

Pantheon Report

Generated at 2018-09-25 08:47:37 (UTC).

Data path: GCE Sydney on `ens4` (*local*) → GCE Iowa on `ens4` (*remote*).

Repeated the test of 19 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

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

System info:

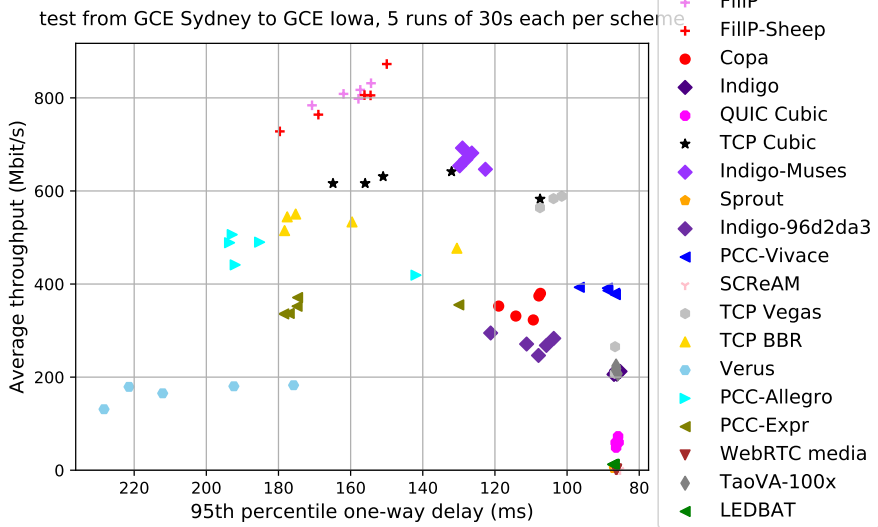
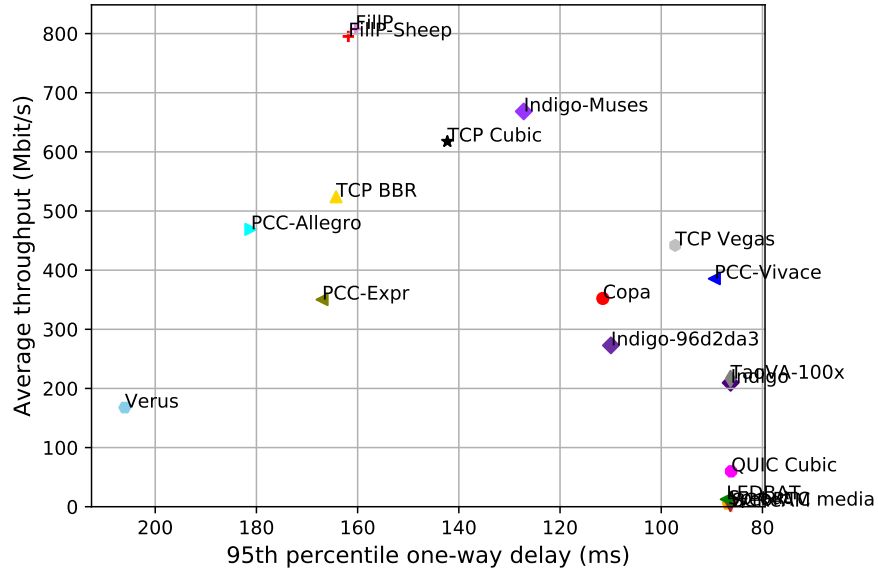
```
Linux 4.15.0-1019-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
net.ipv4.tcp_mem = 190986 254651 381972
```

Git summary:

```
branch: muses @ 90192f6b64ce1a1191dcca0e9ff9ee24950674d7
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ 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 GCE Sydney to GCE Iowa, 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	524.06	164.26	0.59
Copa	5	352.19	111.55	0.00
TCP Cubic	5	617.50	142.27	0.10
FillP	5	807.85	160.43	4.92
FillP-Sheep	5	795.21	161.84	4.95
Indigo	5	209.49	86.30	0.00
Indigo-96d2da3	5	272.78	109.95	0.15
LEDBAT	5	12.57	87.15	0.00
Indigo-Muses	5	668.39	127.18	0.09
PCC-Allegro	5	469.06	181.10	1.76
PCC-Expr	5	350.23	167.03	1.51
QUIC Cubic	5	59.84	86.18	0.00
SCReAM	5	0.22	86.09	0.00
Sprout	5	4.42	86.80	0.00
TaoVA-100x	5	216.46	86.32	0.00
TCP Vegas	5	441.92	97.25	0.02
Verus	5	167.66	206.01	4.28
PCC-Vivace	5	385.55	89.51	0.04
WebRTC media	5	1.93	86.35	0.00

Run 1: Statistics of TCP BBR

Start at: 2018-09-25 04:56:32

End at: 2018-09-25 04:57:02

Local clock offset: 15.04 ms

Remote clock offset: 13.877 ms

Below is generated by plot.py at 2018-09-25 07:20:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 544.44 Mbit/s

95th percentile per-packet one-way delay: 177.576 ms

Loss rate: 1.05%

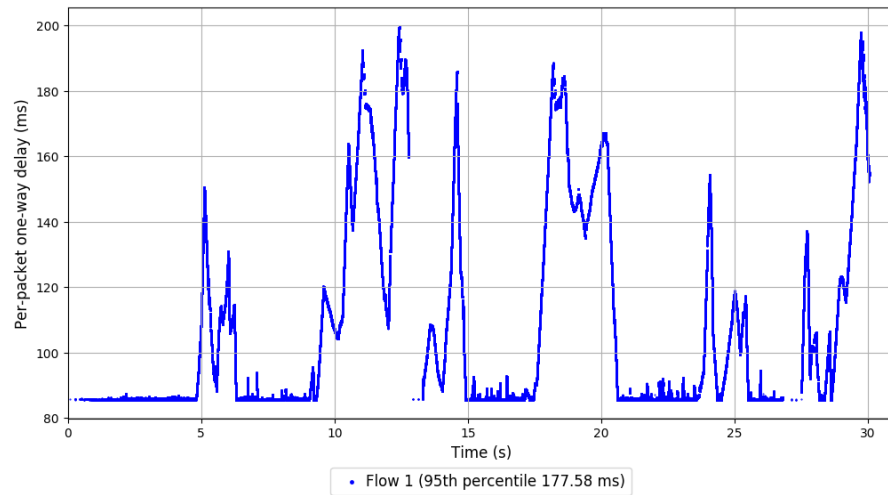
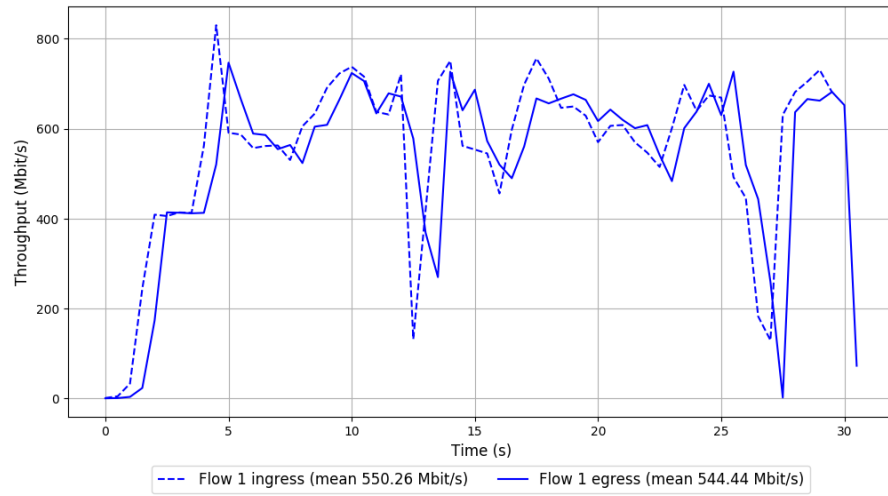
-- Flow 1:

Average throughput: 544.44 Mbit/s

95th percentile per-packet one-way delay: 177.576 ms

Loss rate: 1.05%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-09-25 05:24:34

End at: 2018-09-25 05:25:04

Local clock offset: 18.249 ms

Remote clock offset: 16.768 ms

Below is generated by plot.py at 2018-09-25 07:20:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 550.45 Mbit/s

95th percentile per-packet one-way delay: 175.234 ms

Loss rate: 0.92%

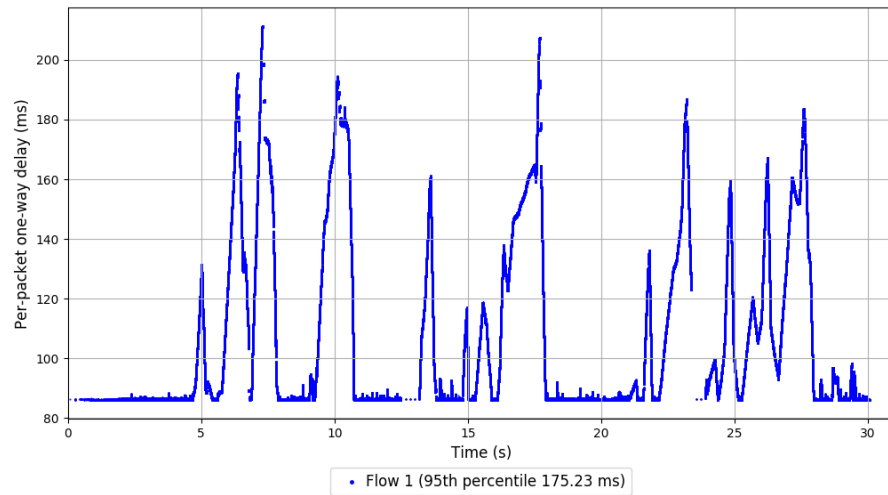
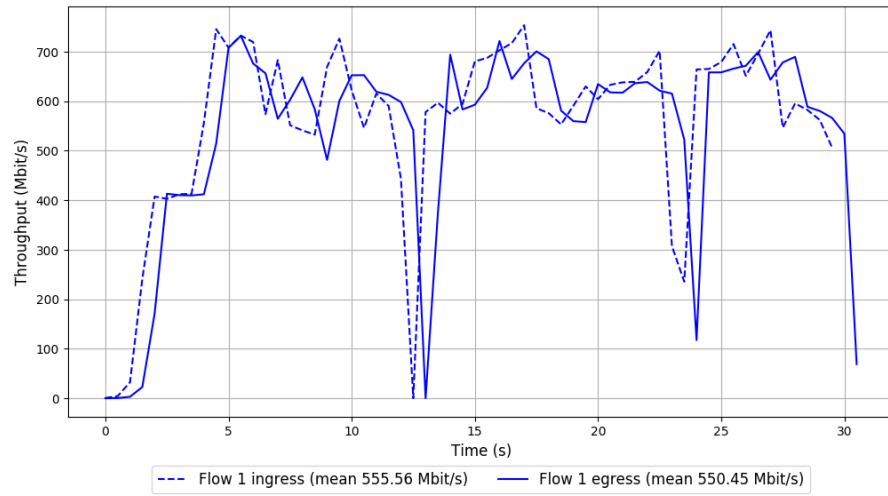
-- Flow 1:

Average throughput: 550.45 Mbit/s

95th percentile per-packet one-way delay: 175.234 ms

Loss rate: 0.92%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-09-25 05:52:42

End at: 2018-09-25 05:53:12

Local clock offset: 21.692 ms

Remote clock offset: 20.29 ms

Below is generated by plot.py at 2018-09-25 07:20:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 514.91 Mbit/s

95th percentile per-packet one-way delay: 178.310 ms

Loss rate: 0.57%

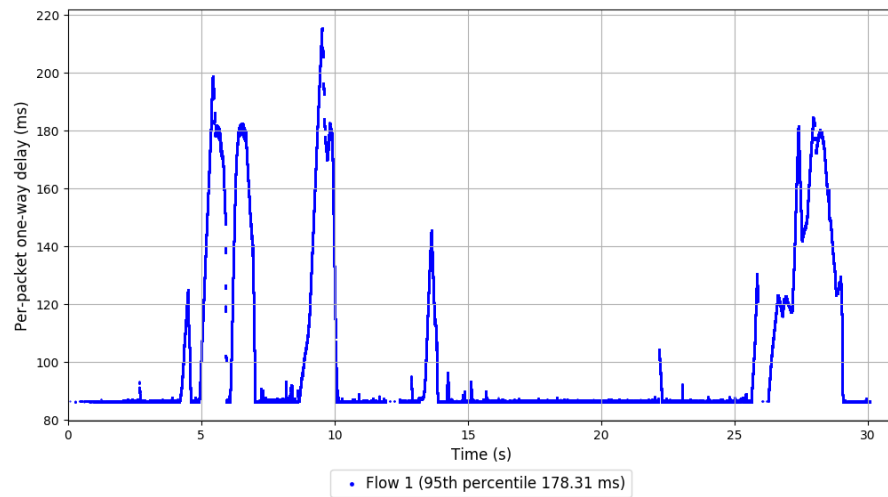
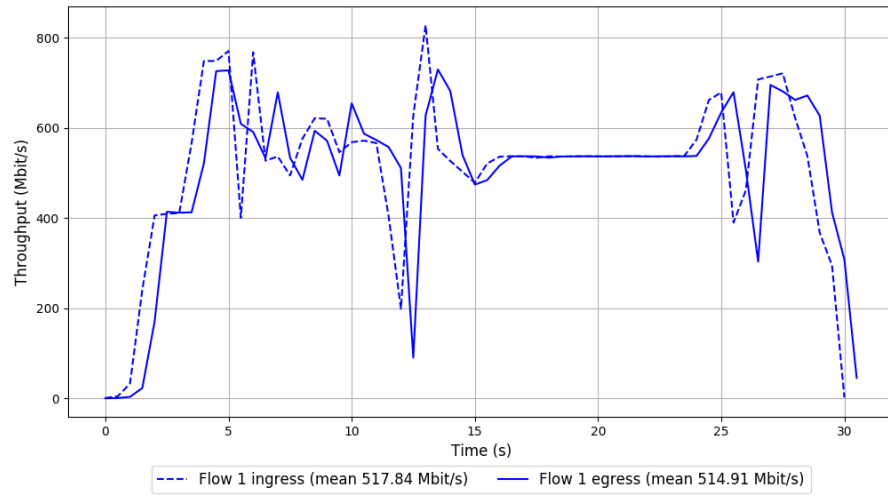
-- Flow 1:

Average throughput: 514.91 Mbit/s

95th percentile per-packet one-way delay: 178.310 ms

Loss rate: 0.57%

Run 3: Report of TCP BBR — Data Link

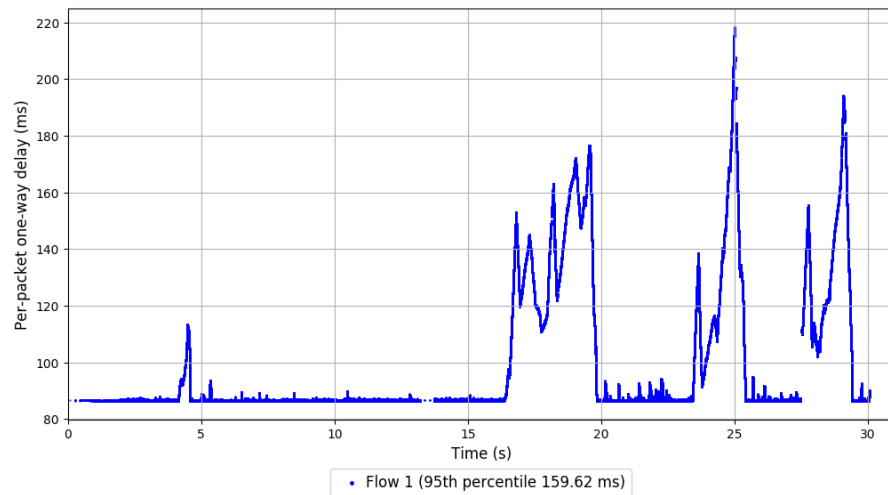
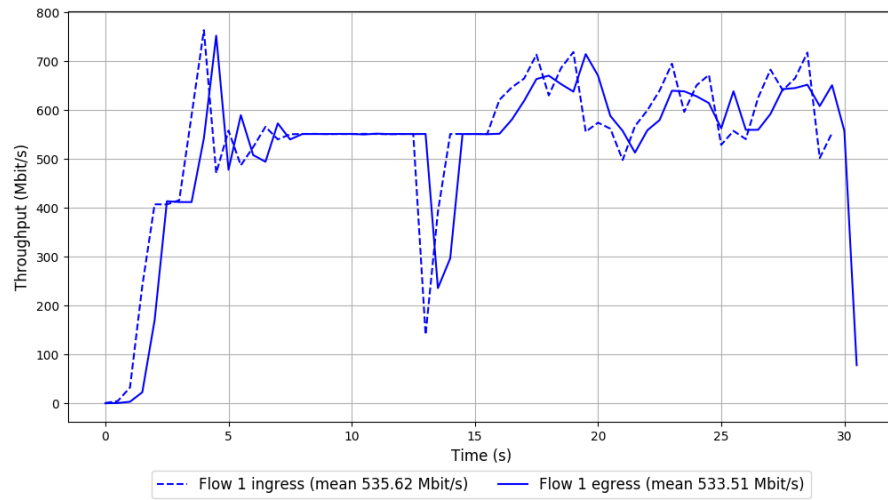


Run 4: Statistics of TCP BBR

Start at: 2018-09-25 06:20:18
End at: 2018-09-25 06:20:48
Local clock offset: 17.767 ms
Remote clock offset: 16.298 ms

Below is generated by plot.py at 2018-09-25 07:20:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 533.51 Mbit/s
95th percentile per-packet one-way delay: 159.615 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 533.51 Mbit/s
95th percentile per-packet one-way delay: 159.615 ms
Loss rate: 0.39%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-09-25 06:48:13

End at: 2018-09-25 06:48:43

Local clock offset: 7.435 ms

Remote clock offset: 6.861 ms

Below is generated by plot.py at 2018-09-25 07:20:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 477.01 Mbit/s

95th percentile per-packet one-way delay: 130.543 ms

Loss rate: 0.02%

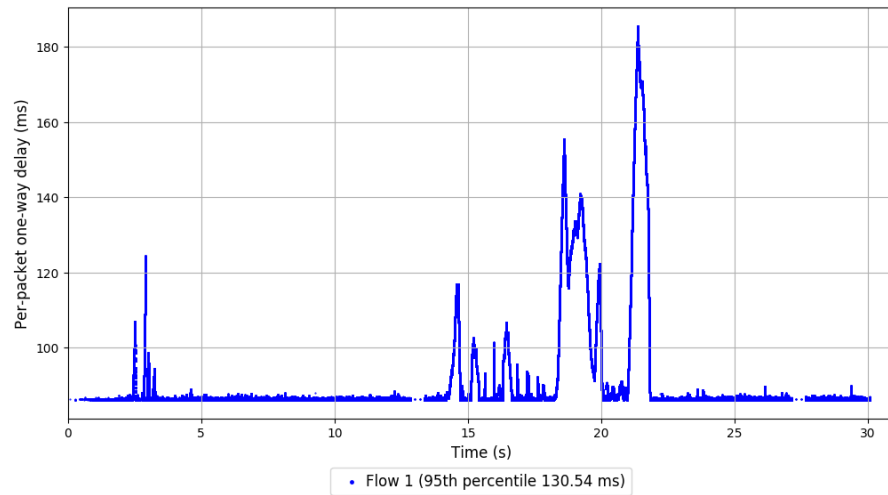
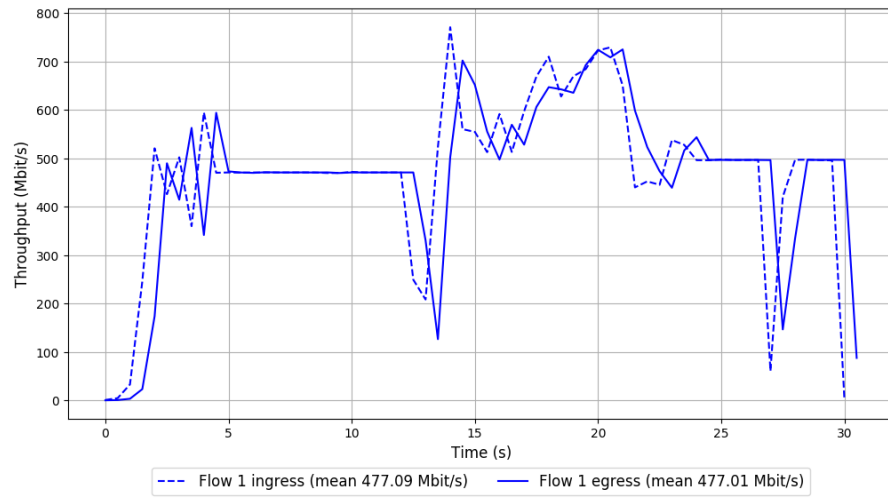
-- Flow 1:

Average throughput: 477.01 Mbit/s

95th percentile per-packet one-way delay: 130.543 ms

Loss rate: 0.02%

Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-09-25 04:45:58

End at: 2018-09-25 04:46:28

Local clock offset: 6.781 ms

Remote clock offset: 6.767 ms

Below is generated by plot.py at 2018-09-25 07:22:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 374.37 Mbit/s

95th percentile per-packet one-way delay: 107.813 ms

Loss rate: 0.00%

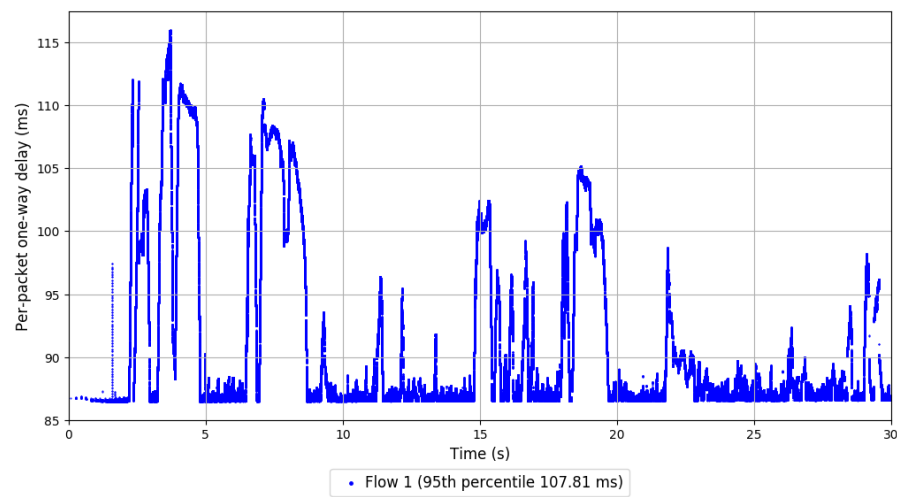
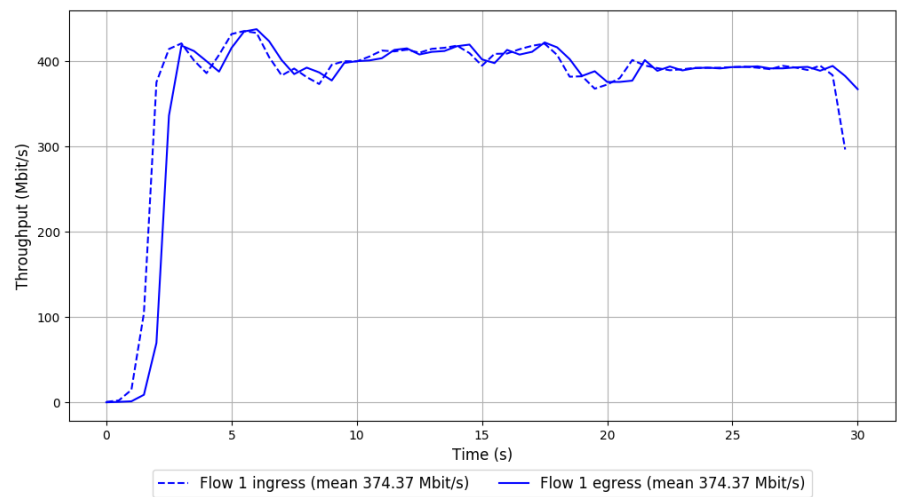
-- Flow 1:

Average throughput: 374.37 Mbit/s

95th percentile per-packet one-way delay: 107.813 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link

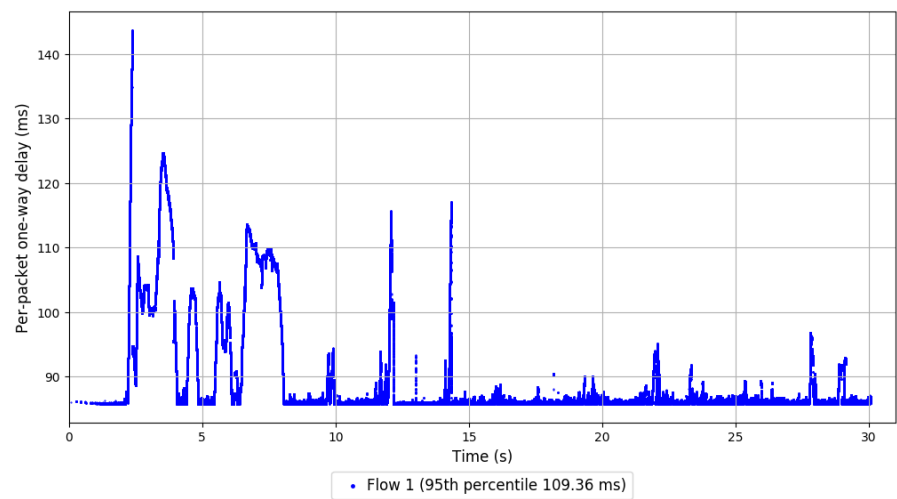
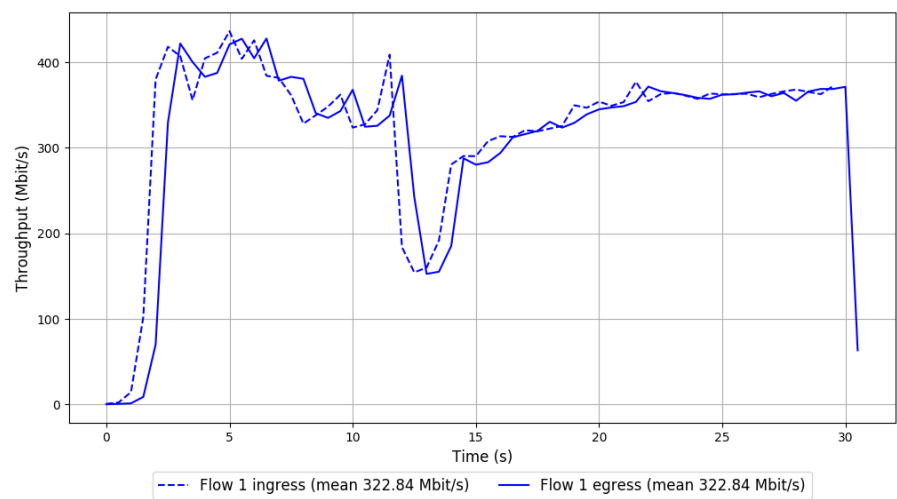


Run 2: Statistics of Copa

Start at: 2018-09-25 05:14:03
End at: 2018-09-25 05:14:33
Local clock offset: 22.698 ms
Remote clock offset: 20.859 ms

Below is generated by plot.py at 2018-09-25 07:22:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 322.84 Mbit/s
95th percentile per-packet one-way delay: 109.364 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.84 Mbit/s
95th percentile per-packet one-way delay: 109.364 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

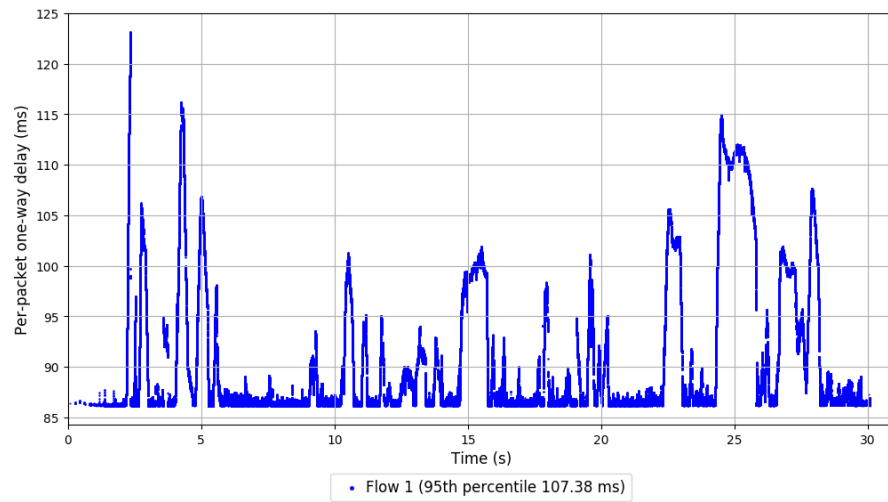
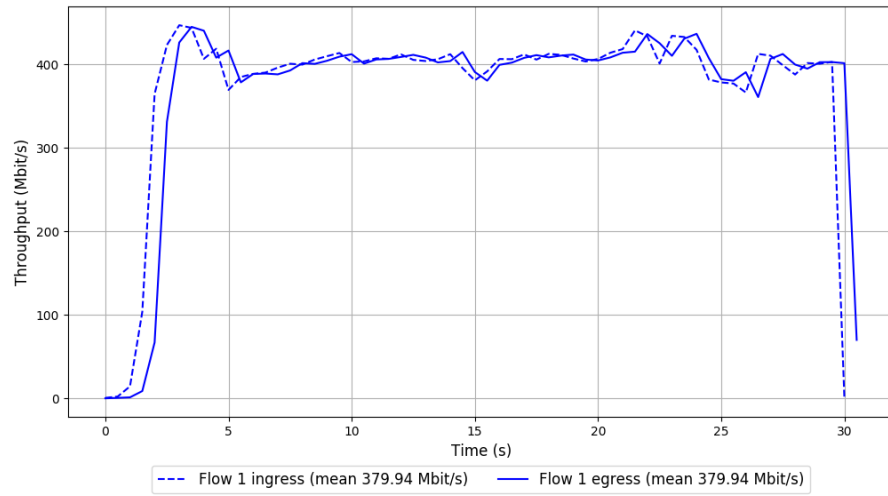


Run 3: Statistics of Copa

Start at: 2018-09-25 05:42:03
End at: 2018-09-25 05:42:33
Local clock offset: 31.108 ms
Remote clock offset: 28.427 ms

Below is generated by plot.py at 2018-09-25 07:23:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 379.94 Mbit/s
95th percentile per-packet one-way delay: 107.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 379.94 Mbit/s
95th percentile per-packet one-way delay: 107.383 ms
Loss rate: 0.00%

Run 3: Report of Copa — Data Link

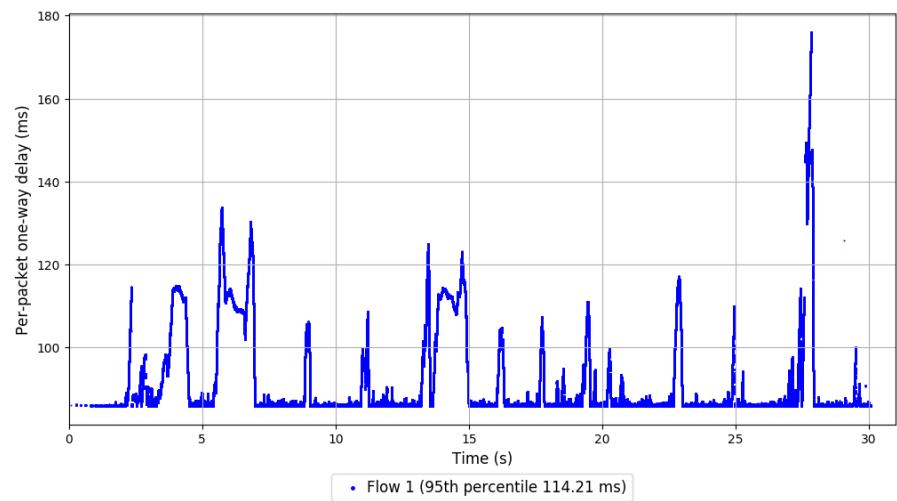
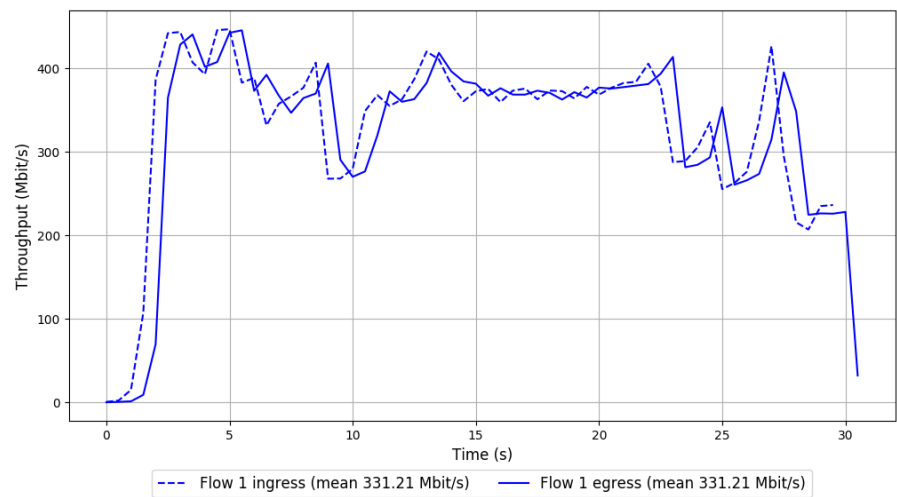


Run 4: Statistics of Copa

Start at: 2018-09-25 06:09:46
End at: 2018-09-25 06:10:16
Local clock offset: 14.157 ms
Remote clock offset: 12.98 ms

Below is generated by plot.py at 2018-09-25 07:30:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 331.21 Mbit/s
95th percentile per-packet one-way delay: 114.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 331.21 Mbit/s
95th percentile per-packet one-way delay: 114.208 ms
Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-09-25 06:37:35

End at: 2018-09-25 06:38:05

Local clock offset: 6.707 ms

Remote clock offset: 6.221 ms

Below is generated by plot.py at 2018-09-25 07:31:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 352.60 Mbit/s

95th percentile per-packet one-way delay: 118.959 ms

Loss rate: 0.00%

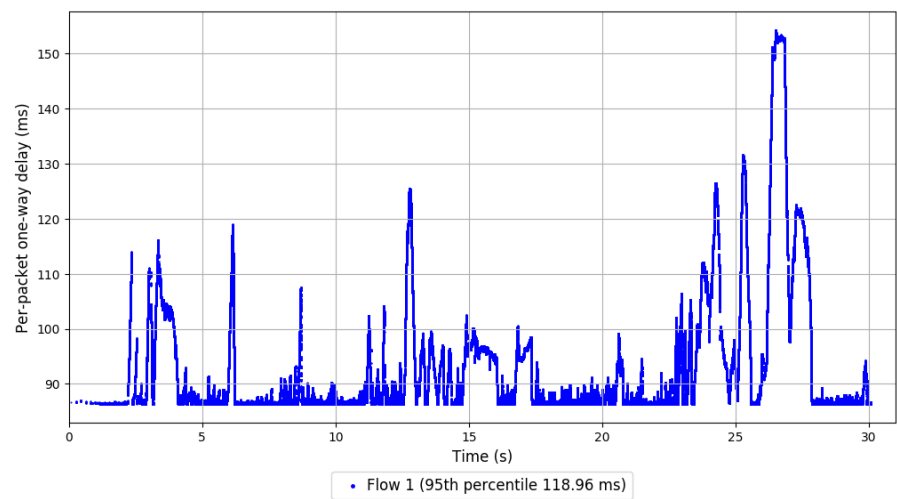
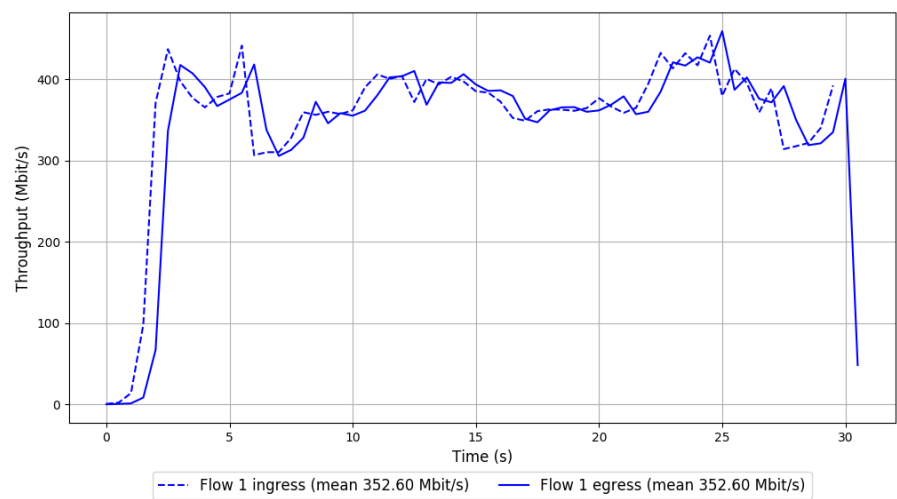
-- Flow 1:

Average throughput: 352.60 Mbit/s

95th percentile per-packet one-way delay: 118.959 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-09-25 04:47:41

End at: 2018-09-25 04:48:11

Local clock offset: 9.935 ms

Remote clock offset: 9.678 ms

Below is generated by plot.py at 2018-09-25 07:31:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 616.12 Mbit/s

95th percentile per-packet one-way delay: 164.886 ms

Loss rate: 0.09%

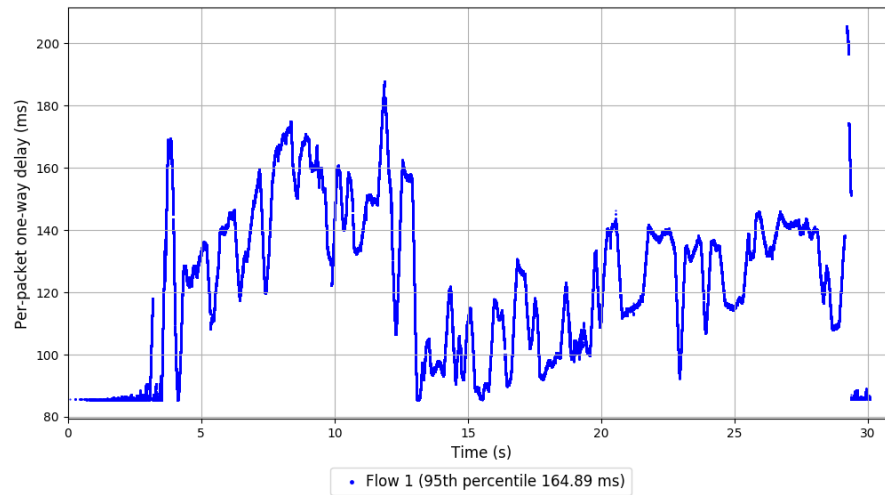
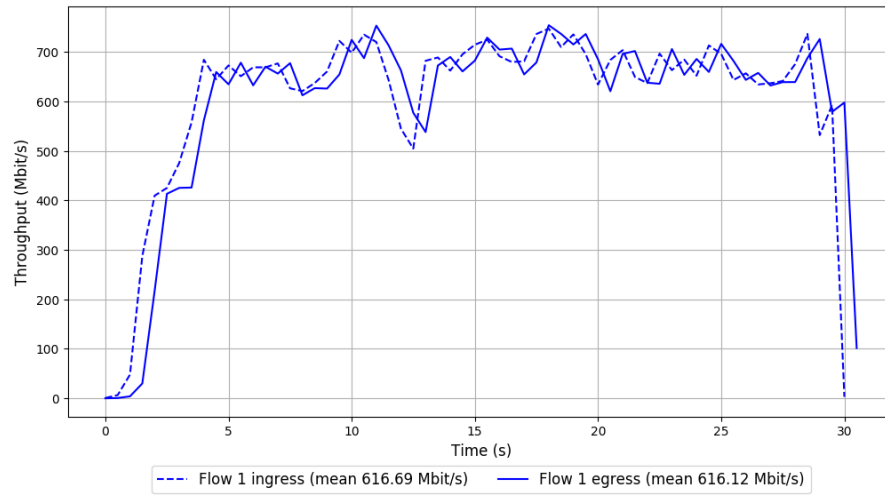
-- Flow 1:

Average throughput: 616.12 Mbit/s

95th percentile per-packet one-way delay: 164.886 ms

Loss rate: 0.09%

Run 1: Report of TCP Cubic — Data Link

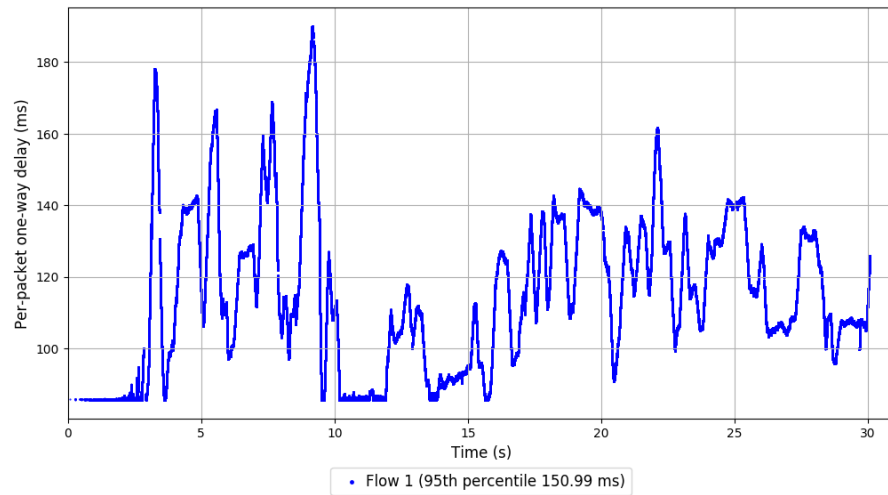
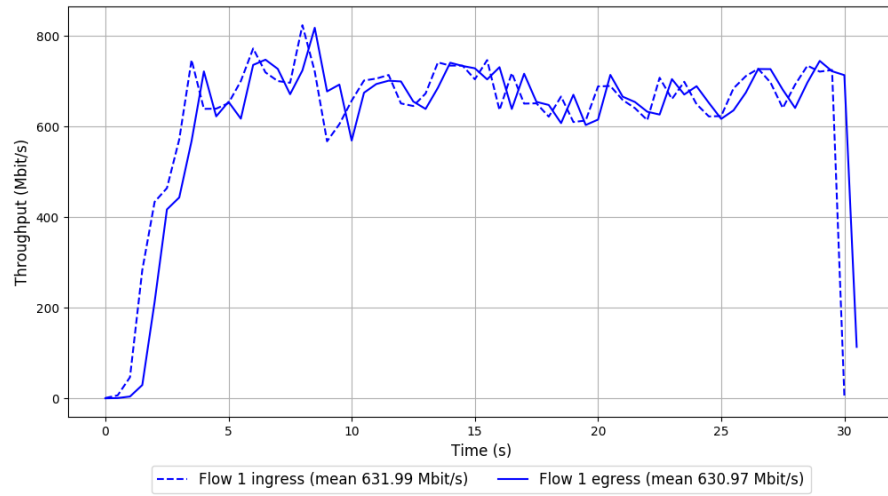


Run 2: Statistics of TCP Cubic

Start at: 2018-09-25 05:15:42
End at: 2018-09-25 05:16:12
Local clock offset: 20.463 ms
Remote clock offset: 18.825 ms

Below is generated by plot.py at 2018-09-25 07:32:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 630.97 Mbit/s
95th percentile per-packet one-way delay: 150.991 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 630.97 Mbit/s
95th percentile per-packet one-way delay: 150.991 ms
Loss rate: 0.16%

Run 2: Report of TCP Cubic — Data Link

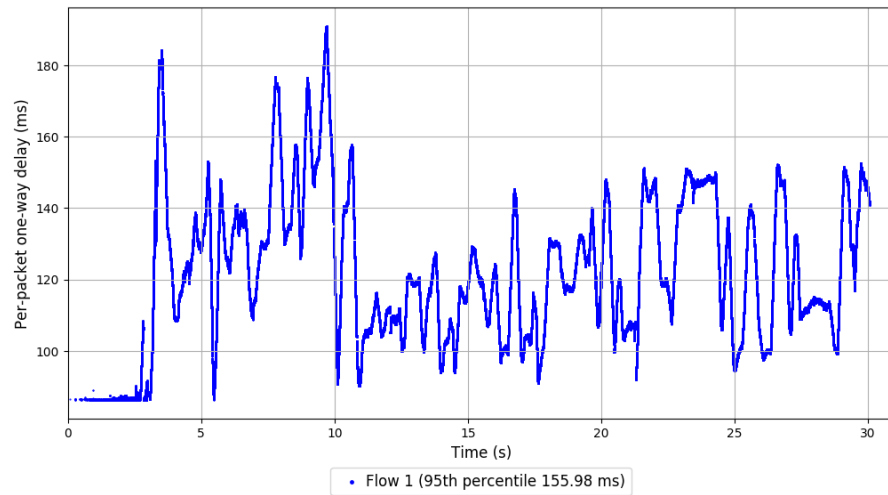
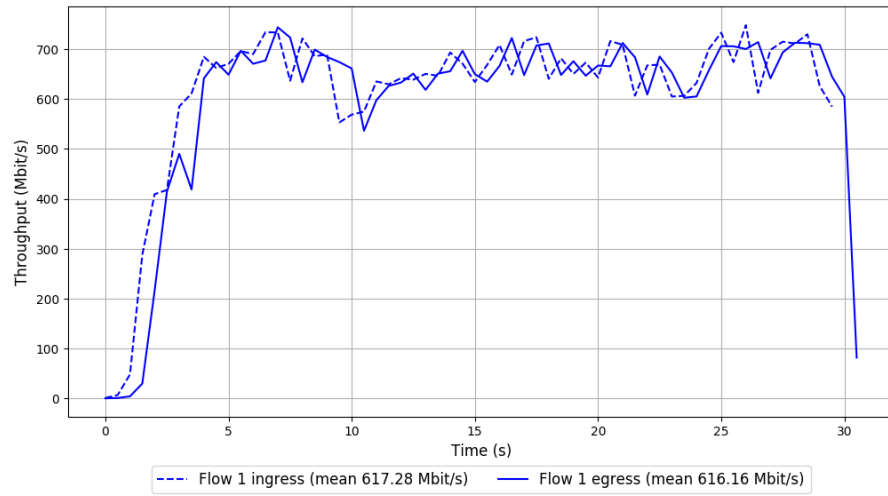


Run 3: Statistics of TCP Cubic

Start at: 2018-09-25 05:43:47
End at: 2018-09-25 05:44:17
Local clock offset: 32.567 ms
Remote clock offset: 29.944 ms

Below is generated by plot.py at 2018-09-25 07:32:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 616.16 Mbit/s
95th percentile per-packet one-way delay: 155.976 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 616.16 Mbit/s
95th percentile per-packet one-way delay: 155.976 ms
Loss rate: 0.17%

Run 3: Report of TCP Cubic — Data Link

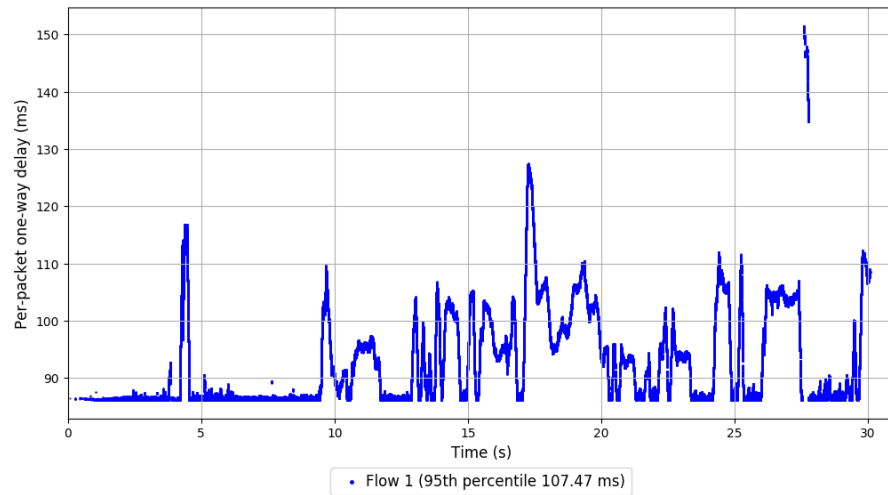
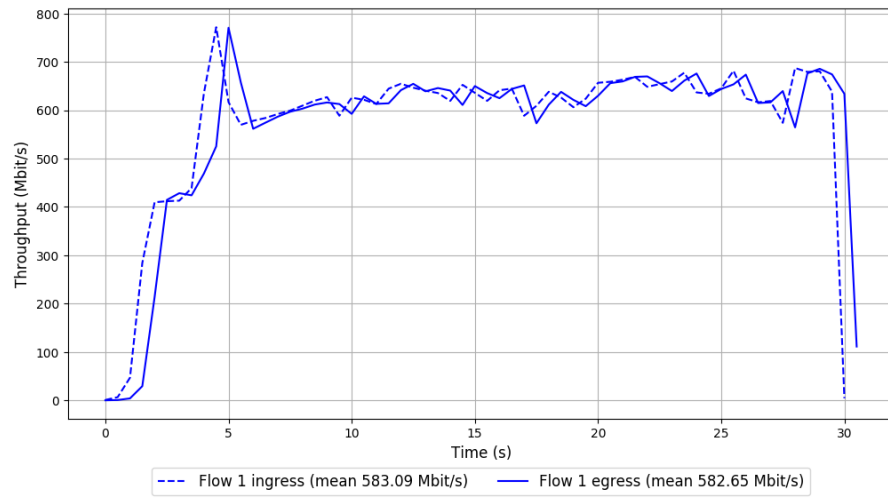


Run 4: Statistics of TCP Cubic

Start at: 2018-09-25 06:11:25
End at: 2018-09-25 06:11:55
Local clock offset: 14.237 ms
Remote clock offset: 13.354 ms

Below is generated by plot.py at 2018-09-25 07:32:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 582.65 Mbit/s
95th percentile per-packet one-way delay: 107.475 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 582.65 Mbit/s
95th percentile per-packet one-way delay: 107.475 ms
Loss rate: 0.07%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-09-25 06:39:16

End at: 2018-09-25 06:39:46

Local clock offset: 6.727 ms

Remote clock offset: 6.153 ms

Below is generated by plot.py at 2018-09-25 07:34:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 641.61 Mbit/s

95th percentile per-packet one-way delay: 132.013 ms

Loss rate: 0.01%

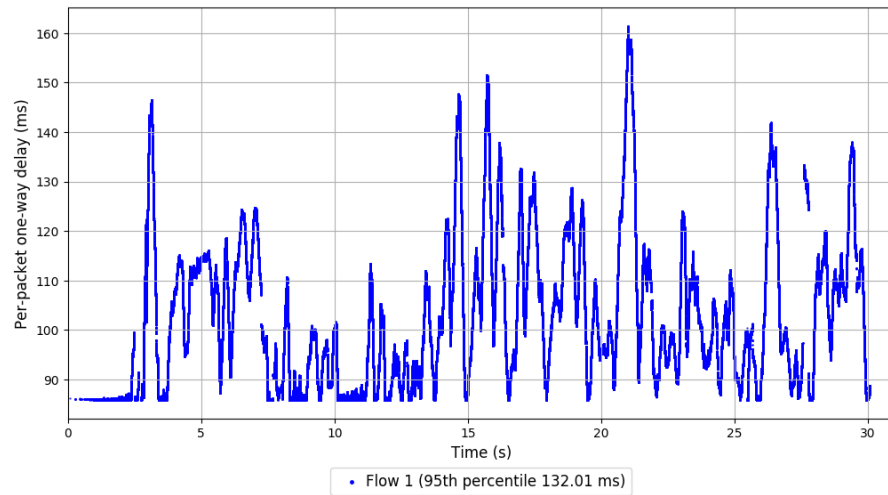
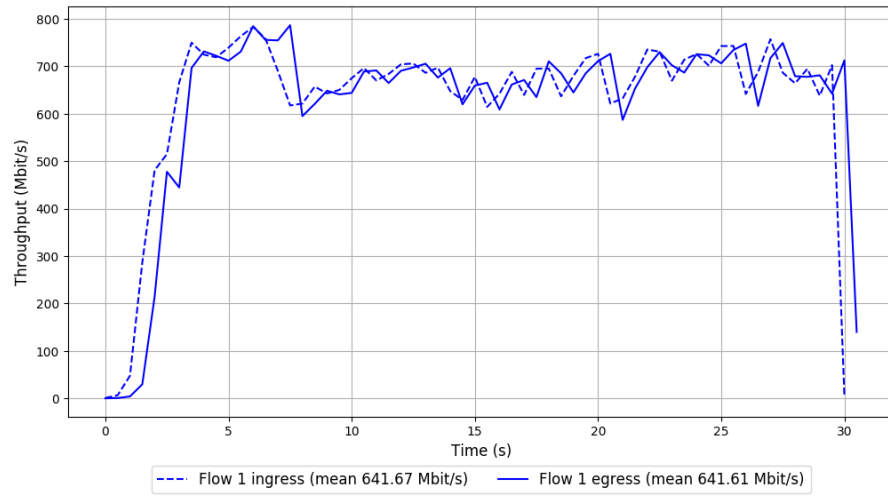
-- Flow 1:

Average throughput: 641.61 Mbit/s

95th percentile per-packet one-way delay: 132.013 ms

Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link

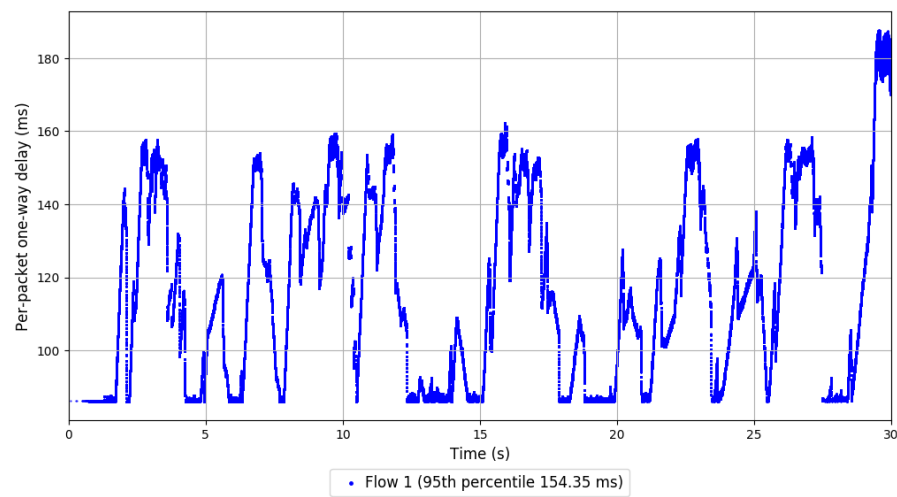
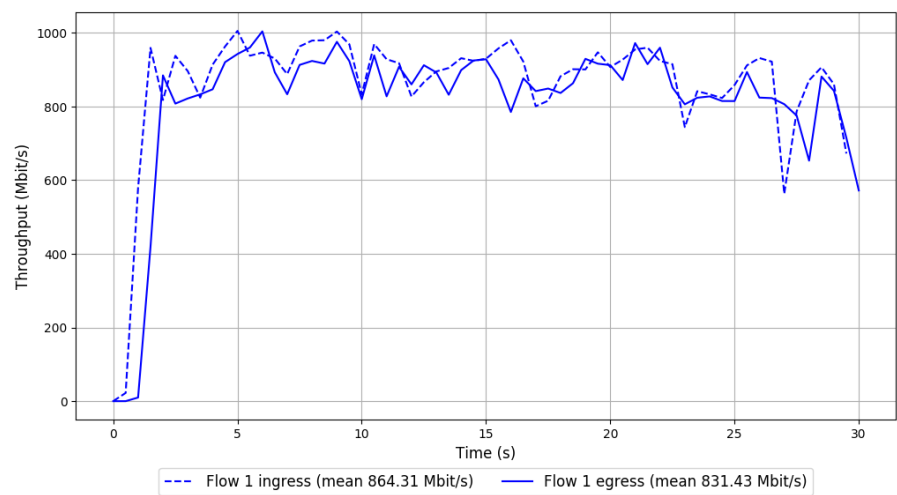


