

Pantheon Report

Generated at 2018-10-10 02:36:41 (UTC).

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

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:

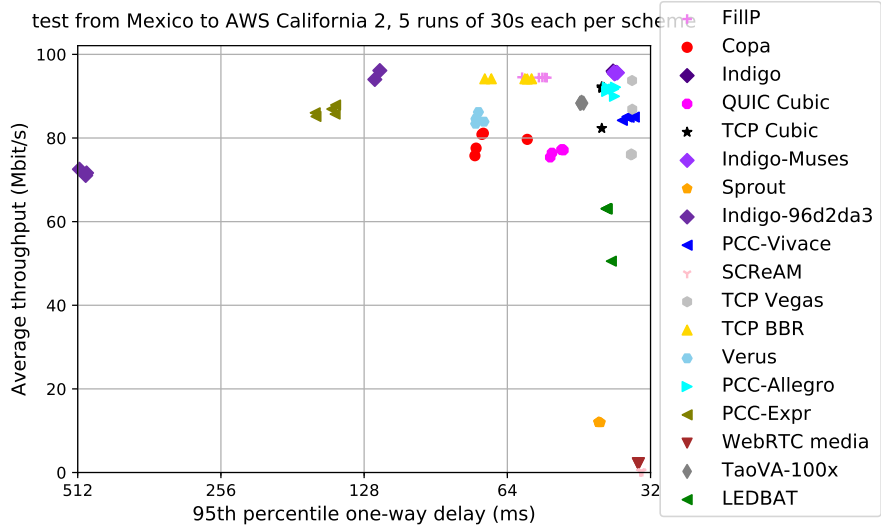
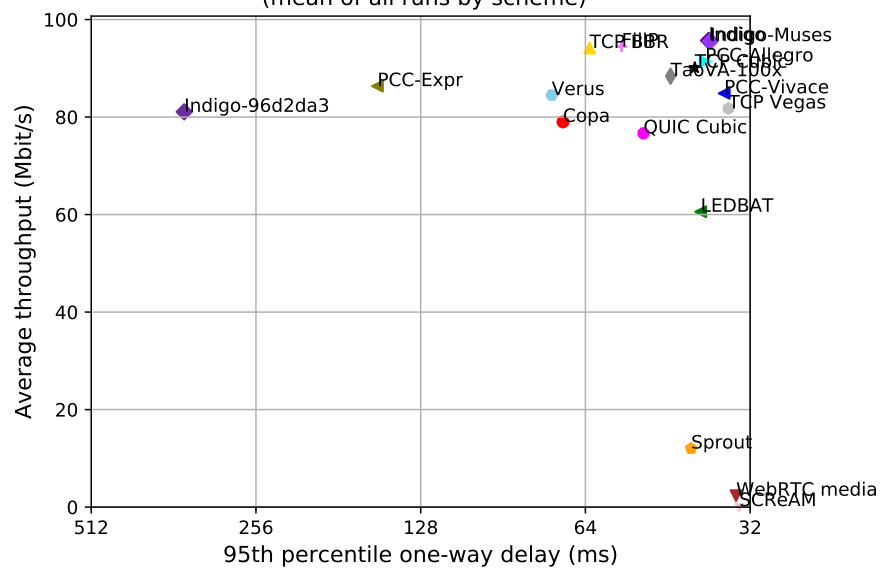
```
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6
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-quic @ 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 Mexico to AWS California 2, 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	94.16	62.88	0.82
Copa	5	79.00	70.34	0.30
TCP Cubic	5	90.13	40.40	0.21
FillP	5	94.47	54.96	0.68
Indigo	5	95.69	38.11	0.23
Indigo-96d2da3	5	81.07	346.20	4.00
LEDBAT	5	60.58	39.41	0.22
Indigo-Muses	5	95.58	37.86	0.23
PCC-Allegro	5	91.41	38.66	0.25
PCC-Expr	5	86.35	153.57	0.35
QUIC Cubic	5	76.68	50.13	0.27
SCReAM	5	0.21	33.50	0.21
Sprout	5	12.01	41.02	0.17
TaoVA-100x	5	88.38	44.73	0.21
TCP Vegas	5	81.76	35.06	0.26
Verus	5	84.51	73.75	0.52
PCC-Vivace	5	84.87	35.70	0.24
WebRTC media	5	2.33	33.95	0.25

Run 1: Statistics of TCP BBR

Start at: 2018-10-10 00:24:30

End at: 2018-10-10 00:25:00

Local clock offset: 5.02 ms

Remote clock offset: -3.968 ms

Below is generated by plot.py at 2018-10-10 02:26:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.12 Mbit/s

95th percentile per-packet one-way delay: 58.126 ms

Loss rate: 0.75%

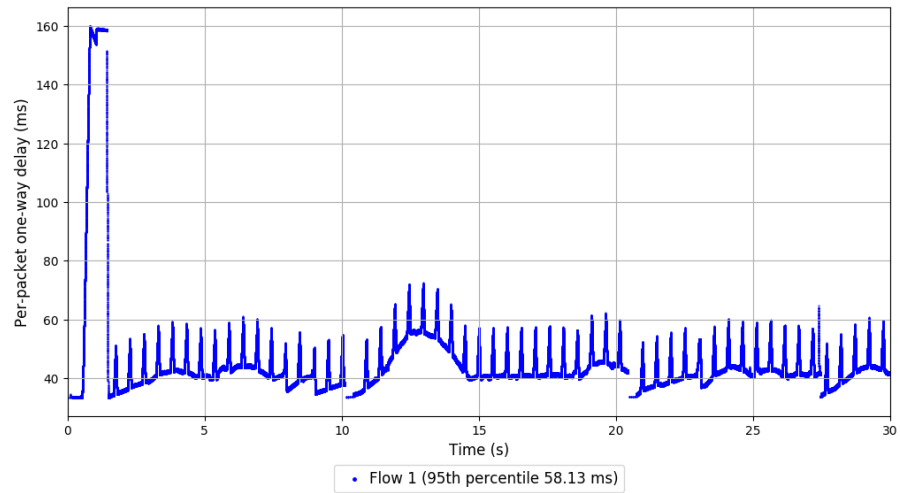
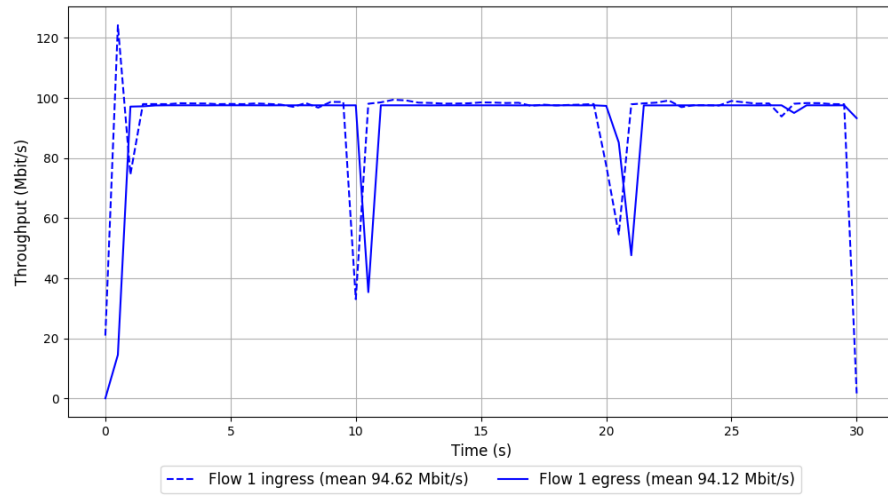
-- Flow 1:

Average throughput: 94.12 Mbit/s

95th percentile per-packet one-way delay: 58.126 ms

Loss rate: 0.75%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-10-10 00:48:32

End at: 2018-10-10 00:49:02

Local clock offset: 0.81 ms

Remote clock offset: -3.624 ms

Below is generated by plot.py at 2018-10-10 02:26:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.16 Mbit/s

95th percentile per-packet one-way delay: 71.380 ms

Loss rate: 0.93%

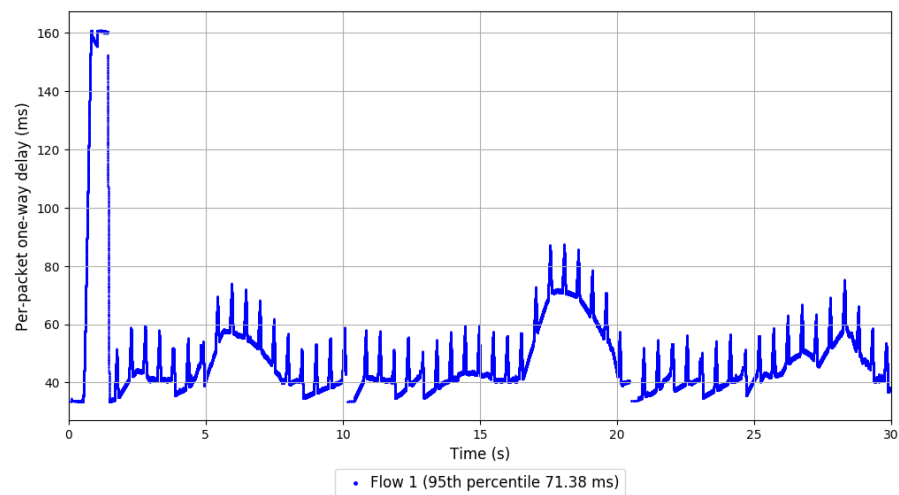
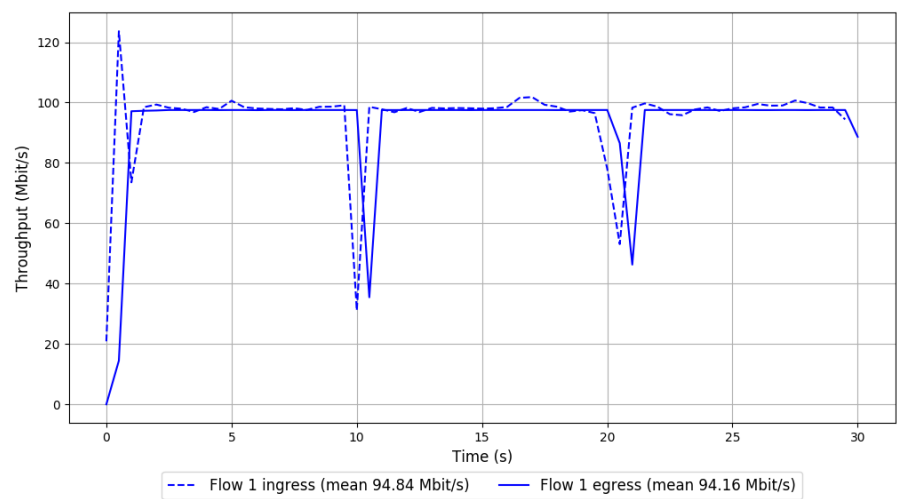
-- Flow 1:

Average throughput: 94.16 Mbit/s

95th percentile per-packet one-way delay: 71.380 ms

Loss rate: 0.93%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-10-10 01:12:56

End at: 2018-10-10 01:13:26

Local clock offset: 4.06 ms

Remote clock offset: -3.413 ms

Below is generated by plot.py at 2018-10-10 02:26:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.17 Mbit/s

95th percentile per-packet one-way delay: 69.161 ms

Loss rate: 0.89%

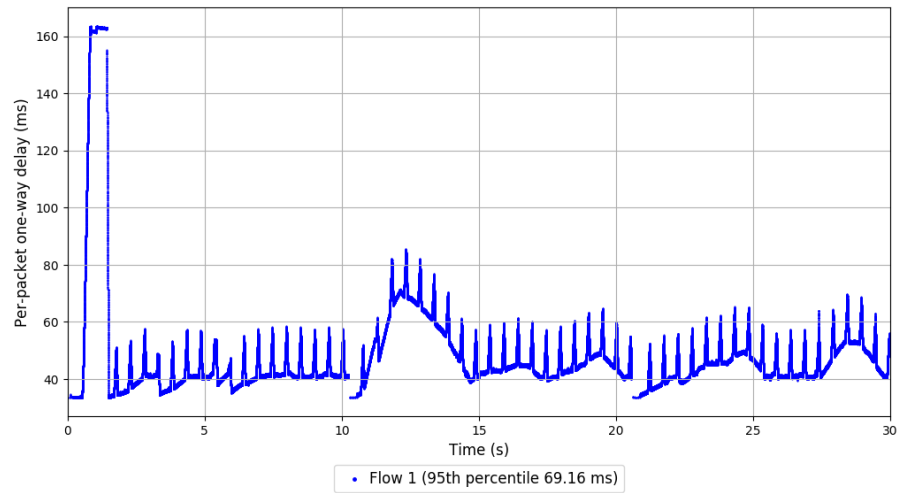
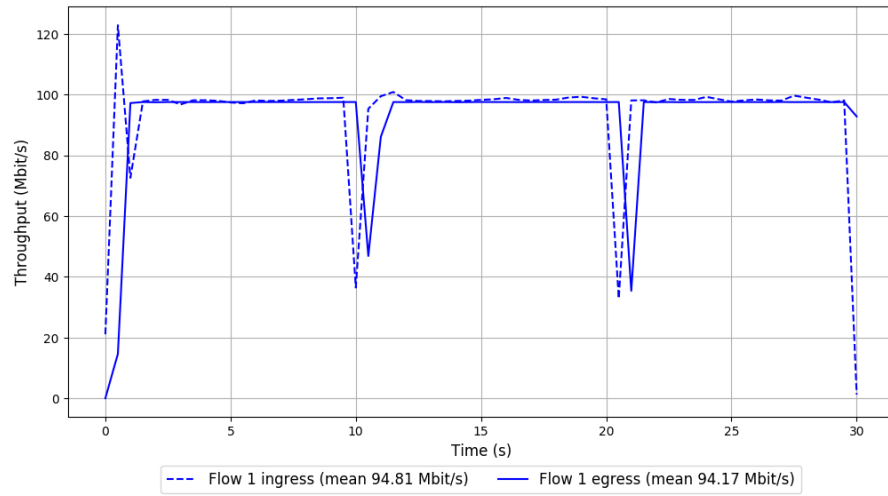
-- Flow 1:

Average throughput: 94.17 Mbit/s

95th percentile per-packet one-way delay: 69.161 ms

Loss rate: 0.89%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-10-10 01:37:08

End at: 2018-10-10 01:37:38

Local clock offset: 4.572 ms

Remote clock offset: -2.971 ms

Below is generated by plot.py at 2018-10-10 02:26:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.17 Mbit/s

95th percentile per-packet one-way delay: 58.789 ms

Loss rate: 0.67%

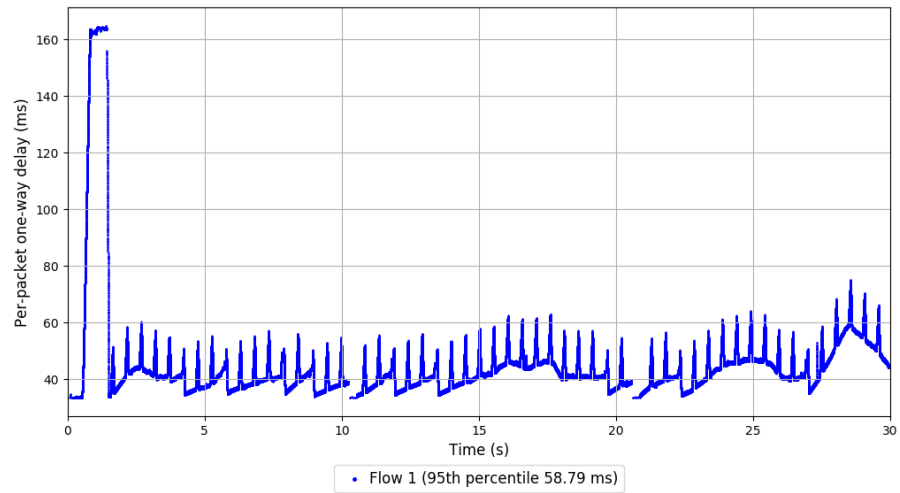
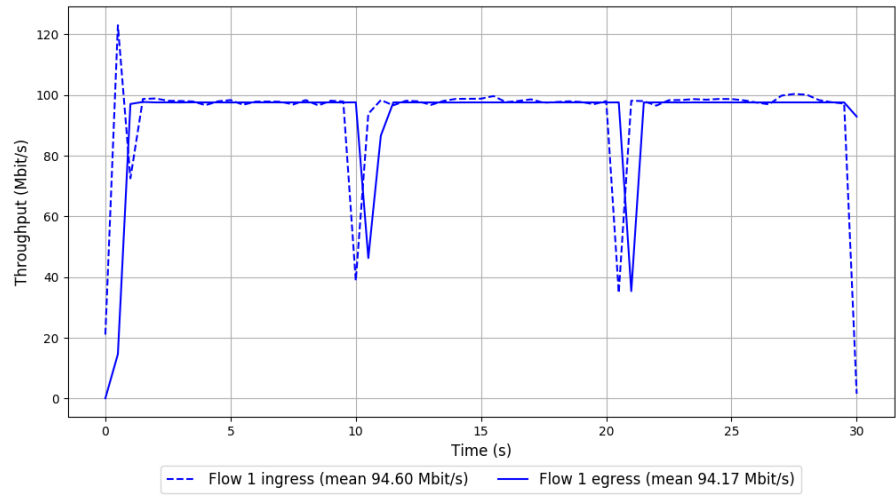
-- Flow 1:

Average throughput: 94.17 Mbit/s

95th percentile per-packet one-way delay: 58.789 ms

Loss rate: 0.67%

Run 4: Report of TCP BBR — Data Link

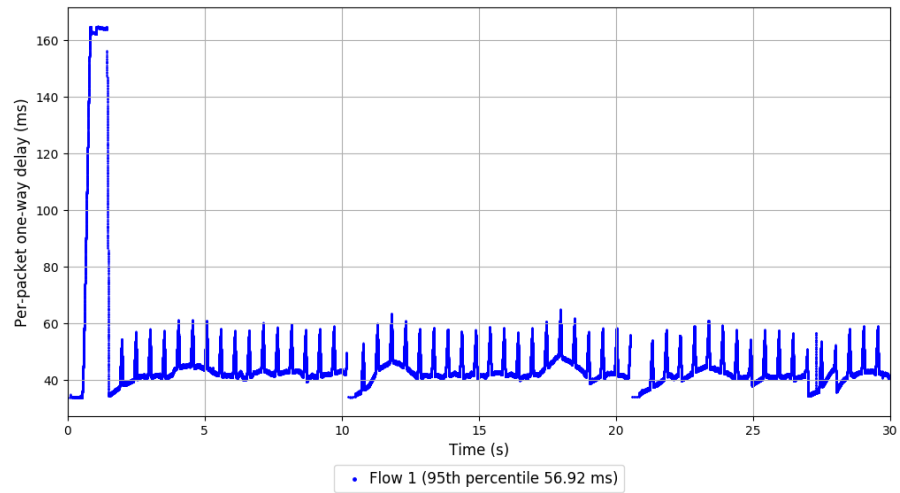
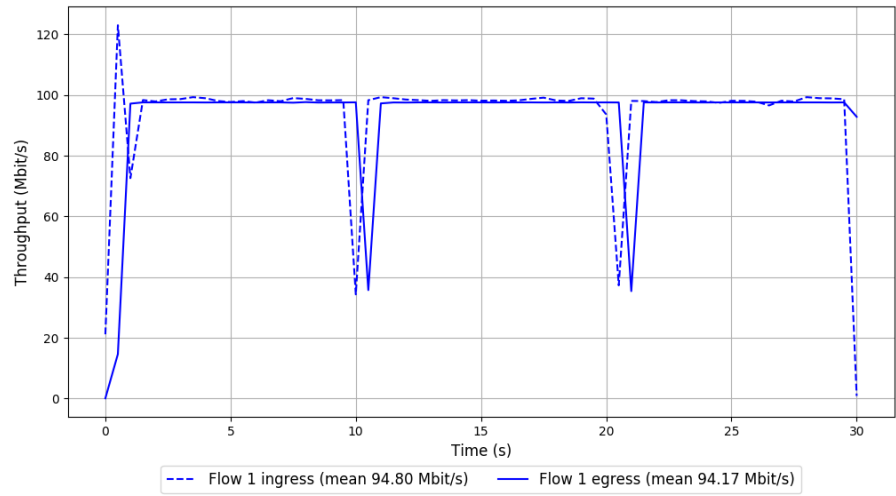


Run 5: Statistics of TCP BBR

Start at: 2018-10-10 02:01:20
End at: 2018-10-10 02:01:50
Local clock offset: 2.93 ms
Remote clock offset: -2.964 ms

Below is generated by plot.py at 2018-10-10 02:26:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 56.924 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 94.17 Mbit/s
95th percentile per-packet one-way delay: 56.924 ms
Loss rate: 0.87%

Run 5: Report of TCP BBR — Data Link

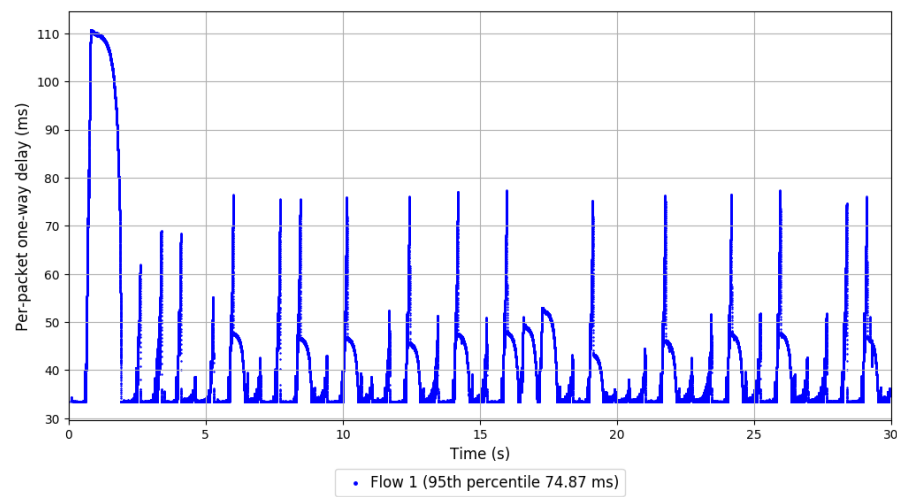
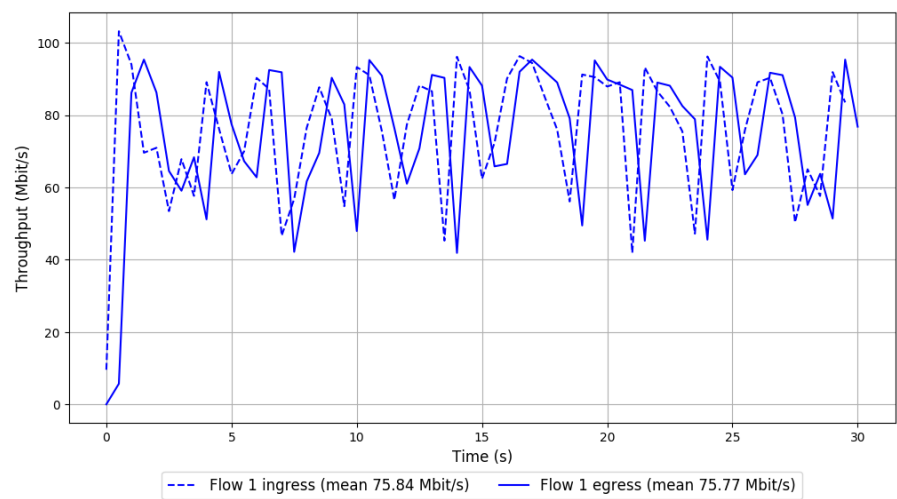


Run 1: Statistics of Copa

Start at: 2018-10-10 00:43:06
End at: 2018-10-10 00:43:36
Local clock offset: 1.205 ms
Remote clock offset: -3.678 ms

Below is generated by plot.py at 2018-10-10 02:26:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 74.873 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 75.77 Mbit/s
95th percentile per-packet one-way delay: 74.873 ms
Loss rate: 0.31%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-10-10 01:07:26

End at: 2018-10-10 01:07:56

Local clock offset: 3.582 ms

Remote clock offset: -3.43 ms

Below is generated by plot.py at 2018-10-10 02:26:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.58 Mbit/s

95th percentile per-packet one-way delay: 74.449 ms

Loss rate: 0.35%

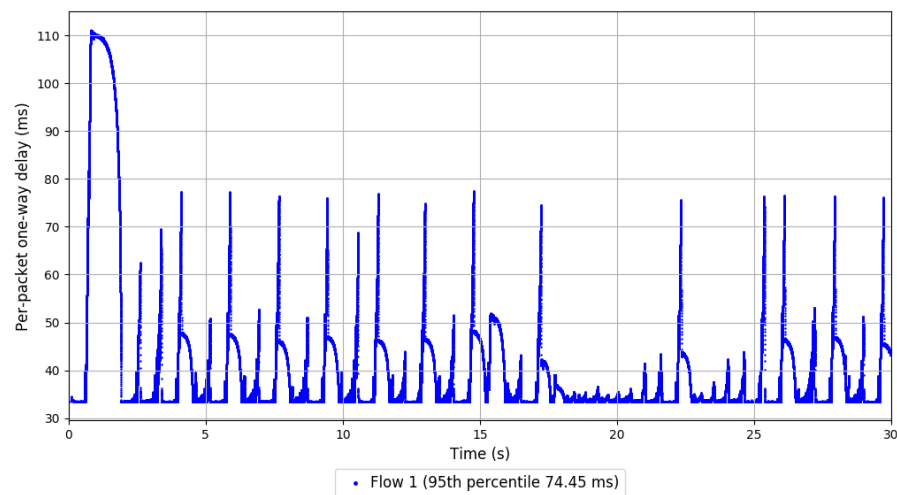
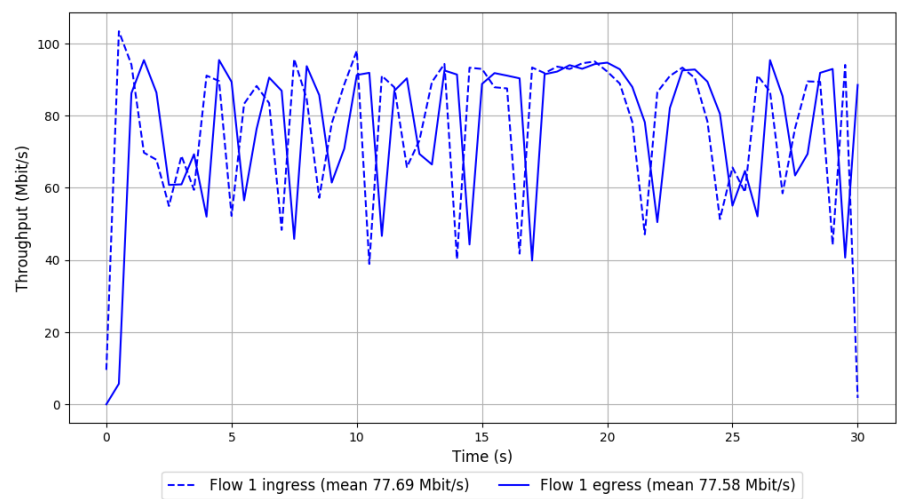
-- Flow 1:

Average throughput: 77.58 Mbit/s

95th percentile per-packet one-way delay: 74.449 ms

Loss rate: 0.35%

Run 2: Report of Copa — Data Link

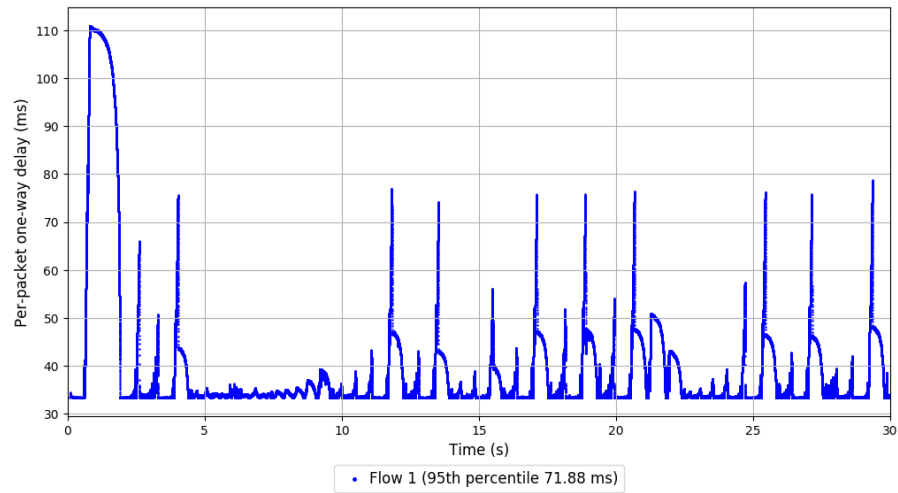
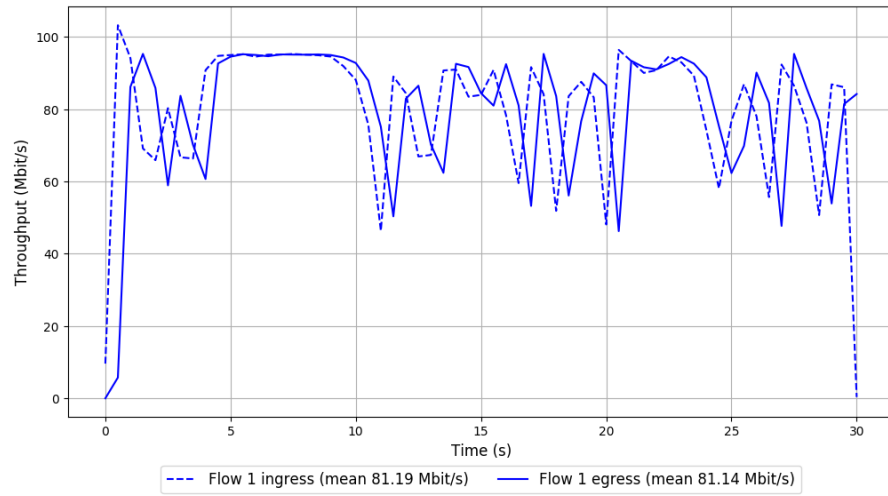


Run 3: Statistics of Copa

Start at: 2018-10-10 01:31:44
End at: 2018-10-10 01:32:14
Local clock offset: 4.573 ms
Remote clock offset: -2.991 ms

Below is generated by plot.py at 2018-10-10 02:26:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.14 Mbit/s
95th percentile per-packet one-way delay: 71.880 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 81.14 Mbit/s
95th percentile per-packet one-way delay: 71.880 ms
Loss rate: 0.27%

Run 3: Report of Copa — Data Link

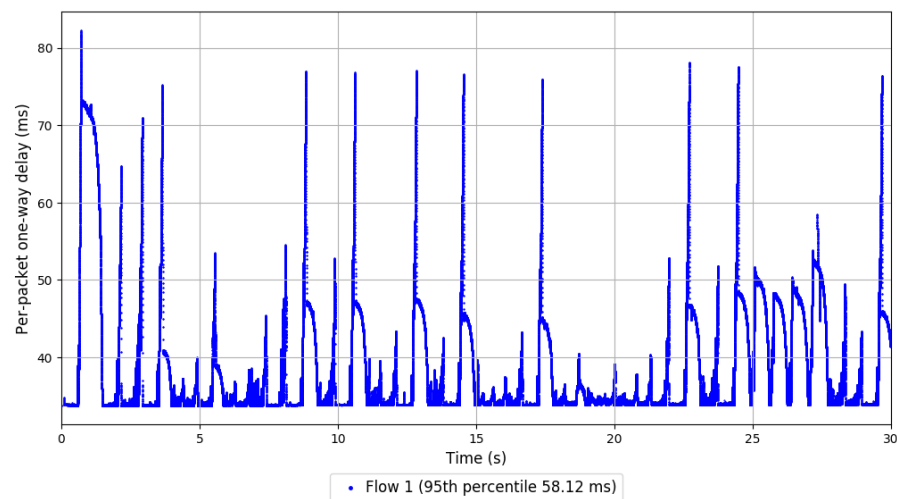
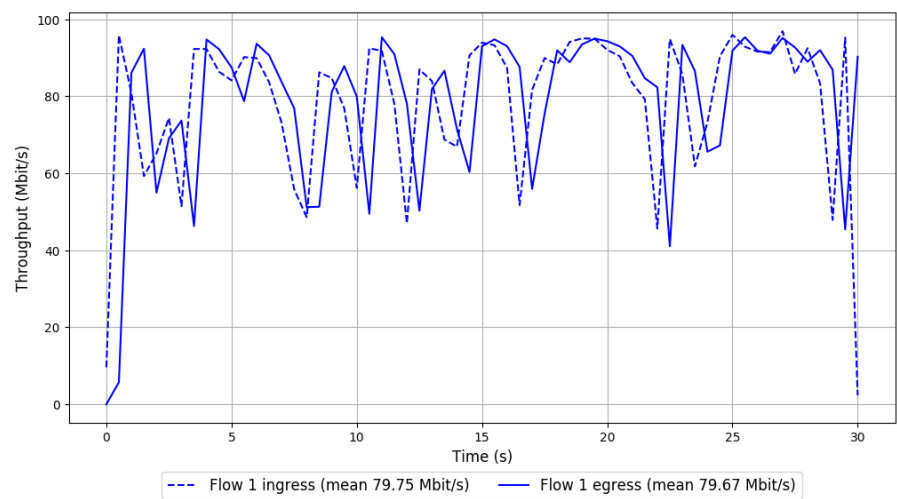


Run 4: Statistics of Copa

Start at: 2018-10-10 01:55:50
End at: 2018-10-10 01:56:20
Local clock offset: 4.317 ms
Remote clock offset: -2.966 ms

Below is generated by plot.py at 2018-10-10 02:27:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 58.116 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 79.67 Mbit/s
95th percentile per-packet one-way delay: 58.116 ms
Loss rate: 0.31%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-10-10 02:20:04

End at: 2018-10-10 02:20:34

Local clock offset: 1.669 ms

Remote clock offset: -2.62 ms

