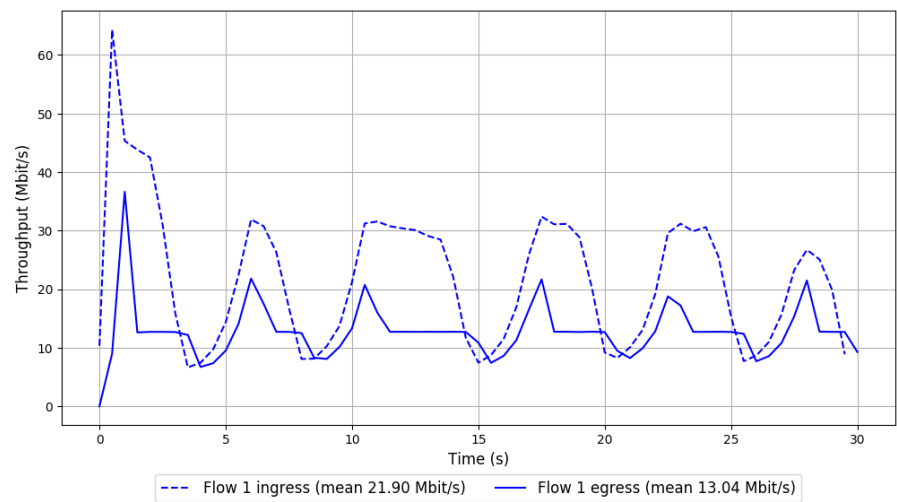


```
Run 1: Statistics of PCC-Expr

Start at: 2018-09-06 04:52:19
End at: 2018-09-06 04:52:49
Local clock offset: 0.128 ms
Remote clock offset: -0.342 ms

# Below is generated by plot.py at 2018-09-06 06:45:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.04 Mbit/s
95th percentile per-packet one-way delay: 30.284 ms
Loss rate: 40.45%
-- Flow 1:
Average throughput: 13.04 Mbit/s
95th percentile per-packet one-way delay: 30.284 ms
Loss rate: 40.45%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

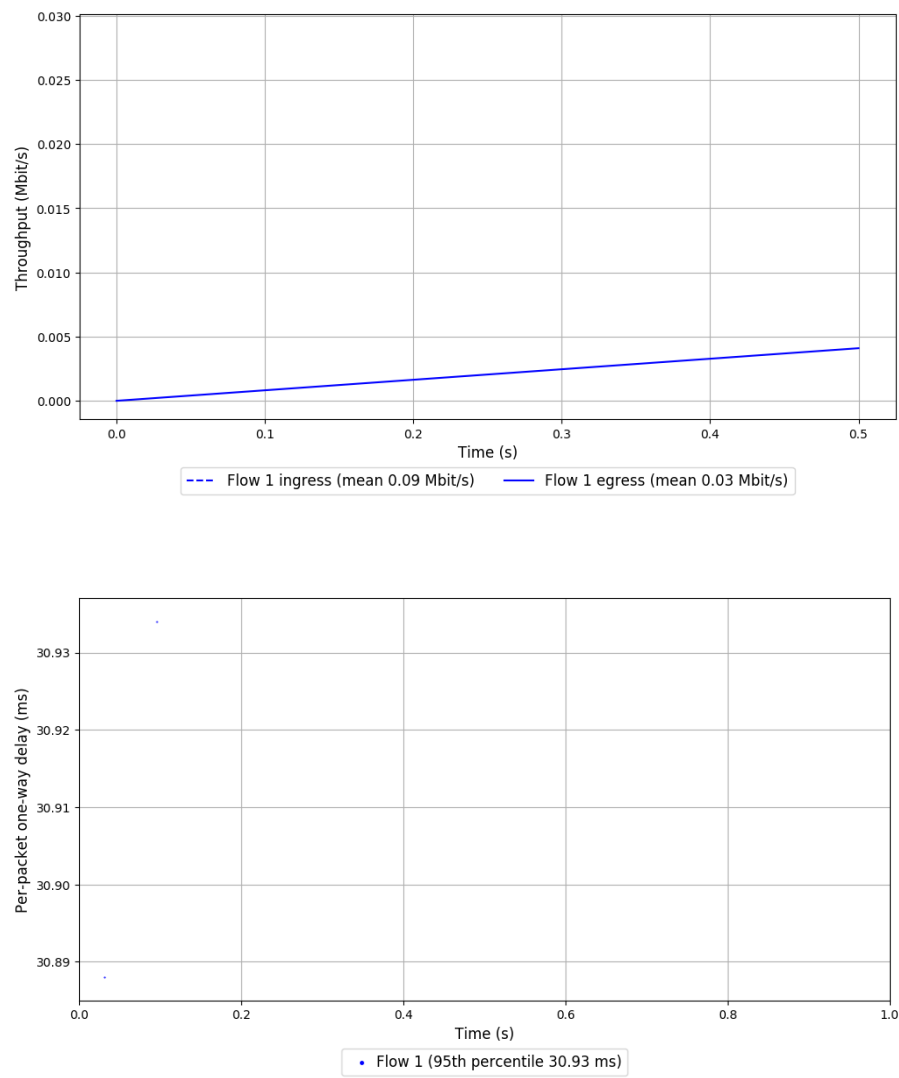
Start at: 2018-09-06 05:15:50

End at: 2018-09-06 05:16:20

Local clock offset: -5.818 ms

Remote clock offset: -0.264 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

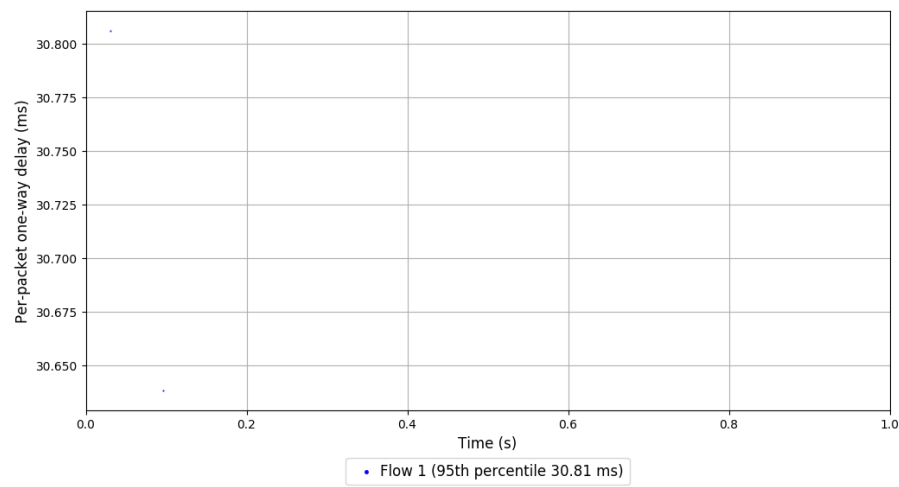
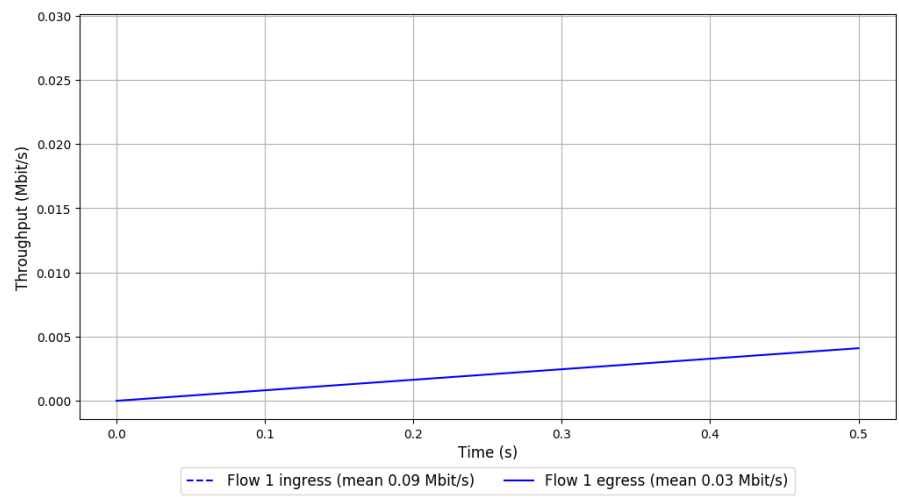
Start at: 2018-09-06 05:39:27

End at: 2018-09-06 05:39:57

Local clock offset: -0.557 ms

Remote clock offset: -0.048 ms

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

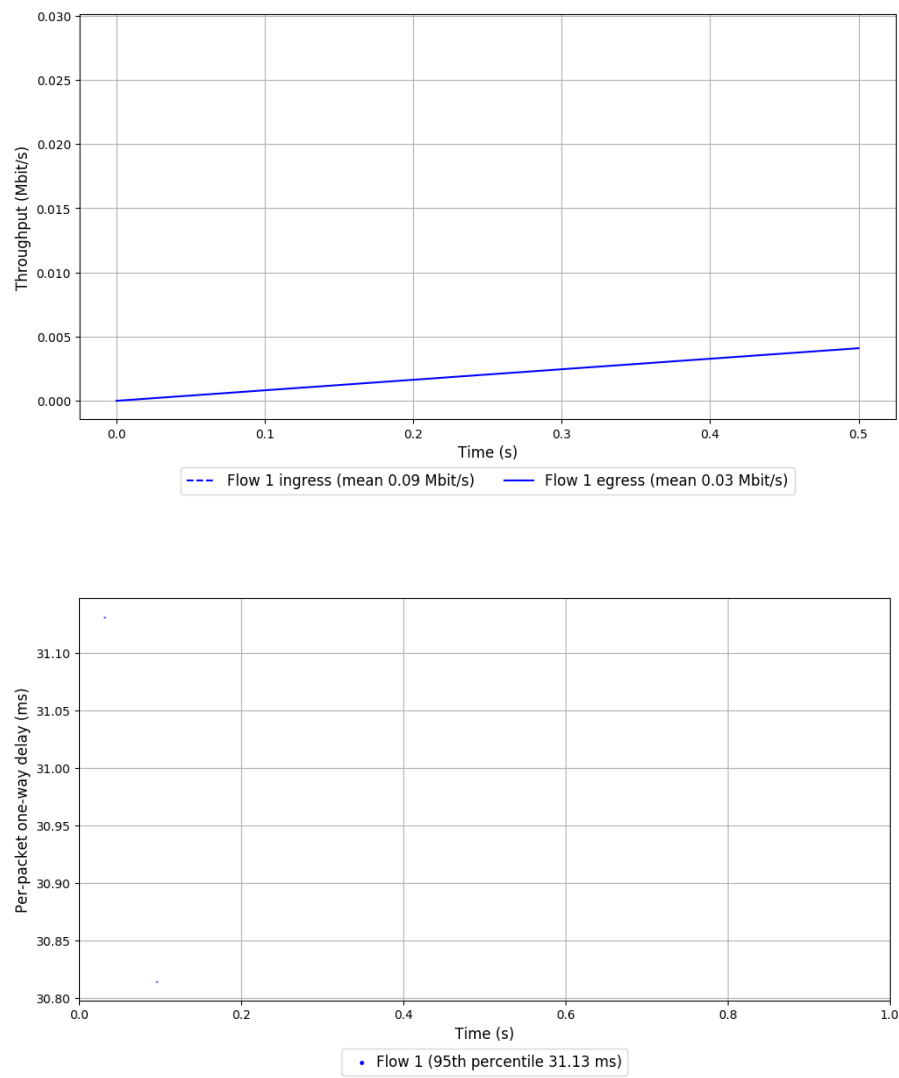
Start at: 2018-09-06 06:02:57

End at: 2018-09-06 06:03:27

Local clock offset: 3.084 ms

Remote clock offset: -0.1 ms

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

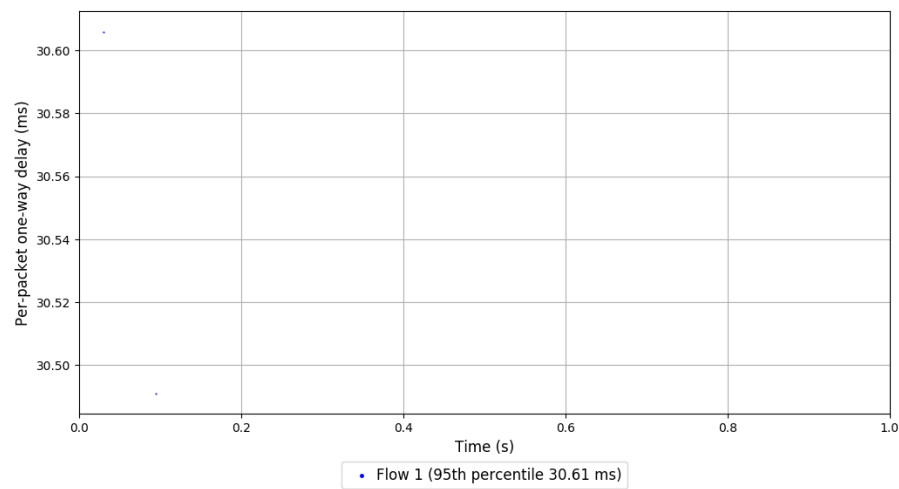
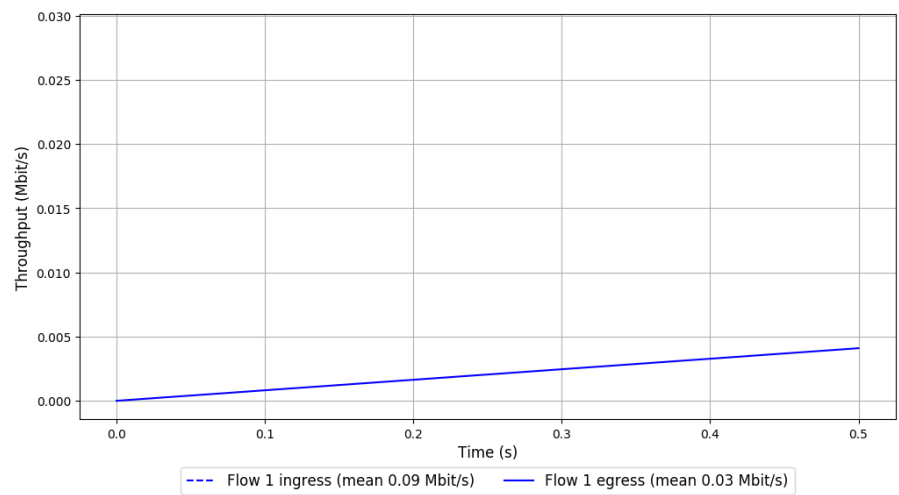
Start at: 2018-09-06 06:26:31

End at: 2018-09-06 06:27:01

Local clock offset: 1.116 ms

Remote clock offset: -0.275 ms

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

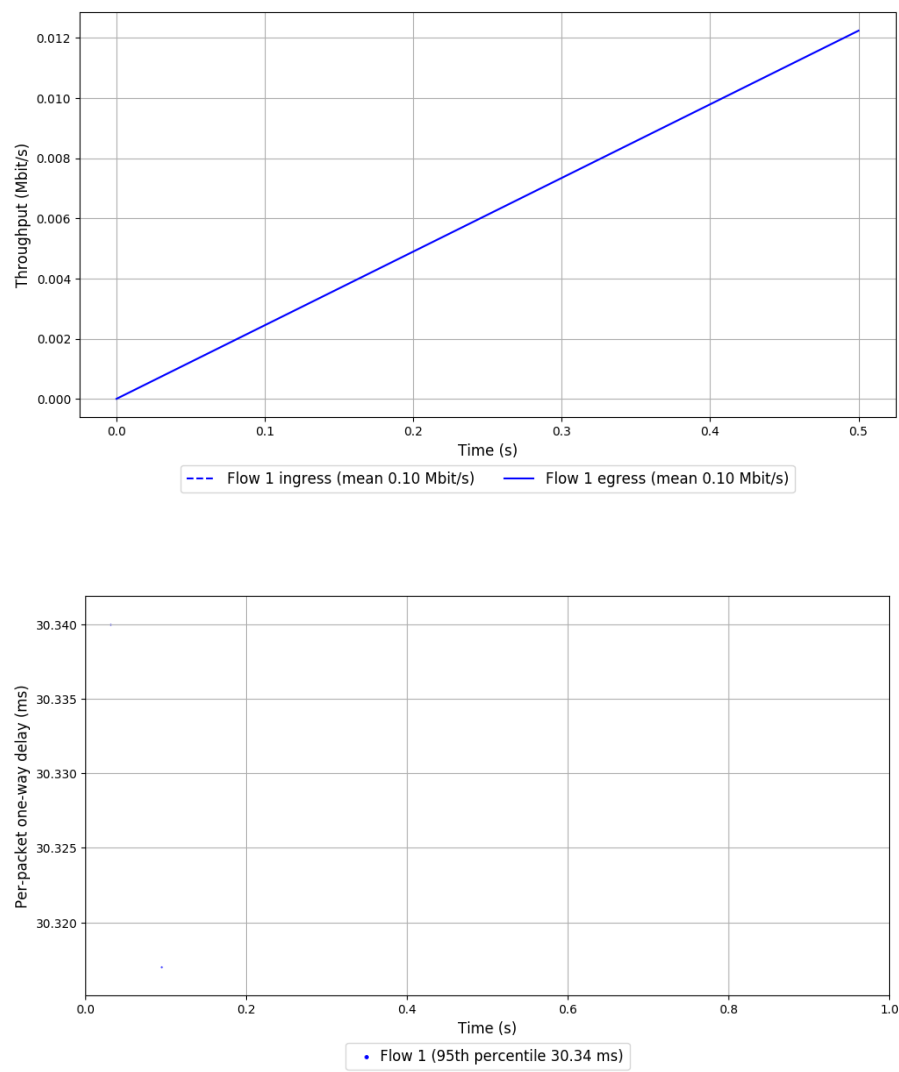
Start at: 2018-09-06 04:53:35

End at: 2018-09-06 04:54:05

Local clock offset: -0.584 ms

Remote clock offset: -0.184 ms

Run 1: Report of QUIC Cubic — Data Link

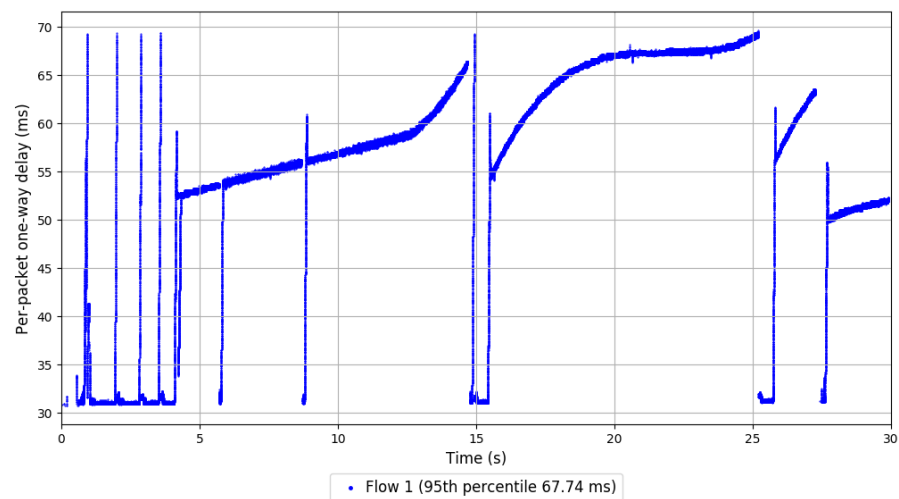
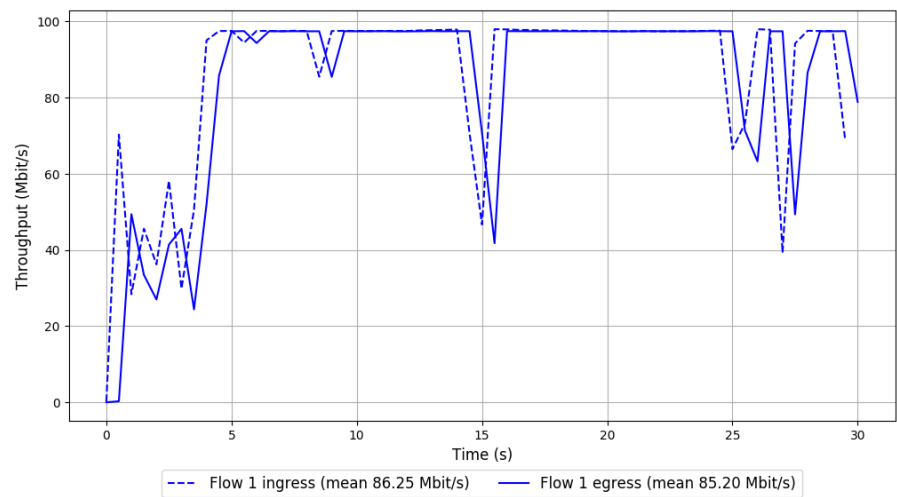


Run 2: Statistics of QUIC Cubic

Start at: 2018-09-06 05:17:05
End at: 2018-09-06 05:17:35
Local clock offset: -5.008 ms
Remote clock offset: -0.128 ms

Below is generated by plot.py at 2018-09-06 06:45:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.20 Mbit/s
95th percentile per-packet one-way delay: 67.742 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 85.20 Mbit/s
95th percentile per-packet one-way delay: 67.742 ms
Loss rate: 1.15%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-06 05:40:43

End at: 2018-09-06 05:41:13

Local clock offset: -0.519 ms

Remote clock offset: -0.02 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.64 Mbit/s