```
Run 1: Statistics of FillP

Start at: 2018-09-25 04:49:21
End at: 2018-09-25 04:49:51
Local clock offset: 7.791 ms
Remote clock offset: 7.374 ms

# Below is generated by plot.py at 2018-09-25 07:40:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 831.43 Mbit/s
95th percentile per-packet one-way delay: 154.348 ms
Loss rate: 3.80%
-- Flow 1:
Average throughput: 831.43 Mbit/s
95th percentile per-packet one-way delay: 154.348 ms
Loss rate: 3.80%
```

Run 1: Report of FillP — Data Link

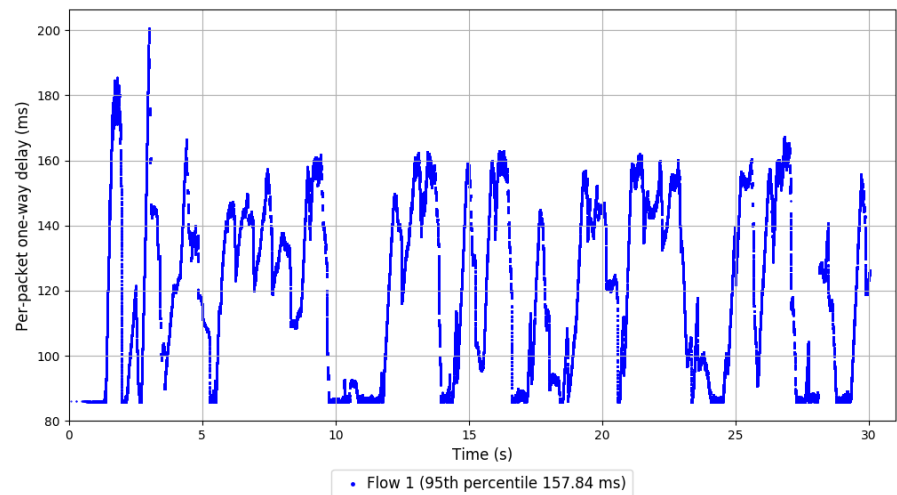
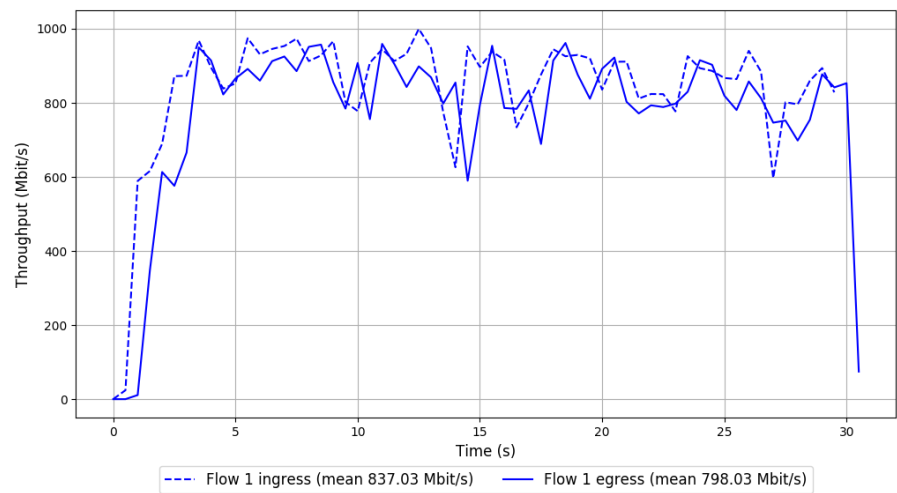


Run 2: Statistics of FillP

Start at: 2018-09-25 05:17:22
End at: 2018-09-25 05:17:52
Local clock offset: 19.067 ms
Remote clock offset: 17.633 ms

Below is generated by plot.py at 2018-09-25 07:48:59
Datalink statistics
-- Total of 1 flow:
Average throughput: 798.03 Mbit/s
95th percentile per-packet one-way delay: 157.835 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 798.03 Mbit/s
95th percentile per-packet one-way delay: 157.835 ms
Loss rate: 4.65%

Run 2: Report of FillP — Data Link

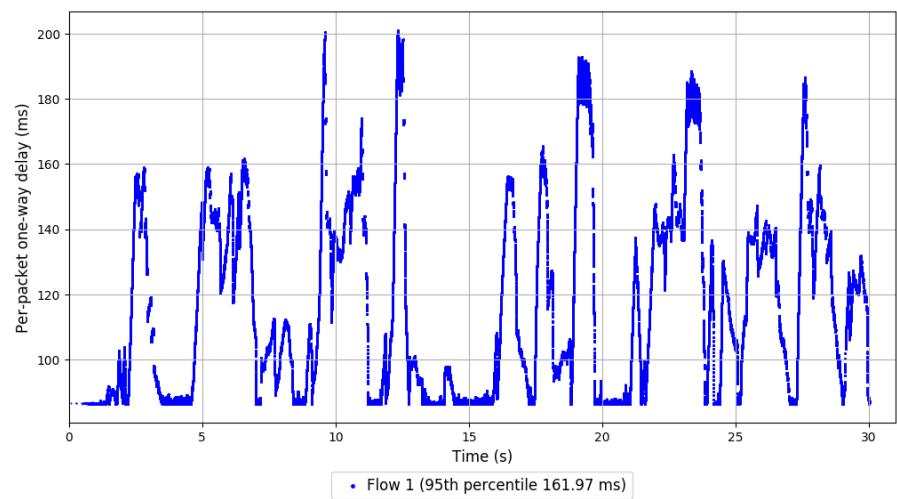
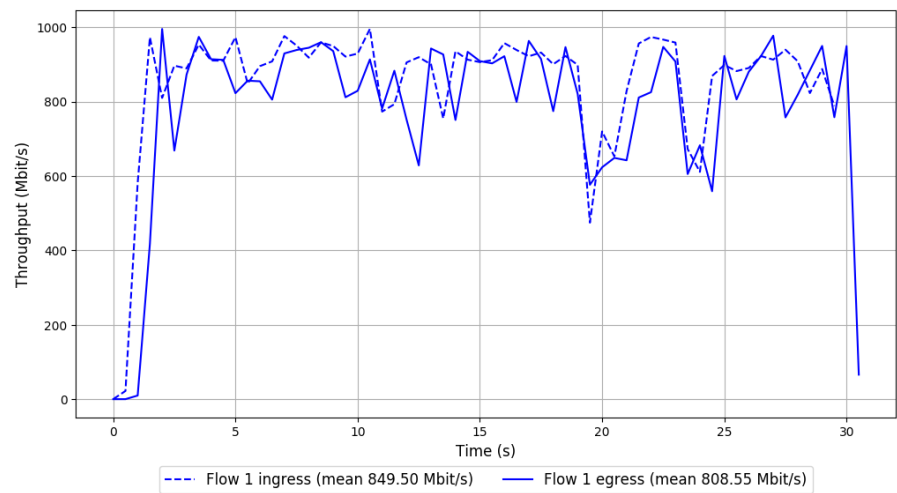


Run 3: Statistics of FillP

Start at: 2018-09-25 05:45:27
End at: 2018-09-25 05:45:57
Local clock offset: 34.195 ms
Remote clock offset: 31.348 ms

Below is generated by plot.py at 2018-09-25 07:49:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 808.55 Mbit/s
95th percentile per-packet one-way delay: 161.966 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 808.55 Mbit/s
95th percentile per-packet one-way delay: 161.966 ms
Loss rate: 4.82%

Run 3: Report of FillP — Data Link

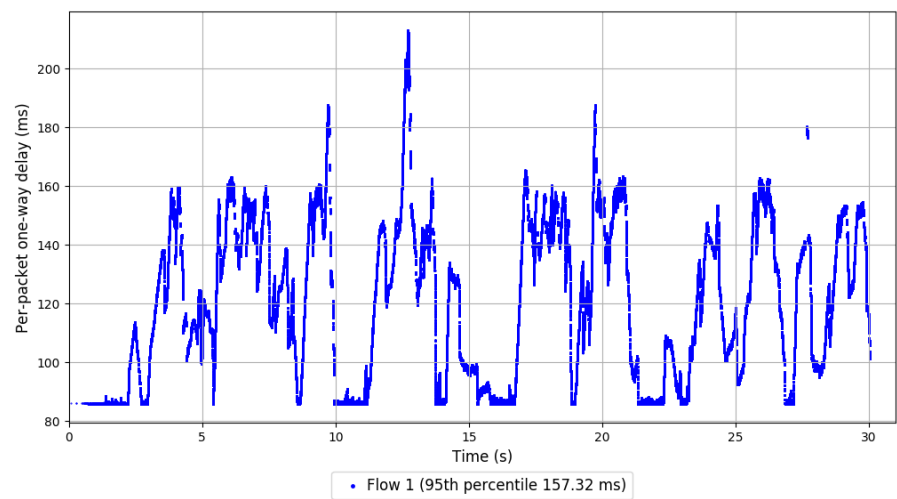
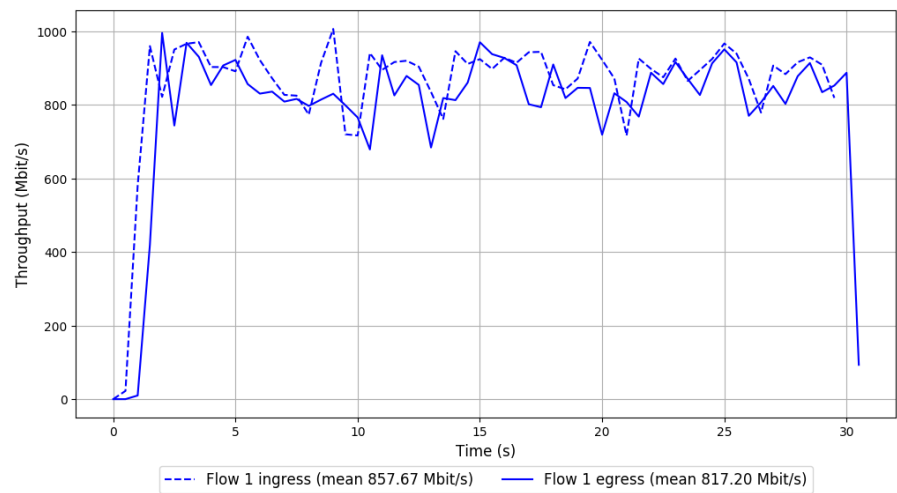


Run 4: Statistics of FillP

Start at: 2018-09-25 06:13:03
End at: 2018-09-25 06:13:33
Local clock offset: 15.1 ms
Remote clock offset: 13.758 ms

Below is generated by plot.py at 2018-09-25 07:49:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 817.20 Mbit/s
95th percentile per-packet one-way delay: 157.323 ms
Loss rate: 4.71%
-- Flow 1:
Average throughput: 817.20 Mbit/s
95th percentile per-packet one-way delay: 157.323 ms
Loss rate: 4.71%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-09-25 06:40:58

End at: 2018-09-25 06:41:28

Local clock offset: 6.869 ms

Remote clock offset: 6.112 ms

Below is generated by plot.py at 2018-09-25 07:49:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 784.02 Mbit/s

95th percentile per-packet one-way delay: 170.700 ms

Loss rate: 6.60%

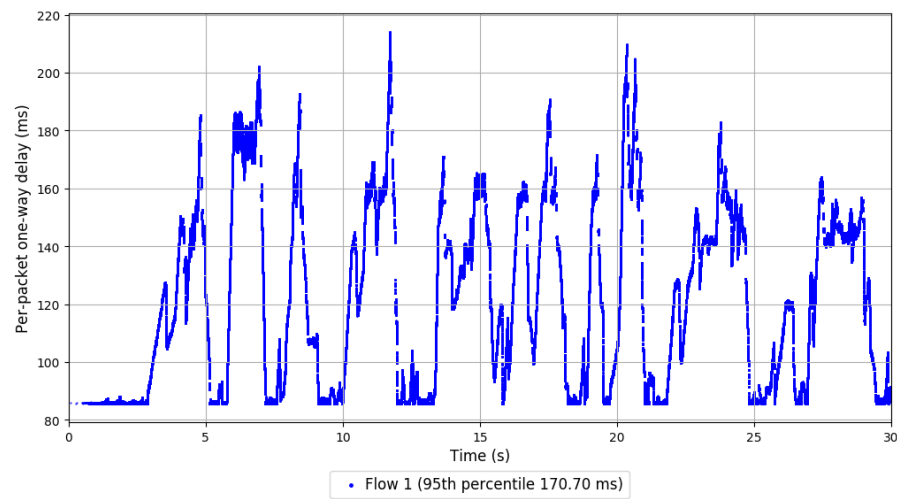
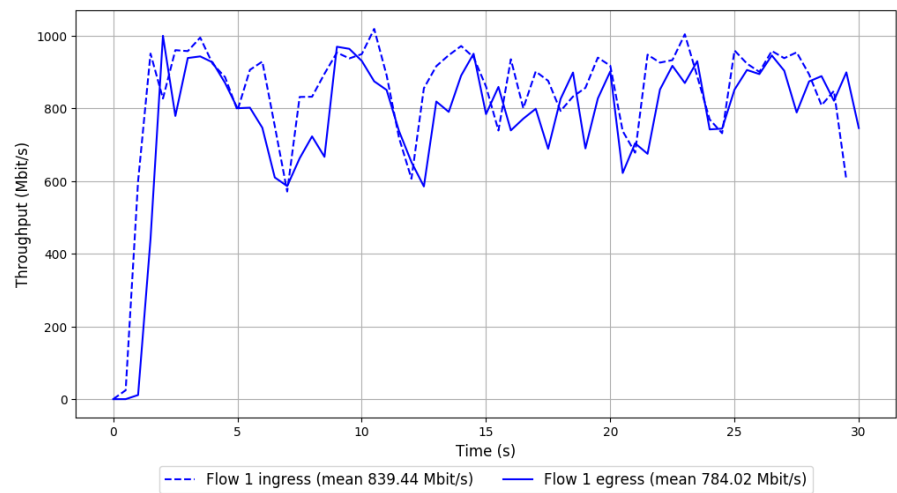
-- Flow 1:

Average throughput: 784.02 Mbit/s

95th percentile per-packet one-way delay: 170.700 ms

Loss rate: 6.60%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-09-25 04:40:58

End at: 2018-09-25 04:41:28

Local clock offset: 4.279 ms

Remote clock offset: 3.431 ms

Below is generated by plot.py at 2018-09-25 07:49:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 805.40 Mbit/s

95th percentile per-packet one-way delay: 154.478 ms

Loss rate: 3.49%

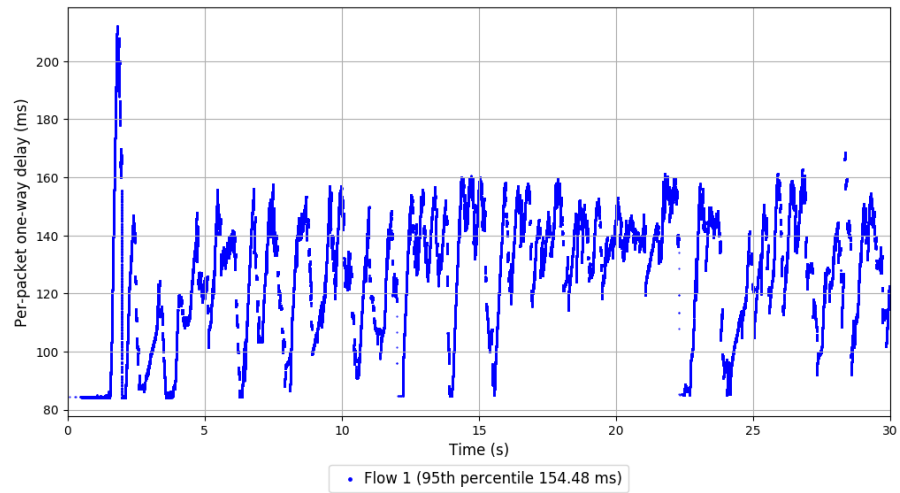
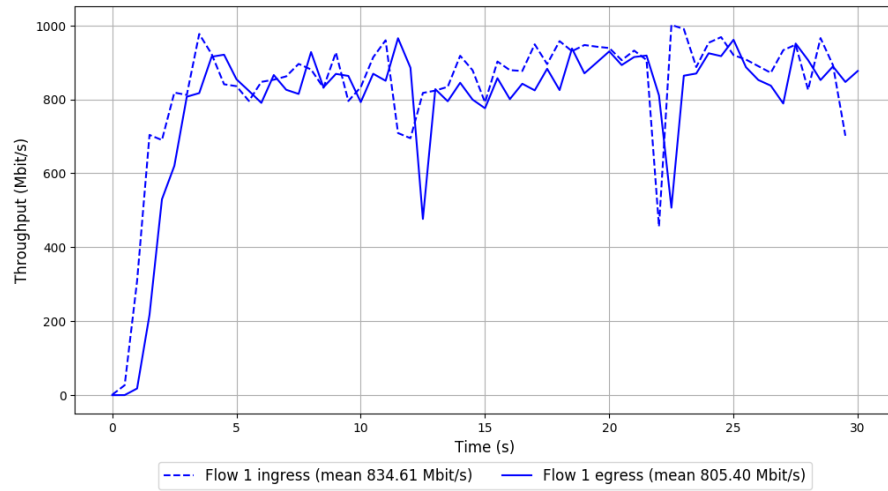
-- Flow 1:

Average throughput: 805.40 Mbit/s

95th percentile per-packet one-way delay: 154.478 ms

Loss rate: 3.49%

Run 1: Report of FillP-Sheep — Data Link

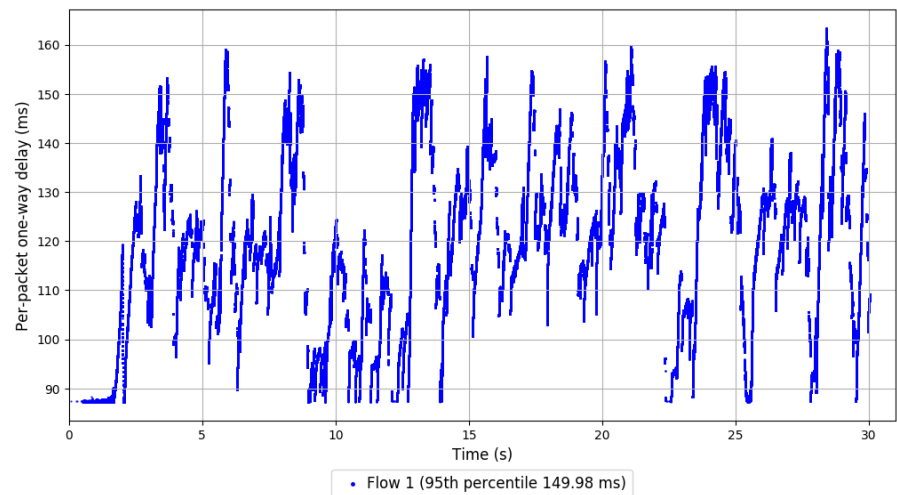
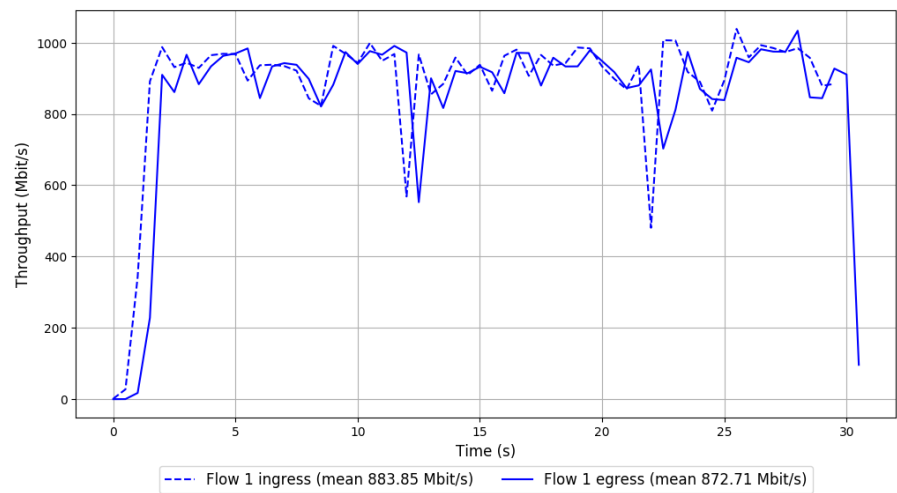


Run 2: Statistics of FillP-Sheep

Start at: 2018-09-25 05:09:04
End at: 2018-09-25 05:09:34
Local clock offset: 18.451 ms
Remote clock offset: 17.341 ms

Below is generated by plot.py at 2018-09-25 07:51:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 872.71 Mbit/s
95th percentile per-packet one-way delay: 149.979 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 872.71 Mbit/s
95th percentile per-packet one-way delay: 149.979 ms
Loss rate: 1.26%

Run 2: Report of FillP-Sheep — Data Link

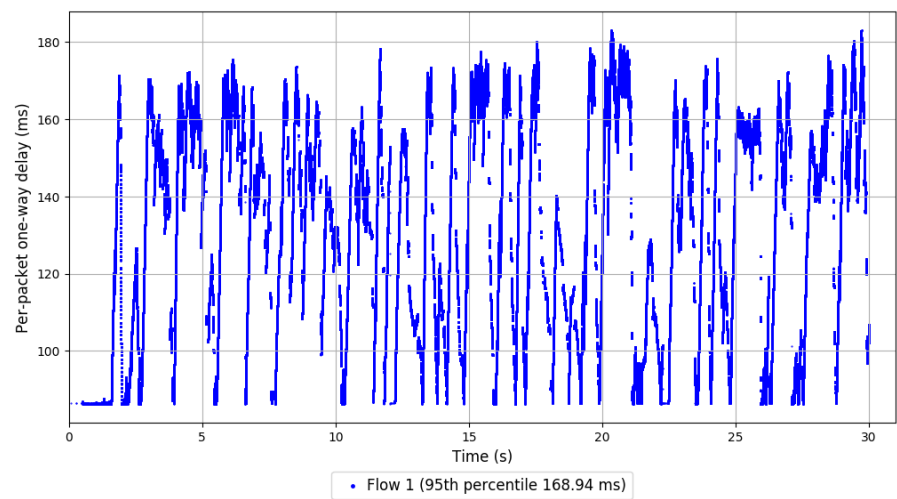
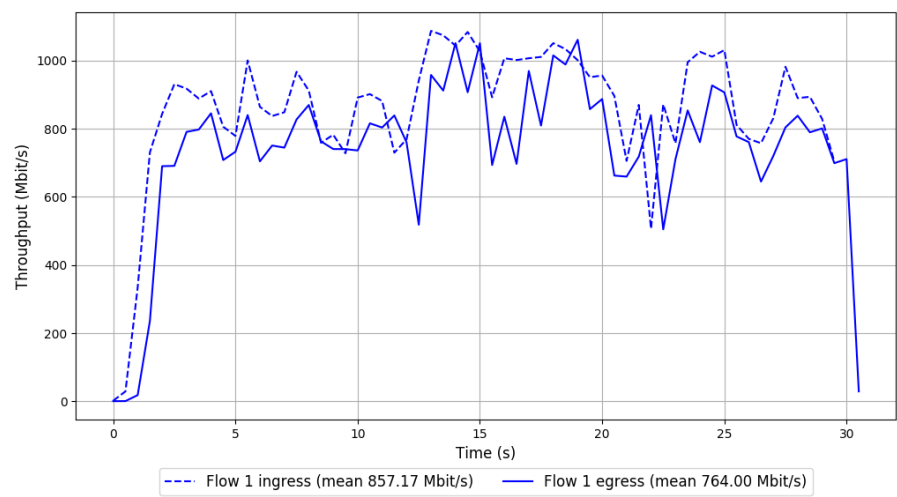


Run 3: Statistics of FillP-Sheep

Start at: 2018-09-25 05:37:03
End at: 2018-09-25 05:37:33
Local clock offset: 26.417 ms
Remote clock offset: 24.238 ms

Below is generated by plot.py at 2018-09-25 07:52:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 764.00 Mbit/s
95th percentile per-packet one-way delay: 168.943 ms
Loss rate: 10.87%
-- Flow 1:
Average throughput: 764.00 Mbit/s
95th percentile per-packet one-way delay: 168.943 ms
Loss rate: 10.87%

Run 3: Report of FillP-Sheep — Data Link

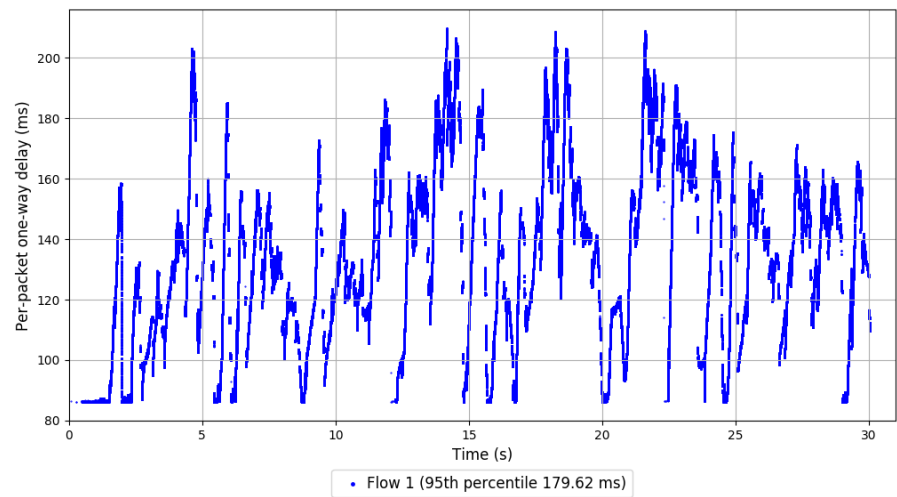
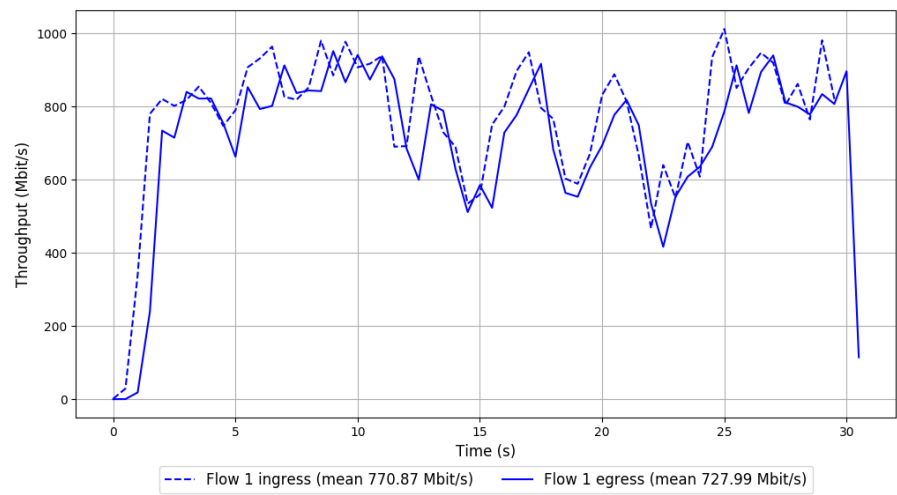


Run 4: Statistics of FillP-Sheep

Start at: 2018-09-25 06:05:08
End at: 2018-09-25 06:05:38
Local clock offset: 13.608 ms
Remote clock offset: 12.486 ms

Below is generated by plot.py at 2018-09-25 07:59:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 727.99 Mbit/s
95th percentile per-packet one-way delay: 179.619 ms
Loss rate: 5.52%
-- Flow 1:
Average throughput: 727.99 Mbit/s
95th percentile per-packet one-way delay: 179.619 ms
Loss rate: 5.52%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2018-09-25 06:32:52

End at: 2018-09-25 06:33:22

Local clock offset: 7.491 ms

Remote clock offset: 7.014 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 805.96 Mbit/s

95th percentile per-packet one-way delay: 156.158 ms

Loss rate: 3.61%

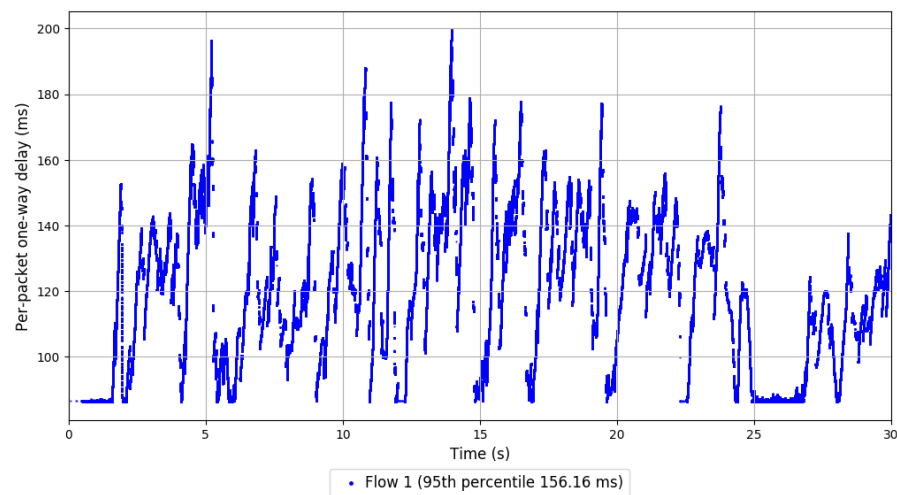
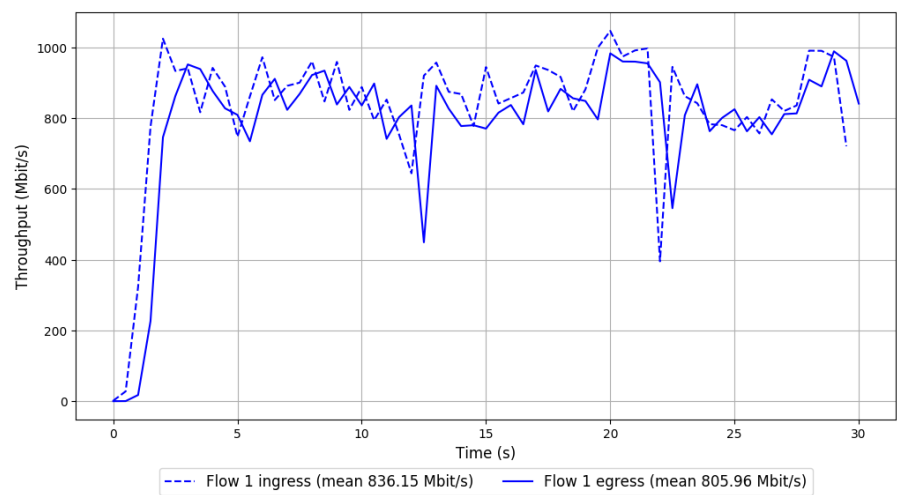
-- Flow 1:

Average throughput: 805.96 Mbit/s

95th percentile per-packet one-way delay: 156.158 ms

Loss rate: 3.61%

Run 5: Report of FillP-Sheep — Data Link

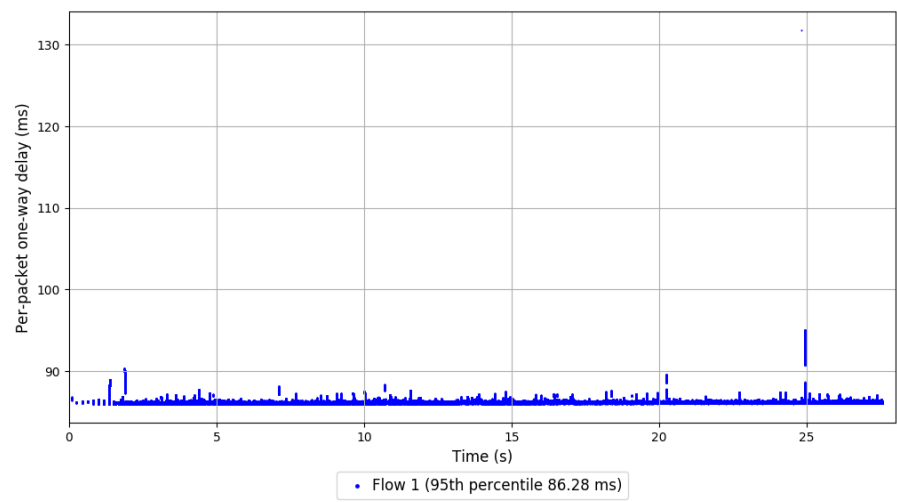
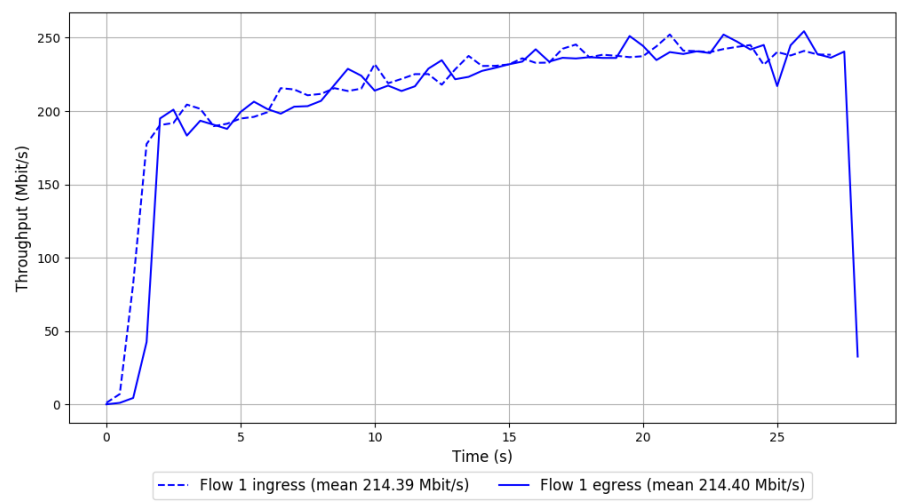


Run 1: Statistics of Indigo

Start at: 2018-09-25 04:53:31
End at: 2018-09-25 04:54:01
Local clock offset: 11.82 ms
Remote clock offset: 10.635 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 214.40 Mbit/s
95th percentile per-packet one-way delay: 86.283 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 214.40 Mbit/s
95th percentile per-packet one-way delay: 86.283 ms
Loss rate: 0.00%

Run 1: Report of Indigo — Data Link

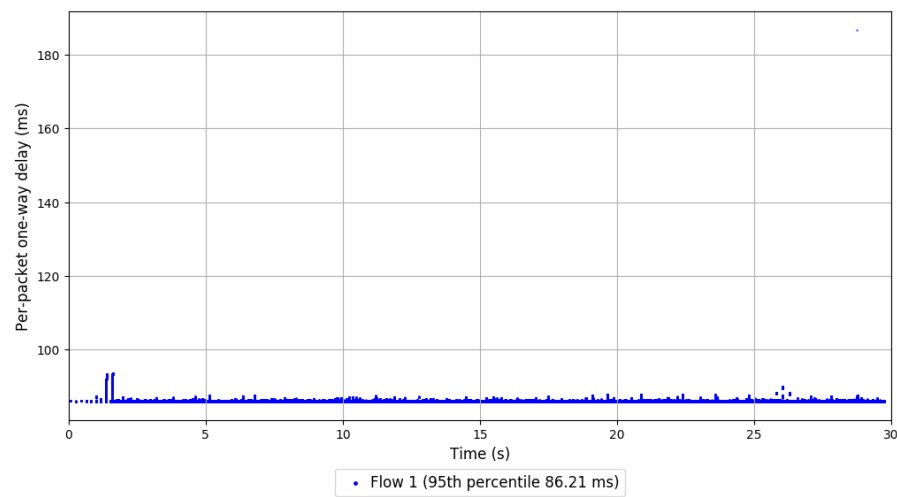
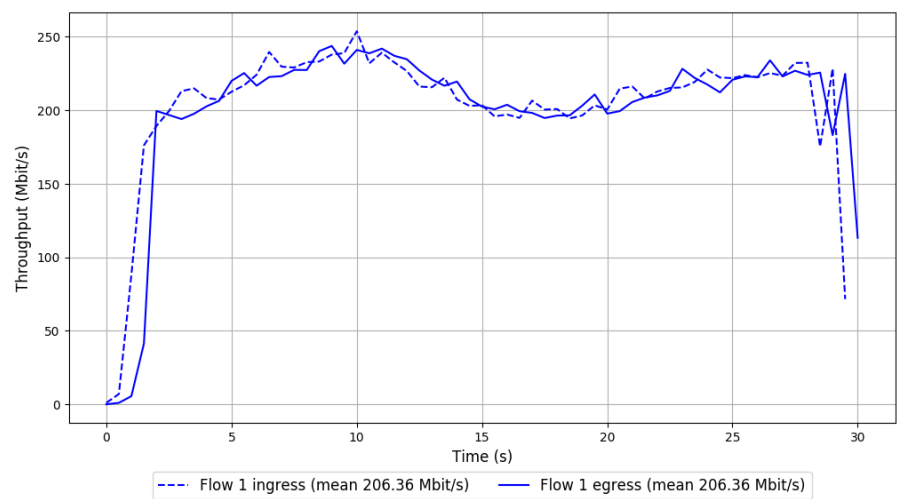


Run 2: Statistics of Indigo

Start at: 2018-09-25 05:21:32
End at: 2018-09-25 05:22:03
Local clock offset: 17.714 ms
Remote clock offset: 16.316 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 206.36 Mbit/s
95th percentile per-packet one-way delay: 86.209 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.36 Mbit/s
95th percentile per-packet one-way delay: 86.209 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

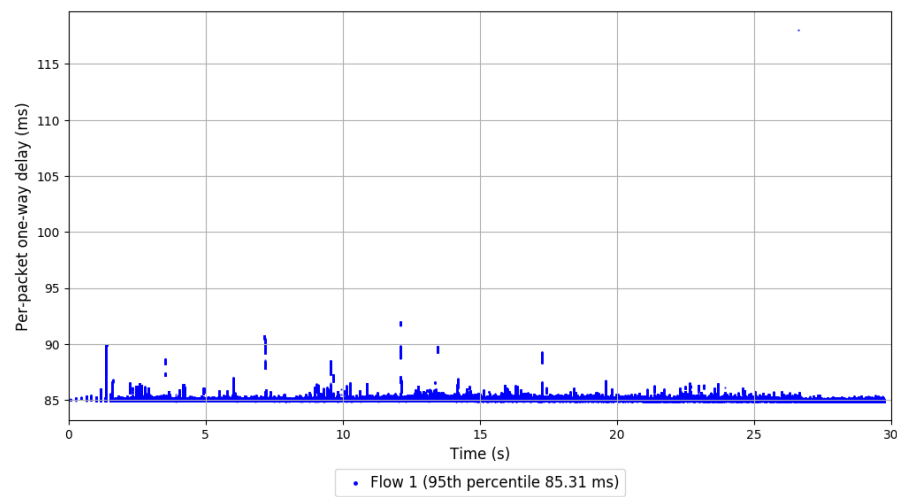
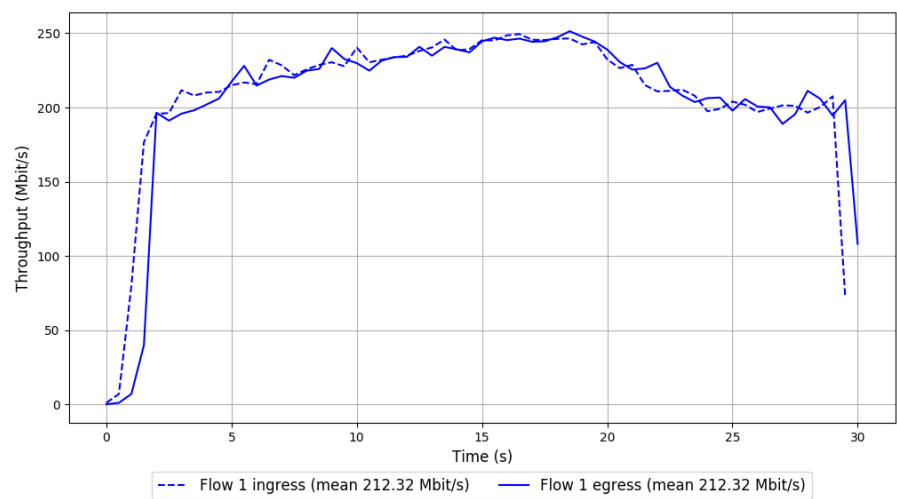