Below is generated by plot.py at 2018-10-10 02:27:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.86 Mbit/s

95th percentile per-packet one-way delay: 72.373 ms

Loss rate: 0.28%

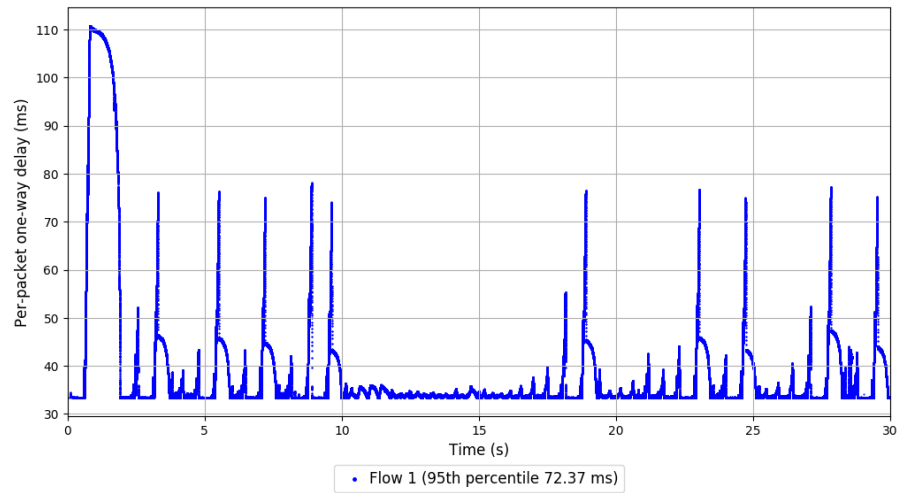
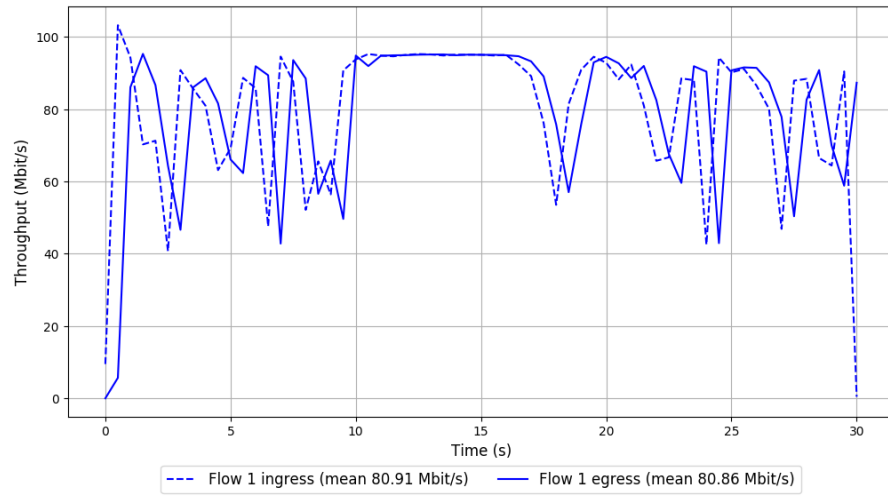
-- Flow 1:

Average throughput: 80.86 Mbit/s

95th percentile per-packet one-way delay: 72.373 ms

Loss rate: 0.28%

Run 5: Report of Copa — Data Link

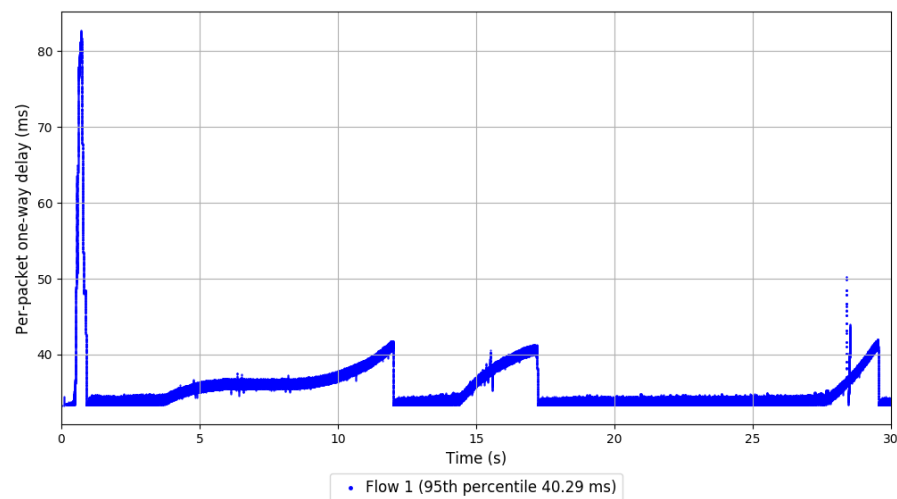
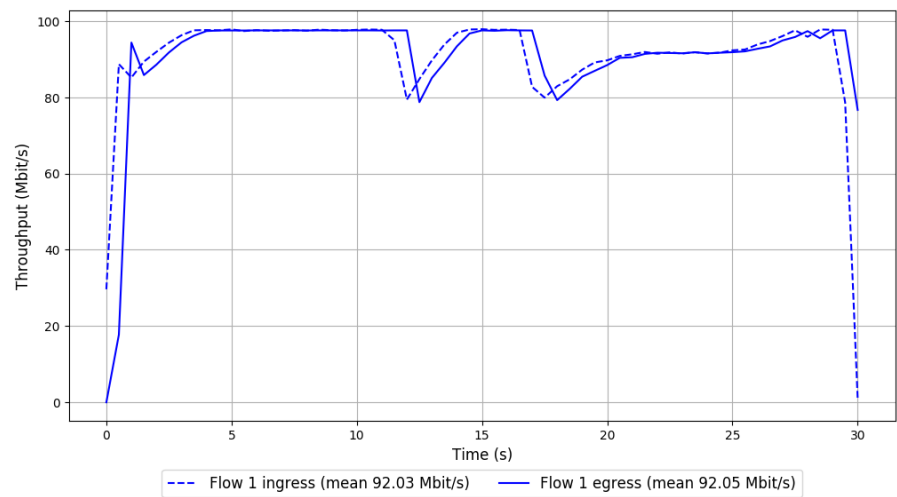


Run 1: Statistics of TCP Cubic

Start at: 2018-10-10 00:23:10
End at: 2018-10-10 00:23:40
Local clock offset: 4.974 ms
Remote clock offset: -3.805 ms

Below is generated by plot.py at 2018-10-10 02:27:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.05 Mbit/s
95th percentile per-packet one-way delay: 40.287 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 92.05 Mbit/s
95th percentile per-packet one-way delay: 40.287 ms
Loss rate: 0.19%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-10-10 00:47:12

End at: 2018-10-10 00:47:42

Local clock offset: 0.874 ms

Remote clock offset: -3.79 ms

Below is generated by plot.py at 2018-10-10 02:27:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.32 Mbit/s

95th percentile per-packet one-way delay: 40.523 ms

Loss rate: 0.26%

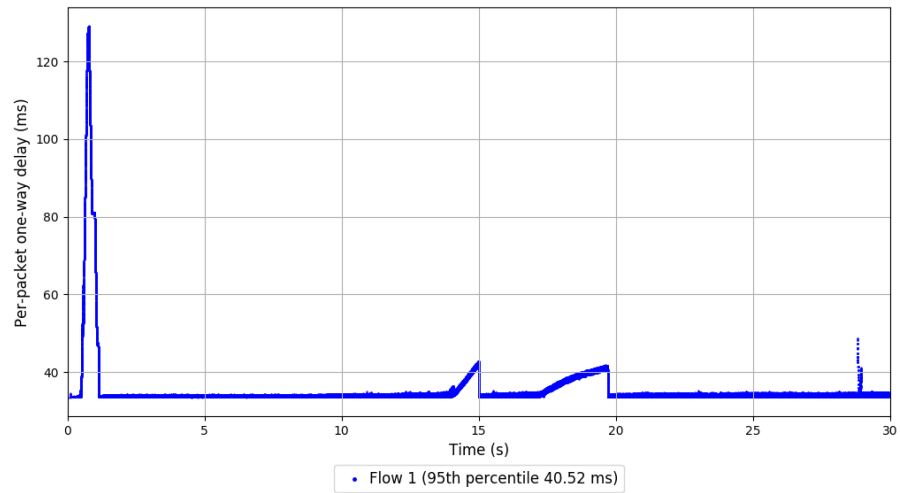
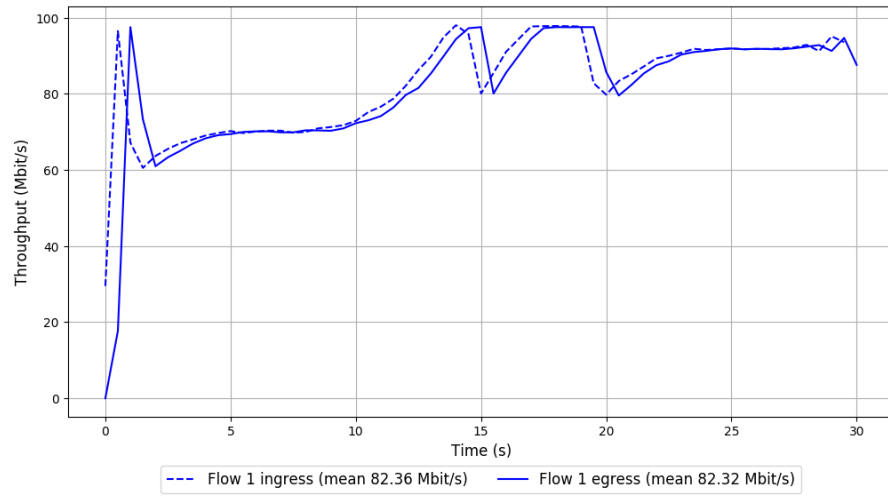
-- Flow 1:

Average throughput: 82.32 Mbit/s

95th percentile per-packet one-way delay: 40.523 ms

Loss rate: 0.26%

Run 2: Report of TCP Cubic — Data Link

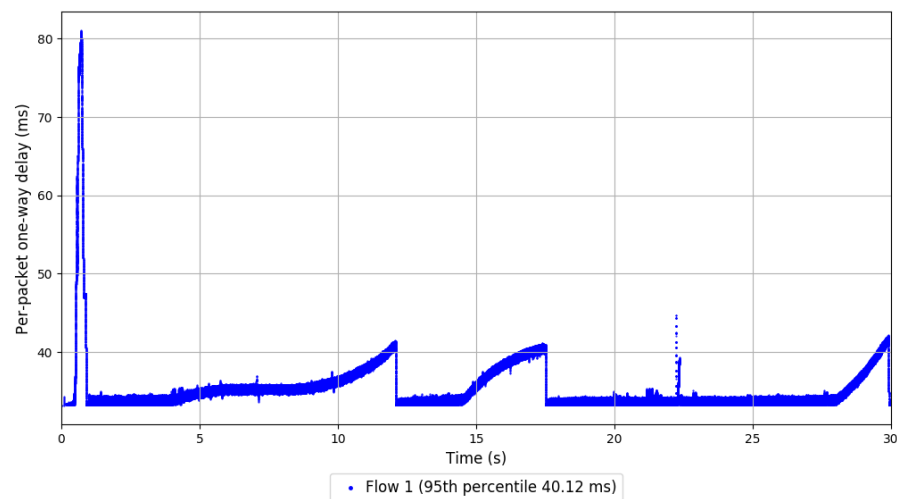
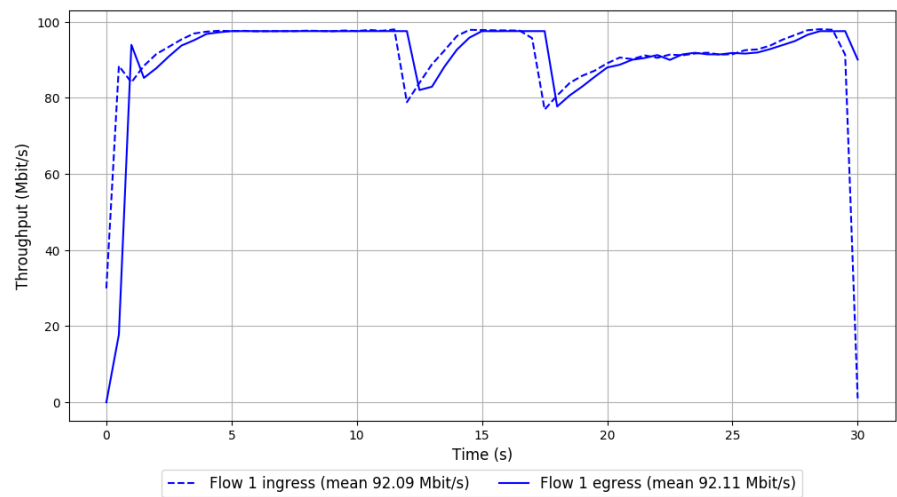


Run 3: Statistics of TCP Cubic

Start at: 2018-10-10 01:11:35
End at: 2018-10-10 01:12:05
Local clock offset: 3.988 ms
Remote clock offset: -3.218 ms

Below is generated by plot.py at 2018-10-10 02:27:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 40.124 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 92.11 Mbit/s
95th percentile per-packet one-way delay: 40.124 ms
Loss rate: 0.18%

Run 3: Report of TCP Cubic — Data Link

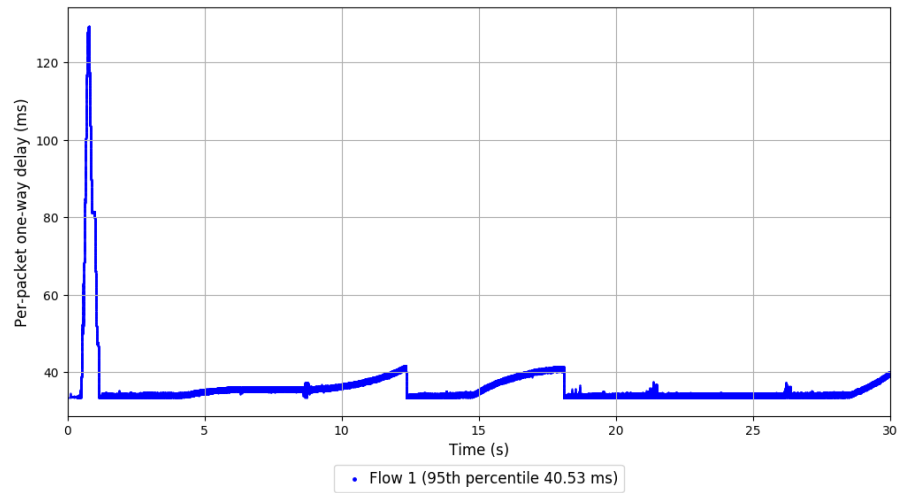
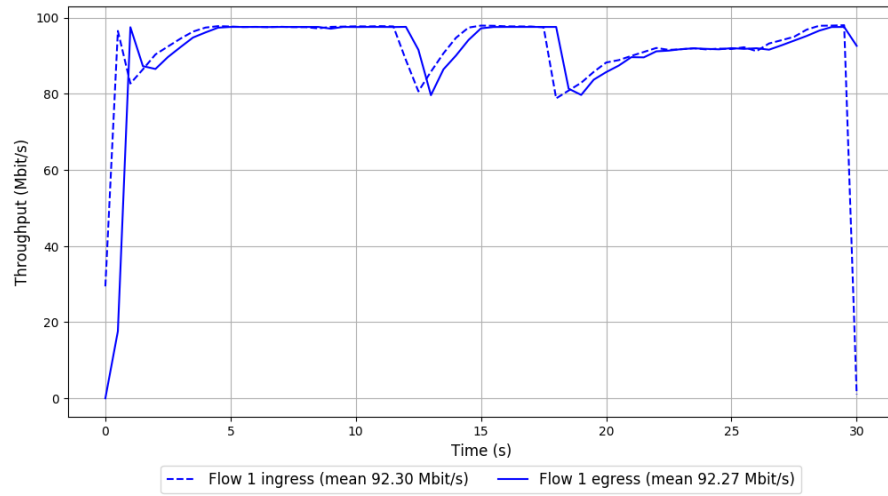


Run 4: Statistics of TCP Cubic

Start at: 2018-10-10 01:35:47
End at: 2018-10-10 01:36:17
Local clock offset: 4.572 ms
Remote clock offset: -2.986 ms

Below is generated by plot.py at 2018-10-10 02:27:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 40.531 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 40.531 ms
Loss rate: 0.25%

Run 4: Report of TCP Cubic — Data Link

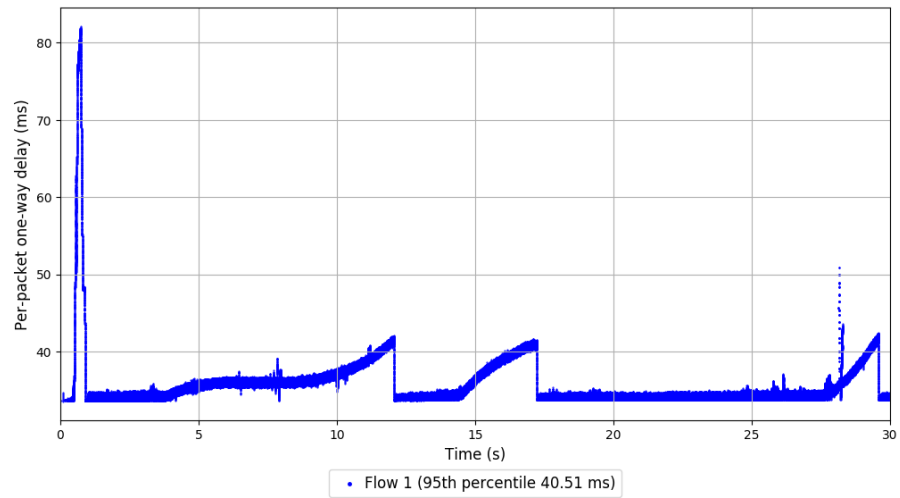
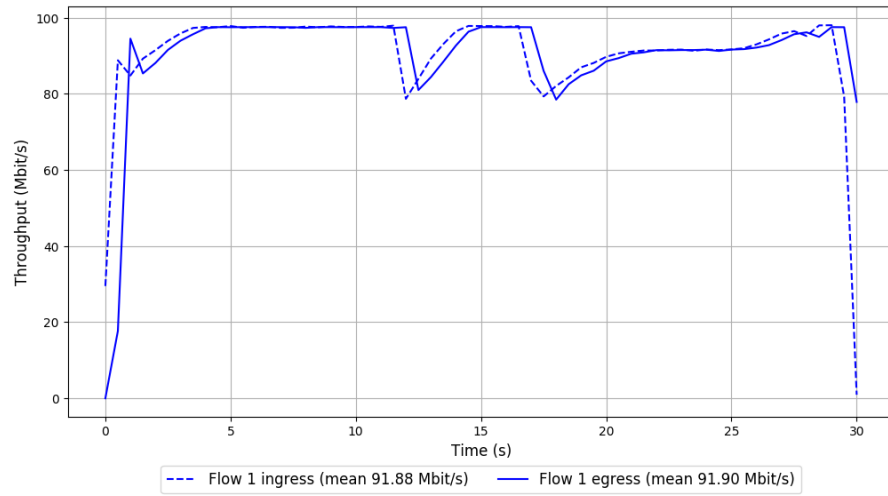


Run 5: Statistics of TCP Cubic

Start at: 2018-10-10 02:00:00
End at: 2018-10-10 02:00:30
Local clock offset: 3.215 ms
Remote clock offset: -2.777 ms

Below is generated by plot.py at 2018-10-10 02:27:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 40.514 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 40.514 ms
Loss rate: 0.19%

Run 5: Report of TCP Cubic — Data Link

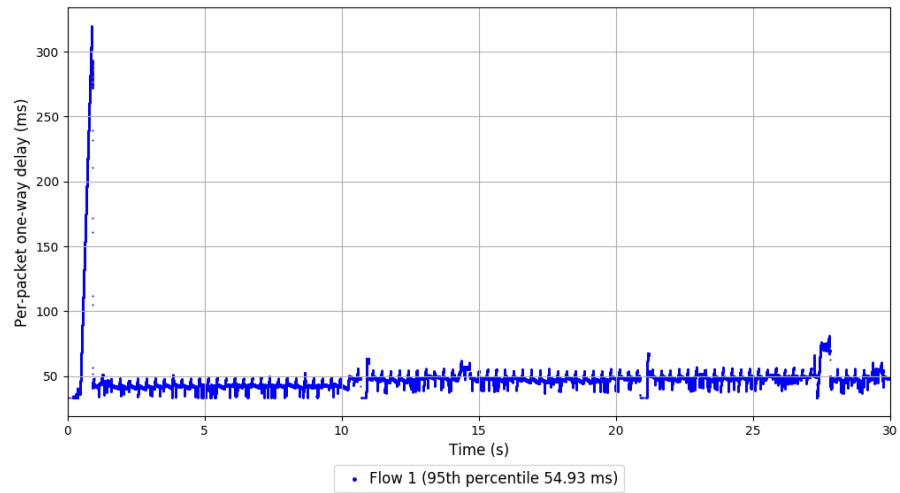
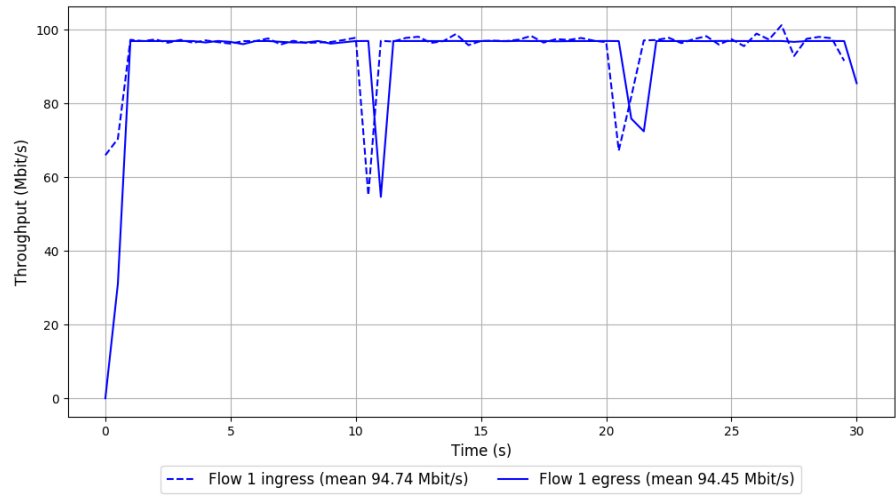


Run 1: Statistics of FillP

Start at: 2018-10-10 00:45:52
End at: 2018-10-10 00:46:22
Local clock offset: 0.983 ms
Remote clock offset: -3.651 ms

Below is generated by plot.py at 2018-10-10 02:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 54.932 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 54.932 ms
Loss rate: 0.52%

Run 1: Report of FillP — Data Link

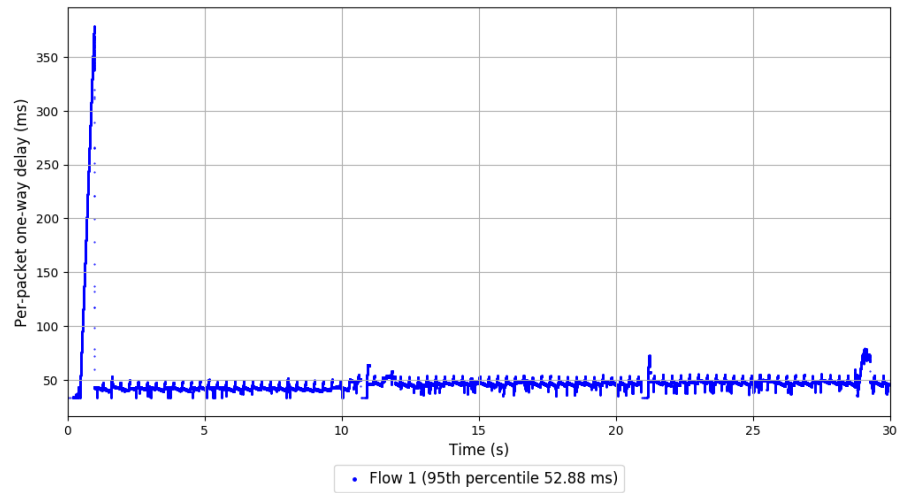
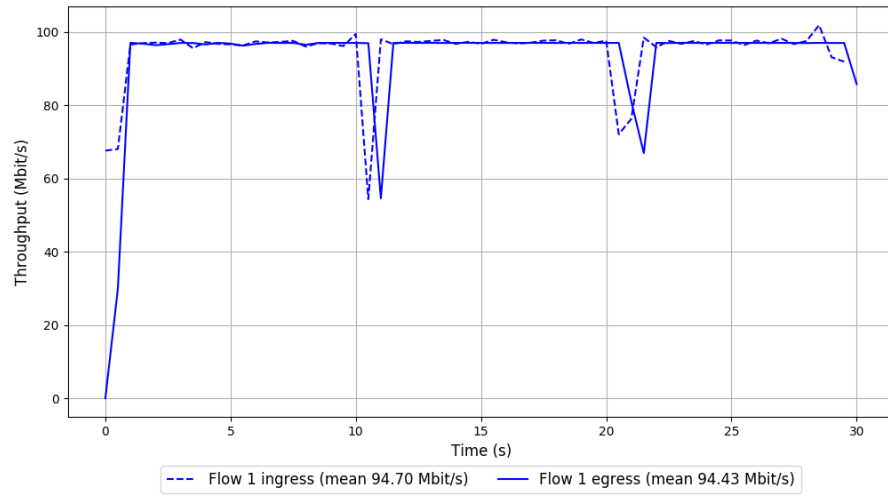


Run 2: Statistics of FillP

Start at: 2018-10-10 01:10:15
End at: 2018-10-10 01:10:45
Local clock offset: 3.847 ms
Remote clock offset: -3.372 ms

Below is generated by plot.py at 2018-10-10 02:28:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.43 Mbit/s
95th percentile per-packet one-way delay: 52.882 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 94.43 Mbit/s
95th percentile per-packet one-way delay: 52.882 ms
Loss rate: 0.50%

Run 2: Report of FillP — Data Link

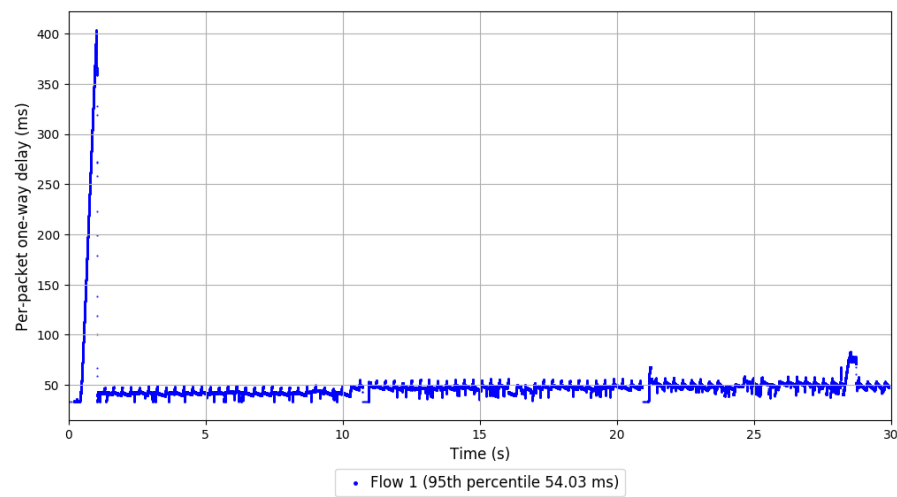
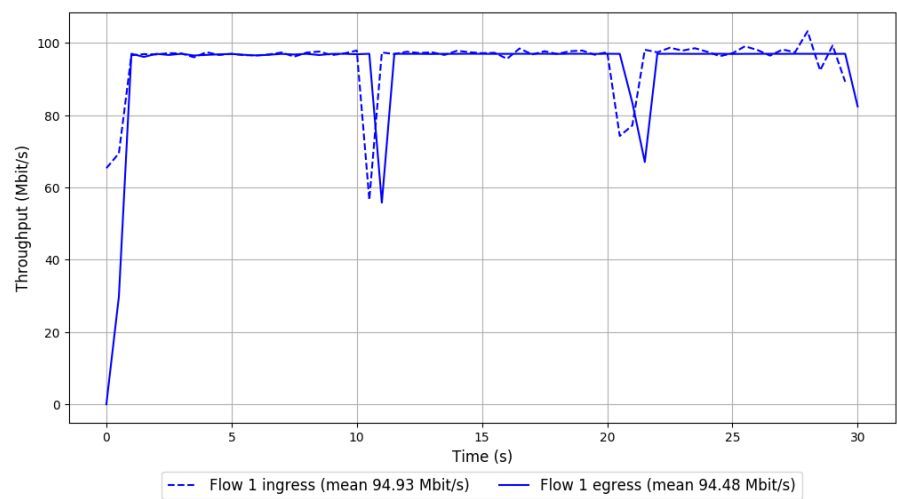


Run 3: Statistics of FillP

Start at: 2018-10-10 01:34:28
End at: 2018-10-10 01:34:58
Local clock offset: 4.568 ms
Remote clock offset: -2.929 ms

Below is generated by plot.py at 2018-10-10 02:28:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 54.029 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 94.48 Mbit/s
95th percentile per-packet one-way delay: 54.029 ms
Loss rate: 0.68%

Run 3: Report of FillP — Data Link

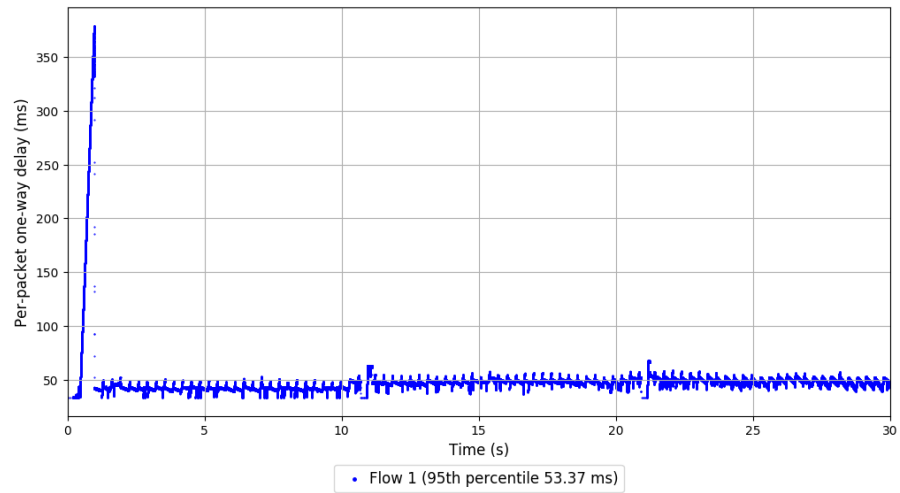
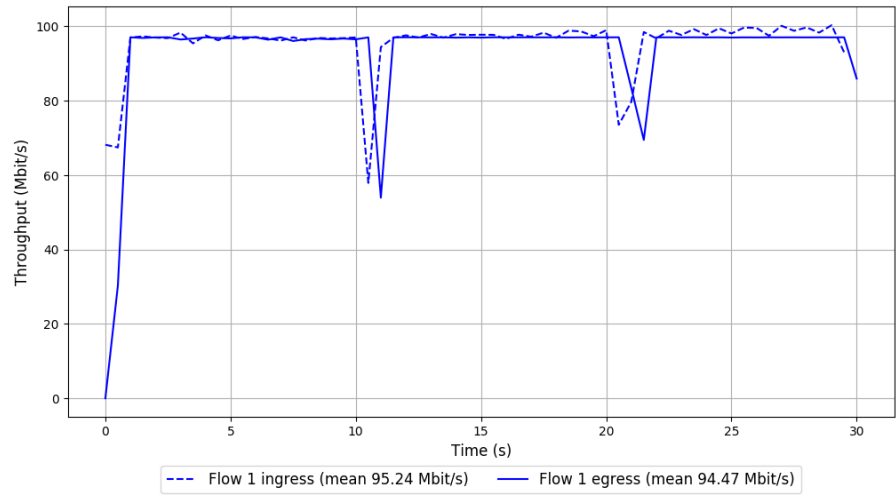


Run 4: Statistics of FillP

Start at: 2018-10-10 01:58:40
End at: 2018-10-10 01:59:10
Local clock offset: 3.496 ms
Remote clock offset: -2.792 ms

Below is generated by plot.py at 2018-10-10 02:28:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 53.368 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 94.47 Mbit/s
95th percentile per-packet one-way delay: 53.368 ms
Loss rate: 1.02%

Run 4: Report of FillP — Data Link

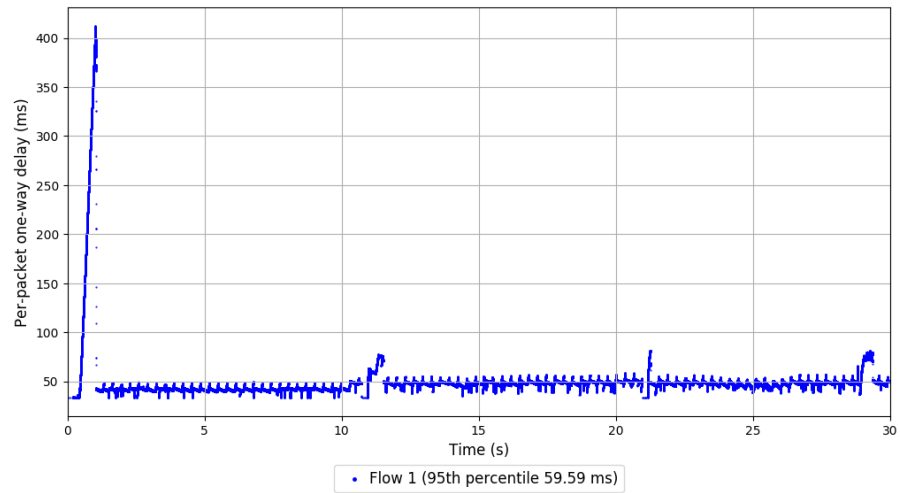
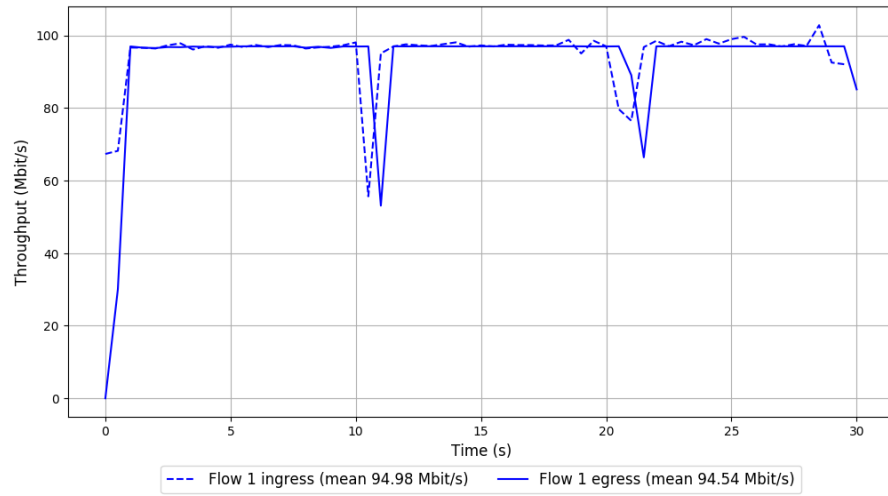


Run 5: Statistics of FillP

Start at: 2018-10-10 02:22:48
End at: 2018-10-10 02:23:18
Local clock offset: 1.614 ms
Remote clock offset: -2.573 ms

Below is generated by plot.py at 2018-10-10 02:29:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.54 Mbit/s
95th percentile per-packet one-way delay: 59.588 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 94.54 Mbit/s
95th percentile per-packet one-way delay: 59.588 ms
Loss rate: 0.67%

Run 5: Report of FillP — Data Link

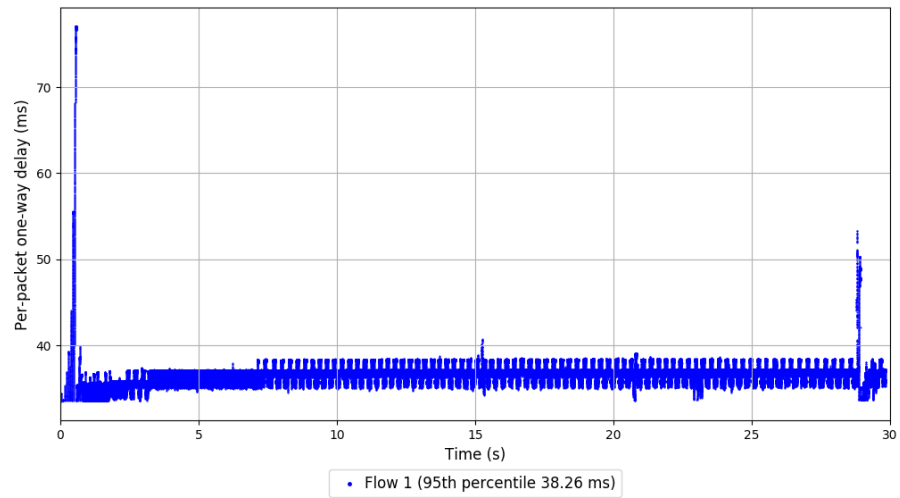
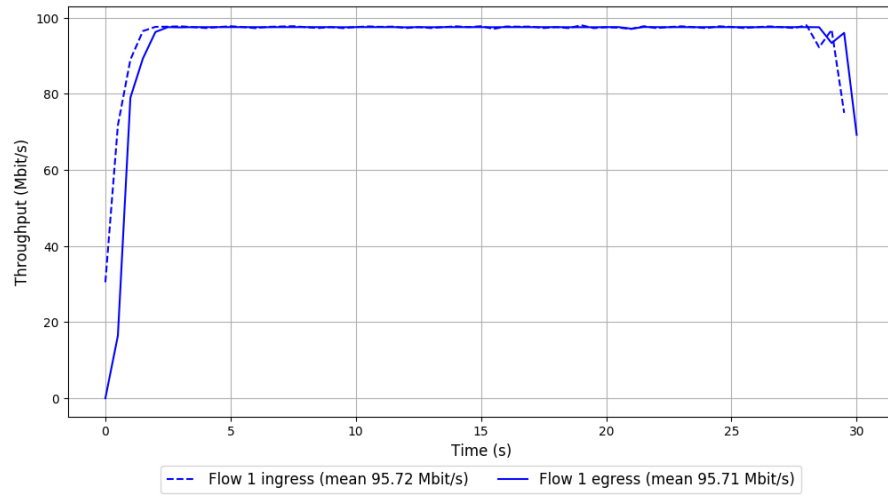


```
Run 1: Statistics of Indigo

Start at: 2018-10-10 00:33:53
End at: 2018-10-10 00:34:23
Local clock offset: 2.38 ms
Remote clock offset: -3.797 ms

# Below is generated by plot.py at 2018-10-10 02:29:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.257 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.257 ms
Loss rate: 0.23%
