

Pantheon Report

Generated at 2018-11-30 14:15:16 (UTC).

Data path: Stanford on **eno1** (*remote*) → AWS California 1 on **ens5** (*local*).

Repeated the test of 19 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against **time.stanford.edu** and have been applied to correct the timestamps in logs.

System info:

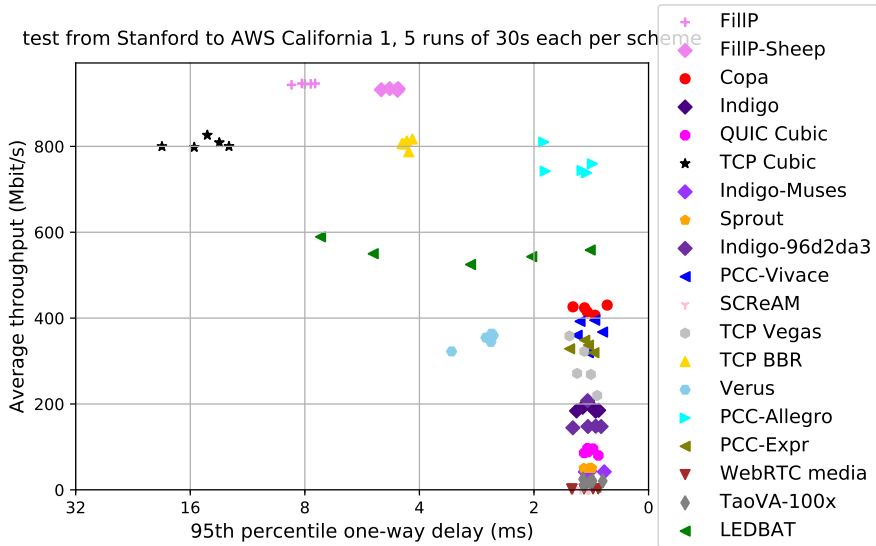
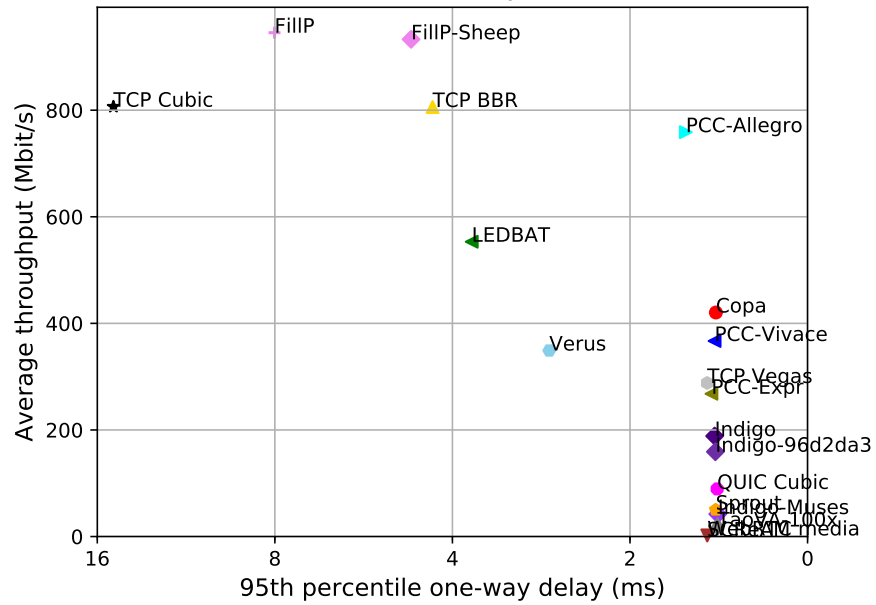
```
Linux 4.15.0-1027-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

```
branch: muses @ 7b6dad87cde3ab65f7c4052140eb54098aa58e9d
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbefed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from Stanford to AWS California 1, 5 runs of 30s each per scheme
(mean of all runs by scheme)



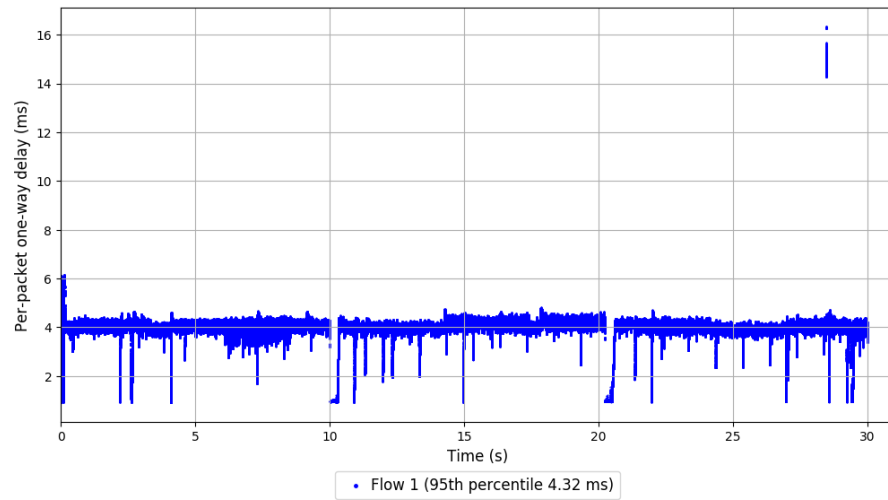
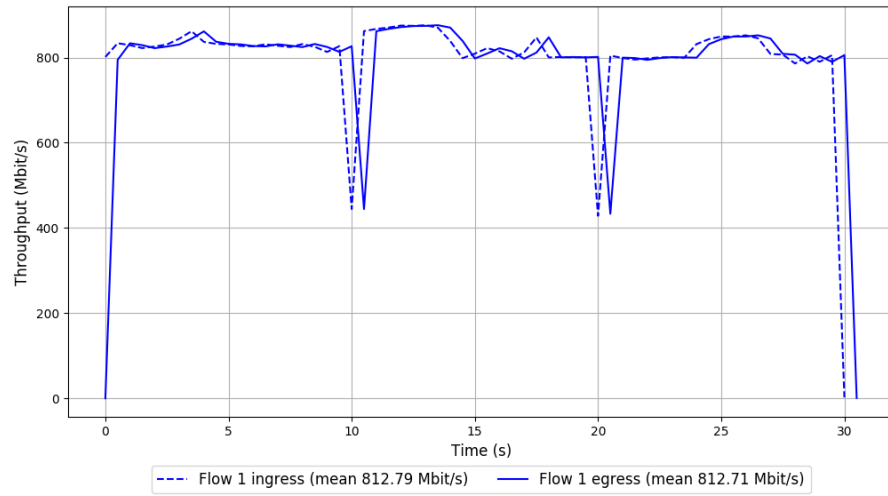
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	805.96	4.32	0.02
Copa	5	420.38	1.03	0.01
TCP Cubic	5	806.49	15.02	0.03
FillP	5	945.43	8.01	0.01
FillP-Sheep	5	933.02	4.70	0.01
Indigo	5	188.56	1.05	0.01
Indigo-96d2da3	5	159.12	1.04	0.01
LEDBAT	5	553.14	3.71	0.01
Indigo-Muses	5	42.17	1.01	0.01
PCC-Allegro	5	758.78	1.37	0.00
PCC-Expr	5	267.88	1.08	0.02
QUIC Cubic	5	89.35	1.02	0.01
SCReAM	5	0.22	1.13	0.05
Sprout	5	50.24	1.03	0.01
TaoVA-100x	5	18.86	1.01	0.00
TCP Vegas	5	288.15	1.13	0.01
Verus	5	349.04	2.74	0.00
PCC-Vivace	5	366.93	1.05	0.01
WebRTC media	5	2.12	1.13	0.02

Run 1: Statistics of TCP BBR

Start at: 2018-11-30 11:07:09
End at: 2018-11-30 11:07:39
Local clock offset: -0.252 ms
Remote clock offset: -0.382 ms

Below is generated by plot.py at 2018-11-30 13:25:55
Datalink statistics
-- Total of 1 flow:
Average throughput: 812.71 Mbit/s
95th percentile per-packet one-way delay: 4.321 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 812.71 Mbit/s
95th percentile per-packet one-way delay: 4.321 ms
Loss rate: 0.02%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-11-30 11:33:57

End at: 2018-11-30 11:34:27

Local clock offset: 3.085 ms

Remote clock offset: -0.031 ms

Below is generated by plot.py at 2018-11-30 13:25:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 787.58 Mbit/s

95th percentile per-packet one-way delay: 4.266 ms

Loss rate: 0.02%

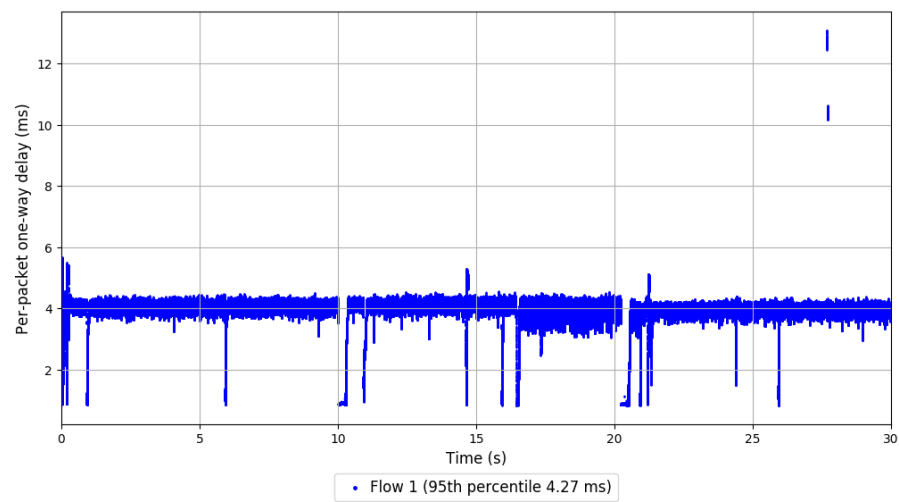
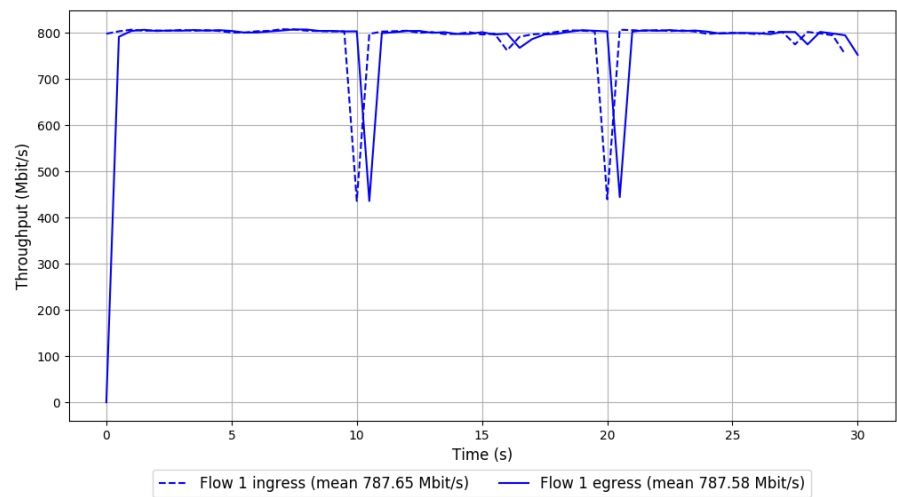
-- Flow 1:

Average throughput: 787.58 Mbit/s

95th percentile per-packet one-way delay: 4.266 ms

Loss rate: 0.02%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-11-30 12:01:09

End at: 2018-11-30 12:01:39

Local clock offset: 0.089 ms

Remote clock offset: -0.114 ms

Below is generated by plot.py at 2018-11-30 13:25:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 805.55 Mbit/s

95th percentile per-packet one-way delay: 4.405 ms

Loss rate: 0.02%

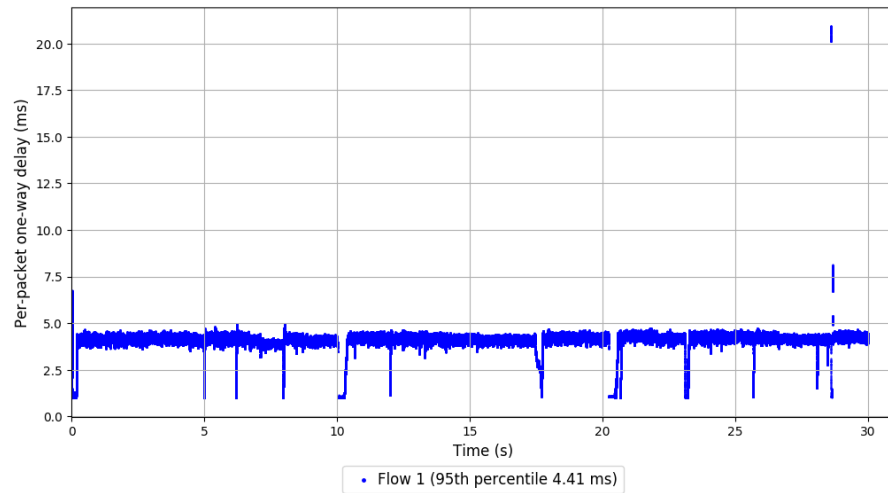
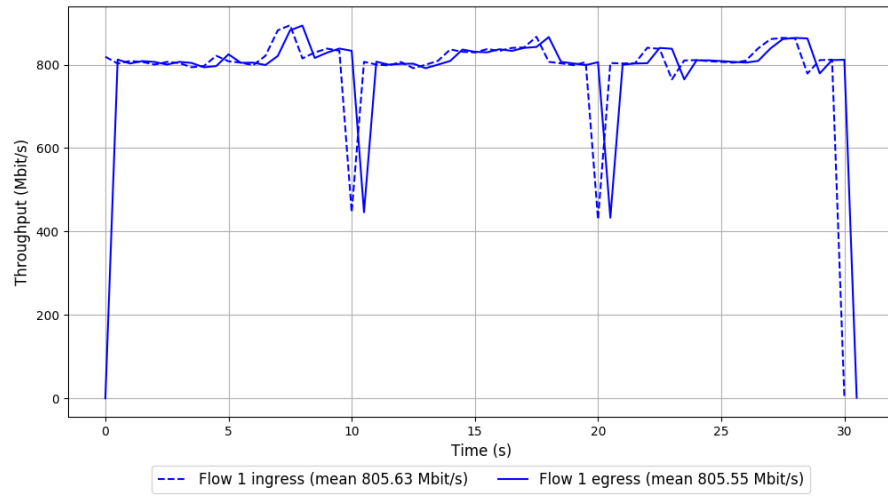
-- Flow 1:

Average throughput: 805.55 Mbit/s

95th percentile per-packet one-way delay: 4.405 ms

Loss rate: 0.02%

Run 3: Report of TCP BBR — Data Link

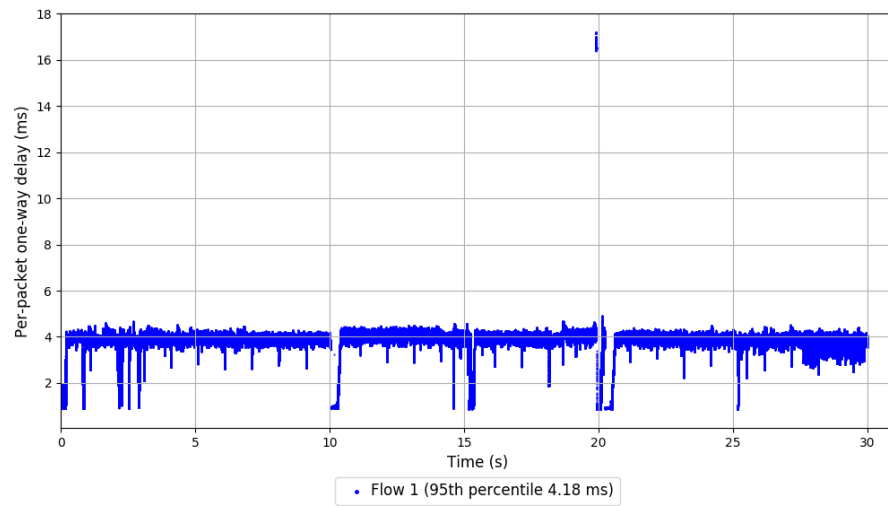
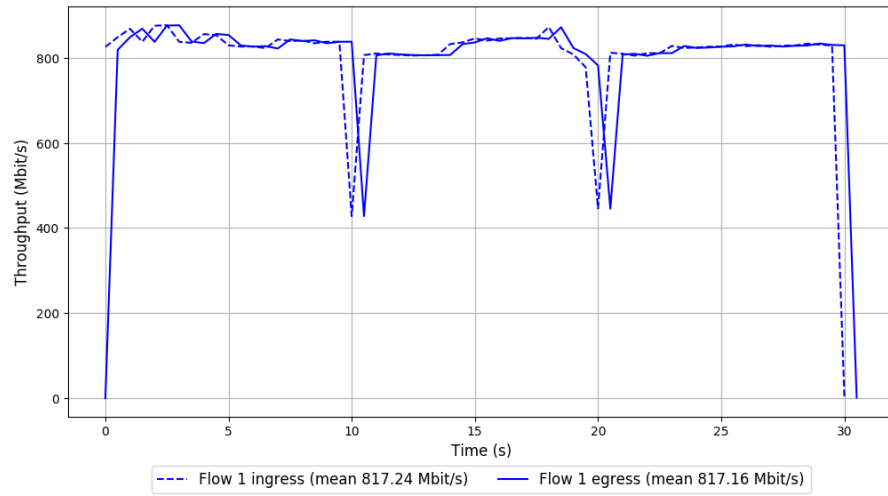


Run 4: Statistics of TCP BBR

Start at: 2018-11-30 12:28:17
End at: 2018-11-30 12:28:47
Local clock offset: 2.365 ms
Remote clock offset: -0.206 ms

Below is generated by plot.py at 2018-11-30 13:26:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 817.16 Mbit/s
95th percentile per-packet one-way delay: 4.176 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 817.16 Mbit/s
95th percentile per-packet one-way delay: 4.176 ms
Loss rate: 0.02%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-11-30 12:55:30

End at: 2018-11-30 12:56:00

Local clock offset: 0.735 ms

Remote clock offset: -0.318 ms

Below is generated by plot.py at 2018-11-30 13:26:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 806.79 Mbit/s

95th percentile per-packet one-way delay: 4.442 ms

Loss rate: 0.02%

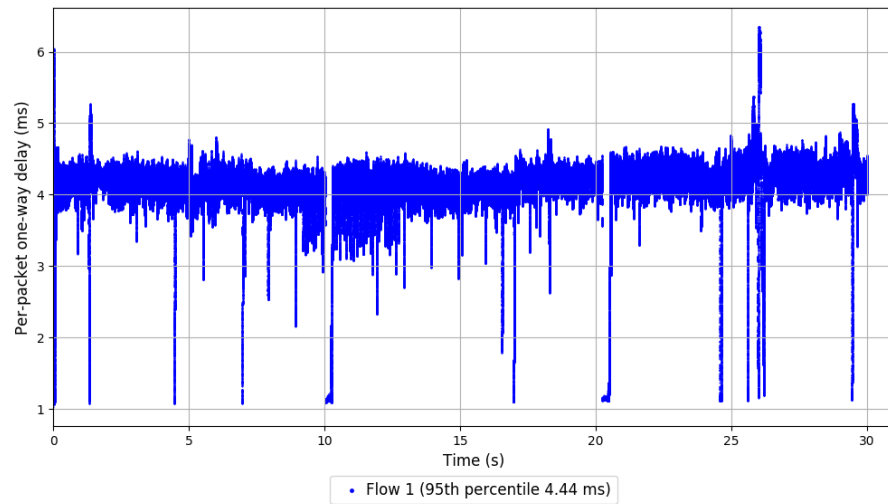
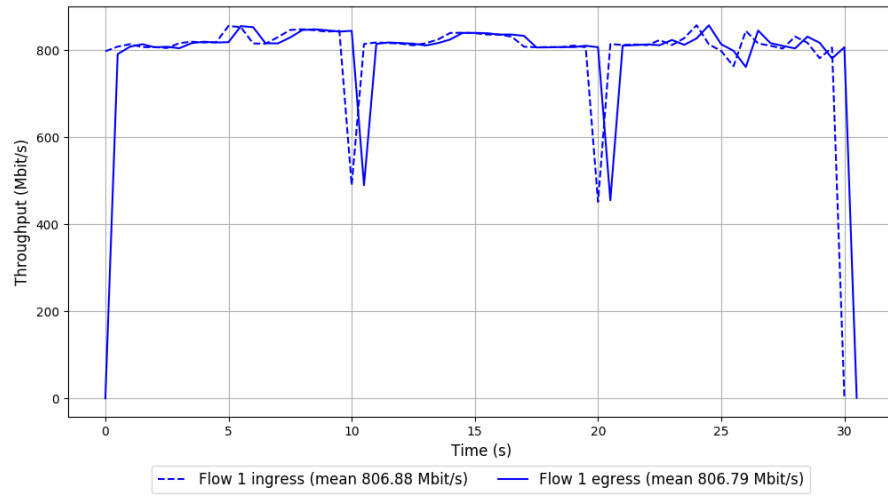
-- Flow 1:

Average throughput: 806.79 Mbit/s

95th percentile per-packet one-way delay: 4.442 ms

Loss rate: 0.02%

Run 5: Report of TCP BBR — Data Link

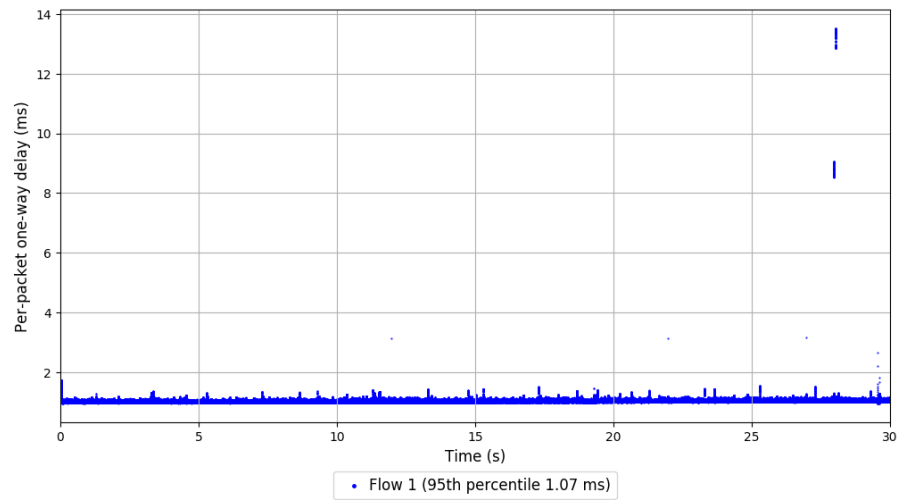
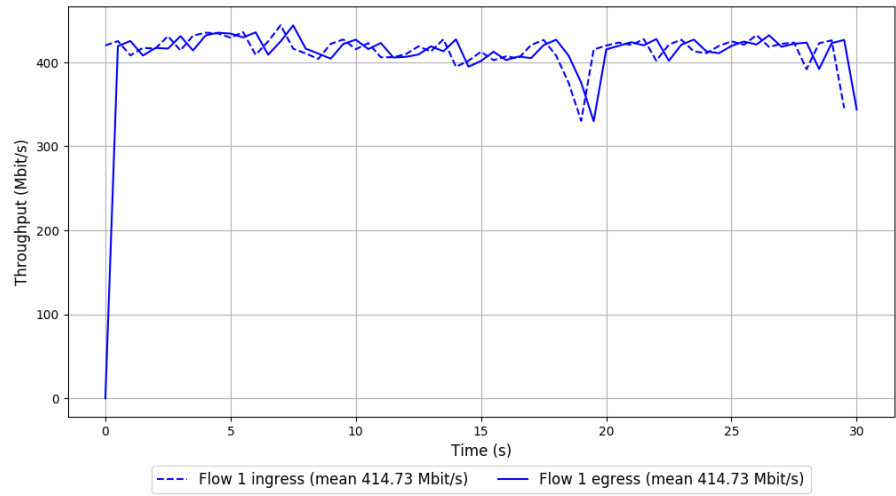


Run 1: Statistics of Copa

Start at: 2018-11-30 10:55:56
End at: 2018-11-30 10:56:26
Local clock offset: -0.166 ms
Remote clock offset: -0.961 ms

Below is generated by plot.py at 2018-11-30 13:26:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 414.73 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 414.73 Mbit/s
95th percentile per-packet one-way delay: 1.070 ms
Loss rate: 0.01%

Run 1: Report of Copa — Data Link

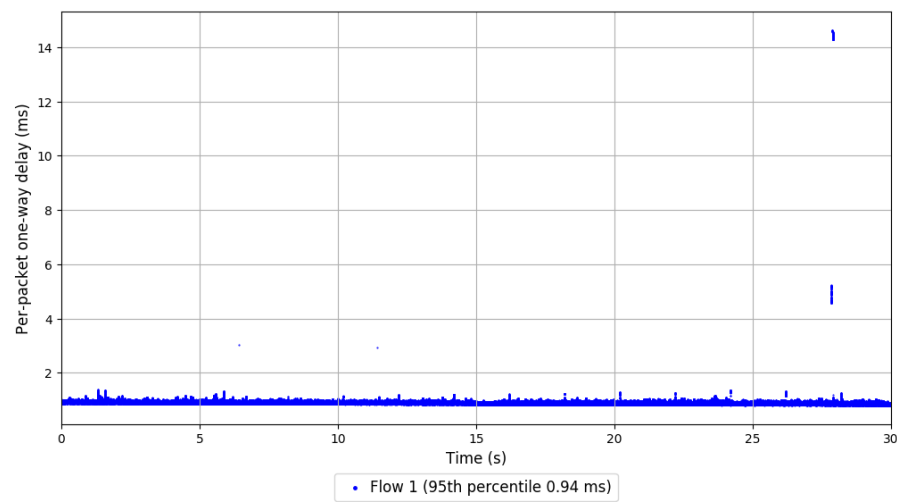
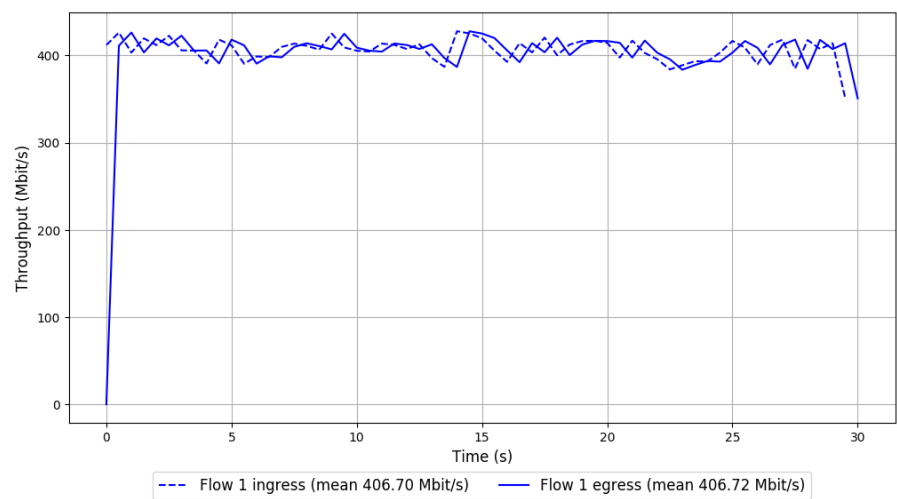


Run 2: Statistics of Copa

Start at: 2018-11-30 11:22:45
End at: 2018-11-30 11:23:15
Local clock offset: 1.794 ms
Remote clock offset: -0.054 ms

Below is generated by plot.py at 2018-11-30 13:26:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 406.72 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 406.72 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.00%

Run 2: Report of Copa — Data Link

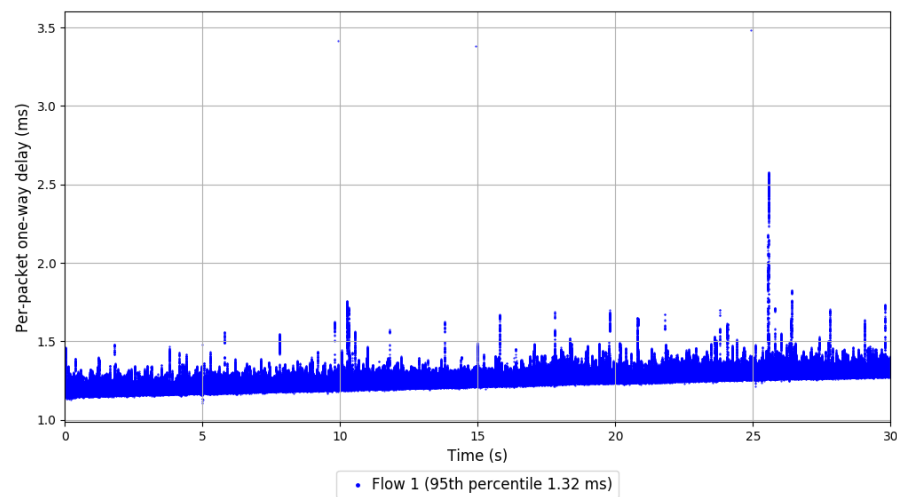
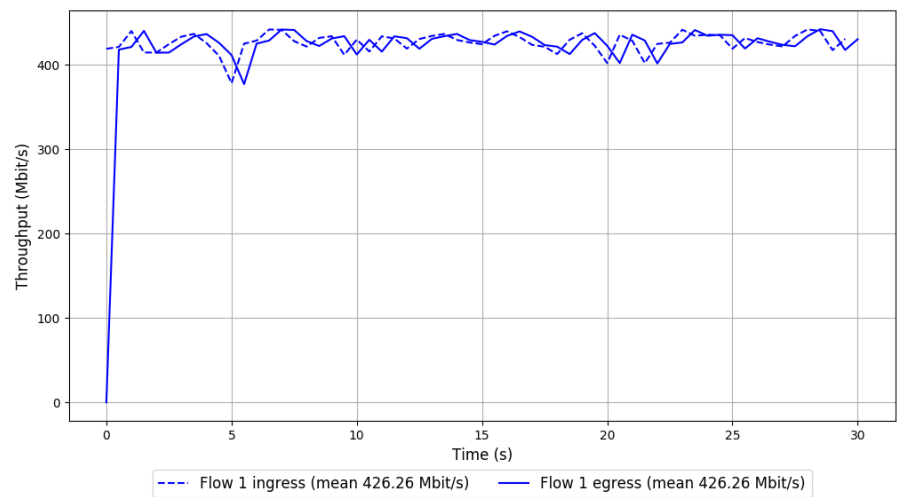


Run 3: Statistics of Copa

Start at: 2018-11-30 11:49:53
End at: 2018-11-30 11:50:23
Local clock offset: 1.938 ms
Remote clock offset: -0.224 ms

Below is generated by plot.py at 2018-11-30 13:26:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 426.26 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 426.26 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 0.01%

Run 3: Report of Copa — Data Link

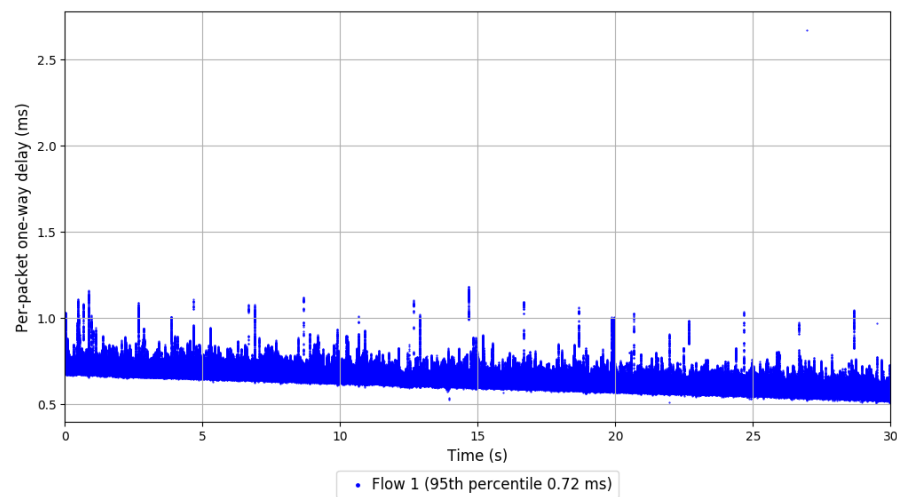
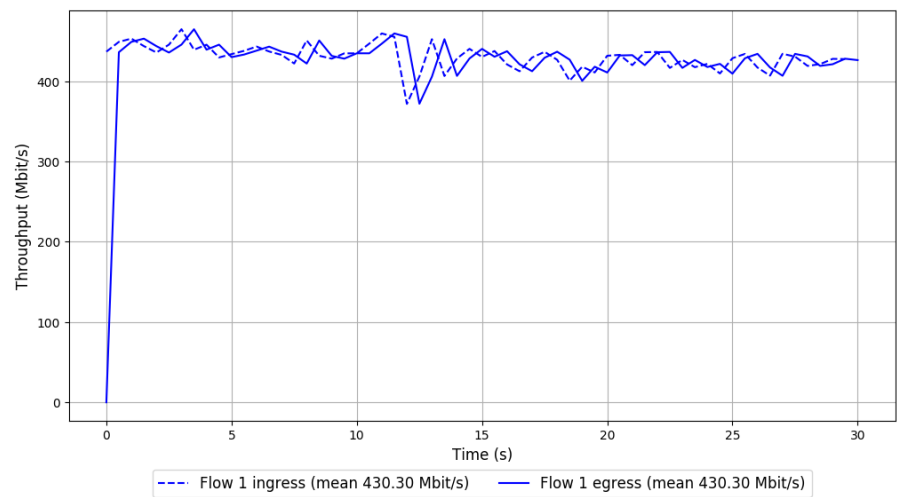


Run 4: Statistics of Copa

Start at: 2018-11-30 12:17:02
End at: 2018-11-30 12:17:32
Local clock offset: 0.086 ms
Remote clock offset: -0.166 ms

Below is generated by plot.py at 2018-11-30 13:34:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 430.30 Mbit/s
95th percentile per-packet one-way delay: 0.722 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 430.30 Mbit/s
95th percentile per-packet one-way delay: 0.722 ms
Loss rate: 0.01%

Run 4: Report of Copa — Data Link

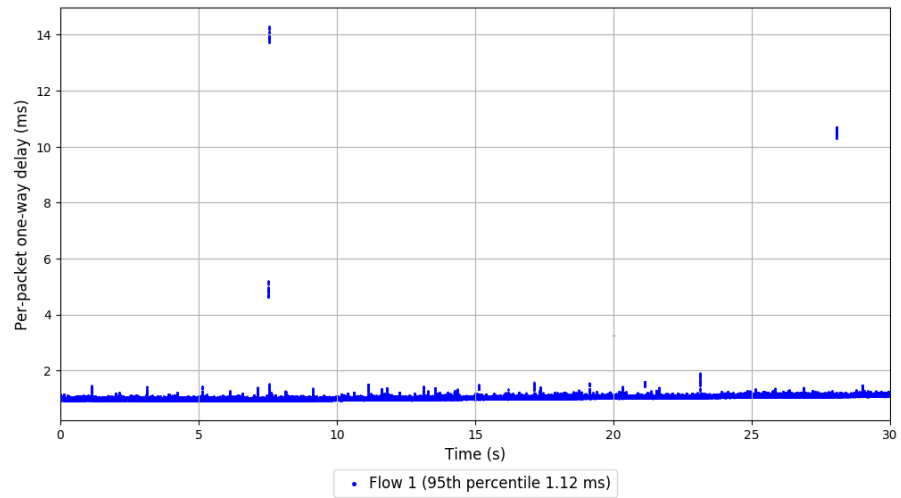
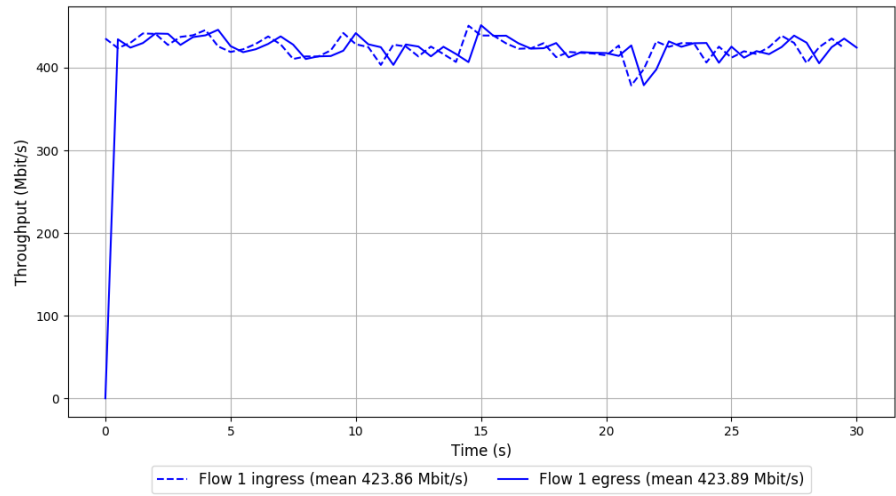


Run 5: Statistics of Copa

Start at: 2018-11-30 12:44:14
End at: 2018-11-30 12:44:44
Local clock offset: 3.41 ms
Remote clock offset: -0.278 ms

Below is generated by plot.py at 2018-11-30 13:34:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 423.89 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 423.89 Mbit/s
95th percentile per-packet one-way delay: 1.117 ms
Loss rate: 0.00%

Run 5: Report of Copa — Data Link

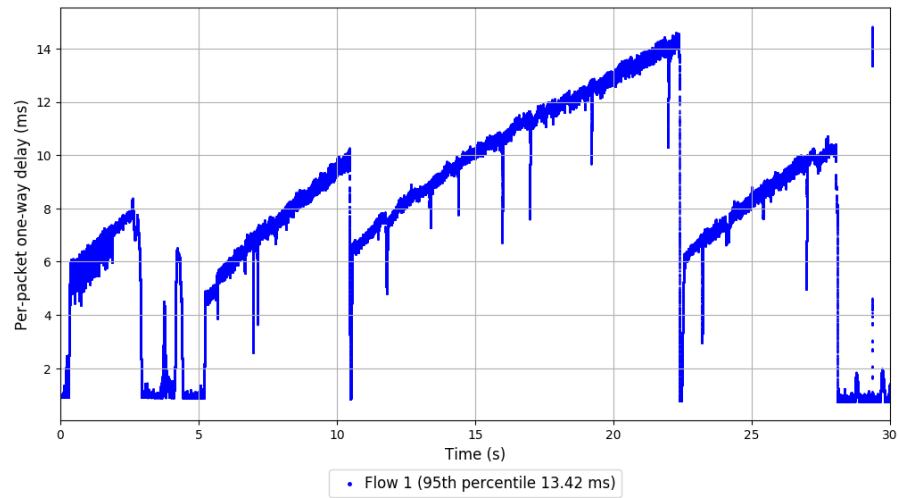
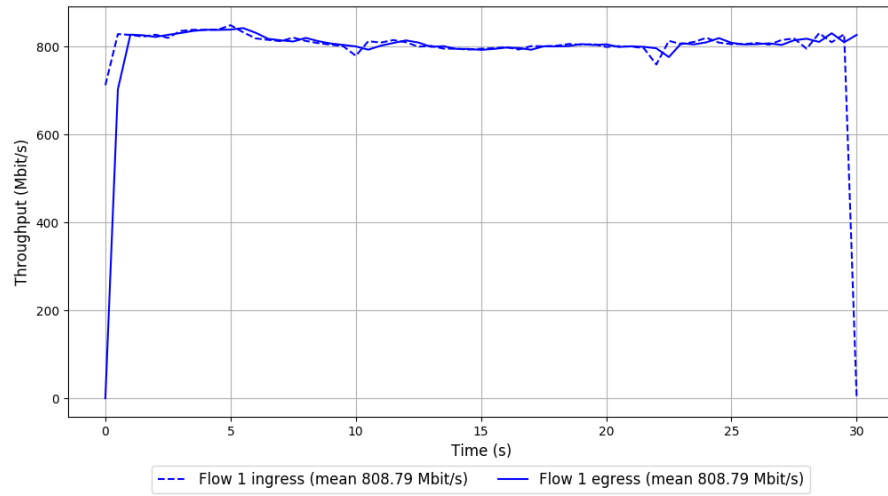