95th percentile per-packet one-way delay: 64.008 ms

Loss rate: 0.82%

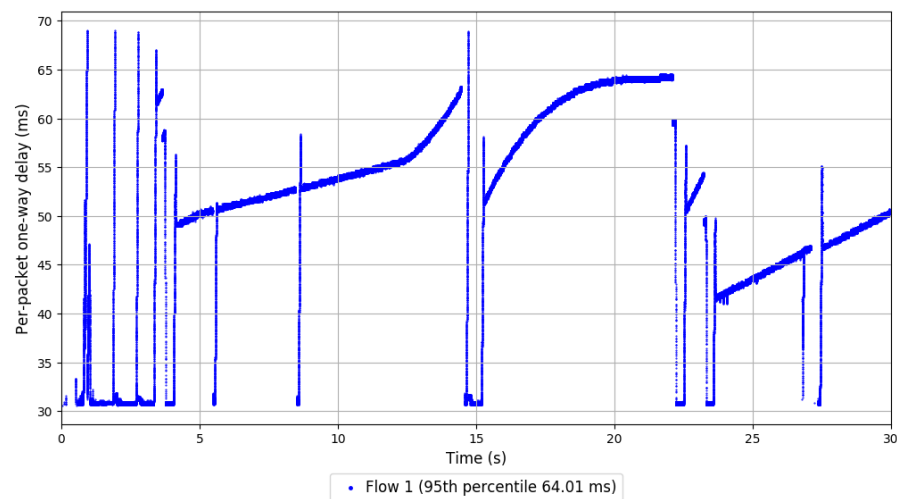
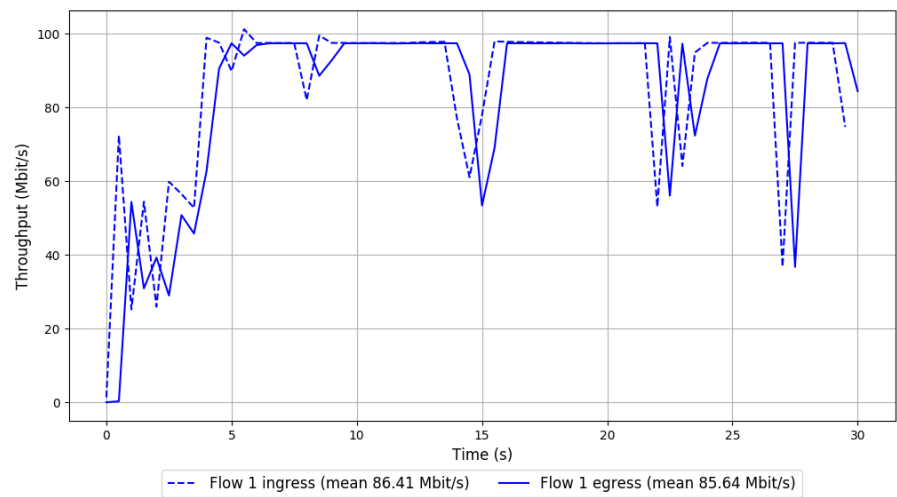
-- Flow 1:

Average throughput: 85.64 Mbit/s

95th percentile per-packet one-way delay: 64.008 ms

Loss rate: 0.82%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-06 06:04:13

End at: 2018-09-06 06:04:43

Local clock offset: 3.269 ms

Remote clock offset: -0.067 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.37 Mbit/s

95th percentile per-packet one-way delay: 67.433 ms

Loss rate: 1.85%

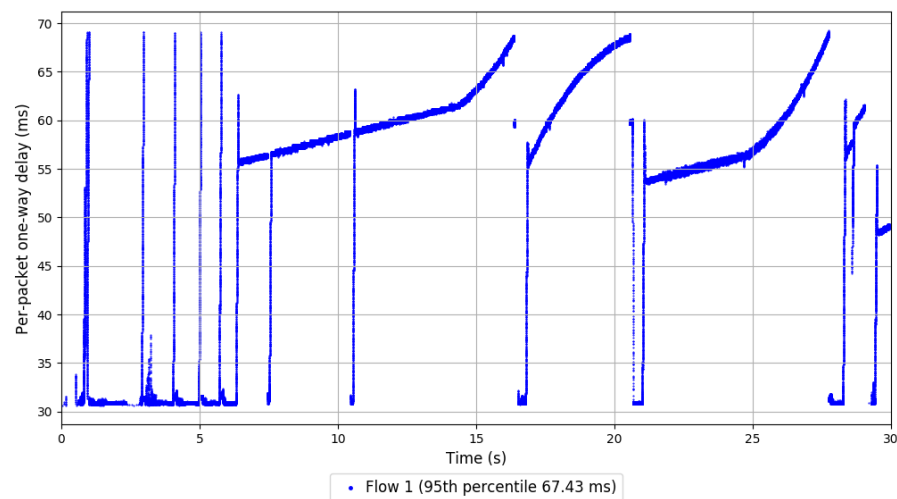
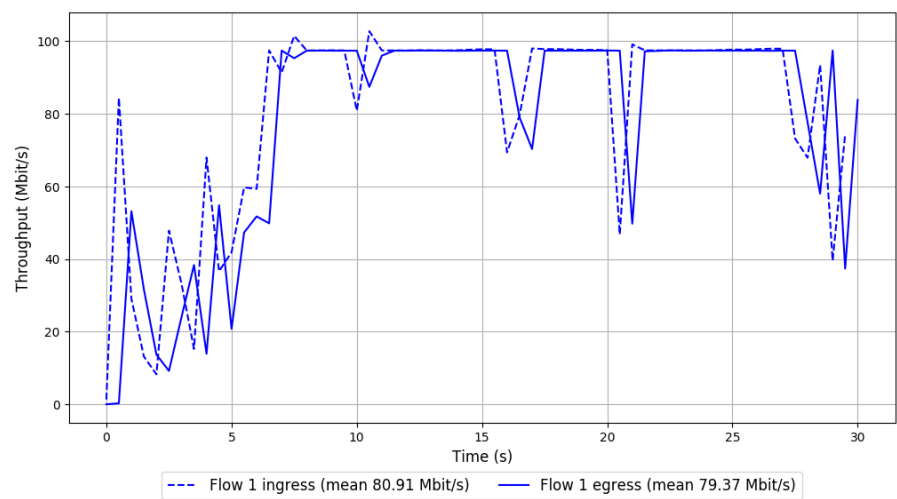
-- Flow 1:

Average throughput: 79.37 Mbit/s

95th percentile per-packet one-way delay: 67.433 ms

Loss rate: 1.85%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-06 06:27:47

End at: 2018-09-06 06:28:17

Local clock offset: 0.94 ms

Remote clock offset: -0.357 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.37 Mbit/s

95th percentile per-packet one-way delay: 65.021 ms

Loss rate: 1.66%

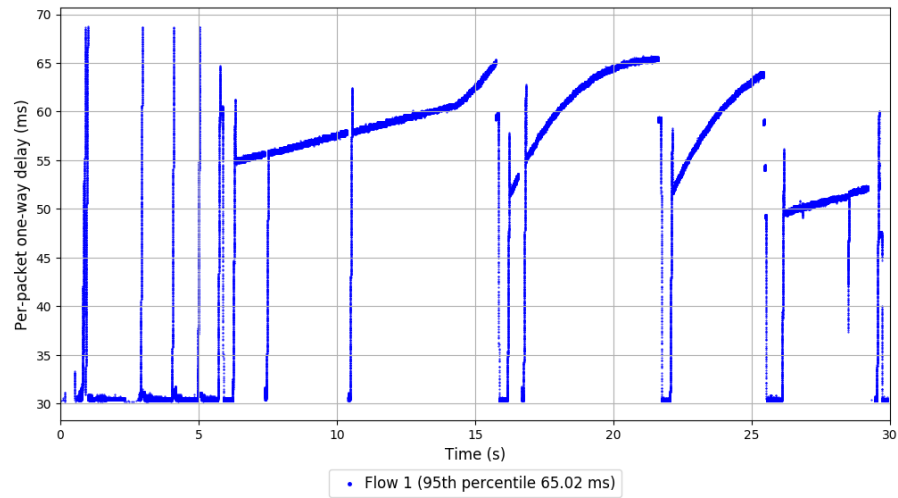
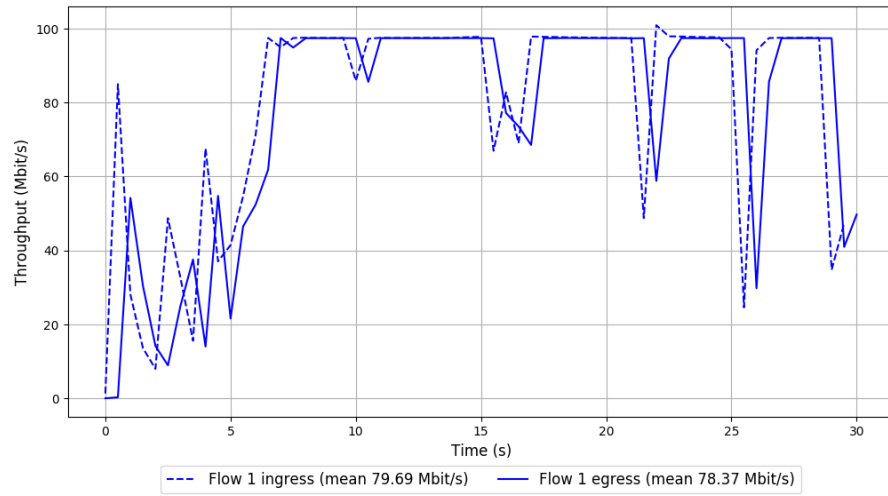
-- Flow 1:

Average throughput: 78.37 Mbit/s

95th percentile per-packet one-way delay: 65.021 ms

Loss rate: 1.66%

Run 5: Report of QUIC Cubic — Data Link

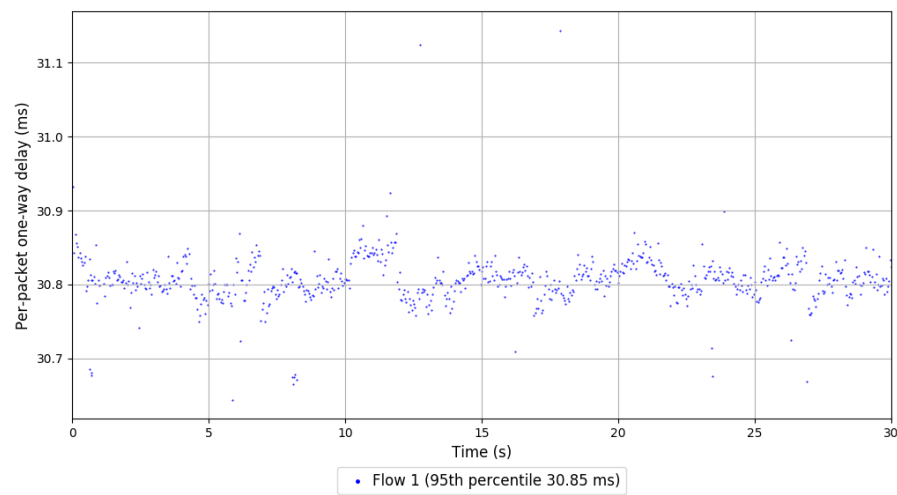
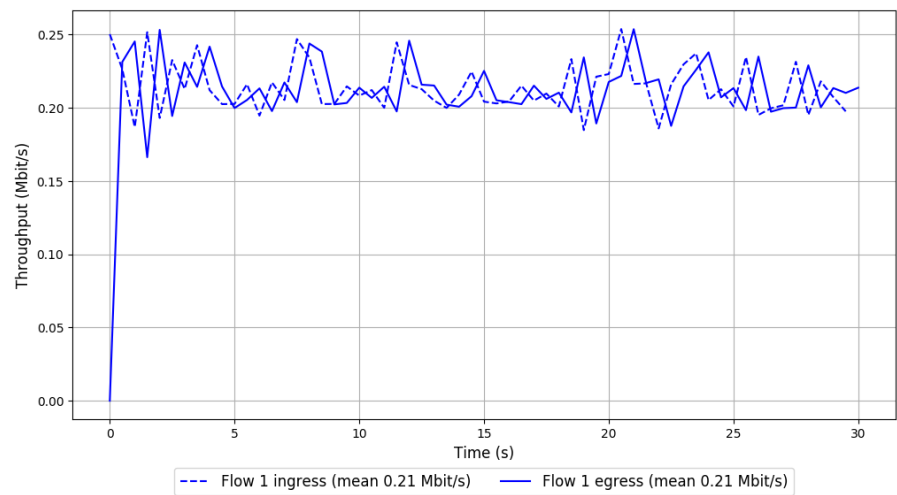


Run 1: Statistics of SCReAM

Start at: 2018-09-06 04:44:29
End at: 2018-09-06 04:44:59
Local clock offset: 5.007 ms
Remote clock offset: -0.092 ms

Below is generated by plot.py at 2018-09-06 06:45:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.847 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

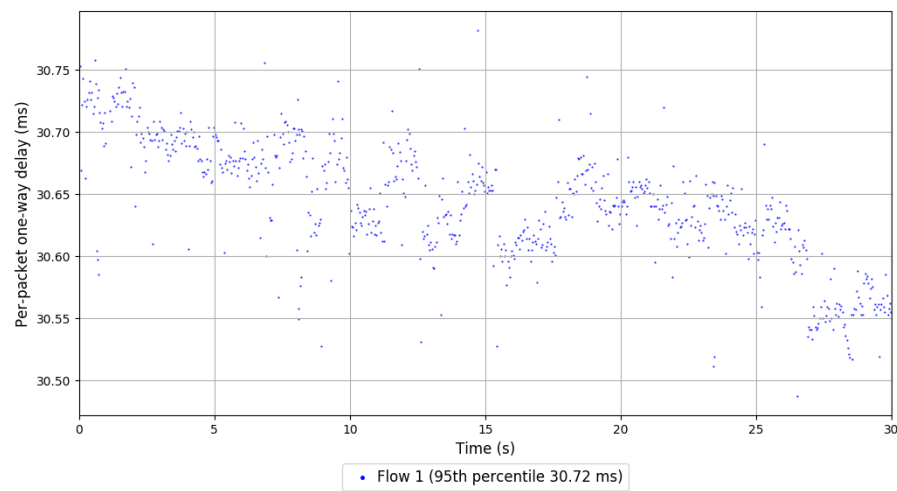
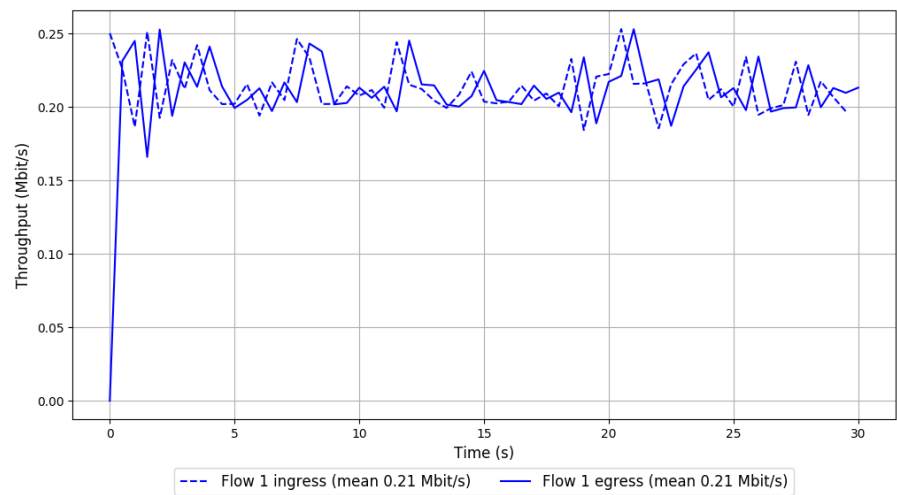


Run 2: Statistics of SCReAM

Start at: 2018-09-06 05:07:58
End at: 2018-09-06 05:08:28
Local clock offset: -4.69 ms
Remote clock offset: -0.096 ms

Below is generated by plot.py at 2018-09-06 06:45:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.721 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.721 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

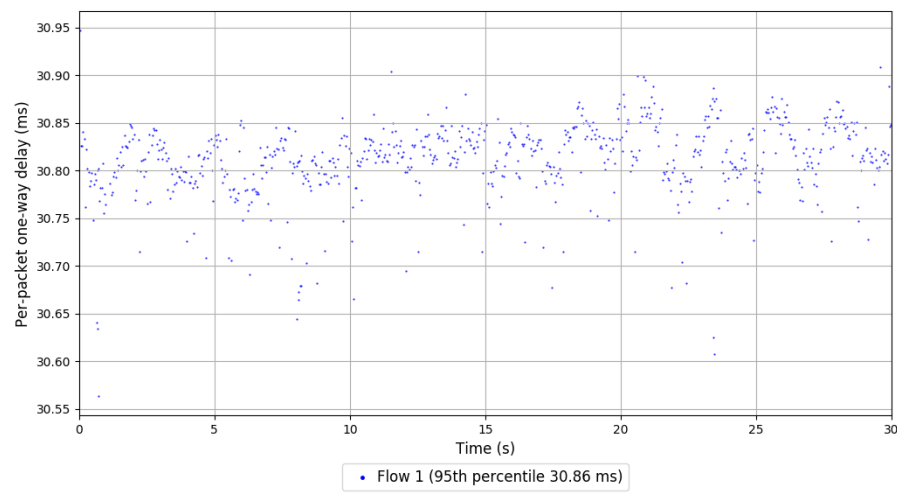
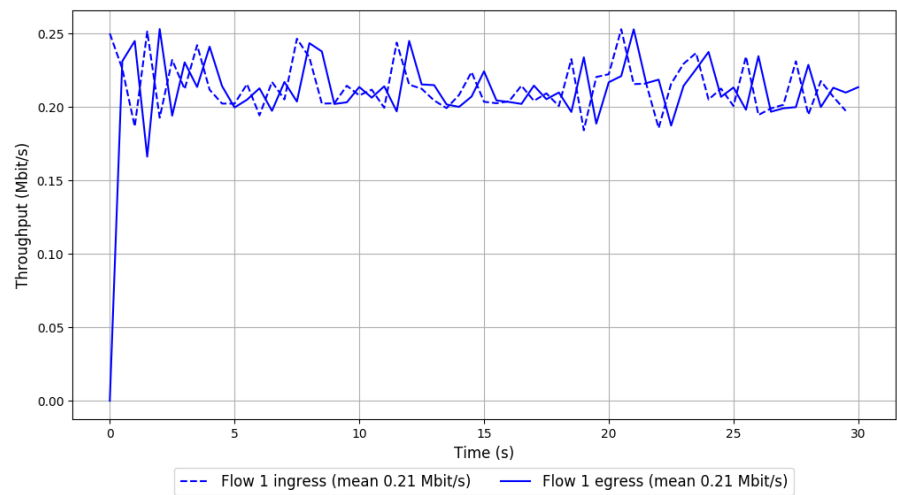


Run 3: Statistics of SCReAM

Start at: 2018-09-06 05:31:34
End at: 2018-09-06 05:32:04
