

## Pantheon Report

Generated at 2019-02-05 15:24:05 (UTC).

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

Repeated the test of 21 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 4.15.0-1031-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 @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecd9c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	93.69	145.77	2.73
Copa	5	67.29	72.30	0.28
TCP Cubic	5	83.49	83.51	0.32
FillP	5	95.23	87.13	0.32
FillP-Sheep	5	92.65	82.43	0.27
Indigo	5	88.75	74.93	0.27
Indigo-MusesC3	5	90.91	76.03	0.29
Indigo-MusesC5	5	91.11	77.77	0.30
Indigo-MusesD	5	62.18	78.68	0.25
Indigo-MusesT	5	95.63	88.45	0.37
LEDBAT	5	51.80	76.59	0.39
PCC-Allegro	5	61.87	73.57	0.36
PCC-Expr	5	80.51	182.33	0.39
QUIC Cubic	5	75.43	82.85	0.30
SCReAM	5	0.22	71.83	0.26
Sprout	5	9.46	78.47	0.36
TaoVA-100x	5	91.72	79.59	0.26
TCP Vegas	5	55.22	73.25	0.41
Verus	5	72.85	123.35	0.40
PCC-Vivace	5	69.39	72.77	0.35
WebRTC media	5	2.34	72.00	0.29



Run 1: Statistics of TCP BBR

Start at: 2019-02-05 13:01:32

End at: 2019-02-05 13:02:02

Local clock offset: -2.692 ms

Remote clock offset: -8.278 ms

# Below is generated by plot.py at 2019-02-05 15:12:26

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.76 Mbit/s

95th percentile per-packet one-way delay: 145.233 ms

Loss rate: 2.45%

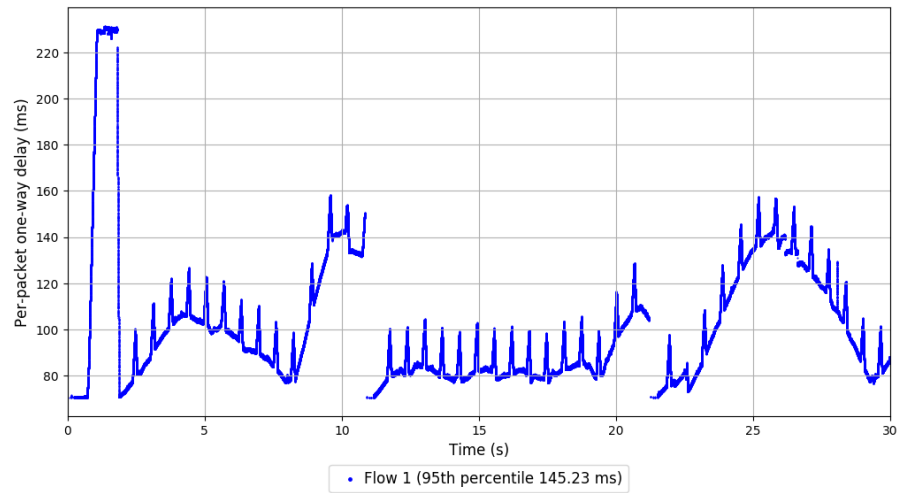
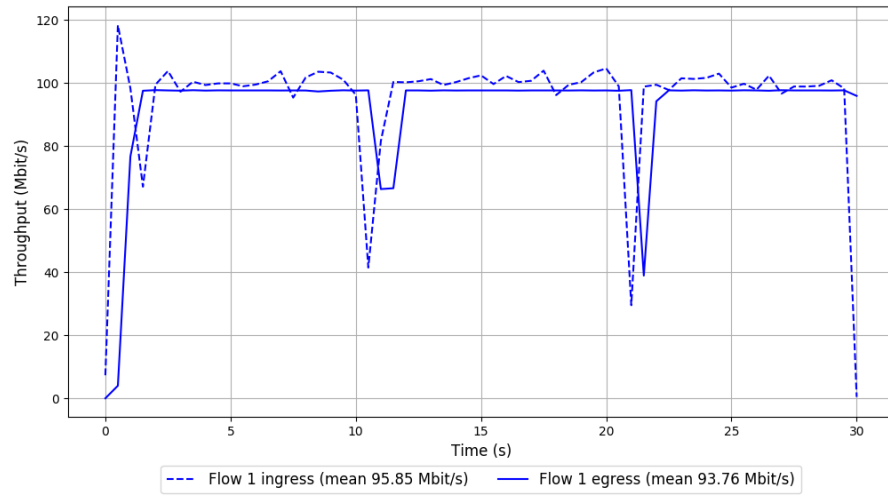
-- Flow 1:

Average throughput: 93.76 Mbit/s

95th percentile per-packet one-way delay: 145.233 ms

Loss rate: 2.45%

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



Run 2: Statistics of TCP BBR

Start at: 2019-02-05 13:28:49

End at: 2019-02-05 13:29:19

Local clock offset: -1.101 ms

Remote clock offset: -7.49 ms

# Below is generated by plot.py at 2019-02-05 15:12:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.83 Mbit/s

95th percentile per-packet one-way delay: 154.923 ms

Loss rate: 3.19%

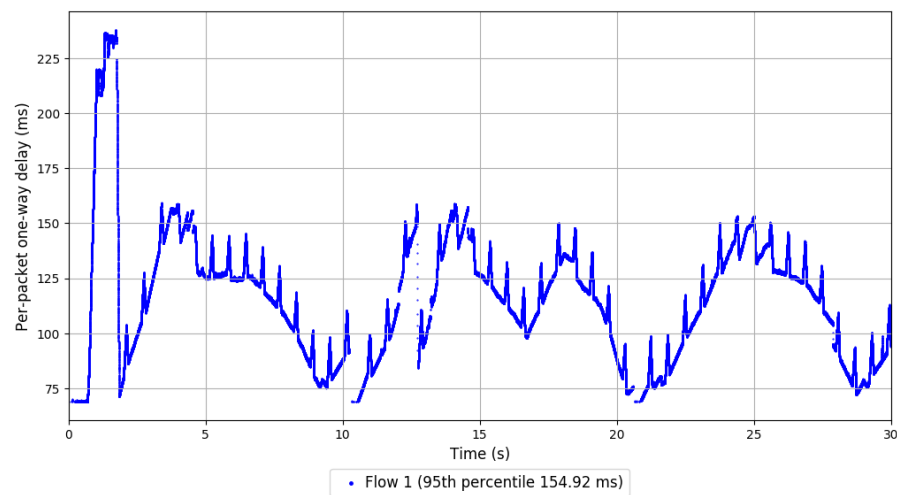
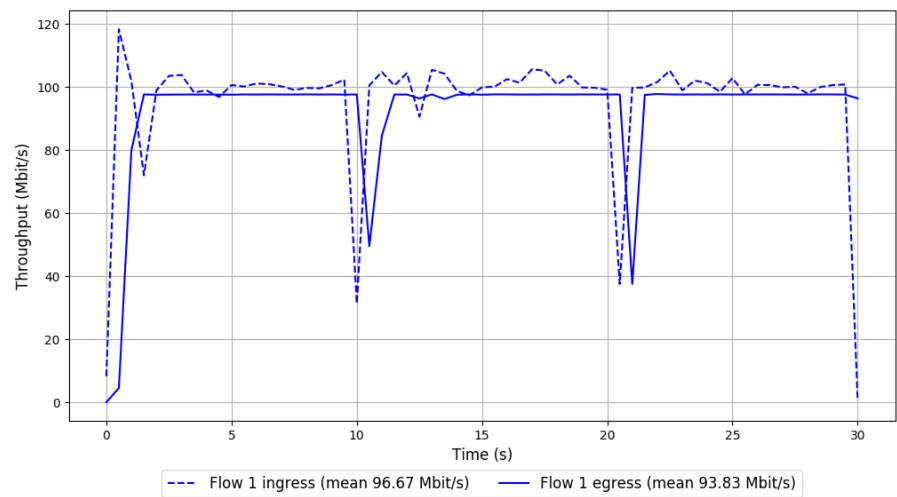
-- Flow 1:

Average throughput: 93.83 Mbit/s

95th percentile per-packet one-way delay: 154.923 ms

Loss rate: 3.19%

Run 2: Report of TCP BBR — Data Link

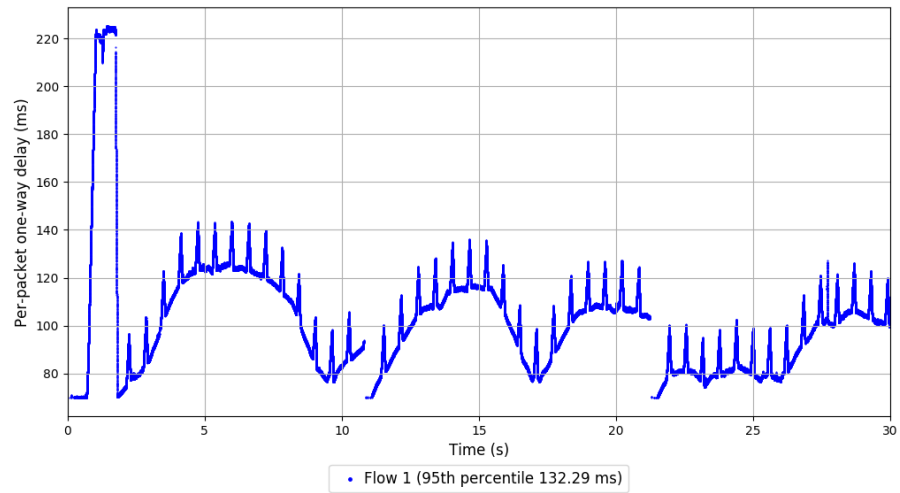
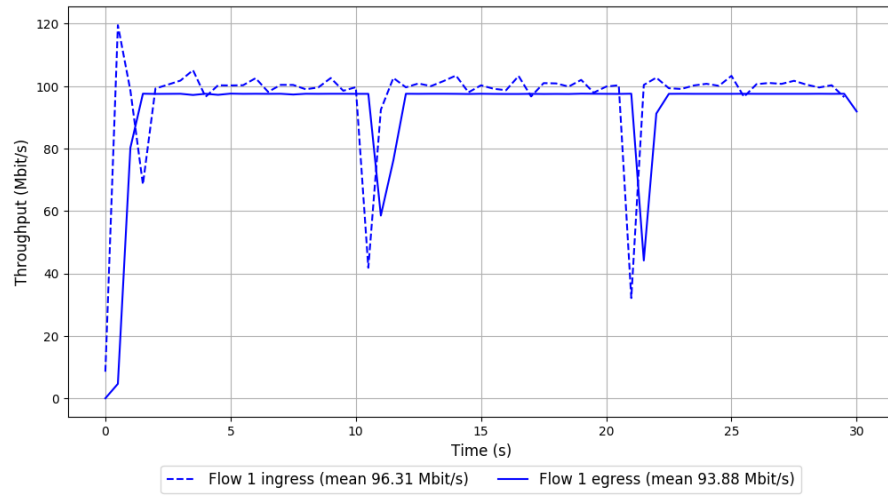


Run 3: Statistics of TCP BBR

Start at: 2019-02-05 13:56:31  
End at: 2019-02-05 13:57:01  
Local clock offset: -0.811 ms  
Remote clock offset: -8.026 ms

# Below is generated by plot.py at 2019-02-05 15:12:27  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.88 Mbit/s  
95th percentile per-packet one-way delay: 132.286 ms  
Loss rate: 2.77%  
-- Flow 1:  
Average throughput: 93.88 Mbit/s  
95th percentile per-packet one-way delay: 132.286 ms  
Loss rate: 2.77%

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

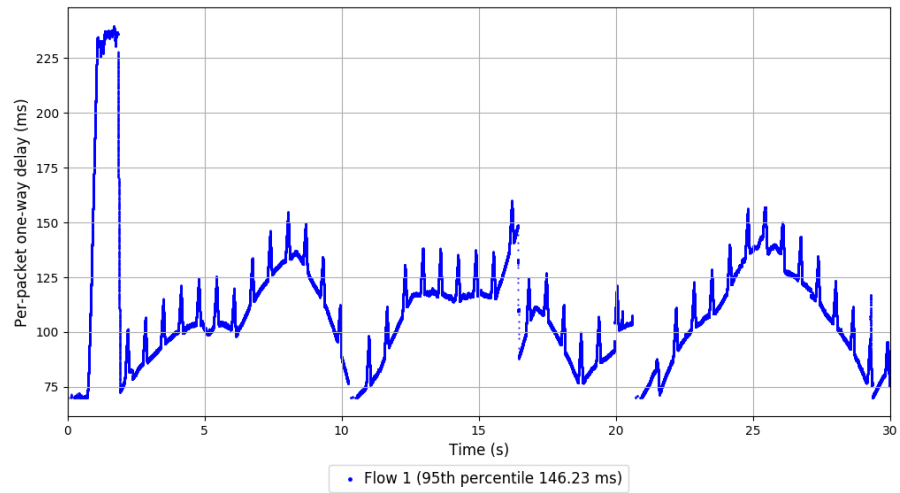
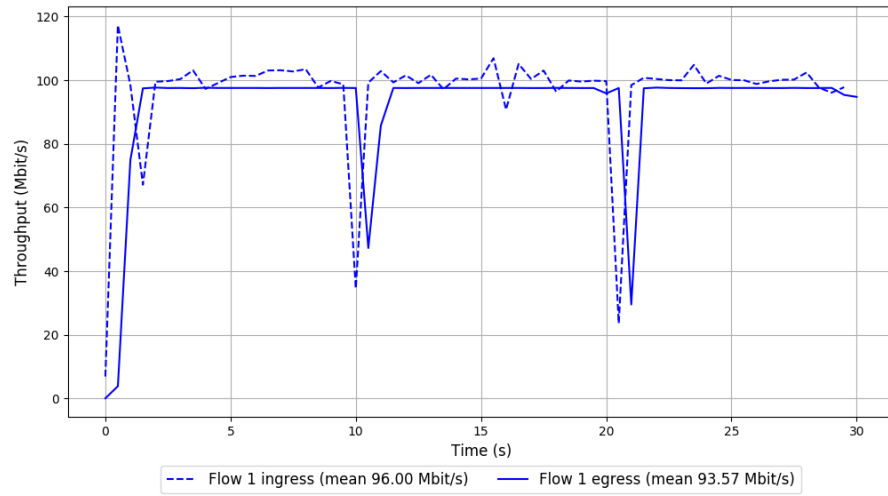