Run 1: Statistics of TCP Cubic

Start at: 2018-11-30 11:14:31
End at: 2018-11-30 11:15:01
Local clock offset: -0.309 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2018-11-30 13:34:40
Datalink statistics
-- Total of 1 flow:
Average throughput: 808.79 Mbit/s
95th percentile per-packet one-way delay: 13.420 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 808.79 Mbit/s
95th percentile per-packet one-way delay: 13.420 ms
Loss rate: 0.01%

Run 1: Report of TCP Cubic — Data Link

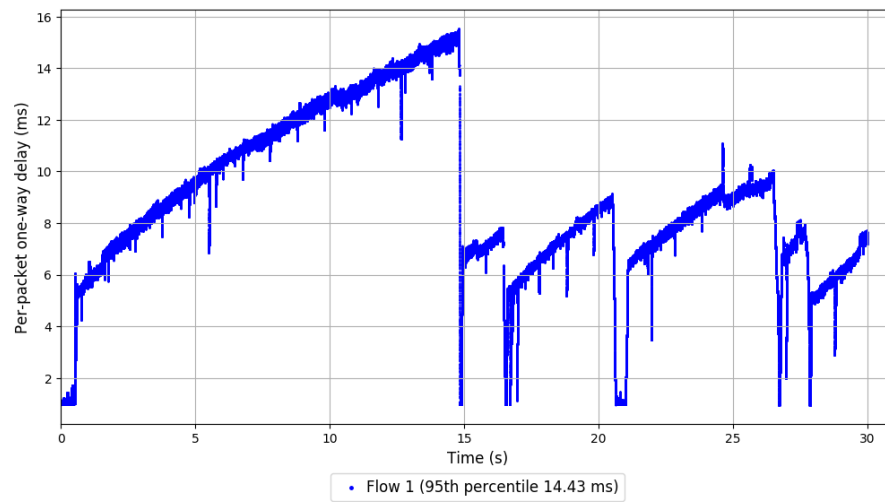
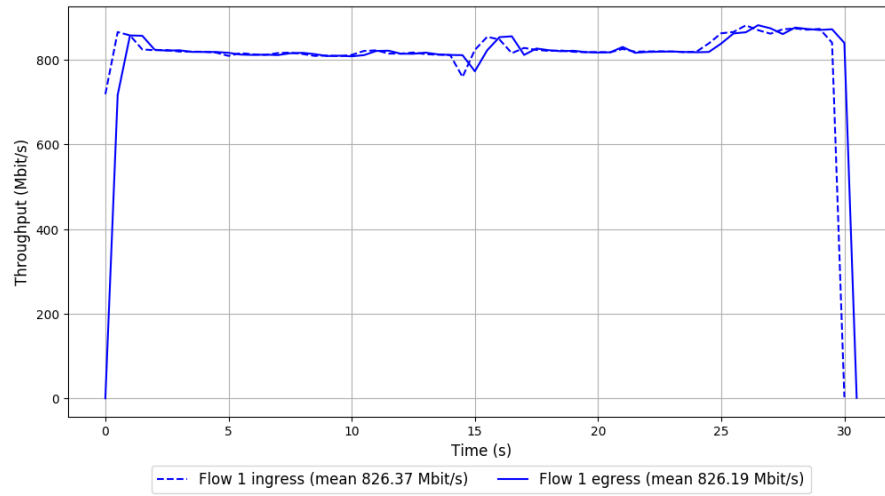


Run 2: Statistics of TCP Cubic

Start at: 2018-11-30 11:41:21
End at: 2018-11-30 11:41:51
Local clock offset: 3.584 ms
Remote clock offset: -0.232 ms

Below is generated by plot.py at 2018-11-30 13:34:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 826.19 Mbit/s
95th percentile per-packet one-way delay: 14.430 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 826.19 Mbit/s
95th percentile per-packet one-way delay: 14.430 ms
Loss rate: 0.03%

Run 2: Report of TCP Cubic — Data Link

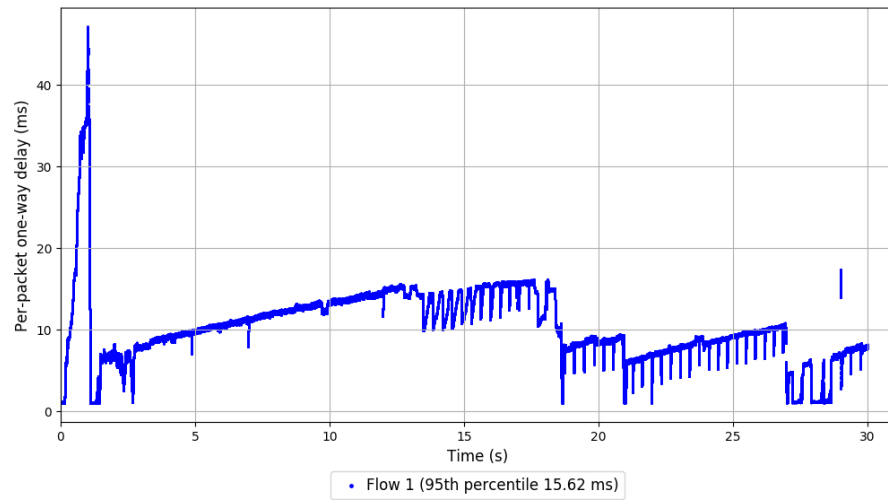
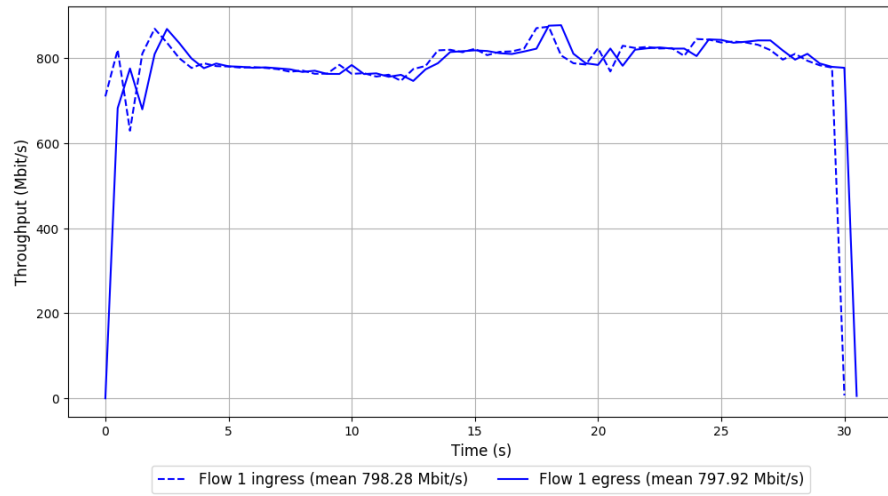


Run 3: Statistics of TCP Cubic

Start at: 2018-11-30 12:08:31
End at: 2018-11-30 12:09:01
Local clock offset: -0.4 ms
Remote clock offset: -0.197 ms

Below is generated by plot.py at 2018-11-30 13:34:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 797.92 Mbit/s
95th percentile per-packet one-way delay: 15.621 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 797.92 Mbit/s
95th percentile per-packet one-way delay: 15.621 ms
Loss rate: 0.05%

Run 3: Report of TCP Cubic — Data Link

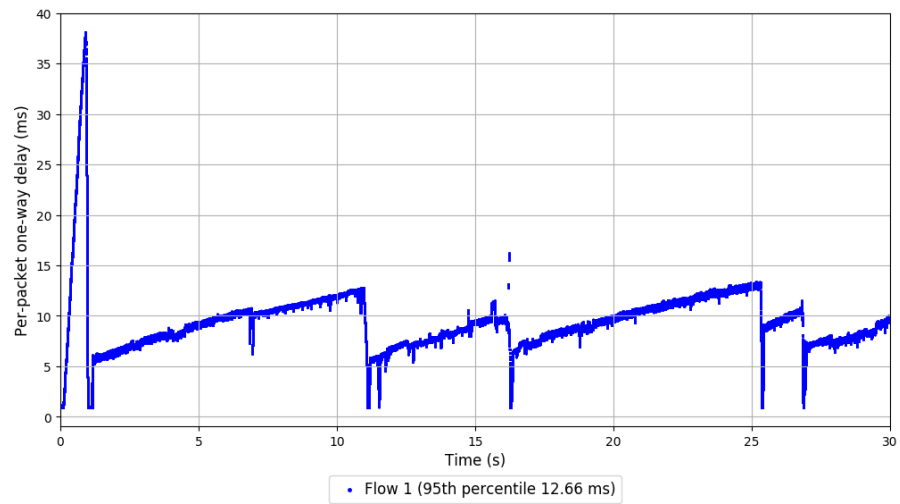
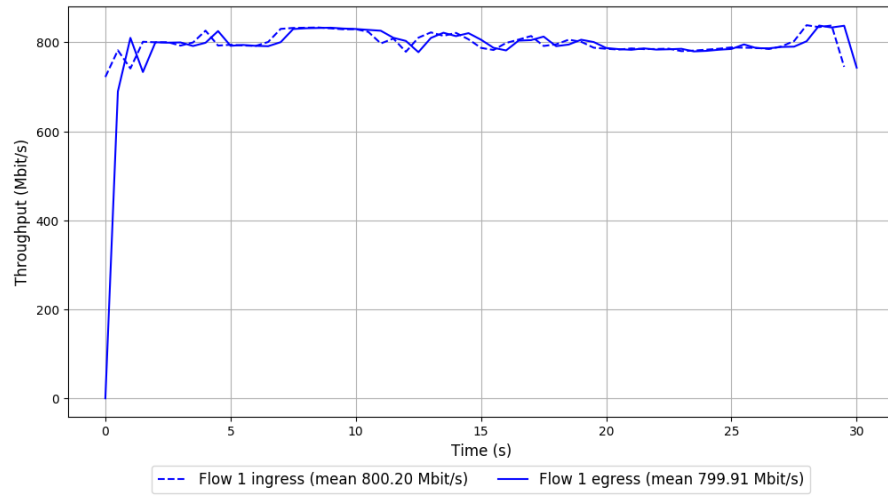


Run 4: Statistics of TCP Cubic

Start at: 2018-11-30 12:35:40
End at: 2018-11-30 12:36:10
Local clock offset: 2.975 ms
Remote clock offset: -0.211 ms

Below is generated by plot.py at 2018-11-30 13:34:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 799.91 Mbit/s
95th percentile per-packet one-way delay: 12.660 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 799.91 Mbit/s
95th percentile per-packet one-way delay: 12.660 ms
Loss rate: 0.04%

Run 4: Report of TCP Cubic — Data Link

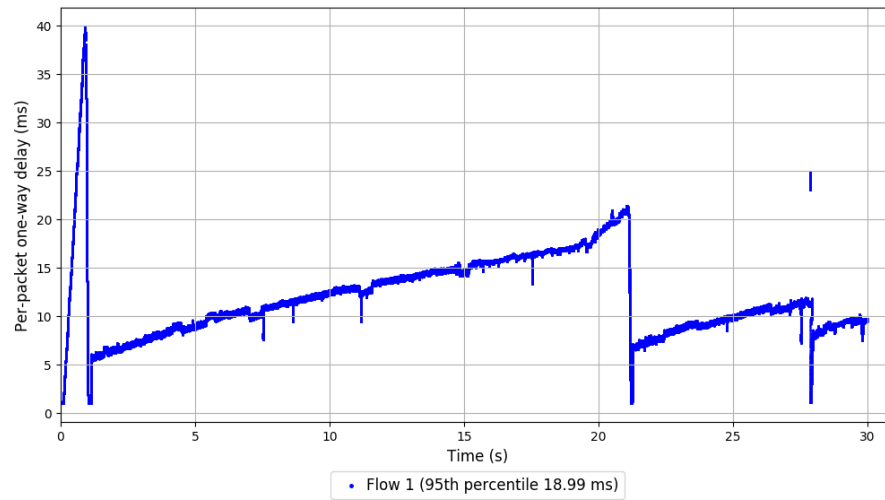
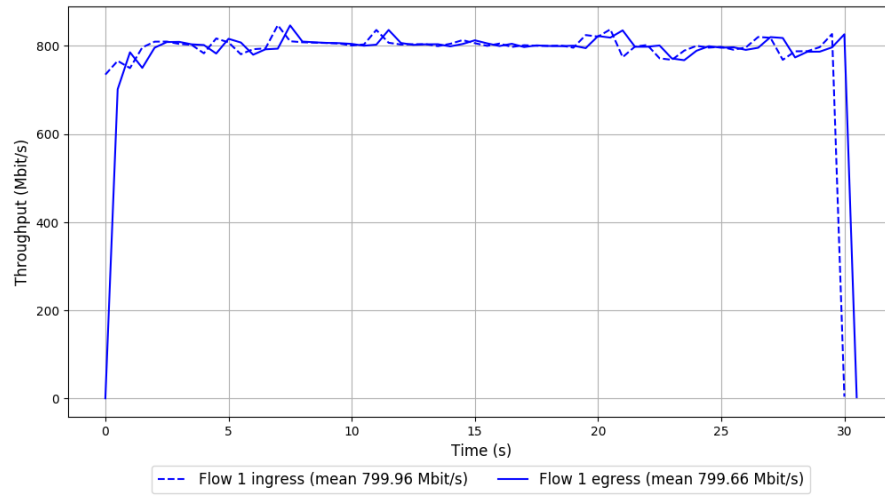


Run 5: Statistics of TCP Cubic

Start at: 2018-11-30 13:02:53
End at: 2018-11-30 13:03:23
Local clock offset: -0.016 ms
Remote clock offset: -0.335 ms

Below is generated by plot.py at 2018-11-30 13:34:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 799.66 Mbit/s
95th percentile per-packet one-way delay: 18.993 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 799.66 Mbit/s
95th percentile per-packet one-way delay: 18.993 ms
Loss rate: 0.04%

Run 5: Report of TCP Cubic — Data Link

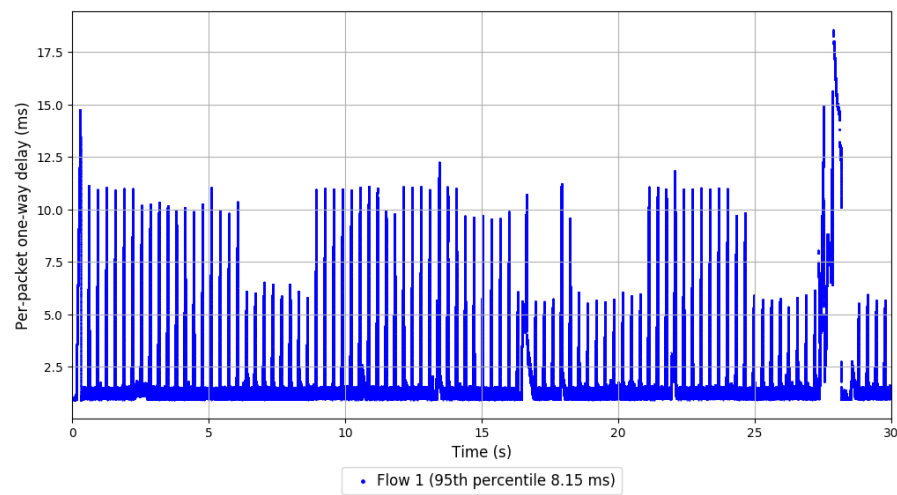
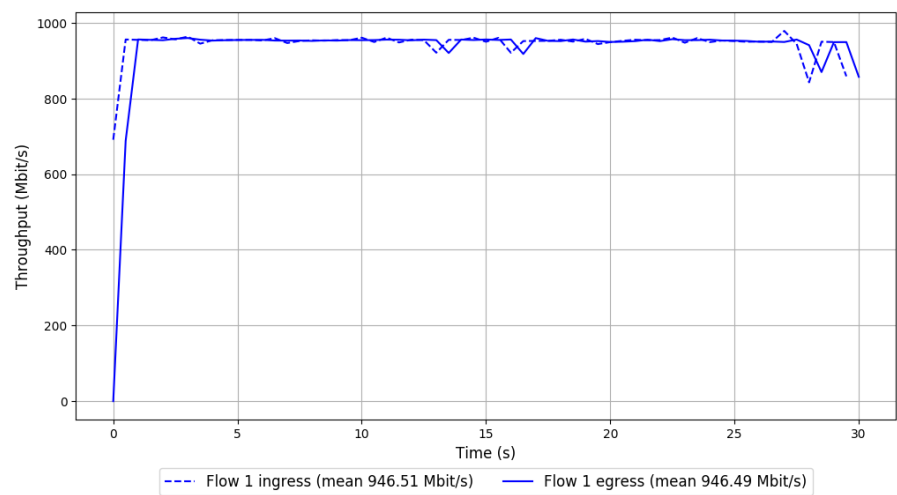


Run 1: Statistics of FillP

Start at: 2018-11-30 11:11:17
End at: 2018-11-30 11:11:47
Local clock offset: -0.286 ms
Remote clock offset: -0.313 ms

Below is generated by plot.py at 2018-11-30 13:38:39
Datalink statistics
-- Total of 1 flow:
Average throughput: 946.49 Mbit/s
95th percentile per-packet one-way delay: 8.147 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 946.49 Mbit/s
95th percentile per-packet one-way delay: 8.147 ms
Loss rate: 0.01%

Run 1: Report of FillP — Data Link

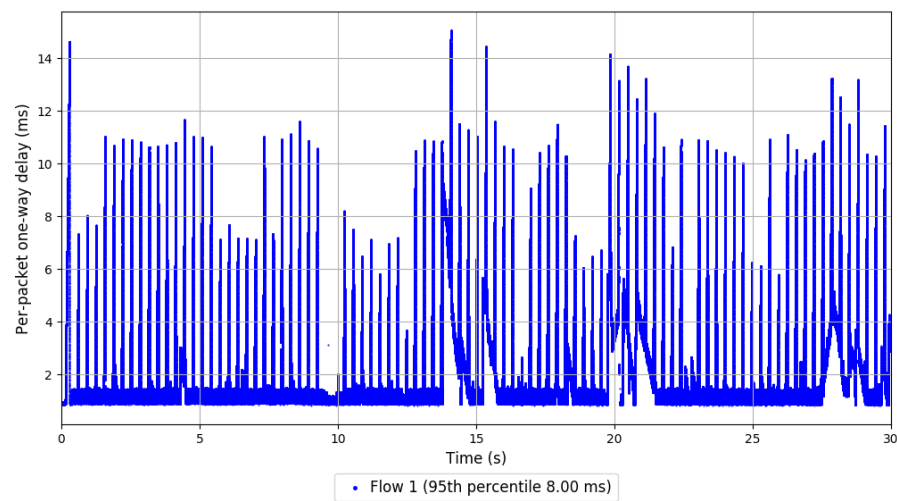
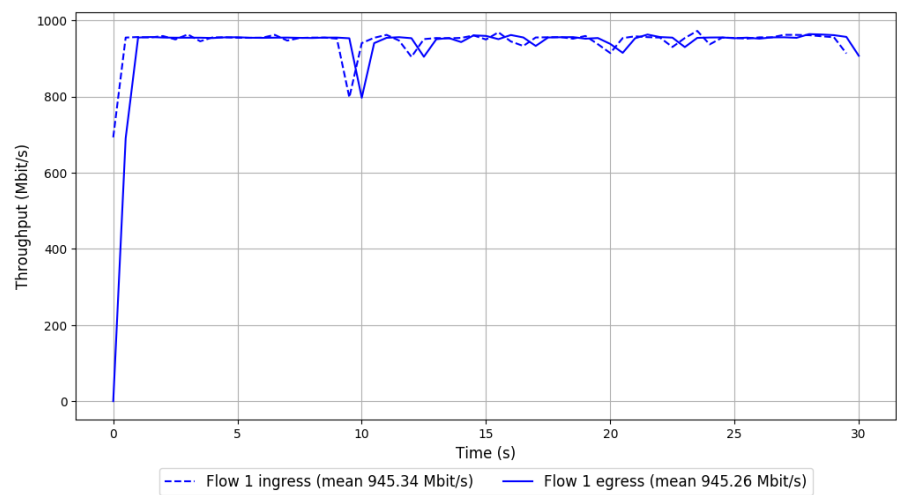


Run 2: Statistics of FillP

Start at: 2018-11-30 11:38:05
End at: 2018-11-30 11:38:35
Local clock offset: 3.37 ms
Remote clock offset: -0.159 ms

Below is generated by plot.py at 2018-11-30 13:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 945.26 Mbit/s
95th percentile per-packet one-way delay: 8.000 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 945.26 Mbit/s
95th percentile per-packet one-way delay: 8.000 ms
Loss rate: 0.02%

Run 2: Report of FillP — Data Link

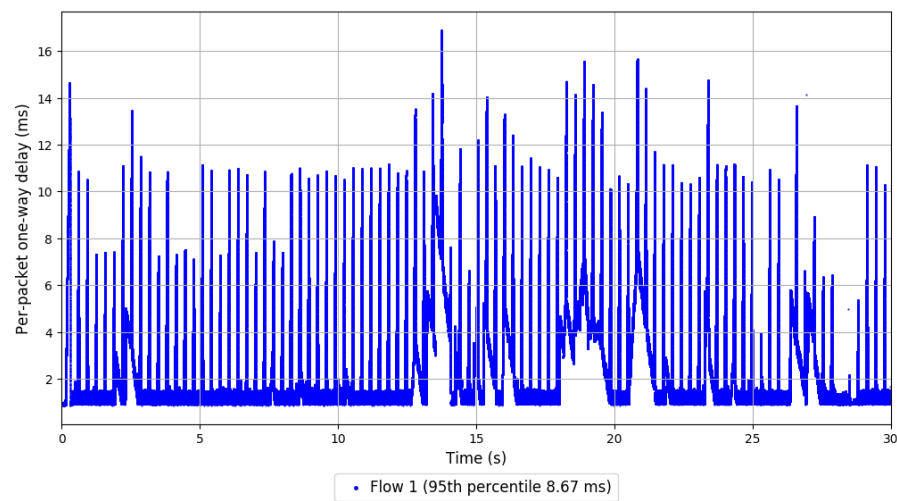
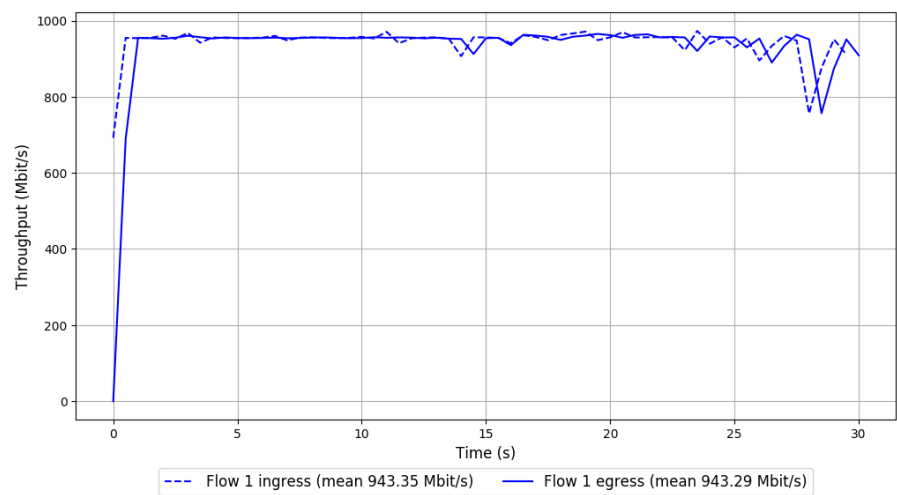


Run 3: Statistics of FillP

Start at: 2018-11-30 12:05:17
End at: 2018-11-30 12:05:47
Local clock offset: -0.232 ms
Remote clock offset: -0.097 ms

Below is generated by plot.py at 2018-11-30 13:47:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 943.29 Mbit/s
95th percentile per-packet one-way delay: 8.671 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 943.29 Mbit/s
95th percentile per-packet one-way delay: 8.671 ms
Loss rate: 0.01%

Run 3: Report of FillP — Data Link

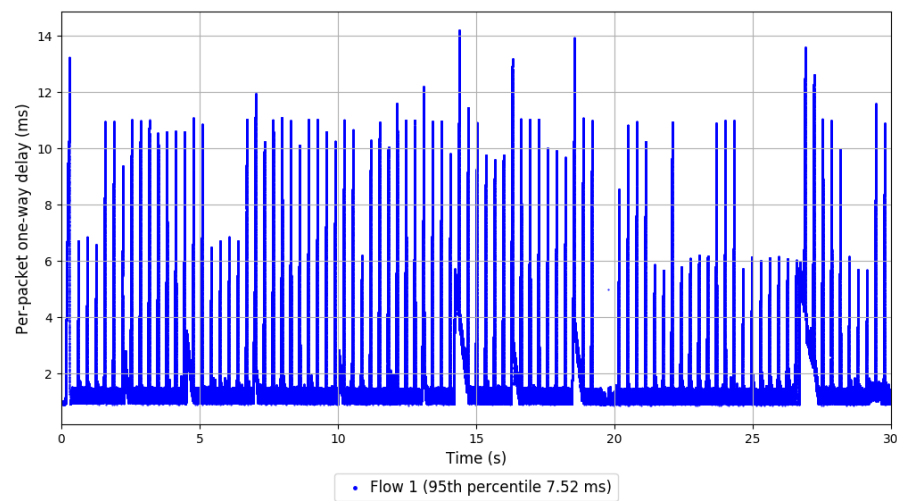
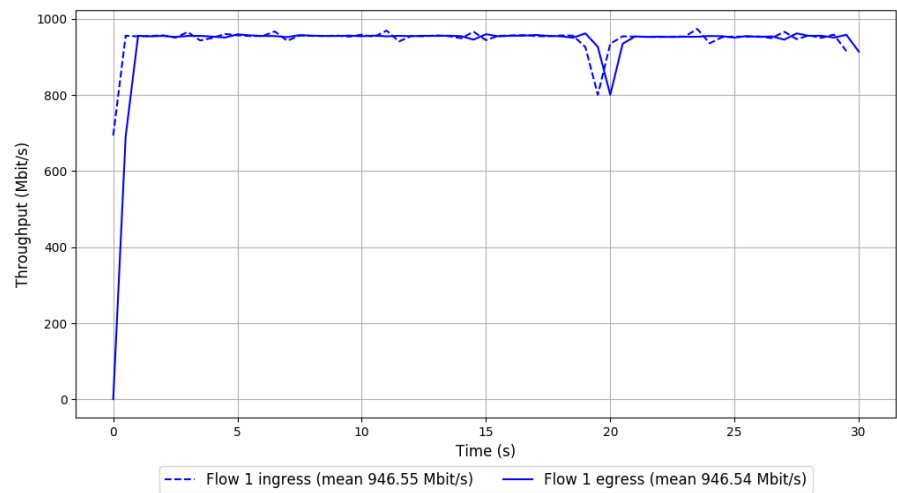


Run 4: Statistics of FillP

Start at: 2018-11-30 12:32:25
End at: 2018-11-30 12:32:55
Local clock offset: 2.749 ms
Remote clock offset: -0.212 ms

Below is generated by plot.py at 2018-11-30 13:47:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 946.54 Mbit/s
95th percentile per-packet one-way delay: 7.516 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 946.54 Mbit/s
95th percentile per-packet one-way delay: 7.516 ms
Loss rate: 0.01%

Run 4: Report of FillP — Data Link

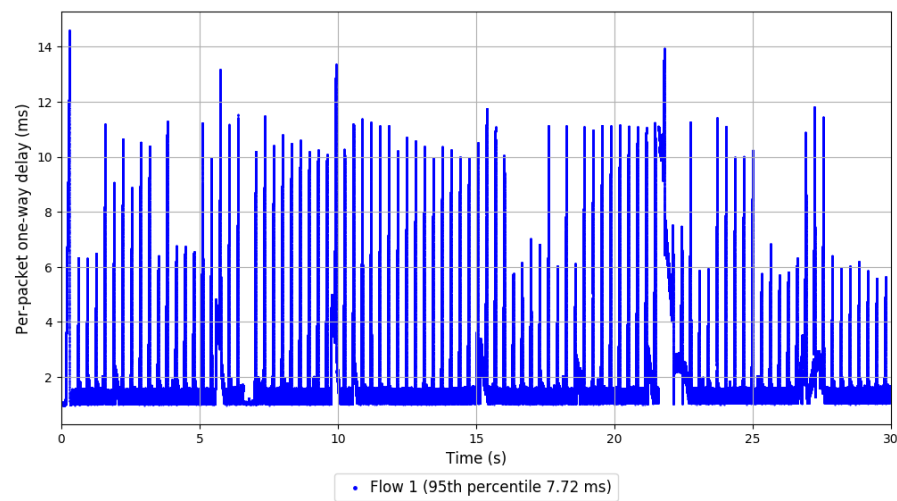
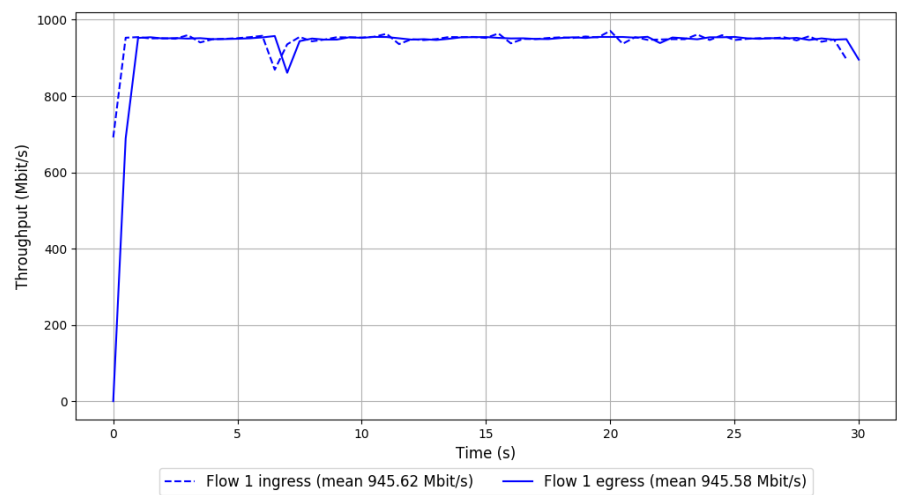


Run 5: Statistics of FillP

Start at: 2018-11-30 12:59:38
End at: 2018-11-30 13:00:08
Local clock offset: 0.252 ms
Remote clock offset: -0.319 ms

Below is generated by plot.py at 2018-11-30 13:47:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 945.58 Mbit/s
95th percentile per-packet one-way delay: 7.720 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 945.58 Mbit/s
95th percentile per-packet one-way delay: 7.720 ms
Loss rate: 0.01%

Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2018-11-30 11:12:55

End at: 2018-11-30 11:13:25

Local clock offset: -0.3 ms

Remote clock offset: -0.276 ms

Below is generated by plot.py at 2018-11-30 13:47:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 930.56 Mbit/s

95th percentile per-packet one-way delay: 4.565 ms

Loss rate: 0.01%

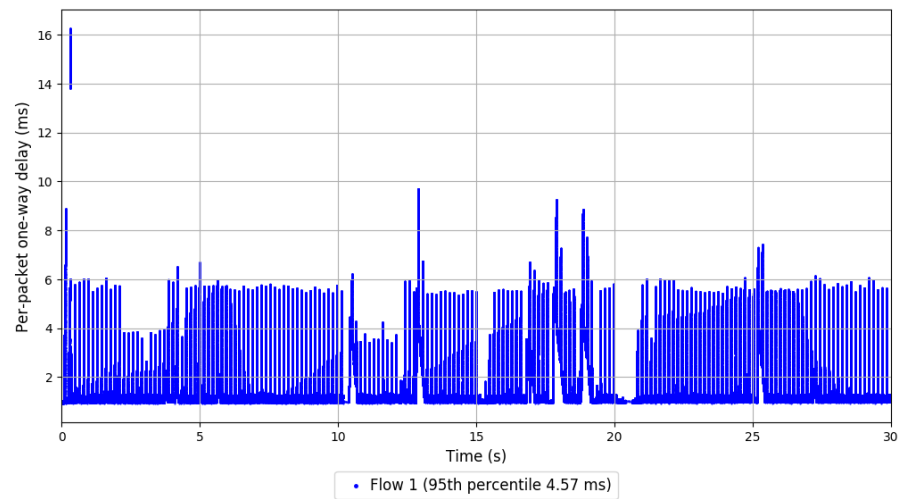
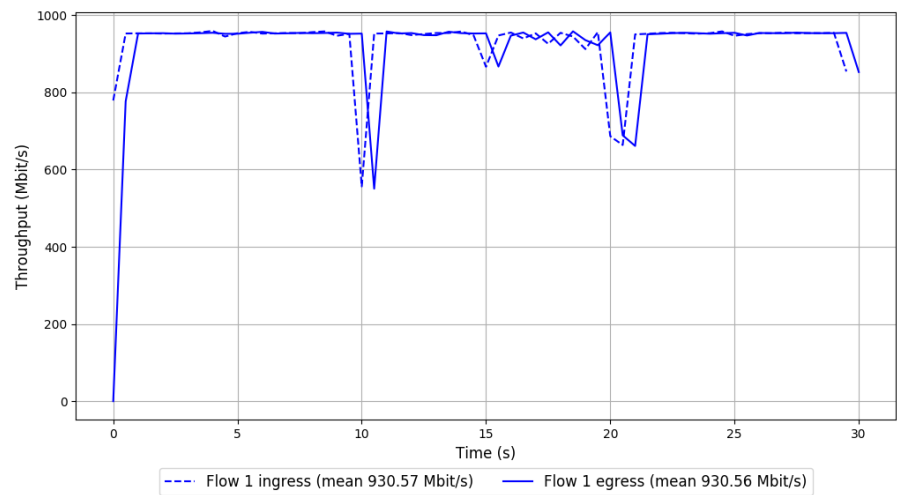
-- Flow 1:

Average throughput: 930.56 Mbit/s

95th percentile per-packet one-way delay: 4.565 ms

Loss rate: 0.01%

Run 1: Report of FillP-Sheep — Data Link

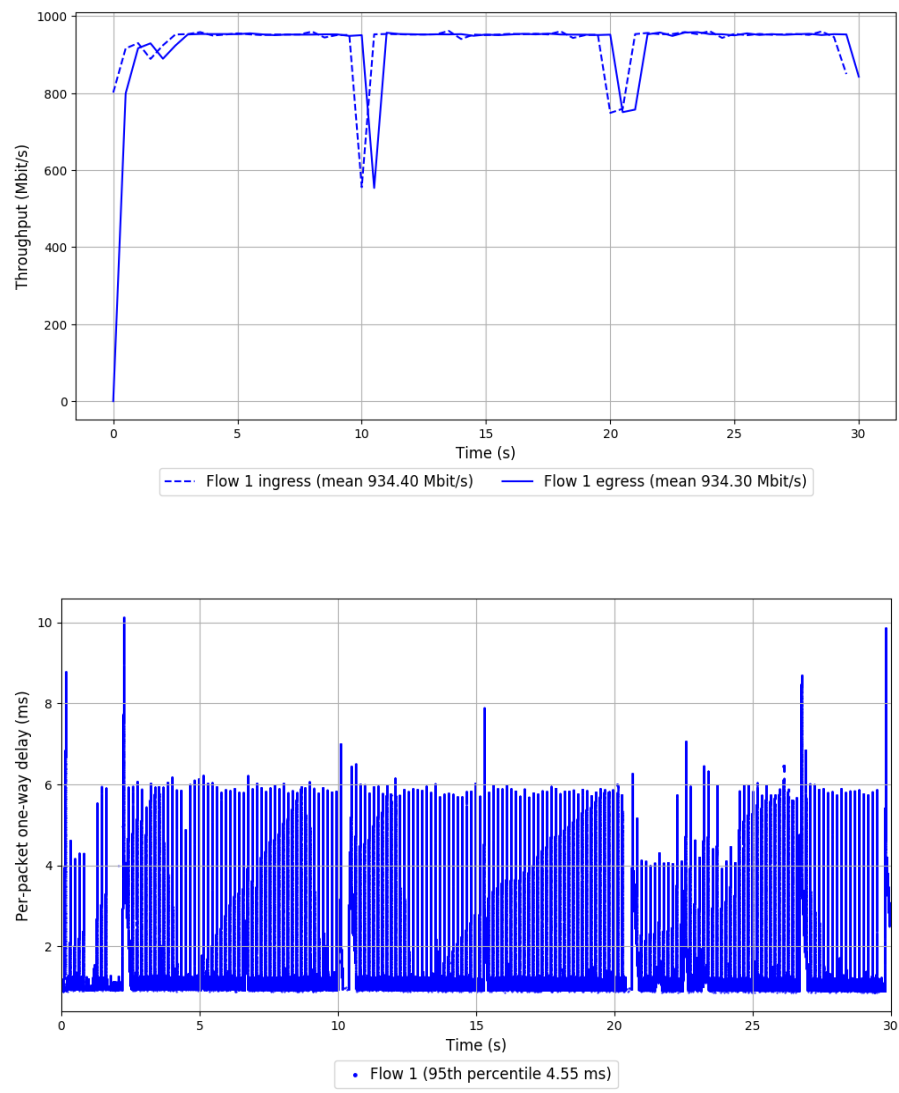


Run 2: Statistics of FillP-Sheep

Start at: 2018-11-30 11:39:43
End at: 2018-11-30 11:40:13
Local clock offset: 3.475 ms
Remote clock offset: -0.188 ms

Below is generated by plot.py at 2018-11-30 13:47:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 934.30 Mbit/s
95th percentile per-packet one-way delay: 4.548 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 934.30 Mbit/s
95th percentile per-packet one-way delay: 4.548 ms
Loss rate: 0.02%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2018-11-30 12:06:54

End at: 2018-11-30 12:07:24

Local clock offset: -0.32 ms

Remote clock offset: -0.195 ms

Below is generated by plot.py at 2018-11-30 13:47:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 934.51 Mbit/s

