

Pantheon Report

Generated at 2018-09-25 14:18:48 (UTC).

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

Repeated the test of 19 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:

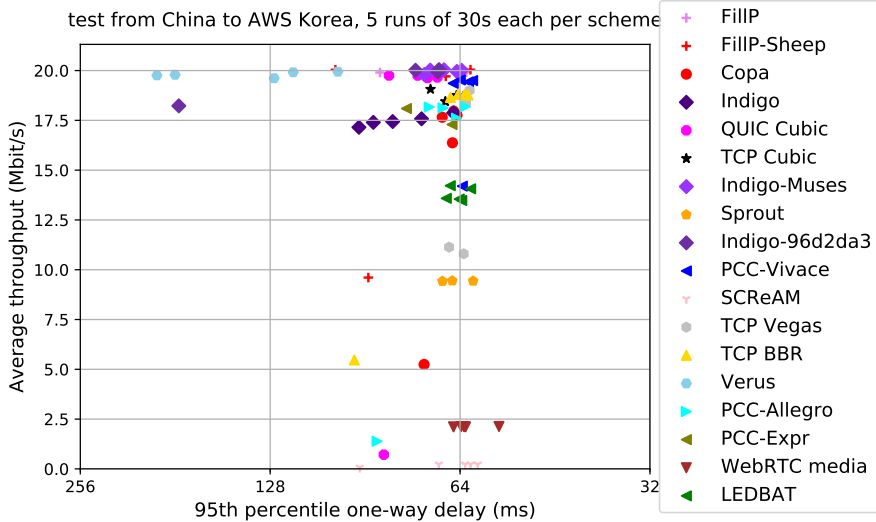
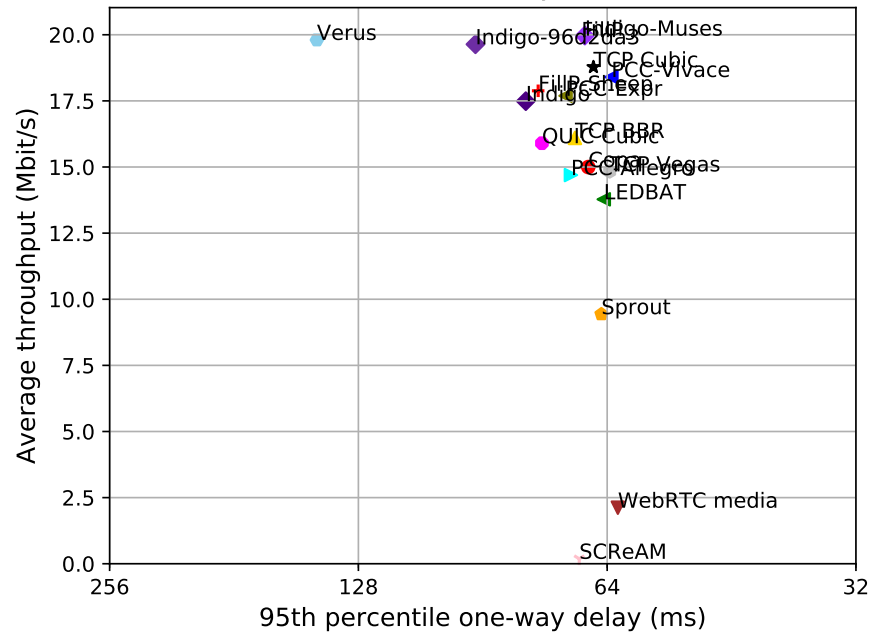
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 184101 245469 368202
```

Git summary:

```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ cbfce6db5ff5740dafa1771f813cd646339e1952
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 China to AWS Korea, 5 runs of 30s each per scheme
(mean of all runs by scheme)



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	16.10	70.01	15.52
Copa	5	15.00	67.46	38.30
TCP Cubic	4	18.78	66.50	6.59
FillP	5	19.91	68.78	21.46
FillP-Sheep	5	17.88	77.57	28.80
Indigo	5	17.49	80.29	61.36
Indigo-96d2da3	5	19.64	92.38	62.01
LEDBAT	5	13.78	64.61	1.06
Indigo-Muses	5	19.97	68.11	49.37
PCC-Allegro	5	14.70	70.80	34.46
PCC-Expr	2	17.69	71.88	48.80
QUIC Cubic	5	15.90	76.76	8.10
SCReAM	5	0.19	69.18	4.55
Sprout	3	9.44	65.04	0.27
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	4	14.83	63.55	2.52
Verus	5	19.80	143.70	61.68
PCC-Vivace	5	18.40	63.26	7.10
WebRTC media	5	2.12	62.13	0.38

Run 1: Statistics of TCP BBR

Start at: 2018-09-25 12:33:52

End at: 2018-09-25 12:34:22

Local clock offset: 5.88 ms

Remote clock offset: 7.857 ms

Below is generated by plot.py at 2018-09-25 14:15:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.80 Mbit/s

95th percentile per-packet one-way delay: 62.984 ms

Loss rate: 10.62%

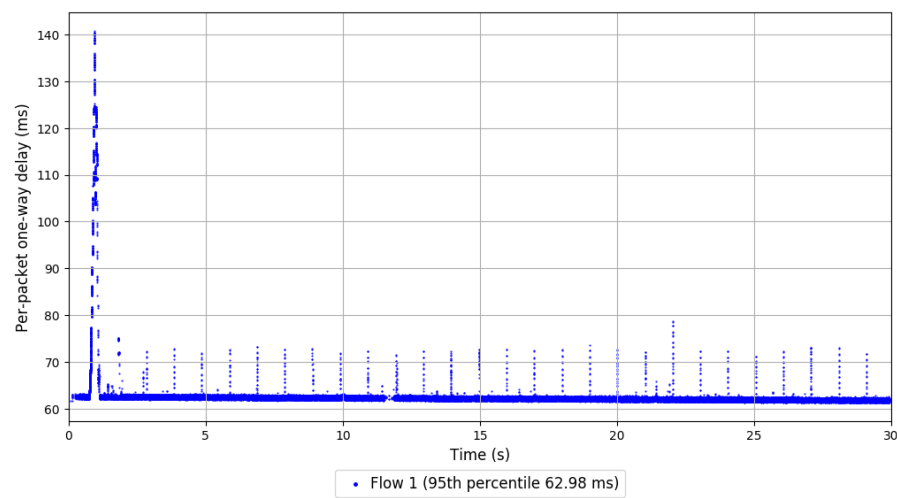
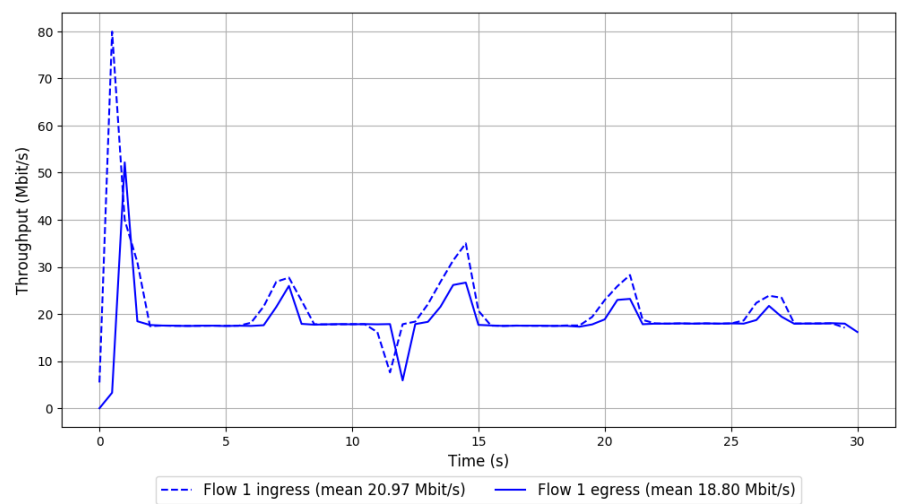
-- Flow 1:

Average throughput: 18.80 Mbit/s

95th percentile per-packet one-way delay: 62.984 ms

Loss rate: 10.62%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-09-25 12:56:58

End at: 2018-09-25 12:57:28

Local clock offset: 5.722 ms

Remote clock offset: -7.882 ms

Below is generated by plot.py at 2018-09-25 14:15:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.77 Mbit/s

95th percentile per-packet one-way delay: 62.186 ms

Loss rate: 10.73%

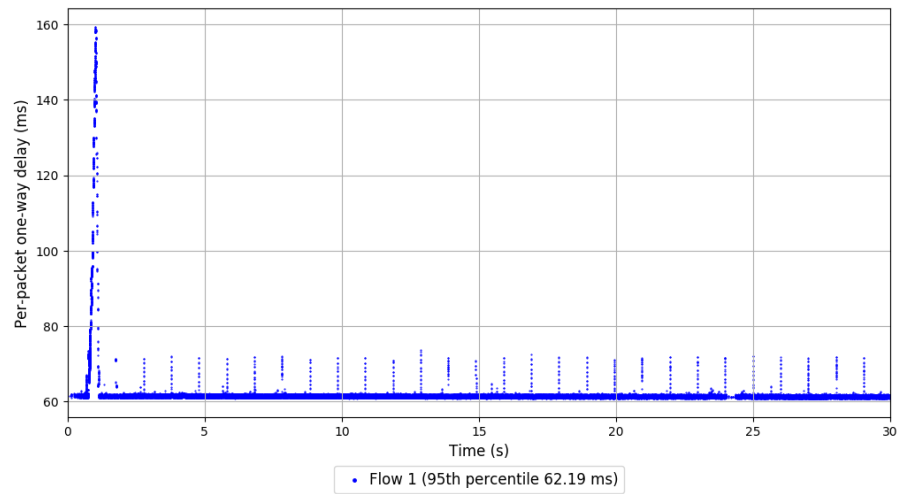
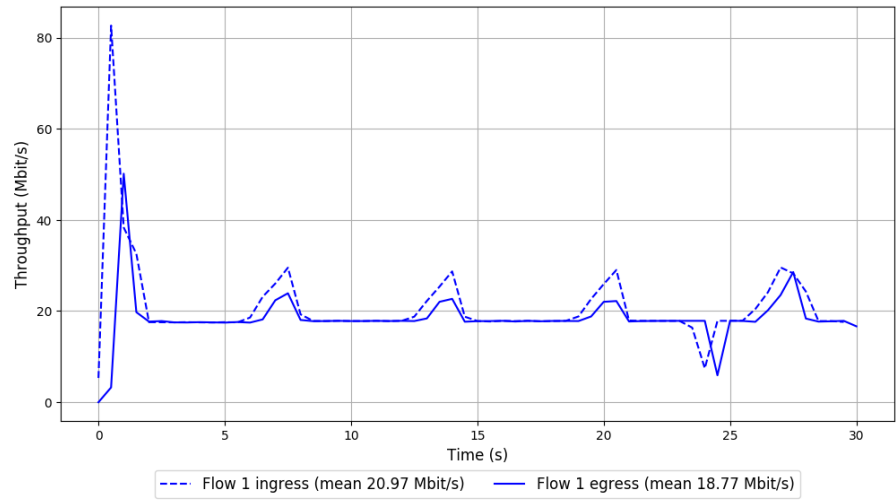
-- Flow 1:

Average throughput: 18.77 Mbit/s

95th percentile per-packet one-way delay: 62.186 ms

Loss rate: 10.73%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-09-25 13:22:13

End at: 2018-09-25 13:22:43

Local clock offset: 7.164 ms

Remote clock offset: -1.584 ms

Below is generated by plot.py at 2018-09-25 14:15:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 94.137 ms

Loss rate: 33.44%

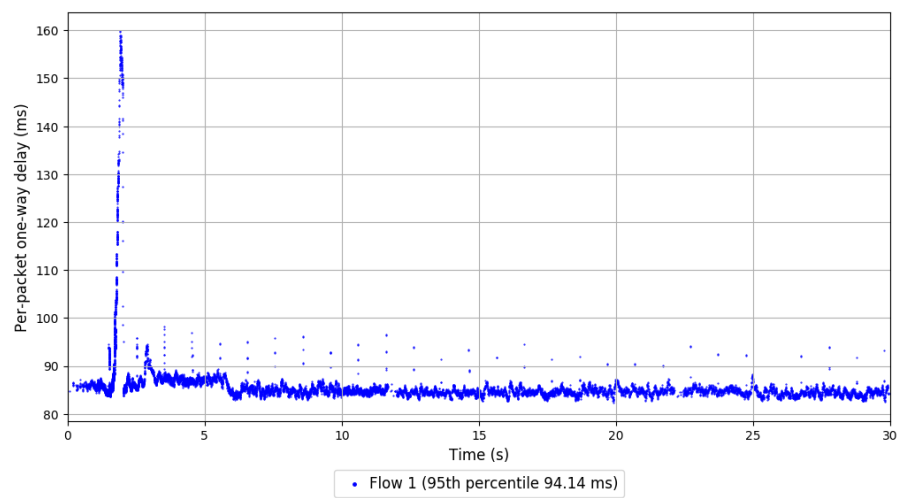
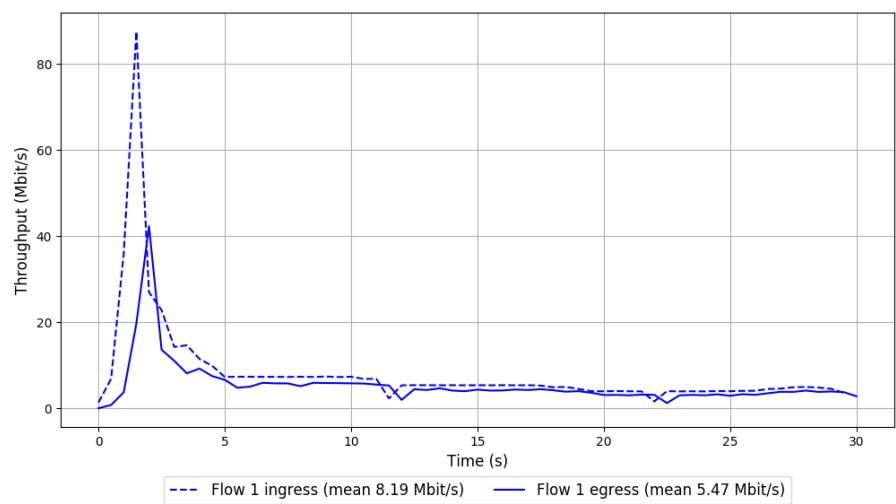
-- Flow 1:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 94.137 ms

Loss rate: 33.44%

Run 3: Report of TCP BBR — Data Link

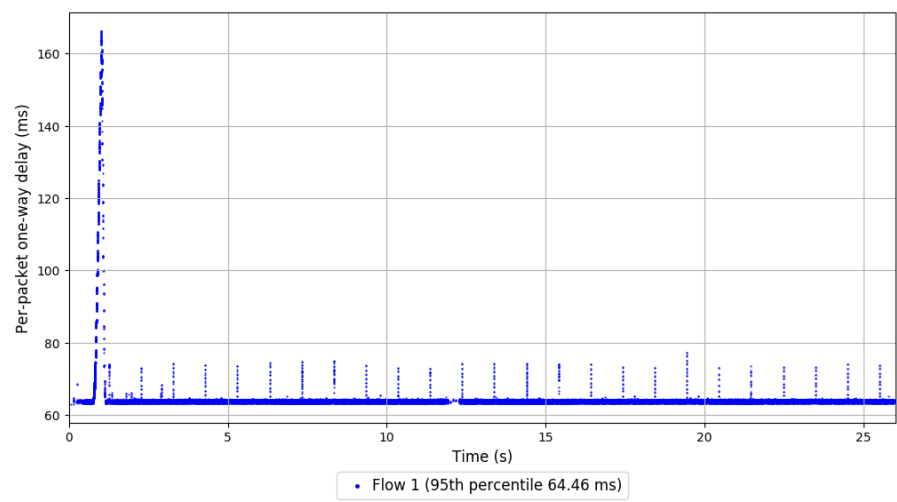
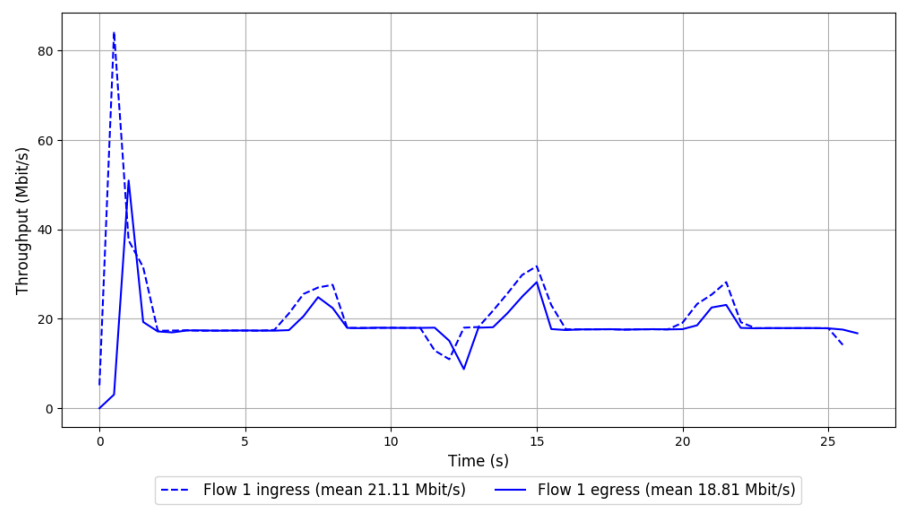


Run 4: Statistics of TCP BBR

Start at: 2018-09-25 13:47:03
End at: 2018-09-25 13:47:33
Local clock offset: 3.137 ms
Remote clock offset: -6.992 ms

Below is generated by plot.py at 2018-09-25 14:15:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.81 Mbit/s
95th percentile per-packet one-way delay: 64.462 ms
Loss rate: 10.92%
-- Flow 1:
Average throughput: 18.81 Mbit/s
95th percentile per-packet one-way delay: 64.462 ms
Loss rate: 10.92%

Run 4: Report of TCP BBR — Data Link

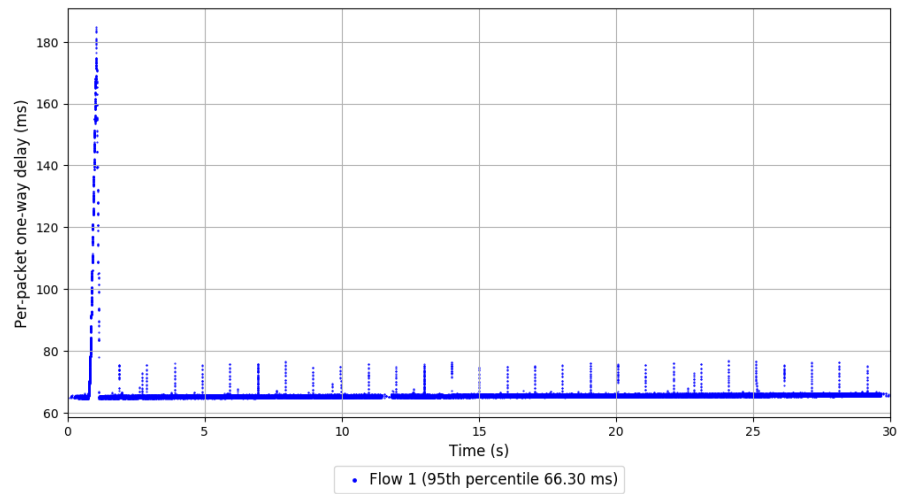
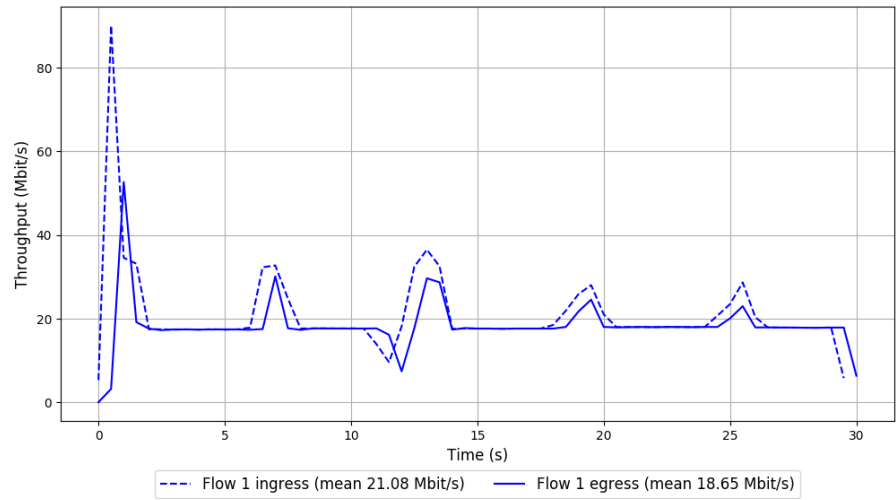


Run 5: Statistics of TCP BBR

Start at: 2018-09-25 14:11:01
End at: 2018-09-25 14:11:31
Local clock offset: -0.283 ms
Remote clock offset: -10.068 ms

Below is generated by plot.py at 2018-09-25 14:15:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.65 Mbit/s
95th percentile per-packet one-way delay: 66.296 ms
Loss rate: 11.91%
-- Flow 1:
Average throughput: 18.65 Mbit/s
95th percentile per-packet one-way delay: 66.296 ms
Loss rate: 11.91%

Run 5: Report of TCP BBR — Data Link

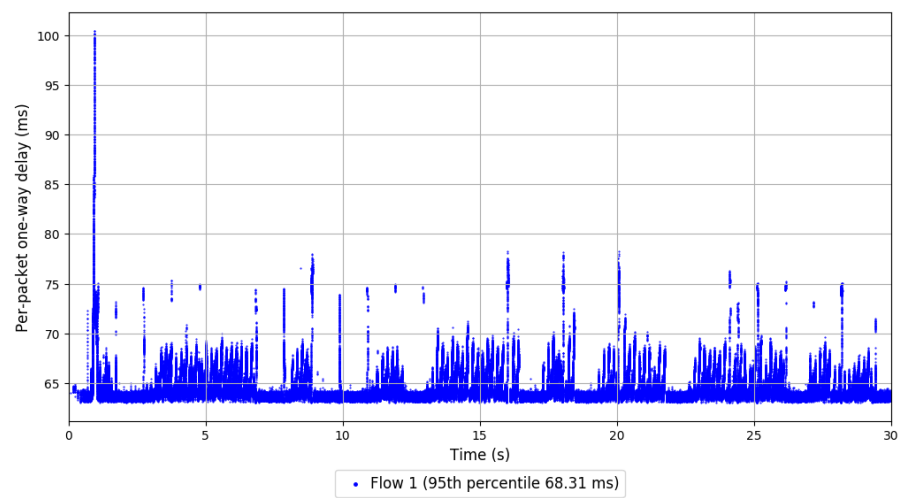
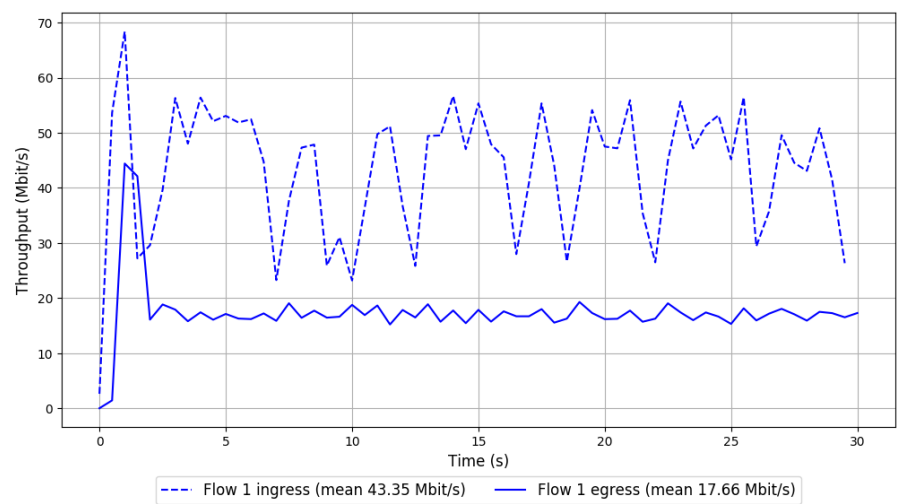


Run 1: Statistics of Copa

Start at: 2018-09-25 12:24:32
End at: 2018-09-25 12:25:02
Local clock offset: 5.629 ms
Remote clock offset: 21.157 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.66 Mbit/s
95th percentile per-packet one-way delay: 68.310 ms
Loss rate: 59.38%
-- Flow 1:
Average throughput: 17.66 Mbit/s
95th percentile per-packet one-way delay: 68.310 ms
Loss rate: 59.38%

Run 1: Report of Copa — Data Link

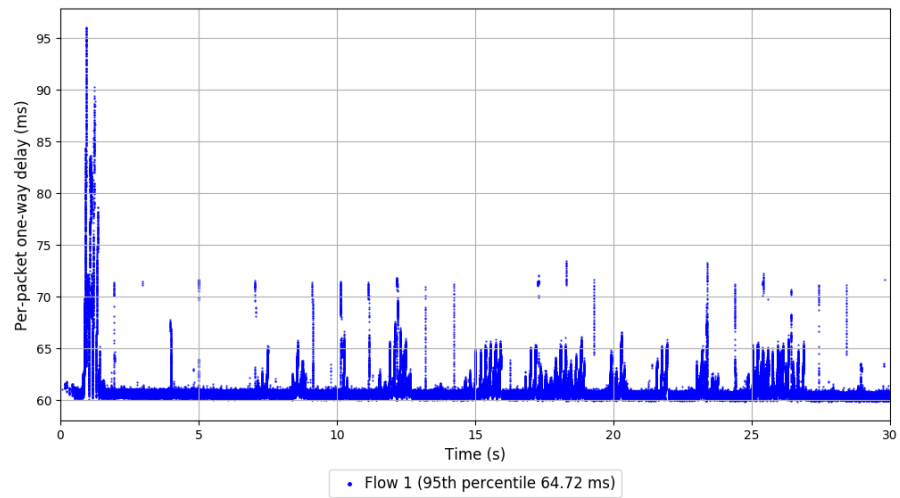
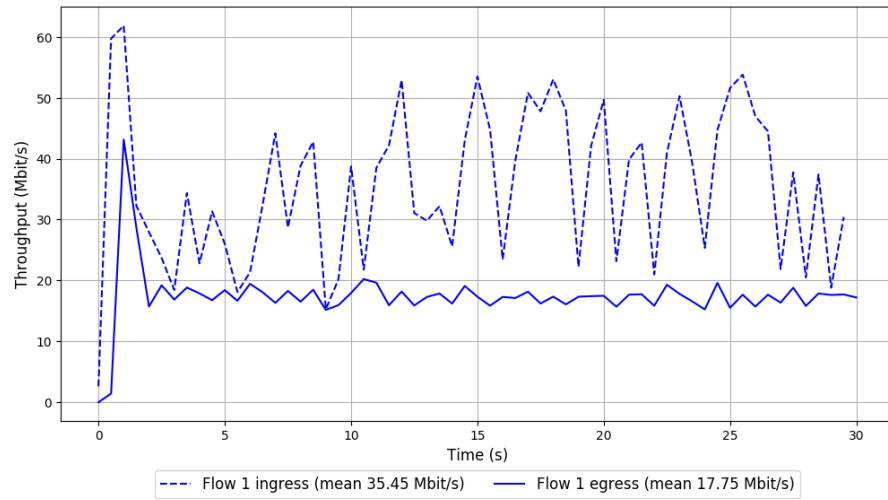


Run 2: Statistics of Copa

Start at: 2018-09-25 12:47:34
End at: 2018-09-25 12:48:04
Local clock offset: 5.939 ms
Remote clock offset: -3.091 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.75 Mbit/s
95th percentile per-packet one-way delay: 64.716 ms
Loss rate: 50.06%
-- Flow 1:
Average throughput: 17.75 Mbit/s
95th percentile per-packet one-way delay: 64.716 ms
Loss rate: 50.06%

Run 2: Report of Copa — Data Link

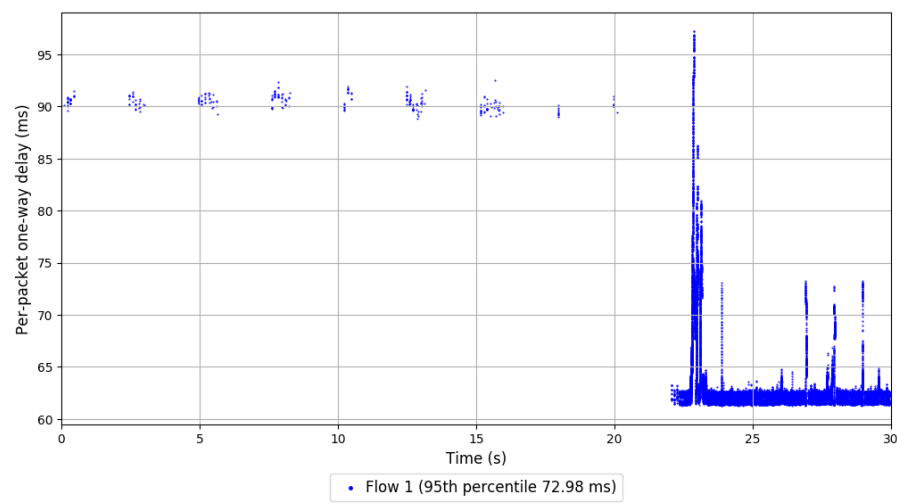
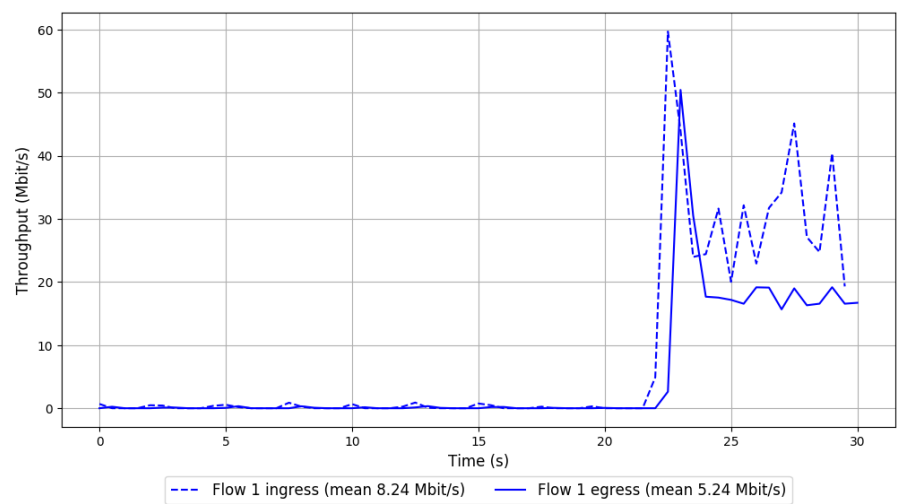


Run 3: Statistics of Copa

Start at: 2018-09-25 13:10:25
End at: 2018-09-25 13:10:55
Local clock offset: 6.207 ms
Remote clock offset: -3.453 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 72.981 ms
Loss rate: 36.57%
-- Flow 1:
Average throughput: 5.24 Mbit/s
95th percentile per-packet one-way delay: 72.981 ms
Loss rate: 36.57%

Run 3: Report of Copa — Data Link

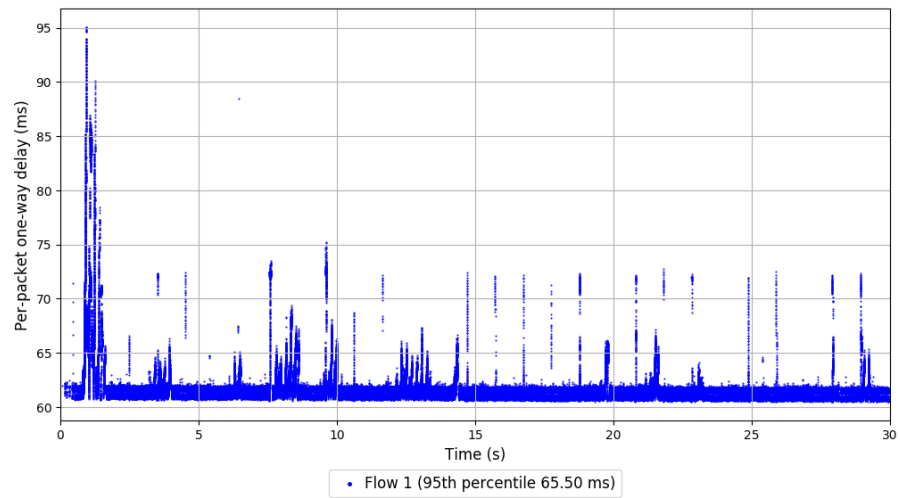
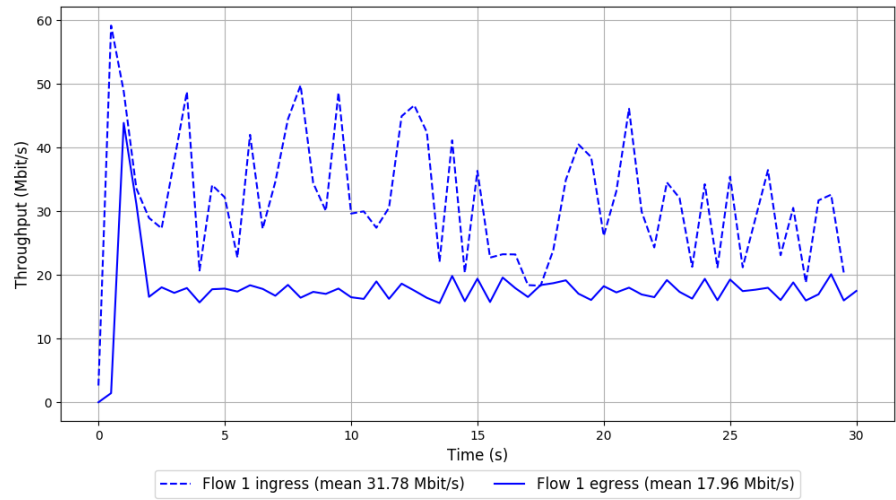


Run 4: Statistics of Copa

Start at: 2018-09-25 13:37:18
End at: 2018-09-25 13:37:48
Local clock offset: 7.814 ms
Remote clock offset: -2.641 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.96 Mbit/s
95th percentile per-packet one-way delay: 65.505 ms
Loss rate: 43.63%
-- Flow 1:
Average throughput: 17.96 Mbit/s
95th percentile per-packet one-way delay: 65.505 ms
Loss rate: 43.63%

Run 4: Report of Copa — Data Link

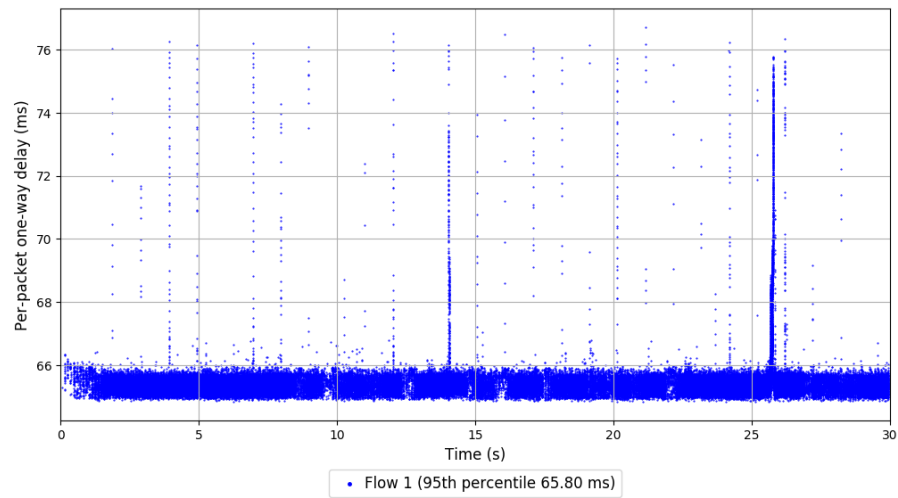
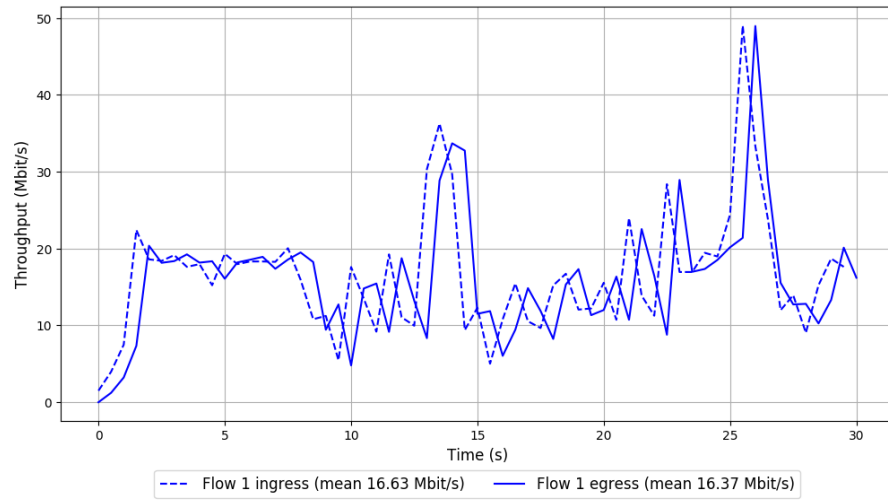


Run 5: Statistics of Copa

Start at: 2018-09-25 14:01:43
End at: 2018-09-25 14:02:13
Local clock offset: -0.14 ms
Remote clock offset: -11.881 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 16.37 Mbit/s
95th percentile per-packet one-way delay: 65.802 ms
Loss rate: 1.87%
-- Flow 1:
Average throughput: 16.37 Mbit/s
95th percentile per-packet one-way delay: 65.802 ms
Loss rate: 1.87%

