

Pantheon Report

Generated at 2018-03-06 08:57:31 (UTC).

Data path: AWS California 2 Ethernet (*local*) → Mexico Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

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

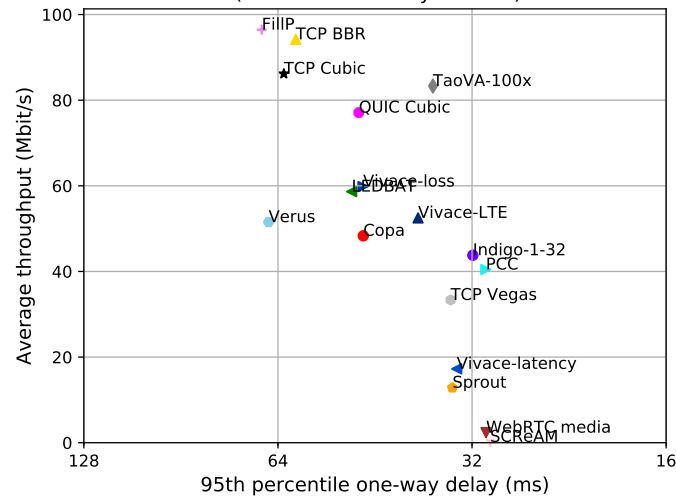
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

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

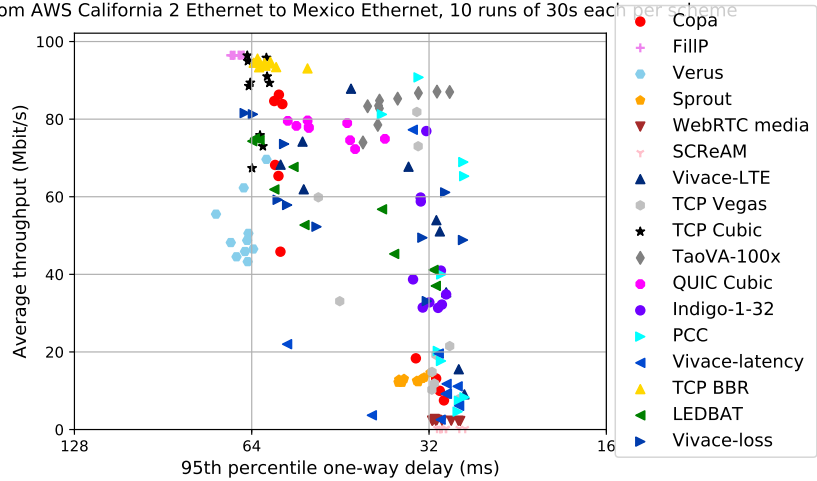
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eae30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  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 @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from AWS California 2 Ethernet to Mexico Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS California 2 Ethernet to Mexico Ethernet, 10 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	10	94.20	60.05	1.93
TCP Cubic	10	86.16	62.67	0.41
LEDBAT	10	58.65	49.19	0.04
PCC	10	40.45	30.46	0.35
QUIC Cubic	9	77.10	47.95	0.41
SCReAM	10	0.22	30.00	0.03
WebRTC media	10	2.35	30.44	0.03
Sprout	10	12.84	34.32	0.01
TaoVA-100x	10	83.29	36.80	0.04
TCP Vegas	10	33.34	34.54	0.16
Verus	10	51.52	66.18	37.06
Copa	10	48.32	47.19	51.25
FillP	10	96.47	67.82	23.18
Indigo-1-32	10	43.78	31.91	0.06
Vivace-latency	10	17.25	33.80	0.08
Vivace-loss	10	59.83	47.23	1.50
Vivace-LTE	10	52.51	38.80	0.30

Run 1: Statistics of TCP BBR

Start at: 2018-03-06 03:07:05

End at: 2018-03-06 03:07:35

Local clock offset: 1.263 ms

Remote clock offset: -0.63 ms

Below is generated by plot.py at 2018-03-06 08:36:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.41 Mbit/s

95th percentile per-packet one-way delay: 58.173 ms

Loss rate: 1.64%

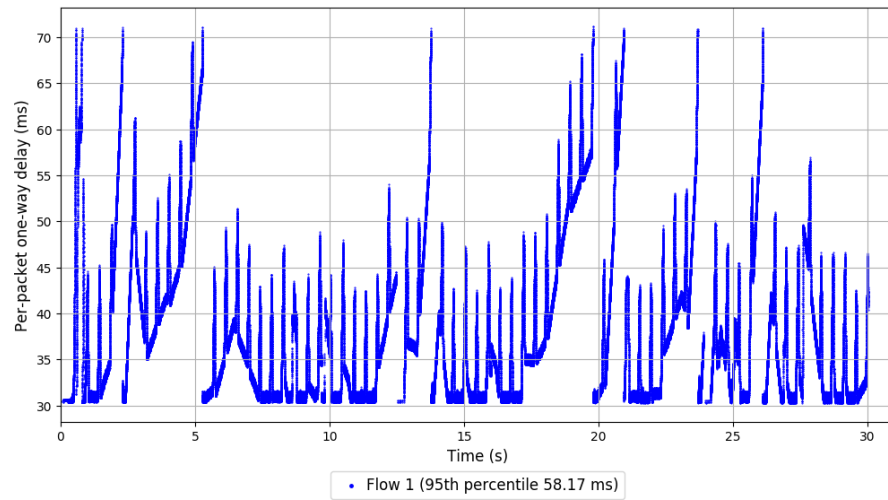
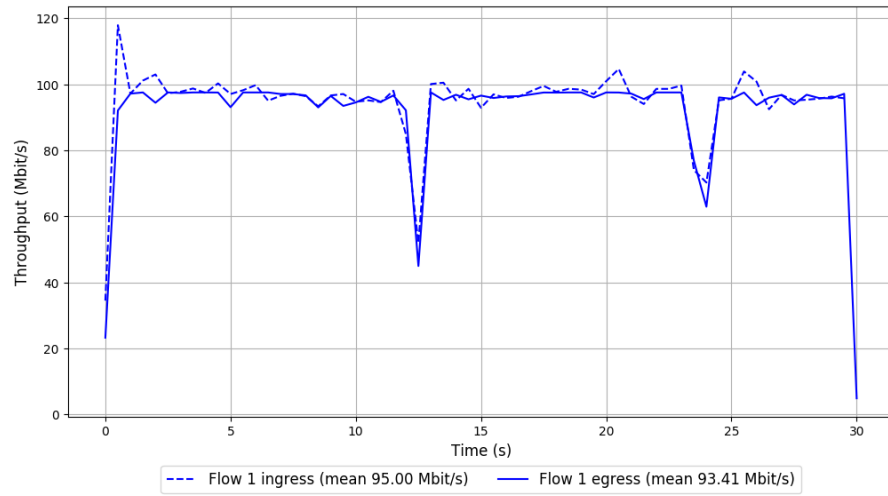
-- Flow 1:

Average throughput: 93.41 Mbit/s

95th percentile per-packet one-way delay: 58.173 ms

Loss rate: 1.64%

Run 1: Report of TCP BBR — Data Link

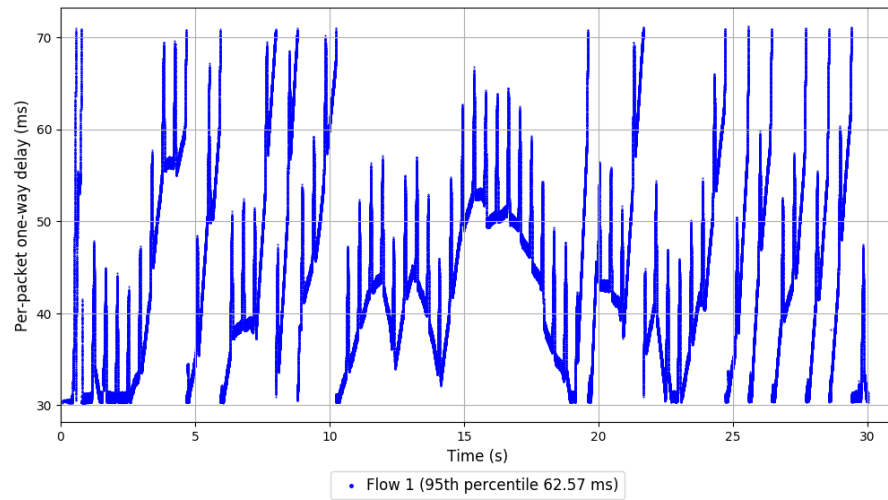
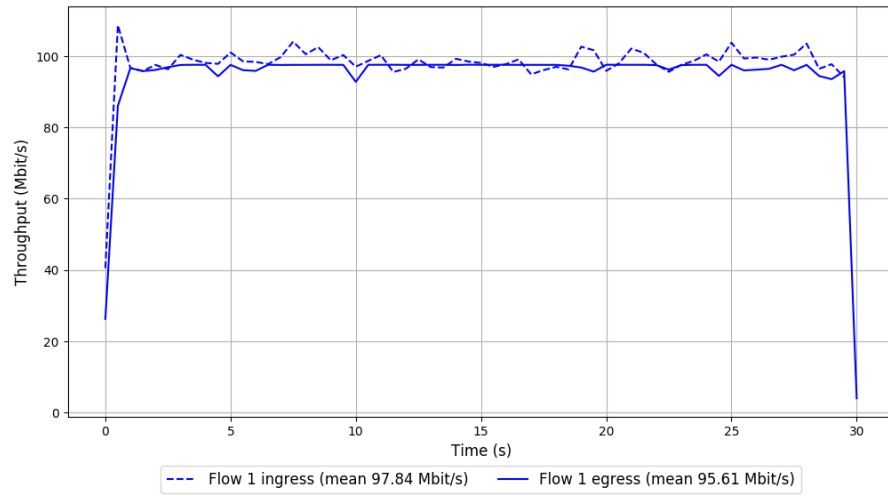


Run 2: Statistics of TCP BBR

Start at: 2018-03-06 03:37:13
End at: 2018-03-06 03:37:43
Local clock offset: 1.247 ms
Remote clock offset: -1.318 ms

Below is generated by plot.py at 2018-03-06 08:36:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 62.569 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 62.569 ms
Loss rate: 2.28%

Run 2: Report of TCP BBR — Data Link

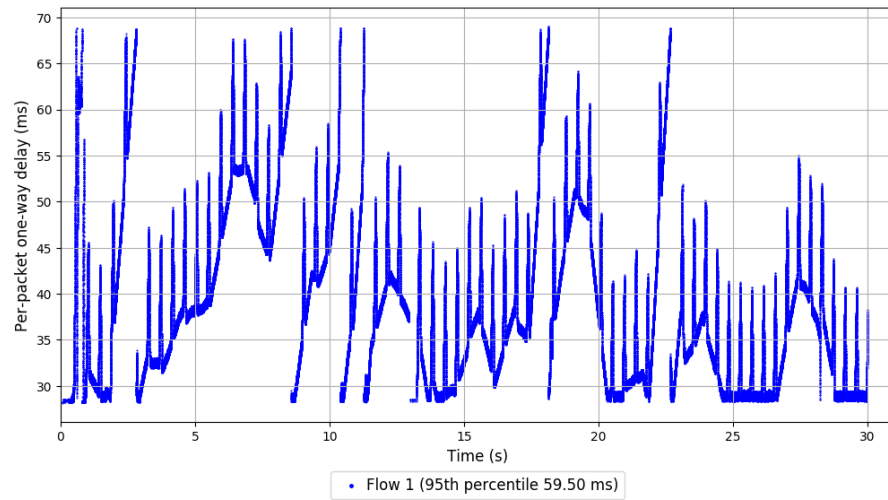
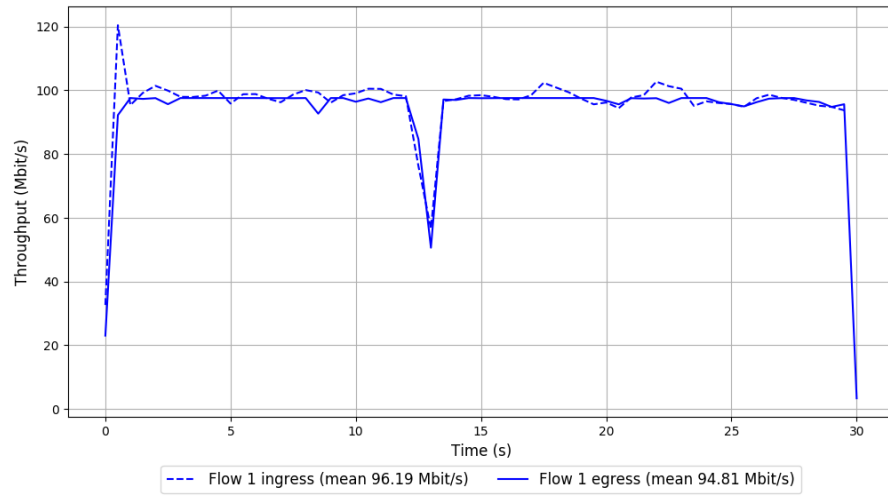


Run 3: Statistics of TCP BBR

Start at: 2018-03-06 04:08:40
End at: 2018-03-06 04:09:10
Local clock offset: 1.246 ms
Remote clock offset: -6.843 ms

Below is generated by plot.py at 2018-03-06 08:36:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 59.498 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 59.498 ms
Loss rate: 1.41%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-06 04:42:23

End at: 2018-03-06 04:42:53

Local clock offset: 1.207 ms

Remote clock offset: -5.71 ms

Below is generated by plot.py at 2018-03-06 08:36:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.47 Mbit/s

95th percentile per-packet one-way delay: 60.882 ms

Loss rate: 2.48%

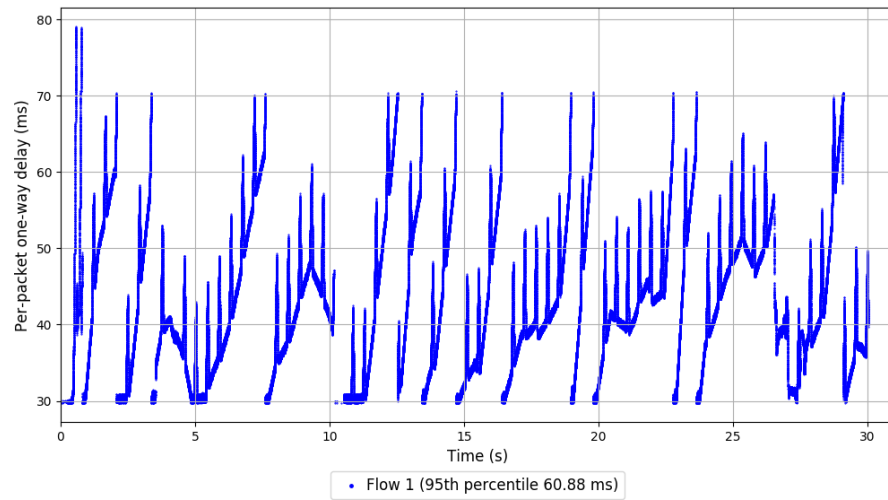
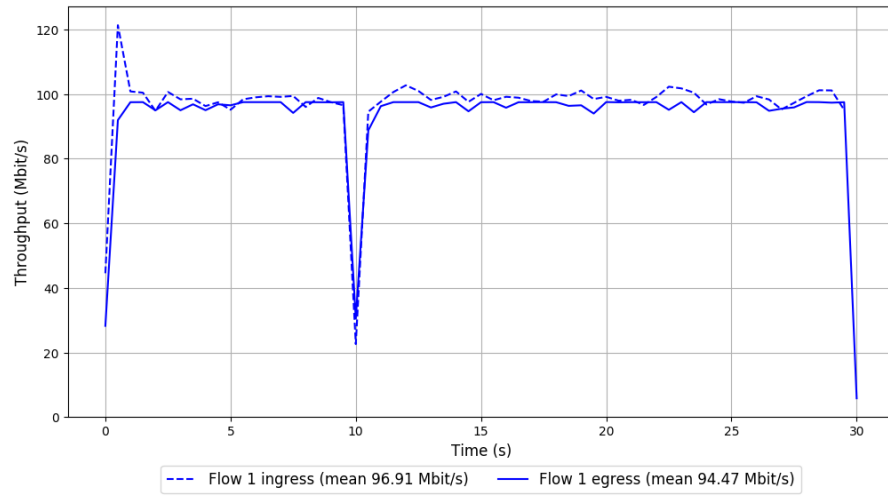
-- Flow 1:

Average throughput: 94.47 Mbit/s

95th percentile per-packet one-way delay: 60.882 ms

Loss rate: 2.48%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-06 05:18:34

End at: 2018-03-06 05:19:04

Local clock offset: 1.087 ms

Remote clock offset: -4.951 ms

Below is generated by plot.py at 2018-03-06 08:36:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.38 Mbit/s

95th percentile per-packet one-way delay: 62.180 ms

Loss rate: 1.99%

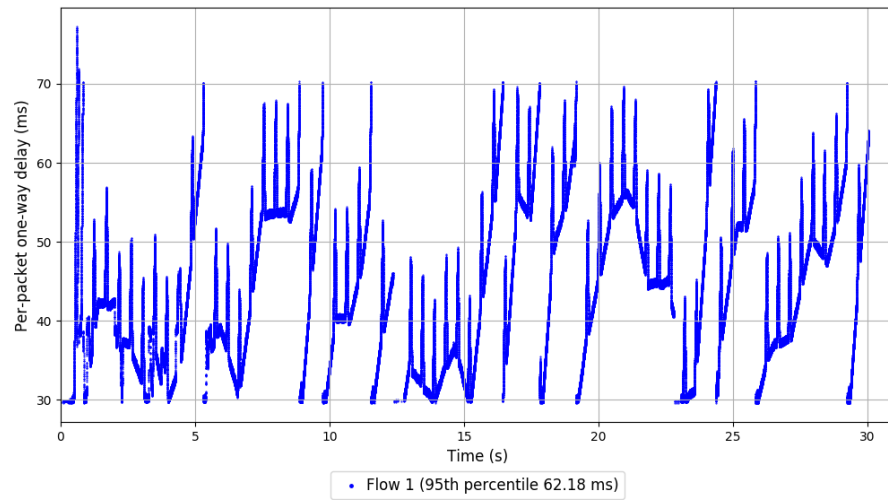
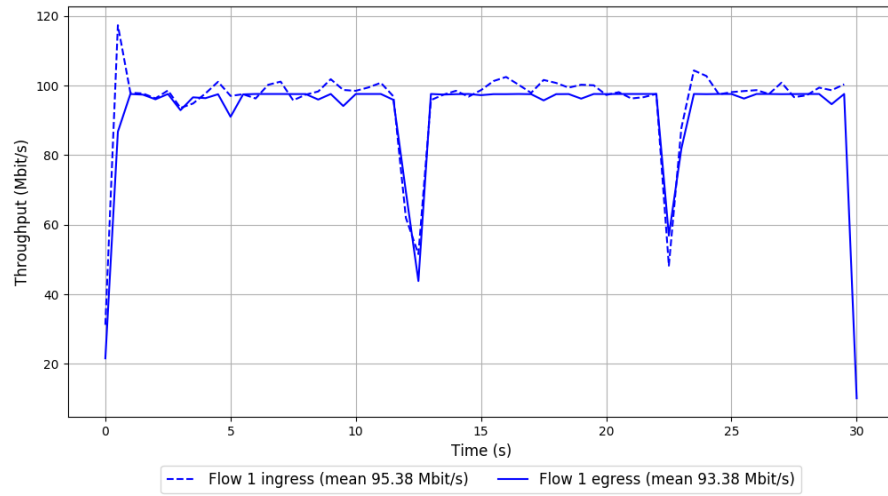
-- Flow 1:

Average throughput: 93.38 Mbit/s

95th percentile per-packet one-way delay: 62.180 ms

Loss rate: 1.99%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-06 05:52:29

End at: 2018-03-06 05:52:59

Local clock offset: 1.143 ms

Remote clock offset: -3.767 ms

Below is generated by plot.py at 2018-03-06 08:36:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.54 Mbit/s

95th percentile per-packet one-way delay: 63.506 ms

Loss rate: 2.13%

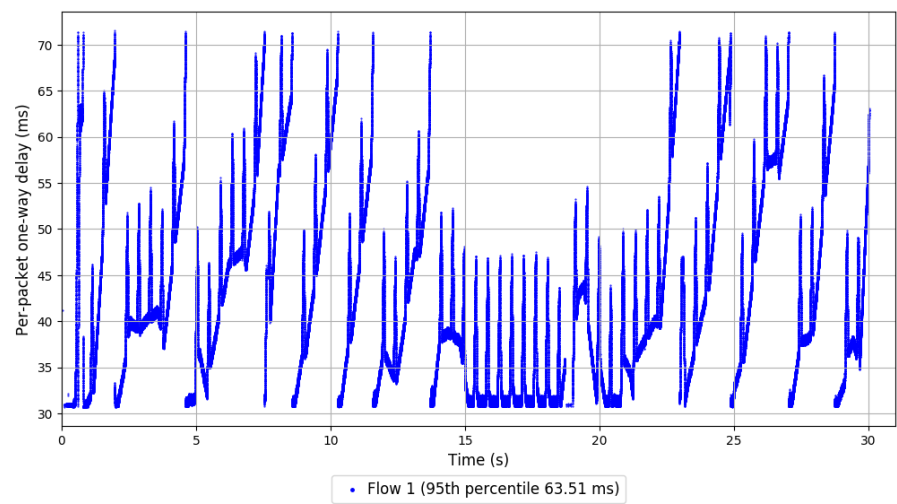
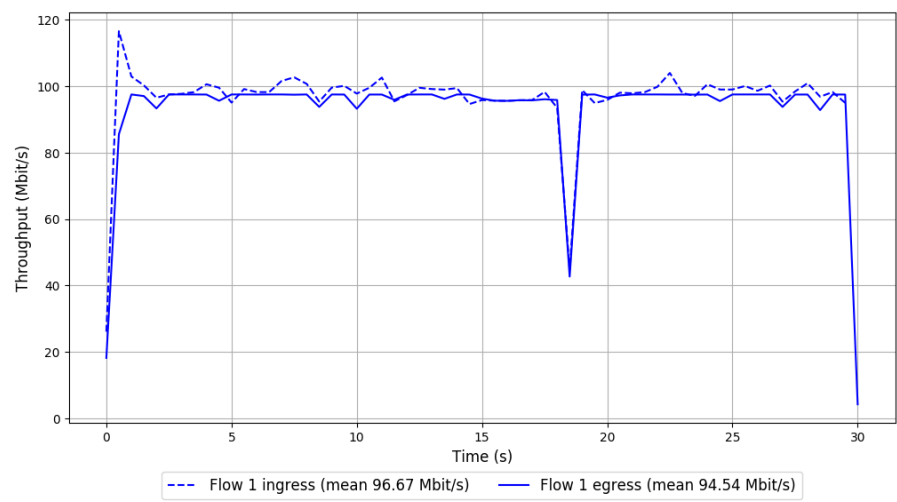
-- Flow 1:

Average throughput: 94.54 Mbit/s

95th percentile per-packet one-way delay: 63.506 ms

Loss rate: 2.13%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-06 06:22:24

End at: 2018-03-06 06:22:54

Local clock offset: 1.205 ms

Remote clock offset: -3.551 ms

Below is generated by plot.py at 2018-03-06 08:36:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.37 Mbit/s

95th percentile per-packet one-way delay: 59.565 ms

Loss rate: 1.89%

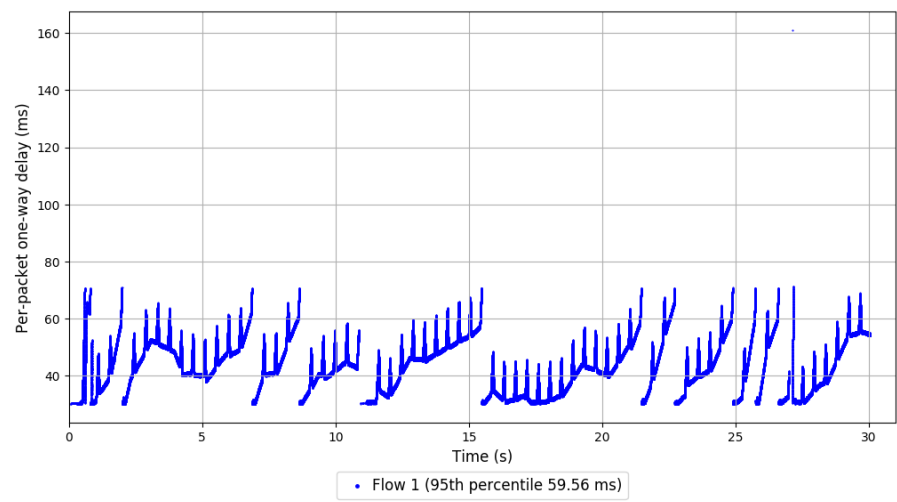
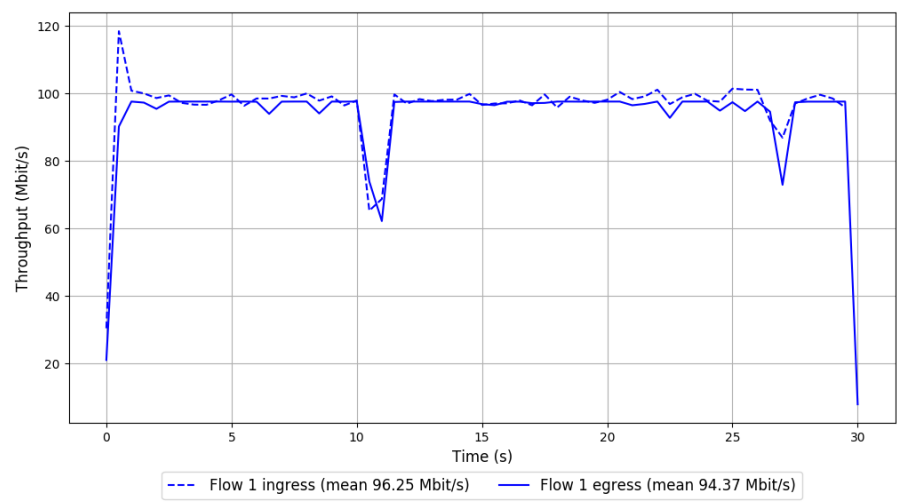
-- Flow 1:

Average throughput: 94.37 Mbit/s

95th percentile per-packet one-way delay: 59.565 ms

Loss rate: 1.89%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

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

End at: 2018-03-06 06:50:36

Local clock offset: 1.134 ms

Remote clock offset: -4.054 ms

Below is generated by plot.py at 2018-03-06 08:36:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.08 Mbit/s

95th percentile per-packet one-way delay: 51.461 ms

Loss rate: 0.89%

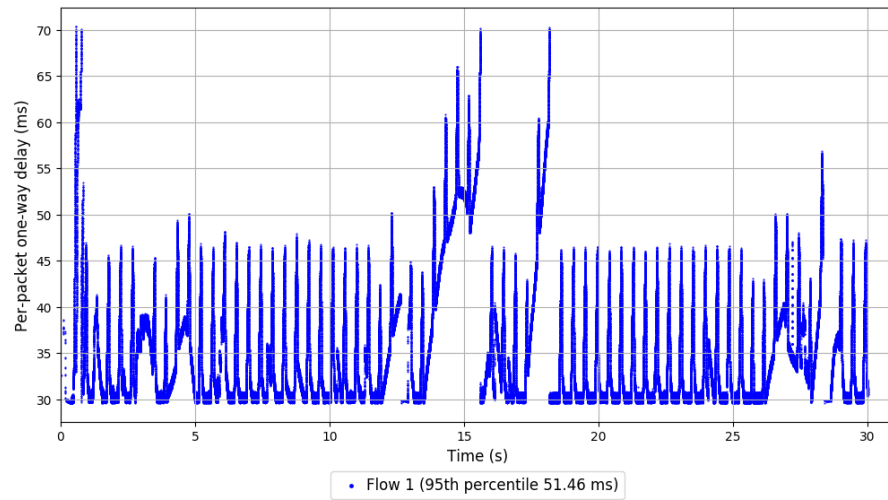
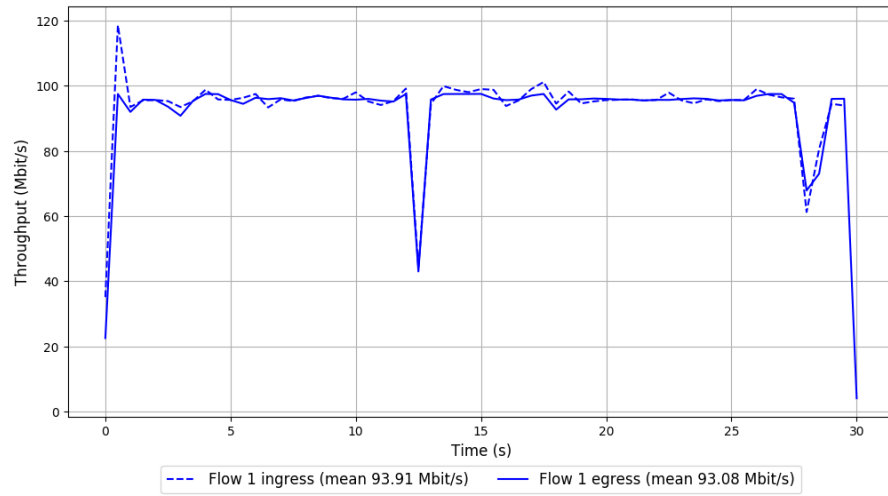
-- Flow 1:

Average throughput: 93.08 Mbit/s

95th percentile per-packet one-way delay: 51.461 ms

Loss rate: 0.89%

Run 8: Report of TCP BBR — Data Link

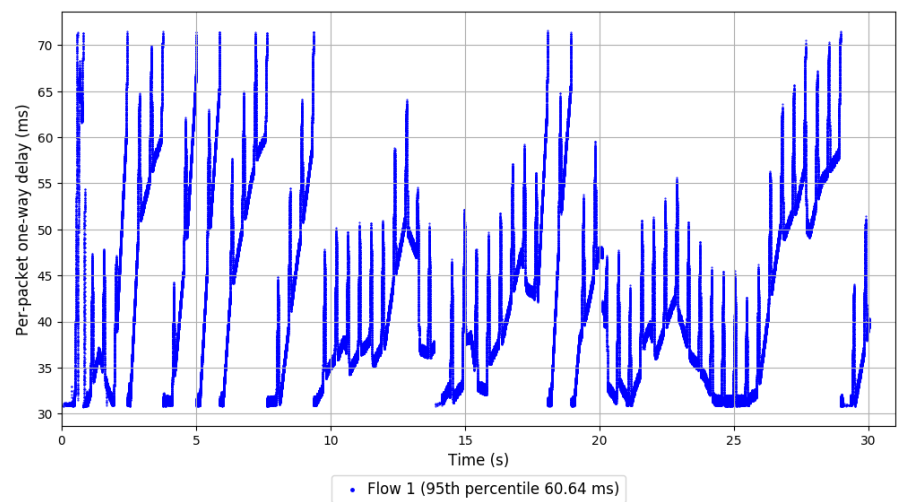
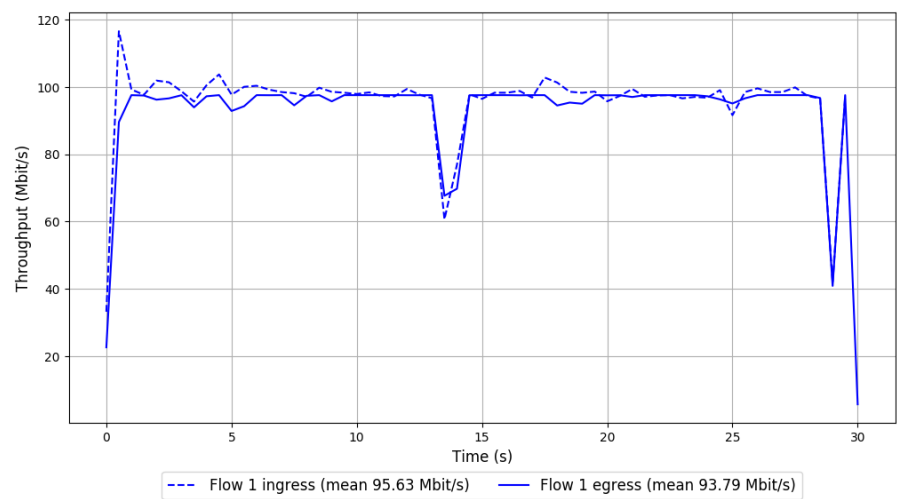


Run 9: Statistics of TCP BBR

Start at: 2018-03-06 07:17:31
End at: 2018-03-06 07:18:01
Local clock offset: 0.887 ms
Remote clock offset: -1.158 ms

Below is generated by plot.py at 2018-03-06 08:37:46
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 60.643 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 60.643 ms
Loss rate: 1.91%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-06 07:47:38

End at: 2018-03-06 07:48:08

Local clock offset: 0.842 ms

Remote clock offset: -3.666 ms

Below is generated by plot.py at 2018-03-06 08:37:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.59 Mbit/s

95th percentile per-packet one-way delay: 62.041 ms

Loss rate: 2.69%

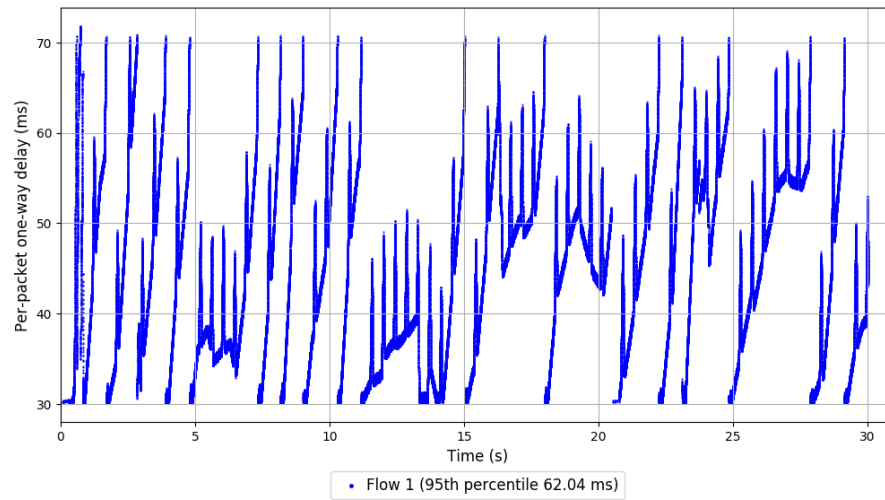
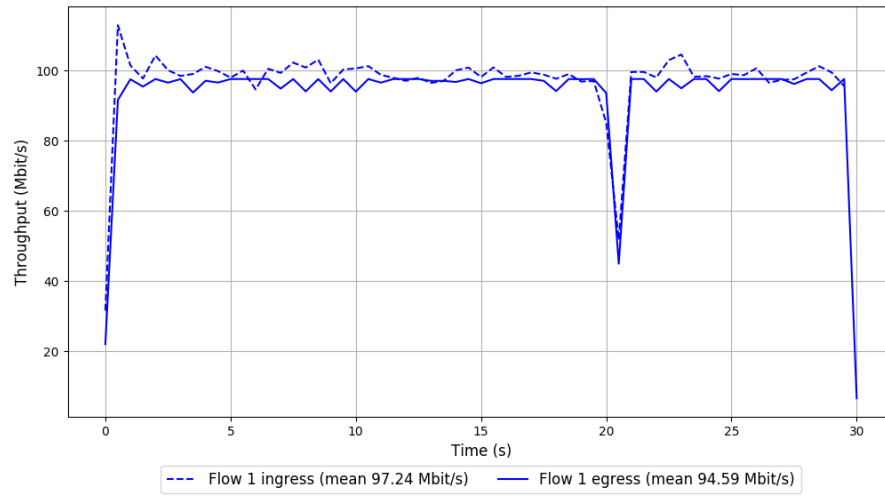
-- Flow 1:

Average throughput: 94.59 Mbit/s

95th percentile per-packet one-way delay: 62.041 ms

Loss rate: 2.69%

Run 10: Report of TCP BBR — Data Link

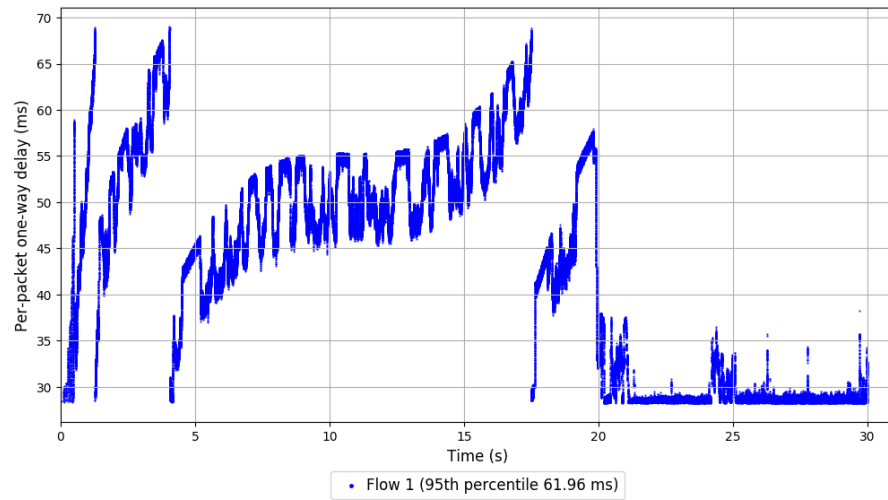
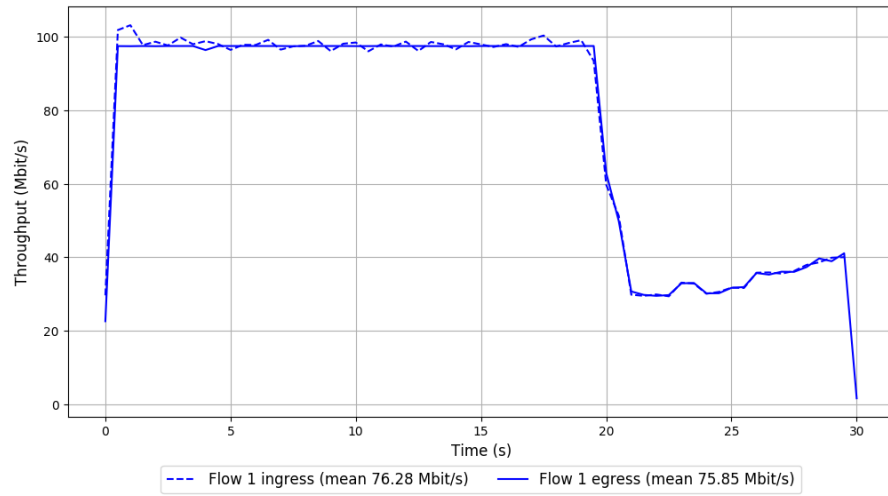


Run 1: Statistics of TCP Cubic

Start at: 2018-03-06 03:08:55
End at: 2018-03-06 03:09:25
Local clock offset: 1.204 ms
Remote clock offset: -2.322 ms

Below is generated by plot.py at 2018-03-06 08:37:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 61.960 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 61.960 ms
Loss rate: 0.56%

Run 1: Report of TCP Cubic — Data Link

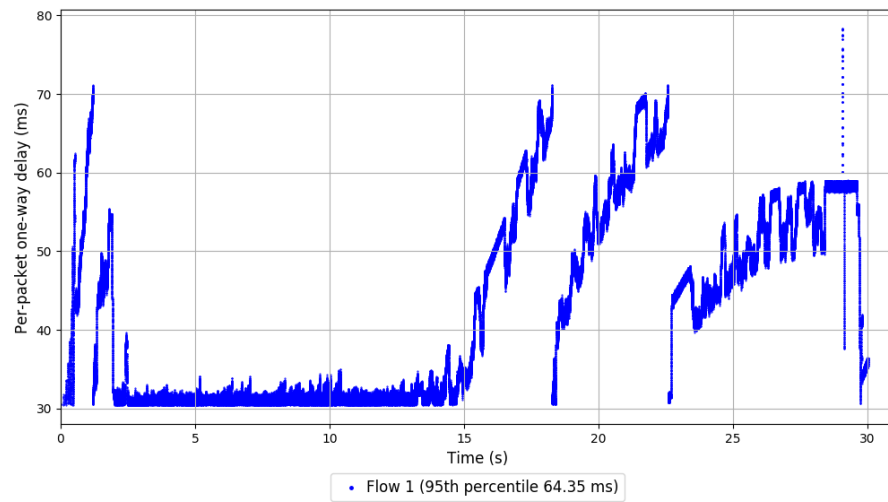
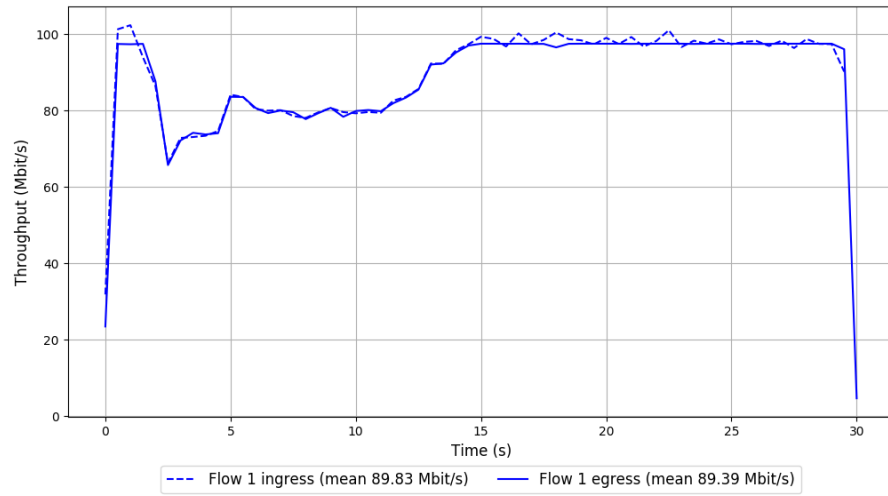


Run 2: Statistics of TCP Cubic

Start at: 2018-03-06 03:38:49
End at: 2018-03-06 03:39:19
Local clock offset: 1.25 ms
Remote clock offset: -2.087 ms

Below is generated by plot.py at 2018-03-06 08:37:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.39 Mbit/s
95th percentile per-packet one-way delay: 64.353 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 89.39 Mbit/s
95th percentile per-packet one-way delay: 64.353 ms
Loss rate: 0.48%

Run 2: Report of TCP Cubic — Data Link

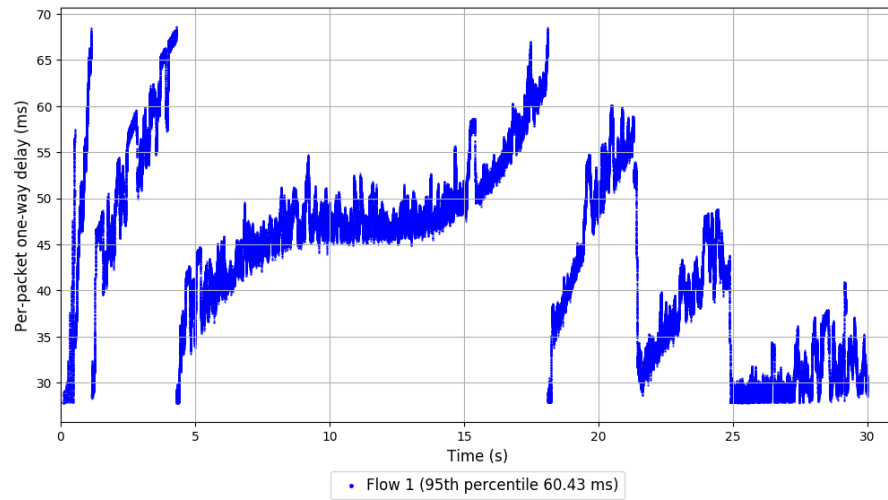
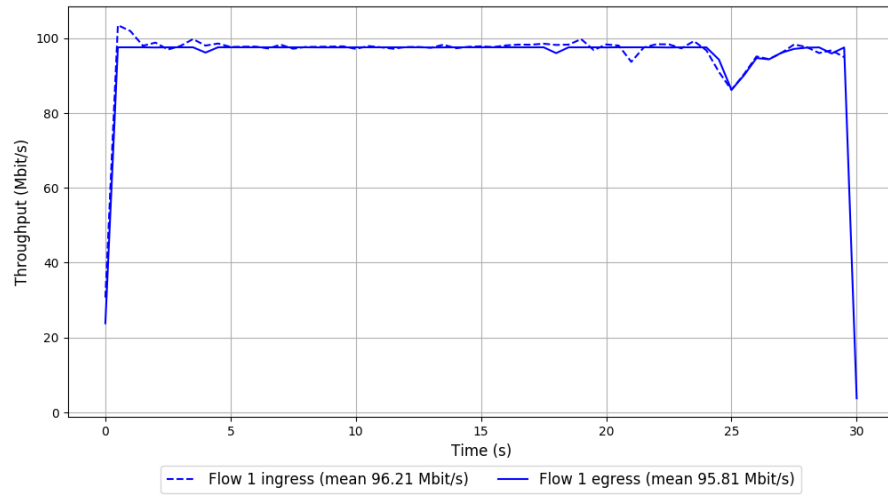


Run 3: Statistics of TCP Cubic

Start at: 2018-03-06 04:11:08
End at: 2018-03-06 04:11:38
Local clock offset: 1.231 ms
Remote clock offset: -7.003 ms

Below is generated by plot.py at 2018-03-06 08:37:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 60.429 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 95.81 Mbit/s
95th percentile per-packet one-way delay: 60.429 ms
Loss rate: 0.42%

Run 3: Report of TCP Cubic — Data Link

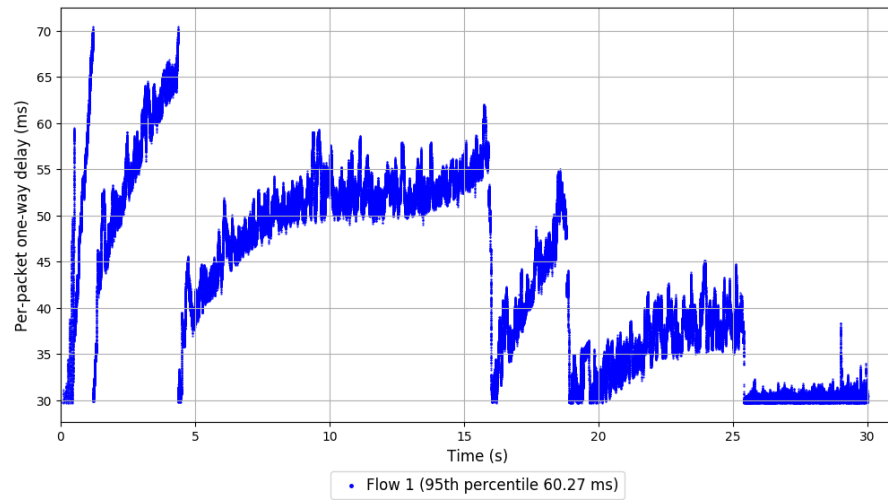
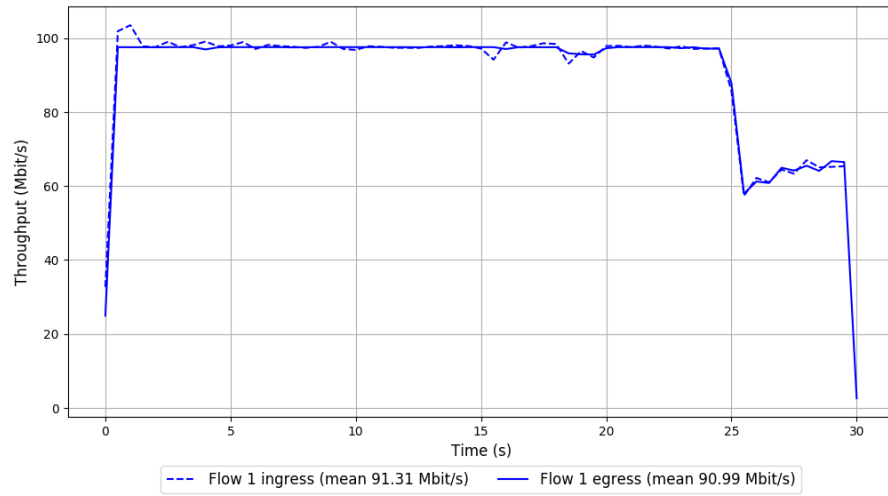


Run 4: Statistics of TCP Cubic

Start at: 2018-03-06 04:44:37
End at: 2018-03-06 04:45:07
Local clock offset: 1.191 ms
Remote clock offset: -5.742 ms

Below is generated by plot.py at 2018-03-06 08:37:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 60.267 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 60.267 ms
Loss rate: 0.35%

Run 4: Report of TCP Cubic — Data Link

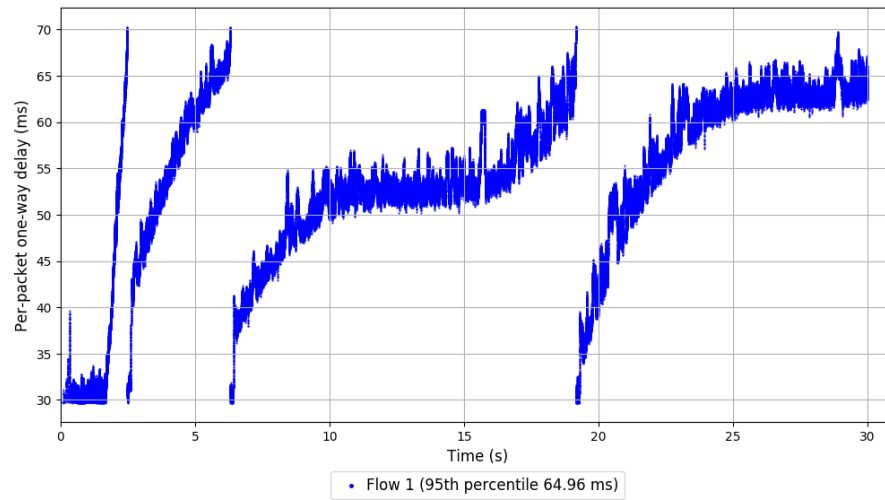
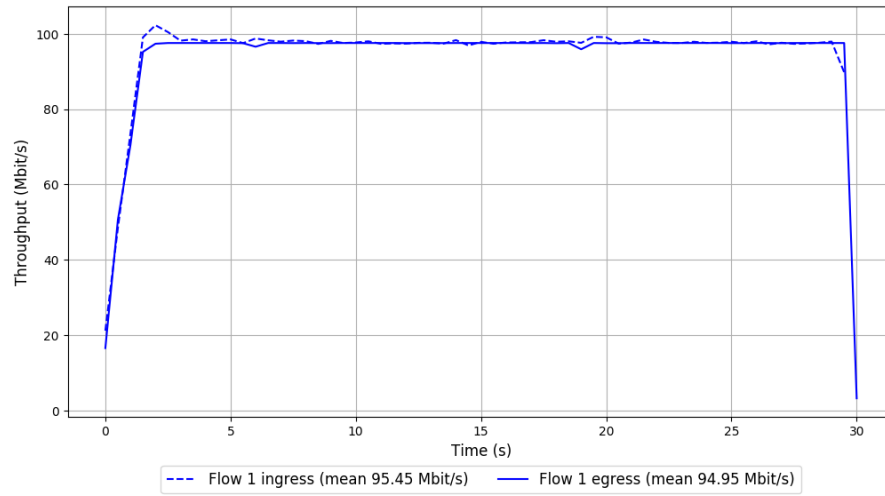


Run 5: Statistics of TCP Cubic

Start at: 2018-03-06 05:21:03
End at: 2018-03-06 05:21:33
Local clock offset: 1.098 ms
Remote clock offset: -4.557 ms

Below is generated by plot.py at 2018-03-06 08:37:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 64.963 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 64.963 ms
Loss rate: 0.43%

Run 5: Report of TCP Cubic — Data Link

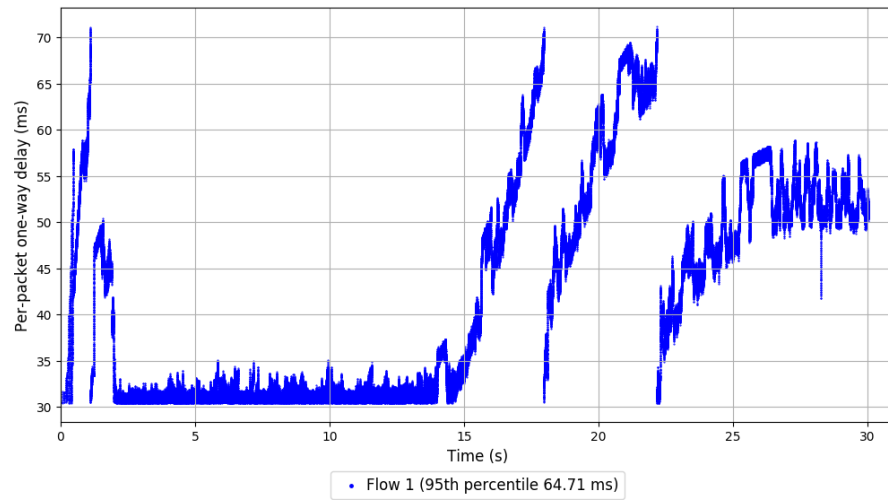
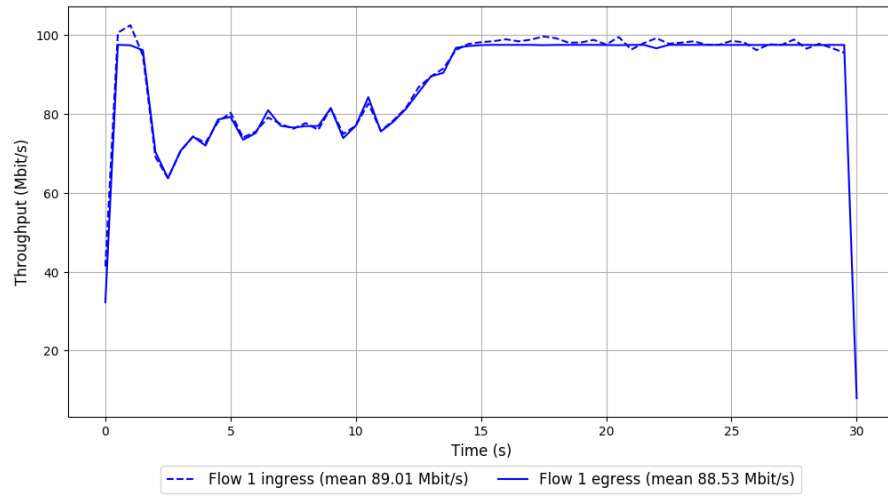


Run 6: Statistics of TCP Cubic

Start at: 2018-03-06 05:54:23
End at: 2018-03-06 05:54:53
Local clock offset: 1.133 ms
Remote clock offset: -4.128 ms

Below is generated by plot.py at 2018-03-06 08:37:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 88.53 Mbit/s
95th percentile per-packet one-way delay: 64.714 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 88.53 Mbit/s
95th percentile per-packet one-way delay: 64.714 ms
Loss rate: 0.47%

Run 6: Report of TCP Cubic — Data Link

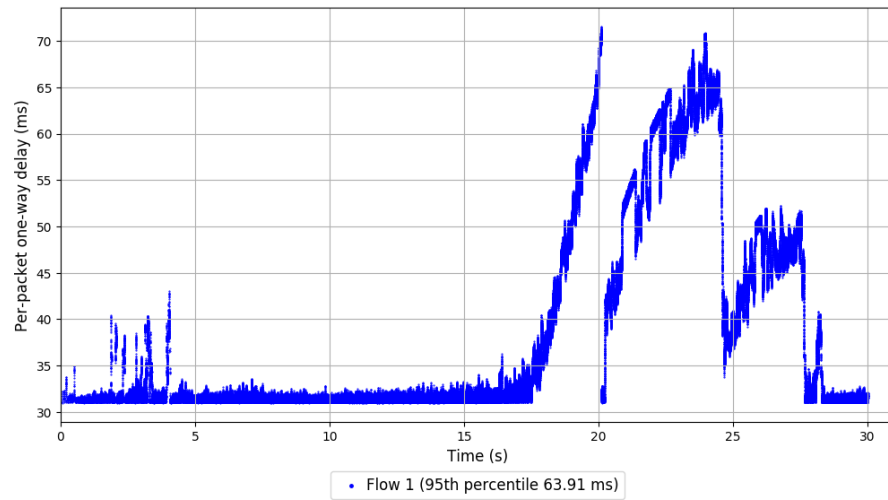
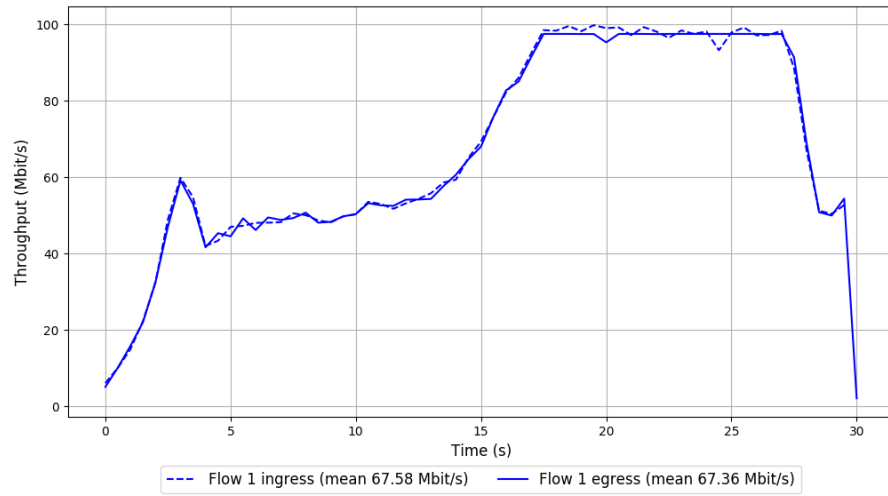


Run 7: Statistics of TCP Cubic

Start at: 2018-03-06 06:24:24
End at: 2018-03-06 06:24:54
Local clock offset: 1.113 ms
Remote clock offset: -3.479 ms

Below is generated by plot.py at 2018-03-06 08:38:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.36 Mbit/s
95th percentile per-packet one-way delay: 63.915 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 67.36 Mbit/s
95th percentile per-packet one-way delay: 63.915 ms
Loss rate: 0.32%

Run 7: Report of TCP Cubic — Data Link

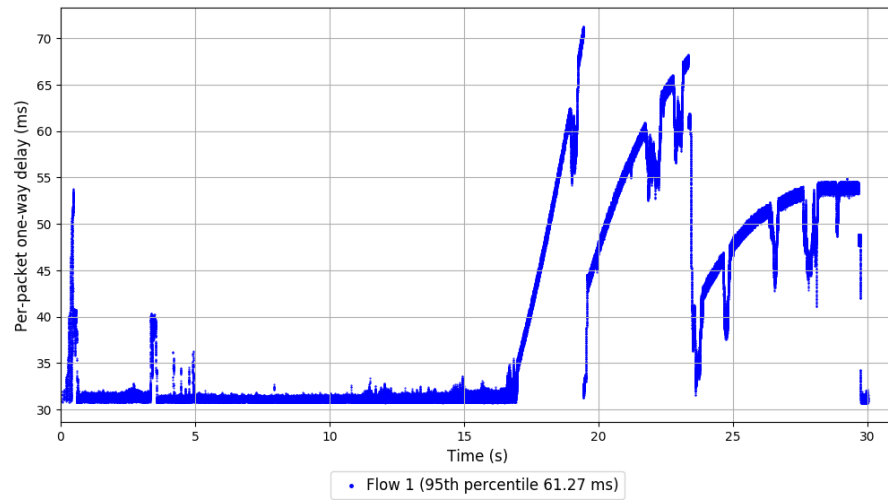
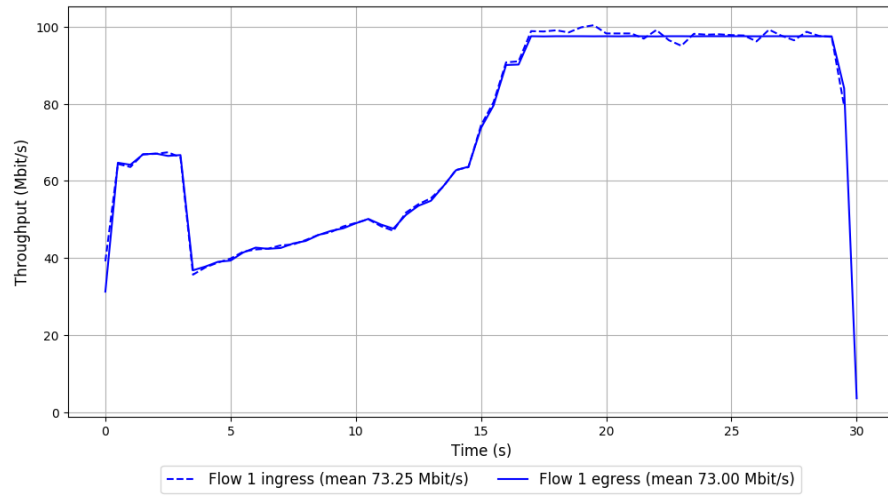


Run 8: Statistics of TCP Cubic

Start at: 2018-03-06 06:51:31
End at: 2018-03-06 06:52:01
Local clock offset: 1.112 ms
Remote clock offset: -3.426 ms

Below is generated by plot.py at 2018-03-06 08:38:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.00 Mbit/s
95th percentile per-packet one-way delay: 61.271 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 73.00 Mbit/s
95th percentile per-packet one-way delay: 61.271 ms
Loss rate: 0.34%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-06 07:19:14

End at: 2018-03-06 07:19:44

Local clock offset: 0.768 ms

Remote clock offset: -3.74 ms

Below is generated by plot.py at 2018-03-06 08:39:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.34 Mbit/s

95th percentile per-packet one-way delay: 59.727 ms

Loss rate: 0.40%

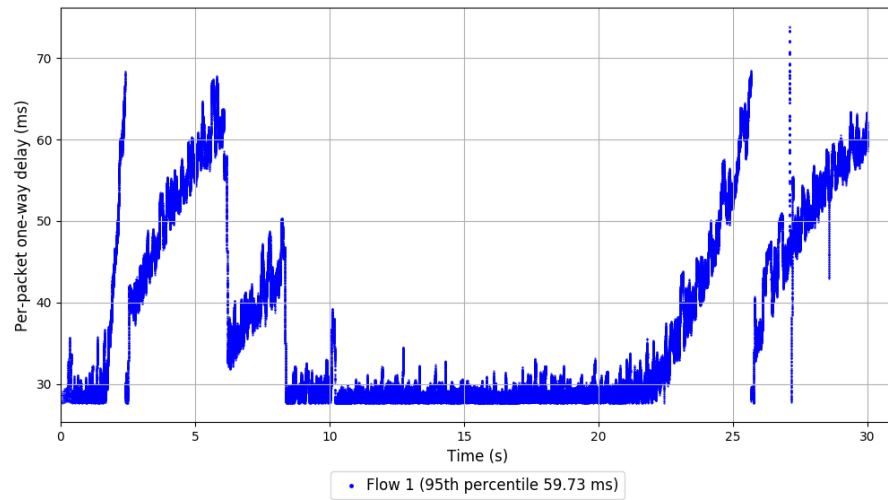
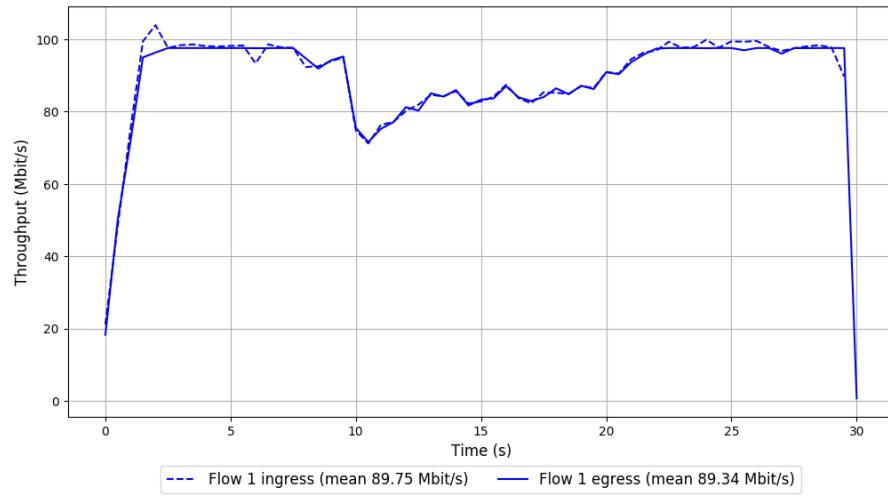
-- Flow 1:

Average throughput: 89.34 Mbit/s

95th percentile per-packet one-way delay: 59.727 ms

Loss rate: 0.40%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-06 07:49:16

End at: 2018-03-06 07:49:46

Local clock offset: 0.828 ms

Remote clock offset: -3.668 ms

Below is generated by plot.py at 2018-03-06 08:39:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.39 Mbit/s

95th percentile per-packet one-way delay: 65.115 ms

Loss rate: 0.30%

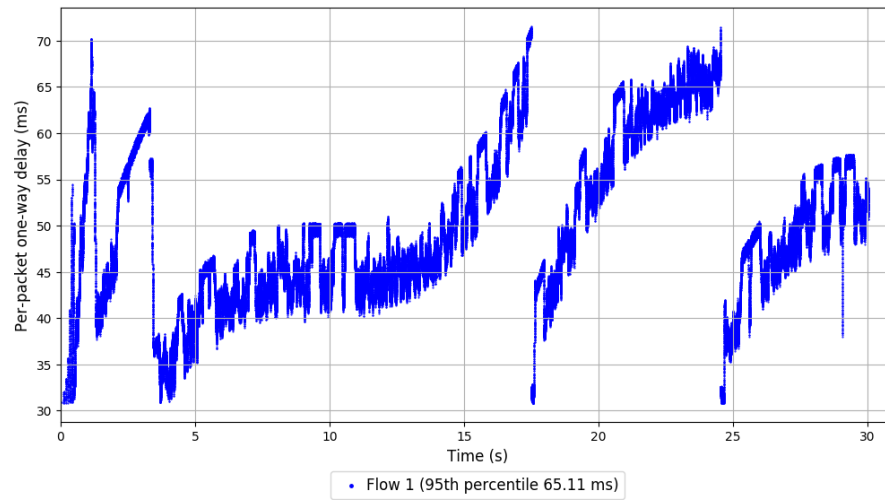
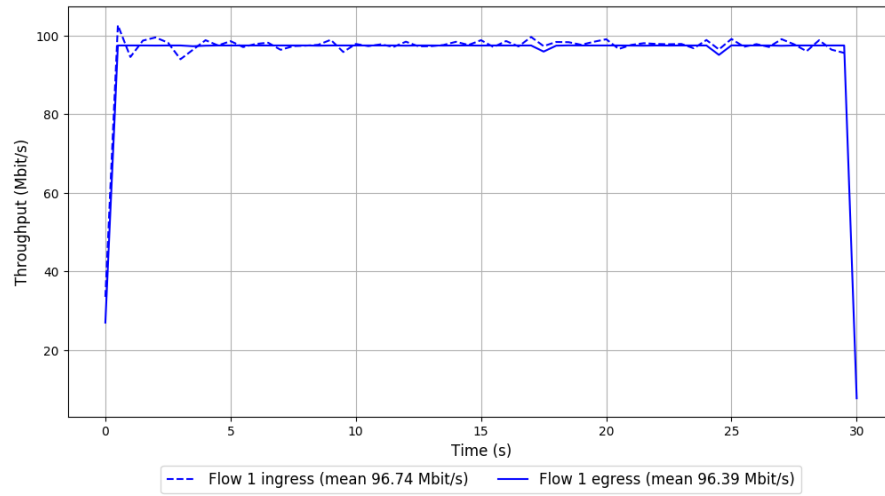
-- Flow 1:

Average throughput: 96.39 Mbit/s

95th percentile per-packet one-way delay: 65.115 ms

Loss rate: 0.30%

Run 10: Report of TCP Cubic — Data Link

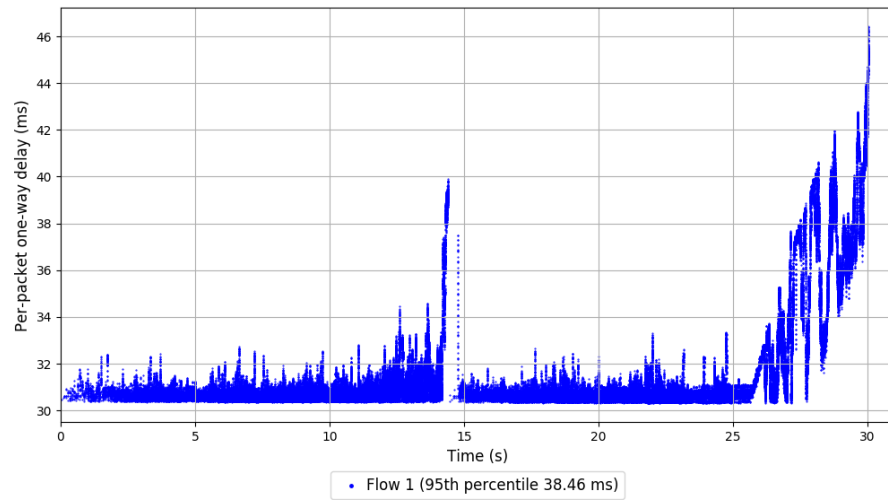
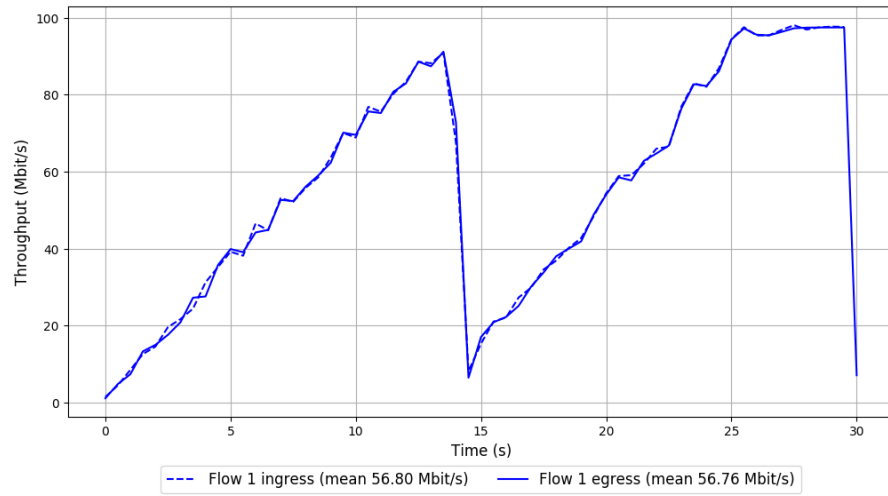


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-06 03:16:08
End at: 2018-03-06 03:16:38
Local clock offset: 1.352 ms
Remote clock offset: 1.094 ms

# Below is generated by plot.py at 2018-03-06 08:39:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.76 Mbit/s
95th percentile per-packet one-way delay: 38.461 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 56.76 Mbit/s
95th percentile per-packet one-way delay: 38.461 ms
Loss rate: 0.02%
```


Run 1: Report of LEDBAT — Data Link

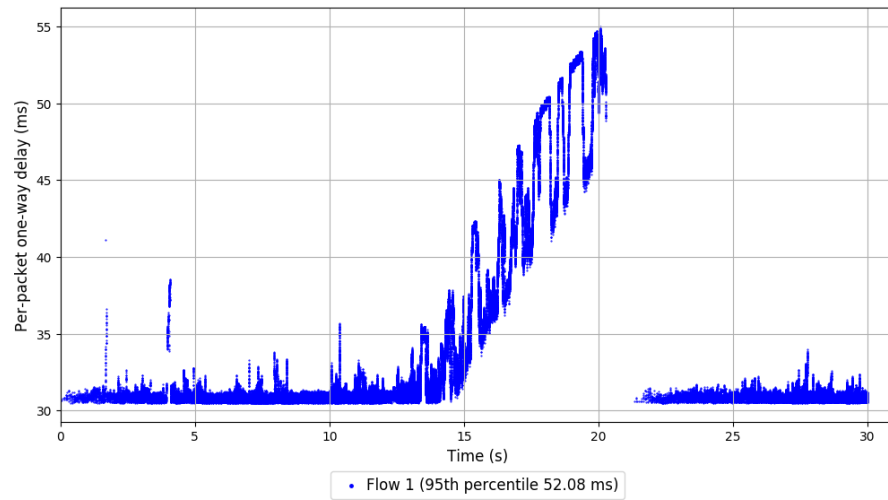
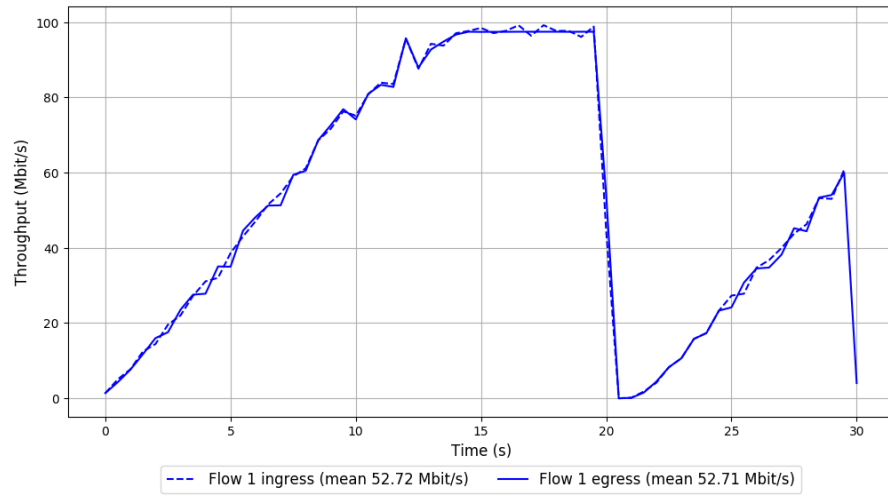


Run 2: Statistics of LEDBAT

Start at: 2018-03-06 03:45:27
End at: 2018-03-06 03:45:57
Local clock offset: 1.367 ms
Remote clock offset: -2.287 ms

Below is generated by plot.py at 2018-03-06 08:39:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 52.077 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 52.077 ms
Loss rate: 0.03%

Run 2: Report of LEDBAT — Data Link

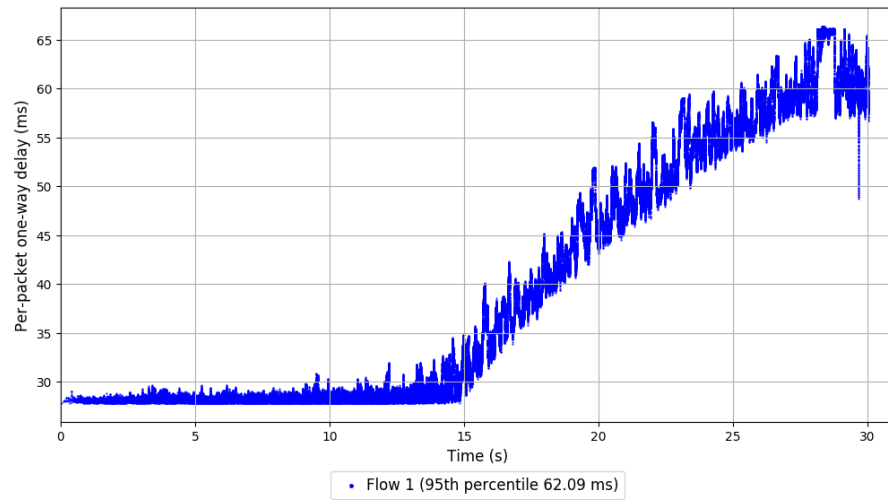
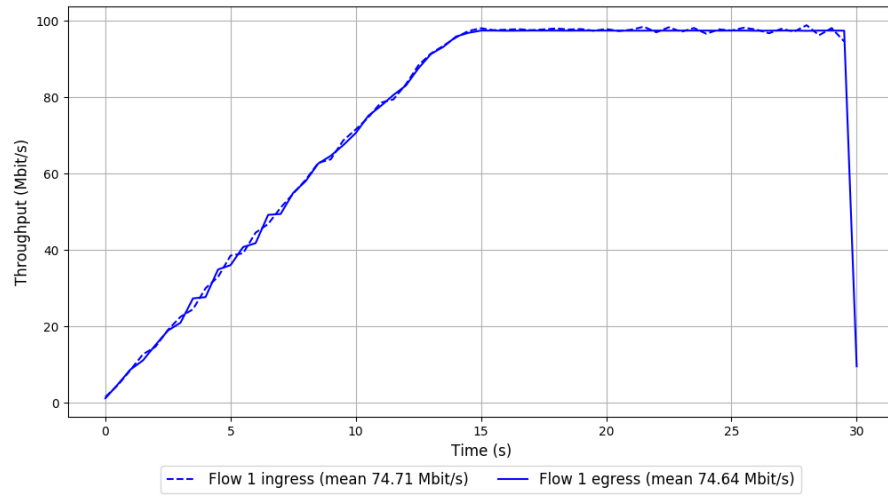


Run 3: Statistics of LEDBAT

Start at: 2018-03-06 04:18:12
End at: 2018-03-06 04:18:42
Local clock offset: 1.197 ms
Remote clock offset: -7.526 ms

Below is generated by plot.py at 2018-03-06 08:39:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 62.087 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.64 Mbit/s
95th percentile per-packet one-way delay: 62.087 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

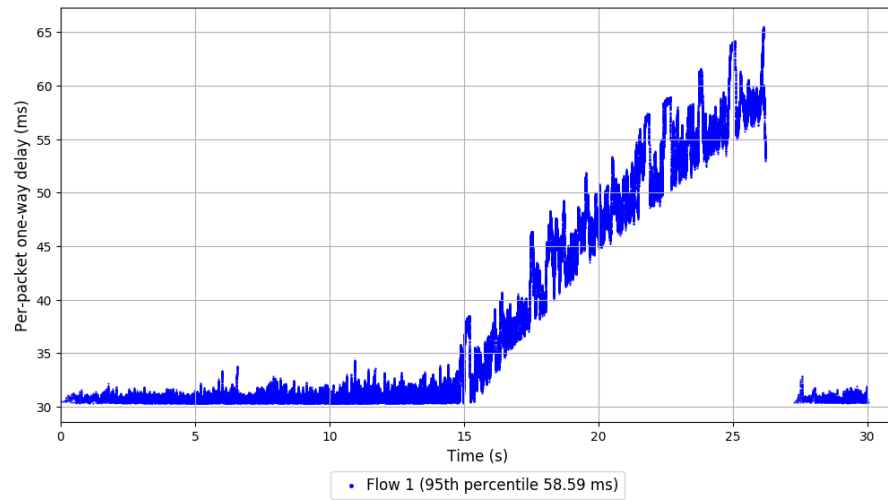
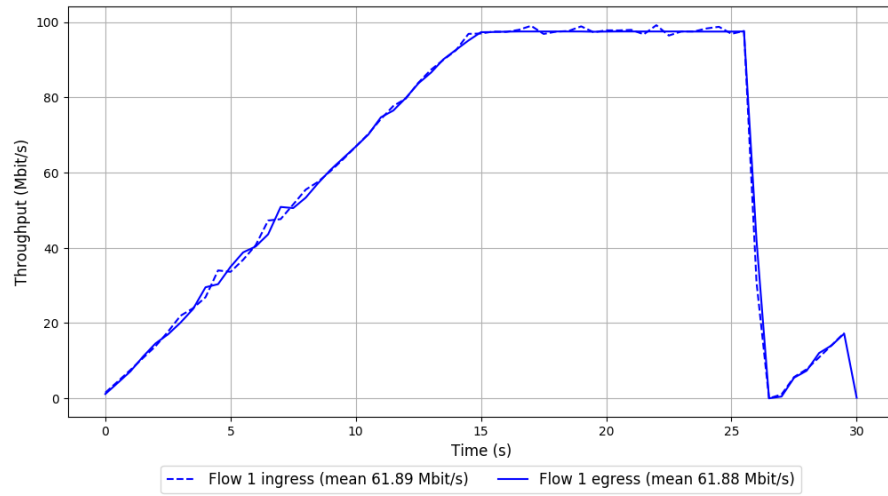


Run 4: Statistics of LEDBAT

Start at: 2018-03-06 04:51:49
End at: 2018-03-06 04:52:19
Local clock offset: 1.198 ms
Remote clock offset: -6.079 ms

Below is generated by plot.py at 2018-03-06 08:39:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 61.88 Mbit/s
95th percentile per-packet one-way delay: 58.591 ms
Loss rate: 0.03%

Run 4: Report of LEDBAT — Data Link

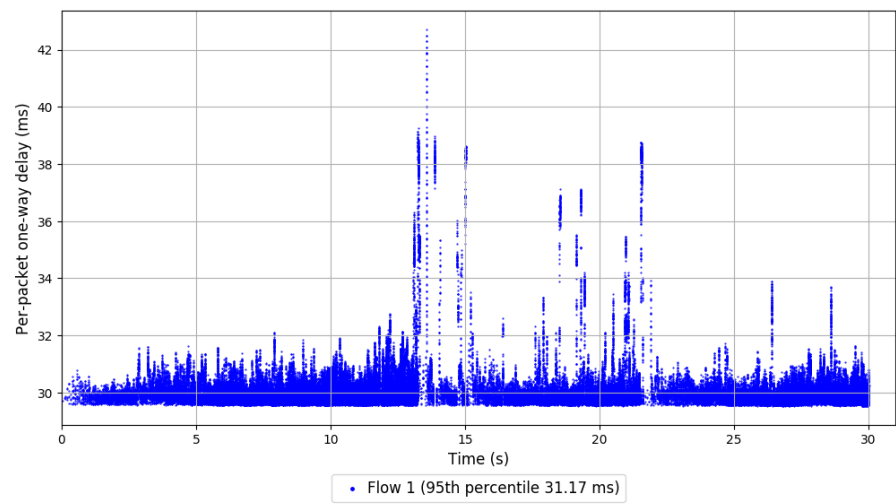
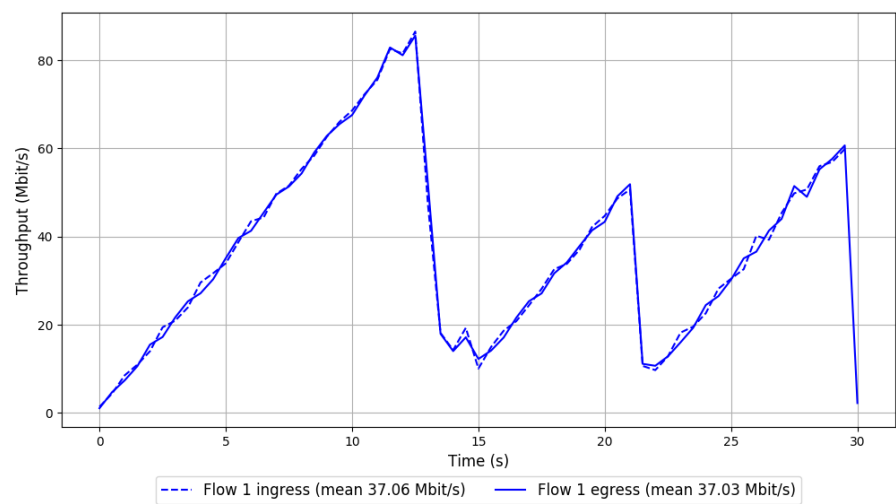


Run 5: Statistics of LEDBAT

Start at: 2018-03-06 05:28:44
End at: 2018-03-06 05:29:14
Local clock offset: 1.057 ms
Remote clock offset: -3.989 ms

Below is generated by plot.py at 2018-03-06 08:39:10
Datalink statistics
-- Total of 1 flow:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 31.170 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 37.03 Mbit/s
95th percentile per-packet one-way delay: 31.170 ms
Loss rate: 0.08%

Run 5: Report of LEDBAT — Data Link

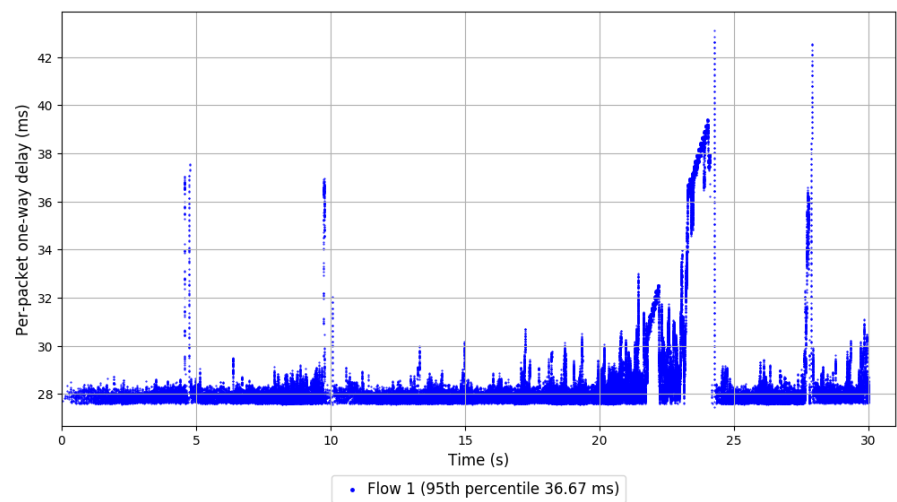
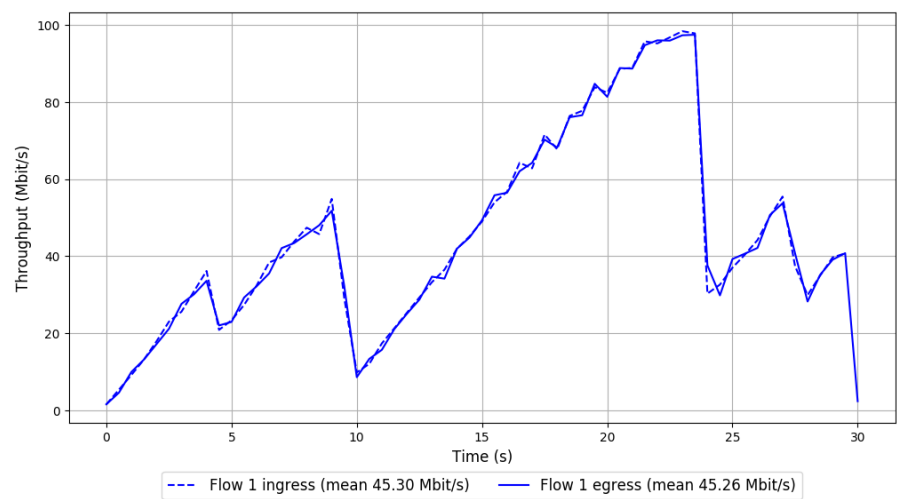


Run 6: Statistics of LEDBAT

Start at: 2018-03-06 06:00:49
End at: 2018-03-06 06:01:19
Local clock offset: 1.094 ms
Remote clock offset: -6.305 ms

Below is generated by plot.py at 2018-03-06 08:39:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 45.26 Mbit/s
95th percentile per-packet one-way delay: 36.675 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 45.26 Mbit/s
95th percentile per-packet one-way delay: 36.675 ms
Loss rate: 0.08%

Run 6: Report of LEDBAT — Data Link

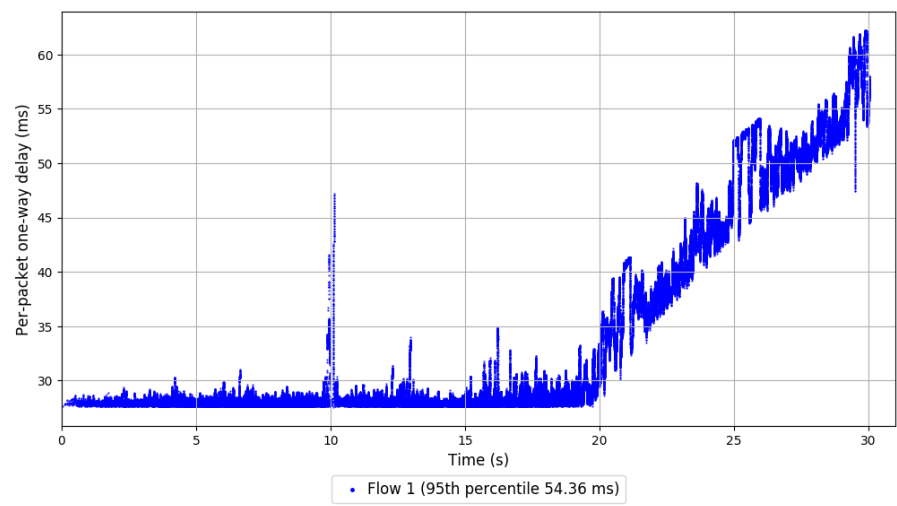
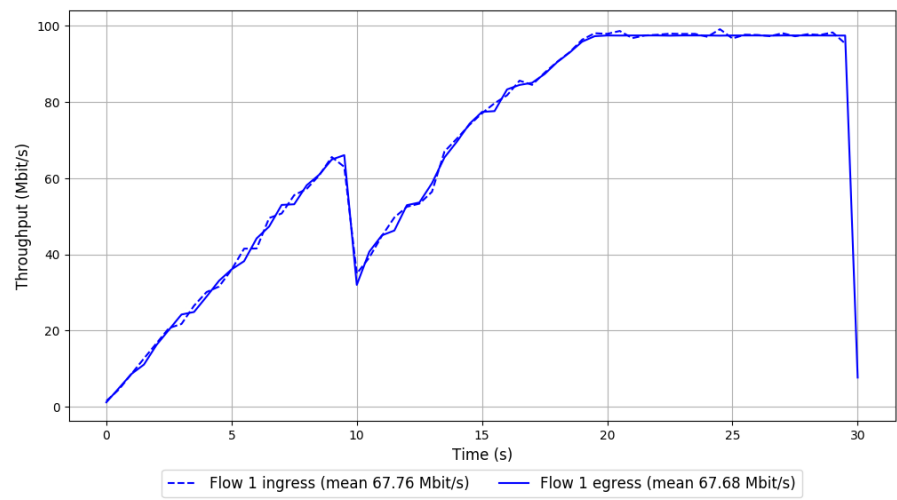


Run 7: Statistics of LEDBAT

Start at: 2018-03-06 06:30:28
End at: 2018-03-06 06:30:58
Local clock offset: 1.217 ms
Remote clock offset: -6.144 ms

Below is generated by plot.py at 2018-03-06 08:39:43
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 54.360 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 67.68 Mbit/s
95th percentile per-packet one-way delay: 54.360 ms
Loss rate: 0.05%

Run 7: Report of LEDBAT — Data Link

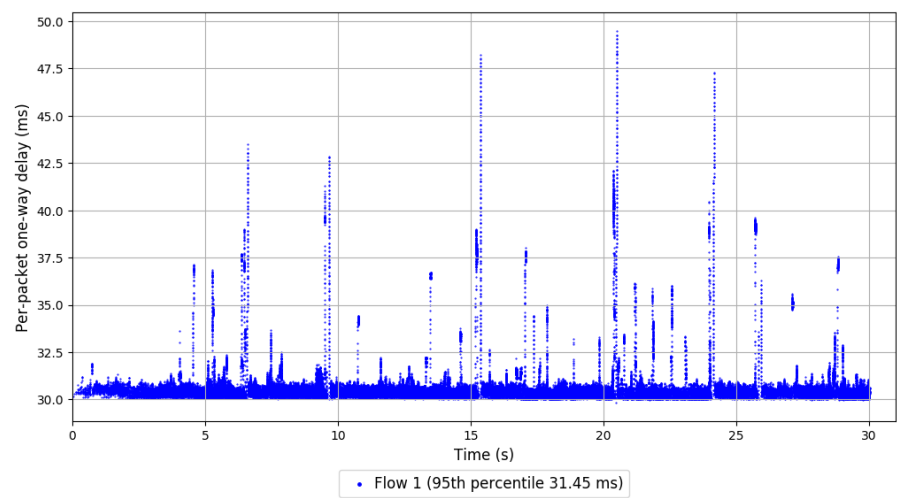
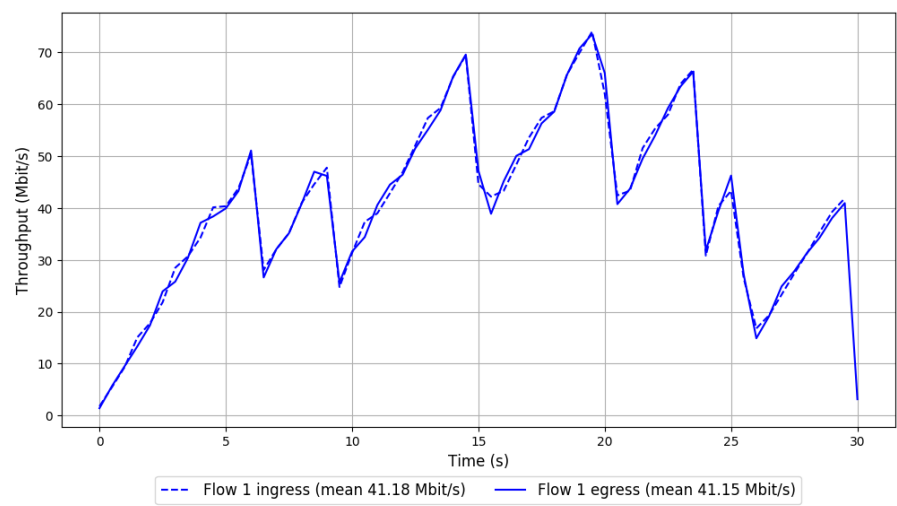


Run 8: Statistics of LEDBAT

Start at: 2018-03-06 06:57:29
End at: 2018-03-06 06:57:59
Local clock offset: 1.046 ms
Remote clock offset: -2.414 ms

Below is generated by plot.py at 2018-03-06 08:39:43
Datalink statistics
-- Total of 1 flow:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 31.446 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 41.15 Mbit/s
95th percentile per-packet one-way delay: 31.446 ms
Loss rate: 0.08%

Run 8: Report of LEDBAT — Data Link

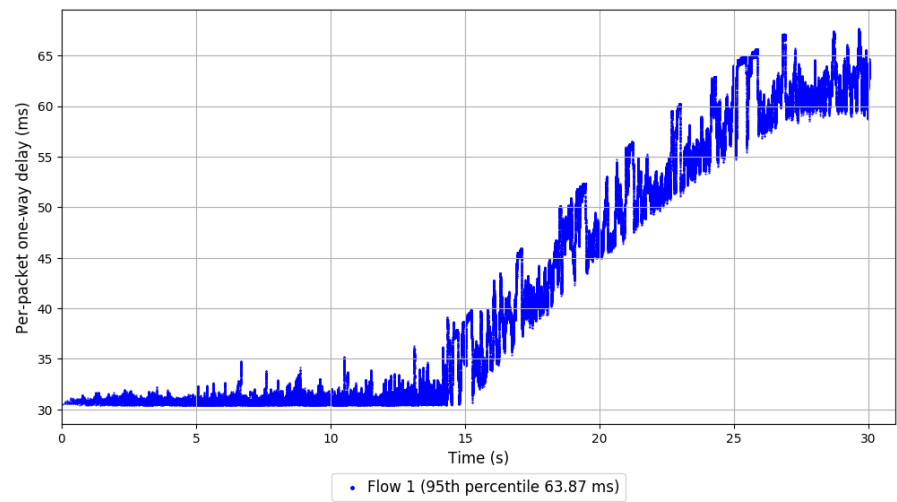
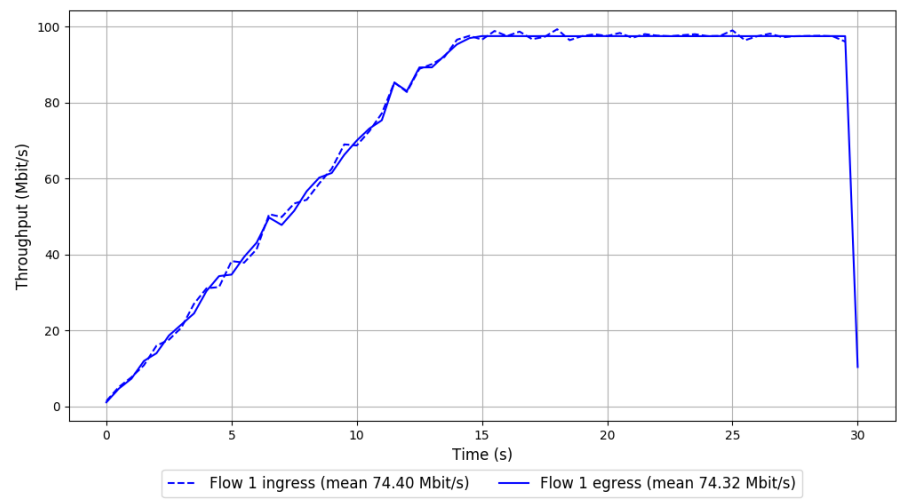


Run 9: Statistics of LEDBAT

Start at: 2018-03-06 07:25:37
End at: 2018-03-06 07:26:07
Local clock offset: 0.87 ms
Remote clock offset: -1.744 ms

Below is generated by plot.py at 2018-03-06 08:39:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 63.868 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 63.868 ms
Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-06 07:55:45

End at: 2018-03-06 07:56:15

Local clock offset: 0.822 ms

Remote clock offset: -4.292 ms

Below is generated by plot.py at 2018-03-06 08:40:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.03 Mbit/s

95th percentile per-packet one-way delay: 63.211 ms

Loss rate: 0.04%

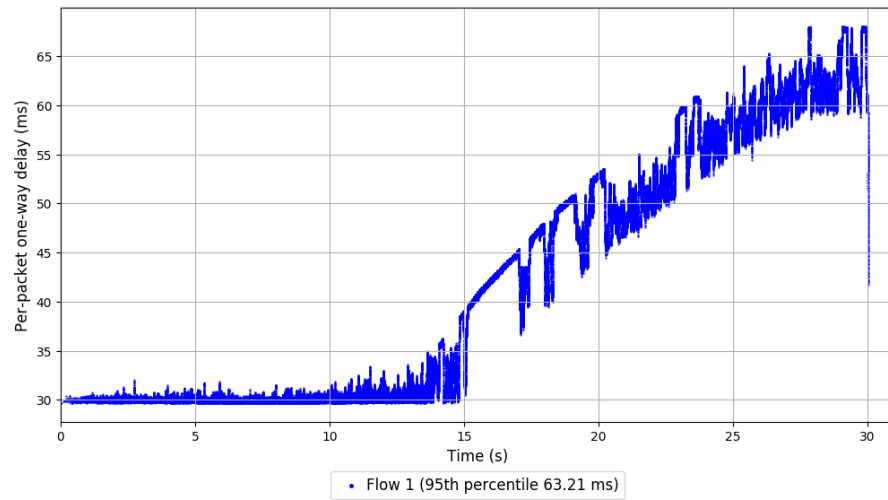
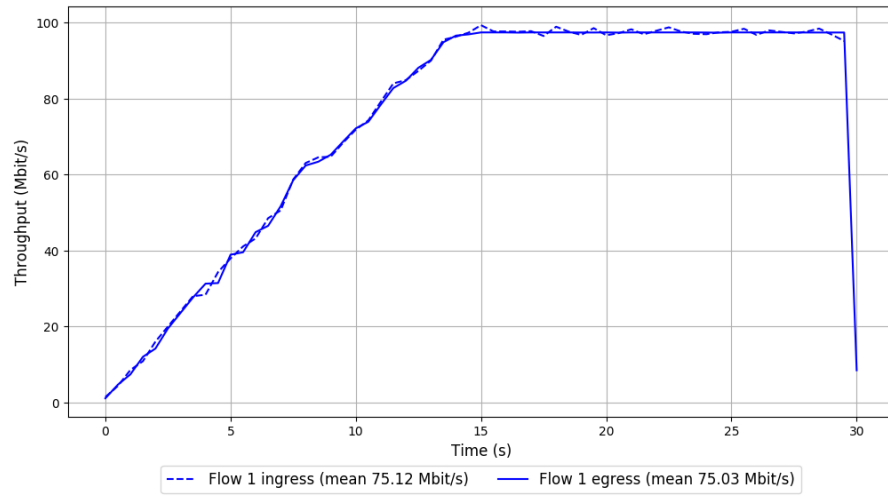
-- Flow 1:

Average throughput: 75.03 Mbit/s

95th percentile per-packet one-way delay: 63.211 ms

Loss rate: 0.04%

Run 10: Report of LEDBAT — Data Link

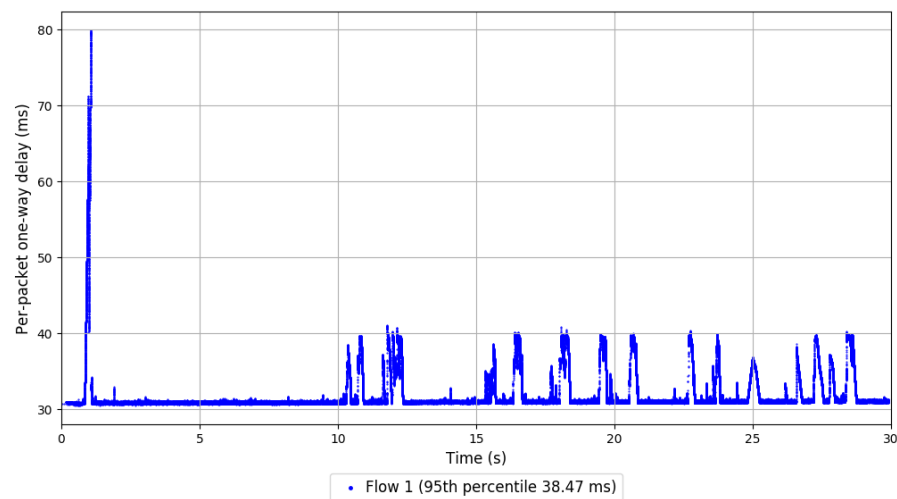
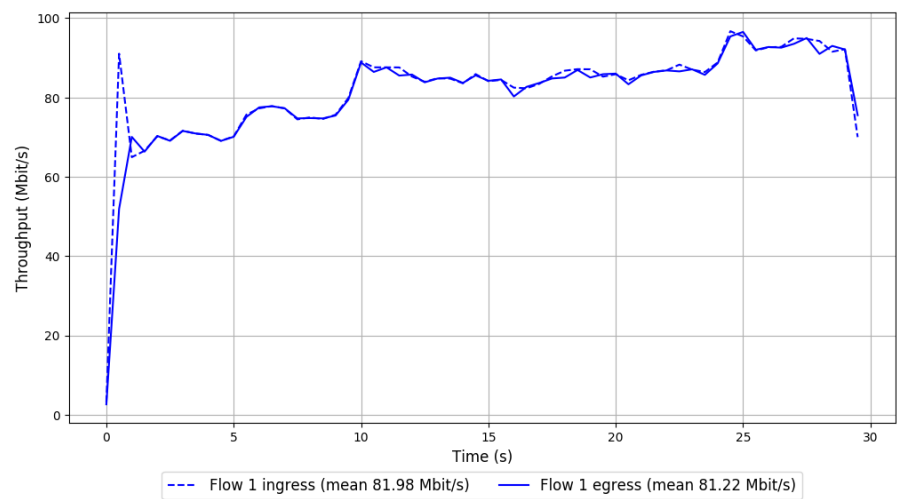


```
Run 1: Statistics of PCC

Start at: 2018-03-06 03:29:49
End at: 2018-03-06 03:30:19
Local clock offset: 1.351 ms
Remote clock offset: 0.37 ms

# Below is generated by plot.py at 2018-03-06 08:40:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.22 Mbit/s
95th percentile per-packet one-way delay: 38.469 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 81.22 Mbit/s
95th percentile per-packet one-way delay: 38.469 ms
Loss rate: 0.93%
```

Run 1: Report of PCC — Data Link

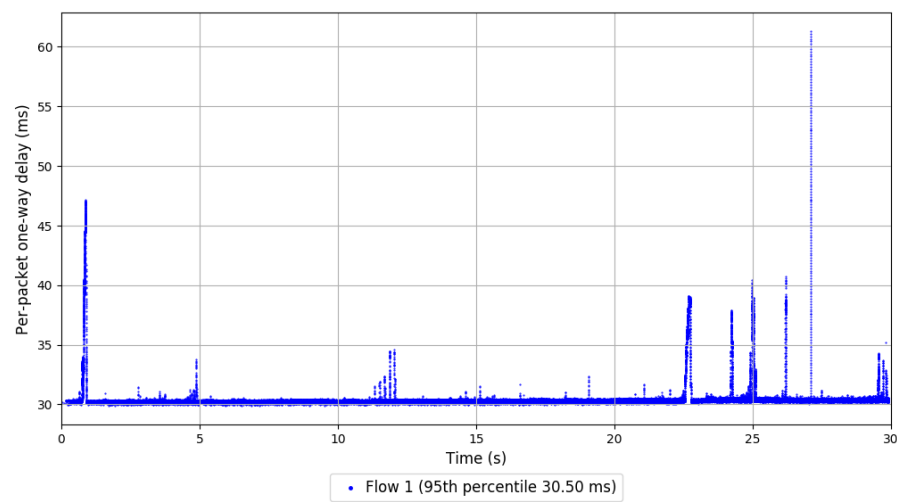
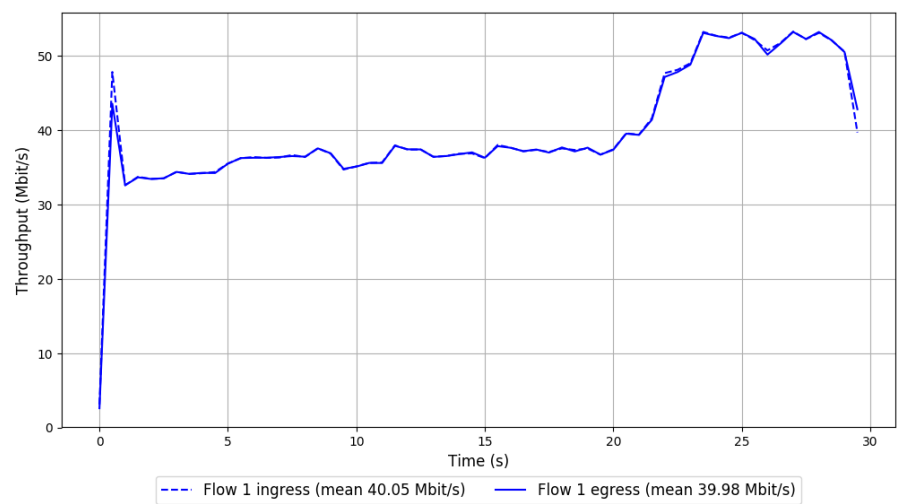


Run 2: Statistics of PCC

Start at: 2018-03-06 04:00:16
End at: 2018-03-06 04:00:46
Local clock offset: 1.317 ms
Remote clock offset: -2.153 ms

Below is generated by plot.py at 2018-03-06 08:40:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 30.502 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 39.98 Mbit/s
95th percentile per-packet one-way delay: 30.502 ms
Loss rate: 0.17%

Run 2: Report of PCC — Data Link

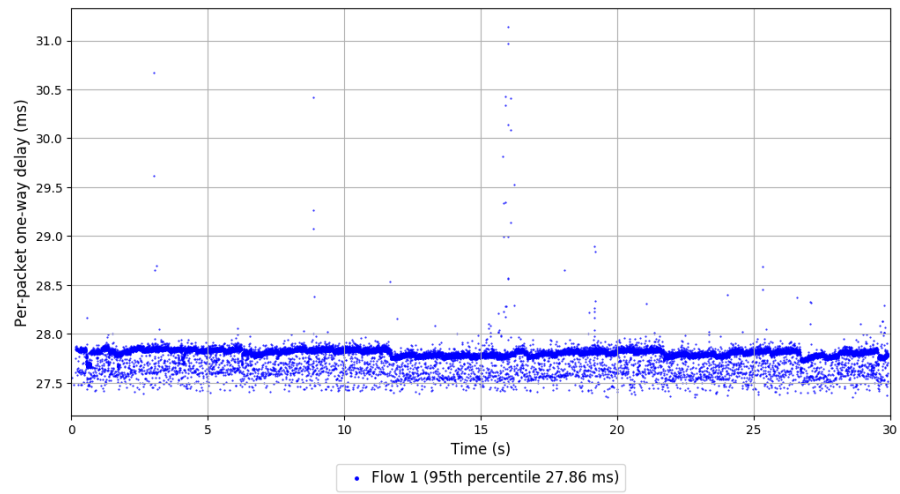
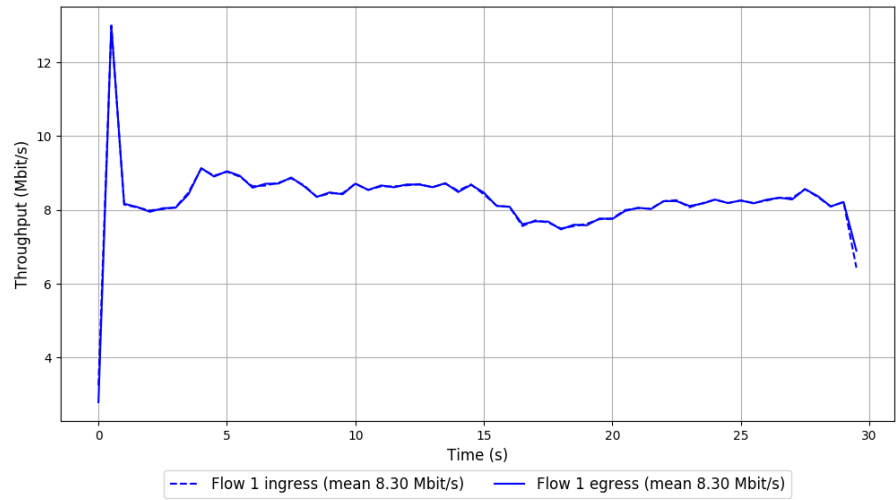


Run 3: Statistics of PCC

Start at: 2018-03-06 04:34:30
End at: 2018-03-06 04:35:00
Local clock offset: 1.23 ms
Remote clock offset: -8.143 ms

Below is generated by plot.py at 2018-03-06 08:40:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 27.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.30 Mbit/s
95th percentile per-packet one-way delay: 27.856 ms
Loss rate: 0.00%

Run 3: Report of PCC — Data Link

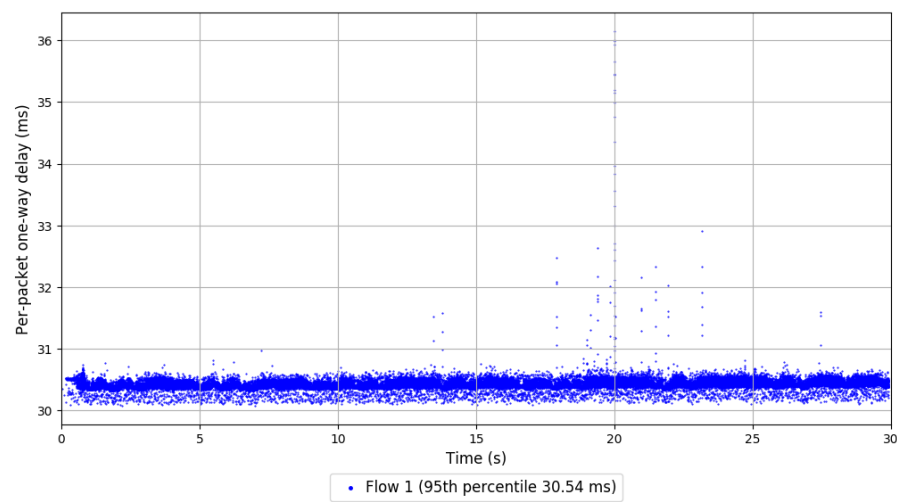
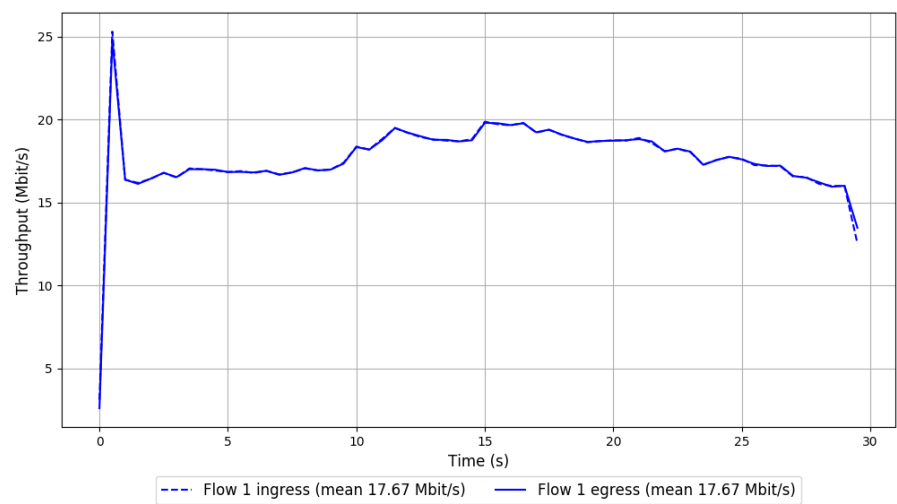


Run 4: Statistics of PCC

Start at: 2018-03-06 05:07:32
End at: 2018-03-06 05:08:02
Local clock offset: 1.228 ms
Remote clock offset: -7.334 ms

Below is generated by plot.py at 2018-03-06 08:40:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 30.540 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 30.540 ms
Loss rate: 0.00%

Run 4: Report of PCC — Data Link

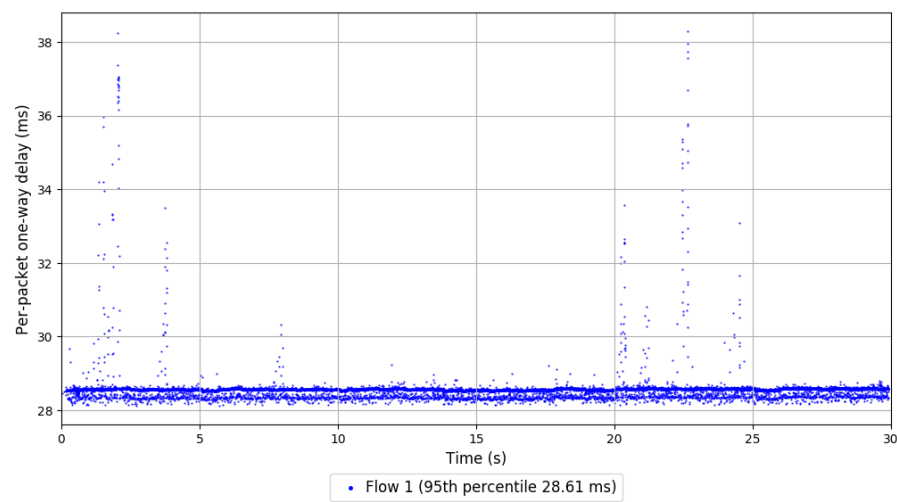
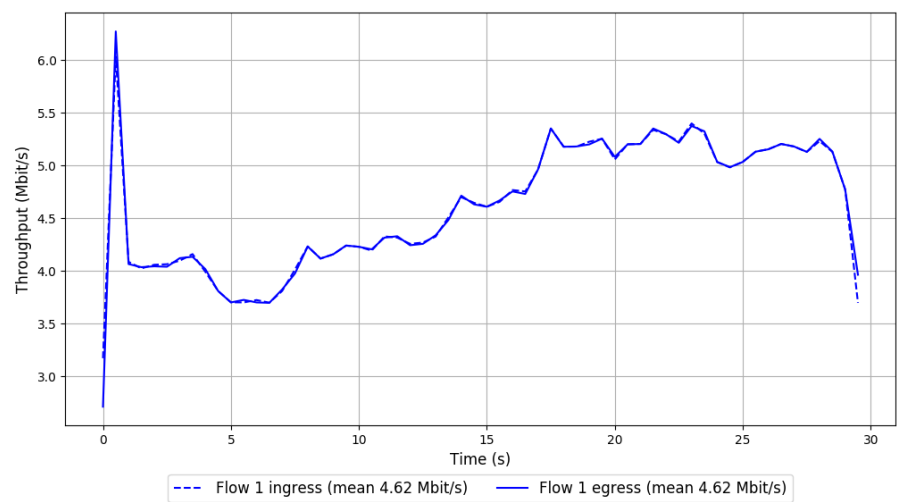


Run 5: Statistics of PCC

Start at: 2018-03-06 05:45:00
End at: 2018-03-06 05:45:30
Local clock offset: 0.979 ms
Remote clock offset: -5.983 ms

Below is generated by plot.py at 2018-03-06 08:40:19
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 28.614 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 28.614 ms
Loss rate: 0.01%

Run 5: Report of PCC — Data Link

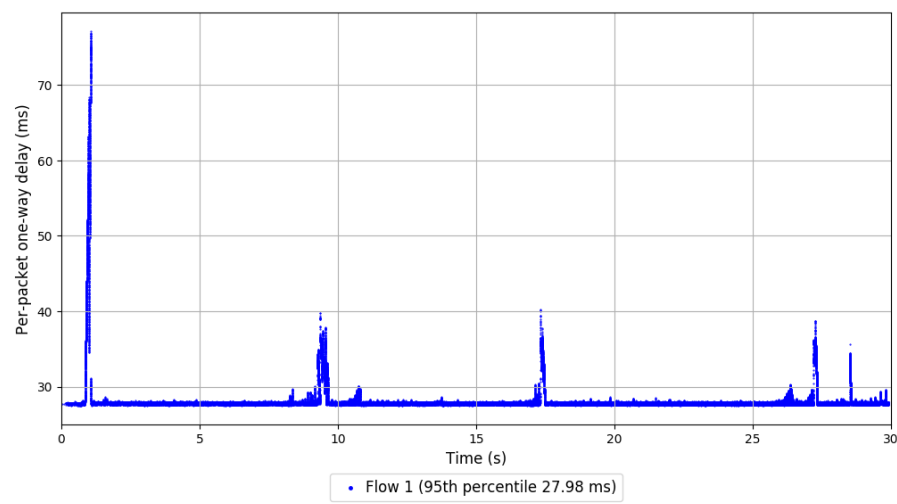
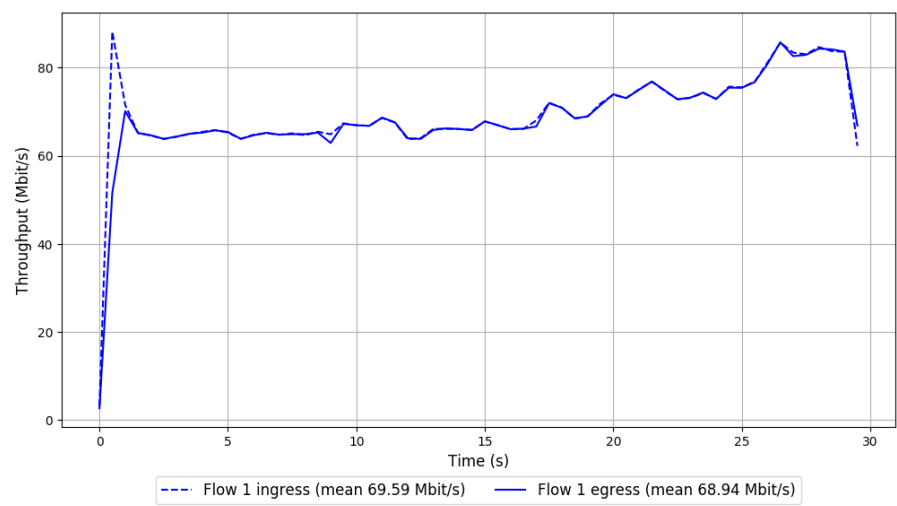


Run 6: Statistics of PCC

Start at: 2018-03-06 06:14:52
End at: 2018-03-06 06:15:22
Local clock offset: 1.195 ms
Remote clock offset: -5.907 ms

Below is generated by plot.py at 2018-03-06 08:40:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 27.983 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 68.94 Mbit/s
95th percentile per-packet one-way delay: 27.983 ms
Loss rate: 0.94%

Run 6: Report of PCC — Data Link

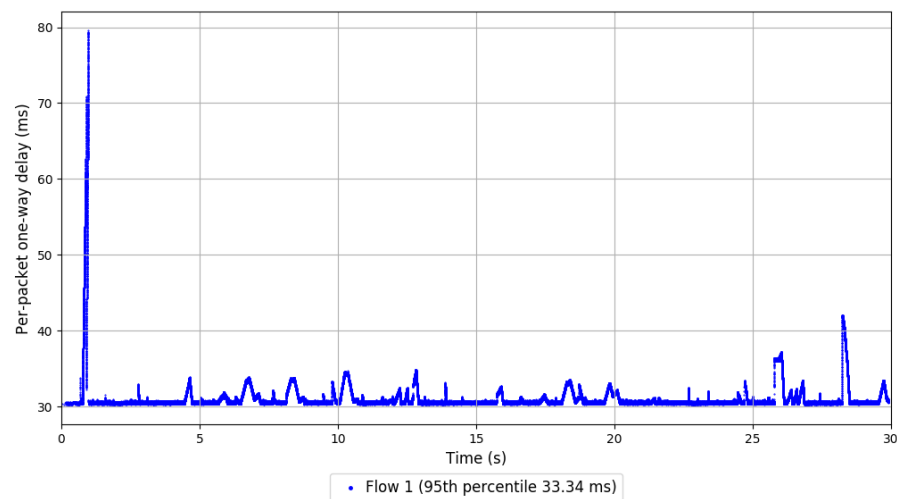
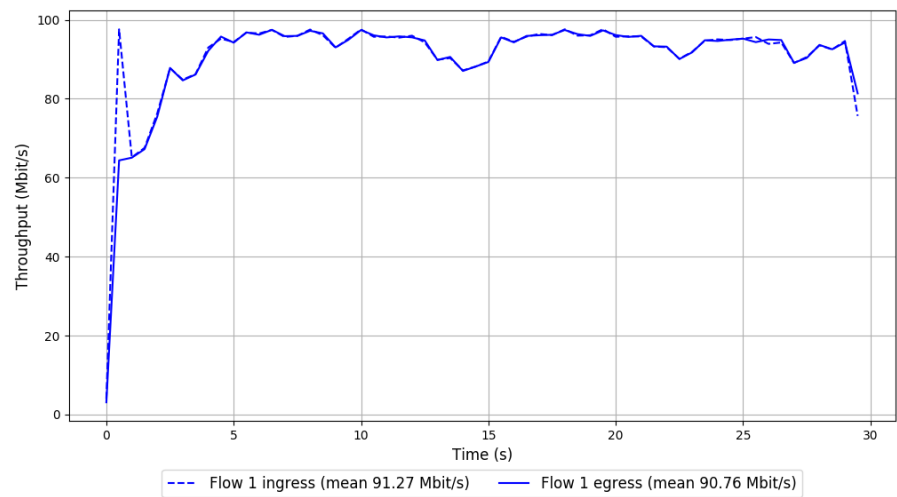


Run 7: Statistics of PCC

Start at: 2018-03-06 06:43:44
End at: 2018-03-06 06:44:14
Local clock offset: 1.222 ms
Remote clock offset: -4.119 ms

Below is generated by plot.py at 2018-03-06 08:40:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 33.335 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 33.335 ms
Loss rate: 0.56%

Run 7: Report of PCC — Data Link

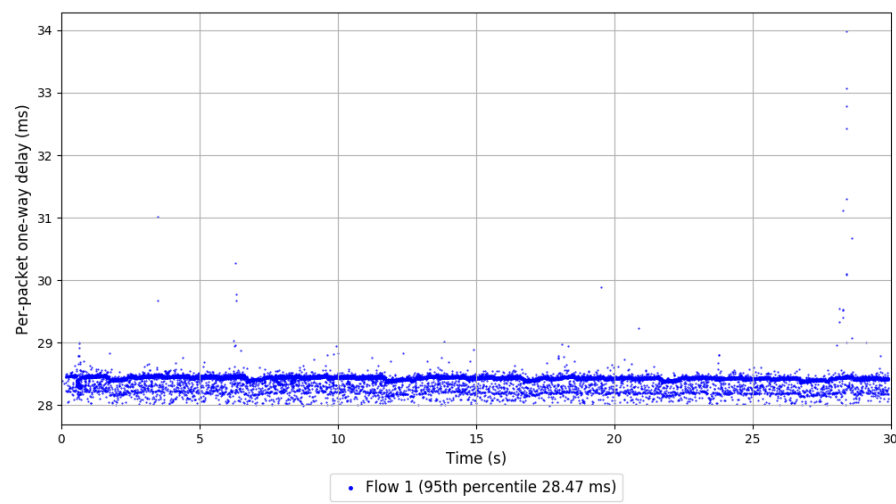
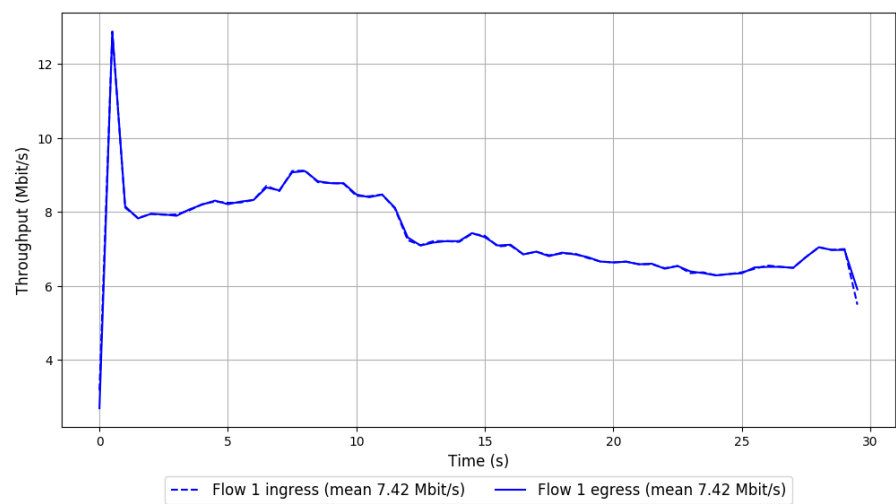


Run 8: Statistics of PCC

Start at: 2018-03-06 07:10:56
End at: 2018-03-06 07:11:26
Local clock offset: 0.938 ms
Remote clock offset: -3.886 ms

Below is generated by plot.py at 2018-03-06 08:40:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 28.467 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 28.467 ms
Loss rate: 0.00%

Run 8: Report of PCC — Data Link

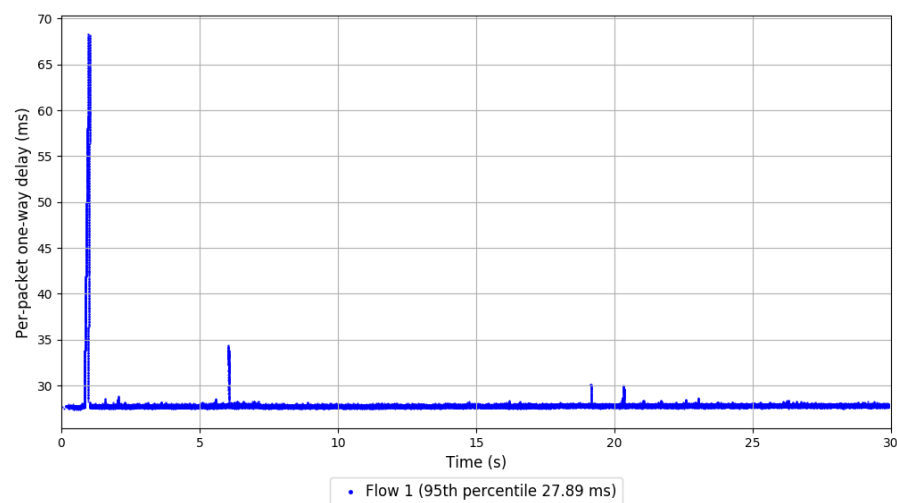
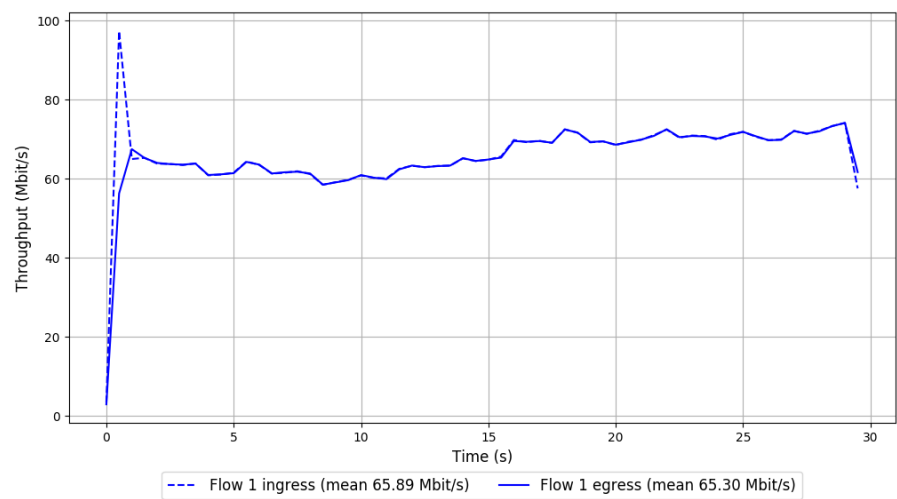


Run 9: Statistics of PCC

Start at: 2018-03-06 07:40:43
End at: 2018-03-06 07:41:13
Local clock offset: 0.9 ms
Remote clock offset: -5.794 ms

Below is generated by plot.py at 2018-03-06 08:40:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 27.890 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 65.30 Mbit/s
95th percentile per-packet one-way delay: 27.890 ms
Loss rate: 0.90%

Run 9: Report of PCC — Data Link

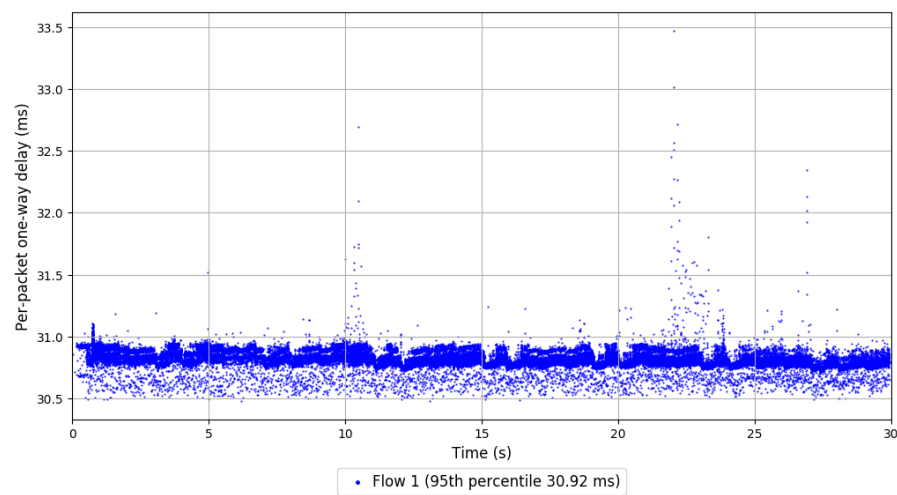
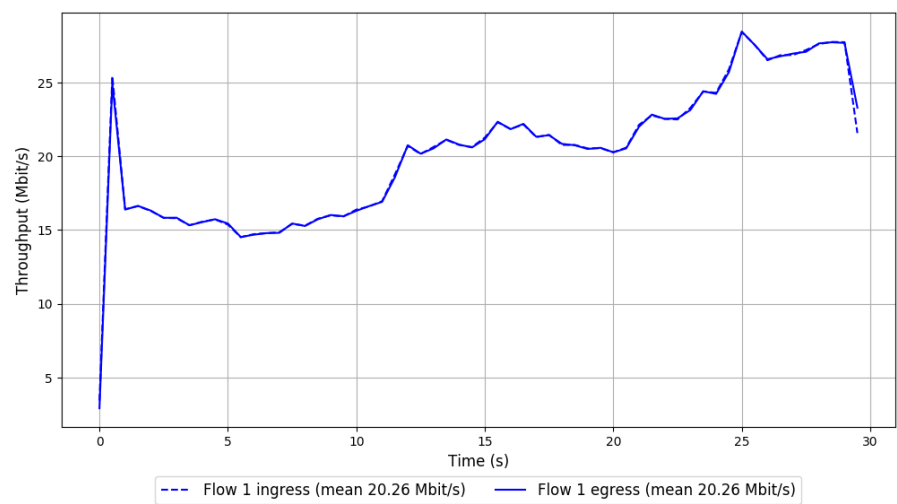


Run 10: Statistics of PCC

Start at: 2018-03-06 08:09:27
End at: 2018-03-06 08:09:57
Local clock offset: 0.76 ms
Remote clock offset: -4.221 ms

Below is generated by plot.py at 2018-03-06 08:40:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 20.26 Mbit/s
95th percentile per-packet one-way delay: 30.917 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.26 Mbit/s
95th percentile per-packet one-way delay: 30.917 ms
Loss rate: 0.00%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

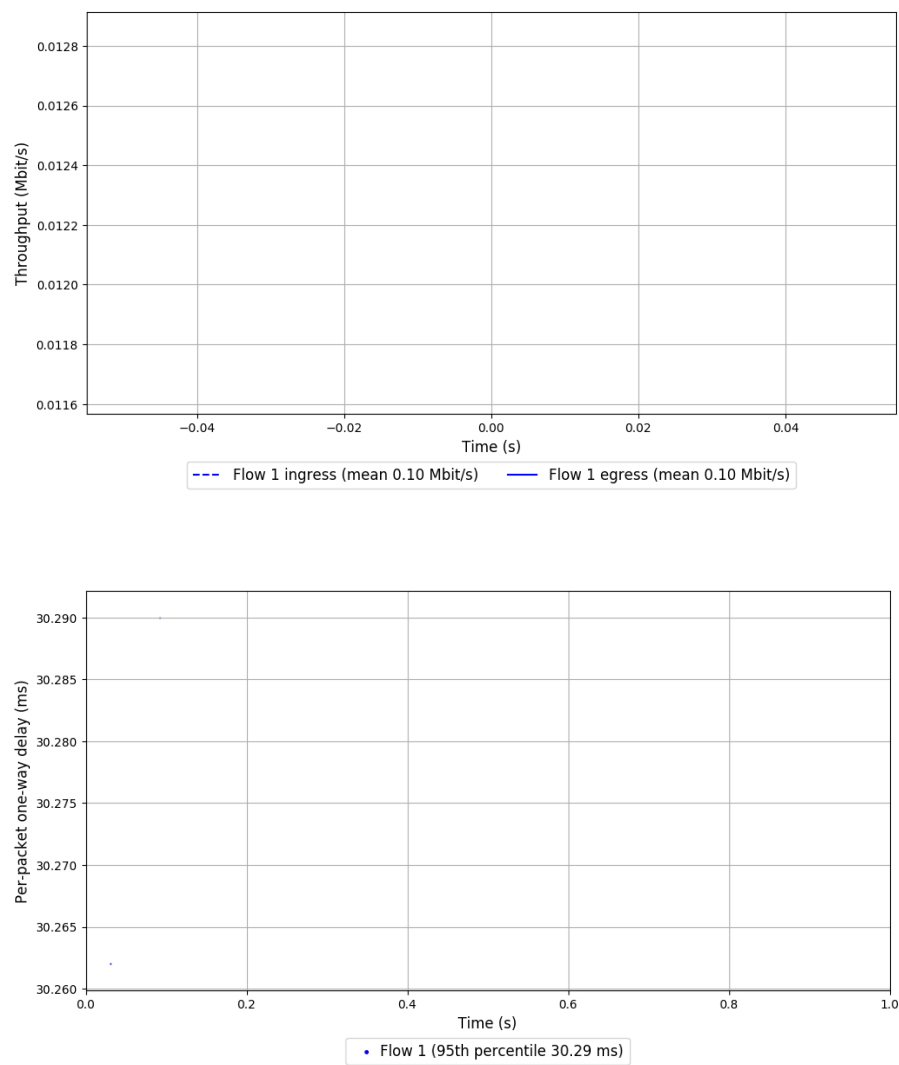
Start at: 2018-03-06 03:26:38

End at: 2018-03-06 03:27:08

Local clock offset: 1.248 ms

Remote clock offset: 2.207 ms

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-06 03:56:25

End at: 2018-03-06 03:56:55

Local clock offset: 1.434 ms

Remote clock offset: -2.65 ms

Below is generated by plot.py at 2018-03-06 08:40:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 43.571 ms

Loss rate: 0.85%

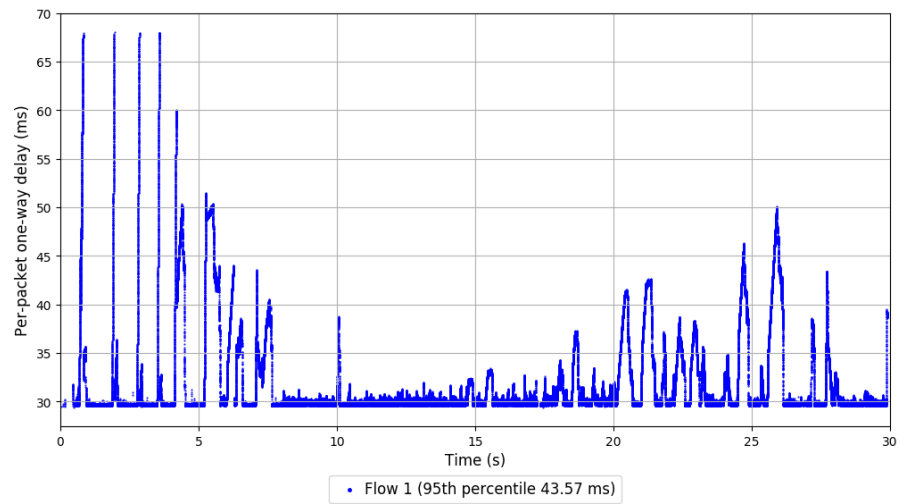
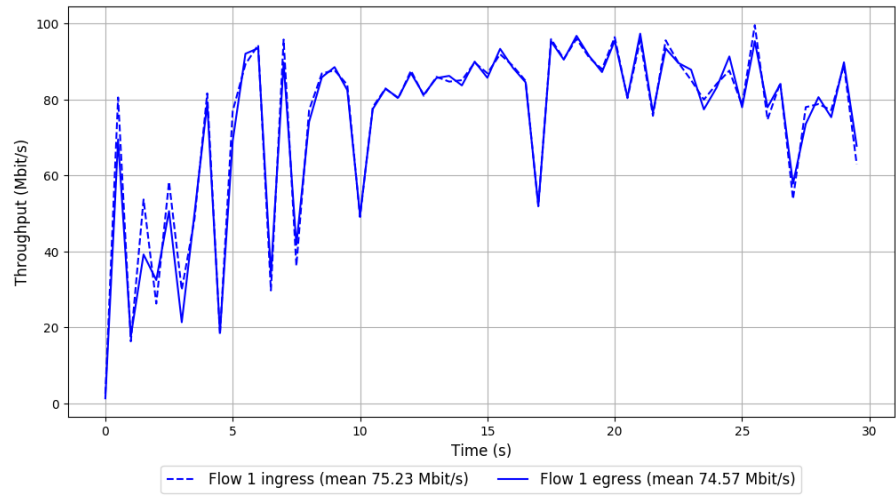
-- Flow 1:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 43.571 ms

Loss rate: 0.85%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-06 04:30:26

End at: 2018-03-06 04:30:56

Local clock offset: 1.235 ms

Remote clock offset: -8.064 ms

Below is generated by plot.py at 2018-03-06 08:41:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.92 Mbit/s

95th percentile per-packet one-way delay: 38.025 ms

Loss rate: 0.27%

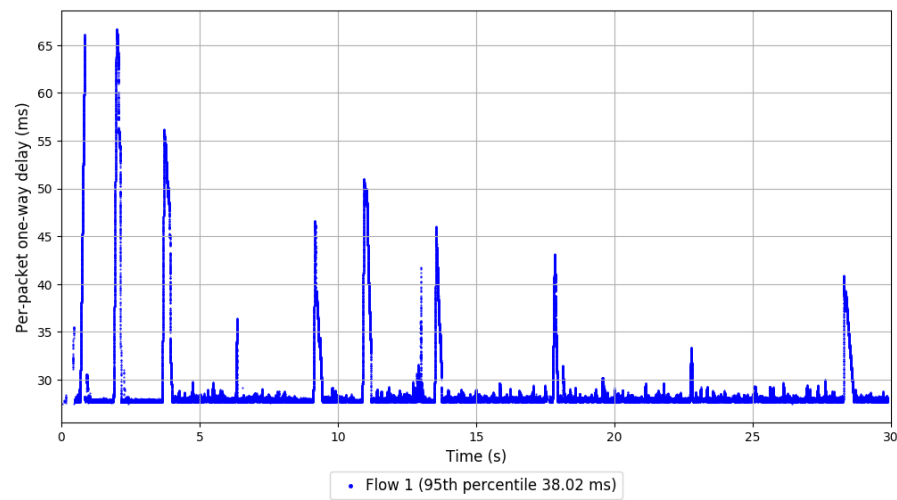
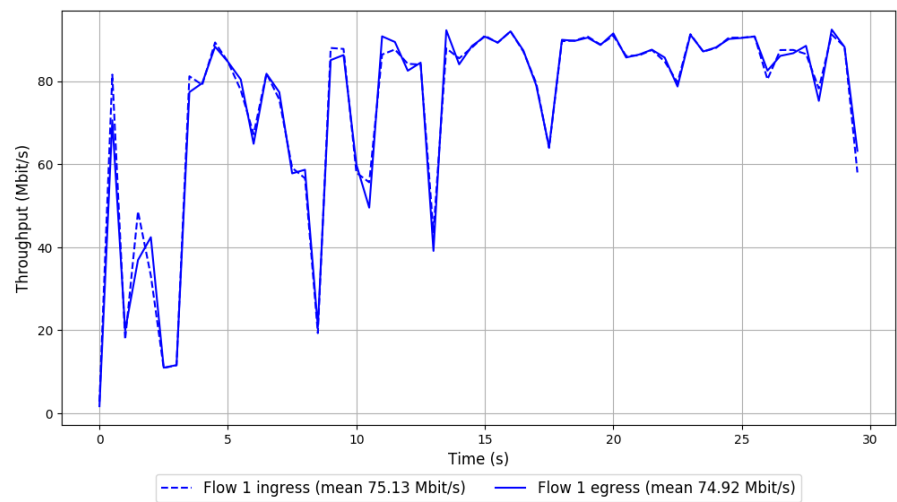
-- Flow 1:

Average throughput: 74.92 Mbit/s

95th percentile per-packet one-way delay: 38.025 ms

Loss rate: 0.27%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-06 05:03:38

End at: 2018-03-06 05:04:08

Local clock offset: 1.166 ms

Remote clock offset: -6.908 ms

Below is generated by plot.py at 2018-03-06 08:41:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 51.185 ms

Loss rate: 0.15%

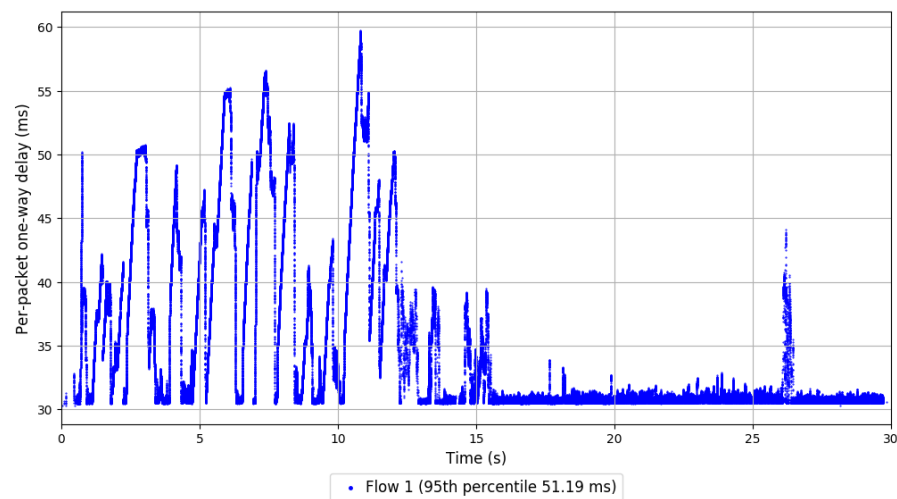
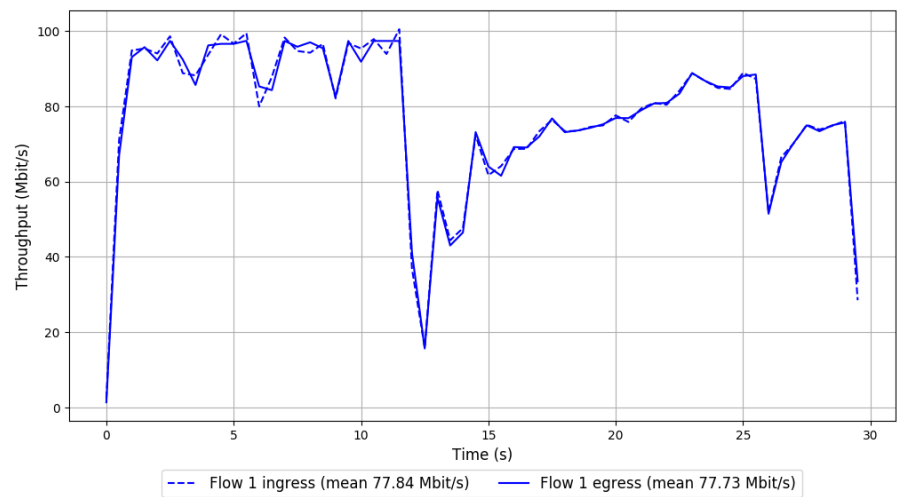
-- Flow 1:

Average throughput: 77.73 Mbit/s

95th percentile per-packet one-way delay: 51.185 ms

Loss rate: 0.15%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-06 05:40:46

End at: 2018-03-06 05:41:16

Local clock offset: 0.932 ms

Remote clock offset: -3.633 ms

Below is generated by plot.py at 2018-03-06 08:41:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.56 Mbit/s

95th percentile per-packet one-way delay: 55.589 ms

Loss rate: 0.17%

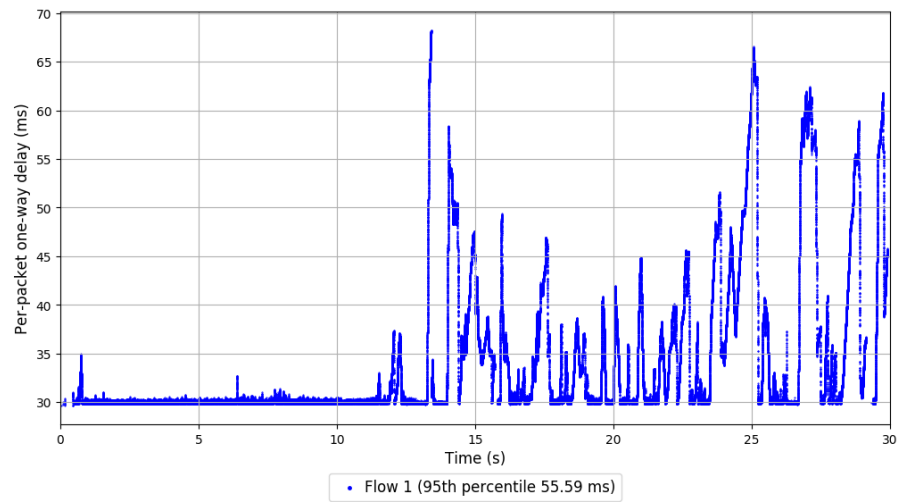
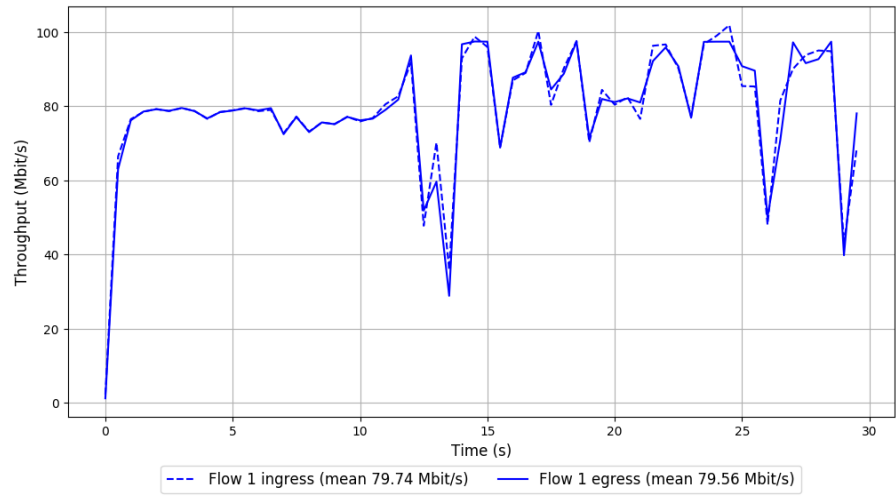
-- Flow 1:

Average throughput: 79.56 Mbit/s

95th percentile per-packet one-way delay: 55.589 ms

Loss rate: 0.17%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-06 06:11:15

End at: 2018-03-06 06:11:45

Local clock offset: 1.227 ms

Remote clock offset: -3.474 ms

Below is generated by plot.py at 2018-03-06 08:41:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.26 Mbit/s

95th percentile per-packet one-way delay: 53.746 ms

Loss rate: 0.83%

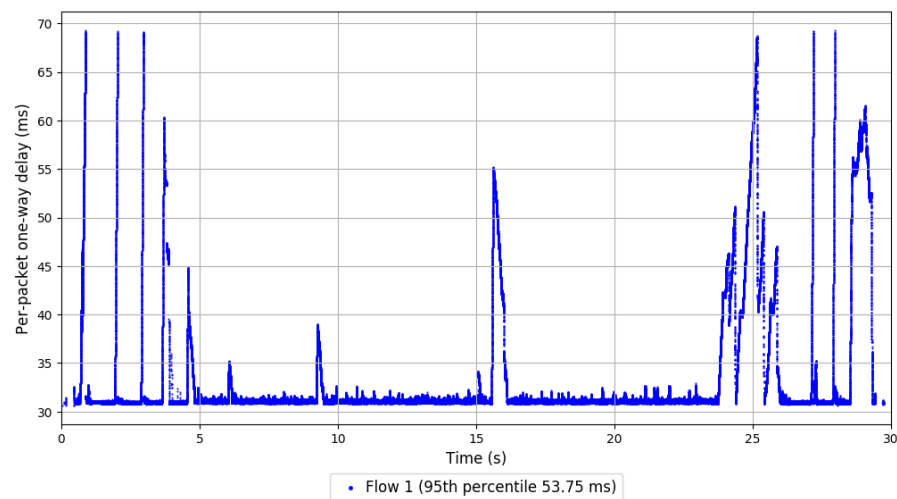
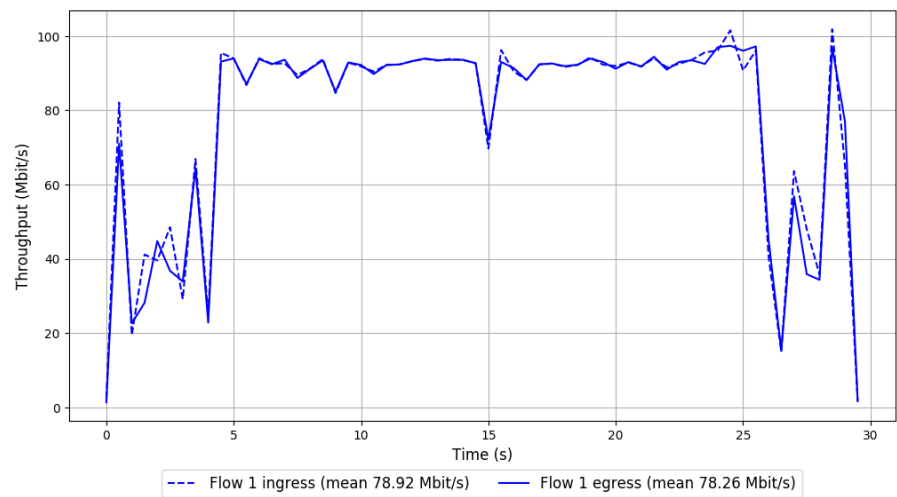
-- Flow 1:

Average throughput: 78.26 Mbit/s

95th percentile per-packet one-way delay: 53.746 ms

Loss rate: 0.83%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-06 06:40:49

End at: 2018-03-06 06:41:19

Local clock offset: 1.229 ms

Remote clock offset: -4.14 ms

Below is generated by plot.py at 2018-03-06 08:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.67 Mbit/s

95th percentile per-packet one-way delay: 51.441 ms

Loss rate: 0.25%

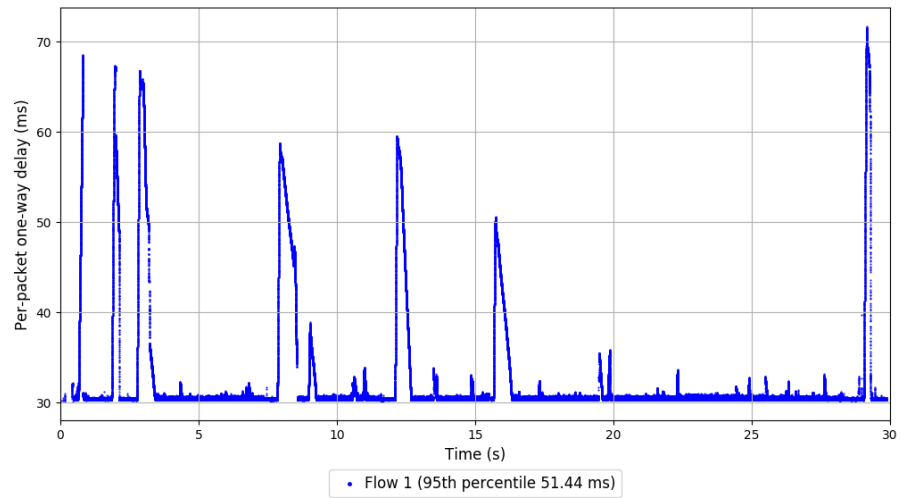
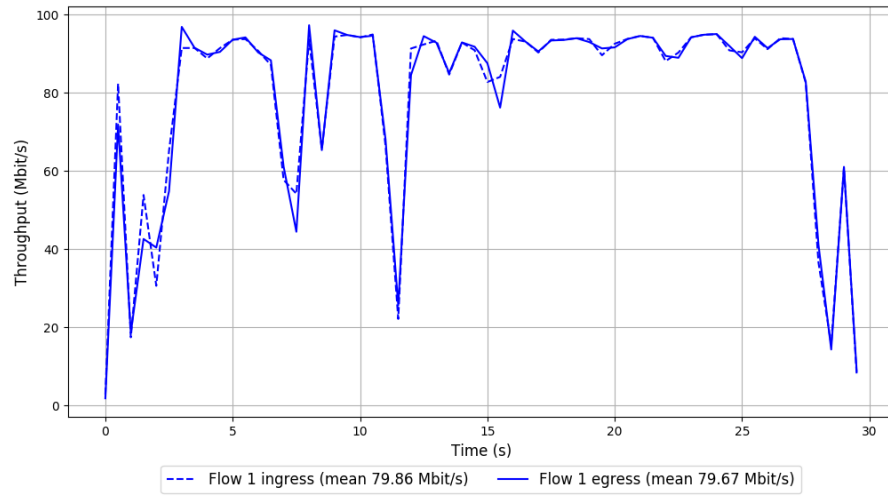
-- Flow 1:

Average throughput: 79.67 Mbit/s

95th percentile per-packet one-way delay: 51.441 ms

Loss rate: 0.25%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-06 07:07:30

End at: 2018-03-06 07:08:00

Local clock offset: 0.956 ms

Remote clock offset: -1.772 ms

Below is generated by plot.py at 2018-03-06 08:42:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.28 Mbit/s

95th percentile per-packet one-way delay: 42.725 ms

Loss rate: 0.57%

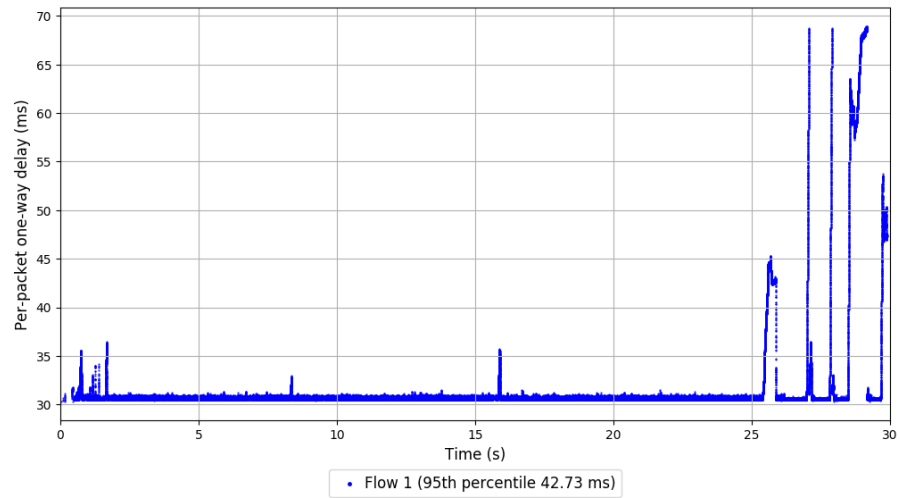
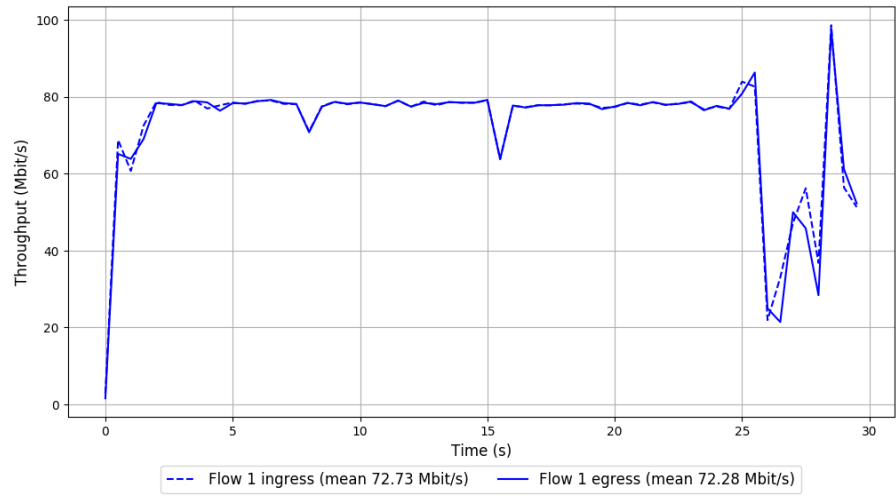
-- Flow 1:

Average throughput: 72.28 Mbit/s

95th percentile per-packet one-way delay: 42.725 ms

Loss rate: 0.57%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-06 07:37:27

End at: 2018-03-06 07:37:57

Local clock offset: 0.793 ms

Remote clock offset: -3.352 ms

Below is generated by plot.py at 2018-03-06 08:42:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.96 Mbit/s

95th percentile per-packet one-way delay: 51.239 ms

Loss rate: 0.07%

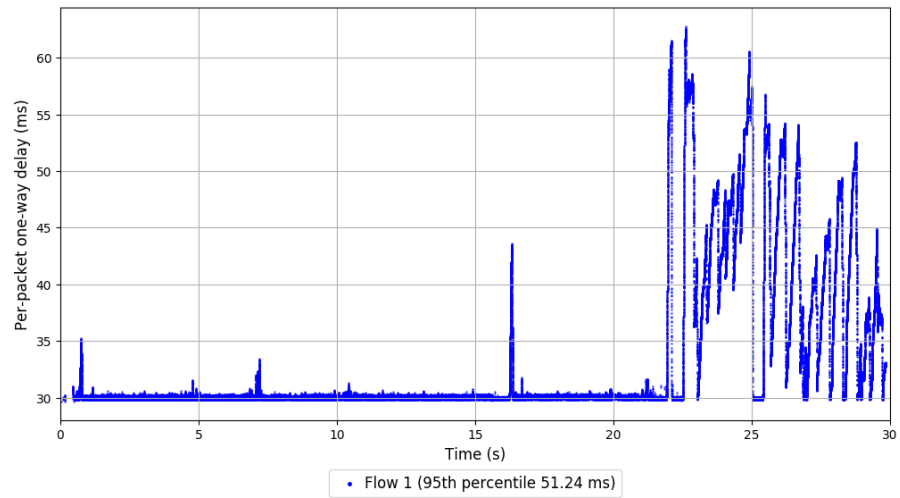
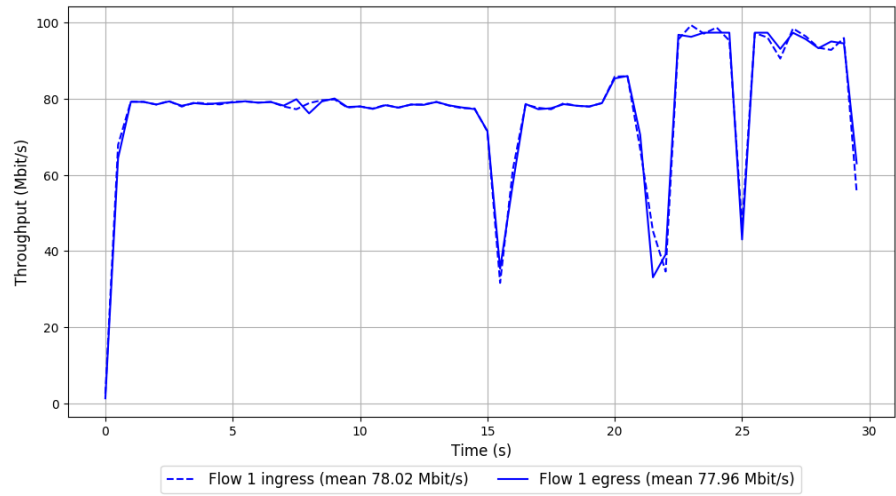
-- Flow 1:

Average throughput: 77.96 Mbit/s

95th percentile per-packet one-way delay: 51.239 ms

Loss rate: 0.07%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-06 08:06:06

End at: 2018-03-06 08:06:36

Local clock offset: 0.766 ms

Remote clock offset: -4.643 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.97 Mbit/s

95th percentile per-packet one-way delay: 44.064 ms

Loss rate: 0.49%

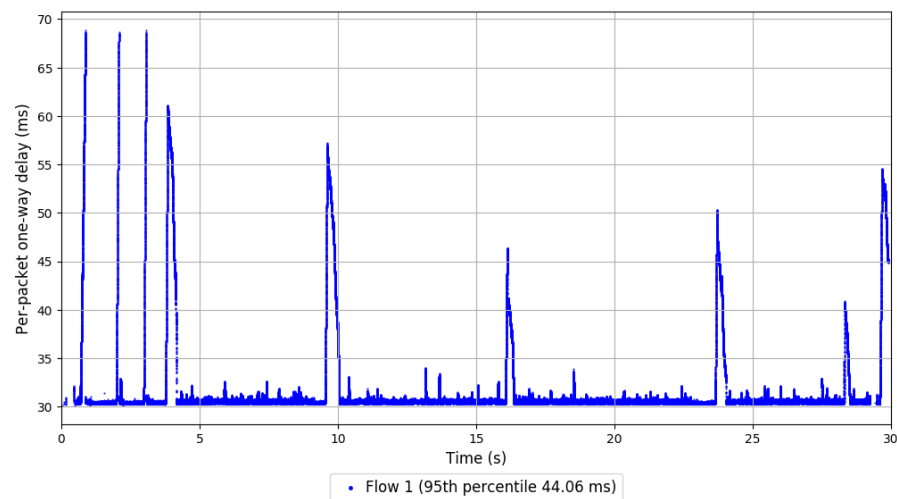
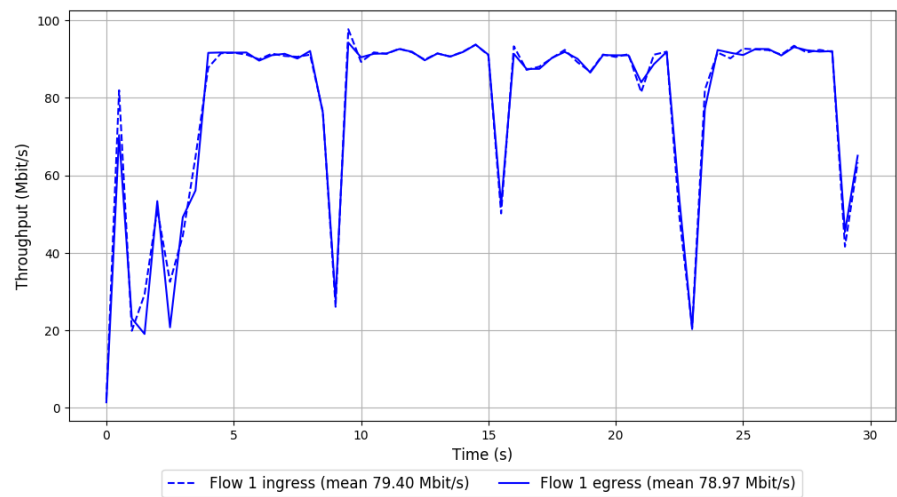
-- Flow 1:

Average throughput: 78.97 Mbit/s

95th percentile per-packet one-way delay: 44.064 ms

Loss rate: 0.49%

Run 10: Report of QUIC Cubic — Data Link

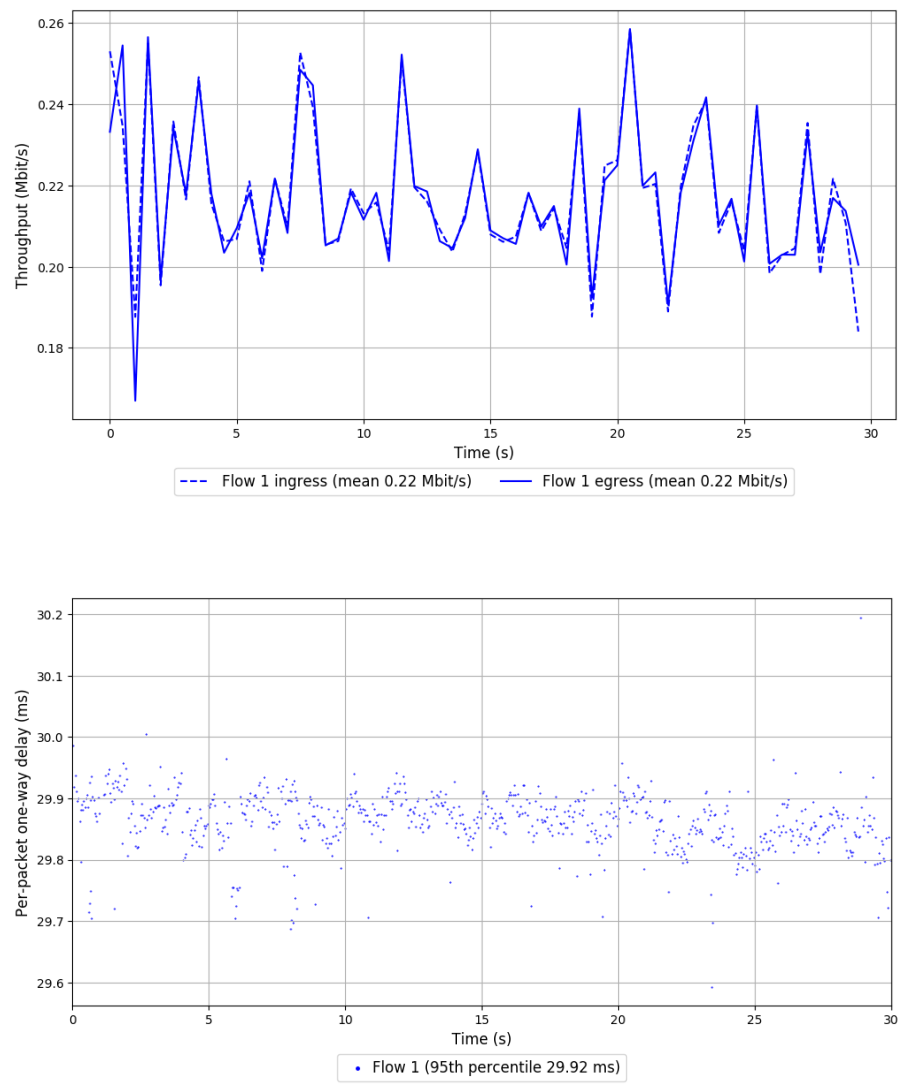


