

## Pantheon Report

Generated at 2019-12-11 13:30:11 (UTC).

Data path: India on *em1 (remote)* → AWS India 1 on *ens5 (local)*.

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against **nets.org.sg** and have been applied to correct the timestamps in logs.

### System info:

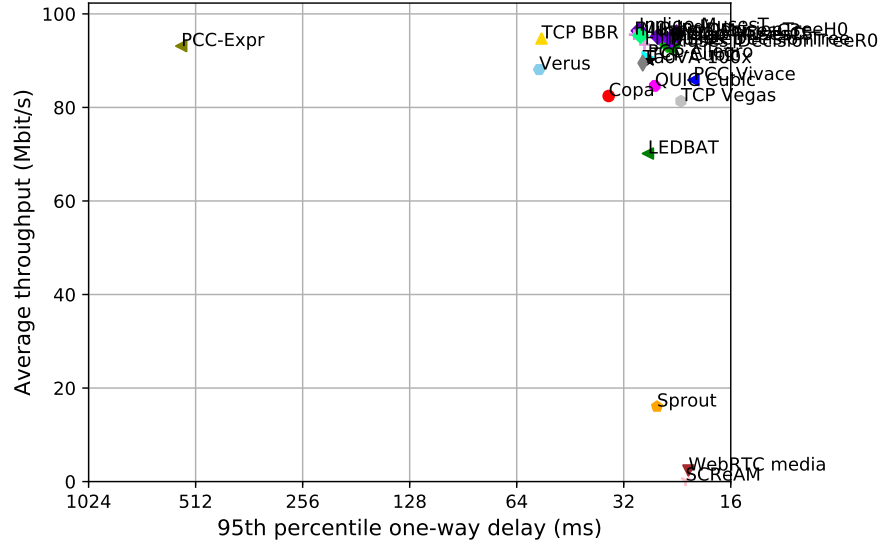
```
Linux 4.15.0-1054-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

### Git summary:

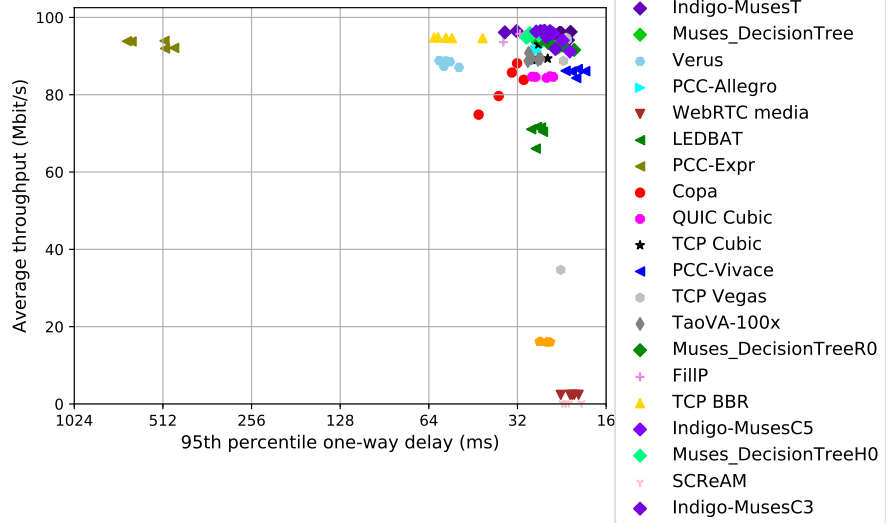
```
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

third\_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4  
third\_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

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



test from India to AWS India 1, 5 runs of 30s each per 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      | 94.74                            | 54.50                               | 1.09                         |
| Copa                 | 5      | 82.44                            | 35.28                               | 0.20                         |
| TCP Cubic            | 5      | 90.03                            | 27.02                               | 0.17                         |
| FillP                | 5      | 95.56                            | 29.89                               | 0.19                         |
| FillP-Sheep          | 5      | 93.45                            | 27.97                               | 0.19                         |
| Indigo               | 5      | 95.93                            | 22.74                               | 0.16                         |
| Indigo-MusesC3       | 5      | 95.17                            | 25.60                               | 0.30                         |
| Indigo-MusesC5       | 5      | 94.45                            | 23.61                               | 0.17                         |
| Indigo-MusesD        | 5      | 94.39                            | 23.15                               | 0.17                         |
| Indigo-MusesT        | 5      | 96.40                            | 28.98                               | 0.23                         |
| LEDBAT               | 5      | 70.14                            | 27.36                               | 0.22                         |
| Muses_DecisionTree   | 5      | 93.44                            | 24.14                               | 0.17                         |
| Muses_DecisionTreeH0 | 5      | 95.39                            | 28.69                               | 0.28                         |
| Muses_DecisionTreeR0 | 5      | 92.99                            | 23.47                               | 0.16                         |
| PCC-Allegro          | 5      | 90.70                            | 27.40                               | 0.19                         |
| PCC-Expr             | 5      | 93.12                            | 562.12                              | 25.08                        |
| QUIC Cubic           | 5      | 84.60                            | 26.16                               | 0.21                         |
| SCReAM               | 5      | 0.22                             | 21.44                               | 0.16                         |
| Sprout               | 5      | 16.05                            | 25.80                               | 0.15                         |
| TaoVA-100x           | 5      | 89.47                            | 28.30                               | 0.19                         |
| TCP Vegas            | 5      | 81.35                            | 22.09                               | 0.18                         |
| Verus                | 5      | 88.11                            | 55.34                               | 0.33                         |
| PCC-Vivace           | 5      | 85.86                            | 20.39                               | 0.18                         |
| WebRTC media         | 5      | 2.37                             | 21.05                               | 0.16                         |

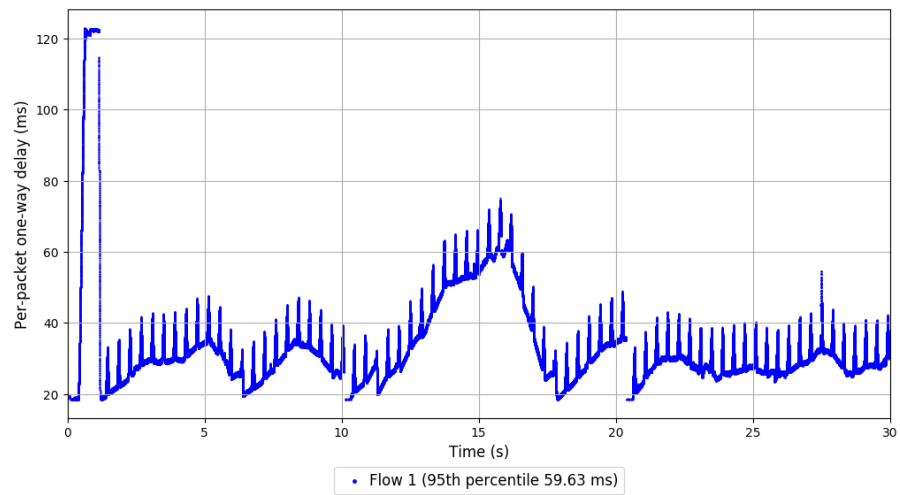
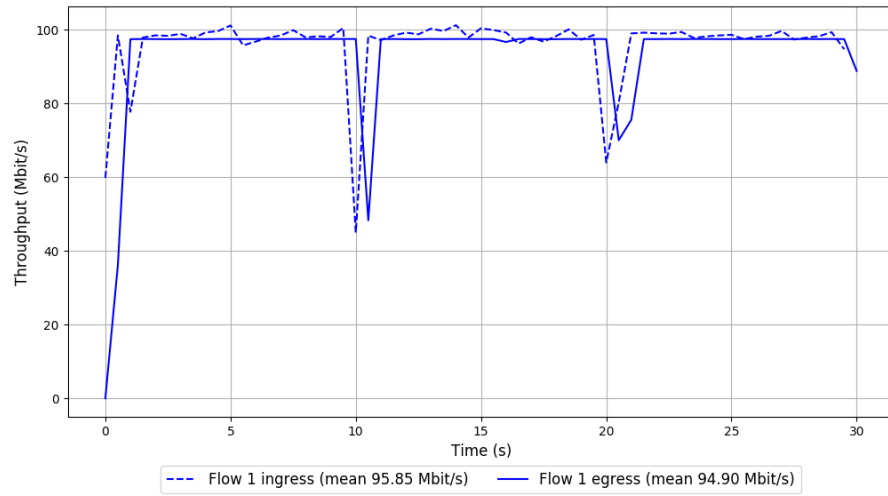


Run 1: Statistics of TCP BBR

Start at: 2019-12-11 10:55:31  
End at: 2019-12-11 10:56:02  
Local clock offset: 6.375 ms  
Remote clock offset: -4.264 ms

# Below is generated by plot.py at 2019-12-11 13:14:19  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.90 Mbit/s  
95th percentile per-packet one-way delay: 59.629 ms  
Loss rate: 1.16%  
-- Flow 1:  
Average throughput: 94.90 Mbit/s  
95th percentile per-packet one-way delay: 59.629 ms  
Loss rate: 1.16%

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

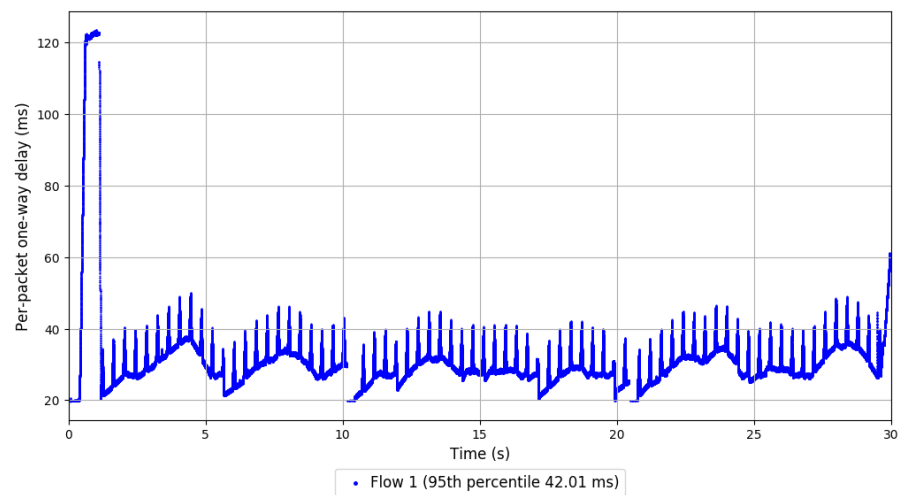
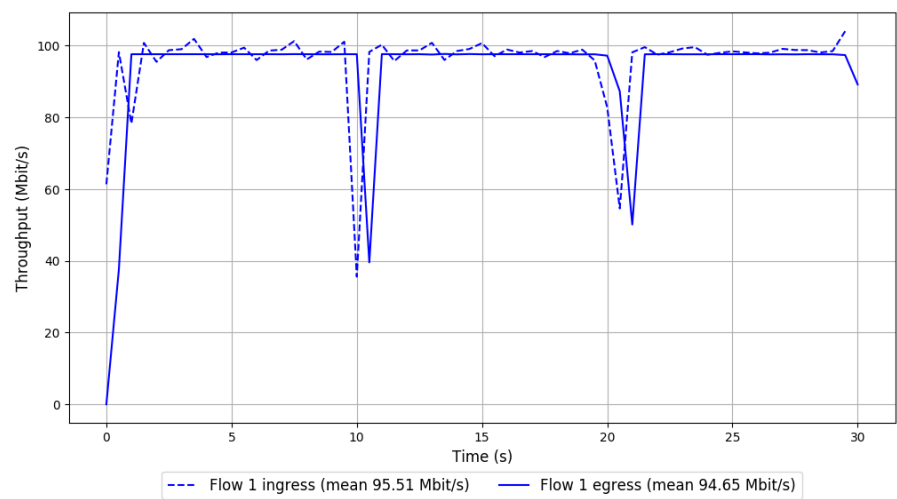


Run 2: Statistics of TCP BBR

Start at: 2019-12-11 11:24:12  
End at: 2019-12-11 11:24:42  
Local clock offset: 6.888 ms  
Remote clock offset: -4.094 ms

# Below is generated by plot.py at 2019-12-11 13:14:19  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.65 Mbit/s  
95th percentile per-packet one-way delay: 42.012 ms  
Loss rate: 1.06%  
-- Flow 1:  
Average throughput: 94.65 Mbit/s  
95th percentile per-packet one-way delay: 42.012 ms  
Loss rate: 1.06%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2019-12-11 11:52:32

End at: 2019-12-11 11:53:02

Local clock offset: 4.586 ms

Remote clock offset: -3.741 ms

# Below is generated by plot.py at 2019-12-11 13:14:19

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.65 Mbit/s

95th percentile per-packet one-way delay: 53.472 ms

Loss rate: 0.92%

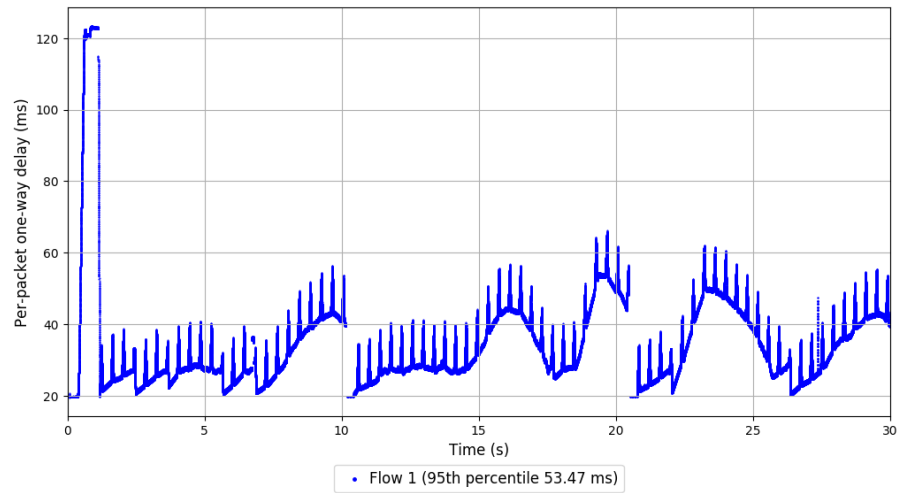
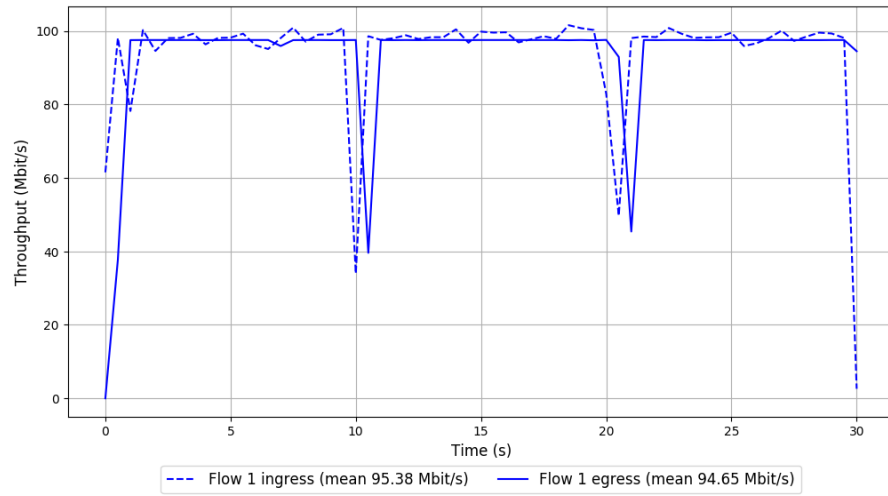
-- Flow 1:

Average throughput: 94.65 Mbit/s

95th percentile per-packet one-way delay: 53.472 ms

Loss rate: 0.92%

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

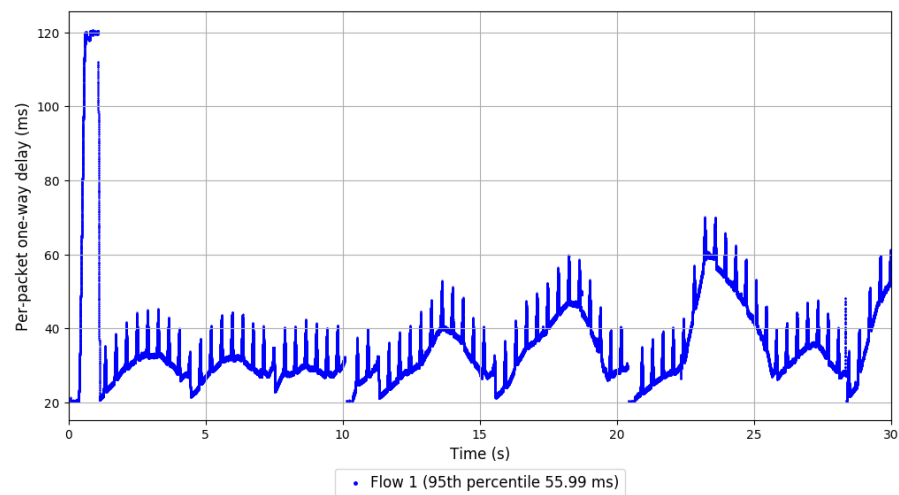
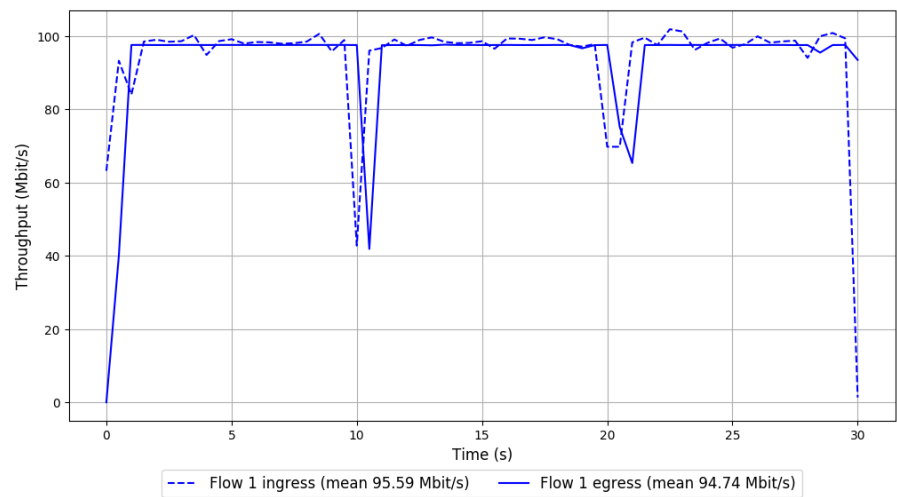


Run 4: Statistics of TCP BBR

Start at: 2019-12-11 12:20:58  
End at: 2019-12-11 12:21:28  
Local clock offset: 3.312 ms  
Remote clock offset: -5.464 ms

# Below is generated by plot.py at 2019-12-11 13:14:19  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.74 Mbit/s  
95th percentile per-packet one-way delay: 55.995 ms  
Loss rate: 1.04%  
-- Flow 1:  
Average throughput: 94.74 Mbit/s  
95th percentile per-packet one-way delay: 55.995 ms  
Loss rate: 1.04%

Run 4: Report of TCP BBR — Data Link



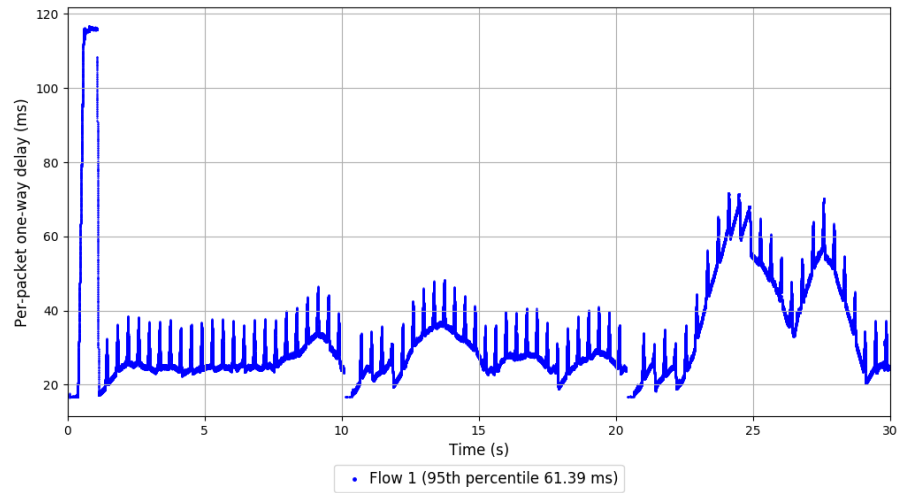
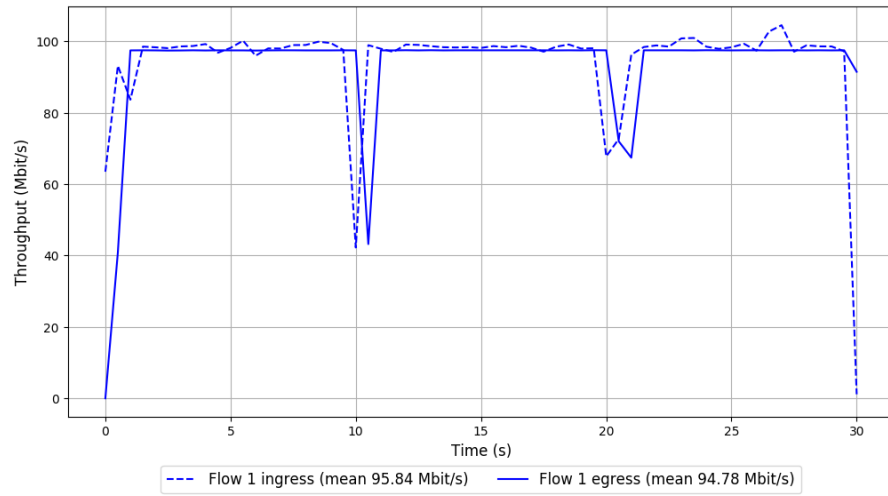


Run 5: Statistics of TCP BBR

Start at: 2019-12-11 12:50:29  
End at: 2019-12-11 12:50:59  
Local clock offset: 4.011 ms  
Remote clock offset: -1.632 ms

# Below is generated by plot.py at 2019-12-11 13:14:19  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.78 Mbit/s  
95th percentile per-packet one-way delay: 61.390 ms  
Loss rate: 1.26%  
-- Flow 1:  
Average throughput: 94.78 Mbit/s  
95th percentile per-packet one-way delay: 61.390 ms  
Loss rate: 1.26%

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

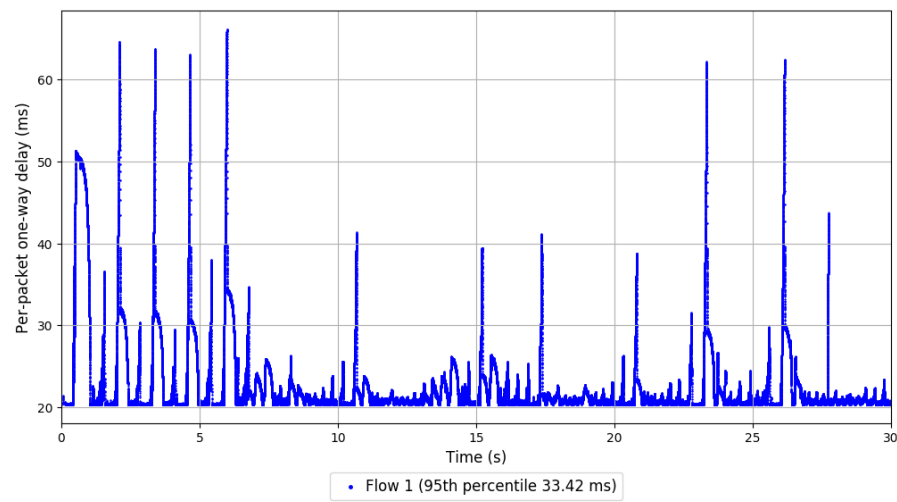
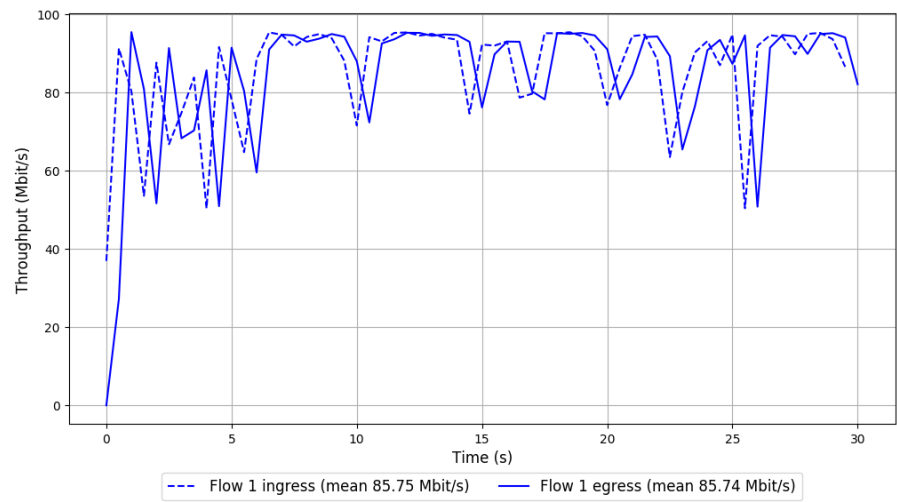


Run 1: Statistics of Copa

Start at: 2019-12-11 11:01:16  
End at: 2019-12-11 11:01:46  
Local clock offset: 6.705 ms  
Remote clock offset: -5.846 ms

# Below is generated by plot.py at 2019-12-11 13:15:13  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 85.74 Mbit/s  
95th percentile per-packet one-way delay: 33.416 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 85.74 Mbit/s  
95th percentile per-packet one-way delay: 33.416 ms  
Loss rate: 0.17%

Run 1: Report of Copa — Data Link

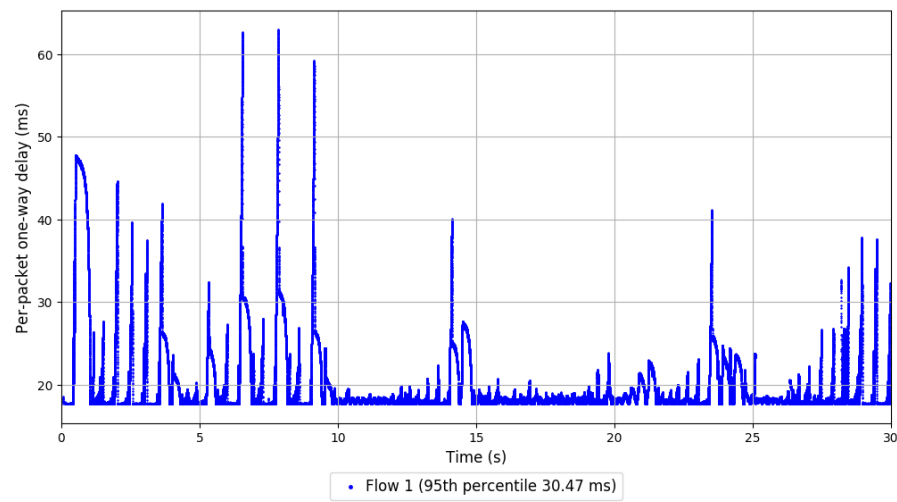
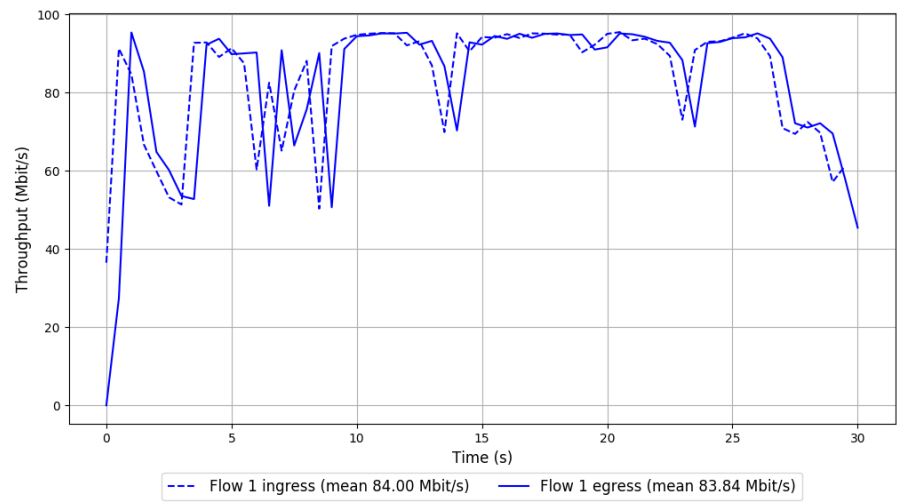


Run 2: Statistics of Copa

Start at: 2019-12-11 11:30:03  
End at: 2019-12-11 11:30:33  
Local clock offset: 6.82 ms  
Remote clock offset: -1.959 ms

# Below is generated by plot.py at 2019-12-11 13:15:13  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 83.84 Mbit/s  
95th percentile per-packet one-way delay: 30.471 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 83.84 Mbit/s  
95th percentile per-packet one-way delay: 30.471 ms  
Loss rate: 0.34%

Run 2: Report of Copa — Data Link

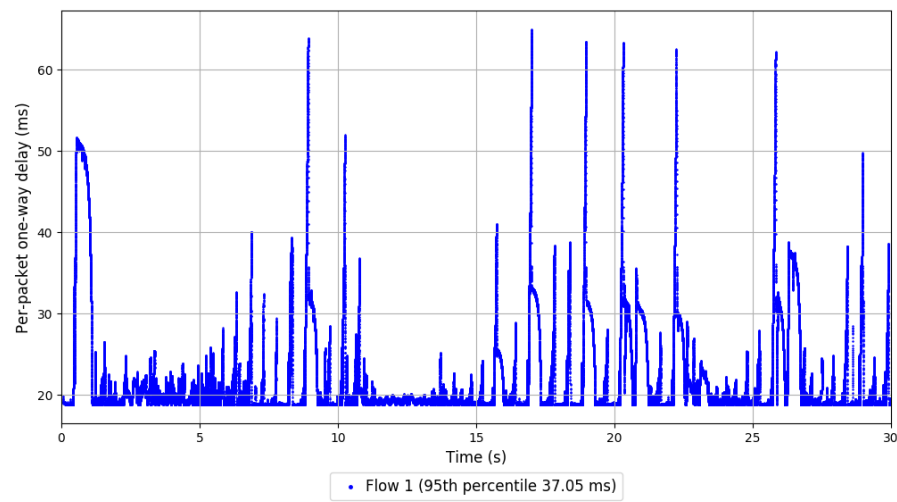
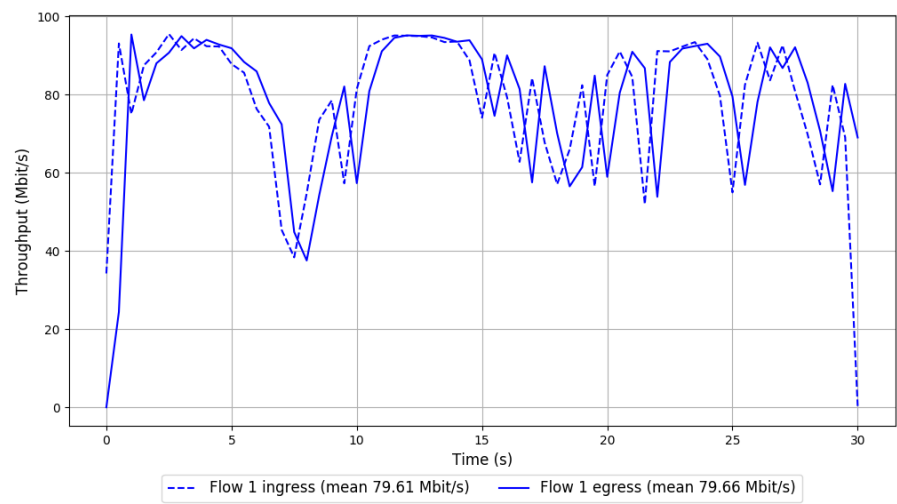


Run 3: Statistics of Copa

Start at: 2019-12-11 11:58:19  
End at: 2019-12-11 11:58:49  
Local clock offset: 4.559 ms  
Remote clock offset: -2.591 ms

# Below is generated by plot.py at 2019-12-11 13:15:13  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 79.66 Mbit/s  
95th percentile per-packet one-way delay: 37.054 ms  
Loss rate: 0.10%  
-- Flow 1:  
Average throughput: 79.66 Mbit/s  
95th percentile per-packet one-way delay: 37.054 ms  
Loss rate: 0.10%

Run 3: Report of Copa — Data Link



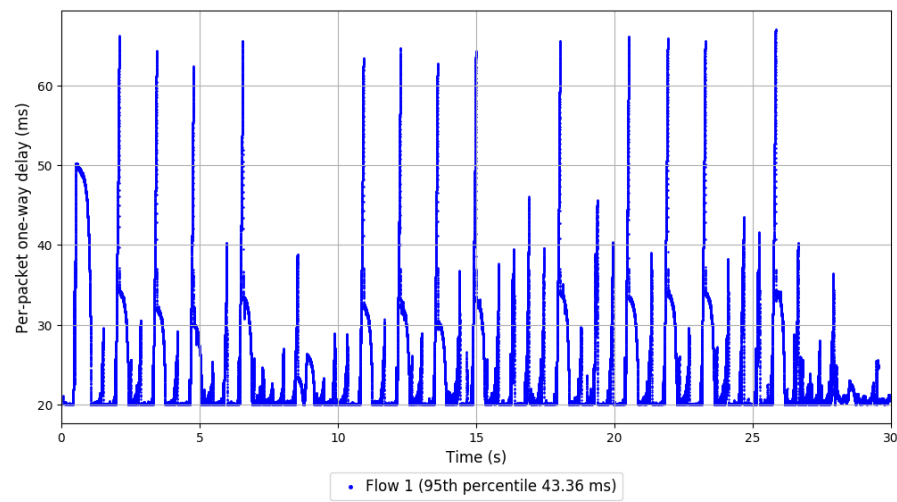
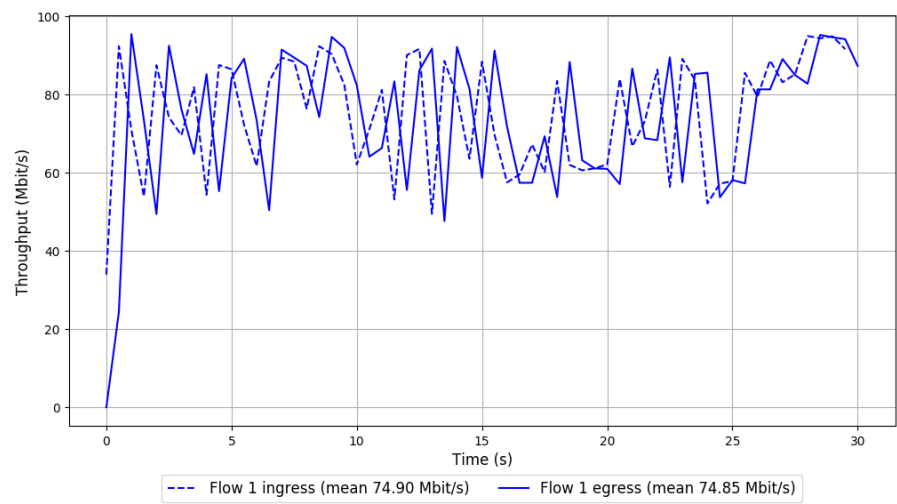


Run 4: Statistics of Copa

Start at: 2019-12-11 12:27:00  
End at: 2019-12-11 12:27:30  
Local clock offset: 4.094 ms  
Remote clock offset: -4.111 ms

# Below is generated by plot.py at 2019-12-11 13:16:02  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 74.85 Mbit/s  
95th percentile per-packet one-way delay: 43.359 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 74.85 Mbit/s  
95th percentile per-packet one-way delay: 43.359 ms  
Loss rate: 0.23%

Run 4: Report of Copa — Data Link

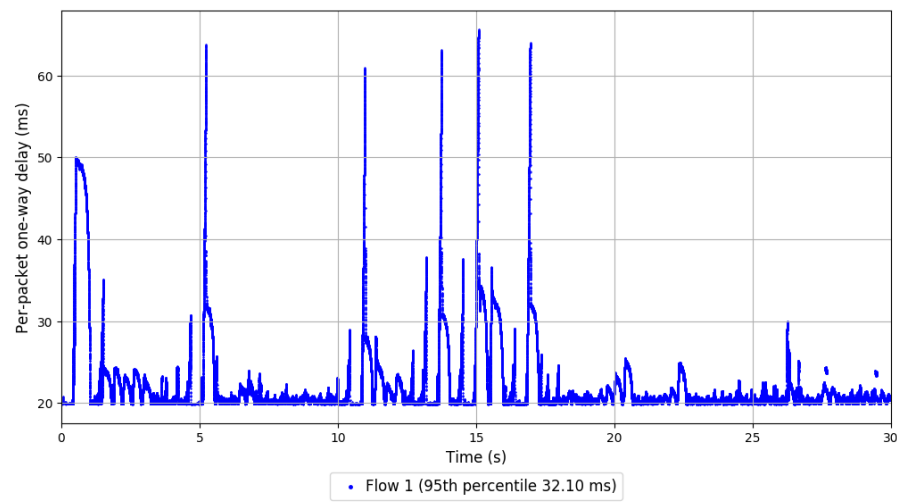
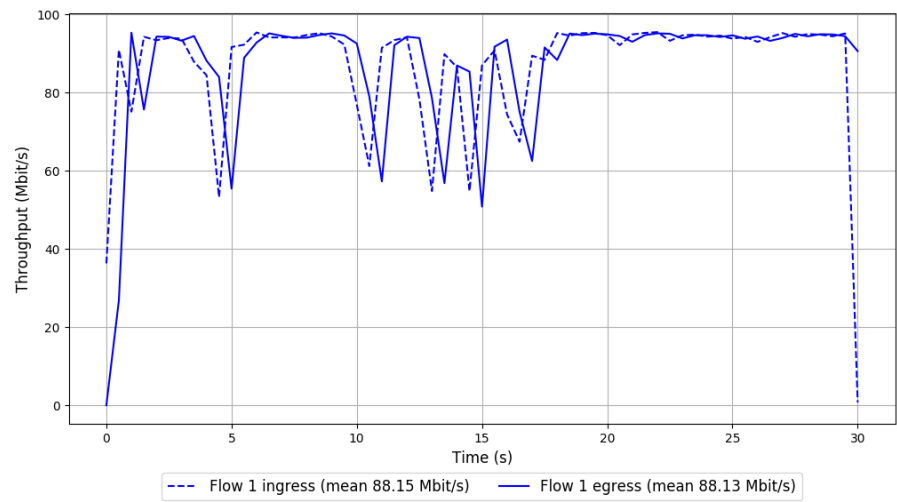


Run 5: Statistics of Copa

Start at: 2019-12-11 12:56:27  
End at: 2019-12-11 12:56:57  
Local clock offset: 4.684 ms  
Remote clock offset: -4.257 ms

# Below is generated by plot.py at 2019-12-11 13:16:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.13 Mbit/s  
95th percentile per-packet one-way delay: 32.103 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 88.13 Mbit/s  
95th percentile per-packet one-way delay: 32.103 ms  
Loss rate: 0.18%

Run 5: Report of Copa — Data Link

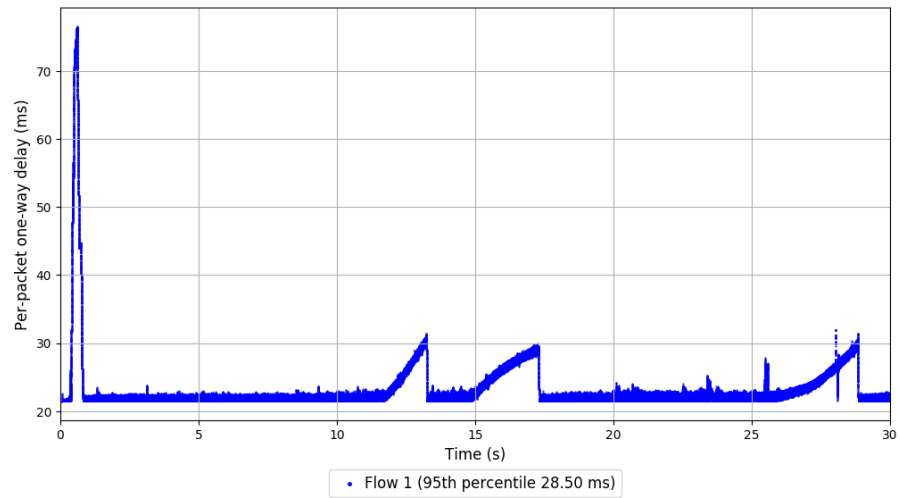
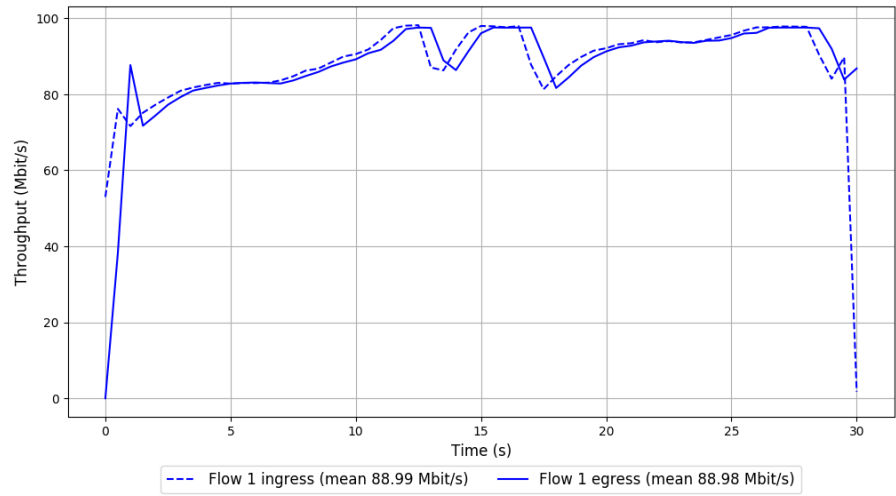


Run 1: Statistics of TCP Cubic

Start at: 2019-12-11 10:59:01  
End at: 2019-12-11 10:59:31  
Local clock offset: 6.3 ms  
Remote clock offset: -7.272 ms

# Below is generated by plot.py at 2019-12-11 13:16:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.98 Mbit/s  
95th percentile per-packet one-way delay: 28.501 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 88.98 Mbit/s  
95th percentile per-packet one-way delay: 28.501 ms  
Loss rate: 0.17%

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

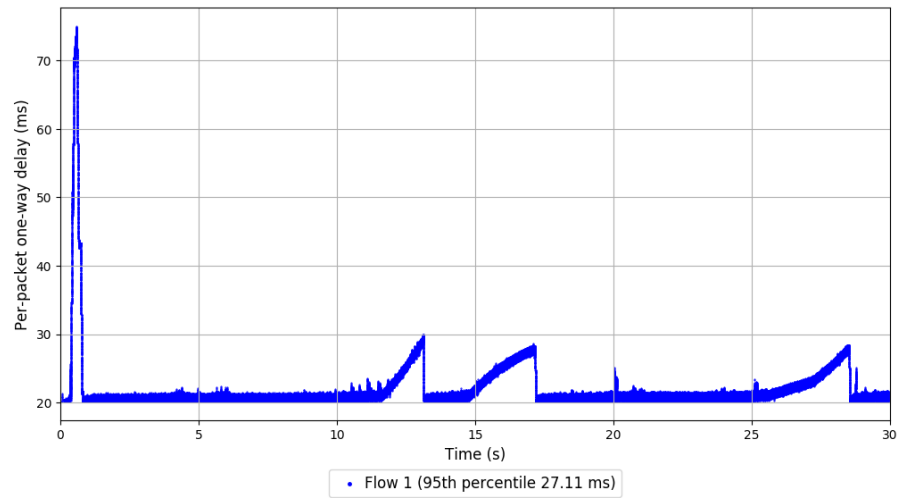
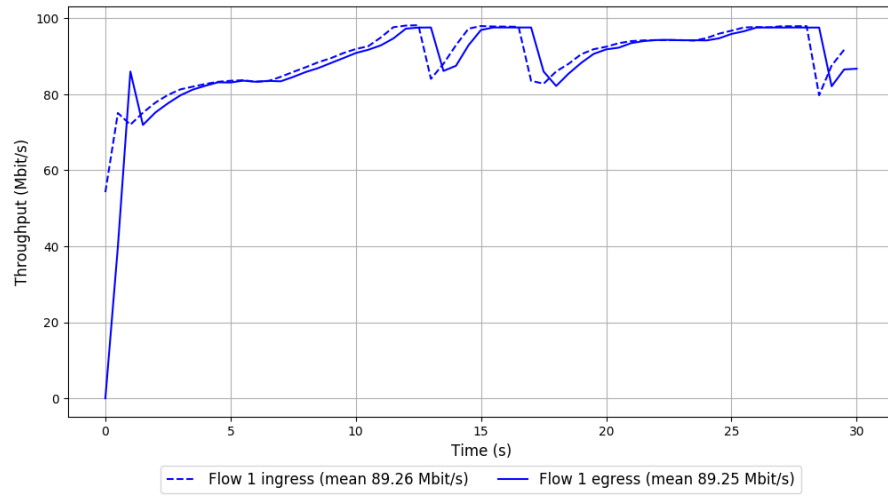


Run 2: Statistics of TCP Cubic

Start at: 2019-12-11 11:27:47  
End at: 2019-12-11 11:28:17  
Local clock offset: 6.805 ms  
Remote clock offset: -4.605 ms

# Below is generated by plot.py at 2019-12-11 13:16:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.25 Mbit/s  
95th percentile per-packet one-way delay: 27.111 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 89.25 Mbit/s  
95th percentile per-packet one-way delay: 27.111 ms  
Loss rate: 0.17%

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



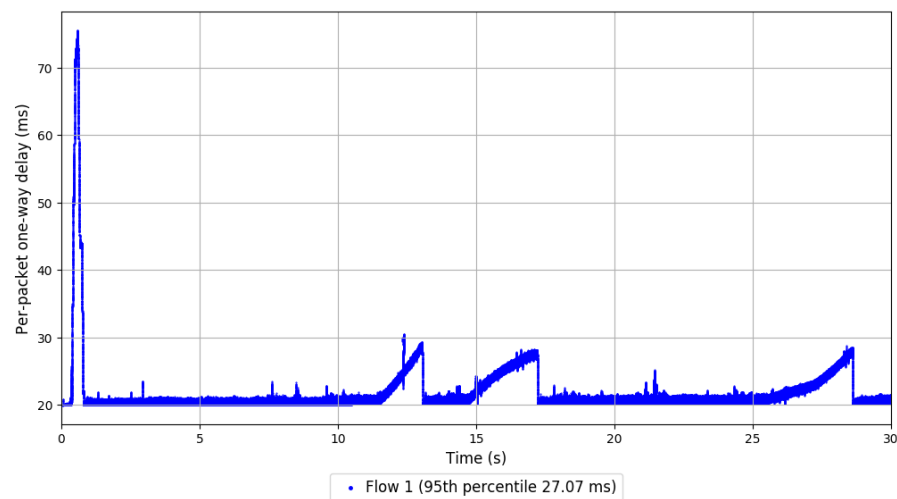
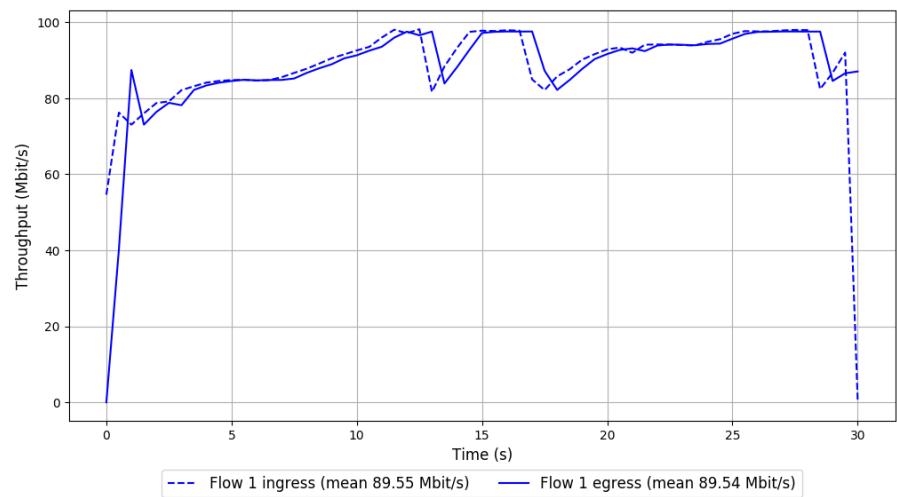


Run 3: Statistics of TCP Cubic

Start at: 2019-12-11 11:56:03  
End at: 2019-12-11 11:56:33  
Local clock offset: 4.529 ms  
Remote clock offset: -4.156 ms

# Below is generated by plot.py at 2019-12-11 13:16:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.54 Mbit/s  
95th percentile per-packet one-way delay: 27.068 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 89.54 Mbit/s  
95th percentile per-packet one-way delay: 27.068 ms  
Loss rate: 0.17%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2019-12-11 12:24:42