Local clock offset: -0.979 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2018-09-06 06:45:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.864 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

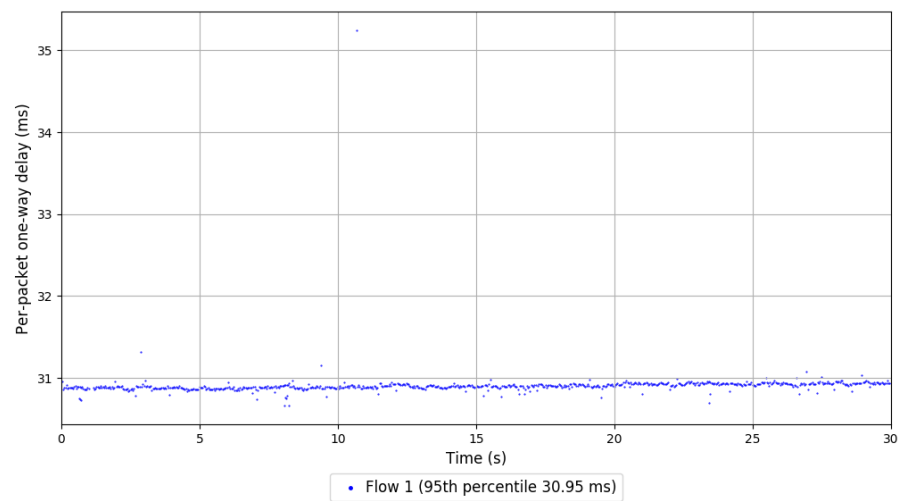
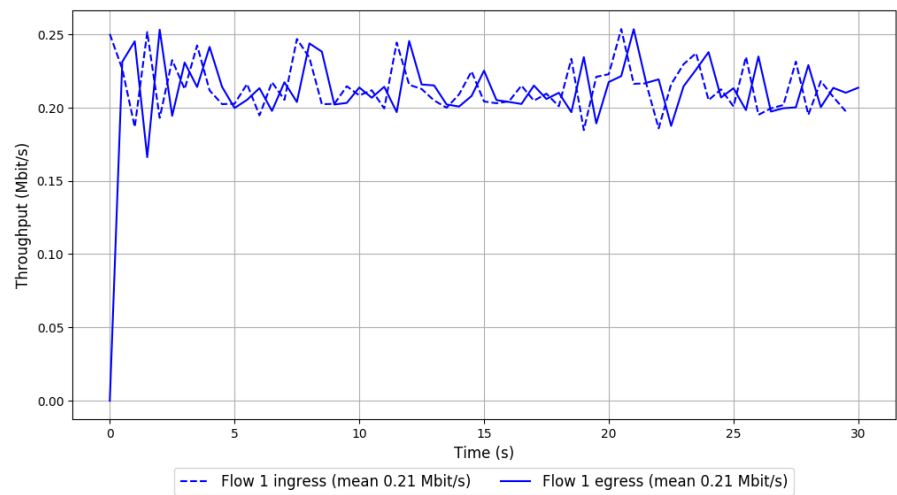


Run 4: Statistics of SCReAM

Start at: 2018-09-06 05:55:07
End at: 2018-09-06 05:55:37
Local clock offset: 2.192 ms
Remote clock offset: -0.129 ms

Below is generated by plot.py at 2018-09-06 06:45:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.947 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-09-06 06:18:38

End at: 2018-09-06 06:19:08

Local clock offset: 2.88 ms

Remote clock offset: -0.33 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 30.338 ms

Loss rate: 0.00%

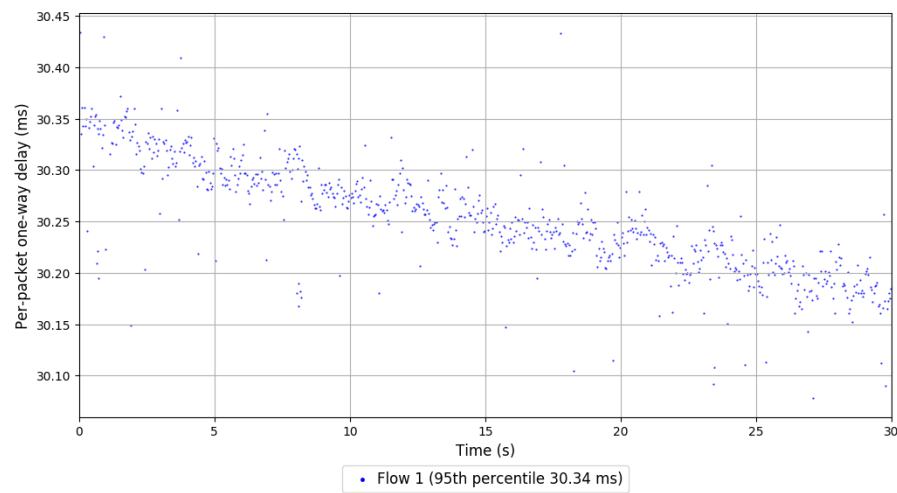
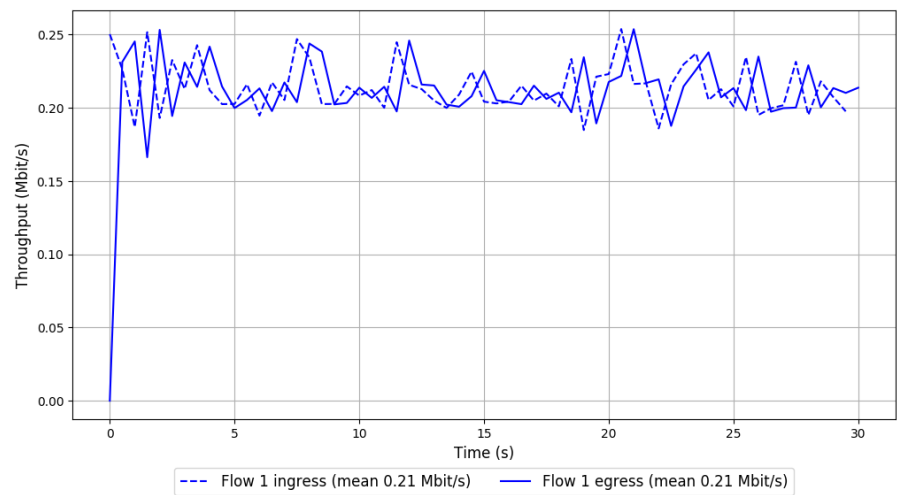
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 30.338 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

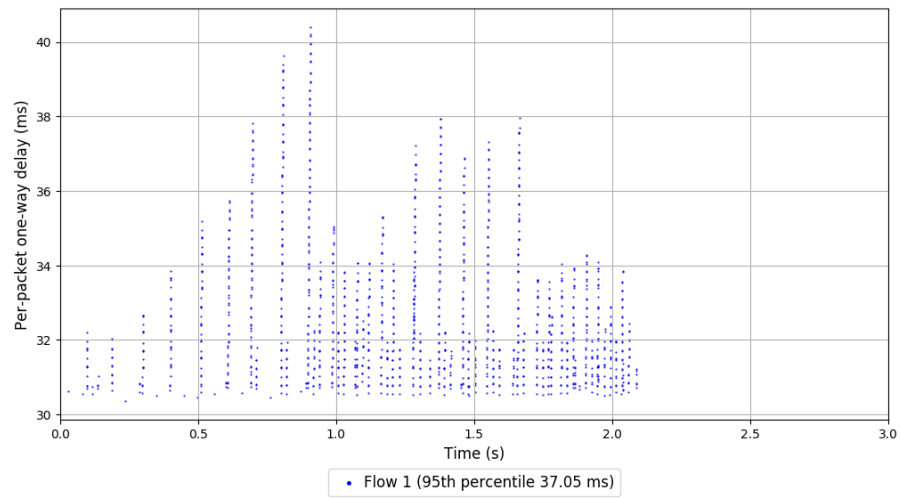
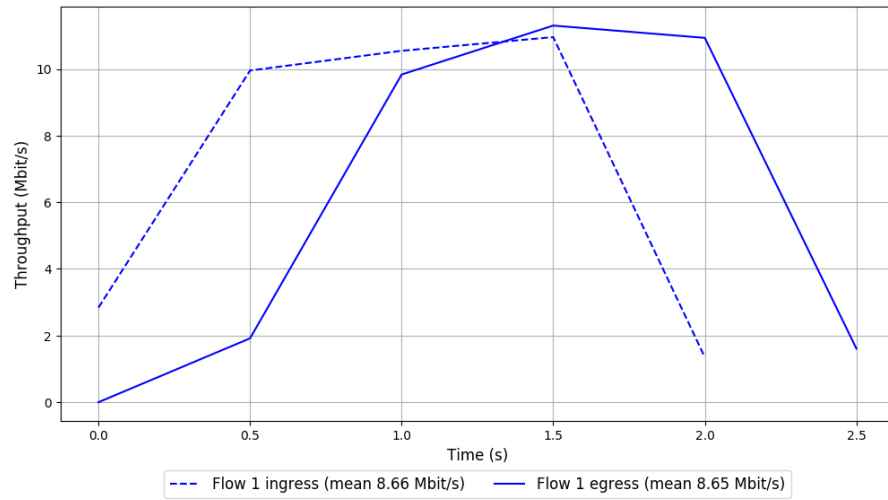
Start at: 2018-09-06 05:02:43

End at: 2018-09-06 05:03:13

Local clock offset: -3.66 ms

Remote clock offset: -0.187 ms

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

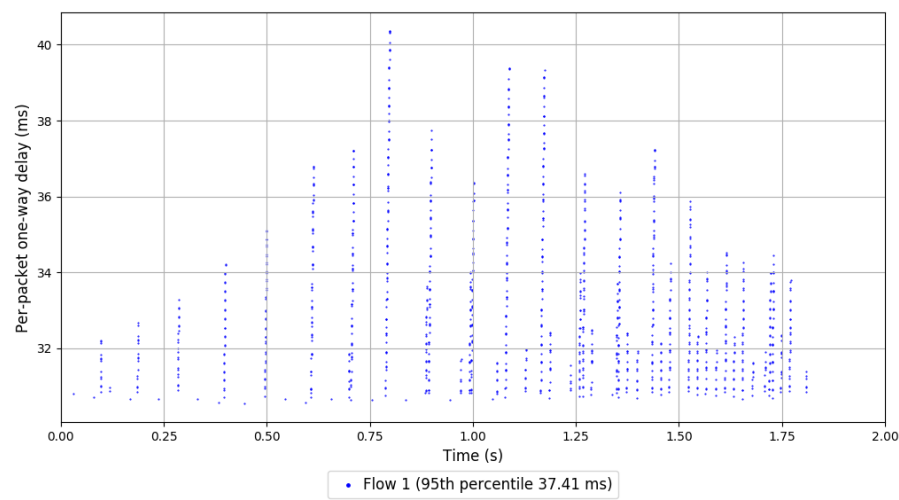
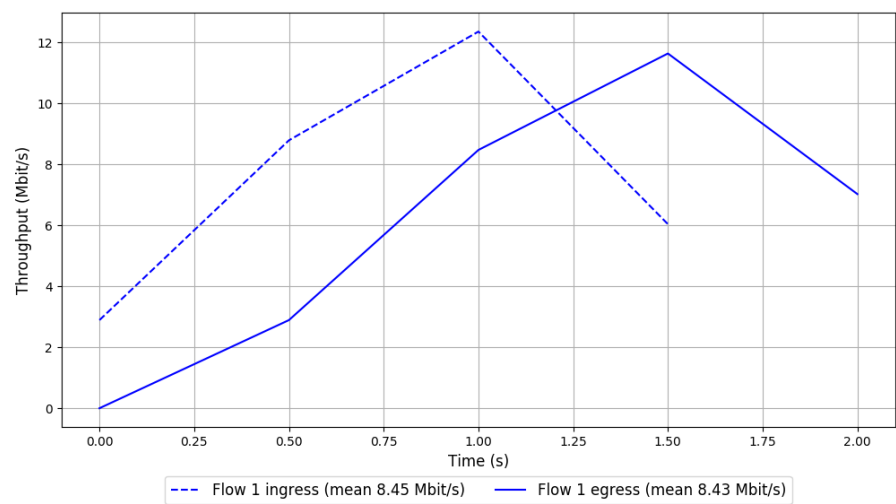
Start at: 2018-09-06 05:26:17

End at: 2018-09-06 05:26:47

Local clock offset: -1.697 ms

Remote clock offset: -0.071 ms

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

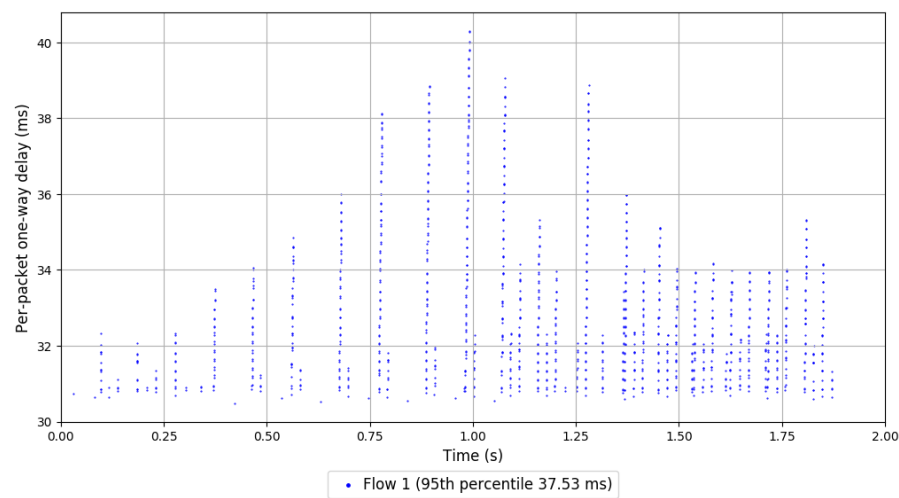
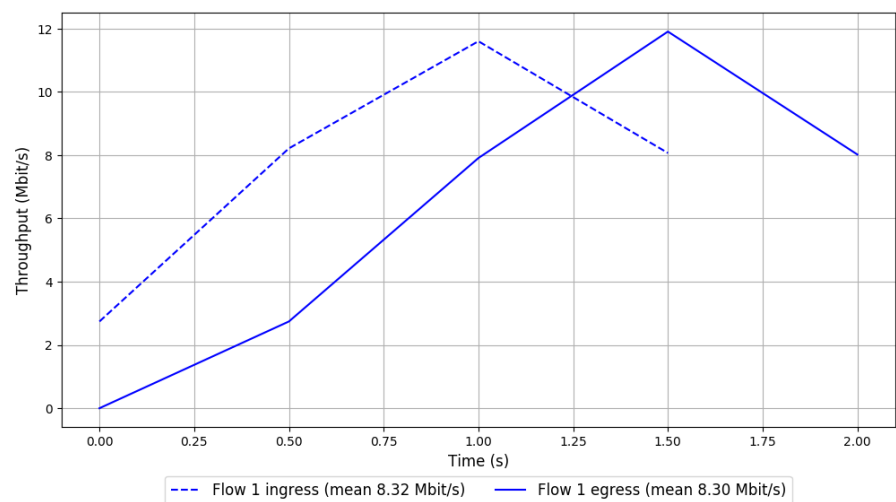
Start at: 2018-09-06 05:49:54

End at: 2018-09-06 05:50:24

Local clock offset: 1.049 ms

Remote clock offset: -0.271 ms

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

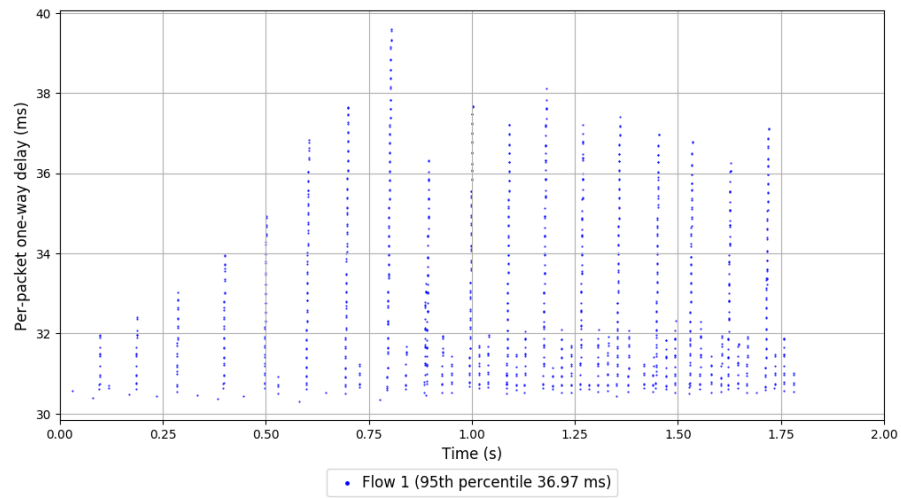
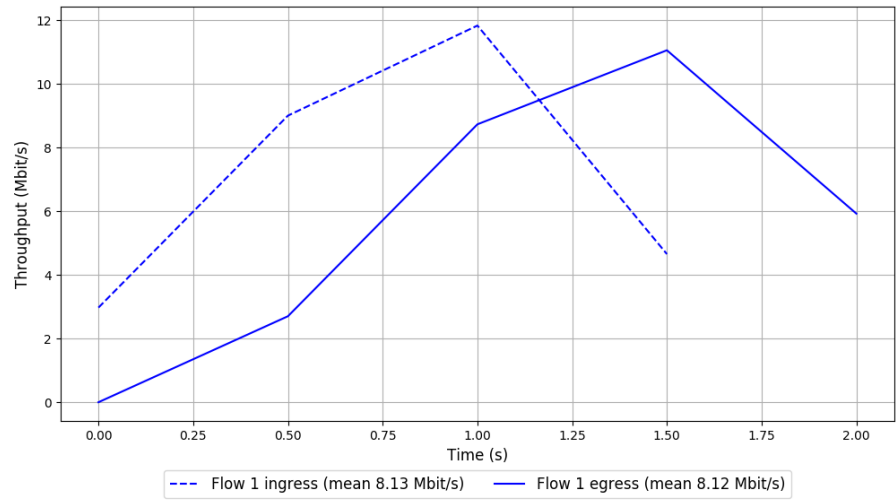
Start at: 2018-09-06 06:13:24

End at: 2018-09-06 06:13:54

Local clock offset: 3.91 ms

Remote clock offset: -0.328 ms

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

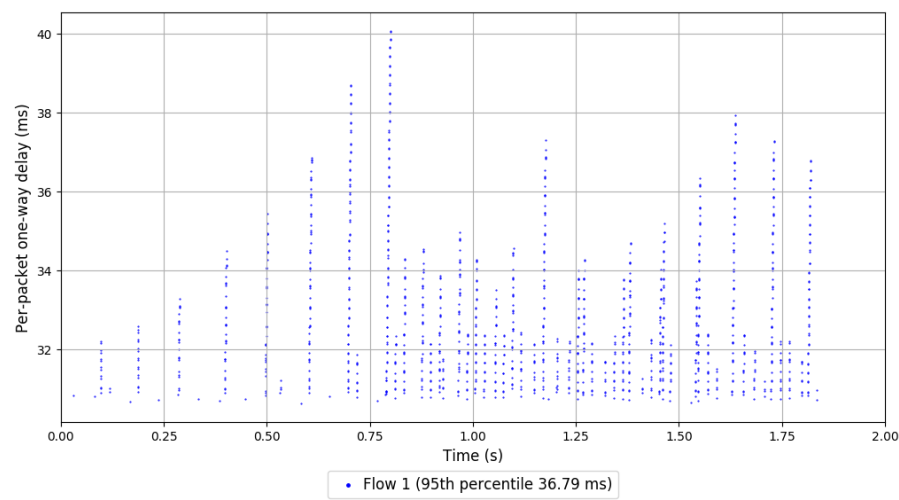
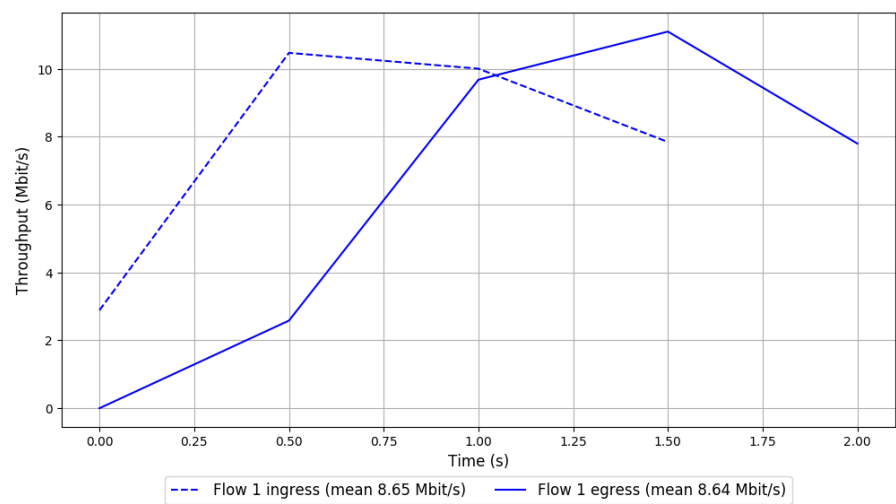
Start at: 2018-09-06 06:37:00

End at: 2018-09-06 06:37:30

Local clock offset: 0.004 ms

Remote clock offset: -0.221 ms

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

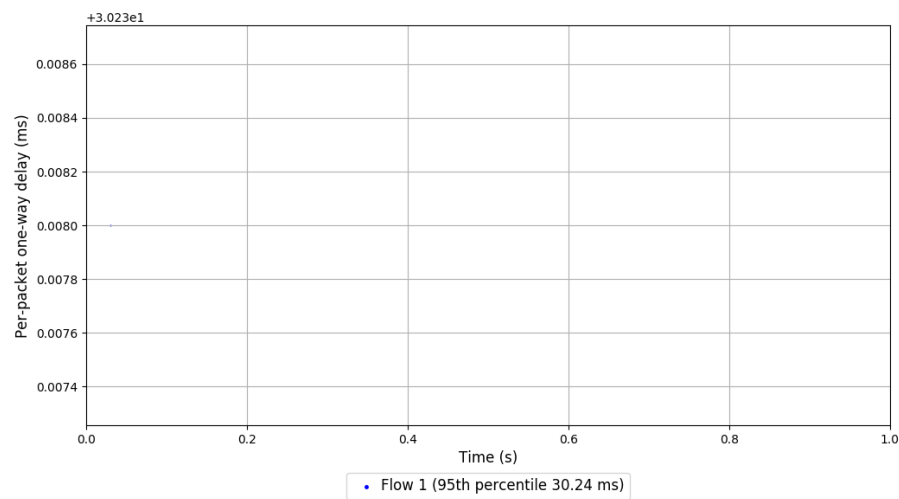
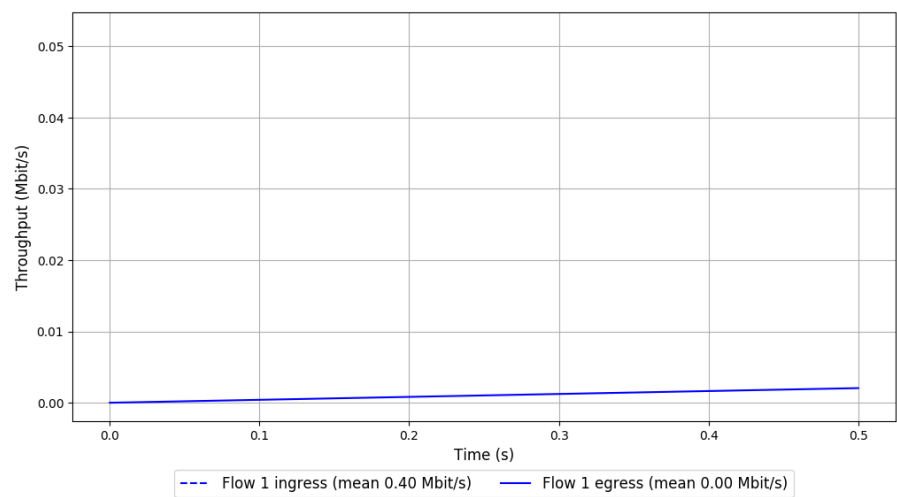
Start at: 2018-09-06 04:48:23

End at: 2018-09-06 04:48:53

Local clock offset: 2.707 ms

Remote clock offset: -0.183 ms

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