95th percentile per-packet one-way delay: 4.789 ms

Loss rate: 0.01%

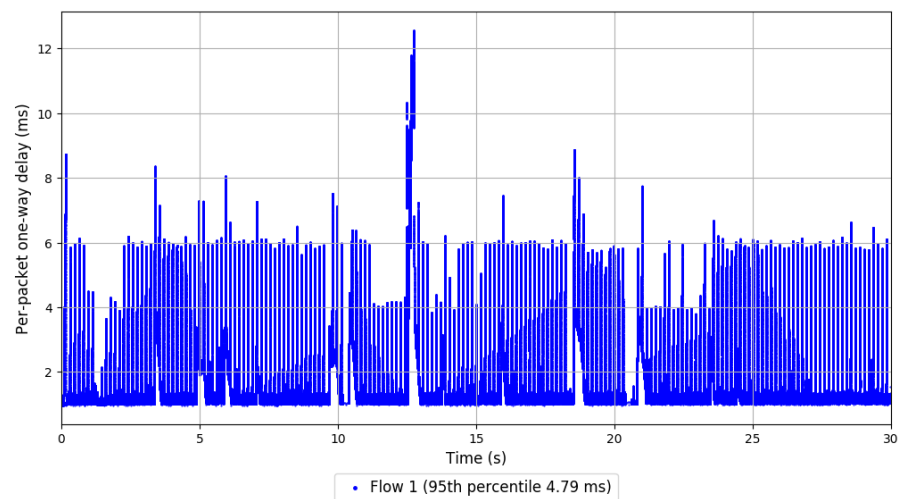
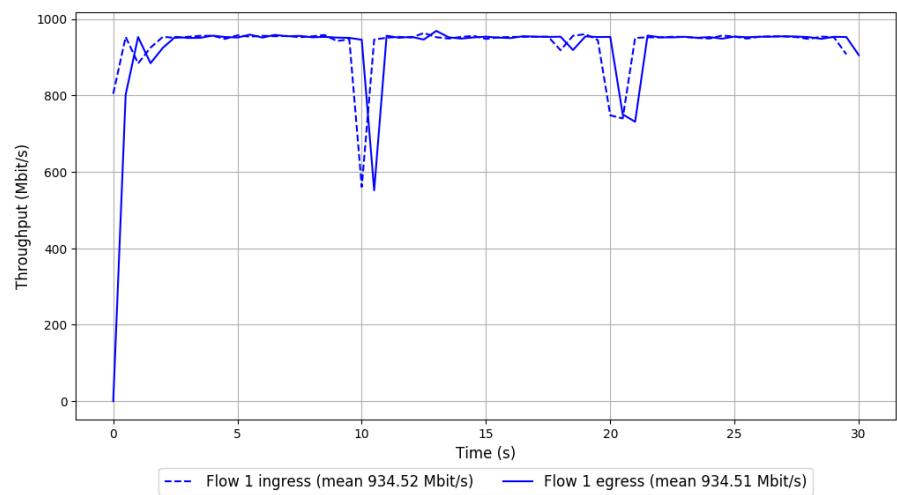
-- Flow 1:

Average throughput: 934.51 Mbit/s

95th percentile per-packet one-way delay: 4.789 ms

Loss rate: 0.01%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2018-11-30 12:34:03

End at: 2018-11-30 12:34:33

Local clock offset: 2.887 ms

Remote clock offset: -0.194 ms

Below is generated by plot.py at 2018-11-30 13:52:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 933.78 Mbit/s

95th percentile per-packet one-way delay: 4.562 ms

Loss rate: 0.01%

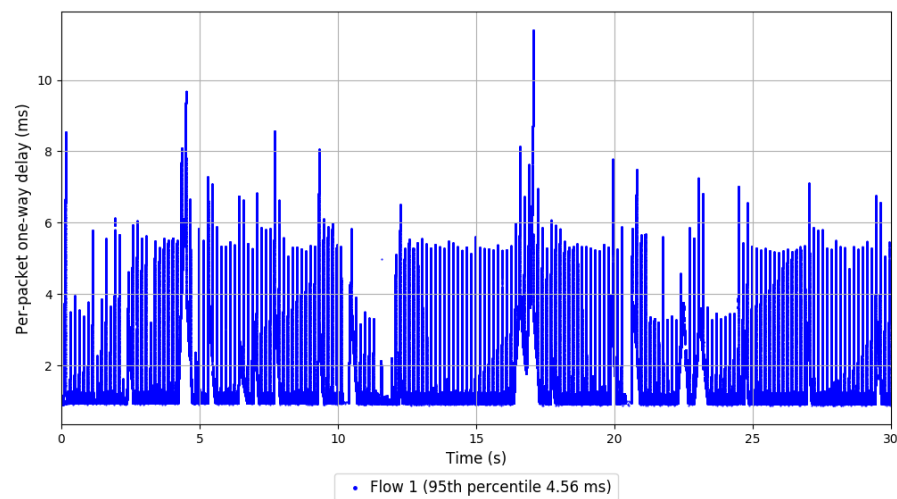
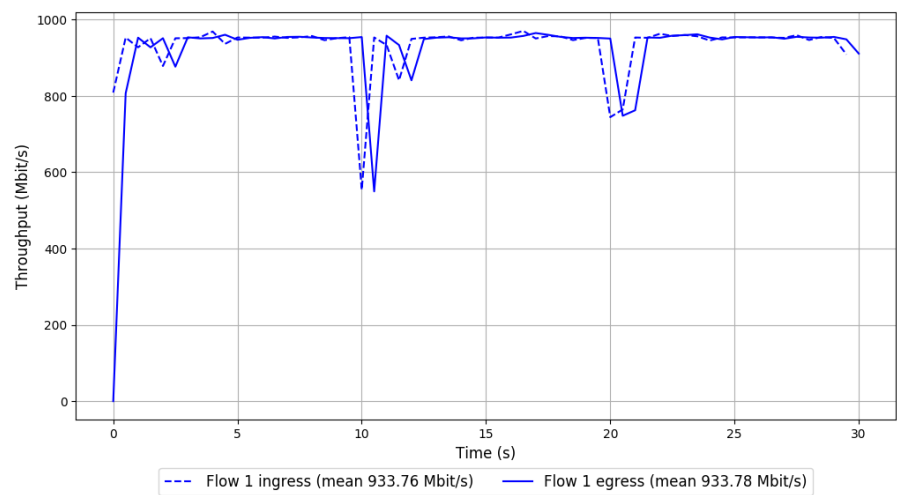
-- Flow 1:

Average throughput: 933.78 Mbit/s

95th percentile per-packet one-way delay: 4.562 ms

Loss rate: 0.01%

Run 4: Report of FillP-Sheep — Data Link

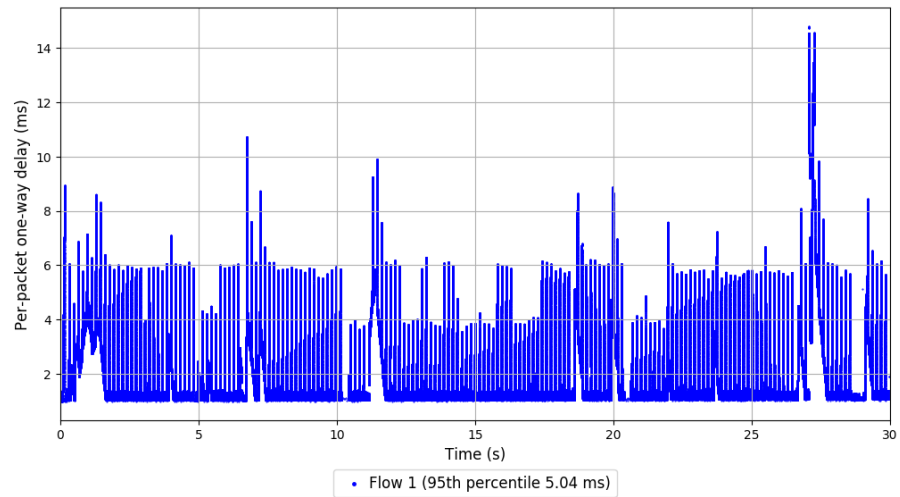
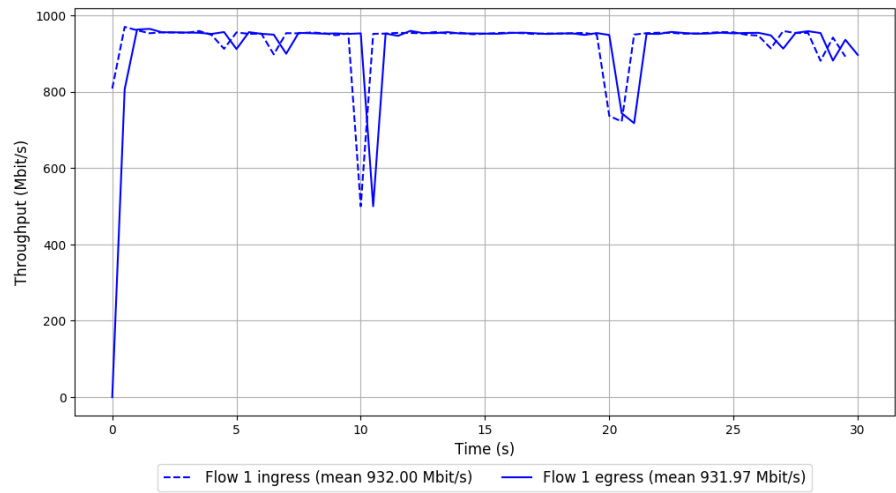


Run 5: Statistics of FillP-Sheep

Start at: 2018-11-30 13:01:16
End at: 2018-11-30 13:01:46
Local clock offset: 0.11 ms
Remote clock offset: -0.349 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 931.97 Mbit/s
95th percentile per-packet one-way delay: 5.038 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 931.97 Mbit/s
95th percentile per-packet one-way delay: 5.038 ms
Loss rate: 0.01%

Run 5: Report of FillP-Sheep — Data Link

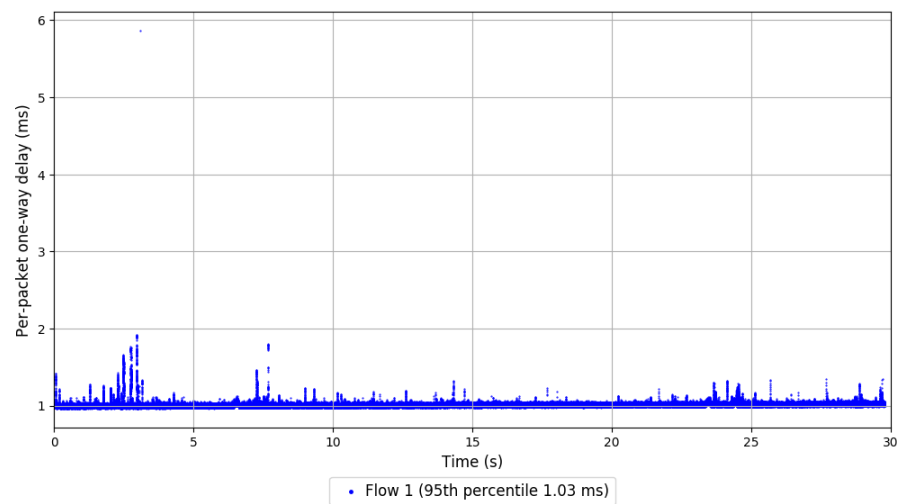
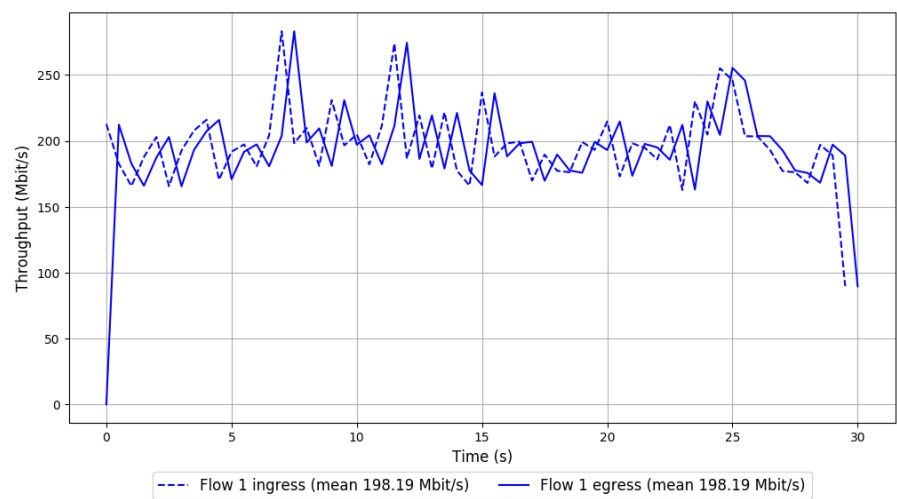


```
Run 1: Statistics of Indigo

Start at: 2018-11-30 11:01:37
End at: 2018-11-30 11:02:07
Local clock offset: -0.22 ms
Remote clock offset: -0.633 ms

# Below is generated by plot.py at 2018-11-30 14:00:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.19 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 198.19 Mbit/s
95th percentile per-packet one-way delay: 1.032 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-11-30 11:28:27

End at: 2018-11-30 11:28:57

Local clock offset: 2.599 ms

Remote clock offset: 0.091 ms

Below is generated by plot.py at 2018-11-30 14:00:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 183.26 Mbit/s

95th percentile per-packet one-way delay: 0.923 ms

Loss rate: 0.00%

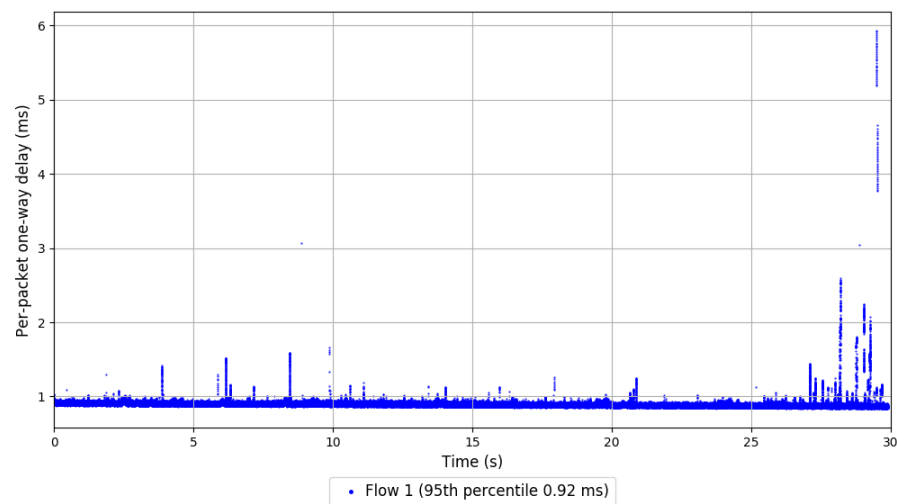
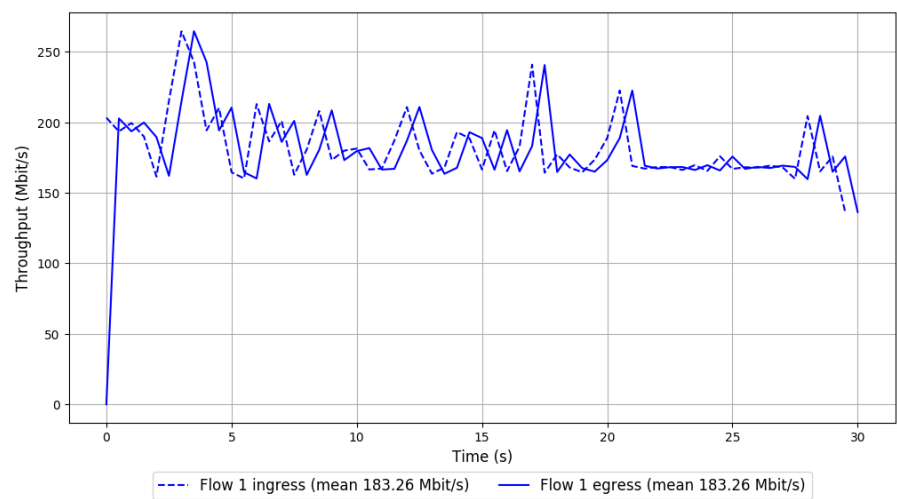
-- Flow 1:

Average throughput: 183.26 Mbit/s

95th percentile per-packet one-way delay: 0.923 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

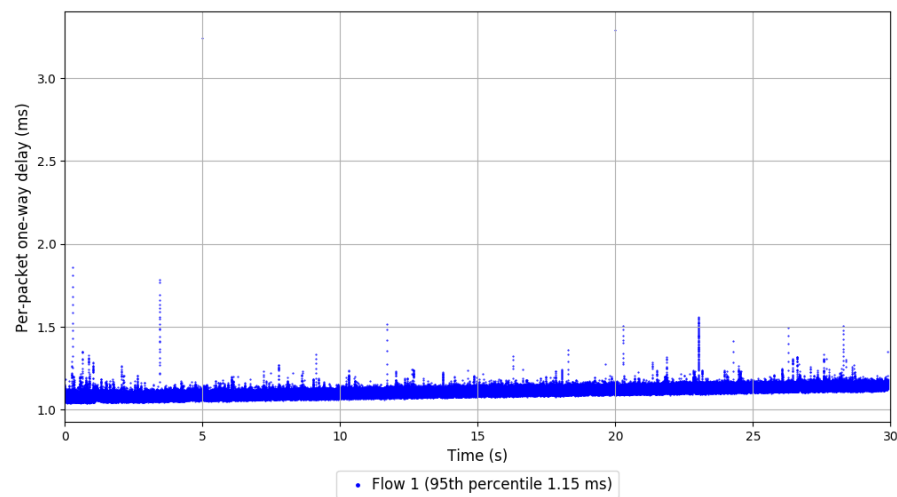
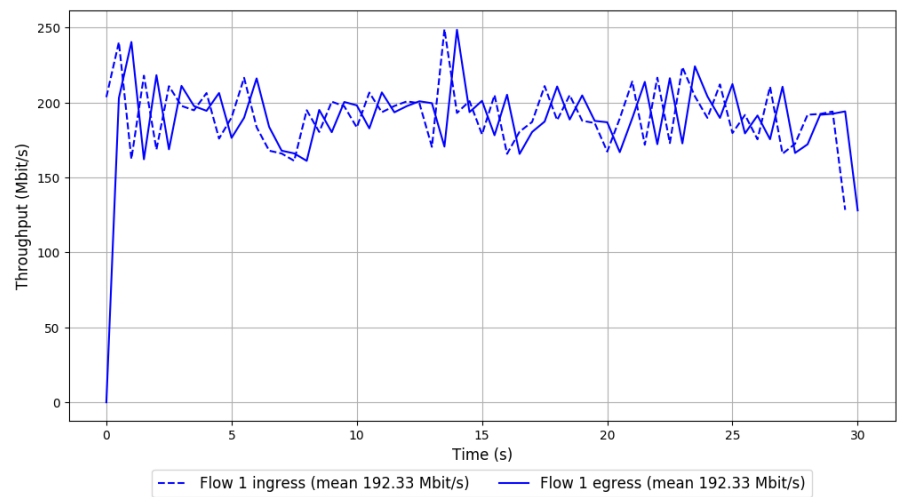


Run 3: Statistics of Indigo

Start at: 2018-11-30 11:55:37
End at: 2018-11-30 11:56:07
Local clock offset: 0.718 ms
Remote clock offset: -0.179 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 192.33 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 192.33 Mbit/s
95th percentile per-packet one-way delay: 1.150 ms
Loss rate: 0.01%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-11-30 12:22:44

End at: 2018-11-30 12:23:14

Local clock offset: 1.548 ms

Remote clock offset: -0.189 ms

Below is generated by plot.py at 2018-11-30 14:00:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 0.871 ms

Loss rate: 0.01%

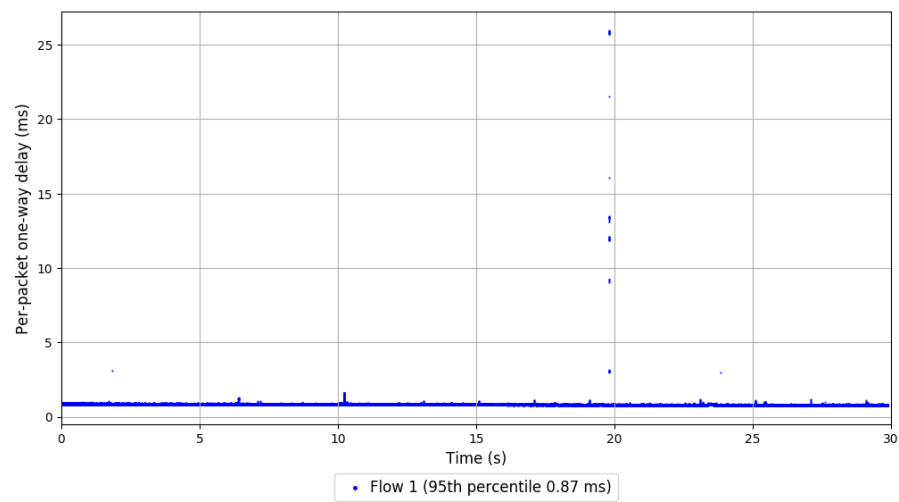
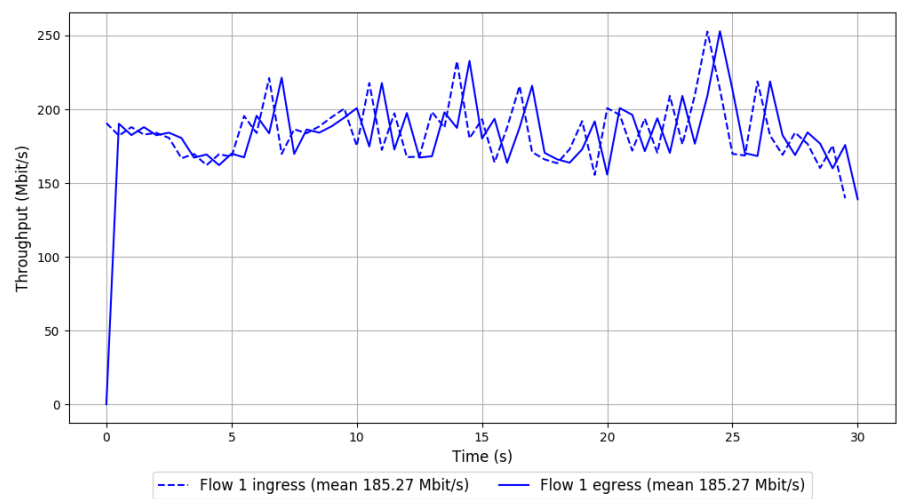
-- Flow 1:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 0.871 ms

Loss rate: 0.01%

Run 4: Report of Indigo — Data Link

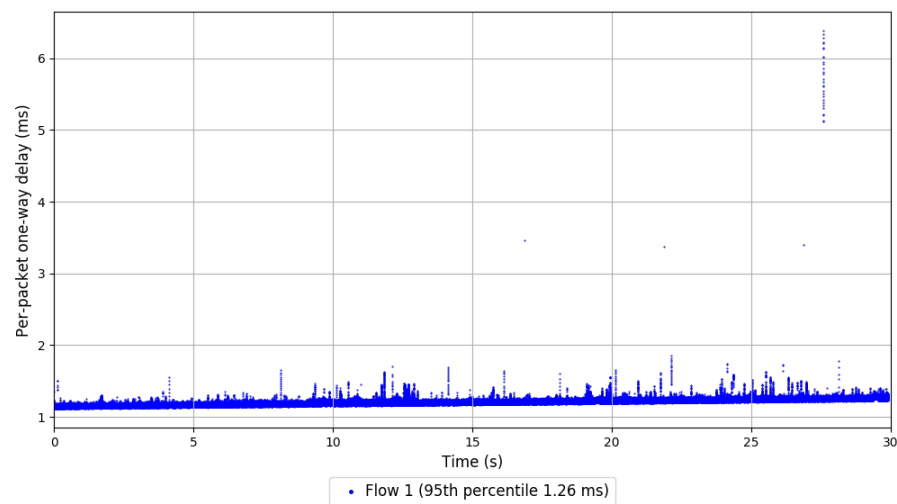
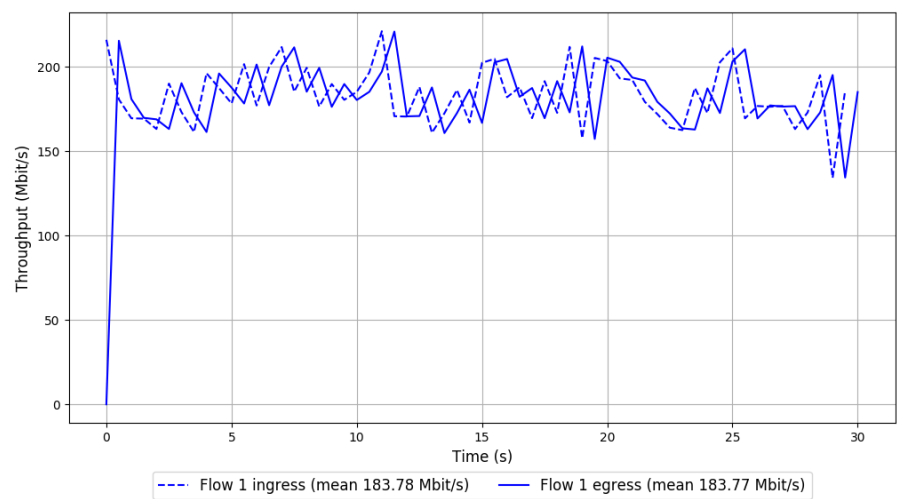


Run 5: Statistics of Indigo

Start at: 2018-11-30 12:49:59
End at: 2018-11-30 12:50:29
Local clock offset: 1.791 ms
Remote clock offset: -0.271 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 183.77 Mbit/s
95th percentile per-packet one-way delay: 1.257 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 183.77 Mbit/s
95th percentile per-packet one-way delay: 1.257 ms
Loss rate: 0.01%

Run 5: Report of Indigo — Data Link

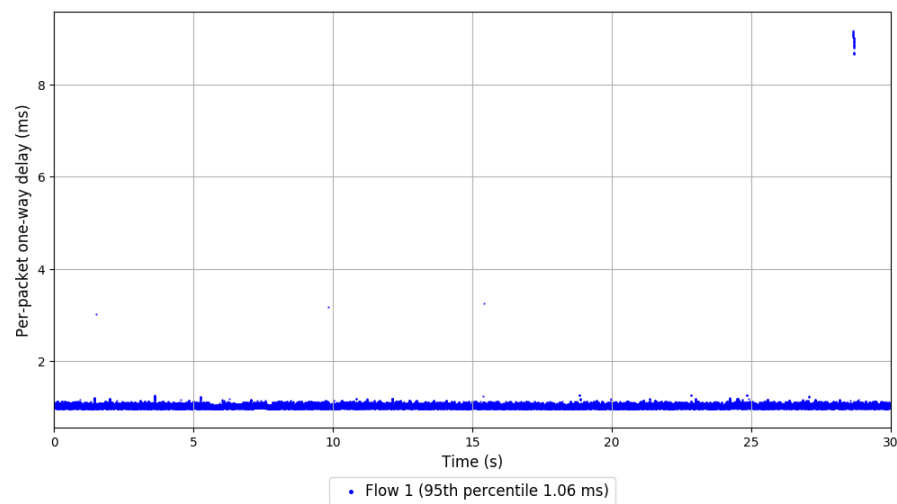
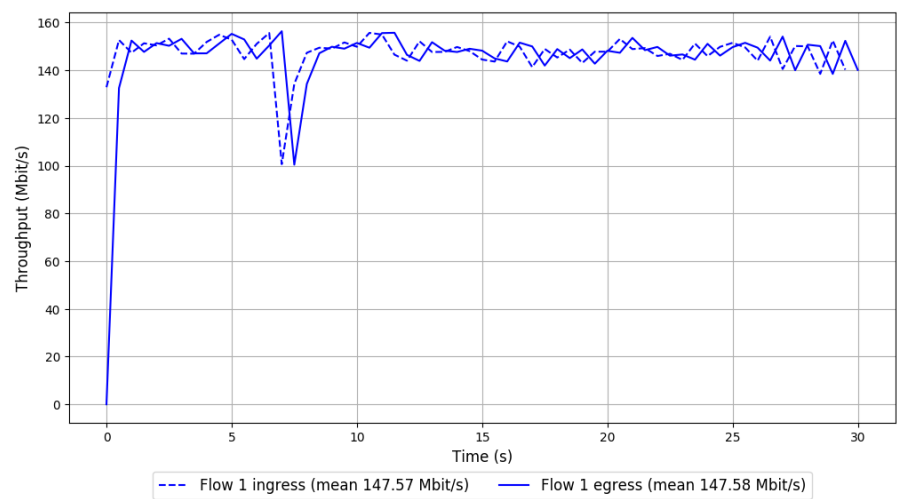


Run 1: Statistics of Indigo-96d2da3

Start at: 2018-11-30 10:54:38
End at: 2018-11-30 10:55:08
Local clock offset: -0.141 ms
Remote clock offset: -0.995 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 147.58 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.58 Mbit/s
95th percentile per-packet one-way delay: 1.058 ms
Loss rate: 0.00%

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

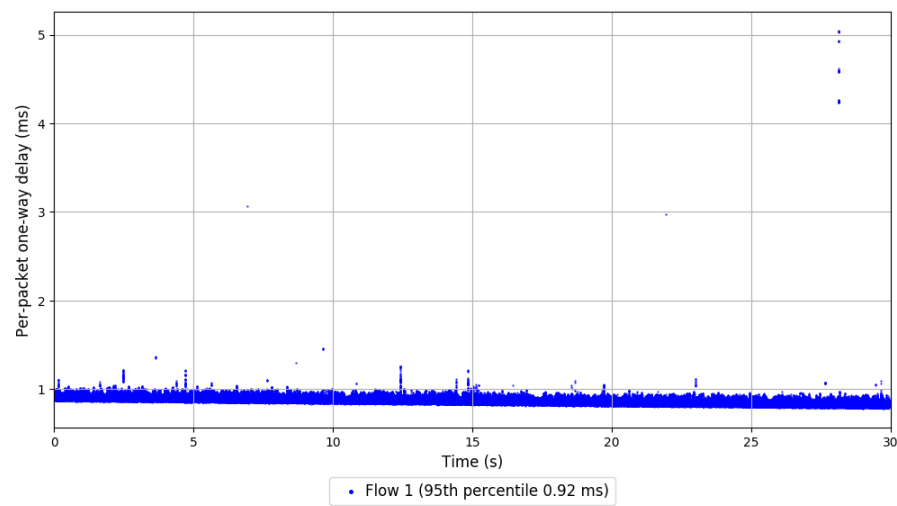
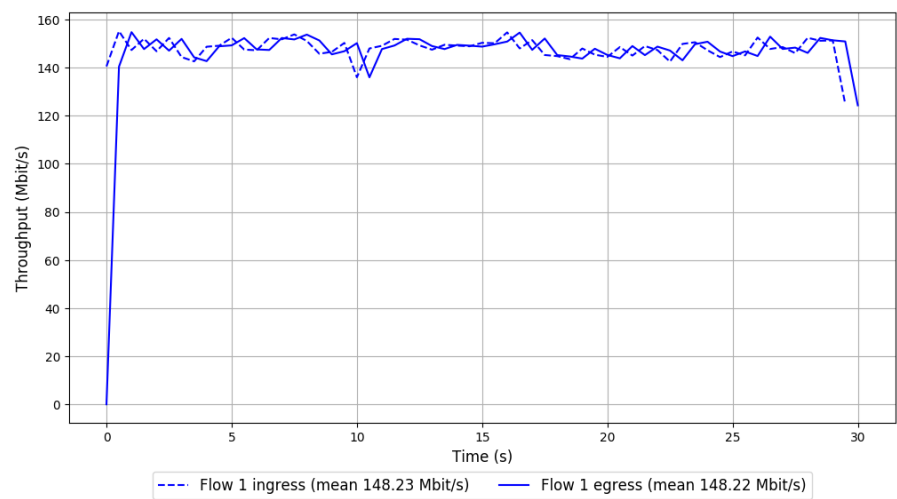


Run 2: Statistics of Indigo-96d2da3

Start at: 2018-11-30 11:21:27
End at: 2018-11-30 11:21:57
Local clock offset: 1.53 ms
Remote clock offset: -0.109 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 148.22 Mbit/s
95th percentile per-packet one-way delay: 0.922 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 148.22 Mbit/s
95th percentile per-packet one-way delay: 0.922 ms
Loss rate: 0.01%

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

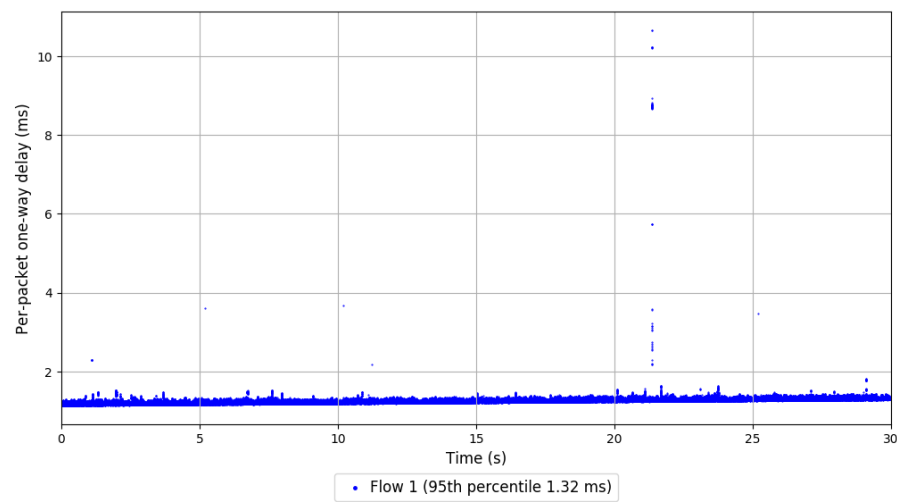
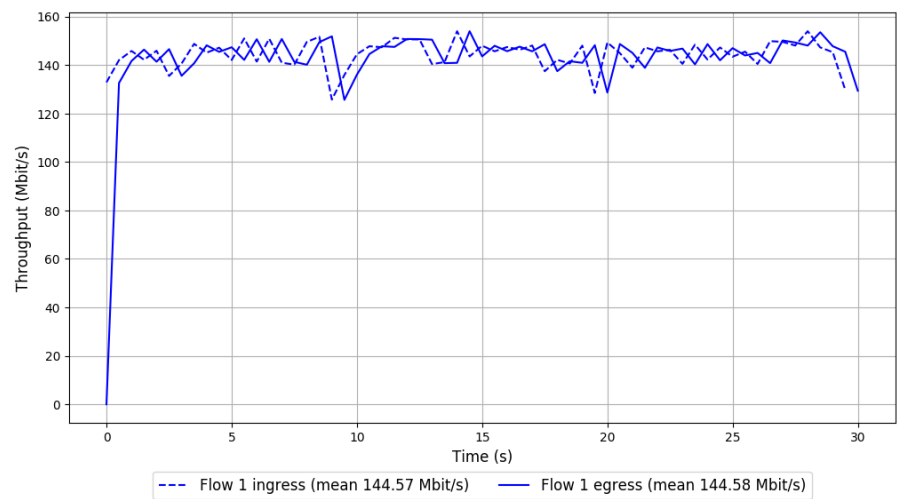


Run 3: Statistics of Indigo-96d2da3

Start at: 2018-11-30 11:48:36
End at: 2018-11-30 11:49:06
Local clock offset: 2.267 ms
Remote clock offset: -0.244 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 144.58 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 144.58 Mbit/s
95th percentile per-packet one-way delay: 1.321 ms
Loss rate: 0.01%

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

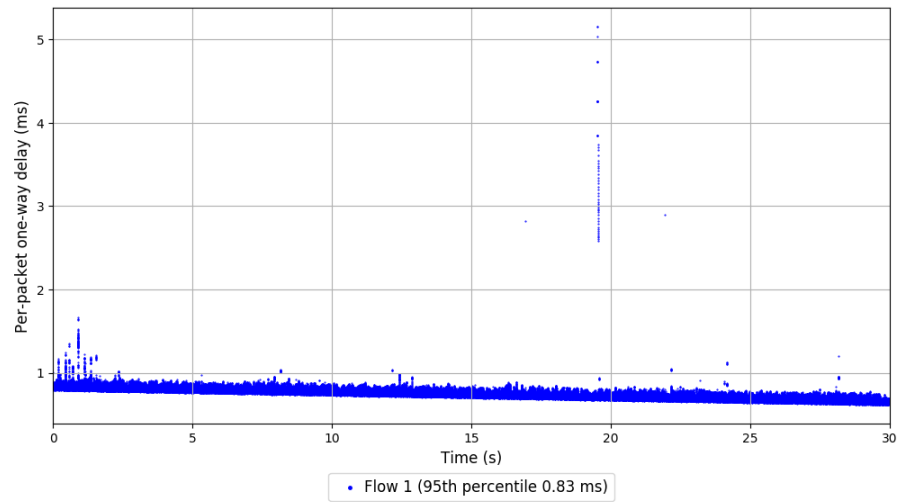
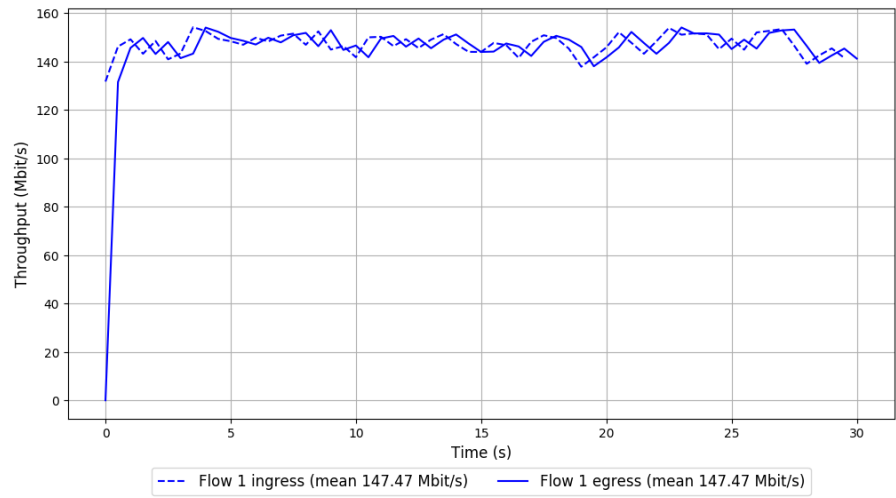


Run 4: Statistics of Indigo-96d2da3

Start at: 2018-11-30 12:15:45
End at: 2018-11-30 12:16:15
Local clock offset: -0.316 ms
Remote clock offset: -0.255 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 147.47 Mbit/s
95th percentile per-packet one-way delay: 0.828 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 147.47 Mbit/s
95th percentile per-packet one-way delay: 0.828 ms
Loss rate: 0.00%

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

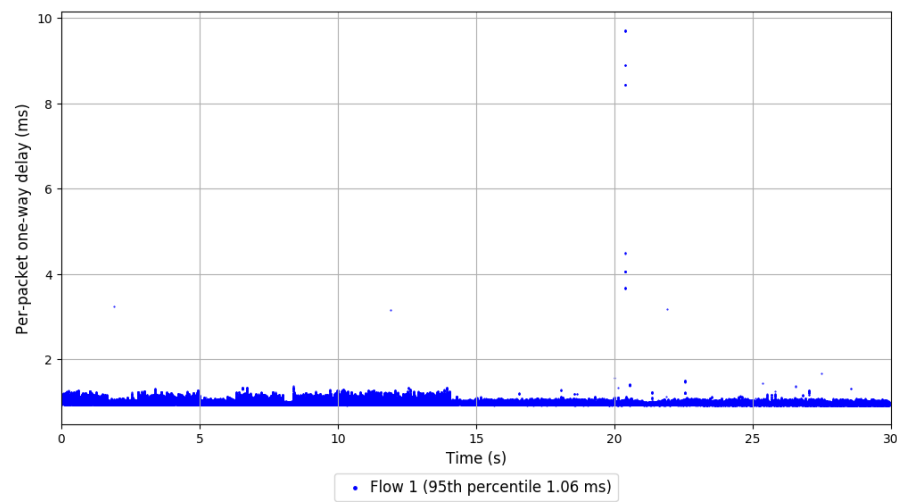
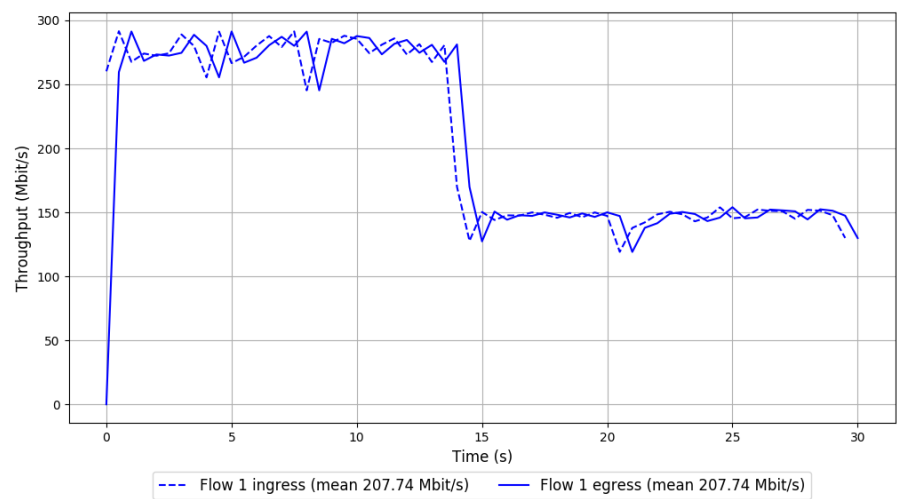


Run 5: Statistics of Indigo-96d2da3

Start at: 2018-11-30 12:42:54
End at: 2018-11-30 12:43:24
Local clock offset: 3.361 ms
Remote clock offset: -0.267 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 207.74 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 207.74 Mbit/s
95th percentile per-packet one-way delay: 1.063 ms
Loss rate: 0.01%

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

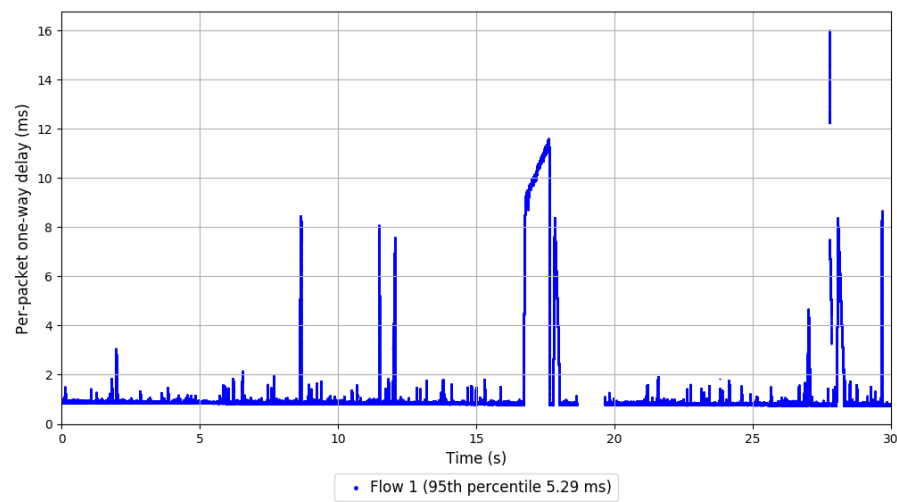
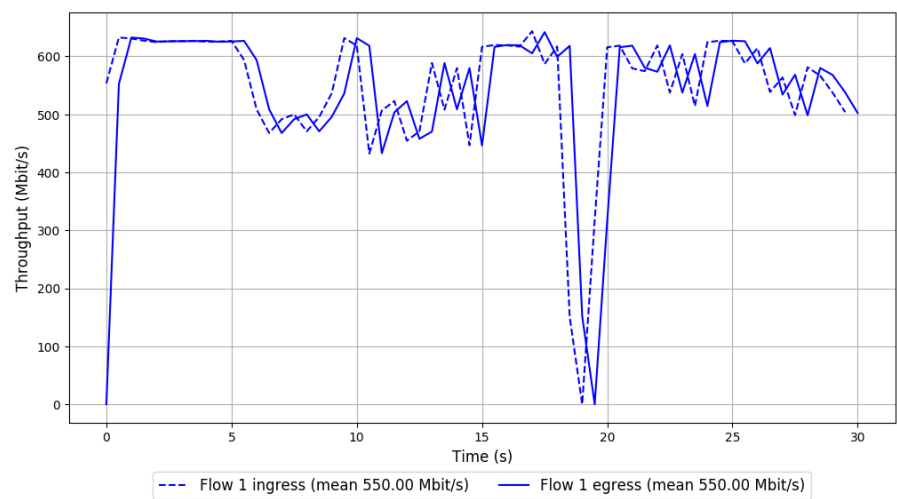