Run 3: Statistics of Indigo

Start at: 2018-09-25 05:49:39
End at: 2018-09-25 05:50:09
Local clock offset: 28.974 ms
Remote clock offset: 26.516 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 212.32 Mbit/s
95th percentile per-packet one-way delay: 85.315 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 212.32 Mbit/s
95th percentile per-packet one-way delay: 85.315 ms
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

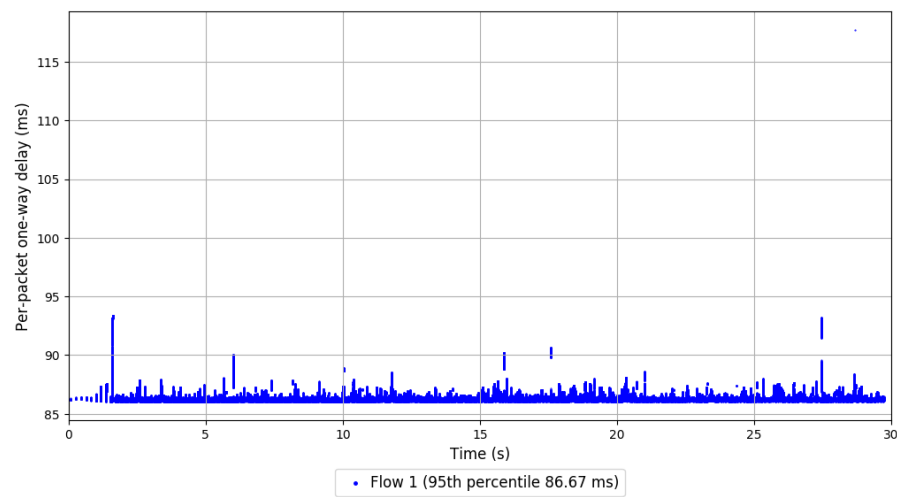
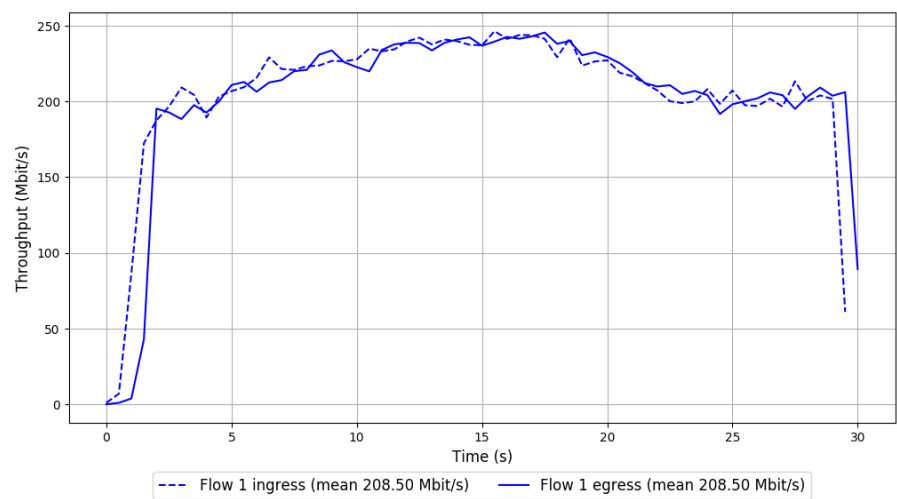


Run 4: Statistics of Indigo

Start at: 2018-09-25 06:17:16
End at: 2018-09-25 06:17:46
Local clock offset: 16.338 ms
Remote clock offset: 15.131 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 208.50 Mbit/s
95th percentile per-packet one-way delay: 86.672 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 208.50 Mbit/s
95th percentile per-packet one-way delay: 86.672 ms
Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-09-25 06:45:09

End at: 2018-09-25 06:45:40

Local clock offset: 7.017 ms

Remote clock offset: 6.443 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 205.85 Mbit/s

95th percentile per-packet one-way delay: 86.998 ms

Loss rate: 0.00%

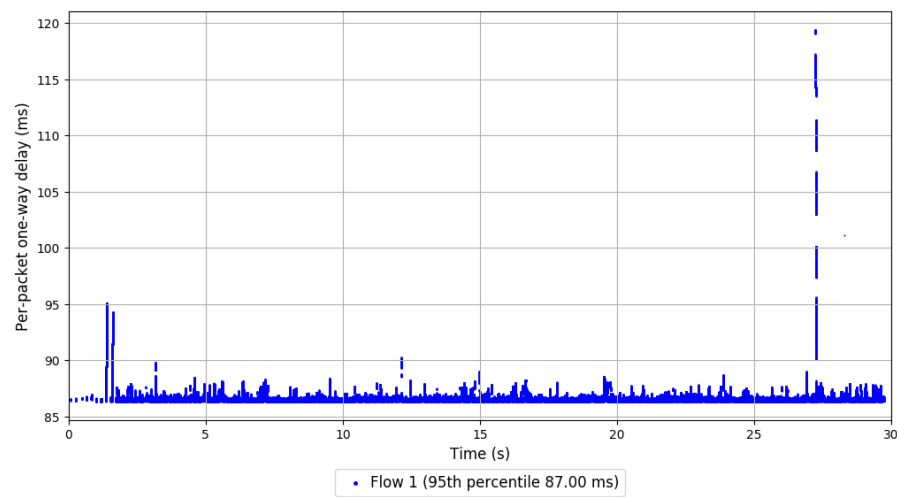
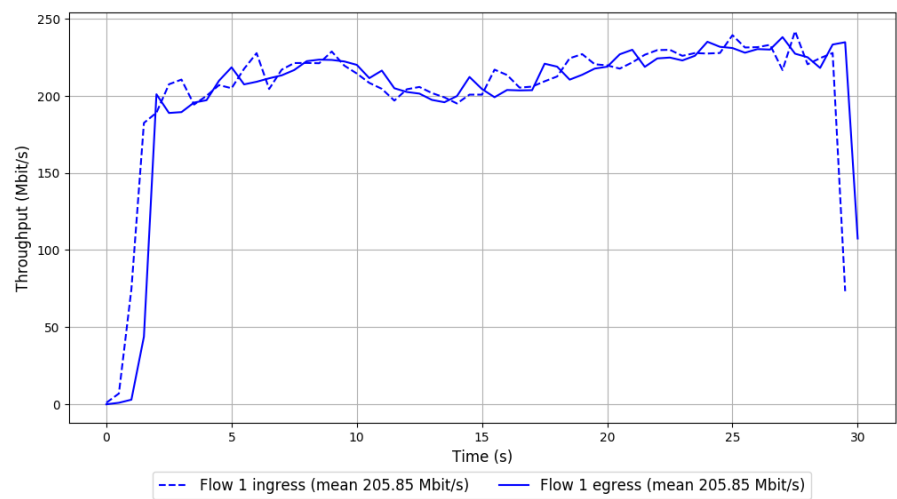
-- Flow 1:

Average throughput: 205.85 Mbit/s

95th percentile per-packet one-way delay: 86.998 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-96d2da3

Start at: 2018-09-25 04:52:11

End at: 2018-09-25 04:52:41

Local clock offset: 9.833 ms

Remote clock offset: 9.186 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 246.56 Mbit/s

95th percentile per-packet one-way delay: 107.922 ms

Loss rate: 0.07%

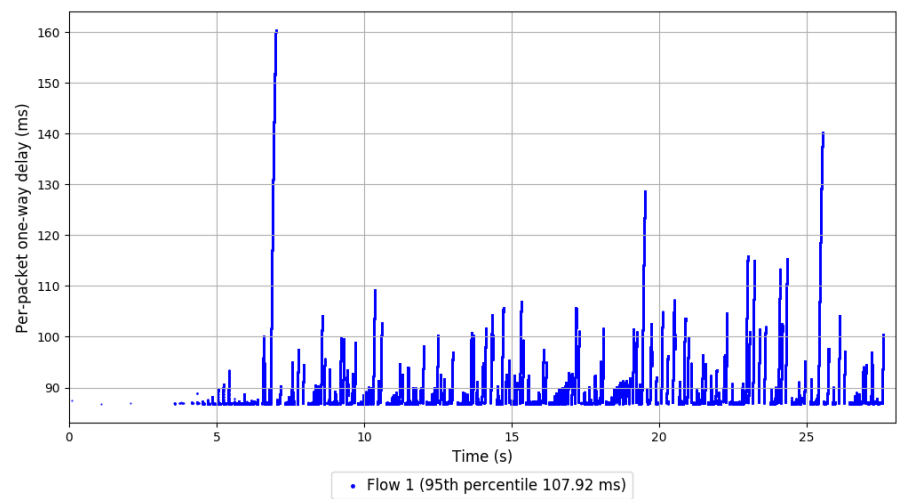
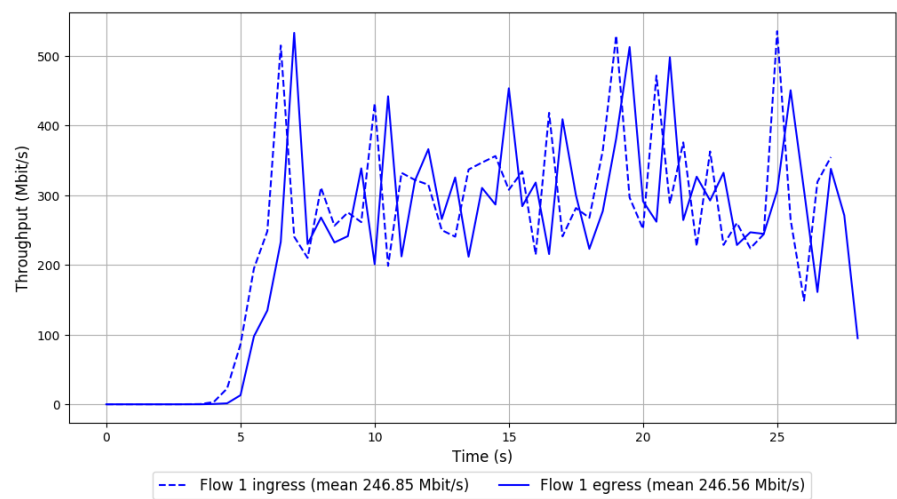
-- Flow 1:

Average throughput: 246.56 Mbit/s

95th percentile per-packet one-way delay: 107.922 ms

Loss rate: 0.07%

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

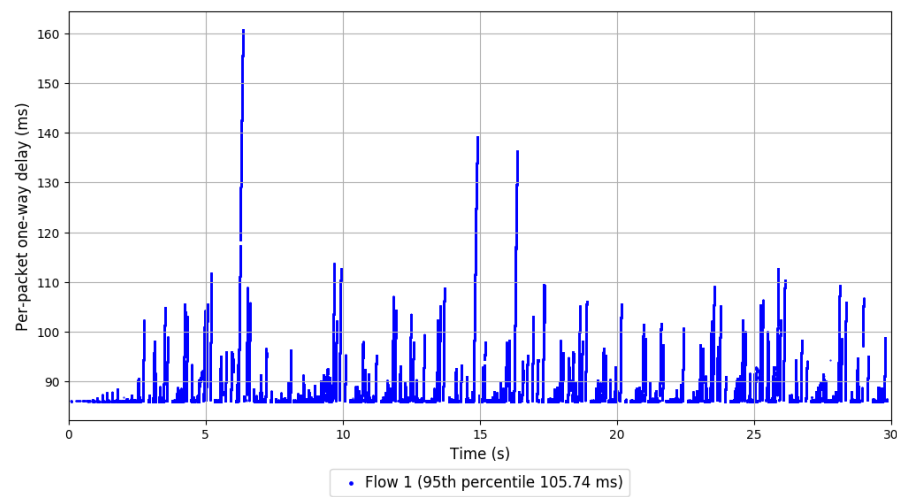
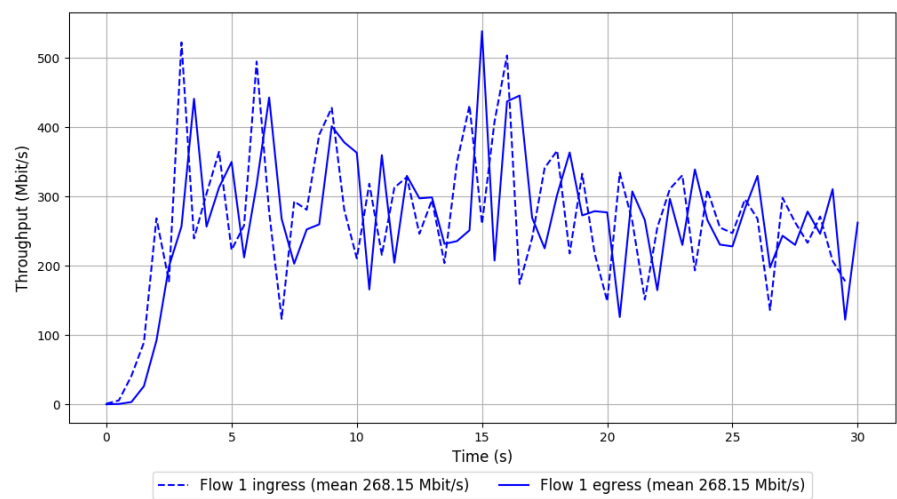


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-09-25 05:20:11
End at: 2018-09-25 05:20:41
Local clock offset: 17.803 ms
Remote clock offset: 16.473 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 268.15 Mbit/s
95th percentile per-packet one-way delay: 105.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 268.15 Mbit/s
95th percentile per-packet one-way delay: 105.737 ms
Loss rate: 0.00%

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



Run 3: Statistics of Indigo-96d2da3

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

End at: 2018-09-25 05:48:46

Local clock offset: 32.789 ms

Remote clock offset: 30.3 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 283.27 Mbit/s

95th percentile per-packet one-way delay: 103.692 ms

Loss rate: 0.06%

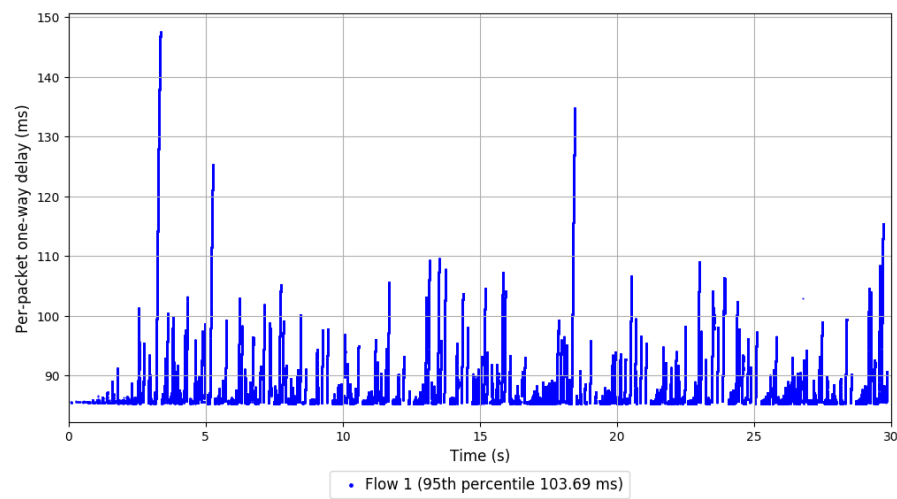
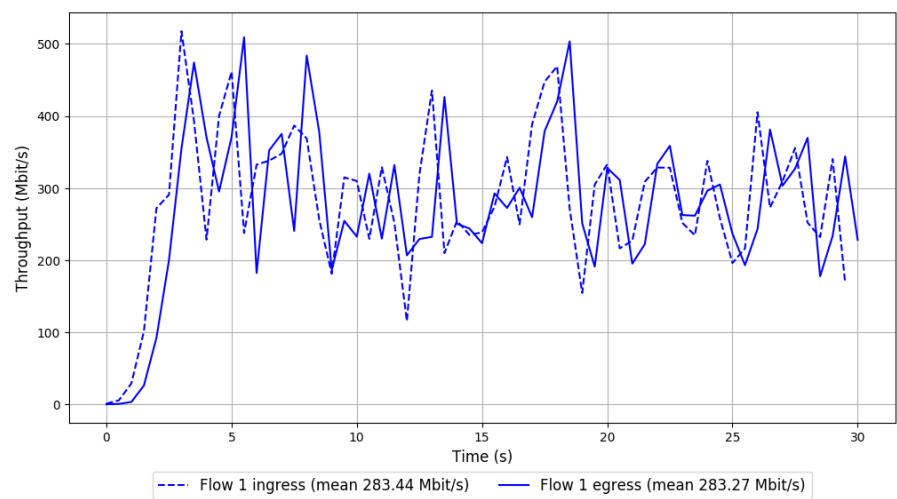
-- Flow 1:

Average throughput: 283.27 Mbit/s

95th percentile per-packet one-way delay: 103.692 ms

Loss rate: 0.06%

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

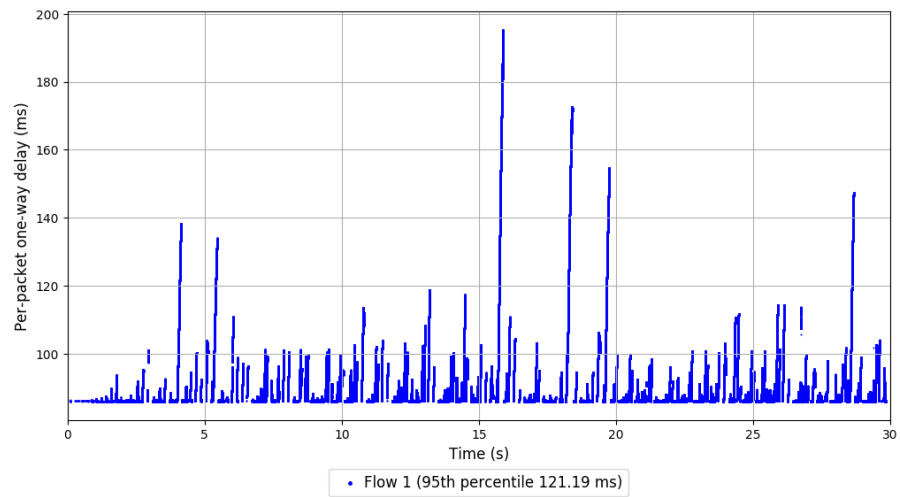
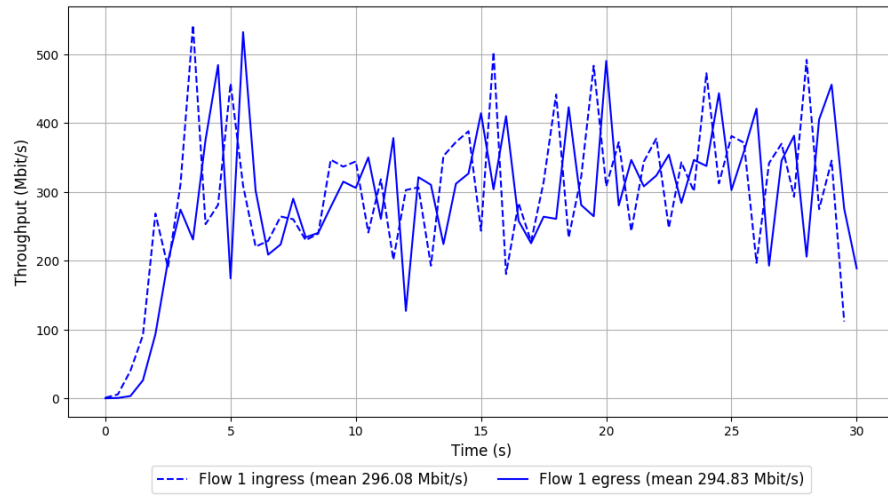


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-09-25 06:15:53
End at: 2018-09-25 06:16:23
Local clock offset: 15.983 ms
Remote clock offset: 14.642 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 294.83 Mbit/s
95th percentile per-packet one-way delay: 121.187 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 294.83 Mbit/s
95th percentile per-packet one-way delay: 121.187 ms
Loss rate: 0.42%

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



Run 5: Statistics of Indigo-96d2da3

Start at: 2018-09-25 06:43:48

End at: 2018-09-25 06:44:18

Local clock offset: 6.68 ms

Remote clock offset: 6.326 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 271.11 Mbit/s

95th percentile per-packet one-way delay: 111.218 ms

Loss rate: 0.20%

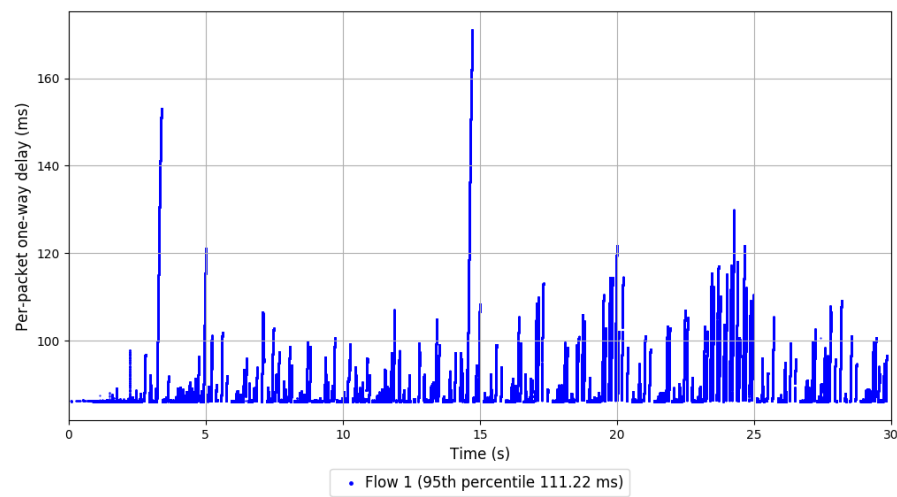
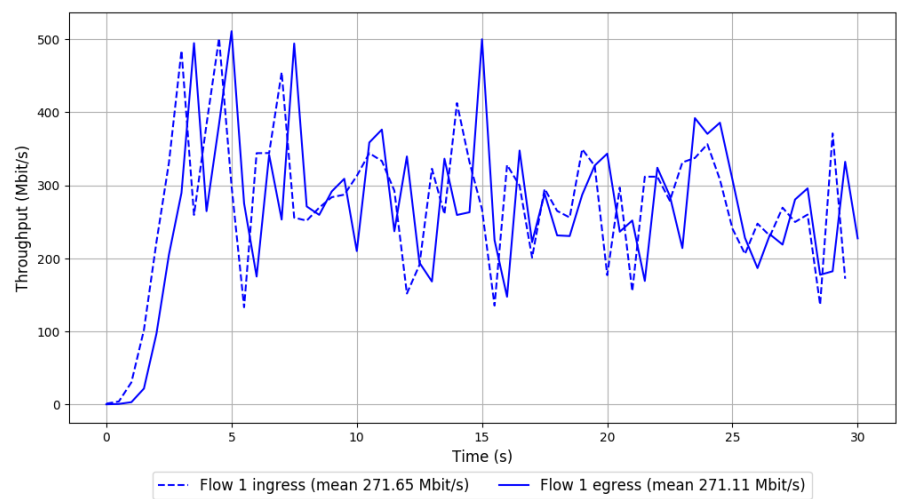
-- Flow 1:

Average throughput: 271.11 Mbit/s

95th percentile per-packet one-way delay: 111.218 ms

Loss rate: 0.20%

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

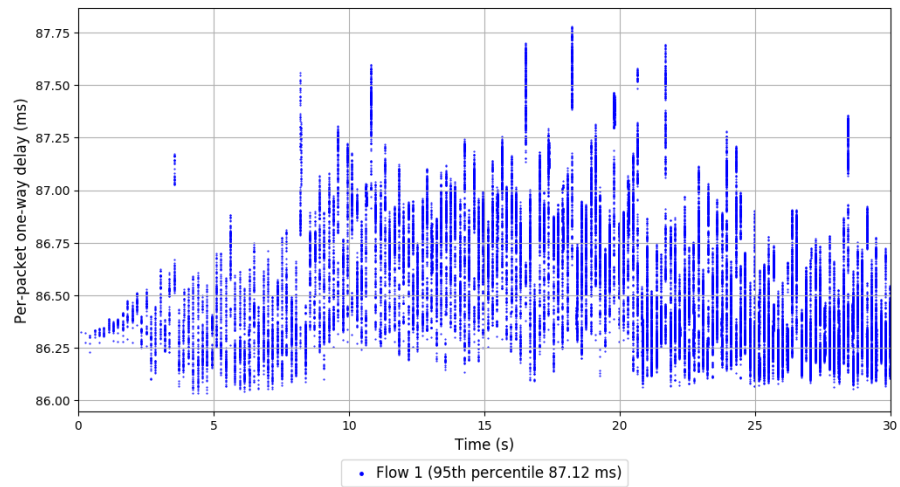
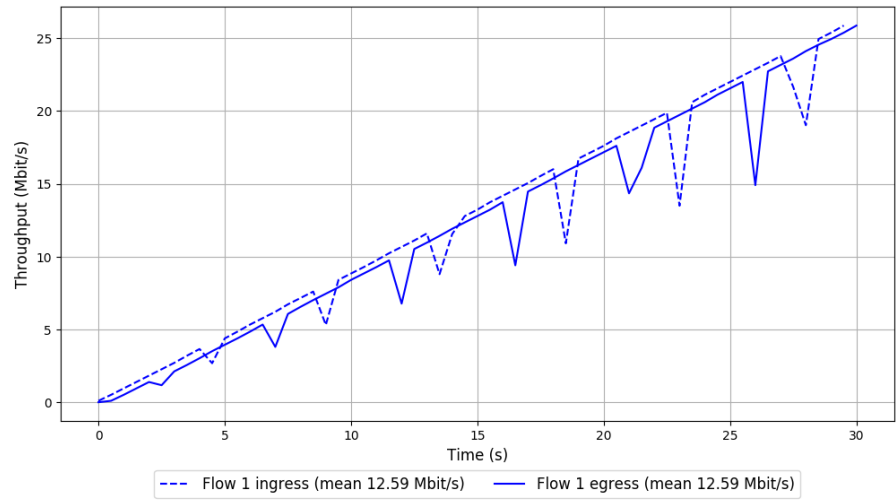


Run 1: Statistics of LEDBAT

Start at: 2018-09-25 05:05:15
End at: 2018-09-25 05:05:45
Local clock offset: 14.51 ms
Remote clock offset: 13.379 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 87.118 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 87.118 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

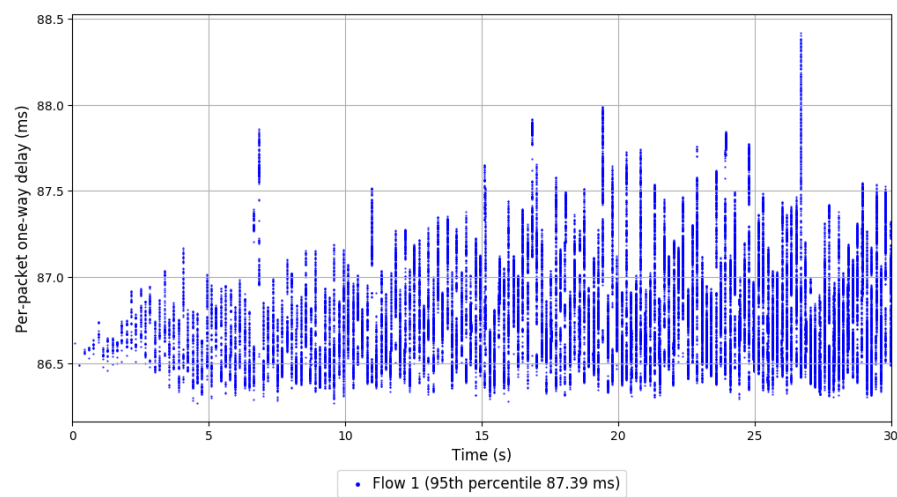
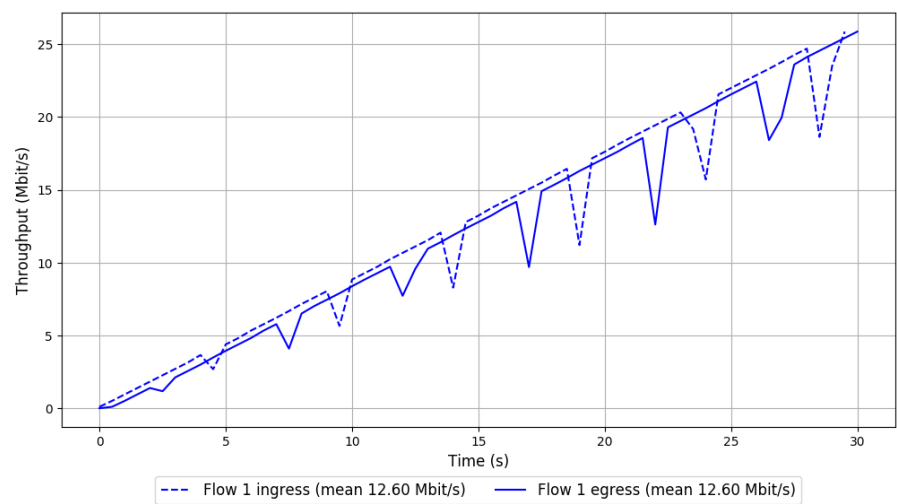


Run 2: Statistics of LEDBAT

Start at: 2018-09-25 05:33:17
End at: 2018-09-25 05:33:47
Local clock offset: 23.045 ms
Remote clock offset: 21.392 ms

Below is generated by plot.py at 2018-09-25 08:06:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.60 Mbit/s
95th percentile per-packet one-way delay: 87.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.60 Mbit/s
95th percentile per-packet one-way delay: 87.387 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-09-25 06:01:21

End at: 2018-09-25 06:01:51

Local clock offset: 14.197 ms

Remote clock offset: 13.03 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.59 Mbit/s

95th percentile per-packet one-way delay: 87.063 ms

Loss rate: 0.00%

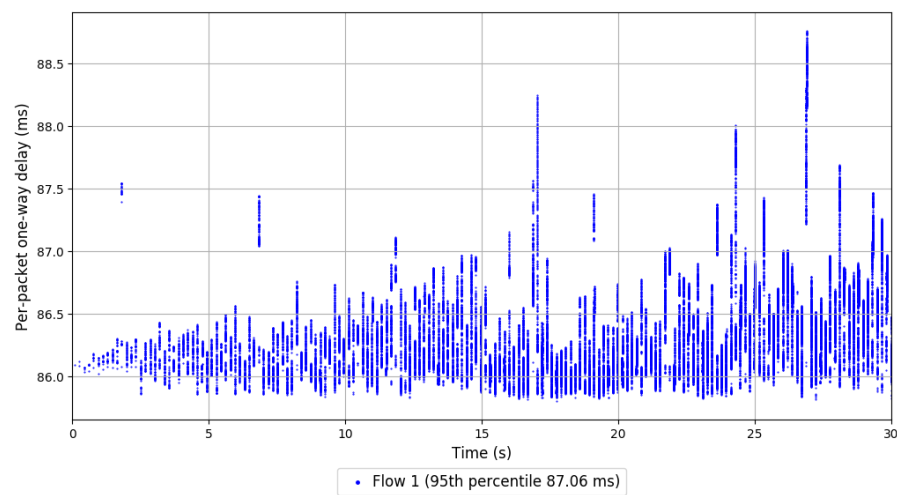
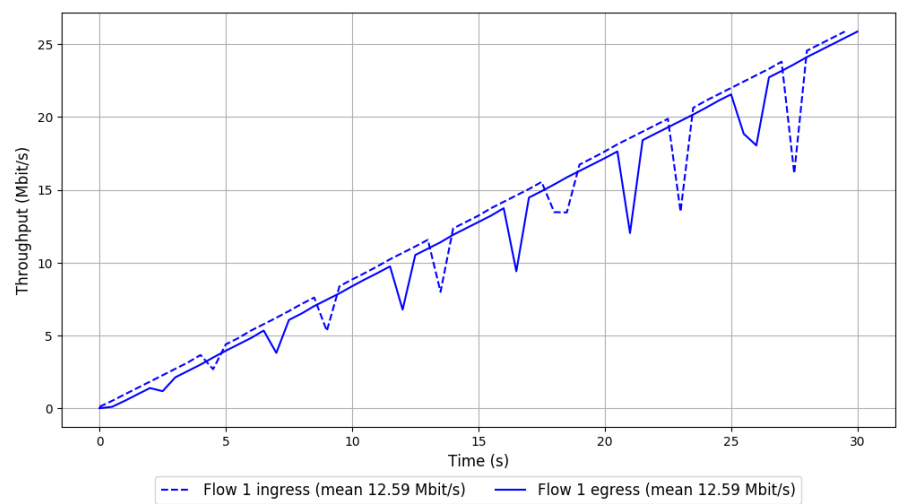
-- Flow 1:

Average throughput: 12.59 Mbit/s

95th percentile per-packet one-way delay: 87.063 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-09-25 06:29:06

End at: 2018-09-25 06:29:36

Local clock offset: 9.007 ms

Remote clock offset: 8.508 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.60 Mbit/s

95th percentile per-packet one-way delay: 86.922 ms

Loss rate: 0.00%

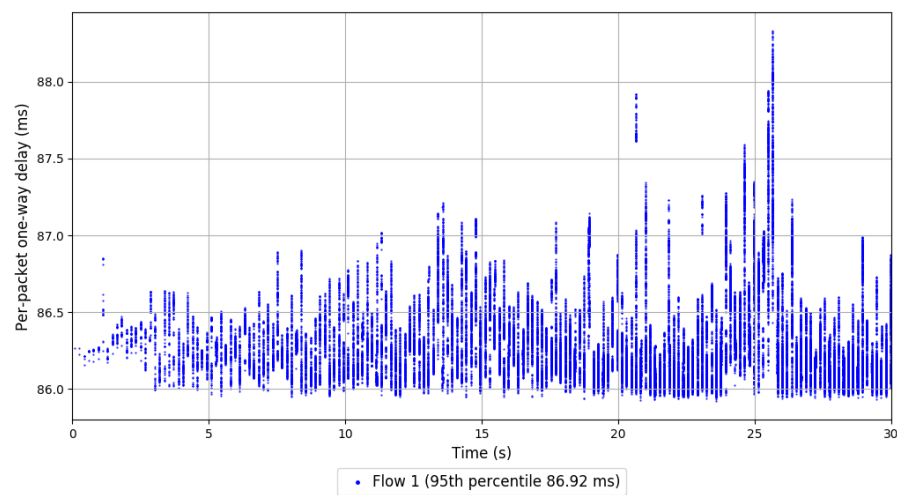
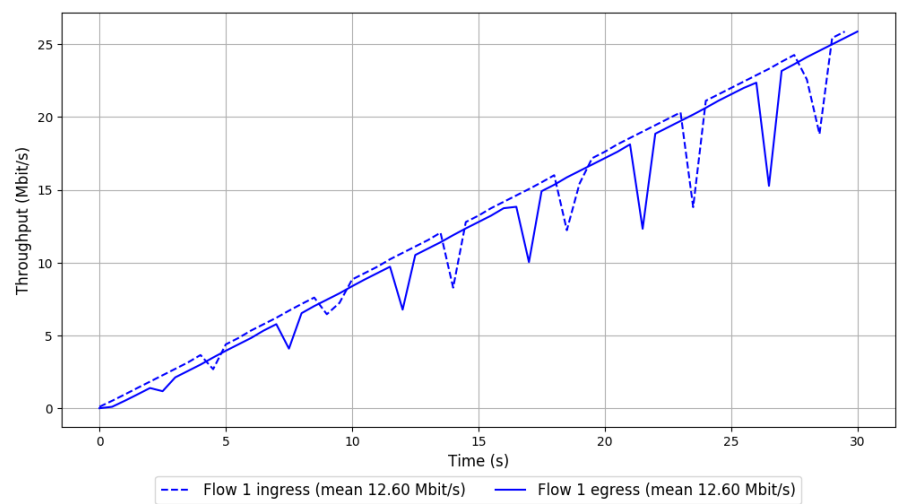
-- Flow 1:

Average throughput: 12.60 Mbit/s

95th percentile per-packet one-way delay: 86.922 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-09-25 06:56:54

End at: 2018-09-25 06:57:24

Local clock offset: 7.515 ms

Remote clock offset: 6.963 ms

Below is generated by plot.py at 2018-09-25 08:06:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.47 Mbit/s

95th percentile per-packet one-way delay: 87.271 ms

Loss rate: 0.00%

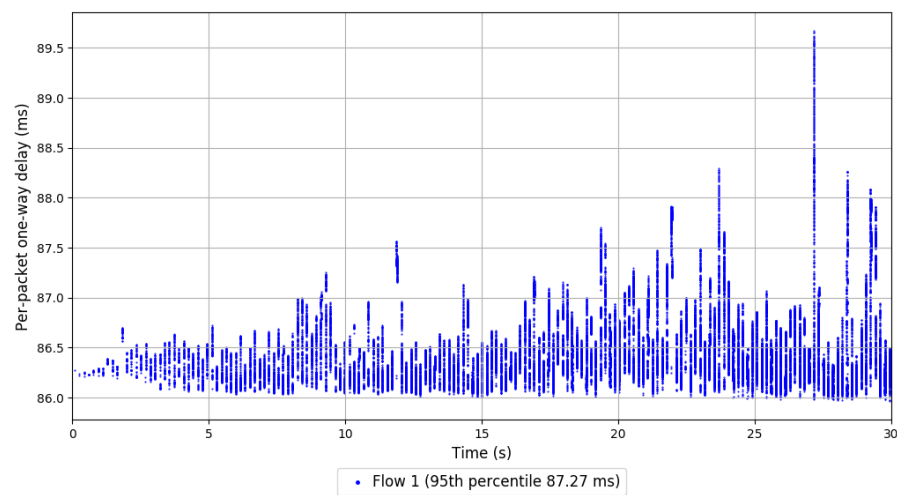
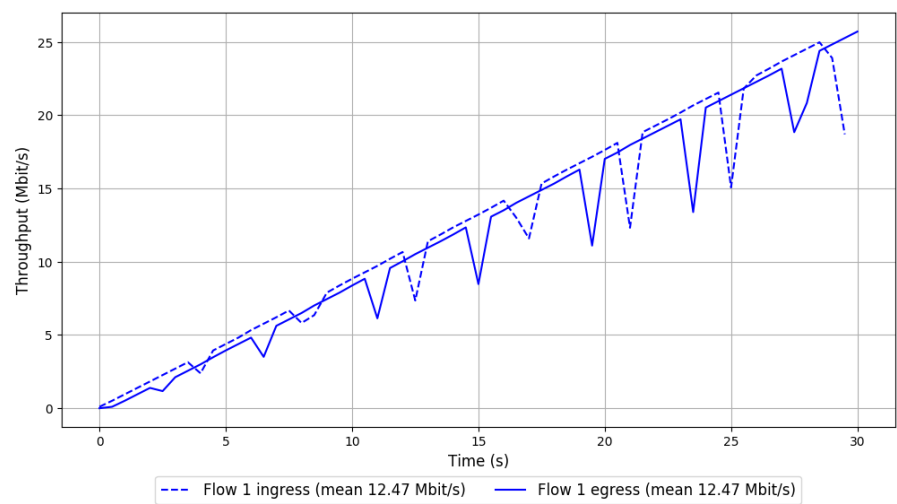
-- Flow 1:

Average throughput: 12.47 Mbit/s

95th percentile per-packet one-way delay: 87.271 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link

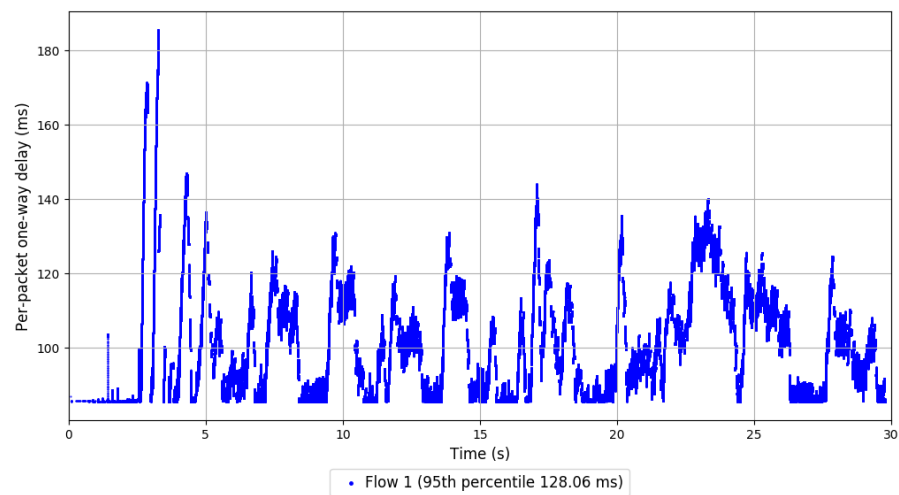
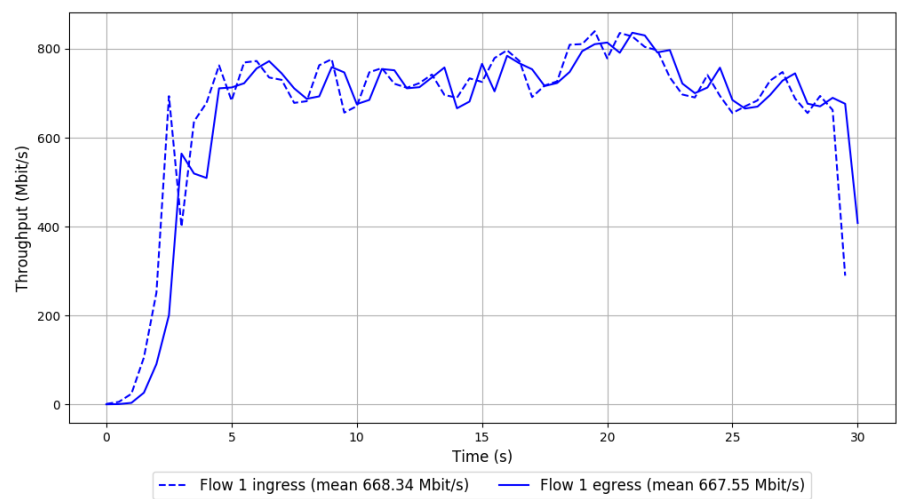