```
Run 1: Statistics of SCReAM

Start at: 2018-03-06 03:21:20
End at: 2018-03-06 03:21:50
Local clock offset: 1.332 ms
Remote clock offset: 1.767 ms

# Below is generated by plot.py at 2018-03-06 08:42:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.924 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

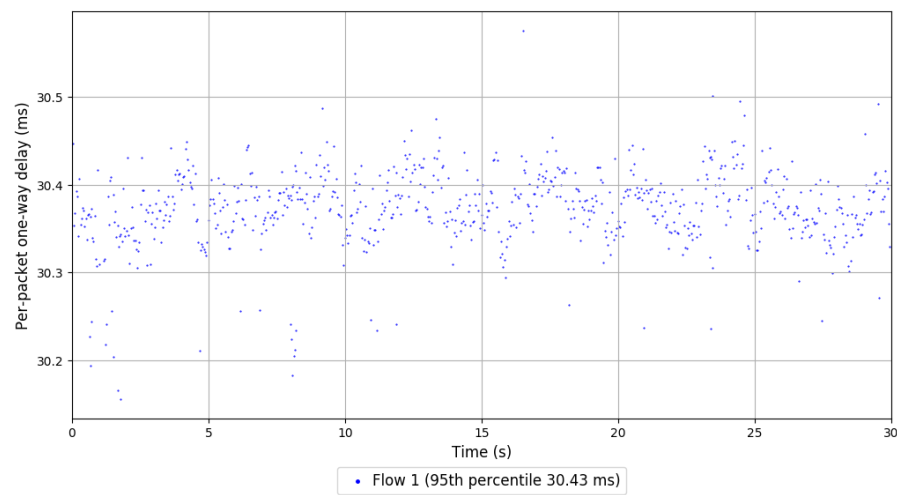
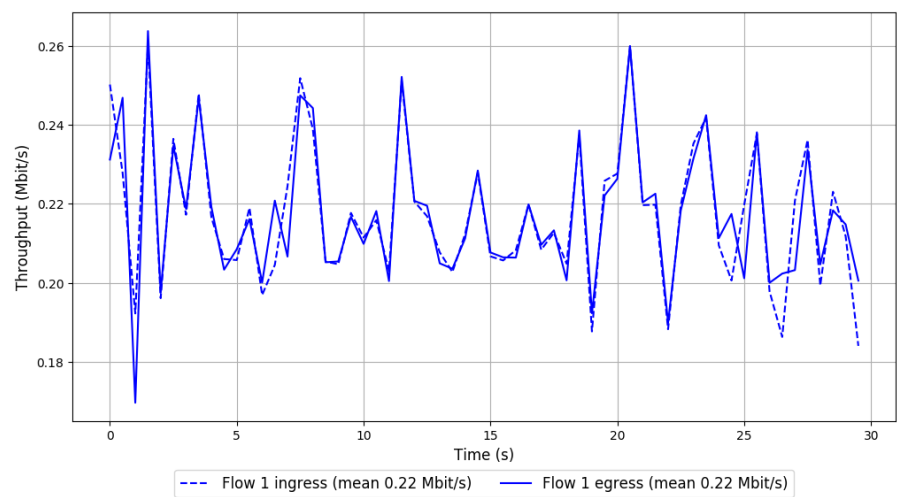


Run 2: Statistics of SCReAM

Start at: 2018-03-06 03:50:57
End at: 2018-03-06 03:51:27
Local clock offset: 1.363 ms
Remote clock offset: -1.981 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.435 ms
Loss rate: 0.00%

Run 2: Report of SReAM — Data Link

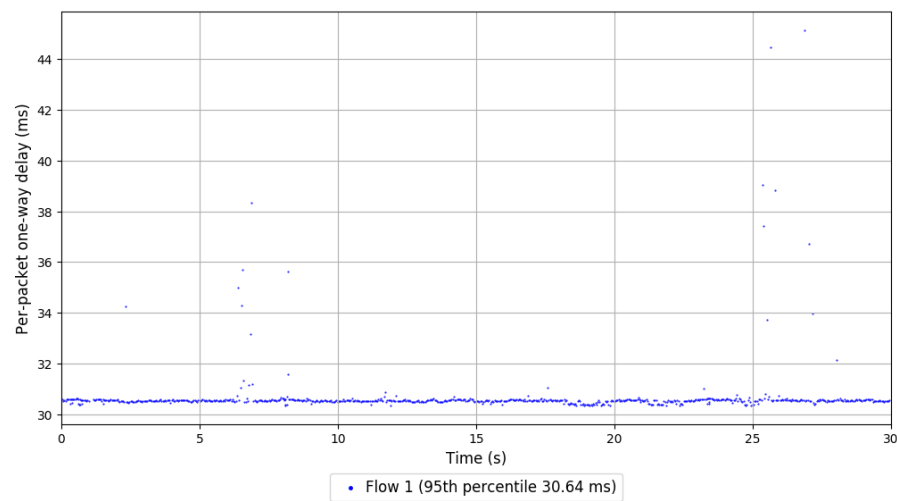
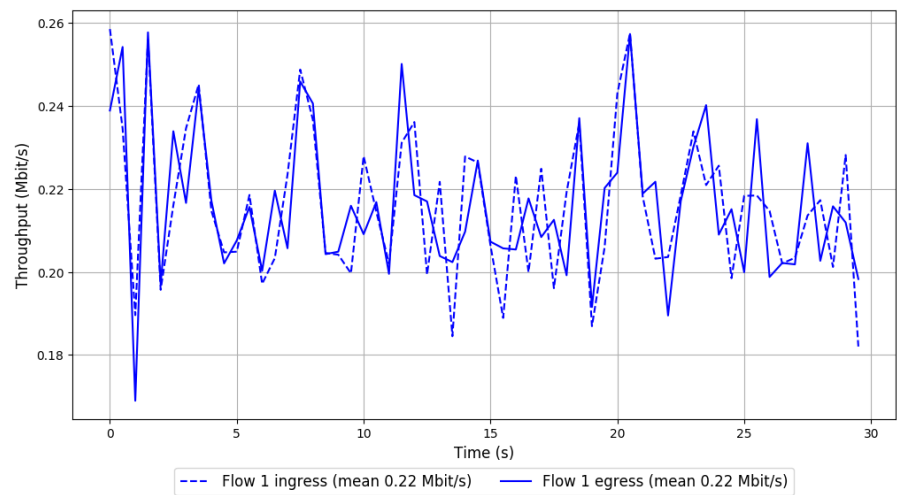


Run 3: Statistics of SCReAM

Start at: 2018-03-06 04:25:06
End at: 2018-03-06 04:25:36
Local clock offset: 1.124 ms
Remote clock offset: -6.054 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.640 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.640 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

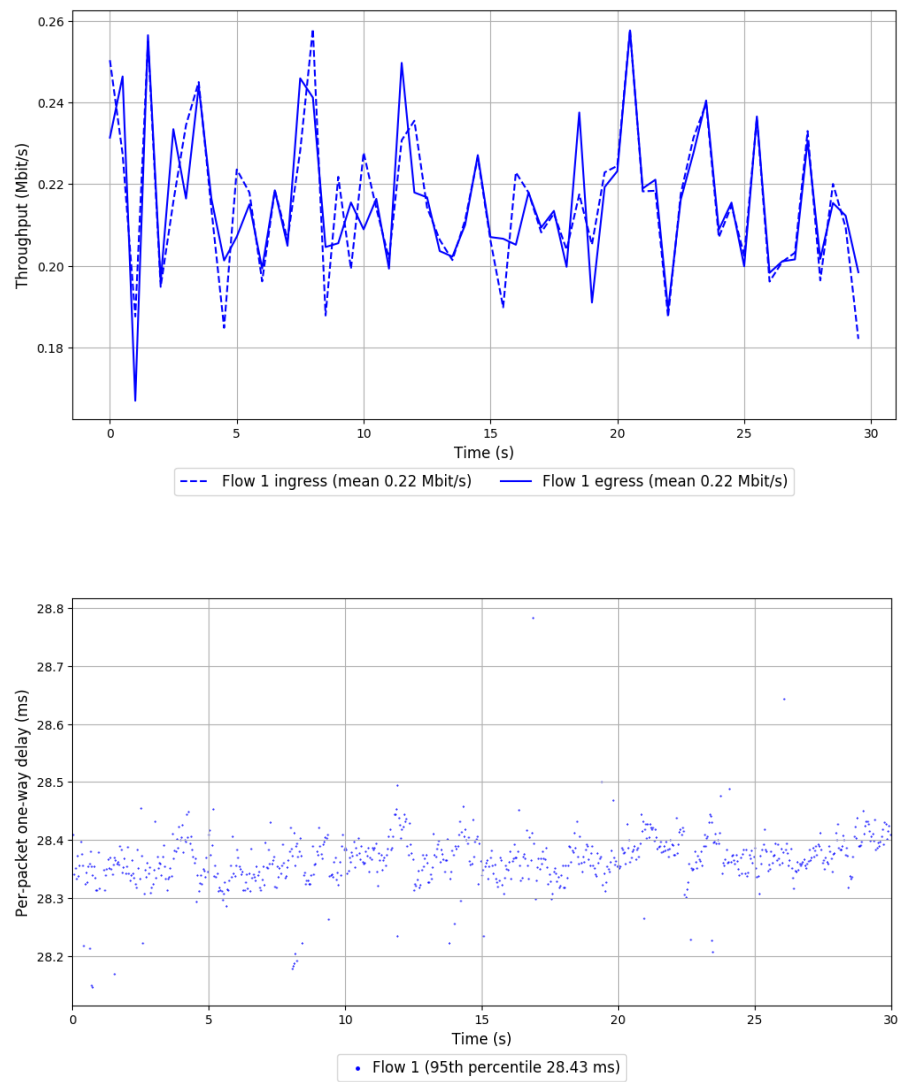


Run 4: Statistics of SCReAM

Start at: 2018-03-06 04:58:22
End at: 2018-03-06 04:58:52
Local clock offset: 1.25 ms
Remote clock offset: -8.627 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.429 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 28.429 ms
Loss rate: 0.00%

Run 4: Report of SReAM — Data Link

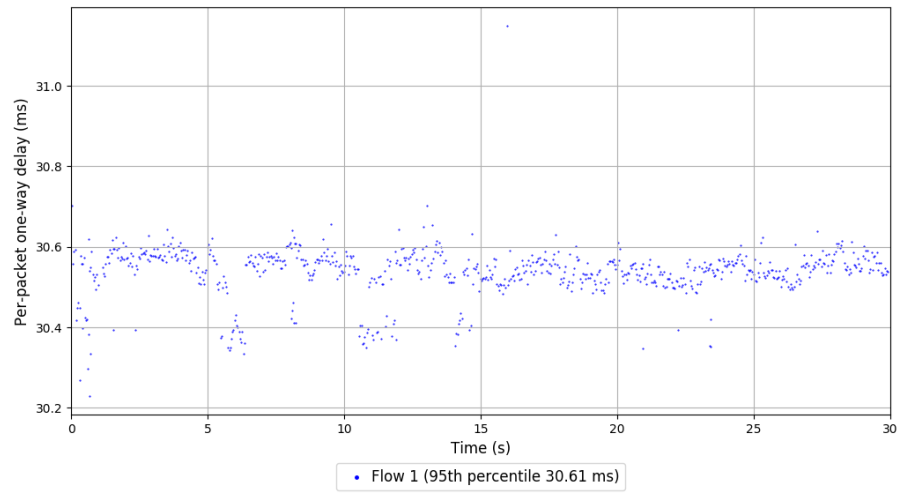
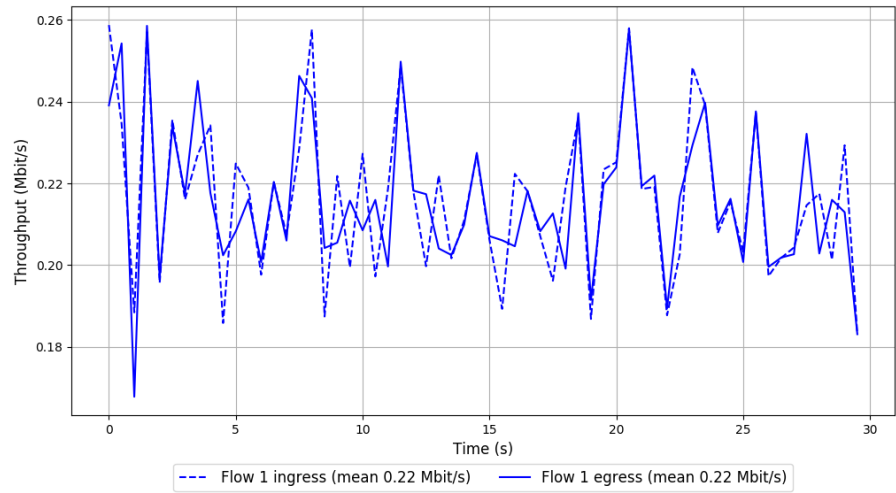


Run 5: Statistics of SCReAM

Start at: 2018-03-06 05:35:19
End at: 2018-03-06 05:35:49
Local clock offset: 0.964 ms
Remote clock offset: -3.649 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.605 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.605 ms
Loss rate: 0.13%

Run 5: Report of SReAM — Data Link

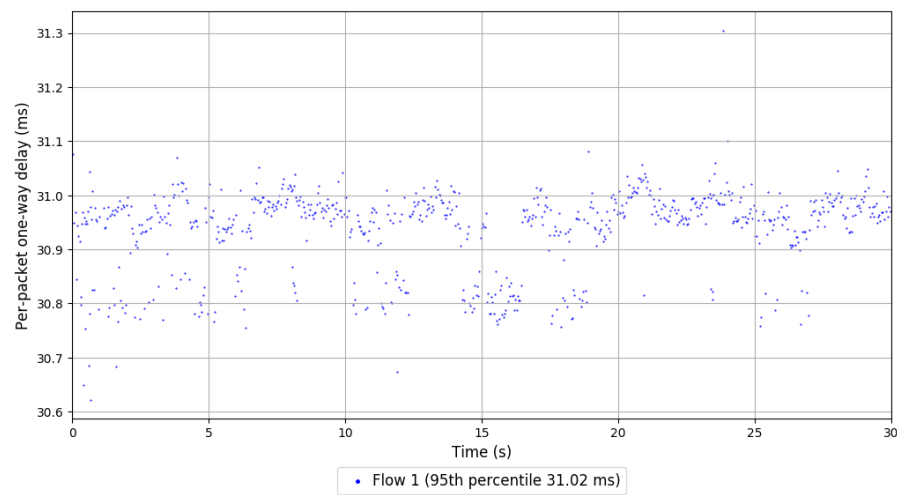
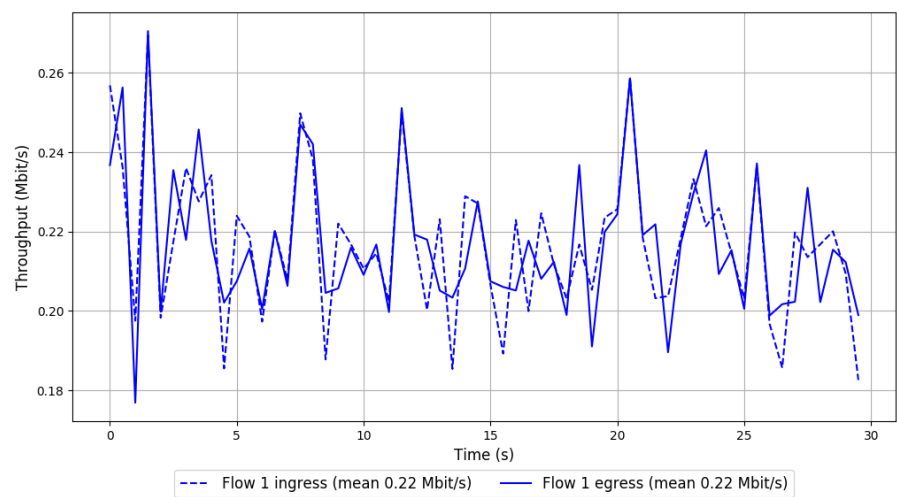


Run 6: Statistics of SCReAM

Start at: 2018-03-06 06:05:57
End at: 2018-03-06 06:06:27
Local clock offset: 1.13 ms
Remote clock offset: -3.686 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 31.018 ms
Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

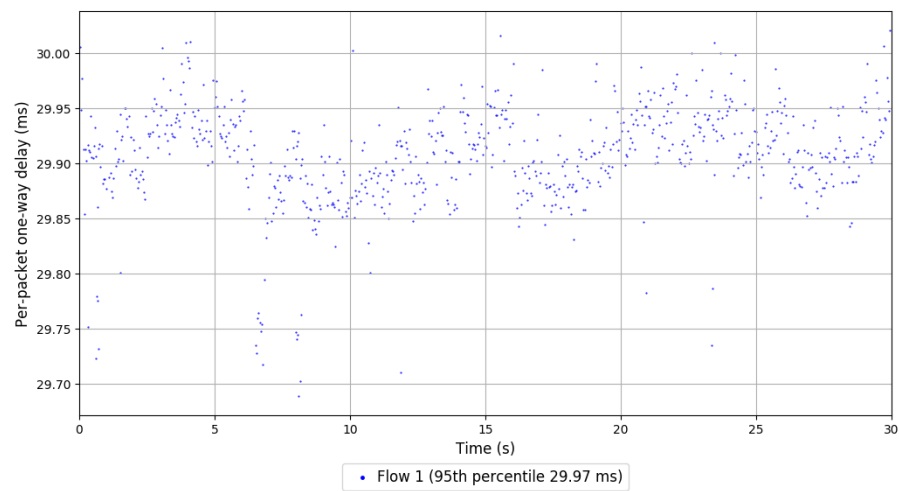
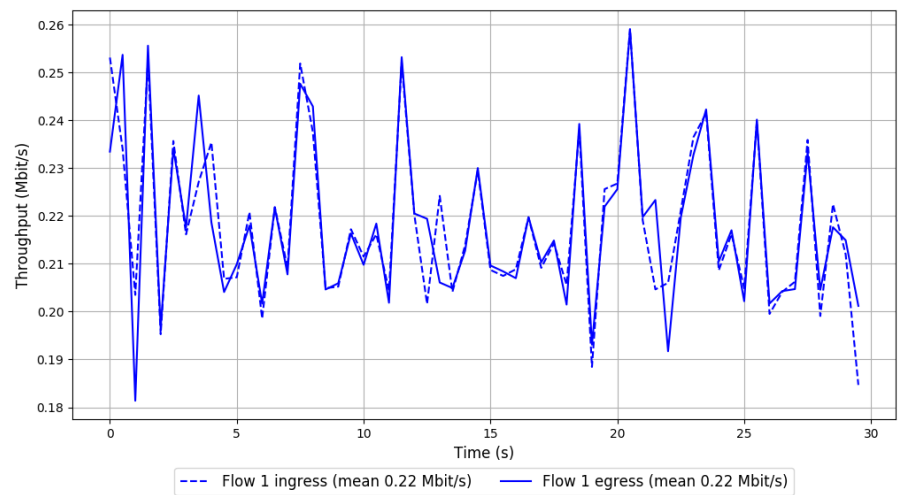


Run 7: Statistics of SCReAM

Start at: 2018-03-06 06:35:31
End at: 2018-03-06 06:36:01
Local clock offset: 1.122 ms
Remote clock offset: -4.077 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.971 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.971 ms
Loss rate: 0.00%

Run 7: Report of SReAM — Data Link

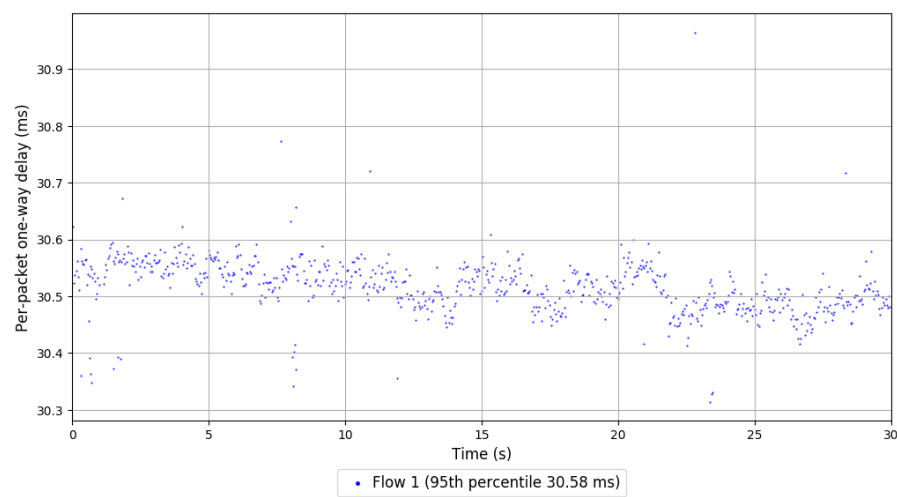
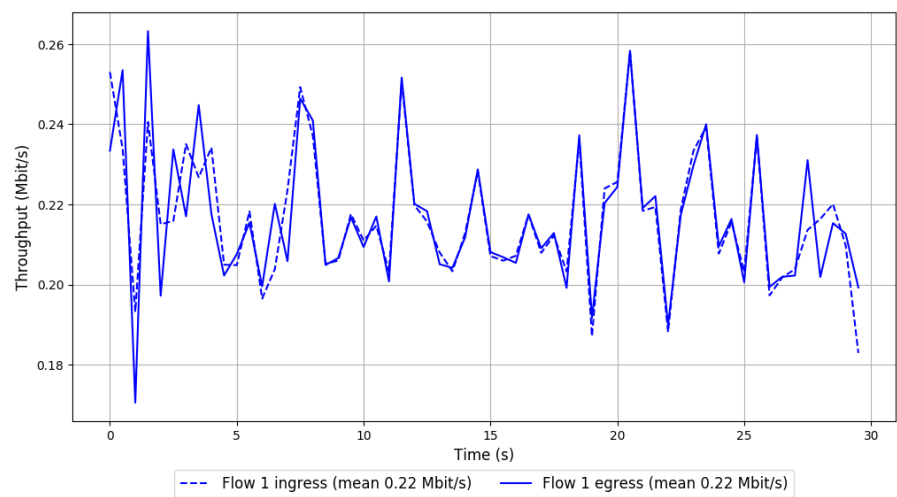


Run 8: Statistics of SCReAM

Start at: 2018-03-06 07:01:54
End at: 2018-03-06 07:02:24
Local clock offset: 1.026 ms
Remote clock offset: -2.257 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.576 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.576 ms
Loss rate: 0.00%

Run 8: Report of SReAM — Data Link

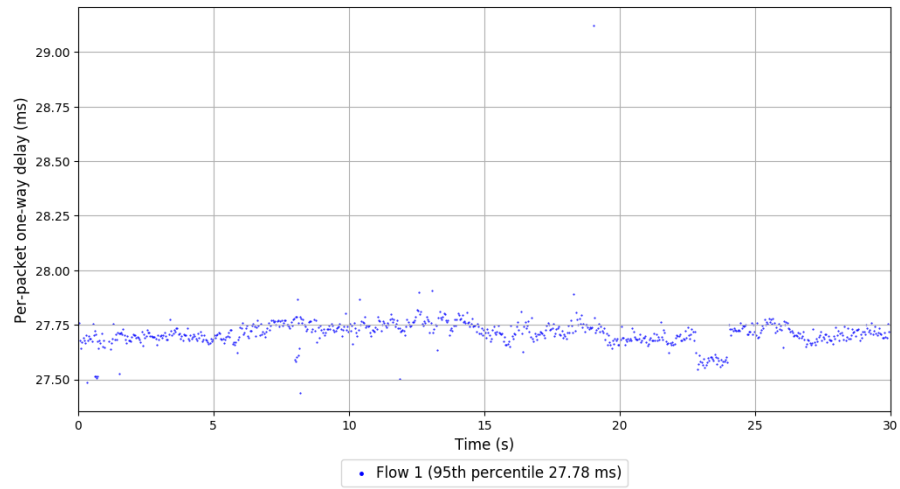
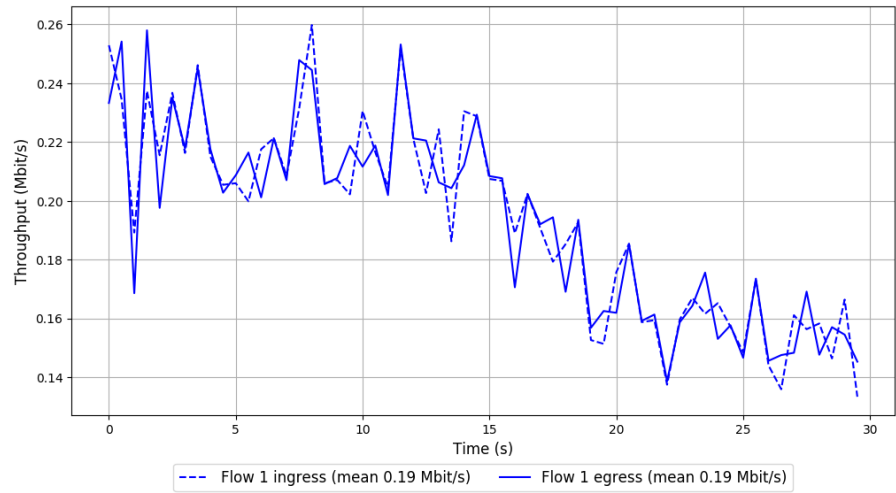


Run 9: Statistics of SCReAM

Start at: 2018-03-06 07:30:48
End at: 2018-03-06 07:31:18
Local clock offset: 0.844 ms
Remote clock offset: -4.763 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 27.778 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 27.778 ms
Loss rate: 0.16%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-03-06 08:00:54

End at: 2018-03-06 08:01:24

Local clock offset: 0.752 ms

Remote clock offset: -4.375 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 30.650 ms

Loss rate: 0.00%

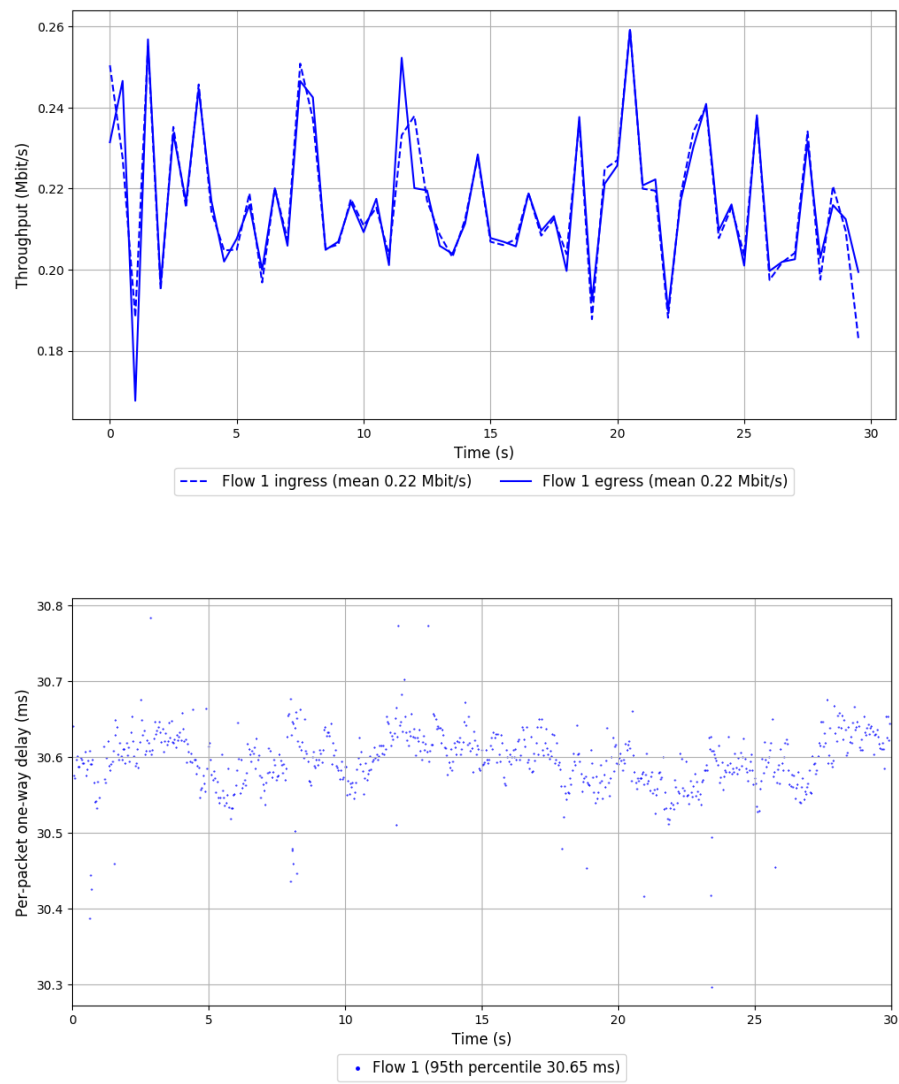
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 30.650 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-03-06 03:25:19

End at: 2018-03-06 03:25:49

Local clock offset: 1.348 ms

Remote clock offset: 2.013 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 31.016 ms

Loss rate: 0.03%

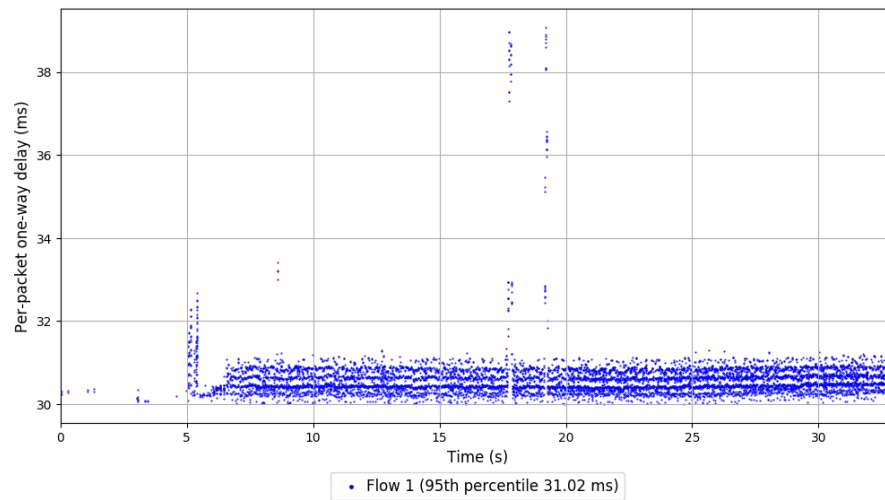
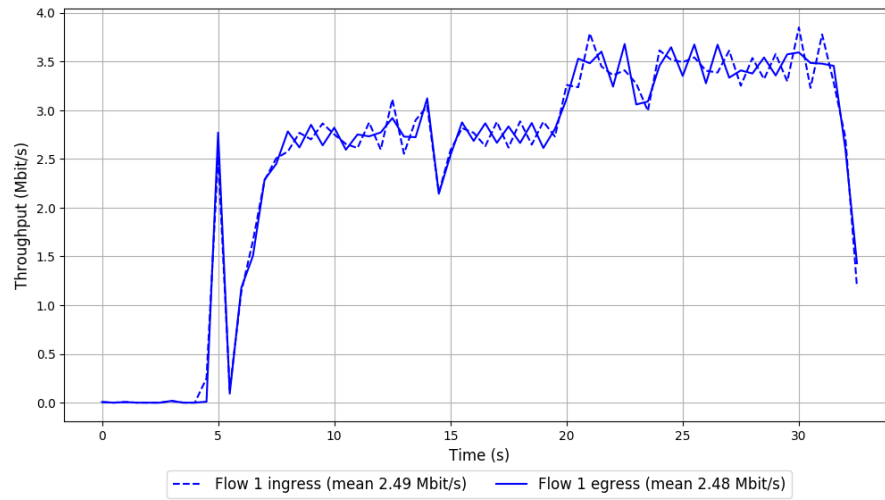
-- Flow 1:

Average throughput: 2.48 Mbit/s

95th percentile per-packet one-way delay: 31.016 ms

Loss rate: 0.03%

Run 1: Report of WebRTC media — Data Link

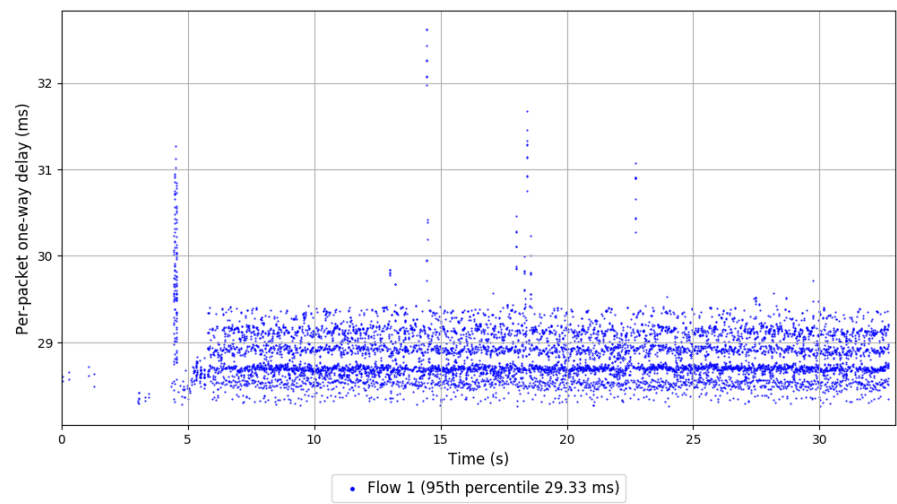
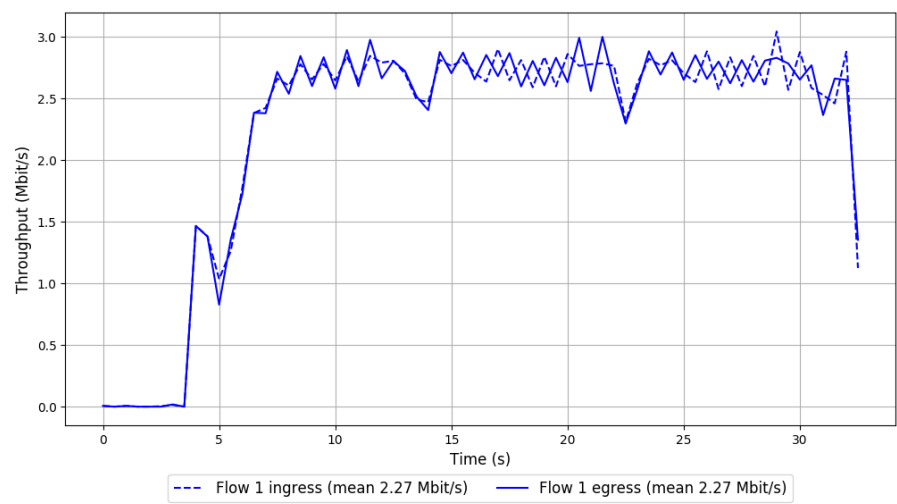


Run 2: Statistics of WebRTC media

Start at: 2018-03-06 03:55:09
End at: 2018-03-06 03:55:39
Local clock offset: 1.368 ms
Remote clock offset: -4.493 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 29.334 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 29.334 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

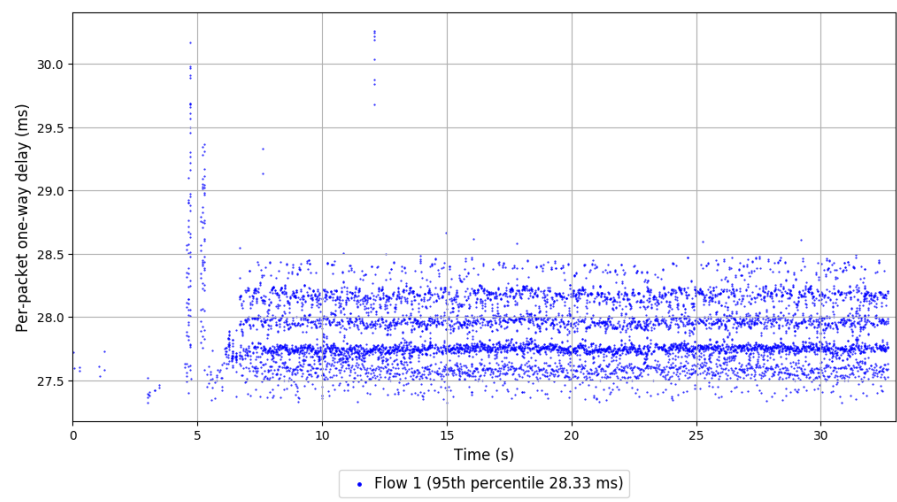
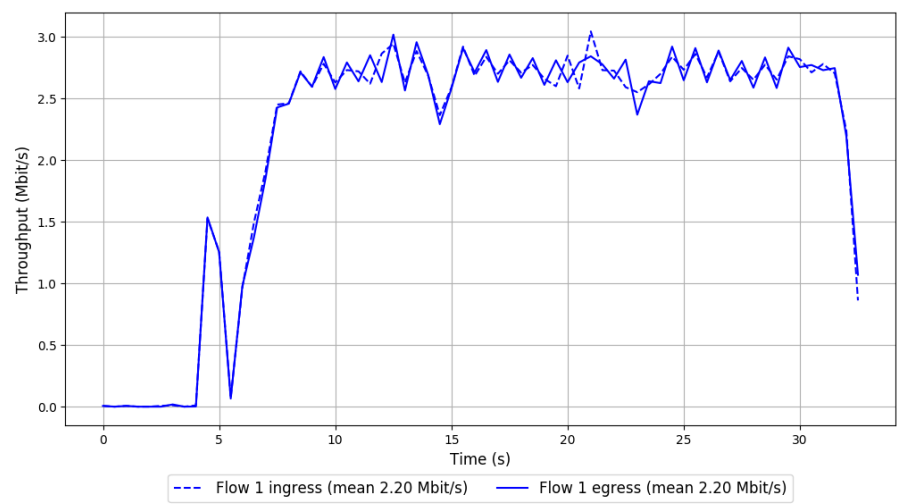


Run 3: Statistics of WebRTC media

Start at: 2018-03-06 04:29:08
End at: 2018-03-06 04:29:38
Local clock offset: 1.266 ms
Remote clock offset: -8.172 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 28.329 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 28.329 ms
Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