```
Run 1: Statistics of LEDBAT

Start at: 2018-11-30 11:18:38
End at: 2018-11-30 11:19:08
Local clock offset: 0.92 ms
Remote clock offset: -0.146 ms

# Below is generated by plot.py at 2018-11-30 14:00:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 550.00 Mbit/s
95th percentile per-packet one-way delay: 5.291 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 550.00 Mbit/s
95th percentile per-packet one-way delay: 5.291 ms
Loss rate: 0.01%
```

Run 1: Report of LEDBAT — Data Link

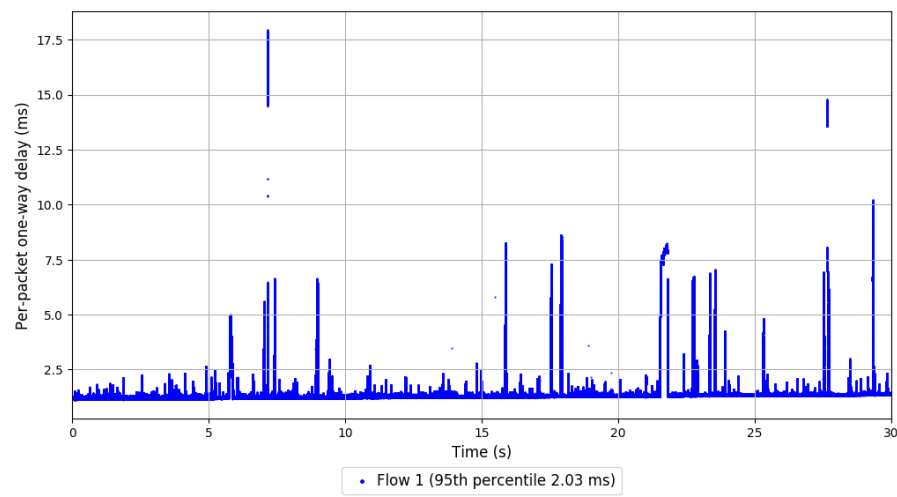
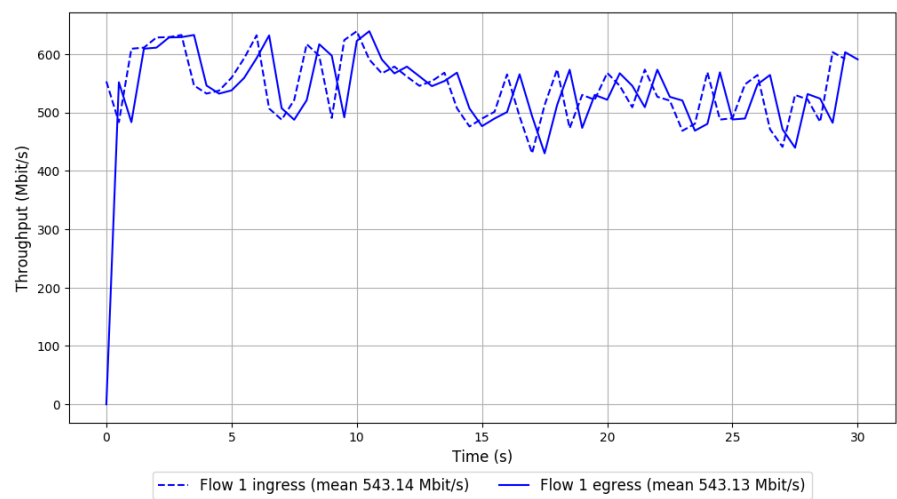


Run 2: Statistics of LEDBAT

Start at: 2018-11-30 11:45:28
End at: 2018-11-30 11:45:58
Local clock offset: 3.502 ms
Remote clock offset: -0.165 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 543.13 Mbit/s
95th percentile per-packet one-way delay: 2.028 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 543.13 Mbit/s
95th percentile per-packet one-way delay: 2.028 ms
Loss rate: 0.01%

Run 2: Report of LEDBAT — Data Link

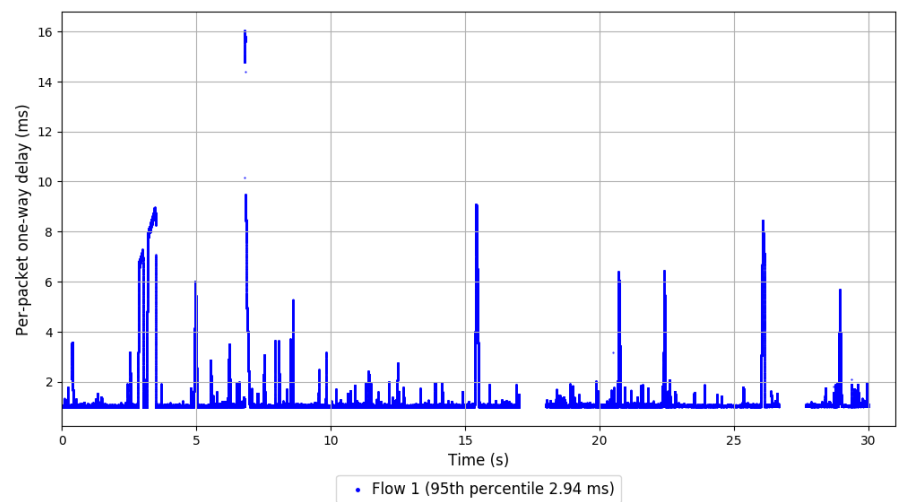
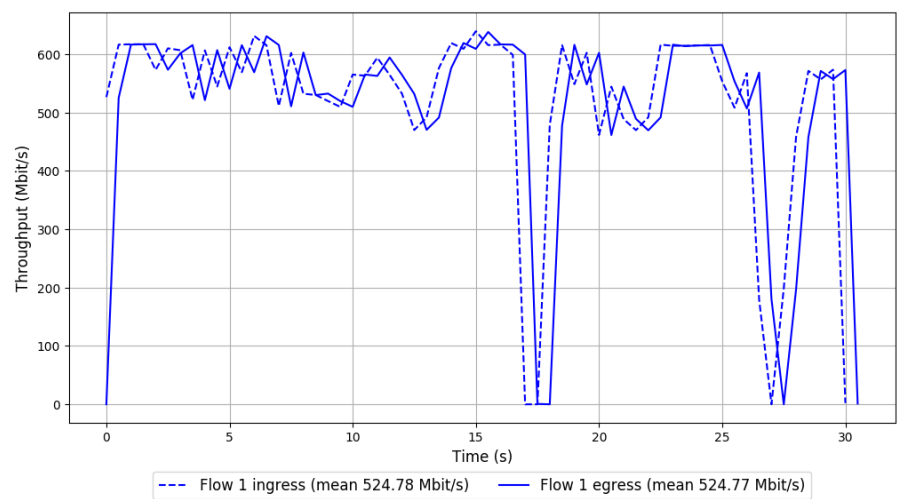


Run 3: Statistics of LEDBAT

Start at: 2018-11-30 12:12:37
End at: 2018-11-30 12:13:07
Local clock offset: -0.57 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 524.77 Mbit/s
95th percentile per-packet one-way delay: 2.936 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 524.77 Mbit/s
95th percentile per-packet one-way delay: 2.936 ms
Loss rate: 0.01%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-11-30 12:39:47

End at: 2018-11-30 12:40:17

Local clock offset: 3.212 ms

Remote clock offset: -0.19 ms

Below is generated by plot.py at 2018-11-30 14:00:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 558.55 Mbit/s

95th percentile per-packet one-way delay: 1.019 ms

Loss rate: 0.01%

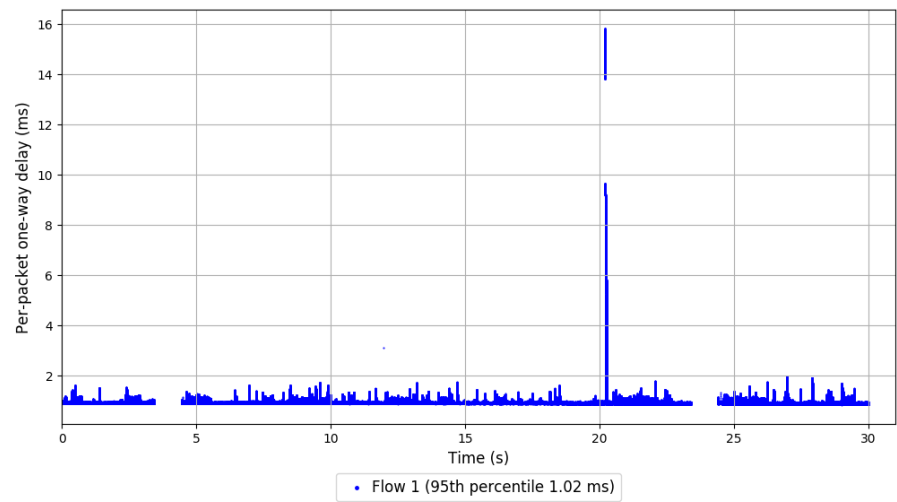
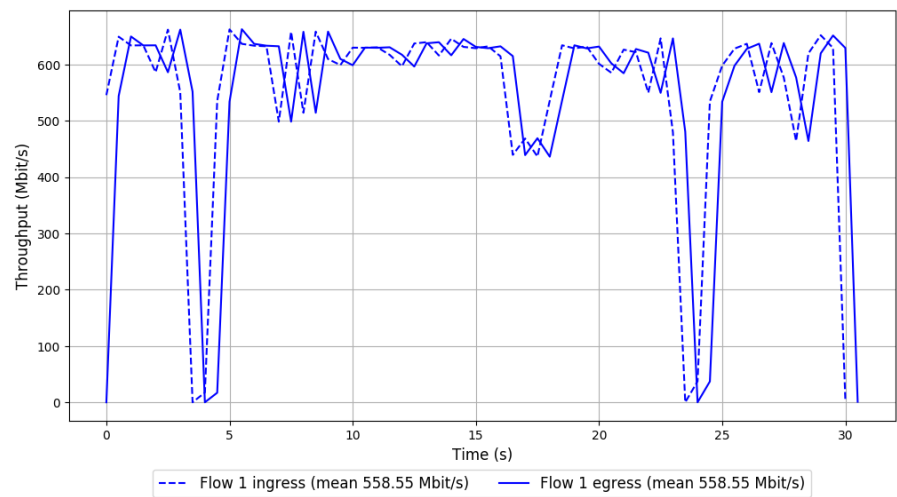
-- Flow 1:

Average throughput: 558.55 Mbit/s

95th percentile per-packet one-way delay: 1.019 ms

Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link

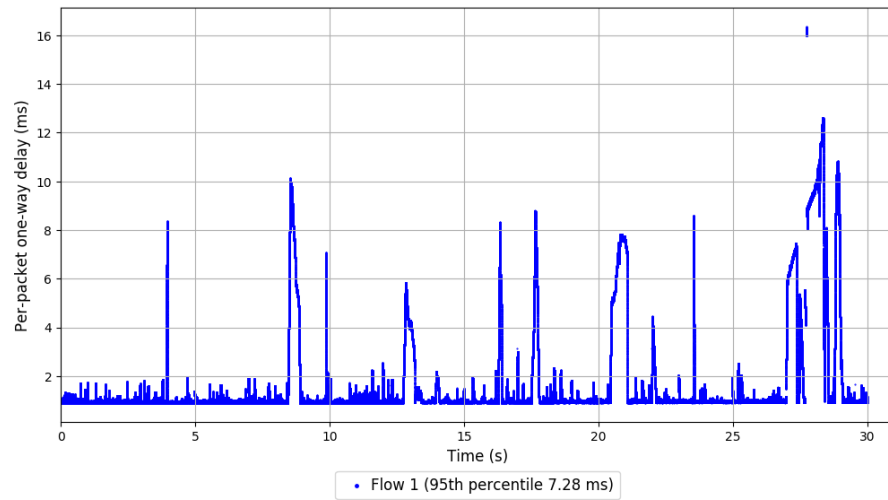
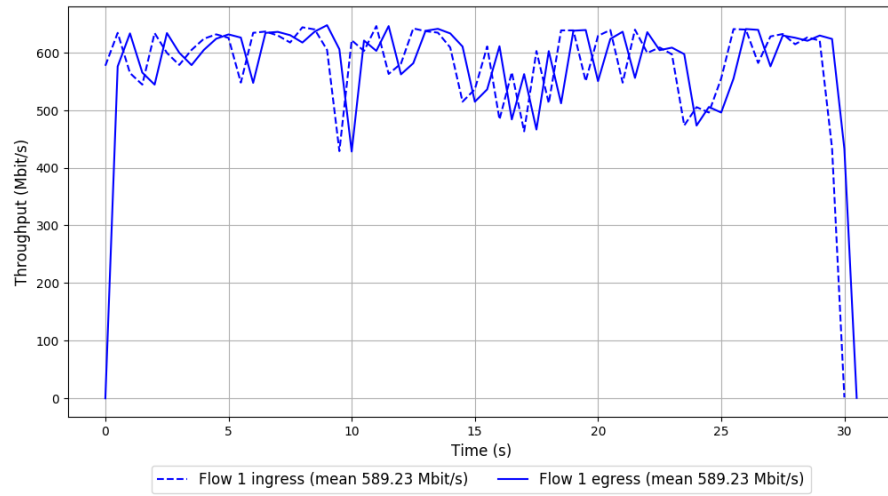


Run 5: Statistics of LEDBAT

Start at: 2018-11-30 13:07:00
End at: 2018-11-30 13:07:30
Local clock offset: -0.254 ms
Remote clock offset: -0.219 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 589.23 Mbit/s
95th percentile per-packet one-way delay: 7.277 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 589.23 Mbit/s
95th percentile per-packet one-way delay: 7.277 ms
Loss rate: 0.01%

Run 5: Report of LEDBAT — Data Link

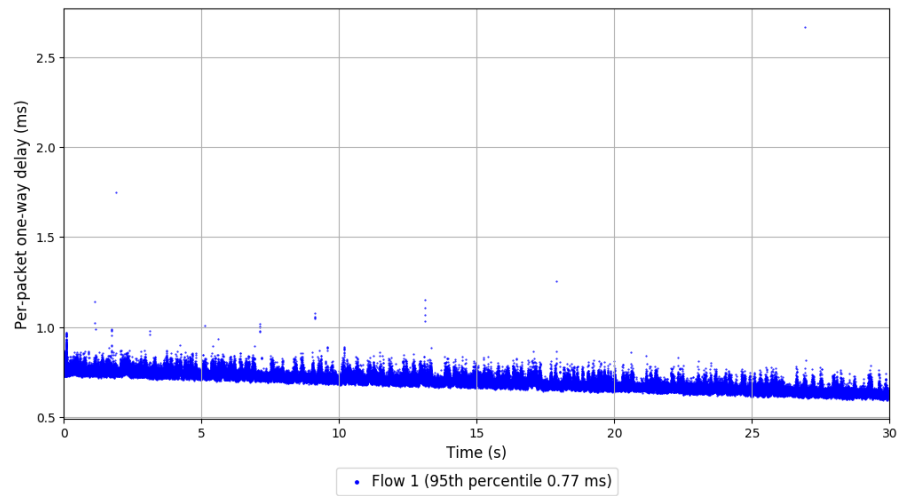
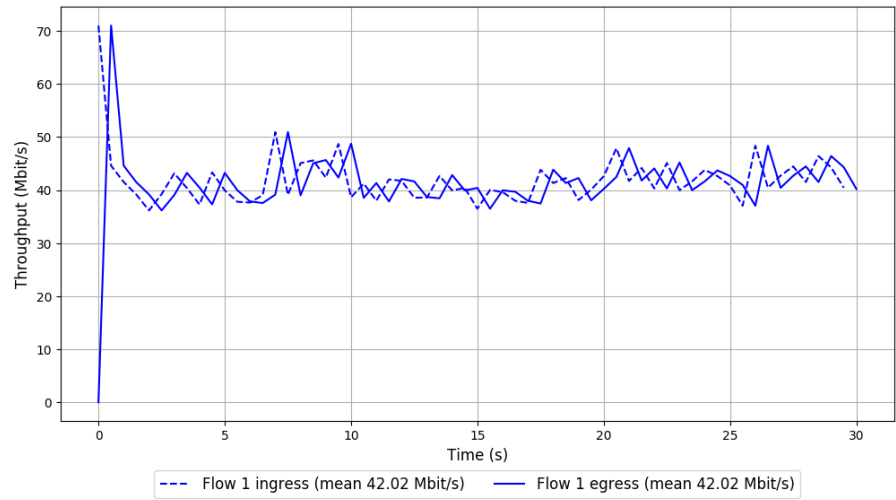


```
Run 1: Statistics of Indigo-Muses

Start at: 2018-11-30 11:17:24
End at: 2018-11-30 11:17:54
Local clock offset: 0.514 ms
Remote clock offset: -0.109 ms

# Below is generated by plot.py at 2018-11-30 14:00:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 0.773 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.02 Mbit/s
95th percentile per-packet one-way delay: 0.773 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo-Muses — Data Link

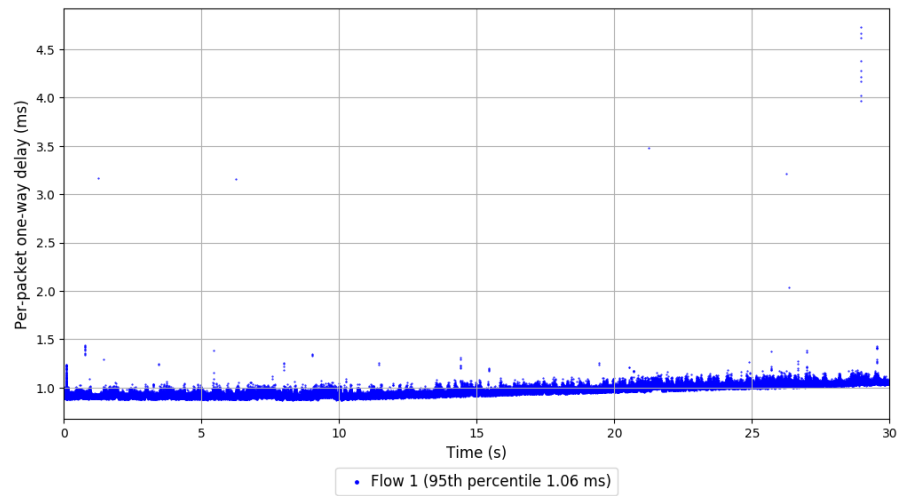
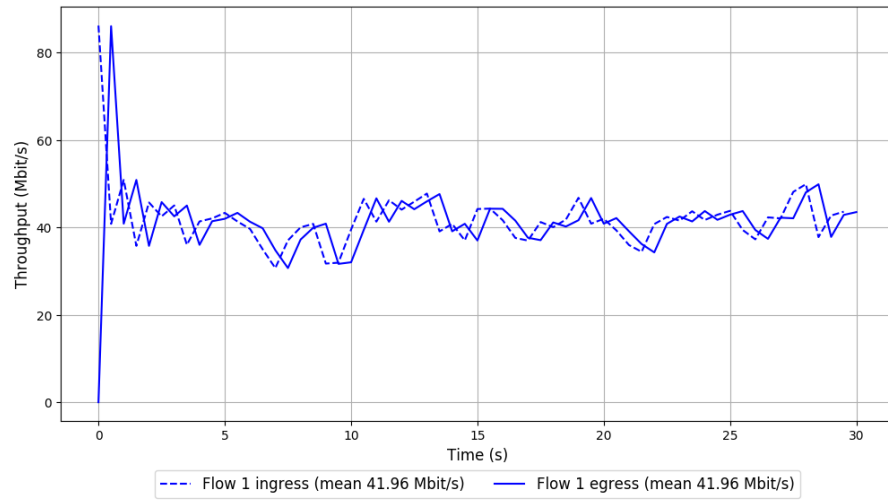


Run 2: Statistics of Indigo-Muses

Start at: 2018-11-30 11:44:14
End at: 2018-11-30 11:44:44
Local clock offset: 3.71 ms
Remote clock offset: -0.164 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 1.057 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.96 Mbit/s
95th percentile per-packet one-way delay: 1.057 ms
Loss rate: 0.00%

Run 2: Report of Indigo-Muses — Data Link

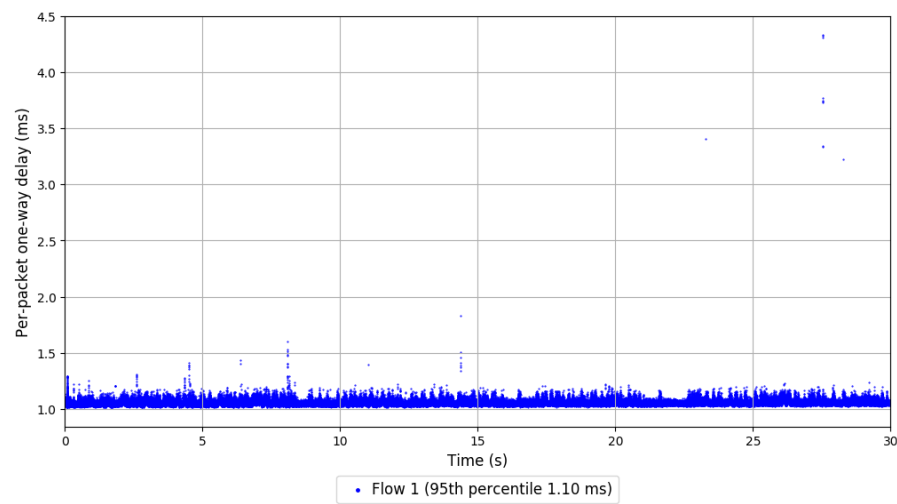
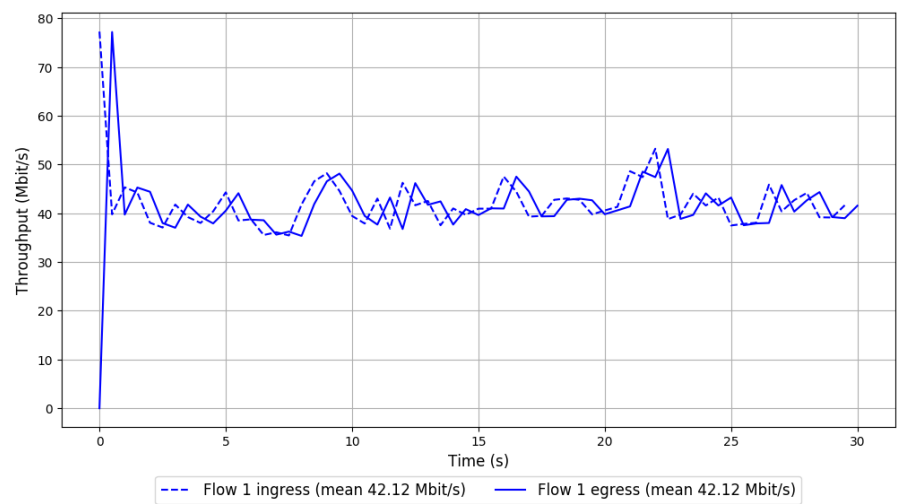


Run 3: Statistics of Indigo-Muses

Start at: 2018-11-30 12:11:23
End at: 2018-11-30 12:11:53
Local clock offset: -0.524 ms
Remote clock offset: -0.238 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 42.12 Mbit/s
95th percentile per-packet one-way delay: 1.102 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 42.12 Mbit/s
95th percentile per-packet one-way delay: 1.102 ms
Loss rate: 0.01%

Run 3: Report of Indigo-Muses — Data Link

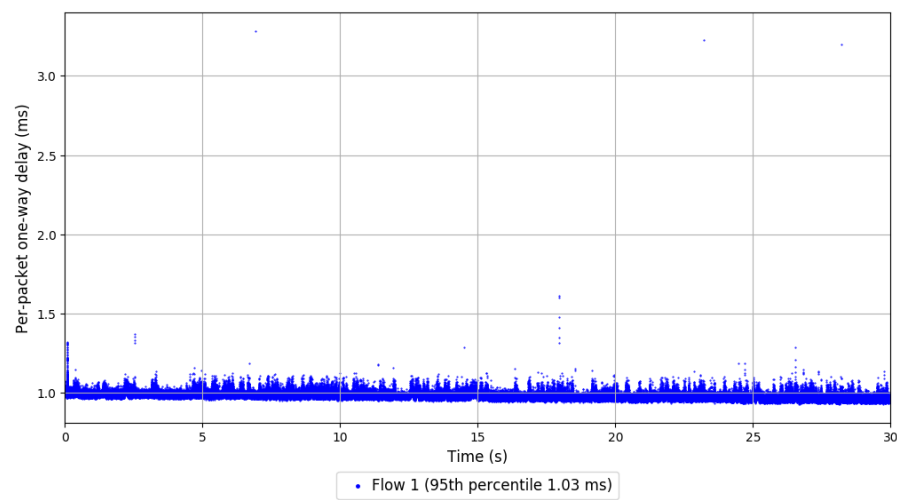
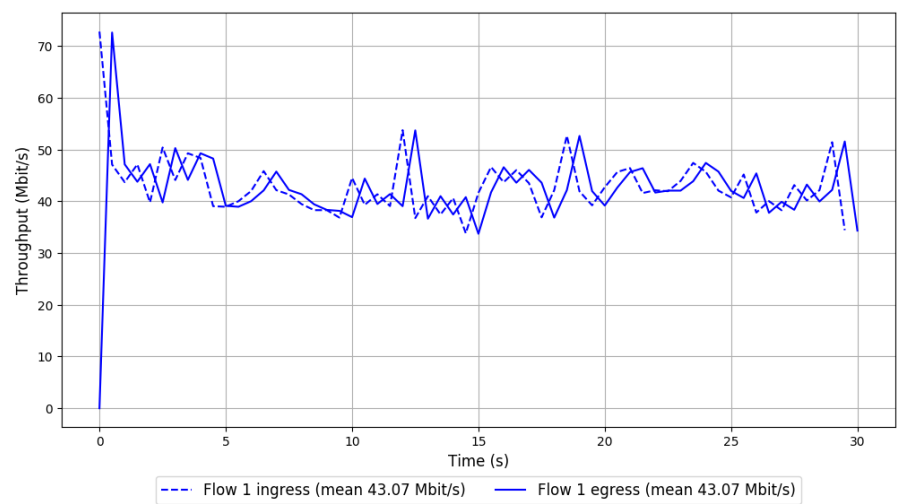


Run 4: Statistics of Indigo-Muses

Start at: 2018-11-30 12:38:32
End at: 2018-11-30 12:39:03
Local clock offset: 3.156 ms
Remote clock offset: -0.221 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 43.07 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 43.07 Mbit/s
95th percentile per-packet one-way delay: 1.028 ms
Loss rate: 0.00%

Run 4: Report of Indigo-Muses — Data Link

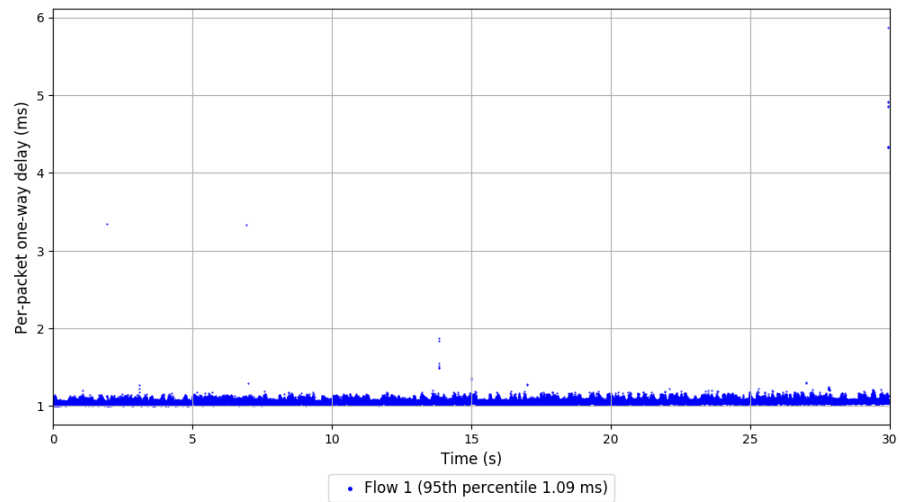
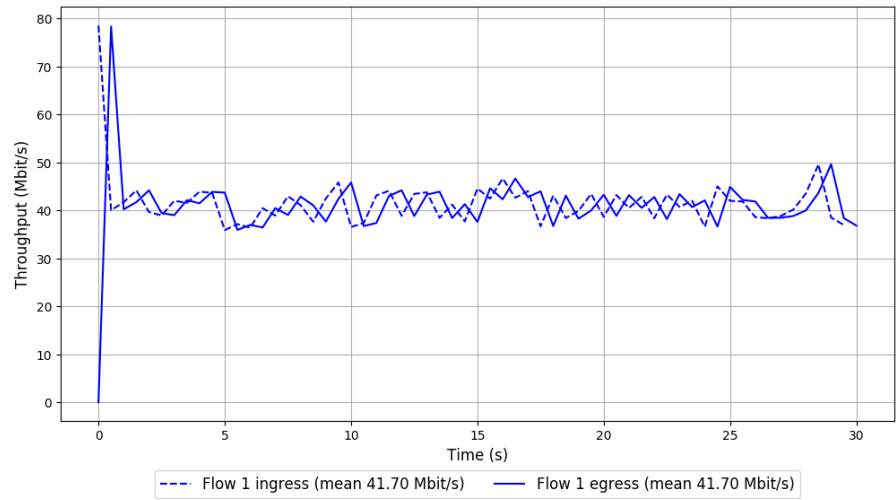


Run 5: Statistics of Indigo-Muses

Start at: 2018-11-30 13:05:46
End at: 2018-11-30 13:06:16
Local clock offset: -0.194 ms
Remote clock offset: -0.315 ms

Below is generated by plot.py at 2018-11-30 14:00:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.70 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 41.70 Mbit/s
95th percentile per-packet one-way delay: 1.095 ms
Loss rate: 0.01%

Run 5: Report of Indigo-Muses — Data Link

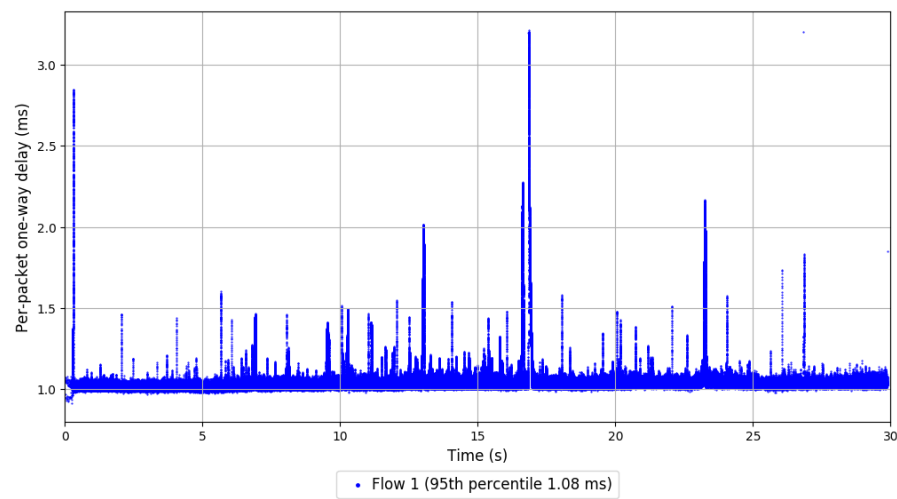
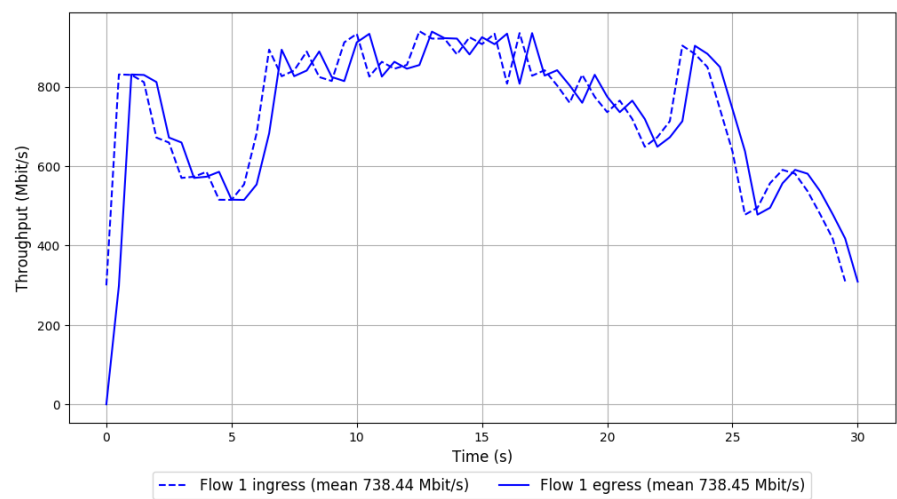


Run 1: Statistics of PCC-Allegro

Start at: 2018-11-30 11:04:11
End at: 2018-11-30 11:04:41
Local clock offset: -0.244 ms
Remote clock offset: -0.552 ms