Run 4: Statistics of TCP BBR

Start at: 2019-02-05 14:24:28  
End at: 2019-02-05 14:24:58  
Local clock offset: -0.878 ms  
Remote clock offset: -5.877 ms

# Below is generated by plot.py at 2019-02-05 15:12:27  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.57 Mbit/s  
95th percentile per-packet one-way delay: 146.234 ms  
Loss rate: 2.79%  
-- Flow 1:  
Average throughput: 93.57 Mbit/s  
95th percentile per-packet one-way delay: 146.234 ms  
Loss rate: 2.79%

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





Run 5: Statistics of TCP BBR

Start at: 2019-02-05 14:51:34

End at: 2019-02-05 14:52:04

Local clock offset: -0.703 ms

Remote clock offset: -9.295 ms

# Below is generated by plot.py at 2019-02-05 15:12:27

# Datalink statistics

-- Total of 1 flow:

Average throughput: 93.39 Mbit/s

95th percentile per-packet one-way delay: 150.178 ms

Loss rate: 2.44%

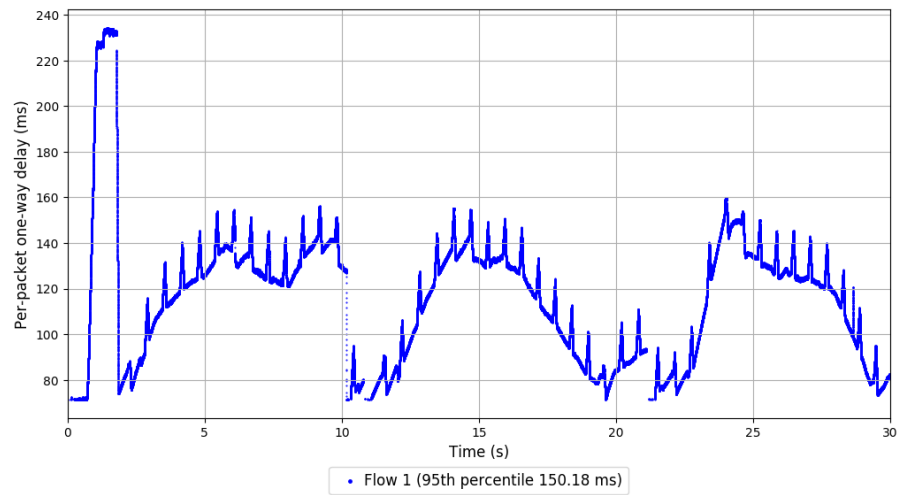
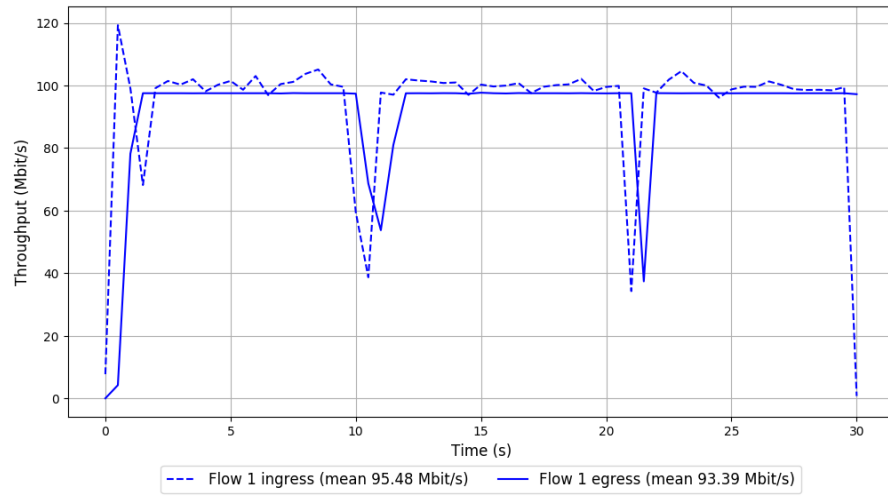
-- Flow 1:

Average throughput: 93.39 Mbit/s

95th percentile per-packet one-way delay: 150.178 ms

Loss rate: 2.44%

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

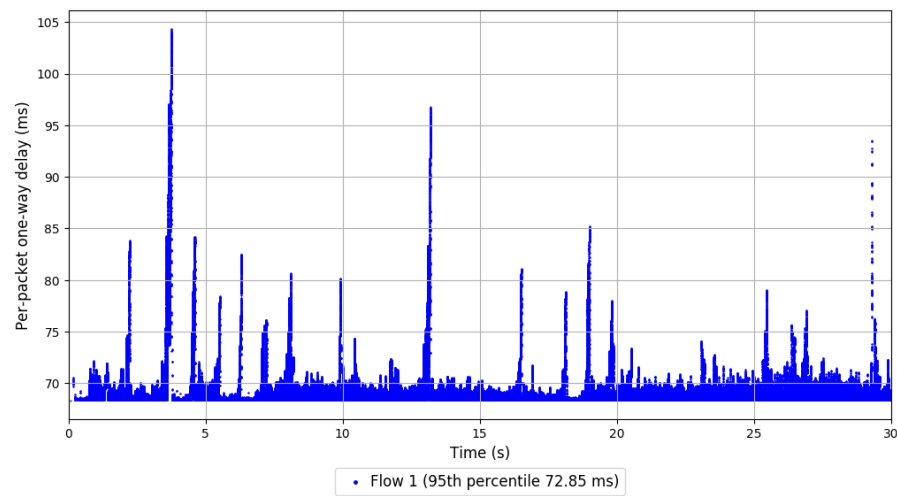
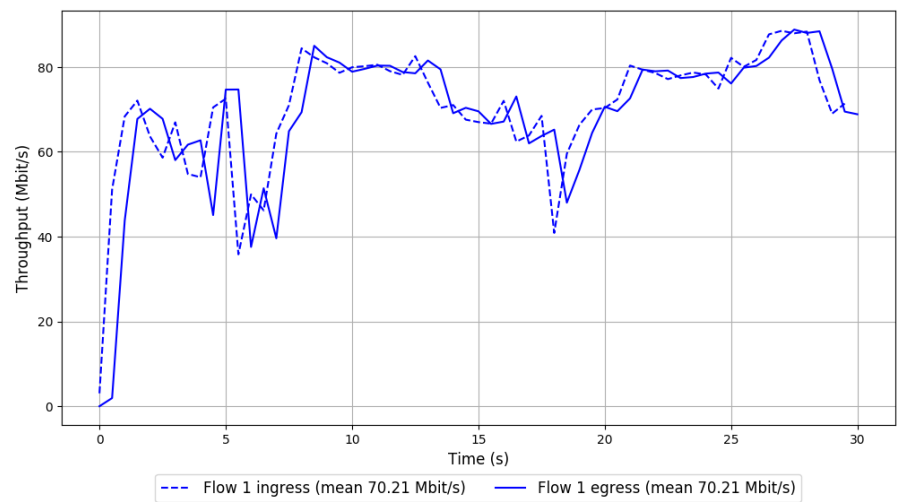