```

Run 1: Report of Indigo — Data Link

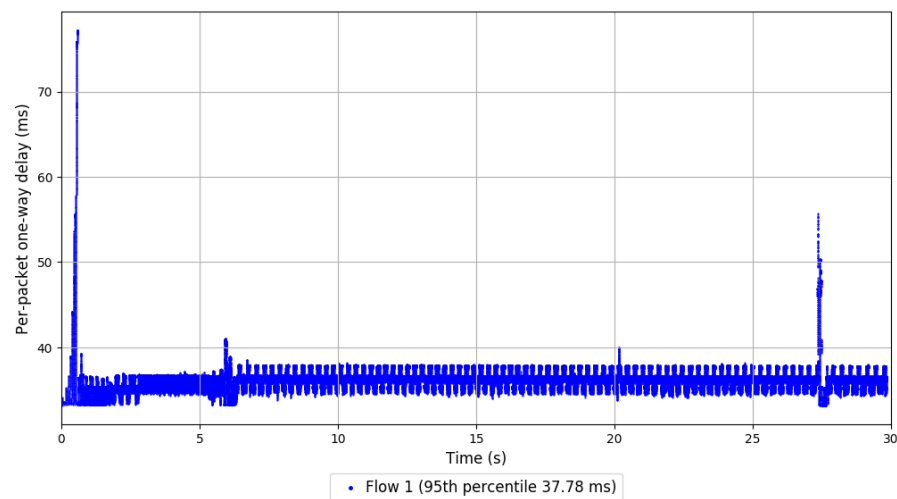
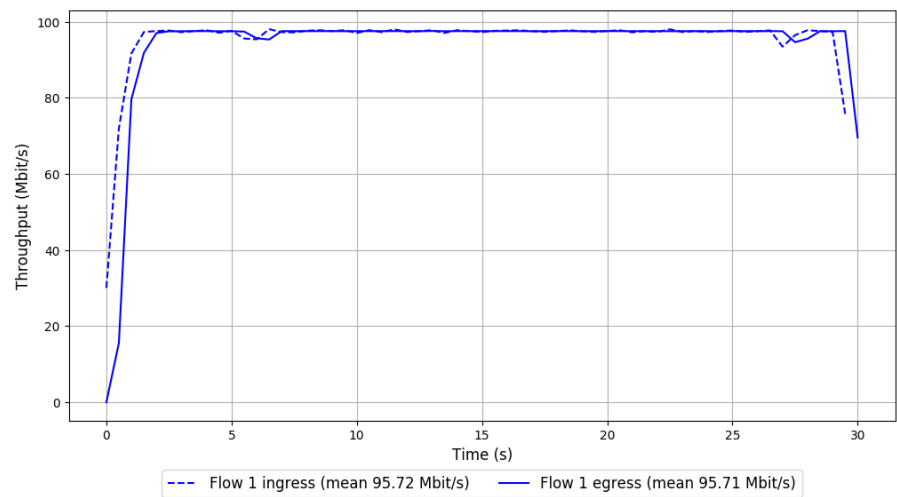


Run 2: Statistics of Indigo

Start at: 2018-10-10 00:58:17
End at: 2018-10-10 00:58:47
Local clock offset: 1.637 ms
Remote clock offset: -3.495 ms

Below is generated by plot.py at 2018-10-10 02:29:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 37.781 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 37.781 ms
Loss rate: 0.23%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-10-10 01:22:23

End at: 2018-10-10 01:22:53

Local clock offset: 4.486 ms

Remote clock offset: -3.107 ms

Below is generated by plot.py at 2018-10-10 02:29:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.49 Mbit/s

95th percentile per-packet one-way delay: 38.052 ms

Loss rate: 0.23%

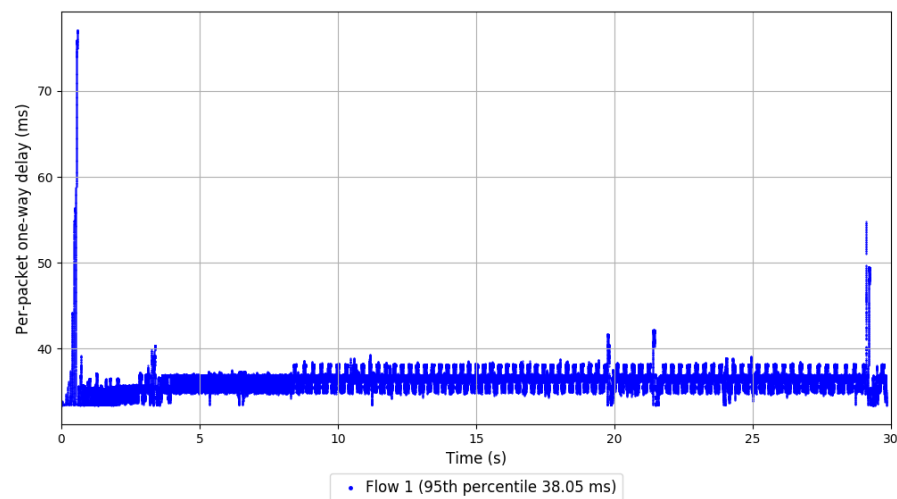
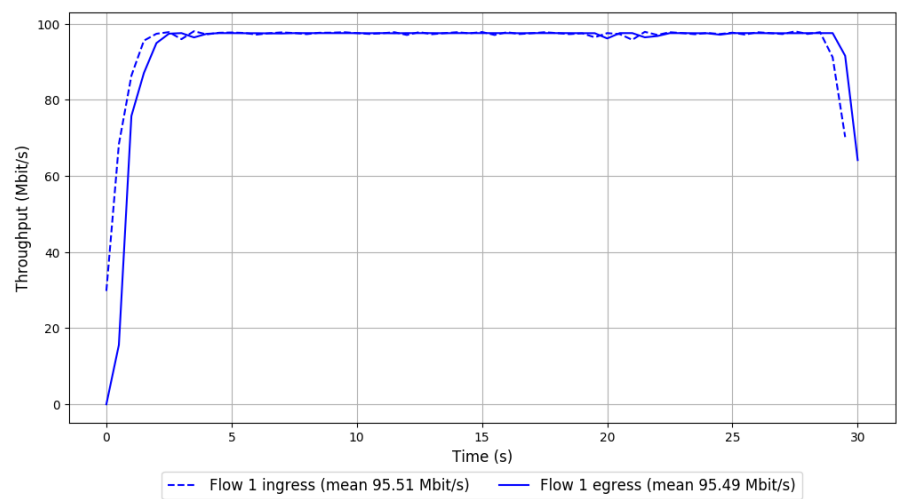
-- Flow 1:

Average throughput: 95.49 Mbit/s

95th percentile per-packet one-way delay: 38.052 ms

Loss rate: 0.23%

Run 3: Report of Indigo — Data Link

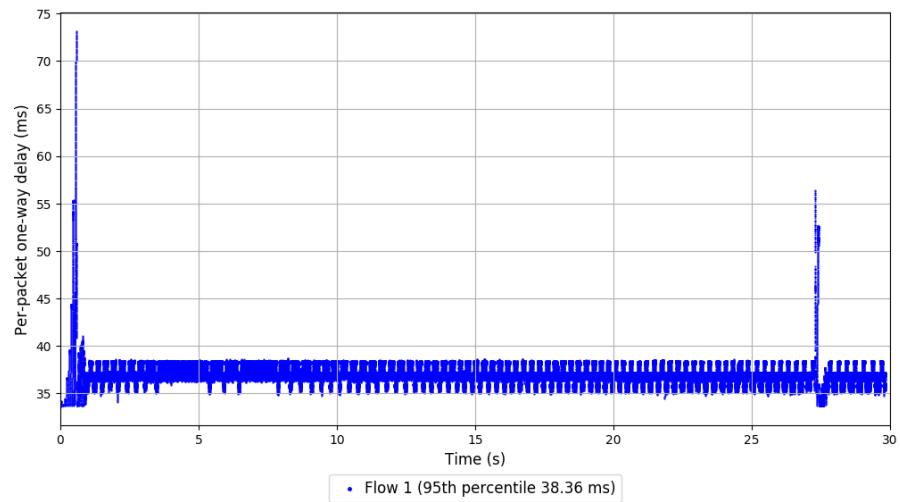
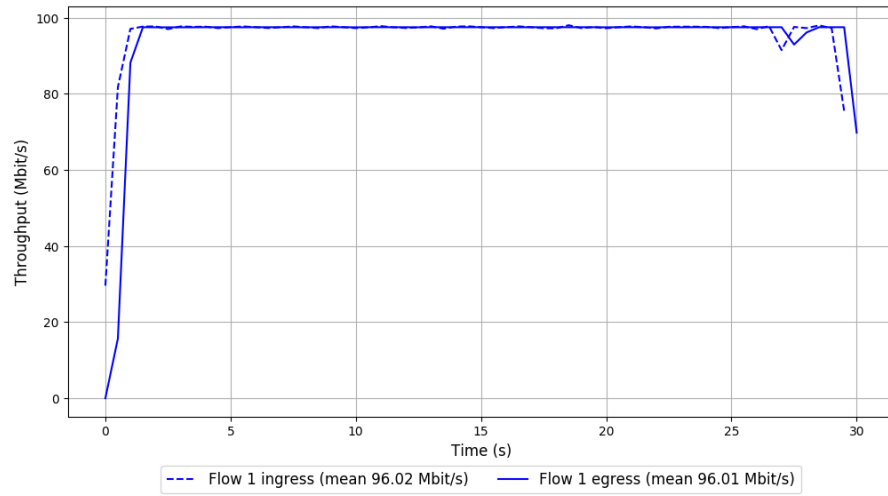


Run 4: Statistics of Indigo

Start at: 2018-10-10 01:46:34
End at: 2018-10-10 01:47:04
Local clock offset: 4.565 ms
Remote clock offset: -3.059 ms

Below is generated by plot.py at 2018-10-10 02:29:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 38.357 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 96.01 Mbit/s
95th percentile per-packet one-way delay: 38.357 ms
Loss rate: 0.22%

Run 4: Report of Indigo — Data Link

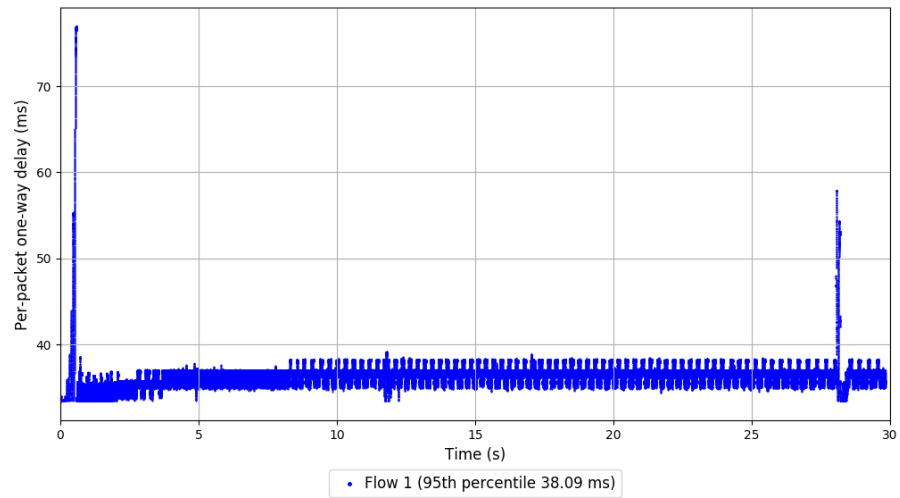
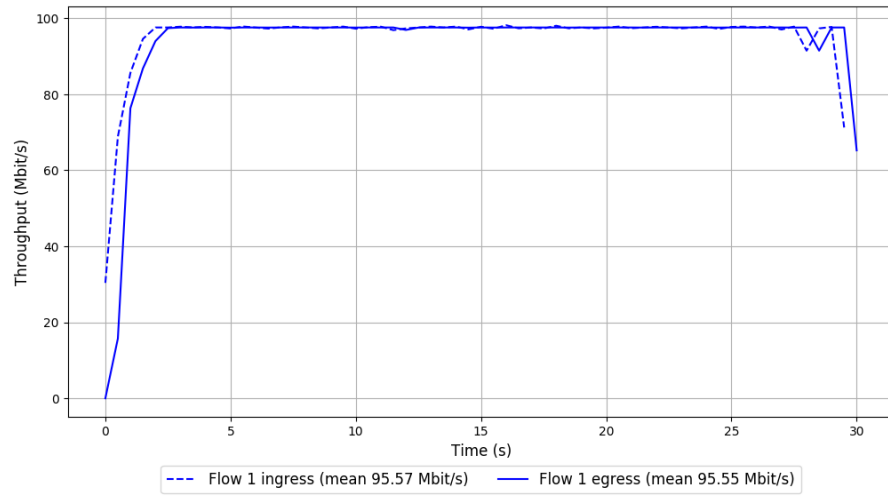


Run 5: Statistics of Indigo

Start at: 2018-10-10 02:10:48
End at: 2018-10-10 02:11:18
Local clock offset: 1.915 ms
Remote clock offset: -2.648 ms

Below is generated by plot.py at 2018-10-10 02:29:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.55 Mbit/s
95th percentile per-packet one-way delay: 38.089 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.55 Mbit/s
95th percentile per-packet one-way delay: 38.089 ms
Loss rate: 0.23%

Run 5: Report of Indigo — Data Link

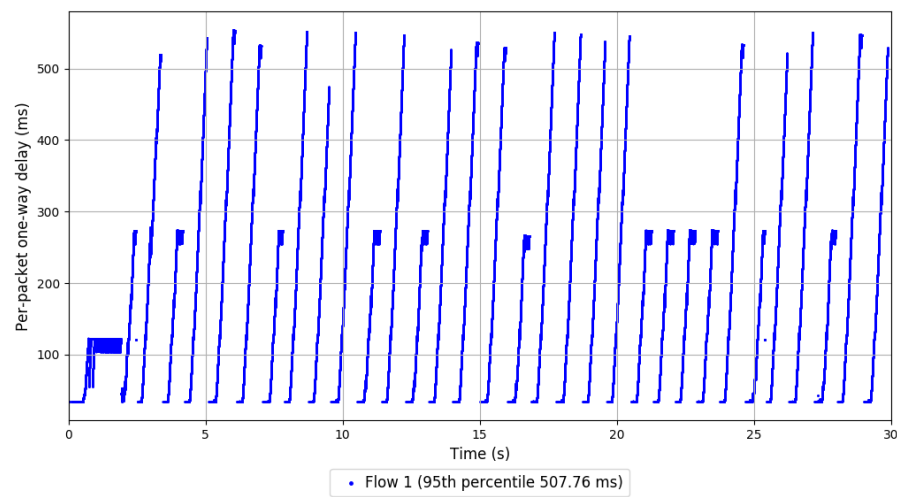
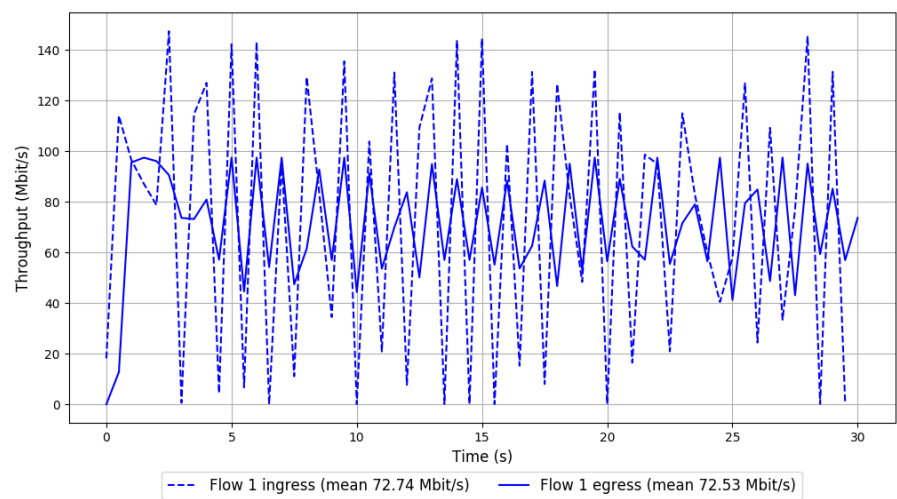


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-10-10 00:39:10
End at: 2018-10-10 00:39:40
Local clock offset: 1.605 ms
Remote clock offset: -3.954 ms

Below is generated by plot.py at 2018-10-10 02:29:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.53 Mbit/s
95th percentile per-packet one-way delay: 507.757 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 72.53 Mbit/s
95th percentile per-packet one-way delay: 507.757 ms
Loss rate: 0.64%

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

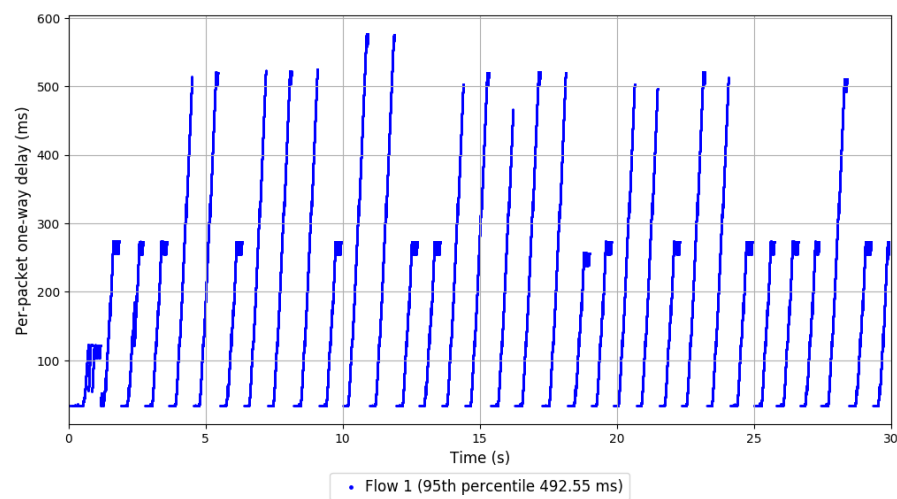
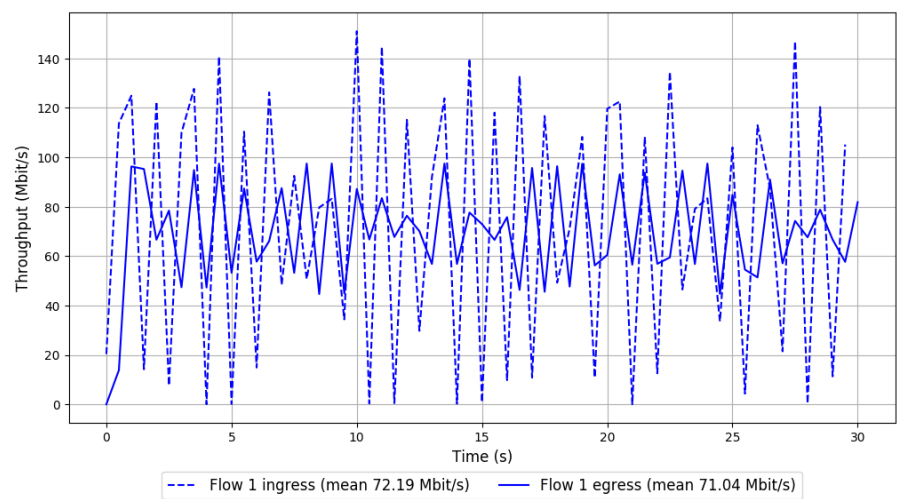


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-10-10 01:03:33
End at: 2018-10-10 01:04:03
Local clock offset: 3.001 ms
Remote clock offset: -3.596 ms

Below is generated by plot.py at 2018-10-10 02:29:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 71.04 Mbit/s
95th percentile per-packet one-way delay: 492.549 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 71.04 Mbit/s
95th percentile per-packet one-way delay: 492.549 ms
Loss rate: 1.29%

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



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-10-10 01:27:42

End at: 2018-10-10 01:28:12

Local clock offset: 4.569 ms

Remote clock offset: -3.041 ms

Below is generated by plot.py at 2018-10-10 02:30:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.13 Mbit/s

95th percentile per-packet one-way delay: 118.638 ms

Loss rate: 8.59%

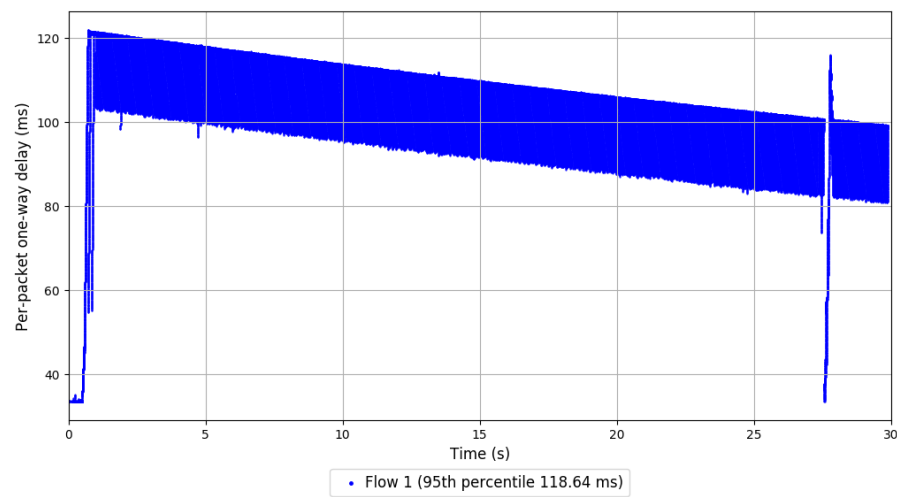
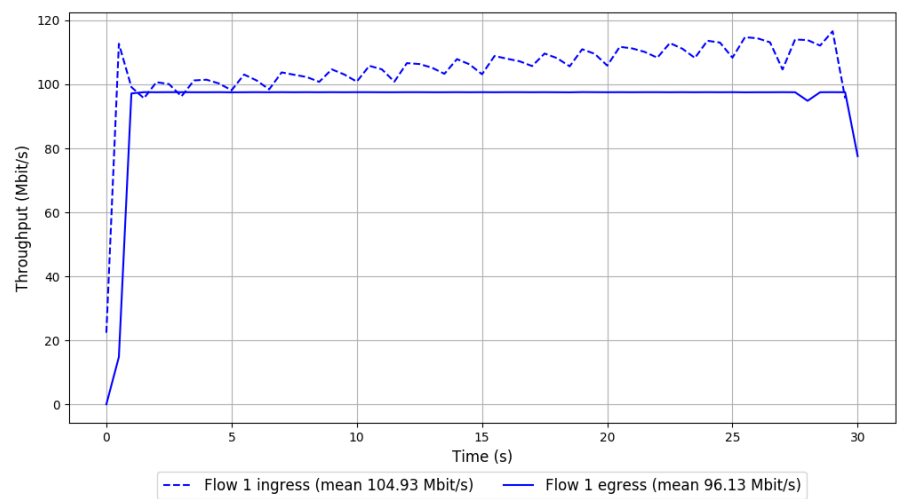
-- Flow 1:

Average throughput: 96.13 Mbit/s

95th percentile per-packet one-way delay: 118.638 ms

Loss rate: 8.59%

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



Run 4: Statistics of Indigo-96d2da3

Start at: 2018-10-10 01:51:55

End at: 2018-10-10 01:52:25

Local clock offset: 4.559 ms

Remote clock offset: -2.83 ms

Below is generated by plot.py at 2018-10-10 02:30:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.00 Mbit/s

95th percentile per-packet one-way delay: 121.548 ms

Loss rate: 7.32%

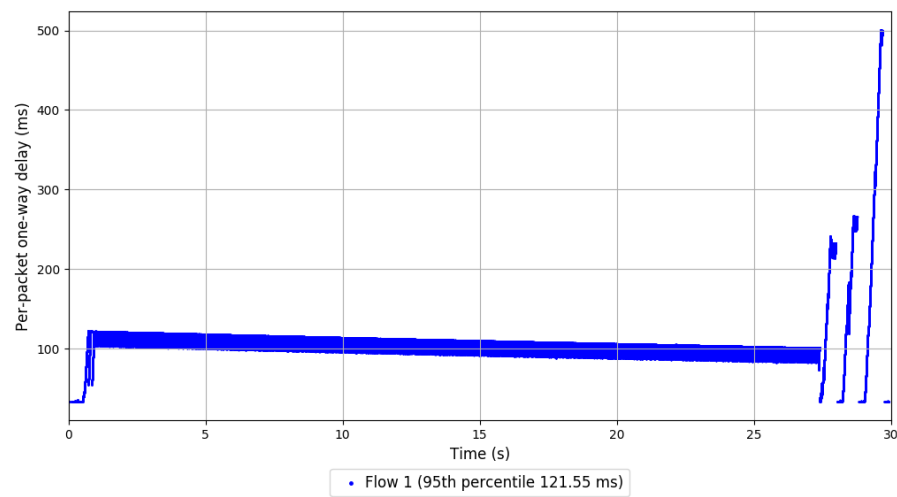
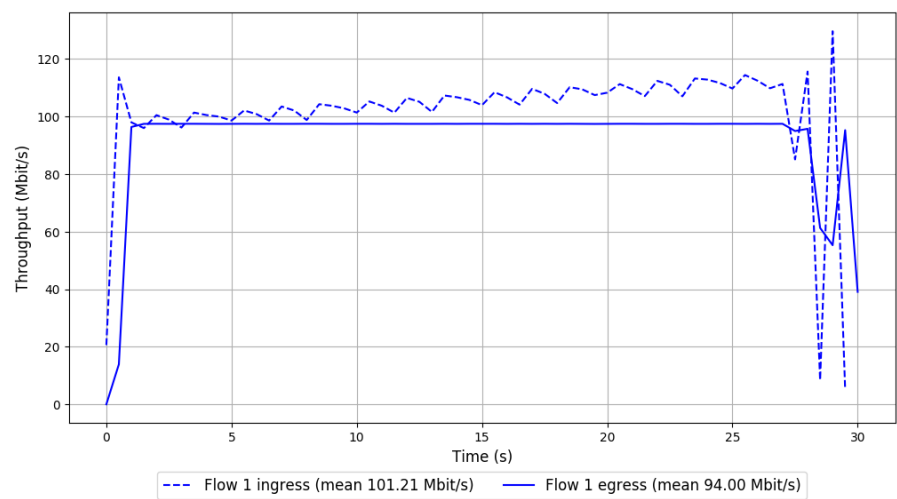
-- Flow 1:

Average throughput: 94.00 Mbit/s

95th percentile per-packet one-way delay: 121.548 ms

Loss rate: 7.32%

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

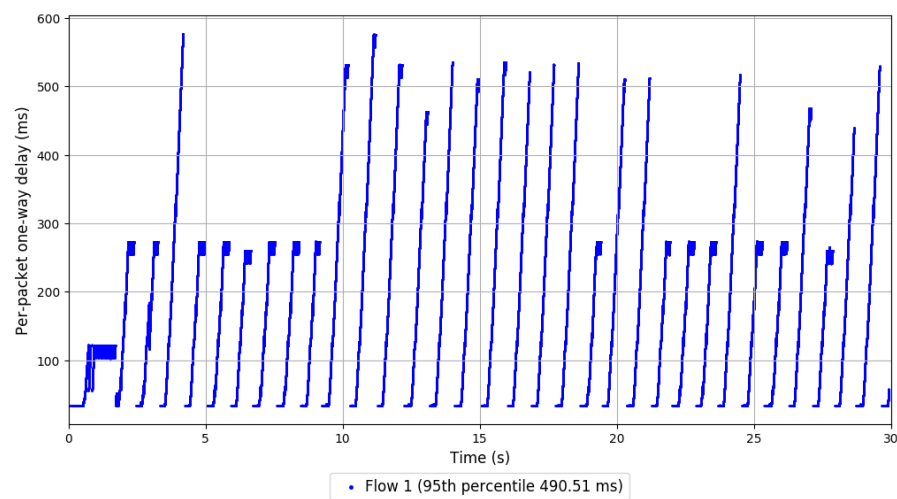
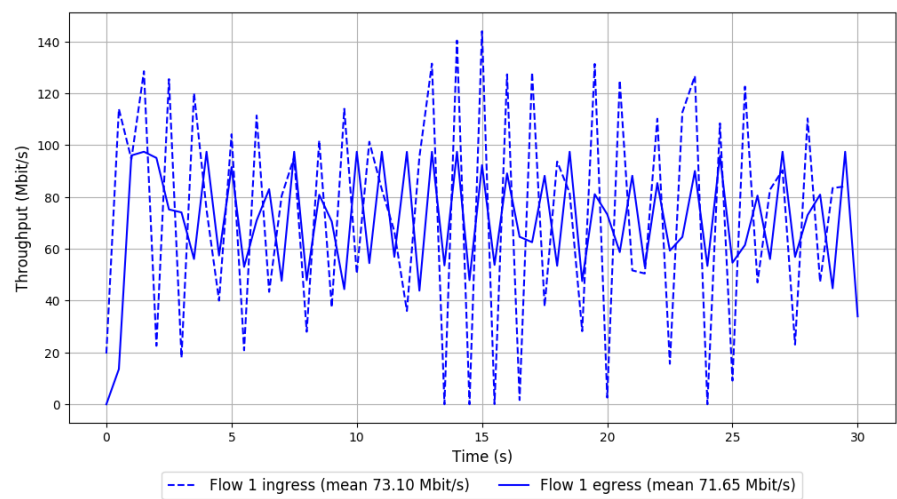


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-10-10 02:16:07
End at: 2018-10-10 02:16:37
Local clock offset: 1.749 ms
Remote clock offset: -2.884 ms

Below is generated by plot.py at 2018-10-10 02:30:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 71.65 Mbit/s
95th percentile per-packet one-way delay: 490.506 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 71.65 Mbit/s
95th percentile per-packet one-way delay: 490.506 ms
Loss rate: 2.14%

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

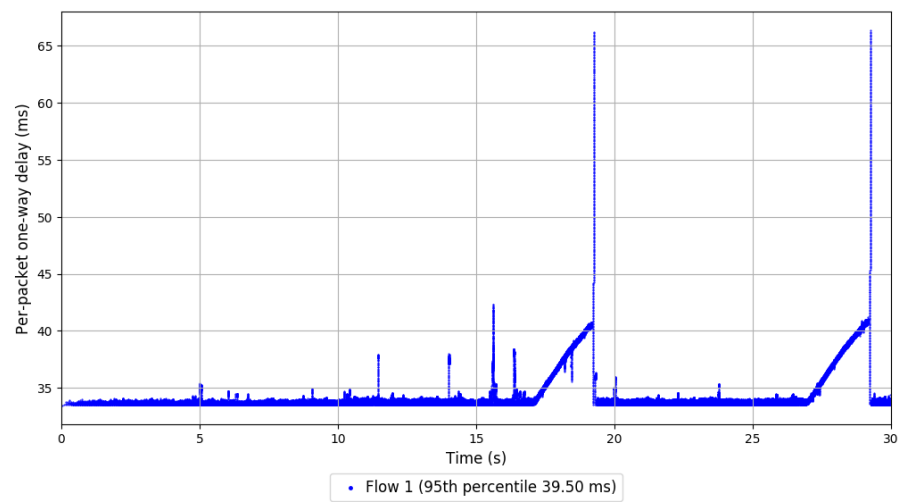
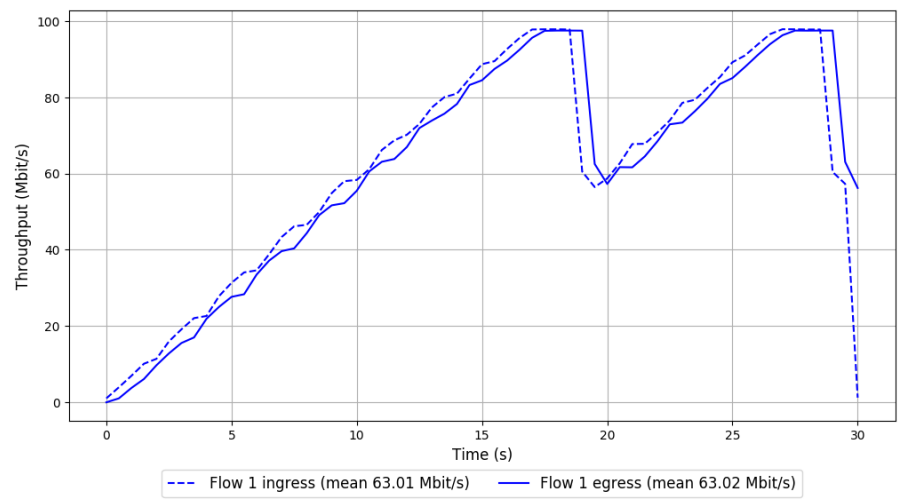


```
Run 1: Statistics of LEDBAT

Start at: 2018-10-10 00:40:29
End at: 2018-10-10 00:40:59
Local clock offset: 1.459 ms
Remote clock offset: -3.708 ms

# Below is generated by plot.py at 2018-10-10 02:30:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 39.497 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 39.497 ms
Loss rate: 0.20%
```

Run 1: Report of LEDBAT — Data Link

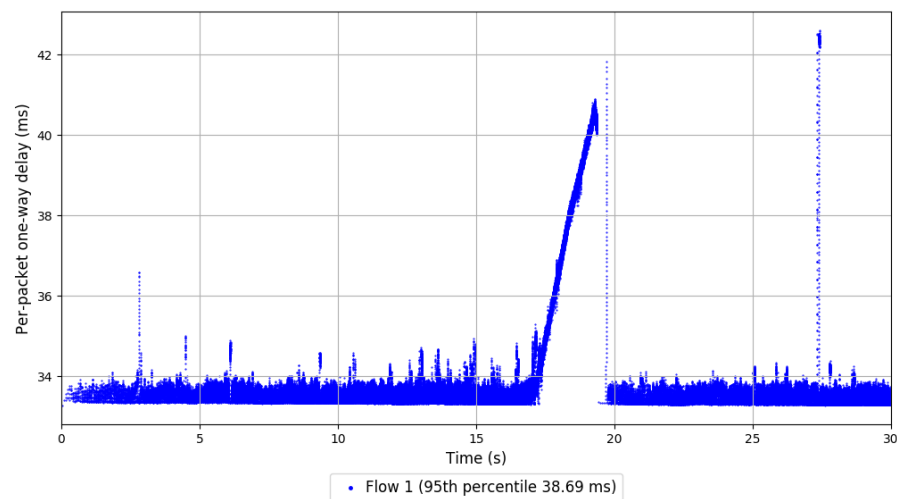
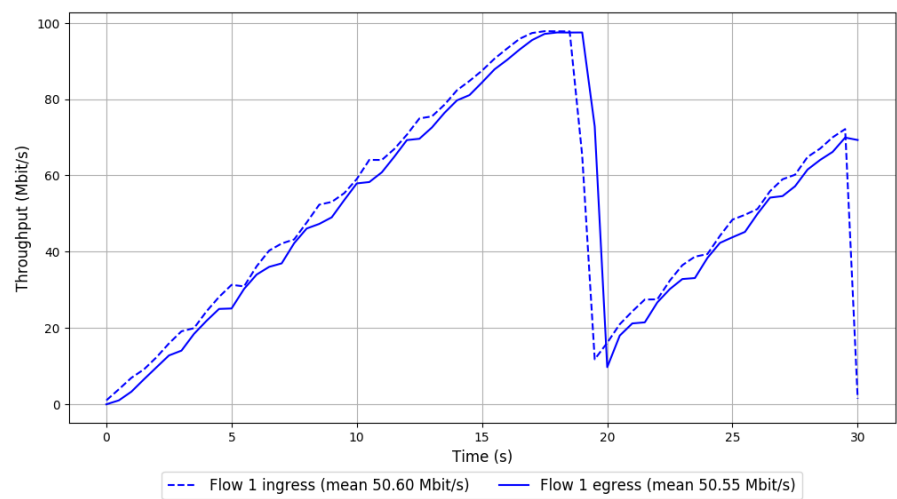


Run 2: Statistics of LEDBAT

Start at: 2018-10-10 01:04:52
End at: 2018-10-10 01:05:22
Local clock offset: 3.245 ms
Remote clock offset: -3.387 ms

Below is generated by plot.py at 2018-10-10 02:30:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 38.691 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 50.55 Mbit/s