Run 5: Report of Copa — Data Link

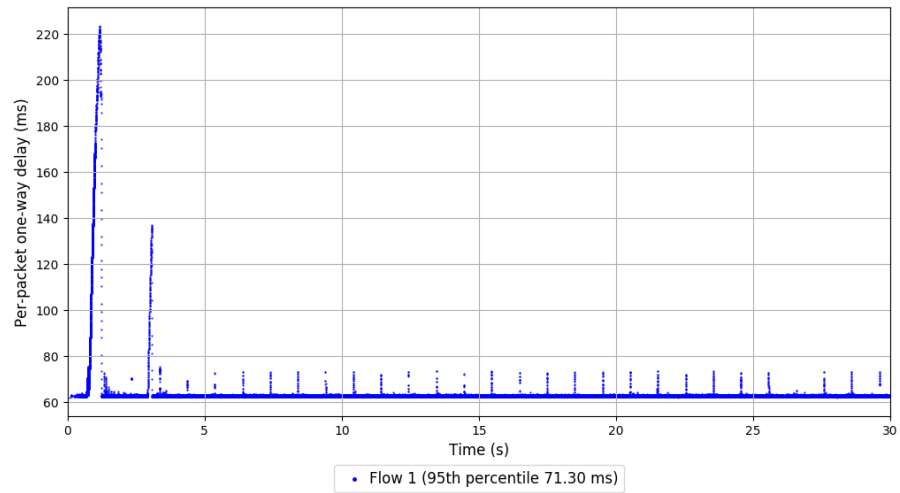
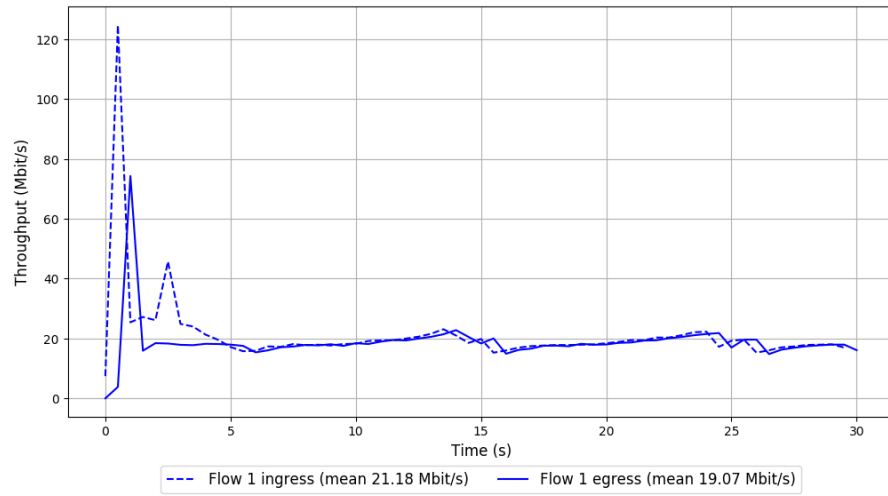


Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 12:23:22
End at: 2018-09-25 12:23:52
Local clock offset: 5.48 ms
Remote clock offset: 22.656 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 71.296 ms
Loss rate: 10.22%
-- Flow 1:
Average throughput: 19.07 Mbit/s
95th percentile per-packet one-way delay: 71.296 ms
Loss rate: 10.22%

Run 1: Report of TCP Cubic — Data Link

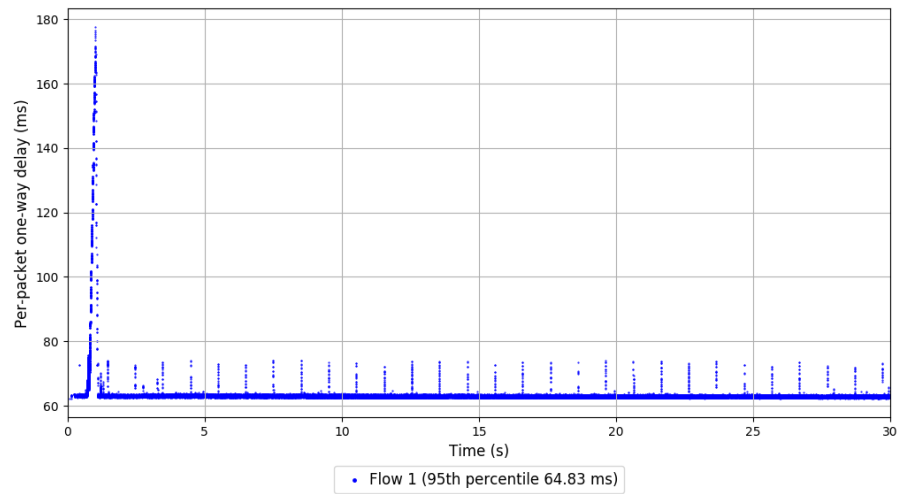
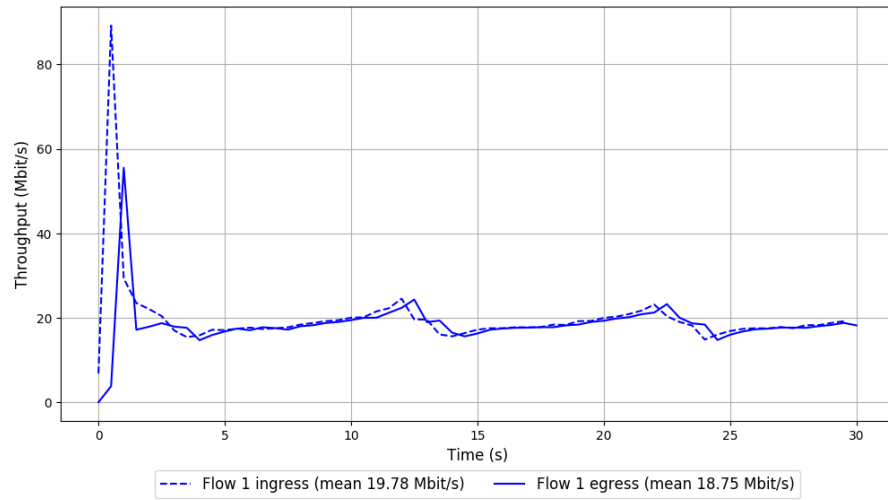


Run 2: Statistics of TCP Cubic

Start at: 2018-09-25 12:46:23
End at: 2018-09-25 12:46:53
Local clock offset: 5.667 ms
Remote clock offset: -4.835 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.75 Mbit/s
95th percentile per-packet one-way delay: 64.828 ms
Loss rate: 5.46%
-- Flow 1:
Average throughput: 18.75 Mbit/s
95th percentile per-packet one-way delay: 64.828 ms
Loss rate: 5.46%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

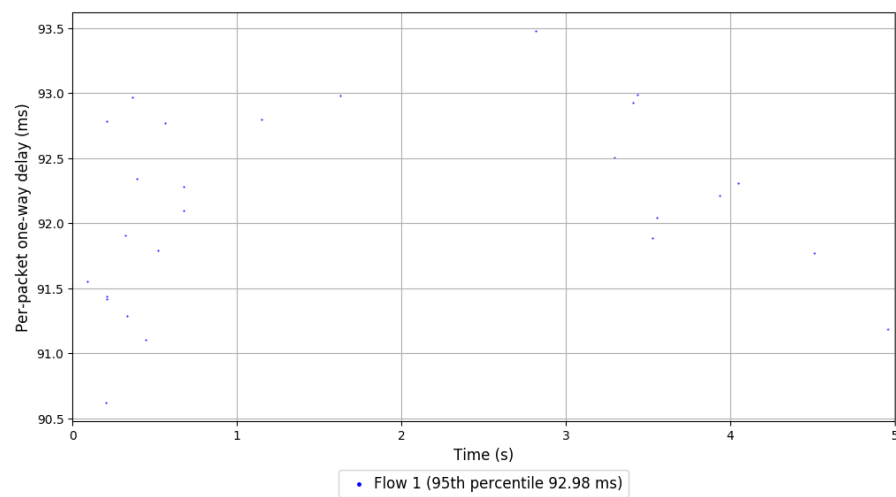
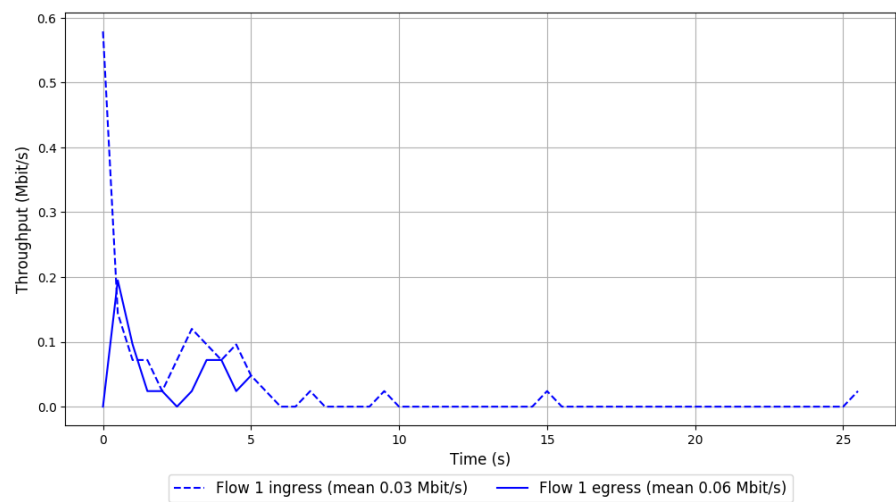
Start at: 2018-09-25 13:08:47

End at: 2018-09-25 13:09:17

Local clock offset: 5.942 ms

Remote clock offset: -5.484 ms

Run 3: Report of TCP Cubic — Data Link

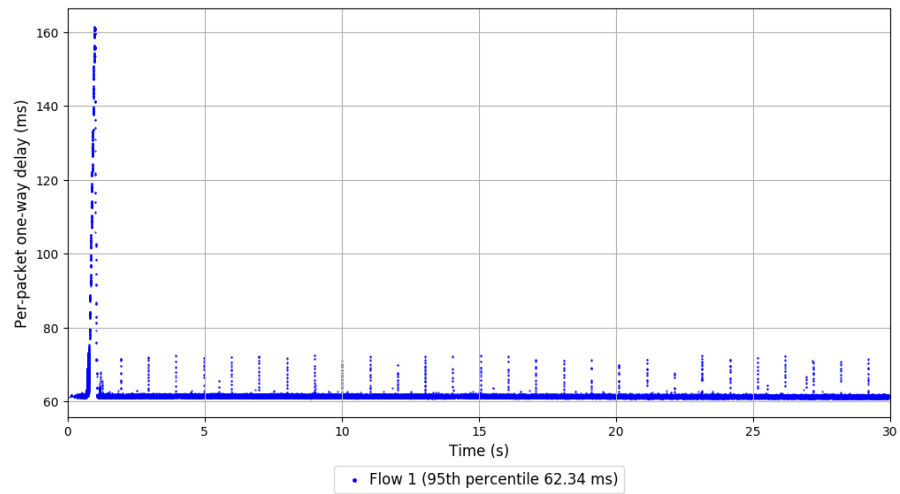
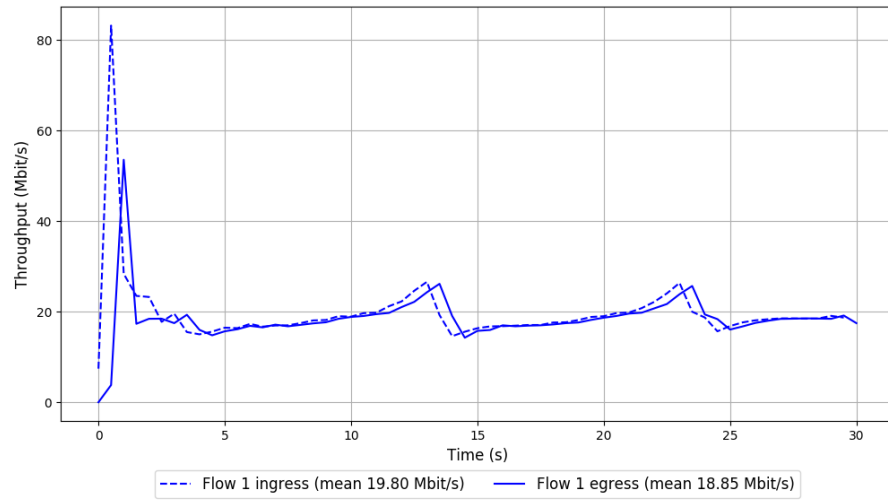


Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 13:36:08
End at: 2018-09-25 13:36:38
Local clock offset: 7.779 ms
Remote clock offset: -1.776 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.85 Mbit/s
95th percentile per-packet one-way delay: 62.340 ms
Loss rate: 5.09%
-- Flow 1:
Average throughput: 18.85 Mbit/s
95th percentile per-packet one-way delay: 62.340 ms
Loss rate: 5.09%

Run 4: Report of TCP Cubic — Data Link

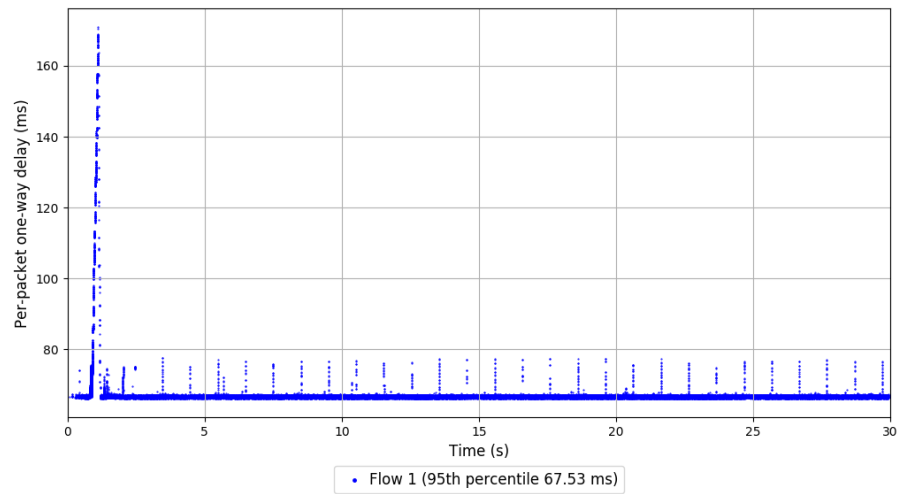
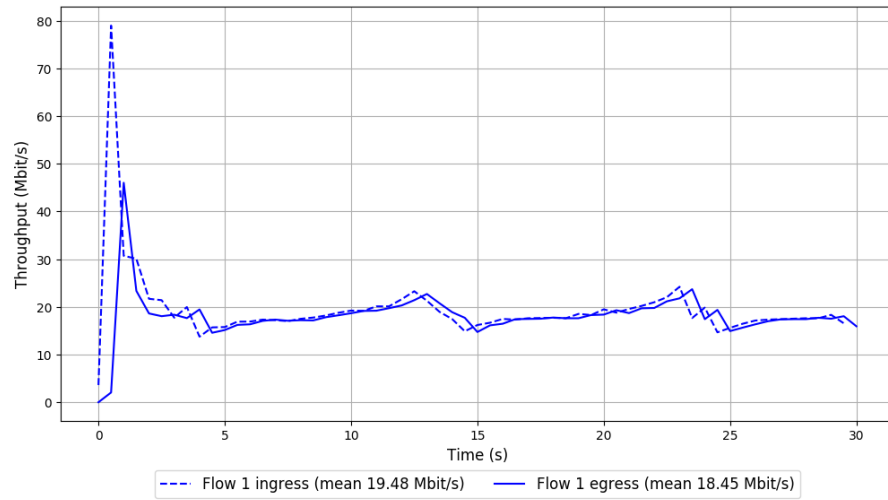


Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 14:00:33
End at: 2018-09-25 14:01:03
Local clock offset: -0.161 ms
Remote clock offset: -12.686 ms

Below is generated by plot.py at 2018-09-25 14:16:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.45 Mbit/s
95th percentile per-packet one-way delay: 67.535 ms
Loss rate: 5.59%
-- Flow 1:
Average throughput: 18.45 Mbit/s
95th percentile per-packet one-way delay: 67.535 ms
Loss rate: 5.59%

Run 5: Report of TCP Cubic — Data Link

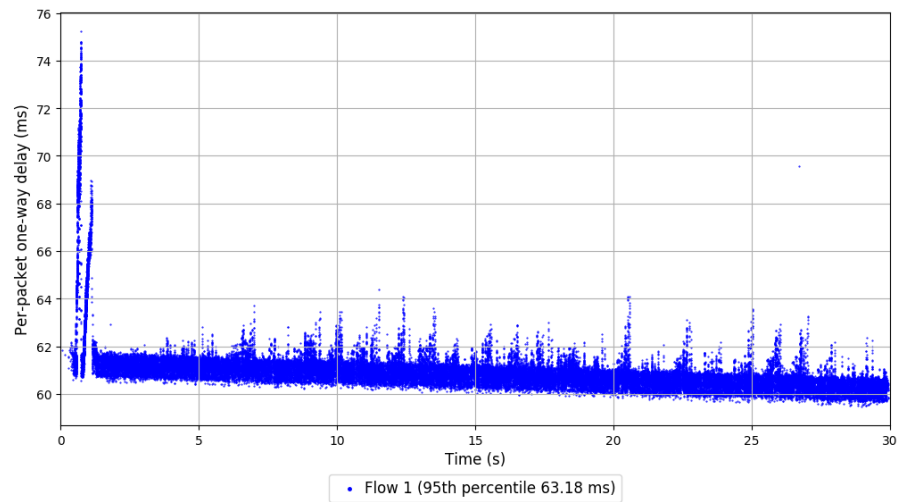
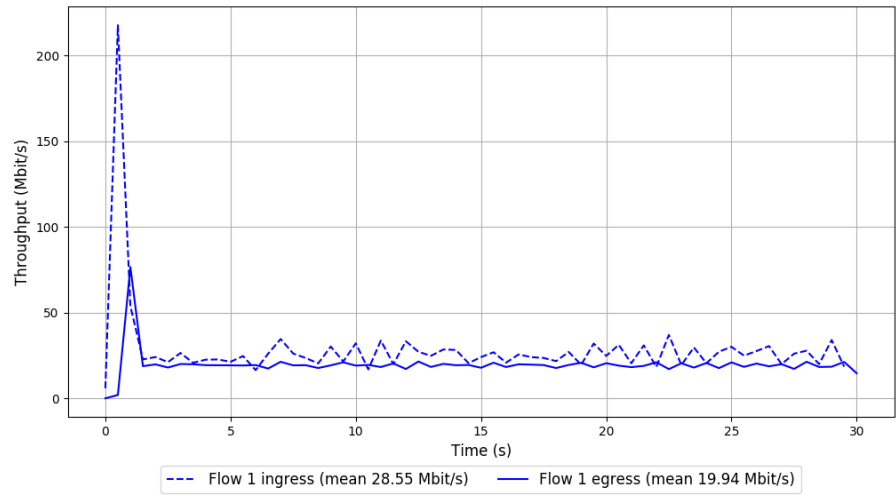


Run 1: Statistics of FillP

Start at: 2018-09-25 12:30:25
End at: 2018-09-25 12:30:55
Local clock offset: 5.696 ms
Remote clock offset: 14.612 ms

Below is generated by plot.py at 2018-09-25 14:16:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 63.177 ms
Loss rate: 30.37%
-- Flow 1:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 63.177 ms
Loss rate: 30.37%

Run 1: Report of FillP — Data Link

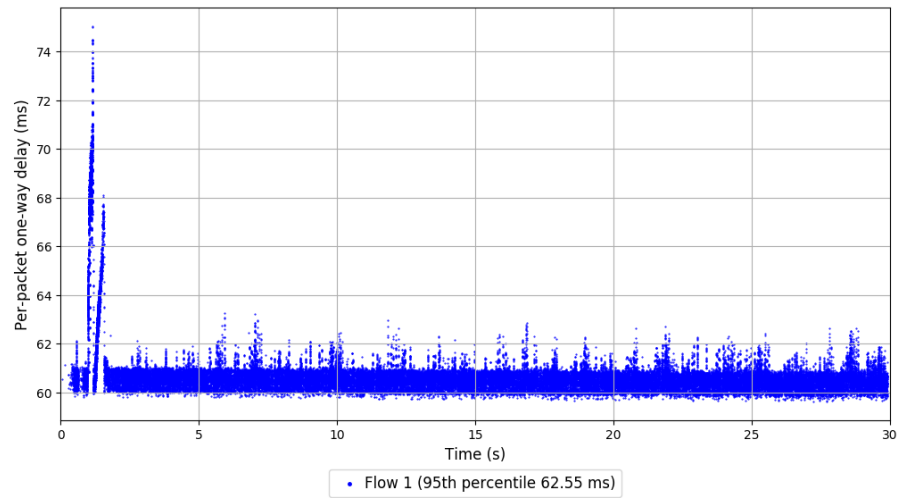
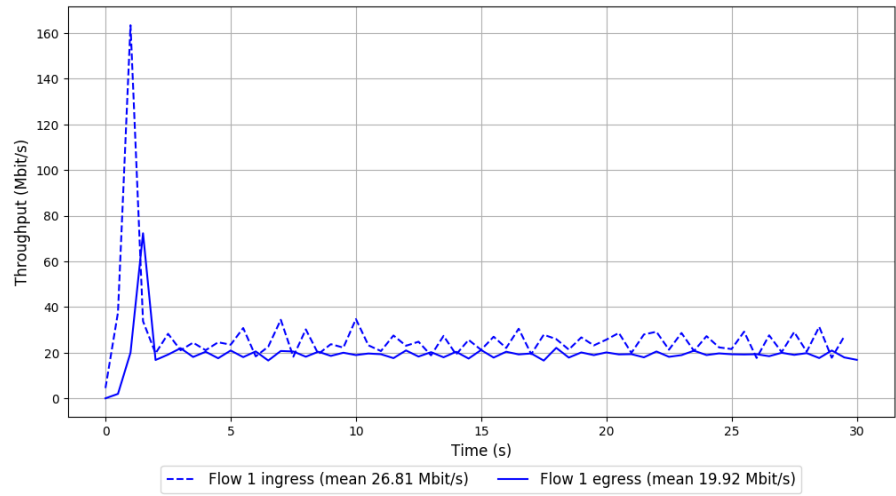


Run 2: Statistics of FillP

Start at: 2018-09-25 12:53:25
End at: 2018-09-25 12:53:55
Local clock offset: 5.909 ms
Remote clock offset: -5.946 ms

Below is generated by plot.py at 2018-09-25 14:16:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.92 Mbit/s
95th percentile per-packet one-way delay: 62.553 ms
Loss rate: 25.92%
-- Flow 1:
Average throughput: 19.92 Mbit/s
95th percentile per-packet one-way delay: 62.553 ms
Loss rate: 25.92%

Run 2: Report of FillP — Data Link

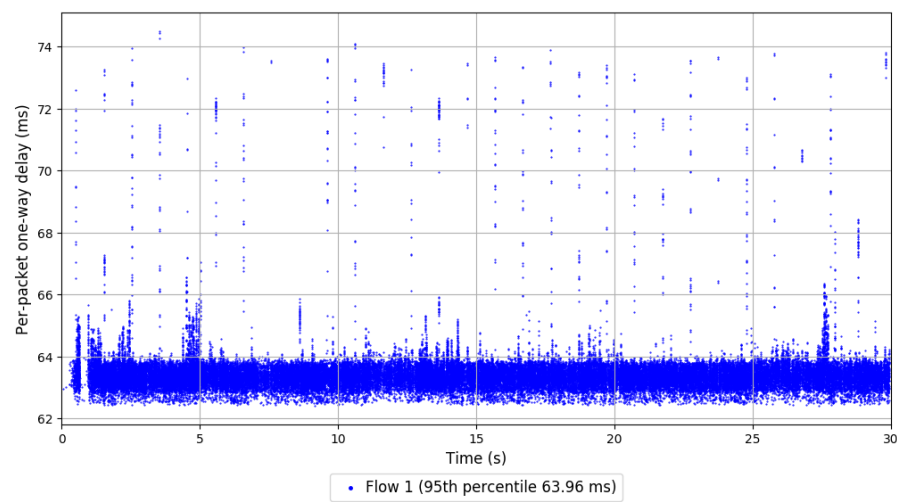
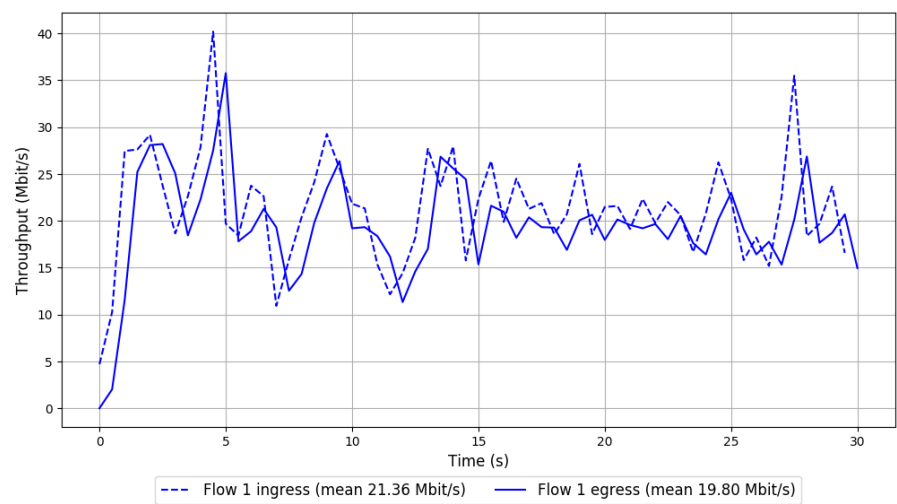


Run 3: Statistics of FillP

Start at: 2018-09-25 13:16:48
End at: 2018-09-25 13:17:18
Local clock offset: 6.66 ms
Remote clock offset: -3.431 ms

Below is generated by plot.py at 2018-09-25 14:16:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 63.960 ms
Loss rate: 7.55%
-- Flow 1:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 63.960 ms
Loss rate: 7.55%

Run 3: Report of FillP — Data Link

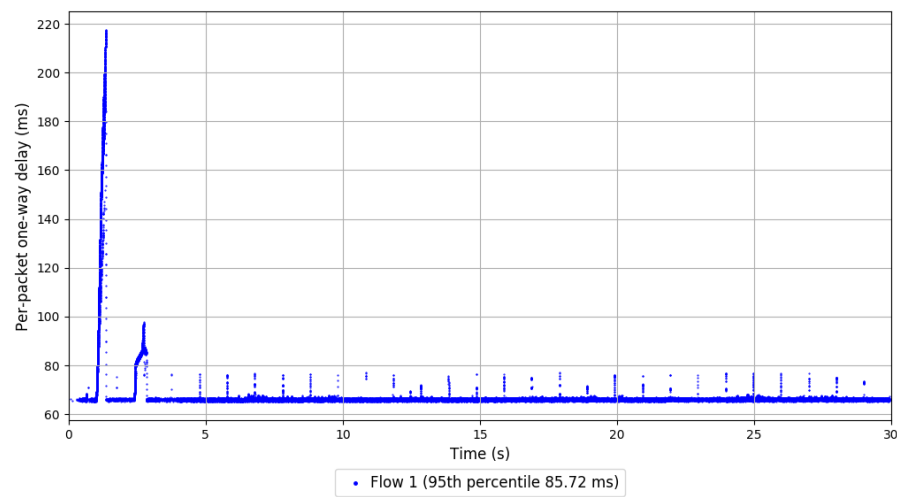
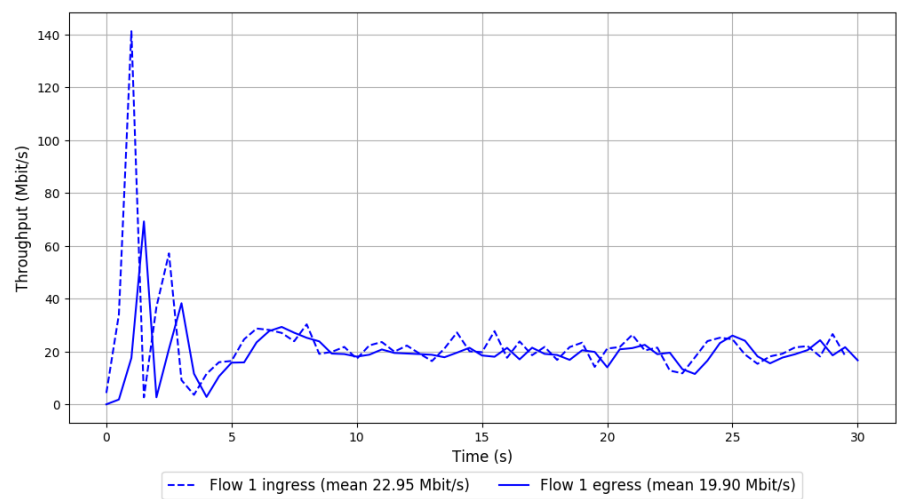


Run 4: Statistics of FillP

Start at: 2018-09-25 13:43:23
End at: 2018-09-25 13:43:53
Local clock offset: 5.032 ms
Remote clock offset: -8.605 ms

Below is generated by plot.py at 2018-09-25 14:16:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 85.719 ms
Loss rate: 13.52%
-- Flow 1:
Average throughput: 19.90 Mbit/s
95th percentile per-packet one-way delay: 85.719 ms
Loss rate: 13.52%

Run 4: Report of FillP — Data Link

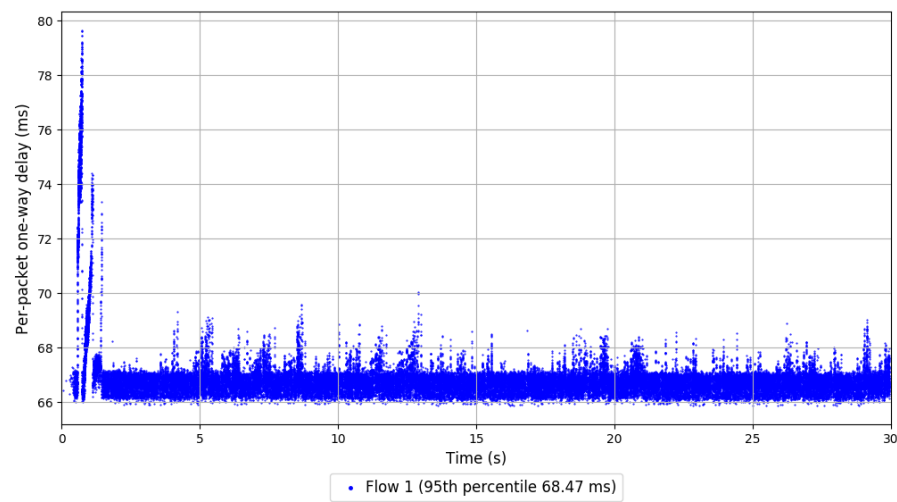
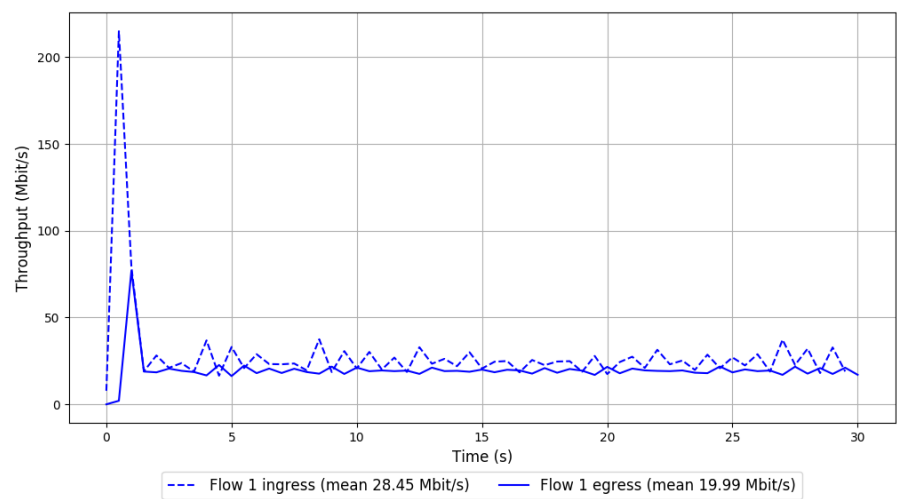


Run 5: Statistics of FillP

Start at: 2018-09-25 14:07:29
End at: 2018-09-25 14:07:59
Local clock offset: -0.809 ms
Remote clock offset: -14.602 ms

Below is generated by plot.py at 2018-09-25 14:16:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.99 Mbit/s
95th percentile per-packet one-way delay: 68.471 ms
Loss rate: 29.93%
-- Flow 1:
Average throughput: 19.99 Mbit/s
95th percentile per-packet one-way delay: 68.471 ms
Loss rate: 29.93%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 12:17:27

End at: 2018-09-25 12:17:57

Local clock offset: 5.067 ms

Remote clock offset: 23.041 ms

Below is generated by plot.py at 2018-09-25 14:16:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.71 Mbit/s

95th percentile per-packet one-way delay: 67.421 ms

Loss rate: 28.78%

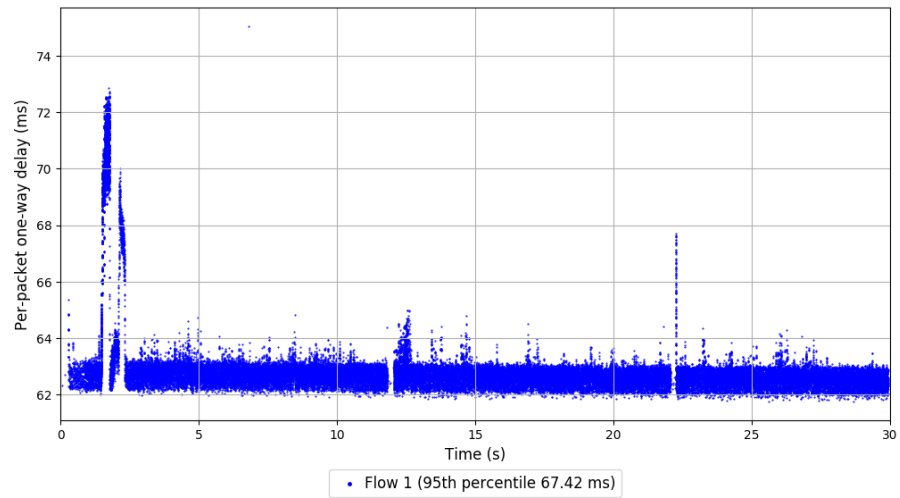
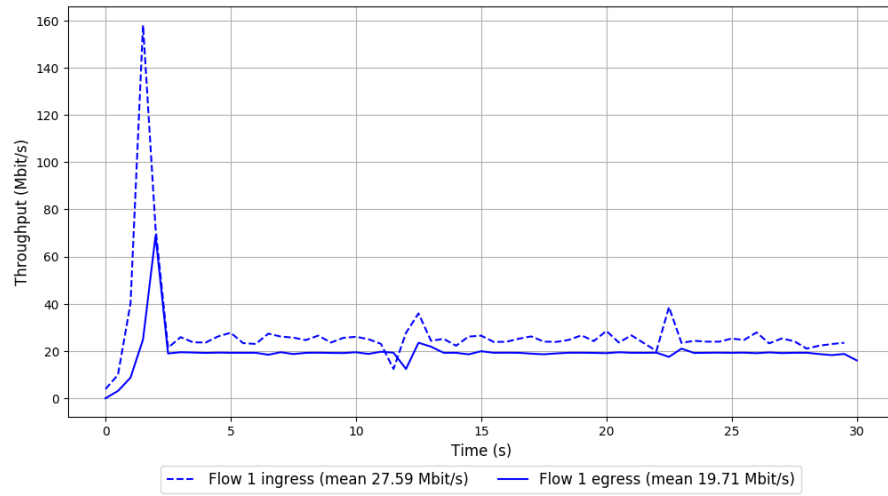
-- Flow 1:

Average throughput: 19.71 Mbit/s

95th percentile per-packet one-way delay: 67.421 ms

Loss rate: 28.78%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 12:40:30

End at: 2018-09-25 12:41:00

Local clock offset: 6.039 ms

Remote clock offset: 0.228 ms

Below is generated by plot.py at 2018-09-25 14:16:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.04 Mbit/s

95th percentile per-packet one-way delay: 100.875 ms

Loss rate: 24.64%

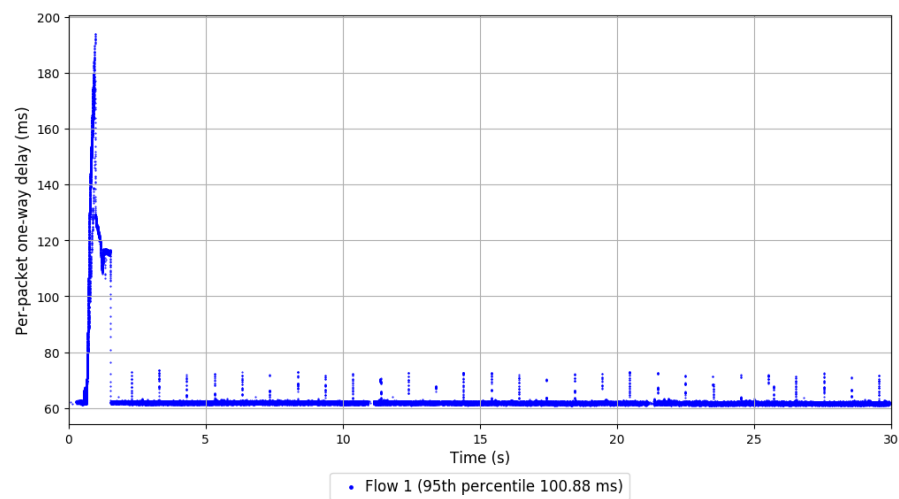
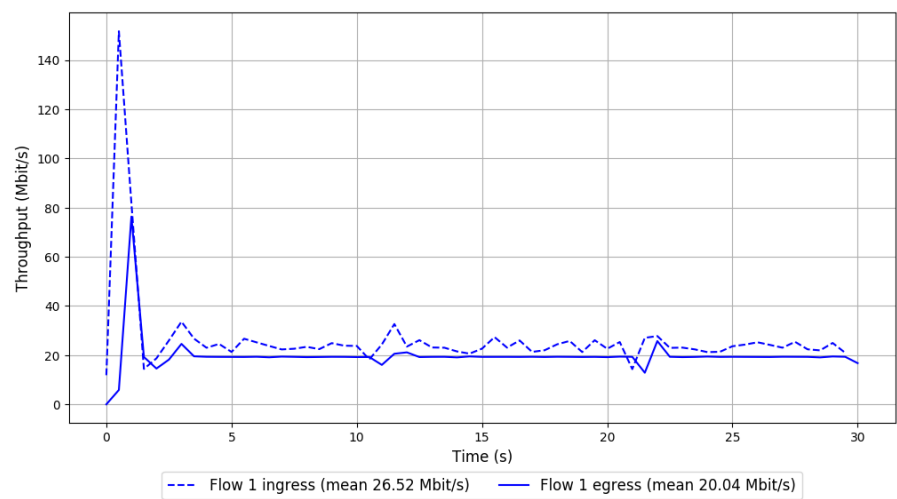
-- Flow 1:

