

Pantheon Report

Generated at 2018-09-25 16:34:07 (UTC).

Data path: Colombia on **p4p1** (*remote*) → AWS Brazil 2 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 **gps.ntp.br** and have been applied to correct the timestamps in logs.

System info:

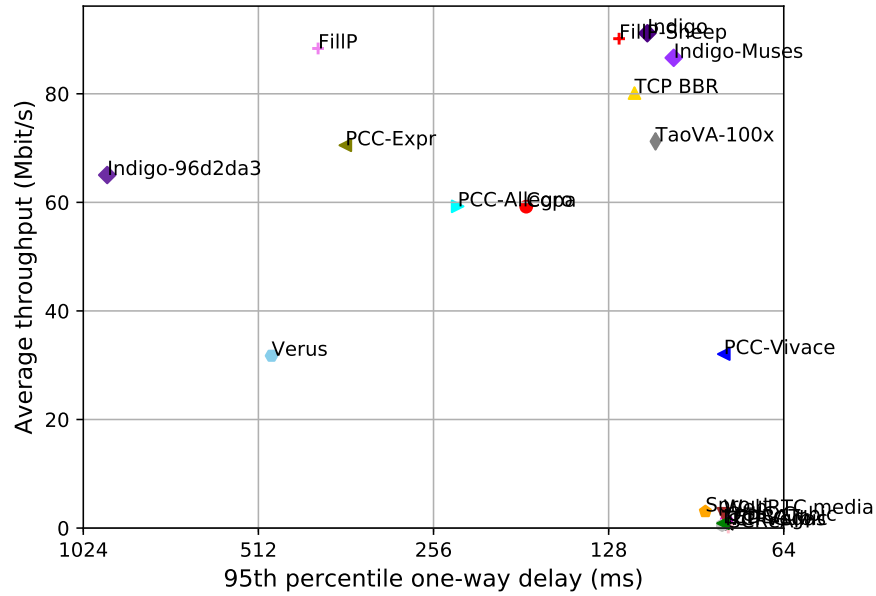
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 184101 245469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

Git summary:

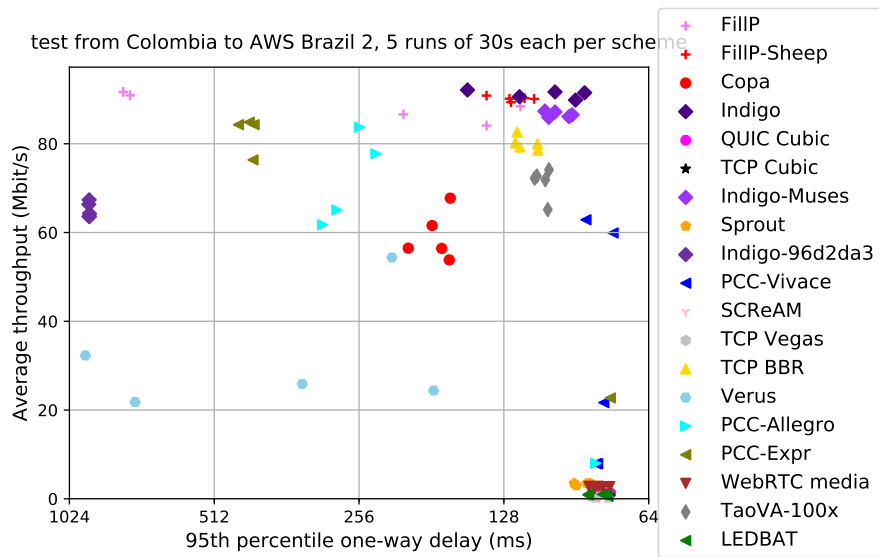
```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
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 Colombia to AWS Brazil 2, 5 runs of 30s each per scheme
(mean of all runs by scheme)



test from Colombia to AWS Brazil 2, 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	80.13	115.55	3.72
Copa	5	59.20	177.36	3.69
TCP Cubic	5	0.58	79.43	2.84
FillP	5	88.35	404.25	4.42
FillP-Sheep	5	90.15	122.81	3.46
Indigo	5	91.15	109.83	3.49
Indigo-96d2da3	5	65.04	931.48	5.88
LEDBAT	5	0.88	81.39	2.95
Indigo-Muses	5	86.62	98.94	3.82
PCC-Allegro	5	59.26	232.67	3.35
PCC-Expr	5	70.51	362.95	3.41
QUIC Cubic	5	1.35	80.29	2.94
SCReAM	5	0.11	79.72	1.98
Sprout	5	3.06	87.28	3.16
TaoVA-100x	5	71.23	106.33	3.16
TCP Vegas	5	0.53	81.67	3.04
Verus	5	31.74	486.07	5.42
PCC-Vivace	5	32.05	81.15	3.83
WebRTC media	5	2.63	81.26	2.98

Run 1: Statistics of TCP BBR

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

End at: 2018-09-25 12:26:25

Local clock offset: -8.33 ms

Remote clock offset: -3.012 ms

Below is generated by plot.py at 2018-09-25 16:26:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.66 Mbit/s

95th percentile per-packet one-way delay: 120.207 ms

Loss rate: 4.08%

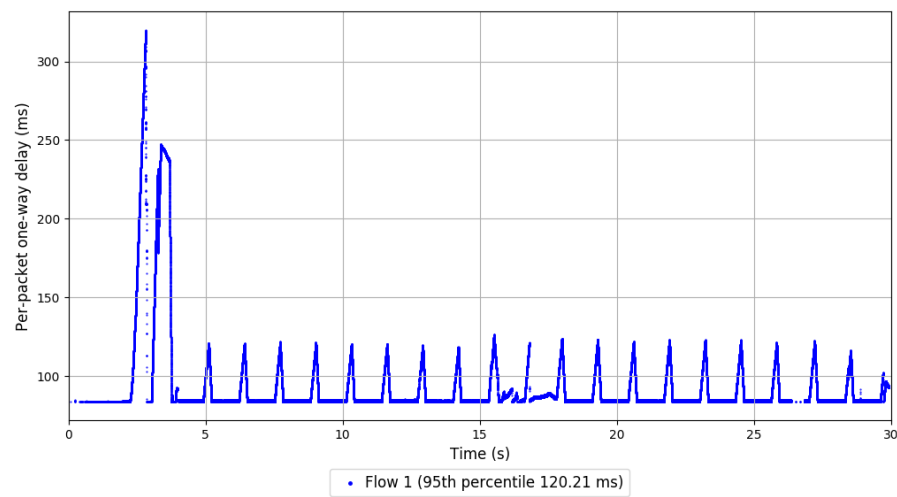
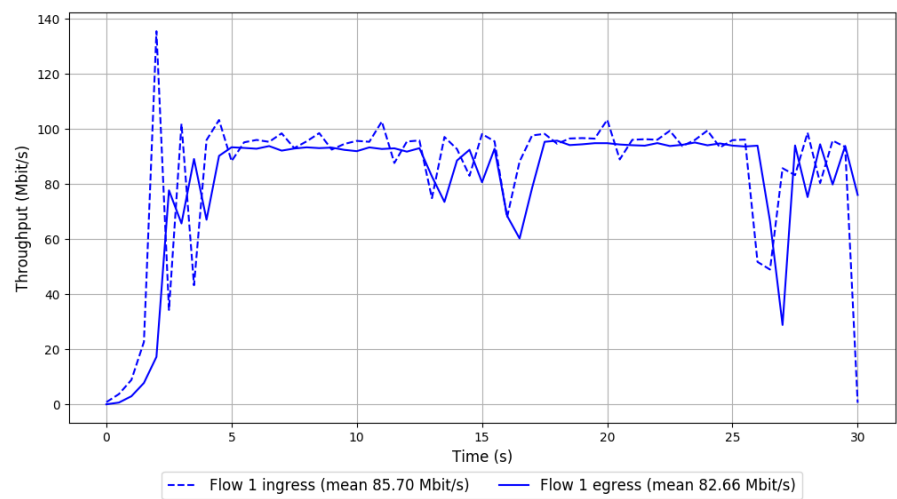
-- Flow 1:

Average throughput: 82.66 Mbit/s

95th percentile per-packet one-way delay: 120.207 ms

Loss rate: 4.08%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-09-25 13:15:12

End at: 2018-09-25 13:15:42

Local clock offset: -4.81 ms

Remote clock offset: -0.099 ms

Below is generated by plot.py at 2018-09-25 16:26:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.98 Mbit/s

95th percentile per-packet one-way delay: 108.973 ms

Loss rate: 3.32%

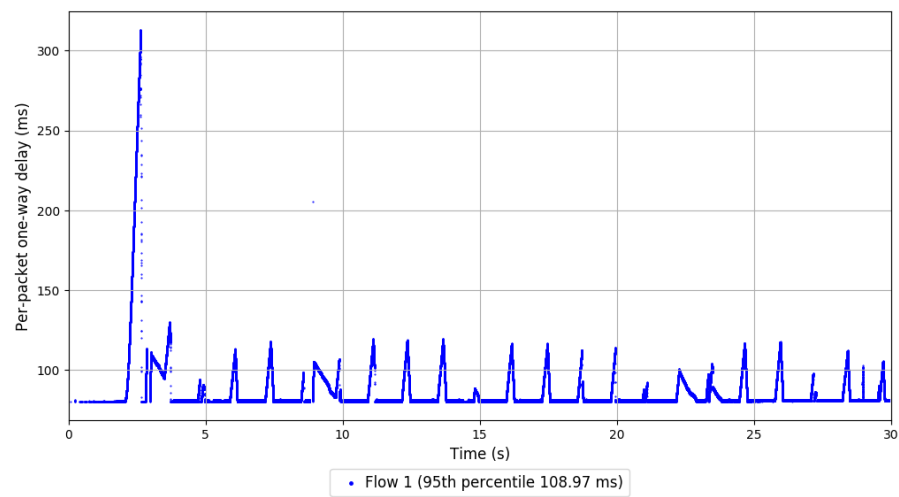
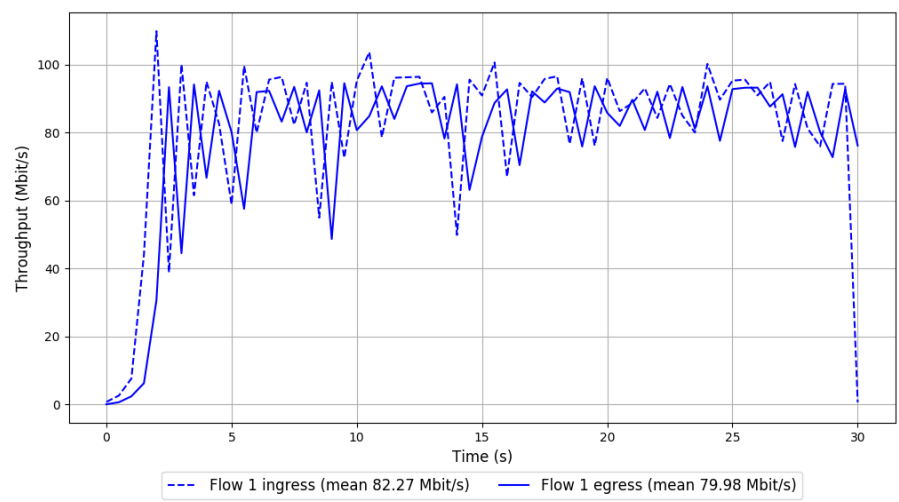
-- Flow 1:

Average throughput: 79.98 Mbit/s

95th percentile per-packet one-way delay: 108.973 ms

Loss rate: 3.32%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-09-25 14:01:42

End at: 2018-09-25 14:02:12

Local clock offset: -7.228 ms

Remote clock offset: -3.59 ms

Below is generated by plot.py at 2018-09-25 16:26:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.19 Mbit/s

95th percentile per-packet one-way delay: 121.212 ms

Loss rate: 3.30%

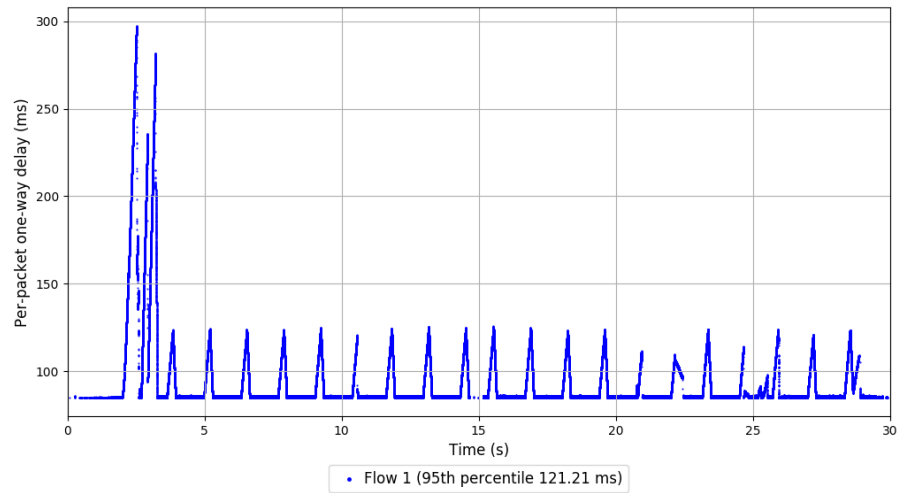
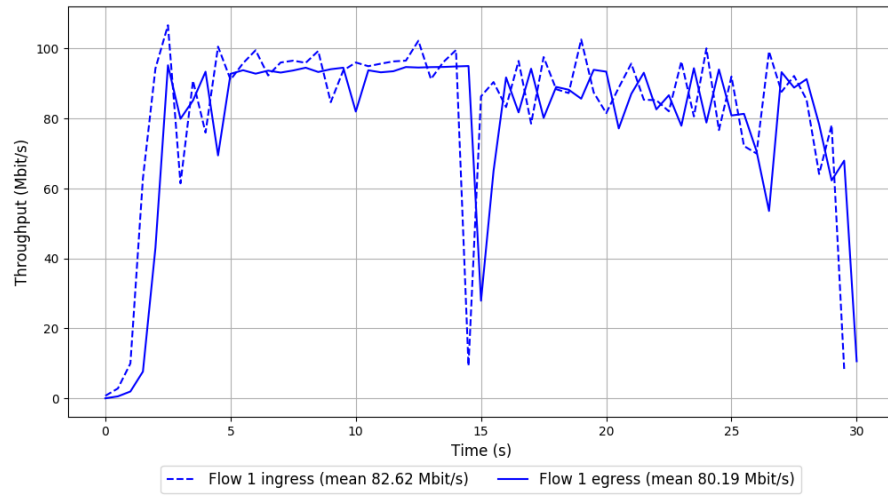
-- Flow 1:

Average throughput: 80.19 Mbit/s

95th percentile per-packet one-way delay: 121.212 ms

Loss rate: 3.30%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-09-25 14:53:10

End at: 2018-09-25 14:53:40

Local clock offset: -8.468 ms

Remote clock offset: 2.081 ms

Below is generated by plot.py at 2018-09-25 16:26:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.56 Mbit/s

95th percentile per-packet one-way delay: 108.780 ms

Loss rate: 3.83%

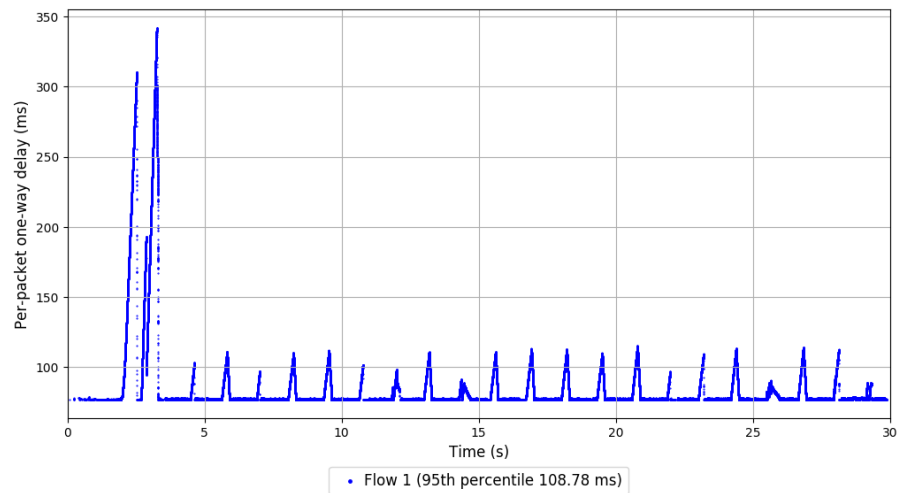
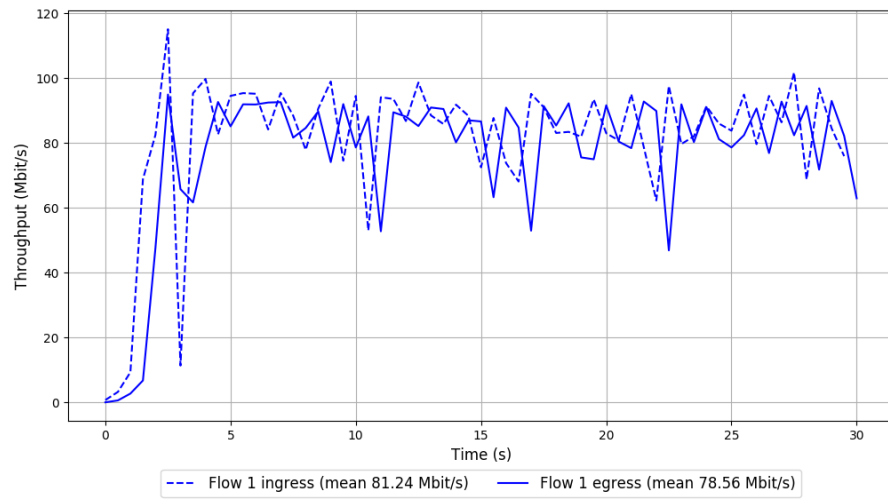
-- Flow 1:

Average throughput: 78.56 Mbit/s

95th percentile per-packet one-way delay: 108.780 ms

Loss rate: 3.83%

Run 4: Report of TCP BBR — Data Link

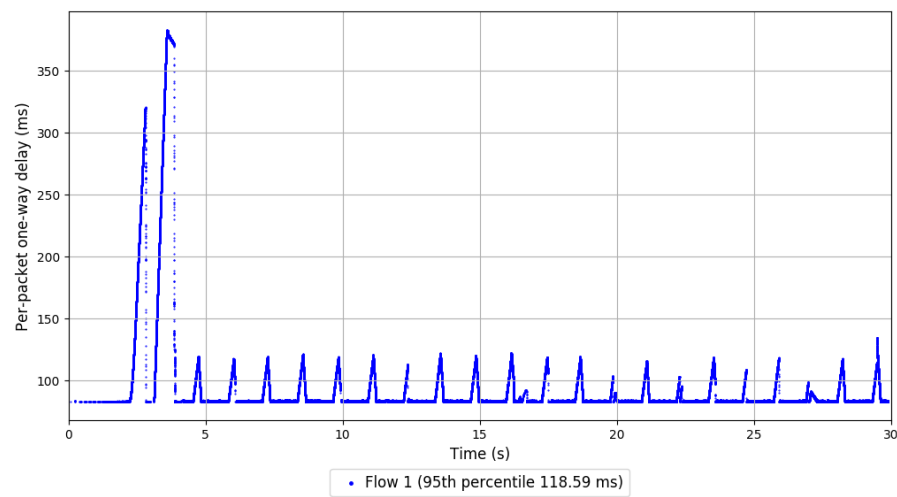
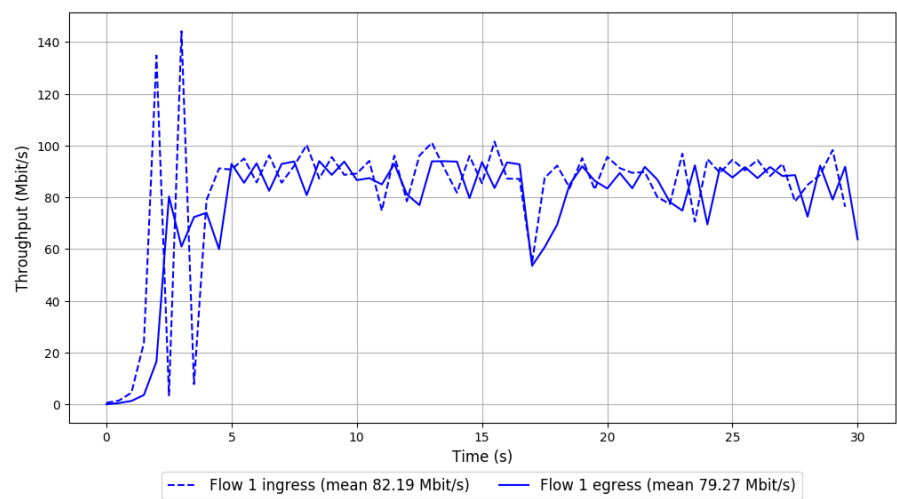


Run 5: Statistics of TCP BBR

Start at: 2018-09-25 15:43:29
End at: 2018-09-25 15:43:59
Local clock offset: -4.423 ms
Remote clock offset: -4.497 ms

Below is generated by plot.py at 2018-09-25 16:26:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 118.594 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 118.594 ms
Loss rate: 4.07%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-09-25 12:58:28

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

Local clock offset: -2.783 ms

Remote clock offset: 2.065 ms

Below is generated by plot.py at 2018-09-25 16:27:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.41 Mbit/s

95th percentile per-packet one-way delay: 172.381 ms

Loss rate: 2.66%

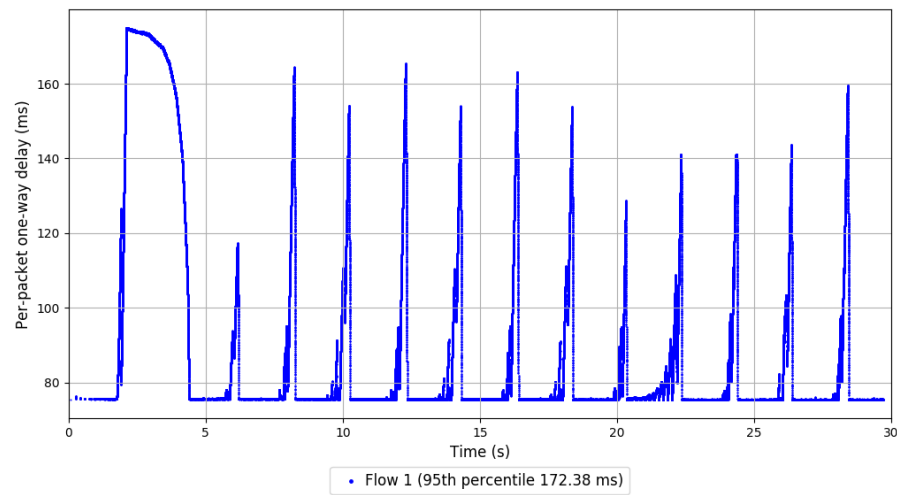
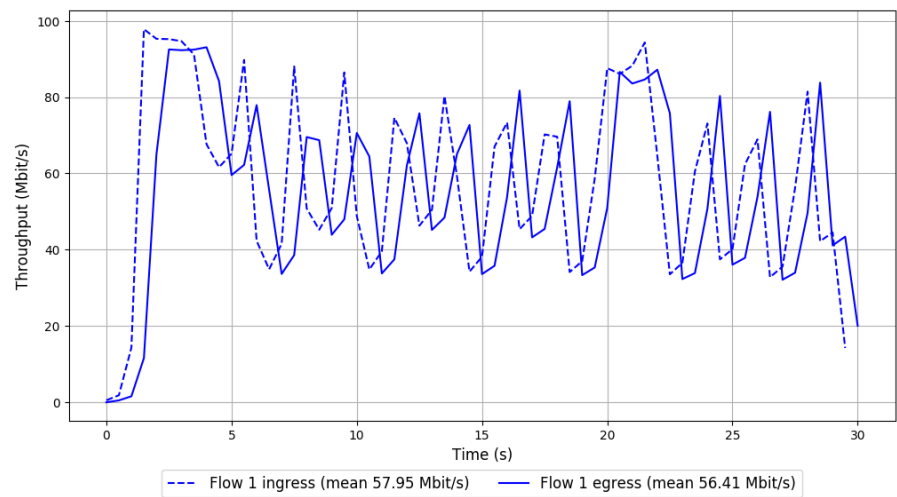
-- Flow 1:

Average throughput: 56.41 Mbit/s

95th percentile per-packet one-way delay: 172.381 ms

Loss rate: 2.66%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-09-25 13:44:52

End at: 2018-09-25 13:45:22

Local clock offset: -8.14 ms

Remote clock offset: 1.432 ms

Below is generated by plot.py at 2018-09-25 16:27:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.48 Mbit/s

95th percentile per-packet one-way delay: 202.301 ms

Loss rate: 2.92%

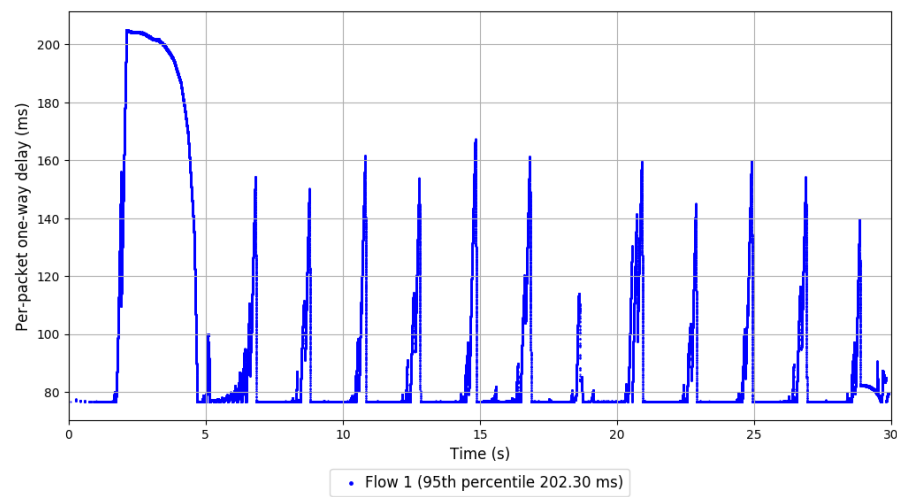
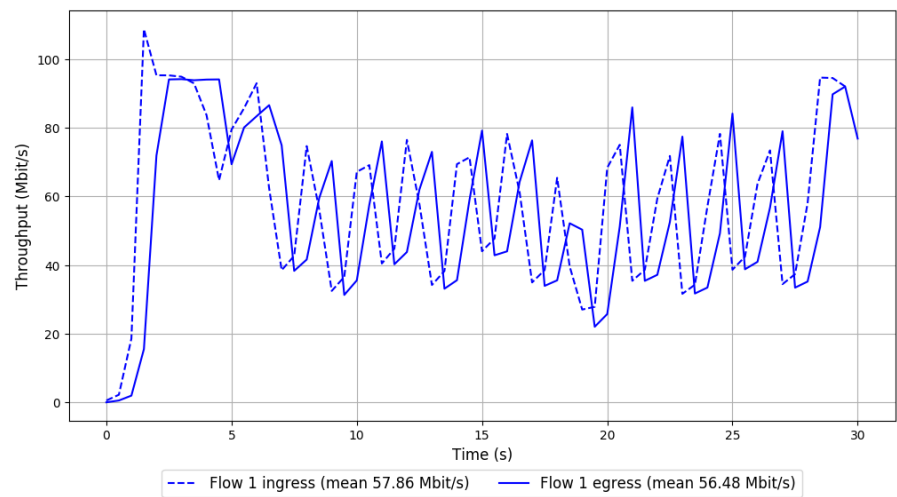
-- Flow 1:

Average throughput: 56.48 Mbit/s

95th percentile per-packet one-way delay: 202.301 ms

Loss rate: 2.92%

Run 2: Report of Copa — Data Link

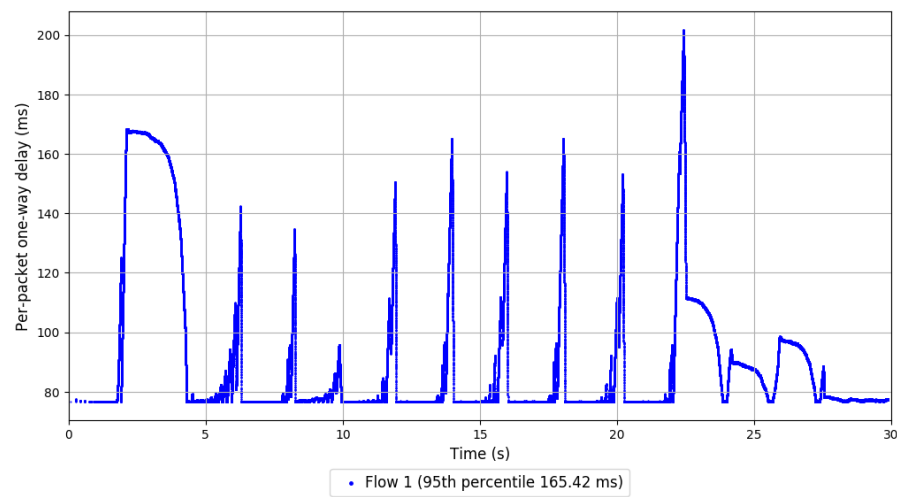
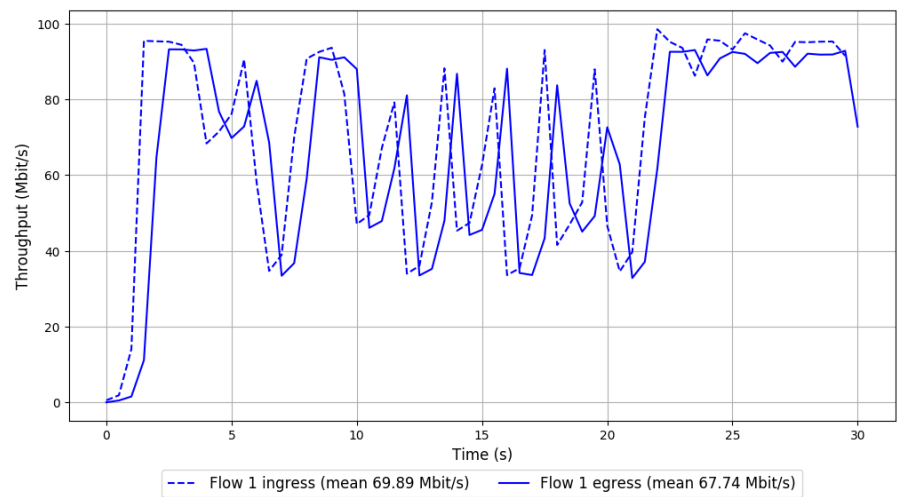


Run 3: Statistics of Copa

Start at: 2018-09-25 14:35:20
End at: 2018-09-25 14:35:50
Local clock offset: -9.055 ms
Remote clock offset: 1.224 ms

Below is generated by plot.py at 2018-09-25 16:27:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 165.424 ms
Loss rate: 3.60%
-- Flow 1:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 165.424 ms
Loss rate: 3.60%

Run 3: Report of Copa — Data Link

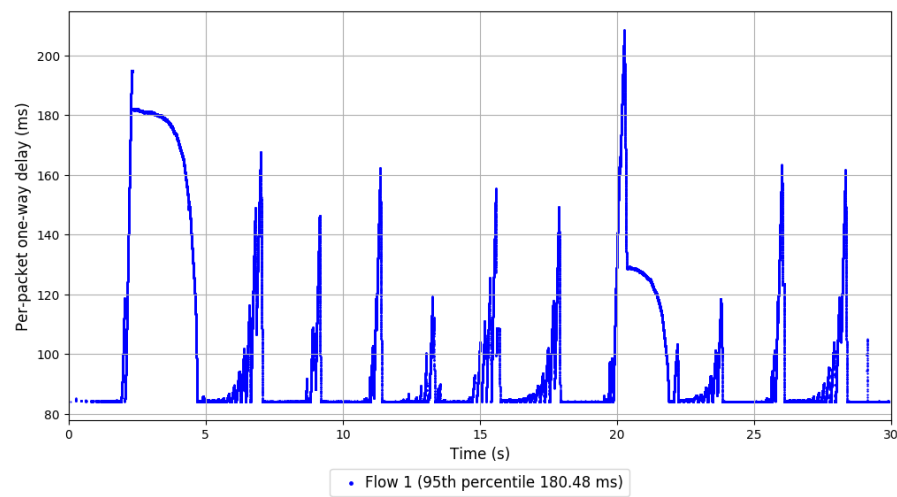
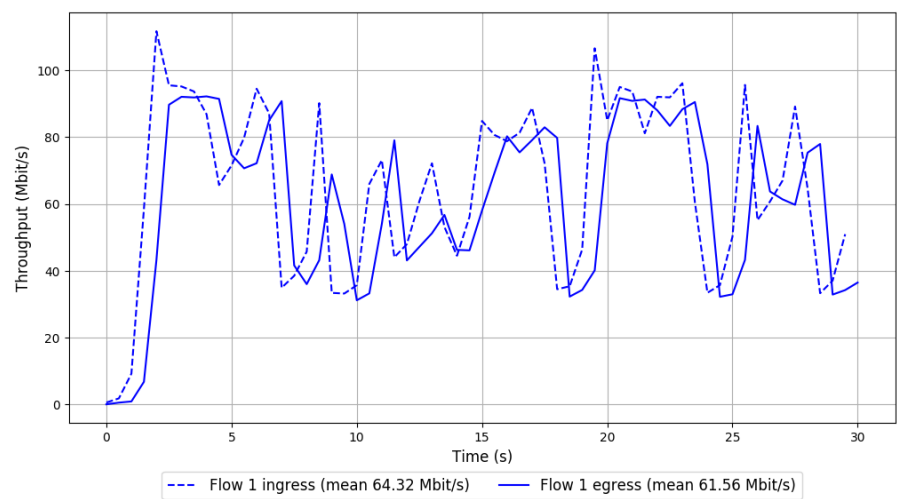


Run 4: Statistics of Copa

Start at: 2018-09-25 15:25:11
End at: 2018-09-25 15:25:41
Local clock offset: -4.0 ms
Remote clock offset: -3.411 ms

Below is generated by plot.py at 2018-09-25 16:28:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 180.476 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 61.56 Mbit/s
95th percentile per-packet one-way delay: 180.476 ms
Loss rate: 4.82%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-09-25 16:16:04

End at: 2018-09-25 16:16:34

Local clock offset: -7.762 ms

Remote clock offset: 0.646 ms

Below is generated by plot.py at 2018-09-25 16:28:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.83 Mbit/s

95th percentile per-packet one-way delay: 166.239 ms

Loss rate: 4.47%

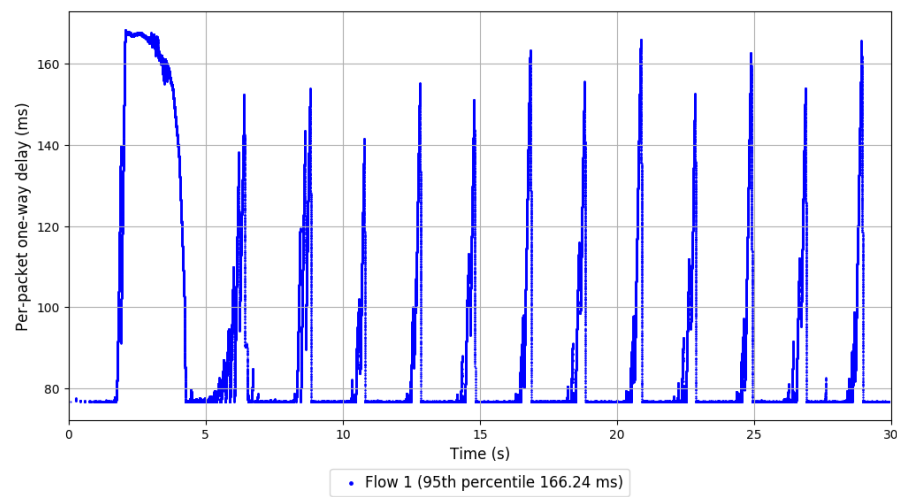
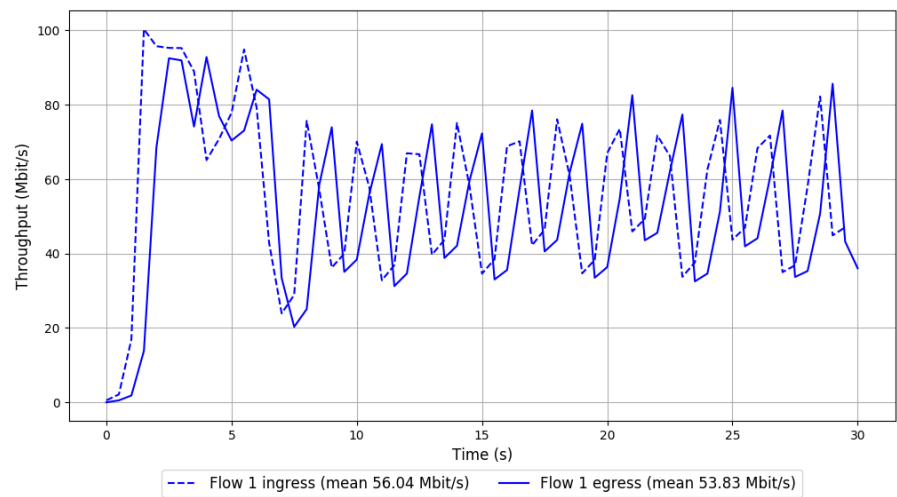
-- Flow 1:

Average throughput: 53.83 Mbit/s

95th percentile per-packet one-way delay: 166.239 ms

Loss rate: 4.47%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 12:24:47

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

Local clock offset: -8.903 ms

Remote clock offset: 1.003 ms

Below is generated by plot.py at 2018-09-25 16:28:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 77.502 ms

Loss rate: 2.94%

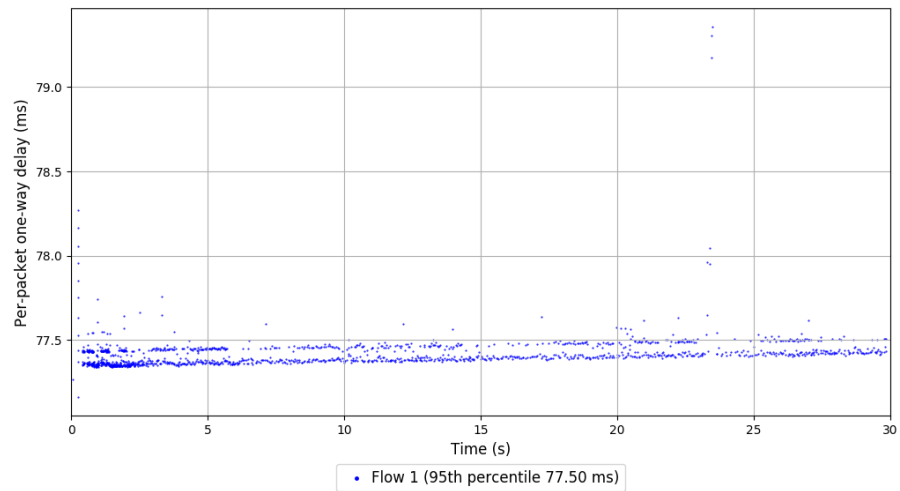
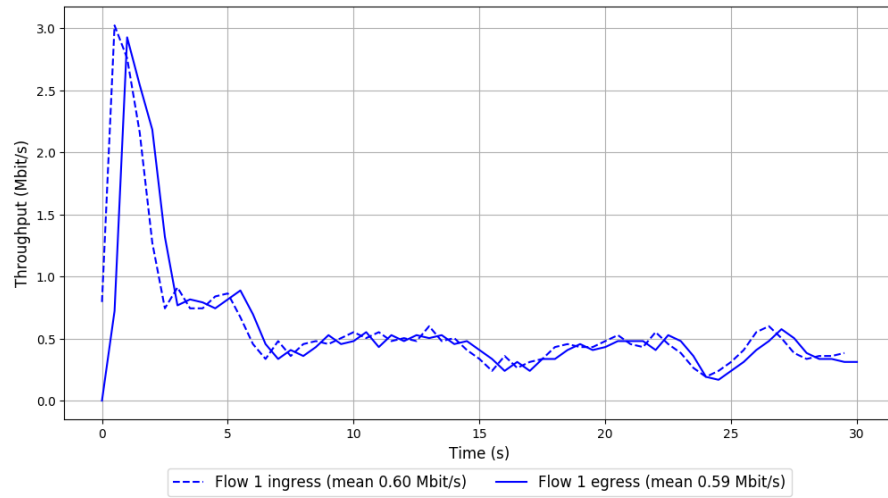
-- Flow 1:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 77.502 ms

Loss rate: 2.94%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

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

End at: 2018-09-25 13:14:35

Local clock offset: -3.61 ms

Remote clock offset: 2.009 ms

Below is generated by plot.py at 2018-09-25 16:28:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 77.099 ms

Loss rate: 3.62%

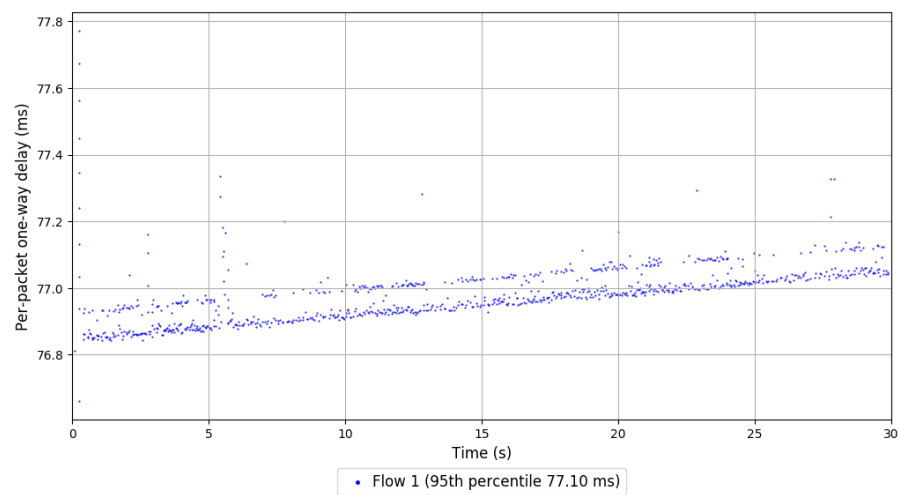
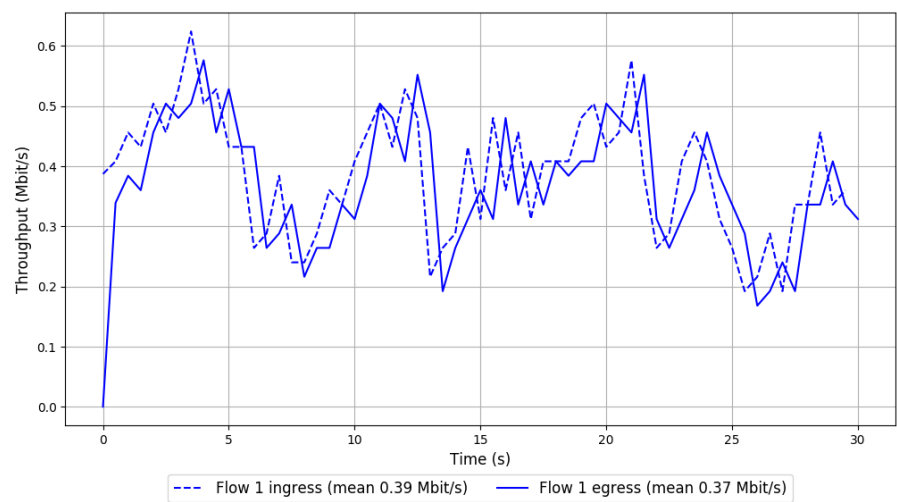
-- Flow 1:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 77.099 ms

Loss rate: 3.62%

Run 2: Report of TCP Cubic — Data Link

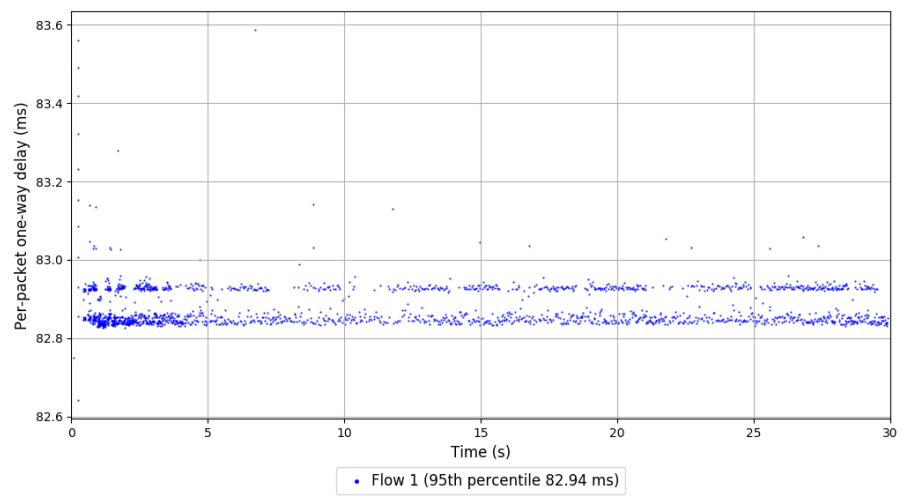
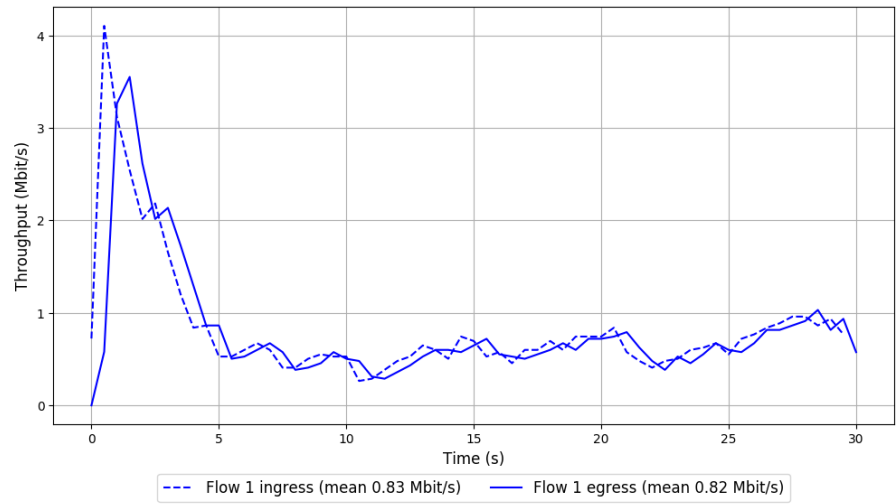


Run 3: Statistics of TCP Cubic

Start at: 2018-09-25 14:00:34
End at: 2018-09-25 14:01:04
Local clock offset: -7.287 ms
Remote clock offset: -3.782 ms

Below is generated by plot.py at 2018-09-25 16:28:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 82.936 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 82.936 ms
Loss rate: 2.02%

Run 3: Report of TCP Cubic — Data Link

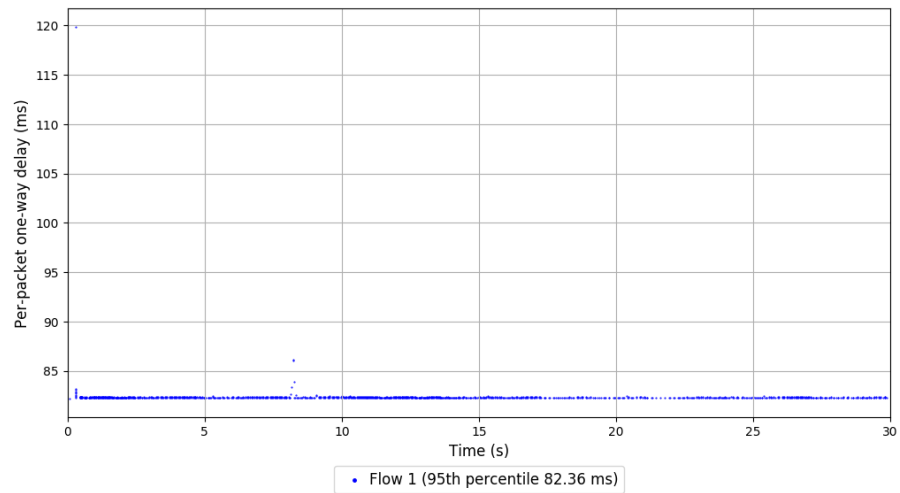
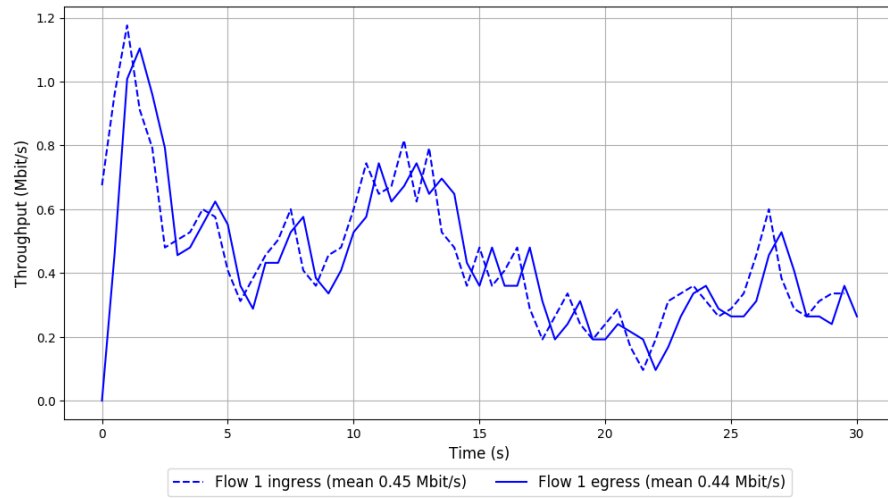


Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 14:52:02
End at: 2018-09-25 14:52:32
Local clock offset: -9.216 ms
Remote clock offset: -4.024 ms

Below is generated by plot.py at 2018-09-25 16:28:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.355 ms
Loss rate: 3.44%
-- Flow 1:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 82.355 ms
Loss rate: 3.44%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 15:42:21

End at: 2018-09-25 15:42:51

Local clock offset: -4.74 ms

Remote clock offset: 0.623 ms

Below is generated by plot.py at 2018-09-25 16:28:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 77.250 ms

Loss rate: 2.20%

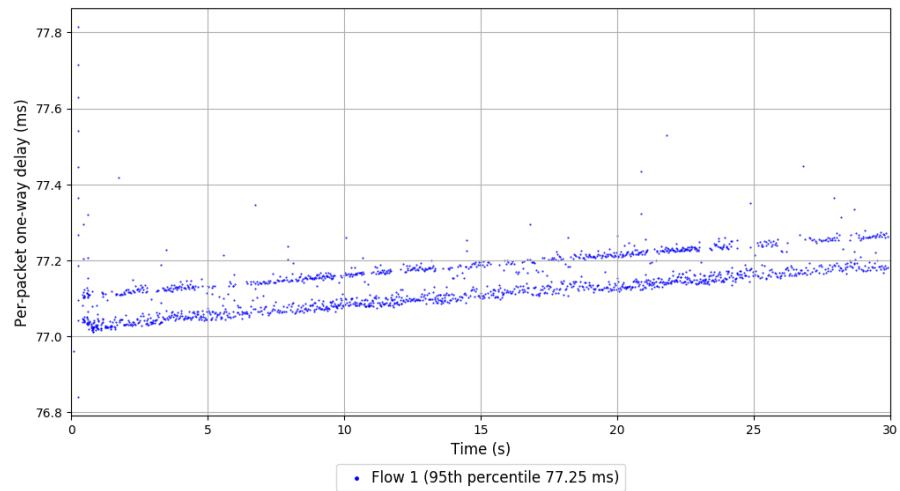
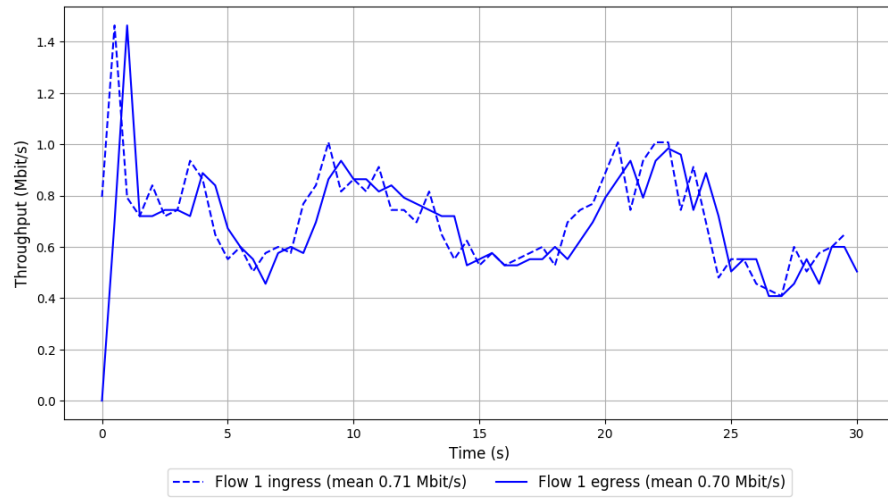
-- Flow 1:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 77.250 ms

Loss rate: 2.20%

Run 5: Report of TCP Cubic — Data Link

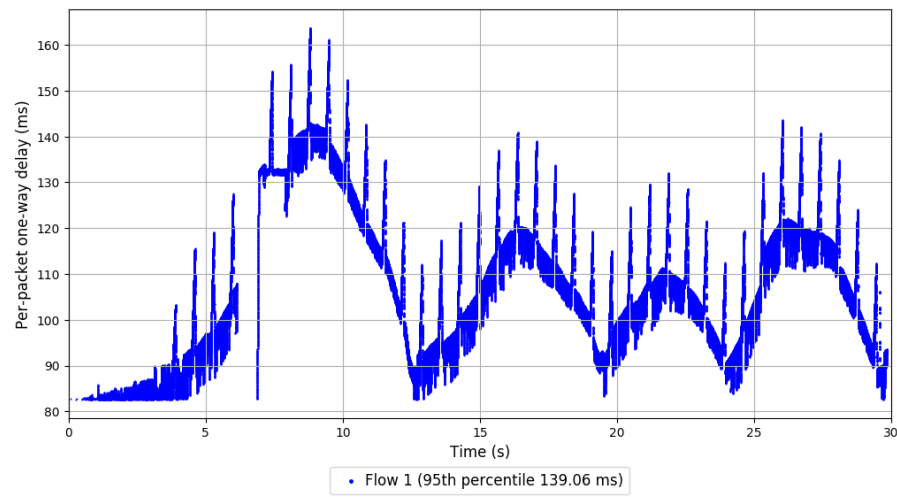
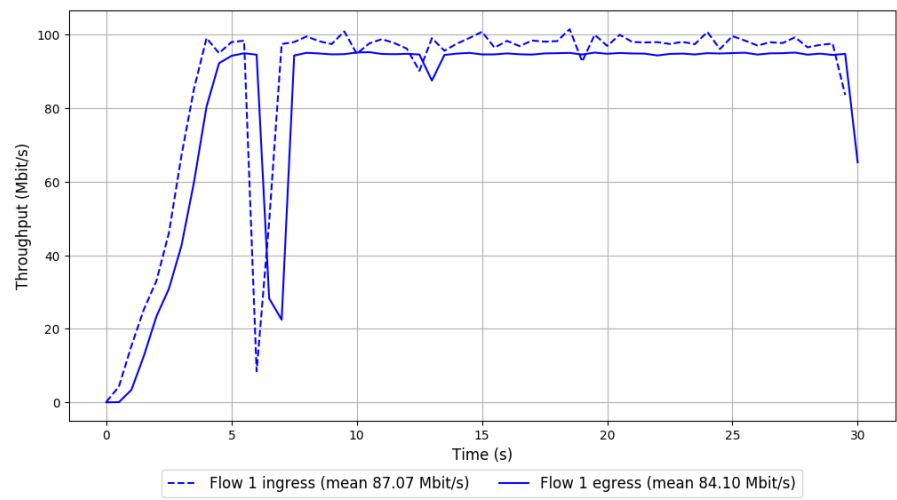


Run 1: Statistics of FillP

Start at: 2018-09-25 12:45:21
End at: 2018-09-25 12:45:51
Local clock offset: -6.409 ms
Remote clock offset: -3.005 ms

Below is generated by plot.py at 2018-09-25 16:28:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.10 Mbit/s
95th percentile per-packet one-way delay: 139.063 ms
Loss rate: 3.94%
-- Flow 1:
Average throughput: 84.10 Mbit/s
95th percentile per-packet one-way delay: 139.063 ms
Loss rate: 3.94%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-09-25 13:32:16

End at: 2018-09-25 13:32:46

Local clock offset: -7.278 ms

Remote clock offset: 2.448 ms

Below is generated by plot.py at 2018-09-25 16:28:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.44 Mbit/s

95th percentile per-packet one-way delay: 118.178 ms

Loss rate: 3.75%

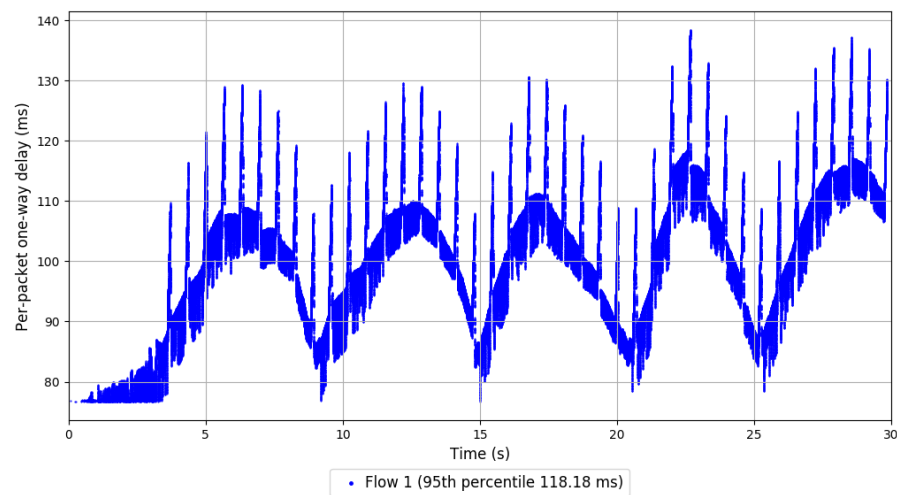
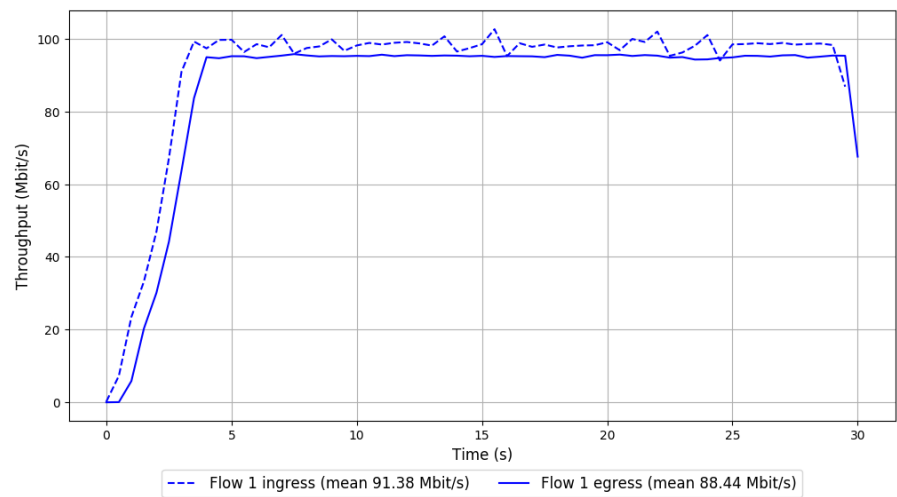
-- Flow 1:

Average throughput: 88.44 Mbit/s

95th percentile per-packet one-way delay: 118.178 ms

Loss rate: 3.75%

Run 2: Report of FillP — Data Link

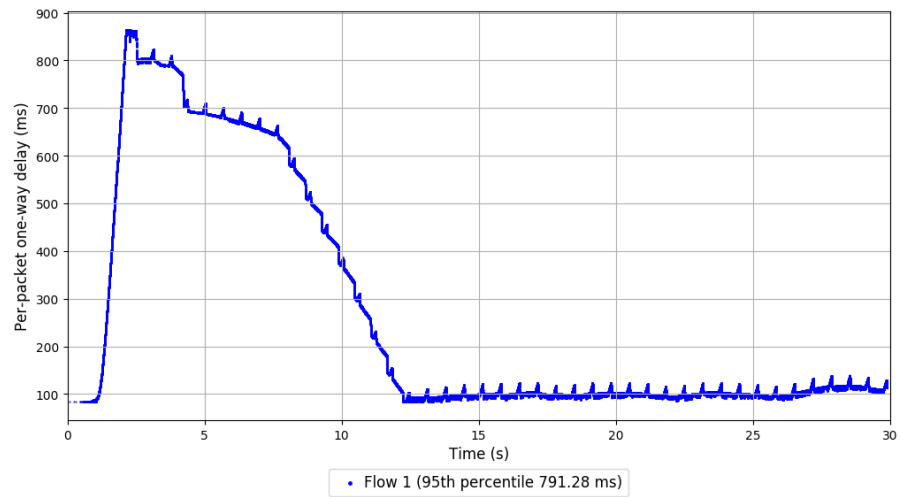
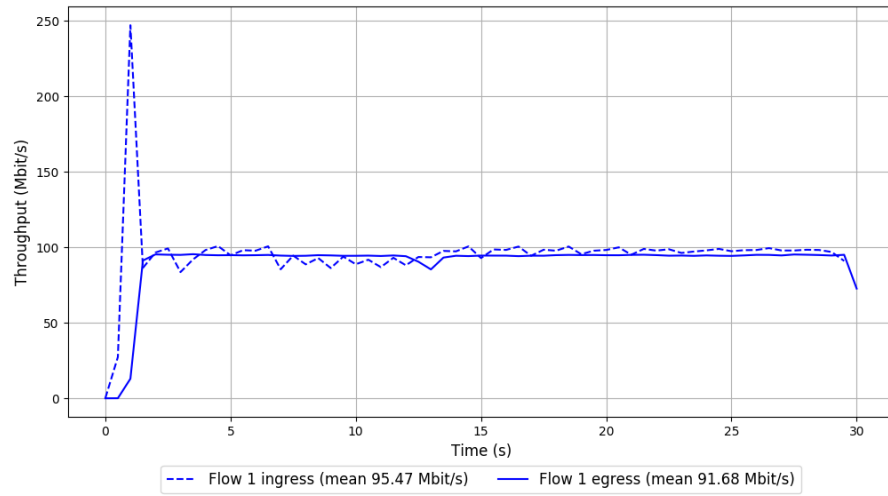


Run 3: Statistics of FillP

Start at: 2018-09-25 14:21:32
End at: 2018-09-25 14:22:02
Local clock offset: -7.852 ms
Remote clock offset: -2.735 ms

Below is generated by plot.py at 2018-09-25 16:28:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 791.282 ms
Loss rate: 4.50%
-- Flow 1:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 791.282 ms
Loss rate: 4.50%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-09-25 15:13:12

End at: 2018-09-25 15:13:42

Local clock offset: -6.979 ms

Remote clock offset: 0.889 ms

Below is generated by plot.py at 2018-09-25 16:28:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 765.781 ms

Loss rate: 4.87%

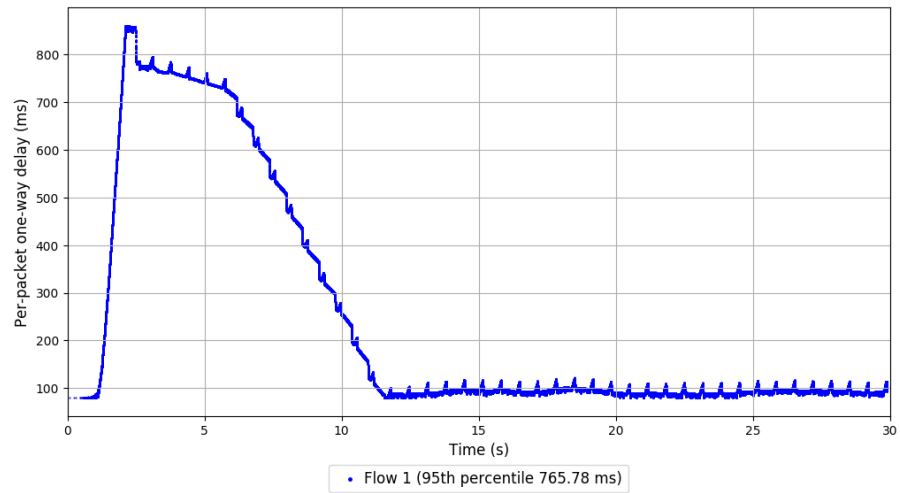
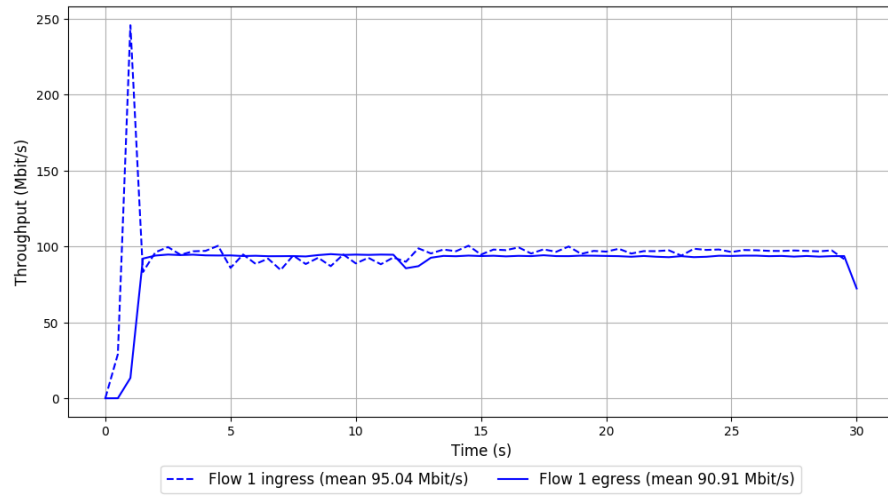
-- Flow 1:

Average throughput: 90.91 Mbit/s

95th percentile per-packet one-way delay: 765.781 ms

Loss rate: 4.87%

Run 4: Report of FillP — Data Link

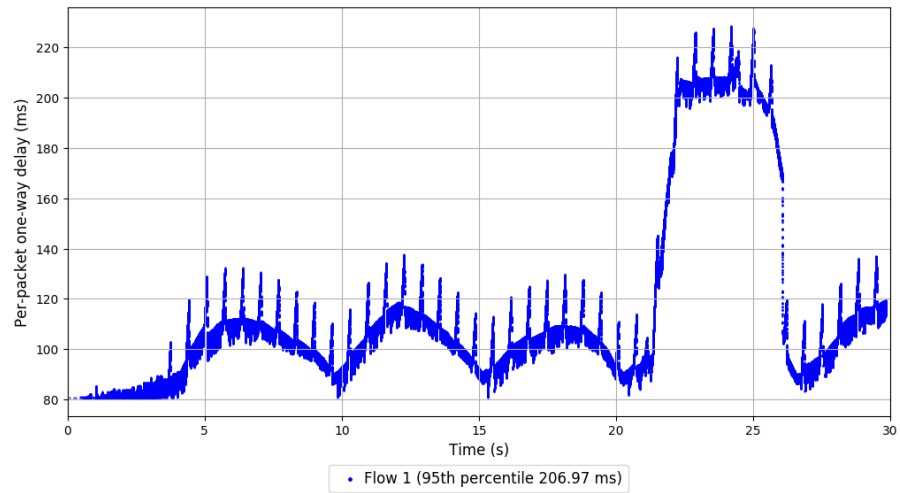
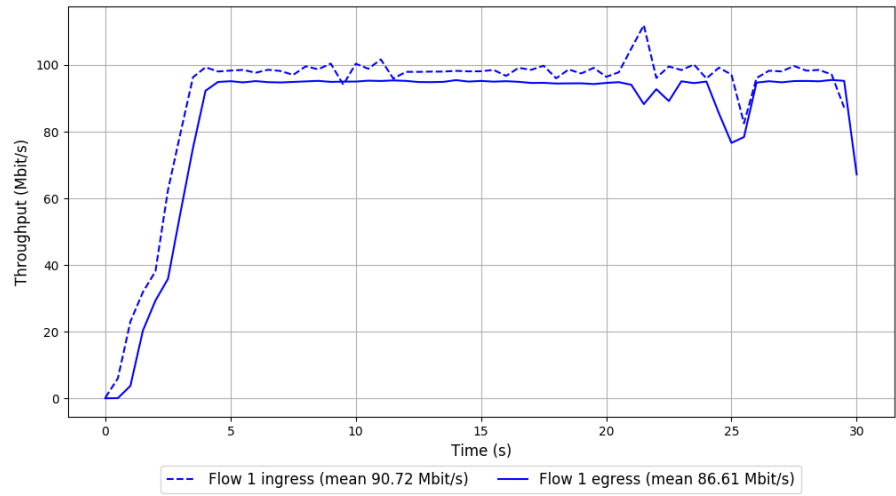


Run 5: Statistics of FillP

Start at: 2018-09-25 16:02:46
End at: 2018-09-25 16:03:16
Local clock offset: -7.703 ms
Remote clock offset: -3.616 ms

Below is generated by plot.py at 2018-09-25 16:28:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 206.966 ms
Loss rate: 5.04%
-- Flow 1:
Average throughput: 86.61 Mbit/s
95th percentile per-packet one-way delay: 206.966 ms
Loss rate: 5.04%

Run 5: Report of FillP — Data Link

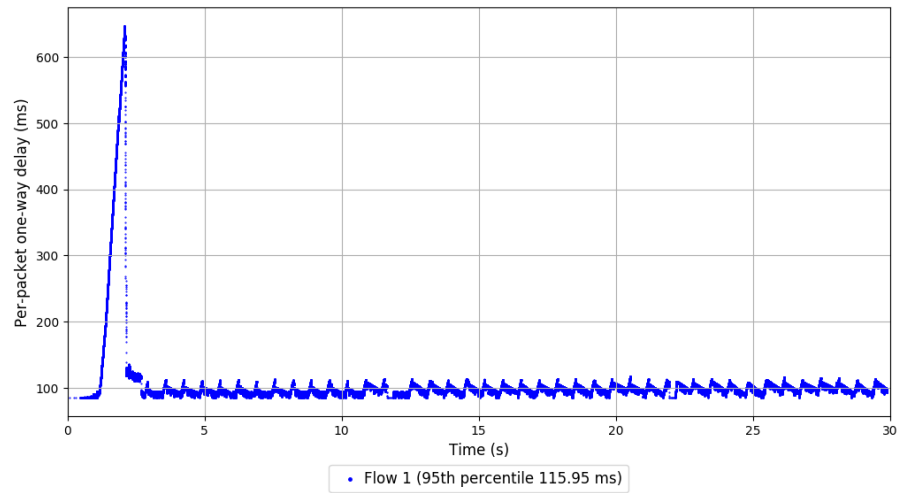
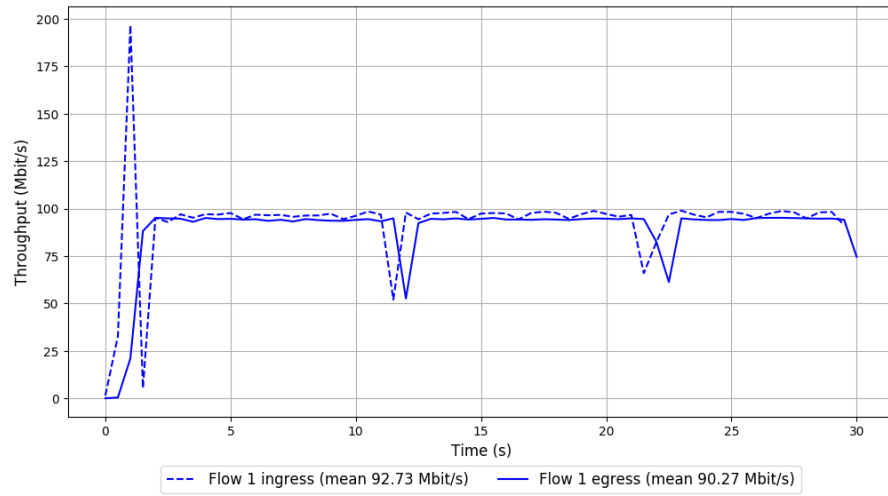


Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 12:16:11
End at: 2018-09-25 12:16:41
Local clock offset: -6.354 ms
Remote clock offset: -4.311 ms

Below is generated by plot.py at 2018-09-25 16:28:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 115.950 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 90.27 Mbit/s
95th percentile per-packet one-way delay: 115.950 ms
Loss rate: 3.18%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 13:06:34

End at: 2018-09-25 13:07:04

Local clock offset: -1.146 ms

Remote clock offset: 0.904 ms

Below is generated by plot.py at 2018-09-25 16:29:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.85 Mbit/s

95th percentile per-packet one-way delay: 139.051 ms

Loss rate: 2.88%

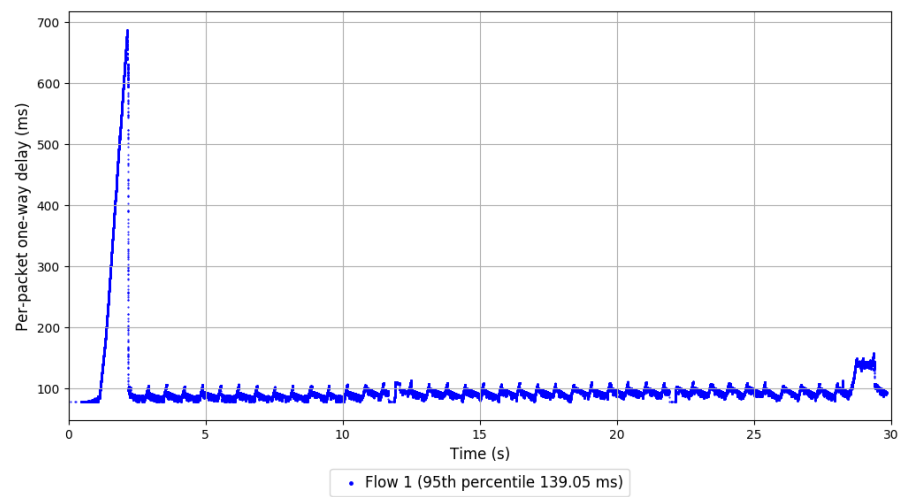
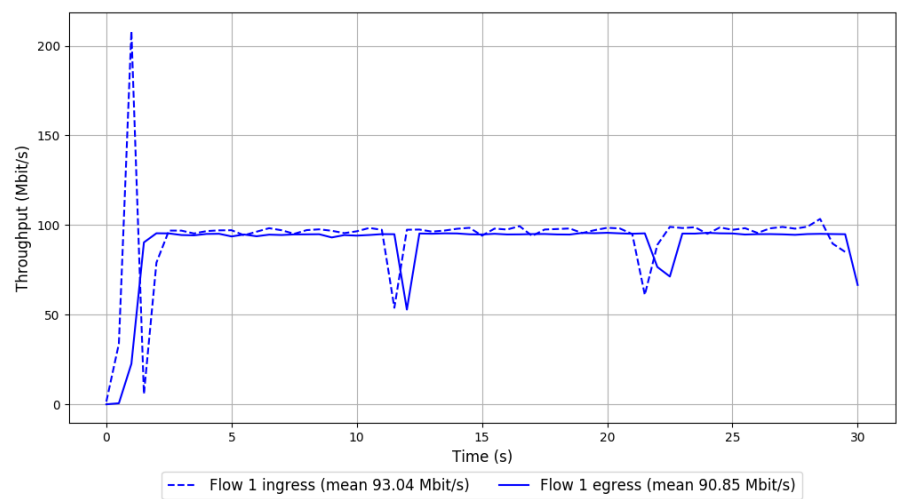
-- Flow 1:

Average throughput: 90.85 Mbit/s

95th percentile per-packet one-way delay: 139.051 ms

Loss rate: 2.88%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 13:53:46

End at: 2018-09-25 13:54:16

Local clock offset: -7.188 ms

Remote clock offset: 2.639 ms

Below is generated by plot.py at 2018-09-25 16:29:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.15 Mbit/s

95th percentile per-packet one-way delay: 124.584 ms

Loss rate: 3.76%

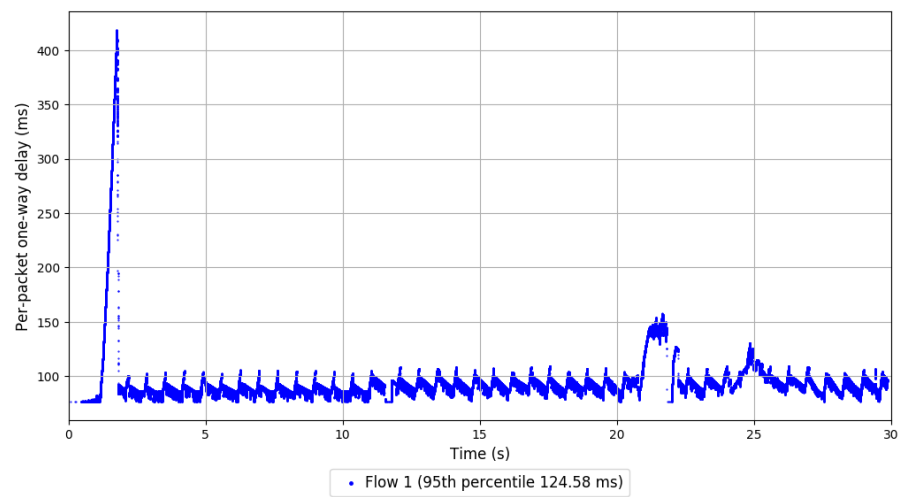
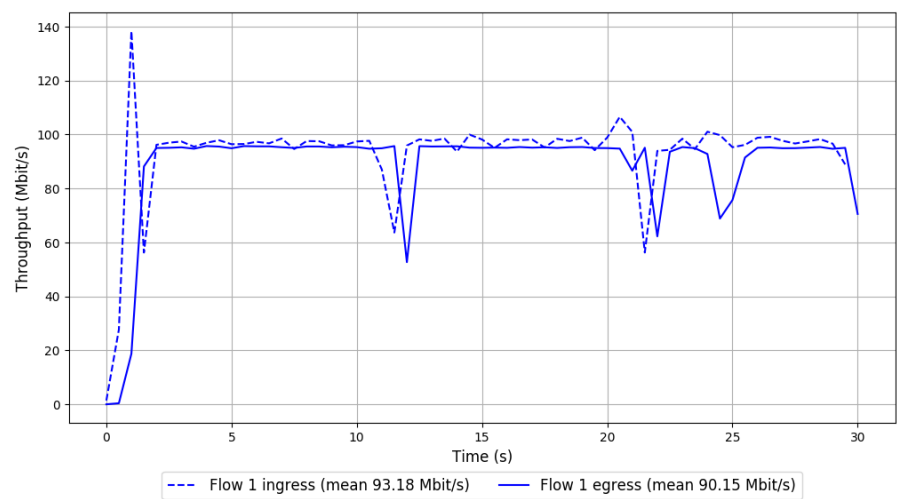
-- Flow 1:

Average throughput: 90.15 Mbit/s

95th percentile per-packet one-way delay: 124.584 ms

Loss rate: 3.76%

Run 3: Report of FillP-Sheep — Data Link

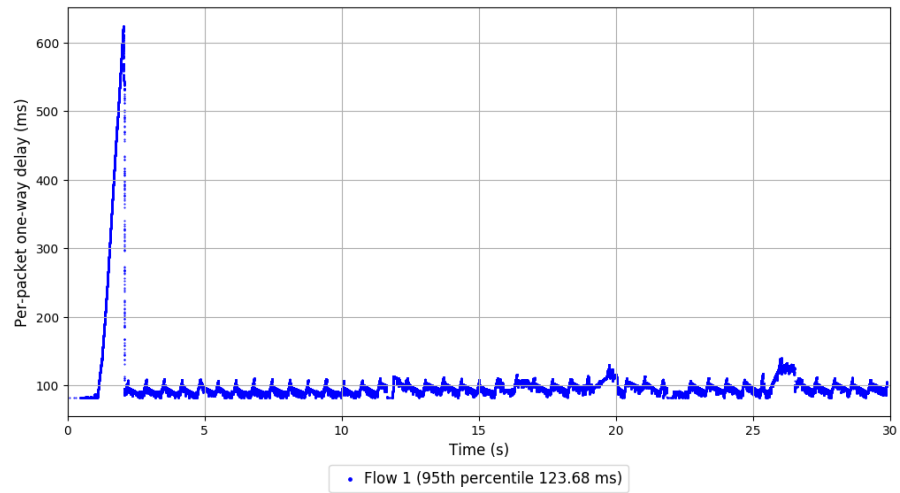
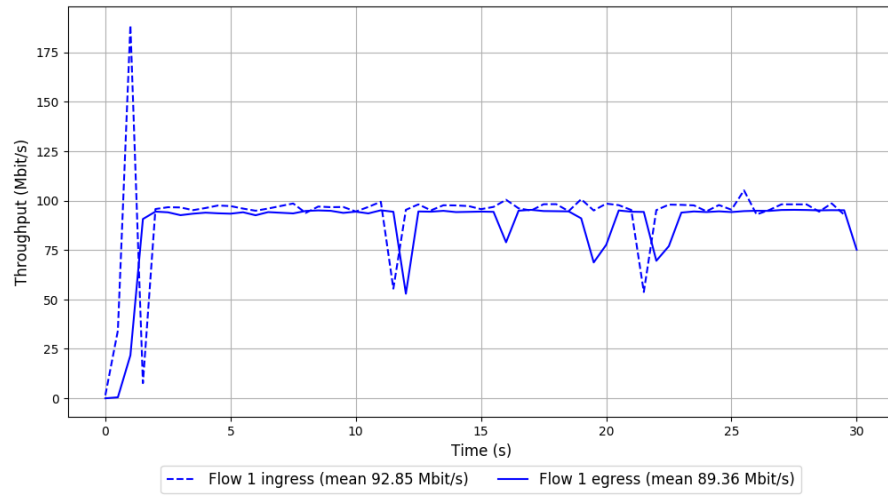


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 14:43:52
End at: 2018-09-25 14:44:22
Local clock offset: -9.177 ms
Remote clock offset: -4.059 ms

Below is generated by plot.py at 2018-09-25 16:29:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.36 Mbit/s
95th percentile per-packet one-way delay: 123.678 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 89.36 Mbit/s
95th percentile per-packet one-way delay: 123.678 ms
Loss rate: 4.28%

Run 4: Report of FillP-Sheep — Data Link

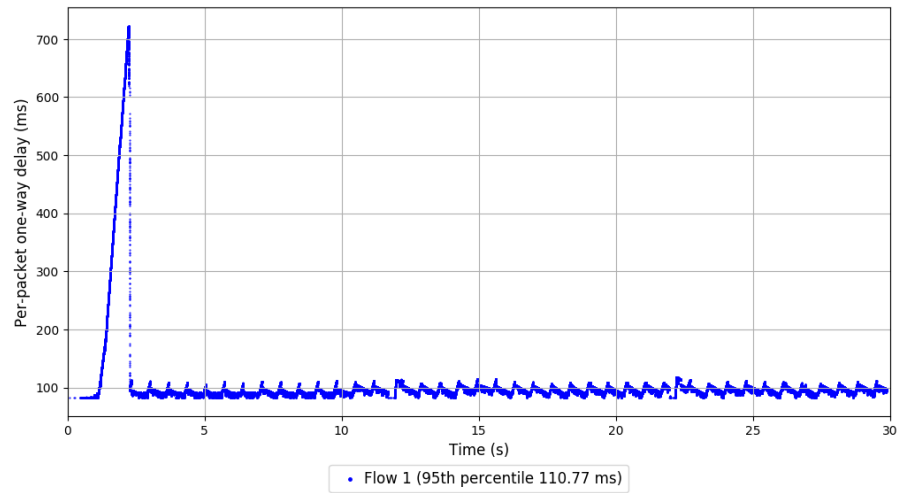
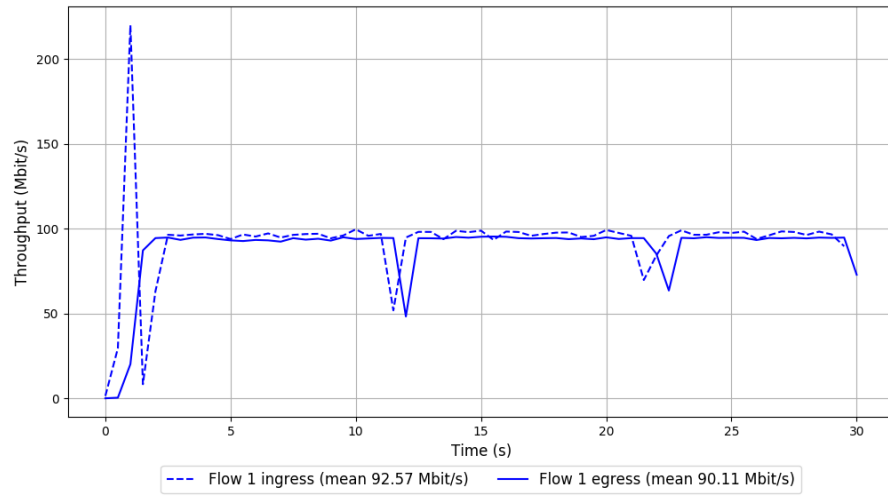


Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 15:34:17
End at: 2018-09-25 15:34:47
Local clock offset: -3.136 ms
Remote clock offset: -4.468 ms

Below is generated by plot.py at 2018-09-25 16:29:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 110.768 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 90.11 Mbit/s
95th percentile per-packet one-way delay: 110.768 ms
Loss rate: 3.18%

Run 5: Report of FillP-Sheep — Data Link

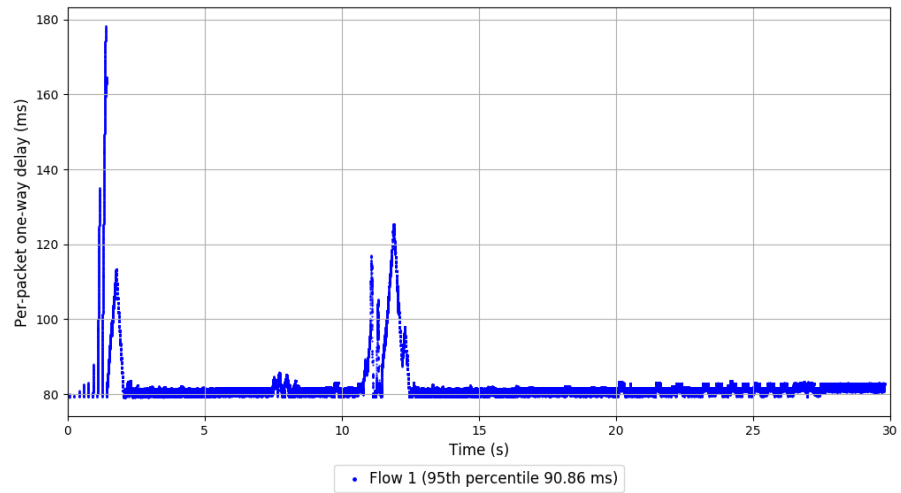
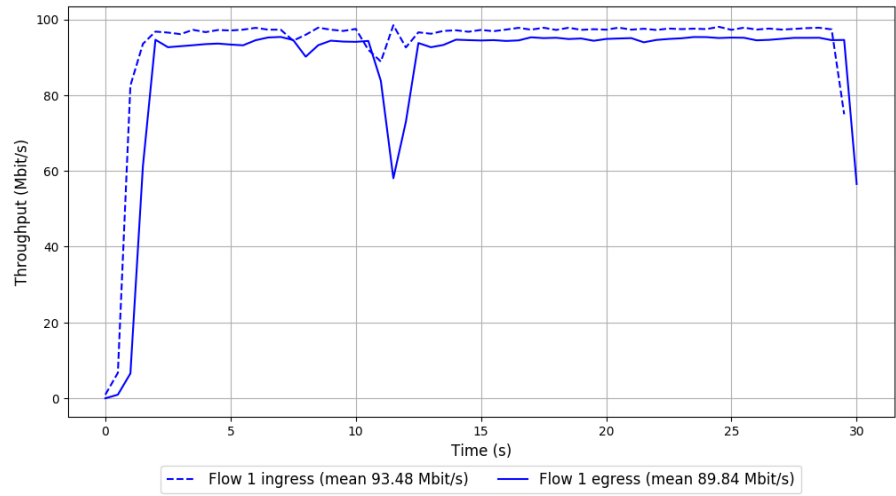


