

Pantheon Report

Generated at 2018-06-05 04:07:45 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) → Colombia ppp0 ppp0 (*remote*).

Repeated the test of 16 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

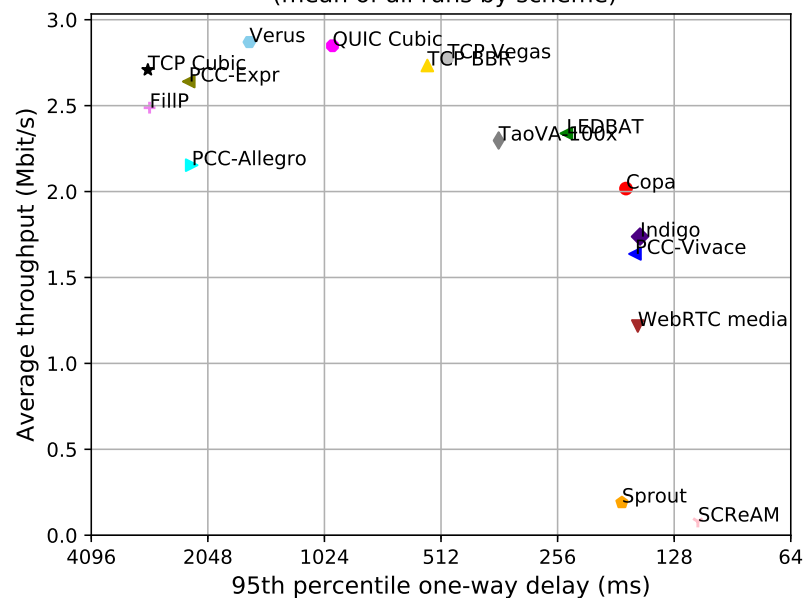
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