Average throughput: 20.04 Mbit/s

95th percentile per-packet one-way delay: 100.875 ms

Loss rate: 24.64%

Run 2: Report of FillP-Sheep — Data Link

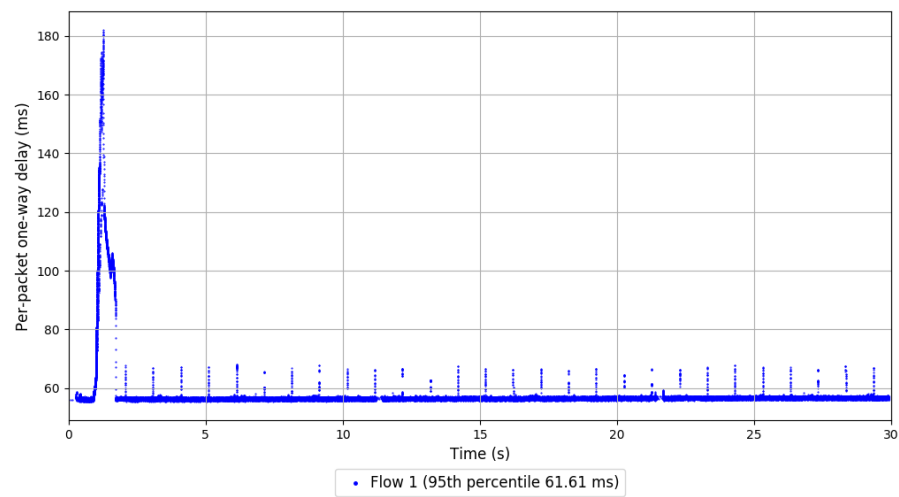
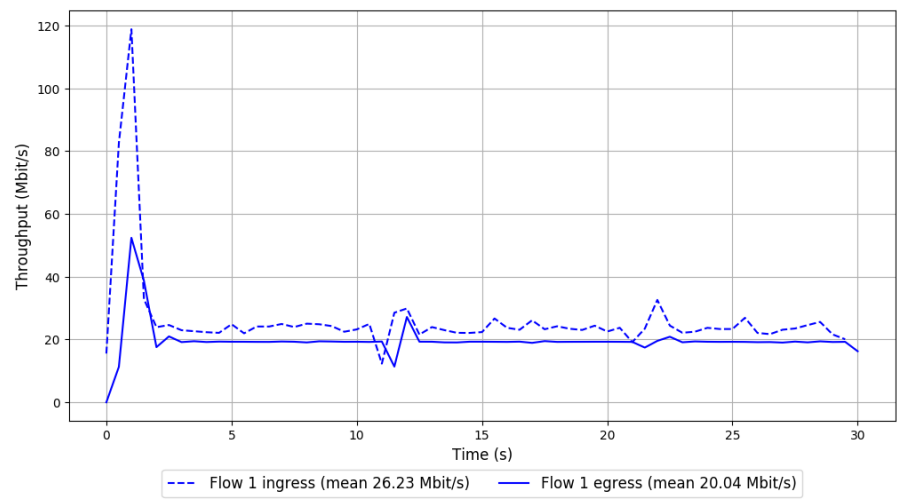


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 13:02:53
End at: 2018-09-25 13:03:23
Local clock offset: 5.815 ms
Remote clock offset: -2.804 ms

Below is generated by plot.py at 2018-09-25 14:16:44
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 61.612 ms
Loss rate: 23.81%
-- Flow 1:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 61.612 ms
Loss rate: 23.81%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 13:28:36

End at: 2018-09-25 13:29:06

Local clock offset: 7.475 ms

Remote clock offset: 1.29 ms

Below is generated by plot.py at 2018-09-25 14:16:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.61 Mbit/s

95th percentile per-packet one-way delay: 89.449 ms

Loss rate: 37.82%

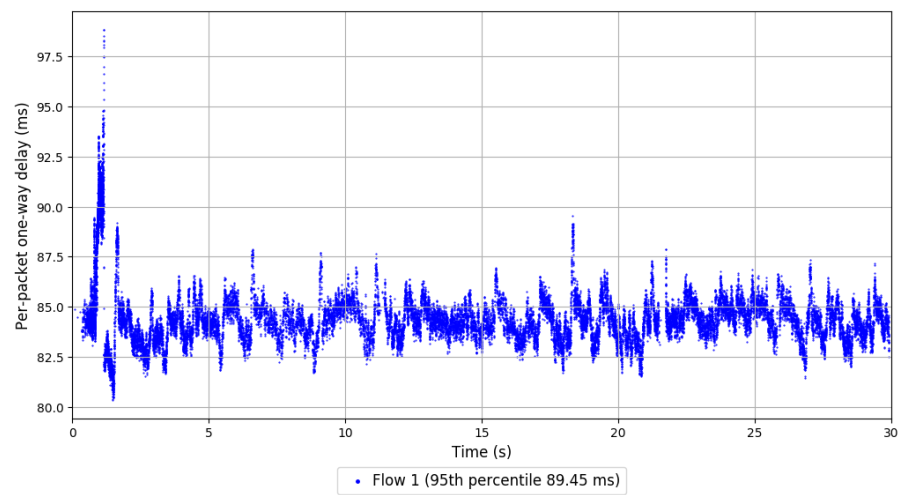
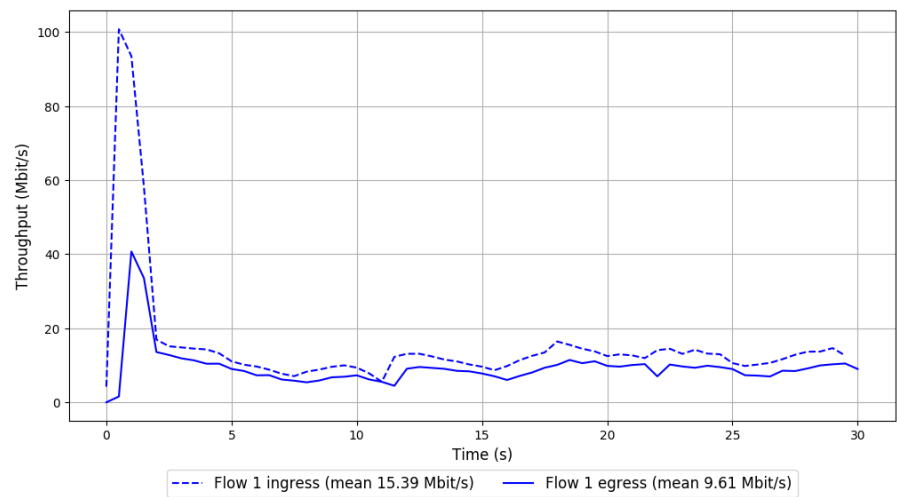
-- Flow 1:

Average throughput: 9.61 Mbit/s

95th percentile per-packet one-way delay: 89.449 ms

Loss rate: 37.82%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 13:54:38

End at: 2018-09-25 13:55:08

Local clock offset: 0.821 ms

Remote clock offset: -11.697 ms

Below is generated by plot.py at 2018-09-25 14:16:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.00 Mbit/s

95th percentile per-packet one-way delay: 68.480 ms

Loss rate: 28.97%

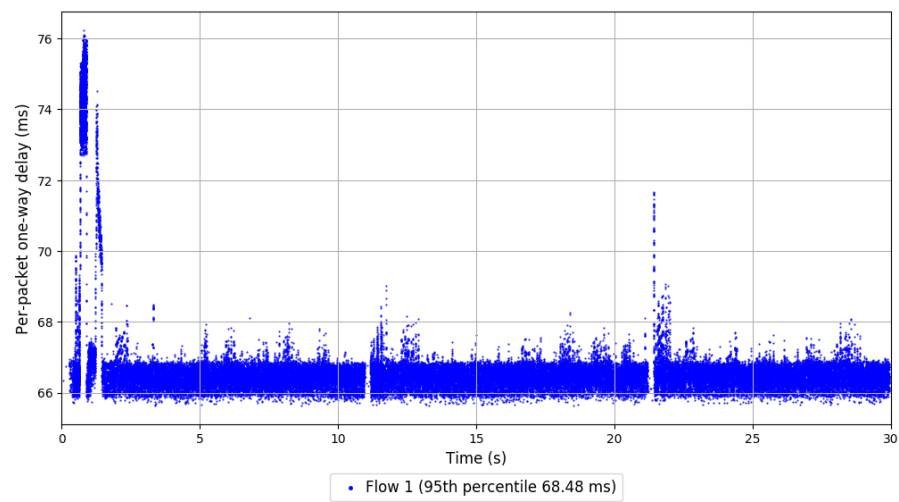
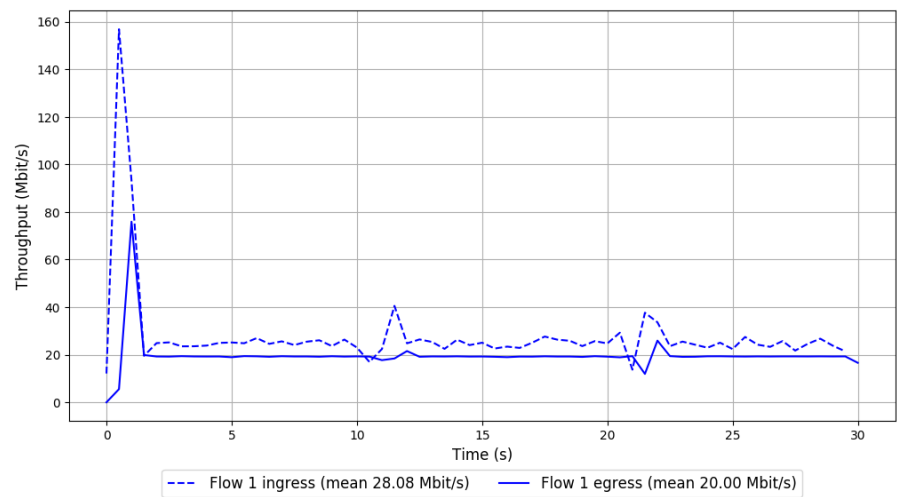
-- Flow 1:

Average throughput: 20.00 Mbit/s

95th percentile per-packet one-way delay: 68.480 ms

Loss rate: 28.97%

Run 5: Report of FillP-Sheep — Data Link

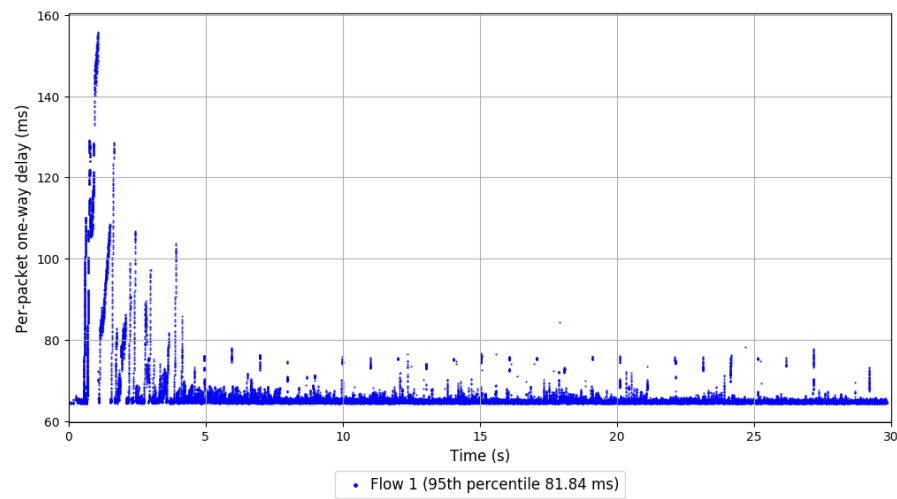
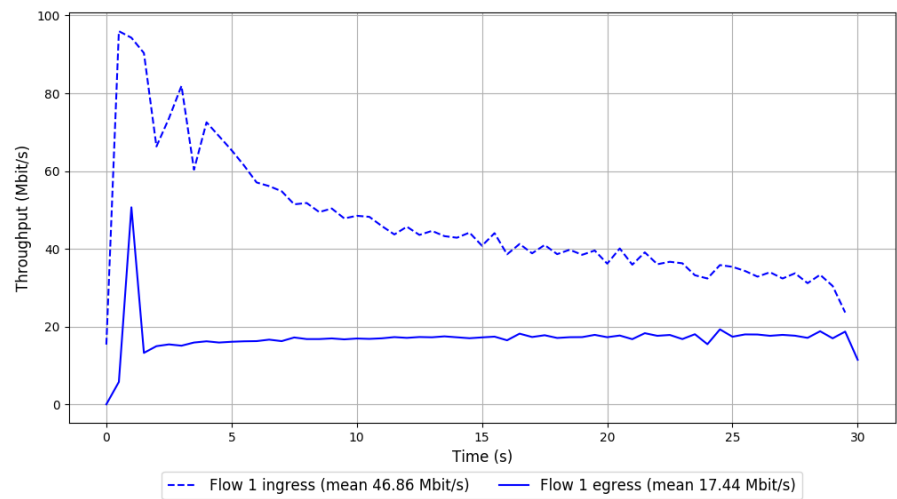


```
Run 1: Statistics of Indigo

Start at: 2018-09-25 12:25:45
End at: 2018-09-25 12:26:15
Local clock offset: 5.417 ms
Remote clock offset: 20.221 ms

# Below is generated by plot.py at 2018-09-25 14:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.44 Mbit/s
95th percentile per-packet one-way delay: 81.844 ms
Loss rate: 62.90%
-- Flow 1:
Average throughput: 17.44 Mbit/s
95th percentile per-packet one-way delay: 81.844 ms
Loss rate: 62.90%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-09-25 12:48:47

End at: 2018-09-25 12:49:17

Local clock offset: 5.783 ms

Remote clock offset: 0.007 ms

Below is generated by plot.py at 2018-09-25 14:16:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 17.15 Mbit/s

95th percentile per-packet one-way delay: 92.580 ms

Loss rate: 66.35%

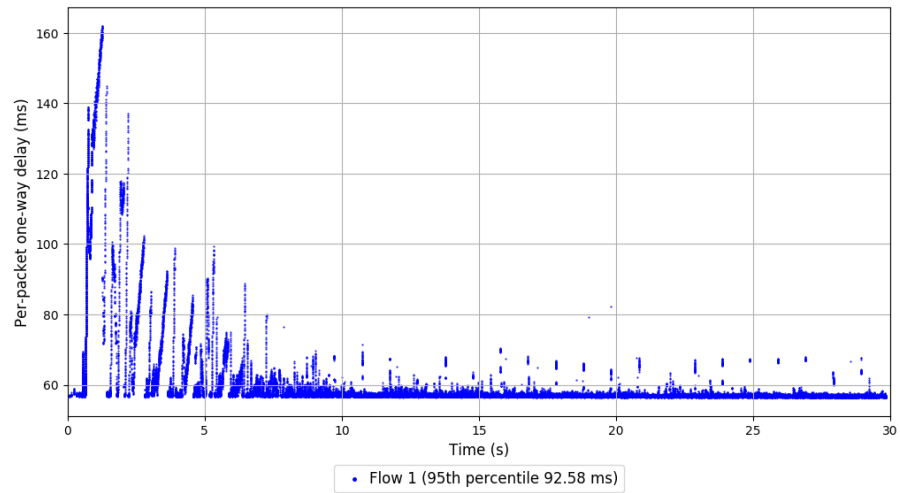
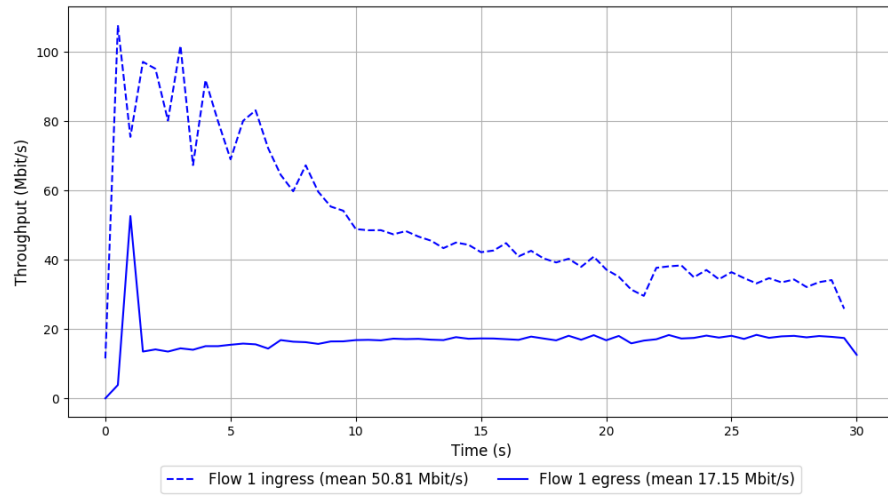
-- Flow 1:

Average throughput: 17.15 Mbit/s

95th percentile per-packet one-way delay: 92.580 ms

Loss rate: 66.35%

Run 2: Report of Indigo — Data Link

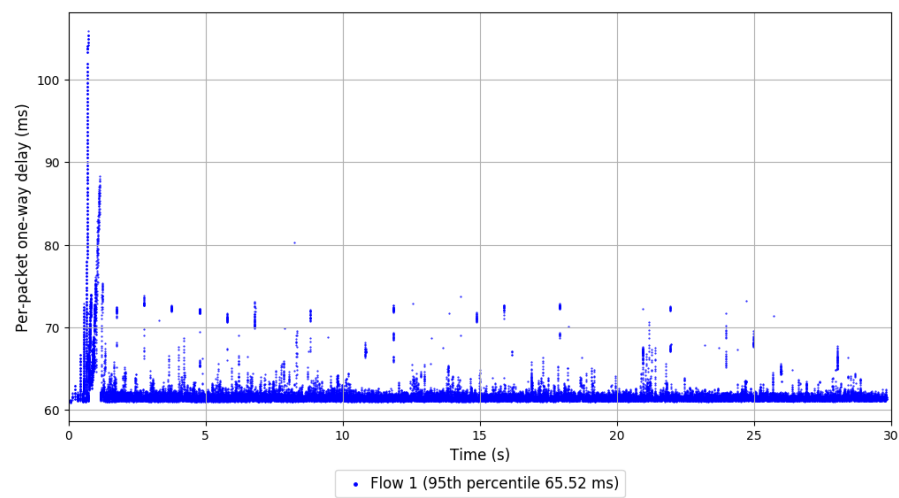
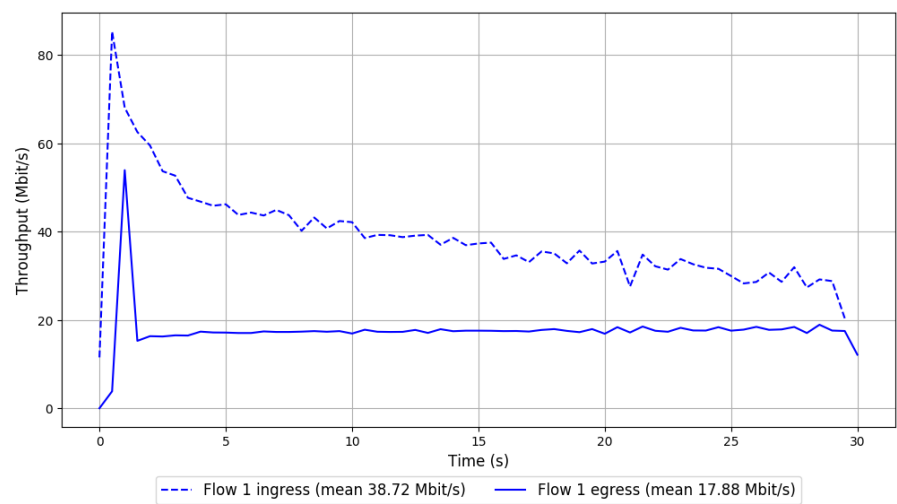


Run 3: Statistics of Indigo

Start at: 2018-09-25 13:11:44
End at: 2018-09-25 13:12:14
Local clock offset: 6.148 ms
Remote clock offset: -2.233 ms

Below is generated by plot.py at 2018-09-25 14:16:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.88 Mbit/s
95th percentile per-packet one-way delay: 65.520 ms
Loss rate: 53.96%
-- Flow 1:
Average throughput: 17.88 Mbit/s
95th percentile per-packet one-way delay: 65.520 ms
Loss rate: 53.96%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-09-25 13:38:30

End at: 2018-09-25 13:39:00

Local clock offset: 7.849 ms

Remote clock offset: -3.879 ms

Below is generated by plot.py at 2018-09-25 14:16:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 17.58 Mbit/s

95th percentile per-packet one-way delay: 73.662 ms

Loss rate: 61.28%

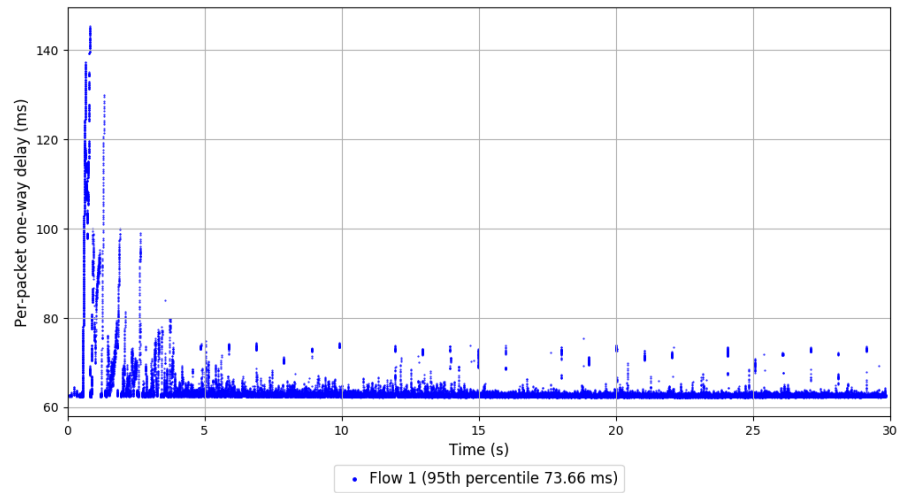
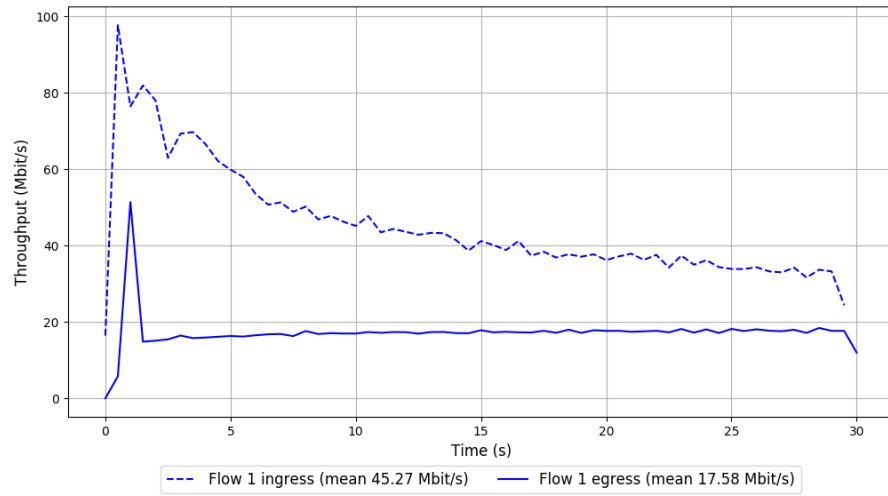
-- Flow 1:

Average throughput: 17.58 Mbit/s

95th percentile per-packet one-way delay: 73.662 ms

Loss rate: 61.28%

Run 4: Report of Indigo — Data Link

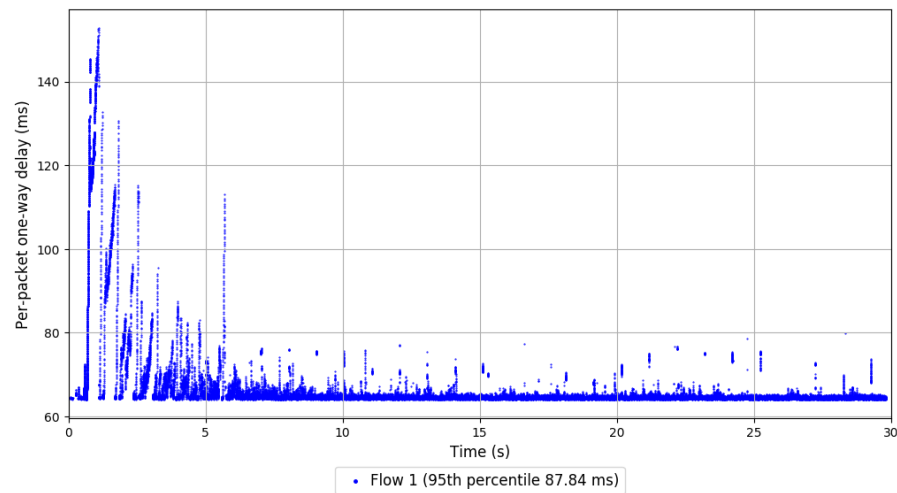
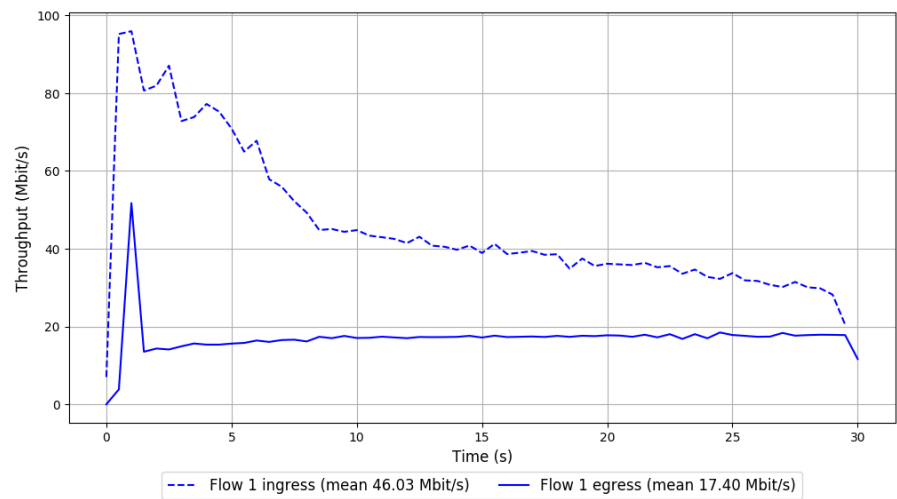


Run 5: Statistics of Indigo

Start at: 2018-09-25 14:02:53
End at: 2018-09-25 14:03:23
Local clock offset: -0.542 ms
Remote clock offset: -11.13 ms

Below is generated by plot.py at 2018-09-25 14:16:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.40 Mbit/s
95th percentile per-packet one-way delay: 87.843 ms
Loss rate: 62.31%
-- Flow 1:
Average throughput: 17.40 Mbit/s
95th percentile per-packet one-way delay: 87.843 ms
Loss rate: 62.31%

Run 5: Report of Indigo — Data Link

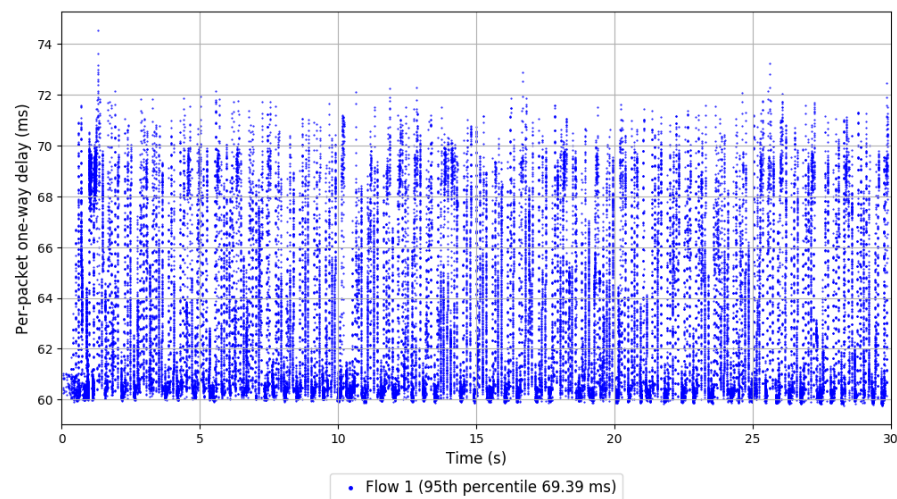
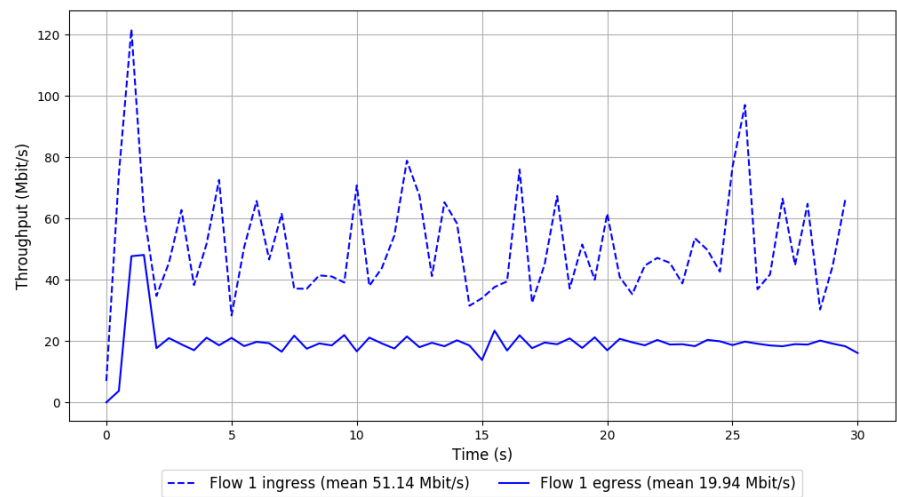


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 12:18:37
End at: 2018-09-25 12:19:07
Local clock offset: 5.167 ms
Remote clock offset: 25.009 ms

Below is generated by plot.py at 2018-09-25 14:17:03
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 69.390 ms
Loss rate: 61.13%
-- Flow 1:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 69.390 ms
Loss rate: 61.13%

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



Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 12:41:41

End at: 2018-09-25 12:42:11

Local clock offset: 5.87 ms

Remote clock offset: 0.331 ms

Below is generated by plot.py at 2018-09-25 14:17:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.97 Mbit/s

95th percentile per-packet one-way delay: 69.433 ms

Loss rate: 62.81%

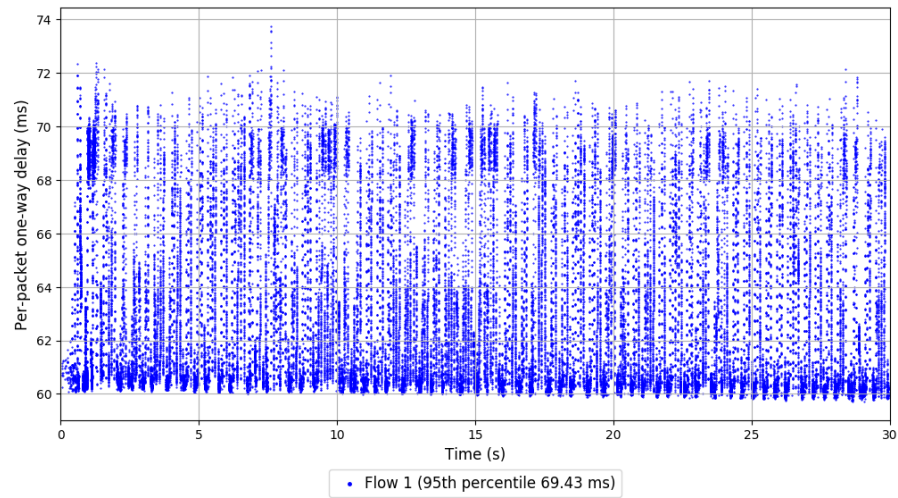
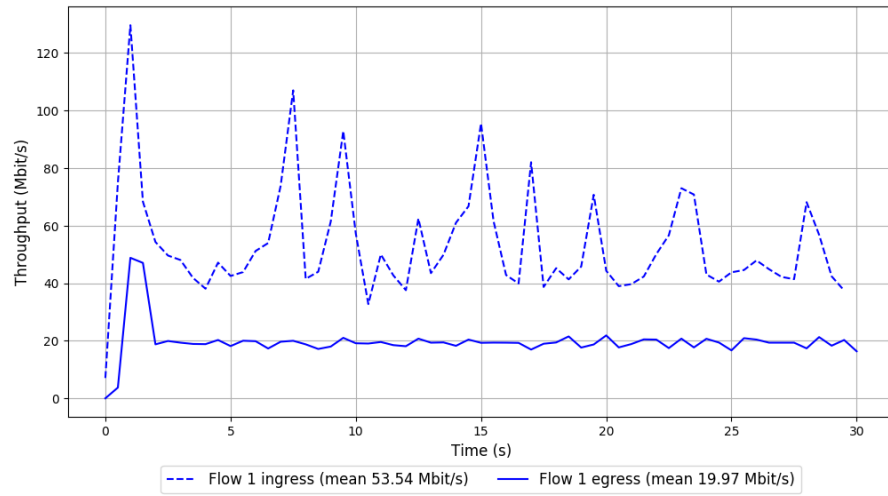
-- Flow 1:

Average throughput: 19.97 Mbit/s

95th percentile per-packet one-way delay: 69.433 ms

Loss rate: 62.81%

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



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-25 13:04:03

End at: 2018-09-25 13:04:33

Local clock offset: 5.74 ms

Remote clock offset: -7.269 ms

Below is generated by plot.py at 2018-09-25 14:17:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 178.671 ms

Loss rate: 58.05%

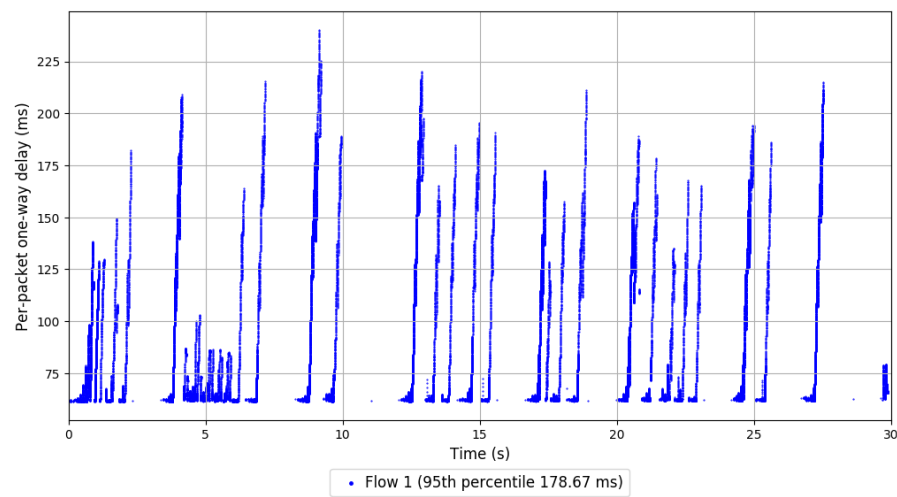
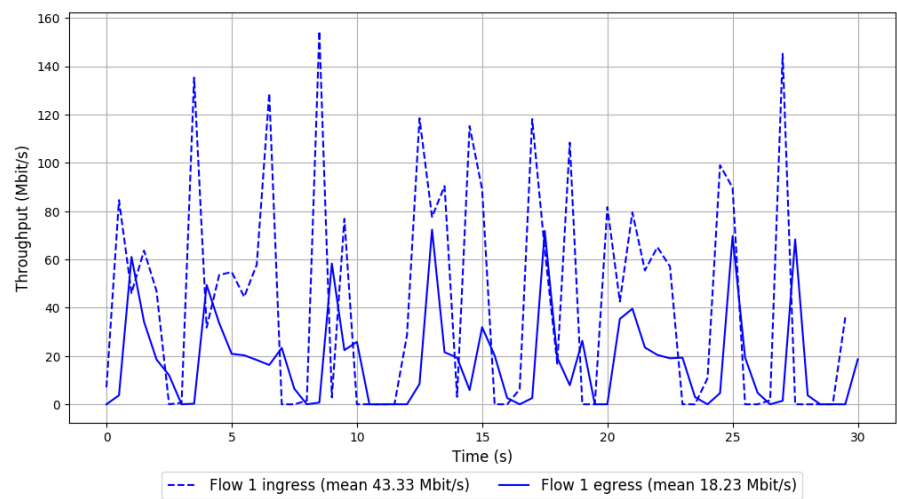
-- Flow 1:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 178.671 ms

Loss rate: 58.05%

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

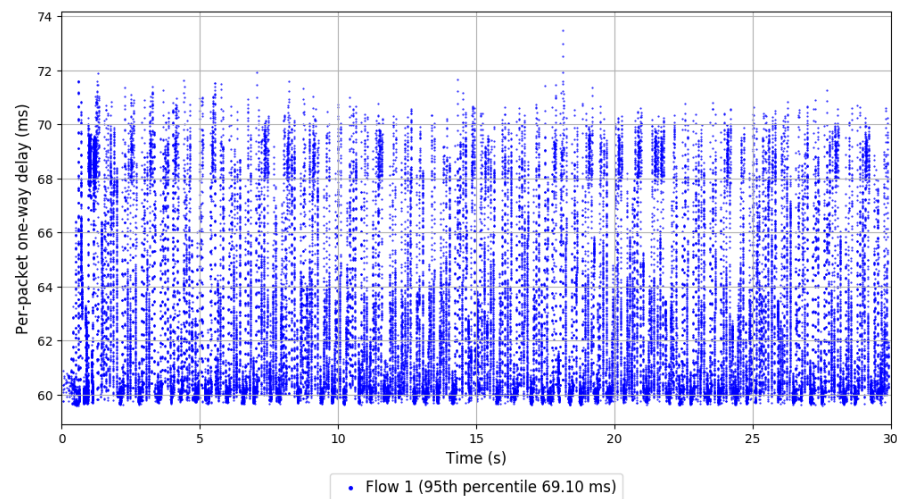
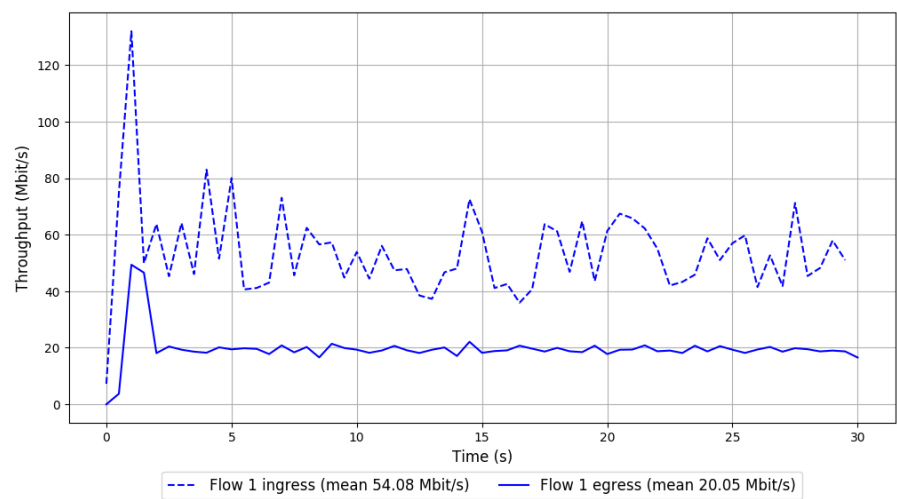


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 13:31:09
End at: 2018-09-25 13:31:39
Local clock offset: 7.501 ms
Remote clock offset: -0.406 ms

Below is generated by plot.py at 2018-09-25 14:17:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 69.102 ms
Loss rate: 63.04%
-- Flow 1:
Average throughput: 20.05 Mbit/s
95th percentile per-packet one-way delay: 69.102 ms
Loss rate: 63.04%

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

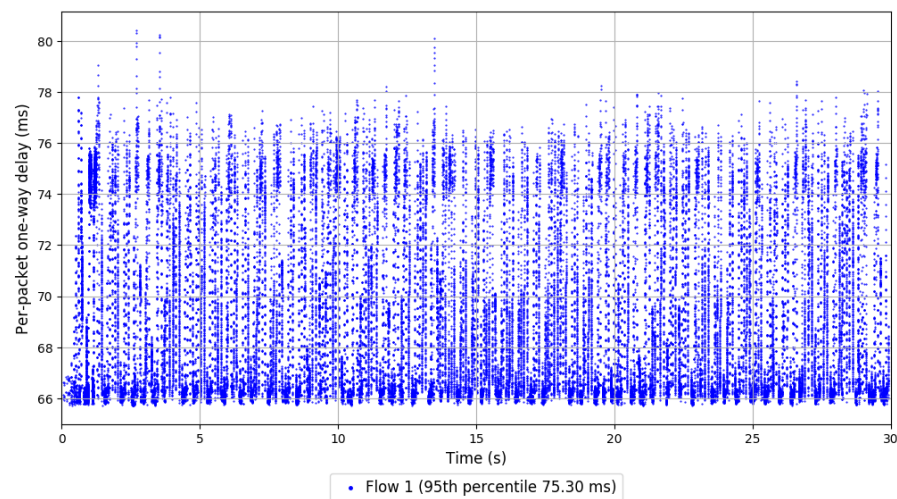
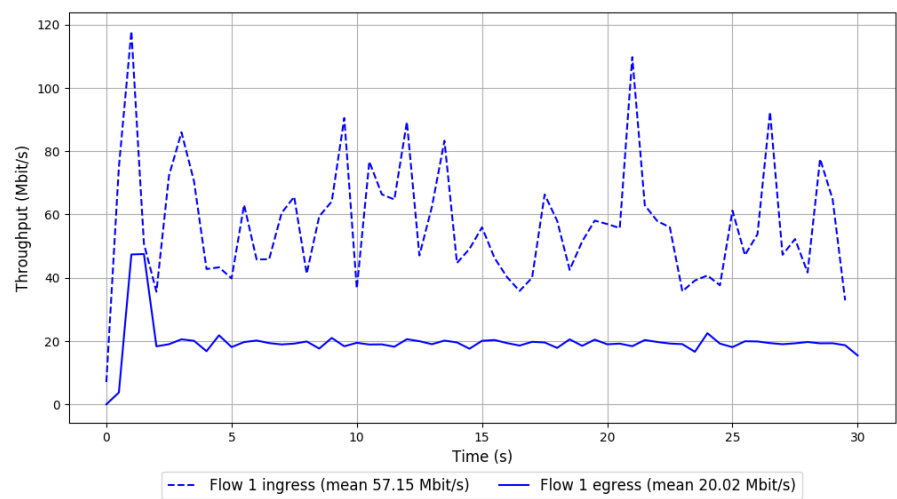


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 13:55:49
End at: 2018-09-25 13:56:19
Local clock offset: 0.809 ms
Remote clock offset: -11.134 ms

Below is generated by plot.py at 2018-09-25 14:17:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 75.297 ms
Loss rate: 65.00%
-- Flow 1:
Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 75.297 ms
Loss rate: 65.00%

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

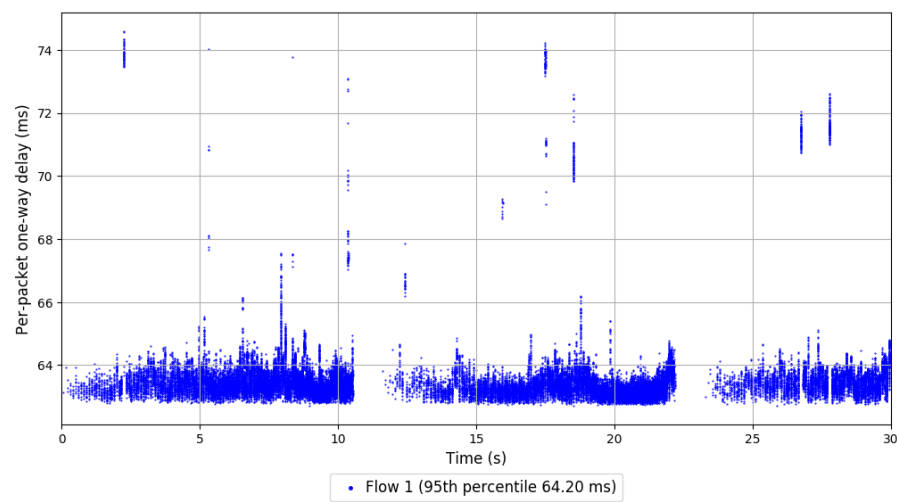
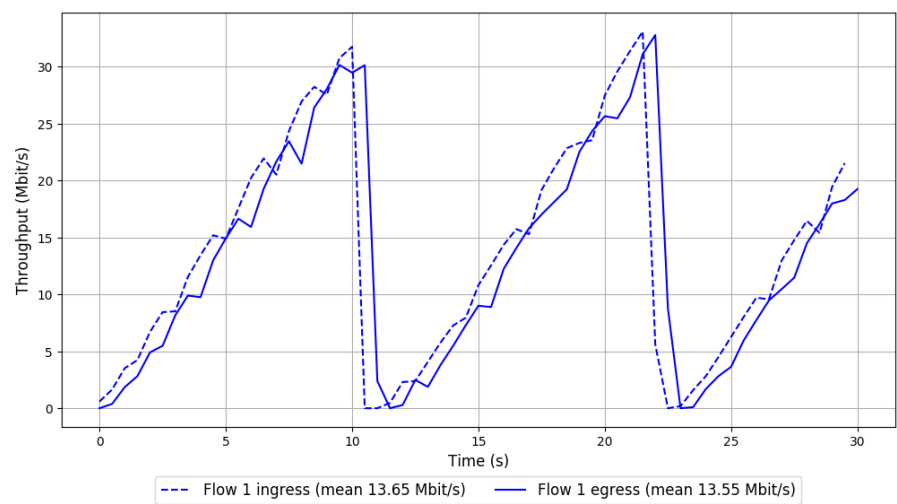


Run 1: Statistics of LEDBAT

Start at: 2018-09-25 12:22:07
End at: 2018-09-25 12:22:37
Local clock offset: 5.291 ms
Remote clock offset: 21.217 ms

Below is generated by plot.py at 2018-09-25 14:17:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.55 Mbit/s
95th percentile per-packet one-way delay: 64.205 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 13.55 Mbit/s
95th percentile per-packet one-way delay: 64.205 ms
Loss rate: 1.04%

Run 1: Report of LEDBAT — Data Link

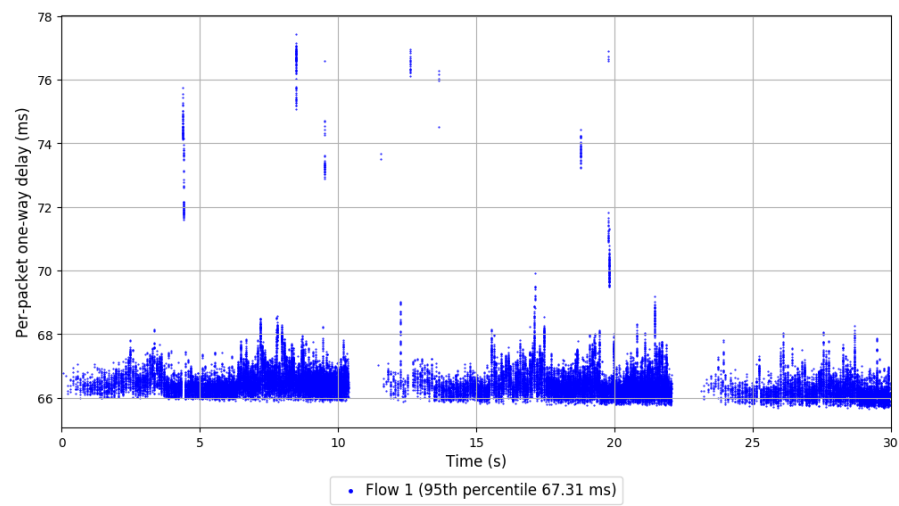
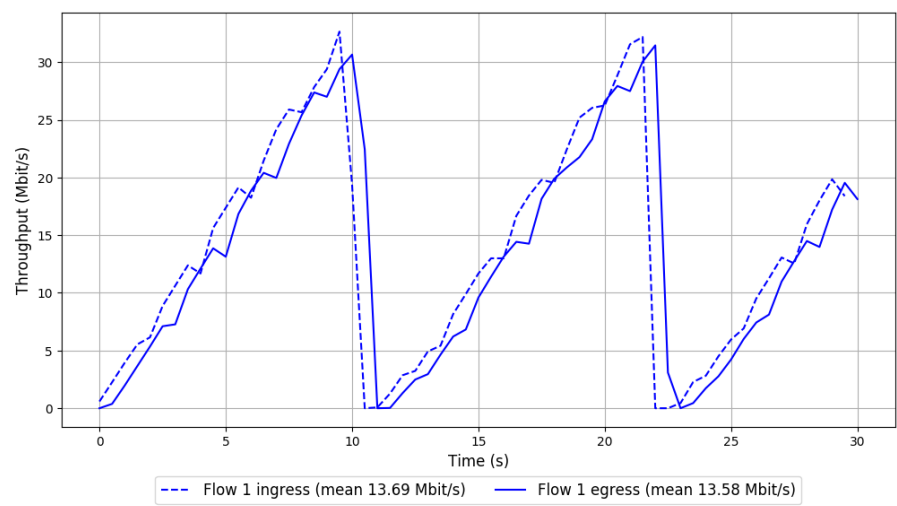


Run 2: Statistics of LEDBAT

Start at: 2018-09-25 12:45:13
End at: 2018-09-25 12:45:43
Local clock offset: 5.668 ms
Remote clock offset: -8.046 ms

Below is generated by plot.py at 2018-09-25 14:17:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 67.314 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 67.314 ms
Loss rate: 1.06%

Run 2: Report of LEDBAT — Data Link

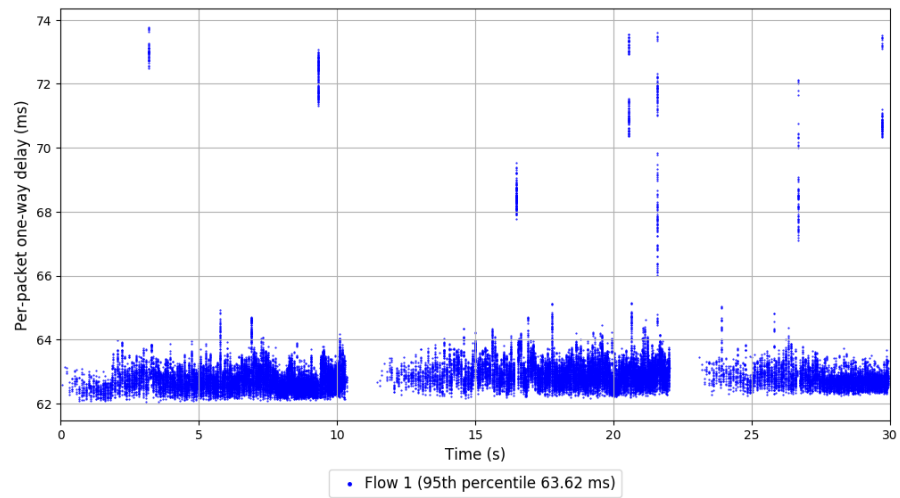
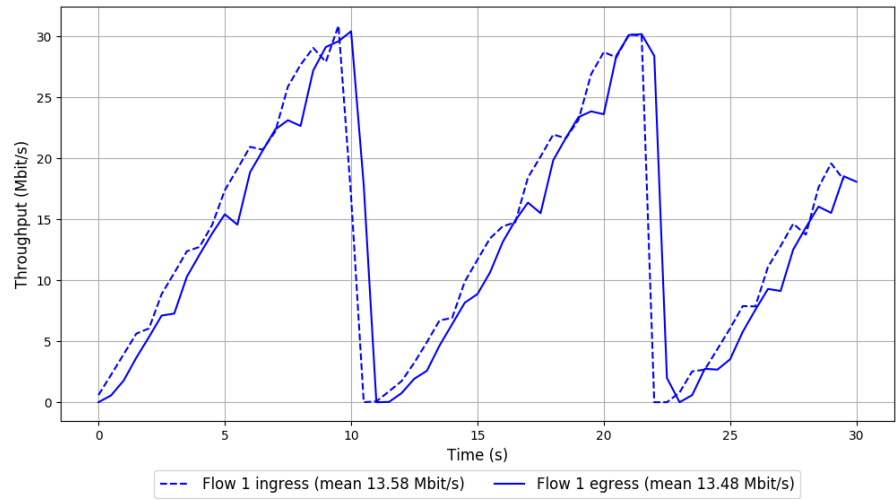


Run 3: Statistics of LEDBAT

Start at: 2018-09-25 13:07:35
End at: 2018-09-25 13:08:05
Local clock offset: 5.905 ms
Remote clock offset: -5.296 ms

Below is generated by plot.py at 2018-09-25 14:17:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.48 Mbit/s
95th percentile per-packet one-way delay: 63.616 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 13.48 Mbit/s
95th percentile per-packet one-way delay: 63.616 ms
Loss rate: 1.08%

Run 3: Report of LEDBAT — Data Link

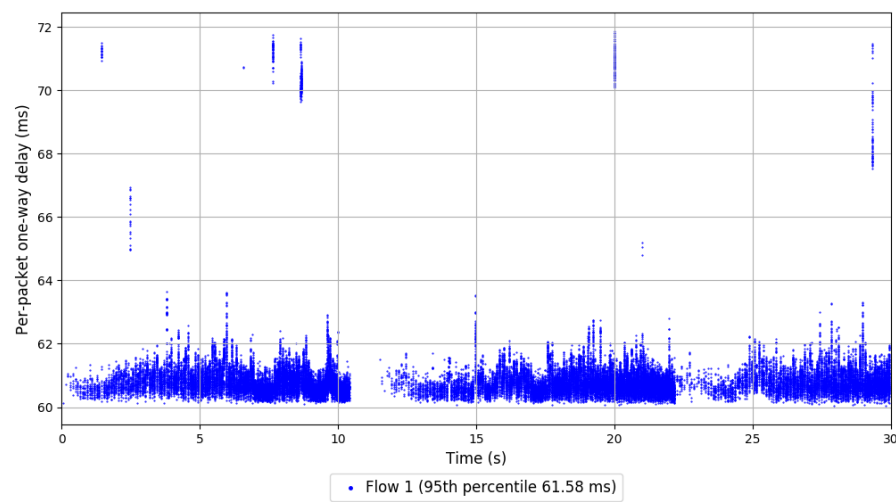
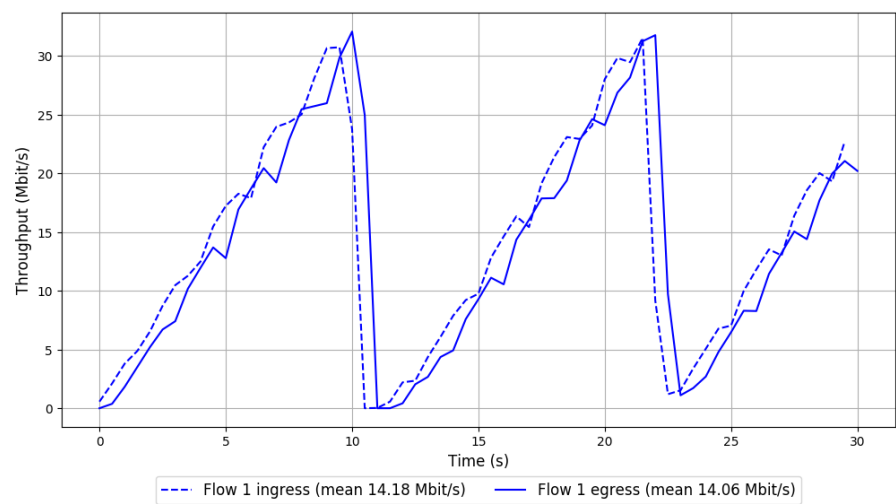


Run 4: Statistics of LEDBAT

Start at: 2018-09-25 13:34:53
End at: 2018-09-25 13:35:23
Local clock offset: 7.715 ms
Remote clock offset: -0.834 ms

Below is generated by plot.py at 2018-09-25 14:17:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 61.584 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 14.06 Mbit/s
95th percentile per-packet one-way delay: 61.584 ms
Loss rate: 1.07%

Run 4: Report of LEDBAT — Data Link

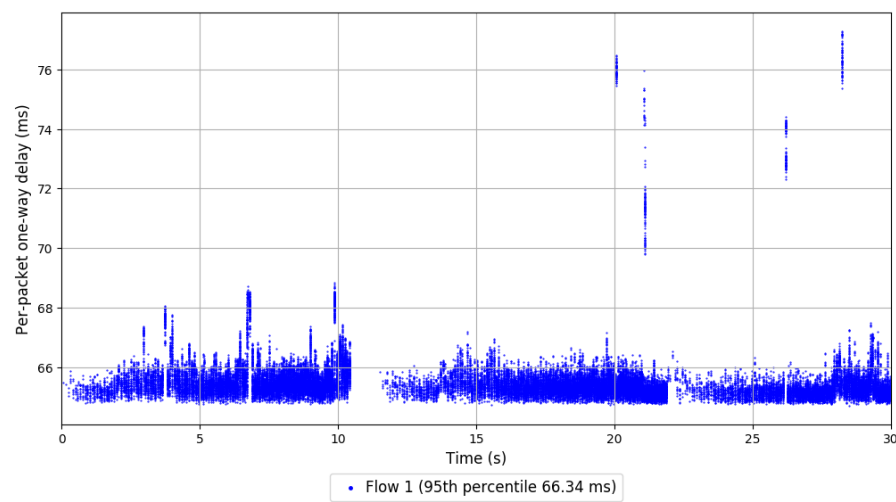
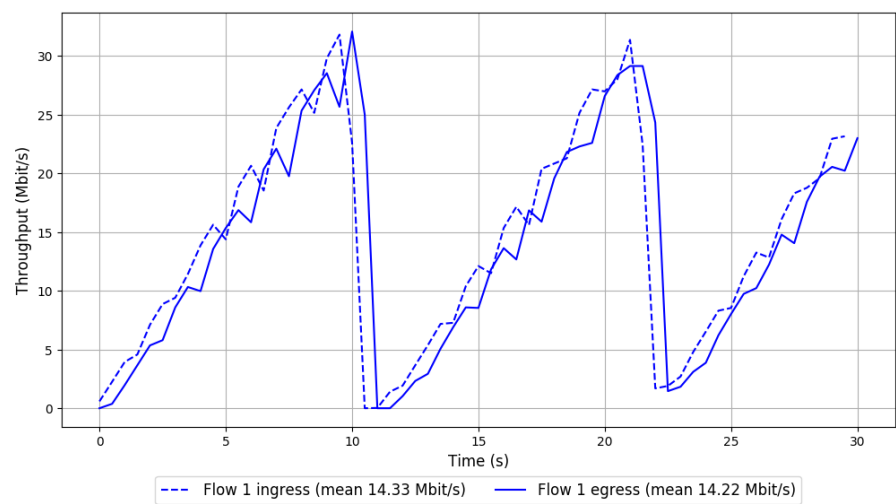


Run 5: Statistics of LEDBAT

Start at: 2018-09-25 13:59:22
End at: 2018-09-25 13:59:52
Local clock offset: -0.048 ms
Remote clock offset: -11.413 ms

Below is generated by plot.py at 2018-09-25 14:17:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 66.344 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 14.22 Mbit/s
95th percentile per-packet one-way delay: 66.344 ms
Loss rate: 1.05%

Run 5: Report of LEDBAT — Data Link

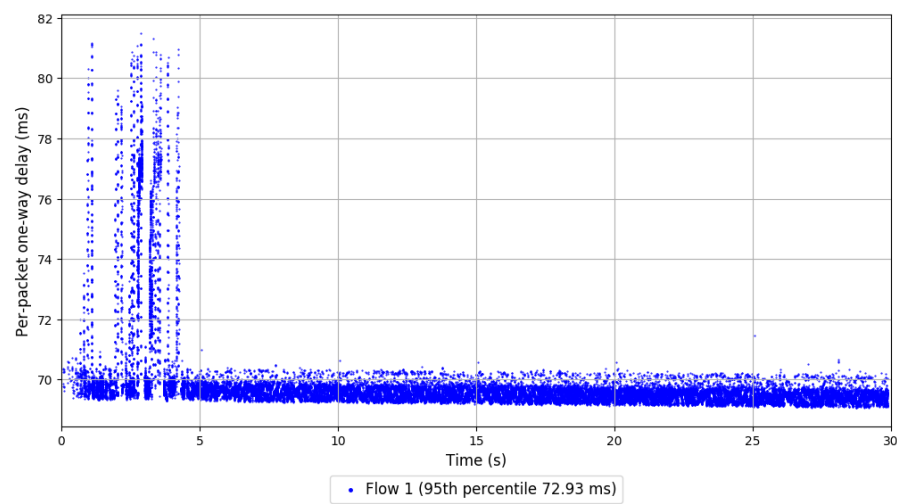
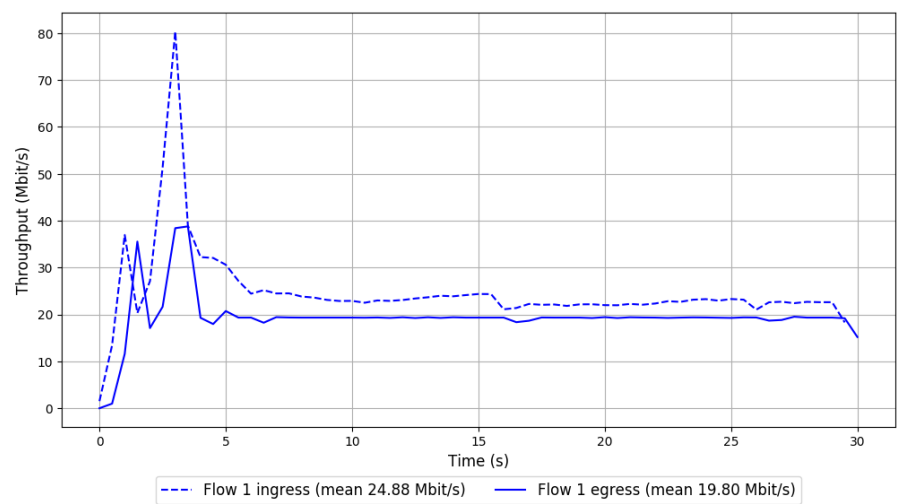


Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 12:16:17
End at: 2018-09-25 12:16:47
Local clock offset: 5.125 ms
Remote clock offset: 16.703 ms

Below is generated by plot.py at 2018-09-25 14:17:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 72.926 ms
Loss rate: 20.66%
-- Flow 1:
Average throughput: 19.80 Mbit/s
95th percentile per-packet one-way delay: 72.926 ms
Loss rate: 20.66%

Run 1: Report of Indigo-Muses — Data Link



Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 12:38:38

End at: 2018-09-25 12:39:08

Local clock offset: 5.855 ms

Remote clock offset: 0.537 ms

Below is generated by plot.py at 2018-09-25 14:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.02 Mbit/s

95th percentile per-packet one-way delay: 71.363 ms

Loss rate: 57.75%

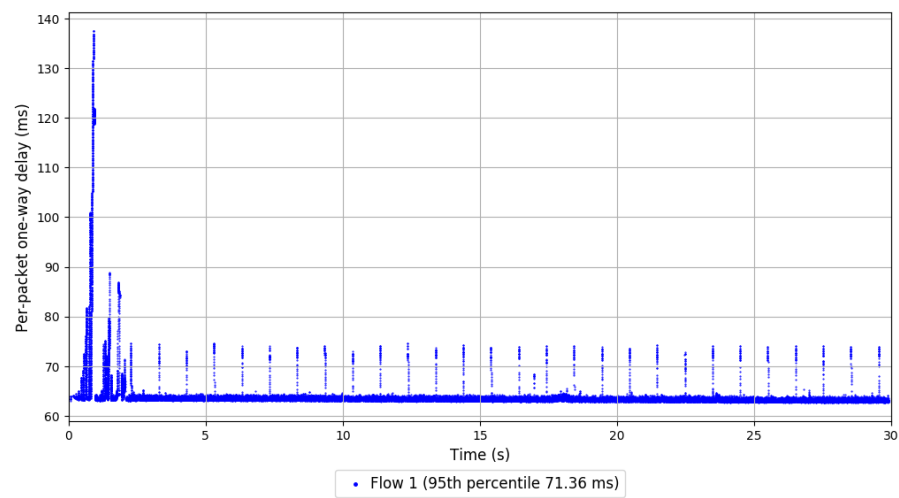
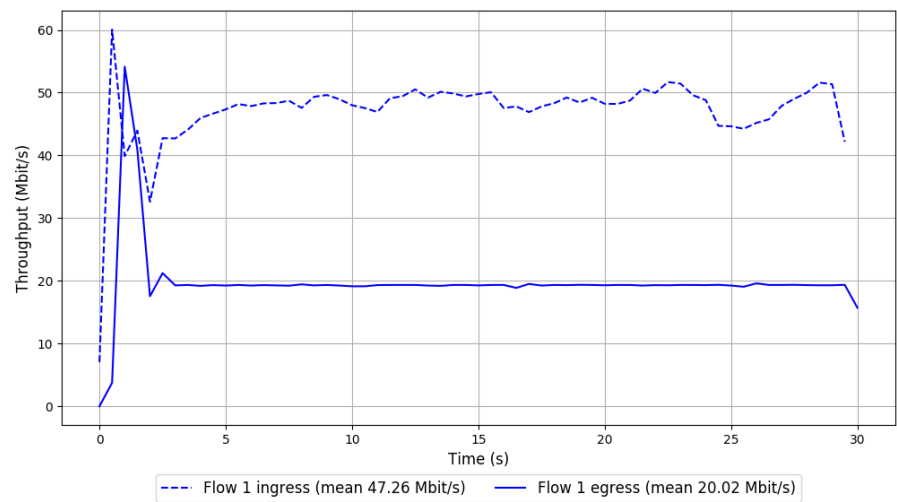
-- Flow 1:

Average throughput: 20.02 Mbit/s

95th percentile per-packet one-way delay: 71.363 ms

Loss rate: 57.75%

Run 2: Report of Indigo-Muses — Data Link

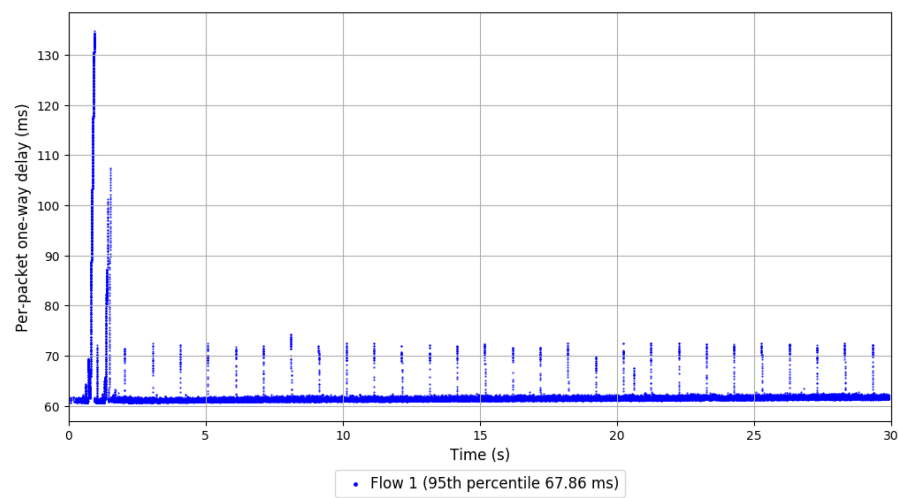
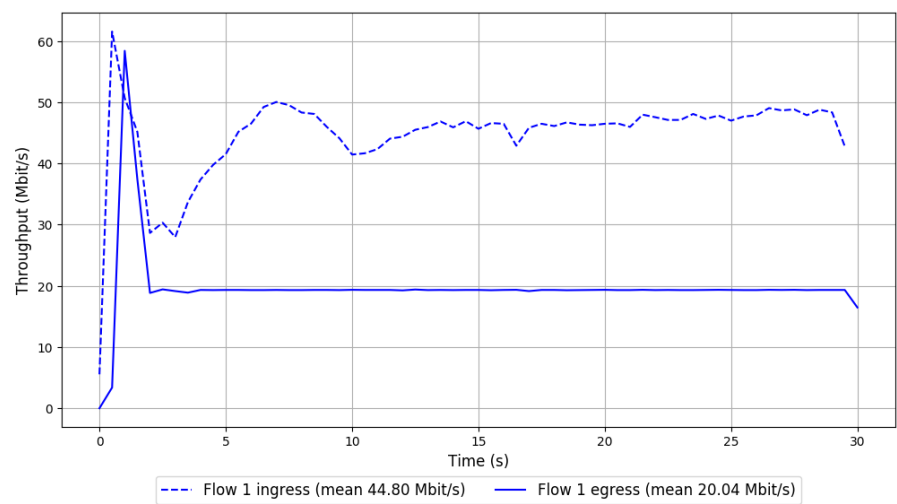


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 13:01:38
End at: 2018-09-25 13:02:08
Local clock offset: 5.794 ms
Remote clock offset: -9.162 ms

Below is generated by plot.py at 2018-09-25 14:17:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 67.862 ms
Loss rate: 55.39%
-- Flow 1:
Average throughput: 20.04 Mbit/s
95th percentile per-packet one-way delay: 67.862 ms
Loss rate: 55.39%

Run 3: Report of Indigo-Muses — Data Link

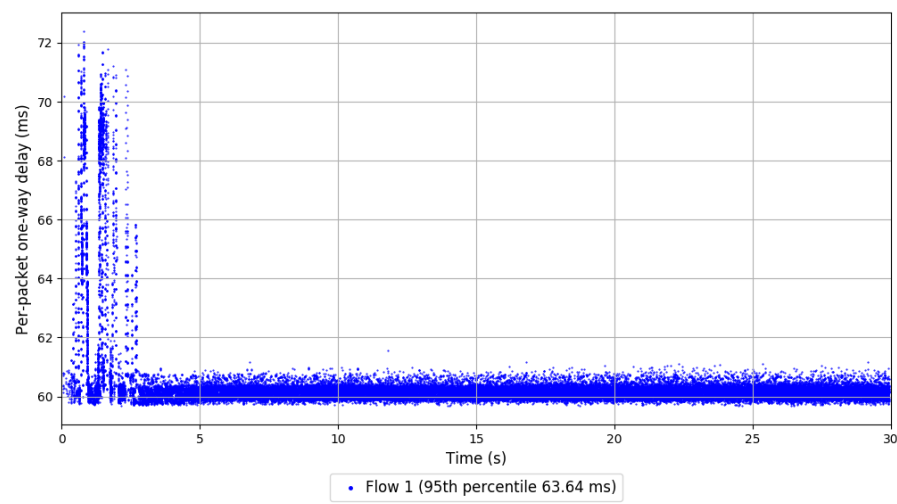
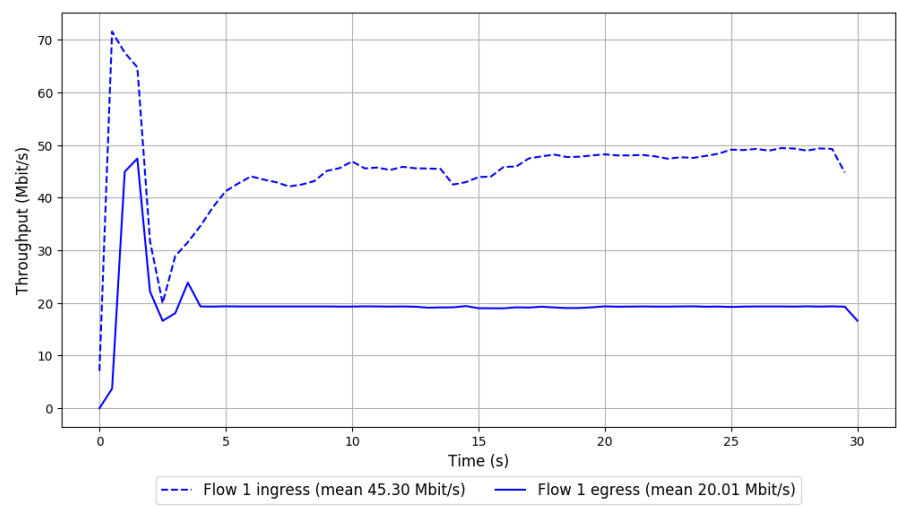


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 13:27:21
End at: 2018-09-25 13:27:51
Local clock offset: 7.424 ms
Remote clock offset: -0.292 ms

Below is generated by plot.py at 2018-09-25 14:17:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 63.642 ms
Loss rate: 55.95%
-- Flow 1:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 63.642 ms
Loss rate: 55.95%

Run 4: Report of Indigo-Muses — Data Link

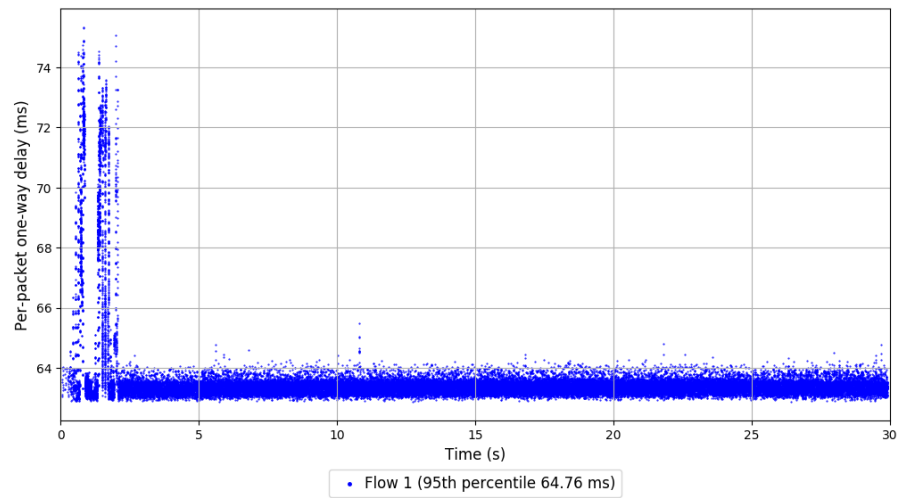
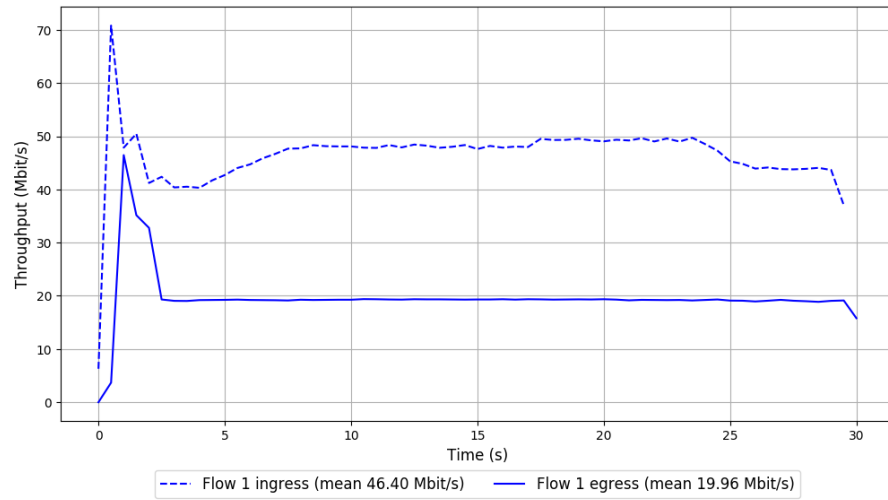


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 13:53:27
End at: 2018-09-25 13:53:57
Local clock offset: 1.201 ms
Remote clock offset: -8.577 ms

Below is generated by plot.py at 2018-09-25 14:17:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 64.757 ms
Loss rate: 57.11%
-- Flow 1:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 64.757 ms
Loss rate: 57.11%

Run 5: Report of Indigo-Muses — Data Link

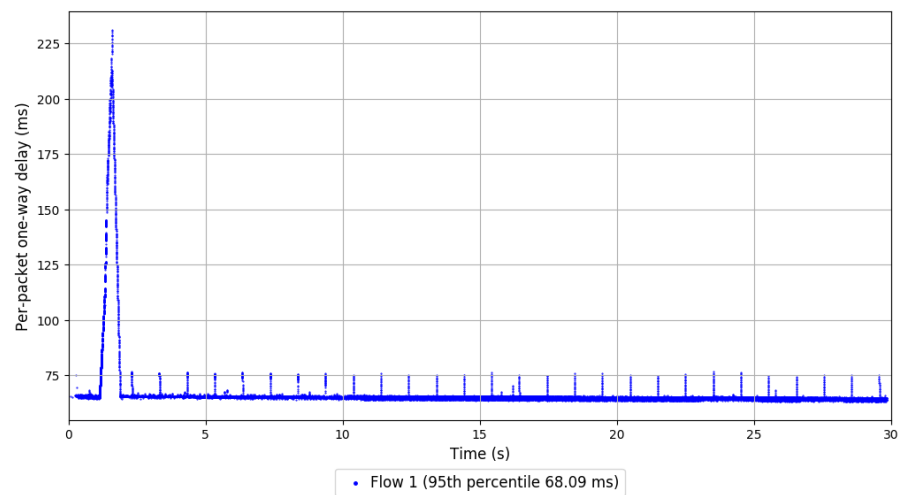
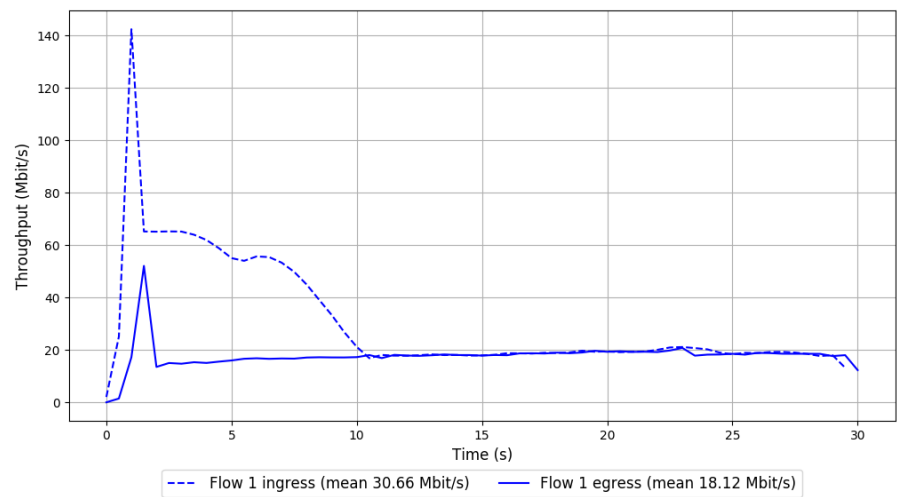


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 12:28:07
End at: 2018-09-25 12:28:37
Local clock offset: 5.685 ms
Remote clock offset: 16.937 ms

# Below is generated by plot.py at 2018-09-25 14:17:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.12 Mbit/s
95th percentile per-packet one-way delay: 68.094 ms
Loss rate: 41.06%
-- Flow 1:
Average throughput: 18.12 Mbit/s
95th percentile per-packet one-way delay: 68.094 ms
Loss rate: 41.06%
```

