

Pantheon Report

Generated at 2019-03-26 22:30:33 (UTC).

Data path: AWS Korea on `ens5` (*local*) → China on `eno1` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

System info:

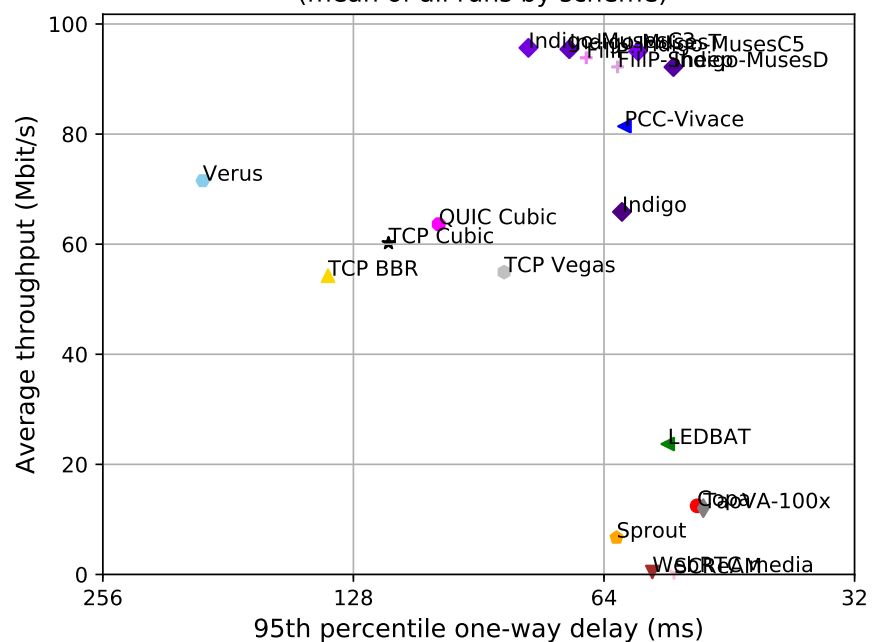
```
Linux 4.15.0-1034-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

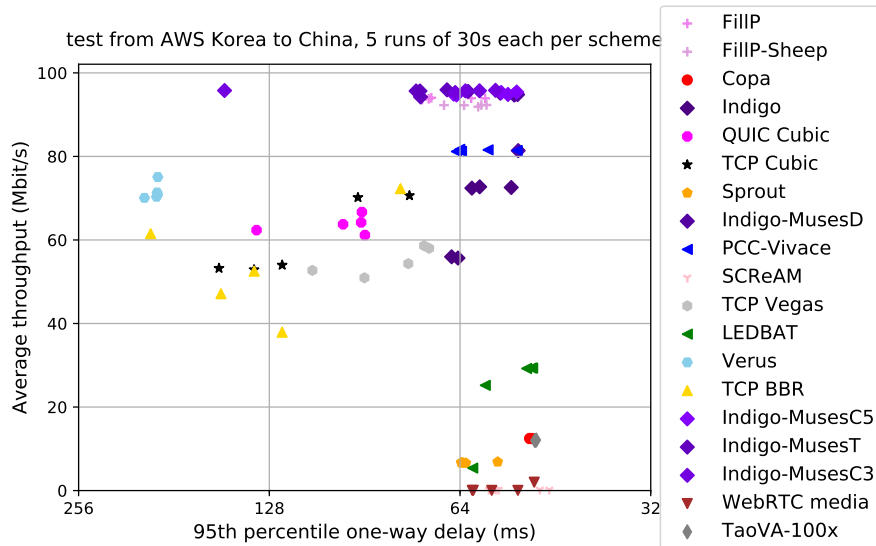
```
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
```

third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from AWS Korea to China, 5 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS Korea to China, 5 runs of 30s each per scheme



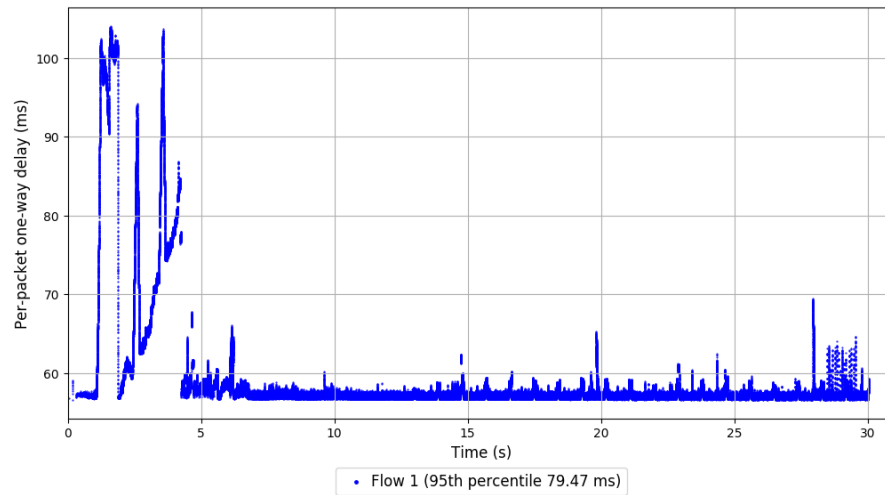
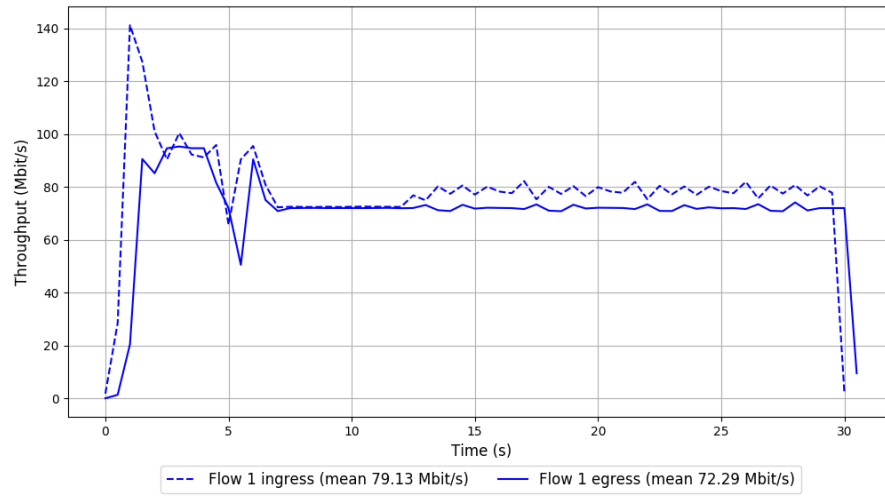
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	54.27	137.30	9.48
Copa	4	12.46	49.46	61.15
TCP Cubic	5	60.18	116.16	0.98
FillP	5	93.86	67.21	0.65
FillP-Sheep	5	92.21	61.64	0.63
Indigo	5	65.87	60.90	3.85
Indigo-MusesC3	5	95.67	78.88	0.02
Indigo-MusesC5	5	95.04	58.25	0.00
Indigo-MusesD	5	92.17	52.82	0.00
Indigo-MusesT	5	95.42	70.44	0.32
LEDBAT	5	23.69	53.66	0.00
PCC-Allegro	0	N/A	N/A	N/A
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	63.63	101.10	0.00
SCReAM	5	0.22	52.73	0.00
Sprout	5	6.69	61.81	0.00
TaoVA-100x	2	12.04	48.63	2.67
TCP Vegas	5	54.92	84.36	0.91
Verus	5	71.54	194.18	16.53
PCC-Vivace	5	81.42	60.48	0.00
WebRTC media	5	0.44	55.99	0.00

Run 1: Statistics of TCP BBR

Start at: 2019-03-26 20:22:04
End at: 2019-03-26 20:22:34
Local clock offset: 3.654 ms
Remote clock offset: -10.062 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.29 Mbit/s
95th percentile per-packet one-way delay: 79.472 ms
Loss rate: 8.68%
-- Flow 1:
Average throughput: 72.29 Mbit/s
95th percentile per-packet one-way delay: 79.472 ms
Loss rate: 8.68%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-03-26 20:47:02

End at: 2019-03-26 20:47:32

Local clock offset: 2.884 ms

Remote clock offset: -9.561 ms

Below is generated by plot.py at 2019-03-26 22:22:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 197.048 ms

Loss rate: 10.84%

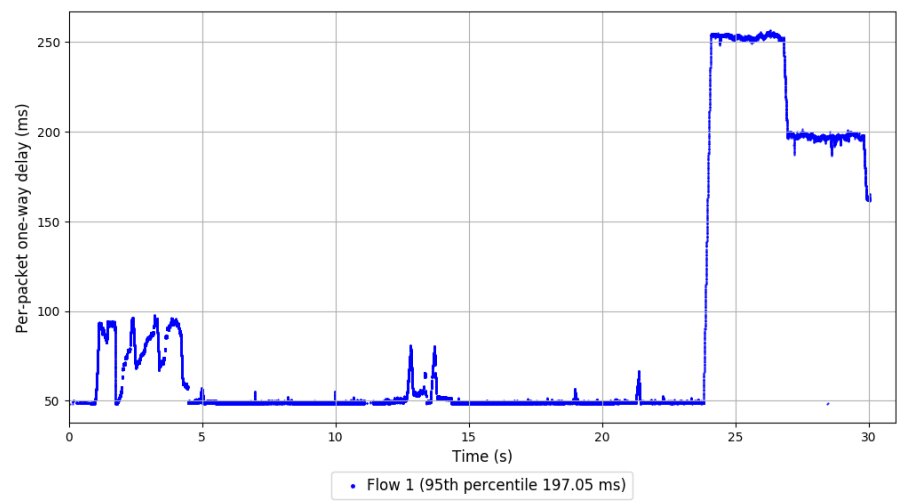
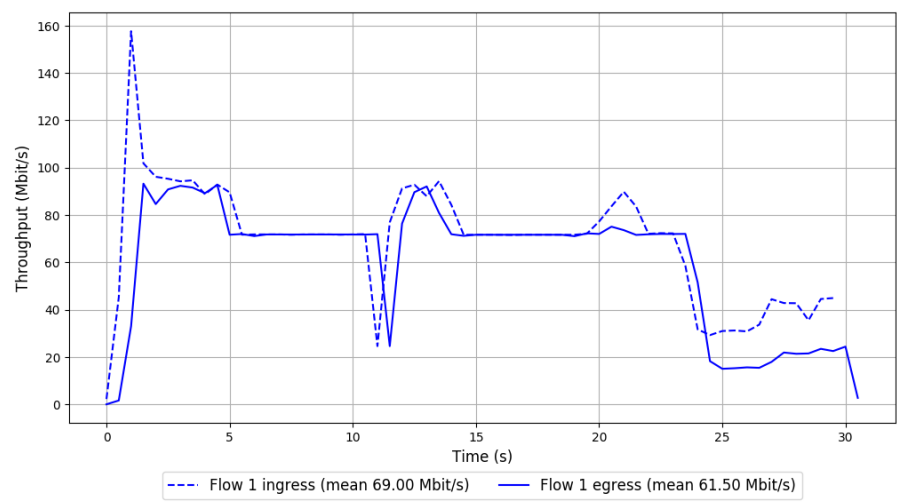
-- Flow 1:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 197.048 ms

Loss rate: 10.84%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-03-26 21:13:53

End at: 2019-03-26 21:14:23

Local clock offset: 7.278 ms

Remote clock offset: -9.998 ms

Below is generated by plot.py at 2019-03-26 22:22:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.92 Mbit/s

95th percentile per-packet one-way delay: 122.179 ms

Loss rate: 10.07%

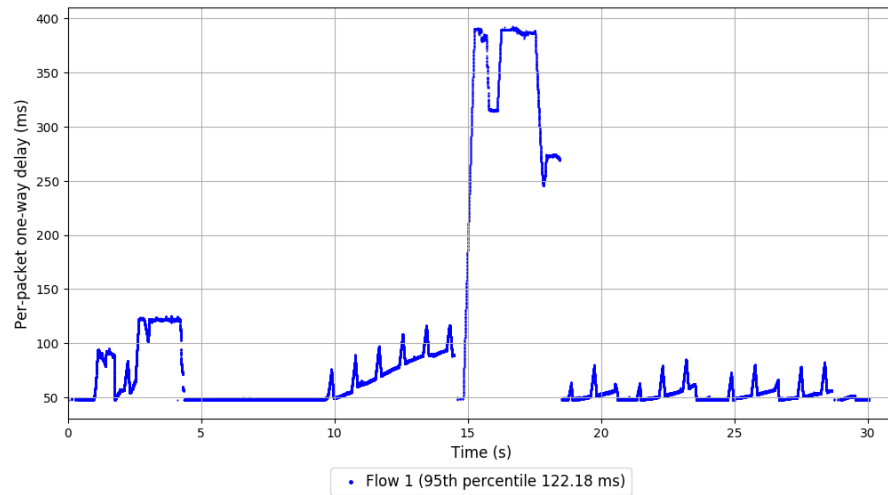
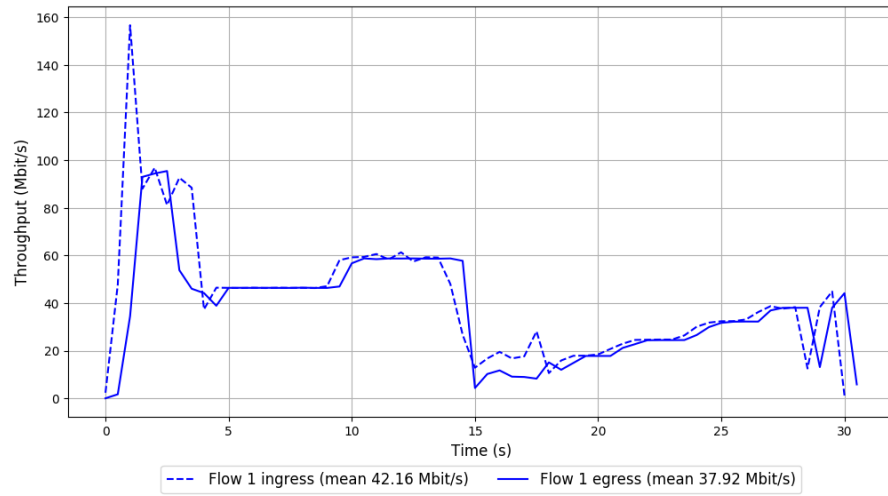
-- Flow 1:

Average throughput: 37.92 Mbit/s

95th percentile per-packet one-way delay: 122.179 ms

Loss rate: 10.07%

Run 3: Report of TCP BBR — Data Link

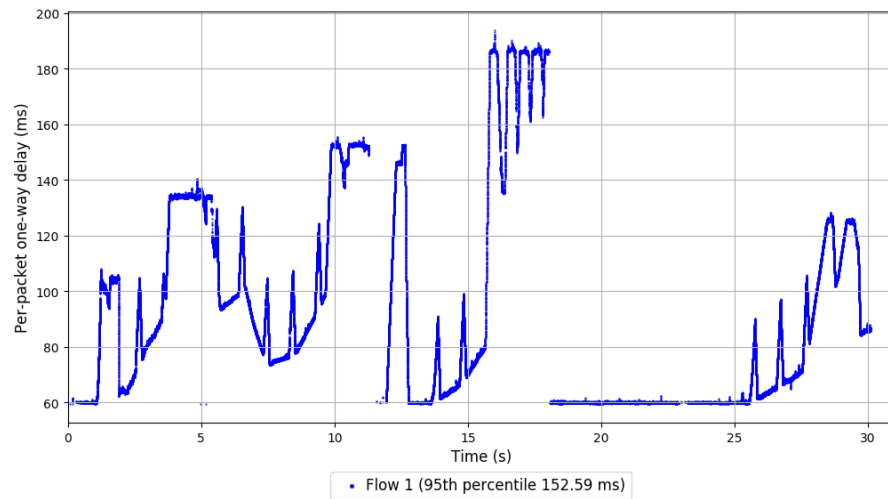
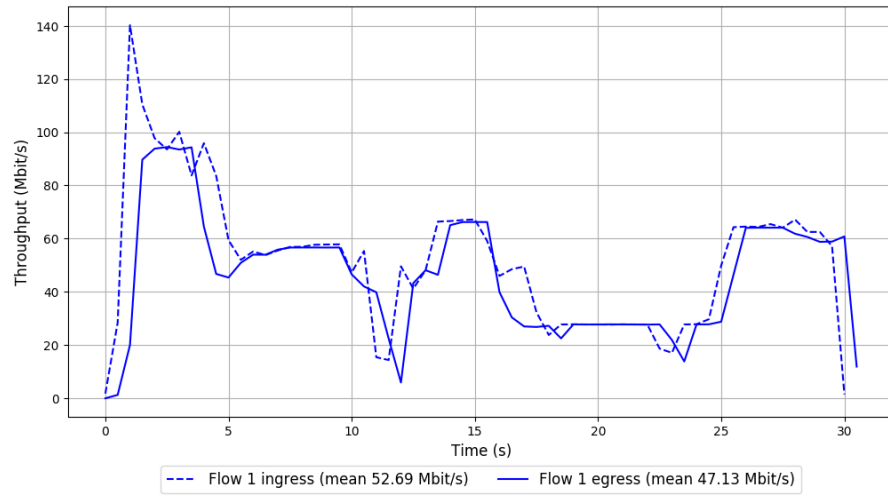


Run 4: Statistics of TCP BBR

Start at: 2019-03-26 21:41:19
End at: 2019-03-26 21:41:49
Local clock offset: 6.028 ms
Remote clock offset: -7.223 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 47.13 Mbit/s
95th percentile per-packet one-way delay: 152.587 ms
Loss rate: 10.47%
-- Flow 1:
Average throughput: 47.13 Mbit/s
95th percentile per-packet one-way delay: 152.587 ms
Loss rate: 10.47%

Run 4: Report of TCP BBR — Data Link

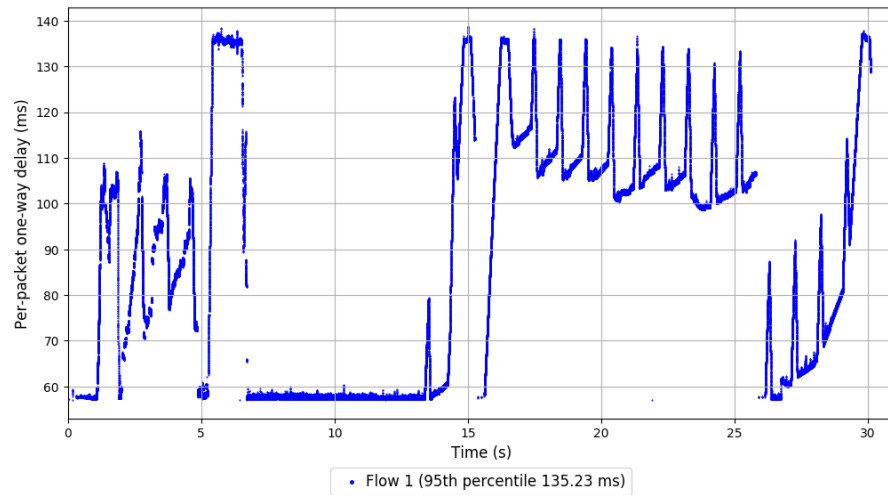
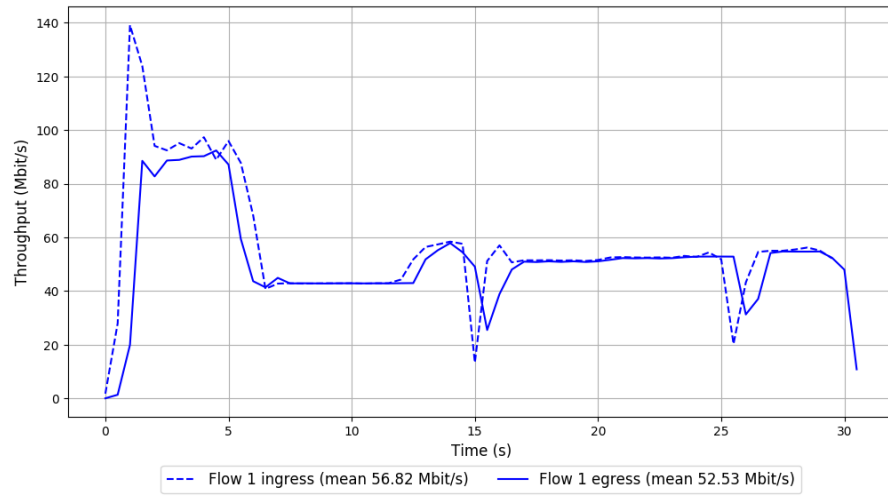


Run 5: Statistics of TCP BBR

Start at: 2019-03-26 22:09:56
End at: 2019-03-26 22:10:26
Local clock offset: -3.376 ms
Remote clock offset: -11.629 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 135.230 ms
Loss rate: 7.33%
-- Flow 1:
Average throughput: 52.53 Mbit/s
95th percentile per-packet one-way delay: 135.230 ms
Loss rate: 7.33%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

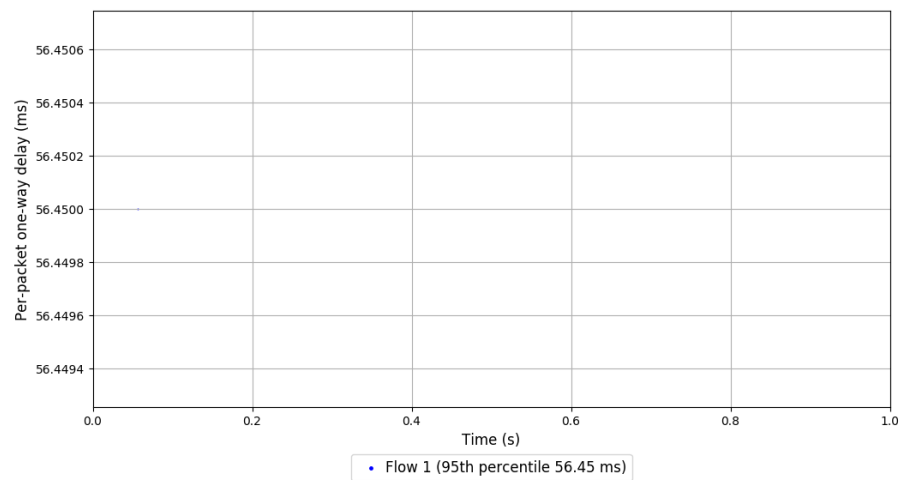
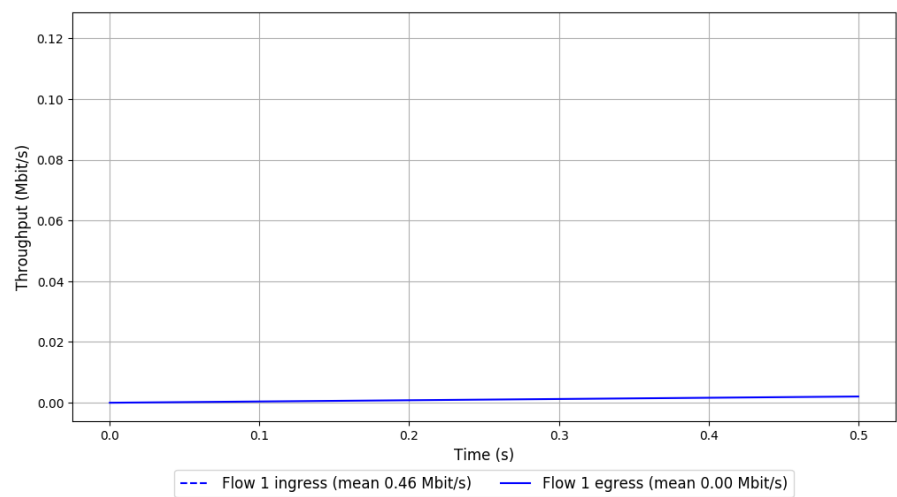
Start at: 2019-03-26 20:09:04

End at: 2019-03-26 20:09:34

Local clock offset: 5.944 ms

Remote clock offset: -10.447 ms

Run 1: Report of Copa — Data Link

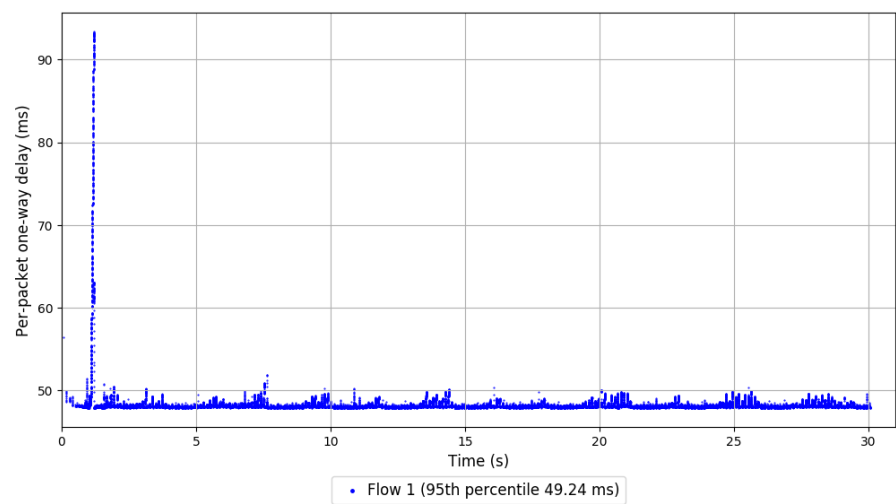
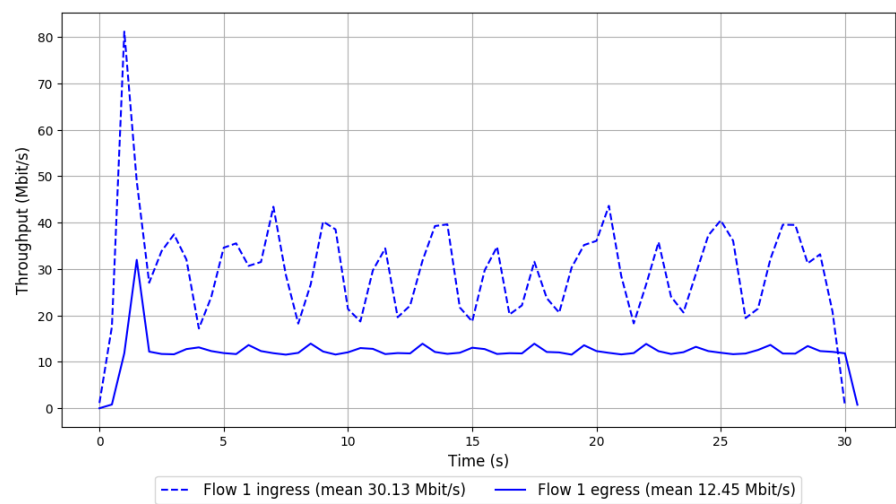


Run 2: Statistics of Copa

Start at: 2019-03-26 20:33:58
End at: 2019-03-26 20:34:28
Local clock offset: 2.457 ms
Remote clock offset: -9.988 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 49.242 ms
Loss rate: 58.69%
-- Flow 1:
Average throughput: 12.45 Mbit/s
95th percentile per-packet one-way delay: 49.242 ms
Loss rate: 58.69%

Run 2: Report of Copa — Data Link

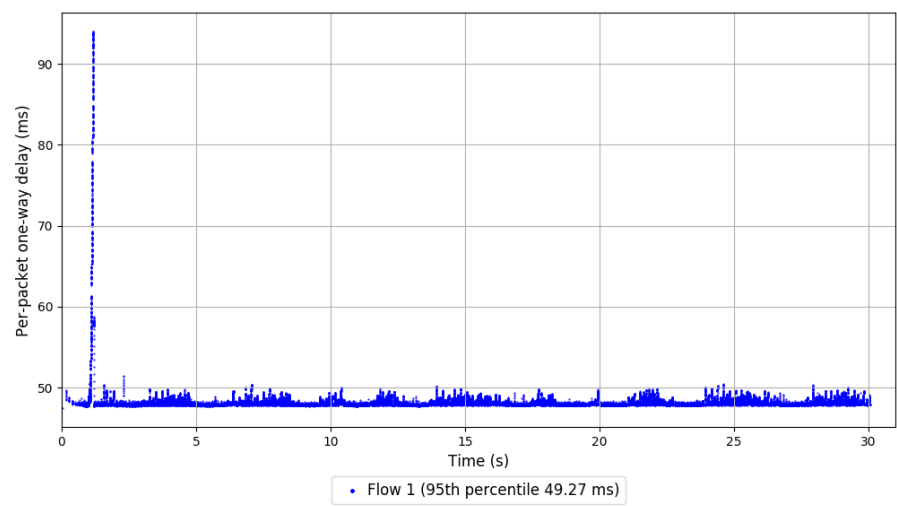
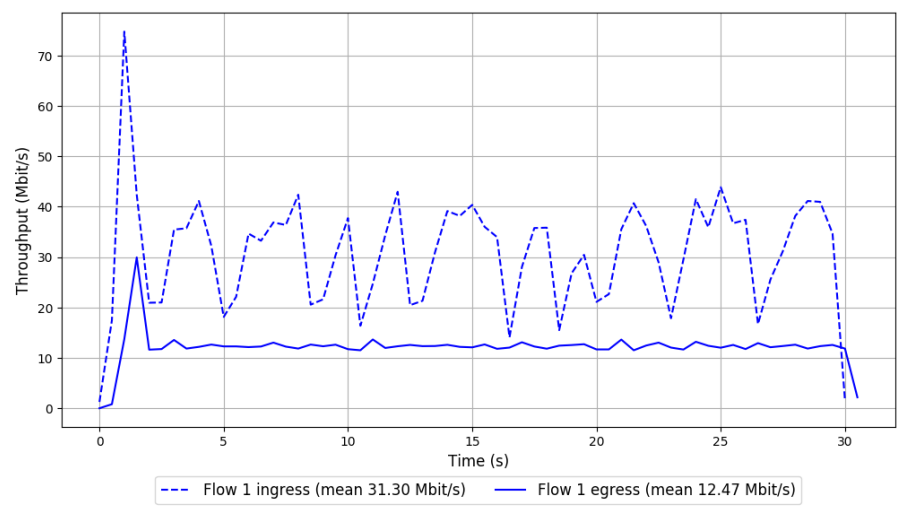


Run 3: Statistics of Copa

Start at: 2019-03-26 20:59:47
End at: 2019-03-26 21:00:17
Local clock offset: 5.633 ms
Remote clock offset: -9.918 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.270 ms
Loss rate: 60.18%
-- Flow 1:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.270 ms
Loss rate: 60.18%

Run 3: Report of Copa — Data Link

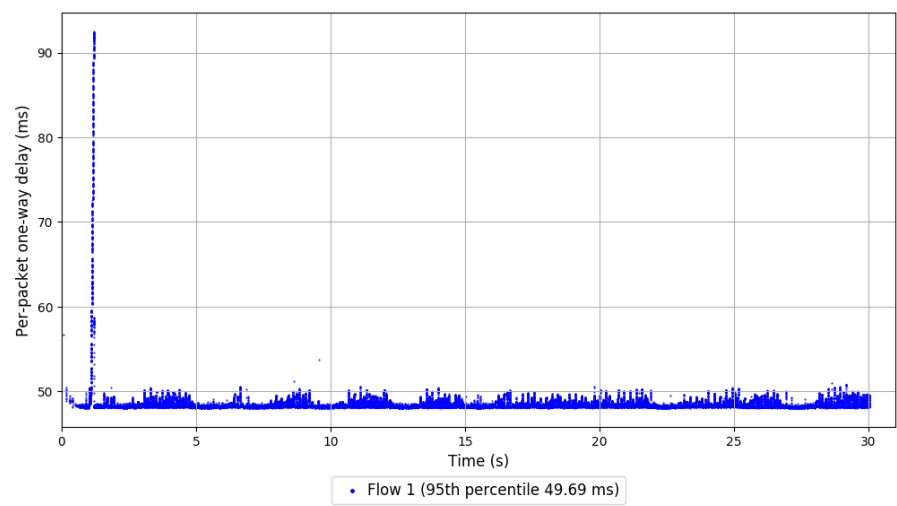
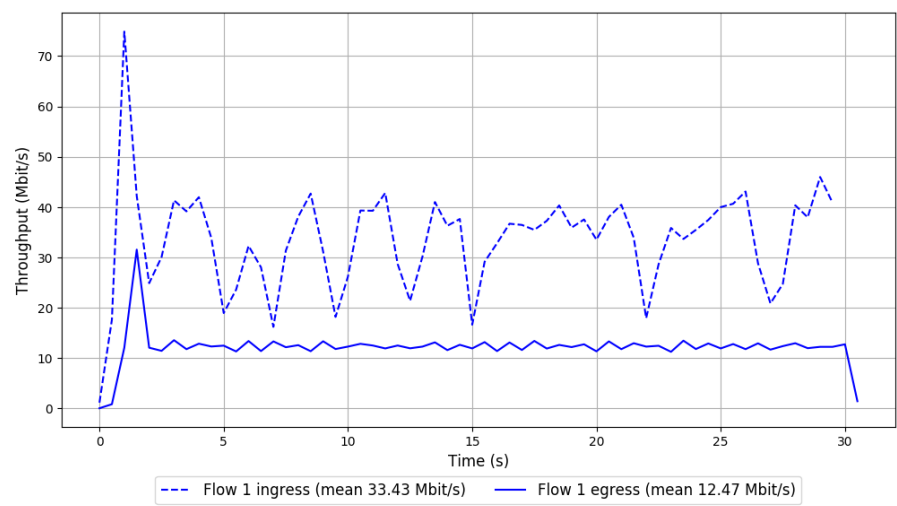


Run 4: Statistics of Copa

Start at: 2019-03-26 21:26:57
End at: 2019-03-26 21:27:27
Local clock offset: 5.919 ms
Remote clock offset: -10.369 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.691 ms
Loss rate: 62.72%
-- Flow 1:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.691 ms
Loss rate: 62.72%

Run 4: Report of Copa — Data Link

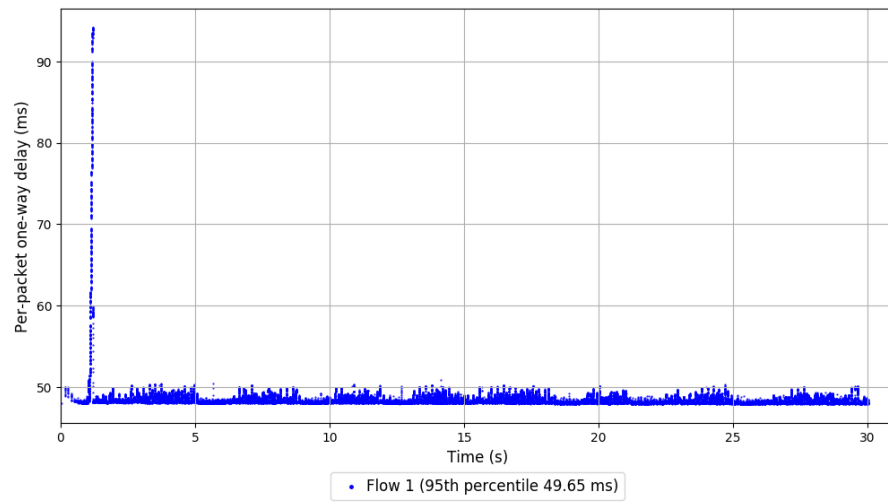
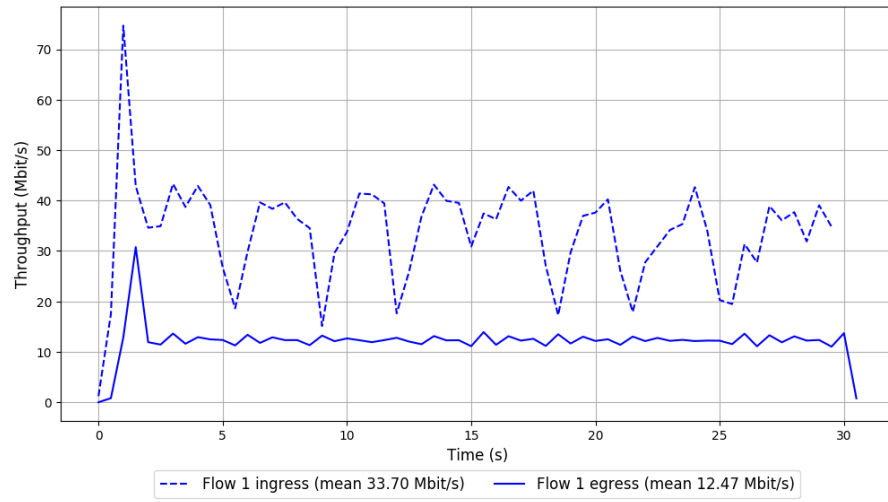


Run 5: Statistics of Copa

Start at: 2019-03-26 21:55:40
End at: 2019-03-26 21:56:10
Local clock offset: -0.033 ms
Remote clock offset: -11.289 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.650 ms
Loss rate: 63.01%
-- Flow 1:
Average throughput: 12.47 Mbit/s
95th percentile per-packet one-way delay: 49.650 ms
Loss rate: 63.01%

Run 5: Report of Copa — Data Link

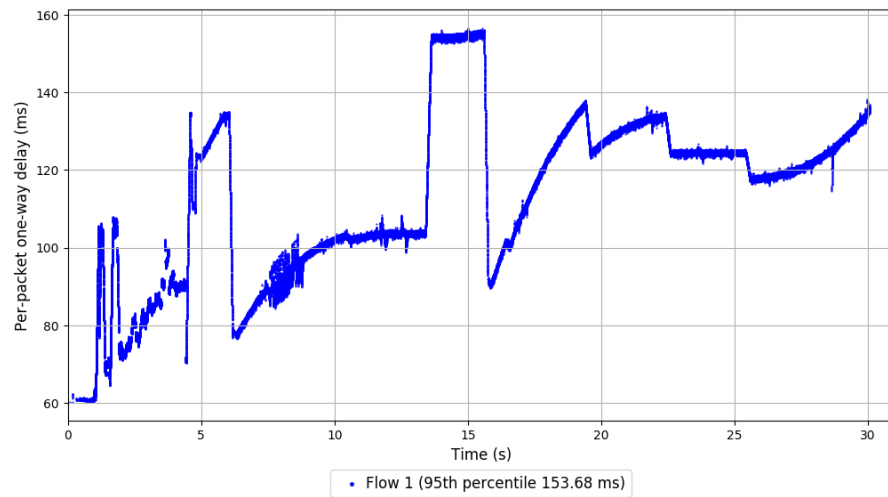
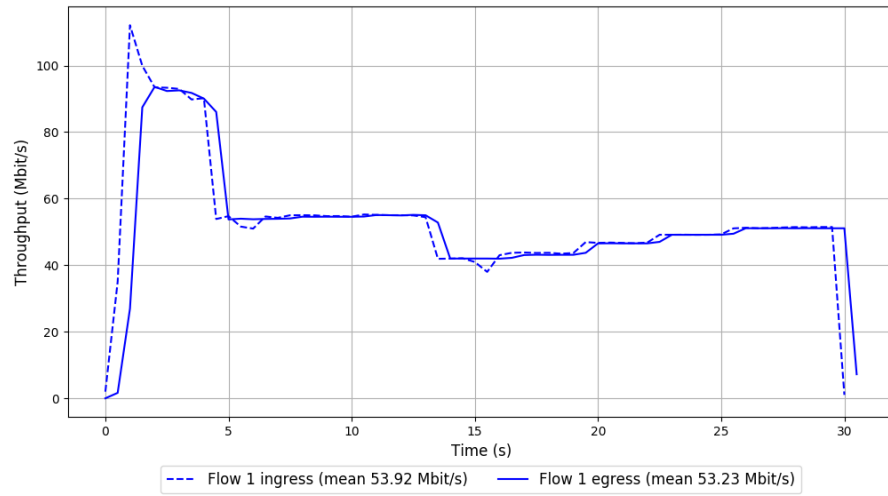


Run 1: Statistics of TCP Cubic

Start at: 2019-03-26 20:10:12
End at: 2019-03-26 20:10:42
Local clock offset: 5.835 ms
Remote clock offset: -6.655 ms

Below is generated by plot.py at 2019-03-26 22:22:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 53.23 Mbit/s
95th percentile per-packet one-way delay: 153.684 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 53.23 Mbit/s