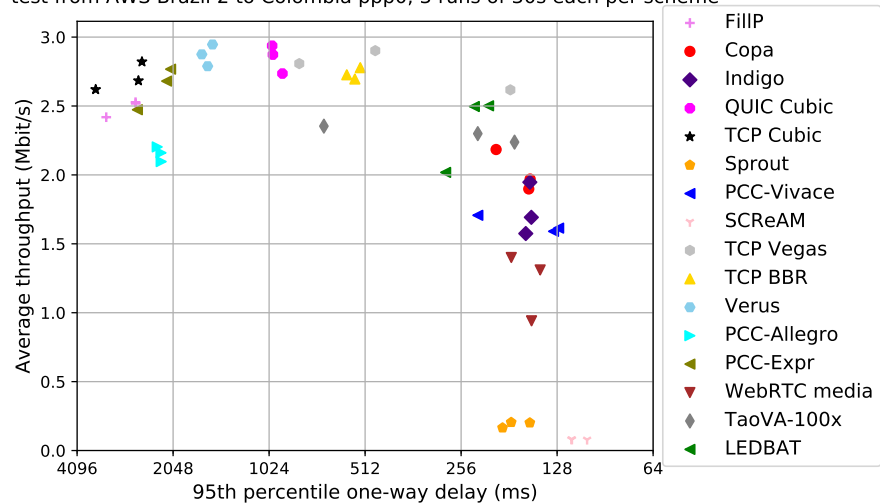
Git summary:

```
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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-quirk @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ c838669682f0c19f6baf92afc9a596a406d48c1f
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS Brazil 2 to Colombia ppp0, 3 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS Brazil 2 to Colombia ppp0, 3 runs of 30s each per scheme



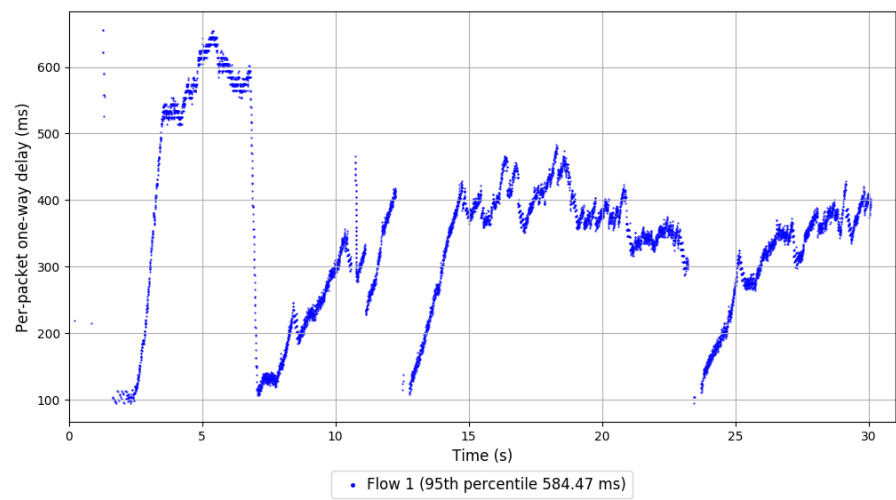
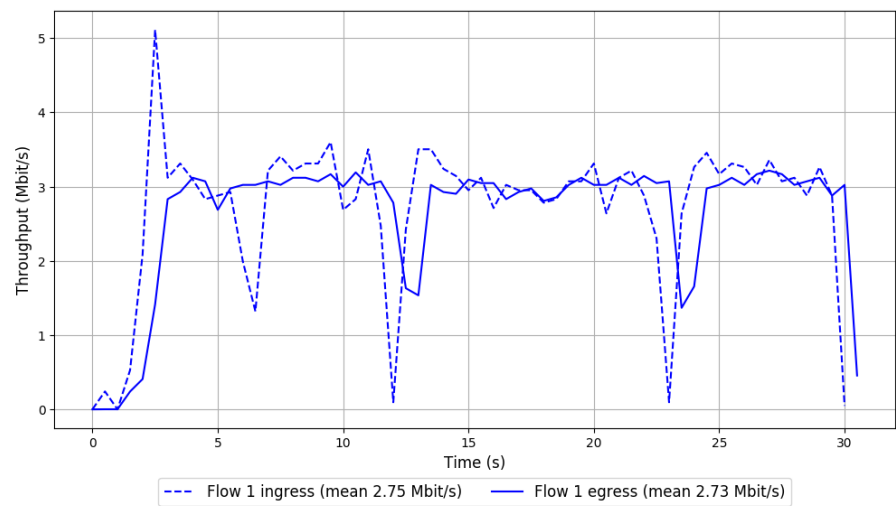
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	2.74	555.34	1.08
Copa	3	2.02	170.48	0.08
TCP Cubic	3	2.71	2925.75	11.12
FillP	3	2.49	2895.66	79.92
Indigo	3	1.74	156.85	0.02
LEDBAT	3	2.34	243.00	0.46
PCC-Allegro	3	2.15	2254.33	36.66
PCC-Expr	3	2.64	2294.26	55.68
QUIC Cubic	3	2.85	976.07	3.43
SCReAM	3	0.08	111.19	0.04
Sprout	3	0.19	174.67	0.11
TaoVA-100x	3	2.30	363.50	0.10
TCP Vegas	3	2.78	492.96	0.86
Verus	3	2.87	1600.28	4.12
PCC-Vivace	3	1.64	161.63	0.51
WebRTC media	3	1.22	158.93	0.14

Run 1: Statistics of TCP BBR

Start at: 2018-06-05 03:17:49
End at: 2018-06-05 03:18:19
Local clock offset: -1.873 ms
Remote clock offset: 16.962 ms

Below is generated by plot.py at 2018-06-05 04:07:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 584.467 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 584.467 ms
Loss rate: 1.11%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-06-05 03:35:52

End at: 2018-06-05 03:36:22

Local clock offset: -1.941 ms

Remote clock offset: 9.819 ms

Below is generated by plot.py at 2018-06-05 04:07:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.78 Mbit/s

95th percentile per-packet one-way delay: 530.157 ms

Loss rate: 1.10%

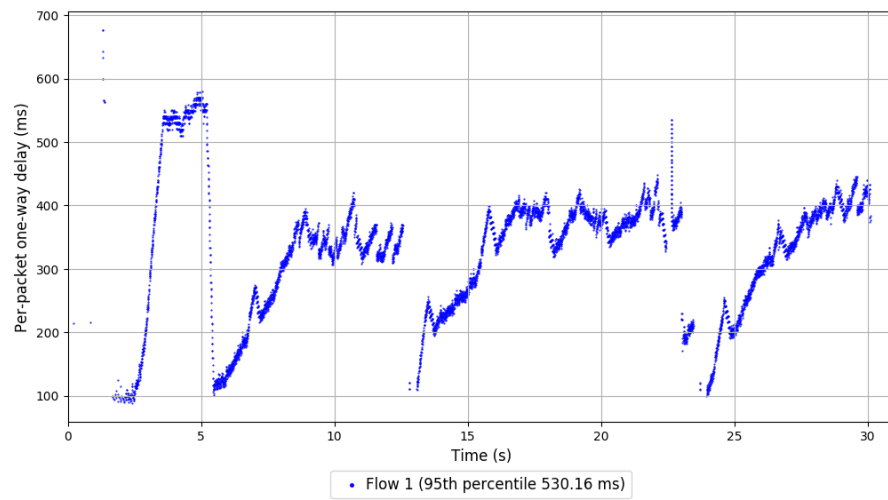
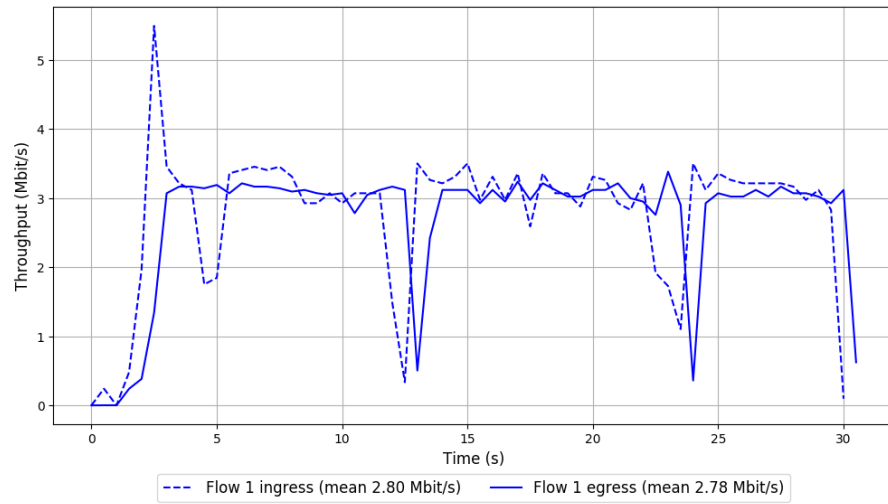
-- Flow 1:

Average throughput: 2.78 Mbit/s

95th percentile per-packet one-way delay: 530.157 ms

Loss rate: 1.10%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-06-05 03:53:56

End at: 2018-06-05 03:54:26

Local clock offset: -1.986 ms

Remote clock offset: 9.348 ms

Below is generated by plot.py at 2018-06-05 04:07:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 551.390 ms

Loss rate: 1.02%

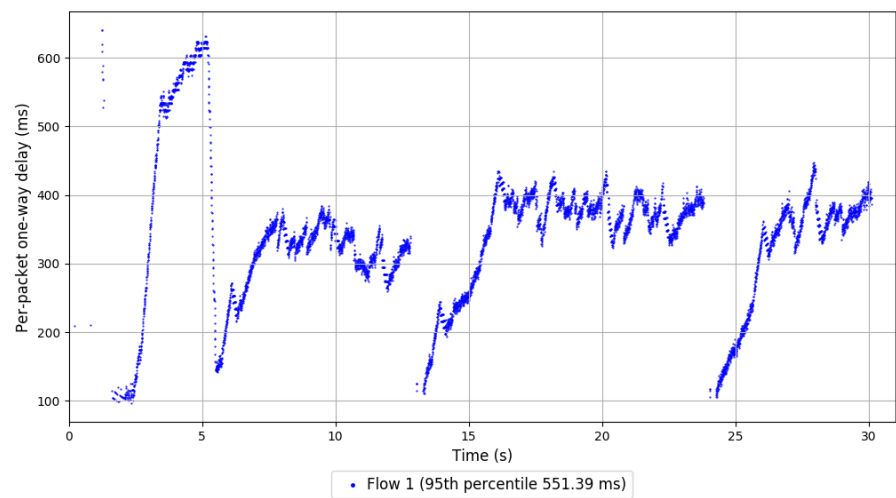
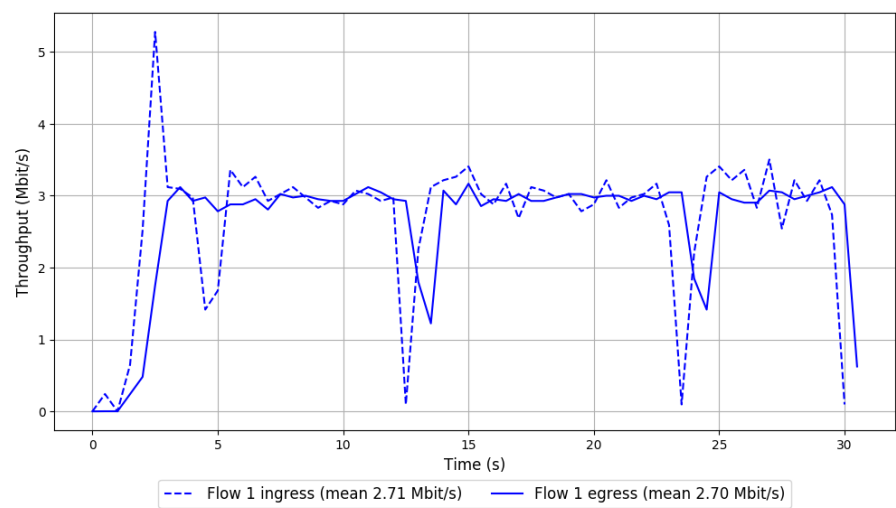
-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 551.390 ms

Loss rate: 1.02%

Run 3: Report of TCP BBR — Data Link

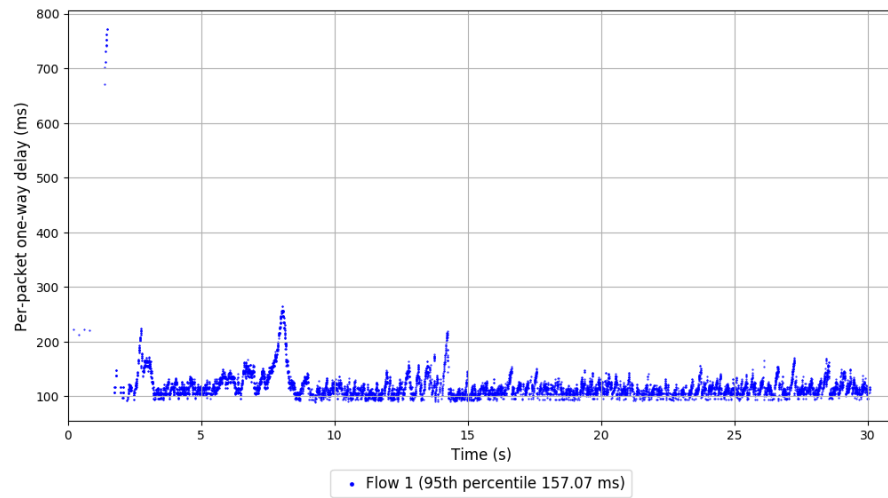
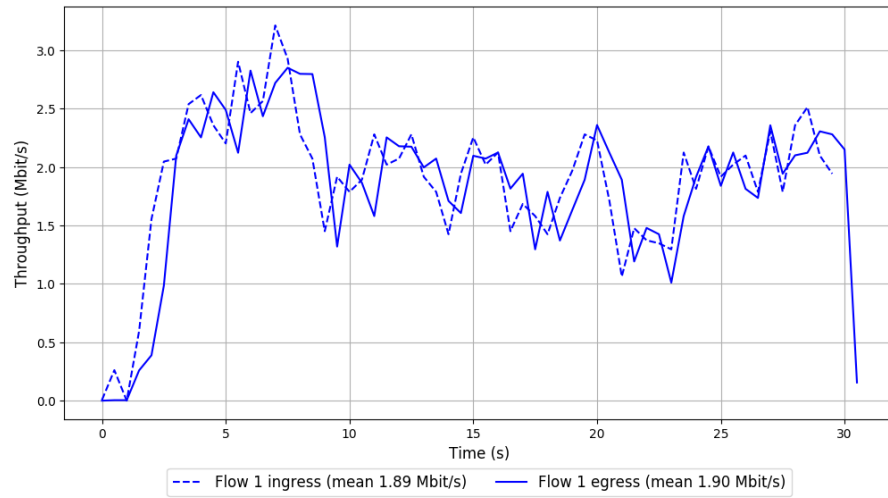


Run 1: Statistics of Copa

Start at: 2018-06-05 03:20:04
End at: 2018-06-05 03:20:34
Local clock offset: -1.899 ms
Remote clock offset: 12.507 ms

Below is generated by plot.py at 2018-06-05 04:07:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 157.075 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 157.075 ms
Loss rate: 0.16%

Run 1: Report of Copa — Data Link

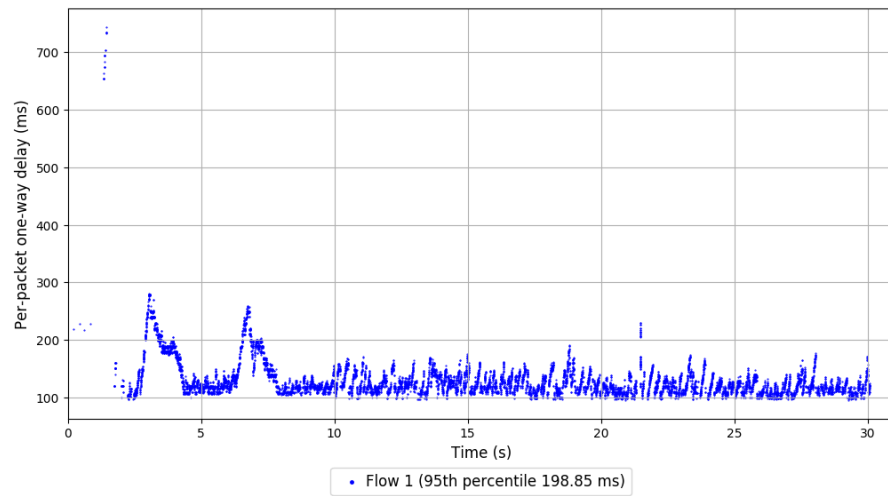
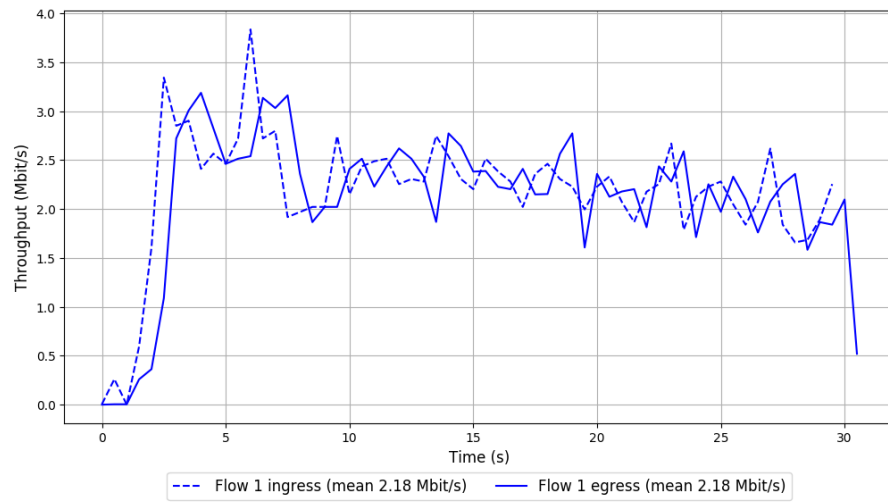


Run 2: Statistics of Copa

Start at: 2018-06-05 03:38:08
End at: 2018-06-05 03:38:38
Local clock offset: -1.95 ms
Remote clock offset: 14.519 ms

Below is generated by plot.py at 2018-06-05 04:07:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 198.851 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 198.851 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

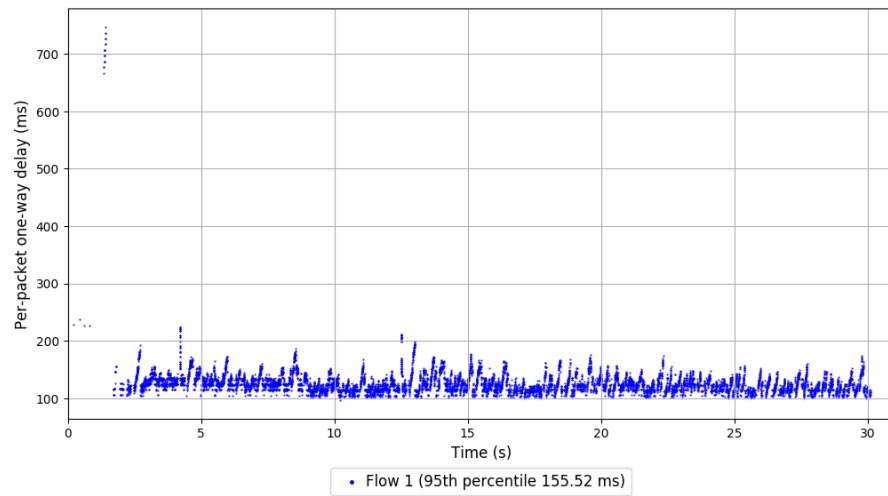
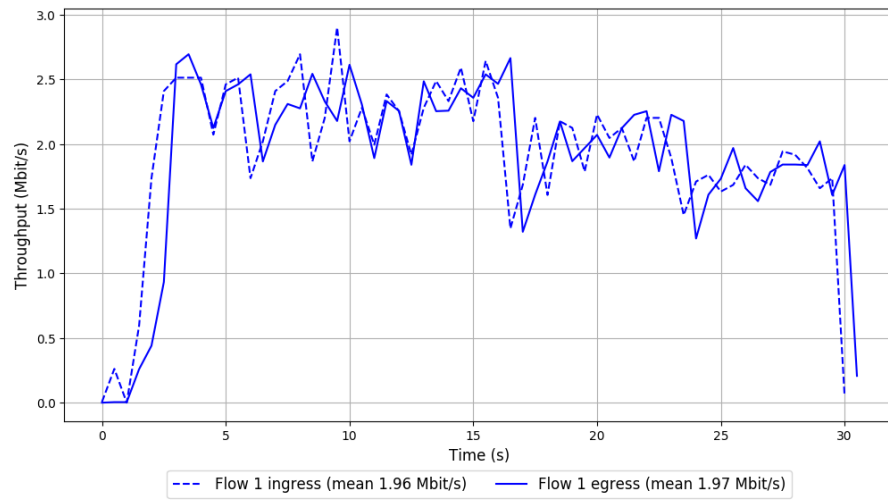


