

## Pantheon Report

Generated at 2019-06-28 08:17:33 (UTC).

Data path: Brazil on p4p1 (*remote*) → AWS Brazil 1 on ens5 (*local*).

Repeated the test of 22 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

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

### System info:

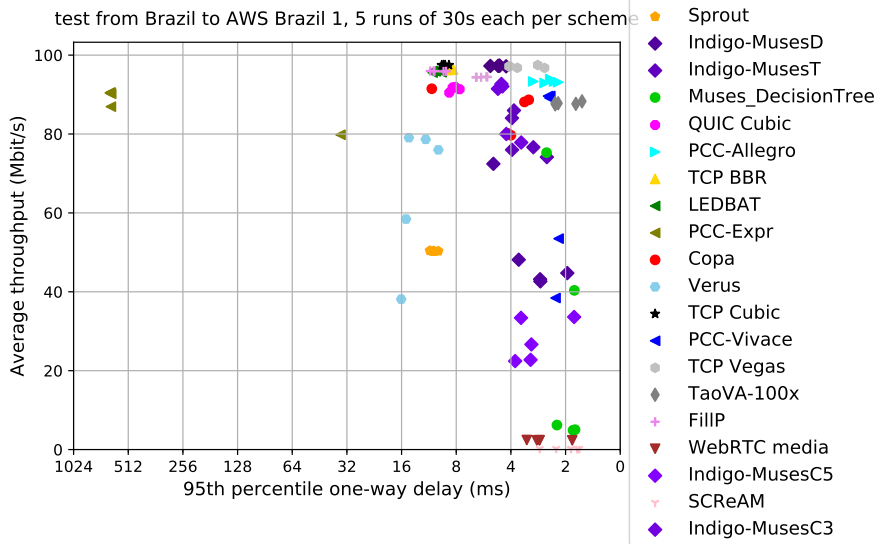
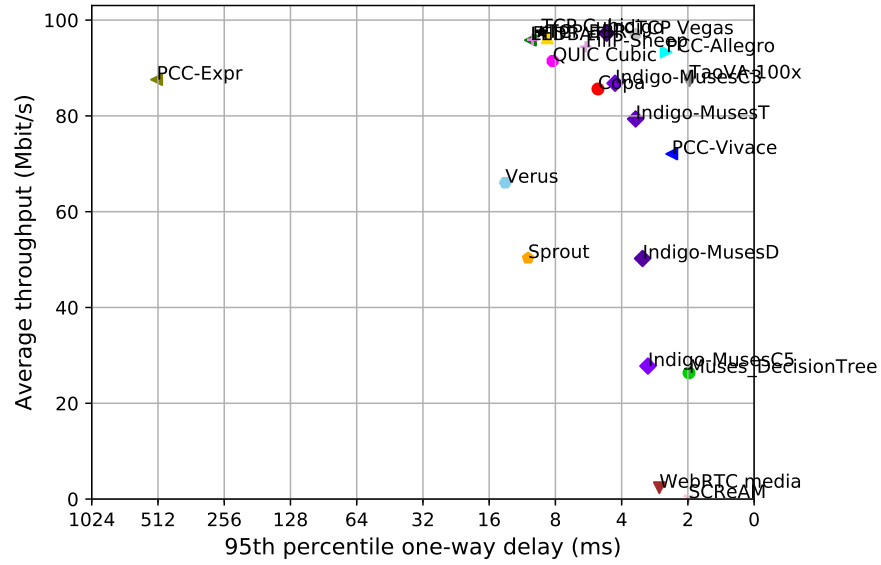
```
Linux 4.15.0-1039-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

```
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf5e58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 11c9498ecb1596b02ccd896791a02d03172af7ed
M helpers/__init__.pyc
M helpers/context.pyc
M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
```

```
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



| scheme             | # runs | mean avg tput (Mbit/s)<br>flow 1 | mean 95th-%ile delay (ms)<br>flow 1 | mean loss rate (%)<br>flow 1 |
|--------------------|--------|----------------------------------|-------------------------------------|------------------------------|
| TCP BBR            | 5      | 96.30                            | 8.71                                | 0.06                         |
| Copa               | 5      | 85.62                            | 5.12                                | 0.02                         |
| TCP Cubic          | 5      | 97.47                            | 9.27                                | 0.06                         |
| FillP              | 5      | 95.92                            | 10.16                               | 0.04                         |
| FillP-Sheep        | 5      | 94.43                            | 5.82                                | 0.03                         |
| Indigo             | 5      | 97.27                            | 4.68                                | 0.02                         |
| Indigo-MusesC3     | 5      | 86.81                            | 4.29                                | 0.02                         |
| Indigo-MusesC5     | 5      | 27.77                            | 3.04                                | 0.01                         |
| Indigo-MusesD      | 5      | 50.23                            | 3.21                                | 0.01                         |
| Indigo-MusesT      | 5      | 79.36                            | 3.46                                | 0.02                         |
| LEDBAT             | 5      | 95.81                            | 10.40                               | 0.08                         |
| Muses_DecisionTree | 5      | 26.36                            | 1.97                                | 0.02                         |
| PCC-Allegro        | 5      | 93.33                            | 2.51                                | 0.02                         |
| PCC-Expr           | 5      | 87.58                            | 519.37                              | 4.45                         |
| QUIC Cubic         | 5      | 91.46                            | 8.23                                | 0.02                         |
| SCReAM             | 5      | 0.22                             | 1.98                                | 0.03                         |
| Sprout             | 5      | 50.32                            | 10.65                               | 0.04                         |
| TaoVA-100x         | 5      | 87.81                            | 1.96                                | 0.02                         |
| TCP Vegas          | 5      | 97.07                            | 3.46                                | 0.01                         |
| Verus              | 5      | 66.06                            | 13.52                               | 0.03                         |
| PCC-Vivace         | 5      | 72.06                            | 2.37                                | 0.01                         |
| WebRTC media       | 5      | 2.37                             | 2.70                                | 0.03                         |

Run 1: Statistics of TCP BBR

Start at: 2019-06-28 06:00:43

End at: 2019-06-28 06:01:13

Local clock offset: -6.977 ms

Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-06-28 08:04:53

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.31 Mbit/s

95th percentile per-packet one-way delay: 8.998 ms

Loss rate: 0.03%

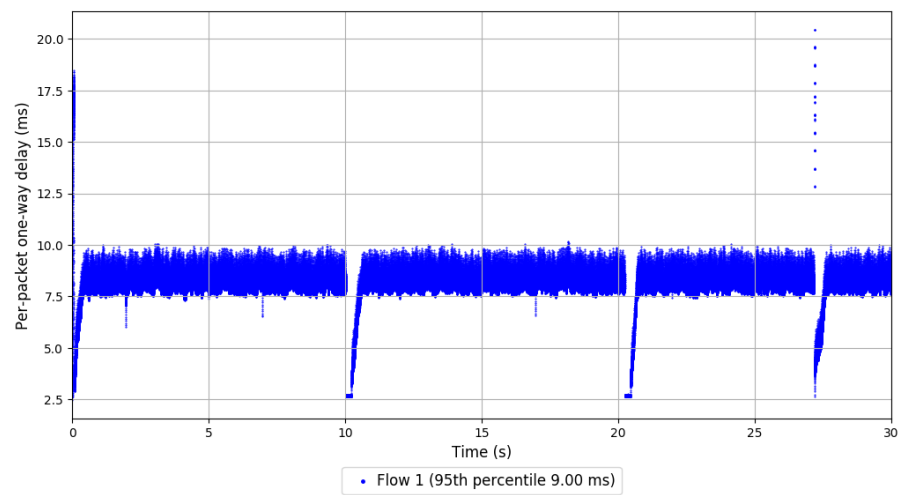
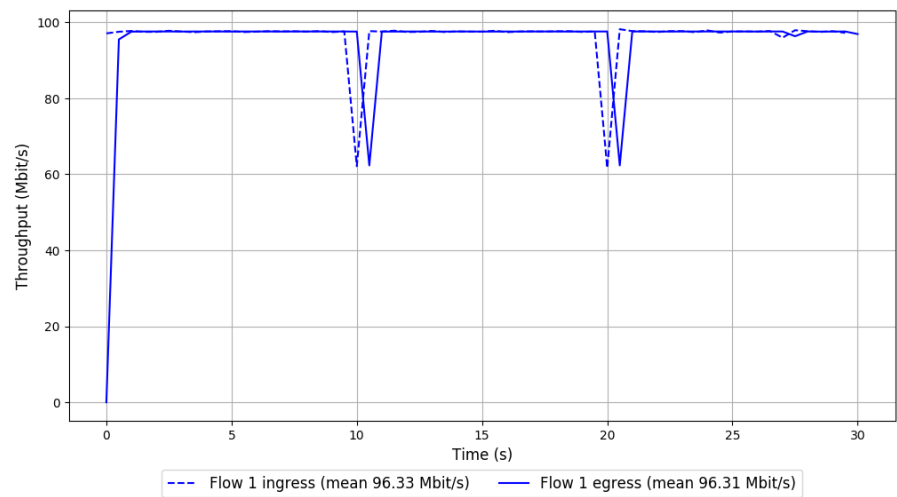
-- Flow 1:

Average throughput: 96.31 Mbit/s

95th percentile per-packet one-way delay: 8.998 ms

Loss rate: 0.03%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2019-06-28 06:25:28

End at: 2019-06-28 06:25:58

Local clock offset: -7.226 ms

Remote clock offset: 0.174 ms

# Below is generated by plot.py at 2019-06-28 08:04:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.34 Mbit/s

95th percentile per-packet one-way delay: 8.509 ms

Loss rate: 0.03%

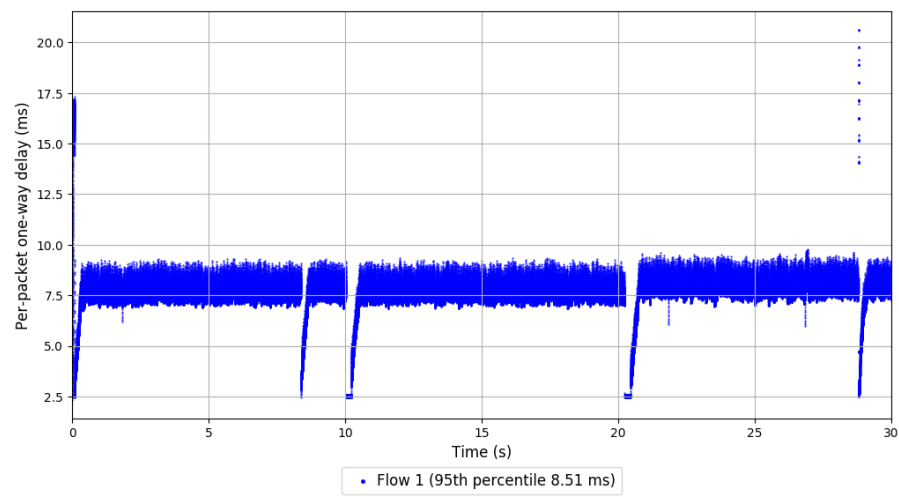
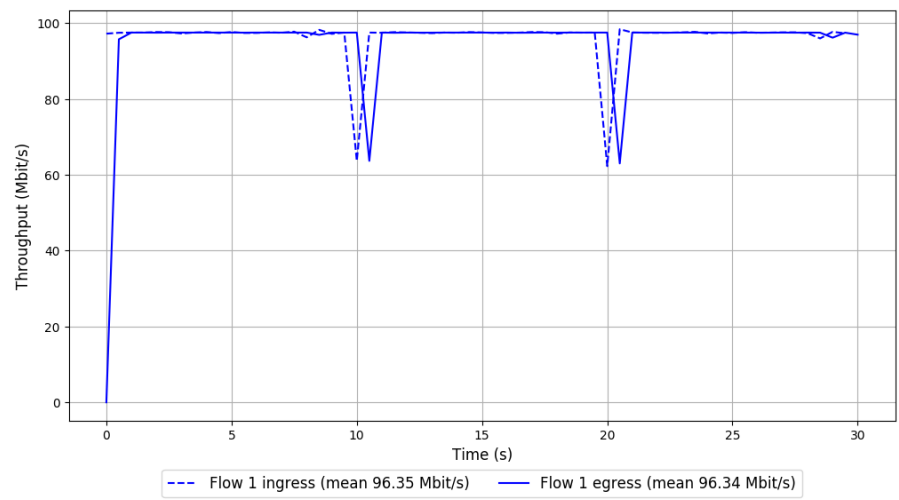
-- Flow 1:

Average throughput: 96.34 Mbit/s

95th percentile per-packet one-way delay: 8.509 ms

Loss rate: 0.03%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-06-28 06:50:19

End at: 2019-06-28 06:50:49

Local clock offset: -7.804 ms

Remote clock offset: 0.492 ms

# Below is generated by plot.py at 2019-06-28 08:04:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.26 Mbit/s

95th percentile per-packet one-way delay: 8.857 ms

Loss rate: 0.10%

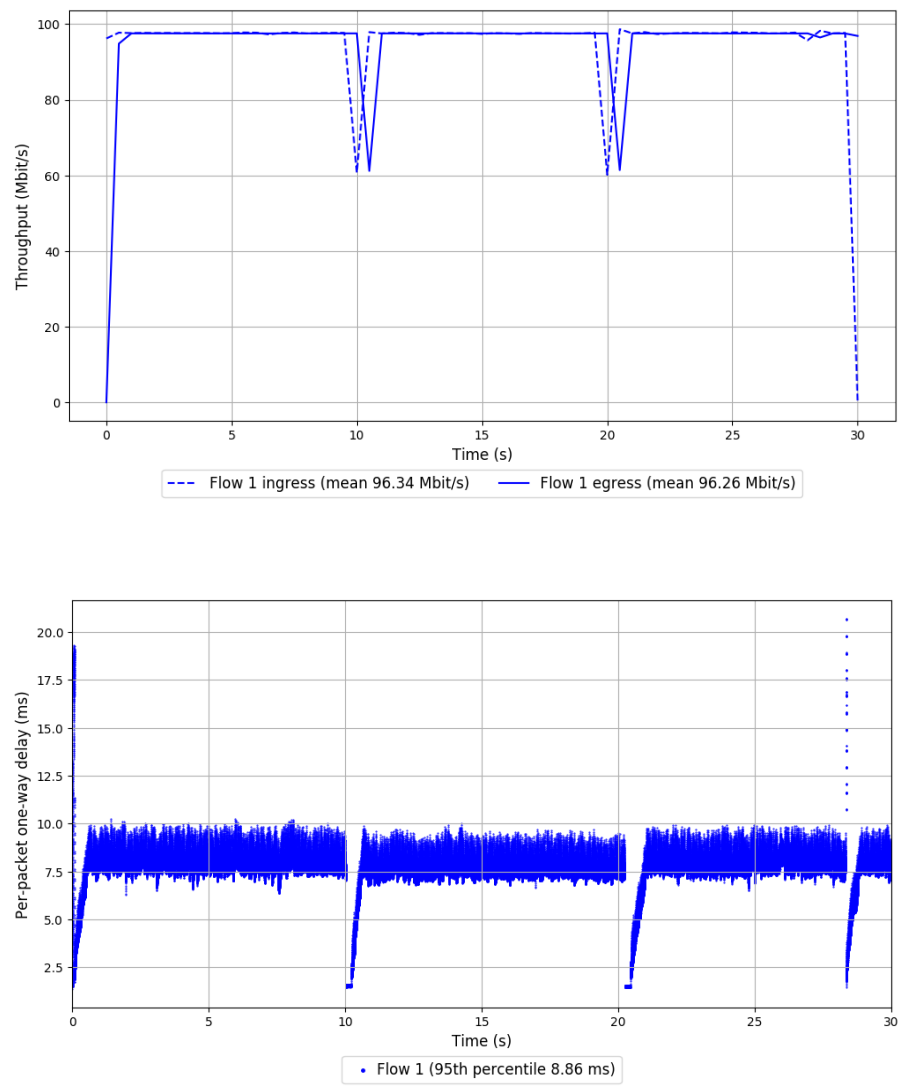
-- Flow 1:

Average throughput: 96.26 Mbit/s

95th percentile per-packet one-way delay: 8.857 ms

Loss rate: 0.10%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2019-06-28 07:15:08

End at: 2019-06-28 07:15:38

Local clock offset: -6.248 ms

Remote clock offset: 0.652 ms

# Below is generated by plot.py at 2019-06-28 08:04:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.26 Mbit/s

95th percentile per-packet one-way delay: 8.869 ms

Loss rate: 0.12%

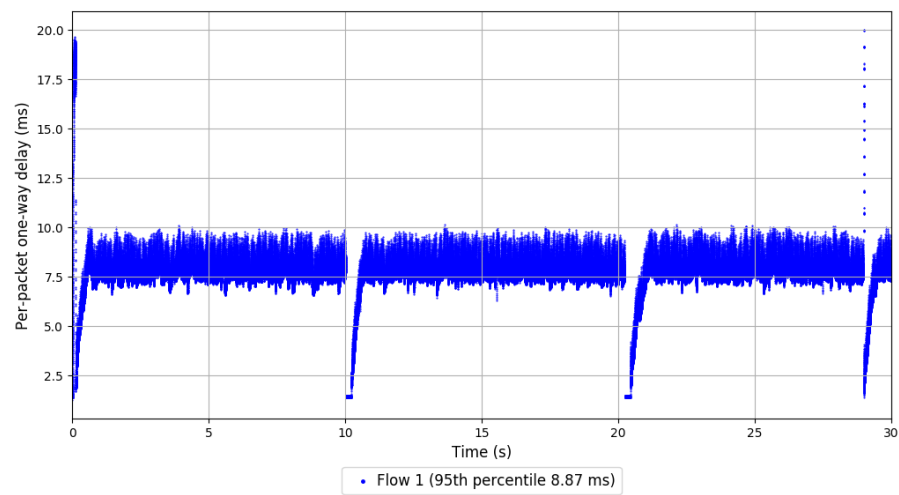
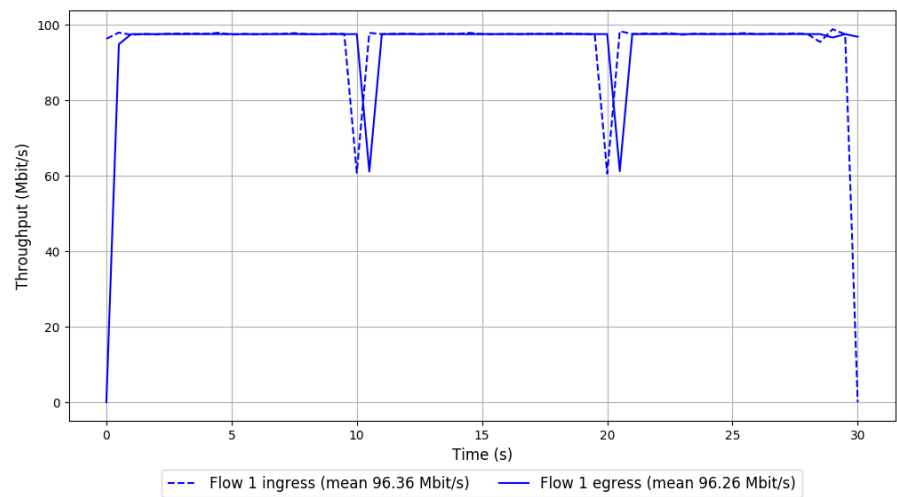
-- Flow 1:

Average throughput: 96.26 Mbit/s

95th percentile per-packet one-way delay: 8.869 ms

Loss rate: 0.12%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2019-06-28 07:39:57

End at: 2019-06-28 07:40:27

Local clock offset: -6.017 ms

Remote clock offset: 0.806 ms

# Below is generated by plot.py at 2019-06-28 08:04:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.35 Mbit/s

95th percentile per-packet one-way delay: 8.308 ms

Loss rate: 0.03%

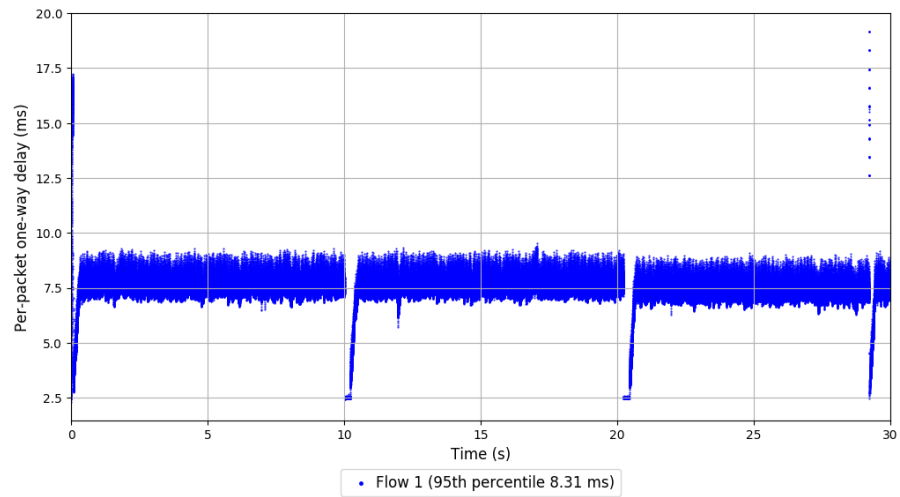
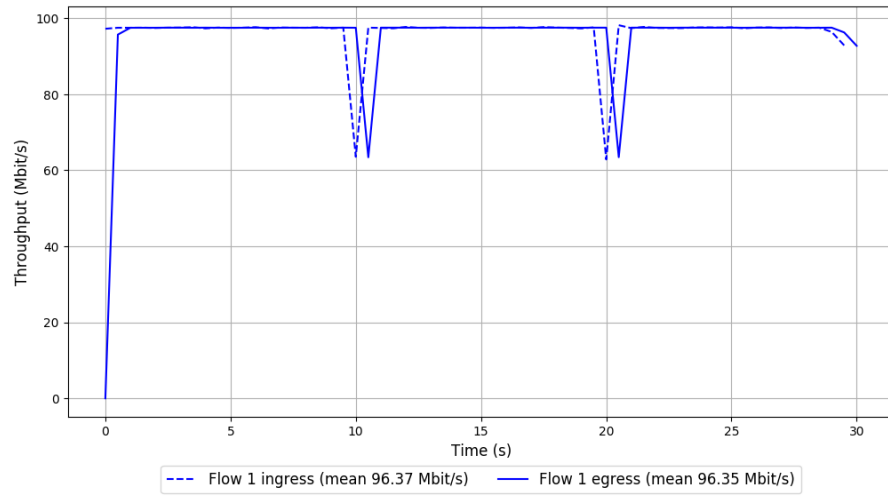
-- Flow 1:

Average throughput: 96.35 Mbit/s

95th percentile per-packet one-way delay: 8.308 ms

Loss rate: 0.03%

### Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2019-06-28 06:14:13

End at: 2019-06-28 06:14:43

Local clock offset: -7.033 ms

Remote clock offset: 0.1 ms

# Below is generated by plot.py at 2019-06-28 08:05:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 80.14 Mbit/s

95th percentile per-packet one-way delay: 4.158 ms

Loss rate: 0.02%

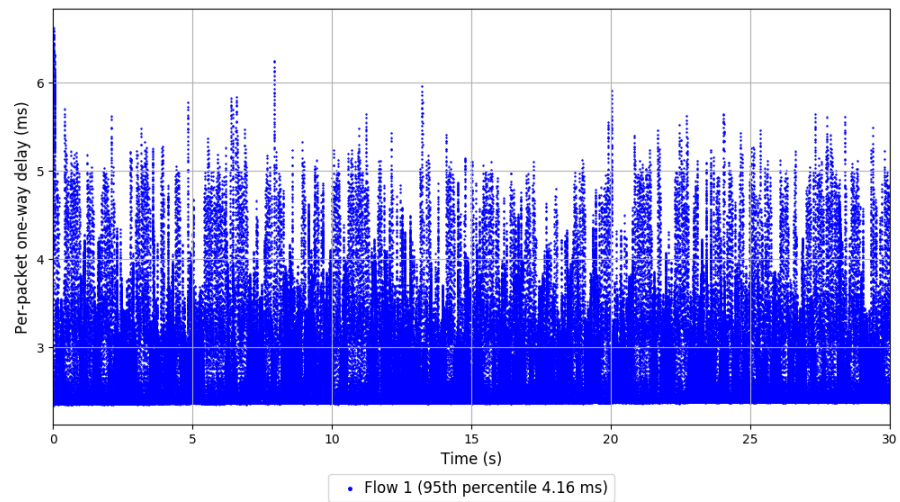
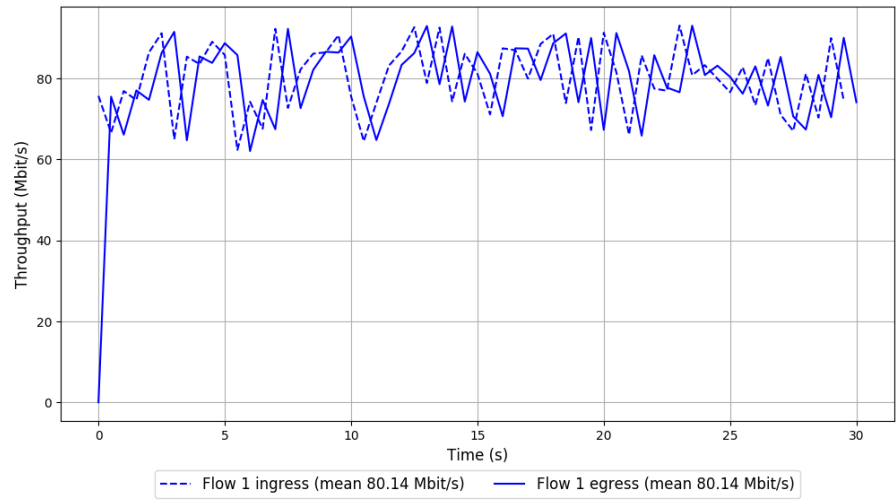
-- Flow 1:

Average throughput: 80.14 Mbit/s

95th percentile per-packet one-way delay: 4.158 ms

Loss rate: 0.02%

### Run 1: Report of Copa — Data Link

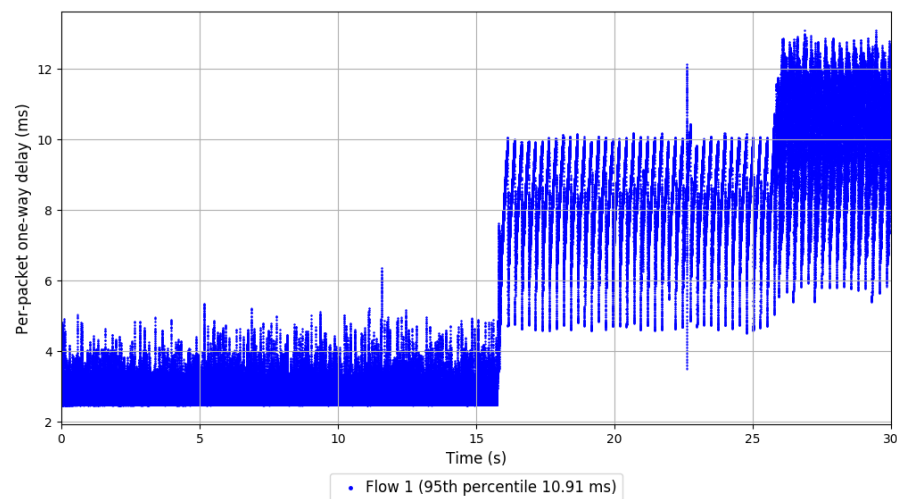
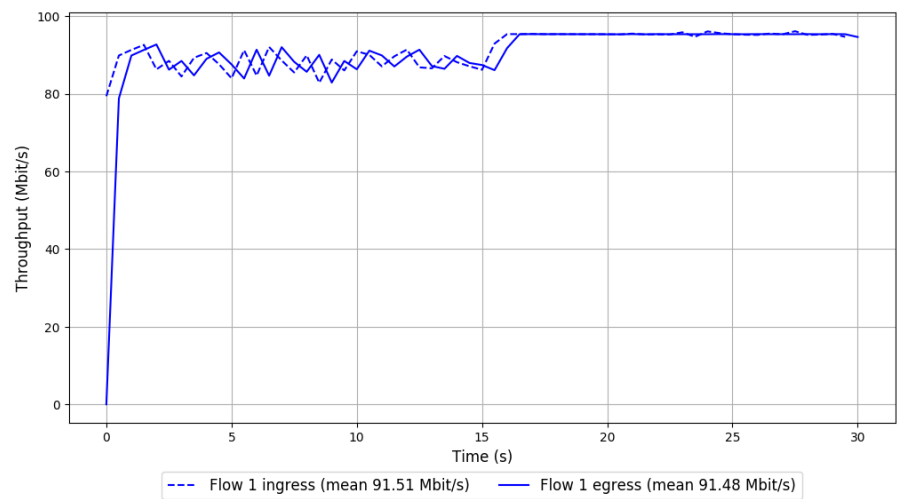


Run 2: Statistics of Copa

Start at: 2019-06-28 06:38:59  
End at: 2019-06-28 06:39:29  
Local clock offset: -7.374 ms  
Remote clock offset: 0.305 ms

# Below is generated by plot.py at 2019-06-28 08:05:52  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.48 Mbit/s  
95th percentile per-packet one-way delay: 10.907 ms  
Loss rate: 0.05%  
-- Flow 1:  
Average throughput: 91.48 Mbit/s  
95th percentile per-packet one-way delay: 10.907 ms  
Loss rate: 0.05%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2019-06-28 07:03:50

End at: 2019-06-28 07:04:20

Local clock offset: -5.87 ms

Remote clock offset: 0.535 ms

# Below is generated by plot.py at 2019-06-28 08:05:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 79.68 Mbit/s

95th percentile per-packet one-way delay: 4.000 ms

Loss rate: 0.02%

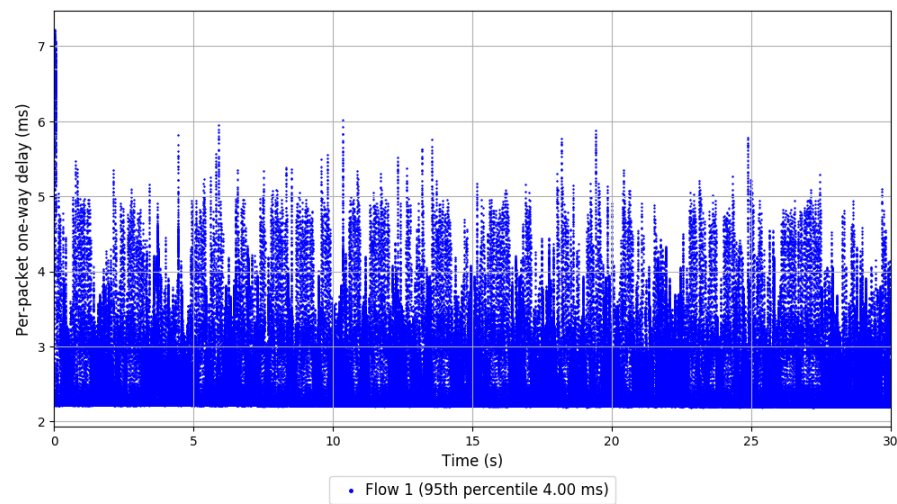
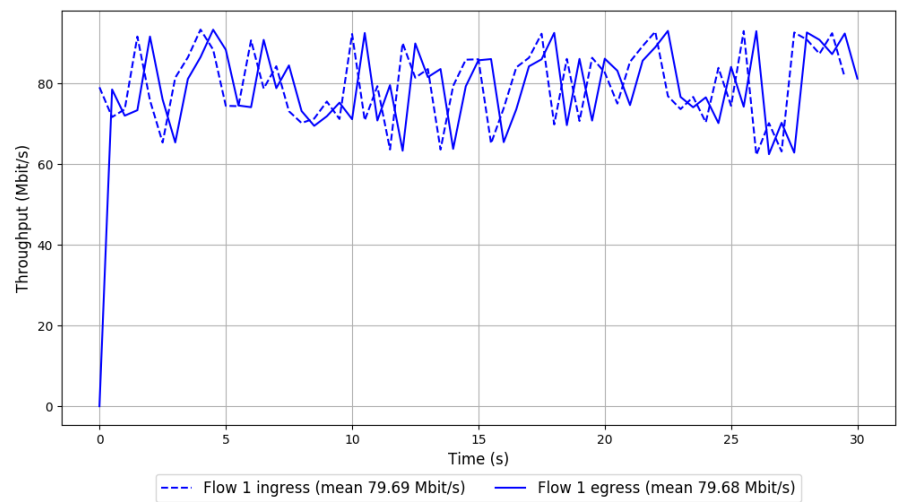
-- Flow 1:

Average throughput: 79.68 Mbit/s

95th percentile per-packet one-way delay: 4.000 ms

Loss rate: 0.02%

Run 3: Report of Copa — Data Link

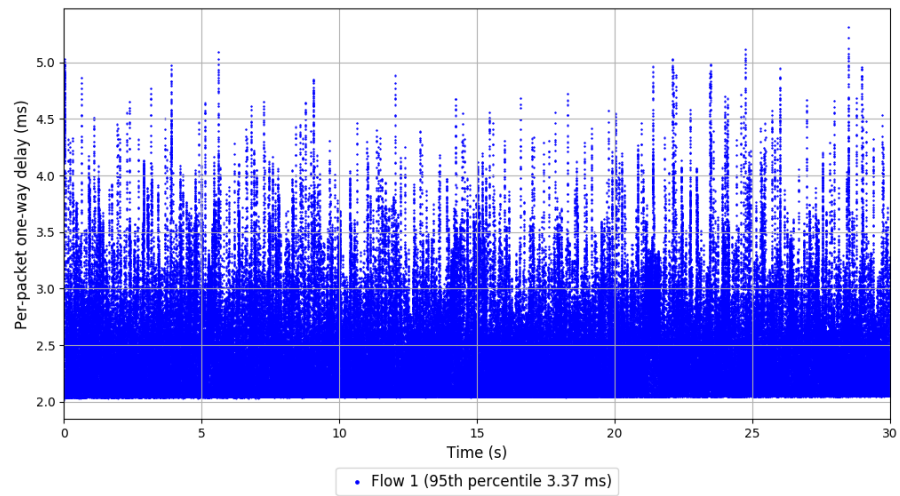
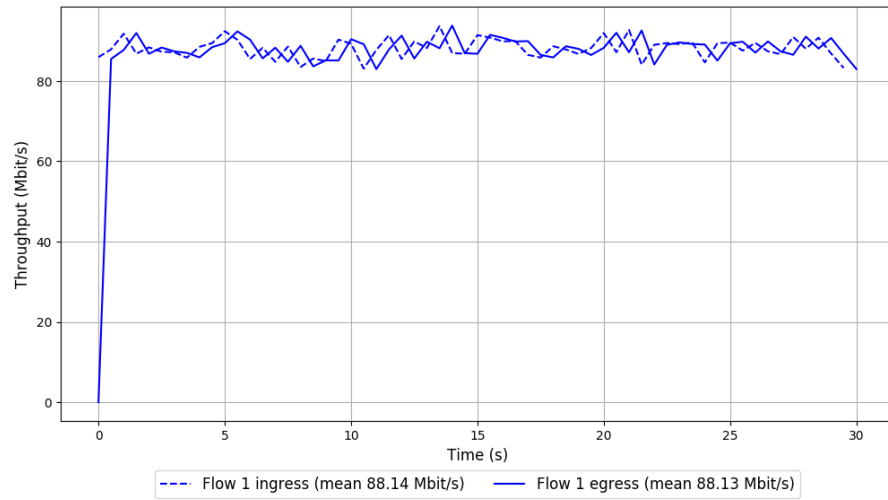


Run 4: Statistics of Copa

Start at: 2019-06-28 07:28:40  
End at: 2019-06-28 07:29:10  
Local clock offset: -6.649 ms  
Remote clock offset: 0.782 ms

# Below is generated by plot.py at 2019-06-28 08:06:49  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.13 Mbit/s  
95th percentile per-packet one-way delay: 3.368 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 88.13 Mbit/s  
95th percentile per-packet one-way delay: 3.368 ms  
Loss rate: 0.01%

#### Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2019-06-28 07:53:29

End at: 2019-06-28 07:53:59

Local clock offset: -6.734 ms

Remote clock offset: 0.919 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.67 Mbit/s

95th percentile per-packet one-way delay: 3.191 ms

Loss rate: 0.02%

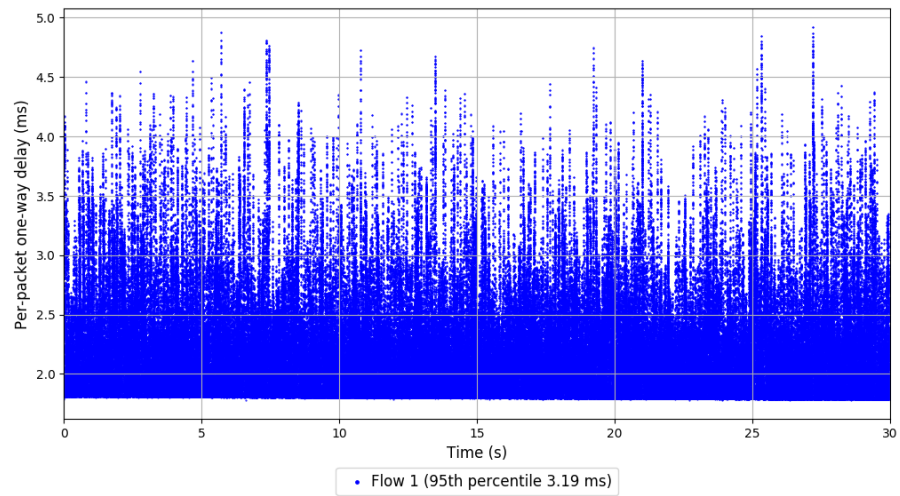
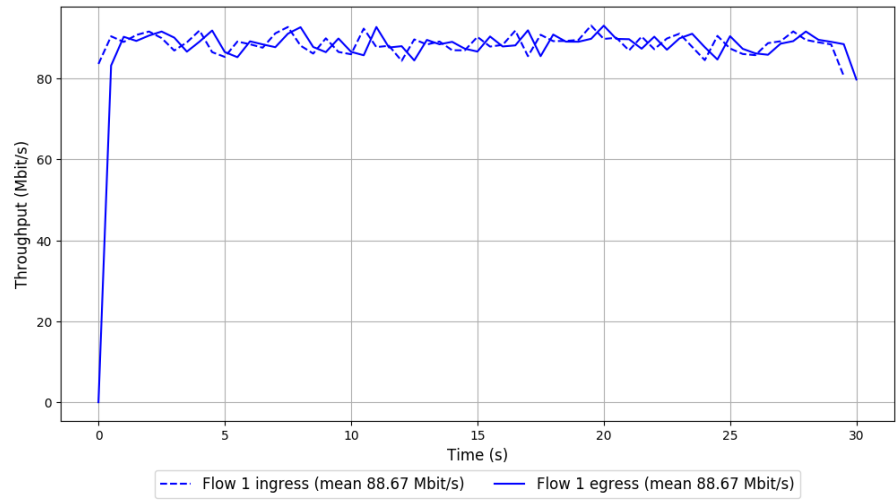
-- Flow 1:

Average throughput: 88.67 Mbit/s

95th percentile per-packet one-way delay: 3.191 ms

Loss rate: 0.02%

### Run 5: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 06:09:37

End at: 2019-06-28 06:10:07

Local clock offset: -7.01 ms

Remote clock offset: 0.02 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 9.364 ms

Loss rate: 0.06%

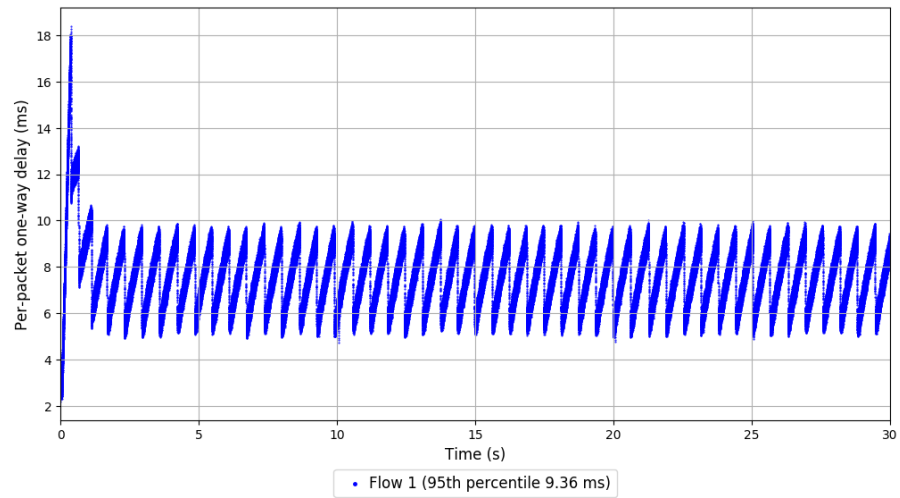
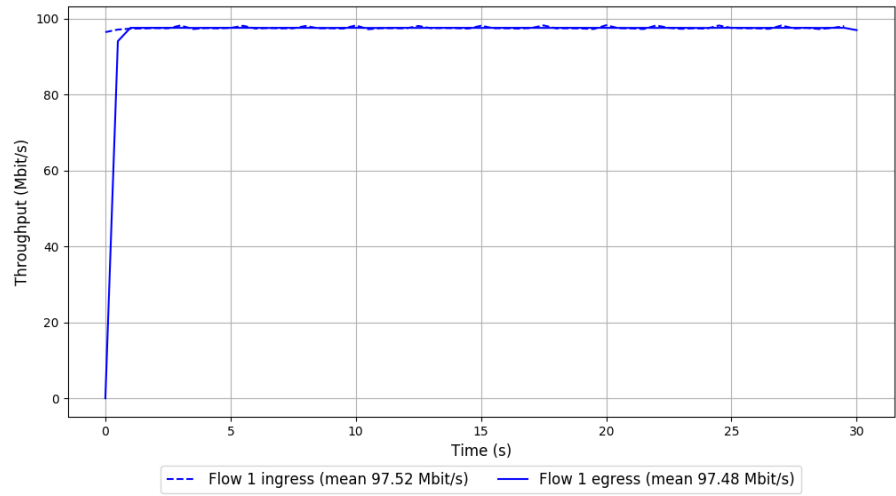
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 9.364 ms

Loss rate: 0.06%

### Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 06:34:22

End at: 2019-06-28 06:34:52

Local clock offset: -7.619 ms

Remote clock offset: 0.308 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 9.205 ms

Loss rate: 0.06%

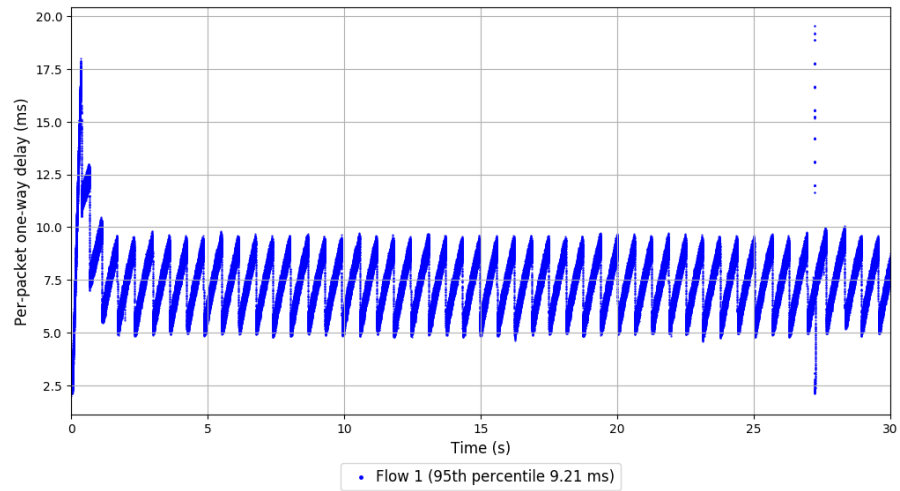
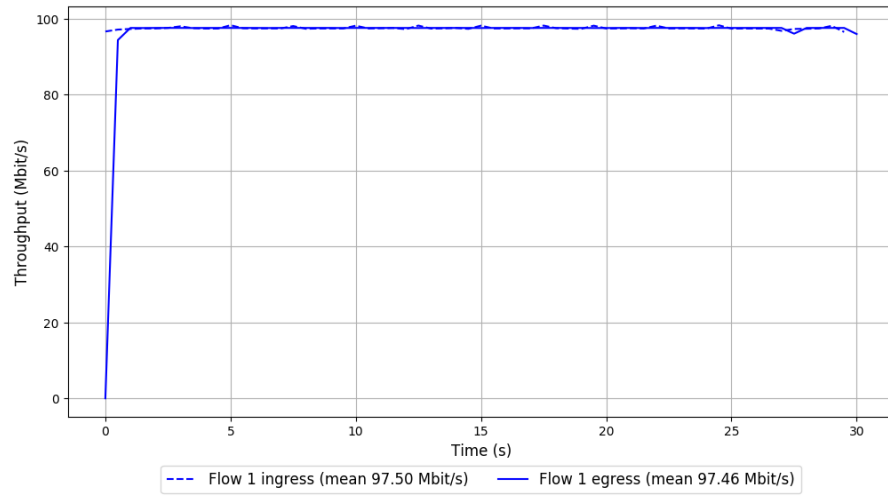
-- Flow 1:

Average throughput: 97.46 Mbit/s

95th percentile per-packet one-way delay: 9.205 ms

Loss rate: 0.06%

## Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 06:59:13

End at: 2019-06-28 06:59:43

Local clock offset: -5.952 ms

Remote clock offset: 0.6 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 9.381 ms