End at: 2019-12-11 12:25:12

Local clock offset: 3.663 ms

Remote clock offset: -4.88 ms

# Below is generated by plot.py at 2019-12-11 13:16:18

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.03 Mbit/s

95th percentile per-packet one-way delay: 27.156 ms

Loss rate: 0.16%

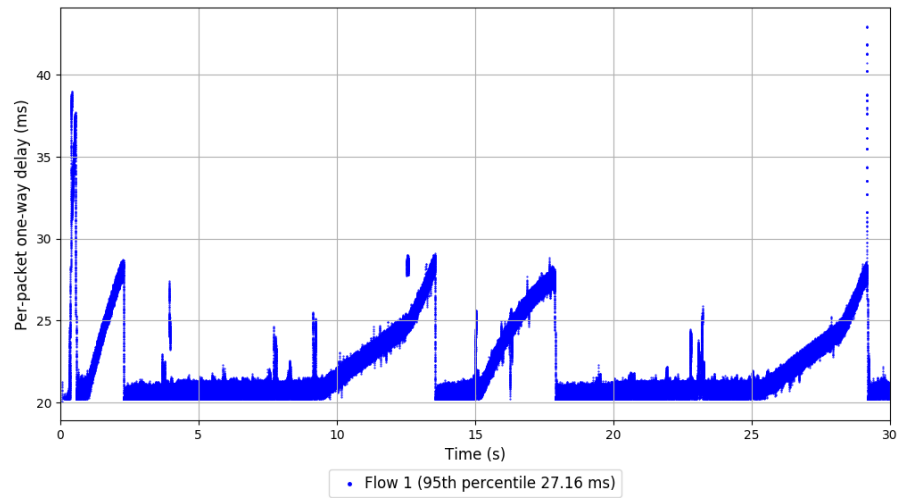
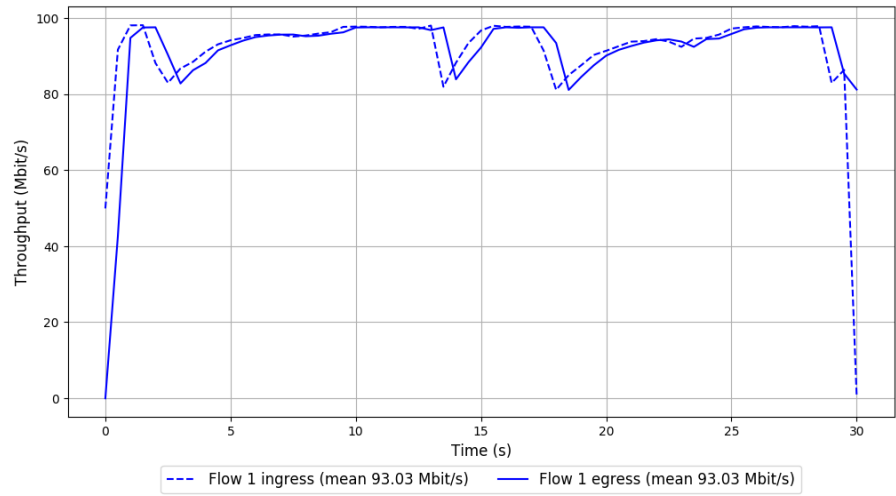
-- Flow 1:

Average throughput: 93.03 Mbit/s

95th percentile per-packet one-way delay: 27.156 ms

Loss rate: 0.16%

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

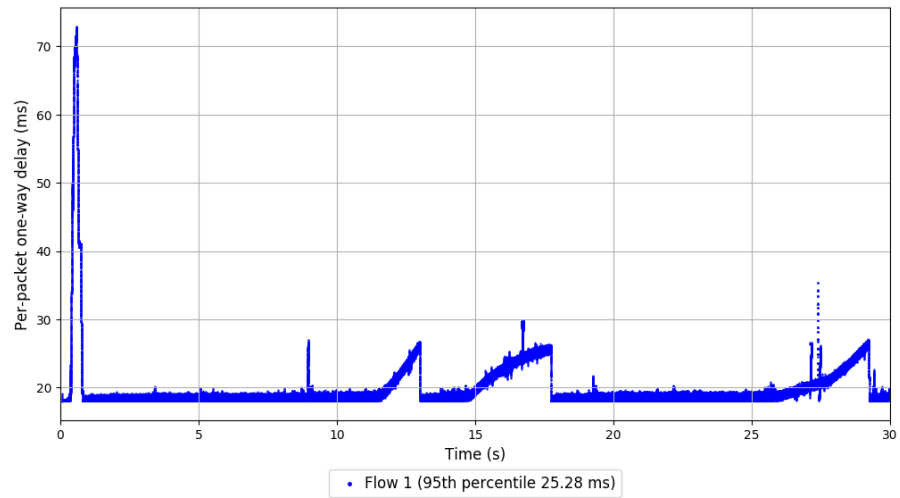
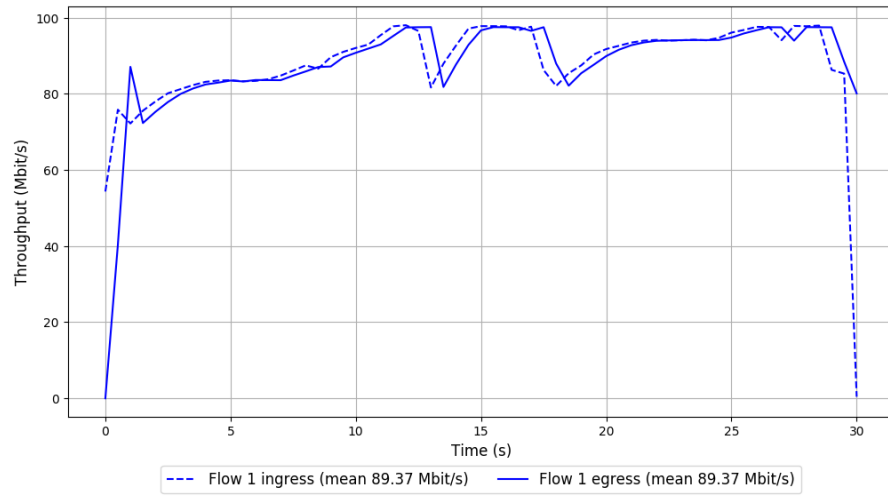


Run 5: Statistics of TCP Cubic

Start at: 2019-12-11 12:54:07  
End at: 2019-12-11 12:54:37  
Local clock offset: 4.948 ms  
Remote clock offset: -2.205 ms

# Below is generated by plot.py at 2019-12-11 13:16:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.37 Mbit/s  
95th percentile per-packet one-way delay: 25.276 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 89.37 Mbit/s  
95th percentile per-packet one-way delay: 25.276 ms  
Loss rate: 0.16%

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



Run 1: Statistics of FillP

Start at: 2019-12-11 11:11:12

End at: 2019-12-11 11:11:42

Local clock offset: 6.661 ms

Remote clock offset: -5.51 ms

# Below is generated by plot.py at 2019-12-11 13:16:38

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.64 Mbit/s

95th percentile per-packet one-way delay: 29.908 ms

Loss rate: 0.19%

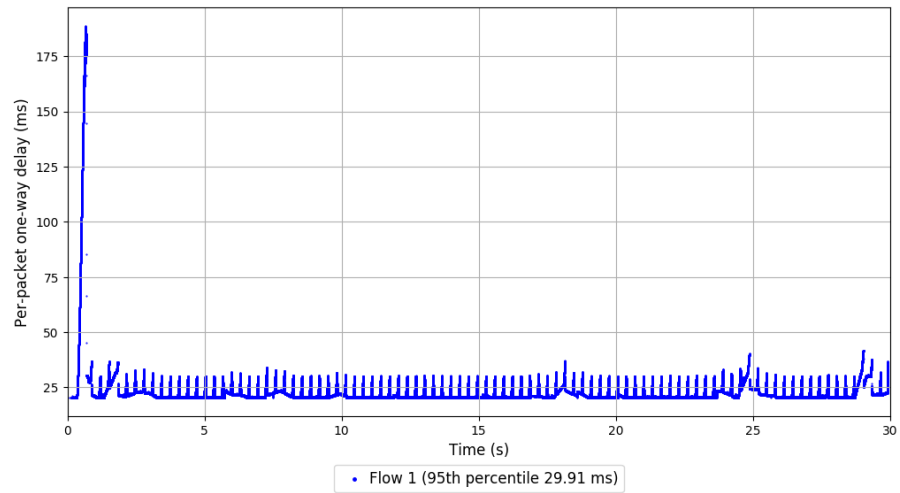
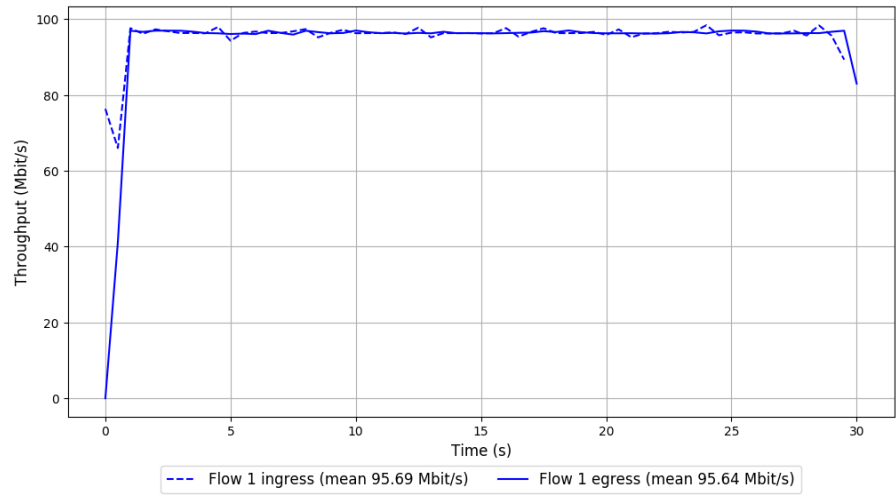
-- Flow 1:

Average throughput: 95.64 Mbit/s

95th percentile per-packet one-way delay: 29.908 ms

Loss rate: 0.19%

### Run 1: Report of FillP — Data Link



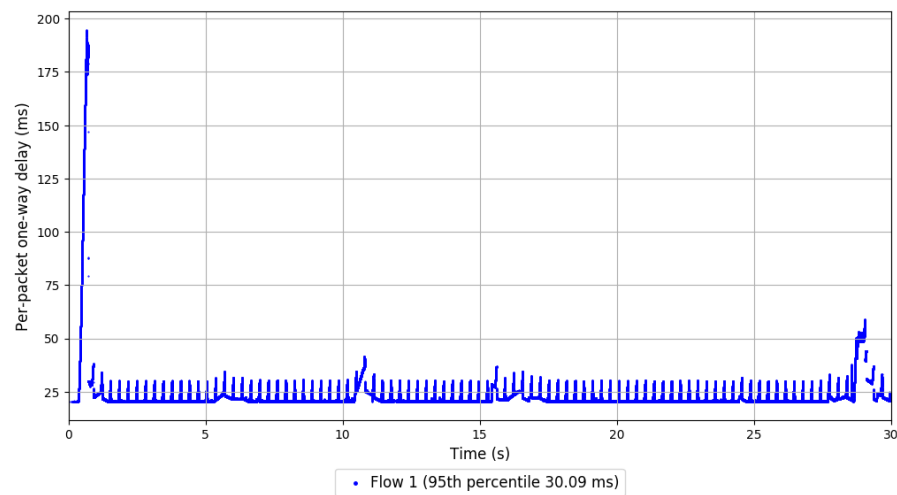
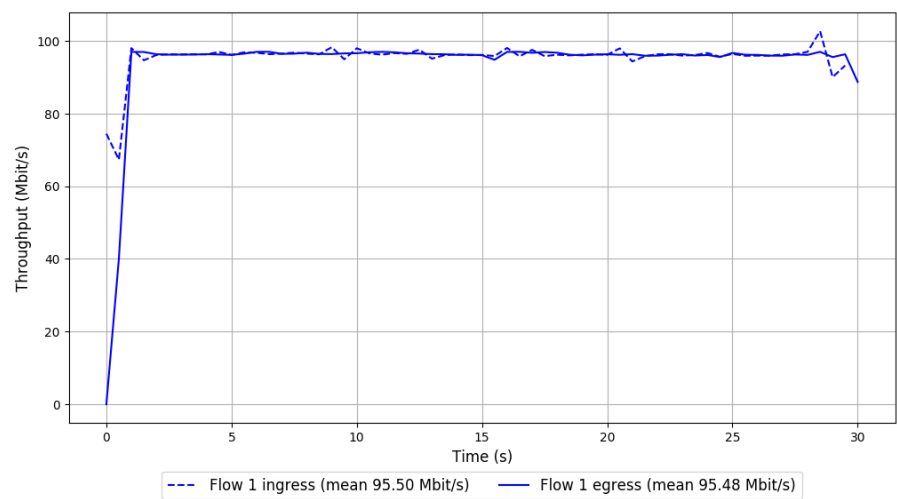


Run 2: Statistics of FillP

Start at: 2019-12-11 11:39:47  
End at: 2019-12-11 11:40:17  
Local clock offset: 7.095 ms  
Remote clock offset: -4.034 ms

# Below is generated by plot.py at 2019-12-11 13:16:45  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.48 Mbit/s  
95th percentile per-packet one-way delay: 30.089 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 95.48 Mbit/s  
95th percentile per-packet one-way delay: 30.089 ms  
Loss rate: 0.17%

Run 2: Report of FillP — Data Link

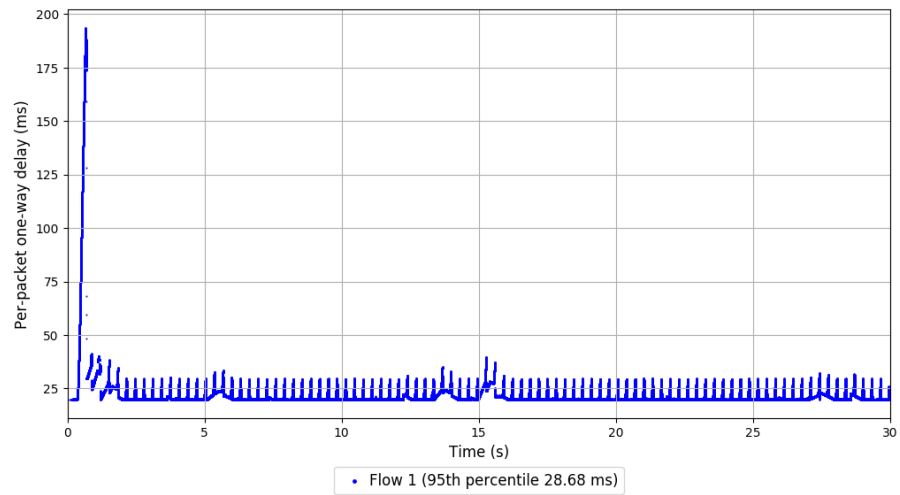
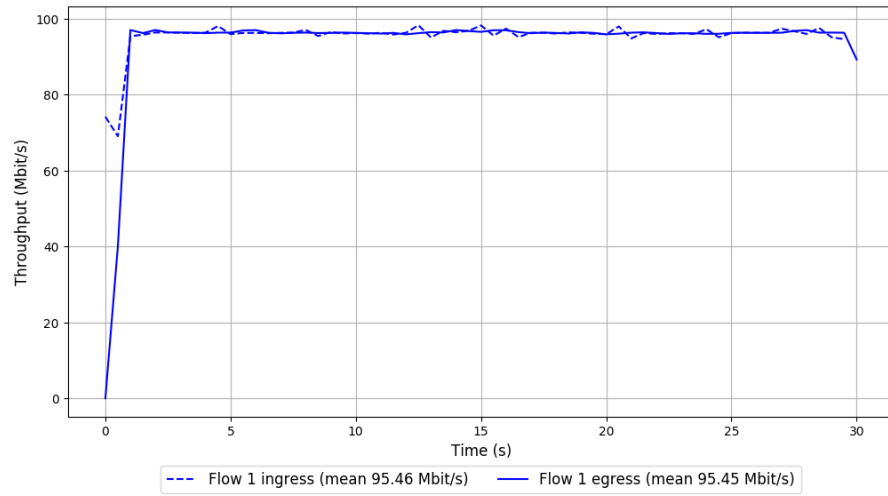


Run 3: Statistics of FillP

Start at: 2019-12-11 12:08:07  
End at: 2019-12-11 12:08:37  
Local clock offset: 3.25 ms  
Remote clock offset: -4.904 ms

# Below is generated by plot.py at 2019-12-11 13:16:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.45 Mbit/s  
95th percentile per-packet one-way delay: 28.677 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 95.45 Mbit/s  
95th percentile per-packet one-way delay: 28.677 ms  
Loss rate: 0.17%

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



Run 4: Statistics of FillP

Start at: 2019-12-11 12:37:00

End at: 2019-12-11 12:37:30

Local clock offset: 4.274 ms

Remote clock offset: -1.86 ms

# Below is generated by plot.py at 2019-12-11 13:16:47

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.50 Mbit/s

95th percentile per-packet one-way delay: 29.368 ms

Loss rate: 0.19%

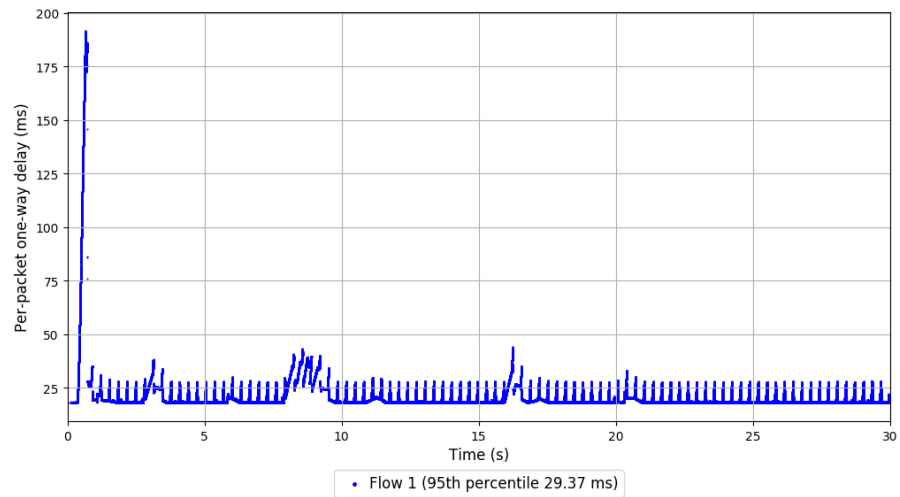
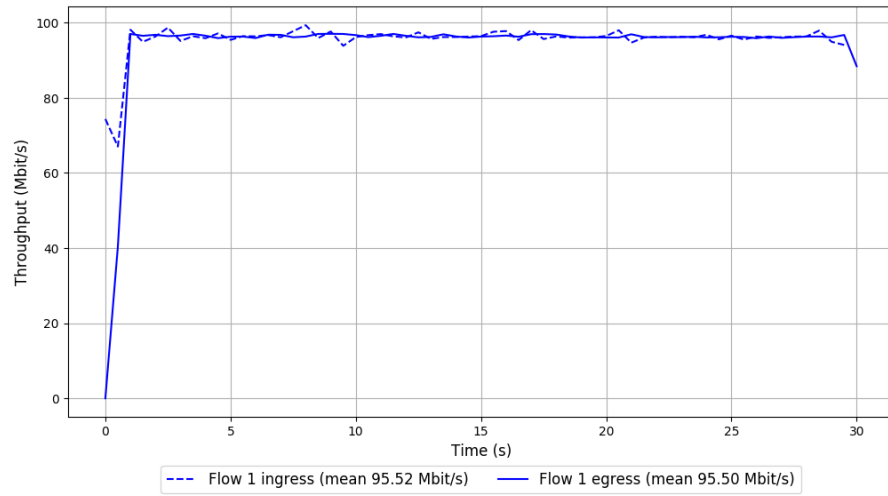
-- Flow 1:

Average throughput: 95.50 Mbit/s

95th percentile per-packet one-way delay: 29.368 ms

Loss rate: 0.19%

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

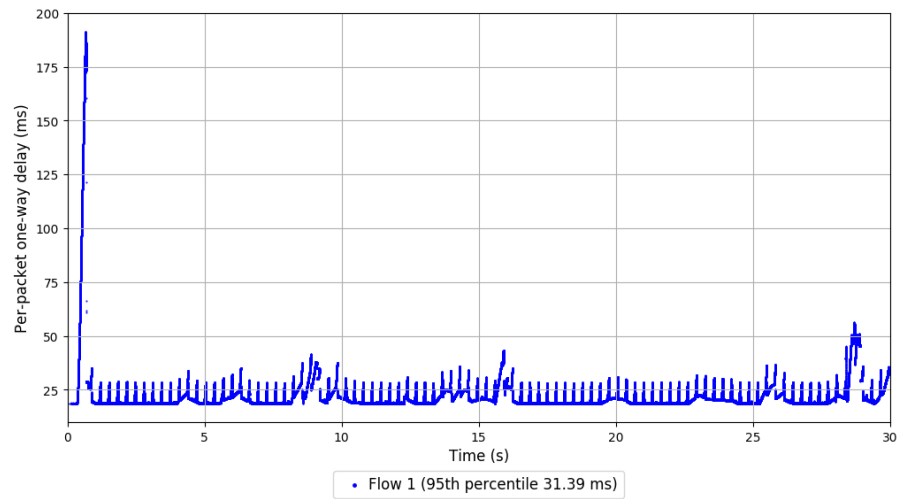
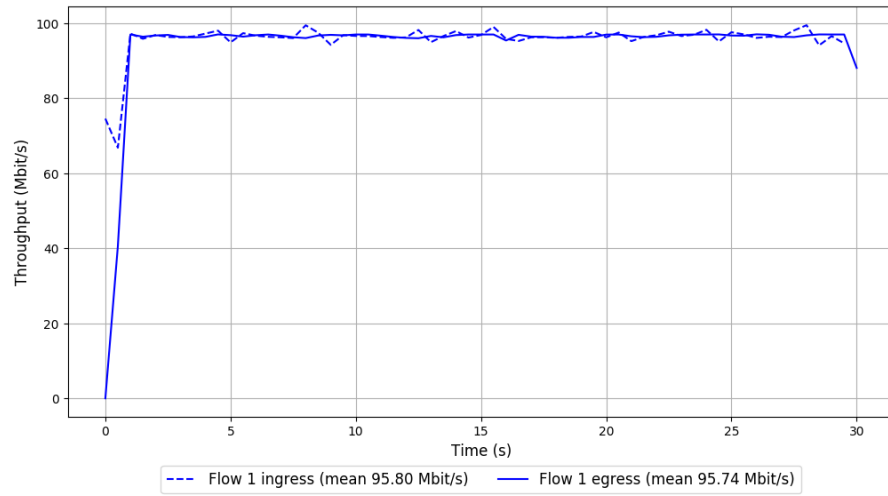


Run 5: Statistics of FillP

Start at: 2019-12-11 13:06:50  
End at: 2019-12-11 13:07:20  
Local clock offset: 5.488 ms  
Remote clock offset: -2.661 ms

# Below is generated by plot.py at 2019-12-11 13:17:26  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.74 Mbit/s  
95th percentile per-packet one-way delay: 31.391 ms  
Loss rate: 0.22%  
-- Flow 1:  
Average throughput: 95.74 Mbit/s  
95th percentile per-packet one-way delay: 31.391 ms  
Loss rate: 0.22%

### Run 5: Report of FillP — Data Link





Run 1: Statistics of FillP-Sheep

Start at: 2019-12-11 11:04:57

End at: 2019-12-11 11:05:27

Local clock offset: 7.105 ms

Remote clock offset: -4.587 ms

# Below is generated by plot.py at 2019-12-11 13:17:28

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.05 Mbit/s

95th percentile per-packet one-way delay: 24.747 ms

Loss rate: 0.16%

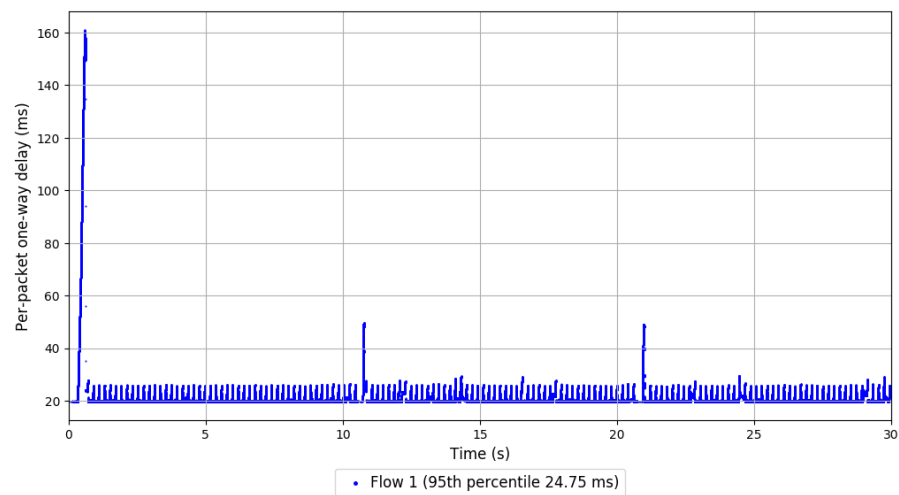
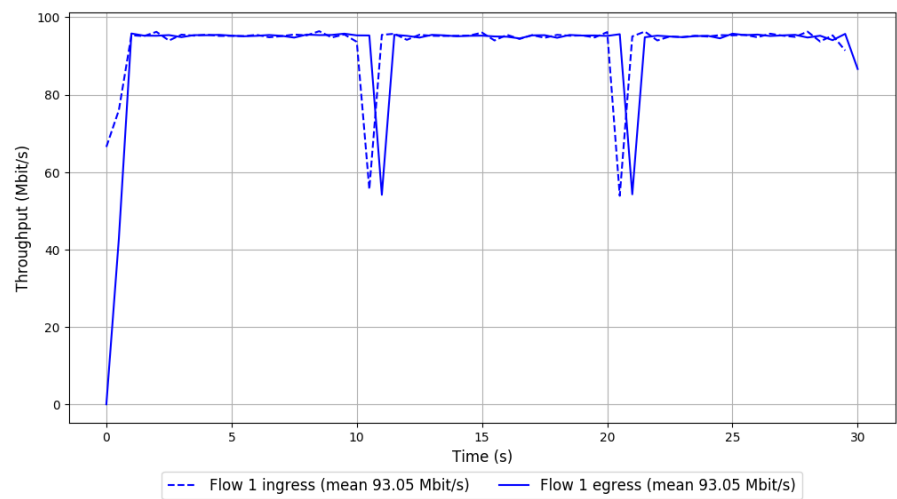
-- Flow 1:

Average throughput: 93.05 Mbit/s

95th percentile per-packet one-way delay: 24.747 ms

Loss rate: 0.16%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-12-11 11:33:46

End at: 2019-12-11 11:34:16

Local clock offset: 6.766 ms

Remote clock offset: -3.851 ms

# Below is generated by plot.py at 2019-12-11 13:17:30

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.61 Mbit/s

95th percentile per-packet one-way delay: 35.721 ms

Loss rate: 0.19%

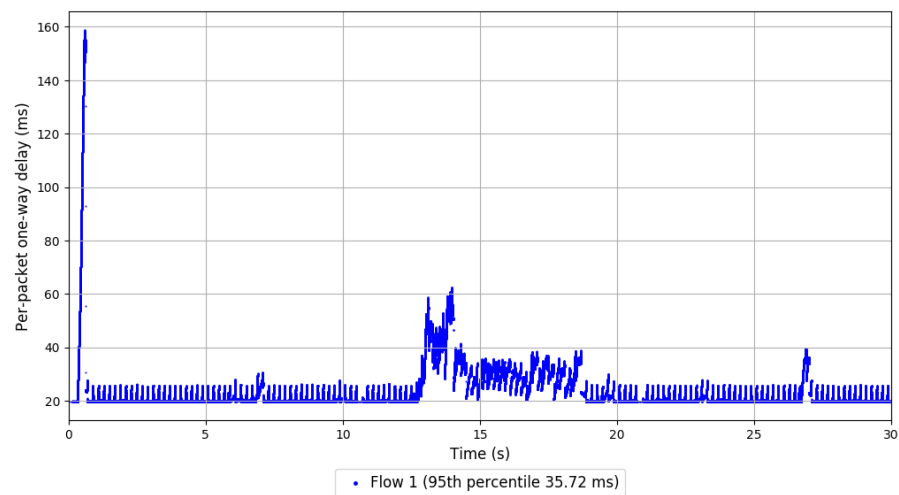
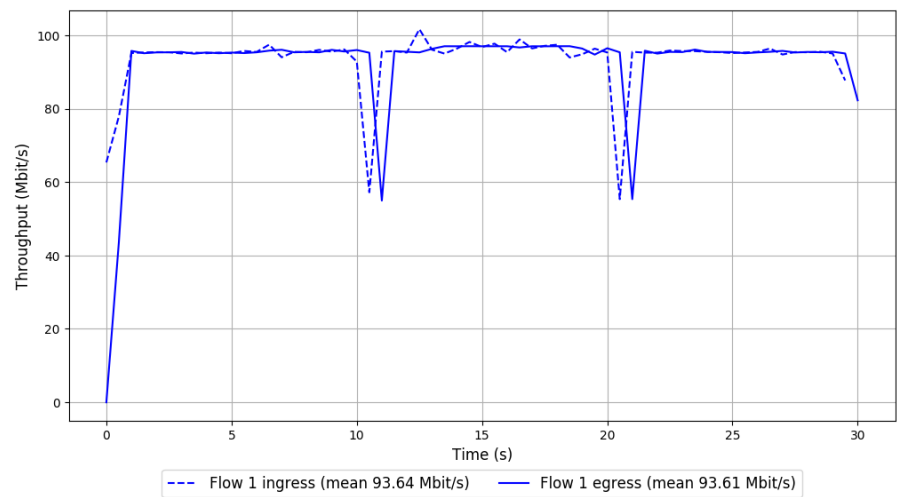
-- Flow 1:

Average throughput: 93.61 Mbit/s

95th percentile per-packet one-way delay: 35.721 ms

Loss rate: 0.19%

Run 2: Report of FillP-Sheep — Data Link



Run 3: Statistics of FillP-Sheep

Start at: 2019-12-11 12:01:58

End at: 2019-12-11 12:02:28

Local clock offset: 4.521 ms

Remote clock offset: -4.379 ms

# Below is generated by plot.py at 2019-12-11 13:17:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.45 Mbit/s

95th percentile per-packet one-way delay: 26.177 ms

Loss rate: 0.21%

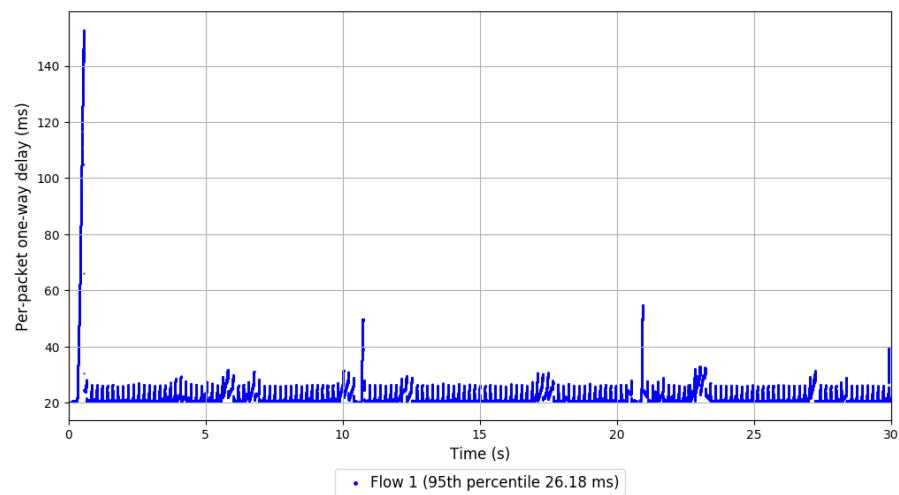
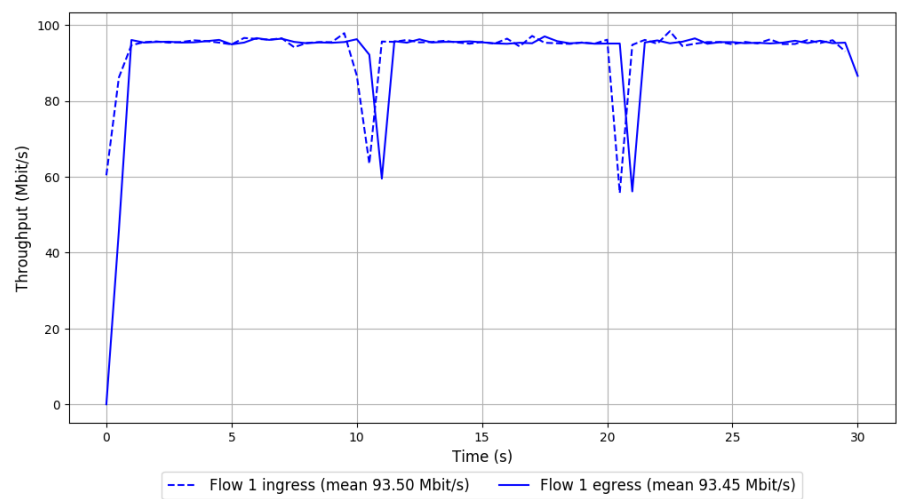
-- Flow 1:

Average throughput: 93.45 Mbit/s

95th percentile per-packet one-way delay: 26.177 ms

Loss rate: 0.21%

Run 3: Report of FillP-Sheep — Data Link

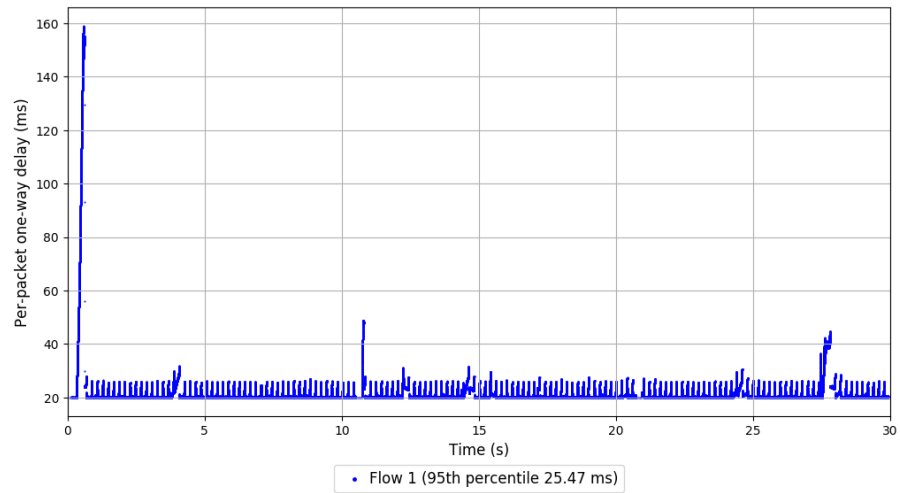
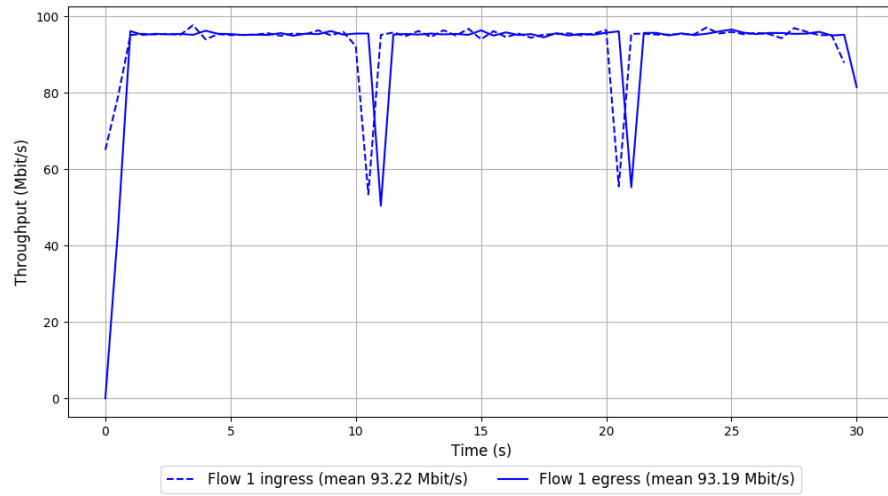


Run 4: Statistics of FillP-Sheep

Start at: 2019-12-11 12:30:43  
End at: 2019-12-11 12:31:13  
Local clock offset: 3.494 ms  
Remote clock offset: -4.624 ms

# Below is generated by plot.py at 2019-12-11 13:17:59  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.19 Mbit/s  
95th percentile per-packet one-way delay: 25.468 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 93.19 Mbit/s  
95th percentile per-packet one-way delay: 25.468 ms  
Loss rate: 0.18%

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





Run 5: Statistics of FillP-Sheep

Start at: 2019-12-11 13:00:22

End at: 2019-12-11 13:00:52

Local clock offset: 6.203 ms

Remote clock offset: -1.416 ms

# Below is generated by plot.py at 2019-12-11 13:18:08

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 27.758 ms

Loss rate: 0.23%

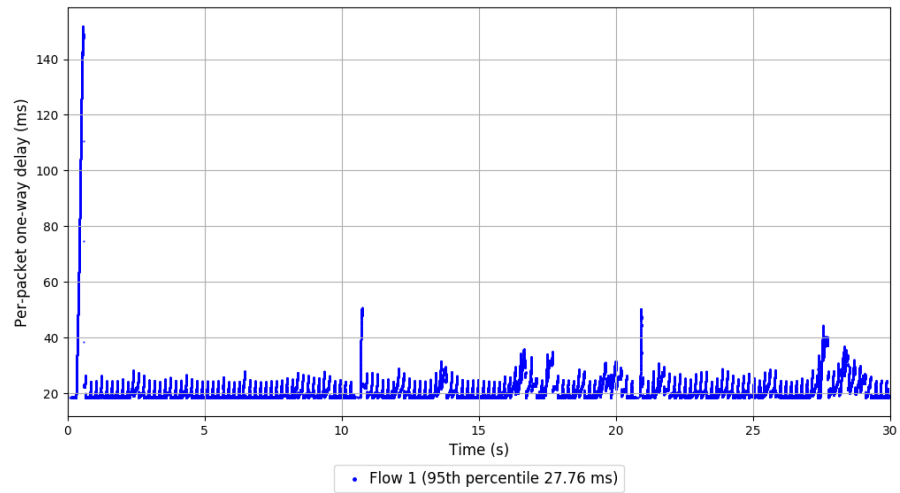
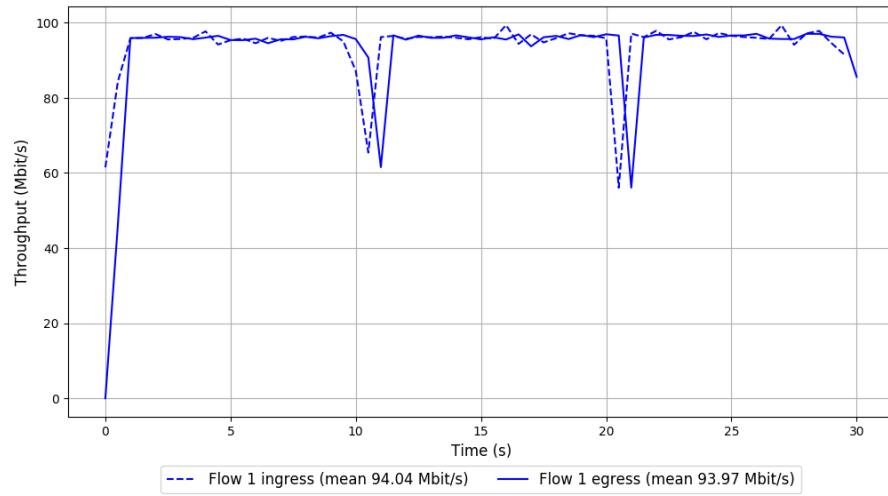
-- Flow 1:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 27.758 ms

Loss rate: 0.23%

## Run 5: Report of FillP-Sheep — Data Link

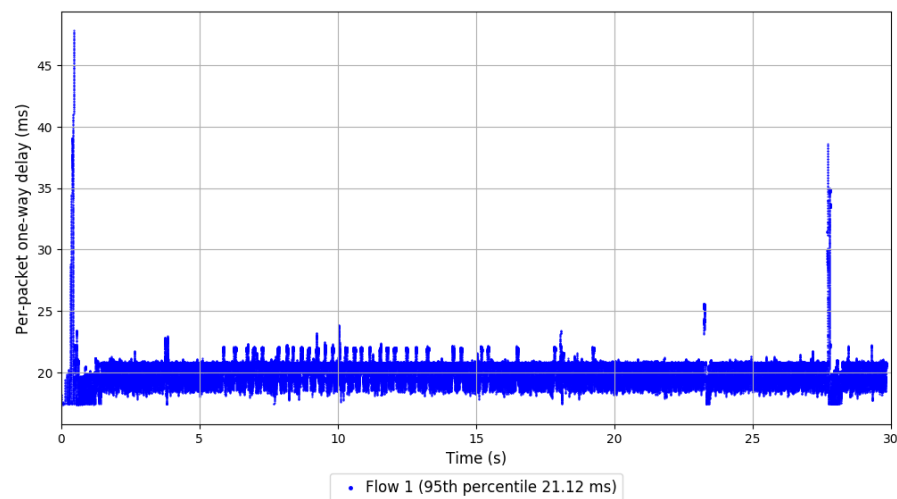
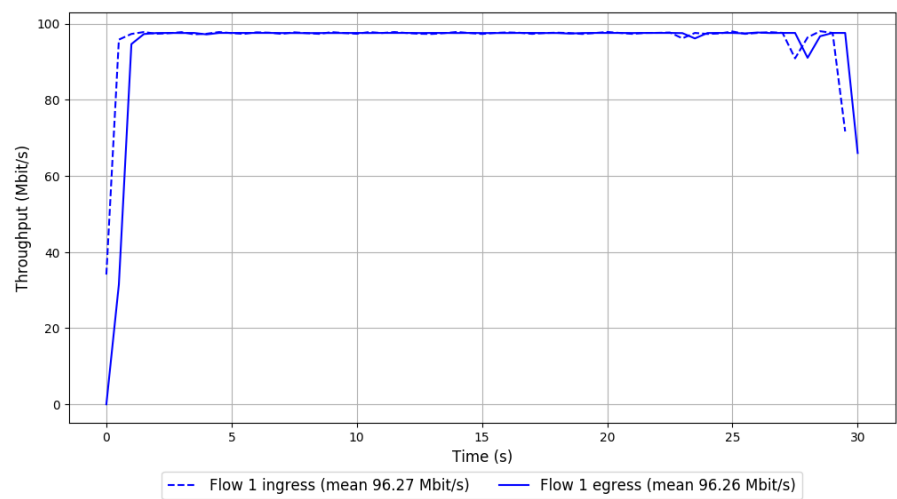


Run 1: Statistics of Indigo

Start at: 2019-12-11 10:53:08  
End at: 2019-12-11 10:53:38  
Local clock offset: 5.472 ms  
Remote clock offset: -4.155 ms

# Below is generated by plot.py at 2019-12-11 13:18:08  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.26 Mbit/s  
95th percentile per-packet one-way delay: 21.123 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 96.26 Mbit/s  
95th percentile per-packet one-way delay: 21.123 ms  
Loss rate: 0.17%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-12-11 11:21:48

End at: 2019-12-11 11:22:18

Local clock offset: 7.379 ms

Remote clock offset: -4.13 ms

# Below is generated by plot.py at 2019-12-11 13:18:08

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.96 Mbit/s

95th percentile per-packet one-way delay: 22.716 ms

Loss rate: 0.14%

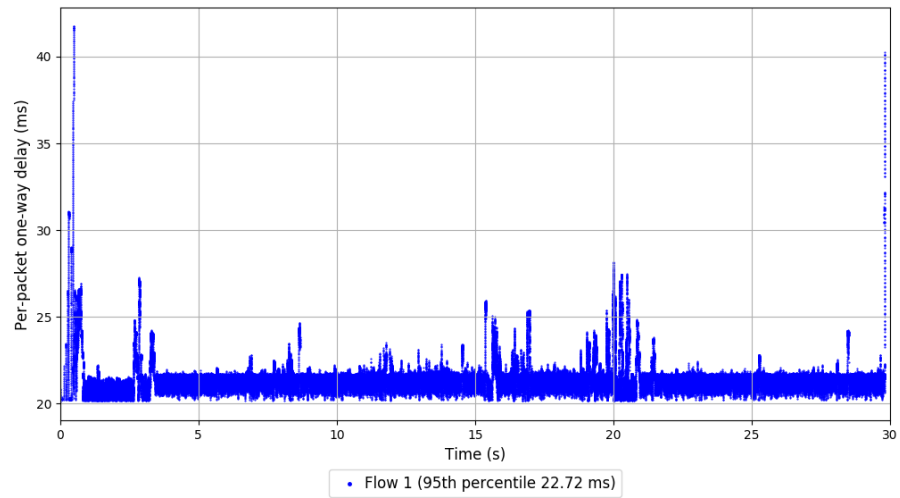
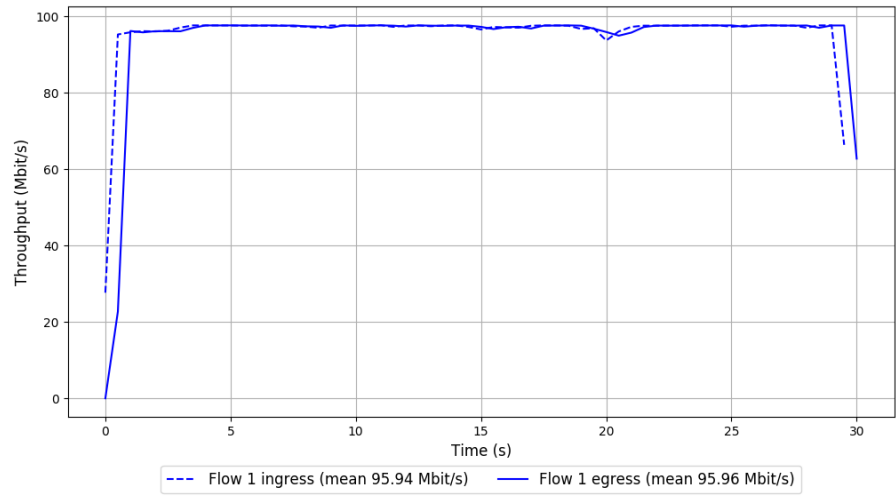
-- Flow 1:

Average throughput: 95.96 Mbit/s

95th percentile per-packet one-way delay: 22.716 ms

Loss rate: 0.14%

## Run 2: Report of Indigo — Data Link

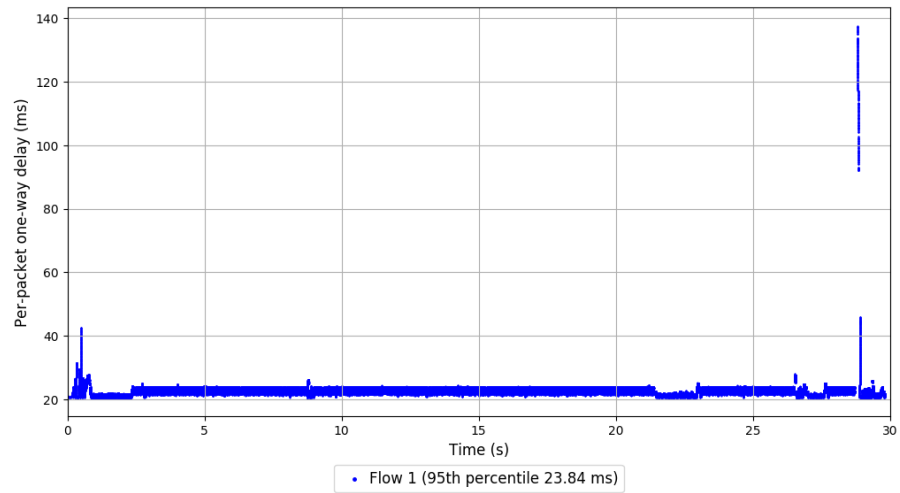
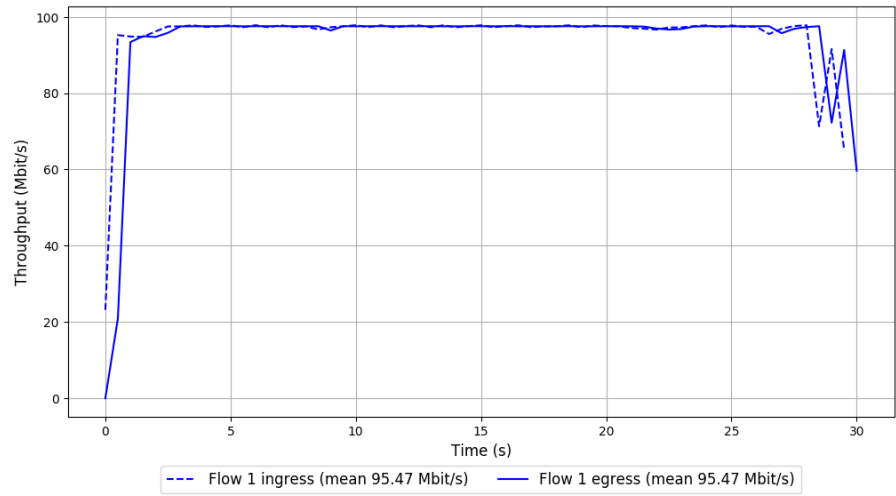


Run 3: Statistics of Indigo

Start at: 2019-12-11 11:50:06  
End at: 2019-12-11 11:50:36  
Local clock offset: 5.417 ms  
Remote clock offset: -4.046 ms

# Below is generated by plot.py at 2019-12-11 13:18:36  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.47 Mbit/s  
95th percentile per-packet one-way delay: 23.845 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 95.47 Mbit/s  
95th percentile per-packet one-way delay: 23.845 ms  
Loss rate: 0.16%