Run 3: Statistics of Copa

Start at: 2018-06-05 03:56:11
End at: 2018-06-05 03:56:41
Local clock offset: -2.048 ms
Remote clock offset: 9.165 ms

Below is generated by plot.py at 2018-06-05 04:07:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 155.521 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 155.521 ms
Loss rate: 0.09%

Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-06-05 03:25:42

End at: 2018-06-05 03:26:12

Local clock offset: -2.69 ms

Remote clock offset: 13.34 ms

Below is generated by plot.py at 2018-06-05 04:07:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 3582.288 ms

Loss rate: 12.50%

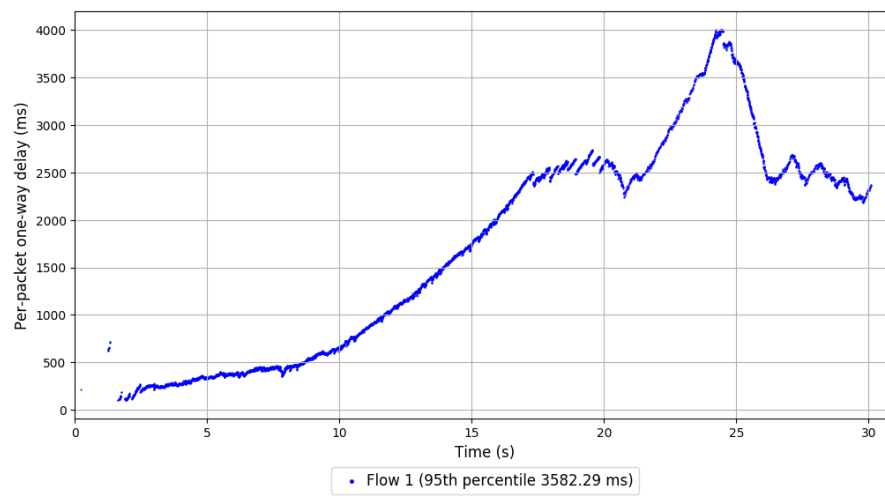
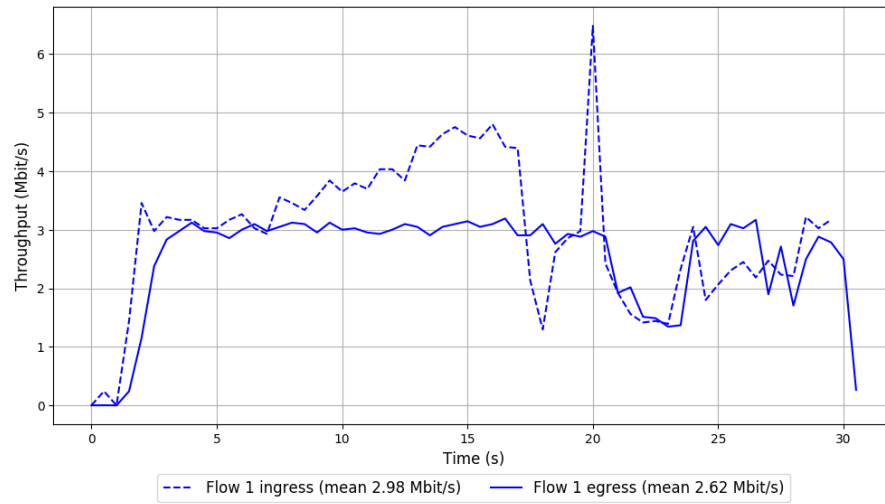
-- Flow 1:

Average throughput: 2.62 Mbit/s

95th percentile per-packet one-way delay: 3582.288 ms

Loss rate: 12.50%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-06-05 03:43:46

End at: 2018-06-05 03:44:16

Local clock offset: -1.202 ms

Remote clock offset: 7.241 ms

Below is generated by plot.py at 2018-06-05 04:07:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.82 Mbit/s

95th percentile per-packet one-way delay: 2564.471 ms

Loss rate: 8.58%

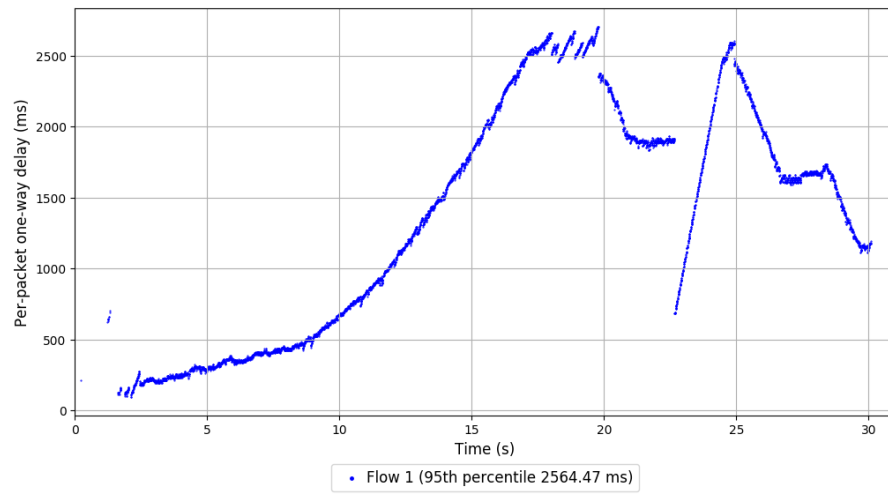
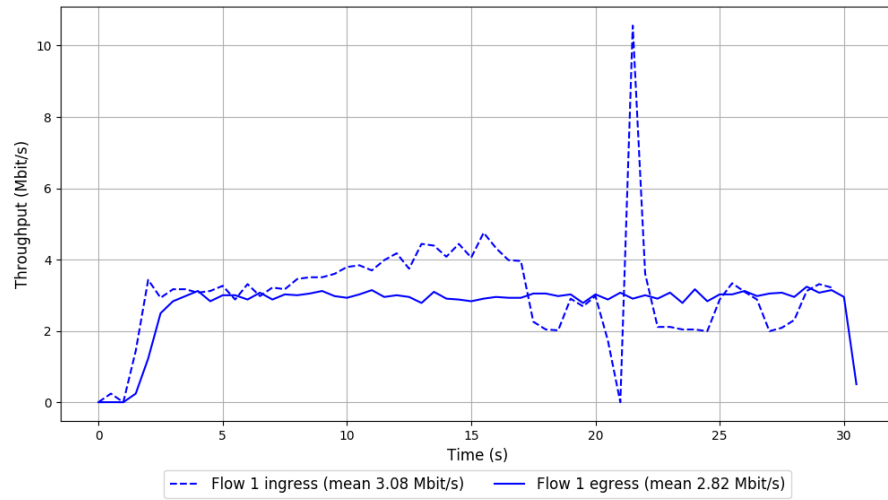
-- Flow 1:

Average throughput: 2.82 Mbit/s

95th percentile per-packet one-way delay: 2564.471 ms

Loss rate: 8.58%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-06-05 04:01:49

End at: 2018-06-05 04:02:19

Local clock offset: -2.816 ms

Remote clock offset: 3.76 ms

Below is generated by plot.py at 2018-06-05 04:07:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 2630.485 ms

Loss rate: 12.29%

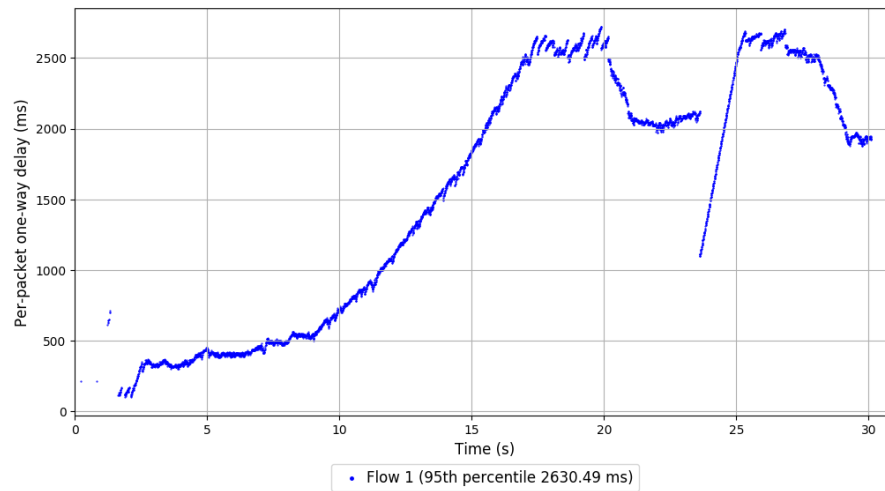
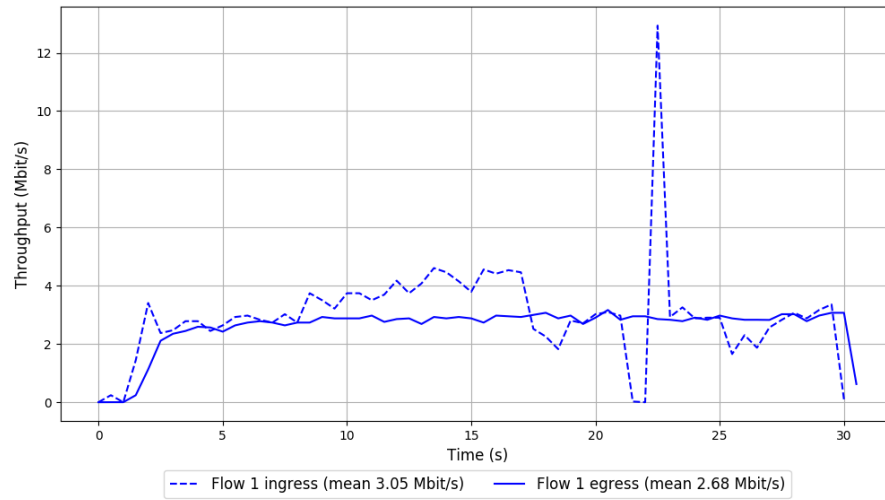
-- Flow 1:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 2630.485 ms

Loss rate: 12.29%

Run 3: Report of TCP Cubic — Data Link

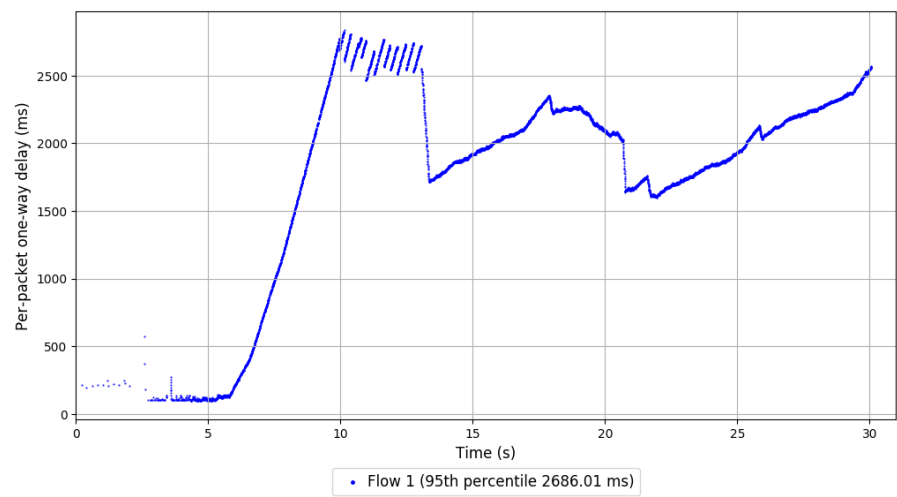
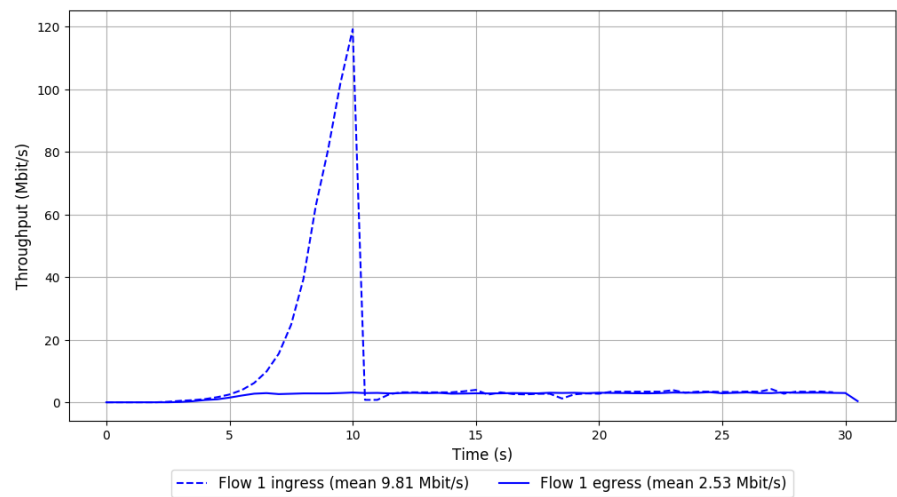


Run 1: Statistics of FillP

Start at: 2018-06-05 03:23:27
End at: 2018-06-05 03:23:57
Local clock offset: -1.91 ms
Remote clock offset: 14.104 ms

Below is generated by plot.py at 2018-06-05 04:07:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 2686.007 ms
Loss rate: 74.35%
-- Flow 1:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 2686.007 ms
Loss rate: 74.35%

Run 1: Report of FillP — Data Link

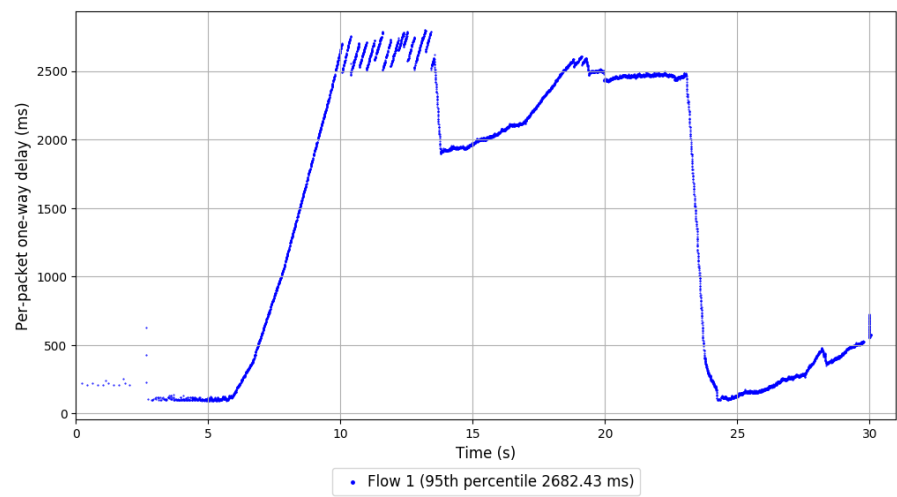
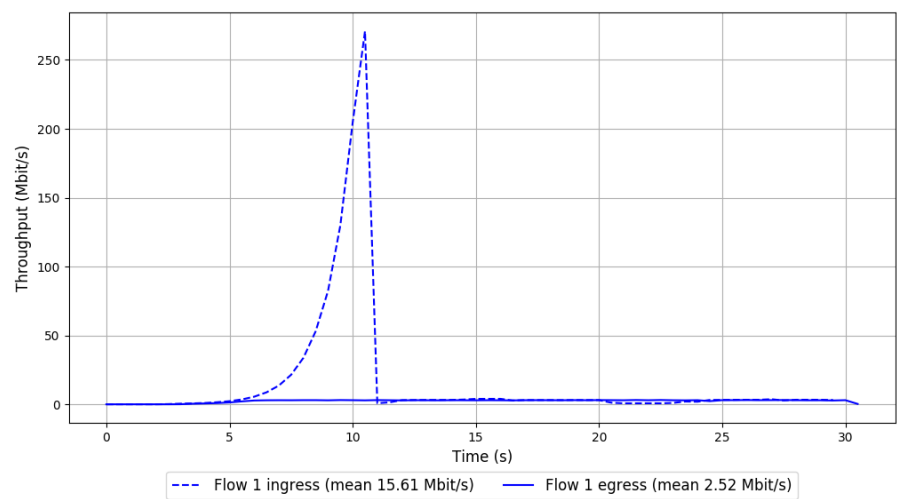


Run 2: Statistics of FillP

Start at: 2018-06-05 03:41:31
End at: 2018-06-05 03:42:01
Local clock offset: -1.213 ms
Remote clock offset: 11.936 ms

Below is generated by plot.py at 2018-06-05 04:07:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 2682.431 ms
Loss rate: 83.94%
-- Flow 1:
Average throughput: 2.52 Mbit/s
95th percentile per-packet one-way delay: 2682.431 ms
Loss rate: 83.94%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-06-05 03:59:34

End at: 2018-06-05 04:00:04

Local clock offset: -1.218 ms

Remote clock offset: 3.767 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 3318.544 ms

Loss rate: 81.46%

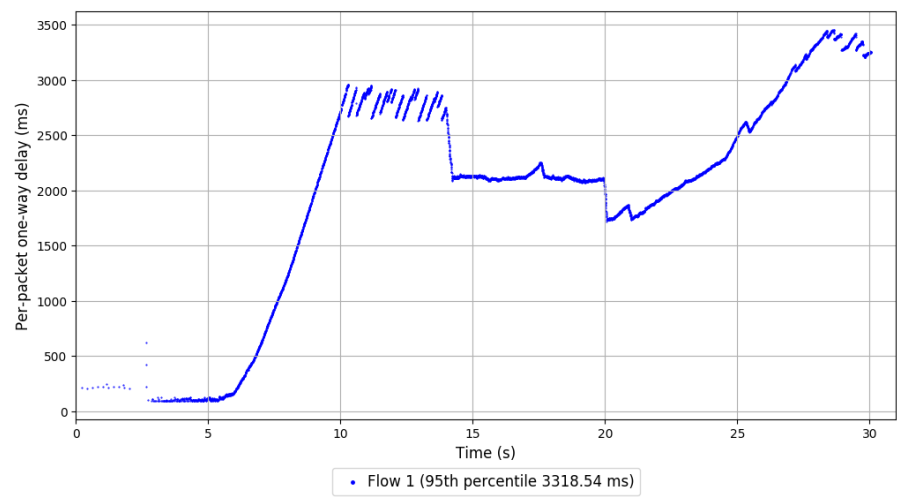
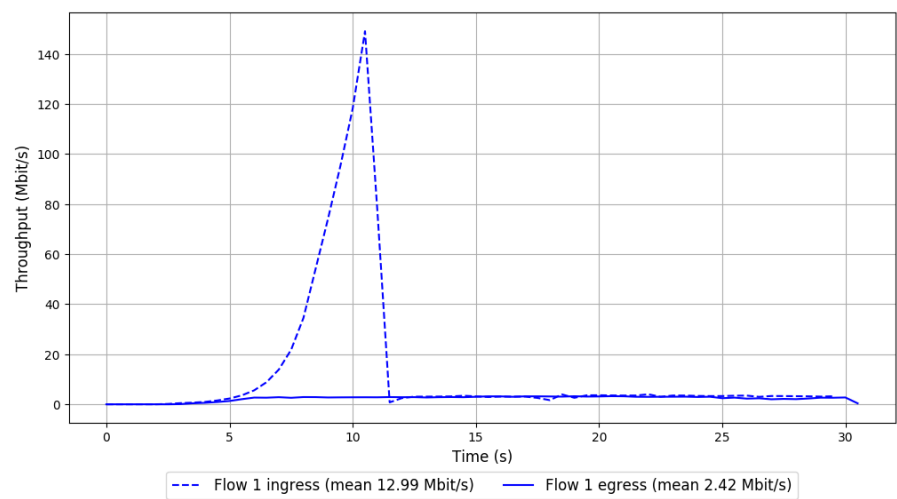
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 3318.544 ms

Loss rate: 81.46%

Run 3: Report of FillP — Data Link

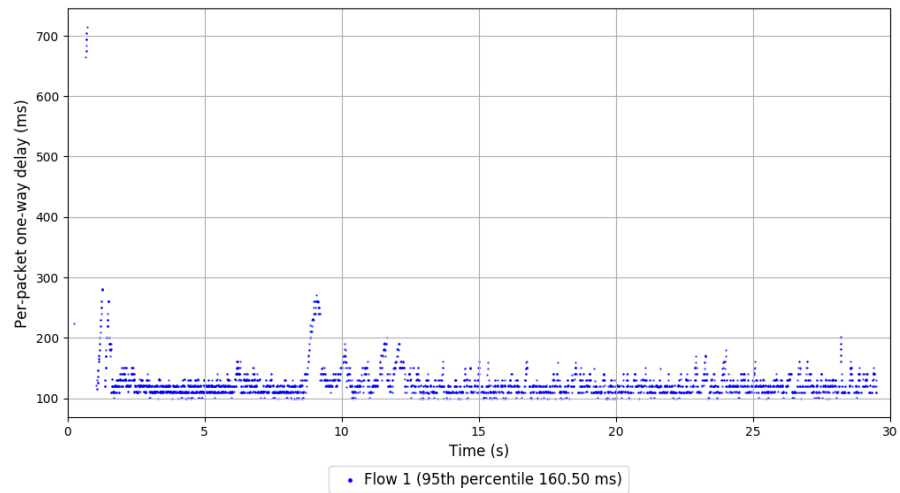
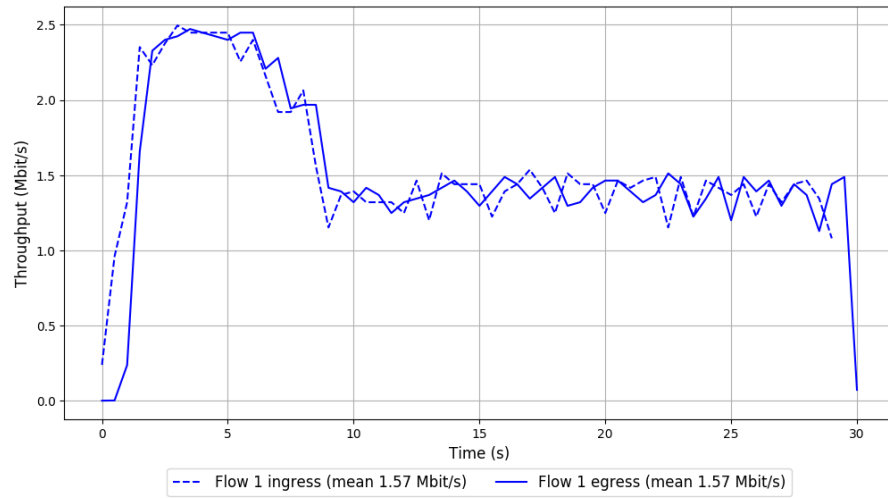