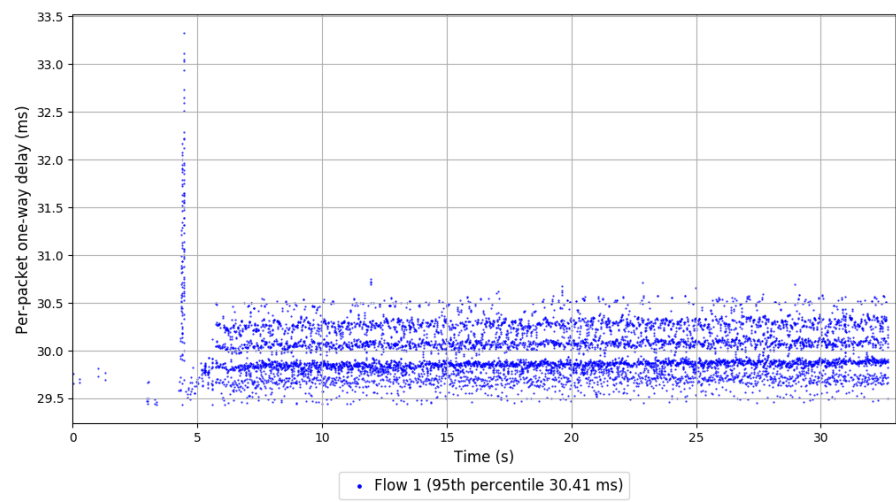
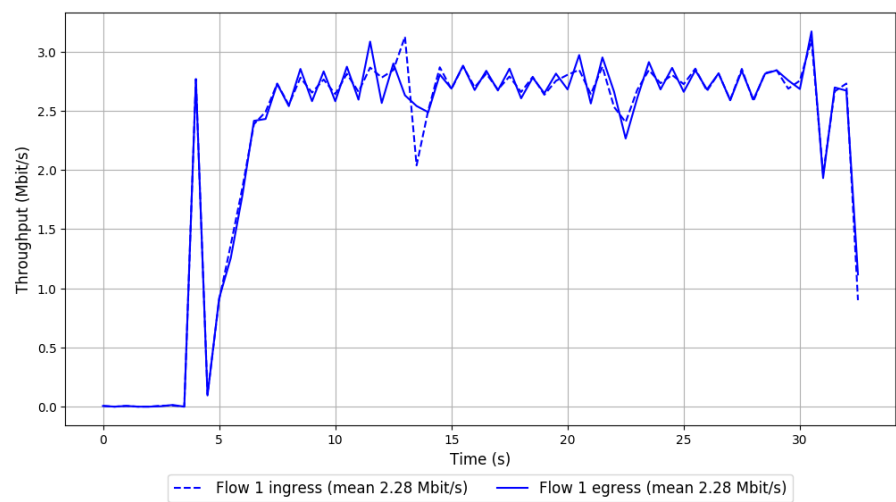


Run 4: Statistics of WebRTC media

Start at: 2018-03-06 05:02:20
End at: 2018-03-06 05:02:50
Local clock offset: 1.26 ms
Remote clock offset: -6.872 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 30.412 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 30.412 ms
Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link

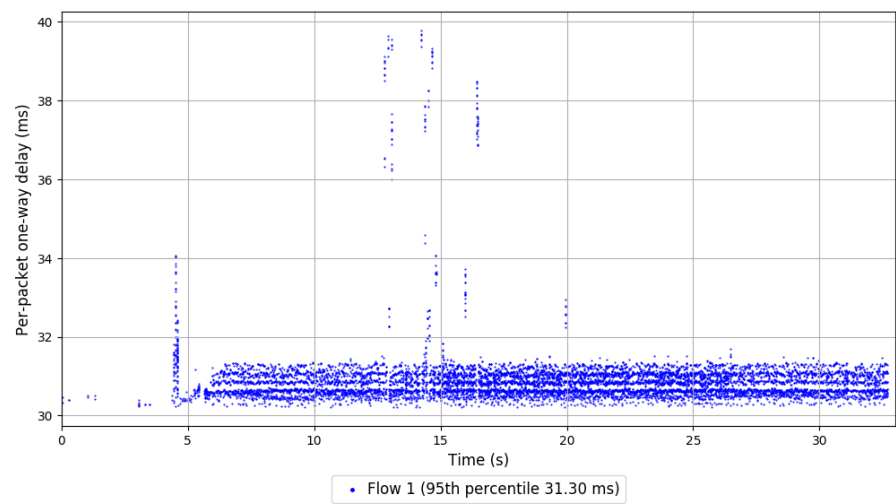
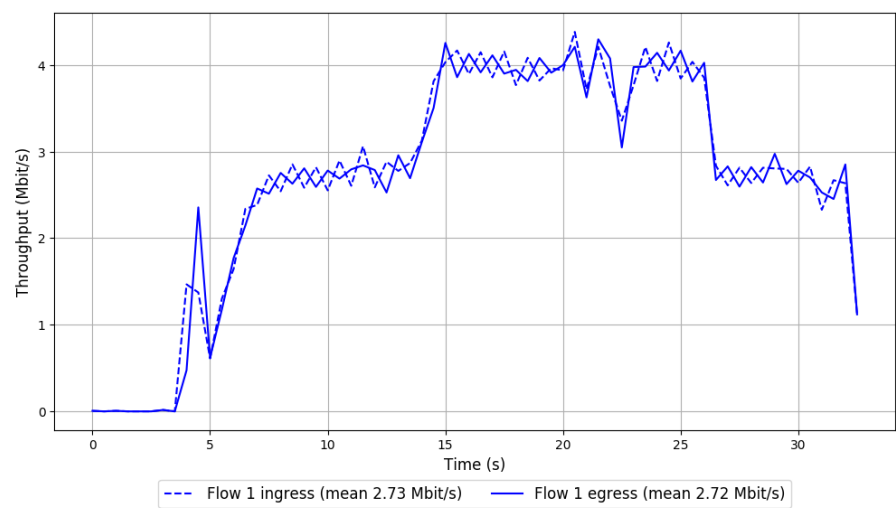


Run 5: Statistics of WebRTC media

Start at: 2018-03-06 05:39:26
End at: 2018-03-06 05:39:56
Local clock offset: 0.983 ms
Remote clock offset: -3.646 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 31.296 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 31.296 ms
Loss rate: 0.27%

Run 5: Report of WebRTC media — Data Link

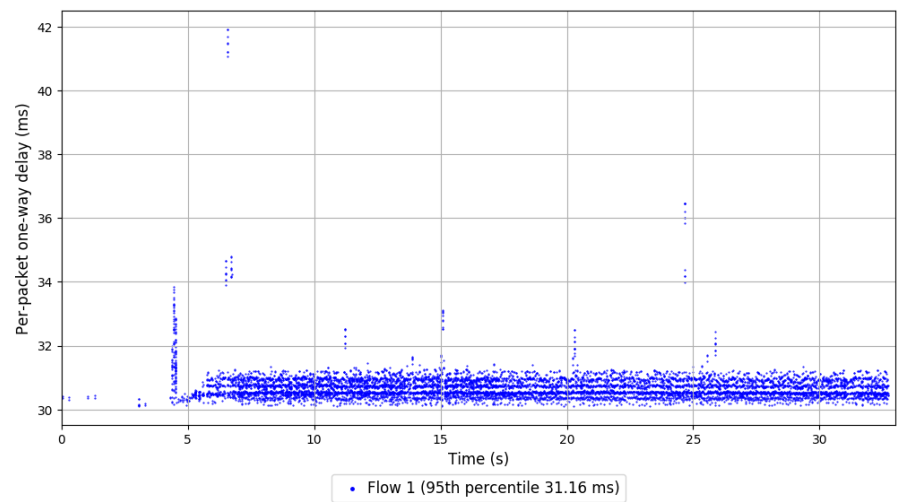
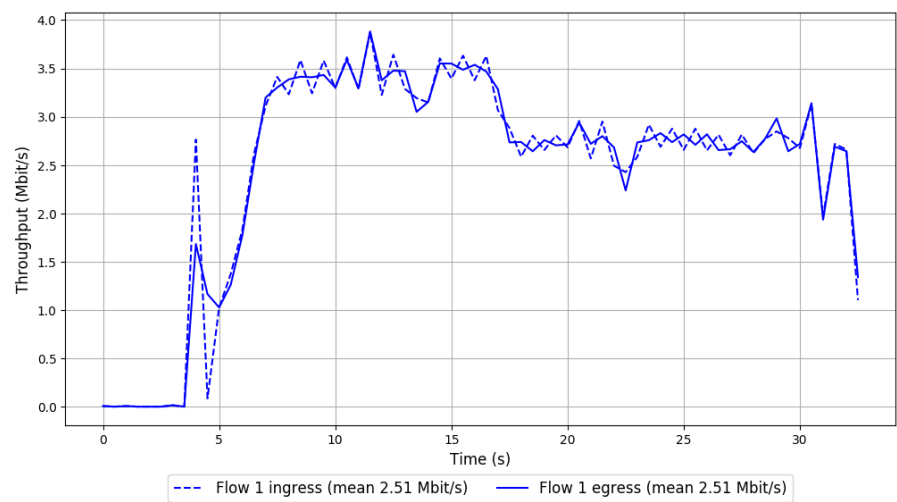


Run 6: Statistics of WebRTC media

Start at: 2018-03-06 06:09:57
End at: 2018-03-06 06:10:27
Local clock offset: 1.215 ms
Remote clock offset: -4.052 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 31.158 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 31.158 ms
Loss rate: 0.01%

Run 6: Report of WebRTC media — Data Link

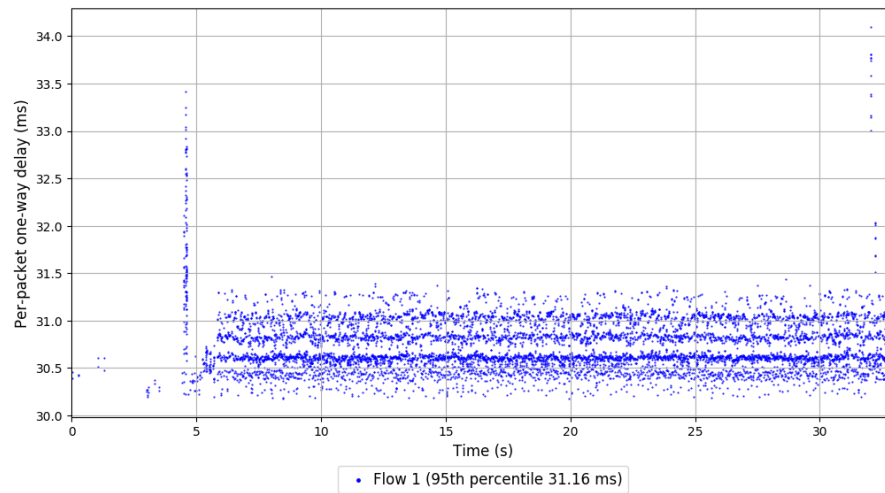
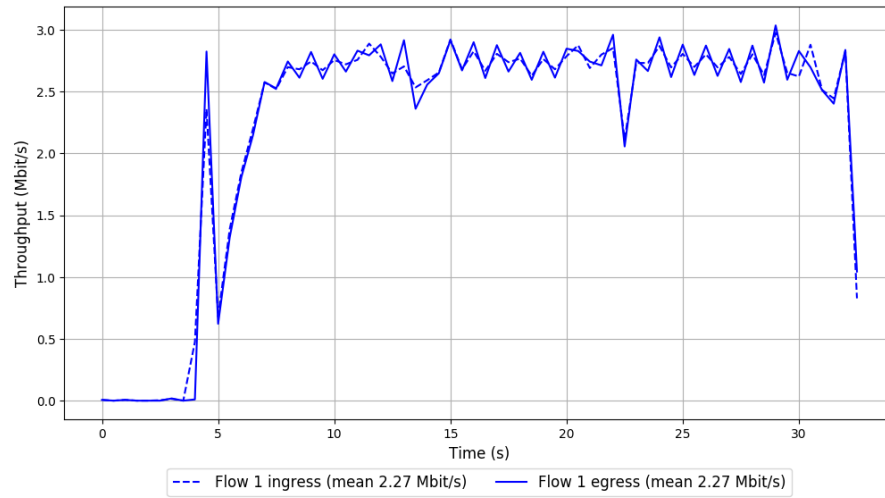


Run 7: Statistics of WebRTC media

Start at: 2018-03-06 06:39:33
End at: 2018-03-06 06:40:03
Local clock offset: 1.211 ms
Remote clock offset: -4.064 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.162 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.162 ms
Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link

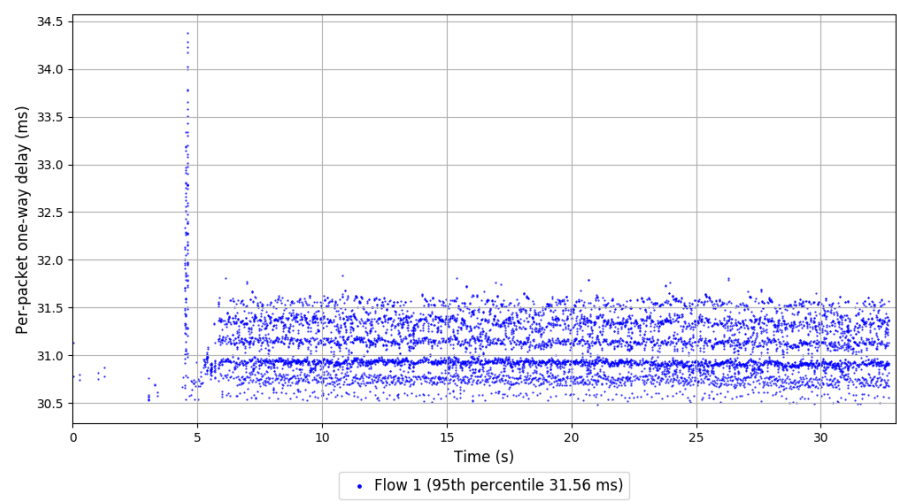
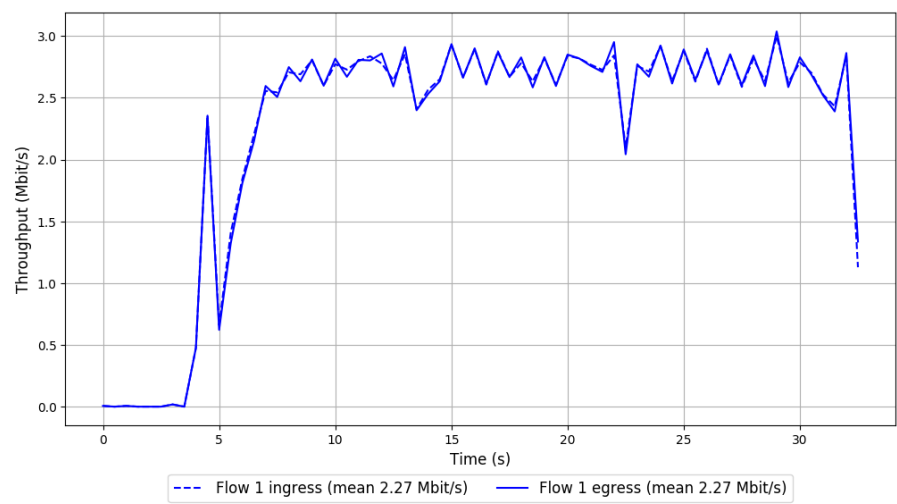


Run 8: Statistics of WebRTC media

Start at: 2018-03-06 07:06:13
End at: 2018-03-06 07:06:43
Local clock offset: 0.98 ms
Remote clock offset: -1.597 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.27 Mbit/s
95th percentile per-packet one-way delay: 31.561 ms
Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link

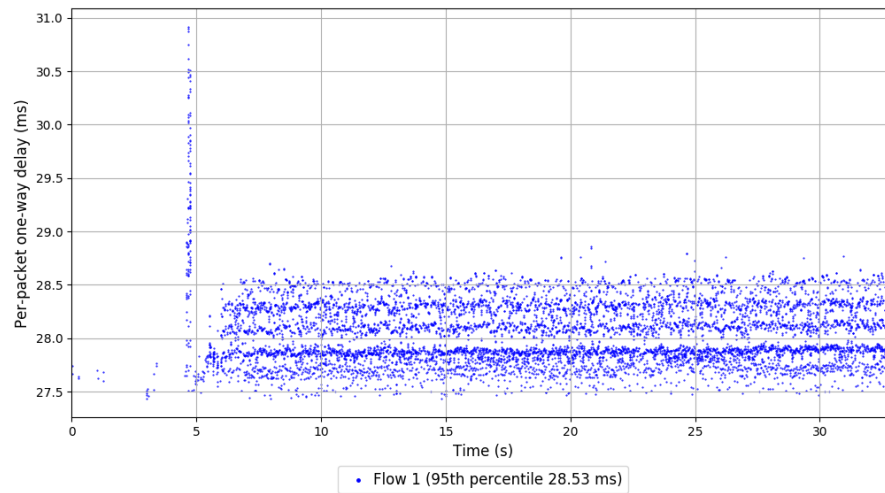
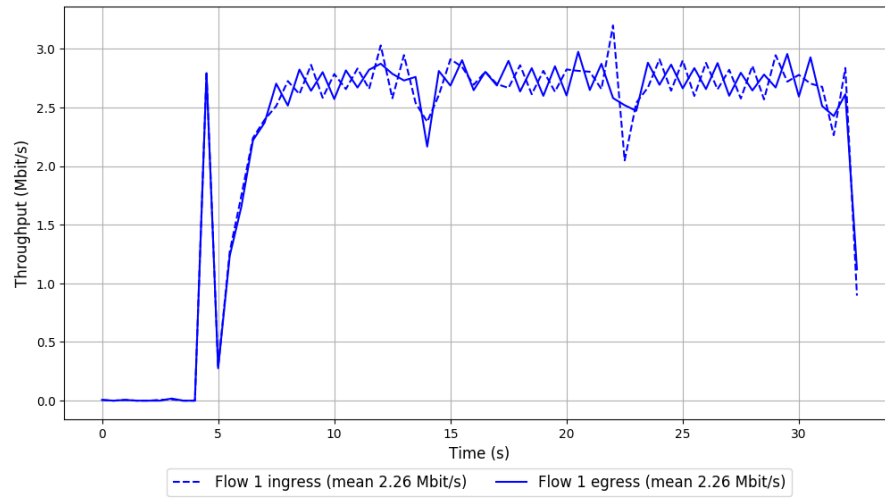


Run 9: Statistics of WebRTC media

Start at: 2018-03-06 07:36:10
End at: 2018-03-06 07:36:40
Local clock offset: 0.867 ms
Remote clock offset: -5.308 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 28.531 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 28.531 ms
Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-06 08:04:49

End at: 2018-03-06 08:05:19

Local clock offset: 0.772 ms

Remote clock offset: -4.159 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 31.615 ms

Loss rate: 0.00%

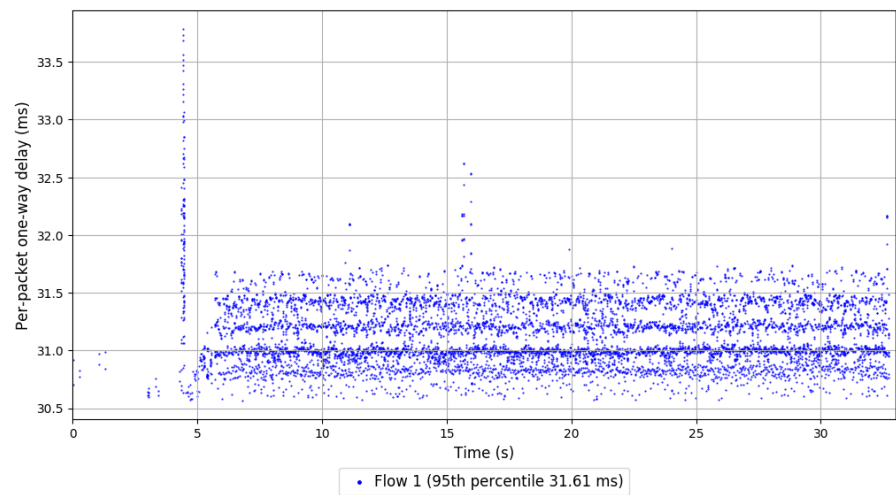
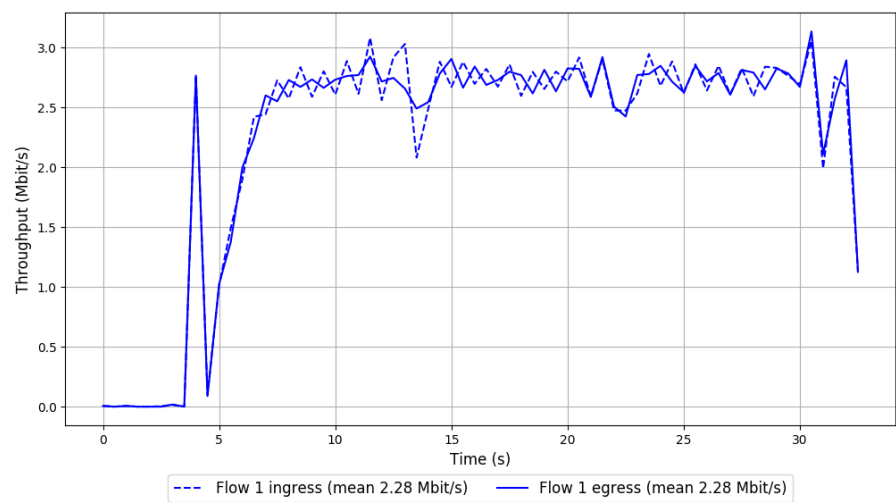
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 31.615 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-06 03:22:37

End at: 2018-03-06 03:23:07

Local clock offset: 1.293 ms

Remote clock offset: 2.441 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 35.994 ms

Loss rate: 0.03%

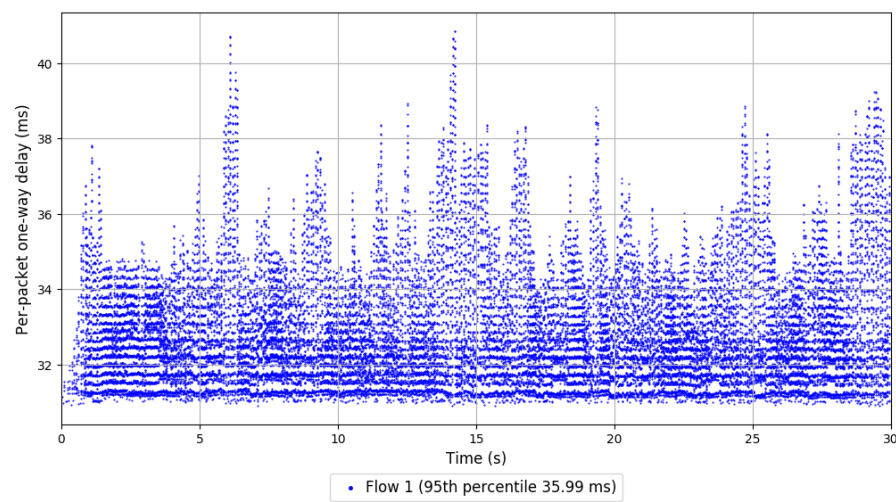
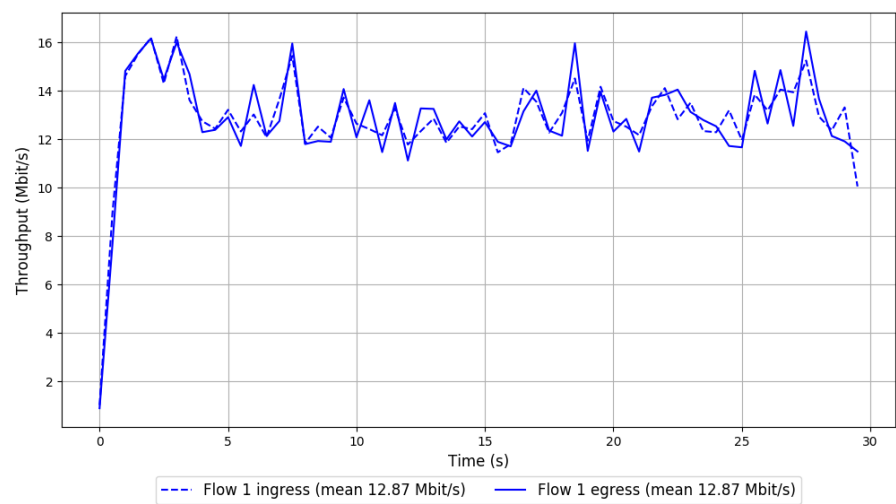
-- Flow 1:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 35.994 ms

Loss rate: 0.03%

Run 1: Report of Sprout — Data Link

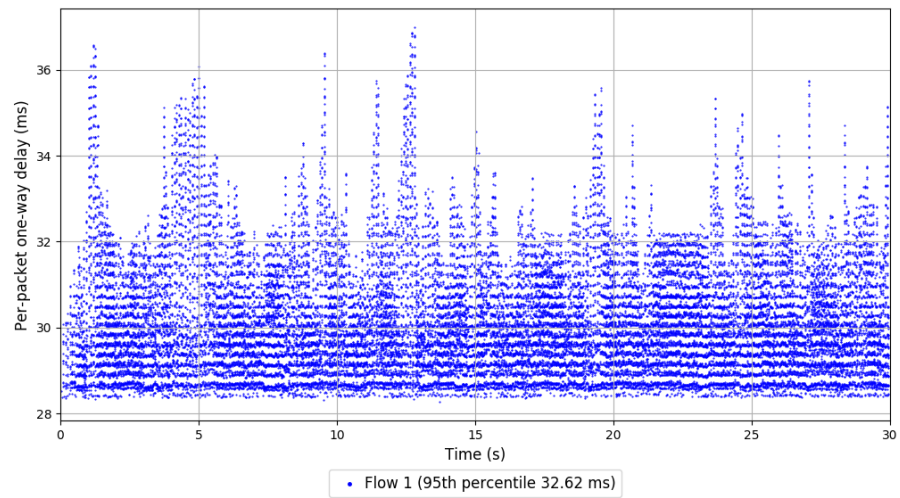
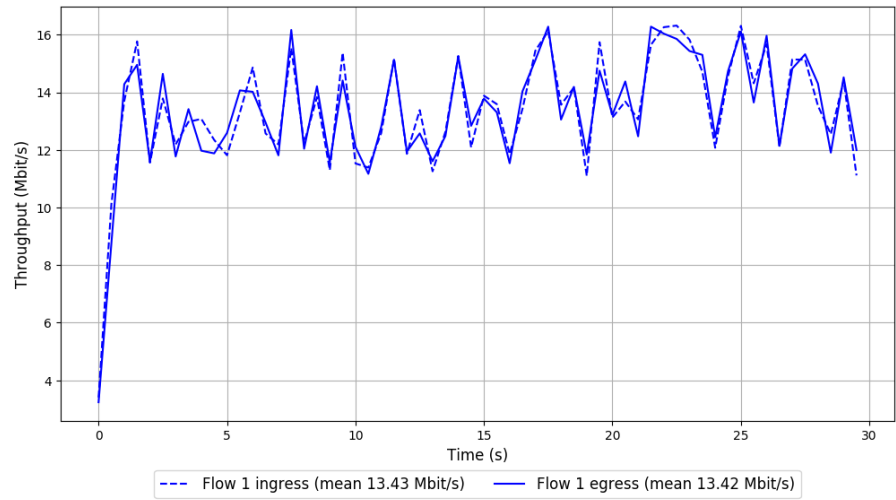


Run 2: Statistics of Sprout

Start at: 2018-03-06 03:52:13
End at: 2018-03-06 03:52:43
Local clock offset: 1.389 ms
Remote clock offset: -4.544 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 32.618 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 13.42 Mbit/s
95th percentile per-packet one-way delay: 32.618 ms
Loss rate: 0.07%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-06 04:26:23

End at: 2018-03-06 04:26:53

Local clock offset: 1.165 ms

Remote clock offset: -5.92 ms

Below is generated by plot.py at 2018-03-06 08:42:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.24 Mbit/s

95th percentile per-packet one-way delay: 35.964 ms

Loss rate: 0.04%

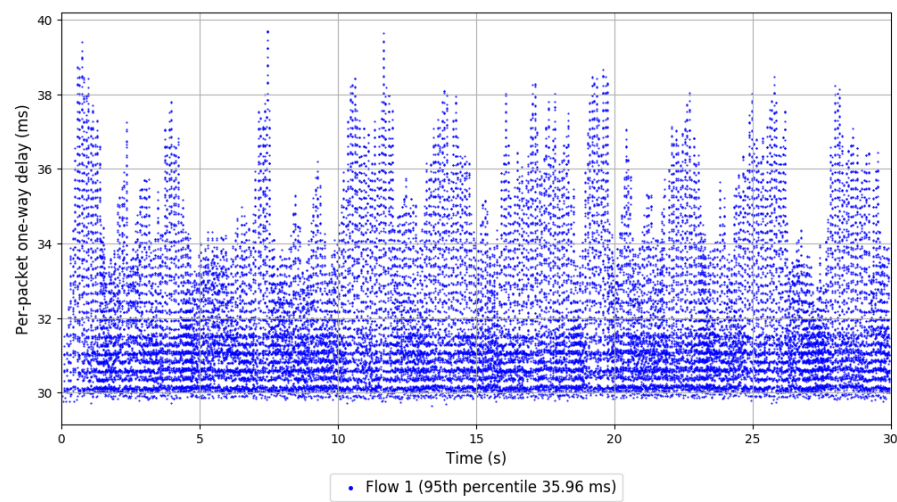
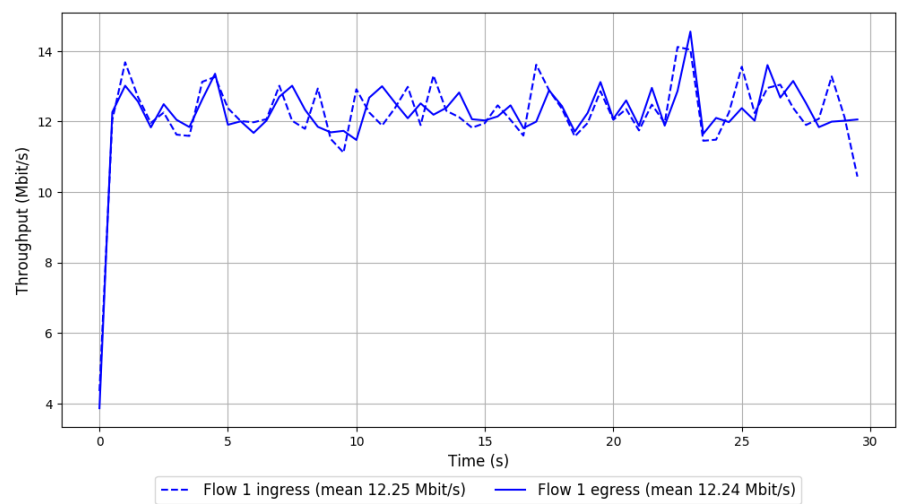
-- Flow 1:

Average throughput: 12.24 Mbit/s

95th percentile per-packet one-way delay: 35.964 ms

Loss rate: 0.04%

Run 3: Report of Sprout — Data Link

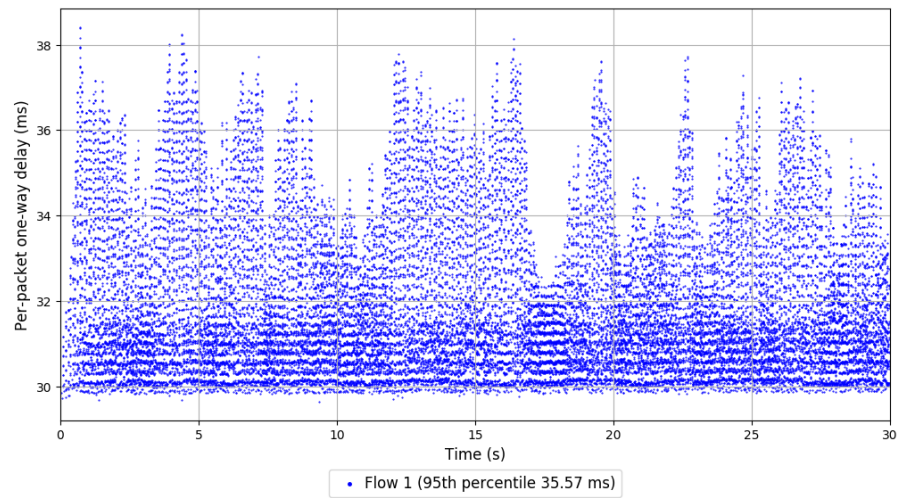
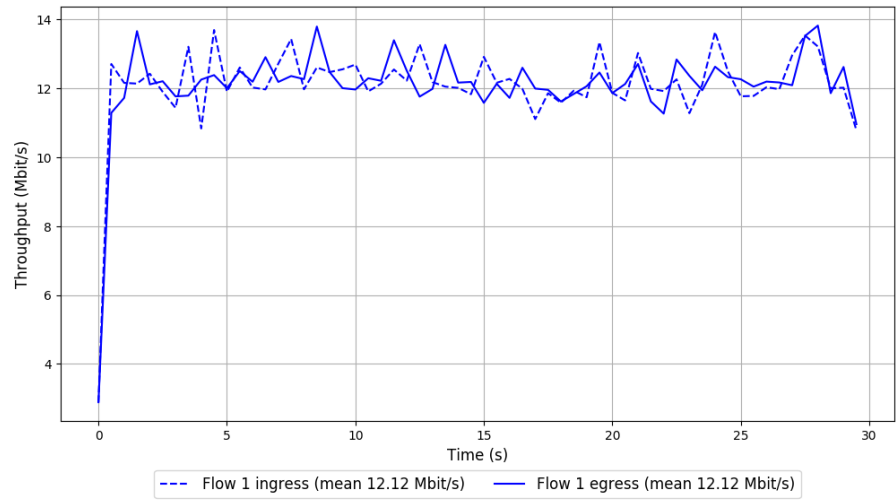


Run 4: Statistics of Sprout

Start at: 2018-03-06 04:59:38
End at: 2018-03-06 05:00:08
Local clock offset: 1.148 ms
Remote clock offset: -6.561 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 35.569 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 35.569 ms
Loss rate: 0.00%

Run 4: Report of Sprout — Data Link

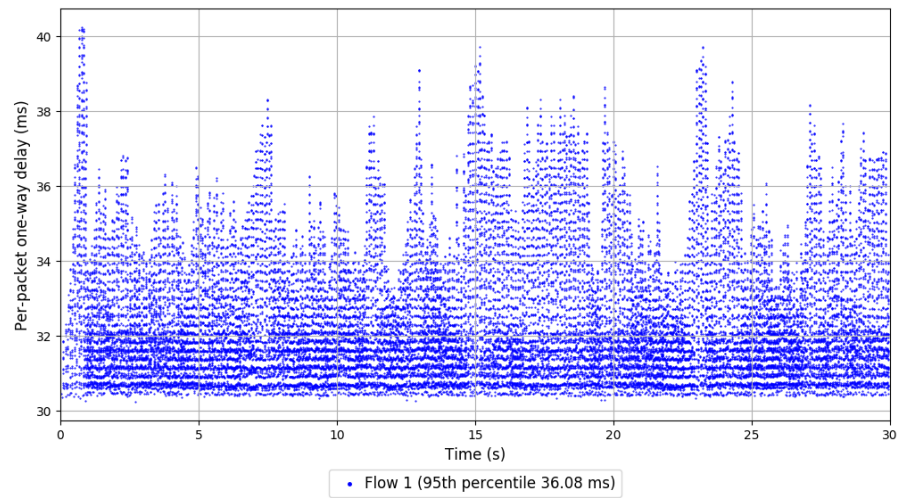
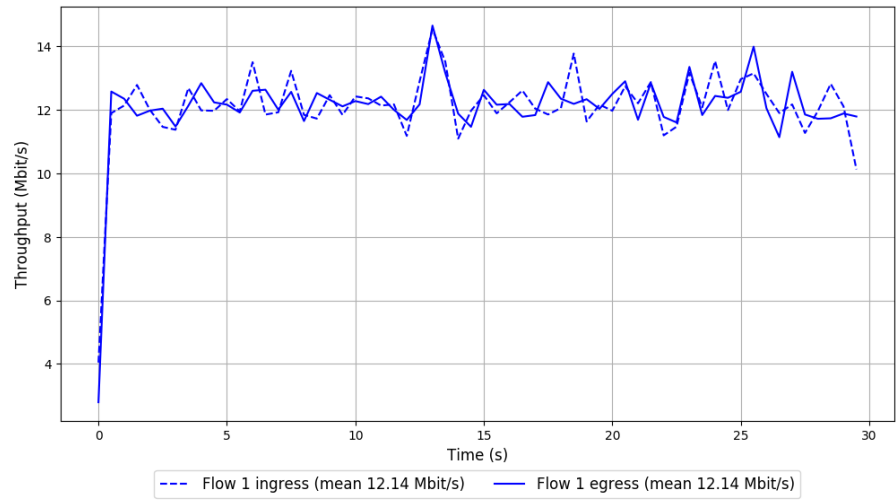


Run 5: Statistics of Sprout

Start at: 2018-03-06 05:36:35
End at: 2018-03-06 05:37:05
Local clock offset: 0.94 ms
Remote clock offset: -3.663 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 36.081 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 36.081 ms
Loss rate: 0.00%

Run 5: Report of Sprout — Data Link

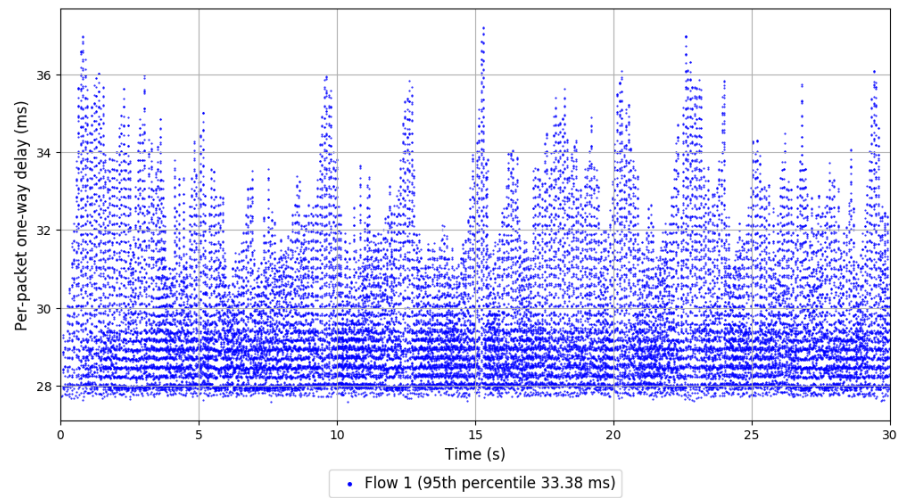
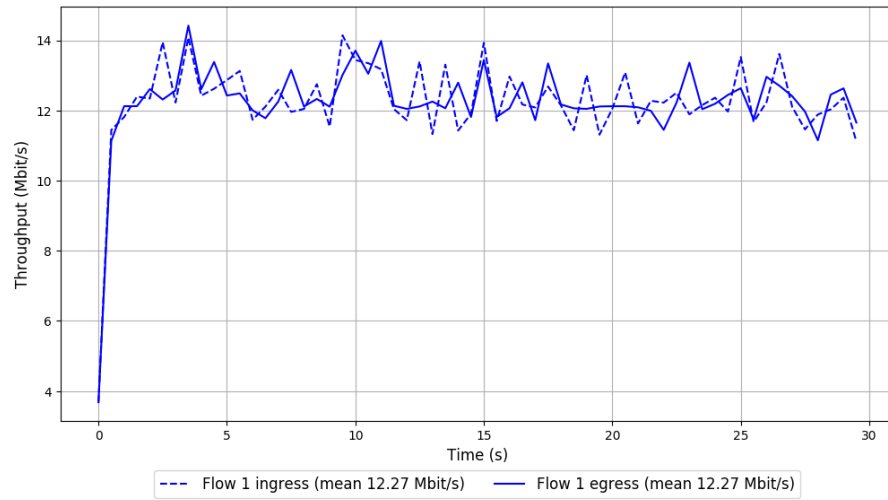


Run 6: Statistics of Sprout

Start at: 2018-03-06 06:07:13
End at: 2018-03-06 06:07:43
Local clock offset: 1.203 ms
Remote clock offset: -6.027 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.27 Mbit/s
95th percentile per-packet one-way delay: 33.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.27 Mbit/s
95th percentile per-packet one-way delay: 33.380 ms
Loss rate: 0.00%

Run 6: Report of Sprout — Data Link

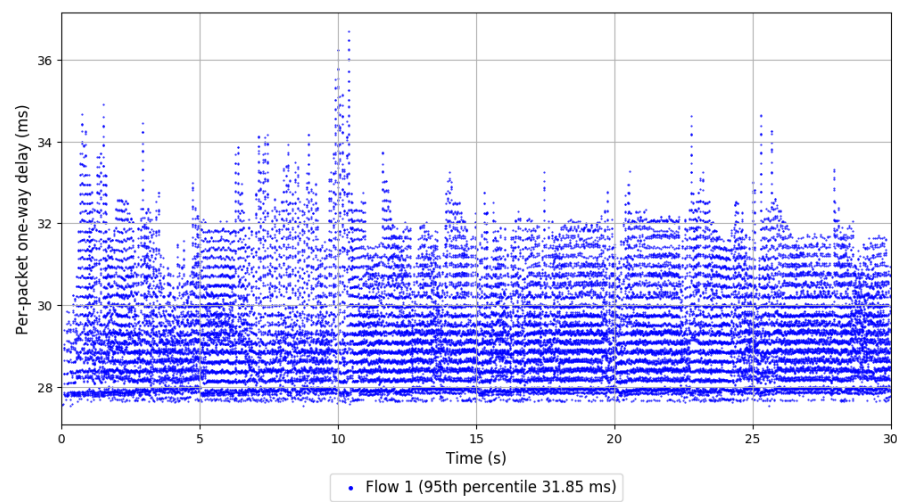
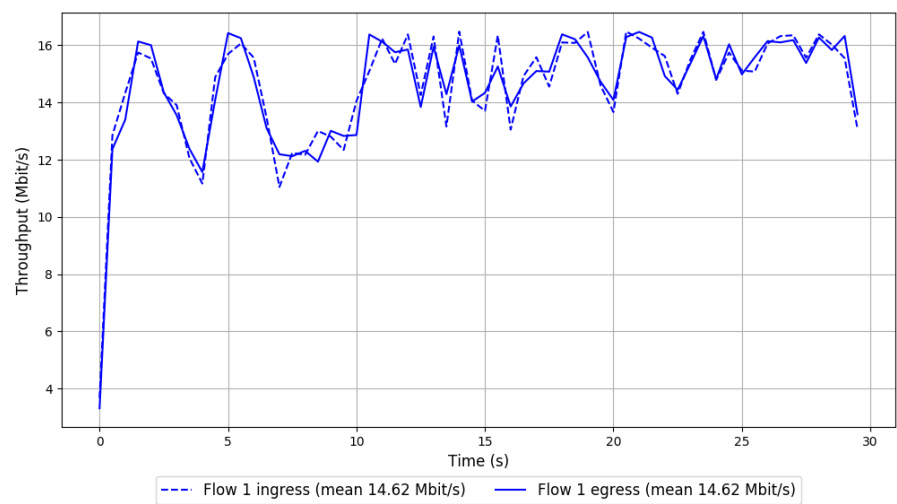


Run 7: Statistics of Sprout

Start at: 2018-03-06 06:36:47
End at: 2018-03-06 06:37:17
Local clock offset: 1.212 ms
Remote clock offset: -6.137 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 31.850 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 31.850 ms
Loss rate: 0.00%

Run 7: Report of Sprout — Data Link

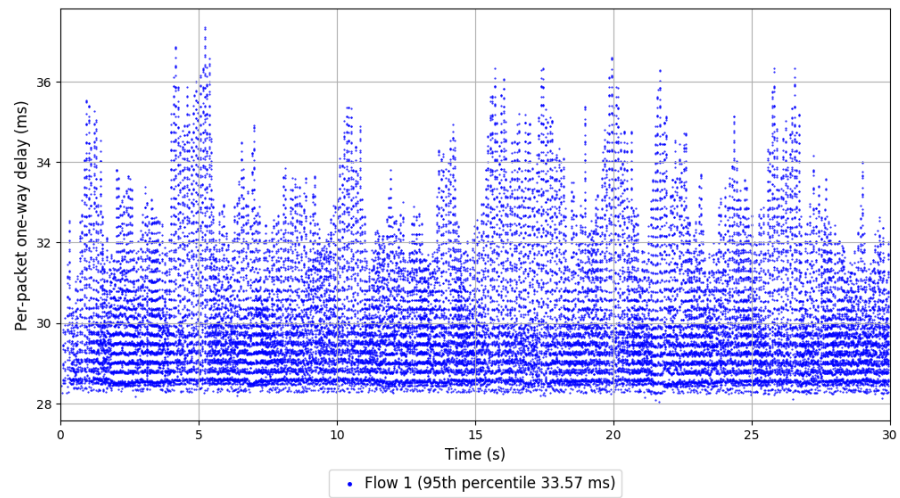
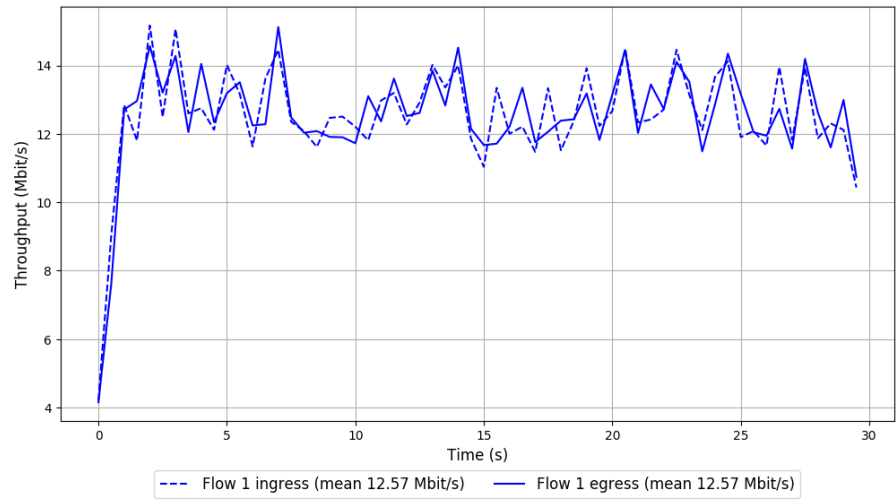


Run 8: Statistics of Sprout

Start at: 2018-03-06 07:03:10
End at: 2018-03-06 07:03:40
Local clock offset: 0.999 ms
Remote clock offset: -4.278 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.57 Mbit/s
95th percentile per-packet one-way delay: 33.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.57 Mbit/s
95th percentile per-packet one-way delay: 33.572 ms
Loss rate: 0.00%

Run 8: Report of Sprout — Data Link

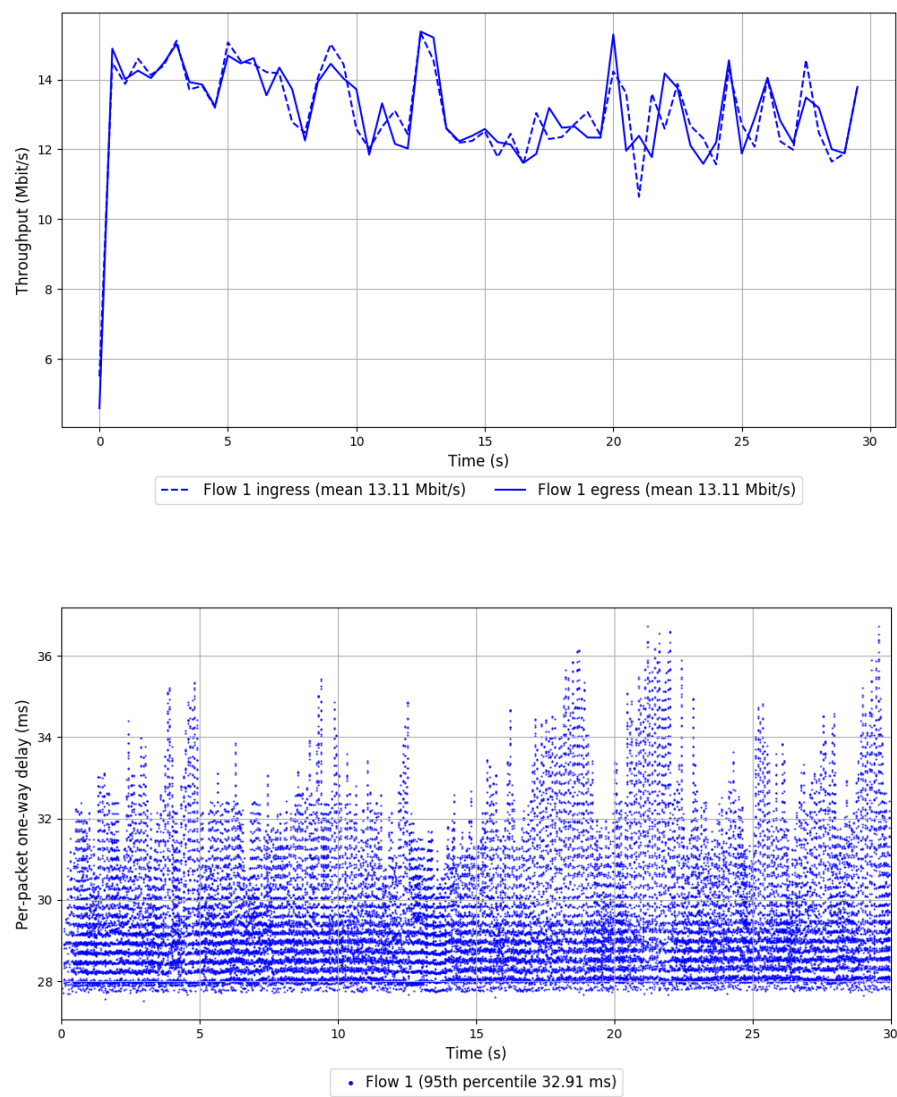


Run 9: Statistics of Sprout

Start at: 2018-03-06 07:32:04
End at: 2018-03-06 07:32:34
Local clock offset: 0.753 ms
Remote clock offset: -4.874 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 32.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.11 Mbit/s
95th percentile per-packet one-way delay: 32.912 ms
Loss rate: 0.00%

Run 9: Report of Sprout — Data Link

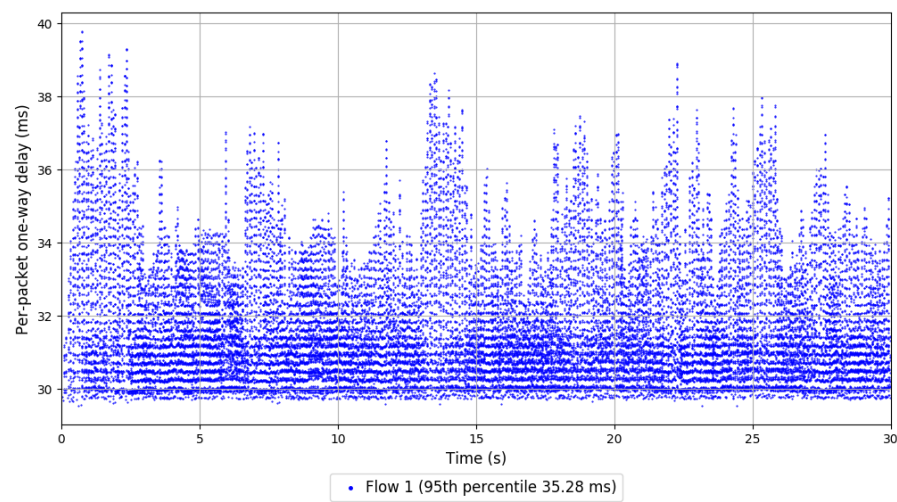
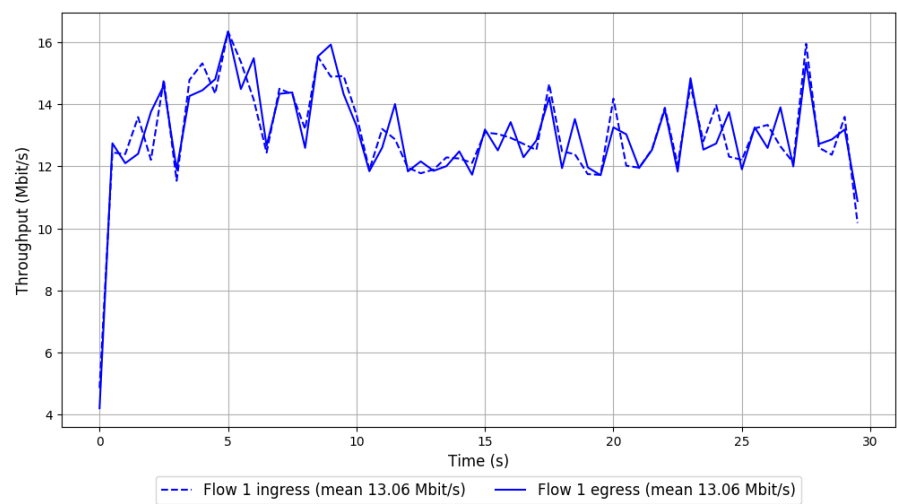


Run 10: Statistics of Sprout

Start at: 2018-03-06 08:02:11
End at: 2018-03-06 08:02:41
Local clock offset: 0.764 ms
Remote clock offset: -4.456 ms

Below is generated by plot.py at 2018-03-06 08:42:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 35.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 35.285 ms
Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

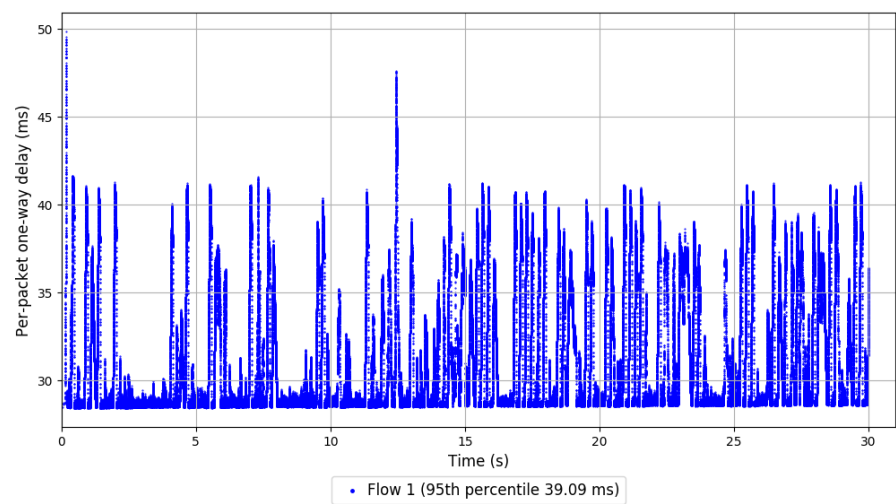
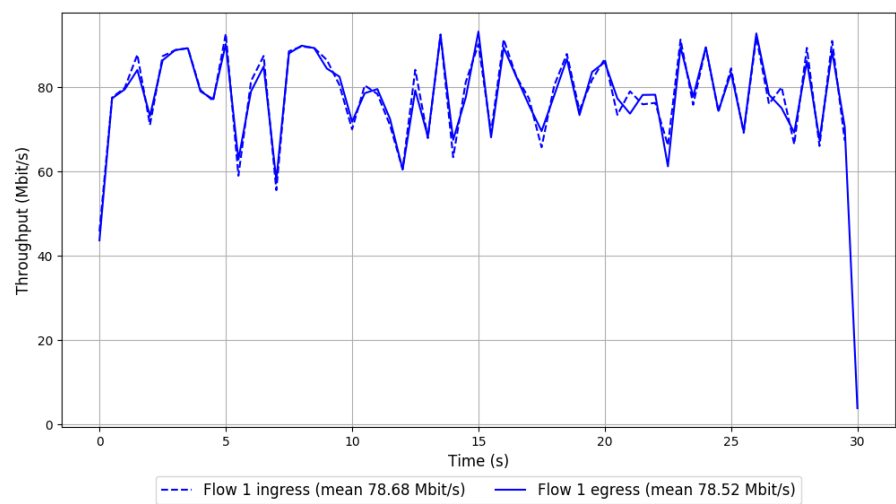


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-06 03:31:26
End at: 2018-03-06 03:31:56
Local clock offset: 1.259 ms
Remote clock offset: -2.495 ms