```
Run 1: Statistics of Indigo

Start at: 2018-09-25 12:19:59
End at: 2018-09-25 12:20:29
Local clock offset: -8.011 ms
Remote clock offset: 1.026 ms

# Below is generated by plot.py at 2018-09-25 16:29:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.84 Mbit/s
95th percentile per-packet one-way delay: 90.855 ms
Loss rate: 4.42%
-- Flow 1:
Average throughput: 89.84 Mbit/s
95th percentile per-packet one-way delay: 90.855 ms
Loss rate: 4.42%
```

Run 1: Report of Indigo — Data Link

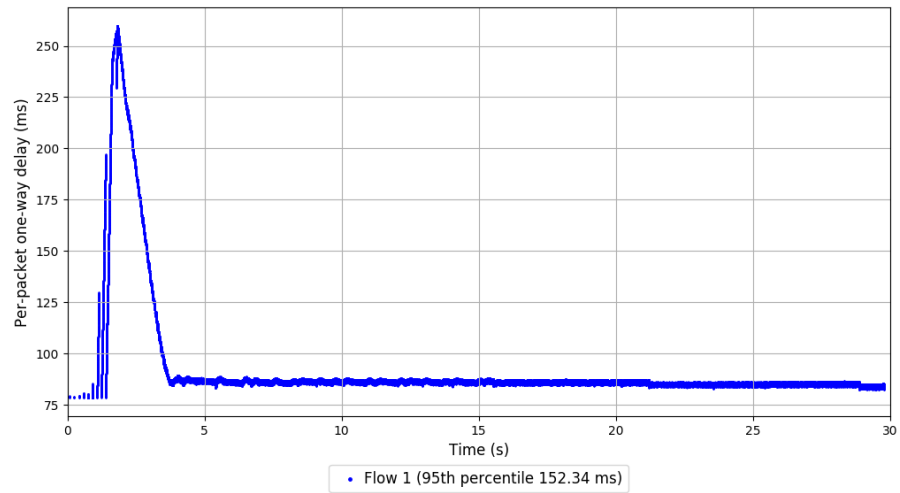
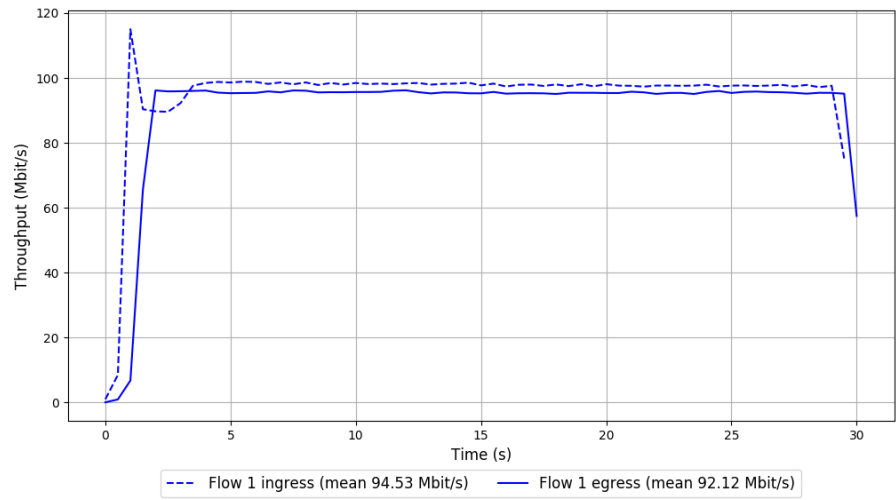


Run 2: Statistics of Indigo

Start at: 2018-09-25 13:09:33
End at: 2018-09-25 13:10:03
Local clock offset: -1.894 ms
Remote clock offset: -0.099 ms

Below is generated by plot.py at 2018-09-25 16:29:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 152.336 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 92.12 Mbit/s
95th percentile per-packet one-way delay: 152.336 ms
Loss rate: 3.07%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-09-25 13:56:53

End at: 2018-09-25 13:57:23

Local clock offset: -8.014 ms

Remote clock offset: 1.435 ms

Below is generated by plot.py at 2018-09-25 16:29:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.61 Mbit/s

95th percentile per-packet one-way delay: 118.782 ms

Loss rate: 3.74%

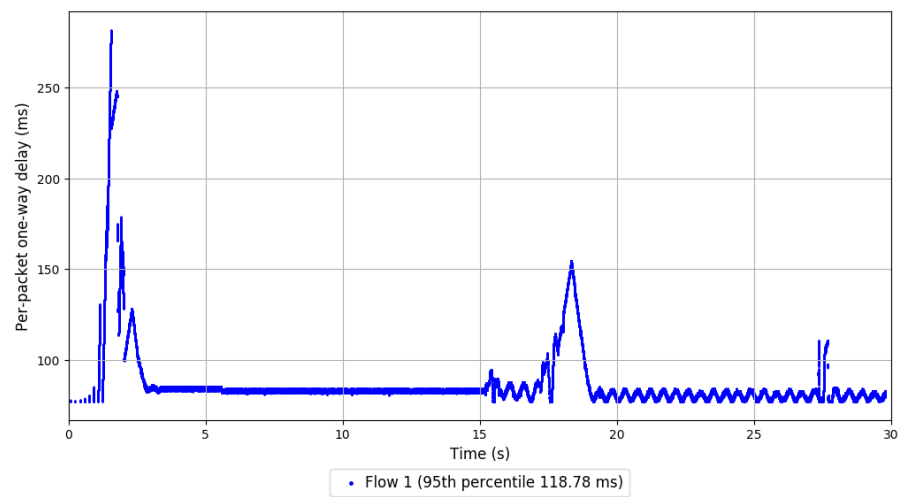
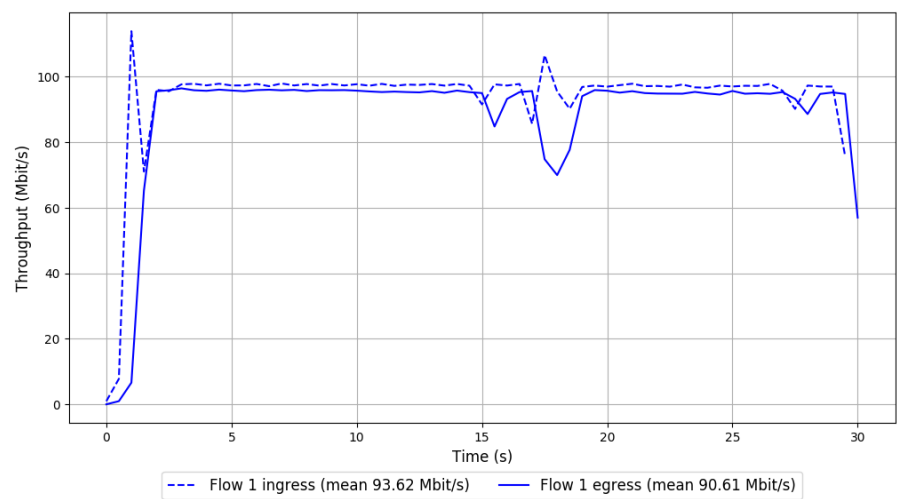
-- Flow 1:

Average throughput: 90.61 Mbit/s

95th percentile per-packet one-way delay: 118.782 ms

Loss rate: 3.74%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-09-25 14:47:22

End at: 2018-09-25 14:47:52

Local clock offset: -8.45 ms

Remote clock offset: -0.075 ms

Below is generated by plot.py at 2018-09-25 16:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.49 Mbit/s

95th percentile per-packet one-way delay: 86.953 ms

Loss rate: 3.21%

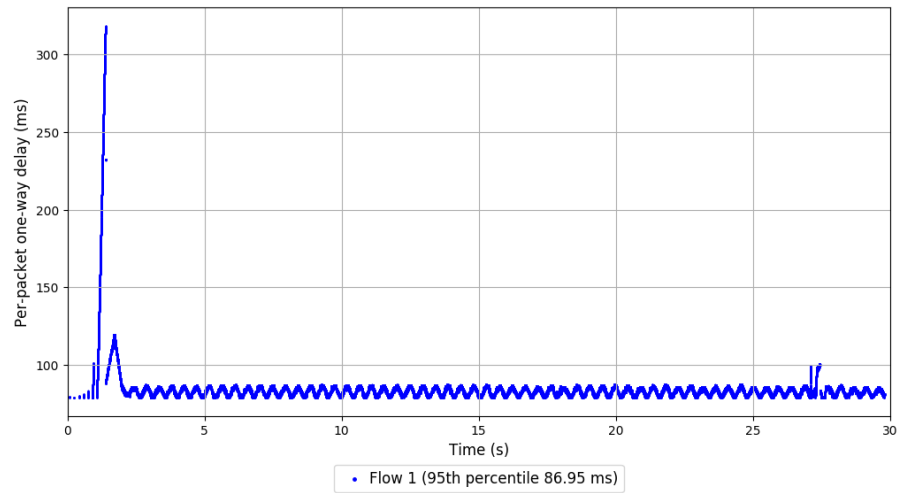
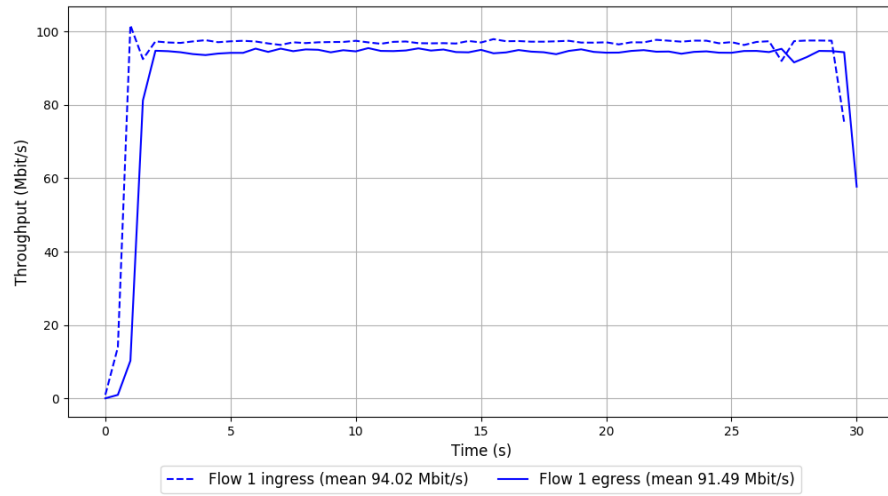
-- Flow 1:

Average throughput: 91.49 Mbit/s

95th percentile per-packet one-way delay: 86.953 ms

Loss rate: 3.21%

Run 4: Report of Indigo — Data Link

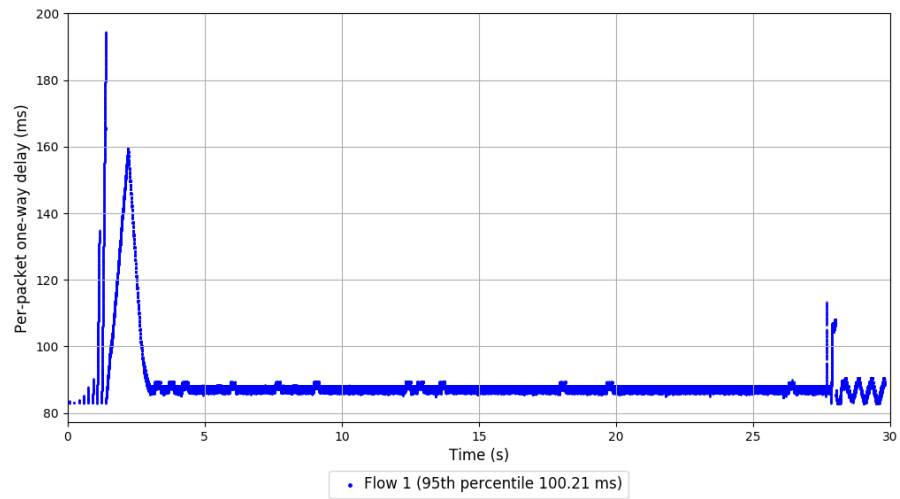
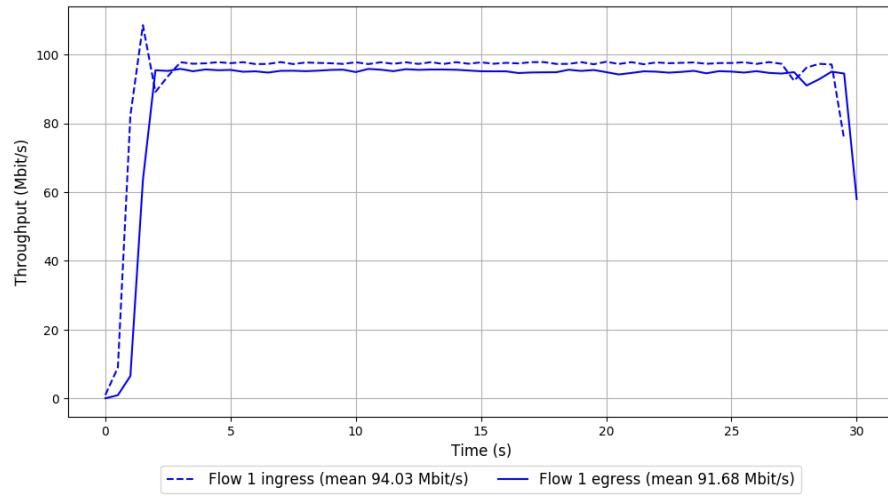


Run 5: Statistics of Indigo

Start at: 2018-09-25 15:37:31
End at: 2018-09-25 15:38:01
Local clock offset: -2.828 ms
Remote clock offset: -4.542 ms

Below is generated by plot.py at 2018-09-25 16:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 100.208 ms
Loss rate: 3.02%
-- Flow 1:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 100.208 ms
Loss rate: 3.02%

Run 5: Report of Indigo — Data Link

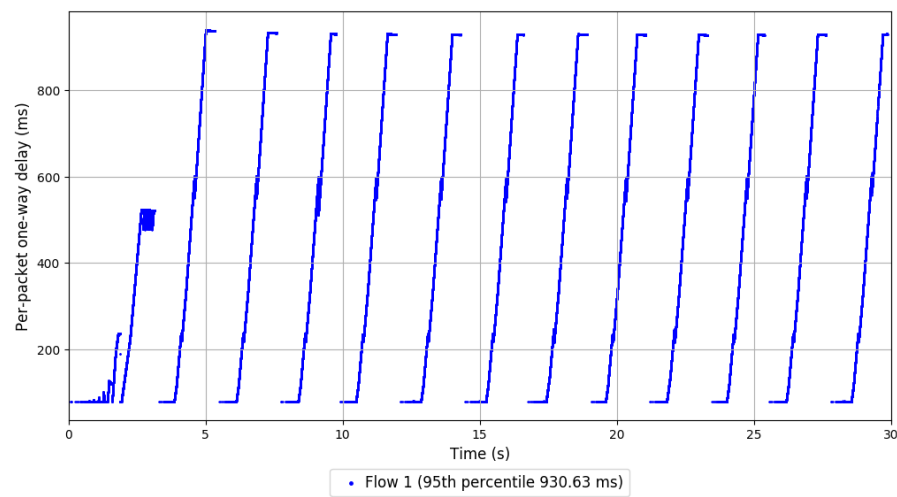
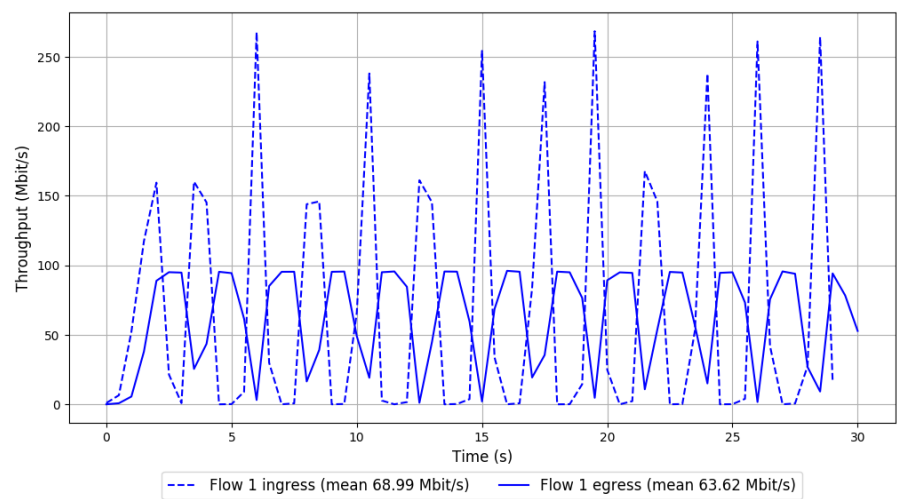


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 12:55:41
End at: 2018-09-25 12:56:11
Local clock offset: -2.457 ms
Remote clock offset: -0.115 ms

Below is generated by plot.py at 2018-09-25 16:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 63.62 Mbit/s
95th percentile per-packet one-way delay: 930.627 ms
Loss rate: 5.53%
-- Flow 1:
Average throughput: 63.62 Mbit/s
95th percentile per-packet one-way delay: 930.627 ms
Loss rate: 5.53%

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

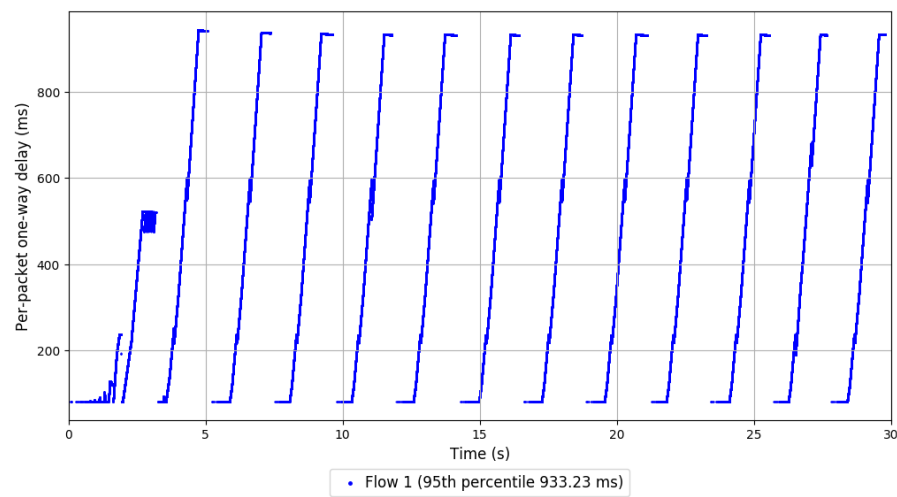
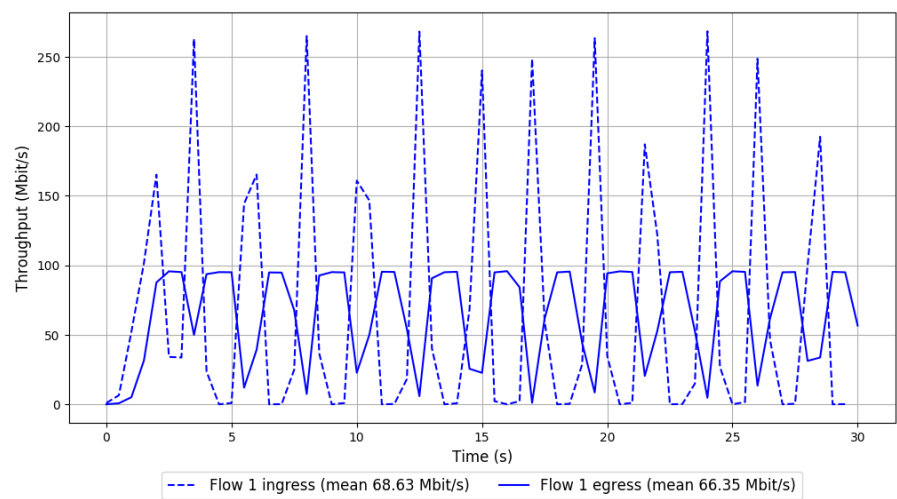


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 13:42:20
End at: 2018-09-25 13:42:50
Local clock offset: -7.525 ms
Remote clock offset: -2.526 ms

Below is generated by plot.py at 2018-09-25 16:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 66.35 Mbit/s
95th percentile per-packet one-way delay: 933.228 ms
Loss rate: 4.08%
-- Flow 1:
Average throughput: 66.35 Mbit/s
95th percentile per-packet one-way delay: 933.228 ms
Loss rate: 4.08%

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



Run 3: Statistics of Indigo-96d2da3

Start at: 2018-09-25 14:32:31

End at: 2018-09-25 14:33:01

Local clock offset: -8.161 ms

Remote clock offset: 2.267 ms

Below is generated by plot.py at 2018-09-25 16:30:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.26 Mbit/s

95th percentile per-packet one-way delay: 930.154 ms

Loss rate: 7.88%

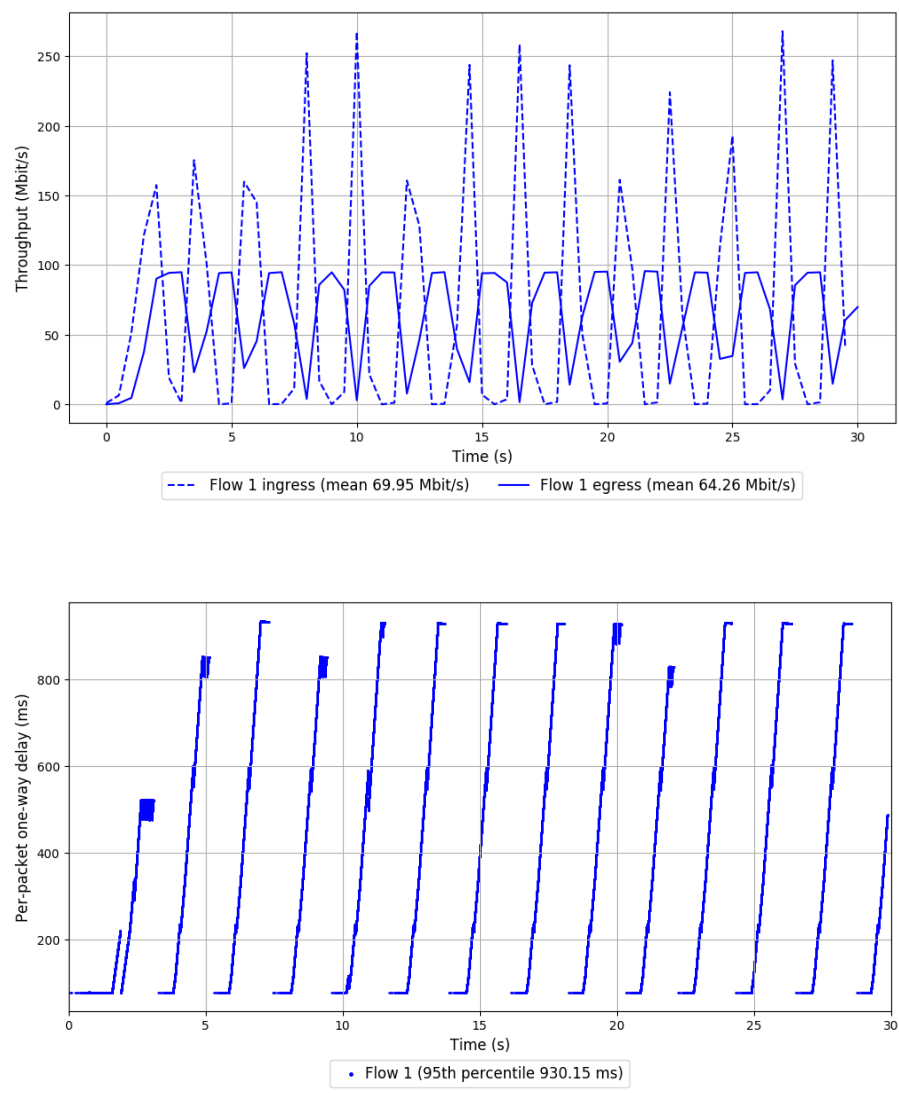
-- Flow 1:

Average throughput: 64.26 Mbit/s

95th percentile per-packet one-way delay: 930.154 ms

Loss rate: 7.88%

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

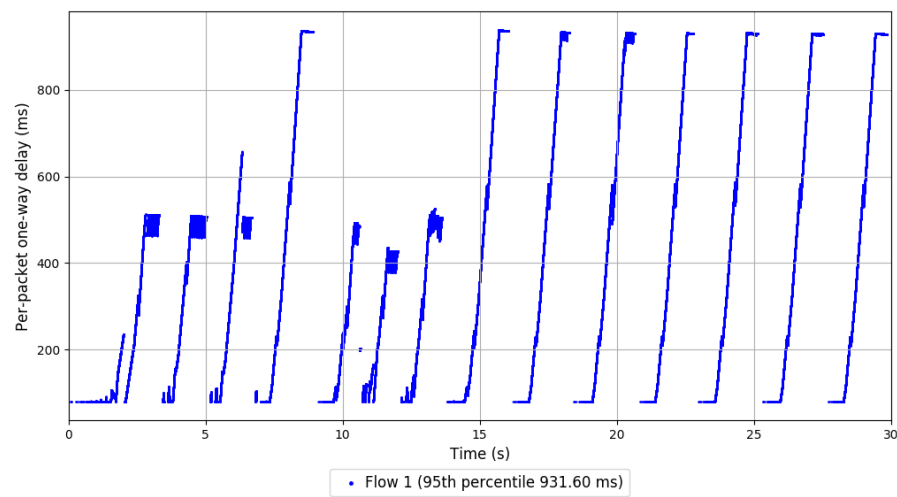
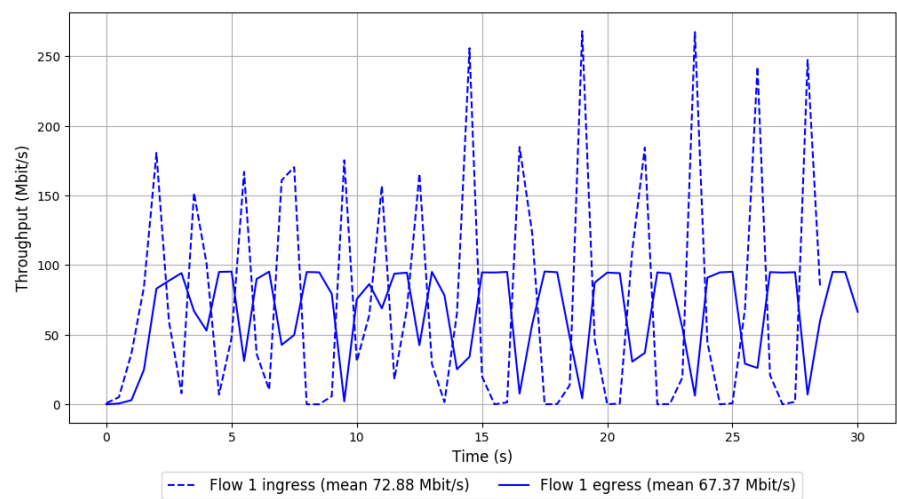


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 15:21:57
End at: 2018-09-25 15:22:27
Local clock offset: -5.253 ms
Remote clock offset: -0.389 ms

Below is generated by plot.py at 2018-09-25 16:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.37 Mbit/s
95th percentile per-packet one-way delay: 931.597 ms
Loss rate: 4.86%
-- Flow 1:
Average throughput: 67.37 Mbit/s
95th percentile per-packet one-way delay: 931.597 ms
Loss rate: 4.86%

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



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 16:13:10

End at: 2018-09-25 16:13:40

Local clock offset: -7.03 ms

Remote clock offset: 0.493 ms

Below is generated by plot.py at 2018-09-25 16:30:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.59 Mbit/s

95th percentile per-packet one-way delay: 931.799 ms

Loss rate: 7.04%

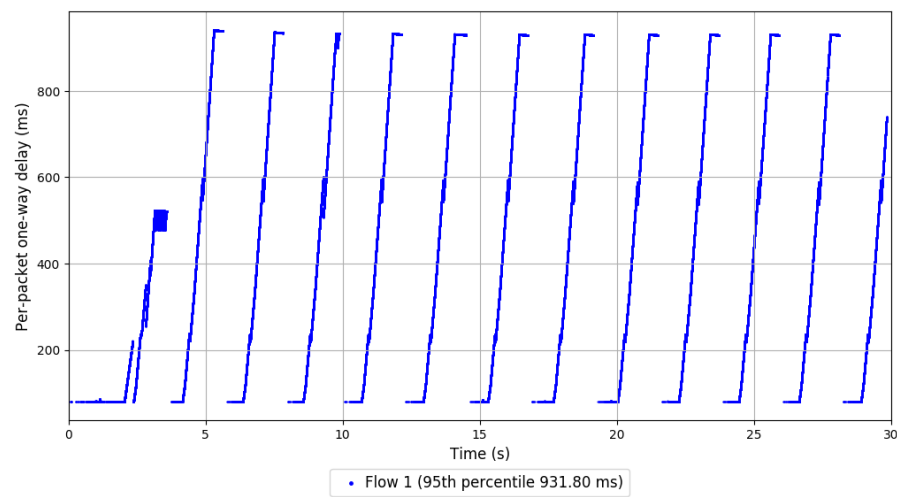
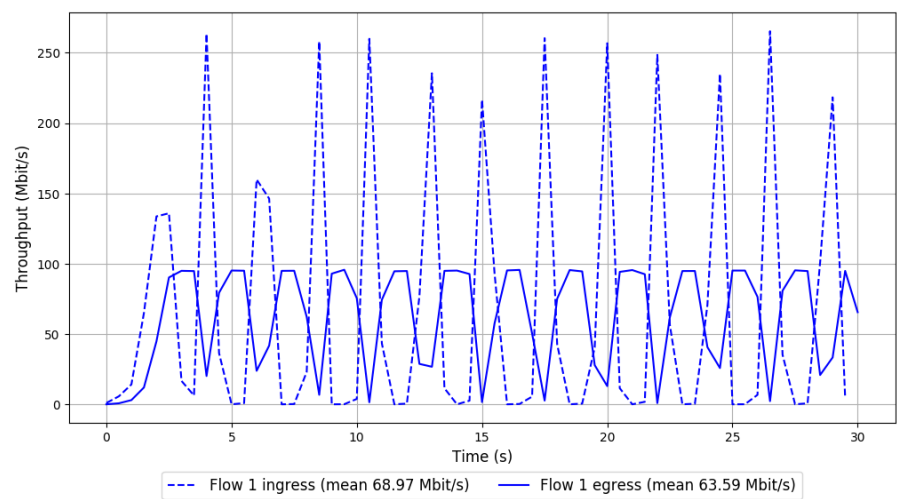
-- Flow 1:

Average throughput: 63.59 Mbit/s

95th percentile per-packet one-way delay: 931.799 ms

Loss rate: 7.04%

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

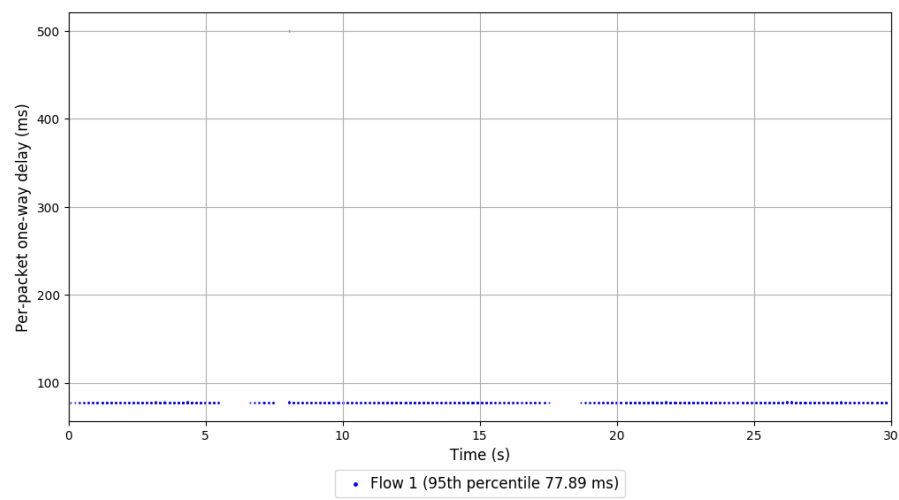
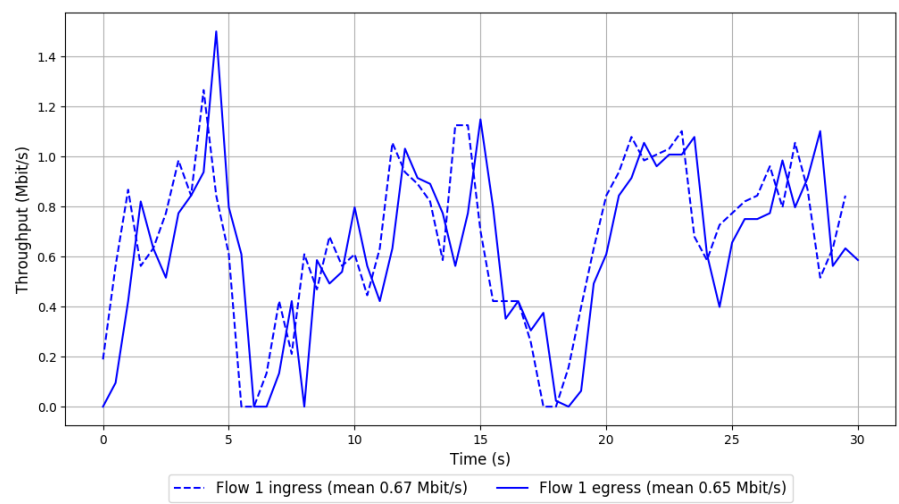