95th percentile per-packet one-way delay: 38.691 ms
Loss rate: 0.32%

Run 2: Report of LEDBAT — Data Link

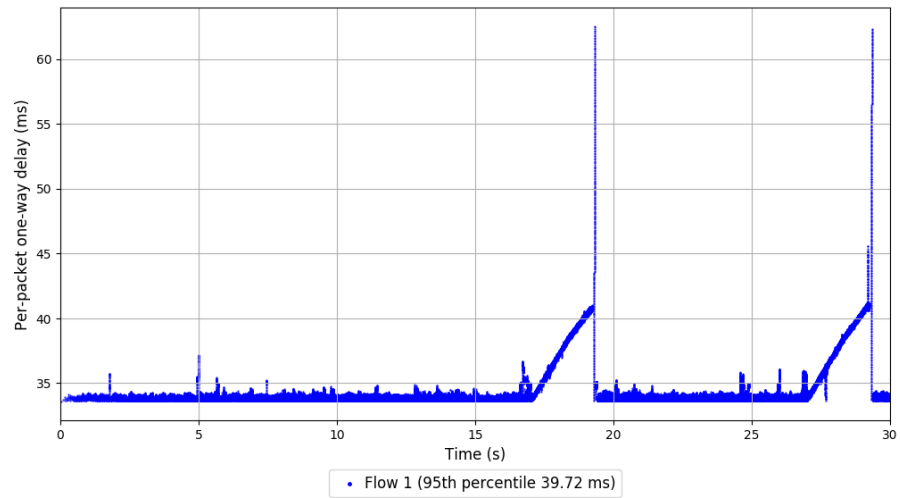
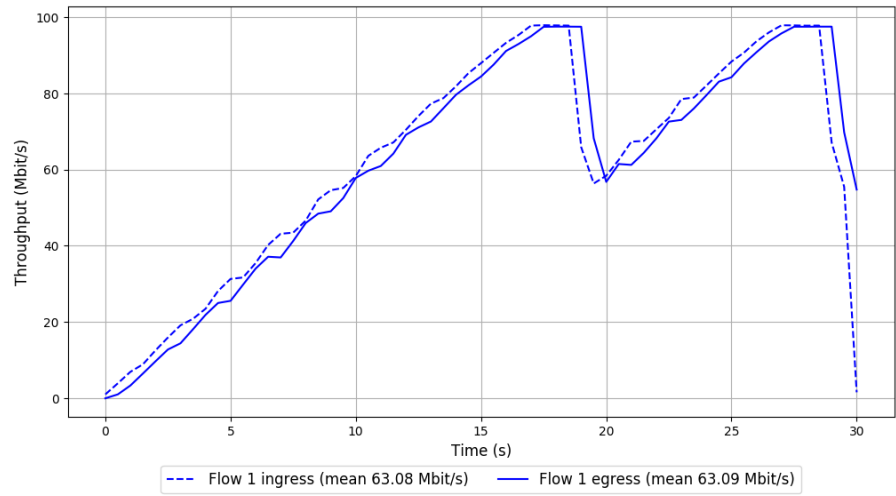


Run 3: Statistics of LEDBAT

Start at: 2018-10-10 01:29:08
End at: 2018-10-10 01:29:38
Local clock offset: 4.562 ms
Remote clock offset: -3.181 ms

Below is generated by plot.py at 2018-10-10 02:30:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 39.721 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.09 Mbit/s
95th percentile per-packet one-way delay: 39.721 ms
Loss rate: 0.20%

Run 3: Report of LEDBAT — Data Link

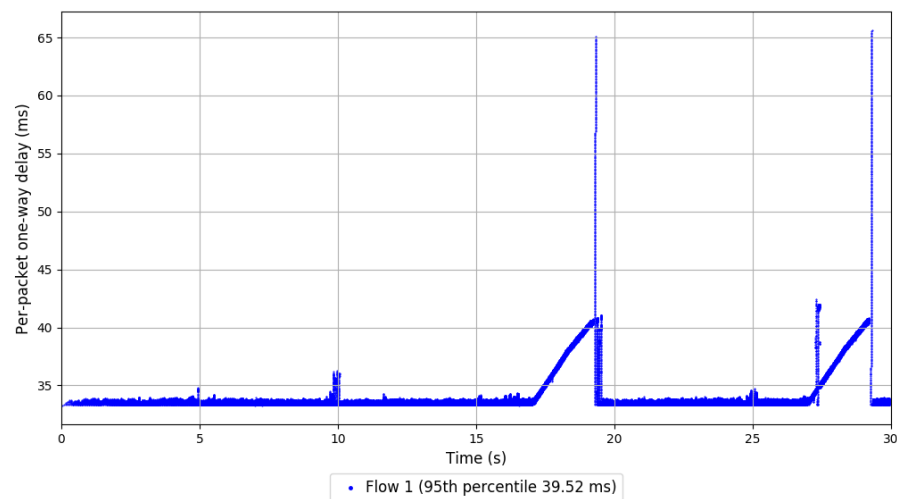
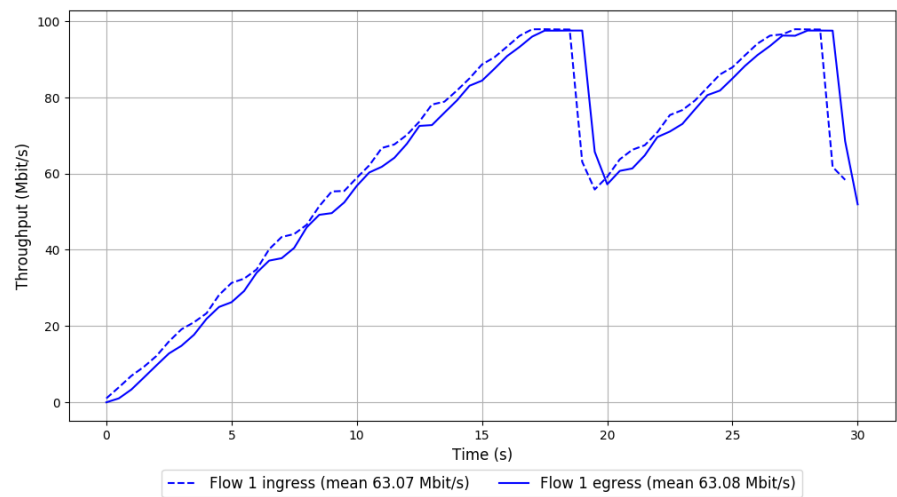


Run 4: Statistics of LEDBAT

Start at: 2018-10-10 01:53:15
End at: 2018-10-10 01:53:45
Local clock offset: 4.565 ms
Remote clock offset: -2.677 ms

Below is generated by plot.py at 2018-10-10 02:30:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 39.519 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.08 Mbit/s
95th percentile per-packet one-way delay: 39.519 ms
Loss rate: 0.20%

Run 4: Report of LEDBAT — Data Link

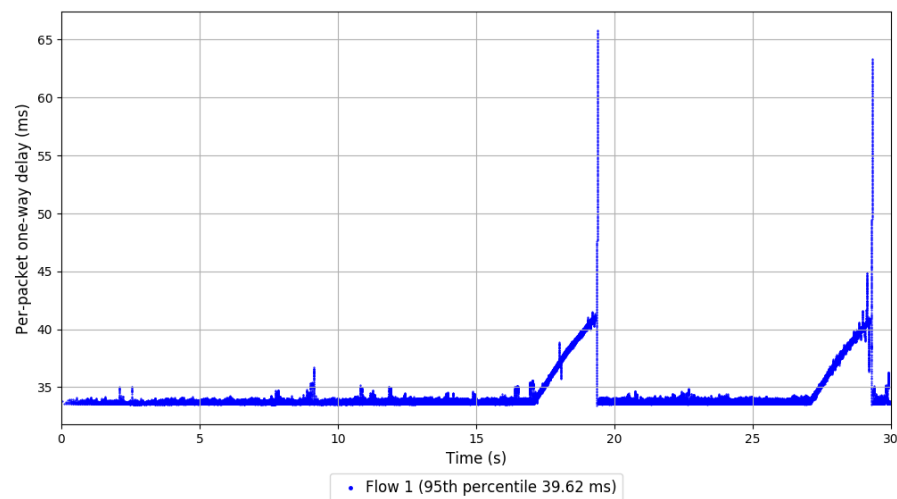
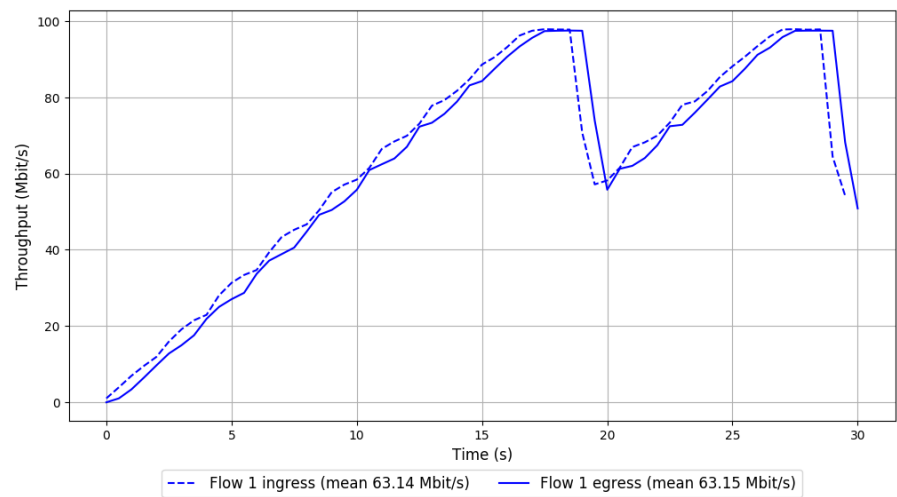


Run 5: Statistics of LEDBAT

Start at: 2018-10-10 02:17:28
End at: 2018-10-10 02:17:58
Local clock offset: 1.719 ms
Remote clock offset: -2.699 ms

Below is generated by plot.py at 2018-10-10 02:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 39.615 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 39.615 ms
Loss rate: 0.20%

Run 5: Report of LEDBAT — Data Link

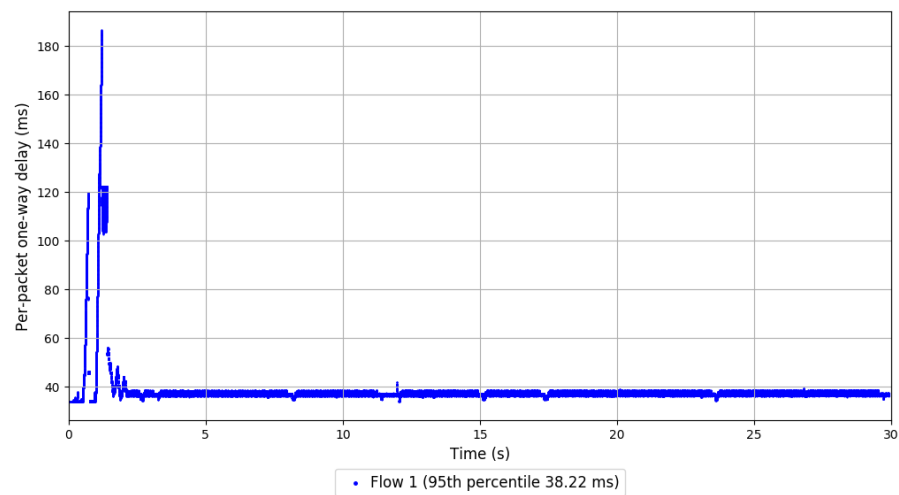
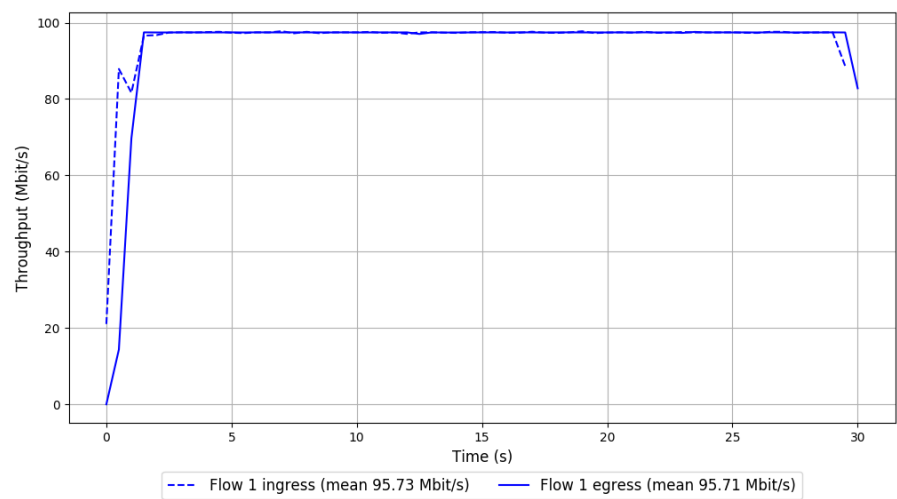


Run 1: Statistics of Indigo-Muses

Start at: 2018-10-10 00:28:31
End at: 2018-10-10 00:29:01
Local clock offset: 3.784 ms
Remote clock offset: -3.918 ms

Below is generated by plot.py at 2018-10-10 02:31:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.220 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 38.220 ms
Loss rate: 0.23%

Run 1: Report of Indigo-Muses — Data Link

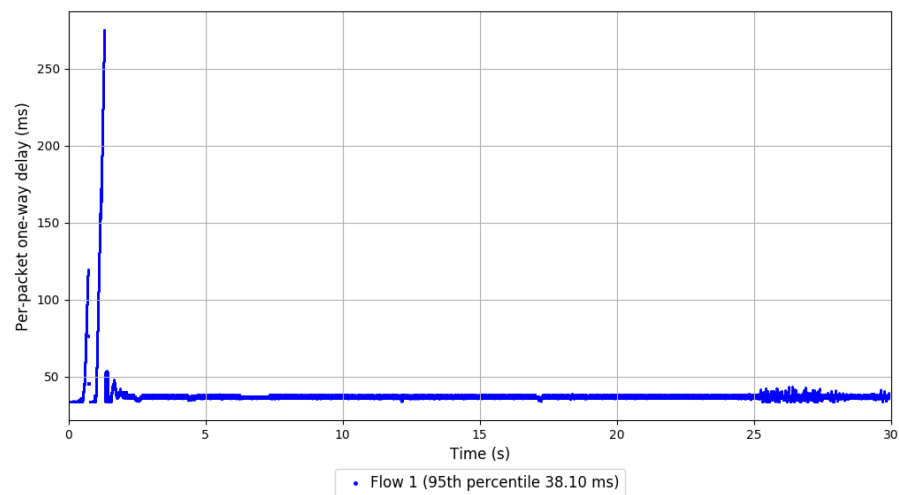
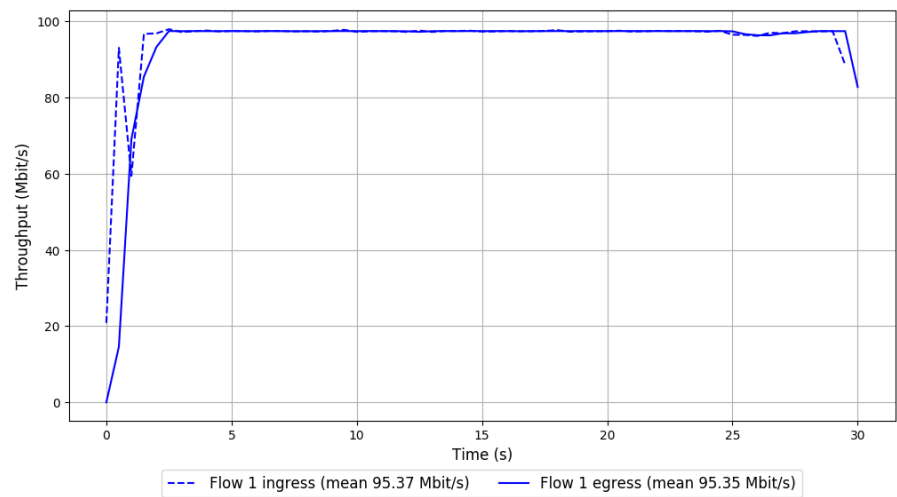


Run 2: Statistics of Indigo-Muses

Start at: 2018-10-10 00:52:37
End at: 2018-10-10 00:53:07
Local clock offset: 0.532 ms
Remote clock offset: -3.719 ms

Below is generated by plot.py at 2018-10-10 02:31:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.35 Mbit/s
95th percentile per-packet one-way delay: 38.096 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.35 Mbit/s
95th percentile per-packet one-way delay: 38.096 ms
Loss rate: 0.23%

Run 2: Report of Indigo-Muses — Data Link

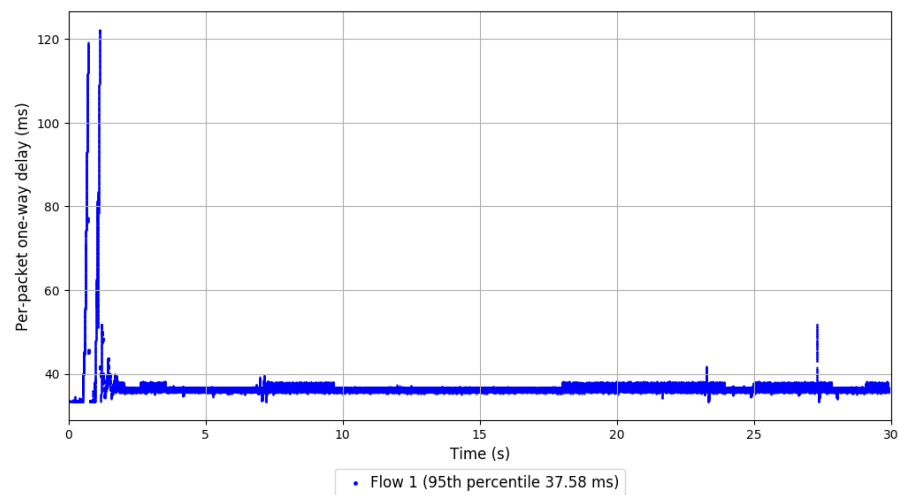
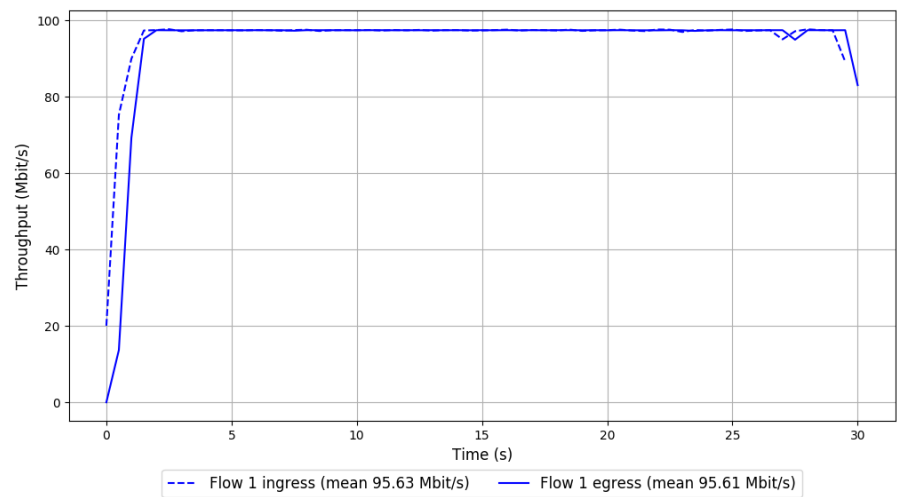


Run 3: Statistics of Indigo-Muses

Start at: 2018-10-10 01:17:00
End at: 2018-10-10 01:17:30
Local clock offset: 4.308 ms
Remote clock offset: -3.206 ms

Below is generated by plot.py at 2018-10-10 02:31:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 37.581 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 37.581 ms
Loss rate: 0.23%

Run 3: Report of Indigo-Muses — Data Link

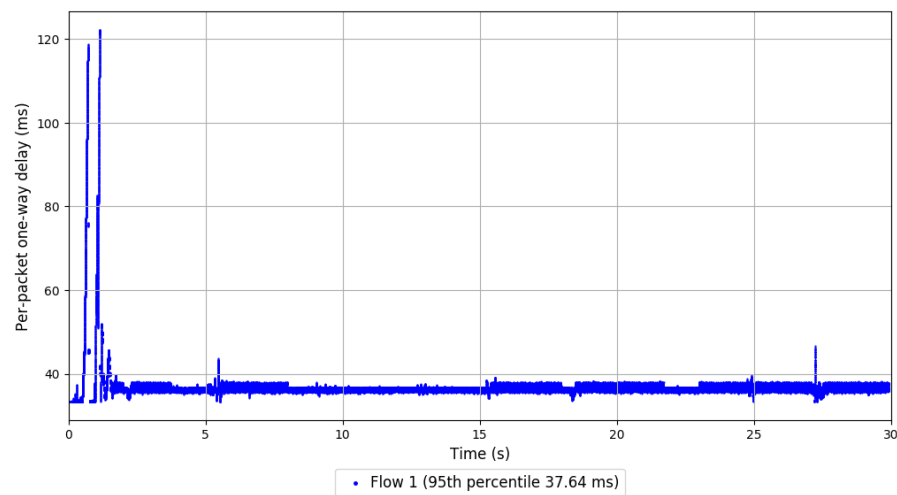
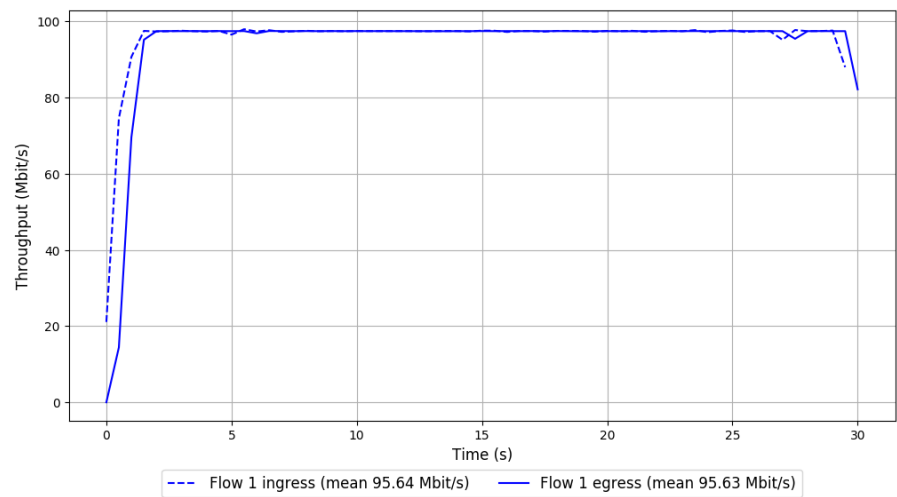


Run 4: Statistics of Indigo-Muses

Start at: 2018-10-10 01:41:08
End at: 2018-10-10 01:41:38
Local clock offset: 4.569 ms
Remote clock offset: -2.931 ms

Below is generated by plot.py at 2018-10-10 02:31:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 37.643 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 37.643 ms
Loss rate: 0.23%

Run 4: Report of Indigo-Muses — Data Link

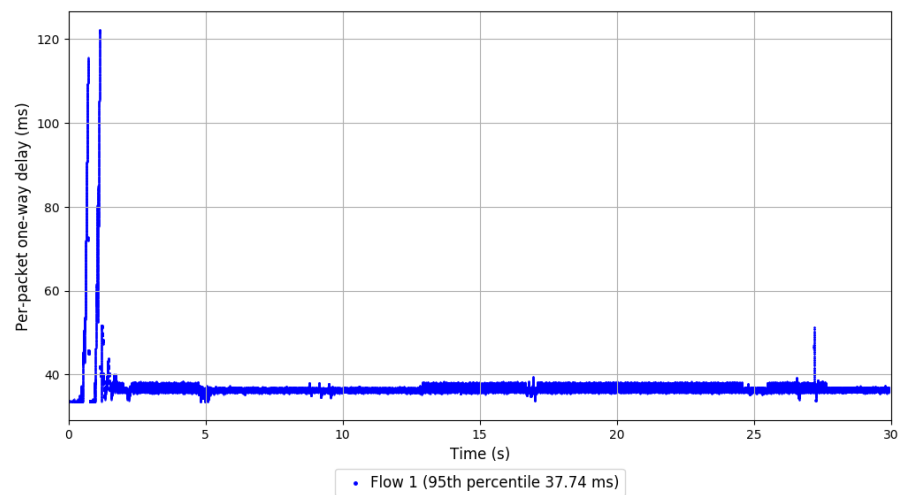
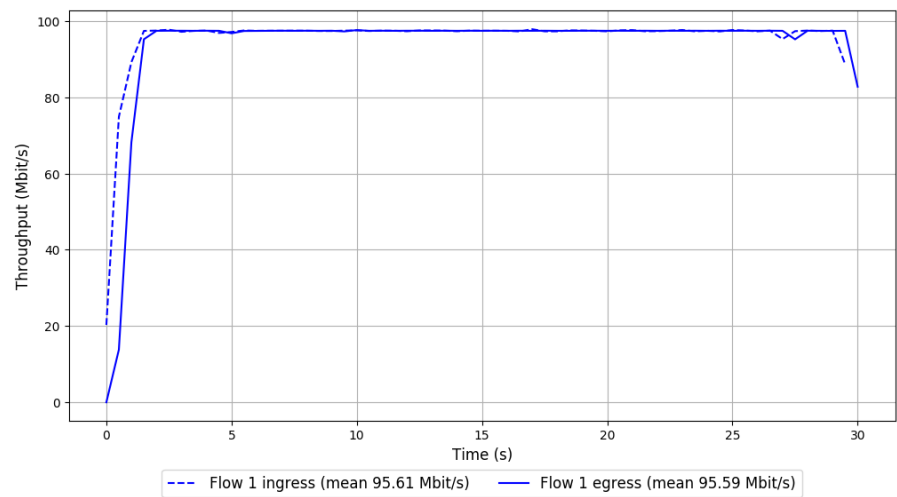


Run 5: Statistics of Indigo-Muses

Start at: 2018-10-10 02:05:21
End at: 2018-10-10 02:05:51
Local clock offset: 2.27 ms
Remote clock offset: -2.783 ms

Below is generated by plot.py at 2018-10-10 02:31:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 37.744 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 37.744 ms
Loss rate: 0.23%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-10-10 00:27:12

End at: 2018-10-10 00:27:42

Local clock offset: 4.188 ms

Remote clock offset: -3.896 ms

Below is generated by plot.py at 2018-10-10 02:31:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.14 Mbit/s

95th percentile per-packet one-way delay: 39.569 ms

Loss rate: 0.23%

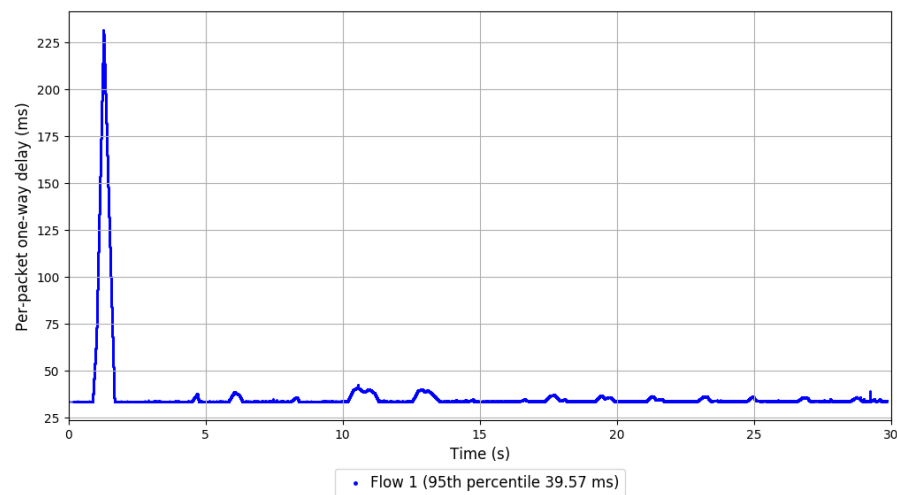
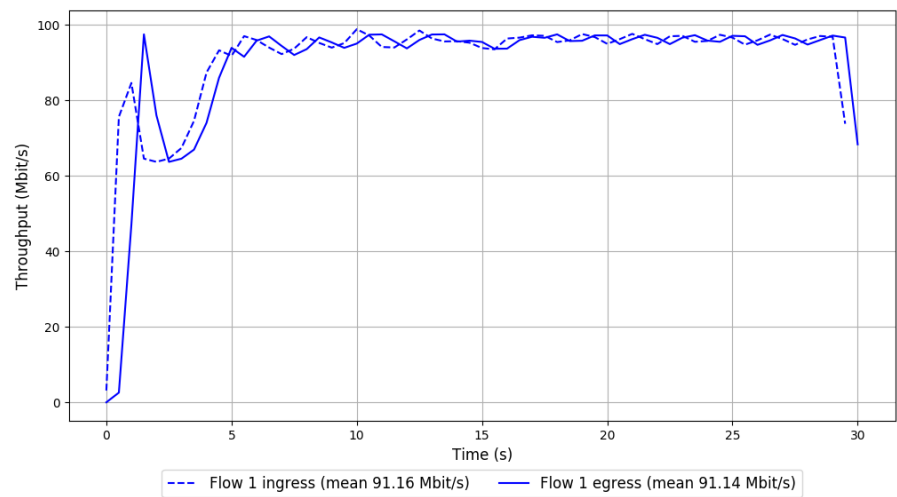
-- Flow 1:

Average throughput: 91.14 Mbit/s

95th percentile per-packet one-way delay: 39.569 ms

Loss rate: 0.23%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-10-10 00:51:16

End at: 2018-10-10 00:51:46

Local clock offset: 0.603 ms

Remote clock offset: -3.631 ms

Below is generated by plot.py at 2018-10-10 02:31:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.14 Mbit/s

95th percentile per-packet one-way delay: 37.922 ms

Loss rate: 0.24%

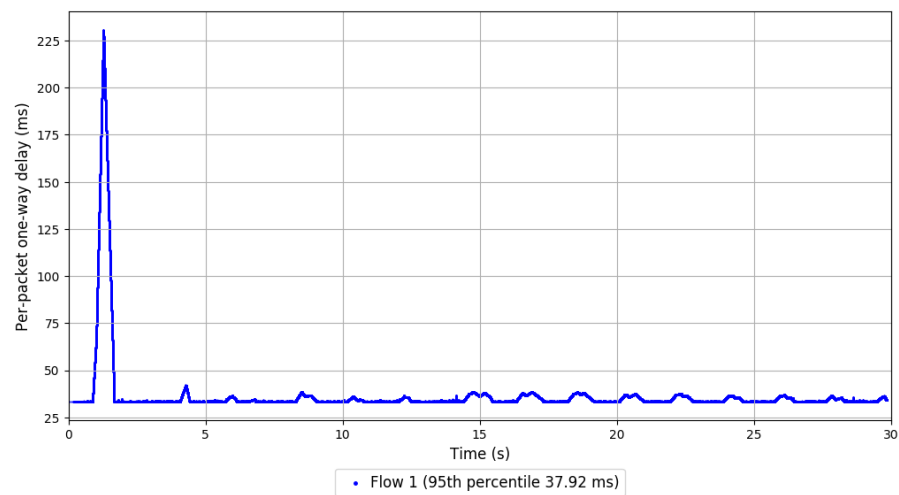
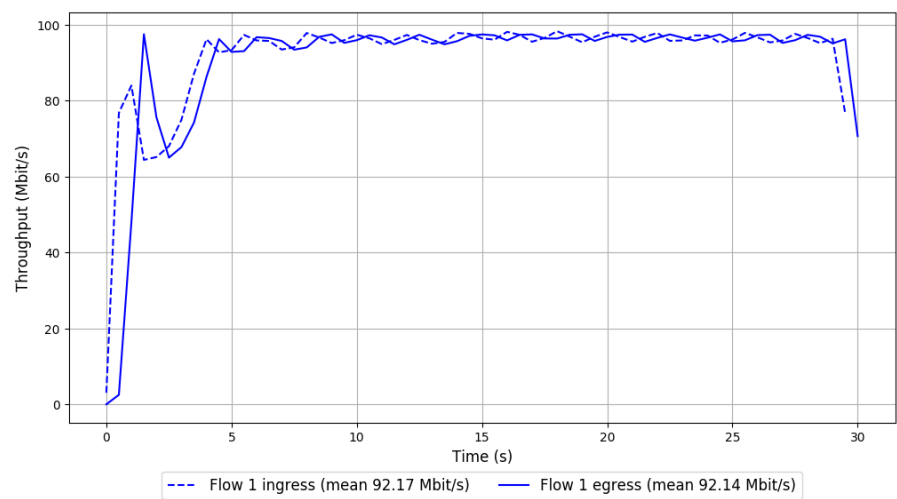
-- Flow 1:

Average throughput: 92.14 Mbit/s

95th percentile per-packet one-way delay: 37.922 ms

Loss rate: 0.24%

Run 2: Report of PCC-Allegro — Data Link

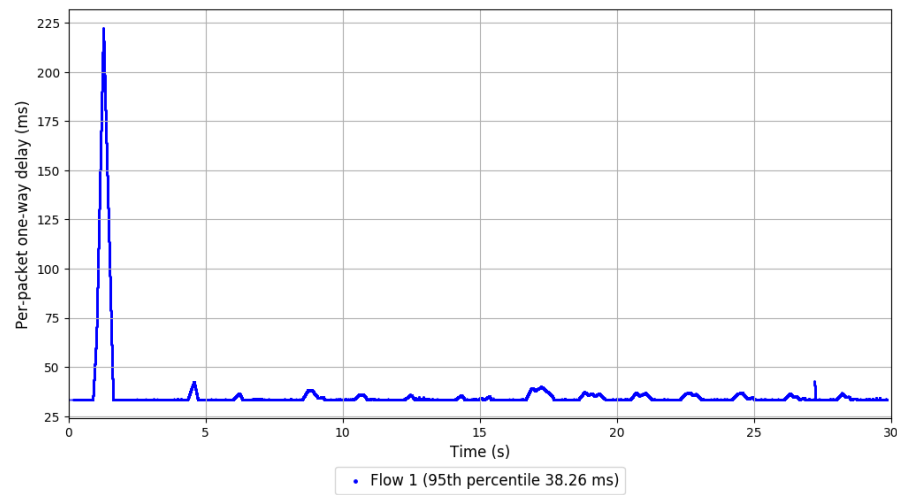
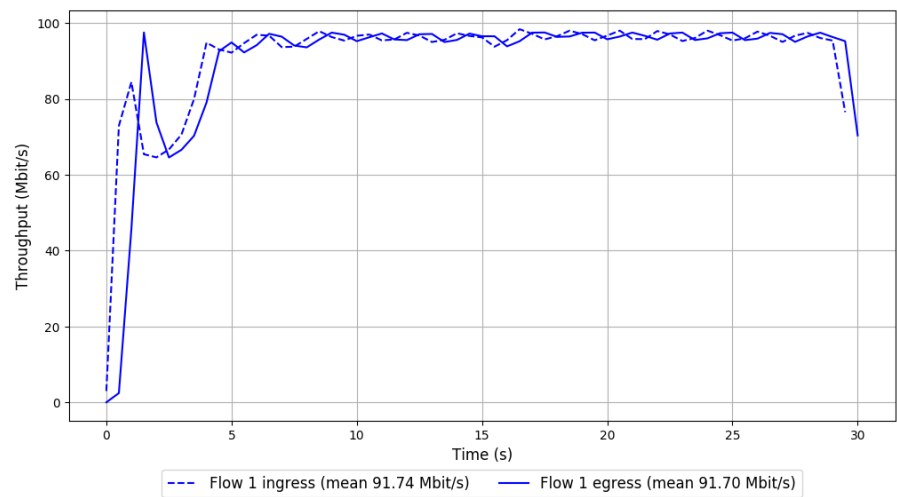


Run 3: Statistics of PCC-Allegro

Start at: 2018-10-10 01:15:41
End at: 2018-10-10 01:16:11
Local clock offset: 4.246 ms
Remote clock offset: -3.402 ms

Below is generated by plot.py at 2018-10-10 02:31:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 38.264 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 91.70 Mbit/s
95th percentile per-packet one-way delay: 38.264 ms
Loss rate: 0.26%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-10-10 01:39:49

End at: 2018-10-10 01:40:19

Local clock offset: 4.581 ms

Remote clock offset: -3.148 ms

Below is generated by plot.py at 2018-10-10 02:32:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.97 Mbit/s