# Below is generated by plot.py at 2018-03-06 08:44:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.52 Mbit/s
95th percentile per-packet one-way delay: 39.092 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 78.52 Mbit/s
95th percentile per-packet one-way delay: 39.092 ms
Loss rate: 0.18%
```


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



Run 2: Statistics of TaoVA-100x

Start at: 2018-03-06 04:01:47

End at: 2018-03-06 04:02:17

Local clock offset: 1.212 ms

Remote clock offset: -2.848 ms

Below is generated by plot.py at 2018-03-06 08:44:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.09 Mbit/s

95th percentile per-packet one-way delay: 31.019 ms

Loss rate: 0.00%

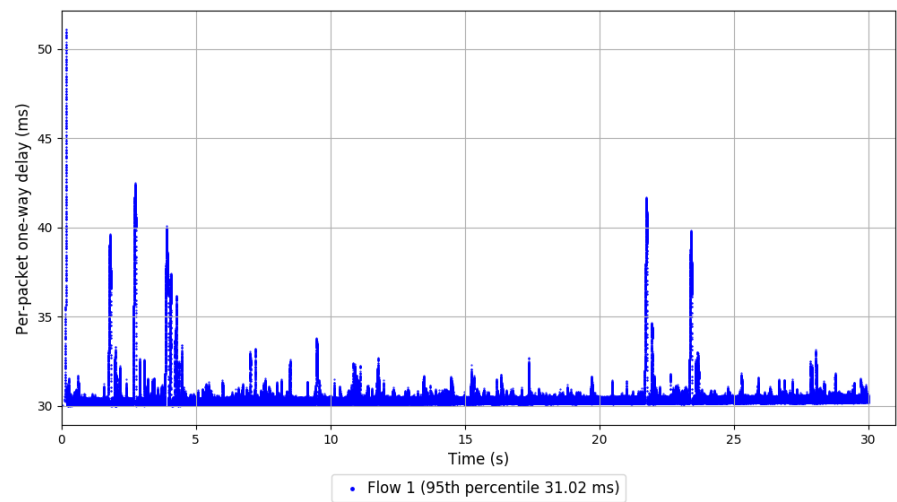
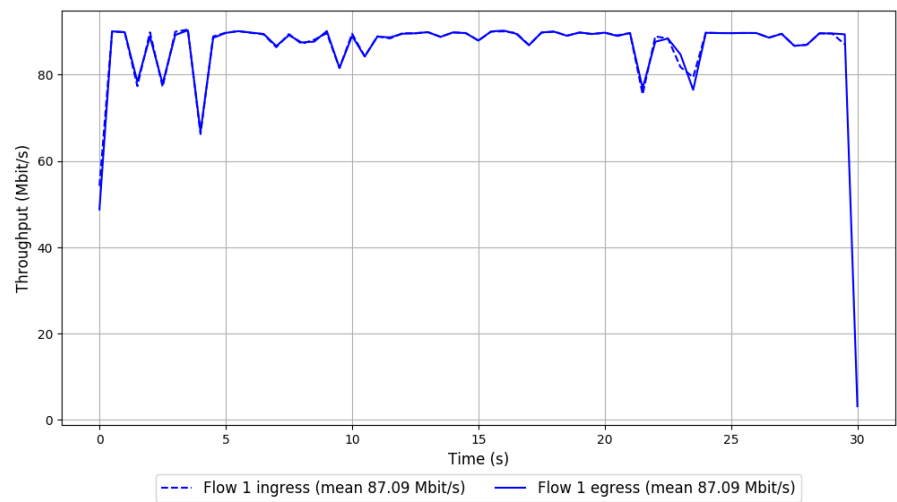
-- Flow 1:

Average throughput: 87.09 Mbit/s

95th percentile per-packet one-way delay: 31.019 ms

Loss rate: 0.00%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-03-06 04:35:50

End at: 2018-03-06 04:36:20

Local clock offset: 1.231 ms

Remote clock offset: -6.043 ms

Below is generated by plot.py at 2018-03-06 08:44:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.46 Mbit/s

95th percentile per-packet one-way delay: 38.978 ms

Loss rate: 0.08%

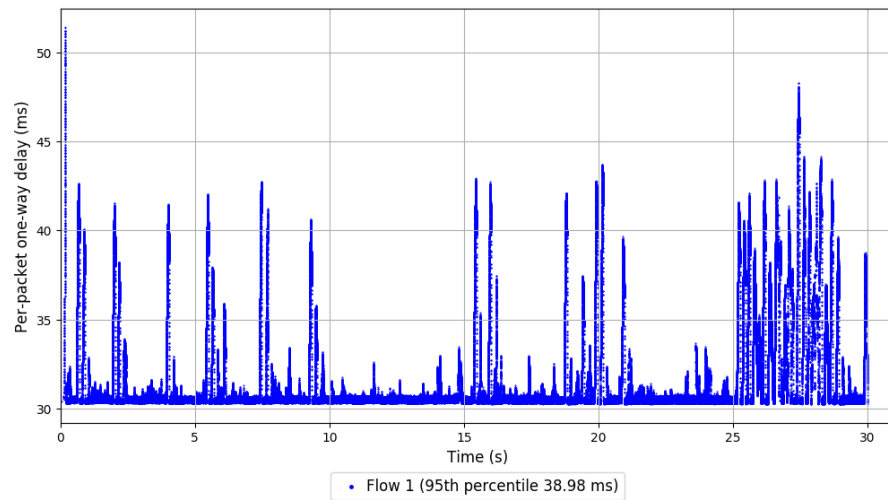
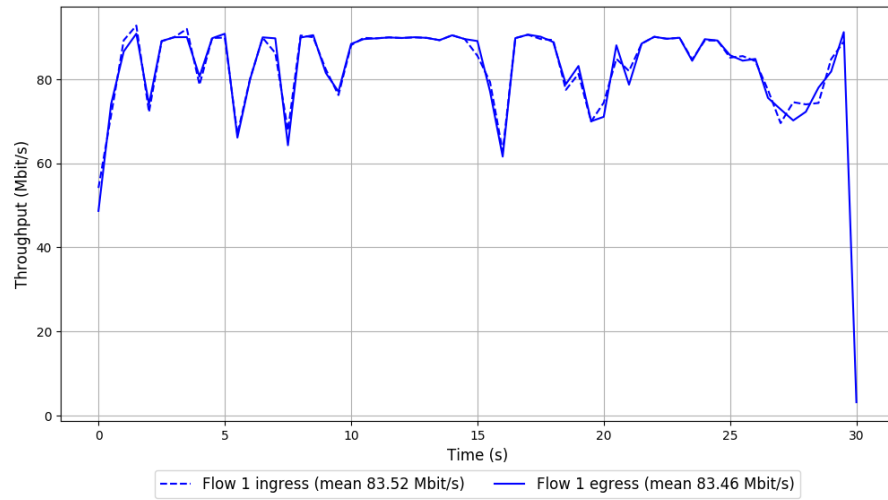
-- Flow 1:

Average throughput: 83.46 Mbit/s

95th percentile per-packet one-way delay: 38.978 ms

Loss rate: 0.08%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-06 05:08:58

End at: 2018-03-06 05:09:28

Local clock offset: 1.197 ms

Remote clock offset: -9.467 ms

Below is generated by plot.py at 2018-03-06 08:44:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.00 Mbit/s

95th percentile per-packet one-way delay: 29.519 ms

Loss rate: 0.08%

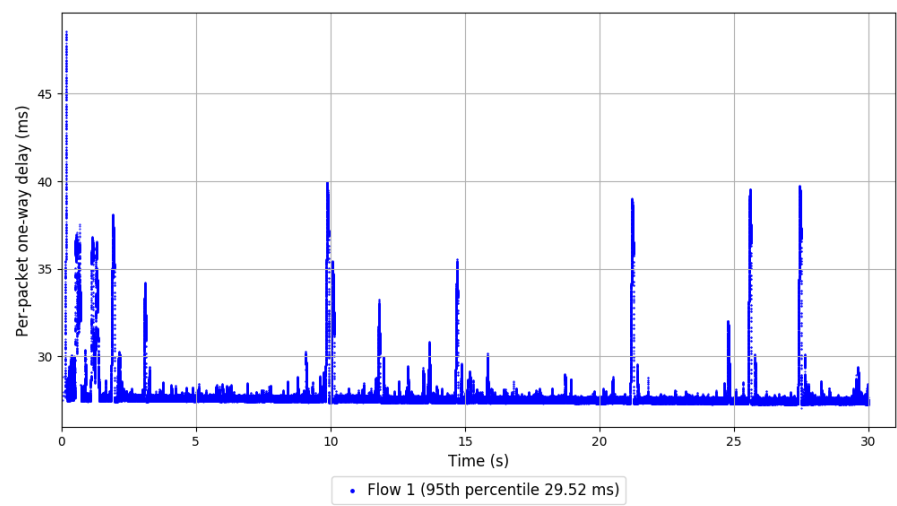
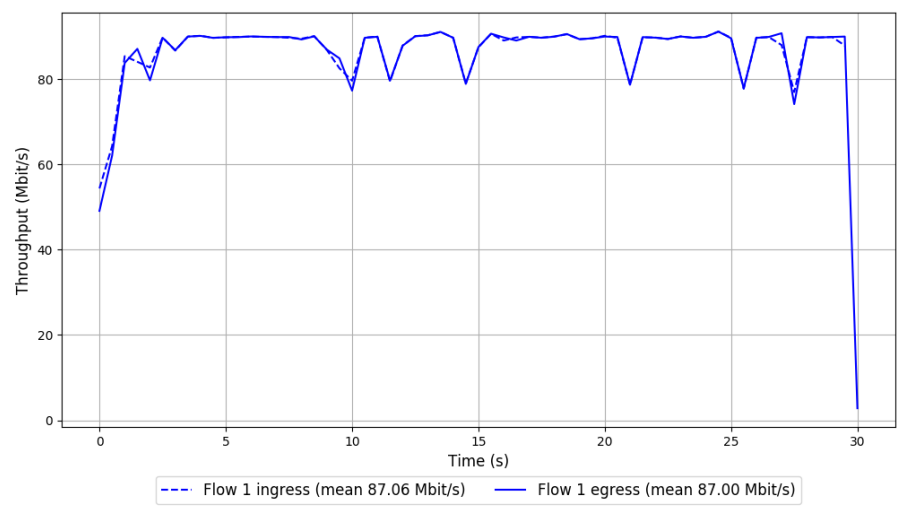
-- Flow 1:

Average throughput: 87.00 Mbit/s

95th percentile per-packet one-way delay: 29.519 ms

Loss rate: 0.08%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-06 05:46:18

End at: 2018-03-06 05:46:48

Local clock offset: 0.996 ms

Remote clock offset: -3.998 ms

Below is generated by plot.py at 2018-03-06 08:44:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.77 Mbit/s

95th percentile per-packet one-way delay: 38.855 ms

Loss rate: 0.00%

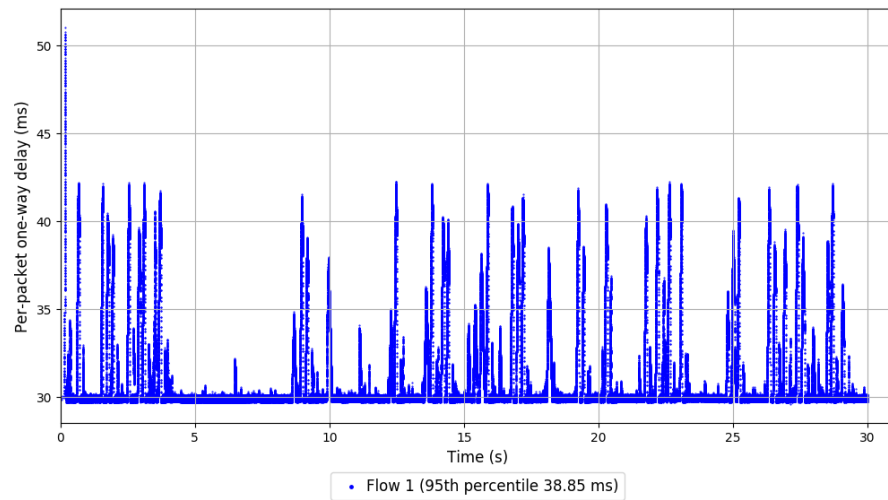
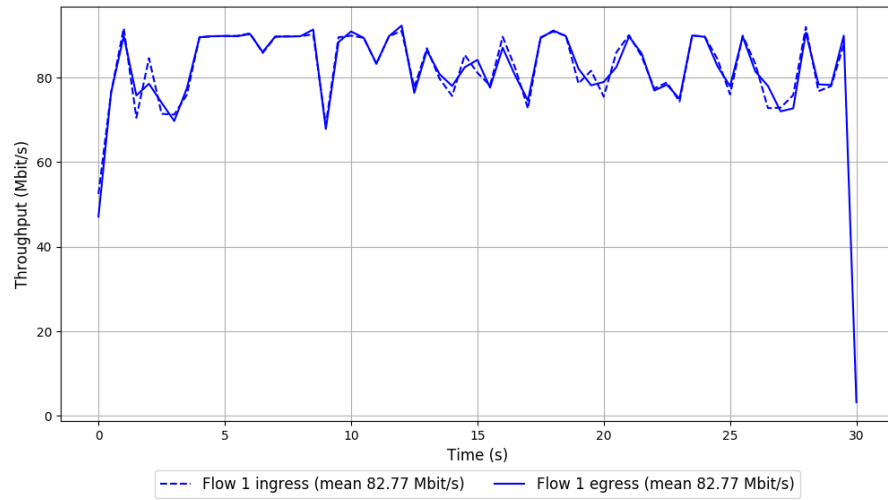
-- Flow 1:

Average throughput: 82.77 Mbit/s

95th percentile per-packet one-way delay: 38.855 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-06 06:16:38

End at: 2018-03-06 06:17:08

Local clock offset: 1.12 ms

Remote clock offset: -3.738 ms

Below is generated by plot.py at 2018-03-06 08:44:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.72 Mbit/s

95th percentile per-packet one-way delay: 33.357 ms

Loss rate: 0.00%

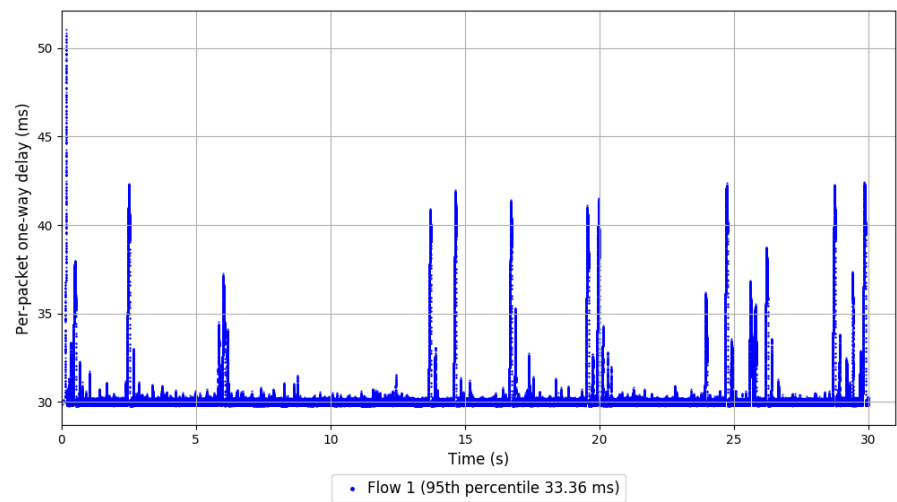
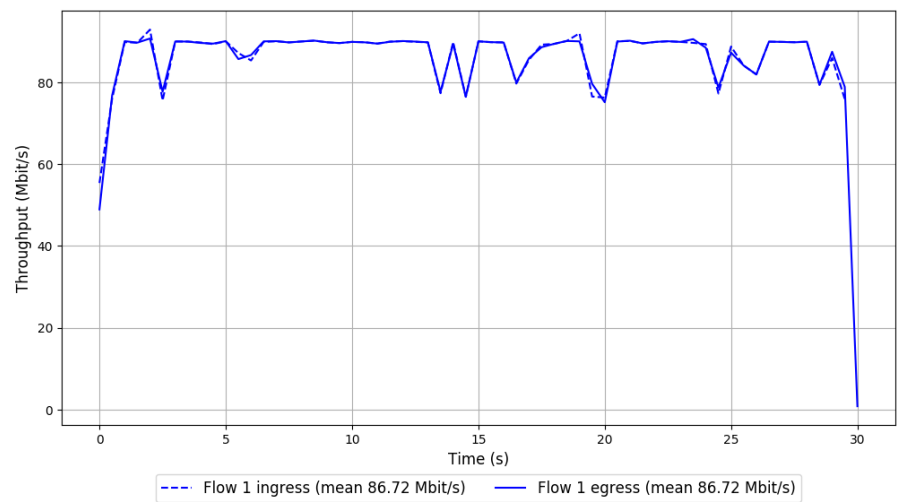
-- Flow 1:

Average throughput: 86.72 Mbit/s

95th percentile per-packet one-way delay: 33.357 ms

Loss rate: 0.00%

Run 6: Report of TaoVA-100x — Data Link

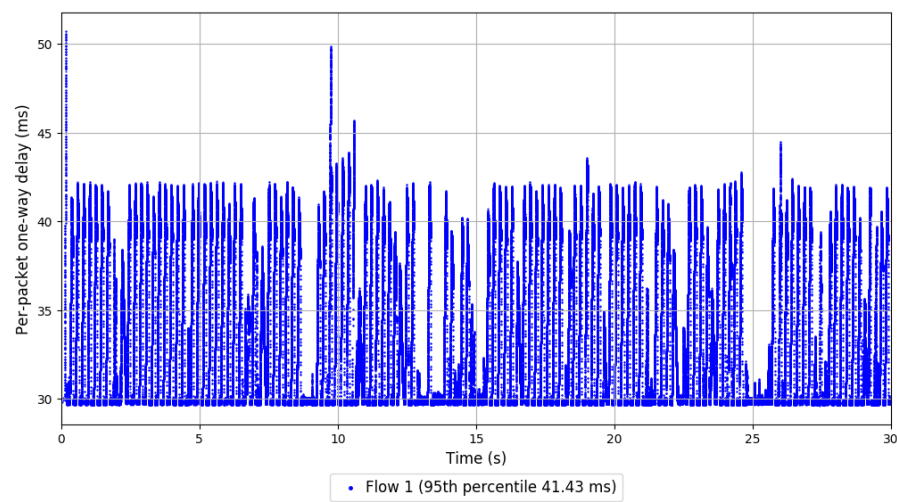
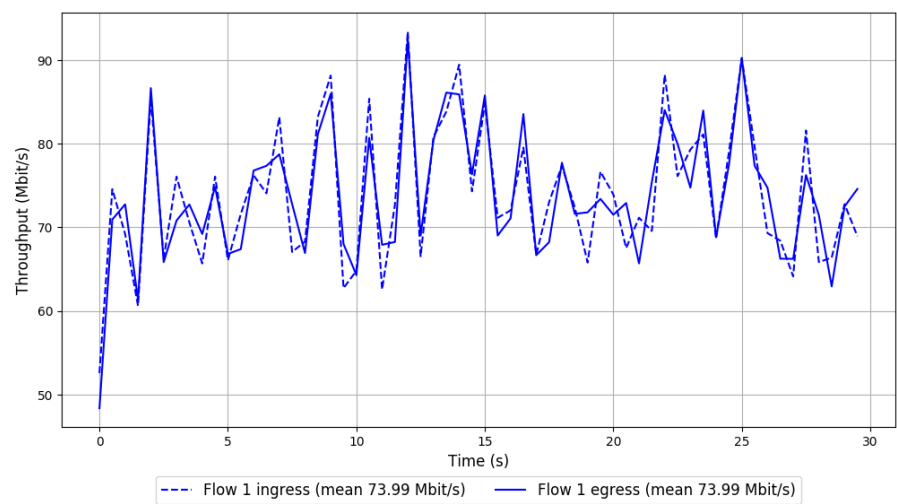


Run 7: Statistics of TaoVA-100x

Start at: 2018-03-06 06:45:07
End at: 2018-03-06 06:45:37
Local clock offset: 1.145 ms
Remote clock offset: -4.114 ms

Below is generated by plot.py at 2018-03-06 08:44:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.99 Mbit/s
95th percentile per-packet one-way delay: 41.430 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.99 Mbit/s
95th percentile per-packet one-way delay: 41.430 ms
Loss rate: 0.00%

Run 7: Report of TaoVA-100x — Data Link



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-06 07:12:14

End at: 2018-03-06 07:12:44

Local clock offset: 0.918 ms

Remote clock offset: -1.244 ms

Below is generated by plot.py at 2018-03-06 08:44:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.27 Mbit/s

95th percentile per-packet one-way delay: 36.178 ms

Loss rate: 0.00%

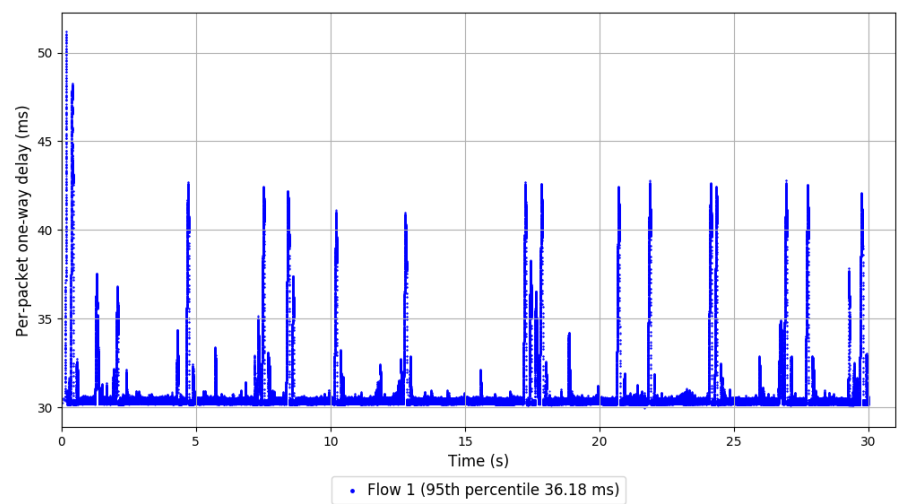
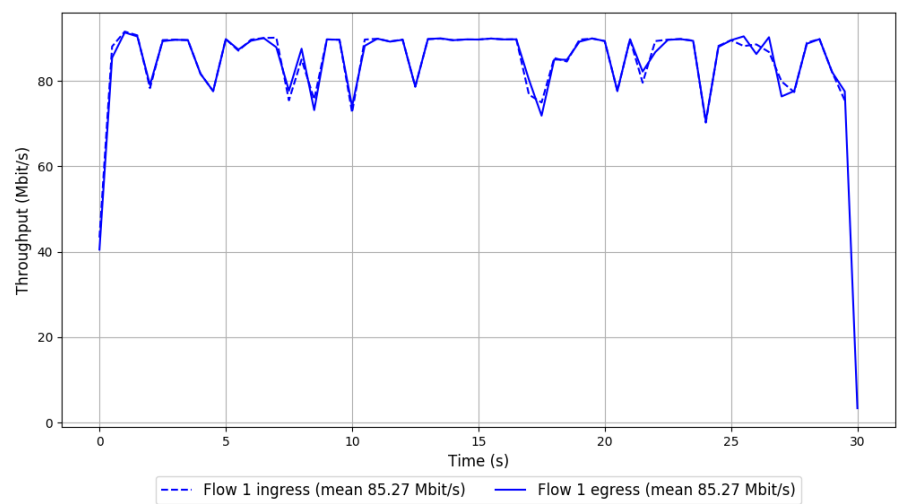
-- Flow 1:

Average throughput: 85.27 Mbit/s

95th percentile per-packet one-way delay: 36.178 ms

Loss rate: 0.00%

Run 8: Report of TaoVA-100x — Data Link



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-06 07:42:14

End at: 2018-03-06 07:42:44

Local clock offset: 0.875 ms

Remote clock offset: -3.293 ms

Below is generated by plot.py at 2018-03-06 08:46:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.32 Mbit/s

95th percentile per-packet one-way delay: 40.685 ms

Loss rate: 0.03%

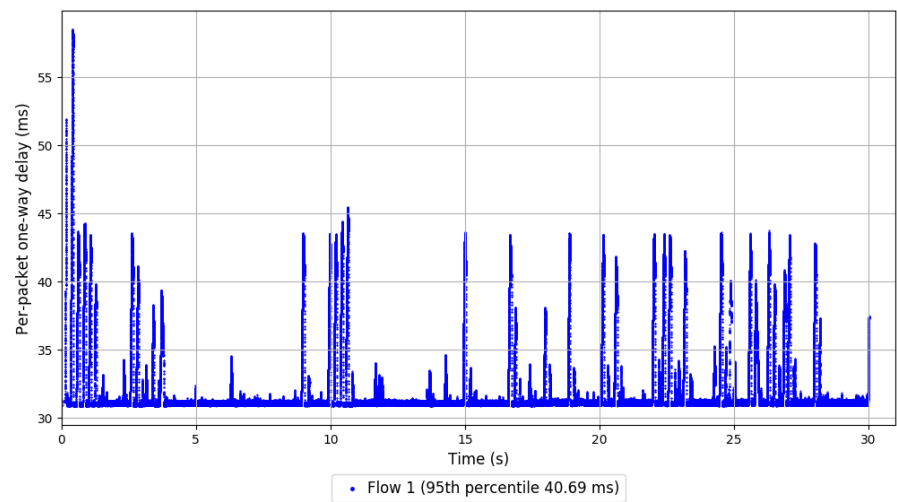
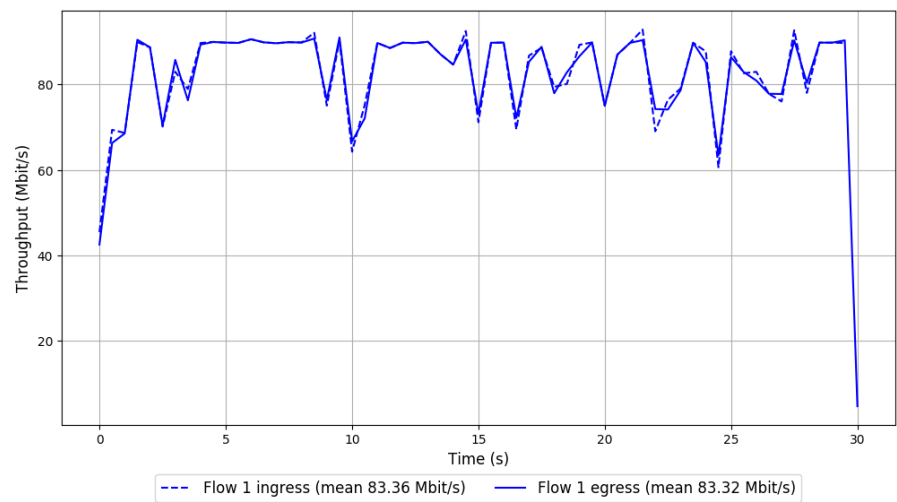
-- Flow 1:

Average throughput: 83.32 Mbit/s

95th percentile per-packet one-way delay: 40.685 ms

Loss rate: 0.03%

Run 9: Report of TaoVA-100x — Data Link



Run 10: Statistics of TaoVA-100x

Start at: 2018-03-06 08:10:47

End at: 2018-03-06 08:11:17

Local clock offset: 0.779 ms

Remote clock offset: -4.626 ms

Below is generated by plot.py at 2018-03-06 08:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.77 Mbit/s

95th percentile per-packet one-way delay: 38.837 ms

Loss rate: 0.00%

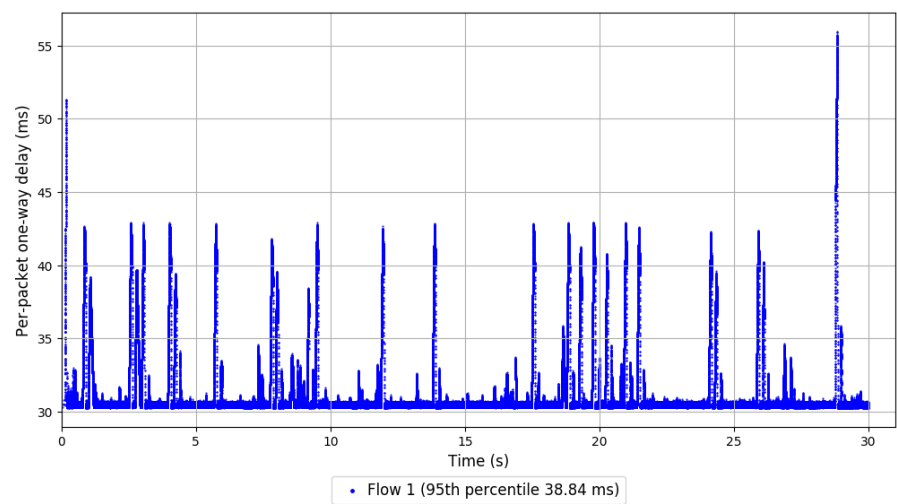
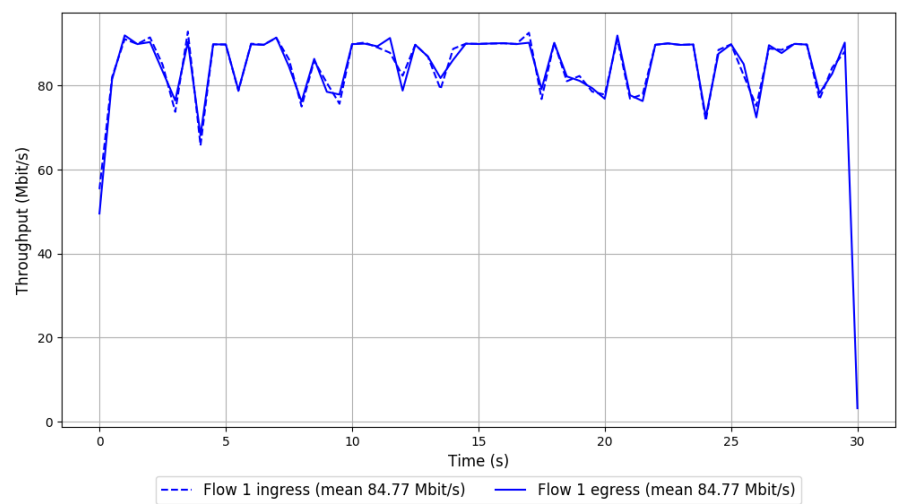
-- Flow 1:

Average throughput: 84.77 Mbit/s

95th percentile per-packet one-way delay: 38.837 ms

Loss rate: 0.00%

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2018-03-06 03:23:59

End at: 2018-03-06 03:24:29

Local clock offset: 1.282 ms

Remote clock offset: 2.42 ms

Below is generated by plot.py at 2018-03-06 08:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.84 Mbit/s

95th percentile per-packet one-way delay: 31.625 ms

Loss rate: 0.04%

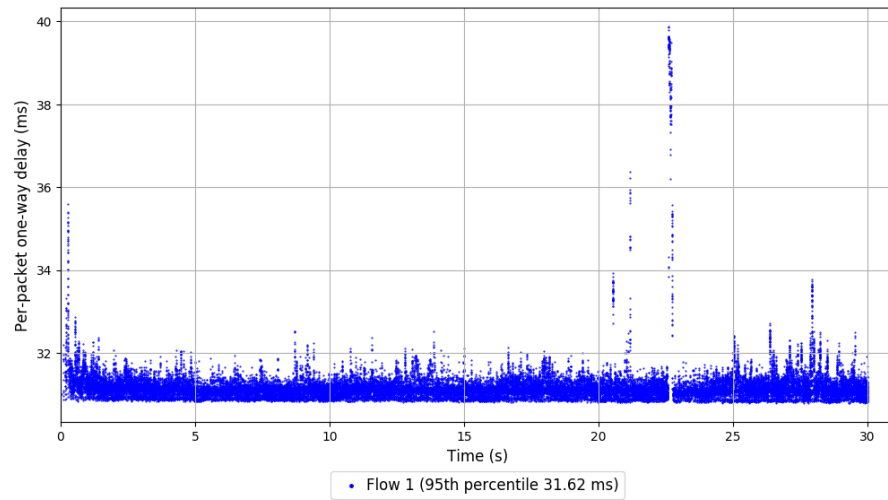
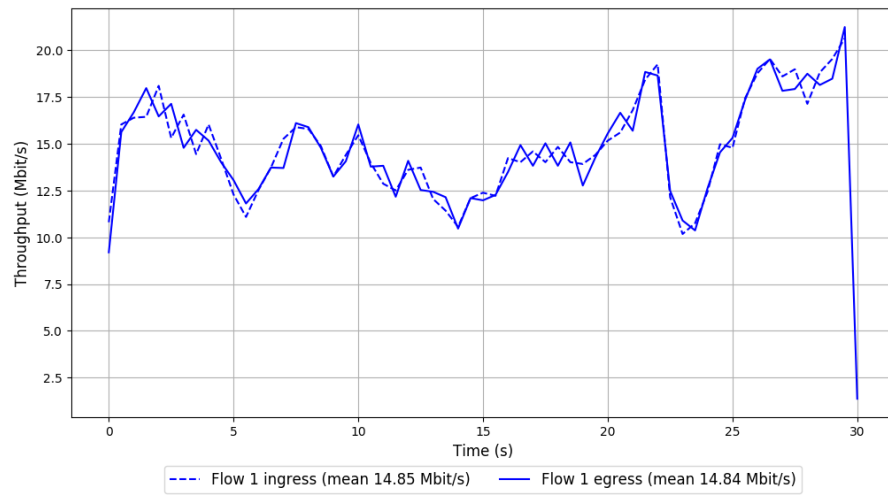
-- Flow 1:

Average throughput: 14.84 Mbit/s

95th percentile per-packet one-way delay: 31.625 ms

Loss rate: 0.04%

Run 1: Report of TCP Vegas — Data Link

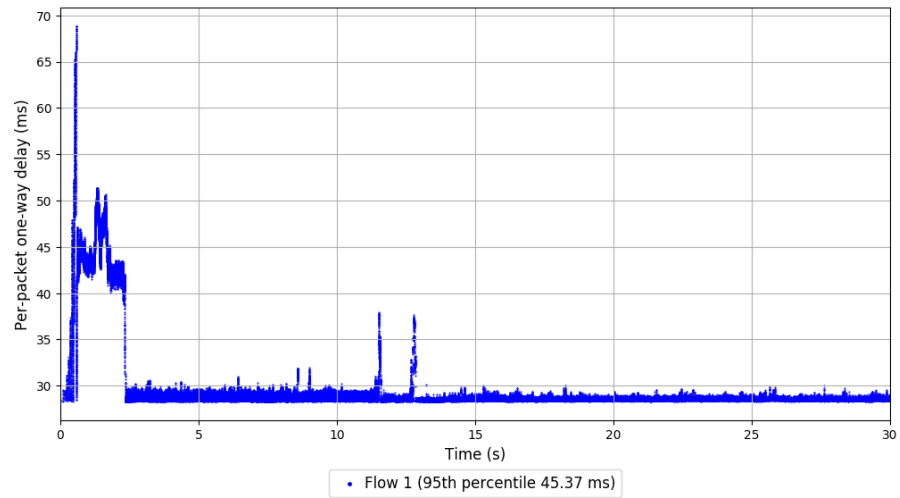
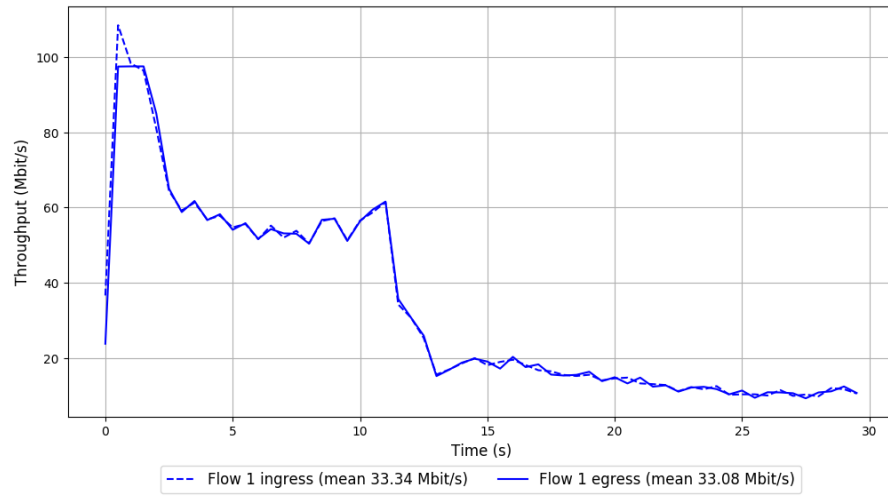


Run 2: Statistics of TCP Vegas

Start at: 2018-03-06 03:53:35
End at: 2018-03-06 03:54:05
Local clock offset: 1.42 ms
Remote clock offset: -4.607 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 45.370 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 33.08 Mbit/s
95th percentile per-packet one-way delay: 45.370 ms
Loss rate: 0.80%

Run 2: Report of TCP Vegas — Data Link

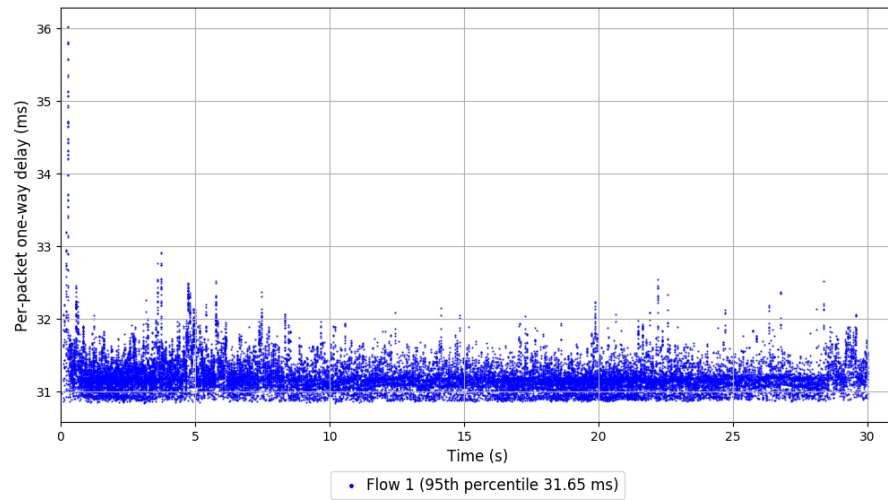
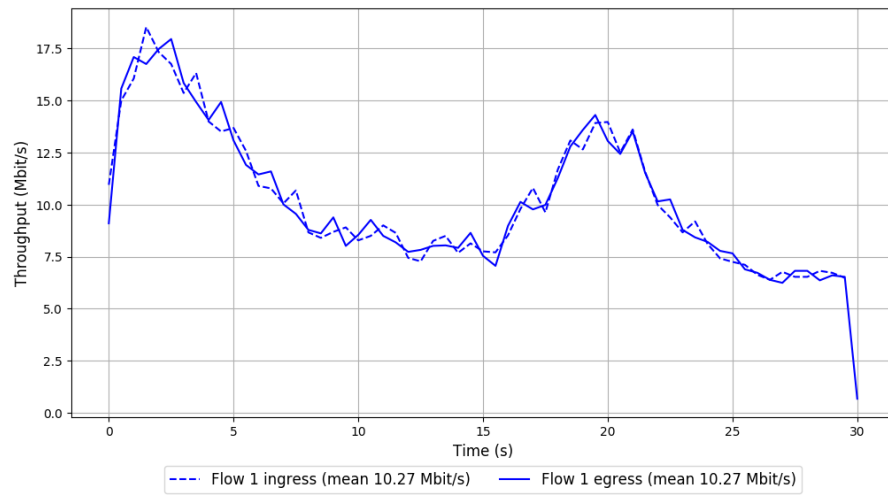


Run 3: Statistics of TCP Vegas

Start at: 2018-03-06 04:27:47
End at: 2018-03-06 04:28:17
Local clock offset: 1.259 ms
Remote clock offset: -5.522 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 31.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.27 Mbit/s
95th percentile per-packet one-way delay: 31.649 ms
Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link

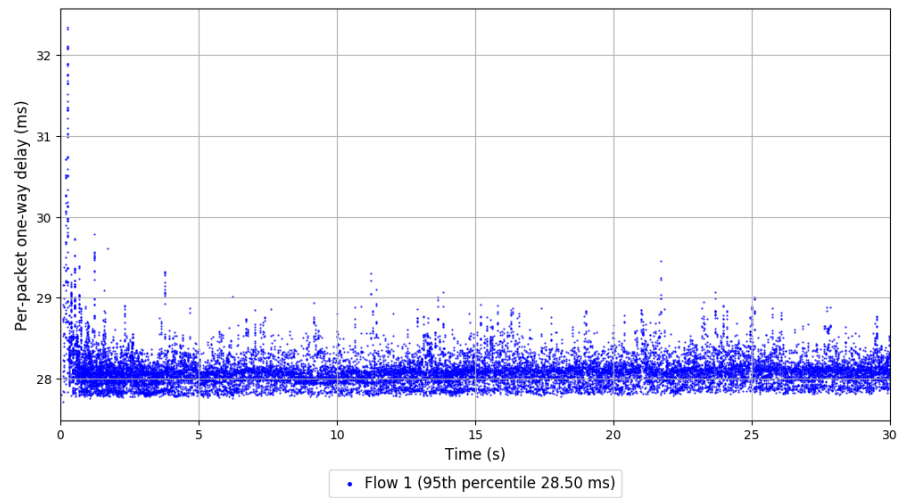
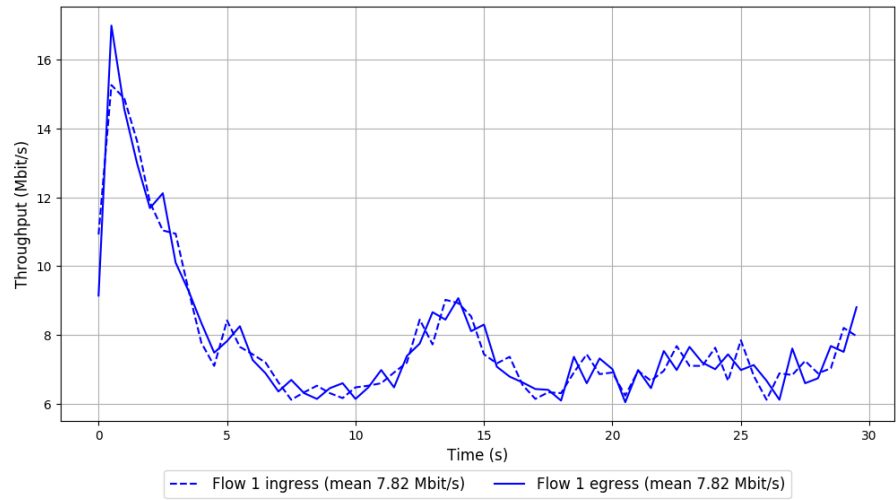


Run 4: Statistics of TCP Vegas

Start at: 2018-03-06 05:01:00
End at: 2018-03-06 05:01:30
Local clock offset: 1.171 ms
Remote clock offset: -8.695 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 28.501 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 28.501 ms
Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link

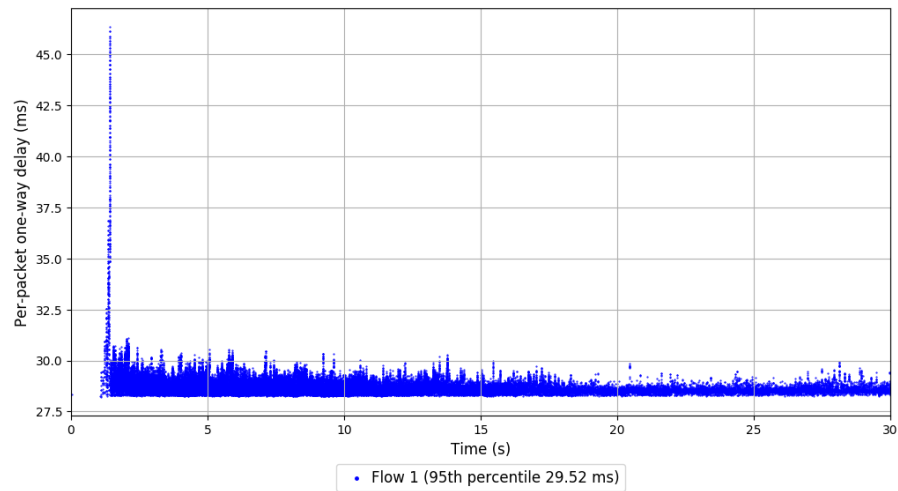
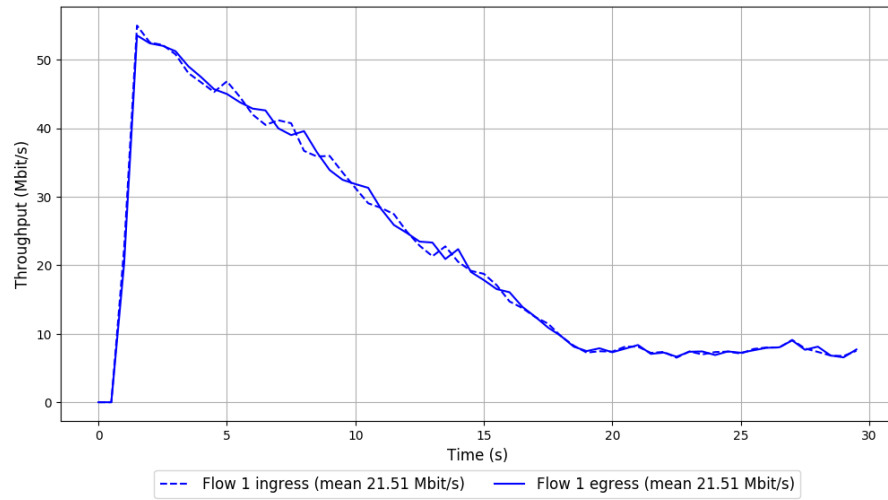


Run 5: Statistics of TCP Vegas

Start at: 2018-03-06 05:37:58
End at: 2018-03-06 05:38:28
Local clock offset: 0.938 ms
Remote clock offset: -5.805 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 29.517 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 21.51 Mbit/s
95th percentile per-packet one-way delay: 29.517 ms
Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link

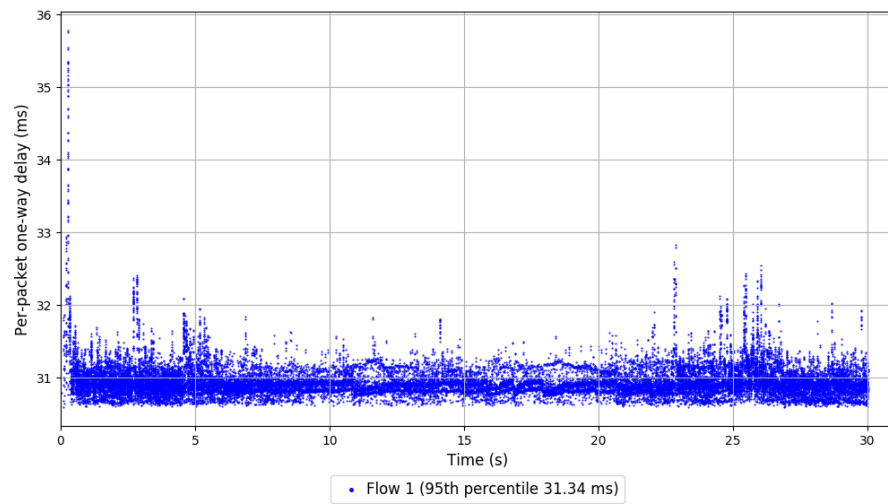
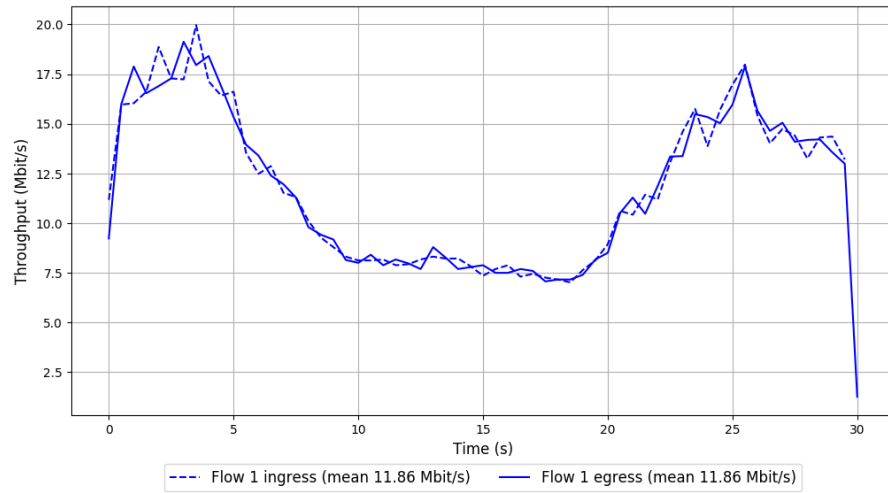


Run 6: Statistics of TCP Vegas

Start at: 2018-03-06 06:08:35
End at: 2018-03-06 06:09:05
Local clock offset: 1.104 ms
Remote clock offset: -3.914 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 31.342 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 31.342 ms
Loss rate: 0.01%

Run 6: Report of TCP Vegas — Data Link

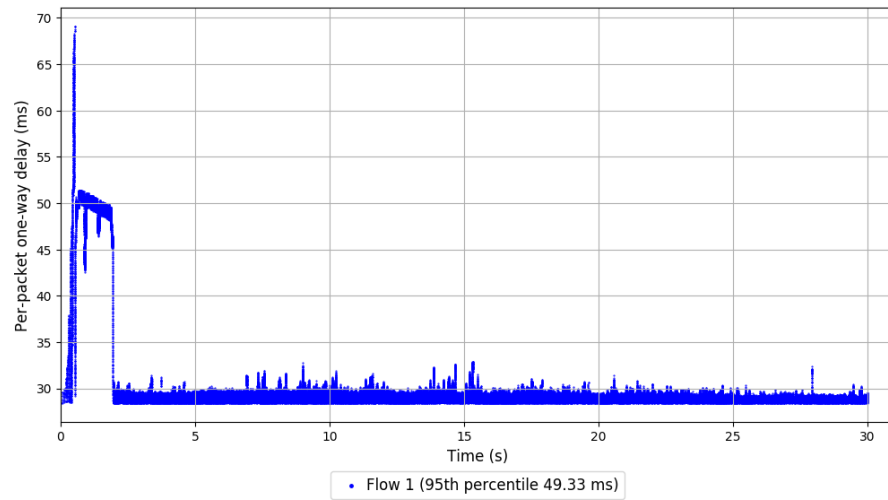
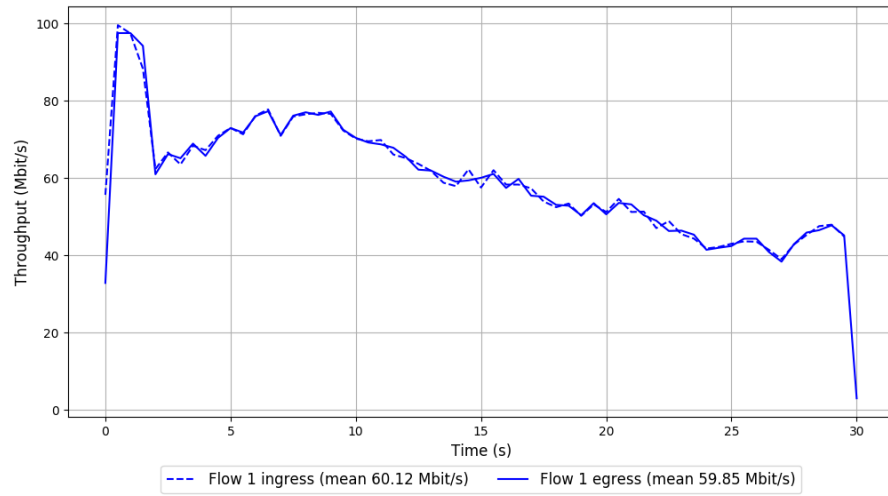


Run 7: Statistics of TCP Vegas

Start at: 2018-03-06 06:38:06
End at: 2018-03-06 06:38:36
Local clock offset: 1.143 ms
Remote clock offset: -6.119 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.85 Mbit/s
95th percentile per-packet one-way delay: 49.329 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 59.85 Mbit/s
95th percentile per-packet one-way delay: 49.329 ms
Loss rate: 0.43%

Run 7: Report of TCP Vegas — Data Link

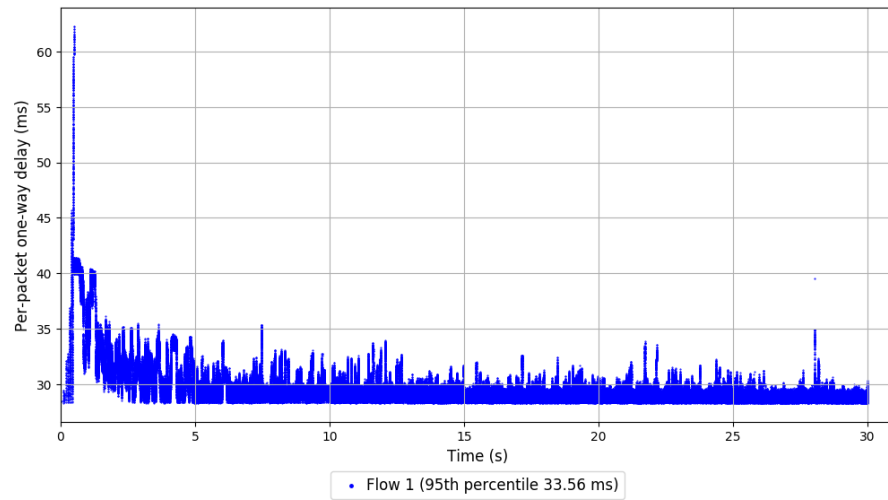
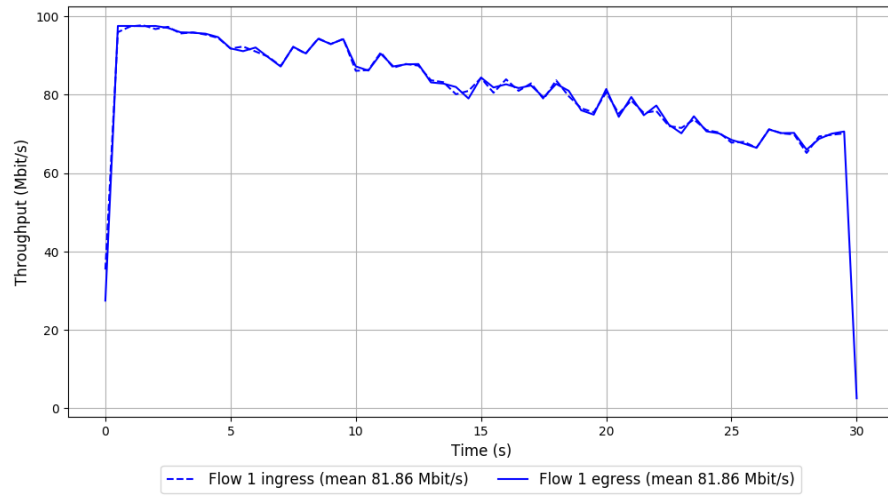


Run 8: Statistics of TCP Vegas

Start at: 2018-03-06 07:04:29
End at: 2018-03-06 07:04:59
Local clock offset: 0.974 ms
Remote clock offset: -4.121 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.86 Mbit/s
95th percentile per-packet one-way delay: 33.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.86 Mbit/s
95th percentile per-packet one-way delay: 33.562 ms
Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-06 07:33:24

End at: 2018-03-06 07:33:54

Local clock offset: 0.782 ms

Remote clock offset: -2.936 ms

Below is generated by plot.py at 2018-03-06 08:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.01 Mbit/s

95th percentile per-packet one-way delay: 33.390 ms

Loss rate: 0.31%

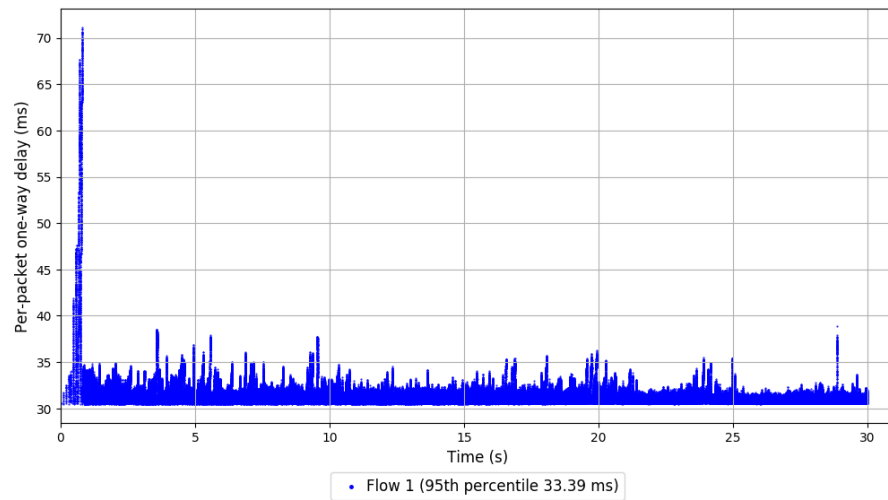
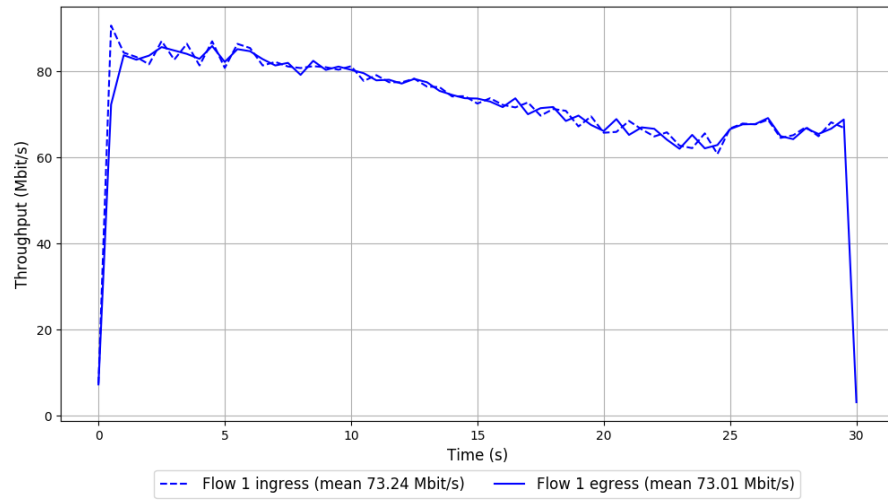
-- Flow 1:

Average throughput: 73.01 Mbit/s

95th percentile per-packet one-way delay: 33.390 ms

Loss rate: 0.31%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-06 08:03:30

End at: 2018-03-06 08:04:00

Local clock offset: 0.796 ms

Remote clock offset: -4.584 ms

Below is generated by plot.py at 2018-03-06 08:46:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.28 Mbit/s

95th percentile per-packet one-way delay: 31.152 ms

Loss rate: 0.00%

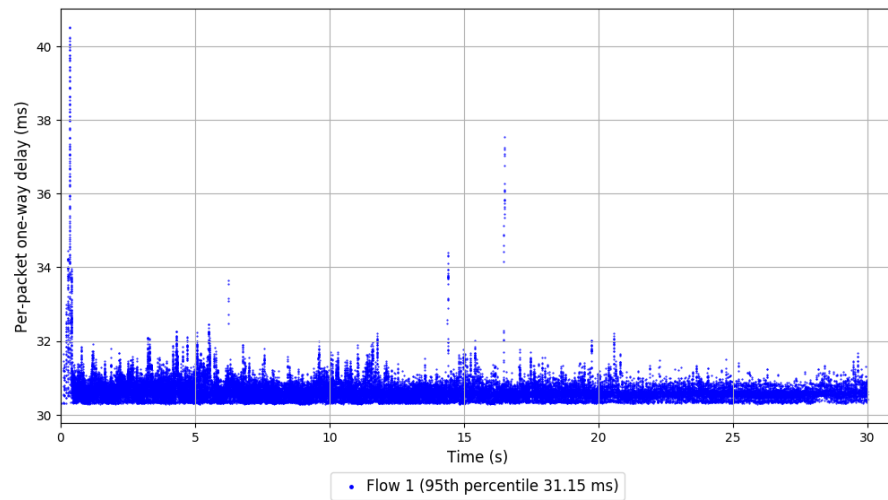
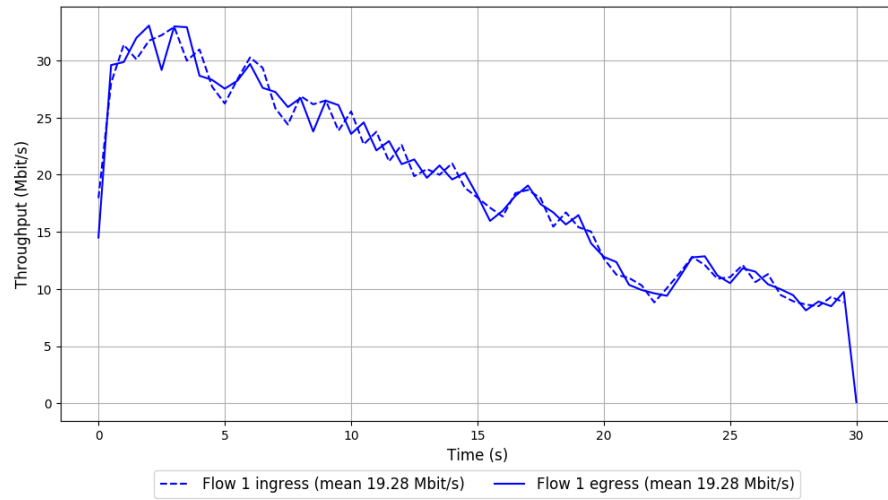
-- Flow 1:

Average throughput: 19.28 Mbit/s

95th percentile per-packet one-way delay: 31.152 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link

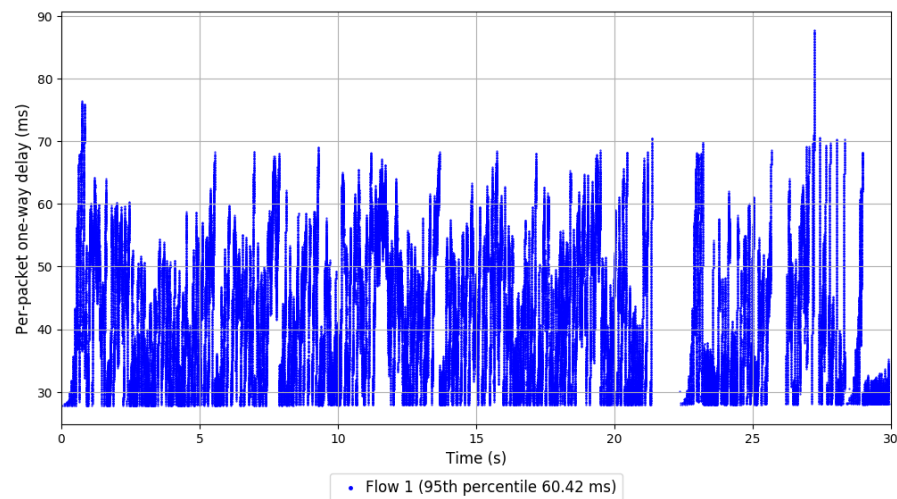
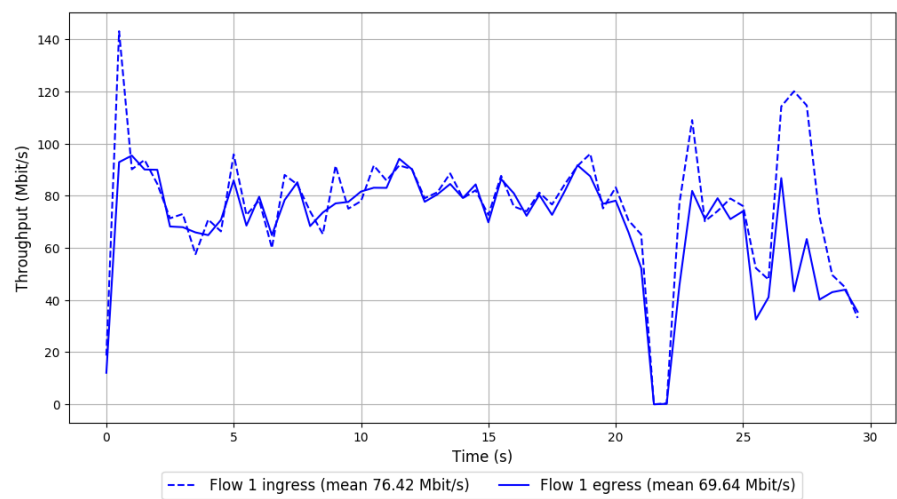


Run 1: Statistics of Verus

Start at: 2018-03-06 03:27:55
End at: 2018-03-06 03:28:25
Local clock offset: 1.257 ms
Remote clock offset: -1.035 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 69.64 Mbit/s
95th percentile per-packet one-way delay: 60.422 ms
Loss rate: 8.87%
-- Flow 1:
Average throughput: 69.64 Mbit/s
95th percentile per-packet one-way delay: 60.422 ms
Loss rate: 8.87%

Run 1: Report of Verus — Data Link

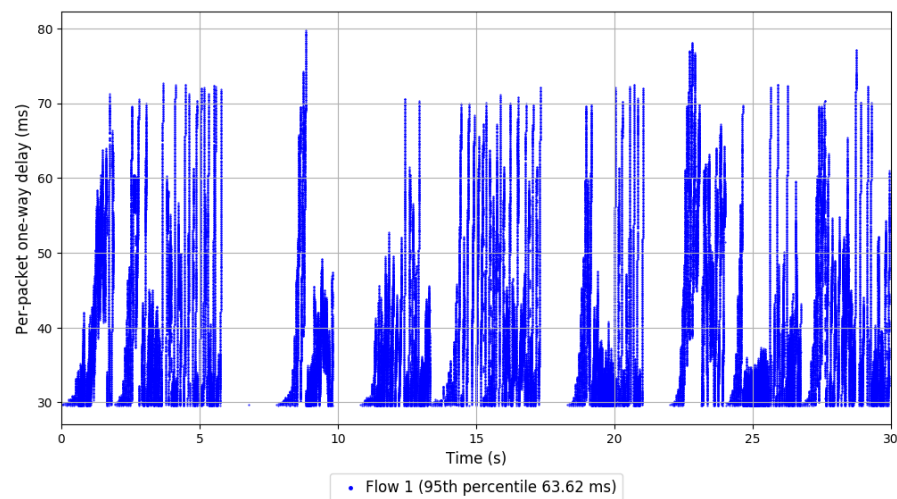
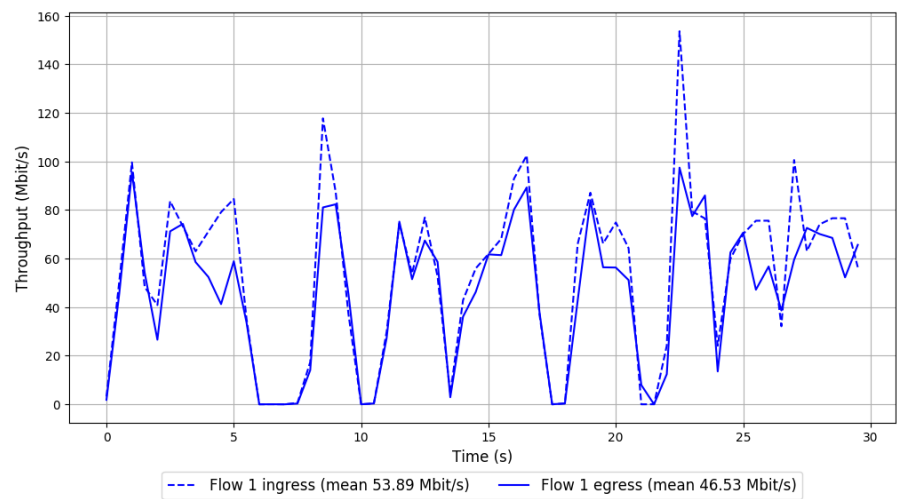


Run 2: Statistics of Verus

Start at: 2018-03-06 03:58:29
End at: 2018-03-06 03:58:59
Local clock offset: 1.376 ms
Remote clock offset: -2.653 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 63.619 ms
Loss rate: 13.65%
-- Flow 1:
Average throughput: 46.53 Mbit/s
95th percentile per-packet one-way delay: 63.619 ms
Loss rate: 13.65%

Run 2: Report of Verus — Data Link

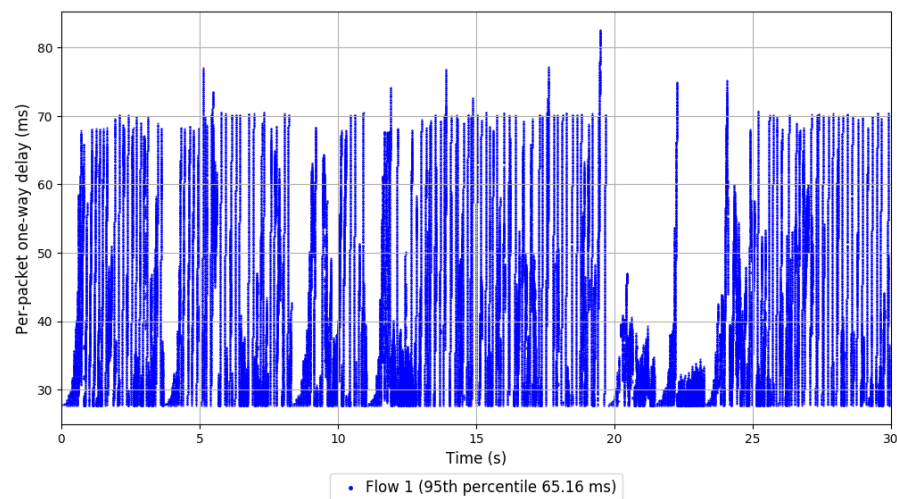
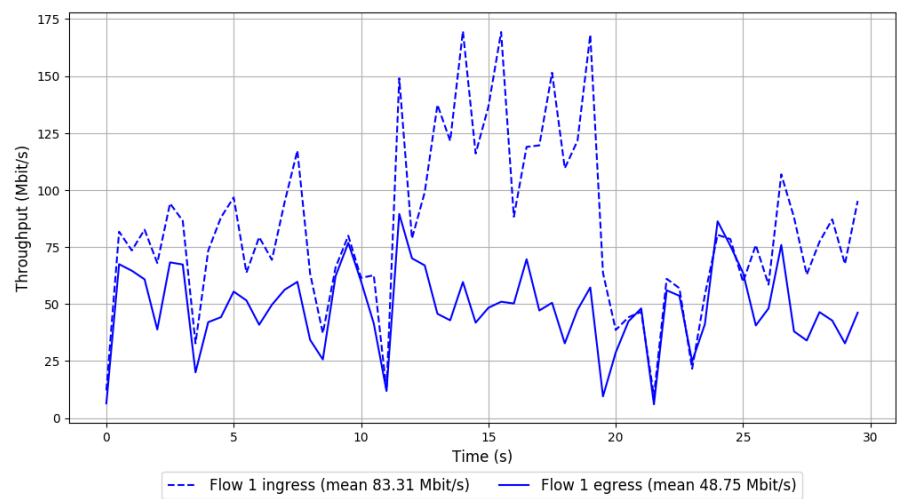


Run 3: Statistics of Verus

Start at: 2018-03-06 04:32:26