```
Run 1: Statistics of Indigo

Start at: 2018-06-05 03:15:33
End at: 2018-06-05 03:16:03
Local clock offset: -1.835 ms
Remote clock offset: 17.63 ms

# Below is generated by plot.py at 2018-06-05 04:07:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 160.504 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.57 Mbit/s
95th percentile per-packet one-way delay: 160.504 ms
Loss rate: 0.05%
```

Run 1: Report of Indigo — Data Link

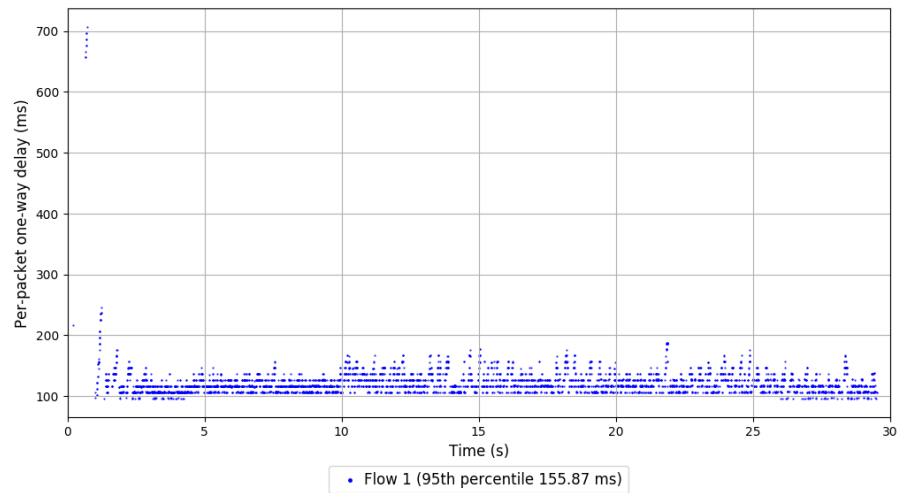
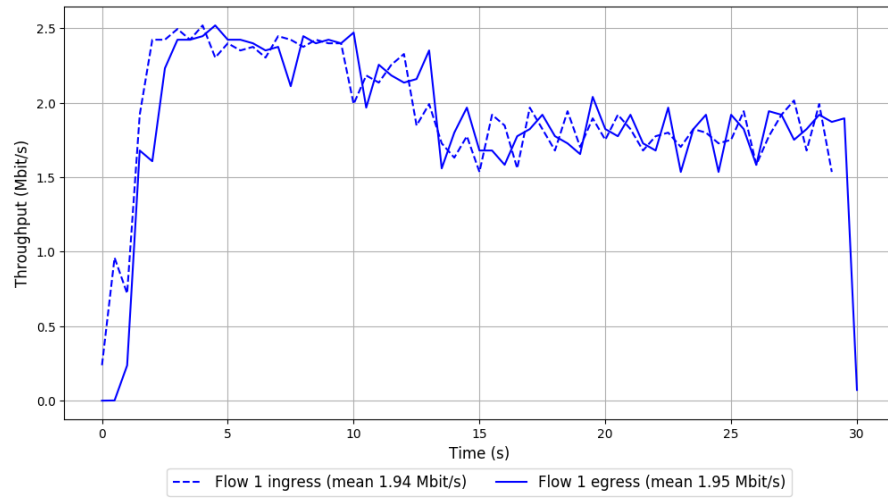


Run 2: Statistics of Indigo

Start at: 2018-06-05 03:33:37
End at: 2018-06-05 03:34:07
Local clock offset: -2.76 ms
Remote clock offset: 12.744 ms

Below is generated by plot.py at 2018-06-05 04:07:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 155.866 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 155.866 ms
Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-06-05 03:51:40

End at: 2018-06-05 03:52:10

Local clock offset: -1.976 ms

Remote clock offset: 4.606 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 154.185 ms

Loss rate: 0.02%

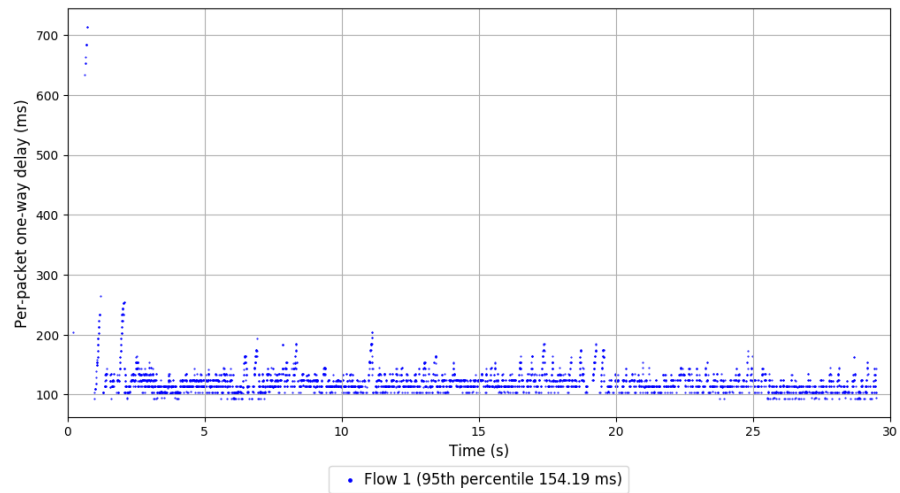
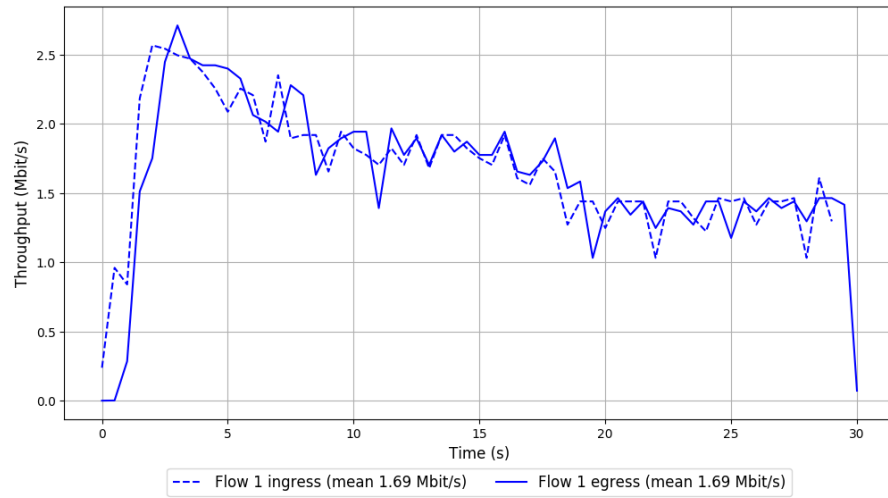
-- Flow 1:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 154.185 ms

Loss rate: 0.02%

Run 3: Report of Indigo — Data Link

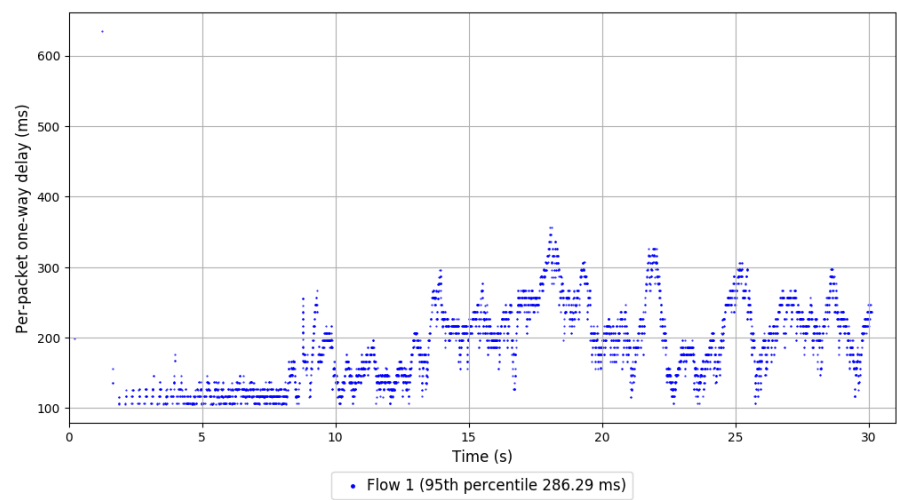
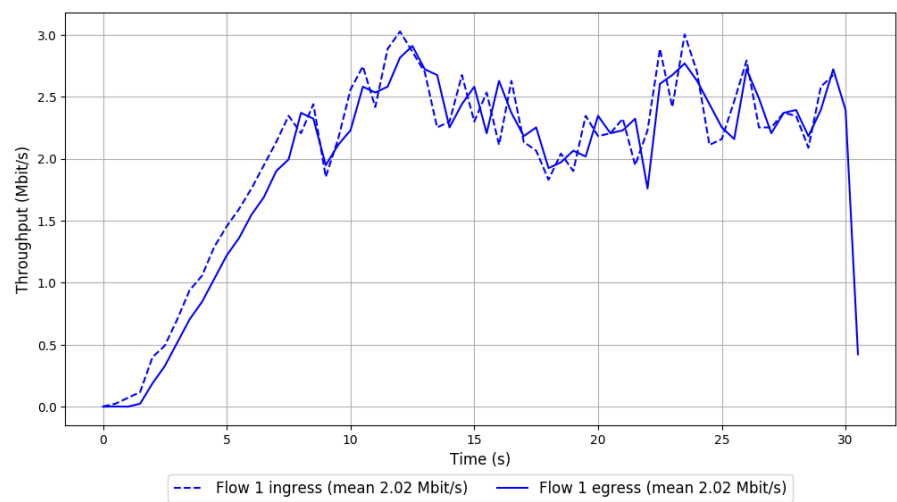


```
Run 1: Statistics of LEDBAT

Start at: 2018-06-05 03:30:13
End at: 2018-06-05 03:30:43
Local clock offset: -1.17 ms
Remote clock offset: 17.995 ms

# Below is generated by plot.py at 2018-06-05 04:07:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 286.288 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 286.288 ms
Loss rate: 0.46%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-06-05 03:48:17

End at: 2018-06-05 03:48:47

Local clock offset: -1.991 ms

Remote clock offset: 5.105 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 209.993 ms

Loss rate: 0.47%

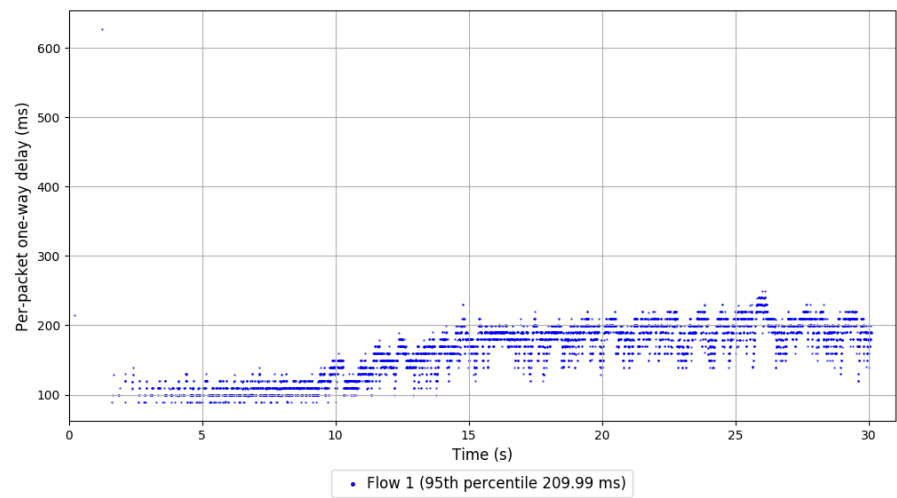
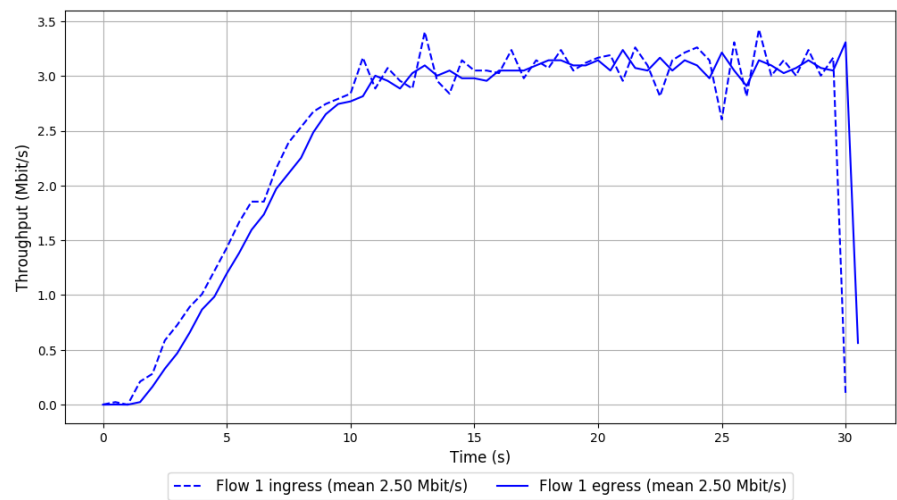
-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 209.993 ms