95th percentile per-packet one-way delay: 38.103 ms

Loss rate: 0.31%

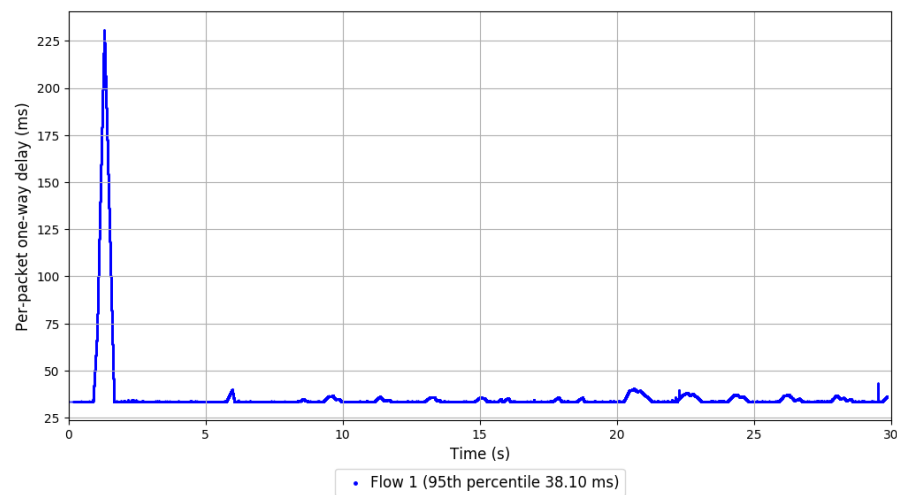
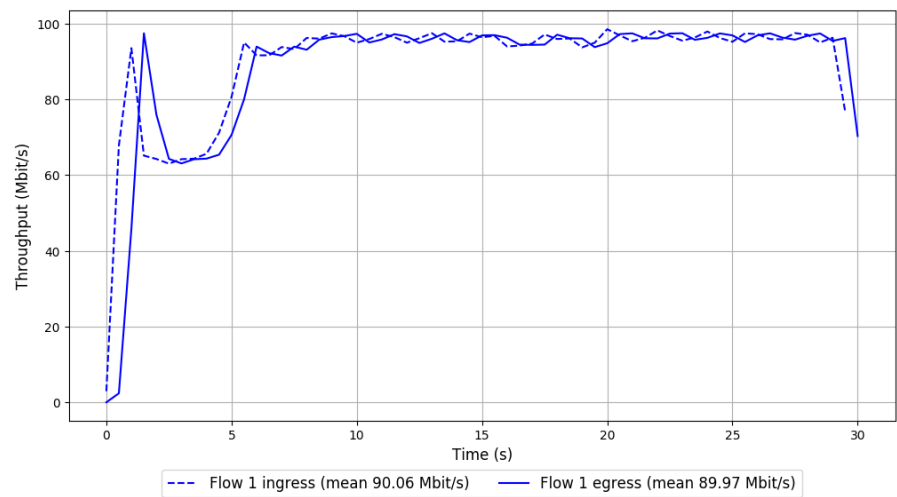
-- Flow 1:

Average throughput: 89.97 Mbit/s

95th percentile per-packet one-way delay: 38.103 ms

Loss rate: 0.31%

Run 4: Report of PCC-Allegro — Data Link

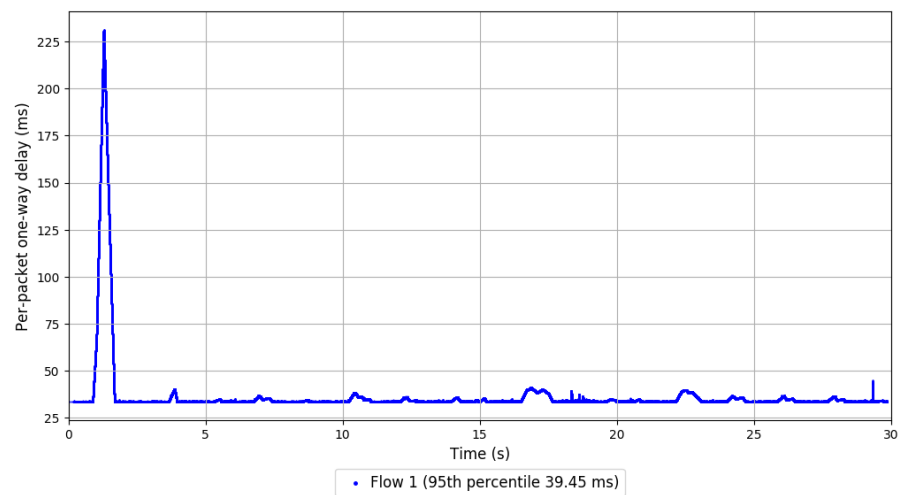
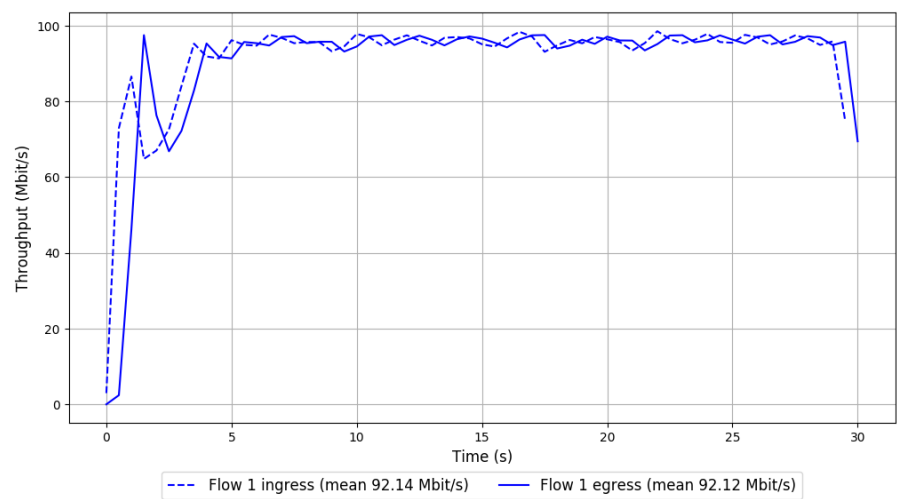


Run 5: Statistics of PCC-Allegro

Start at: 2018-10-10 02:04:01
End at: 2018-10-10 02:04:31
Local clock offset: 2.445 ms
Remote clock offset: -2.944 ms

Below is generated by plot.py at 2018-10-10 02:32:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 39.453 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 39.453 ms
Loss rate: 0.23%

Run 5: Report of PCC-Allegro — Data Link

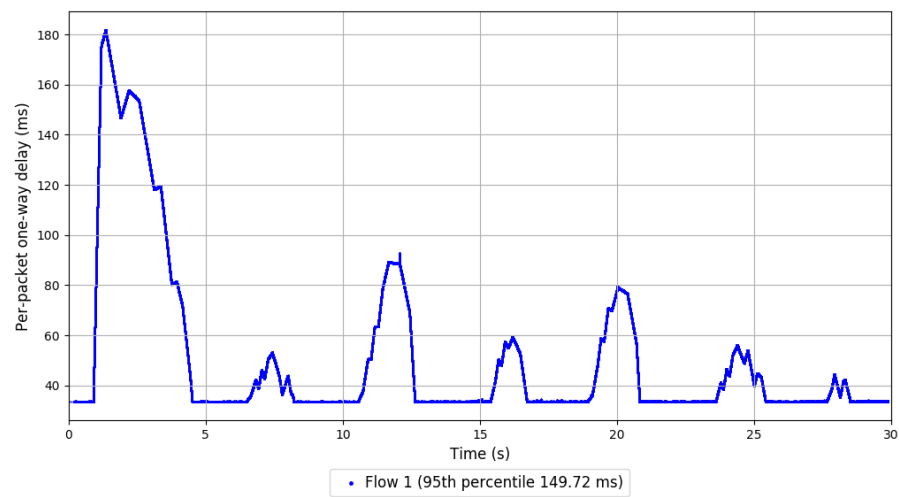
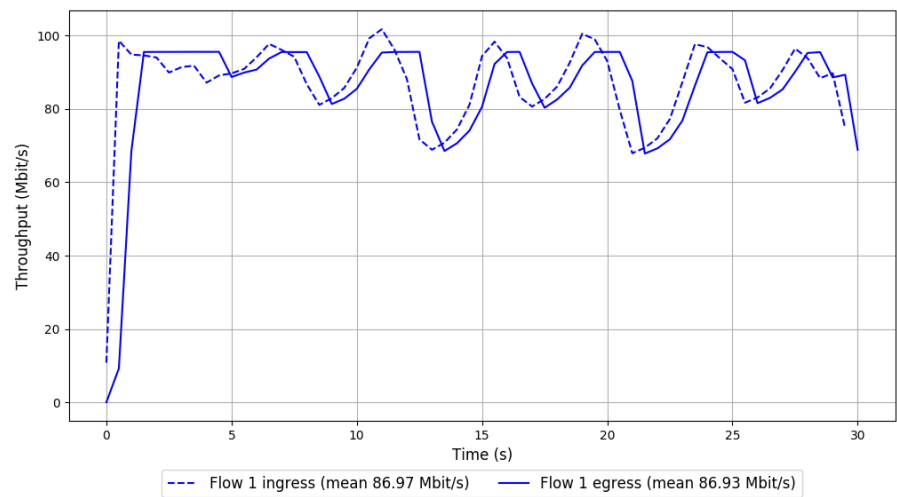


Run 1: Statistics of PCC-Expr

Start at: 2018-10-10 00:35:14
End at: 2018-10-10 00:35:44
Local clock offset: 2.137 ms
Remote clock offset: -3.829 ms

Below is generated by plot.py at 2018-10-10 02:33:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.93 Mbit/s
95th percentile per-packet one-way delay: 149.718 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 86.93 Mbit/s
95th percentile per-packet one-way delay: 149.718 ms
Loss rate: 0.27%

Run 1: Report of PCC-Expr — Data Link

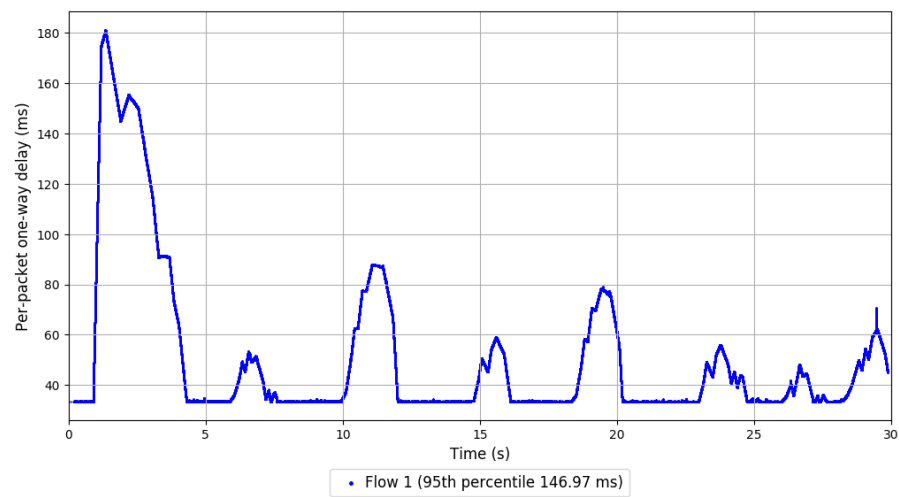
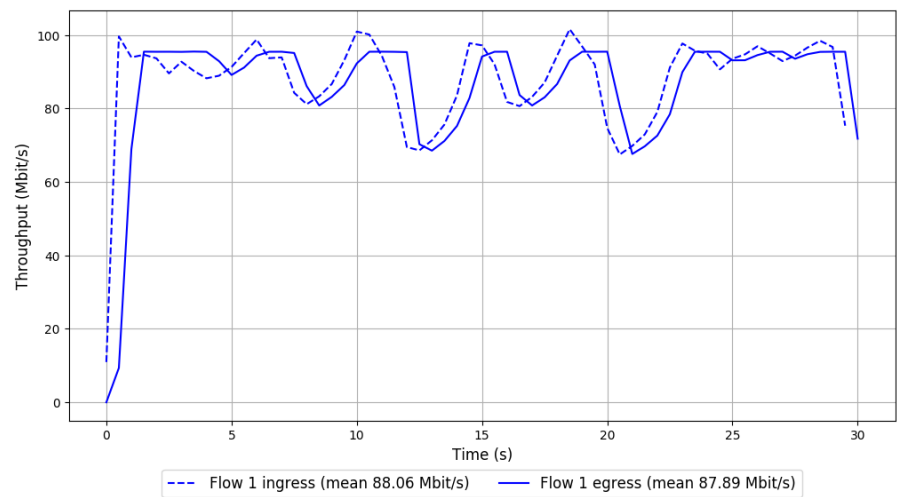


Run 2: Statistics of PCC-Expr

Start at: 2018-10-10 00:59:38
End at: 2018-10-10 01:00:08
Local clock offset: 2.095 ms
Remote clock offset: -3.684 ms

Below is generated by plot.py at 2018-10-10 02:33:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 146.973 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 87.89 Mbit/s
95th percentile per-packet one-way delay: 146.973 ms
Loss rate: 0.41%

Run 2: Report of PCC-Expr — Data Link

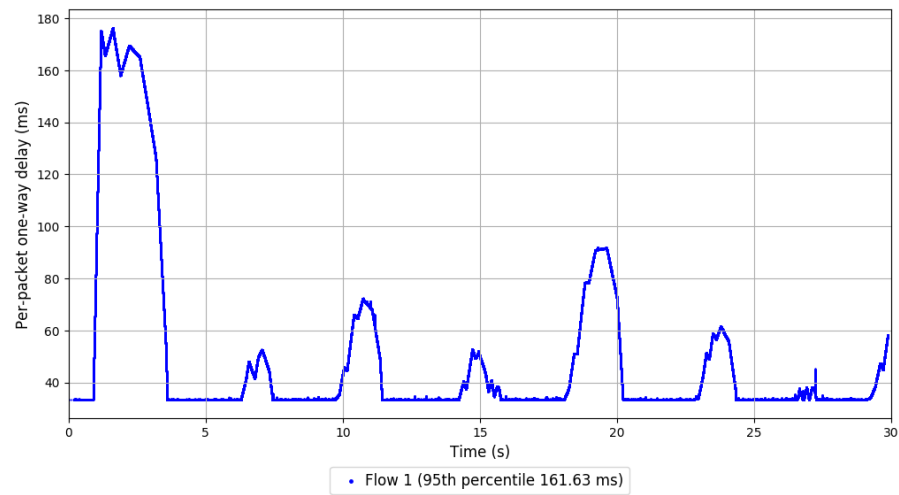
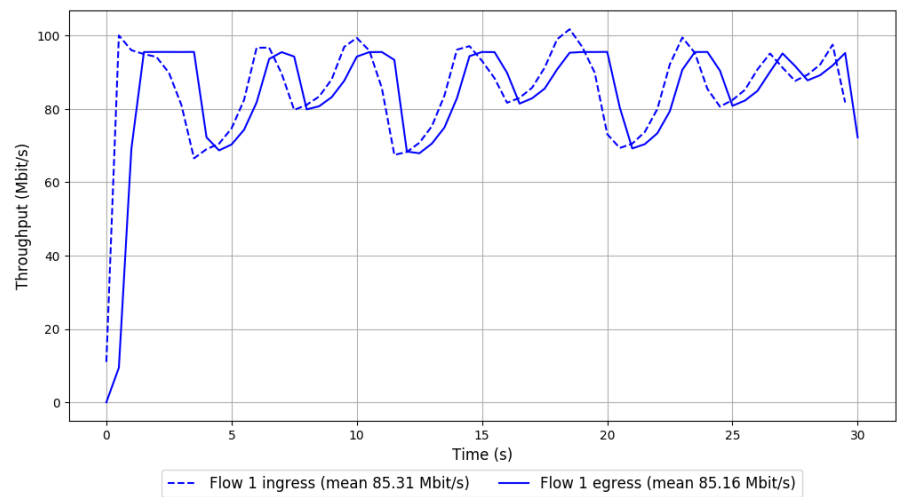


Run 3: Statistics of PCC-Expr

Start at: 2018-10-10 01:23:45
End at: 2018-10-10 01:24:15
Local clock offset: 4.529 ms
Remote clock offset: -3.116 ms

Below is generated by plot.py at 2018-10-10 02:33:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.16 Mbit/s
95th percentile per-packet one-way delay: 161.635 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 85.16 Mbit/s
95th percentile per-packet one-way delay: 161.635 ms
Loss rate: 0.39%

Run 3: Report of PCC-Expr — Data Link

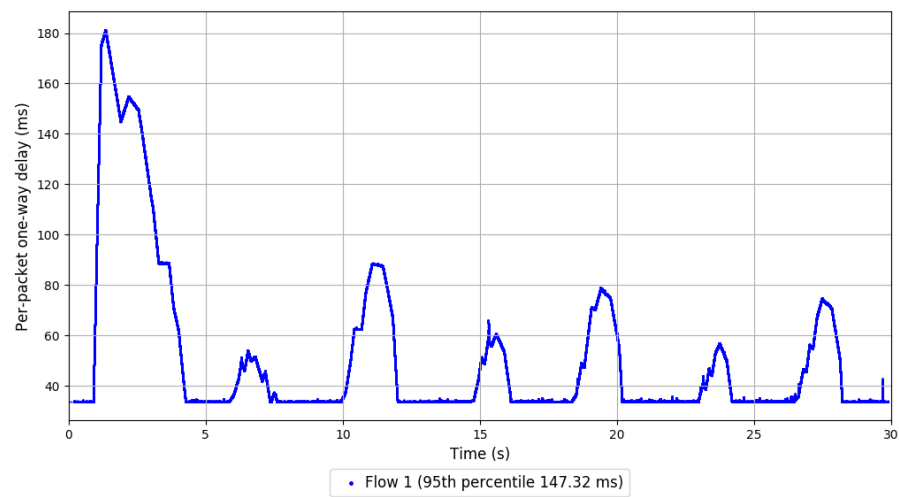
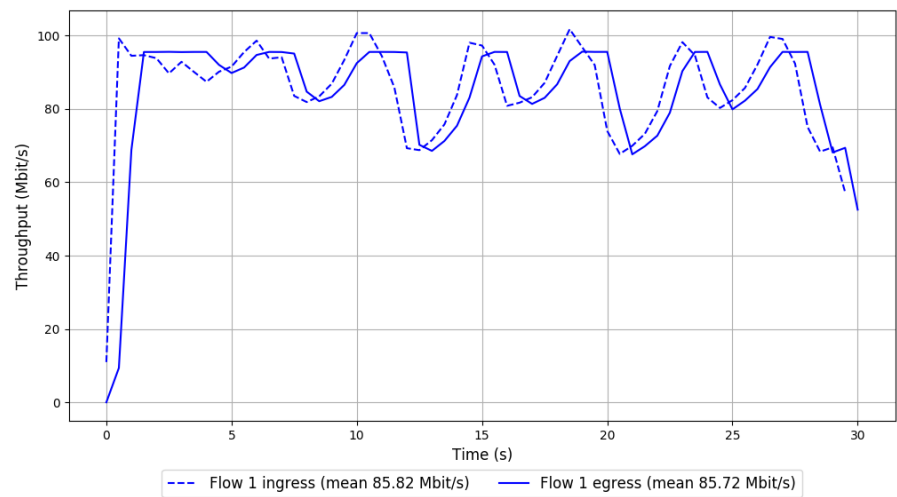


Run 4: Statistics of PCC-Expr

Start at: 2018-10-10 01:47:59
End at: 2018-10-10 01:48:29
Local clock offset: 4.571 ms
Remote clock offset: -2.985 ms

Below is generated by plot.py at 2018-10-10 02:33:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.72 Mbit/s
95th percentile per-packet one-way delay: 147.317 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 85.72 Mbit/s
95th percentile per-packet one-way delay: 147.317 ms
Loss rate: 0.32%

Run 4: Report of PCC-Expr — Data Link

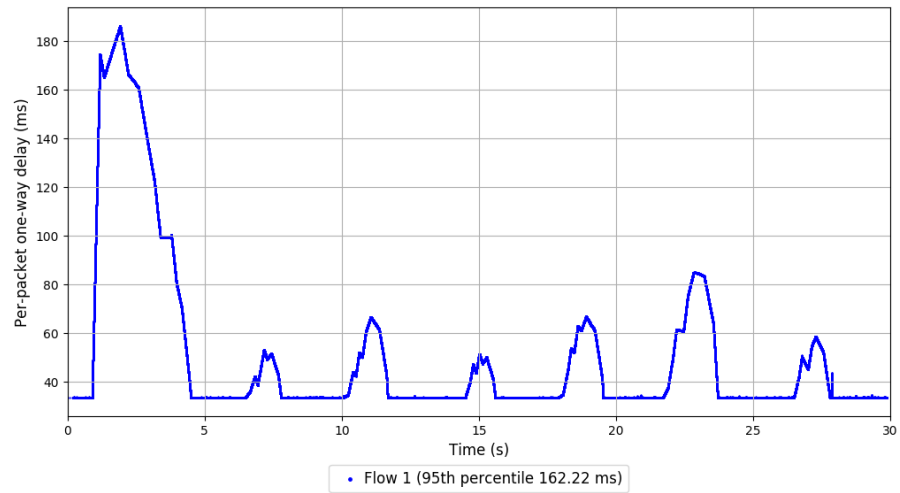
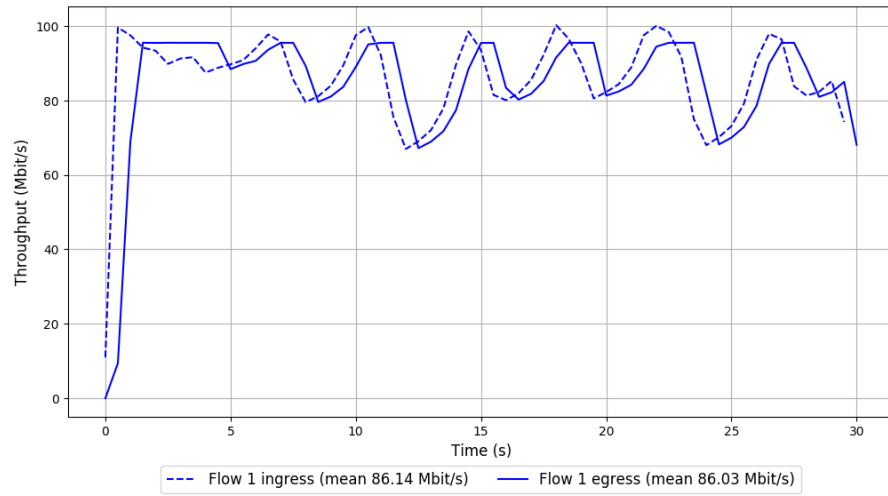


Run 5: Statistics of PCC-Expr

Start at: 2018-10-10 02:12:10
End at: 2018-10-10 02:12:40
Local clock offset: 1.861 ms
Remote clock offset: -2.607 ms

Below is generated by plot.py at 2018-10-10 02:33:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.03 Mbit/s
95th percentile per-packet one-way delay: 162.220 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 86.03 Mbit/s
95th percentile per-packet one-way delay: 162.220 ms
Loss rate: 0.34%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-10-10 00:32:33

End at: 2018-10-10 00:33:03

Local clock offset: 2.701 ms

Remote clock offset: -3.833 ms

Below is generated by plot.py at 2018-10-10 02:33:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.28 Mbit/s

95th percentile per-packet one-way delay: 49.033 ms

Loss rate: 0.22%

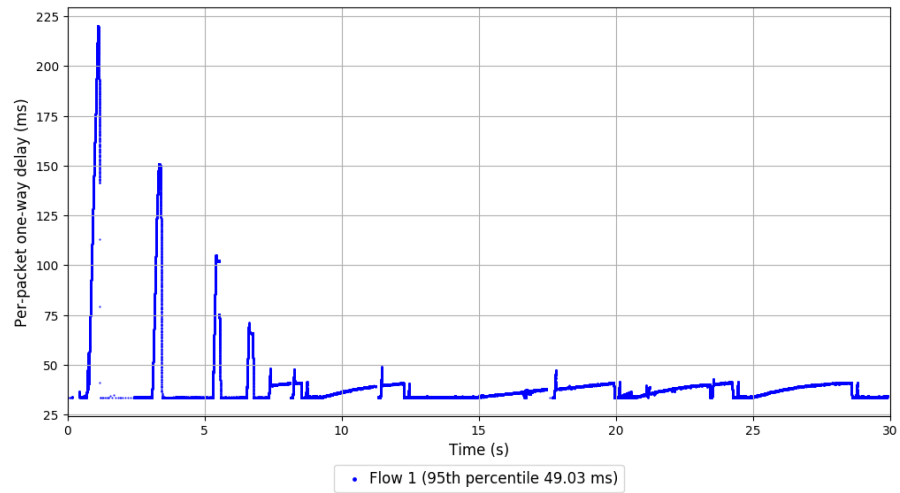
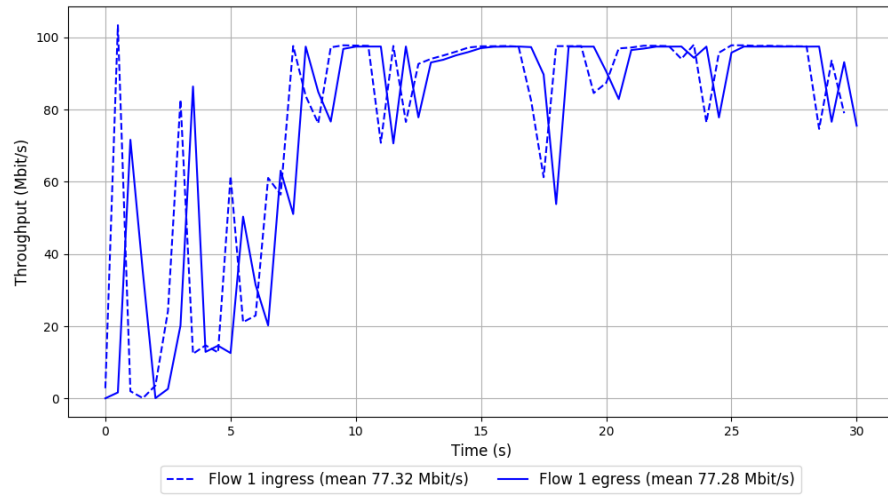
-- Flow 1:

Average throughput: 77.28 Mbit/s

95th percentile per-packet one-way delay: 49.033 ms

Loss rate: 0.22%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-10-10 00:56:56

End at: 2018-10-10 00:57:26

Local clock offset: 1.125 ms

Remote clock offset: -3.668 ms

Below is generated by plot.py at 2018-10-10 02:33:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.10 Mbit/s

95th percentile per-packet one-way delay: 48.785 ms

Loss rate: 0.28%

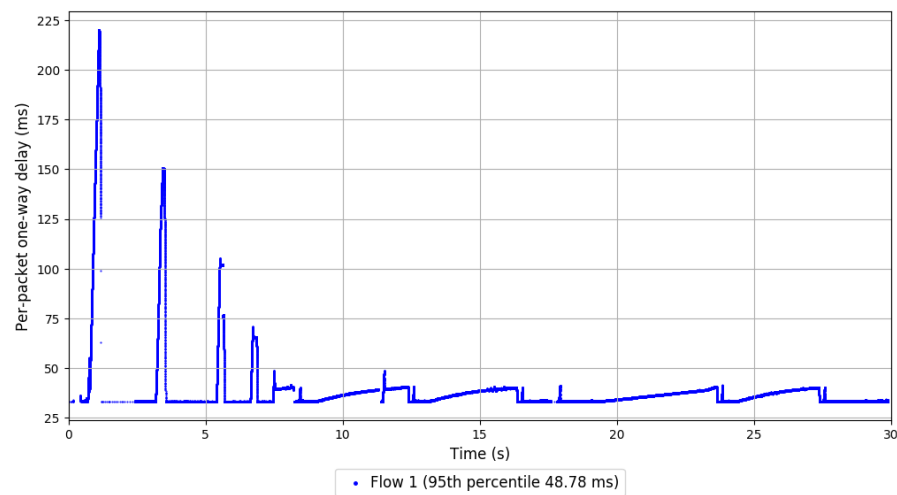
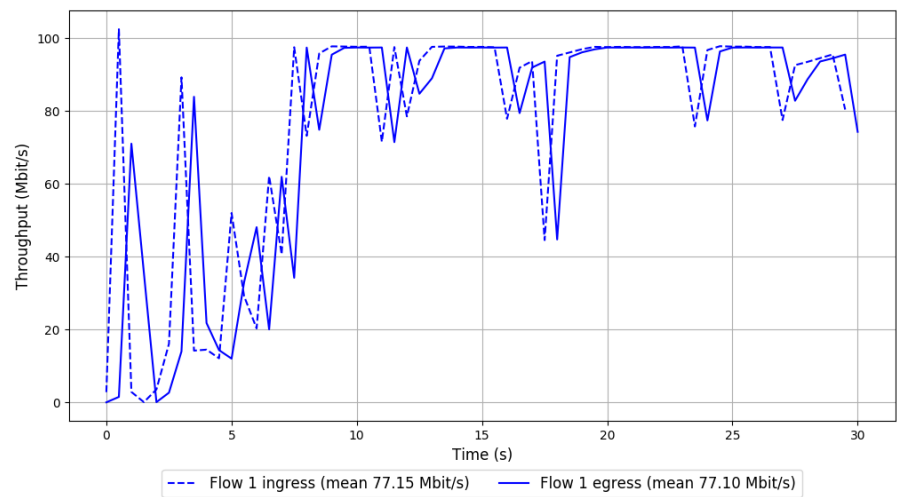
-- Flow 1:

Average throughput: 77.10 Mbit/s

95th percentile per-packet one-way delay: 48.785 ms

Loss rate: 0.28%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-10-10 01:21:04

End at: 2018-10-10 01:21:34

Local clock offset: 4.455 ms

Remote clock offset: -3.14 ms

Below is generated by plot.py at 2018-10-10 02:33:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.43 Mbit/s

95th percentile per-packet one-way delay: 51.570 ms

Loss rate: 0.28%

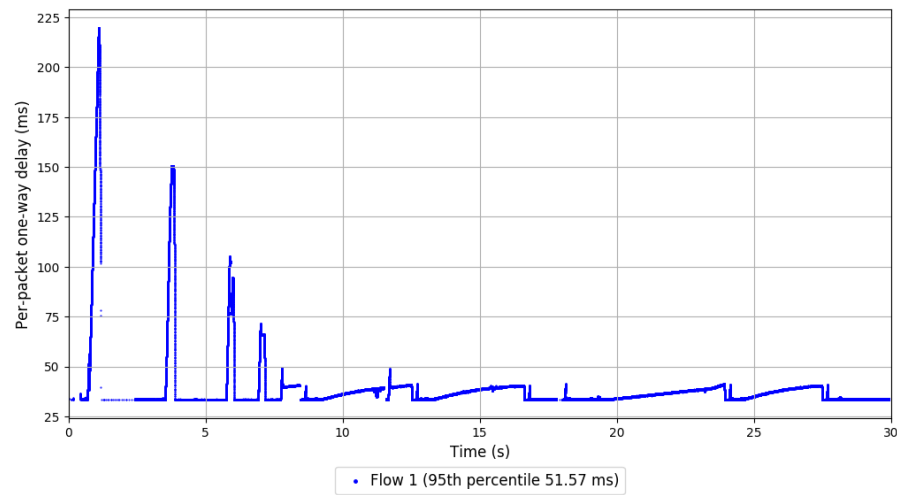
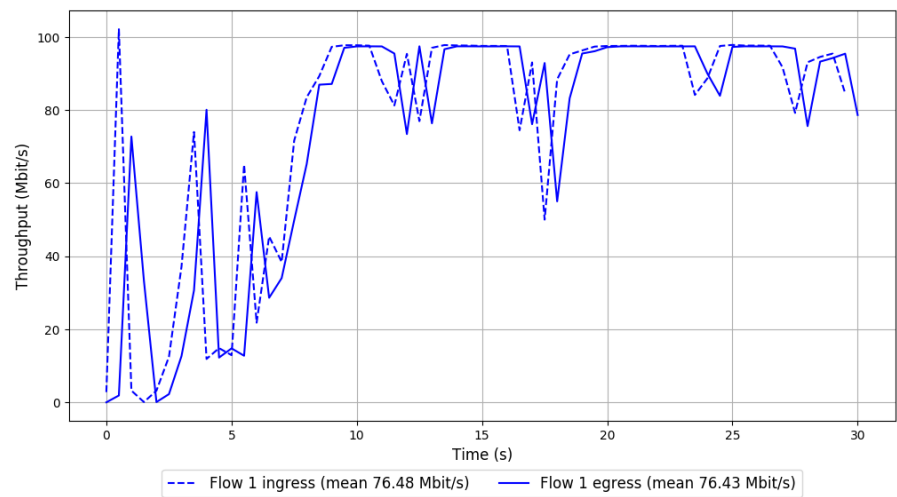
-- Flow 1:

Average throughput: 76.43 Mbit/s

95th percentile per-packet one-way delay: 51.570 ms

Loss rate: 0.28%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-10-10 01:45:12

End at: 2018-10-10 01:45:42

Local clock offset: 4.565 ms

Remote clock offset: -2.811 ms

Below is generated by plot.py at 2018-10-10 02:33:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.17 Mbit/s

95th percentile per-packet one-way delay: 49.262 ms

Loss rate: 0.28%

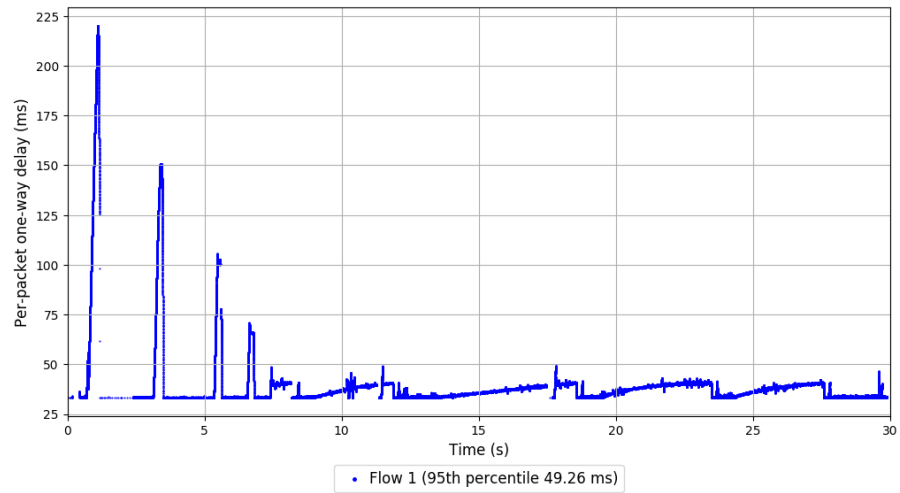
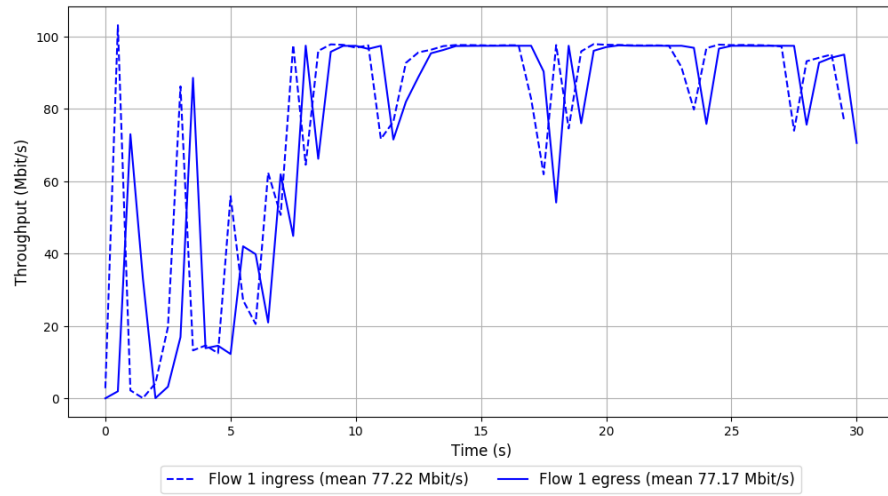
-- Flow 1:

Average throughput: 77.17 Mbit/s

95th percentile per-packet one-way delay: 49.262 ms

Loss rate: 0.28%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-10-10 02:09:28

End at: 2018-10-10 02:09:58

Local clock offset: 1.976 ms

Remote clock offset: -2.763 ms

Below is generated by plot.py at 2018-10-10 02:33:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.40 Mbit/s