End at: 2018-03-06 04:32:56
Local clock offset: 1.241 ms
Remote clock offset: -8.069 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 65.156 ms
Loss rate: 41.49%
-- Flow 1:
Average throughput: 48.75 Mbit/s
95th percentile per-packet one-way delay: 65.156 ms
Loss rate: 41.49%

Run 3: Report of Verus — Data Link

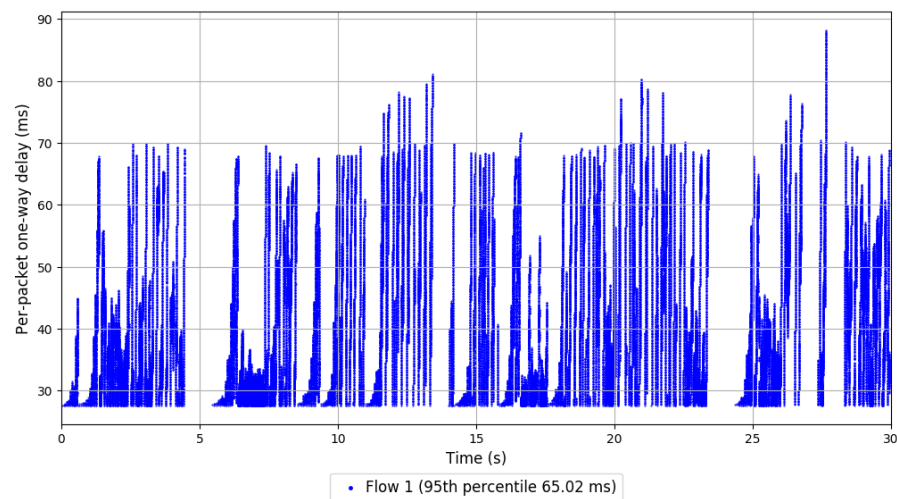
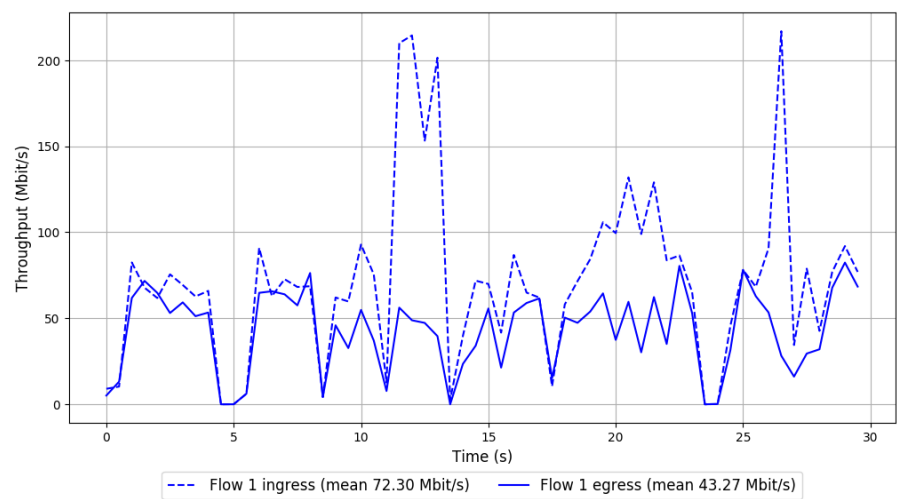


Run 4: Statistics of Verus

Start at: 2018-03-06 05:05:43
End at: 2018-03-06 05:06:13
Local clock offset: 1.247 ms
Remote clock offset: -9.196 ms

Below is generated by plot.py at 2018-03-06 08:46:48
Datalink statistics
-- Total of 1 flow:
Average throughput: 43.27 Mbit/s
95th percentile per-packet one-way delay: 65.018 ms
Loss rate: 40.13%
-- Flow 1:
Average throughput: 43.27 Mbit/s
95th percentile per-packet one-way delay: 65.018 ms
Loss rate: 40.13%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-06 05:43:13

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

Local clock offset: 0.954 ms

Remote clock offset: -5.9 ms

Below is generated by plot.py at 2018-03-06 08:46:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 67.921 ms

Loss rate: 59.24%

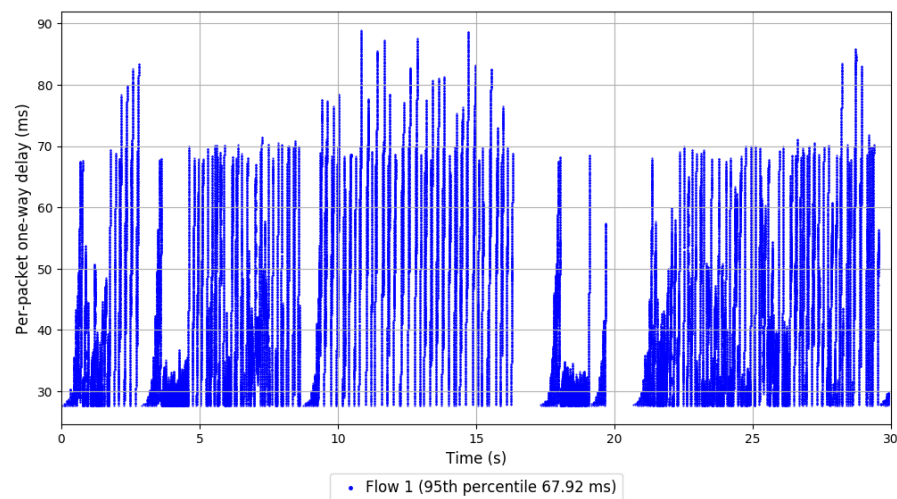
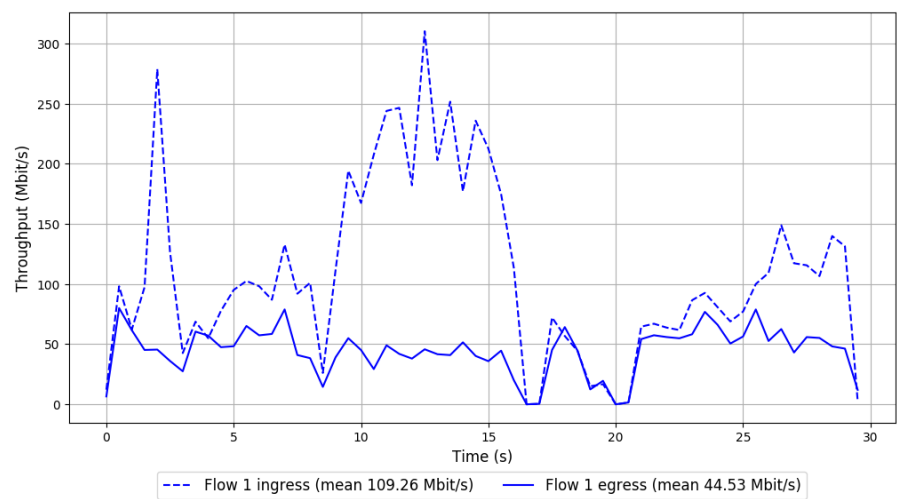
-- Flow 1:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 67.921 ms

Loss rate: 59.24%

Run 5: Report of Verus — Data Link

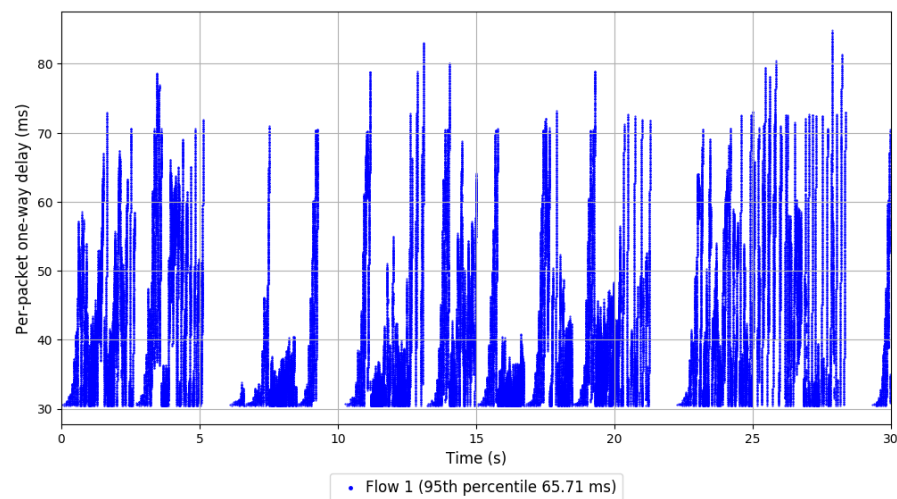
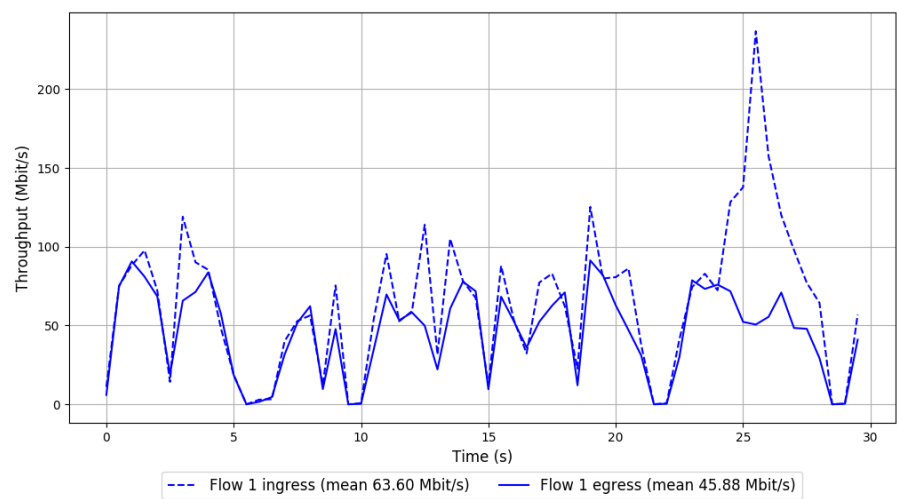


Run 6: Statistics of Verus

Start at: 2018-03-06 06:13:08
End at: 2018-03-06 06:13:38
Local clock offset: 1.135 ms
Remote clock offset: -3.866 ms

Below is generated by plot.py at 2018-03-06 08:46:51
Datalink statistics
-- Total of 1 flow:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: 65.712 ms
Loss rate: 27.84%
-- Flow 1:
Average throughput: 45.88 Mbit/s
95th percentile per-packet one-way delay: 65.712 ms
Loss rate: 27.84%

Run 6: Report of Verus — Data Link

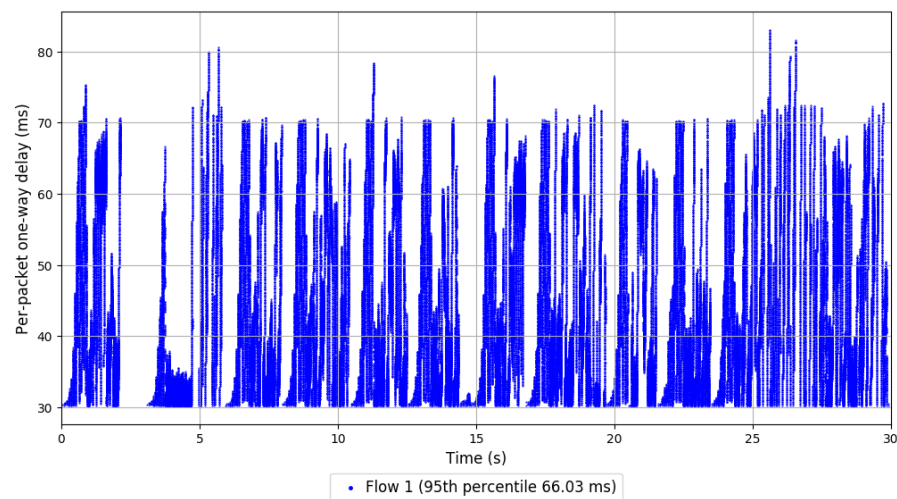
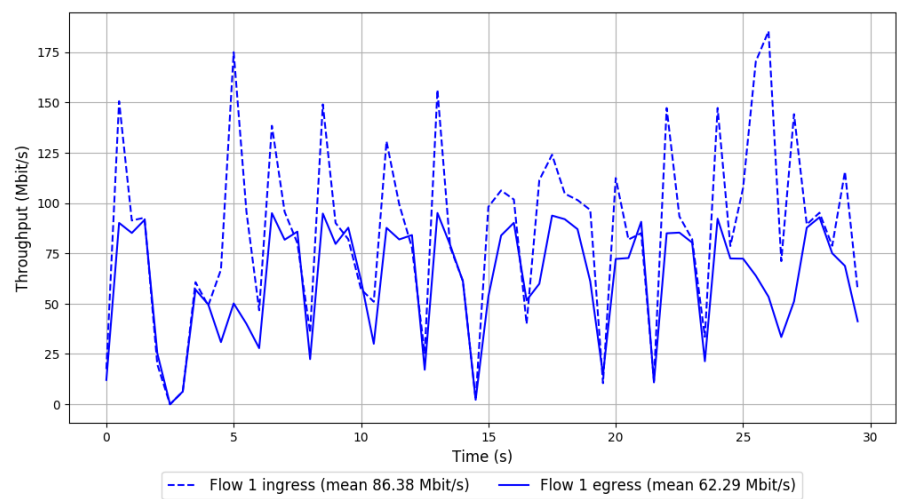


Run 7: Statistics of Verus

Start at: 2018-03-06 06:42:16
End at: 2018-03-06 06:42:46
Local clock offset: 1.246 ms
Remote clock offset: -4.146 ms

Below is generated by plot.py at 2018-03-06 08:47:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 66.029 ms
Loss rate: 27.89%
-- Flow 1:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 66.029 ms
Loss rate: 27.89%

Run 7: Report of Verus — Data Link

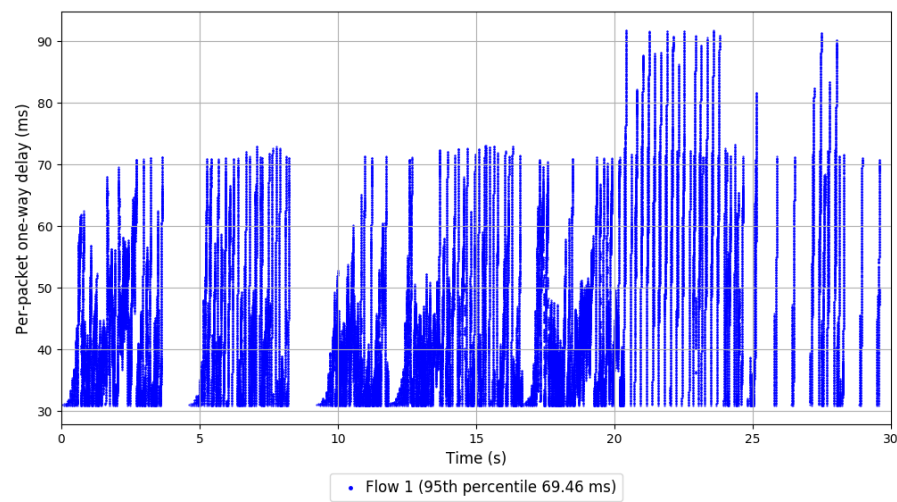
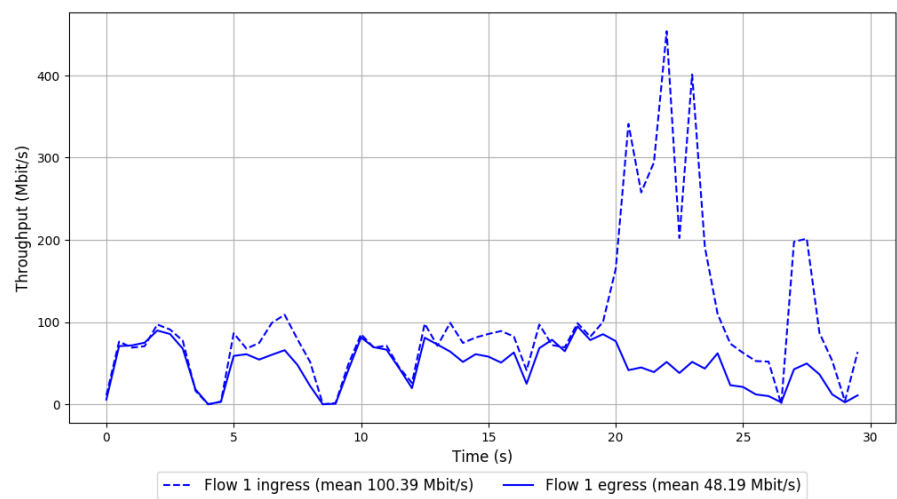


Run 8: Statistics of Verus

Start at: 2018-03-06 07:09:13
End at: 2018-03-06 07:09:43
Local clock offset: 0.85 ms
Remote clock offset: -1.437 ms

Below is generated by plot.py at 2018-03-06 08:47:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 48.19 Mbit/s
95th percentile per-packet one-way delay: 69.459 ms
Loss rate: 51.96%
-- Flow 1:
Average throughput: 48.19 Mbit/s
95th percentile per-packet one-way delay: 69.459 ms
Loss rate: 51.96%

Run 8: Report of Verus — Data Link

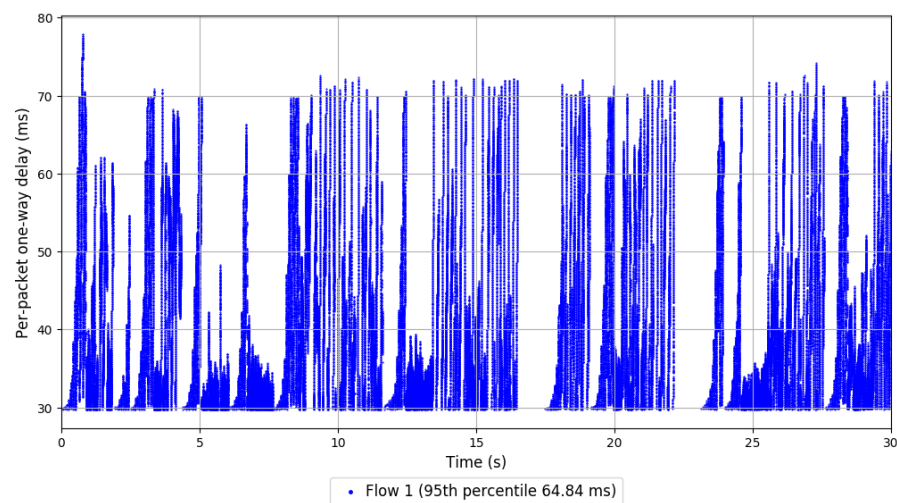
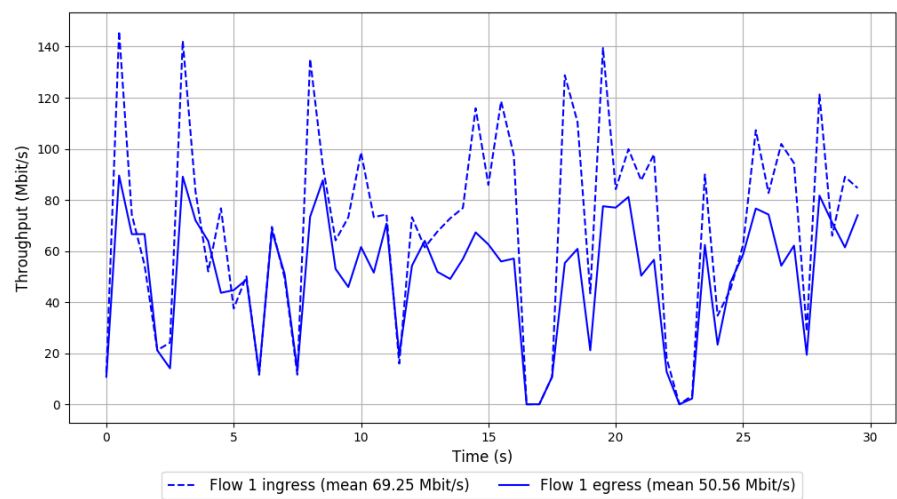


Run 9: Statistics of Verus

Start at: 2018-03-06 07:39:07
End at: 2018-03-06 07:39:37
Local clock offset: 0.875 ms
Remote clock offset: -3.497 ms

Below is generated by plot.py at 2018-03-06 08:47:11
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 64.838 ms
Loss rate: 26.91%
-- Flow 1:
Average throughput: 50.56 Mbit/s
95th percentile per-packet one-way delay: 64.838 ms
Loss rate: 26.91%

Run 9: Report of Verus — Data Link

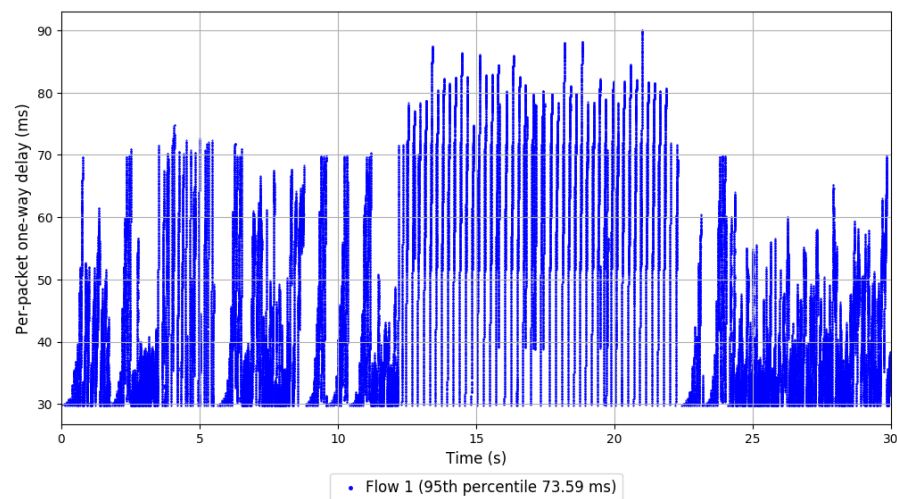
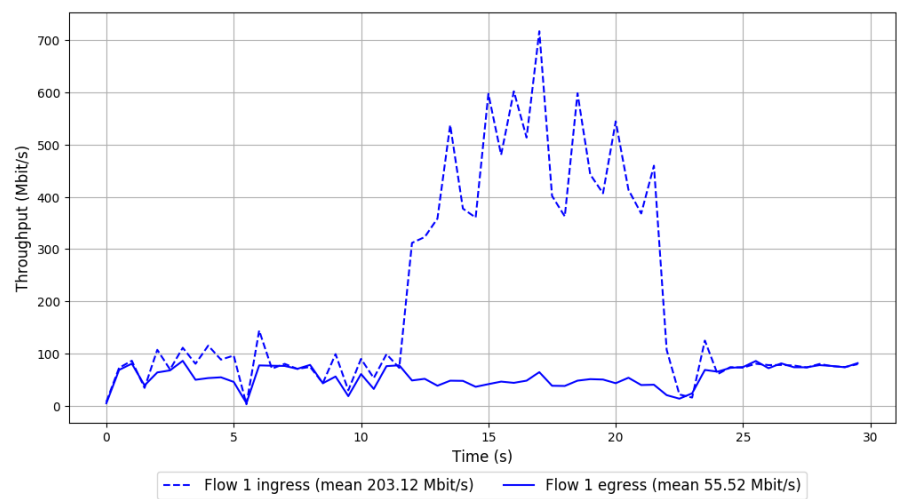


Run 10: Statistics of Verus

Start at: 2018-03-06 08:07:47
End at: 2018-03-06 08:08:17
Local clock offset: 0.679 ms
Remote clock offset: -4.598 ms

Below is generated by plot.py at 2018-03-06 08:47:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 73.592 ms
Loss rate: 72.66%
-- Flow 1:
Average throughput: 55.52 Mbit/s
95th percentile per-packet one-way delay: 73.592 ms
Loss rate: 72.66%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-06 03:33:24

End at: 2018-03-06 03:33:54

Local clock offset: 1.356 ms

Remote clock offset: -3.077 ms

Below is generated by plot.py at 2018-03-06 08:51:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.36 Mbit/s

95th percentile per-packet one-way delay: 57.648 ms

Loss rate: 84.38%

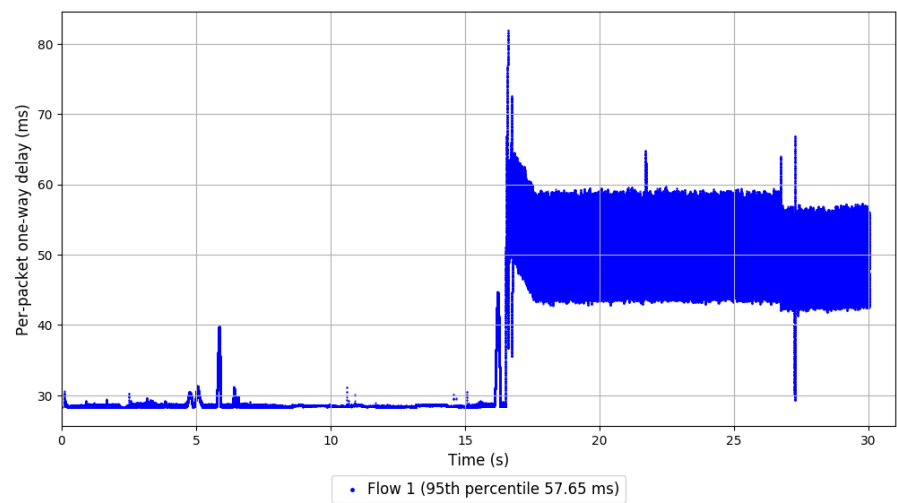
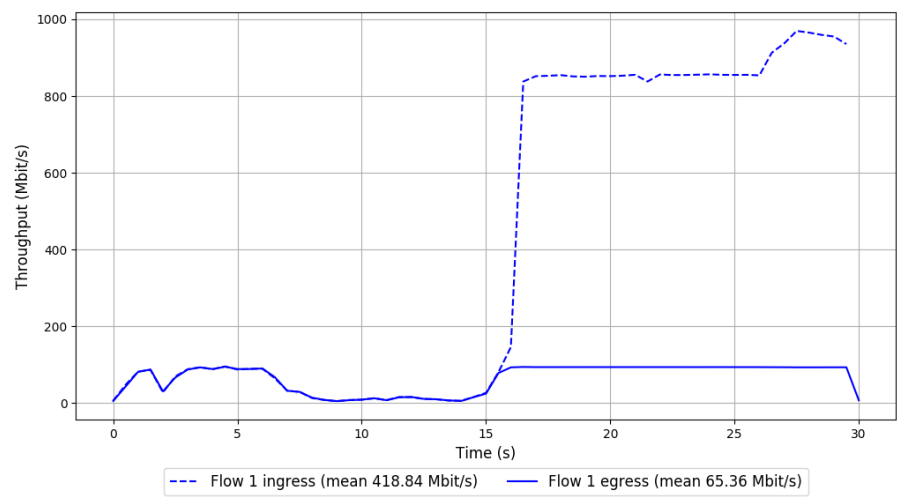
-- Flow 1:

Average throughput: 65.36 Mbit/s

95th percentile per-packet one-way delay: 57.648 ms

Loss rate: 84.38%

Run 1: Report of Copa — Data Link

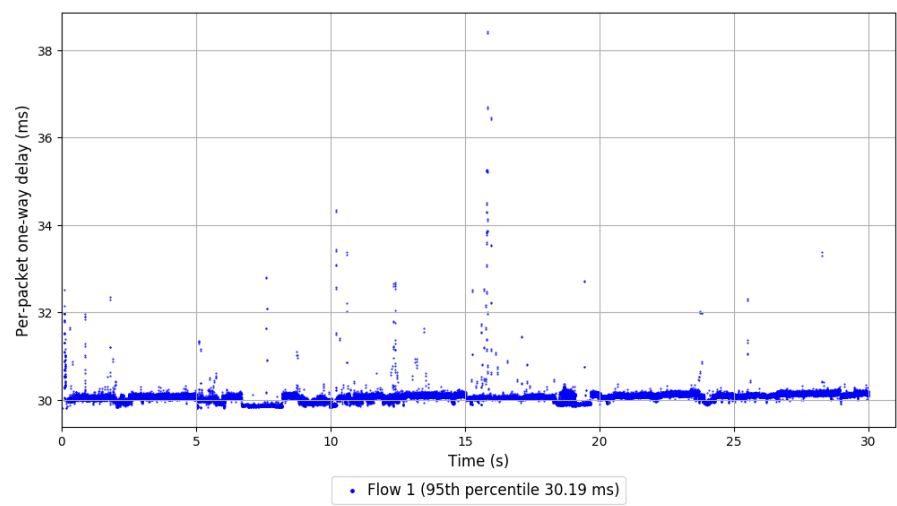
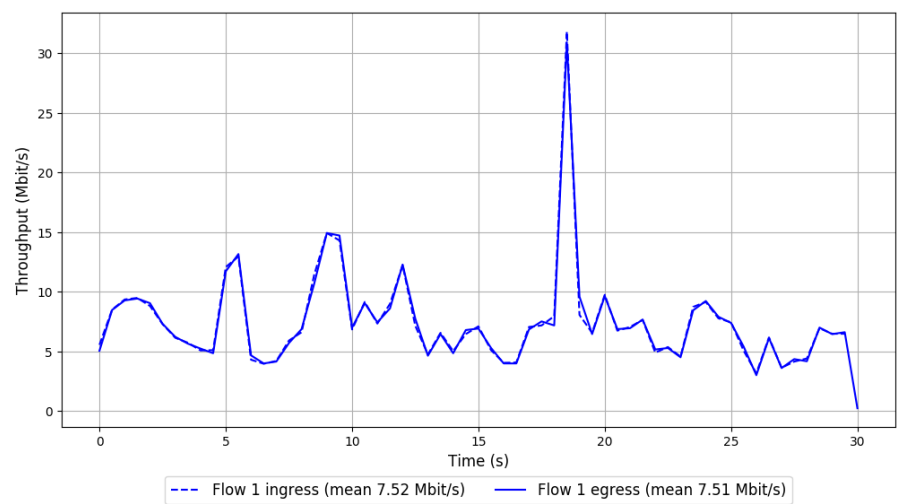


Run 2: Statistics of Copa

Start at: 2018-03-06 04:05:08
End at: 2018-03-06 04:05:38
Local clock offset: 1.273 ms
Remote clock offset: -3.865 ms

Below is generated by plot.py at 2018-03-06 08:51:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 7.51 Mbit/s
95th percentile per-packet one-way delay: 30.187 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 7.51 Mbit/s
95th percentile per-packet one-way delay: 30.187 ms
Loss rate: 0.02%

Run 2: Report of Copa — Data Link

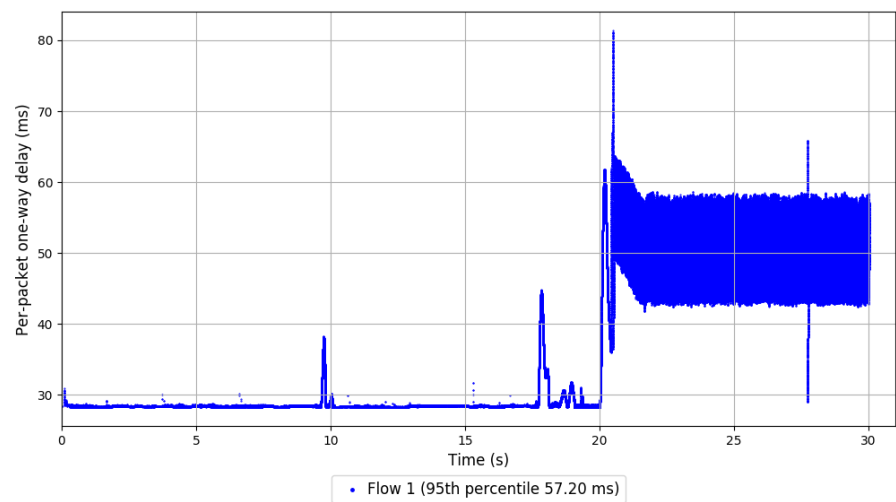
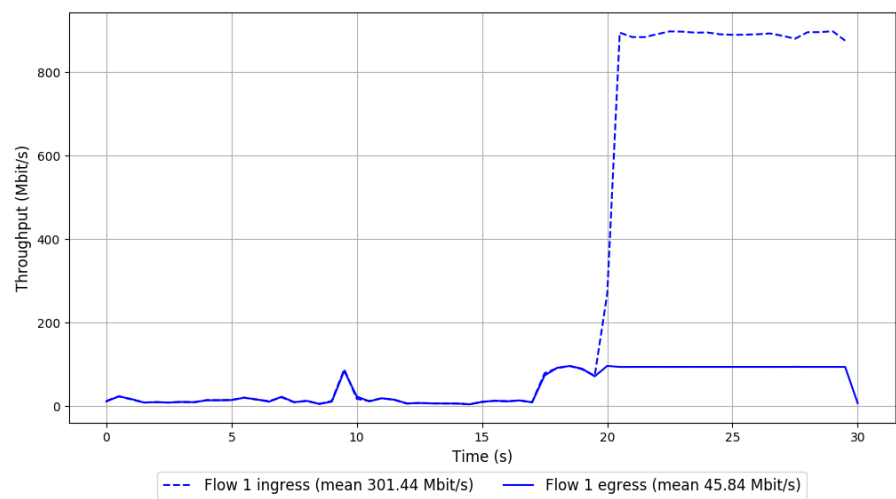


Run 3: Statistics of Copa

Start at: 2018-03-06 04:38:19
End at: 2018-03-06 04:38:49
Local clock offset: 1.182 ms
Remote clock offset: -7.935 ms

Below is generated by plot.py at 2018-03-06 08:51:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 45.84 Mbit/s
95th percentile per-packet one-way delay: 57.204 ms
Loss rate: 84.79%
-- Flow 1:
Average throughput: 45.84 Mbit/s
95th percentile per-packet one-way delay: 57.204 ms
Loss rate: 84.79%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-06 05:12:04

End at: 2018-03-06 05:12:34

Local clock offset: 1.2 ms

Remote clock offset: -6.177 ms

Below is generated by plot.py at 2018-03-06 08:56:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.88 Mbit/s

95th percentile per-packet one-way delay: 56.779 ms

Loss rate: 90.15%

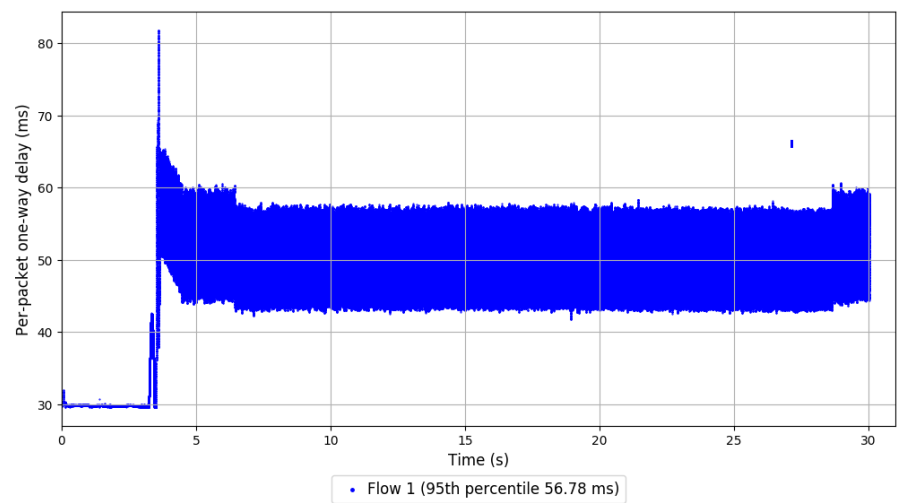
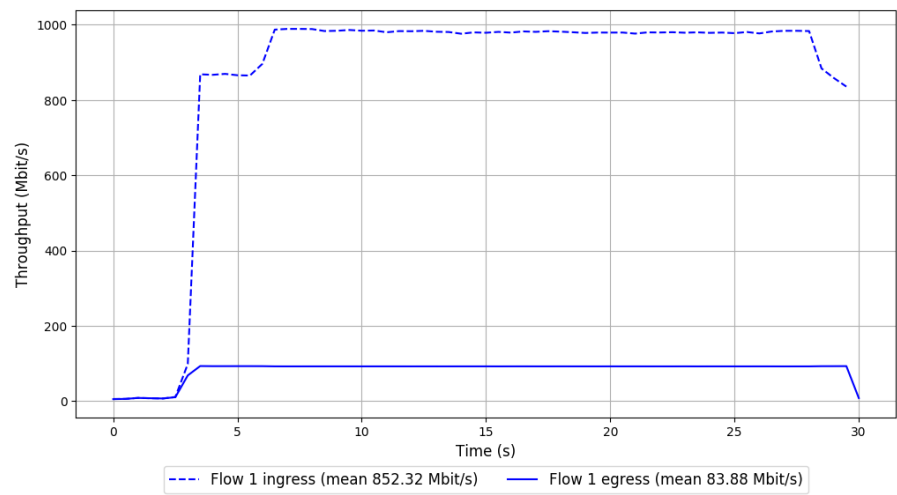
-- Flow 1:

Average throughput: 83.88 Mbit/s

95th percentile per-packet one-way delay: 56.779 ms

Loss rate: 90.15%

Run 4: Report of Copa — Data Link

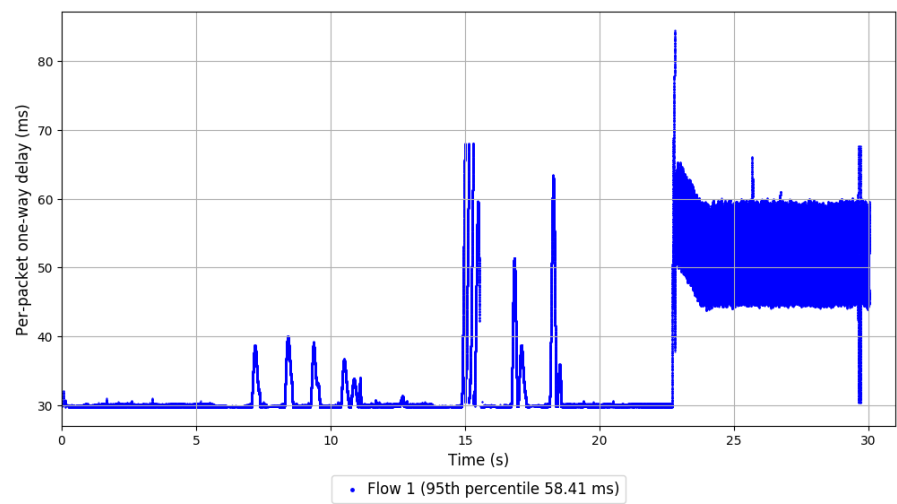
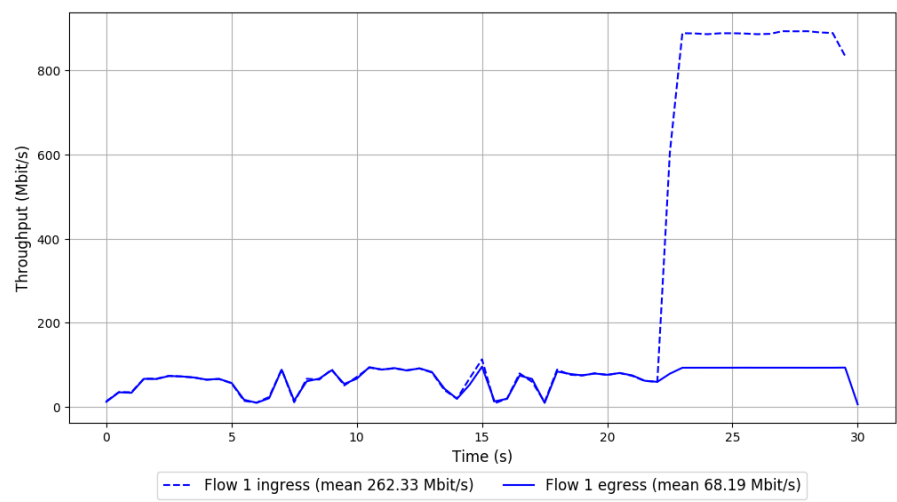


Run 5: Statistics of Copa

Start at: 2018-03-06 05:48:39
End at: 2018-03-06 05:49:09
Local clock offset: 1.095 ms
Remote clock offset: -3.974 ms

Below is generated by plot.py at 2018-03-06 08:56:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 68.19 Mbit/s
95th percentile per-packet one-way delay: 58.409 ms
Loss rate: 73.99%
-- Flow 1:
Average throughput: 68.19 Mbit/s
95th percentile per-packet one-way delay: 58.409 ms
Loss rate: 73.99%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-06 06:19:08

End at: 2018-03-06 06:19:38

Local clock offset: 1.193 ms

Remote clock offset: -3.81 ms

Below is generated by plot.py at 2018-03-06 08:56:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 30.682 ms

Loss rate: 0.00%

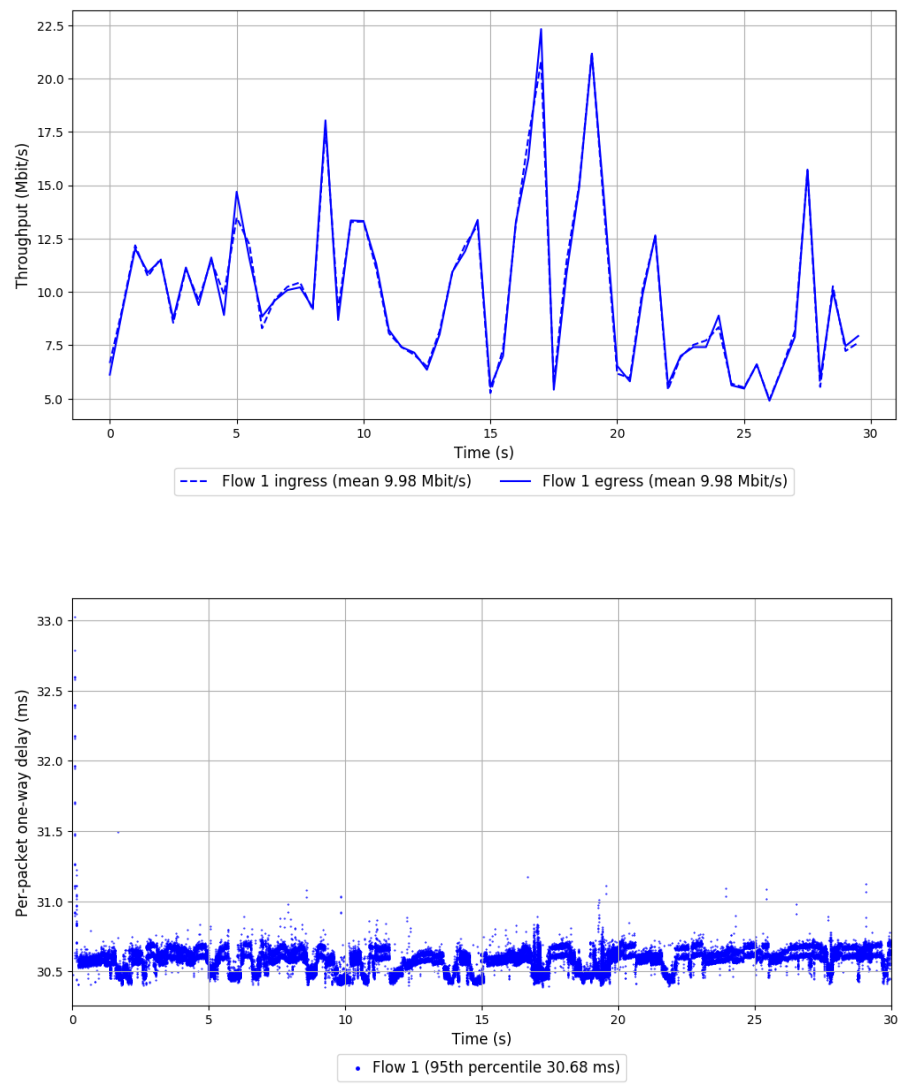
-- Flow 1:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 30.682 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link

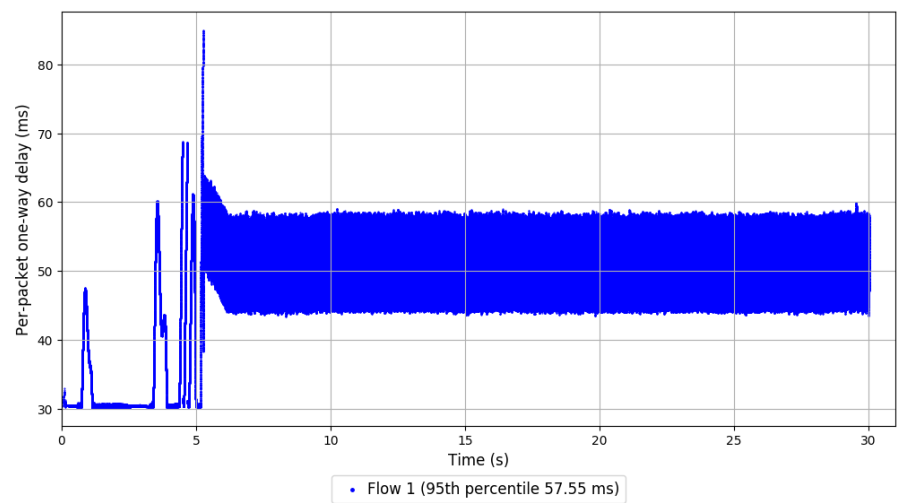
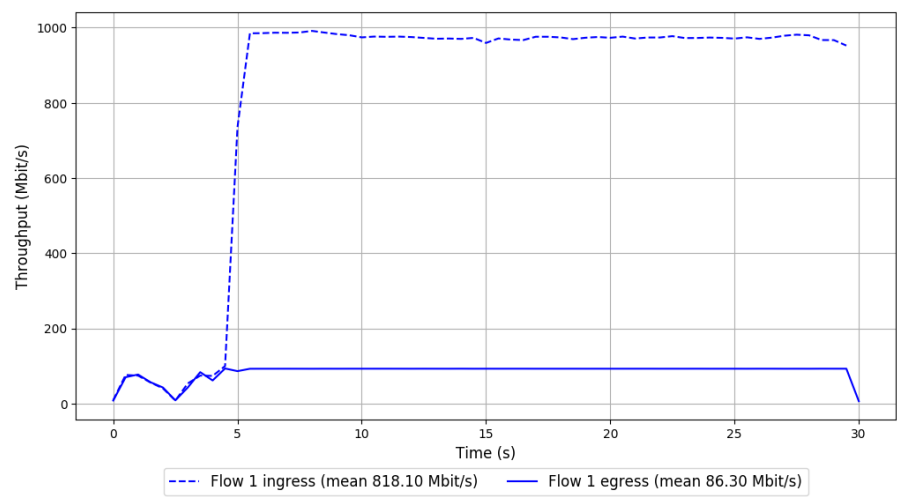


Run 7: Statistics of Copa

Start at: 2018-03-06 06:46:45
End at: 2018-03-06 06:47:15
Local clock offset: 1.218 ms
Remote clock offset: -4.087 ms

Below is generated by plot.py at 2018-03-06 08:56:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 86.30 Mbit/s
95th percentile per-packet one-way delay: 57.550 ms
Loss rate: 89.45%
-- Flow 1:
Average throughput: 86.30 Mbit/s
95th percentile per-packet one-way delay: 57.550 ms
Loss rate: 89.45%

Run 7: Report of Copa — Data Link

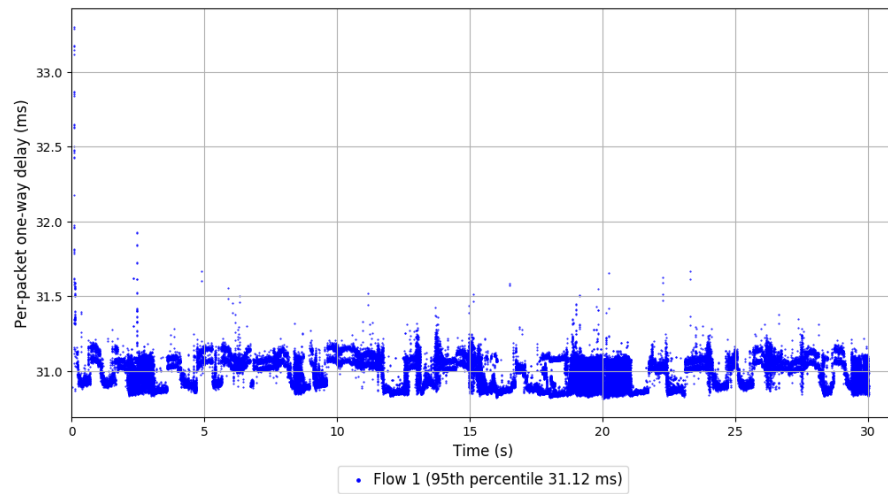
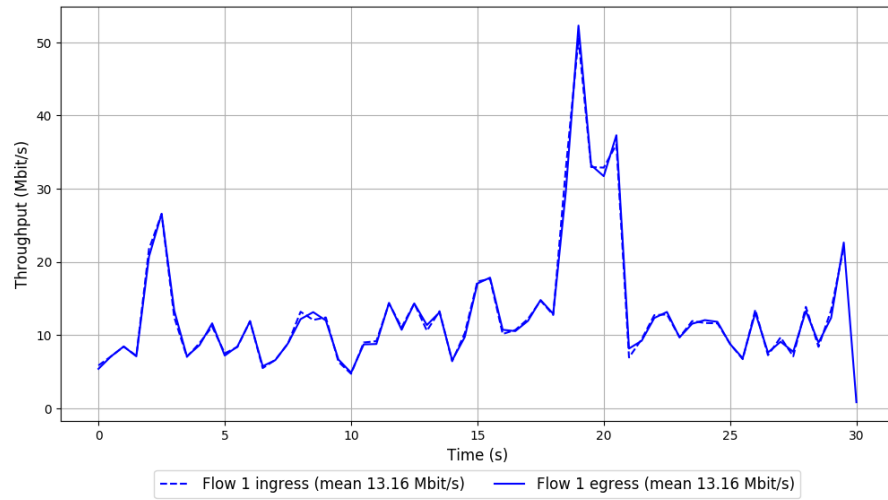


Run 8: Statistics of Copa

Start at: 2018-03-06 07:14:30
End at: 2018-03-06 07:15:00
Local clock offset: 0.908 ms
Remote clock offset: -1.177 ms

Below is generated by plot.py at 2018-03-06 08:56:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 31.125 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.16 Mbit/s
95th percentile per-packet one-way delay: 31.125 ms
Loss rate: 0.00%

Run 8: Report of Copa — Data Link

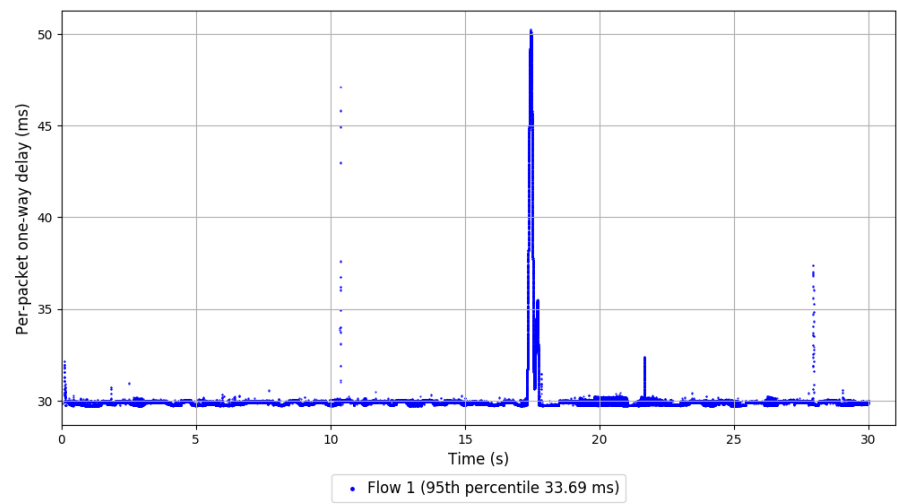
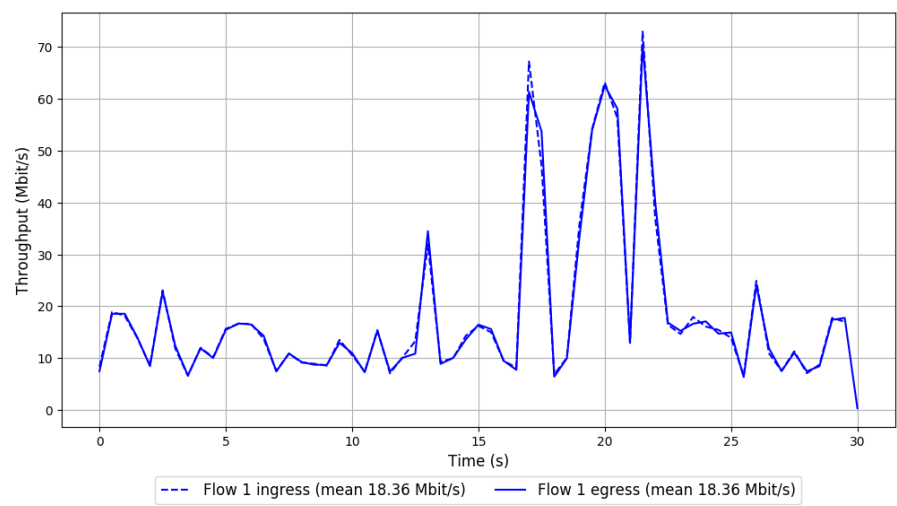


Run 9: Statistics of Copa

Start at: 2018-03-06 07:44:18
End at: 2018-03-06 07:44:48
Local clock offset: 0.876 ms
Remote clock offset: -3.887 ms

Below is generated by plot.py at 2018-03-06 08:56:23
Datalink statistics
-- Total of 1 flow:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 33.690 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 18.36 Mbit/s
95th percentile per-packet one-way delay: 33.690 ms
Loss rate: 0.01%

Run 9: Report of Copa — Data Link

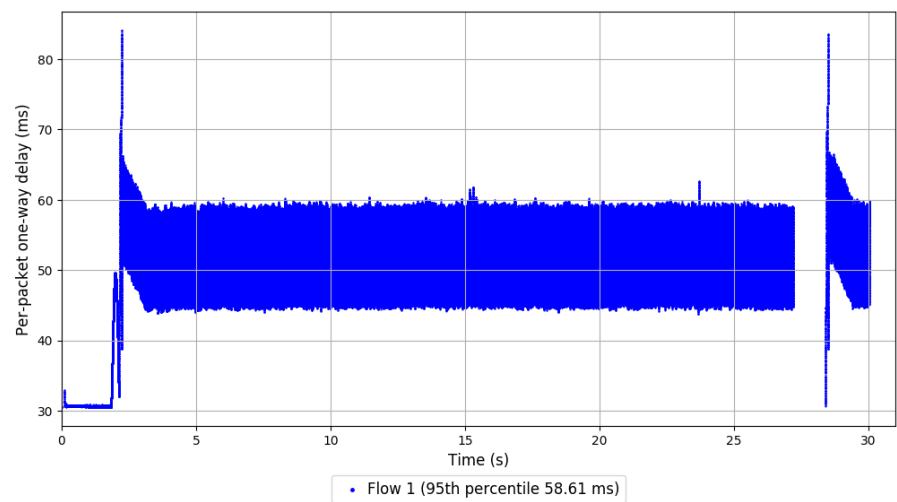
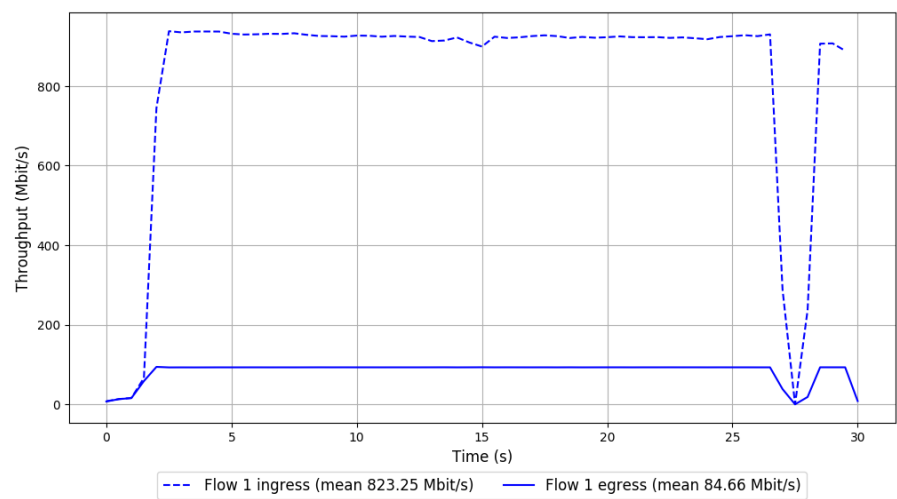


Run 10: Statistics of Copa

Start at: 2018-03-06 08:12:48
End at: 2018-03-06 08:13:18
Local clock offset: 0.67 ms
Remote clock offset: -4.458 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.66 Mbit/s
95th percentile per-packet one-way delay: 58.608 ms
Loss rate: 89.71%
-- Flow 1:
Average throughput: 84.66 Mbit/s
95th percentile per-packet one-way delay: 58.608 ms
Loss rate: 89.71%

Run 10: Report of Copa — Data Link

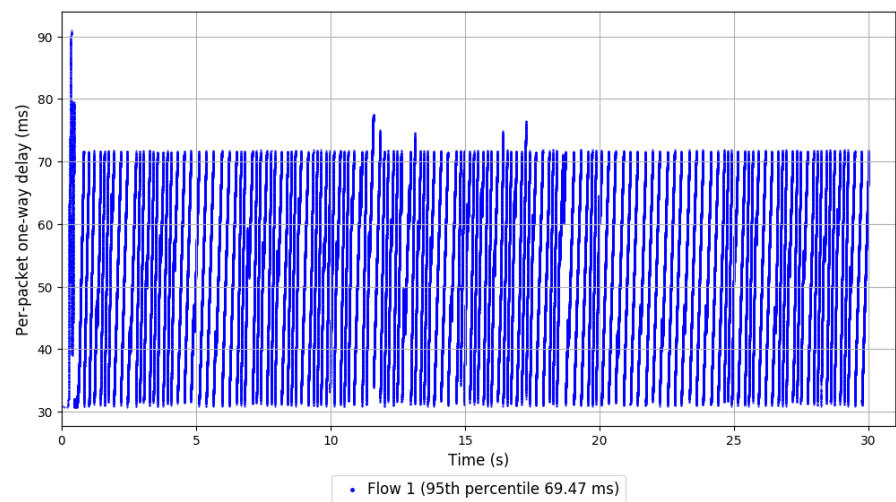
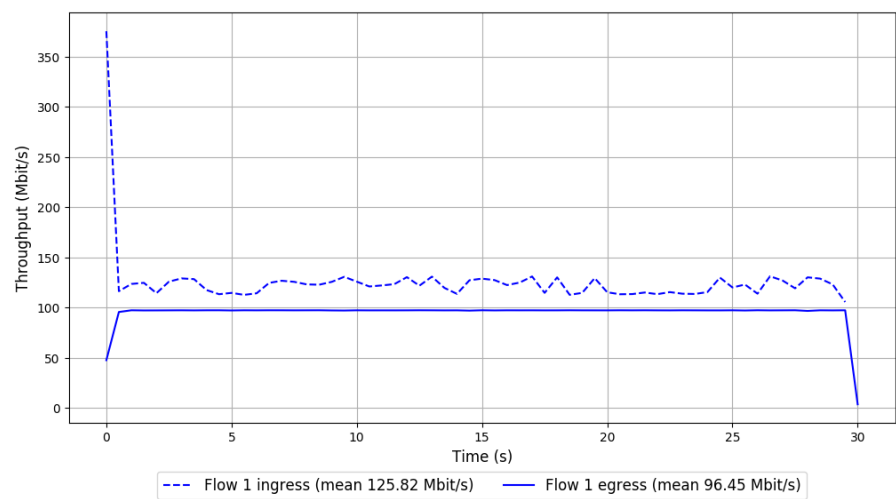


Run 1: Statistics of FillP

Start at: 2018-03-06 03:35:38
End at: 2018-03-06 03:36:08
Local clock offset: 1.34 ms
Remote clock offset: -1.101 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 69.465 ms
Loss rate: 23.27%
-- Flow 1:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 69.465 ms
Loss rate: 23.27%

Run 1: Report of FillP — Data Link

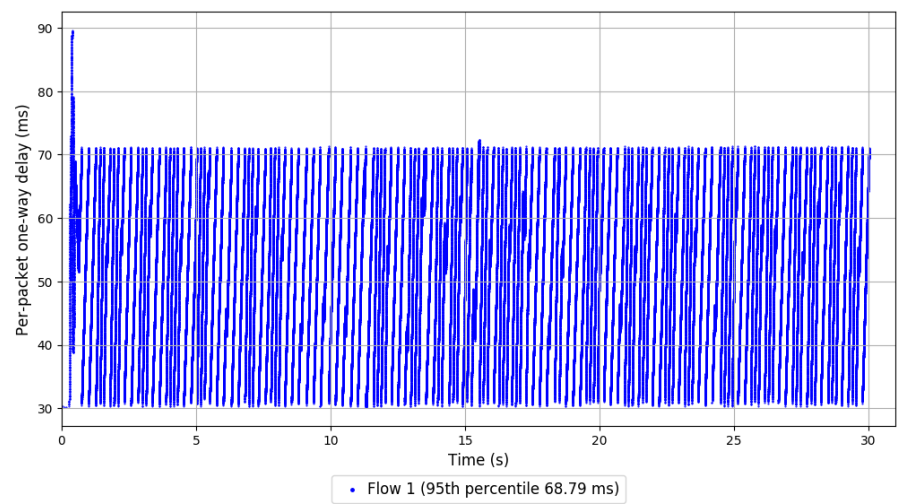
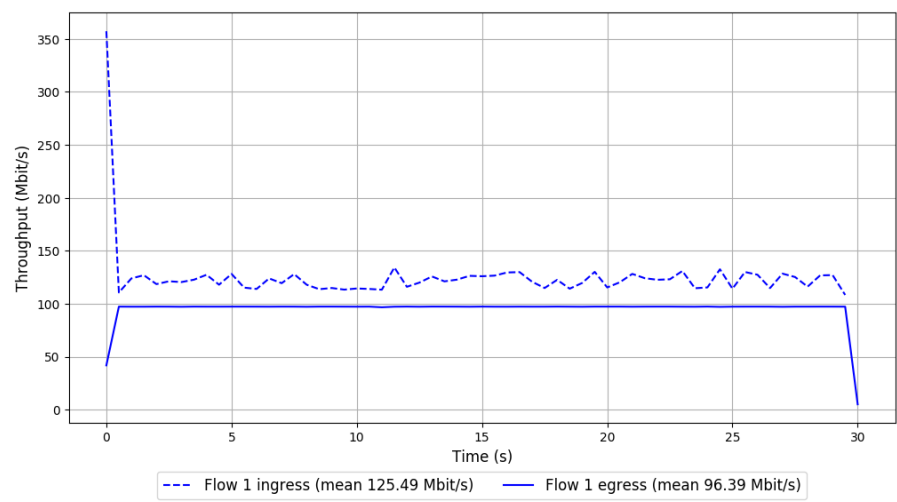


Run 2: Statistics of FillP

Start at: 2018-03-06 04:06:35
End at: 2018-03-06 04:07:05
Local clock offset: 1.236 ms
Remote clock offset: -3.824 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 68.787 ms
Loss rate: 23.11%
-- Flow 1:
Average throughput: 96.39 Mbit/s
95th percentile per-packet one-way delay: 68.787 ms
Loss rate: 23.11%

Run 2: Report of FillP — Data Link

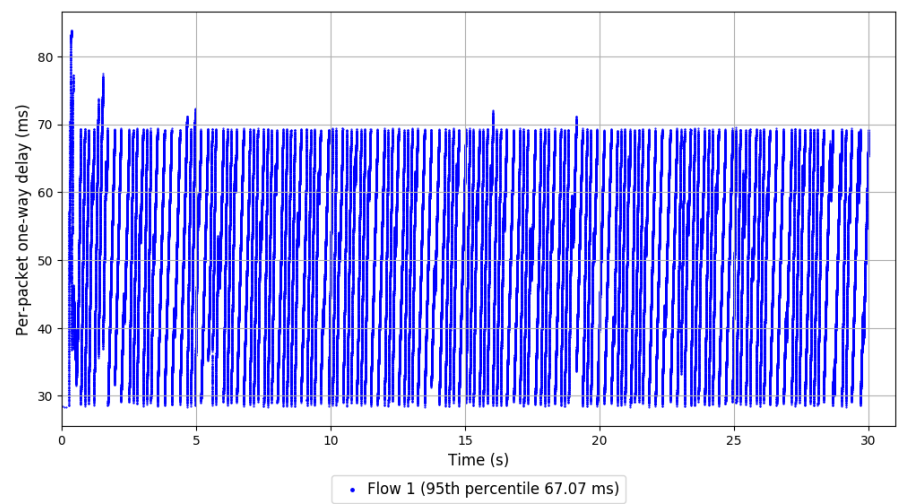
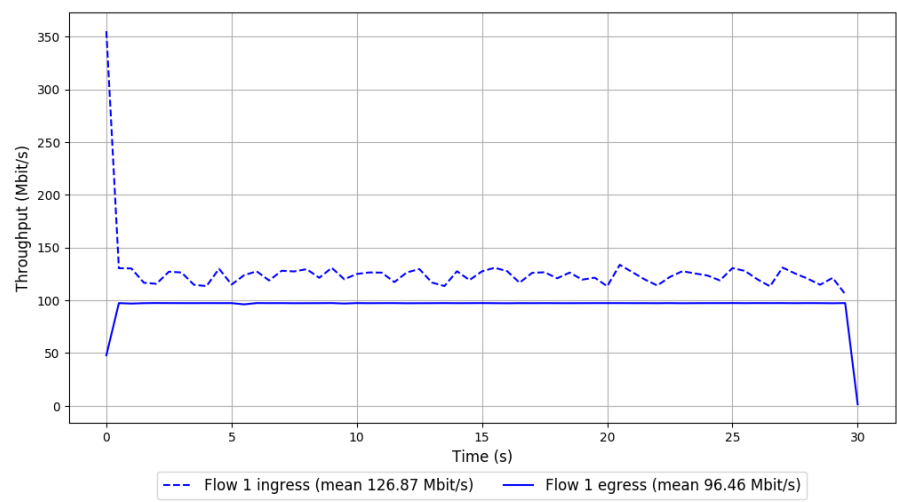


Run 3: Statistics of FillP

Start at: 2018-03-06 04:40:23
End at: 2018-03-06 04:40:53
Local clock offset: 1.193 ms
Remote clock offset: -7.765 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 67.073 ms
Loss rate: 23.94%
-- Flow 1:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 67.073 ms
Loss rate: 23.94%

Run 3: Report of FillP — Data Link

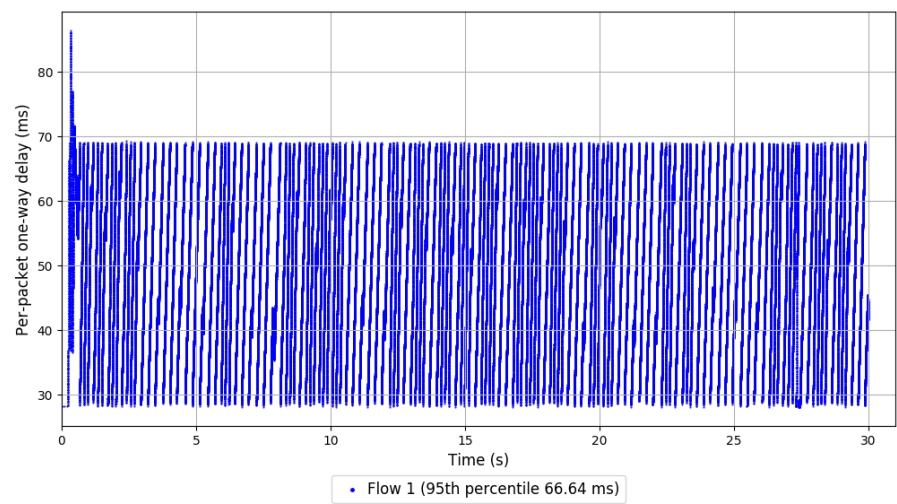
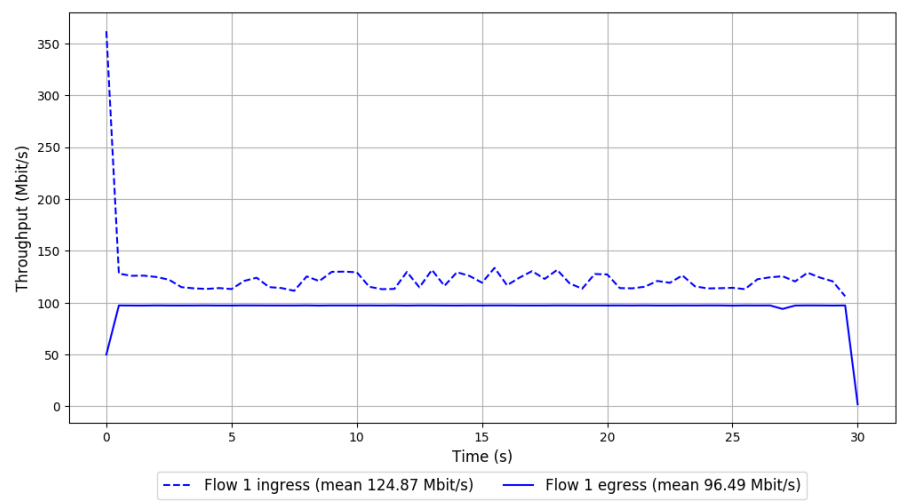


Run 4: Statistics of FillP

Start at: 2018-03-06 05:16:20
End at: 2018-03-06 05:16:50
Local clock offset: 1.112 ms
Remote clock offset: -7.406 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.49 Mbit/s
95th percentile per-packet one-way delay: 66.636 ms
Loss rate: 22.69%
-- Flow 1:
Average throughput: 96.49 Mbit/s
95th percentile per-packet one-way delay: 66.636 ms
Loss rate: 22.69%

Run 4: Report of FillP — Data Link

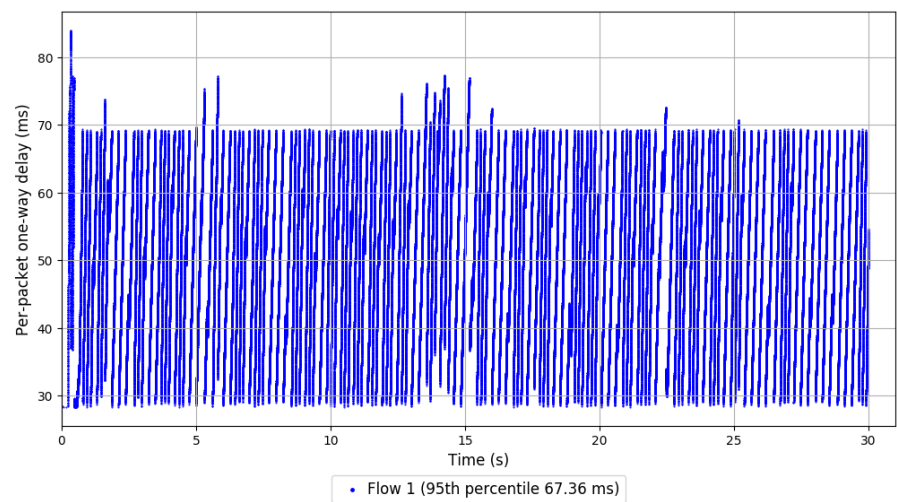
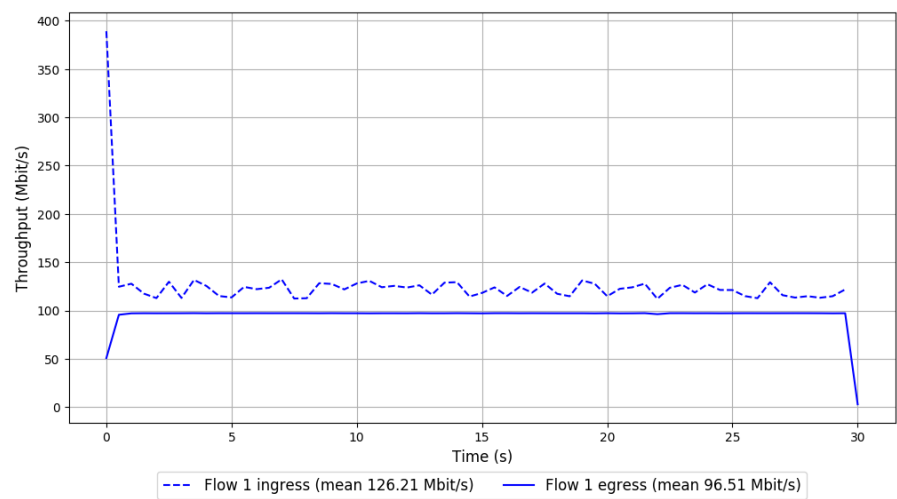


Run 5: Statistics of FillP

Start at: 2018-03-06 05:50:44