Below is generated by plot.py at 2018-11-30 14:01:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 738.45 Mbit/s
95th percentile per-packet one-way delay: 1.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 738.45 Mbit/s
95th percentile per-packet one-way delay: 1.080 ms
Loss rate: 0.00%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-11-30 11:31:00

End at: 2018-11-30 11:31:30

Local clock offset: 2.862 ms

Remote clock offset: 0.016 ms

Below is generated by plot.py at 2018-11-30 14:02:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 759.45 Mbit/s

95th percentile per-packet one-way delay: 0.980 ms

Loss rate: 0.00%

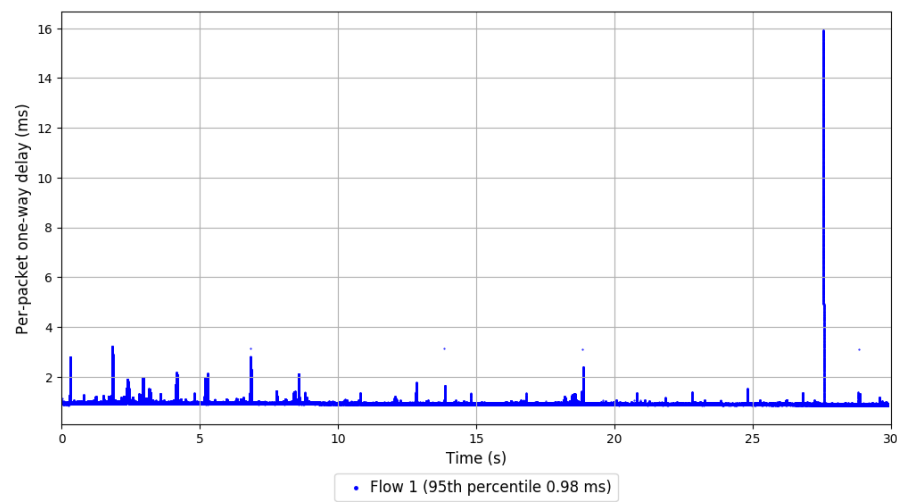
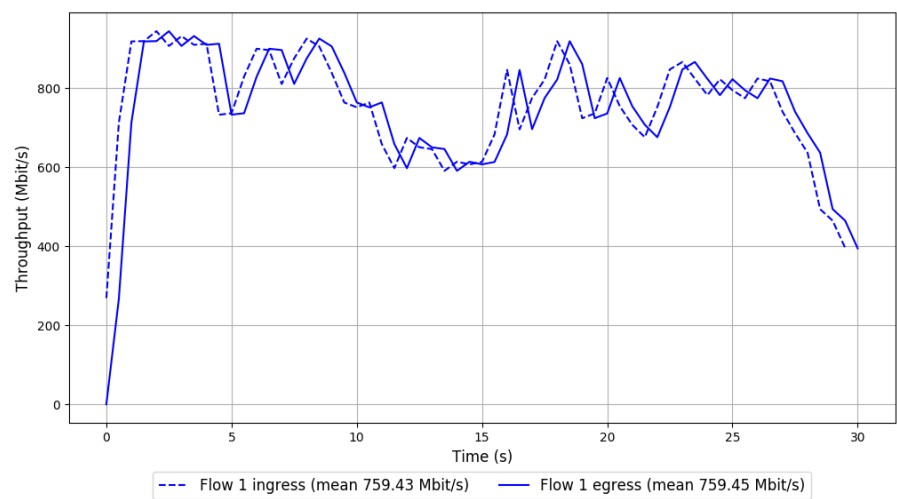
-- Flow 1:

Average throughput: 759.45 Mbit/s

95th percentile per-packet one-way delay: 0.980 ms

Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-11-30 11:58:10

End at: 2018-11-30 11:58:40

Local clock offset: 0.395 ms

Remote clock offset: -0.171 ms

Below is generated by plot.py at 2018-11-30 14:05:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 743.76 Mbit/s

95th percentile per-packet one-way delay: 1.161 ms

Loss rate: 0.01%

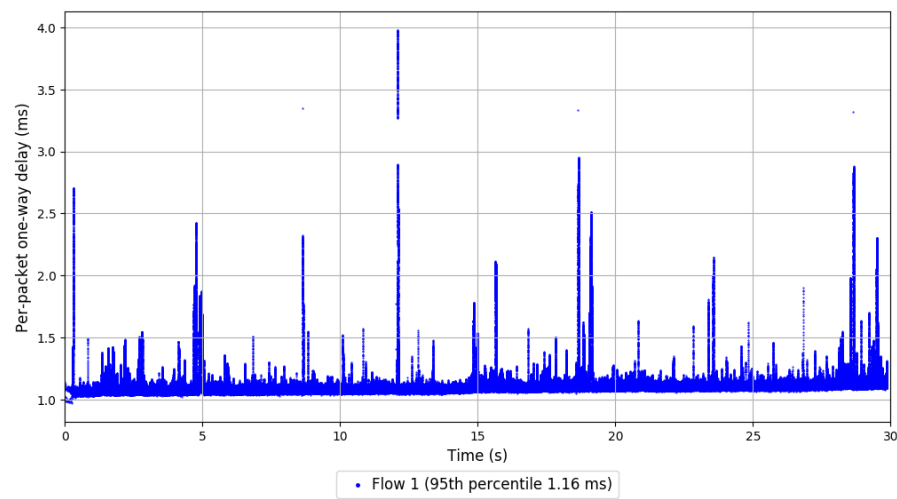
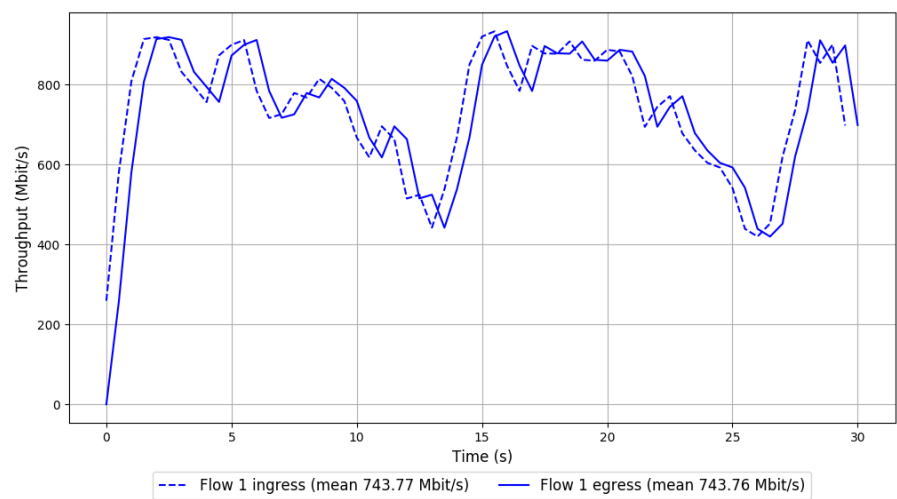
-- Flow 1:

Average throughput: 743.76 Mbit/s

95th percentile per-packet one-way delay: 1.161 ms

Loss rate: 0.01%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2018-11-30 12:25:17

End at: 2018-11-30 12:25:47

Local clock offset: 1.955 ms

Remote clock offset: -0.217 ms

Below is generated by plot.py at 2018-11-30 14:05:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 809.94 Mbit/s

95th percentile per-packet one-way delay: 1.829 ms

Loss rate: 0.00%

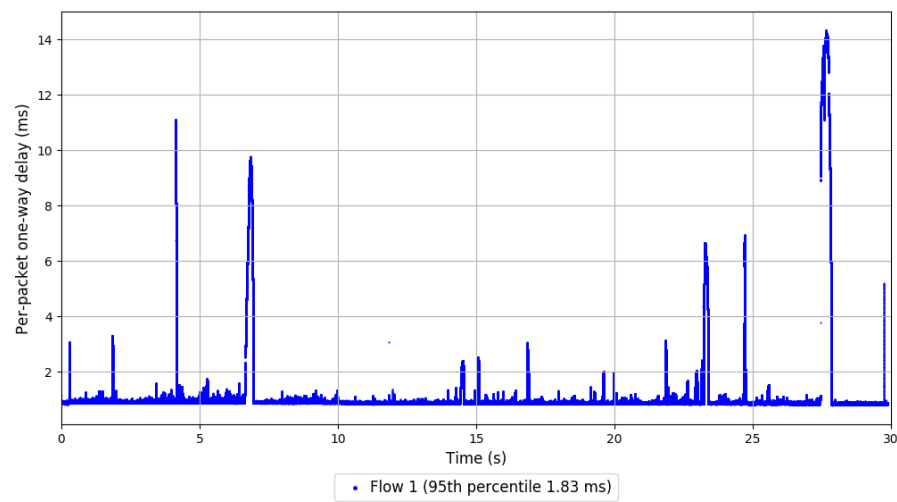
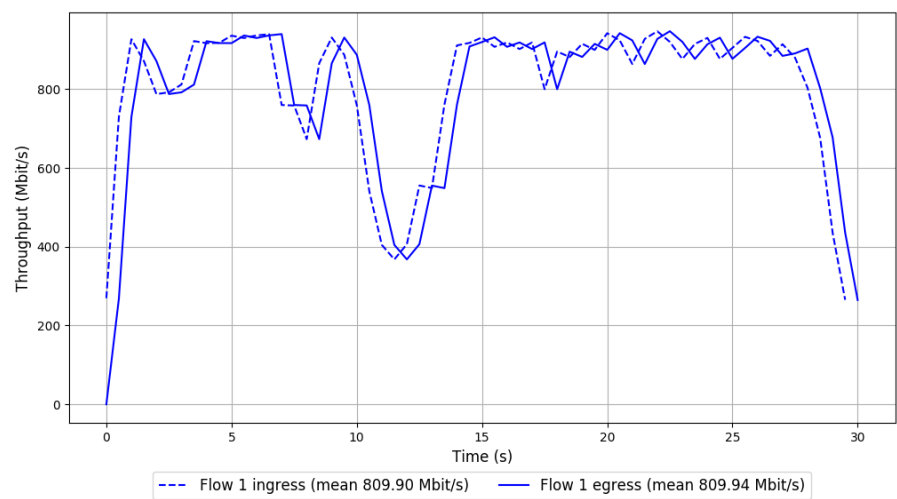
-- Flow 1:

Average throughput: 809.94 Mbit/s

95th percentile per-packet one-way delay: 1.829 ms

Loss rate: 0.00%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2018-11-30 12:52:32

End at: 2018-11-30 12:53:02

Local clock offset: 1.215 ms

Remote clock offset: -0.292 ms

Below is generated by plot.py at 2018-11-30 14:06:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 742.31 Mbit/s

95th percentile per-packet one-way delay: 1.804 ms

Loss rate: 0.01%

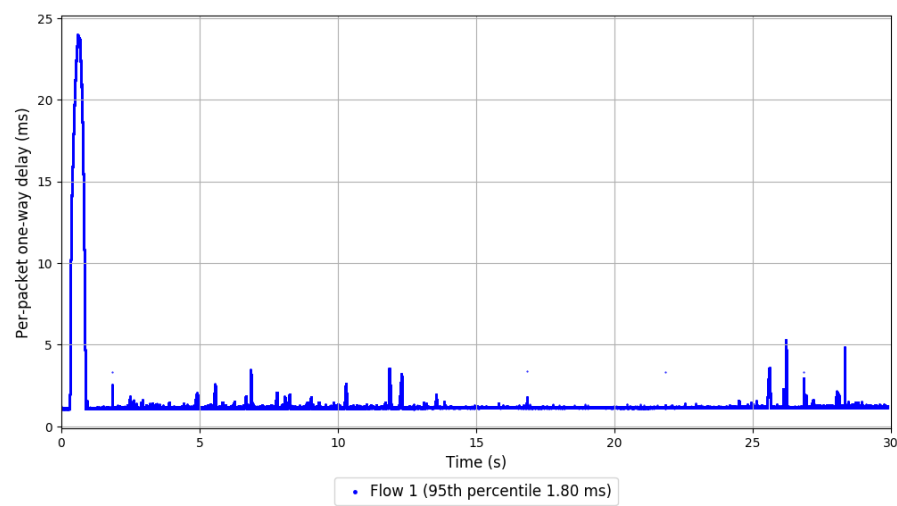
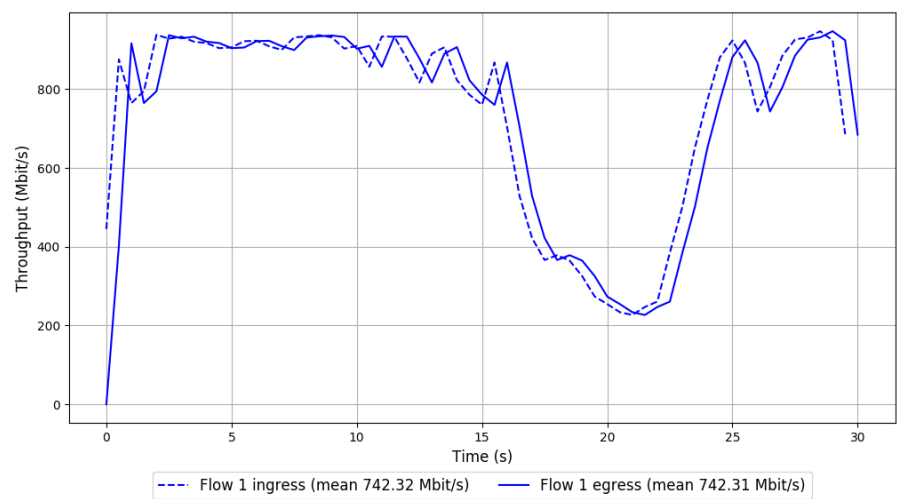
-- Flow 1:

Average throughput: 742.31 Mbit/s

95th percentile per-packet one-way delay: 1.804 ms

Loss rate: 0.01%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-11-30 11:20:14

End at: 2018-11-30 11:20:44

Local clock offset: 1.309 ms

Remote clock offset: -0.119 ms

Below is generated by plot.py at 2018-11-30 14:06:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 0.920 ms

Loss rate: 0.01%

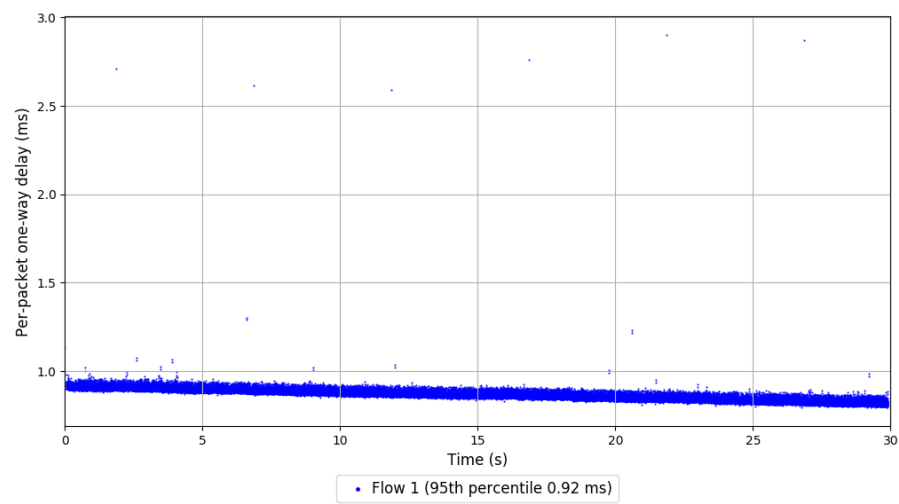
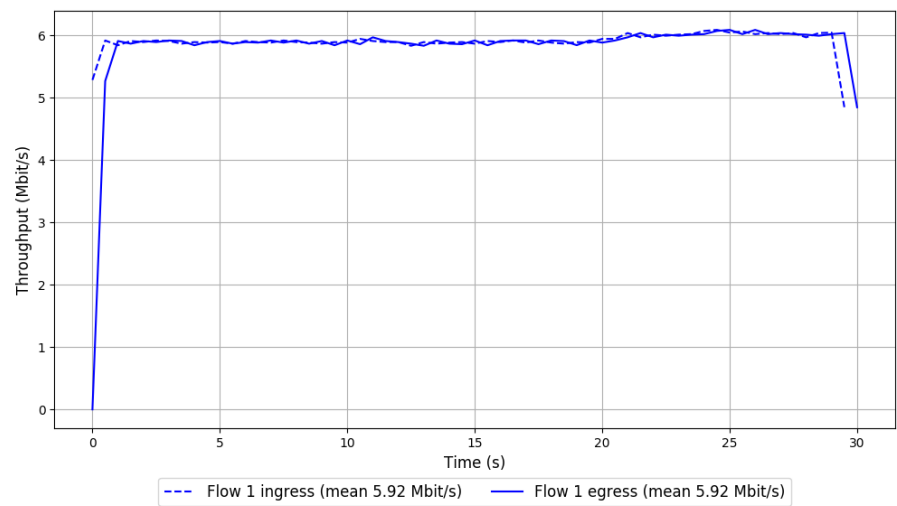
-- Flow 1:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 0.920 ms

Loss rate: 0.01%

Run 1: Report of PCC-Expr — Data Link

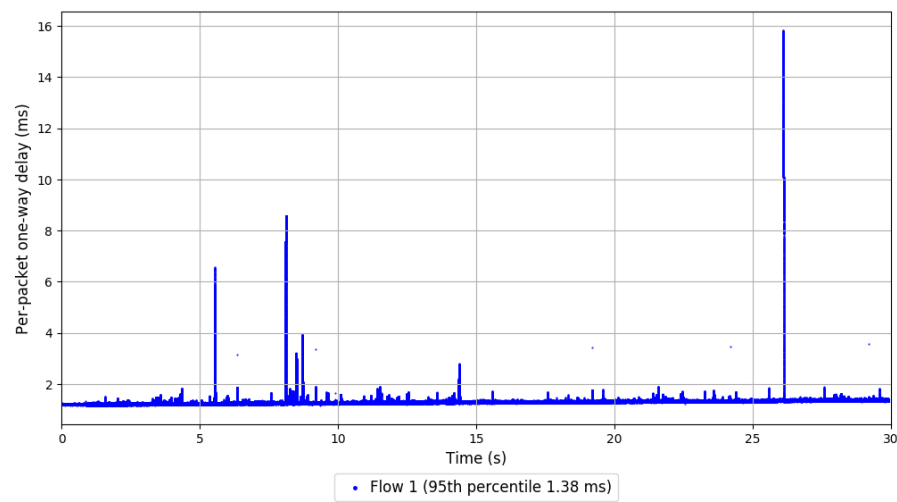
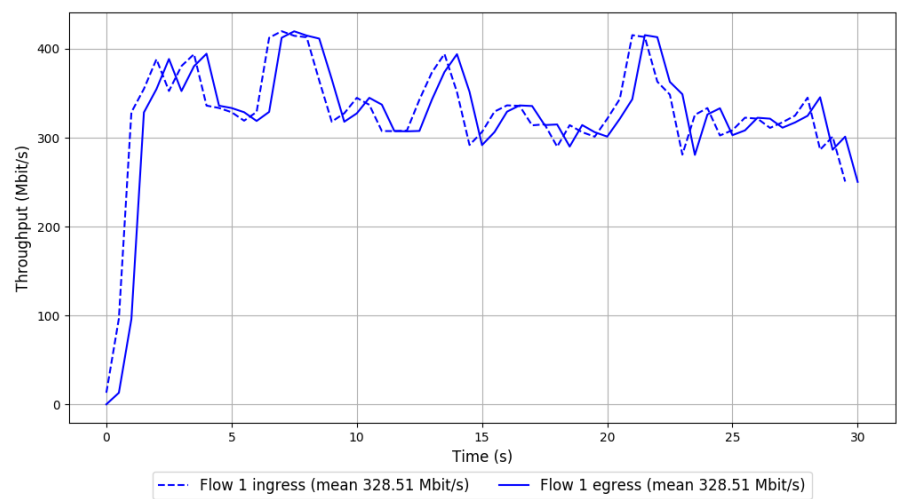


Run 2: Statistics of PCC-Expr

Start at: 2018-11-30 11:47:03
End at: 2018-11-30 11:47:33
Local clock offset: 2.803 ms
Remote clock offset: -0.257 ms

Below is generated by plot.py at 2018-11-30 14:06:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 328.51 Mbit/s
95th percentile per-packet one-way delay: 1.378 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 328.51 Mbit/s
95th percentile per-packet one-way delay: 1.378 ms
Loss rate: 0.01%

Run 2: Report of PCC-Expr — Data Link

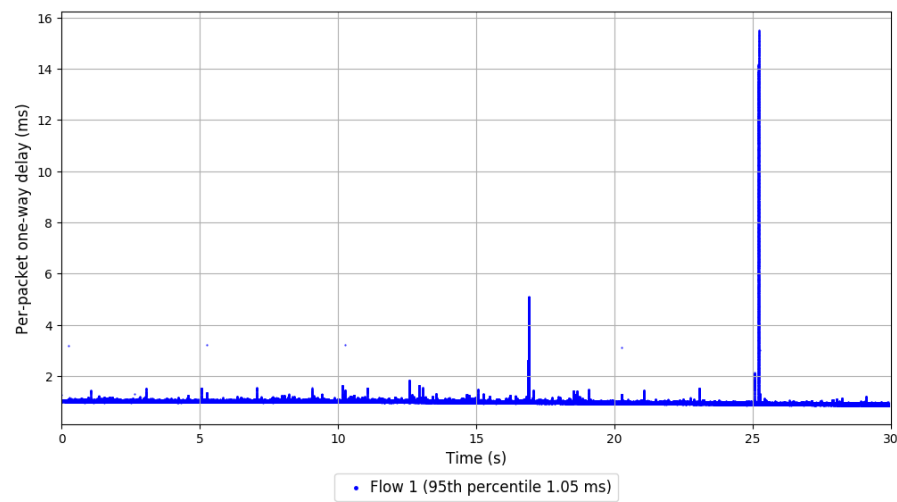
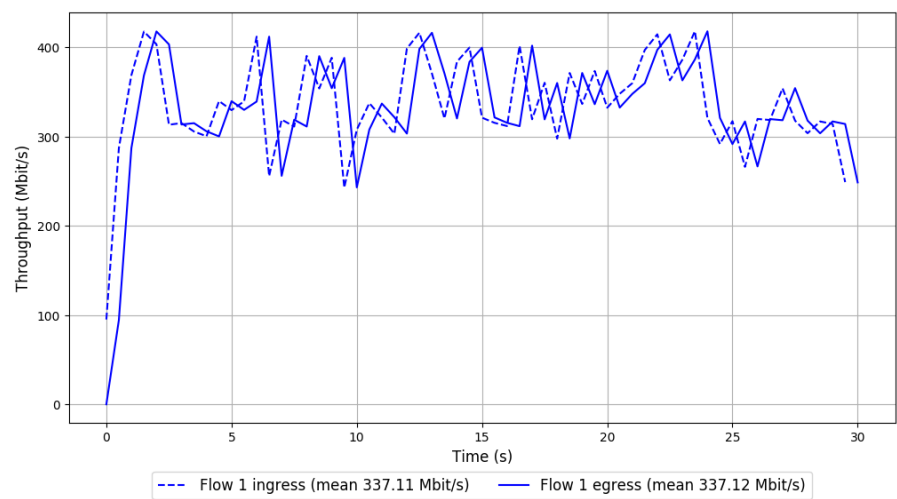


Run 3: Statistics of PCC-Expr

Start at: 2018-11-30 12:14:12
End at: 2018-11-30 12:14:42
Local clock offset: -0.627 ms
Remote clock offset: -0.243 ms

Below is generated by plot.py at 2018-11-30 14:06:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 337.12 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 337.12 Mbit/s
95th percentile per-packet one-way delay: 1.049 ms
Loss rate: 0.00%

Run 3: Report of PCC-Expr — Data Link

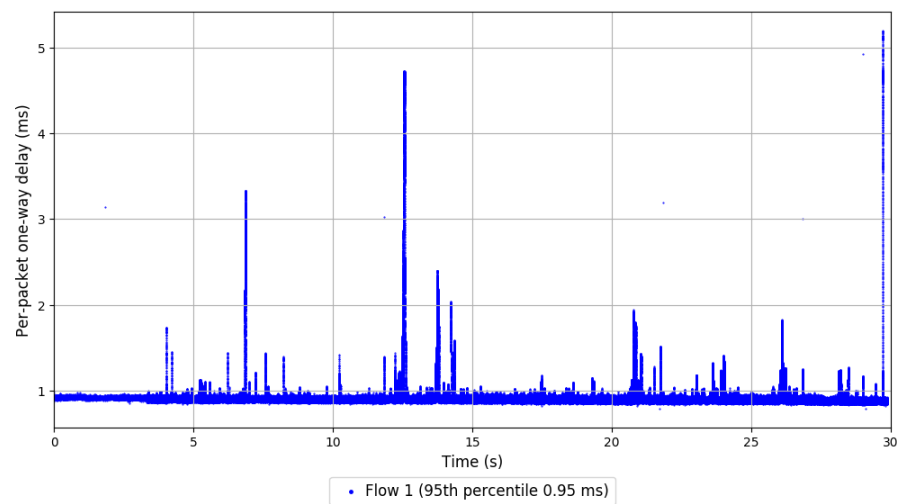
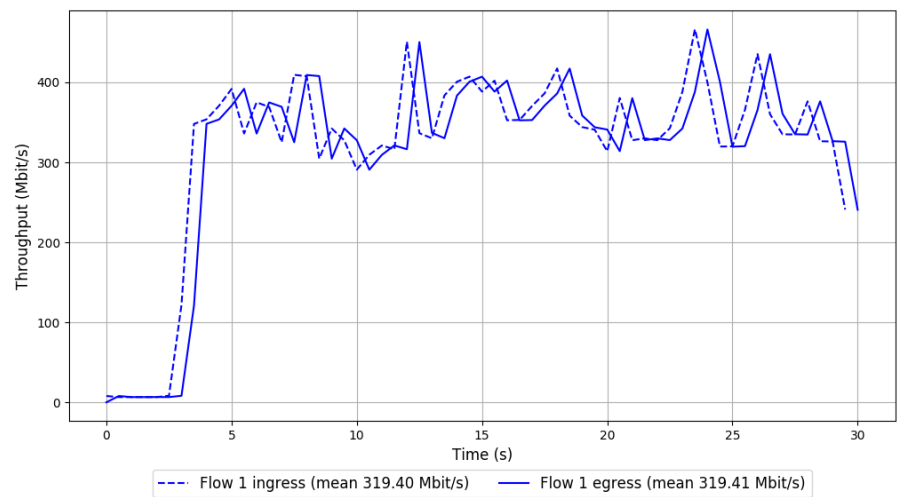


Run 4: Statistics of PCC-Expr

Start at: 2018-11-30 12:41:23
End at: 2018-11-30 12:41:53
Local clock offset: 3.3 ms
Remote clock offset: -0.172 ms

Below is generated by plot.py at 2018-11-30 14:07:41
Datalink statistics
-- Total of 1 flow:
Average throughput: 319.41 Mbit/s
95th percentile per-packet one-way delay: 0.954 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 319.41 Mbit/s
95th percentile per-packet one-way delay: 0.954 ms
Loss rate: 0.01%

Run 4: Report of PCC-Expr — Data Link

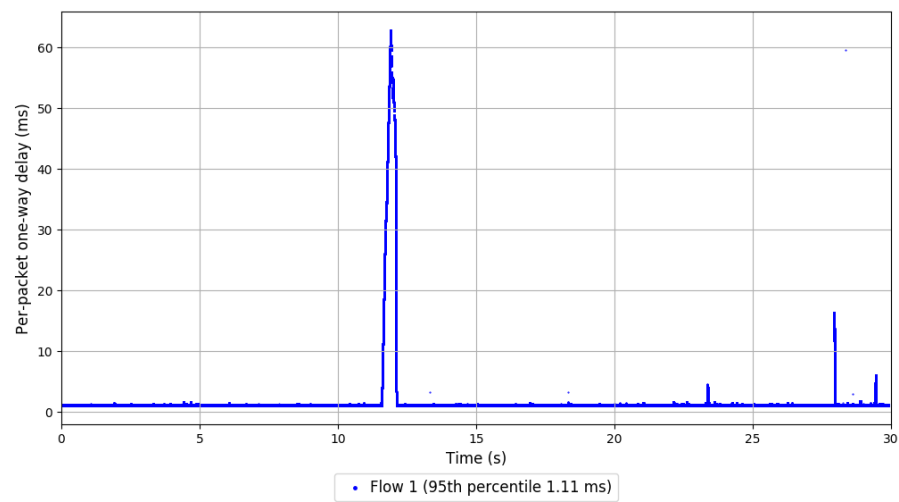
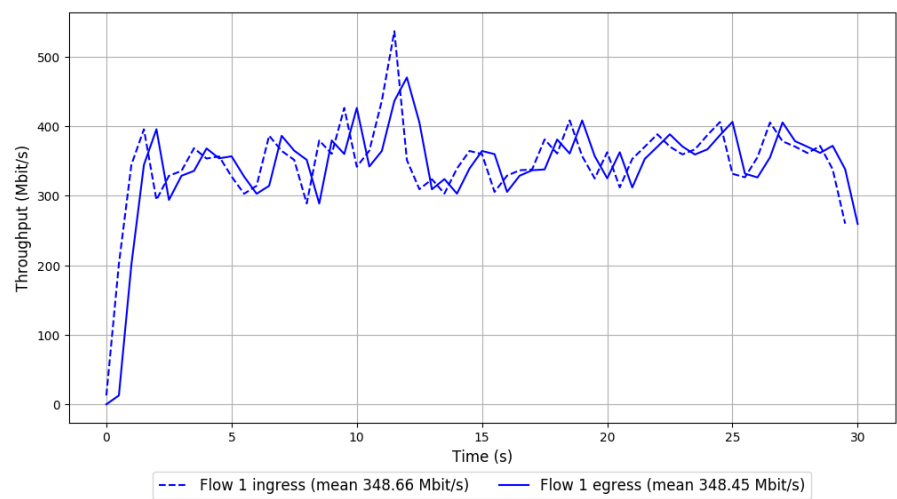


Run 5: Statistics of PCC-Expr

Start at: 2018-11-30 13:08:39
End at: 2018-11-30 13:09:09
Local clock offset: -0.361 ms
Remote clock offset: -0.355 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 348.45 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 348.45 Mbit/s
95th percentile per-packet one-way delay: 1.114 ms
Loss rate: 0.07%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-11-30 11:08:47

End at: 2018-11-30 11:09:17

Local clock offset: -0.269 ms

Remote clock offset: -0.39 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.07 Mbit/s

95th percentile per-packet one-way delay: 1.057 ms

Loss rate: 0.01%

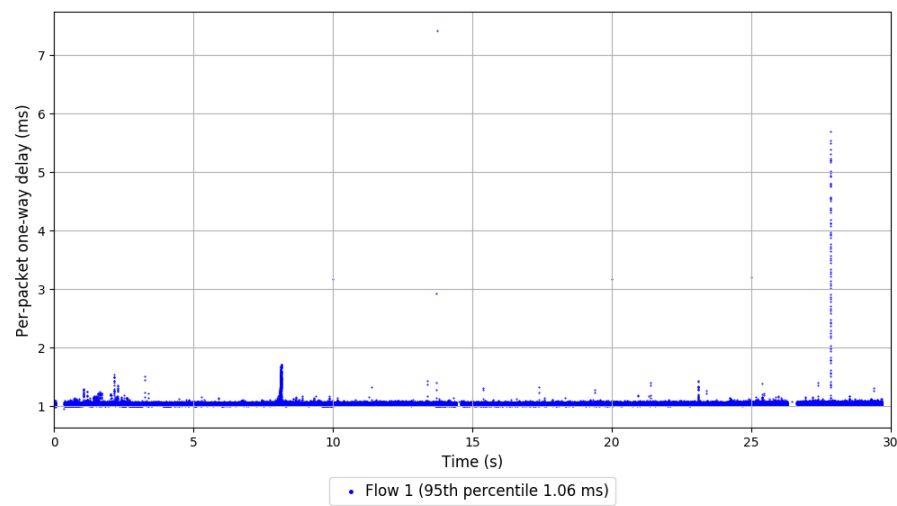
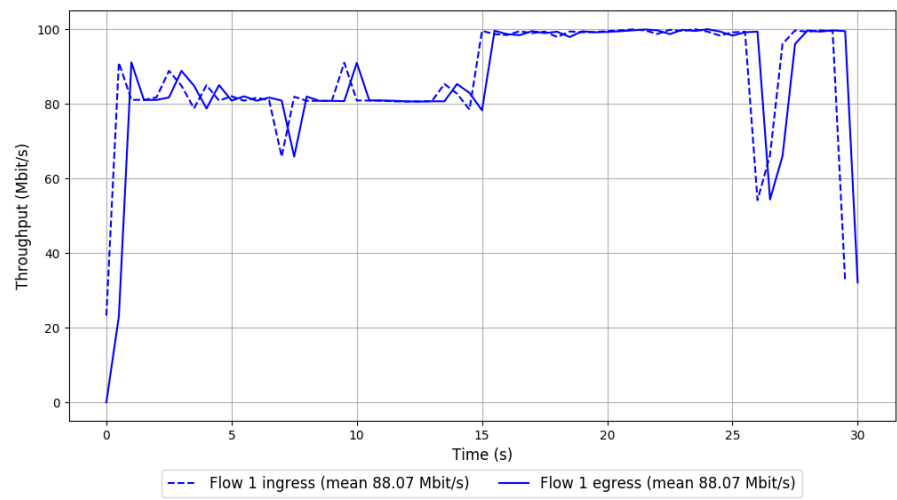
-- Flow 1:

Average throughput: 88.07 Mbit/s

95th percentile per-packet one-way delay: 1.057 ms

Loss rate: 0.01%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-11-30 11:35:35

End at: 2018-11-30 11:36:05

Local clock offset: 3.225 ms

Remote clock offset: -0.12 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.92 Mbit/s

95th percentile per-packet one-way delay: 0.968 ms

Loss rate: 0.01%

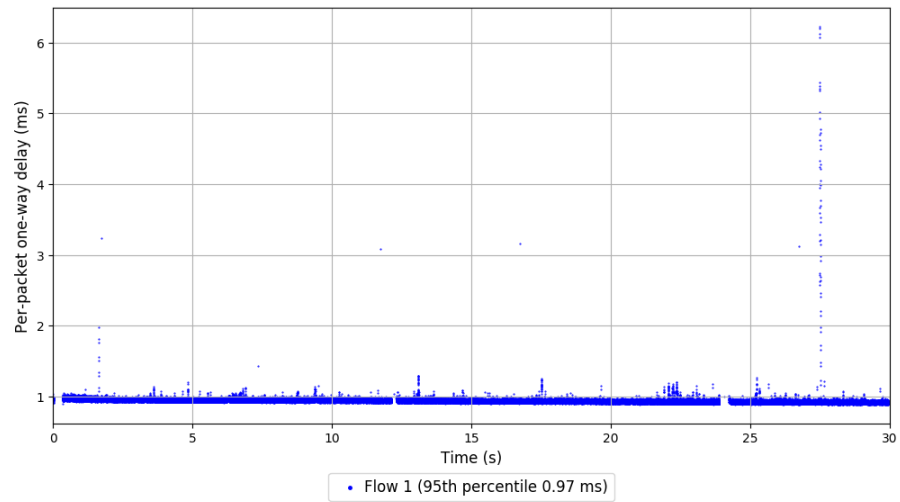
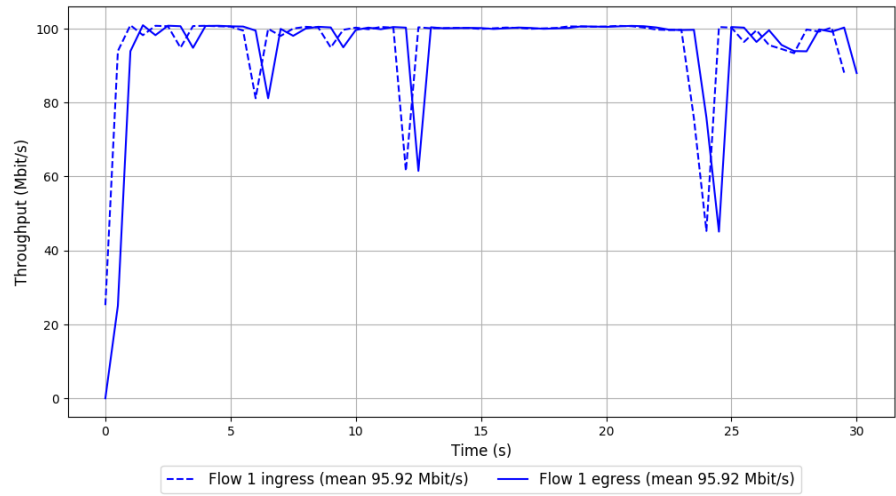
-- Flow 1:

Average throughput: 95.92 Mbit/s

95th percentile per-packet one-way delay: 0.968 ms

Loss rate: 0.01%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-11-30 12:02:47

End at: 2018-11-30 12:03:17

Local clock offset: -0.07 ms

Remote clock offset: -0.129 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 1.066 ms

Loss rate: 0.01%

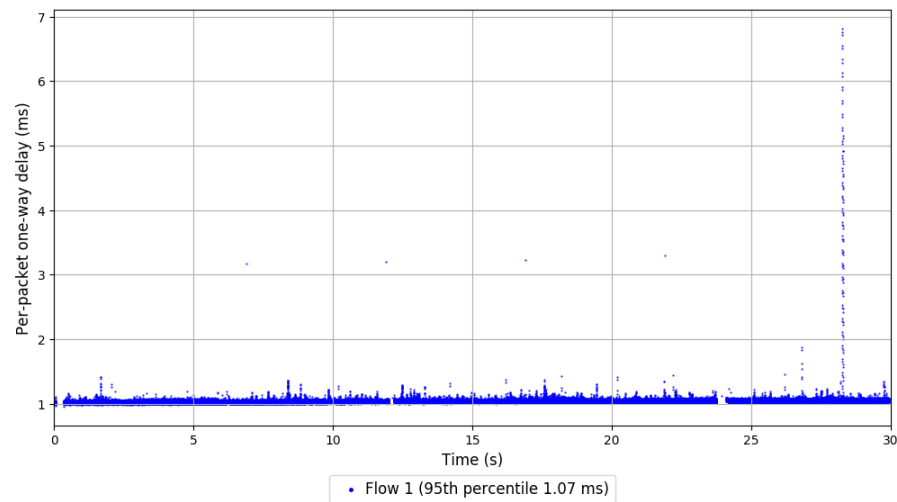
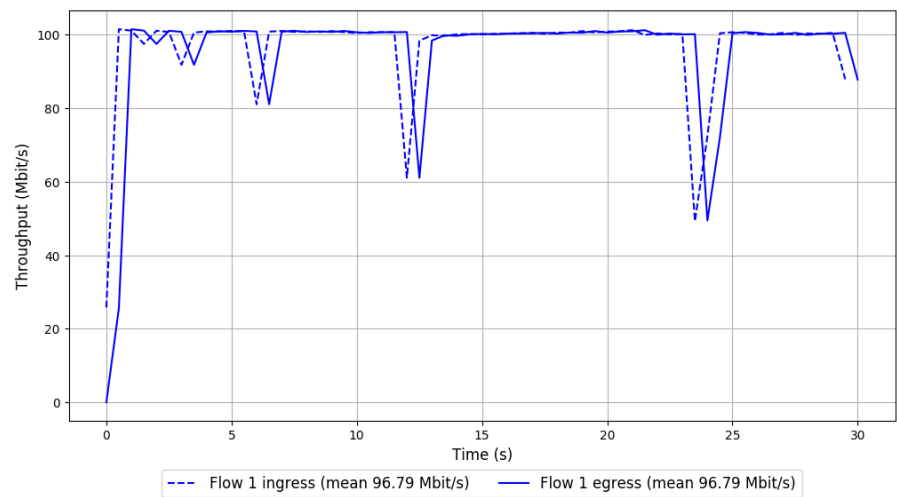
-- Flow 1:

Average throughput: 96.79 Mbit/s

95th percentile per-packet one-way delay: 1.066 ms

Loss rate: 0.01%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-11-30 12:29:56

End at: 2018-11-30 12:30:26

Local clock offset: 2.51 ms

Remote clock offset: -0.148 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.08 Mbit/s

95th percentile per-packet one-way delay: 0.876 ms

Loss rate: 0.01%

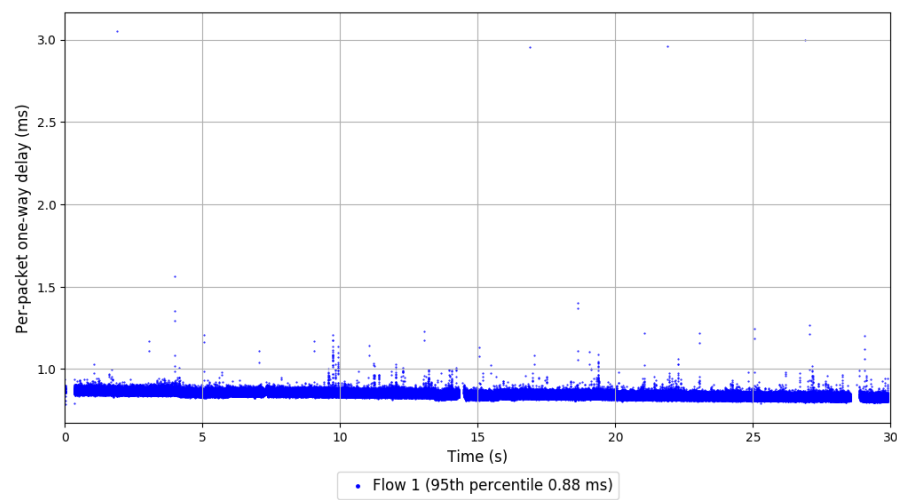
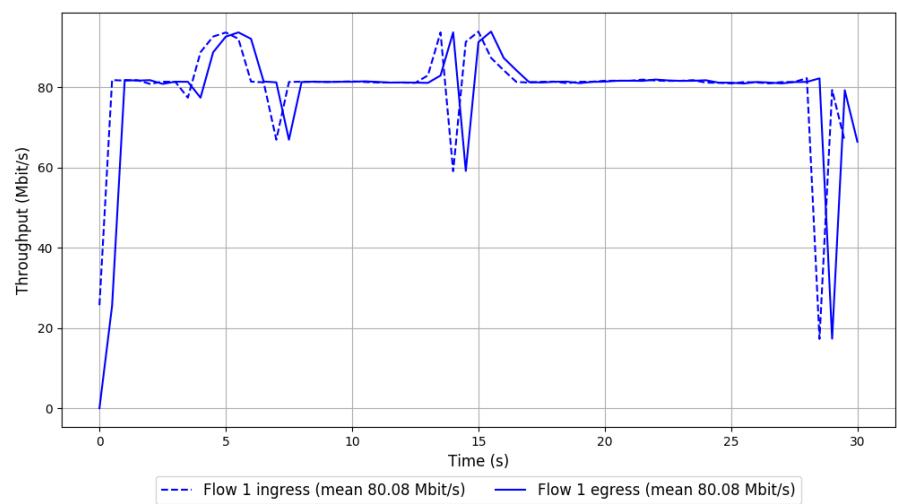
-- Flow 1:

Average throughput: 80.08 Mbit/s

95th percentile per-packet one-way delay: 0.876 ms

Loss rate: 0.01%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-11-30 12:57:08

End at: 2018-11-30 12:57:39

Local clock offset: 0.542 ms

Remote clock offset: -0.288 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.88 Mbit/s

95th percentile per-packet one-way delay: 1.125 ms

Loss rate: 0.01%

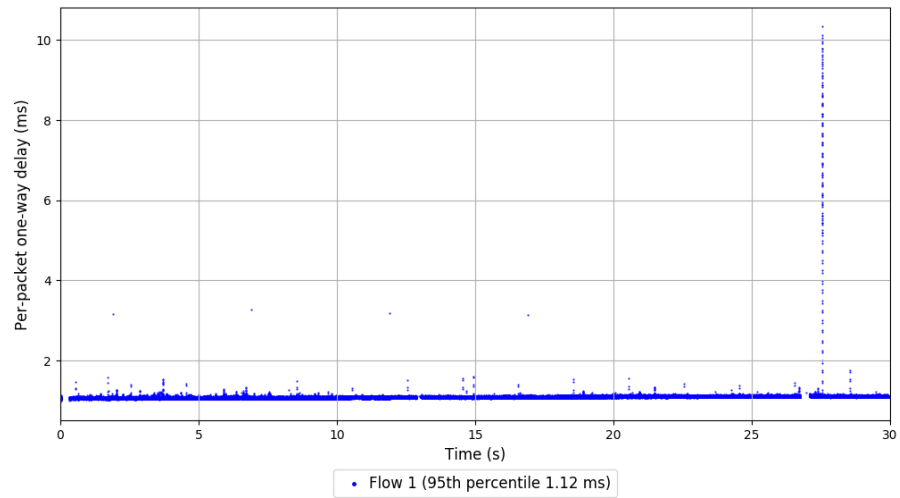
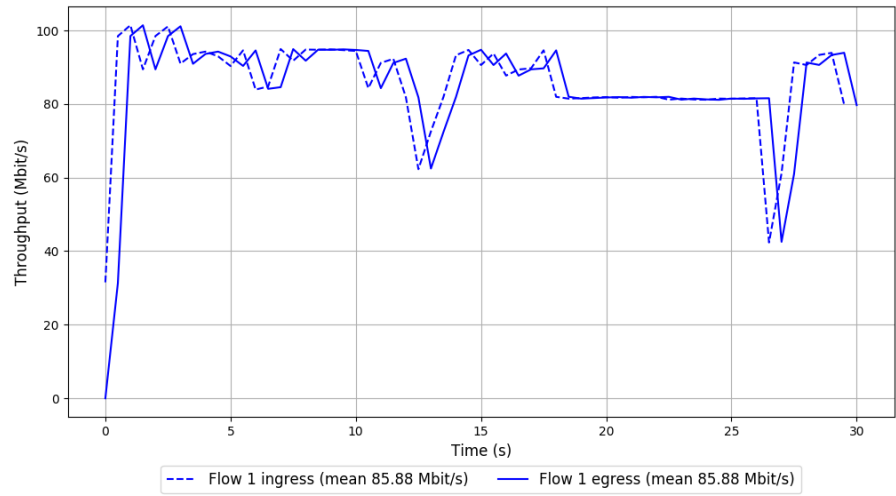
-- Flow 1:

Average throughput: 85.88 Mbit/s

95th percentile per-packet one-way delay: 1.125 ms

Loss rate: 0.01%

Run 5: Report of QUIC Cubic — Data Link

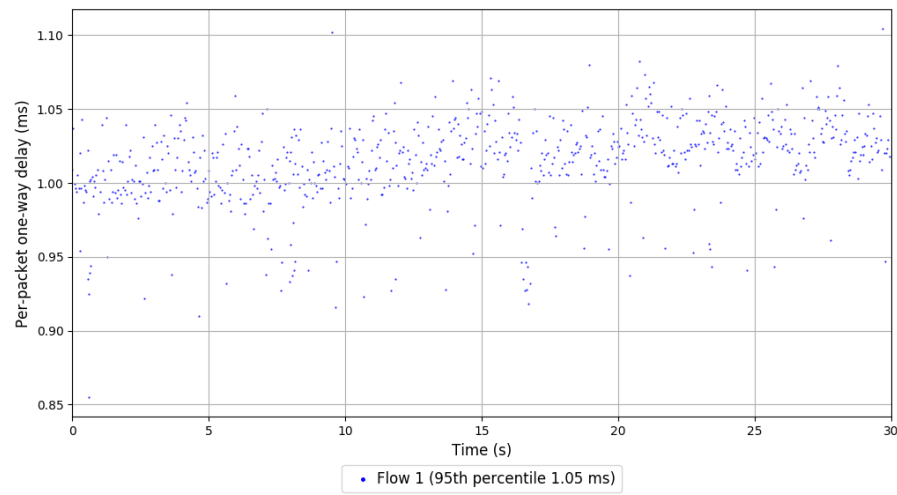
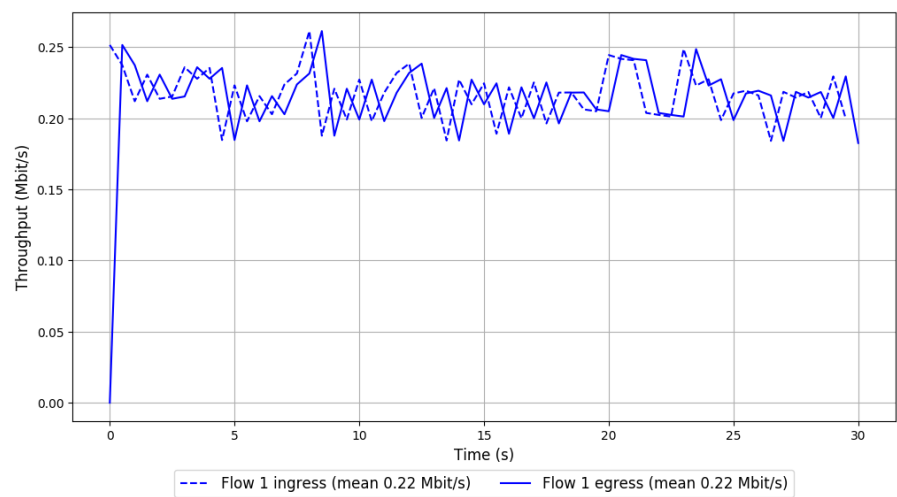


Run 1: Statistics of SCReAM

Start at: 2018-11-30 11:02:58
End at: 2018-11-30 11:03:28
Local clock offset: -0.238 ms
Remote clock offset: -0.494 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.054 ms
Loss rate: 0.13%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-11-30 11:29:47

End at: 2018-11-30 11:30:17

Local clock offset: 2.735 ms

Remote clock offset: 0.046 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.065 ms

Loss rate: 0.00%

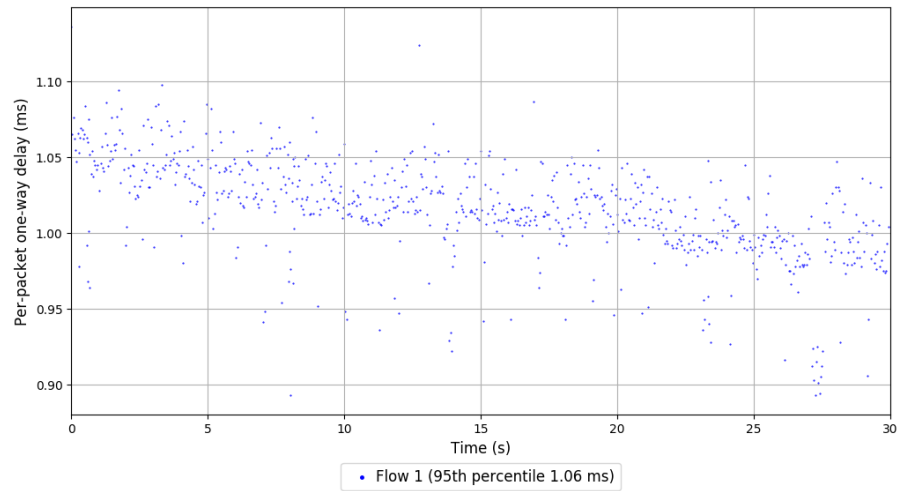
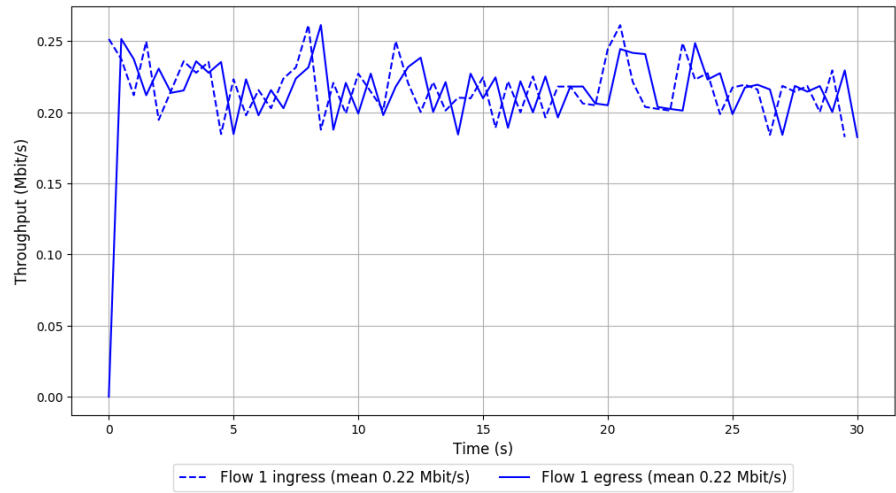
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.065 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

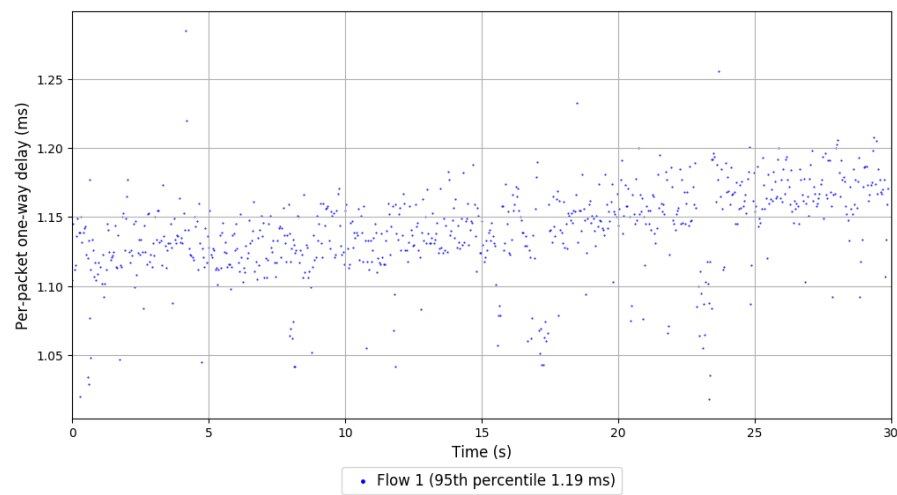
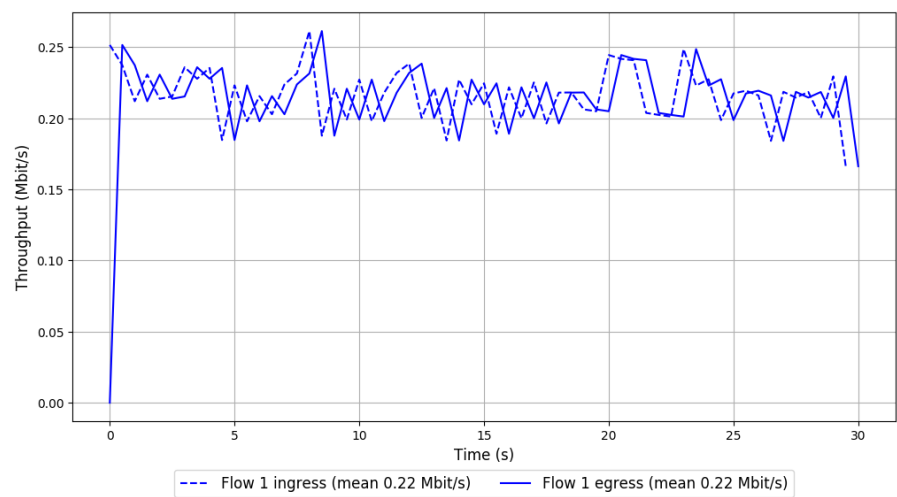


Run 3: Statistics of SCReAM

Start at: 2018-11-30 11:56:57
End at: 2018-11-30 11:57:27
Local clock offset: 0.521 ms
Remote clock offset: -0.139 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.187 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

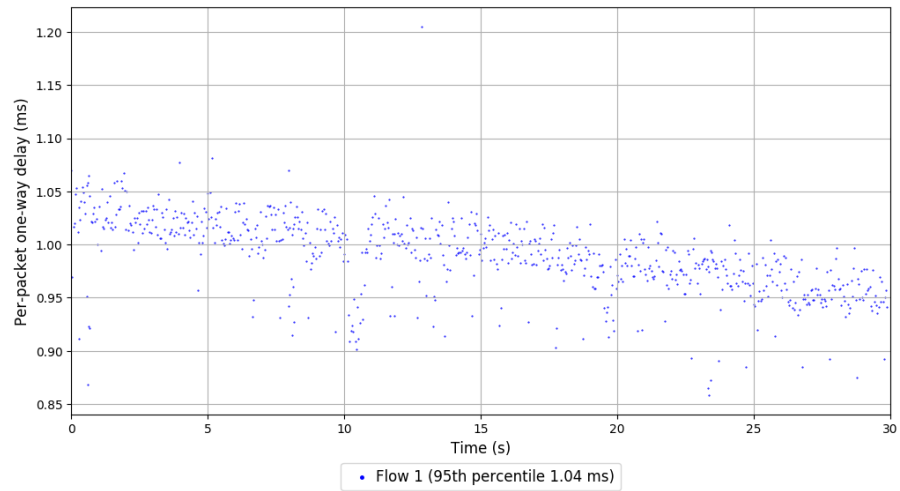
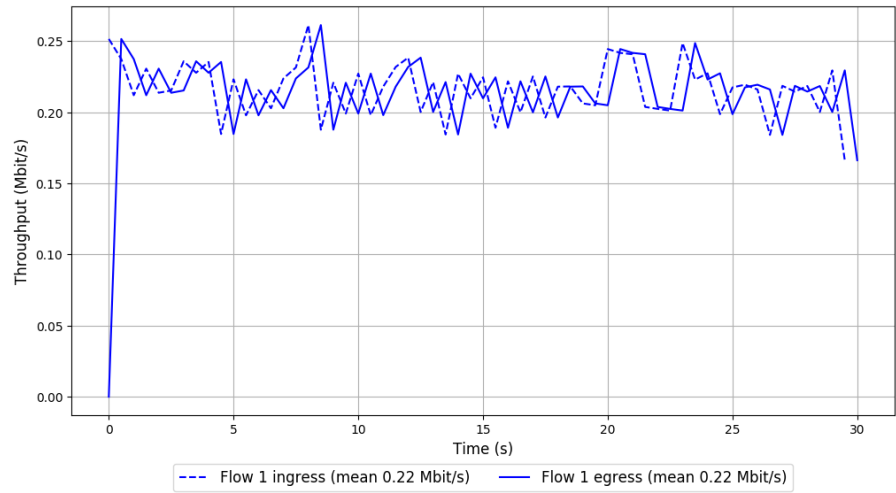


Run 4: Statistics of SCReAM

Start at: 2018-11-30 12:24:04
End at: 2018-11-30 12:24:34
Local clock offset: 1.801 ms
Remote clock offset: -0.224 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

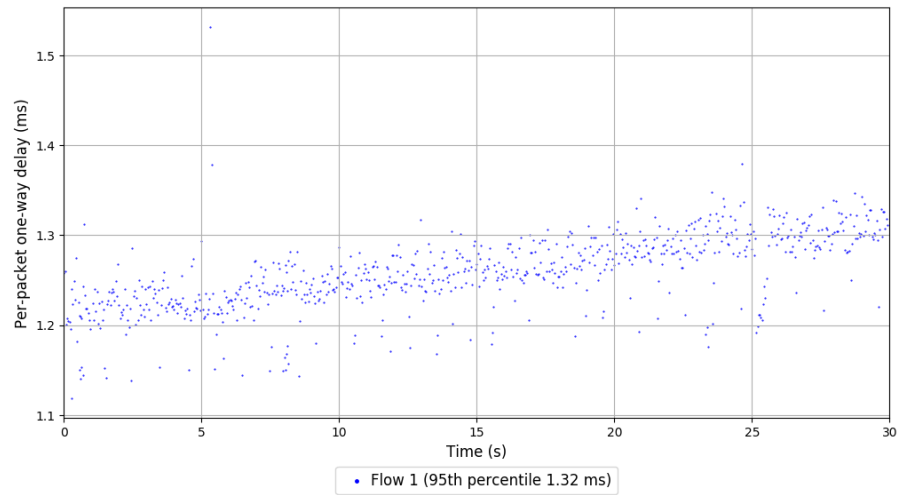
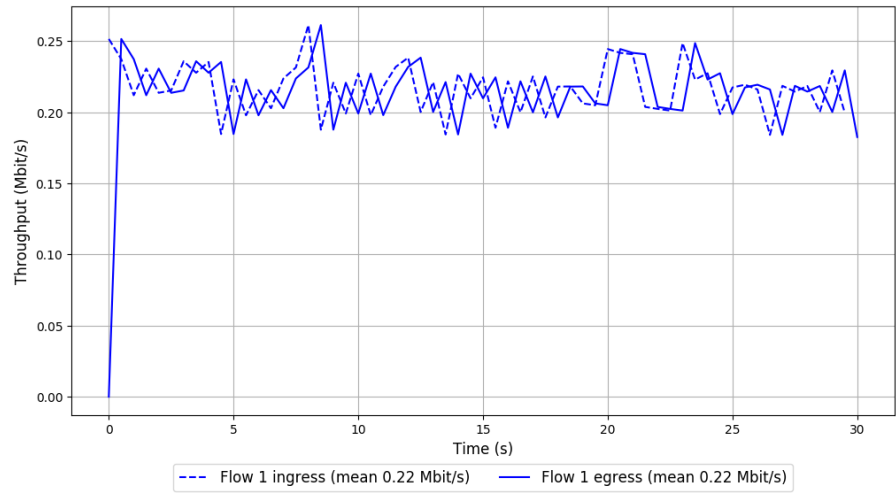


Run 5: Statistics of SCReAM

Start at: 2018-11-30 12:51:19
End at: 2018-11-30 12:51:49
Local clock offset: 1.467 ms
Remote clock offset: -0.296 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.320 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.320 ms
Loss rate: 0.13%

Run 5: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-11-30 11:10:03

End at: 2018-11-30 11:10:33

Local clock offset: -0.275 ms

Remote clock offset: -0.32 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 1.046 ms

Loss rate: 0.00%

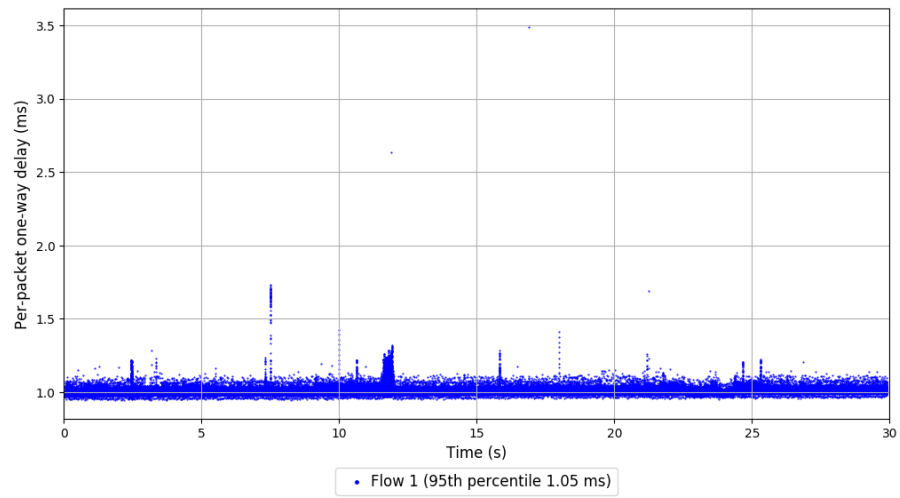
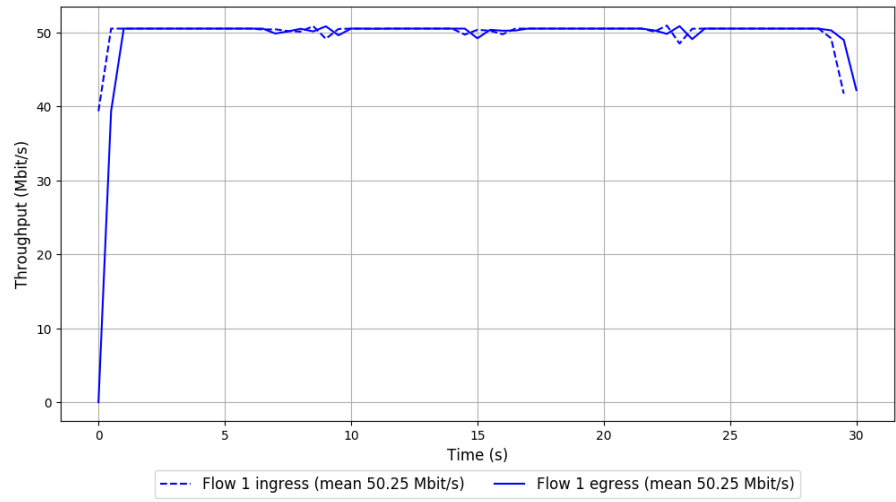
-- Flow 1:

Average throughput: 50.25 Mbit/s

95th percentile per-packet one-way delay: 1.046 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-11-30 11:36:51

End at: 2018-11-30 11:37:21

Local clock offset: 3.303 ms

Remote clock offset: -0.13 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.23 Mbit/s

95th percentile per-packet one-way delay: 1.003 ms

Loss rate: 0.00%

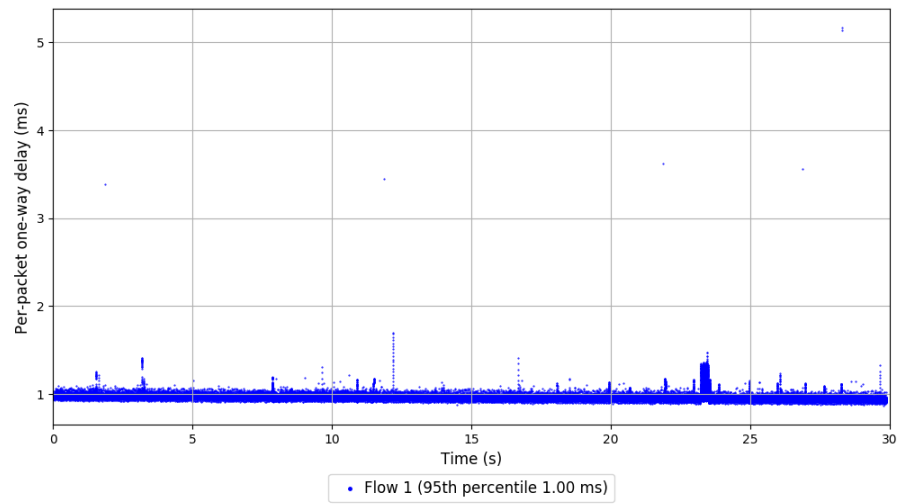
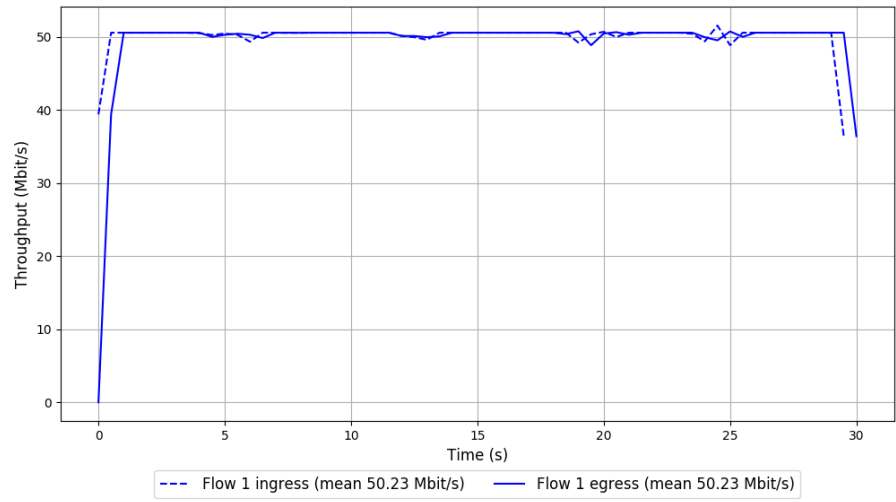
-- Flow 1:

Average throughput: 50.23 Mbit/s

95th percentile per-packet one-way delay: 1.003 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

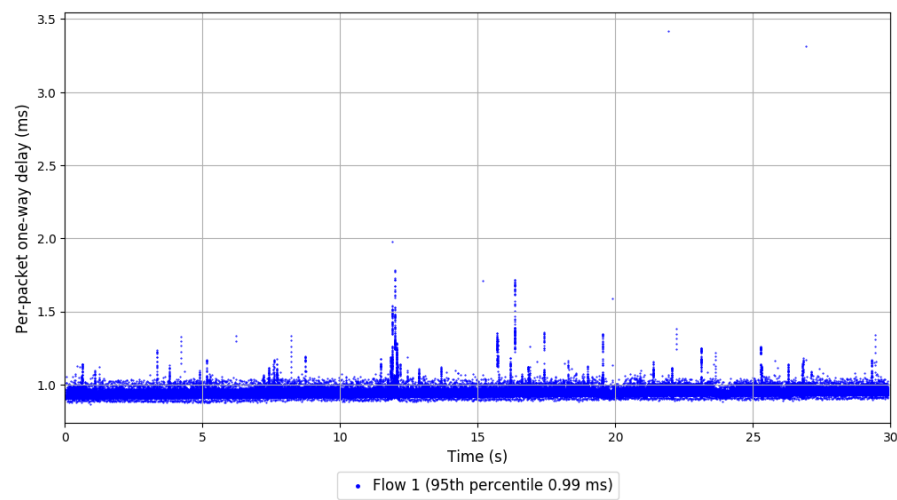
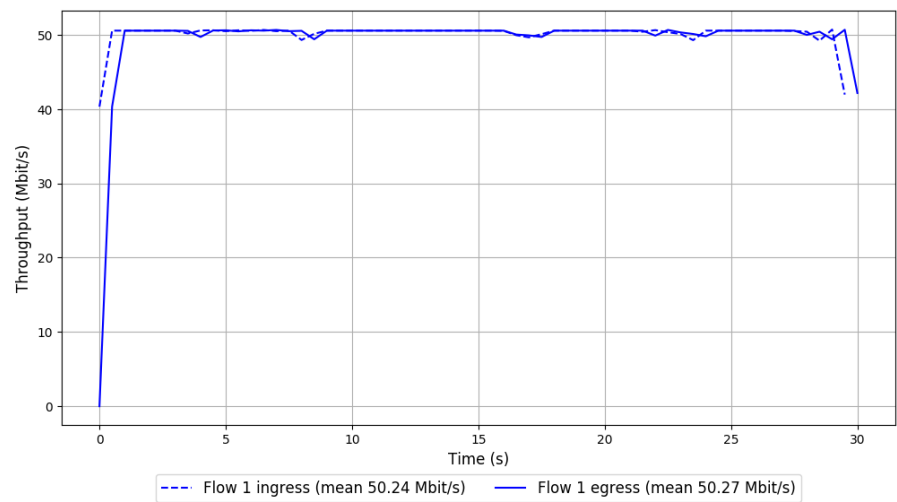


Run 3: Statistics of Sprout

Start at: 2018-11-30 12:04:03
End at: 2018-11-30 12:04:33
Local clock offset: -0.144 ms
Remote clock offset: -0.027 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 0.988 ms
Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

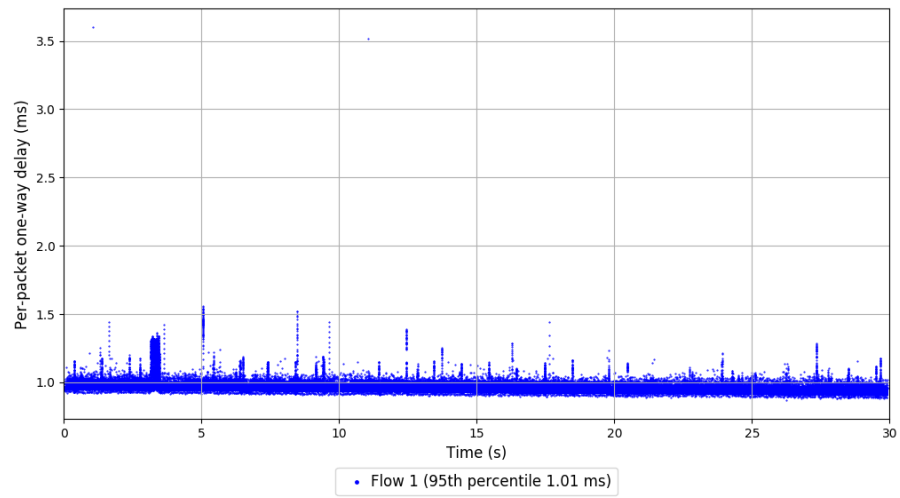
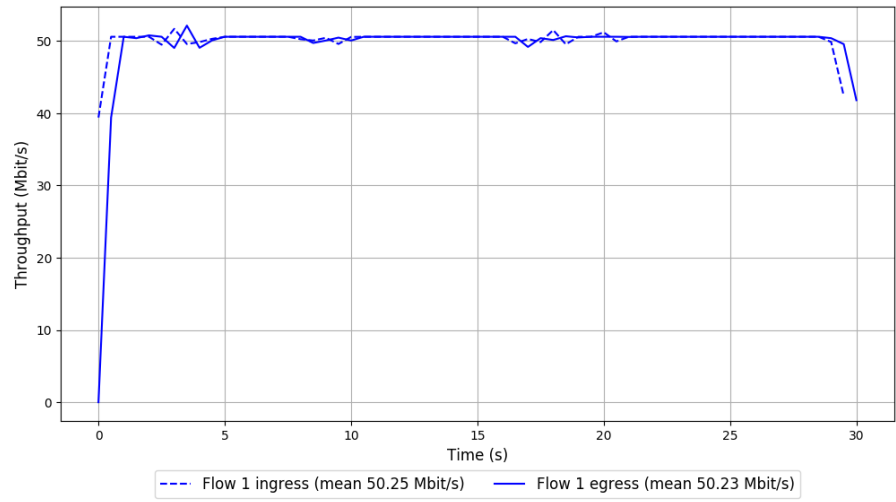


Run 4: Statistics of Sprout

Start at: 2018-11-30 12:31:11
End at: 2018-11-30 12:31:41
Local clock offset: 2.642 ms
Remote clock offset: -0.214 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 50.23 Mbit/s
95th percentile per-packet one-way delay: 1.008 ms
Loss rate: 0.04%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-11-30 12:58:24

End at: 2018-11-30 12:58:54

Local clock offset: 0.376 ms

Remote clock offset: -0.29 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 1.130 ms

Loss rate: 0.00%

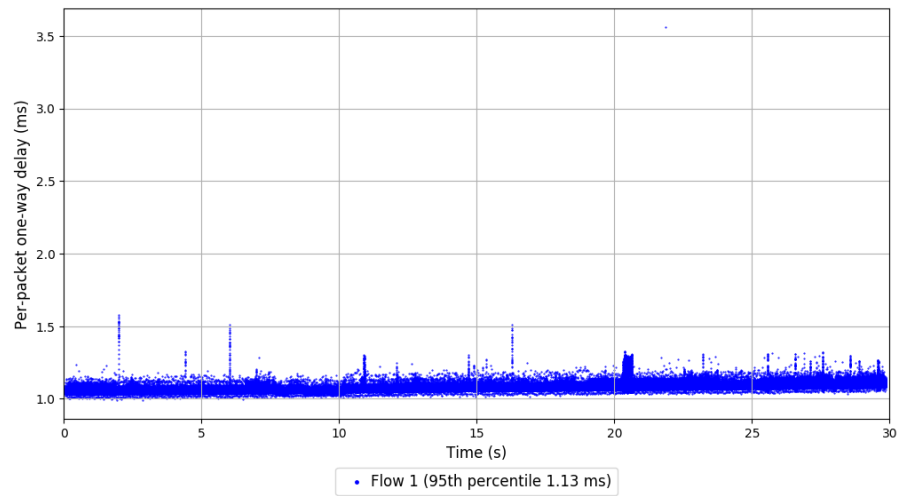
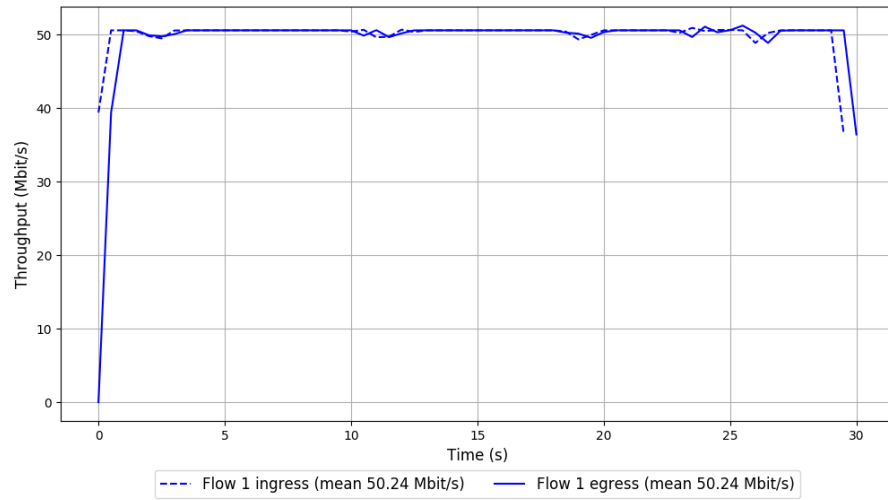
-- Flow 1:

Average throughput: 50.24 Mbit/s

95th percentile per-packet one-way delay: 1.130 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-11-30 11:16:10

End at: 2018-11-30 11:16:40

Local clock offset: 0.095 ms

Remote clock offset: -0.183 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.69 Mbit/s