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



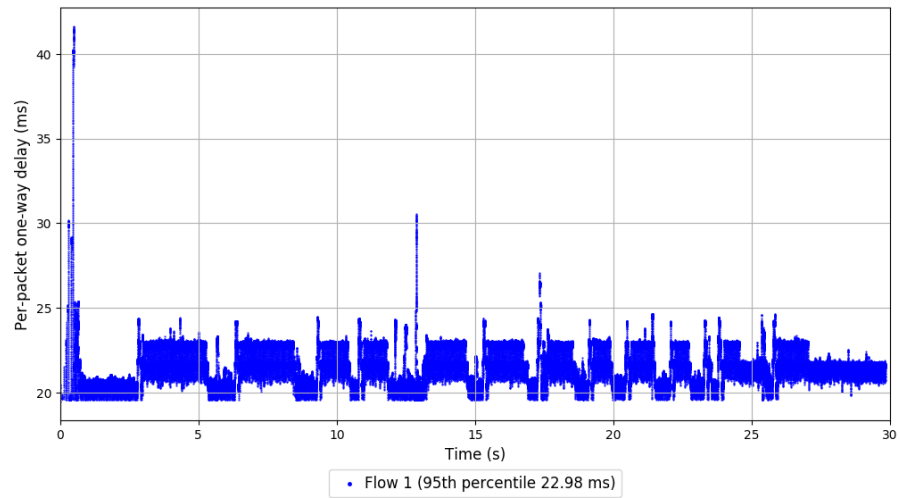
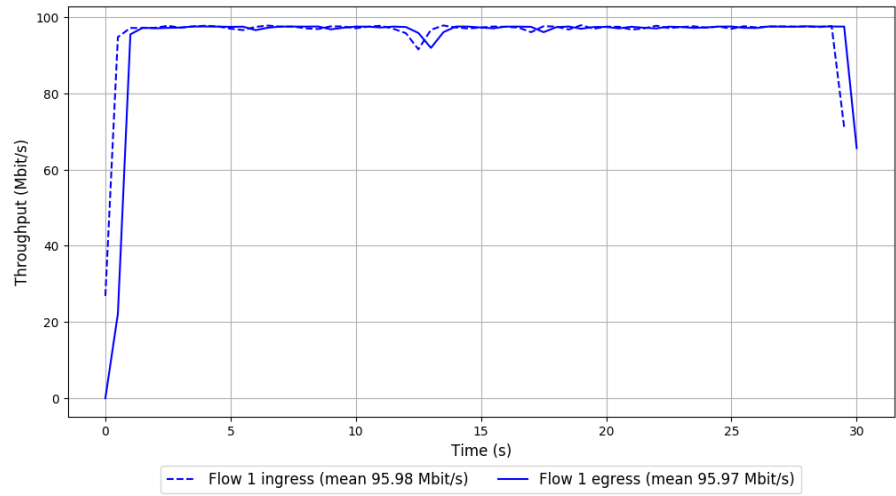


Run 4: Statistics of Indigo

Start at: 2019-12-11 12:18:21  
End at: 2019-12-11 12:18:51  
Local clock offset: 3.87 ms  
Remote clock offset: -4.457 ms

# Below is generated by plot.py at 2019-12-11 13:18:38  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.97 Mbit/s  
95th percentile per-packet one-way delay: 22.981 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 95.97 Mbit/s  
95th percentile per-packet one-way delay: 22.981 ms  
Loss rate: 0.17%

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

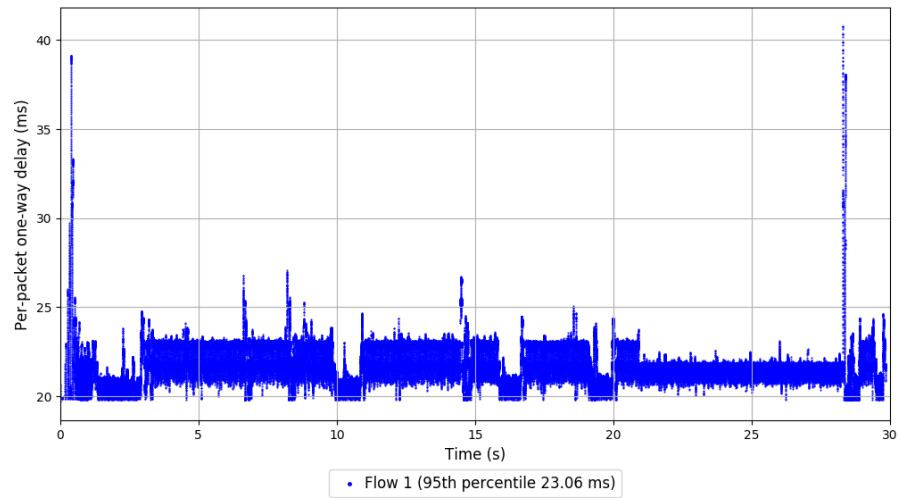
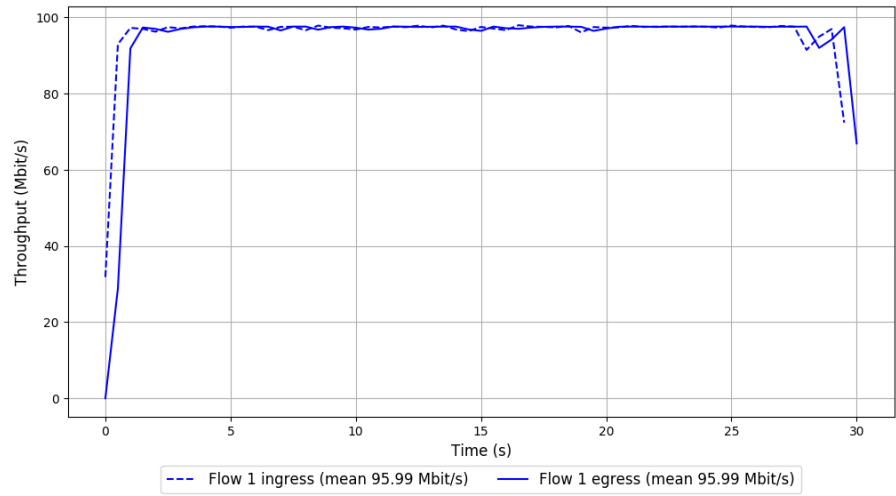


Run 5: Statistics of Indigo

Start at: 2019-12-11 12:47:42  
End at: 2019-12-11 12:48:12  
Local clock offset: 5.007 ms  
Remote clock offset: -3.651 ms

# Below is generated by plot.py at 2019-12-11 13:18:40  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.99 Mbit/s  
95th percentile per-packet one-way delay: 23.056 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 95.99 Mbit/s  
95th percentile per-packet one-way delay: 23.056 ms  
Loss rate: 0.16%

## Run 5: Report of Indigo — Data Link

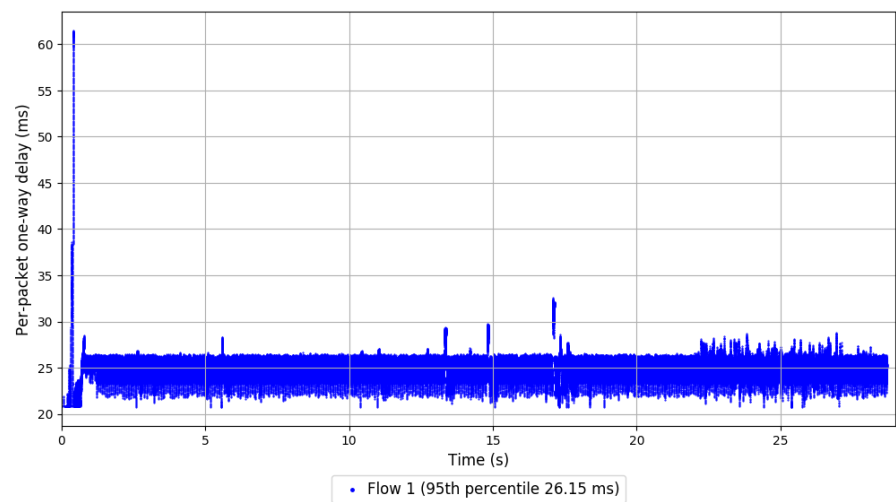
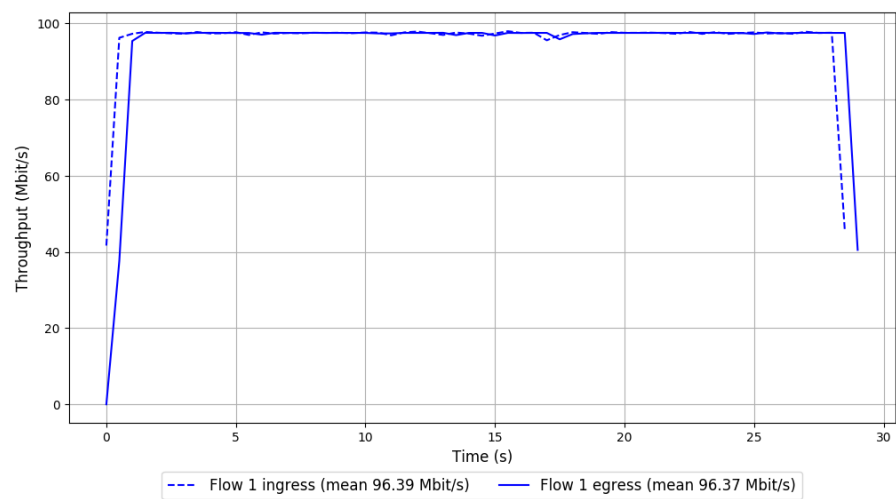


Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-11 11:03:39  
End at: 2019-12-11 11:04:09  
Local clock offset: 7.08 ms  
Remote clock offset: -5.678 ms

# Below is generated by plot.py at 2019-12-11 13:18:53  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.37 Mbit/s  
95th percentile per-packet one-way delay: 26.148 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 96.37 Mbit/s  
95th percentile per-packet one-way delay: 26.148 ms  
Loss rate: 0.18%

Run 1: Report of Indigo-MusesC3 — Data Link

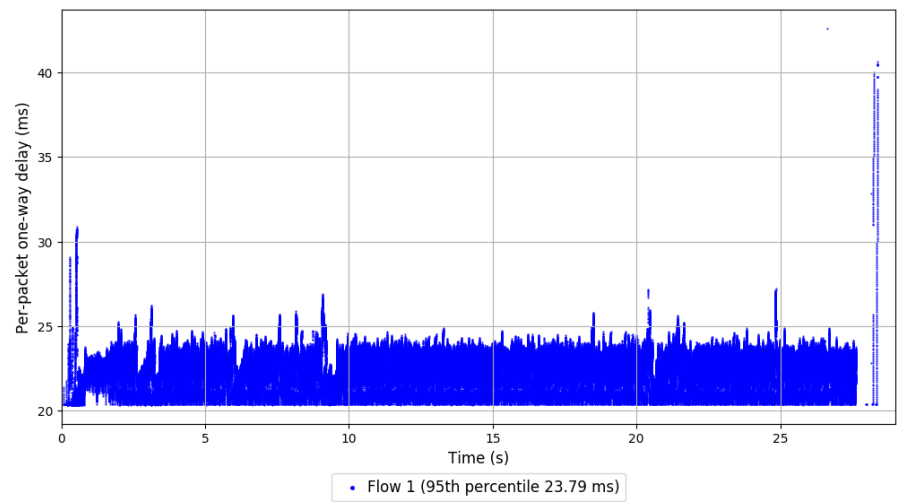
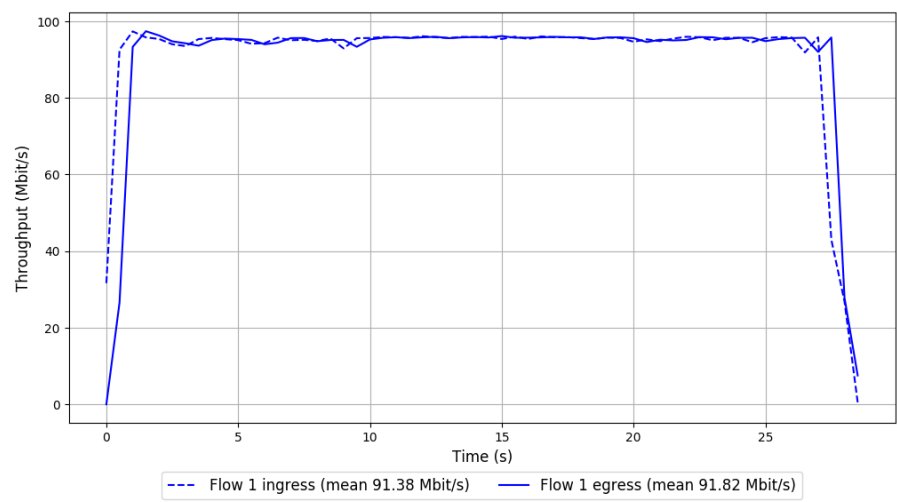


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-11 11:32:30  
End at: 2019-12-11 11:33:00  
Local clock offset: 7.844 ms  
Remote clock offset: -3.541 ms

# Below is generated by plot.py at 2019-12-11 13:19:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.82 Mbit/s  
95th percentile per-packet one-way delay: 23.787 ms  
Loss rate: 0.75%  
-- Flow 1:  
Average throughput: 91.82 Mbit/s  
95th percentile per-packet one-way delay: 23.787 ms  
Loss rate: 0.75%

Run 2: Report of Indigo-MusesC3 — Data Link



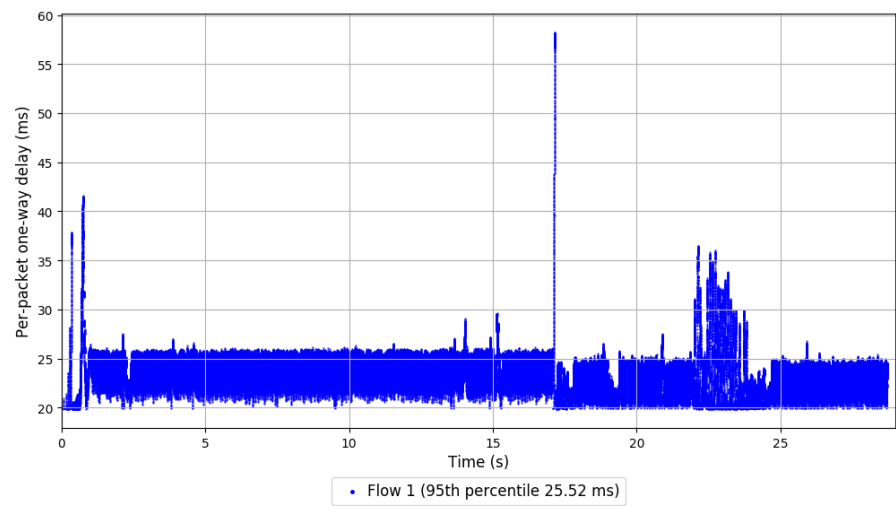
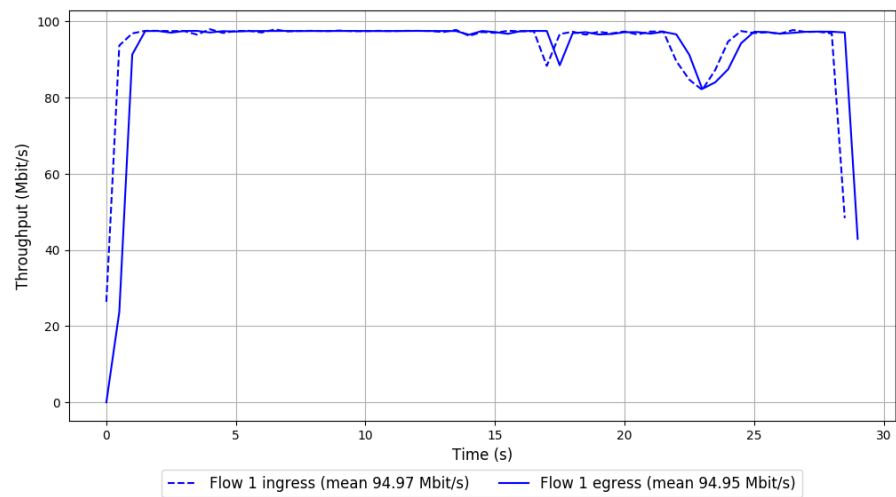


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-11 12:00:46  
End at: 2019-12-11 12:01:16  
Local clock offset: 3.635 ms  
Remote clock offset: -4.544 ms

# Below is generated by plot.py at 2019-12-11 13:19:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.95 Mbit/s  
95th percentile per-packet one-way delay: 25.519 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 94.95 Mbit/s  
95th percentile per-packet one-way delay: 25.519 ms  
Loss rate: 0.18%

Run 3: Report of Indigo-MusesC3 — Data Link

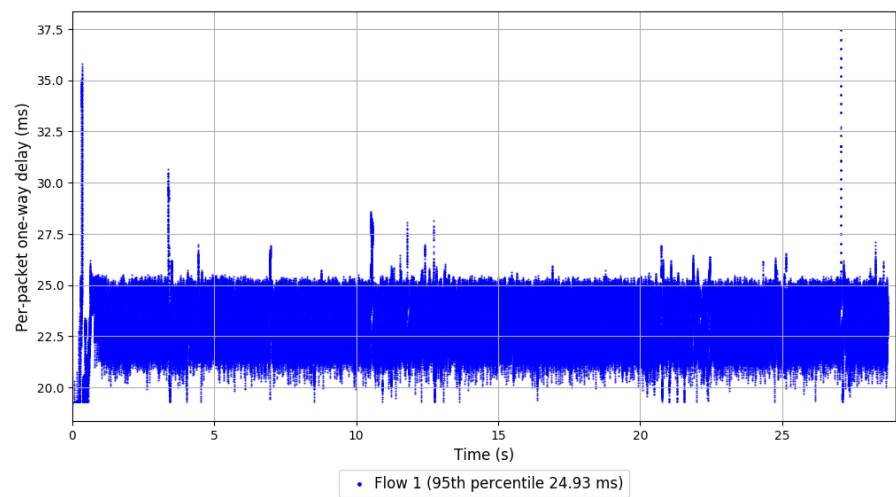
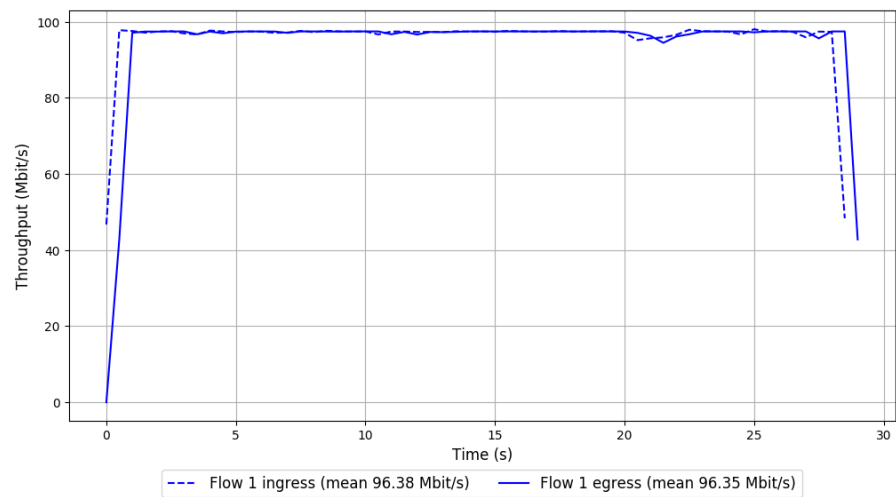


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-11 12:29:30  
End at: 2019-12-11 12:30:00  
Local clock offset: -1.38 ms  
Remote clock offset: -8.925 ms

# Below is generated by plot.py at 2019-12-11 13:19:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.35 Mbit/s  
95th percentile per-packet one-way delay: 24.933 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 96.35 Mbit/s  
95th percentile per-packet one-way delay: 24.933 ms  
Loss rate: 0.20%

Run 4: Report of Indigo-MusesC3 — Data Link

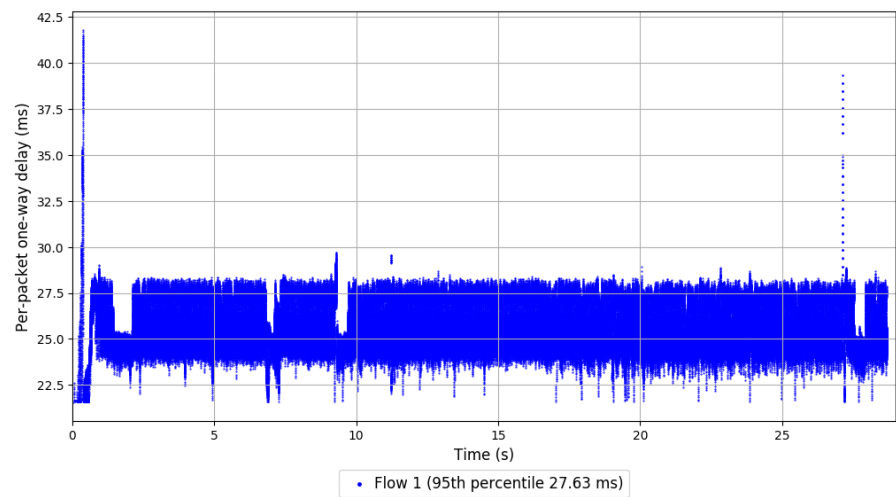
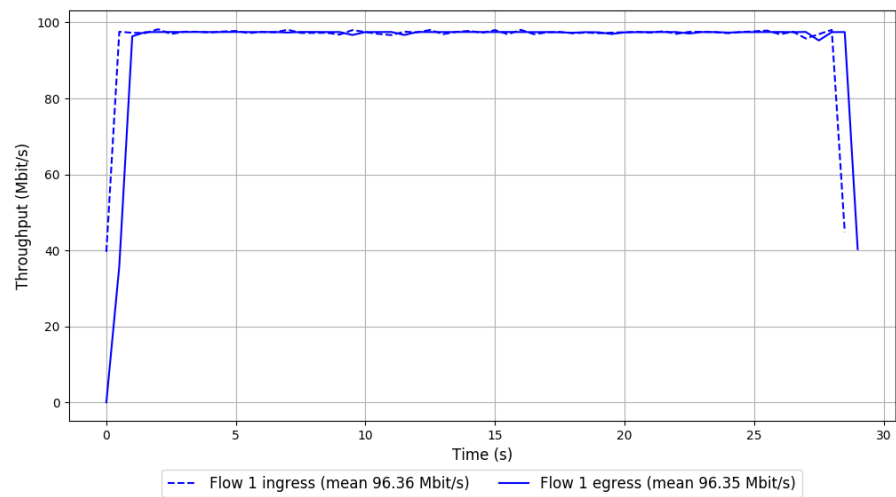


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-11 12:59:09  
End at: 2019-12-11 12:59:39  
Local clock offset: 5.485 ms  
Remote clock offset: -5.175 ms

# Below is generated by plot.py at 2019-12-11 13:19:18  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.35 Mbit/s  
95th percentile per-packet one-way delay: 27.627 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 96.35 Mbit/s  
95th percentile per-packet one-way delay: 27.627 ms  
Loss rate: 0.18%

Run 5: Report of Indigo-MusesC3 — Data Link



Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-11 10:46:58

End at: 2019-12-11 10:47:28

Local clock offset: 5.514 ms

Remote clock offset: -7.123 ms

# Below is generated by plot.py at 2019-12-11 13:19:44

# Datalink statistics

-- Total of 1 flow:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 24.227 ms

Loss rate: 0.18%

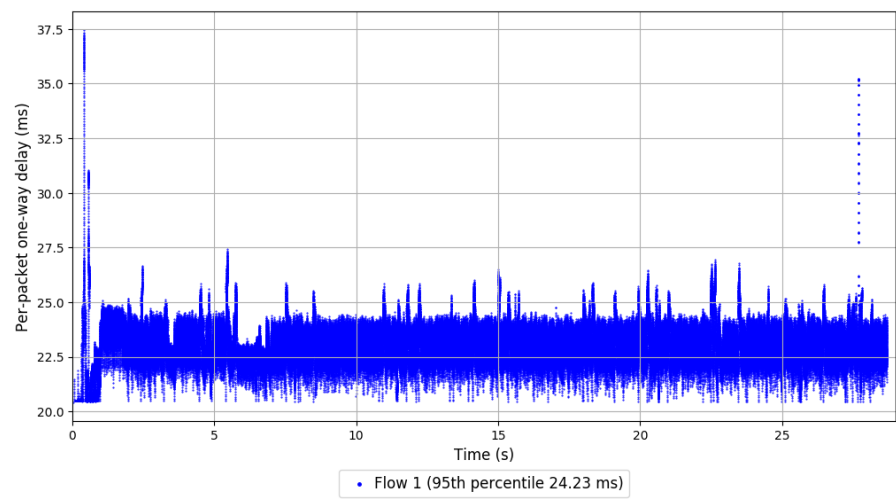
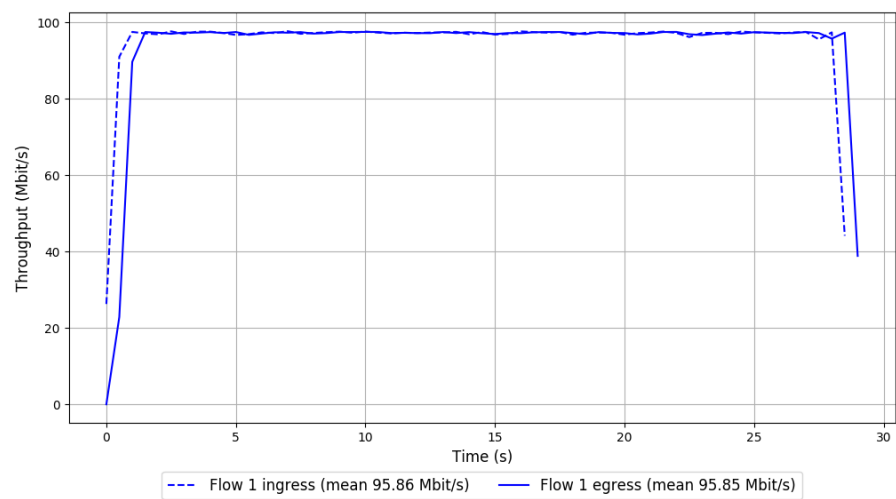
-- Flow 1:

Average throughput: 95.85 Mbit/s

95th percentile per-packet one-way delay: 24.227 ms

Loss rate: 0.18%

Run 1: Report of Indigo-MusesC5 — Data Link



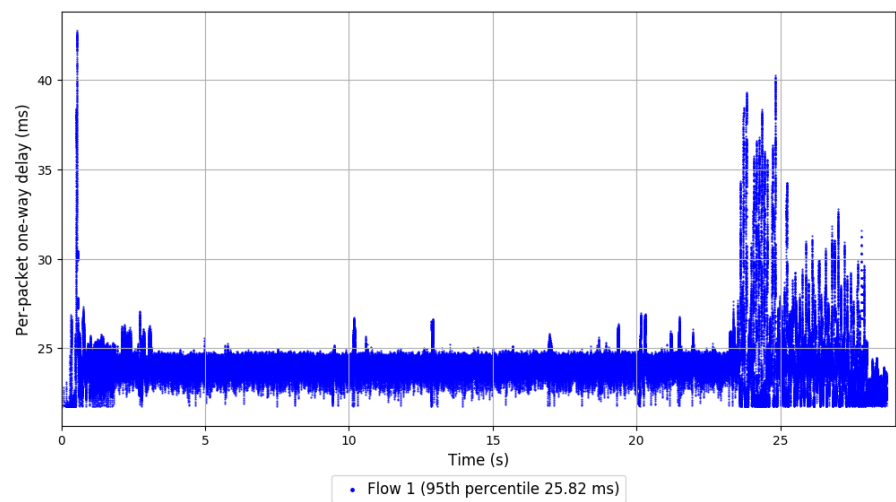
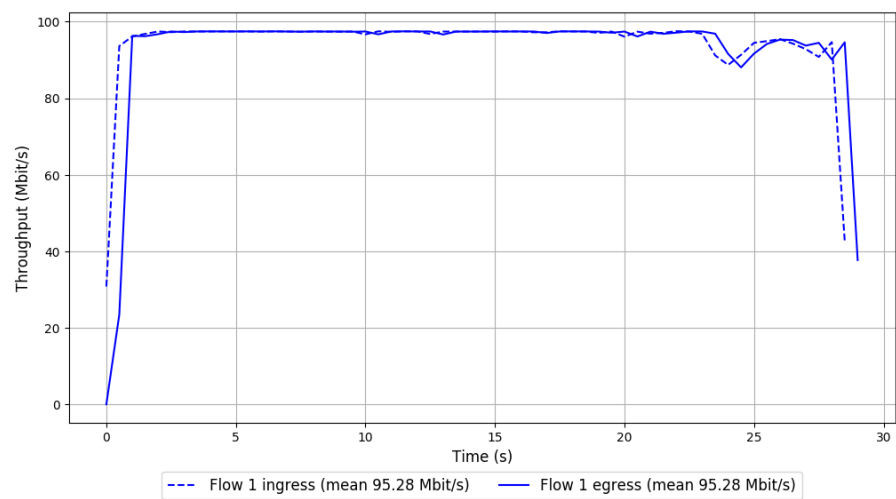


Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-11 11:15:54  
End at: 2019-12-11 11:16:24  
Local clock offset: 6.83 ms  
Remote clock offset: -6.475 ms

# Below is generated by plot.py at 2019-12-11 13:19:45  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.28 Mbit/s  
95th percentile per-packet one-way delay: 25.819 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 95.28 Mbit/s  
95th percentile per-packet one-way delay: 25.819 ms  
Loss rate: 0.17%

Run 2: Report of Indigo-MusesC5 — Data Link

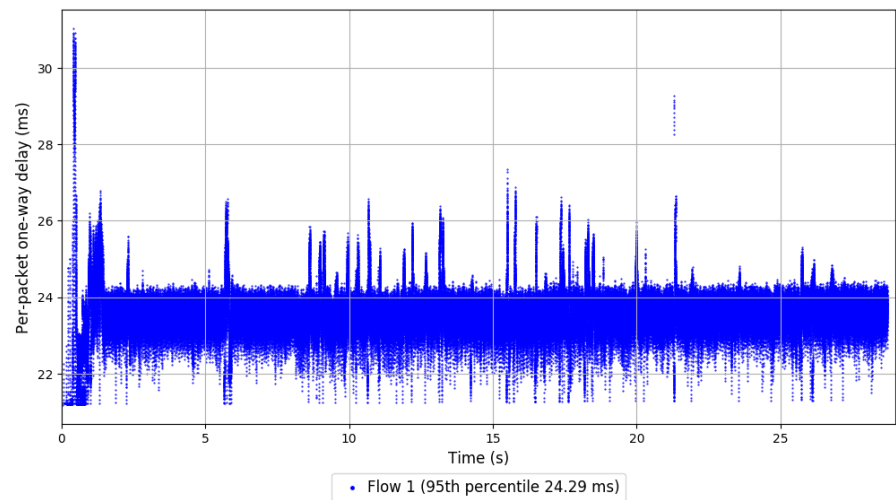
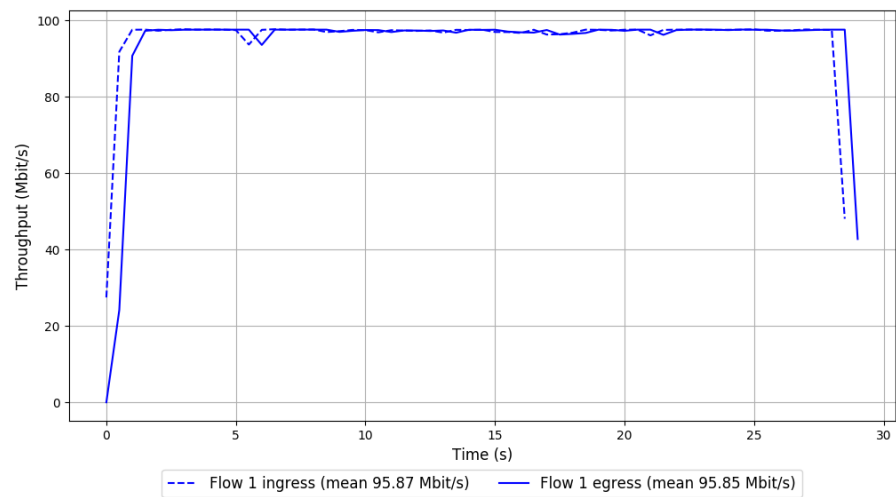


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-11 11:44:22  
End at: 2019-12-11 11:44:52  
Local clock offset: 6.269 ms  
Remote clock offset: -4.491 ms

# Below is generated by plot.py at 2019-12-11 13:19:50  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.85 Mbit/s  
95th percentile per-packet one-way delay: 24.286 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 95.85 Mbit/s  
95th percentile per-packet one-way delay: 24.286 ms  
Loss rate: 0.18%

Run 3: Report of Indigo-MusesC5 — Data Link

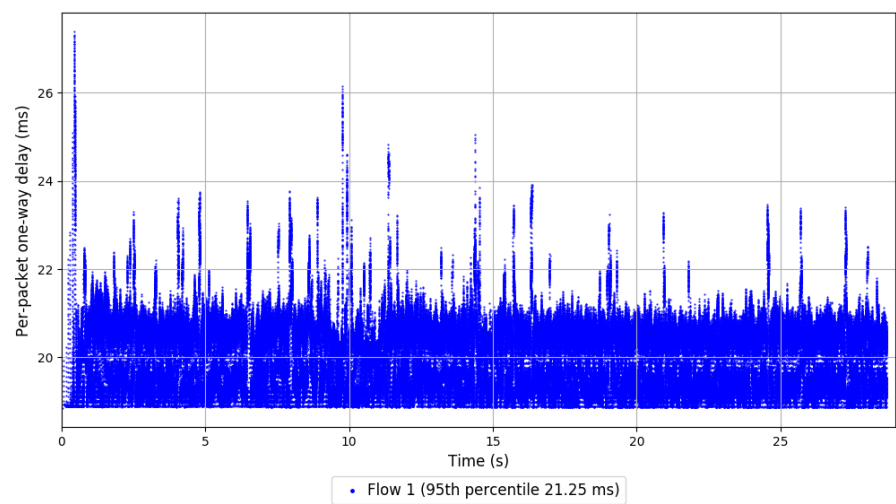
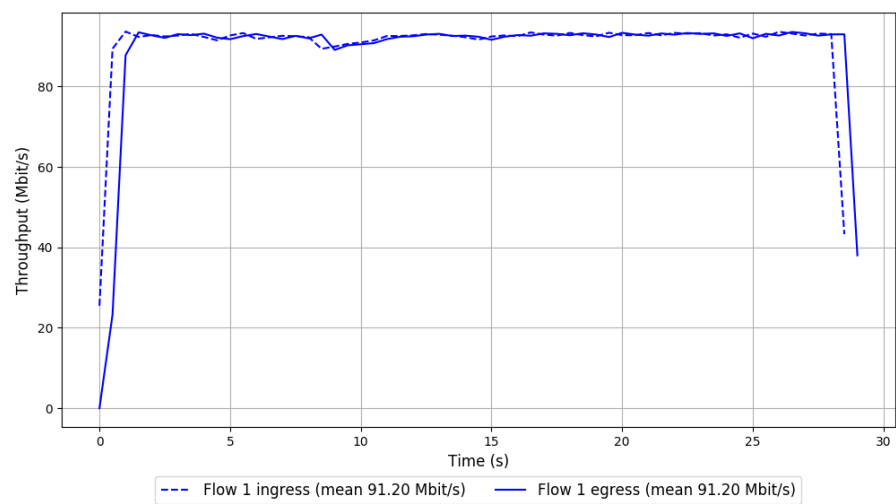


Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-11 12:12:38  
End at: 2019-12-11 12:13:08  
Local clock offset: 4.471 ms  
Remote clock offset: -3.031 ms

# Below is generated by plot.py at 2019-12-11 13:19:59  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.20 Mbit/s  
95th percentile per-packet one-way delay: 21.253 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 91.20 Mbit/s  
95th percentile per-packet one-way delay: 21.253 ms  
Loss rate: 0.17%

Run 4: Report of Indigo-MusesC5 — Data Link

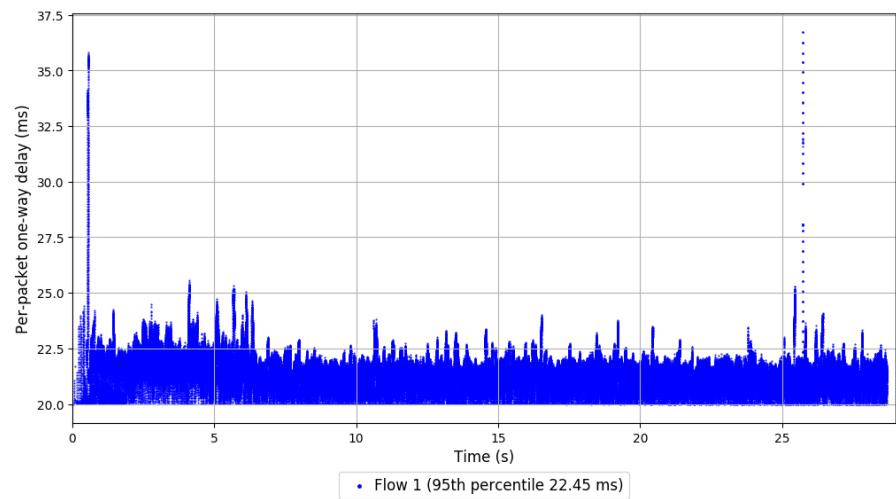
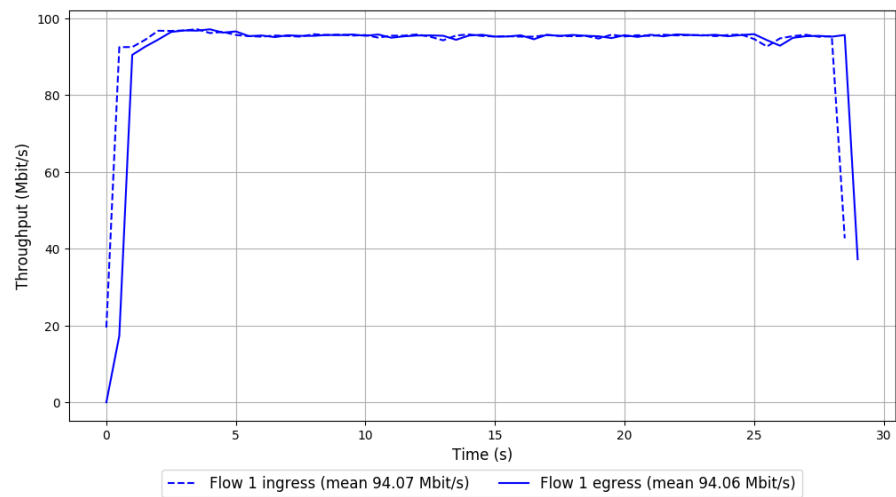


Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-11 12:41:45  
End at: 2019-12-11 12:42:15  
Local clock offset: 3.768 ms  
Remote clock offset: -4.546 ms

# Below is generated by plot.py at 2019-12-11 13:20:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.06 Mbit/s  
95th percentile per-packet one-way delay: 22.452 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 94.06 Mbit/s  
95th percentile per-packet one-way delay: 22.452 ms  
Loss rate: 0.17%

Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-11 10:48:15

End at: 2019-12-11 10:48:45

Local clock offset: 5.908 ms

Remote clock offset: -6.398 ms

# Below is generated by plot.py at 2019-12-11 13:20:12

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 23.104 ms

Loss rate: 0.17%

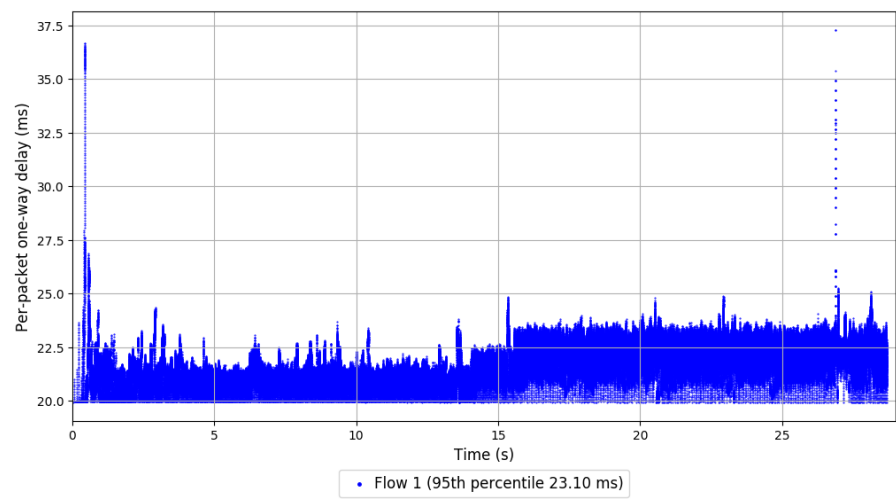
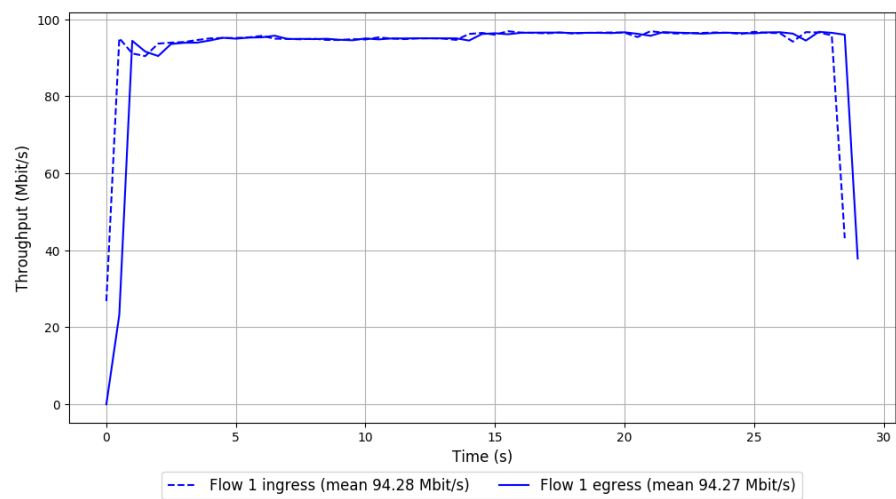
-- Flow 1:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 23.104 ms

Loss rate: 0.17%

Run 1: Report of Indigo-MusesD — Data Link



Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-11 11:17:09

End at: 2019-12-11 11:17:39

Local clock offset: 6.918 ms

Remote clock offset: -6.166 ms

# Below is generated by plot.py at 2019-12-11 13:20:14

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 23.829 ms

Loss rate: 0.17%

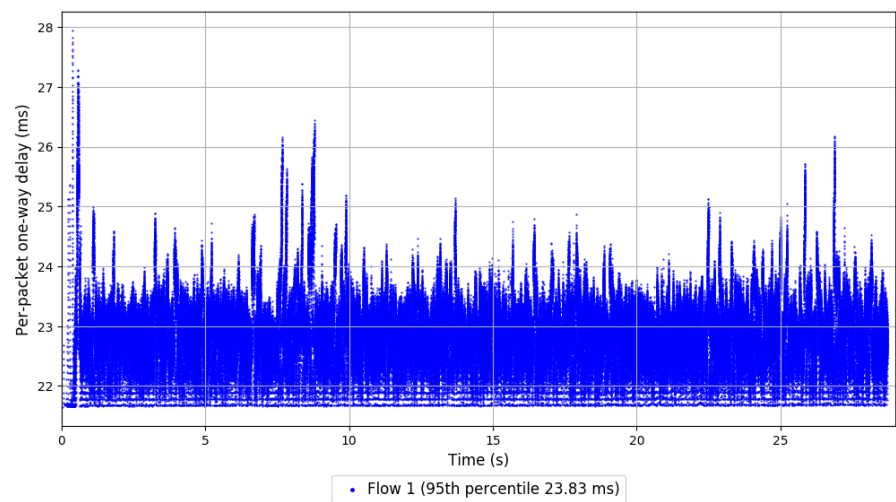
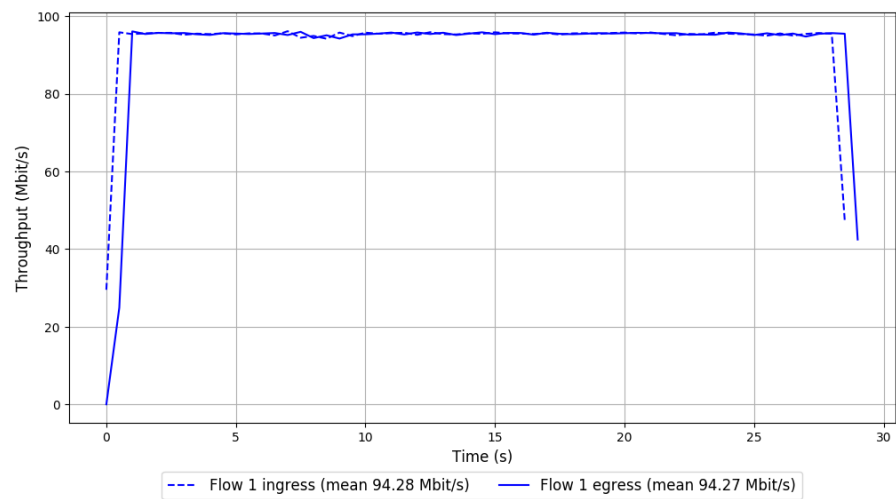
-- Flow 1:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 23.829 ms

Loss rate: 0.17%

Run 2: Report of Indigo-MusesD — Data Link



Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-11 11:45:32

End at: 2019-12-11 11:46:02

Local clock offset: 6.192 ms

Remote clock offset: -2.291 ms

# Below is generated by plot.py at 2019-12-11 13:20:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.13 Mbit/s

95th percentile per-packet one-way delay: 21.555 ms

Loss rate: 0.18%

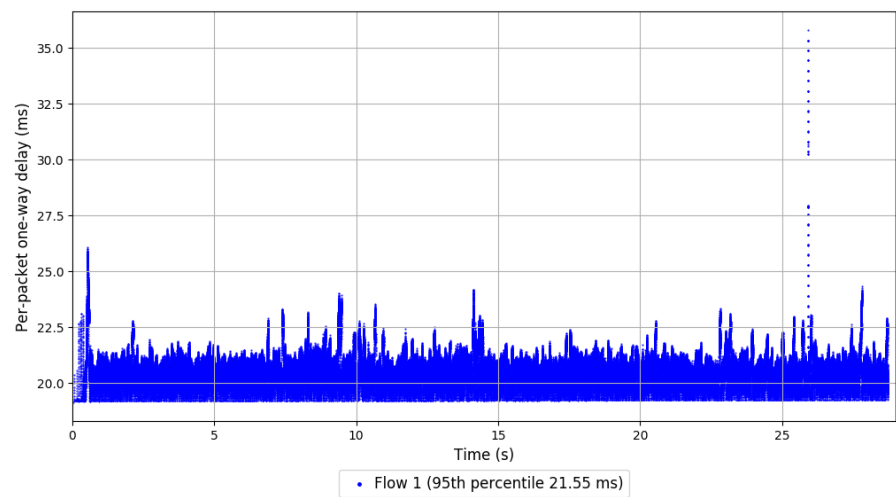
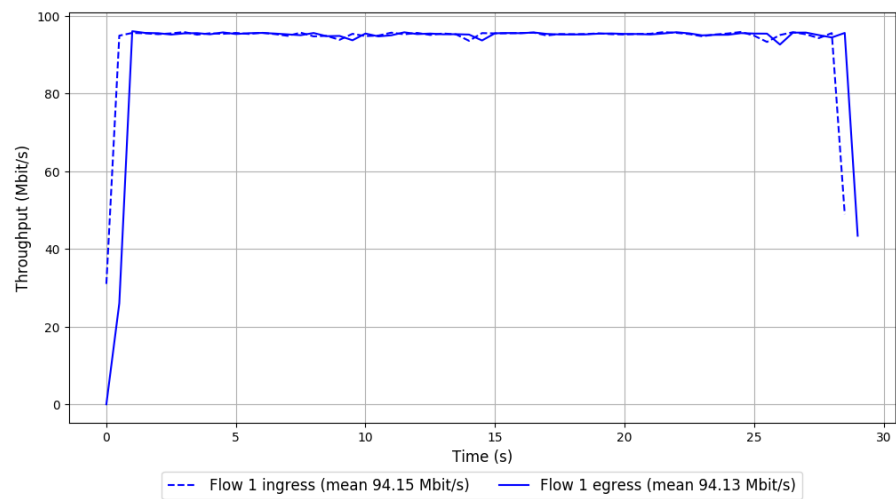
-- Flow 1:

Average throughput: 94.13 Mbit/s

95th percentile per-packet one-way delay: 21.555 ms

Loss rate: 0.18%

Run 3: Report of Indigo-MusesD — Data Link



Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-11 12:13:47

End at: 2019-12-11 12:14:17

Local clock offset: 3.751 ms

Remote clock offset: -4.829 ms

# Below is generated by plot.py at 2019-12-11 13:20:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 23.371 ms

Loss rate: 0.18%

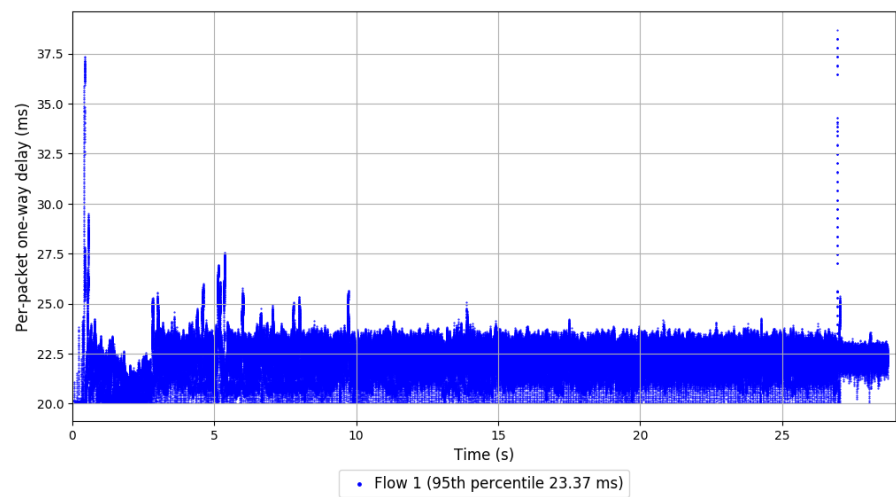
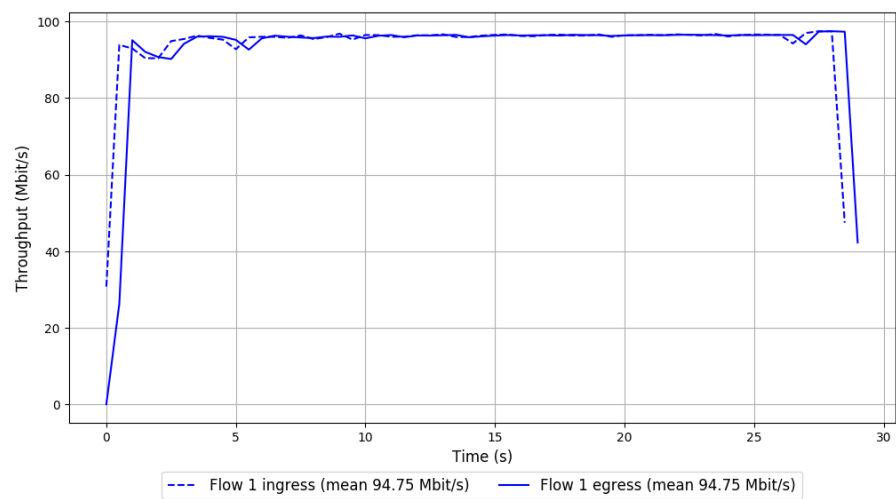
-- Flow 1:

Average throughput: 94.75 Mbit/s

95th percentile per-packet one-way delay: 23.371 ms

Loss rate: 0.18%

Run 4: Report of Indigo-MusesD — Data Link



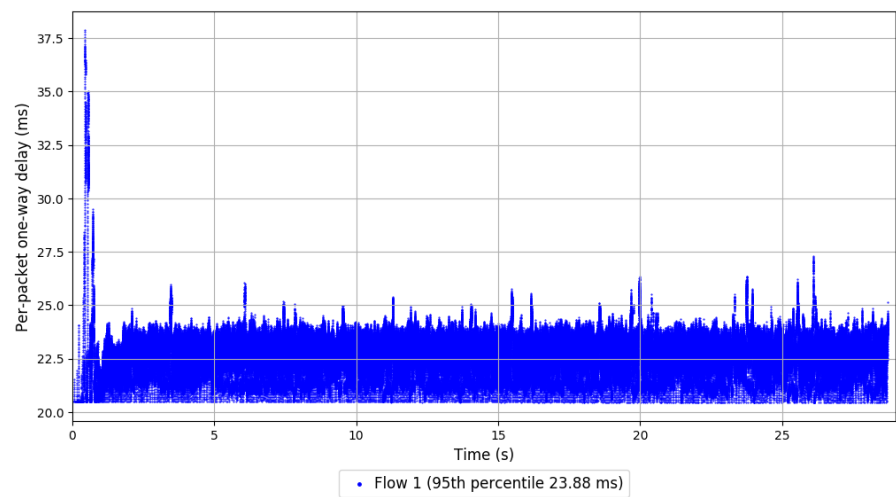
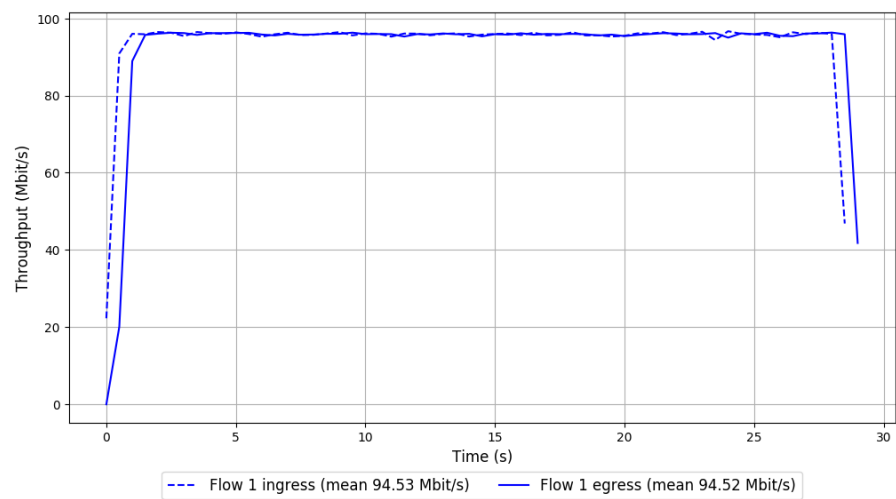


Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-11 12:42:58  
End at: 2019-12-11 12:43:28  
Local clock offset: 3.67 ms  
Remote clock offset: -5.228 ms

# Below is generated by plot.py at 2019-12-11 13:20:53  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.52 Mbit/s  
95th percentile per-packet one-way delay: 23.877 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 94.52 Mbit/s  
95th percentile per-packet one-way delay: 23.877 ms  
Loss rate: 0.17%

Run 5: Report of Indigo-MusesD — Data Link

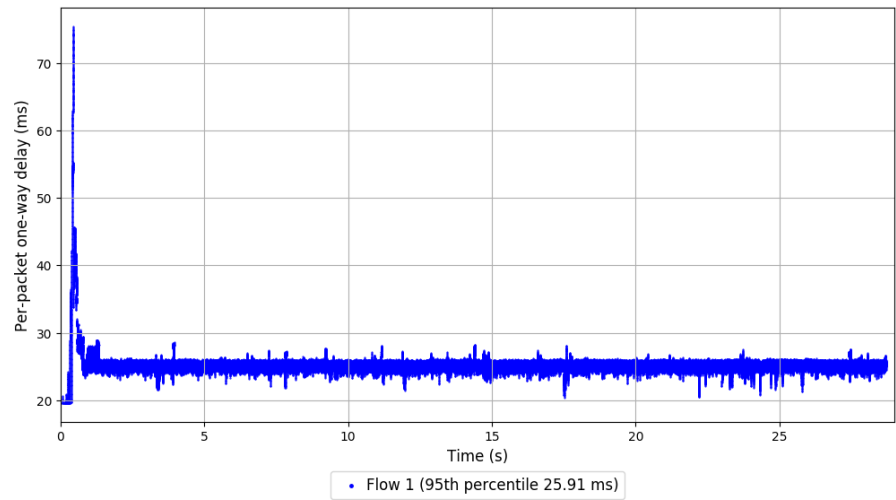
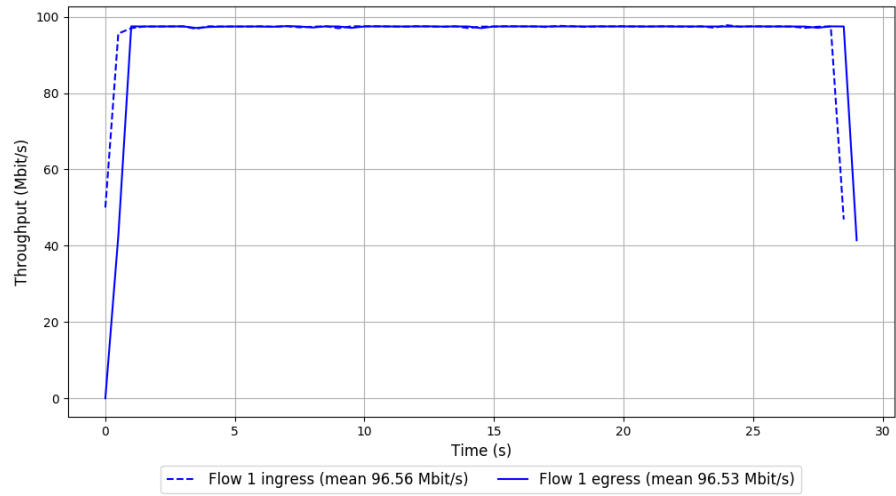


Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-11 10:57:51  
End at: 2019-12-11 10:58:21  
Local clock offset: 6.139 ms  
Remote clock offset: -5.712 ms

# Below is generated by plot.py at 2019-12-11 13:20:58  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.53 Mbit/s  
95th percentile per-packet one-way delay: 25.912 ms  
Loss rate: 0.19%  
-- Flow 1:  
Average throughput: 96.53 Mbit/s  
95th percentile per-packet one-way delay: 25.912 ms  
Loss rate: 0.19%

## Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-11 11:26:34

End at: 2019-12-11 11:27:04

Local clock offset: 7.15 ms

Remote clock offset: -3.984 ms

# Below is generated by plot.py at 2019-12-11 13:21:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.46 Mbit/s

95th percentile per-packet one-way delay: 32.203 ms

Loss rate: 0.22%

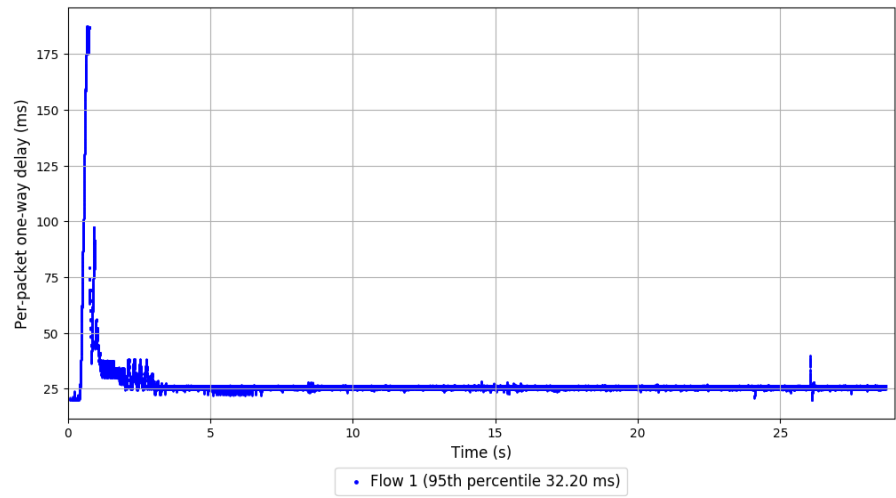
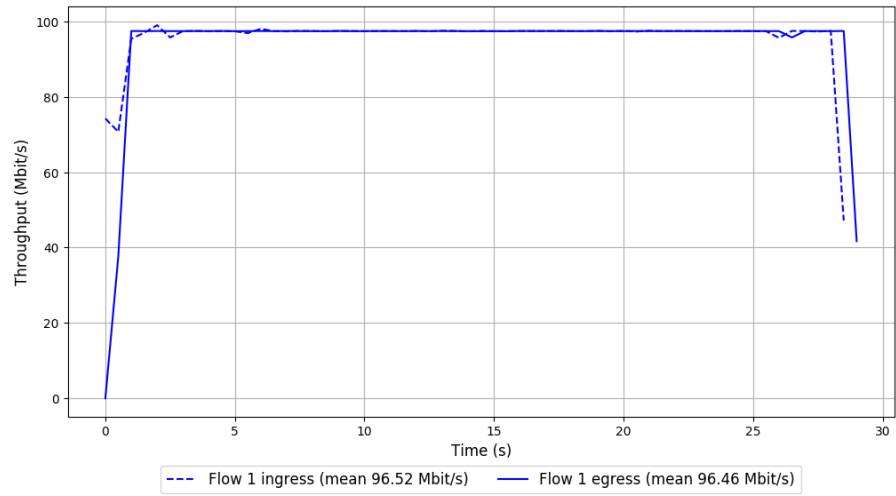
-- Flow 1:

Average throughput: 96.46 Mbit/s

95th percentile per-packet one-way delay: 32.203 ms

Loss rate: 0.22%

## Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-11 11:54:53

End at: 2019-12-11 11:55:23

Local clock offset: 5.115 ms

Remote clock offset: -1.824 ms

# Below is generated by plot.py at 2019-12-11 13:21:18

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.41 Mbit/s

95th percentile per-packet one-way delay: 24.764 ms

Loss rate: 0.31%

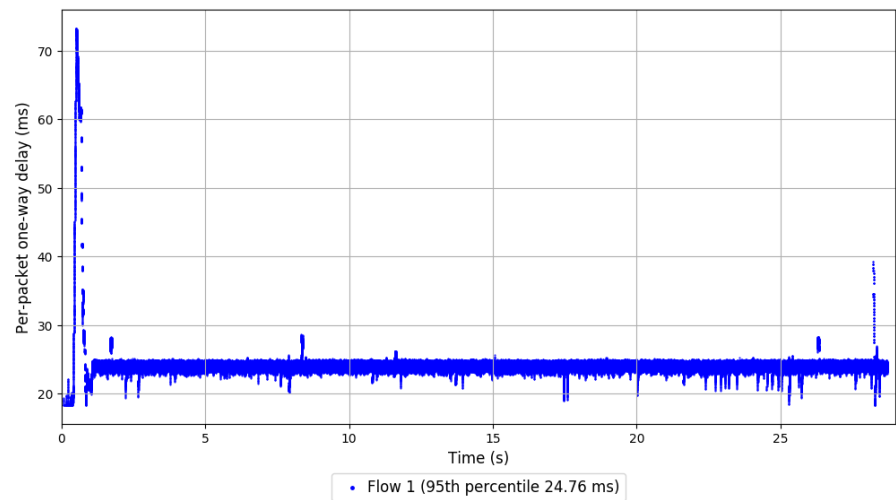
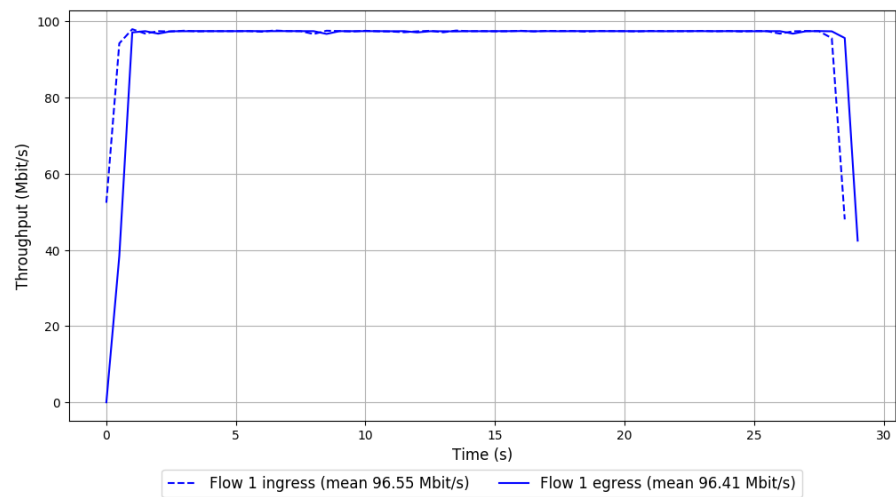
-- Flow 1:

Average throughput: 96.41 Mbit/s

95th percentile per-packet one-way delay: 24.764 ms

Loss rate: 0.31%

Run 3: Report of Indigo-MusesT — Data Link





Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-11 12:23:29

End at: 2019-12-11 12:23:59

Local clock offset: 3.905 ms

Remote clock offset: -4.498 ms

# Below is generated by plot.py at 2019-12-11 13:21:20

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.47 Mbit/s

95th percentile per-packet one-way delay: 26.726 ms

Loss rate: 0.19%

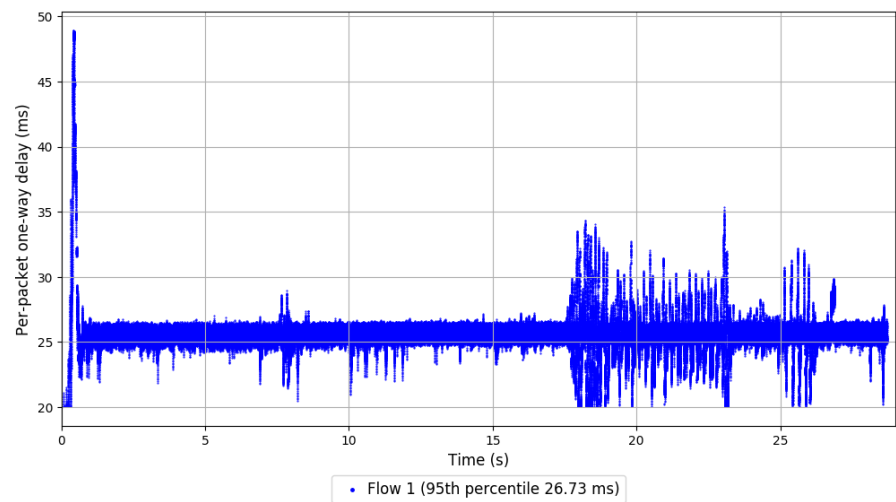
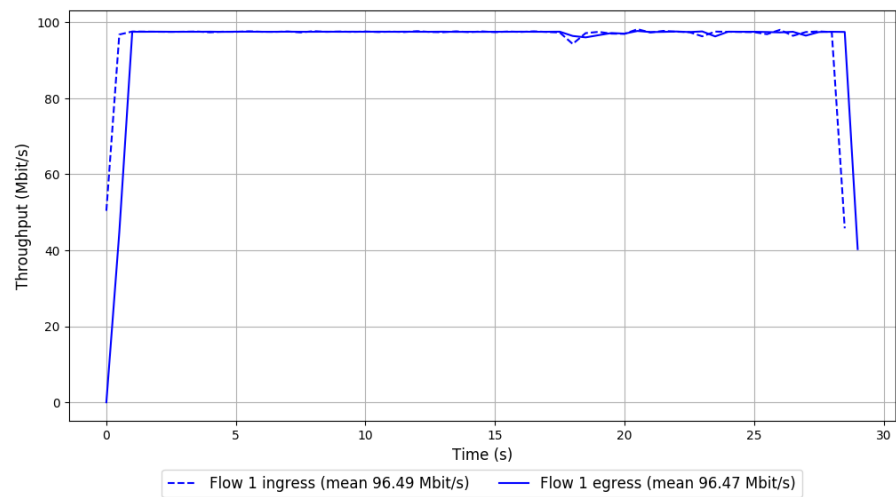
-- Flow 1:

Average throughput: 96.47 Mbit/s

95th percentile per-packet one-way delay: 26.726 ms

Loss rate: 0.19%

Run 4: Report of Indigo-MusesT — Data Link



Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-11 12:52:56

End at: 2019-12-11 12:53:26

Local clock offset: 4.822 ms

Remote clock offset: -5.267 ms

# Below is generated by plot.py at 2019-12-11 13:21:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.14 Mbit/s

95th percentile per-packet one-way delay: 35.311 ms

Loss rate: 0.25%

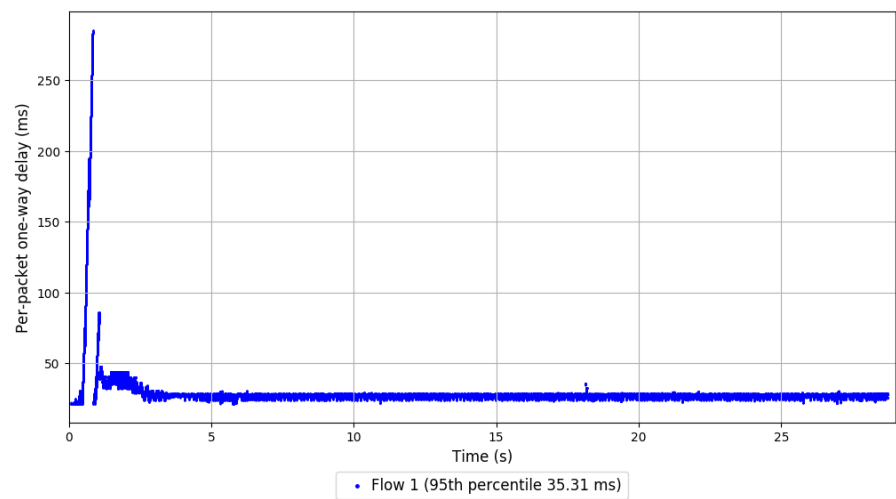
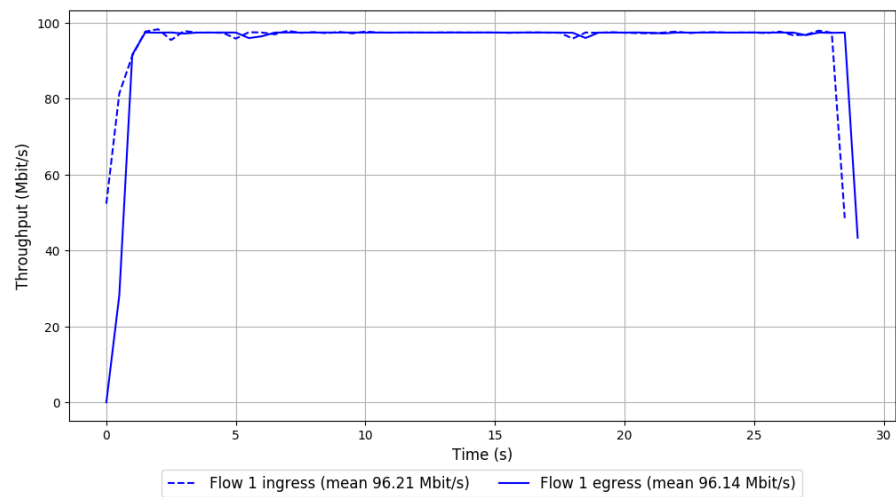
-- Flow 1:

Average throughput: 96.14 Mbit/s

95th percentile per-packet one-way delay: 35.311 ms

Loss rate: 0.25%

Run 5: Report of Indigo-MusesT — Data Link

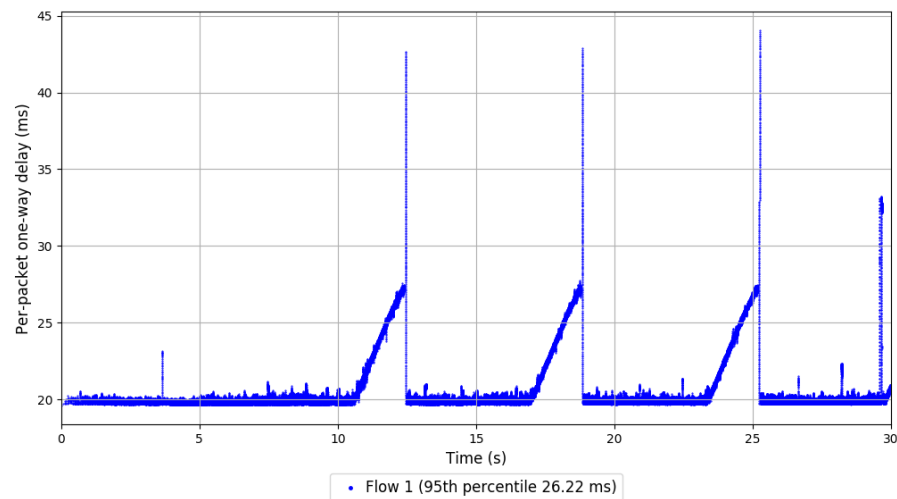
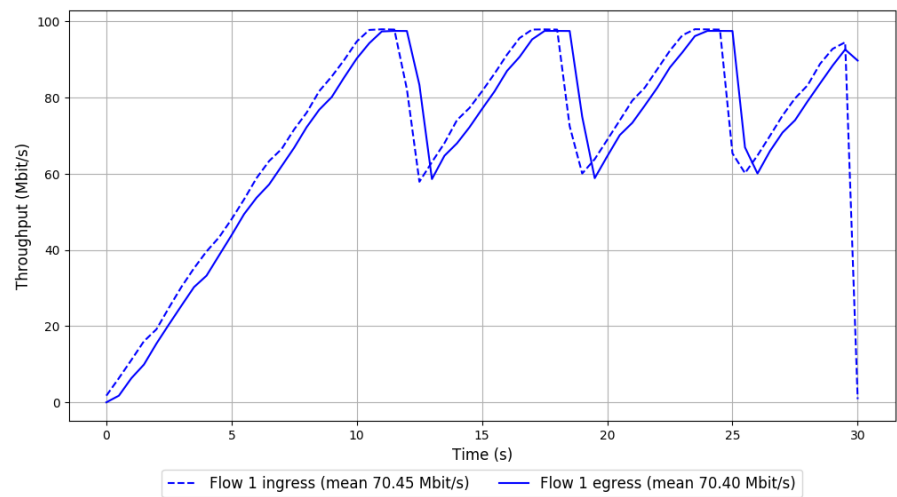


Run 1: Statistics of LEDBAT

Start at: 2019-12-11 11:02:29  
End at: 2019-12-11 11:02:59  
Local clock offset: 6.055 ms  
Remote clock offset: -5.571 ms

# Below is generated by plot.py at 2019-12-11 13:21:24  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 70.40 Mbit/s  
95th percentile per-packet one-way delay: 26.217 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 70.40 Mbit/s  
95th percentile per-packet one-way delay: 26.217 ms  
Loss rate: 0.23%

Run 1: Report of LEDBAT — Data Link

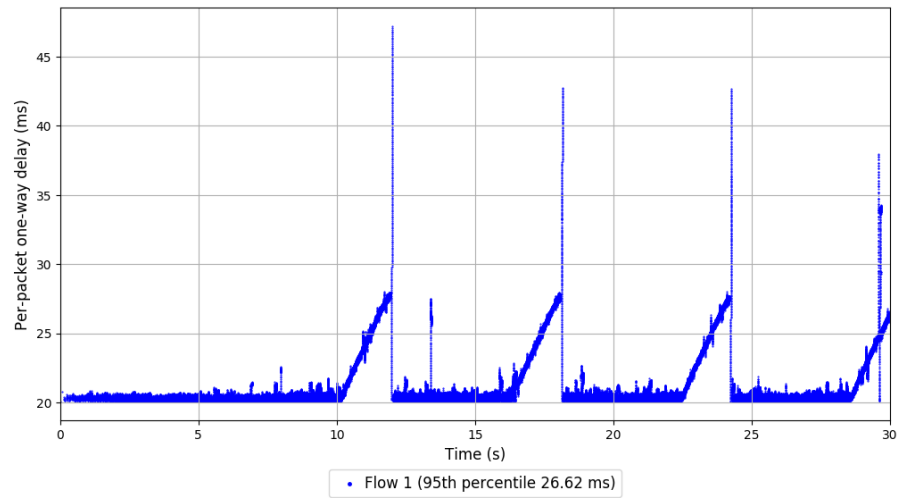
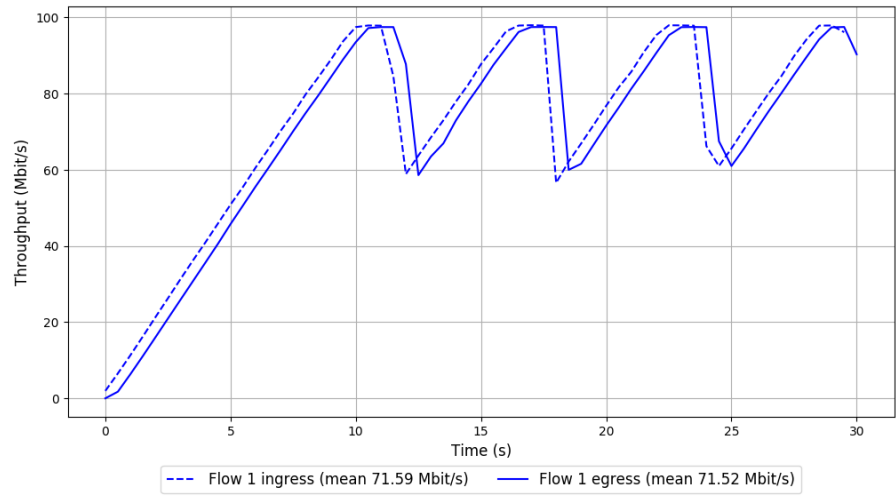


Run 2: Statistics of LEDBAT

Start at: 2019-12-11 11:31:19  
End at: 2019-12-11 11:31:49  
Local clock offset: 7.676 ms  
Remote clock offset: -3.567 ms

# Below is generated by plot.py at 2019-12-11 13:21:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 71.52 Mbit/s  
95th percentile per-packet one-way delay: 26.618 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 71.52 Mbit/s  
95th percentile per-packet one-way delay: 26.618 ms  
Loss rate: 0.25%

## Run 2: Report of LEDBAT — Data Link



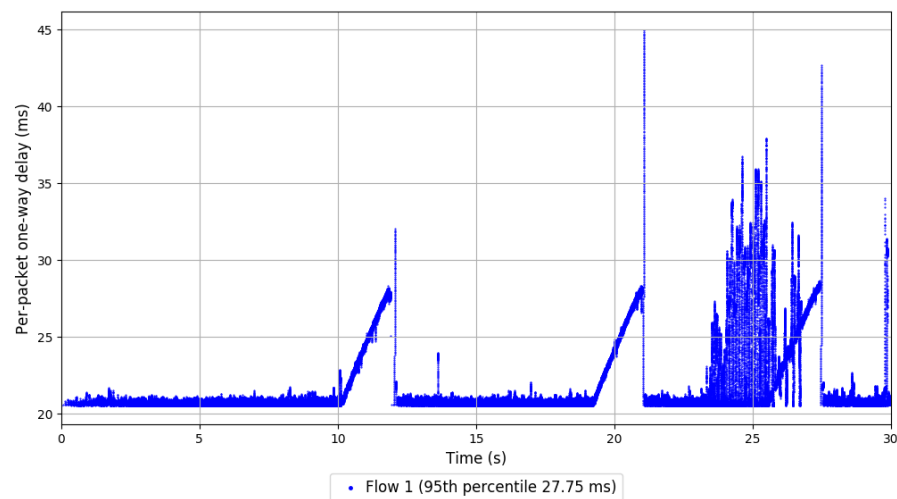
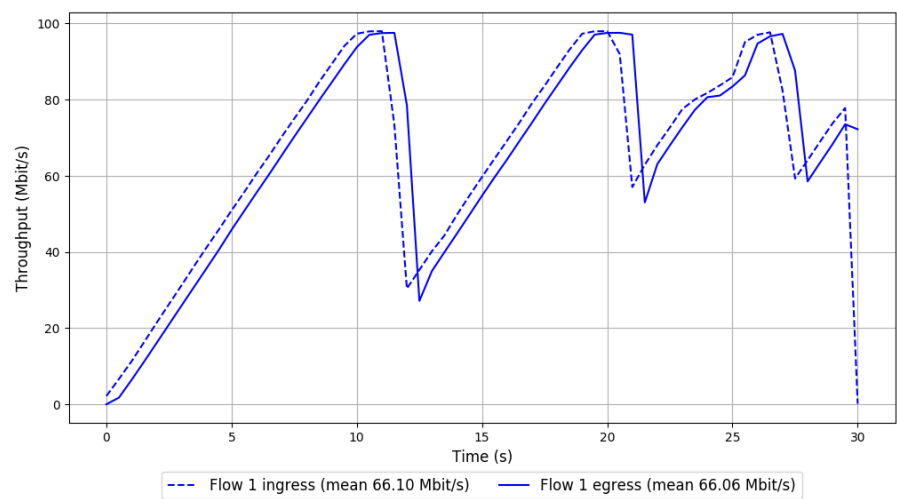


Run 3: Statistics of LEDBAT

Start at: 2019-12-11 11:59:34  
End at: 2019-12-11 12:00:04  
Local clock offset: 4.06 ms  
Remote clock offset: -4.907 ms

# Below is generated by plot.py at 2019-12-11 13:21:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 66.06 Mbit/s  
95th percentile per-packet one-way delay: 27.747 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 66.06 Mbit/s  
95th percentile per-packet one-way delay: 27.747 ms  
Loss rate: 0.21%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2019-12-11 12:28:17

End at: 2019-12-11 12:28:47

Local clock offset: 4.214 ms

Remote clock offset: -6.19 ms

# Below is generated by plot.py at 2019-12-11 13:21:51

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.06 Mbit/s

95th percentile per-packet one-way delay: 28.749 ms

Loss rate: 0.25%

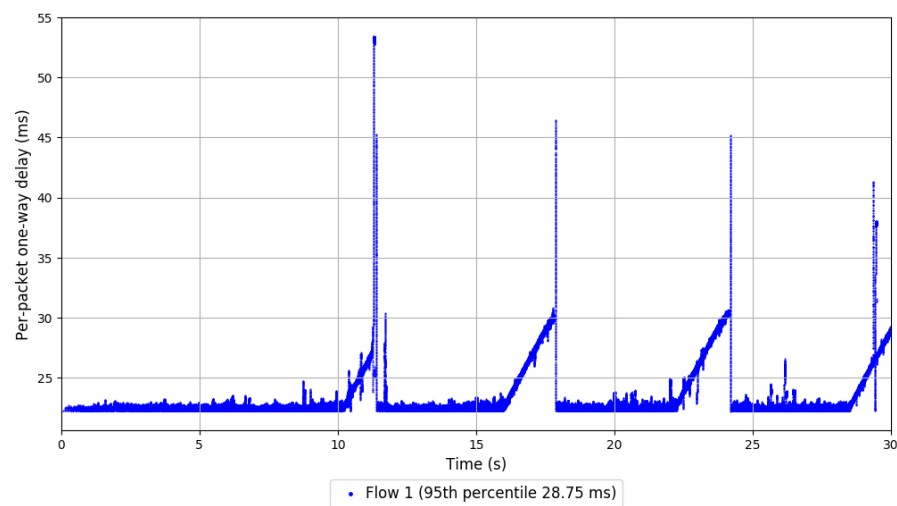
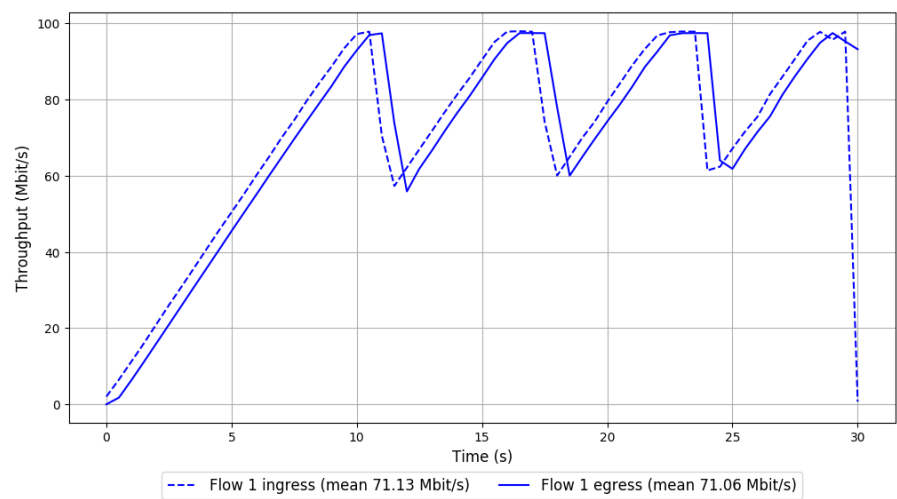
-- Flow 1:

Average throughput: 71.06 Mbit/s

95th percentile per-packet one-way delay: 28.749 ms

Loss rate: 0.25%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2019-12-11 12:57:55

End at: 2019-12-11 12:58:25

Local clock offset: 5.482 ms

Remote clock offset: -4.5 ms

# Below is generated by plot.py at 2019-12-11 13:21:56

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.67 Mbit/s

95th percentile per-packet one-way delay: 27.480 ms

Loss rate: 0.17%

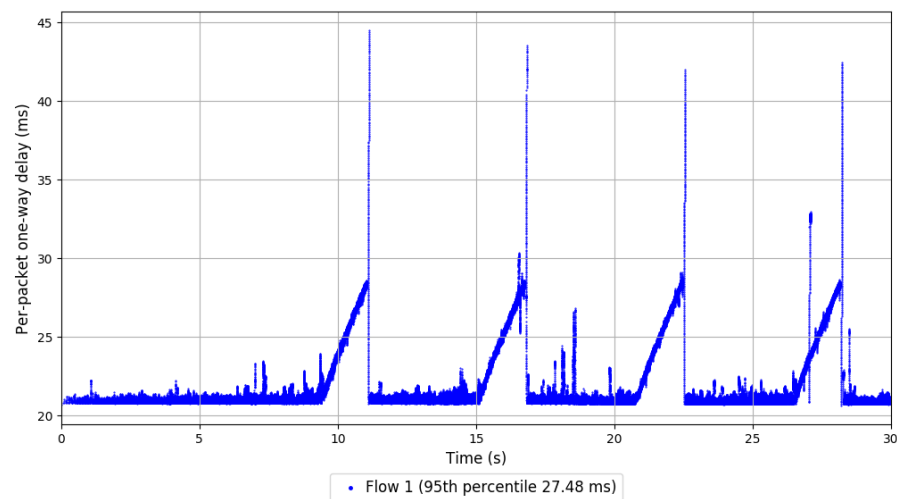
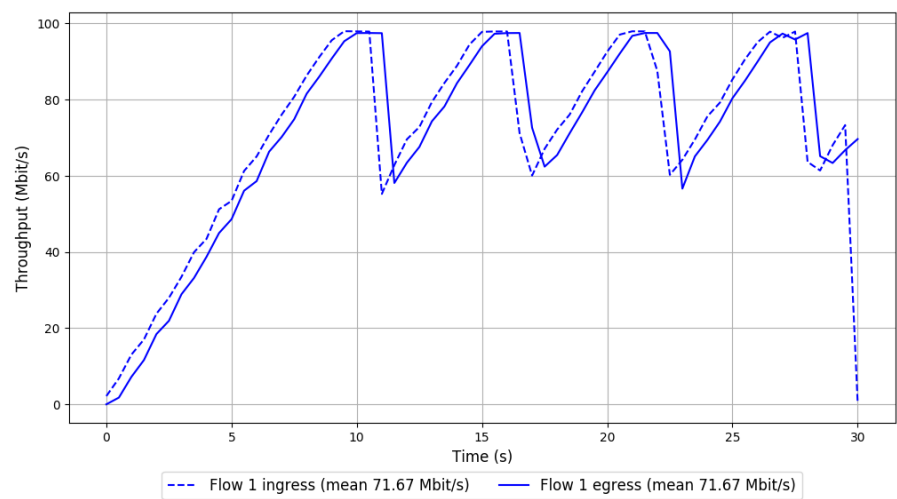
-- Flow 1:

Average throughput: 71.67 Mbit/s

95th percentile per-packet one-way delay: 27.480 ms

Loss rate: 0.17%

Run 5: Report of LEDBAT — Data Link

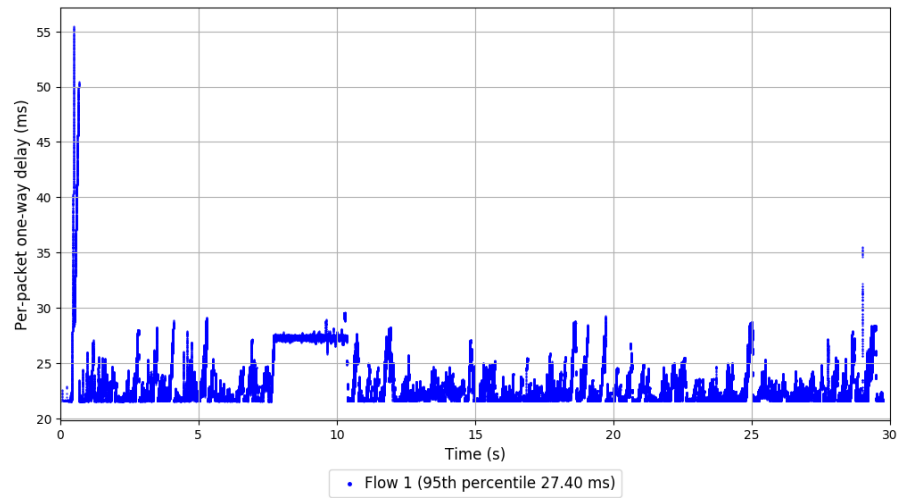
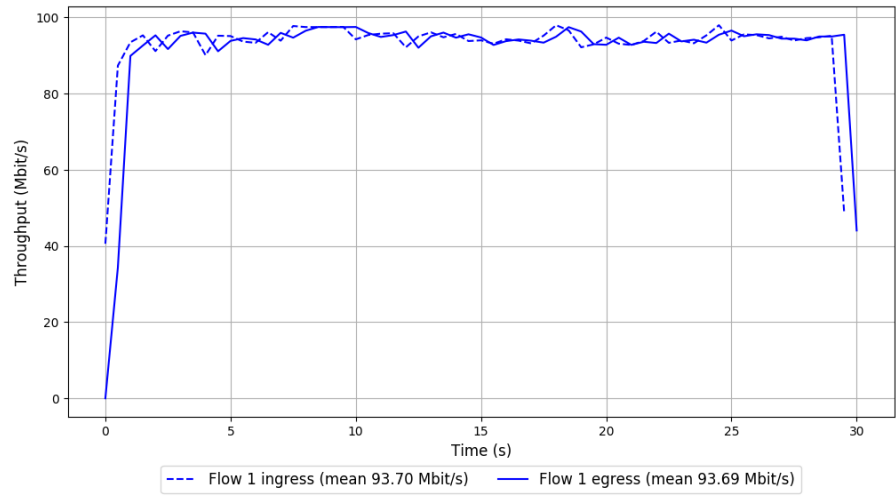


Run 1: Statistics of Muses\\_DecisionTree

Start at: 2019-12-11 11:06:10  
End at: 2019-12-11 11:06:40  
Local clock offset: 6.325 ms  
Remote clock offset: -7.198 ms

# Below is generated by plot.py at 2019-12-11 13:22:25  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.69 Mbit/s  
95th percentile per-packet one-way delay: 27.397 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 93.69 Mbit/s  
95th percentile per-packet one-way delay: 27.397 ms  
Loss rate: 0.17%

# Run 1: Report of Muses\_DecisionTree — Data Link



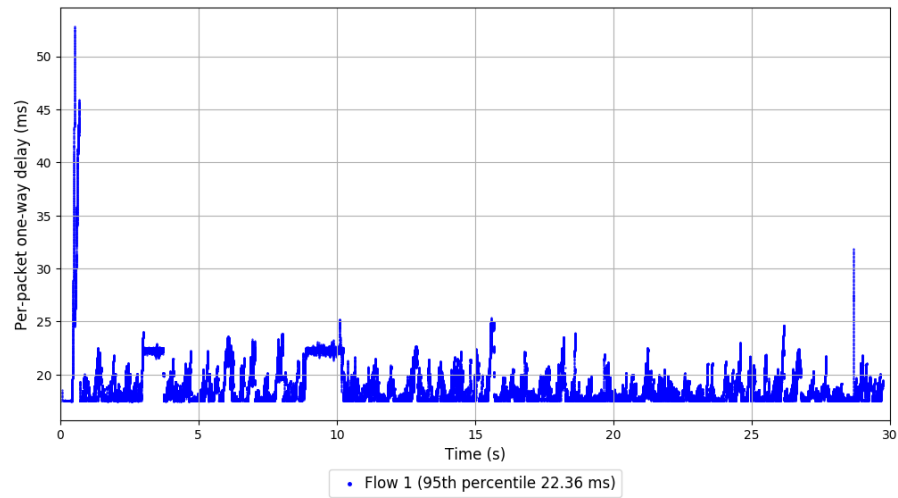
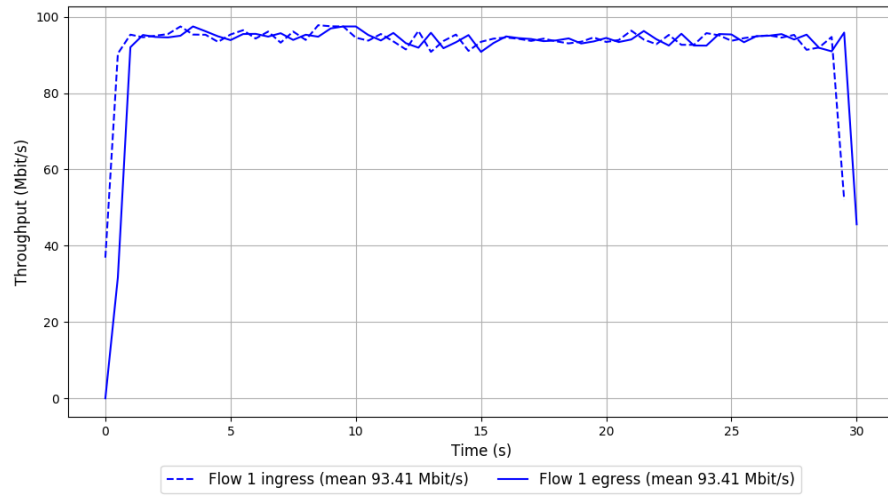


Run 2: Statistics of Muses\\_DecisionTree

Start at: 2019-12-11 11:34:54  
End at: 2019-12-11 11:35:25  
Local clock offset: 7.201 ms  
Remote clock offset: -1.351 ms

# Below is generated by plot.py at 2019-12-11 13:22:27  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.41 Mbit/s  
95th percentile per-packet one-way delay: 22.356 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 93.41 Mbit/s  
95th percentile per-packet one-way delay: 22.356 ms  
Loss rate: 0.17%

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



Run 3: Statistics of Muses\\_DecisionTree

Start at: 2019-12-11 12:03:08

End at: 2019-12-11 12:03:38

Local clock offset: 3.419 ms

Remote clock offset: -2.9 ms

# Below is generated by plot.py at 2019-12-11 13:22:29

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 22.567 ms

Loss rate: 0.18%

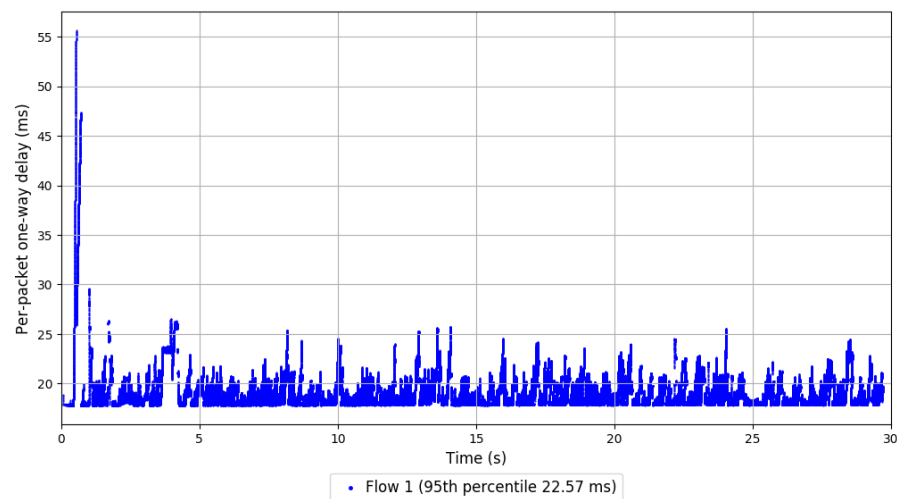
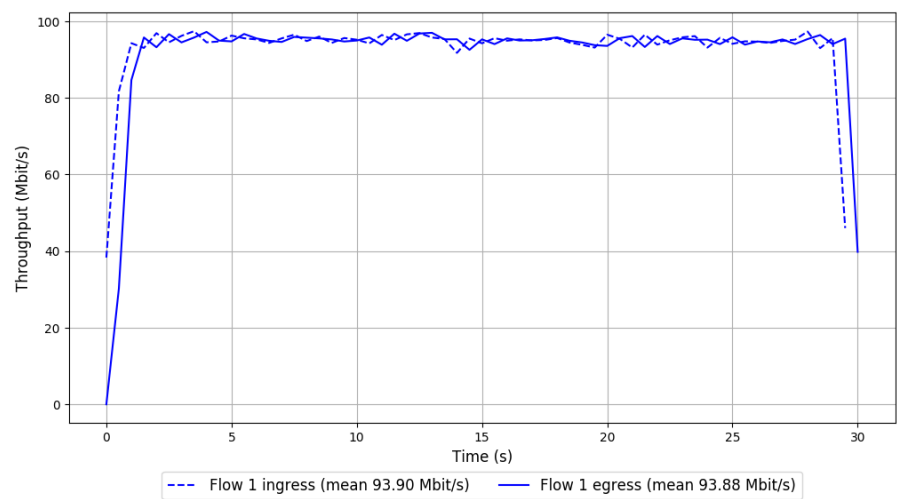
-- Flow 1:

Average throughput: 93.88 Mbit/s

95th percentile per-packet one-way delay: 22.567 ms

Loss rate: 0.18%

Run 3: Report of Muses\_DecisionTree — Data Link

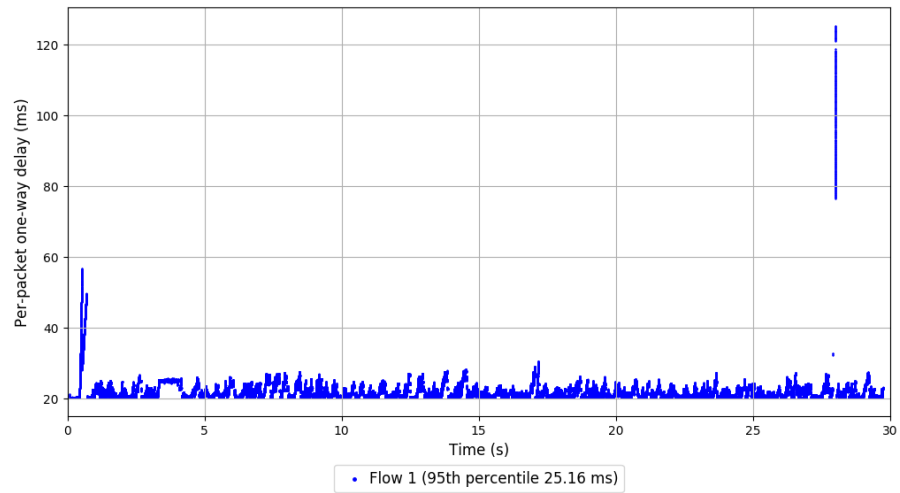
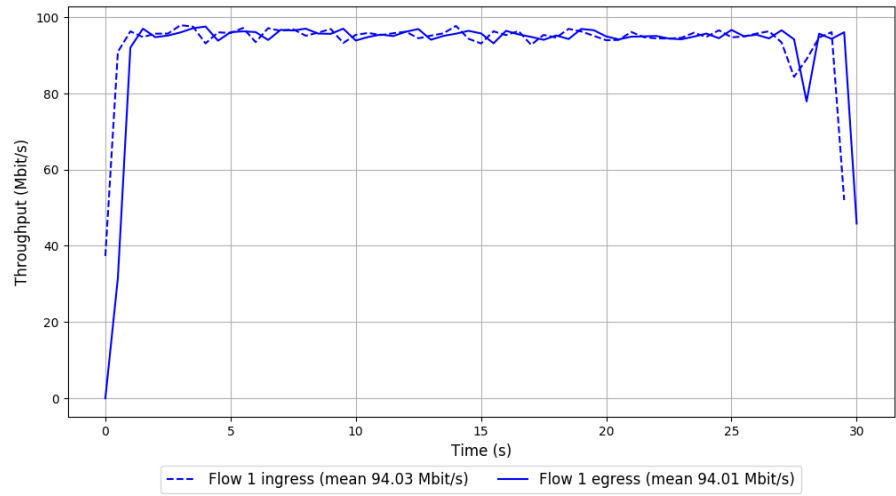