95th percentile per-packet one-way delay: 52.006 ms

Loss rate: 0.28%

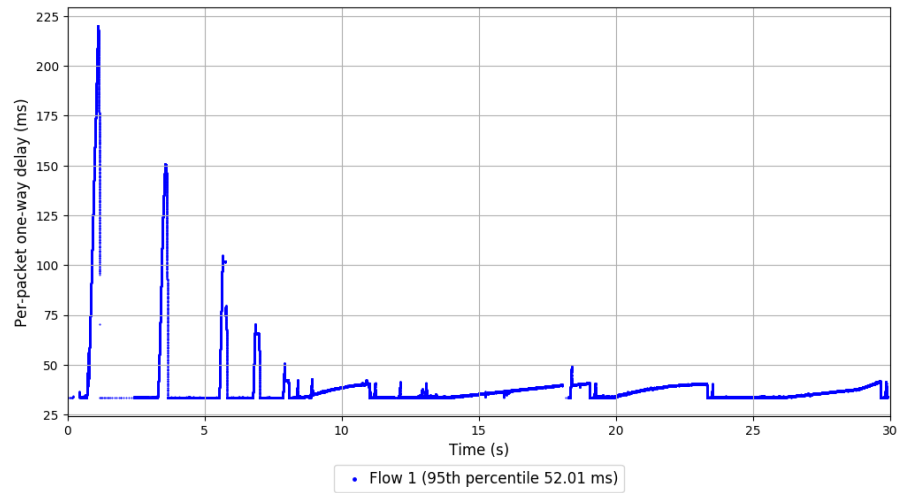
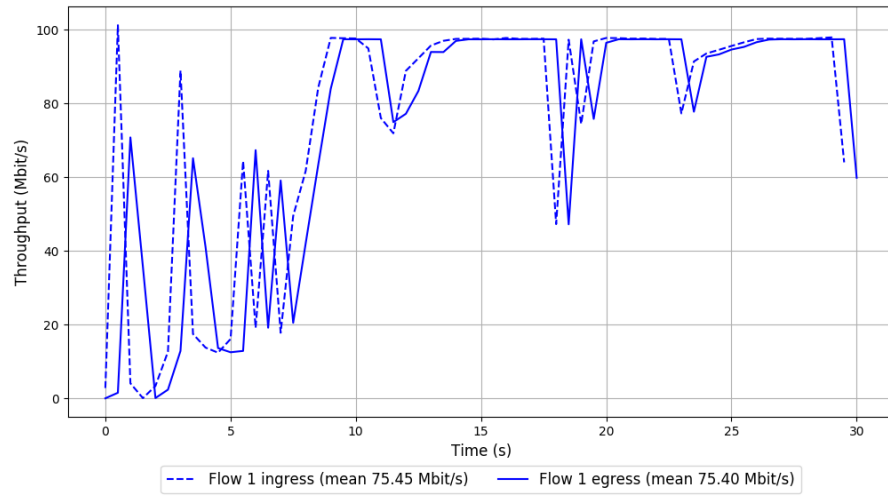
-- Flow 1:

Average throughput: 75.40 Mbit/s

95th percentile per-packet one-way delay: 52.006 ms

Loss rate: 0.28%

Run 5: Report of QUIC Cubic — Data Link

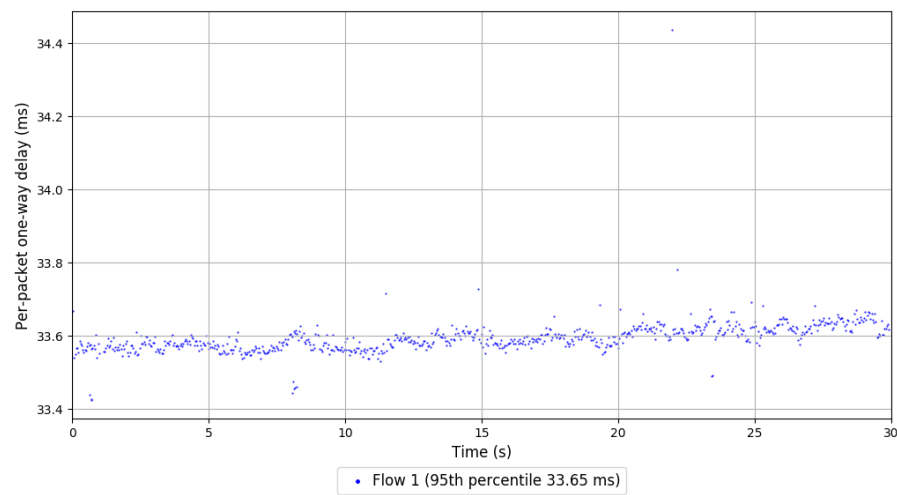
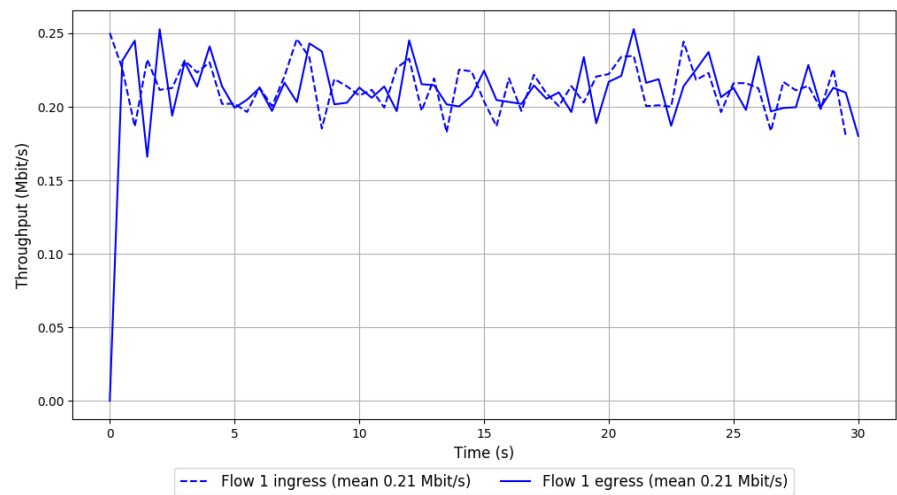


```
Run 1: Statistics of SCReAM

Start at: 2018-10-10 00:36:38
End at: 2018-10-10 00:37:08
Local clock offset: 1.96 ms
Remote clock offset: -3.765 ms

# Below is generated by plot.py at 2018-10-10 02:33:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.646 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.646 ms
Loss rate: 0.13%
```

Run 1: Report of SReAM — Data Link

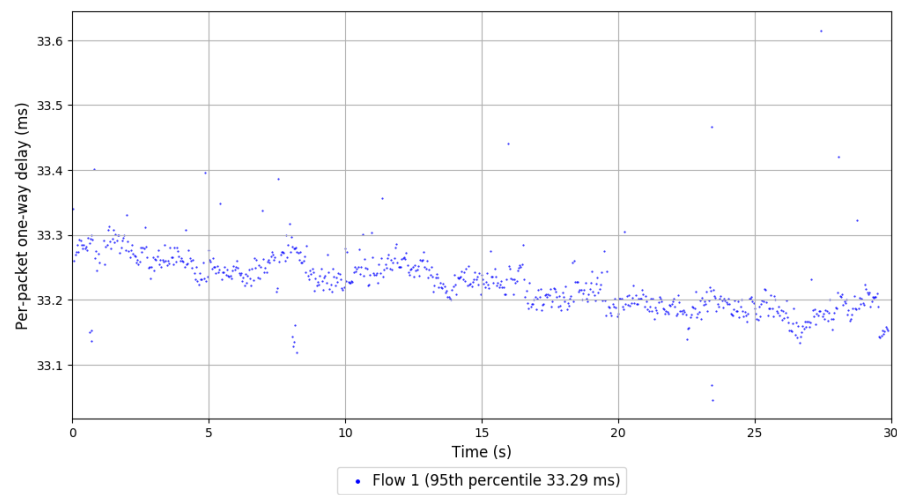
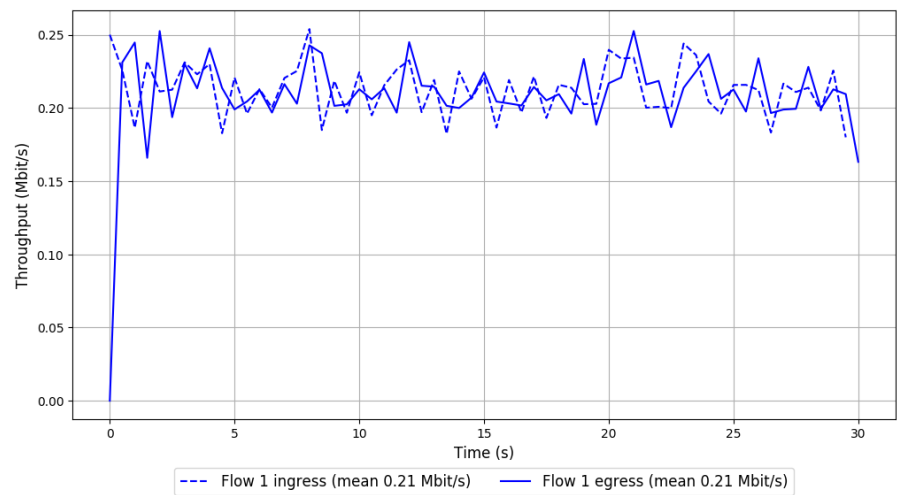


Run 2: Statistics of SCReAM

Start at: 2018-10-10 01:01:01
End at: 2018-10-10 01:01:31
Local clock offset: 2.436 ms
Remote clock offset: -3.426 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.291 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.291 ms
Loss rate: 0.26%

Run 2: Report of SReAM — Data Link

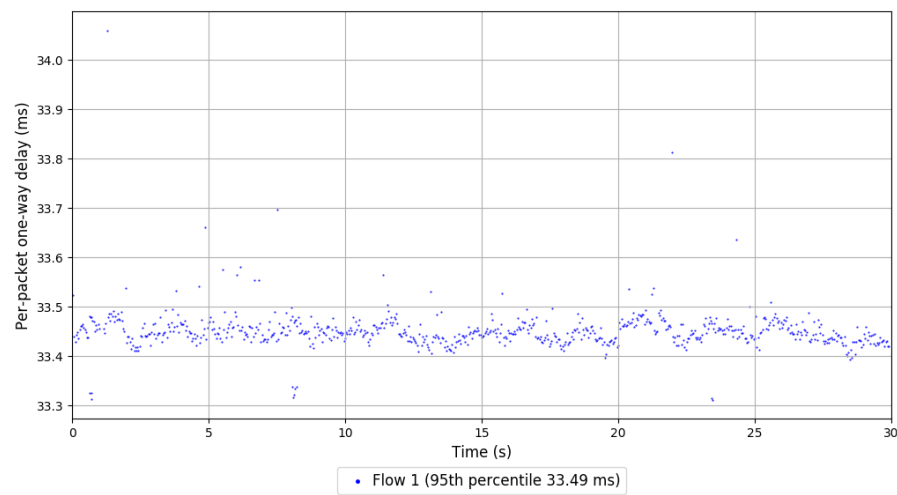
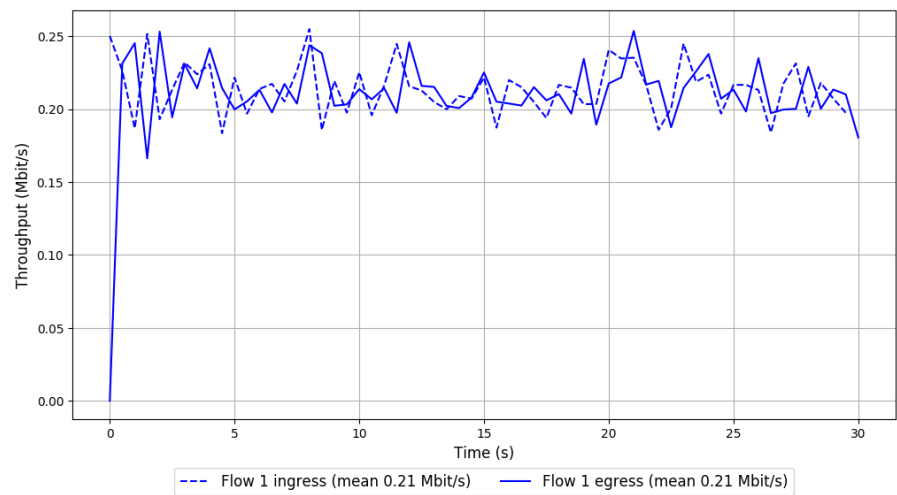


Run 3: Statistics of SCReAM

Start at: 2018-10-10 01:25:08
End at: 2018-10-10 01:25:39
Local clock offset: 4.556 ms
Remote clock offset: -3.065 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.487 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.487 ms
Loss rate: 0.26%

Run 3: Report of SReAM — Data Link

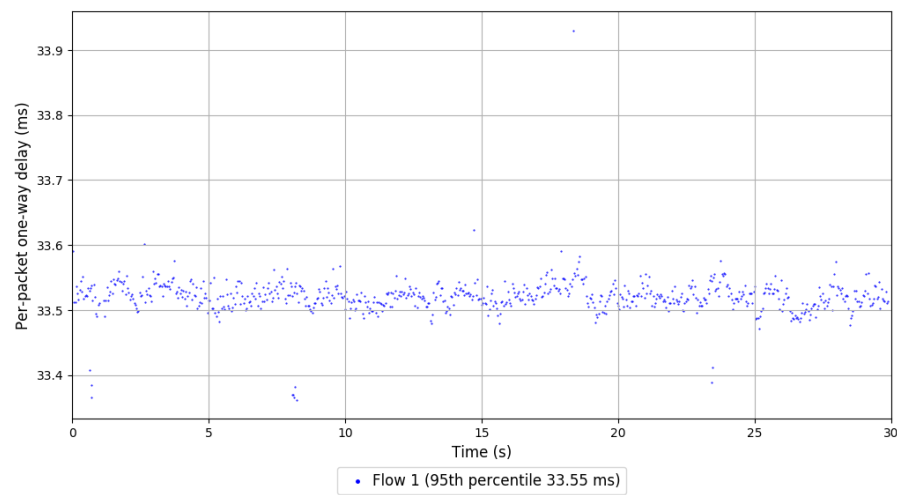
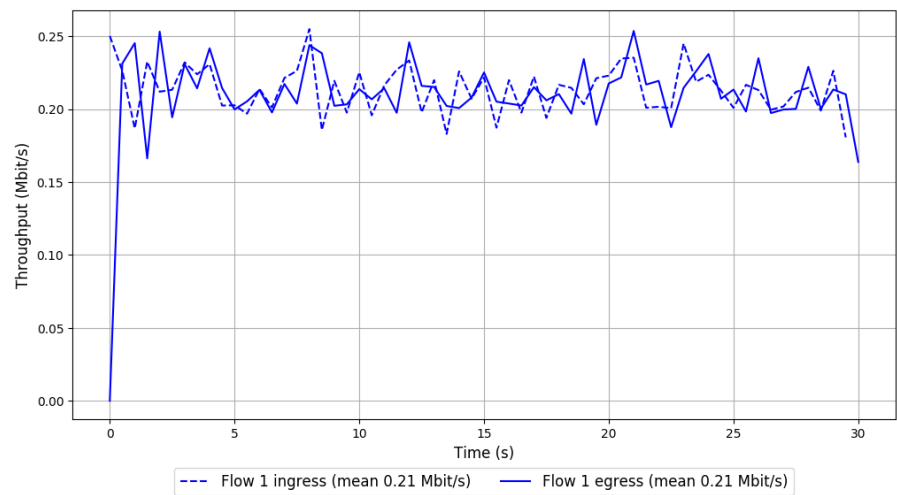


Run 4: Statistics of SCReAM

Start at: 2018-10-10 01:49:22
End at: 2018-10-10 01:49:52
Local clock offset: 4.572 ms
Remote clock offset: -2.797 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.552 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.552 ms
Loss rate: 0.26%

Run 4: Report of SReAM — Data Link

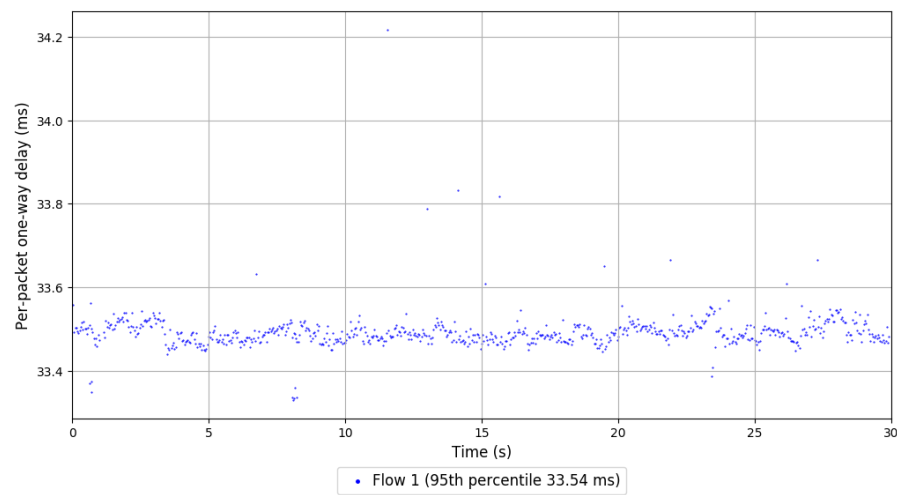
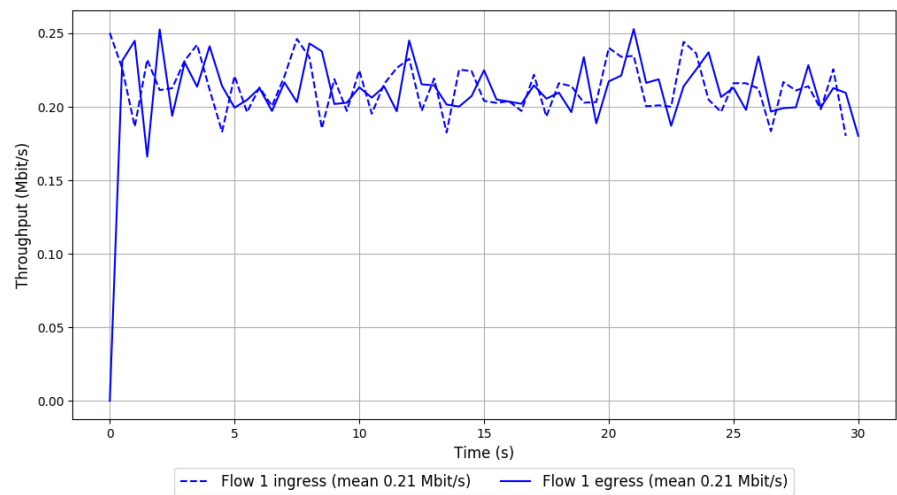


Run 5: Statistics of SCReAM

Start at: 2018-10-10 02:13:35
End at: 2018-10-10 02:14:05
Local clock offset: 1.814 ms
Remote clock offset: -2.696 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.537 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.537 ms
Loss rate: 0.13%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-10-10 00:37:54

End at: 2018-10-10 00:38:24

Local clock offset: 1.756 ms

Remote clock offset: -3.82 ms

Below is generated by plot.py at 2018-10-10 02:33:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.99 Mbit/s

95th percentile per-packet one-way delay: 41.099 ms

Loss rate: 0.19%

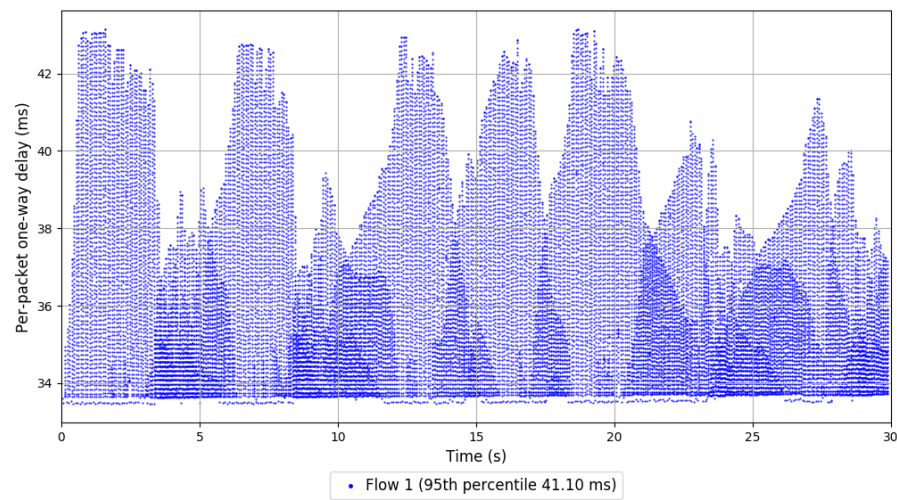
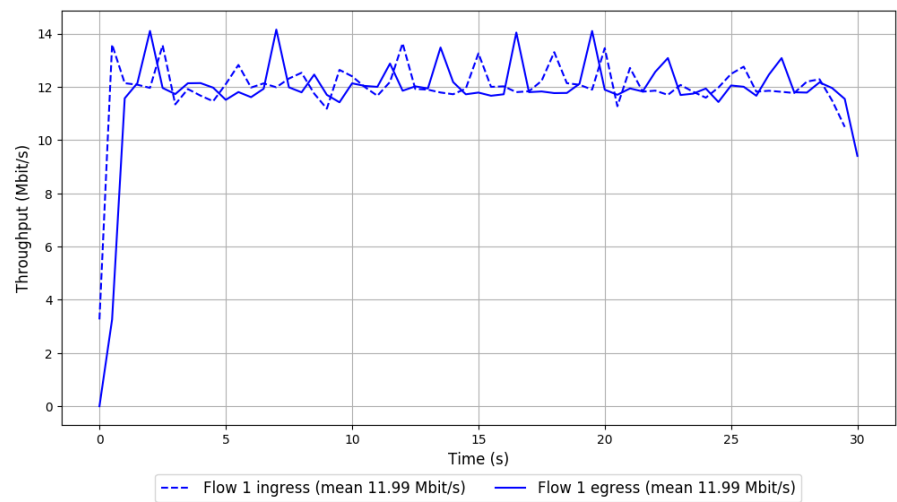
-- Flow 1:

Average throughput: 11.99 Mbit/s

95th percentile per-packet one-way delay: 41.099 ms

Loss rate: 0.19%

Run 1: Report of Sprout — Data Link

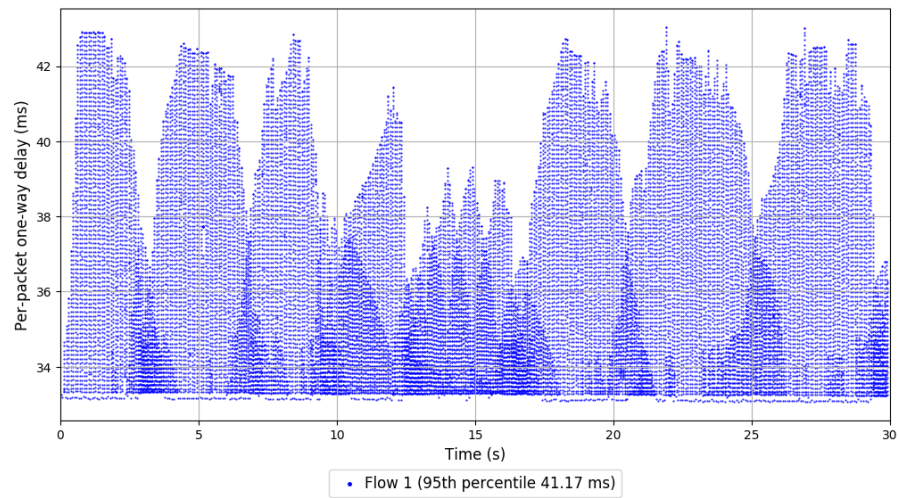
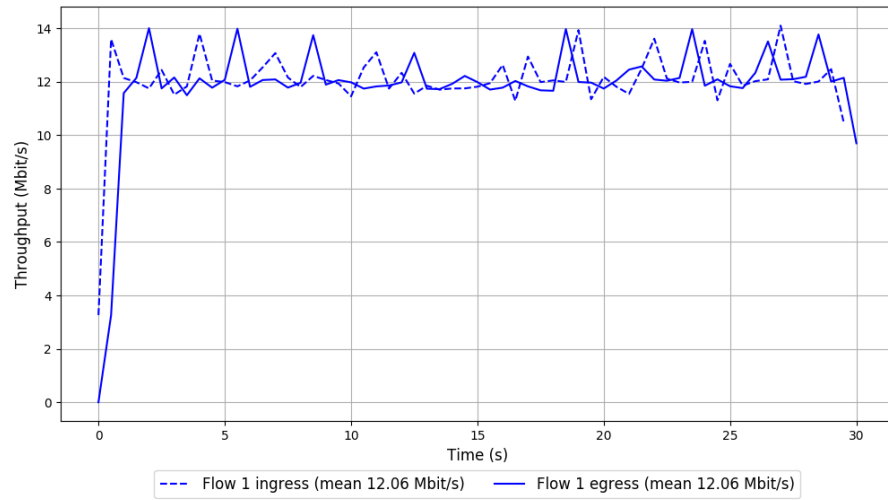


Run 2: Statistics of Sprout

Start at: 2018-10-10 01:02:17
End at: 2018-10-10 01:02:47
Local clock offset: 2.732 ms
Remote clock offset: -3.429 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 41.172 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 41.172 ms
Loss rate: 0.15%

Run 2: Report of Sprout — Data Link

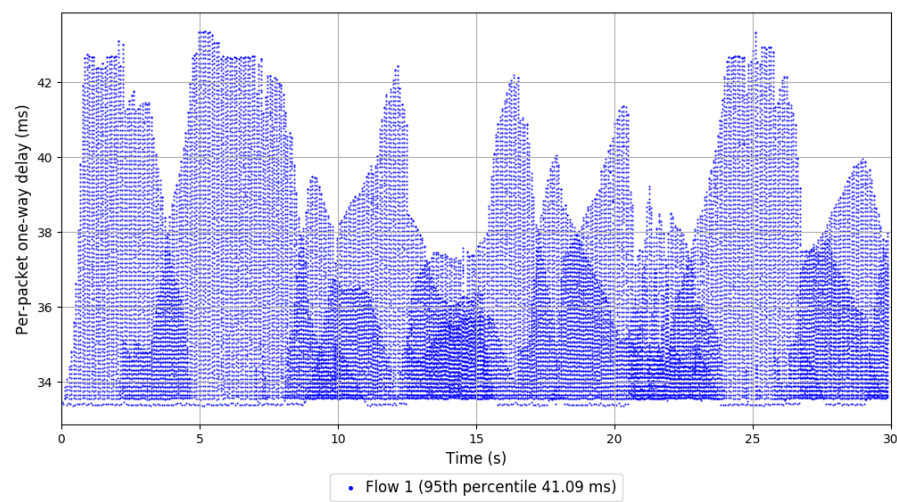
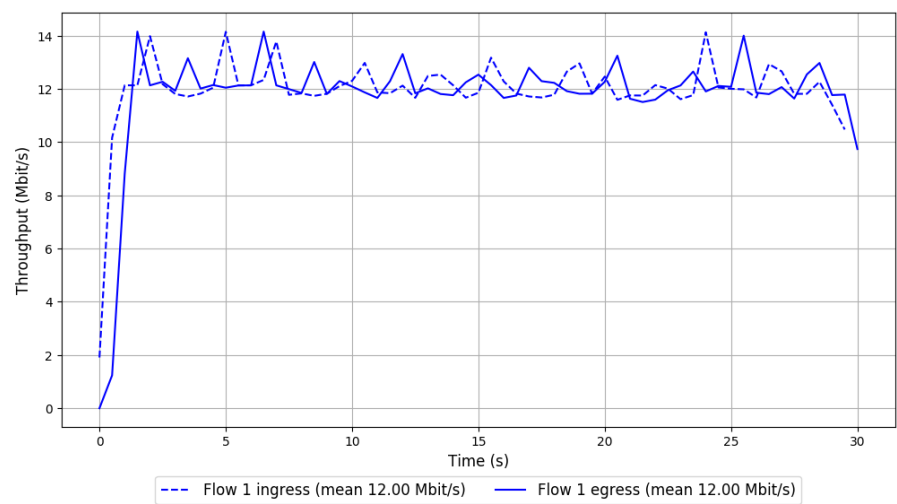


Run 3: Statistics of Sprout

Start at: 2018-10-10 01:26:24
End at: 2018-10-10 01:26:54
Local clock offset: 4.561 ms
Remote clock offset: -3.062 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.00 Mbit/s
95th percentile per-packet one-way delay: 41.091 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 12.00 Mbit/s
95th percentile per-packet one-way delay: 41.091 ms
Loss rate: 0.12%

Run 3: Report of Sprout — Data Link

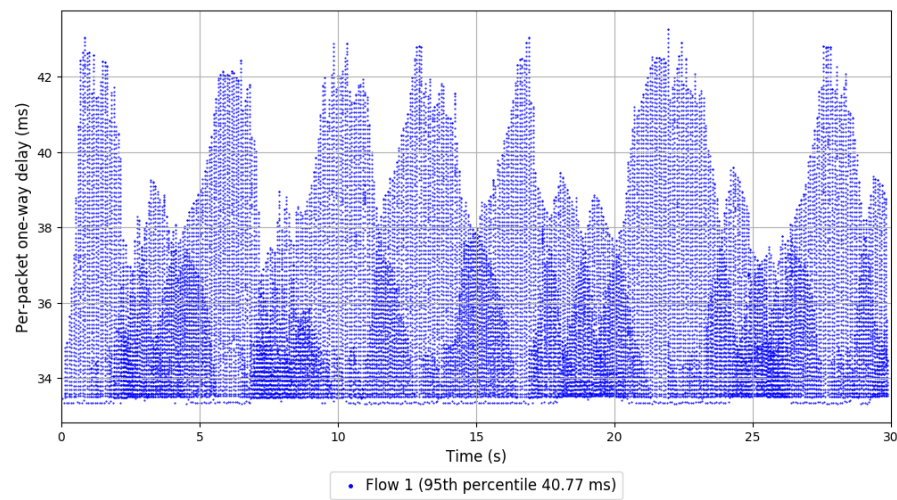
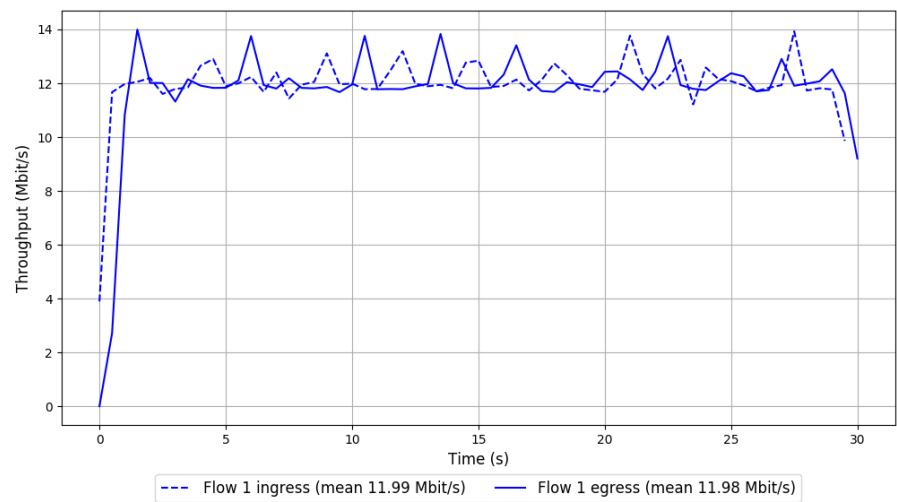


Run 4: Statistics of Sprout

Start at: 2018-10-10 01:50:38
End at: 2018-10-10 01:51:08
Local clock offset: 4.572 ms
Remote clock offset: -2.838 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 40.775 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 40.775 ms
Loss rate: 0.24%

Run 4: Report of Sprout — Data Link

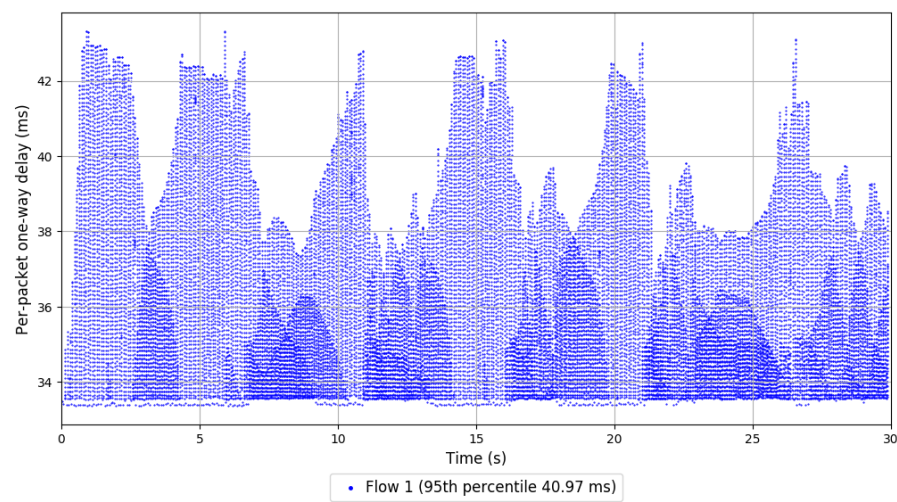
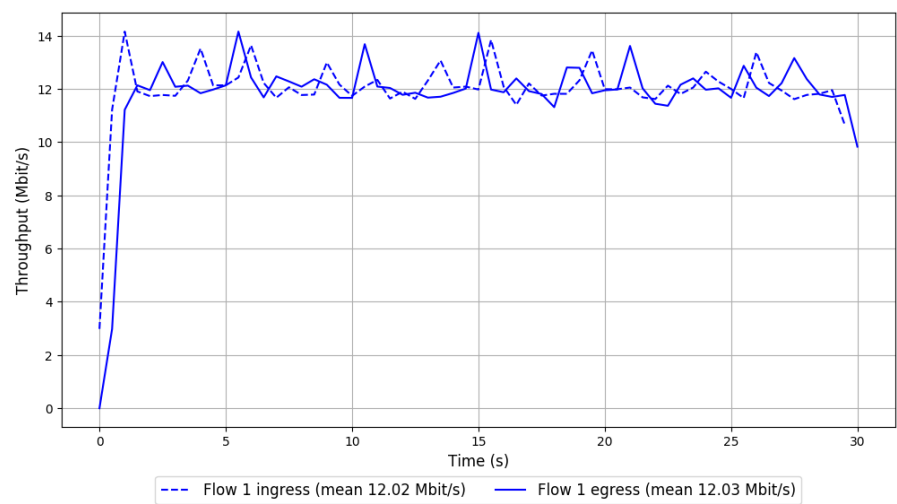


Run 5: Statistics of Sprout

Start at: 2018-10-10 02:14:51
End at: 2018-10-10 02:15:21
Local clock offset: 1.783 ms
Remote clock offset: -2.707 ms

Below is generated by plot.py at 2018-10-10 02:33:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.03 Mbit/s
95th percentile per-packet one-way delay: 40.971 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 12.03 Mbit/s
95th percentile per-packet one-way delay: 40.971 ms
Loss rate: 0.16%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-10-10 00:31:10

End at: 2018-10-10 00:31:40

Local clock offset: 2.991 ms

Remote clock offset: -3.898 ms

Below is generated by plot.py at 2018-10-10 02:35:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.31 Mbit/s

95th percentile per-packet one-way delay: 44.997 ms

Loss rate: 0.21%

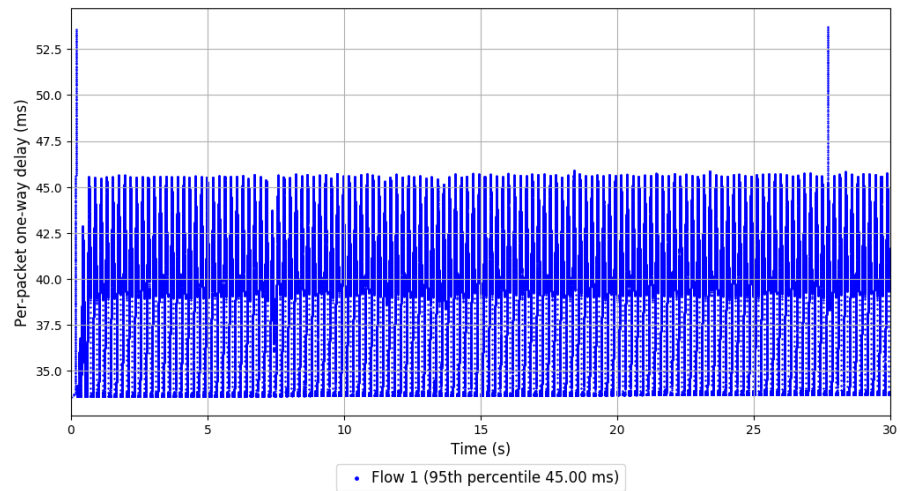
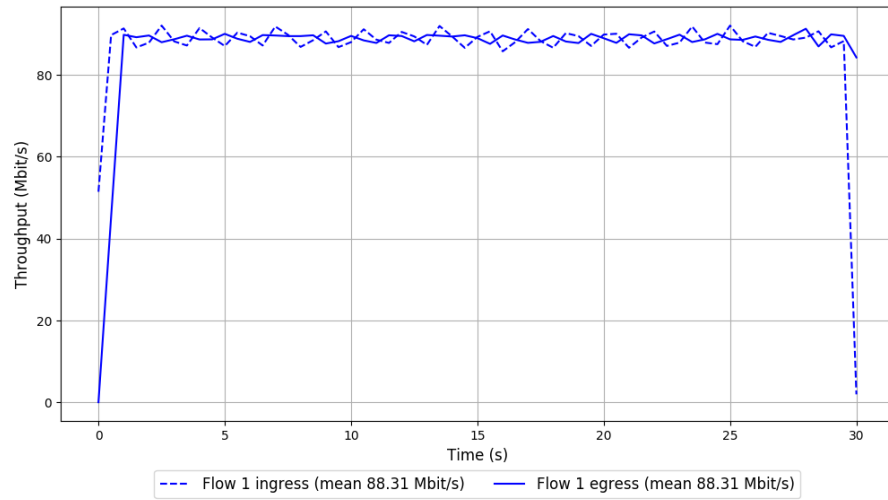
-- Flow 1:

Average throughput: 88.31 Mbit/s

95th percentile per-packet one-way delay: 44.997 ms

Loss rate: 0.21%

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

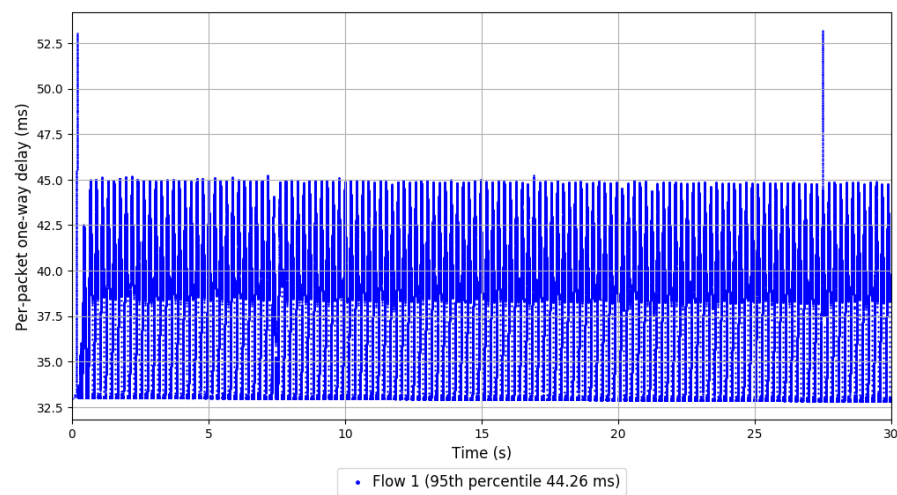
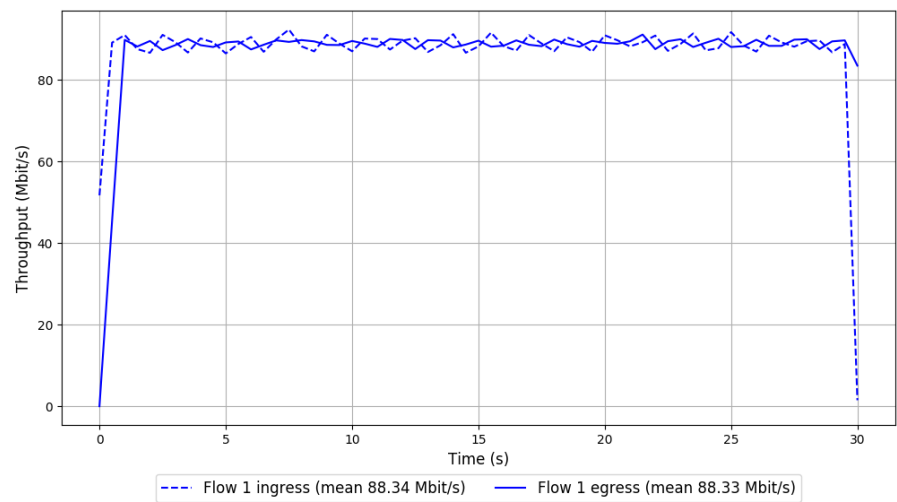


Run 2: Statistics of TaoVA-100x

Start at: 2018-10-10 00:55:28
End at: 2018-10-10 00:55:58
Local clock offset: 0.502 ms
Remote clock offset: -3.427 ms

Below is generated by plot.py at 2018-10-10 02:35:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 44.259 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 88.33 Mbit/s
95th percentile per-packet one-way delay: 44.259 ms
Loss rate: 0.22%

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

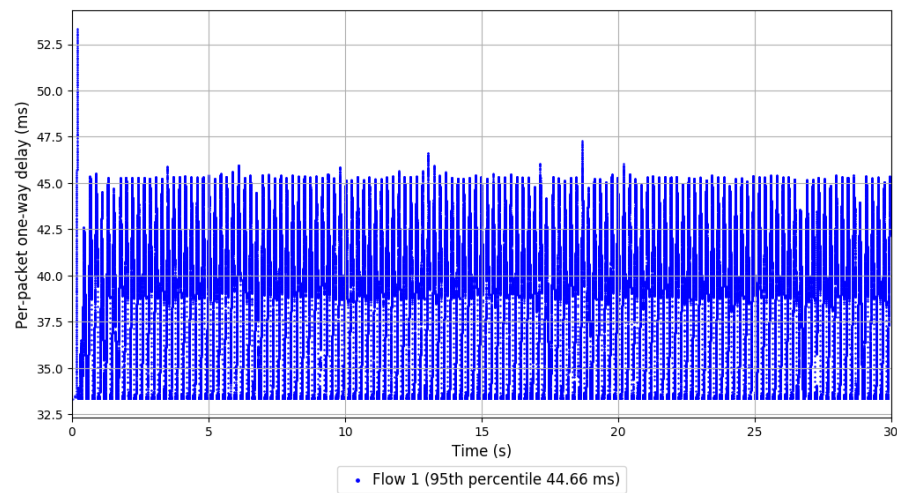