```
Run 1: Statistics of Indigo-Muses

Start at: 2018-09-25 04:58:12
End at: 2018-09-25 04:58:42
Local clock offset: 12.769 ms
Remote clock offset: 11.741 ms

# Below is generated by plot.py at 2018-09-25 08:11:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 667.55 Mbit/s
95th percentile per-packet one-way delay: 128.065 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 667.55 Mbit/s
95th percentile per-packet one-way delay: 128.065 ms
Loss rate: 0.12%
```

Run 1: Report of Indigo-Muses — Data Link

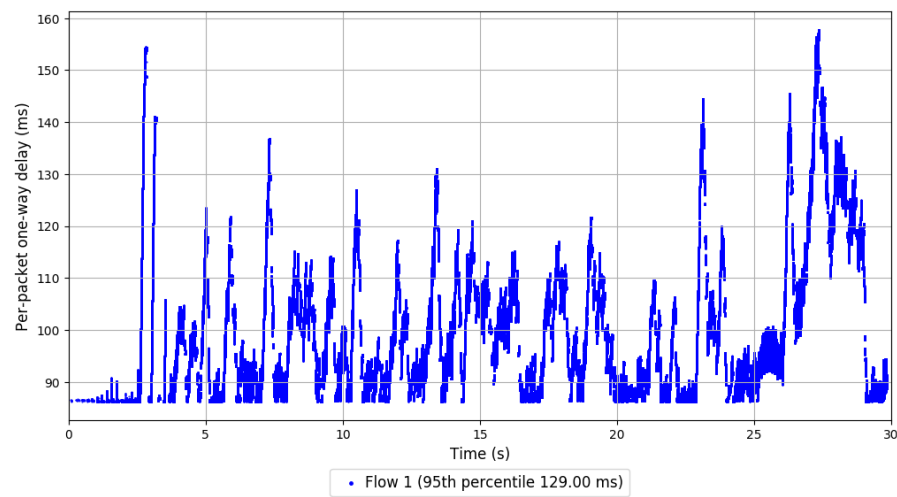
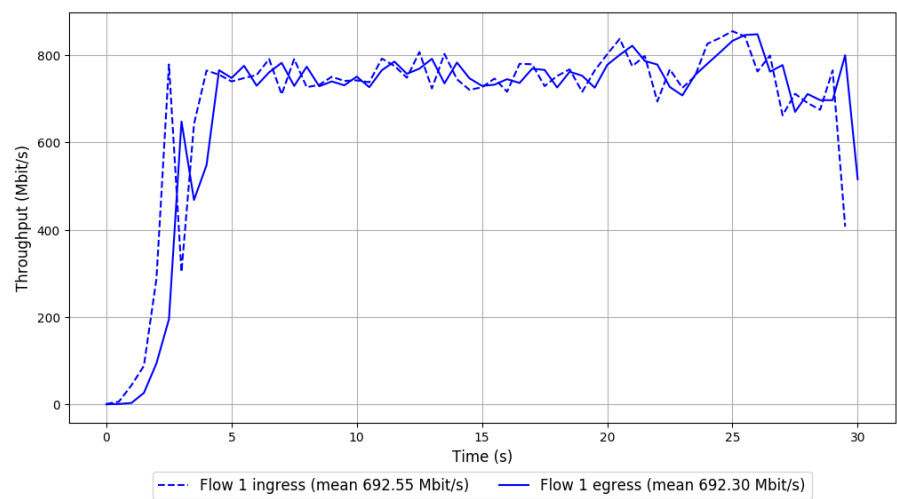


Run 2: Statistics of Indigo-Muses

Start at: 2018-09-25 05:26:13
End at: 2018-09-25 05:26:43
Local clock offset: 18.705 ms
Remote clock offset: 17.312 ms

Below is generated by plot.py at 2018-09-25 08:11:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 692.30 Mbit/s
95th percentile per-packet one-way delay: 129.001 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 692.30 Mbit/s
95th percentile per-packet one-way delay: 129.001 ms
Loss rate: 0.03%

Run 2: Report of Indigo-Muses — Data Link

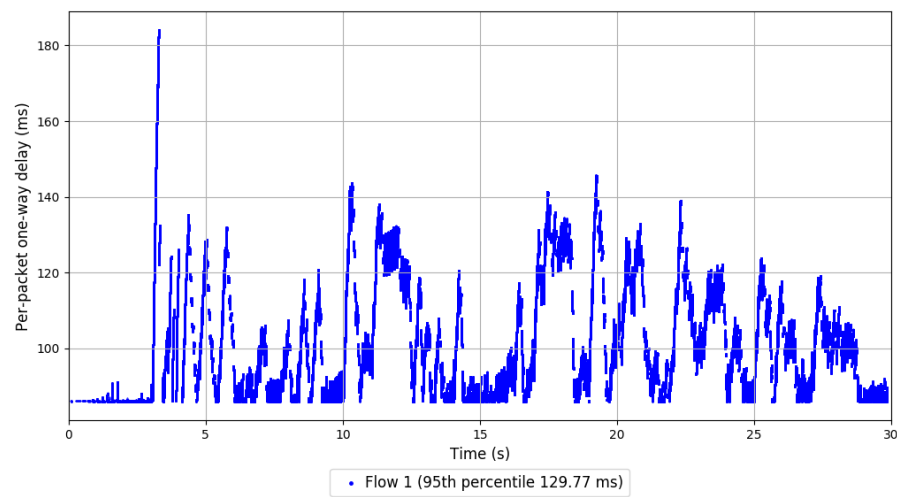
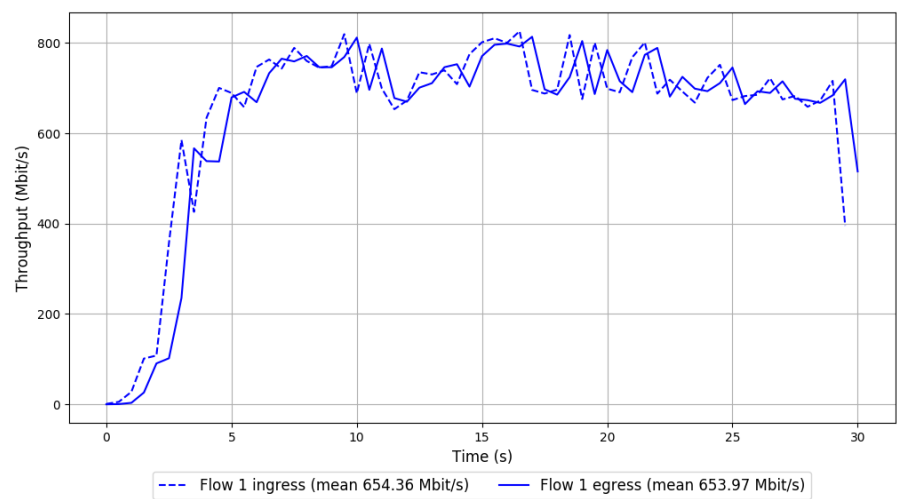


Run 3: Statistics of Indigo-Muses

Start at: 2018-09-25 05:54:18
End at: 2018-09-25 05:54:48
Local clock offset: 19.139 ms
Remote clock offset: 17.982 ms

Below is generated by plot.py at 2018-09-25 08:11:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 653.97 Mbit/s
95th percentile per-packet one-way delay: 129.771 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 653.97 Mbit/s
95th percentile per-packet one-way delay: 129.771 ms
Loss rate: 0.06%

Run 3: Report of Indigo-Muses — Data Link

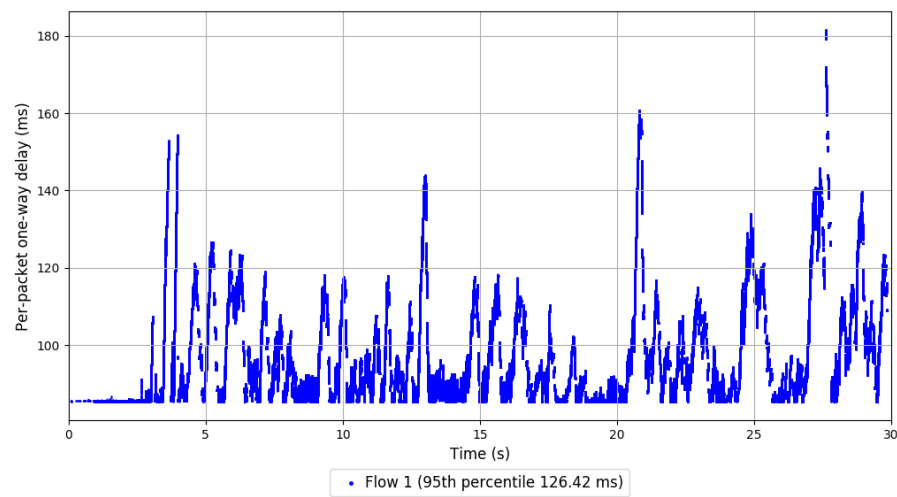
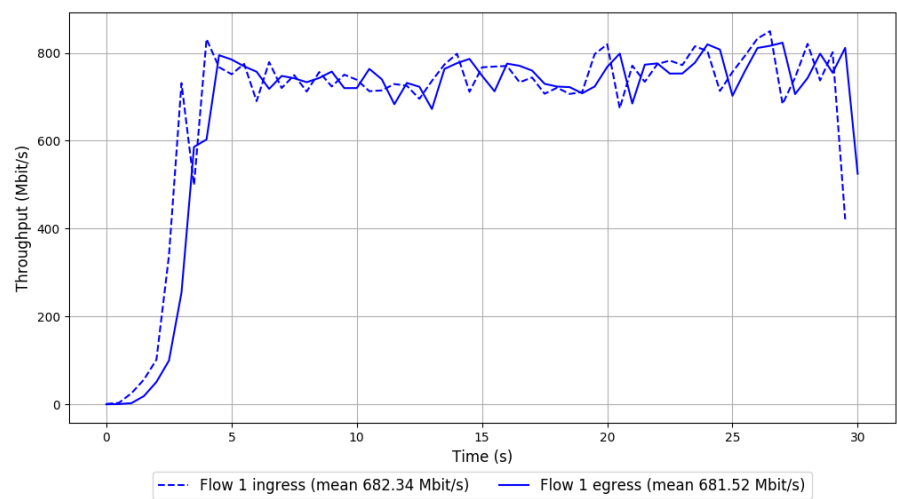


Run 4: Statistics of Indigo-Muses

Start at: 2018-09-25 06:21:56
End at: 2018-09-25 06:22:26
Local clock offset: 17.331 ms
Remote clock offset: 15.887 ms

Below is generated by plot.py at 2018-09-25 08:14:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 681.52 Mbit/s
95th percentile per-packet one-way delay: 126.418 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 681.52 Mbit/s
95th percentile per-packet one-way delay: 126.418 ms
Loss rate: 0.12%

Run 4: Report of Indigo-Muses — Data Link



Run 5: Statistics of Indigo-Muses

Start at: 2018-09-25 06:49:48

End at: 2018-09-25 06:50:18

Local clock offset: 7.432 ms

Remote clock offset: 7.108 ms

Below is generated by plot.py at 2018-09-25 08:14:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 646.59 Mbit/s

95th percentile per-packet one-way delay: 122.638 ms

Loss rate: 0.10%

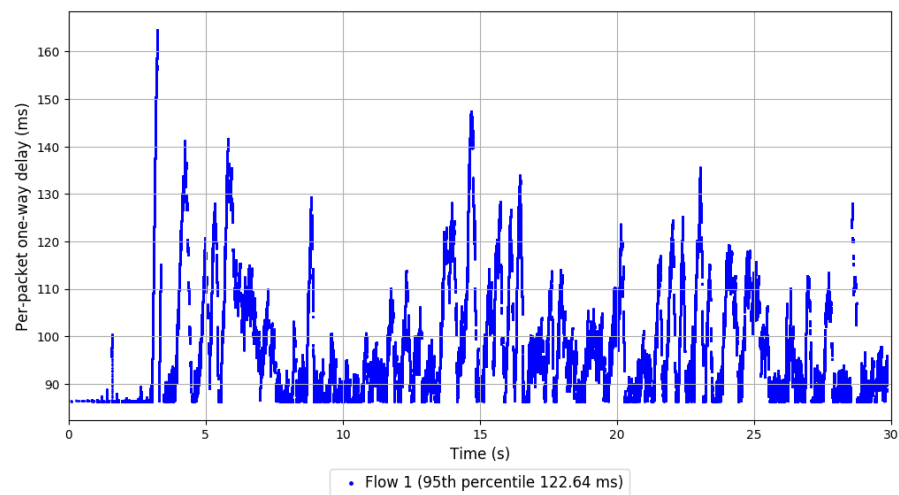
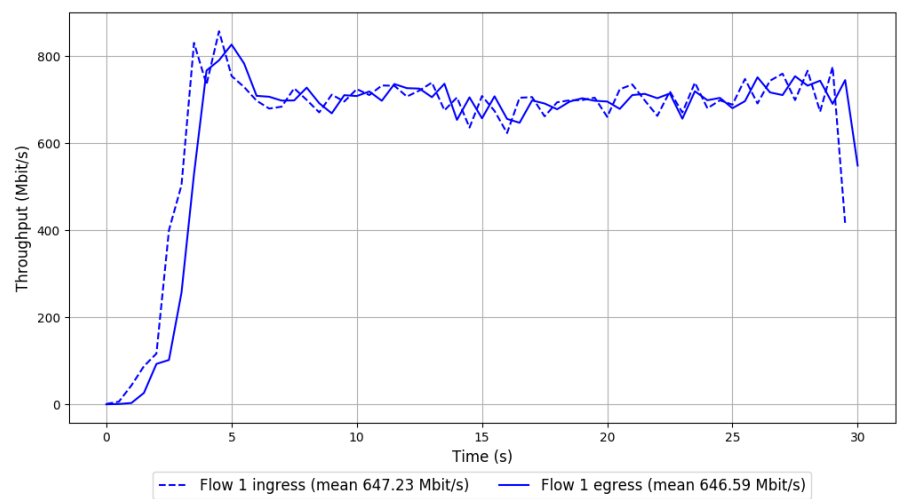
-- Flow 1:

Average throughput: 646.59 Mbit/s

95th percentile per-packet one-way delay: 122.638 ms

Loss rate: 0.10%

Run 5: Report of Indigo-Muses — Data Link

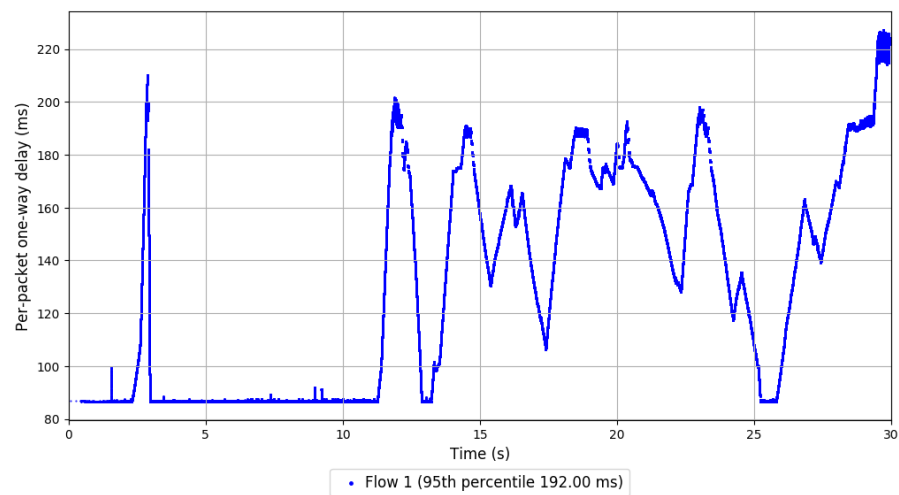
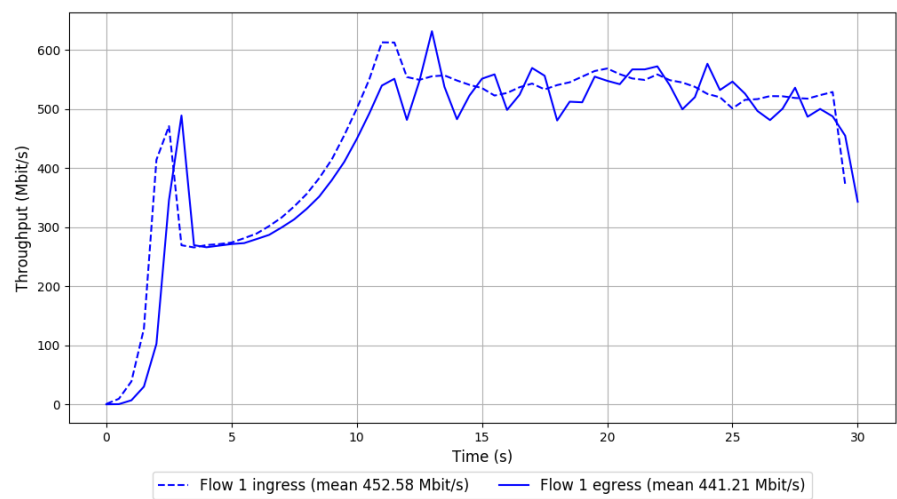


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-09-25 05:01:01
End at: 2018-09-25 05:01:31
Local clock offset: 11.625 ms
Remote clock offset: 10.949 ms

# Below is generated by plot.py at 2018-09-25 08:16:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 441.21 Mbit/s
95th percentile per-packet one-way delay: 191.995 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 441.21 Mbit/s
95th percentile per-packet one-way delay: 191.995 ms
Loss rate: 2.51%
```