Loss rate: 0.47%

Run 2: Report of LEDBAT — Data Link

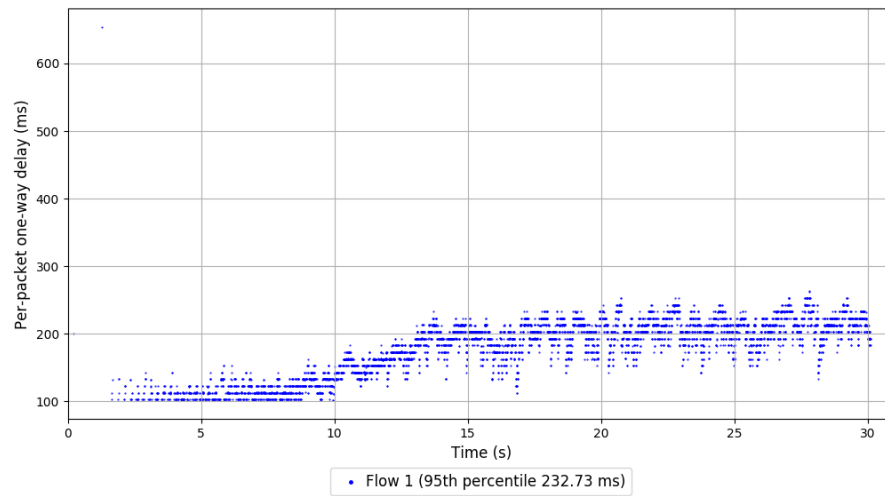
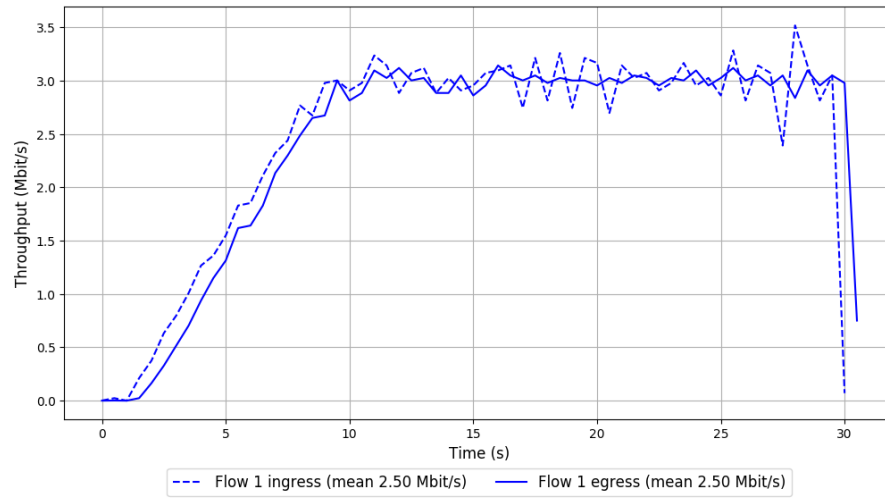


Run 3: Statistics of LEDBAT

Start at: 2018-06-05 04:06:20
End at: 2018-06-05 04:06:50
Local clock offset: -1.978 ms
Remote clock offset: 10.351 ms

Below is generated by plot.py at 2018-06-05 04:07:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 232.732 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 232.732 ms
Loss rate: 0.44%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-06-05 03:26:50

End at: 2018-06-05 03:27:20

Local clock offset: -1.942 ms

Remote clock offset: 18.478 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 2234.809 ms

Loss rate: 48.60%

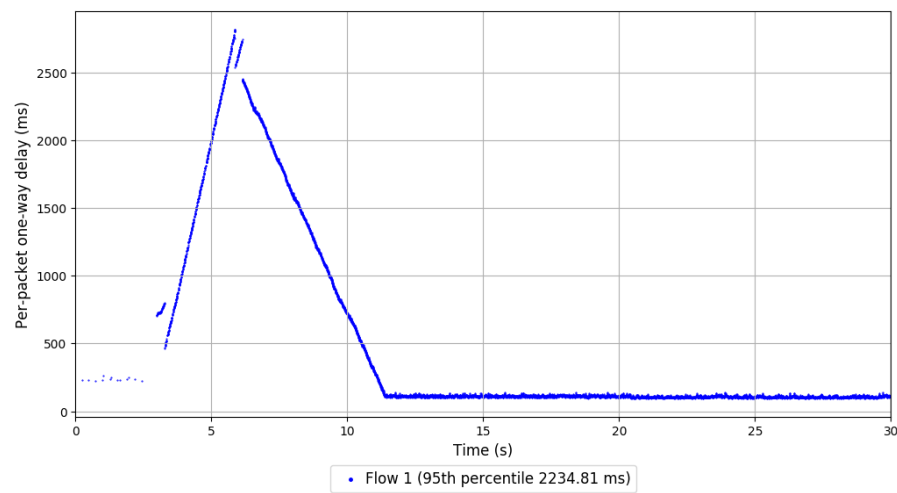
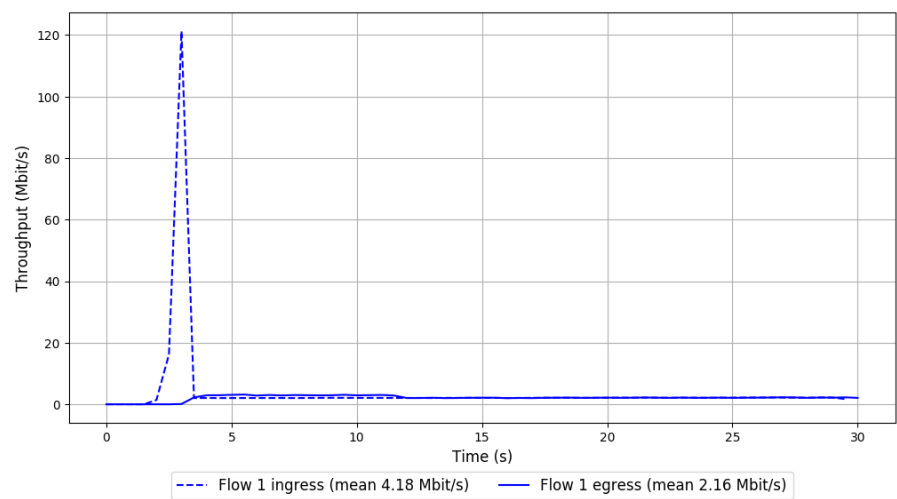
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 2234.809 ms

Loss rate: 48.60%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-06-05 03:44:54

End at: 2018-06-05 03:45:24

Local clock offset: -1.967 ms

Remote clock offset: 5.77 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 2296.415 ms

Loss rate: 27.96%

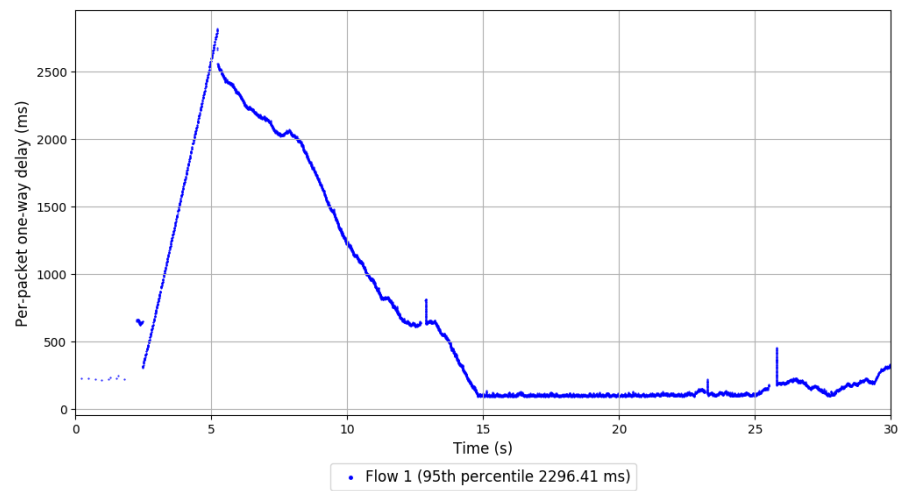
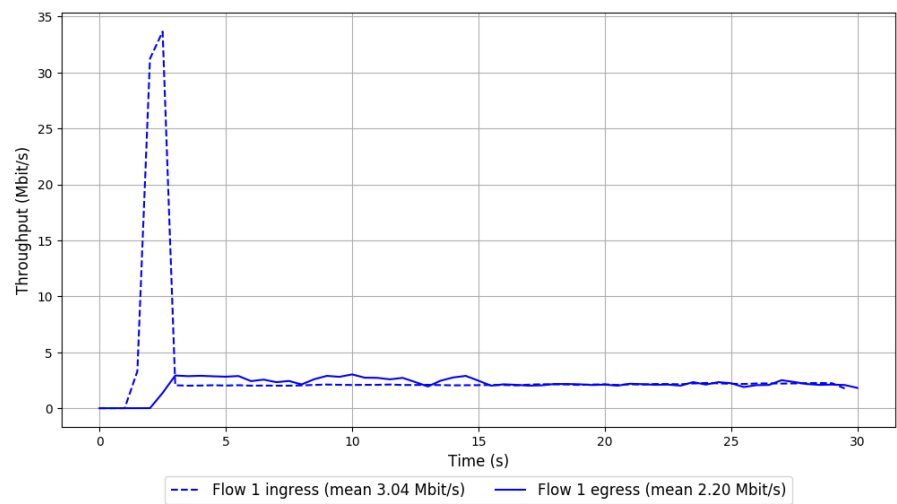
-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 2296.415 ms

Loss rate: 27.96%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-06-05 04:02:57

End at: 2018-06-05 04:03:27

Local clock offset: -2.822 ms

Remote clock offset: 8.652 ms

Below is generated by plot.py at 2018-06-05 04:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 2231.775 ms

Loss rate: 33.42%

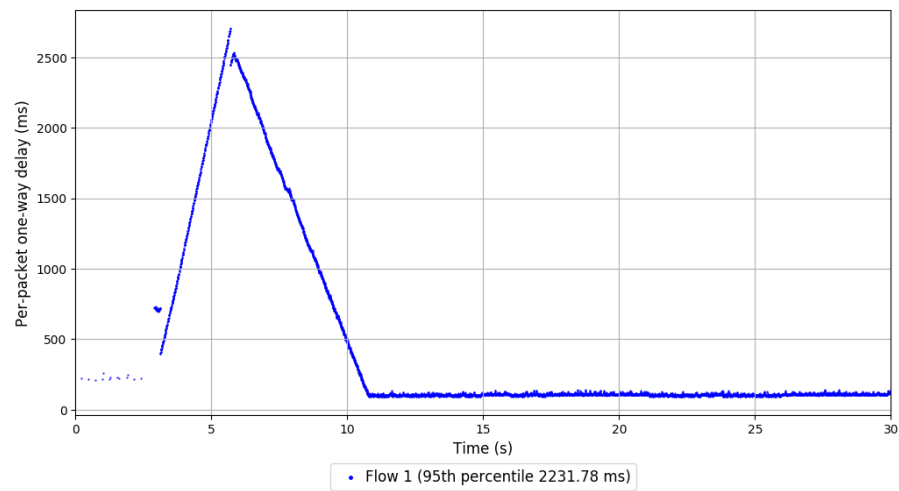
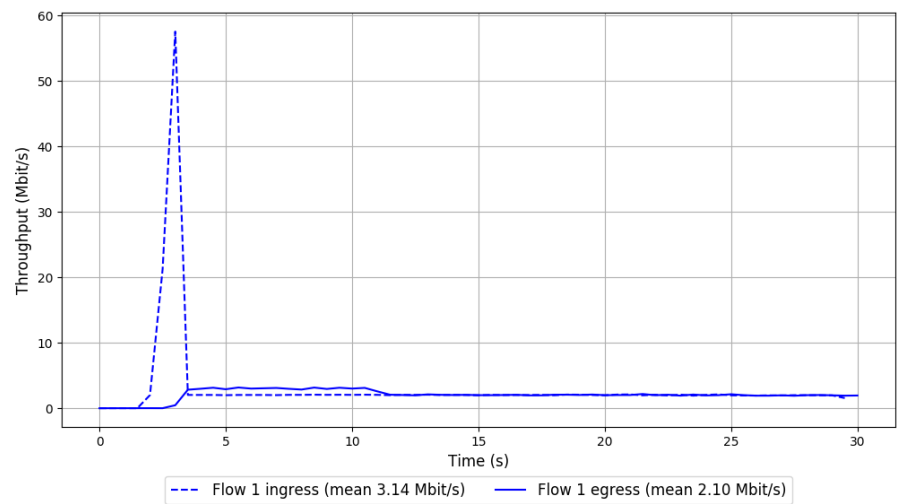
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 2231.775 ms

Loss rate: 33.42%

Run 3: Report of PCC-Allegro — Data Link

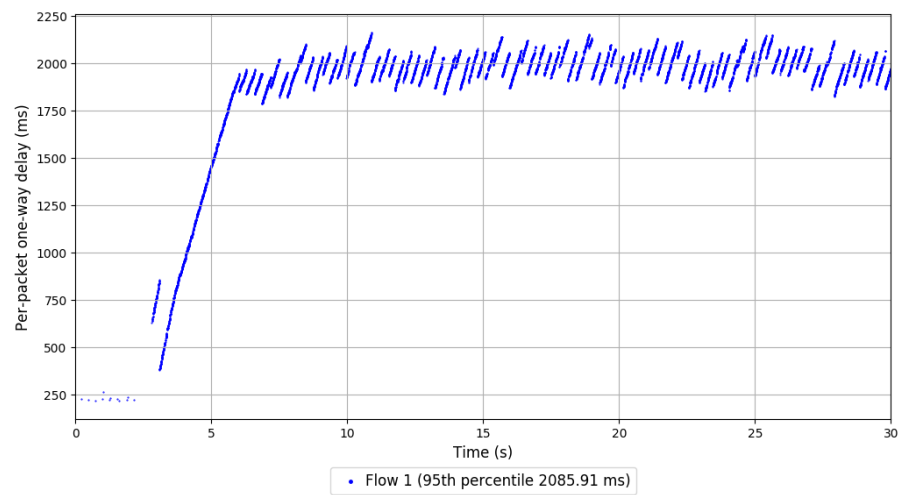
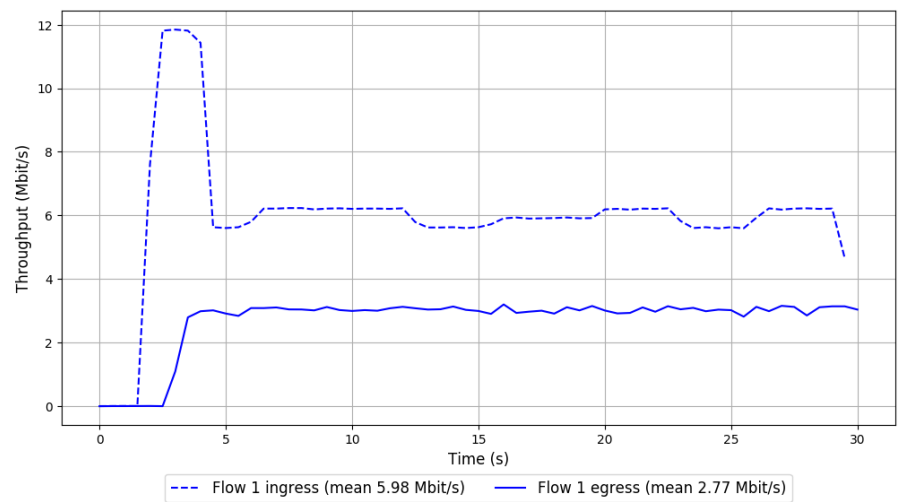


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-05 03:16:40
End at: 2018-06-05 03:17:10
Local clock offset: -1.855 ms
Remote clock offset: 11.842 ms