Run 4: Statistics of Muses\\_DecisionTree

Start at: 2019-12-11 12:31:54  
End at: 2019-12-11 12:32:24  
Local clock offset: 3.314 ms  
Remote clock offset: -5.134 ms

# Below is generated by plot.py at 2019-12-11 13:22:34  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.01 Mbit/s  
95th percentile per-packet one-way delay: 25.155 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 94.01 Mbit/s  
95th percentile per-packet one-way delay: 25.155 ms  
Loss rate: 0.18%

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

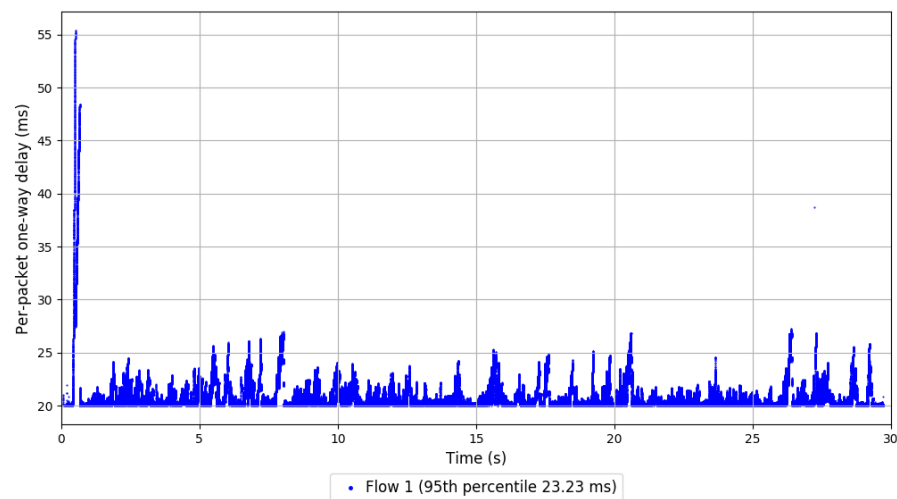
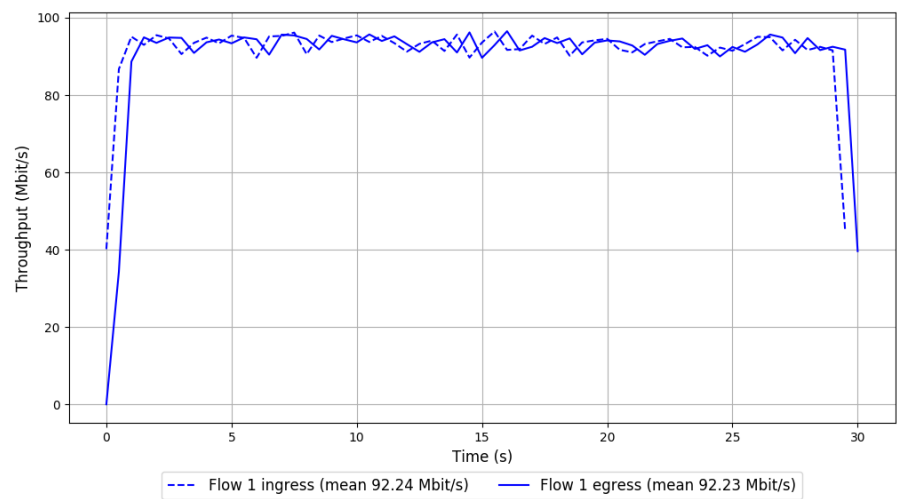


Run 5: Statistics of Muses\\_DecisionTree

Start at: 2019-12-11 13:01:35  
End at: 2019-12-11 13:02:05  
Local clock offset: 5.615 ms  
Remote clock offset: -3.495 ms

# Below is generated by plot.py at 2019-12-11 13:22:55  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.23 Mbit/s  
95th percentile per-packet one-way delay: 23.235 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 92.23 Mbit/s  
95th percentile per-packet one-way delay: 23.235 ms  
Loss rate: 0.16%

Run 5: Report of Muses\_DecisionTree — Data Link



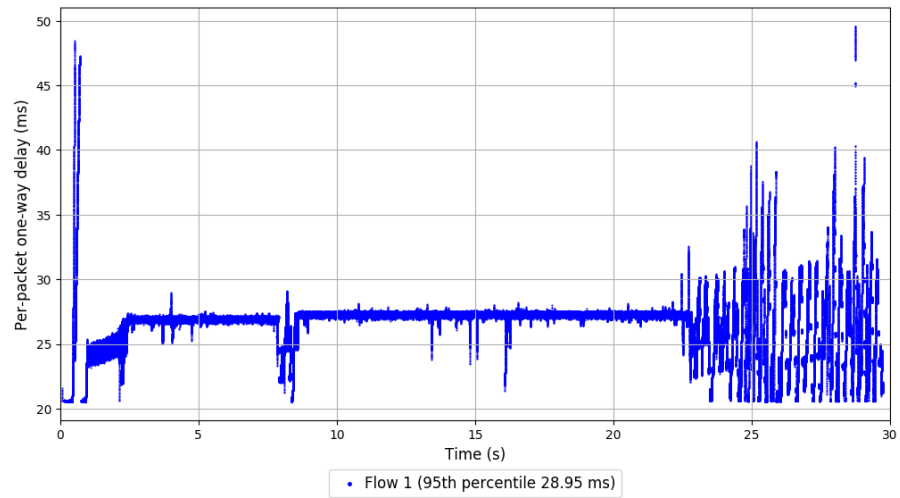
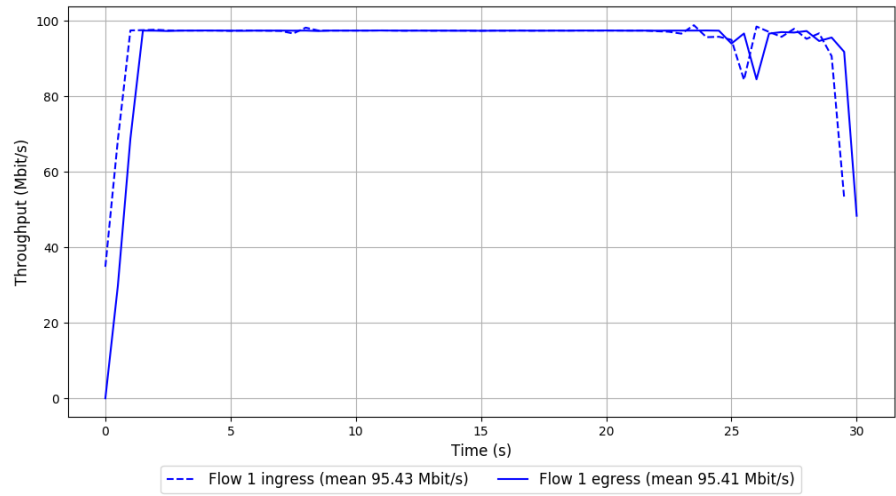


```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 10:56:42
End at: 2019-12-11 10:57:12
Local clock offset: 6.566 ms
Remote clock offset: -6.329 ms

# Below is generated by plot.py at 2019-12-11 13:22:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 28.955 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 28.955 ms
Loss rate: 0.18%
```

# Run 1: Report of Muses\_DecisionTreeH0 — Data Link

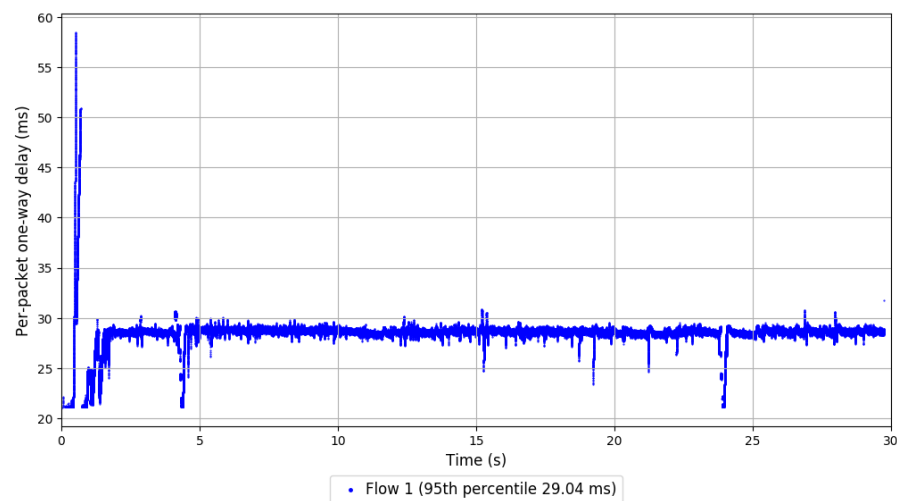
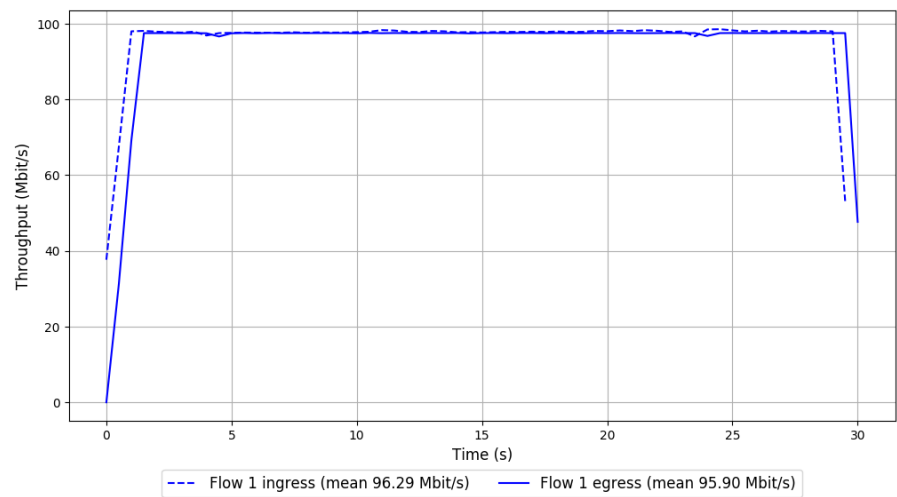


Run 2: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-12-11 11:25:22  
End at: 2019-12-11 11:25:52  
Local clock offset: 6.914 ms  
Remote clock offset: -5.556 ms

# Below is generated by plot.py at 2019-12-11 13:23:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.90 Mbit/s  
95th percentile per-packet one-way delay: 29.043 ms  
Loss rate: 0.56%  
-- Flow 1:  
Average throughput: 95.90 Mbit/s  
95th percentile per-packet one-way delay: 29.043 ms  
Loss rate: 0.56%

Run 2: Report of Muses\_DecisionTreeH0 — Data Link



Run 3: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-12-11 11:53:43

End at: 2019-12-11 11:54:13

Local clock offset: 4.674 ms

Remote clock offset: -5.33 ms

# Below is generated by plot.py at 2019-12-11 13:23:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.74 Mbit/s

95th percentile per-packet one-way delay: 29.830 ms

Loss rate: 0.19%

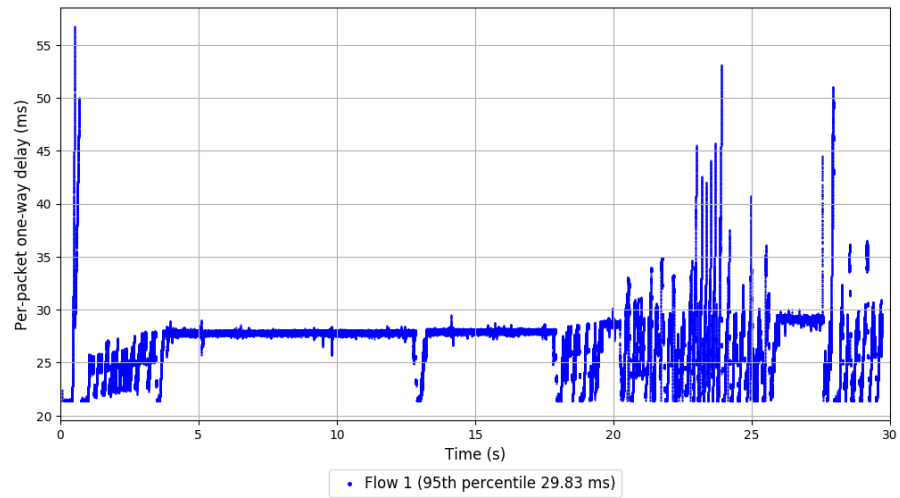
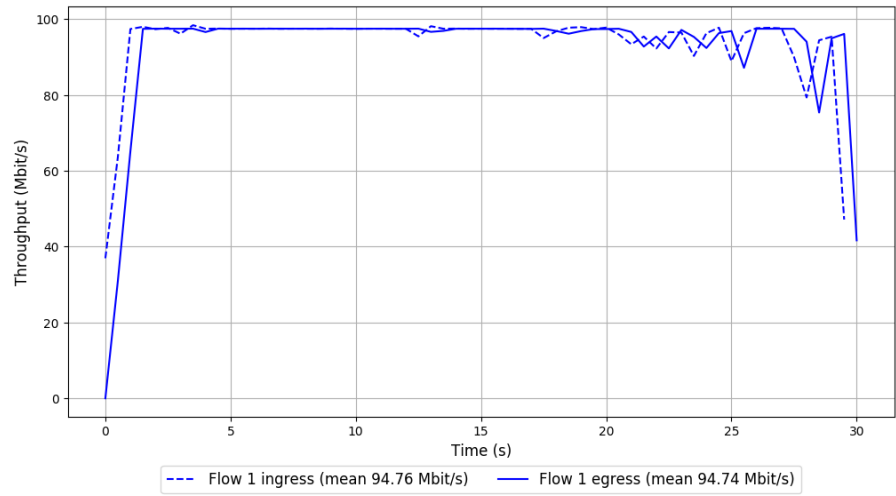
-- Flow 1:

Average throughput: 94.74 Mbit/s

95th percentile per-packet one-way delay: 29.830 ms

Loss rate: 0.19%

### Run 3: Report of Muses\_DecisionTreeH0 — Data Link

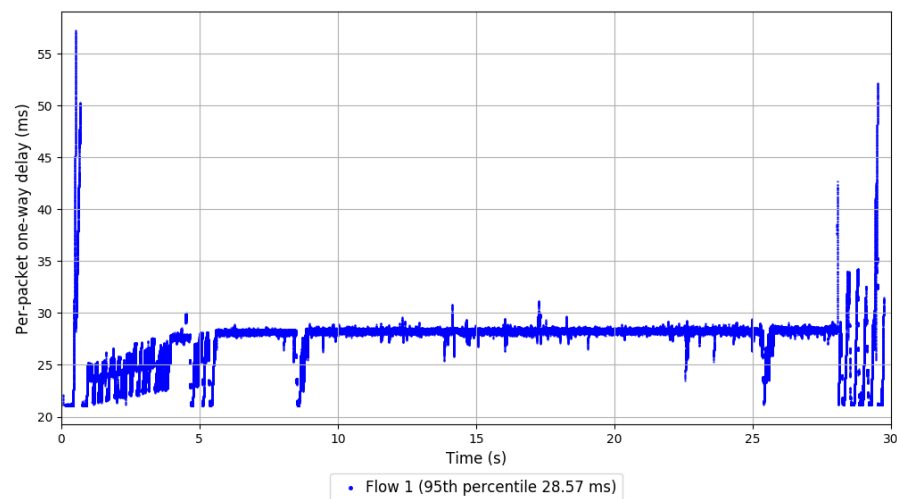
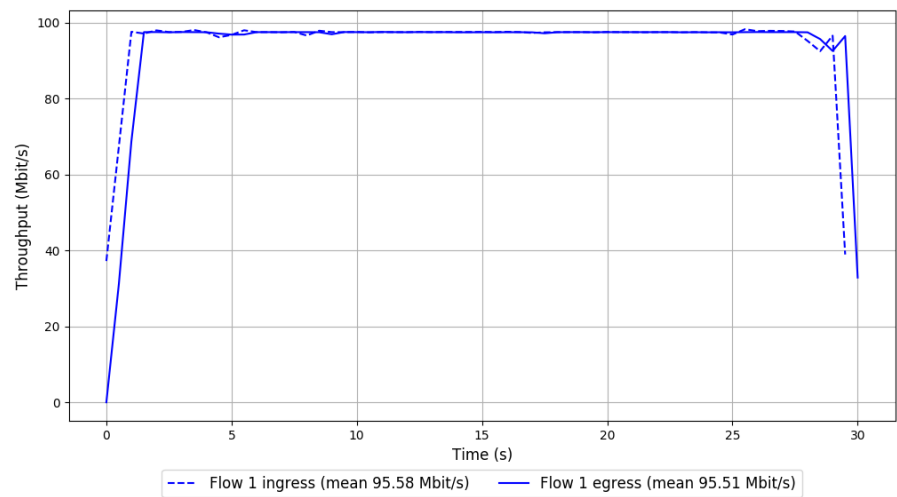


Run 4: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-12-11 12:22:14  
End at: 2019-12-11 12:22:44  
Local clock offset: 4.405 ms  
Remote clock offset: -5.123 ms

# Below is generated by plot.py at 2019-12-11 13:23:35  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.51 Mbit/s  
95th percentile per-packet one-way delay: 28.567 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 95.51 Mbit/s  
95th percentile per-packet one-way delay: 28.567 ms  
Loss rate: 0.23%

Run 4: Report of Muses\_DecisionTreeH0 — Data Link



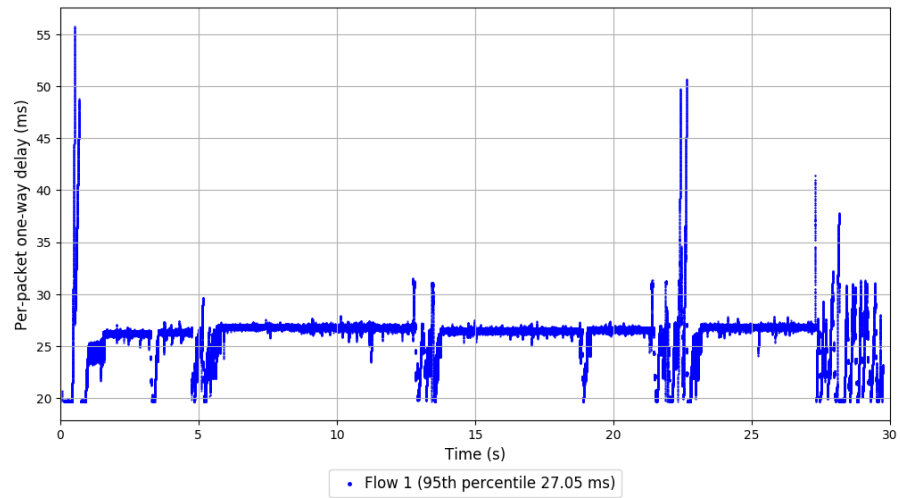
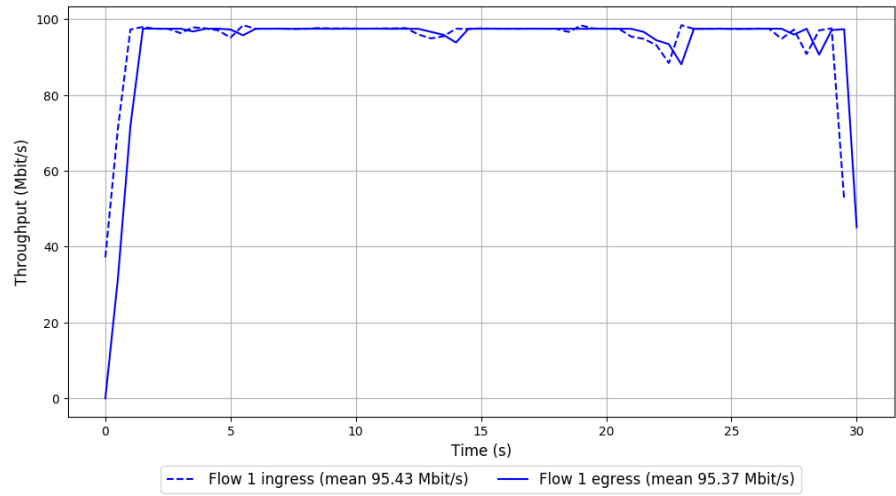


Run 5: Statistics of Muses\\_DecisionTreeH0

Start at: 2019-12-11 12:51:44  
End at: 2019-12-11 12:52:14  
Local clock offset: 4.567 ms  
Remote clock offset: -4.081 ms

# Below is generated by plot.py at 2019-12-11 13:23:38  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.37 Mbit/s  
95th percentile per-packet one-way delay: 27.053 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 95.37 Mbit/s  
95th percentile per-packet one-way delay: 27.053 ms  
Loss rate: 0.23%

# Run 5: Report of Muses\_DecisionTreeH0 — Data Link

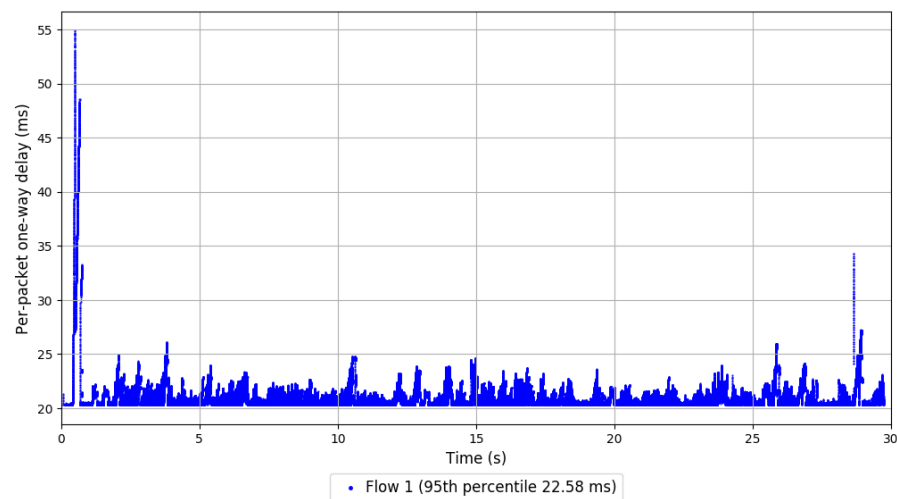
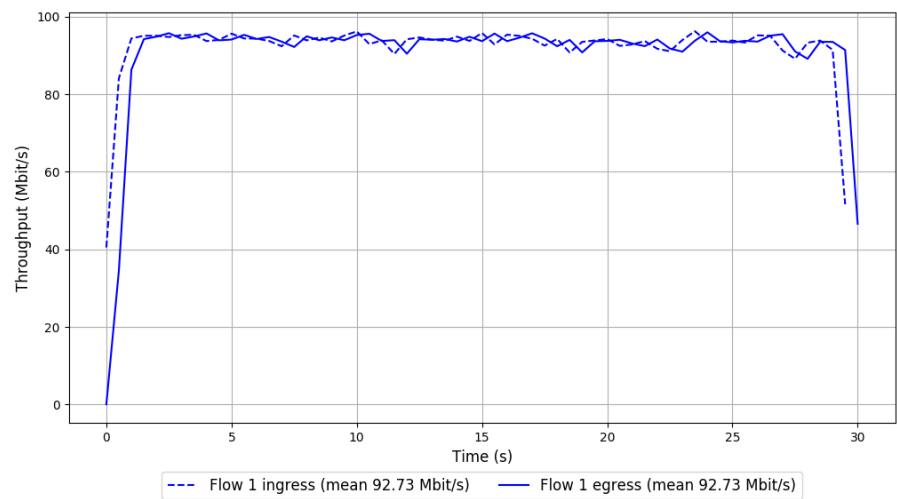


```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 11:07:22
End at: 2019-12-11 11:07:52
Local clock offset: 6.388 ms
Remote clock offset: -5.74 ms

# Below is generated by plot.py at 2019-12-11 13:23:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 22.577 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 92.73 Mbit/s
95th percentile per-packet one-way delay: 22.577 ms
Loss rate: 0.16%
```

Run 1: Report of Muses\_DecisionTreeR0 — Data Link

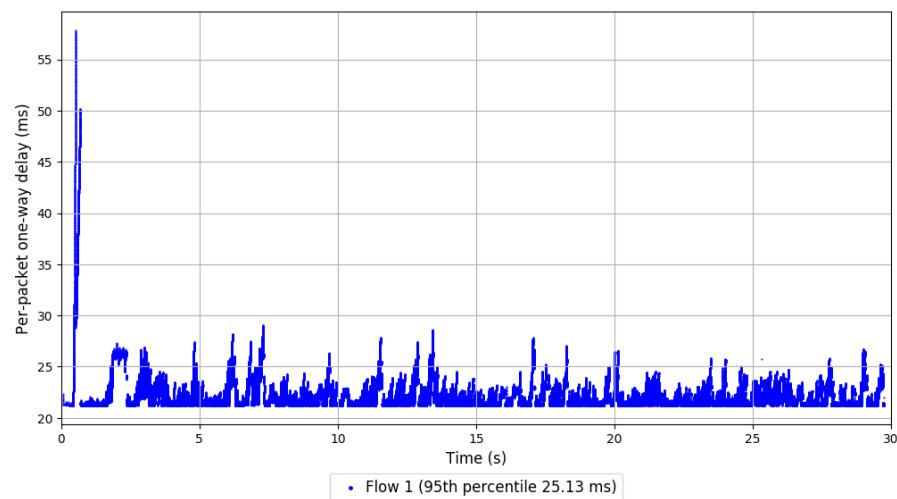
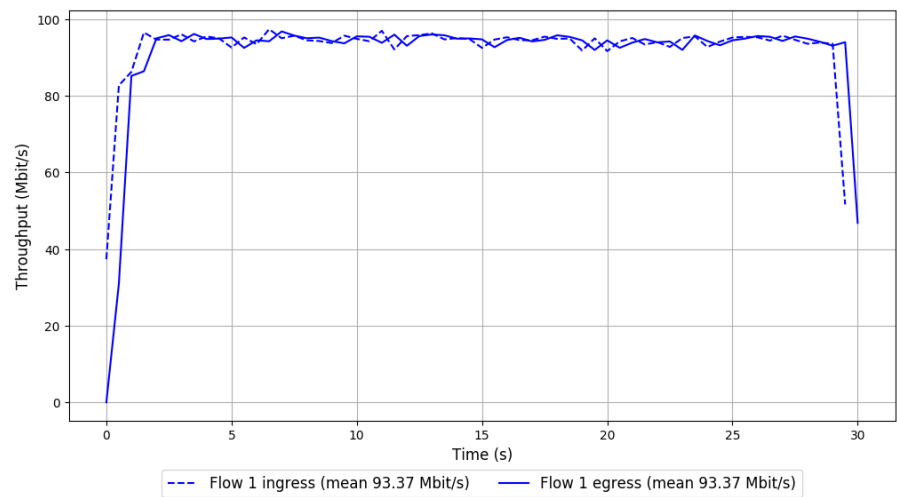


Run 2: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-12-11 11:36:04  
End at: 2019-12-11 11:36:34  
Local clock offset: 7.273 ms  
Remote clock offset: -4.972 ms

# Below is generated by plot.py at 2019-12-11 13:23:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.37 Mbit/s  
95th percentile per-packet one-way delay: 25.129 ms  
Loss rate: 0.16%  
-- Flow 1:  
Average throughput: 93.37 Mbit/s  
95th percentile per-packet one-way delay: 25.129 ms  
Loss rate: 0.16%

Run 2: Report of Muses\_DecisionTreeR0 — Data Link

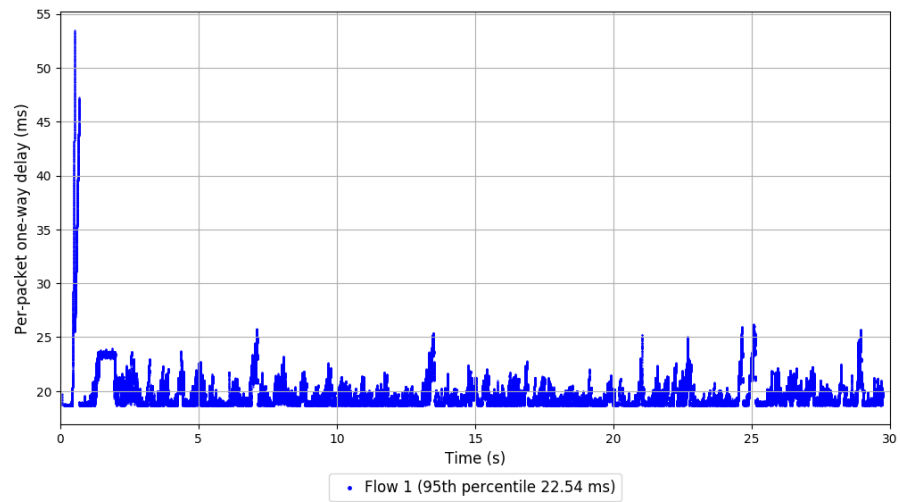
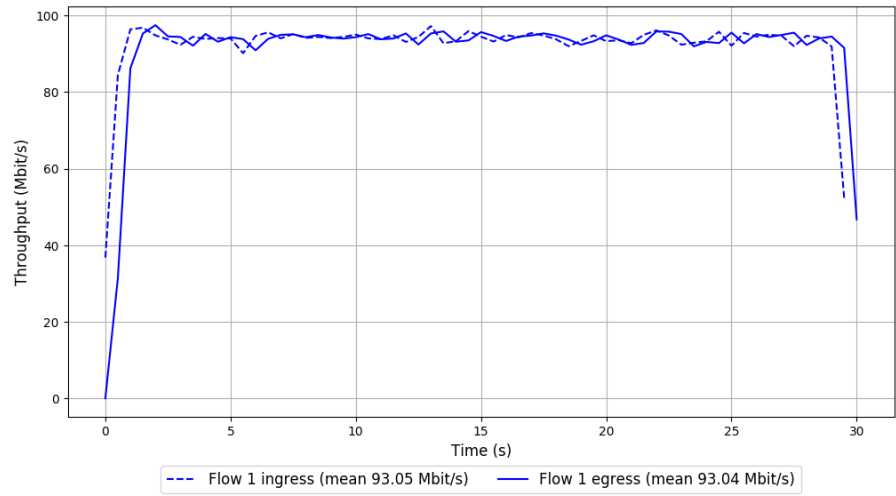


Run 3: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-12-11 12:04:20  
End at: 2019-12-11 12:04:50  
Local clock offset: 3.93 ms  
Remote clock offset: -3.054 ms

# Below is generated by plot.py at 2019-12-11 13:24:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.04 Mbit/s  
95th percentile per-packet one-way delay: 22.538 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 93.04 Mbit/s  
95th percentile per-packet one-way delay: 22.538 ms  
Loss rate: 0.17%

### Run 3: Report of Muses\_DecisionTreeR0 — Data Link



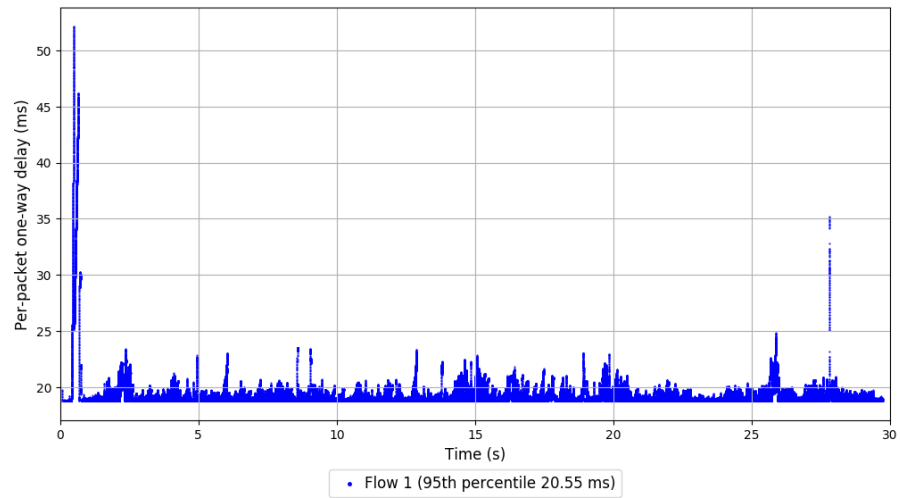
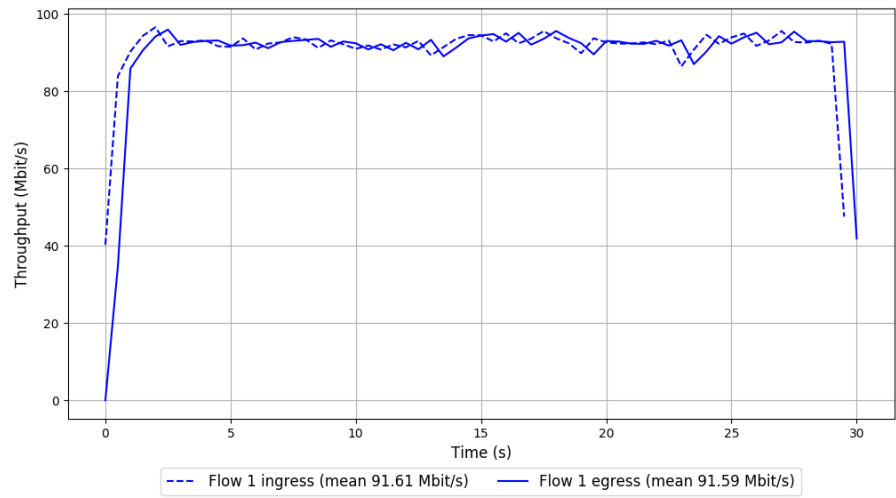


Run 4: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-12-11 12:33:06  
End at: 2019-12-11 12:33:36  
Local clock offset: 3.88 ms  
Remote clock offset: -2.817 ms

# Below is generated by plot.py at 2019-12-11 13:24:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.59 Mbit/s  
95th percentile per-packet one-way delay: 20.546 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 91.59 Mbit/s  
95th percentile per-packet one-way delay: 20.546 ms  
Loss rate: 0.18%

#### Run 4: Report of Muses\_DecisionTreeR0 — Data Link

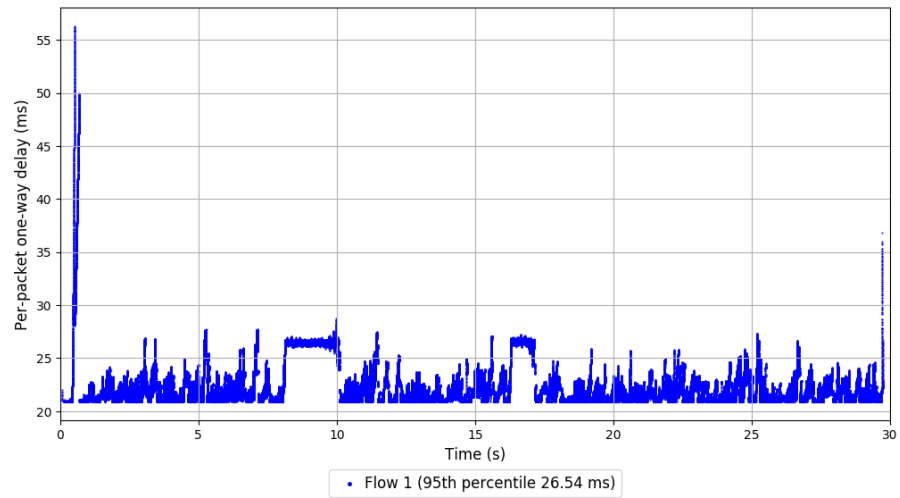
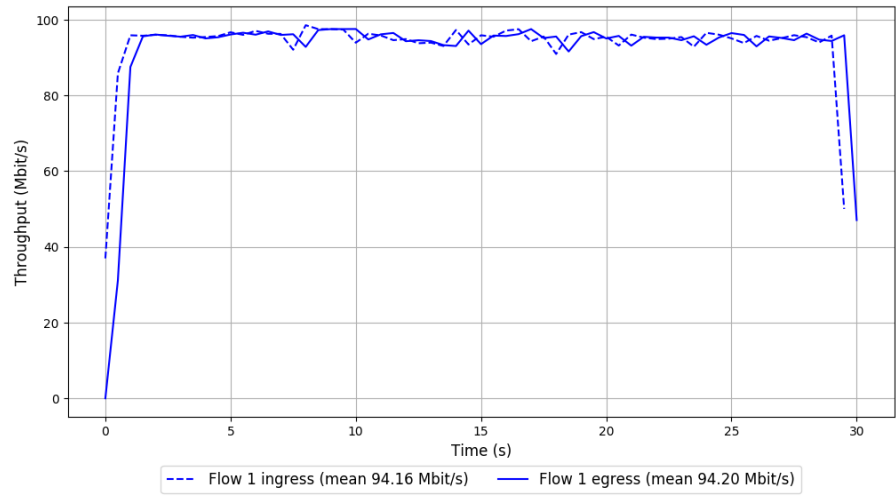


Run 5: Statistics of Muses\\_DecisionTreeR0

Start at: 2019-12-11 13:02:48  
End at: 2019-12-11 13:03:18  
Local clock offset: 5.568 ms  
Remote clock offset: -4.493 ms

# Below is generated by plot.py at 2019-12-11 13:24:11  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.20 Mbit/s  
95th percentile per-packet one-way delay: 26.541 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 94.20 Mbit/s  
95th percentile per-packet one-way delay: 26.541 ms  
Loss rate: 0.13%

# Run 5: Report of Muses\_DecisionTreeR0 — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2019-12-11 11:13:37

End at: 2019-12-11 11:14:07

Local clock offset: 7.053 ms

Remote clock offset: -6.276 ms

# Below is generated by plot.py at 2019-12-11 13:24:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.59 Mbit/s

95th percentile per-packet one-way delay: 27.876 ms

Loss rate: 0.18%

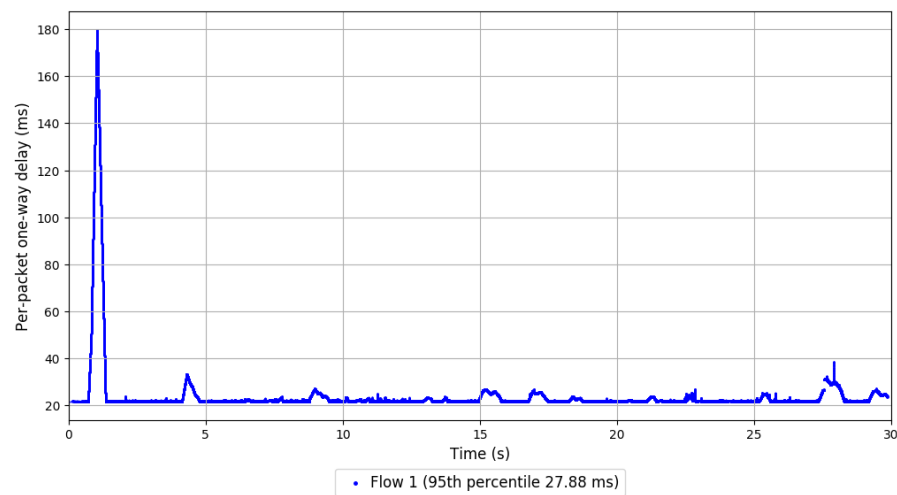
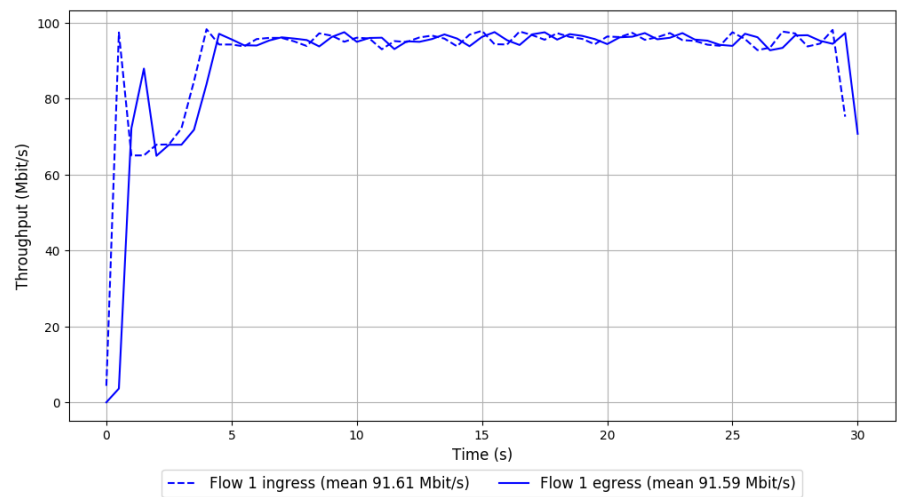
-- Flow 1:

Average throughput: 91.59 Mbit/s

95th percentile per-packet one-way delay: 27.876 ms

Loss rate: 0.18%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2019-12-11 11:42:07

End at: 2019-12-11 11:42:37

Local clock offset: 5.674 ms

Remote clock offset: -4.092 ms

# Below is generated by plot.py at 2019-12-11 13:24:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.40 Mbit/s

95th percentile per-packet one-way delay: 27.152 ms

Loss rate: 0.19%

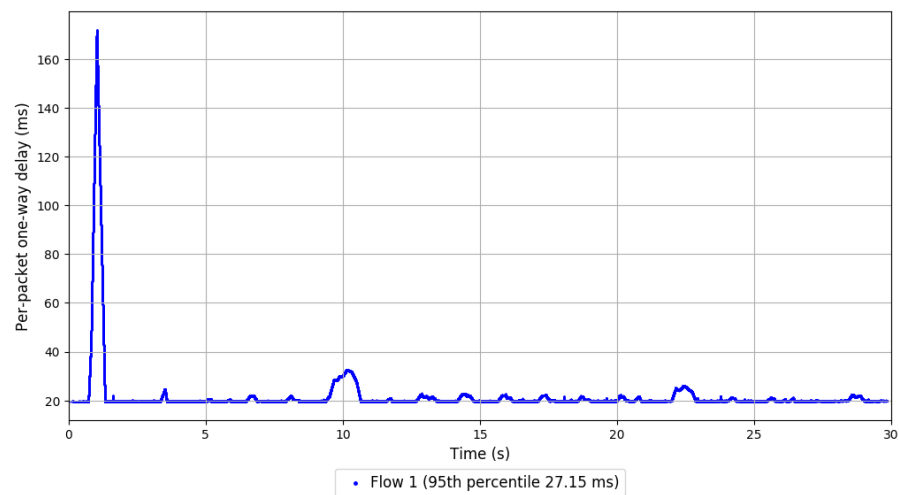
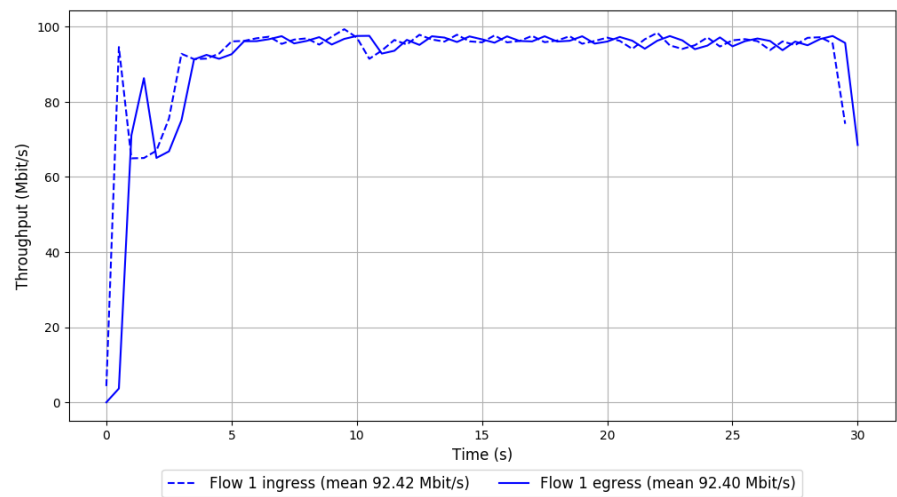
-- Flow 1:

Average throughput: 92.40 Mbit/s

95th percentile per-packet one-way delay: 27.152 ms

Loss rate: 0.19%

Run 2: Report of PCC-Allegro — Data Link





Run 3: Statistics of PCC-Allegro

Start at: 2019-12-11 12:10:25

End at: 2019-12-11 12:10:55

Local clock offset: 3.727 ms

Remote clock offset: -5.123 ms

# Below is generated by plot.py at 2019-12-11 13:24:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.34 Mbit/s

95th percentile per-packet one-way delay: 26.324 ms

Loss rate: 0.18%

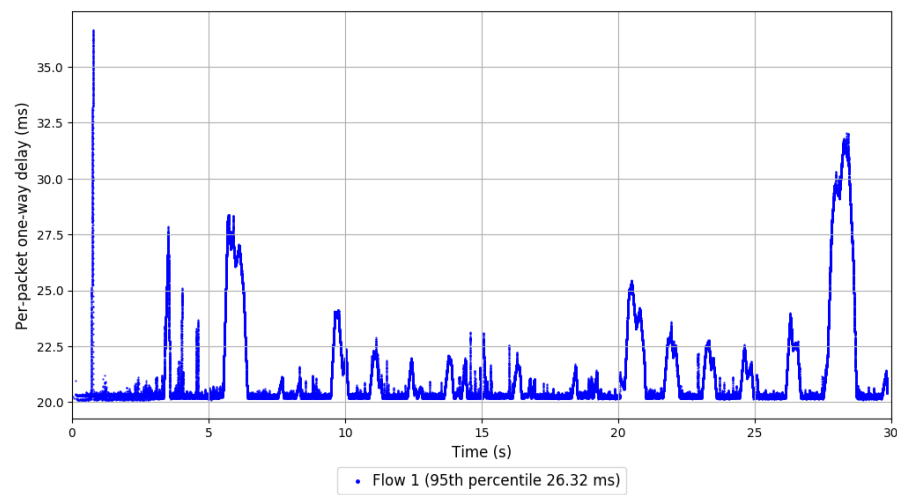
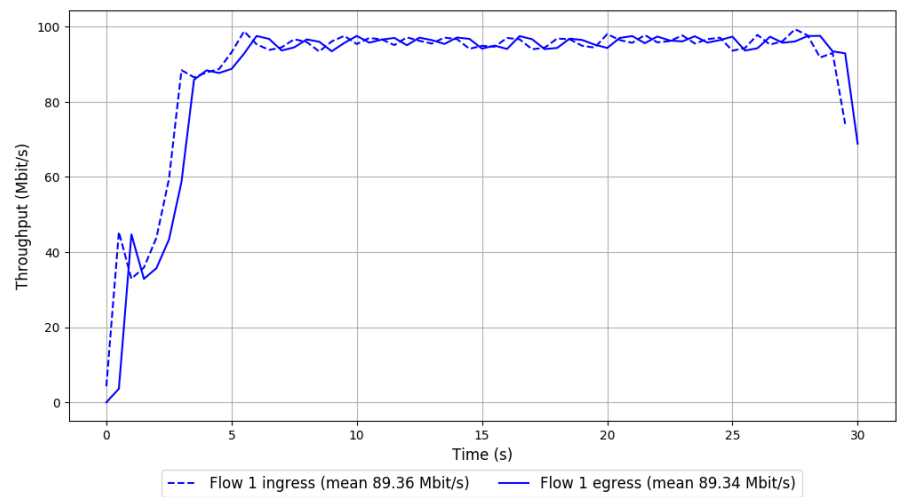
-- Flow 1:

Average throughput: 89.34 Mbit/s

95th percentile per-packet one-way delay: 26.324 ms

Loss rate: 0.18%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-12-11 12:39:27

End at: 2019-12-11 12:39:57

Local clock offset: 3.722 ms

Remote clock offset: -4.348 ms

# Below is generated by plot.py at 2019-12-11 13:24:45

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.81 Mbit/s

95th percentile per-packet one-way delay: 28.115 ms

Loss rate: 0.19%

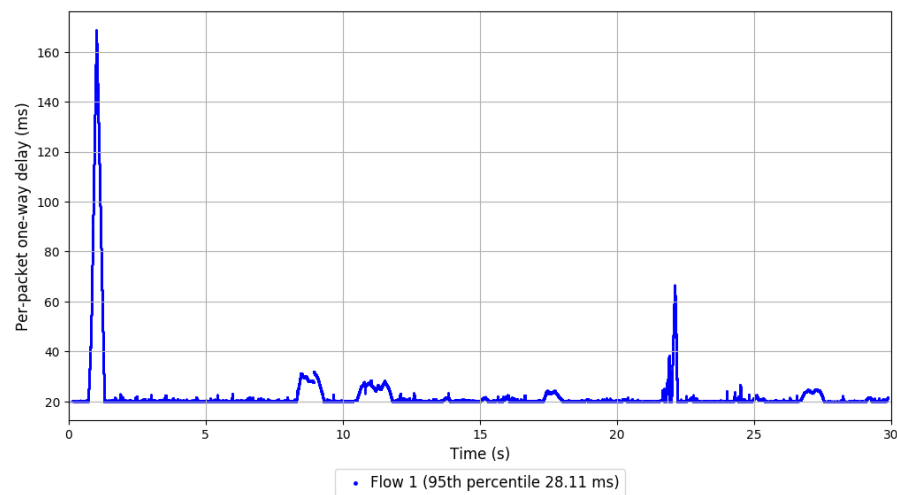
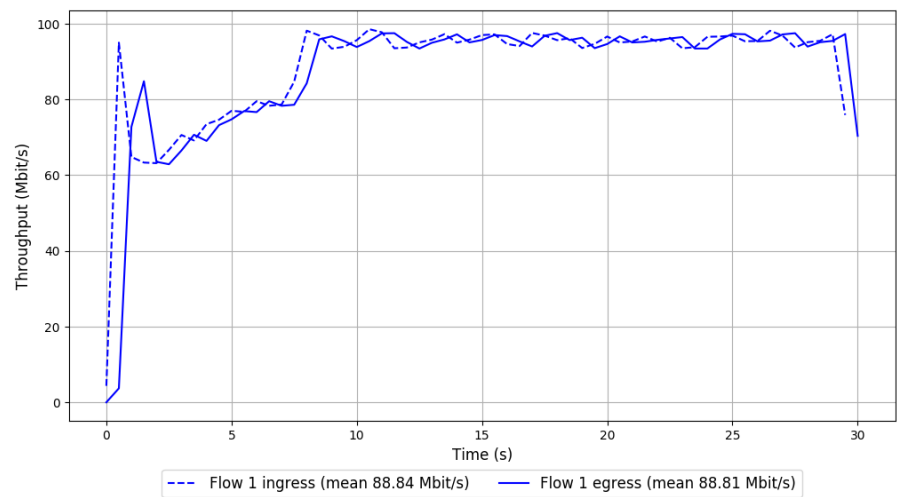
-- Flow 1:

Average throughput: 88.81 Mbit/s

95th percentile per-packet one-way delay: 28.115 ms

Loss rate: 0.19%

Run 4: Report of PCC-Allegro — Data Link

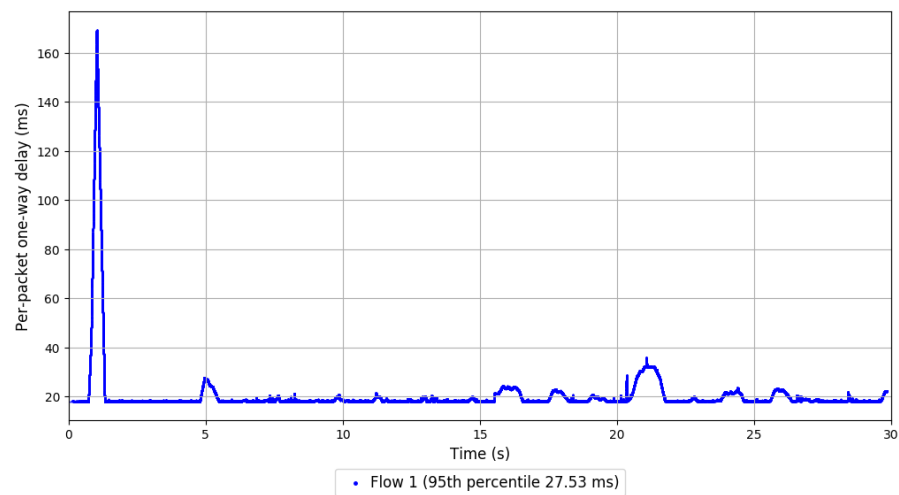
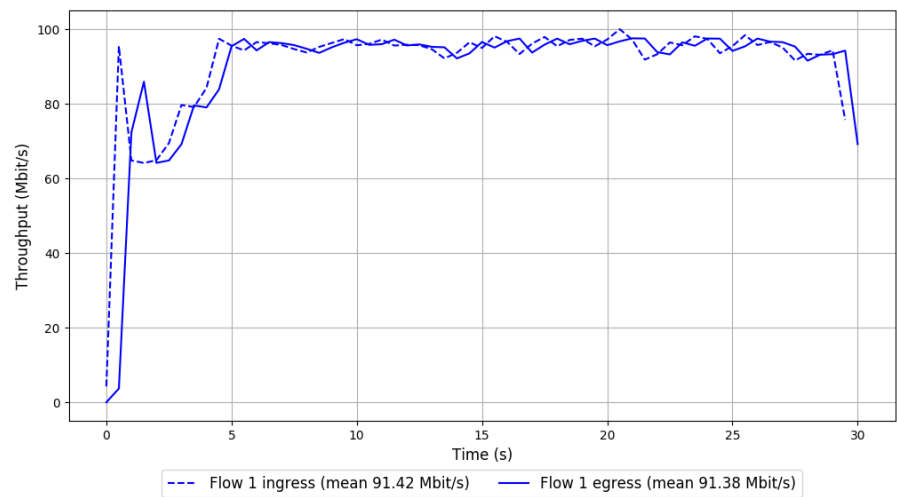


Run 5: Statistics of PCC-Allegro

Start at: 2019-12-11 13:09:11  
End at: 2019-12-11 13:09:41  
Local clock offset: 5.35 ms  
Remote clock offset: -1.911 ms

# Below is generated by plot.py at 2019-12-11 13:24:50  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.38 Mbit/s  
95th percentile per-packet one-way delay: 27.529 ms  
Loss rate: 0.20%  
-- Flow 1:  
Average throughput: 91.38 Mbit/s  
95th percentile per-packet one-way delay: 27.529 ms  
Loss rate: 0.20%

Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2019-12-11 11:08:34

End at: 2019-12-11 11:09:04

Local clock offset: 6.358 ms

Remote clock offset: -5.627 ms

# Below is generated by plot.py at 2019-12-11 13:26:14

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.84 Mbit/s

95th percentile per-packet one-way delay: 677.862 ms

Loss rate: 7.60%

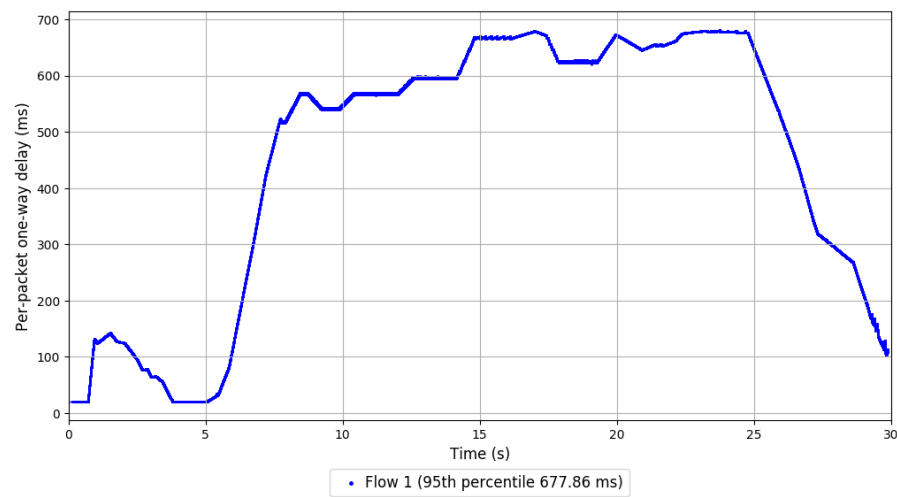
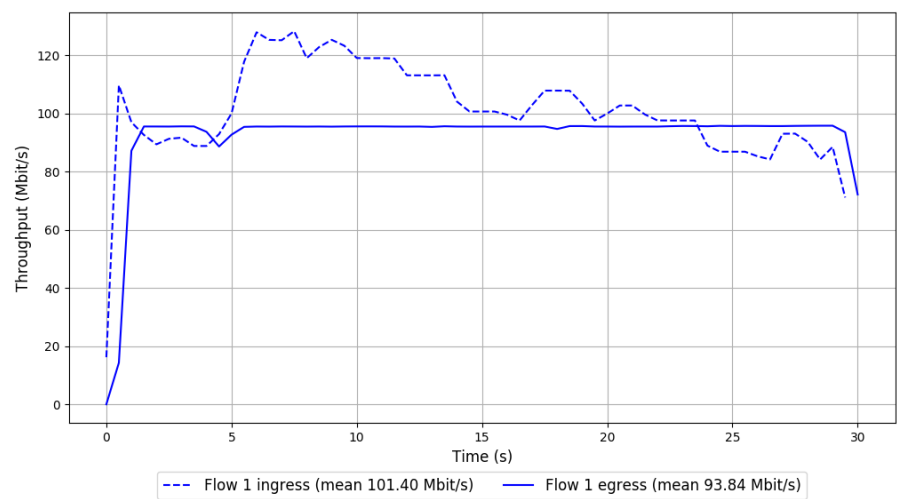
-- Flow 1:

Average throughput: 93.84 Mbit/s

95th percentile per-packet one-way delay: 677.862 ms

Loss rate: 7.60%

Run 1: Report of PCC-Expr — Data Link



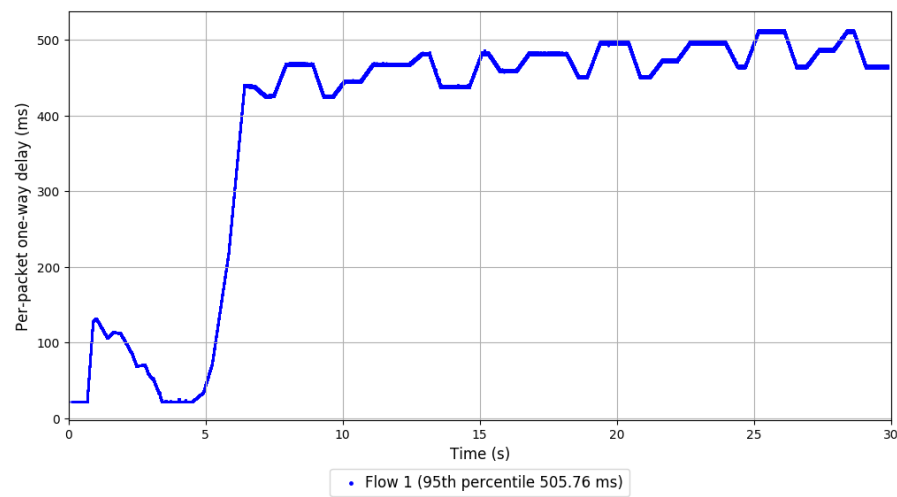
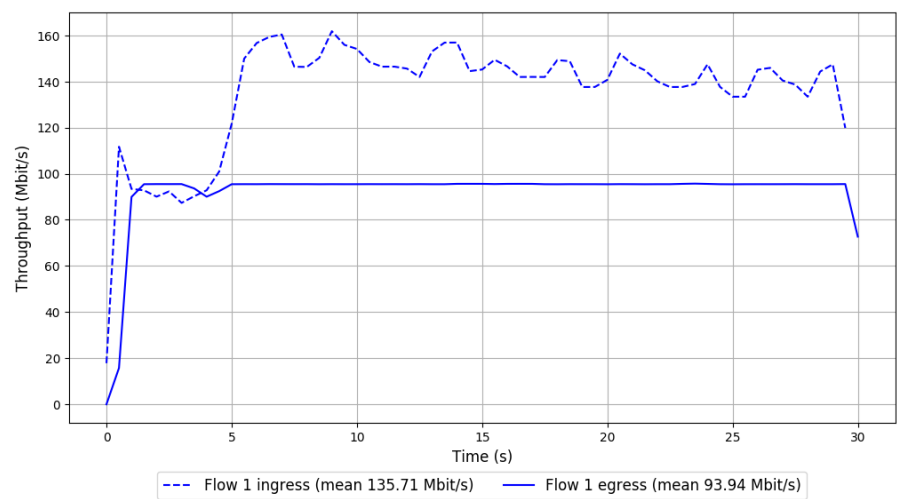


Run 2: Statistics of PCC-Expr

Start at: 2019-12-11 11:37:15  
End at: 2019-12-11 11:37:45  
Local clock offset: 7.964 ms  
Remote clock offset: -5.291 ms

# Below is generated by plot.py at 2019-12-11 13:26:33  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.94 Mbit/s  
95th percentile per-packet one-way delay: 505.760 ms  
Loss rate: 30.89%  
-- Flow 1:  
Average throughput: 93.94 Mbit/s  
95th percentile per-packet one-way delay: 505.760 ms  
Loss rate: 30.89%

Run 2: Report of PCC-Expr — Data Link

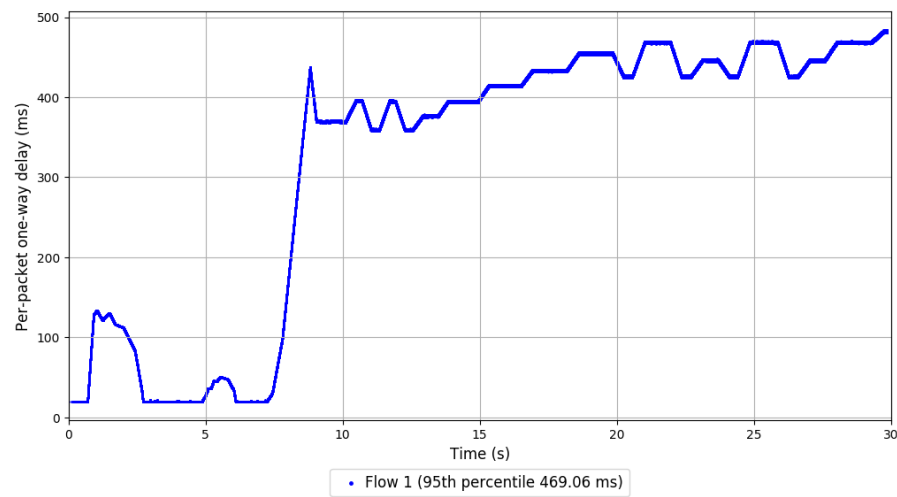
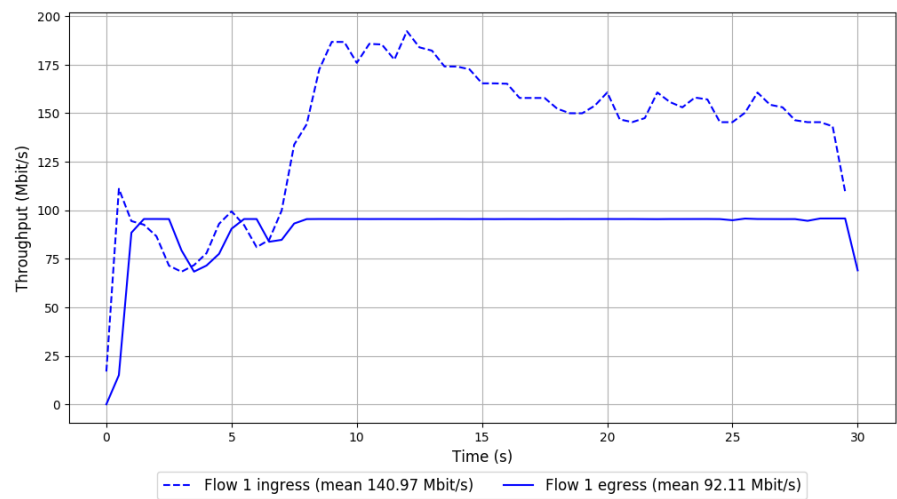


Run 3: Statistics of PCC-Expr

Start at: 2019-12-11 12:05:34  
End at: 2019-12-11 12:06:04  
Local clock offset: 3.512 ms  
Remote clock offset: -4.366 ms

# Below is generated by plot.py at 2019-12-11 13:26:39  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.11 Mbit/s  
95th percentile per-packet one-way delay: 469.058 ms  
Loss rate: 34.76%  
-- Flow 1:  
Average throughput: 92.11 Mbit/s  
95th percentile per-packet one-way delay: 469.058 ms  
Loss rate: 34.76%

Run 3: Report of PCC-Expr — Data Link

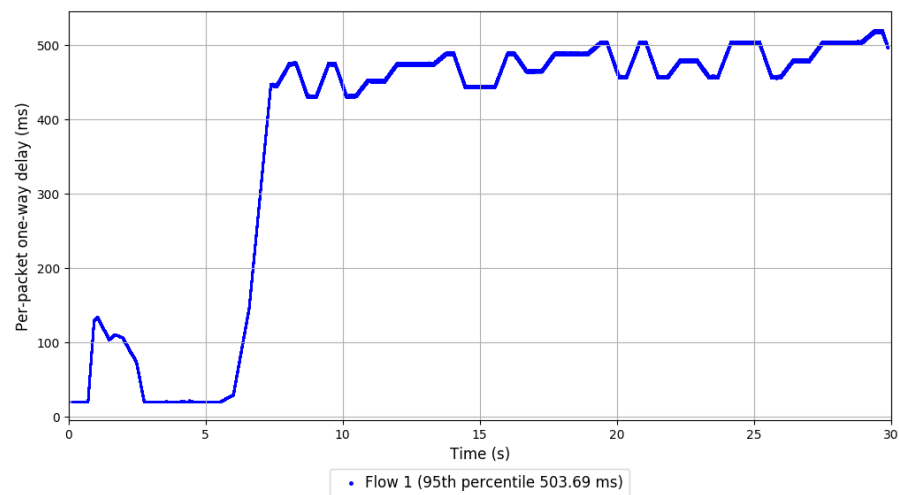
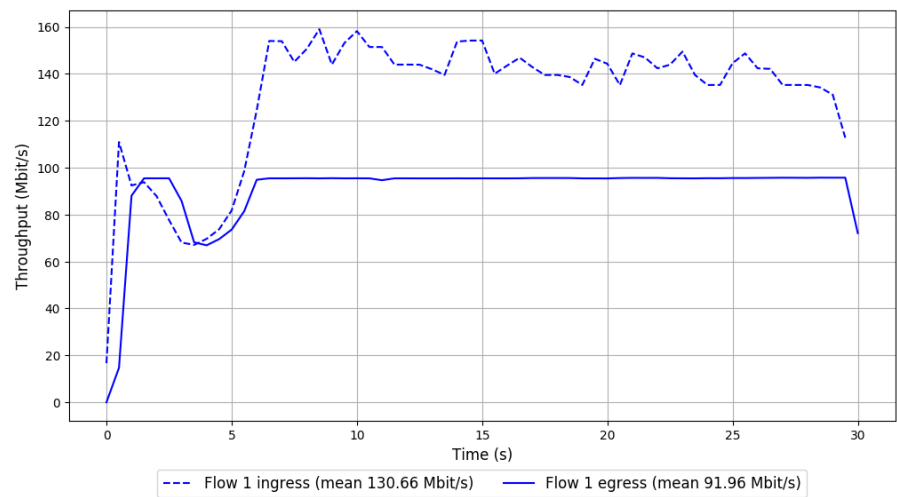


Run 4: Statistics of PCC-Expr

Start at: 2019-12-11 12:34:20  
End at: 2019-12-11 12:34:50  
Local clock offset: 3.285 ms  
Remote clock offset: -5.234 ms

# Below is generated by plot.py at 2019-12-11 13:26:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.96 Mbit/s  
95th percentile per-packet one-way delay: 503.692 ms  
Loss rate: 29.73%  
-- Flow 1:  
Average throughput: 91.96 Mbit/s  
95th percentile per-packet one-way delay: 503.692 ms  
Loss rate: 29.73%

Run 4: Report of PCC-Expr — Data Link

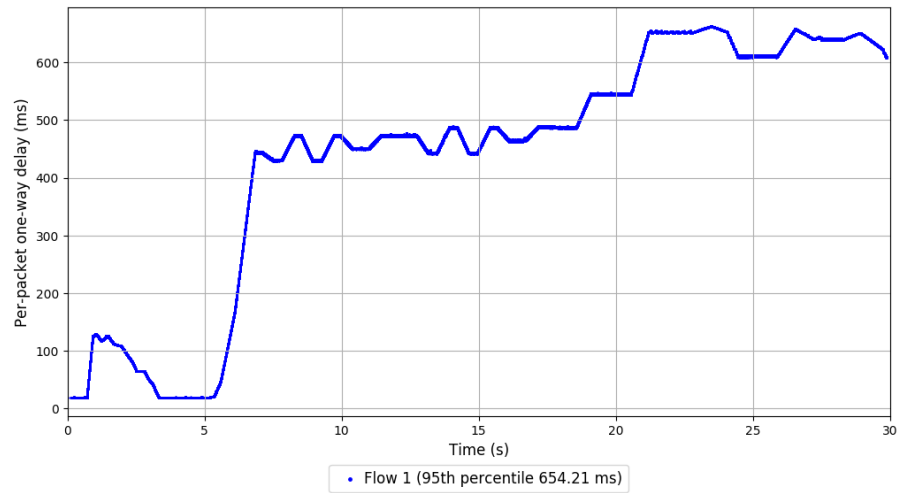
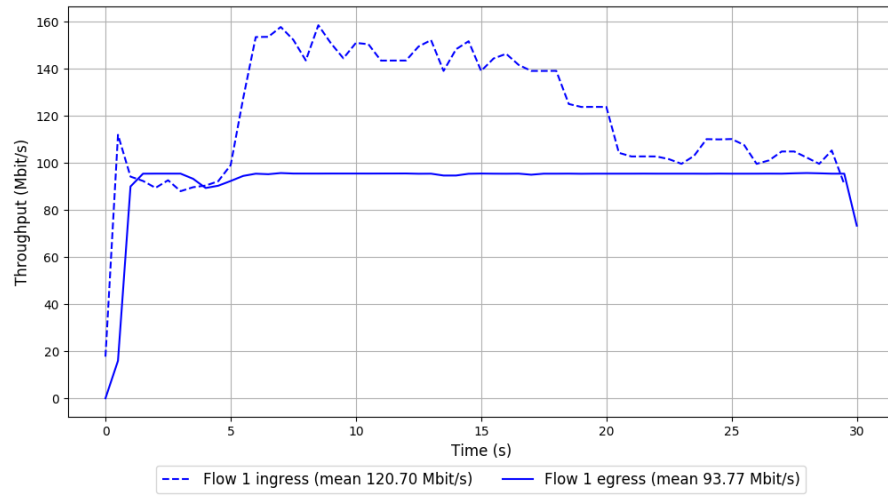


Run 5: Statistics of PCC-Expr

Start at: 2019-12-11 13:04:04  
End at: 2019-12-11 13:04:34  
Local clock offset: 5.627 ms  
Remote clock offset: -2.209 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.77 Mbit/s  
95th percentile per-packet one-way delay: 654.211 ms  
Loss rate: 22.43%  
-- Flow 1:  
Average throughput: 93.77 Mbit/s  
95th percentile per-packet one-way delay: 654.211 ms  
Loss rate: 22.43%

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





Run 1: Statistics of QUIC Cubic

Start at: 2019-12-11 10:49:27

End at: 2019-12-11 10:49:57

Local clock offset: 5.43 ms

Remote clock offset: -7.234 ms

# Below is generated by plot.py at 2019-12-11 13:27:05

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.59 Mbit/s

95th percentile per-packet one-way delay: 27.764 ms

Loss rate: 0.20%

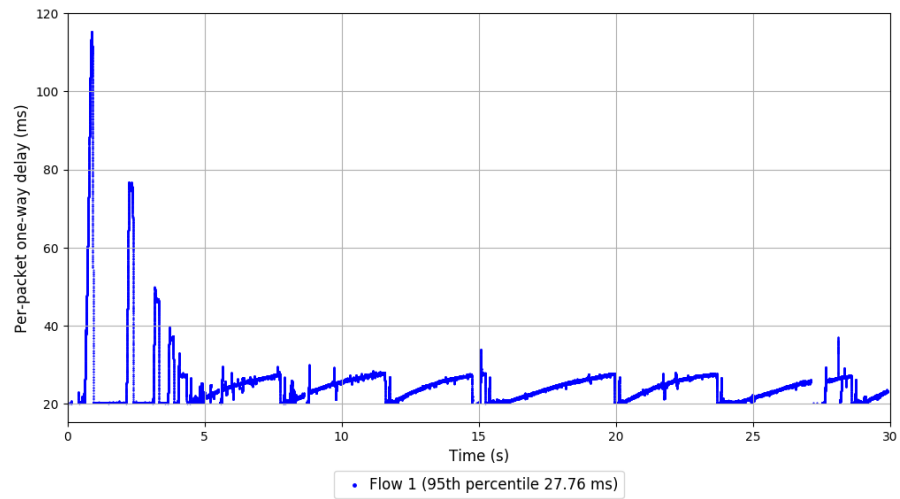
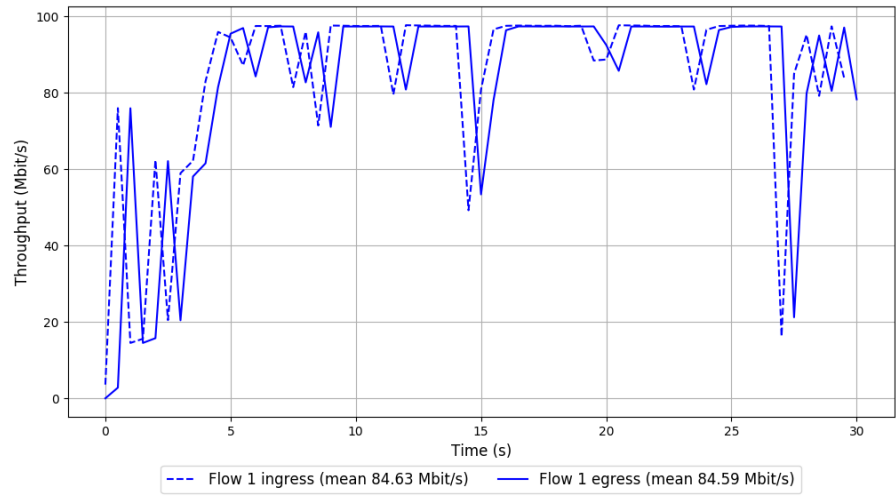
-- Flow 1:

Average throughput: 84.59 Mbit/s

95th percentile per-packet one-way delay: 27.764 ms

Loss rate: 0.20%

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

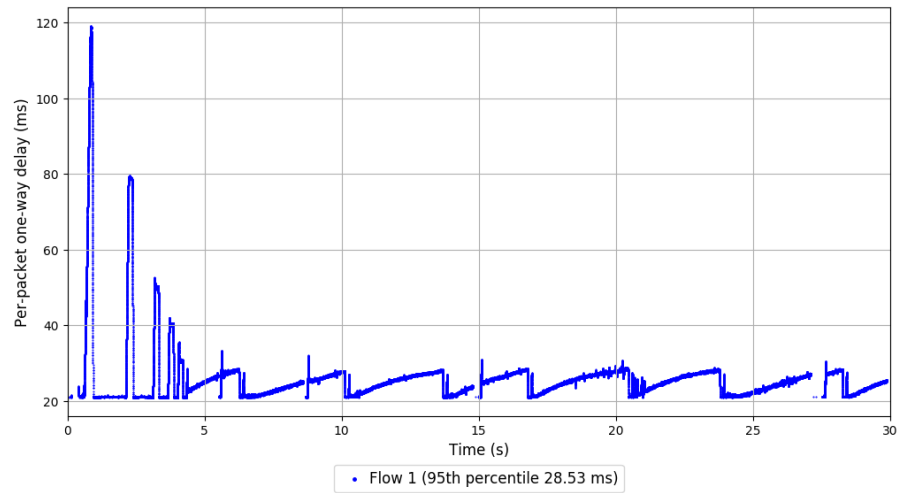
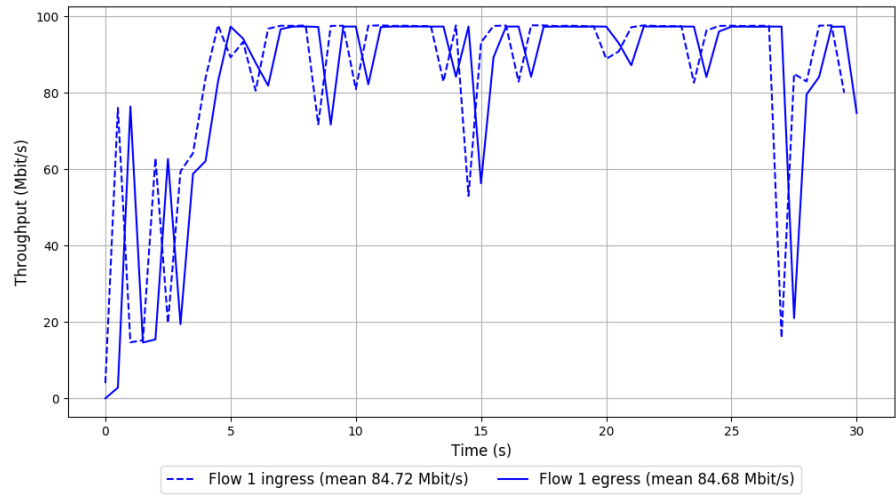


Run 2: Statistics of QUIC Cubic

Start at: 2019-12-11 11:18:21  
End at: 2019-12-11 11:18:51  
Local clock offset: 7.334 ms  
Remote clock offset: -5.182 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 84.68 Mbit/s  
95th percentile per-packet one-way delay: 28.533 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 84.68 Mbit/s  
95th percentile per-packet one-way delay: 28.533 ms  
Loss rate: 0.21%

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

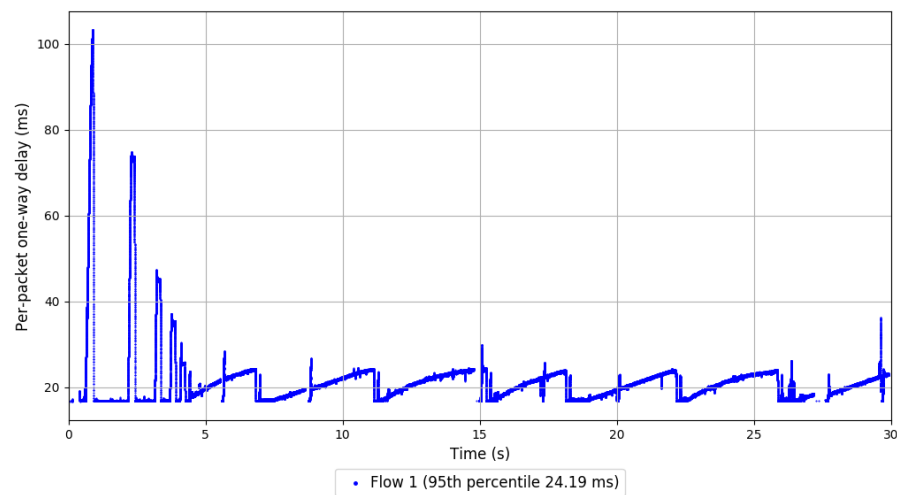
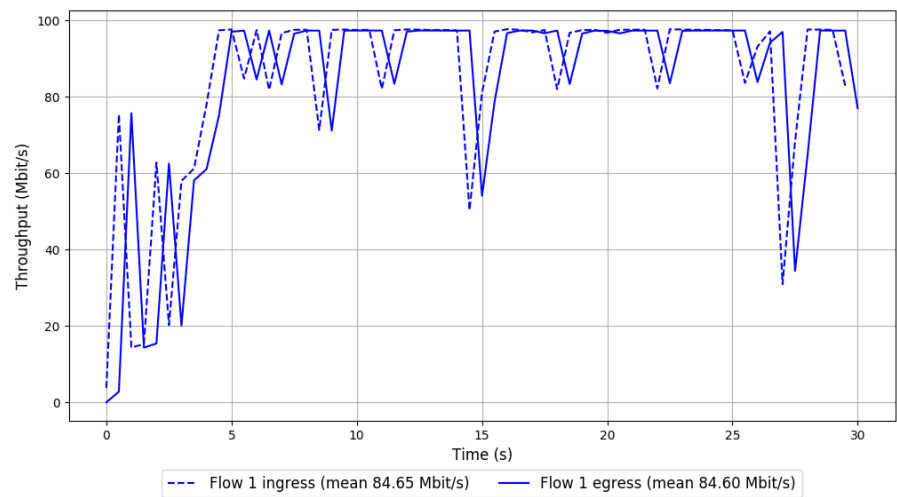


Run 3: Statistics of QUIC Cubic

Start at: 2019-12-11 11:46:41  
End at: 2019-12-11 11:47:11  
Local clock offset: 5.172 ms  
Remote clock offset: -1.751 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 84.60 Mbit/s  
95th percentile per-packet one-way delay: 24.193 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 84.60 Mbit/s  
95th percentile per-packet one-way delay: 24.193 ms  
Loss rate: 0.21%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2019-12-11 12:14:56

End at: 2019-12-11 12:15:26

Local clock offset: 4.17 ms

Remote clock offset: -1.747 ms

# Below is generated by plot.py at 2019-12-11 13:27:05

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.78 Mbit/s

95th percentile per-packet one-way delay: 24.830 ms

Loss rate: 0.21%

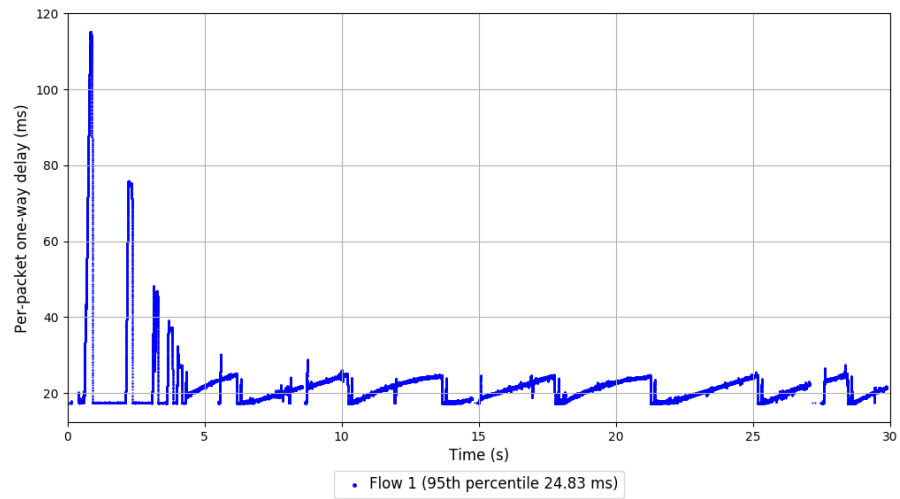
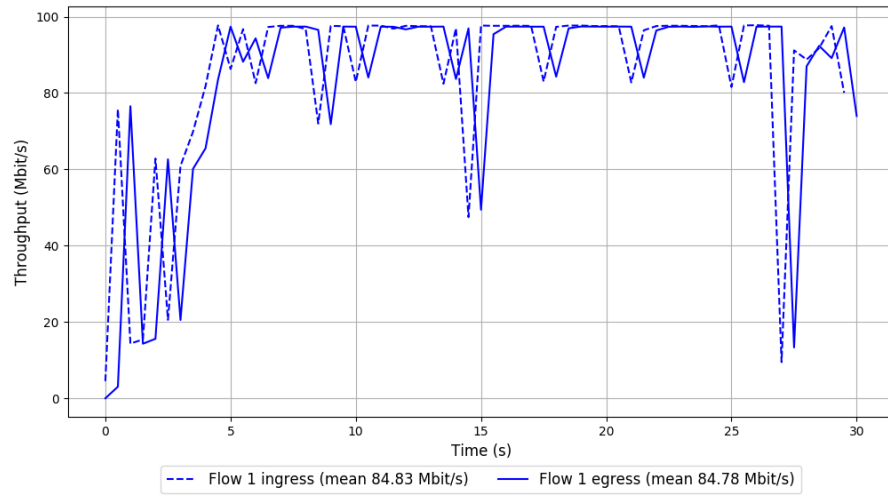
-- Flow 1:

Average throughput: 84.78 Mbit/s

95th percentile per-packet one-way delay: 24.830 ms

Loss rate: 0.21%

#### Run 4: Report of QUIC Cubic — Data Link



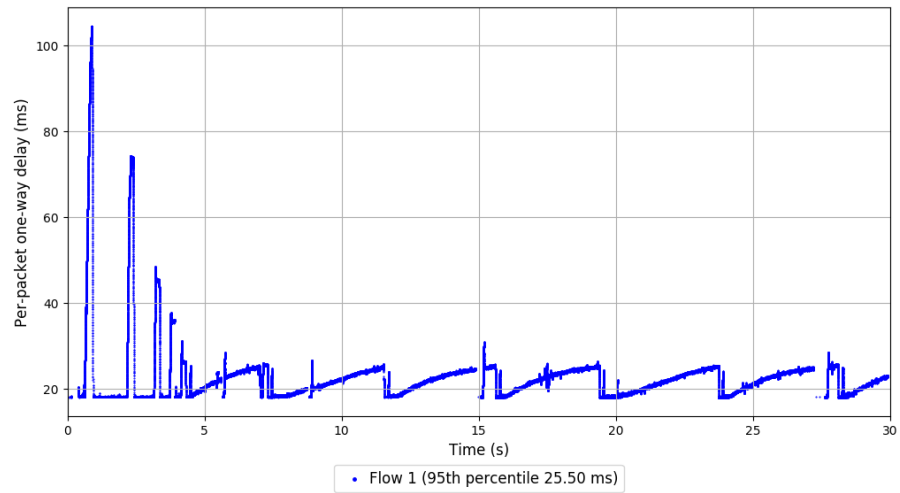
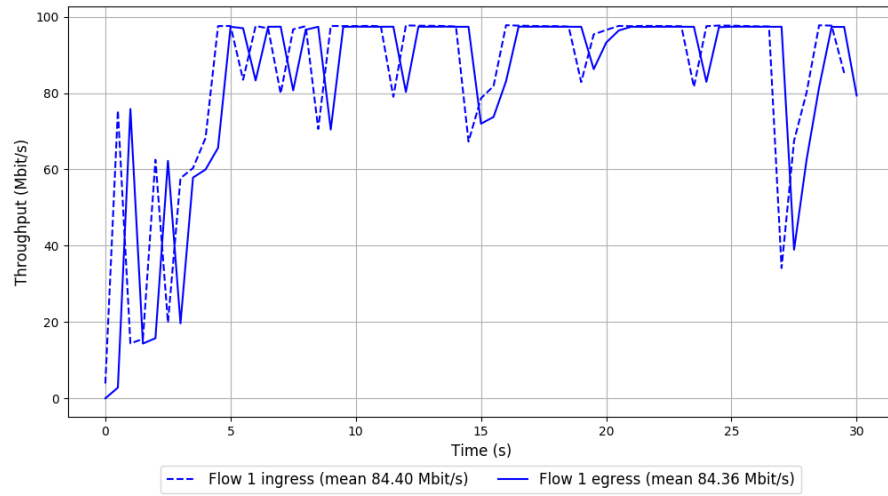


Run 5: Statistics of QUIC Cubic

Start at: 2019-12-11 12:44:11  
End at: 2019-12-11 12:44:41  
Local clock offset: 3.716 ms  
Remote clock offset: -2.882 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 84.36 Mbit/s  
95th percentile per-packet one-way delay: 25.499 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 84.36 Mbit/s  
95th percentile per-packet one-way delay: 25.499 ms  
Loss rate: 0.21%

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

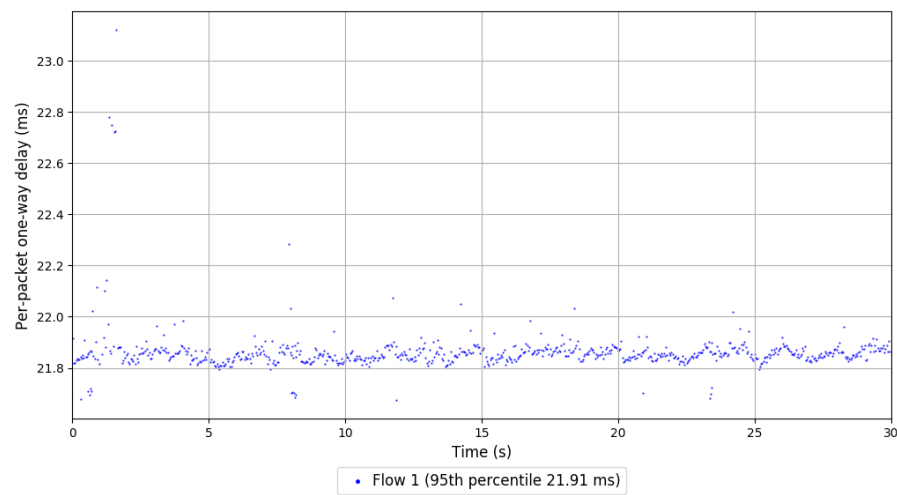
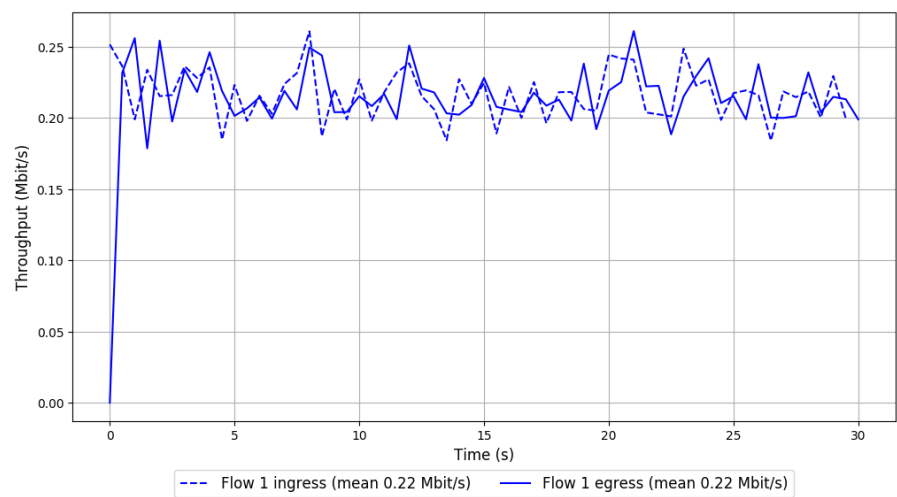


Run 1: Statistics of SCReAM

Start at: 2019-12-11 11:00:11  
End at: 2019-12-11 11:00:41  
Local clock offset: 6.736 ms  
Remote clock offset: -7.286 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.911 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.911 ms  
Loss rate: 0.13%

Run 1: Report of SReAM — Data Link

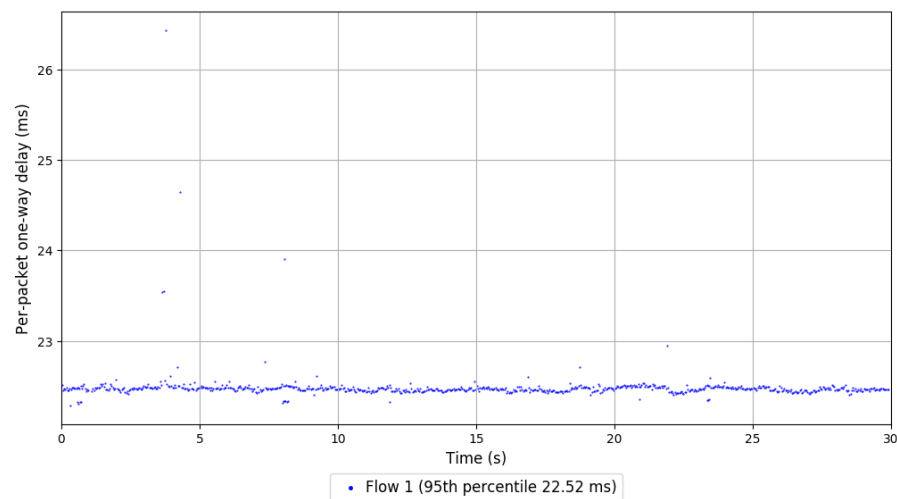
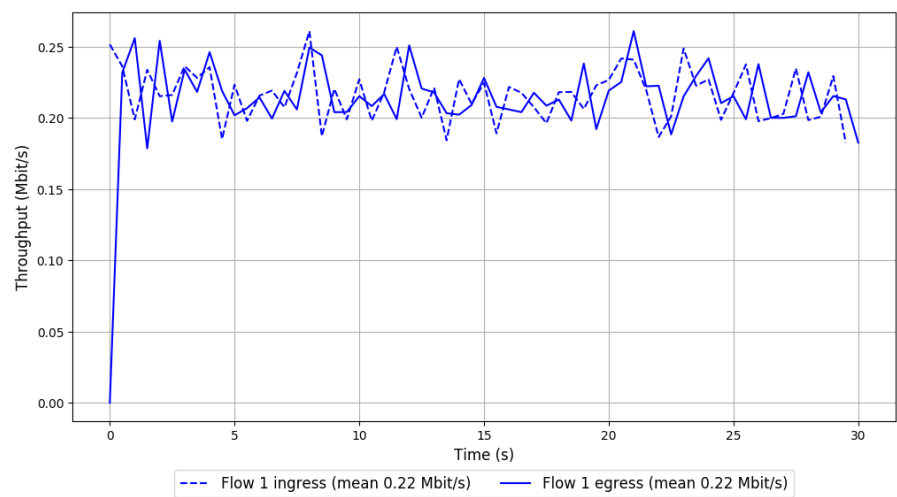


Run 2: Statistics of SCReAM

Start at: 2019-12-11 11:28:58  
End at: 2019-12-11 11:29:28  
Local clock offset: 7.703 ms  
Remote clock offset: -5.847 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 22.518 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 22.518 ms  
Loss rate: 0.13%

Run 2: Report of SReAM — Data Link

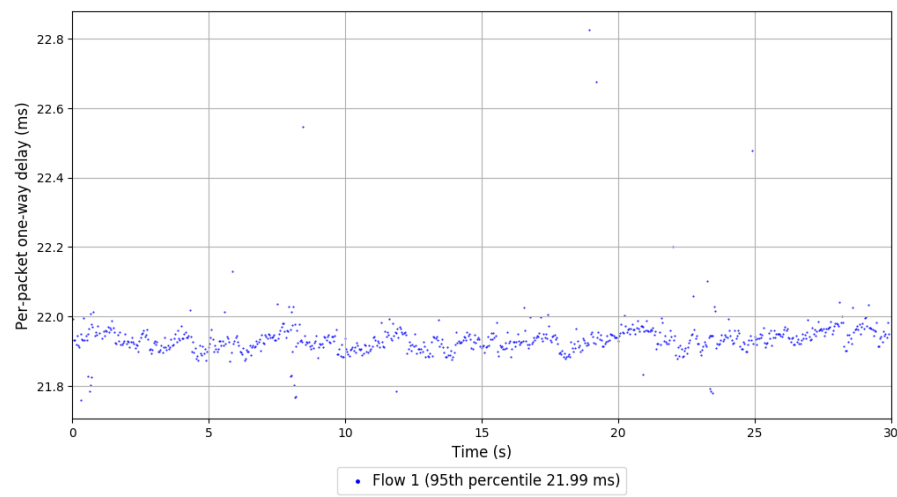
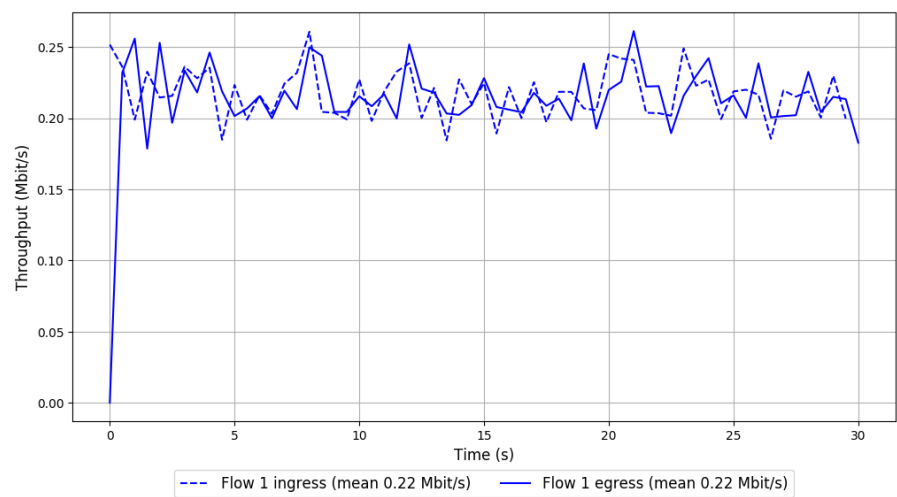


Run 3: Statistics of SCReAM

Start at: 2019-12-11 11:57:13  
End at: 2019-12-11 11:57:43  
Local clock offset: 4.955 ms  
Remote clock offset: -5.453 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.987 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.987 ms  
Loss rate: 0.26%

Run 3: Report of SReAM — Data Link



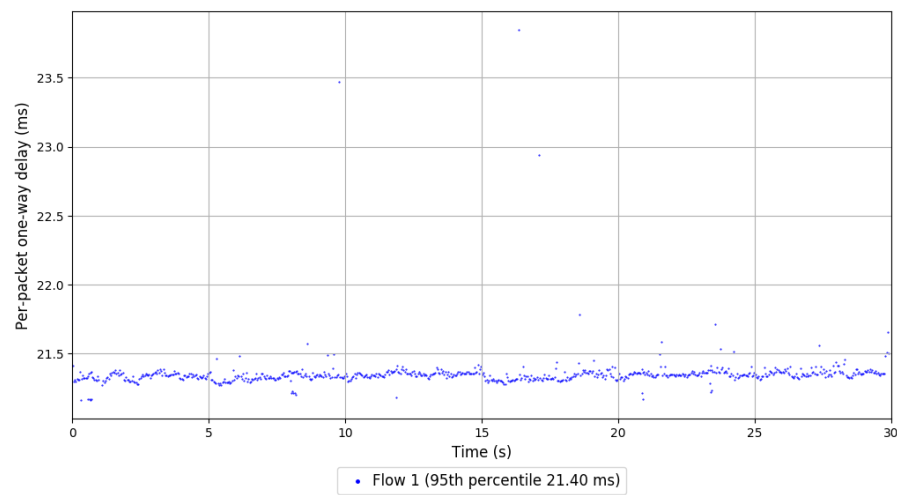
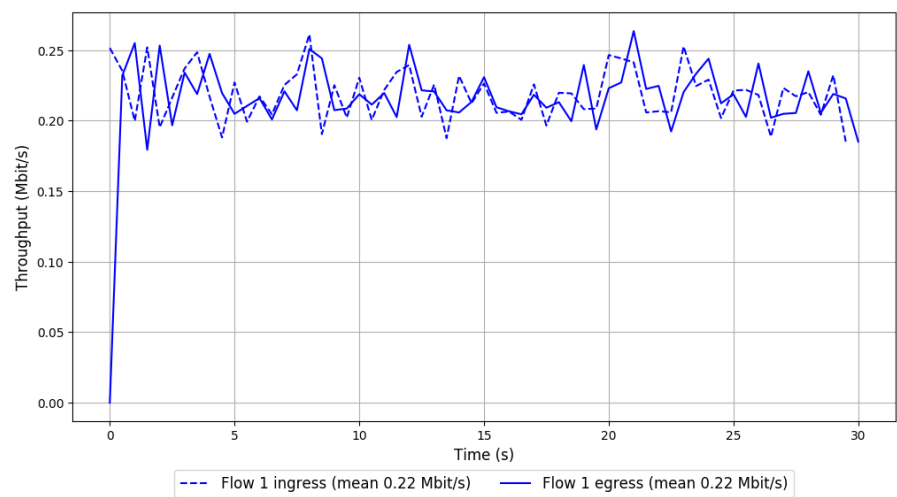


Run 4: Statistics of SCReAM

Start at: 2019-12-11 12:25:55  
End at: 2019-12-11 12:26:25  
Local clock offset: 3.545 ms  
Remote clock offset: -5.949 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.404 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 21.404 ms  
Loss rate: 0.13%