Run 1: Report of PCC-Allegro — Data Link

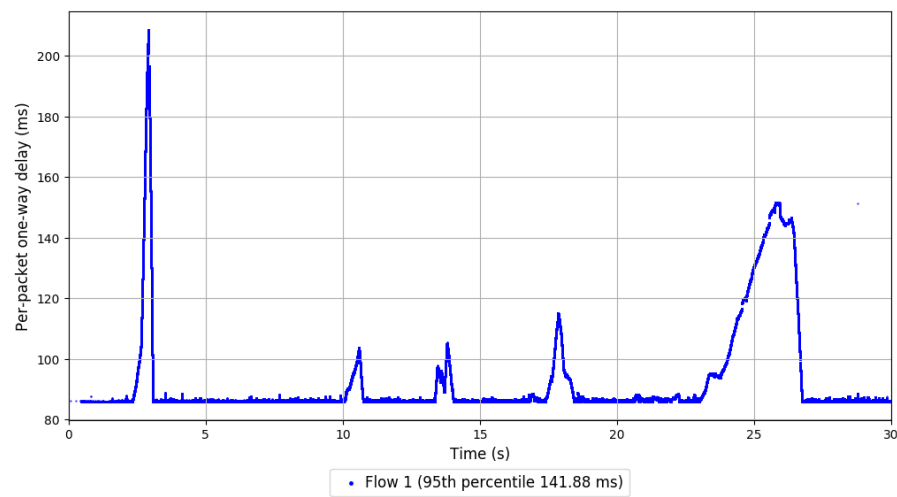
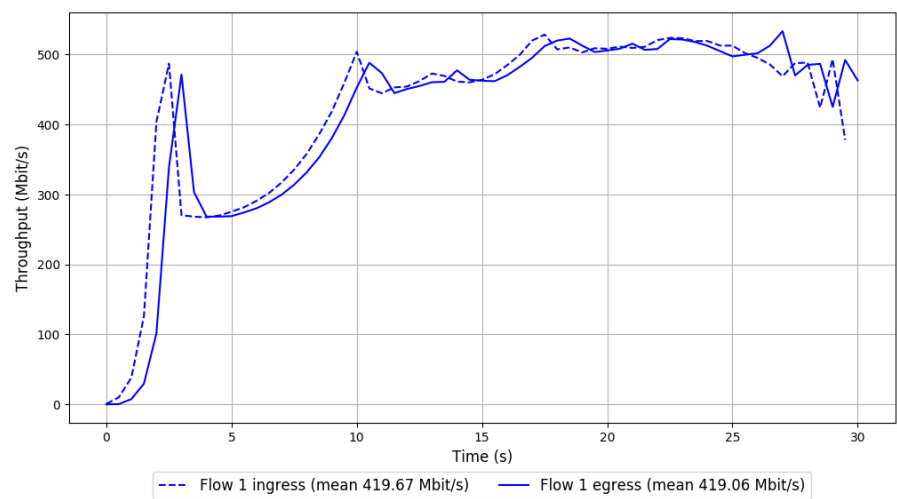


Run 2: Statistics of PCC-Allegro

Start at: 2018-09-25 05:29:05
End at: 2018-09-25 05:29:35
Local clock offset: 20.374 ms
Remote clock offset: 18.607 ms

Below is generated by plot.py at 2018-09-25 08:16:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 419.06 Mbit/s
95th percentile per-packet one-way delay: 141.882 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 419.06 Mbit/s
95th percentile per-packet one-way delay: 141.882 ms
Loss rate: 0.15%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-09-25 05:57:08

End at: 2018-09-25 05:57:38

Local clock offset: 16.352 ms

Remote clock offset: 15.021 ms

Below is generated by plot.py at 2018-09-25 08:25:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 488.78 Mbit/s

95th percentile per-packet one-way delay: 193.557 ms

Loss rate: 2.39%

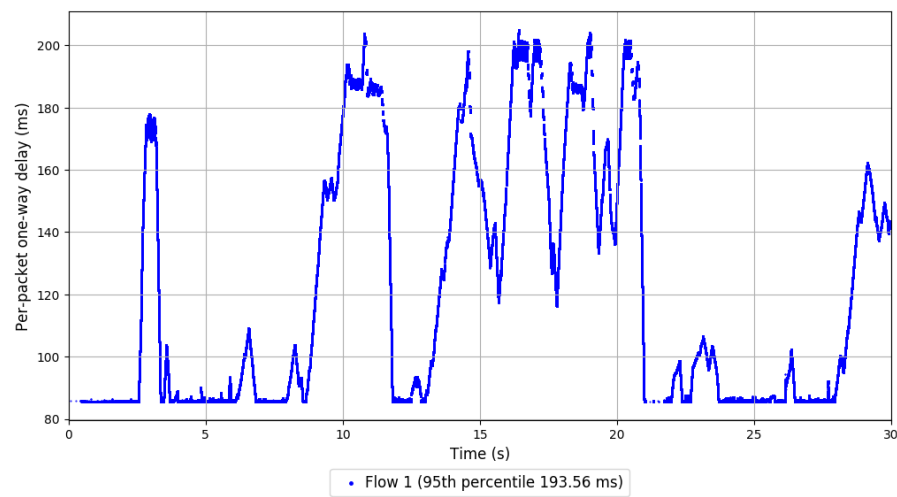
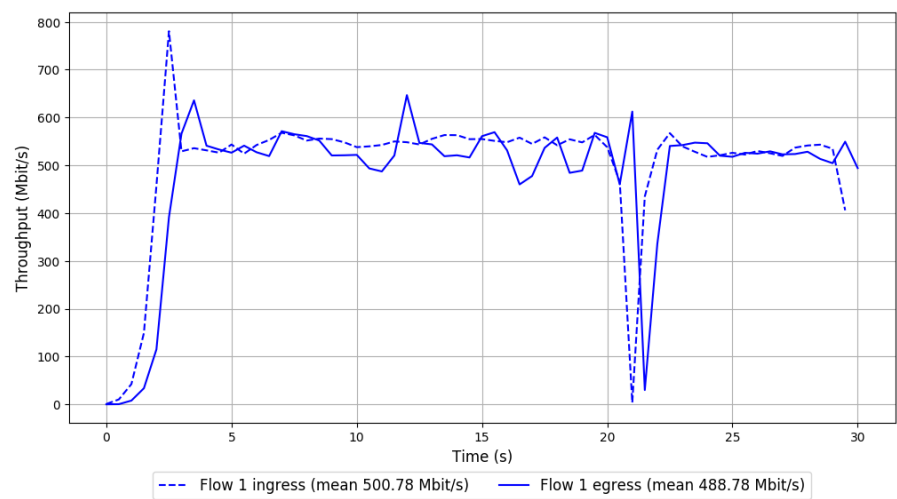
-- Flow 1:

Average throughput: 488.78 Mbit/s

95th percentile per-packet one-way delay: 193.557 ms

Loss rate: 2.39%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-09-25 06:24:47

End at: 2018-09-25 06:25:17

Local clock offset: 12.985 ms

Remote clock offset: 12.202 ms

Below is generated by plot.py at 2018-09-25 08:30:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 506.26 Mbit/s

95th percentile per-packet one-way delay: 192.815 ms

Loss rate: 2.75%

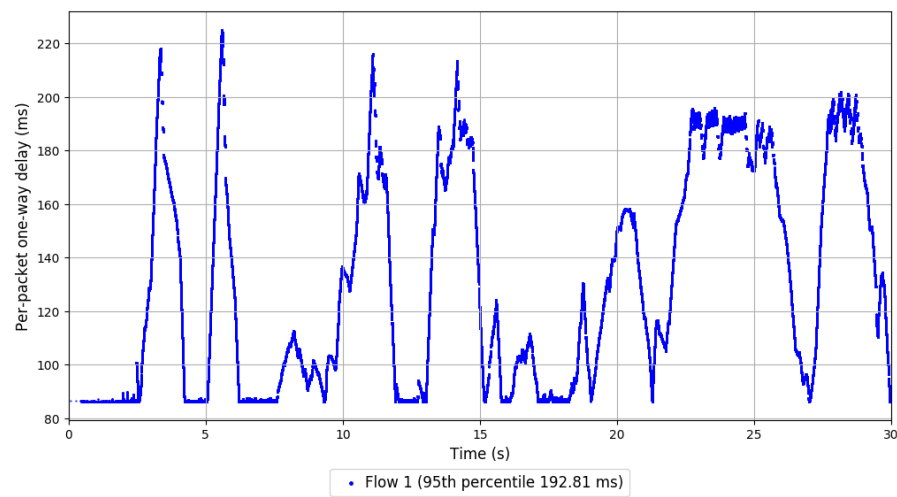
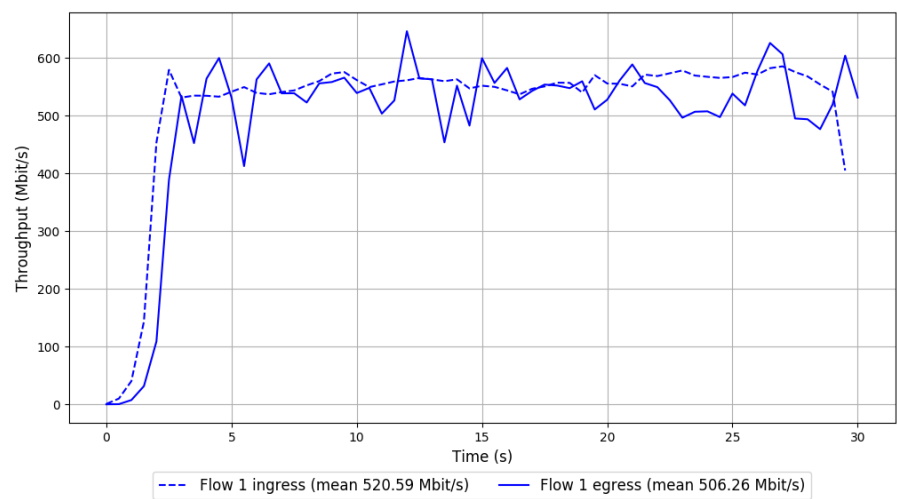
-- Flow 1:

Average throughput: 506.26 Mbit/s

95th percentile per-packet one-way delay: 192.815 ms

Loss rate: 2.75%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-09-25 06:52:36

End at: 2018-09-25 06:53:06

Local clock offset: 8.041 ms

Remote clock offset: 7.603 ms

Below is generated by plot.py at 2018-09-25 08:30:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 489.99 Mbit/s

95th percentile per-packet one-way delay: 185.233 ms

Loss rate: 0.98%

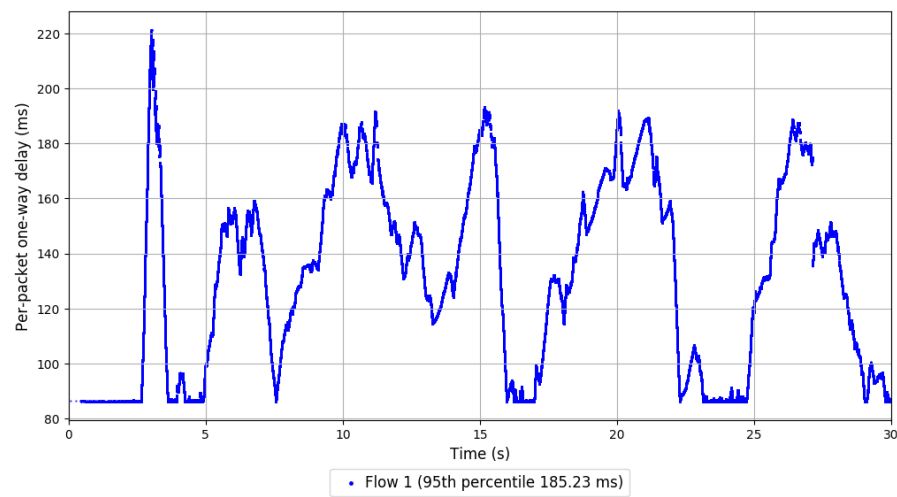
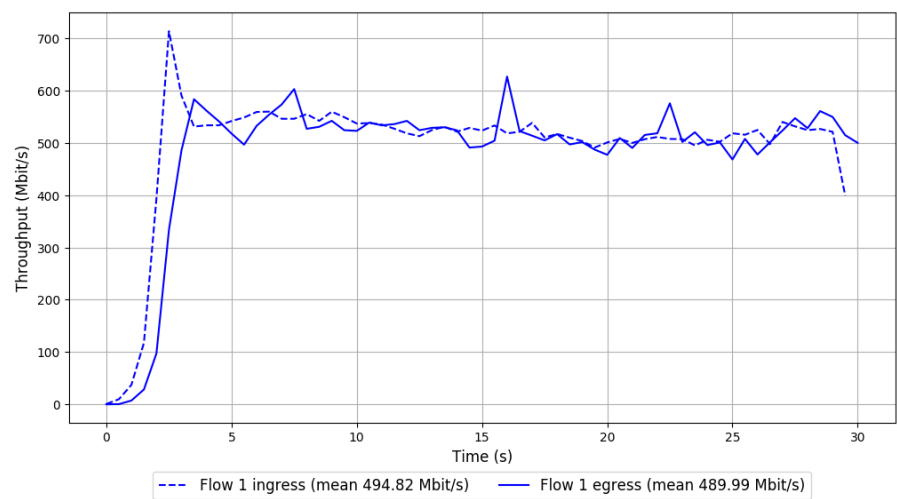
-- Flow 1:

Average throughput: 489.99 Mbit/s

95th percentile per-packet one-way delay: 185.233 ms

Loss rate: 0.98%

Run 5: Report of PCC-Allegro — Data Link

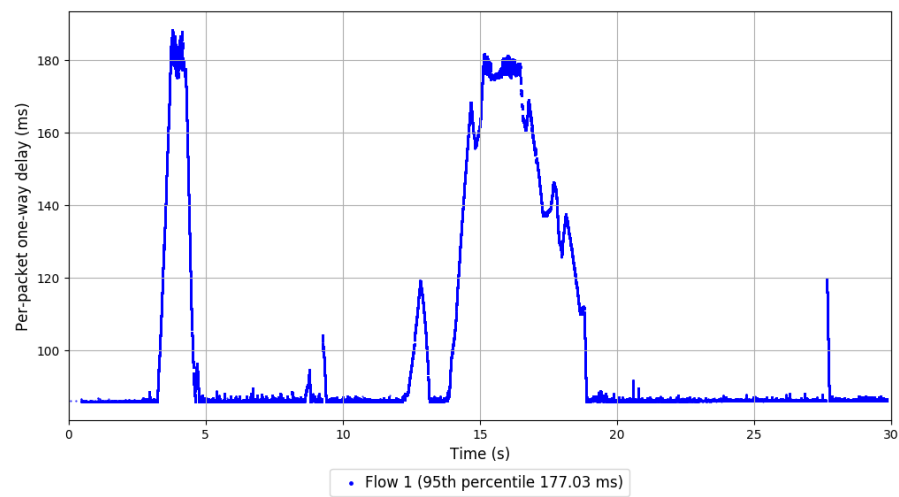
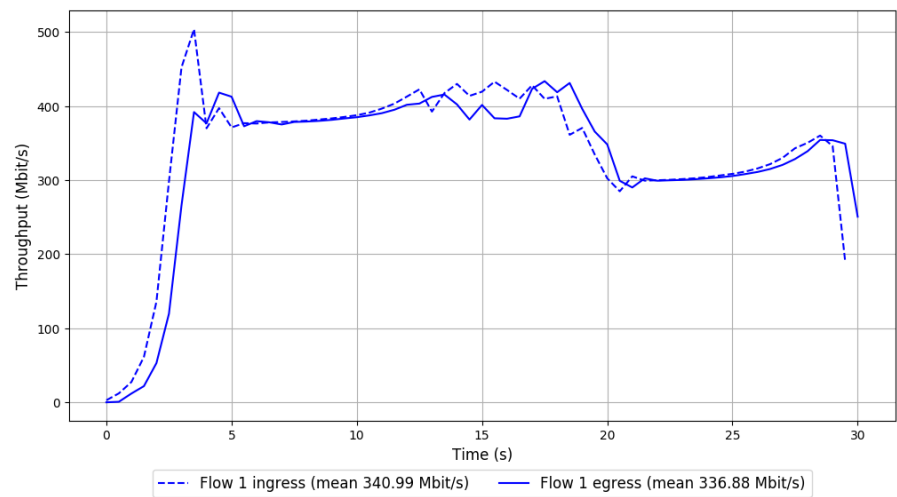


```
Run 1: Statistics of PCC-Expr

Start at: 2018-09-25 04:44:19
End at: 2018-09-25 04:44:49
Local clock offset: 5.173 ms
Remote clock offset: 4.955 ms

# Below is generated by plot.py at 2018-09-25 08:30:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 336.88 Mbit/s
95th percentile per-packet one-way delay: 177.031 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 336.88 Mbit/s
95th percentile per-packet one-way delay: 177.031 ms
Loss rate: 1.20%
```

Run 1: Report of PCC-Expr — Data Link

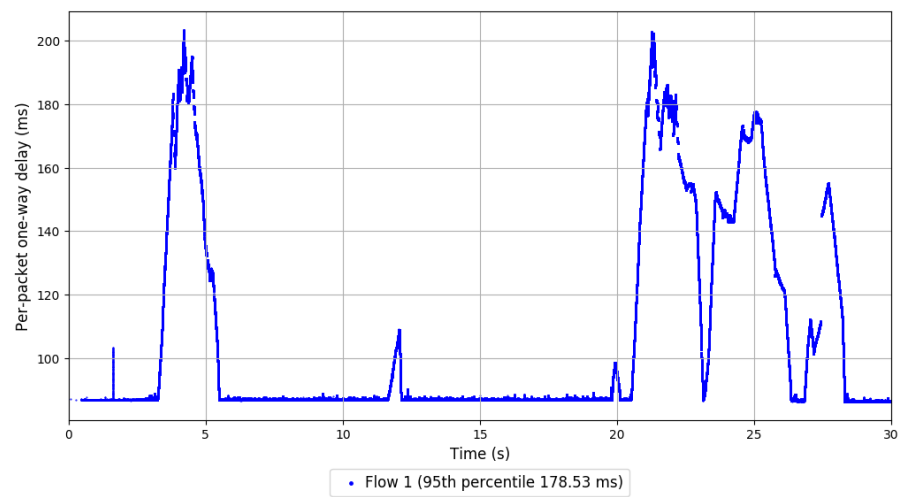
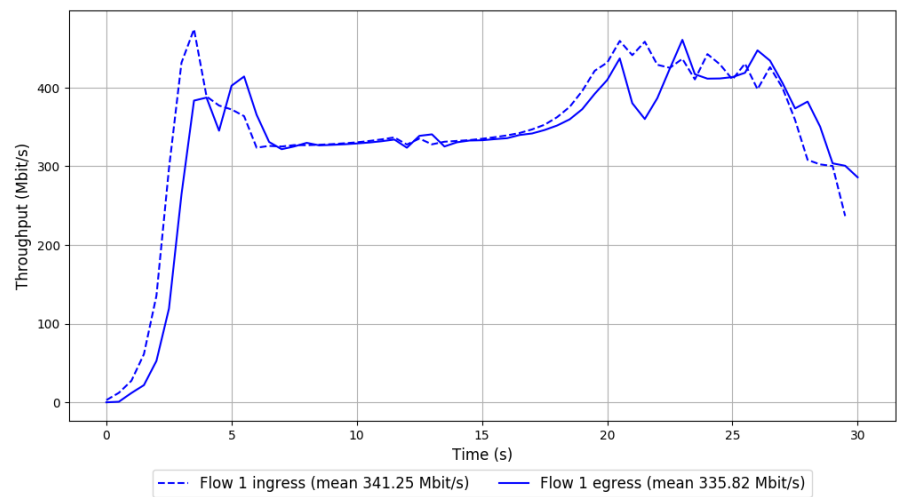


Run 2: Statistics of PCC-Expr

Start at: 2018-09-25 05:12:24
End at: 2018-09-25 05:12:54
Local clock offset: 22.985 ms
Remote clock offset: 21.253 ms

Below is generated by plot.py at 2018-09-25 08:30:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 335.82 Mbit/s
95th percentile per-packet one-way delay: 178.534 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 335.82 Mbit/s
95th percentile per-packet one-way delay: 178.534 ms
Loss rate: 1.59%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-09-25 05:40:20

End at: 2018-09-25 05:40:50

Local clock offset: 29.608 ms

Remote clock offset: 27.02 ms

Below is generated by plot.py at 2018-09-25 08:30:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 370.99 Mbit/s

95th percentile per-packet one-way delay: 174.709 ms

Loss rate: 3.03%

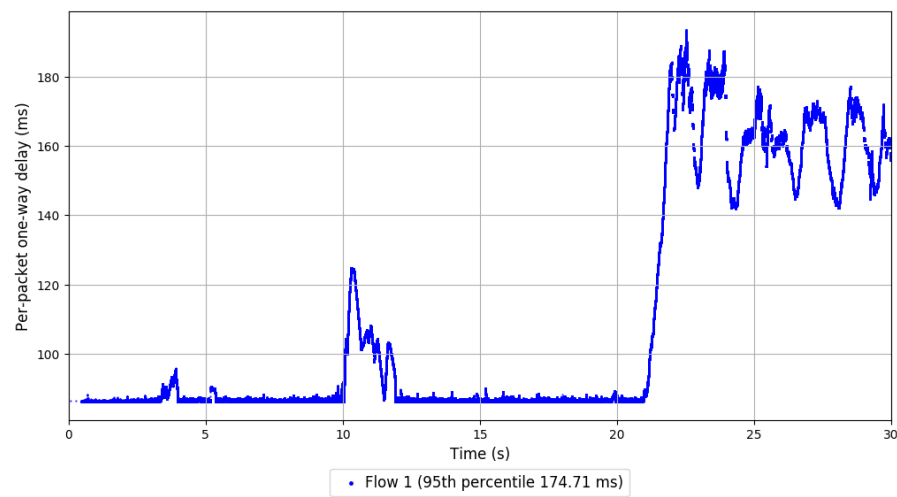
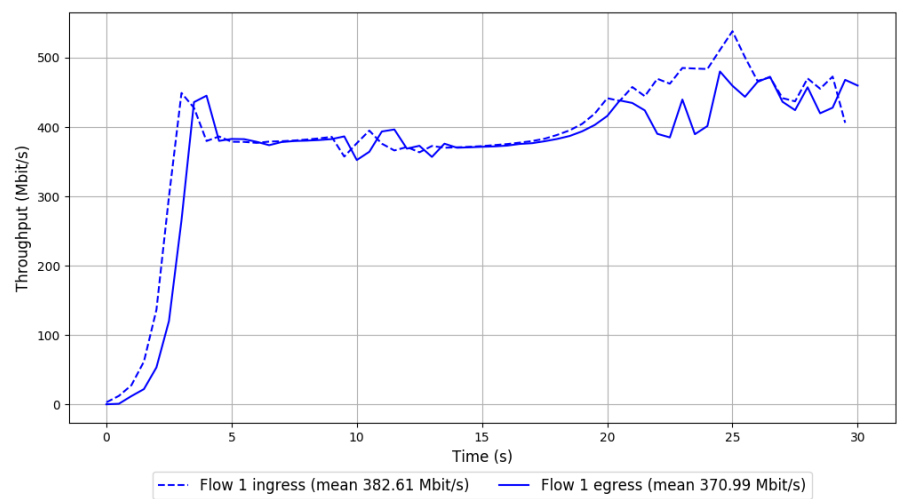
-- Flow 1:

Average throughput: 370.99 Mbit/s

95th percentile per-packet one-way delay: 174.709 ms

Loss rate: 3.03%

Run 3: Report of PCC-Expr — Data Link

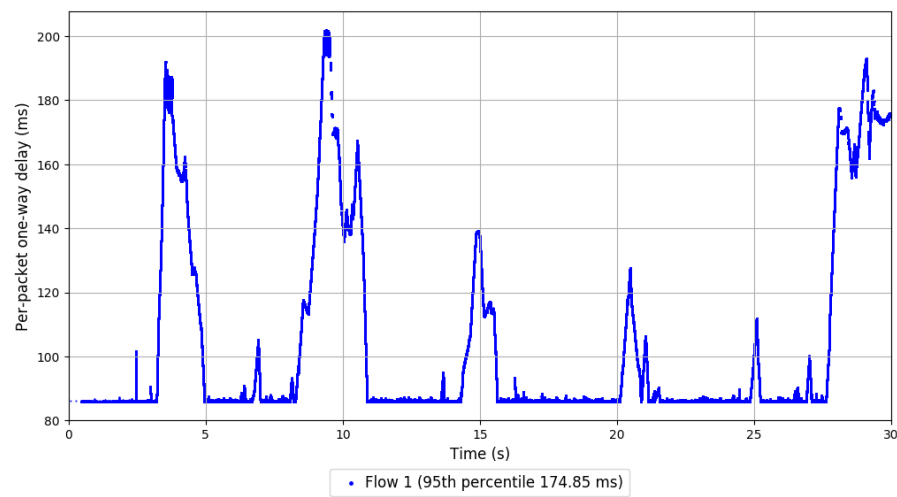
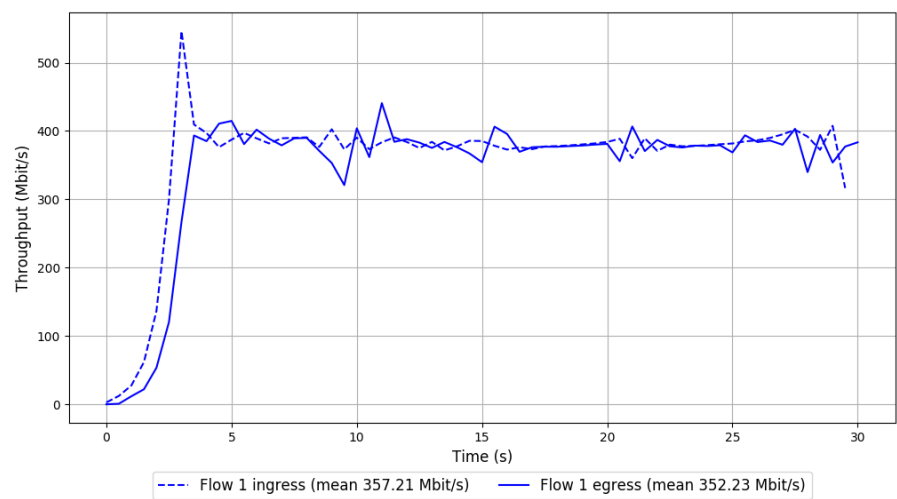


Run 4: Statistics of PCC-Expr

Start at: 2018-09-25 06:08:05
End at: 2018-09-25 06:08:35
Local clock offset: 13.755 ms
Remote clock offset: 12.704 ms

Below is generated by plot.py at 2018-09-25 08:30:05
Datalink statistics
-- Total of 1 flow:
Average throughput: 352.23 Mbit/s
95th percentile per-packet one-way delay: 174.852 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 352.23 Mbit/s
95th percentile per-packet one-way delay: 174.852 ms
Loss rate: 1.39%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-09-25 06:35:55

End at: 2018-09-25 06:36:25

Local clock offset: 7.0 ms

Remote clock offset: 6.376 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 355.21 Mbit/s

95th percentile per-packet one-way delay: 130.019 ms

Loss rate: 0.35%

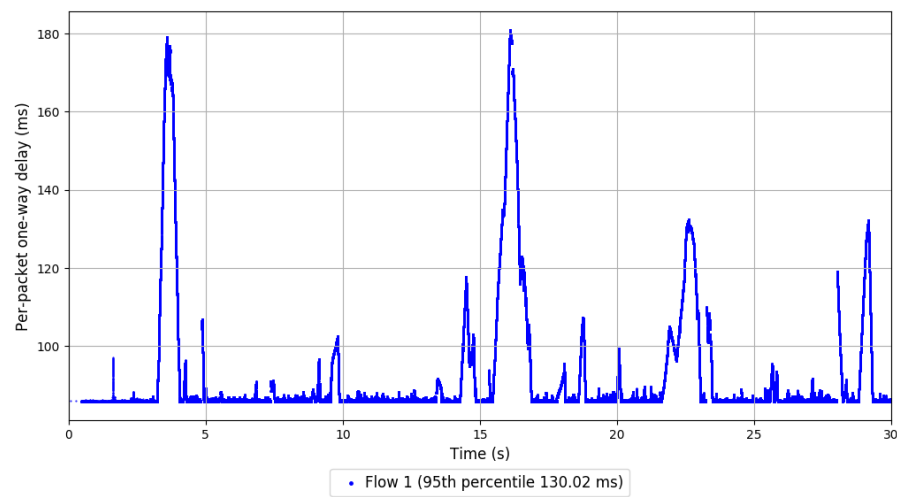
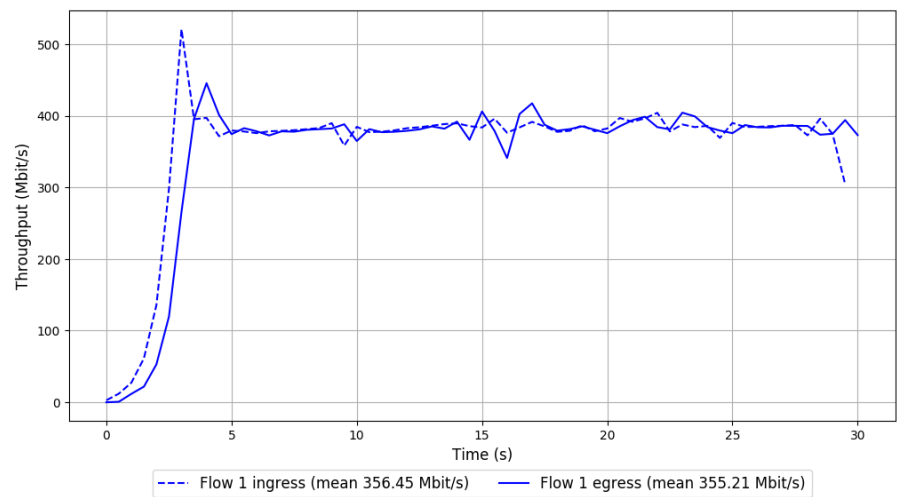
-- Flow 1:

Average throughput: 355.21 Mbit/s

95th percentile per-packet one-way delay: 130.019 ms

Loss rate: 0.35%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-09-25 05:04:04

End at: 2018-09-25 05:04:34

Local clock offset: 13.29 ms

Remote clock offset: 12.534 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.82 Mbit/s

95th percentile per-packet one-way delay: 86.415 ms

Loss rate: 0.00%

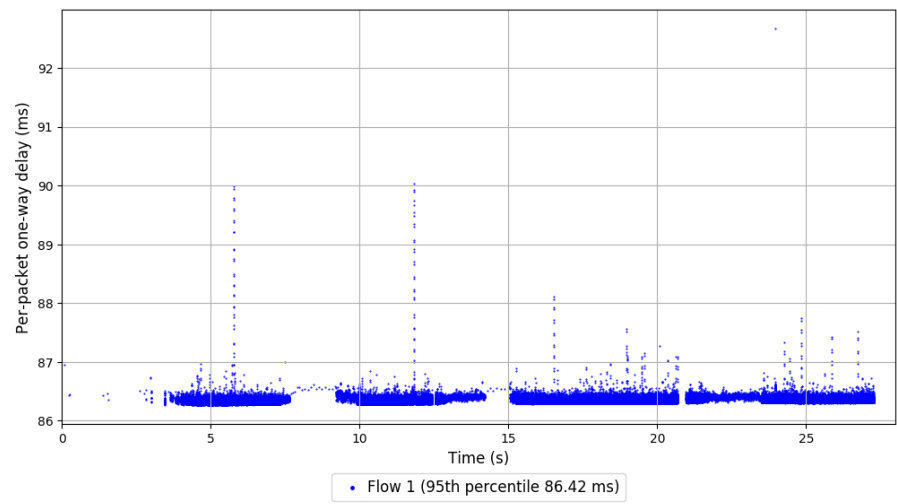
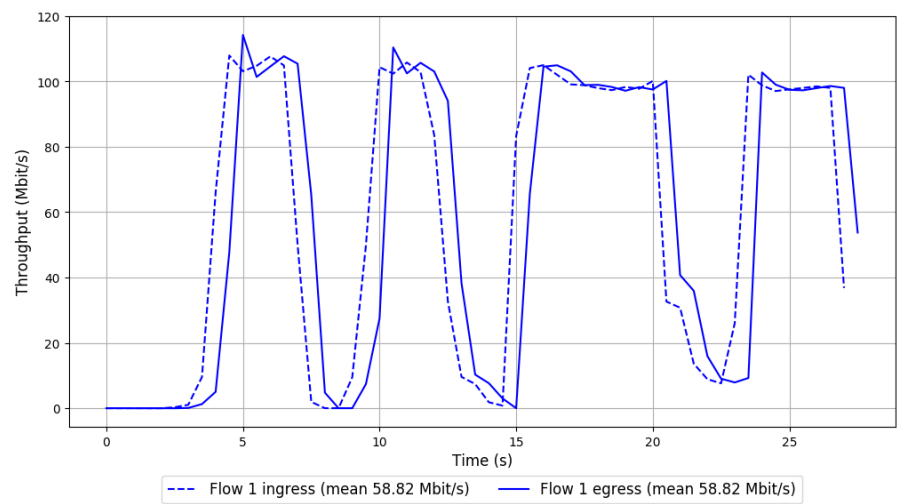
-- Flow 1:

Average throughput: 58.82 Mbit/s

95th percentile per-packet one-way delay: 86.415 ms

Loss rate: 0.00%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-09-25 05:32:05

End at: 2018-09-25 05:32:35

Local clock offset: 22.522 ms

Remote clock offset: 20.472 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.73 Mbit/s

95th percentile per-packet one-way delay: 85.863 ms

Loss rate: 0.00%

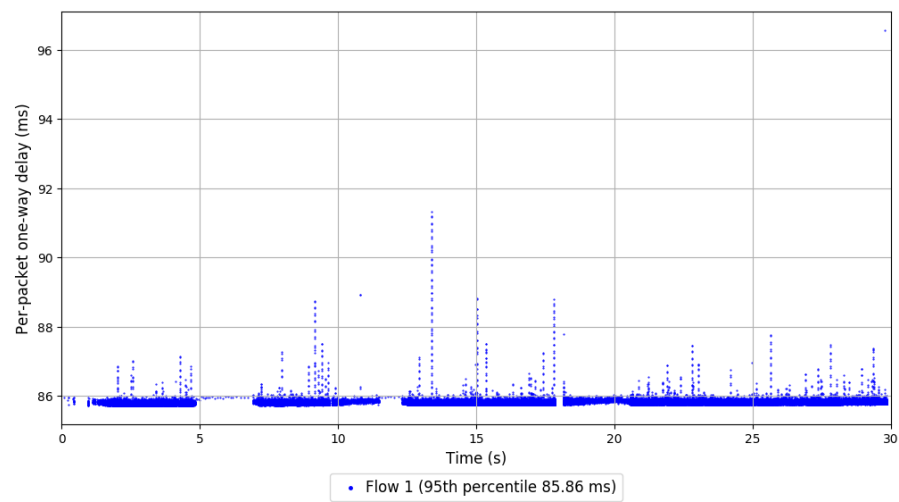
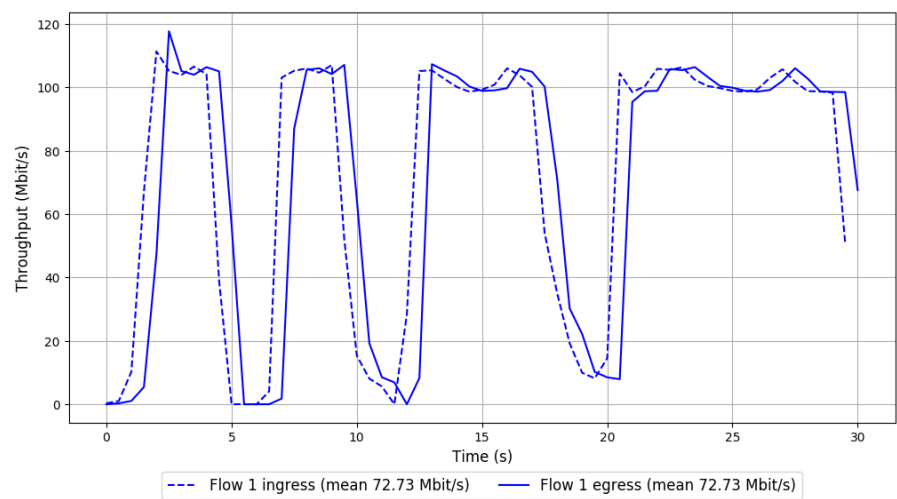
-- Flow 1:

Average throughput: 72.73 Mbit/s

95th percentile per-packet one-way delay: 85.863 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

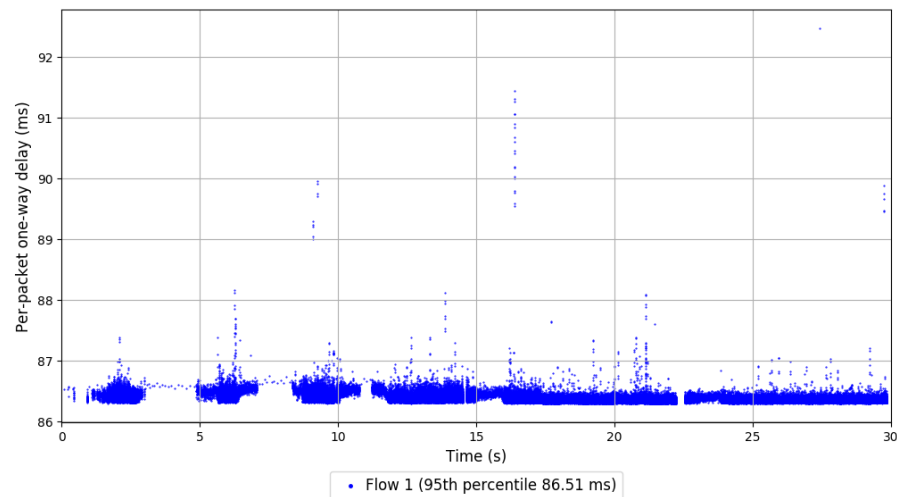
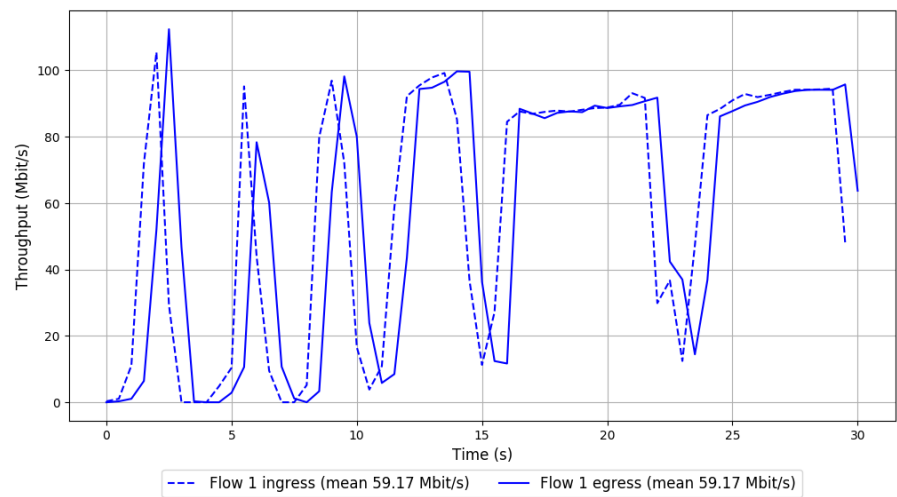