# Below is generated by plot.py at 2018-06-05 04:07:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 2085.905 ms
Loss rate: 53.94%
-- Flow 1:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 2085.905 ms
Loss rate: 53.94%
```

Run 1: Report of PCC-Expr — Data Link

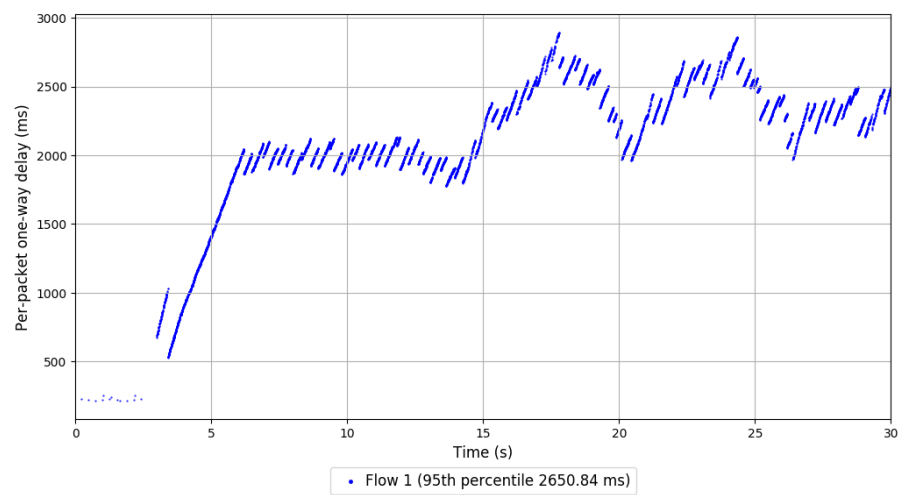
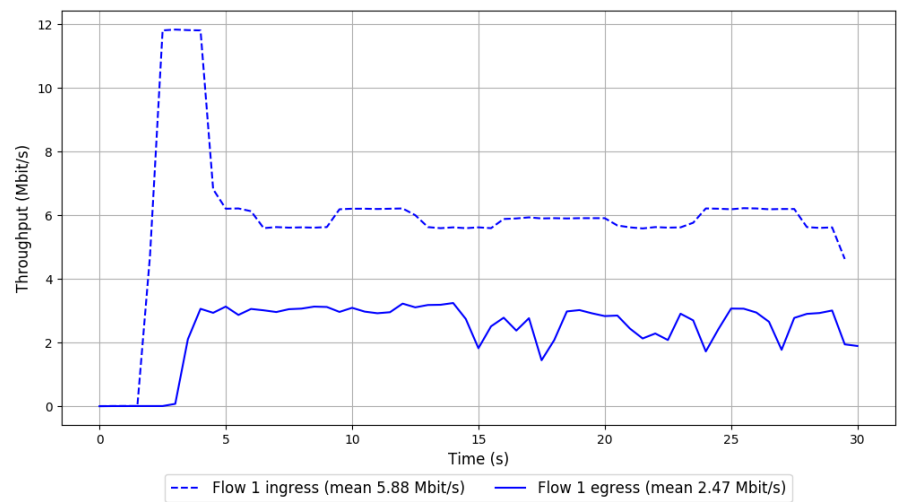


Run 2: Statistics of PCC-Expr

Start at: 2018-06-05 03:34:44
End at: 2018-06-05 03:35:14
Local clock offset: -1.169 ms
Remote clock offset: 11.796 ms

Below is generated by plot.py at 2018-06-05 04:07:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 2650.837 ms
Loss rate: 58.15%
-- Flow 1:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 2650.837 ms
Loss rate: 58.15%

Run 2: Report of PCC-Expr — Data Link

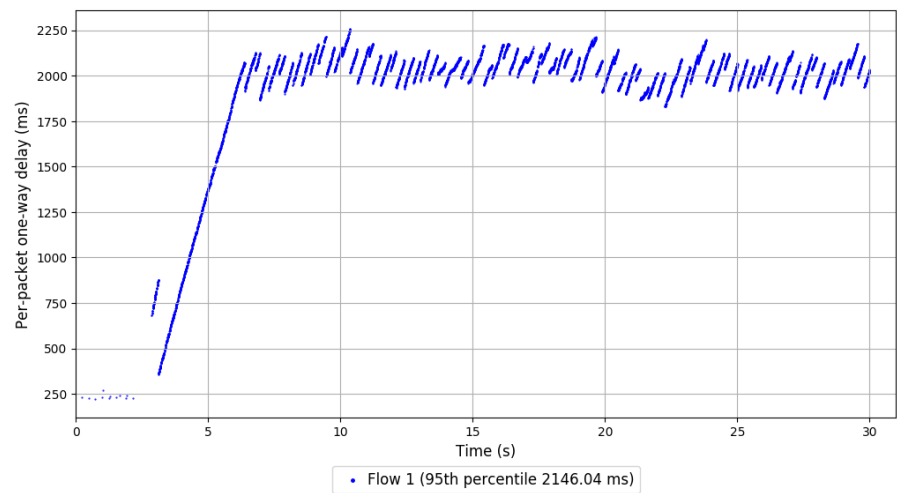
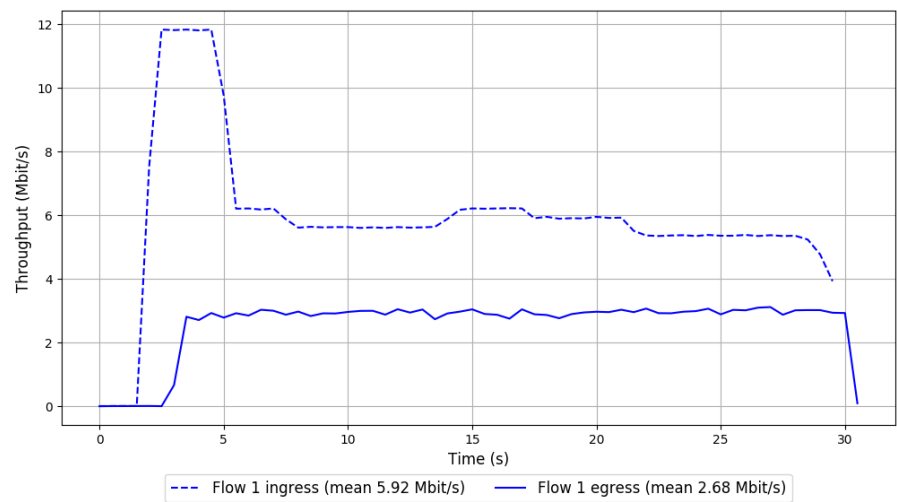


Run 3: Statistics of PCC-Expr

Start at: 2018-06-05 03:52:48
End at: 2018-06-05 03:53:18
Local clock offset: -2.764 ms
Remote clock offset: 10.528 ms

Below is generated by plot.py at 2018-06-05 04:07:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 2146.041 ms
Loss rate: 54.95%
-- Flow 1:
Average throughput: 2.68 Mbit/s
95th percentile per-packet one-way delay: 2146.041 ms
Loss rate: 54.95%

Run 3: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-06-05 03:14:25

End at: 2018-06-05 03:14:55

Local clock offset: -1.128 ms

Remote clock offset: 11.355 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.87 Mbit/s

95th percentile per-packet one-way delay: 996.340 ms

Loss rate: 3.38%

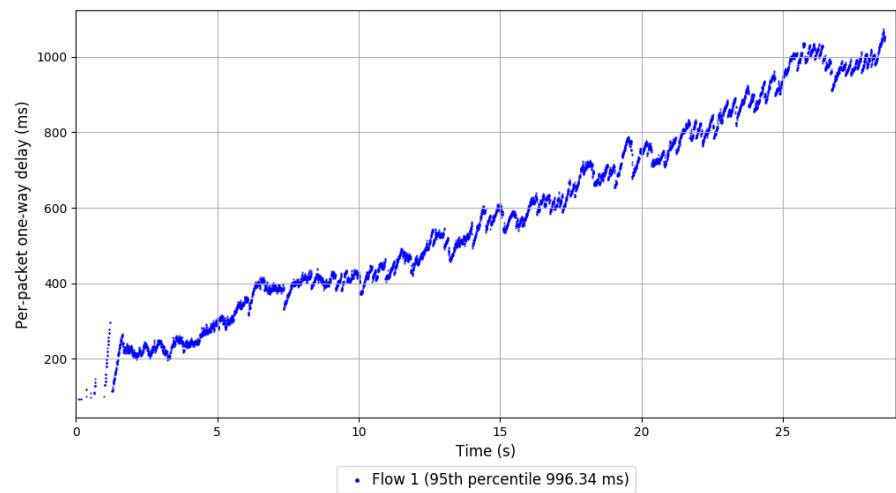
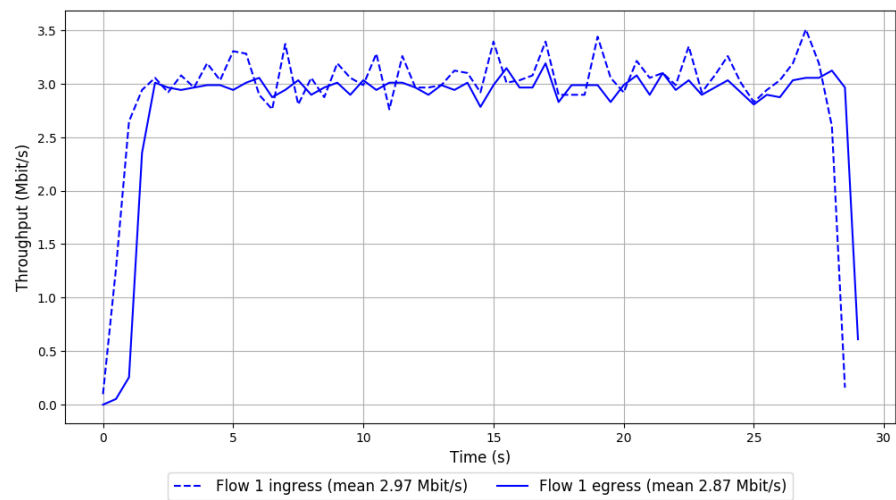
-- Flow 1:

Average throughput: 2.87 Mbit/s

95th percentile per-packet one-way delay: 996.340 ms

Loss rate: 3.38%

Run 1: Report of QUIC Cubic — Data Link

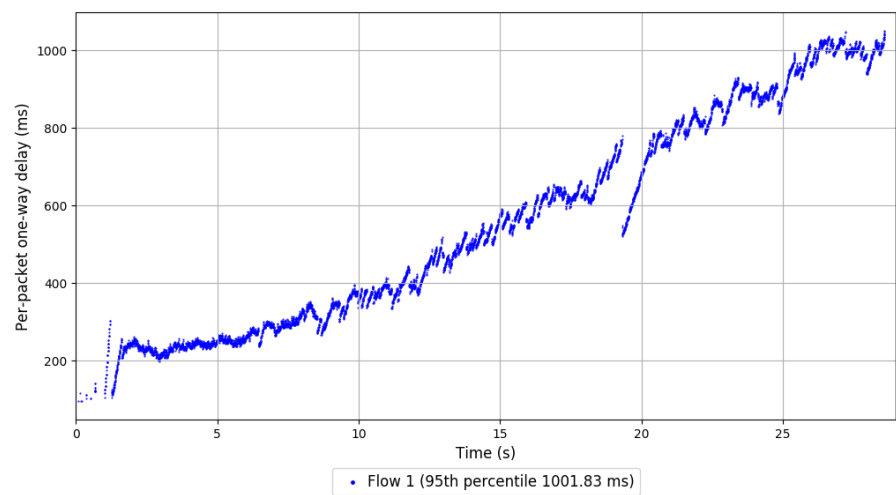
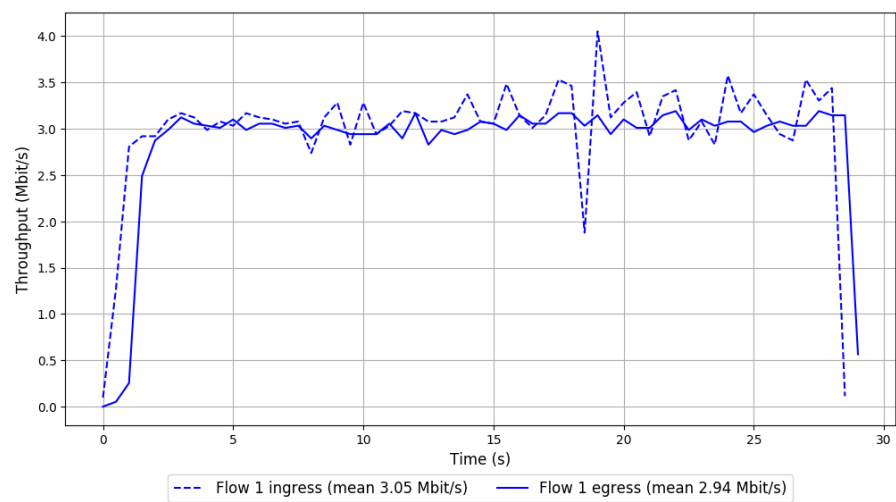


Run 2: Statistics of QUIC Cubic

Start at: 2018-06-05 03:32:29
End at: 2018-06-05 03:32:59
Local clock offset: -1.925 ms
Remote clock offset: 13.969 ms

Below is generated by plot.py at 2018-06-05 04:07:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 1001.833 ms
Loss rate: 3.66%
-- Flow 1:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 1001.833 ms
Loss rate: 3.66%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-06-05 03:50:32

End at: 2018-06-05 03:51:02

Local clock offset: -1.209 ms

Remote clock offset: 4.646 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 930.043 ms

Loss rate: 3.25%

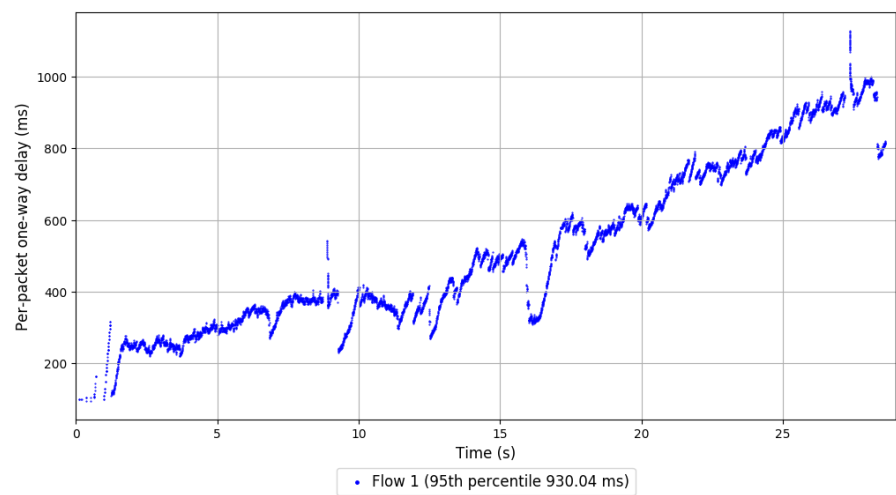
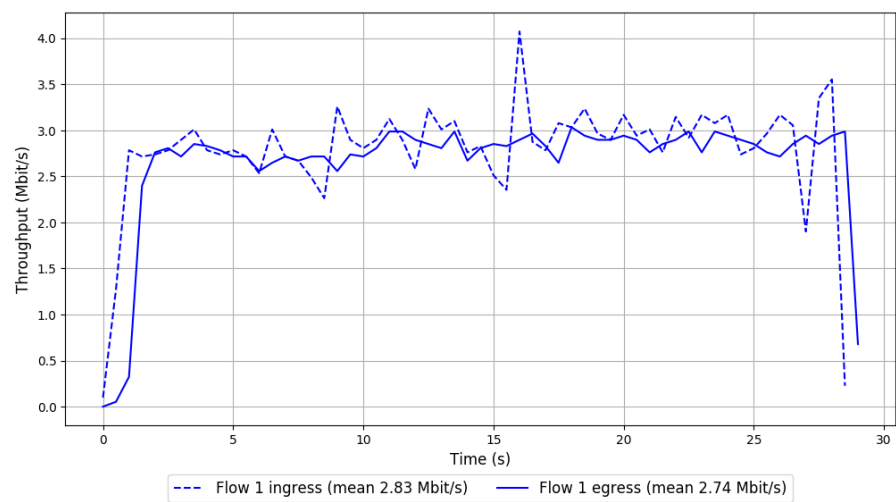
-- Flow 1:

Average throughput: 2.74 Mbit/s

95th percentile per-packet one-way delay: 930.043 ms

Loss rate: 3.25%

Run 3: Report of QUIC Cubic — Data Link

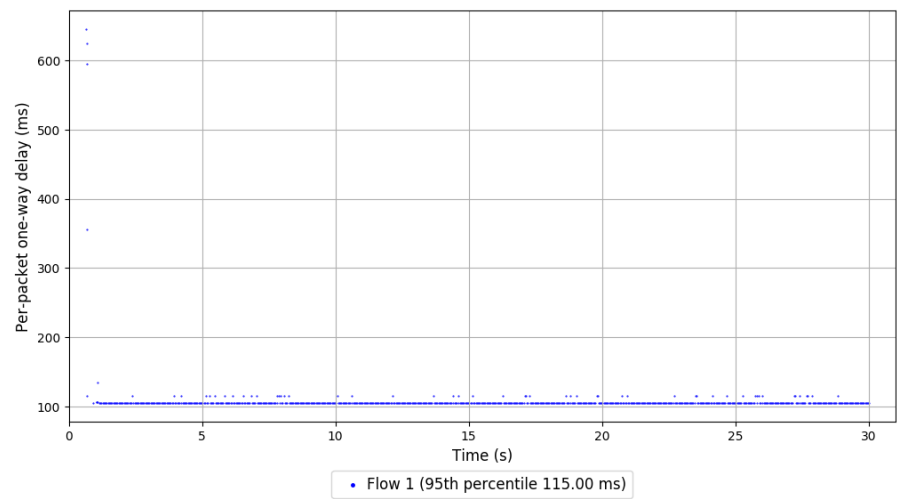
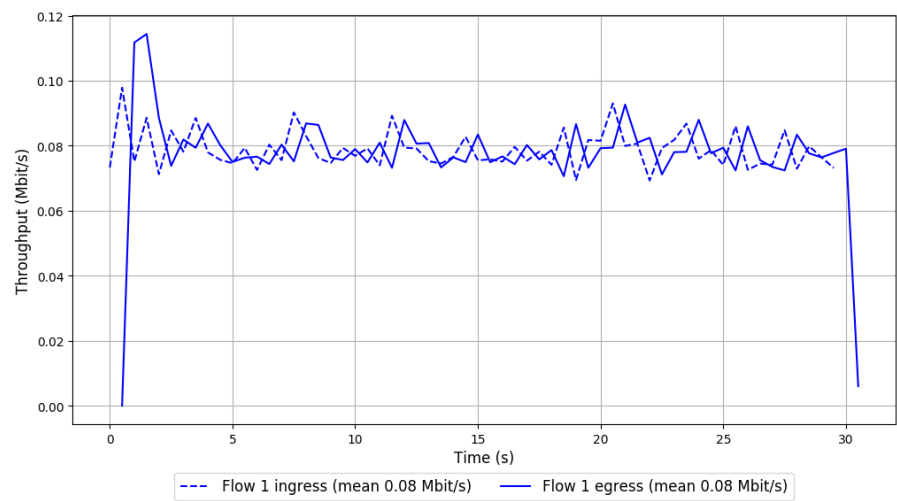


Run 1: Statistics of SCReAM

Start at: 2018-06-05 03:24:35
End at: 2018-06-05 03:25:05
Local clock offset: -1.922 ms
Remote clock offset: 14.244 ms

Below is generated by plot.py at 2018-06-05 04:07:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 115.000 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 115.000 ms
Loss rate: 0.13%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-06-05 03:42:39

End at: 2018-06-05 03:43:09

Local clock offset: -1.212 ms

Remote clock offset: 6.459 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 103.089 ms

Loss rate: 0.00%

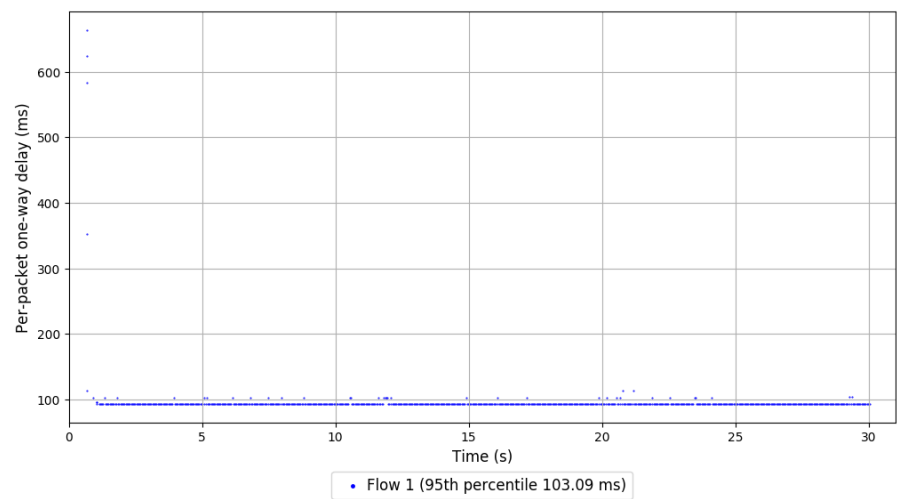
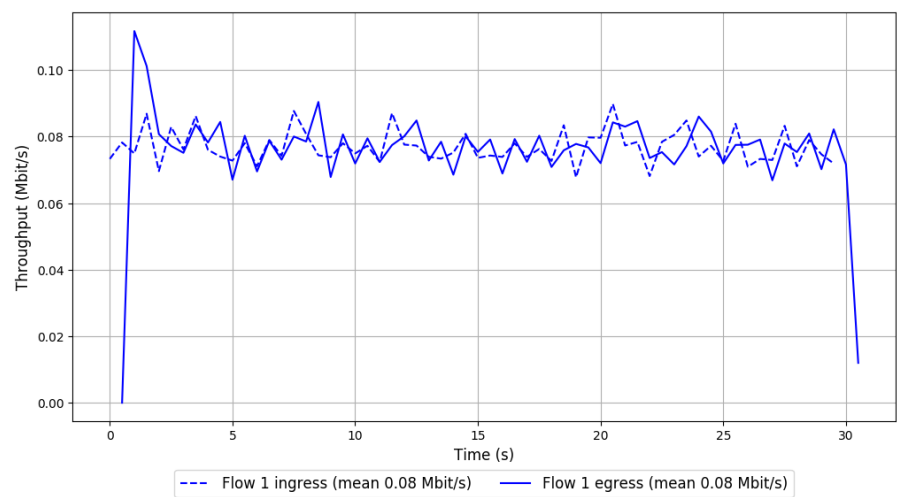
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 103.089 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-06-05 04:00:42

End at: 2018-06-05 04:01:12

Local clock offset: -2.008 ms

Remote clock offset: 4.747 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 115.474 ms

Loss rate: 0.00%

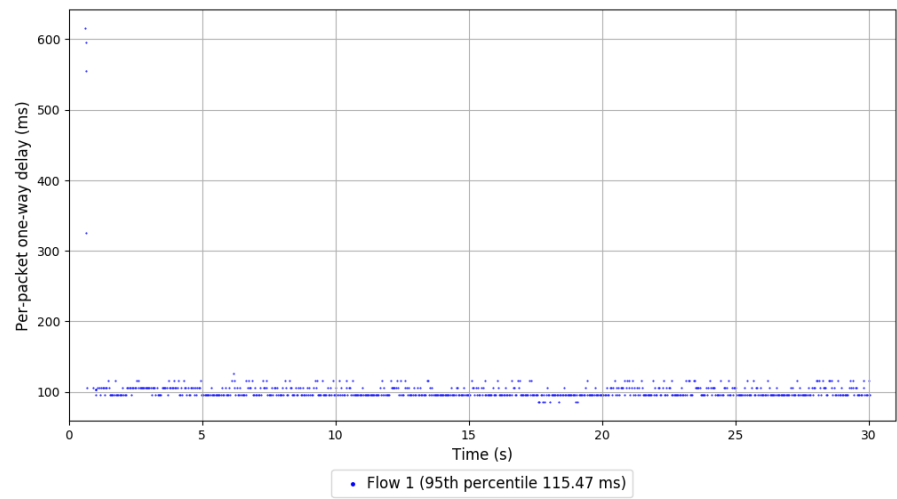
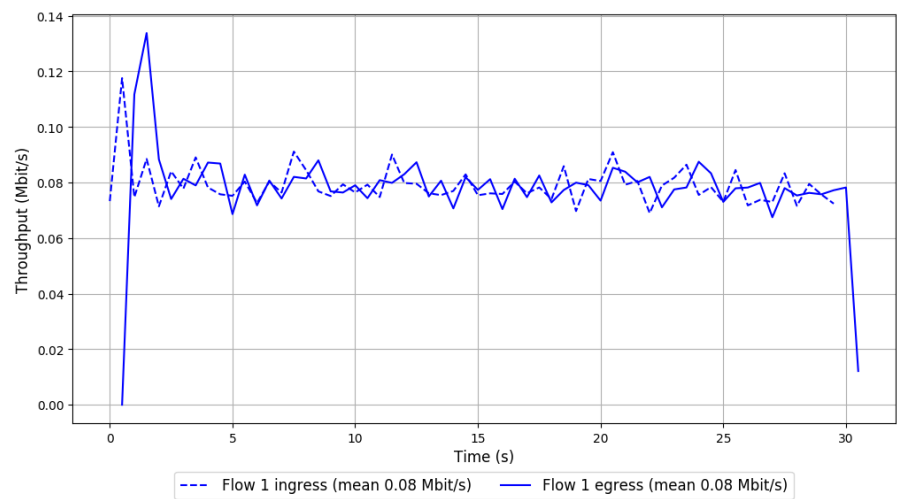
-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 115.474 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

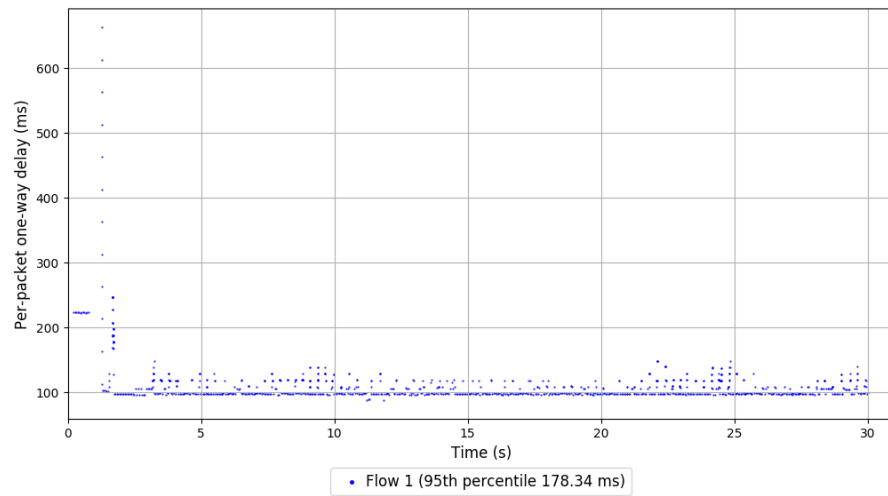
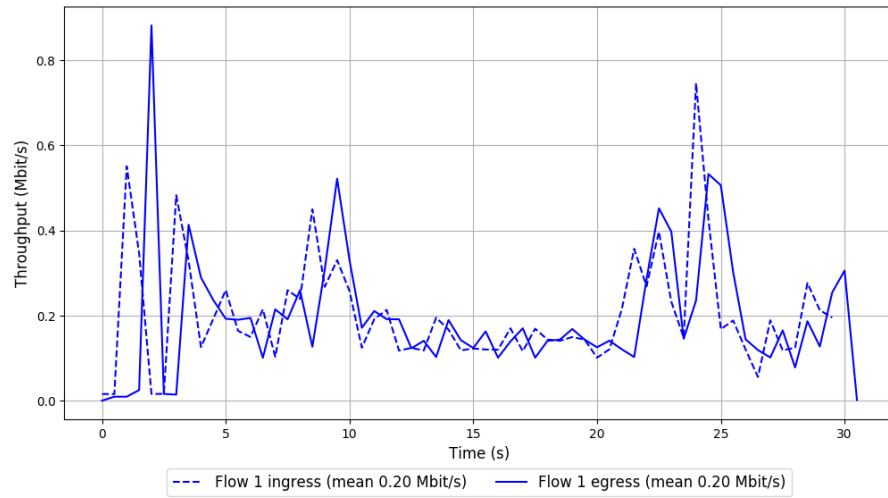


Run 1: Statistics of Sprout

Start at: 2018-06-05 03:22:20
End at: 2018-06-05 03:22:50