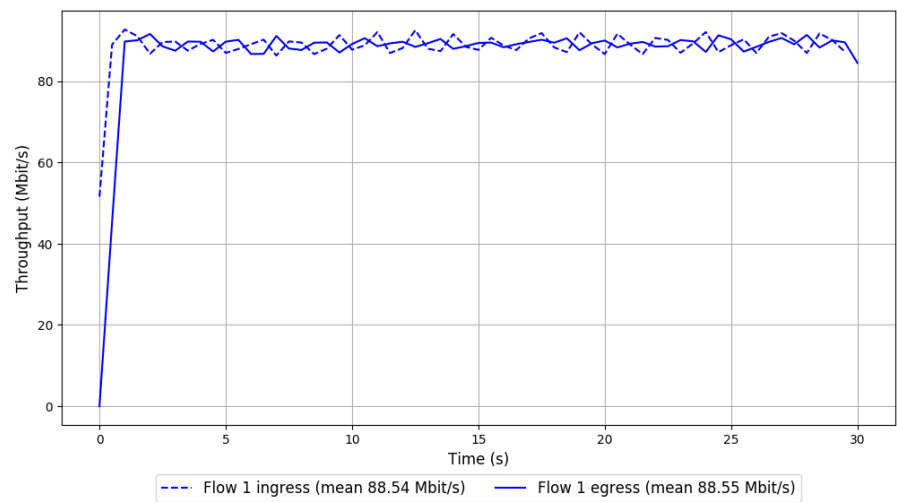


Run 3: Statistics of TaoVA-100x

Start at: 2018-10-10 01:19:41
End at: 2018-10-10 01:20:11
Local clock offset: 4.409 ms
Remote clock offset: -3.102 ms

Below is generated by plot.py at 2018-10-10 02:35:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 44.659 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 44.659 ms
Loss rate: 0.20%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-10-10 01:43:48

End at: 2018-10-10 01:44:18

Local clock offset: 4.59 ms

Remote clock offset: -3.034 ms

Below is generated by plot.py at 2018-10-10 02:35:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.34 Mbit/s

95th percentile per-packet one-way delay: 44.991 ms

Loss rate: 0.22%

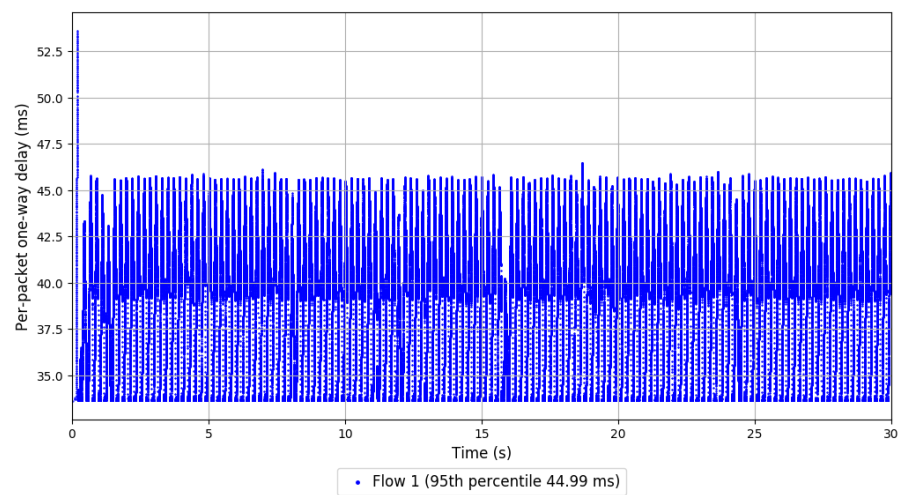
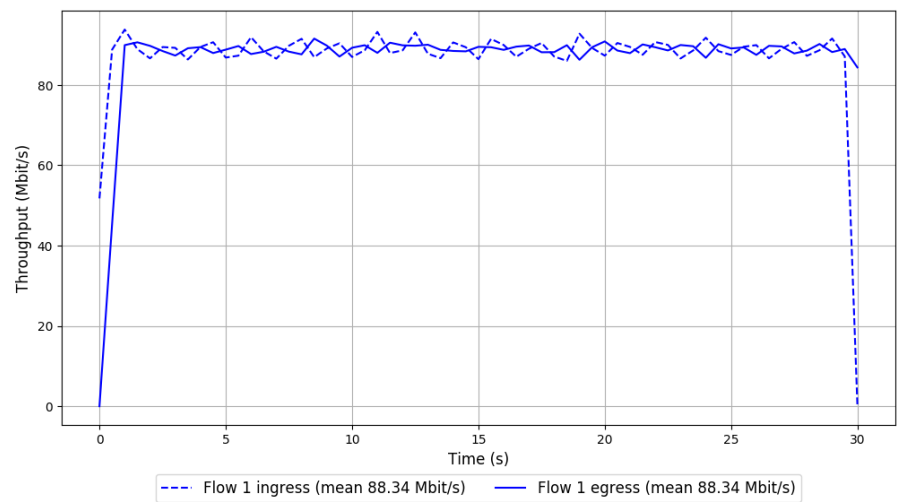
-- Flow 1:

Average throughput: 88.34 Mbit/s

95th percentile per-packet one-way delay: 44.991 ms

Loss rate: 0.22%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-10-10 02:08:03

End at: 2018-10-10 02:08:33

Local clock offset: 2.028 ms

Remote clock offset: -2.72 ms

Below is generated by plot.py at 2018-10-10 02:35:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.37 Mbit/s

95th percentile per-packet one-way delay: 44.760 ms

Loss rate: 0.20%

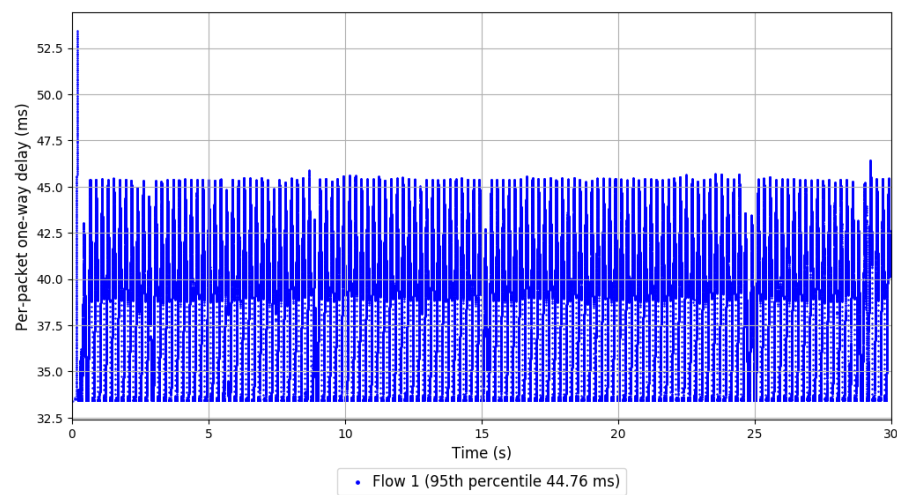
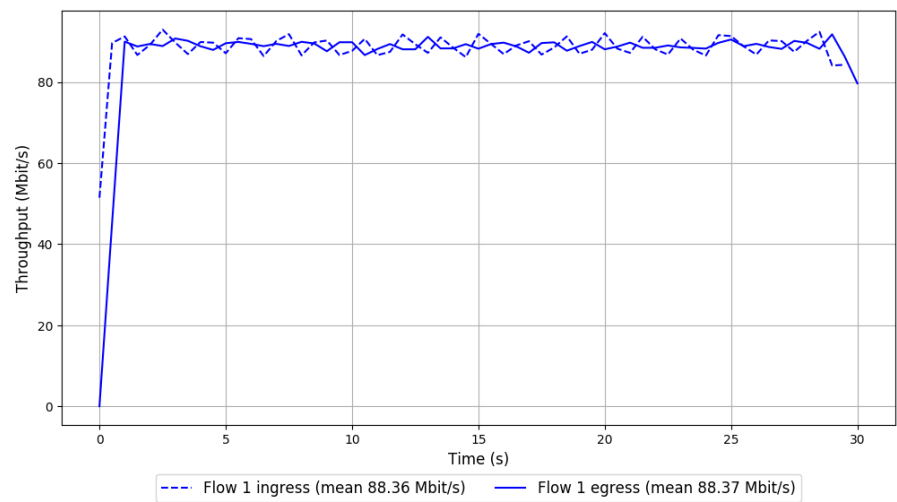
-- Flow 1:

Average throughput: 88.37 Mbit/s

95th percentile per-packet one-way delay: 44.760 ms

Loss rate: 0.20%

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

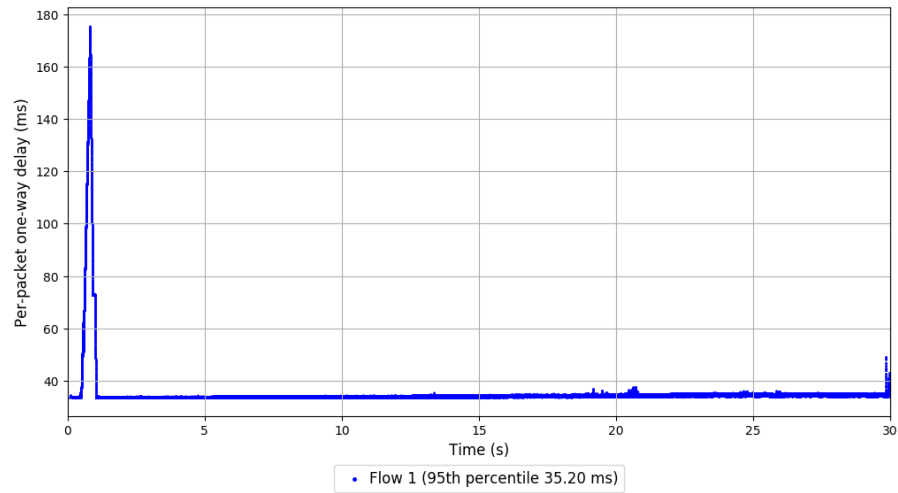
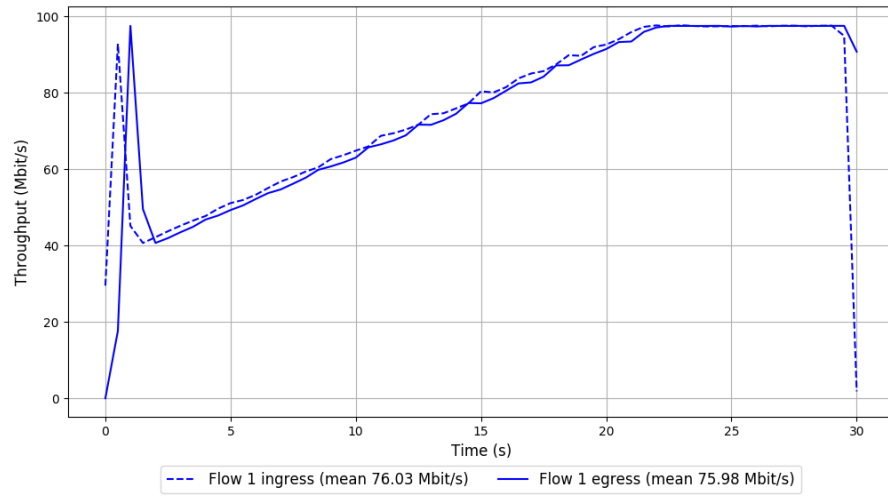


Run 1: Statistics of TCP Vegas

Start at: 2018-10-10 00:29:51
End at: 2018-10-10 00:30:21
Local clock offset: 3.337 ms
Remote clock offset: -3.901 ms

Below is generated by plot.py at 2018-10-10 02:35:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 75.98 Mbit/s
95th percentile per-packet one-way delay: 35.196 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 75.98 Mbit/s
95th percentile per-packet one-way delay: 35.196 ms
Loss rate: 0.28%

Run 1: Report of TCP Vegas — Data Link

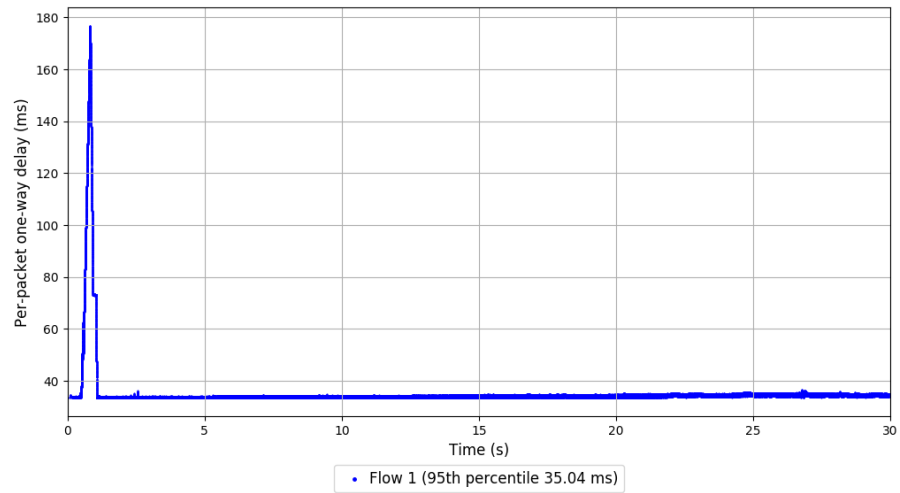
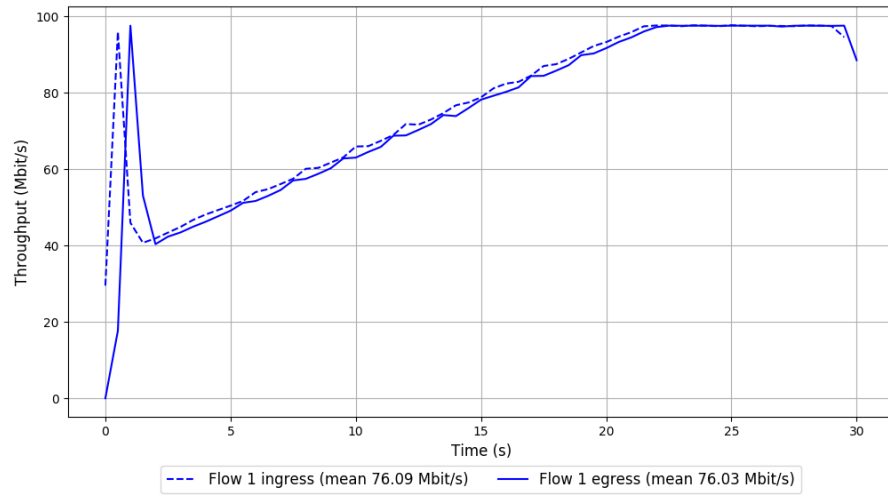


Run 2: Statistics of TCP Vegas

Start at: 2018-10-10 00:54:04
End at: 2018-10-10 00:54:34
Local clock offset: 0.438 ms
Remote clock offset: -3.714 ms

Below is generated by plot.py at 2018-10-10 02:35:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 76.03 Mbit/s
95th percentile per-packet one-way delay: 35.039 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 76.03 Mbit/s
95th percentile per-packet one-way delay: 35.039 ms
Loss rate: 0.28%

Run 2: Report of TCP Vegas — Data Link

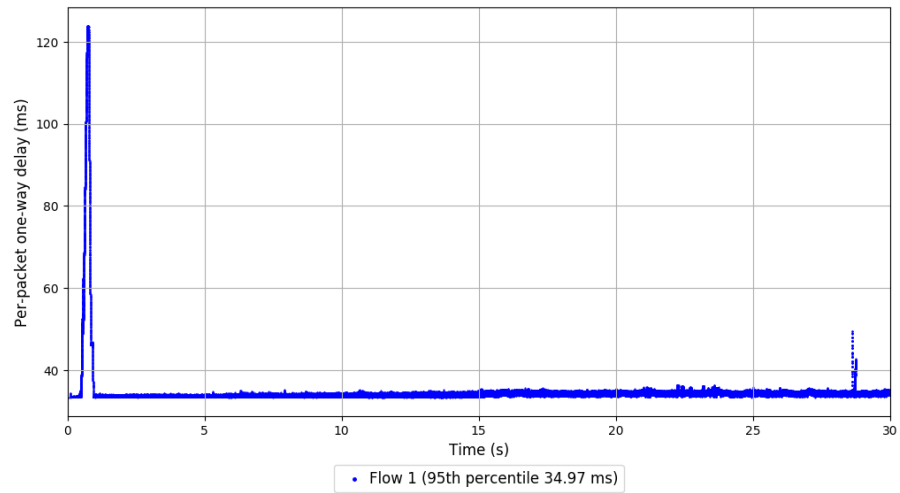
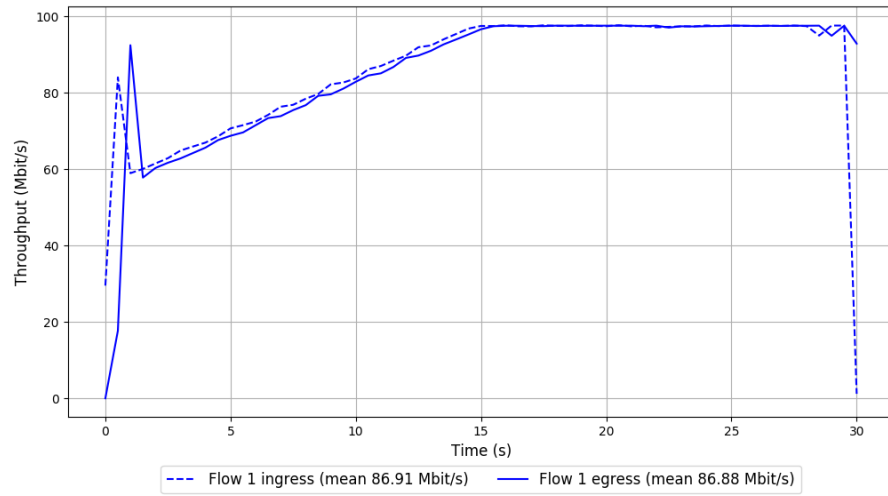


Run 3: Statistics of TCP Vegas

Start at: 2018-10-10 01:18:21
End at: 2018-10-10 01:18:51
Local clock offset: 4.354 ms
Remote clock offset: -3.182 ms

Below is generated by plot.py at 2018-10-10 02:35:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.88 Mbit/s
95th percentile per-packet one-way delay: 34.966 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 86.88 Mbit/s
95th percentile per-packet one-way delay: 34.966 ms
Loss rate: 0.25%

Run 3: Report of TCP Vegas — Data Link

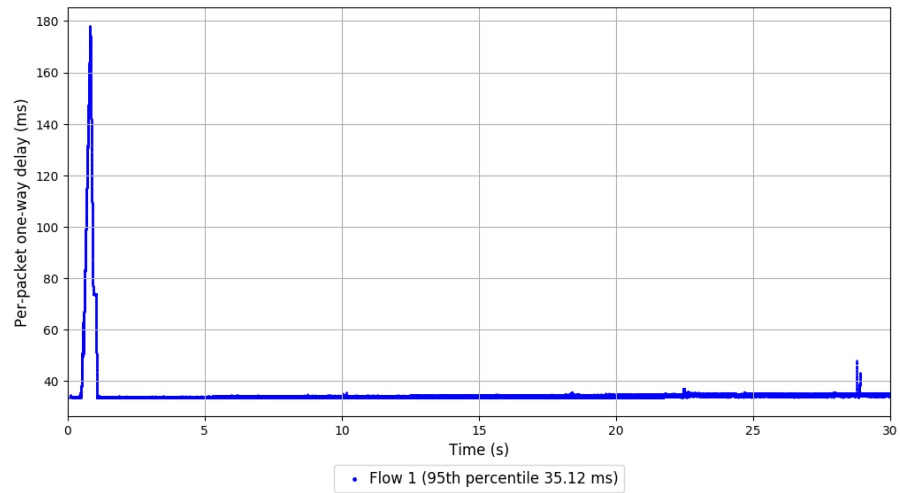
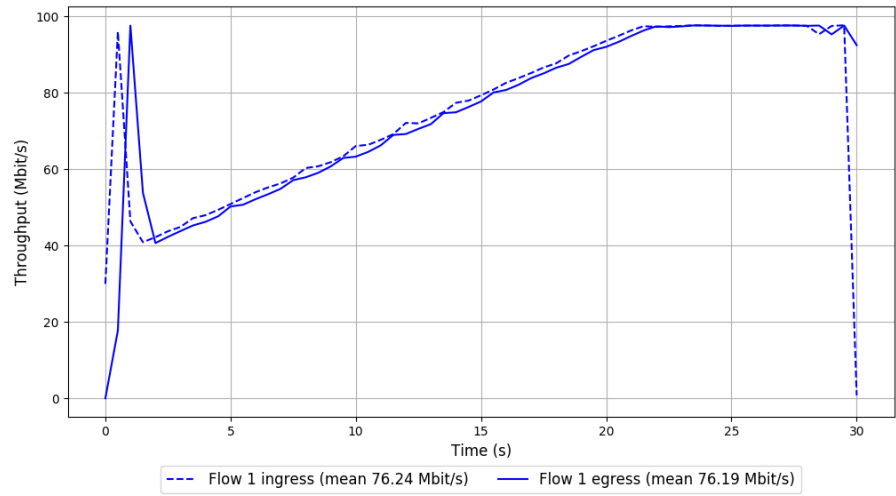


Run 4: Statistics of TCP Vegas

Start at: 2018-10-10 01:42:28
End at: 2018-10-10 01:42:58
Local clock offset: 4.578 ms
Remote clock offset: -3.121 ms

Below is generated by plot.py at 2018-10-10 02:35:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 76.19 Mbit/s
95th percentile per-packet one-way delay: 35.119 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 76.19 Mbit/s
95th percentile per-packet one-way delay: 35.119 ms
Loss rate: 0.28%

Run 4: Report of TCP Vegas — Data Link

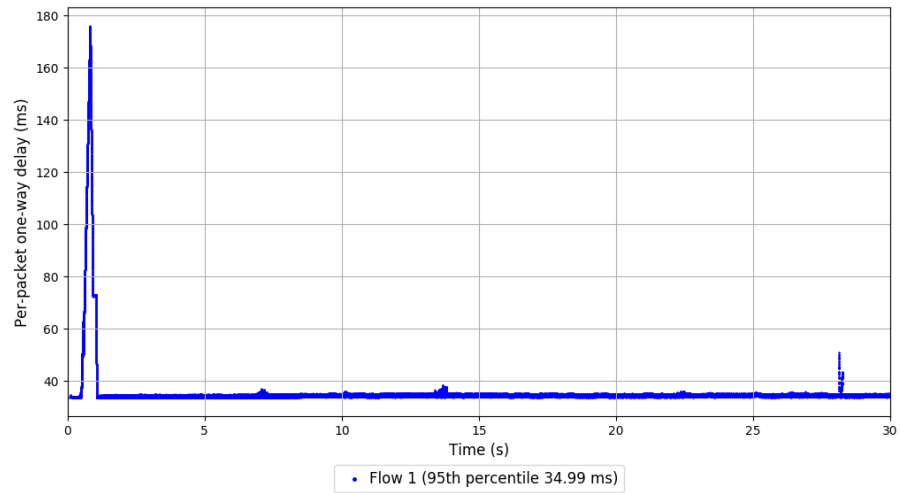
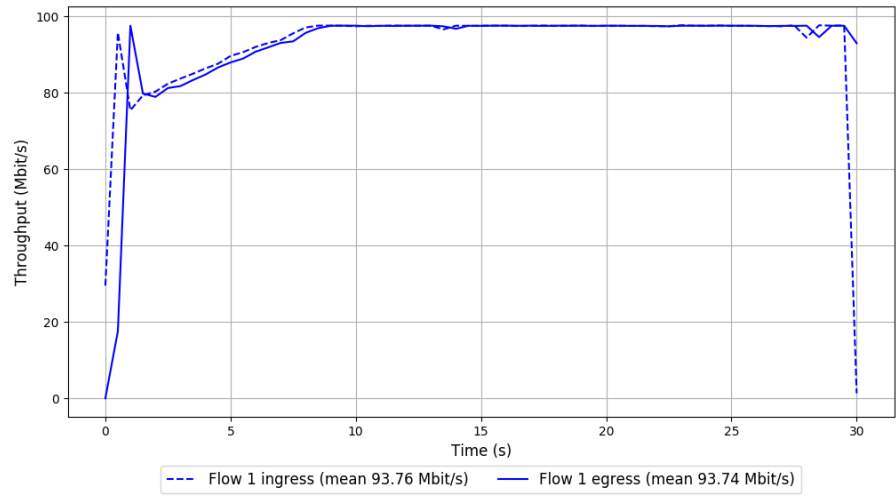


Run 5: Statistics of TCP Vegas

Start at: 2018-10-10 02:06:42
End at: 2018-10-10 02:07:12
Local clock offset: 2.148 ms
Remote clock offset: -2.757 ms

Below is generated by plot.py at 2018-10-10 02:35:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 34.995 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 34.995 ms
Loss rate: 0.23%

Run 5: Report of TCP Vegas — Data Link

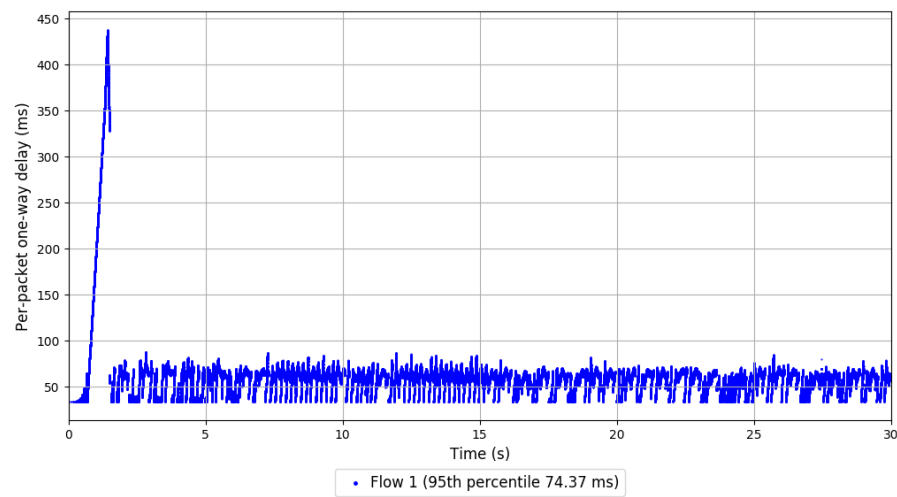
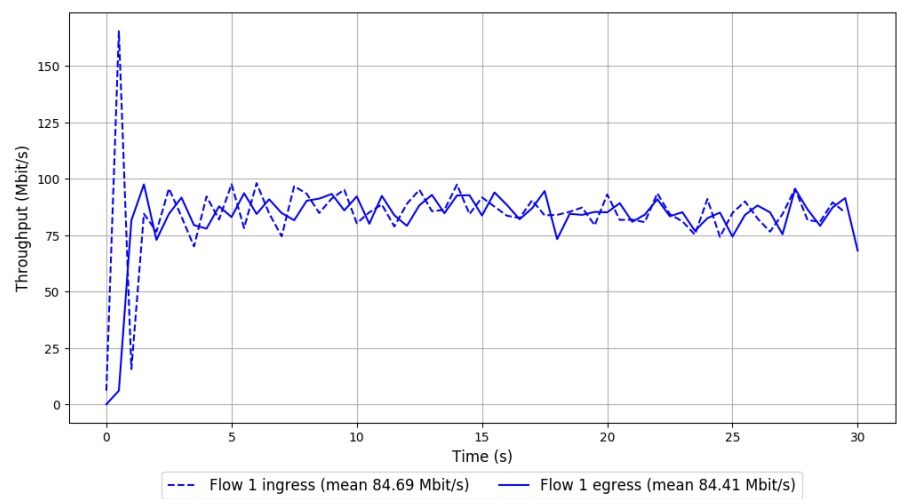


Run 1: Statistics of Verus

Start at: 2018-10-10 00:44:30
End at: 2018-10-10 00:45:00
Local clock offset: 1.096 ms
Remote clock offset: -3.856 ms

Below is generated by plot.py at 2018-10-10 02:36:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.41 Mbit/s
95th percentile per-packet one-way delay: 74.372 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 84.41 Mbit/s
95th percentile per-packet one-way delay: 74.372 ms
Loss rate: 0.54%

Run 1: Report of Verus — Data Link

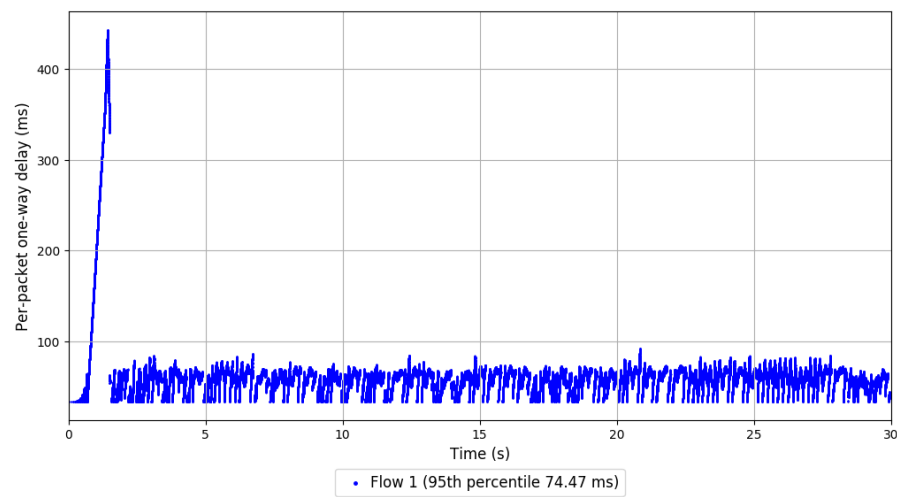
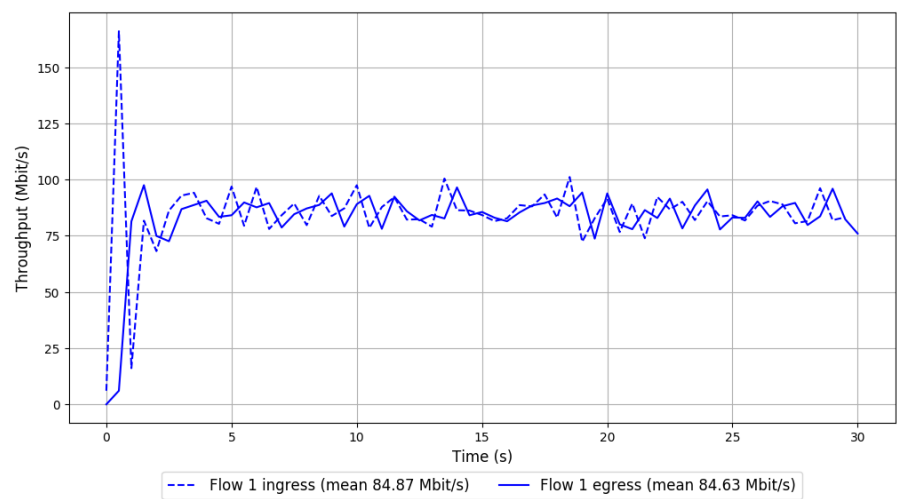


Run 2: Statistics of Verus

Start at: 2018-10-10 01:08:48
End at: 2018-10-10 01:09:18
Local clock offset: 3.715 ms
Remote clock offset: -3.373 ms

Below is generated by plot.py at 2018-10-10 02:36:13
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.63 Mbit/s
95th percentile per-packet one-way delay: 74.474 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 84.63 Mbit/s
95th percentile per-packet one-way delay: 74.474 ms
Loss rate: 0.48%

Run 2: Report of Verus — Data Link

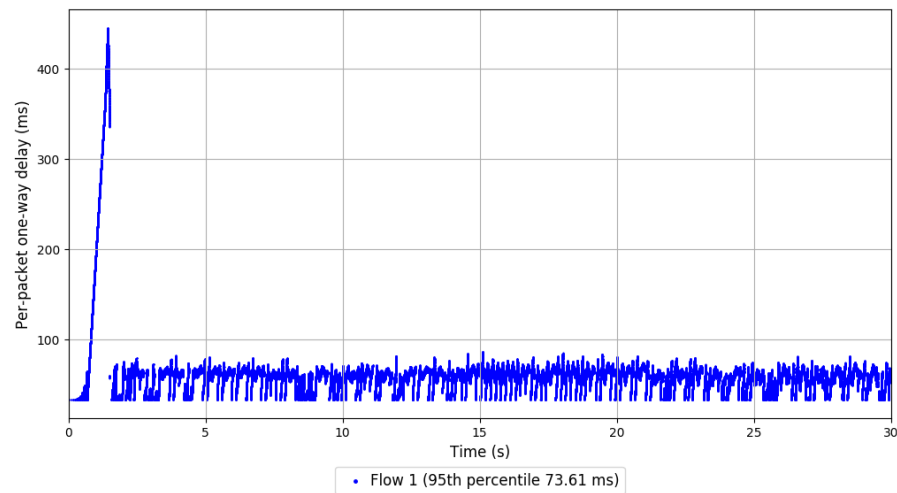
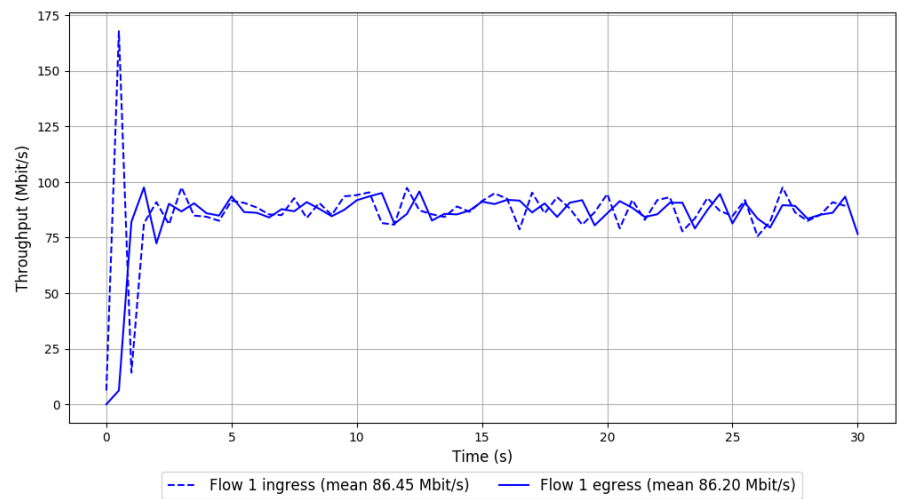


Run 3: Statistics of Verus

Start at: 2018-10-10 01:33:07
End at: 2018-10-10 01:33:37
Local clock offset: 4.587 ms
Remote clock offset: -2.879 ms

Below is generated by plot.py at 2018-10-10 02:36:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.20 Mbit/s
95th percentile per-packet one-way delay: 73.615 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 86.20 Mbit/s
95th percentile per-packet one-way delay: 73.615 ms