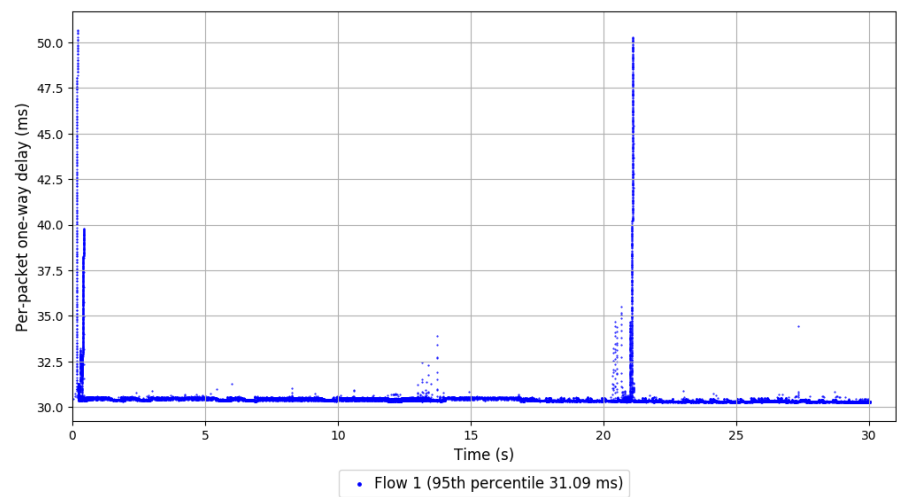
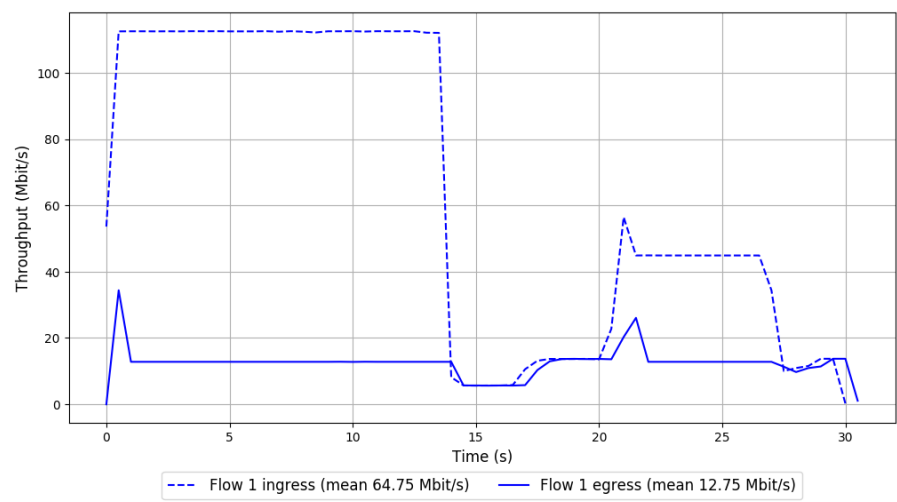


Run 2: Statistics of TaoVA-100x

Start at: 2018-09-06 05:11:54
End at: 2018-09-06 05:12:24
Local clock offset: -5.357 ms
Remote clock offset: -0.315 ms

Below is generated by plot.py at 2018-09-06 06:45:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 31.085 ms
Loss rate: 80.31%
-- Flow 1:
Average throughput: 12.75 Mbit/s
95th percentile per-packet one-way delay: 31.085 ms
Loss rate: 80.31%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-09-06 05:35:30

End at: 2018-09-06 05:36:00

Local clock offset: -0.795 ms

Remote clock offset: 0.065 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.76 Mbit/s

95th percentile per-packet one-way delay: 31.069 ms

Loss rate: 77.98%

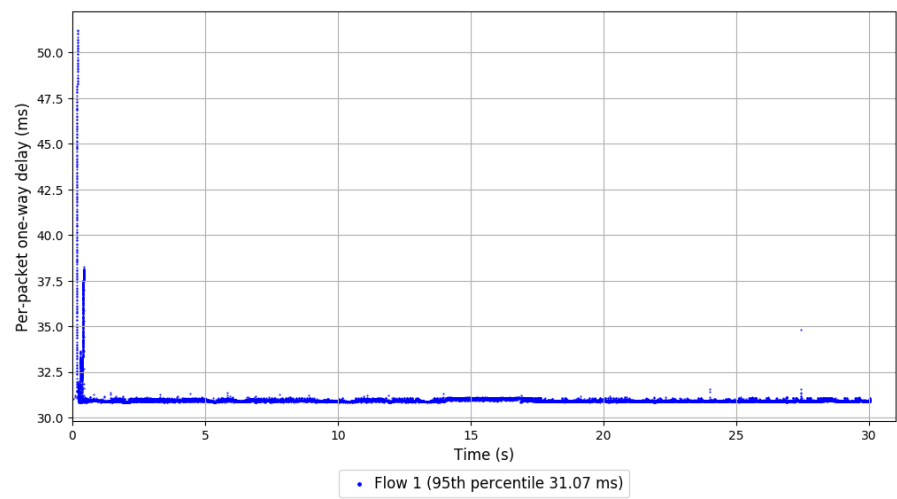
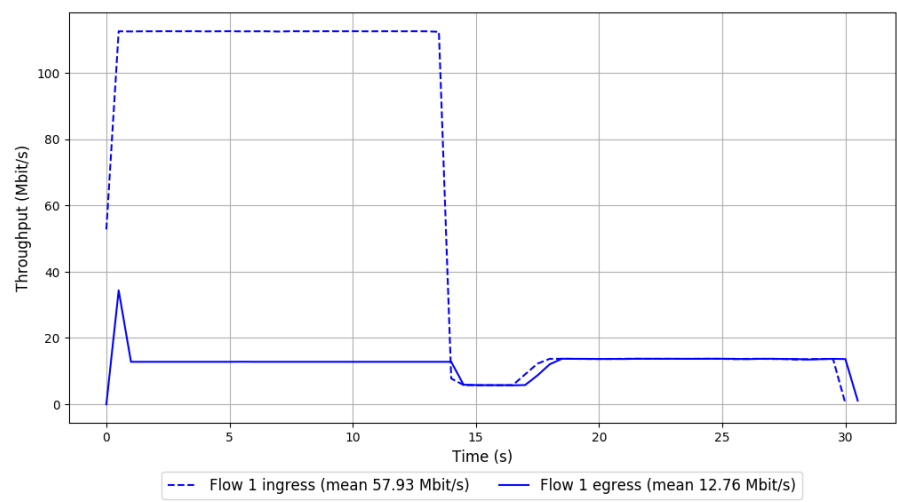
-- Flow 1:

Average throughput: 12.76 Mbit/s

95th percentile per-packet one-way delay: 31.069 ms

Loss rate: 77.98%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-09-06 05:59:02

End at: 2018-09-06 05:59:32

Local clock offset: 2.776 ms

Remote clock offset: -0.137 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.19 Mbit/s

95th percentile per-packet one-way delay: 30.958 ms

Loss rate: 77.51%

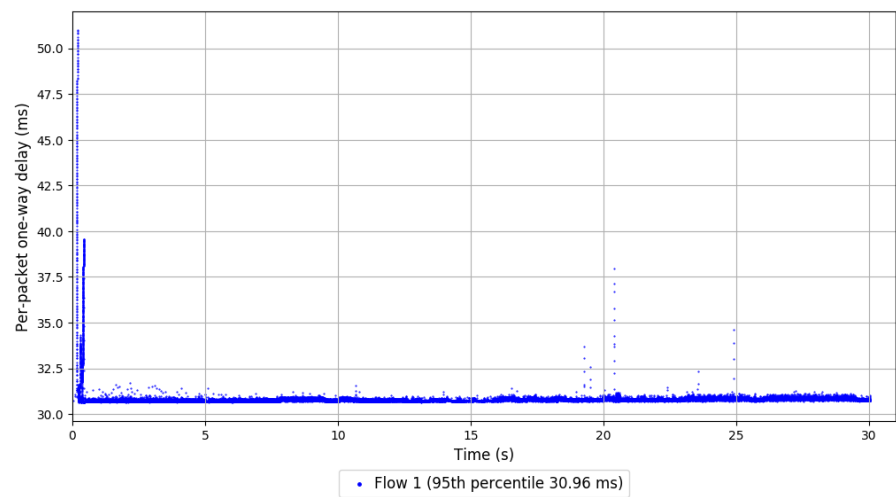
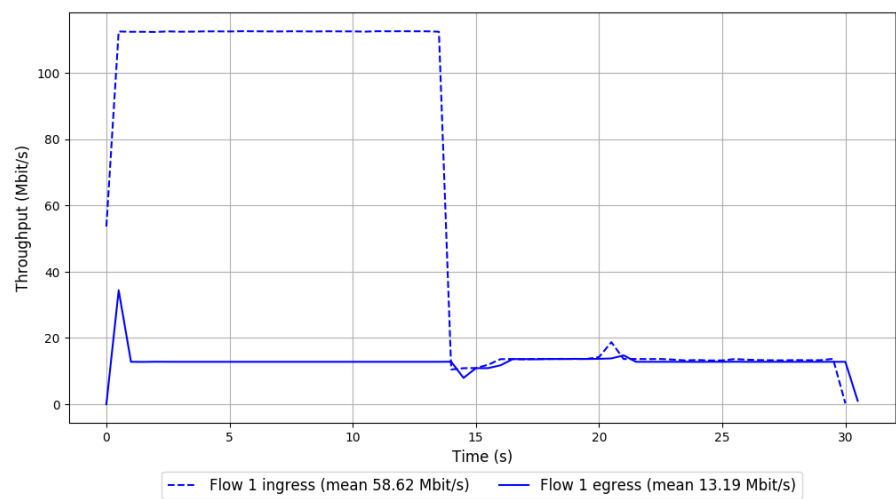
-- Flow 1:

Average throughput: 13.19 Mbit/s

95th percentile per-packet one-way delay: 30.958 ms

Loss rate: 77.51%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-09-06 06:22:34

End at: 2018-09-06 06:23:04

Local clock offset: 1.818 ms

Remote clock offset: -0.101 ms

Below is generated by plot.py at 2018-09-06 06:45:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.55 Mbit/s

95th percentile per-packet one-way delay: 30.752 ms

Loss rate: 78.26%

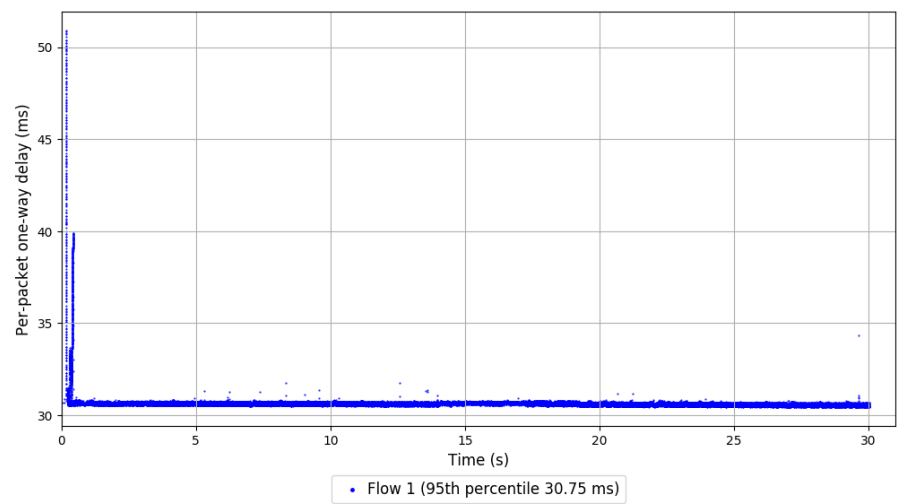
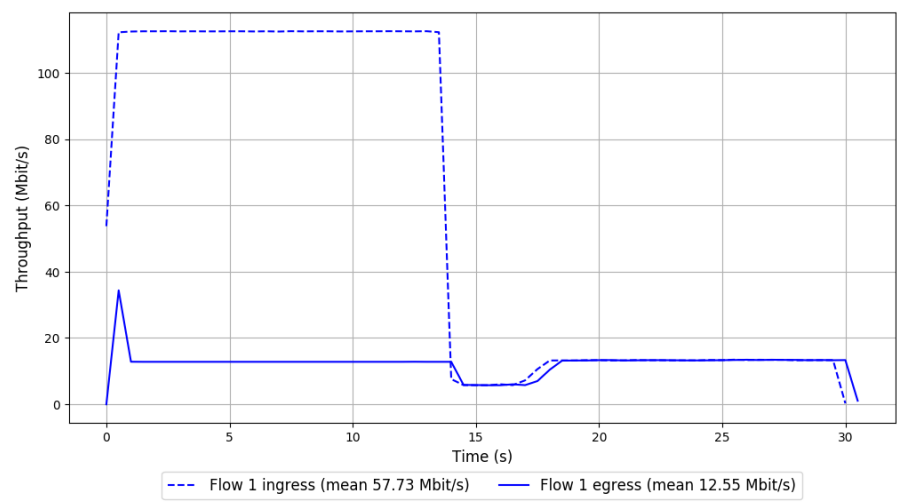
-- Flow 1:

Average throughput: 12.55 Mbit/s

95th percentile per-packet one-way delay: 30.752 ms

Loss rate: 78.26%

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

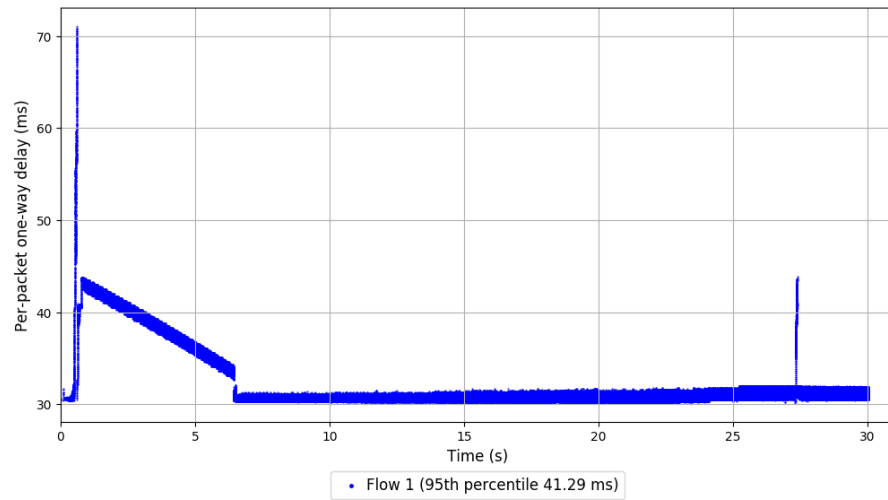
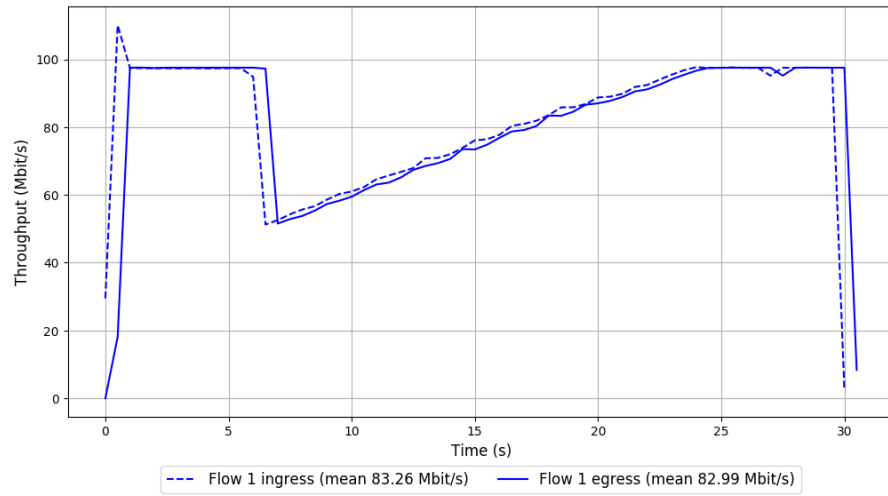


Run 1: Statistics of TCP Vegas

Start at: 2018-09-06 04:50:59
End at: 2018-09-06 04:51:29
Local clock offset: 0.79 ms
Remote clock offset: -0.123 ms

Below is generated by plot.py at 2018-09-06 06:46:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.99 Mbit/s