Run 3: Statistics of QUIC Cubic

Start at: 2018-09-25 06:00:10
End at: 2018-09-25 06:00:40
Local clock offset: 14.423 ms
Remote clock offset: 13.421 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.17 Mbit/s
95th percentile per-packet one-way delay: 86.508 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.17 Mbit/s
95th percentile per-packet one-way delay: 86.508 ms
Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-09-25 06:27:54

End at: 2018-09-25 06:28:24

Local clock offset: 10.127 ms

Remote clock offset: 9.247 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.80 Mbit/s

95th percentile per-packet one-way delay: 85.725 ms

Loss rate: 0.00%

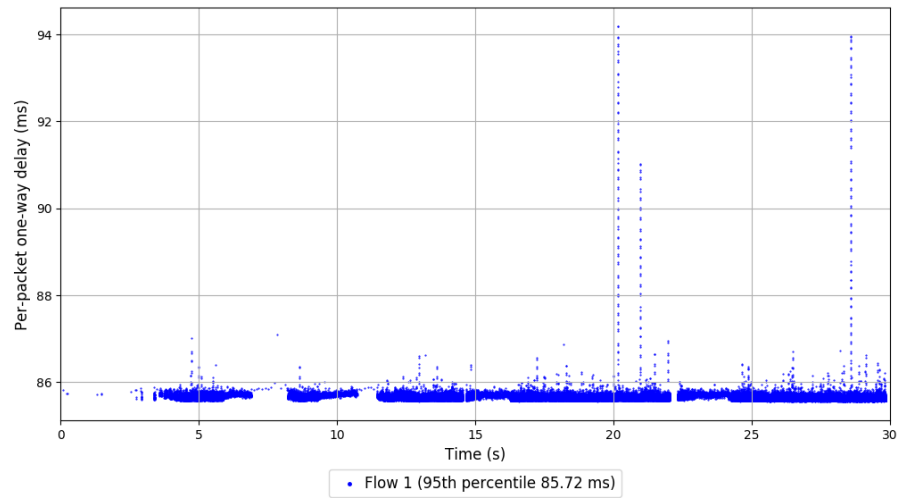
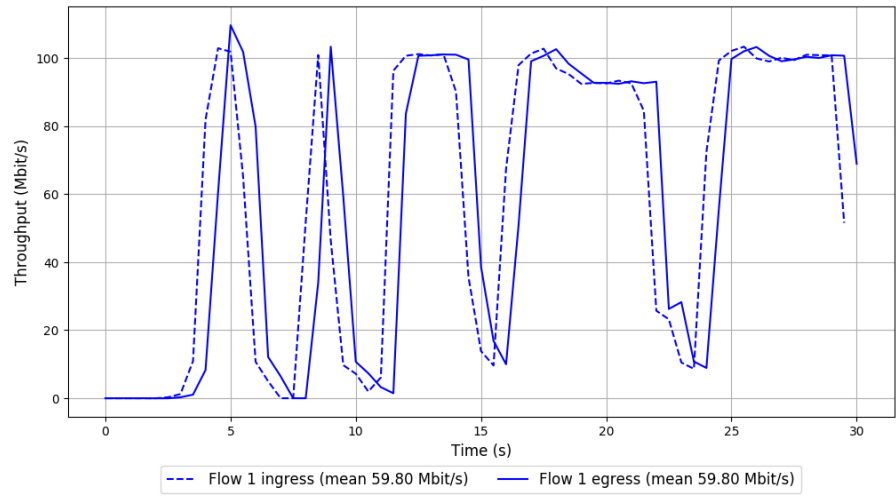
-- Flow 1:

Average throughput: 59.80 Mbit/s

95th percentile per-packet one-way delay: 85.725 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-09-25 06:55:43

End at: 2018-09-25 06:56:13

Local clock offset: 8.401 ms

Remote clock offset: 7.977 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.67 Mbit/s

95th percentile per-packet one-way delay: 86.408 ms

Loss rate: 0.00%

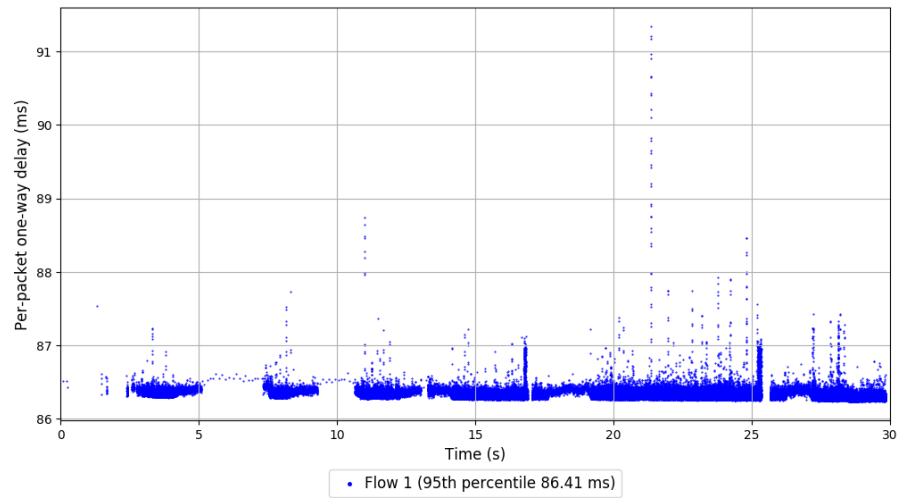
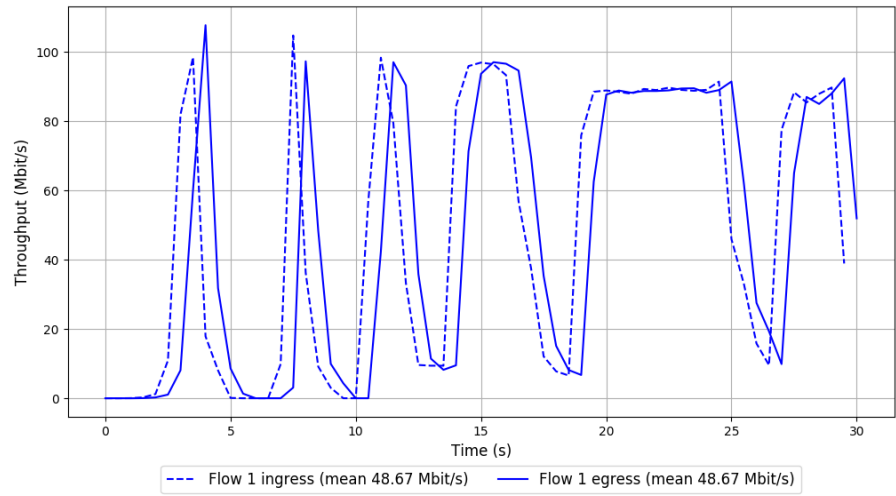
-- Flow 1:

Average throughput: 48.67 Mbit/s

95th percentile per-packet one-way delay: 86.408 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 1: Statistics of SCReAM

Start at: 2018-09-25 04:51:04

End at: 2018-09-25 04:51:34

Local clock offset: 8.32 ms

Remote clock offset: 7.84 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.494 ms

Loss rate: 0.00%

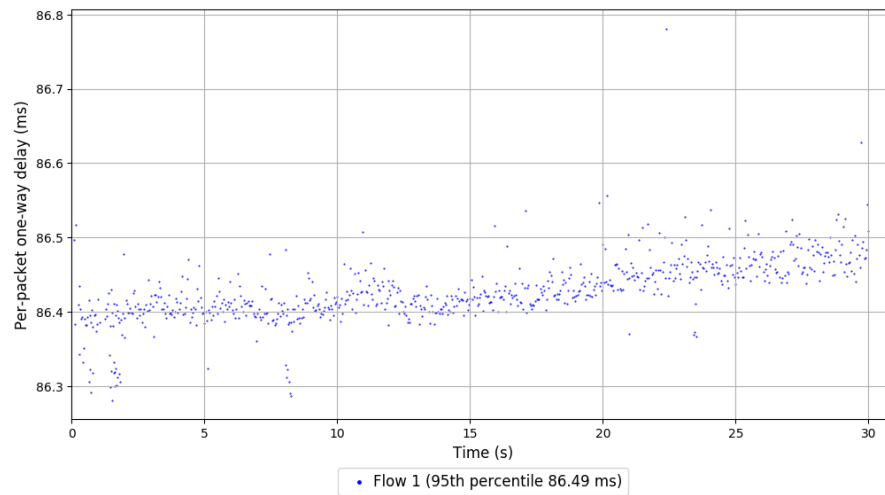
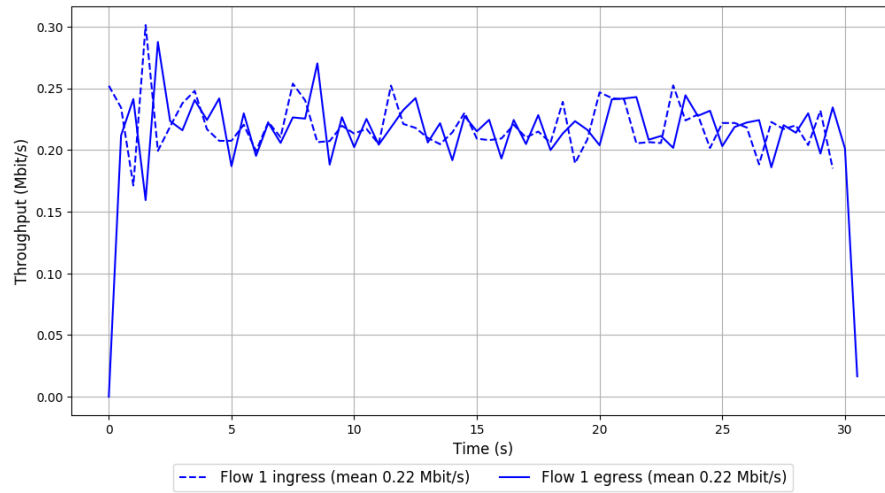
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.494 ms

Loss rate: 0.00%

Run 1: Report of SReAM — Data Link

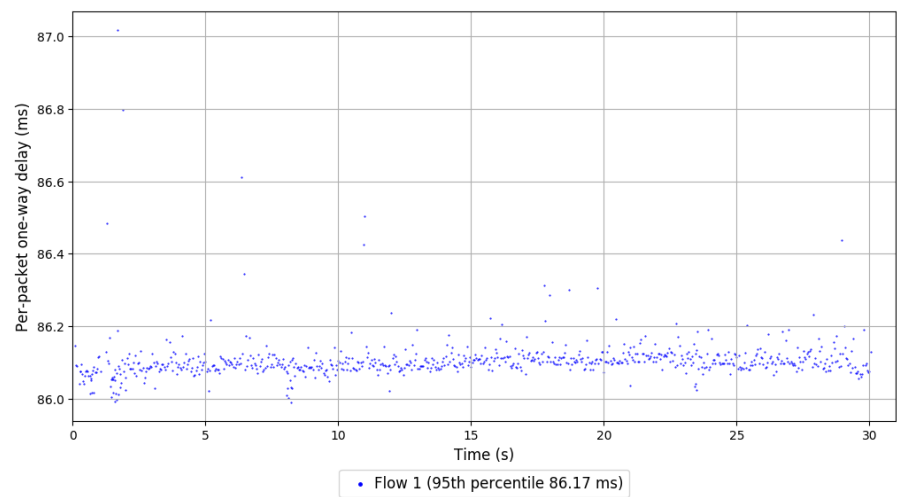
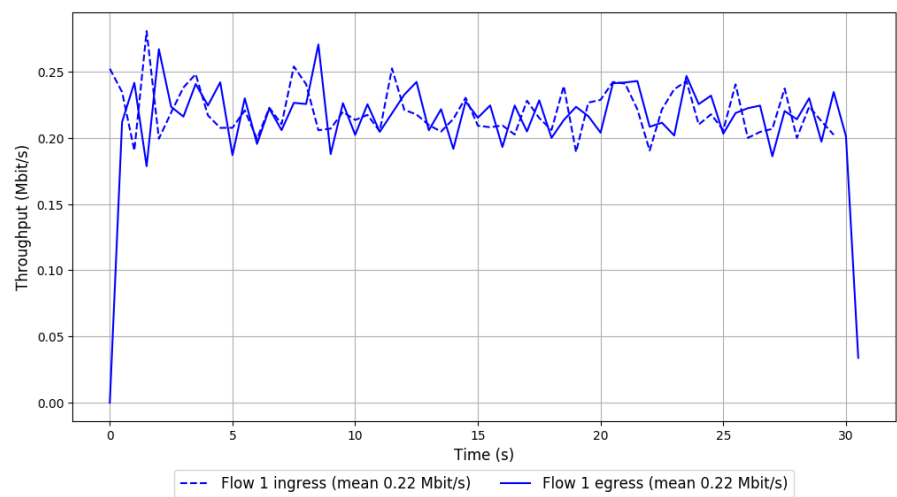


Run 2: Statistics of SCReAM

Start at: 2018-09-25 05:19:03
End at: 2018-09-25 05:19:33
Local clock offset: 17.996 ms
Remote clock offset: 16.701 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.168 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

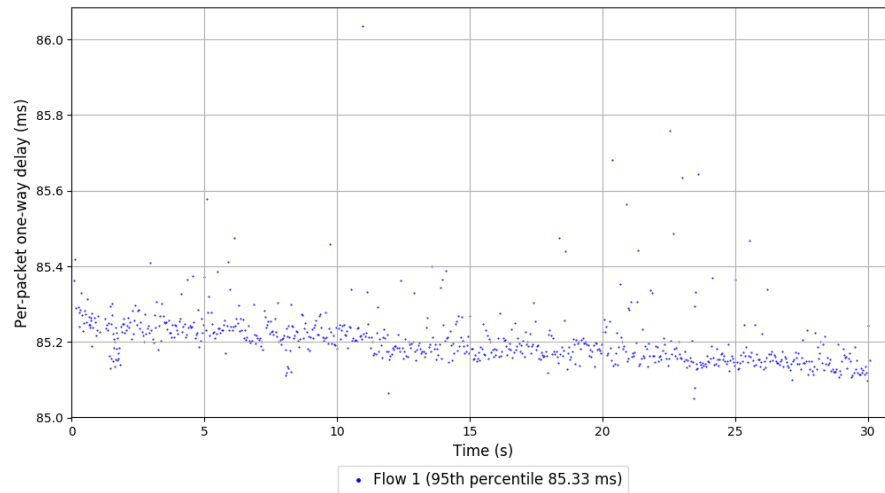
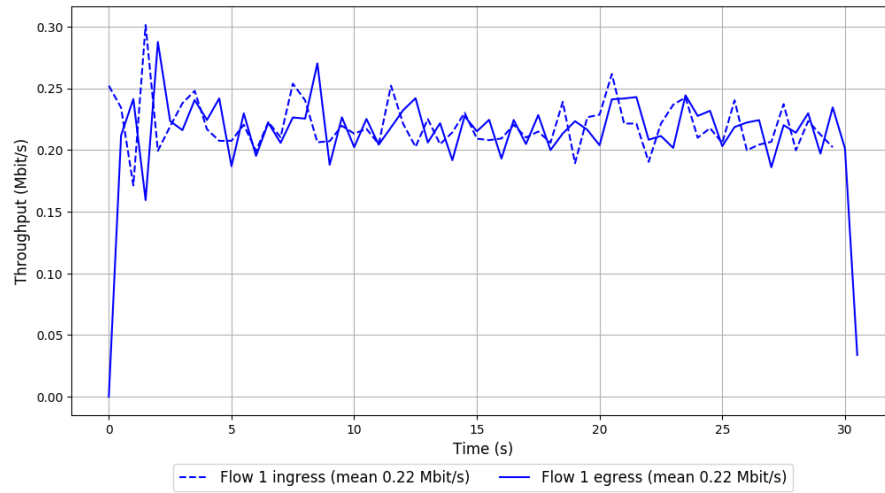


Run 3: Statistics of SCReAM

Start at: 2018-09-25 05:47:08
End at: 2018-09-25 05:47:38
Local clock offset: 35.92 ms
Remote clock offset: 32.866 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.327 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

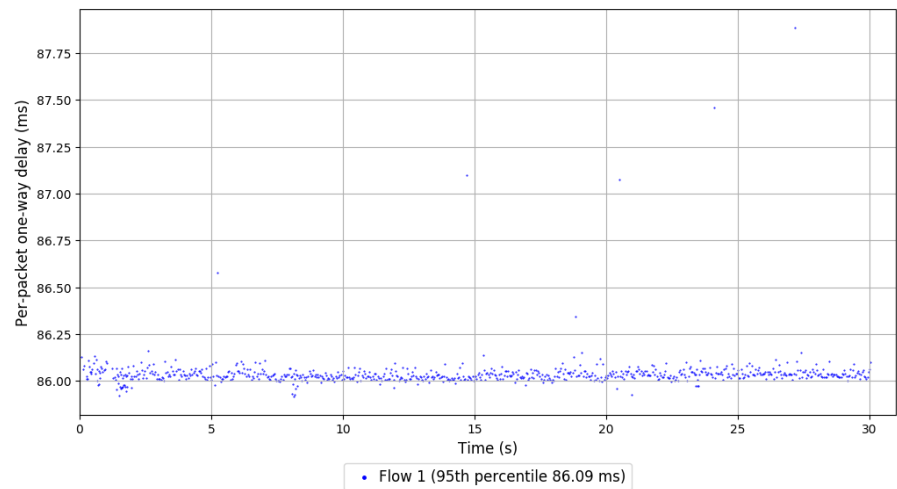
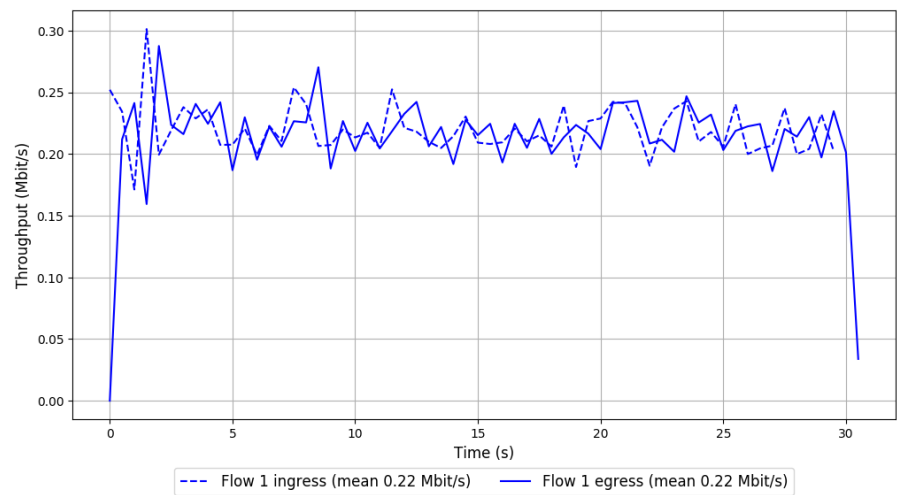


Run 4: Statistics of SCReAM

Start at: 2018-09-25 06:14:45
End at: 2018-09-25 06:15:15
Local clock offset: 15.749 ms
Remote clock offset: 14.299 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.094 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.094 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-09-25 06:42:40

End at: 2018-09-25 06:43:10

Local clock offset: 6.71 ms

Remote clock offset: 6.232 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.351 ms

Loss rate: 0.00%

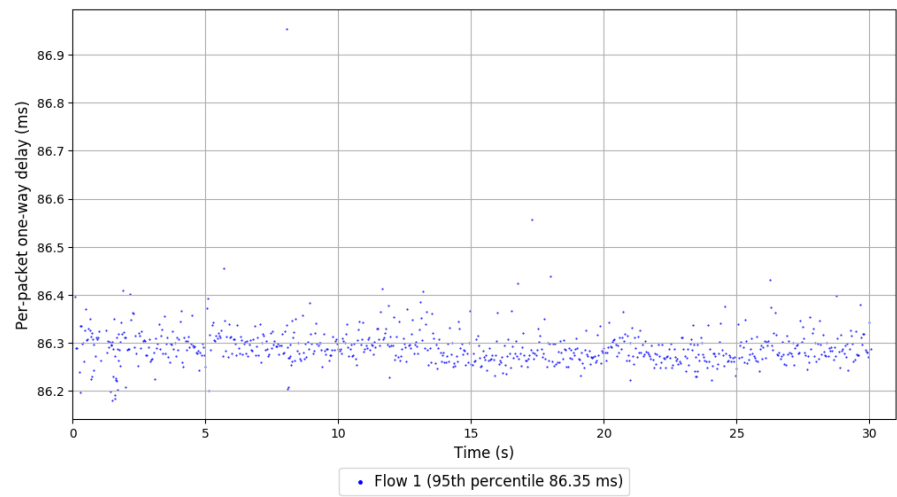
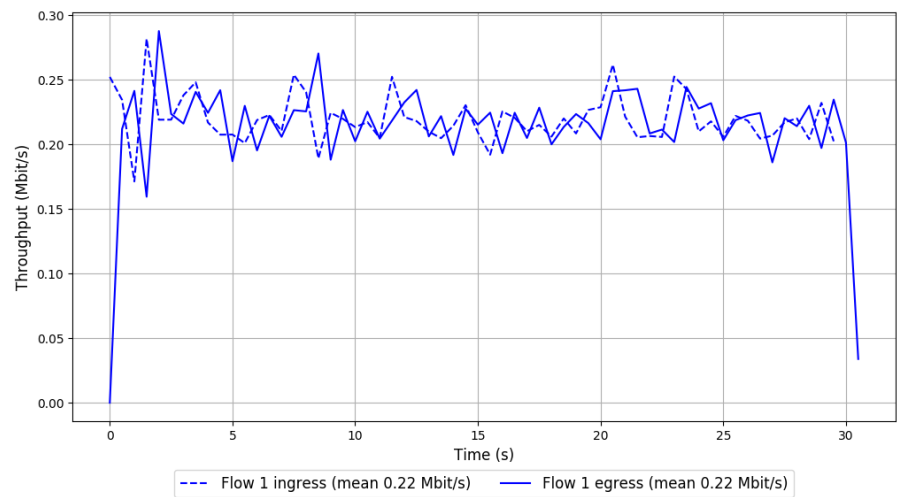
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.351 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

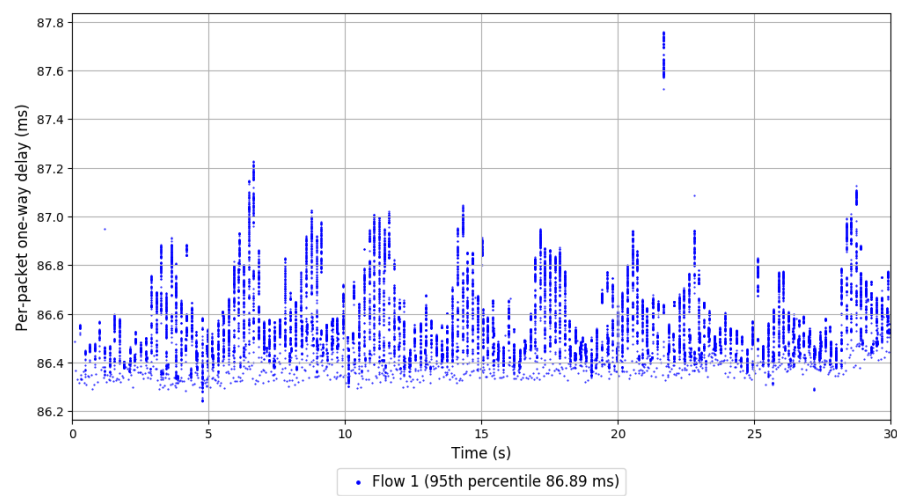
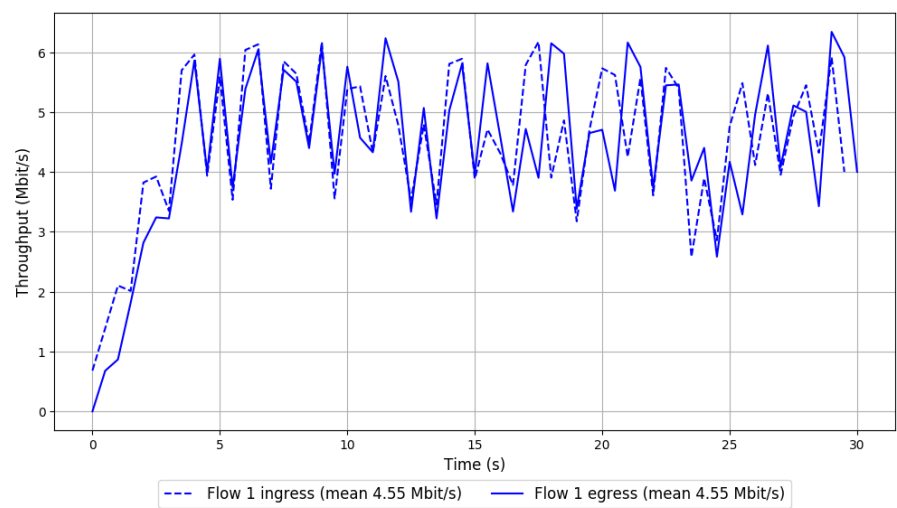


Run 1: Statistics of Sprout

Start at: 2018-09-25 05:07:55
End at: 2018-09-25 05:08:25
Local clock offset: 17.59 ms
Remote clock offset: 16.154 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 86.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 86.891 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

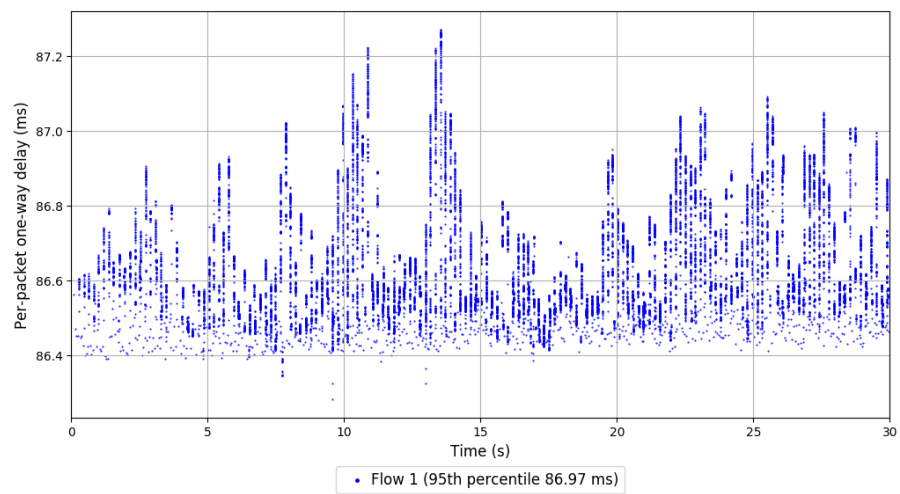
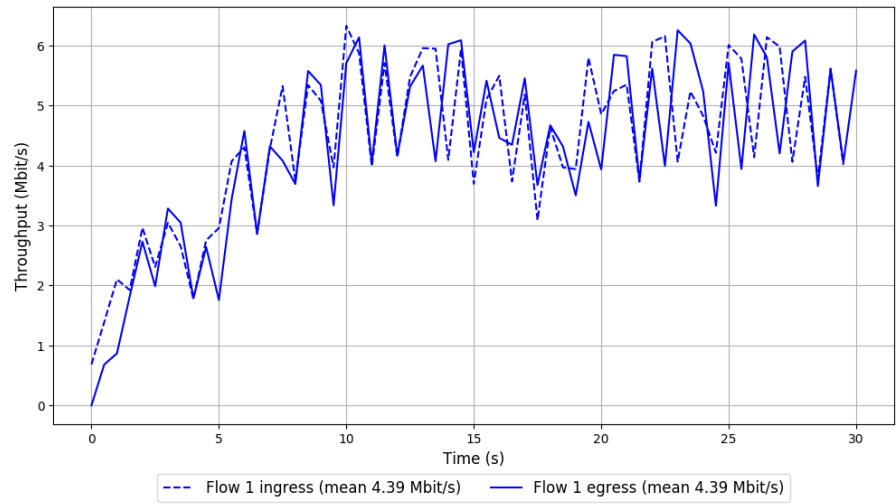


Run 2: Statistics of Sprout

Start at: 2018-09-25 05:35:55
End at: 2018-09-25 05:36:25
Local clock offset: 25.336 ms
Remote clock offset: 23.273 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 86.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.39 Mbit/s
95th percentile per-packet one-way delay: 86.974 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

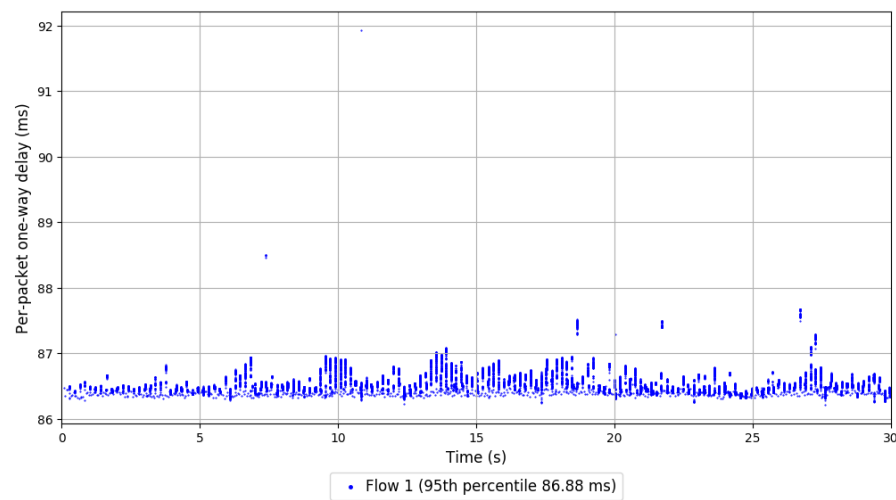
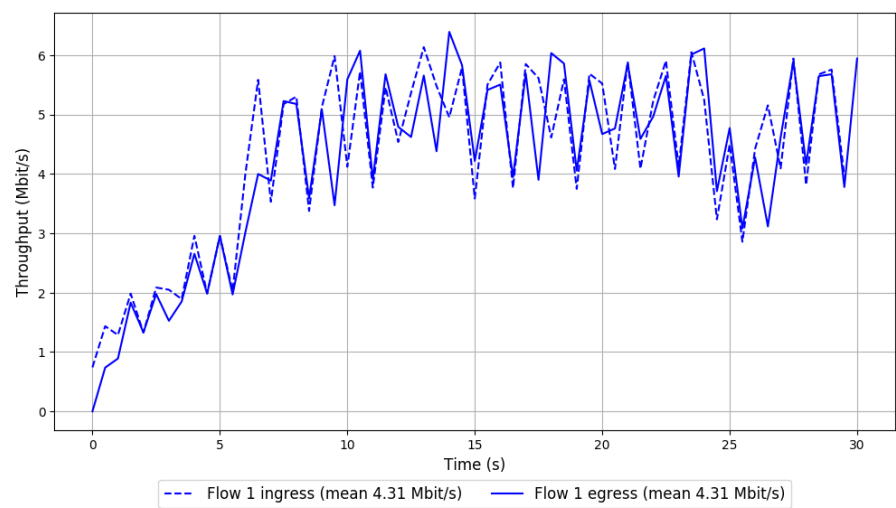


Run 3: Statistics of Sprout

Start at: 2018-09-25 06:03:59
End at: 2018-09-25 06:04:29
Local clock offset: 13.73 ms
Remote clock offset: 12.563 ms

Below is generated by plot.py at 2018-09-25 08:30:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 86.877 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 86.877 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-09-25 06:31:43

End at: 2018-09-25 06:32:13

Local clock offset: 7.9 ms

Remote clock offset: 7.351 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 86.522 ms

Loss rate: 0.00%

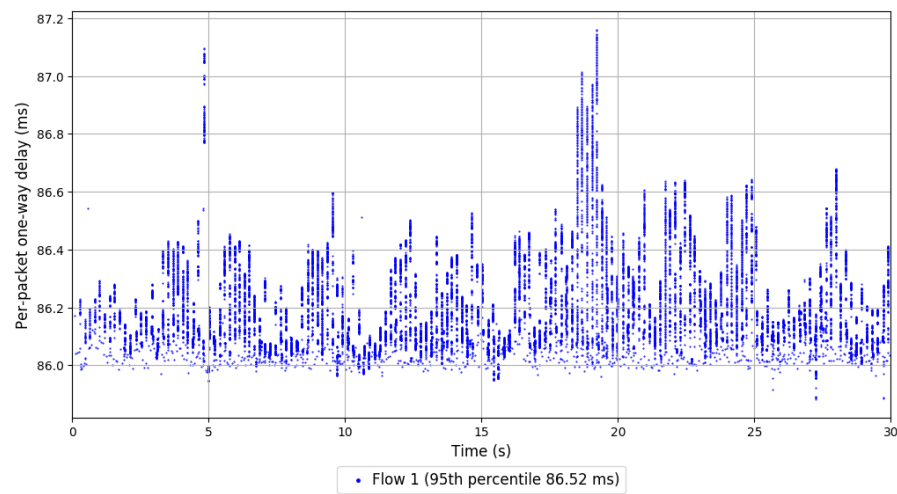
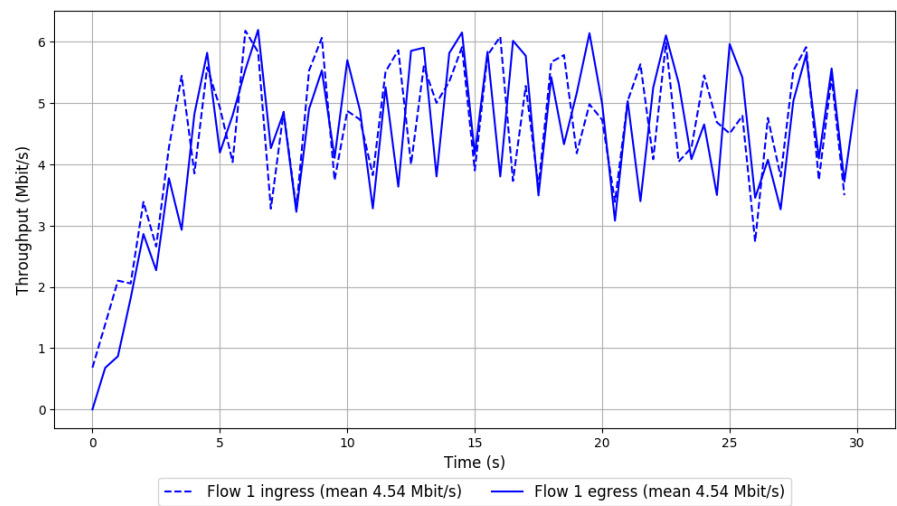
-- Flow 1:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 86.522 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-09-25 06:59:33

End at: 2018-09-25 07:00:03

Local clock offset: 5.425 ms

Remote clock offset: 5.562 ms

Below is generated by plot.py at 2018-09-25 08:30:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.00%

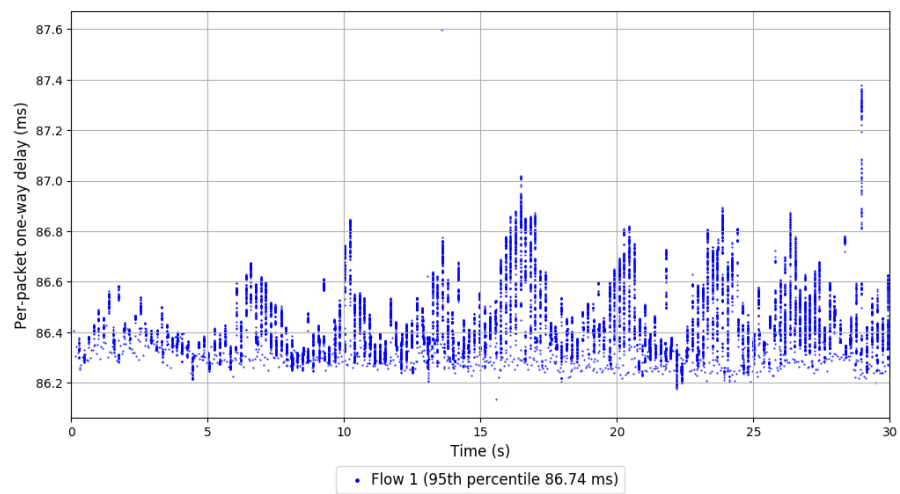
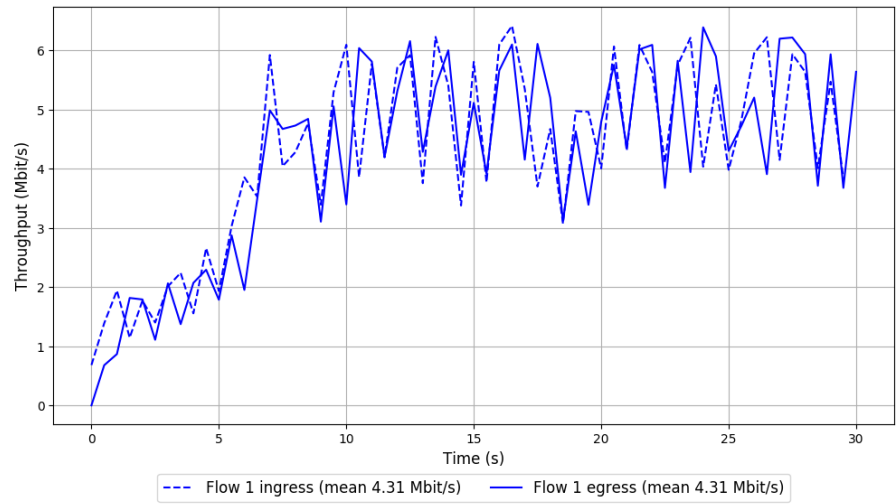
-- Flow 1:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