Run 1: Statistics of Copa

Start at: 2019-02-05 13:06:23  
End at: 2019-02-05 13:06:53  
Local clock offset: -1.267 ms  
Remote clock offset: -5.362 ms

# Below is generated by plot.py at 2019-02-05 15:12:54  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 70.21 Mbit/s  
95th percentile per-packet one-way delay: 72.852 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 70.21 Mbit/s  
95th percentile per-packet one-way delay: 72.852 ms  
Loss rate: 0.27%

Run 1: Report of Copa — Data Link

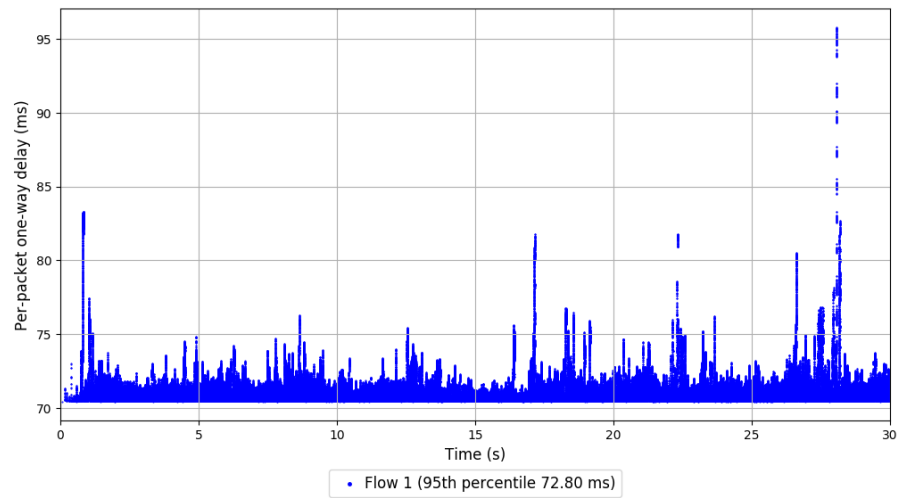
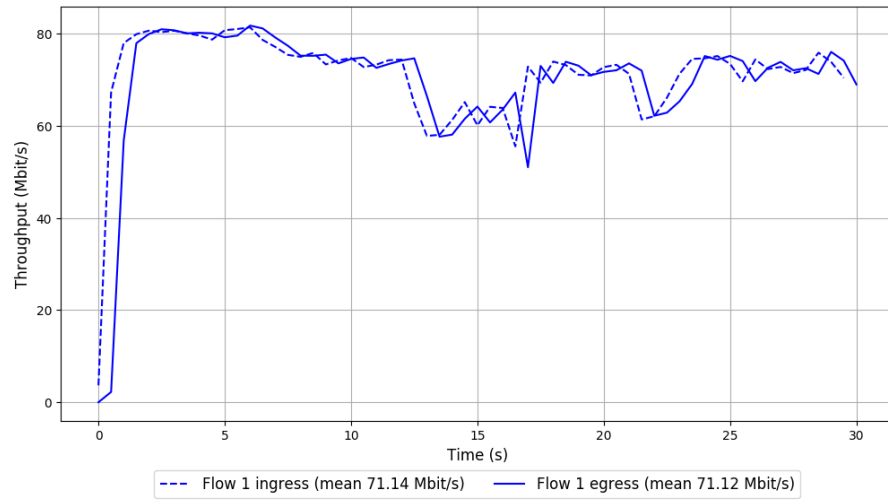


Run 2: Statistics of Copa

Start at: 2019-02-05 13:34:04  
End at: 2019-02-05 13:34:34  
Local clock offset: -0.207 ms  
Remote clock offset: -8.142 ms

# Below is generated by plot.py at 2019-02-05 15:12:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 71.12 Mbit/s  
95th percentile per-packet one-way delay: 72.798 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 71.12 Mbit/s  
95th percentile per-packet one-way delay: 72.798 ms  
Loss rate: 0.28%

## Run 2: Report of Copa — Data Link

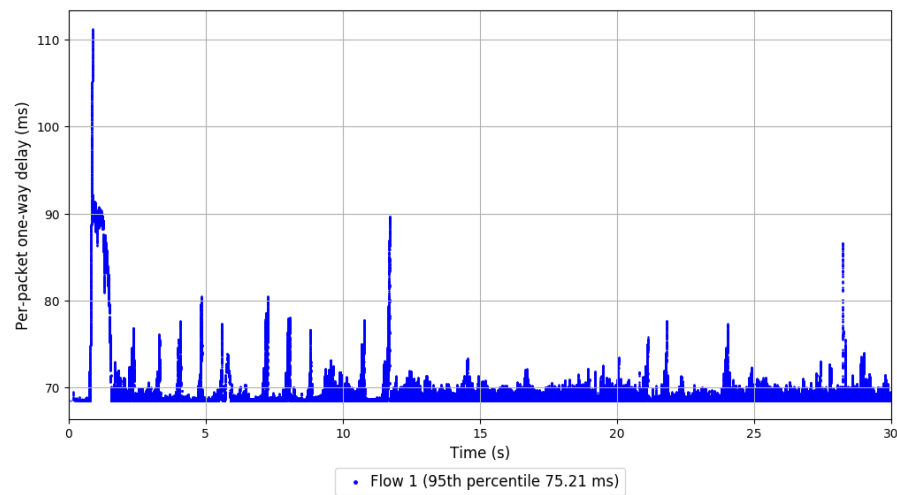
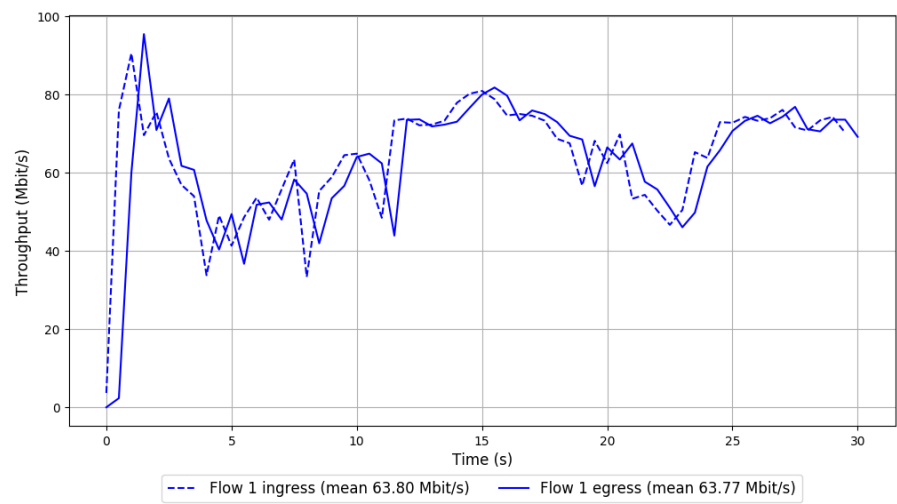


Run 3: Statistics of Copa

Start at: 2019-02-05 14:01:33  
End at: 2019-02-05 14:02:03  
Local clock offset: -2.142 ms  
Remote clock offset: -7.871 ms

# Below is generated by plot.py at 2019-02-05 15:12:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 63.77 Mbit/s  
95th percentile per-packet one-way delay: 75.210 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 63.77 Mbit/s  
95th percentile per-packet one-way delay: 75.210 ms  
Loss rate: 0.31%