95th percentile per-packet one-way delay: 41.292 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 82.99 Mbit/s
95th percentile per-packet one-way delay: 41.292 ms
Loss rate: 0.33%

Run 1: Report of TCP Vegas — Data Link

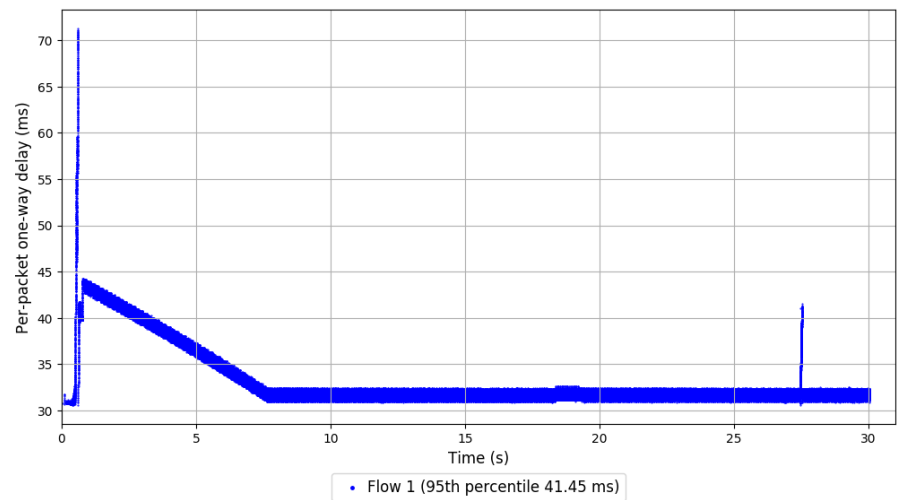
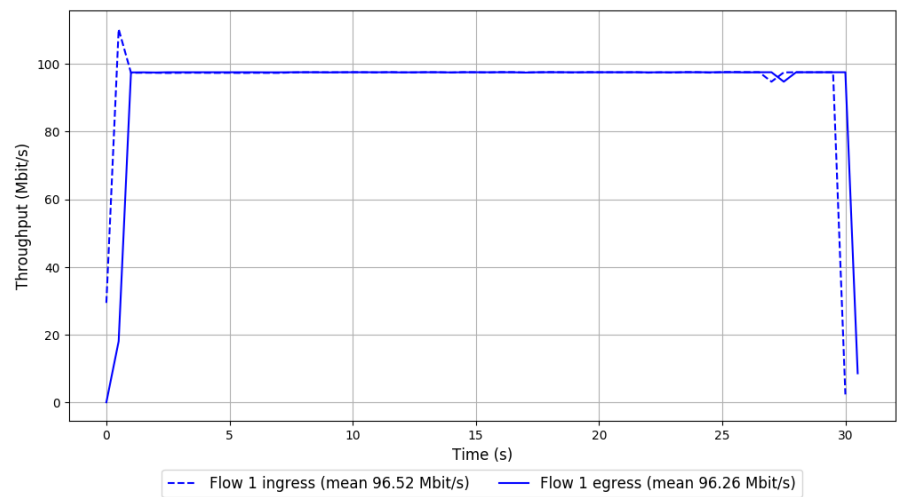


Run 2: Statistics of TCP Vegas

Start at: 2018-09-06 05:14:30
End at: 2018-09-06 05:15:00
Local clock offset: -5.77 ms
Remote clock offset: -0.078 ms

Below is generated by plot.py at 2018-09-06 06:46:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 41.447 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 41.447 ms
Loss rate: 0.27%

Run 2: Report of TCP Vegas — Data Link

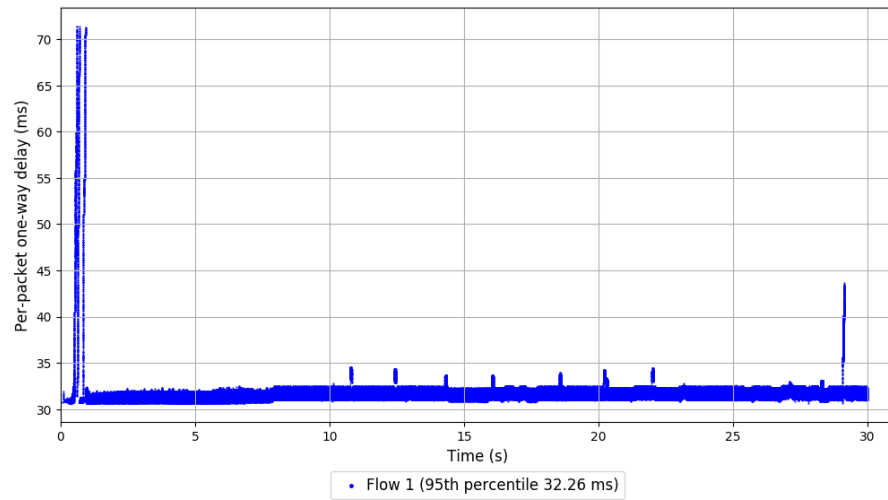
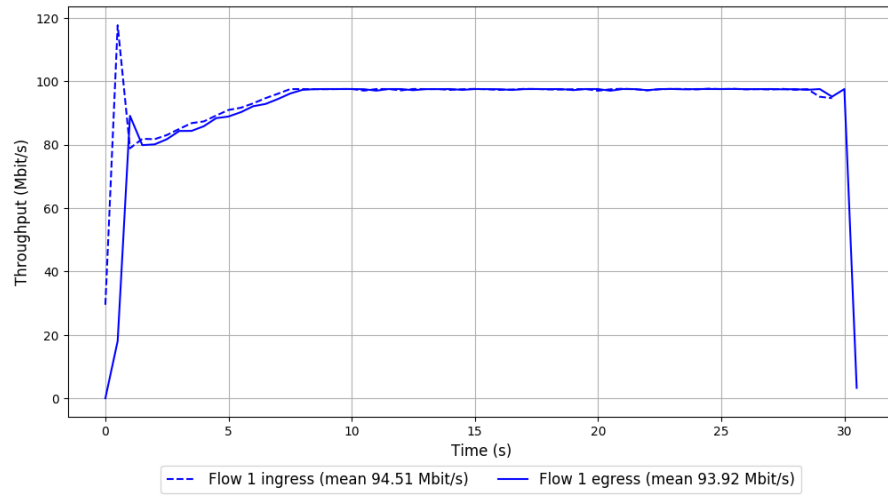


Run 3: Statistics of TCP Vegas

Start at: 2018-09-06 05:38:07
End at: 2018-09-06 05:38:37
Local clock offset: -0.604 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2018-09-06 06:46:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 32.262 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 93.92 Mbit/s
95th percentile per-packet one-way delay: 32.262 ms
Loss rate: 0.62%

Run 3: Report of TCP Vegas — Data Link

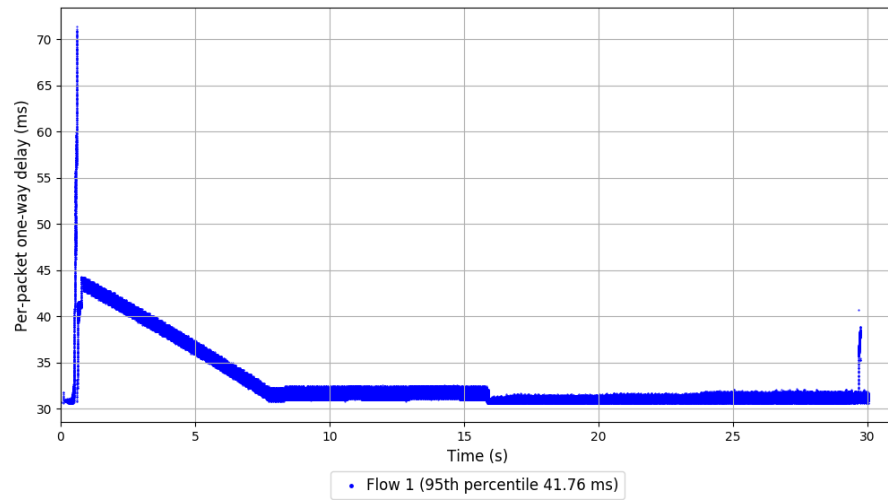
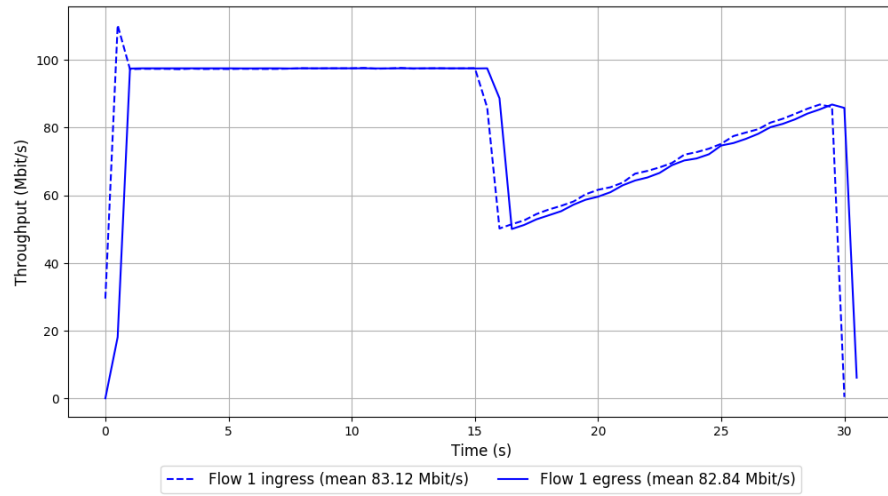


Run 4: Statistics of TCP Vegas

Start at: 2018-09-06 06:01:38
End at: 2018-09-06 06:02:08
Local clock offset: 2.966 ms
Remote clock offset: -0.262 ms

Below is generated by plot.py at 2018-09-06 06:46:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 82.84 Mbit/s
95th percentile per-packet one-way delay: 41.761 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 82.84 Mbit/s
95th percentile per-packet one-way delay: 41.761 ms
Loss rate: 0.32%

Run 4: Report of TCP Vegas — Data Link

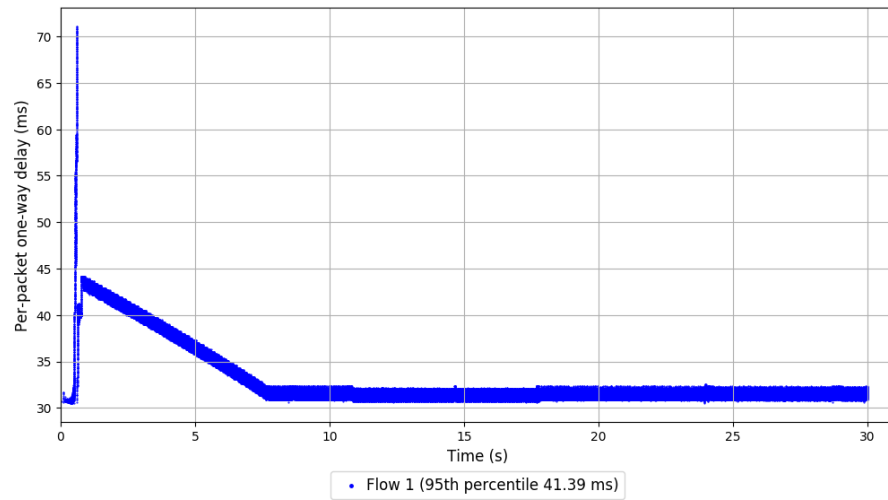
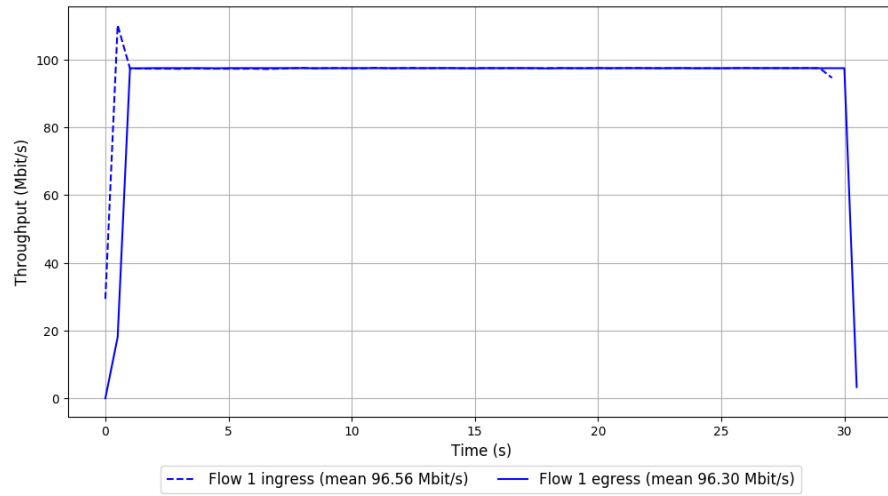


Run 5: Statistics of TCP Vegas

Start at: 2018-09-06 06:25:11
End at: 2018-09-06 06:25:41
Local clock offset: 1.306 ms
Remote clock offset: -0.117 ms

Below is generated by plot.py at 2018-09-06 06:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 41.392 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 41.392 ms
Loss rate: 0.27%

Run 5: Report of TCP Vegas — Data Link

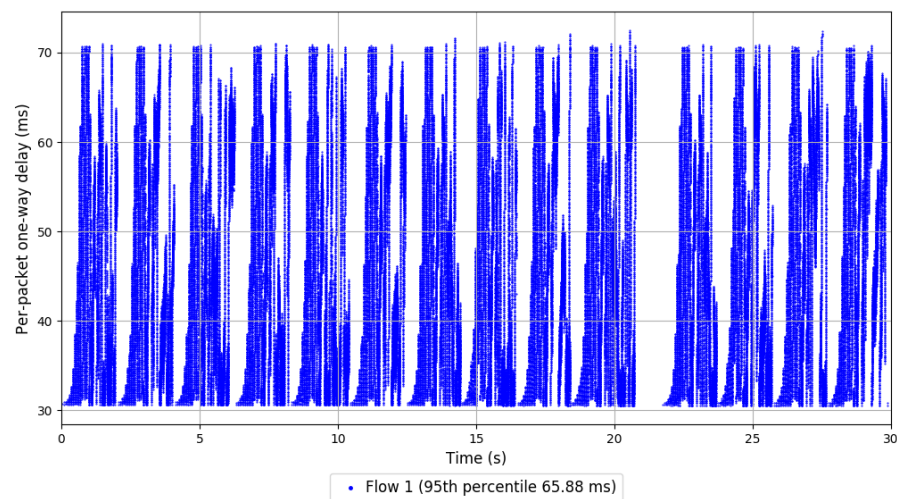
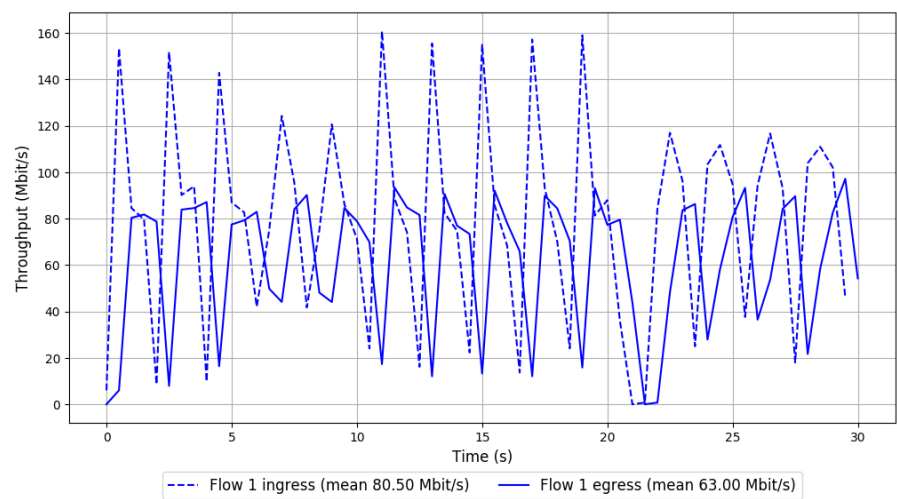


Run 1: Statistics of Verus

Start at: 2018-09-06 05:01:24
End at: 2018-09-06 05:01:54