```
Run 1: Statistics of LEDBAT

Start at: 2018-09-25 12:31:19
End at: 2018-09-25 12:31:49
Local clock offset: -9.818 ms
Remote clock offset: 0.965 ms

# Below is generated by plot.py at 2018-09-25 16:30:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 77.892 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 77.892 ms
Loss rate: 3.75%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-09-25 13:20:19

End at: 2018-09-25 13:20:49

Local clock offset: -5.573 ms

Remote clock offset: 1.113 ms

Below is generated by plot.py at 2018-09-25 16:30:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 78.197 ms

Loss rate: 3.34%

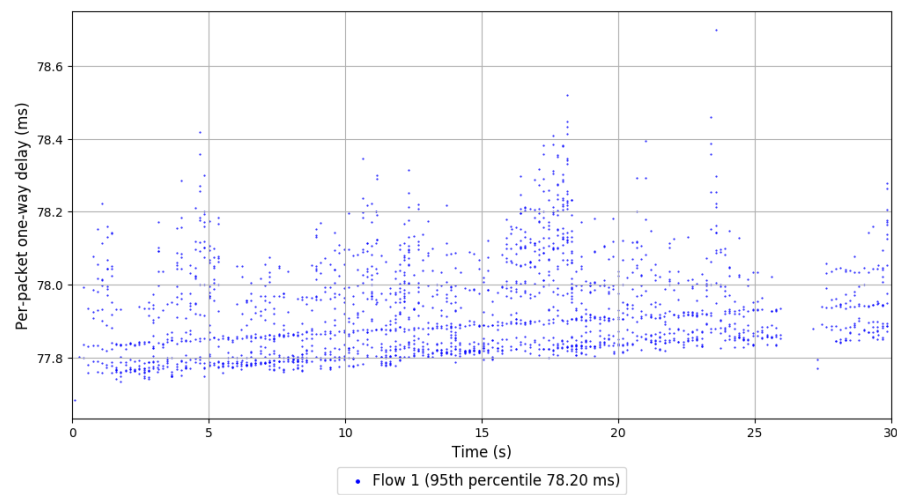
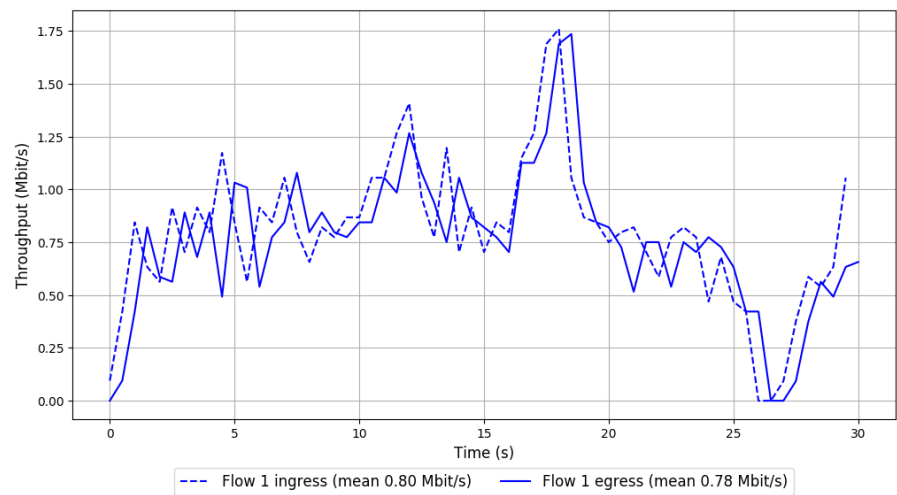
-- Flow 1:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 78.197 ms

Loss rate: 3.34%

Run 2: Report of LEDBAT — Data Link

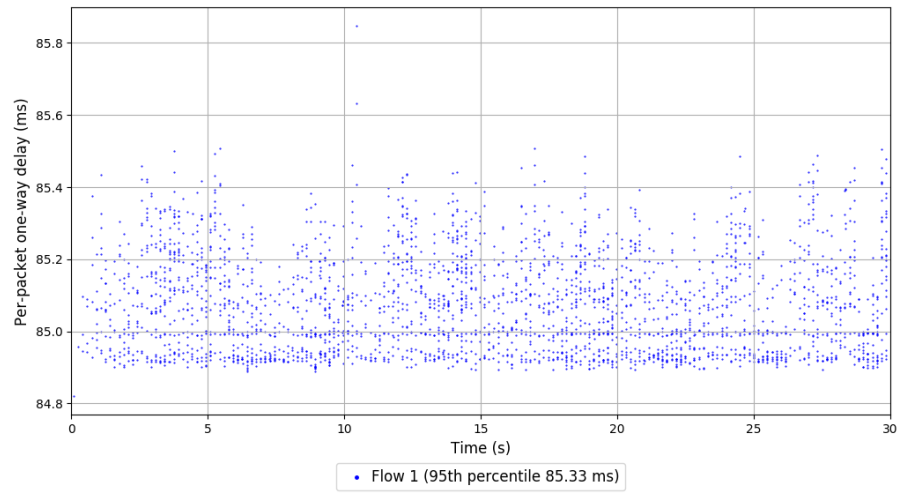
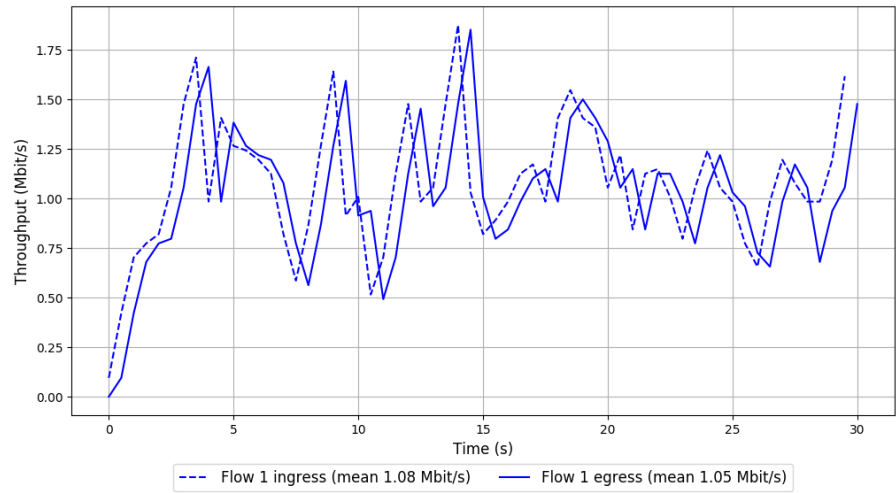


Run 3: Statistics of LEDBAT

Start at: 2018-09-25 14:06:24
End at: 2018-09-25 14:06:54
Local clock offset: -8.127 ms
Remote clock offset: -3.847 ms

Below is generated by plot.py at 2018-09-25 16:30:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 85.331 ms
Loss rate: 2.59%
-- Flow 1:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 85.331 ms
Loss rate: 2.59%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-09-25 14:58:32

End at: 2018-09-25 14:59:02

Local clock offset: -8.578 ms

Remote clock offset: -4.12 ms

Below is generated by plot.py at 2018-09-25 16:30:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 85.610 ms

Loss rate: 3.18%

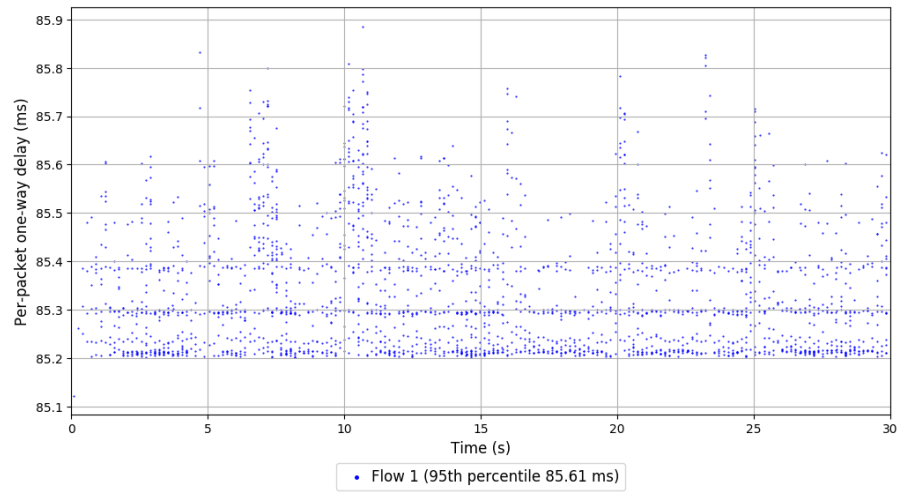
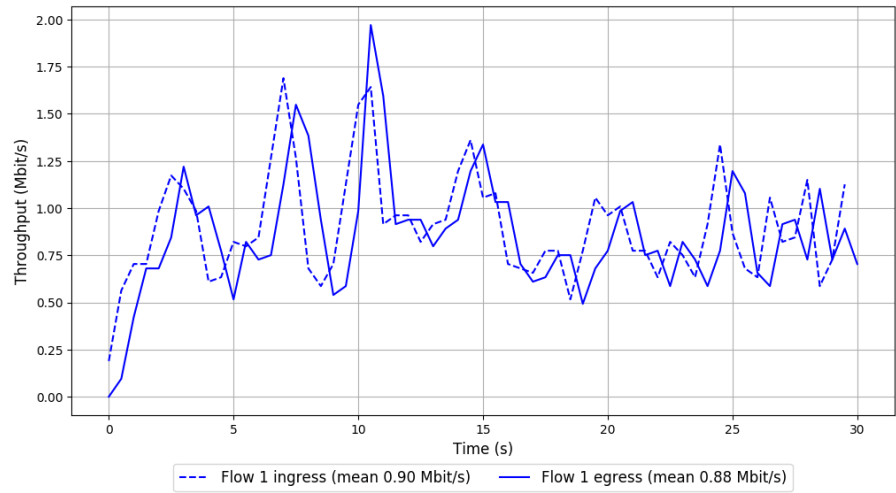
-- Flow 1:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 85.610 ms

Loss rate: 3.18%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-09-25 15:48:48

End at: 2018-09-25 15:49:18

Local clock offset: -6.379 ms

Remote clock offset: 0.628 ms

Below is generated by plot.py at 2018-09-25 16:30:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 79.911 ms

Loss rate: 1.90%

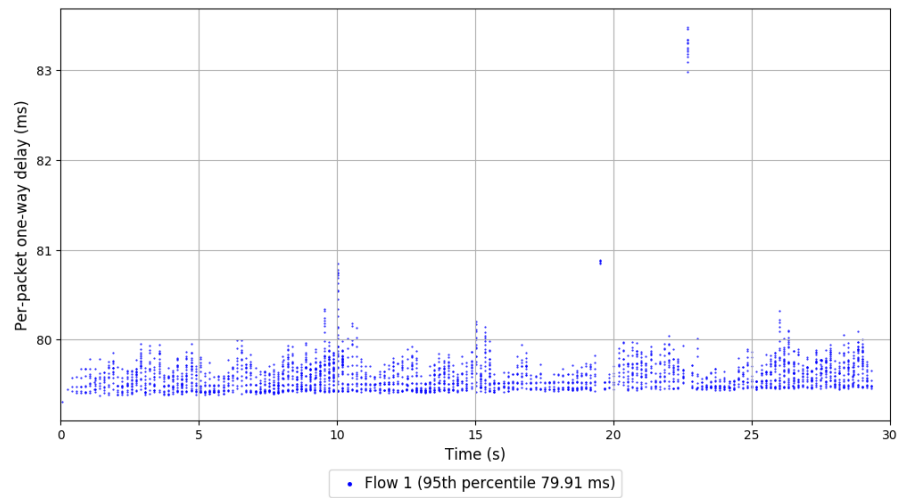
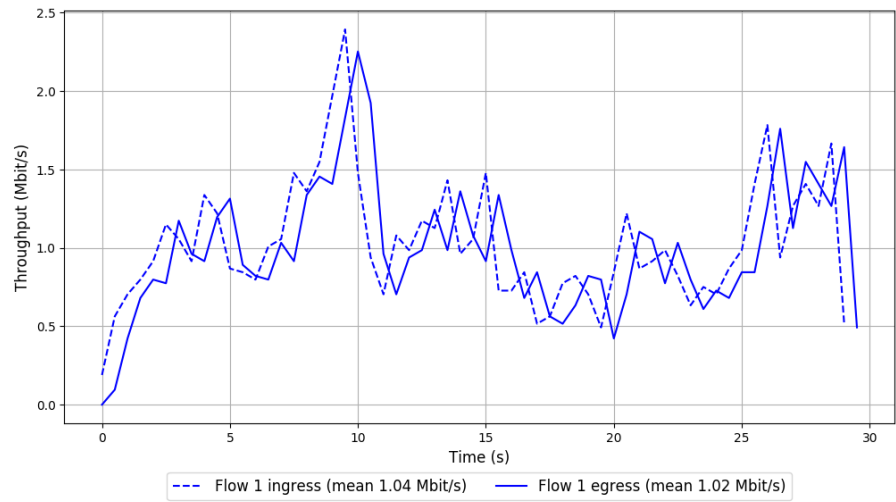
-- Flow 1:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 79.911 ms

Loss rate: 1.90%

Run 5: Report of LEDBAT — Data Link

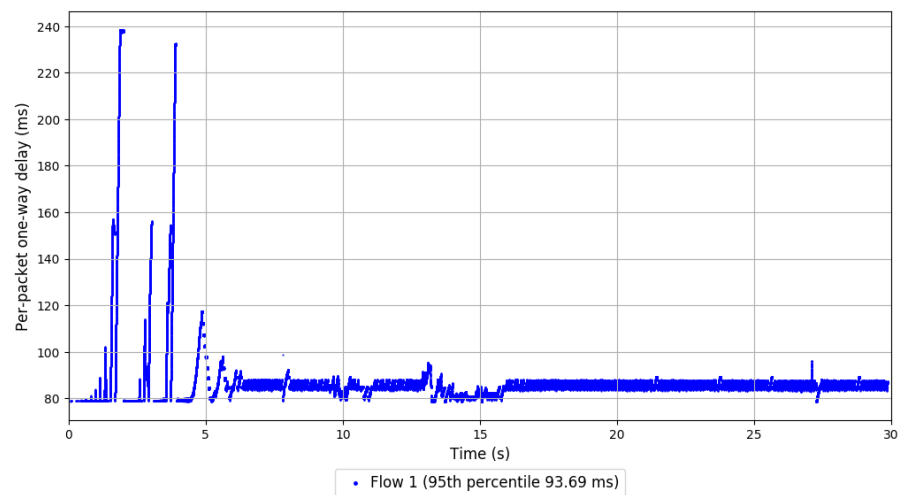
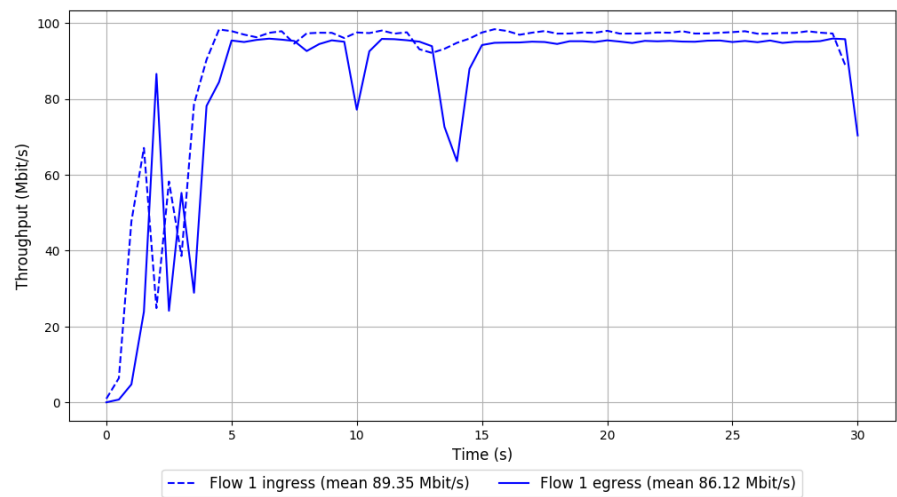



```
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 12:41:57
End at: 2018-09-25 12:42:27
Local clock offset: -7.656 ms
Remote clock offset: 1.979 ms

# Below is generated by plot.py at 2018-09-25 16:30:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.12 Mbit/s
95th percentile per-packet one-way delay: 93.695 ms
Loss rate: 4.15%
-- Flow 1:
Average throughput: 86.12 Mbit/s
95th percentile per-packet one-way delay: 93.695 ms
Loss rate: 4.15%
```

Run 1: Report of Indigo-Muses — Data Link



Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 13:28:48

End at: 2018-09-25 13:29:18

Local clock offset: -6.964 ms

Remote clock offset: 1.146 ms

Below is generated by plot.py at 2018-09-25 16:31:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.96 Mbit/s

95th percentile per-packet one-way delay: 103.256 ms

Loss rate: 4.31%

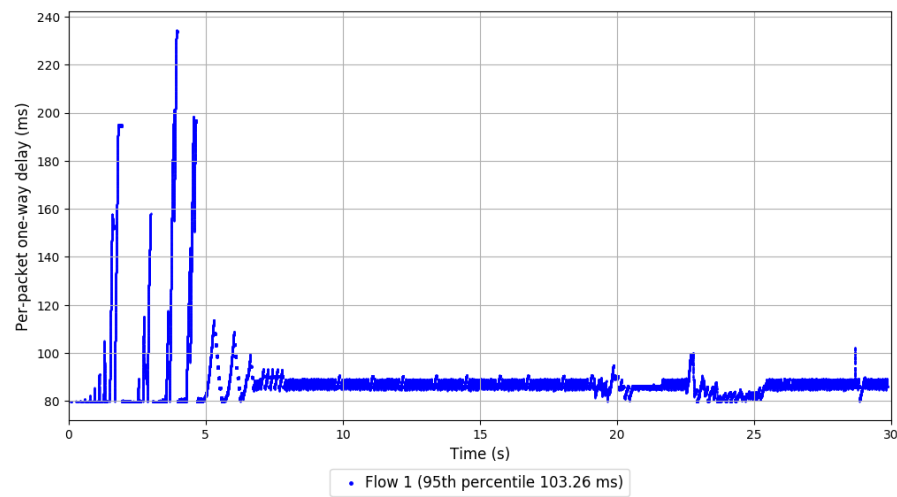
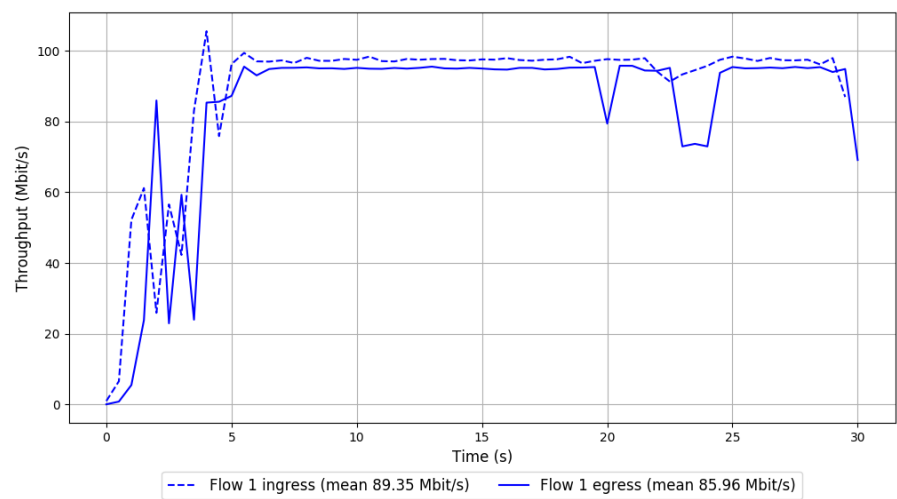
-- Flow 1:

Average throughput: 85.96 Mbit/s

95th percentile per-packet one-way delay: 103.256 ms

Loss rate: 4.31%

Run 2: Report of Indigo-Muses — Data Link



Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 14:17:25

End at: 2018-09-25 14:17:55

Local clock offset: -7.693 ms

Remote clock offset: 2.482 ms

Below is generated by plot.py at 2018-09-25 16:31:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.53 Mbit/s

95th percentile per-packet one-way delay: 92.331 ms

Loss rate: 3.88%

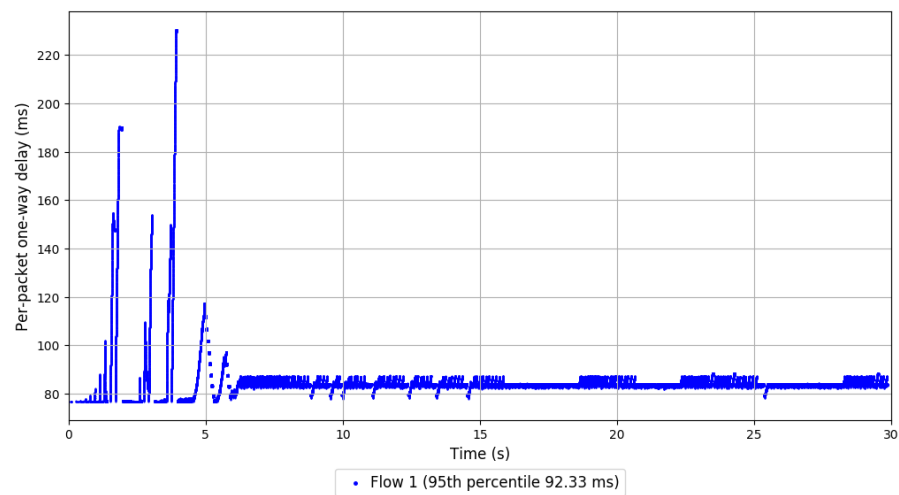
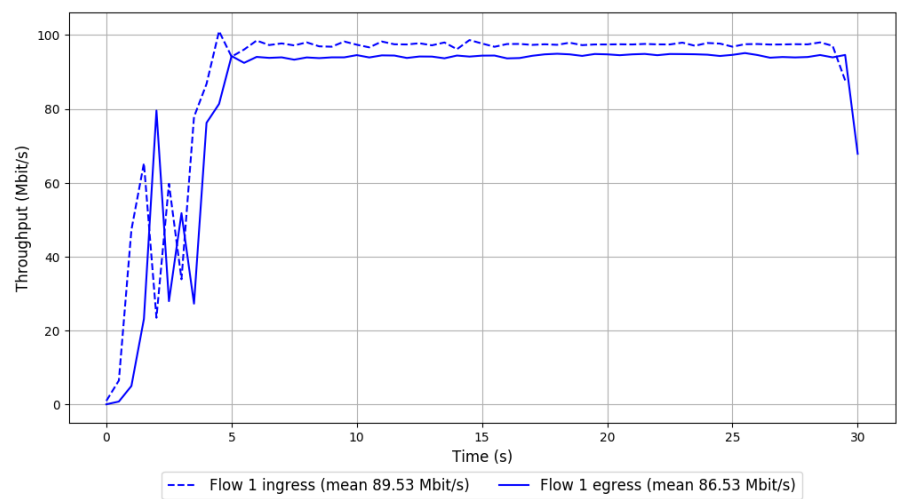
-- Flow 1:

Average throughput: 86.53 Mbit/s

95th percentile per-packet one-way delay: 92.331 ms

Loss rate: 3.88%

Run 3: Report of Indigo-Muses — Data Link

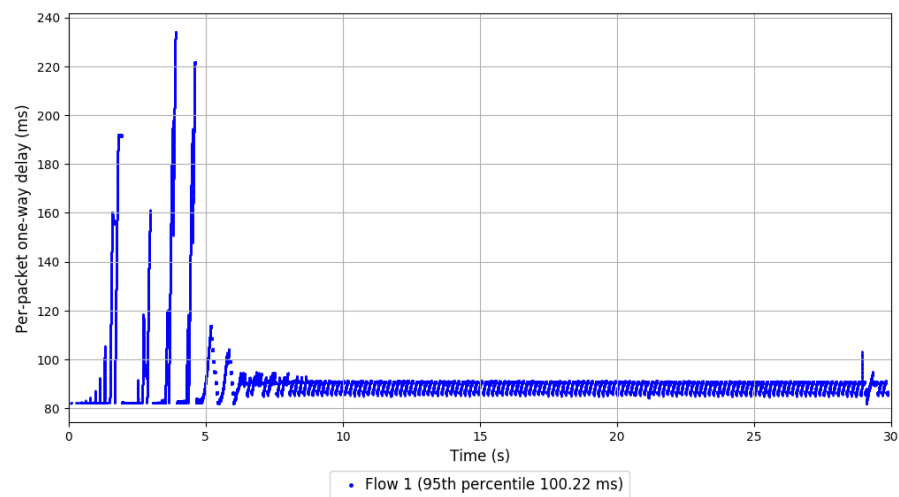
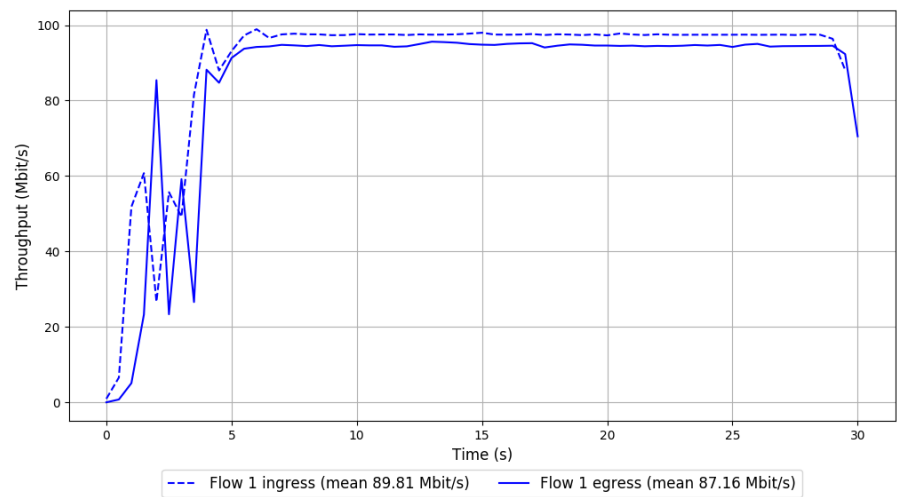


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 15:09:23
End at: 2018-09-25 15:09:53
Local clock offset: -9.502 ms
Remote clock offset: -4.305 ms

Below is generated by plot.py at 2018-09-25 16:31:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 100.216 ms
Loss rate: 3.48%
-- Flow 1:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 100.216 ms
Loss rate: 3.48%

Run 4: Report of Indigo-Muses — Data Link

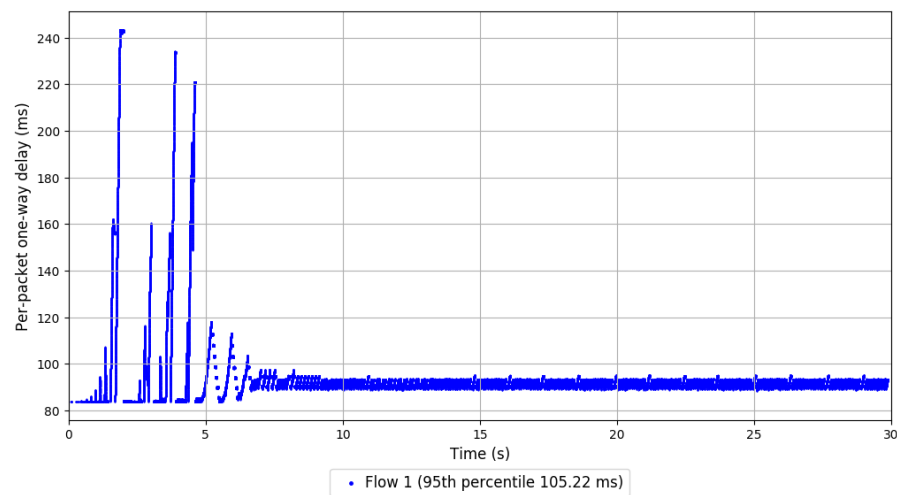
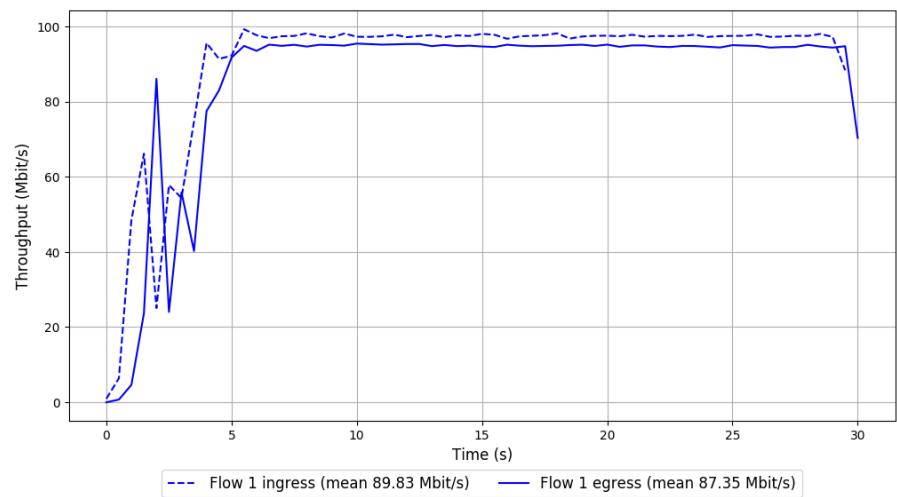


Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 15:59:32
End at: 2018-09-25 16:00:02
Local clock offset: -7.534 ms
Remote clock offset: -4.766 ms

Below is generated by plot.py at 2018-09-25 16:31:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 105.218 ms
Loss rate: 3.29%
-- Flow 1:
Average throughput: 87.35 Mbit/s
95th percentile per-packet one-way delay: 105.218 ms
Loss rate: 3.29%

Run 5: Report of Indigo-Muses — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 12:32:34

End at: 2018-09-25 12:33:04

Local clock offset: -9.176 ms

Remote clock offset: 2.128 ms

Below is generated by plot.py at 2018-09-25 16:31:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.76 Mbit/s

95th percentile per-packet one-way delay: 304.858 ms

Loss rate: 2.81%

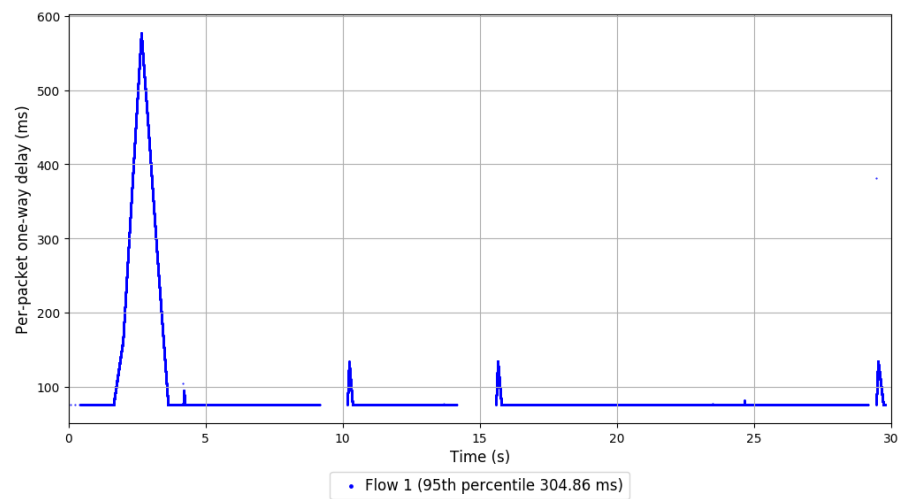
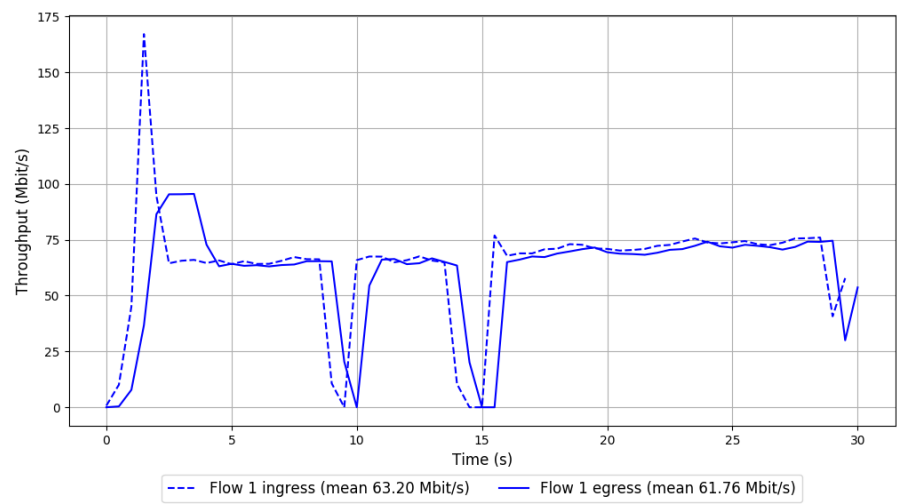
-- Flow 1:

Average throughput: 61.76 Mbit/s

95th percentile per-packet one-way delay: 304.858 ms

Loss rate: 2.81%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 13:21:27

End at: 2018-09-25 13:21:57

Local clock offset: -5.838 ms

Remote clock offset: -2.866 ms

Below is generated by plot.py at 2018-09-25 16:31:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 82.461 ms

Loss rate: 3.42%

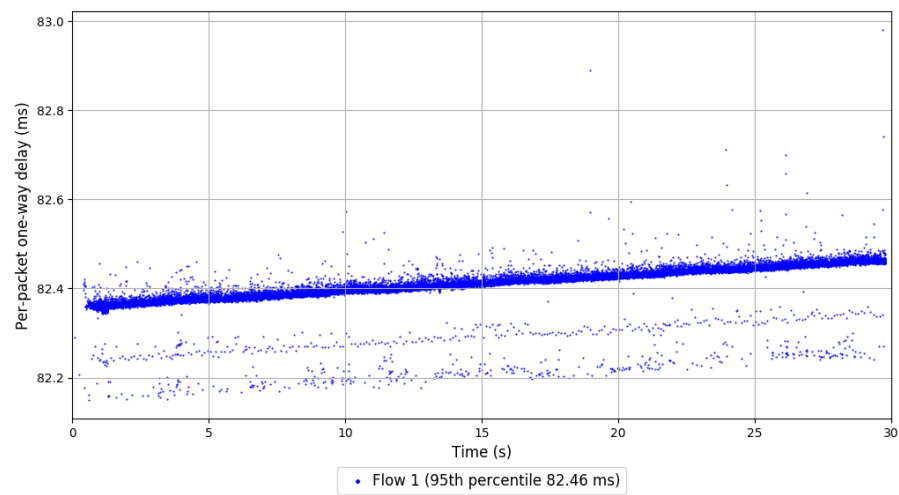
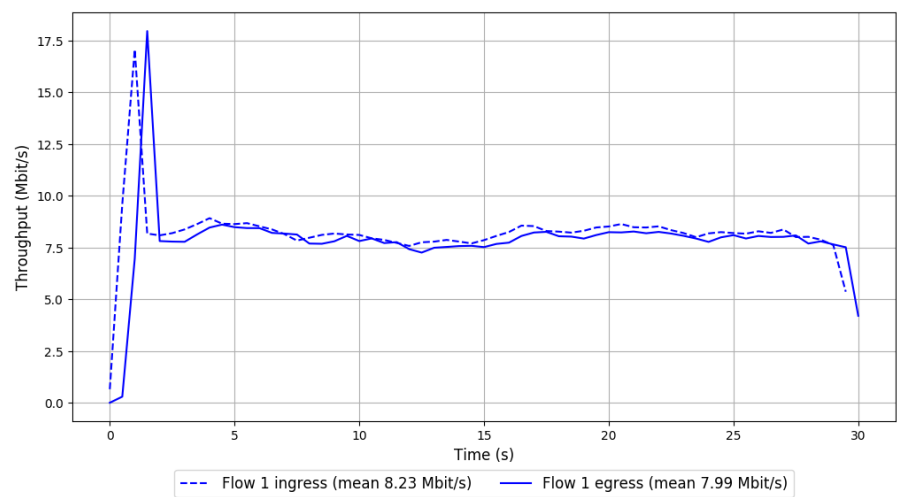
-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 82.461 ms

Loss rate: 3.42%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 14:07:33

End at: 2018-09-25 14:08:03

Local clock offset: -7.33 ms

Remote clock offset: 0.322 ms

Below is generated by plot.py at 2018-09-25 16:31:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 236.097 ms

Loss rate: 2.90%

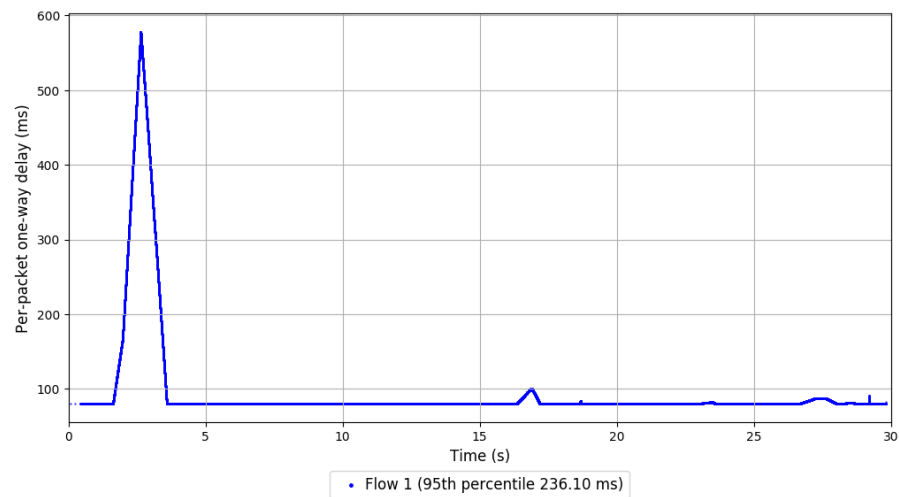
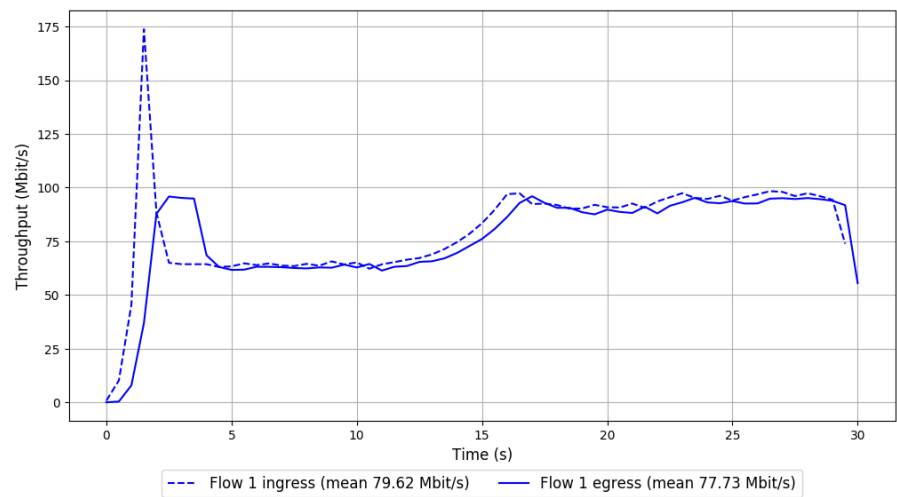
-- Flow 1:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 236.097 ms

Loss rate: 2.90%

Run 3: Report of PCC-Allegro — Data Link

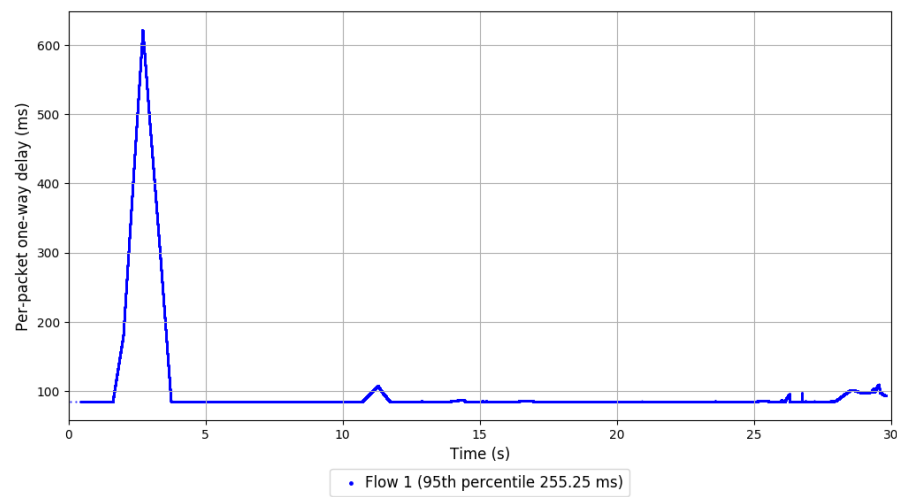
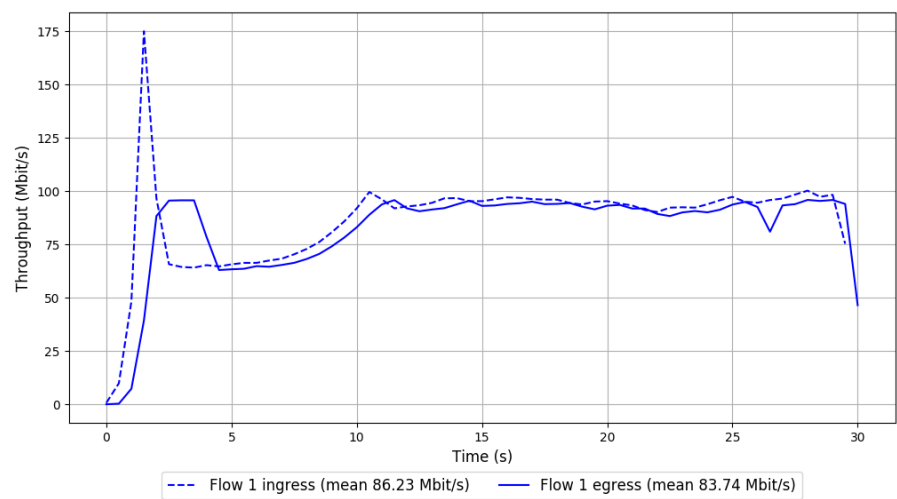


Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 14:59:41
End at: 2018-09-25 15:00:11
Local clock offset: -8.591 ms
Remote clock offset: -3.106 ms

Below is generated by plot.py at 2018-09-25 16:31:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 83.74 Mbit/s
95th percentile per-packet one-way delay: 255.246 ms
Loss rate: 3.44%
-- Flow 1:
Average throughput: 83.74 Mbit/s
95th percentile per-packet one-way delay: 255.246 ms
Loss rate: 3.44%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 15:49:57

End at: 2018-09-25 15:50:27

Local clock offset: -5.81 ms

Remote clock offset: -4.54 ms

Below is generated by plot.py at 2018-09-25 16:31:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 284.671 ms

Loss rate: 4.20%

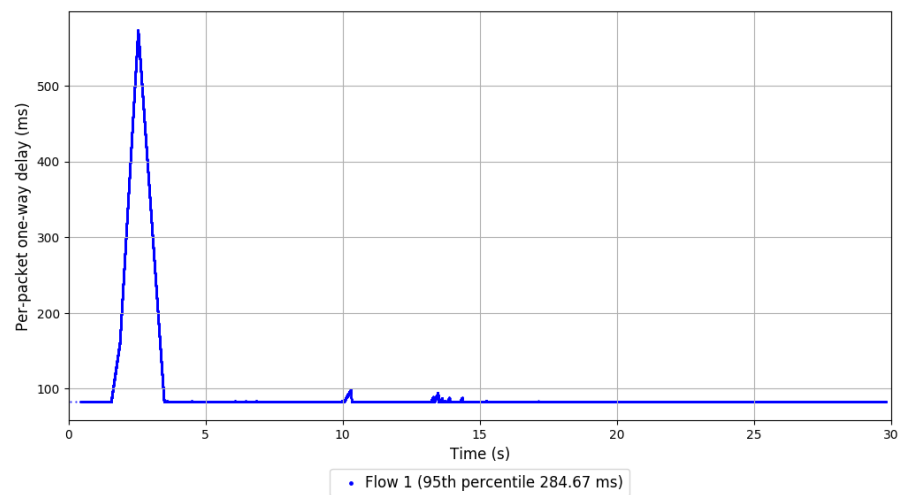
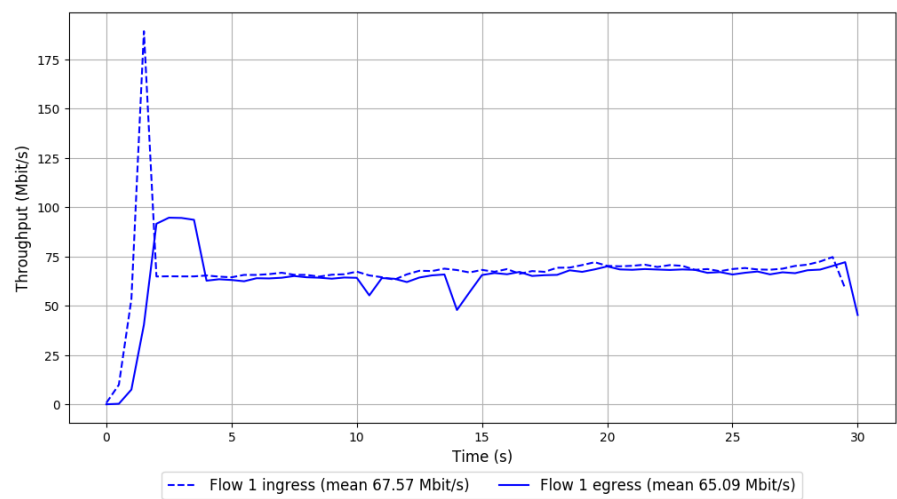
-- Flow 1:

Average throughput: 65.09 Mbit/s

95th percentile per-packet one-way delay: 284.671 ms

Loss rate: 4.20%

Run 5: Report of PCC-Allegro — Data Link

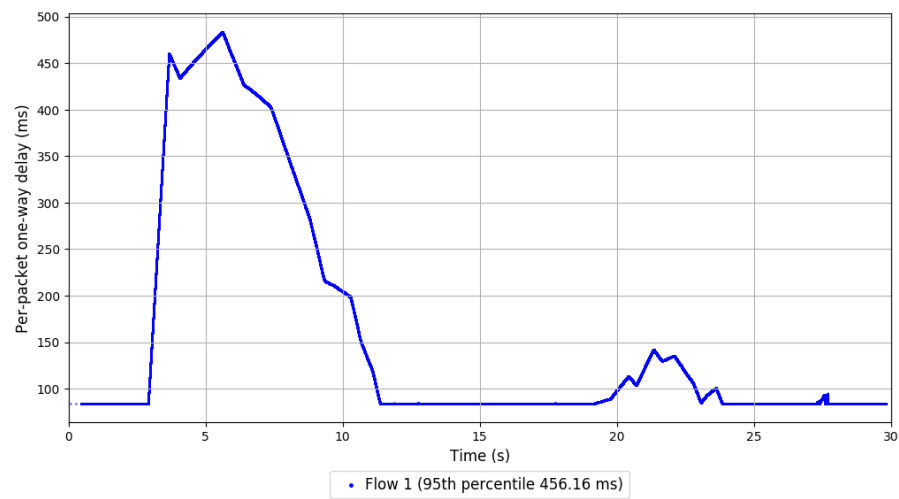
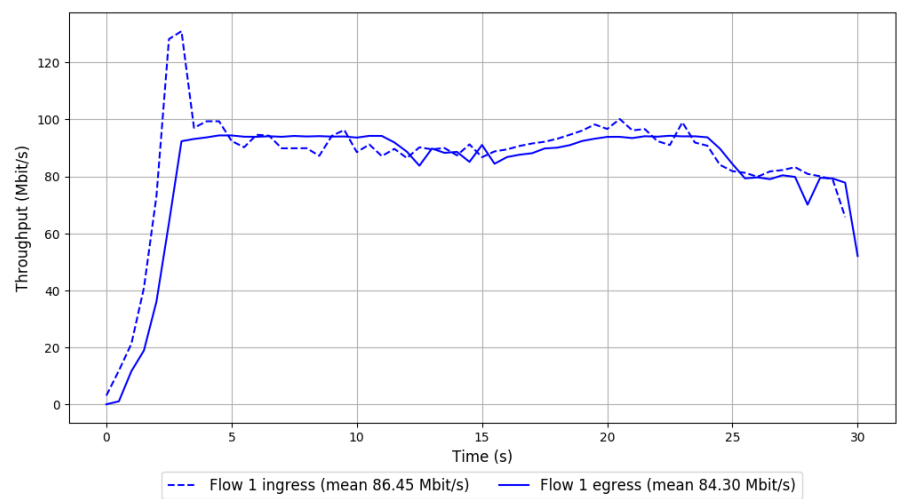


Run 1: Statistics of PCC-Expr

Start at: 2018-09-25 12:50:40
End at: 2018-09-25 12:51:10
Local clock offset: -3.578 ms
Remote clock offset: -3.153 ms

Below is generated by plot.py at 2018-09-25 16:33:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.30 Mbit/s
95th percentile per-packet one-way delay: 456.161 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 84.30 Mbit/s
95th percentile per-packet one-way delay: 456.161 ms
Loss rate: 3.03%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-09-25 13:37:33

End at: 2018-09-25 13:38:03

Local clock offset: -7.668 ms

Remote clock offset: 2.506 ms

Below is generated by plot.py at 2018-09-25 16:33:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.31 Mbit/s

95th percentile per-packet one-way delay: 423.168 ms

Loss rate: 2.77%

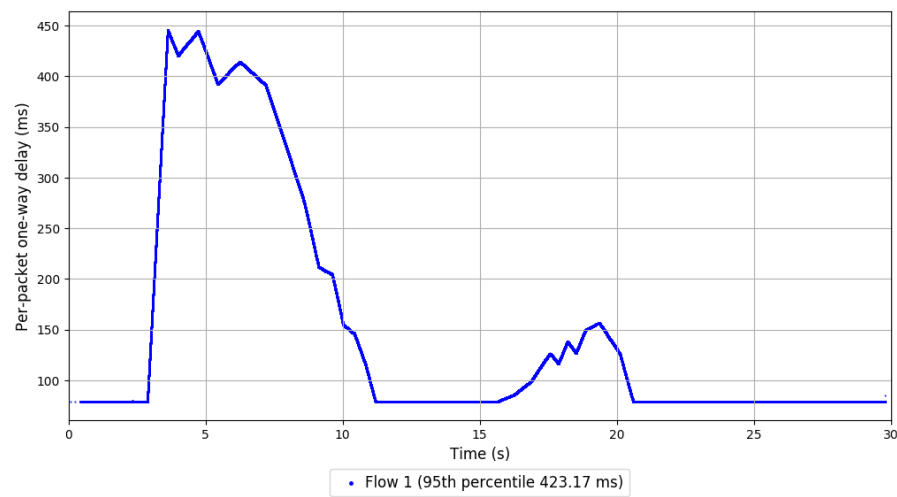
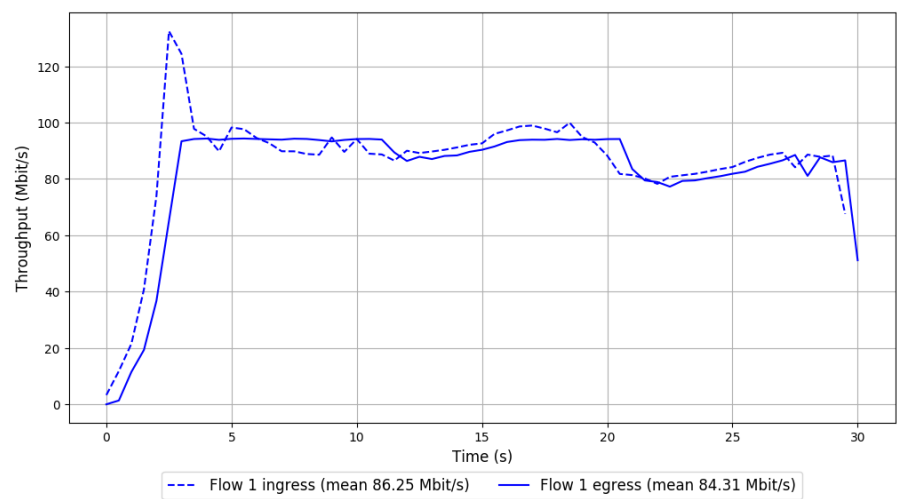
-- Flow 1:

Average throughput: 84.31 Mbit/s

95th percentile per-packet one-way delay: 423.168 ms

Loss rate: 2.77%

Run 2: Report of PCC-Expr — Data Link

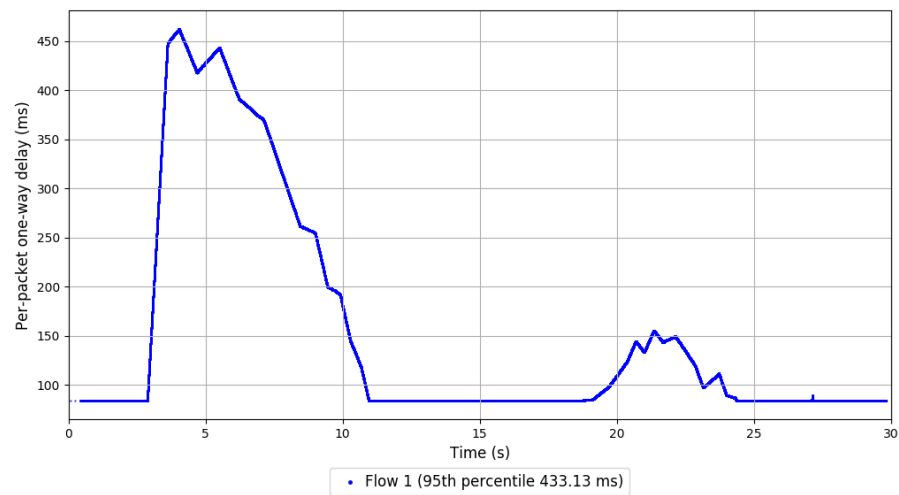
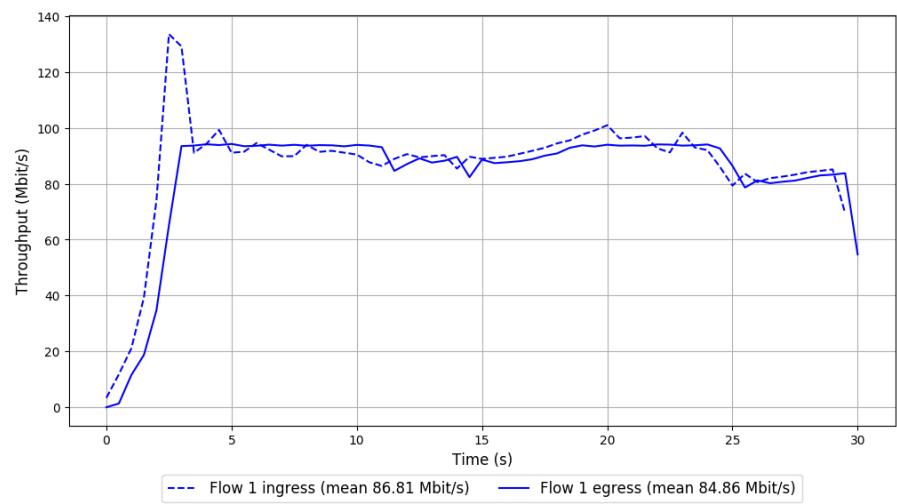


Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 14:27:26
End at: 2018-09-25 14:27:56
Local clock offset: -8.024 ms
Remote clock offset: -2.736 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 433.133 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 84.86 Mbit/s
95th percentile per-packet one-way delay: 433.133 ms
Loss rate: 2.79%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 15:19:26

End at: 2018-09-25 15:19:56

Local clock offset: -5.756 ms

Remote clock offset: 0.645 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.72 Mbit/s

95th percentile per-packet one-way delay: 76.906 ms

Loss rate: 4.11%

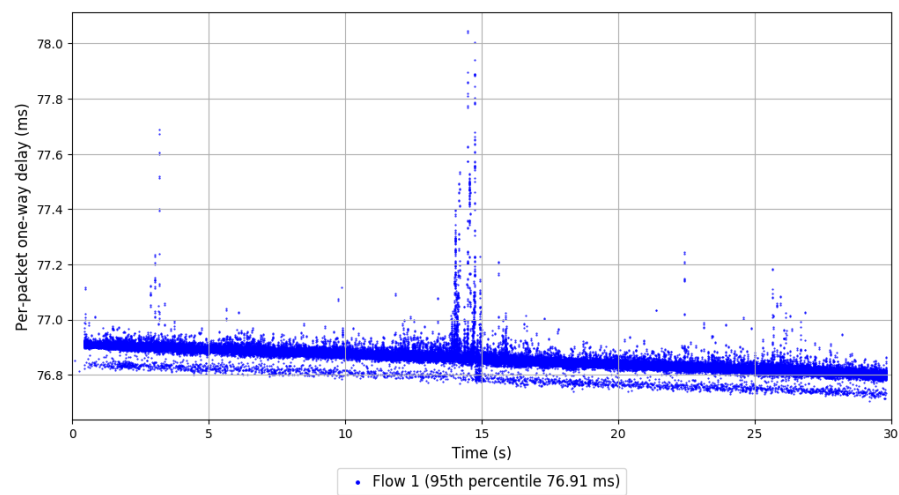
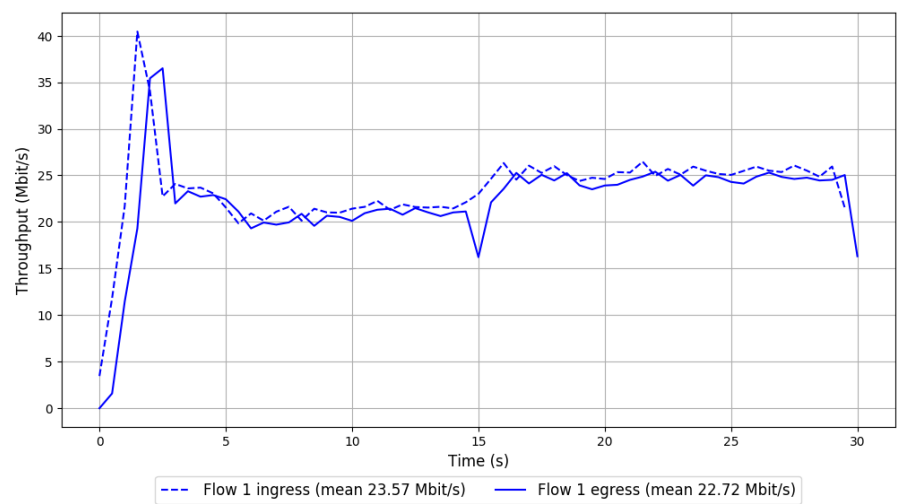
-- Flow 1:

Average throughput: 22.72 Mbit/s

95th percentile per-packet one-way delay: 76.906 ms

Loss rate: 4.11%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 16:08:05

End at: 2018-09-25 16:08:35

Local clock offset: -7.957 ms

Remote clock offset: 1.524 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.37 Mbit/s

95th percentile per-packet one-way delay: 425.407 ms

Loss rate: 4.34%

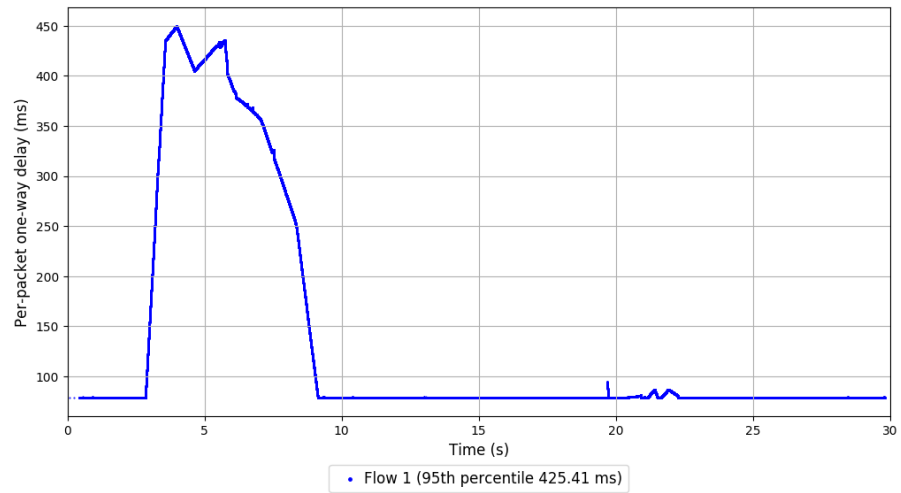
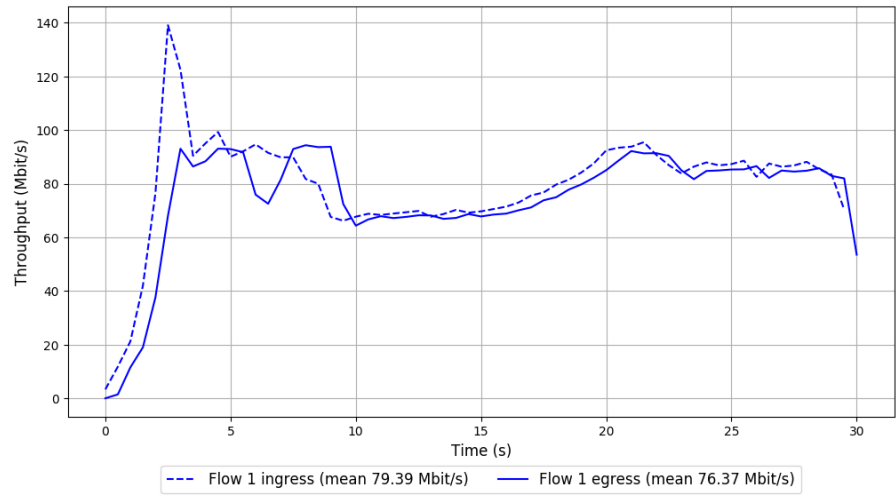
-- Flow 1:

Average throughput: 76.37 Mbit/s

95th percentile per-packet one-way delay: 425.407 ms

Loss rate: 4.34%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 12:48:20

End at: 2018-09-25 12:48:50

Local clock offset: -4.402 ms

Remote clock offset: 2.058 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 78.827 ms

Loss rate: 2.71%

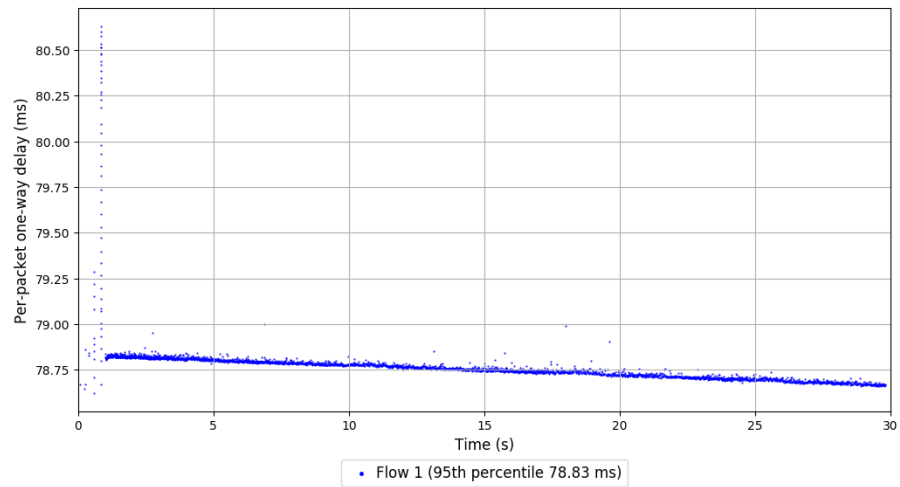
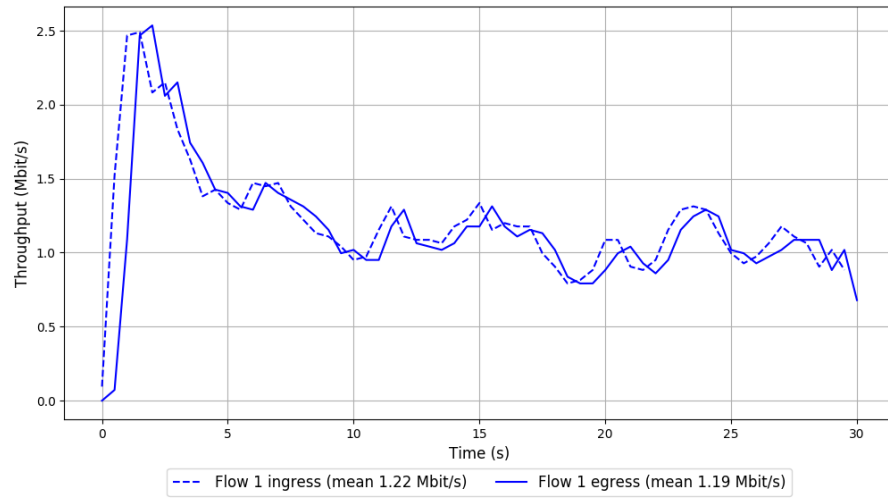
-- Flow 1:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 78.827 ms

Loss rate: 2.71%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 13:35:15

End at: 2018-09-25 13:35:45

Local clock offset: -8.343 ms

Remote clock offset: -3.858 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 82.462 ms

Loss rate: 2.49%

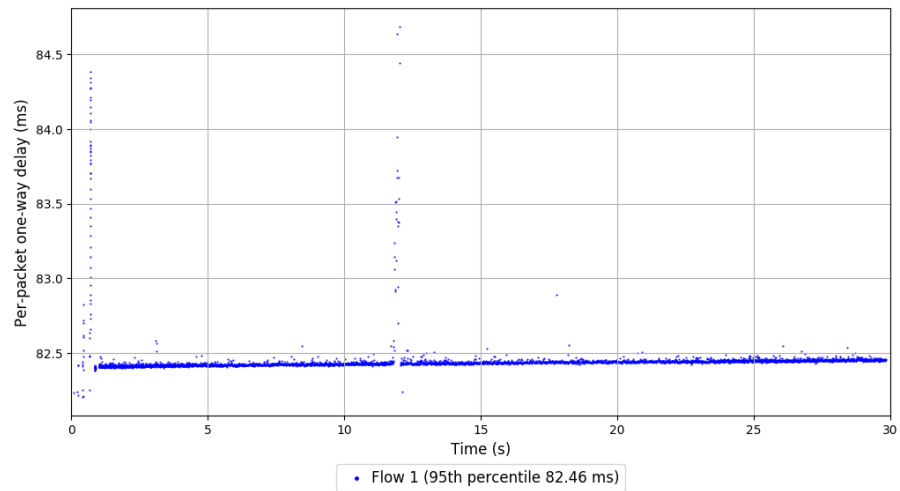
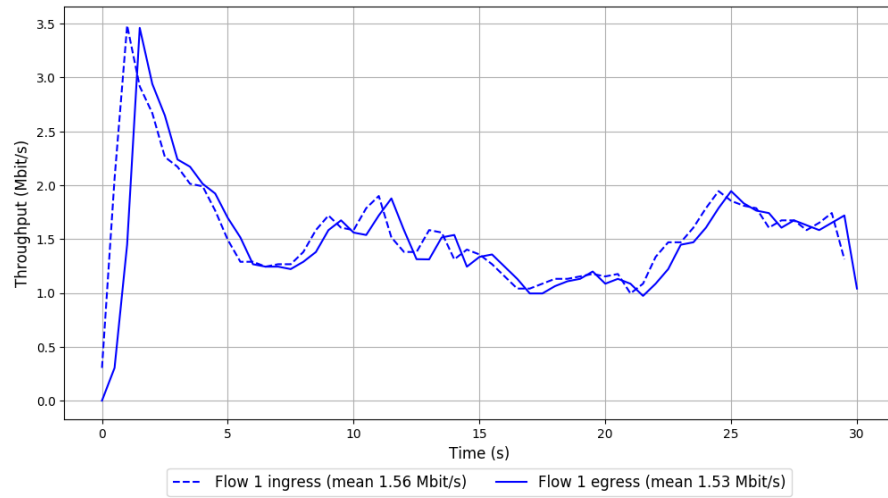
-- Flow 1:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 82.462 ms

Loss rate: 2.49%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 14:25:06

End at: 2018-09-25 14:25:36

Local clock offset: -7.959 ms

Remote clock offset: 1.314 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 79.947 ms

Loss rate: 3.14%

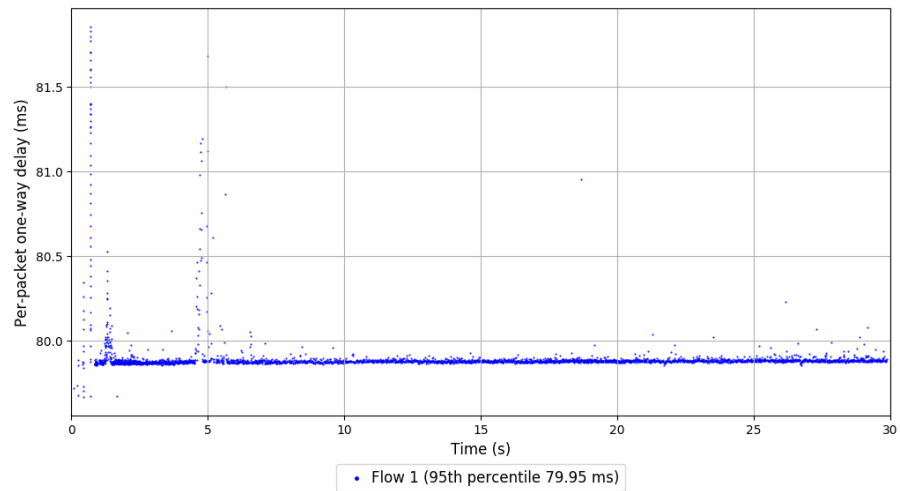
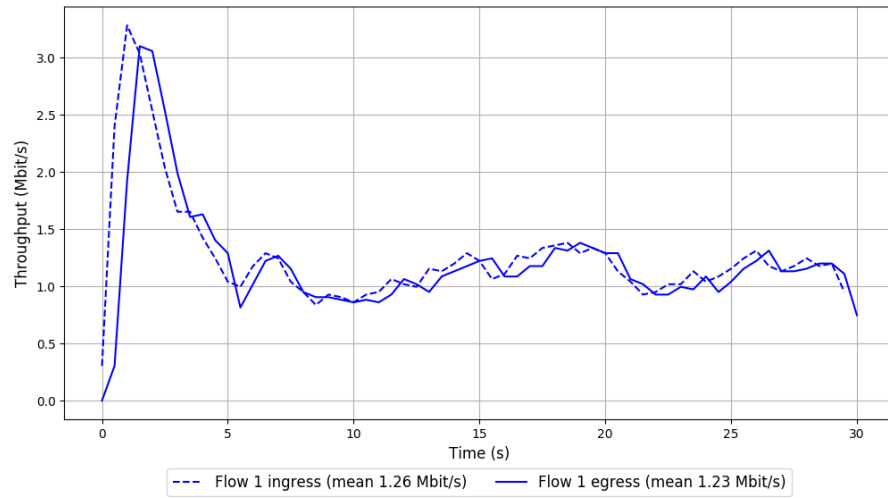
-- Flow 1:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 79.947 ms