95th percentile per-packet one-way delay: 153.684 ms
Loss rate: 1.28%

Run 1: Report of TCP Cubic — Data Link

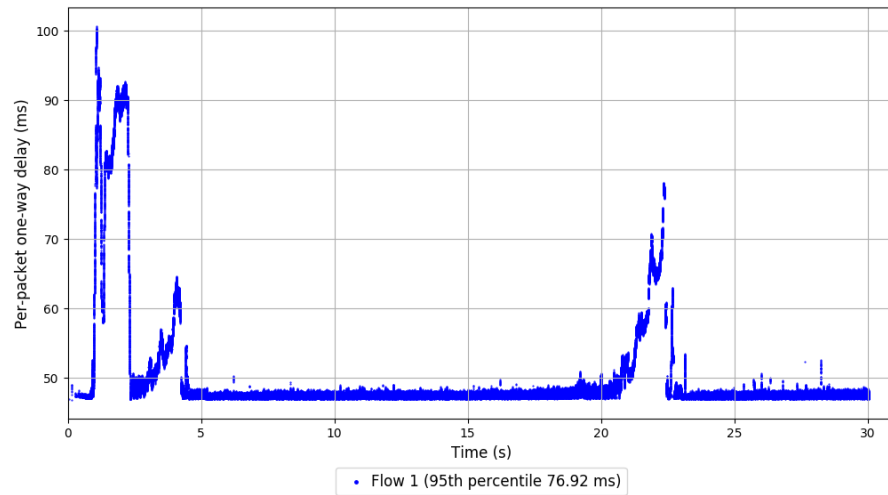
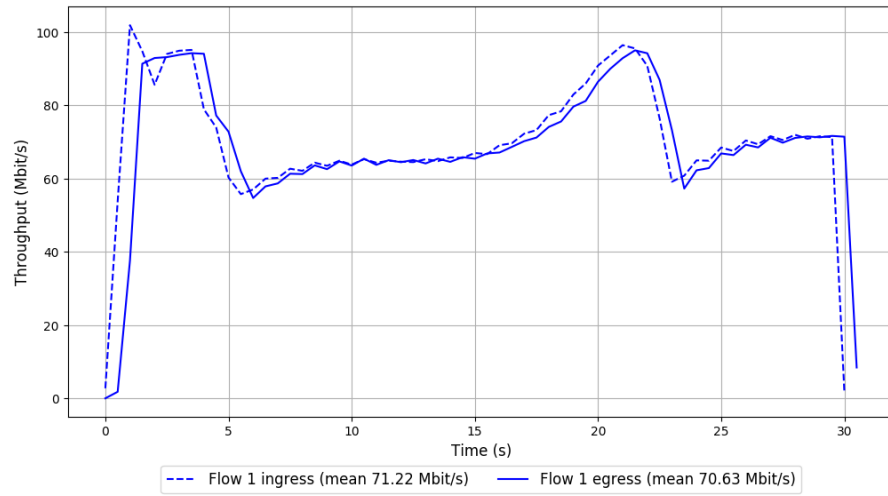


Run 2: Statistics of TCP Cubic

Start at: 2019-03-26 20:35:08
End at: 2019-03-26 20:35:38
Local clock offset: 2.282 ms
Remote clock offset: -10.768 ms

Below is generated by plot.py at 2019-03-26 22:22:44
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 76.916 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 70.63 Mbit/s
95th percentile per-packet one-way delay: 76.916 ms
Loss rate: 0.83%

Run 2: Report of TCP Cubic — Data Link

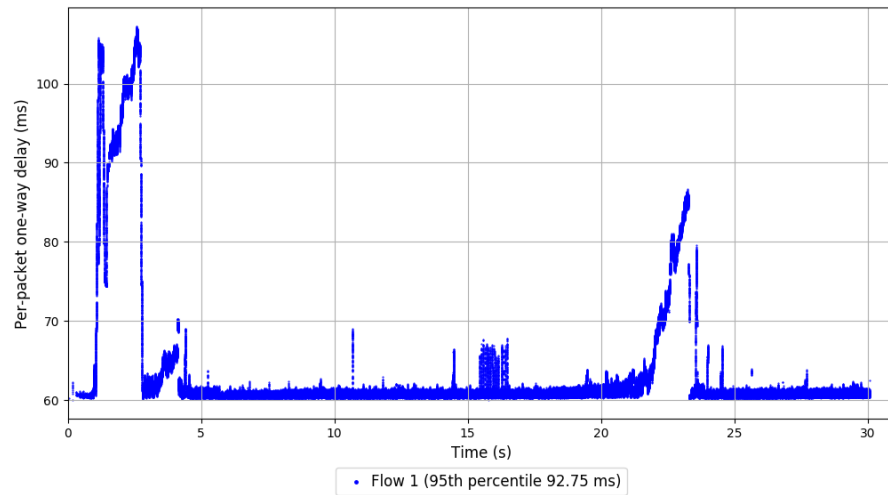
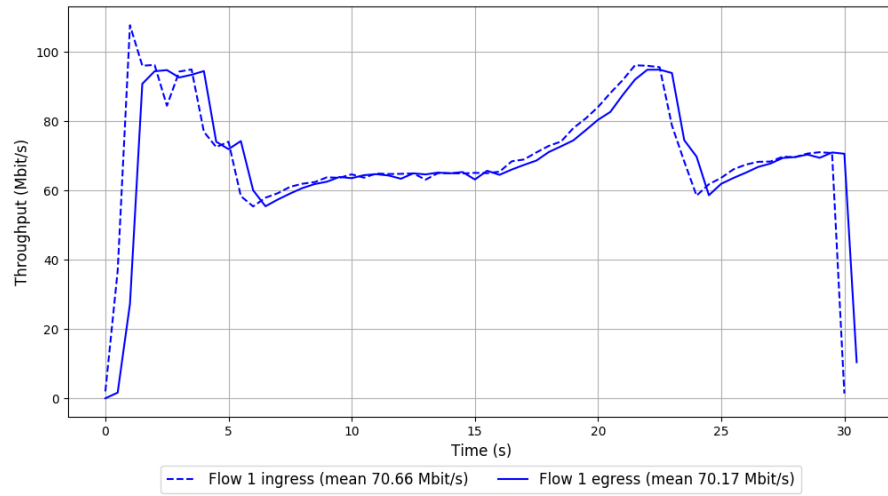


Run 3: Statistics of TCP Cubic

Start at: 2019-03-26 21:00:59
End at: 2019-03-26 21:01:29
Local clock offset: 5.578 ms
Remote clock offset: -6.308 ms

Below is generated by plot.py at 2019-03-26 22:22:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 92.745 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 92.745 ms
Loss rate: 0.69%

Run 3: Report of TCP Cubic — Data Link

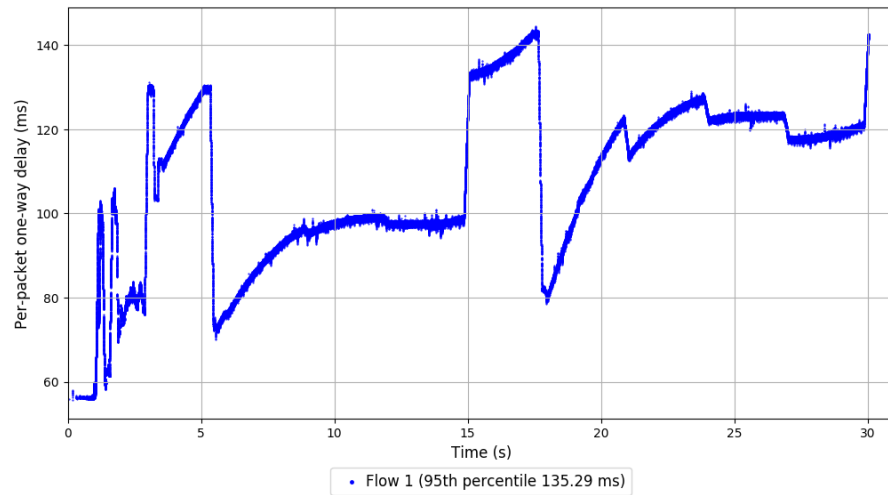
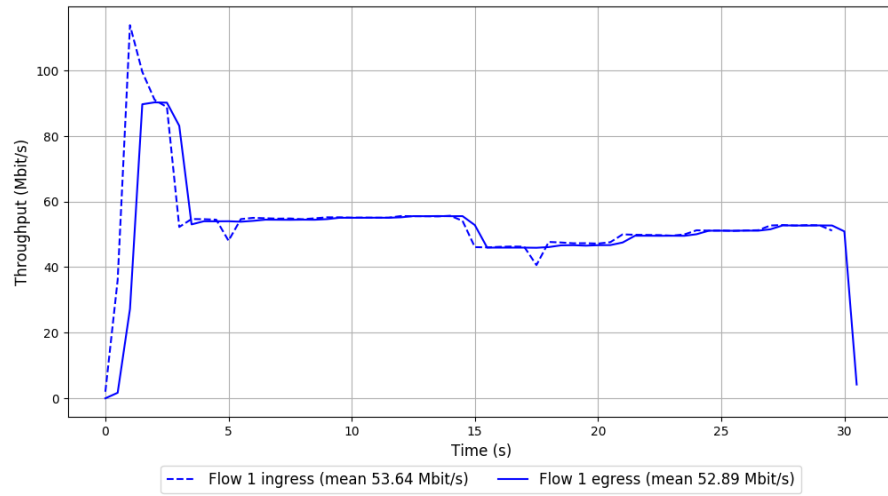


Run 4: Statistics of TCP Cubic

Start at: 2019-03-26 21:28:10
End at: 2019-03-26 21:28:40
Local clock offset: 6.009 ms
Remote clock offset: -11.143 ms

Below is generated by plot.py at 2019-03-26 22:22:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.89 Mbit/s
95th percentile per-packet one-way delay: 135.286 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 52.89 Mbit/s
95th percentile per-packet one-way delay: 135.286 ms
Loss rate: 1.41%

Run 4: Report of TCP Cubic — Data Link

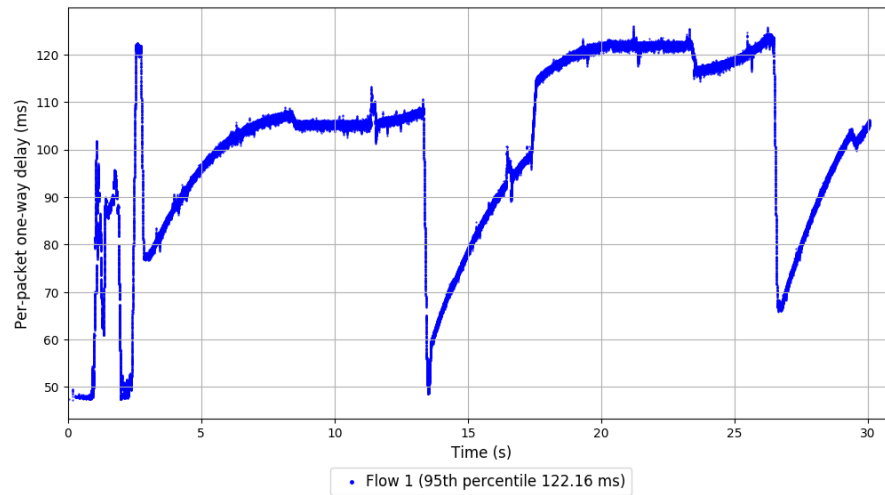
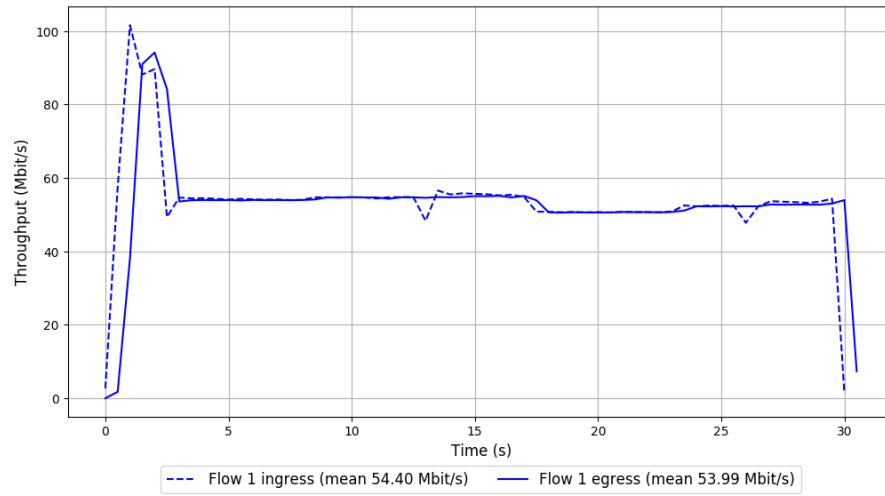


Run 5: Statistics of TCP Cubic

Start at: 2019-03-26 21:56:53
End at: 2019-03-26 21:57:23
Local clock offset: -0.476 ms
Remote clock offset: -12.106 ms

Below is generated by plot.py at 2019-03-26 22:22:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 53.99 Mbit/s
95th percentile per-packet one-way delay: 122.155 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 53.99 Mbit/s
95th percentile per-packet one-way delay: 122.155 ms
Loss rate: 0.71%

Run 5: Report of TCP Cubic — Data Link

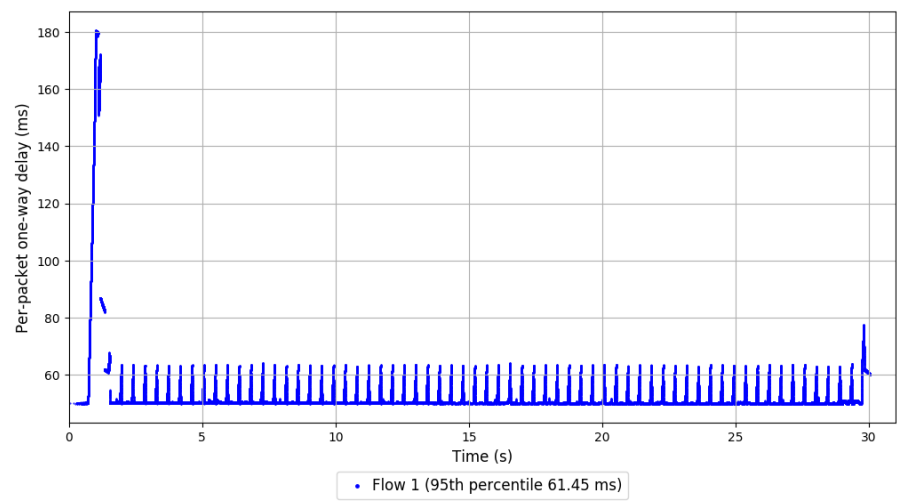
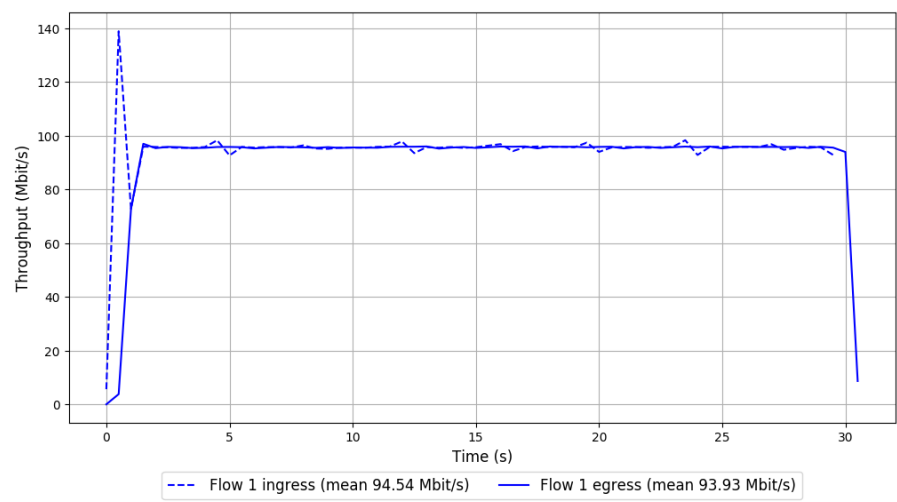


Run 1: Statistics of FillP

Start at: 2019-03-26 20:19:39
End at: 2019-03-26 20:20:09
Local clock offset: 4.702 ms
Remote clock offset: -7.168 ms

Below is generated by plot.py at 2019-03-26 22:23:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.93 Mbit/s
95th percentile per-packet one-way delay: 61.453 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 93.93 Mbit/s
95th percentile per-packet one-way delay: 61.453 ms
Loss rate: 0.61%

Run 1: Report of FillP — Data Link

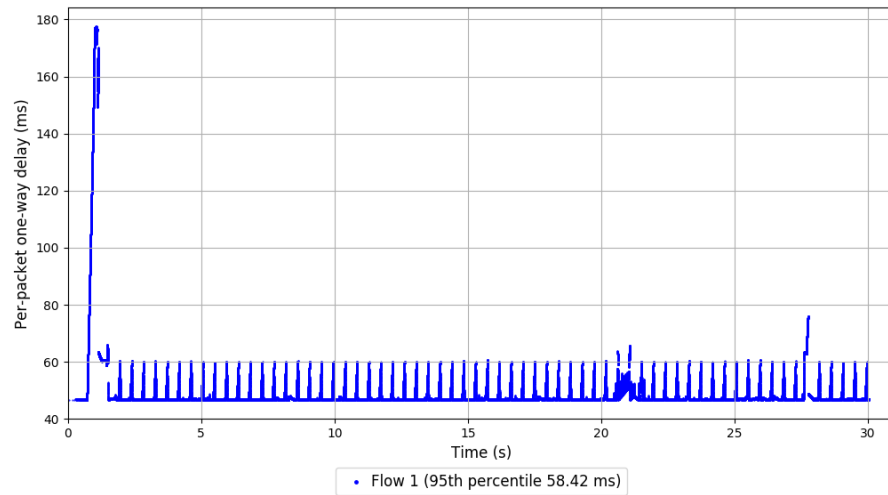
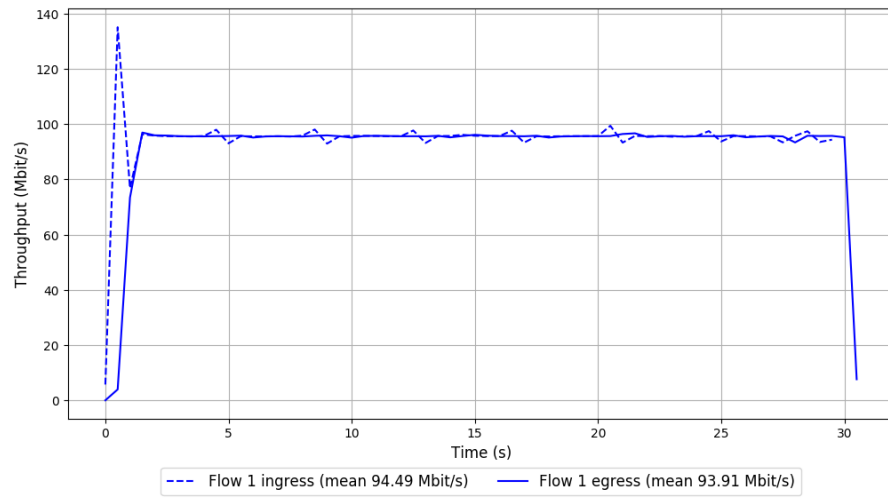


Run 2: Statistics of FillP

Start at: 2019-03-26 20:44:37
End at: 2019-03-26 20:45:07
Local clock offset: 2.634 ms
Remote clock offset: -10.888 ms

Below is generated by plot.py at 2019-03-26 22:23:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 58.421 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 93.91 Mbit/s
95th percentile per-packet one-way delay: 58.421 ms
Loss rate: 0.61%

Run 2: Report of FillP — Data Link

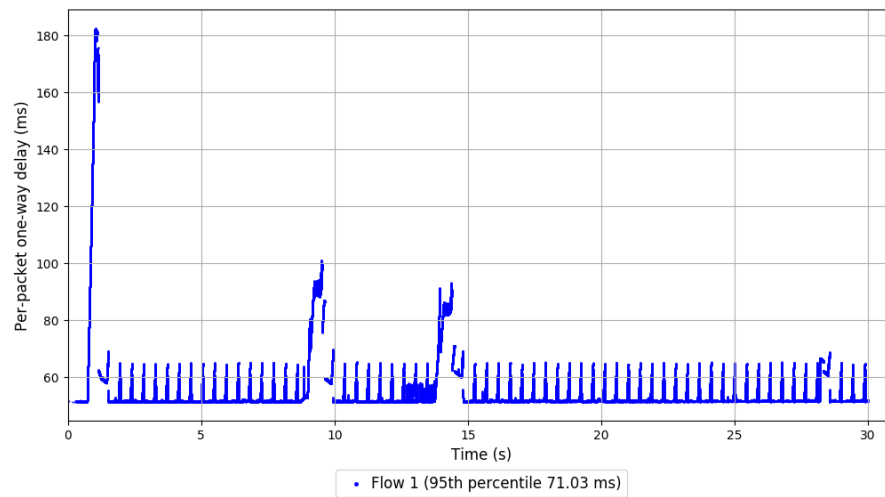
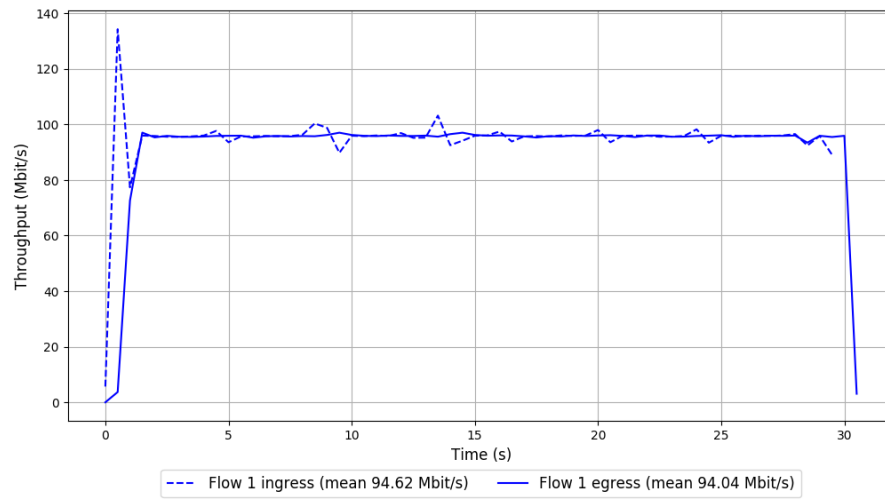


Run 3: Statistics of FillP

Start at: 2019-03-26 21:11:13
End at: 2019-03-26 21:11:43
Local clock offset: 7.009 ms
Remote clock offset: -5.928 ms

Below is generated by plot.py at 2019-03-26 22:23:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 71.035 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 71.035 ms
Loss rate: 0.61%

Run 3: Report of FillP — Data Link

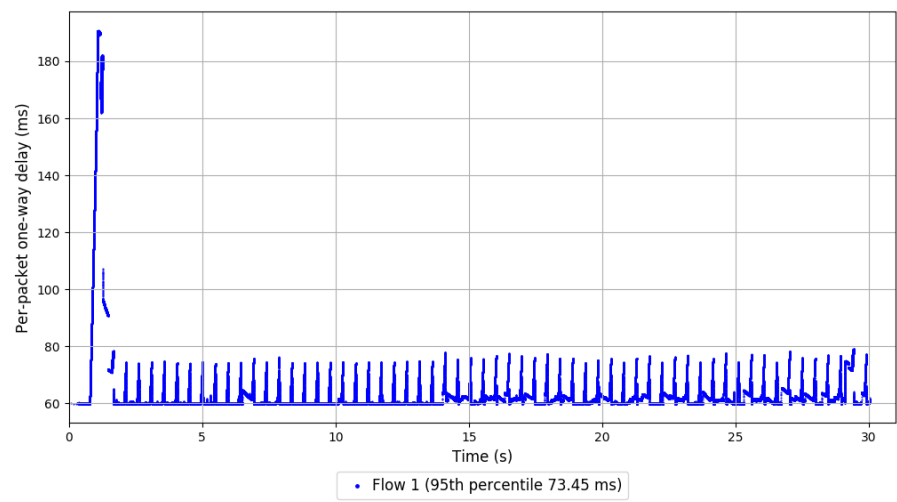
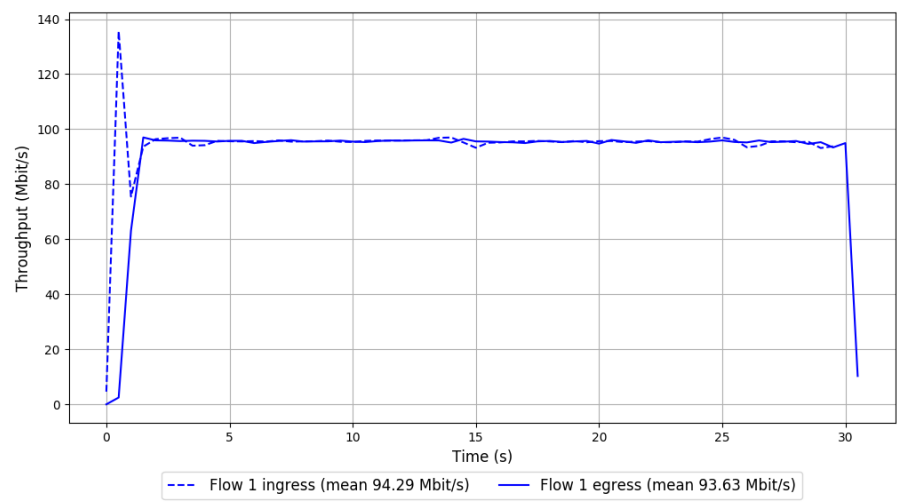


Run 4: Statistics of FillP

Start at: 2019-03-26 21:38:28
End at: 2019-03-26 21:38:58
Local clock offset: 5.93 ms
Remote clock offset: -7.201 ms

Below is generated by plot.py at 2019-03-26 22:23:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 73.452 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 93.63 Mbit/s
95th percentile per-packet one-way delay: 73.452 ms
Loss rate: 0.70%

Run 4: Report of FillP — Data Link

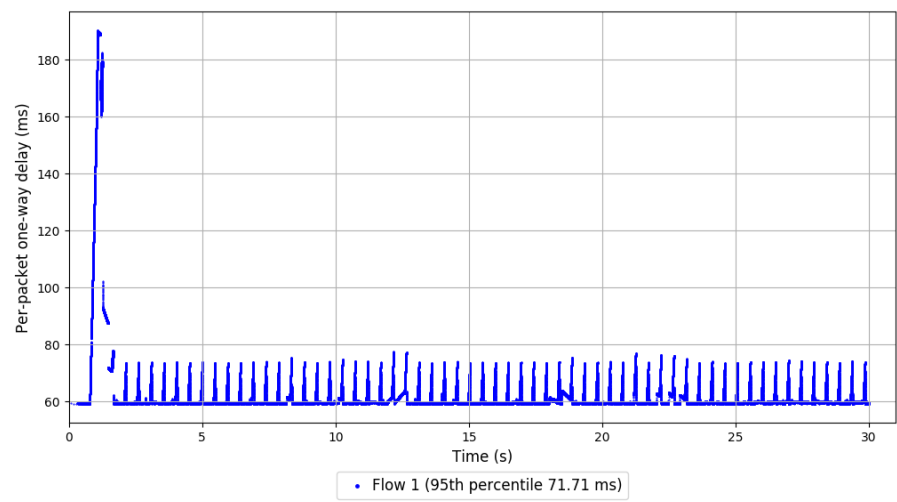
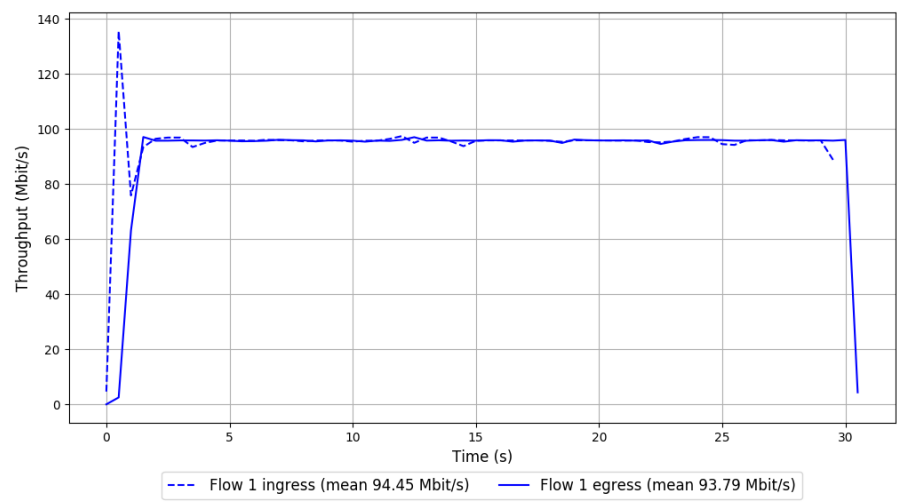


Run 5: Statistics of FillP

Start at: 2019-03-26 22:07:18
End at: 2019-03-26 22:07:48
Local clock offset: -2.8 ms
Remote clock offset: -9.009 ms

Below is generated by plot.py at 2019-03-26 22:24:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 71.708 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 71.708 ms
Loss rate: 0.70%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-03-26 20:17:14

End at: 2019-03-26 20:17:44

Local clock offset: 5.741 ms

Remote clock offset: -10.196 ms

Below is generated by plot.py at 2019-03-26 22:24:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.30 Mbit/s

95th percentile per-packet one-way delay: 59.235 ms

Loss rate: 0.61%

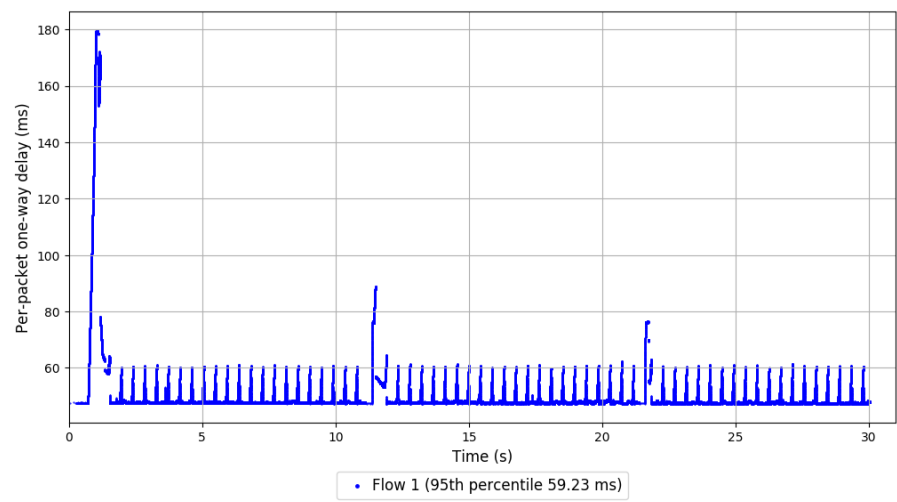
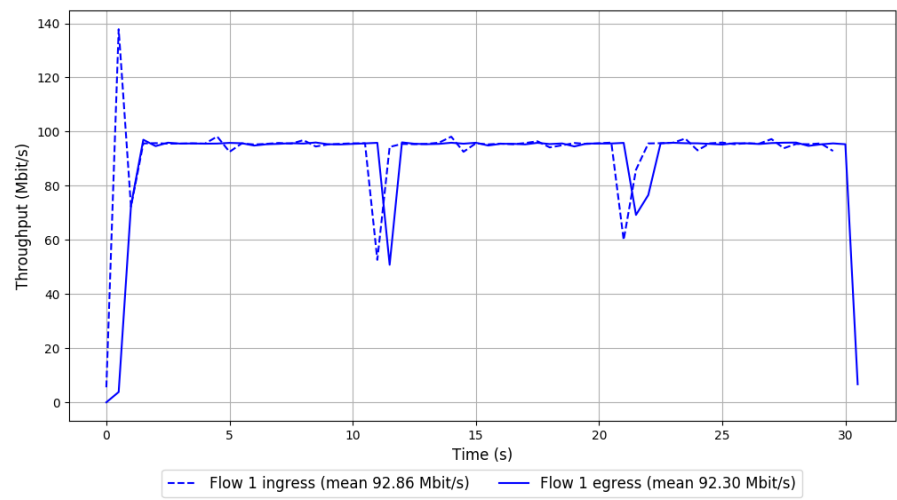
-- Flow 1:

Average throughput: 92.30 Mbit/s

95th percentile per-packet one-way delay: 59.235 ms

Loss rate: 0.61%

Run 1: Report of FillP-Sheep — Data Link

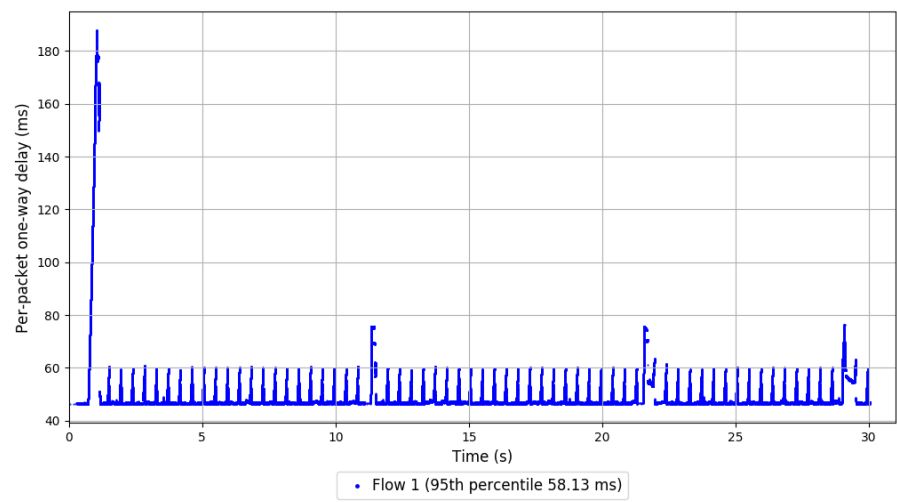
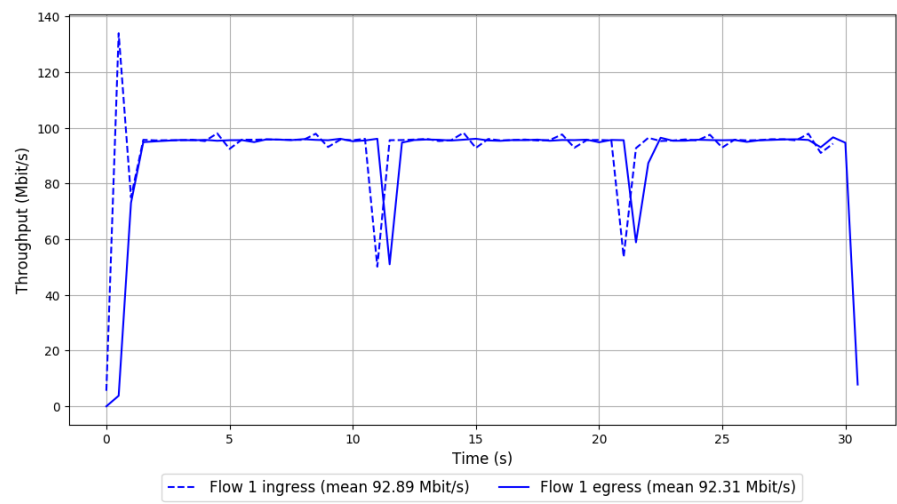


Run 2: Statistics of FillP-Sheep

Start at: 2019-03-26 20:42:12
End at: 2019-03-26 20:42:42
Local clock offset: 2.537 ms
Remote clock offset: -10.838 ms

Below is generated by plot.py at 2019-03-26 22:24:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 58.126 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 92.31 Mbit/s
95th percentile per-packet one-way delay: 58.126 ms
Loss rate: 0.62%

Run 2: Report of FillP-Sheep — Data Link

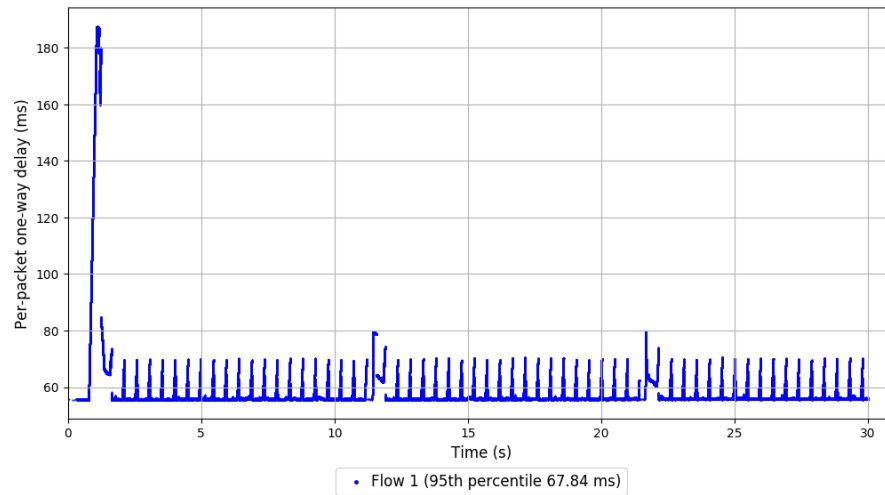
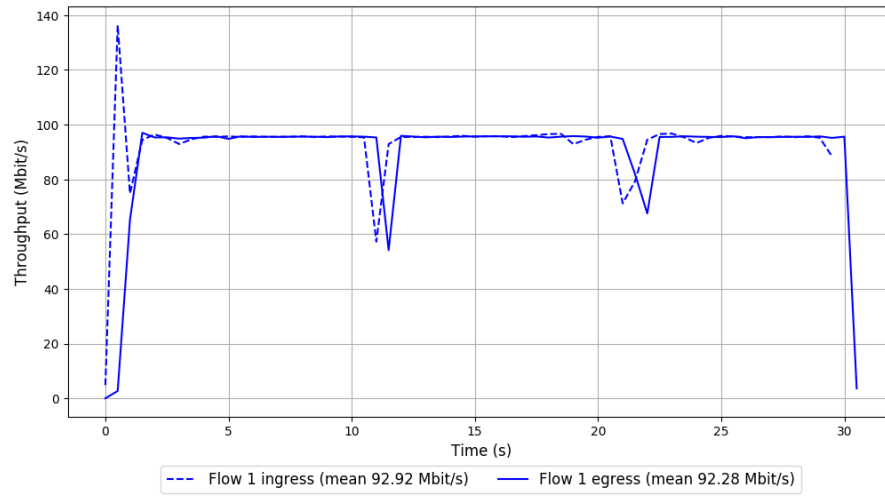


Run 3: Statistics of FillP-Sheep

Start at: 2019-03-26 21:08:31
End at: 2019-03-26 21:09:01
Local clock offset: 6.531 ms
Remote clock offset: -10.36 ms

Below is generated by plot.py at 2019-03-26 22:24:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 67.837 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 67.837 ms
Loss rate: 0.69%