Local clock offset: -1.985 ms
Remote clock offset: 16.726 ms

Below is generated by plot.py at 2018-06-05 04:07:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 178.336 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 178.336 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-06-05 03:40:24

End at: 2018-06-05 03:40:54

Local clock offset: -1.203 ms

Remote clock offset: 8.369 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 189.792 ms

Loss rate: 0.00%

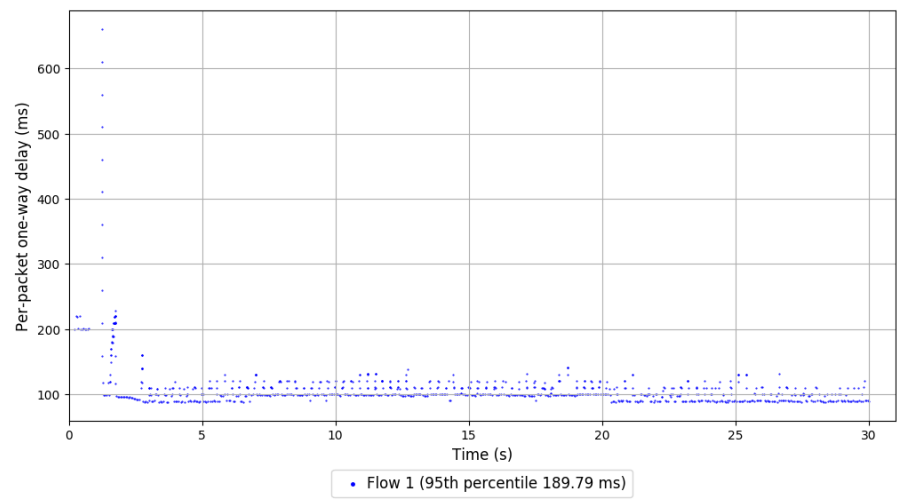
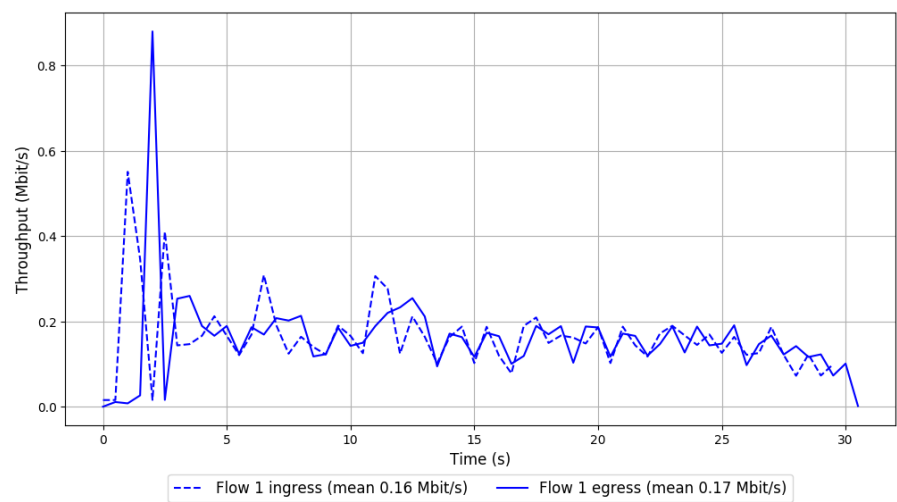
-- Flow 1:

Average throughput: 0.17 Mbit/s

95th percentile per-packet one-way delay: 189.792 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-06-05 03:58:27

End at: 2018-06-05 03:58:57

Local clock offset: -1.283 ms

Remote clock offset: 8.88 ms

Below is generated by plot.py at 2018-06-05 04:07:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 155.880 ms

Loss rate: 0.33%

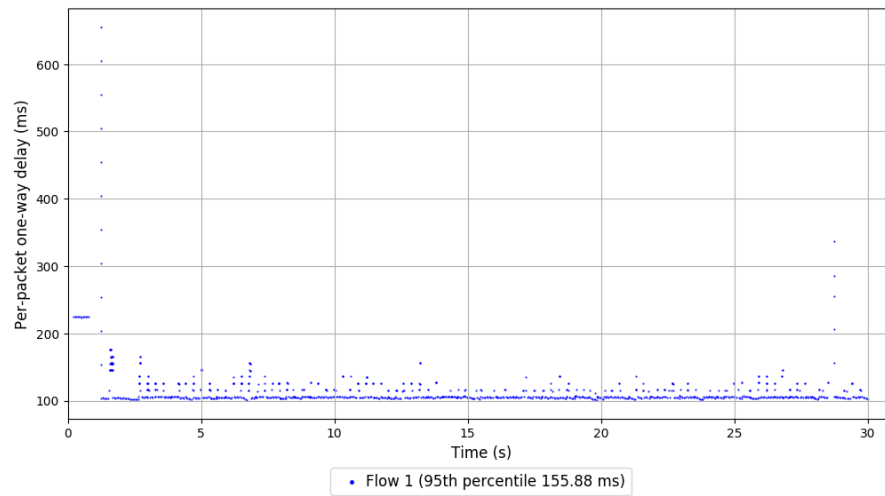
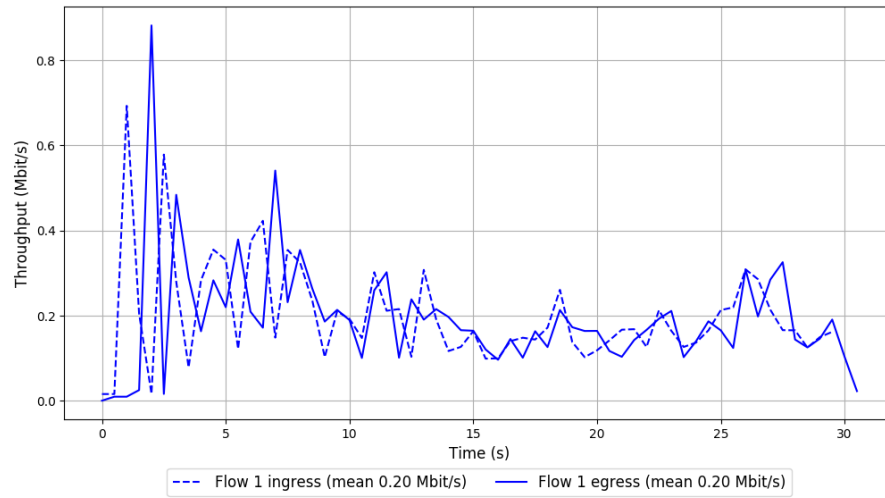
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 155.880 ms

Loss rate: 0.33%

Run 3: Report of Sprout — Data Link

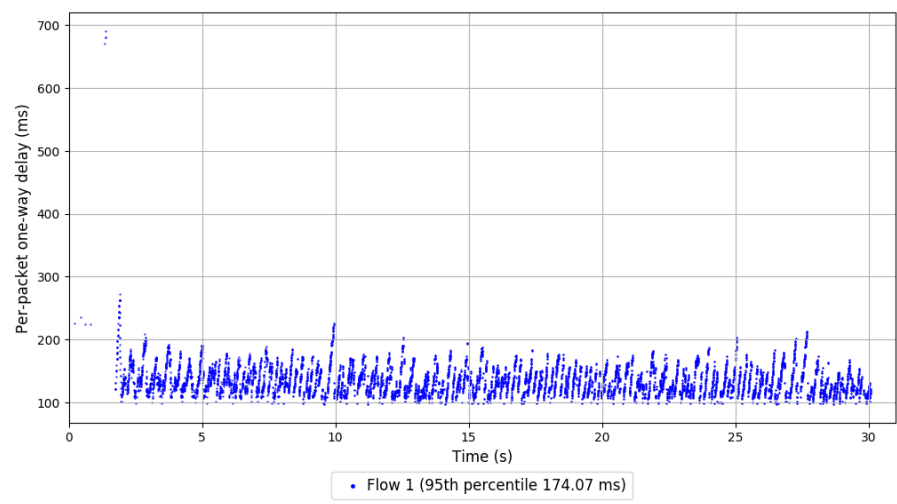
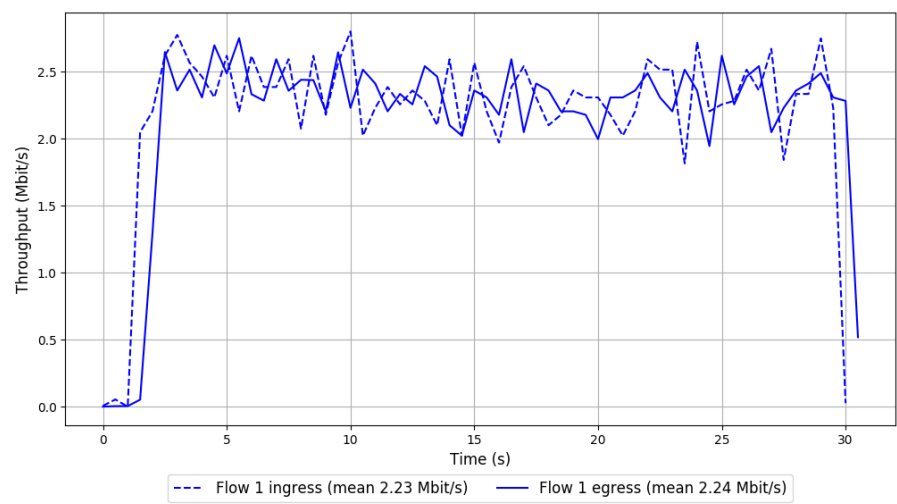


Run 1: Statistics of TaoVA-100x

Start at: 2018-06-05 03:21:12
End at: 2018-06-05 03:21:42
Local clock offset: -1.142 ms
Remote clock offset: 16.603 ms

Below is generated by plot.py at 2018-06-05 04:07:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 174.066 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 174.066 ms
Loss rate: 0.21%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-06-05 03:39:16

End at: 2018-06-05 03:39:46

Local clock offset: -1.979 ms

Remote clock offset: 8.919 ms

Below is generated by plot.py at 2018-06-05 04:07:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 689.475 ms

Loss rate: 0.02%

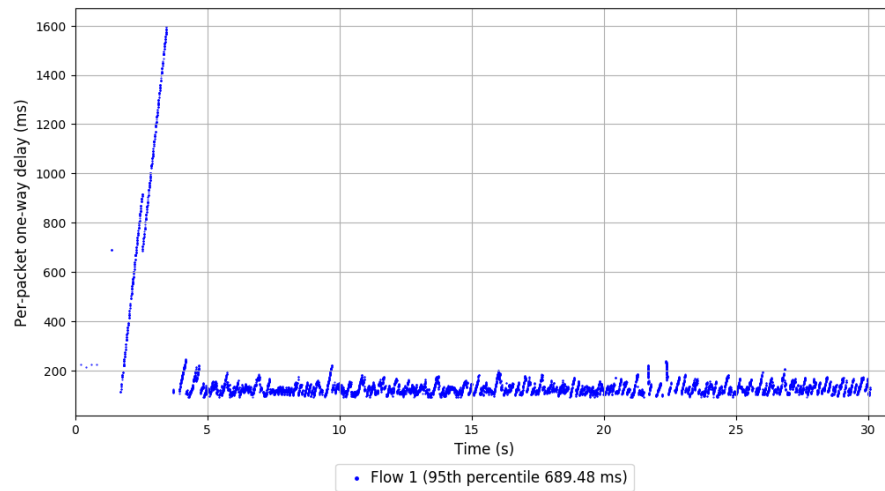
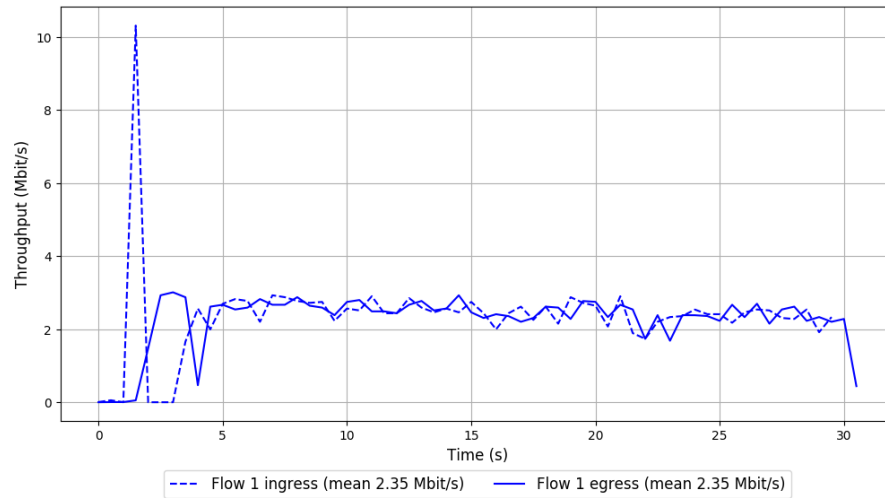
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 689.475 ms

Loss rate: 0.02%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-06-05 03:57:19

End at: 2018-06-05 03:57:49

Local clock offset: -1.993 ms

Remote clock offset: 7.93 ms

Below is generated by plot.py at 2018-06-05 04:07:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 226.961 ms

Loss rate: 0.08%

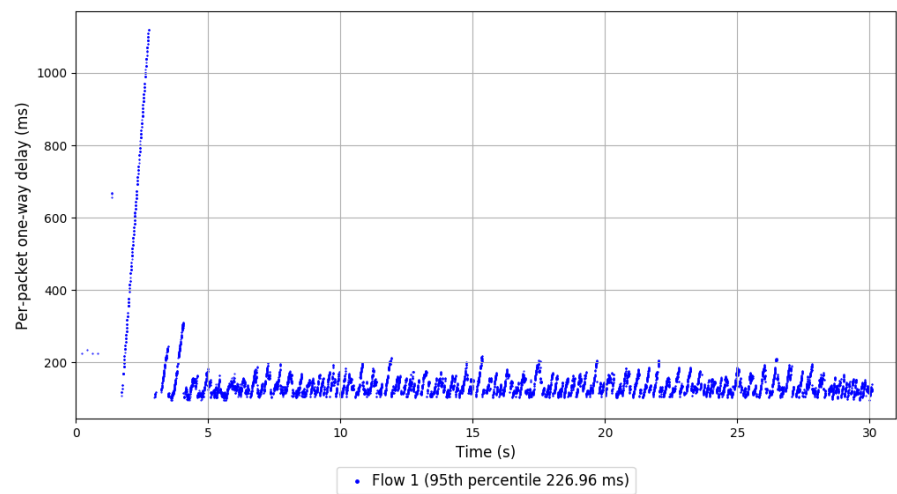
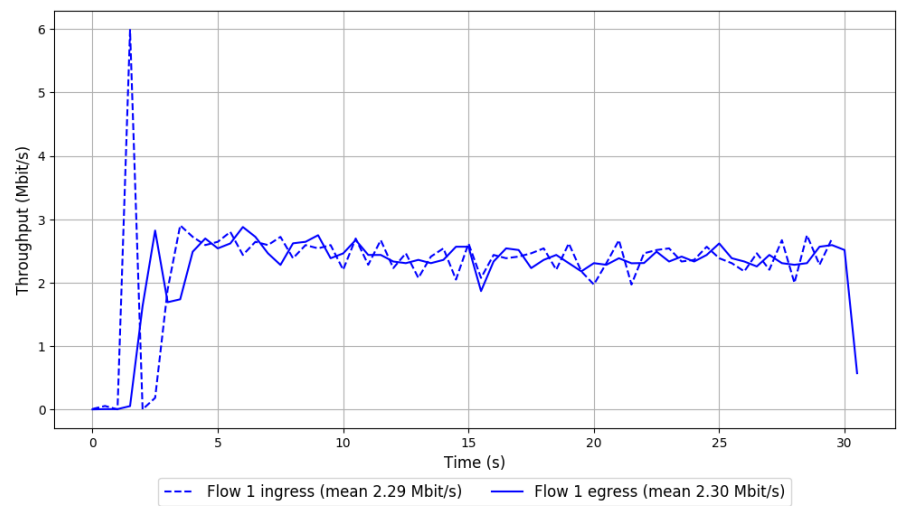
-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 226.961 ms

Loss rate: 0.08%

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

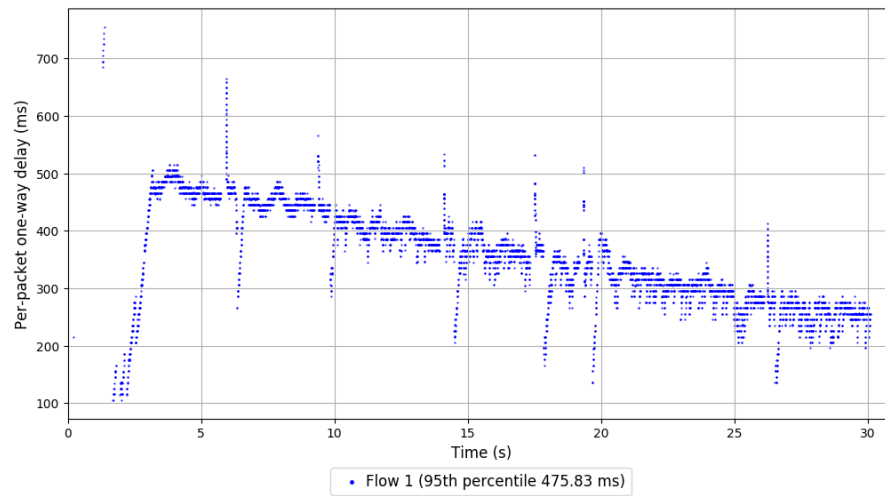
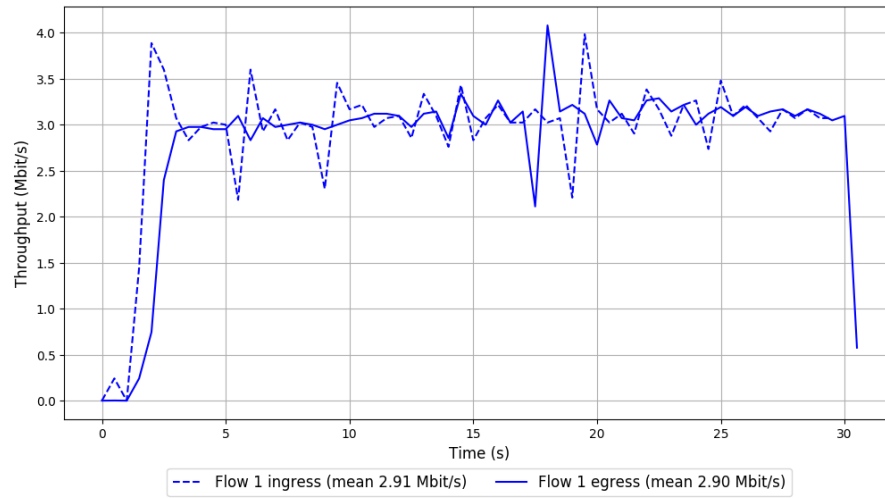


Run 1: Statistics of TCP Vegas

Start at: 2018-06-05 03:27:58
End at: 2018-06-05 03:28:28
Local clock offset: -1.951 ms
Remote clock offset: 14.788 ms

Below is generated by plot.py at 2018-06-05 04:07:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 475.826 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 475.826 ms
Loss rate: 0.56%

Run 1: Report of TCP Vegas — Data Link

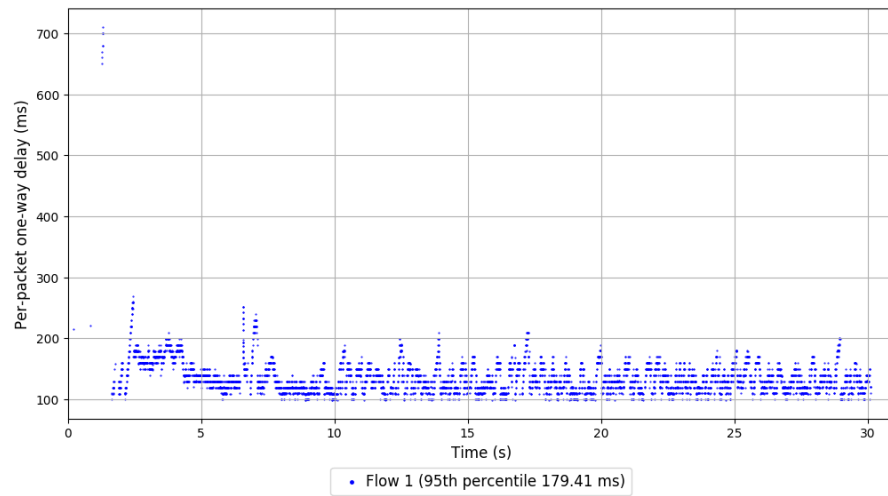
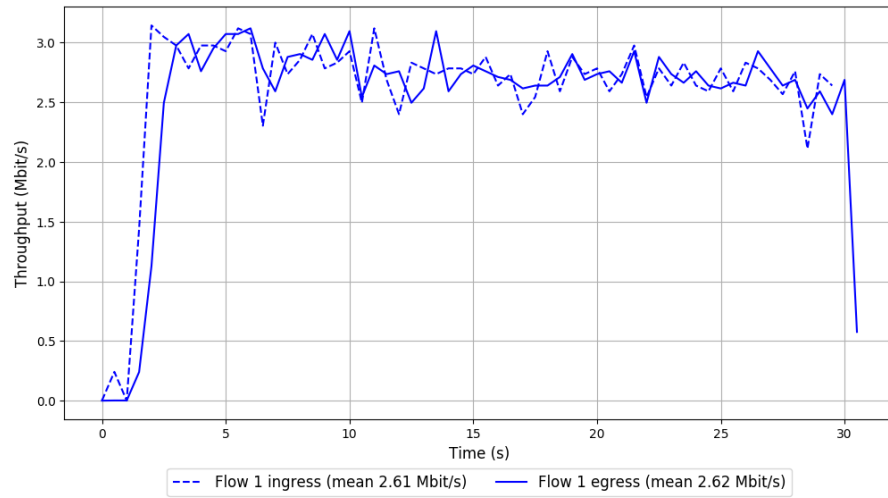


Run 2: Statistics of TCP Vegas

Start at: 2018-06-05 03:46:02
End at: 2018-06-05 03:46:32
Local clock offset: -1.982 ms
Remote clock offset: 6.646 ms

Below is generated by plot.py at 2018-06-05 04:07:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 179.405 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 179.405 ms
Loss rate: 0.08%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-06-05 04:04:04

End at: 2018-06-05 04:04:34

Local clock offset: -1.215 ms

Remote clock offset: 4.73 ms

Below is generated by plot.py at 2018-06-05 04:07:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.81 Mbit/s

95th percentile per-packet one-way delay: 823.645 ms

Loss rate: 1.95%

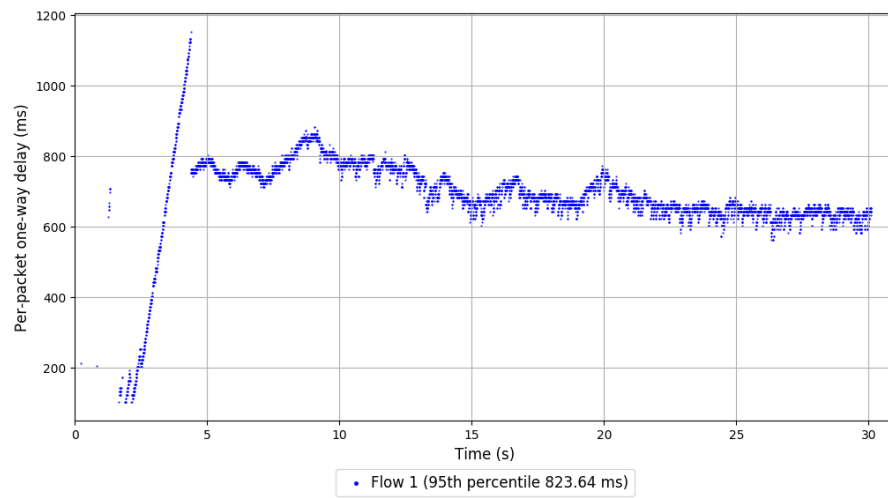
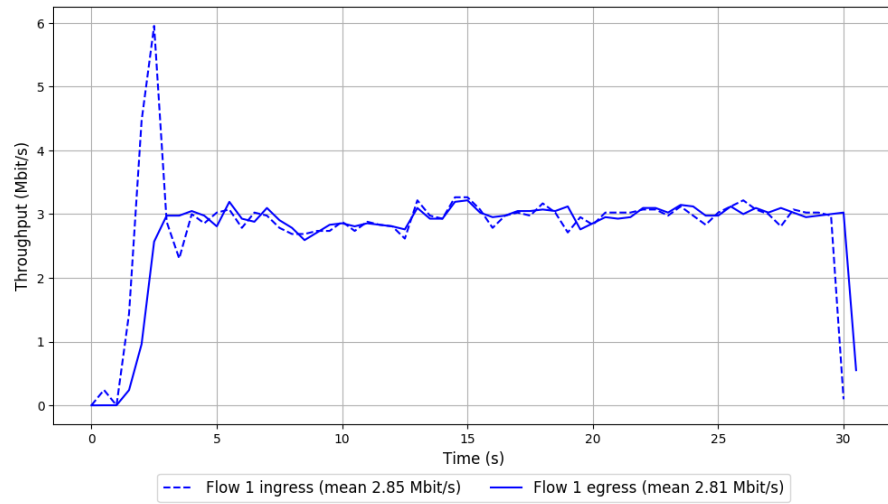
-- Flow 1:

Average throughput: 2.81 Mbit/s

95th percentile per-packet one-way delay: 823.645 ms

Loss rate: 1.95%

Run 3: Report of TCP Vegas — Data Link

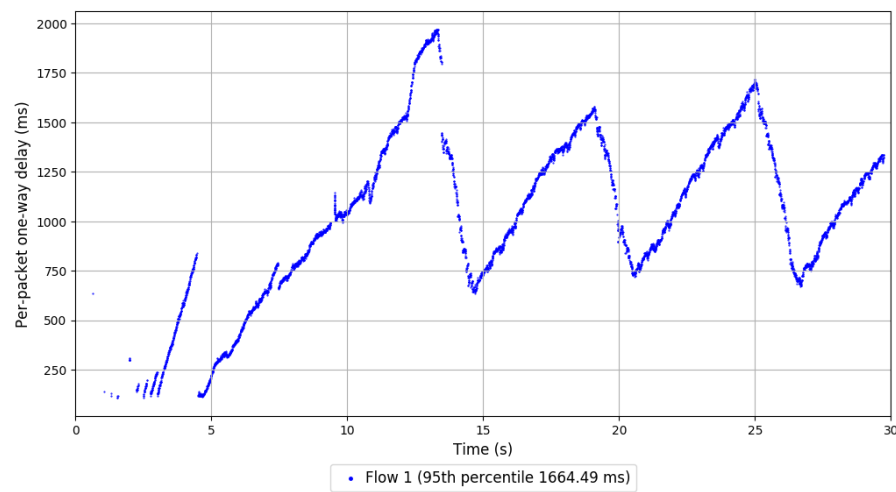
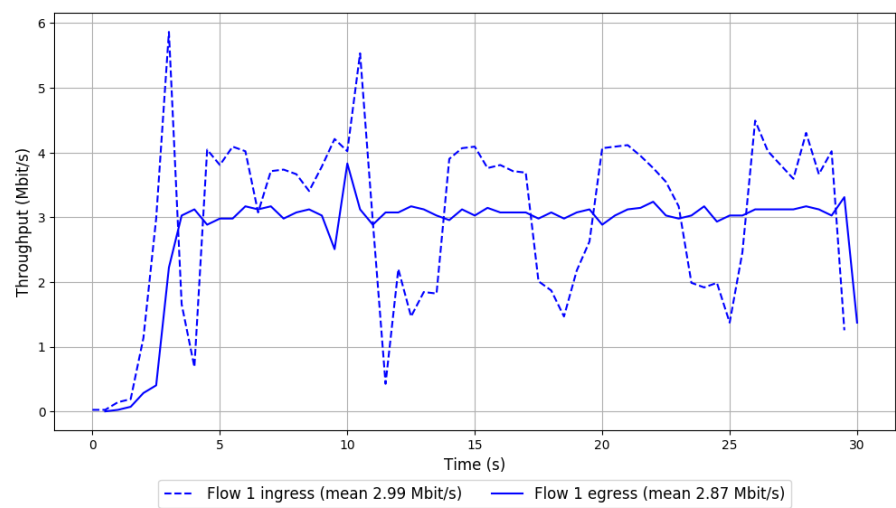


Run 1: Statistics of Verus

Start at: 2018-06-05 03:29:05