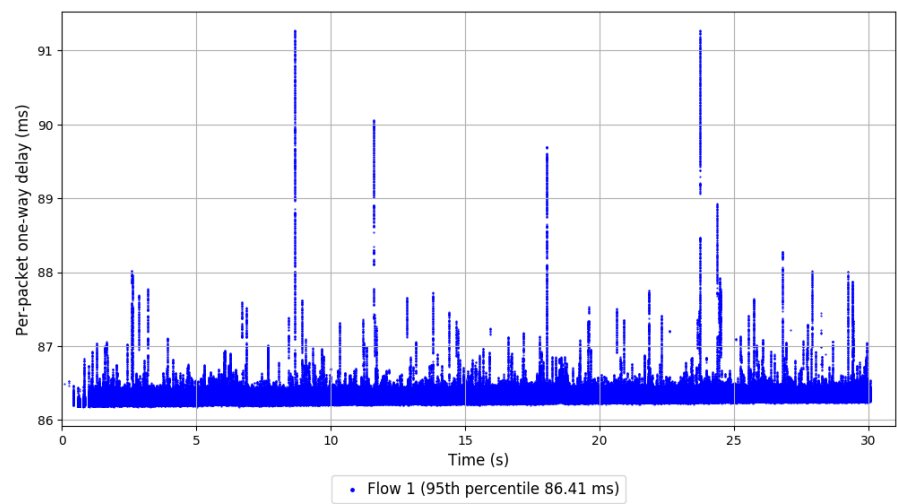
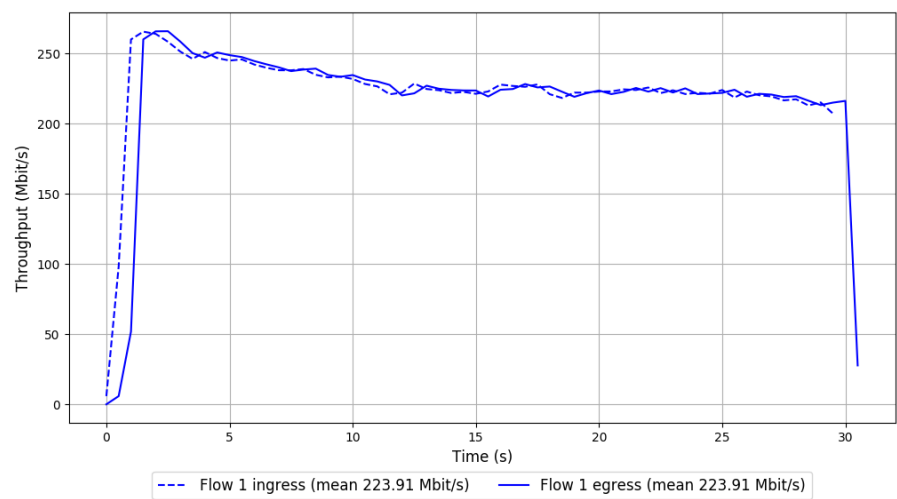


Run 1: Statistics of TaoVA-100x

Start at: 2018-09-25 05:06:25
End at: 2018-09-25 05:06:55
Local clock offset: 15.488 ms
Remote clock offset: 14.372 ms

Below is generated by plot.py at 2018-09-25 08:35:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 223.91 Mbit/s
95th percentile per-packet one-way delay: 86.409 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 223.91 Mbit/s
95th percentile per-packet one-way delay: 86.409 ms
Loss rate: 0.00%

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

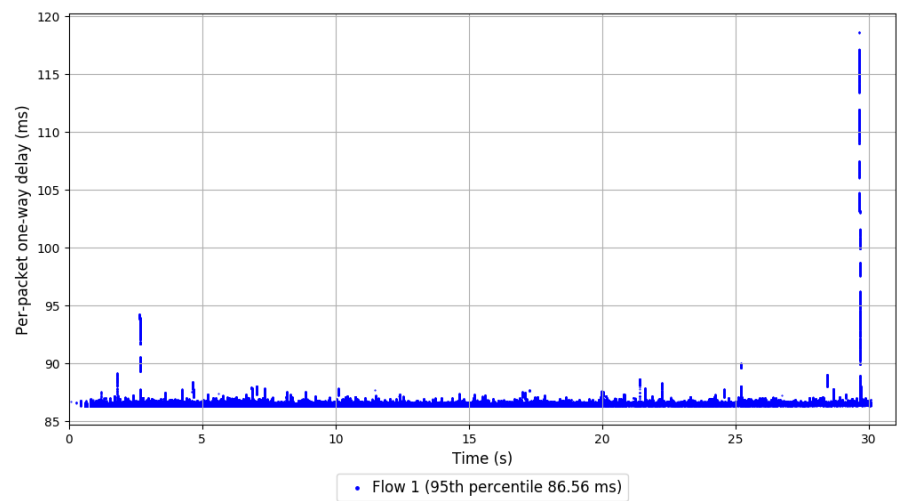
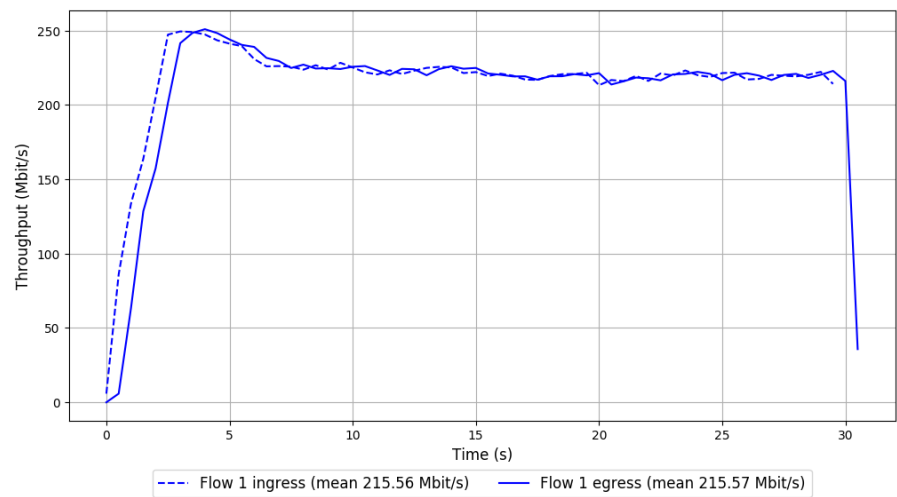


Run 2: Statistics of TaoVA-100x

Start at: 2018-09-25 05:34:26
End at: 2018-09-25 05:34:56
Local clock offset: 24.377 ms
Remote clock offset: 22.152 ms

Below is generated by plot.py at 2018-09-25 08:35:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 215.57 Mbit/s
95th percentile per-packet one-way delay: 86.564 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.57 Mbit/s
95th percentile per-packet one-way delay: 86.564 ms
Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-09-25 06:02:31

End at: 2018-09-25 06:03:01

Local clock offset: 13.881 ms

Remote clock offset: 12.72 ms

Below is generated by plot.py at 2018-09-25 08:35:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 217.20 Mbit/s

95th percentile per-packet one-way delay: 86.419 ms

Loss rate: 0.00%

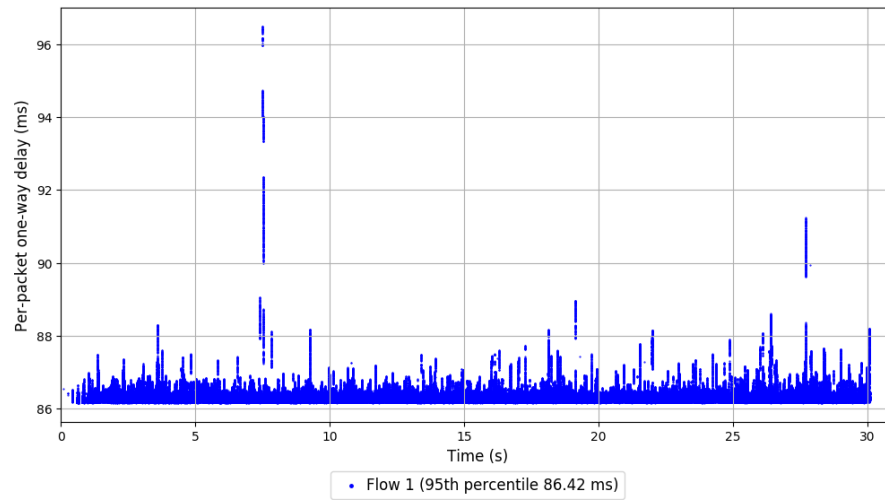
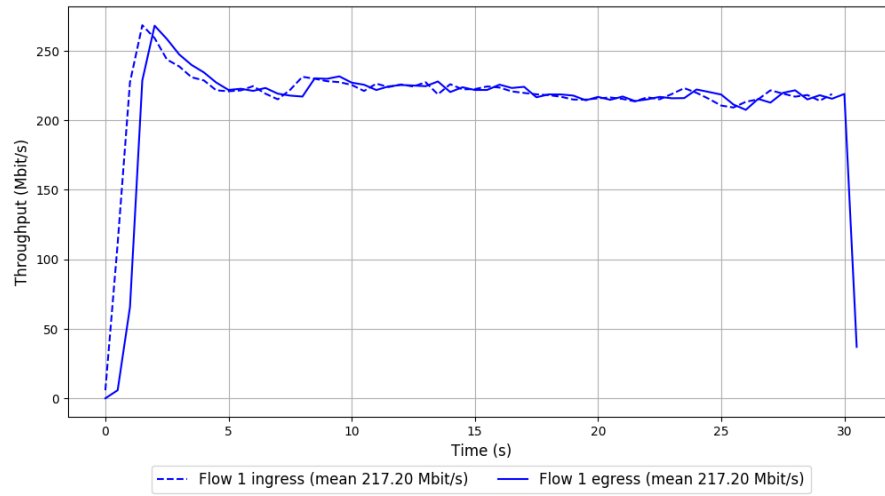
-- Flow 1:

Average throughput: 217.20 Mbit/s

95th percentile per-packet one-way delay: 86.419 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-09-25 06:30:15

End at: 2018-09-25 06:30:45

Local clock offset: 8.616 ms

Remote clock offset: 7.951 ms

Below is generated by plot.py at 2018-09-25 08:35:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 207.15 Mbit/s

95th percentile per-packet one-way delay: 85.916 ms

Loss rate: 0.00%

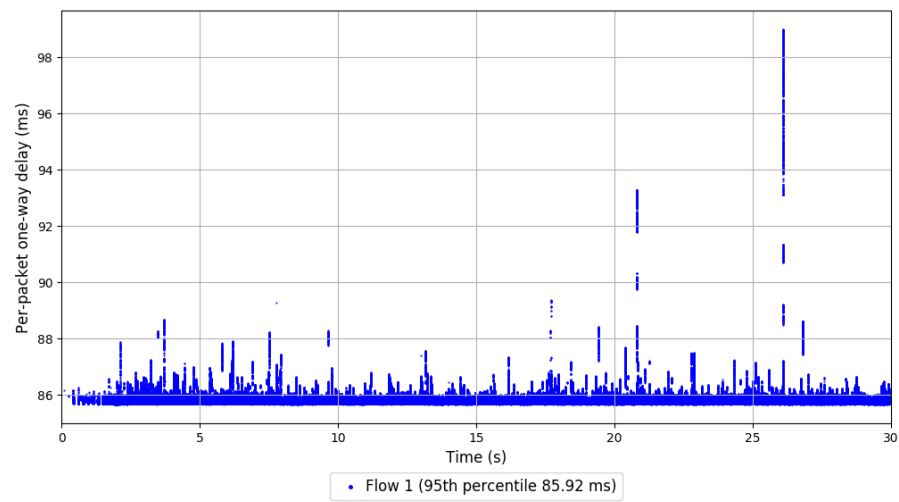
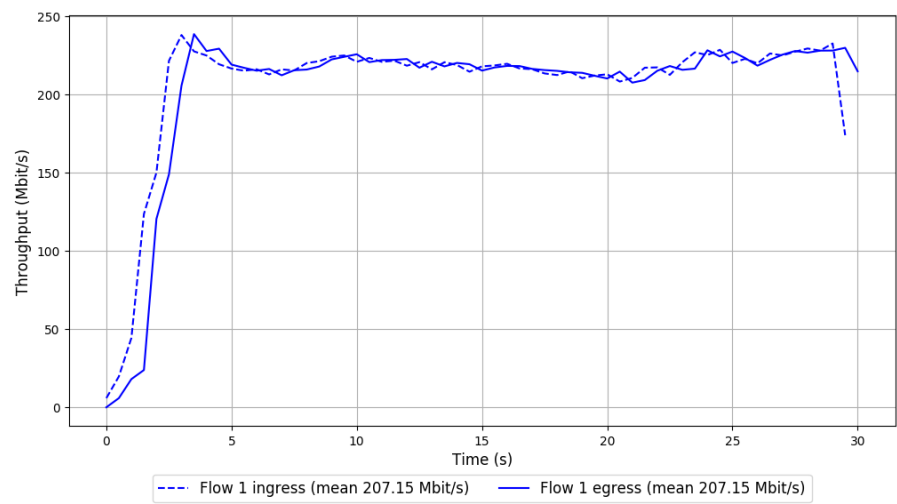
-- Flow 1:

Average throughput: 207.15 Mbit/s

95th percentile per-packet one-way delay: 85.916 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-09-25 06:58:04

End at: 2018-09-25 06:58:34

Local clock offset: 6.662 ms

Remote clock offset: 6.274 ms

Below is generated by plot.py at 2018-09-25 08:36:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.47 Mbit/s

95th percentile per-packet one-way delay: 86.291 ms

Loss rate: 0.00%

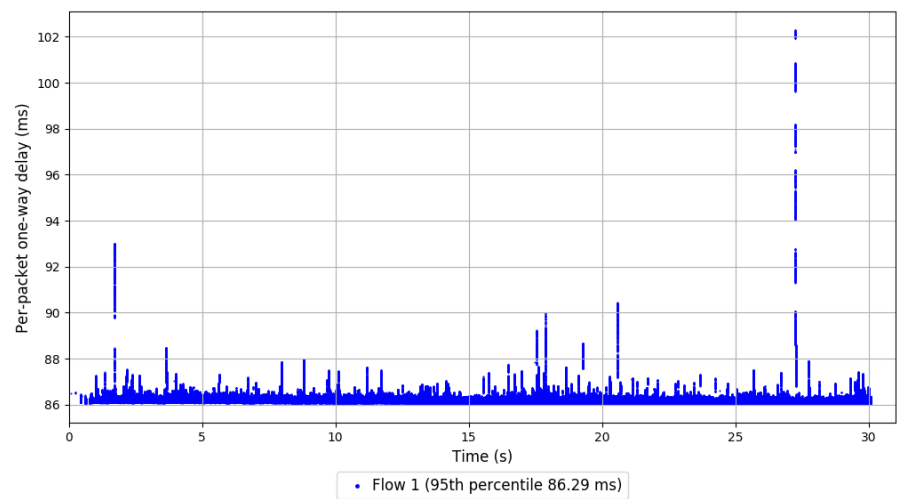
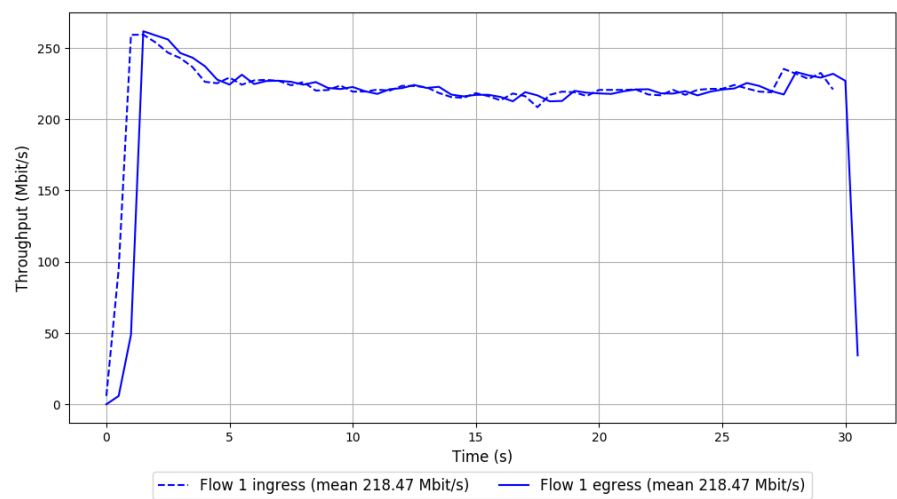
-- Flow 1:

Average throughput: 218.47 Mbit/s

95th percentile per-packet one-way delay: 86.291 ms

Loss rate: 0.00%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-09-25 04:42:41

End at: 2018-09-25 04:43:11

Local clock offset: 5.327 ms

Remote clock offset: 4.747 ms

Below is generated by plot.py at 2018-09-25 08:41:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 588.60 Mbit/s

95th percentile per-packet one-way delay: 101.484 ms

Loss rate: 0.00%

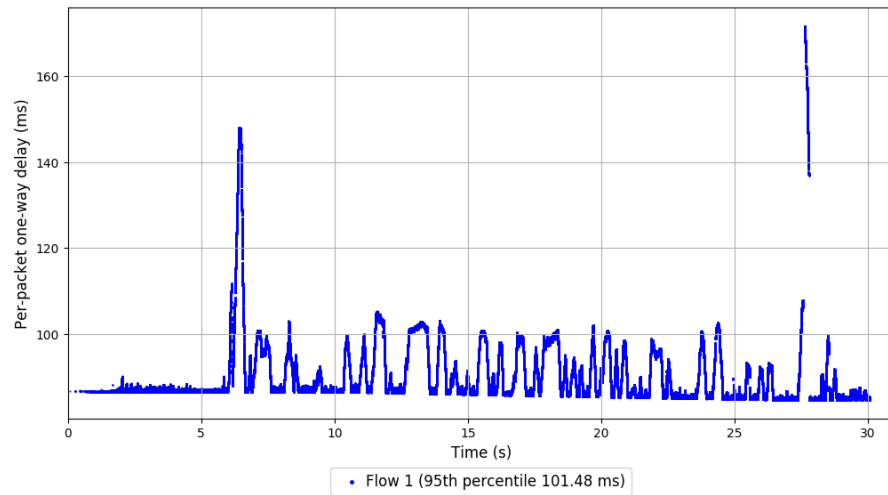
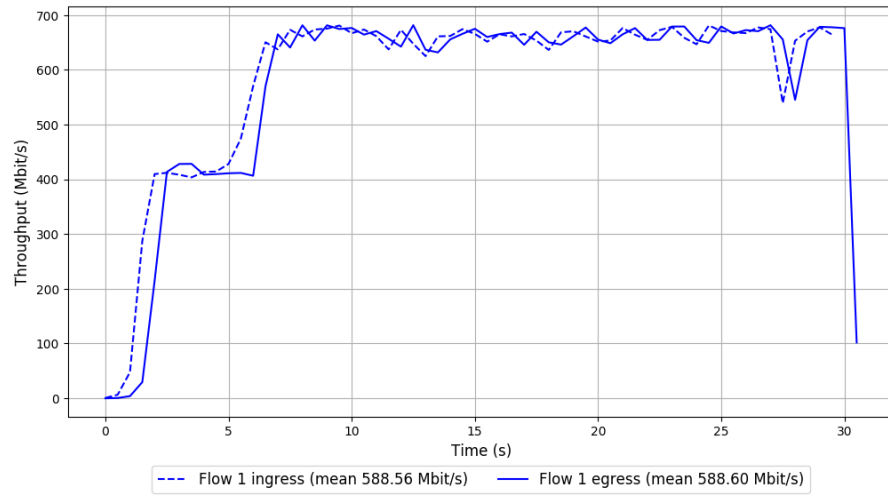
-- Flow 1:

Average throughput: 588.60 Mbit/s

95th percentile per-packet one-way delay: 101.484 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link

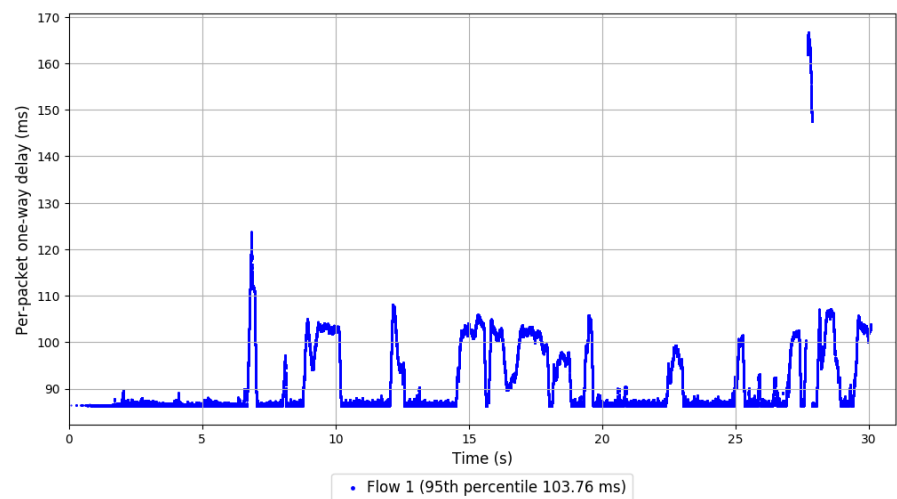
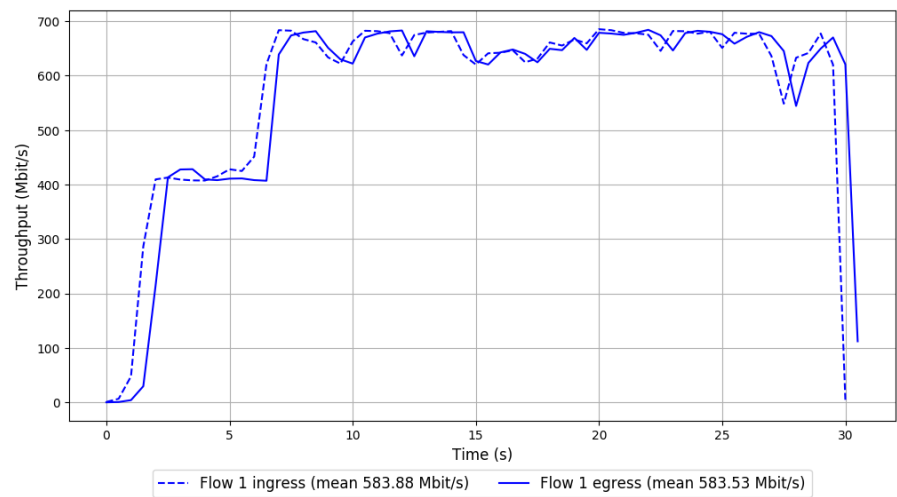


Run 2: Statistics of TCP Vegas

Start at: 2018-09-25 05:10:47
End at: 2018-09-25 05:11:17
Local clock offset: 20.716 ms
Remote clock offset: 19.186 ms

Below is generated by plot.py at 2018-09-25 08:41:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 583.53 Mbit/s
95th percentile per-packet one-way delay: 103.761 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 583.53 Mbit/s
95th percentile per-packet one-way delay: 103.761 ms
Loss rate: 0.06%

Run 2: Report of TCP Vegas — Data Link

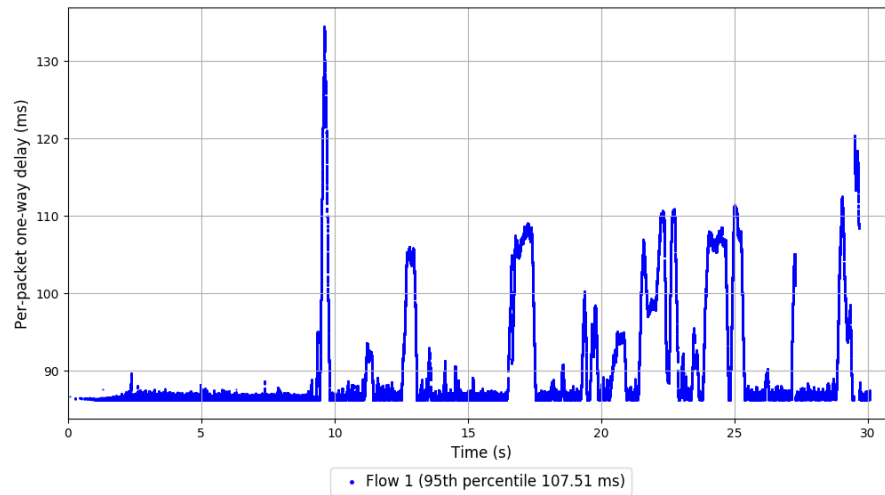
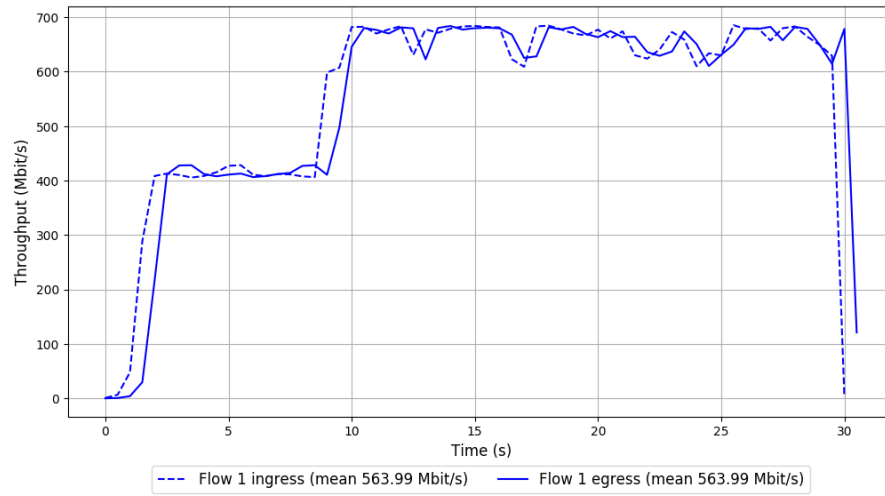


Run 3: Statistics of TCP Vegas

Start at: 2018-09-25 05:38:44
End at: 2018-09-25 05:39:14
Local clock offset: 27.722 ms
Remote clock offset: 25.602 ms

Below is generated by plot.py at 2018-09-25 08:41:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 563.99 Mbit/s
95th percentile per-packet one-way delay: 107.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 563.99 Mbit/s
95th percentile per-packet one-way delay: 107.513 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

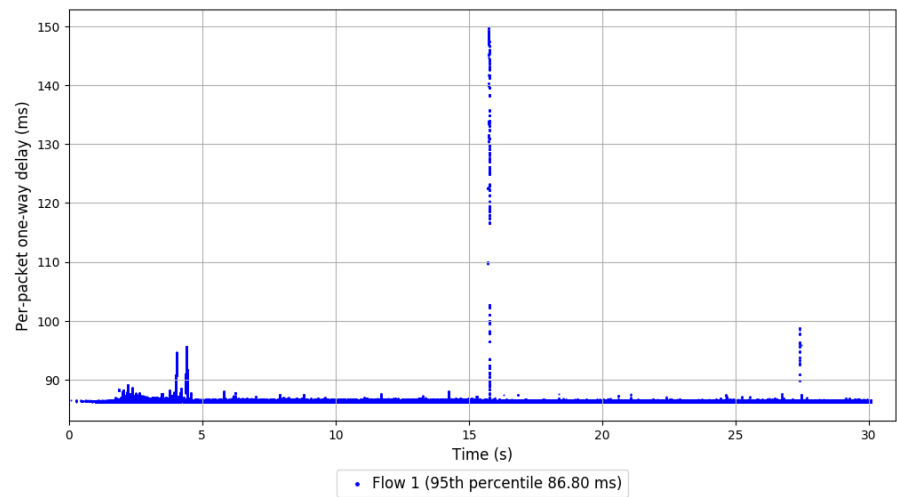
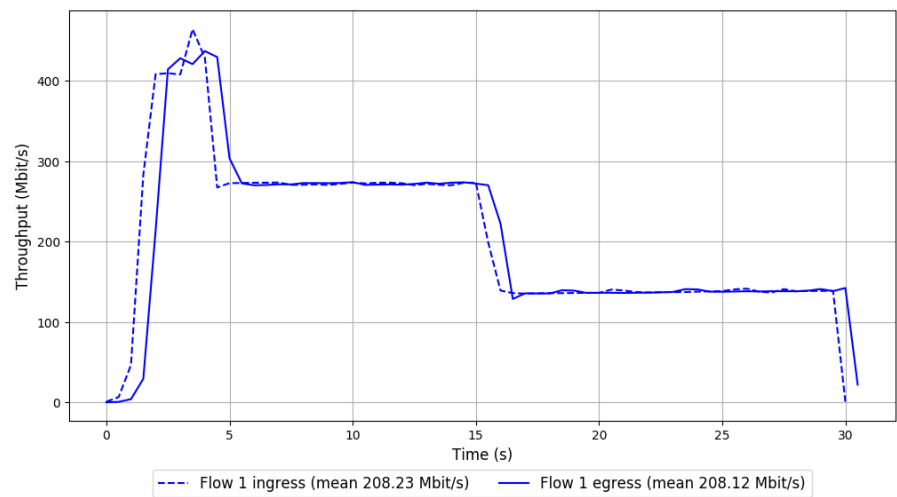


Run 4: Statistics of TCP Vegas

Start at: 2018-09-25 06:06:46
End at: 2018-09-25 06:07:16
Local clock offset: 13.792 ms
Remote clock offset: 12.61 ms

Below is generated by plot.py at 2018-09-25 08:41:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 208.12 Mbit/s
95th percentile per-packet one-way delay: 86.798 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 208.12 Mbit/s
95th percentile per-packet one-way delay: 86.798 ms
Loss rate: 0.05%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-09-25 06:34:33

End at: 2018-09-25 06:35:03

Local clock offset: 7.066 ms

Remote clock offset: 6.602 ms

Below is generated by plot.py at 2018-09-25 08:41:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 265.38 Mbit/s

95th percentile per-packet one-way delay: 86.694 ms

Loss rate: 0.00%

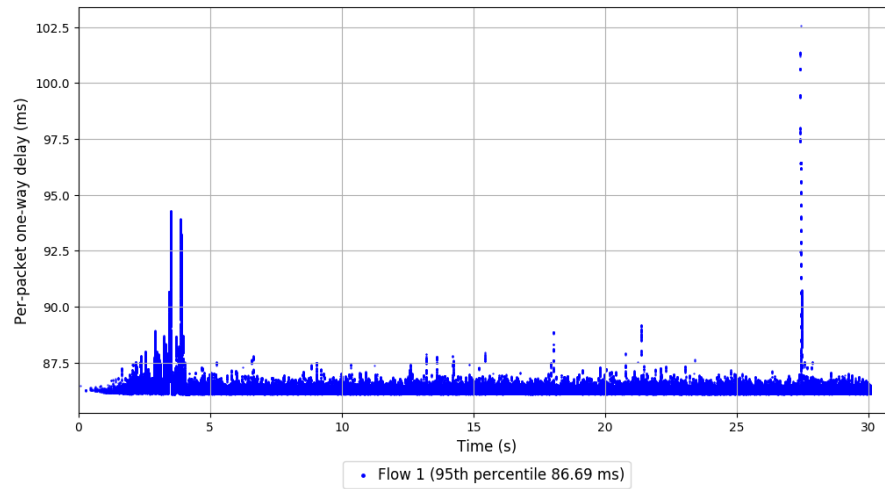
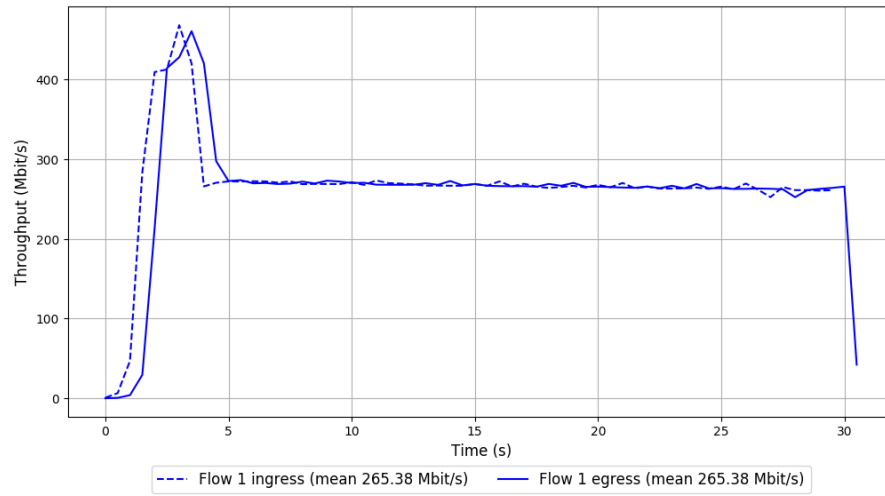
-- Flow 1:

Average throughput: 265.38 Mbit/s

95th percentile per-packet one-way delay: 86.694 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

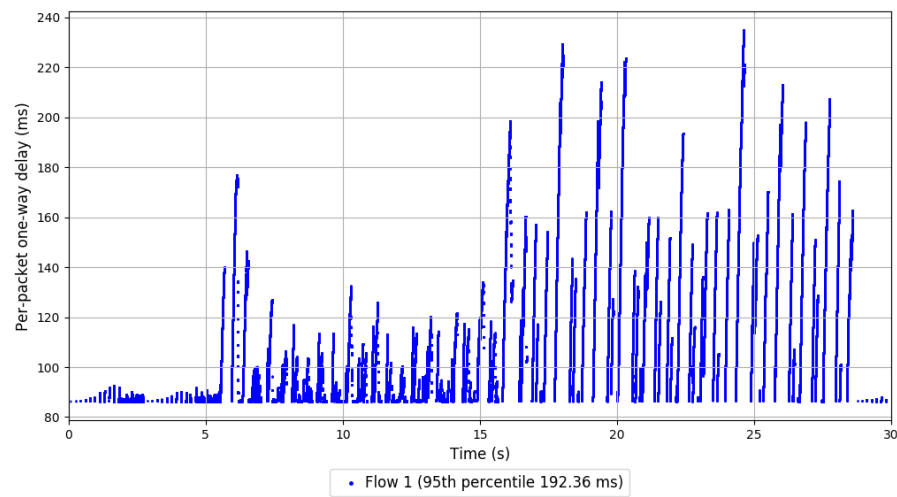
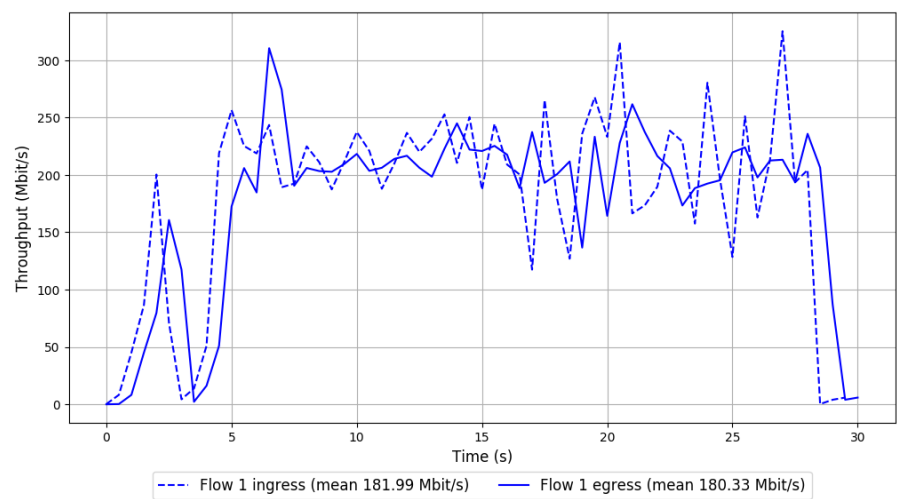


Run 1: Statistics of Verus

Start at: 2018-09-25 05:02:39
End at: 2018-09-25 05:03:09
Local clock offset: 12.404 ms
Remote clock offset: 11.506 ms

Below is generated by plot.py at 2018-09-25 08:41:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 180.33 Mbit/s
95th percentile per-packet one-way delay: 192.363 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 180.33 Mbit/s
95th percentile per-packet one-way delay: 192.363 ms
Loss rate: 0.91%

Run 1: Report of Verus — Data Link

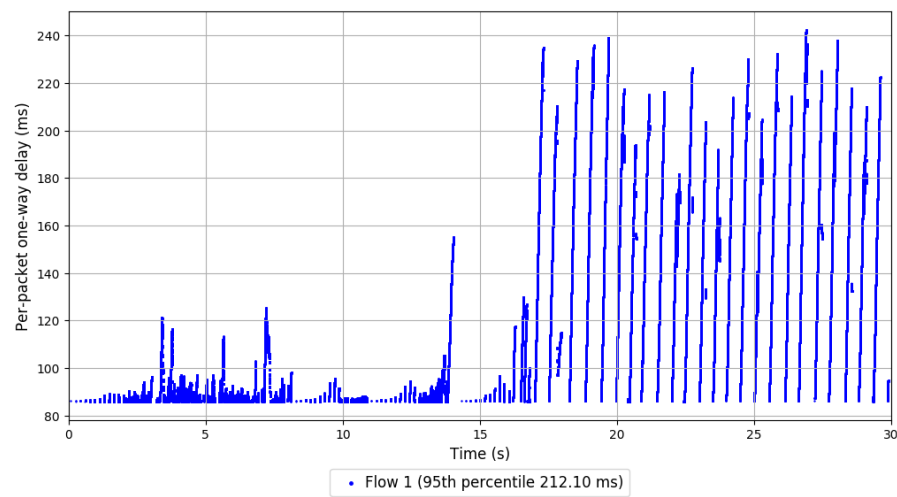
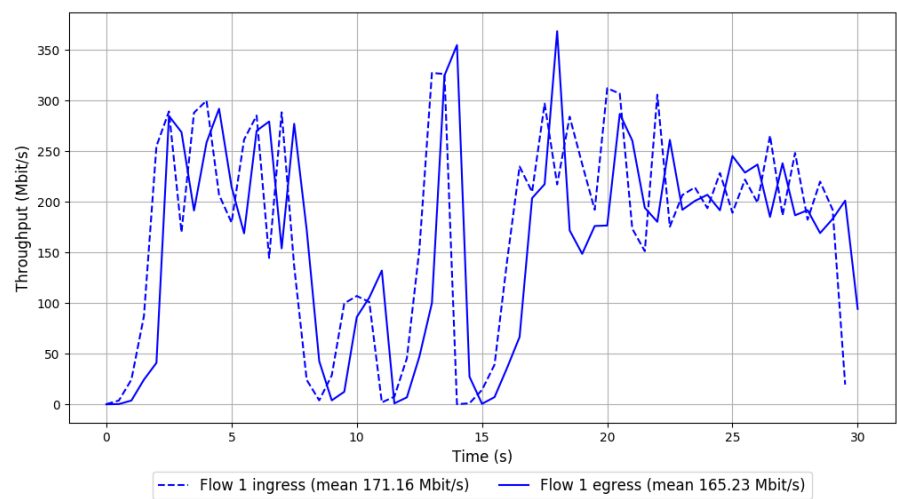


Run 2: Statistics of Verus

Start at: 2018-09-25 05:30:41
End at: 2018-09-25 05:31:11
Local clock offset: 21.443 ms
Remote clock offset: 19.629 ms

Below is generated by plot.py at 2018-09-25 08:41:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 165.23 Mbit/s
95th percentile per-packet one-way delay: 212.098 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 165.23 Mbit/s
95th percentile per-packet one-way delay: 212.098 ms
Loss rate: 3.46%