Local clock offset: -3.327 ms
Remote clock offset: -0.066 ms

Below is generated by plot.py at 2018-09-06 06:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.00 Mbit/s
95th percentile per-packet one-way delay: 65.875 ms
Loss rate: 21.74%
-- Flow 1:
Average throughput: 63.00 Mbit/s
95th percentile per-packet one-way delay: 65.875 ms
Loss rate: 21.74%

Run 1: Report of Verus — Data Link

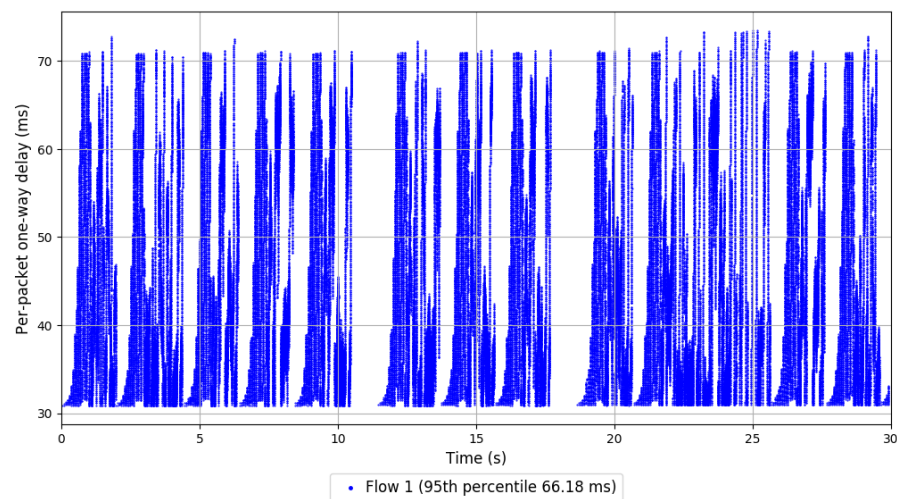
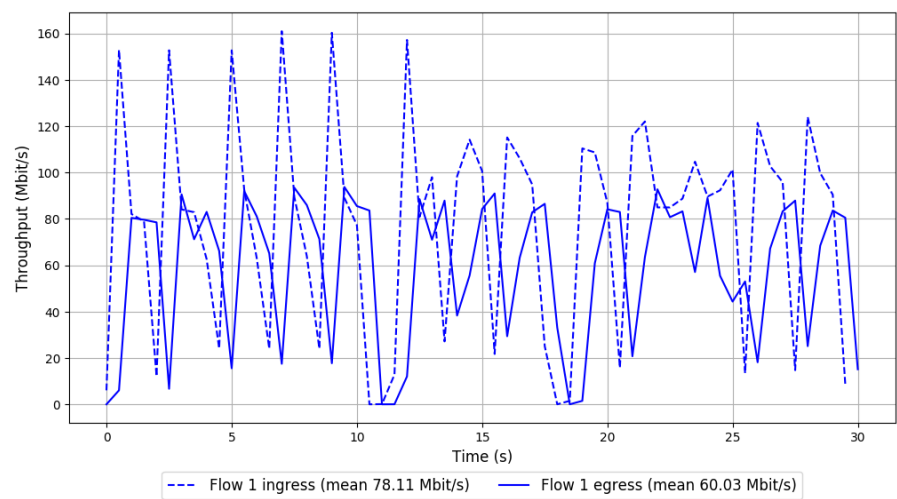


Run 2: Statistics of Verus

Start at: 2018-09-06 05:24:57
End at: 2018-09-06 05:25:27
Local clock offset: -2.057 ms
Remote clock offset: -0.064 ms

Below is generated by plot.py at 2018-09-06 06:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 66.181 ms
Loss rate: 23.14%
-- Flow 1:
Average throughput: 60.03 Mbit/s
95th percentile per-packet one-way delay: 66.181 ms
Loss rate: 23.14%

Run 2: Report of Verus — Data Link

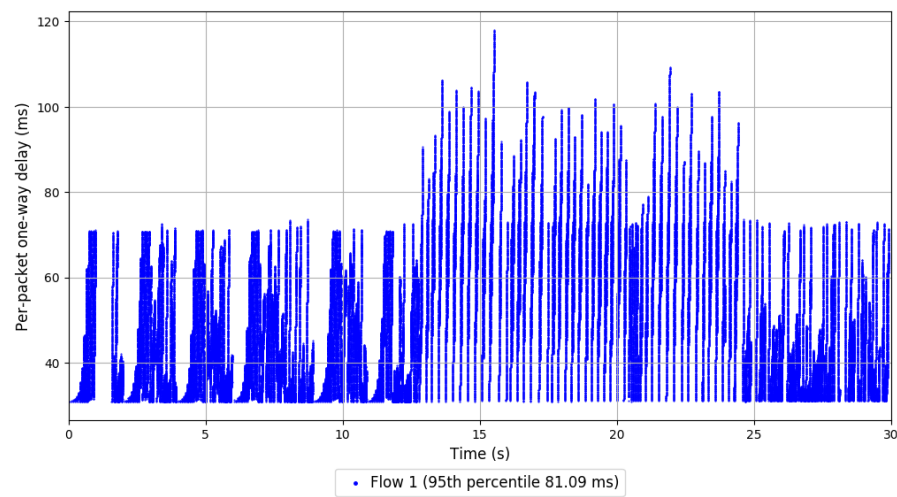
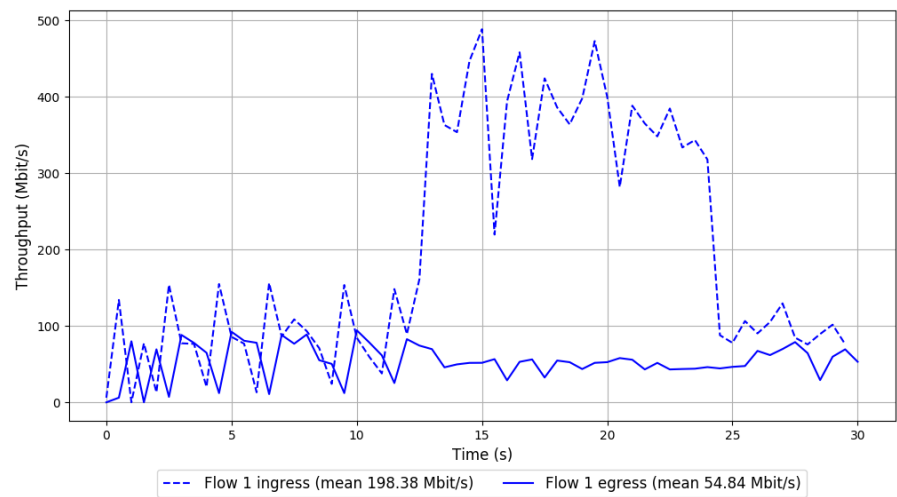


Run 3: Statistics of Verus

Start at: 2018-09-06 05:48:34
End at: 2018-09-06 05:49:04
Local clock offset: 0.565 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2018-09-06 06:46:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 54.84 Mbit/s
95th percentile per-packet one-way delay: 81.087 ms
Loss rate: 72.35%
-- Flow 1:
Average throughput: 54.84 Mbit/s
95th percentile per-packet one-way delay: 81.087 ms
Loss rate: 72.35%

Run 3: Report of Verus — Data Link

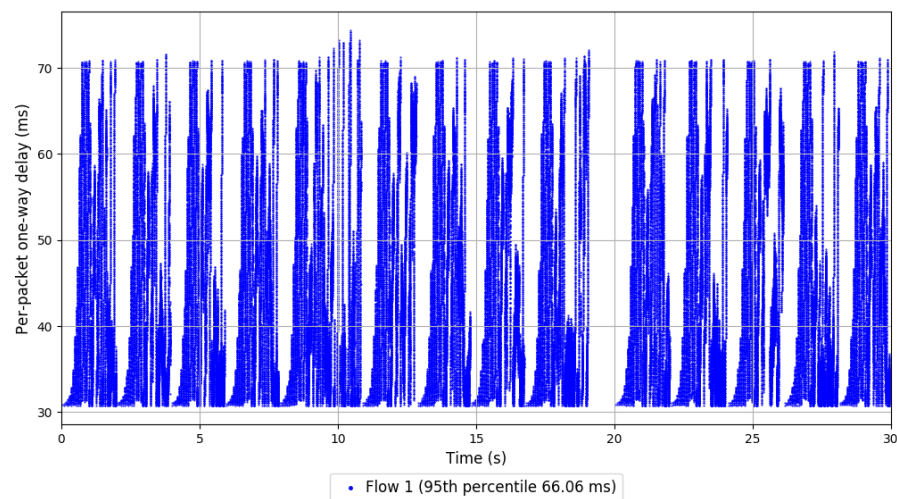
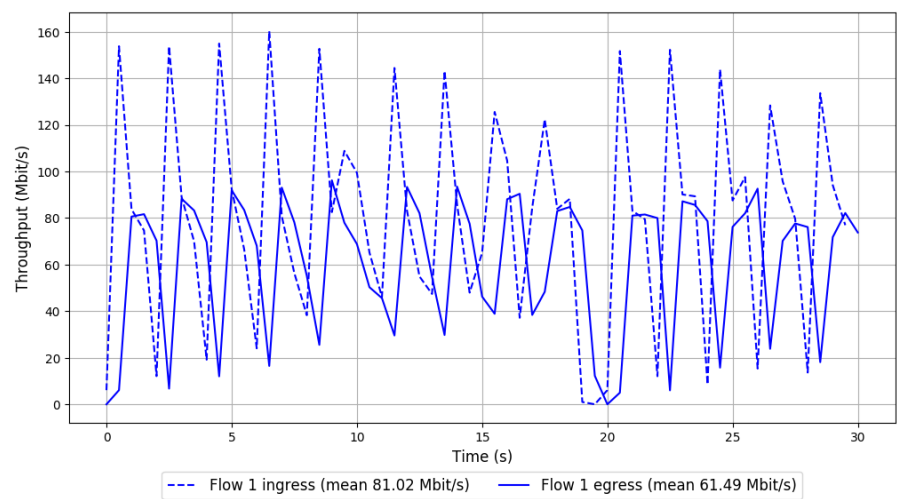


Run 4: Statistics of Verus

Start at: 2018-09-06 06:12:04
End at: 2018-09-06 06:12:34
Local clock offset: 3.727 ms
Remote clock offset: -0.102 ms

Below is generated by plot.py at 2018-09-06 06:47:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.49 Mbit/s
95th percentile per-packet one-way delay: 66.062 ms
Loss rate: 24.11%
-- Flow 1:
Average throughput: 61.49 Mbit/s
95th percentile per-packet one-way delay: 66.062 ms
Loss rate: 24.11%

Run 4: Report of Verus — Data Link

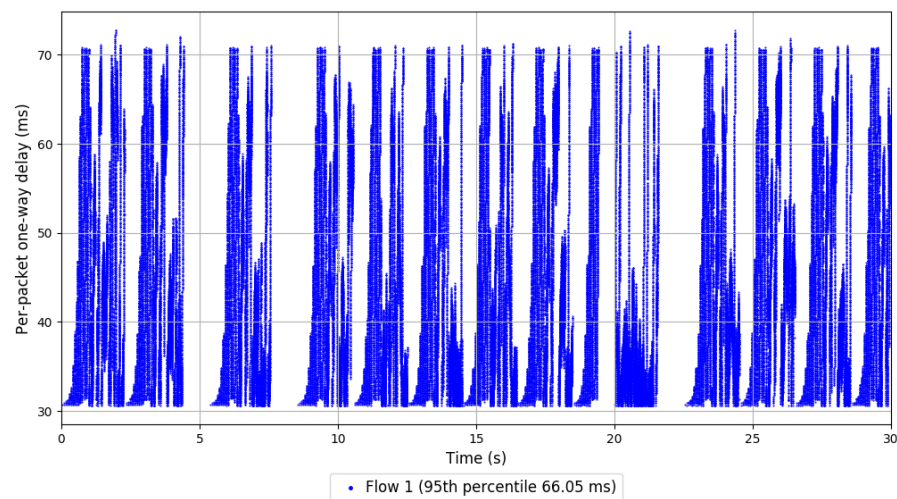
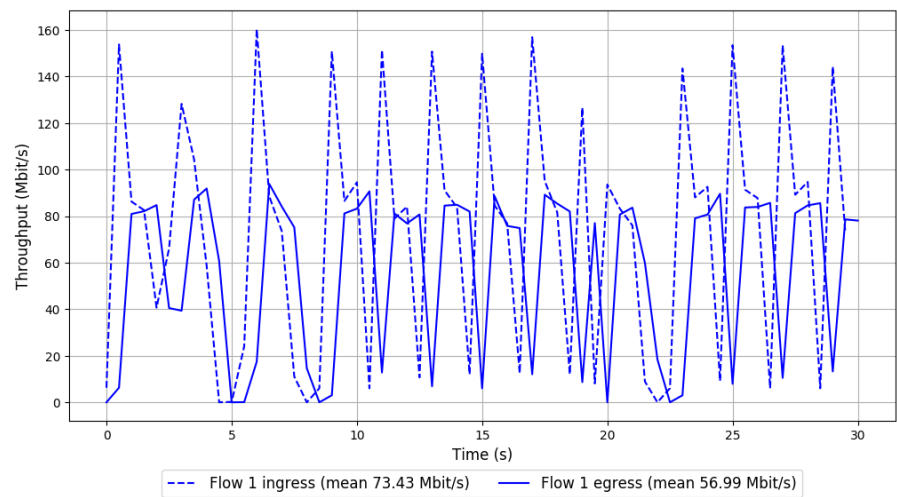


Run 5: Statistics of Verus

Start at: 2018-09-06 06:35:40
End at: 2018-09-06 06:36:10
Local clock offset: 0.102 ms
Remote clock offset: -0.129 ms

Below is generated by plot.py at 2018-09-06 06:47:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 66.051 ms
Loss rate: 22.31%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 66.051 ms