Run 4: Report of SReAM — Data Link

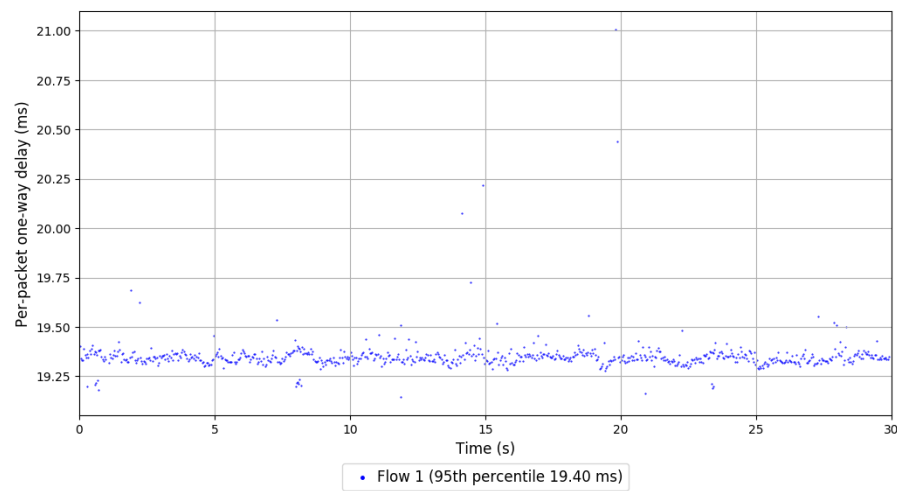
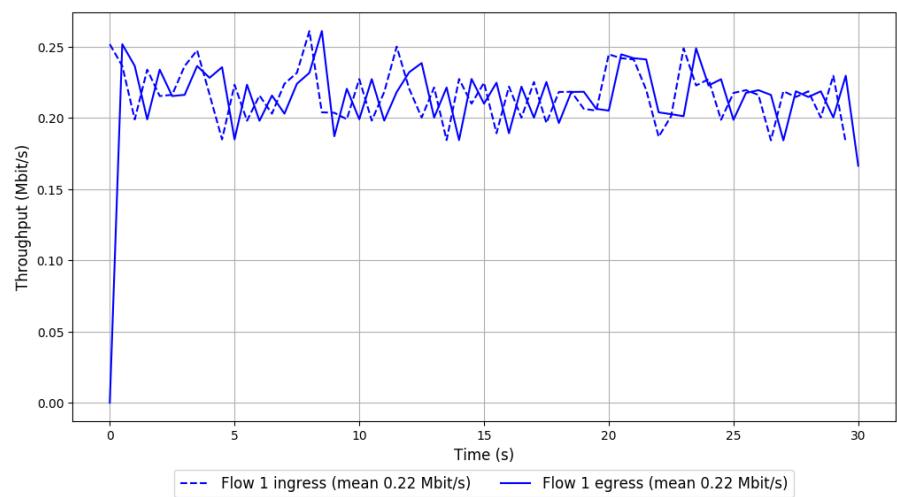


Run 5: Statistics of SCReAM

Start at: 2019-12-11 12:55:21  
End at: 2019-12-11 12:55:51  
Local clock offset: 4.665 ms  
Remote clock offset: -3.681 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 19.404 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 19.404 ms  
Loss rate: 0.13%

Run 5: Report of SCReAM — Data Link

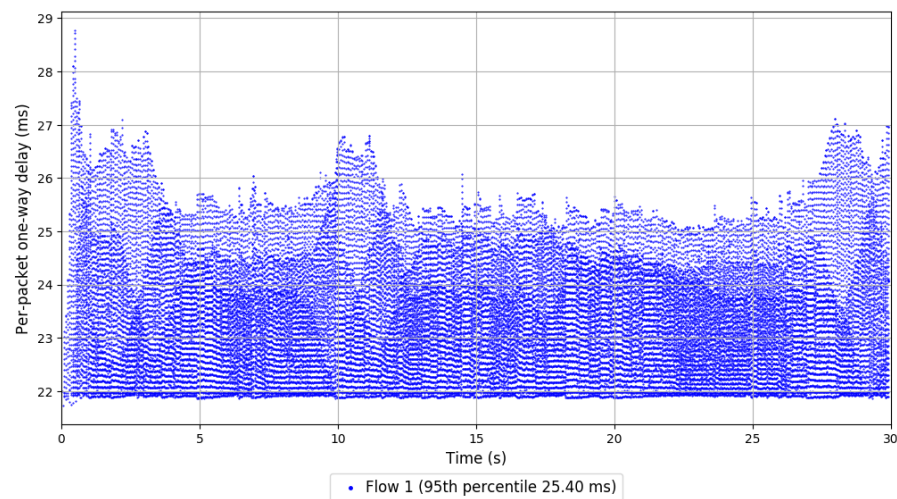
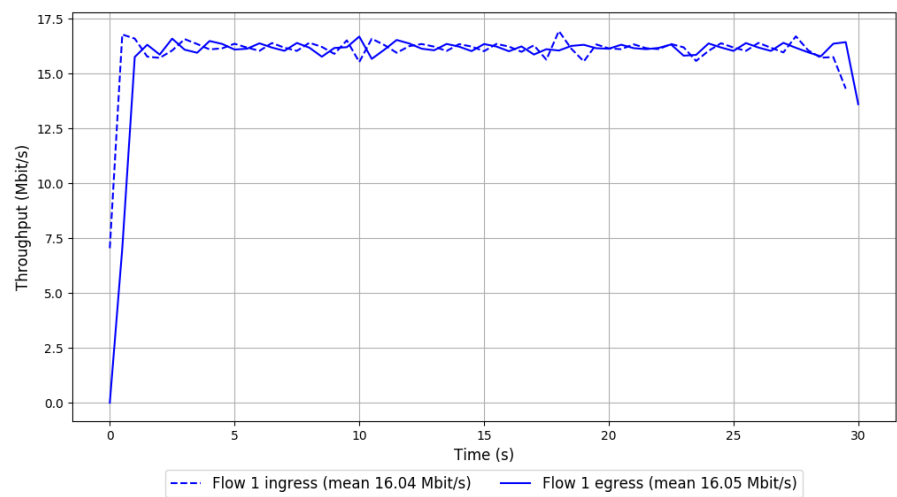


Run 1: Statistics of Sprout

Start at: 2019-12-11 10:50:45  
End at: 2019-12-11 10:51:15  
Local clock offset: 6.283 ms  
Remote clock offset: -7.825 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 16.05 Mbit/s  
95th percentile per-packet one-way delay: 25.400 ms  
Loss rate: 0.08%  
-- Flow 1:  
Average throughput: 16.05 Mbit/s  
95th percentile per-packet one-way delay: 25.400 ms  
Loss rate: 0.08%

Run 1: Report of Sprout — Data Link

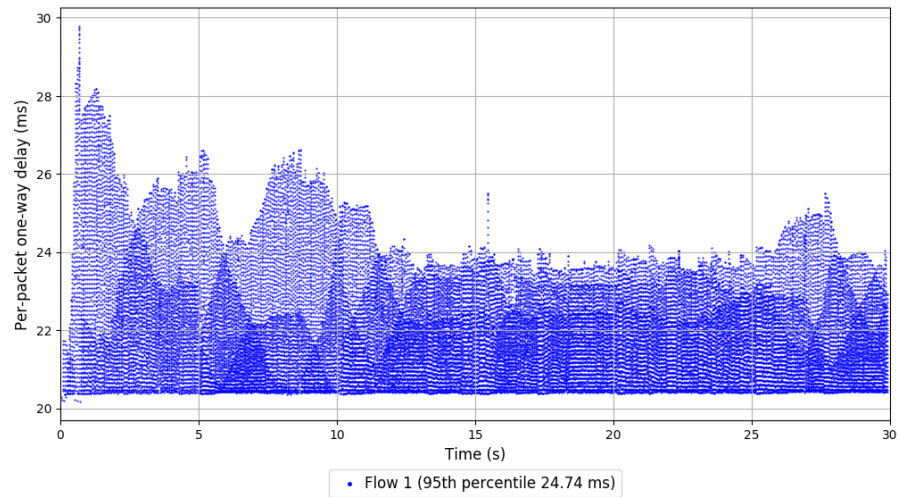
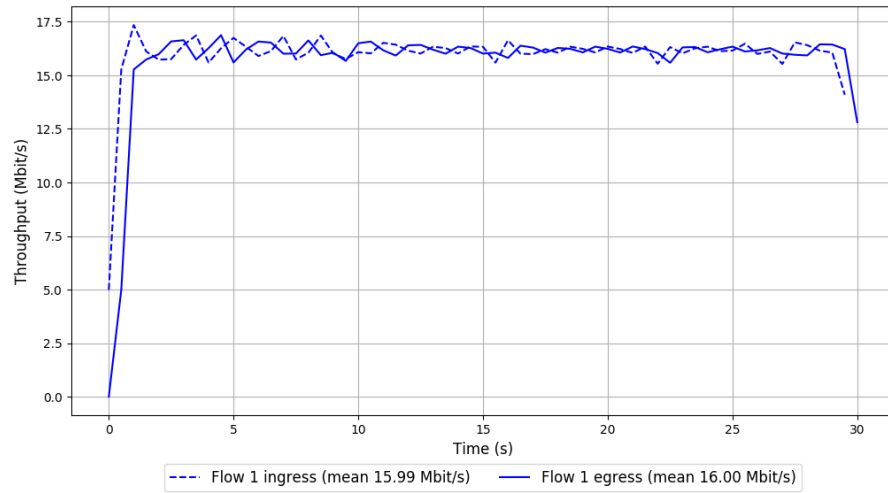


Run 2: Statistics of Sprout

Start at: 2019-12-11 11:19:31  
End at: 2019-12-11 11:20:01  
Local clock offset: 6.295 ms  
Remote clock offset: -5.349 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 16.00 Mbit/s  
95th percentile per-packet one-way delay: 24.741 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 16.00 Mbit/s  
95th percentile per-packet one-way delay: 24.741 ms  
Loss rate: 0.18%

## Run 2: Report of Sprout — Data Link



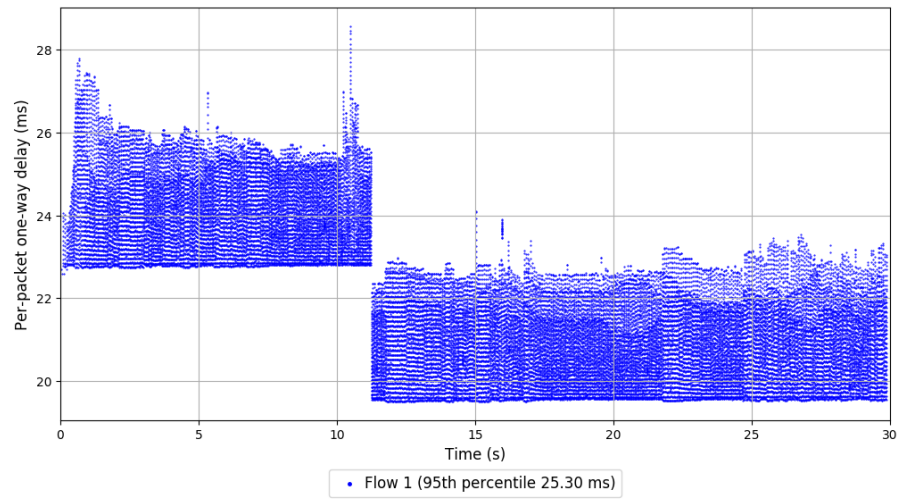
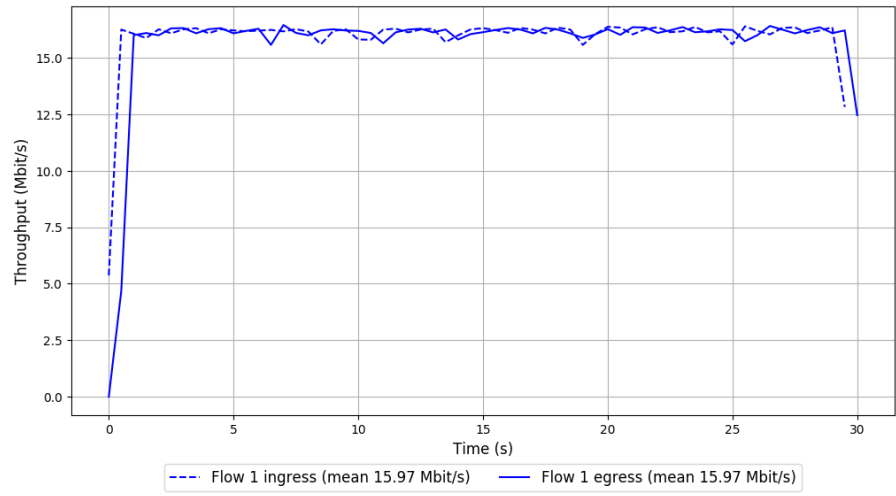


Run 3: Statistics of Sprout

Start at: 2019-12-11 11:47:50  
End at: 2019-12-11 11:48:20  
Local clock offset: 4.471 ms  
Remote clock offset: -4.006 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 15.97 Mbit/s  
95th percentile per-packet one-way delay: 25.297 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 15.97 Mbit/s  
95th percentile per-packet one-way delay: 25.297 ms  
Loss rate: 0.12%

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

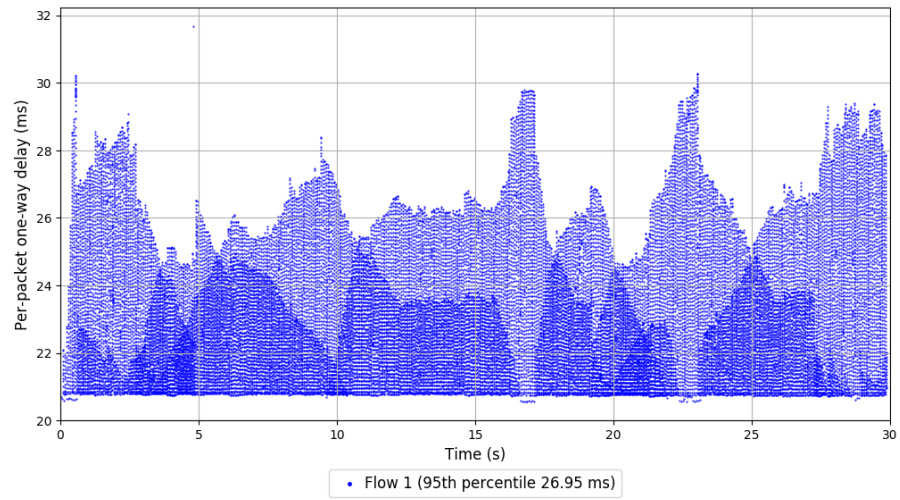
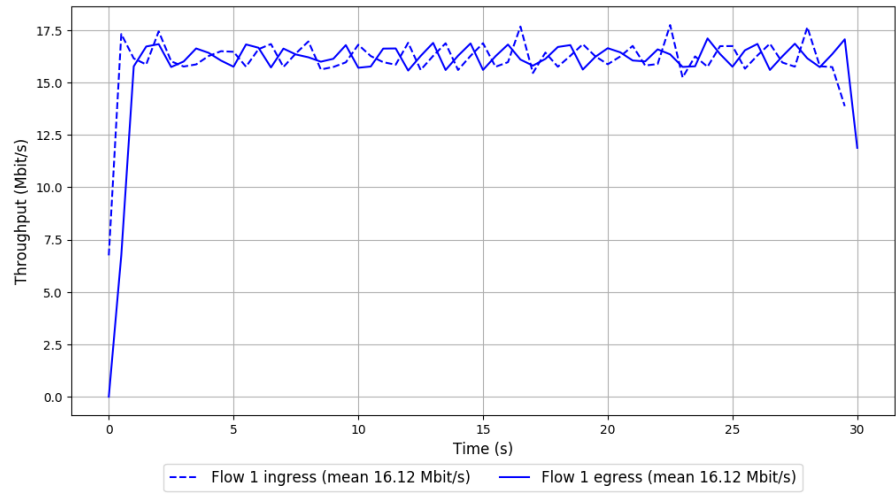


Run 4: Statistics of Sprout

Start at: 2019-12-11 12:16:05  
End at: 2019-12-11 12:16:35  
Local clock offset: 4.351 ms  
Remote clock offset: -4.947 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 16.12 Mbit/s  
95th percentile per-packet one-way delay: 26.946 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 16.12 Mbit/s  
95th percentile per-packet one-way delay: 26.946 ms  
Loss rate: 0.21%

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

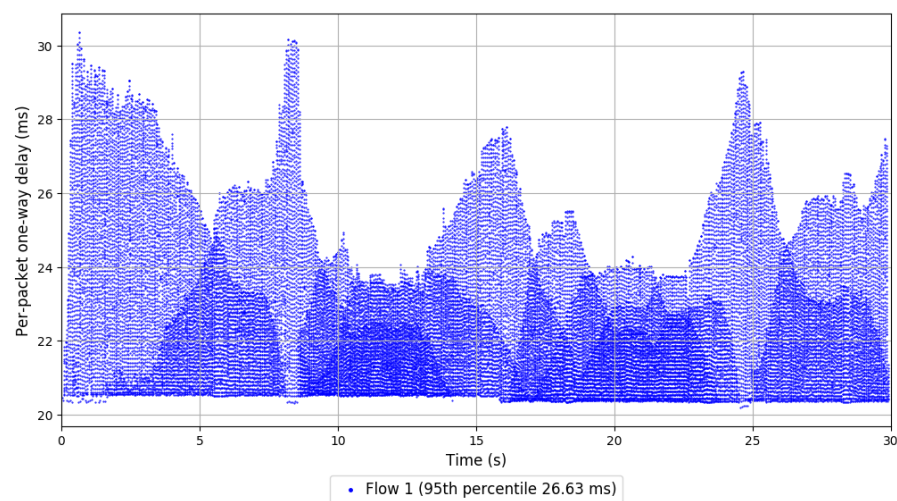
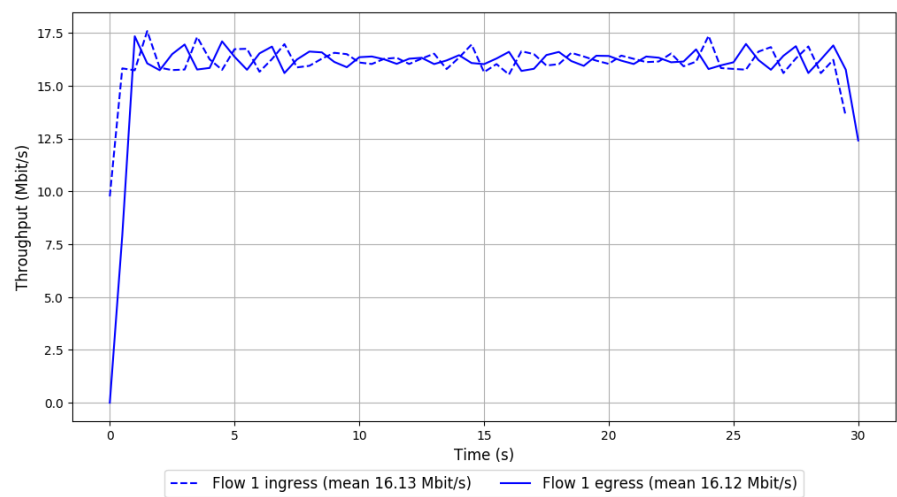


Run 5: Statistics of Sprout

Start at: 2019-12-11 12:45:22  
End at: 2019-12-11 12:45:52  
Local clock offset: 3.958 ms  
Remote clock offset: -5.185 ms

# Below is generated by plot.py at 2019-12-11 13:27:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 16.12 Mbit/s  
95th percentile per-packet one-way delay: 26.629 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 16.12 Mbit/s  
95th percentile per-packet one-way delay: 26.629 ms  
Loss rate: 0.17%

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2019-12-11 10:54:19

End at: 2019-12-11 10:54:49

Local clock offset: 6.054 ms

Remote clock offset: -6.526 ms

# Below is generated by plot.py at 2019-12-11 13:28:37

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.45 Mbit/s

95th percentile per-packet one-way delay: 28.686 ms

Loss rate: 0.17%

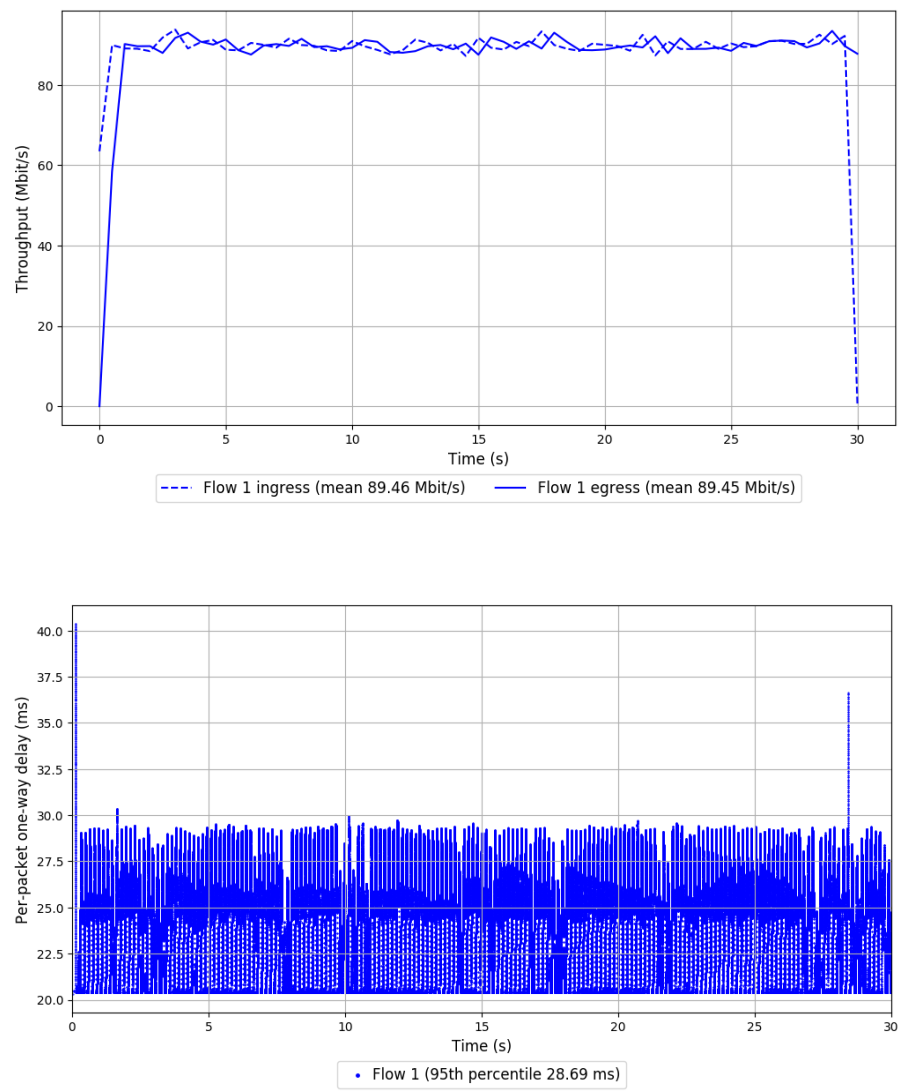
-- Flow 1:

Average throughput: 89.45 Mbit/s

95th percentile per-packet one-way delay: 28.686 ms

Loss rate: 0.17%

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





Run 2: Statistics of TaoVA-100x

Start at: 2019-12-11 11:22:59

End at: 2019-12-11 11:23:29

Local clock offset: 6.966 ms

Remote clock offset: -5.446 ms

# Below is generated by plot.py at 2019-12-11 13:28:41

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.71 Mbit/s

95th percentile per-packet one-way delay: 29.499 ms

Loss rate: 0.20%

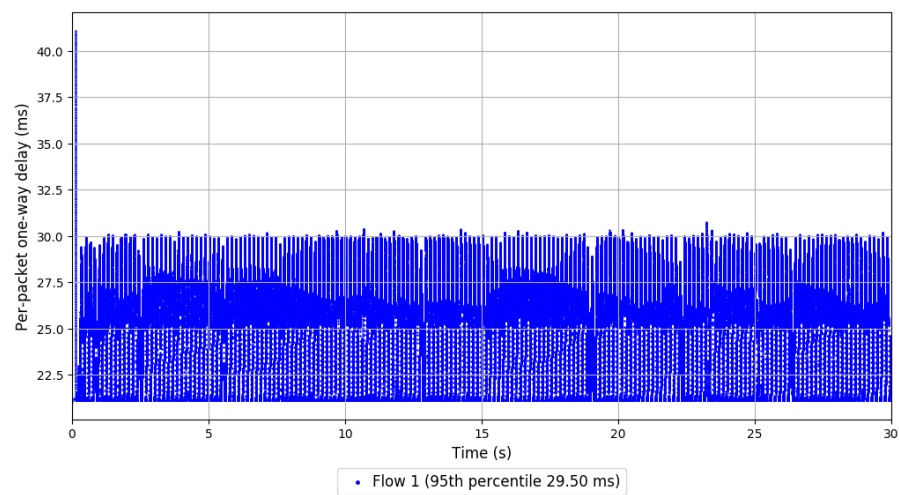
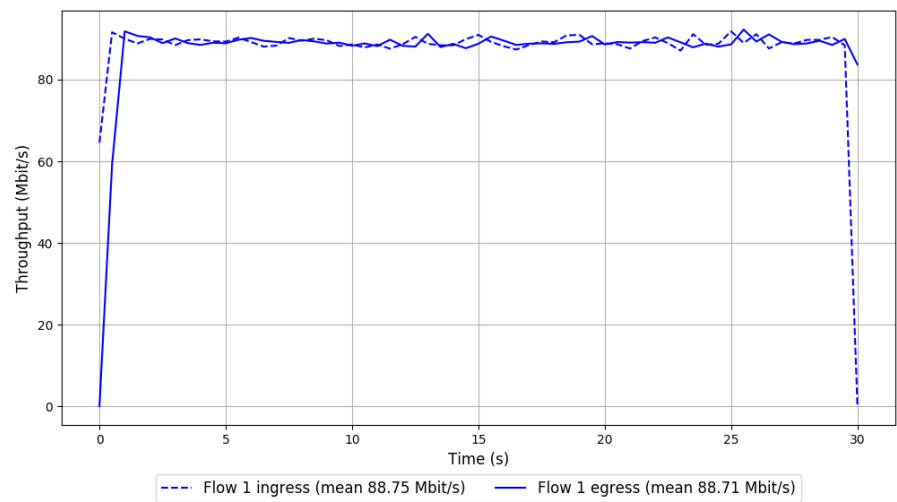
-- Flow 1:

Average throughput: 88.71 Mbit/s

95th percentile per-packet one-way delay: 29.499 ms

Loss rate: 0.20%

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

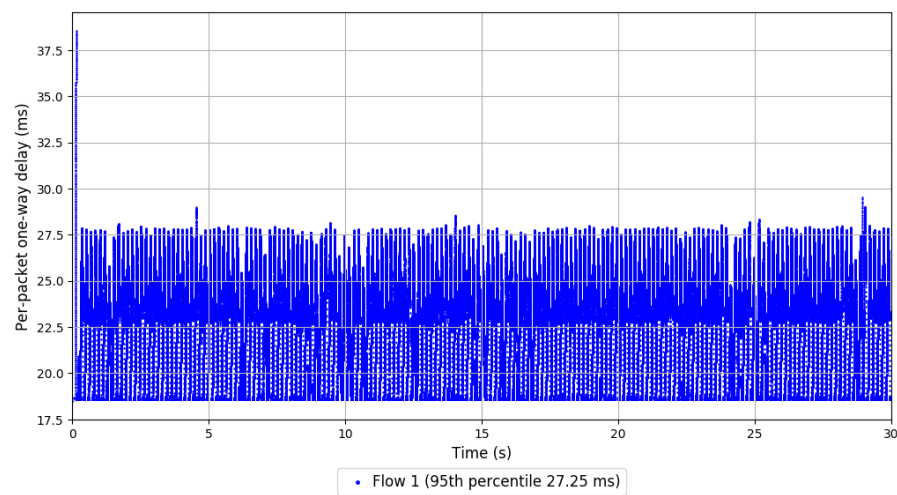
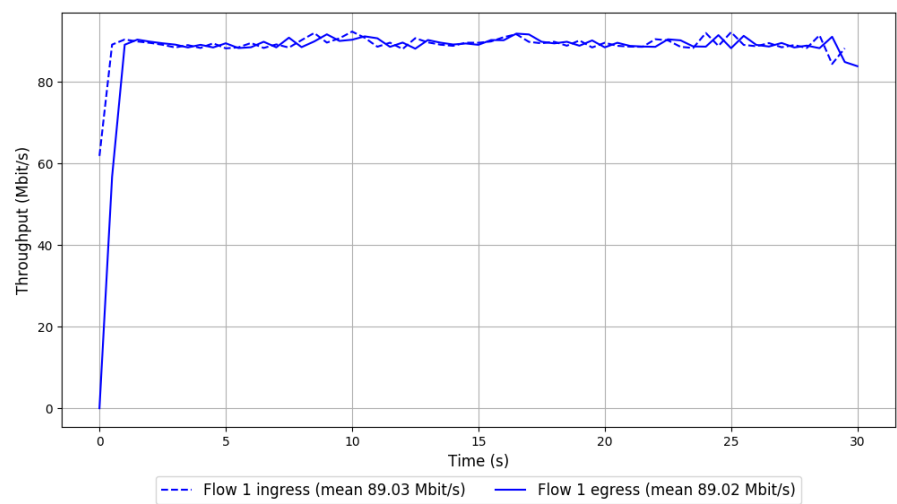


Run 3: Statistics of TaoVA-100x

Start at: 2019-12-11 11:51:18  
End at: 2019-12-11 11:51:48  
Local clock offset: 4.752 ms  
Remote clock offset: -2.559 ms

# Below is generated by plot.py at 2019-12-11 13:28:41  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.02 Mbit/s  
95th percentile per-packet one-way delay: 27.247 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 89.02 Mbit/s  
95th percentile per-packet one-way delay: 27.247 ms  
Loss rate: 0.17%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-12-11 12:19:33

End at: 2019-12-11 12:20:03

Local clock offset: 3.986 ms

Remote clock offset: -2.682 ms

# Below is generated by plot.py at 2019-12-11 13:28:43

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.36 Mbit/s

95th percentile per-packet one-way delay: 26.711 ms

Loss rate: 0.19%

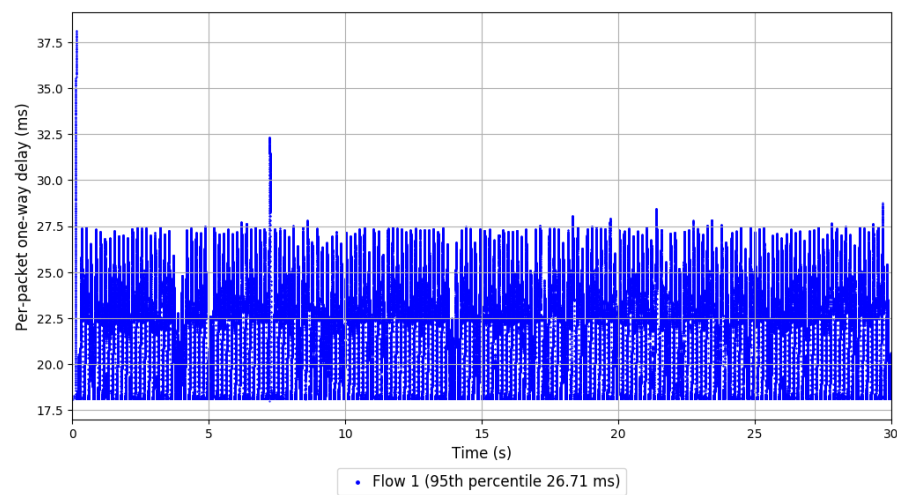
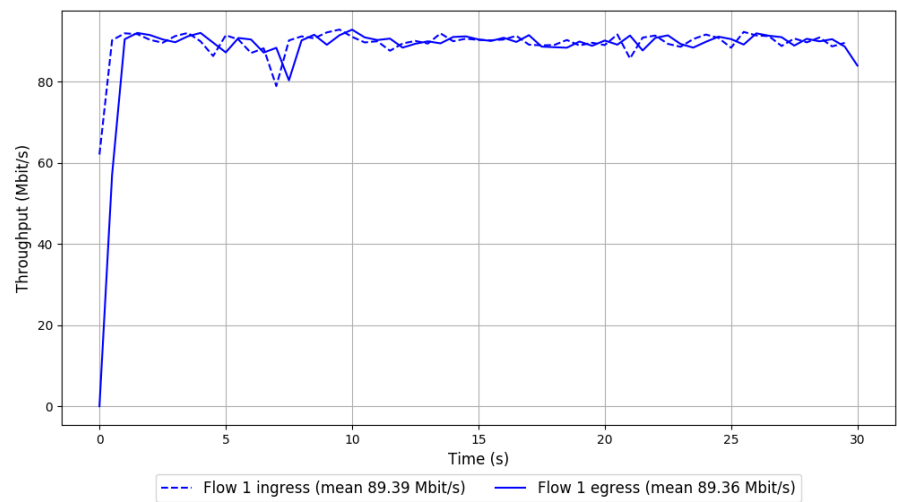
-- Flow 1:

Average throughput: 89.36 Mbit/s

95th percentile per-packet one-way delay: 26.711 ms

Loss rate: 0.19%

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



Run 5: Statistics of TaoVA-100x

Start at: 2019-12-11 12:49:09

End at: 2019-12-11 12:49:39

Local clock offset: 4.961 ms

Remote clock offset: -5.172 ms

# Below is generated by plot.py at 2019-12-11 13:28:46

# Datalink statistics

-- Total of 1 flow:

Average throughput: 90.81 Mbit/s

95th percentile per-packet one-way delay: 29.339 ms

Loss rate: 0.20%

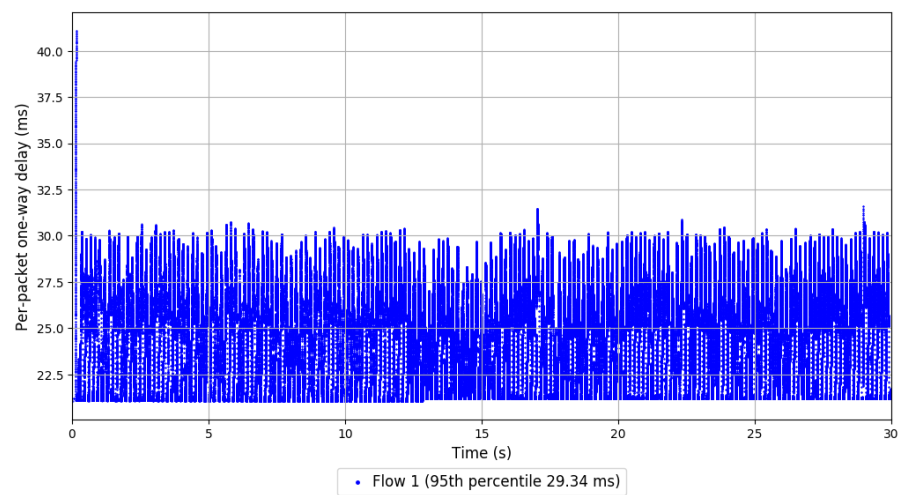
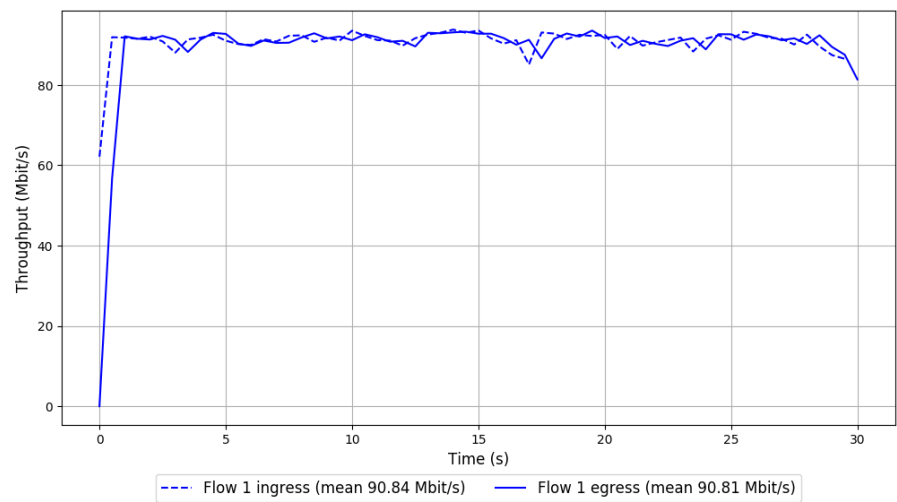
-- Flow 1:

Average throughput: 90.81 Mbit/s

95th percentile per-packet one-way delay: 29.339 ms

Loss rate: 0.20%

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



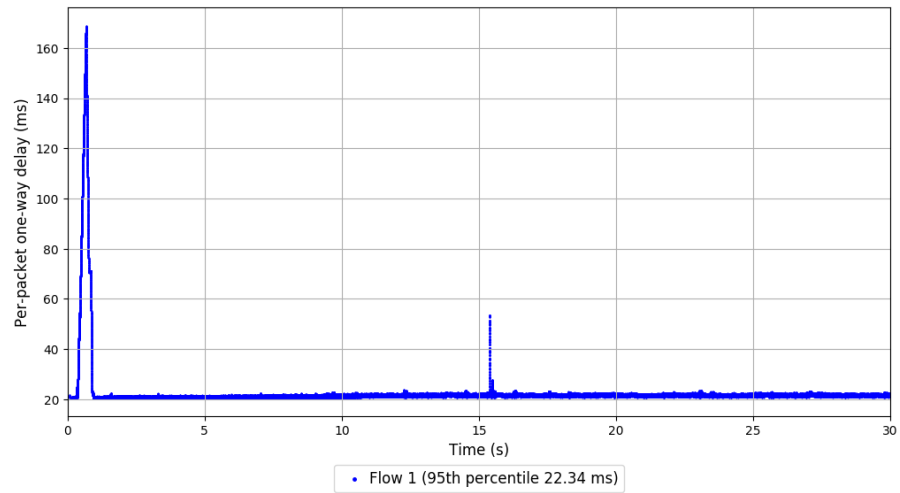
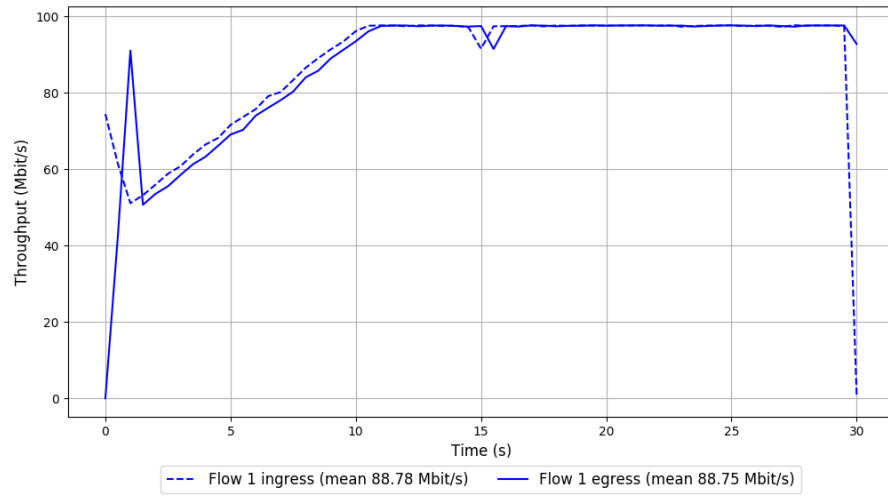


Run 1: Statistics of TCP Vegas

Start at: 2019-12-11 11:12:23  
End at: 2019-12-11 11:12:53  
Local clock offset: 7.219 ms  
Remote clock offset: -5.118 ms

# Below is generated by plot.py at 2019-12-11 13:28:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.75 Mbit/s  
95th percentile per-packet one-way delay: 22.336 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 88.75 Mbit/s  
95th percentile per-packet one-way delay: 22.336 ms  
Loss rate: 0.18%

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

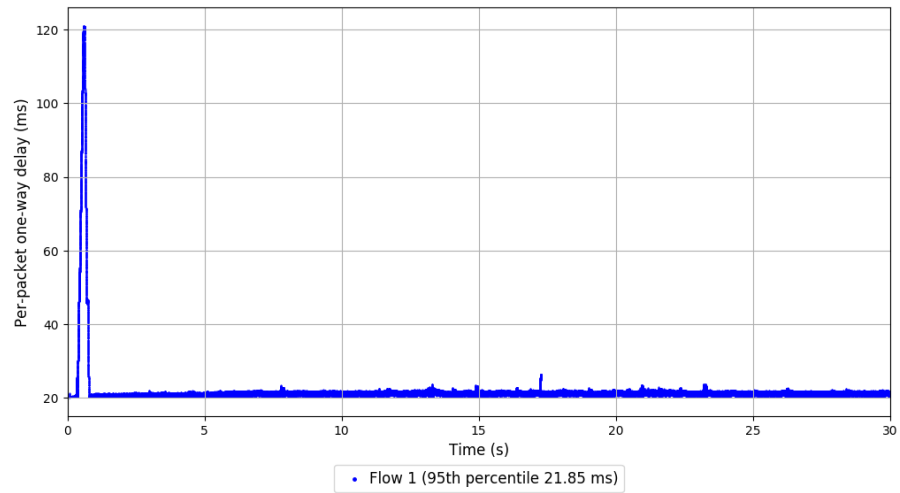
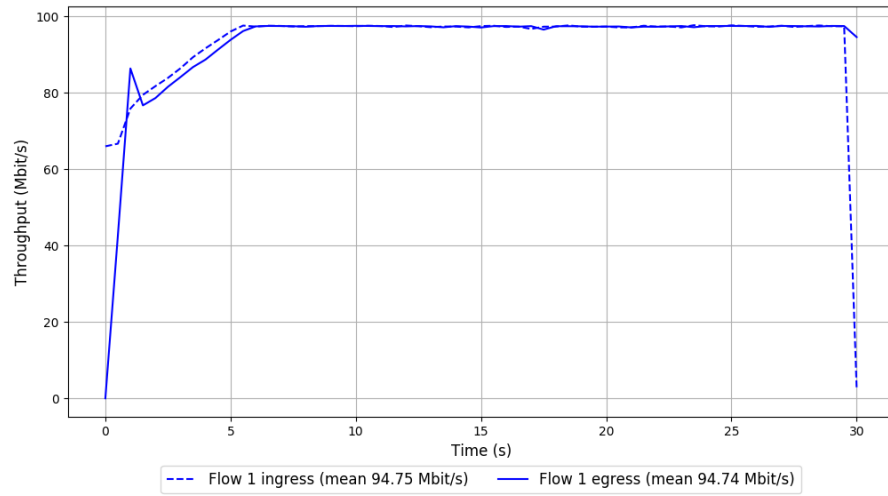


Run 2: Statistics of TCP Vegas

Start at: 2019-12-11 11:40:57  
End at: 2019-12-11 11:41:27  
Local clock offset: 5.922 ms  
Remote clock offset: -4.578 ms

# Below is generated by plot.py at 2019-12-11 13:28:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.74 Mbit/s  
95th percentile per-packet one-way delay: 21.849 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 94.74 Mbit/s  
95th percentile per-packet one-way delay: 21.849 ms  
Loss rate: 0.17%

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

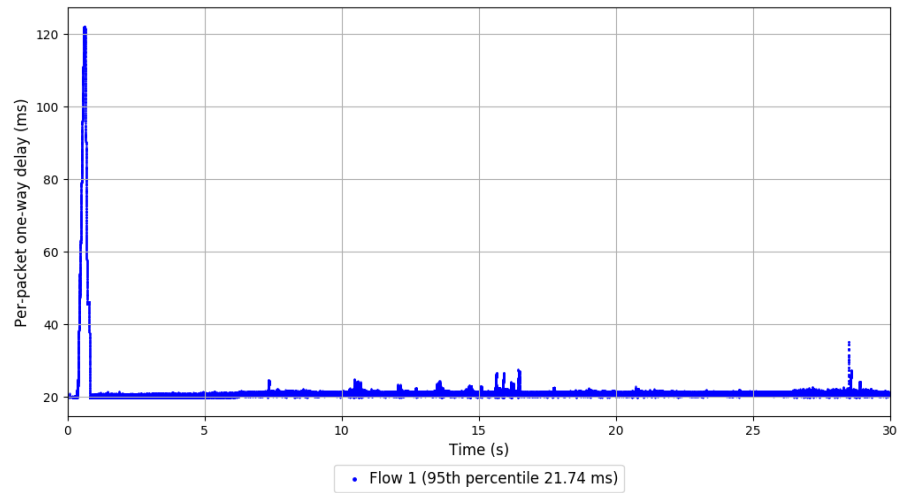
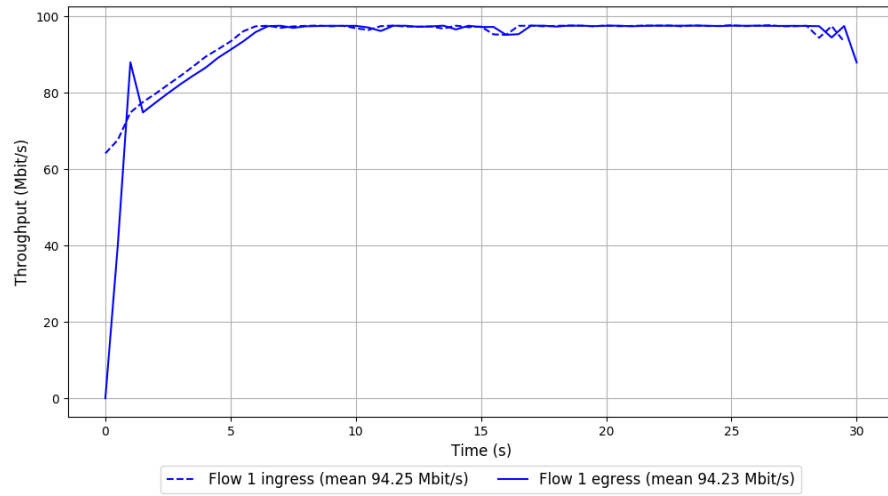


Run 3: Statistics of TCP Vegas

Start at: 2019-12-11 12:09:15  
End at: 2019-12-11 12:09:45  
Local clock offset: 3.989 ms  
Remote clock offset: -4.18 ms

# Below is generated by plot.py at 2019-12-11 13:28:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.23 Mbit/s  
95th percentile per-packet one-way delay: 21.741 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 94.23 Mbit/s  
95th percentile per-packet one-way delay: 21.741 ms  
Loss rate: 0.17%

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

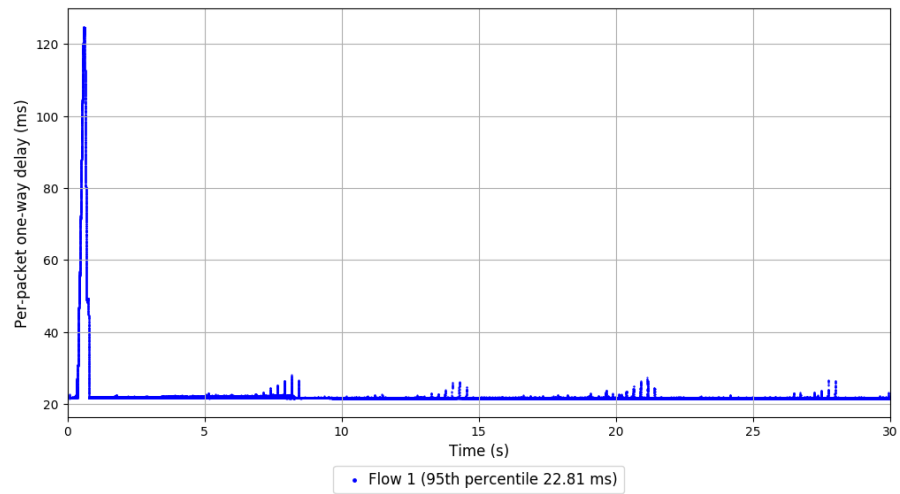
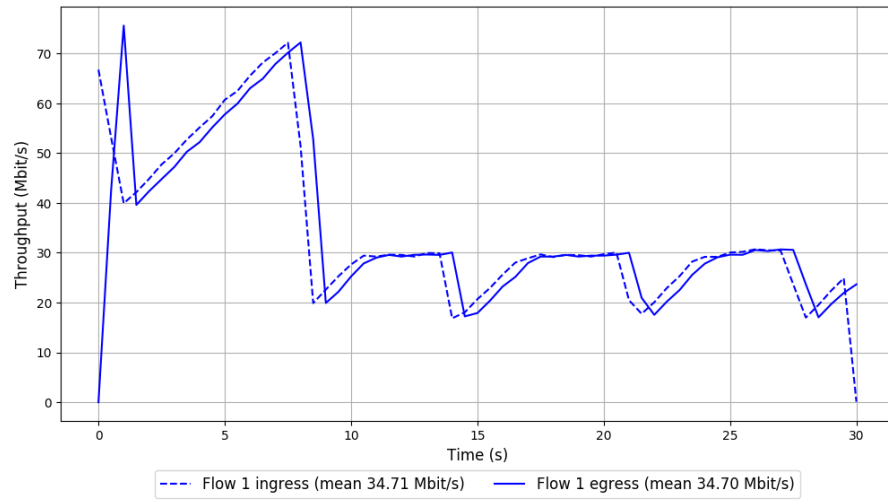


Run 4: Statistics of TCP Vegas

Start at: 2019-12-11 12:38:15  
End at: 2019-12-11 12:38:46  
Local clock offset: 3.699 ms  
Remote clock offset: -5.649 ms

# Below is generated by plot.py at 2019-12-11 13:28:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 34.70 Mbit/s  
95th percentile per-packet one-way delay: 22.807 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 34.70 Mbit/s  
95th percentile per-packet one-way delay: 22.807 ms  
Loss rate: 0.21%