Loss rate: 3.14%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 15:17:05

End at: 2018-09-25 15:17:35

Local clock offset: -6.302 ms

Remote clock offset: 0.708 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 76.742 ms

Loss rate: 3.55%

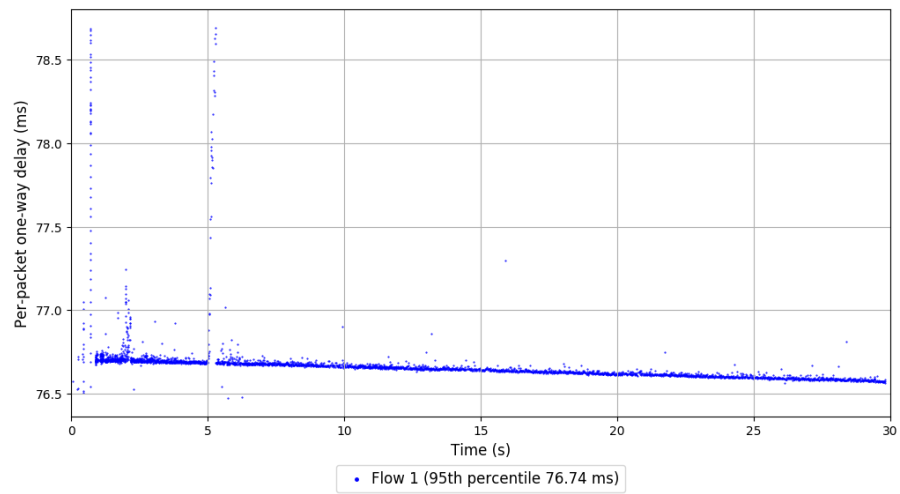
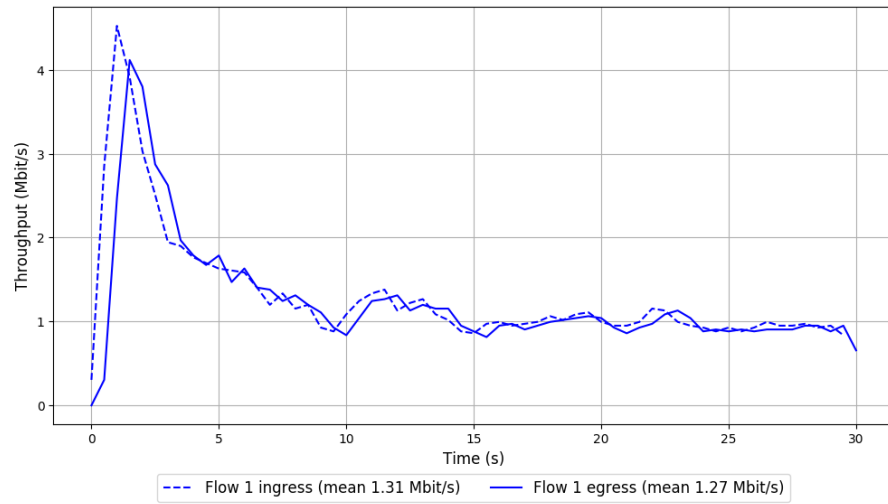
-- Flow 1:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 76.742 ms

Loss rate: 3.55%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 16:05:48

End at: 2018-09-25 16:06:18

Local clock offset: -7.067 ms

Remote clock offset: -4.732 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 83.491 ms

Loss rate: 2.82%

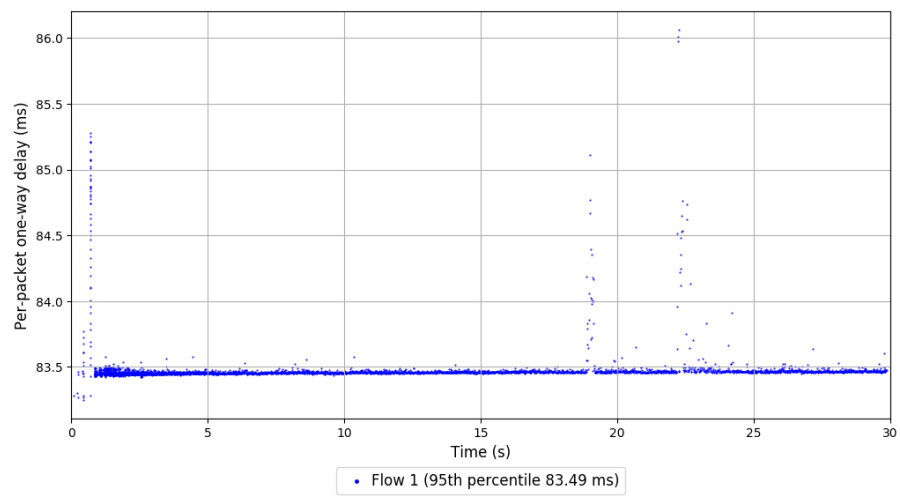
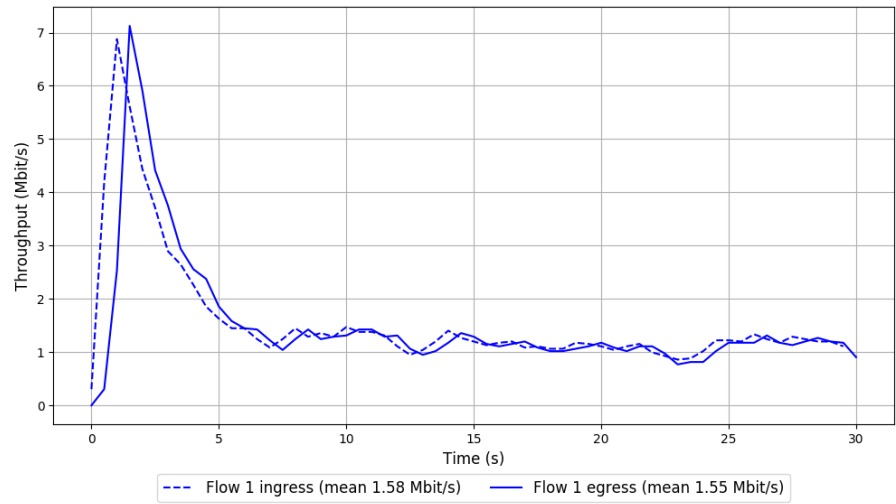
-- Flow 1:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 83.491 ms

Loss rate: 2.82%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

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

End at: 2018-09-25 12:30:42

Local clock offset: -9.634 ms

Remote clock offset: -3.01 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 81.146 ms

Loss rate: 2.11%

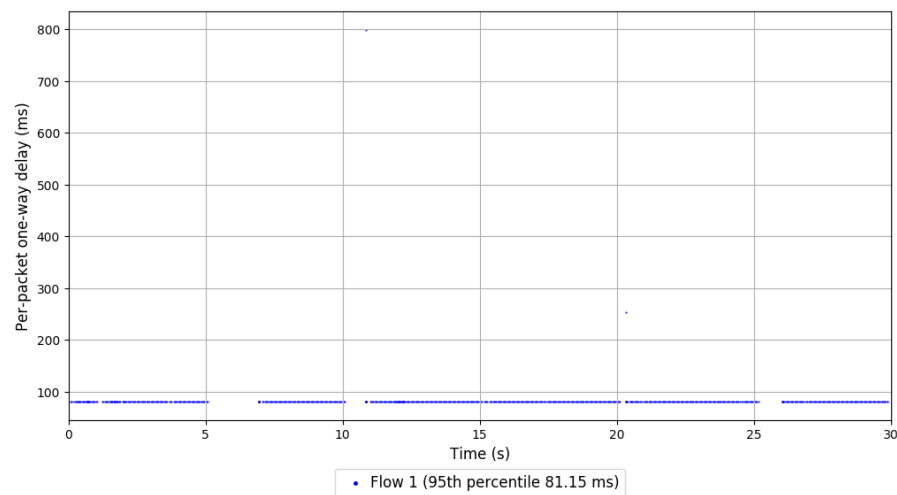
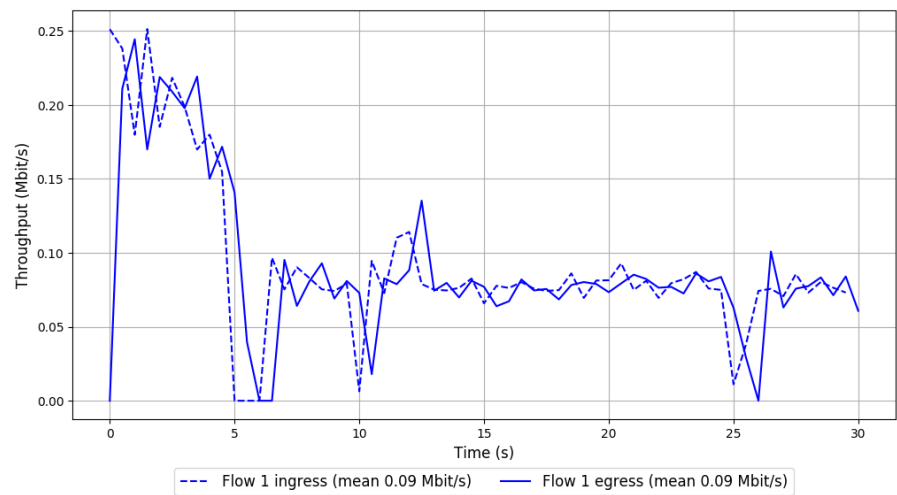
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 81.146 ms

Loss rate: 2.11%

Run 1: Report of SReAM — Data Link

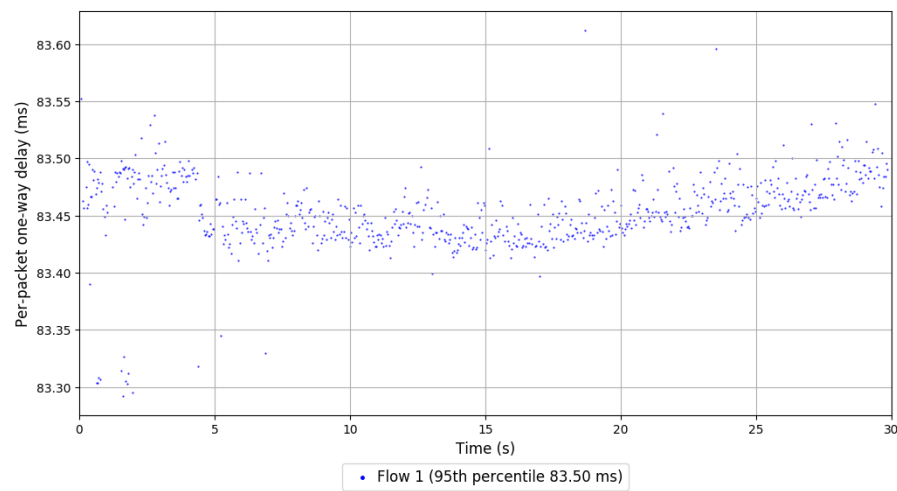
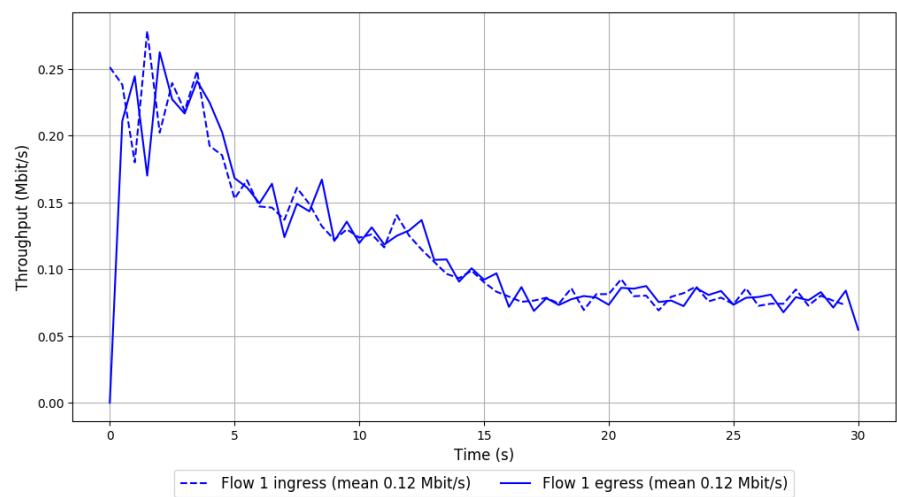


Run 2: Statistics of SCReAM

Start at: 2018-09-25 13:19:12
End at: 2018-09-25 13:19:42
Local clock offset: -5.296 ms
Remote clock offset: -4.024 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 83.497 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 83.497 ms
Loss rate: 1.36%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-09-25 14:05:16

End at: 2018-09-25 14:05:46

Local clock offset: -7.34 ms

Remote clock offset: 2.492 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 77.082 ms

Loss rate: 2.43%

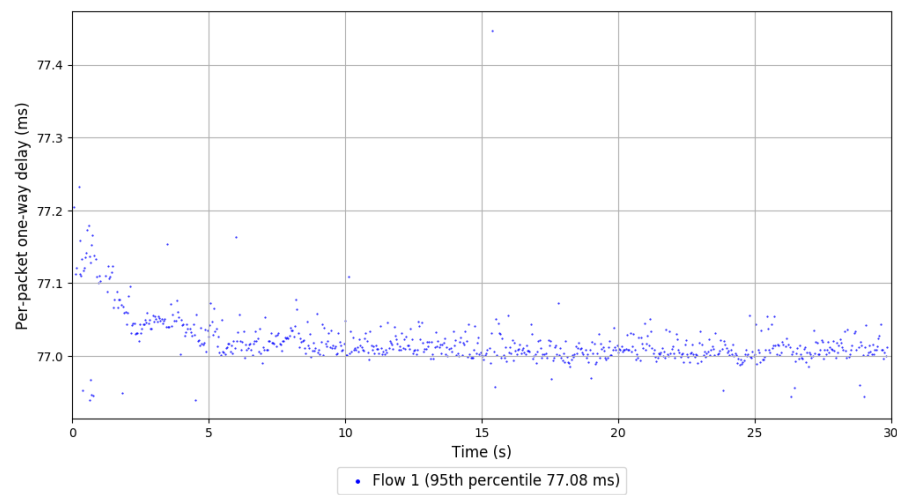
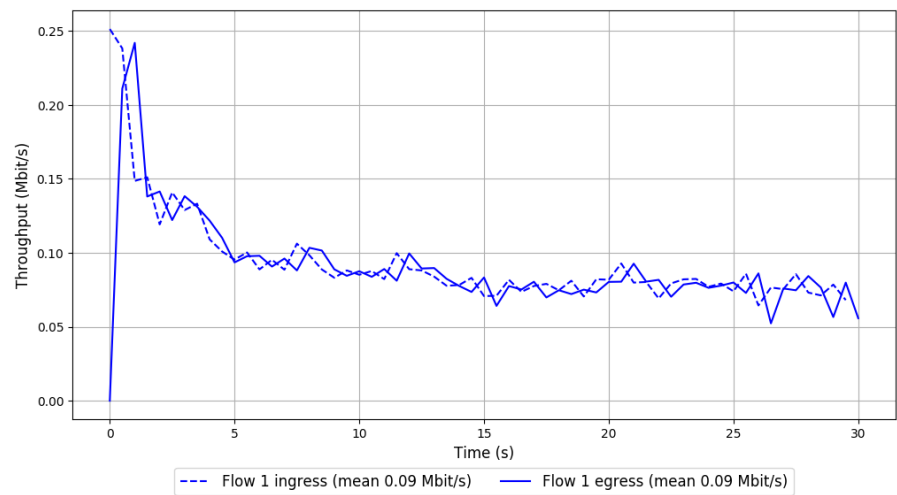
-- Flow 1:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 77.082 ms

Loss rate: 2.43%

Run 3: Report of SReAM — Data Link

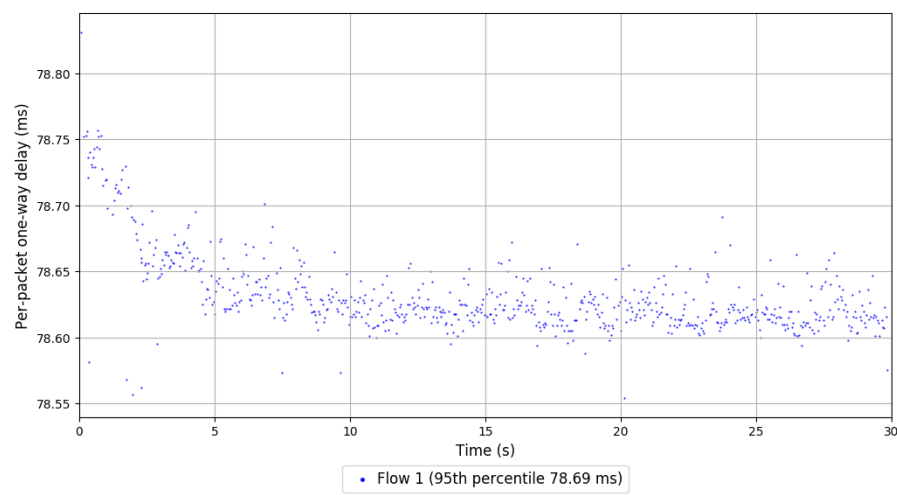
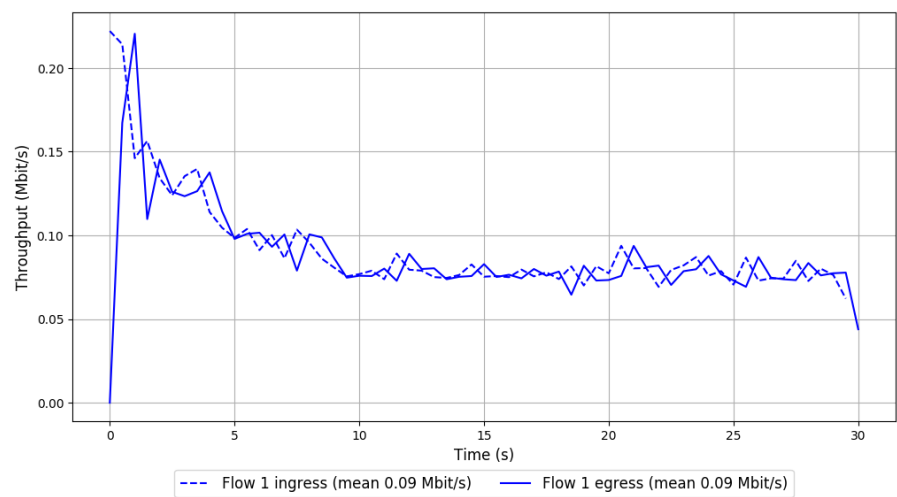


Run 4: Statistics of SCReAM

Start at: 2018-09-25 14:57:25
End at: 2018-09-25 14:57:55
Local clock offset: -8.554 ms
Remote clock offset: -0.068 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 78.695 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 78.695 ms
Loss rate: 3.06%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-09-25 15:47:40

End at: 2018-09-25 15:48:10

Local clock offset: -6.169 ms

Remote clock offset: 1.536 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 78.186 ms

Loss rate: 0.96%

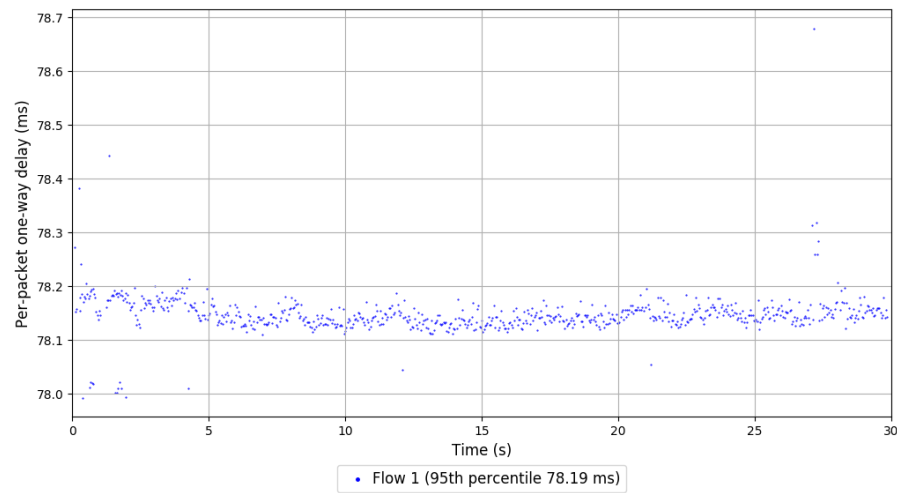
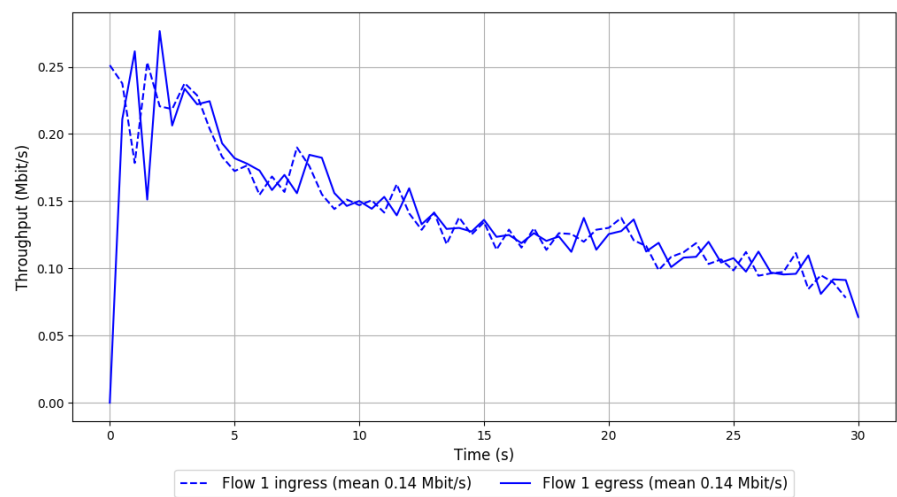
-- Flow 1:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 78.186 ms

Loss rate: 0.96%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-09-25 12:49:29

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

Local clock offset: -4.732 ms

Remote clock offset: 0.9 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 86.036 ms

Loss rate: 3.26%

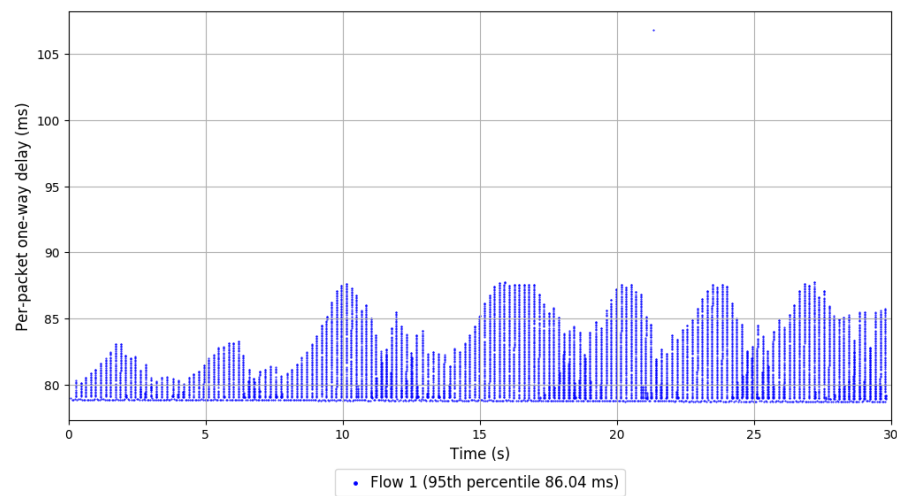
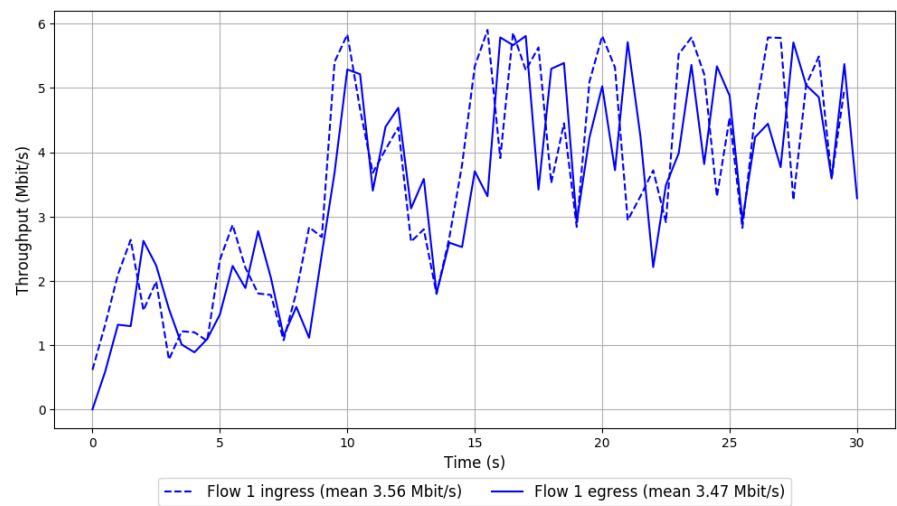
-- Flow 1:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 86.036 ms

Loss rate: 3.26%

Run 1: Report of Sprout — Data Link

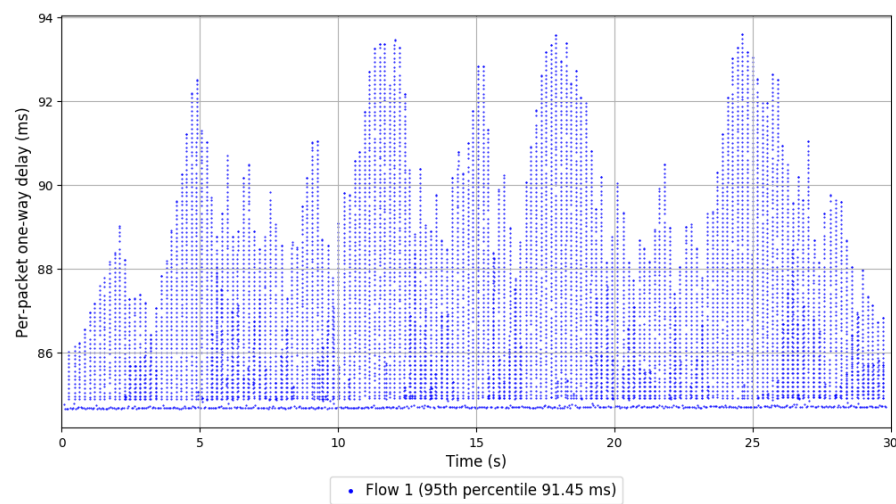
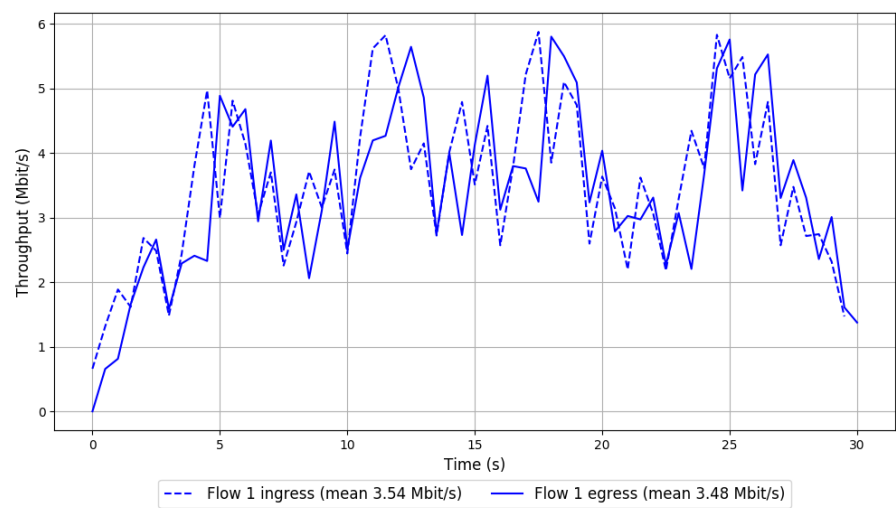


Run 2: Statistics of Sprout

Start at: 2018-09-25 13:36:23
End at: 2018-09-25 13:36:53
Local clock offset: -7.595 ms
Remote clock offset: -3.724 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 91.448 ms
Loss rate: 2.14%
-- Flow 1:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 91.448 ms
Loss rate: 2.14%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-09-25 14:26:15

End at: 2018-09-25 14:26:45

Local clock offset: -7.988 ms

Remote clock offset: 1.352 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 84.603 ms

Loss rate: 3.22%

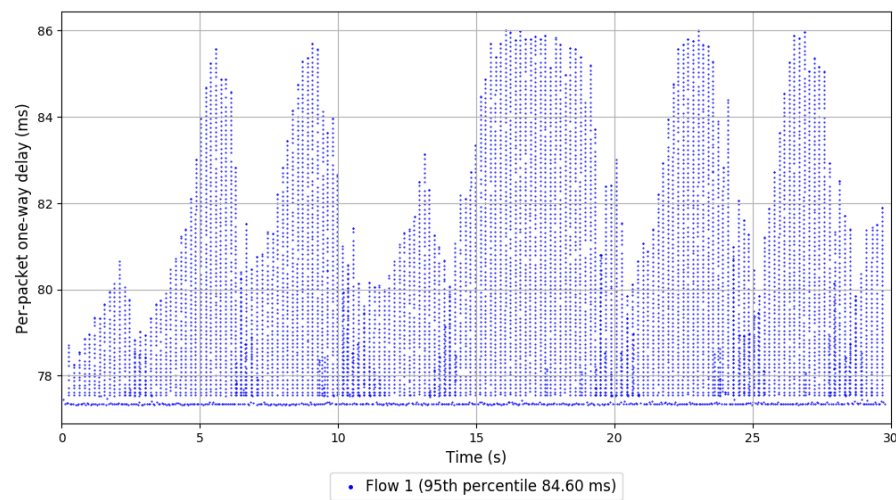
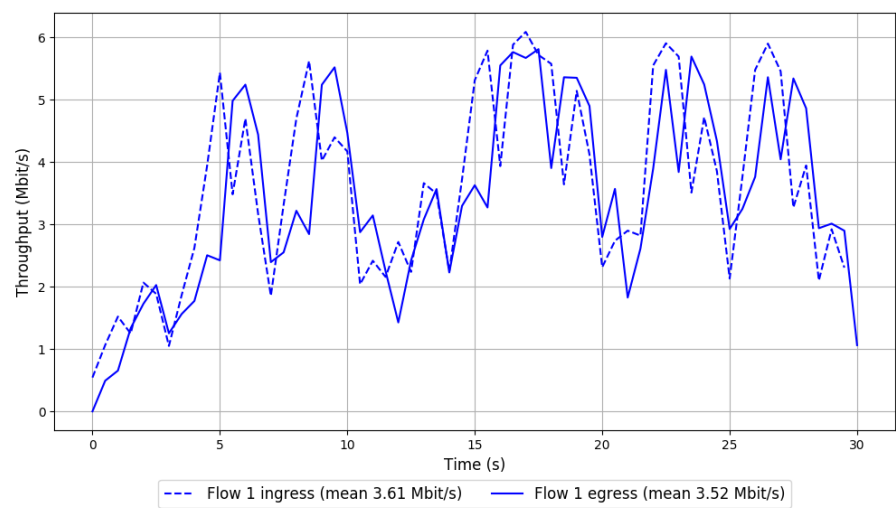
-- Flow 1:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 84.603 ms

Loss rate: 3.22%

Run 3: Report of Sprout — Data Link

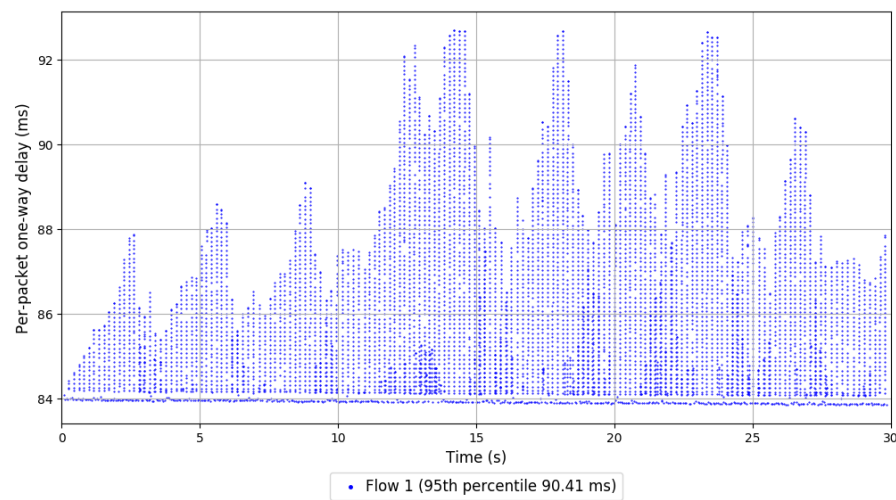
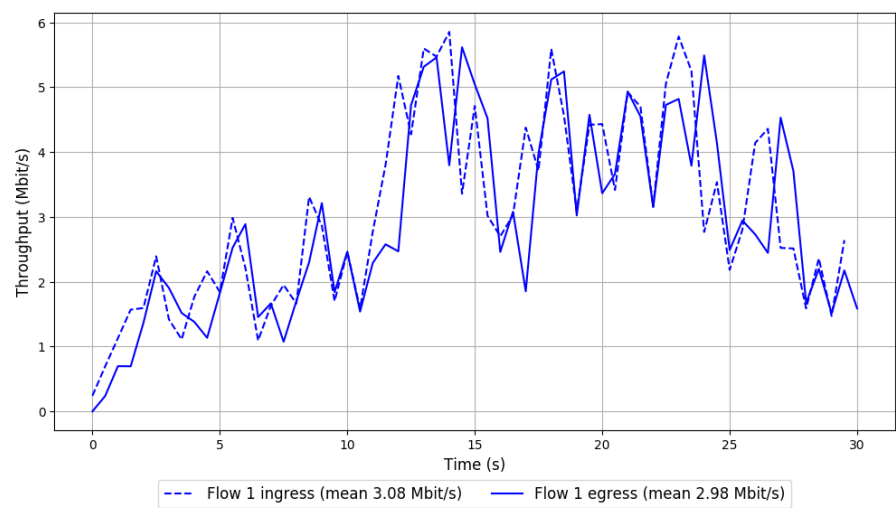


Run 4: Statistics of Sprout

Start at: 2018-09-25 15:18:15
End at: 2018-09-25 15:18:45
Local clock offset: -6.039 ms
Remote clock offset: -4.399 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 90.411 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 90.411 ms
Loss rate: 3.87%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-09-25 16:06:56

End at: 2018-09-25 16:07:26

Local clock offset: -7.096 ms

Remote clock offset: 0.512 ms

Below is generated by plot.py at 2018-09-25 16:33:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 83.888 ms

Loss rate: 3.30%

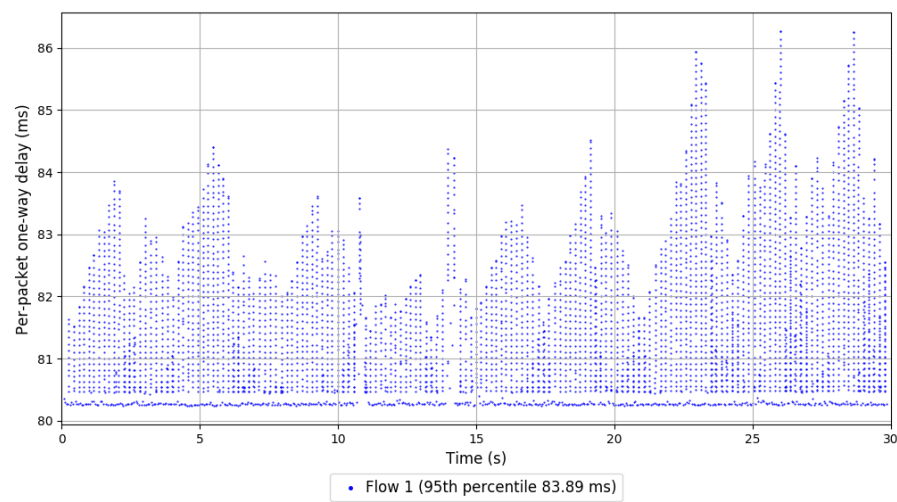
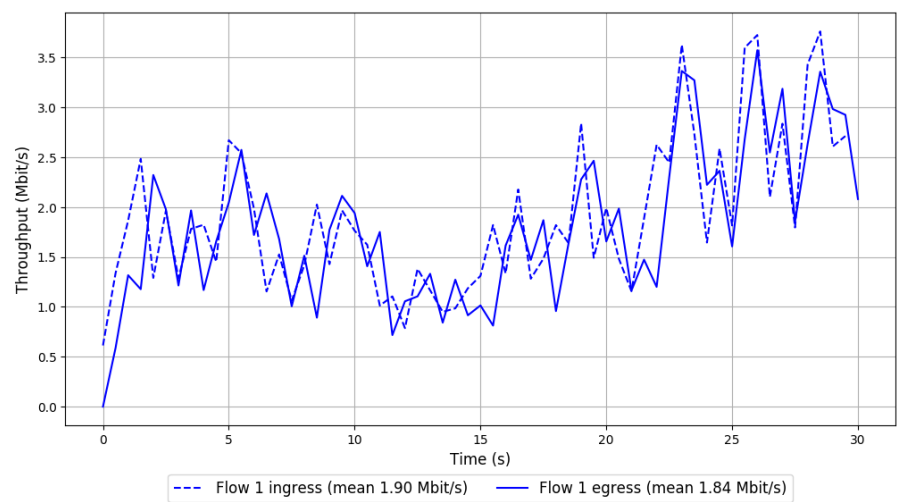
-- Flow 1:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 83.888 ms