End at: 2018-03-06 05:51:14
Local clock offset: 1.019 ms
Remote clock offset: -6.214 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.51 Mbit/s
95th percentile per-packet one-way delay: 67.359 ms
Loss rate: 23.49%
-- Flow 1:
Average throughput: 96.51 Mbit/s
95th percentile per-packet one-way delay: 67.359 ms
Loss rate: 23.49%

Run 5: Report of FillP — Data Link

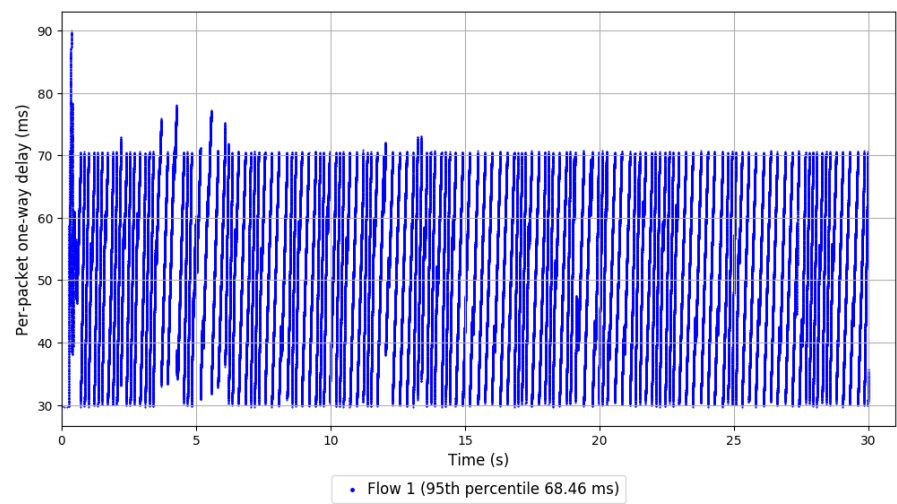
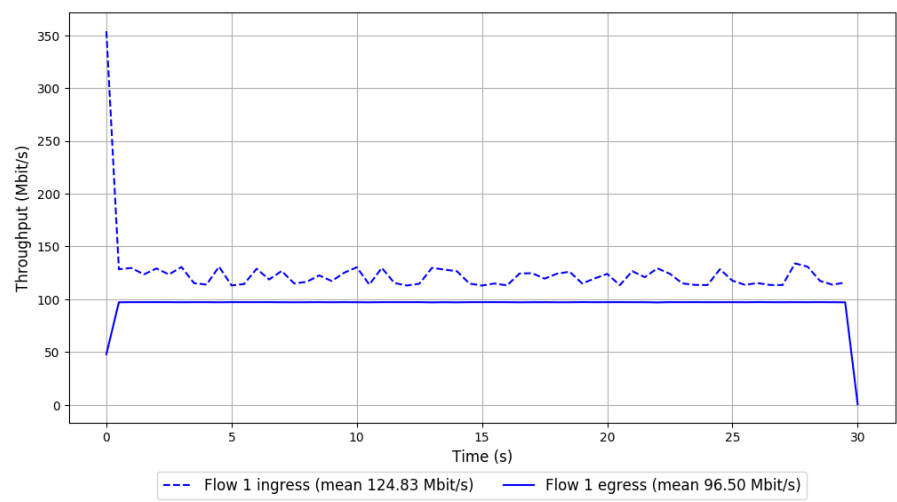


Run 6: Statistics of FillP

Start at: 2018-03-06 06:20:36
End at: 2018-03-06 06:21:06
Local clock offset: 1.157 ms
Remote clock offset: -3.934 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 68.461 ms
Loss rate: 22.69%
-- Flow 1:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 68.461 ms
Loss rate: 22.69%

Run 6: Report of FillP — Data Link

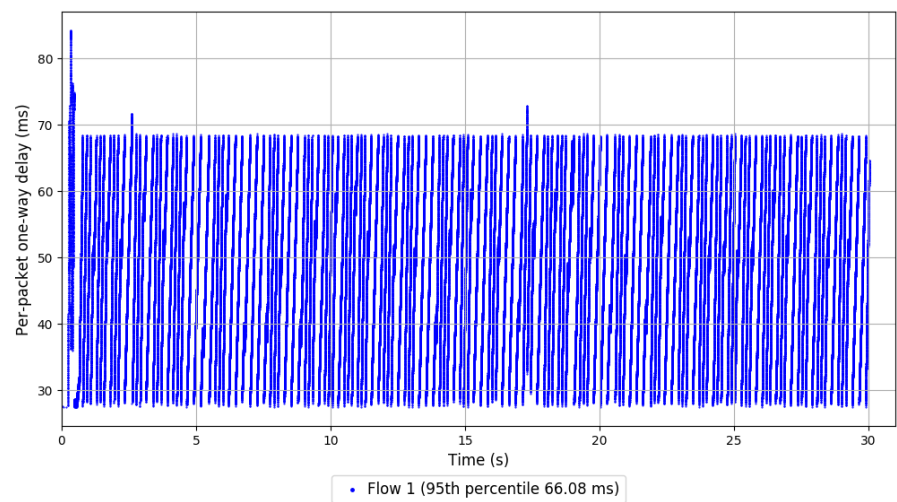
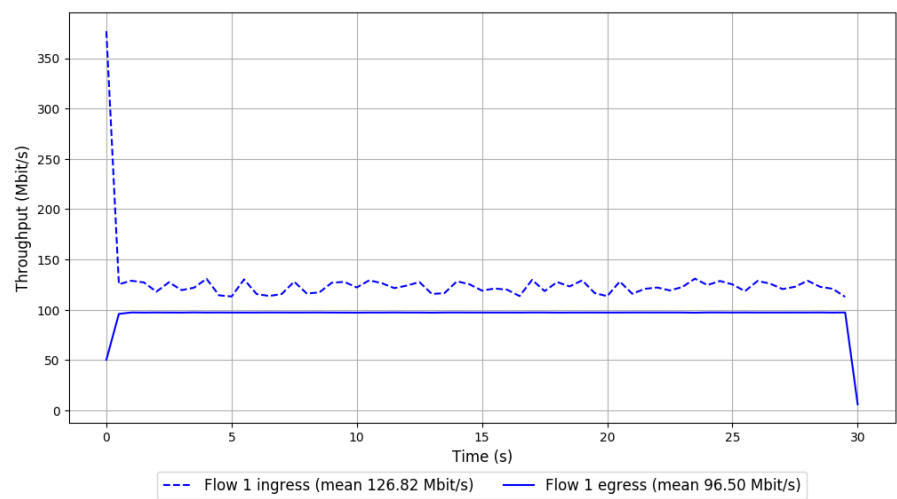


Run 7: Statistics of FillP

Start at: 2018-03-06 06:48:38
End at: 2018-03-06 06:49:08
Local clock offset: 1.167 ms
Remote clock offset: -6.117 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 66.080 ms
Loss rate: 23.81%
-- Flow 1:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 66.080 ms
Loss rate: 23.81%

Run 7: Report of FillP — Data Link

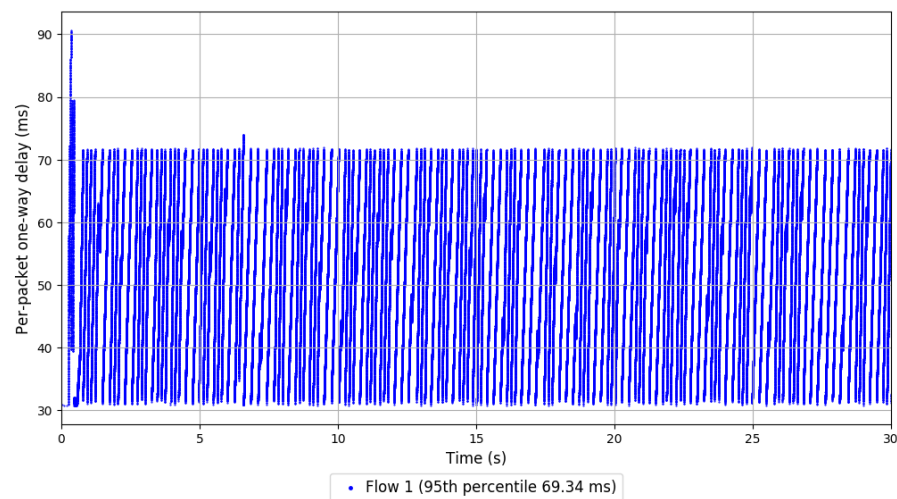
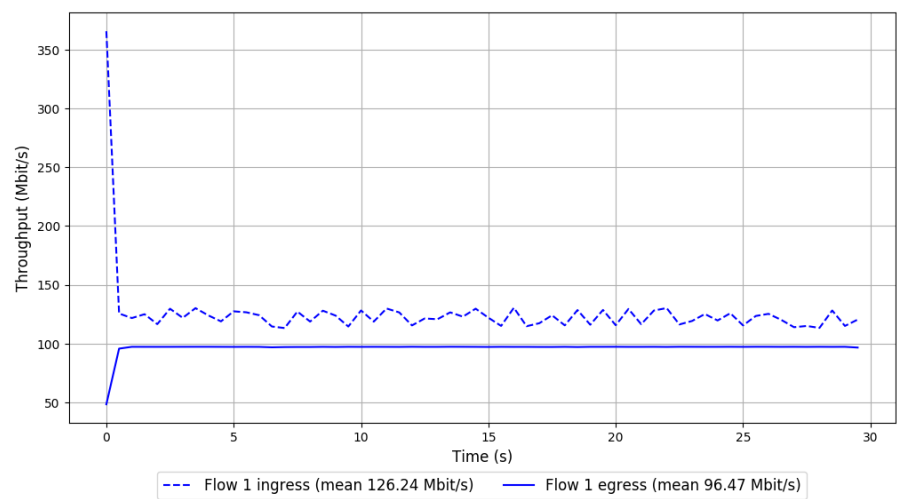


Run 8: Statistics of FillP

Start at: 2018-03-06 07:15:53
End at: 2018-03-06 07:16:23
Local clock offset: 0.801 ms
Remote clock offset: -1.269 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 69.339 ms
Loss rate: 23.57%
-- Flow 1:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 69.339 ms
Loss rate: 23.57%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-06 07:45:46

End at: 2018-03-06 07:46:16

Local clock offset: 0.872 ms

Remote clock offset: -6.05 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.46 Mbit/s

95th percentile per-packet one-way delay: 66.107 ms

Loss rate: 22.62%

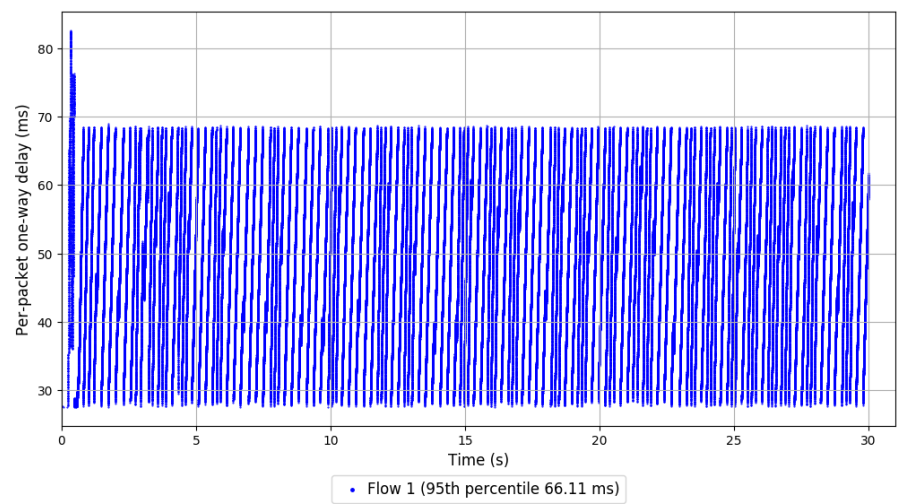
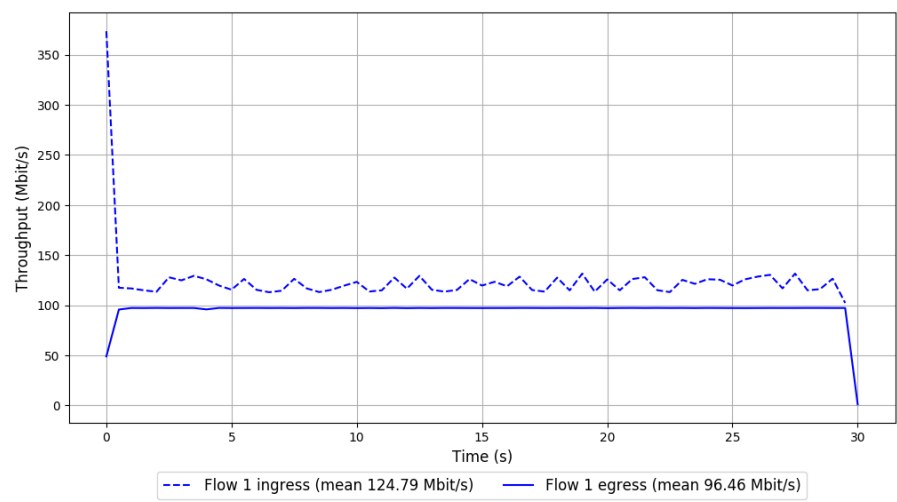
-- Flow 1:

Average throughput: 96.46 Mbit/s

95th percentile per-packet one-way delay: 66.107 ms

Loss rate: 22.62%

Run 9: Report of FillP — Data Link

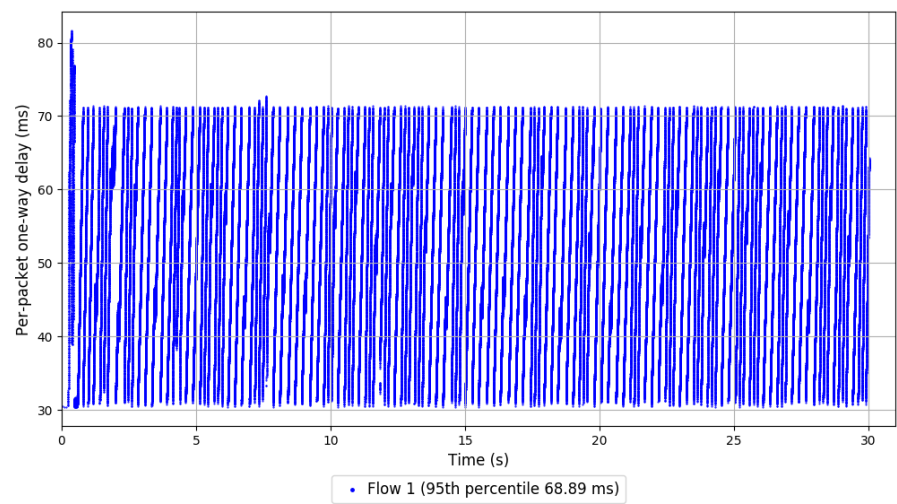
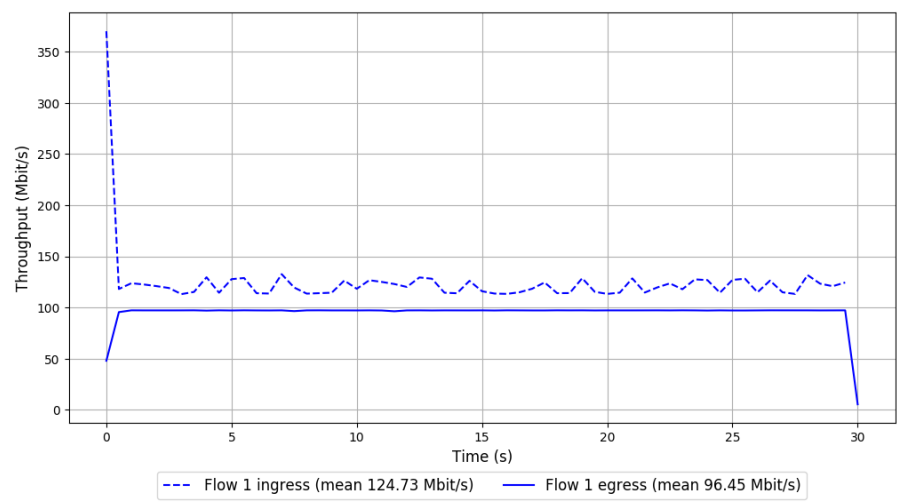


Run 10: Statistics of FillP

Start at: 2018-03-06 08:15:12
End at: 2018-03-06 08:15:42
Local clock offset: 0.758 ms
Remote clock offset: -4.433 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 68.894 ms
Loss rate: 22.59%
-- Flow 1:
Average throughput: 96.45 Mbit/s
95th percentile per-packet one-way delay: 68.894 ms
Loss rate: 22.59%

Run 10: Report of FillP — Data Link

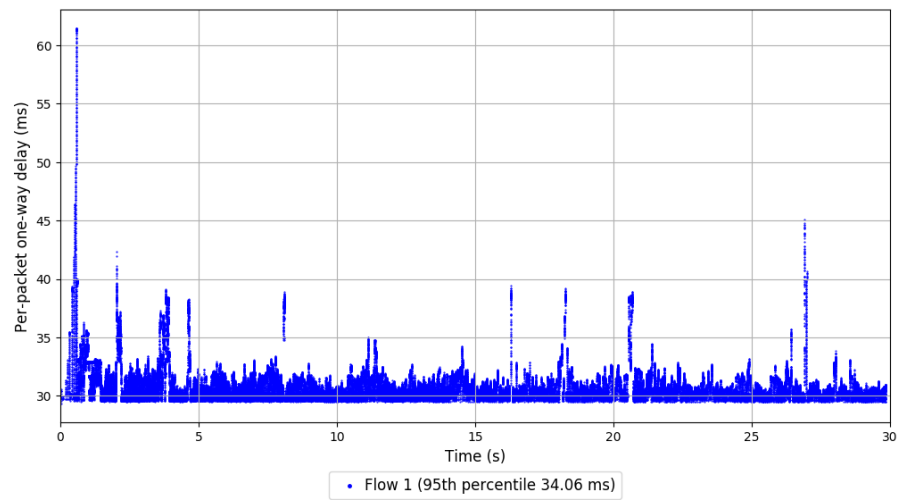
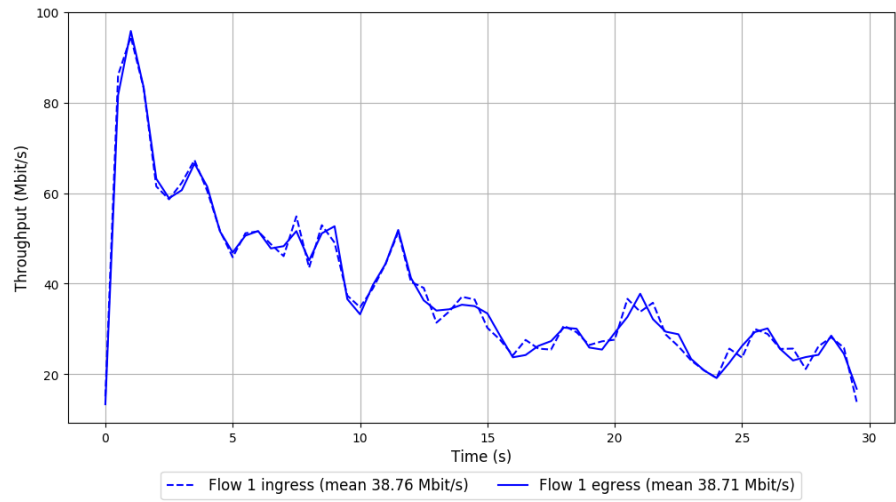


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-06 03:12:24
End at: 2018-03-06 03:12:54
Local clock offset: 1.345 ms
Remote clock offset: 0.384 ms

# Below is generated by plot.py at 2018-03-06 08:56:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 34.064 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 38.71 Mbit/s
95th percentile per-packet one-way delay: 34.064 ms
Loss rate: 0.13%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-06 03:42:07

End at: 2018-03-06 03:42:37

Local clock offset: 1.343 ms

Remote clock offset: -2.245 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.78 Mbit/s

95th percentile per-packet one-way delay: 31.961 ms

Loss rate: 0.00%

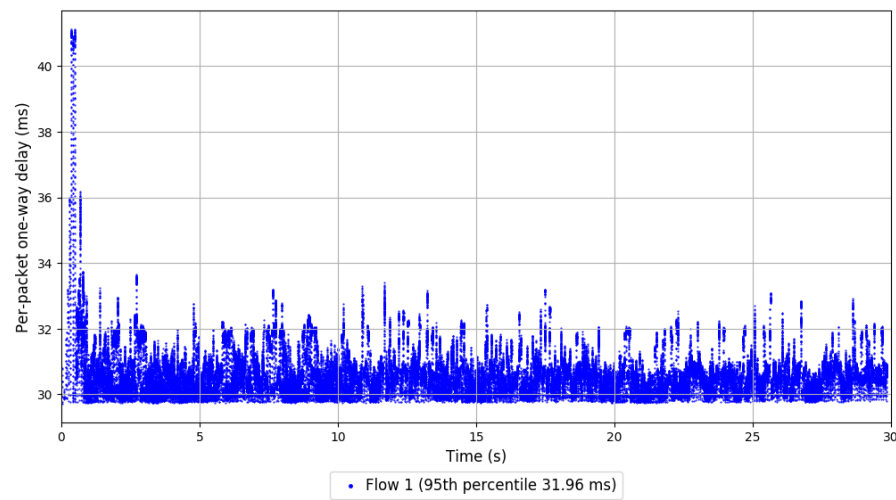
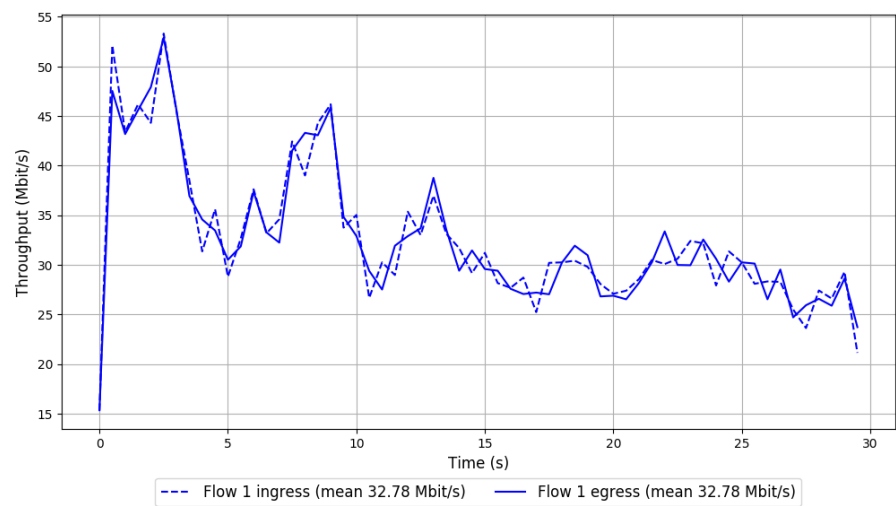
-- Flow 1:

Average throughput: 32.78 Mbit/s

95th percentile per-packet one-way delay: 31.961 ms

Loss rate: 0.00%

Run 2: Report of Indigo-1-32 — Data Link

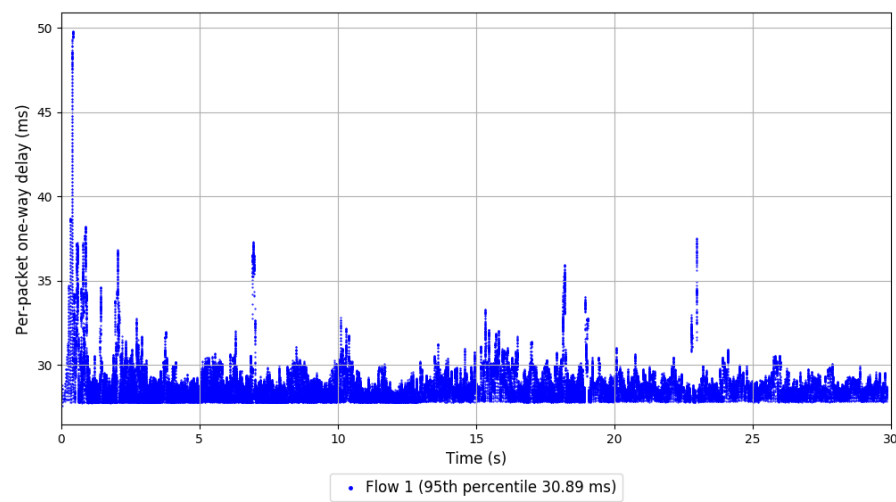
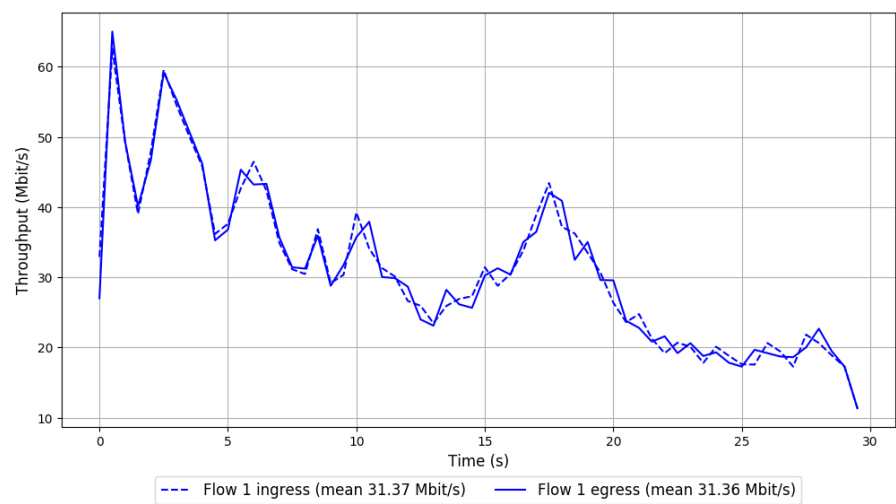


Run 3: Statistics of Indigo-1-32

Start at: 2018-03-06 04:15:00
End at: 2018-03-06 04:15:30
Local clock offset: 1.151 ms
Remote clock offset: -7.434 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 30.887 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 31.36 Mbit/s
95th percentile per-packet one-way delay: 30.887 ms
Loss rate: 0.03%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-06 04:48:33

End at: 2018-03-06 04:49:03

Local clock offset: 1.193 ms

Remote clock offset: -7.844 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.96 Mbit/s

95th percentile per-packet one-way delay: 30.549 ms

Loss rate: 0.00%

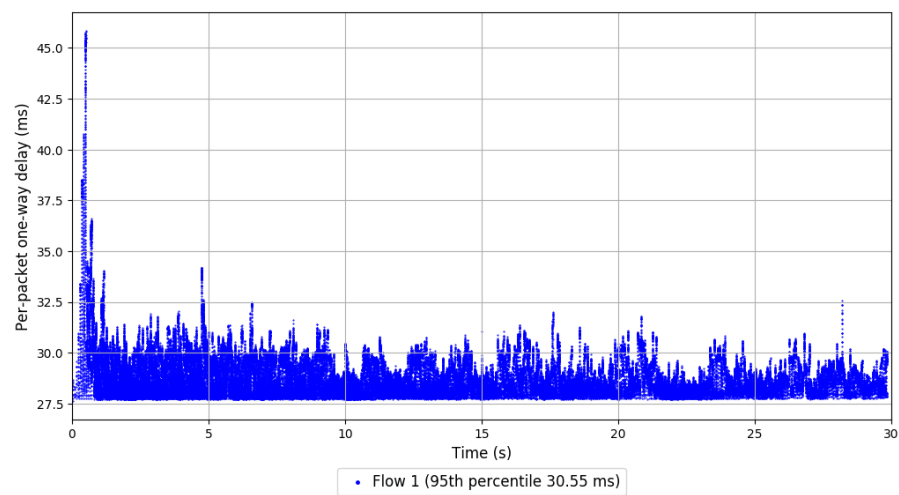
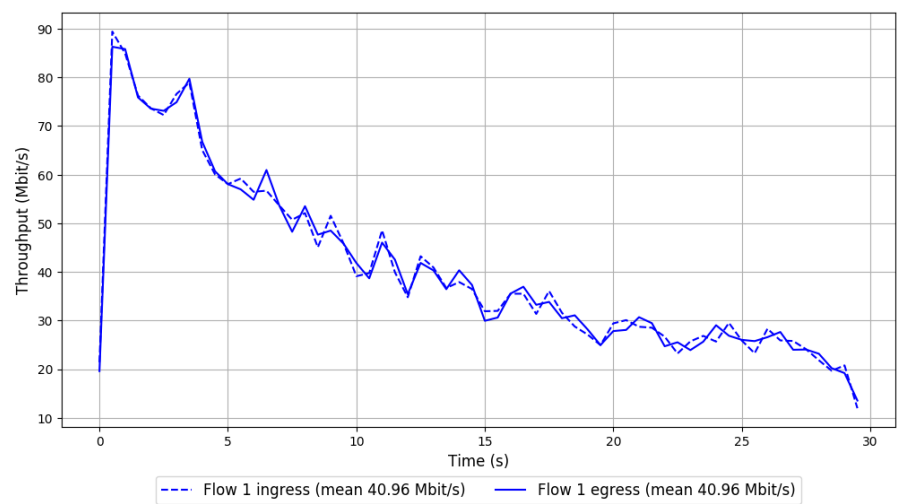
-- Flow 1:

Average throughput: 40.96 Mbit/s

95th percentile per-packet one-way delay: 30.549 ms

Loss rate: 0.00%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-06 05:24:50

End at: 2018-03-06 05:25:20

Local clock offset: 1.079 ms

Remote clock offset: -6.352 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.21 Mbit/s

95th percentile per-packet one-way delay: 30.432 ms

Loss rate: 0.10%

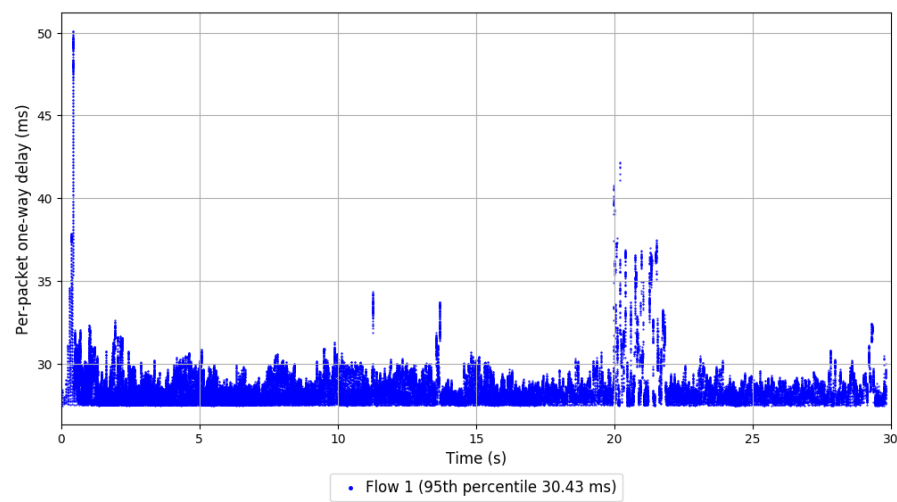
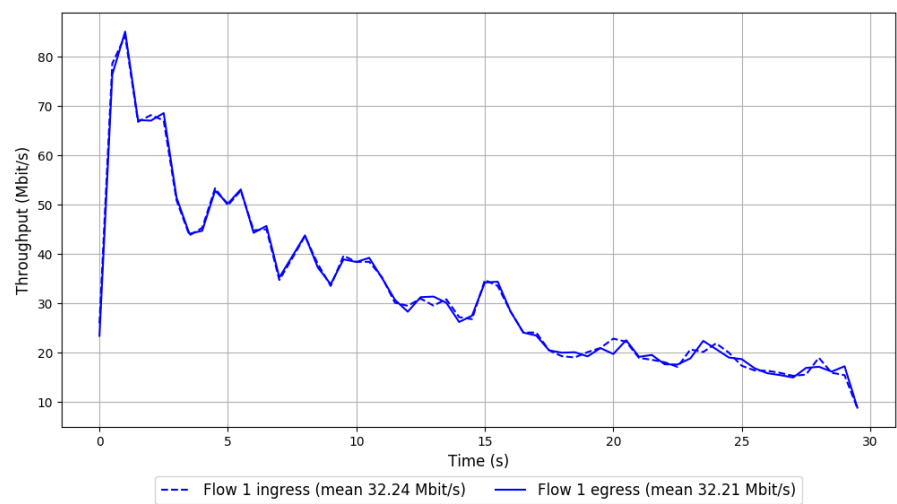
-- Flow 1:

Average throughput: 32.21 Mbit/s

95th percentile per-packet one-way delay: 30.432 ms

Loss rate: 0.10%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-06 05:57:29

End at: 2018-03-06 05:57:59

Local clock offset: 1.086 ms

Remote clock offset: -4.251 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.78 Mbit/s

95th percentile per-packet one-way delay: 33.047 ms

Loss rate: 0.09%

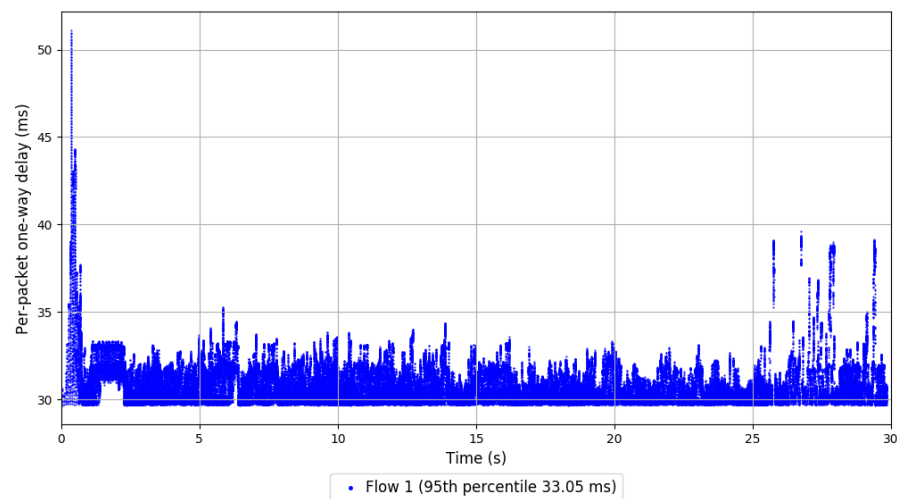
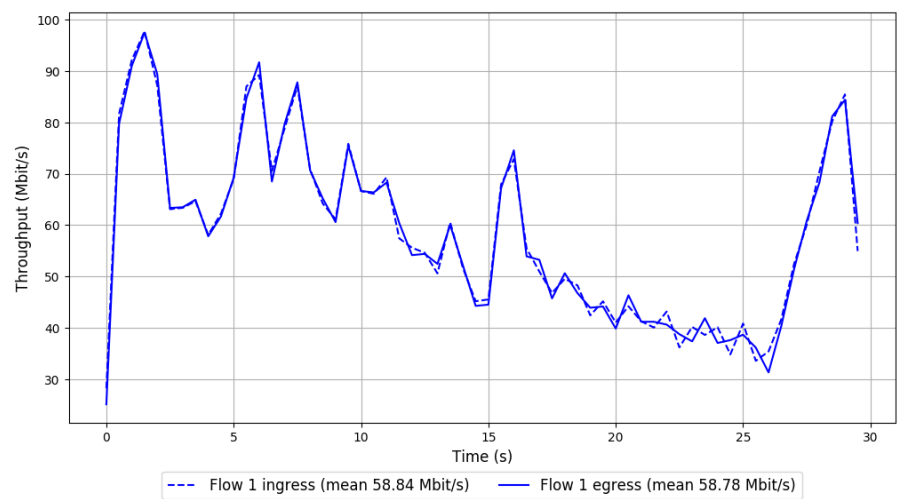
-- Flow 1:

Average throughput: 58.78 Mbit/s

95th percentile per-packet one-way delay: 33.047 ms

Loss rate: 0.09%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-06 06:27:24

End at: 2018-03-06 06:27:54

Local clock offset: 1.123 ms

Remote clock offset: -4.199 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 31.45 Mbit/s

95th percentile per-packet one-way delay: 32.799 ms

Loss rate: 0.09%

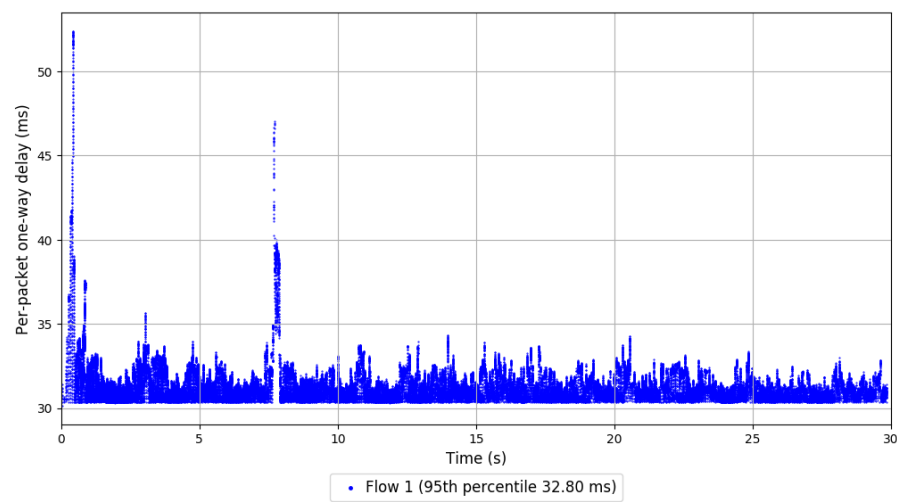
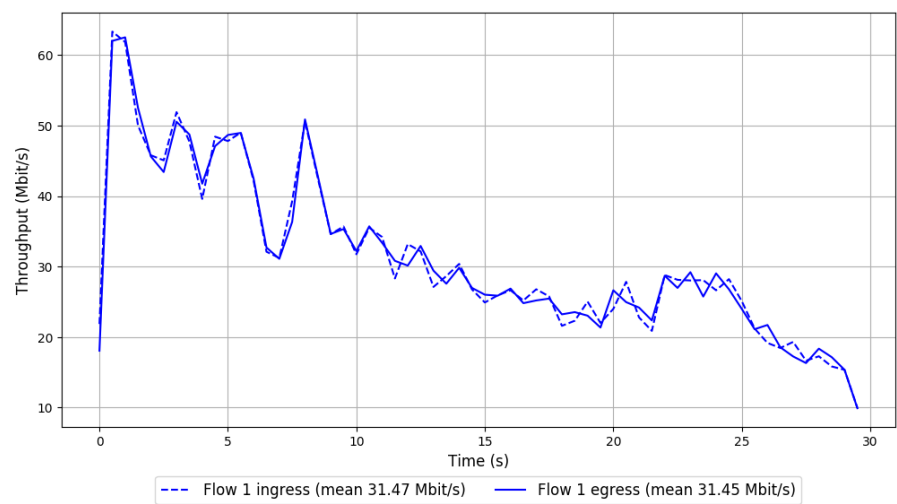
-- Flow 1:

Average throughput: 31.45 Mbit/s

95th percentile per-packet one-way delay: 32.799 ms

Loss rate: 0.09%

Run 7: Report of Indigo-1-32 — Data Link

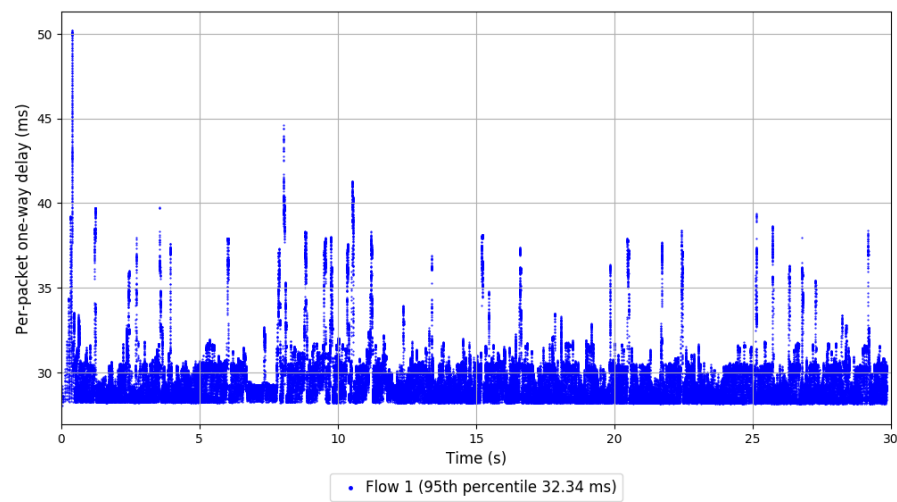
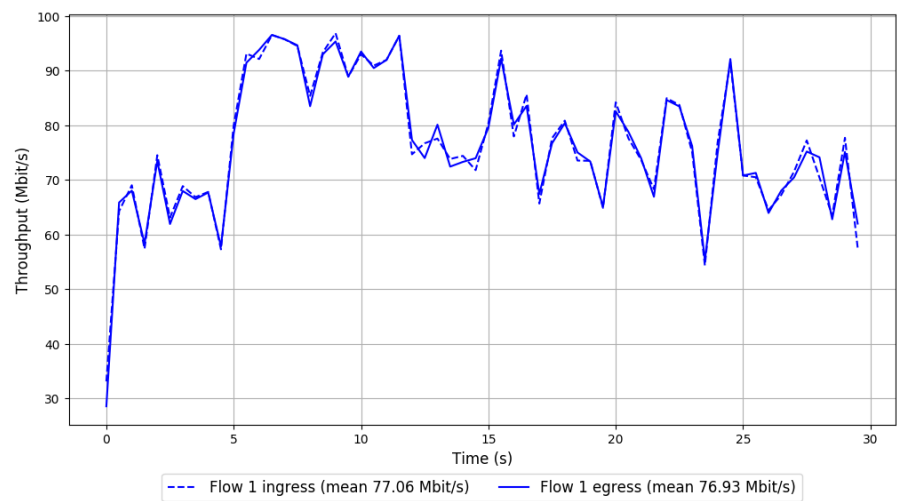


Run 8: Statistics of Indigo-1-32

Start at: 2018-03-06 06:54:26
End at: 2018-03-06 06:54:56
Local clock offset: 0.991 ms
Remote clock offset: -5.467 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 32.343 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 32.343 ms
Loss rate: 0.17%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-06 07:22:25

End at: 2018-03-06 07:22:55

Local clock offset: 0.892 ms

Remote clock offset: -3.739 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.83 Mbit/s

95th percentile per-packet one-way delay: 29.931 ms

Loss rate: 0.01%

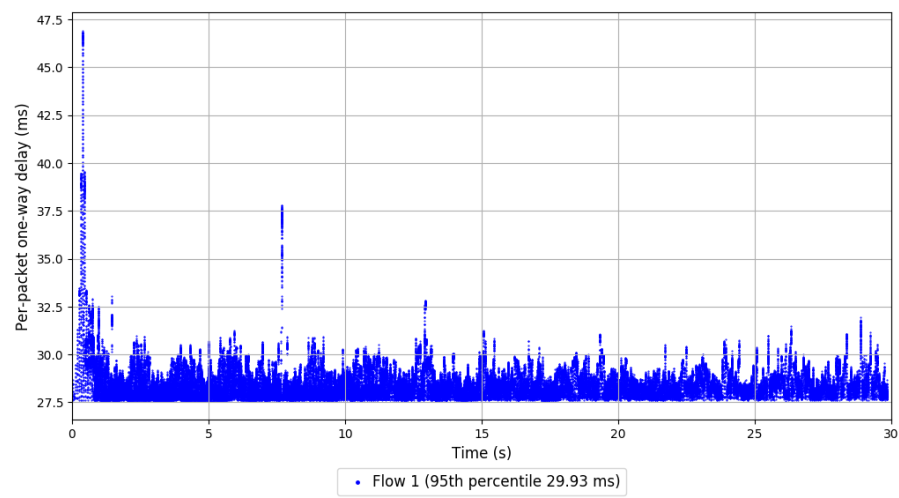
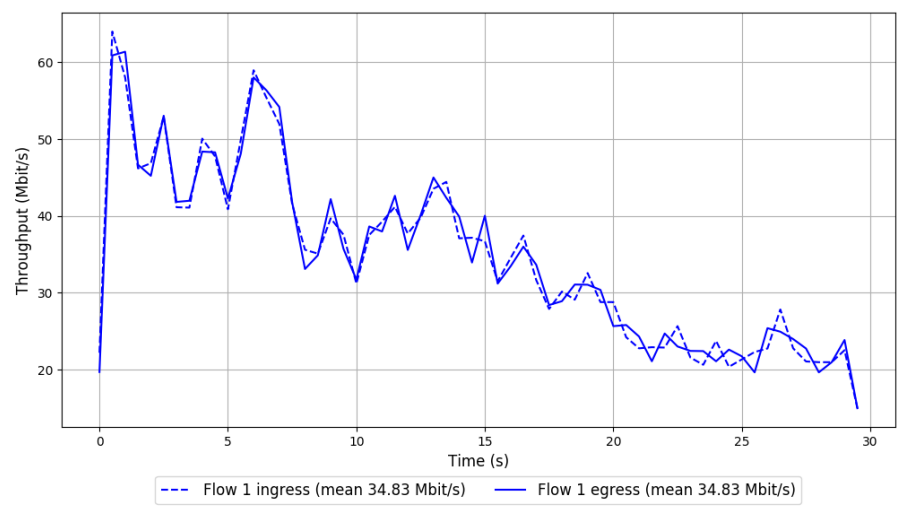
-- Flow 1:

Average throughput: 34.83 Mbit/s

95th percentile per-packet one-way delay: 29.931 ms

Loss rate: 0.01%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-06 07:52:24

End at: 2018-03-06 07:52:54

Local clock offset: 0.724 ms

Remote clock offset: -4.286 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.79 Mbit/s

95th percentile per-packet one-way delay: 33.074 ms

Loss rate: 0.02%

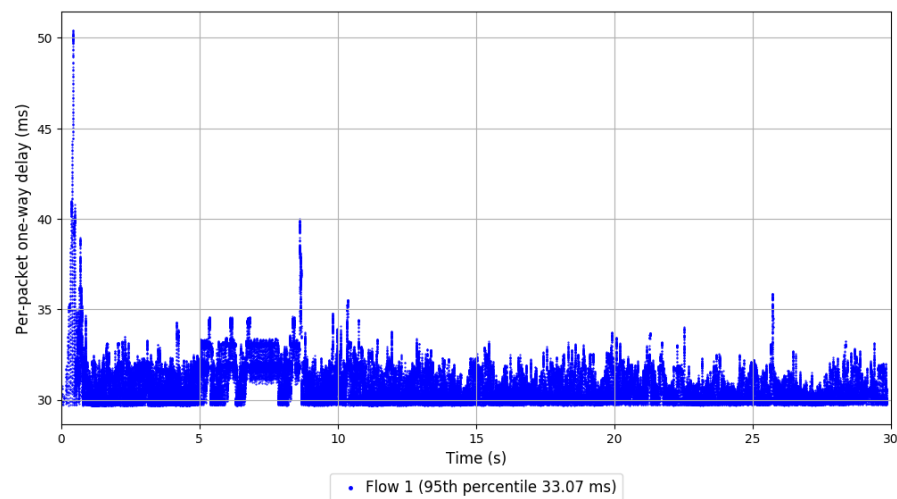
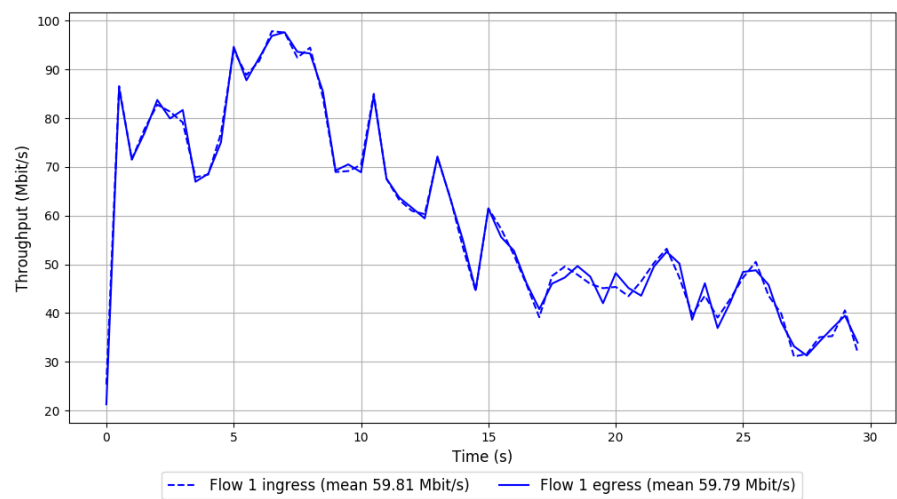
-- Flow 1:

Average throughput: 59.79 Mbit/s

95th percentile per-packet one-way delay: 33.074 ms

Loss rate: 0.02%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-06 03:11:03

End at: 2018-03-06 03:11:33

Local clock offset: 1.304 ms

Remote clock offset: 0.21 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.21 Mbit/s

95th percentile per-packet one-way delay: 29.842 ms

Loss rate: 0.00%

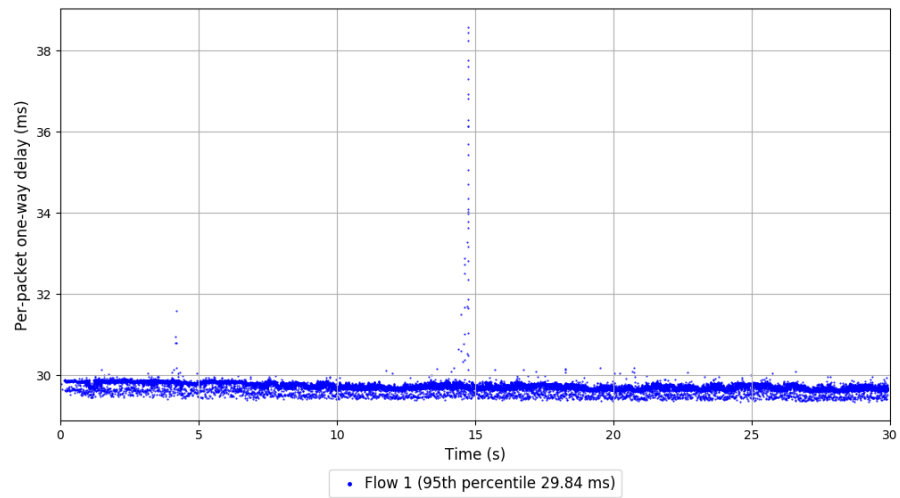
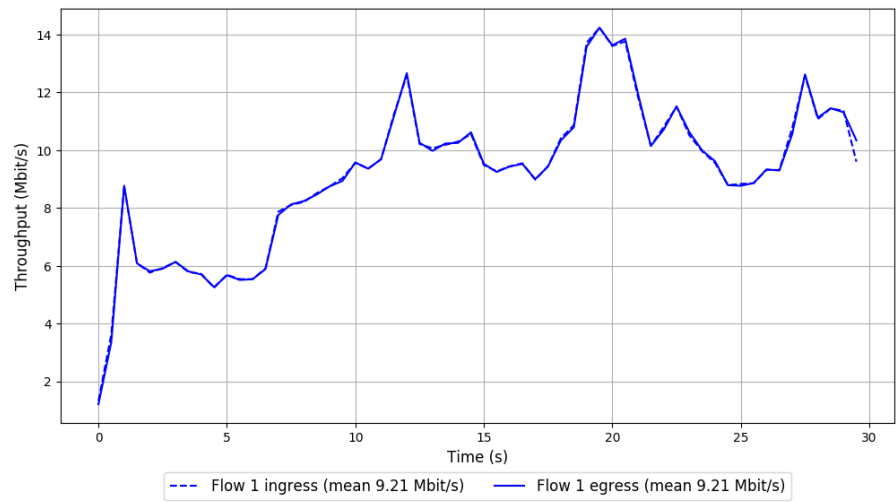
-- Flow 1:

Average throughput: 9.21 Mbit/s

95th percentile per-packet one-way delay: 29.842 ms

Loss rate: 0.00%

Run 1: Report of Vivace-latency — Data Link

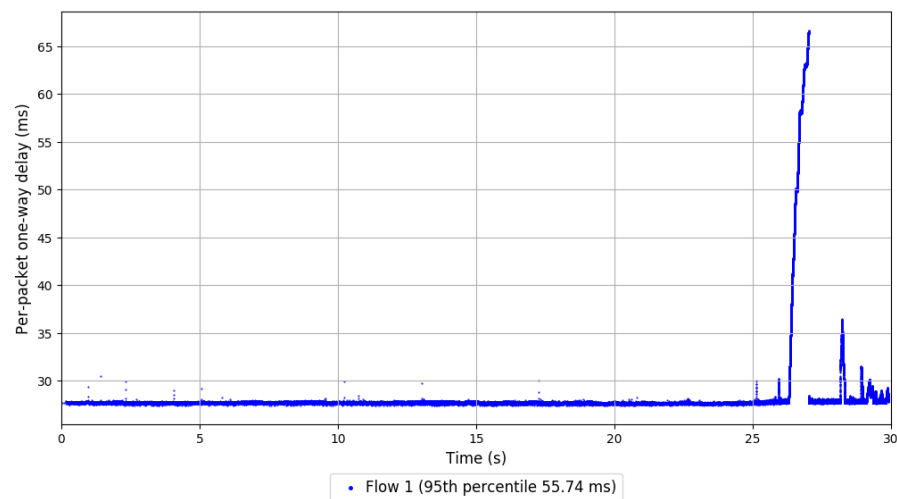
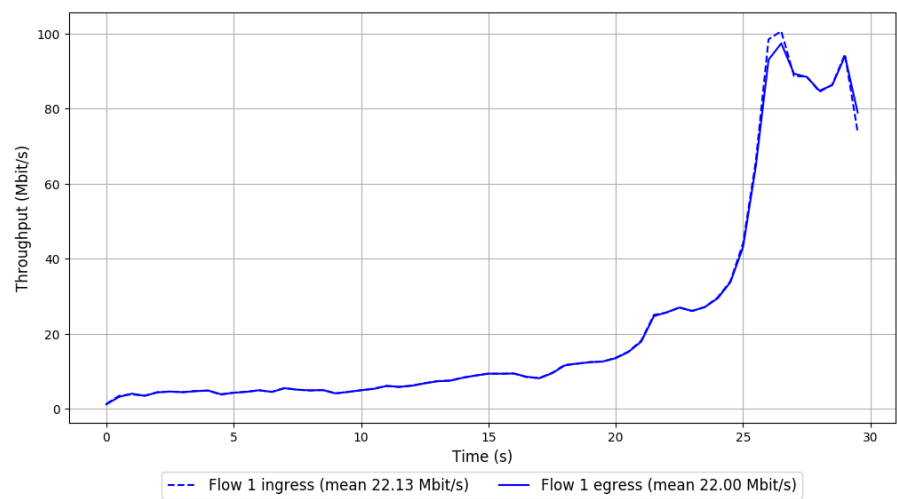


Run 2: Statistics of Vivace-latency

Start at: 2018-03-06 03:40:42
End at: 2018-03-06 03:41:12
Local clock offset: 1.337 ms
Remote clock offset: -4.279 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 22.00 Mbit/s
95th percentile per-packet one-way delay: 55.739 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 22.00 Mbit/s
95th percentile per-packet one-way delay: 55.739 ms
Loss rate: 0.57%

Run 2: Report of Vivace-latency — Data Link

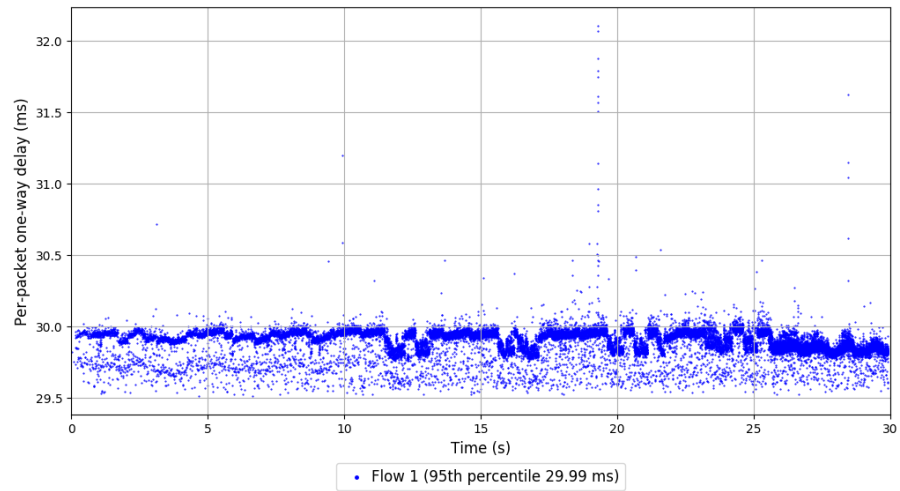
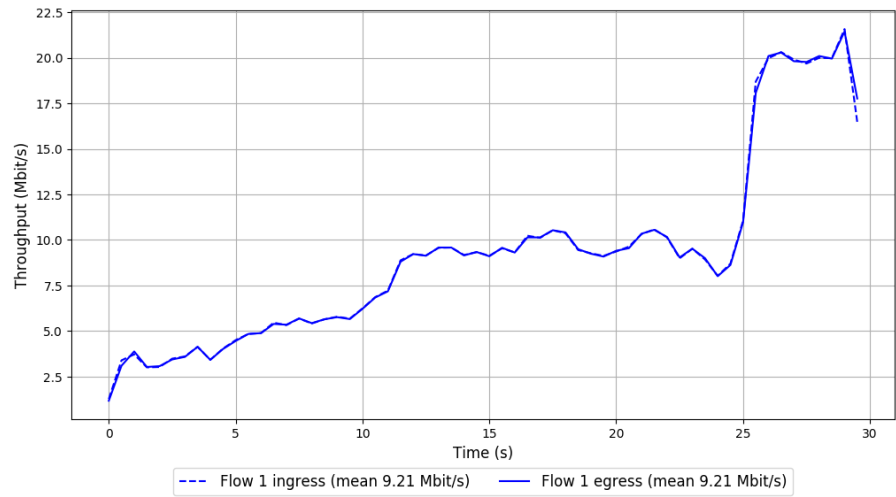


Run 3: Statistics of Vivace-latency

Start at: 2018-03-06 04:13:34
End at: 2018-03-06 04:14:04
Local clock offset: 1.241 ms
Remote clock offset: -5.269 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 29.986 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.21 Mbit/s
95th percentile per-packet one-way delay: 29.986 ms
Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link

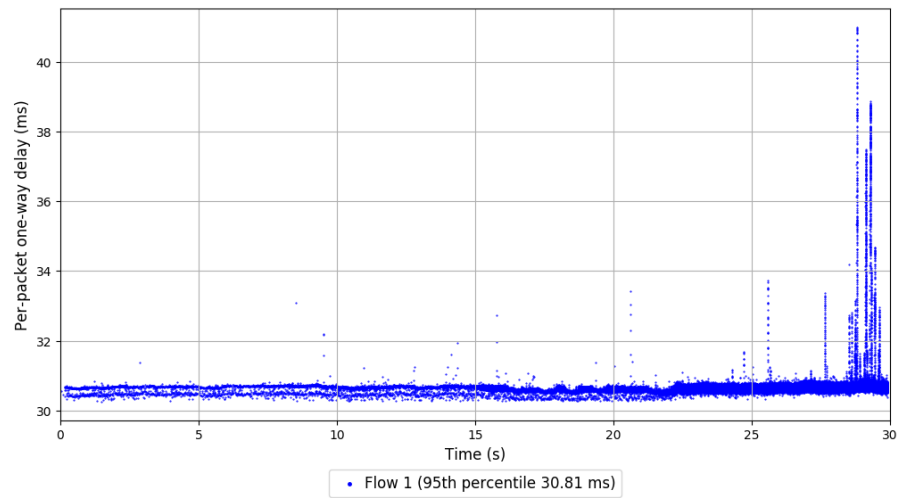
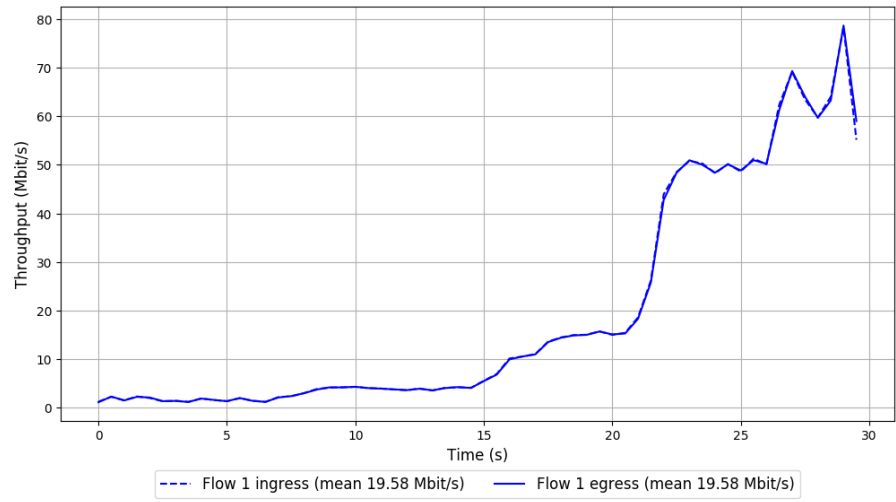


Run 4: Statistics of Vivace-latency

Start at: 2018-03-06 04:47:01
End at: 2018-03-06 04:47:31
Local clock offset: 1.192 ms
Remote clock offset: -5.702 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 19.58 Mbit/s
95th percentile per-packet one-way delay: 30.812 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 19.58 Mbit/s
95th percentile per-packet one-way delay: 30.812 ms
Loss rate: 0.01%

Run 4: Report of Vivace-latency — Data Link

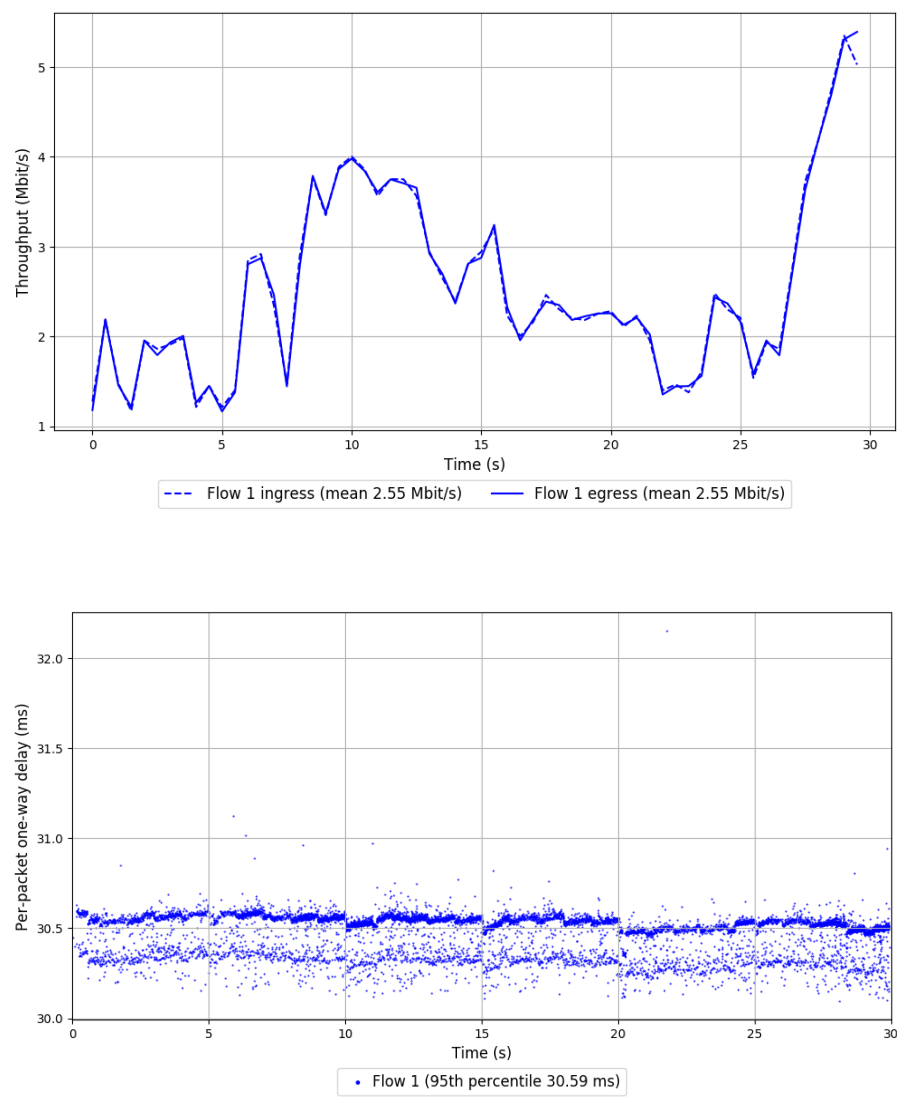


Run 5: Statistics of Vivace-latency

Start at: 2018-03-06 05:23:30
End at: 2018-03-06 05:24:00
Local clock offset: 1.022 ms
Remote clock offset: -4.352 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 30.585 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.55 Mbit/s
95th percentile per-packet one-way delay: 30.585 ms
Loss rate: 0.00%

Run 5: Report of Vivace-latency — Data Link

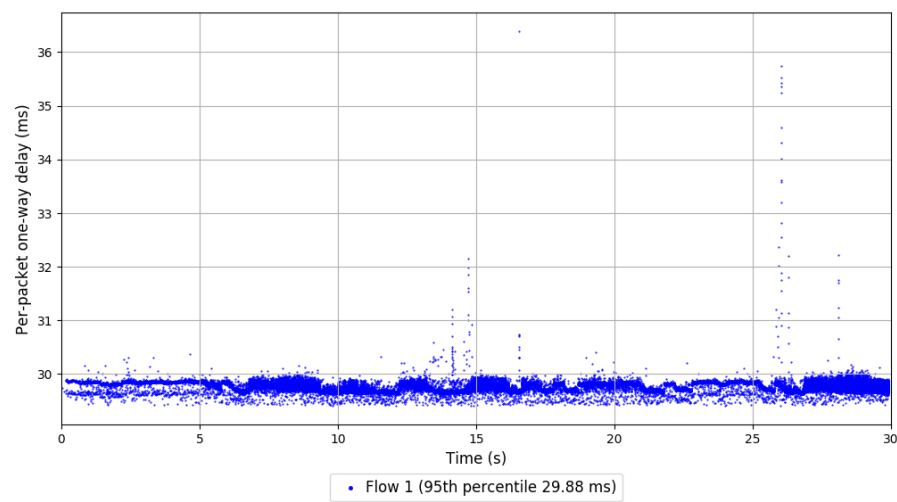
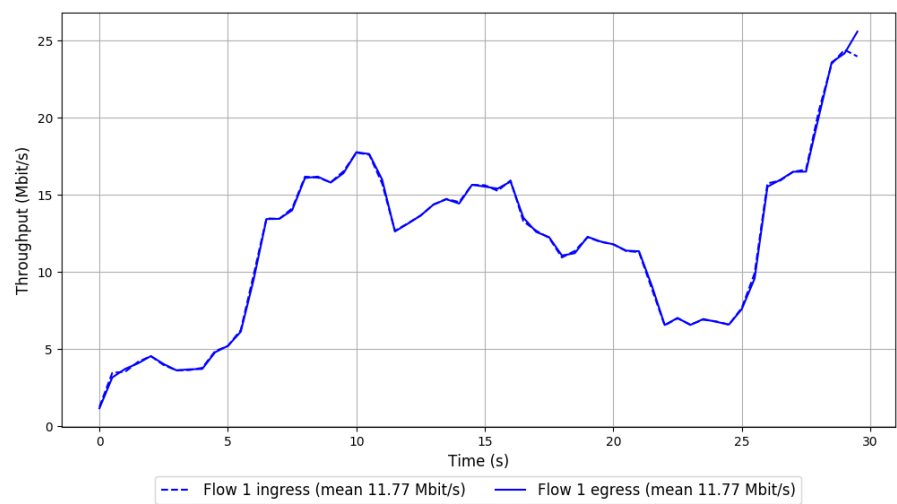


Run 6: Statistics of Vivace-latency

Start at: 2018-03-06 05:56:05
End at: 2018-03-06 05:56:35
Local clock offset: 1.148 ms
Remote clock offset: -4.252 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 29.882 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 29.882 ms
Loss rate: 0.00%

Run 6: Report of Vivace-latency — Data Link

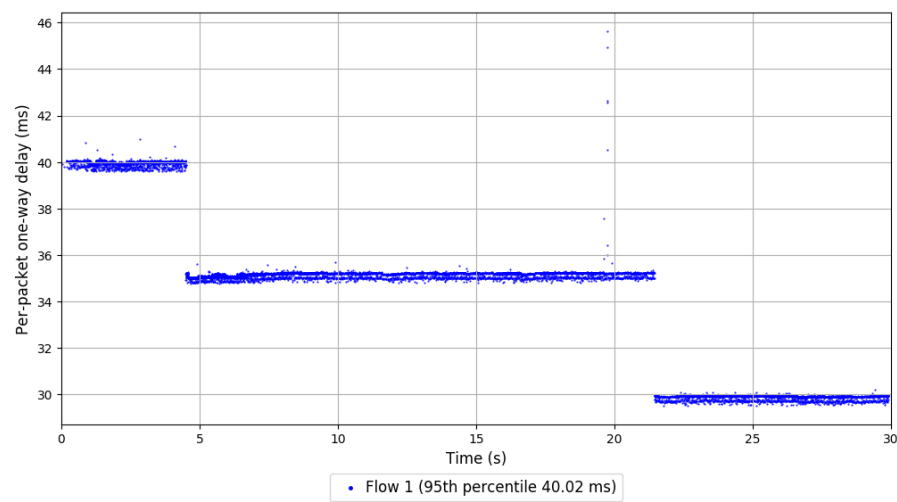
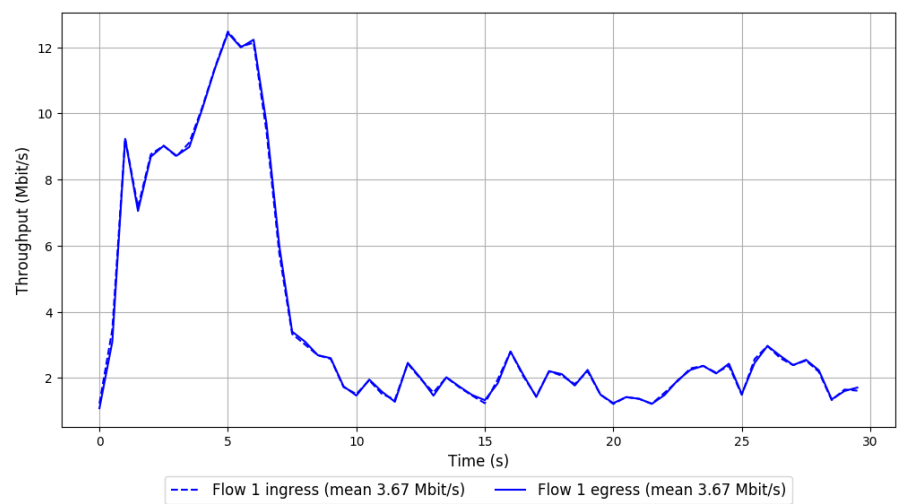


Run 7: Statistics of Vivace-latency

Start at: 2018-03-06 06:26:05
End at: 2018-03-06 06:26:35
Local clock offset: 1.221 ms
Remote clock offset: -4.001 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 40.019 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 3.67 Mbit/s
95th percentile per-packet one-way delay: 40.019 ms
Loss rate: 0.03%

Run 7: Report of Vivace-latency — Data Link

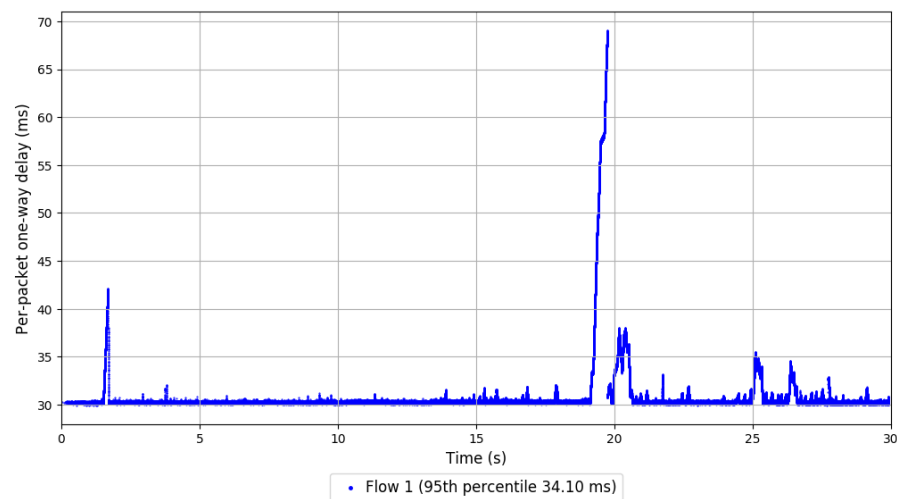
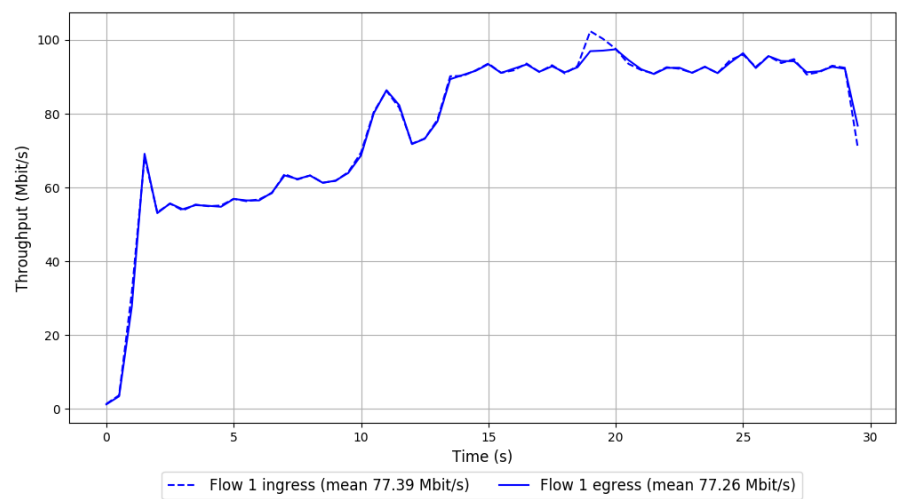


Run 8: Statistics of Vivace-latency

Start at: 2018-03-06 06:52:55
End at: 2018-03-06 06:53:25
Local clock offset: 1.097 ms
Remote clock offset: -3.097 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 77.26 Mbit/s
95th percentile per-packet one-way delay: 34.102 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 77.26 Mbit/s
95th percentile per-packet one-way delay: 34.102 ms
Loss rate: 0.17%

Run 8: Report of Vivace-latency — Data Link

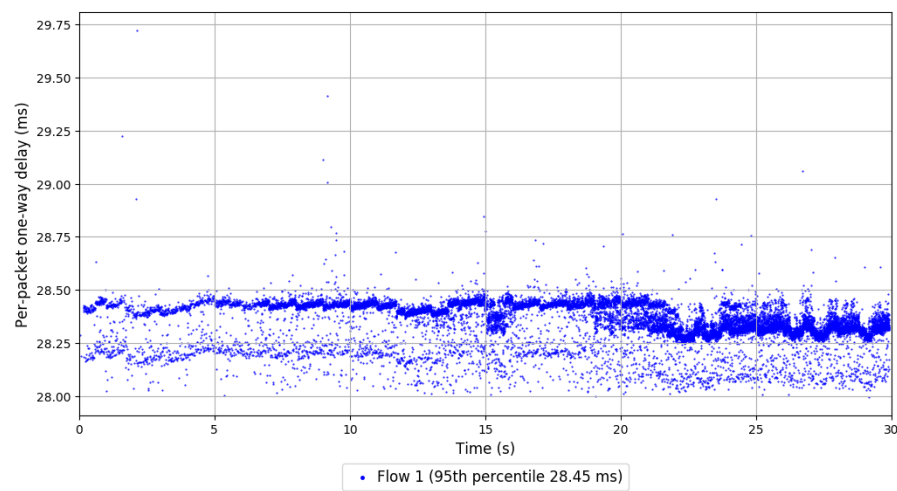