Run 2: Report of Verus — Data Link

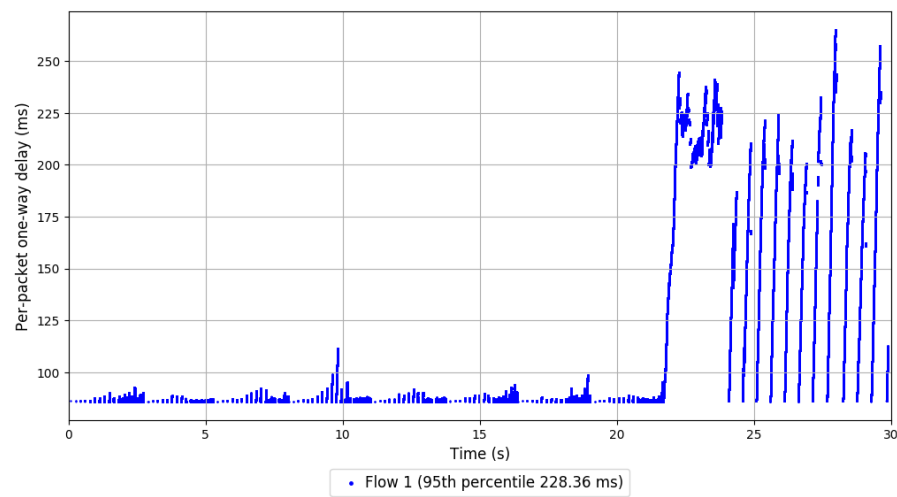
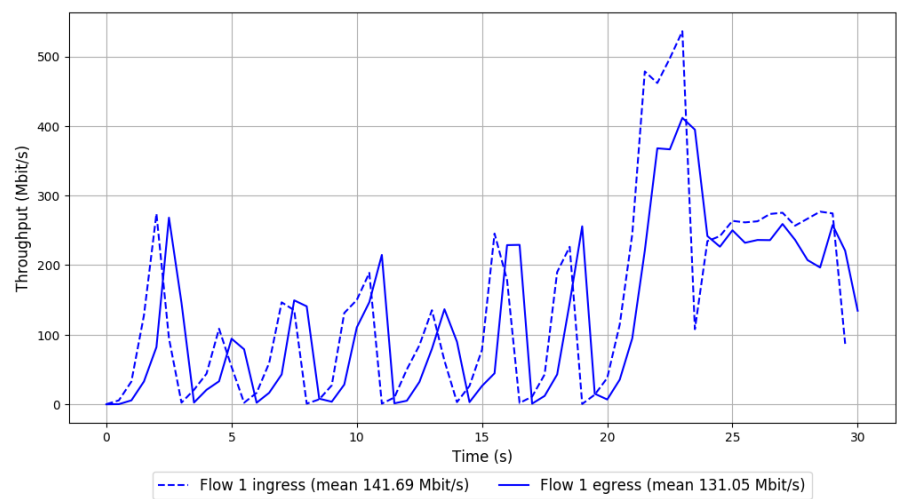


Run 3: Statistics of Verus

Start at: 2018-09-25 05:58:49
End at: 2018-09-25 05:59:19
Local clock offset: 15.11 ms
Remote clock offset: 14.029 ms

Below is generated by plot.py at 2018-09-25 08:42:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 131.05 Mbit/s
95th percentile per-packet one-way delay: 228.358 ms
Loss rate: 7.51%
-- Flow 1:
Average throughput: 131.05 Mbit/s
95th percentile per-packet one-way delay: 228.358 ms
Loss rate: 7.51%

Run 3: Report of Verus — Data Link

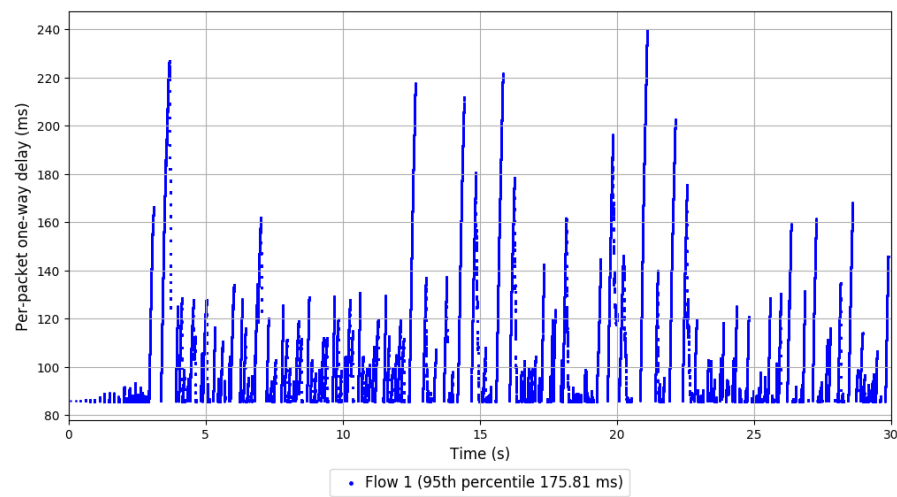
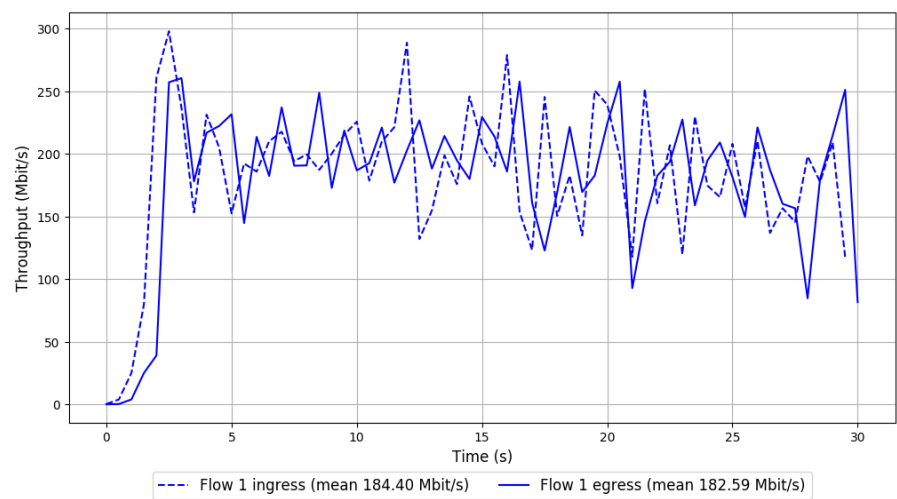


Run 4: Statistics of Verus

Start at: 2018-09-25 06:26:29
End at: 2018-09-25 06:26:59
Local clock offset: 11.218 ms
Remote clock offset: 10.363 ms

Below is generated by plot.py at 2018-09-25 08:44:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 182.59 Mbit/s
95th percentile per-packet one-way delay: 175.810 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 182.59 Mbit/s
95th percentile per-packet one-way delay: 175.810 ms
Loss rate: 0.86%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-09-25 06:54:17

End at: 2018-09-25 06:54:47

Local clock offset: 8.434 ms

Remote clock offset: 7.869 ms

Below is generated by plot.py at 2018-09-25 08:45:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 179.09 Mbit/s

95th percentile per-packet one-way delay: 221.432 ms

Loss rate: 8.66%

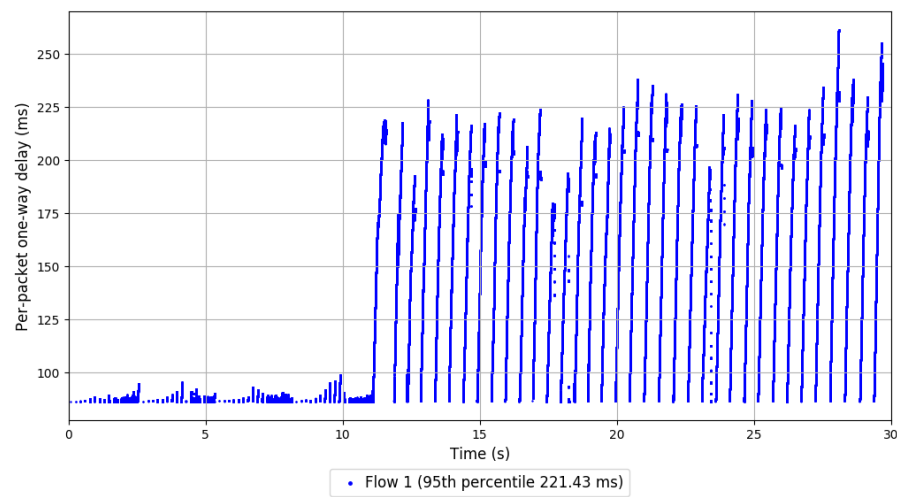
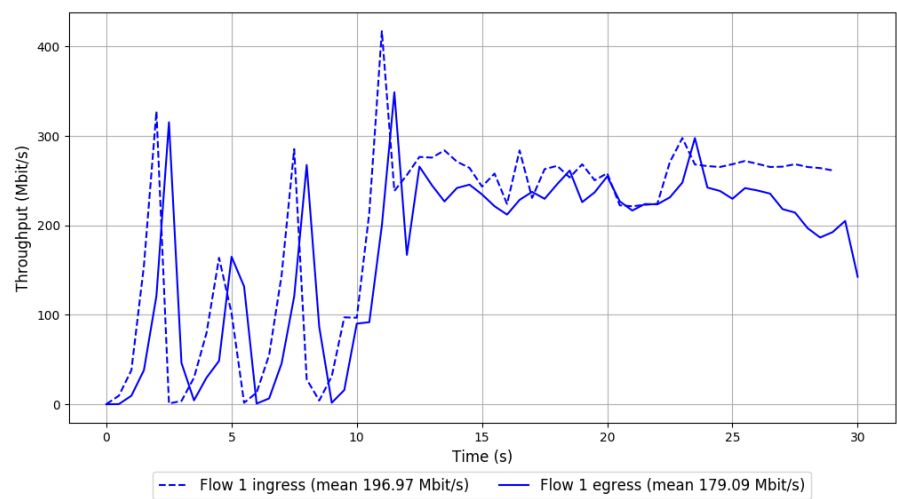
-- Flow 1:

Average throughput: 179.09 Mbit/s

95th percentile per-packet one-way delay: 221.432 ms

Loss rate: 8.66%

Run 5: Report of Verus — Data Link

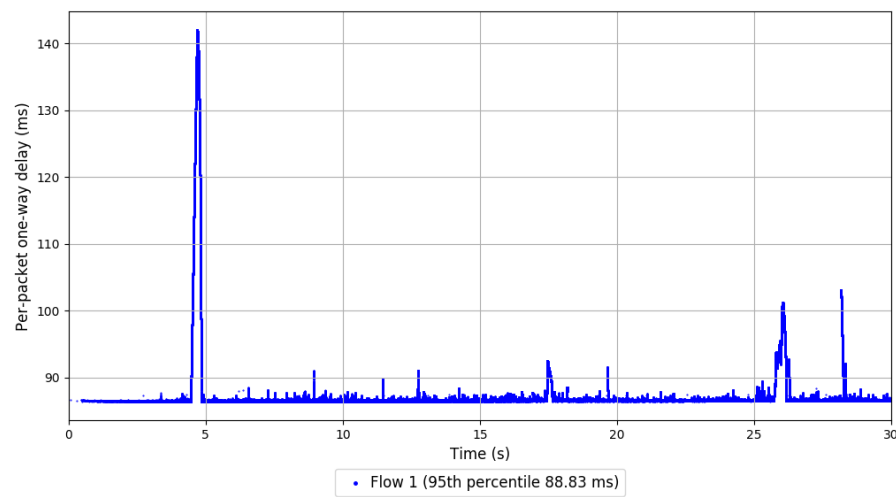
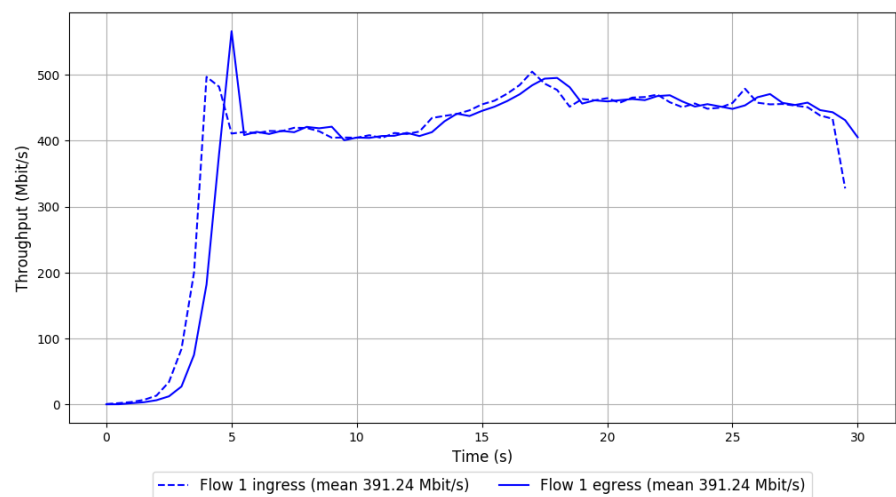


Run 1: Statistics of PCC-Vivace

Start at: 2018-09-25 04:54:57
End at: 2018-09-25 04:55:27
Local clock offset: 14.316 ms
Remote clock offset: 13.119 ms

Below is generated by plot.py at 2018-09-25 08:47:27
Datalink statistics
-- Total of 1 flow:
Average throughput: 391.24 Mbit/s
95th percentile per-packet one-way delay: 88.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 391.24 Mbit/s
95th percentile per-packet one-way delay: 88.827 ms
Loss rate: 0.00%

Run 1: Report of PCC-Vivace — Data Link

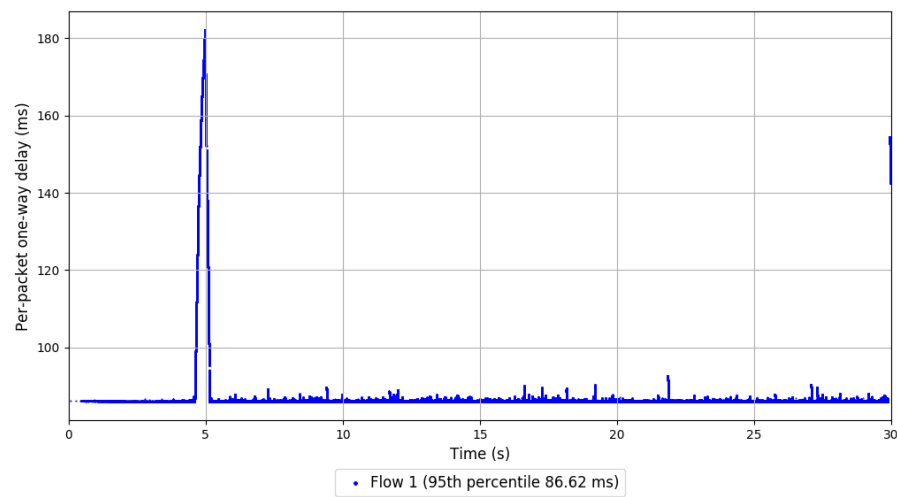
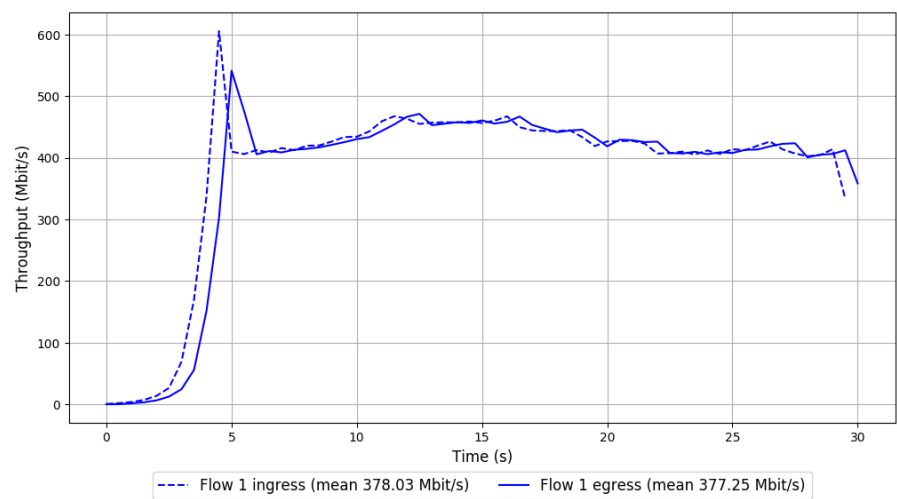


Run 2: Statistics of PCC-Vivace

Start at: 2018-09-25 05:23:00
End at: 2018-09-25 05:23:30
Local clock offset: 17.767 ms
Remote clock offset: 16.446 ms

Below is generated by plot.py at 2018-09-25 08:47:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 377.25 Mbit/s
95th percentile per-packet one-way delay: 86.622 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 377.25 Mbit/s
95th percentile per-packet one-way delay: 86.622 ms
Loss rate: 0.20%

Run 2: Report of PCC-Vivace — Data Link

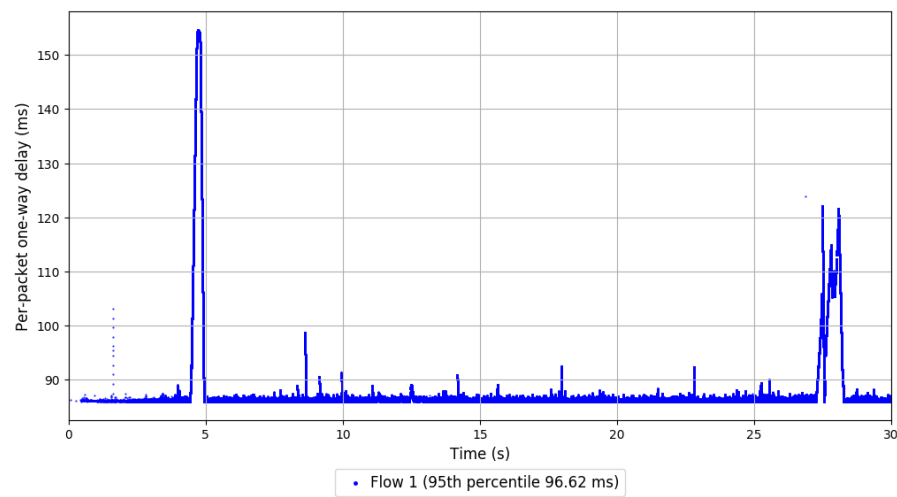
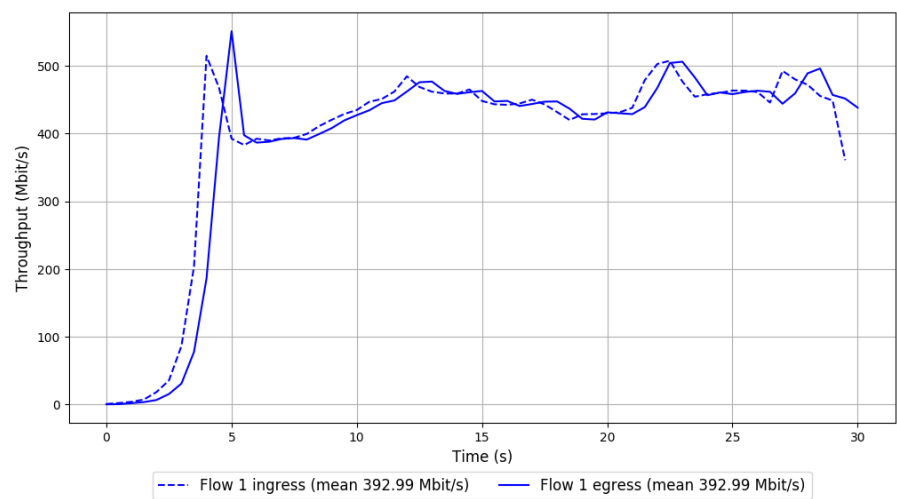


Run 3: Statistics of PCC-Vivace

Start at: 2018-09-25 05:51:06
End at: 2018-09-25 05:51:36
Local clock offset: 24.76 ms
Remote clock offset: 23.128 ms

Below is generated by plot.py at 2018-09-25 08:47:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 392.99 Mbit/s
95th percentile per-packet one-way delay: 96.624 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 392.99 Mbit/s
95th percentile per-packet one-way delay: 96.624 ms
Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-09-25 06:18:43

End at: 2018-09-25 06:19:13

Local clock offset: 17.158 ms

Remote clock offset: 15.7 ms

Below is generated by plot.py at 2018-09-25 08:47:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 380.20 Mbit/s

95th percentile per-packet one-way delay: 86.783 ms

Loss rate: 0.00%

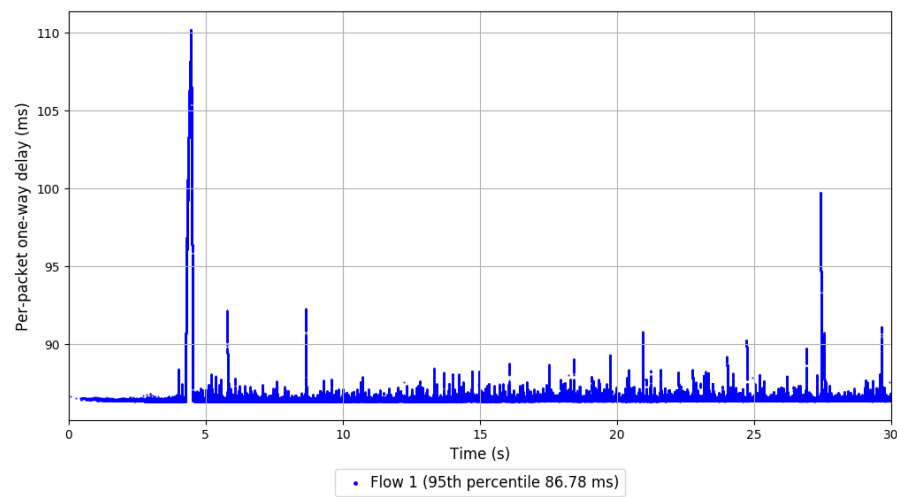
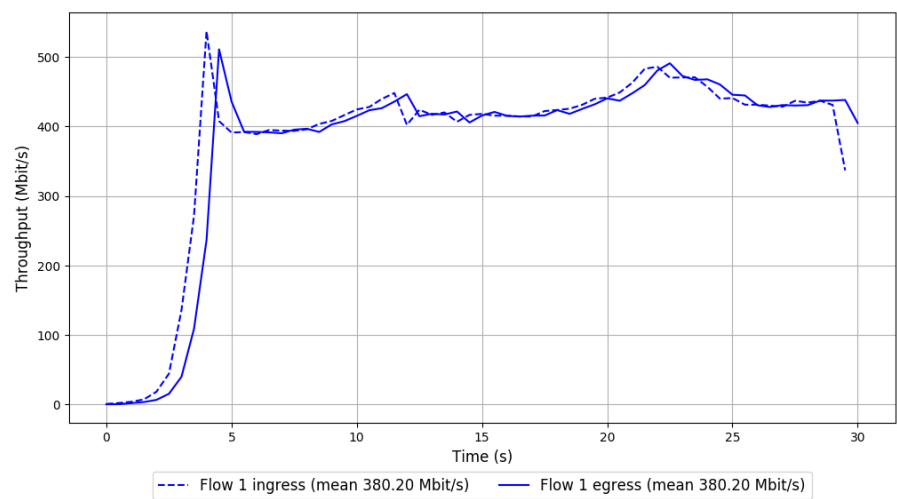
-- Flow 1:

Average throughput: 380.20 Mbit/s

95th percentile per-packet one-way delay: 86.783 ms

Loss rate: 0.00%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2018-09-25 06:46:38

End at: 2018-09-25 06:47:08

Local clock offset: 7.021 ms

Remote clock offset: 6.644 ms

Below is generated by plot.py at 2018-09-25 08:47:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 386.08 Mbit/s

95th percentile per-packet one-way delay: 88.694 ms

Loss rate: 0.00%

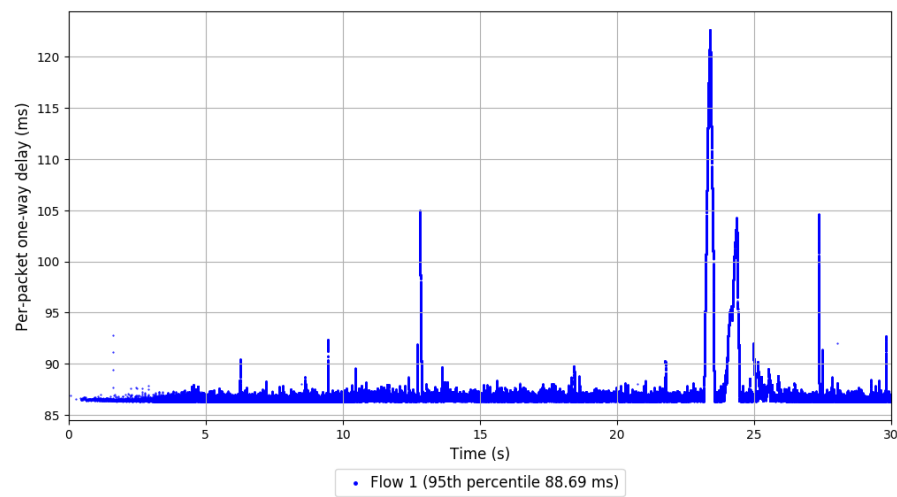
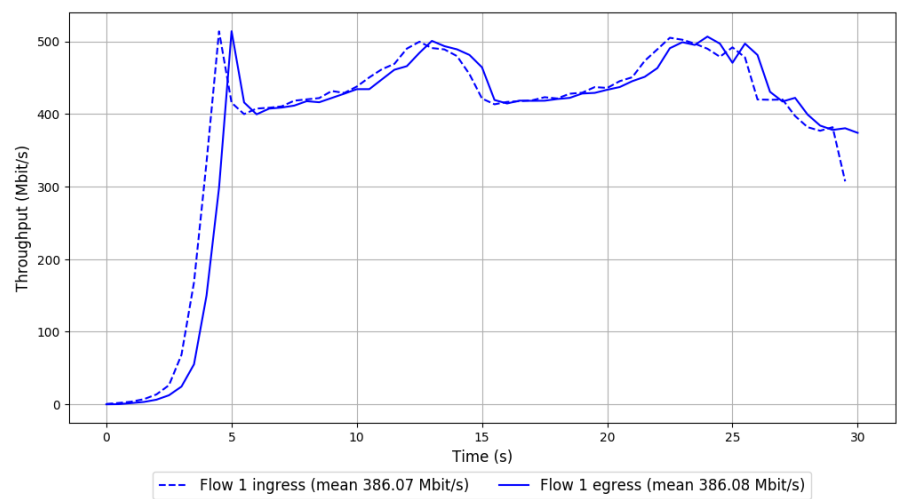
-- Flow 1:

Average throughput: 386.08 Mbit/s

95th percentile per-packet one-way delay: 88.694 ms

Loss rate: 0.00%

Run 5: Report of PCC-Vivace — Data Link

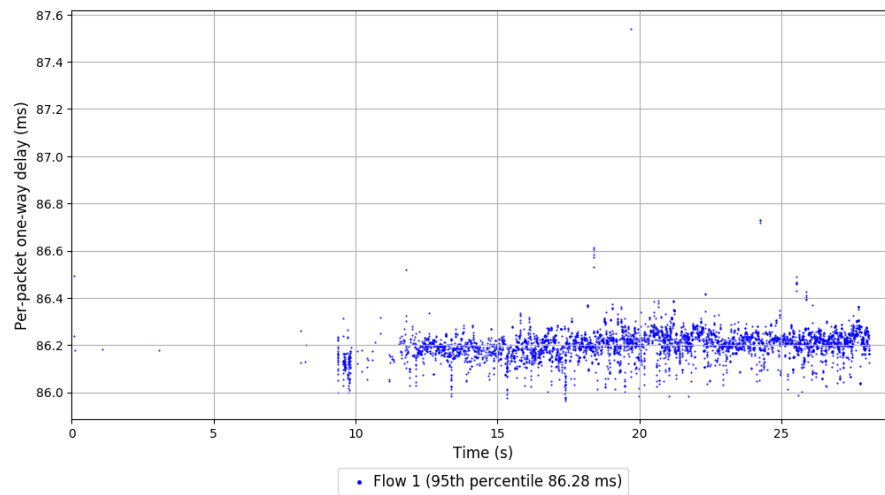
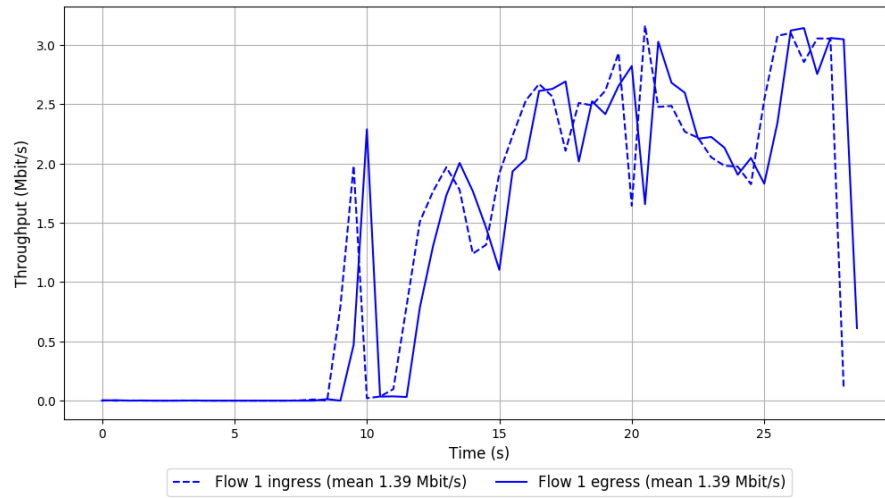


Run 1: Statistics of WebRTC media

Start at: 2018-09-25 04:59:53
End at: 2018-09-25 05:00:23
Local clock offset: 11.627 ms
Remote clock offset: 10.951 ms

Below is generated by plot.py at 2018-09-25 08:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 86.281 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 86.281 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

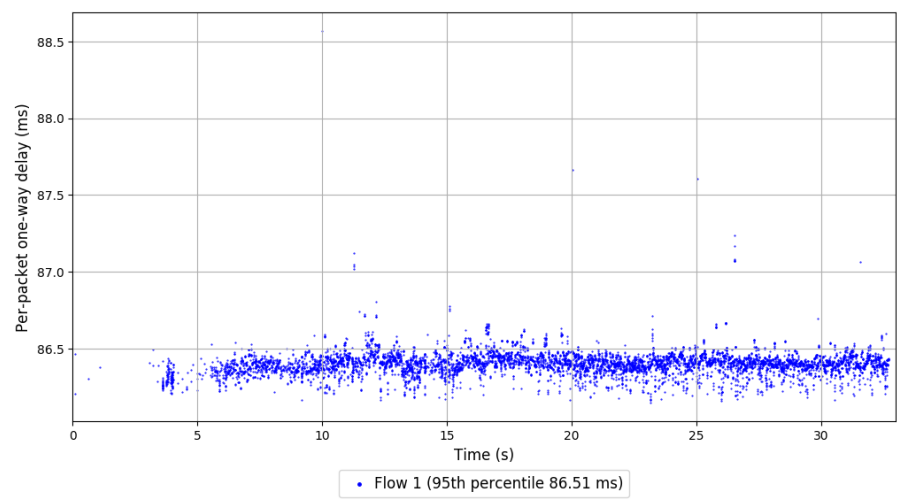
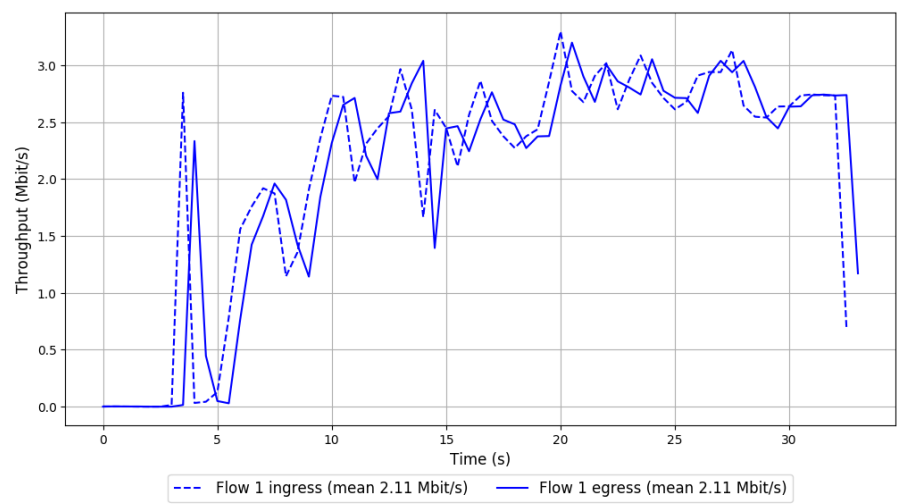


Run 2: Statistics of WebRTC media

Start at: 2018-09-25 05:27:56
End at: 2018-09-25 05:28:26
Local clock offset: 19.543 ms
Remote clock offset: 18.072 ms

Below is generated by plot.py at 2018-09-25 08:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 86.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 86.506 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

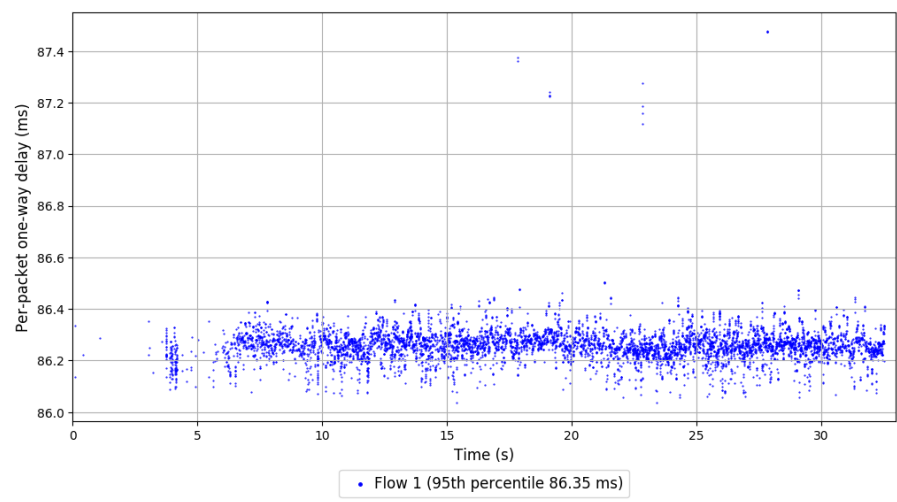
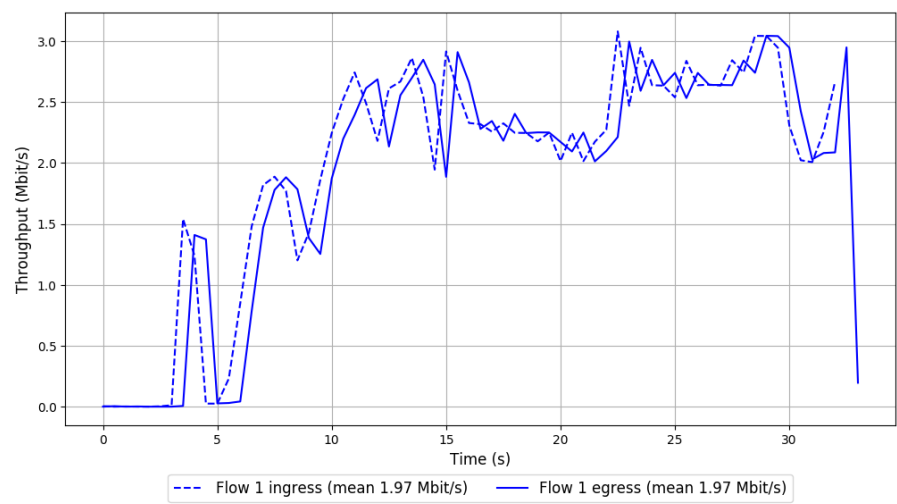


Run 3: Statistics of WebRTC media

Start at: 2018-09-25 05:55:59
End at: 2018-09-25 05:56:29
Local clock offset: 17.504 ms
Remote clock offset: 16.142 ms

Below is generated by plot.py at 2018-09-25 08:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 86.350 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 86.350 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

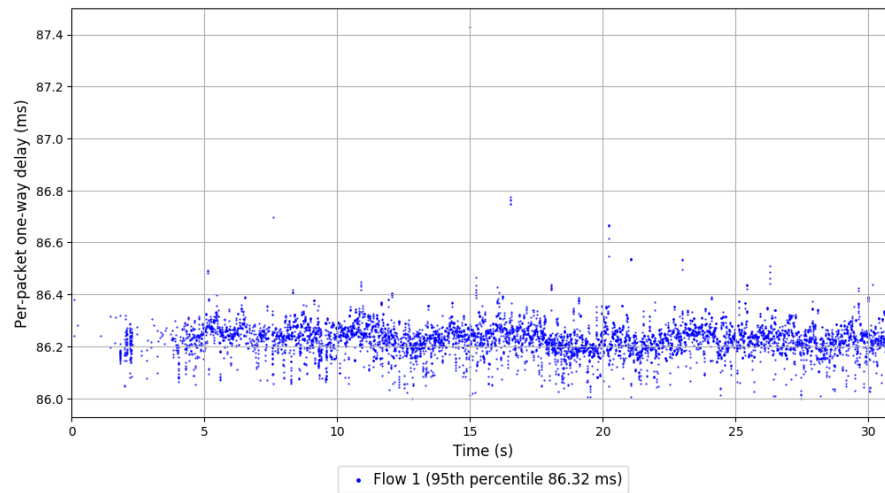
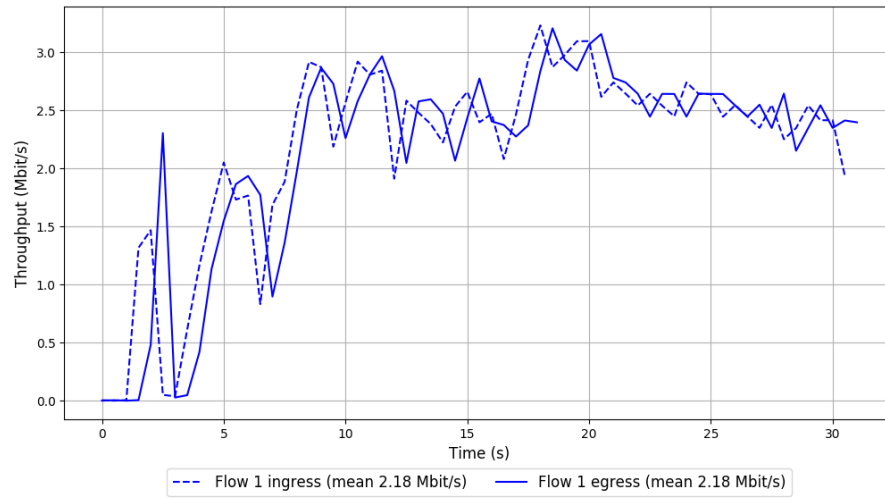


Run 4: Statistics of WebRTC media

Start at: 2018-09-25 06:23:38
End at: 2018-09-25 06:24:08
Local clock offset: 14.529 ms
Remote clock offset: 13.454 ms

Below is generated by plot.py at 2018-09-25 08:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 86.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 86.319 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-09-25 06:51:28

End at: 2018-09-25 06:51:58

Local clock offset: 8.018 ms

Remote clock offset: 7.352 ms

Below is generated by plot.py at 2018-09-25 08:47:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 86.272 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 86.272 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