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 12:51:07

End at: 2018-09-25 12:51:37

Local clock offset: 5.774 ms

Remote clock offset: -5.878 ms

Below is generated by plot.py at 2018-09-25 14:17:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.19 Mbit/s

95th percentile per-packet one-way delay: 62.783 ms

Loss rate: 34.10%

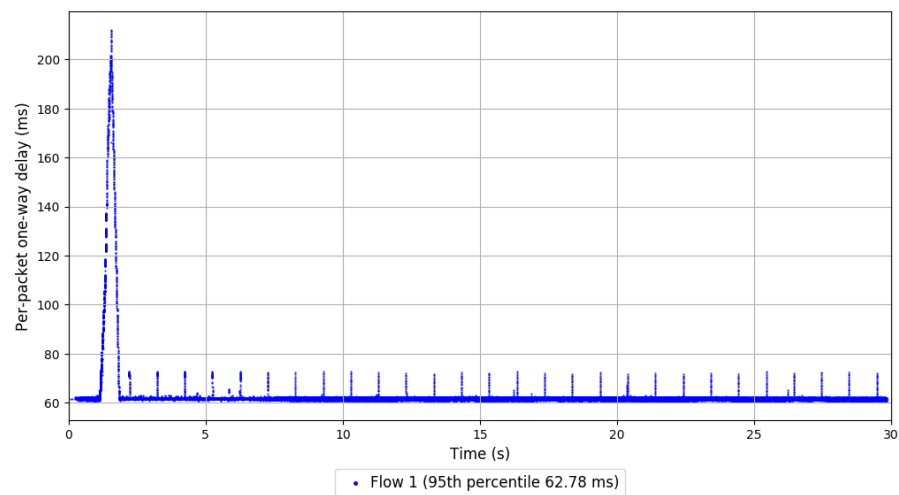
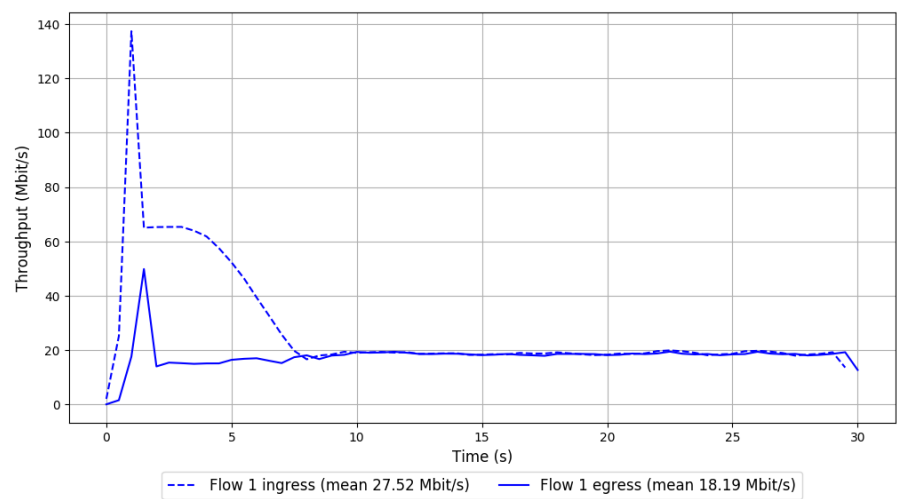
-- Flow 1:

Average throughput: 18.19 Mbit/s

95th percentile per-packet one-way delay: 62.783 ms

Loss rate: 34.10%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 13:14:12

End at: 2018-09-25 13:14:42

Local clock offset: 6.443 ms

Remote clock offset: -0.144 ms

Below is generated by plot.py at 2018-09-25 14:17:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 86.635 ms

Loss rate: 24.04%

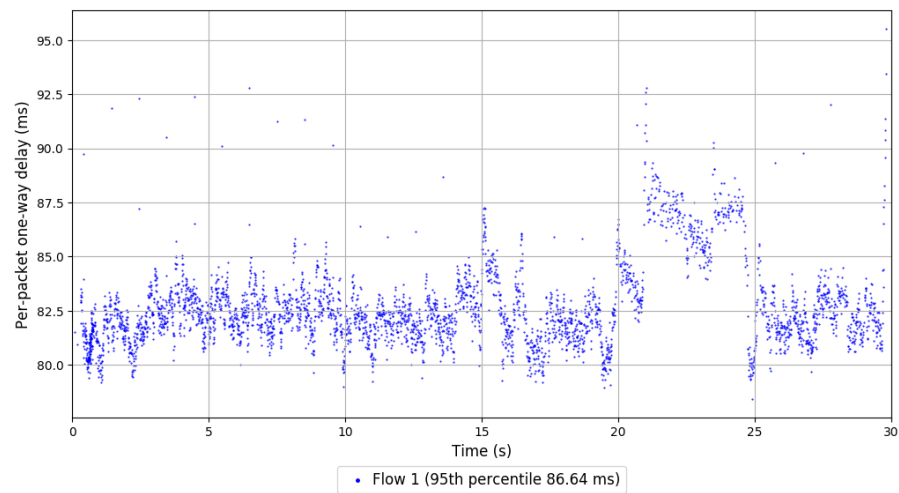
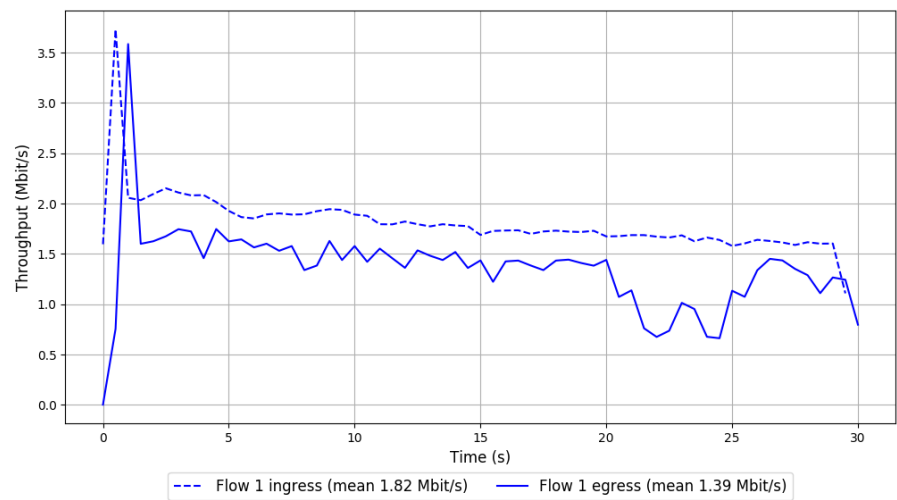
-- Flow 1:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 86.635 ms

Loss rate: 24.04%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 13:41:01

End at: 2018-09-25 13:41:31

Local clock offset: 6.472 ms

Remote clock offset: -11.604 ms

Below is generated by plot.py at 2018-09-25 14:17:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.17 Mbit/s

95th percentile per-packet one-way delay: 71.637 ms

Loss rate: 31.74%

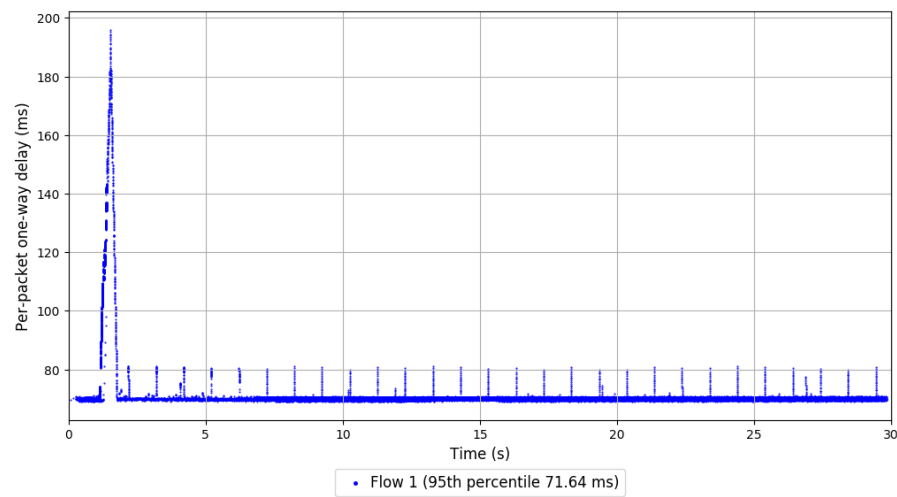
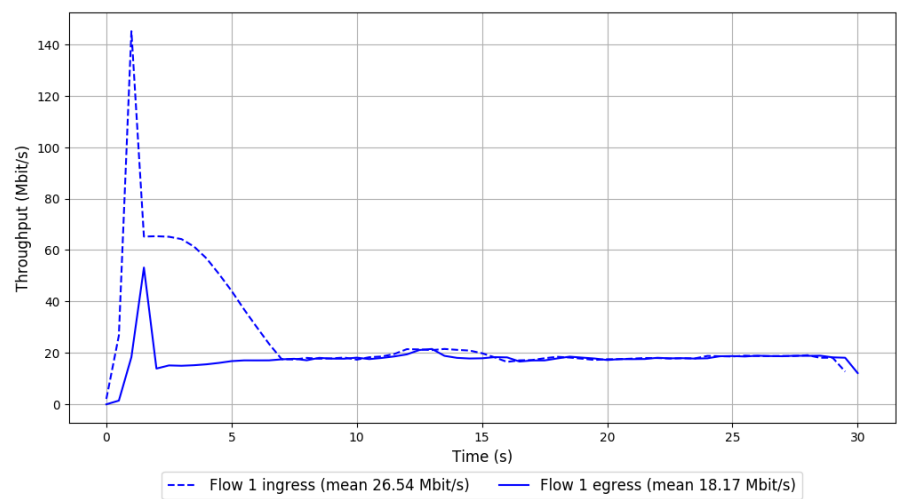
-- Flow 1:

Average throughput: 18.17 Mbit/s

95th percentile per-packet one-way delay: 71.637 ms

Loss rate: 31.74%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 14:05:12

End at: 2018-09-25 14:05:42

Local clock offset: -0.872 ms

Remote clock offset: -9.058 ms

Below is generated by plot.py at 2018-09-25 14:17:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 17.61 Mbit/s

95th percentile per-packet one-way delay: 64.831 ms

Loss rate: 41.37%

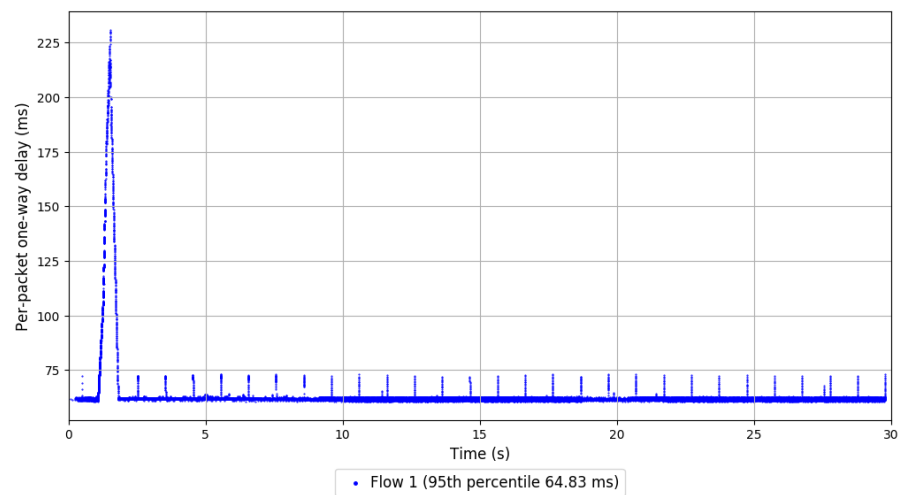
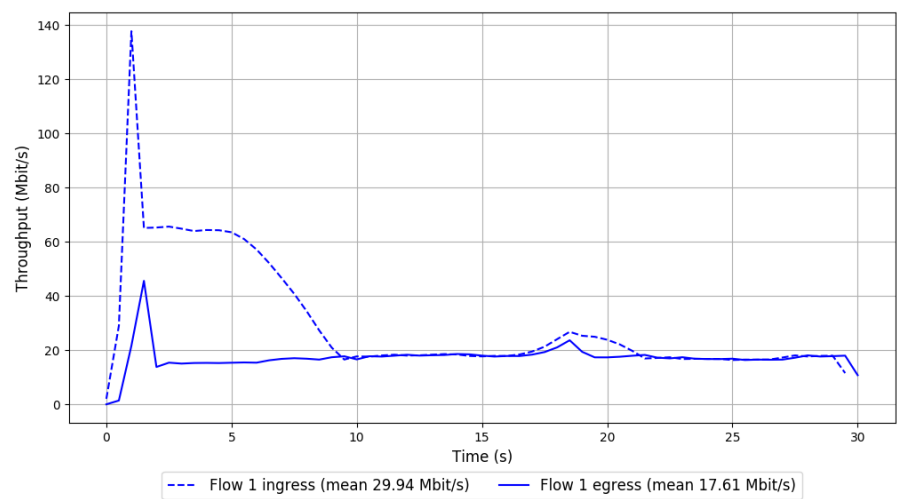
-- Flow 1:

Average throughput: 17.61 Mbit/s

95th percentile per-packet one-way delay: 64.831 ms

Loss rate: 41.37%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

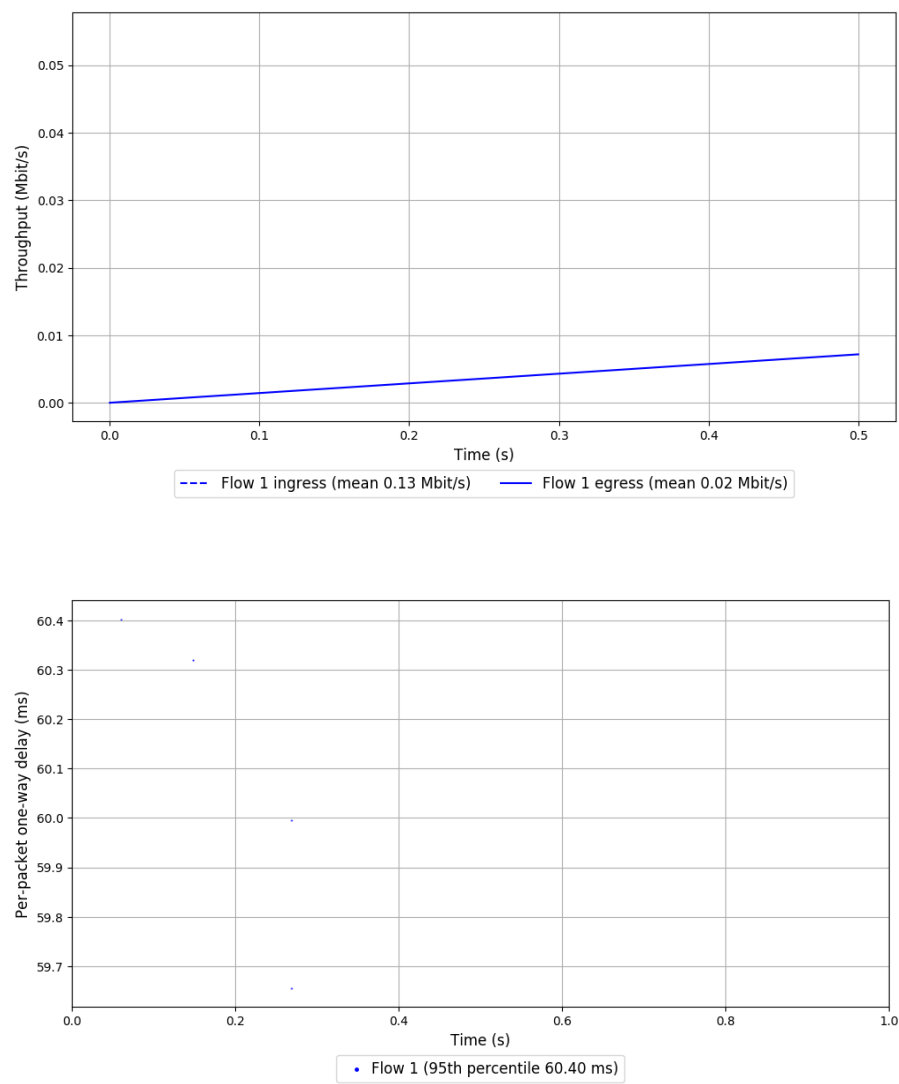
Start at: 2018-09-25 12:31:35

End at: 2018-09-25 12:32:05

Local clock offset: 5.668 ms

Remote clock offset: 13.99 ms

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

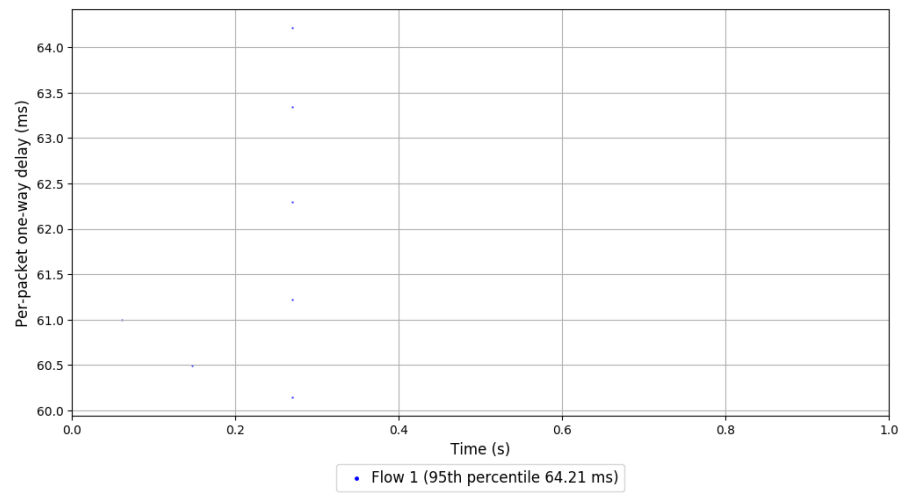
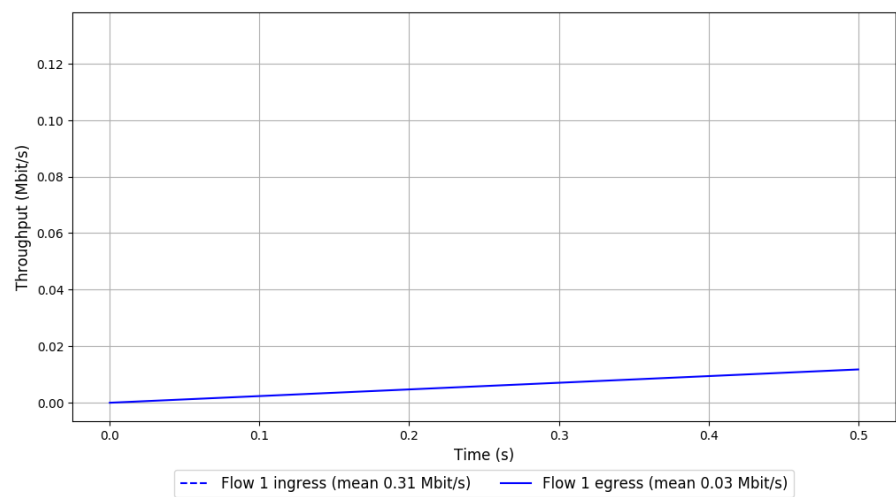
Start at: 2018-09-25 12:54:35

End at: 2018-09-25 12:55:05

Local clock offset: 5.906 ms

Remote clock offset: -6.353 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 13:18:02

End at: 2018-09-25 13:18:32

Local clock offset: 6.905 ms

Remote clock offset: -3.143 ms

Below is generated by plot.py at 2018-09-25 14:18:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.09 Mbit/s

95th percentile per-packet one-way delay: 77.839 ms

Loss rate: 38.00%

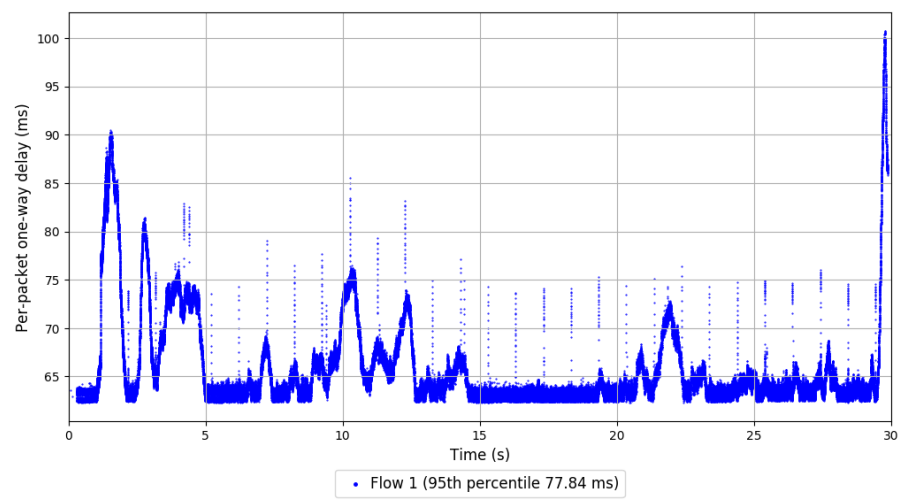
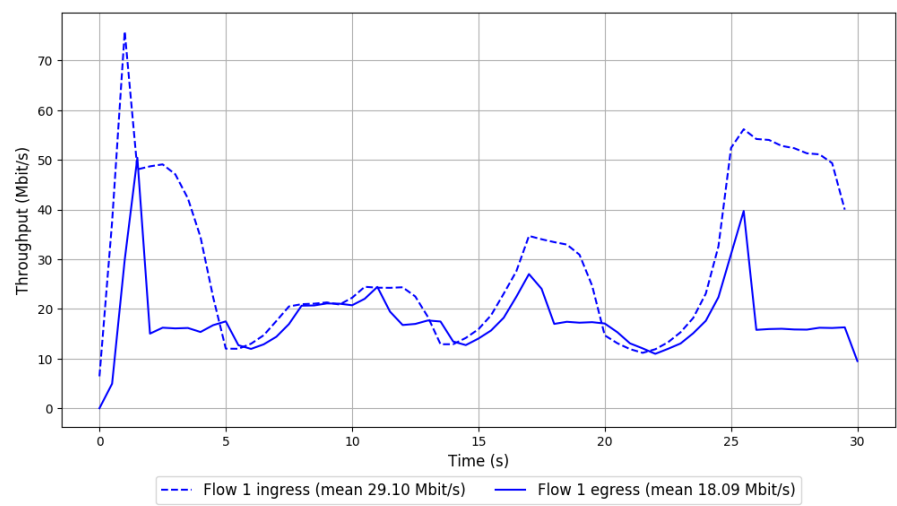
-- Flow 1:

Average throughput: 18.09 Mbit/s

95th percentile per-packet one-way delay: 77.839 ms

Loss rate: 38.00%

Run 3: Report of PCC-Expr — Data Link

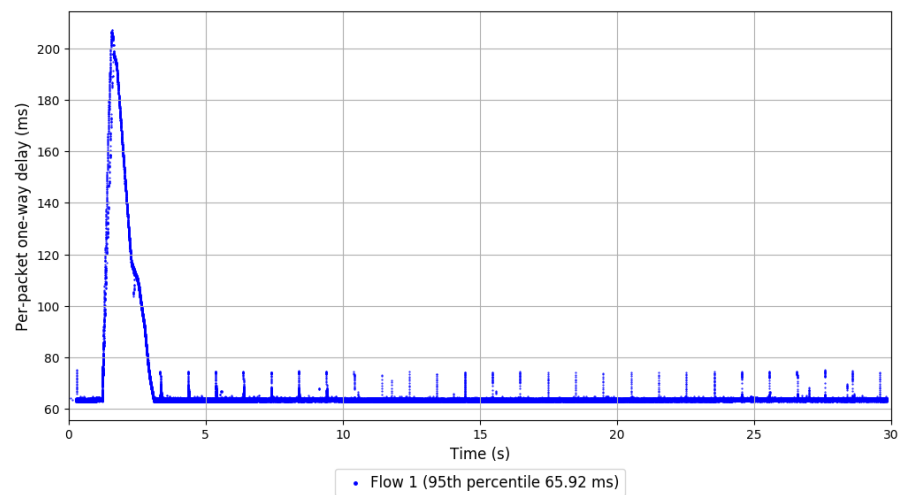
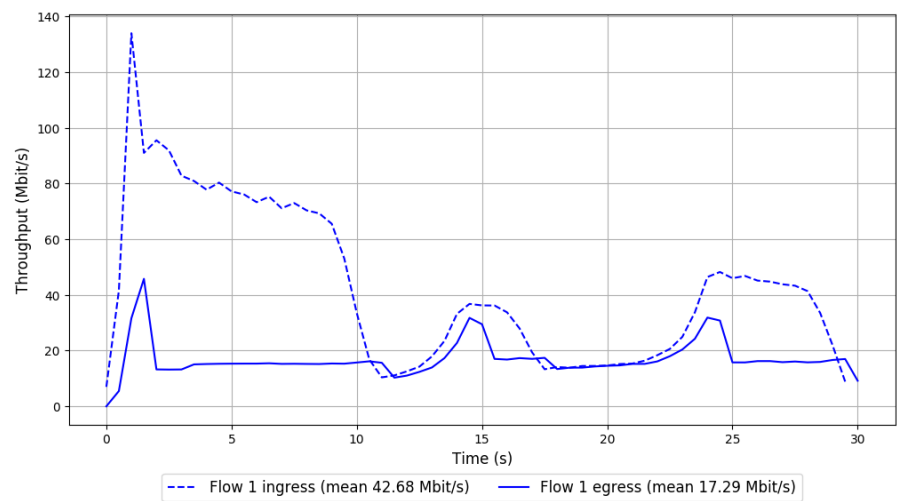


Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 13:44:38
End at: 2018-09-25 13:45:08
Local clock offset: 4.439 ms
Remote clock offset: -6.538 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.29 Mbit/s
95th percentile per-packet one-way delay: 65.916 ms
Loss rate: 59.60%
-- Flow 1:
Average throughput: 17.29 Mbit/s
95th percentile per-packet one-way delay: 65.916 ms
Loss rate: 59.60%

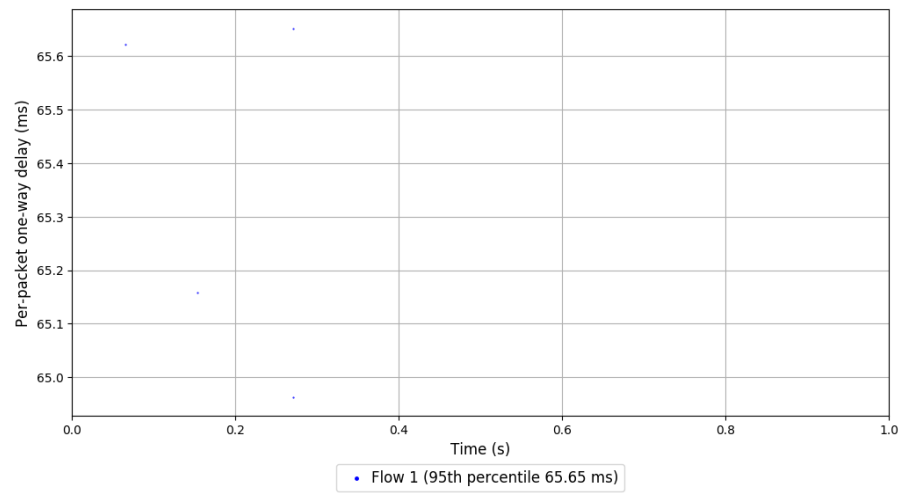
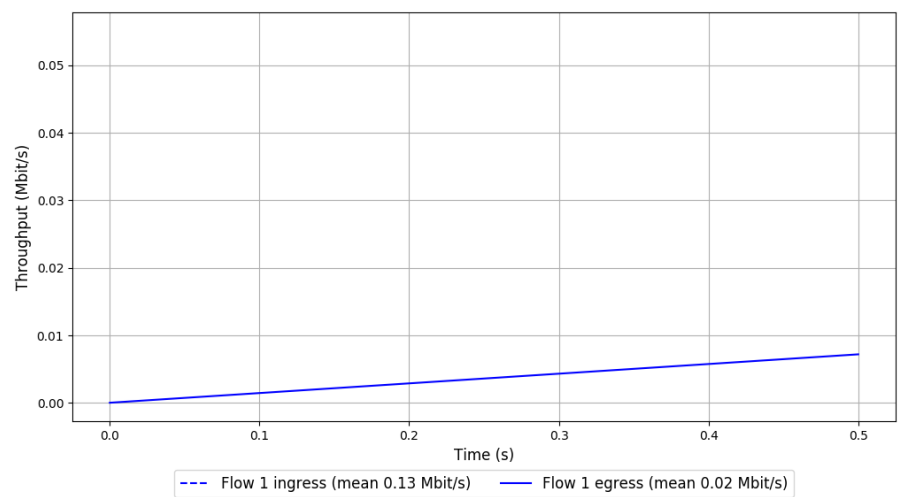
Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 14:08:39
End at: 2018-09-25 14:09:09
Local clock offset: -1.135 ms
Remote clock offset: -13.615 ms

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 12:32:42

End at: 2018-09-25 12:33:12

Local clock offset: 5.917 ms

Remote clock offset: 11.12 ms

Below is generated by plot.py at 2018-09-25 14:18:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 69.535 ms

Loss rate: 6.38%

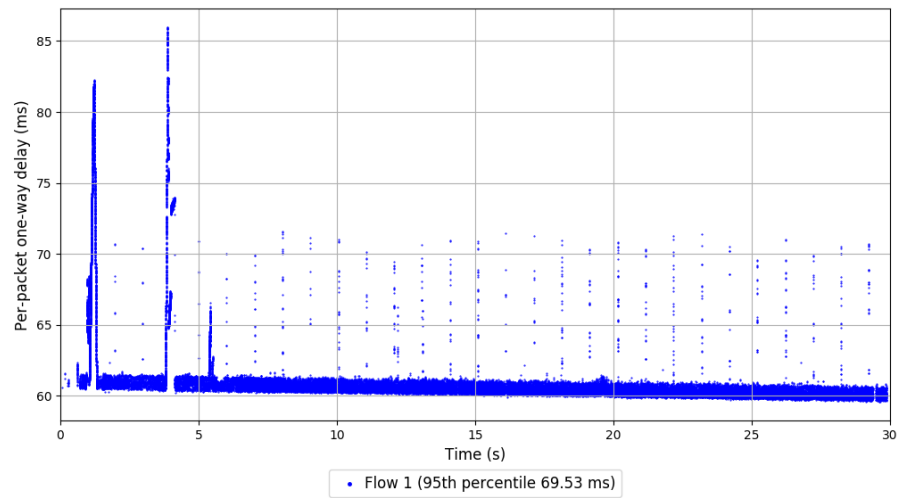
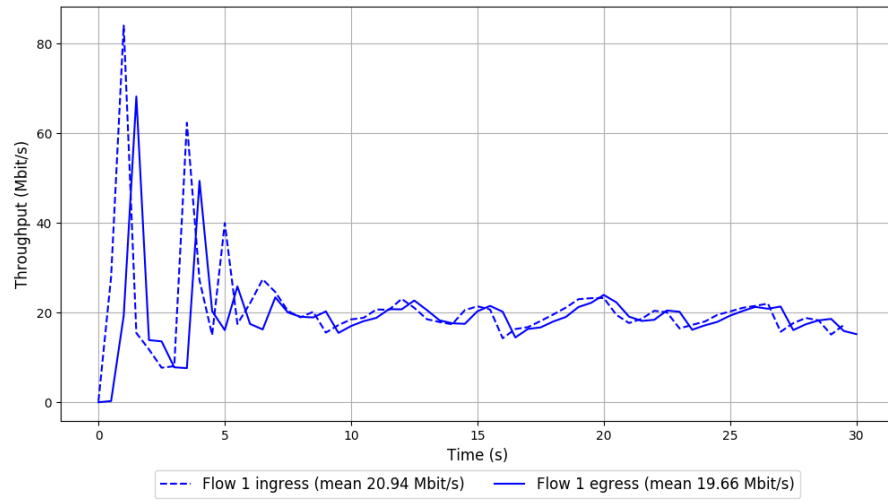
-- Flow 1:

Average throughput: 19.66 Mbit/s

95th percentile per-packet one-way delay: 69.535 ms

Loss rate: 6.38%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 12:55:43

End at: 2018-09-25 12:56:13

Local clock offset: 5.77 ms

Remote clock offset: -9.344 ms

Below is generated by plot.py at 2018-09-25 14:18:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.63 Mbit/s

95th percentile per-packet one-way delay: 72.077 ms

Loss rate: 6.08%

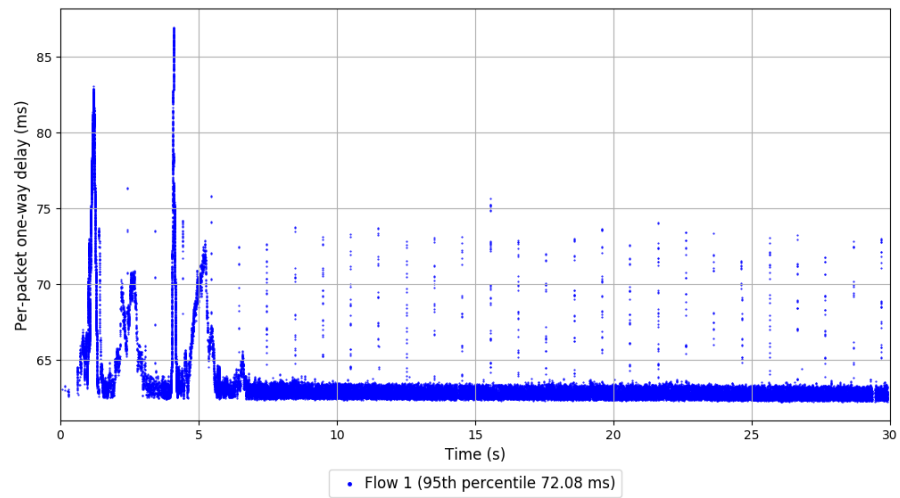
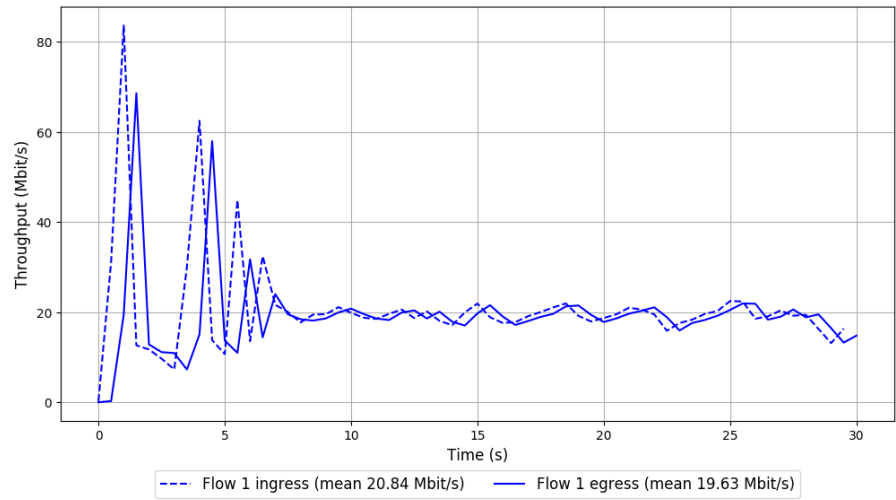
-- Flow 1:

Average throughput: 19.63 Mbit/s

95th percentile per-packet one-way delay: 72.077 ms

Loss rate: 6.08%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 13:20:58

End at: 2018-09-25 13:21:28

Local clock offset: 6.876 ms

Remote clock offset: 2.709 ms

Below is generated by plot.py at 2018-09-25 14:18:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 84.531 ms

Loss rate: 15.85%

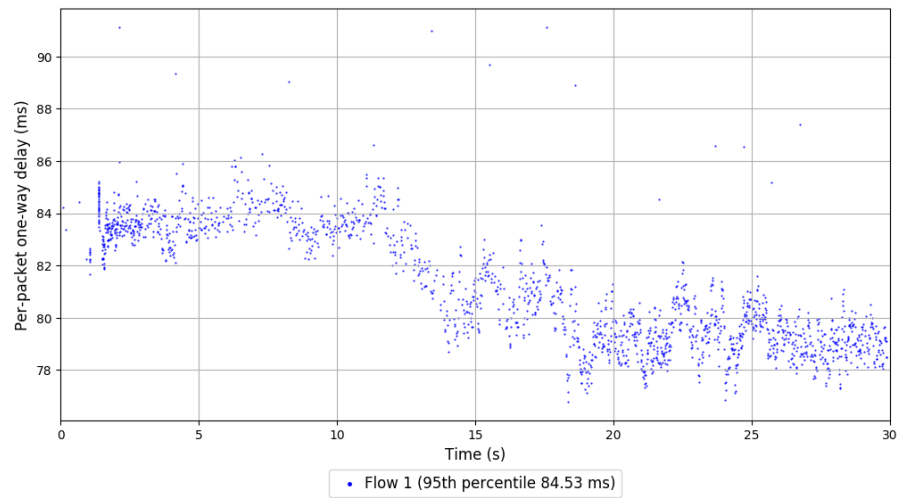
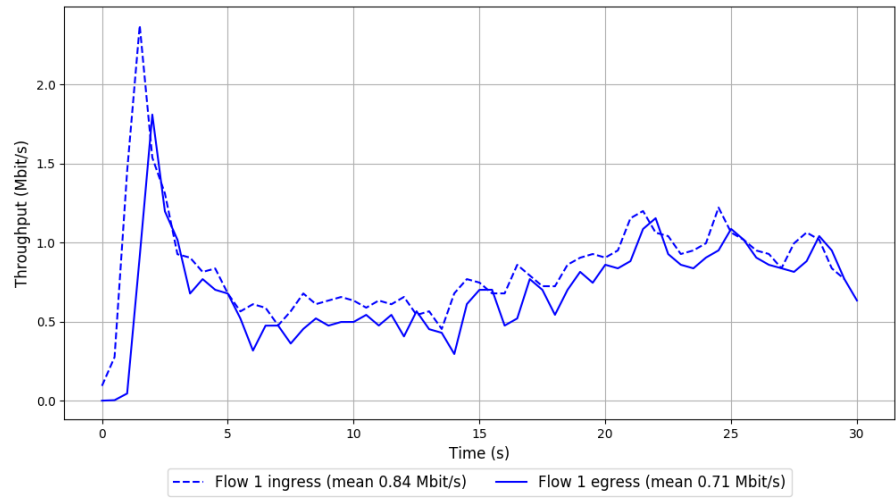
-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 84.531 ms