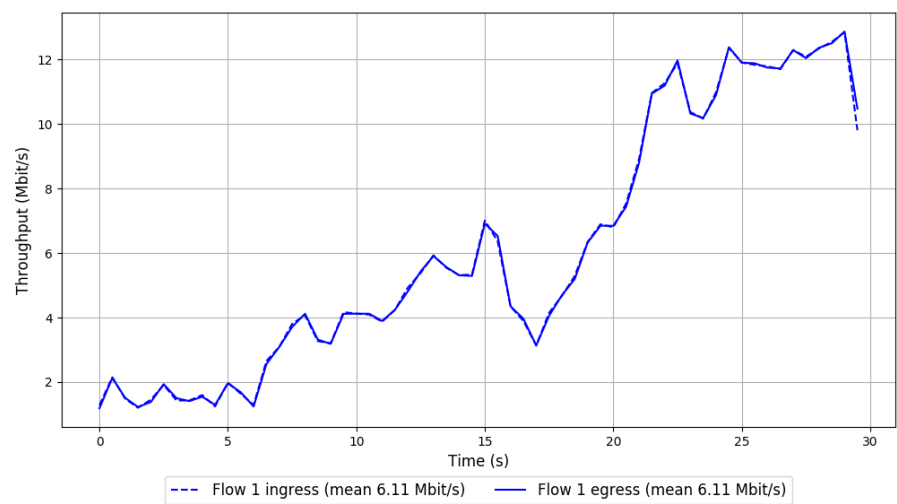


Run 9: Statistics of Vivace-latency

Start at: 2018-03-06 07:21:00
End at: 2018-03-06 07:21:30
Local clock offset: 0.87 ms
Remote clock offset: -3.781 ms

Below is generated by plot.py at 2018-03-06 08:56:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 6.11 Mbit/s
95th percentile per-packet one-way delay: 28.452 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.11 Mbit/s
95th percentile per-packet one-way delay: 28.452 ms
Loss rate: 0.01%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-06 07:51:01

End at: 2018-03-06 07:51:31

Local clock offset: 0.699 ms

Remote clock offset: -6.28 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.13 Mbit/s

95th percentile per-packet one-way delay: 28.620 ms

Loss rate: 0.01%

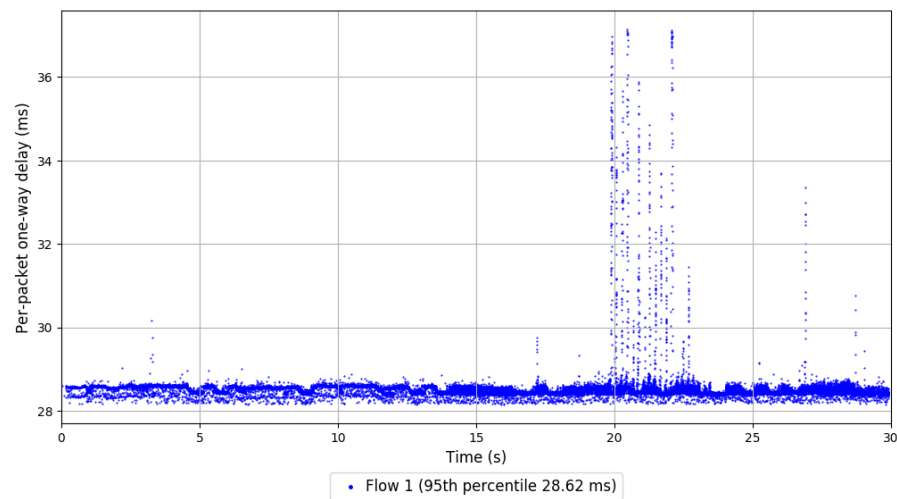
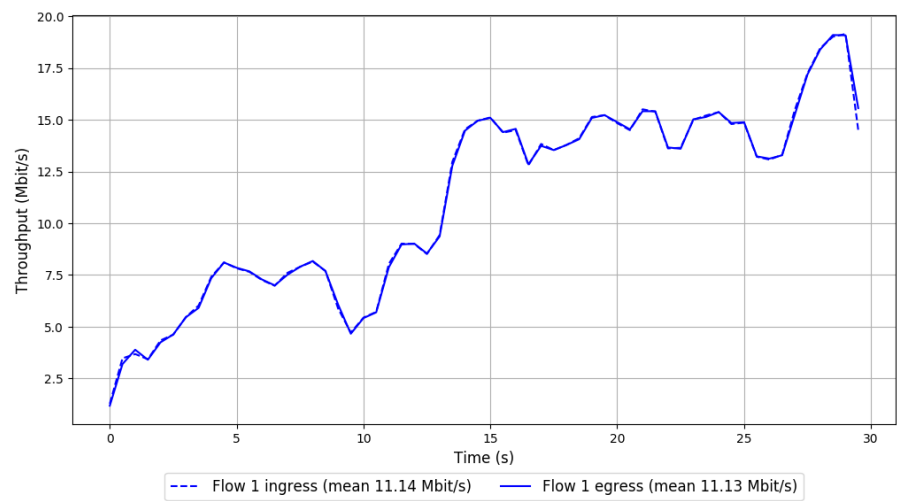
-- Flow 1:

Average throughput: 11.13 Mbit/s

95th percentile per-packet one-way delay: 28.620 ms

Loss rate: 0.01%

Run 10: Report of Vivace-latency — Data Link

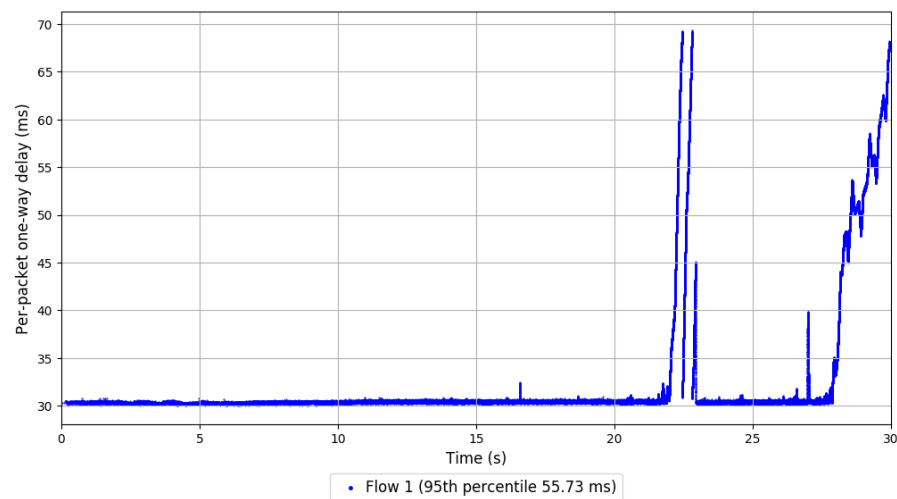
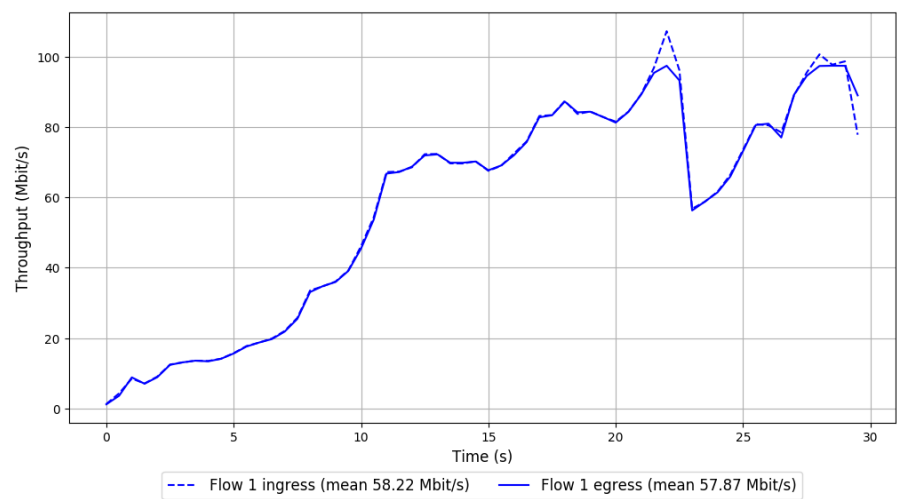


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-06 03:19:33
End at: 2018-03-06 03:20:03
Local clock offset: 1.409 ms
Remote clock offset: 1.476 ms

# Below is generated by plot.py at 2018-03-06 08:56:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 55.725 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 57.87 Mbit/s
95th percentile per-packet one-way delay: 55.725 ms
Loss rate: 0.48%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-06 03:49:13

End at: 2018-03-06 03:49:44

Local clock offset: 1.276 ms

Remote clock offset: -2.498 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.10 Mbit/s

95th percentile per-packet one-way delay: 32.278 ms

Loss rate: 0.03%

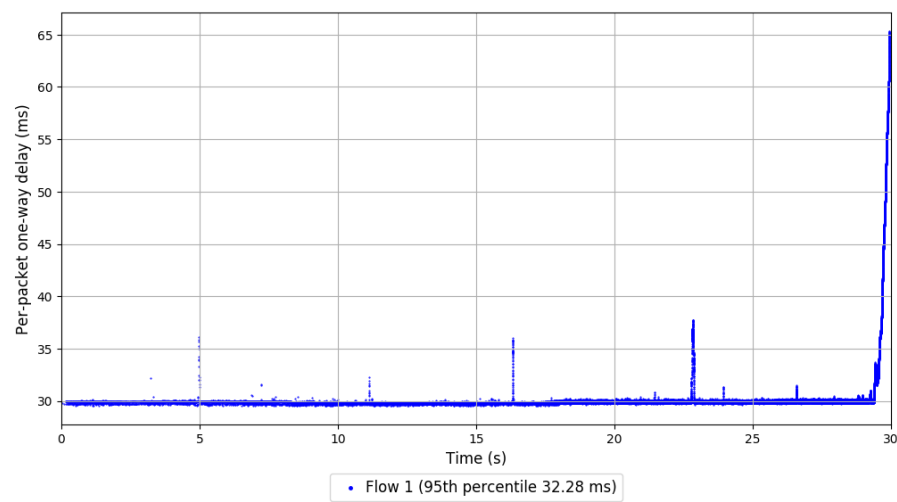
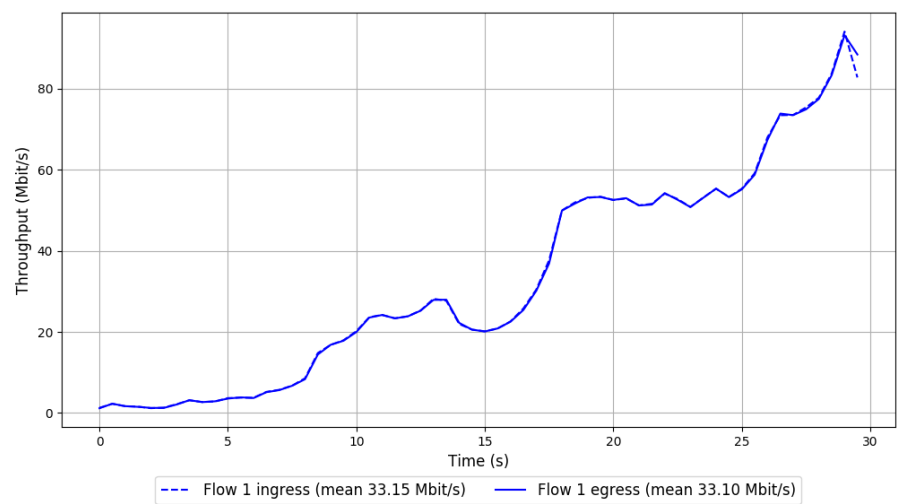
-- Flow 1:

Average throughput: 33.10 Mbit/s

95th percentile per-packet one-way delay: 32.278 ms

Loss rate: 0.03%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-06 04:23:10

End at: 2018-03-06 04:23:40

Local clock offset: 1.225 ms

Remote clock offset: -7.966 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.84 Mbit/s

95th percentile per-packet one-way delay: 28.024 ms

Loss rate: 0.05%

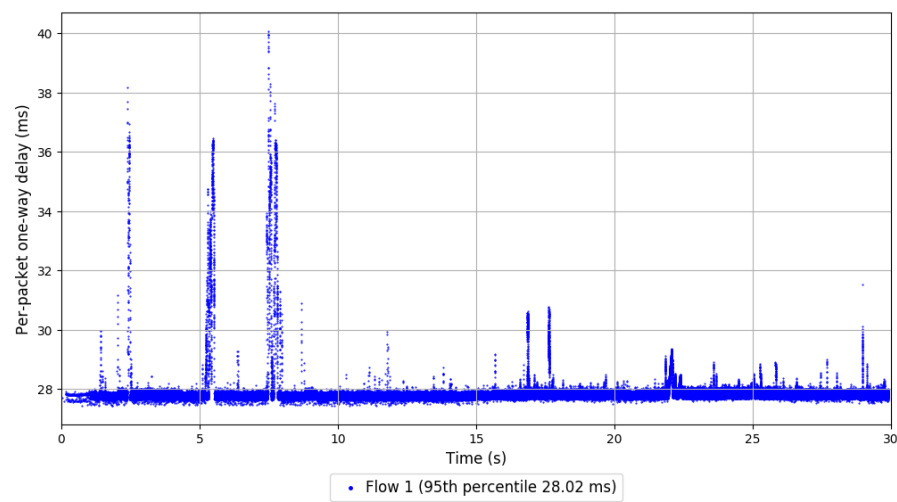
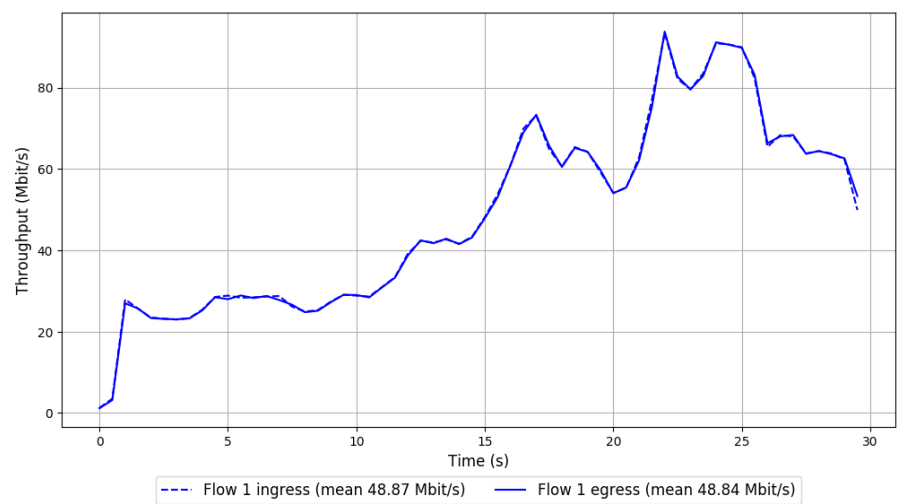
-- Flow 1:

Average throughput: 48.84 Mbit/s

95th percentile per-packet one-way delay: 28.024 ms

Loss rate: 0.05%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-06 04:56:15

End at: 2018-03-06 04:56:45

Local clock offset: 1.239 ms

Remote clock offset: -5.908 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.21 Mbit/s

95th percentile per-packet one-way delay: 57.828 ms

Loss rate: 1.70%

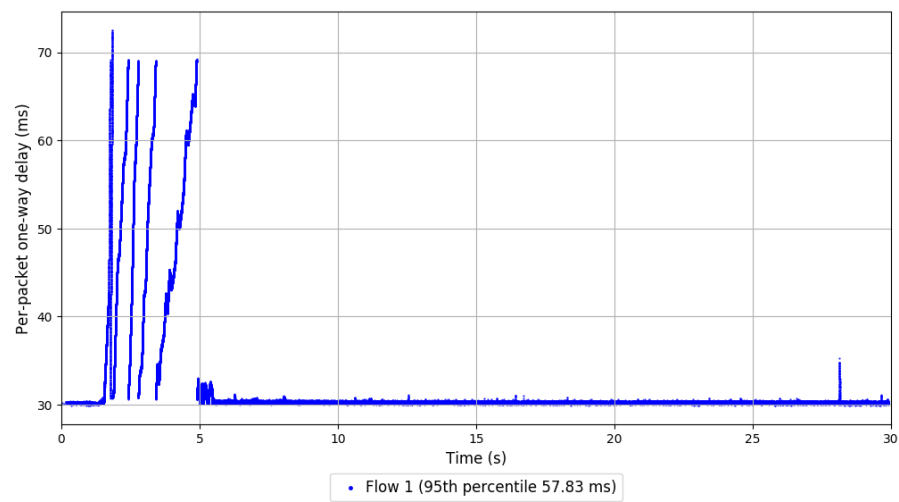
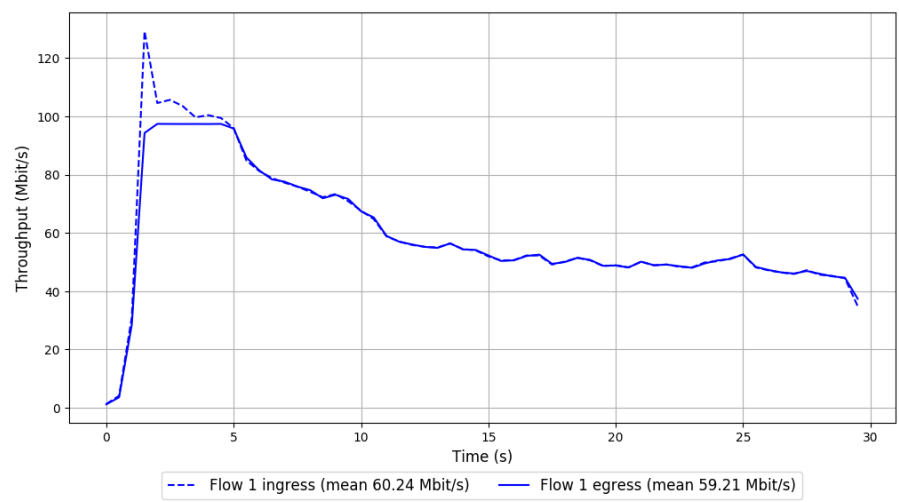
-- Flow 1:

Average throughput: 59.21 Mbit/s

95th percentile per-packet one-way delay: 57.828 ms

Loss rate: 1.70%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-06 05:32:47

End at: 2018-03-06 05:33:17

Local clock offset: 0.925 ms

Remote clock offset: -3.736 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.12 Mbit/s

95th percentile per-packet one-way delay: 30.041 ms

Loss rate: 0.82%

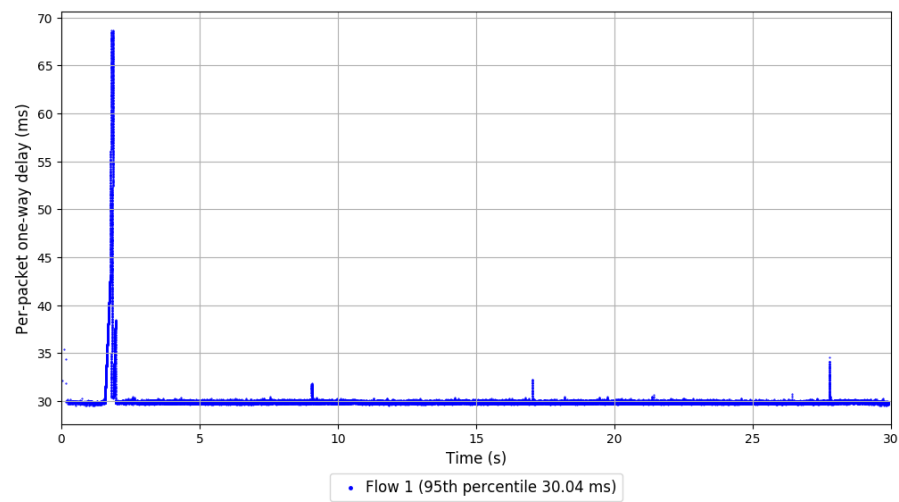
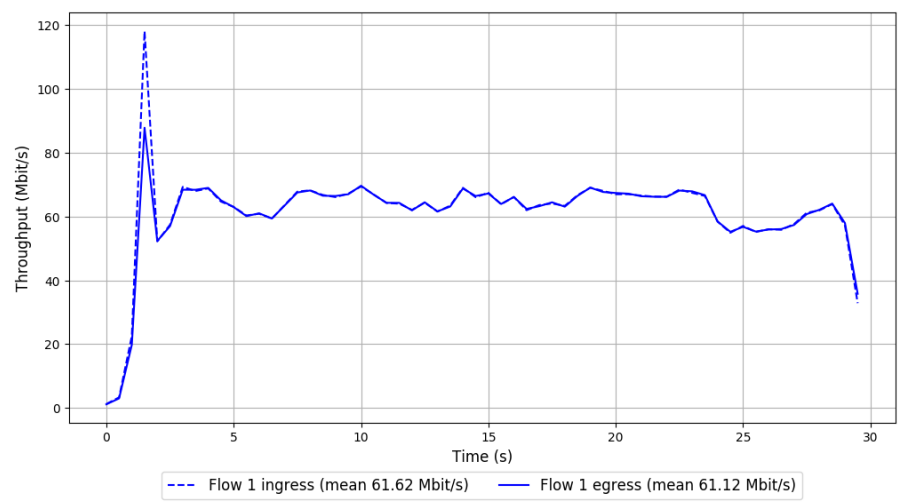
-- Flow 1:

Average throughput: 61.12 Mbit/s

95th percentile per-packet one-way delay: 30.041 ms

Loss rate: 0.82%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-06 06:04:04

End at: 2018-03-06 06:04:34

Local clock offset: 1.092 ms

Remote clock offset: -4.068 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.44 Mbit/s

95th percentile per-packet one-way delay: 32.842 ms

Loss rate: 0.99%

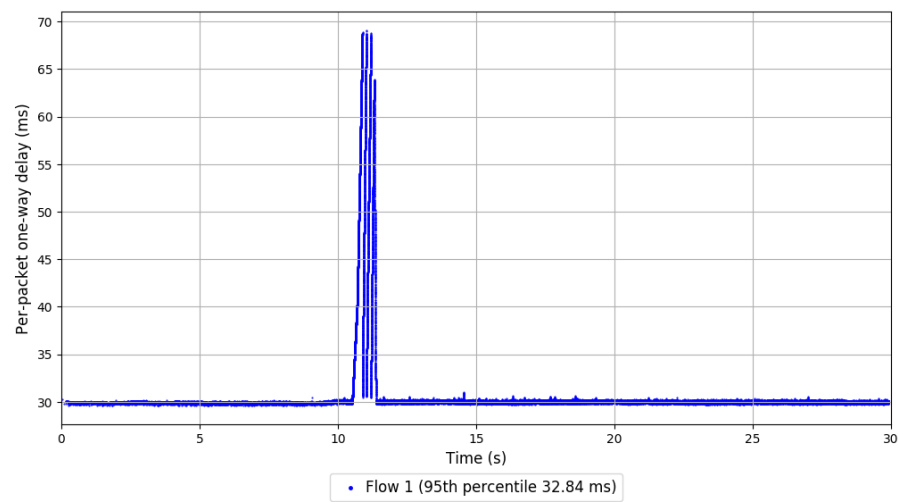
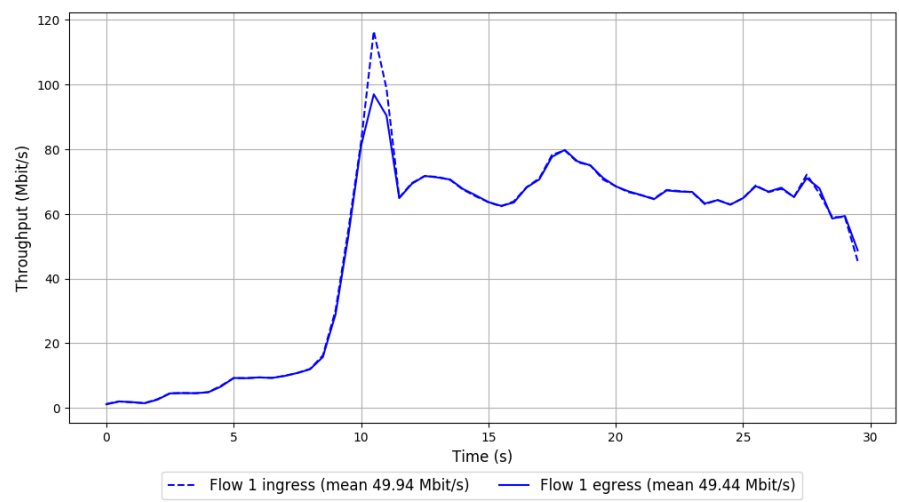
-- Flow 1:

Average throughput: 49.44 Mbit/s

95th percentile per-packet one-way delay: 32.842 ms

Loss rate: 0.99%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-06 06:34:02

End at: 2018-03-06 06:34:32

Local clock offset: 1.221 ms

Remote clock offset: -4.064 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.28 Mbit/s

95th percentile per-packet one-way delay: 49.681 ms

Loss rate: 1.38%

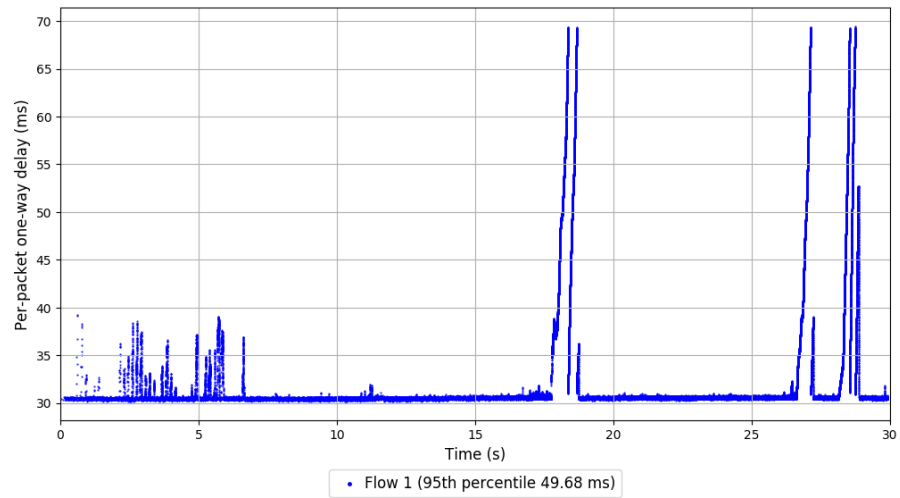
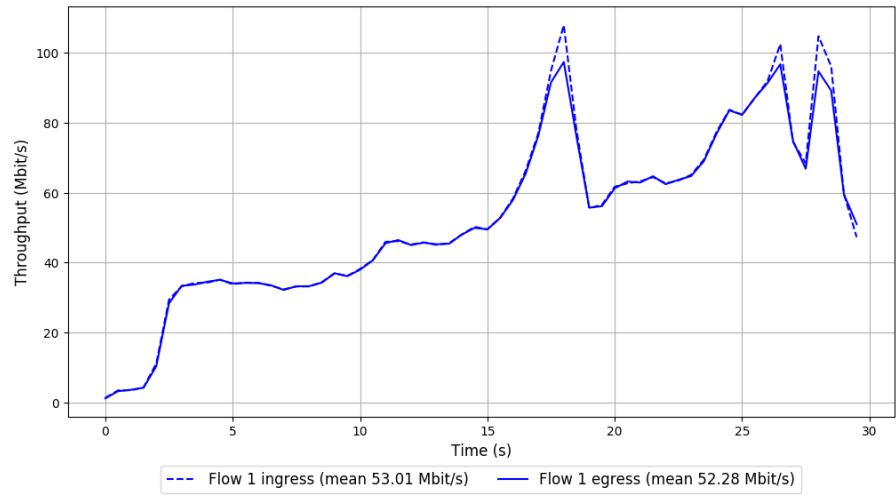
-- Flow 1:

Average throughput: 52.28 Mbit/s

95th percentile per-packet one-way delay: 49.681 ms

Loss rate: 1.38%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-06 07:00:26

End at: 2018-03-06 07:00:56

Local clock offset: 1.049 ms

Remote clock offset: -1.985 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.25 Mbit/s

95th percentile per-packet one-way delay: 63.706 ms

Loss rate: 5.58%

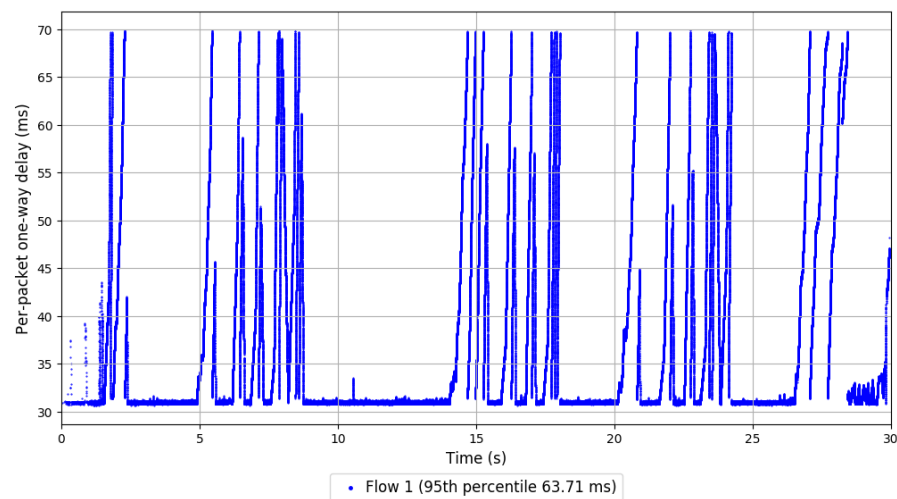
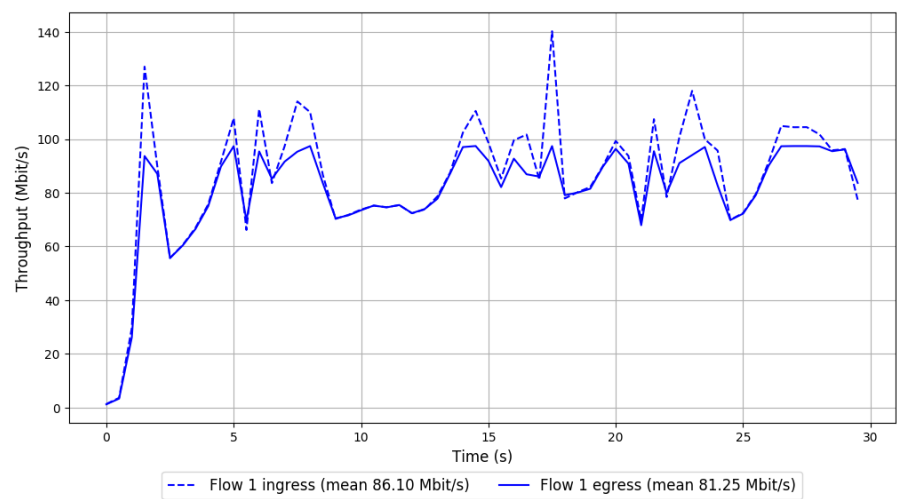
-- Flow 1:

Average throughput: 81.25 Mbit/s

95th percentile per-packet one-way delay: 63.706 ms

Loss rate: 5.58%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-06 07:28:57

End at: 2018-03-06 07:29:27

Local clock offset: 0.854 ms

Remote clock offset: -2.368 ms

Below is generated by plot.py at 2018-03-06 08:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.56 Mbit/s

95th percentile per-packet one-way delay: 65.782 ms

Loss rate: 3.10%

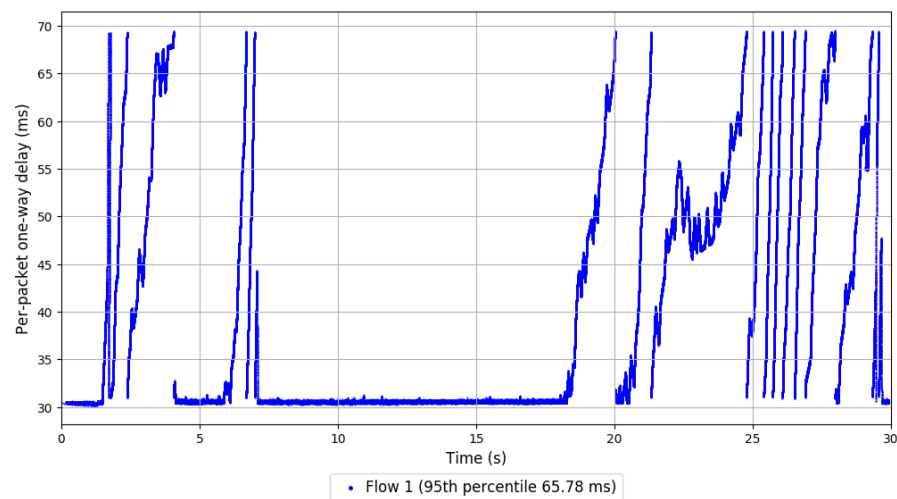
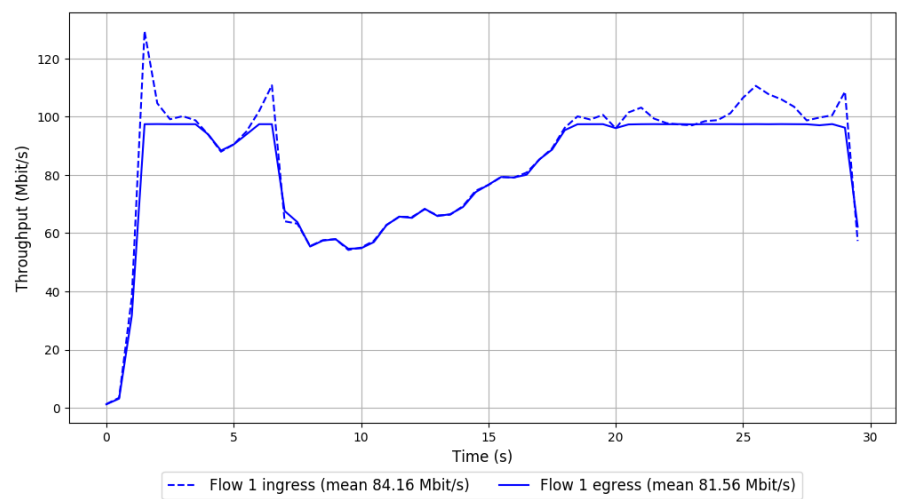
-- Flow 1:

Average throughput: 81.56 Mbit/s

95th percentile per-packet one-way delay: 65.782 ms

Loss rate: 3.10%

Run 9: Report of Vivace-loss — Data Link

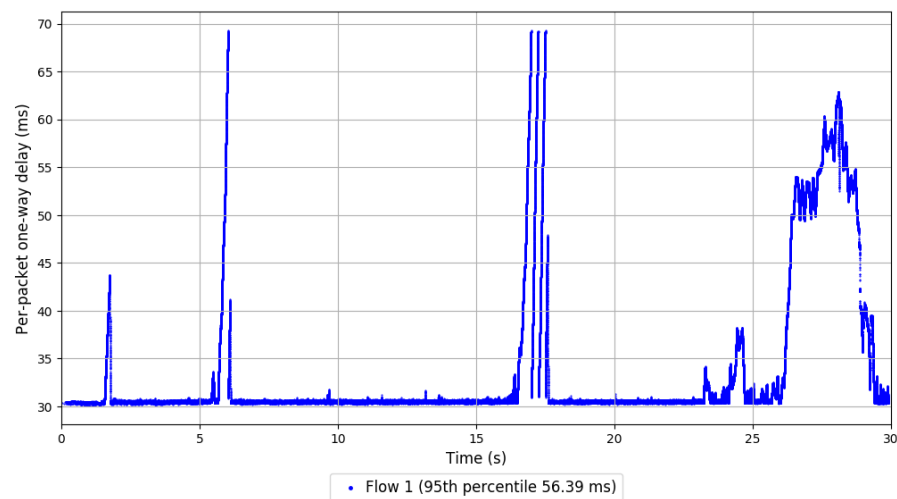
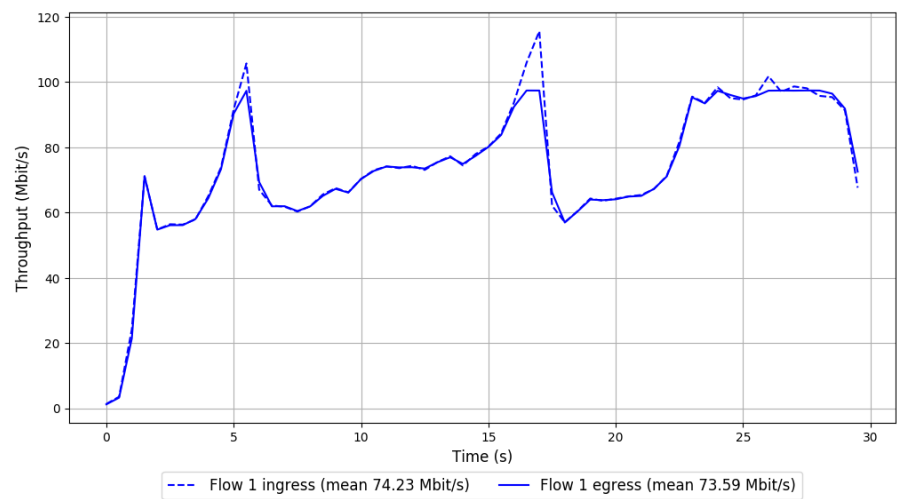


Run 10: Statistics of Vivace-loss

Start at: 2018-03-06 07:59:06
End at: 2018-03-06 07:59:36
Local clock offset: 0.758 ms
Remote clock offset: -4.444 ms

Below is generated by plot.py at 2018-03-06 08:56:57
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.59 Mbit/s
95th percentile per-packet one-way delay: 56.389 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 73.59 Mbit/s
95th percentile per-packet one-way delay: 56.389 ms
Loss rate: 0.86%

Run 10: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-03-06 03:14:10

End at: 2018-03-06 03:14:40

Local clock offset: 1.365 ms

Remote clock offset: 0.805 ms

Below is generated by plot.py at 2018-03-06 08:56:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.75 Mbit/s

95th percentile per-packet one-way delay: 34.670 ms

Loss rate: 0.96%

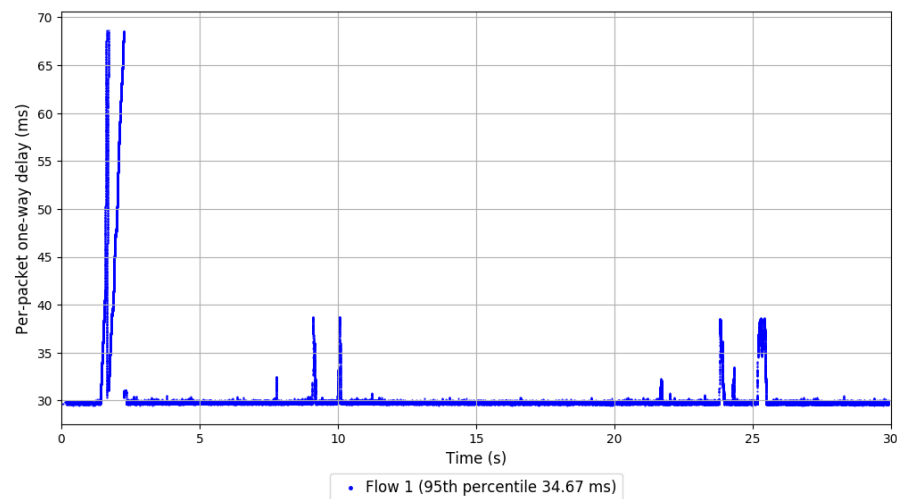
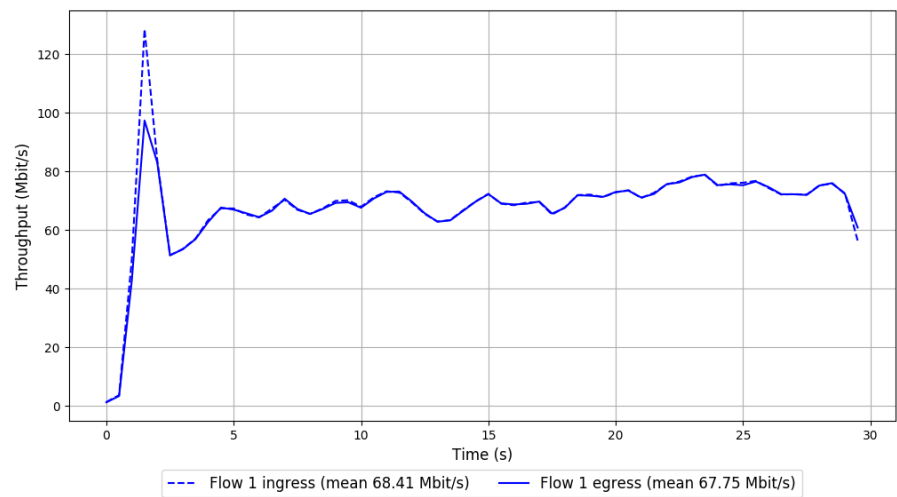
-- Flow 1:

Average throughput: 67.75 Mbit/s

95th percentile per-packet one-way delay: 34.670 ms

Loss rate: 0.96%

Run 1: Report of Vivace-LTE — Data Link

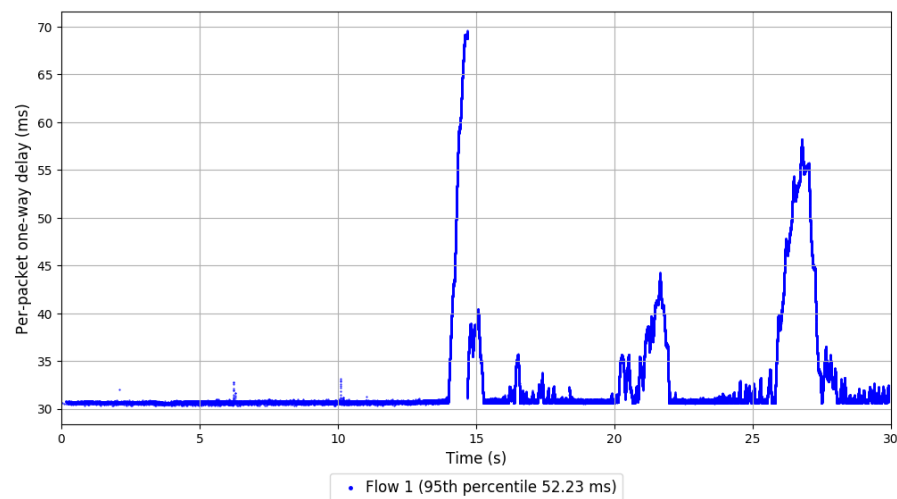
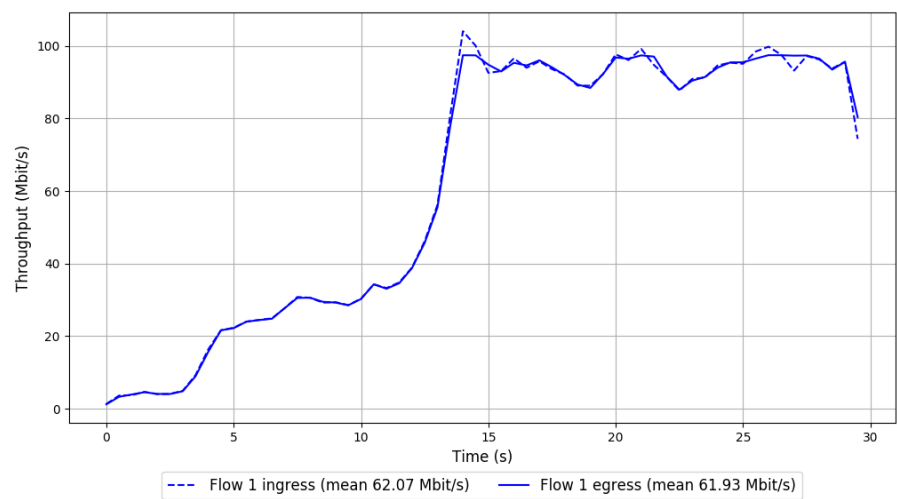


Run 2: Statistics of Vivace-LTE

Start at: 2018-03-06 03:43:35
End at: 2018-03-06 03:44:05
Local clock offset: 1.25 ms
Remote clock offset: -2.265 ms

Below is generated by plot.py at 2018-03-06 08:57:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 61.93 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 61.93 Mbit/s
95th percentile per-packet one-way delay: 52.228 ms
Loss rate: 0.23%

Run 2: Report of Vivace-LTE — Data Link

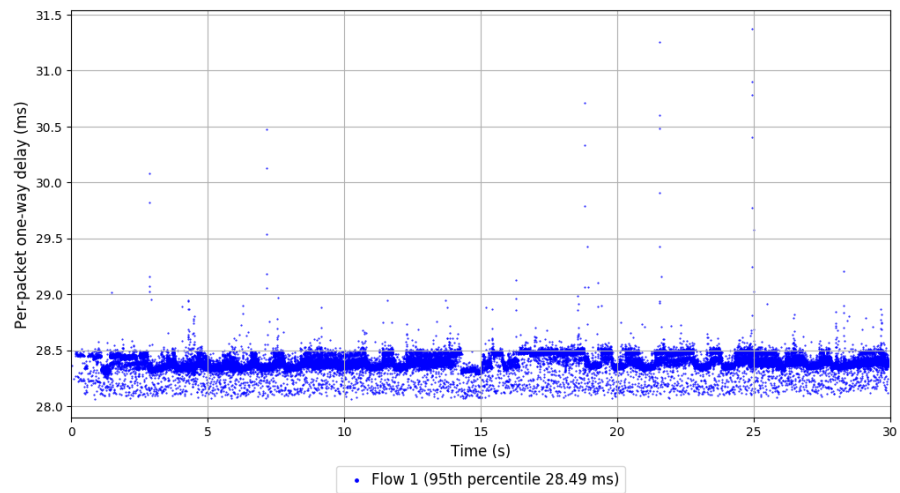
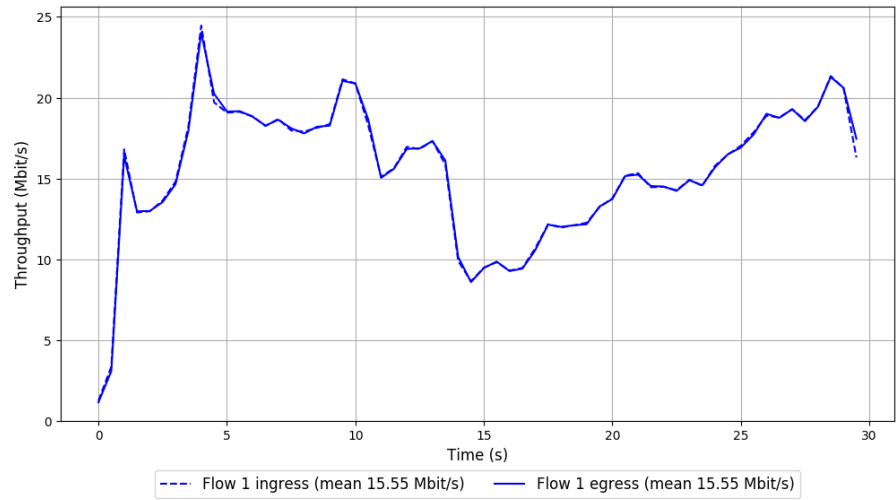


Run 3: Statistics of Vivace-LTE

Start at: 2018-03-06 04:16:43
End at: 2018-03-06 04:17:13
Local clock offset: 1.21 ms
Remote clock offset: -7.657 ms

Below is generated by plot.py at 2018-03-06 08:57:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 15.55 Mbit/s
95th percentile per-packet one-way delay: 28.490 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.55 Mbit/s
95th percentile per-packet one-way delay: 28.490 ms
Loss rate: 0.00%

Run 3: Report of Vivace-LTE — Data Link

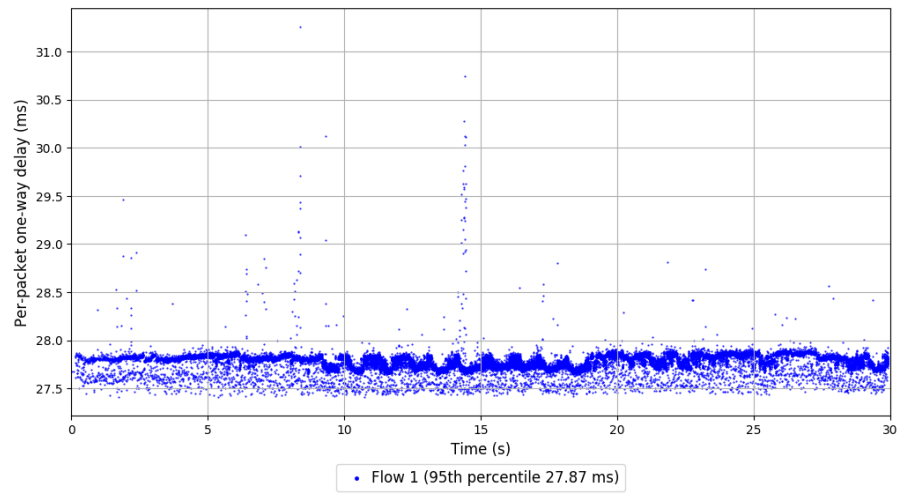
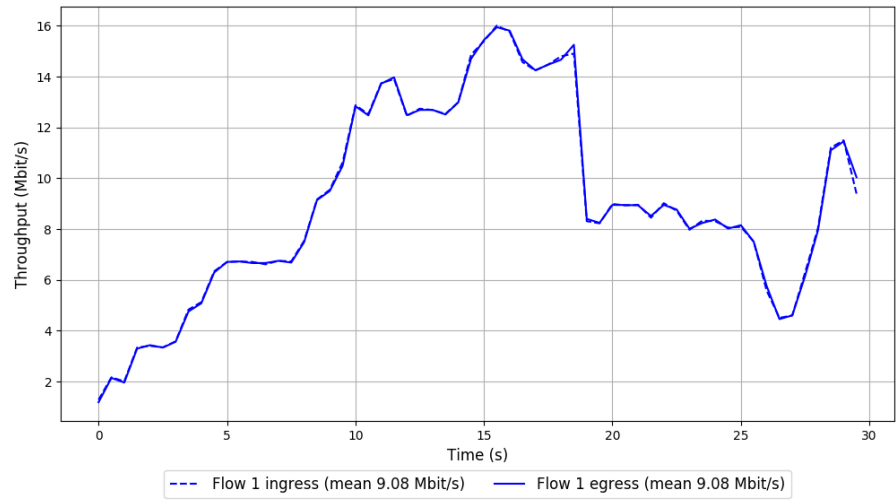


Run 4: Statistics of Vivace-LTE

Start at: 2018-03-06 04:50:25
End at: 2018-03-06 04:50:55
Local clock offset: 1.191 ms
Remote clock offset: -8.024 ms

Below is generated by plot.py at 2018-03-06 08:57:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 9.08 Mbit/s
95th percentile per-packet one-way delay: 27.867 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.08 Mbit/s
95th percentile per-packet one-way delay: 27.867 ms
Loss rate: 0.00%

Run 4: Report of Vivace-LTE — Data Link

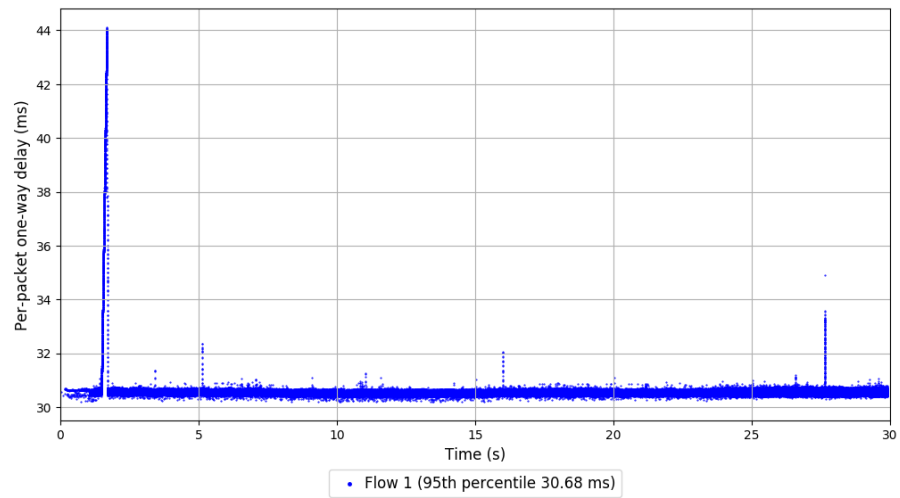
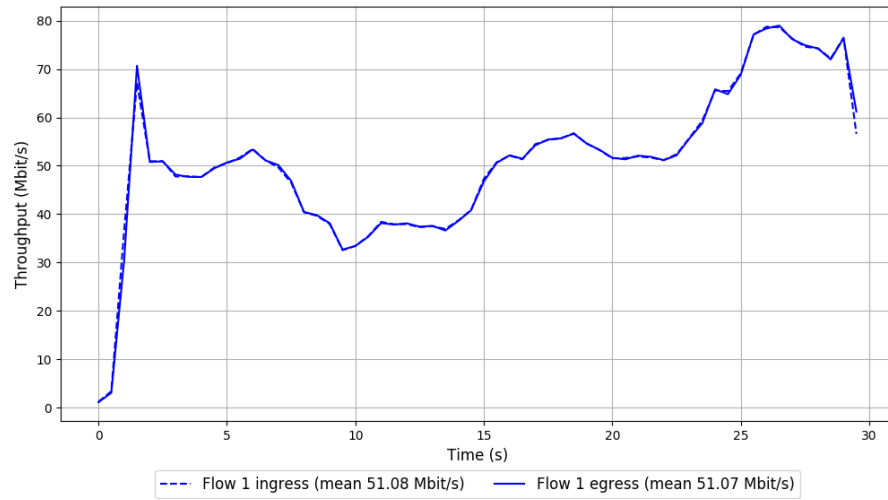


Run 5: Statistics of Vivace-LTE

Start at: 2018-03-06 05:26:39
End at: 2018-03-06 05:27:09
Local clock offset: 1.074 ms
Remote clock offset: -3.963 ms

Below is generated by plot.py at 2018-03-06 08:57:12
Datalink statistics
-- Total of 1 flow:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 30.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 30.677 ms
Loss rate: 0.00%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

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

End at: 2018-03-06 05:59:35

Local clock offset: 1.166 ms

Remote clock offset: -6.204 ms

Below is generated by plot.py at 2018-03-06 08:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.28 Mbit/s

95th percentile per-packet one-way delay: 57.171 ms

Loss rate: 0.89%

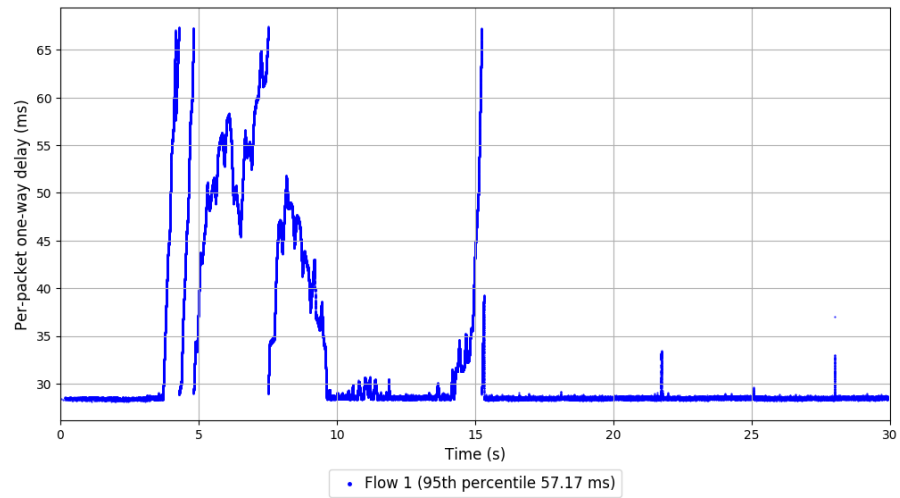
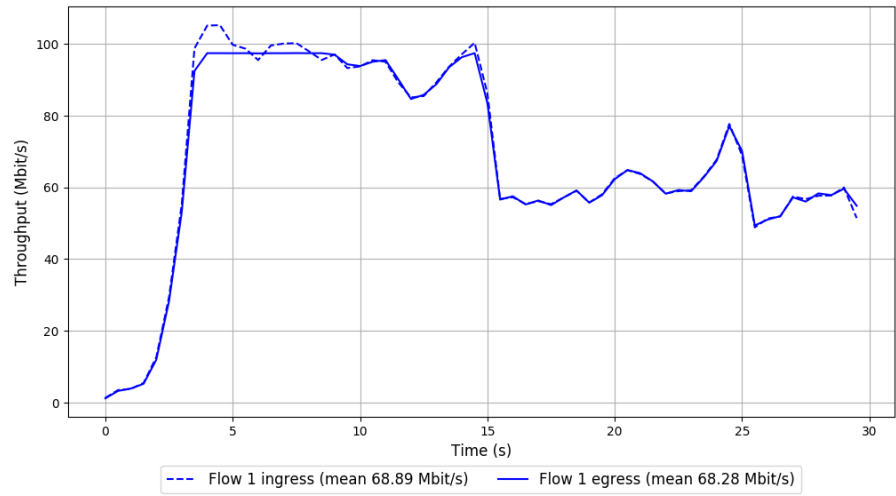
-- Flow 1:

Average throughput: 68.28 Mbit/s

95th percentile per-packet one-way delay: 57.171 ms

Loss rate: 0.89%

Run 6: Report of Vivace-LTE — Data Link

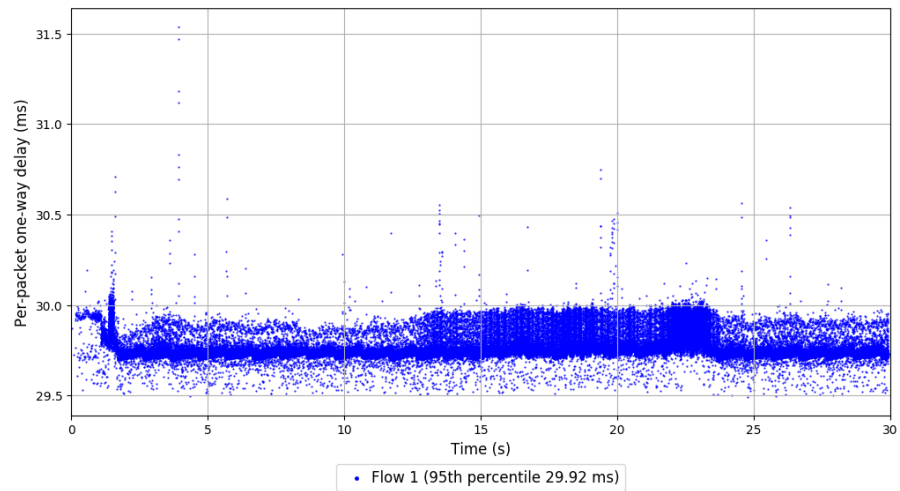
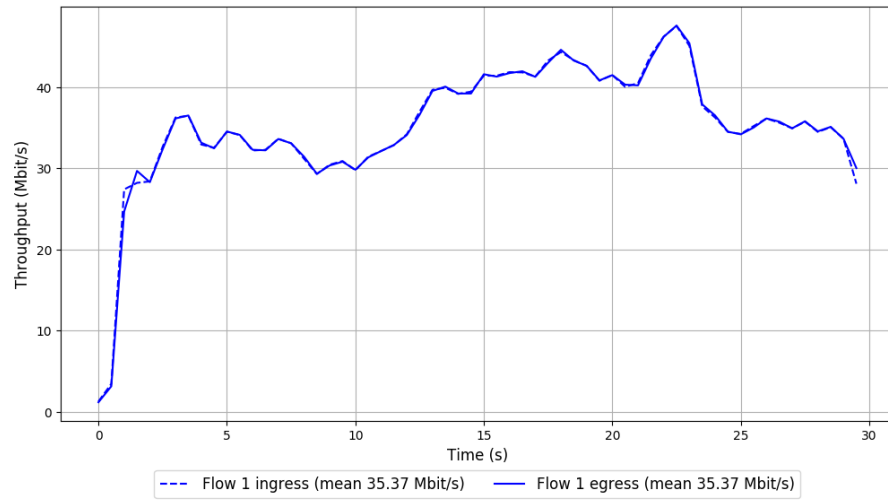


Run 7: Statistics of Vivace-LTE

Start at: 2018-03-06 06:28:55
End at: 2018-03-06 06:29:25
Local clock offset: 1.203 ms
Remote clock offset: -4.052 ms

Below is generated by plot.py at 2018-03-06 08:57:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 29.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 29.924 ms
Loss rate: 0.00%

Run 7: Report of Vivace-LTE — Data Link

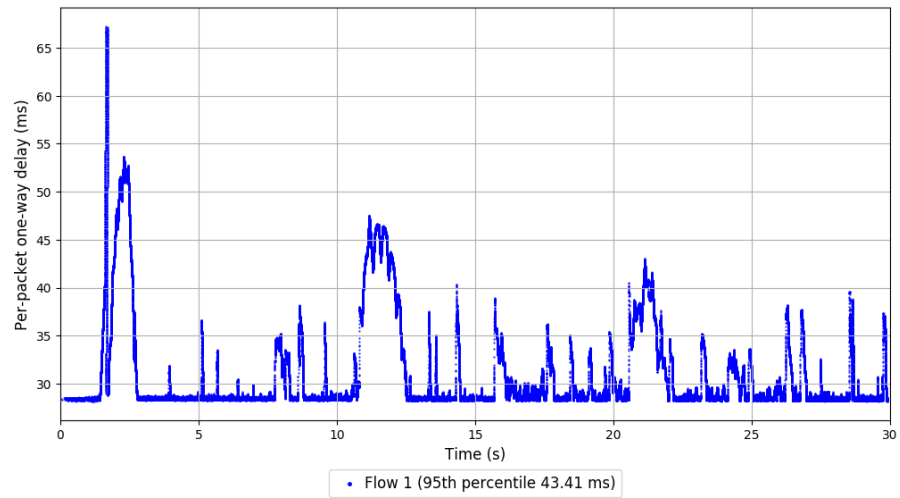
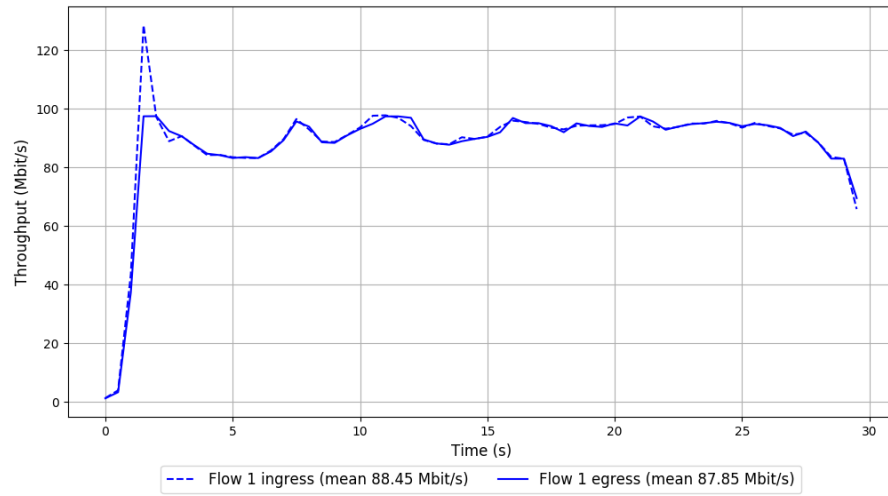


Run 8: Statistics of Vivace-LTE

Start at: 2018-03-06 06:55:56
End at: 2018-03-06 06:56:26
Local clock offset: 0.98 ms
Remote clock offset: -5.186 ms

Below is generated by plot.py at 2018-03-06 08:57:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 43.413 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 87.85 Mbit/s
95th percentile per-packet one-way delay: 43.413 ms
Loss rate: 0.68%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-06 07:23:53

End at: 2018-03-06 07:24:23

Local clock offset: 0.86 ms

Remote clock offset: -1.269 ms

Below is generated by plot.py at 2018-03-06 08:57:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.97 Mbit/s

95th percentile per-packet one-way delay: 31.094 ms

Loss rate: 0.00%

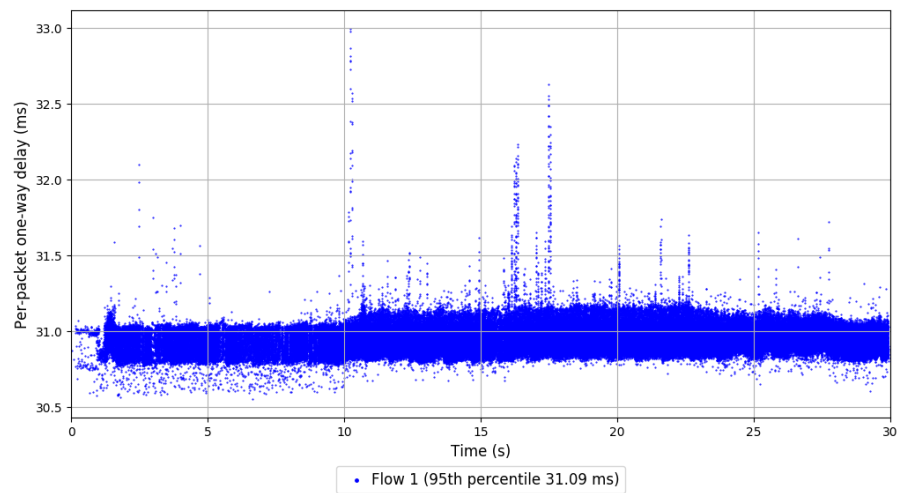
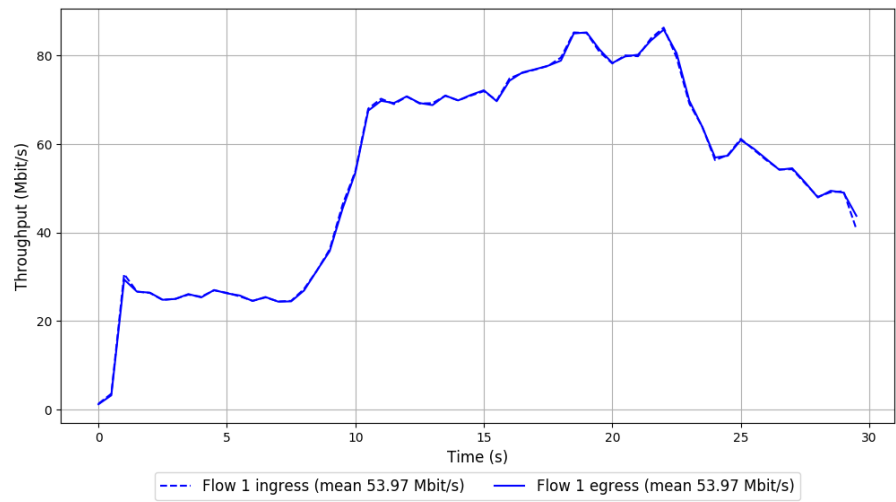
-- Flow 1:

Average throughput: 53.97 Mbit/s

95th percentile per-packet one-way delay: 31.094 ms

Loss rate: 0.00%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-06 07:54:00

End at: 2018-03-06 07:54:30

Local clock offset: 0.81 ms

Remote clock offset: -4.365 ms

Below is generated by plot.py at 2018-03-06 08:57:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.21 Mbit/s

95th percentile per-packet one-way delay: 52.467 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 74.21 Mbit/s

95th percentile per-packet one-way delay: 52.467 ms

Loss rate: 0.20%

Run 10: Report of Vivace-LTE — Data Link