Run 3: Report of FillP-Sheep — Data Link

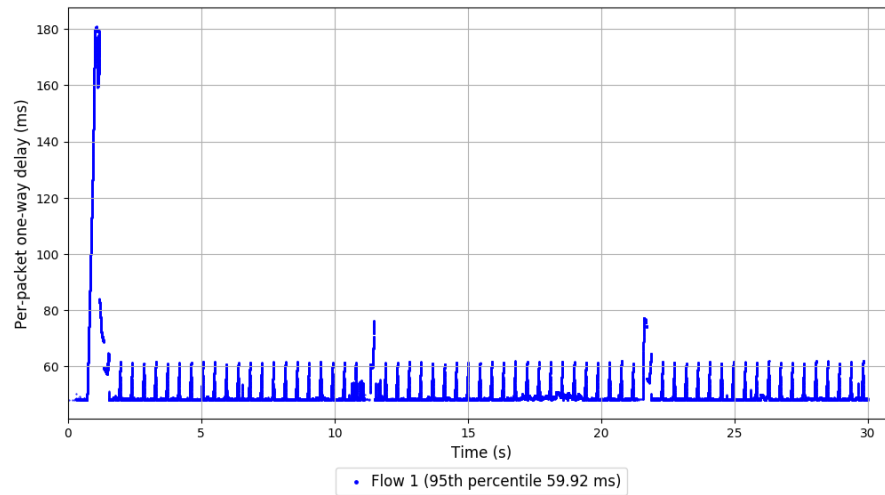
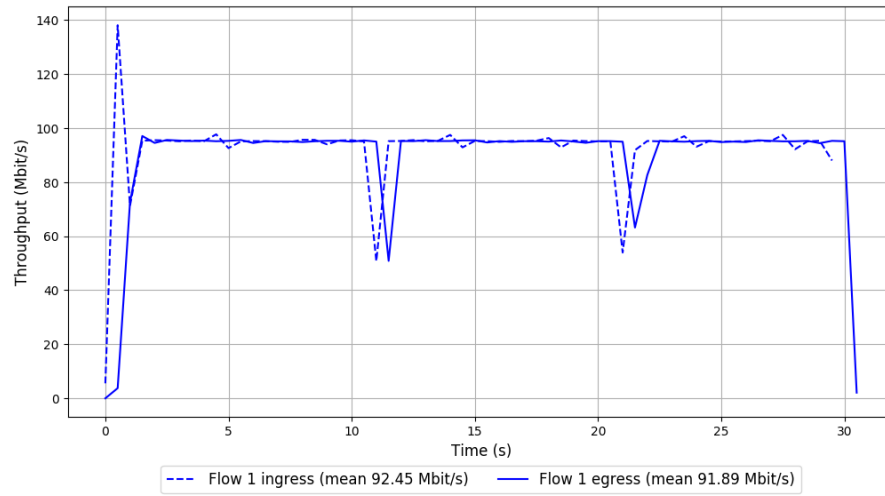


Run 4: Statistics of FillP-Sheep

Start at: 2019-03-26 21:35:42
End at: 2019-03-26 21:36:12
Local clock offset: 5.728 ms
Remote clock offset: -10.17 ms

Below is generated by plot.py at 2019-03-26 22:25:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.89 Mbit/s
95th percentile per-packet one-way delay: 59.916 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 91.89 Mbit/s
95th percentile per-packet one-way delay: 59.916 ms
Loss rate: 0.60%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-03-26 22:04:33

End at: 2019-03-26 22:05:03

Local clock offset: -2.563 ms

Remote clock offset: -8.657 ms

Below is generated by plot.py at 2019-03-26 22:25:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.25 Mbit/s

95th percentile per-packet one-way delay: 63.068 ms

Loss rate: 0.61%

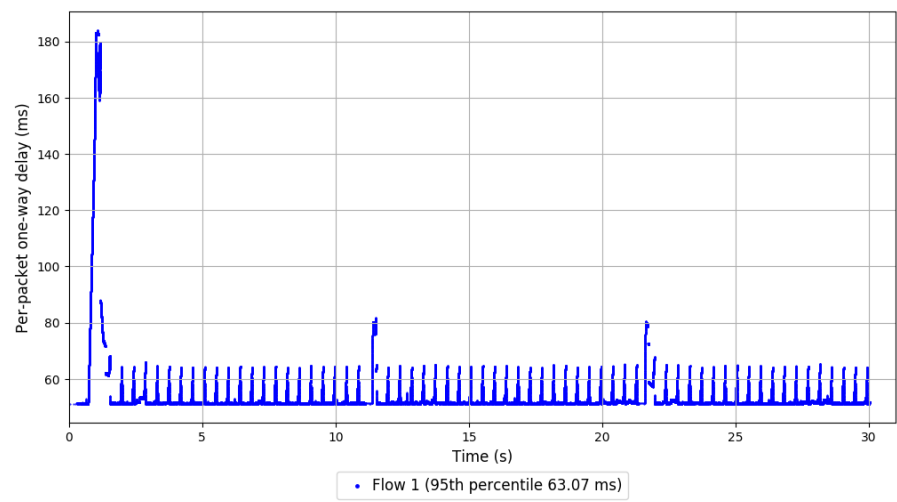
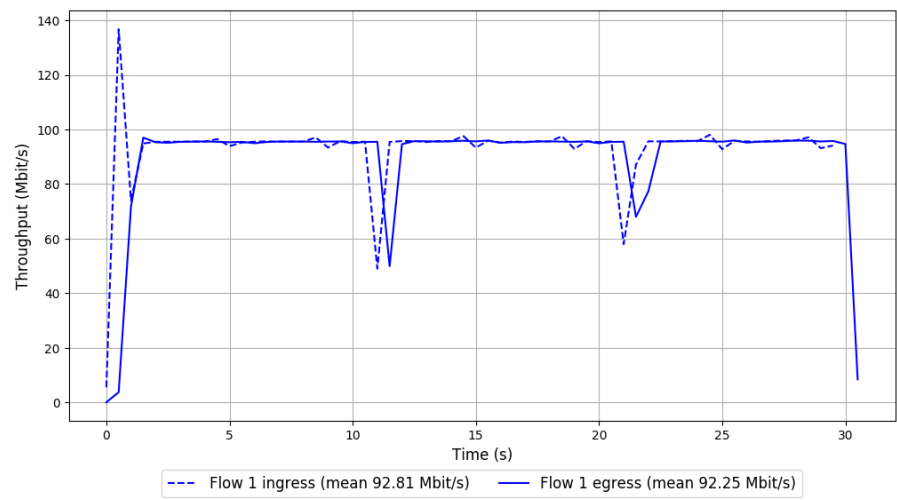
-- Flow 1:

Average throughput: 92.25 Mbit/s

95th percentile per-packet one-way delay: 63.068 ms

Loss rate: 0.61%

Run 5: Report of FillP-Sheep — Data Link



Run 1: Statistics of Indigo

Start at: 2019-03-26 20:20:51

End at: 2019-03-26 20:21:21

Local clock offset: 4.059 ms

Remote clock offset: -11.183 ms

Below is generated by plot.py at 2019-03-26 22:25:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.41 Mbit/s

95th percentile per-packet one-way delay: 61.305 ms

Loss rate: 6.67%

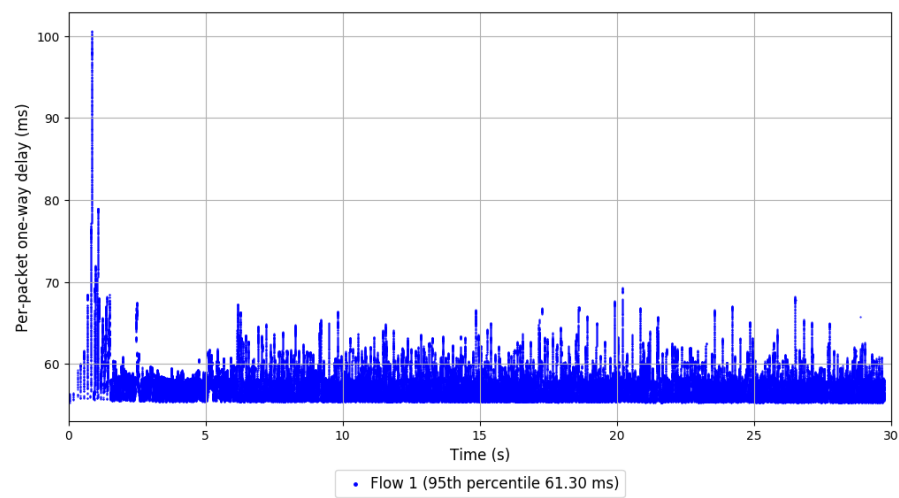
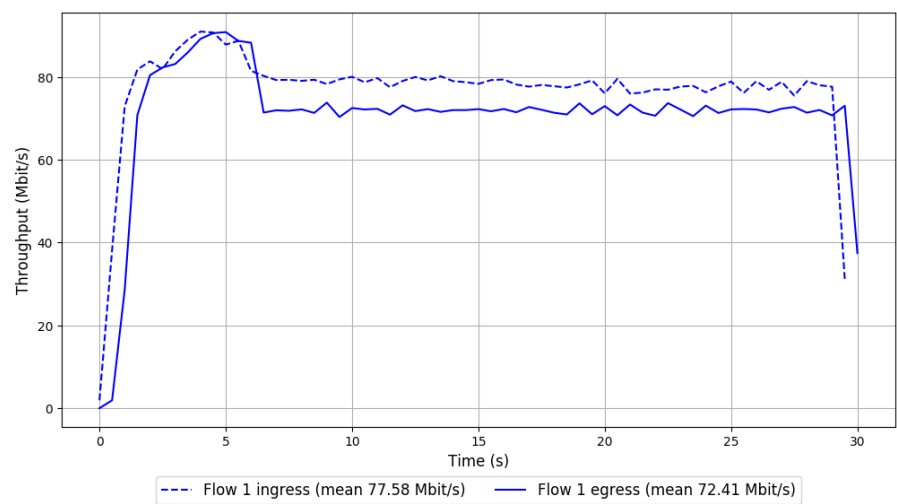
-- Flow 1:

Average throughput: 72.41 Mbit/s

95th percentile per-packet one-way delay: 61.305 ms

Loss rate: 6.67%

Run 1: Report of Indigo — Data Link

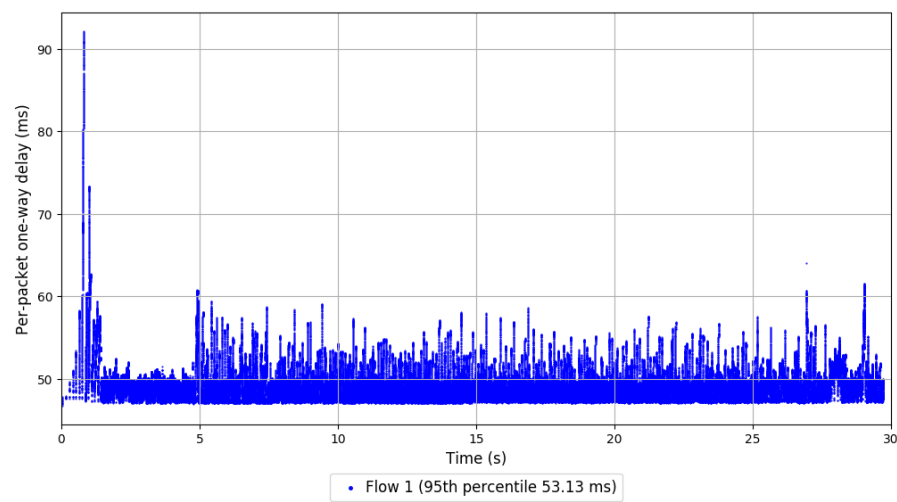
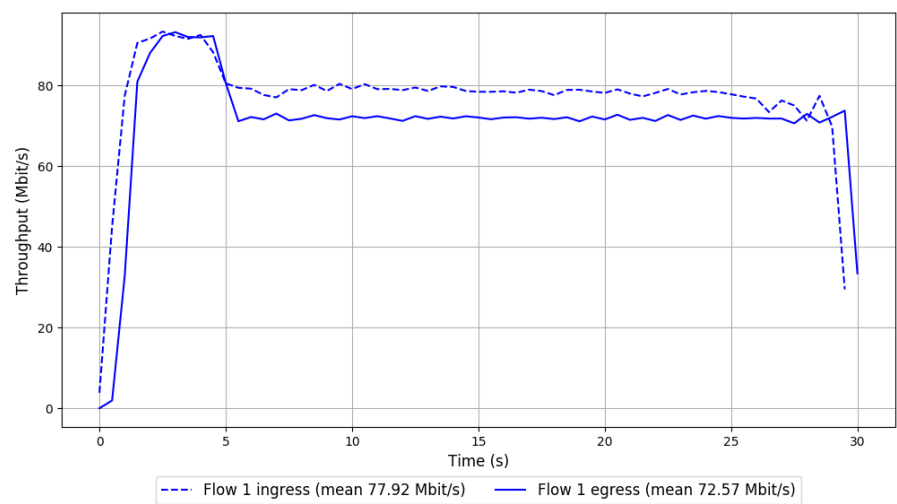


Run 2: Statistics of Indigo

Start at: 2019-03-26 20:45:49
End at: 2019-03-26 20:46:19
Local clock offset: 2.851 ms
Remote clock offset: -10.757 ms

Below is generated by plot.py at 2019-03-26 22:25:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.57 Mbit/s
95th percentile per-packet one-way delay: 53.131 ms
Loss rate: 6.87%
-- Flow 1:
Average throughput: 72.57 Mbit/s
95th percentile per-packet one-way delay: 53.131 ms
Loss rate: 6.87%

Run 2: Report of Indigo — Data Link

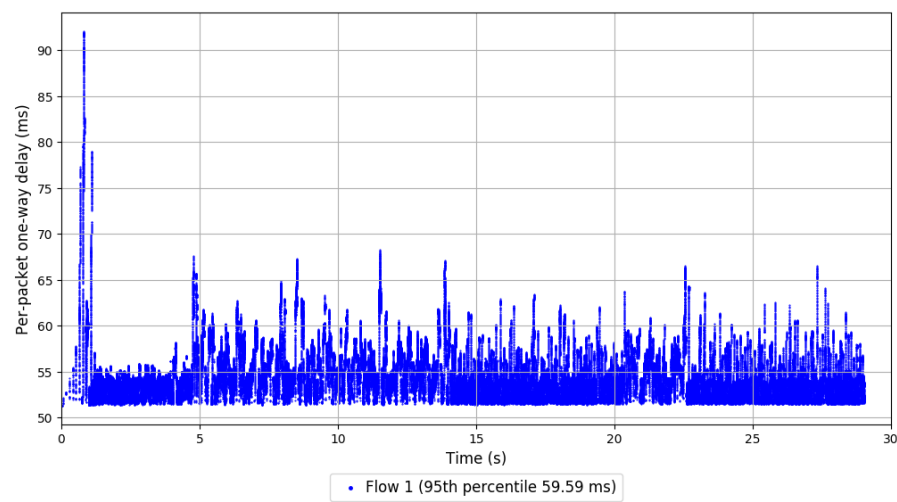
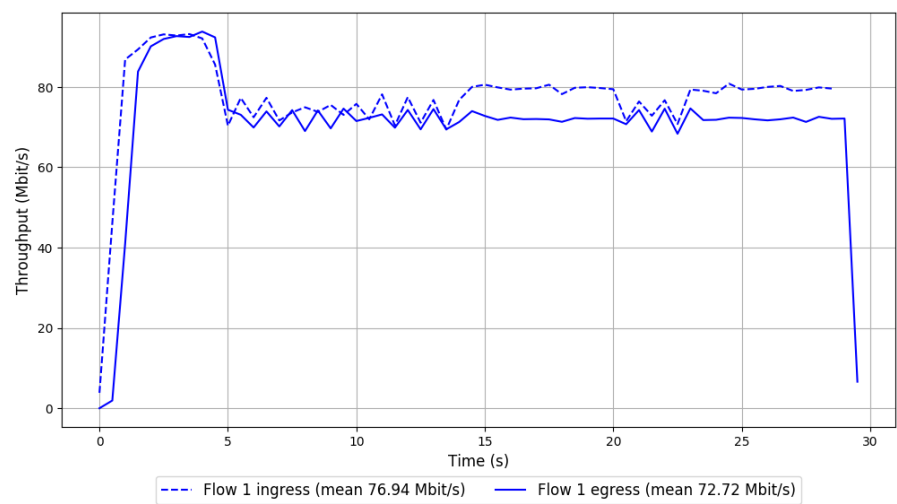


Run 3: Statistics of Indigo

Start at: 2019-03-26 21:12:28
End at: 2019-03-26 21:12:58
Local clock offset: 7.127 ms
Remote clock offset: -6.605 ms

Below is generated by plot.py at 2019-03-26 22:25:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.72 Mbit/s
95th percentile per-packet one-way delay: 59.591 ms
Loss rate: 5.48%
-- Flow 1:
Average throughput: 72.72 Mbit/s
95th percentile per-packet one-way delay: 59.591 ms
Loss rate: 5.48%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-03-26 21:40:05

End at: 2019-03-26 21:40:35

Local clock offset: 6.123 ms

Remote clock offset: -10.4 ms

Below is generated by plot.py at 2019-03-26 22:25:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.67 Mbit/s

95th percentile per-packet one-way delay: 64.486 ms

Loss rate: 0.04%

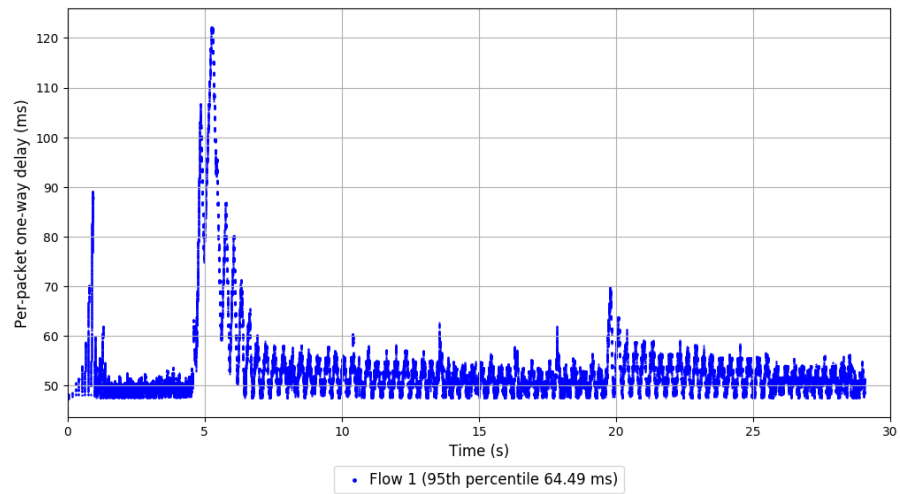
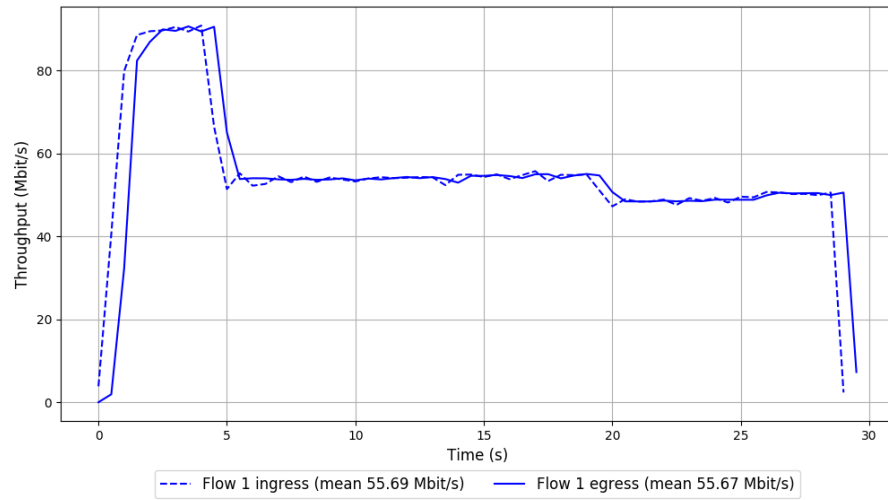
-- Flow 1:

Average throughput: 55.67 Mbit/s

95th percentile per-packet one-way delay: 64.486 ms

Loss rate: 0.04%

Run 4: Report of Indigo — Data Link

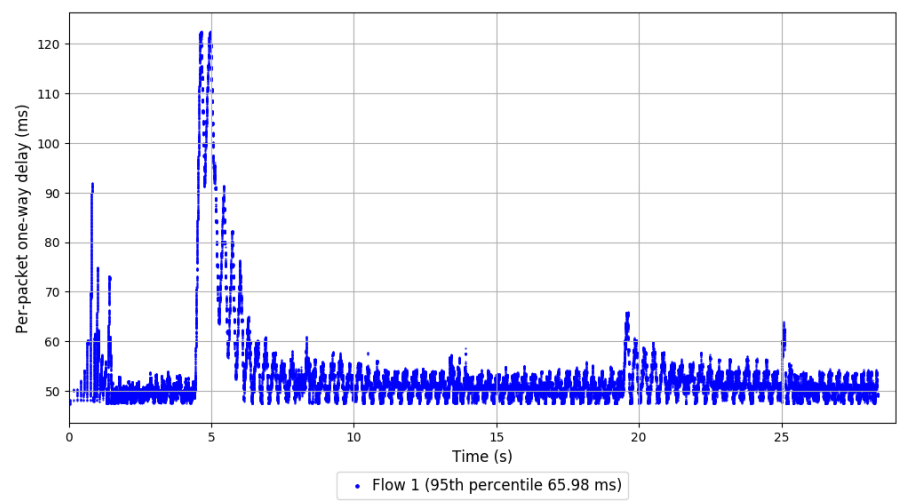
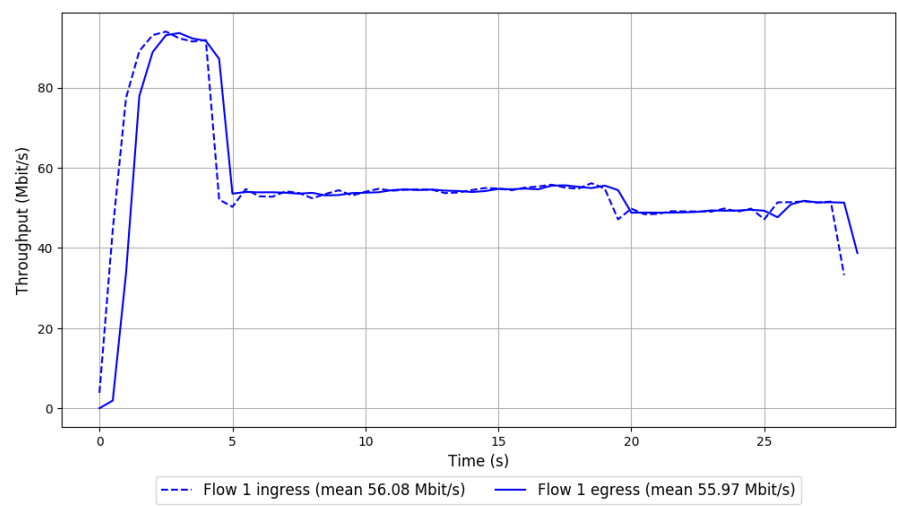


Run 5: Statistics of Indigo

Start at: 2019-03-26 22:08:34
End at: 2019-03-26 22:09:04
Local clock offset: -3.096 ms
Remote clock offset: -12.001 ms

Below is generated by plot.py at 2019-03-26 22:25:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 65.985 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 65.985 ms
Loss rate: 0.19%

Run 5: Report of Indigo — Data Link

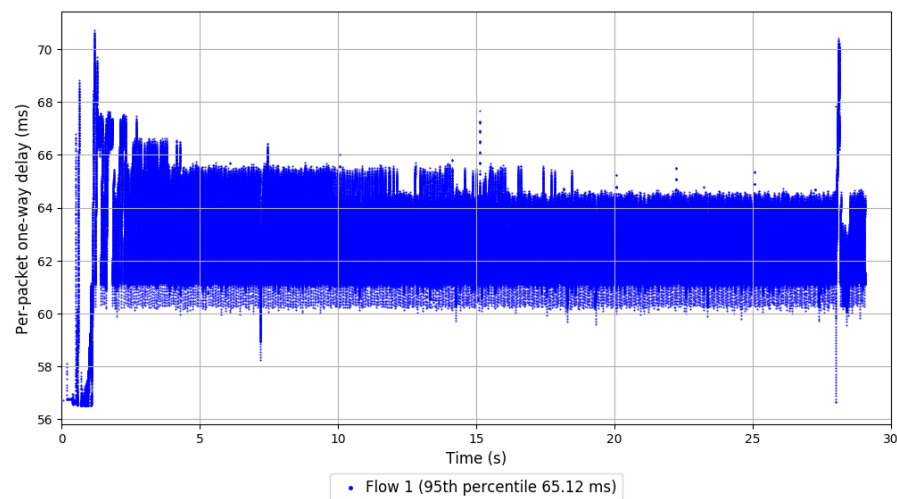
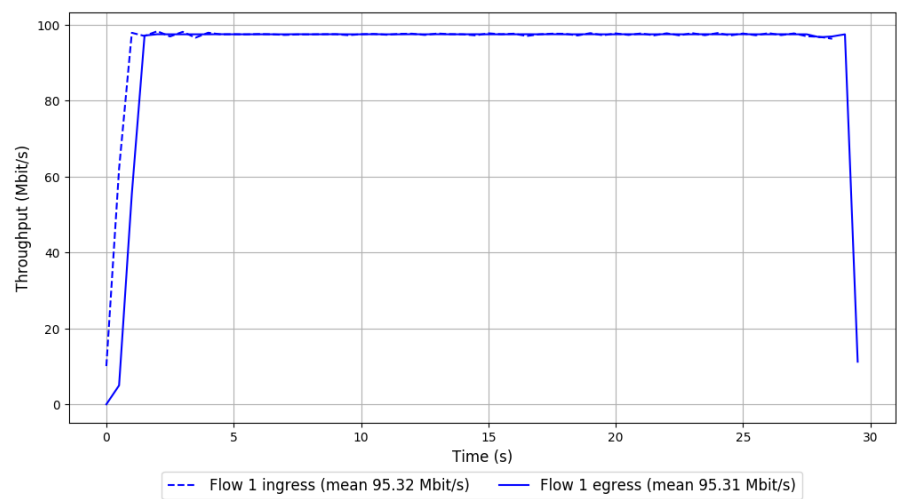


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-26 20:14:53
End at: 2019-03-26 20:15:23
Local clock offset: 6.185 ms
Remote clock offset: -10.434 ms

Below is generated by plot.py at 2019-03-26 22:25:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 65.122 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 65.122 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC3 — Data Link

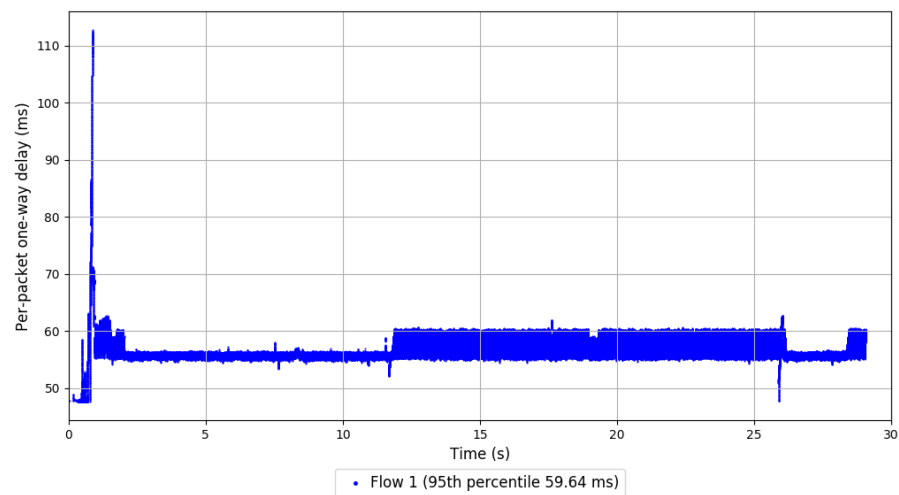
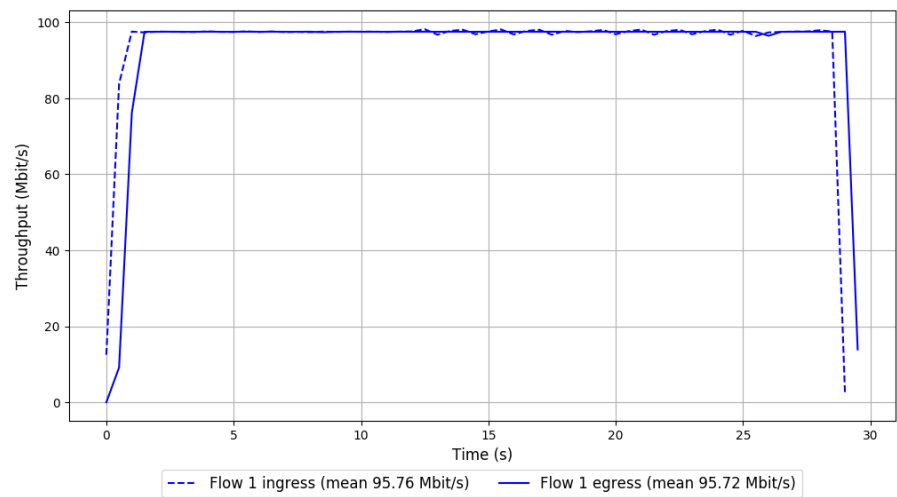


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-26 20:39:51
End at: 2019-03-26 20:40:21
Local clock offset: 2.38 ms
Remote clock offset: -10.06 ms

Below is generated by plot.py at 2019-03-26 22:25:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 59.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.72 Mbit/s
95th percentile per-packet one-way delay: 59.636 ms
Loss rate: 0.00%

Run 2: Report of Indigo-MusesC3 — Data Link

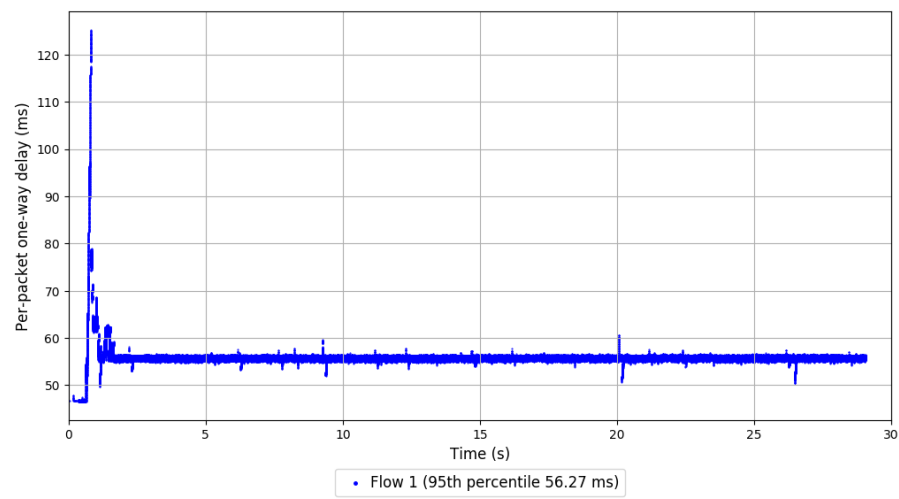
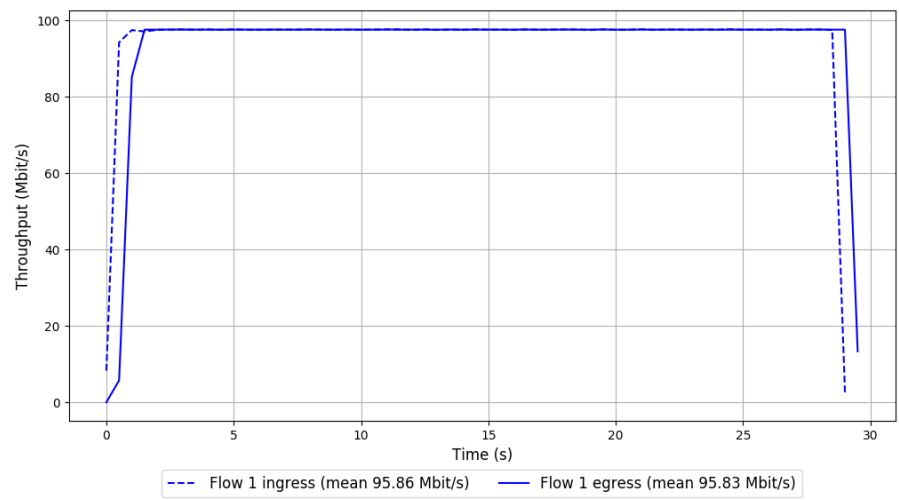


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-26 21:05:51
End at: 2019-03-26 21:06:21
Local clock offset: 6.334 ms
Remote clock offset: -10.469 ms

Below is generated by plot.py at 2019-03-26 22:25:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 56.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 56.265 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesC3 — Data Link

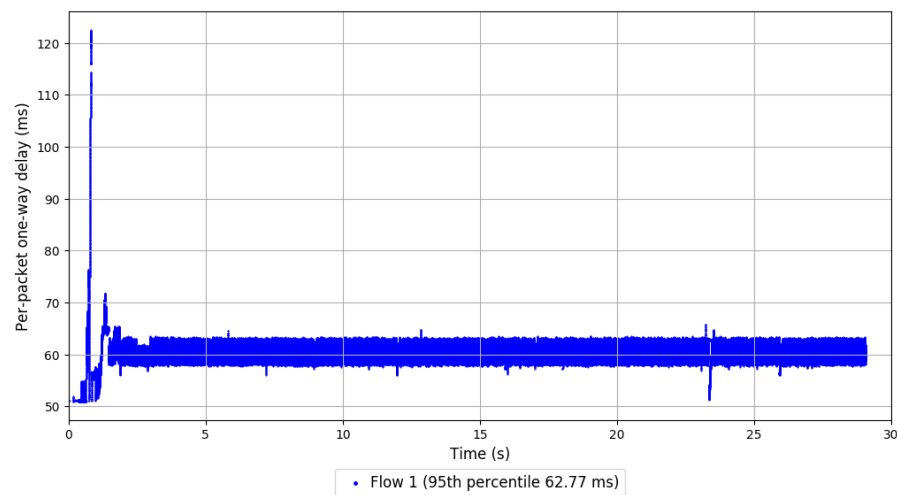
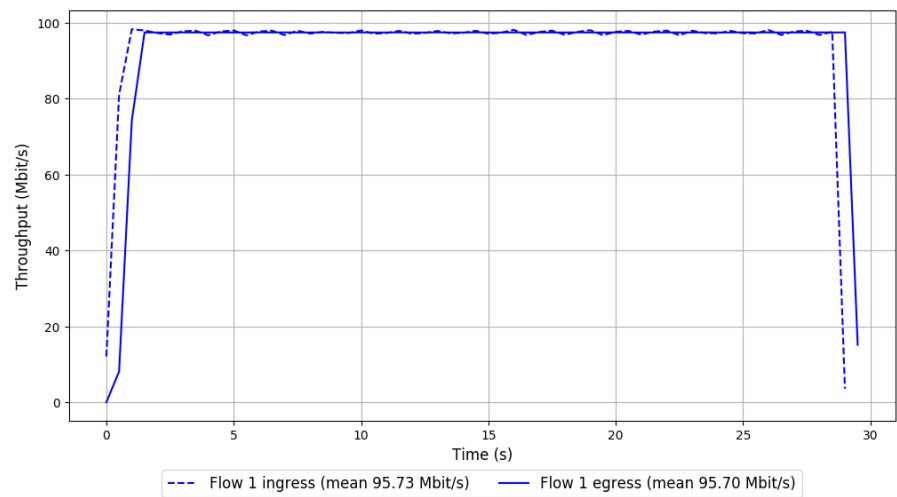


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-26 21:33:08
End at: 2019-03-26 21:33:38
Local clock offset: 5.817 ms
Remote clock offset: -7.223 ms

Below is generated by plot.py at 2019-03-26 22:25:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 62.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.70 Mbit/s
95th percentile per-packet one-way delay: 62.766 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC3 — Data Link

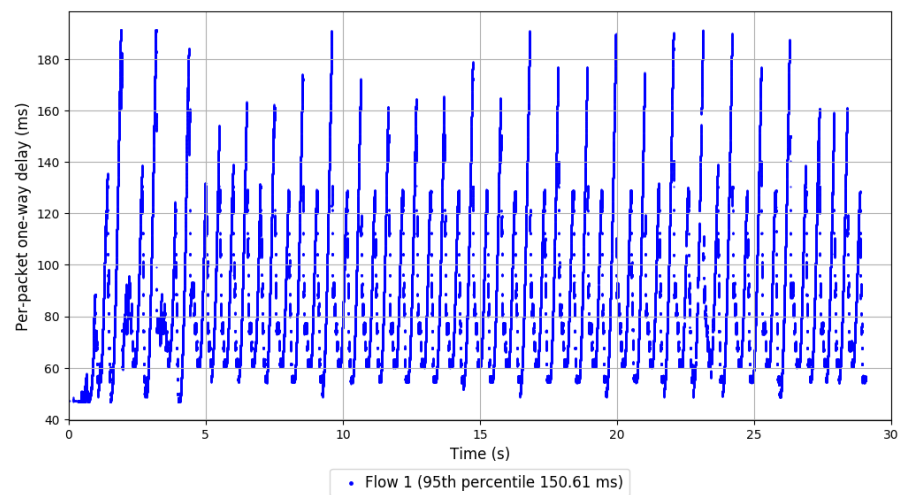
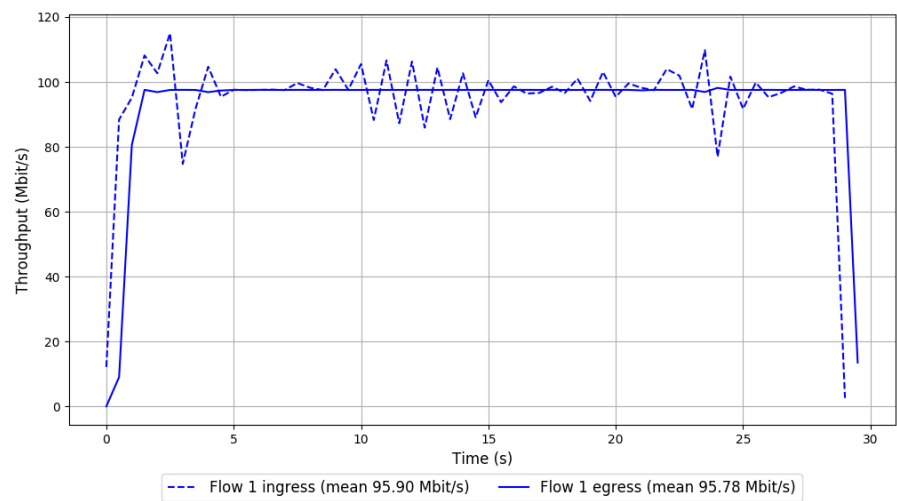


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-26 22:01:58
End at: 2019-03-26 22:02:28
Local clock offset: -2.044 ms
Remote clock offset: -12.929 ms

Below is generated by plot.py at 2019-03-26 22:26:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 150.610 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 150.610 ms