Loss rate: 15.85%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 13:45:49

End at: 2018-09-25 13:46:19

Local clock offset: 3.586 ms

Remote clock offset: -9.067 ms

Below is generated by plot.py at 2018-09-25 14:18:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.75 Mbit/s

95th percentile per-packet one-way delay: 74.702 ms

Loss rate: 5.84%

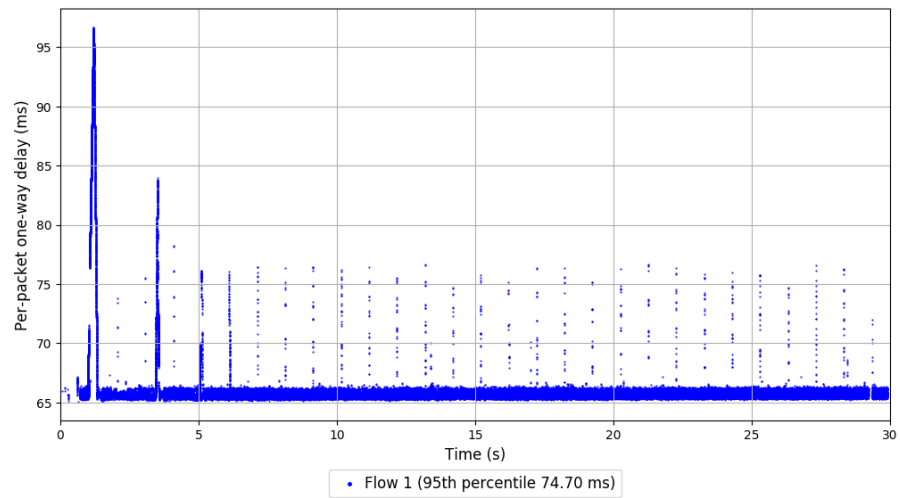
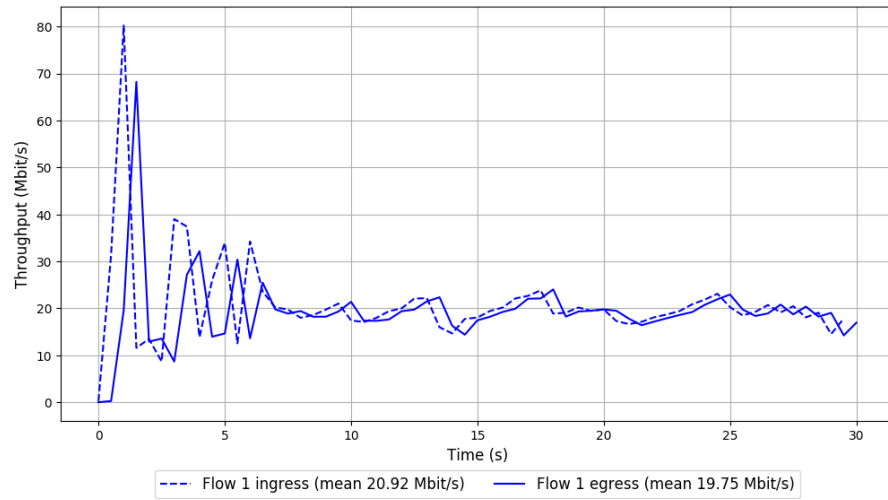
-- Flow 1:

Average throughput: 19.75 Mbit/s

95th percentile per-packet one-way delay: 74.702 ms

Loss rate: 5.84%

Run 4: Report of QUIC Cubic — Data Link

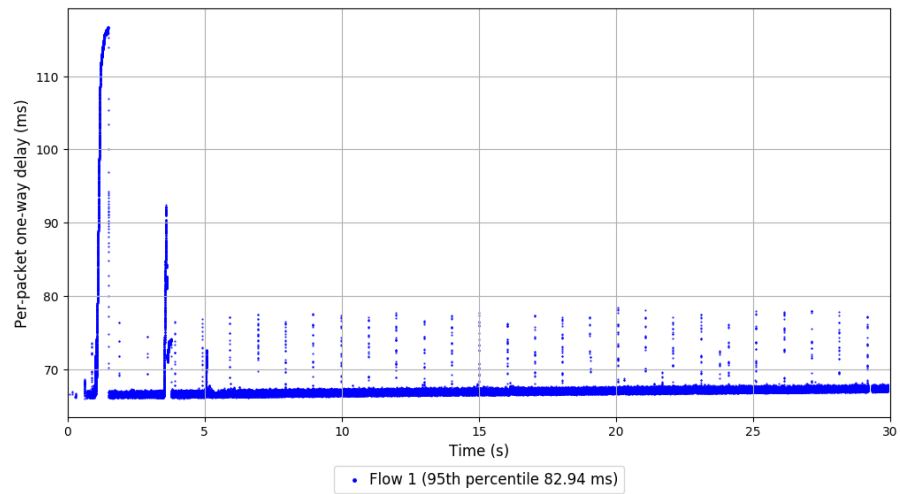
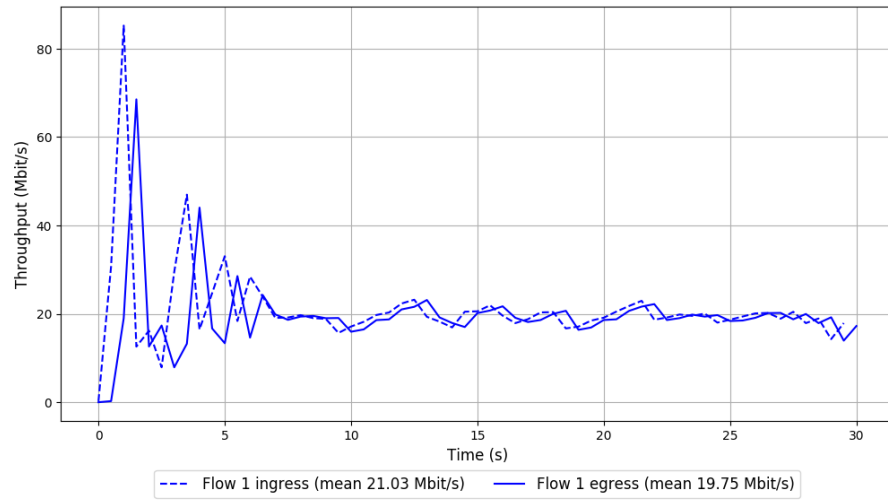


Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 14:09:46
End at: 2018-09-25 14:10:16
Local clock offset: -0.998 ms
Remote clock offset: -14.801 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.75 Mbit/s
95th percentile per-packet one-way delay: 82.945 ms
Loss rate: 6.36%
-- Flow 1:
Average throughput: 19.75 Mbit/s
95th percentile per-packet one-way delay: 82.945 ms
Loss rate: 6.36%

Run 5: Report of QUIC Cubic — Data Link

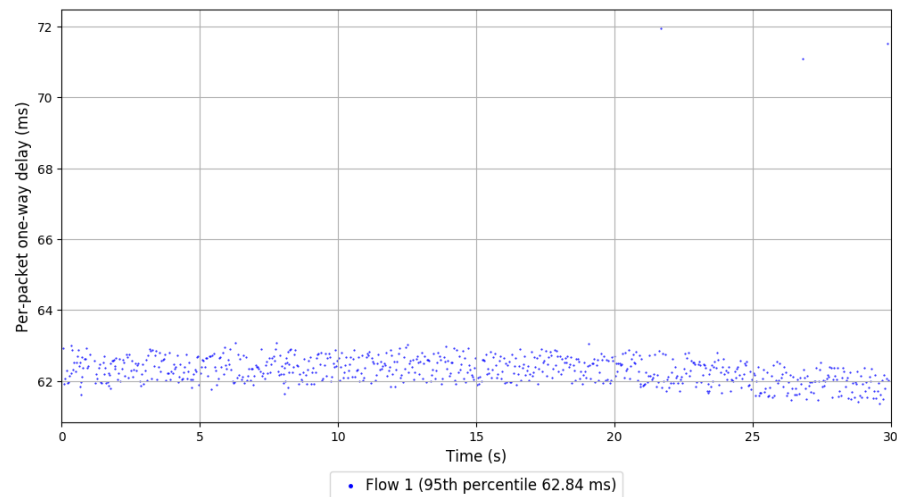
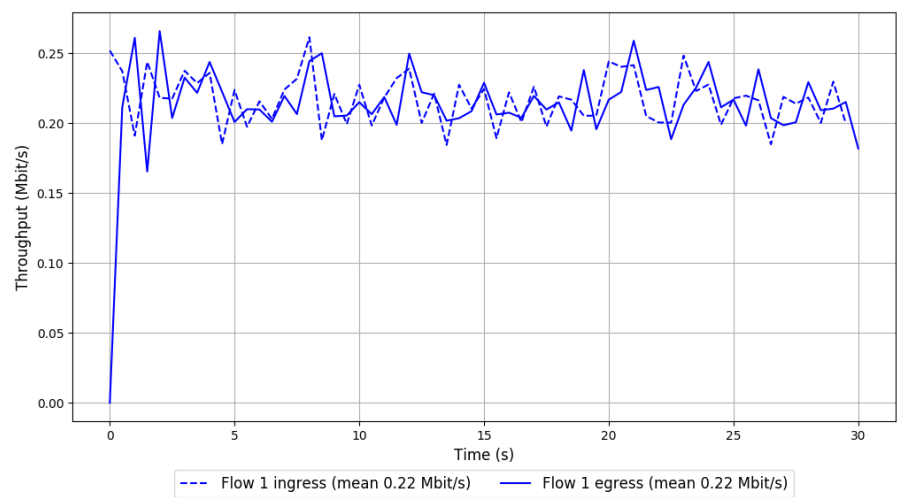


Run 1: Statistics of SCReAM

Start at: 2018-09-25 12:26:55
End at: 2018-09-25 12:27:25
Local clock offset: 5.714 ms
Remote clock offset: 22.437 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.842 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 62.842 ms
Loss rate: 0.39%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-09-25 12:49:59

End at: 2018-09-25 12:50:29

Local clock offset: 5.787 ms

Remote clock offset: -4.86 ms

Below is generated by plot.py at 2018-09-25 14:18:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.599 ms

Loss rate: 0.26%

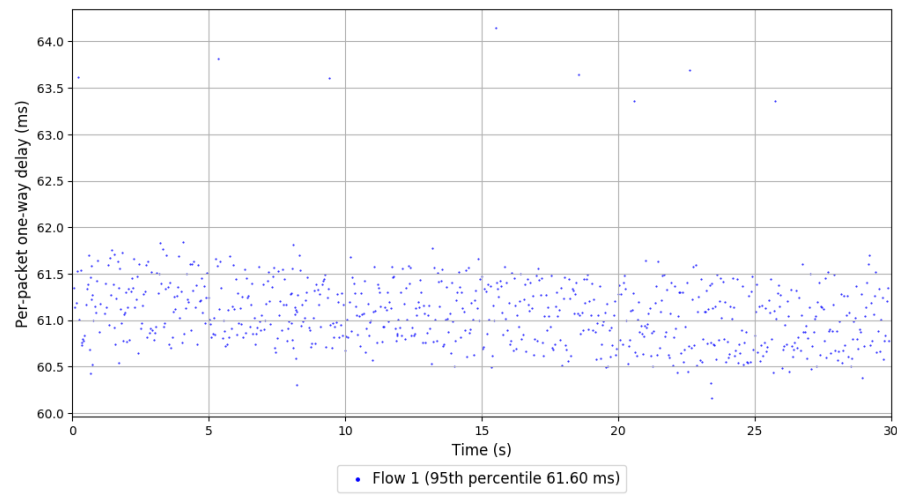
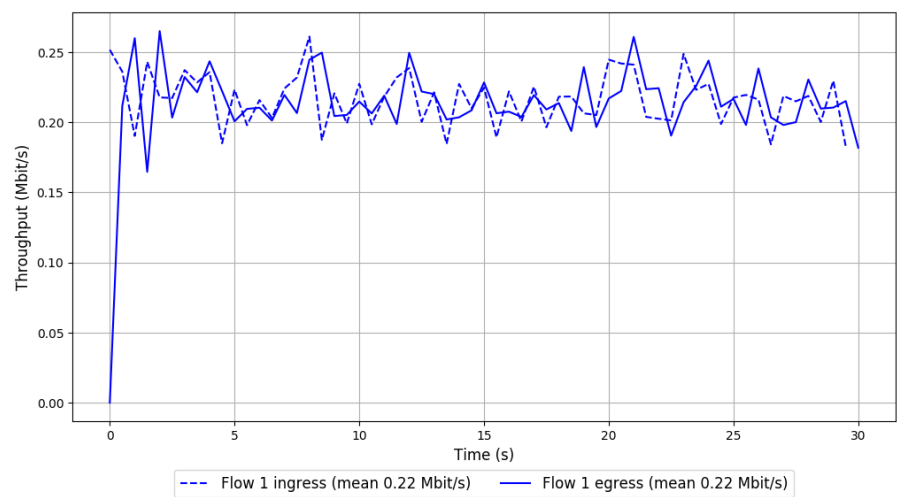
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.599 ms

Loss rate: 0.26%

Run 2: Report of SReAM — Data Link

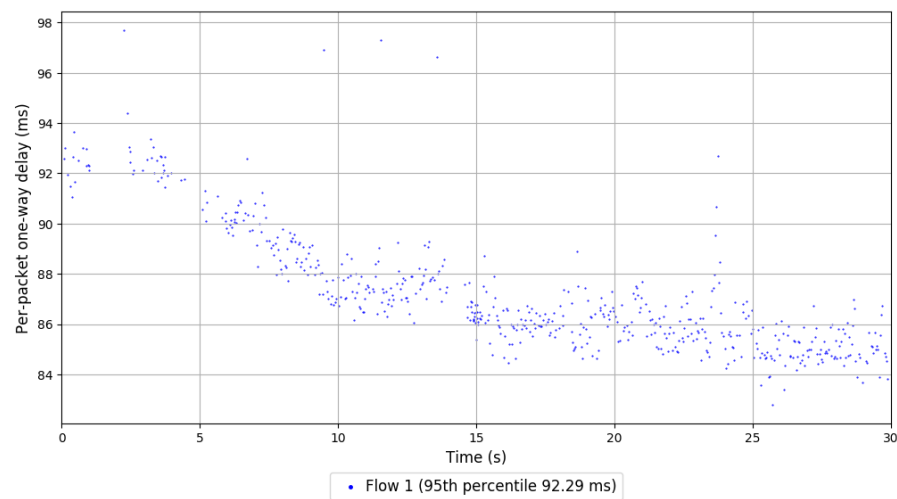
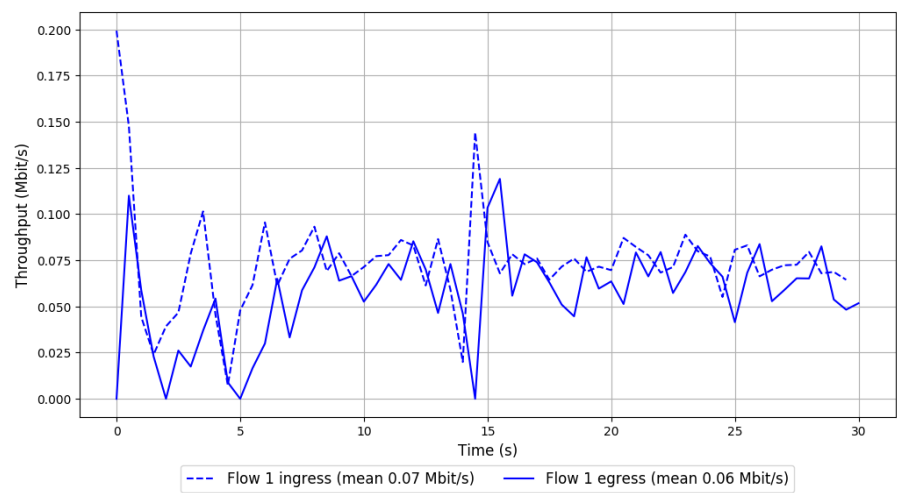


Run 3: Statistics of SCReAM

Start at: 2018-09-25 13:12:59
End at: 2018-09-25 13:13:29
Local clock offset: 6.454 ms
Remote clock offset: -3.423 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 92.291 ms
Loss rate: 21.58%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 92.291 ms
Loss rate: 21.58%

Run 3: Report of SReAM — Data Link

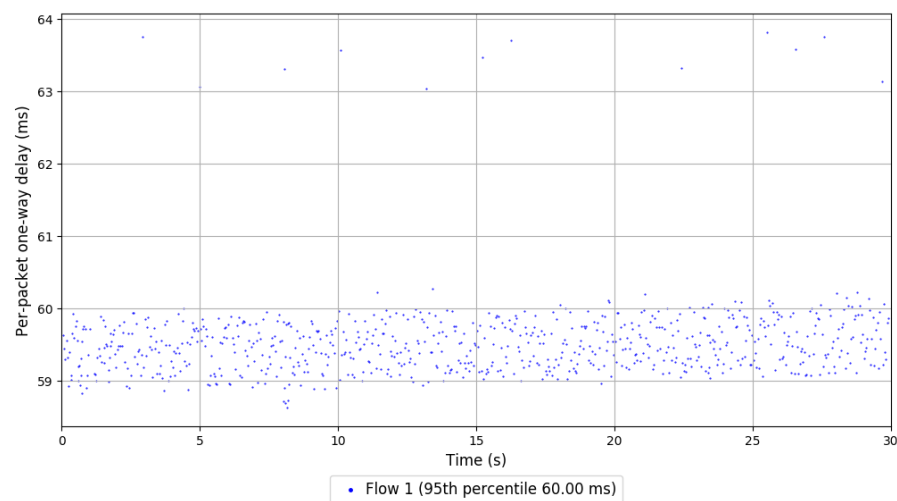
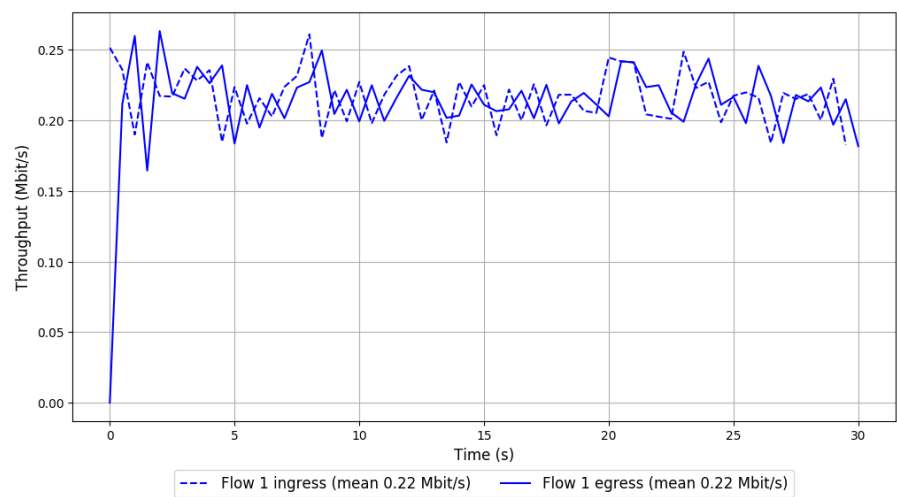


Run 4: Statistics of SCReAM

Start at: 2018-09-25 13:39:53
End at: 2018-09-25 13:40:23
Local clock offset: 7.738 ms
Remote clock offset: -0.607 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.997 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 59.997 ms
Loss rate: 0.26%

Run 4: Report of SReAM — Data Link

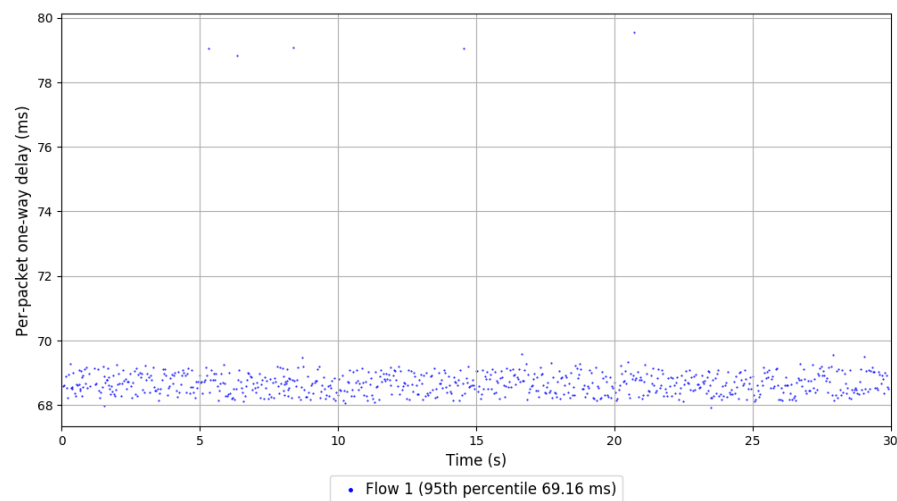
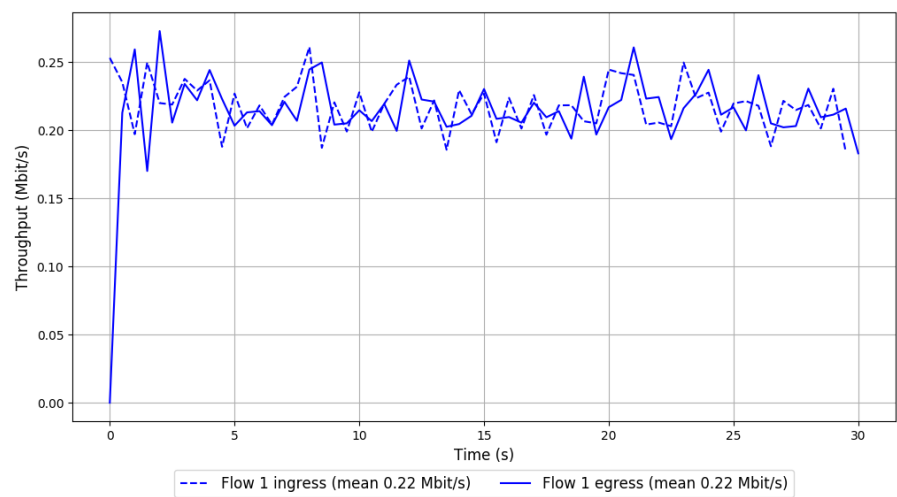


Run 5: Statistics of SCReAM

Start at: 2018-09-25 14:04:04
End at: 2018-09-25 14:04:34
Local clock offset: -0.552 ms
Remote clock offset: -14.969 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 69.157 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 69.157 ms
Loss rate: 0.26%

Run 5: Report of SReAM — Data Link

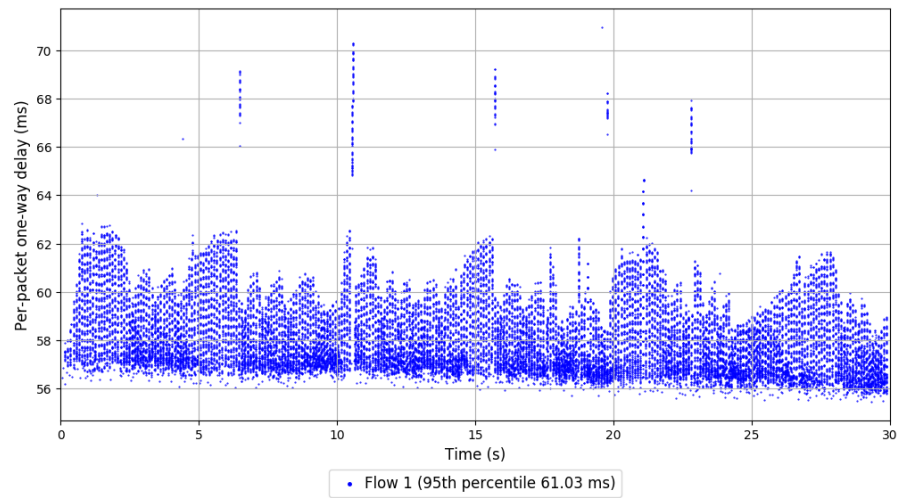
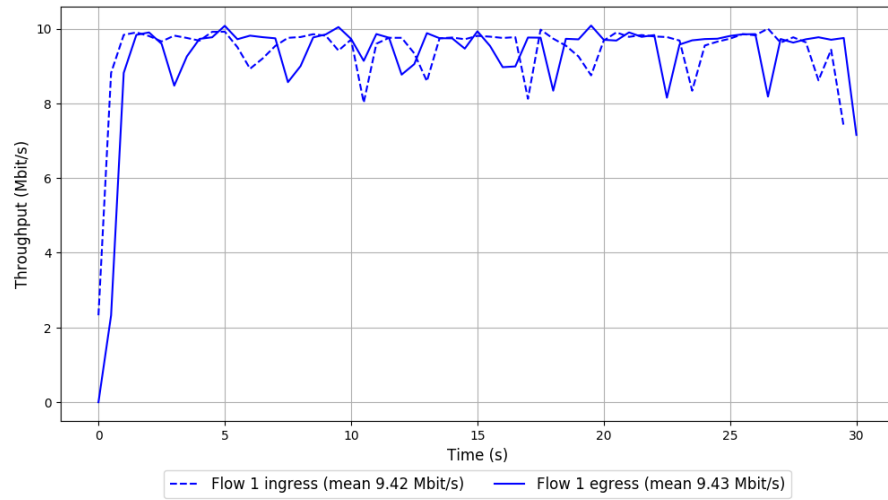


Run 1: Statistics of Sprout

Start at: 2018-09-25 12:29:17
End at: 2018-09-25 12:29:47
Local clock offset: 5.665 ms
Remote clock offset: 22.155 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 61.028 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 61.028 ms
Loss rate: 0.12%

Run 1: Report of Sprout — Data Link

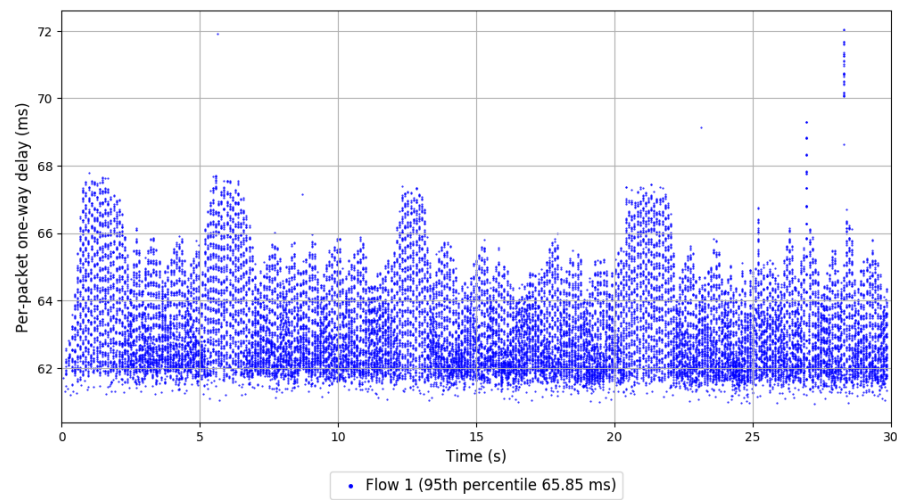
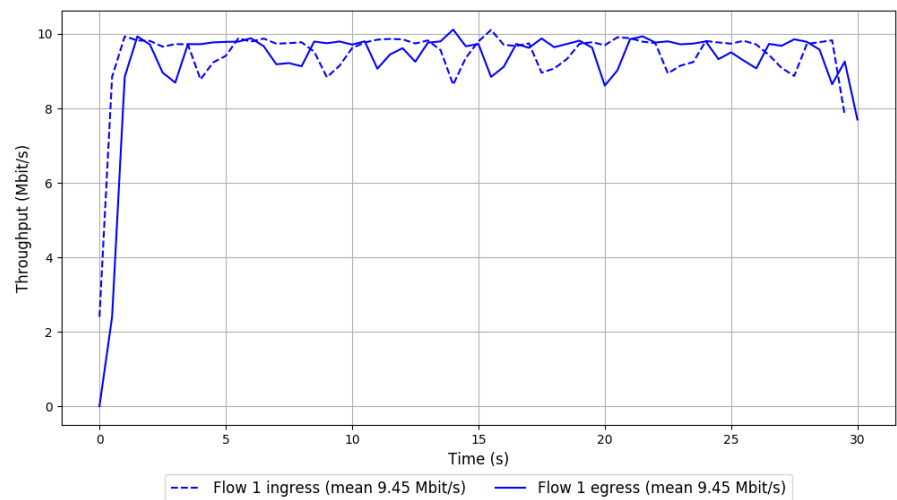


Run 2: Statistics of Sprout

Start at: 2018-09-25 12:52:17
End at: 2018-09-25 12:52:47
Local clock offset: 5.902 ms
Remote clock offset: -6.557 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 65.849 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.45 Mbit/s
95th percentile per-packet one-way delay: 65.849 ms
Loss rate: 0.35%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

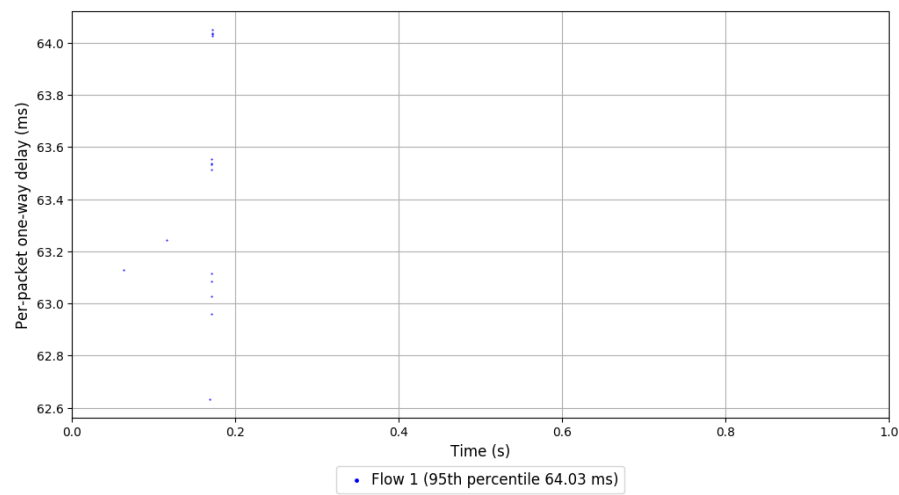
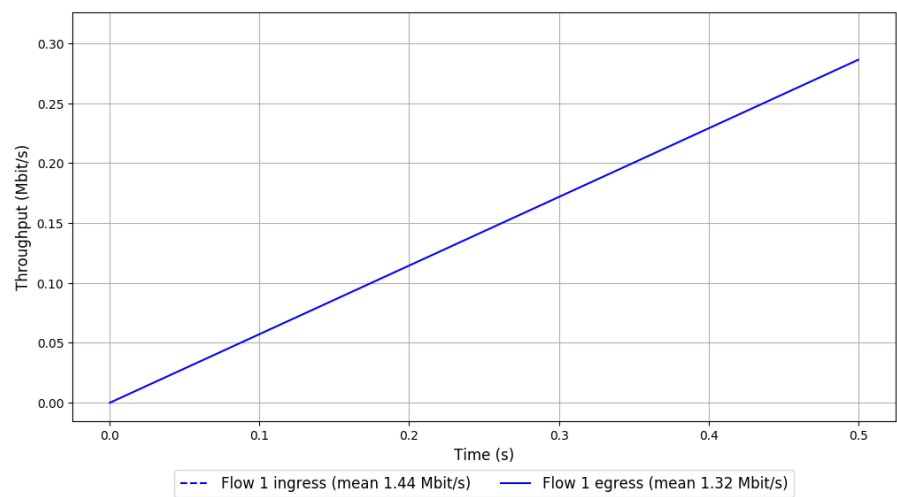
Start at: 2018-09-25 13:15:41

End at: 2018-09-25 13:16:11

Local clock offset: 6.836 ms

Remote clock offset: -2.759 ms

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

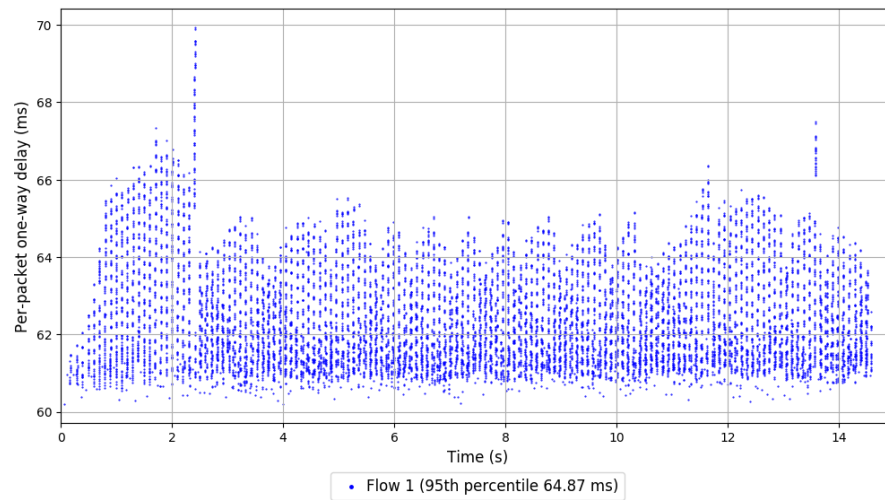
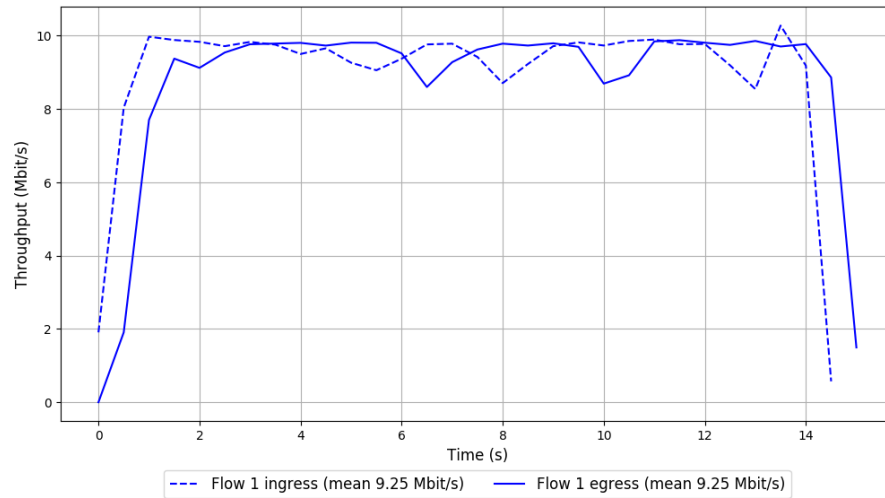
Start at: 2018-09-25 13:42:10

End at: 2018-09-25 13:42:40

Local clock offset: 5.586 ms

Remote clock offset: -3.212 ms

Run 4: Report of Sprout — Data Link

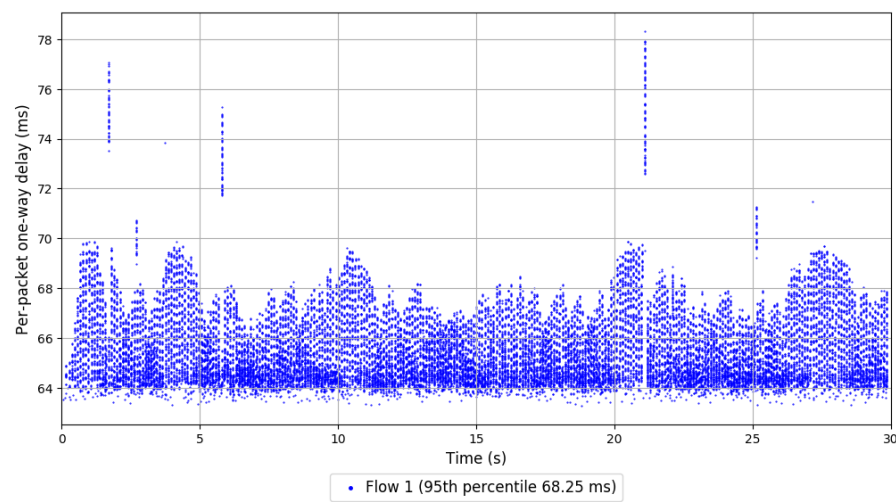
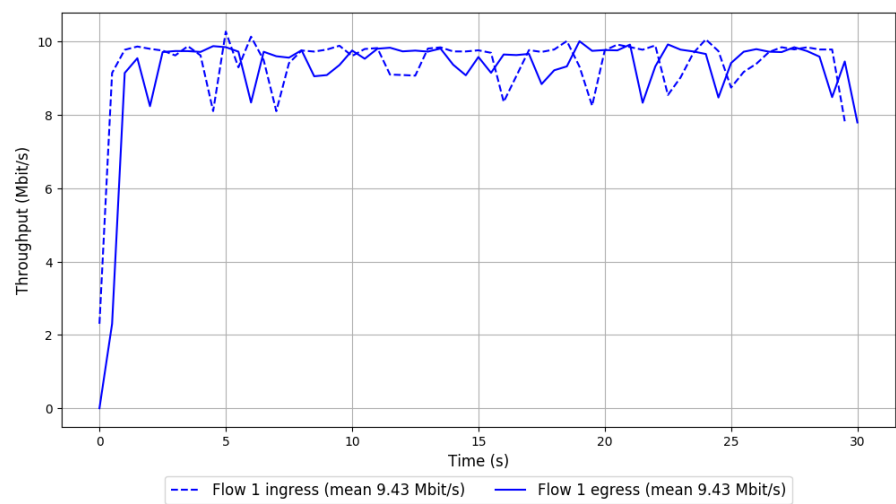


Run 5: Statistics of Sprout

Start at: 2018-09-25 14:06:21
End at: 2018-09-25 14:06:51
Local clock offset: -0.803 ms
Remote clock offset: -11.29 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 68.246 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 68.246 ms
Loss rate: 0.35%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