Loss rate: 3.30%

Run 5: Report of Sprout — Data Link

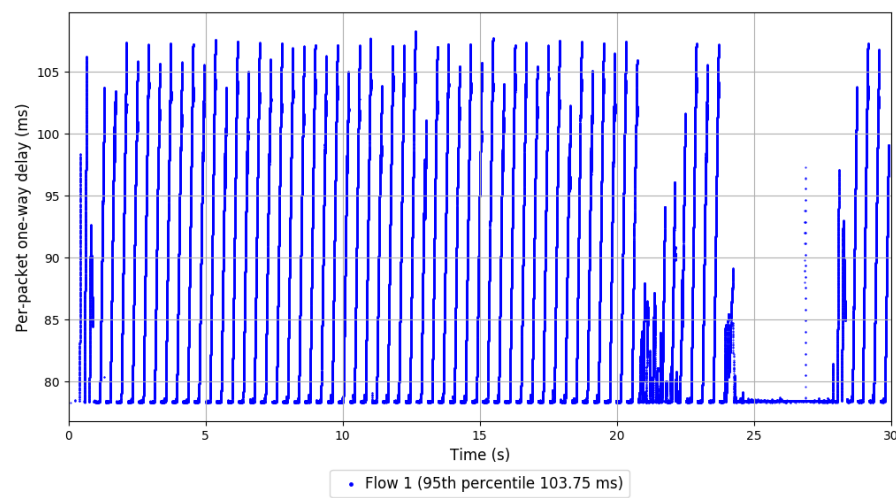
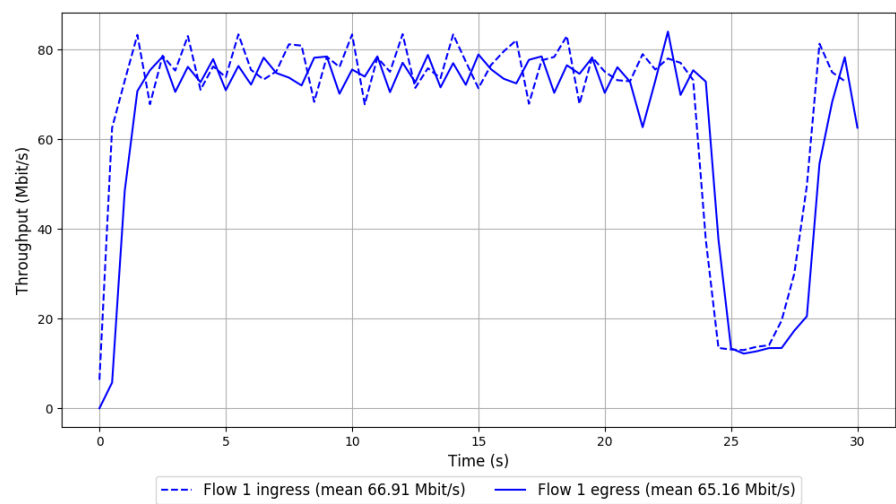


Run 1: Statistics of TaoVA-100x

Start at: 2018-09-25 12:37:46
End at: 2018-09-25 12:38:16
Local clock offset: -10.347 ms
Remote clock offset: -0.283 ms

Below is generated by plot.py at 2018-09-25 16:33:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.16 Mbit/s
95th percentile per-packet one-way delay: 103.748 ms
Loss rate: 3.15%
-- Flow 1:
Average throughput: 65.16 Mbit/s
95th percentile per-packet one-way delay: 103.748 ms
Loss rate: 3.15%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-09-25 13:24:36

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

Local clock offset: -7.246 ms

Remote clock offset: 0.088 ms

Below is generated by plot.py at 2018-09-25 16:33:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.90 Mbit/s

95th percentile per-packet one-way delay: 104.970 ms

Loss rate: 2.85%

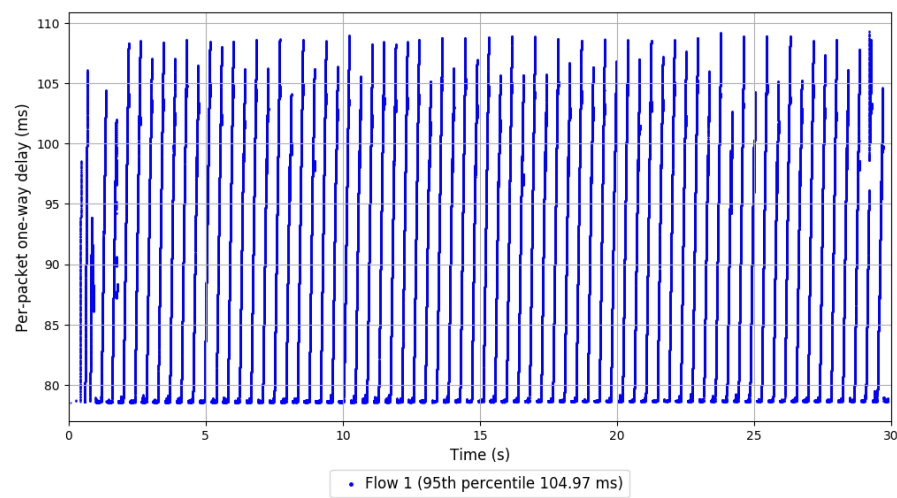
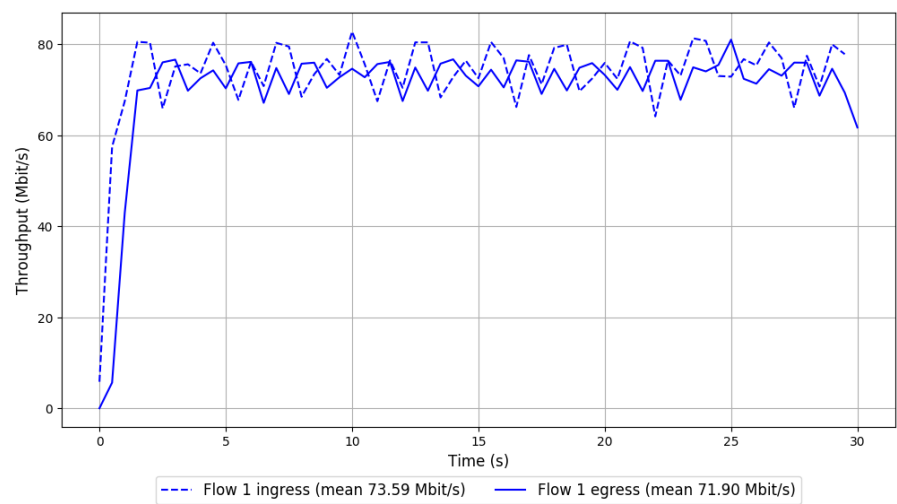
-- Flow 1:

Average throughput: 71.90 Mbit/s

95th percentile per-packet one-way delay: 104.970 ms

Loss rate: 2.85%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-09-25 14:12:33

End at: 2018-09-25 14:13:03

Local clock offset: -8.269 ms

Remote clock offset: 0.259 ms

Below is generated by plot.py at 2018-09-25 16:33:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.14 Mbit/s

95th percentile per-packet one-way delay: 103.140 ms

Loss rate: 2.99%

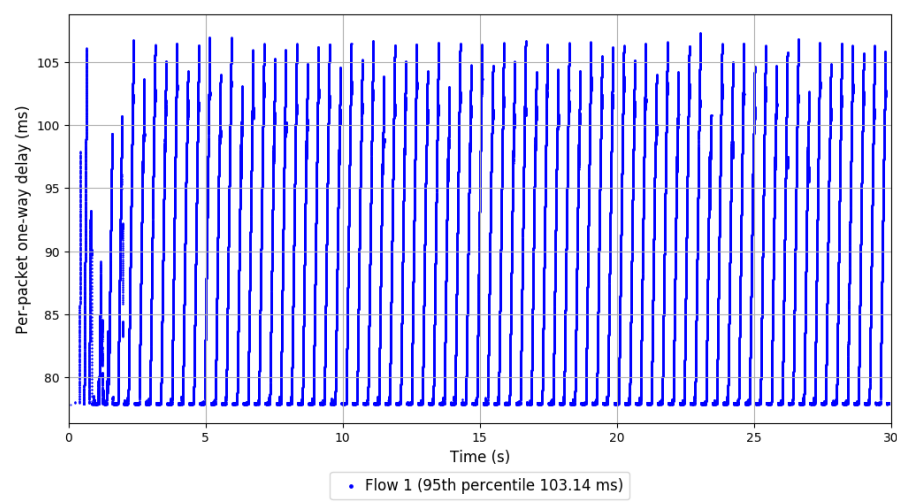
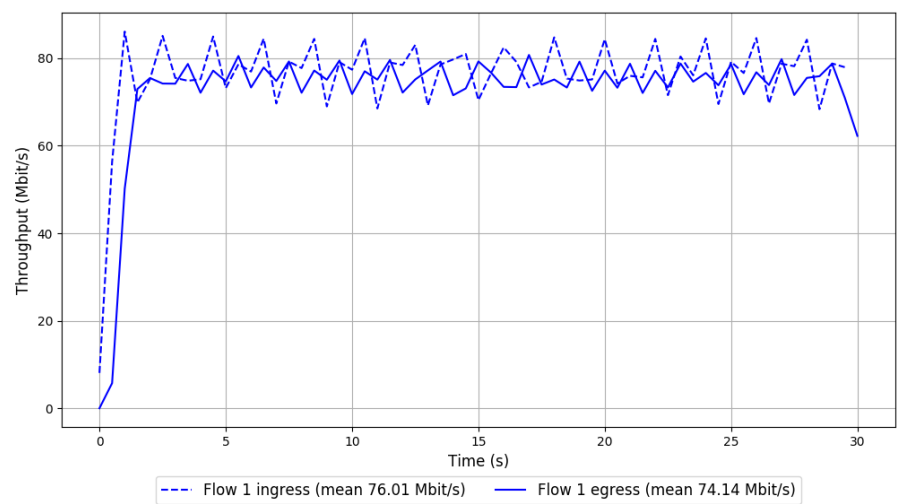
-- Flow 1:

Average throughput: 74.14 Mbit/s

95th percentile per-packet one-way delay: 103.140 ms

Loss rate: 2.99%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-09-25 15:04:36

End at: 2018-09-25 15:05:06

Local clock offset: -9.448 ms

Remote clock offset: -4.28 ms

Below is generated by plot.py at 2018-09-25 16:33:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.24 Mbit/s

95th percentile per-packet one-way delay: 110.505 ms

Loss rate: 3.60%

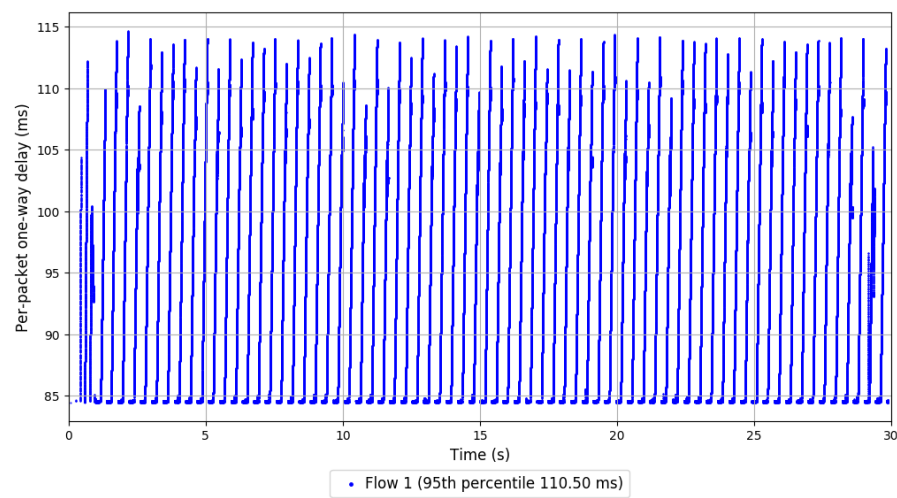
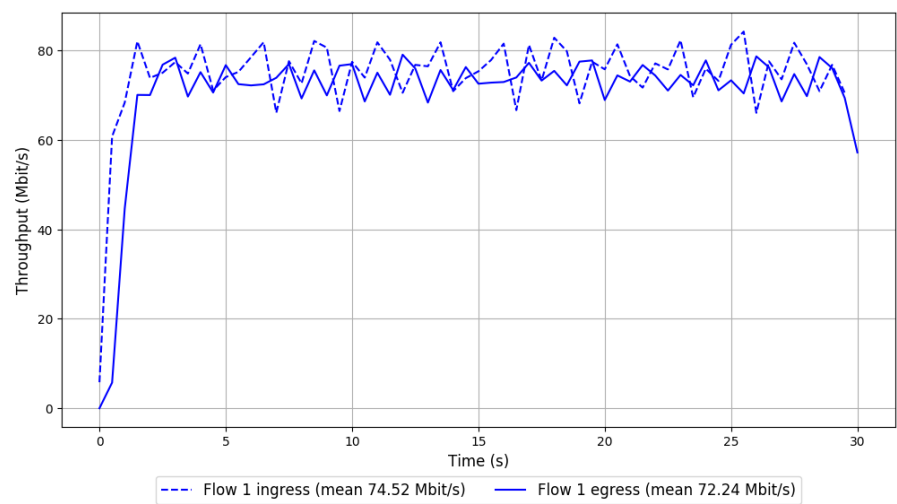
-- Flow 1:

Average throughput: 72.24 Mbit/s

95th percentile per-packet one-way delay: 110.505 ms

Loss rate: 3.60%

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

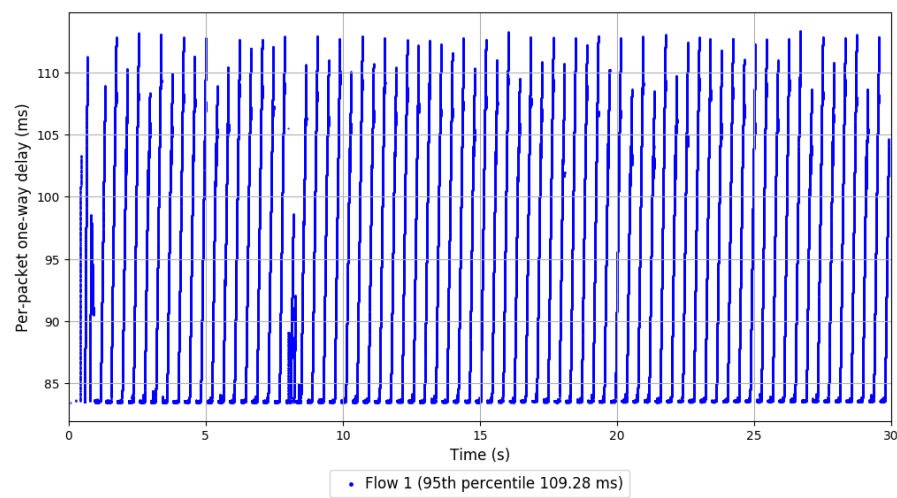
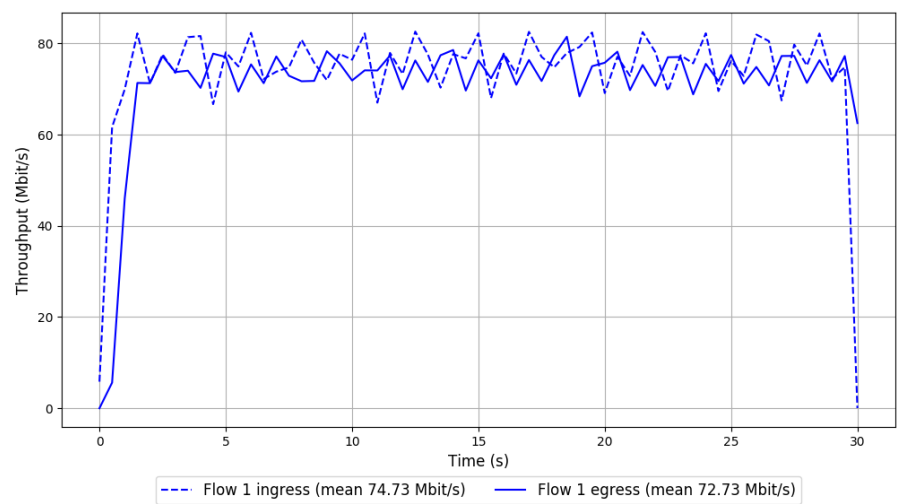


Run 5: Statistics of TaoVA-100x

Start at: 2018-09-25 15:54:24
End at: 2018-09-25 15:54:54
Local clock offset: -7.142 ms
Remote clock offset: -3.542 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 109.281 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 109.281 ms
Loss rate: 3.22%

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

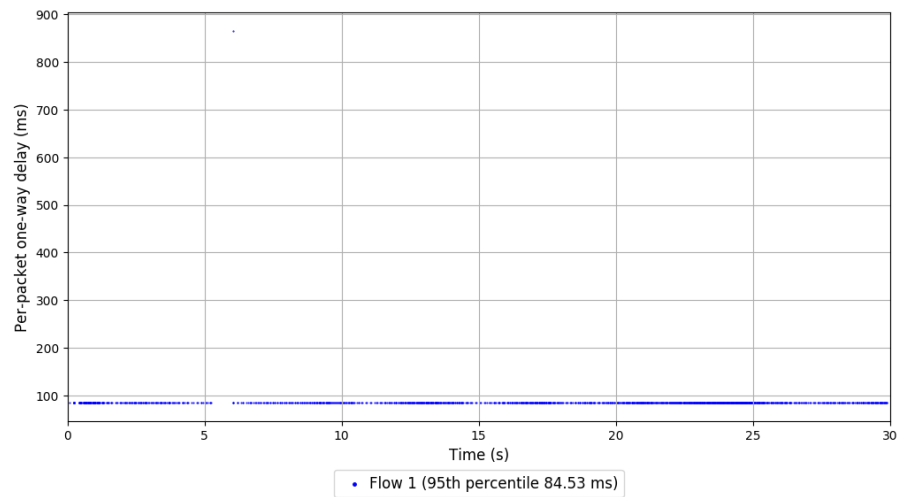
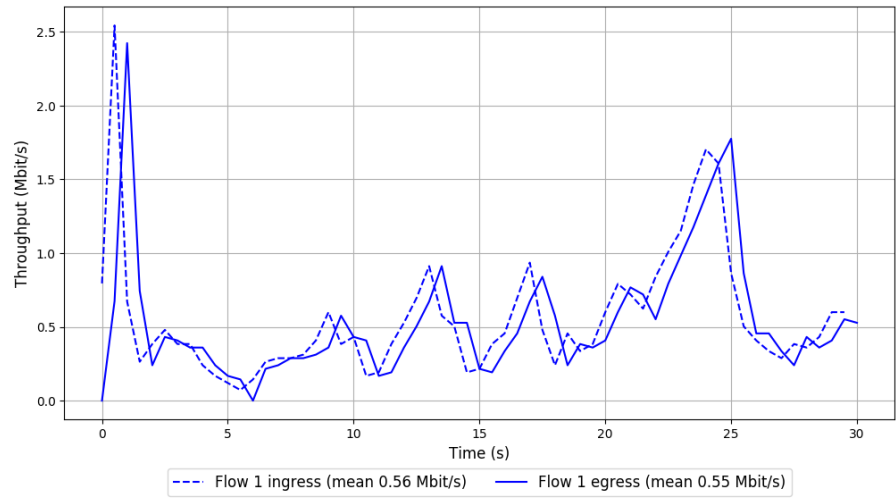


Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 13:03:29
End at: 2018-09-25 13:03:59
Local clock offset: -2.26 ms
Remote clock offset: -4.224 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 84.527 ms
Loss rate: 2.35%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 84.527 ms
Loss rate: 2.35%

Run 1: Report of TCP Vegas — Data Link

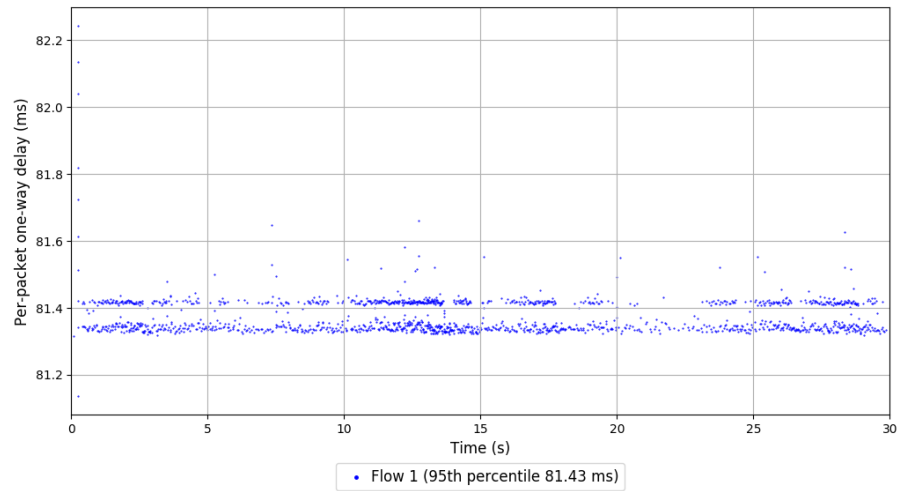
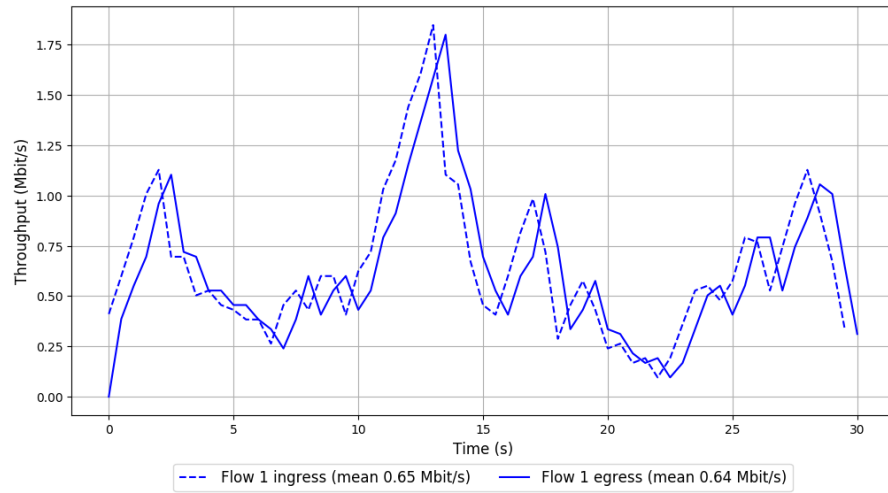


Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 13:49:34
End at: 2018-09-25 13:50:04
Local clock offset: -7.981 ms
Remote clock offset: -2.728 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 81.426 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 81.426 ms
Loss rate: 2.04%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 14:41:16

End at: 2018-09-25 14:41:46

Local clock offset: -8.334 ms

Remote clock offset: 1.173 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 77.738 ms

Loss rate: 3.11%

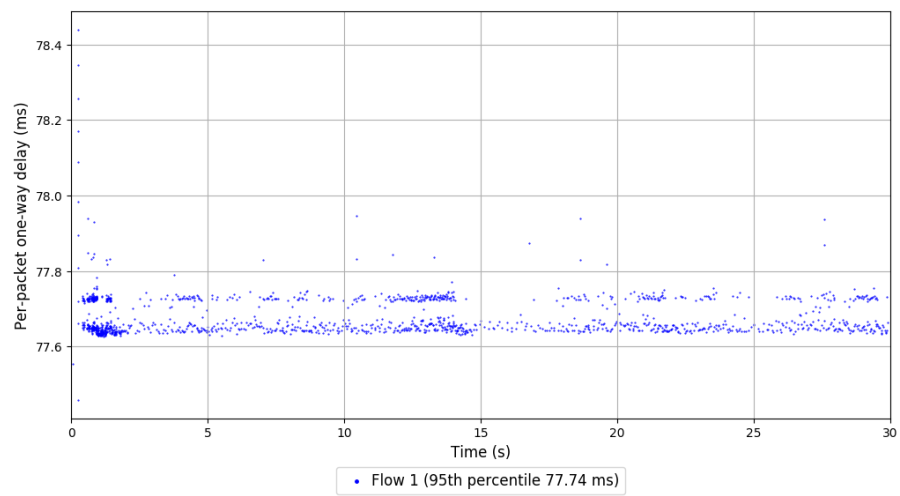
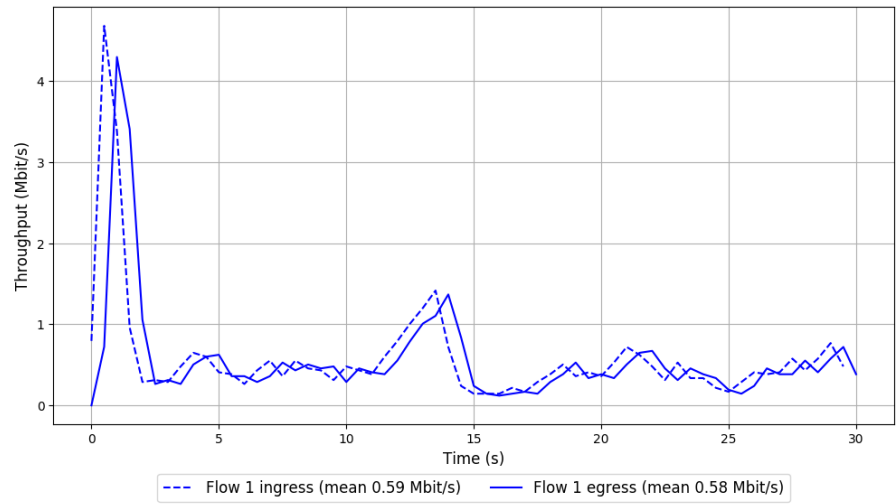
-- Flow 1:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 77.738 ms

Loss rate: 3.11%

Run 3: Report of TCP Vegas — Data Link

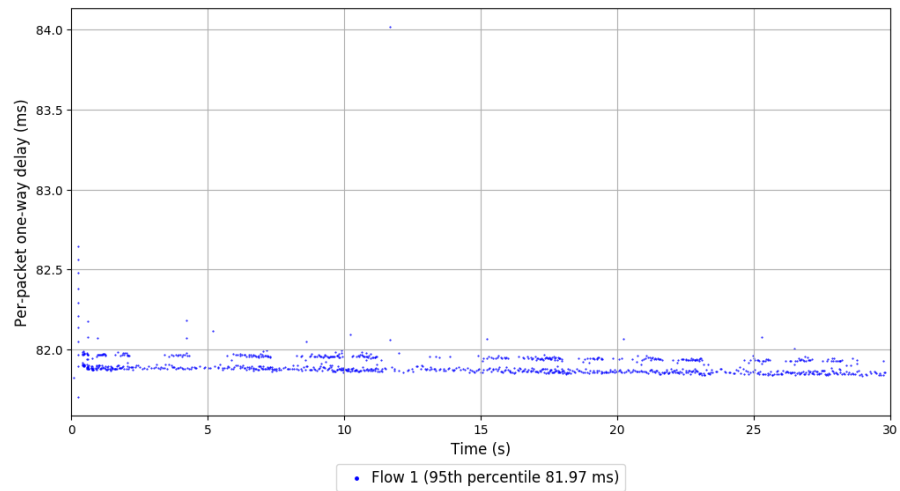
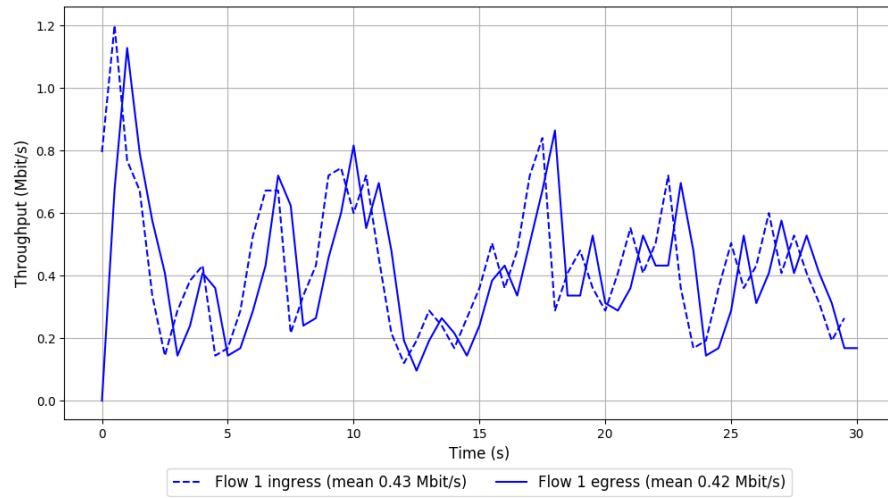


Run 4: Statistics of TCP Vegas

Start at: 2018-09-25 15:31:36
End at: 2018-09-25 15:32:06
Local clock offset: -3.292 ms
Remote clock offset: -3.449 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 81.970 ms
Loss rate: 4.16%
-- Flow 1:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 81.970 ms
Loss rate: 4.16%

Run 4: Report of TCP Vegas — Data Link

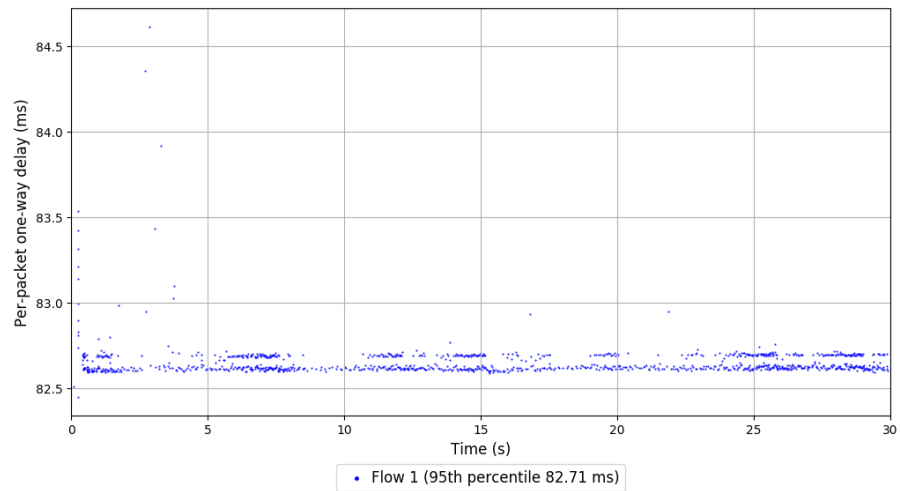
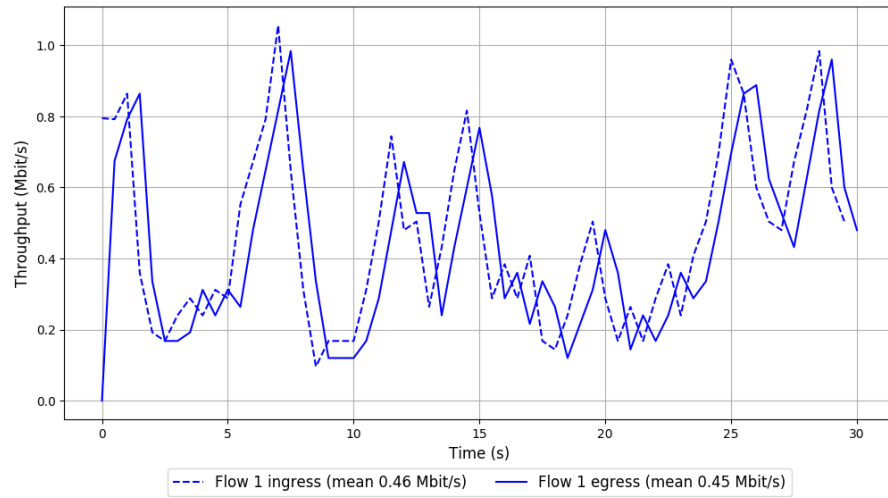


Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 16:21:08
End at: 2018-09-25 16:21:38
Local clock offset: -7.642 ms
Remote clock offset: -4.418 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 82.707 ms
Loss rate: 3.56%
-- Flow 1:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 82.707 ms
Loss rate: 3.56%

Run 5: Report of TCP Vegas — Data Link

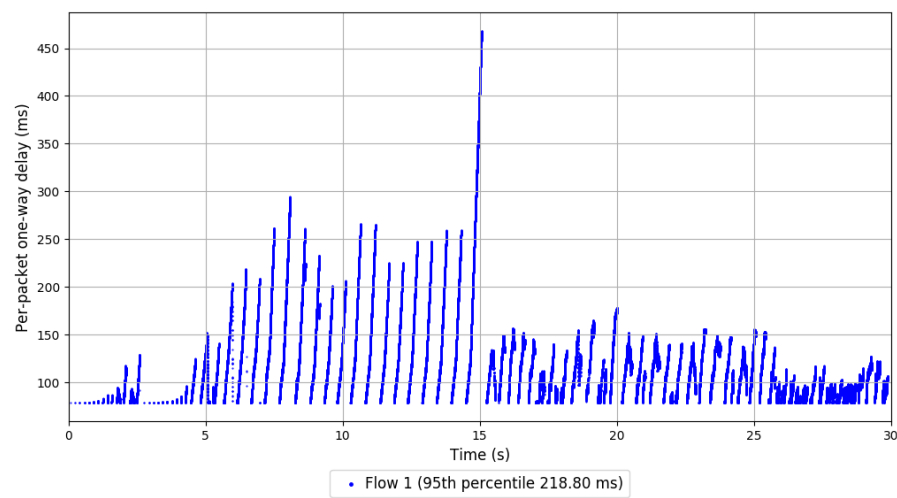
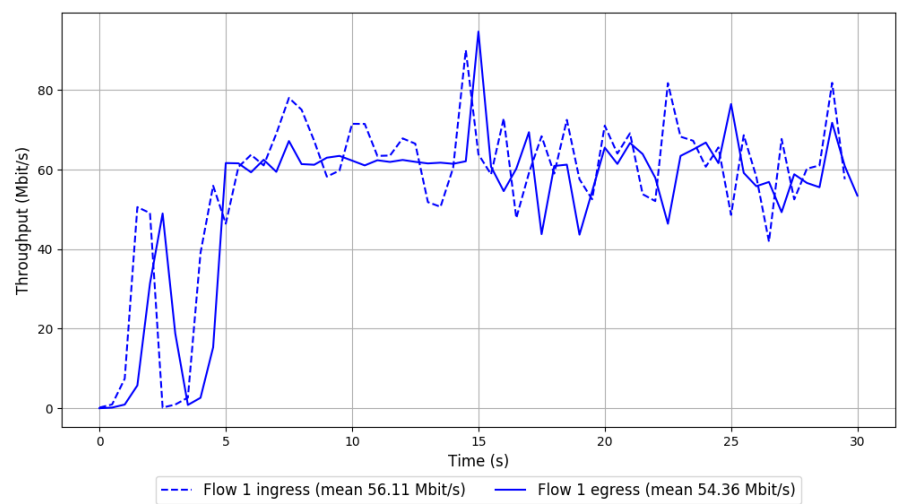


Run 1: Statistics of Verus

Start at: 2018-09-25 12:34:52
End at: 2018-09-25 12:35:22
Local clock offset: -10.091 ms
Remote clock offset: 2.031 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 54.36 Mbit/s
95th percentile per-packet one-way delay: 218.802 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 54.36 Mbit/s
95th percentile per-packet one-way delay: 218.802 ms
Loss rate: 3.75%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-09-25 13:22:46

End at: 2018-09-25 13:23:16

Local clock offset: -6.081 ms

Remote clock offset: 1.012 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 25.89 Mbit/s

95th percentile per-packet one-way delay: 336.008 ms

Loss rate: 4.66%

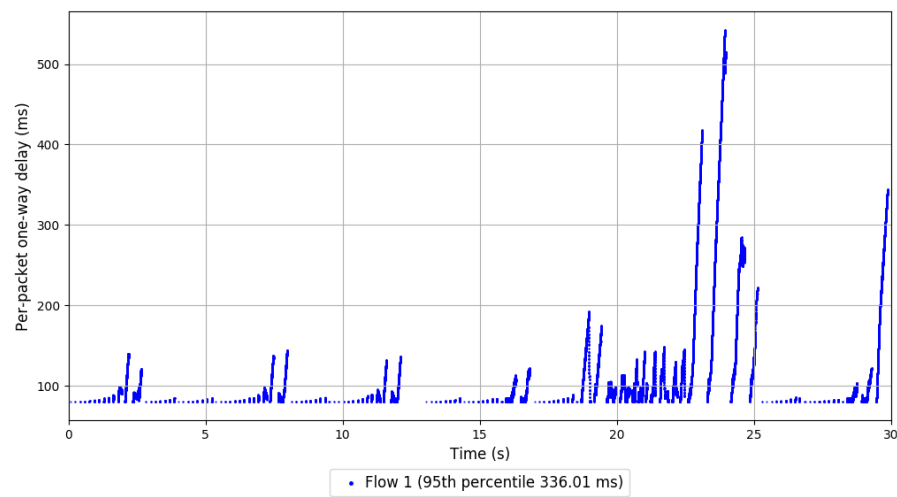
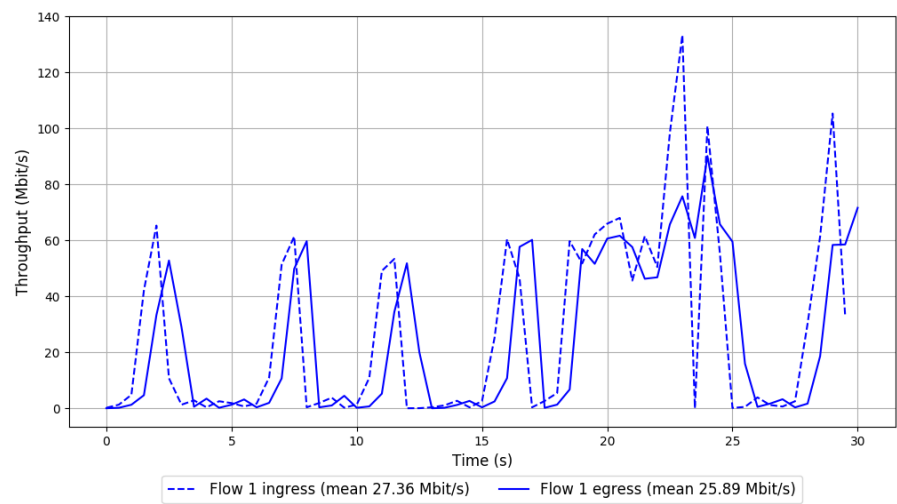
-- Flow 1:

Average throughput: 25.89 Mbit/s

95th percentile per-packet one-way delay: 336.008 ms

Loss rate: 4.66%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-09-25 14:10:14

End at: 2018-09-25 14:10:44

Local clock offset: -8.165 ms

Remote clock offset: 1.366 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.30 Mbit/s