Loss rate: 0.10%

Run 5: Report of Indigo-MusesC3 — Data Link

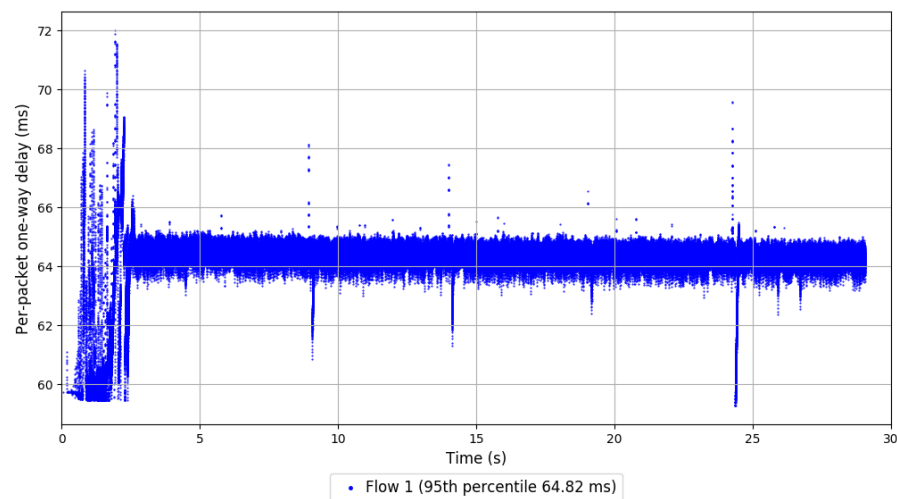
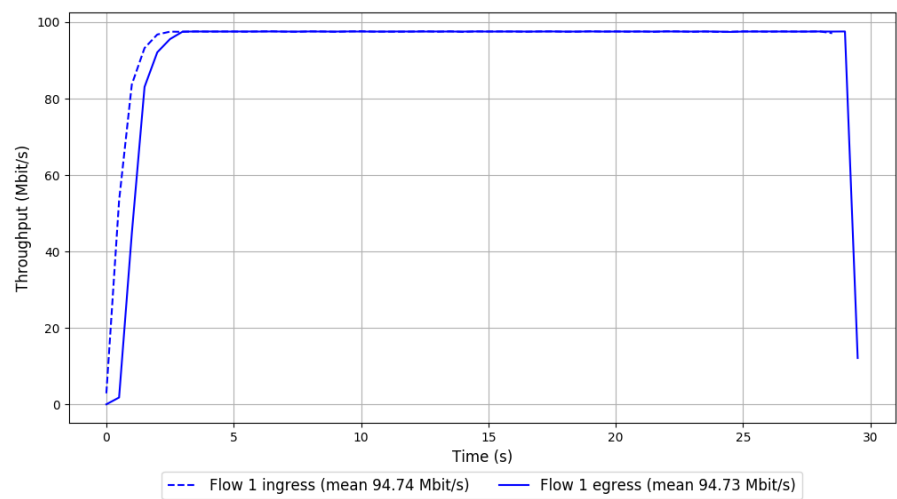


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-26 20:18:26
End at: 2019-03-26 20:18:56
Local clock offset: 4.953 ms
Remote clock offset: -7.073 ms

Below is generated by plot.py at 2019-03-26 22:26:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 64.818 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.73 Mbit/s
95th percentile per-packet one-way delay: 64.818 ms
Loss rate: 0.00%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-26 20:43:24

End at: 2019-03-26 20:43:54

Local clock offset: 2.576 ms

Remote clock offset: -6.296 ms

Below is generated by plot.py at 2019-03-26 22:26:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.91 Mbit/s

95th percentile per-packet one-way delay: 65.482 ms

Loss rate: 0.00%

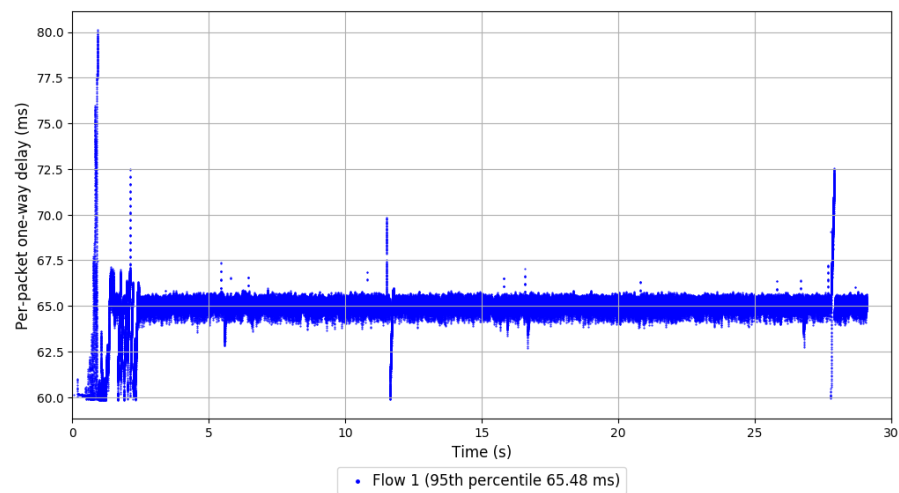
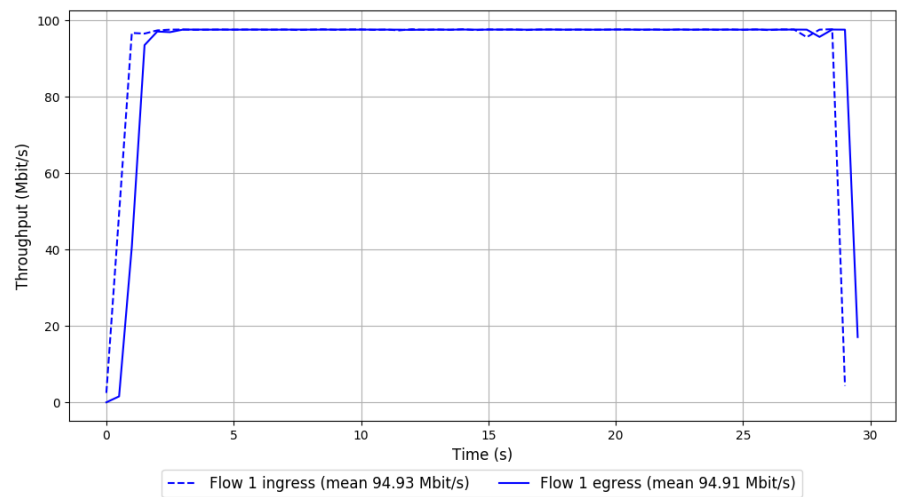
-- Flow 1:

Average throughput: 94.91 Mbit/s

95th percentile per-packet one-way delay: 65.482 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-26 21:09:55

End at: 2019-03-26 21:10:25

Local clock offset: 6.846 ms

Remote clock offset: -9.76 ms

Below is generated by plot.py at 2019-03-26 22:26:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.84 Mbit/s

95th percentile per-packet one-way delay: 53.771 ms

Loss rate: 0.00%

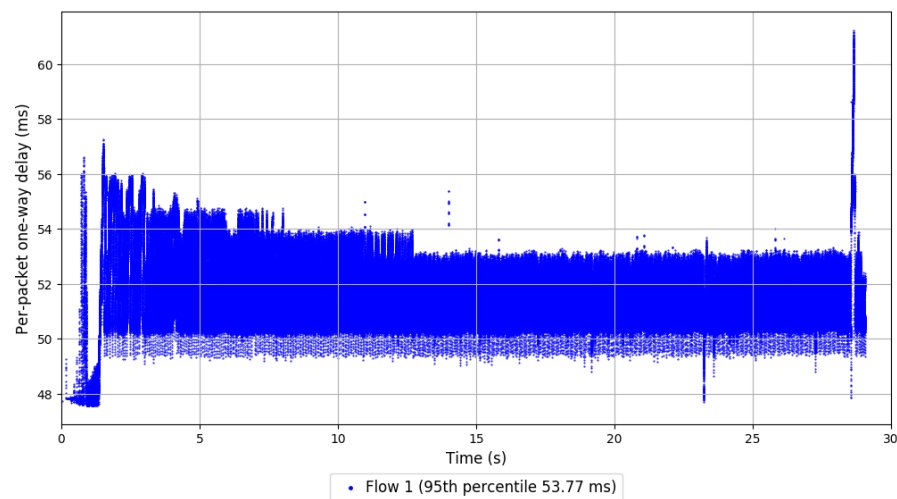
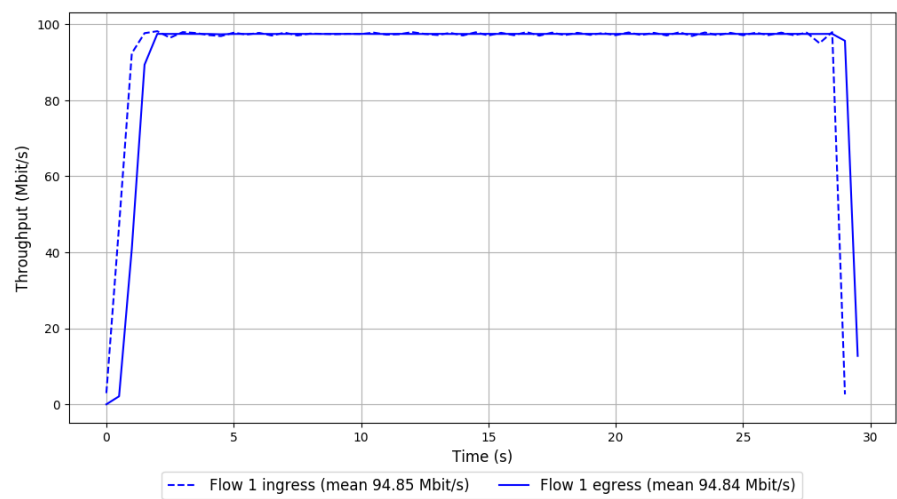
-- Flow 1:

Average throughput: 94.84 Mbit/s

95th percentile per-packet one-way delay: 53.771 ms

Loss rate: 0.00%

Run 3: Report of Indigo-MusesC5 — Data Link

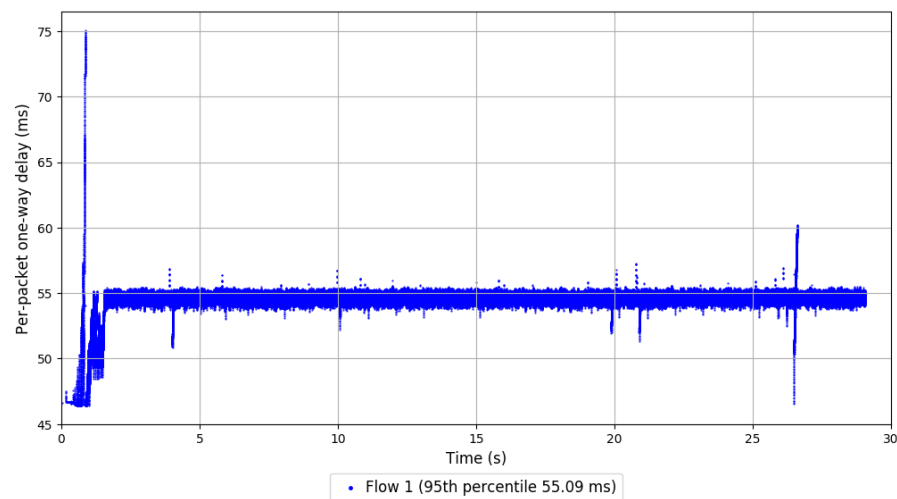
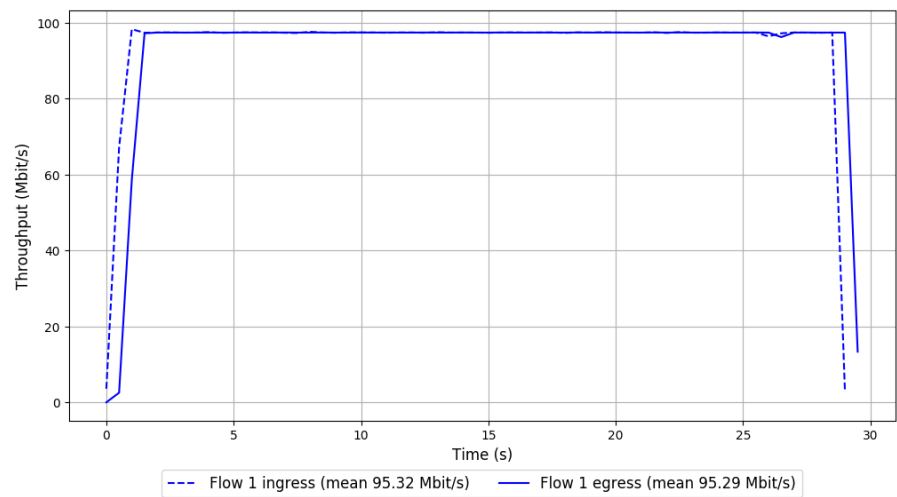


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-26 21:37:02
End at: 2019-03-26 21:37:32
Local clock offset: 5.894 ms
Remote clock offset: -11.402 ms

Below is generated by plot.py at 2019-03-26 22:26:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.29 Mbit/s
95th percentile per-packet one-way delay: 55.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.29 Mbit/s
95th percentile per-packet one-way delay: 55.091 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesC5 — Data Link

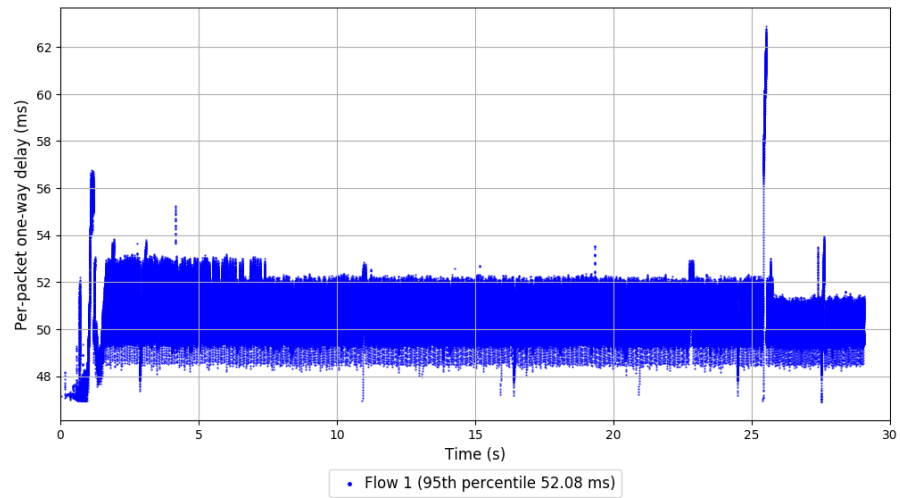
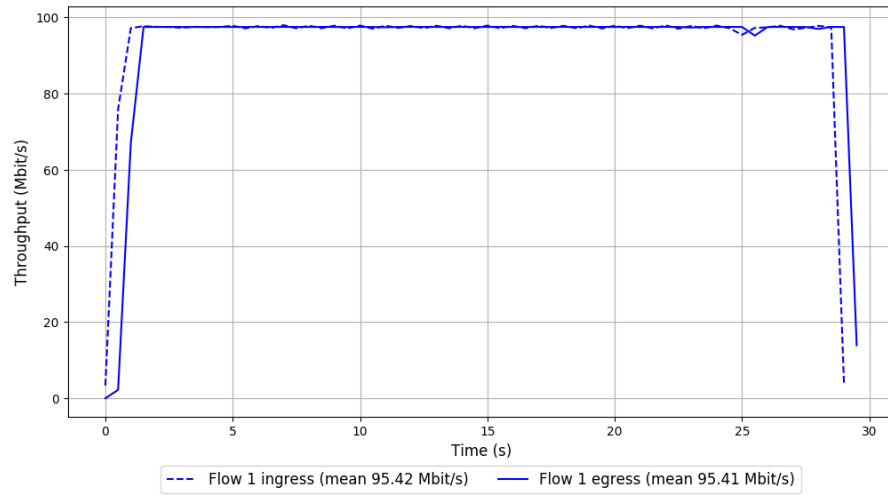


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-26 22:05:55
End at: 2019-03-26 22:06:25
Local clock offset: -2.642 ms
Remote clock offset: -12.483 ms

Below is generated by plot.py at 2019-03-26 22:26:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 52.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 52.082 ms
Loss rate: 0.00%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-26 20:26:48

End at: 2019-03-26 20:27:18

Local clock offset: 2.746 ms

Remote clock offset: -10.159 ms

Below is generated by plot.py at 2019-03-26 22:27:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.14 Mbit/s

95th percentile per-packet one-way delay: 55.290 ms

Loss rate: 0.00%

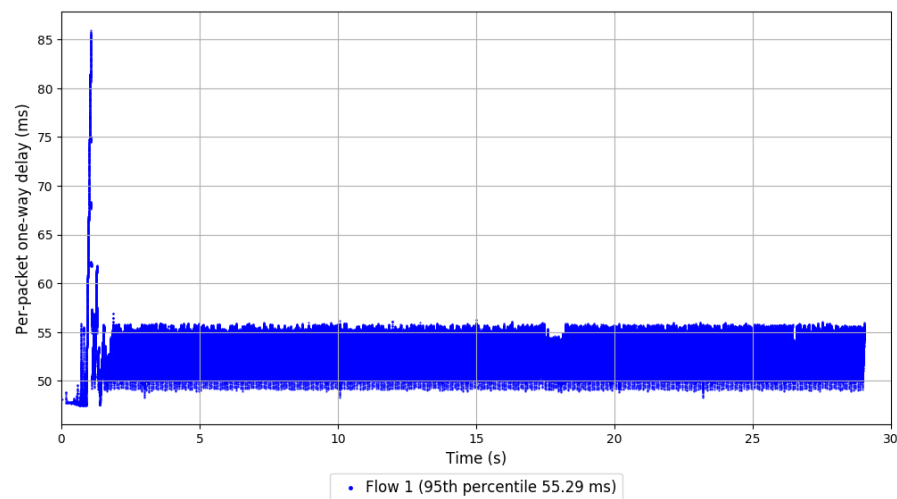
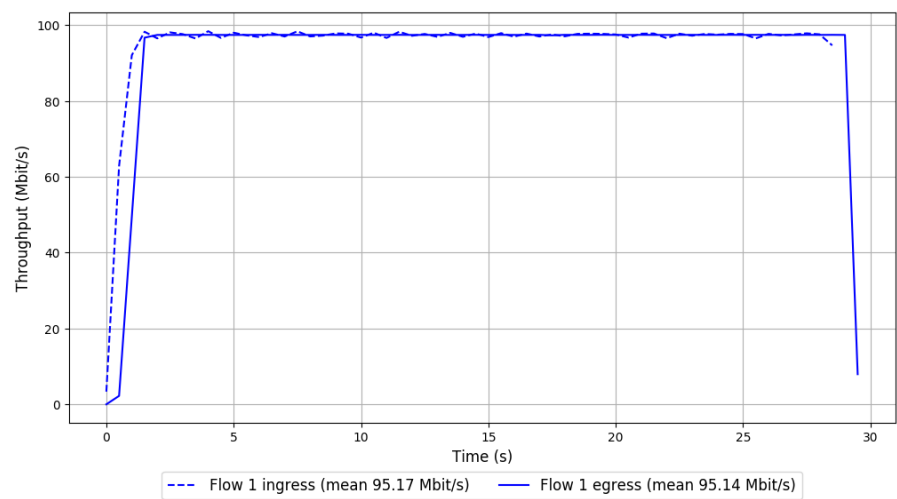
-- Flow 1:

Average throughput: 95.14 Mbit/s

95th percentile per-packet one-way delay: 55.290 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-26 20:51:56

End at: 2019-03-26 20:52:26

Local clock offset: 4.139 ms

Remote clock offset: -10.543 ms

Below is generated by plot.py at 2019-03-26 22:27:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.69 Mbit/s

95th percentile per-packet one-way delay: 52.550 ms

Loss rate: 0.00%

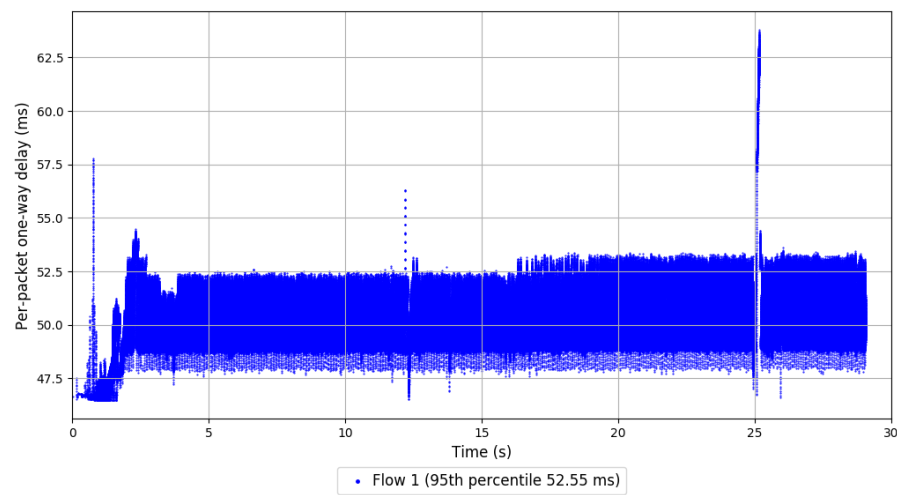
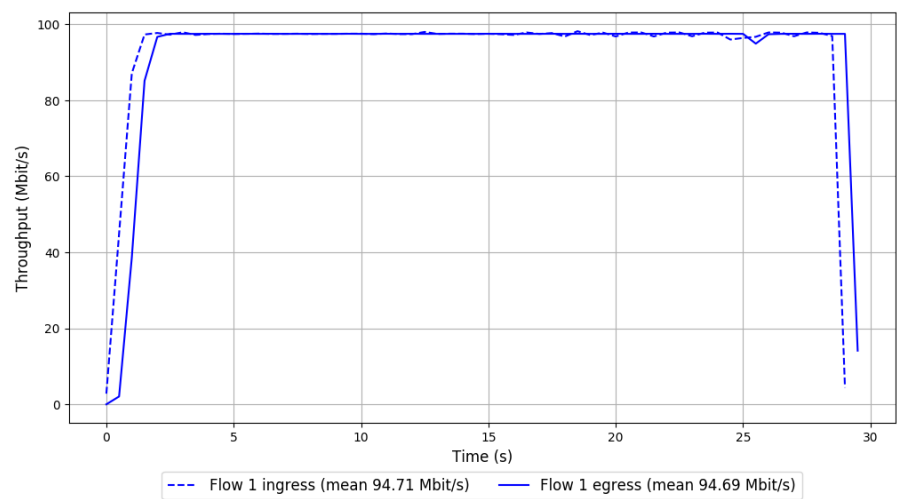
-- Flow 1:

Average throughput: 94.69 Mbit/s

95th percentile per-packet one-way delay: 52.550 ms

Loss rate: 0.00%

Run 2: Report of Indigo-MusesD — Data Link

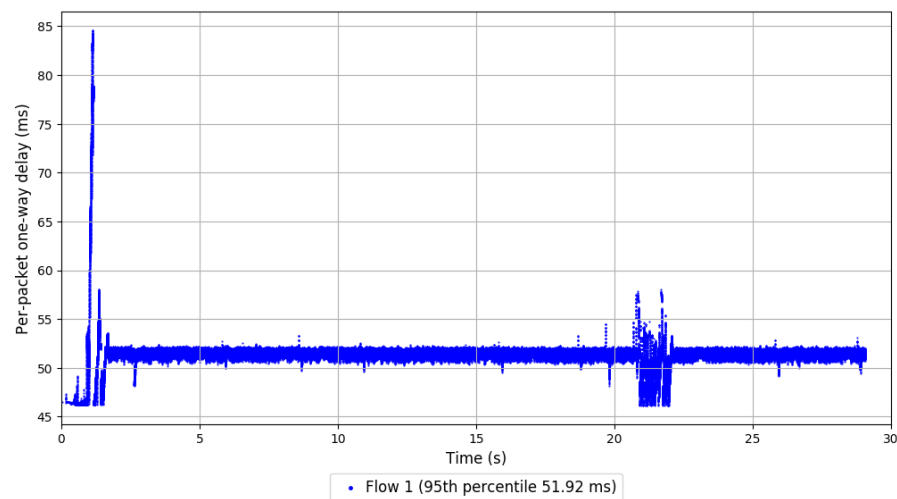
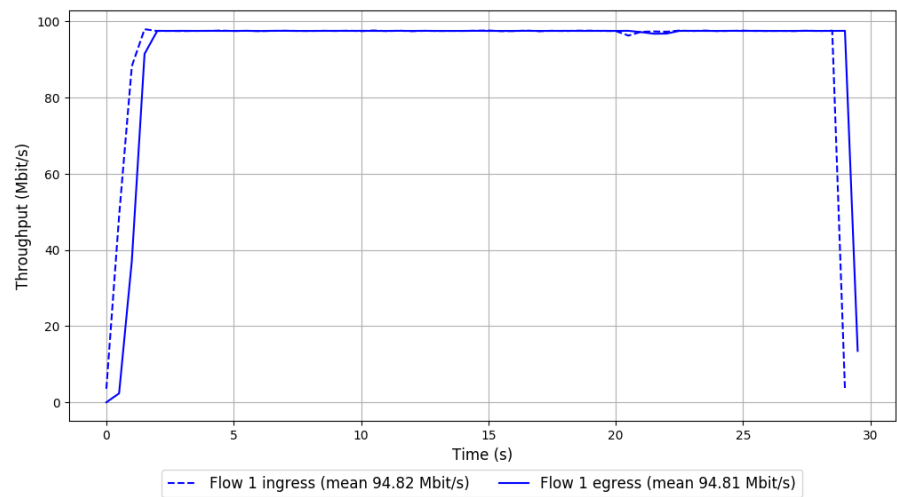


Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-26 21:19:13
End at: 2019-03-26 21:19:43
Local clock offset: 6.904 ms
Remote clock offset: -11.195 ms

Below is generated by plot.py at 2019-03-26 22:27:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 51.922 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 51.922 ms
Loss rate: 0.00%

Run 3: Report of Indigo-MusesD — Data Link

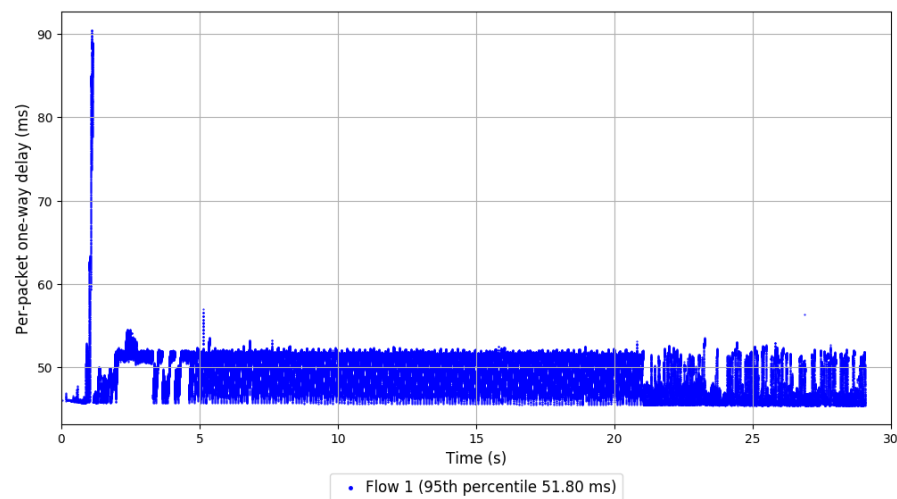
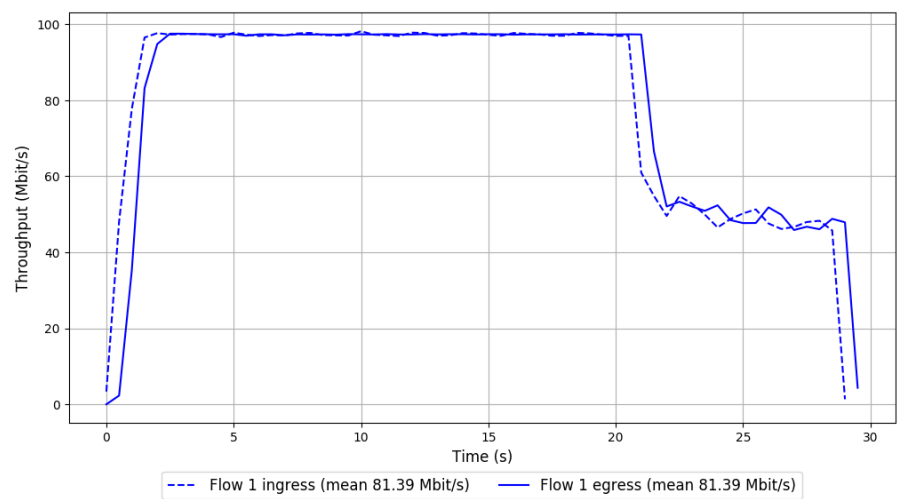


Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-26 21:46:30
End at: 2019-03-26 21:47:00
Local clock offset: 6.106 ms
Remote clock offset: -12.027 ms

Below is generated by plot.py at 2019-03-26 22:27:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 51.805 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 51.805 ms
Loss rate: 0.00%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-26 22:15:31

End at: 2019-03-26 22:16:01

Local clock offset: -3.787 ms

Remote clock offset: -13.191 ms

Below is generated by plot.py at 2019-03-26 22:27:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.84 Mbit/s

95th percentile per-packet one-way delay: 52.515 ms

Loss rate: 0.00%

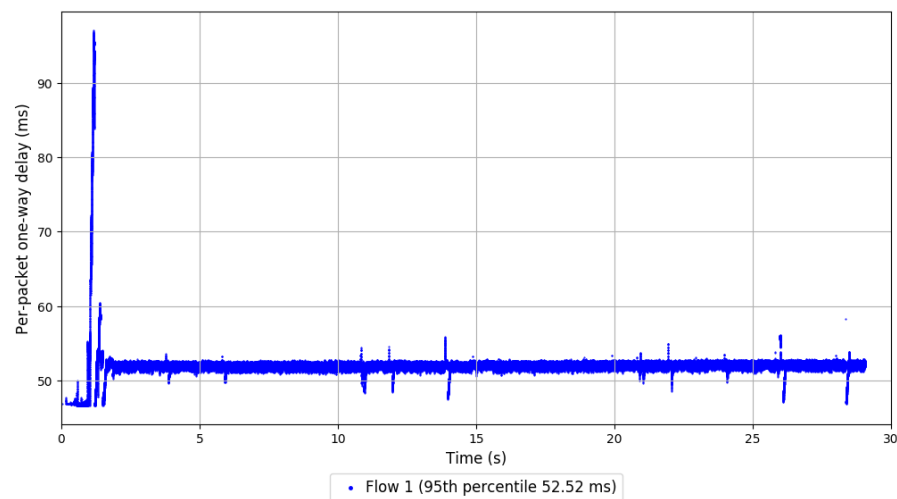
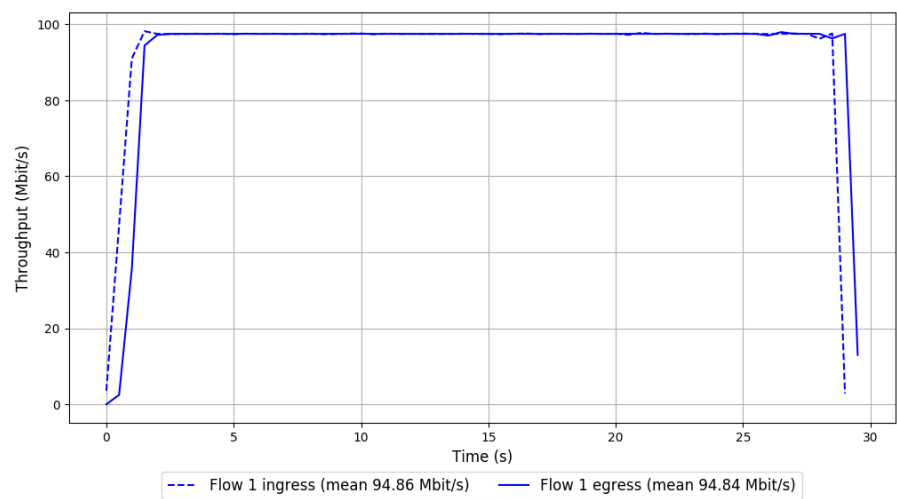
-- Flow 1:

Average throughput: 94.84 Mbit/s

95th percentile per-packet one-way delay: 52.515 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-26 20:07:52

End at: 2019-03-26 20:08:22

Local clock offset: 5.78 ms

Remote clock offset: -11.359 ms

Below is generated by plot.py at 2019-03-26 22:27:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.24 Mbit/s

95th percentile per-packet one-way delay: 73.872 ms

Loss rate: 0.00%

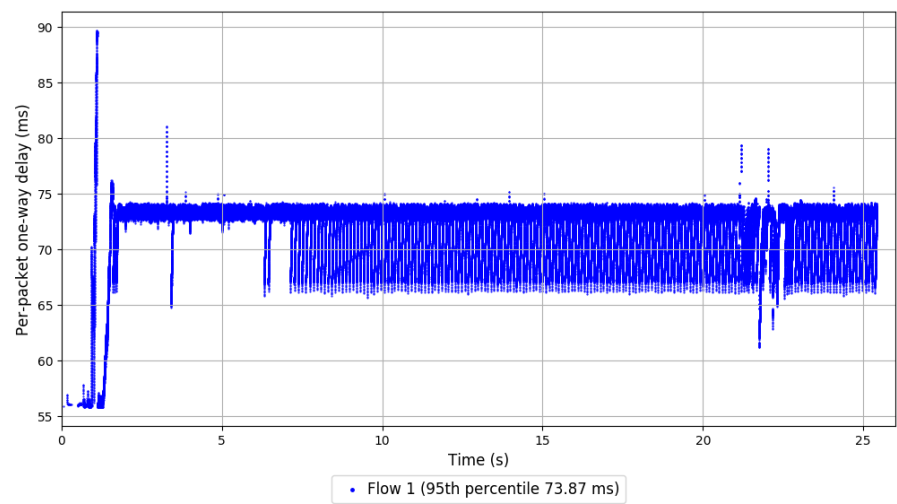
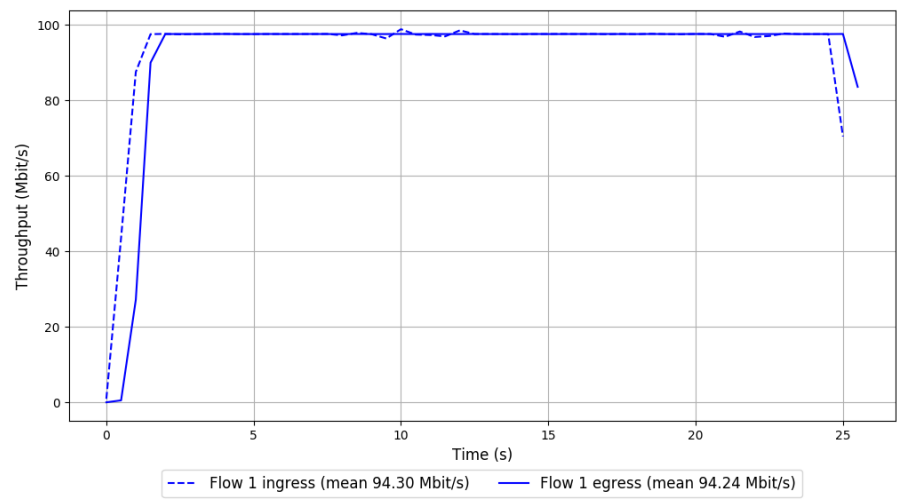
-- Flow 1:

Average throughput: 94.24 Mbit/s

95th percentile per-packet one-way delay: 73.872 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-26 20:32:45

End at: 2019-03-26 20:33:15

Local clock offset: 2.316 ms

Remote clock offset: -10.416 ms

Below is generated by plot.py at 2019-03-26 22:27:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 75.075 ms

Loss rate: 0.15%

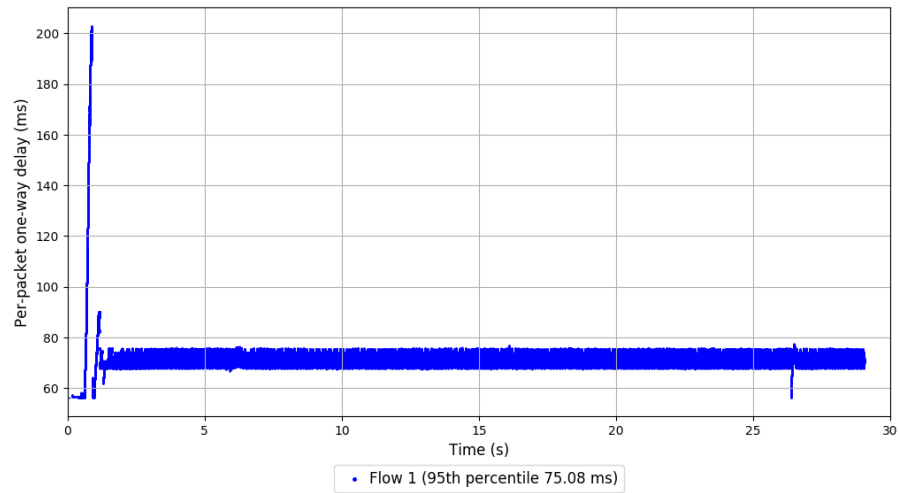
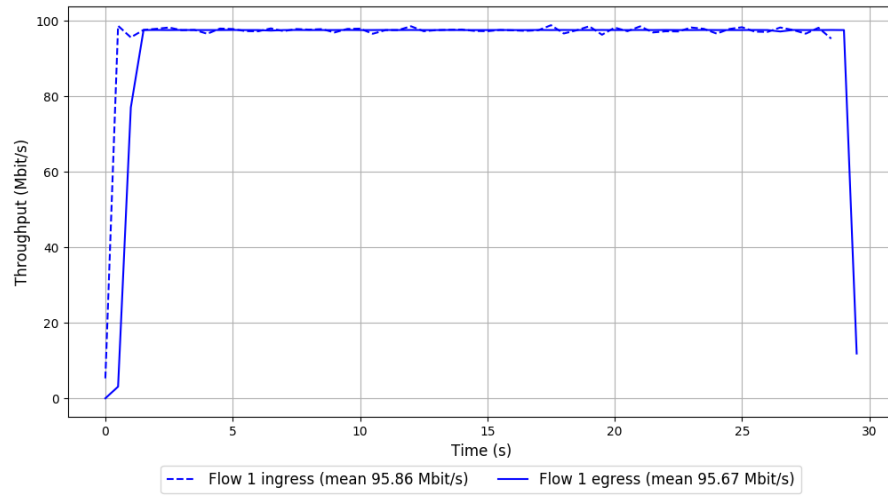
-- Flow 1:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 75.075 ms

Loss rate: 0.15%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-26 20:58:26