Run 3: Report of Copa — Data Link



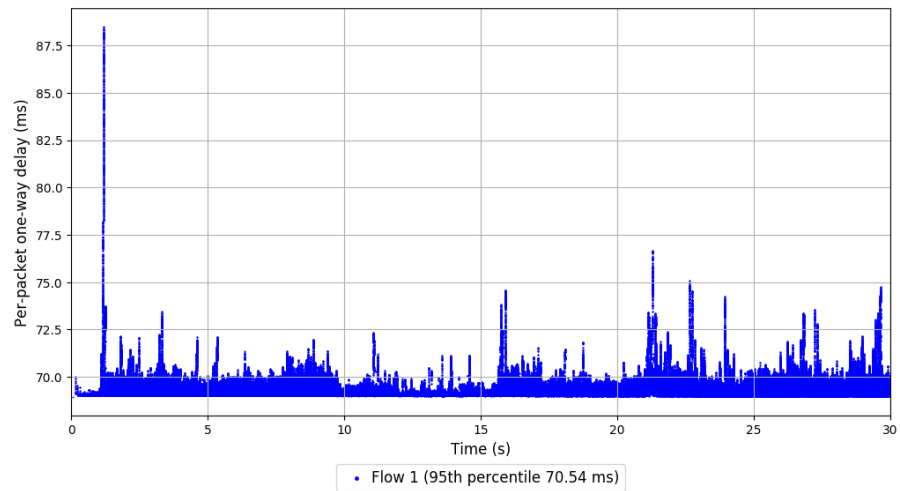
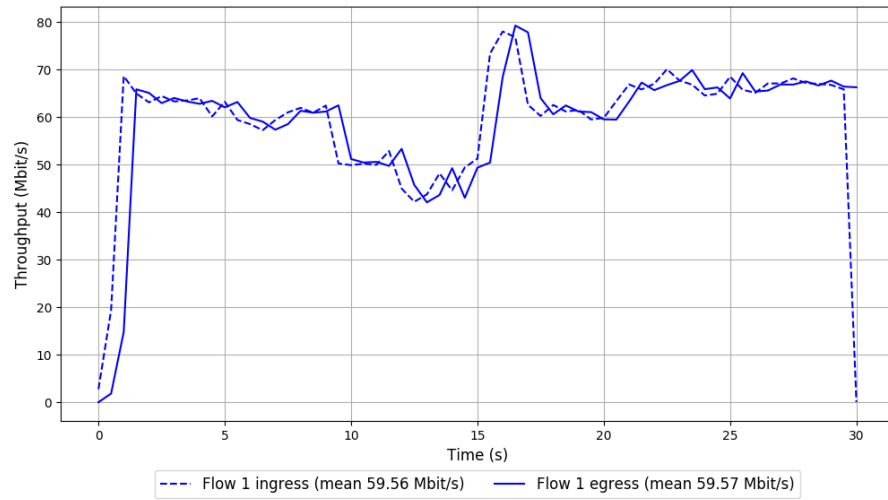


Run 4: Statistics of Copa

Start at: 2019-02-05 14:29:33  
End at: 2019-02-05 14:30:03  
Local clock offset: -1.307 ms  
Remote clock offset: -5.938 ms

# Below is generated by plot.py at 2019-02-05 15:13:46  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 59.57 Mbit/s  
95th percentile per-packet one-way delay: 70.538 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 59.57 Mbit/s  
95th percentile per-packet one-way delay: 70.538 ms  
Loss rate: 0.27%

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

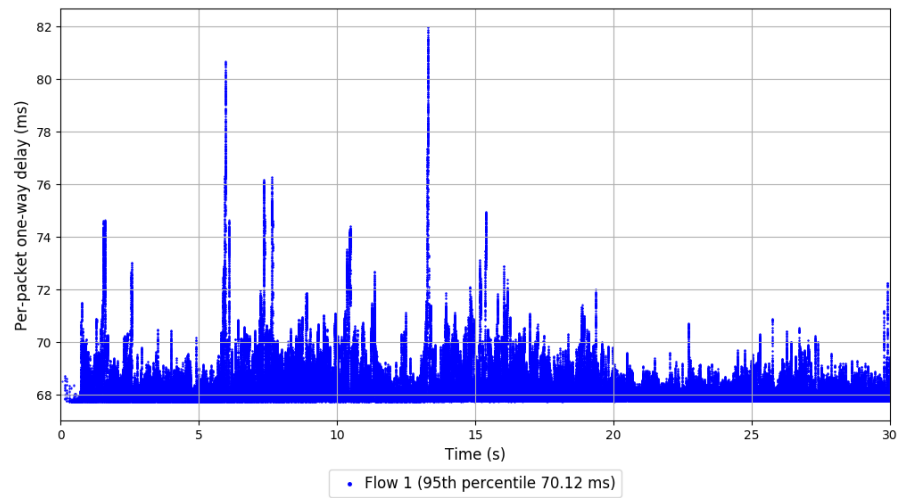
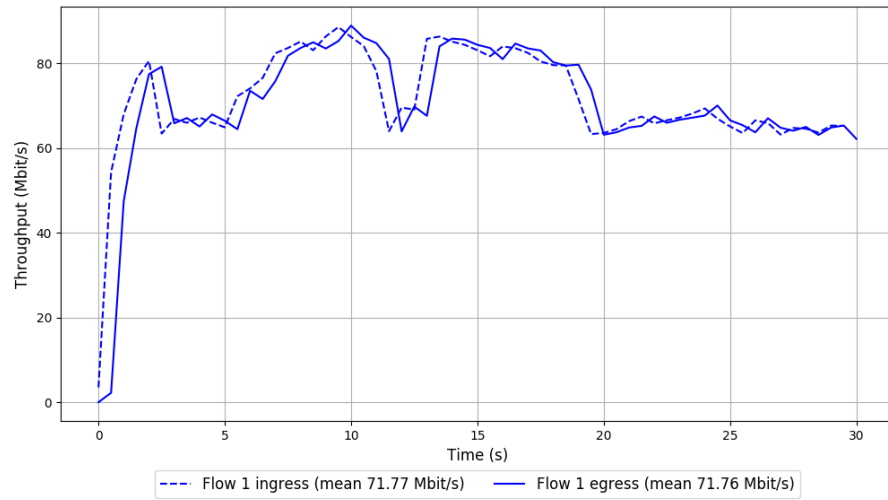


Run 5: Statistics of Copa

Start at: 2019-02-05 14:56:49  
End at: 2019-02-05 14:57:19  
Local clock offset: -2.388 ms  
Remote clock offset: -6.813 ms

# Below is generated by plot.py at 2019-02-05 15:14:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 71.76 Mbit/s  
95th percentile per-packet one-way delay: 70.117 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 71.76 Mbit/s  
95th percentile per-packet one-way delay: 70.117 ms  
Loss rate: 0.27%