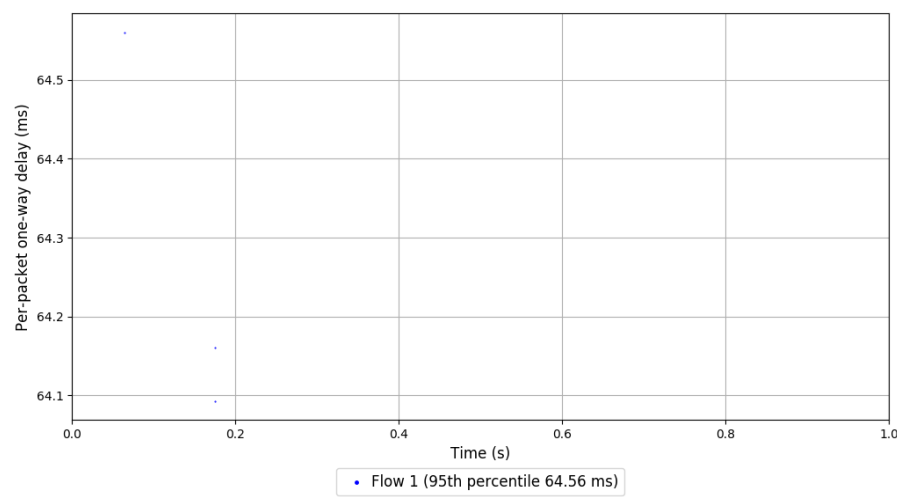
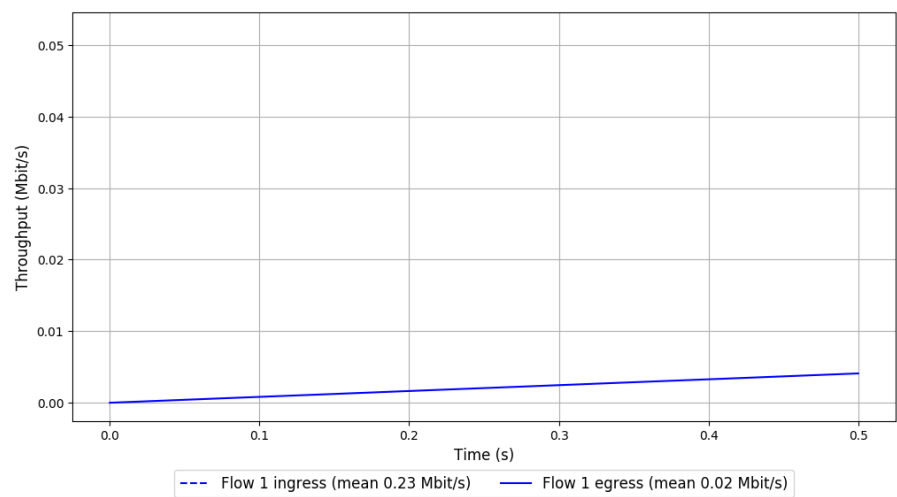
Start at: 2018-09-25 12:19:49

End at: 2018-09-25 12:20:19

Local clock offset: 5.178 ms

Remote clock offset: 20.826 ms

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



Run 2: Statistics of TaoVA-100x

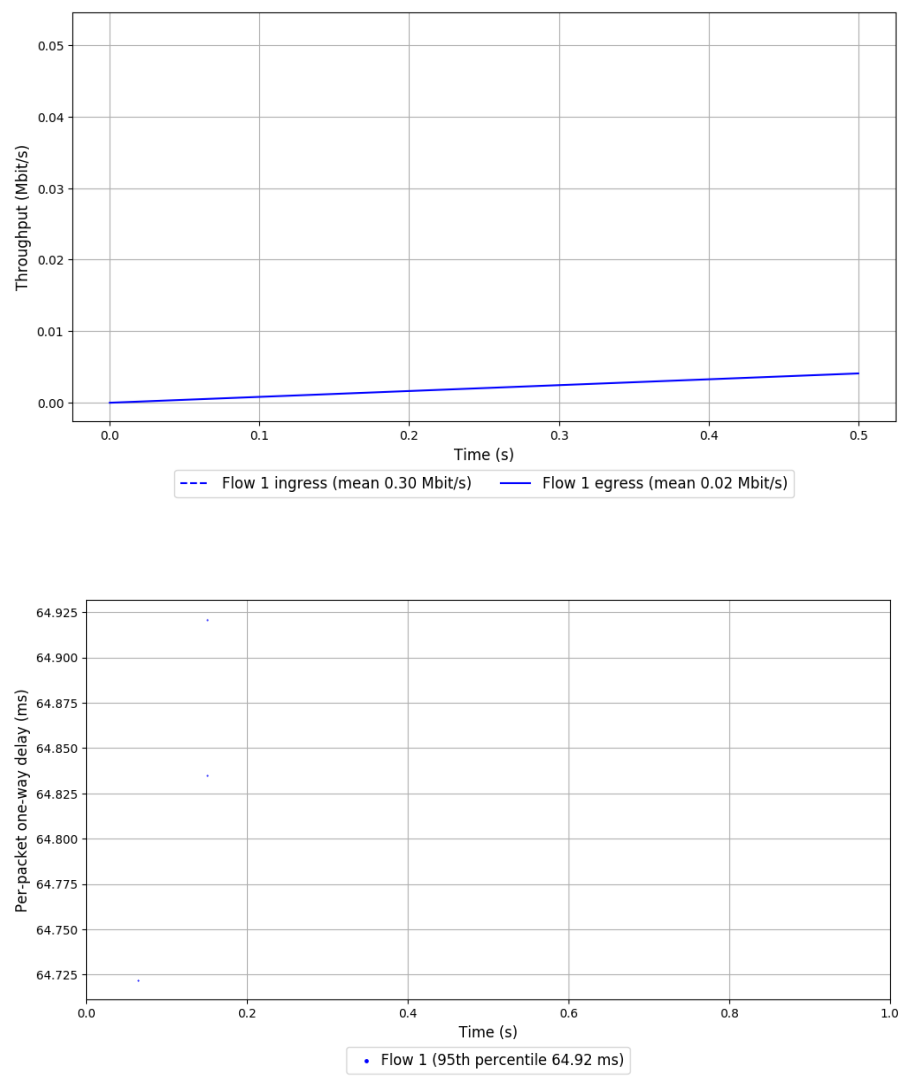
Start at: 2018-09-25 12:42:51

End at: 2018-09-25 12:43:21

Local clock offset: 5.758 ms

Remote clock offset: -4.48 ms

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



Run 3: Statistics of TaoVA-100x

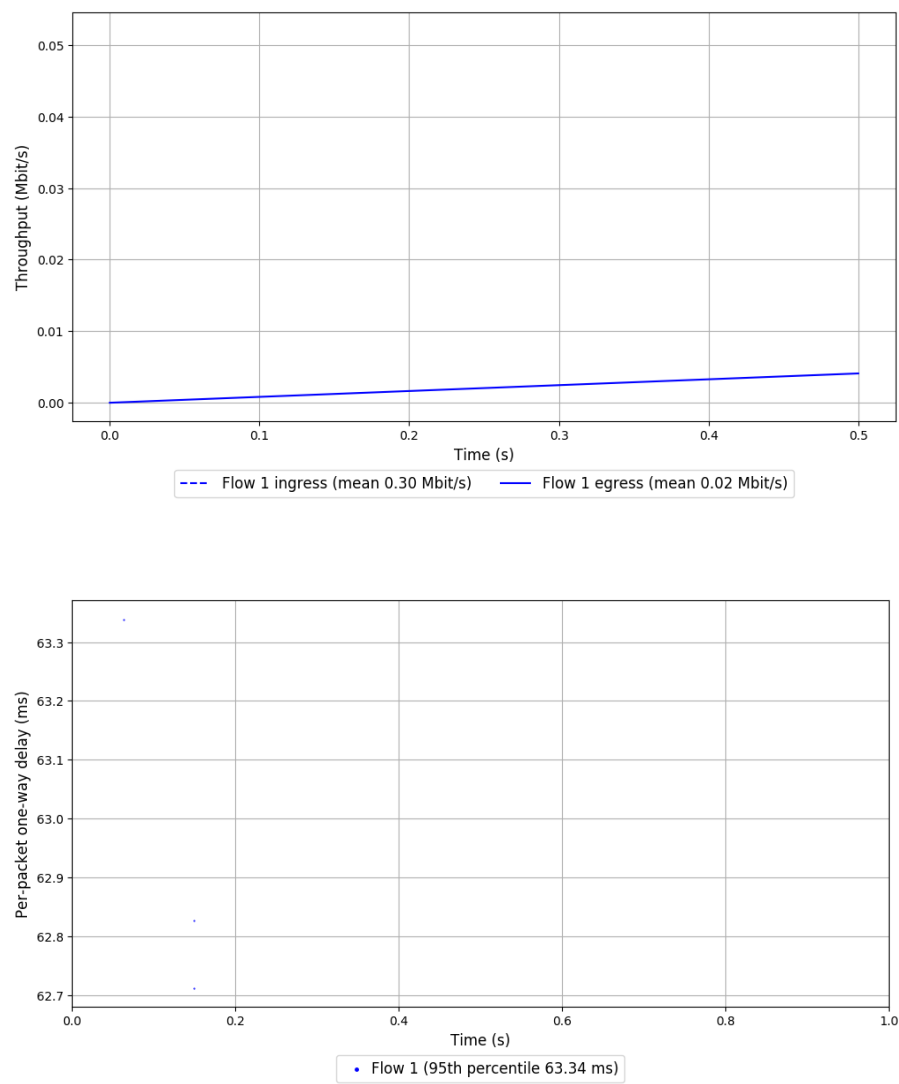
Start at: 2018-09-25 13:05:14

End at: 2018-09-25 13:05:44

Local clock offset: 5.854 ms

Remote clock offset: -7.41 ms

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



Run 4: Statistics of TaoVA-100x

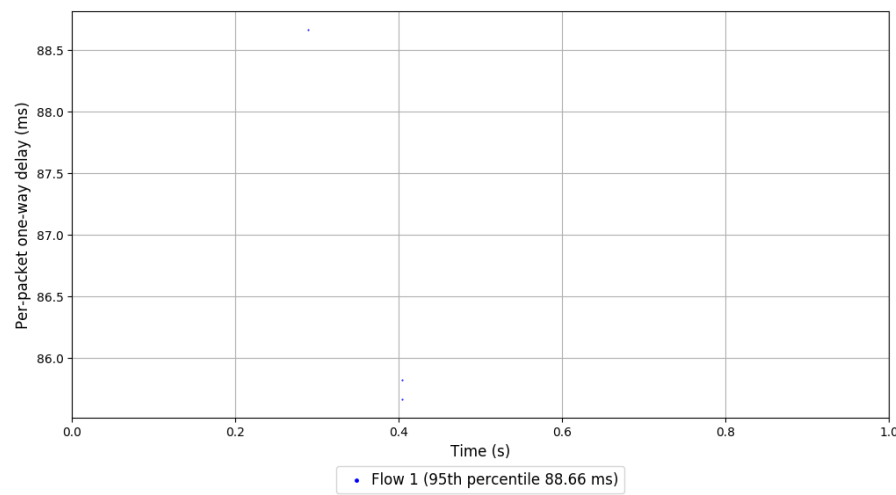
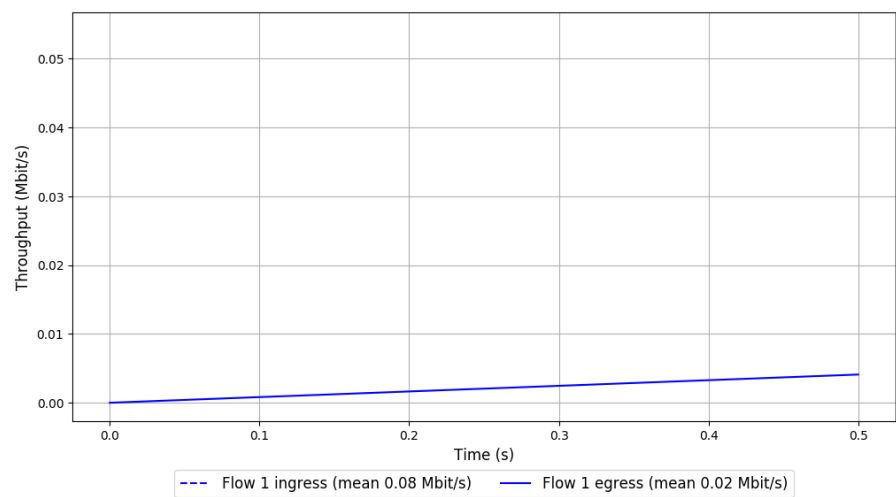
Start at: 2018-09-25 13:32:25

End at: 2018-09-25 13:32:55

Local clock offset: 7.771 ms

Remote clock offset: 0.928 ms

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



Run 5: Statistics of TaoVA-100x

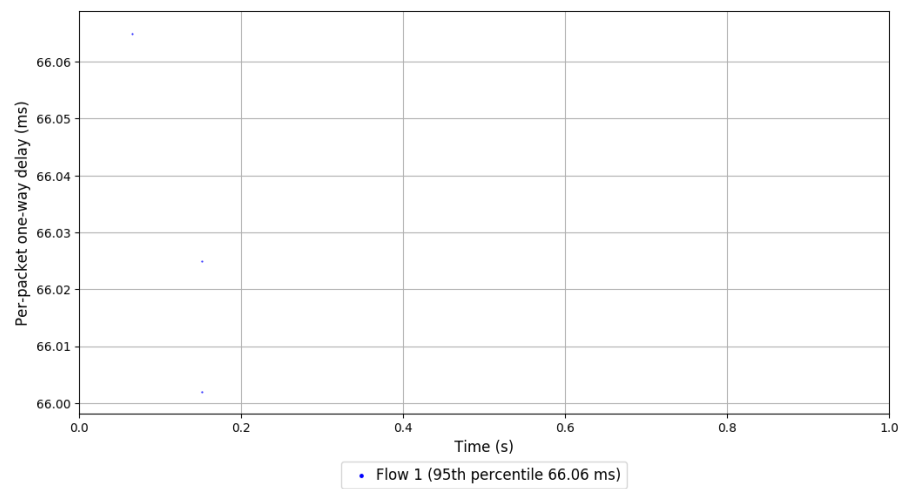
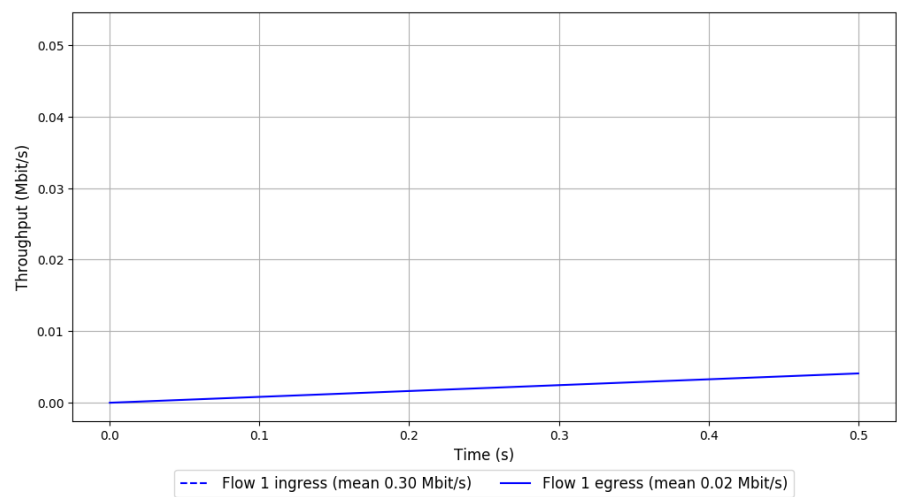
Start at: 2018-09-25 13:57:00

End at: 2018-09-25 13:57:30

Local clock offset: 0.581 ms

Remote clock offset: -11.903 ms

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

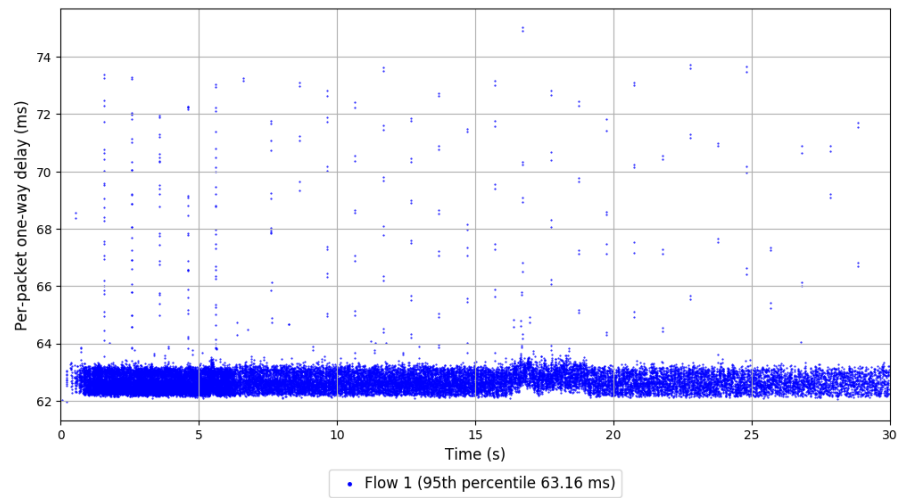
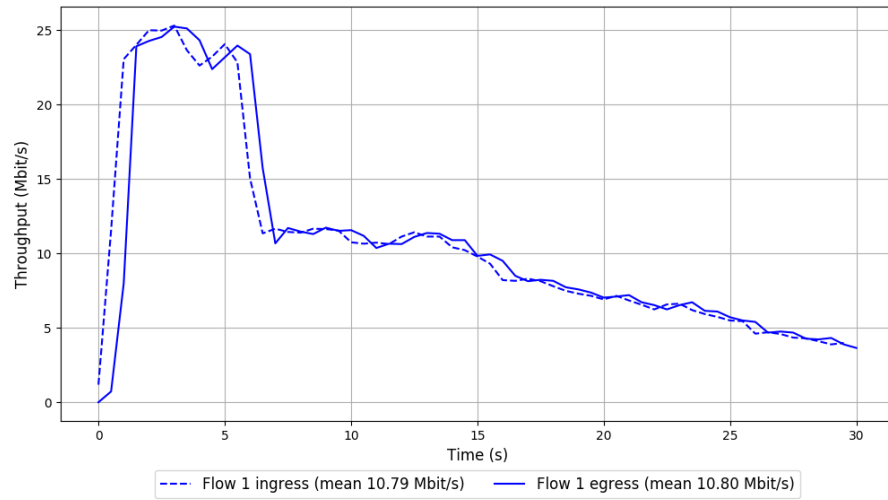


Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 12:20:57
End at: 2018-09-25 12:21:27
Local clock offset: 5.352 ms
Remote clock offset: 22.862 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.80 Mbit/s
95th percentile per-packet one-way delay: 63.161 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 10.80 Mbit/s
95th percentile per-packet one-way delay: 63.161 ms
Loss rate: 0.27%

Run 1: Report of TCP Vegas — Data Link

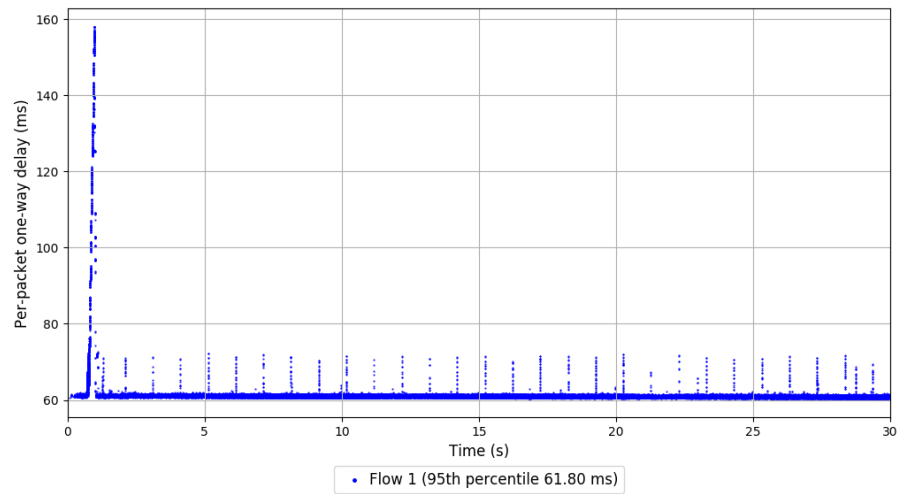
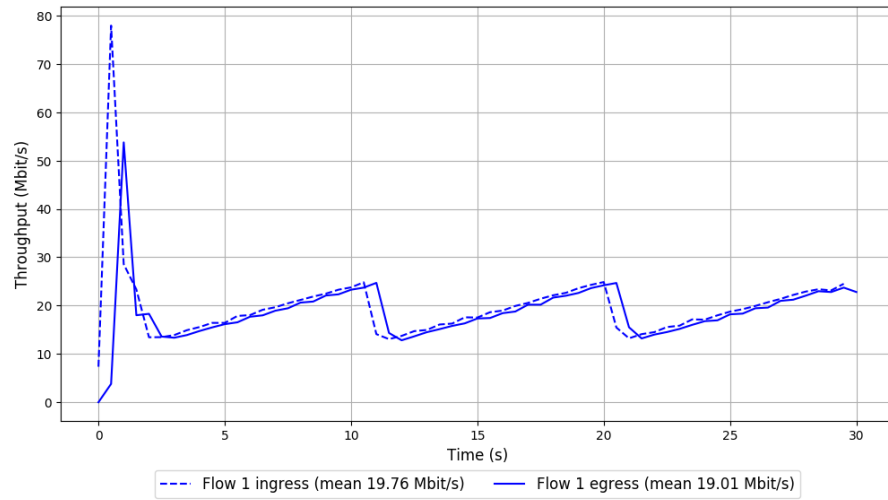


Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 12:44:03
End at: 2018-09-25 12:44:33
Local clock offset: 5.98 ms
Remote clock offset: -1.112 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 61.799 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 19.01 Mbit/s
95th percentile per-packet one-way delay: 61.799 ms
Loss rate: 4.11%

Run 2: Report of TCP Vegas — Data Link

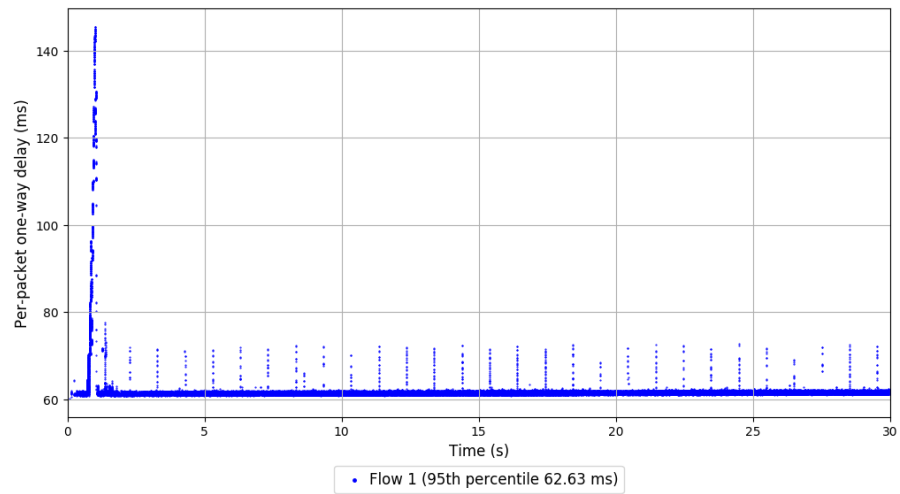
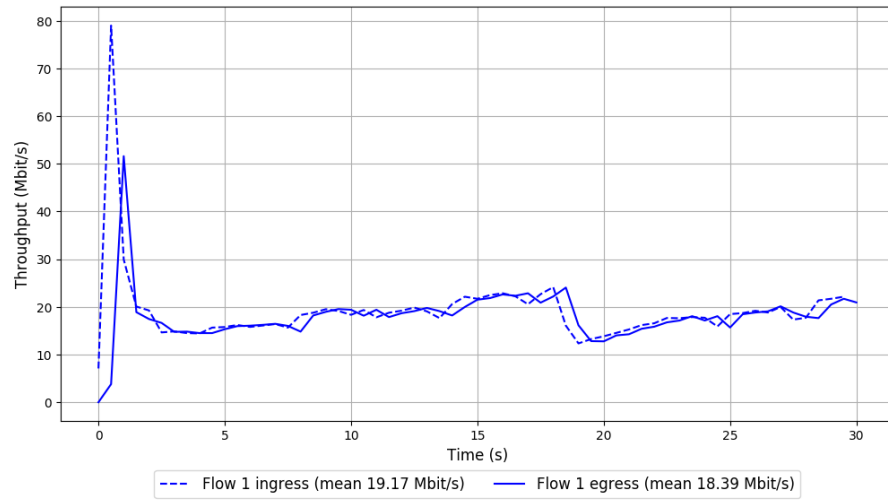


Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 13:06:21
End at: 2018-09-25 13:06:51
Local clock offset: 6.002 ms
Remote clock offset: -4.334 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 62.627 ms
Loss rate: 4.36%
-- Flow 1:
Average throughput: 18.39 Mbit/s
95th percentile per-packet one-way delay: 62.627 ms
Loss rate: 4.36%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

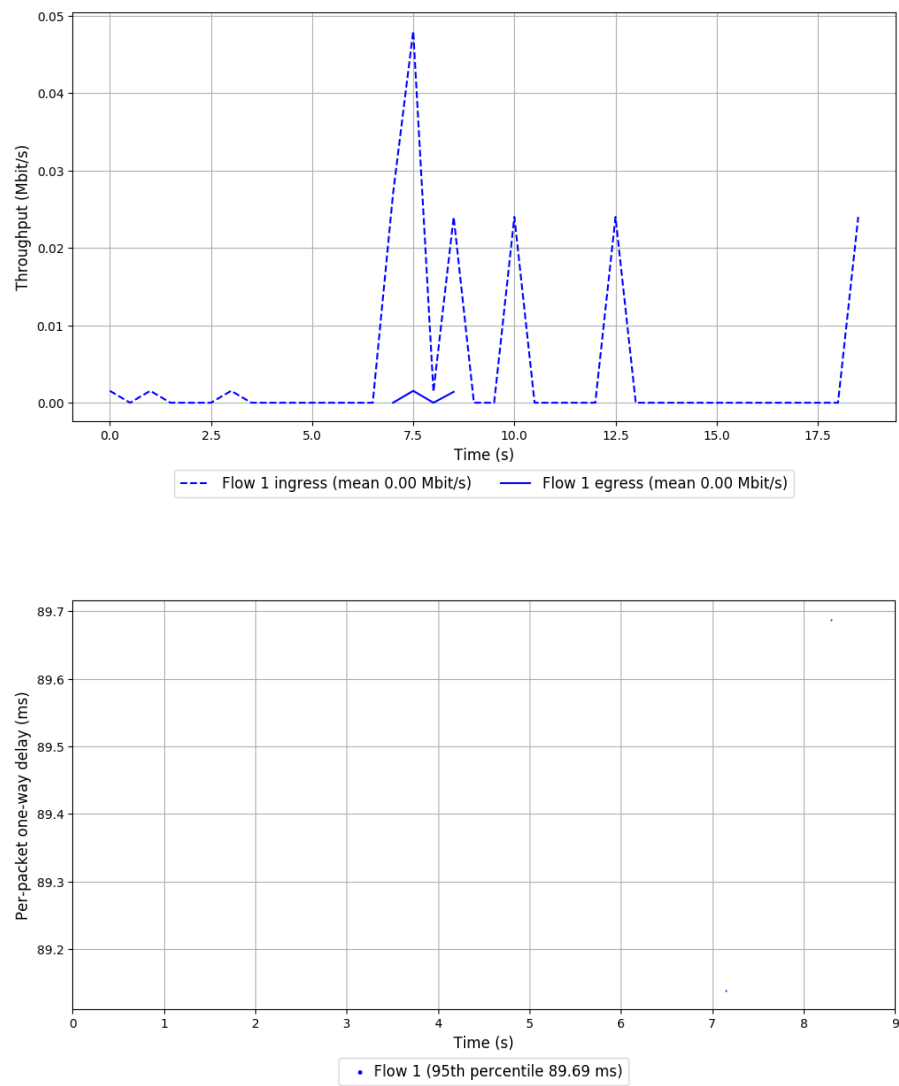
Start at: 2018-09-25 13:33:40

End at: 2018-09-25 13:34:10

Local clock offset: 7.73 ms

Remote clock offset: 1.047 ms

Run 4: Report of TCP Vegas — Data Link

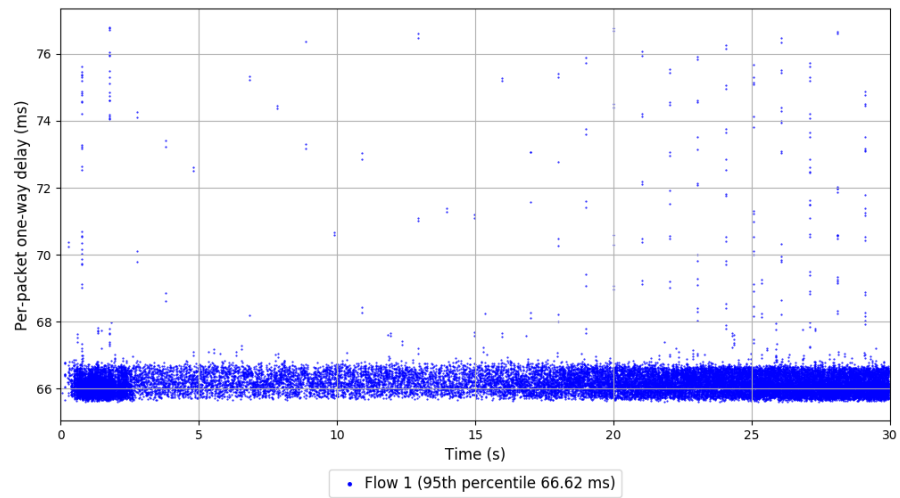
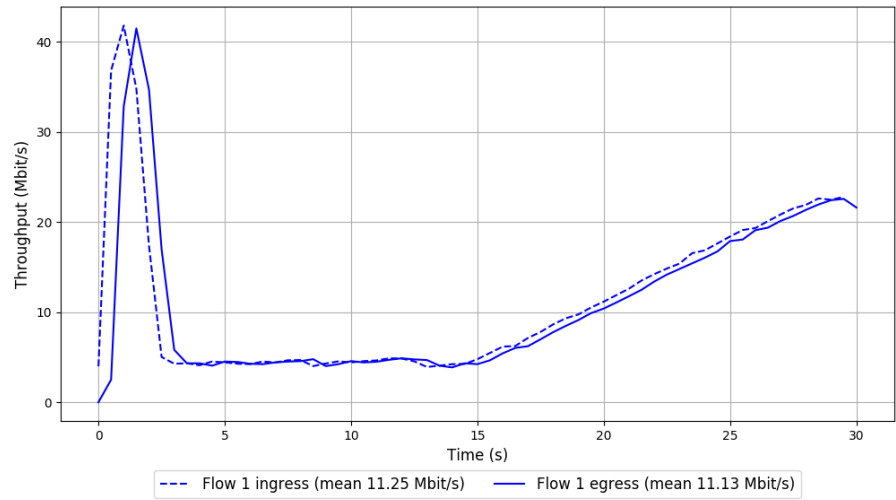


Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 13:58:08
End at: 2018-09-25 13:58:38
Local clock offset: 0.393 ms
Remote clock offset: -11.59 ms

Below is generated by plot.py at 2018-09-25 14:18:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 66.618 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 11.13 Mbit/s
95th percentile per-packet one-way delay: 66.618 ms
Loss rate: 1.34%

Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-09-25 12:35:06

End at: 2018-09-25 12:35:36

Local clock offset: 5.72 ms

Remote clock offset: 2.219 ms

Below is generated by plot.py at 2018-09-25 14:18:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.79 Mbit/s

95th percentile per-packet one-way delay: 181.135 ms

Loss rate: 75.52%

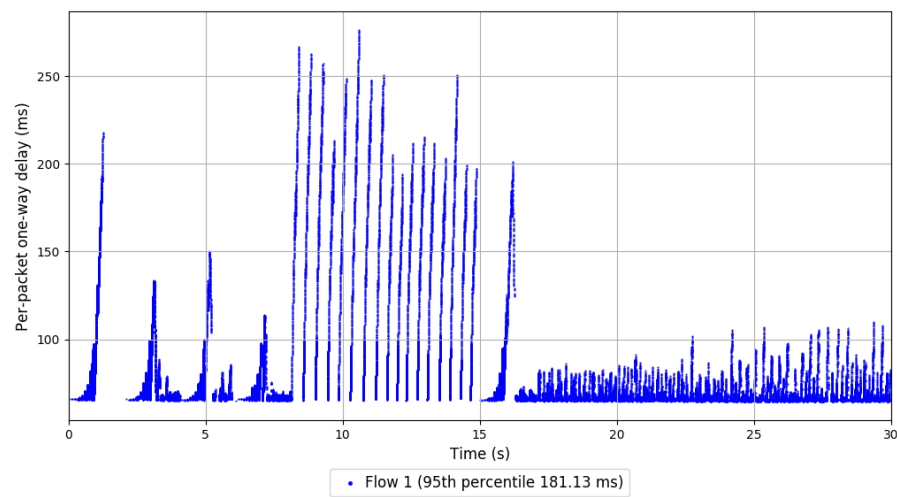
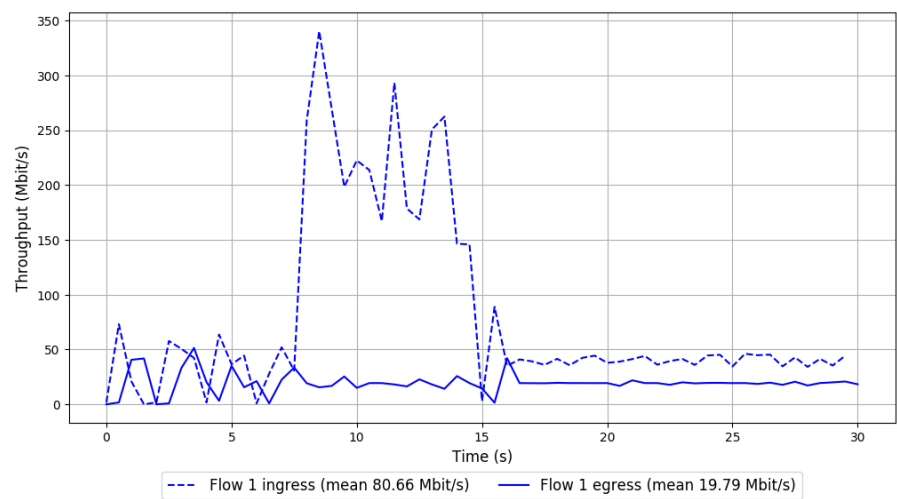
-- Flow 1:

Average throughput: 19.79 Mbit/s

95th percentile per-packet one-way delay: 181.135 ms

Loss rate: 75.52%

Run 1: Report of Verus — Data Link

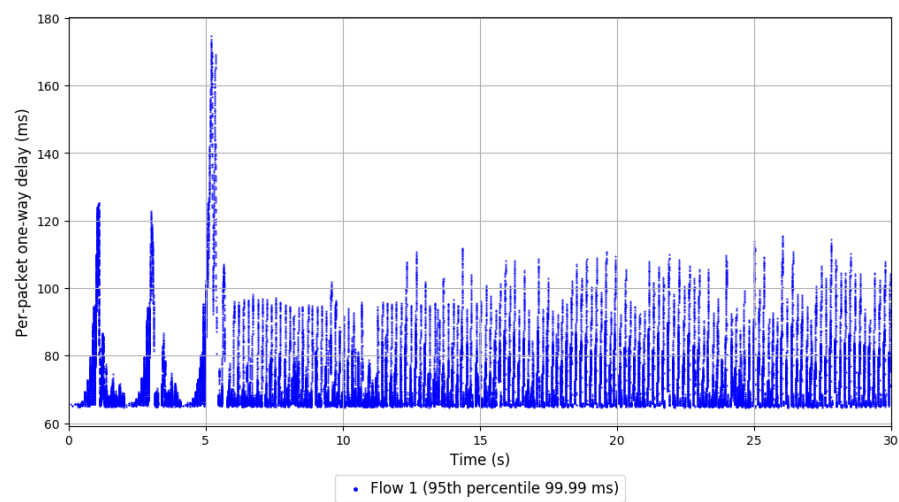
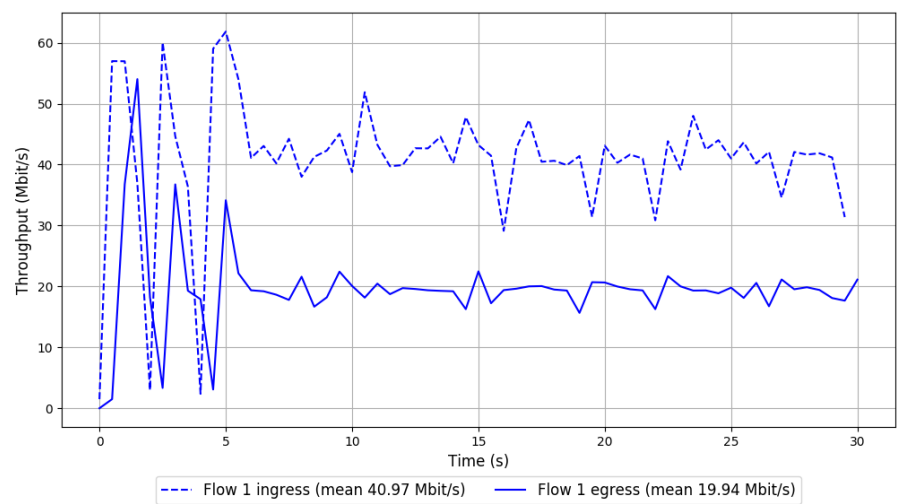


Run 2: Statistics of Verus

Start at: 2018-09-25 12:58:08
End at: 2018-09-25 12:58:38
Local clock offset: 5.597 ms
Remote clock offset: -12.352 ms

Below is generated by plot.py at 2018-09-25 14:18:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 99.986 ms
Loss rate: 51.35%
-- Flow 1:
Average throughput: 19.94 Mbit/s
95th percentile per-packet one-way delay: 99.986 ms
Loss rate: 51.35%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-09-25 13:23:51

End at: 2018-09-25 13:24:21

Local clock offset: 7.115 ms

Remote clock offset: 2.658 ms

Below is generated by plot.py at 2018-09-25 14:18:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.91 Mbit/s