End at: 2019-03-26 20:58:56

Local clock offset: 5.27 ms

Remote clock offset: -10.678 ms

Below is generated by plot.py at 2019-03-26 22:28:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 74.029 ms

Loss rate: 0.15%

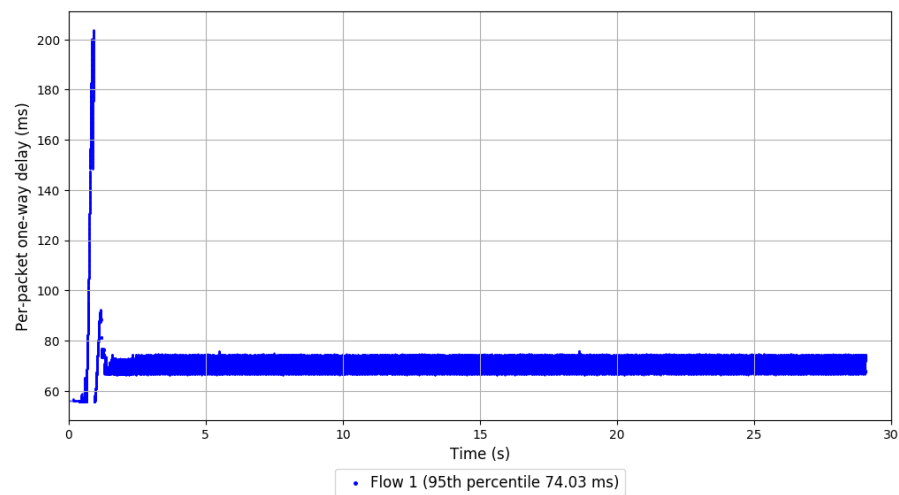
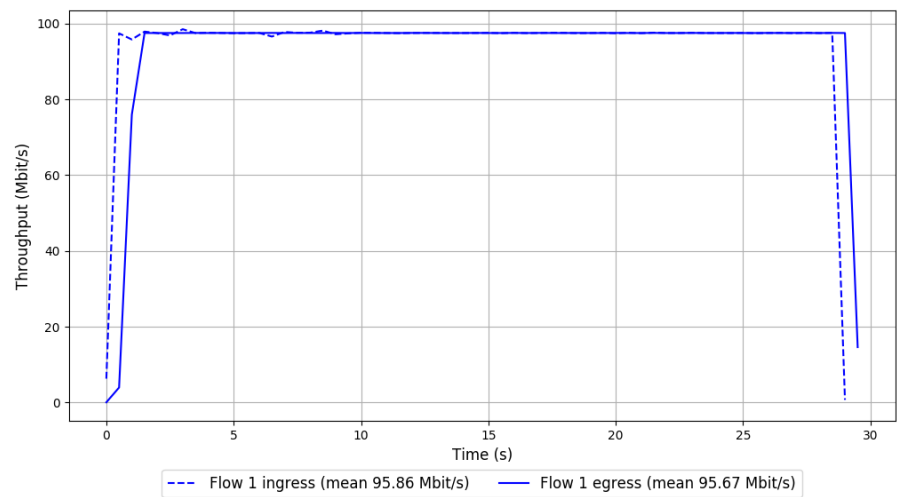
-- Flow 1:

Average throughput: 95.67 Mbit/s

95th percentile per-packet one-way delay: 74.029 ms

Loss rate: 0.15%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-26 21:25:37

End at: 2019-03-26 21:26:07

Local clock offset: 5.98 ms

Remote clock offset: -6.435 ms

Below is generated by plot.py at 2019-03-26 22:28:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.95 Mbit/s

95th percentile per-packet one-way delay: 67.104 ms

Loss rate: 0.00%

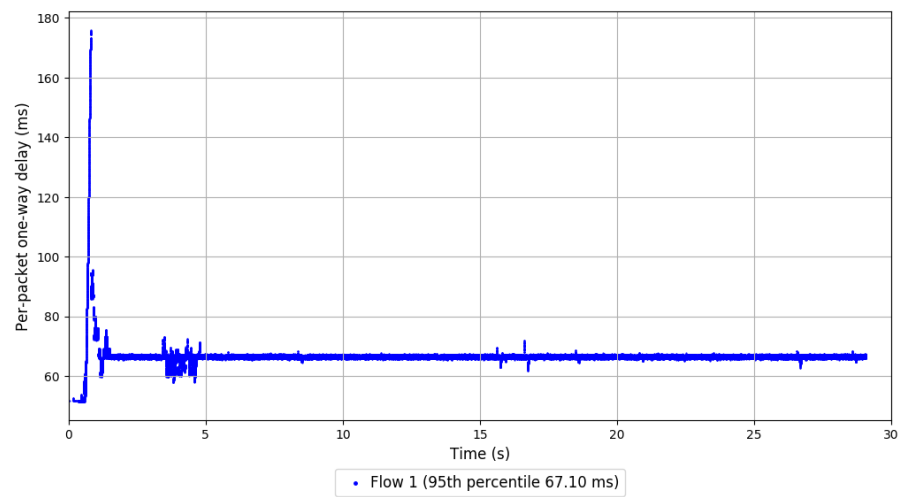
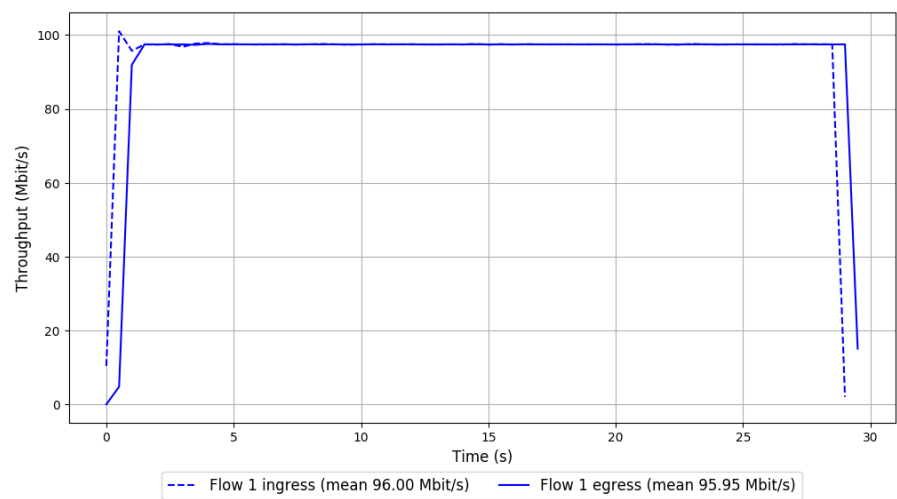
-- Flow 1:

Average throughput: 95.95 Mbit/s

95th percentile per-packet one-way delay: 67.104 ms

Loss rate: 0.00%

Run 4: Report of Indigo-MusesT — Data Link

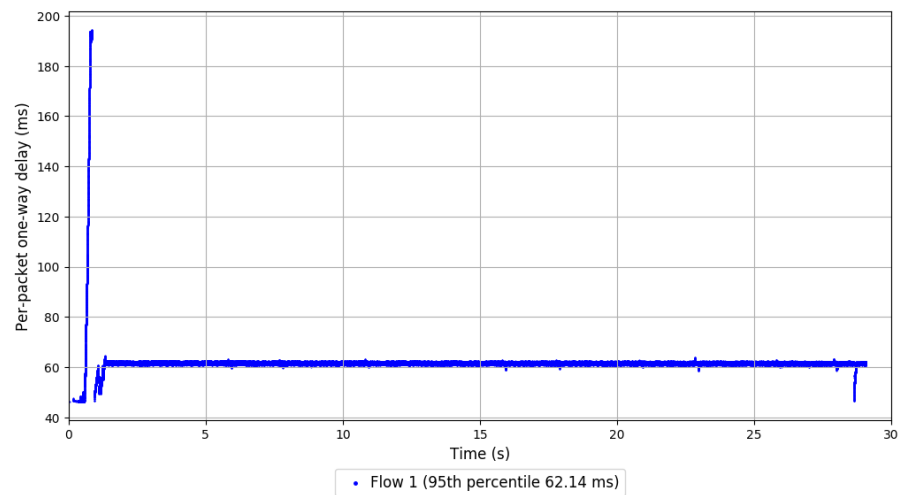
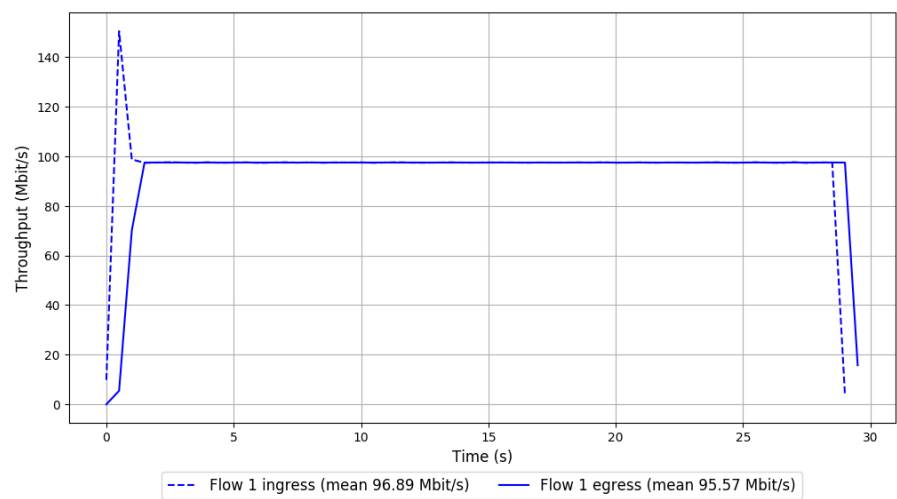


Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-26 21:54:25
End at: 2019-03-26 21:54:55
Local clock offset: 0.46 ms
Remote clock offset: -12.578 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 62.143 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 62.143 ms
Loss rate: 1.31%

Run 5: Report of Indigo-MusesT — Data Link

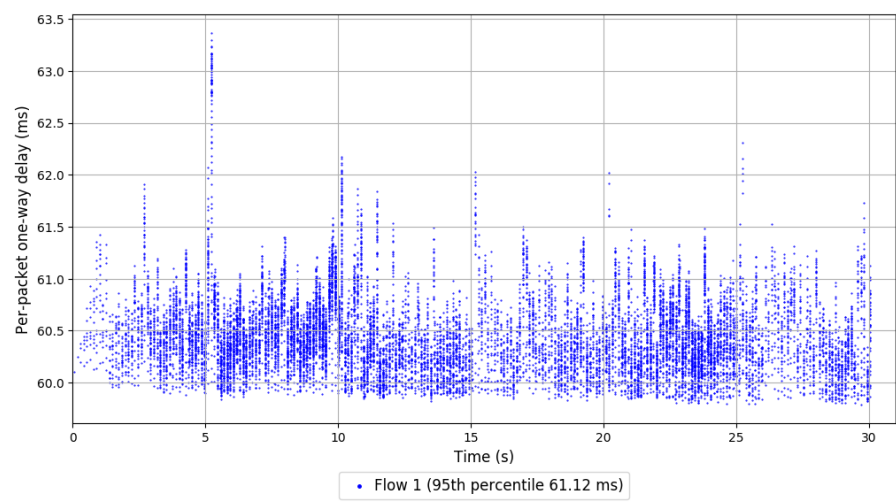
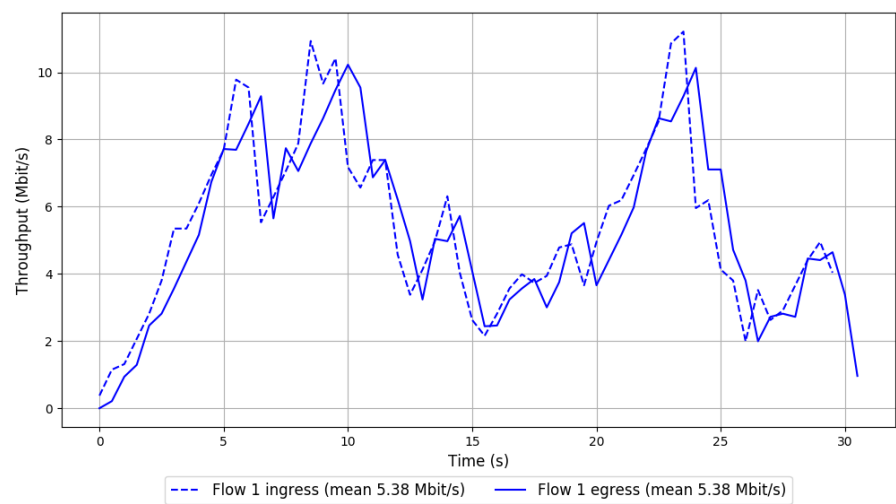


Run 1: Statistics of LEDBAT

Start at: 2019-03-26 20:23:17
End at: 2019-03-26 20:23:47
Local clock offset: 3.218 ms
Remote clock offset: -6.791 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 61.115 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 61.115 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

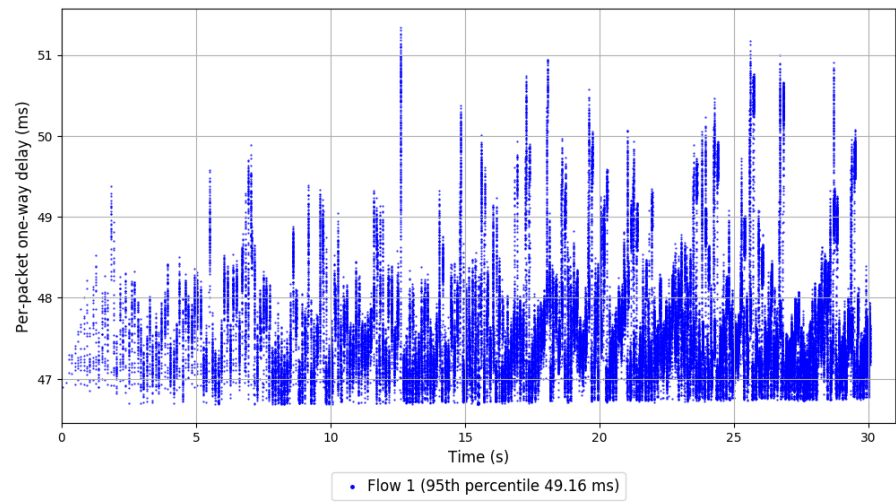
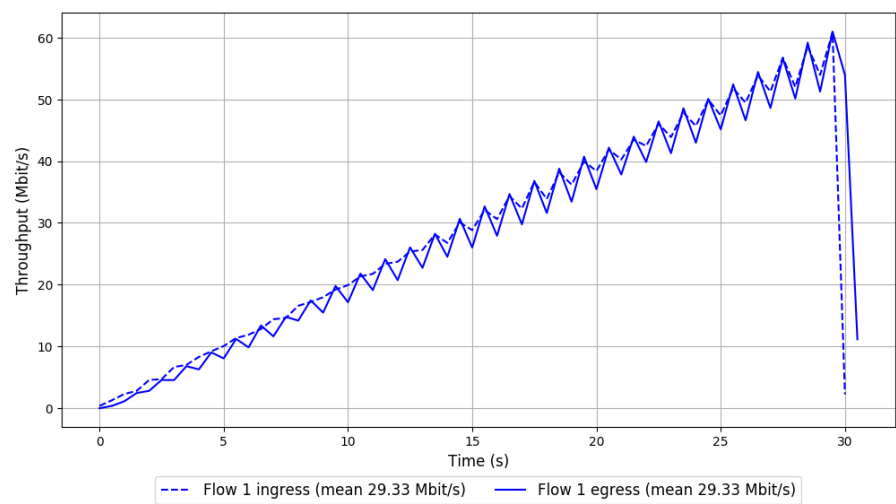


Run 2: Statistics of LEDBAT

Start at: 2019-03-26 20:48:14
End at: 2019-03-26 20:48:44
Local clock offset: 3.41 ms
Remote clock offset: -10.614 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 49.161 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 49.161 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

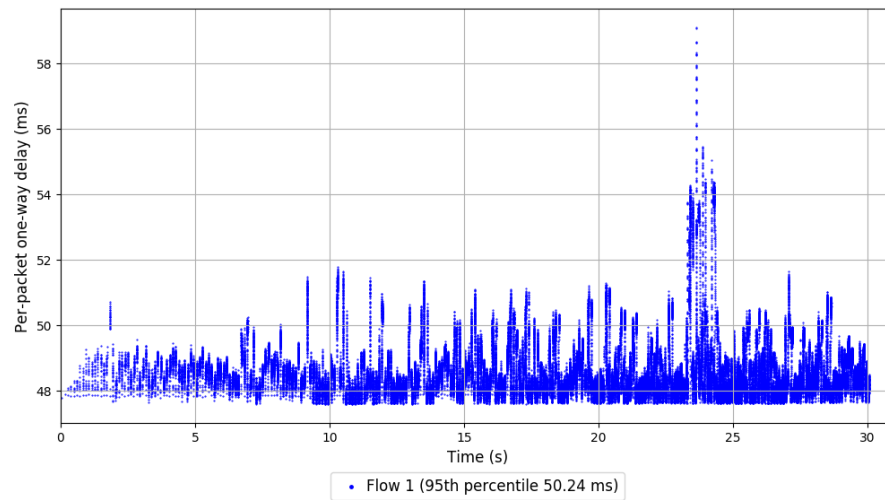
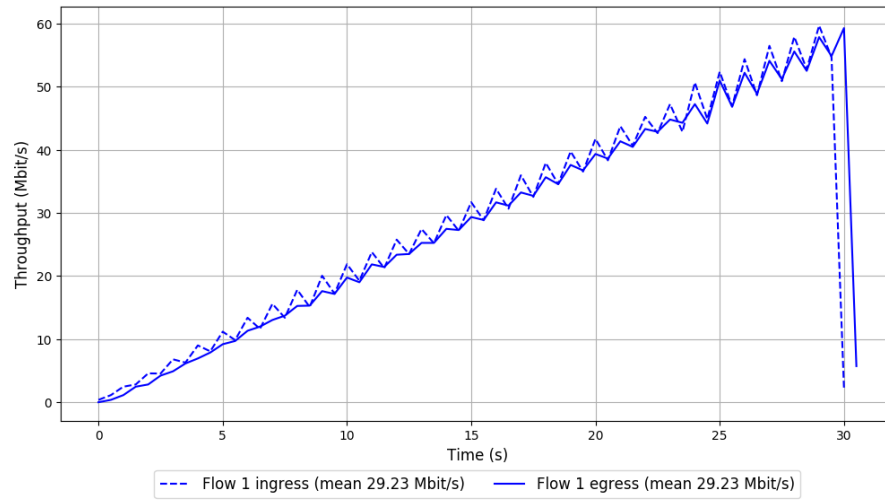


Run 3: Statistics of LEDBAT

Start at: 2019-03-26 21:15:07
End at: 2019-03-26 21:15:37
Local clock offset: 7.452 ms
Remote clock offset: -9.859 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 29.23 Mbit/s
95th percentile per-packet one-way delay: 50.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.23 Mbit/s
95th percentile per-packet one-way delay: 50.241 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

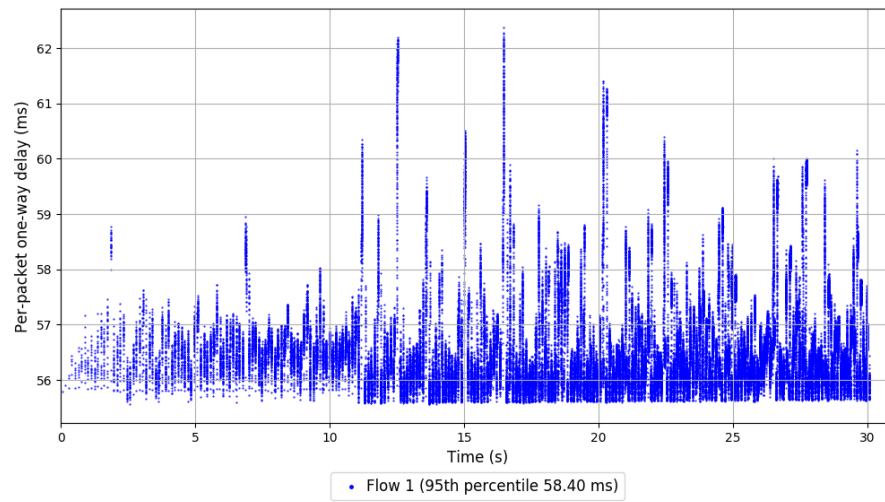
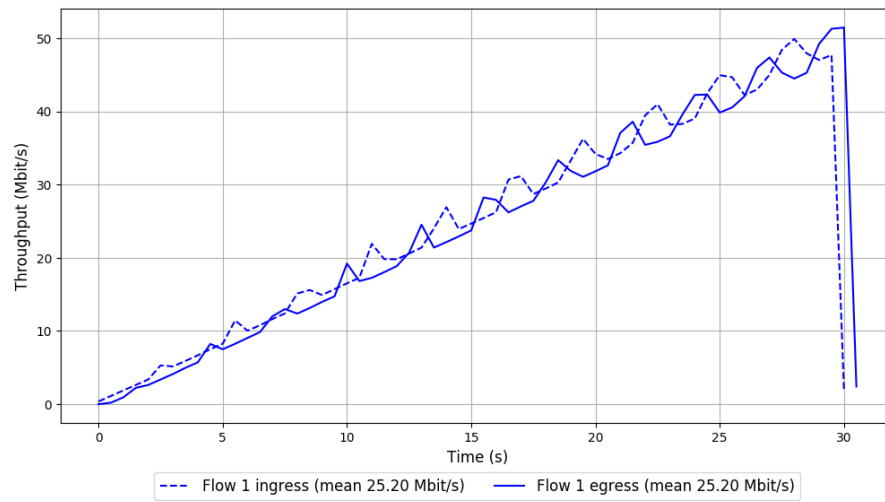


Run 4: Statistics of LEDBAT

Start at: 2019-03-26 21:42:34
End at: 2019-03-26 21:43:04
Local clock offset: 6.25 ms
Remote clock offset: -10.742 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 25.20 Mbit/s
95th percentile per-packet one-way delay: 58.396 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 25.20 Mbit/s
95th percentile per-packet one-way delay: 58.396 ms
Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link

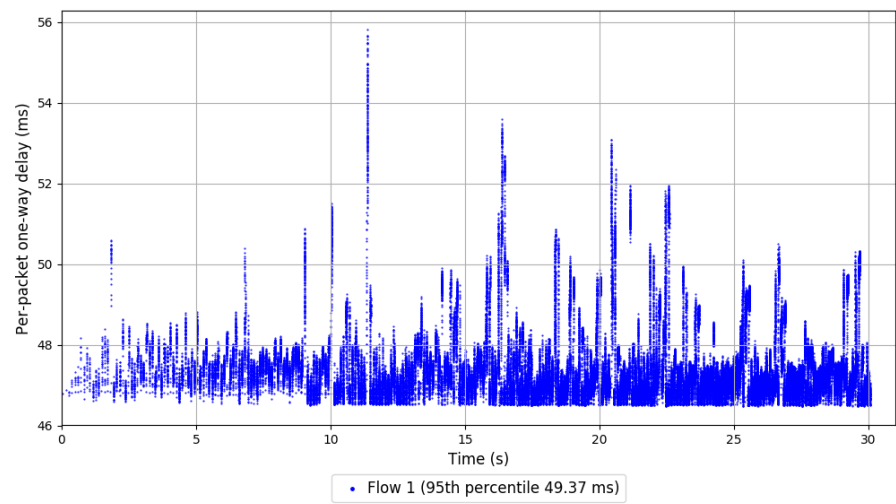
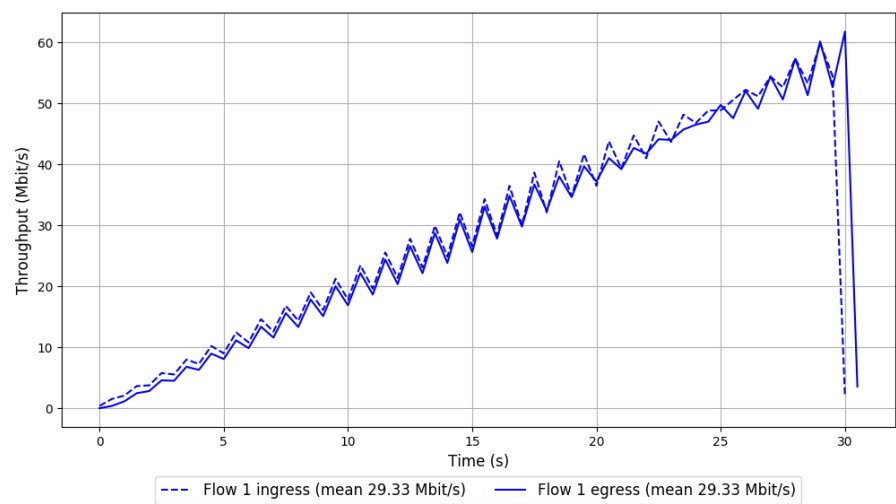


Run 5: Statistics of LEDBAT

Start at: 2019-03-26 22:11:22
End at: 2019-03-26 22:11:52
Local clock offset: -3.436 ms
Remote clock offset: -13.101 ms

Below is generated by plot.py at 2019-03-26 22:28:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 49.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 29.33 Mbit/s
95th percentile per-packet one-way delay: 49.374 ms
Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

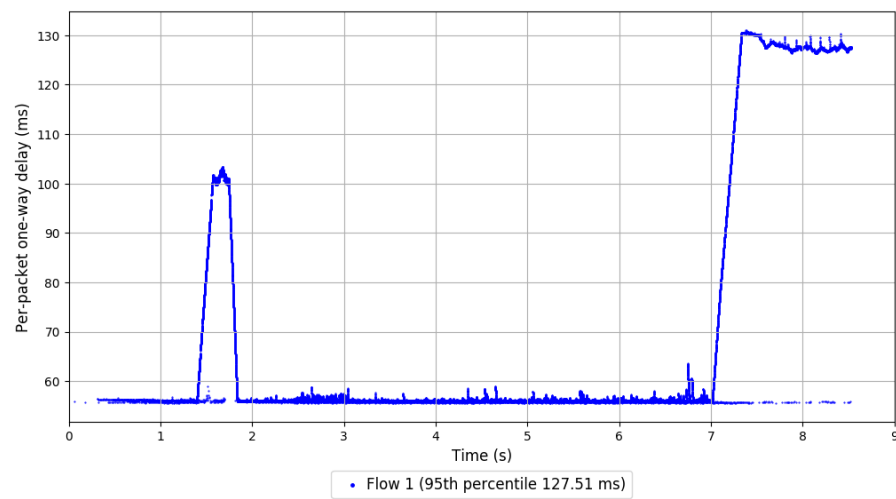
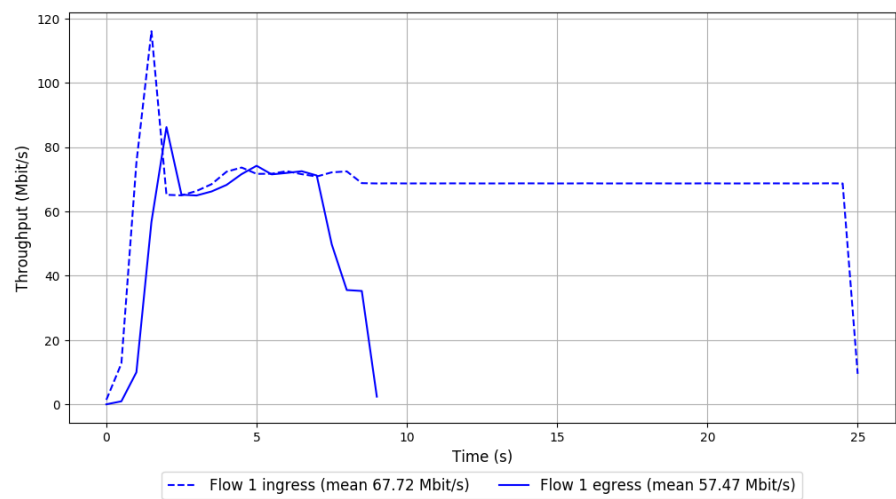
Start at: 2019-03-26 20:29:09

End at: 2019-03-26 20:29:39

Local clock offset: 2.497 ms

Remote clock offset: -10.824 ms

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

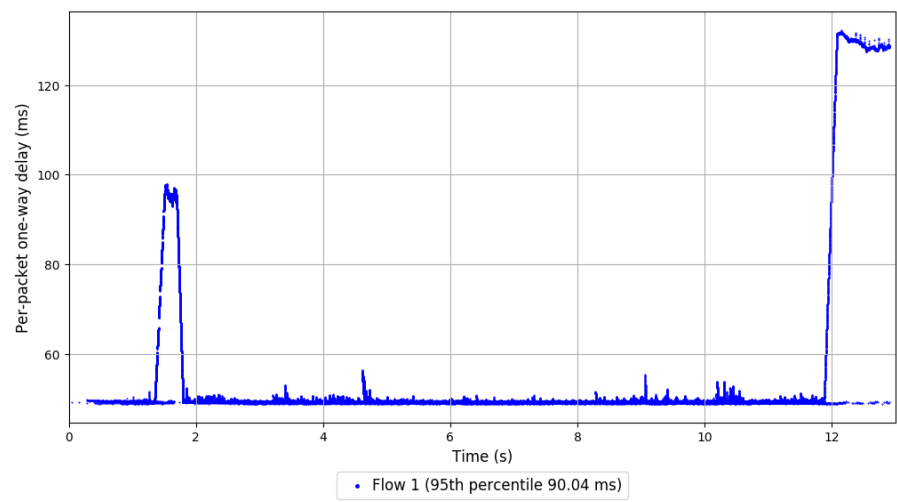
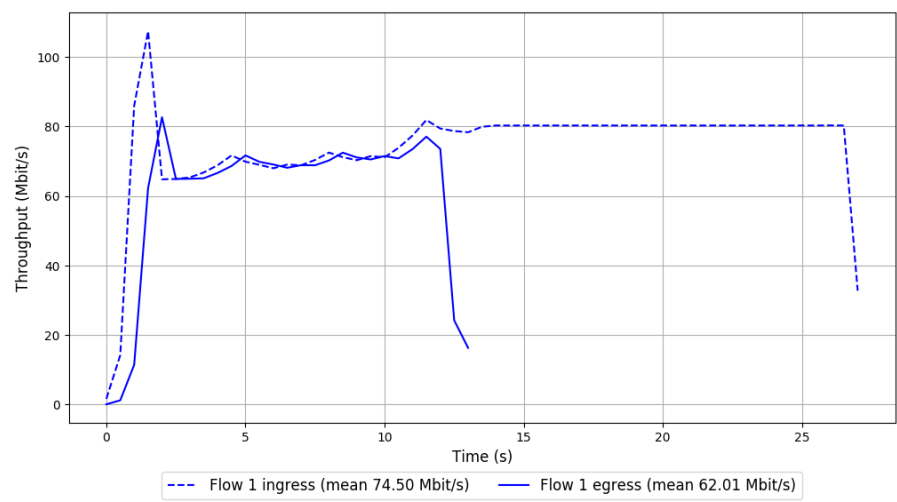
Start at: 2019-03-26 20:54:25

End at: 2019-03-26 20:54:55

Local clock offset: 4.487 ms

Remote clock offset: -8.369 ms

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

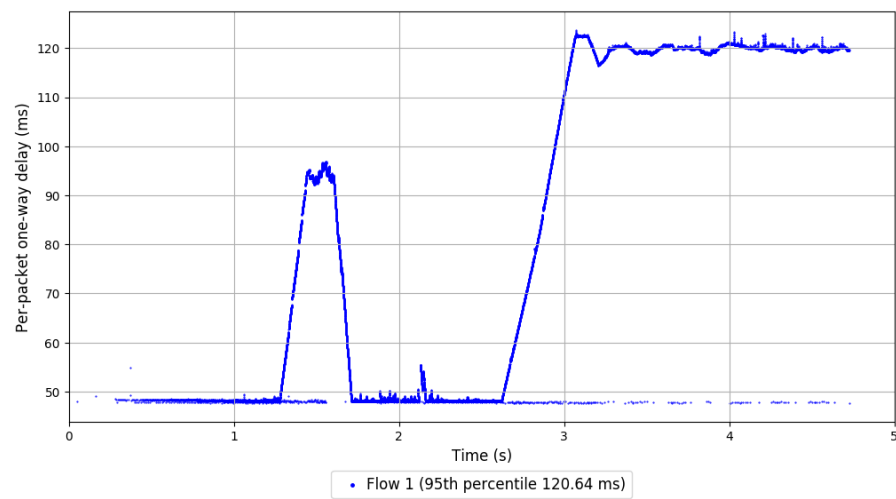
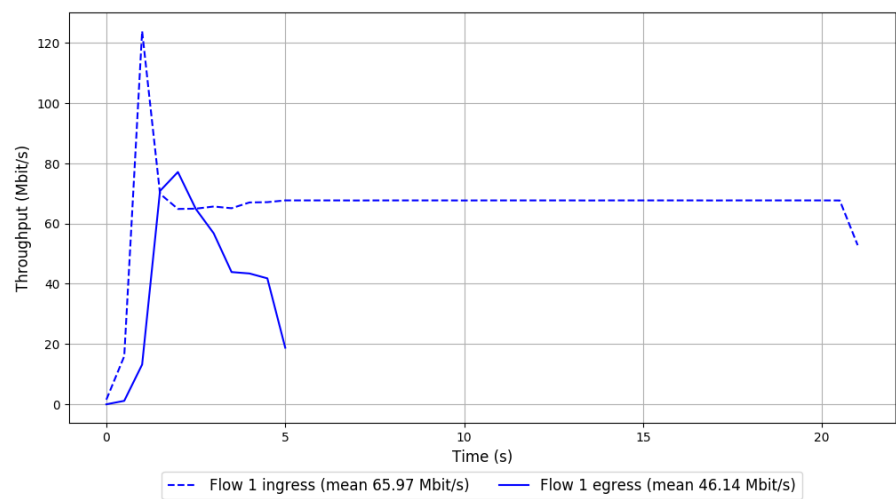
Start at: 2019-03-26 21:21:38

End at: 2019-03-26 21:22:08

Local clock offset: 6.384 ms

Remote clock offset: -9.77 ms

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

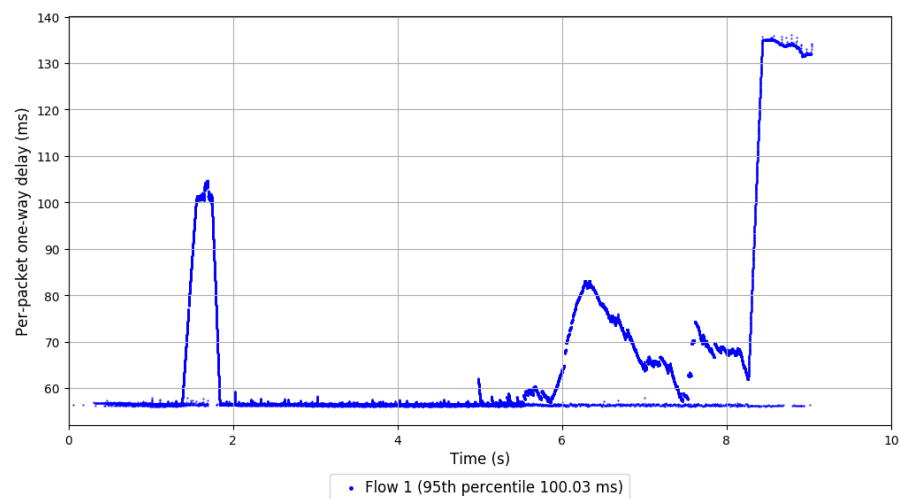
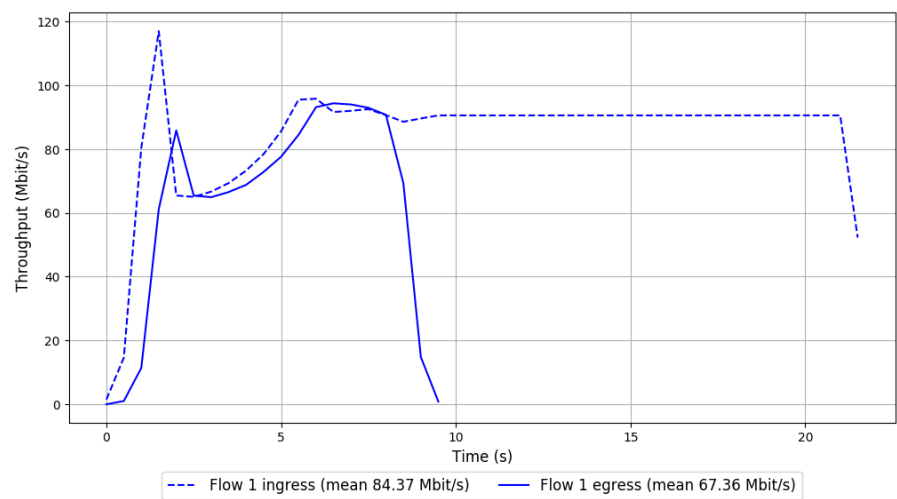
Start at: 2019-03-26 21:50:14

End at: 2019-03-26 21:50:44

Local clock offset: 2.867 ms

Remote clock offset: -11.111 ms

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

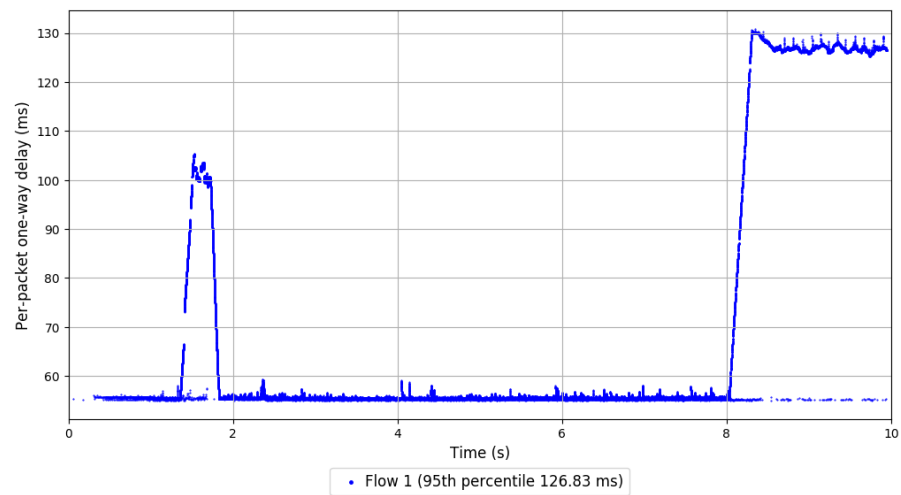
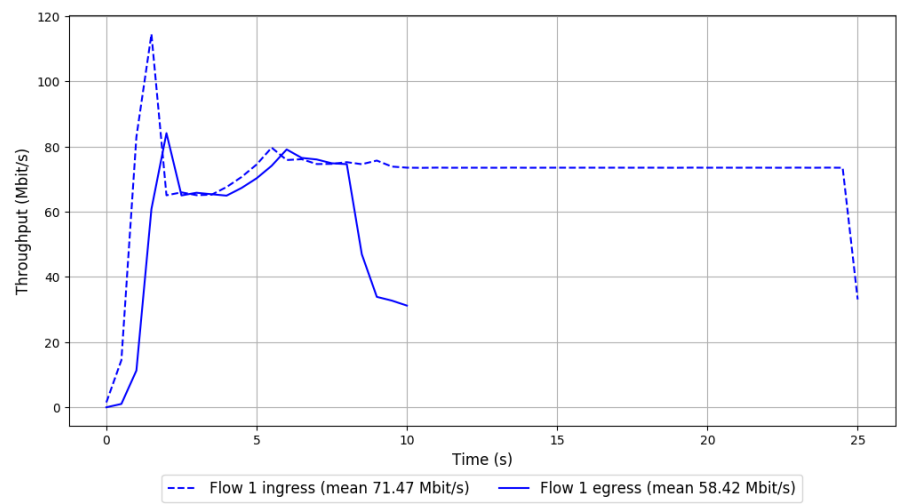
Start at: 2019-03-26 22:18:02

End at: 2019-03-26 22:18:32

Local clock offset: -2.999 ms

Remote clock offset: -13.321 ms

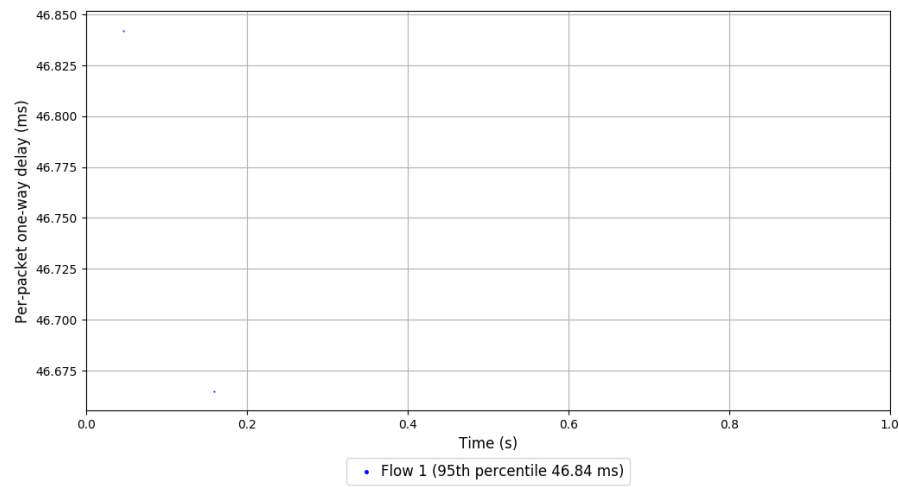
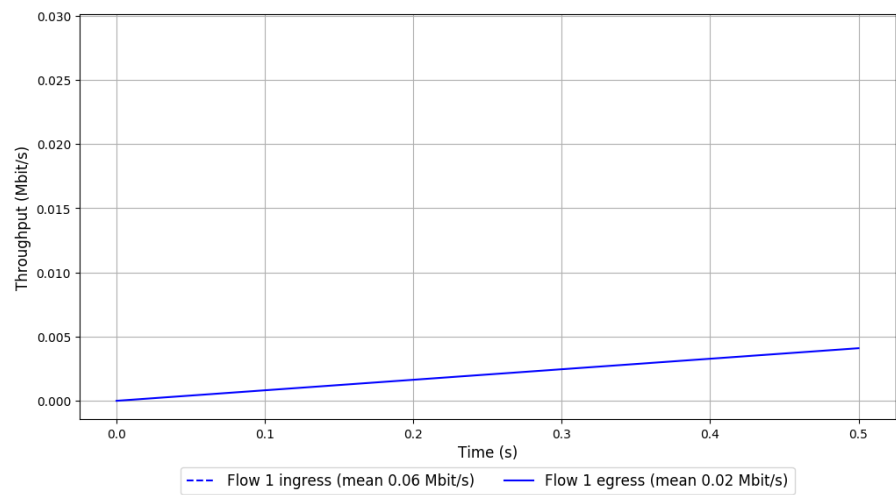
Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-03-26 20:28:01
End at: 2019-03-26 20:28:31
Local clock offset: 2.741 ms
Remote clock offset: -10.795 ms

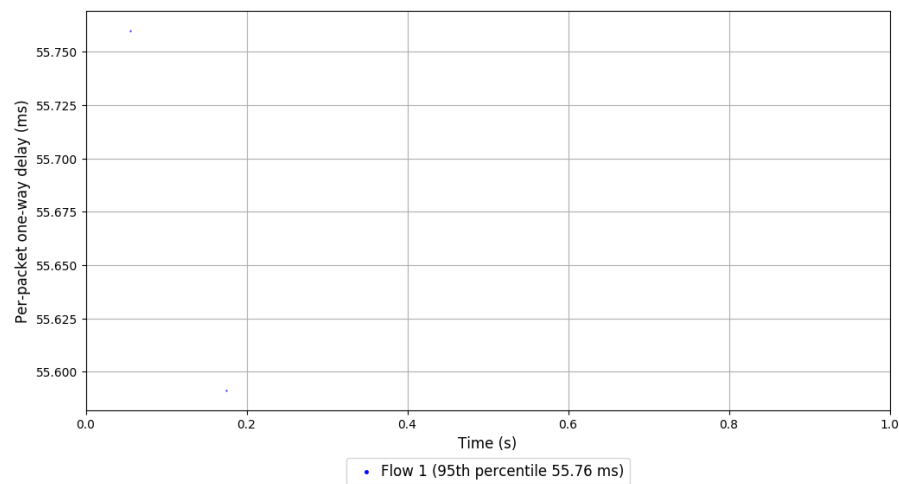
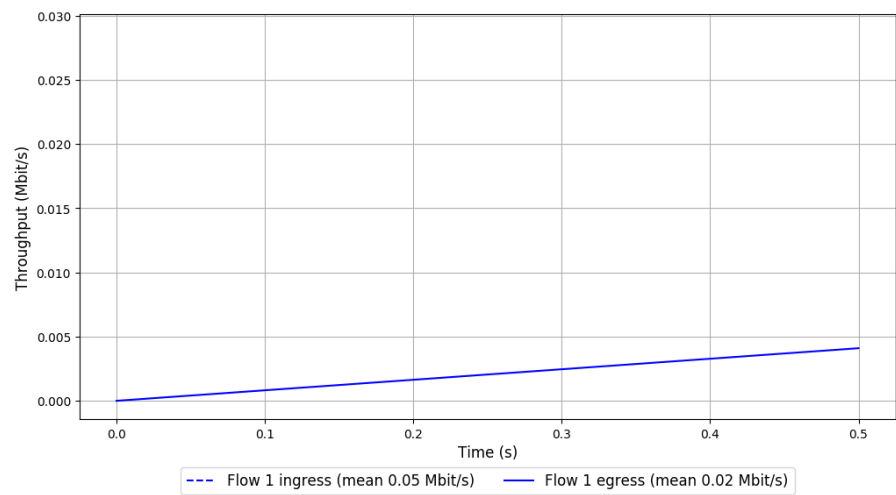
Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-03-26 20:53:14
End at: 2019-03-26 20:53:44
Local clock offset: 4.439 ms
Remote clock offset: -10.592 ms

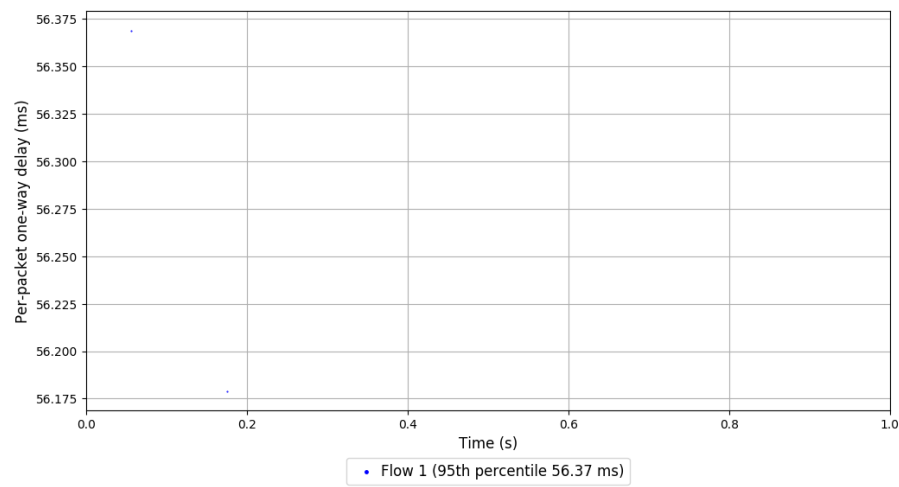
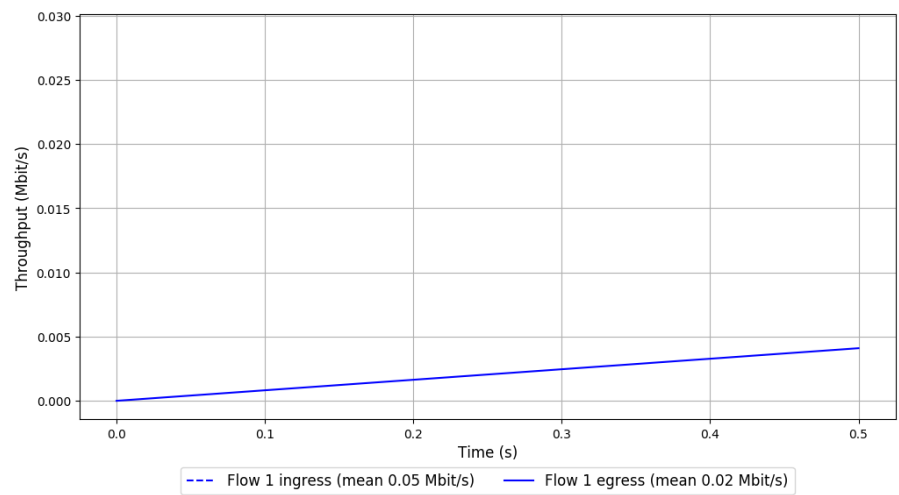
Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-03-26 21:20:29
End at: 2019-03-26 21:20:59
Local clock offset: 6.662 ms
Remote clock offset: -10.249 ms

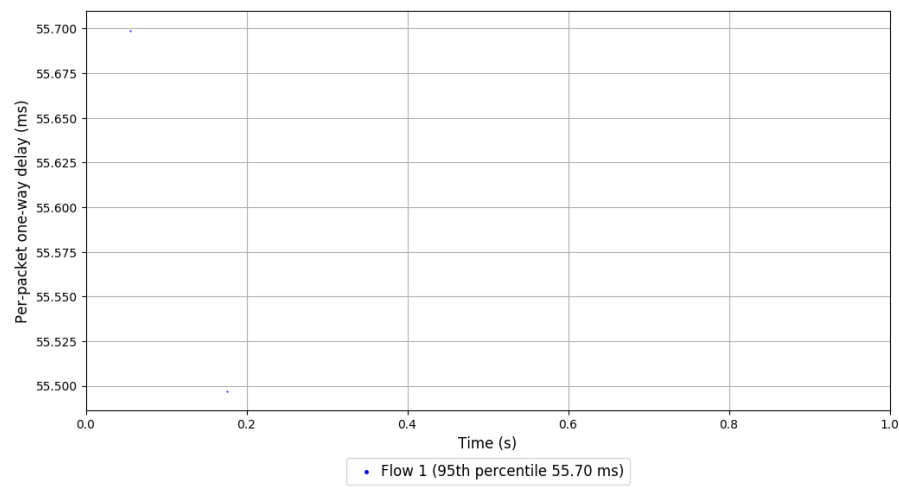
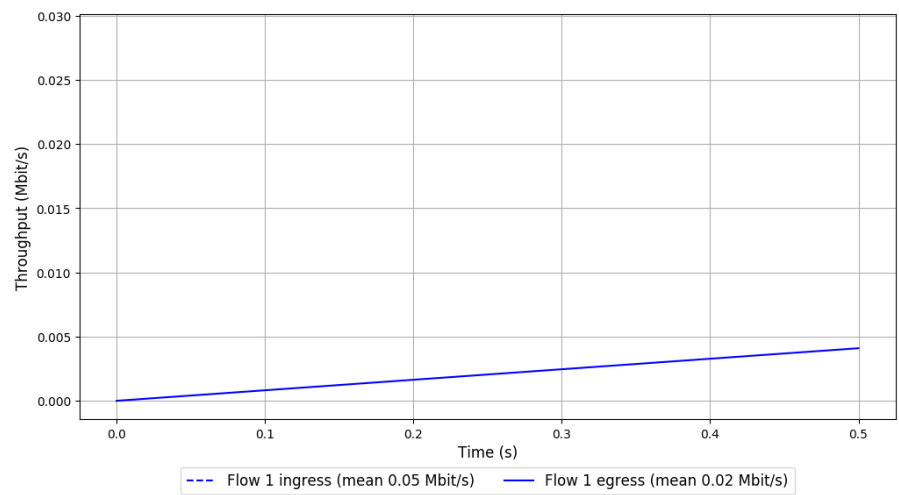
Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-03-26 21:49:05
End at: 2019-03-26 21:49:35
Local clock offset: 3.767 ms
Remote clock offset: -11.251 ms

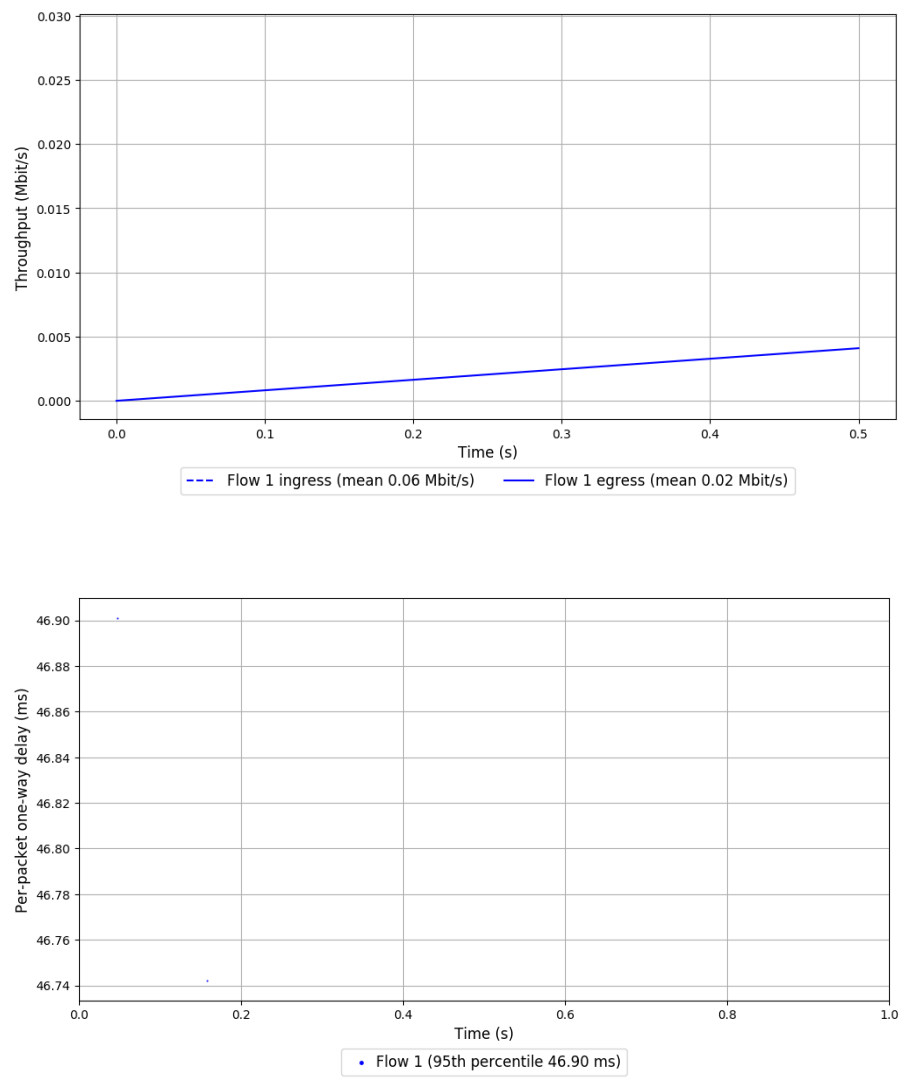
Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-03-26 22:16:50
End at: 2019-03-26 22:17:20
Local clock offset: -3.541 ms
Remote clock offset: -13.321 ms

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-03-26 20:11:23

End at: 2019-03-26 20:11:53