Loss rate: 0.06%

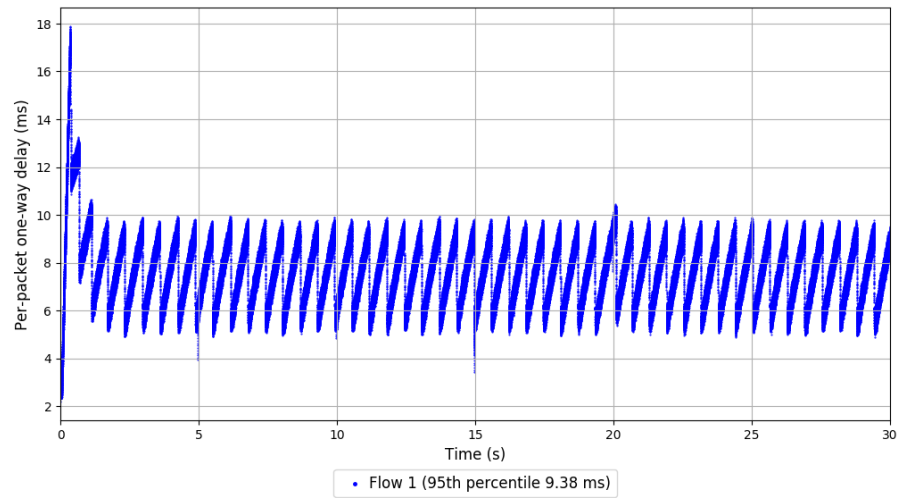
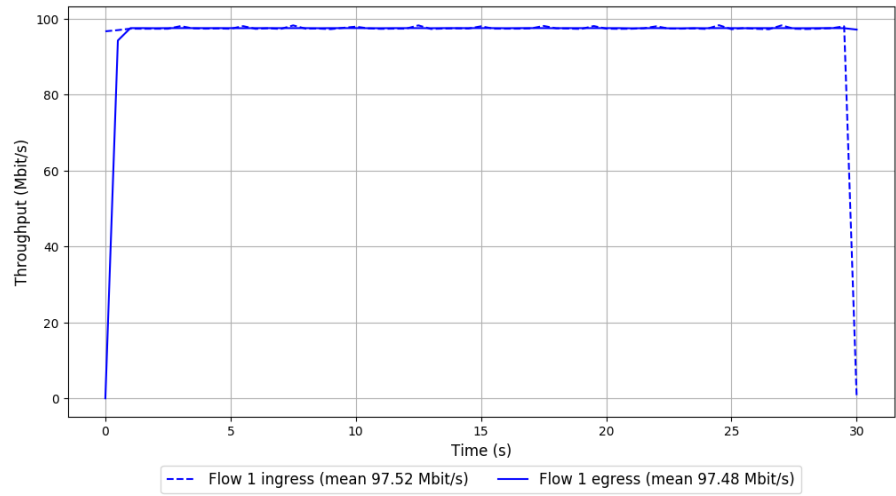
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 9.381 ms

Loss rate: 0.06%

### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 07:24:04

End at: 2019-06-28 07:24:34

Local clock offset: -5.672 ms

Remote clock offset: 0.767 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 9.612 ms

Loss rate: 0.06%

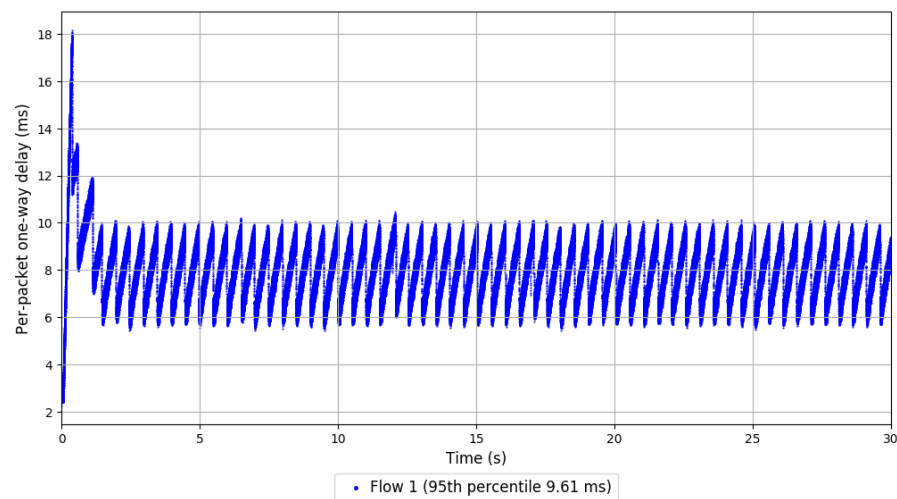
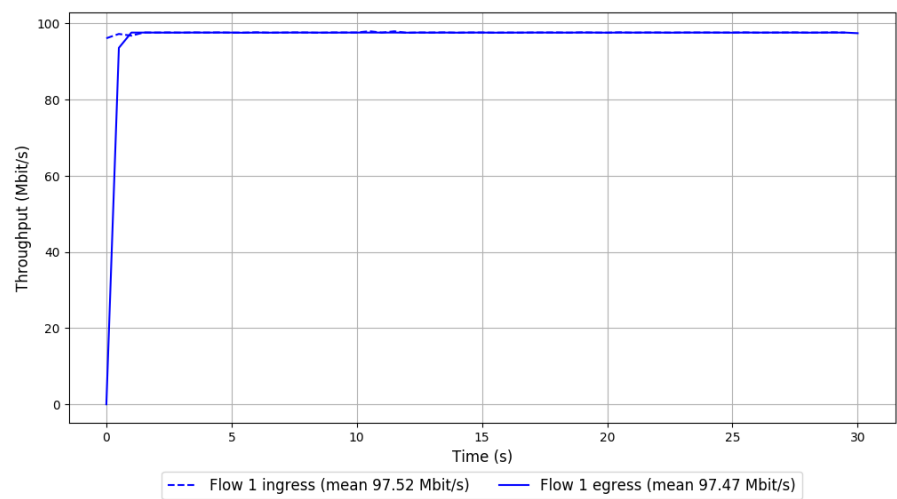
-- Flow 1:

Average throughput: 97.47 Mbit/s

95th percentile per-packet one-way delay: 9.612 ms

Loss rate: 0.06%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 07:48:51

End at: 2019-06-28 07:49:21

Local clock offset: -6.747 ms

Remote clock offset: 0.958 ms

# Below is generated by plot.py at 2019-06-28 08:06:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 8.773 ms

Loss rate: 0.06%

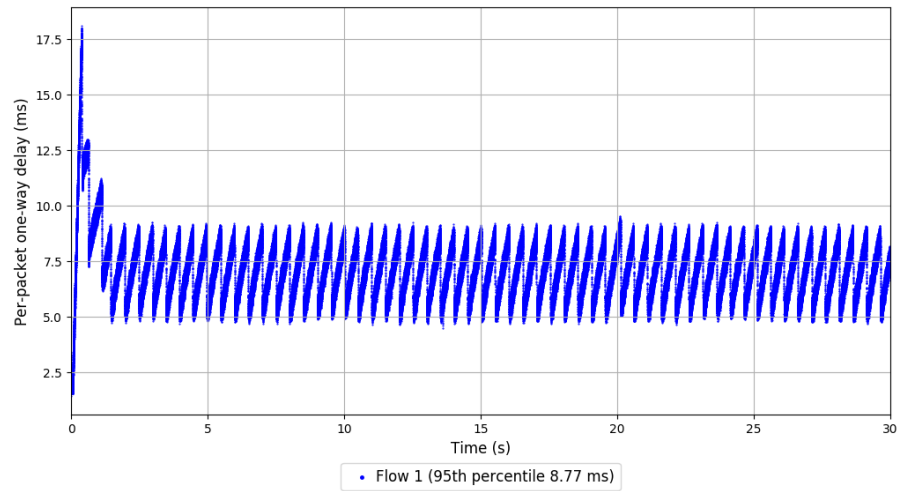
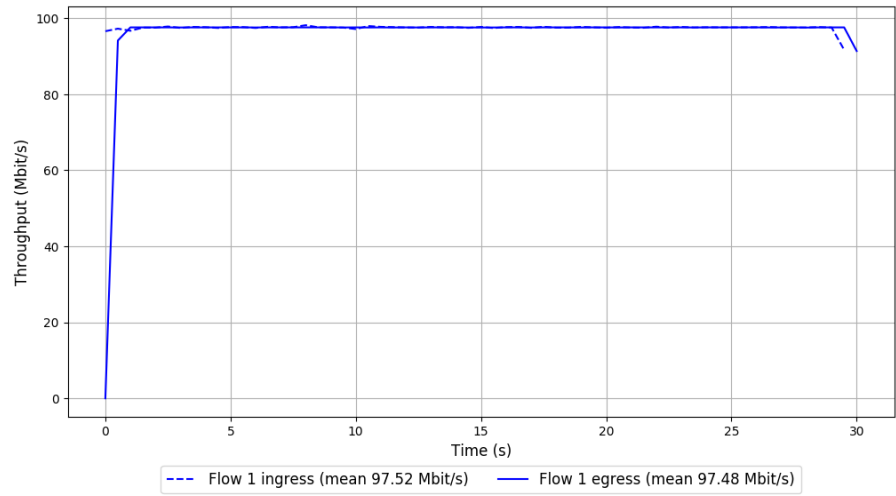
-- Flow 1:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 8.773 ms

Loss rate: 0.06%

### Run 5: Report of TCP Cubic — Data Link

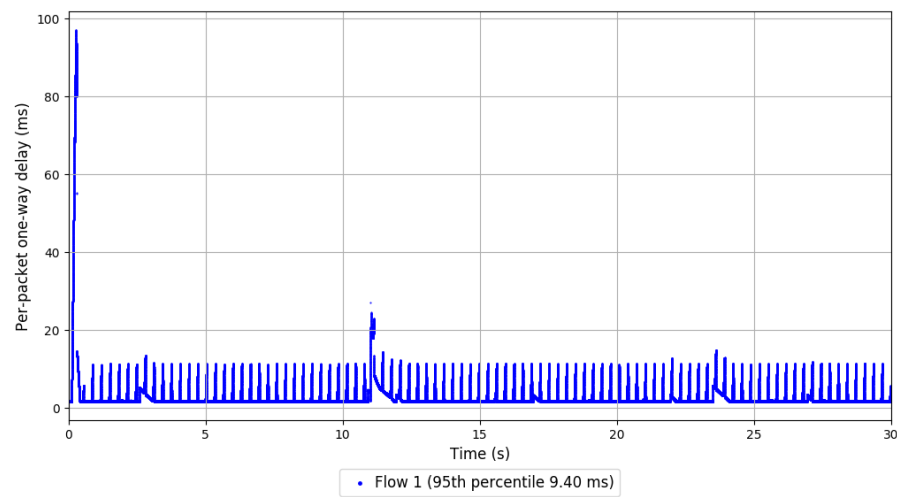
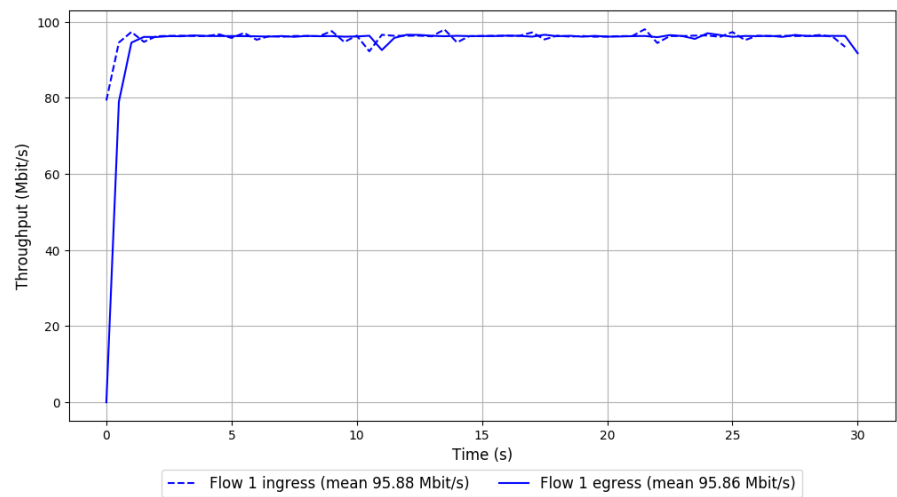


Run 1: Statistics of FillP

Start at: 2019-06-28 06:08:29  
End at: 2019-06-28 06:08:59  
Local clock offset: -7.732 ms  
Remote clock offset: -0.066 ms

# Below is generated by plot.py at 2019-06-28 08:07:13  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.86 Mbit/s  
95th percentile per-packet one-way delay: 9.398 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 95.86 Mbit/s  
95th percentile per-packet one-way delay: 9.398 ms  
Loss rate: 0.04%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2019-06-28 06:33:14

End at: 2019-06-28 06:33:45

Local clock offset: -7.317 ms

Remote clock offset: 0.283 ms

# Below is generated by plot.py at 2019-06-28 08:07:20

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 11.125 ms

Loss rate: 0.03%

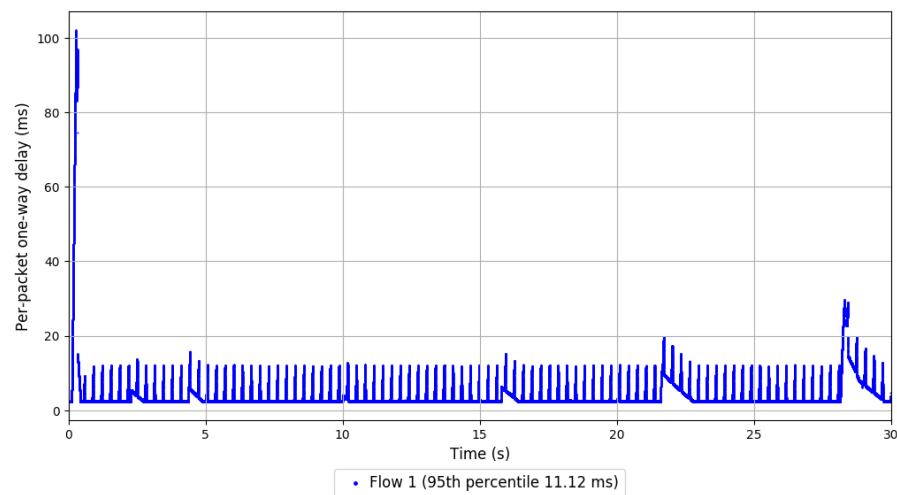
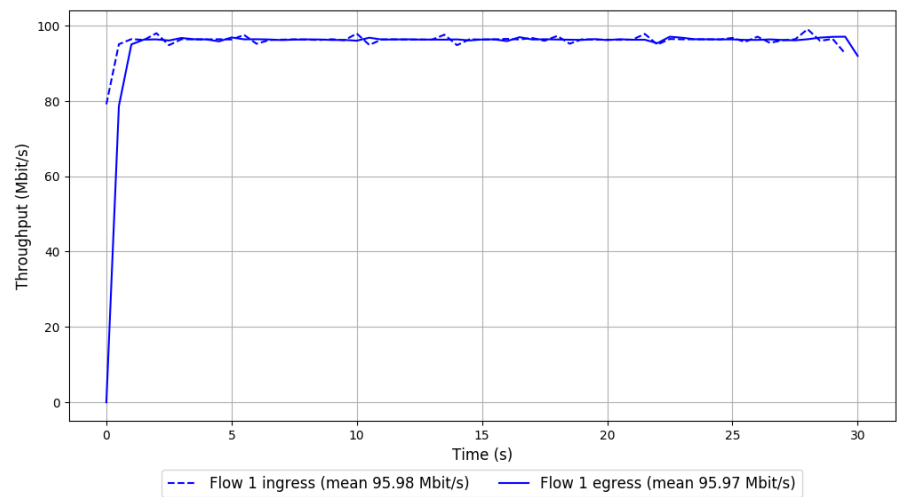
-- Flow 1:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 11.125 ms

Loss rate: 0.03%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2019-06-28 06:58:05

End at: 2019-06-28 06:58:35

Local clock offset: -6.246 ms

Remote clock offset: 0.525 ms

# Below is generated by plot.py at 2019-06-28 08:07:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.658 ms

Loss rate: 0.04%

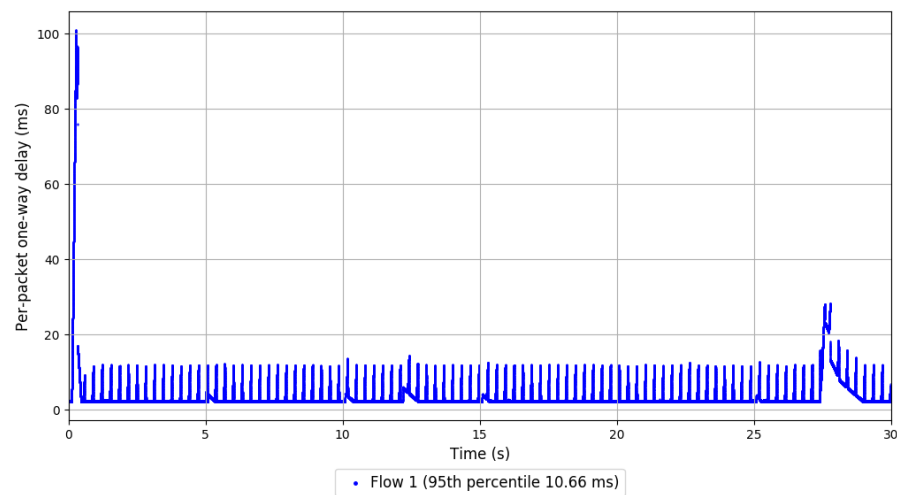
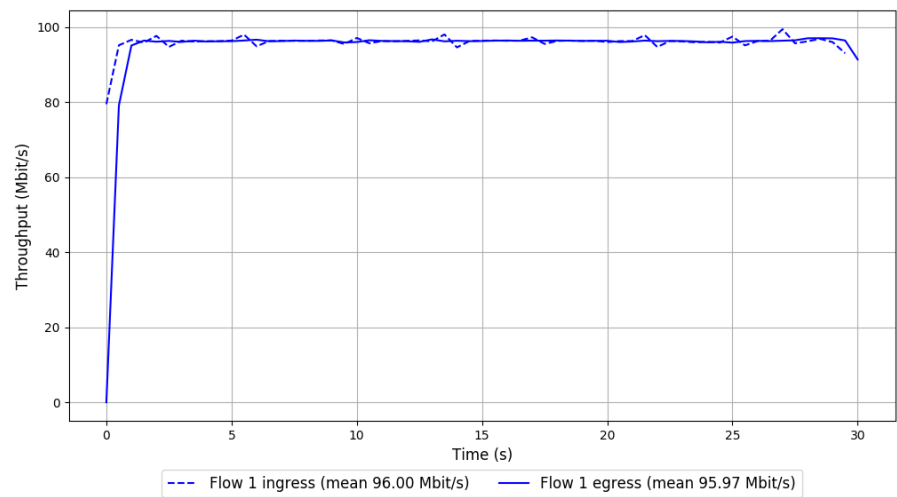
-- Flow 1:

Average throughput: 95.97 Mbit/s

95th percentile per-packet one-way delay: 10.658 ms

Loss rate: 0.04%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2019-06-28 07:22:56

End at: 2019-06-28 07:23:26

Local clock offset: -6.403 ms

Remote clock offset: 0.654 ms

# Below is generated by plot.py at 2019-06-28 08:07:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.89 Mbit/s

95th percentile per-packet one-way delay: 9.095 ms

Loss rate: 0.03%

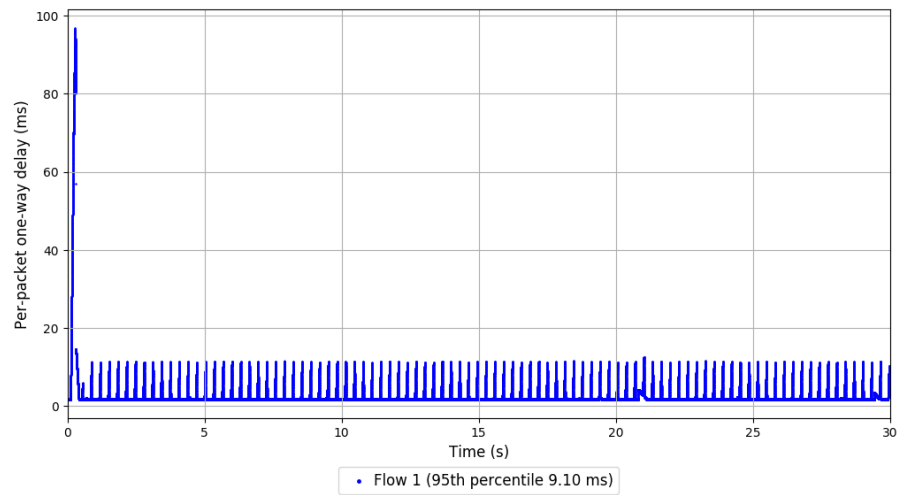
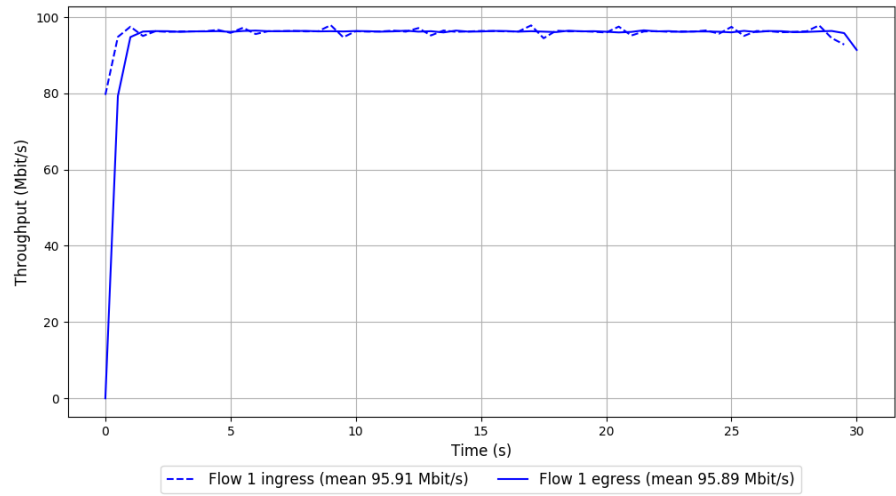
-- Flow 1:

Average throughput: 95.89 Mbit/s

95th percentile per-packet one-way delay: 9.095 ms

Loss rate: 0.03%

#### Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2019-06-28 07:47:44

End at: 2019-06-28 07:48:14

Local clock offset: -6.038 ms

Remote clock offset: 0.951 ms

# Below is generated by plot.py at 2019-06-28 08:08:00

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.93 Mbit/s

95th percentile per-packet one-way delay: 10.546 ms

Loss rate: 0.04%

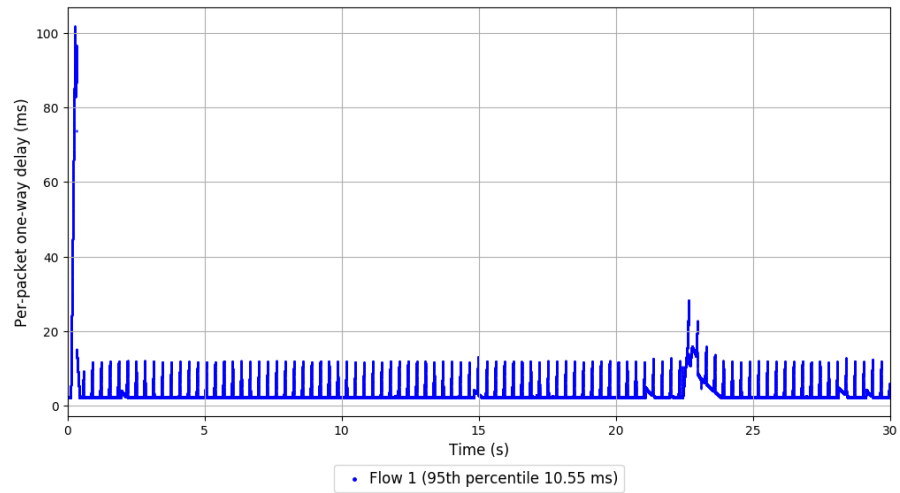
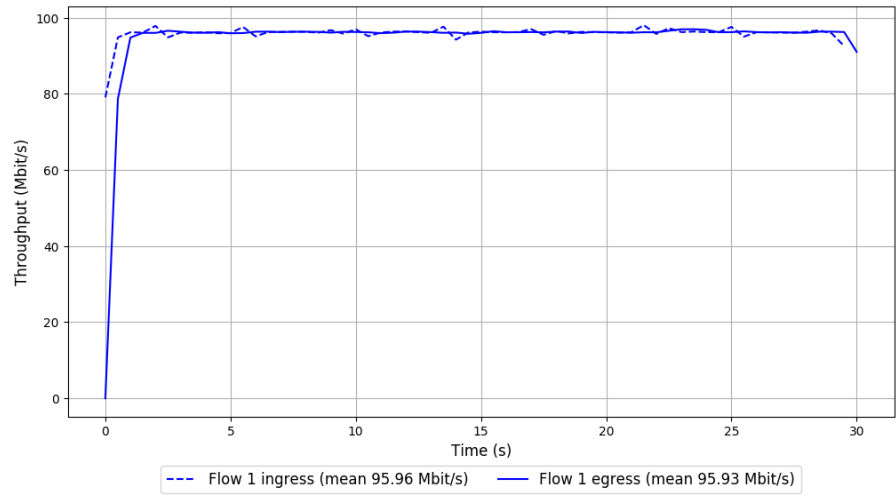
-- Flow 1:

Average throughput: 95.93 Mbit/s

95th percentile per-packet one-way delay: 10.546 ms

Loss rate: 0.04%

## Run 5: Report of FillP — Data Link



Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 06:22:02

End at: 2019-06-28 06:22:32

Local clock offset: -8.029 ms

Remote clock offset: 0.153 ms

# Below is generated by plot.py at 2019-06-28 08:08:00

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.38 Mbit/s

95th percentile per-packet one-way delay: 5.839 ms

Loss rate: 0.02%

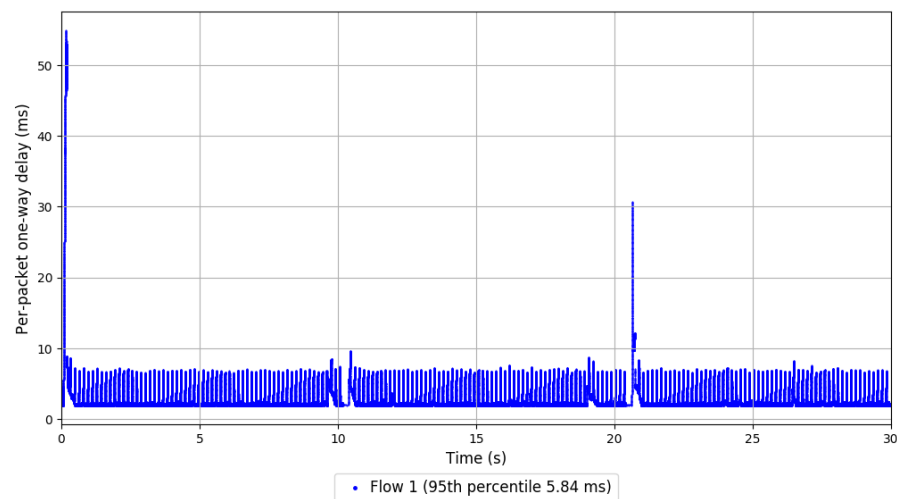
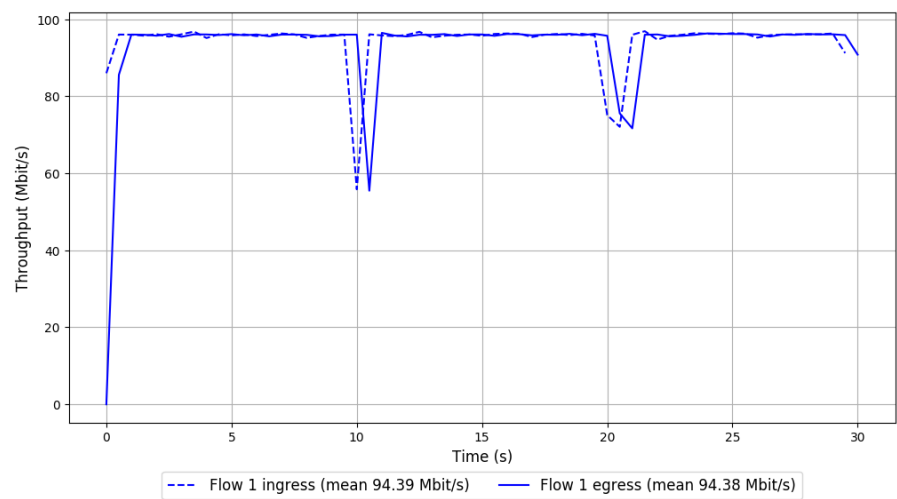
-- Flow 1:

Average throughput: 94.38 Mbit/s

95th percentile per-packet one-way delay: 5.839 ms

Loss rate: 0.02%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 06:46:52

End at: 2019-06-28 06:47:22

Local clock offset: -8.511 ms

Remote clock offset: 0.412 ms

# Below is generated by plot.py at 2019-06-28 08:08:05

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.45 Mbit/s

95th percentile per-packet one-way delay: 5.396 ms

Loss rate: 0.04%

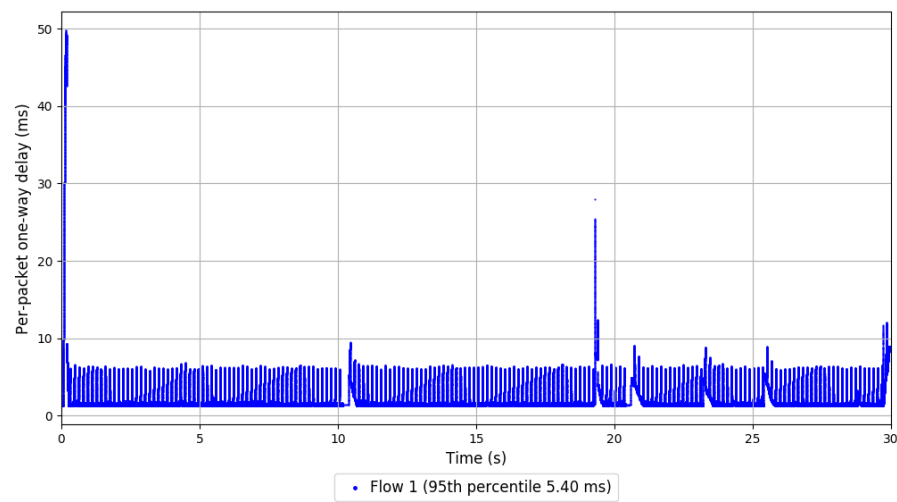
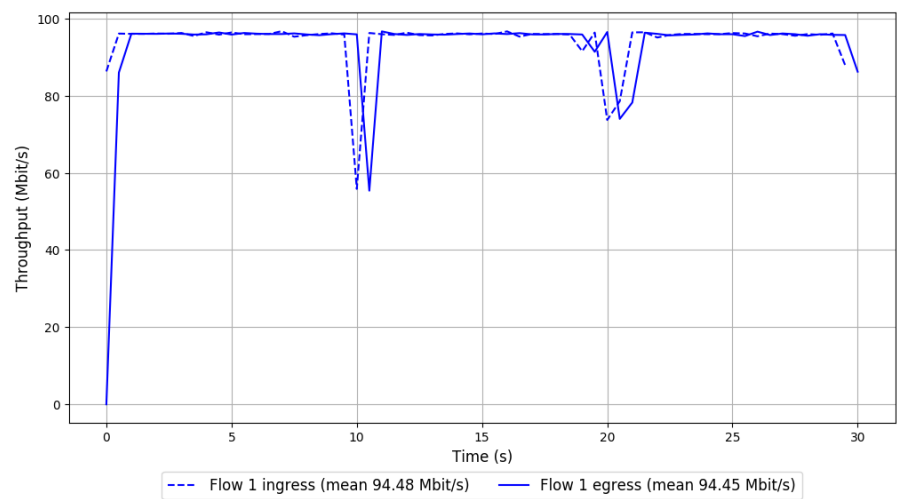
-- Flow 1:

Average throughput: 94.45 Mbit/s

95th percentile per-packet one-way delay: 5.396 ms

Loss rate: 0.04%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 07:11:42

End at: 2019-06-28 07:12:12

Local clock offset: -6.435 ms

Remote clock offset: 0.671 ms

# Below is generated by plot.py at 2019-06-28 08:08:11

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.53 Mbit/s

95th percentile per-packet one-way delay: 5.457 ms

Loss rate: 0.03%

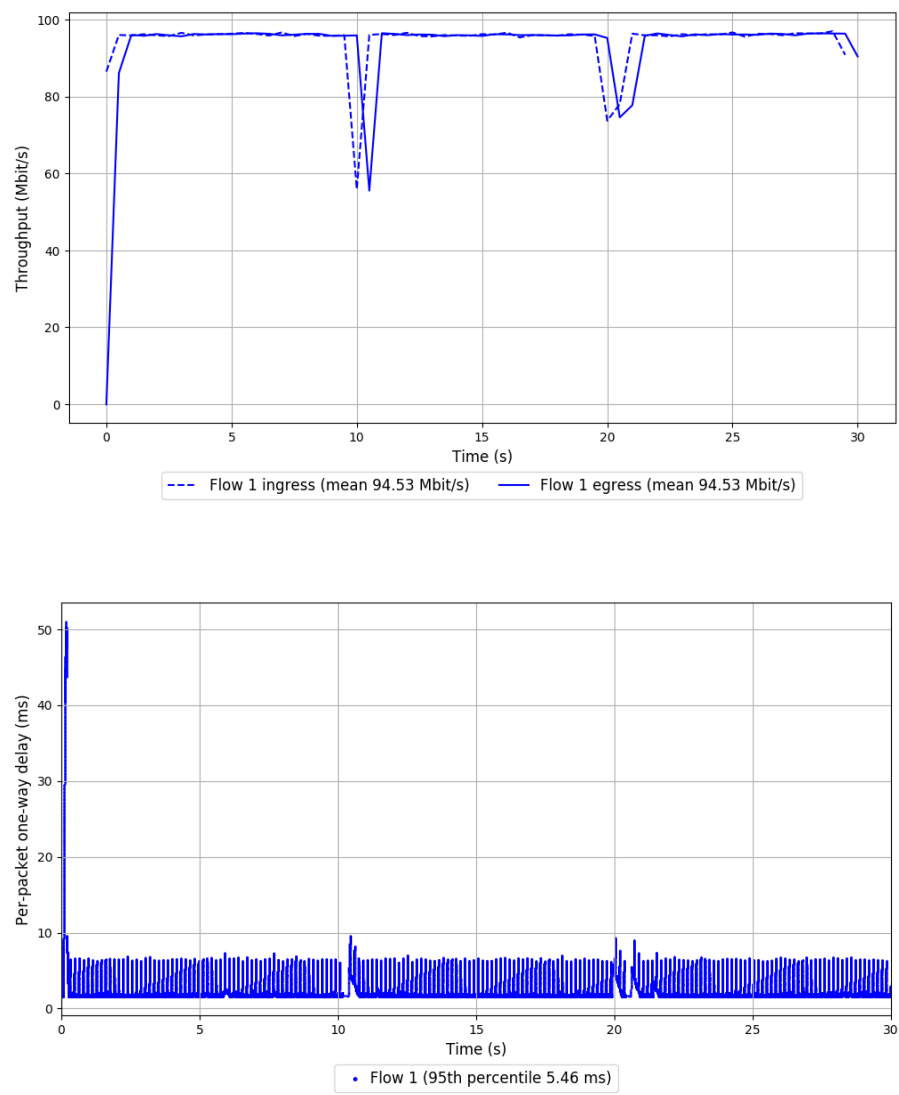
-- Flow 1:

Average throughput: 94.53 Mbit/s

95th percentile per-packet one-way delay: 5.457 ms

Loss rate: 0.03%

Run 3: Report of FillP-Sheep — Data Link



Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 07:36:31

End at: 2019-06-28 07:37:01

Local clock offset: -5.994 ms

Remote clock offset: 0.821 ms

# Below is generated by plot.py at 2019-06-28 08:08:32

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.37 Mbit/s

95th percentile per-packet one-way delay: 6.222 ms

Loss rate: 0.02%

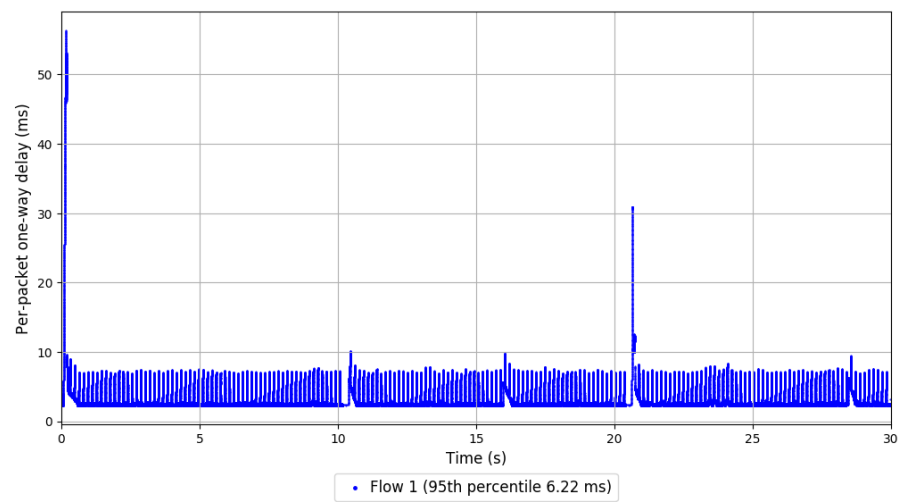
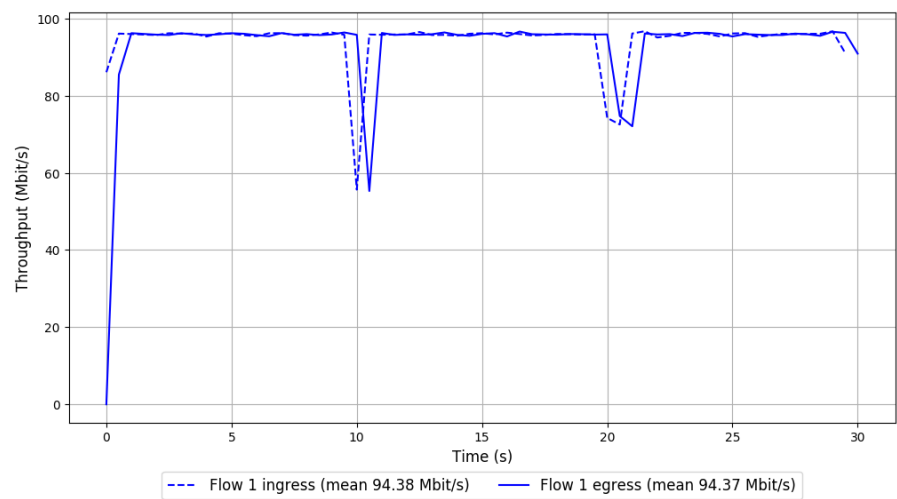
-- Flow 1:

Average throughput: 94.37 Mbit/s

95th percentile per-packet one-way delay: 6.222 ms

Loss rate: 0.02%

Run 4: Report of FillP-Sheep — Data Link



Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 08:01:25

End at: 2019-06-28 08:01:55

Local clock offset: -5.478 ms

Remote clock offset: 0.858 ms

# Below is generated by plot.py at 2019-06-28 08:08:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.41 Mbit/s

95th percentile per-packet one-way delay: 6.179 ms

Loss rate: 0.03%

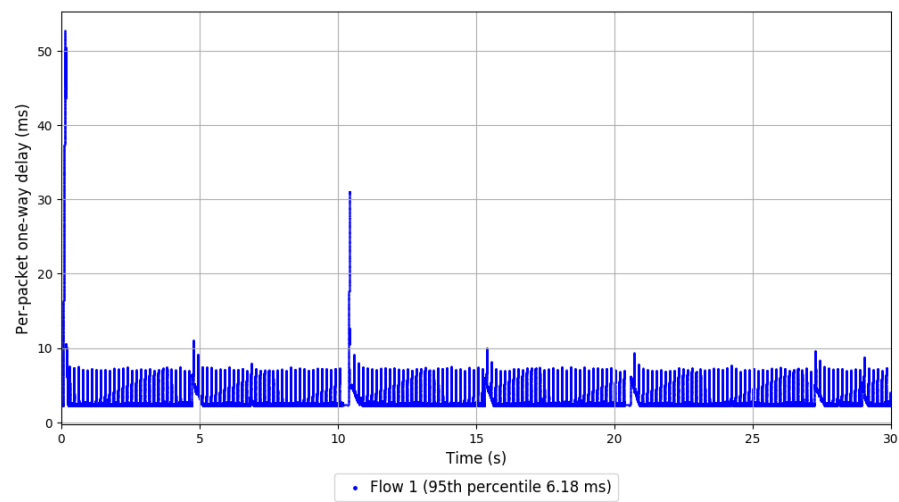
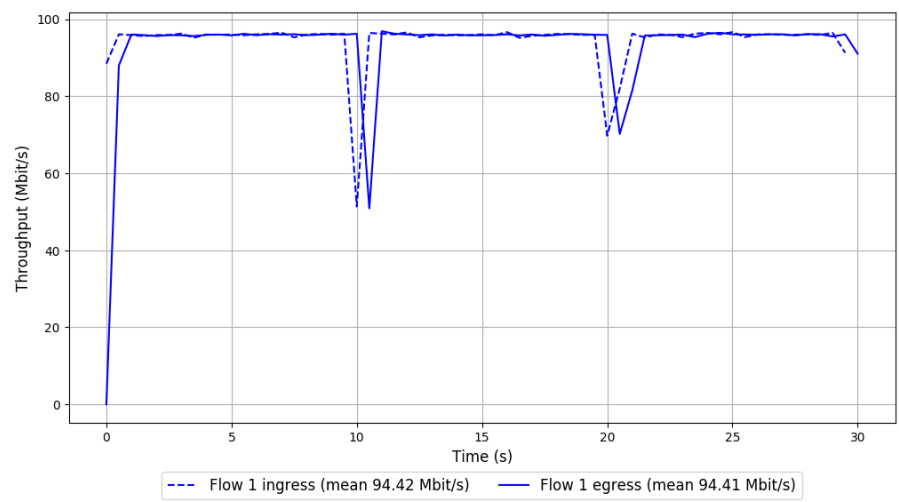
-- Flow 1:

Average throughput: 94.41 Mbit/s

95th percentile per-packet one-way delay: 6.179 ms

Loss rate: 0.03%

Run 5: Report of FillP-Sheep — Data Link

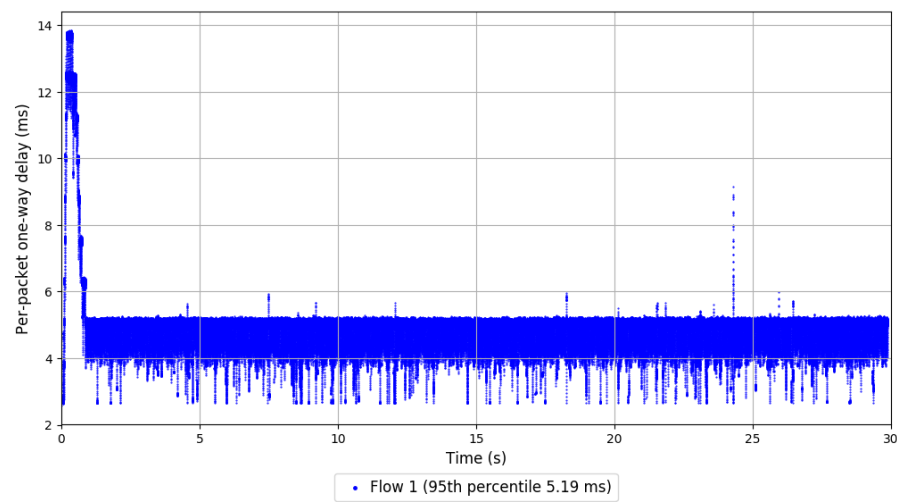
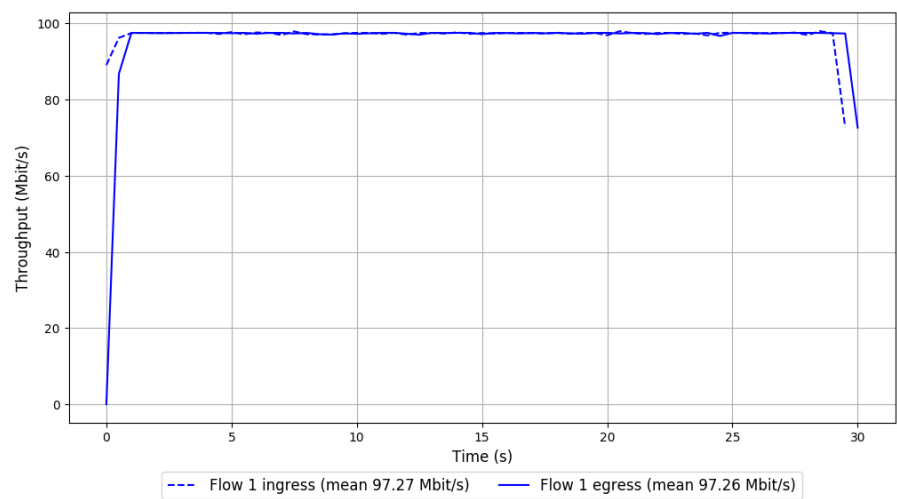


Run 1: Statistics of Indigo

Start at: 2019-06-28 06:05:07  
End at: 2019-06-28 06:05:37  
Local clock offset: -7.146 ms  
Remote clock offset: -0.164 ms

# Below is generated by plot.py at 2019-06-28 08:08:39  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 97.26 Mbit/s  
95th percentile per-packet one-way delay: 5.189 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 97.26 Mbit/s  
95th percentile per-packet one-way delay: 5.189 ms  
Loss rate: 0.02%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-06-28 06:29:52