95th percentile per-packet one-way delay: 117.683 ms

Loss rate: 46.20%

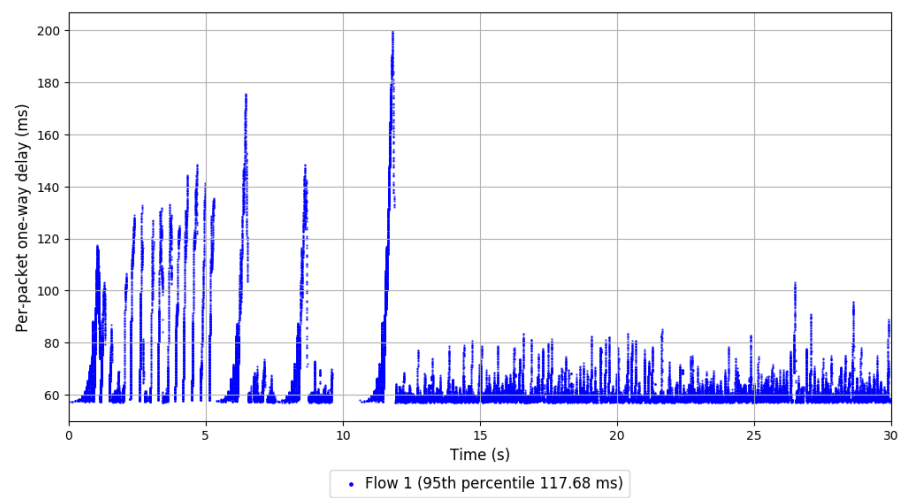
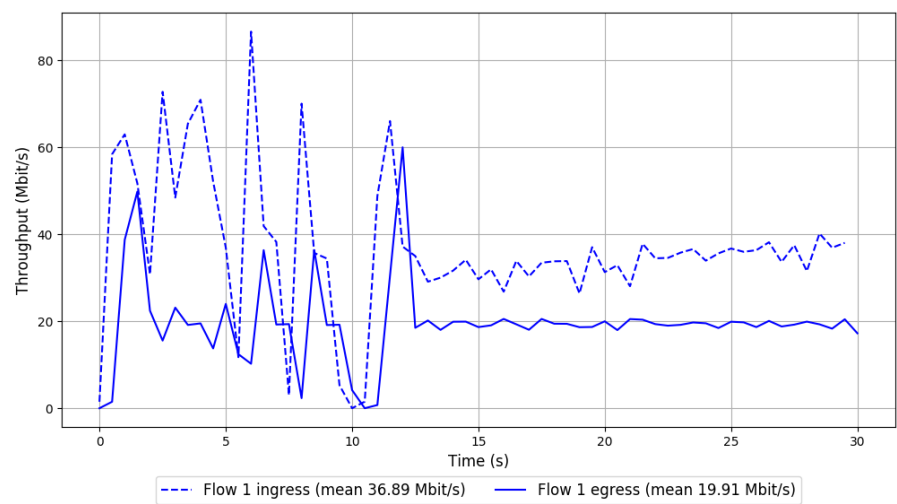
-- Flow 1:

Average throughput: 19.91 Mbit/s

95th percentile per-packet one-way delay: 117.683 ms

Loss rate: 46.20%

Run 3: Report of Verus — Data Link

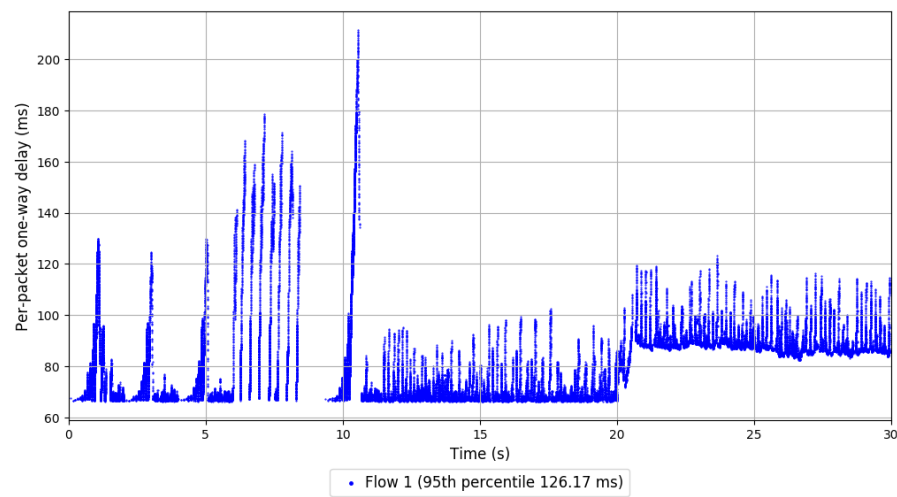
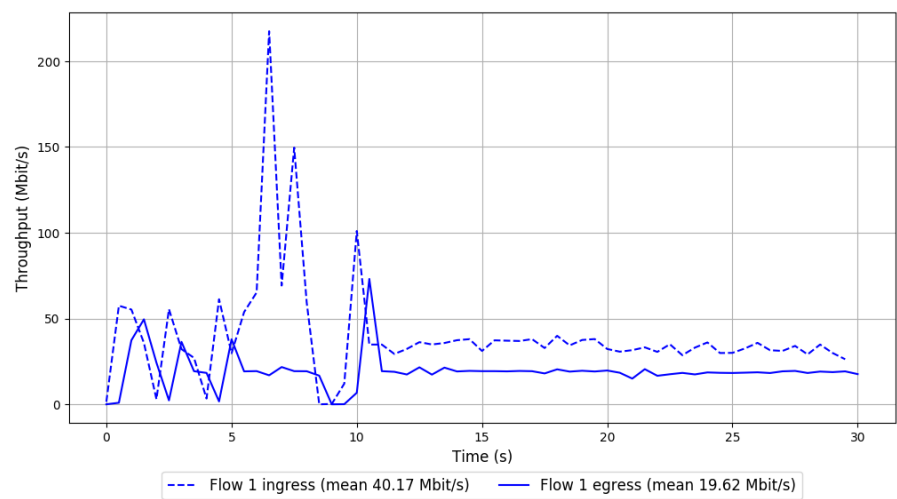


Run 4: Statistics of Verus

Start at: 2018-09-25 13:48:17
End at: 2018-09-25 13:48:47
Local clock offset: 2.86 ms
Remote clock offset: -10.087 ms

Below is generated by plot.py at 2018-09-25 14:18:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.62 Mbit/s
95th percentile per-packet one-way delay: 126.171 ms
Loss rate: 51.17%
-- Flow 1:
Average throughput: 19.62 Mbit/s
95th percentile per-packet one-way delay: 126.171 ms
Loss rate: 51.17%

Run 4: Report of Verus — Data Link

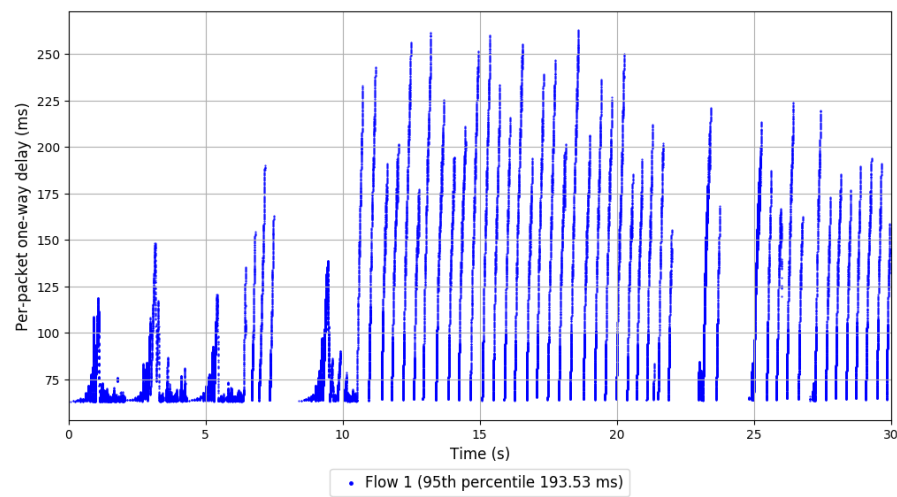
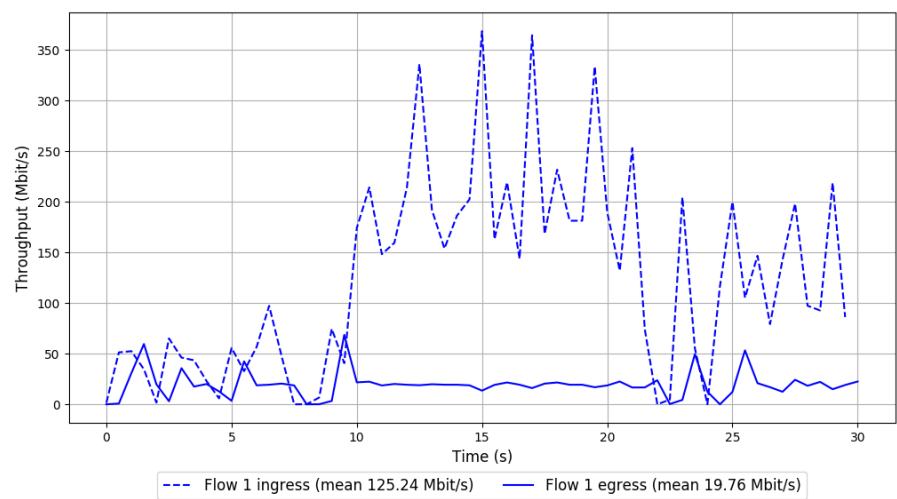


Run 5: Statistics of Verus

Start at: 2018-09-25 14:12:10
End at: 2018-09-25 14:12:40
Local clock offset: 0.343 ms
Remote clock offset: -6.054 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 193.535 ms
Loss rate: 84.18%
-- Flow 1:
Average throughput: 19.76 Mbit/s
95th percentile per-packet one-way delay: 193.535 ms
Loss rate: 84.18%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-09-25 12:37:28

End at: 2018-09-25 12:37:58

Local clock offset: 5.901 ms

Remote clock offset: 1.699 ms

Below is generated by plot.py at 2018-09-25 14:18:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.36 Mbit/s

95th percentile per-packet one-way delay: 65.630 ms

Loss rate: 5.15%

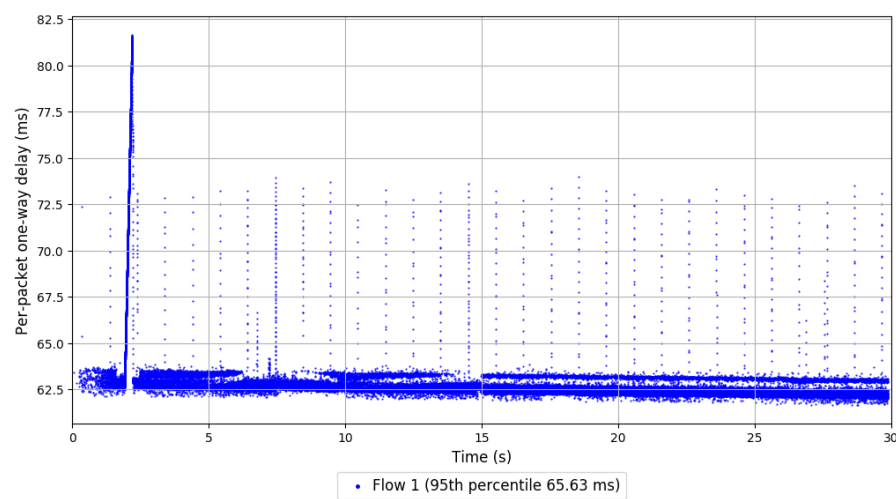
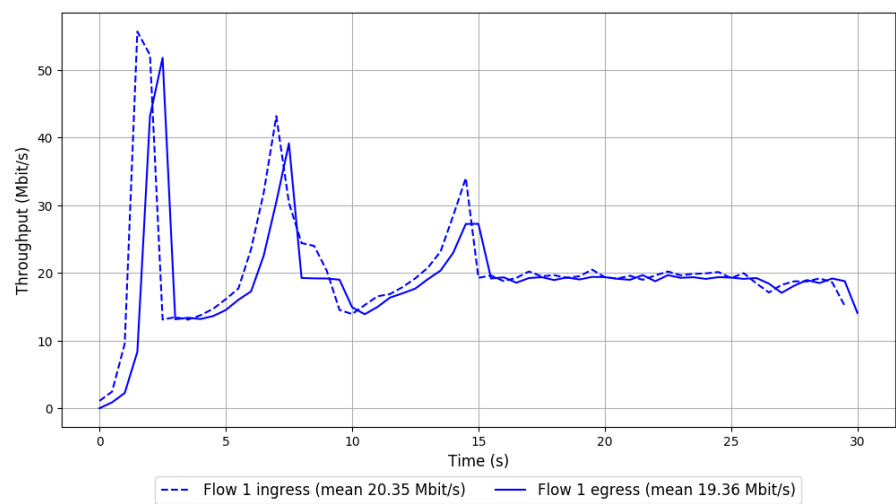
-- Flow 1:

Average throughput: 19.36 Mbit/s

95th percentile per-packet one-way delay: 65.630 ms

Loss rate: 5.15%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 13:00:28

End at: 2018-09-25 13:00:58

Local clock offset: 5.803 ms

Remote clock offset: -9.765 ms

Below is generated by plot.py at 2018-09-25 14:18:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.43 Mbit/s

95th percentile per-packet one-way delay: 62.091 ms

Loss rate: 7.81%

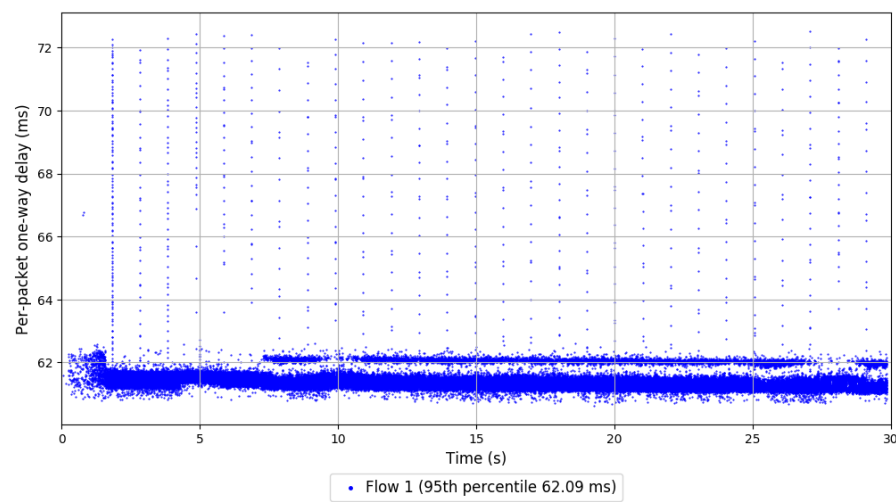
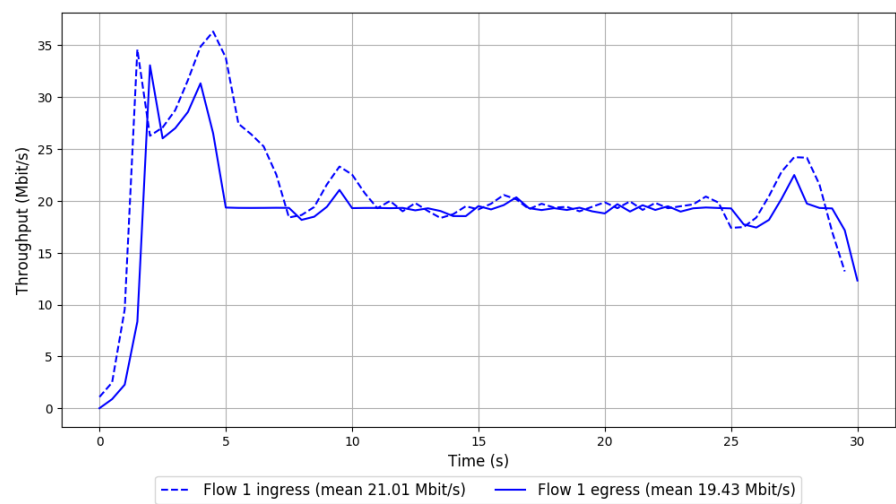
-- Flow 1:

Average throughput: 19.43 Mbit/s

95th percentile per-packet one-way delay: 62.091 ms

Loss rate: 7.81%

Run 2: Report of PCC-Vivace — Data Link

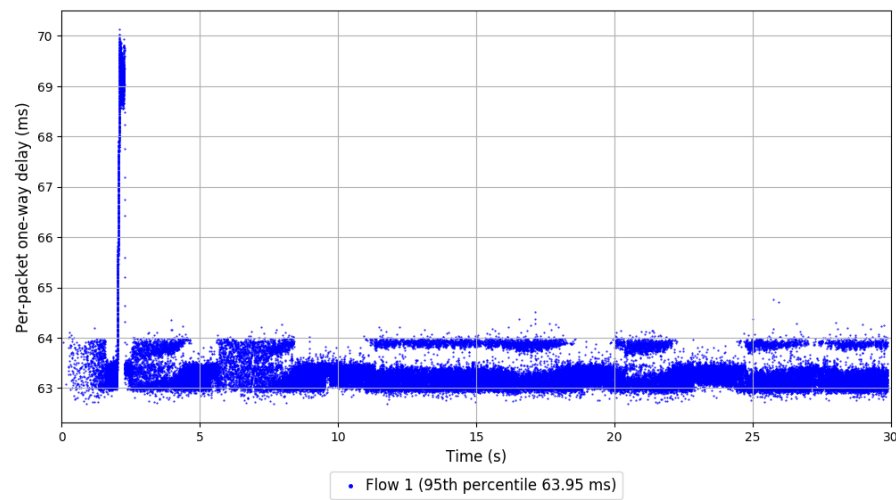
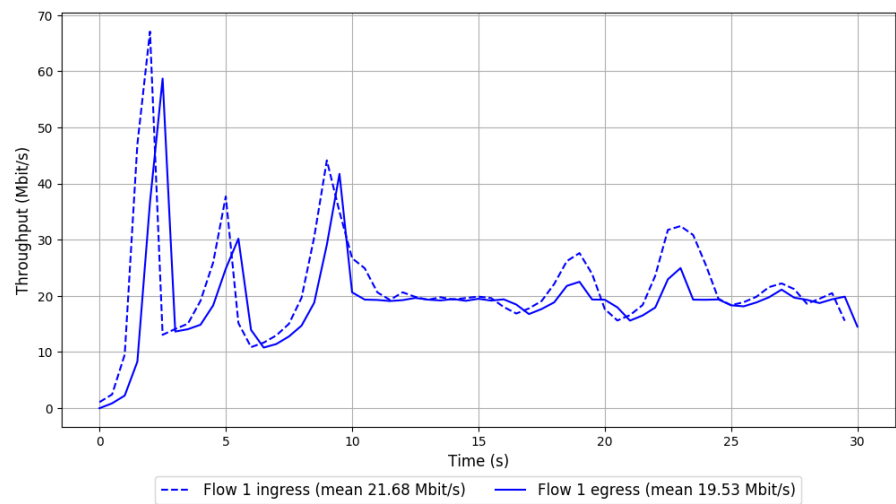


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 13:26:11
End at: 2018-09-25 13:26:41
Local clock offset: 7.358 ms
Remote clock offset: -3.833 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.53 Mbit/s
95th percentile per-packet one-way delay: 63.952 ms
Loss rate: 10.16%
-- Flow 1:
Average throughput: 19.53 Mbit/s
95th percentile per-packet one-way delay: 63.952 ms
Loss rate: 10.16%

Run 3: Report of PCC-Vivace — Data Link

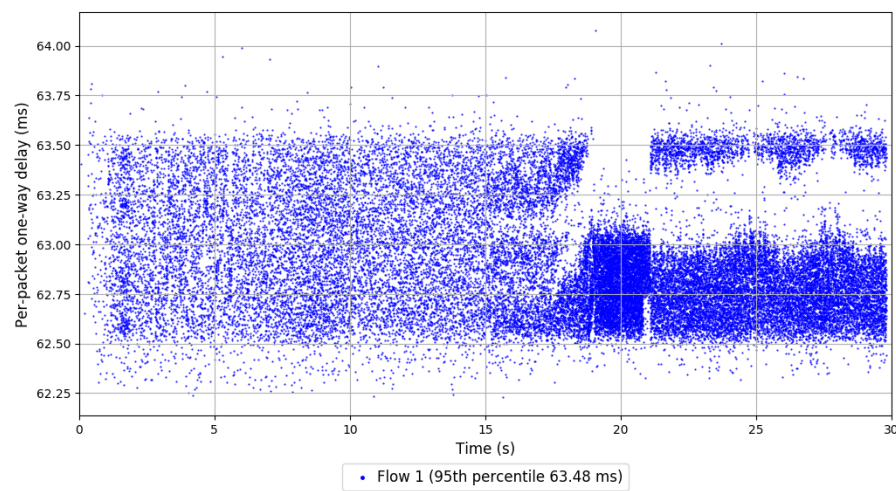
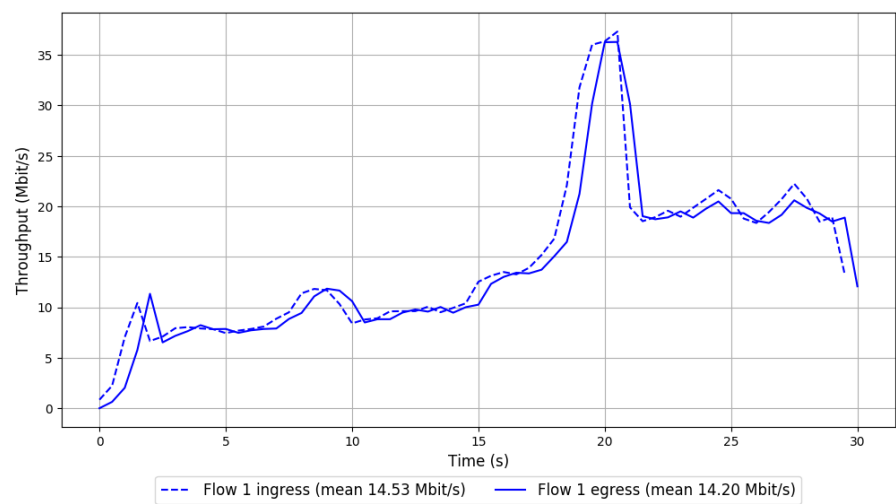


Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 13:52:15
End at: 2018-09-25 13:52:45
Local clock offset: 1.554 ms
Remote clock offset: -8.052 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 63.481 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 14.20 Mbit/s
95th percentile per-packet one-way delay: 63.481 ms
Loss rate: 2.57%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 14:14:33

End at: 2018-09-25 14:15:03

Local clock offset: 1.291 ms

Remote clock offset: 2.176 ms

Below is generated by plot.py at 2018-09-25 14:18:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.50 Mbit/s

95th percentile per-packet one-way delay: 61.144 ms

Loss rate: 9.79%

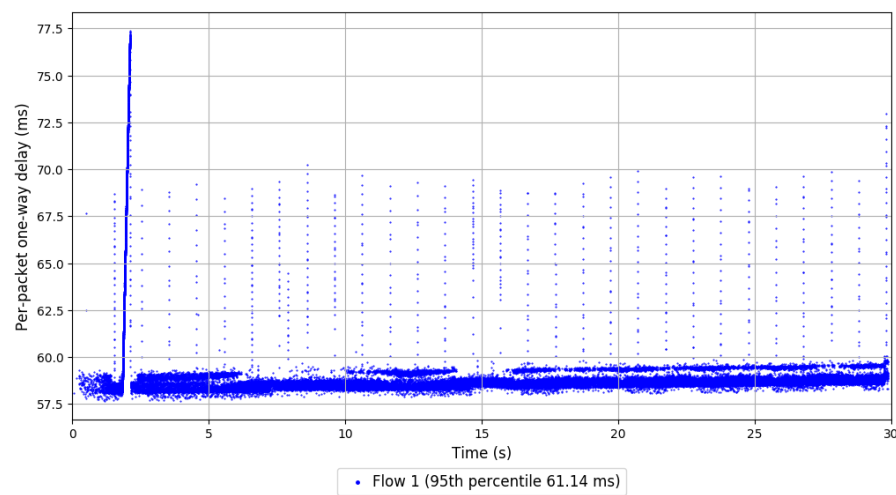
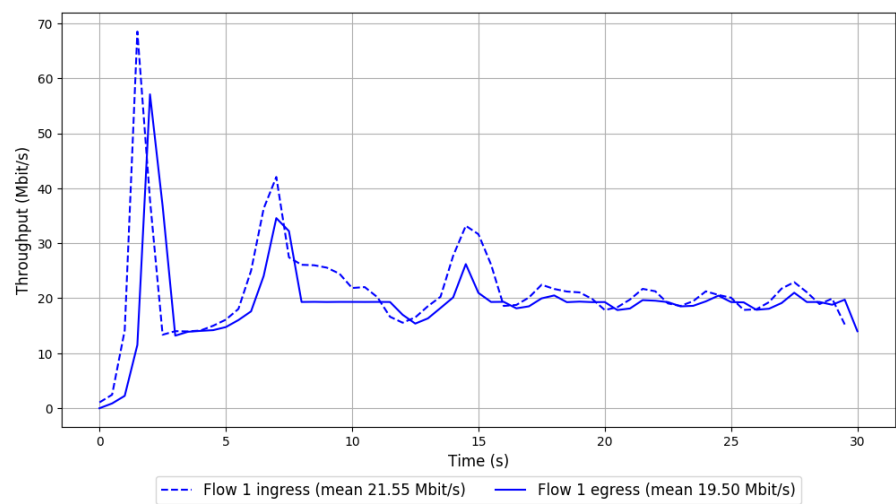
-- Flow 1:

Average throughput: 19.50 Mbit/s

95th percentile per-packet one-way delay: 61.144 ms

Loss rate: 9.79%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-09-25 12:36:20

End at: 2018-09-25 12:36:50

Local clock offset: 6.015 ms

Remote clock offset: 3.619 ms

Below is generated by plot.py at 2018-09-25 14:18:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 63.076 ms

Loss rate: 0.36%

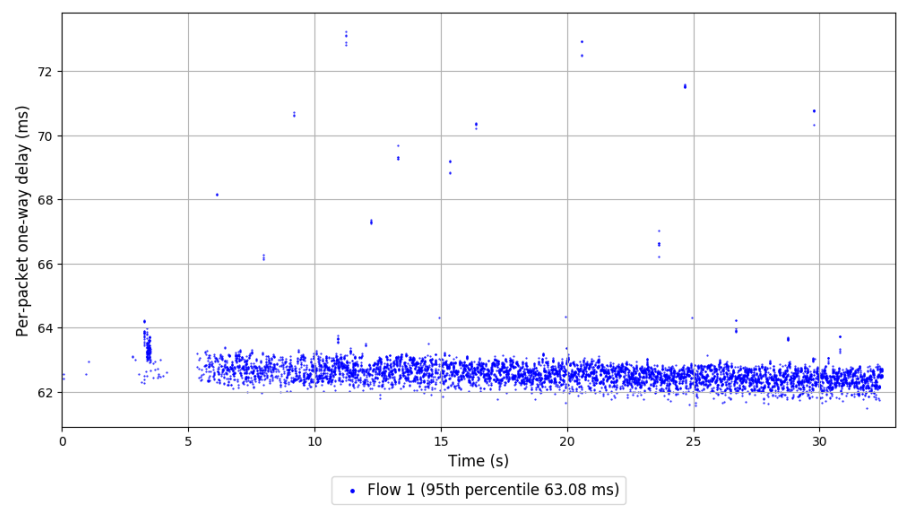
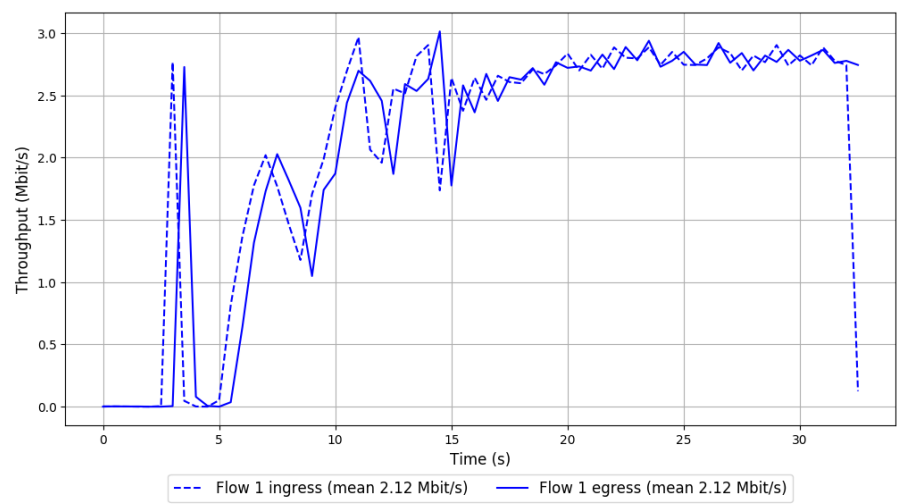
-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 63.076 ms

Loss rate: 0.36%

Run 1: Report of WebRTC media — Data Link

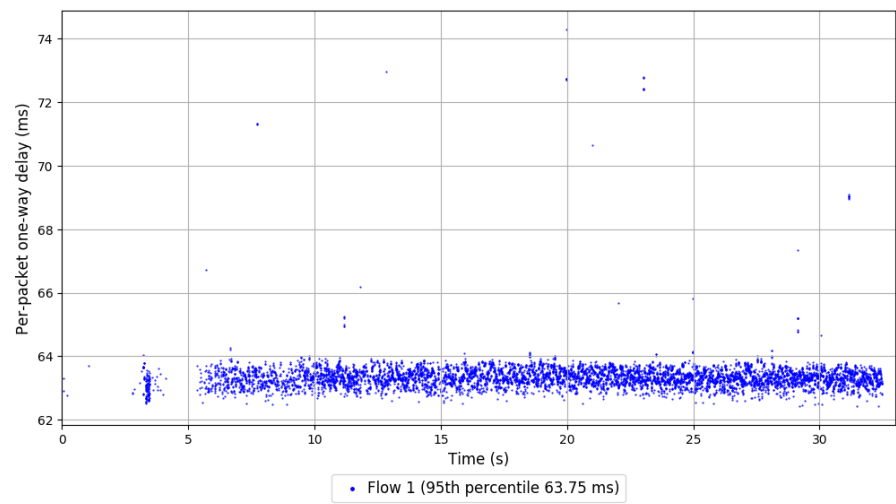
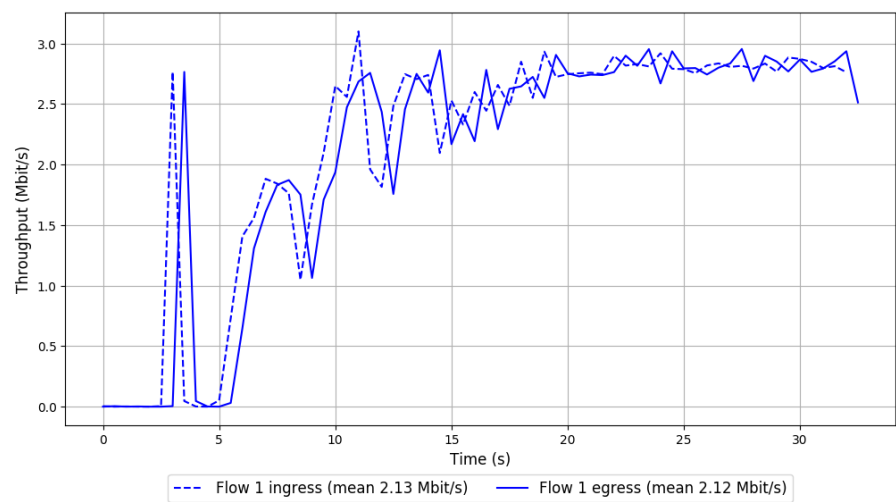


Run 2: Statistics of WebRTC media

Start at: 2018-09-25 12:59:20
End at: 2018-09-25 12:59:50
Local clock offset: 5.813 ms
Remote clock offset: -10.258 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 63.746 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 63.746 ms
Loss rate: 0.36%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-09-25 13:25:03

End at: 2018-09-25 13:25:33

Local clock offset: 7.251 ms

Remote clock offset: 5.094 ms

Below is generated by plot.py at 2018-09-25 14:18:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 55.522 ms

Loss rate: 0.46%

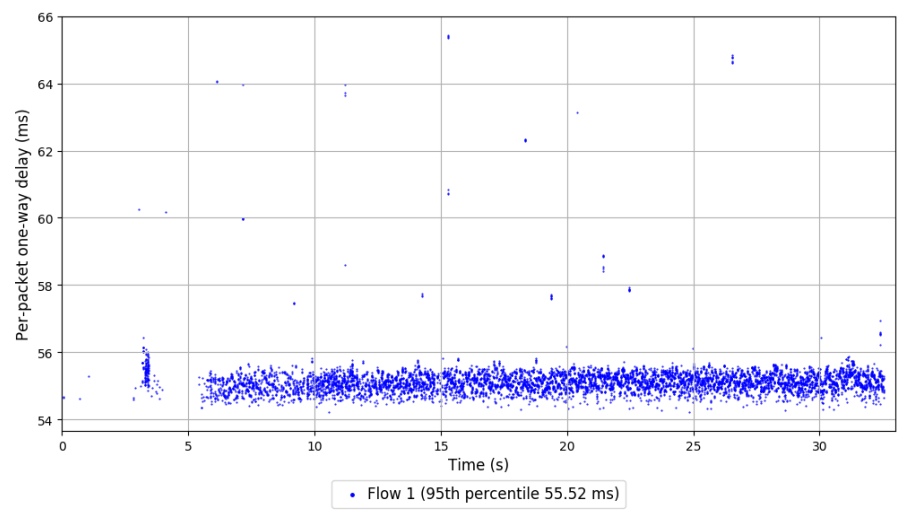
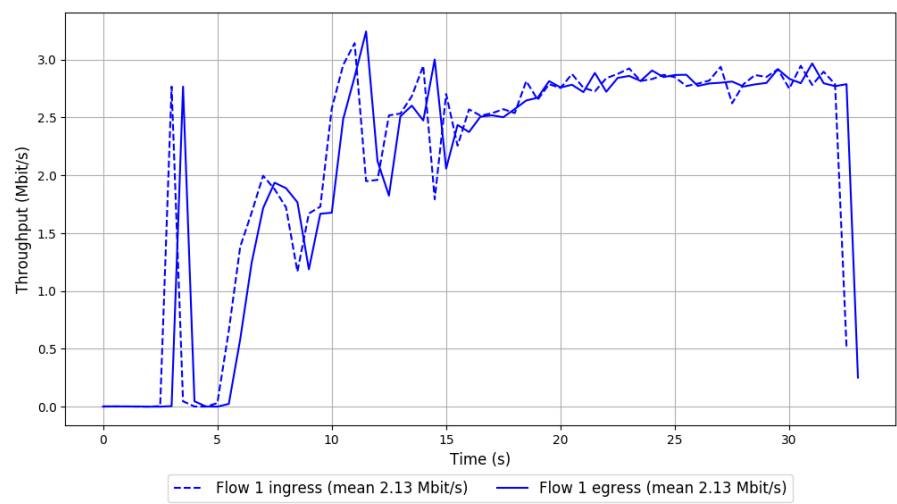
-- Flow 1:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 55.522 ms

Loss rate: 0.46%

Run 3: Report of WebRTC media — Data Link

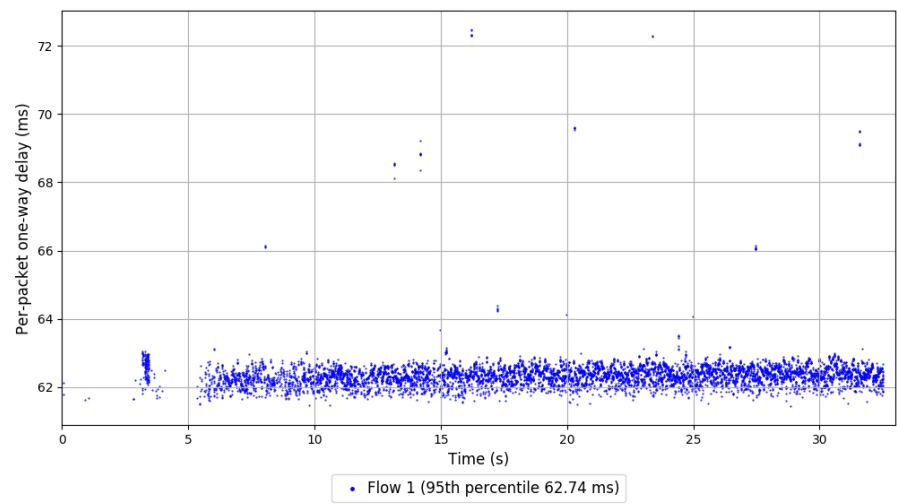
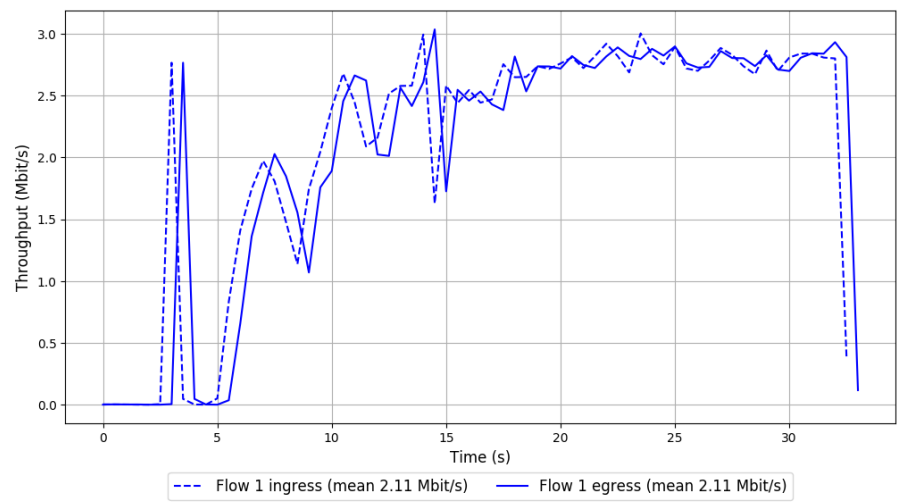


Run 4: Statistics of WebRTC media

Start at: 2018-09-25 13:51:05
End at: 2018-09-25 13:51:35
Local clock offset: 1.736 ms
Remote clock offset: -6.779 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 62.736 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 62.736 ms
Loss rate: 0.37%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 14:13:25
End at: 2018-09-25 14:13:55
Local clock offset: 0.991 ms
Remote clock offset: -5.389 ms

Below is generated by plot.py at 2018-09-25 14:18:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 65.546 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 65.546 ms
Loss rate: 0.37%

Run 5: Report of WebRTC media — Data Link