Local clock offset: 5.931 ms

Remote clock offset: -6.673 ms

Below is generated by plot.py at 2019-03-26 22:28:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.36 Mbit/s

95th percentile per-packet one-way delay: 134.076 ms

Loss rate: 0.00%

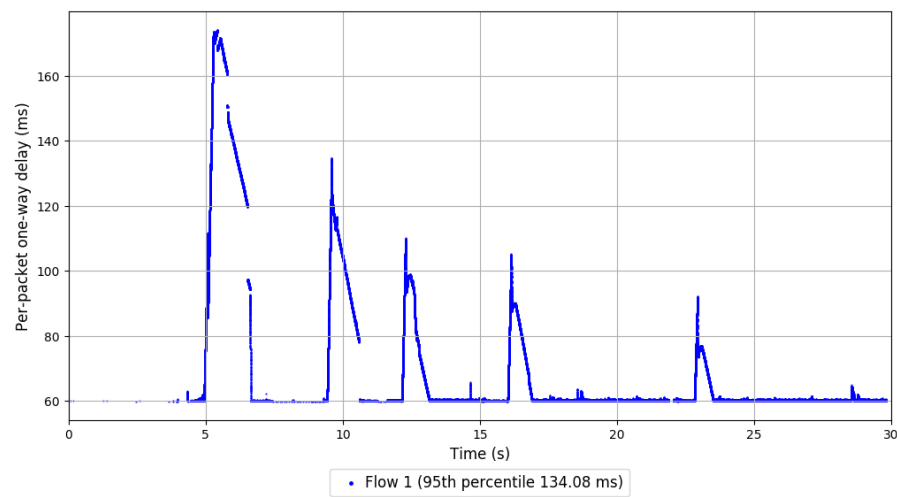
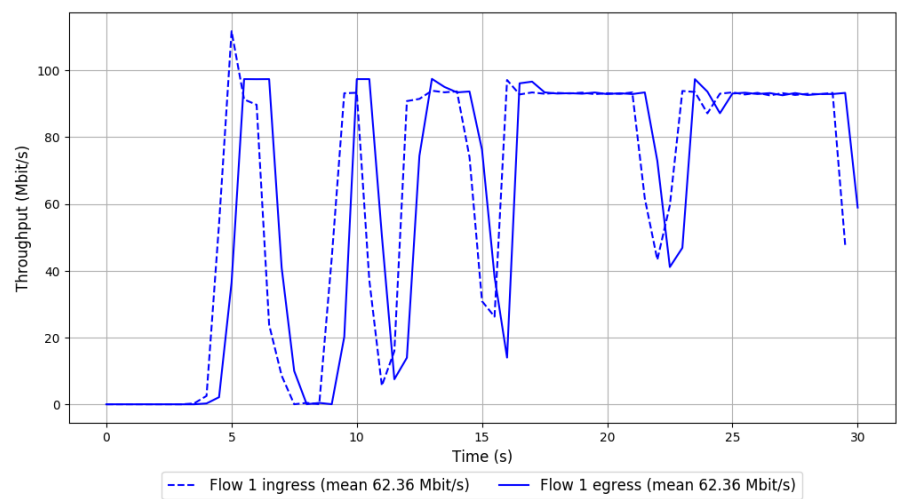
-- Flow 1:

Average throughput: 62.36 Mbit/s

95th percentile per-packet one-way delay: 134.076 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link

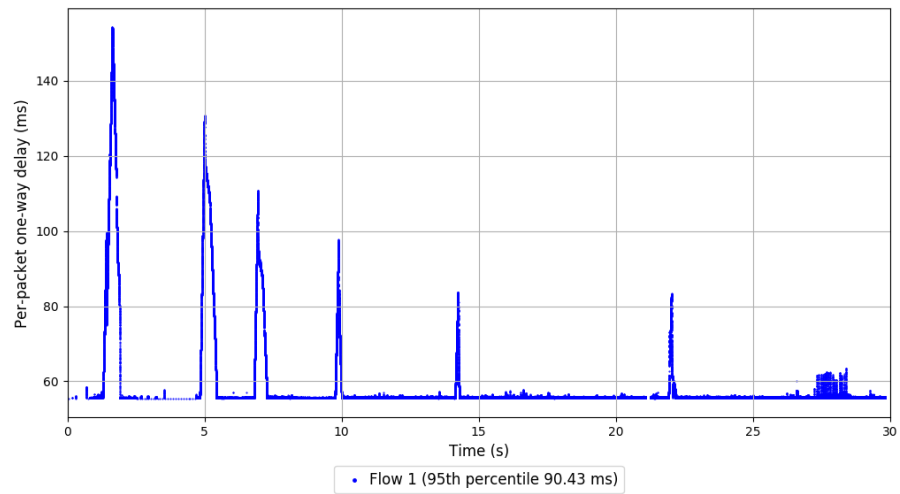
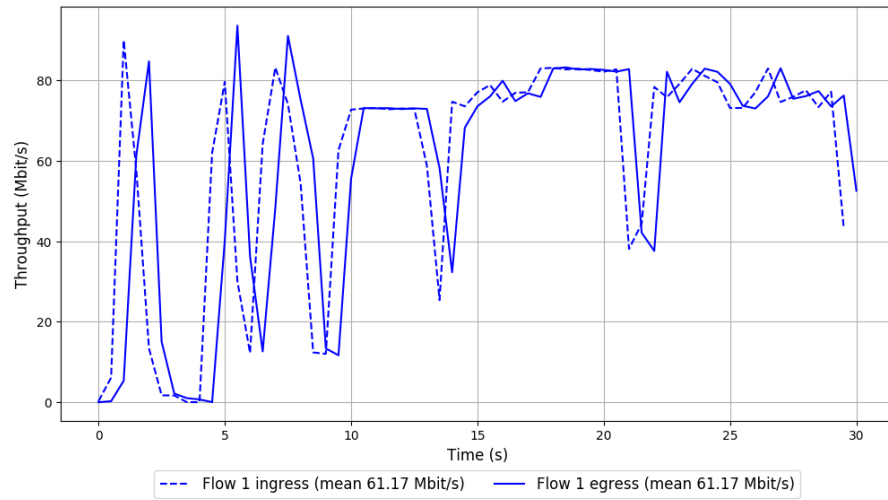


Run 2: Statistics of QUIC Cubic

Start at: 2019-03-26 20:36:21
End at: 2019-03-26 20:36:51
Local clock offset: 2.421 ms
Remote clock offset: -10.289 ms

Below is generated by plot.py at 2019-03-26 22:28:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.17 Mbit/s
95th percentile per-packet one-way delay: 90.431 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 61.17 Mbit/s
95th percentile per-packet one-way delay: 90.431 ms
Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

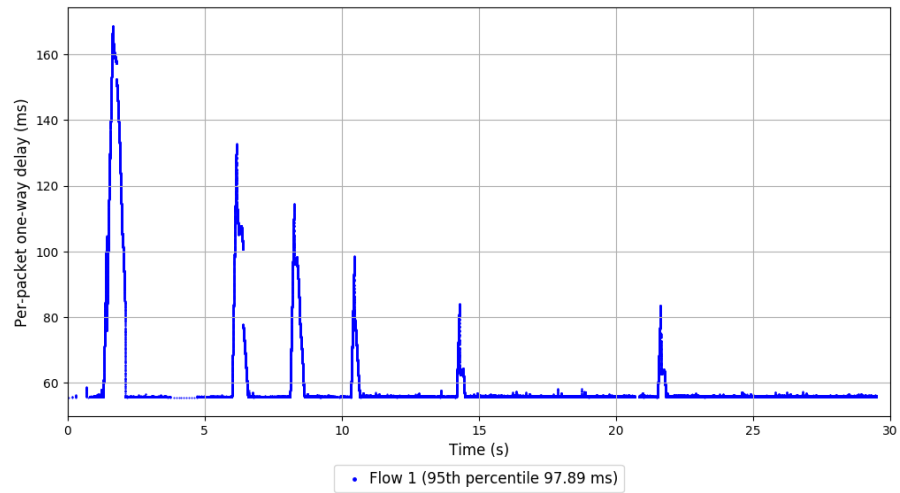
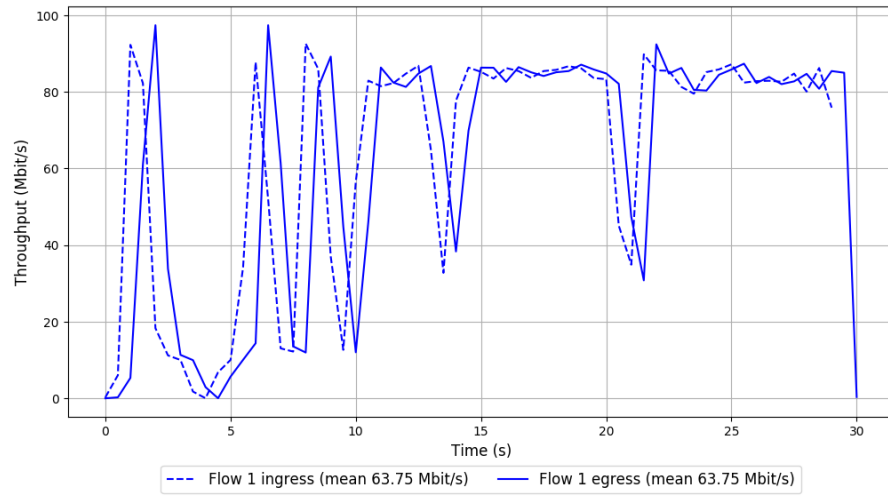


Run 3: Statistics of QUIC Cubic

Start at: 2019-03-26 21:02:15
End at: 2019-03-26 21:02:45
Local clock offset: 5.855 ms
Remote clock offset: -10.314 ms

Below is generated by plot.py at 2019-03-26 22:29:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.75 Mbit/s
95th percentile per-packet one-way delay: 97.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.75 Mbit/s
95th percentile per-packet one-way delay: 97.892 ms
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

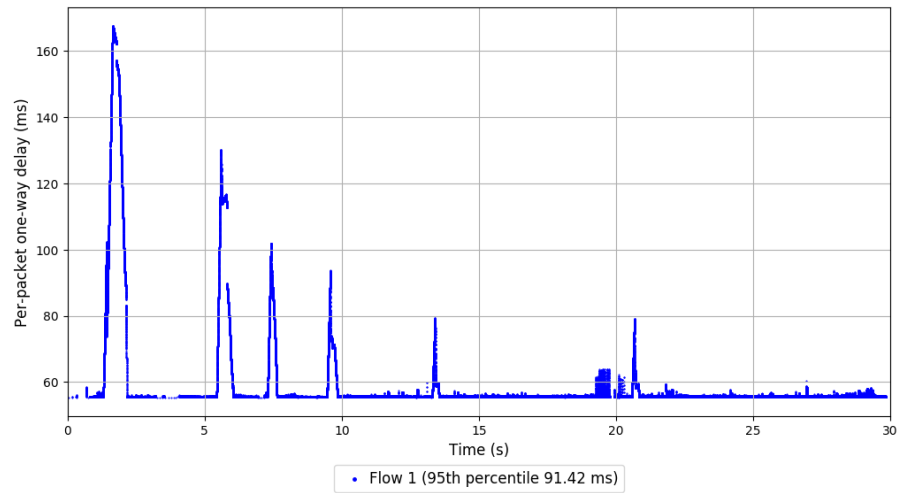
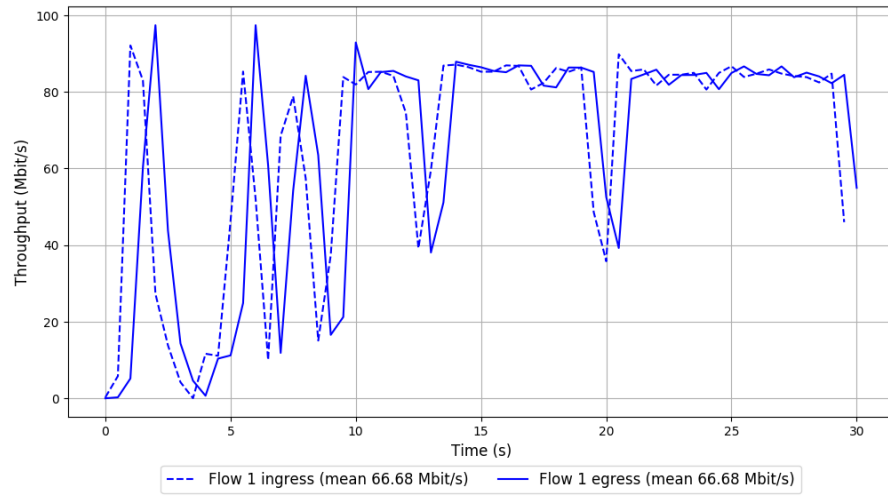


Run 4: Statistics of QUIC Cubic

Start at: 2019-03-26 21:29:26
End at: 2019-03-26 21:29:56
Local clock offset: 5.816 ms
Remote clock offset: -11.307 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.68 Mbit/s
95th percentile per-packet one-way delay: 91.424 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.68 Mbit/s
95th percentile per-packet one-way delay: 91.424 ms
Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link

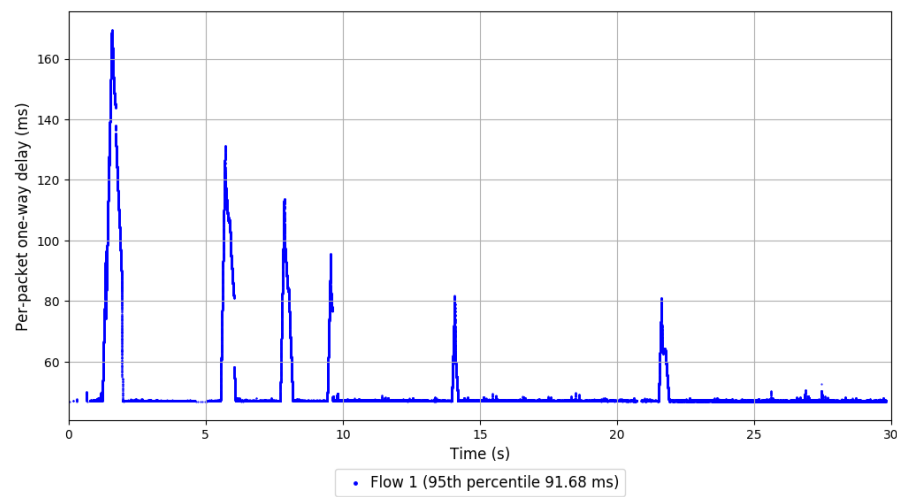
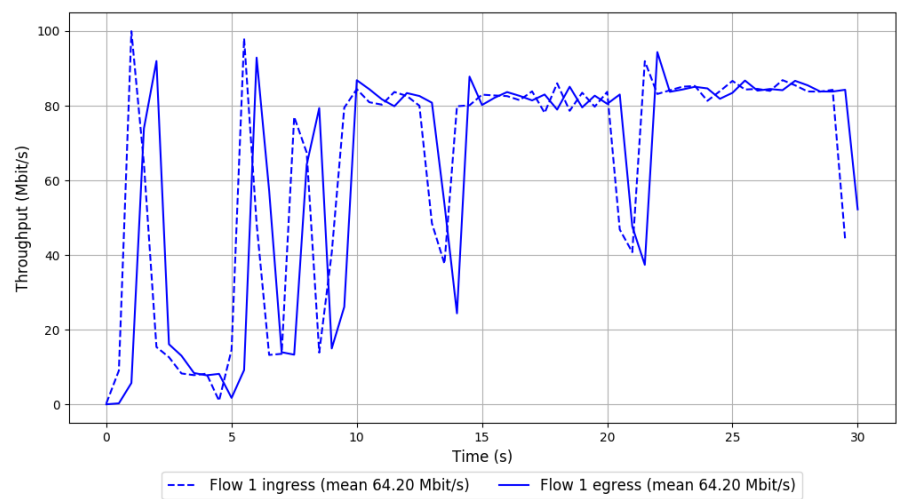


Run 5: Statistics of QUIC Cubic

Start at: 2019-03-26 21:58:18
End at: 2019-03-26 21:58:48
Local clock offset: -0.959 ms
Remote clock offset: -11.912 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 64.20 Mbit/s
95th percentile per-packet one-way delay: 91.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.20 Mbit/s
95th percentile per-packet one-way delay: 91.678 ms
Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link

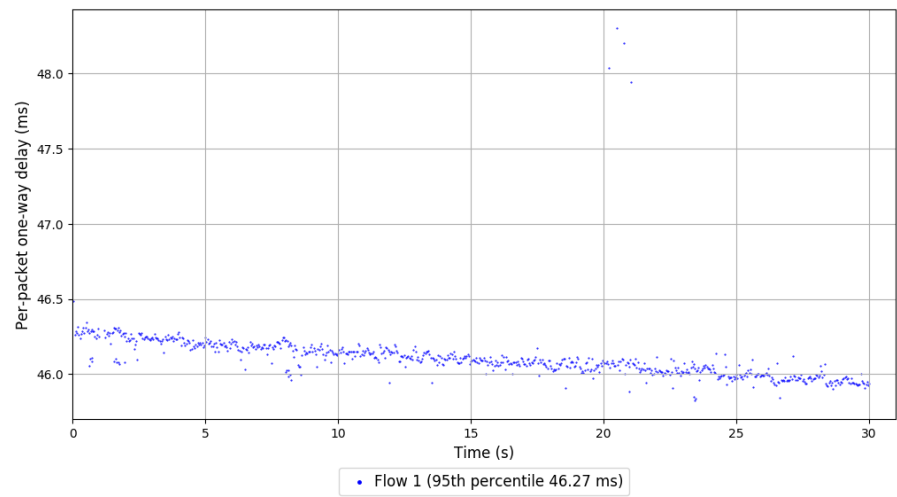
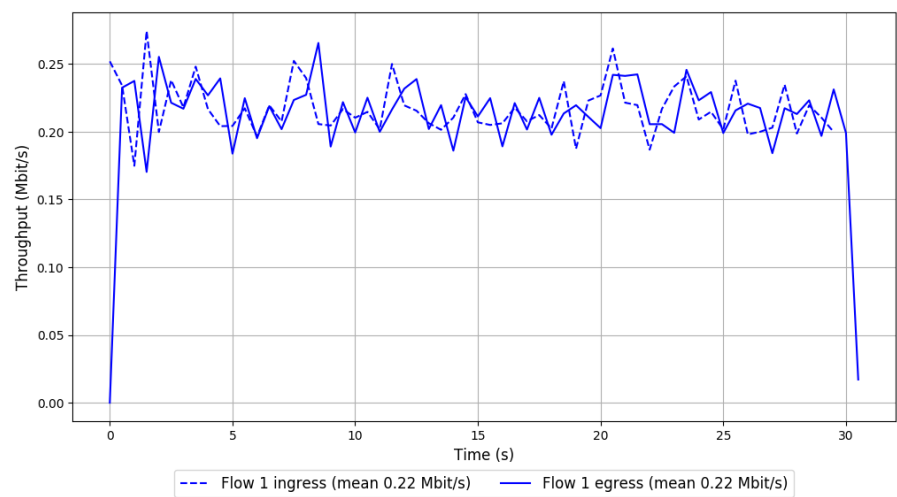


Run 1: Statistics of SCReAM

Start at: 2019-03-26 20:16:06
End at: 2019-03-26 20:16:36
Local clock offset: 6.301 ms
Remote clock offset: -11.463 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.270 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.270 ms
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

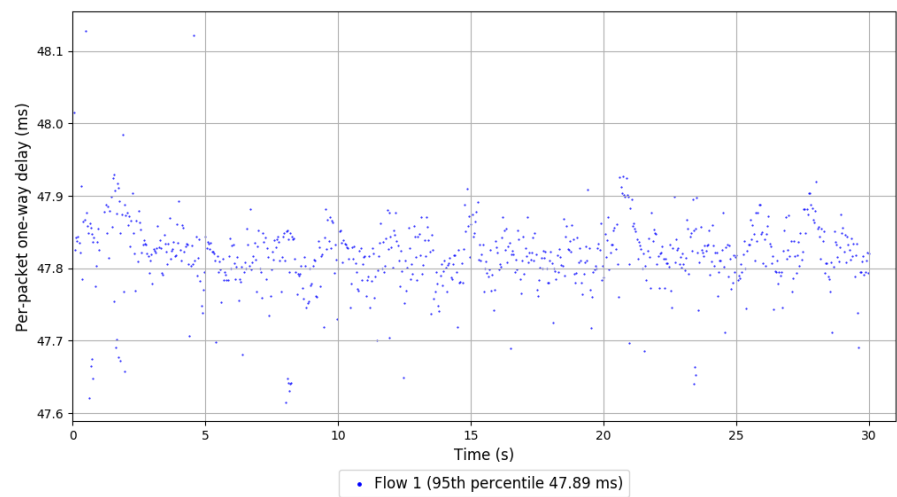
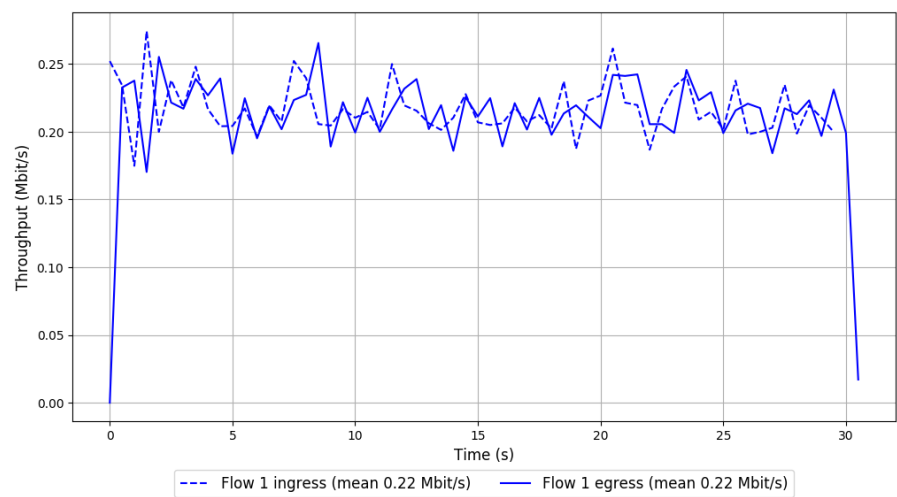


Run 2: Statistics of SCReAM

Start at: 2019-03-26 20:41:03
End at: 2019-03-26 20:41:33
Local clock offset: 2.456 ms
Remote clock offset: -9.788 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.887 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.887 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-03-26 21:07:19

End at: 2019-03-26 21:07:50

Local clock offset: 6.394 ms

Remote clock offset: -8.97 ms

Below is generated by plot.py at 2019-03-26 22:29:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.612 ms

Loss rate: 0.00%

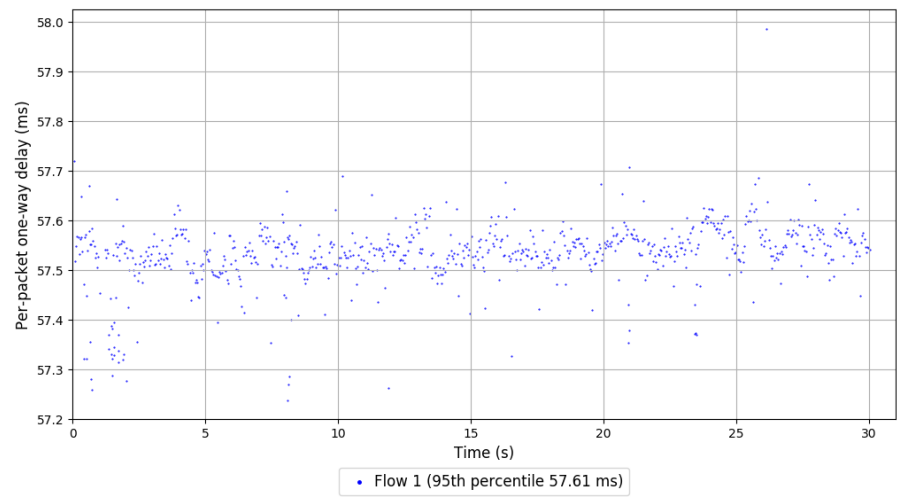
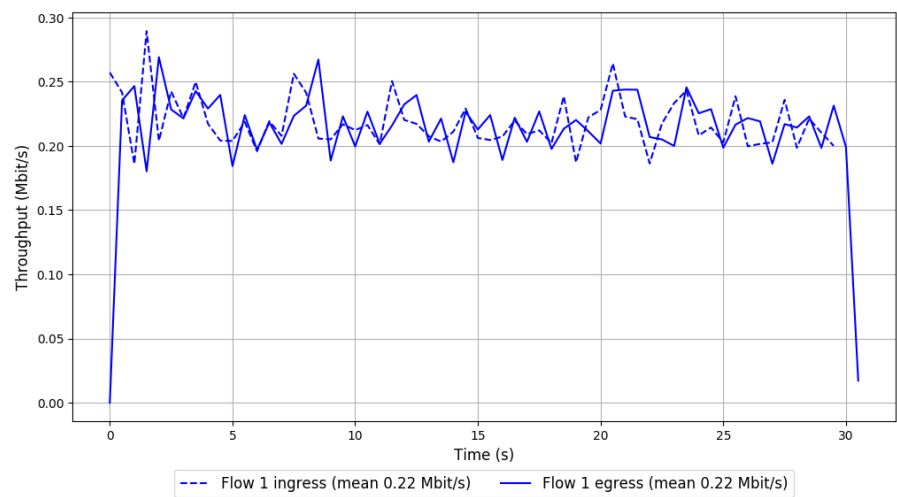
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 57.612 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

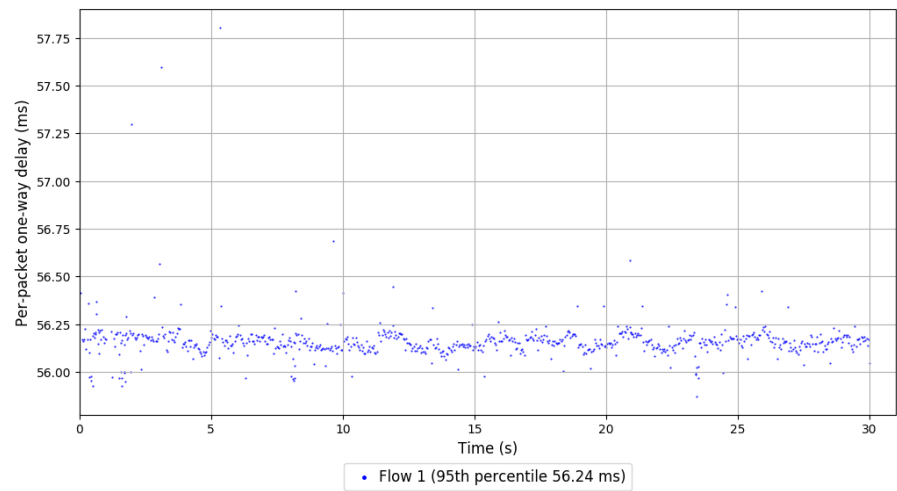
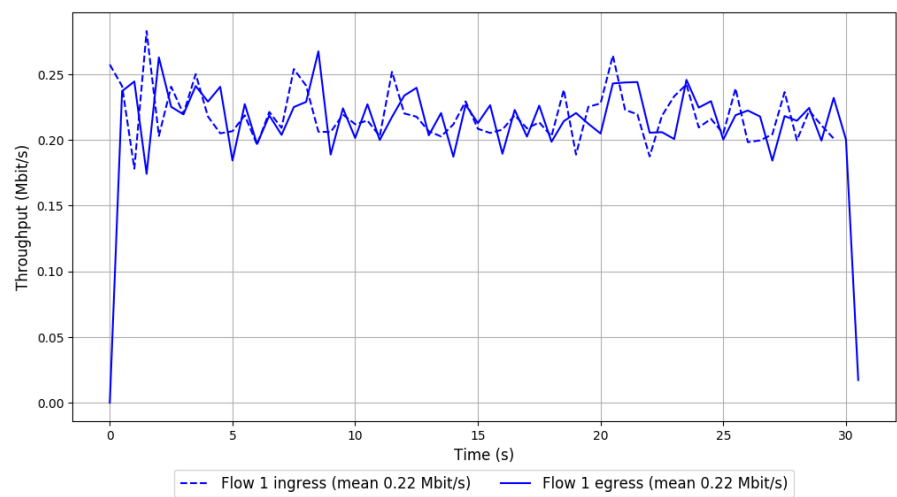


Run 4: Statistics of SCReAM

Start at: 2019-03-26 21:34:31
End at: 2019-03-26 21:35:01
Local clock offset: 5.824 ms
Remote clock offset: -11.003 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.237 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

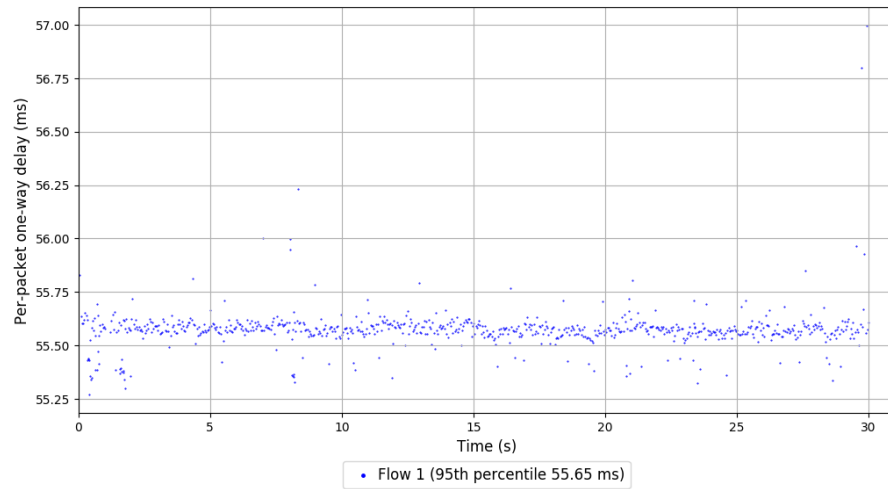
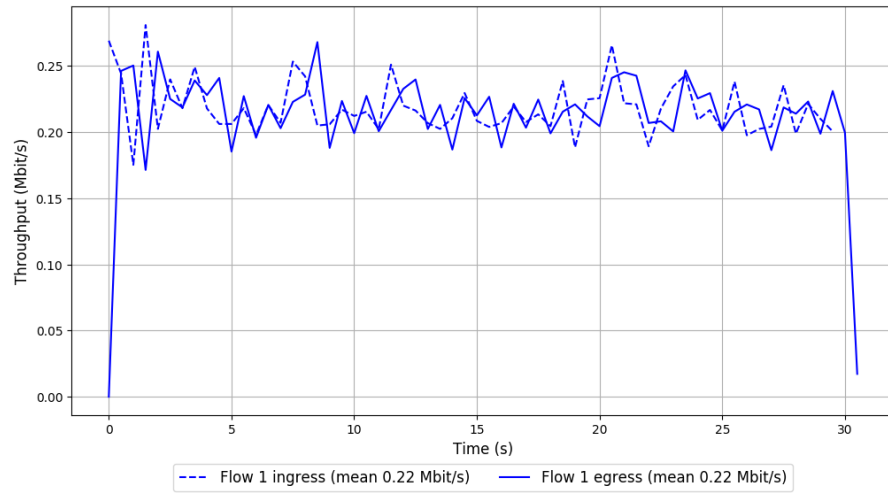


Run 5: Statistics of SCReAM

Start at: 2019-03-26 22:03:23
End at: 2019-03-26 22:03:53
Local clock offset: -2.262 ms
Remote clock offset: -12.771 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.652 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 55.652 ms
Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

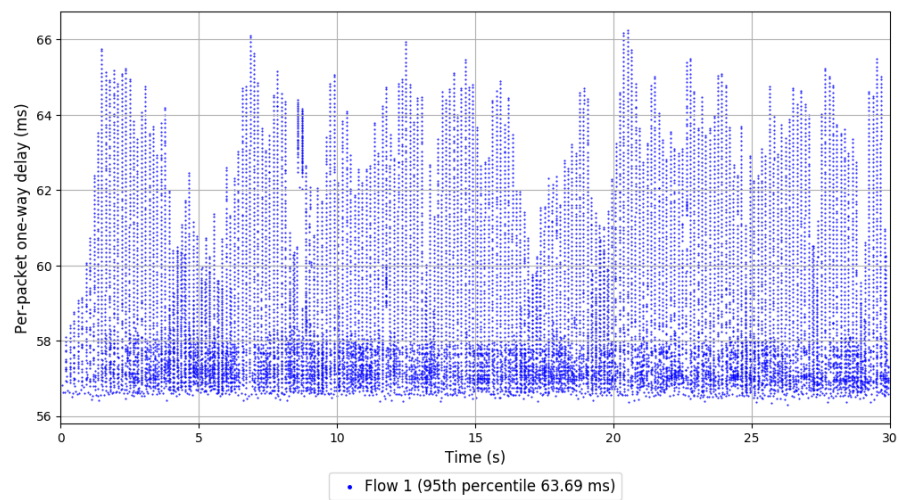
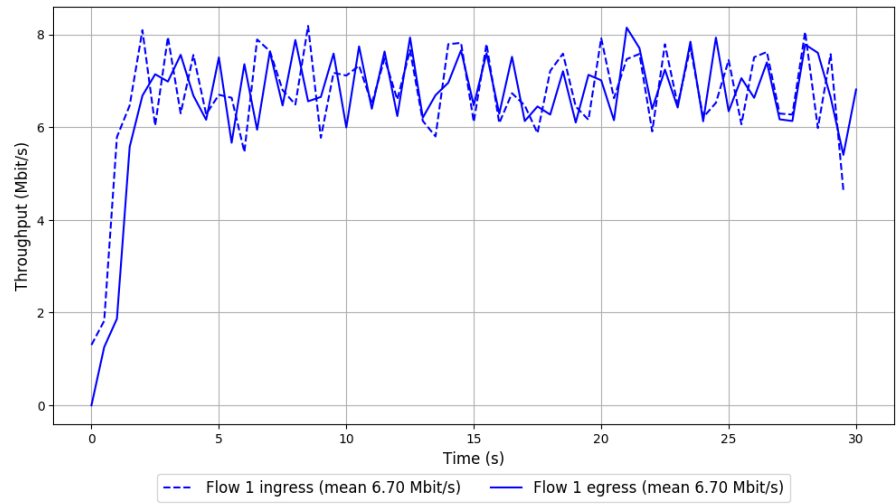


Run 1: Statistics of Sprout

Start at: 2019-03-26 20:24:26
End at: 2019-03-26 20:24:56
Local clock offset: 3.117 ms
Remote clock offset: -9.784 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 63.693 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.70 Mbit/s
95th percentile per-packet one-way delay: 63.693 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

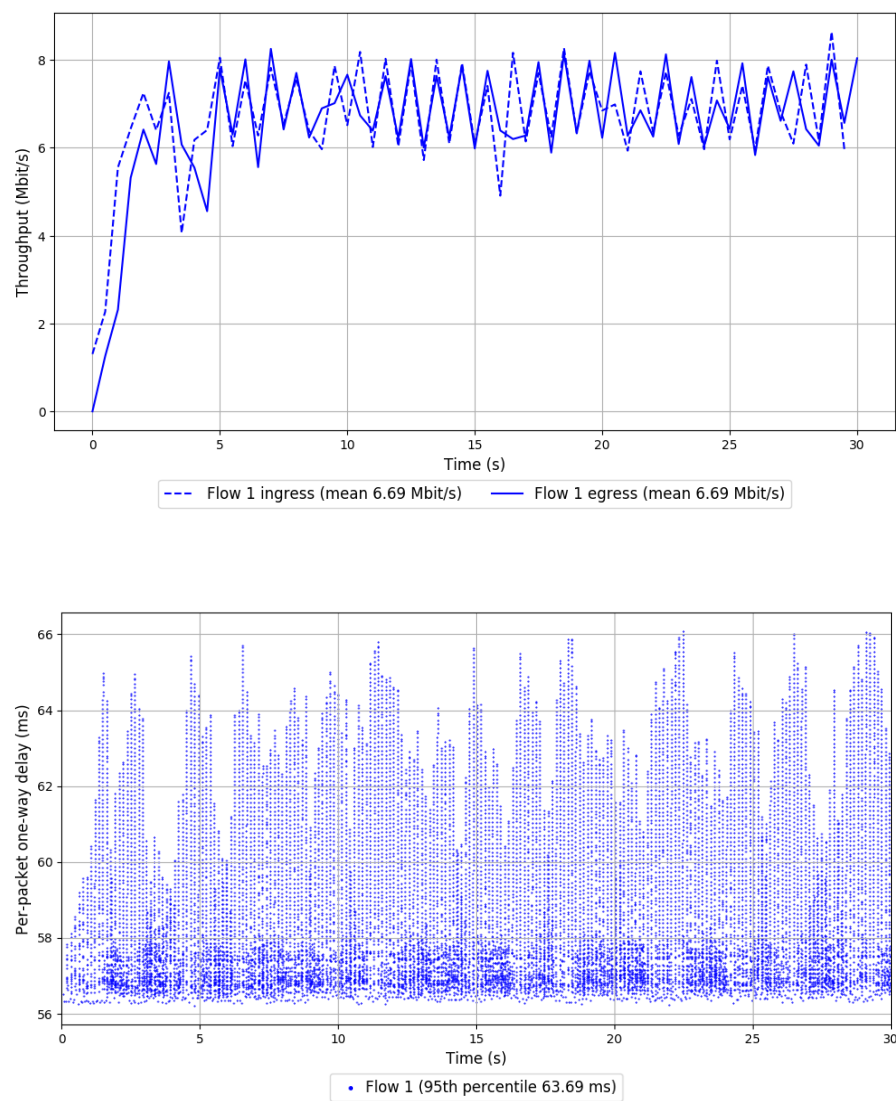


Run 2: Statistics of Sprout

Start at: 2019-03-26 20:49:28
End at: 2019-03-26 20:49:58
Local clock offset: 3.612 ms
Remote clock offset: -9.648 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 63.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 63.685 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

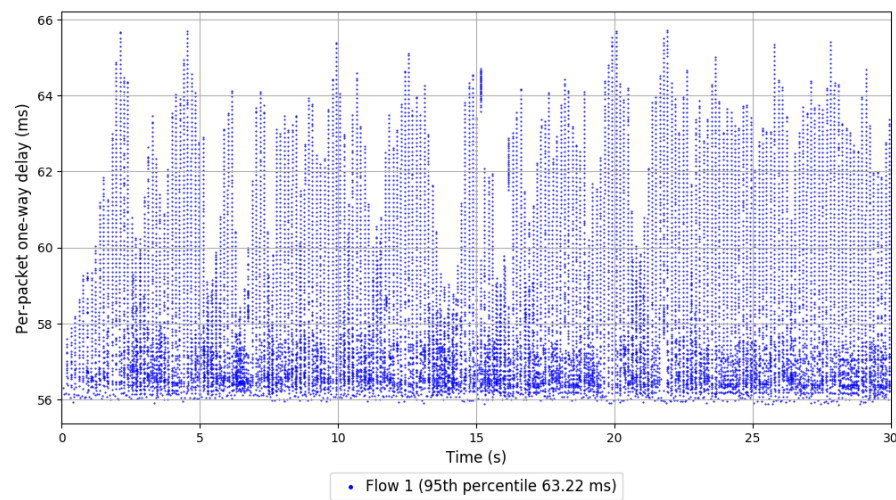
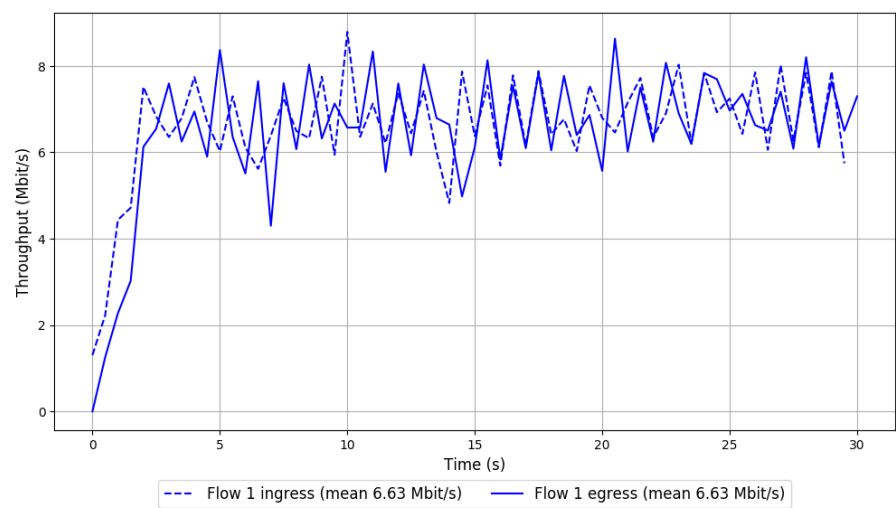


Run 3: Statistics of Sprout

Start at: 2019-03-26 21:16:36
End at: 2019-03-26 21:17:06
Local clock offset: 7.496 ms
Remote clock offset: -10.045 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 63.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 63.216 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

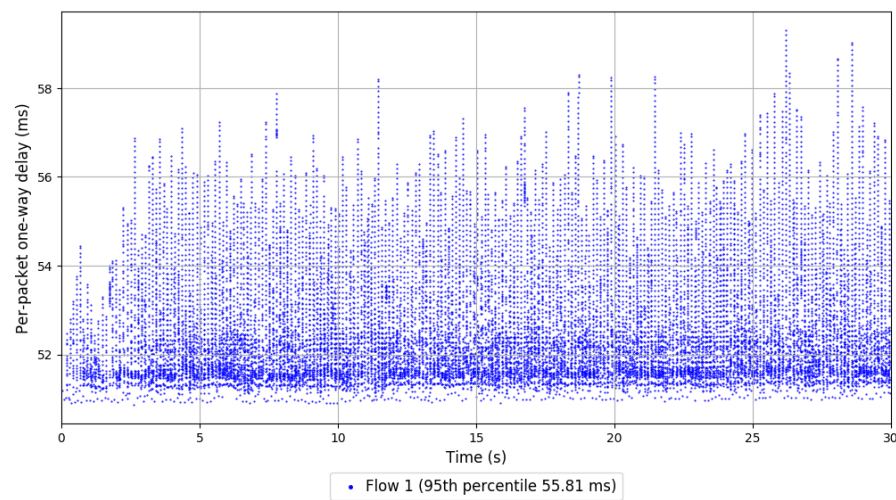
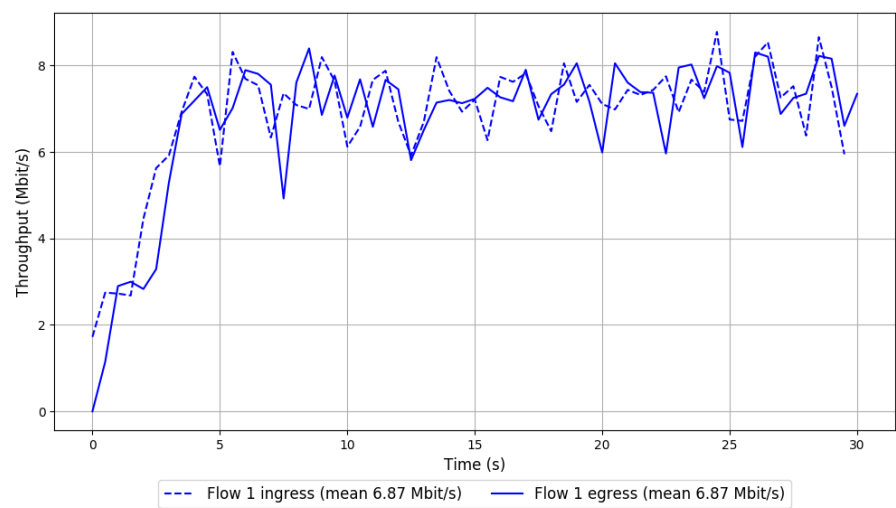


Run 4: Statistics of Sprout

Start at: 2019-03-26 21:43:47
End at: 2019-03-26 21:44:17
Local clock offset: 6.036 ms
Remote clock offset: -7.385 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 55.812 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.87 Mbit/s
95th percentile per-packet one-way delay: 55.812 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