End at: 2018-06-05 03:29:35
Local clock offset: -1.991 ms
Remote clock offset: 14.928 ms

Below is generated by plot.py at 2018-06-05 04:07:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 1664.494 ms
Loss rate: 5.63%
-- Flow 1:
Average throughput: 2.87 Mbit/s
95th percentile per-packet one-way delay: 1664.494 ms
Loss rate: 5.63%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-06-05 03:47:09

End at: 2018-06-05 03:47:39

Local clock offset: -1.979 ms

Remote clock offset: 6.452 ms

Below is generated by plot.py at 2018-06-05 04:07:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.95 Mbit/s

95th percentile per-packet one-way delay: 1540.494 ms

Loss rate: 2.55%

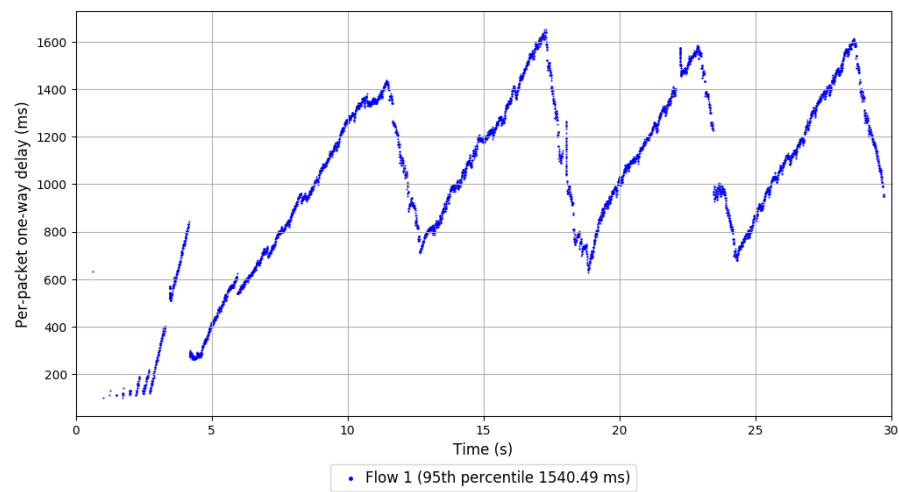
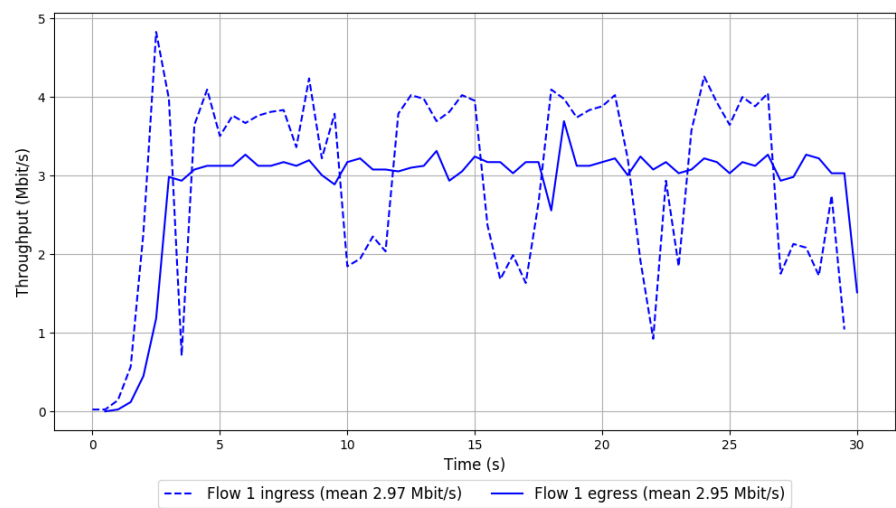
-- Flow 1:

Average throughput: 2.95 Mbit/s

95th percentile per-packet one-way delay: 1540.494 ms

Loss rate: 2.55%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-06-05 04:05:12

End at: 2018-06-05 04:05:42

Local clock offset: -1.219 ms

Remote clock offset: 7.445 ms

Below is generated by plot.py at 2018-06-05 04:07:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 1595.864 ms

Loss rate: 4.18%

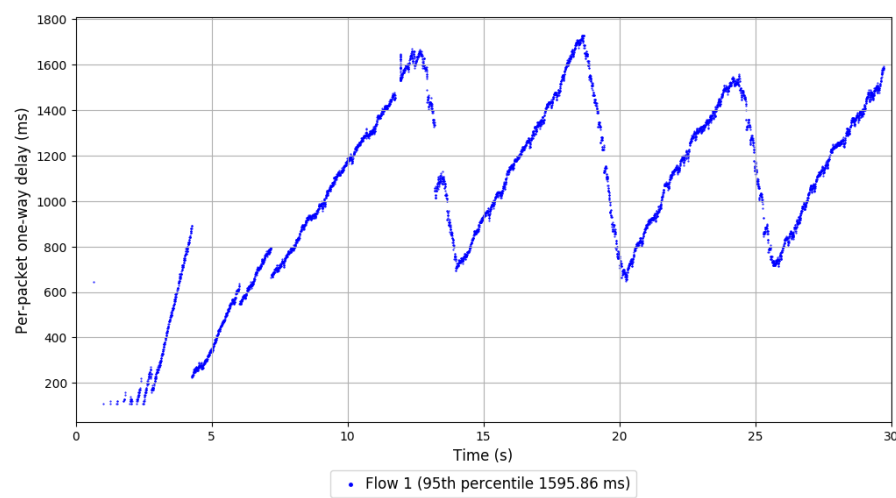
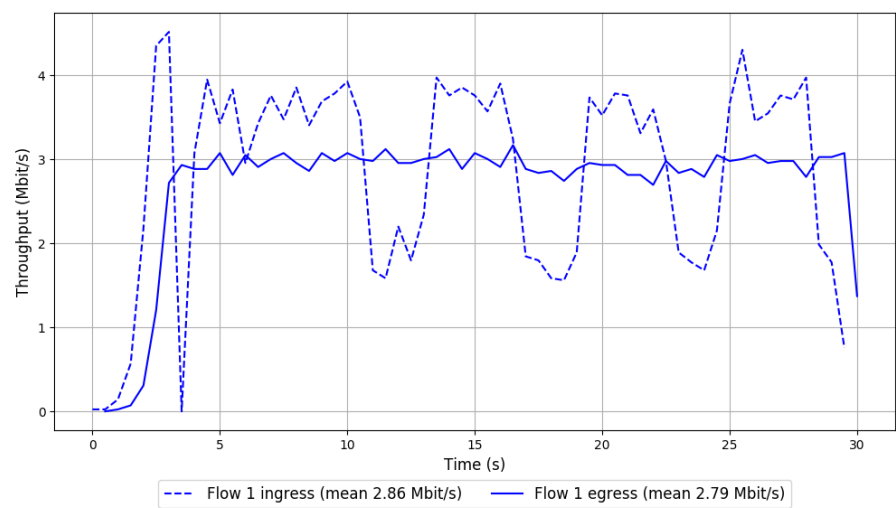
-- Flow 1:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 1595.864 ms

Loss rate: 4.18%

Run 3: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-06-05 03:18:56

End at: 2018-06-05 03:19:26

Local clock offset: -2.663 ms

Remote clock offset: 13.309 ms

Below is generated by plot.py at 2018-06-05 04:07:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 126.608 ms

Loss rate: 0.75%

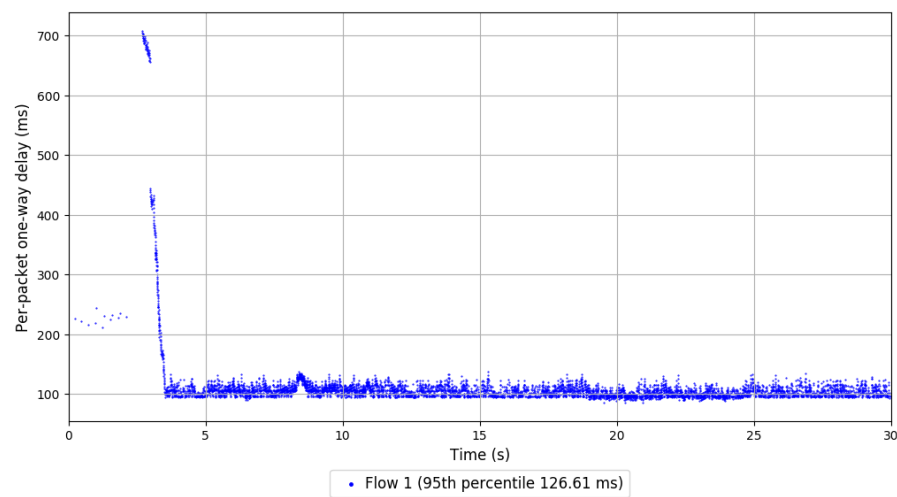
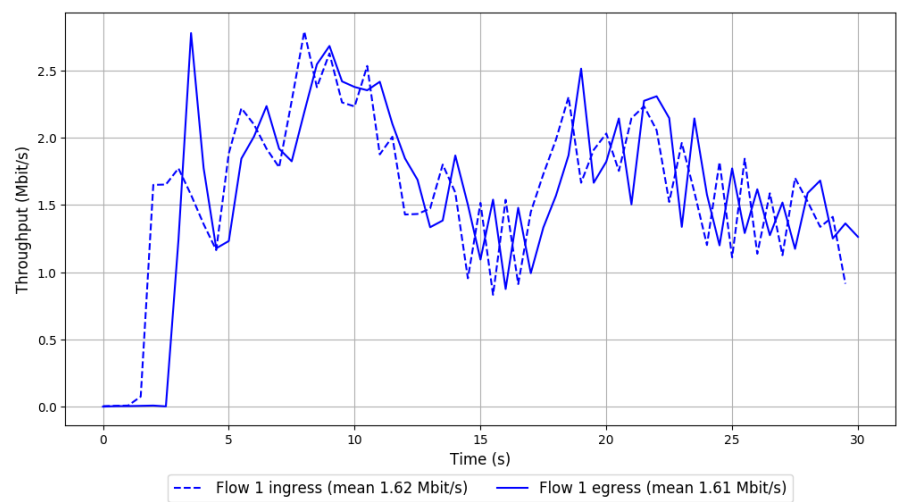
-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 126.608 ms

Loss rate: 0.75%

Run 1: Report of PCC-Vivace — Data Link

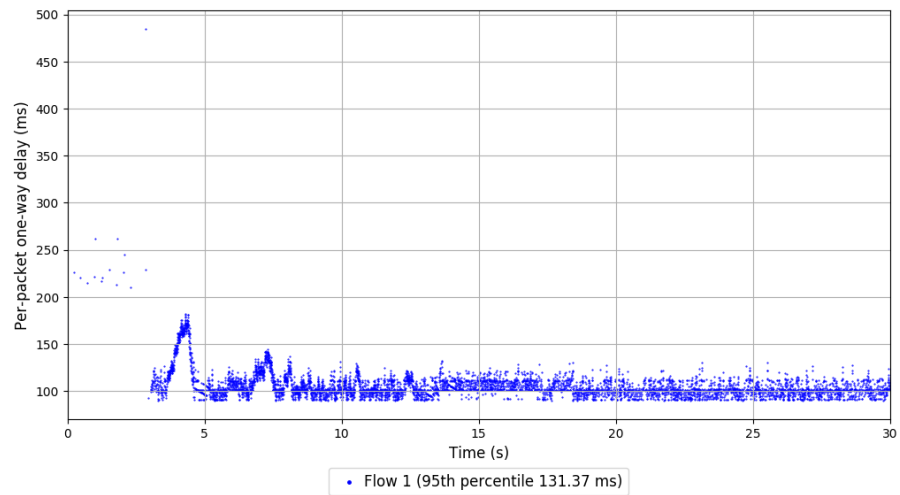
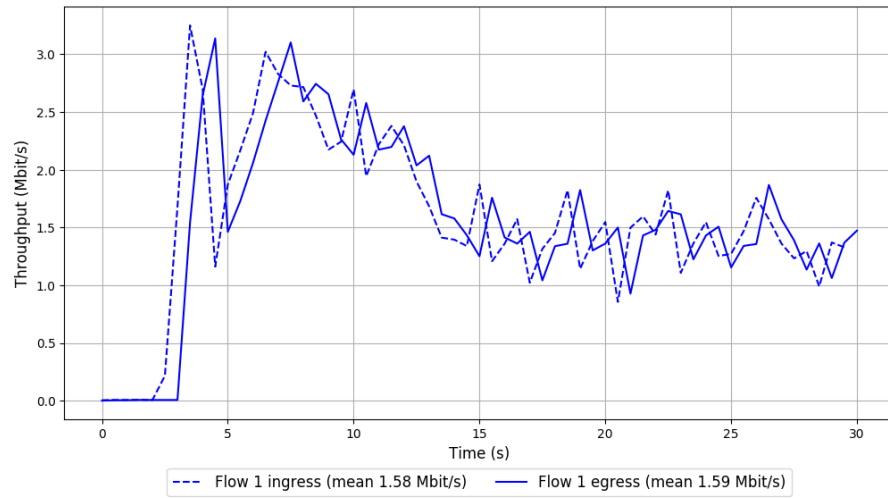


Run 2: Statistics of PCC-Vivace

Start at: 2018-06-05 03:37:00
End at: 2018-06-05 03:37:30
Local clock offset: -2.009 ms
Remote clock offset: 10.316 ms

Below is generated by plot.py at 2018-06-05 04:07:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 131.373 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 131.373 ms
Loss rate: 0.05%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-06-05 03:55:03

End at: 2018-06-05 03:55:33

Local clock offset: -1.985 ms

Remote clock offset: 4.236 ms

Below is generated by plot.py at 2018-06-05 04:07:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 226.918 ms

Loss rate: 0.74%

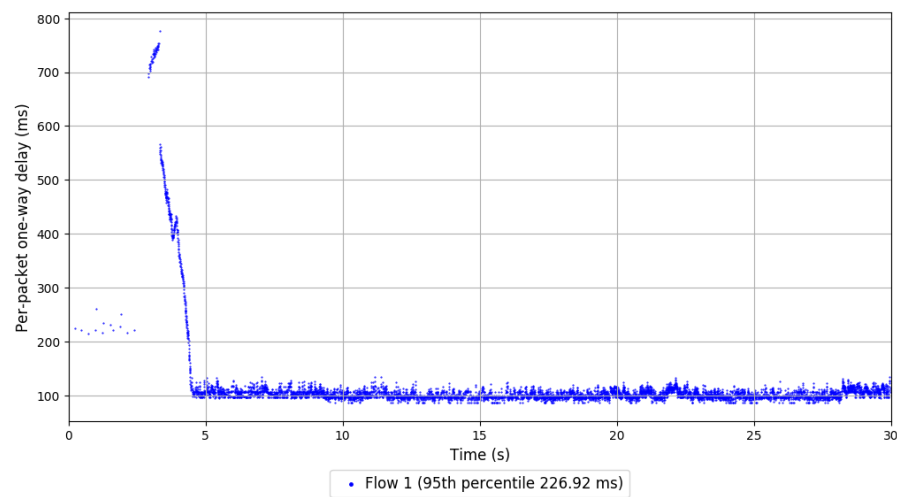
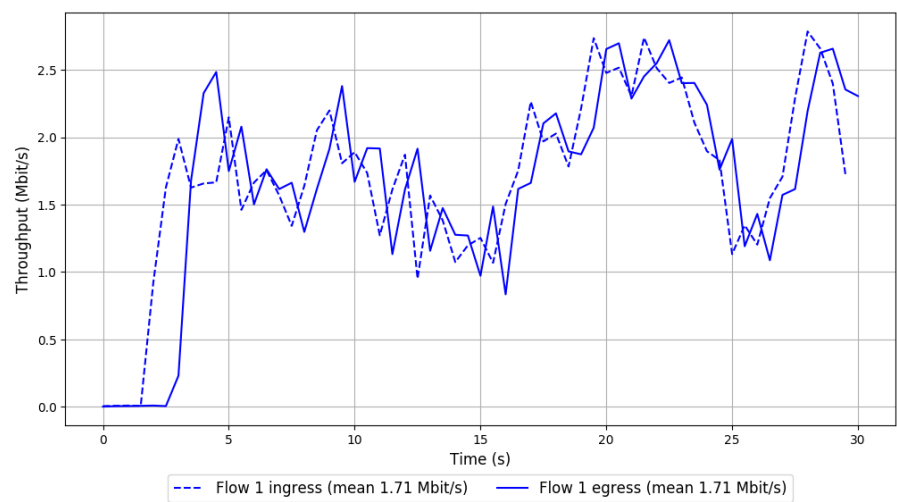
-- Flow 1:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 226.918 ms

Loss rate: 0.74%

Run 3: Report of PCC-Vivace — Data Link

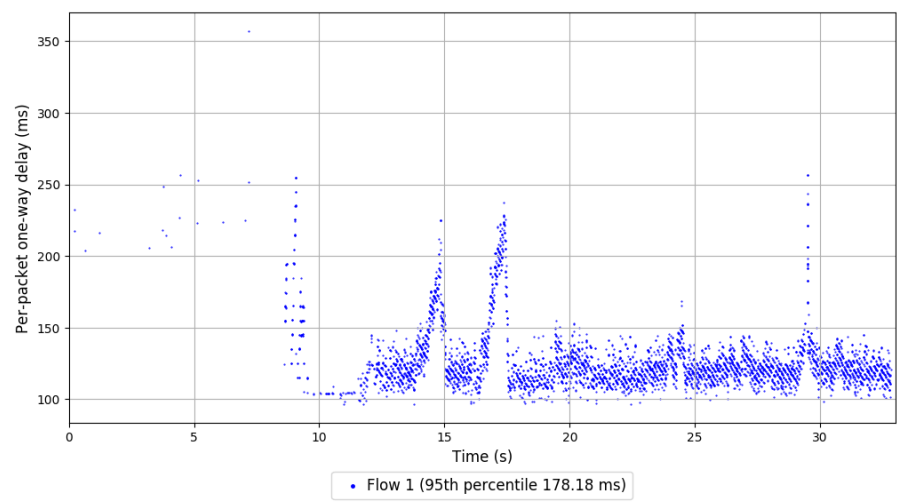
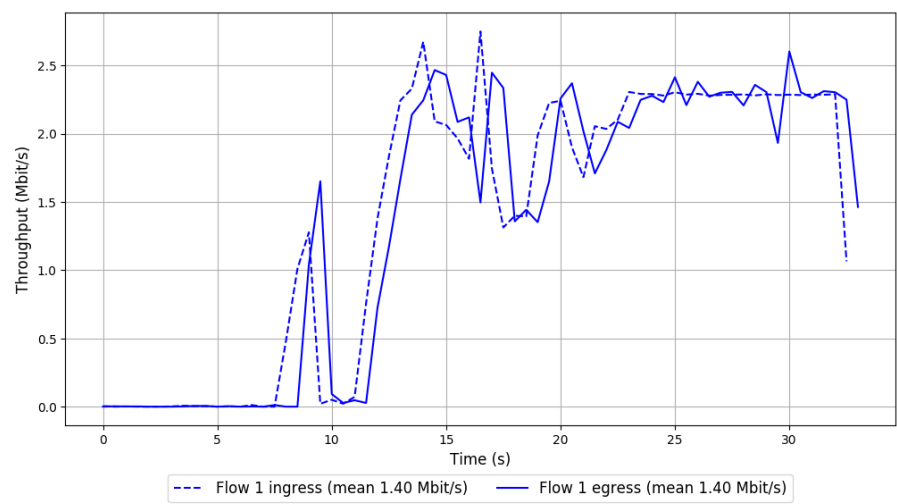


Run 1: Statistics of WebRTC media

Start at: 2018-06-05 03:13:17
End at: 2018-06-05 03:13:47
Local clock offset: -2.554 ms
Remote clock offset: 11.013 ms

Below is generated by plot.py at 2018-06-05 04:07:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 178.184 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 178.184 ms
Loss rate: 0.15%

Run 1: Report of WebRTC media — Data Link

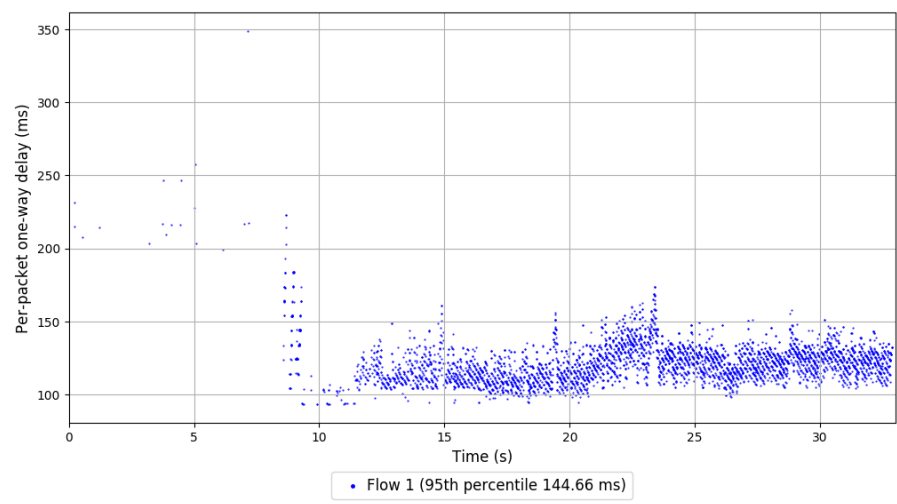
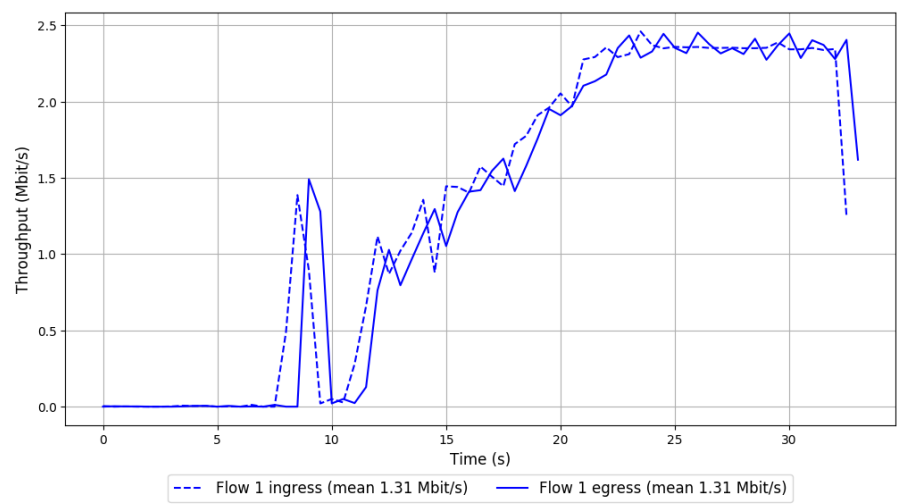


Run 2: Statistics of WebRTC media

Start at: 2018-06-05 03:31:21
End at: 2018-06-05 03:31:51
Local clock offset: -1.991 ms
Remote clock offset: 14.027 ms

Below is generated by plot.py at 2018-06-05 04:07:43
Datalink statistics
-- Total of 1 flow:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 144.659 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 144.659 ms
Loss rate: 0.18%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-05 03:49:25

End at: 2018-06-05 03:49:55

Local clock offset: -1.289 ms

Remote clock offset: 4.904 ms

Below is generated by plot.py at 2018-06-05 04:07:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 153.954 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 153.954 ms

Loss rate: 0.09%

Run 3: Report of WebRTC media — Data Link