95th percentile per-packet one-way delay: 948.717 ms

Loss rate: 10.44%

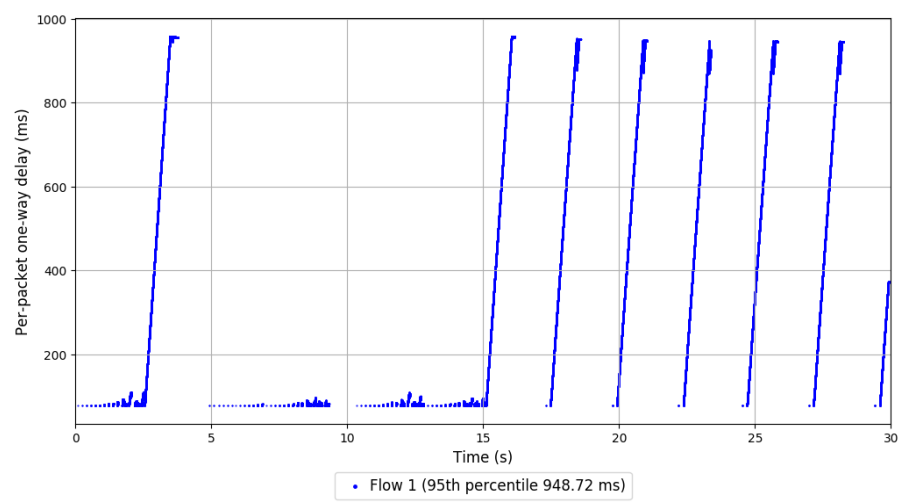
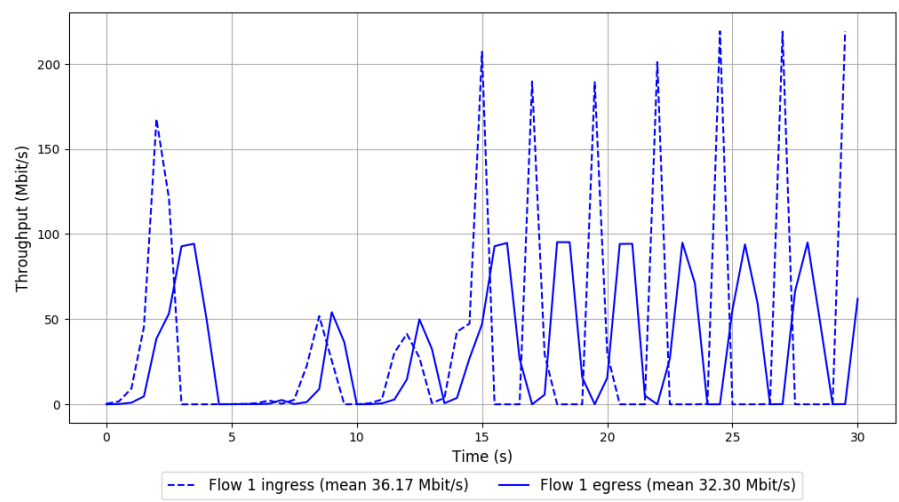
-- Flow 1:

Average throughput: 32.30 Mbit/s

95th percentile per-packet one-way delay: 948.717 ms

Loss rate: 10.44%

Run 3: Report of Verus — Data Link

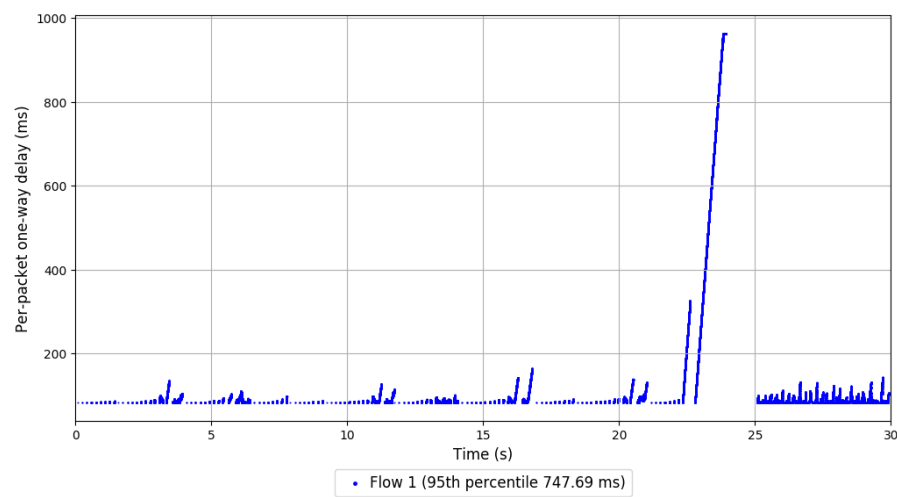
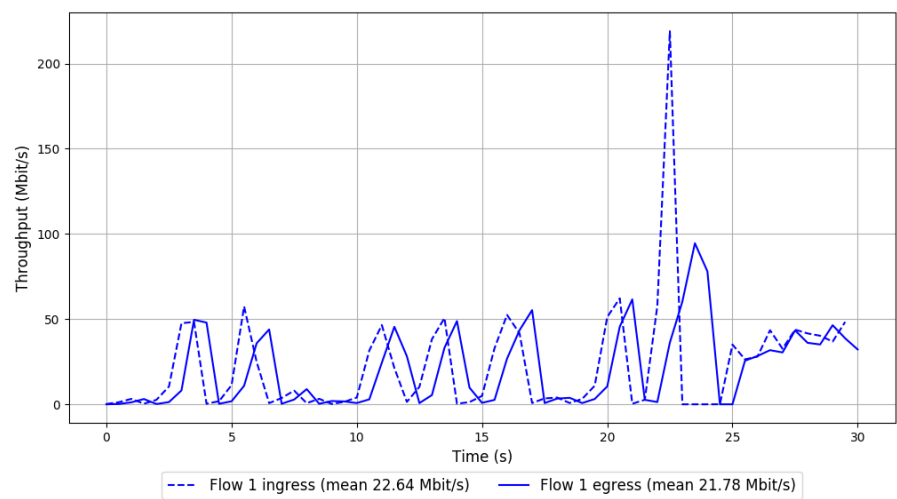


Run 4: Statistics of Verus

Start at: 2018-09-25 15:02:37
End at: 2018-09-25 15:03:07
Local clock offset: -9.425 ms
Remote clock offset: -3.065 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 21.78 Mbit/s
95th percentile per-packet one-way delay: 747.690 ms
Loss rate: 4.30%
-- Flow 1:
Average throughput: 21.78 Mbit/s
95th percentile per-packet one-way delay: 747.690 ms
Loss rate: 4.30%

Run 4: Report of Verus — Data Link

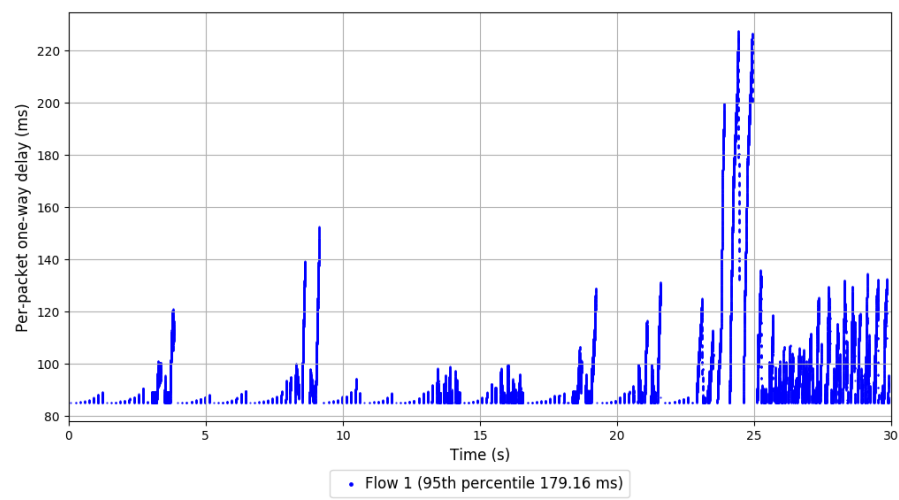
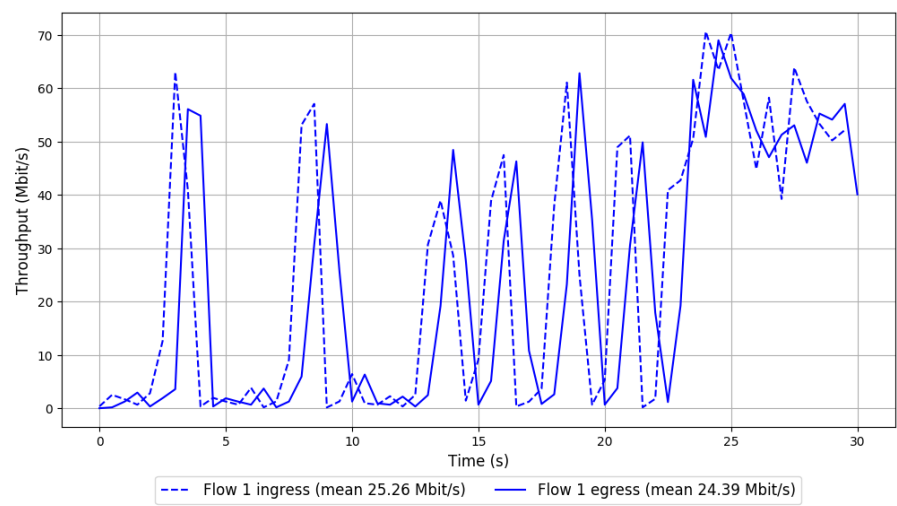


Run 5: Statistics of Verus

Start at: 2018-09-25 15:52:21
End at: 2018-09-25 15:52:51
Local clock offset: -6.232 ms
Remote clock offset: -4.519 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 179.158 ms
Loss rate: 3.96%
-- Flow 1:
Average throughput: 24.39 Mbit/s
95th percentile per-packet one-way delay: 179.158 ms
Loss rate: 3.96%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-09-25 13:04:36

End at: 2018-09-25 13:05:06

Local clock offset: -1.378 ms

Remote clock offset: 0.892 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.68 Mbit/s

95th percentile per-packet one-way delay: 79.324 ms

Loss rate: 3.25%

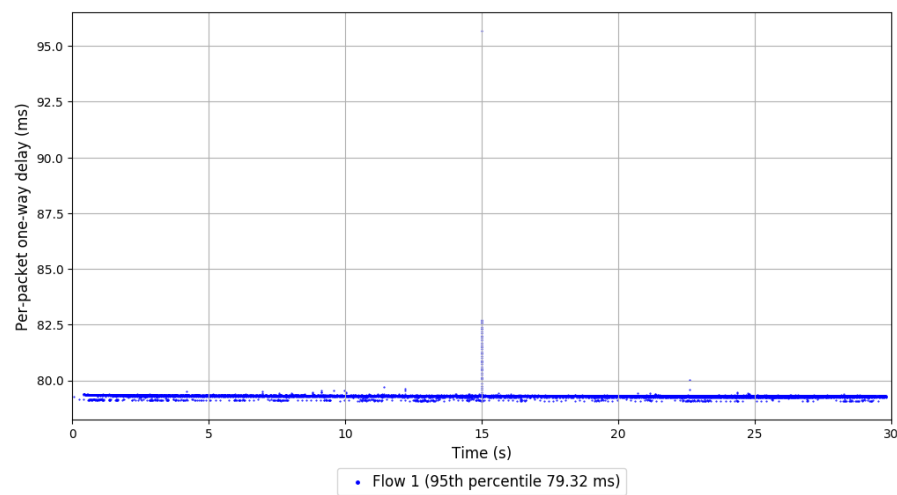
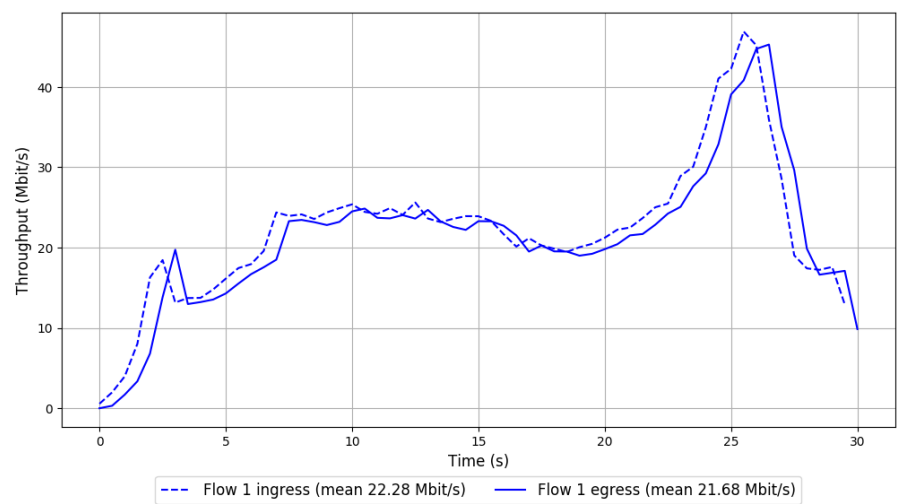
-- Flow 1:

Average throughput: 21.68 Mbit/s

95th percentile per-packet one-way delay: 79.324 ms

Loss rate: 3.25%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 13:50:41

End at: 2018-09-25 13:51:11

Local clock offset: -7.974 ms

Remote clock offset: 1.488 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.87 Mbit/s

95th percentile per-packet one-way delay: 86.425 ms

Loss rate: 3.76%

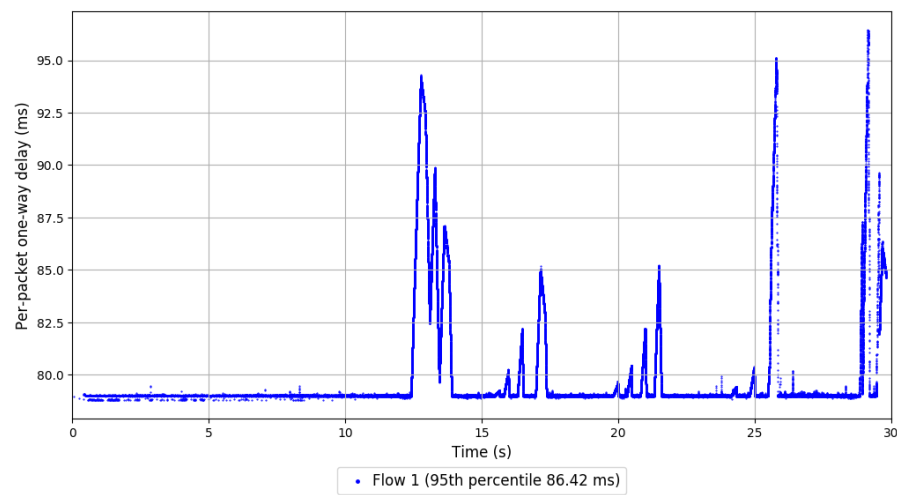
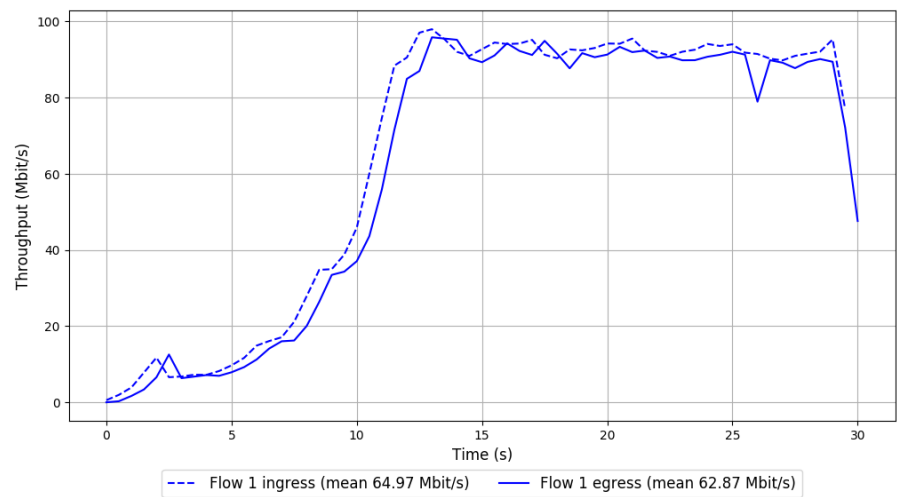
-- Flow 1:

Average throughput: 62.87 Mbit/s

95th percentile per-packet one-way delay: 86.425 ms

Loss rate: 3.76%

Run 2: Report of PCC-Vivace — Data Link

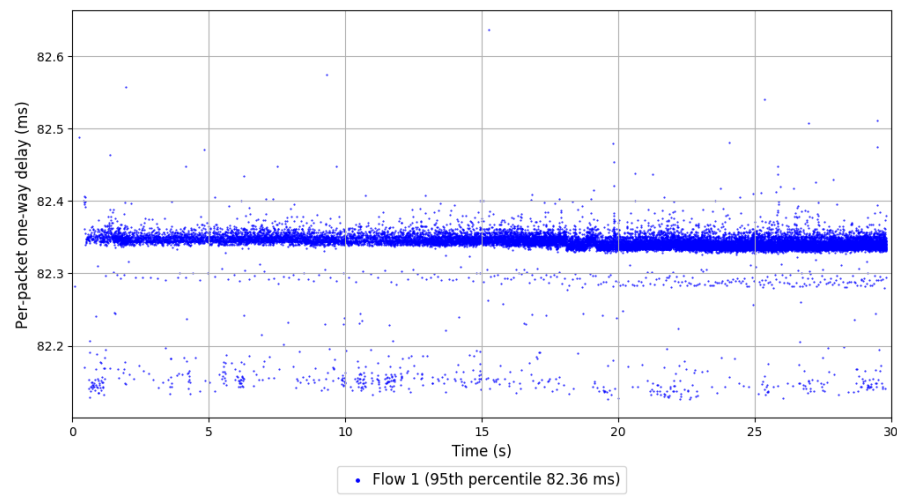
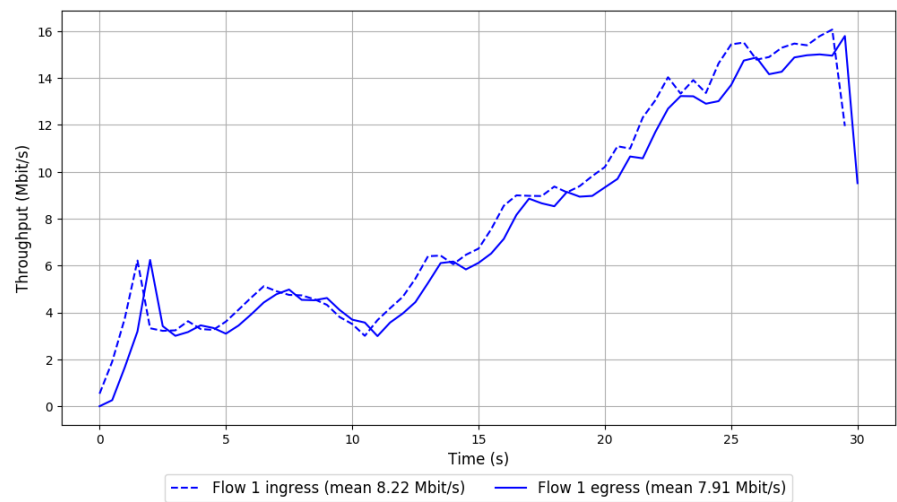


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 14:42:24
End at: 2018-09-25 14:42:54
Local clock offset: -9.102 ms
Remote clock offset: -4.022 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 82.358 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 82.358 ms
Loss rate: 4.28%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 15:32:44

End at: 2018-09-25 15:33:14

Local clock offset: -3.174 ms

Remote clock offset: -3.457 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 81.725 ms

Loss rate: 4.35%

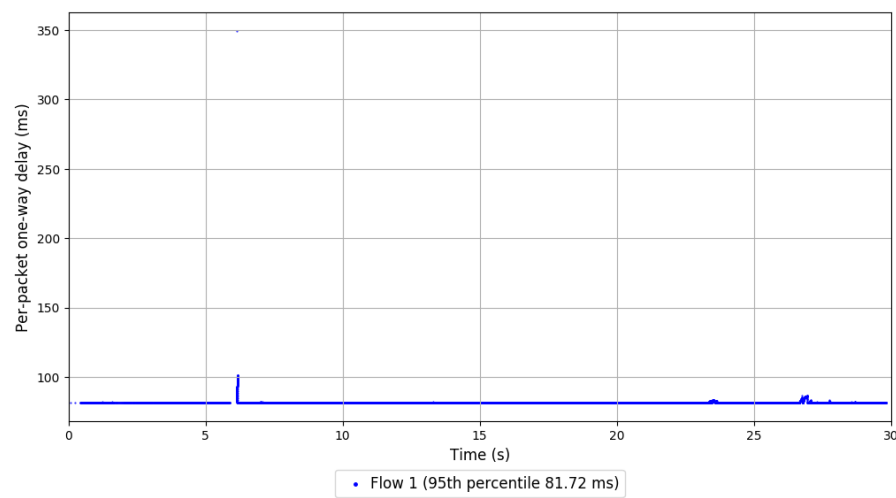
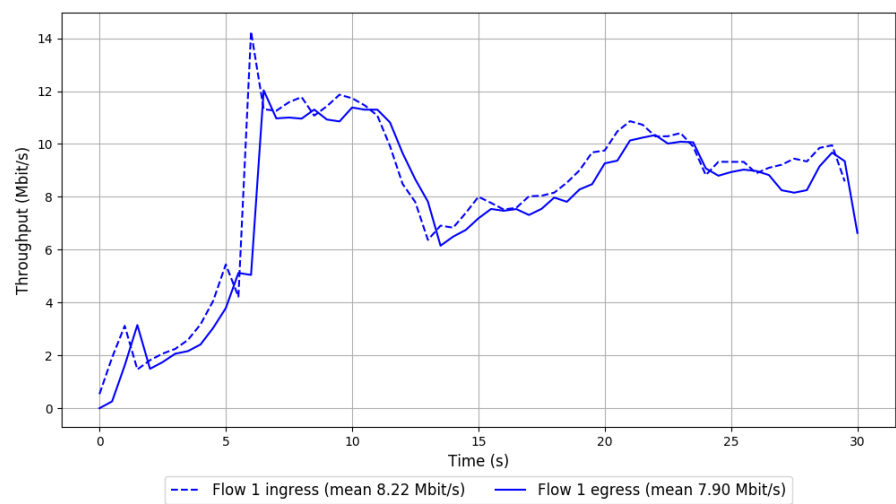
-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 81.725 ms

Loss rate: 4.35%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 16:22:16

End at: 2018-09-25 16:22:46

Local clock offset: -7.635 ms

Remote clock offset: 1.742 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.90 Mbit/s

95th percentile per-packet one-way delay: 75.899 ms

Loss rate: 3.50%

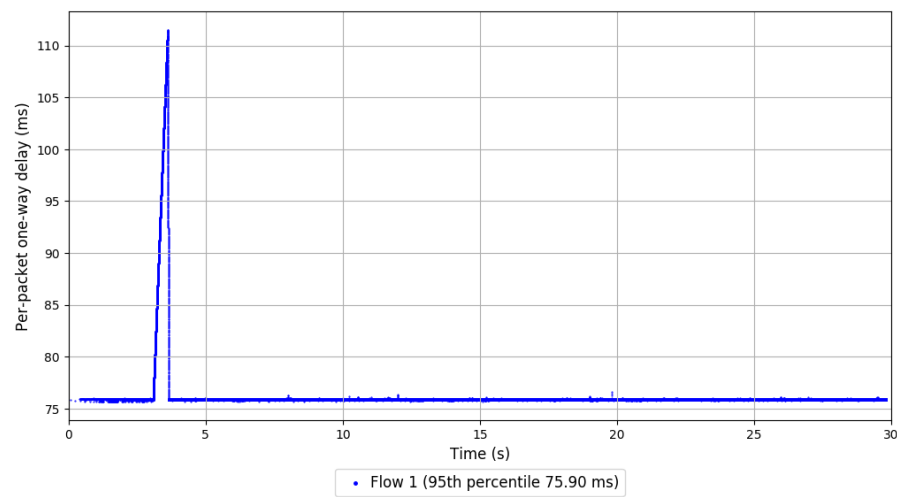
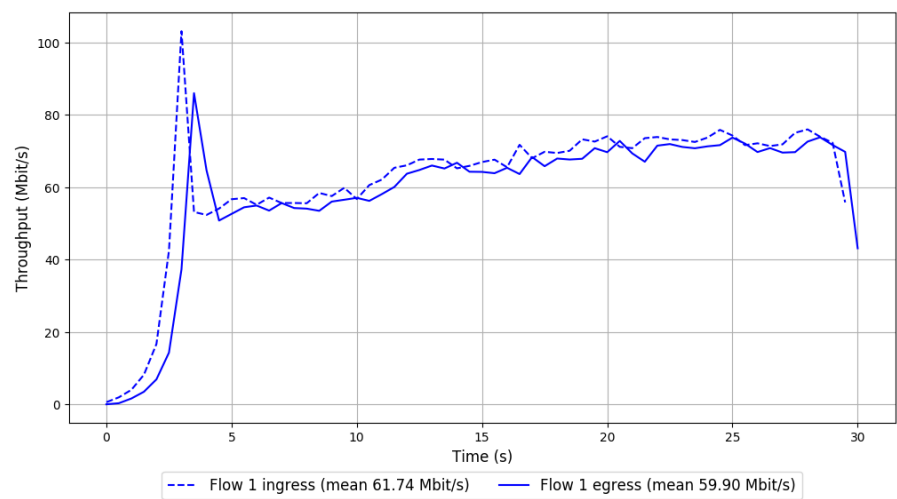
-- Flow 1:

Average throughput: 59.90 Mbit/s

95th percentile per-packet one-way delay: 75.899 ms

Loss rate: 3.50%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-09-25 13:02:19

End at: 2018-09-25 13:02:49

Local clock offset: -2.316 ms

Remote clock offset: 0.882 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 79.714 ms

Loss rate: 2.83%

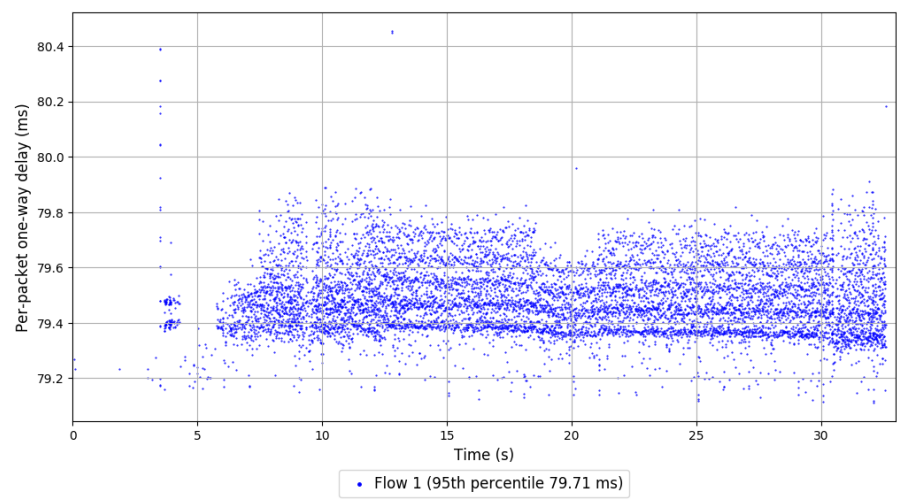
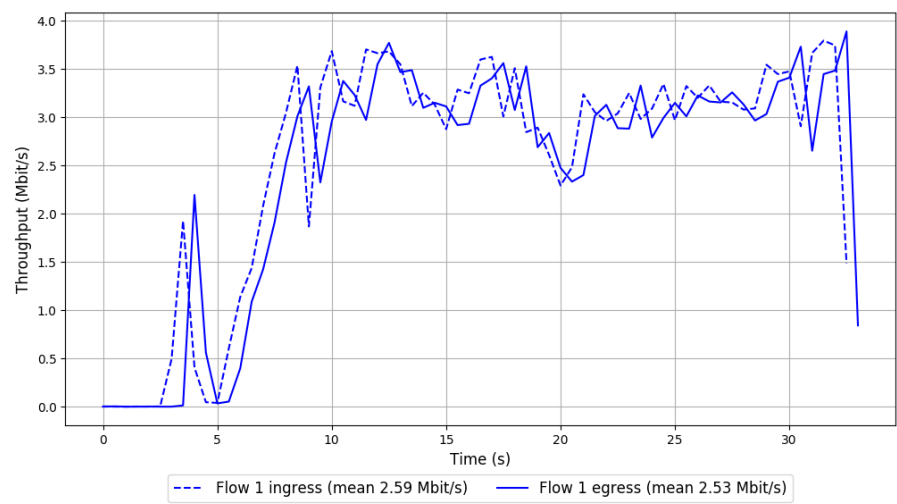
-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 79.714 ms

Loss rate: 2.83%

Run 1: Report of WebRTC media — Data Link

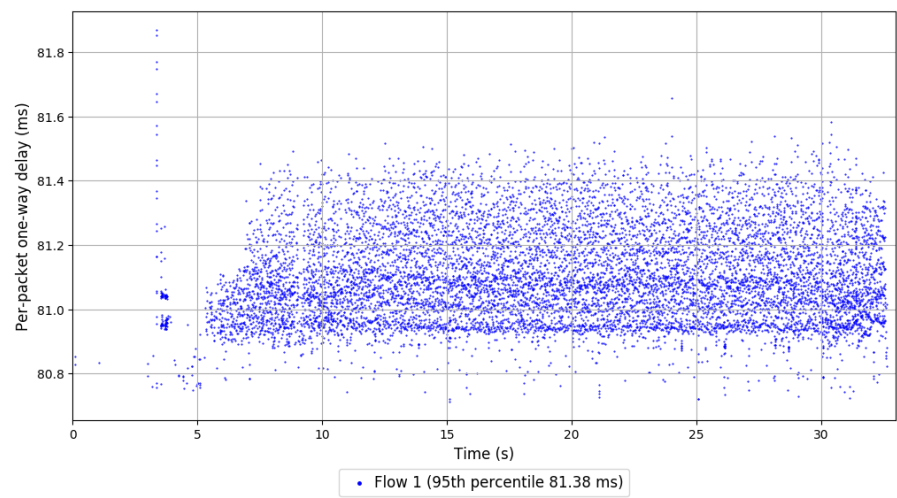
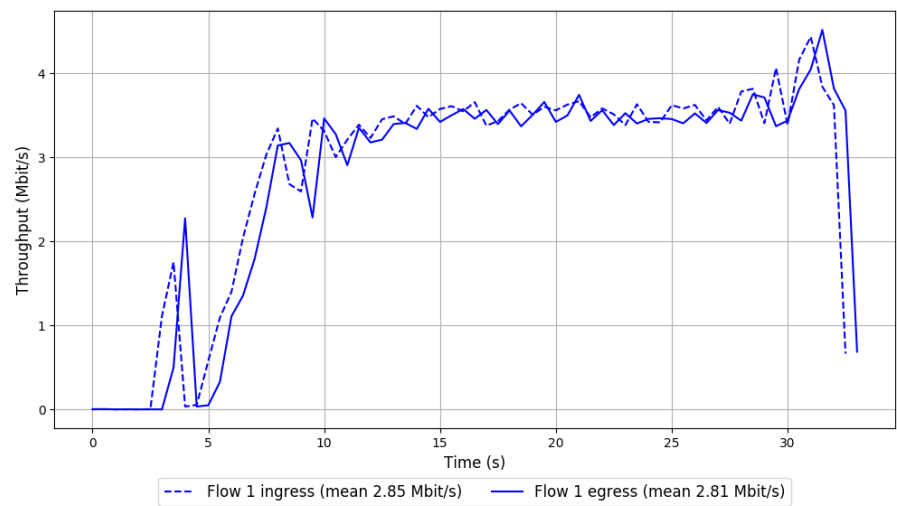


Run 2: Statistics of WebRTC media

Start at: 2018-09-25 13:48:23
End at: 2018-09-25 13:48:53
Local clock offset: -8.011 ms
Remote clock offset: -2.594 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 81.376 ms
Loss rate: 1.68%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 81.376 ms
Loss rate: 1.68%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-09-25 14:40:04

End at: 2018-09-25 14:40:34

Local clock offset: -9.096 ms

Remote clock offset: 1.058 ms

Below is generated by plot.py at 2018-09-25 16:34:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 77.153 ms

Loss rate: 3.45%

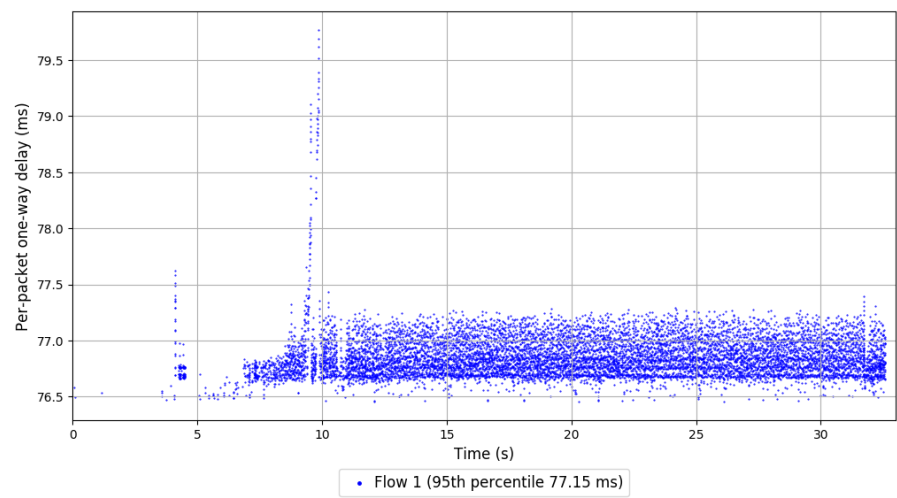
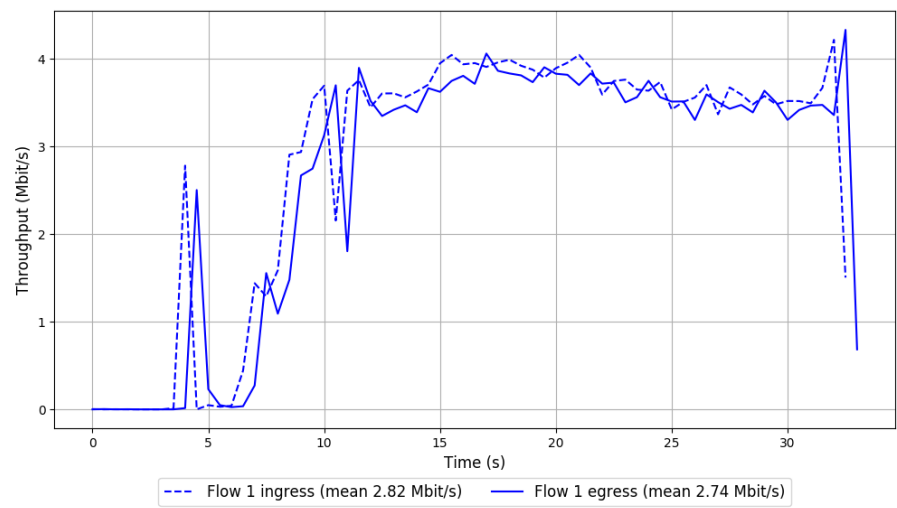
-- Flow 1:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 77.153 ms

Loss rate: 3.45%

Run 3: Report of WebRTC media — Data Link

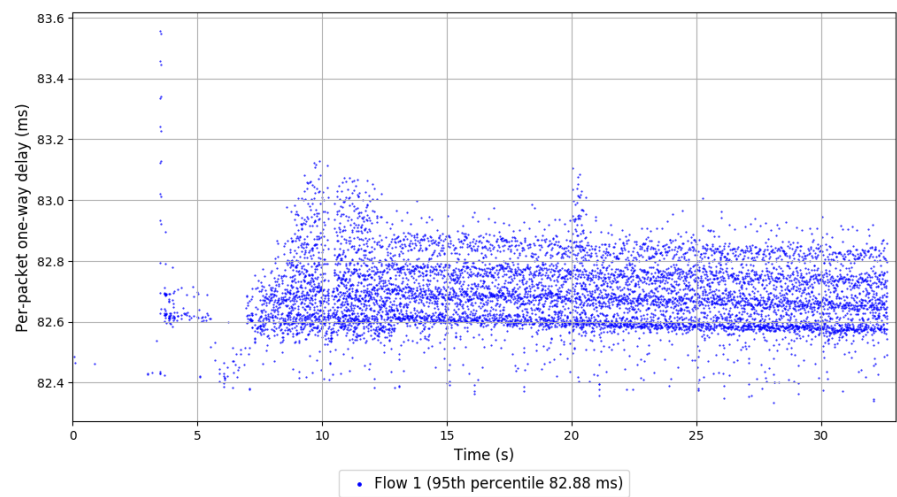
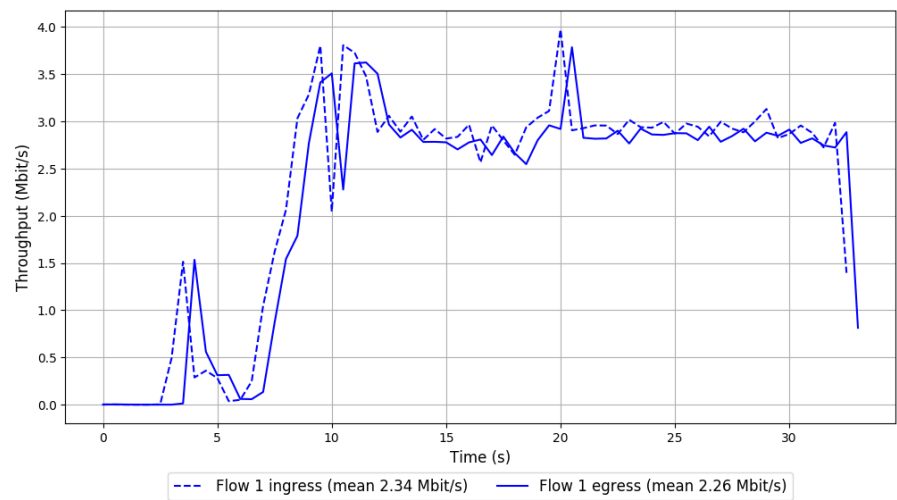


Run 4: Statistics of WebRTC media

Start at: 2018-09-25 15:30:24
End at: 2018-09-25 15:30:54
Local clock offset: -4.225 ms
Remote clock offset: -4.589 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 82.879 ms
Loss rate: 3.74%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 82.879 ms
Loss rate: 3.74%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 16:19:56
End at: 2018-09-25 16:20:26
Local clock offset: -7.695 ms
Remote clock offset: -4.419 ms

Below is generated by plot.py at 2018-09-25 16:34:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 85.182 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 85.182 ms
Loss rate: 3.18%

Run 5: Report of WebRTC media — Data Link