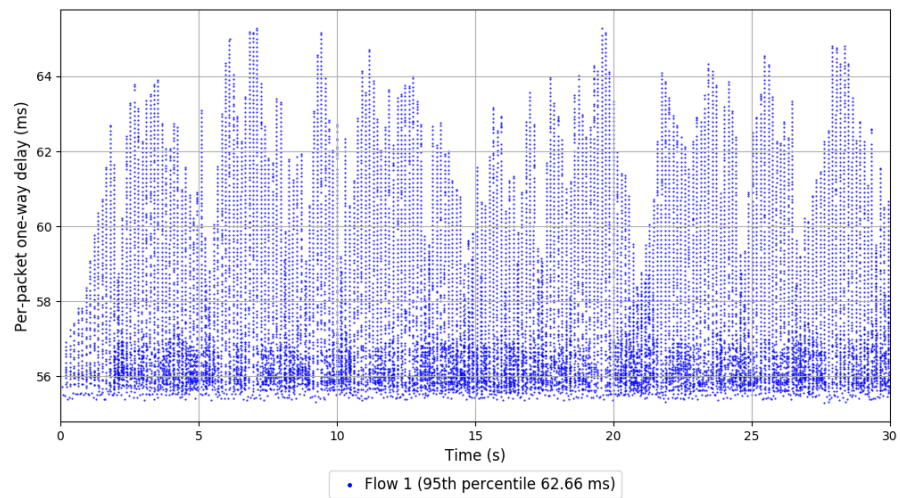
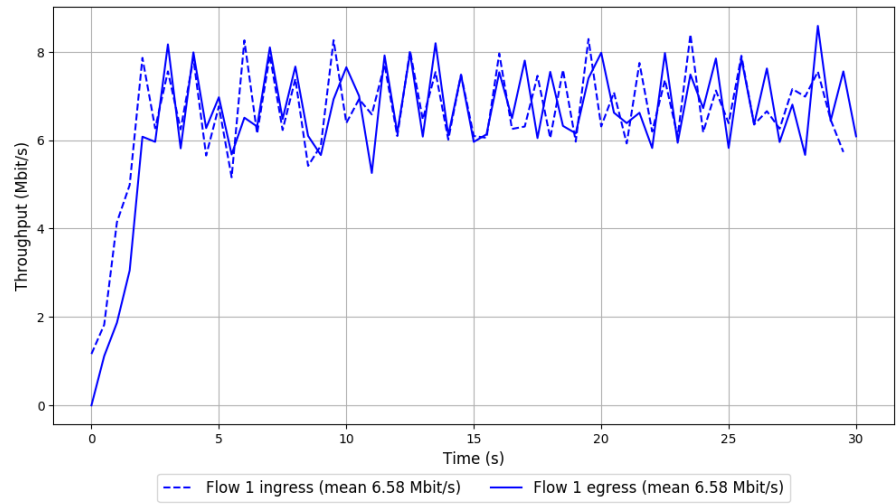


Run 5: Statistics of Sprout

Start at: 2019-03-26 22:12:47
End at: 2019-03-26 22:13:17
Local clock offset: -3.635 ms
Remote clock offset: -13.174 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.58 Mbit/s
95th percentile per-packet one-way delay: 62.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.58 Mbit/s
95th percentile per-packet one-way delay: 62.655 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

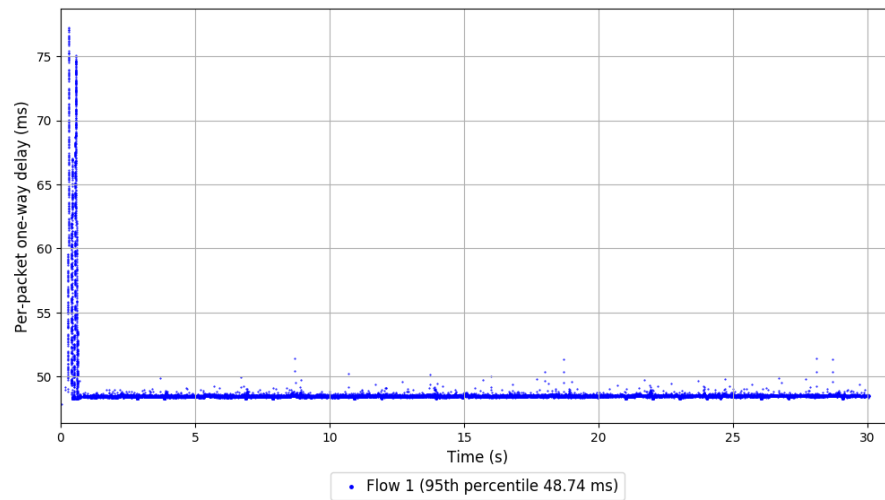
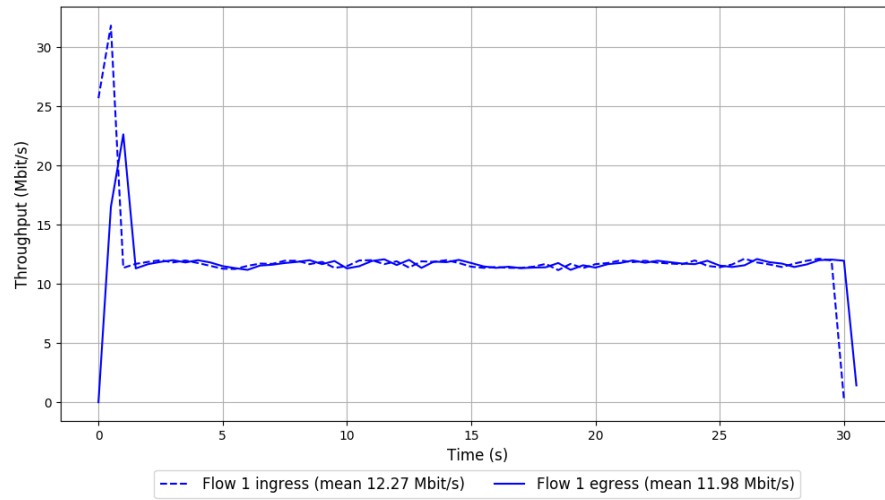



```
Run 1: Statistics of TaoVA-100x

Start at: 2019-03-26 20:12:35
End at: 2019-03-26 20:13:05
Local clock offset: 5.969 ms
Remote clock offset: -10.374 ms

# Below is generated by plot.py at 2019-03-26 22:29:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 48.745 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 11.98 Mbit/s
95th percentile per-packet one-way delay: 48.745 ms
Loss rate: 2.35%
```

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

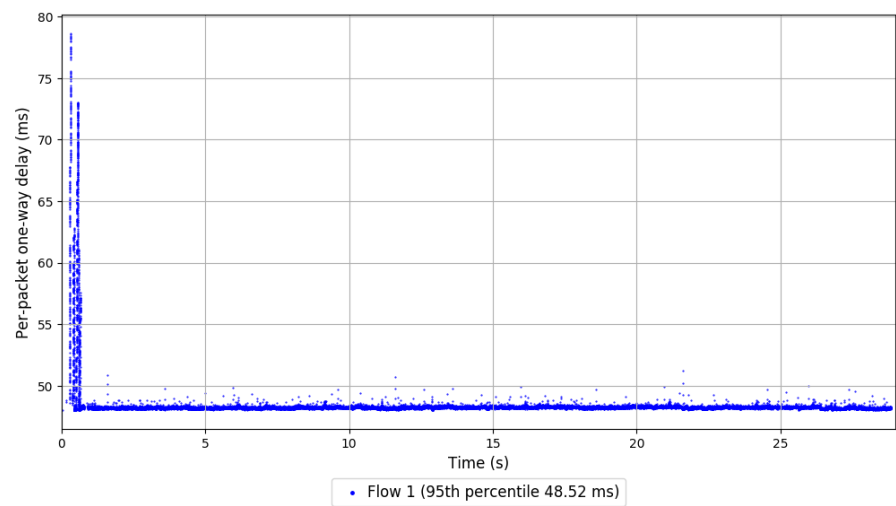
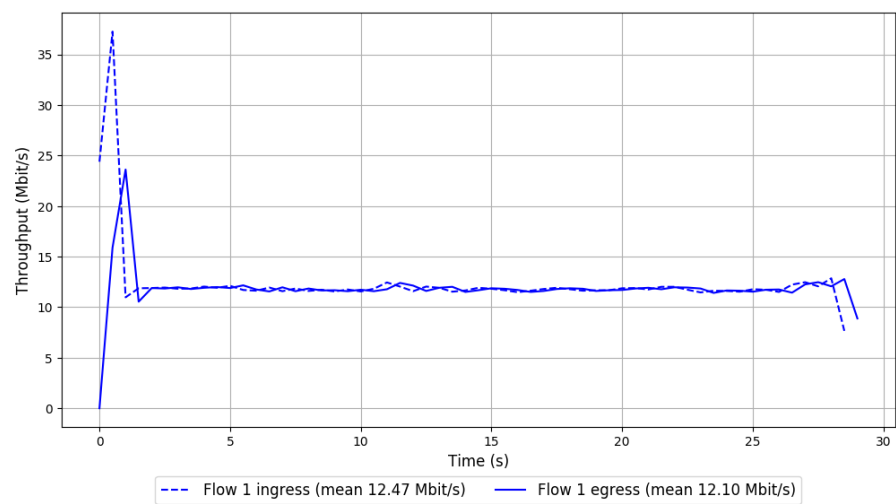


Run 2: Statistics of TaoVA-100x

Start at: 2019-03-26 20:37:33
End at: 2019-03-26 20:38:03
Local clock offset: 2.34 ms
Remote clock offset: -10.001 ms

Below is generated by plot.py at 2019-03-26 22:29:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 48.516 ms
Loss rate: 2.98%
-- Flow 1:
Average throughput: 12.10 Mbit/s
95th percentile per-packet one-way delay: 48.516 ms
Loss rate: 2.98%

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



Run 3: Statistics of TaoVA-100x

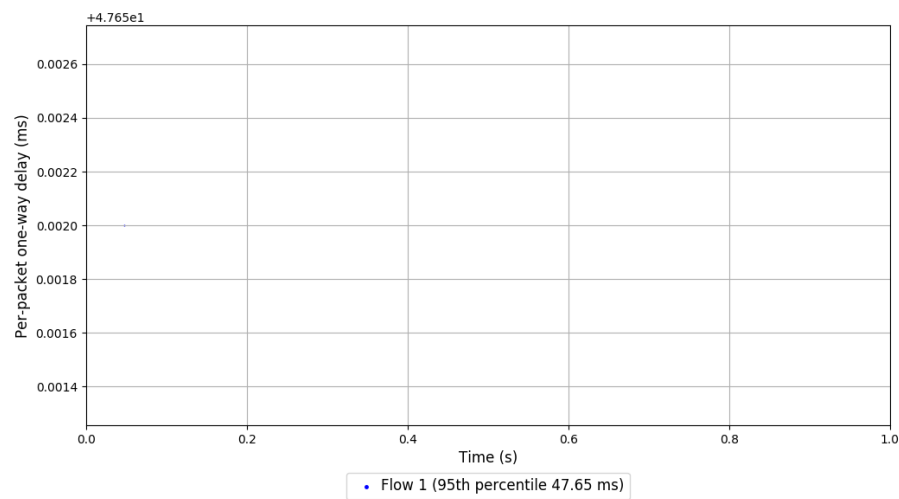
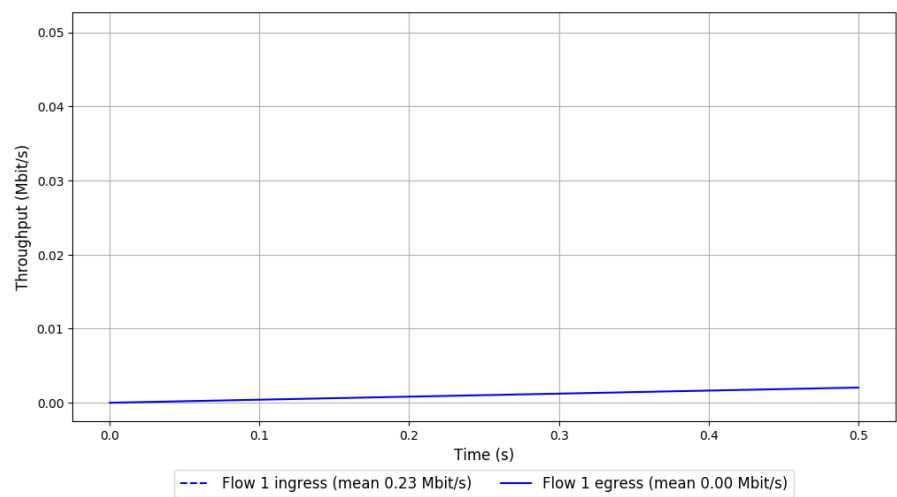
Start at: 2019-03-26 21:03:32

End at: 2019-03-26 21:04:02

Local clock offset: 6.015 ms

Remote clock offset: -9.614 ms

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



Run 4: Statistics of TaoVA-100x

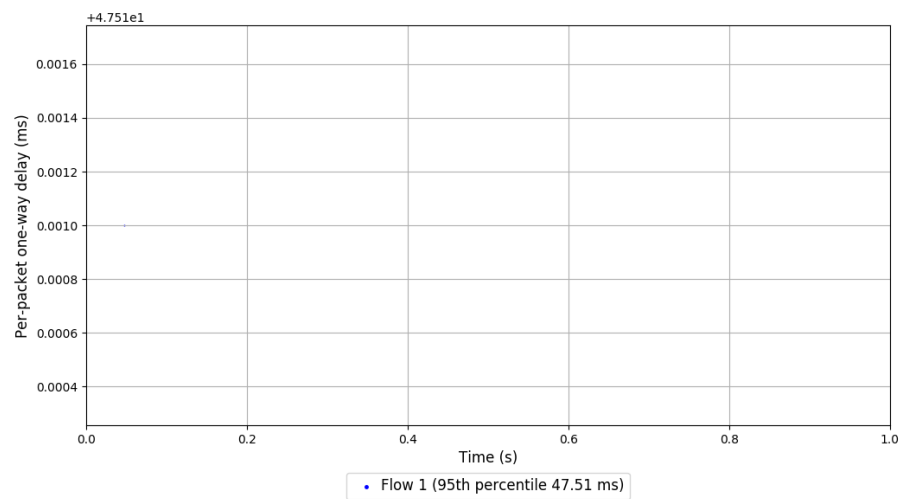
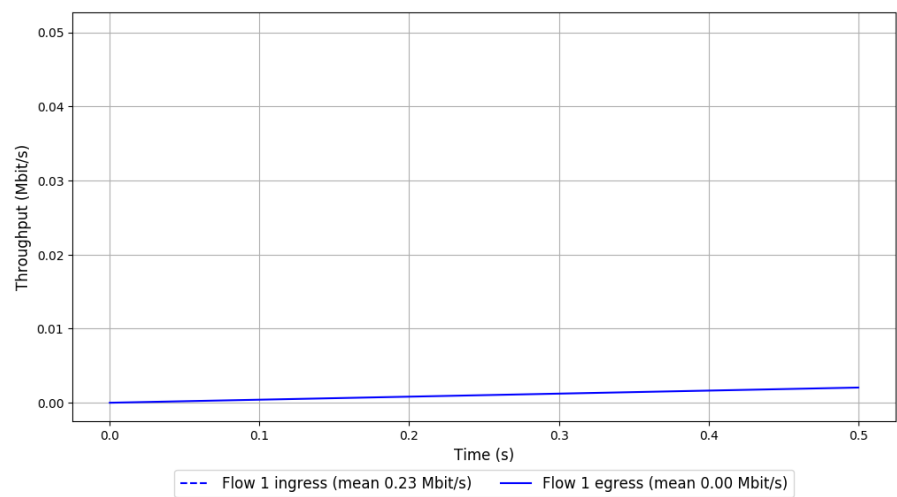
Start at: 2019-03-26 21:30:46

End at: 2019-03-26 21:31:16

Local clock offset: 5.794 ms

Remote clock offset: -10.415 ms

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



Run 5: Statistics of TaoVA-100x

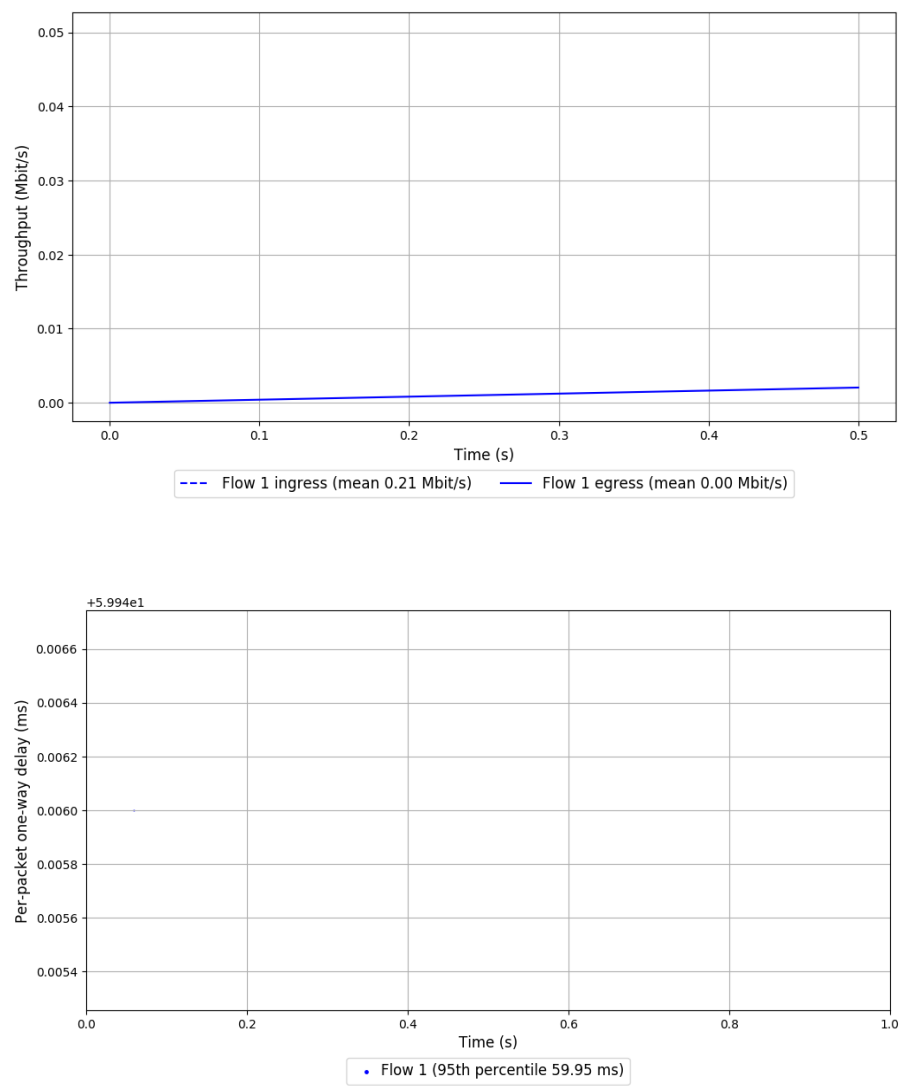
Start at: 2019-03-26 21:59:35

End at: 2019-03-26 22:00:05

Local clock offset: -1.209 ms

Remote clock offset: -8.319 ms

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

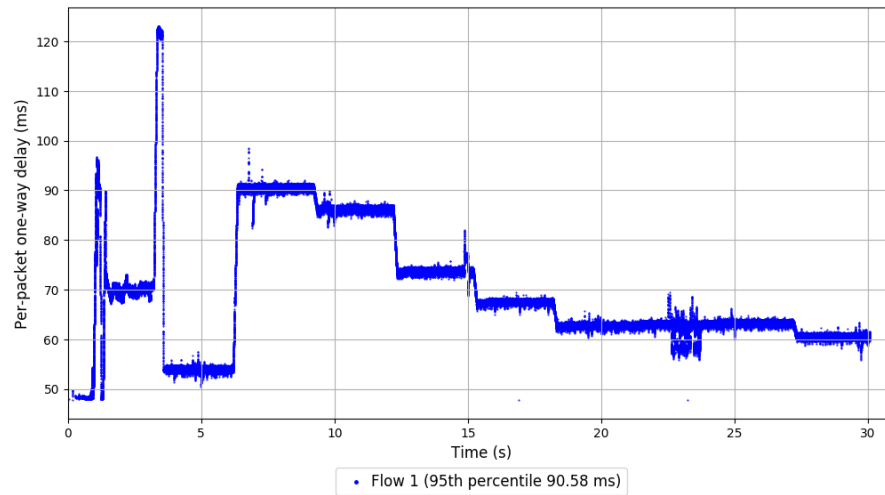
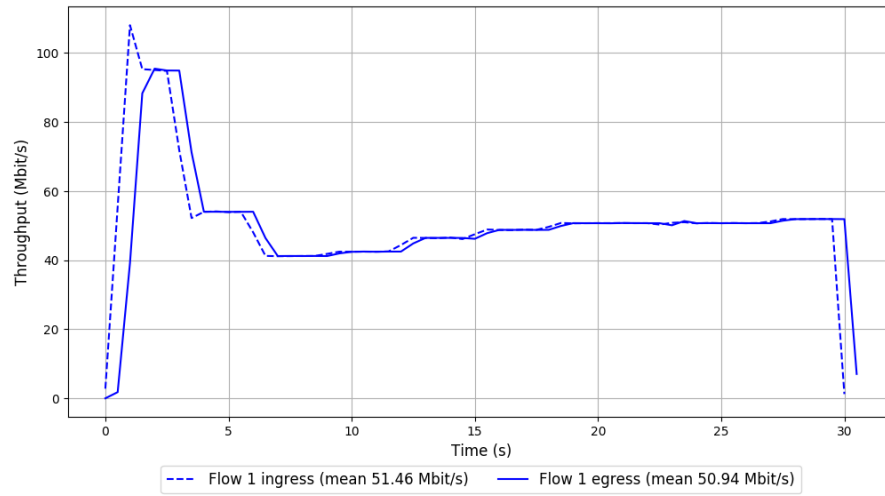


Run 1: Statistics of TCP Vegas

Start at: 2019-03-26 20:30:19
End at: 2019-03-26 20:30:49
Local clock offset: 2.448 ms
Remote clock offset: -9.795 ms

Below is generated by plot.py at 2019-03-26 22:29:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.94 Mbit/s
95th percentile per-packet one-way delay: 90.585 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 50.94 Mbit/s
95th percentile per-packet one-way delay: 90.585 ms
Loss rate: 0.98%

Run 1: Report of TCP Vegas — Data Link

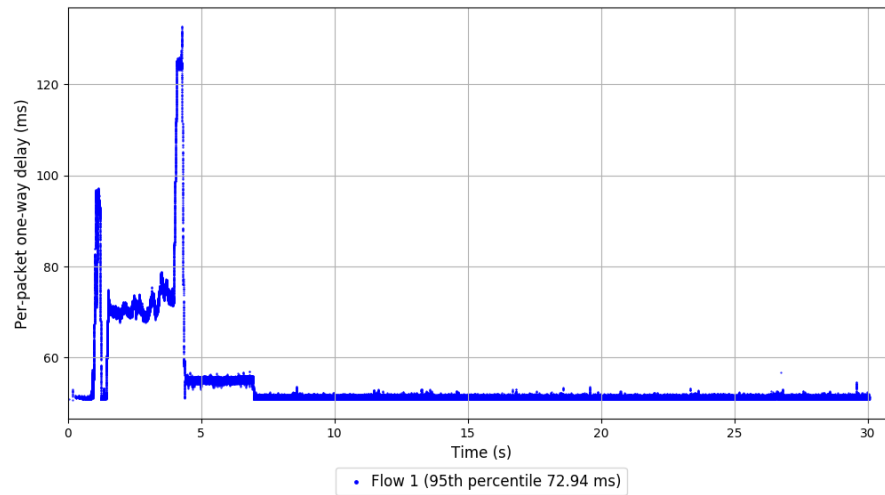
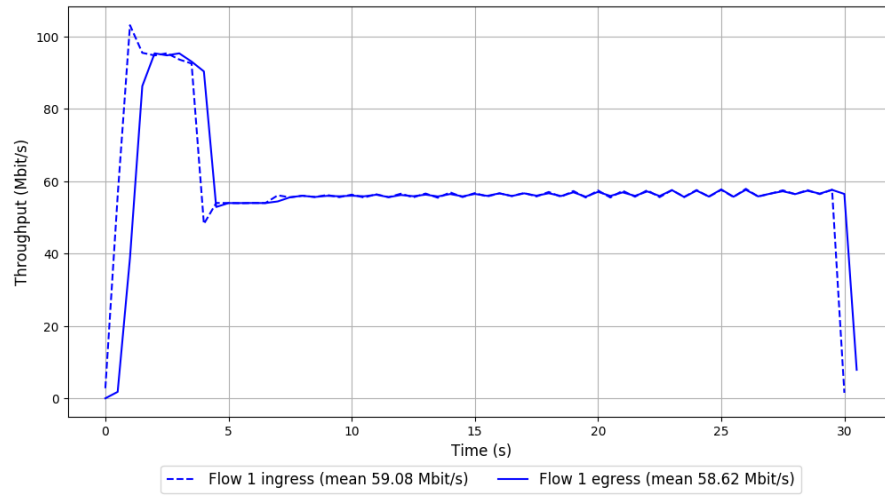


Run 2: Statistics of TCP Vegas

Start at: 2019-03-26 20:55:45
End at: 2019-03-26 20:56:15
Local clock offset: 5.037 ms
Remote clock offset: -6.443 ms

Below is generated by plot.py at 2019-03-26 22:29:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 72.935 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 58.62 Mbit/s
95th percentile per-packet one-way delay: 72.935 ms
Loss rate: 0.77%

Run 2: Report of TCP Vegas — Data Link

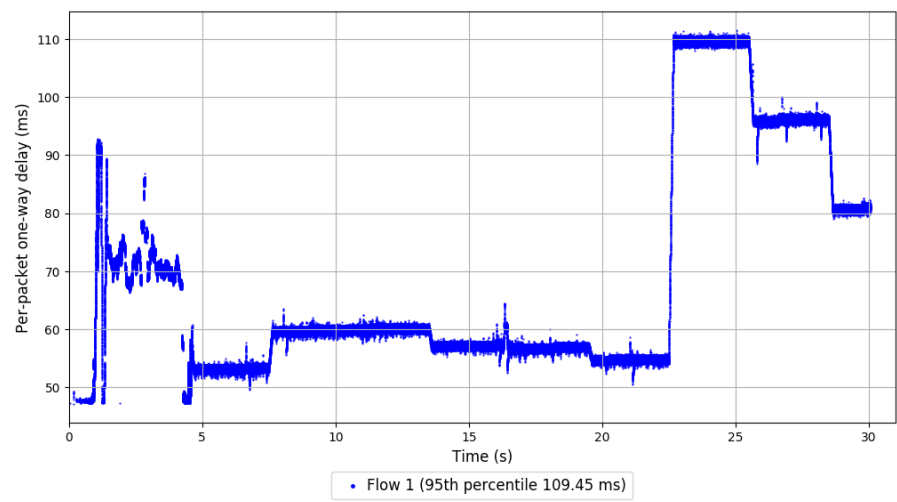
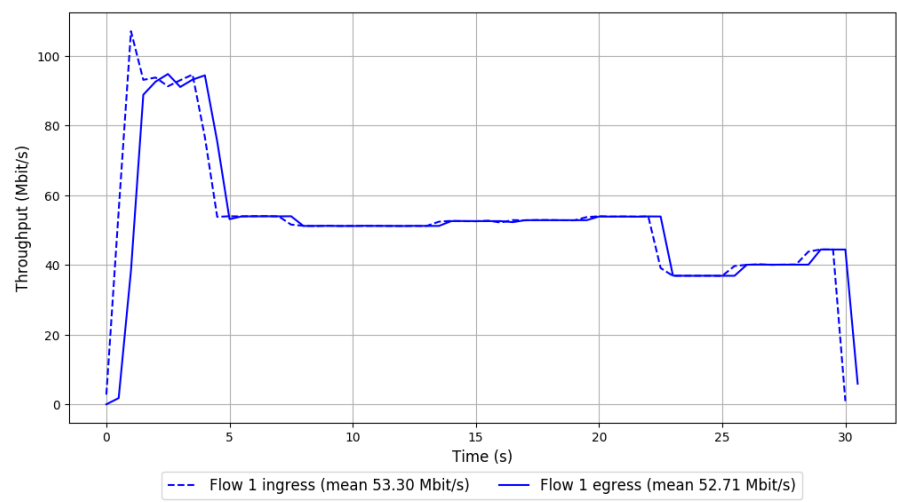


Run 3: Statistics of TCP Vegas

Start at: 2019-03-26 21:22:48
End at: 2019-03-26 21:23:18
Local clock offset: 6.246 ms
Remote clock offset: -10.872 ms

Below is generated by plot.py at 2019-03-26 22:29:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 109.453 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 109.453 ms
Loss rate: 1.08%

Run 3: Report of TCP Vegas — Data Link

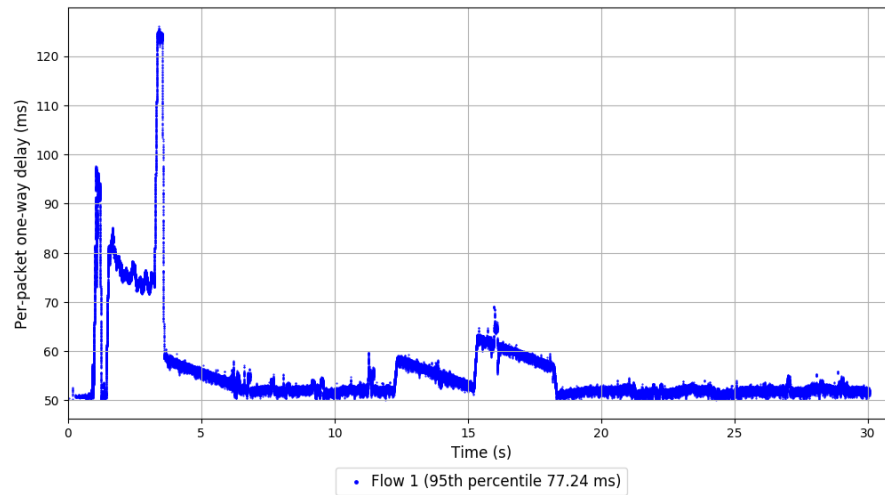
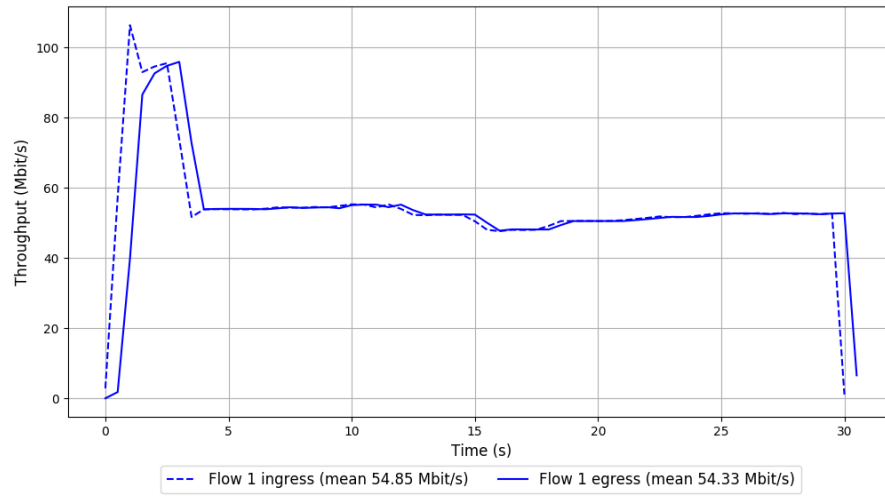


Run 4: Statistics of TCP Vegas

Start at: 2019-03-26 21:51:28
End at: 2019-03-26 21:51:58
Local clock offset: 2.052 ms
Remote clock offset: -8.097 ms

Below is generated by plot.py at 2019-03-26 22:29:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 77.241 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 54.33 Mbit/s
95th percentile per-packet one-way delay: 77.241 ms
Loss rate: 0.93%

Run 4: Report of TCP Vegas — Data Link

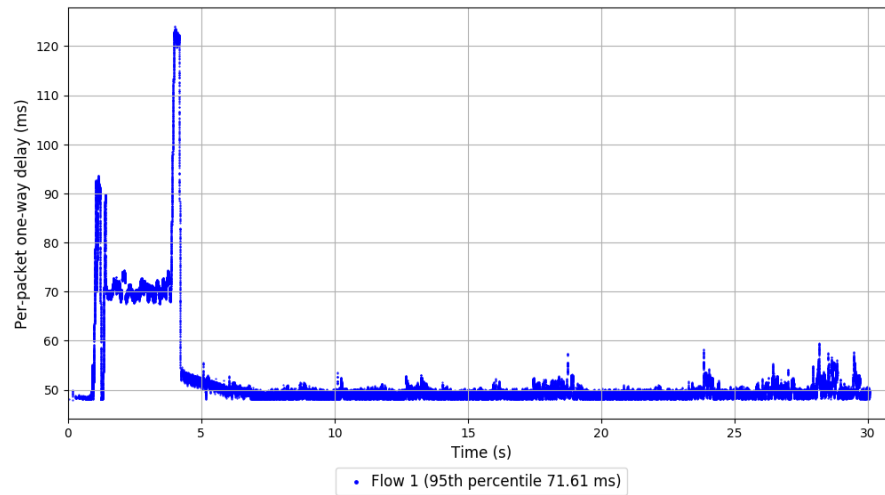
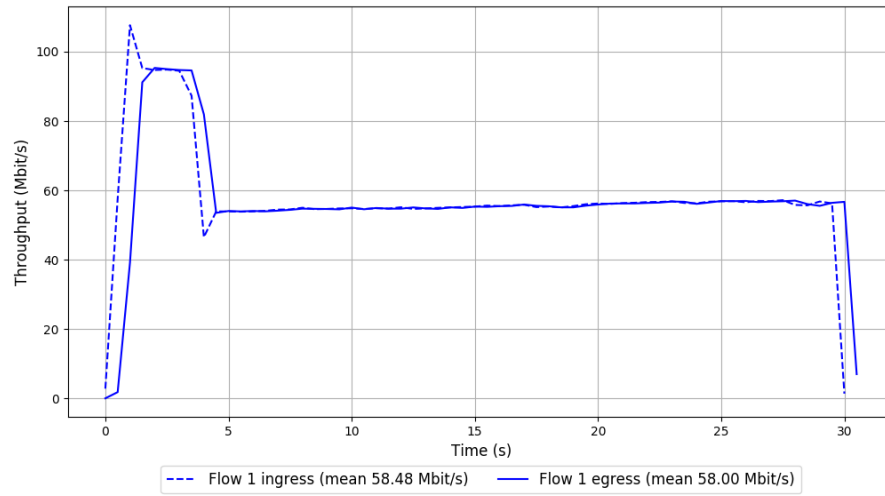


Run 5: Statistics of TCP Vegas

Start at: 2019-03-26 22:19:30
End at: 2019-03-26 22:20:00
Local clock offset: -2.279 ms
Remote clock offset: -11.74 ms

Below is generated by plot.py at 2019-03-26 22:29:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 71.609 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 58.00 Mbit/s
95th percentile per-packet one-way delay: 71.609 ms
Loss rate: 0.81%

Run 5: Report of TCP Vegas — Data Link

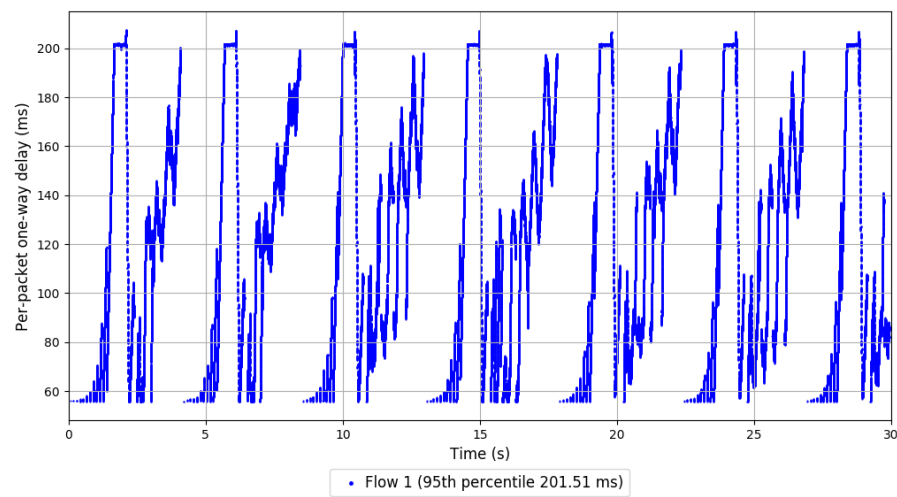
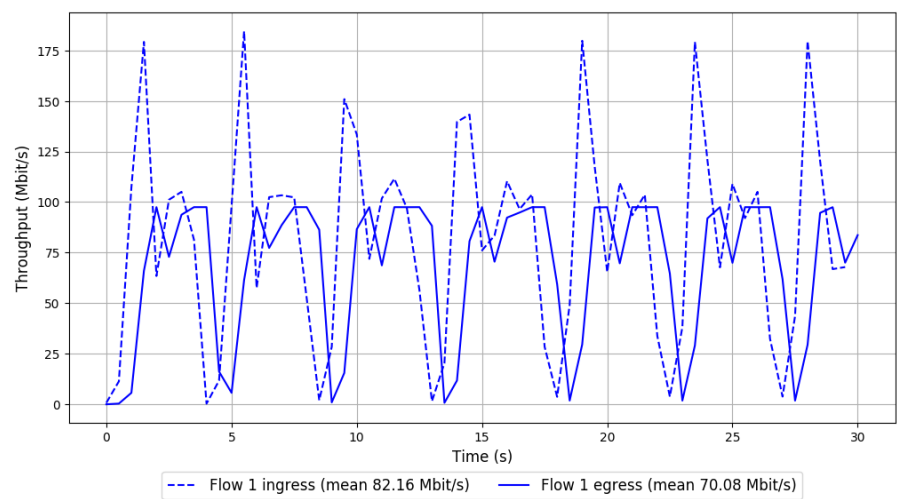


Run 1: Statistics of Verus

Start at: 2019-03-26 20:25:35
End at: 2019-03-26 20:26:05
Local clock offset: 2.89 ms
Remote clock offset: -10.962 ms

Below is generated by plot.py at 2019-03-26 22:29:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.08 Mbit/s
95th percentile per-packet one-way delay: 201.514 ms
Loss rate: 14.65%
-- Flow 1:
Average throughput: 70.08 Mbit/s
95th percentile per-packet one-way delay: 201.514 ms
Loss rate: 14.65%

Run 1: Report of Verus — Data Link

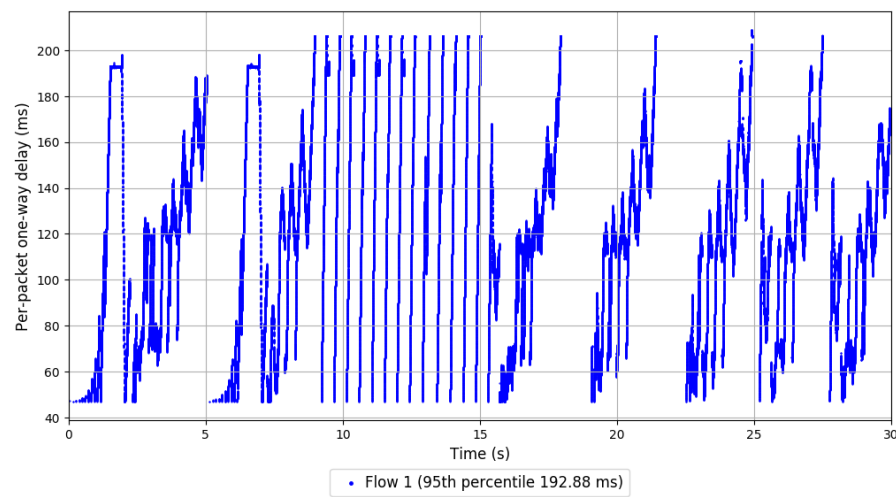
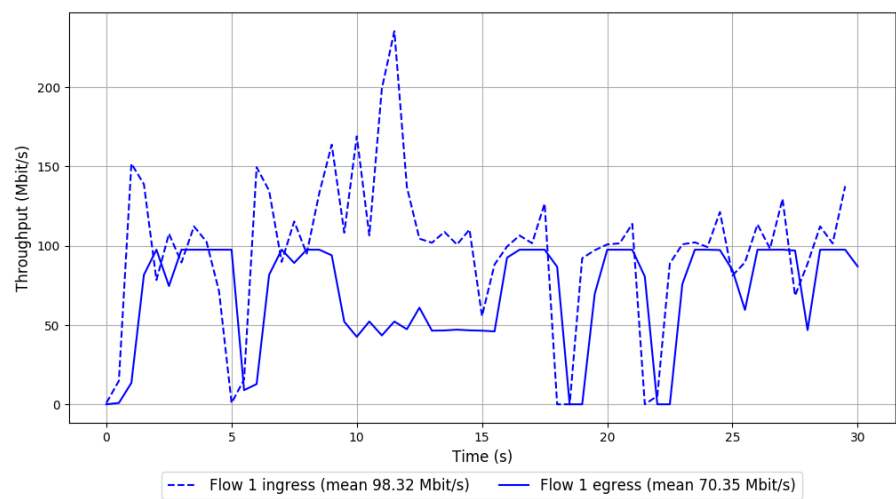


Run 2: Statistics of Verus

Start at: 2019-03-26 20:50:39
End at: 2019-03-26 20:51:09
Local clock offset: 3.873 ms
Remote clock offset: -10.537 ms

Below is generated by plot.py at 2019-03-26 22:30:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.35 Mbit/s
95th percentile per-packet one-way delay: 192.879 ms
Loss rate: 28.30%
-- Flow 1:
Average throughput: 70.35 Mbit/s
95th percentile per-packet one-way delay: 192.879 ms
Loss rate: 28.30%

Run 2: Report of Verus — Data Link

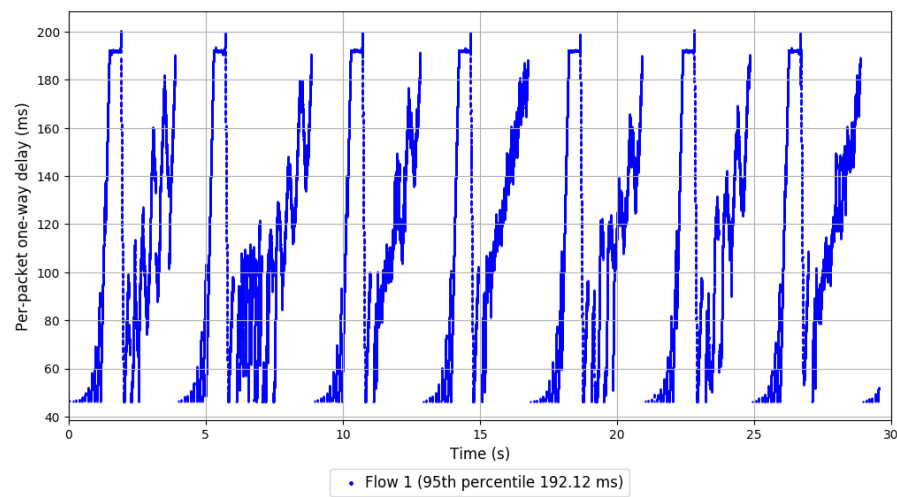