End at: 2019-06-28 06:30:22

Local clock offset: -8.059 ms

Remote clock offset: 0.194 ms

# Below is generated by plot.py at 2019-06-28 08:08:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 4.702 ms

Loss rate: 0.02%

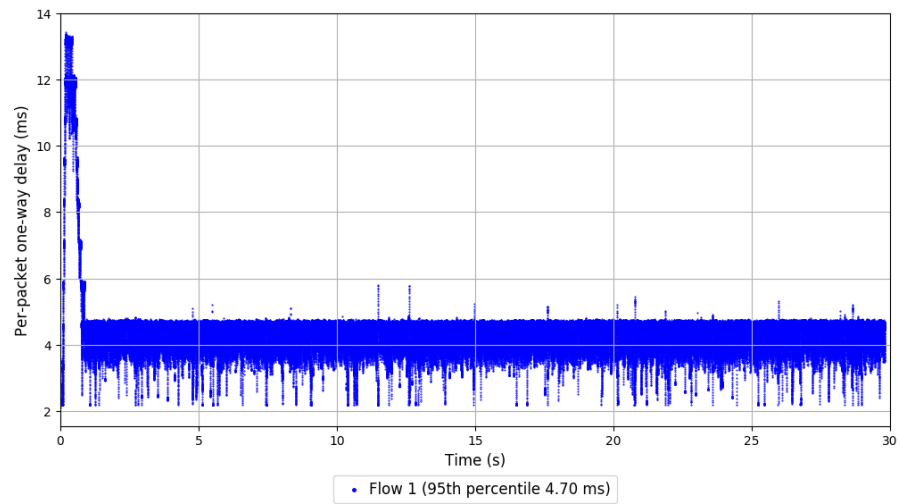
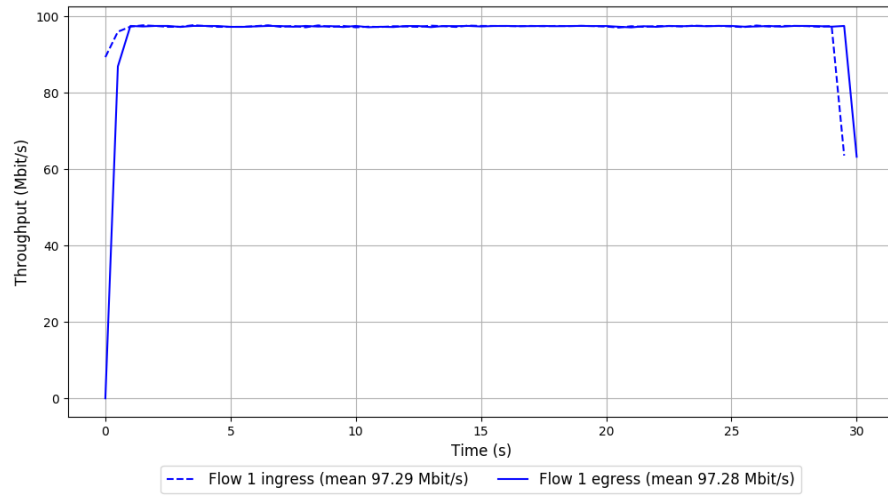
-- Flow 1:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 4.702 ms

Loss rate: 0.02%

## Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2019-06-28 06:54:42

End at: 2019-06-28 06:55:13

Local clock offset: -7.129 ms

Remote clock offset: 0.448 ms

# Below is generated by plot.py at 2019-06-28 08:09:06

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 4.619 ms

Loss rate: 0.02%

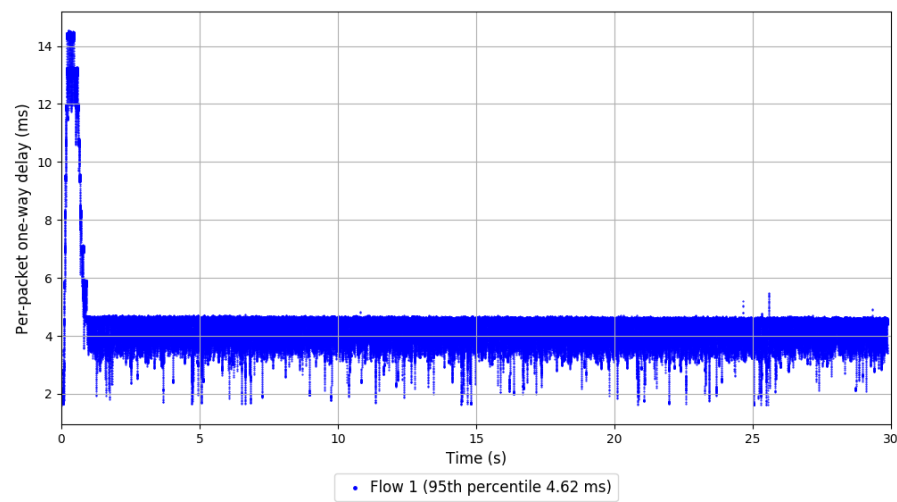
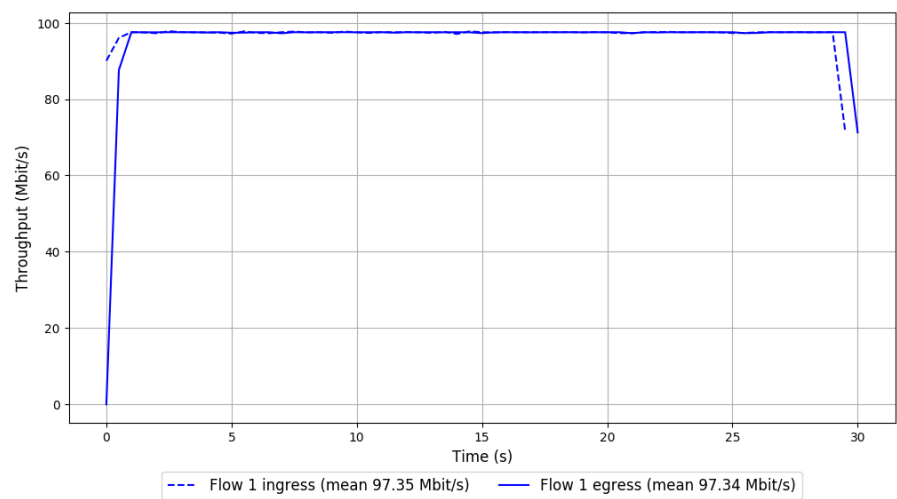
-- Flow 1:

Average throughput: 97.34 Mbit/s

95th percentile per-packet one-way delay: 4.619 ms

Loss rate: 0.02%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2019-06-28 07:19:33

End at: 2019-06-28 07:20:03

Local clock offset: -6.127 ms

Remote clock offset: 0.736 ms

# Below is generated by plot.py at 2019-06-28 08:09:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 4.636 ms

Loss rate: 0.02%

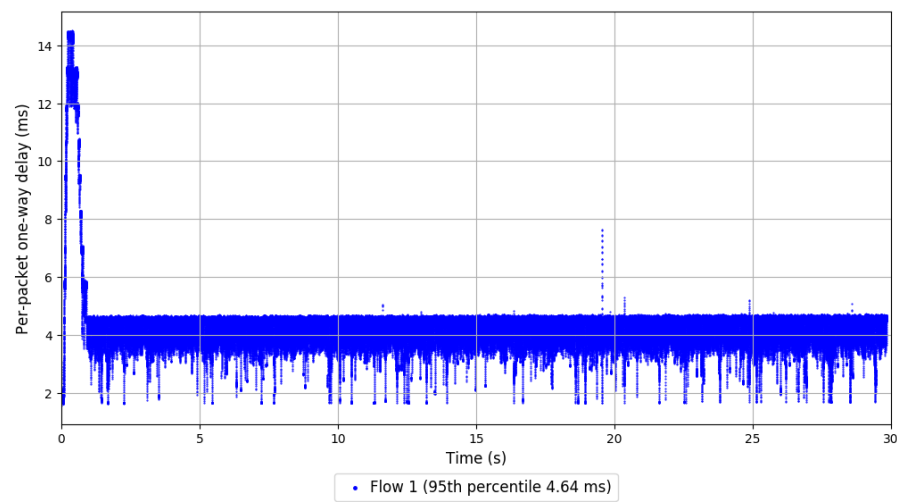
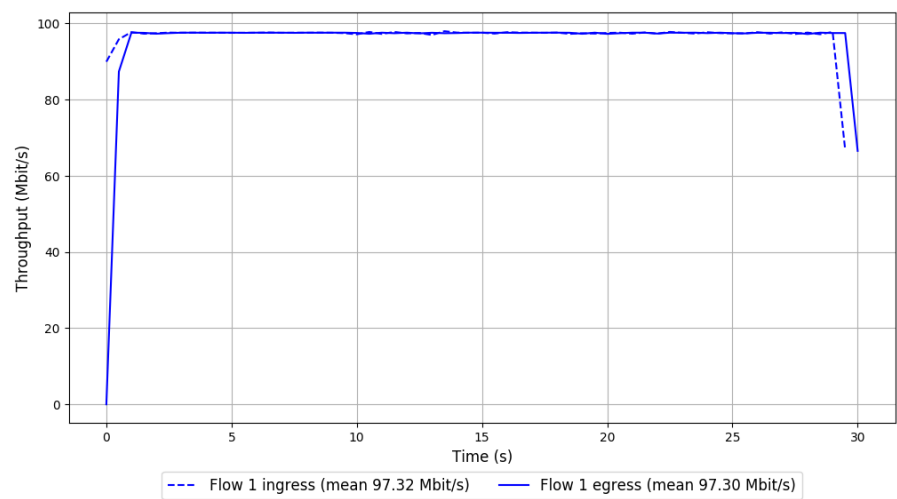
-- Flow 1:

Average throughput: 97.30 Mbit/s

95th percentile per-packet one-way delay: 4.636 ms

Loss rate: 0.02%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2019-06-28 07:44:21

End at: 2019-06-28 07:44:51

Local clock offset: -6.816 ms

Remote clock offset: 0.914 ms

# Below is generated by plot.py at 2019-06-28 08:09:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.17 Mbit/s

95th percentile per-packet one-way delay: 4.249 ms

Loss rate: 0.02%

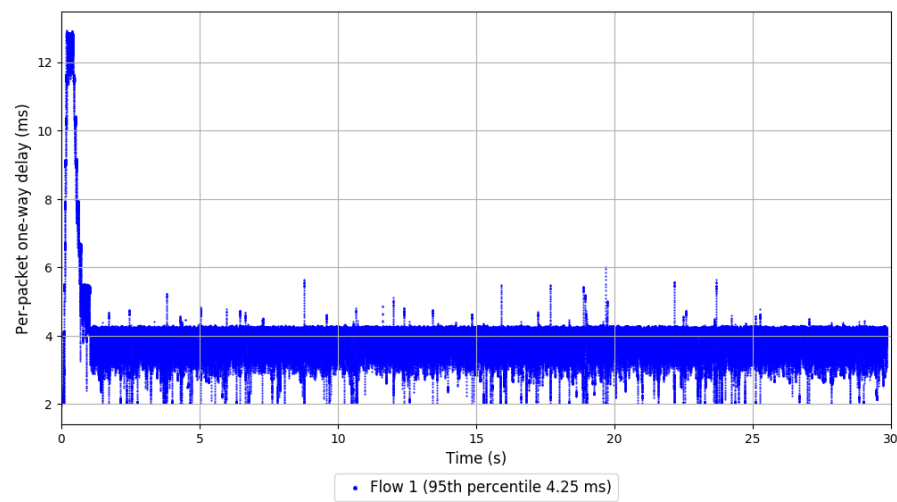
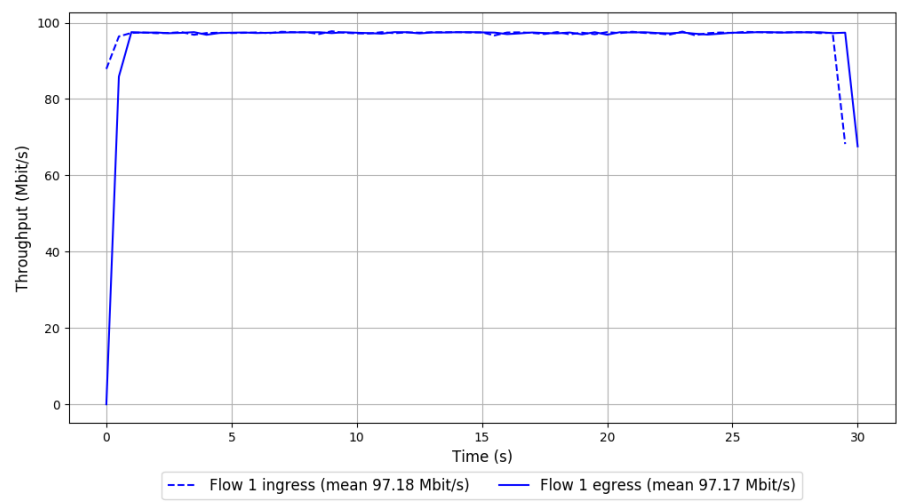
-- Flow 1:

Average throughput: 97.17 Mbit/s

95th percentile per-packet one-way delay: 4.249 ms

Loss rate: 0.02%

Run 5: Report of Indigo — Data Link

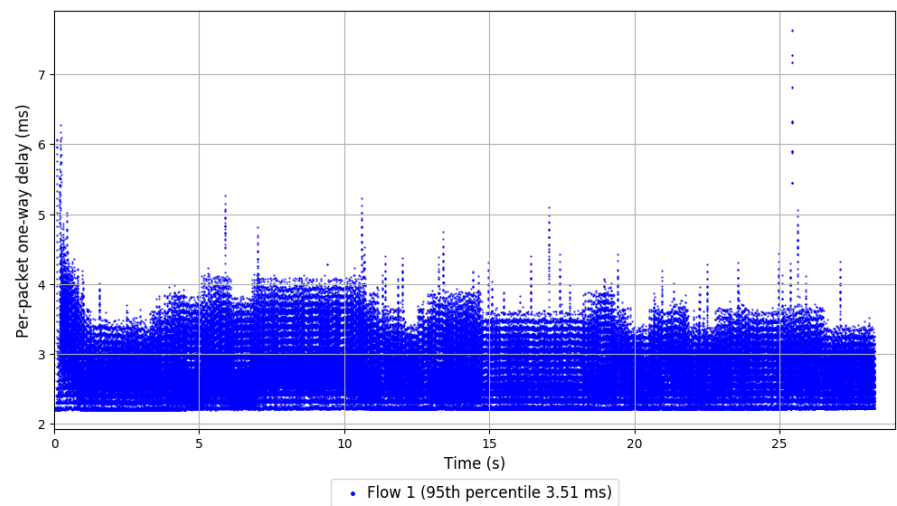
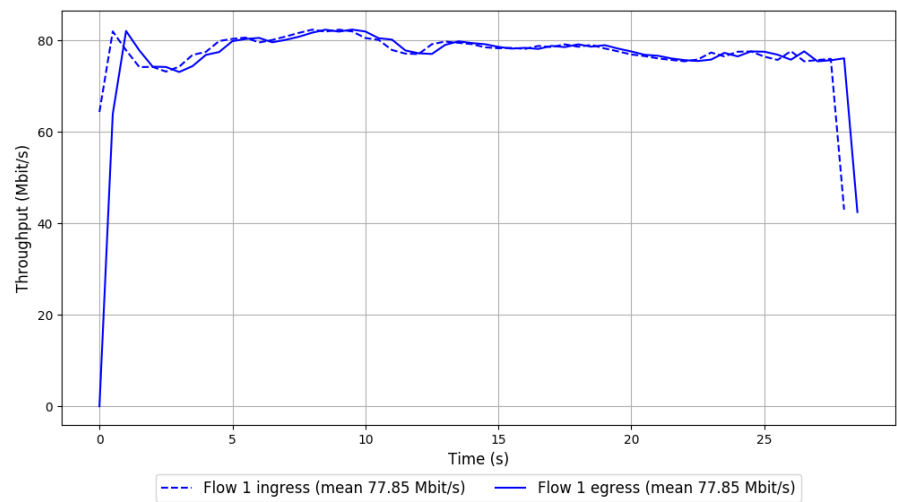


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 05:58:25  
End at: 2019-06-28 05:58:55  
Local clock offset: -6.873 ms  
Remote clock offset: -0.182 ms

# Below is generated by plot.py at 2019-06-28 08:09:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 77.85 Mbit/s  
95th percentile per-packet one-way delay: 3.509 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 77.85 Mbit/s  
95th percentile per-packet one-way delay: 3.509 ms  
Loss rate: 0.02%

Run 1: Report of Indigo-MusesC3 — Data Link



Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 06:23:09

End at: 2019-06-28 06:23:39

Local clock offset: -7.19 ms

Remote clock offset: 0.085 ms

# Below is generated by plot.py at 2019-06-28 08:09:34

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 4.510 ms

Loss rate: 0.02%

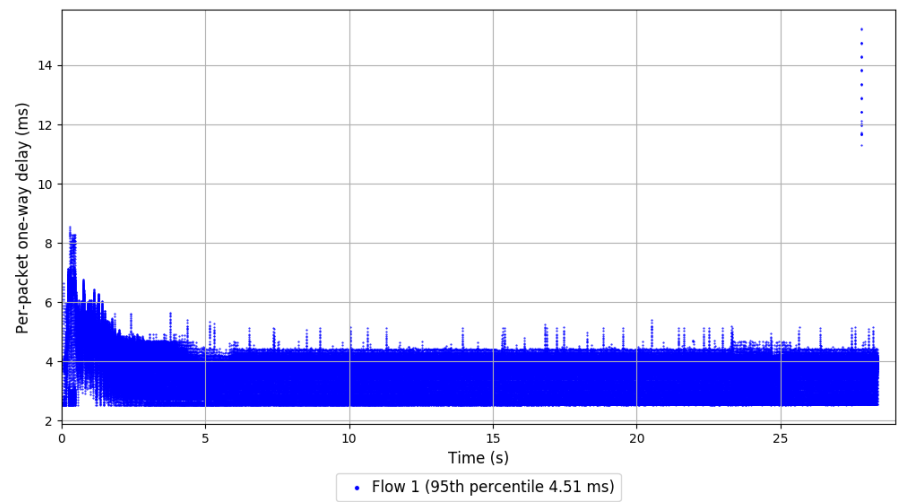
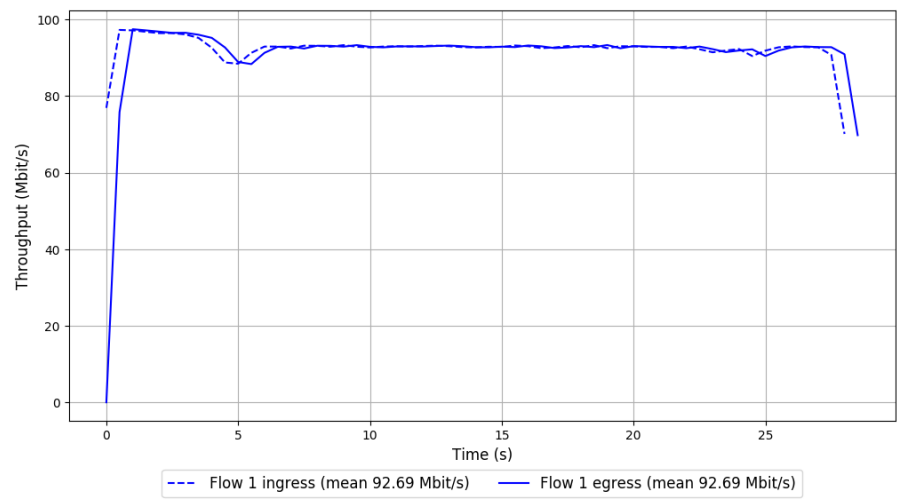
-- Flow 1:

Average throughput: 92.69 Mbit/s

95th percentile per-packet one-way delay: 4.510 ms

Loss rate: 0.02%

Run 2: Report of Indigo-MusesC3 — Data Link



Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 06:48:00

End at: 2019-06-28 06:48:30

Local clock offset: -7.474 ms

Remote clock offset: 0.43 ms

# Below is generated by plot.py at 2019-06-28 08:09:35

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.06 Mbit/s

95th percentile per-packet one-way delay: 4.454 ms

Loss rate: 0.02%

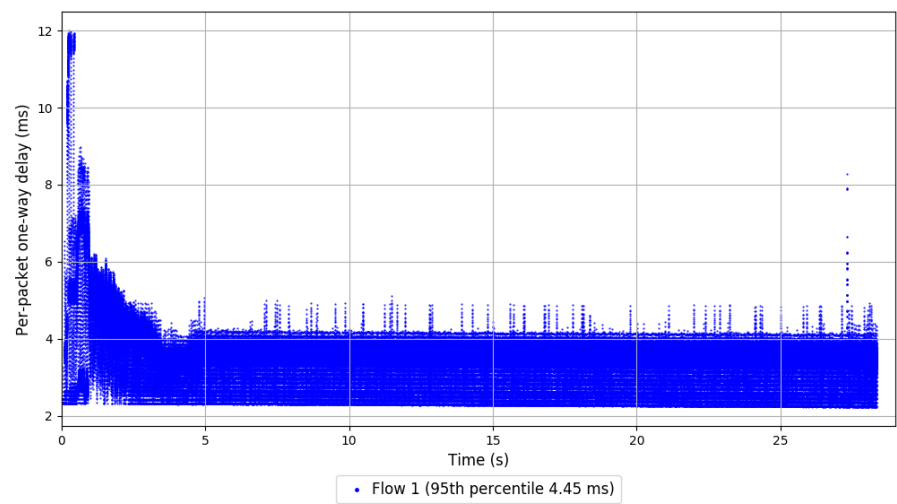
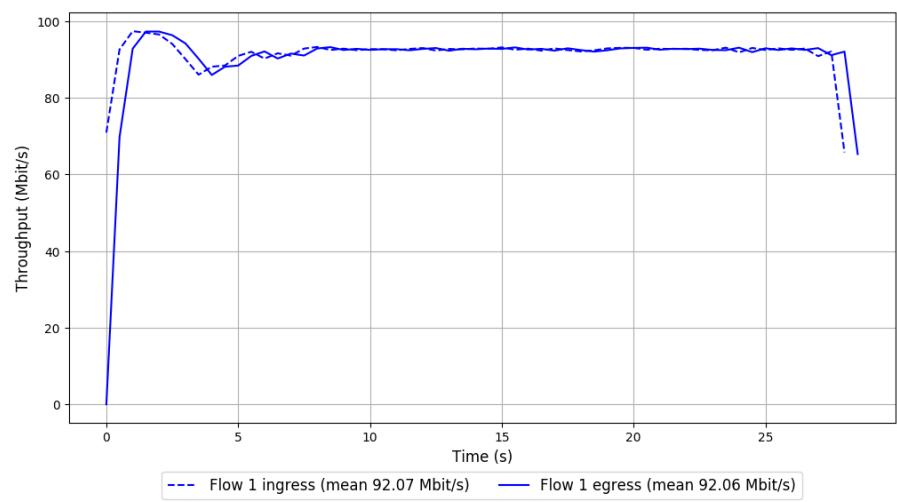
-- Flow 1:

Average throughput: 92.06 Mbit/s

95th percentile per-packet one-way delay: 4.454 ms

Loss rate: 0.02%

Run 3: Report of Indigo-MusesC3 — Data Link



Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 07:12:49

End at: 2019-06-28 07:13:19

Local clock offset: -5.312 ms

Remote clock offset: 0.53 ms

# Below is generated by plot.py at 2019-06-28 08:09:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 4.715 ms

Loss rate: 0.02%

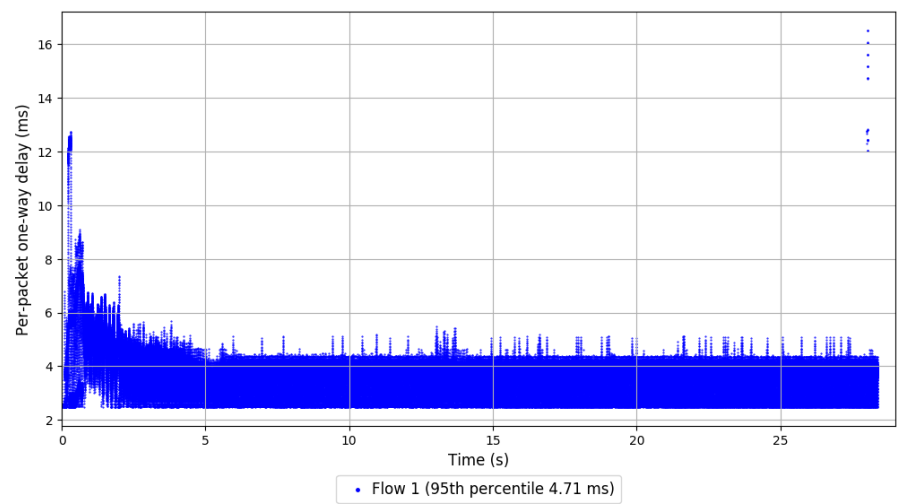
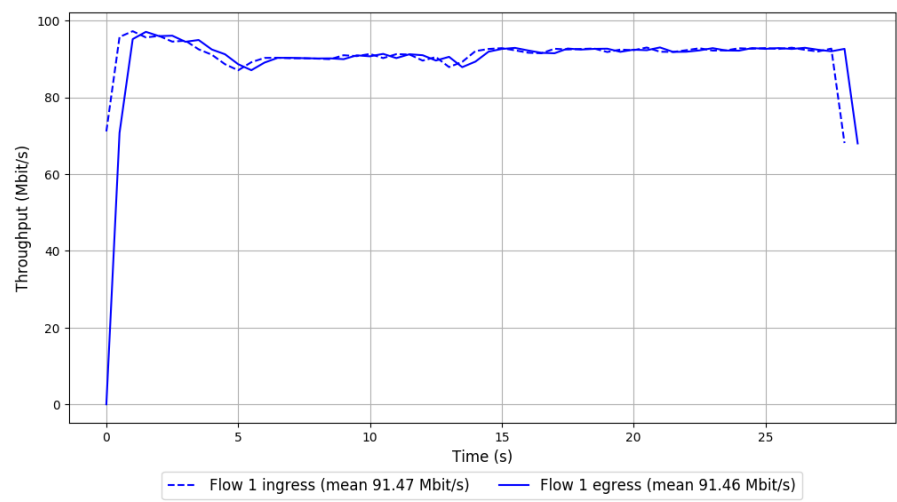
-- Flow 1:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 4.715 ms

Loss rate: 0.02%

Run 4: Report of Indigo-MusesC3 — Data Link



Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 07:37:39

End at: 2019-06-28 07:38:09

Local clock offset: -6.026 ms

Remote clock offset: 0.747 ms

# Below is generated by plot.py at 2019-06-28 08:09:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 80.01 Mbit/s

95th percentile per-packet one-way delay: 4.240 ms

Loss rate: 0.02%

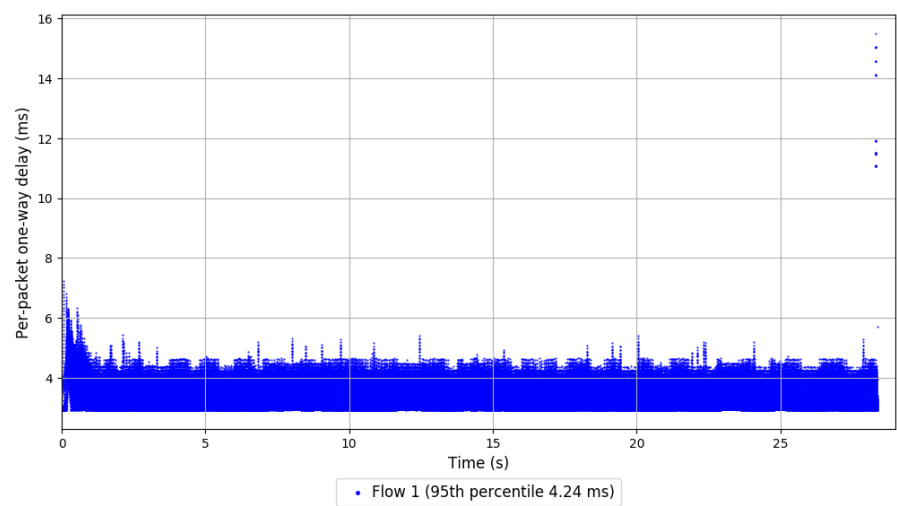
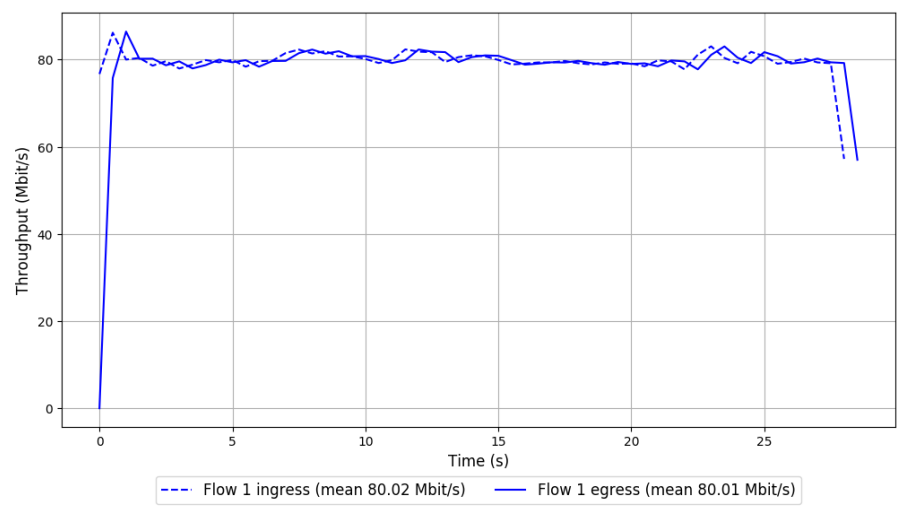
-- Flow 1:

Average throughput: 80.01 Mbit/s

95th percentile per-packet one-way delay: 4.240 ms

Loss rate: 0.02%

Run 5: Report of Indigo-MusesC3 — Data Link

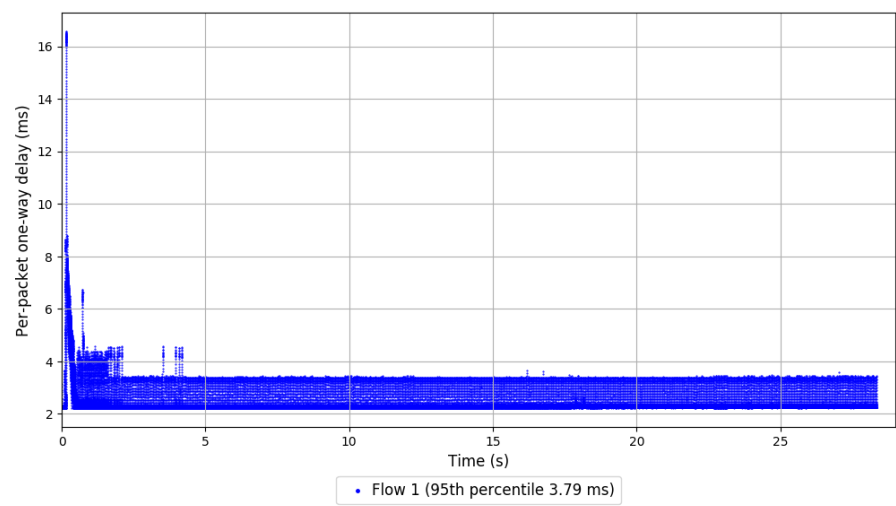
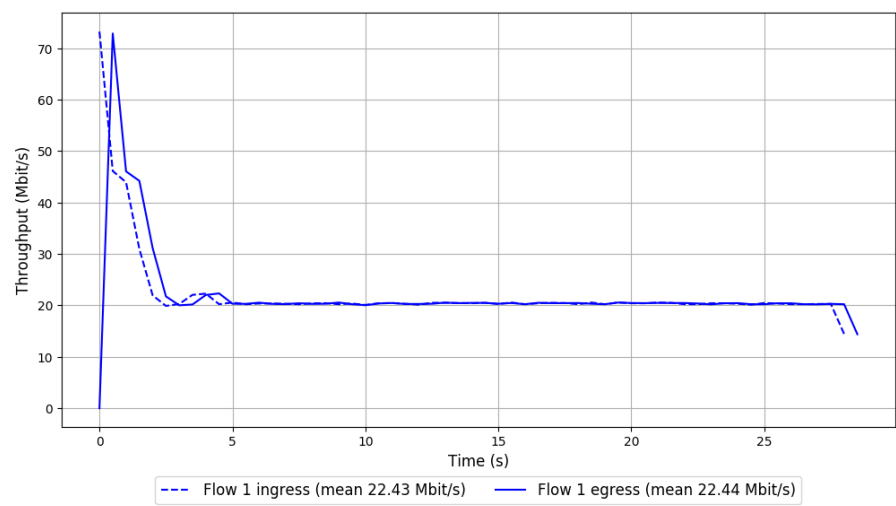


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 06:01:51  
End at: 2019-06-28 06:02:21  
Local clock offset: -6.949 ms  
Remote clock offset: -0.128 ms

# Below is generated by plot.py at 2019-06-28 08:09:41  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 22.44 Mbit/s  
95th percentile per-packet one-way delay: 3.790 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 22.44 Mbit/s  
95th percentile per-packet one-way delay: 3.790 ms  
Loss rate: 0.01%

Run 1: Report of Indigo-MusesC5 — Data Link



Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 06:26:36

End at: 2019-06-28 06:27:06

Local clock offset: -8.034 ms

Remote clock offset: 0.111 ms

# Below is generated by plot.py at 2019-06-28 08:09:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 26.66 Mbit/s

95th percentile per-packet one-way delay: 3.084 ms

Loss rate: 0.01%

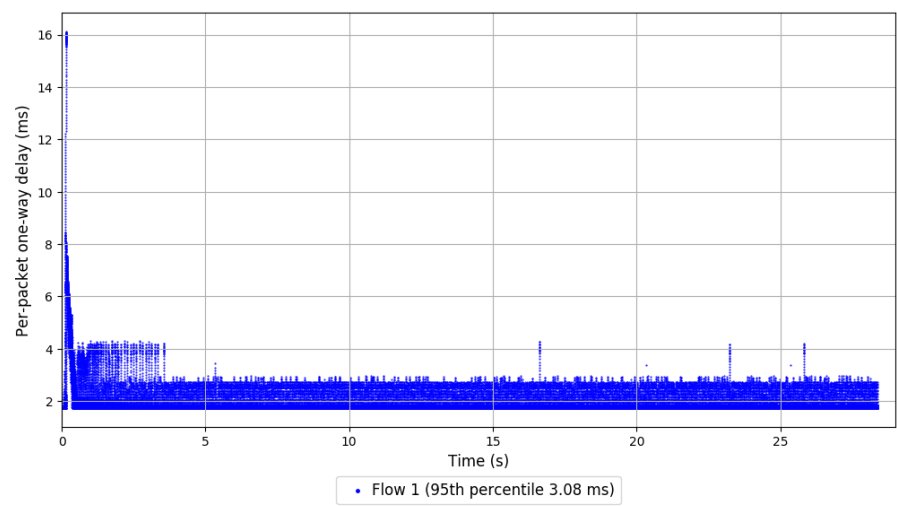
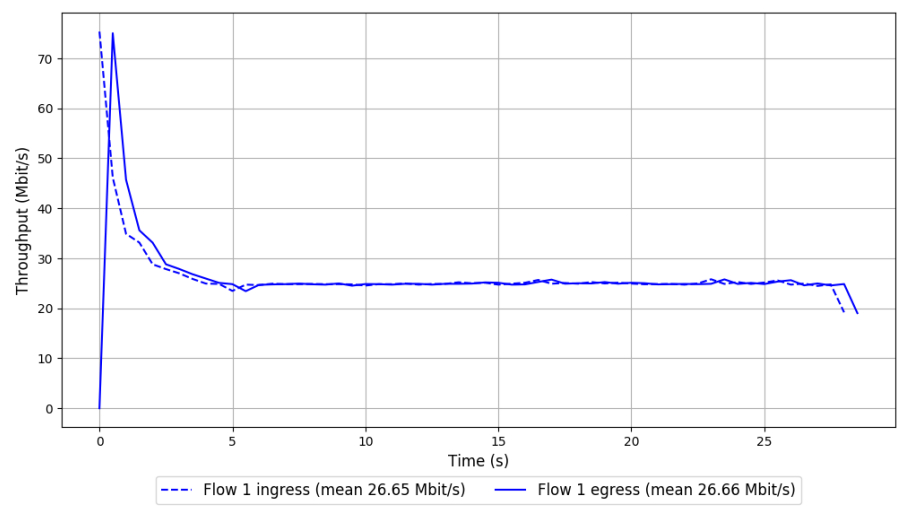
-- Flow 1:

Average throughput: 26.66 Mbit/s

95th percentile per-packet one-way delay: 3.084 ms

Loss rate: 0.01%

Run 2: Report of Indigo-MusesC5 — Data Link



Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 06:51:27

End at: 2019-06-28 06:51:57

Local clock offset: -7.611 ms

Remote clock offset: 0.451 ms

# Below is generated by plot.py at 2019-06-28 08:09:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 22.75 Mbit/s

95th percentile per-packet one-way delay: 3.116 ms

Loss rate: 0.01%

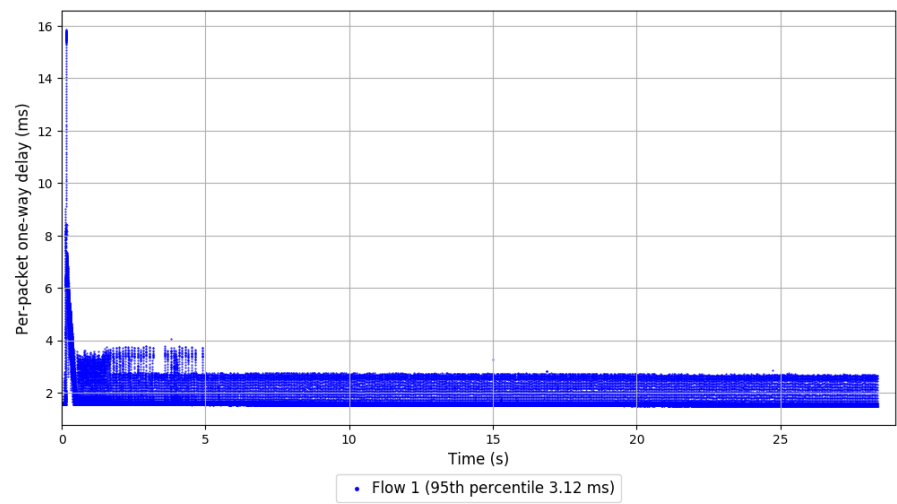
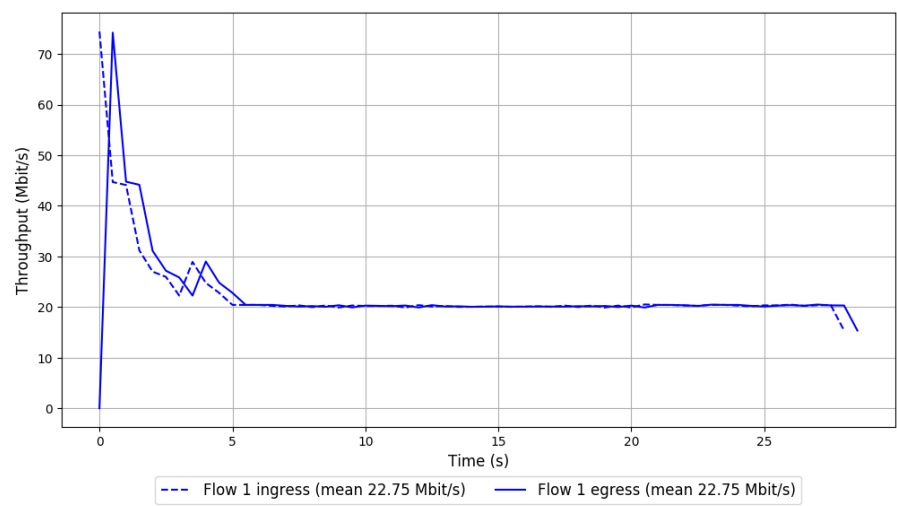
-- Flow 1:

Average throughput: 22.75 Mbit/s

95th percentile per-packet one-way delay: 3.116 ms

Loss rate: 0.01%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 07:16:16

End at: 2019-06-28 07:16:46

Local clock offset: -5.99 ms

Remote clock offset: 0.66 ms

# Below is generated by plot.py at 2019-06-28 08:09:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 33.39 Mbit/s

95th percentile per-packet one-way delay: 3.519 ms

Loss rate: 0.01%

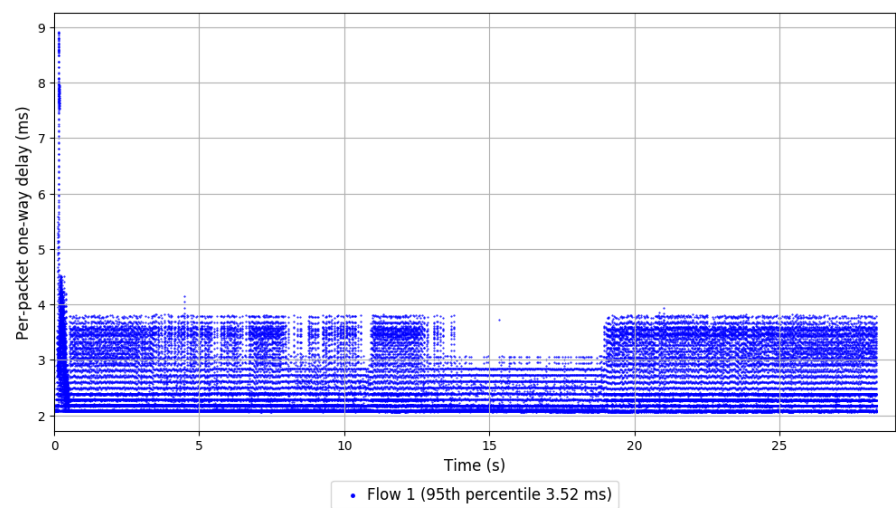
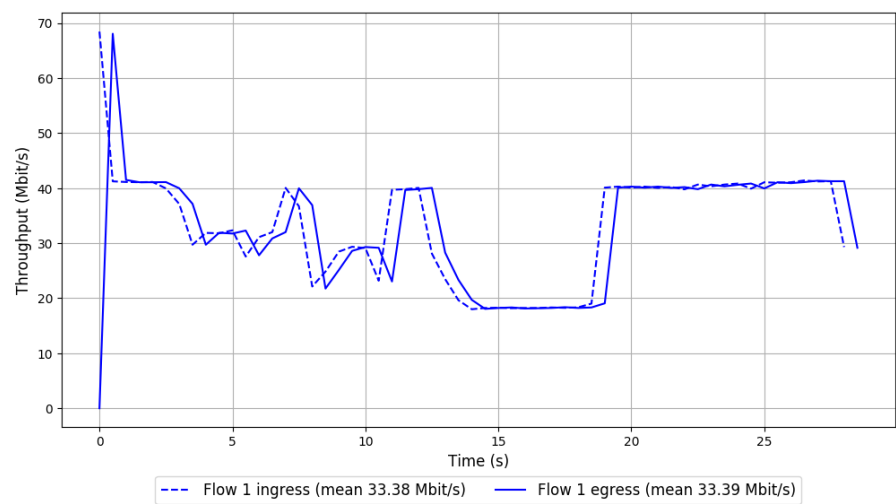
-- Flow 1:

Average throughput: 33.39 Mbit/s

95th percentile per-packet one-way delay: 3.519 ms

Loss rate: 0.01%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 07:41:05

End at: 2019-06-28 07:41:35

Local clock offset: -7.059 ms

Remote clock offset: 0.871 ms

# Below is generated by plot.py at 2019-06-28 08:09:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 33.61 Mbit/s

95th percentile per-packet one-way delay: 1.686 ms

Loss rate: 0.01%

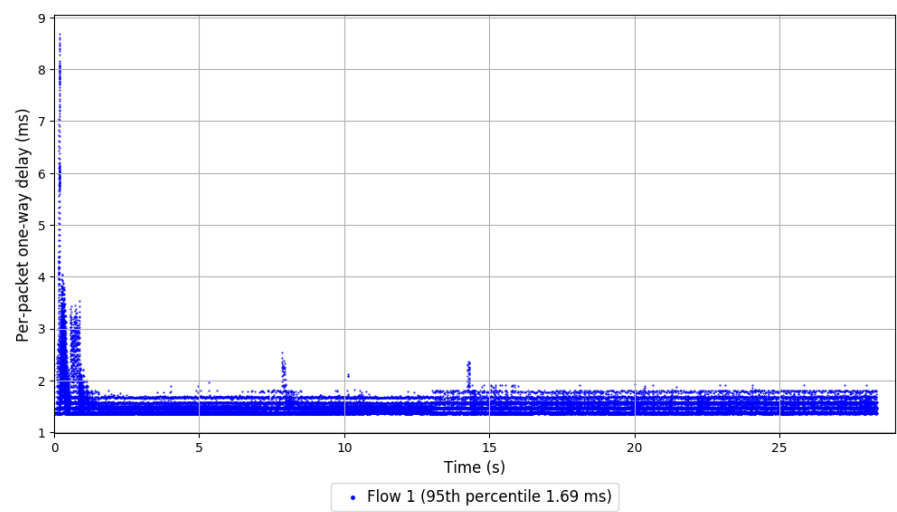
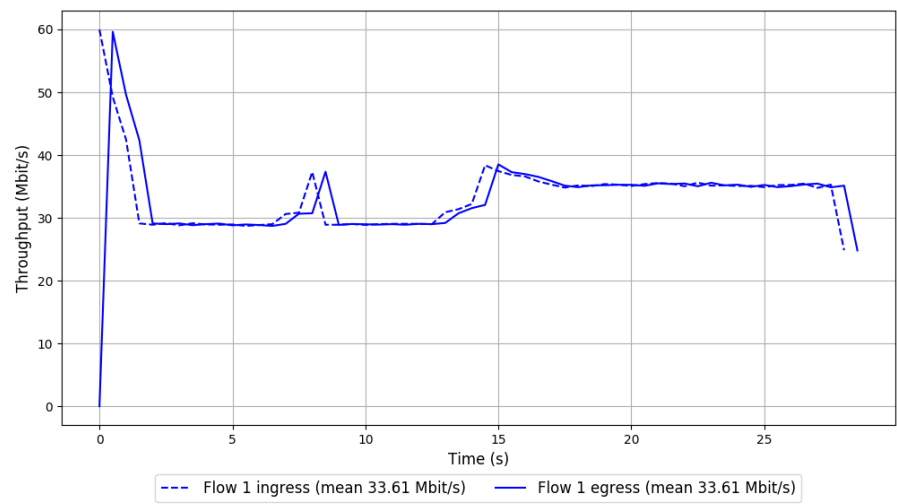
-- Flow 1:

Average throughput: 33.61 Mbit/s

95th percentile per-packet one-way delay: 1.686 ms

Loss rate: 0.01%

Run 5: Report of Indigo-MusesC5 — Data Link



Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 06:02:56

End at: 2019-06-28 06:03:26

Local clock offset: -6.994 ms

Remote clock offset: -0.125 ms

# Below is generated by plot.py at 2019-06-28 08:09:59

# Datalink statistics

-- Total of 1 flow:

Average throughput: 43.19 Mbit/s

95th percentile per-packet one-way delay: 2.762 ms

Loss rate: 0.00%

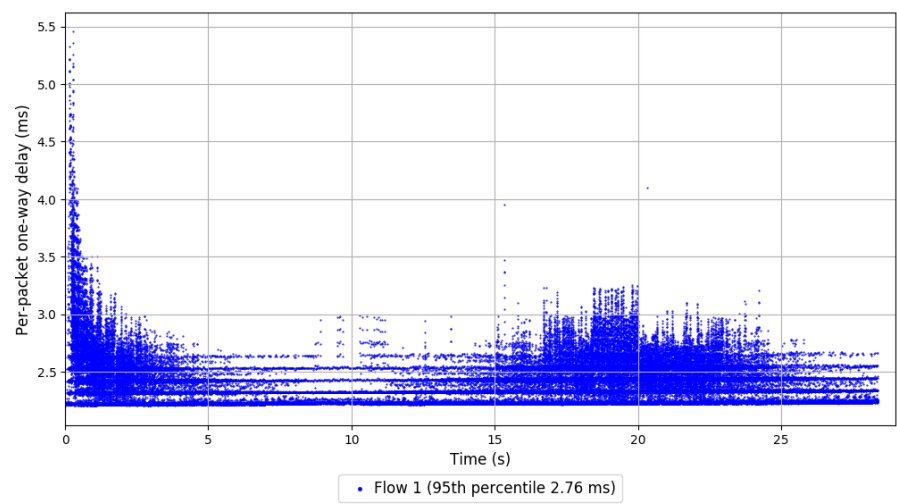
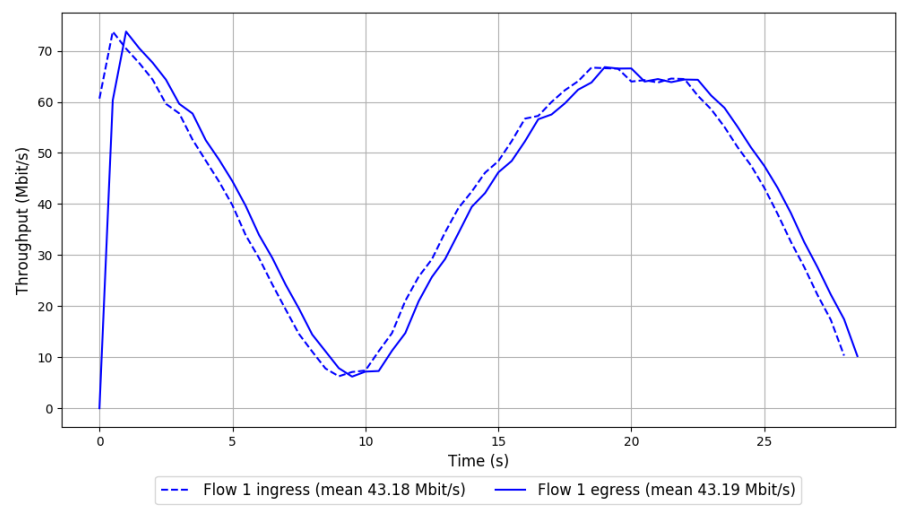
-- Flow 1:

Average throughput: 43.19 Mbit/s

95th percentile per-packet one-way delay: 2.762 ms

Loss rate: 0.00%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 06:27:41

End at: 2019-06-28 06:28:11

Local clock offset: -8.04 ms

Remote clock offset: 0.252 ms

# Below is generated by plot.py at 2019-06-28 08:10:02

# Datalink statistics

-- Total of 1 flow:

Average throughput: 48.13 Mbit/s

95th percentile per-packet one-way delay: 3.622 ms

Loss rate: 0.02%

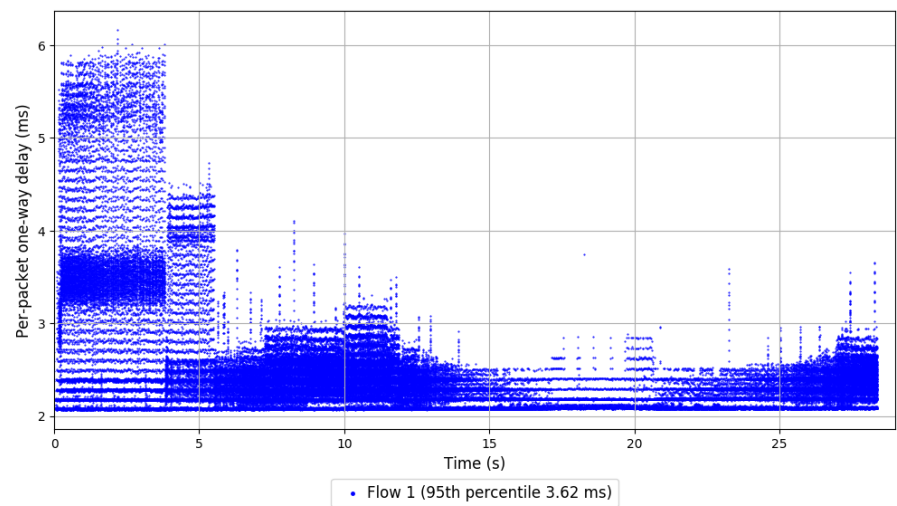
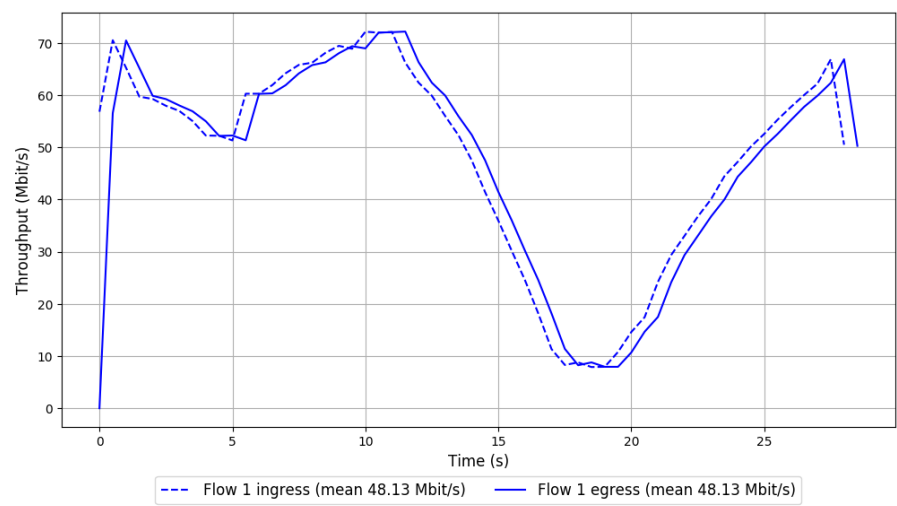
-- Flow 1:

Average throughput: 48.13 Mbit/s

95th percentile per-packet one-way delay: 3.622 ms

Loss rate: 0.02%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 06:52:32

End at: 2019-06-28 06:53:02

Local clock offset: -7.494 ms

Remote clock offset: 0.526 ms

# Below is generated by plot.py at 2019-06-28 08:10:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 44.74 Mbit/s

95th percentile per-packet one-way delay: 1.936 ms

Loss rate: 0.01%

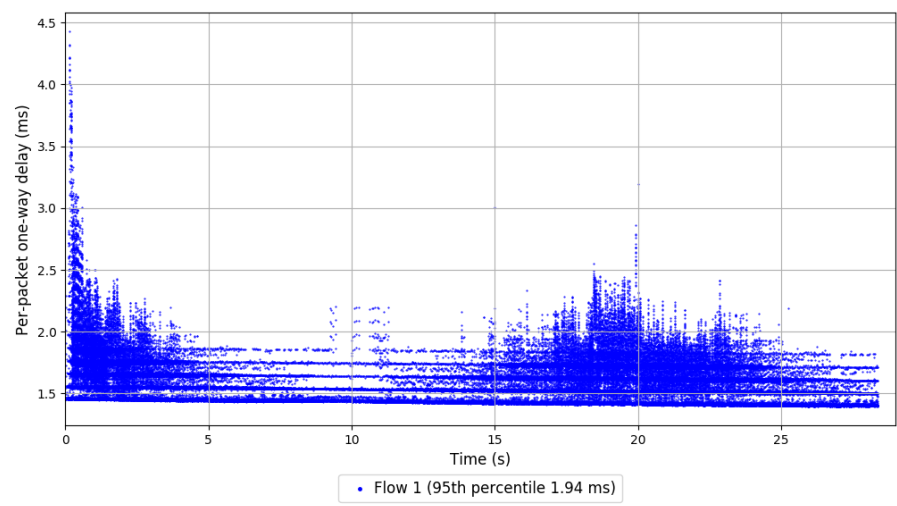
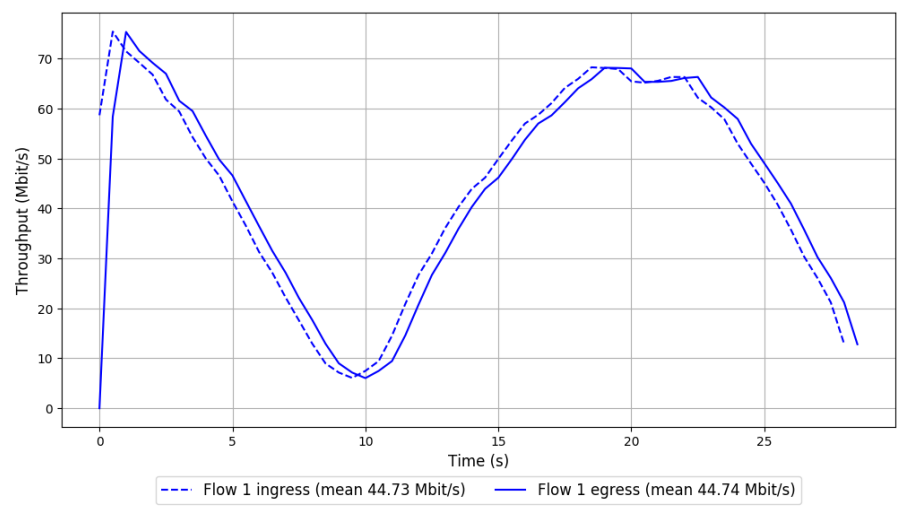
-- Flow 1:

Average throughput: 44.74 Mbit/s

95th percentile per-packet one-way delay: 1.936 ms

Loss rate: 0.01%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 07:17:22

End at: 2019-06-28 07:17:52

Local clock offset: -6.18 ms

Remote clock offset: 0.676 ms

# Below is generated by plot.py at 2019-06-28 08:10:23

# Datalink statistics

-- Total of 1 flow:

Average throughput: 72.44 Mbit/s

95th percentile per-packet one-way delay: 4.994 ms

Loss rate: 0.02%

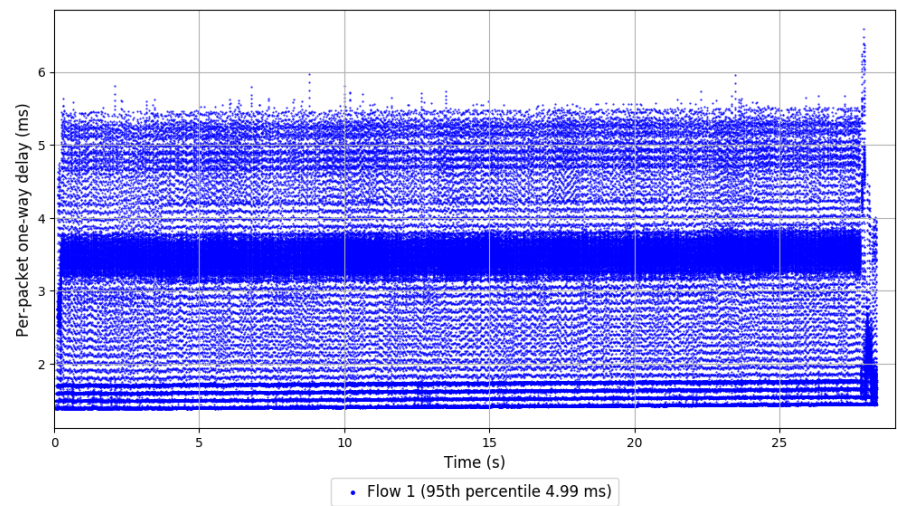
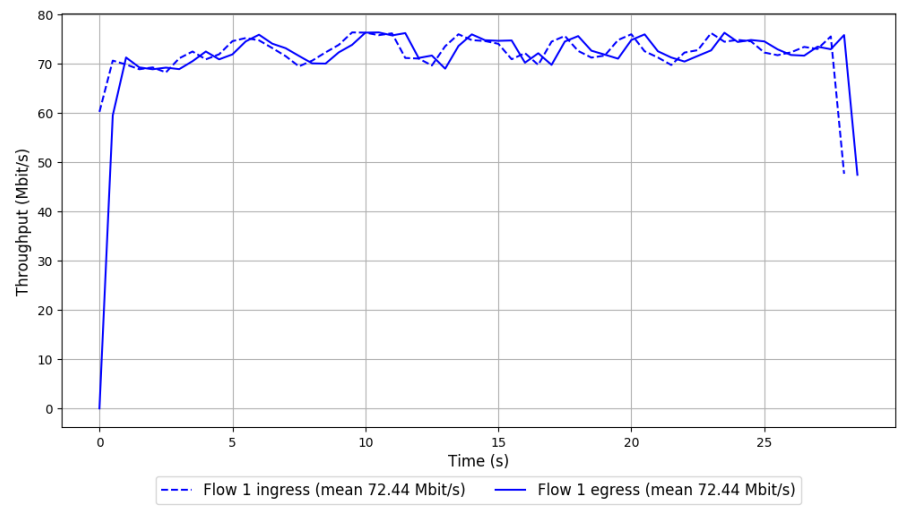
-- Flow 1:

Average throughput: 72.44 Mbit/s

95th percentile per-packet one-way delay: 4.994 ms

Loss rate: 0.02%

Run 4: Report of Indigo-MusesD — Data Link



Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 07:42:11

End at: 2019-06-28 07:42:41

Local clock offset: -6.259 ms

Remote clock offset: 0.834 ms

# Below is generated by plot.py at 2019-06-28 08:10:23

# Datalink statistics

-- Total of 1 flow:

Average throughput: 42.64 Mbit/s

95th percentile per-packet one-way delay: 2.753 ms

Loss rate: 0.00%

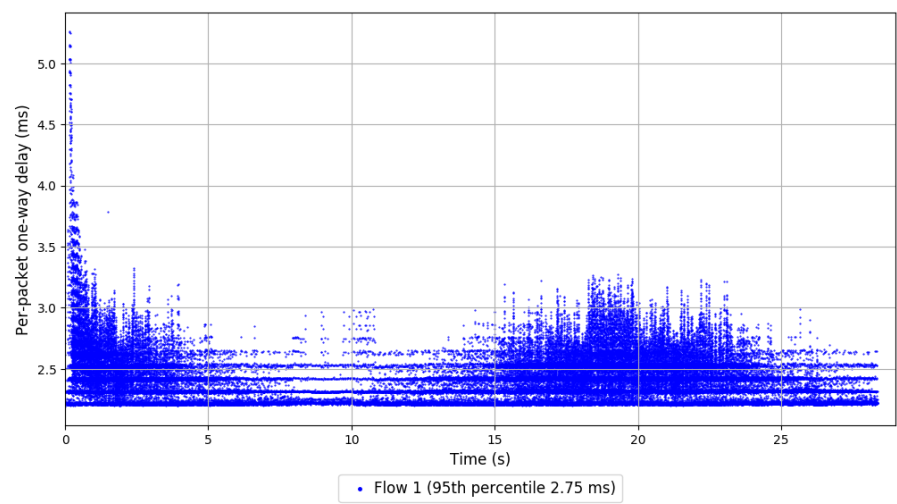
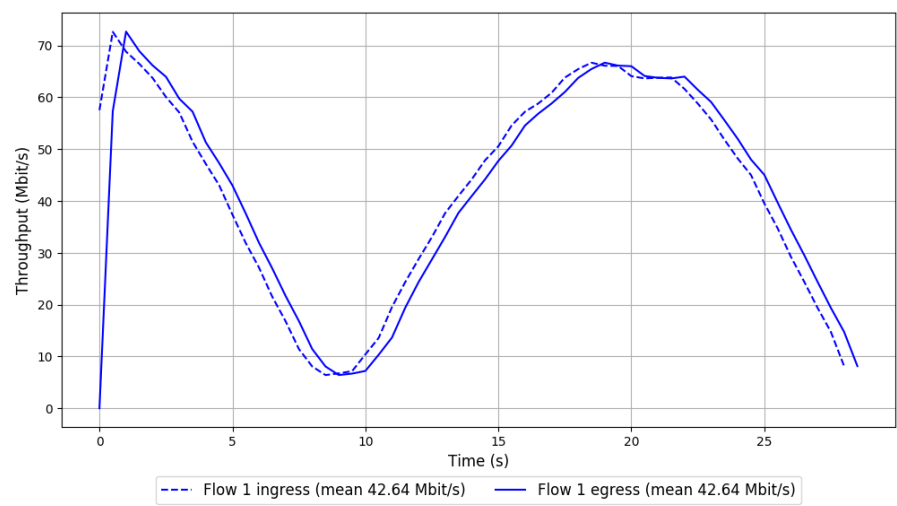
-- Flow 1:

Average throughput: 42.64 Mbit/s

95th percentile per-packet one-way delay: 2.753 ms

Loss rate: 0.00%

Run 5: Report of Indigo-MusesD — Data Link



Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 06:07:22

End at: 2019-06-28 06:07:52

Local clock offset: -7.917 ms

Remote clock offset: -0.09 ms

# Below is generated by plot.py at 2019-06-28 08:10:29

# Datalink statistics

-- Total of 1 flow:

Average throughput: 74.15 Mbit/s

95th percentile per-packet one-way delay: 2.535 ms

Loss rate: 0.02%

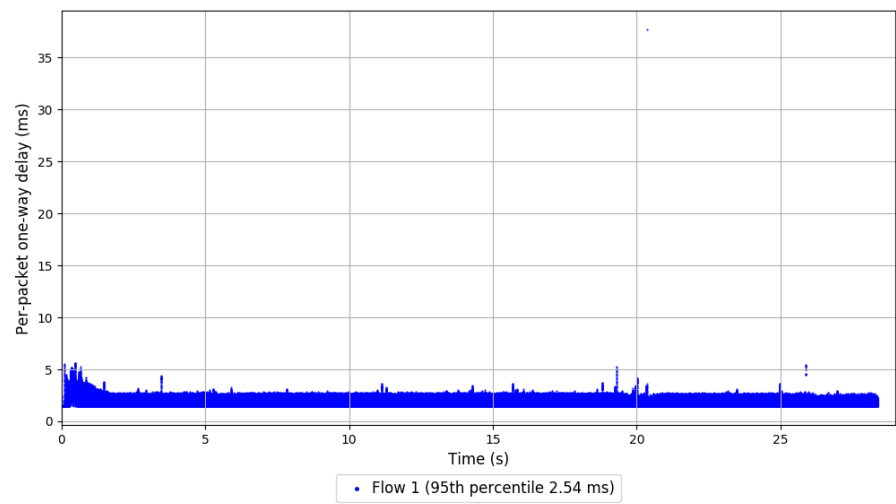
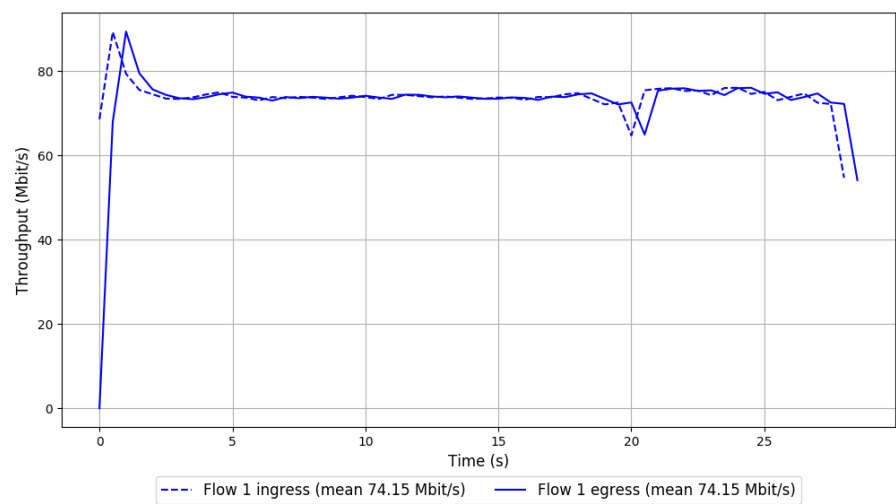
-- Flow 1:

Average throughput: 74.15 Mbit/s

95th percentile per-packet one-way delay: 2.535 ms

Loss rate: 0.02%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 06:32:07

End at: 2019-06-28 06:32:37

Local clock offset: -7.353 ms

Remote clock offset: 0.258 ms

# Below is generated by plot.py at 2019-06-28 08:10:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.00 Mbit/s

95th percentile per-packet one-way delay: 3.942 ms

Loss rate: 0.02%

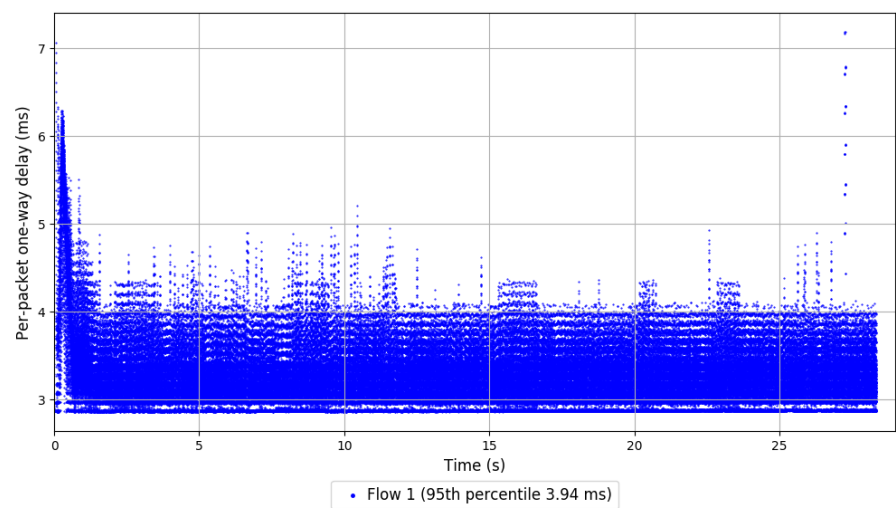
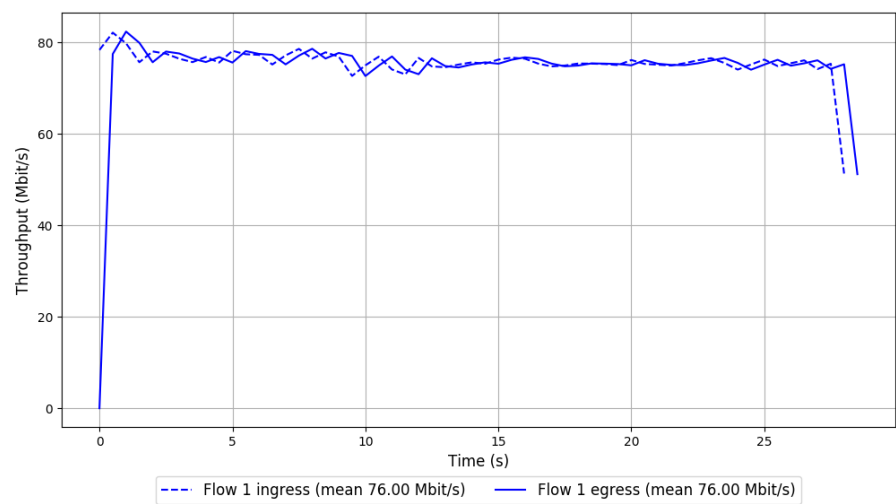
-- Flow 1:

Average throughput: 76.00 Mbit/s

95th percentile per-packet one-way delay: 3.942 ms

Loss rate: 0.02%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 06:56:58

End at: 2019-06-28 06:57:28

Local clock offset: -6.185 ms

Remote clock offset: 0.484 ms

# Below is generated by plot.py at 2019-06-28 08:10:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.98 Mbit/s

95th percentile per-packet one-way delay: 3.848 ms

Loss rate: 0.01%

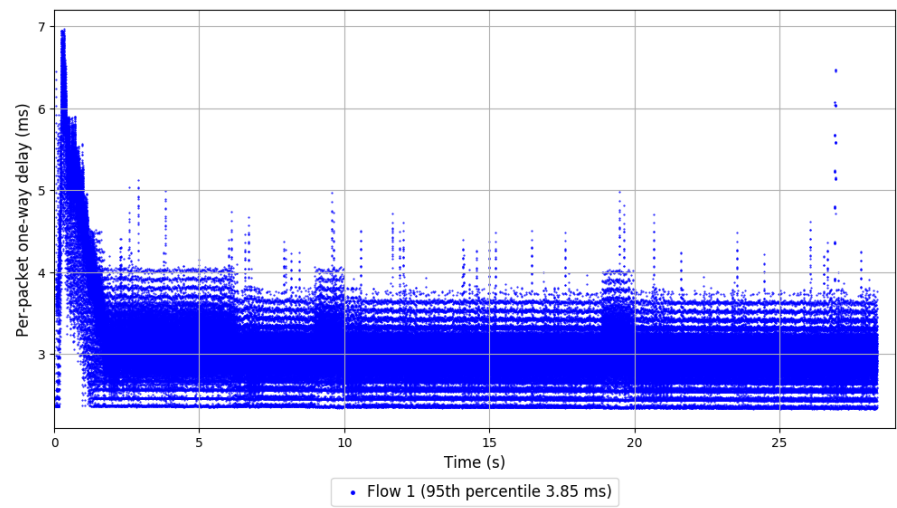
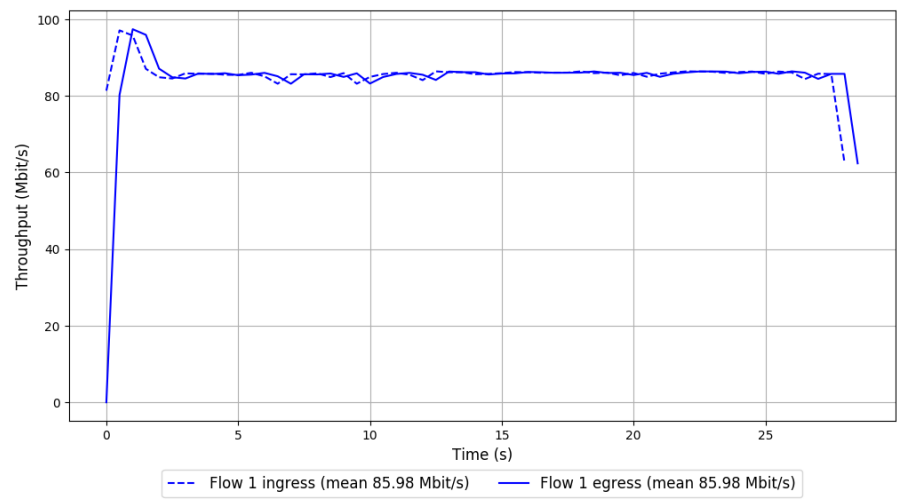
-- Flow 1:

Average throughput: 85.98 Mbit/s

95th percentile per-packet one-way delay: 3.848 ms

Loss rate: 0.01%

Run 3: Report of Indigo-MusesT — Data Link



Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 07:21:48

End at: 2019-06-28 07:22:18

Local clock offset: -5.542 ms

Remote clock offset: 0.651 ms

# Below is generated by plot.py at 2019-06-28 08:10:58

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.04 Mbit/s

95th percentile per-packet one-way delay: 3.947 ms

Loss rate: 0.02%

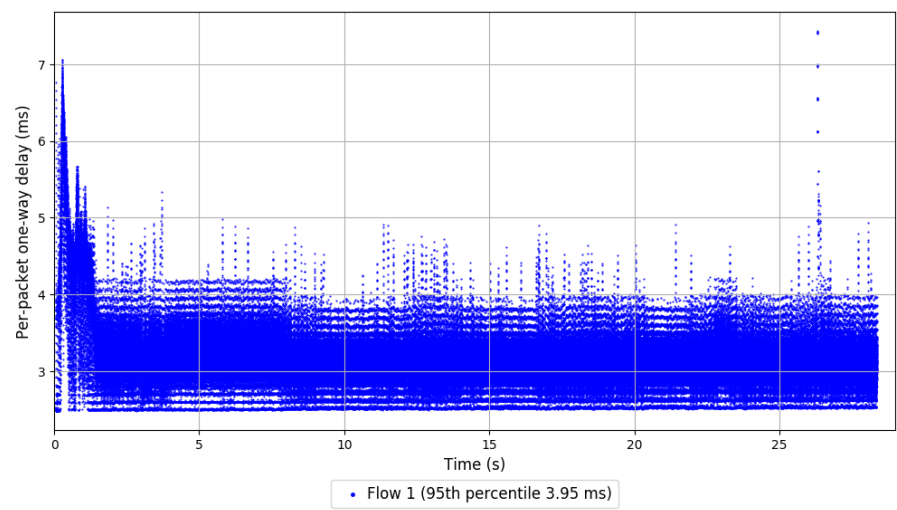
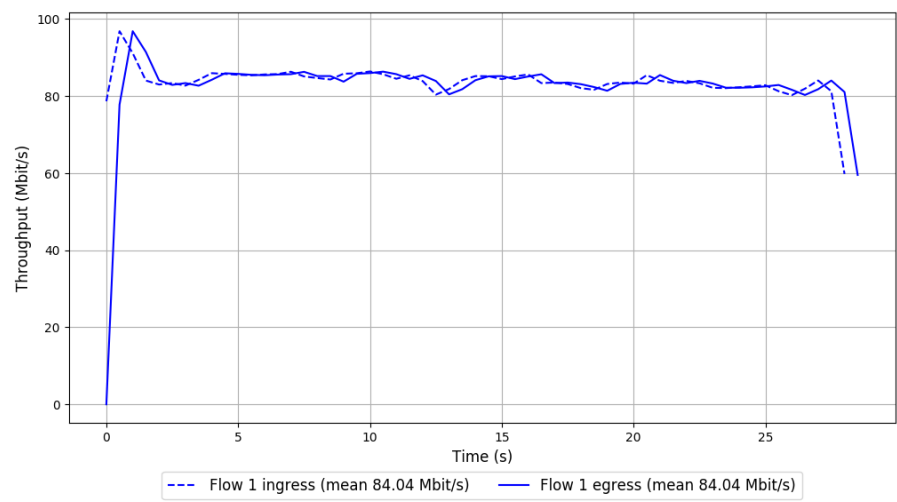
-- Flow 1:

Average throughput: 84.04 Mbit/s

95th percentile per-packet one-way delay: 3.947 ms

Loss rate: 0.02%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 07:46:36

End at: 2019-06-28 07:47:07

Local clock offset: -6.876 ms

Remote clock offset: 0.938 ms

# Below is generated by plot.py at 2019-06-28 08:10:58

# Datalink statistics

-- Total of 1 flow:

Average throughput: 76.64 Mbit/s

95th percentile per-packet one-way delay: 3.009 ms

Loss rate: 0.02%

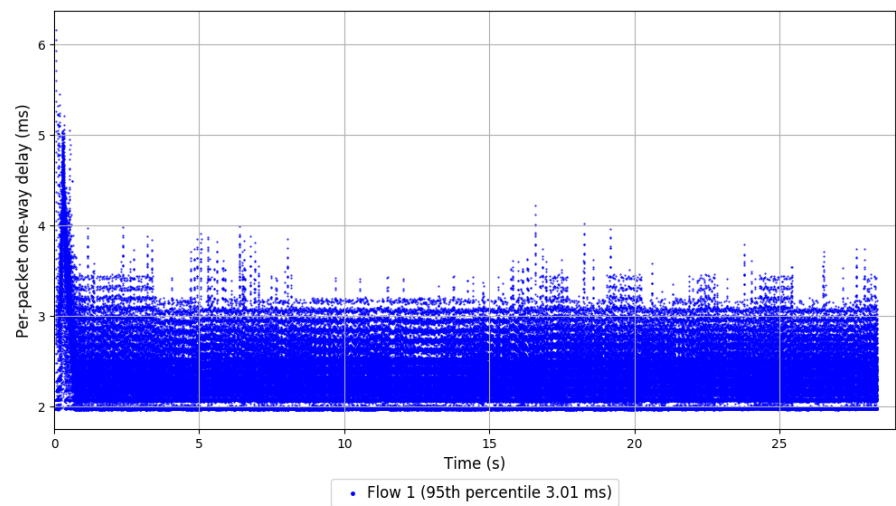
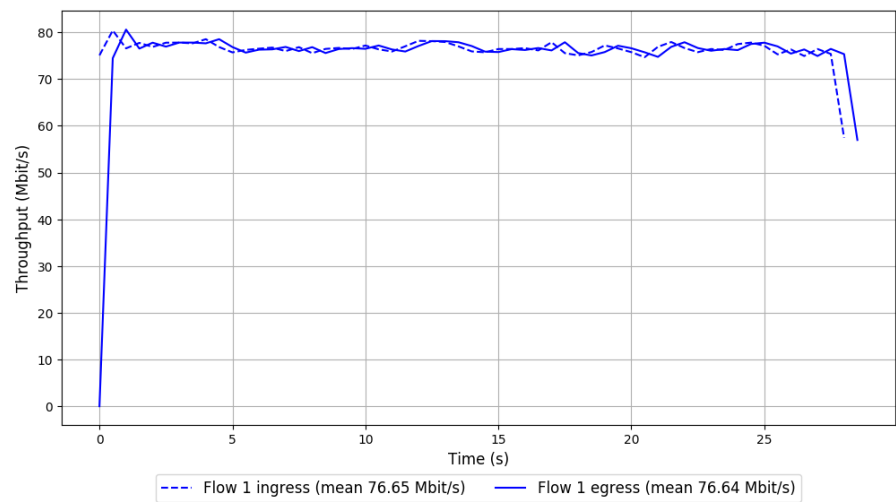
-- Flow 1:

Average throughput: 76.64 Mbit/s

95th percentile per-packet one-way delay: 3.009 ms

Loss rate: 0.02%

Run 5: Report of Indigo-MusesT — Data Link



Run 1: Statistics of LEDBAT

Start at: 2019-06-28 06:13:03

End at: 2019-06-28 06:13:33

Local clock offset: -7.797 ms

Remote clock offset: 0.065 ms

# Below is generated by plot.py at 2019-06-28 08:11:15

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.94 Mbit/s

95th percentile per-packet one-way delay: 10.404 ms

Loss rate: 0.08%

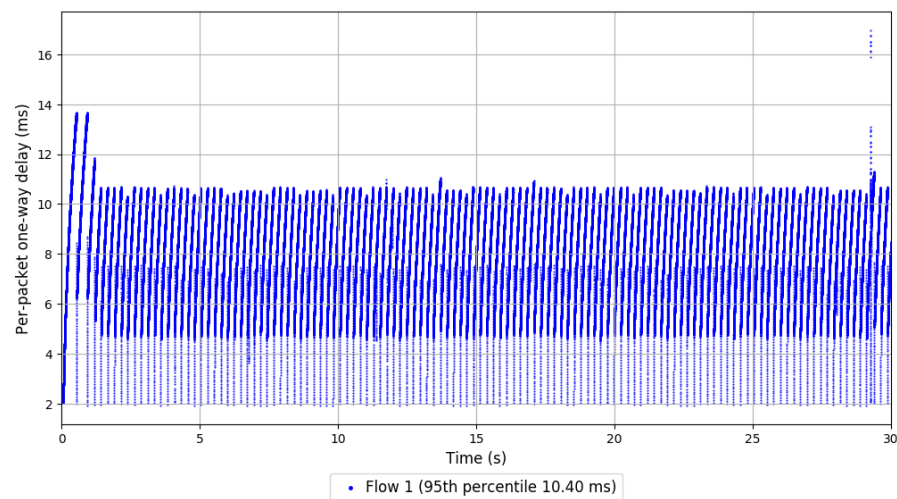
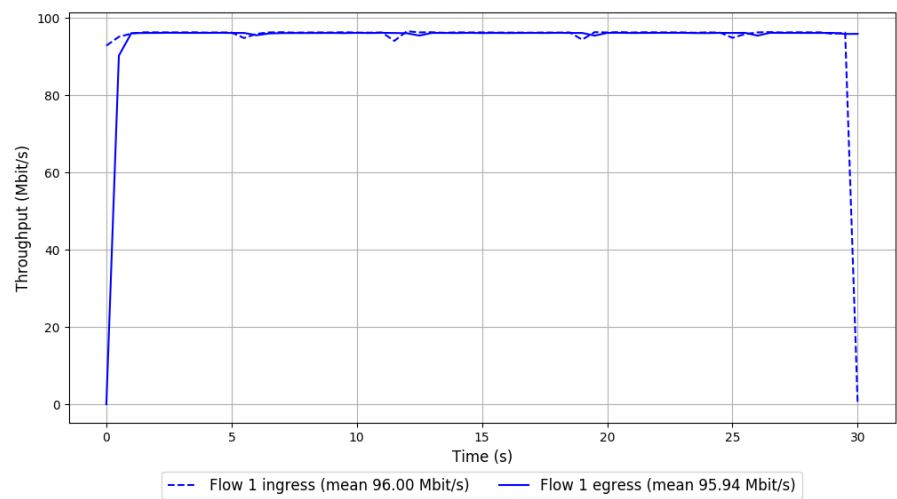
-- Flow 1:

Average throughput: 95.94 Mbit/s

95th percentile per-packet one-way delay: 10.404 ms

Loss rate: 0.08%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2019-06-28 06:37:50

End at: 2019-06-28 06:38:20

Local clock offset: -7.428 ms

Remote clock offset: 0.39 ms

# Below is generated by plot.py at 2019-06-28 08:11:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.57 Mbit/s

95th percentile per-packet one-way delay: 10.789 ms

Loss rate: 0.09%

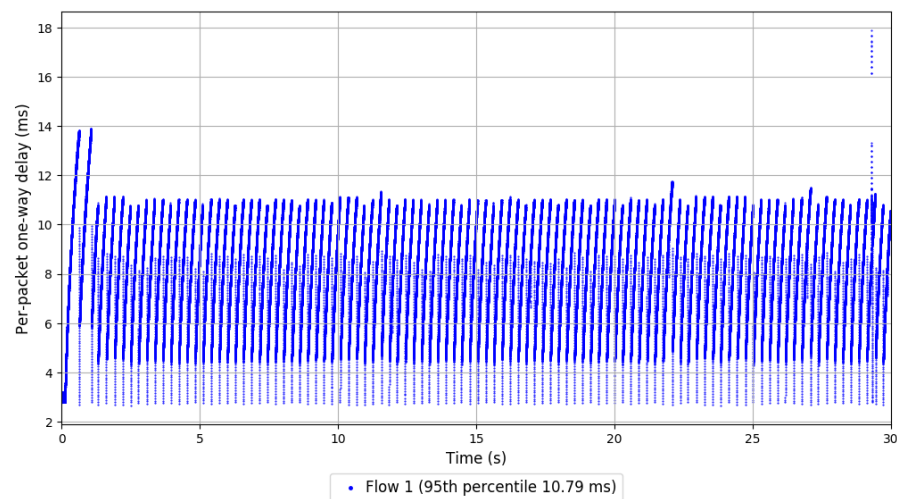
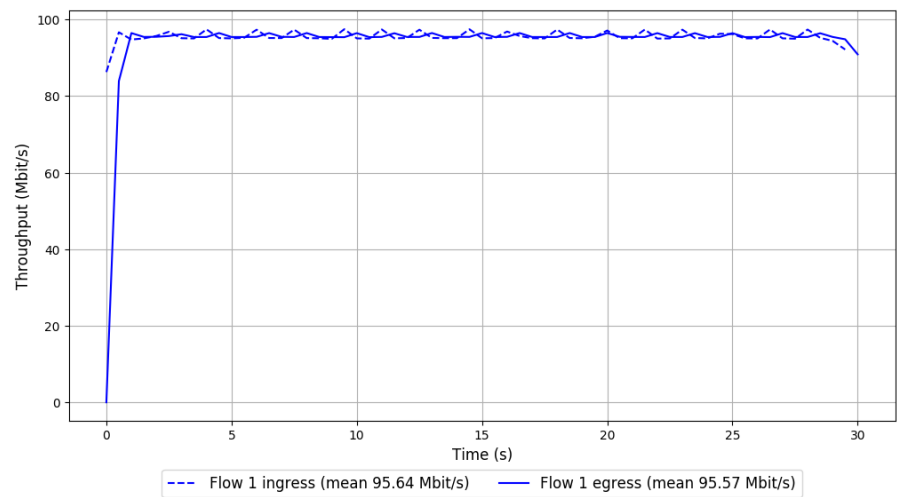
-- Flow 1:

Average throughput: 95.57 Mbit/s

95th percentile per-packet one-way delay: 10.789 ms

Loss rate: 0.09%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2019-06-28 07:02:40

End at: 2019-06-28 07:03:10

Local clock offset: -6.513 ms

Remote clock offset: 0.562 ms

# Below is generated by plot.py at 2019-06-28 08:11:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.91 Mbit/s

95th percentile per-packet one-way delay: 10.384 ms

Loss rate: 0.09%

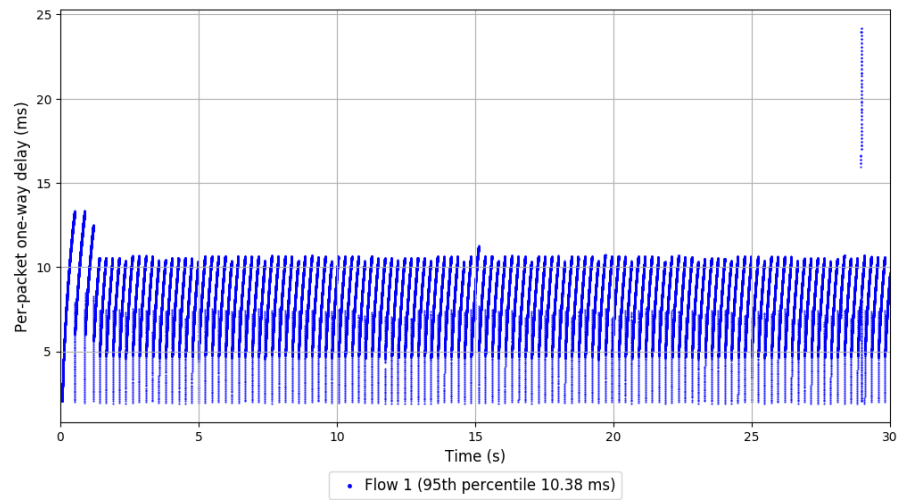
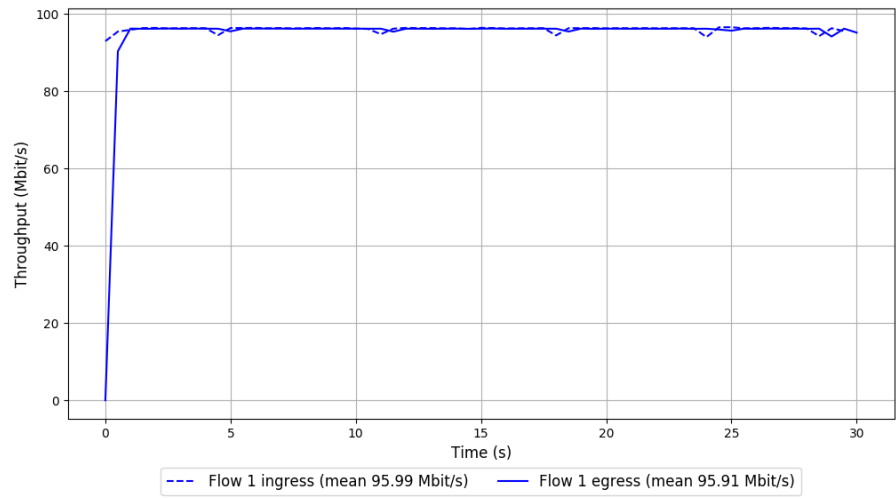
-- Flow 1:

Average throughput: 95.91 Mbit/s

95th percentile per-packet one-way delay: 10.384 ms

Loss rate: 0.09%

### Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-06-28 07:27:31

End at: 2019-06-28 07:28:01

Local clock offset: -6.839 ms

Remote clock offset: 0.707 ms

# Below is generated by plot.py at 2019-06-28 08:11:39

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.65 Mbit/s

95th percentile per-packet one-way delay: 9.627 ms

Loss rate: 0.07%

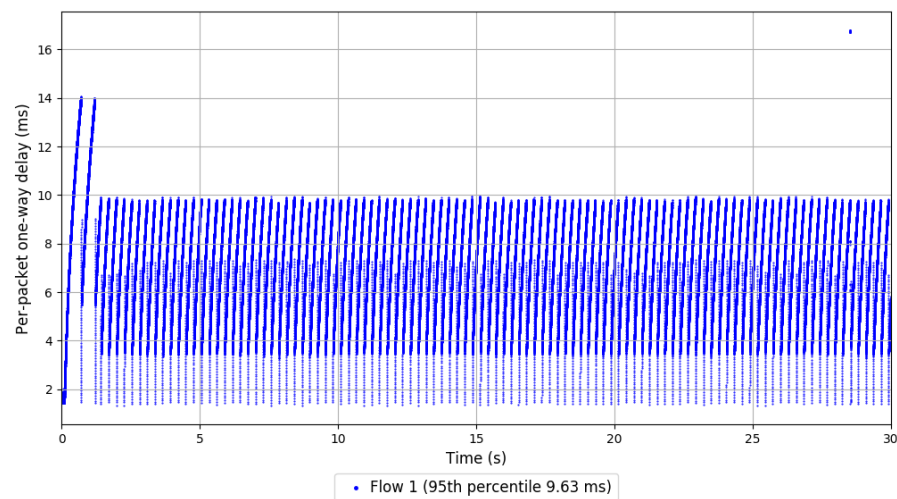
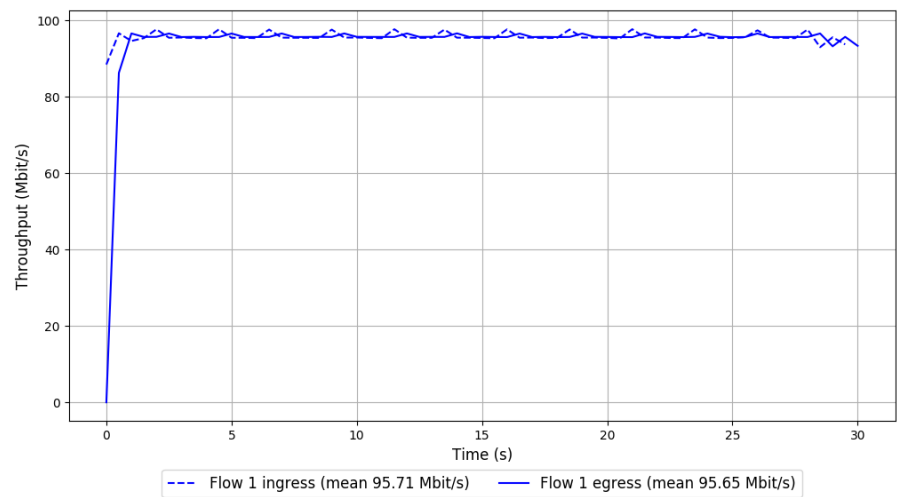
-- Flow 1:

Average throughput: 95.65 Mbit/s

95th percentile per-packet one-way delay: 9.627 ms

Loss rate: 0.07%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-06-28 07:52:20

End at: 2019-06-28 07:52:50

Local clock offset: -5.777 ms

Remote clock offset: 0.951 ms

# Below is generated by plot.py at 2019-06-28 08:11:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.00 Mbit/s

95th percentile per-packet one-way delay: 10.774 ms

Loss rate: 0.09%

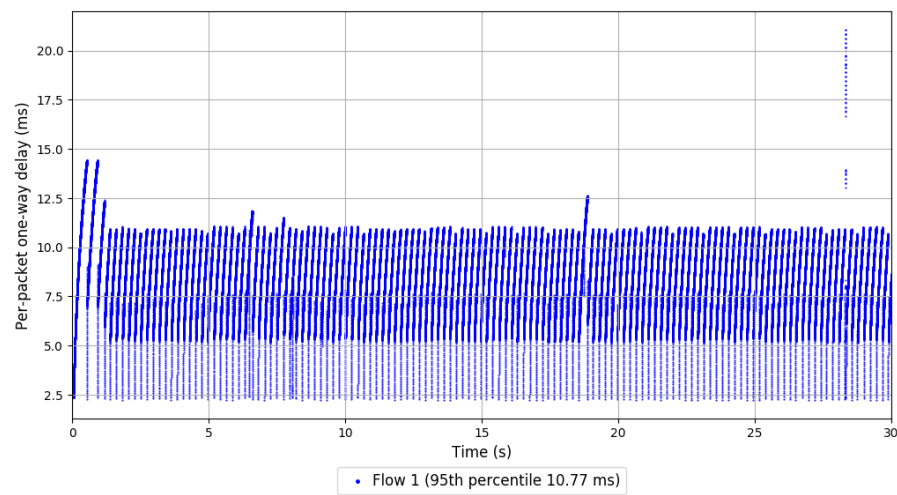
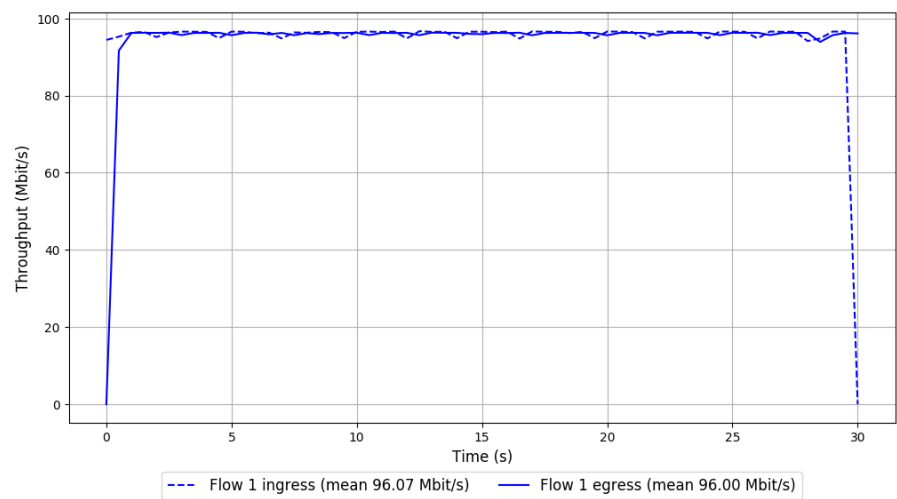
-- Flow 1:

Average throughput: 96.00 Mbit/s

95th percentile per-packet one-way delay: 10.774 ms

Loss rate: 0.09%

Run 5: Report of LEDBAT — Data Link



Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 06:17:38

End at: 2019-06-28 06:18:08

Local clock offset: -7.948 ms

Remote clock offset: 0.13 ms

# Below is generated by plot.py at 2019-06-28 08:11:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 5.04 Mbit/s

95th percentile per-packet one-way delay: 1.653 ms

Loss rate: 0.02%

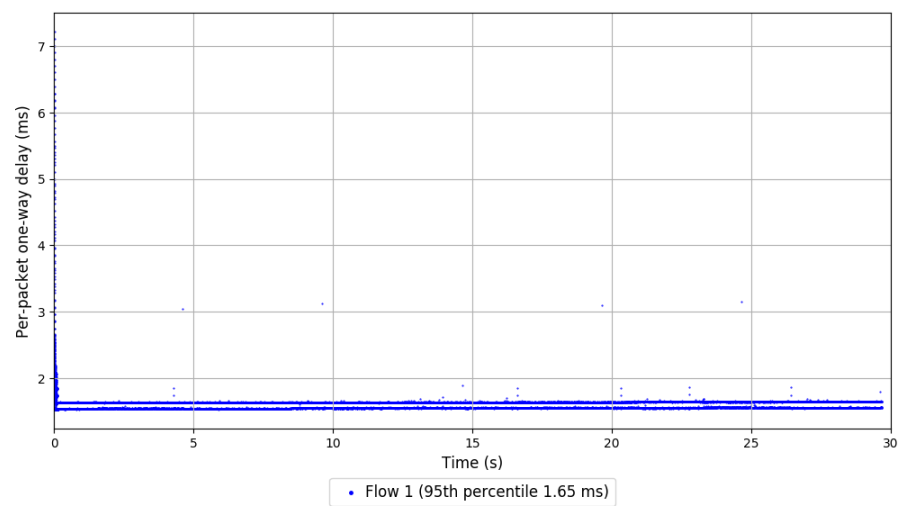
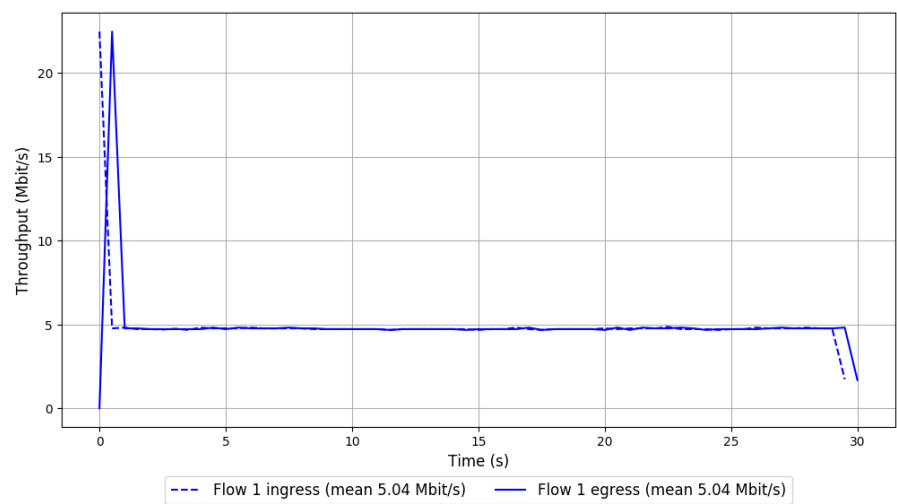
-- Flow 1:

Average throughput: 5.04 Mbit/s

95th percentile per-packet one-way delay: 1.653 ms

Loss rate: 0.02%

Run 1: Report of Muses\_DecisionTree — Data Link



Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 06:42:28

End at: 2019-06-28 06:42:58

Local clock offset: -8.276 ms

Remote clock offset: 0.337 ms

# Below is generated by plot.py at 2019-06-28 08:11:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 1.726 ms

Loss rate: 0.02%

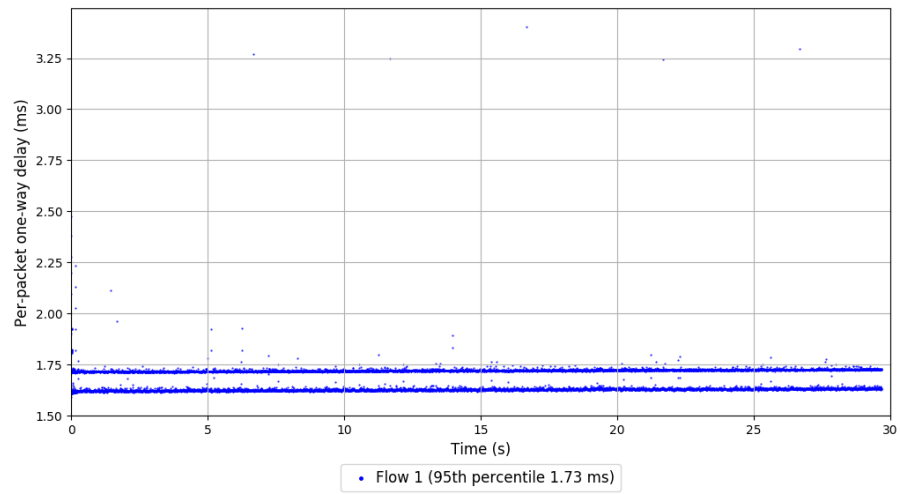
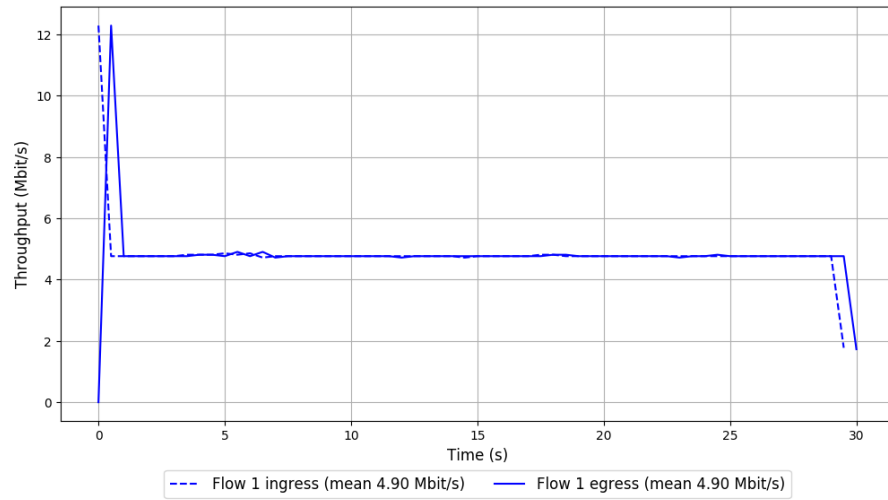
-- Flow 1:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 1.726 ms

Loss rate: 0.02%

## Run 2: Report of Muses\_DecisionTree — Data Link



Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 07:07:16

End at: 2019-06-28 07:07:46

Local clock offset: -6.506 ms

Remote clock offset: 0.598 ms

# Below is generated by plot.py at 2019-06-28 08:11:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 40.36 Mbit/s

95th percentile per-packet one-way delay: 1.678 ms

Loss rate: 0.02%

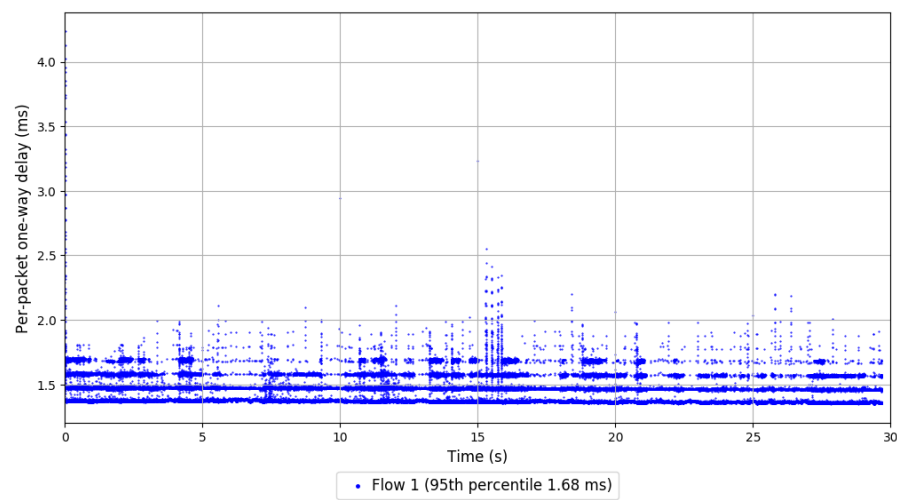
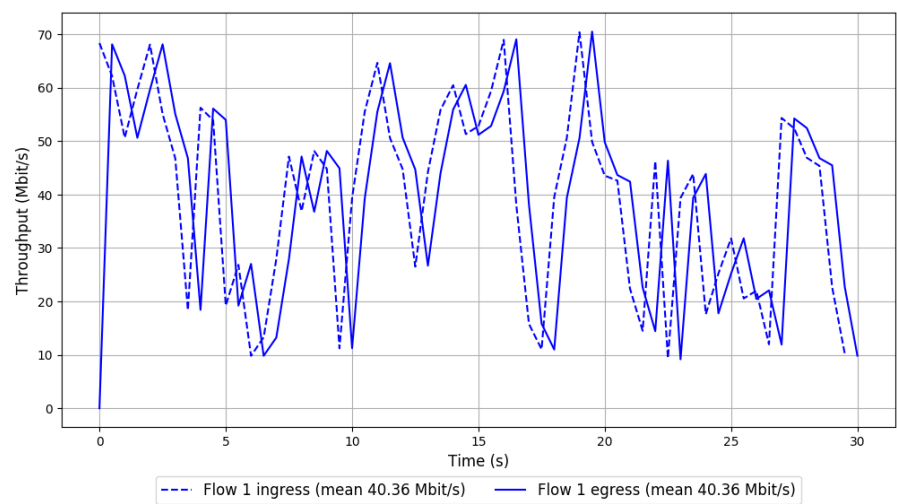
-- Flow 1:

Average throughput: 40.36 Mbit/s

95th percentile per-packet one-way delay: 1.678 ms

Loss rate: 0.02%

Run 3: Report of Muses\_DecisionTree — Data Link



Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 07:32:09

End at: 2019-06-28 07:32:39

Local clock offset: -6.715 ms

Remote clock offset: 0.72 ms

# Below is generated by plot.py at 2019-06-28 08:11:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 2.231 ms

Loss rate: 0.01%

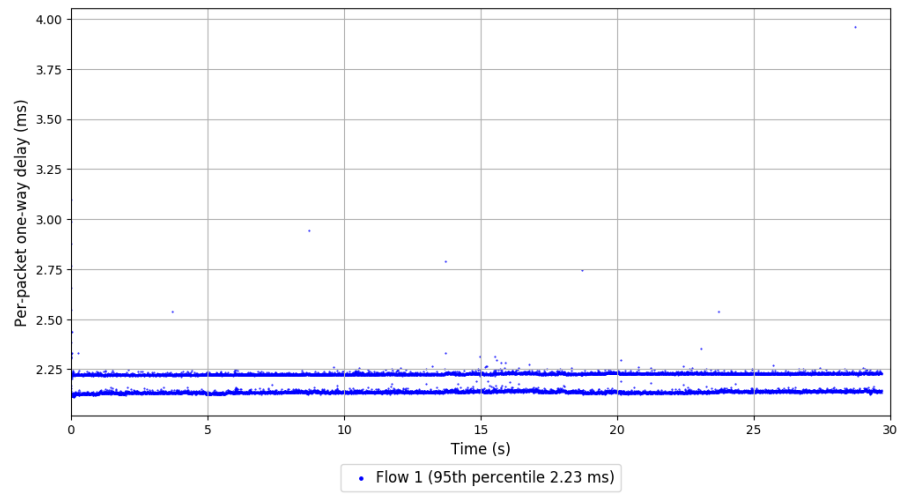
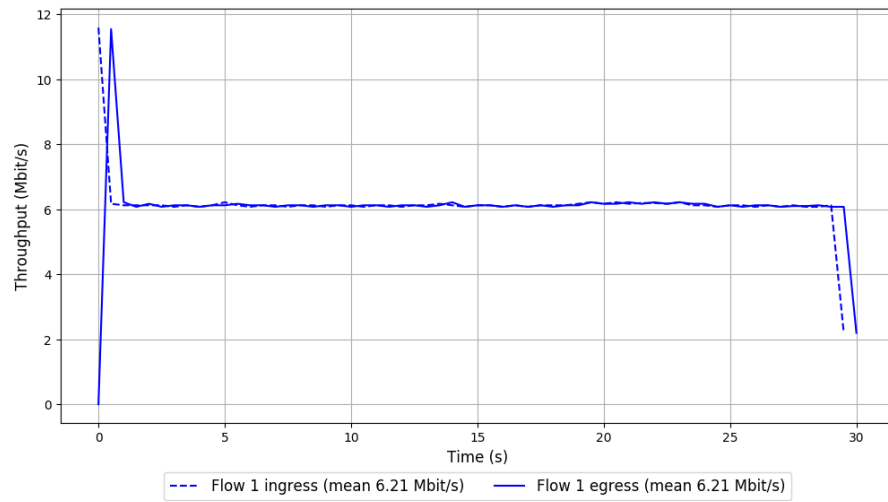
-- Flow 1:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 2.231 ms

Loss rate: 0.01%

#### Run 4: Report of Muses\_DecisionTree — Data Link



Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-06-28 07:56:57

End at: 2019-06-28 07:57:27

Local clock offset: -6.379 ms

Remote clock offset: 0.827 ms

# Below is generated by plot.py at 2019-06-28 08:11:50

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.27 Mbit/s

95th percentile per-packet one-way delay: 2.544 ms

Loss rate: 0.02%

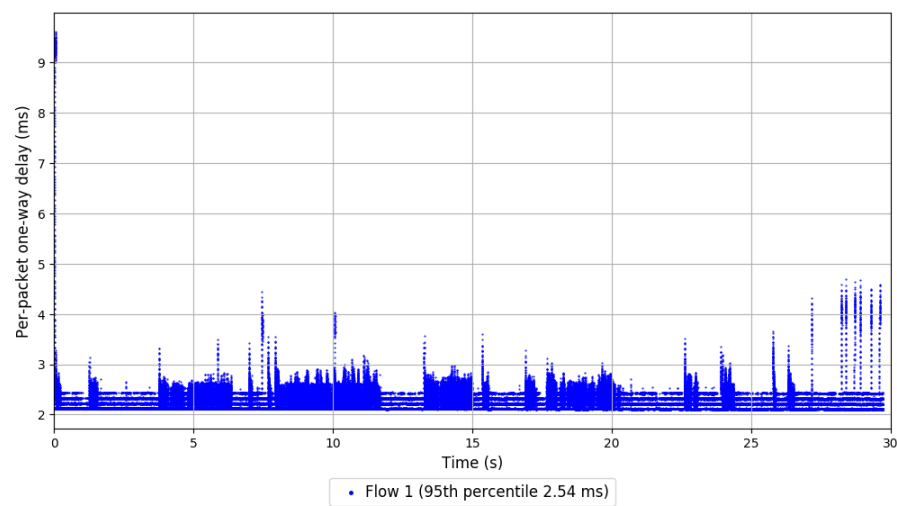
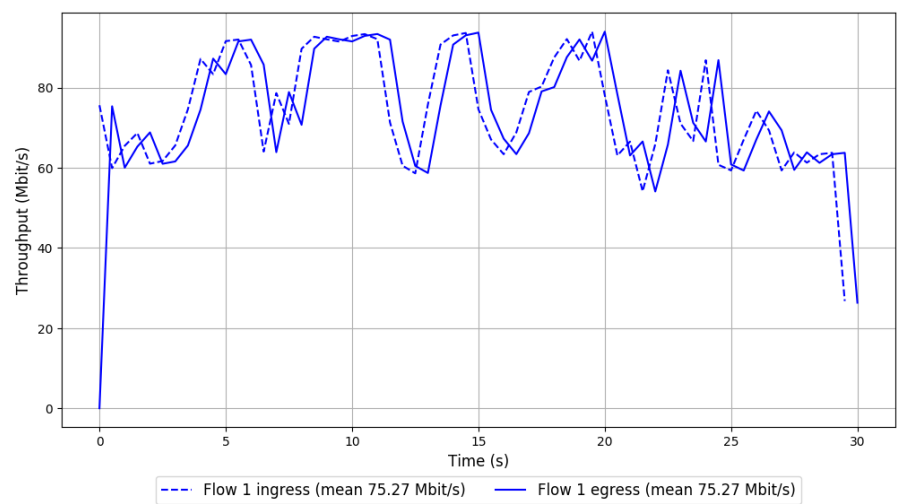
-- Flow 1:

Average throughput: 75.27 Mbit/s

95th percentile per-packet one-way delay: 2.544 ms

Loss rate: 0.02%

Run 5: Report of Muses\_DecisionTree — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 06:19:50

End at: 2019-06-28 06:20:20

Local clock offset: -8.168 ms

Remote clock offset: 0.048 ms

# Below is generated by plot.py at 2019-06-28 08:12:06

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.31 Mbit/s

95th percentile per-packet one-way delay: 2.312 ms

Loss rate: 0.02%

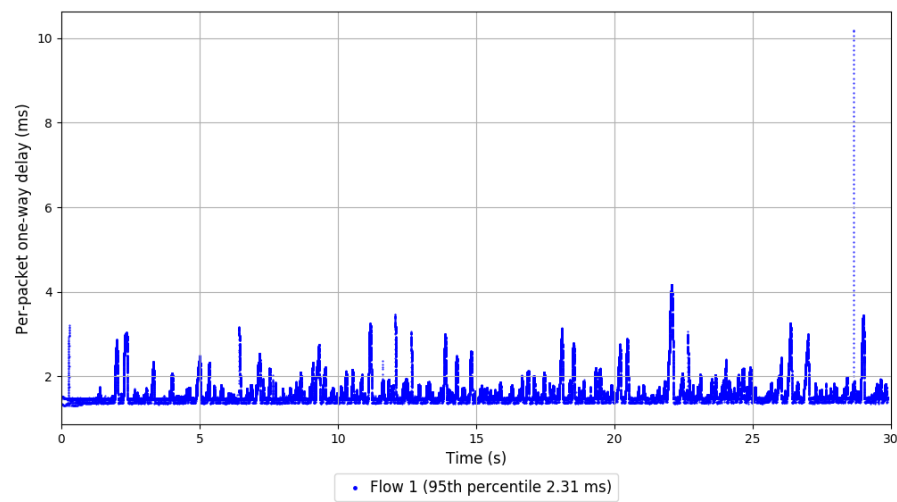
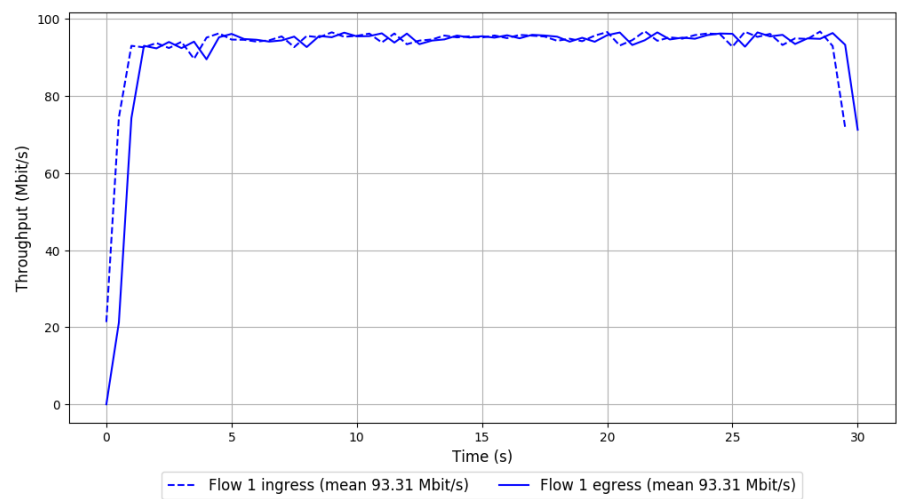
-- Flow 1:

Average throughput: 93.31 Mbit/s

95th percentile per-packet one-way delay: 2.312 ms

Loss rate: 0.02%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 06:44:41

End at: 2019-06-28 06:45:11

Local clock offset: -8.467 ms

Remote clock offset: 0.398 ms

# Below is generated by plot.py at 2019-06-28 08:12:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.92 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.02%

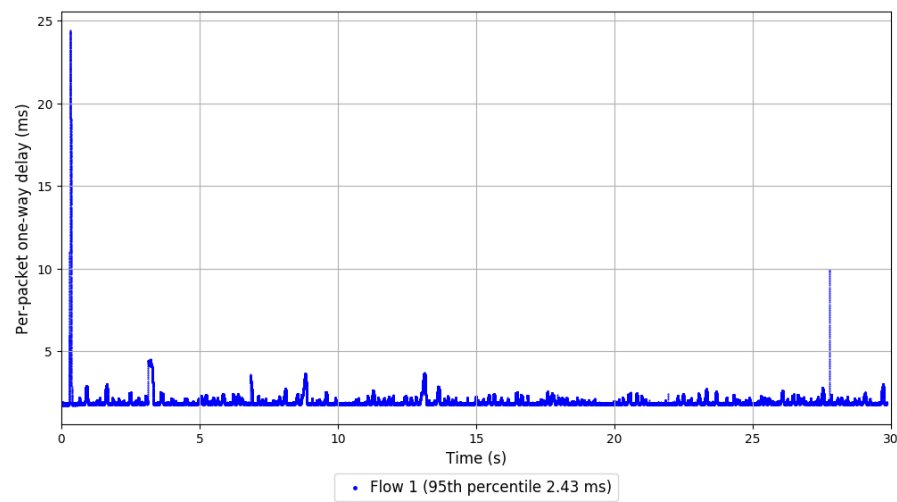
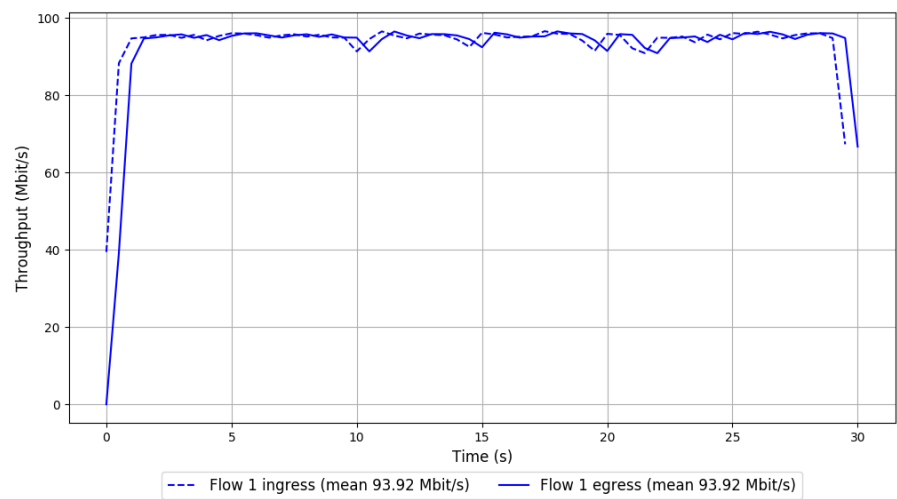
-- Flow 1:

Average throughput: 93.92 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.02%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 07:09:30

End at: 2019-06-28 07:10:00

Local clock offset: -5.403 ms

Remote clock offset: 0.611 ms

# Below is generated by plot.py at 2019-06-28 08:12:22

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.33 Mbit/s

95th percentile per-packet one-way delay: 3.010 ms

Loss rate: 0.02%

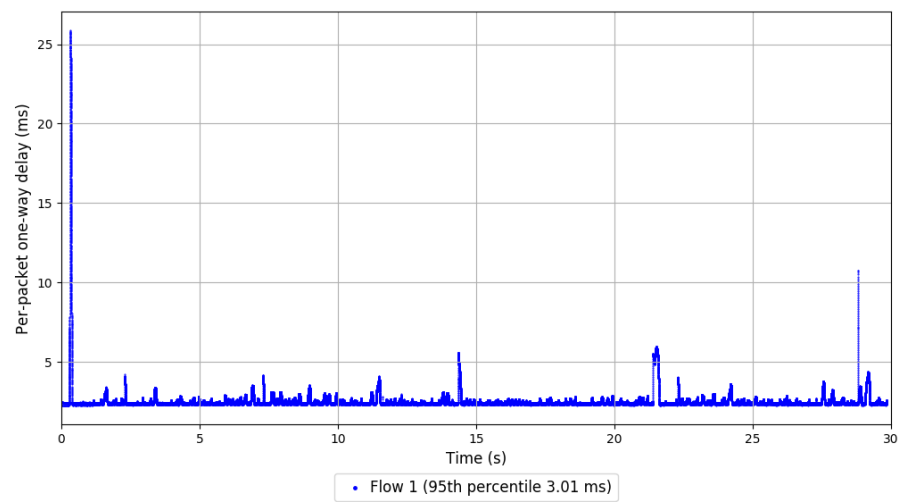
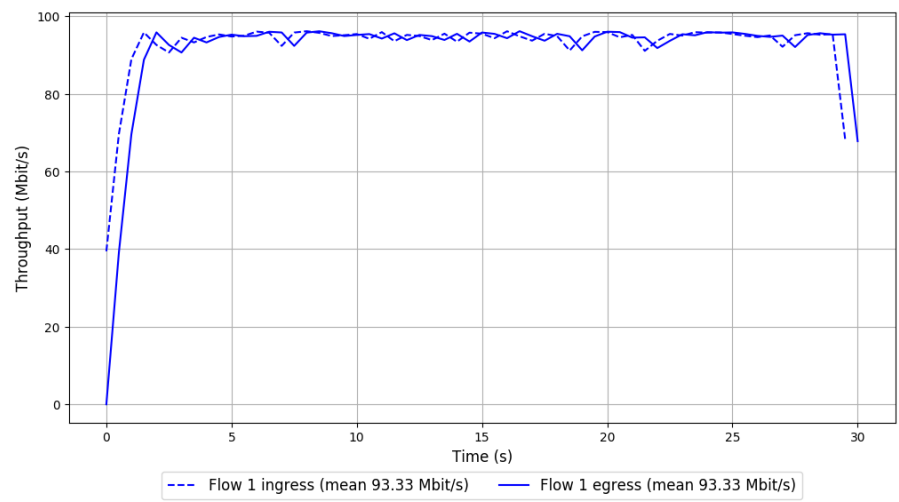
-- Flow 1:

Average throughput: 93.33 Mbit/s

95th percentile per-packet one-way delay: 3.010 ms

Loss rate: 0.02%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 07:34:20

End at: 2019-06-28 07:34:50

Local clock offset: -6.994 ms

Remote clock offset: 0.706 ms

# Below is generated by plot.py at 2019-06-28 08:12:25

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 2.607 ms

Loss rate: 0.02%

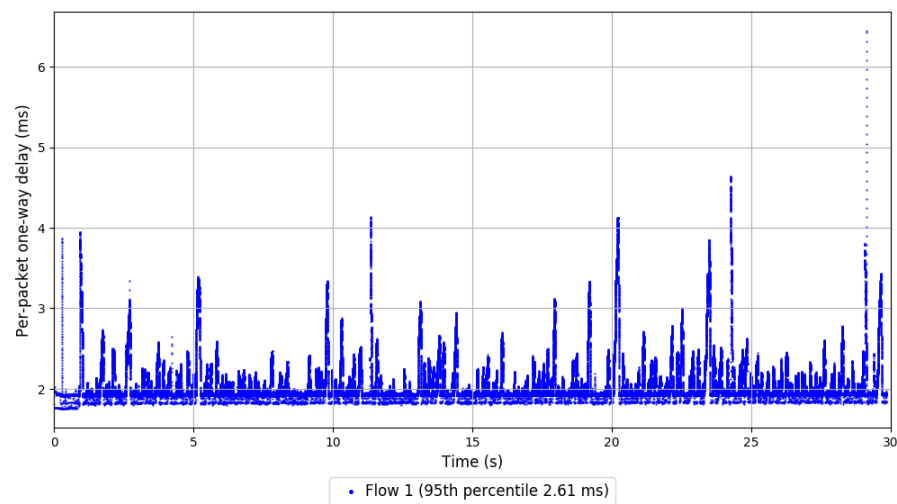
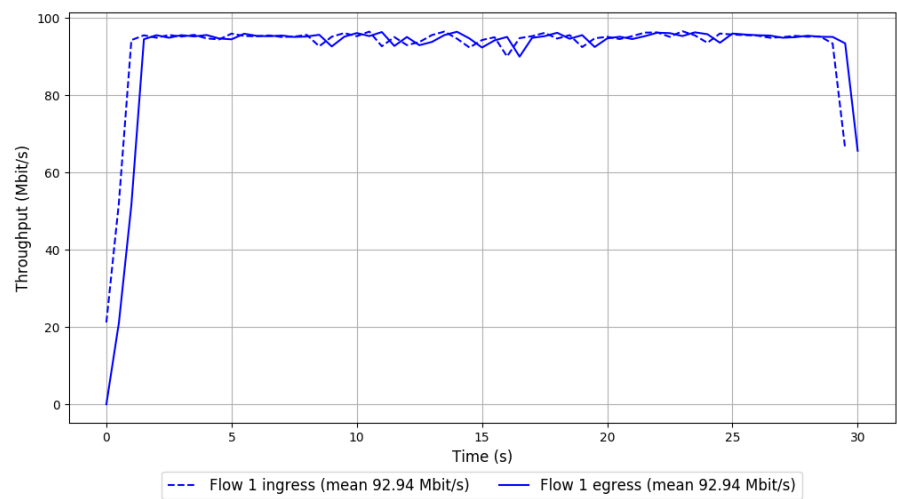
-- Flow 1:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 2.607 ms

Loss rate: 0.02%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 07:59:13

End at: 2019-06-28 07:59:43

Local clock offset: -6.551 ms

Remote clock offset: 0.899 ms

# Below is generated by plot.py at 2019-06-28 08:12:35

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.13 Mbit/s

95th percentile per-packet one-way delay: 2.196 ms

Loss rate: 0.02%

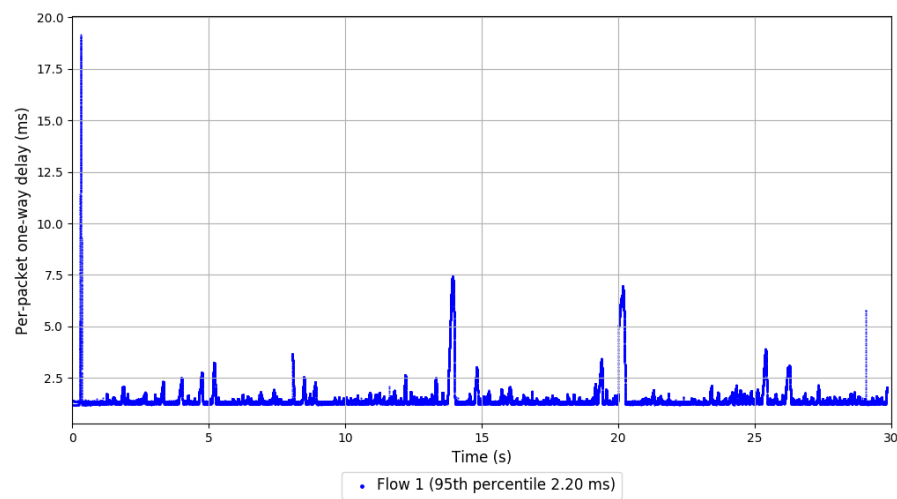
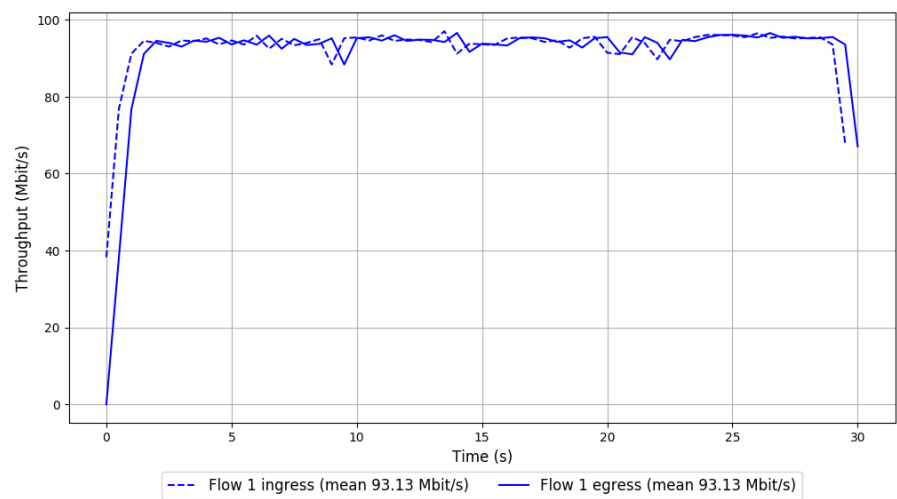
-- Flow 1:

Average throughput: 93.13 Mbit/s

95th percentile per-packet one-way delay: 2.196 ms

Loss rate: 0.02%

Run 5: Report of PCC-Allegro — Data Link

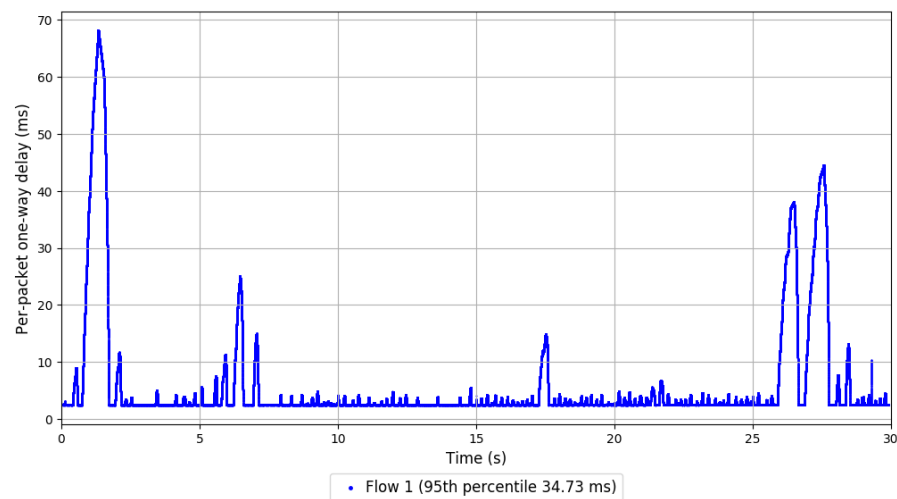
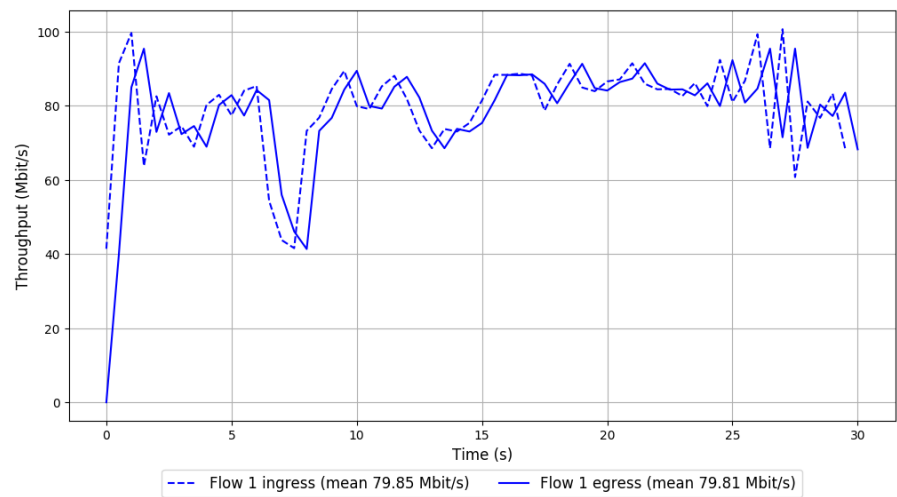


Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 06:10:45  
End at: 2019-06-28 06:11:15  
Local clock offset: -6.982 ms  
Remote clock offset: -0.052 ms

# Below is generated by plot.py at 2019-06-28 08:13:19  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 79.81 Mbit/s  
95th percentile per-packet one-way delay: 34.726 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 79.81 Mbit/s  
95th percentile per-packet one-way delay: 34.726 ms  
Loss rate: 0.07%

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 06:35:30

End at: 2019-06-28 06:36:00

Local clock offset: -7.407 ms

Remote clock offset: 0.378 ms

# Below is generated by plot.py at 2019-06-28 08:13:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.94 Mbit/s

95th percentile per-packet one-way delay: 638.133 ms

Loss rate: 4.86%

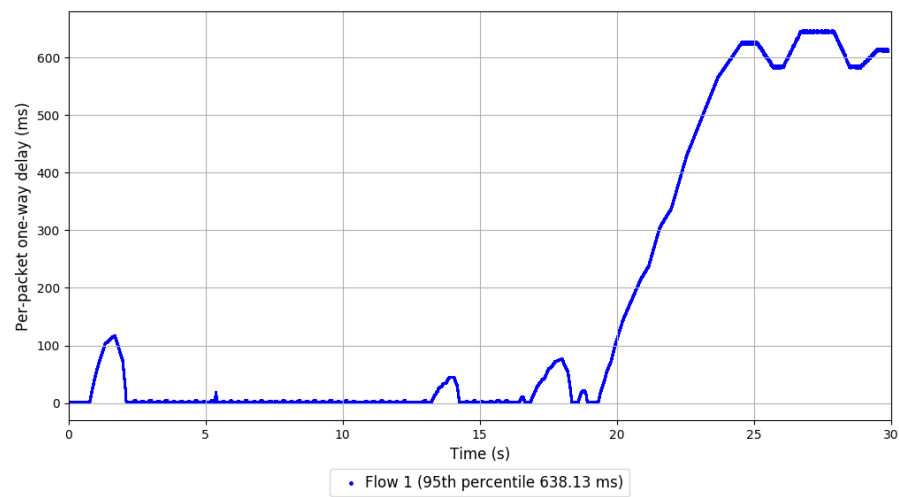
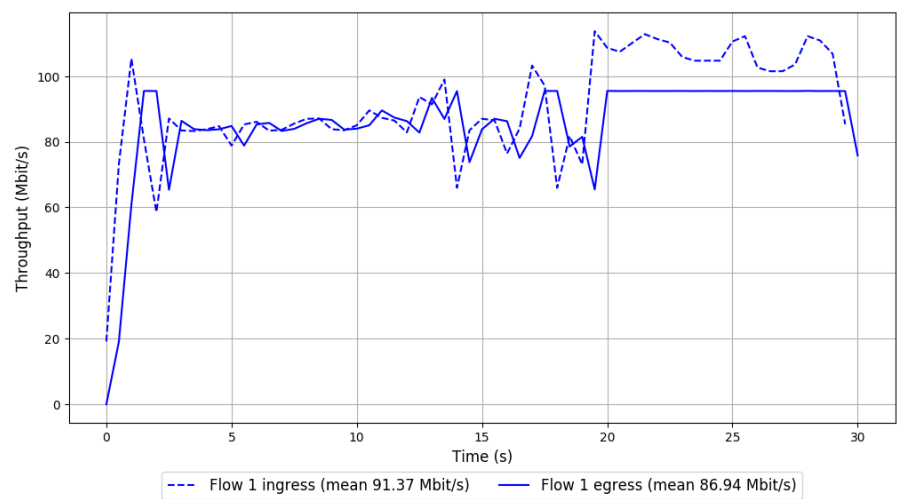
-- Flow 1:

Average throughput: 86.94 Mbit/s

95th percentile per-packet one-way delay: 638.133 ms

Loss rate: 4.86%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 07:00:21

End at: 2019-06-28 07:00:51

Local clock offset: -5.86 ms

Remote clock offset: 0.54 ms

# Below is generated by plot.py at 2019-06-28 08:13:47

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 647.200 ms

Loss rate: 3.83%

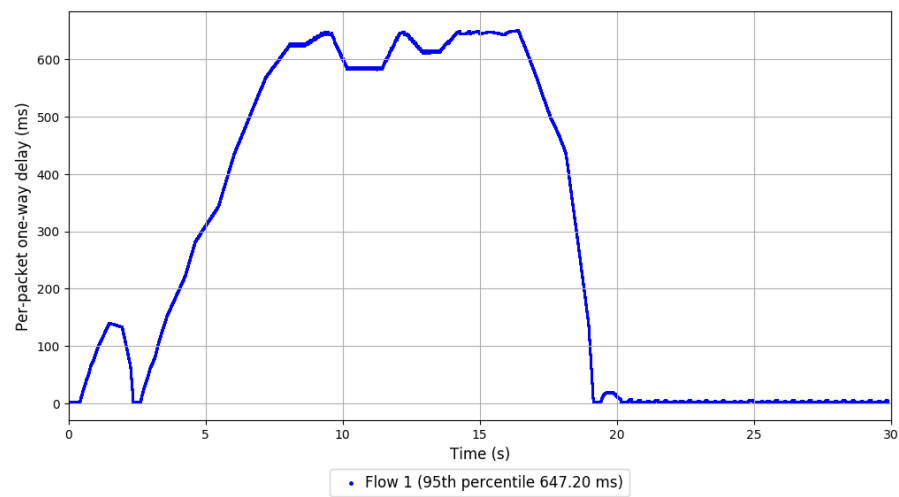
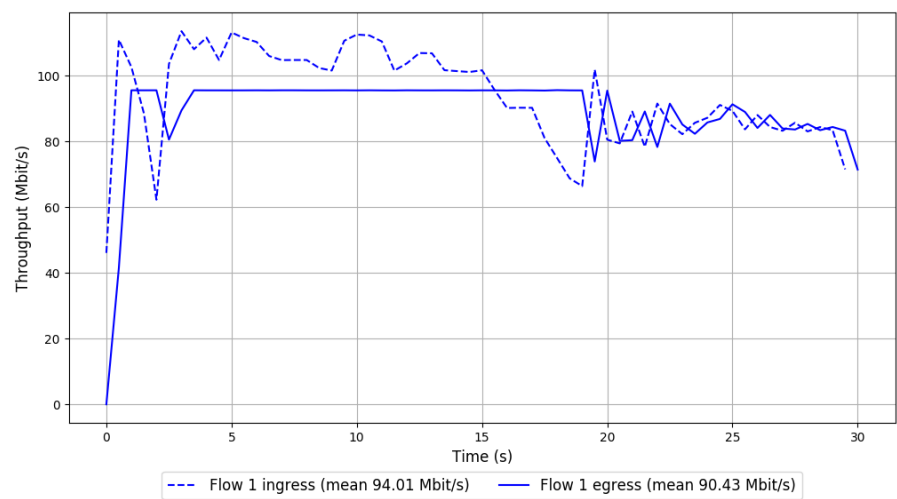
-- Flow 1:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 647.200 ms

Loss rate: 3.83%

Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 07:25:12

End at: 2019-06-28 07:25:42

Local clock offset: -6.757 ms

Remote clock offset: 0.708 ms

# Below is generated by plot.py at 2019-06-28 08:14:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.21 Mbit/s

95th percentile per-packet one-way delay: 635.930 ms

Loss rate: 4.80%

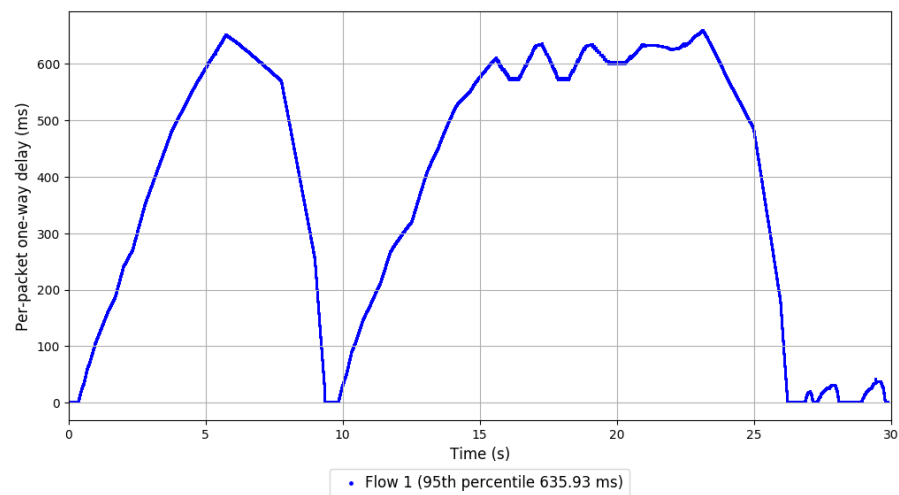
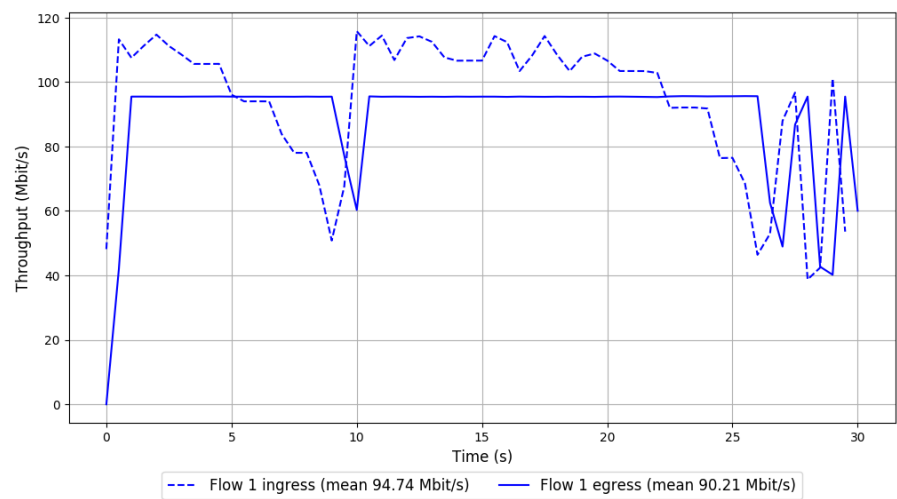
-- Flow 1:

Average throughput: 90.21 Mbit/s

95th percentile per-packet one-way delay: 635.930 ms

Loss rate: 4.80%

Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 07:49:59

End at: 2019-06-28 07:50:30

Local clock offset: -5.967 ms

Remote clock offset: 0.923 ms

# Below is generated by plot.py at 2019-06-28 08:14:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 640.878 ms

Loss rate: 8.69%

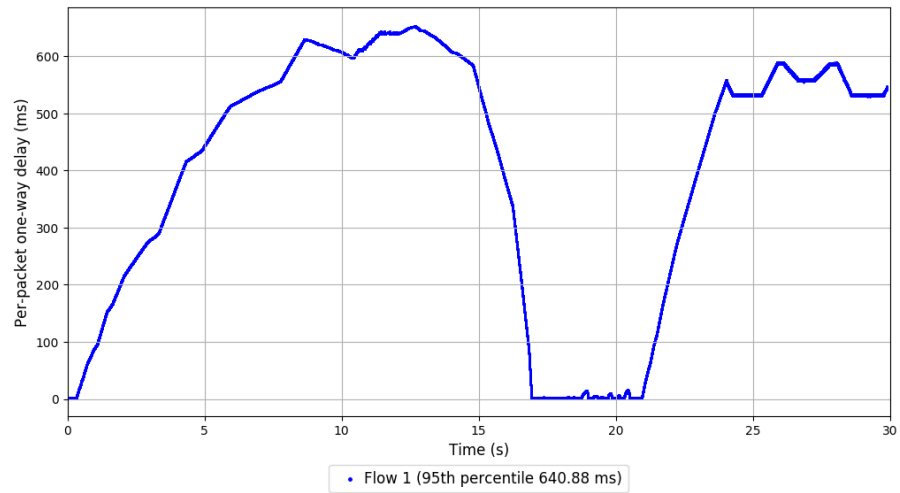
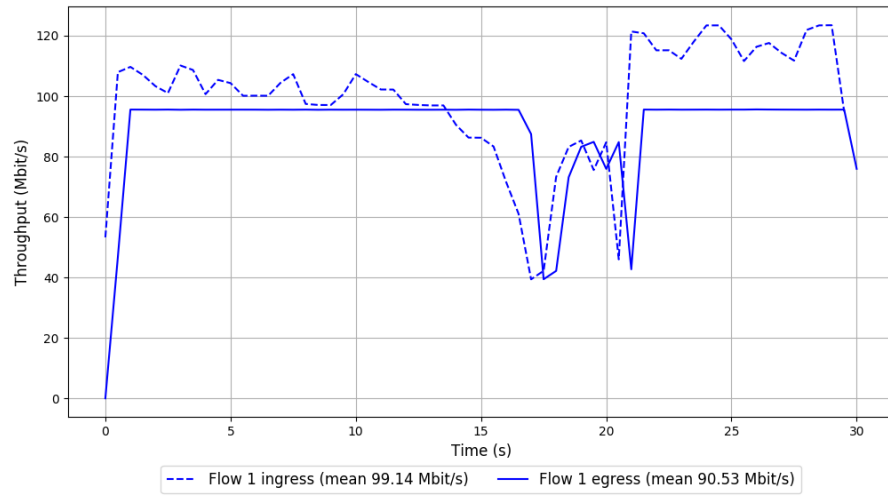
-- Flow 1:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 640.878 ms

Loss rate: 8.69%

## Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 06:15:23

End at: 2019-06-28 06:15:53

Local clock offset: -8.078 ms

Remote clock offset: 0.113 ms

# Below is generated by plot.py at 2019-06-28 08:14:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.72 Mbit/s

95th percentile per-packet one-way delay: 8.272 ms

Loss rate: 0.02%

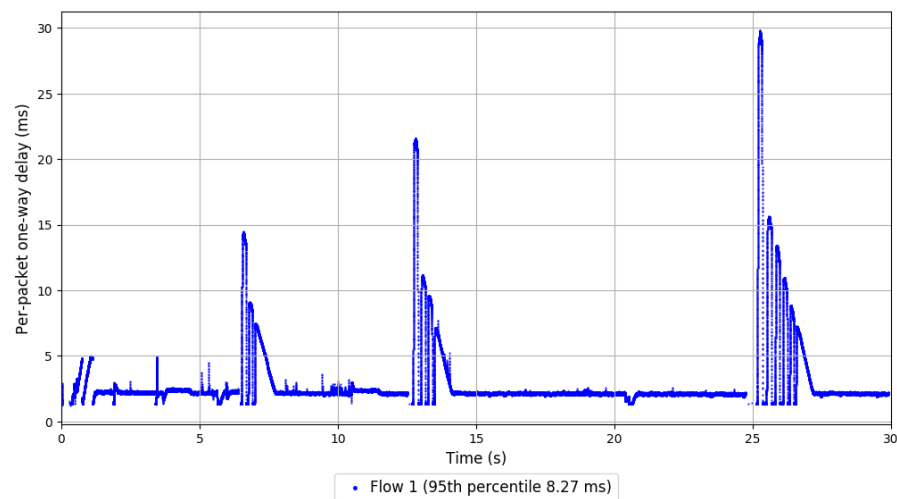
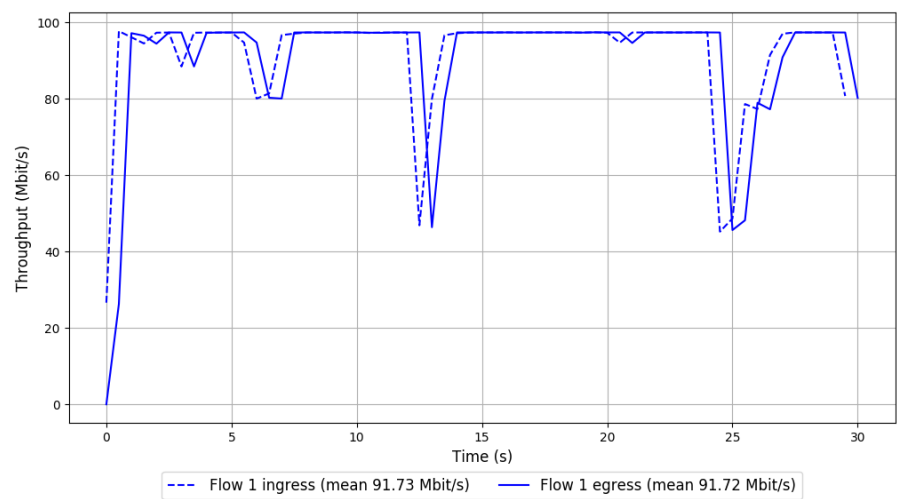
-- Flow 1:

Average throughput: 91.72 Mbit/s

95th percentile per-packet one-way delay: 8.272 ms

Loss rate: 0.02%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 06:40:10

End at: 2019-06-28 06:40:40

Local clock offset: -8.249 ms

Remote clock offset: 0.414 ms

# Below is generated by plot.py at 2019-06-28 08:14:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 7.662 ms

Loss rate: 0.02%

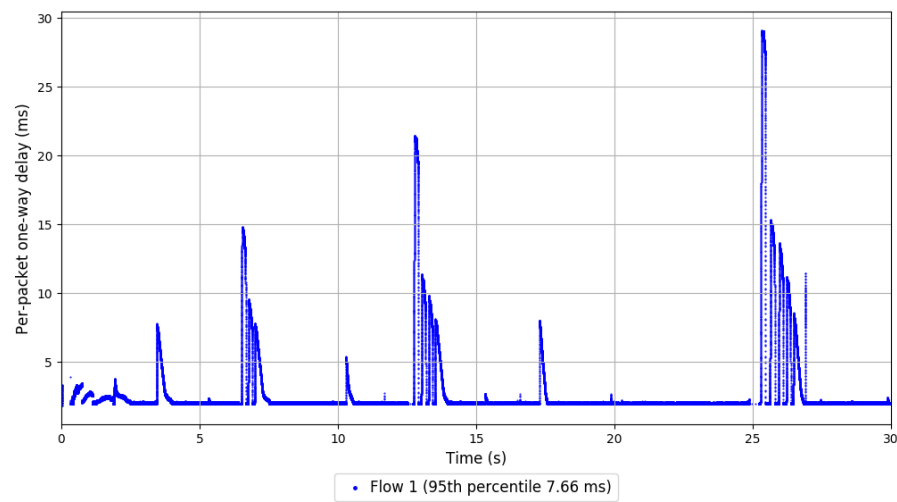
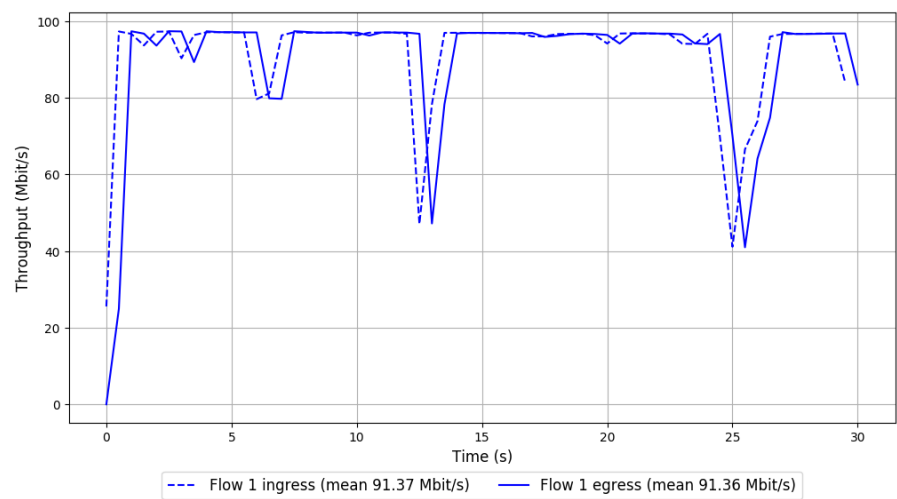
-- Flow 1:

Average throughput: 91.36 Mbit/s

95th percentile per-packet one-way delay: 7.662 ms

Loss rate: 0.02%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 07:05:00

End at: 2019-06-28 07:05:30

Local clock offset: -5.816 ms

Remote clock offset: 0.551 ms

# Below is generated by plot.py at 2019-06-28 08:14:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.48 Mbit/s

95th percentile per-packet one-way delay: 8.738 ms

Loss rate: 0.02%

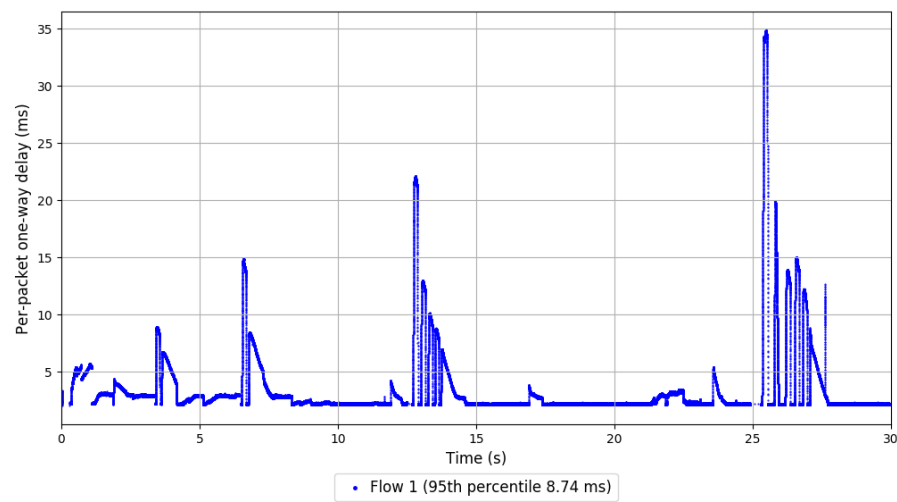
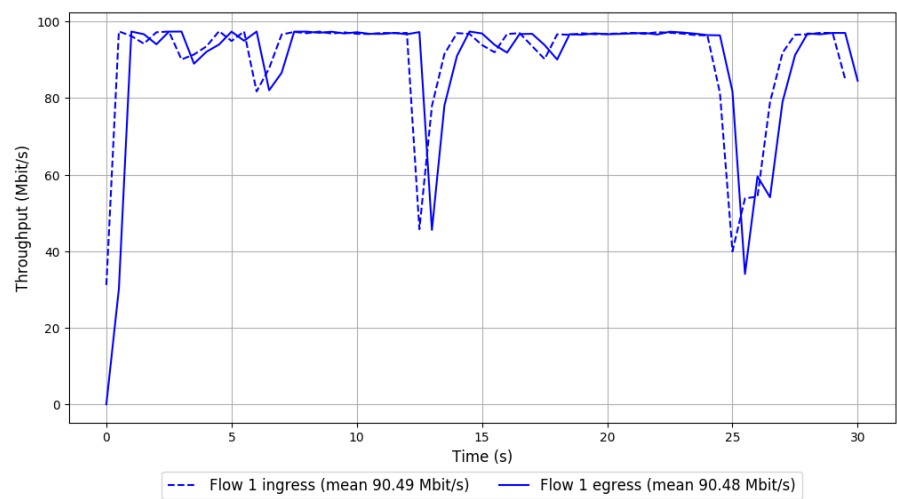
-- Flow 1:

Average throughput: 90.48 Mbit/s

95th percentile per-packet one-way delay: 8.738 ms

Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 07:29:51

End at: 2019-06-28 07:30:21

Local clock offset: -6.192 ms

Remote clock offset: 0.729 ms

# Below is generated by plot.py at 2019-06-28 08:14:33

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.94 Mbit/s

95th percentile per-packet one-way delay: 8.108 ms

Loss rate: 0.02%

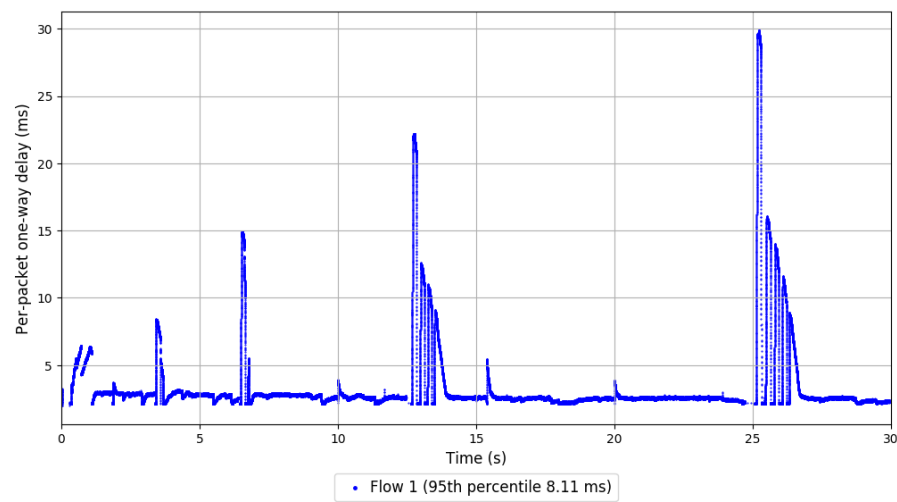
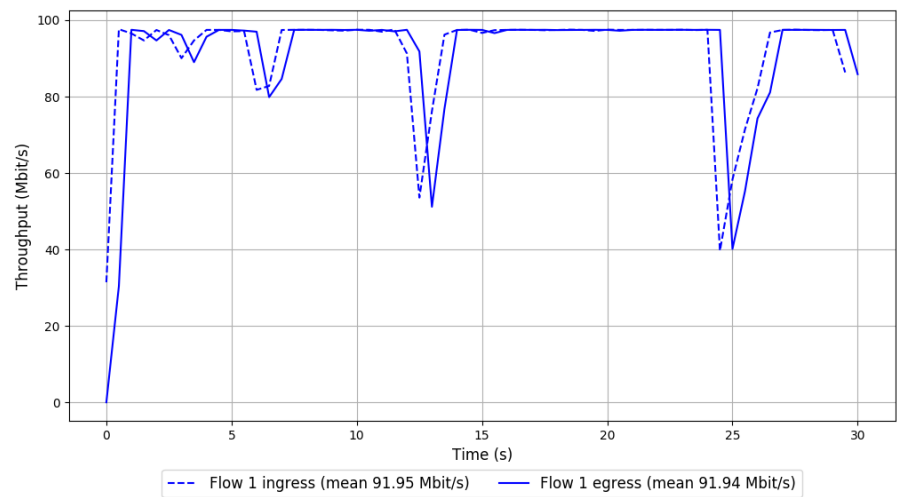
-- Flow 1:

Average throughput: 91.94 Mbit/s

95th percentile per-packet one-way delay: 8.108 ms

Loss rate: 0.02%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 07:54:40

End at: 2019-06-28 07:55:10

Local clock offset: -5.674 ms

Remote clock offset: 0.93 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 8.377 ms

Loss rate: 0.02%

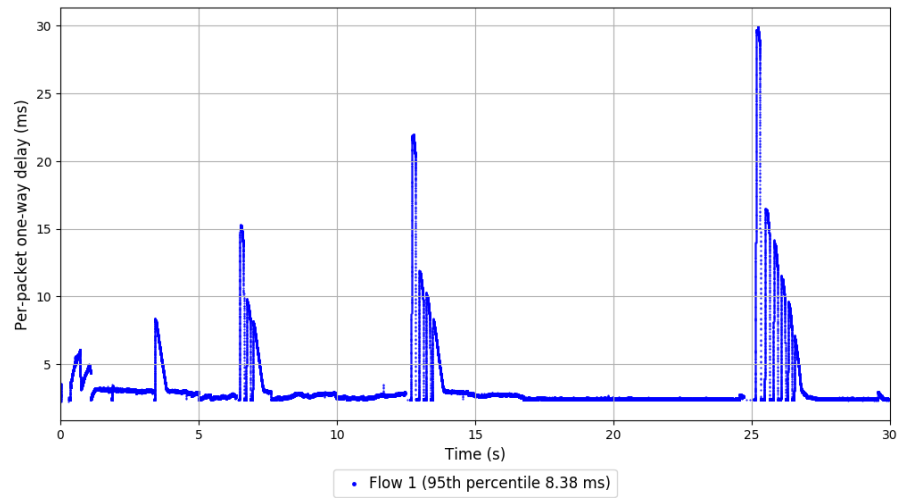
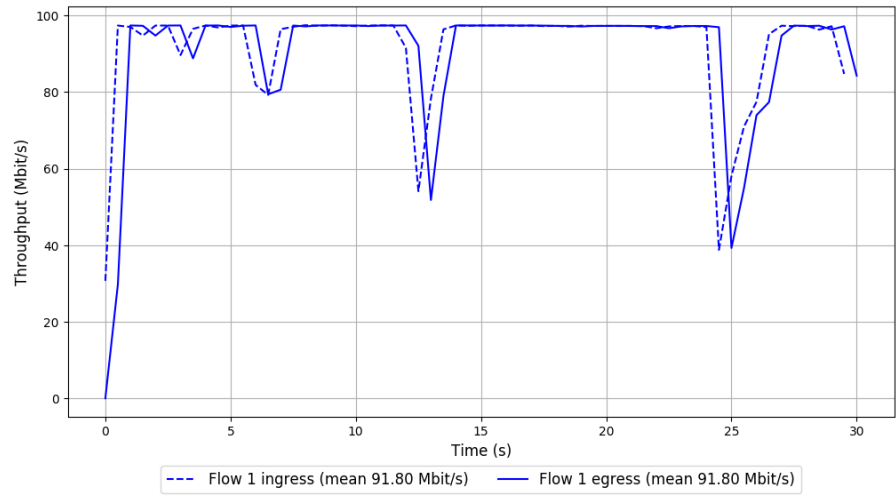
-- Flow 1:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 8.377 ms

Loss rate: 0.02%

### Run 5: Report of QUIC Cubic — Data Link

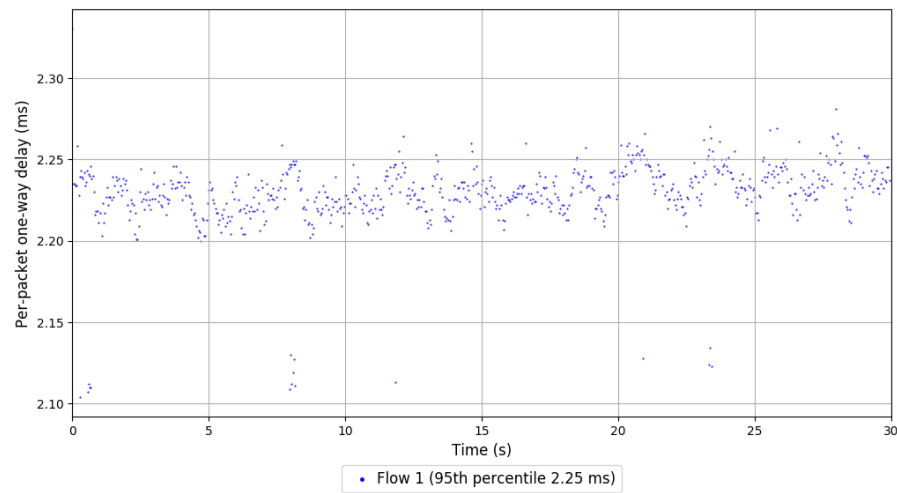
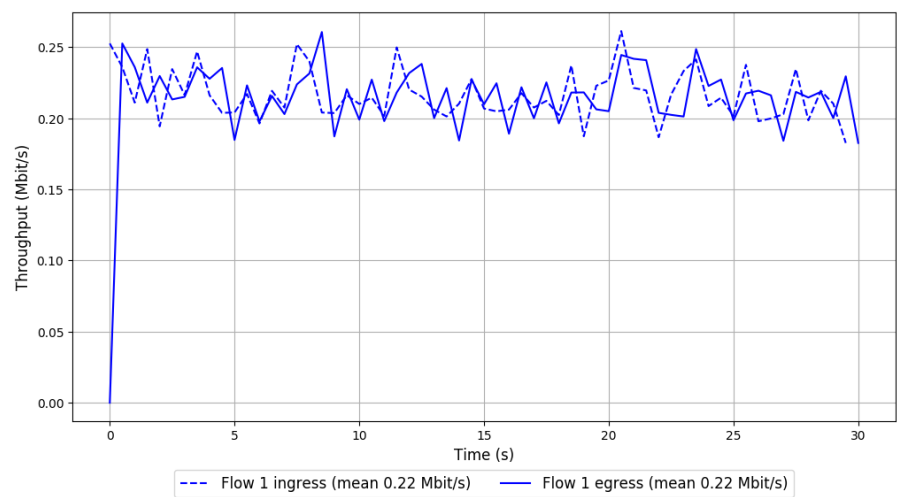


Run 1: Statistics of SCReAM

Start at: 2019-06-28 06:04:02  
End at: 2019-06-28 06:04:32  
Local clock offset: -7.032 ms  
Remote clock offset: -0.115 ms

# Below is generated by plot.py at 2019-06-28 08:14:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.253 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 2.253 ms  
Loss rate: 0.00%

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2019-06-28 06:28:48

End at: 2019-06-28 06:29:18

Local clock offset: -7.343 ms

Remote clock offset: 0.303 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.778 ms

Loss rate: 0.13%

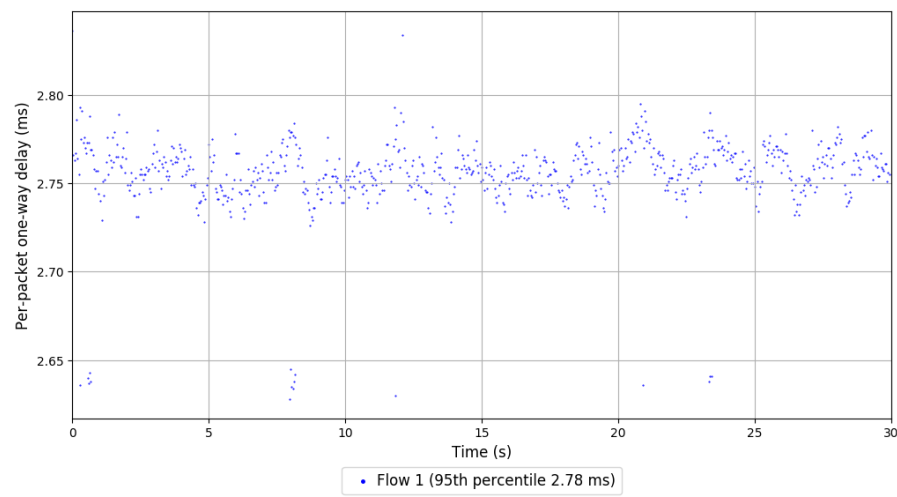
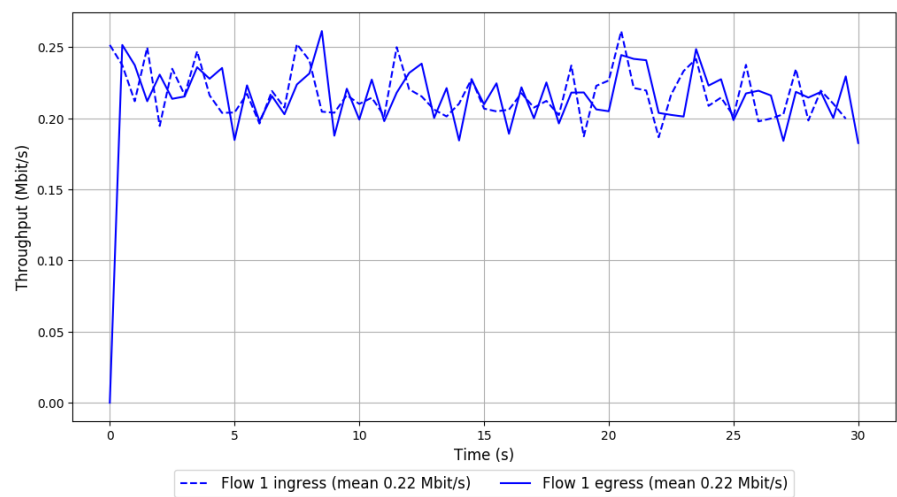
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 2.778 ms

Loss rate: 0.13%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2019-06-28 06:53:38

End at: 2019-06-28 06:54:08

Local clock offset: -7.334 ms

Remote clock offset: 0.444 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.577 ms

Loss rate: 0.00%

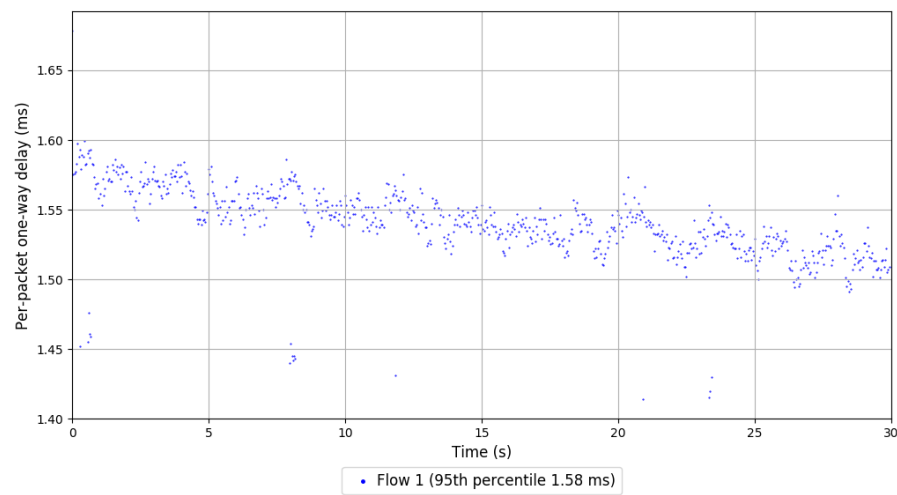
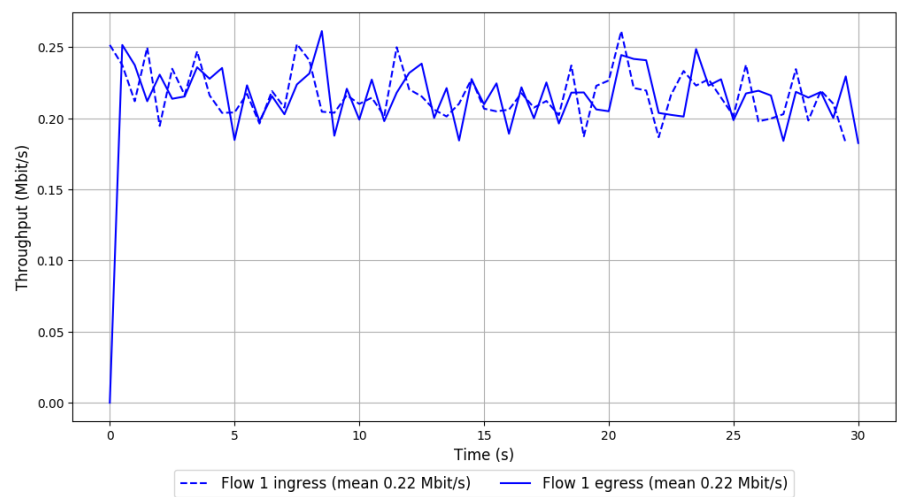
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.577 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2019-06-28 07:18:29

End at: 2019-06-28 07:18:59

Local clock offset: -6.012 ms

Remote clock offset: 0.625 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.799 ms

Loss rate: 0.00%

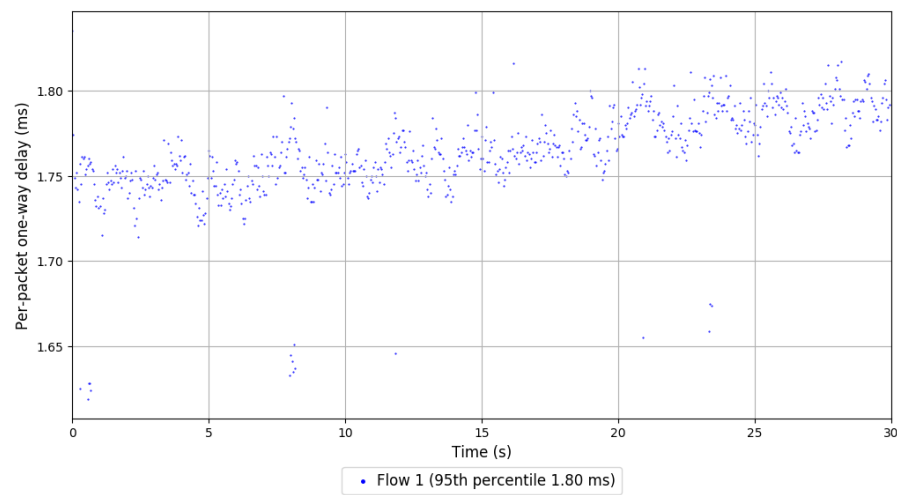
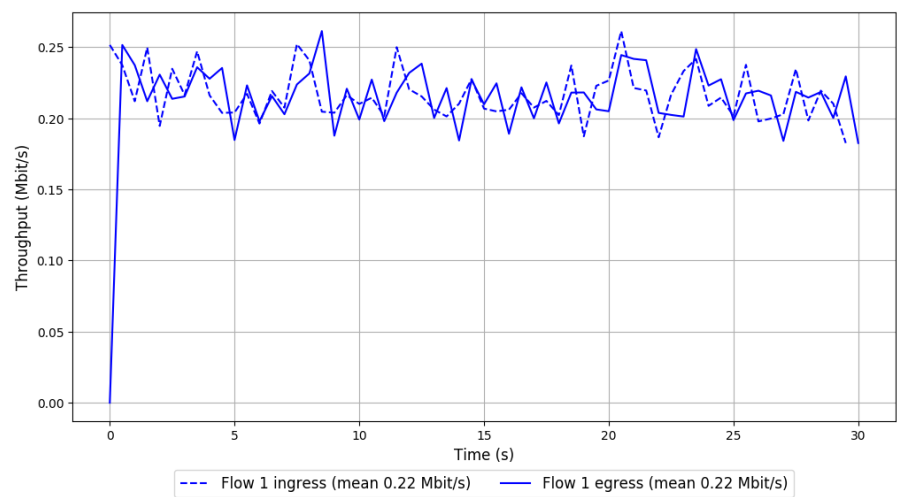
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.799 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-06-28 07:43:17

End at: 2019-06-28 07:43:47

Local clock offset: -7.035 ms

Remote clock offset: 0.792 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.501 ms

Loss rate: 0.00%

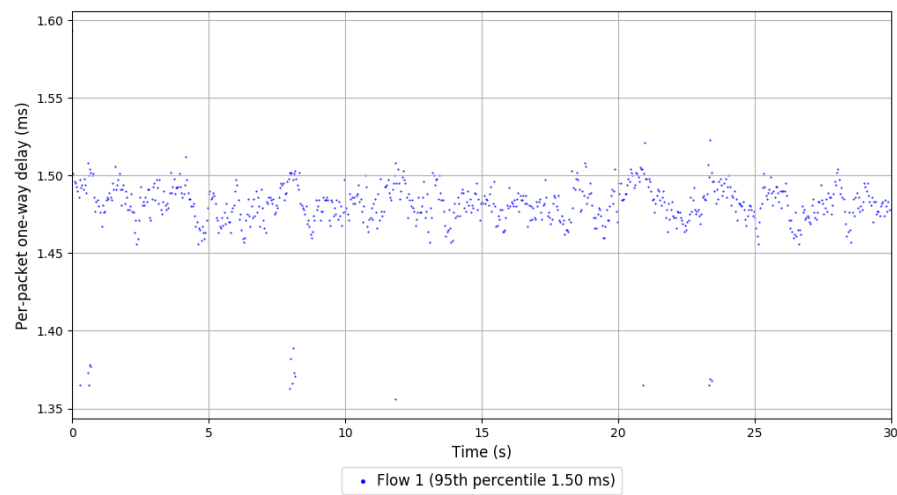
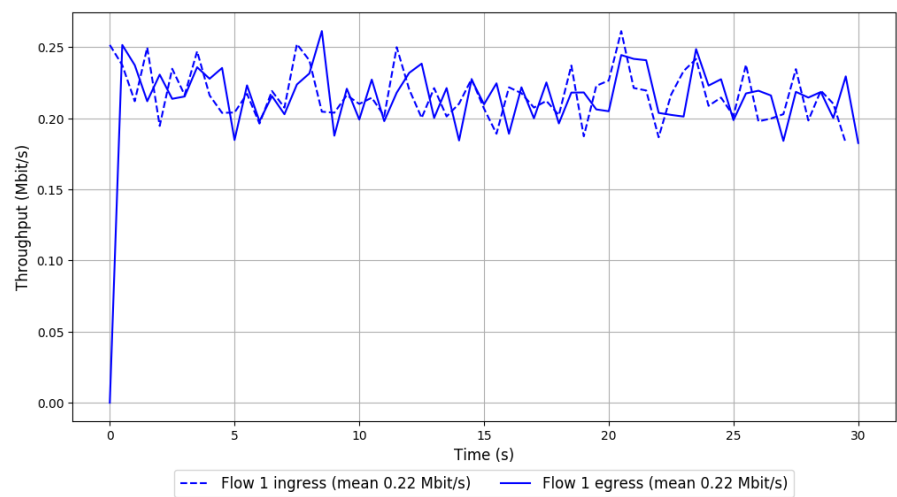
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 1.501 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link

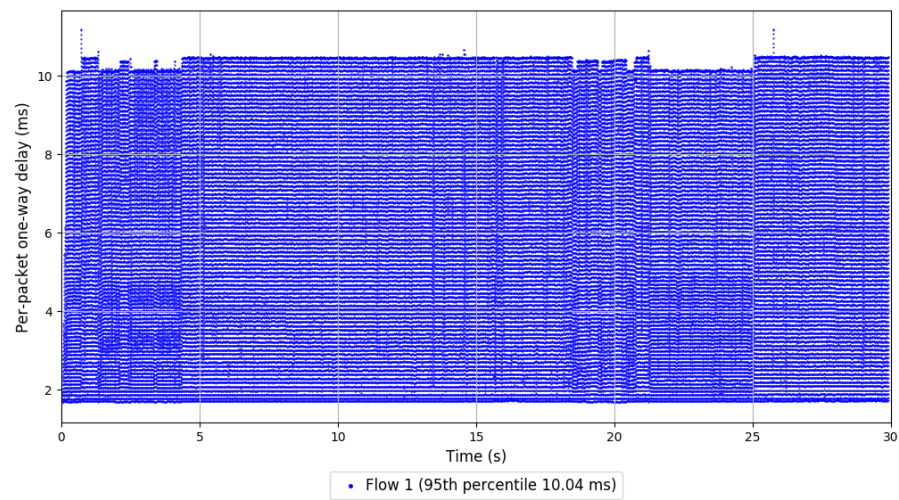
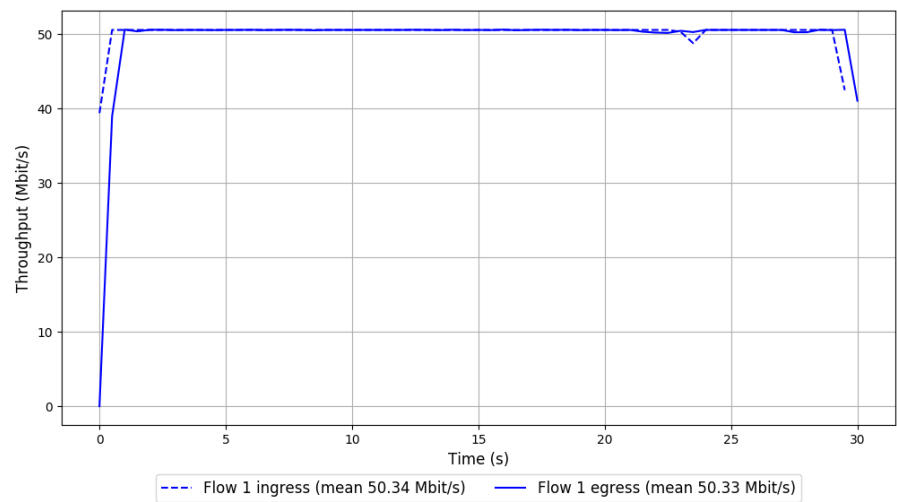


Run 1: Statistics of Sprout

Start at: 2019-06-28 06:06:16  
End at: 2019-06-28 06:06:46  
Local clock offset: -7.654 ms  
Remote clock offset: -0.084 ms

# Below is generated by plot.py at 2019-06-28 08:14:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 50.33 Mbit/s  
95th percentile per-packet one-way delay: 10.042 ms  
Loss rate: 0.07%  
-- Flow 1:  
Average throughput: 50.33 Mbit/s  
95th percentile per-packet one-way delay: 10.042 ms  
Loss rate: 0.07%