Loss rate: 22.31%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-09-06 04:40:30

End at: 2018-09-06 04:41:00

Local clock offset: 4.889 ms

Remote clock offset: -0.298 ms

Below is generated by plot.py at 2018-09-06 06:47:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.37 Mbit/s

95th percentile per-packet one-way delay: 31.818 ms

Loss rate: 0.00%

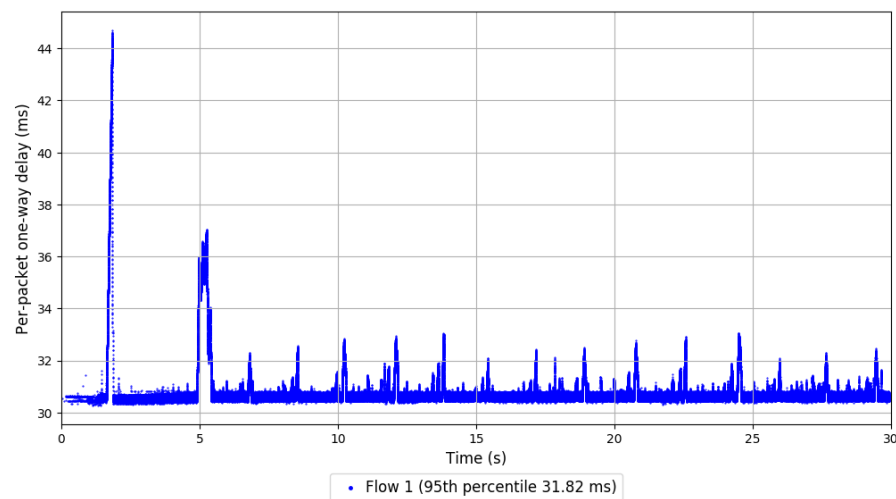
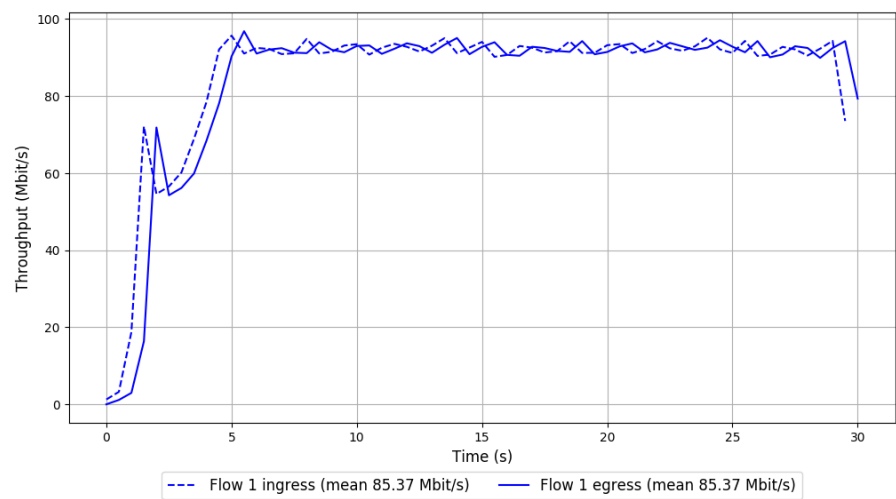
-- Flow 1:

Average throughput: 85.37 Mbit/s

95th percentile per-packet one-way delay: 31.818 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

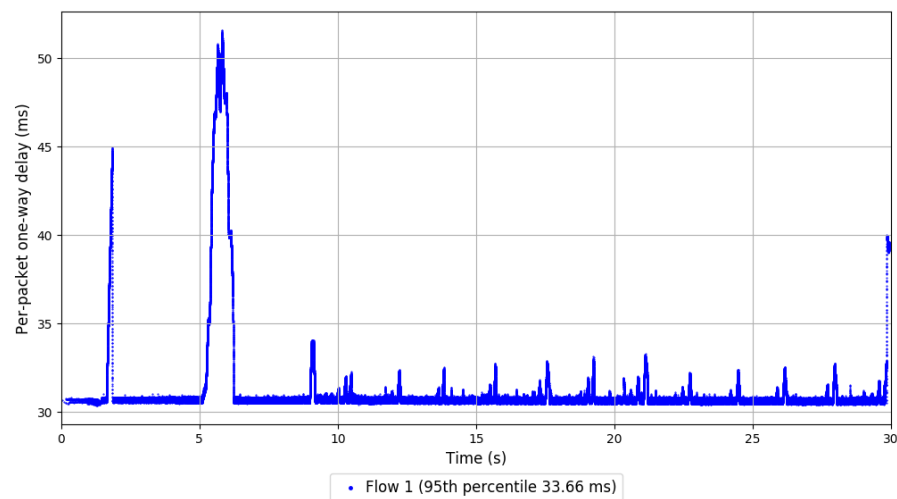
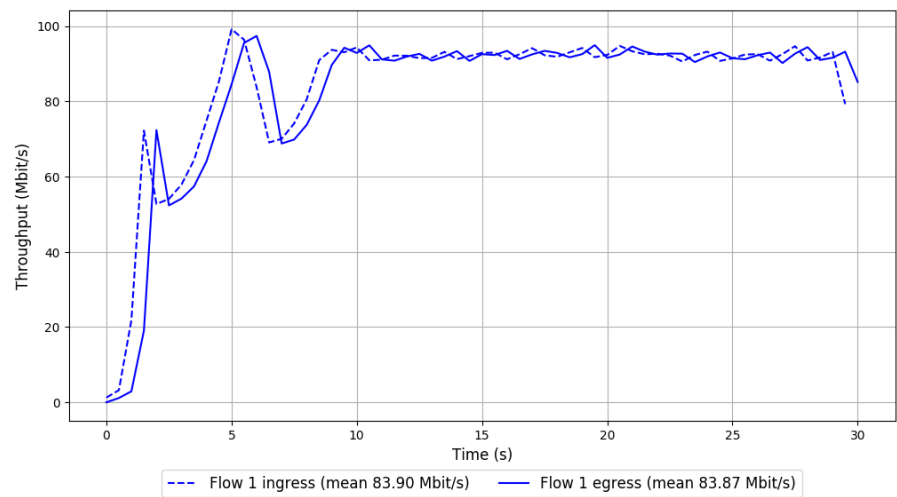


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-06 05:03:59
End at: 2018-09-06 05:04:29
Local clock offset: -3.885 ms
Remote clock offset: -0.156 ms

Below is generated by plot.py at 2018-09-06 06:47:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.87 Mbit/s
95th percentile per-packet one-way delay: 33.664 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 83.87 Mbit/s
95th percentile per-packet one-way delay: 33.664 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-09-06 05:27:32

End at: 2018-09-06 05:28:02

Local clock offset: -1.478 ms

Remote clock offset: 0.027 ms

Below is generated by plot.py at 2018-09-06 06:47:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.39 Mbit/s

95th percentile per-packet one-way delay: 32.742 ms

Loss rate: 0.00%

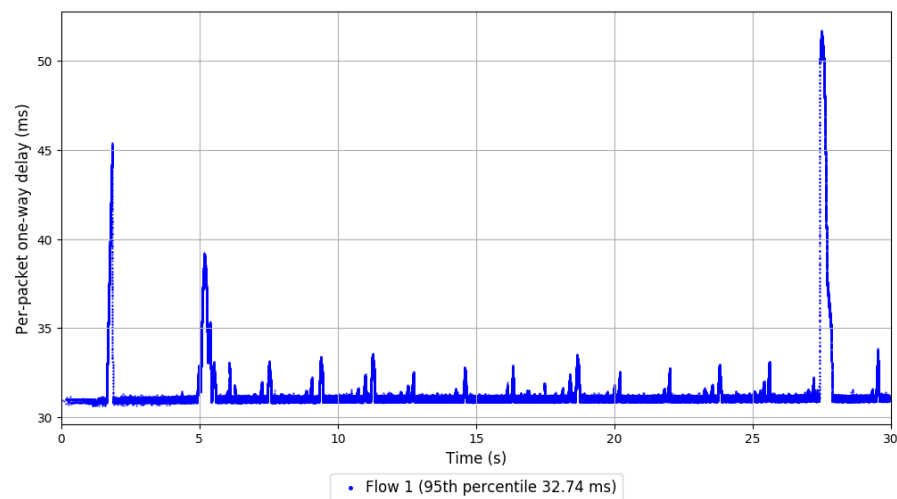
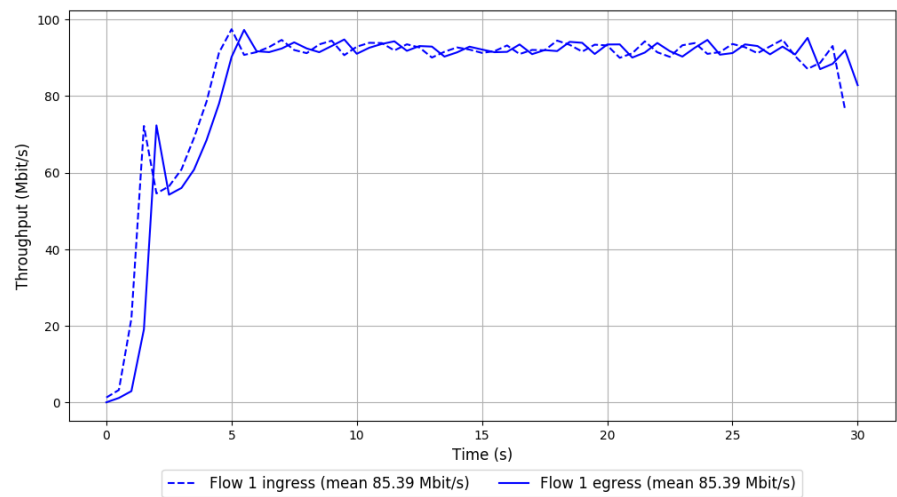
-- Flow 1:

Average throughput: 85.39 Mbit/s

95th percentile per-packet one-way delay: 32.742 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

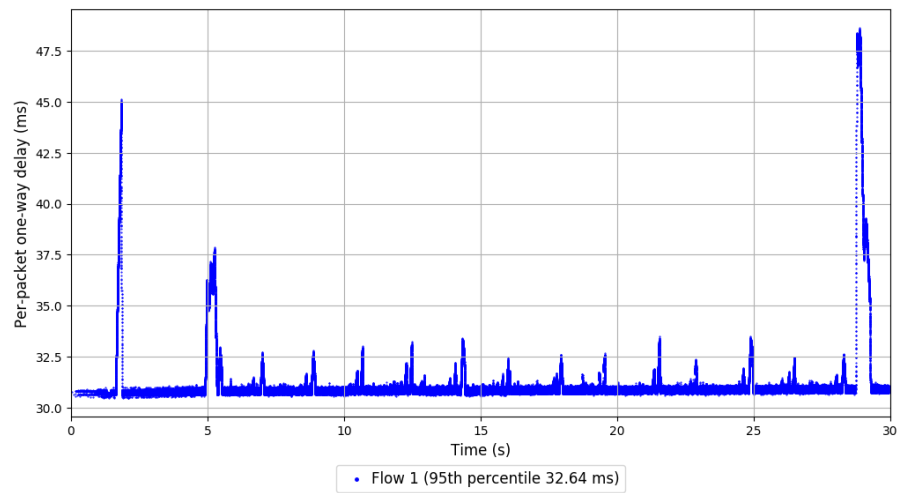
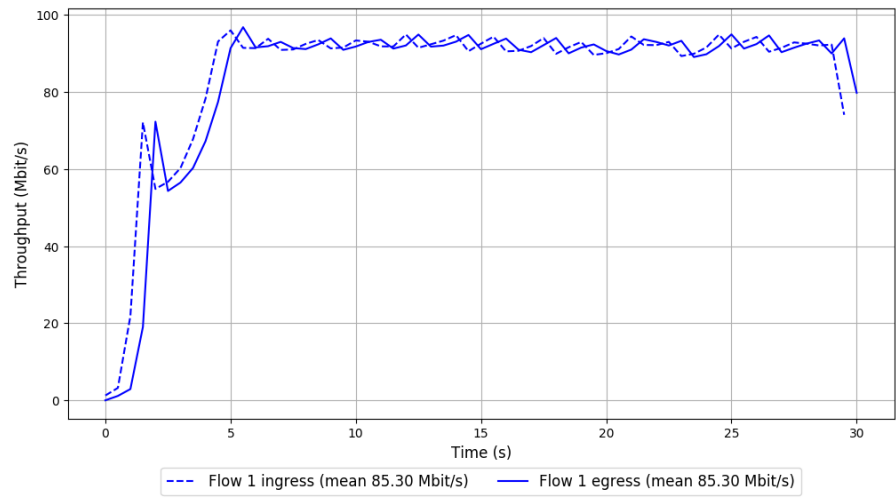


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-06 05:51:09
End at: 2018-09-06 05:51:39
Local clock offset: 1.402 ms
Remote clock offset: -0.232 ms

Below is generated by plot.py at 2018-09-06 06:47:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 32.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 32.638 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link

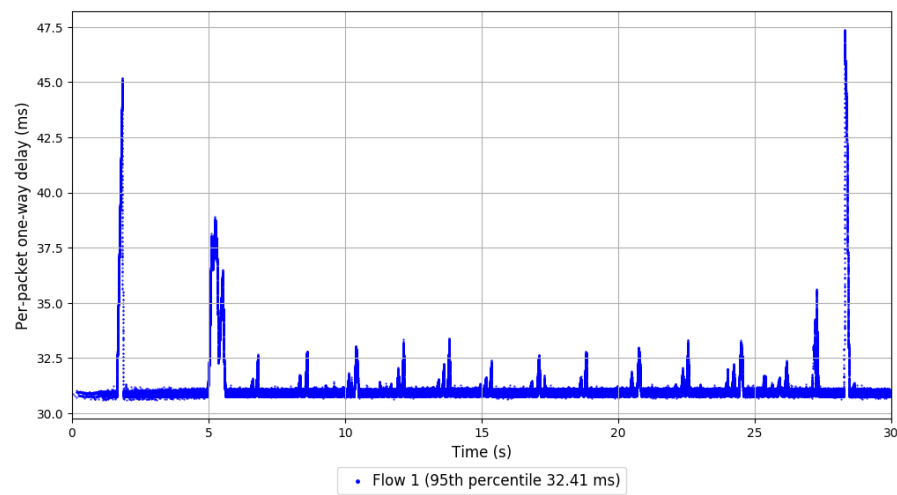
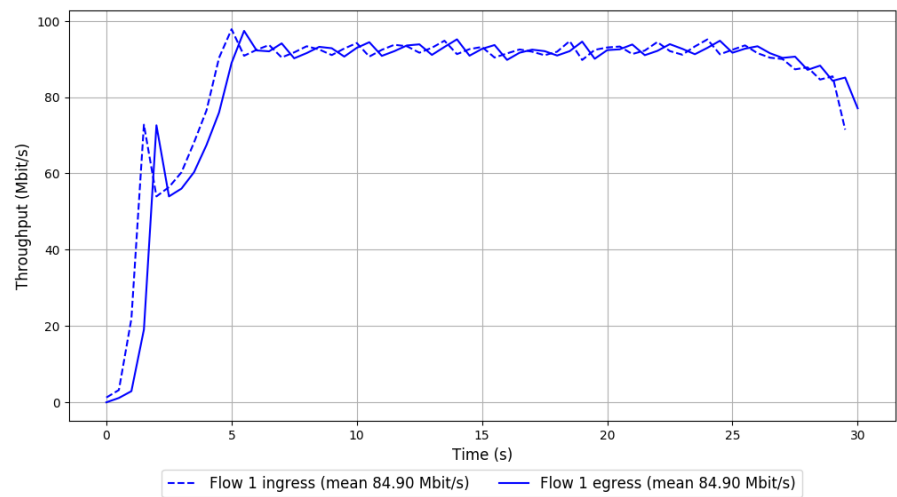


Run 5: Statistics of PCC-Vivace

Start at: 2018-09-06 06:14:39
End at: 2018-09-06 06:15:09
Local clock offset: 3.88 ms
Remote clock offset: -0.152 ms