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



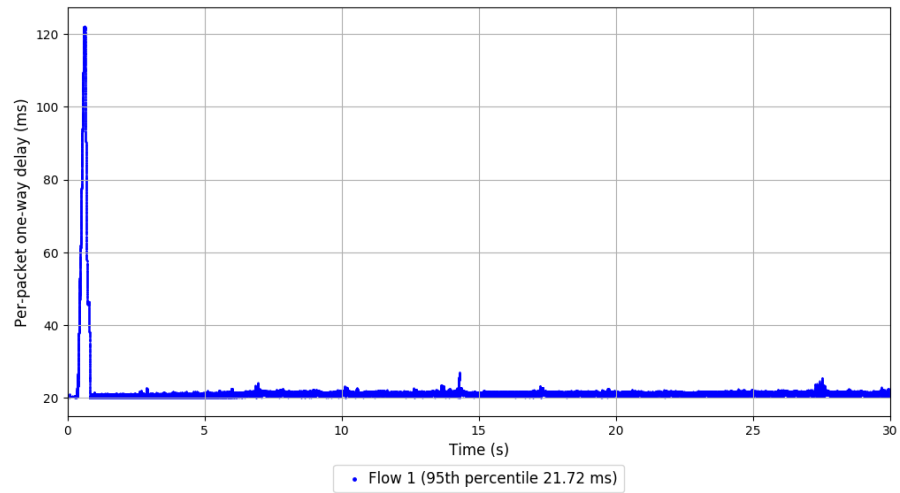
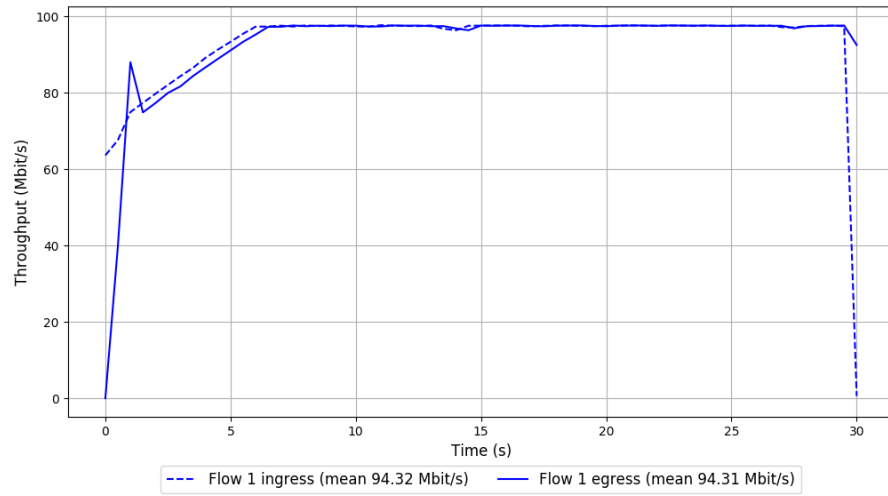


Run 5: Statistics of TCP Vegas

Start at: 2019-12-11 13:08:00  
End at: 2019-12-11 13:08:30  
Local clock offset: 4.988 ms  
Remote clock offset: -4.383 ms

# Below is generated by plot.py at 2019-12-11 13:29:15  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 94.31 Mbit/s  
95th percentile per-packet one-way delay: 21.723 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 94.31 Mbit/s  
95th percentile per-packet one-way delay: 21.723 ms  
Loss rate: 0.17%

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



Run 1: Statistics of Verus

Start at: 2019-12-11 10:51:53

End at: 2019-12-11 10:52:23

Local clock offset: 6.278 ms

Remote clock offset: -6.03 ms

# Below is generated by plot.py at 2019-12-11 13:29:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.74 Mbit/s

95th percentile per-packet one-way delay: 56.070 ms

Loss rate: 0.33%

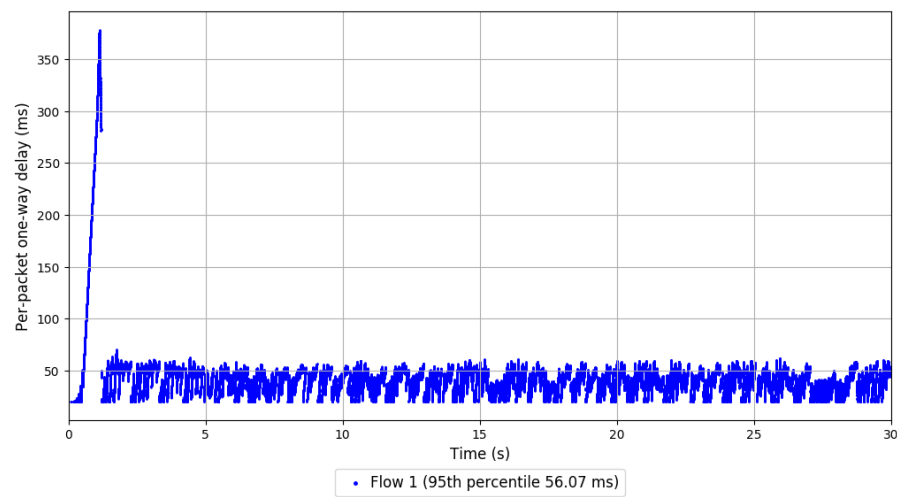
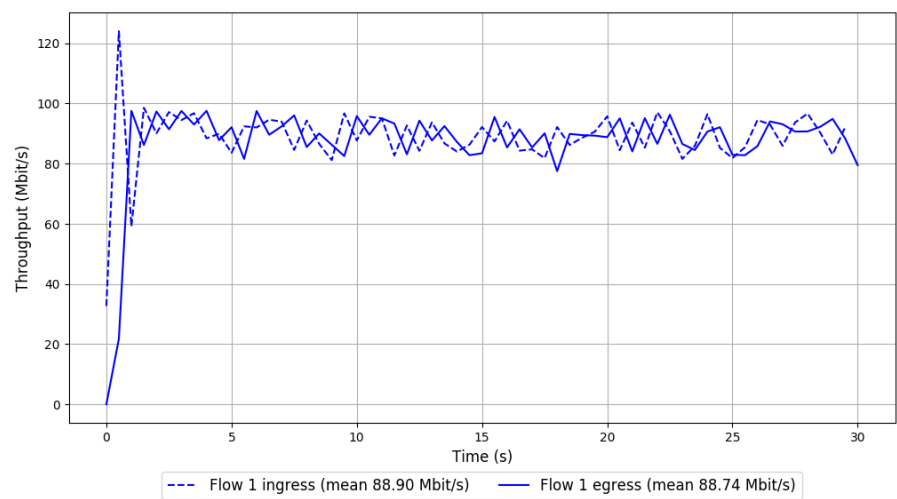
-- Flow 1:

Average throughput: 88.74 Mbit/s

95th percentile per-packet one-way delay: 56.070 ms

Loss rate: 0.33%

Run 1: Report of Verus — Data Link

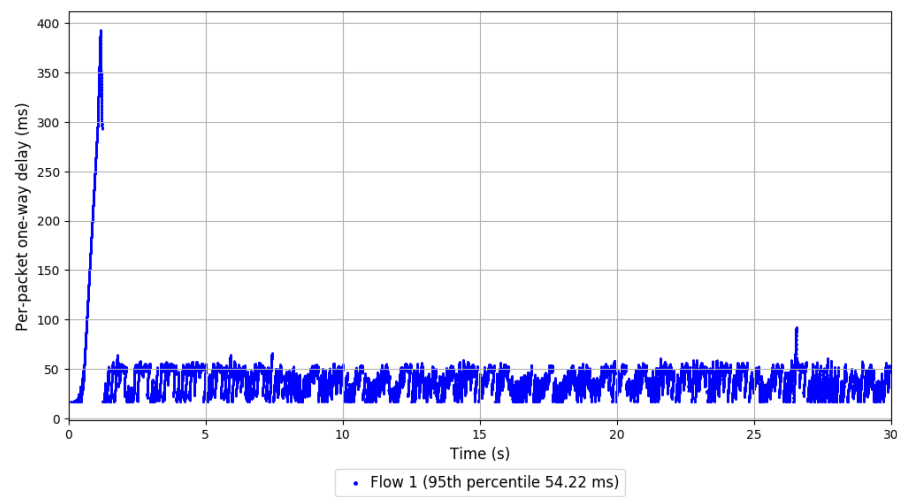
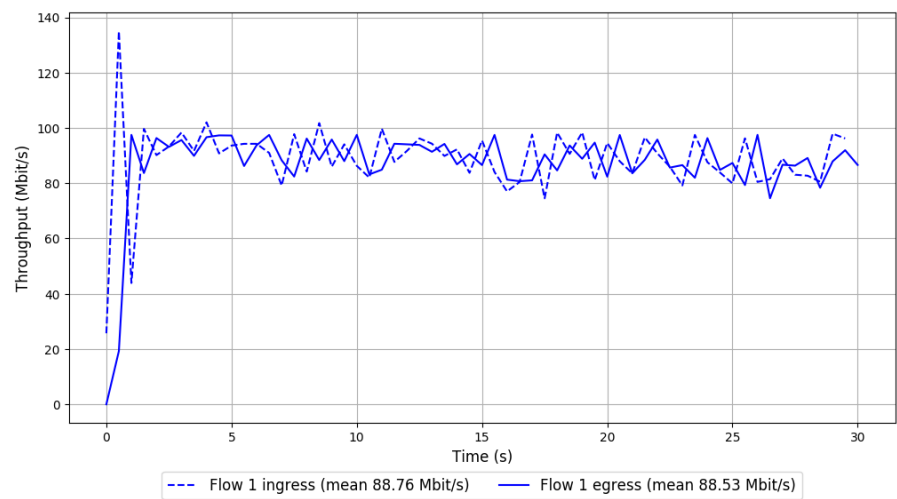


Run 2: Statistics of Verus

Start at: 2019-12-11 11:20:37  
End at: 2019-12-11 11:21:07  
Local clock offset: 6.162 ms  
Remote clock offset: -2.163 ms

# Below is generated by plot.py at 2019-12-11 13:29:36  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.53 Mbit/s  
95th percentile per-packet one-way delay: 54.221 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 88.53 Mbit/s  
95th percentile per-packet one-way delay: 54.221 ms  
Loss rate: 0.39%

Run 2: Report of Verus — Data Link

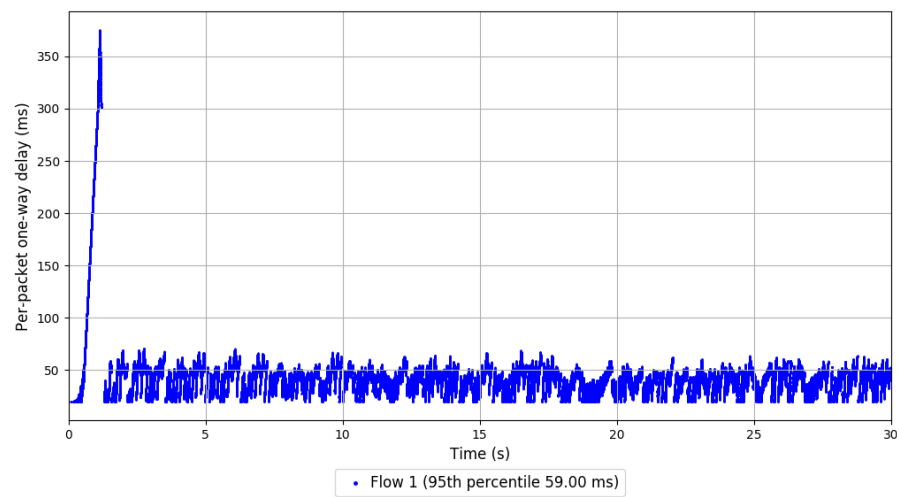
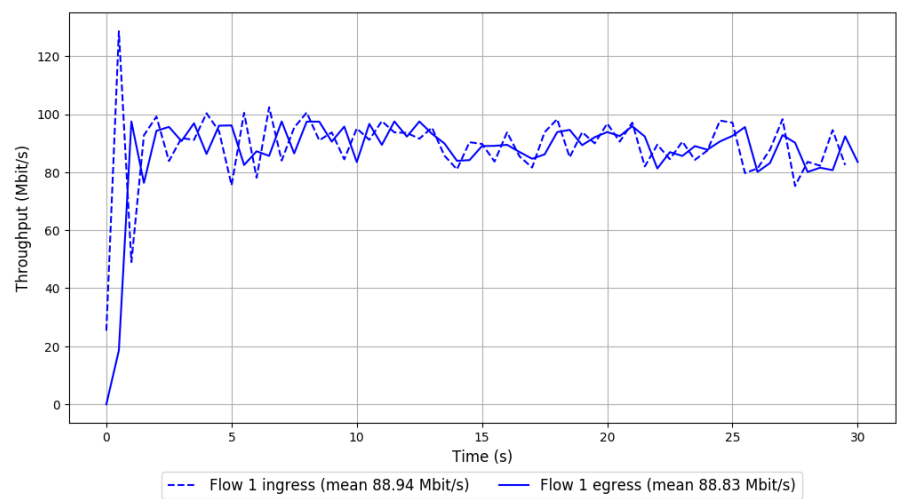


Run 3: Statistics of Verus

Start at: 2019-12-11 11:48:56  
End at: 2019-12-11 11:49:26  
Local clock offset: 4.38 ms  
Remote clock offset: -4.087 ms

# Below is generated by plot.py at 2019-12-11 13:29:42  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.83 Mbit/s  
95th percentile per-packet one-way delay: 59.001 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 88.83 Mbit/s  
95th percentile per-packet one-way delay: 59.001 ms  
Loss rate: 0.27%

Run 3: Report of Verus — Data Link



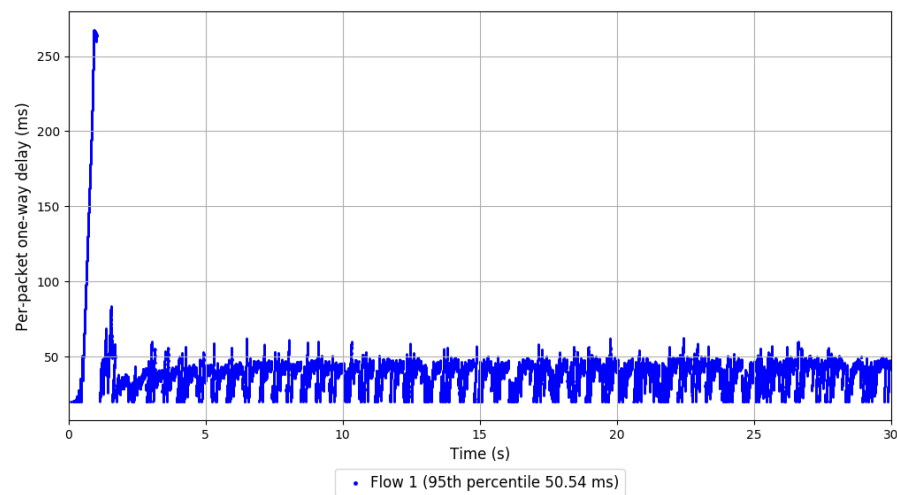
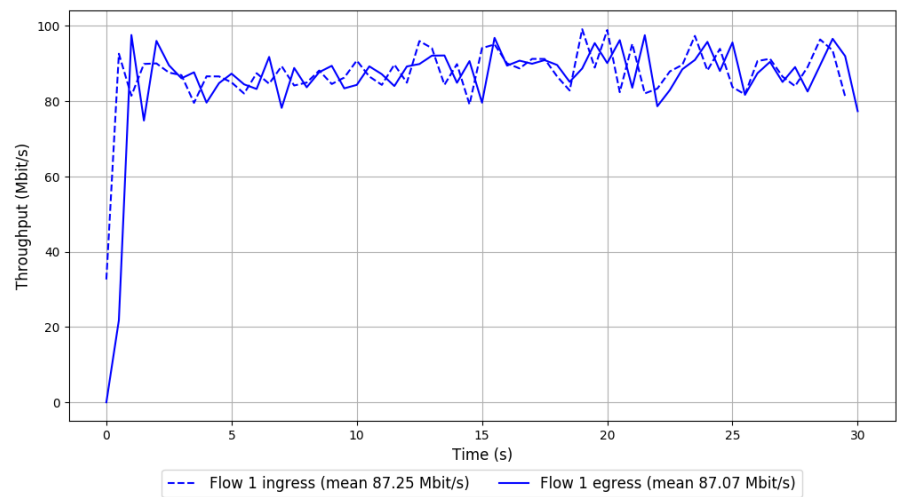


Run 4: Statistics of Verus

Start at: 2019-12-11 12:17:11  
End at: 2019-12-11 12:17:41  
Local clock offset: 3.788 ms  
Remote clock offset: -4.532 ms

# Below is generated by plot.py at 2019-12-11 13:29:45  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 87.07 Mbit/s  
95th percentile per-packet one-way delay: 50.538 ms  
Loss rate: 0.37%  
-- Flow 1:  
Average throughput: 87.07 Mbit/s  
95th percentile per-packet one-way delay: 50.538 ms  
Loss rate: 0.37%

Run 4: Report of Verus — Data Link

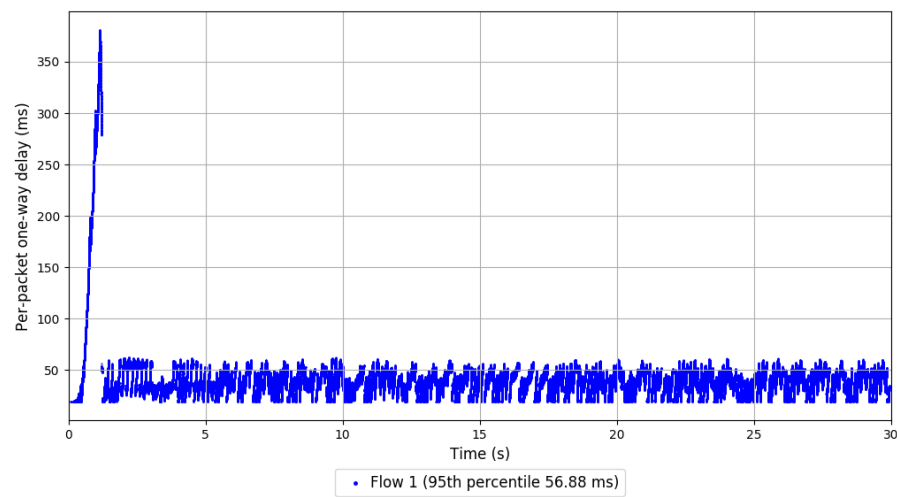
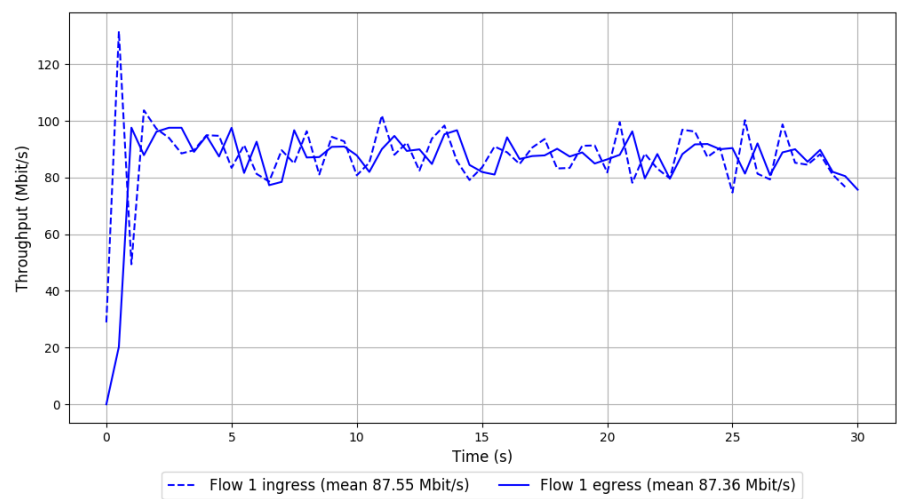


Run 5: Statistics of Verus

Start at: 2019-12-11 12:46:28  
End at: 2019-12-11 12:46:58  
Local clock offset: 4.064 ms  
Remote clock offset: -4.174 ms

# Below is generated by plot.py at 2019-12-11 13:29:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 87.36 Mbit/s  
95th percentile per-packet one-way delay: 56.875 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 87.36 Mbit/s  
95th percentile per-packet one-way delay: 56.875 ms  
Loss rate: 0.30%

Run 5: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2019-12-11 11:09:58

End at: 2019-12-11 11:10:28

Local clock offset: 6.667 ms

Remote clock offset: -5.367 ms

# Below is generated by plot.py at 2019-12-11 13:29:53

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.18 Mbit/s

95th percentile per-packet one-way delay: 21.965 ms

Loss rate: 0.17%

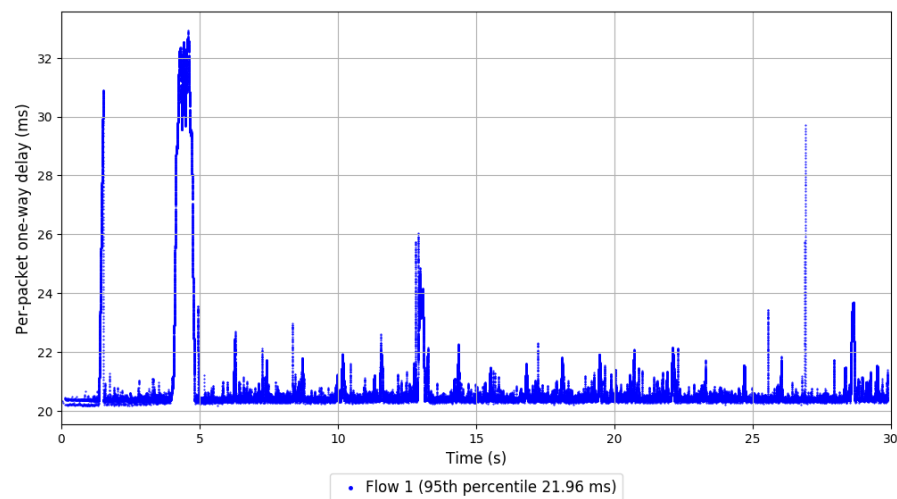
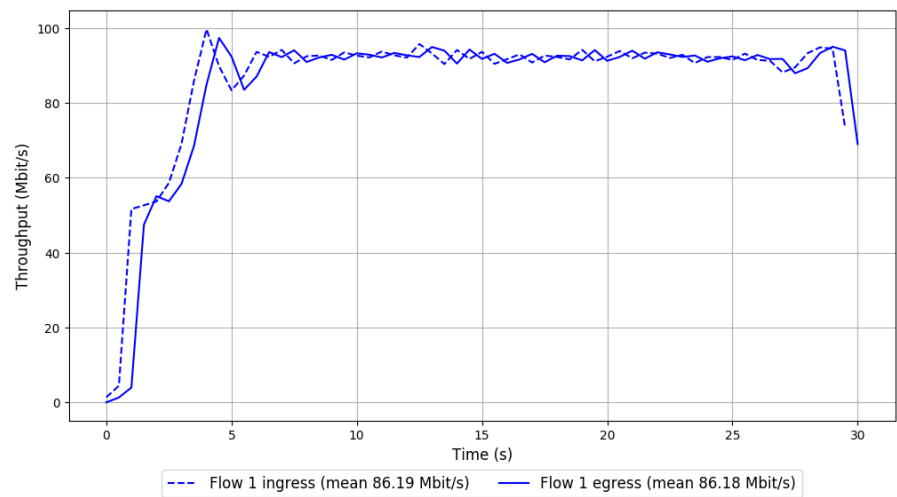
-- Flow 1:

Average throughput: 86.18 Mbit/s

95th percentile per-packet one-way delay: 21.965 ms

Loss rate: 0.17%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2019-12-11 11:38:33

End at: 2019-12-11 11:39:03

Local clock offset: 7.283 ms

Remote clock offset: -3.859 ms

# Below is generated by plot.py at 2019-12-11 13:29:55

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.05 Mbit/s

95th percentile per-packet one-way delay: 20.942 ms

Loss rate: 0.18%

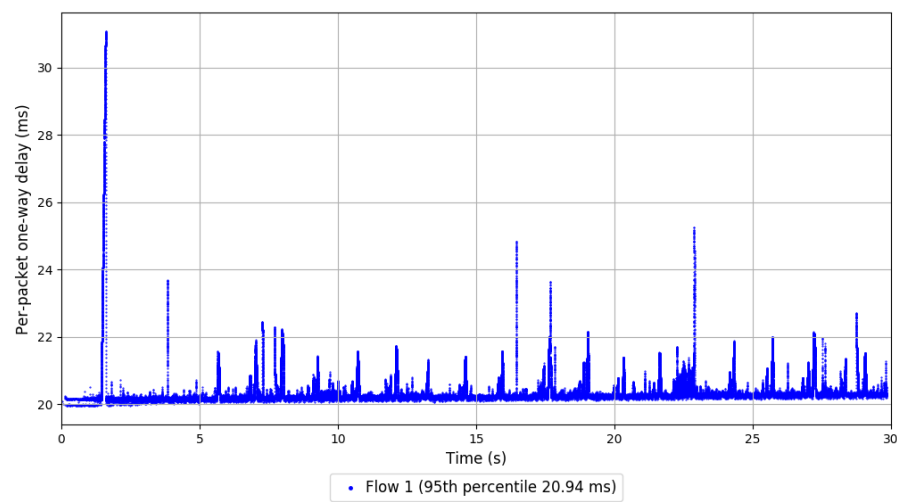
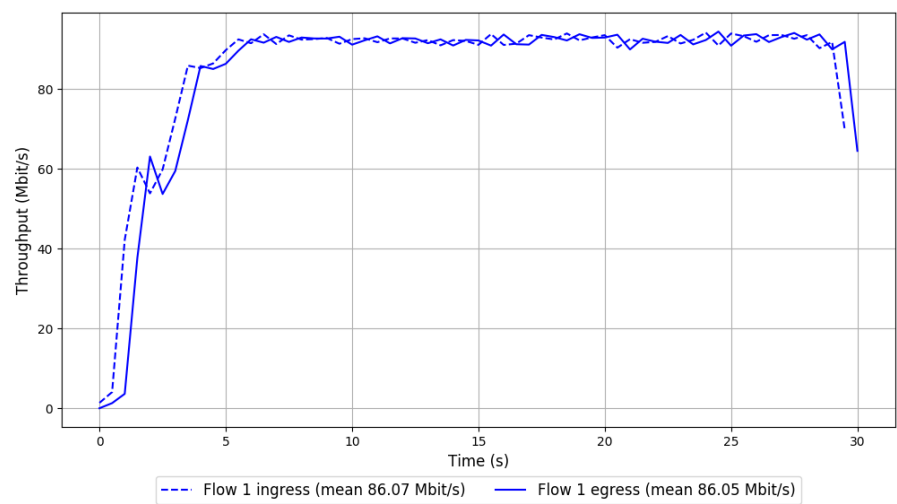
-- Flow 1:

Average throughput: 86.05 Mbit/s

95th percentile per-packet one-way delay: 20.942 ms

Loss rate: 0.18%

Run 2: Report of PCC-Vivace — Data Link





Run 3: Statistics of PCC-Vivace

Start at: 2019-12-11 12:06:53

End at: 2019-12-11 12:07:23

Local clock offset: 3.498 ms

Remote clock offset: -3.897 ms

# Below is generated by plot.py at 2019-12-11 13:30:05

# Datalink statistics

-- Total of 1 flow:

Average throughput: 84.32 Mbit/s

95th percentile per-packet one-way delay: 20.216 ms

Loss rate: 0.19%

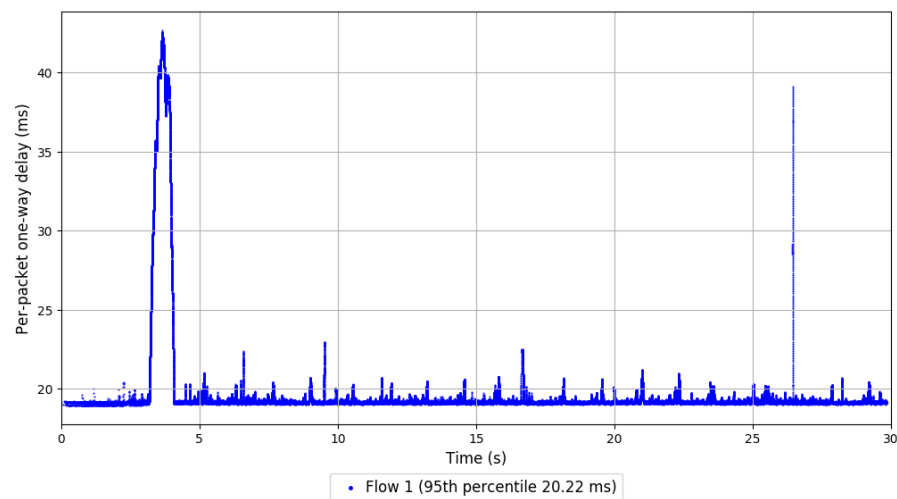
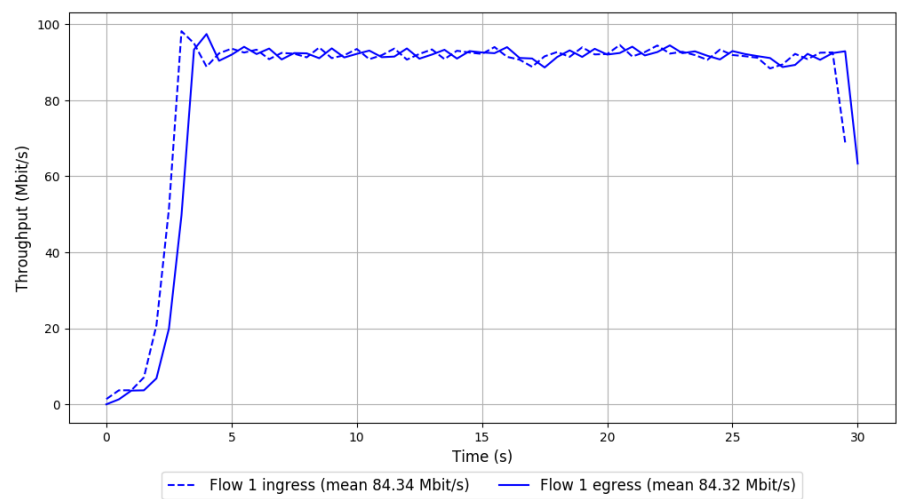
-- Flow 1:

Average throughput: 84.32 Mbit/s

95th percentile per-packet one-way delay: 20.216 ms

Loss rate: 0.19%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-12-11 12:35:42

End at: 2019-12-11 12:36:12

Local clock offset: 3.228 ms

Remote clock offset: -1.965 ms

# Below is generated by plot.py at 2019-12-11 13:30:08

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.11 Mbit/s

95th percentile per-packet one-way delay: 18.842 ms

Loss rate: 0.17%

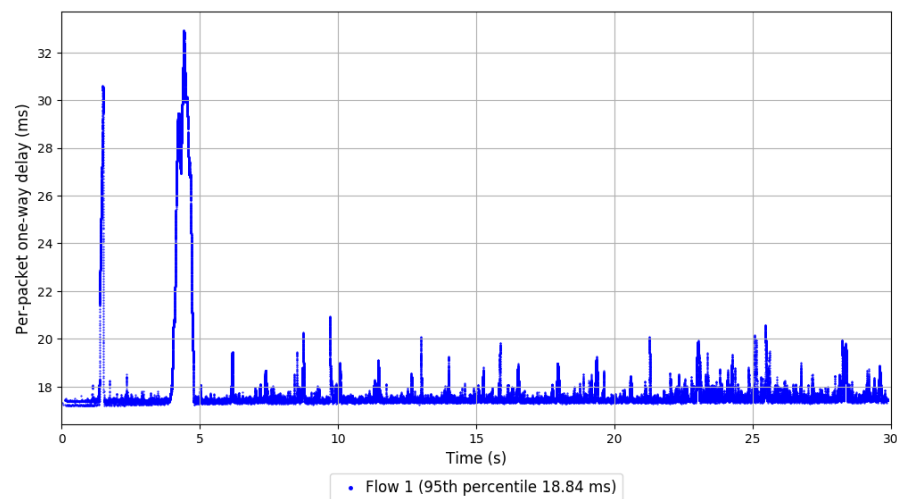
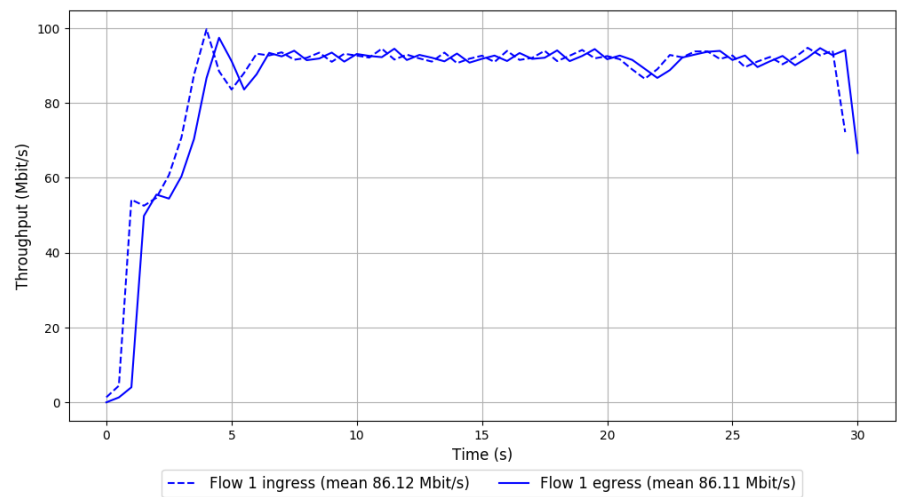
-- Flow 1:

Average throughput: 86.11 Mbit/s

95th percentile per-packet one-way delay: 18.842 ms

Loss rate: 0.17%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-12-11 13:05:32

End at: 2019-12-11 13:06:02

Local clock offset: 5.811 ms

Remote clock offset: -2.177 ms

# Below is generated by plot.py at 2019-12-11 13:30:09

# Datalink statistics

-- Total of 1 flow:

Average throughput: 86.63 Mbit/s

95th percentile per-packet one-way delay: 19.966 ms

Loss rate: 0.17%

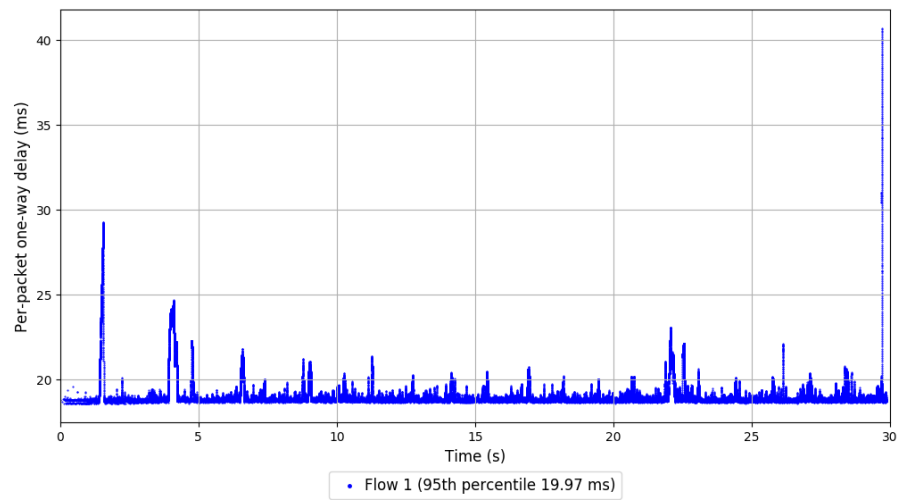
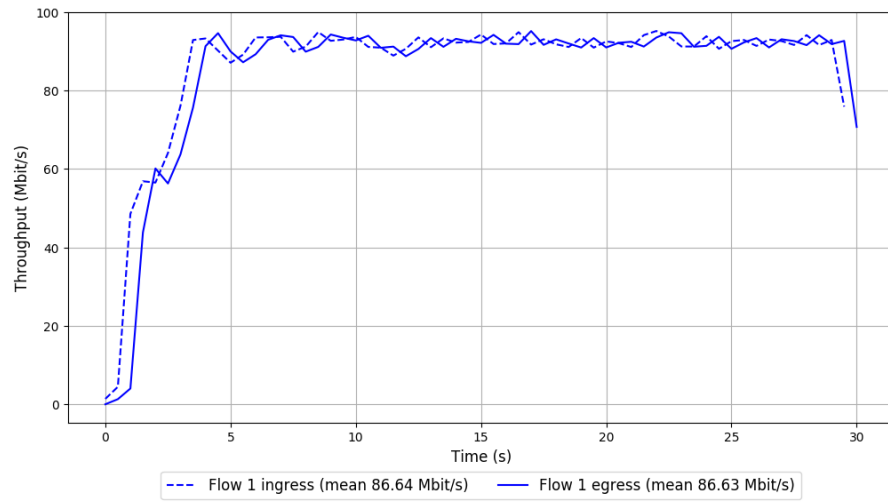
-- Flow 1:

Average throughput: 86.63 Mbit/s

95th percentile per-packet one-way delay: 19.966 ms

Loss rate: 0.17%

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

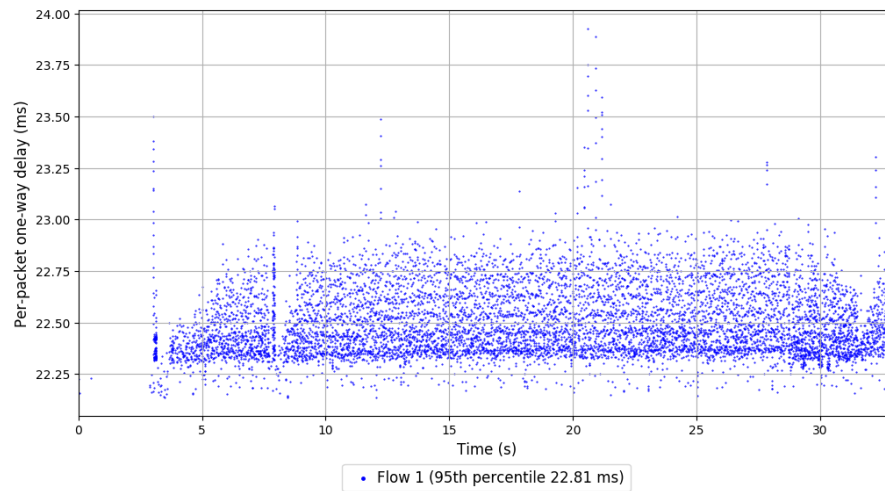
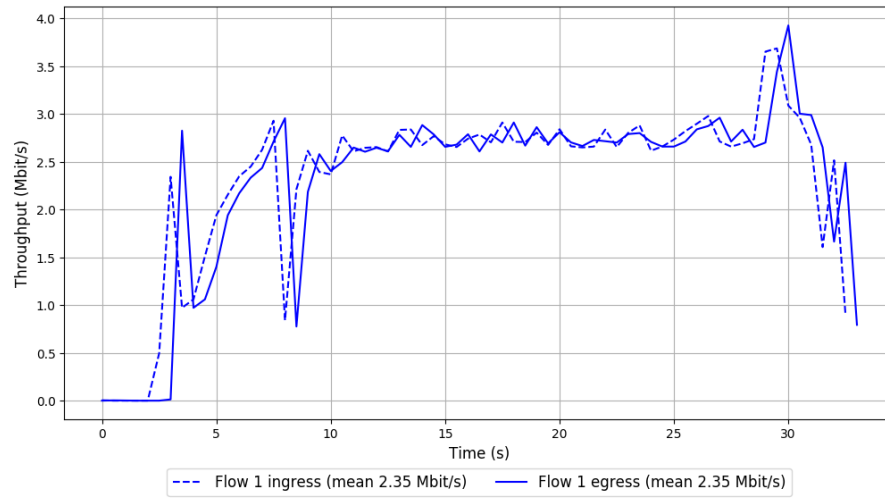


Run 1: Statistics of WebRTC media

Start at: 2019-12-11 11:14:49  
End at: 2019-12-11 11:15:19  
Local clock offset: 5.062 ms  
Remote clock offset: -8.699 ms

# Below is generated by plot.py at 2019-12-11 13:30:09  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay: 22.808 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay: 22.808 ms  
Loss rate: 0.13%

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



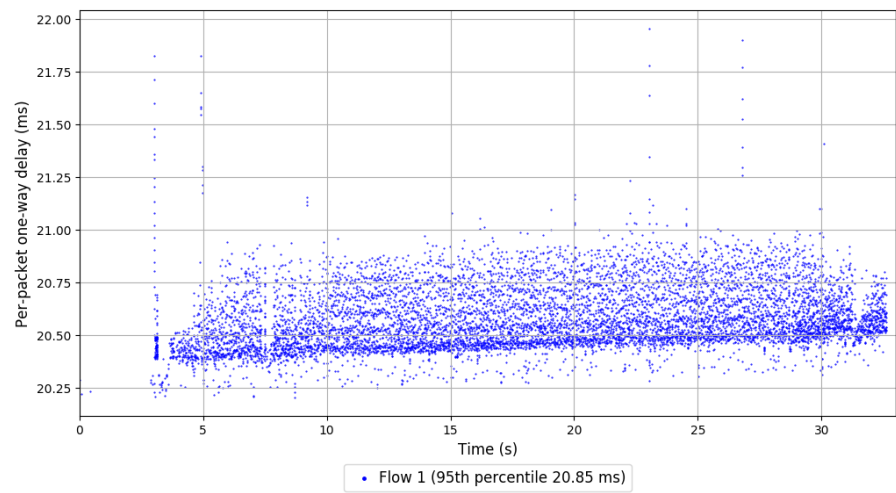
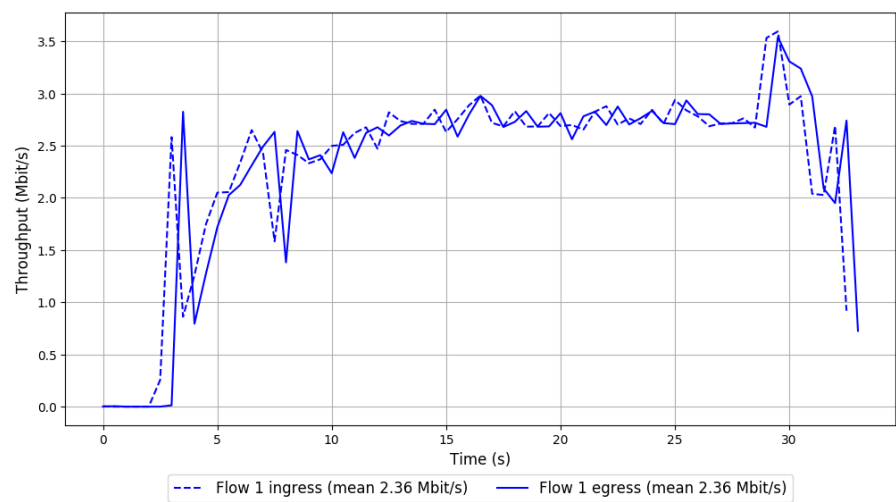


Run 2: Statistics of WebRTC media

Start at: 2019-12-11 11:43:16  
End at: 2019-12-11 11:43:46  
Local clock offset: 5.727 ms  
Remote clock offset: -4.533 ms

# Below is generated by plot.py at 2019-12-11 13:30:09  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.36 Mbit/s  
95th percentile per-packet one-way delay: 20.851 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 2.36 Mbit/s  
95th percentile per-packet one-way delay: 20.851 ms  
Loss rate: 0.17%

Run 2: Report of WebRTC media — Data Link

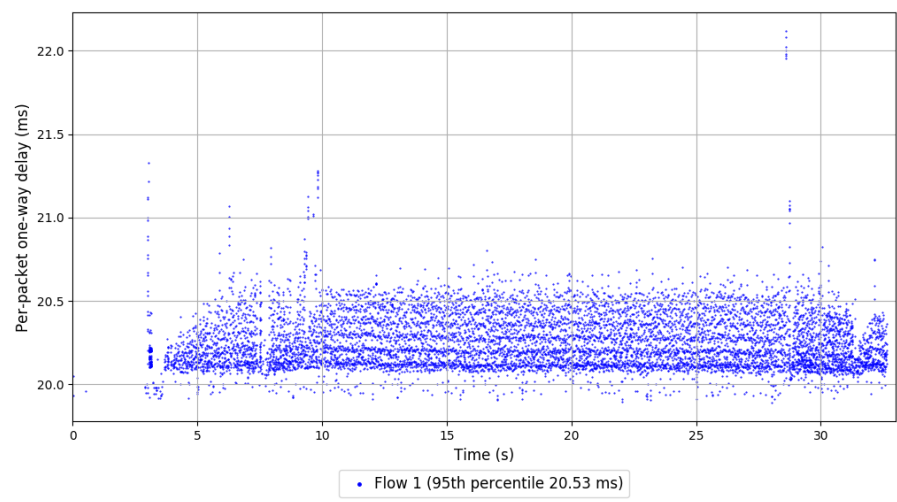
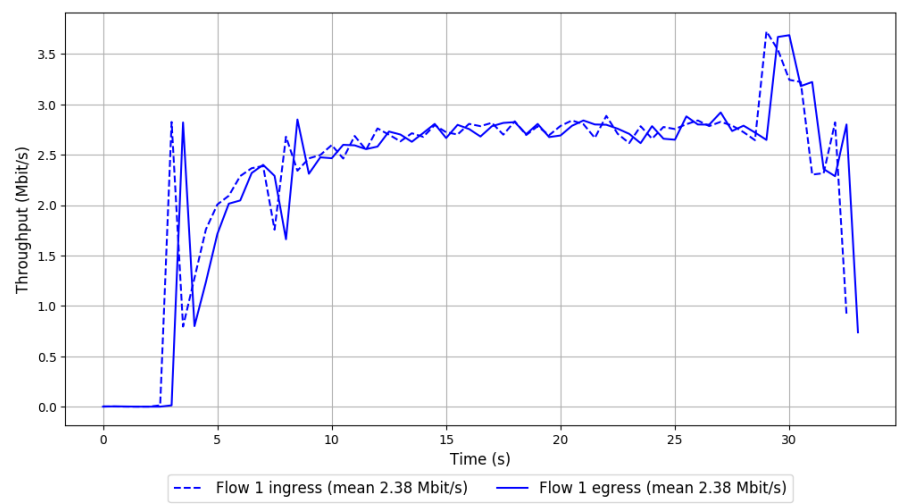


Run 3: Statistics of WebRTC media

Start at: 2019-12-11 12:11:33  
End at: 2019-12-11 12:12:03  
Local clock offset: 3.448 ms  
Remote clock offset: -5.033 ms

# Below is generated by plot.py at 2019-12-11 13:30:09  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.38 Mbit/s  
95th percentile per-packet one-way delay: 20.534 ms  
Loss rate: 0.18%  
-- Flow 1:  
Average throughput: 2.38 Mbit/s  
95th percentile per-packet one-way delay: 20.534 ms  
Loss rate: 0.18%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2019-12-11 12:40:40

End at: 2019-12-11 12:41:10

Local clock offset: 3.405 ms

Remote clock offset: -4.23 ms

# Below is generated by plot.py at 2019-12-11 13:30:09

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 19.841 ms

Loss rate: 0.19%

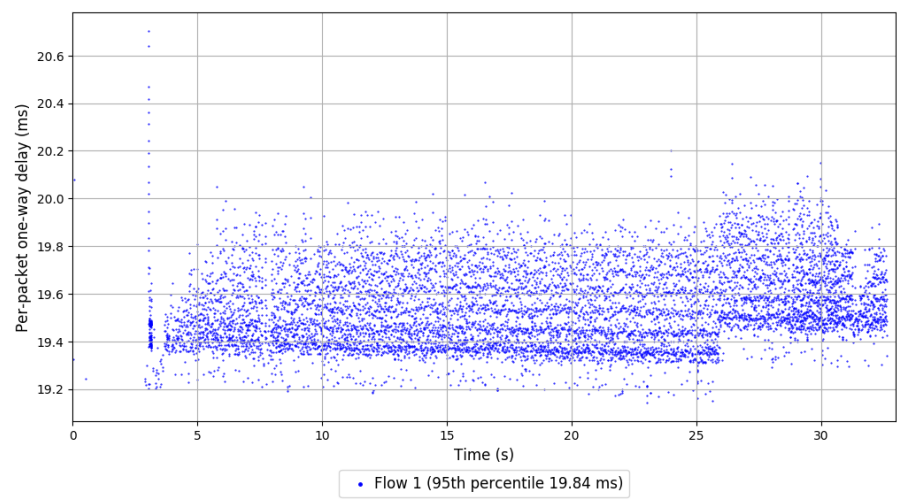
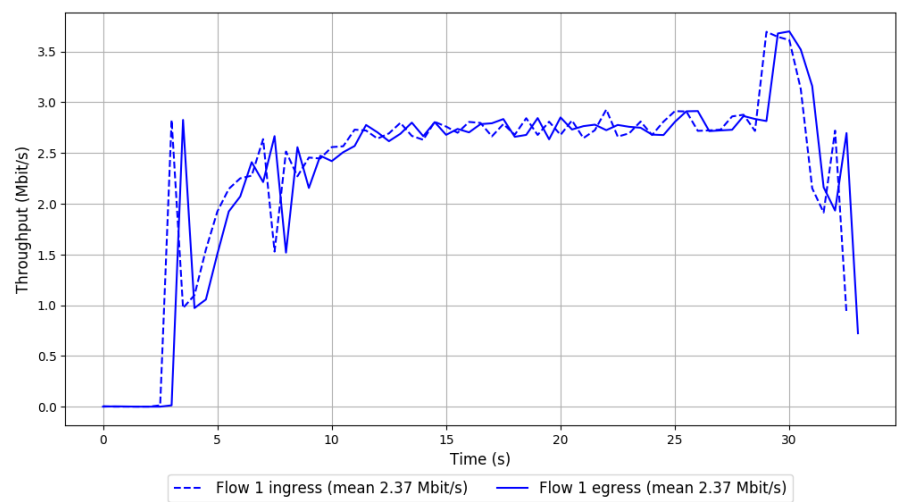
-- Flow 1:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 19.841 ms

Loss rate: 0.19%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2019-12-11 13:10:20  
End at: 2019-12-11 13:10:50  
Local clock offset: 5.584 ms  
Remote clock offset: -4.134 ms

# Below is generated by plot.py at 2019-12-11 13:30:09  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.37 Mbit/s  
95th percentile per-packet one-way delay: 21.205 ms  
Loss rate: 0.13%  
-- Flow 1:  
Average throughput: 2.37 Mbit/s  
95th percentile per-packet one-way delay: 21.205 ms  
Loss rate: 0.13%

Run 5: Report of WebRTC media — Data Link