95th percentile per-packet one-way delay: 0.799 ms

Loss rate: 0.00%

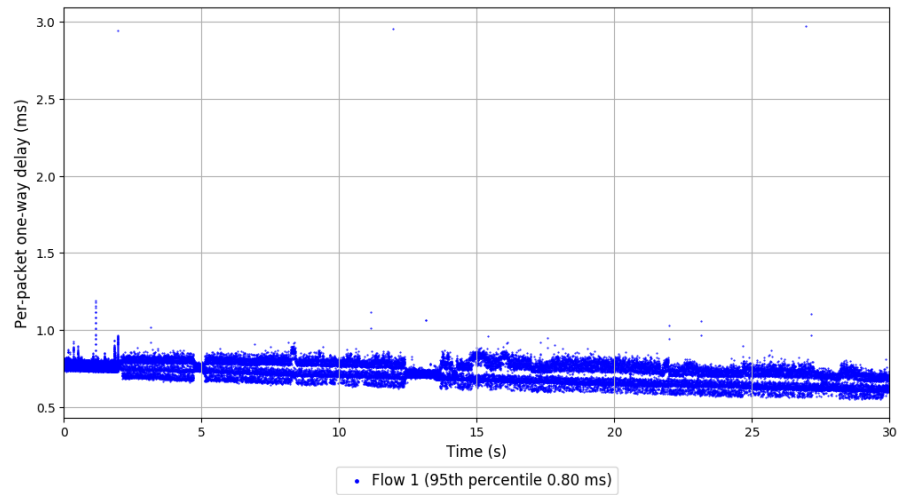
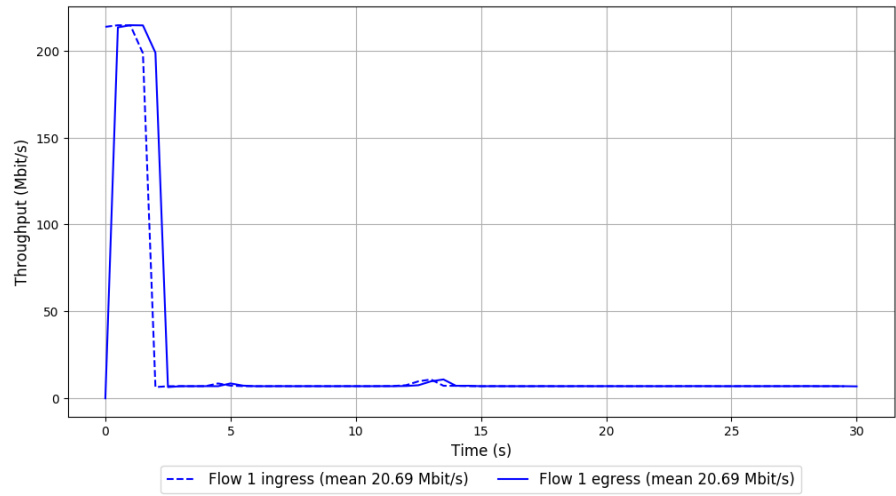
-- Flow 1:

Average throughput: 20.69 Mbit/s

95th percentile per-packet one-way delay: 0.799 ms

Loss rate: 0.00%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-11-30 11:43:00

End at: 2018-11-30 11:43:30

Local clock offset: 3.652 ms

Remote clock offset: -0.194 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 17.88 Mbit/s

95th percentile per-packet one-way delay: 1.023 ms

Loss rate: 0.00%

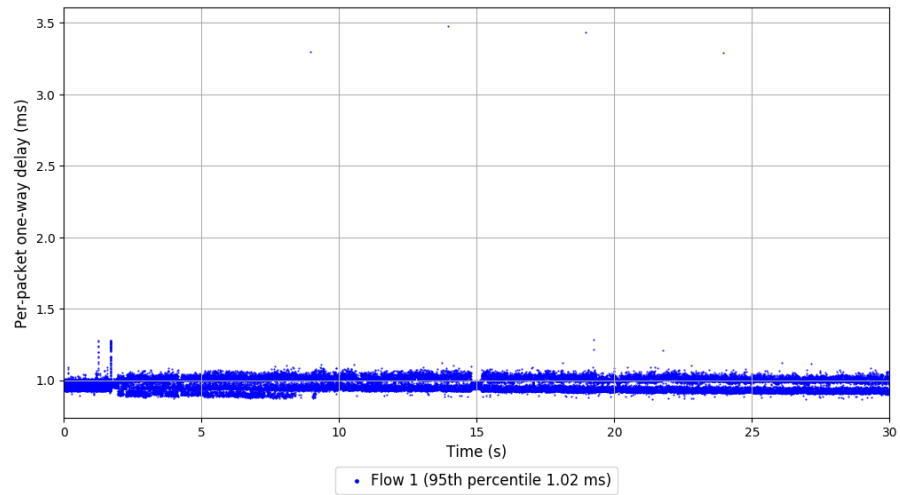
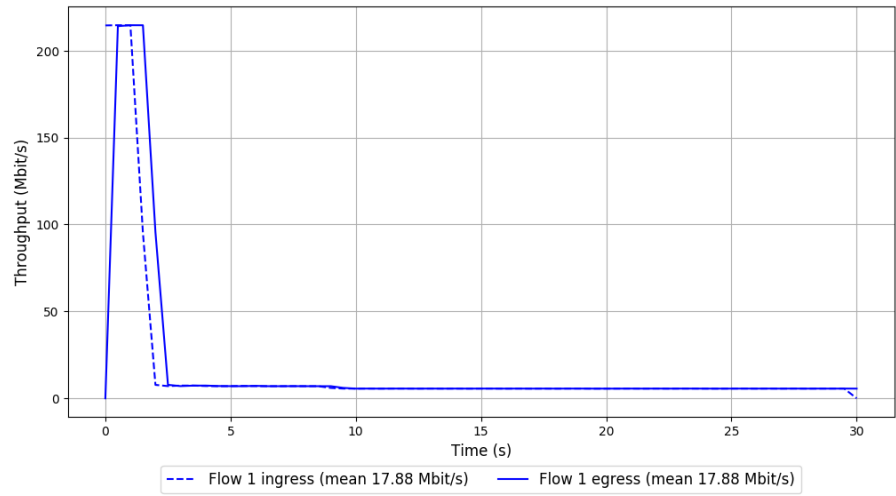
-- Flow 1:

Average throughput: 17.88 Mbit/s

95th percentile per-packet one-way delay: 1.023 ms

Loss rate: 0.00%

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

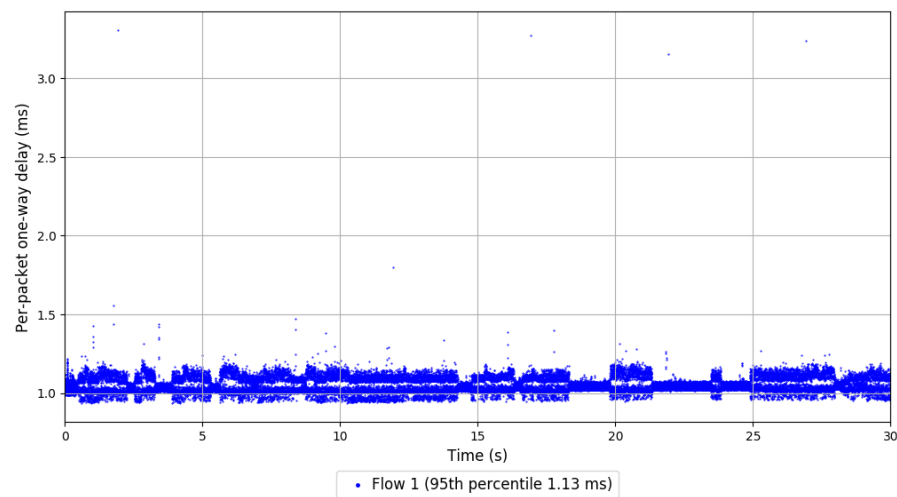
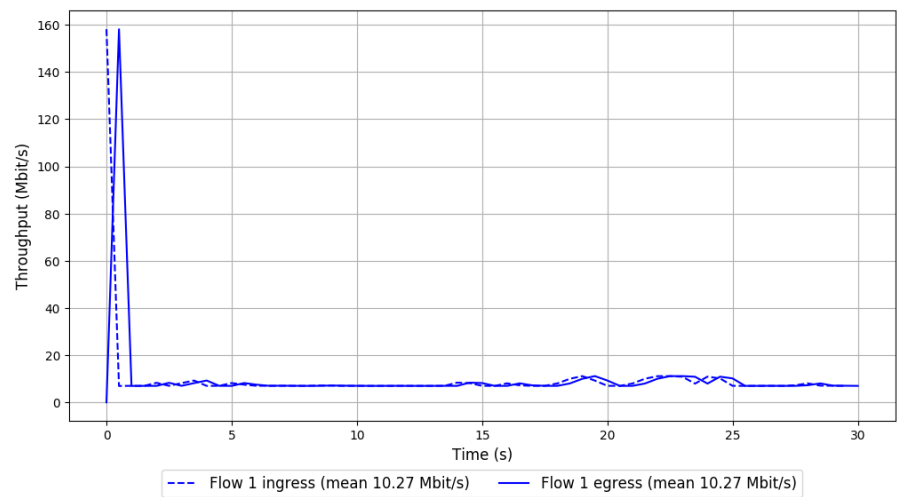


Run 3: Statistics of TaoVA-100x

Start at: 2018-11-30 12:10:09
End at: 2018-11-30 12:10:39
Local clock offset: -0.475 ms
Remote clock offset: -0.195 ms

Below is generated by plot.py at 2018-11-30 14:10:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 1.131 ms
Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-11-30 12:37:19

End at: 2018-11-30 12:37:49

Local clock offset: 3.08 ms

Remote clock offset: -0.12 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.79 Mbit/s

95th percentile per-packet one-way delay: 0.977 ms

Loss rate: 0.00%

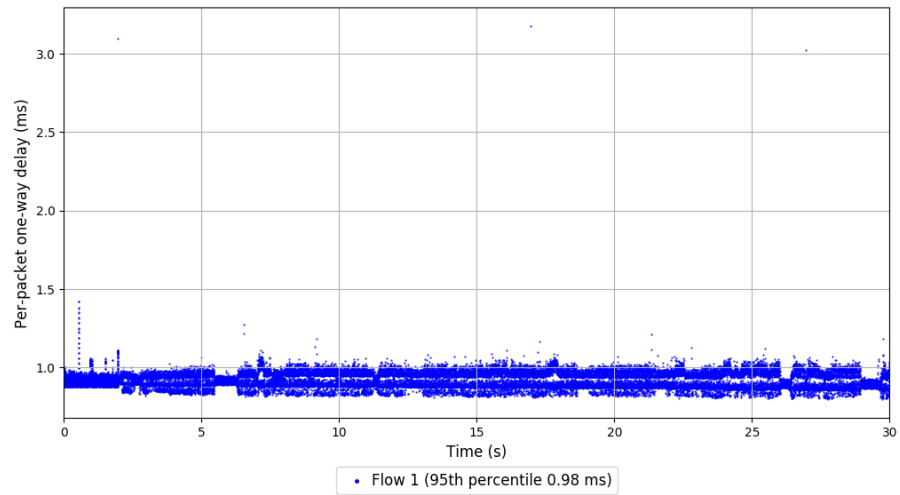
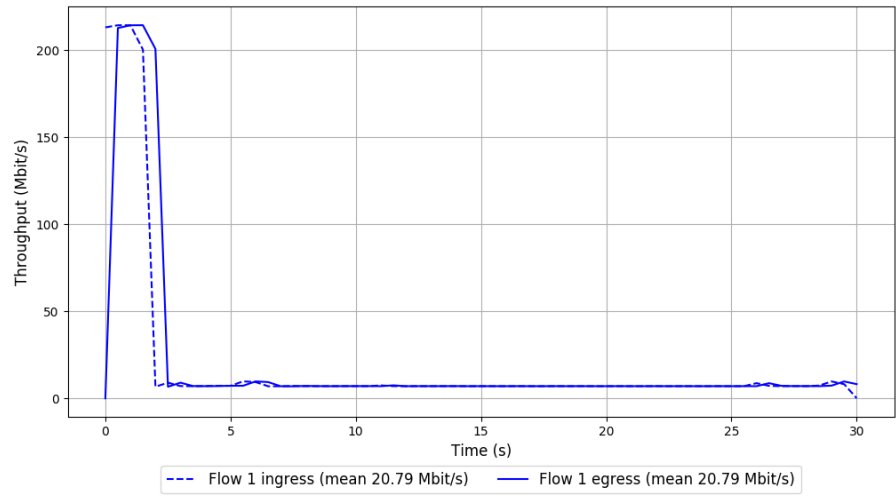
-- Flow 1:

Average throughput: 20.79 Mbit/s

95th percentile per-packet one-way delay: 0.977 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-11-30 13:04:32

End at: 2018-11-30 13:05:02

Local clock offset: -0.119 ms

Remote clock offset: -0.334 ms

Below is generated by plot.py at 2018-11-30 14:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.67 Mbit/s

95th percentile per-packet one-way delay: 1.144 ms

Loss rate: 0.00%

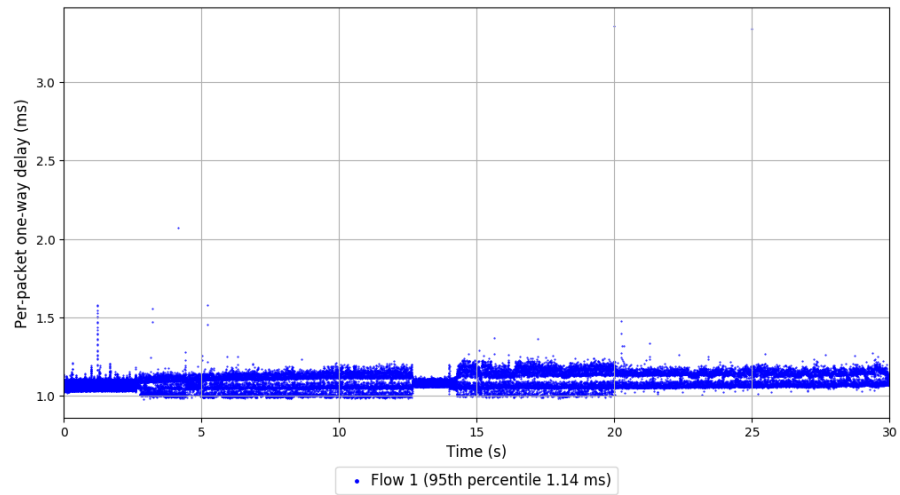
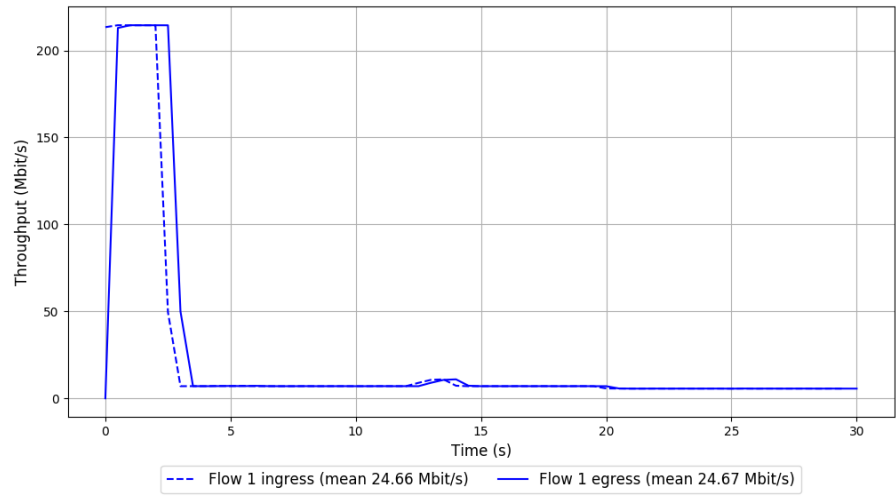
-- Flow 1:

Average throughput: 24.67 Mbit/s

95th percentile per-packet one-way delay: 1.144 ms

Loss rate: 0.00%

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

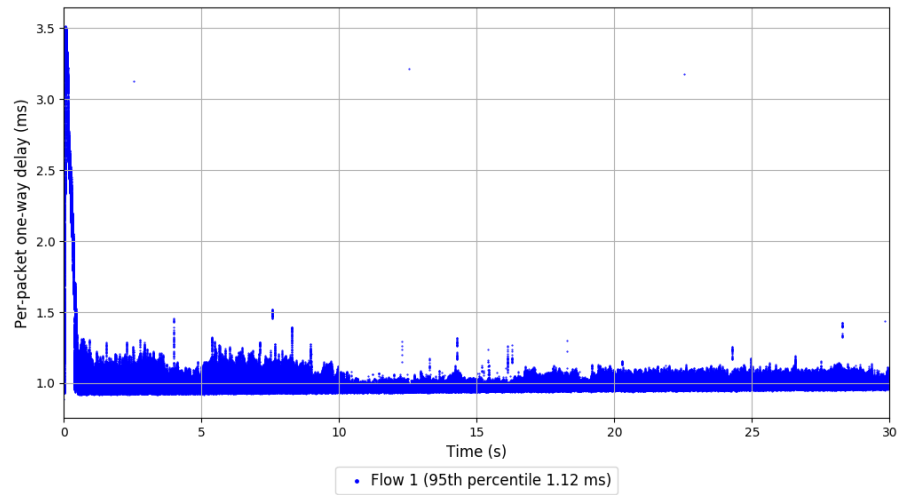
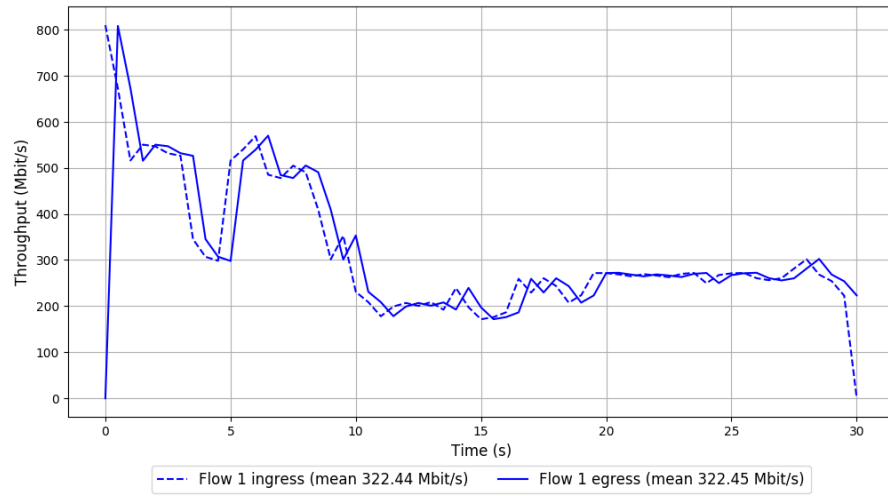


Run 1: Statistics of TCP Vegas

Start at: 2018-11-30 10:58:47
End at: 2018-11-30 10:59:17
Local clock offset: -0.195 ms
Remote clock offset: -0.733 ms

Below is generated by plot.py at 2018-11-30 14:10:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 322.45 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 322.45 Mbit/s
95th percentile per-packet one-way delay: 1.122 ms
Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link

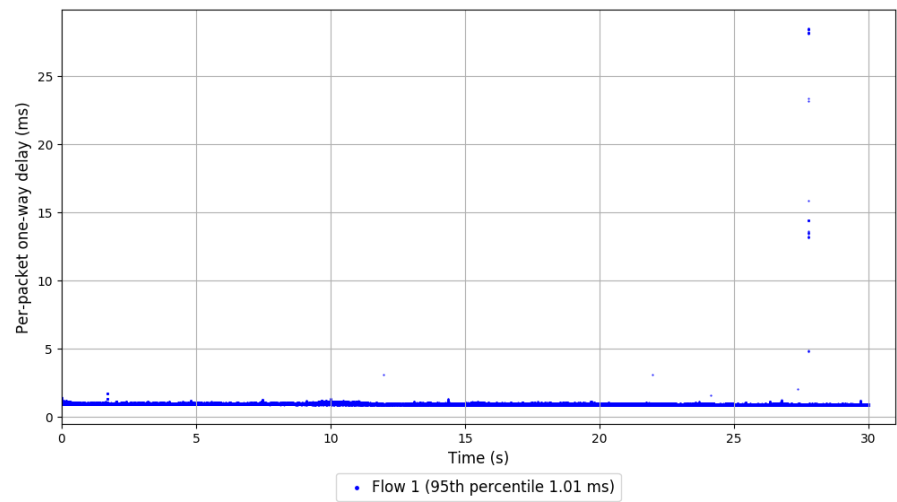
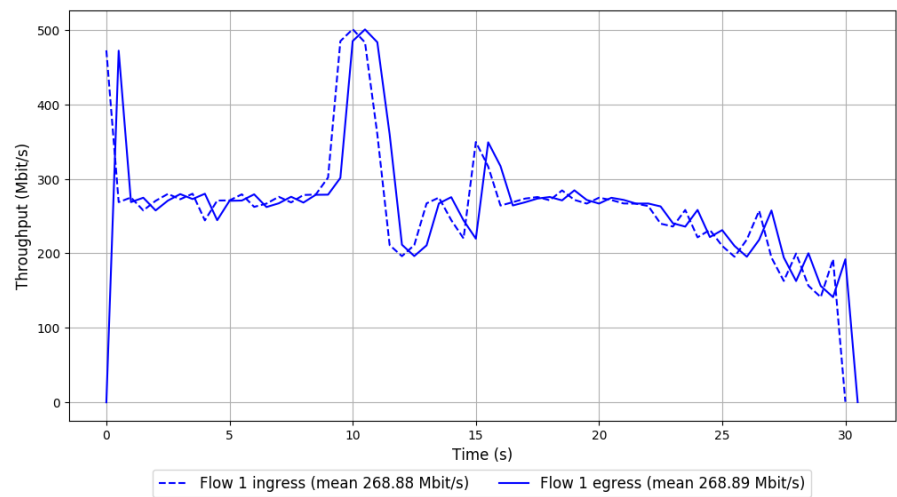


Run 2: Statistics of TCP Vegas

Start at: 2018-11-30 11:25:35
End at: 2018-11-30 11:26:05
Local clock offset: 2.216 ms
Remote clock offset: -0.023 ms

Below is generated by plot.py at 2018-11-30 14:10:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 268.89 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 268.89 Mbit/s
95th percentile per-packet one-way delay: 1.007 ms
Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link

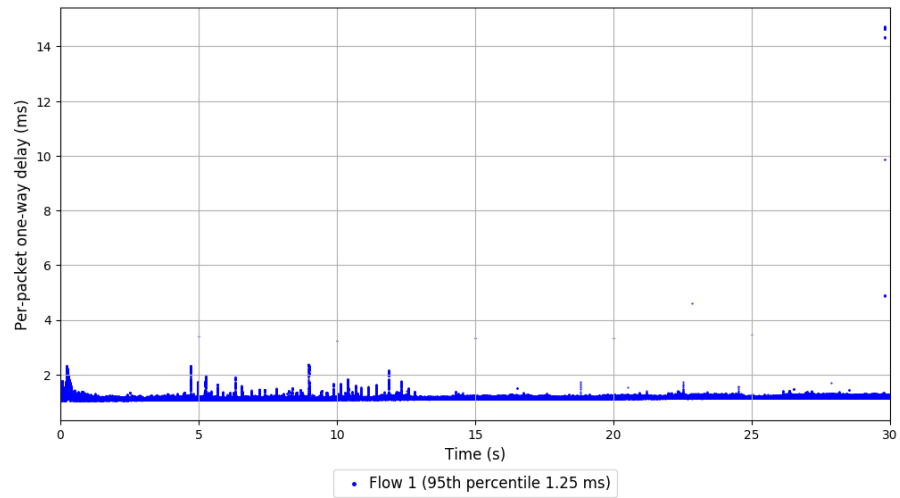
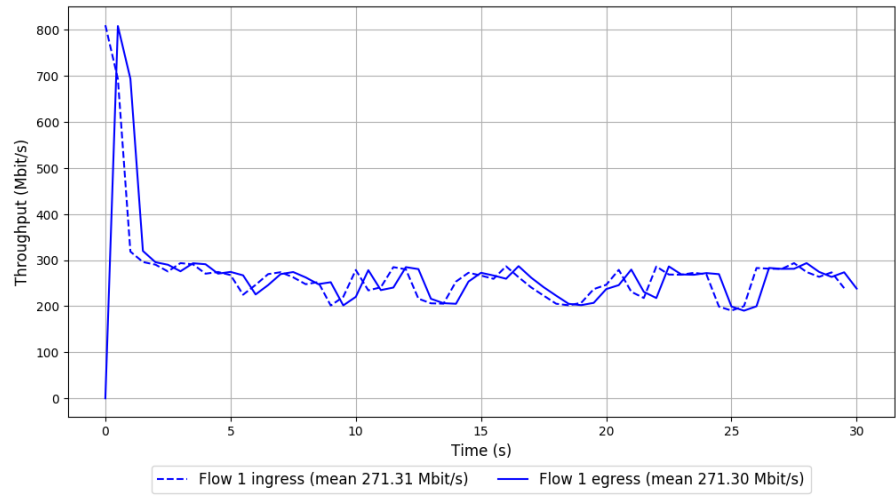


Run 3: Statistics of TCP Vegas

Start at: 2018-11-30 11:52:45
End at: 2018-11-30 11:53:15
Local clock offset: 1.231 ms
Remote clock offset: -0.188 ms

Below is generated by plot.py at 2018-11-30 14:10:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 271.30 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 271.30 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%

Run 3: Report of TCP Vegas — Data Link

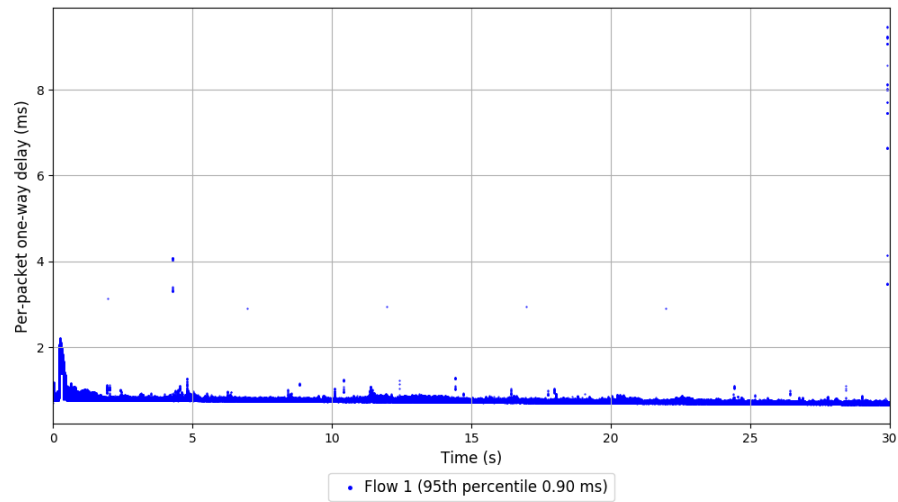
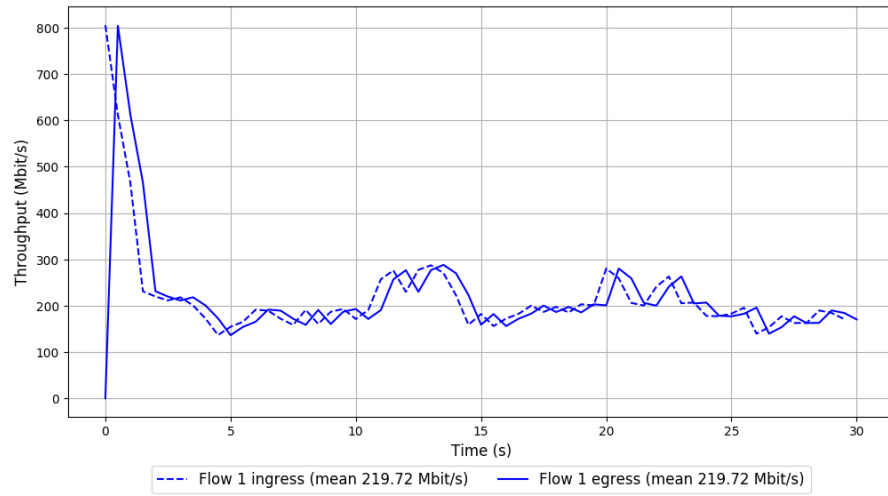


Run 4: Statistics of TCP Vegas

Start at: 2018-11-30 12:19:55
End at: 2018-11-30 12:20:25
Local clock offset: 0.929 ms
Remote clock offset: -0.177 ms

Below is generated by plot.py at 2018-11-30 14:10:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 219.72 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 219.72 Mbit/s
95th percentile per-packet one-way delay: 0.896 ms
Loss rate: 0.01%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-11-30 12:47:06

End at: 2018-11-30 12:47:36

Local clock offset: 2.609 ms

Remote clock offset: -0.28 ms

Below is generated by plot.py at 2018-11-30 14:11:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 358.40 Mbit/s

95th percentile per-packet one-way delay: 1.381 ms

Loss rate: 0.00%

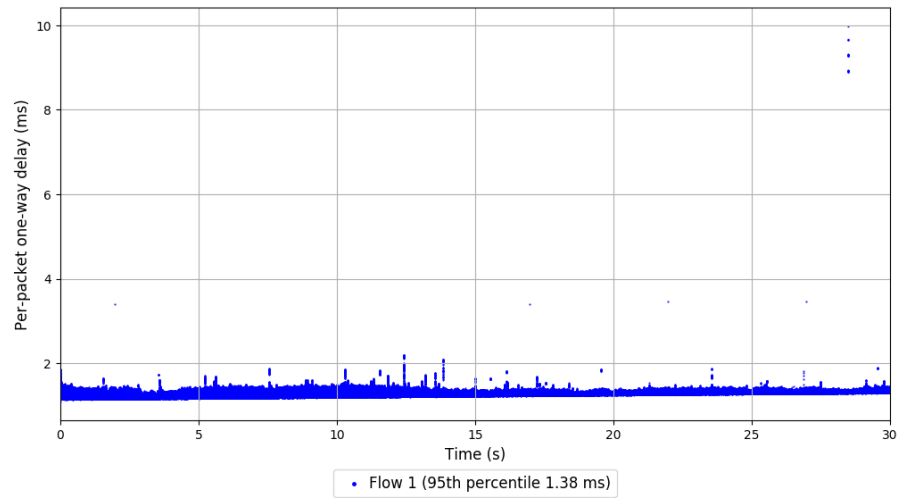
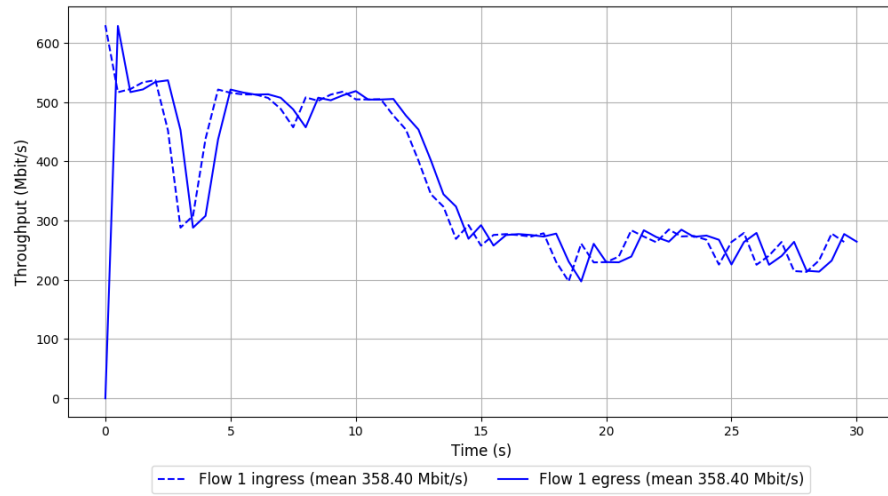
-- Flow 1:

Average throughput: 358.40 Mbit/s

95th percentile per-packet one-way delay: 1.381 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

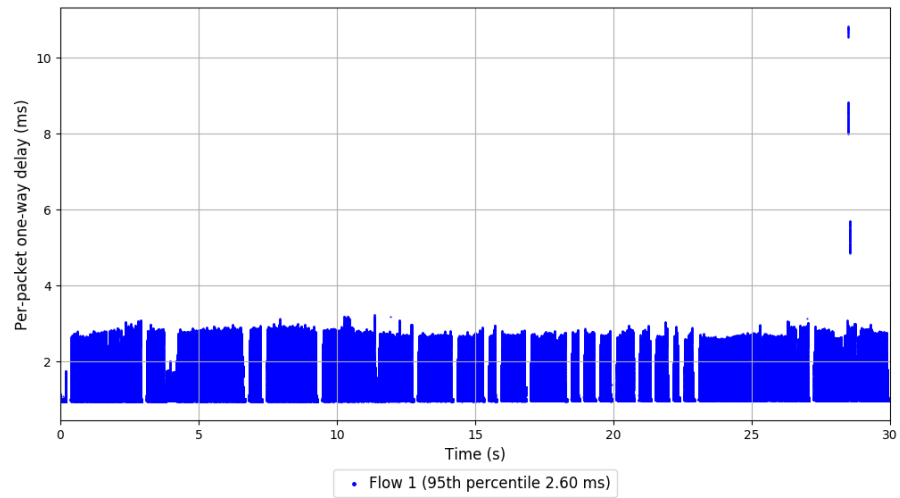
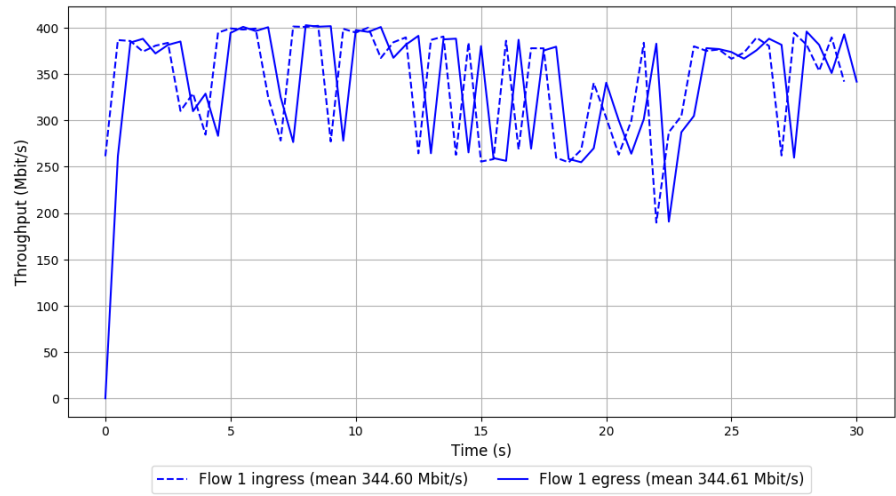


Run 1: Statistics of Verus

Start at: 2018-11-30 11:05:41
End at: 2018-11-30 11:06:11
Local clock offset: -0.253 ms
Remote clock offset: -0.443 ms

Below is generated by plot.py at 2018-11-30 14:11:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 344.61 Mbit/s
95th percentile per-packet one-way delay: 2.595 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 344.61 Mbit/s
95th percentile per-packet one-way delay: 2.595 ms
Loss rate: 0.00%

Run 1: Report of Verus — Data Link

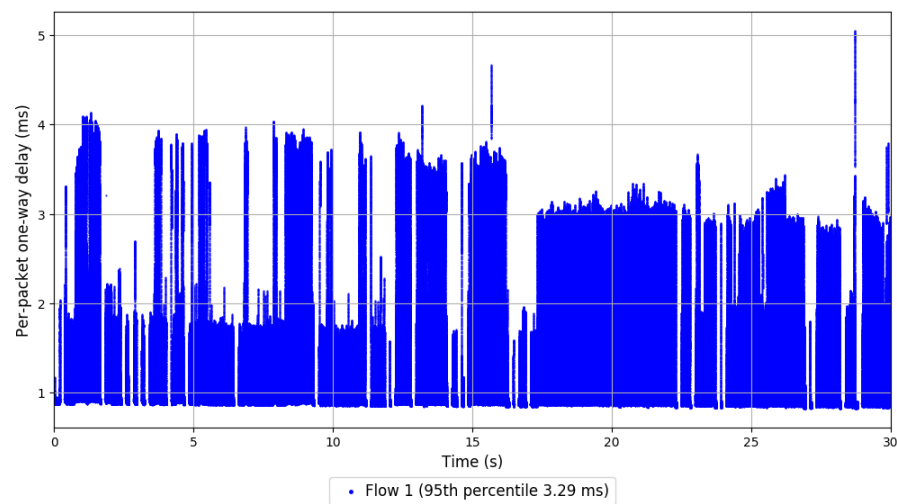
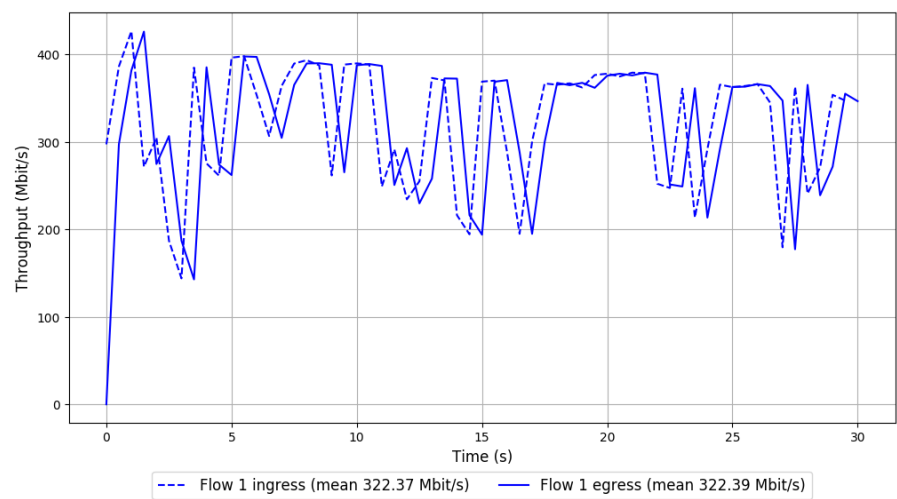


Run 2: Statistics of Verus

Start at: 2018-11-30 11:32:31
End at: 2018-11-30 11:33:01
Local clock offset: 2.976 ms
Remote clock offset: -0.012 ms

Below is generated by plot.py at 2018-11-30 14:11:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 322.39 Mbit/s
95th percentile per-packet one-way delay: 3.292 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.39 Mbit/s
95th percentile per-packet one-way delay: 3.292 ms
Loss rate: 0.00%