### Run 5: Report of Copa — Data Link

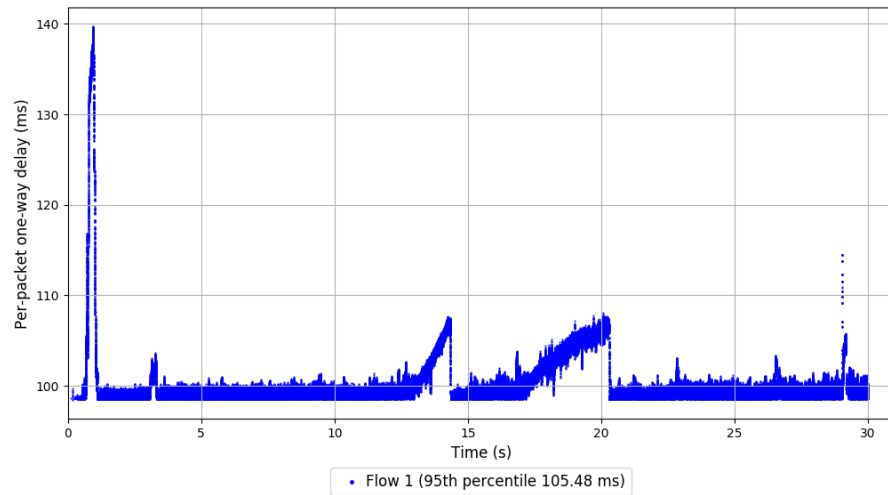
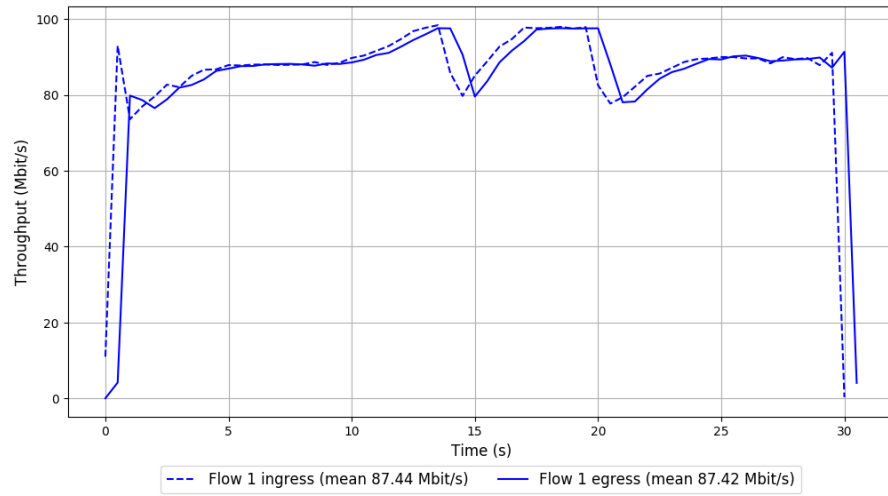


Run 1: Statistics of TCP Cubic

Start at: 2019-02-05 12:56:14  
End at: 2019-02-05 12:56:44  
Local clock offset: 0.185 ms  
Remote clock offset: -35.913 ms

# Below is generated by plot.py at 2019-02-05 15:14:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 87.42 Mbit/s  
95th percentile per-packet one-way delay: 105.476 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 87.42 Mbit/s  
95th percentile per-packet one-way delay: 105.476 ms  
Loss rate: 0.28%

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

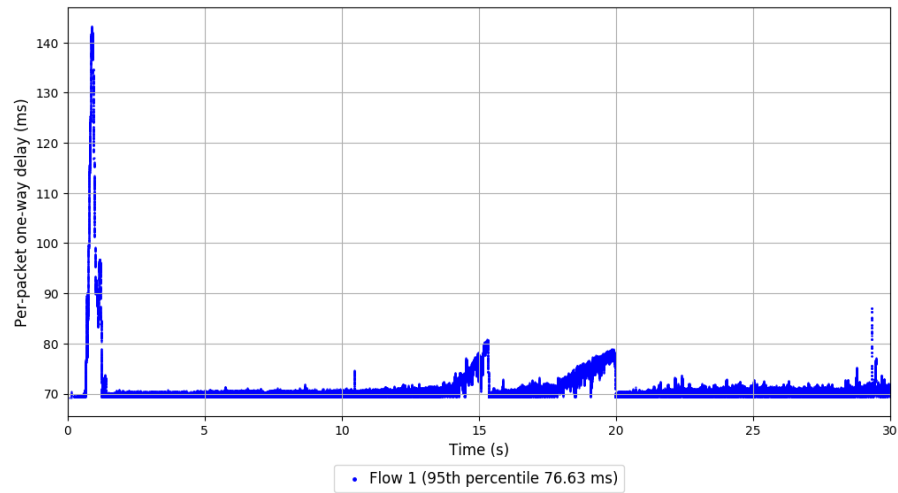
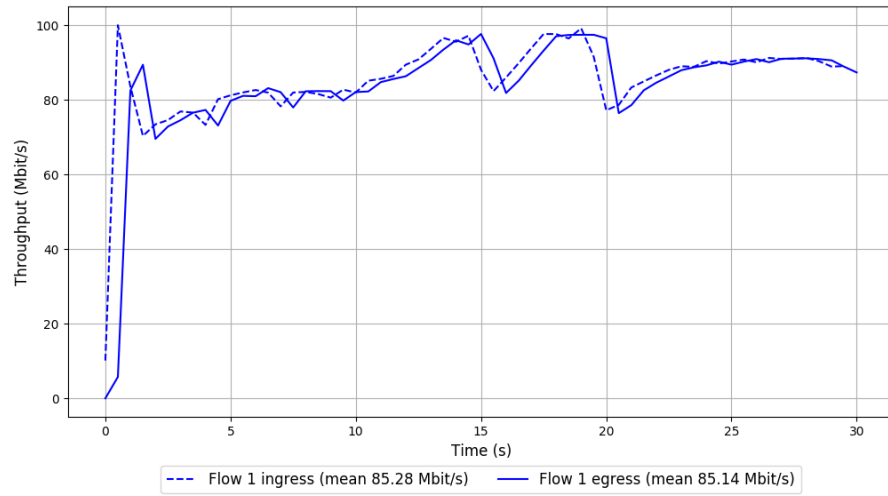


Run 2: Statistics of TCP Cubic

Start at: 2019-02-05 13:23:11  
End at: 2019-02-05 13:23:42  
Local clock offset: -0.995 ms  
Remote clock offset: -7.956 ms

# Below is generated by plot.py at 2019-02-05 15:14:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 85.14 Mbit/s  
95th percentile per-packet one-way delay: 76.629 ms  
Loss rate: 0.42%  
-- Flow 1:  
Average throughput: 85.14 Mbit/s  
95th percentile per-packet one-way delay: 76.629 ms  
Loss rate: 0.42%