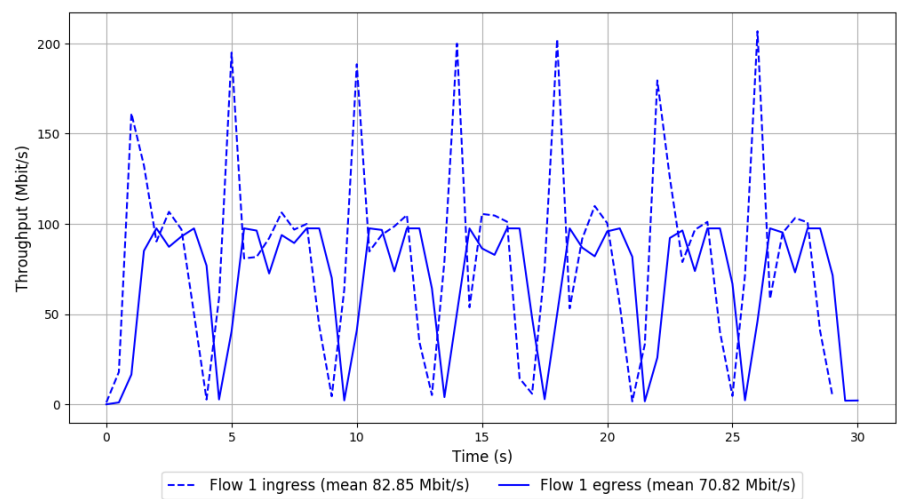


Run 3: Statistics of Verus

Start at: 2019-03-26 21:17:46
End at: 2019-03-26 21:18:16
Local clock offset: 7.114 ms
Remote clock offset: -11.143 ms

Below is generated by plot.py at 2019-03-26 22:30:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 70.82 Mbit/s
95th percentile per-packet one-way delay: 192.116 ms
Loss rate: 14.51%
-- Flow 1:
Average throughput: 70.82 Mbit/s
95th percentile per-packet one-way delay: 192.116 ms
Loss rate: 14.51%

Run 3: Report of Verus — Data Link

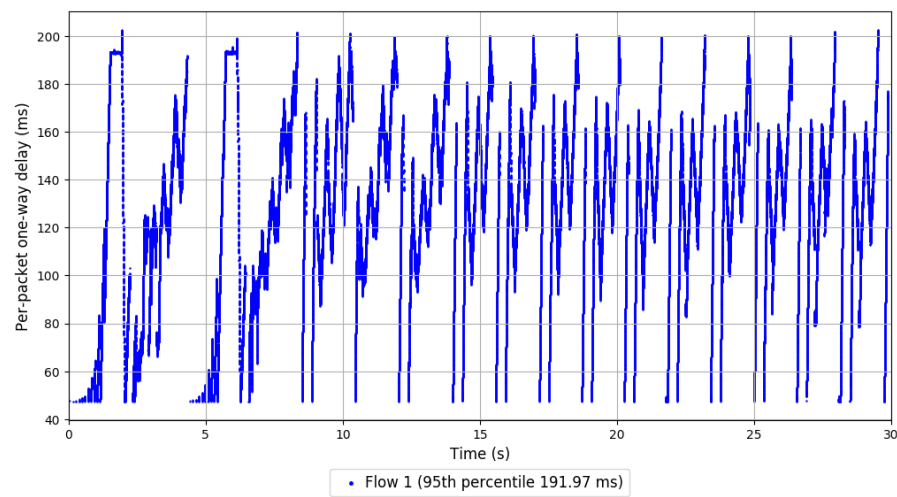
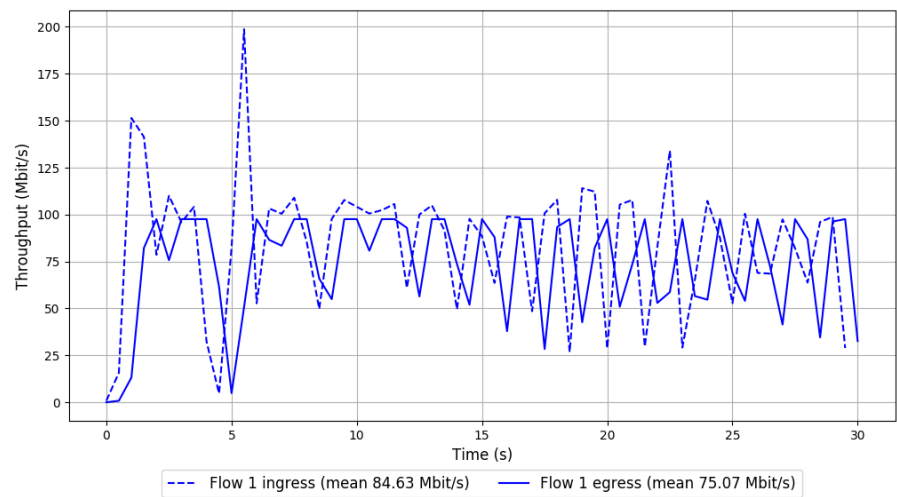


Run 4: Statistics of Verus

Start at: 2019-03-26 21:44:58
End at: 2019-03-26 21:45:28
Local clock offset: 6.205 ms
Remote clock offset: -10.974 ms

Below is generated by plot.py at 2019-03-26 22:30:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 75.07 Mbit/s
95th percentile per-packet one-way delay: 191.973 ms
Loss rate: 10.92%
-- Flow 1:
Average throughput: 75.07 Mbit/s
95th percentile per-packet one-way delay: 191.973 ms
Loss rate: 10.92%

Run 4: Report of Verus — Data Link

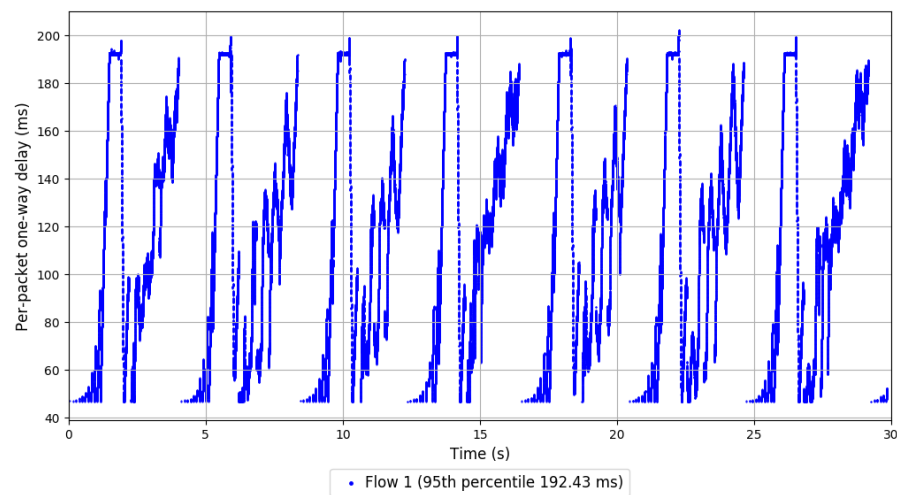
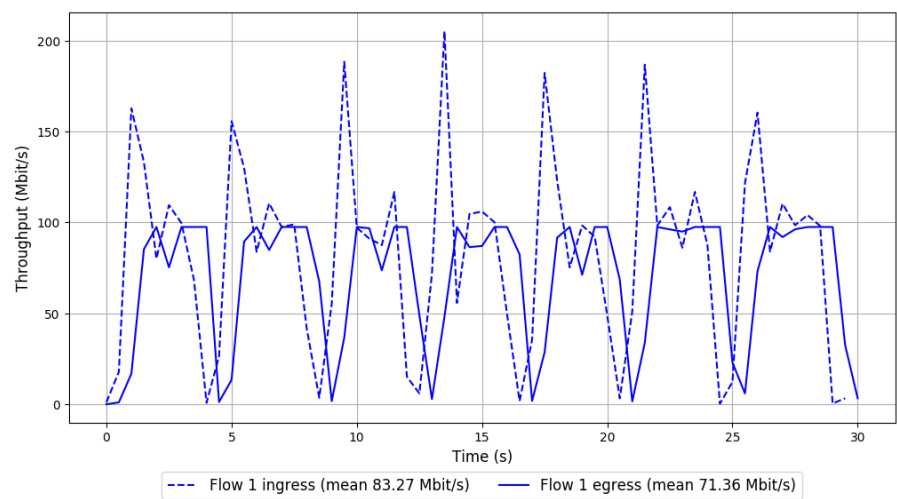


Run 5: Statistics of Verus

Start at: 2019-03-26 22:14:03
End at: 2019-03-26 22:14:33
Local clock offset: -3.884 ms
Remote clock offset: -13.313 ms

Below is generated by plot.py at 2019-03-26 22:30:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 71.36 Mbit/s
95th percentile per-packet one-way delay: 192.431 ms
Loss rate: 14.28%
-- Flow 1:
Average throughput: 71.36 Mbit/s
95th percentile per-packet one-way delay: 192.431 ms
Loss rate: 14.28%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-03-26 20:06:37

End at: 2019-03-26 20:07:07

Local clock offset: 5.811 ms

Remote clock offset: -9.826 ms

Below is generated by plot.py at 2019-03-26 22:30:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.69 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 0.00%

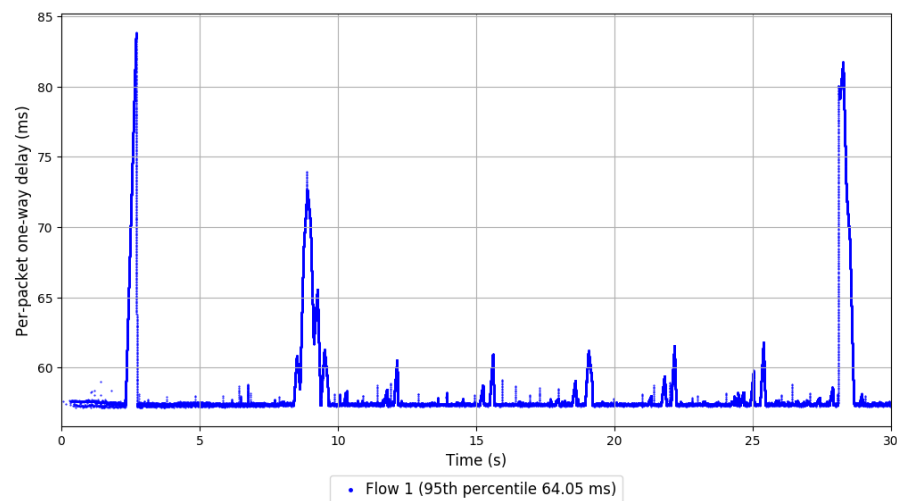
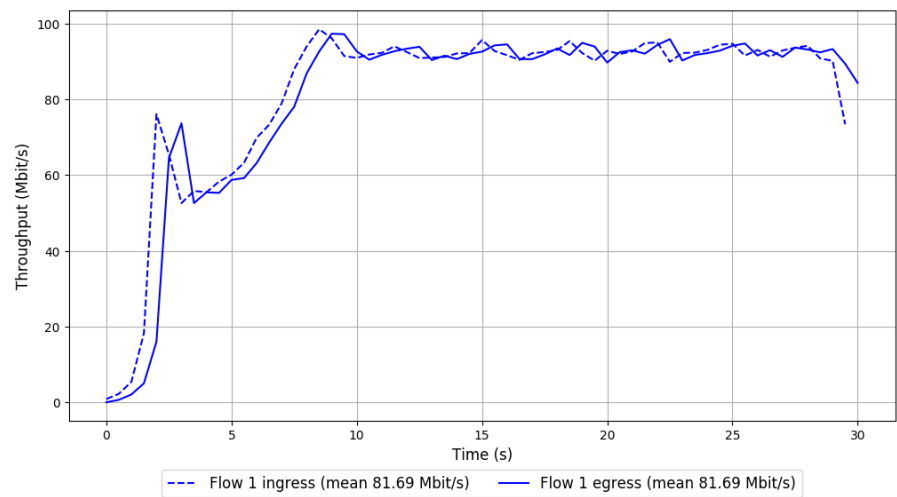
-- Flow 1:

Average throughput: 81.69 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

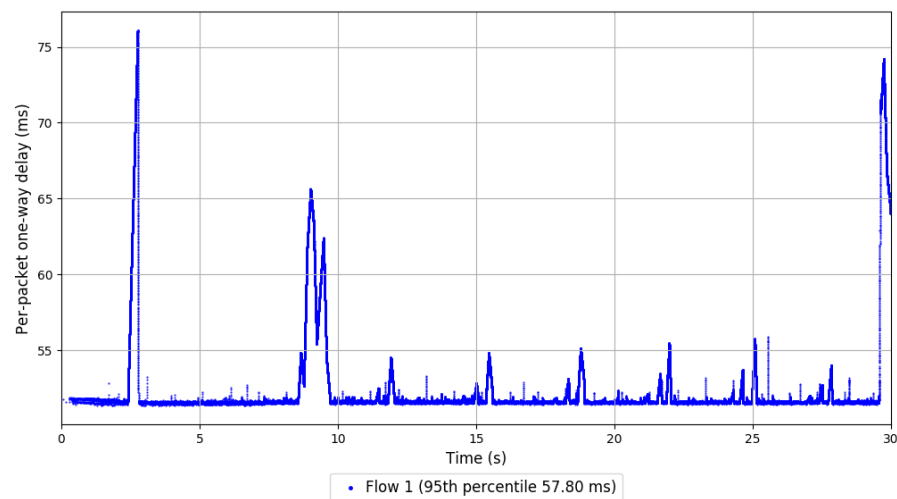
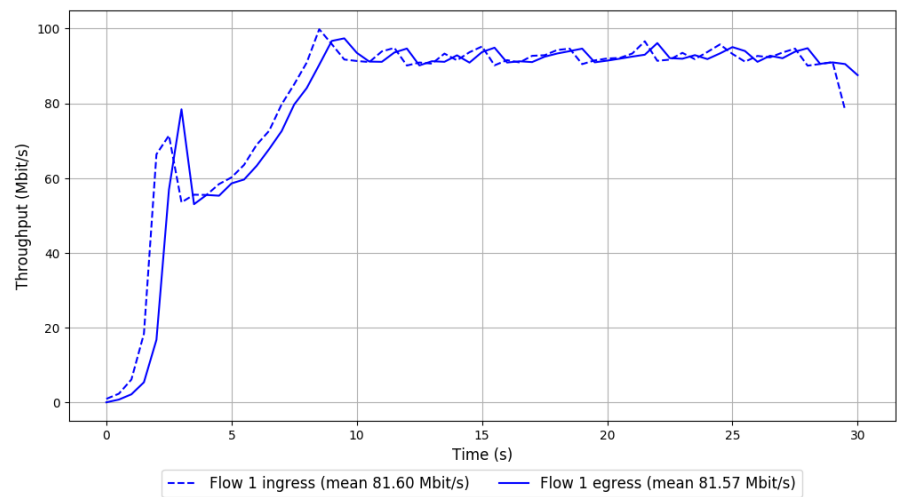


Run 2: Statistics of PCC-Vivace

Start at: 2019-03-26 20:31:31
End at: 2019-03-26 20:32:01
Local clock offset: 2.465 ms
Remote clock offset: -6.167 ms

Below is generated by plot.py at 2019-03-26 22:30:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.57 Mbit/s
95th percentile per-packet one-way delay: 57.803 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.57 Mbit/s
95th percentile per-packet one-way delay: 57.803 ms
Loss rate: 0.00%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-03-26 20:57:07

End at: 2019-03-26 20:57:37

Local clock offset: 5.085 ms

Remote clock offset: -6.333 ms

Below is generated by plot.py at 2019-03-26 22:30:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.21 Mbit/s

95th percentile per-packet one-way delay: 63.666 ms

Loss rate: 0.00%

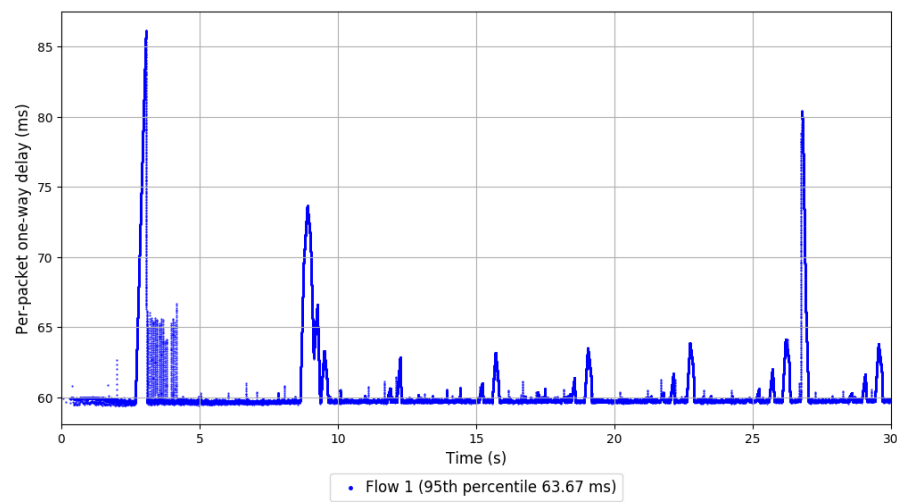
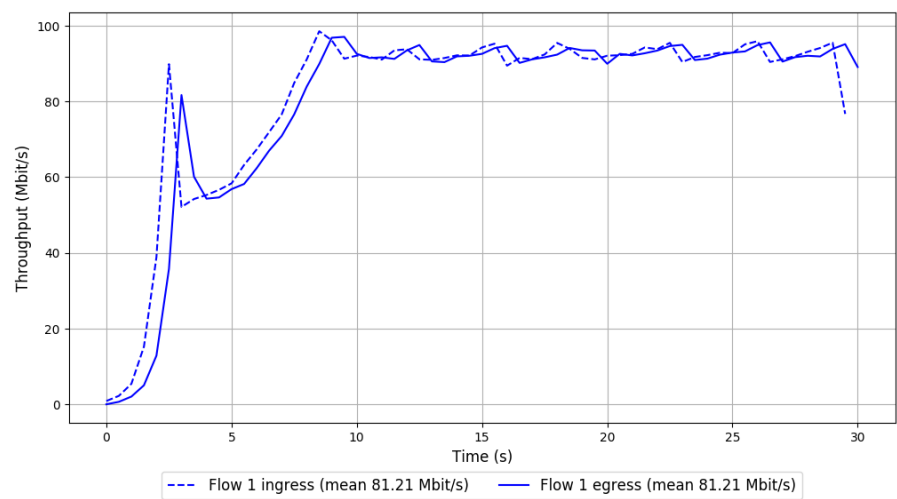
-- Flow 1:

Average throughput: 81.21 Mbit/s

95th percentile per-packet one-way delay: 63.666 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link

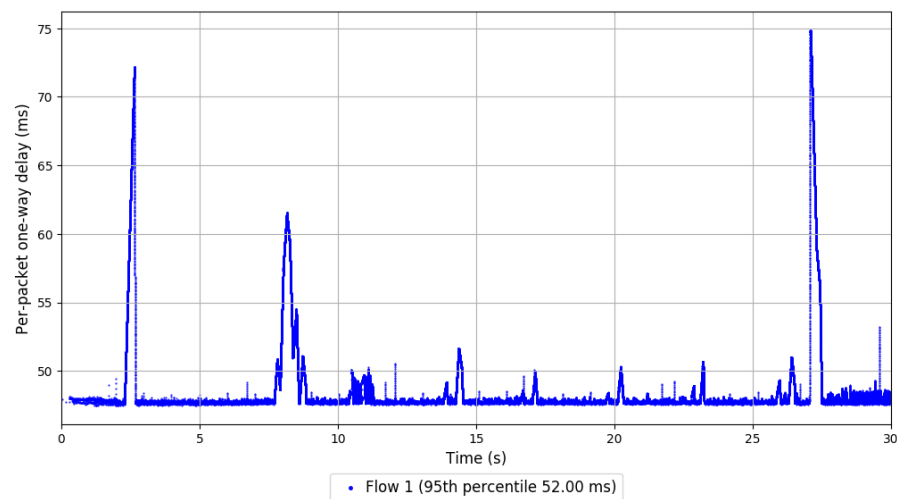
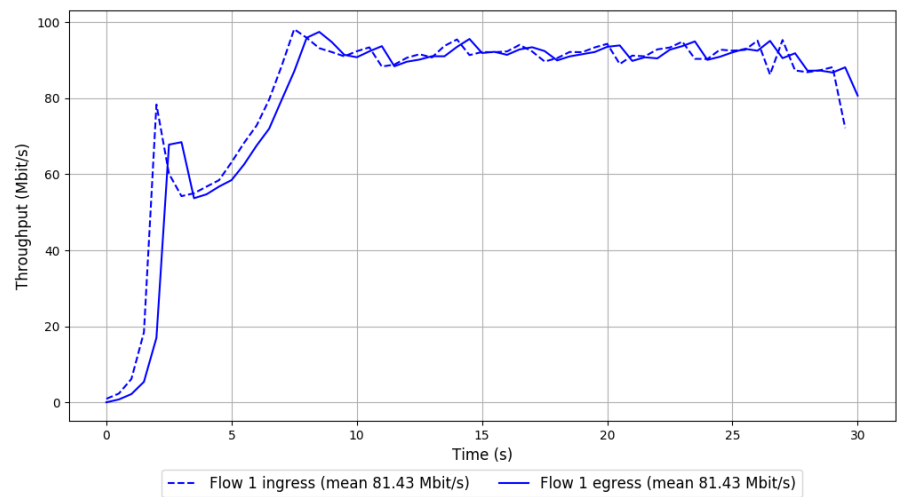


Run 4: Statistics of PCC-Vivace

Start at: 2019-03-26 21:24:03
End at: 2019-03-26 21:24:33
Local clock offset: 6.107 ms
Remote clock offset: -10.077 ms

Below is generated by plot.py at 2019-03-26 22:30:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 52.001 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 52.001 ms
Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-03-26 21:52:54

End at: 2019-03-26 21:53:24

Local clock offset: 1.178 ms

Remote clock offset: -8.223 ms

Below is generated by plot.py at 2019-03-26 22:30:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.18 Mbit/s

95th percentile per-packet one-way delay: 64.869 ms

Loss rate: 0.00%

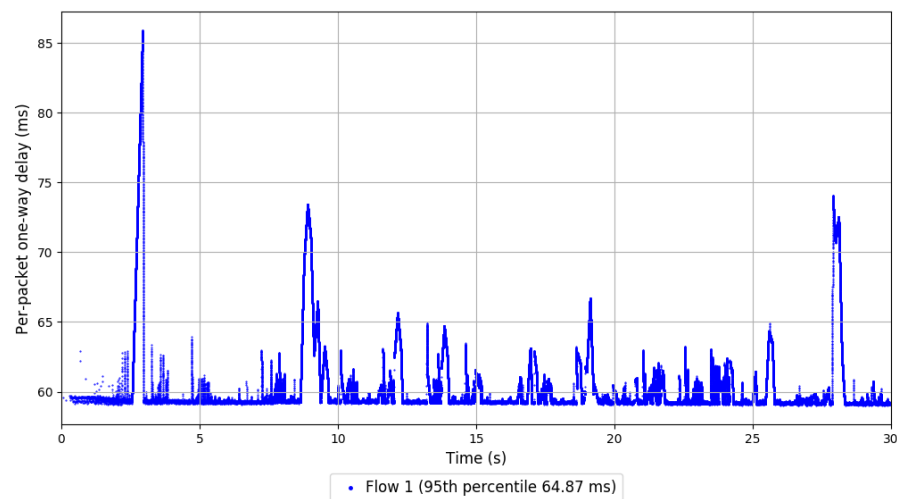
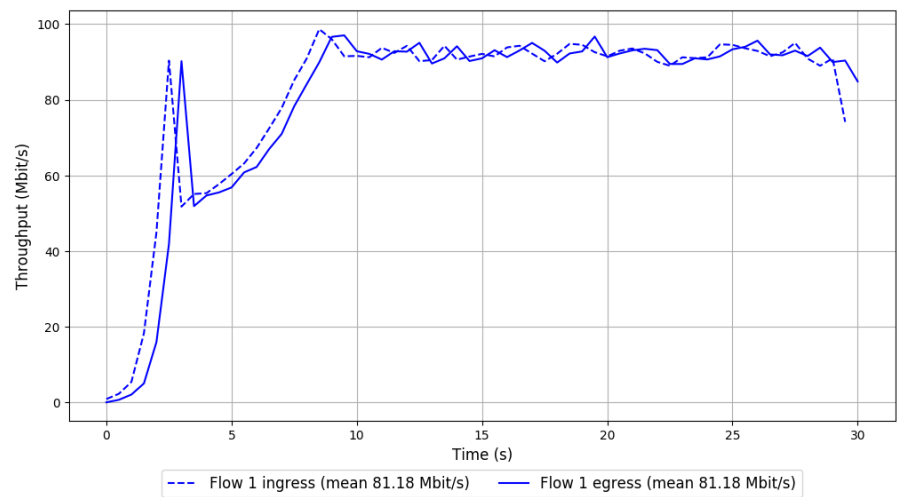
-- Flow 1:

Average throughput: 81.18 Mbit/s

95th percentile per-packet one-way delay: 64.869 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-03-26 20:13:45

End at: 2019-03-26 20:14:15

Local clock offset: 6.071 ms

Remote clock offset: -9.82 ms

Below is generated by plot.py at 2019-03-26 22:30:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 48.874 ms

Loss rate: 0.00%

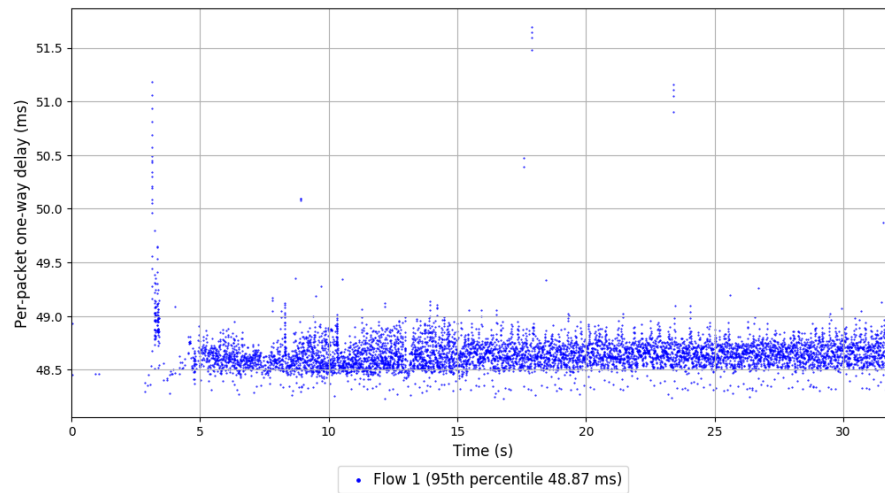
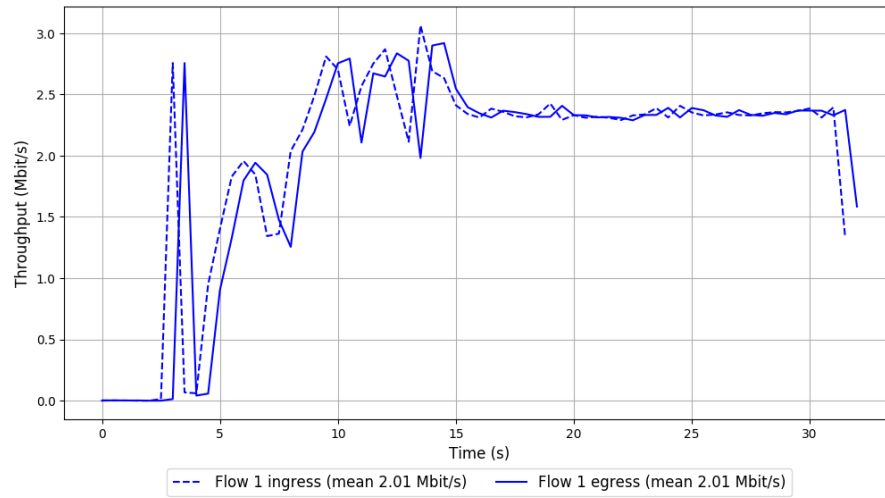
-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 48.874 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

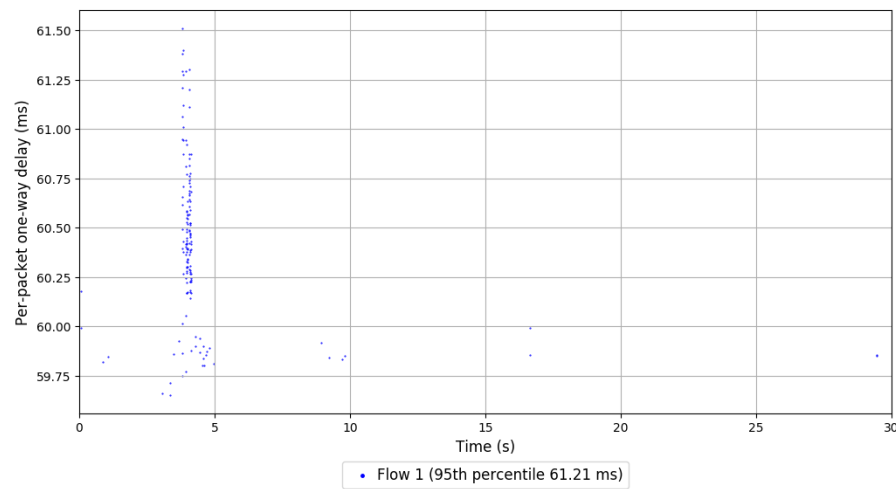
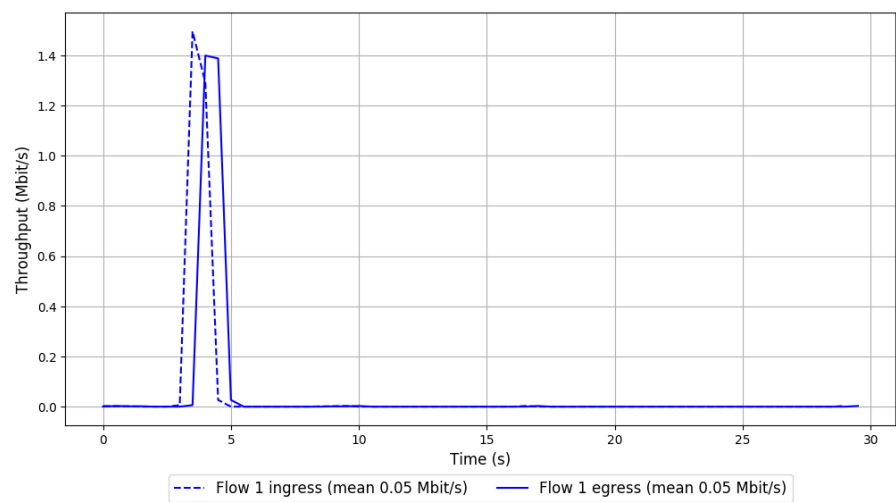


Run 2: Statistics of WebRTC media

Start at: 2019-03-26 20:38:43
End at: 2019-03-26 20:39:13
Local clock offset: 2.355 ms
Remote clock offset: -6.706 ms

Below is generated by plot.py at 2019-03-26 22:30:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.207 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 61.207 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

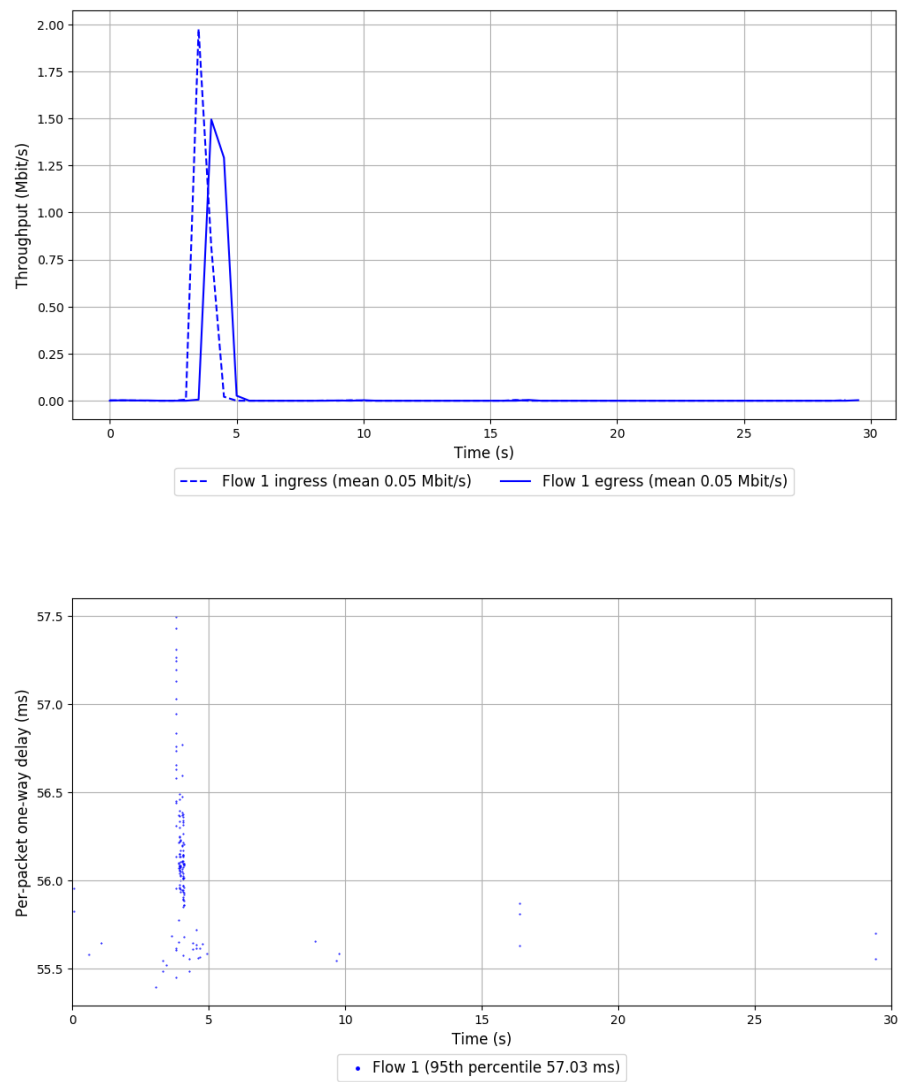


Run 3: Statistics of WebRTC media

Start at: 2019-03-26 21:04:41
End at: 2019-03-26 21:05:11
Local clock offset: 6.172 ms
Remote clock offset: -10.444 ms

Below is generated by plot.py at 2019-03-26 22:30:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.031 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.031 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

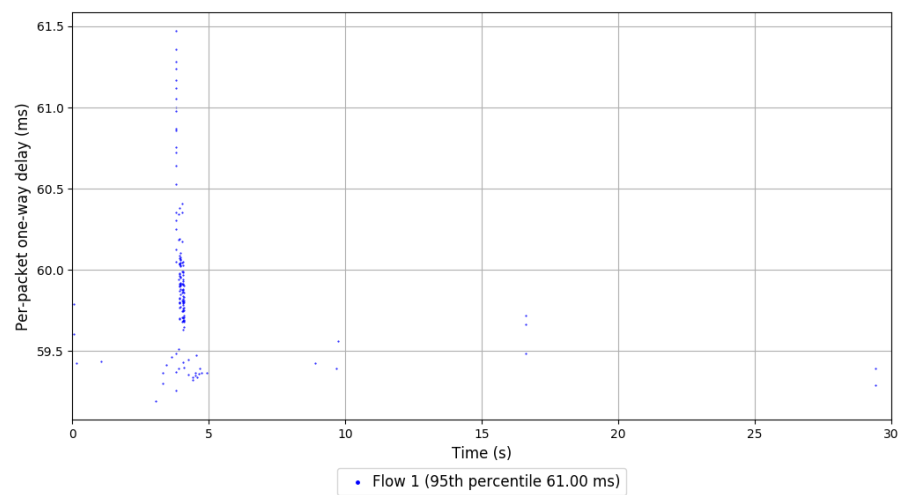
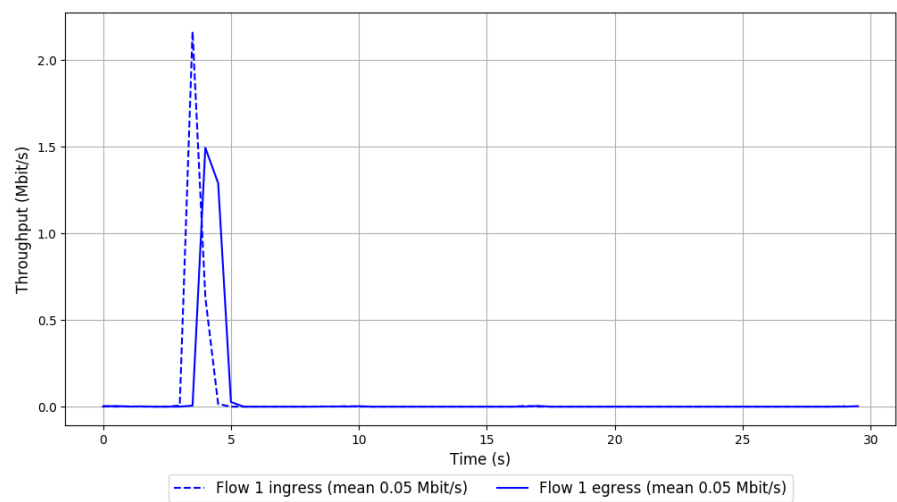


Run 4: Statistics of WebRTC media

Start at: 2019-03-26 21:31:58
End at: 2019-03-26 21:32:28
Local clock offset: 5.824 ms
Remote clock offset: -7.241 ms

Below is generated by plot.py at 2019-03-26 22:30:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.999 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-03-26 22:00:48
End at: 2019-03-26 22:01:18
Local clock offset: -1.707 ms
Remote clock offset: -8.573 ms

Below is generated by plot.py at 2019-03-26 22:30:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 51.862 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 51.862 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