Run 1: Report of Sprout — Data Link

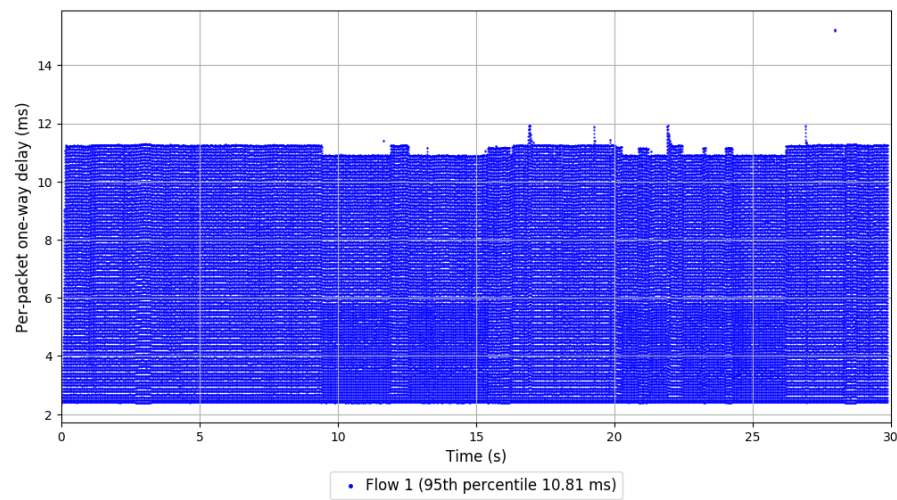
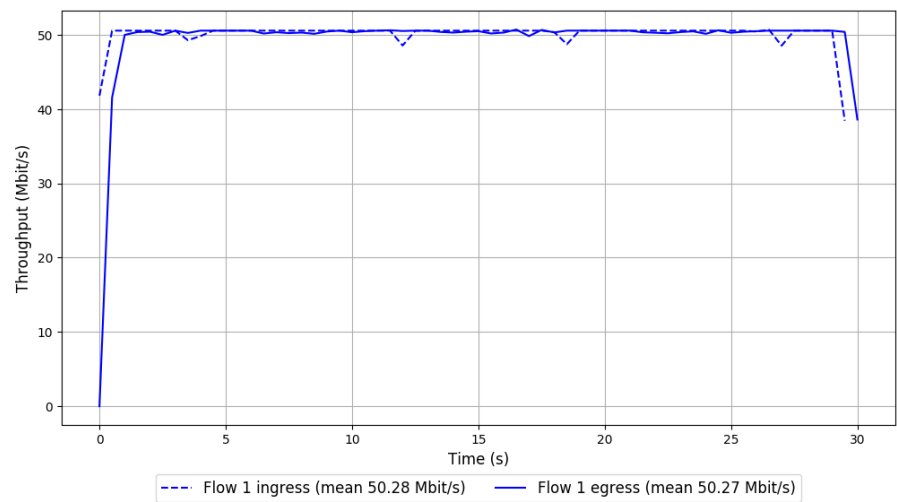


Run 2: Statistics of Sprout

Start at: 2019-06-28 06:31:01  
End at: 2019-06-28 06:31:31  
Local clock offset: -7.292 ms  
Remote clock offset: 0.331 ms

# Below is generated by plot.py at 2019-06-28 08:14:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 50.27 Mbit/s  
95th percentile per-packet one-way delay: 10.810 ms  
Loss rate: 0.00%  
-- Flow 1:  
Average throughput: 50.27 Mbit/s  
95th percentile per-packet one-way delay: 10.810 ms  
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

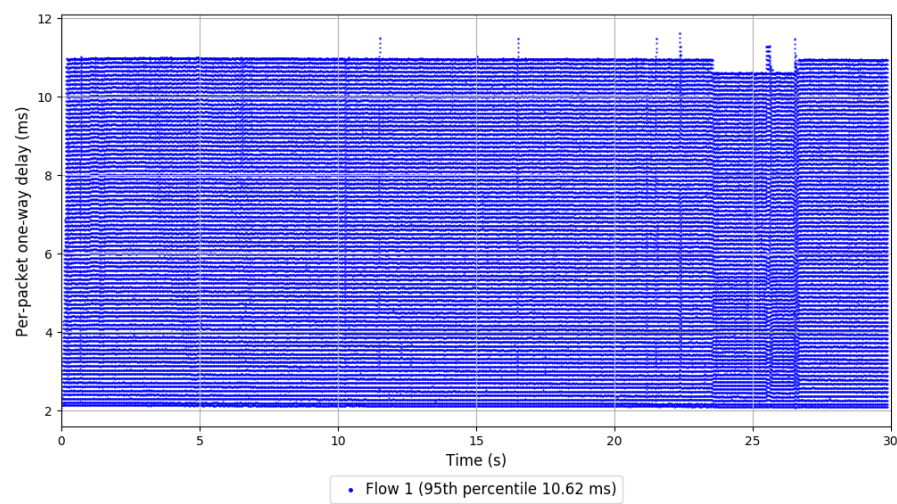
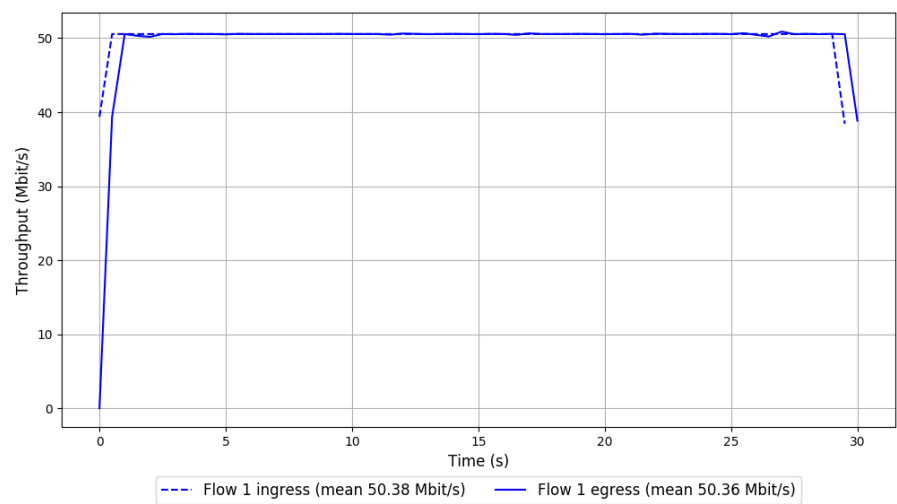


Run 3: Statistics of Sprout

Start at: 2019-06-28 06:55:52  
End at: 2019-06-28 06:56:22  
Local clock offset: -6.997 ms  
Remote clock offset: 0.485 ms

# Below is generated by plot.py at 2019-06-28 08:14:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 50.36 Mbit/s  
95th percentile per-packet one-way delay: 10.625 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 50.36 Mbit/s  
95th percentile per-packet one-way delay: 10.625 ms  
Loss rate: 0.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2019-06-28 07:20:43

End at: 2019-06-28 07:21:13

Local clock offset: -5.675 ms

Remote clock offset: 0.744 ms

# Below is generated by plot.py at 2019-06-28 08:14:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 50.44 Mbit/s

95th percentile per-packet one-way delay: 11.182 ms

Loss rate: 0.07%

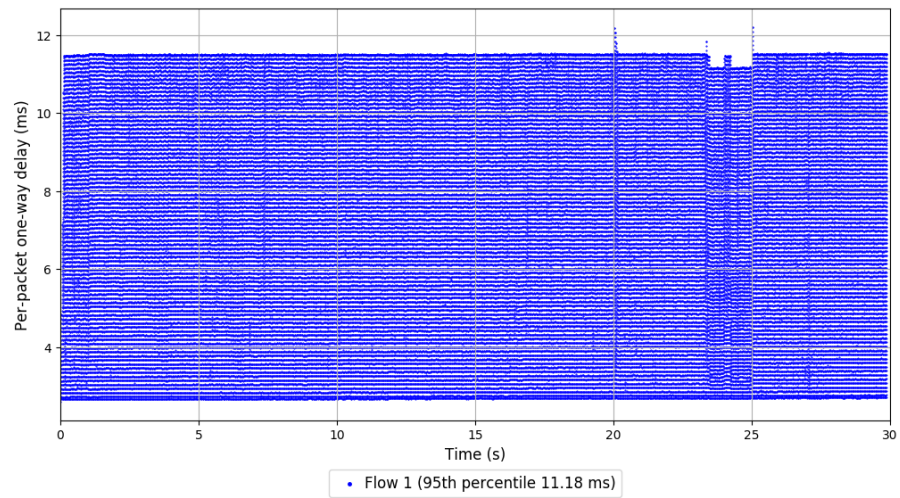
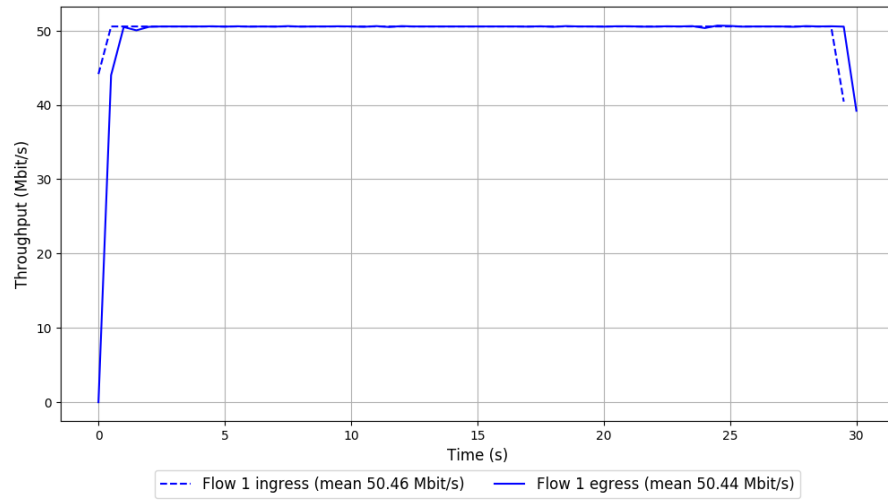
-- Flow 1:

Average throughput: 50.44 Mbit/s

95th percentile per-packet one-way delay: 11.182 ms

Loss rate: 0.07%

#### Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2019-06-28 07:45:31

End at: 2019-06-28 07:46:01

Local clock offset: -6.82 ms

Remote clock offset: 0.905 ms

# Below is generated by plot.py at 2019-06-28 08:14:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 10.600 ms

Loss rate: 0.04%

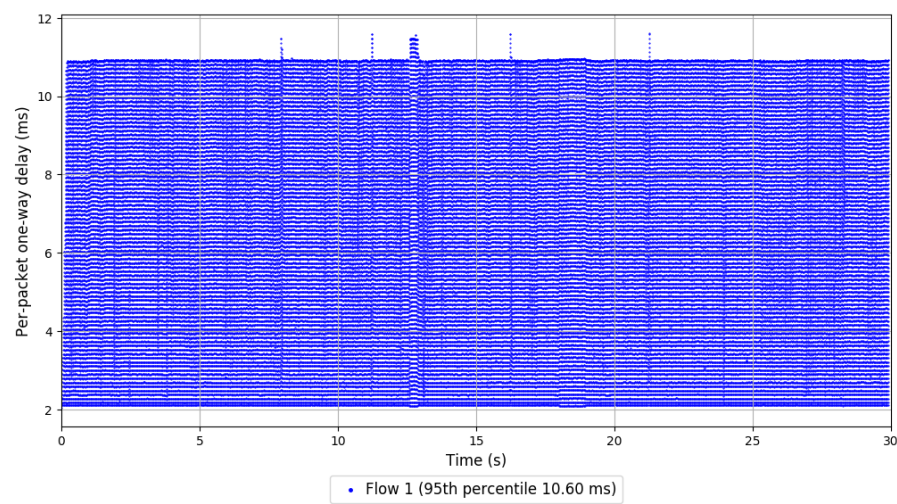
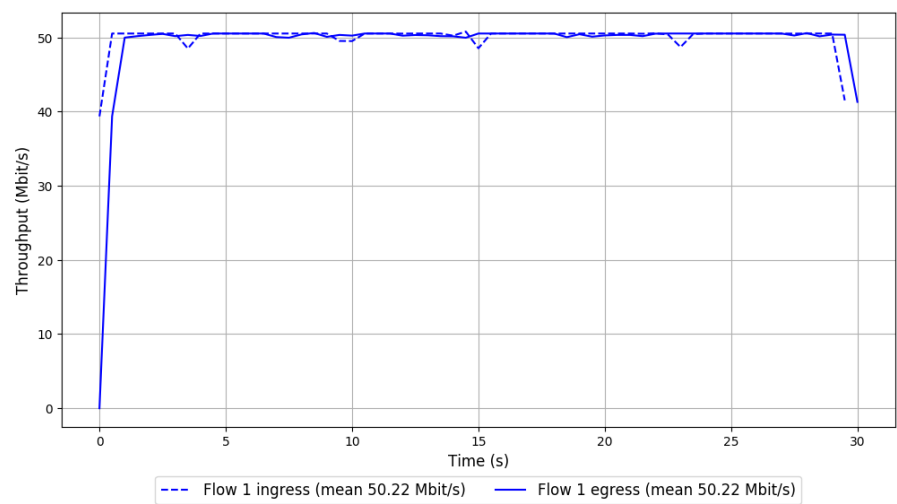
-- Flow 1:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 10.600 ms

Loss rate: 0.04%

Run 5: Report of Sprout — Data Link

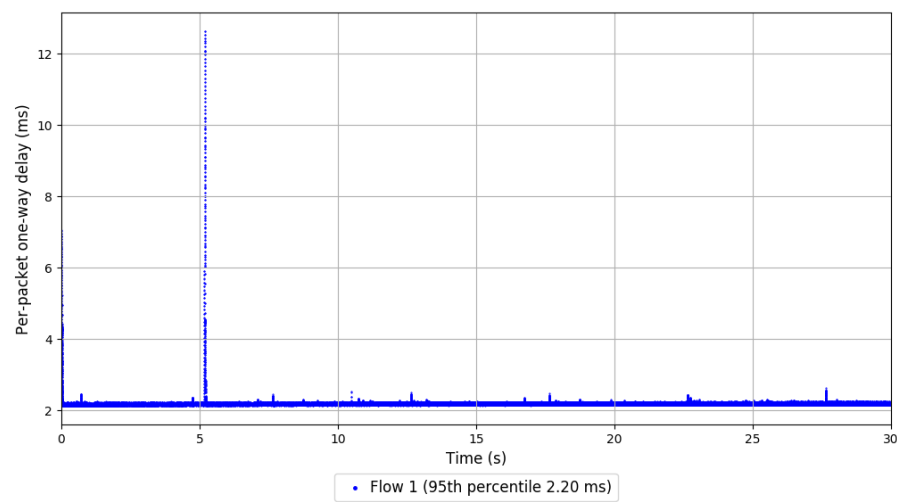
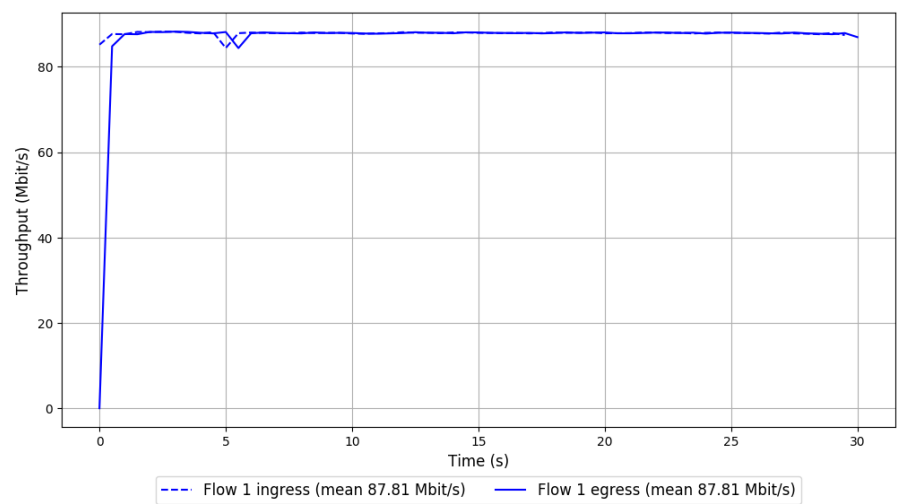


Run 1: Statistics of TaoVA-100x

Start at: 2019-06-28 05:59:32  
End at: 2019-06-28 06:00:02  
Local clock offset: -7.419 ms  
Remote clock offset: -0.172 ms

# Below is generated by plot.py at 2019-06-28 08:16:09  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 87.81 Mbit/s  
95th percentile per-packet one-way delay: 2.196 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 87.81 Mbit/s  
95th percentile per-packet one-way delay: 2.196 ms  
Loss rate: 0.02%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-06-28 06:24:17

End at: 2019-06-28 06:24:47

Local clock offset: -7.42 ms

Remote clock offset: 0.173 ms

# Below is generated by plot.py at 2019-06-28 08:16:11

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.53 Mbit/s

95th percentile per-packet one-way delay: 2.279 ms

Loss rate: 0.02%

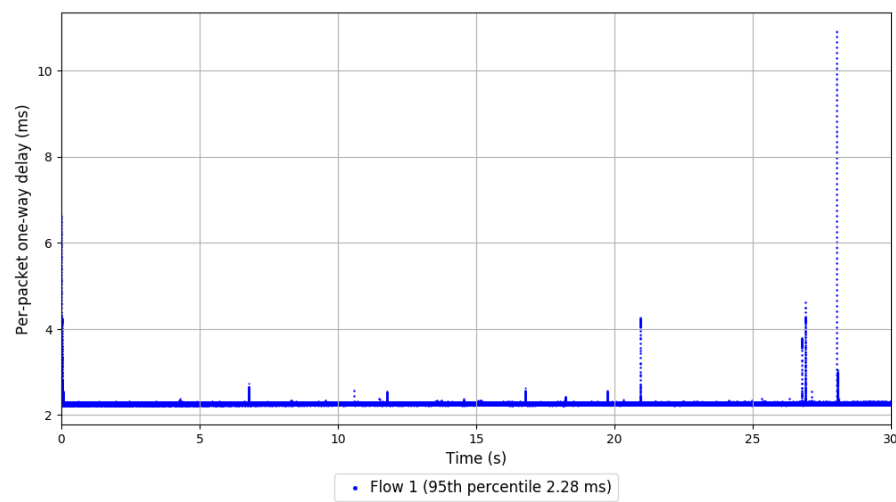
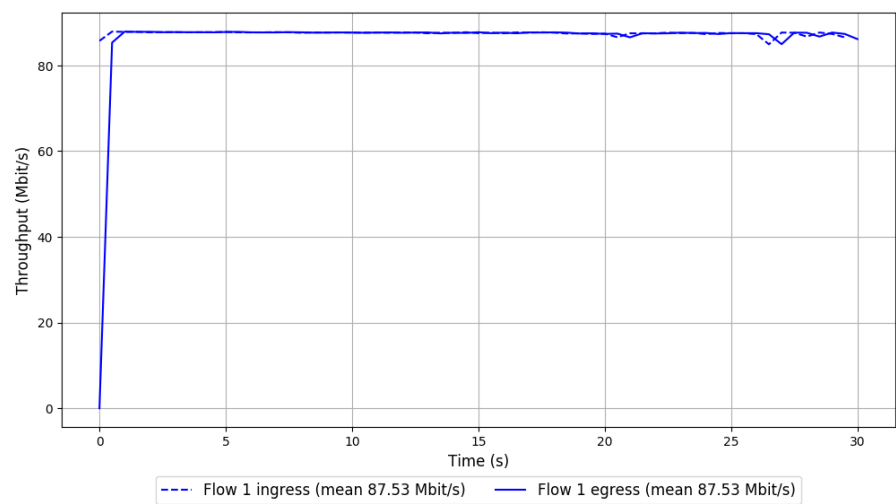
-- Flow 1:

Average throughput: 87.53 Mbit/s

95th percentile per-packet one-way delay: 2.279 ms

Loss rate: 0.02%

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



Run 3: Statistics of TaoVA-100x

Start at: 2019-06-28 06:49:08

End at: 2019-06-28 06:49:38

Local clock offset: -7.214 ms

Remote clock offset: 0.501 ms

# Below is generated by plot.py at 2019-06-28 08:16:19

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.79 Mbit/s

95th percentile per-packet one-way delay: 2.287 ms

Loss rate: 0.02%

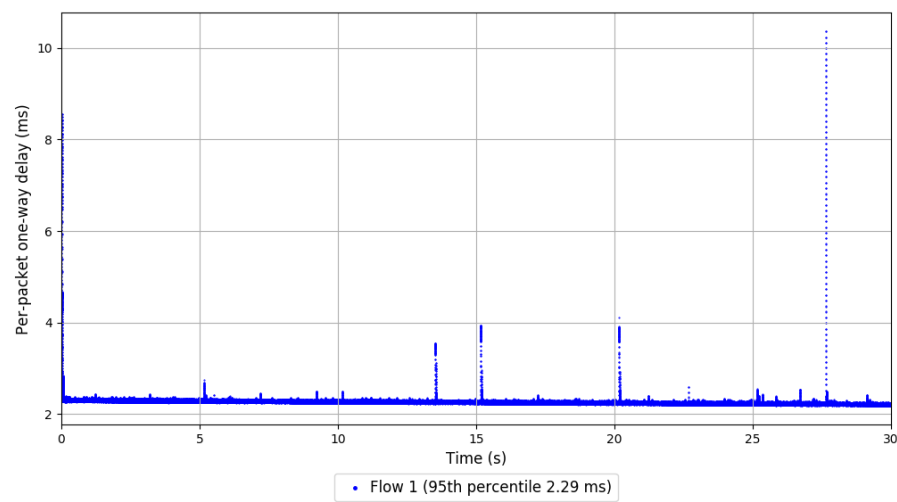
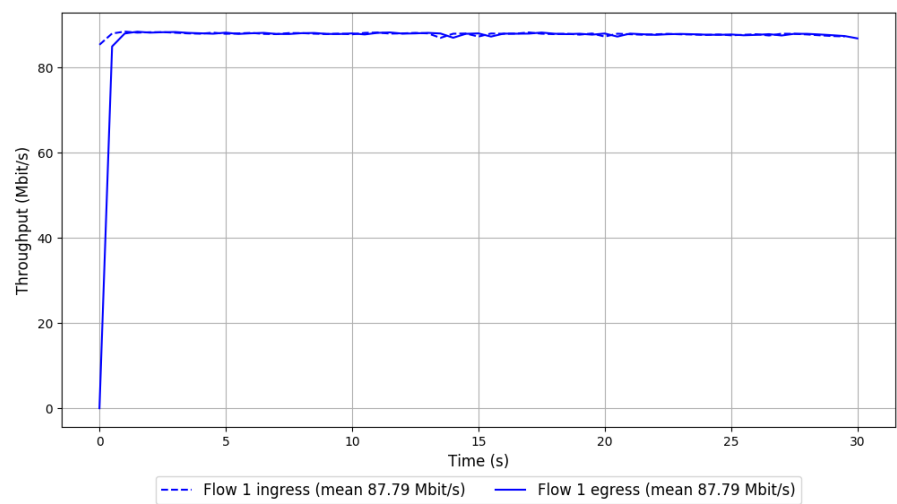
-- Flow 1:

Average throughput: 87.79 Mbit/s

95th percentile per-packet one-way delay: 2.287 ms

Loss rate: 0.02%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-06-28 07:13:57

End at: 2019-06-28 07:14:27

Local clock offset: -6.344 ms

Remote clock offset: 0.611 ms

# Below is generated by plot.py at 2019-06-28 08:16:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.28 Mbit/s

95th percentile per-packet one-way delay: 1.397 ms

Loss rate: 0.02%

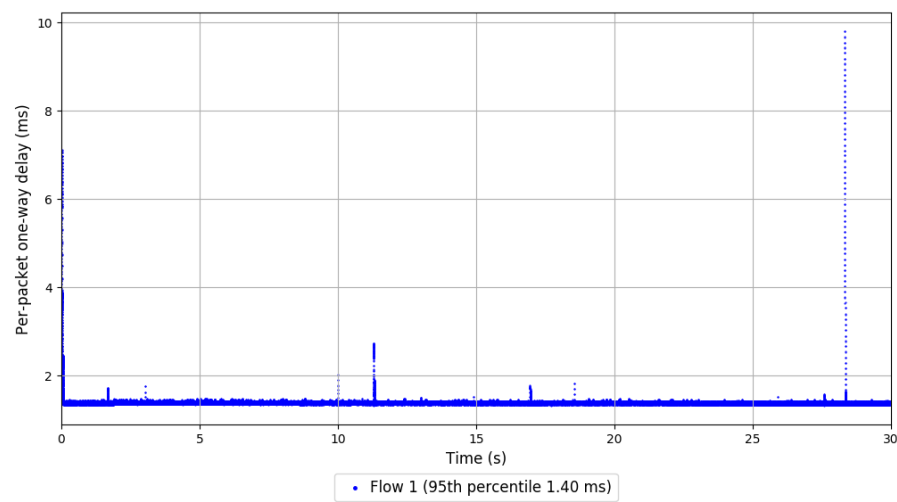
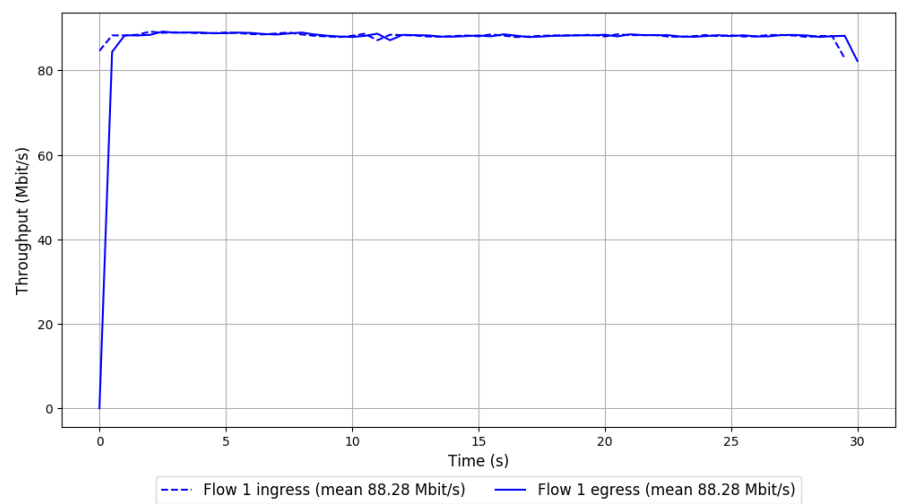
-- Flow 1:

Average throughput: 88.28 Mbit/s

95th percentile per-packet one-way delay: 1.397 ms

Loss rate: 0.02%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-06-28 07:38:46

End at: 2019-06-28 07:39:16

Local clock offset: -6.819 ms

Remote clock offset: 0.852 ms

# Below is generated by plot.py at 2019-06-28 08:16:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 87.64 Mbit/s

95th percentile per-packet one-way delay: 1.624 ms

Loss rate: 0.02%

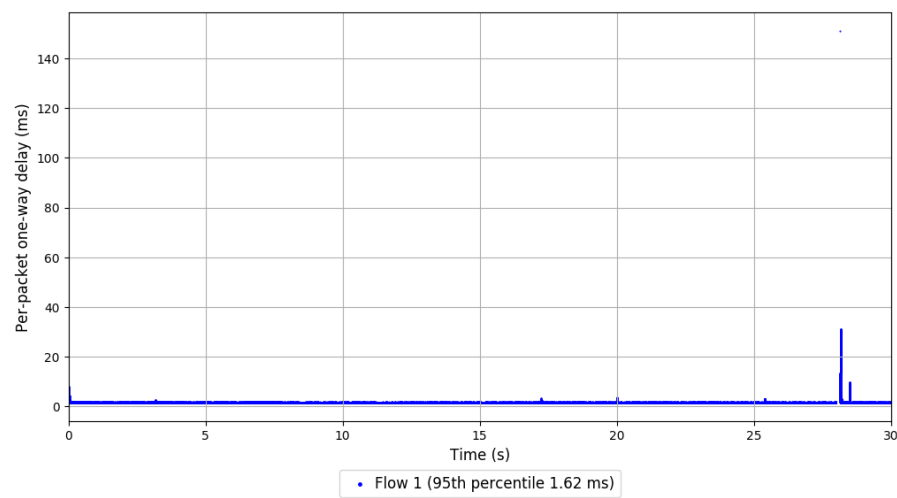
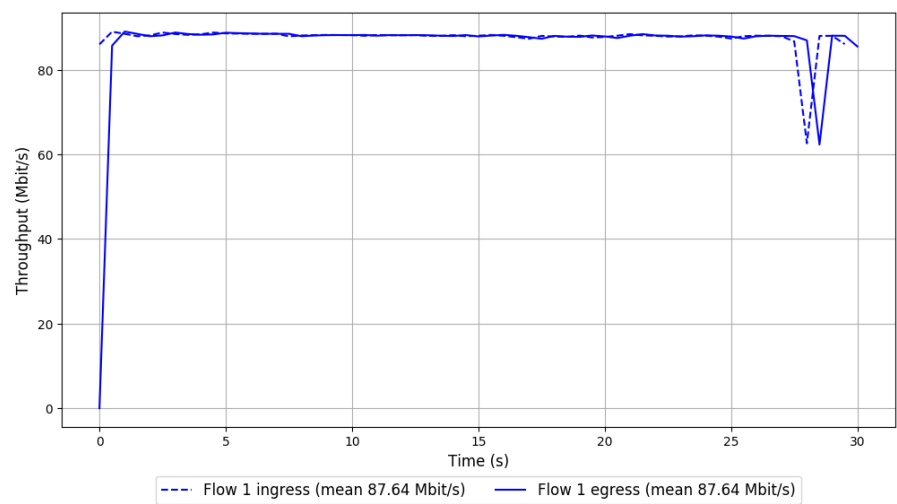
-- Flow 1:

Average throughput: 87.64 Mbit/s

95th percentile per-packet one-way delay: 1.624 ms

Loss rate: 0.02%

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

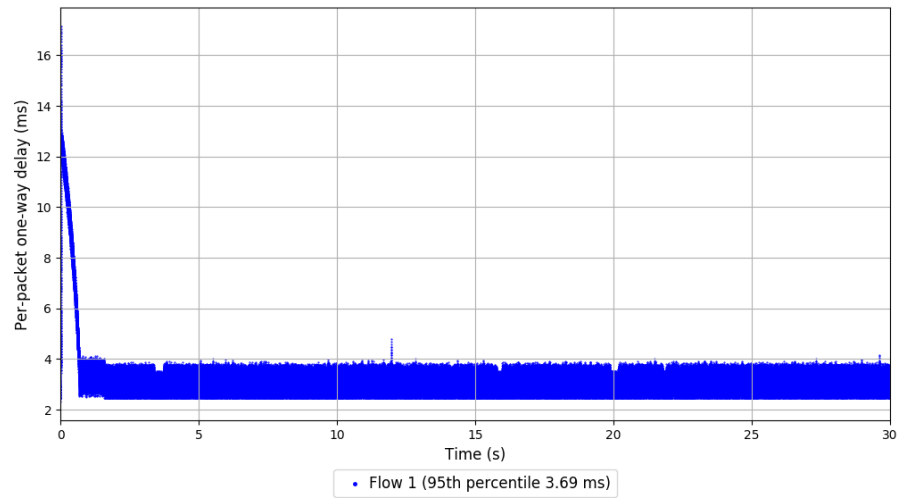
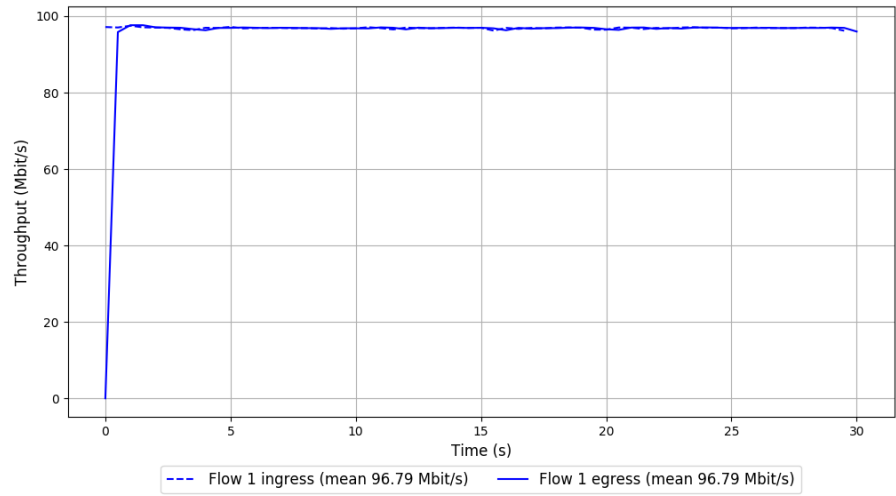


Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 06:11:55  
End at: 2019-06-28 06:12:25  
Local clock offset: -6.994 ms  
Remote clock offset: -0.028 ms

# Below is generated by plot.py at 2019-06-28 08:16:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.79 Mbit/s  
95th percentile per-packet one-way delay: 3.687 ms  
Loss rate: 0.01%  
-- Flow 1:  
Average throughput: 96.79 Mbit/s  
95th percentile per-packet one-way delay: 3.687 ms  
Loss rate: 0.01%

### Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 06:36:42

End at: 2019-06-28 06:37:12

Local clock offset: -8.364 ms

Remote clock offset: 0.384 ms

# Below is generated by plot.py at 2019-06-28 08:16:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.76 Mbit/s

95th percentile per-packet one-way delay: 2.610 ms

Loss rate: 0.01%

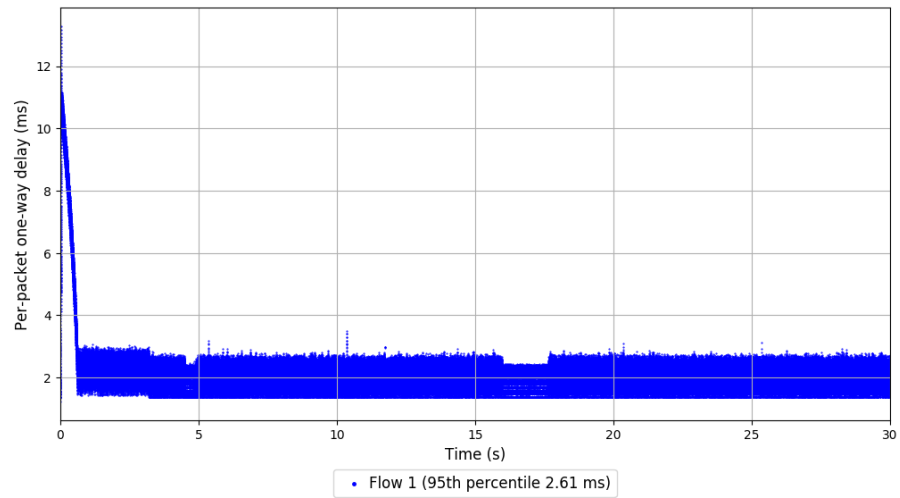
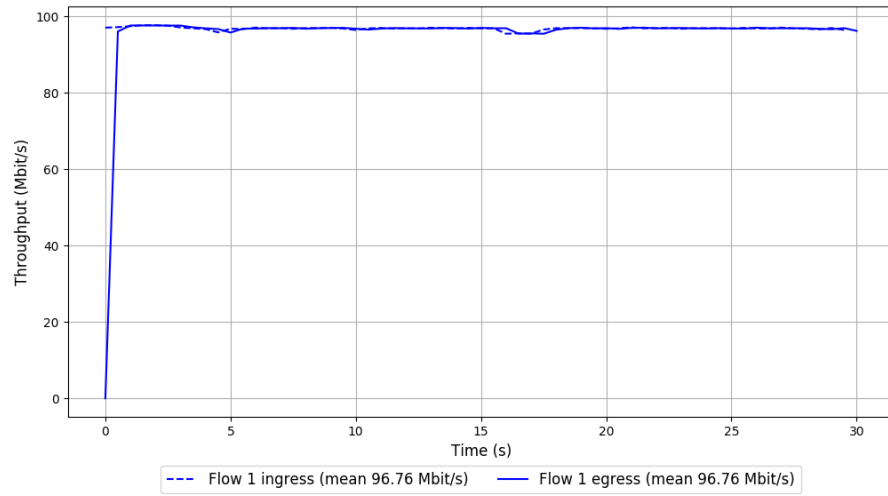
-- Flow 1:

Average throughput: 96.76 Mbit/s

95th percentile per-packet one-way delay: 2.610 ms

Loss rate: 0.01%

## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 07:01:32

End at: 2019-06-28 07:02:02

Local clock offset: -6.013 ms

Remote clock offset: 0.505 ms

# Below is generated by plot.py at 2019-06-28 08:16:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.17 Mbit/s

95th percentile per-packet one-way delay: 4.067 ms

Loss rate: 0.02%

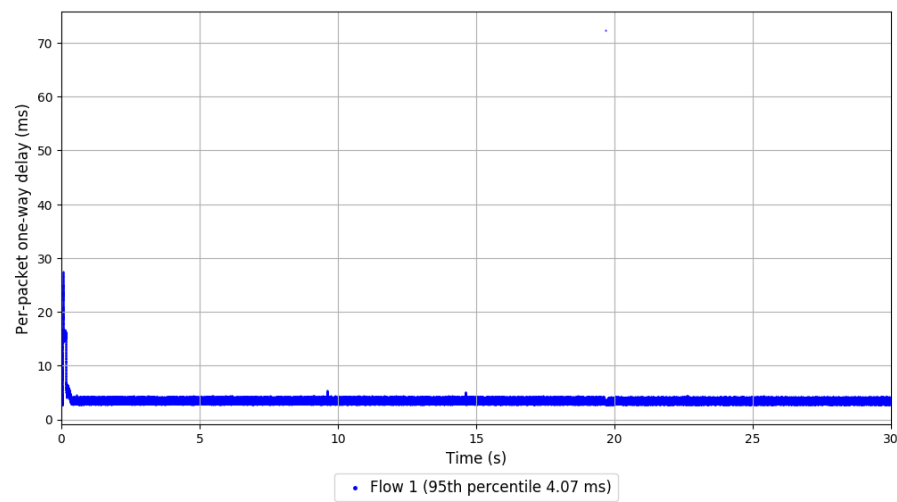
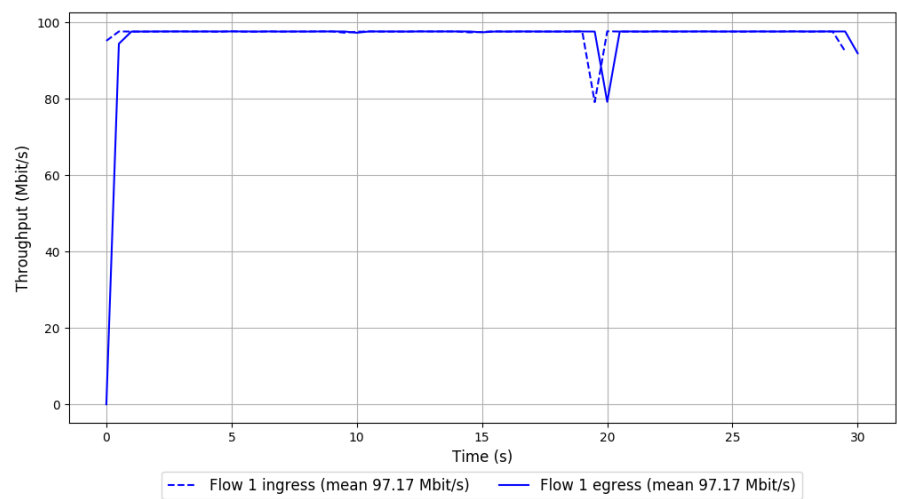
-- Flow 1:

Average throughput: 97.17 Mbit/s

95th percentile per-packet one-way delay: 4.067 ms

Loss rate: 0.02%

Run 3: Report of TCP Vegas — Data Link

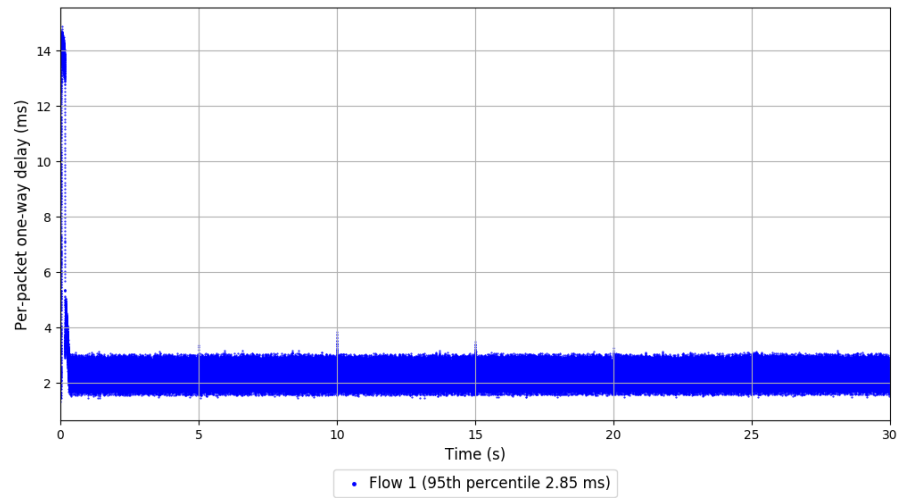
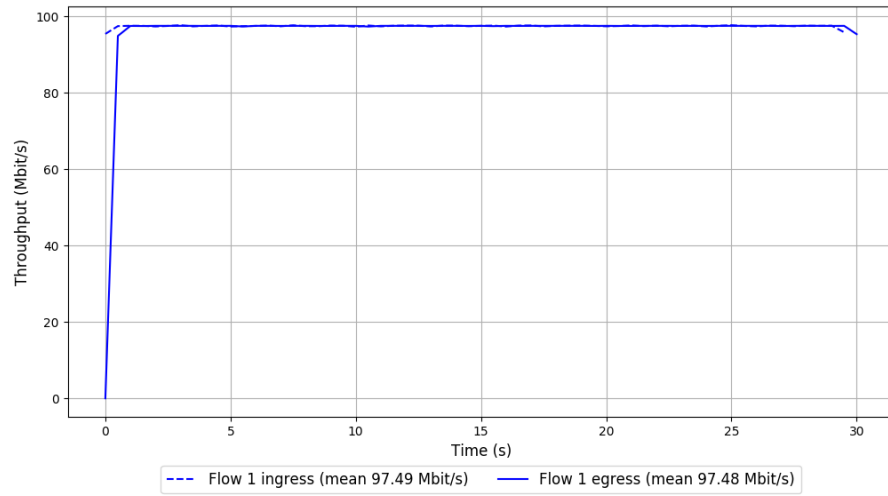


Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 07:26:23  
End at: 2019-06-28 07:26:53  
Local clock offset: -6.797 ms  
Remote clock offset: 0.699 ms

# Below is generated by plot.py at 2019-06-28 08:16:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 2.847 ms  
Loss rate: 0.02%  
-- Flow 1:  
Average throughput: 97.48 Mbit/s  
95th percentile per-packet one-way delay: 2.847 ms  
Loss rate: 0.02%

#### Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 07:51:11

End at: 2019-06-28 07:51:41

Local clock offset: -5.818 ms

Remote clock offset: 0.978 ms

# Below is generated by plot.py at 2019-06-28 08:16:56

# Datalink statistics

-- Total of 1 flow:

Average throughput: 97.14 Mbit/s

95th percentile per-packet one-way delay: 4.097 ms

Loss rate: 0.01%

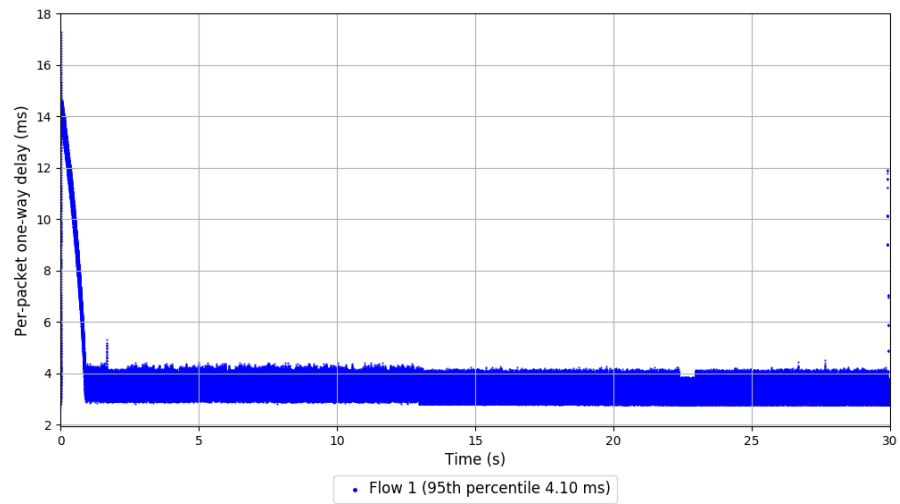
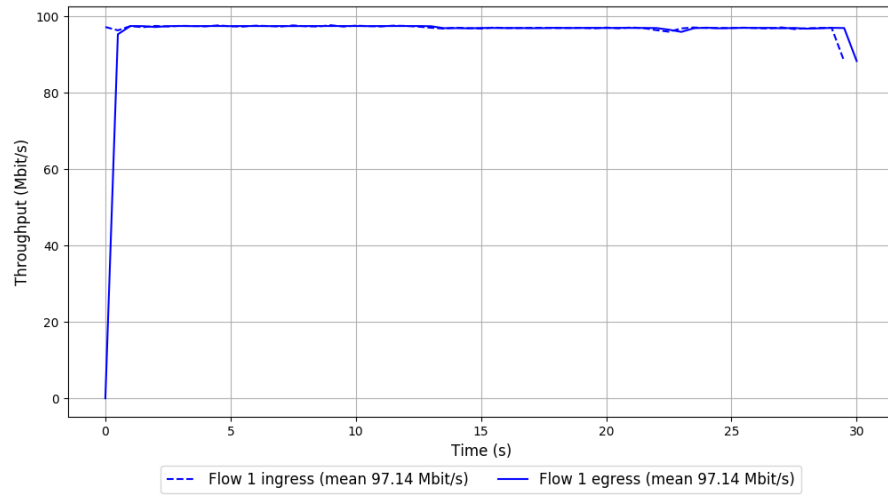
-- Flow 1:

Average throughput: 97.14 Mbit/s

95th percentile per-packet one-way delay: 4.097 ms

Loss rate: 0.01%

### Run 5: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2019-06-28 06:18:43

End at: 2019-06-28 06:19:13

Local clock offset: -7.924 ms

Remote clock offset: 0.086 ms

# Below is generated by plot.py at 2019-06-28 08:16:56

# Datalink statistics

-- Total of 1 flow:

Average throughput: 58.44 Mbit/s

95th percentile per-packet one-way delay: 15.112 ms

Loss rate: 0.02%

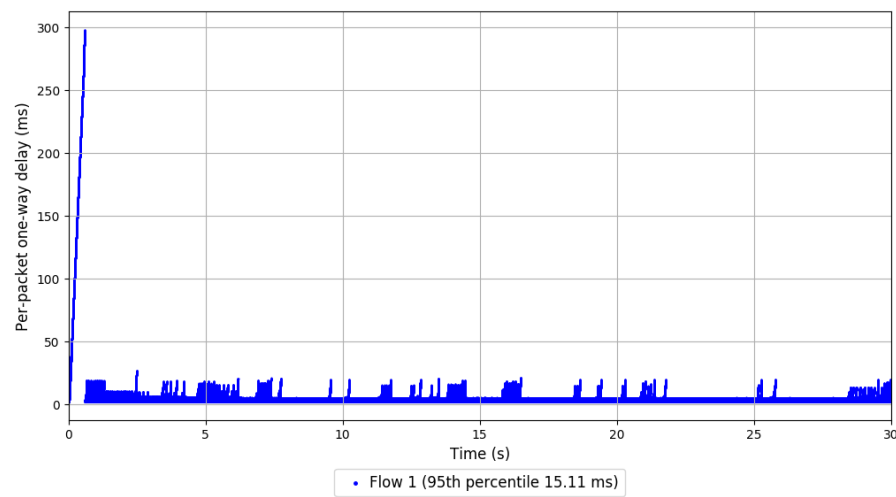
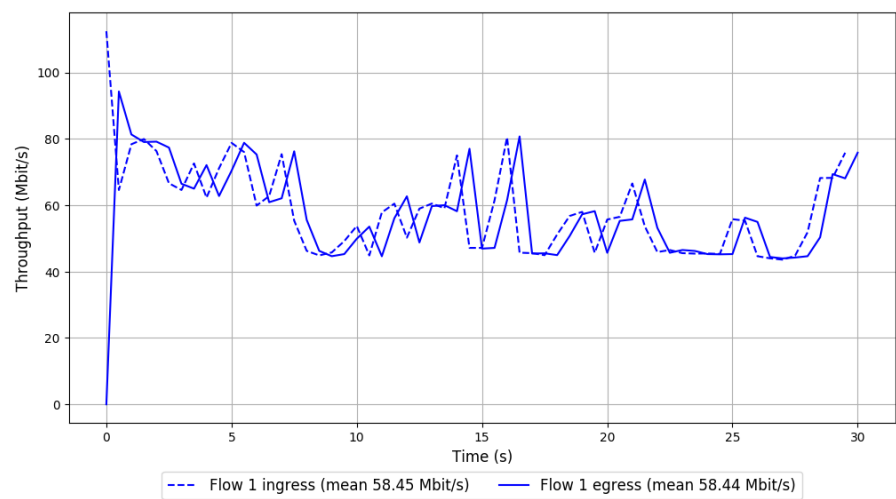
-- Flow 1:

Average throughput: 58.44 Mbit/s

95th percentile per-packet one-way delay: 15.112 ms

Loss rate: 0.02%

Run 1: Report of Verus — Data Link

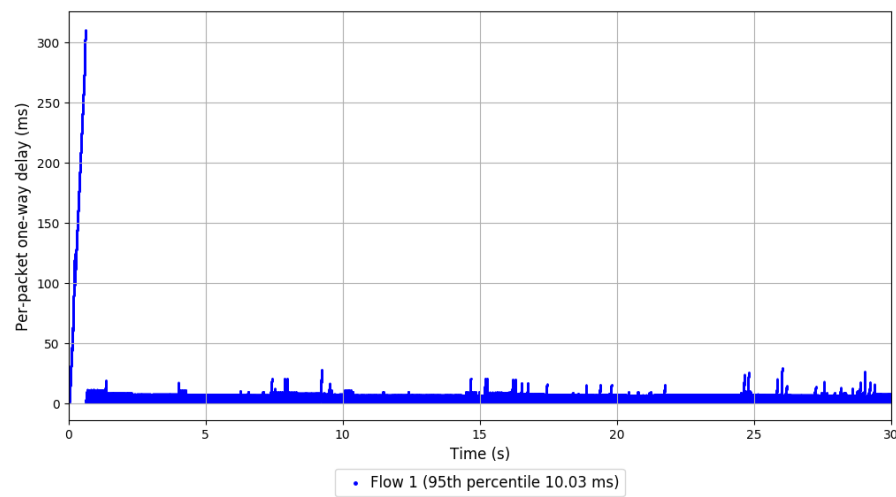
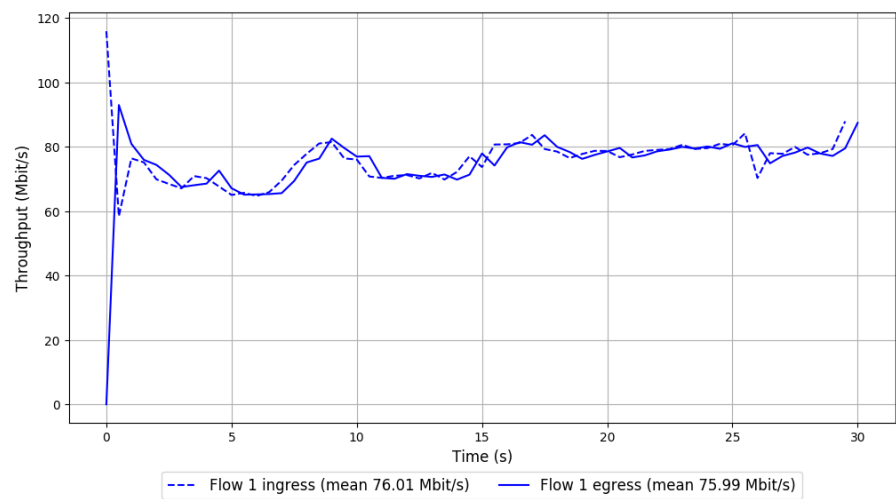


Run 2: Statistics of Verus

Start at: 2019-06-28 06:43:32  
End at: 2019-06-28 06:44:02  
Local clock offset: -8.462 ms  
Remote clock offset: 0.373 ms

# Below is generated by plot.py at 2019-06-28 08:17:06  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 75.99 Mbit/s  
95th percentile per-packet one-way delay: 10.031 ms  
Loss rate: 0.04%  
-- Flow 1:  
Average throughput: 75.99 Mbit/s  
95th percentile per-packet one-way delay: 10.031 ms  
Loss rate: 0.04%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2019-06-28 07:08:22

End at: 2019-06-28 07:08:52

Local clock offset: -5.662 ms

Remote clock offset: 0.64 ms

# Below is generated by plot.py at 2019-06-28 08:17:10

# Datalink statistics

-- Total of 1 flow:

Average throughput: 78.65 Mbit/s

95th percentile per-packet one-way delay: 11.782 ms

Loss rate: 0.04%

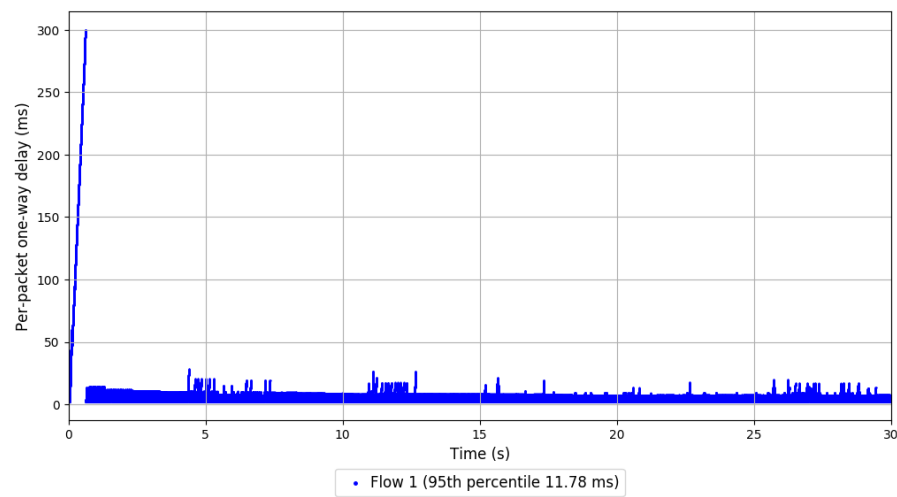
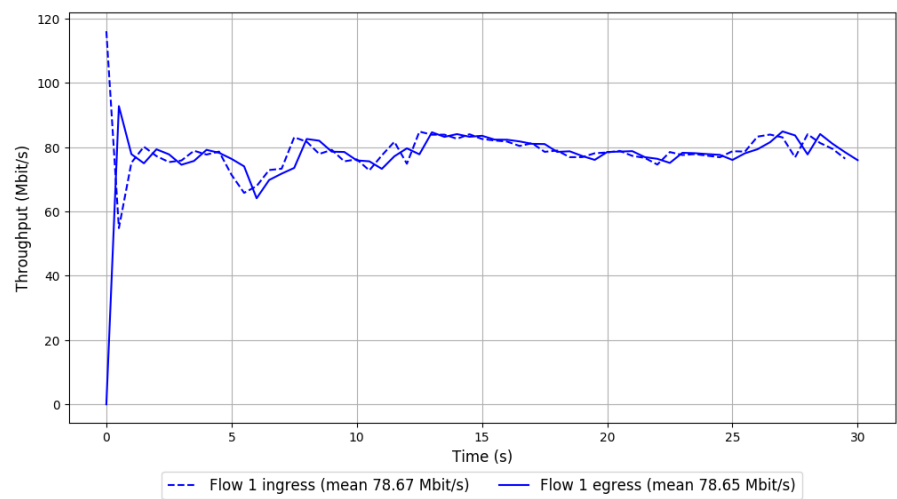
-- Flow 1:

Average throughput: 78.65 Mbit/s

95th percentile per-packet one-way delay: 11.782 ms

Loss rate: 0.04%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2019-06-28 07:33:13

End at: 2019-06-28 07:33:43

Local clock offset: -6.156 ms

Remote clock offset: 0.732 ms

# Below is generated by plot.py at 2019-06-28 08:17:10

# Datalink statistics

-- Total of 1 flow:

Average throughput: 38.12 Mbit/s

95th percentile per-packet one-way delay: 16.073 ms

Loss rate: 0.03%

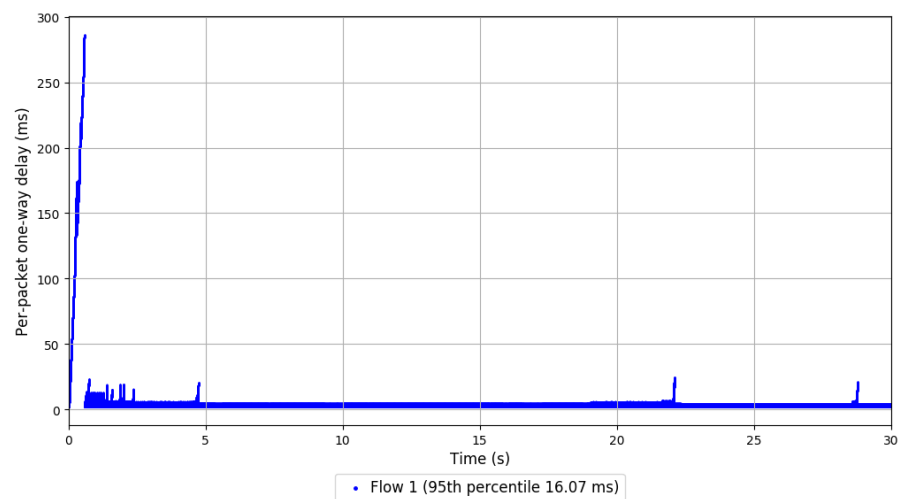
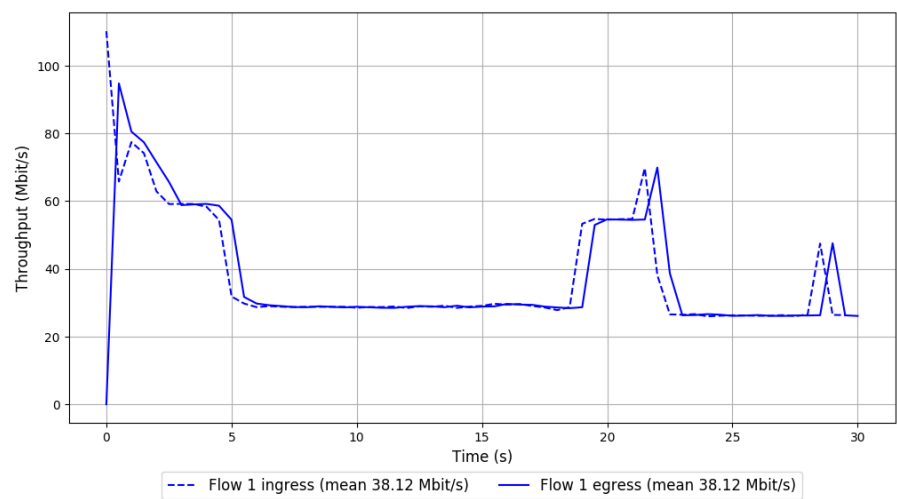
-- Flow 1:

Average throughput: 38.12 Mbit/s

95th percentile per-packet one-way delay: 16.073 ms

Loss rate: 0.03%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2019-06-28 07:58:05

End at: 2019-06-28 07:58:35

Local clock offset: -6.565 ms

Remote clock offset: 0.809 ms

# Below is generated by plot.py at 2019-06-28 08:17:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 79.08 Mbit/s

95th percentile per-packet one-way delay: 14.581 ms

Loss rate: 0.01%

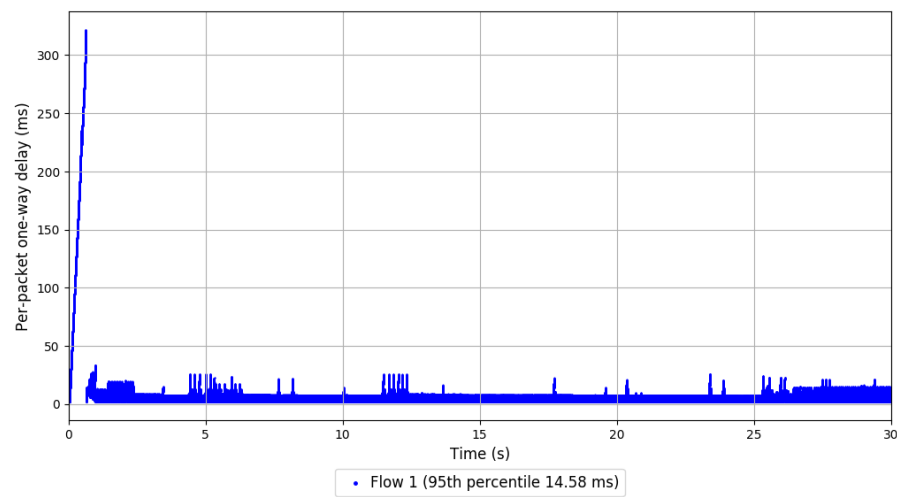
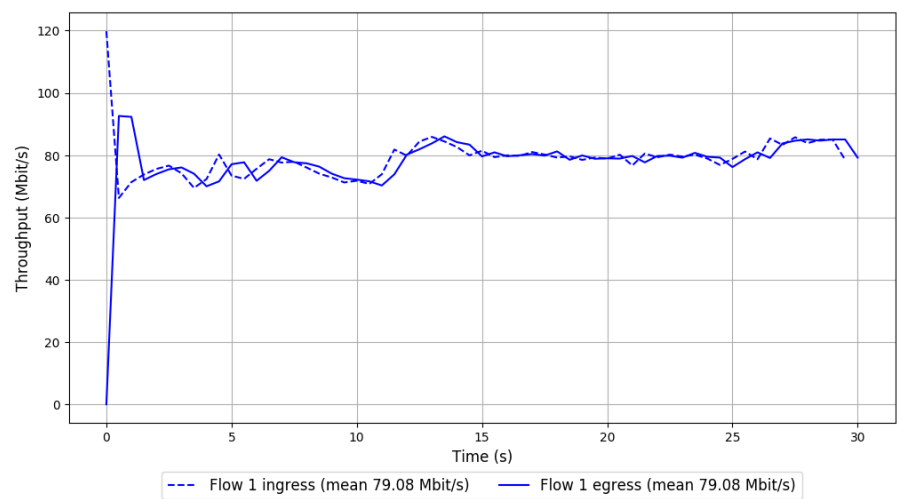
-- Flow 1:

Average throughput: 79.08 Mbit/s

95th percentile per-packet one-way delay: 14.581 ms

Loss rate: 0.01%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 06:16:31

End at: 2019-06-28 06:17:01

Local clock offset: -7.314 ms

Remote clock offset: 0.045 ms

# Below is generated by plot.py at 2019-06-28 08:17:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 38.43 Mbit/s

95th percentile per-packet one-way delay: 2.272 ms

Loss rate: 0.01%

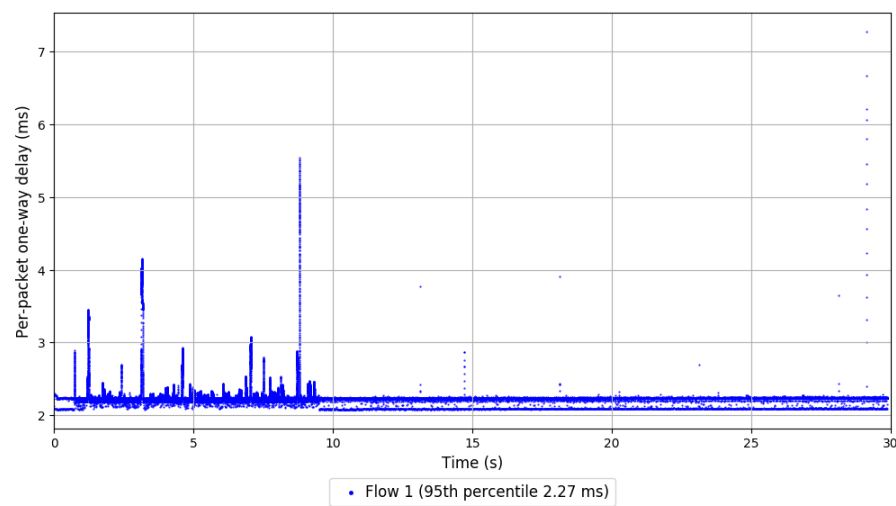
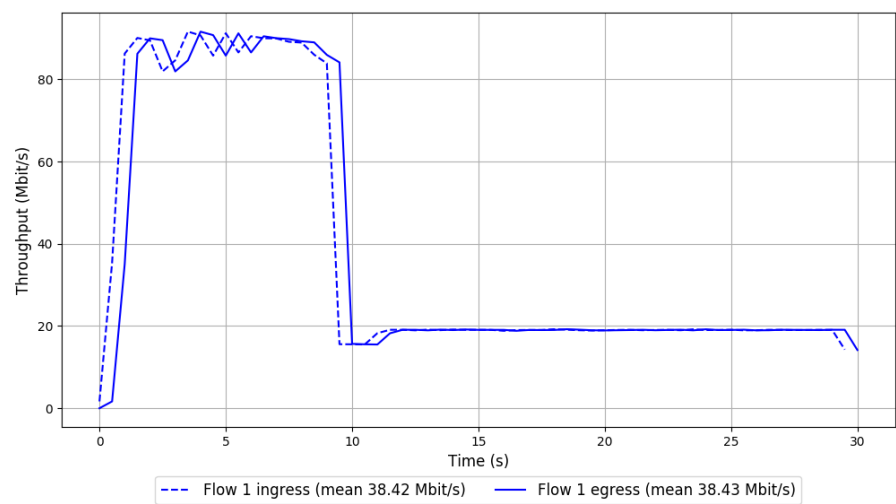
-- Flow 1:

Average throughput: 38.43 Mbit/s

95th percentile per-packet one-way delay: 2.272 ms

Loss rate: 0.01%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 06:41:19

End at: 2019-06-28 06:41:49

Local clock offset: -7.409 ms

Remote clock offset: 0.429 ms

# Below is generated by plot.py at 2019-06-28 08:17:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.63 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.02%

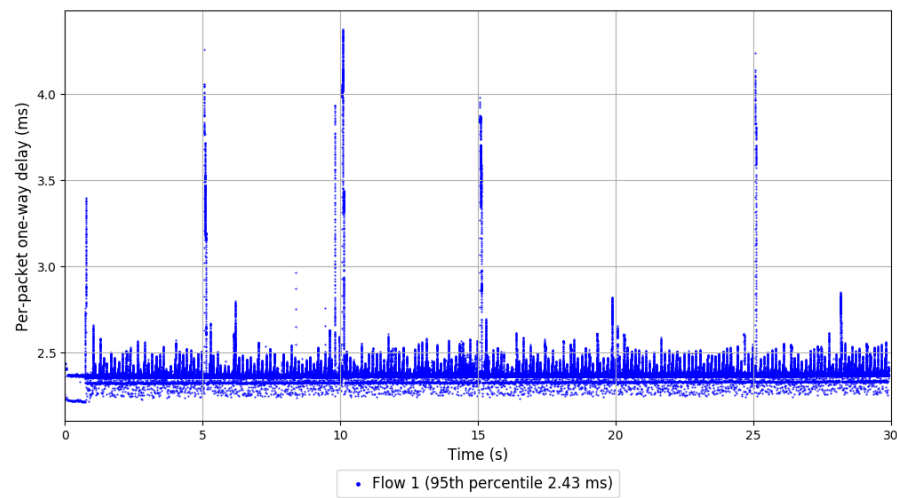
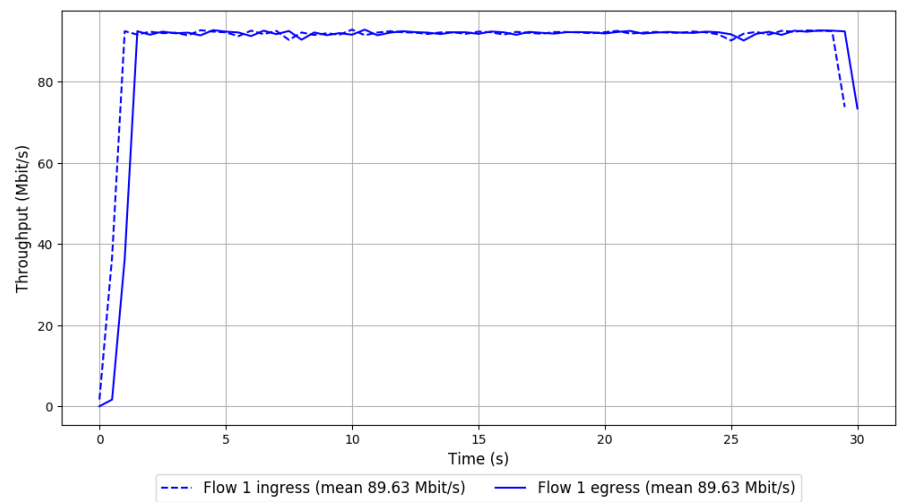
-- Flow 1:

Average throughput: 89.63 Mbit/s

95th percentile per-packet one-way delay: 2.428 ms

Loss rate: 0.02%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 07:06:08

End at: 2019-06-28 07:06:38

Local clock offset: -5.751 ms

Remote clock offset: 0.646 ms

# Below is generated by plot.py at 2019-06-28 08:17:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 53.48 Mbit/s

95th percentile per-packet one-way delay: 2.185 ms

Loss rate: 0.01%

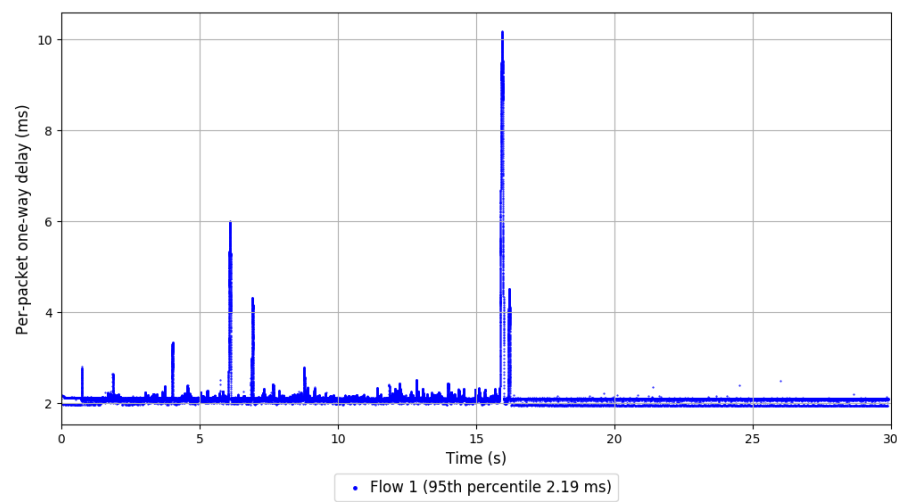
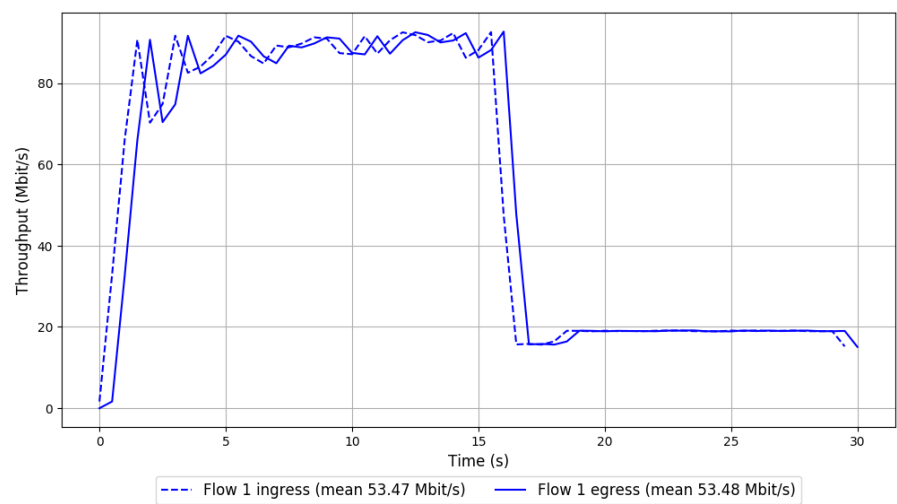
-- Flow 1:

Average throughput: 53.48 Mbit/s

95th percentile per-packet one-way delay: 2.185 ms

Loss rate: 0.01%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 07:31:00

End at: 2019-06-28 07:31:30

Local clock offset: -5.907 ms

Remote clock offset: 0.742 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.62 Mbit/s

95th percentile per-packet one-way delay: 2.497 ms

Loss rate: 0.02%

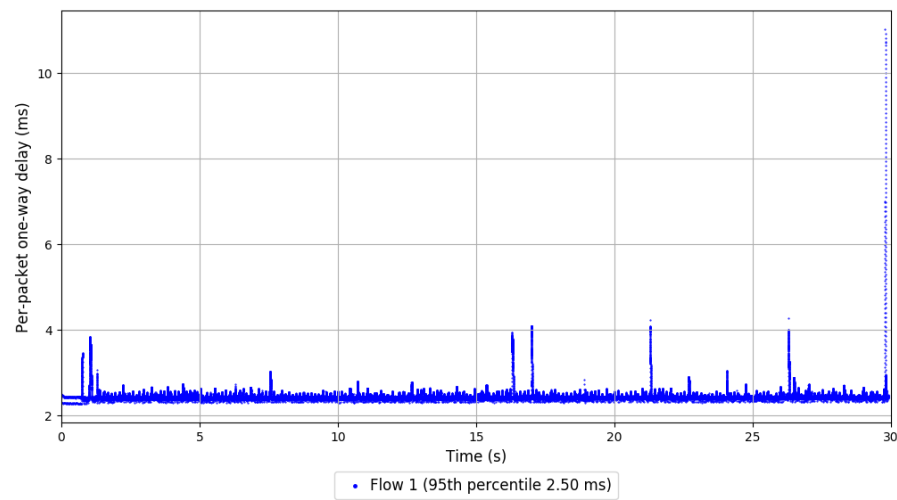
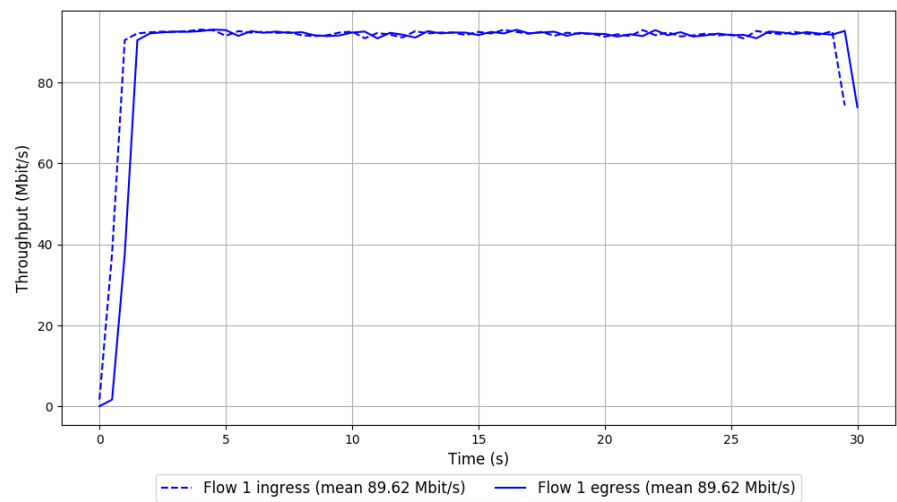
-- Flow 1:

Average throughput: 89.62 Mbit/s

95th percentile per-packet one-way delay: 2.497 ms

Loss rate: 0.02%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 07:55:48

End at: 2019-06-28 07:56:18

Local clock offset: -5.701 ms

Remote clock offset: 0.819 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 2.454 ms

Loss rate: 0.01%

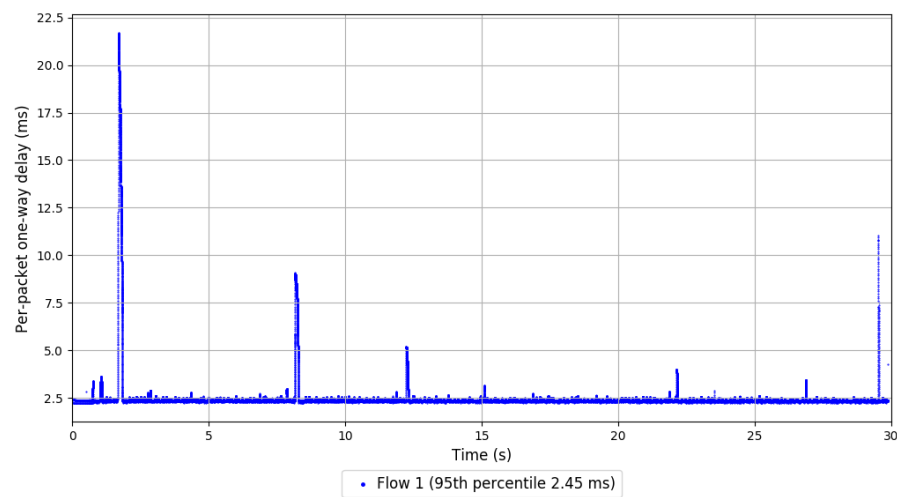
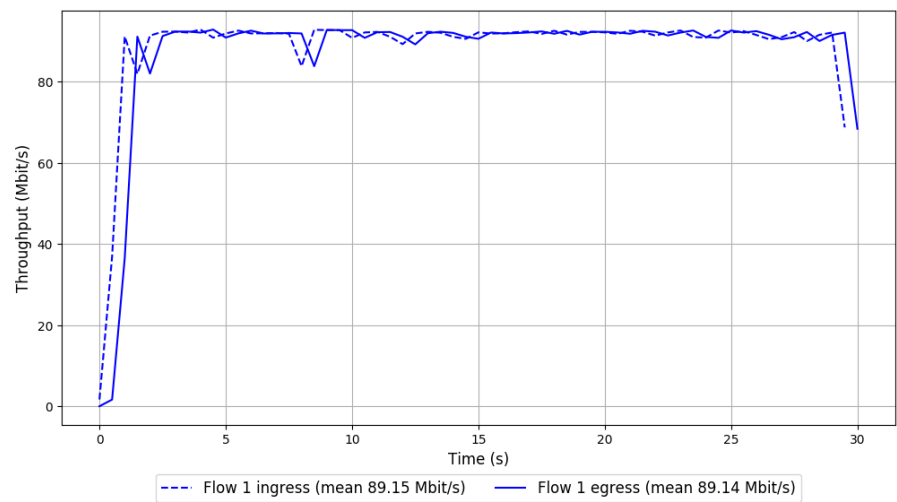
-- Flow 1:

Average throughput: 89.14 Mbit/s

95th percentile per-packet one-way delay: 2.454 ms

Loss rate: 0.01%

Run 5: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2019-06-28 06:20:57

End at: 2019-06-28 06:21:27

Local clock offset: -7.15 ms

Remote clock offset: 0.186 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 3.270 ms

Loss rate: 0.08%

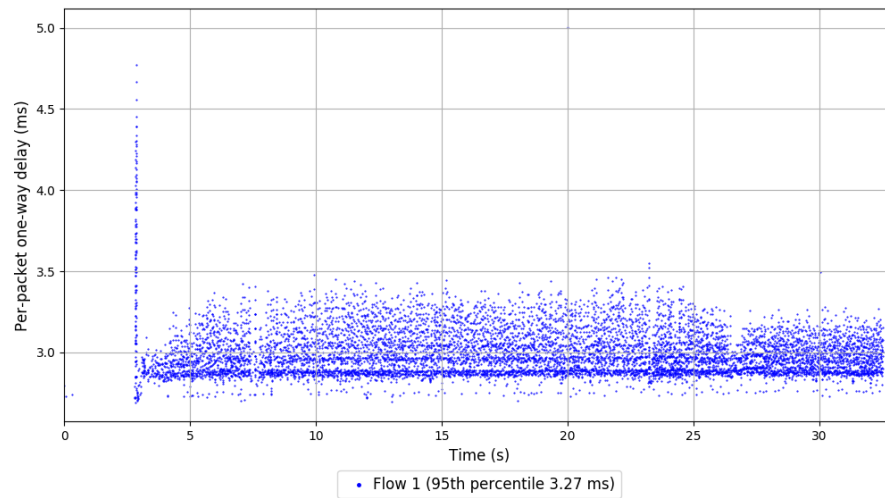
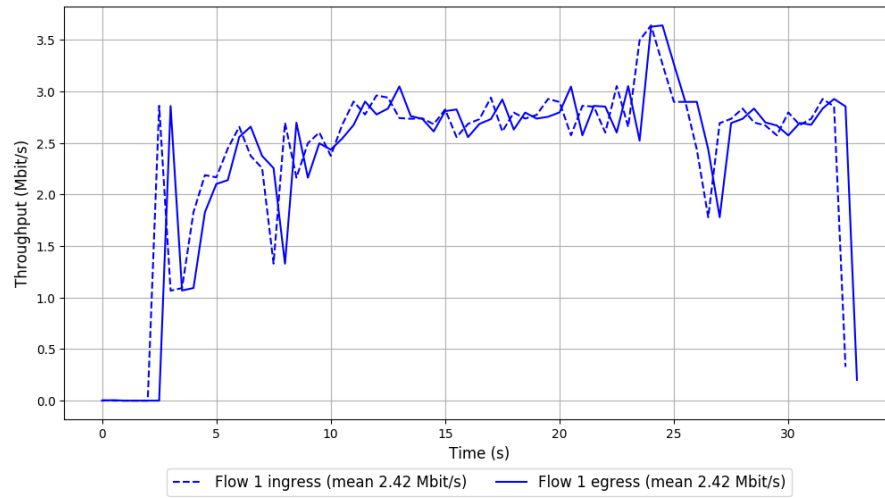
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 3.270 ms

Loss rate: 0.08%

### Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2019-06-28 06:45:48

End at: 2019-06-28 06:46:18

Local clock offset: -7.462 ms

Remote clock offset: 0.463 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 2.781 ms

Loss rate: 0.00%

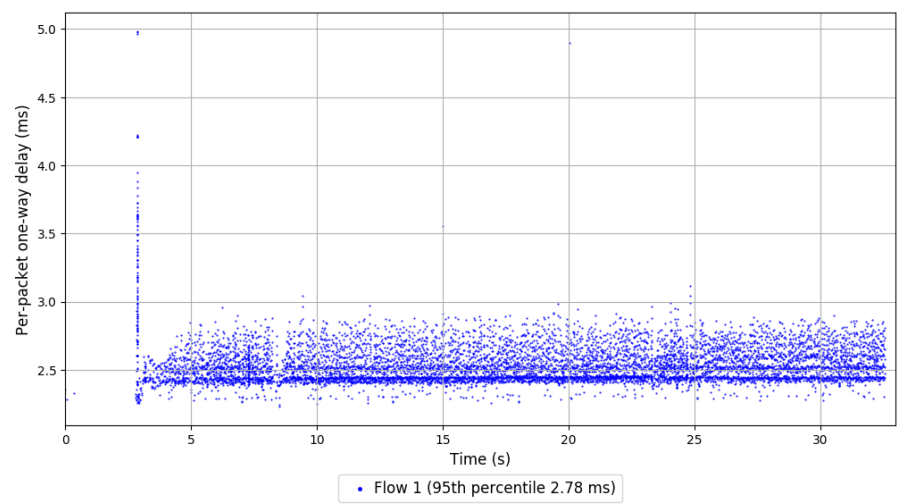
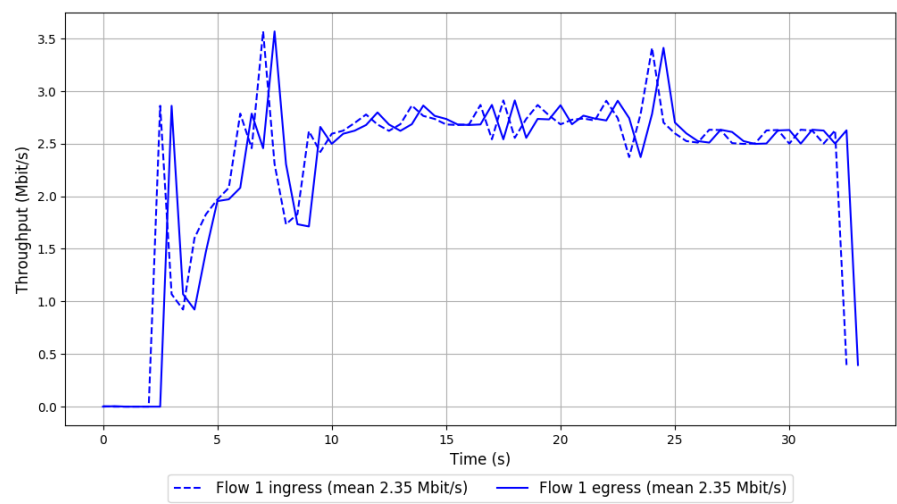
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 2.781 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2019-06-28 07:10:37

End at: 2019-06-28 07:11:07

Local clock offset: -5.37 ms

Remote clock offset: 0.654 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 2.792 ms

Loss rate: 0.00%

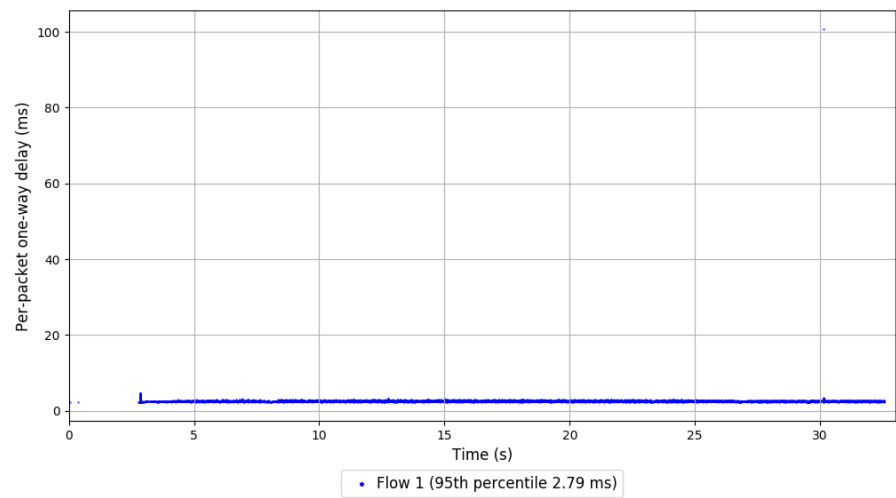
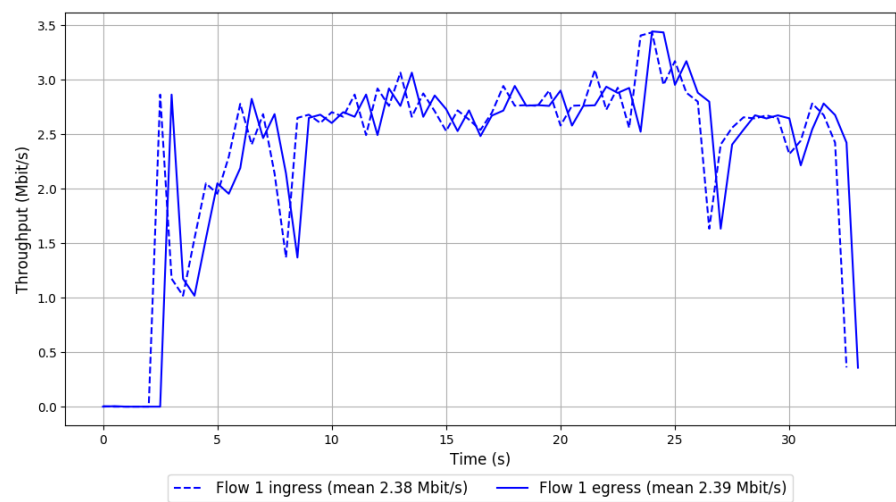
-- Flow 1:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 2.792 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-06-28 07:35:27

End at: 2019-06-28 07:35:57

Local clock offset: -7.066 ms

Remote clock offset: 0.797 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 1.755 ms

Loss rate: 0.00%

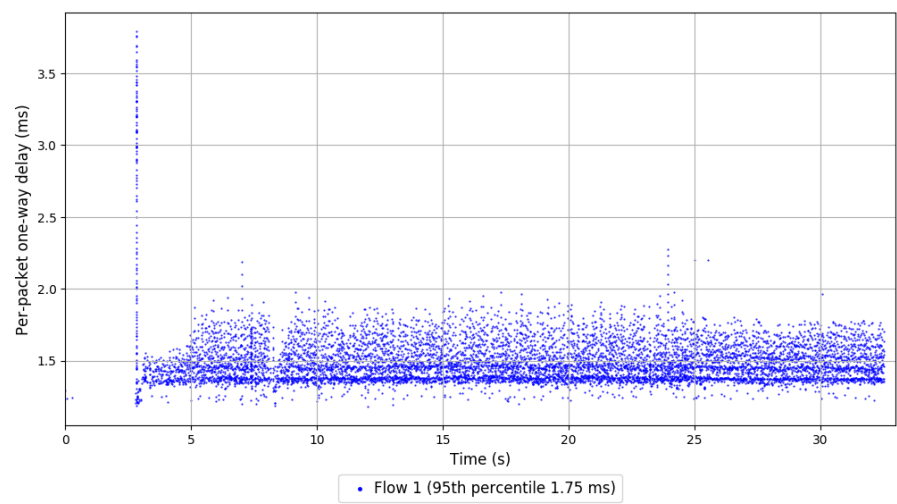
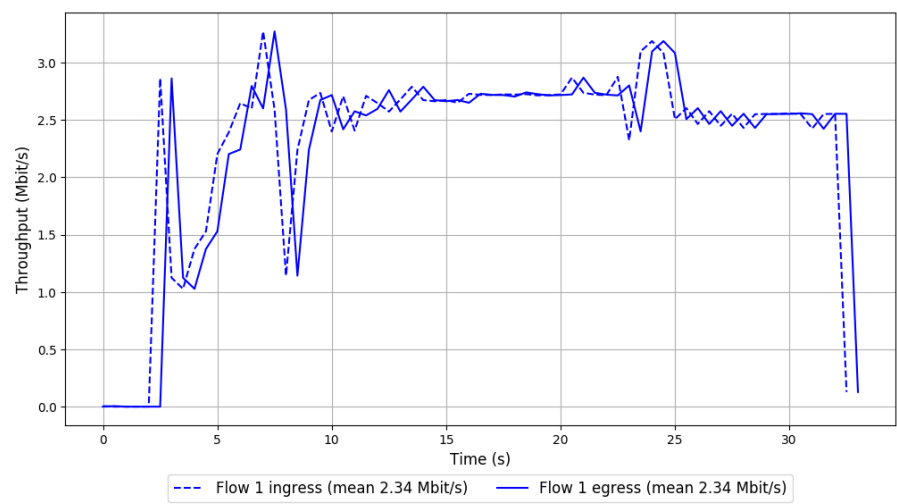
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 1.755 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-06-28 08:00:20

End at: 2019-06-28 08:00:50

Local clock offset: -5.512 ms

Remote clock offset: 0.829 ms

# Below is generated by plot.py at 2019-06-28 08:17:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 2.880 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 2.880 ms

Loss rate: 0.09%

Run 5: Report of WebRTC media — Data Link