Run 2: Report of Verus — Data Link

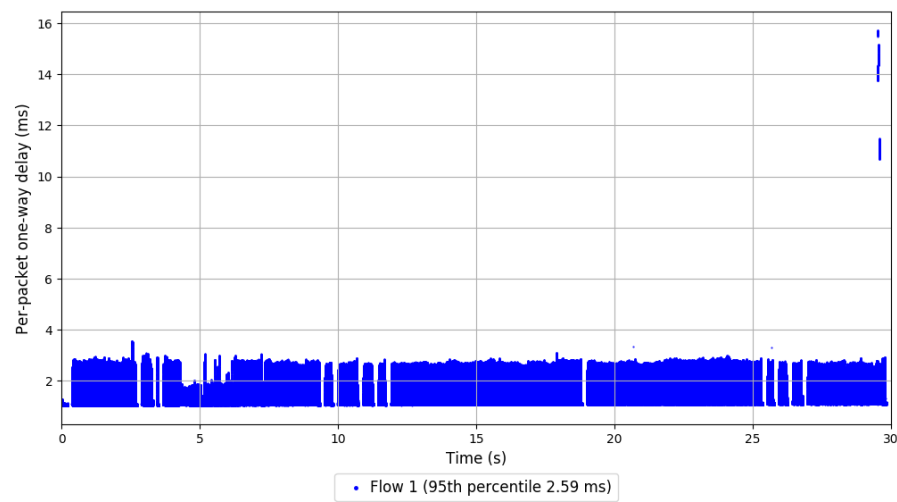
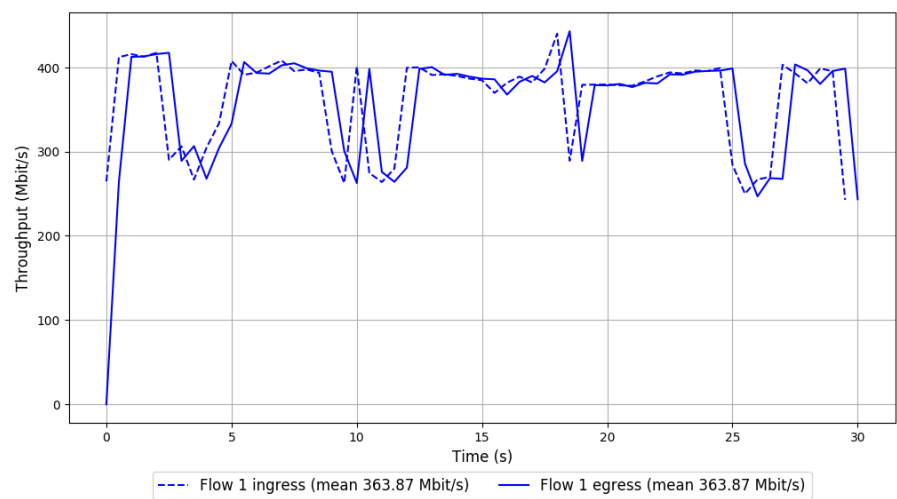


Run 3: Statistics of Verus

Start at: 2018-11-30 11:59:40
End at: 2018-11-30 12:00:10
Local clock offset: 0.229 ms
Remote clock offset: -0.159 ms

Below is generated by plot.py at 2018-11-30 14:13:38
Datalink statistics
-- Total of 1 flow:
Average throughput: 363.87 Mbit/s
95th percentile per-packet one-way delay: 2.586 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 363.87 Mbit/s
95th percentile per-packet one-way delay: 2.586 ms
Loss rate: 0.00%

Run 3: Report of Verus — Data Link

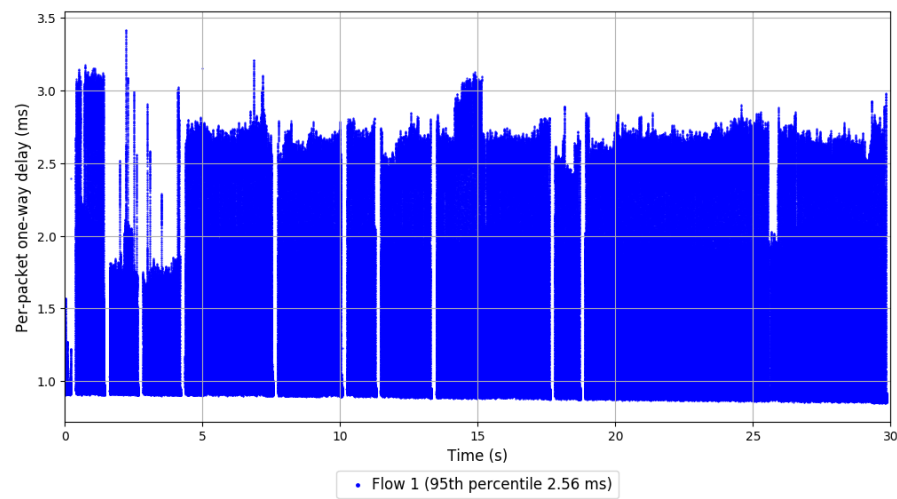
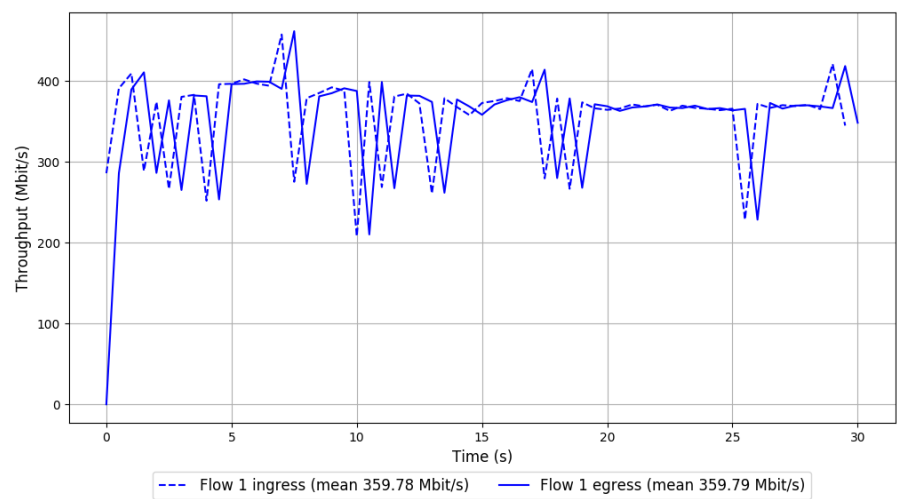


Run 4: Statistics of Verus

Start at: 2018-11-30 12:26:49
End at: 2018-11-30 12:27:19
Local clock offset: 2.189 ms
Remote clock offset: -0.227 ms

Below is generated by plot.py at 2018-11-30 14:13:56
Datalink statistics
-- Total of 1 flow:
Average throughput: 359.79 Mbit/s
95th percentile per-packet one-way delay: 2.558 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 359.79 Mbit/s
95th percentile per-packet one-way delay: 2.558 ms
Loss rate: 0.00%

Run 4: Report of Verus — Data Link

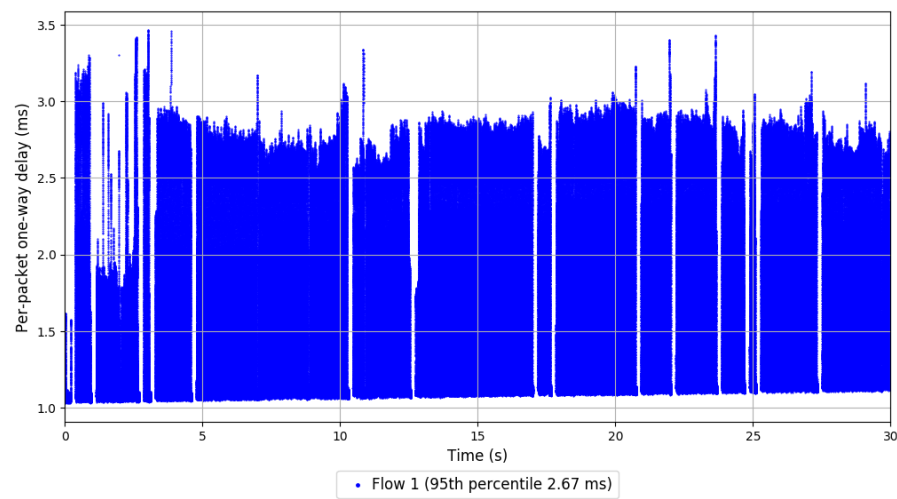
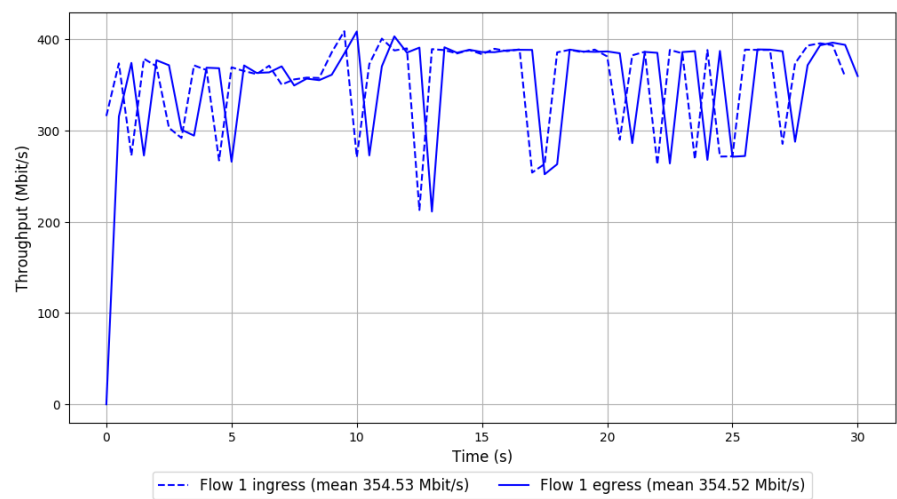


Run 5: Statistics of Verus

Start at: 2018-11-30 12:54:02
End at: 2018-11-30 12:54:32
Local clock offset: 0.994 ms
Remote clock offset: -0.234 ms

Below is generated by plot.py at 2018-11-30 14:13:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 354.52 Mbit/s
95th percentile per-packet one-way delay: 2.675 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 354.52 Mbit/s
95th percentile per-packet one-way delay: 2.675 ms
Loss rate: 0.00%

Run 5: Report of Verus — Data Link

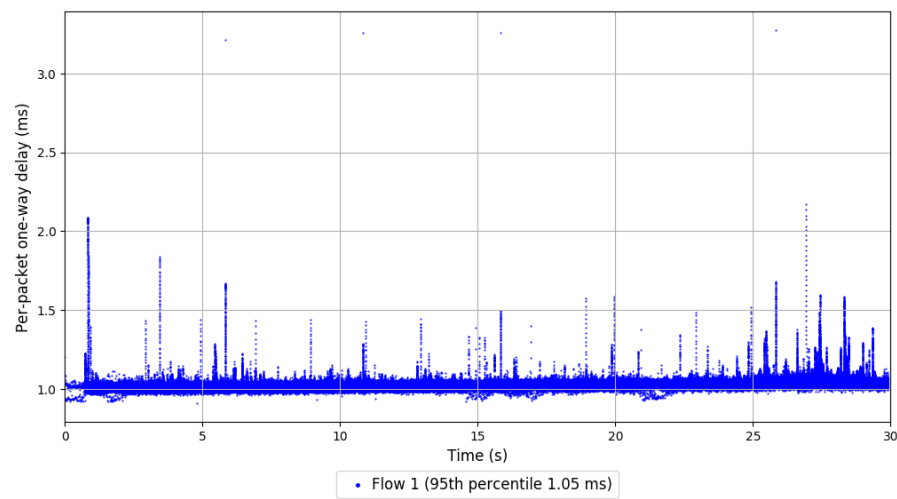
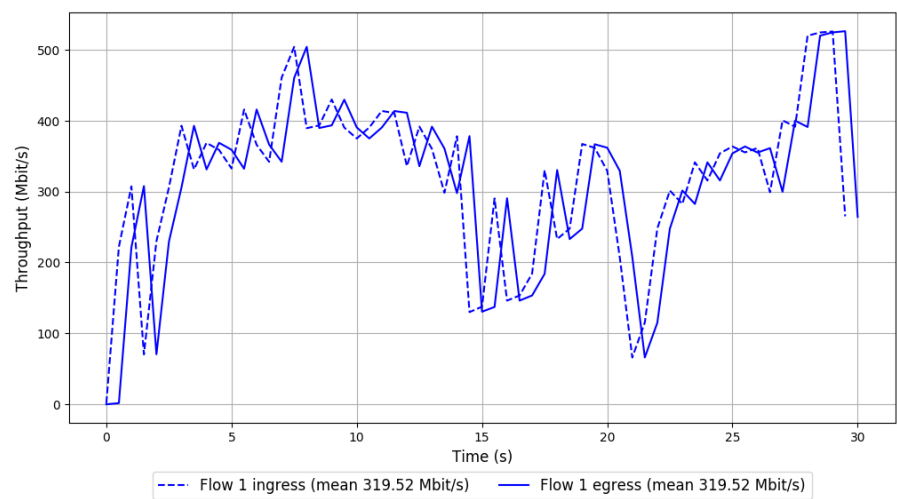


Run 1: Statistics of PCC-Vivace

Start at: 2018-11-30 11:00:10
End at: 2018-11-30 11:00:40
Local clock offset: -0.207 ms
Remote clock offset: -0.711 ms

Below is generated by plot.py at 2018-11-30 14:14:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 319.52 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 319.52 Mbit/s
95th percentile per-packet one-way delay: 1.051 ms
Loss rate: 0.01%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-11-30 11:26:57

End at: 2018-11-30 11:27:27

Local clock offset: 2.408 ms

Remote clock offset: 0.009 ms

Below is generated by plot.py at 2018-11-30 14:15:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 395.12 Mbit/s

95th percentile per-packet one-way delay: 0.940 ms

Loss rate: 0.01%

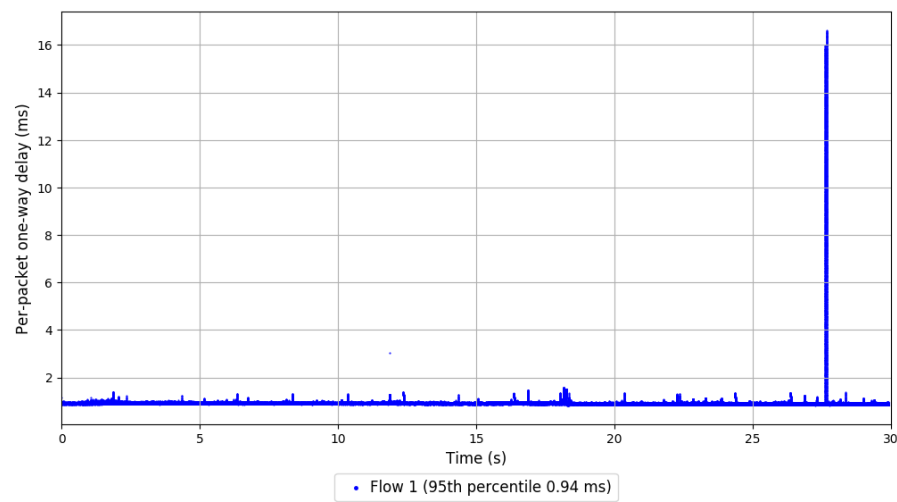
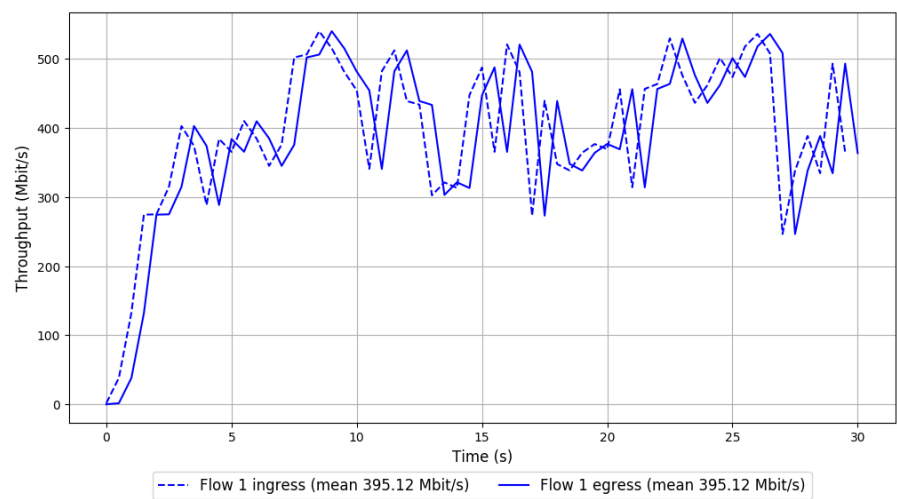
-- Flow 1:

Average throughput: 395.12 Mbit/s

95th percentile per-packet one-way delay: 0.940 ms

Loss rate: 0.01%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-11-30 11:54:06

End at: 2018-11-30 11:54:36

Local clock offset: 0.982 ms

Remote clock offset: -0.198 ms

Below is generated by plot.py at 2018-11-30 14:15:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 392.44 Mbit/s

95th percentile per-packet one-way delay: 1.197 ms

Loss rate: 0.00%

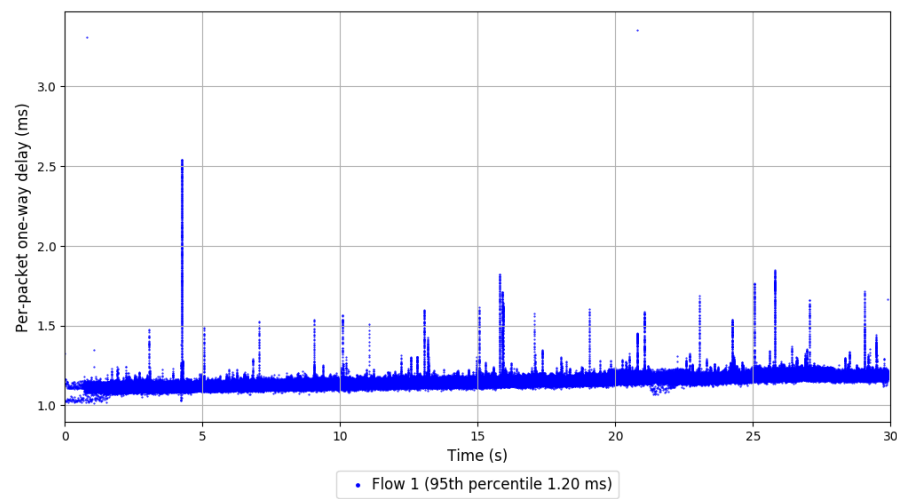
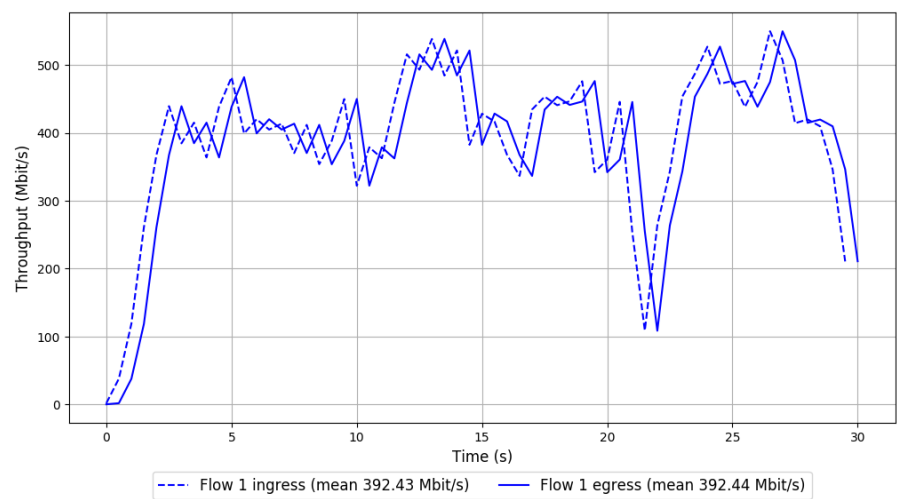
-- Flow 1:

Average throughput: 392.44 Mbit/s

95th percentile per-packet one-way delay: 1.197 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2018-11-30 12:21:14

End at: 2018-11-30 12:21:44

Local clock offset: 1.263 ms

Remote clock offset: -0.147 ms

Below is generated by plot.py at 2018-11-30 14:15:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 367.55 Mbit/s

95th percentile per-packet one-way delay: 0.803 ms

Loss rate: 0.01%

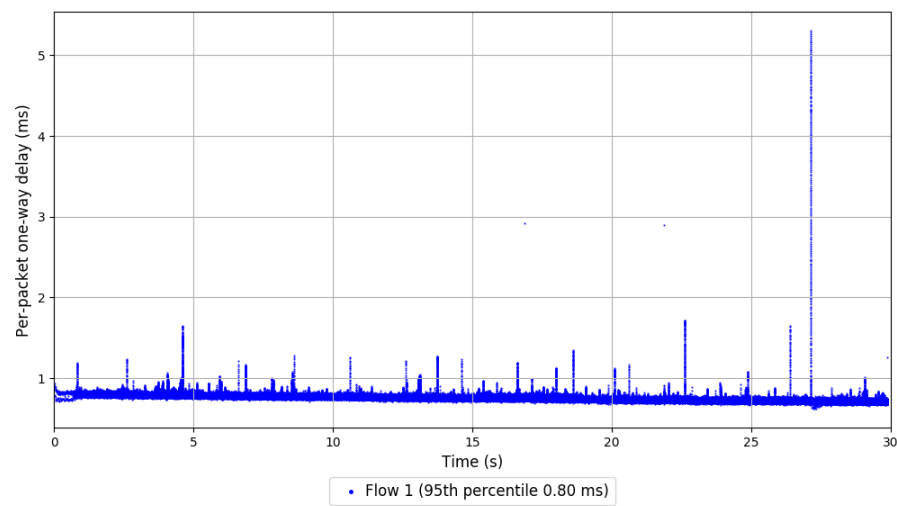
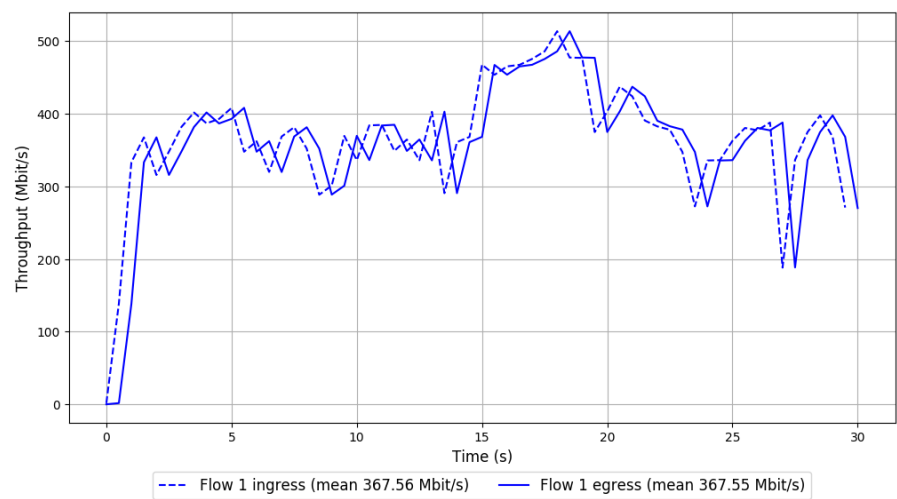
-- Flow 1:

Average throughput: 367.55 Mbit/s

95th percentile per-packet one-way delay: 0.803 ms

Loss rate: 0.01%

Run 4: Report of PCC-Vivace — Data Link

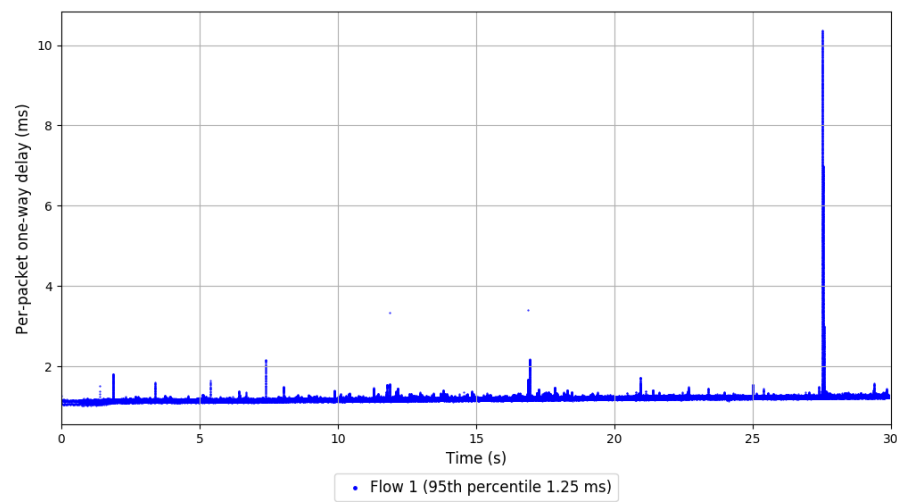
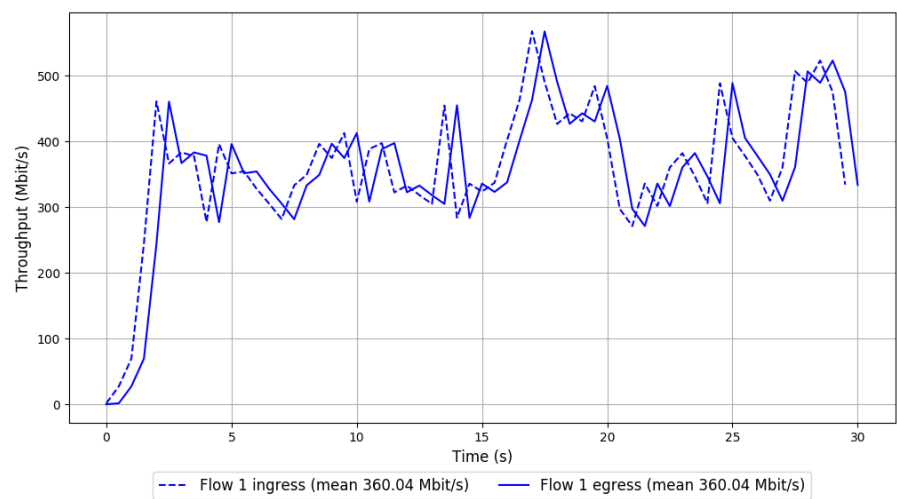


Run 5: Statistics of PCC-Vivace

Start at: 2018-11-30 12:48:30
End at: 2018-11-30 12:49:00
Local clock offset: 2.186 ms
Remote clock offset: -0.234 ms

Below is generated by plot.py at 2018-11-30 14:15:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 360.04 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 360.04 Mbit/s
95th percentile per-packet one-way delay: 1.247 ms
Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-11-30 10:57:34

End at: 2018-11-30 10:58:04

Local clock offset: -0.18 ms

Remote clock offset: -0.888 ms

Below is generated by plot.py at 2018-11-30 14:15:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 1.125 ms

Loss rate: 0.08%

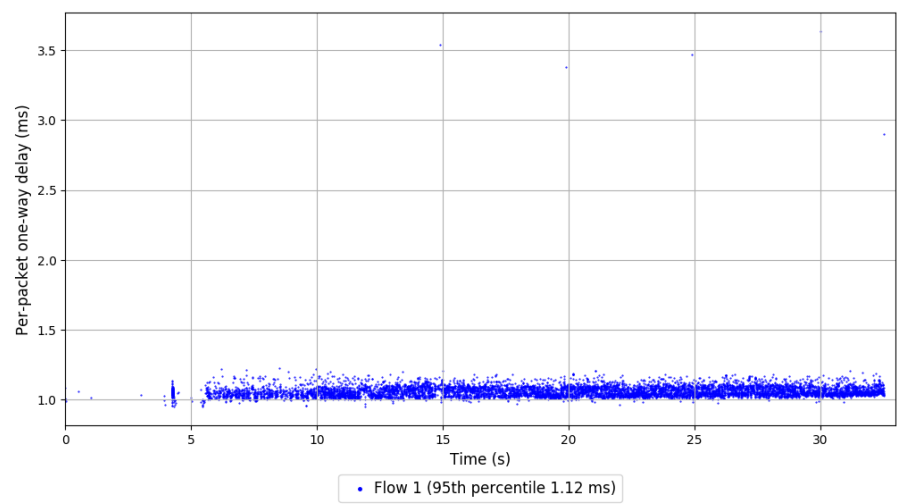
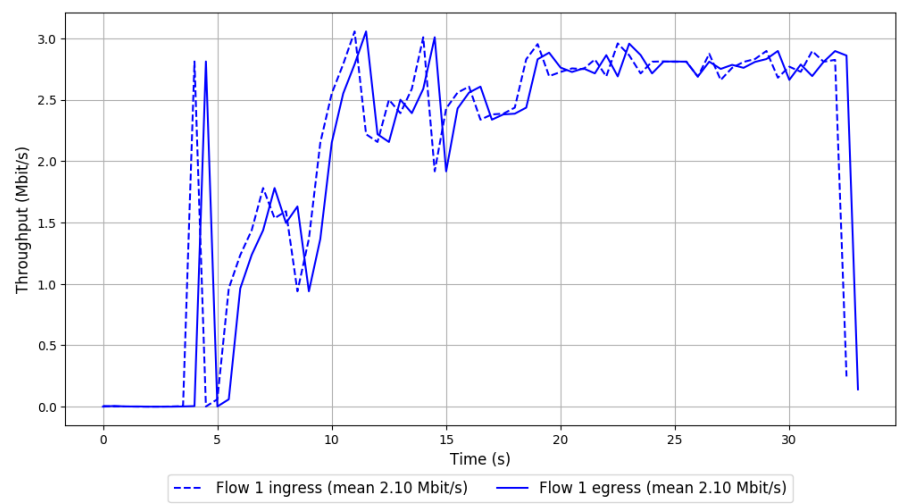
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 1.125 ms

Loss rate: 0.08%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-11-30 11:24:23

End at: 2018-11-30 11:24:53

Local clock offset: 2.056 ms

Remote clock offset: -0.038 ms

Below is generated by plot.py at 2018-11-30 14:15:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 0.969 ms

Loss rate: 0.00%

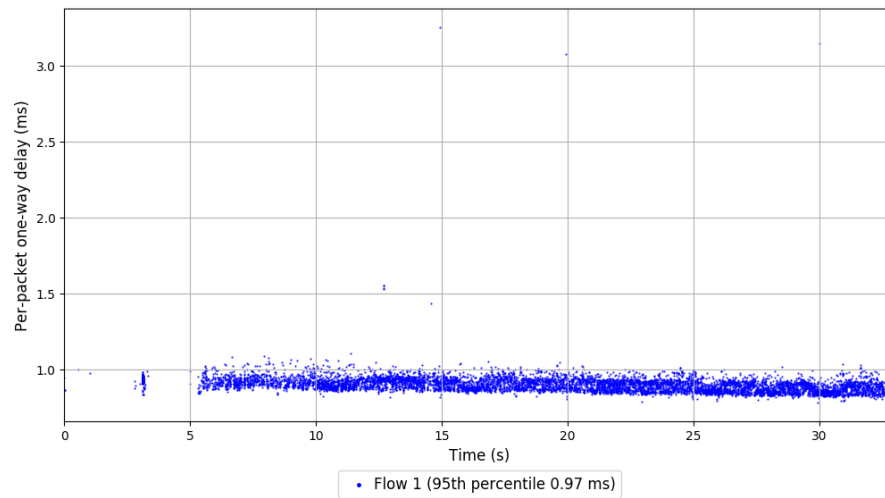
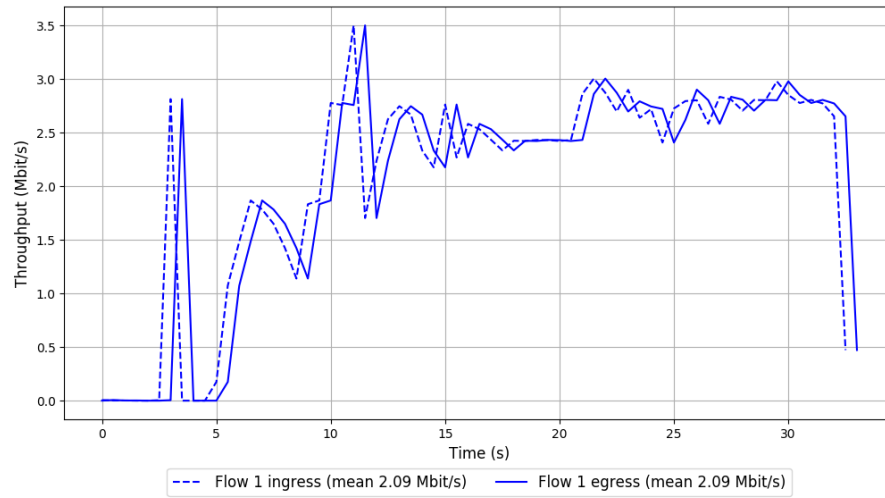
-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 0.969 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

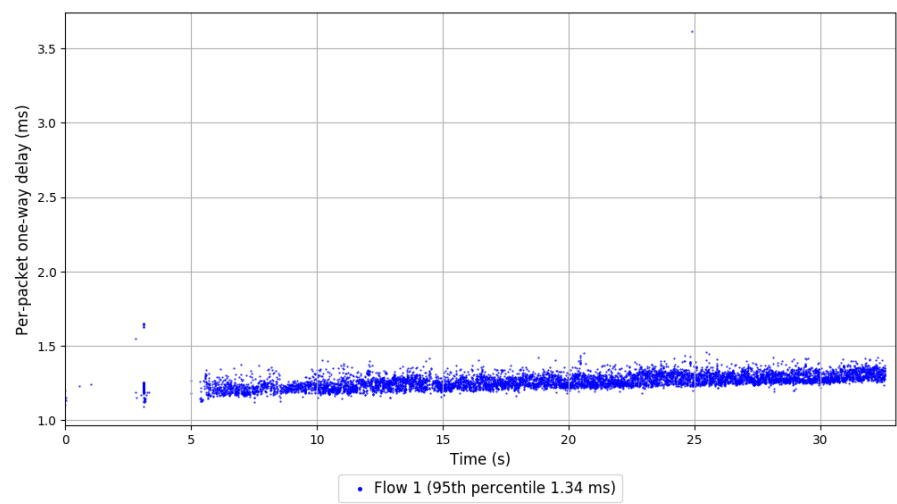
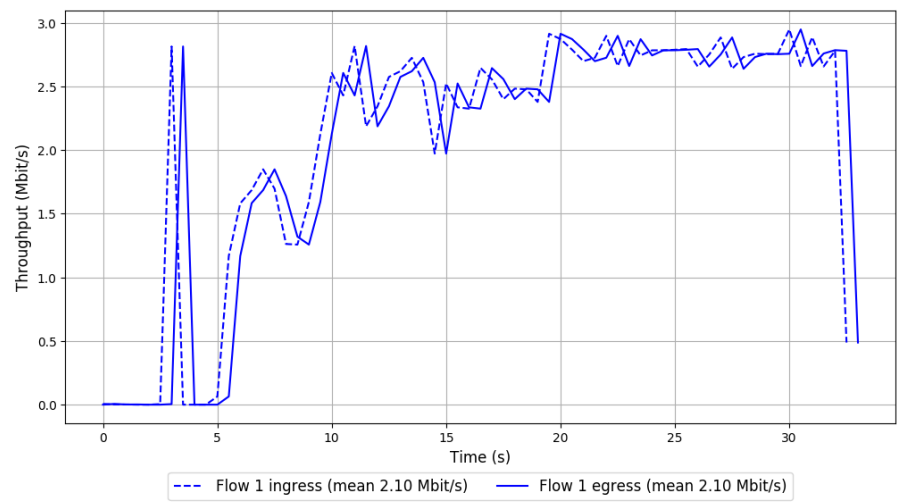


Run 3: Statistics of WebRTC media

Start at: 2018-11-30 11:51:32
End at: 2018-11-30 11:52:02
Local clock offset: 1.526 ms
Remote clock offset: -0.244 ms

Below is generated by plot.py at 2018-11-30 14:15:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1.341 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1.341 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

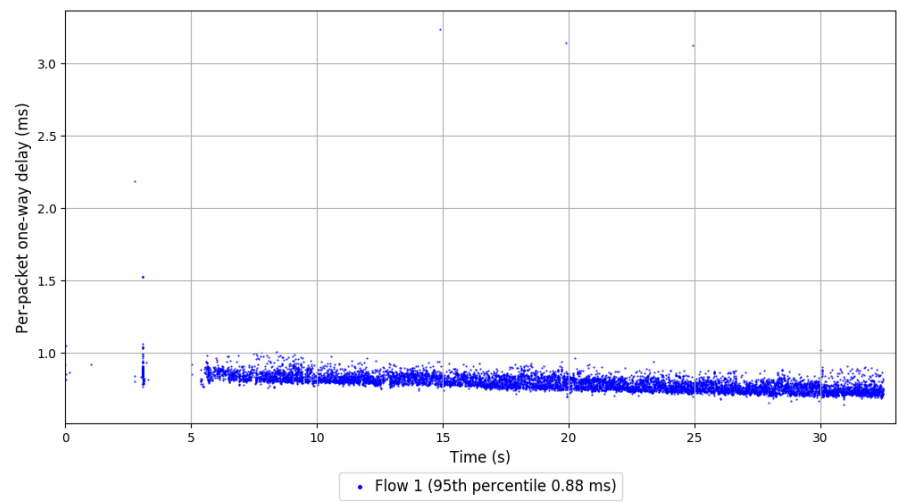
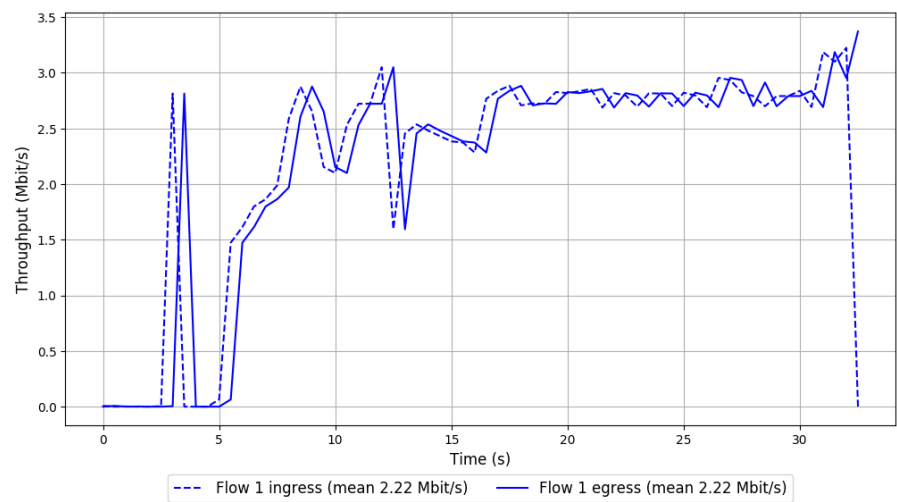


Run 4: Statistics of WebRTC media

Start at: 2018-11-30 12:18:42
End at: 2018-11-30 12:19:12
Local clock offset: 0.618 ms
Remote clock offset: -0.252 ms

Below is generated by plot.py at 2018-11-30 14:15:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 0.878 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 0.878 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-11-30 12:45:53
End at: 2018-11-30 12:46:23
Local clock offset: 3.064 ms
Remote clock offset: -0.194 ms

Below is generated by plot.py at 2018-11-30 14:15:14
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 1.335 ms
Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link