Below is generated by plot.py at 2018-09-06 06:47:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.90 Mbit/s
95th percentile per-packet one-way delay: 32.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.90 Mbit/s
95th percentile per-packet one-way delay: 32.414 ms
Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

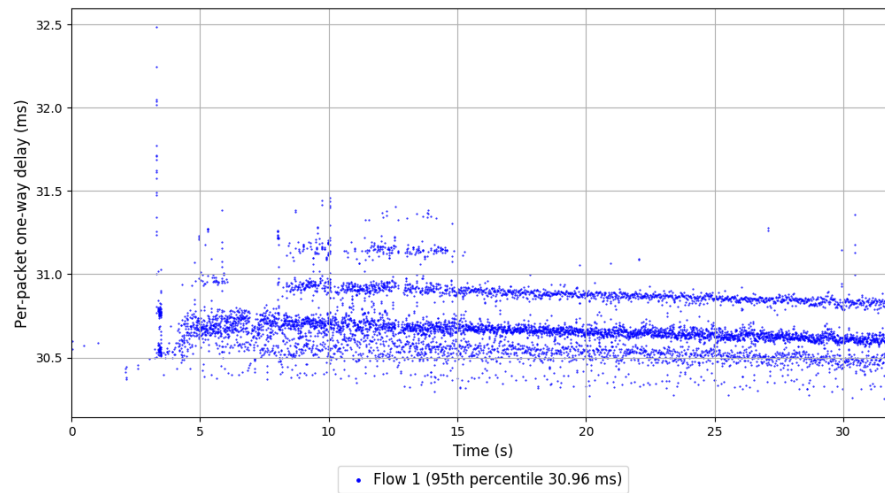
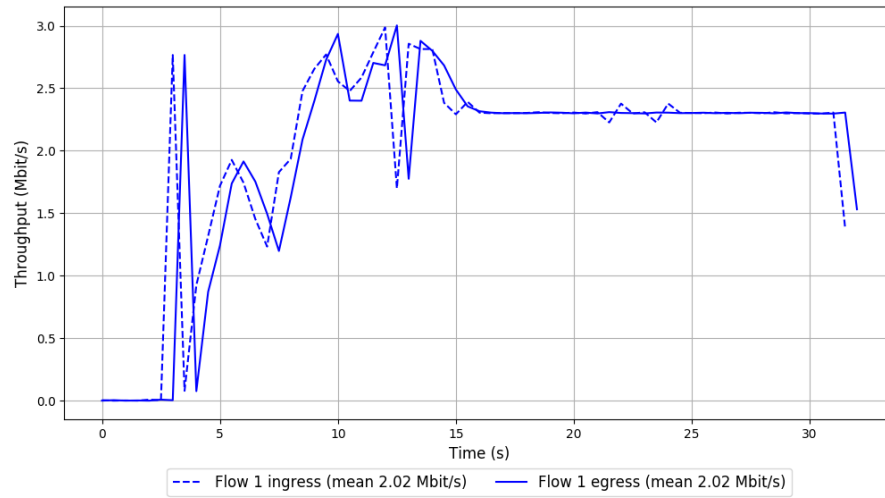


Run 1: Statistics of WebRTC media

Start at: 2018-09-06 05:00:08
End at: 2018-09-06 05:00:38
Local clock offset: -2.92 ms
Remote clock offset: -0.097 ms

Below is generated by plot.py at 2018-09-06 06:47:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 30.957 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 30.957 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-09-06 05:23:41

End at: 2018-09-06 05:24:11

Local clock offset: -2.276 ms

Remote clock offset: -0.22 ms

Below is generated by plot.py at 2018-09-06 06:47:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 31.134 ms

Loss rate: 0.00%

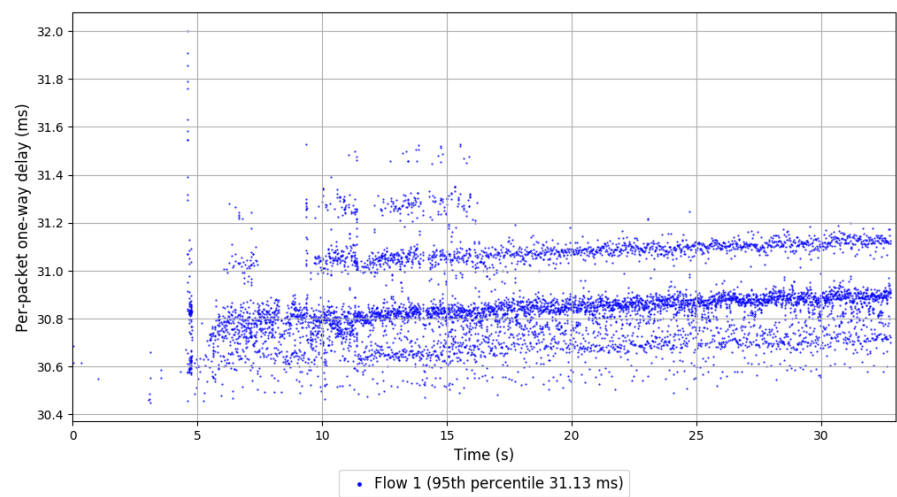
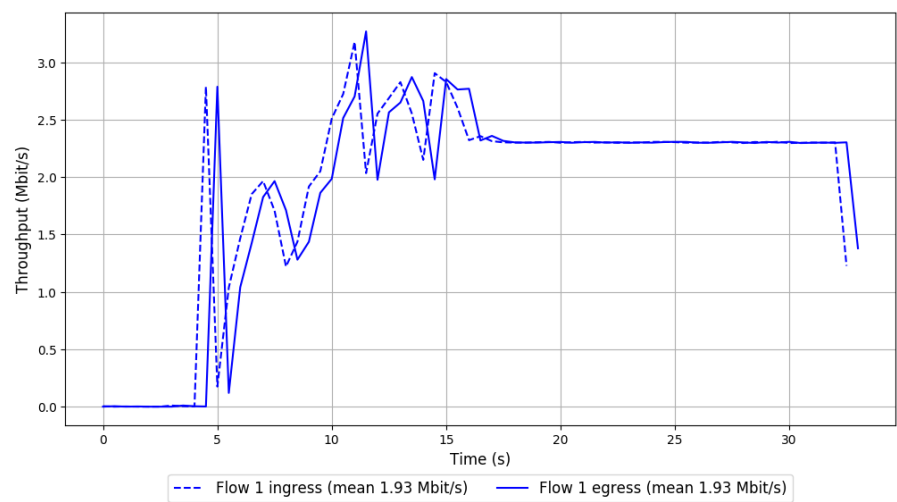
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 31.134 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-09-06 05:47:18

End at: 2018-09-06 05:47:48

Local clock offset: 0.109 ms

Remote clock offset: 0.03 ms

Below is generated by plot.py at 2018-09-06 06:47:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 31.673 ms

Loss rate: 0.00%

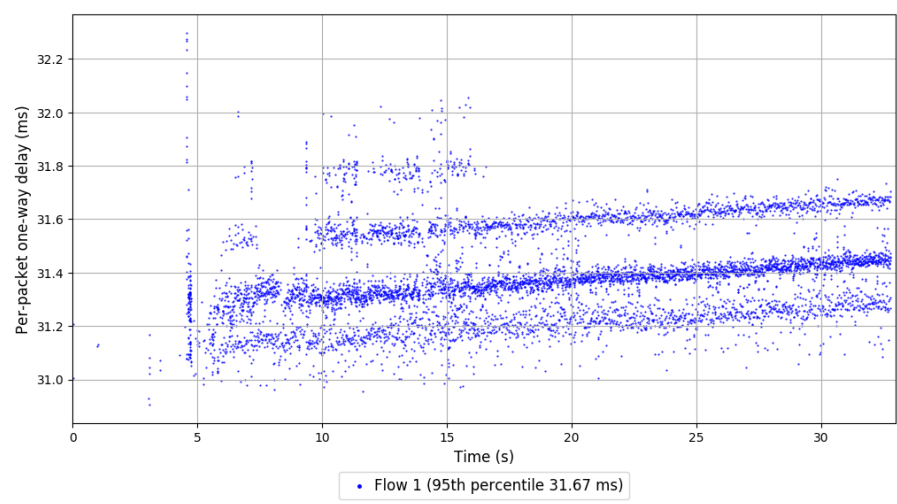
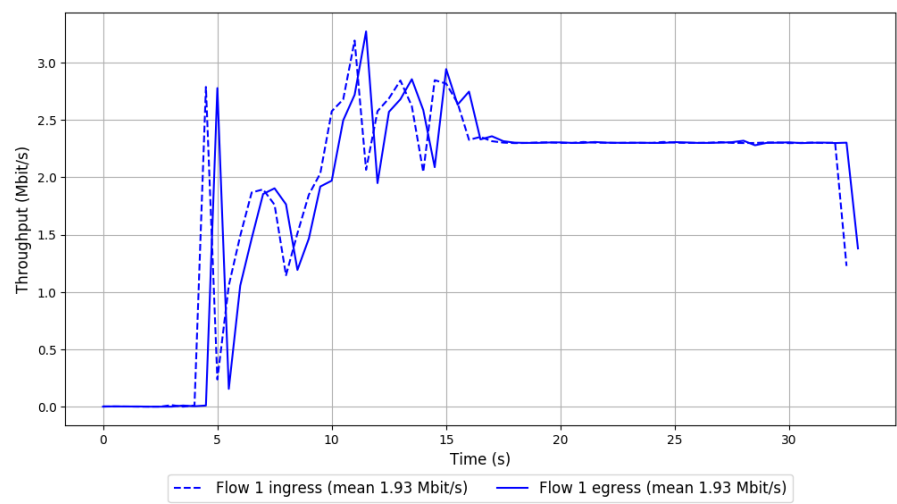
-- Flow 1:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 31.673 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

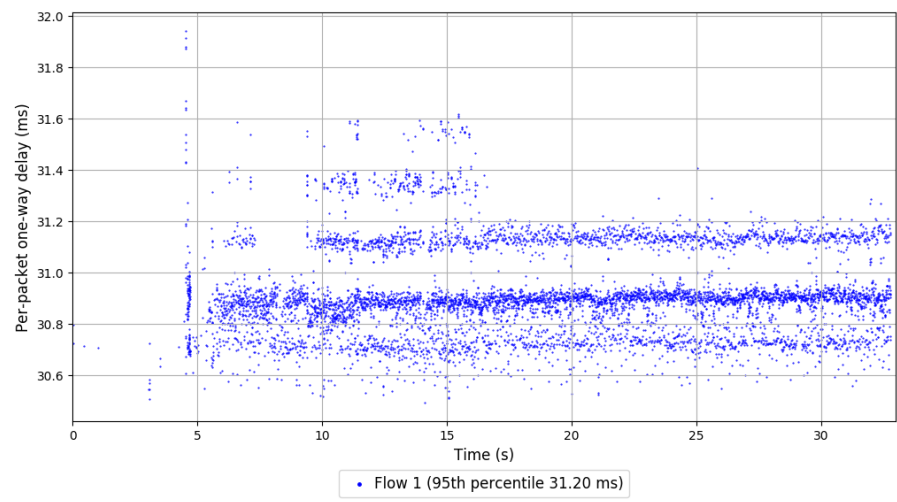
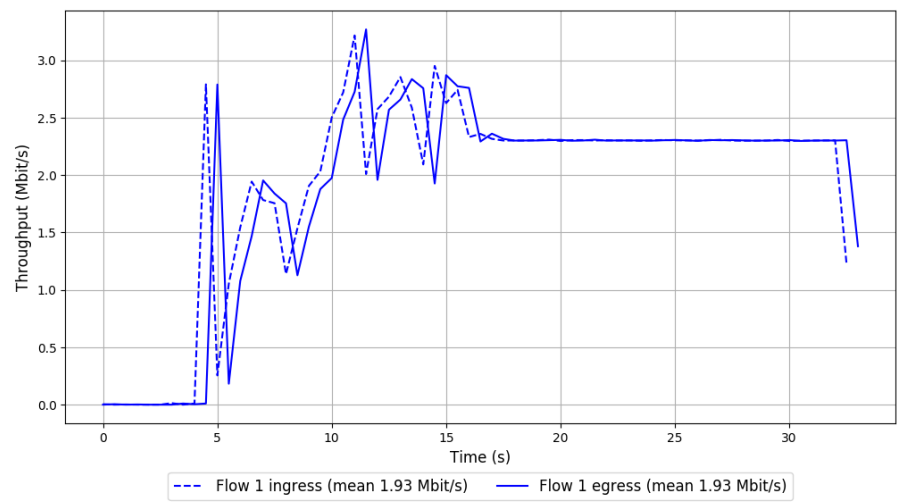


Run 4: Statistics of WebRTC media

Start at: 2018-09-06 06:10:47
End at: 2018-09-06 06:11:17
Local clock offset: 3.747 ms
Remote clock offset: -0.156 ms

Below is generated by plot.py at 2018-09-06 06:47:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.197 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.197 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-06 06:34:25
End at: 2018-09-06 06:34:55
Local clock offset: 0.277 ms
Remote clock offset: -0.208 ms

Below is generated by plot.py at 2018-09-06 06:47:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.039 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.039 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