Loss rate: 0.50%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-10-10 01:57:12

End at: 2018-10-10 01:57:42

Local clock offset: 3.918 ms

Remote clock offset: -2.94 ms

Below is generated by plot.py at 2018-10-10 02:36:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.91 Mbit/s

95th percentile per-packet one-way delay: 71.672 ms

Loss rate: 0.56%

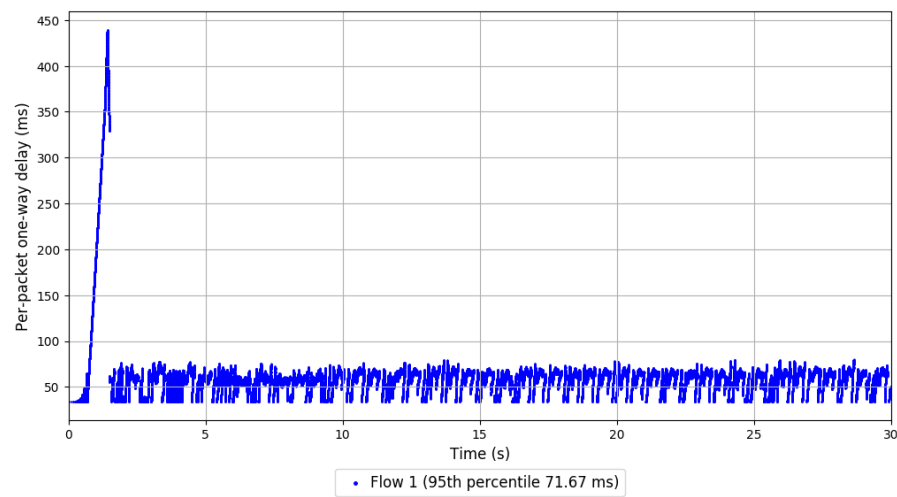
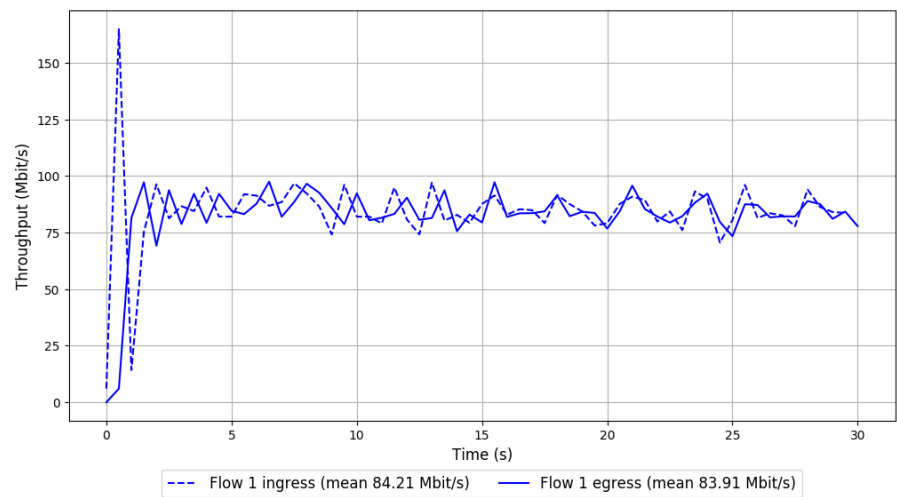
-- Flow 1:

Average throughput: 83.91 Mbit/s

95th percentile per-packet one-way delay: 71.672 ms

Loss rate: 0.56%

Run 4: Report of Verus — Data Link

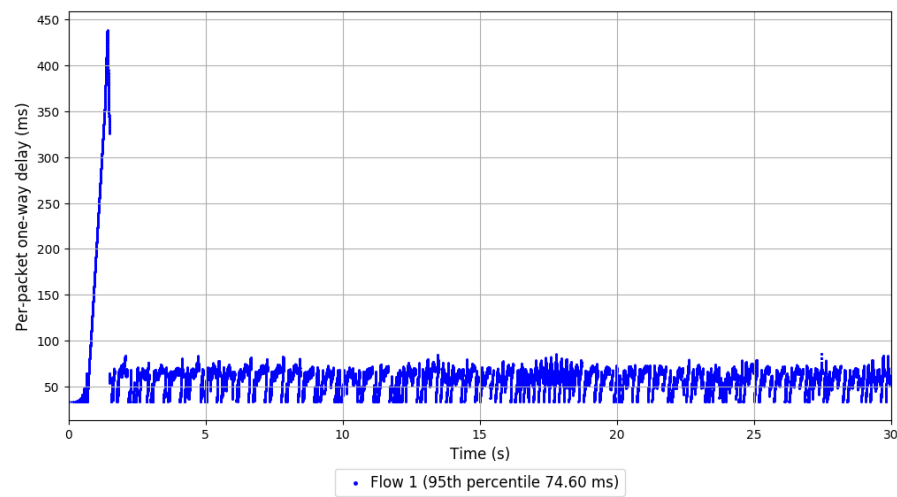
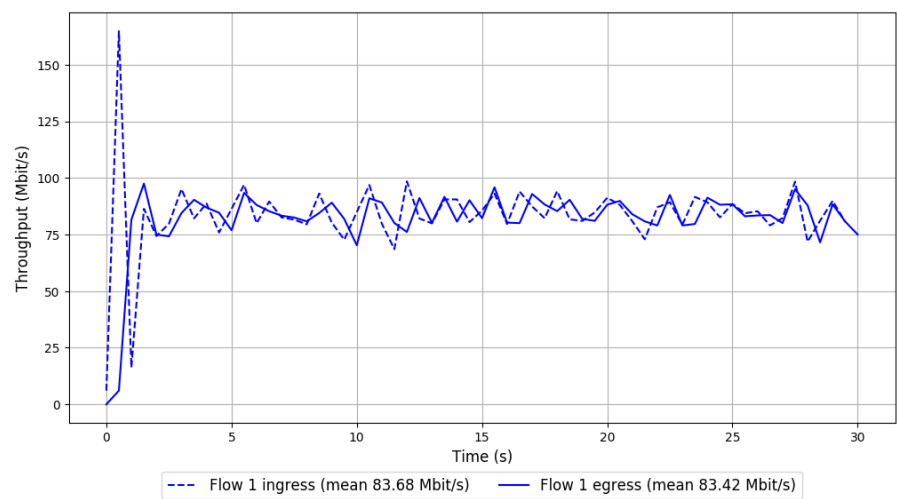


Run 5: Statistics of Verus

Start at: 2018-10-10 02:21:27
End at: 2018-10-10 02:21:57
Local clock offset: 1.66 ms
Remote clock offset: -2.644 ms

Below is generated by plot.py at 2018-10-10 02:36:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.42 Mbit/s
95th percentile per-packet one-way delay: 74.600 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 83.42 Mbit/s
95th percentile per-packet one-way delay: 74.600 ms
Loss rate: 0.53%

Run 5: Report of Verus — Data Link

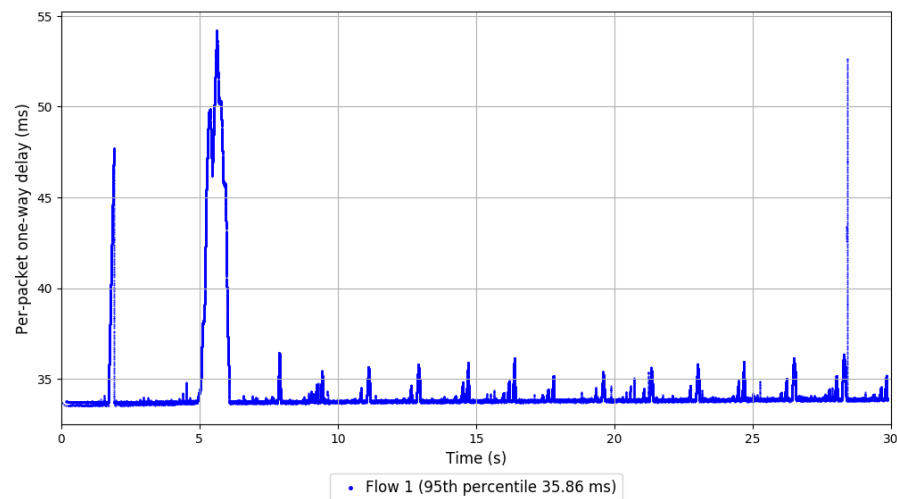
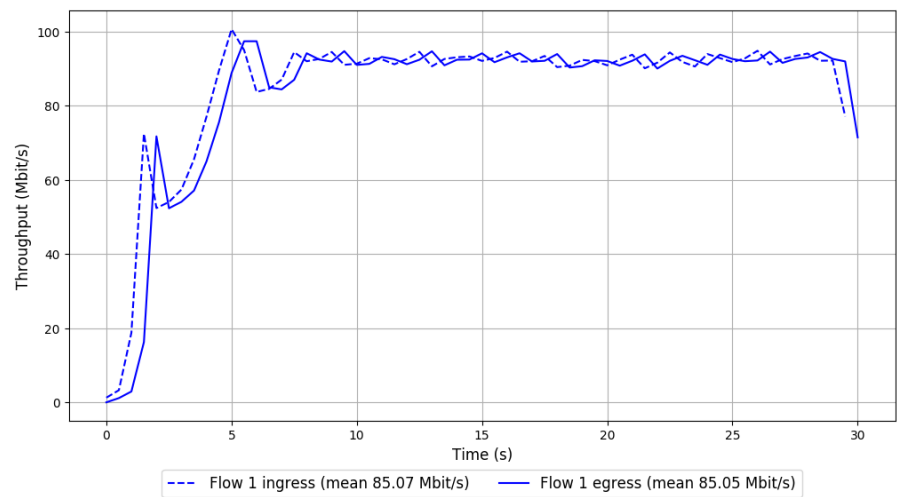


Run 1: Statistics of PCC-Vivace

Start at: 2018-10-10 00:25:51
End at: 2018-10-10 00:26:21
Local clock offset: 4.751 ms
Remote clock offset: -3.837 ms

Below is generated by plot.py at 2018-10-10 02:36:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 85.05 Mbit/s
95th percentile per-packet one-way delay: 35.862 ms
Loss rate: 0.24%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-10-10 00:49:54

End at: 2018-10-10 00:50:24

Local clock offset: 0.697 ms

Remote clock offset: -3.541 ms

Below is generated by plot.py at 2018-10-10 02:36:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.22 Mbit/s

95th percentile per-packet one-way delay: 36.684 ms

Loss rate: 0.24%

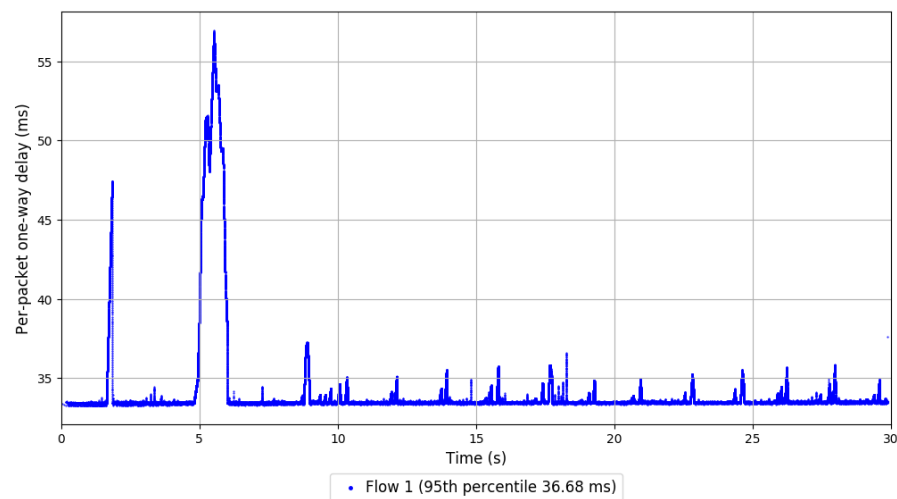
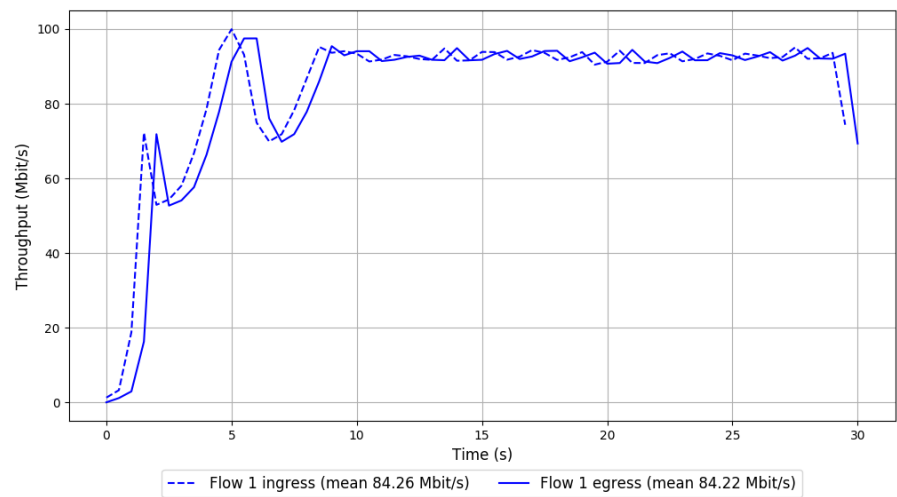
-- Flow 1:

Average throughput: 84.22 Mbit/s

95th percentile per-packet one-way delay: 36.684 ms

Loss rate: 0.24%

Run 2: Report of PCC-Vivace — Data Link

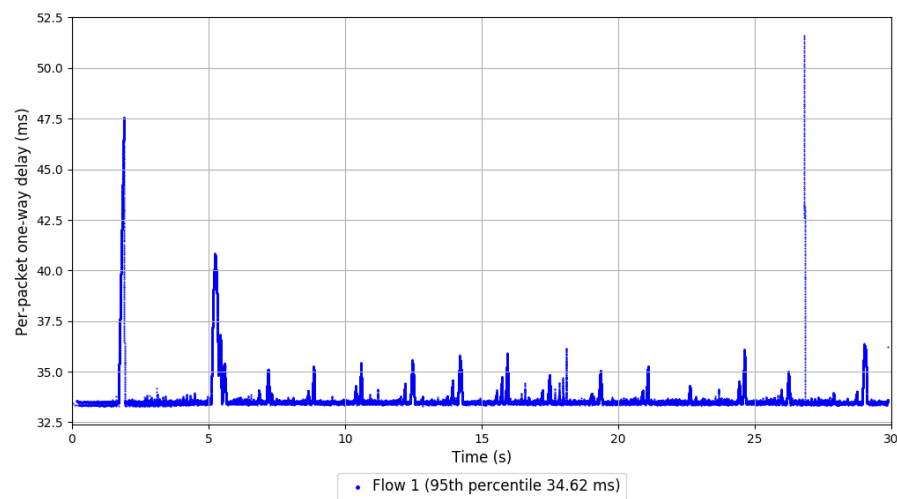
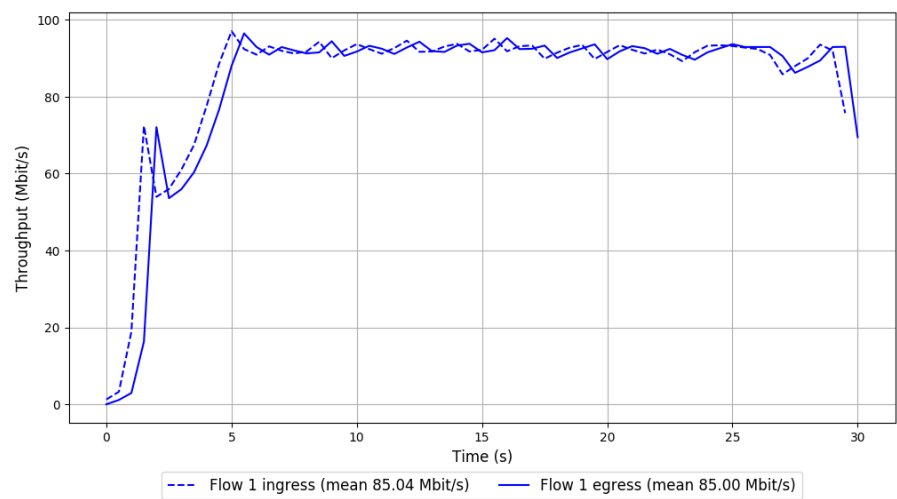


Run 3: Statistics of PCC-Vivace

Start at: 2018-10-10 01:14:19
End at: 2018-10-10 01:14:49
Local clock offset: 4.157 ms
Remote clock offset: -3.294 ms

Below is generated by plot.py at 2018-10-10 02:36:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 34.623 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 85.00 Mbit/s
95th percentile per-packet one-way delay: 34.623 ms
Loss rate: 0.24%

Run 3: Report of PCC-Vivace — Data Link

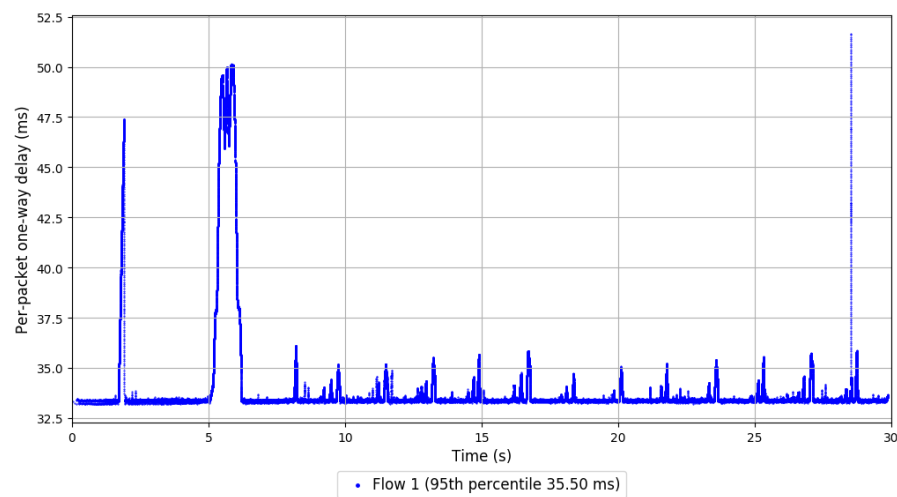
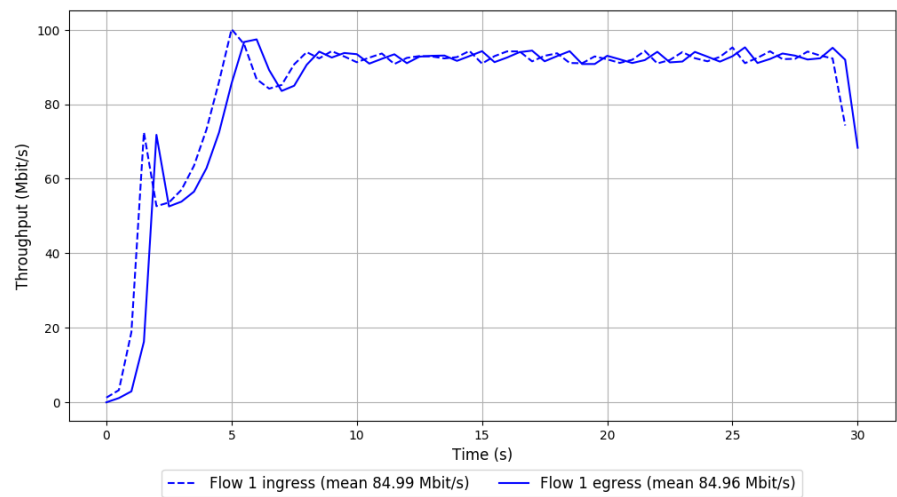


Run 4: Statistics of PCC-Vivace

Start at: 2018-10-10 01:38:28
End at: 2018-10-10 01:38:58
Local clock offset: 4.578 ms
Remote clock offset: -2.871 ms

Below is generated by plot.py at 2018-10-10 02:36:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 35.500 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 84.96 Mbit/s
95th percentile per-packet one-way delay: 35.500 ms
Loss rate: 0.25%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-10-10 02:02:40

End at: 2018-10-10 02:03:10

Local clock offset: 2.674 ms

Remote clock offset: -2.747 ms

Below is generated by plot.py at 2018-10-10 02:36:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.11 Mbit/s

95th percentile per-packet one-way delay: 35.834 ms

Loss rate: 0.23%

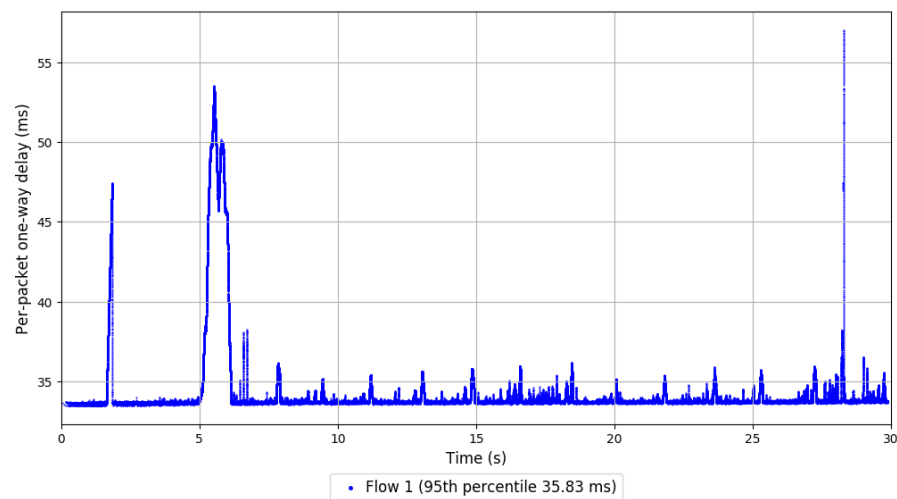
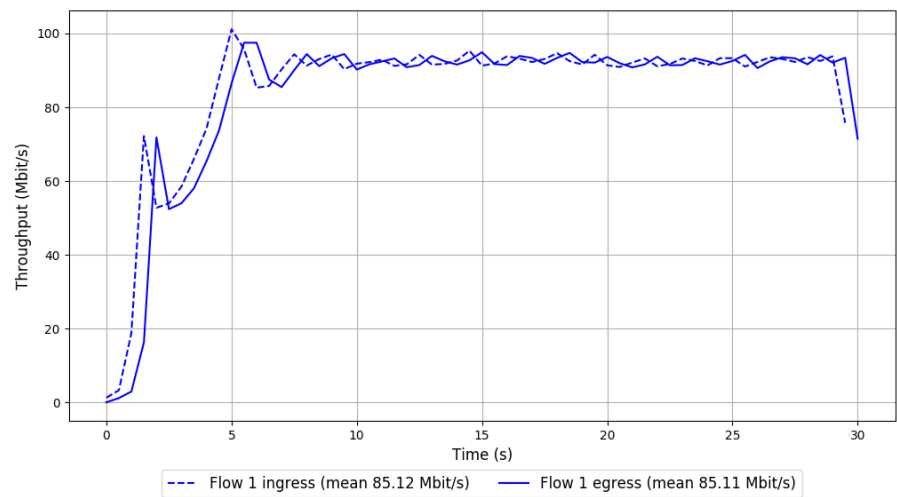
-- Flow 1:

Average throughput: 85.11 Mbit/s

95th percentile per-packet one-way delay: 35.834 ms

Loss rate: 0.23%

Run 5: Report of PCC-Vivace — Data Link

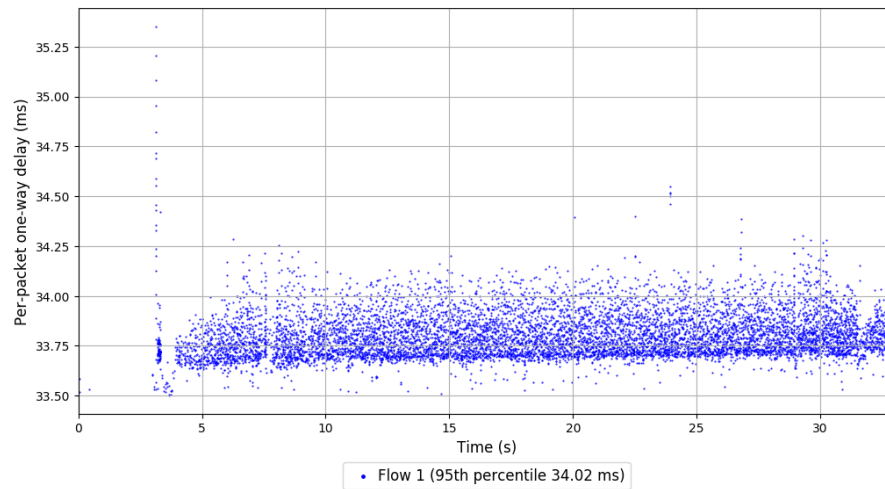
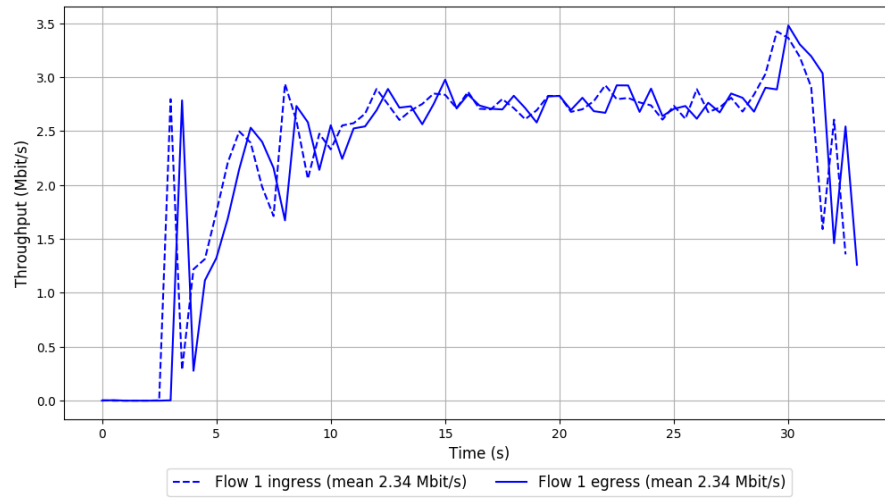


Run 1: Statistics of WebRTC media

Start at: 2018-10-10 00:41:50
End at: 2018-10-10 00:42:20
Local clock offset: 1.318 ms
Remote clock offset: -3.912 ms

Below is generated by plot.py at 2018-10-10 02:36:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 34.018 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 34.018 ms
Loss rate: 0.24%

Run 1: Report of WebRTC media — Data Link

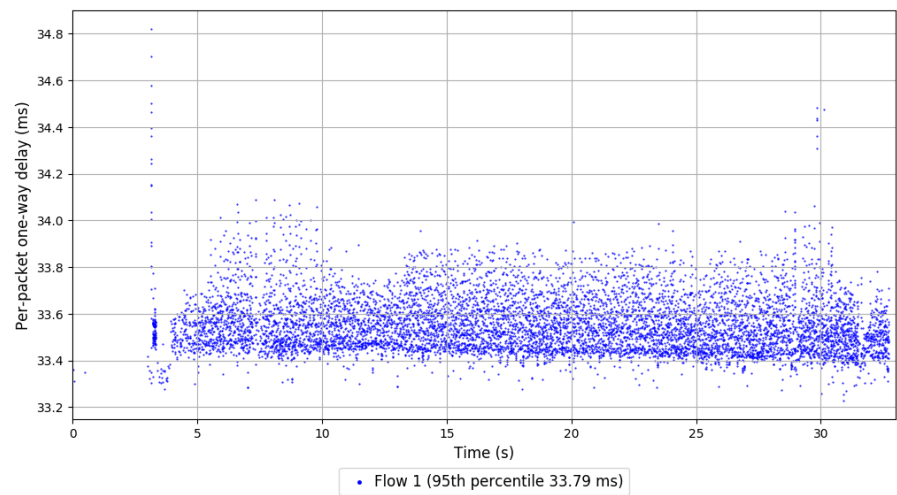
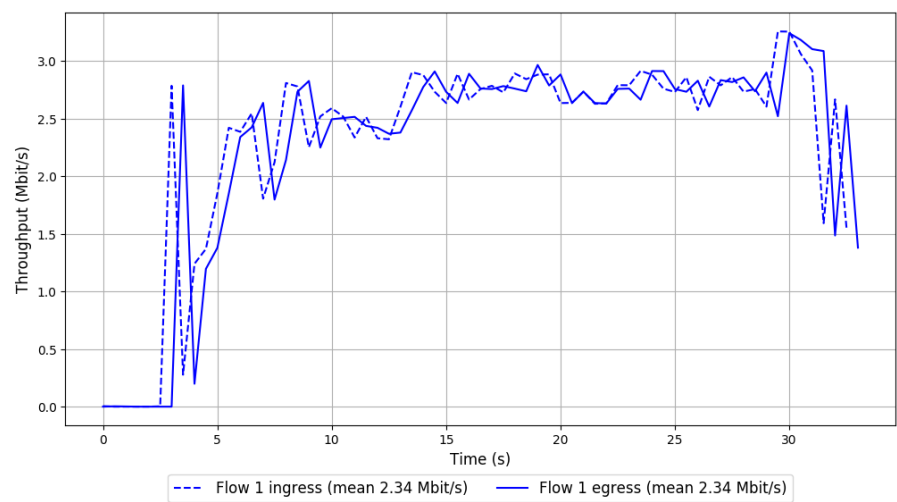


Run 2: Statistics of WebRTC media

Start at: 2018-10-10 01:06:10
End at: 2018-10-10 01:06:40
Local clock offset: 3.404 ms
Remote clock offset: -3.433 ms

Below is generated by plot.py at 2018-10-10 02:36:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 33.787 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 33.787 ms
Loss rate: 0.24%

Run 2: Report of WebRTC media — Data Link

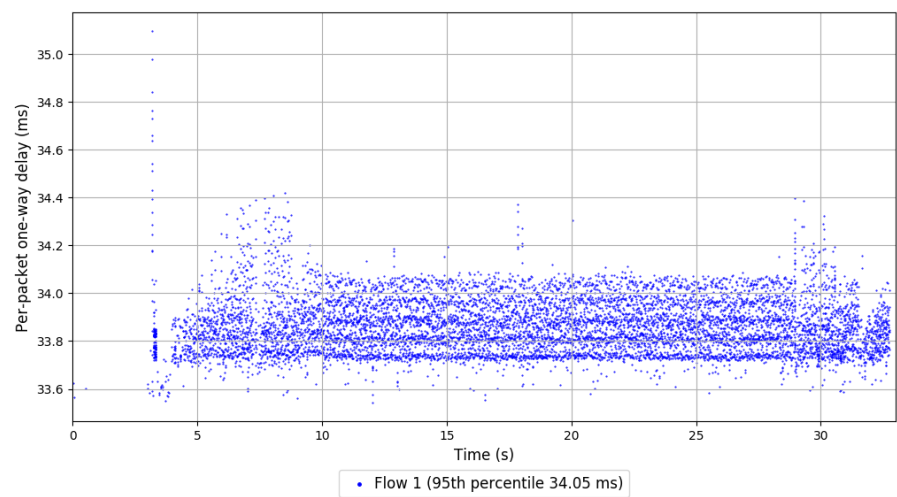
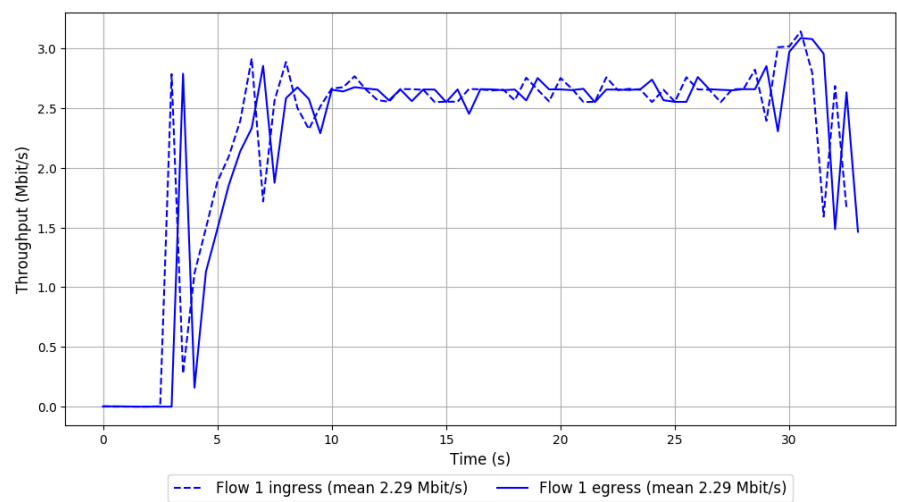


Run 3: Statistics of WebRTC media

Start at: 2018-10-10 01:30:28
End at: 2018-10-10 01:30:58
Local clock offset: 4.571 ms
Remote clock offset: -3.235 ms

Below is generated by plot.py at 2018-10-10 02:36:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 34.055 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 34.055 ms
Loss rate: 0.26%

Run 3: Report of WebRTC media — Data Link

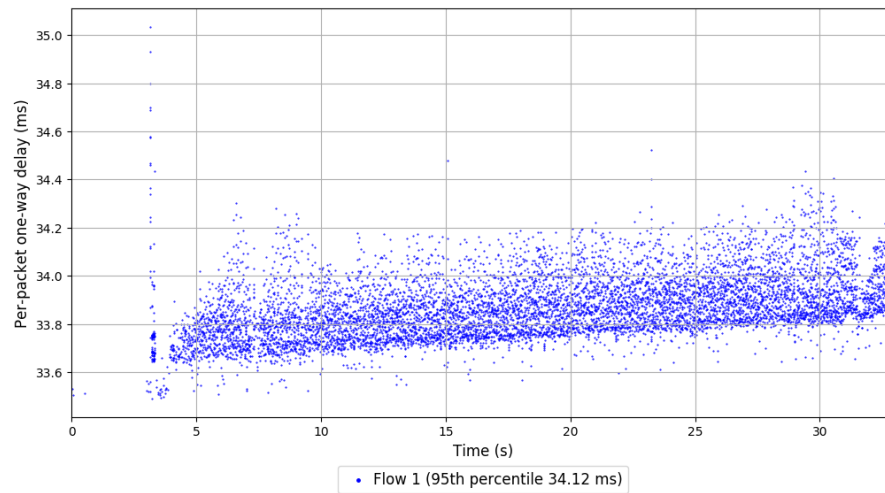
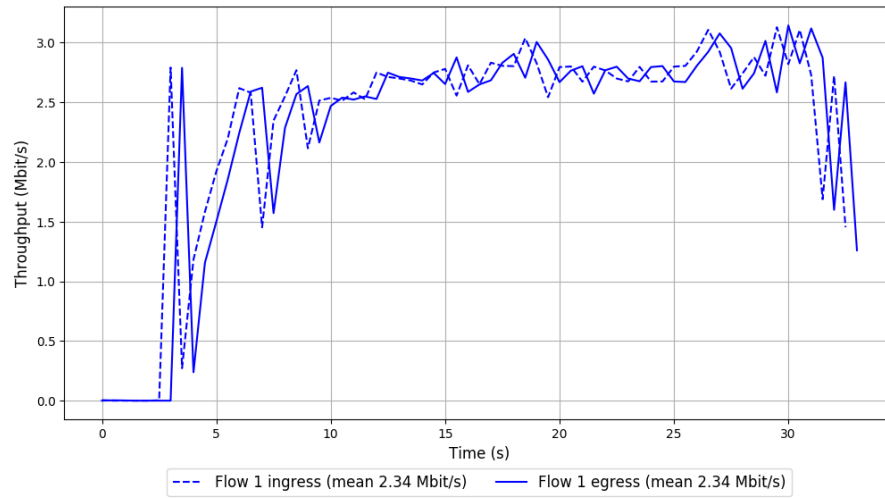


Run 4: Statistics of WebRTC media

Start at: 2018-10-10 01:54:34
End at: 2018-10-10 01:55:04
Local clock offset: 4.572 ms
Remote clock offset: -2.926 ms

Below is generated by plot.py at 2018-10-10 02:36:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 34.115 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 34.115 ms
Loss rate: 0.25%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-10-10 02:18:48

End at: 2018-10-10 02:19:18

Local clock offset: 1.697 ms

Remote clock offset: -2.66 ms

Below is generated by plot.py at 2018-10-10 02:36:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 33.798 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 33.798 ms

Loss rate: 0.24%

Run 5: Report of WebRTC media — Data Link