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



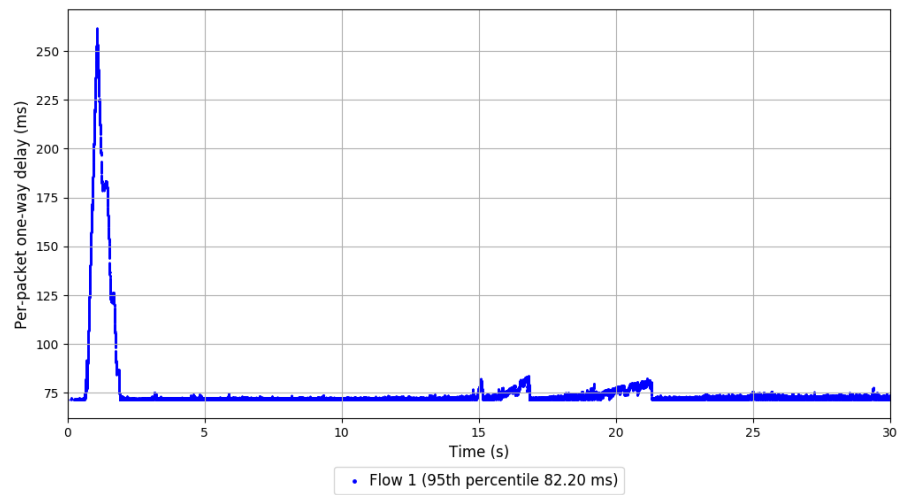
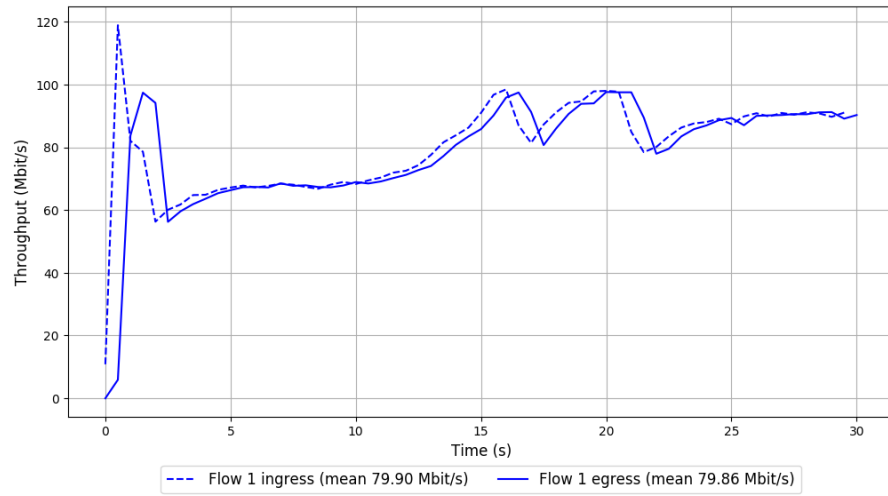


Run 3: Statistics of TCP Cubic

Start at: 2019-02-05 13:51:30  
End at: 2019-02-05 13:52:00  
Local clock offset: -1.056 ms  
Remote clock offset: -9.699 ms

# Below is generated by plot.py at 2019-02-05 15:14:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 79.86 Mbit/s  
95th percentile per-packet one-way delay: 82.204 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 79.86 Mbit/s  
95th percentile per-packet one-way delay: 82.204 ms  
Loss rate: 0.31%

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

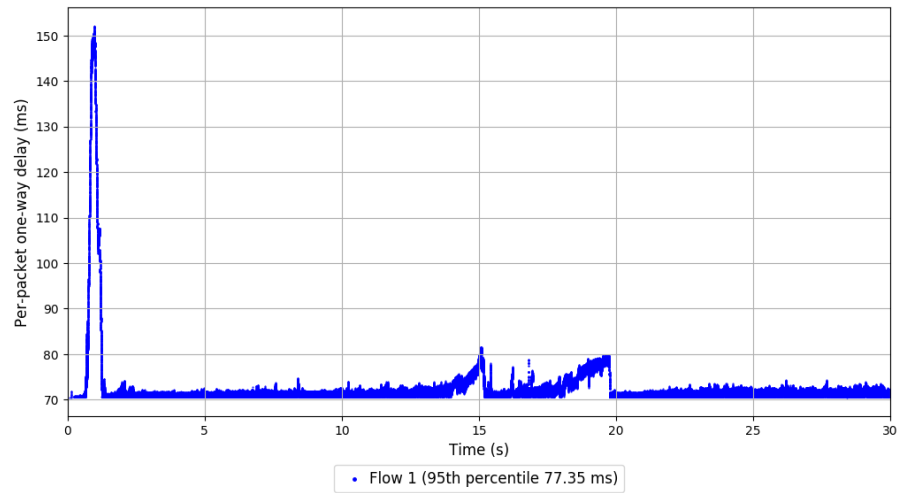
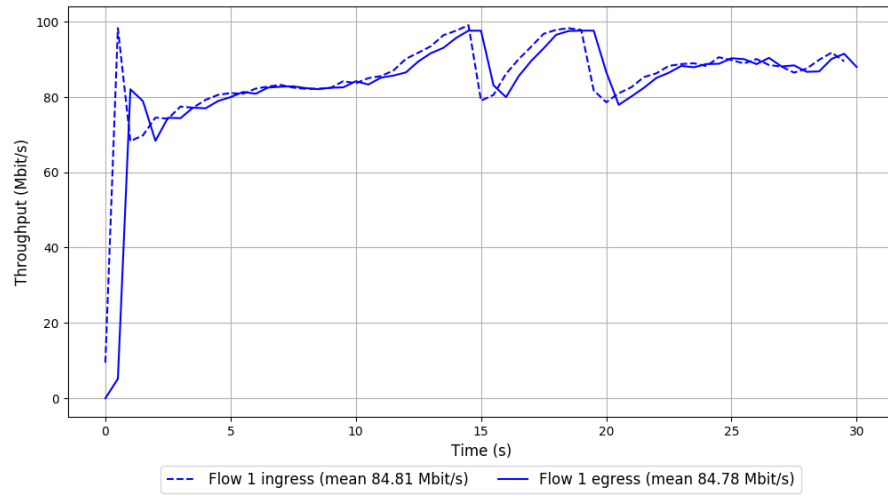


Run 4: Statistics of TCP Cubic

Start at: 2019-02-05 14:19:10  
End at: 2019-02-05 14:19:40  
Local clock offset: -0.424 ms  
Remote clock offset: -8.332 ms

# Below is generated by plot.py at 2019-02-05 15:14:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 84.78 Mbit/s  
95th percentile per-packet one-way delay: 77.353 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 84.78 Mbit/s  
95th percentile per-packet one-way delay: 77.353 ms  
Loss rate: 0.30%

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



Run 5: Statistics of TCP Cubic

Start at: 2019-02-05 14:46:40

End at: 2019-02-05 14:47:10

Local clock offset: -0.517 ms

Remote clock offset: -7.64 ms

# Below is generated by plot.py at 2019-02-05 15:14:01

# Datalink statistics

-- Total of 1 flow:

Average throughput: 80.23 Mbit/s

95th percentile per-packet one-way delay: 75.880 ms

Loss rate: 0.30%

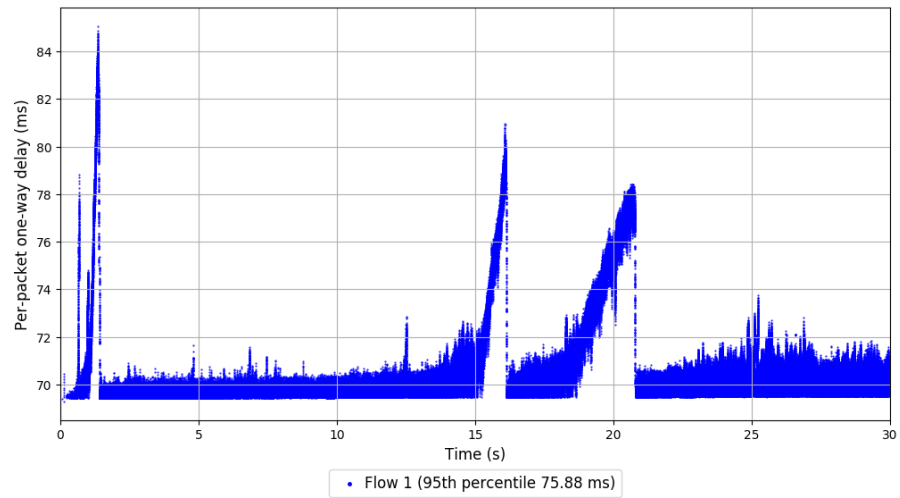
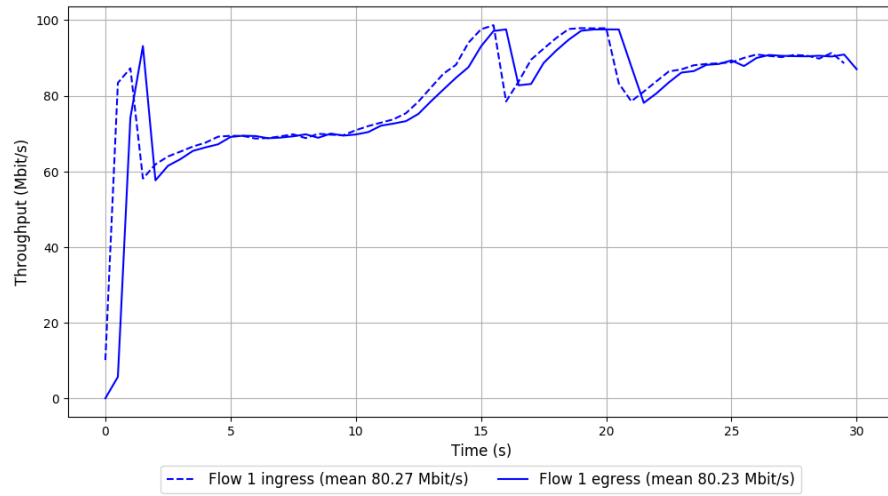
-- Flow 1:

Average throughput: 80.23 Mbit/s

95th percentile per-packet one-way delay: 75.880 ms

Loss rate: 0.30%

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

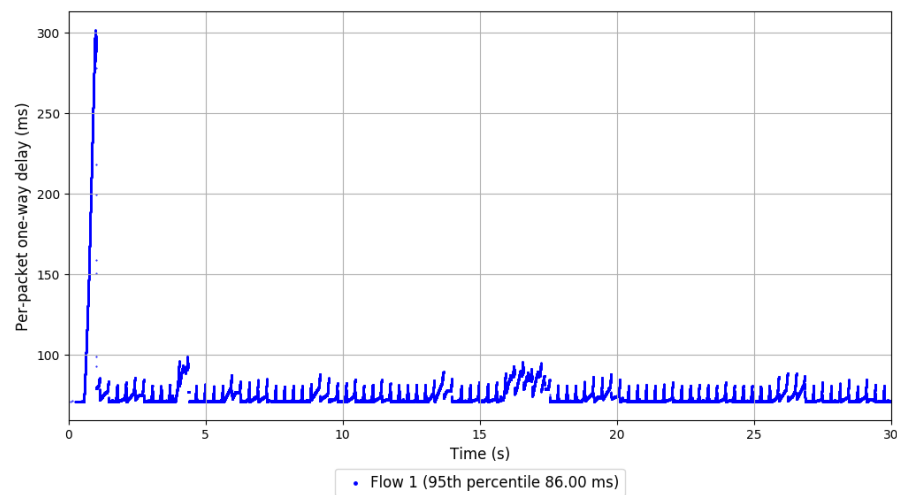
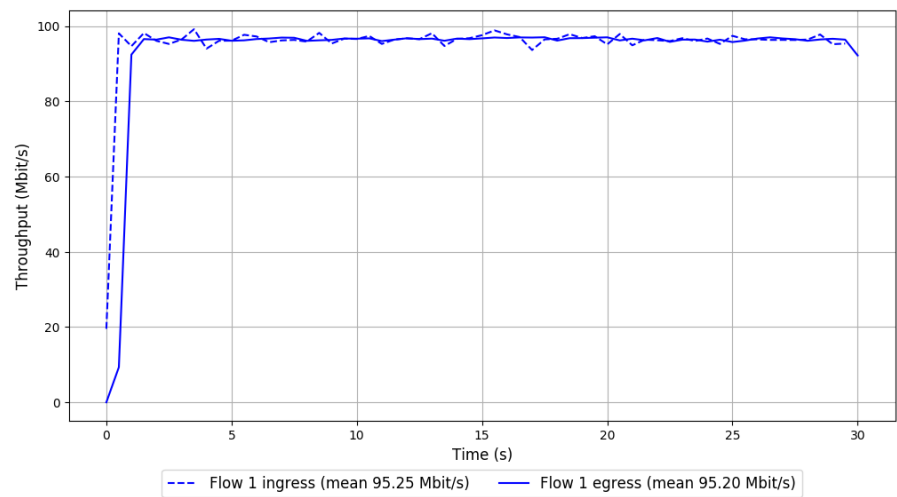


Run 1: Statistics of FillP

Start at: 2019-02-05 13:03:53  
End at: 2019-02-05 13:04:23  
Local clock offset: 1.03 ms  
Remote clock offset: -5.909 ms

# Below is generated by plot.py at 2019-02-05 15:14:22  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.20 Mbit/s  
95th percentile per-packet one-way delay: 86.005 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 95.20 Mbit/s  
95th percentile per-packet one-way delay: 86.005 ms  
Loss rate: 0.31%

Run 1: Report of FillP — Data Link



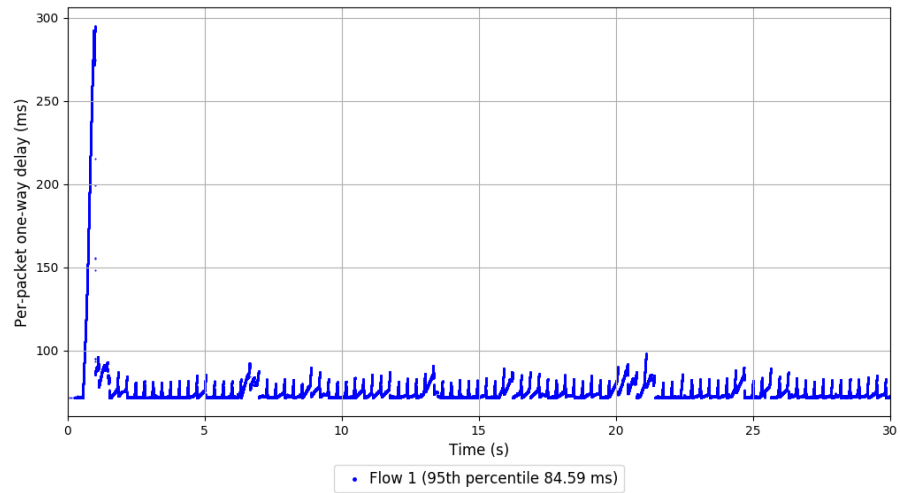
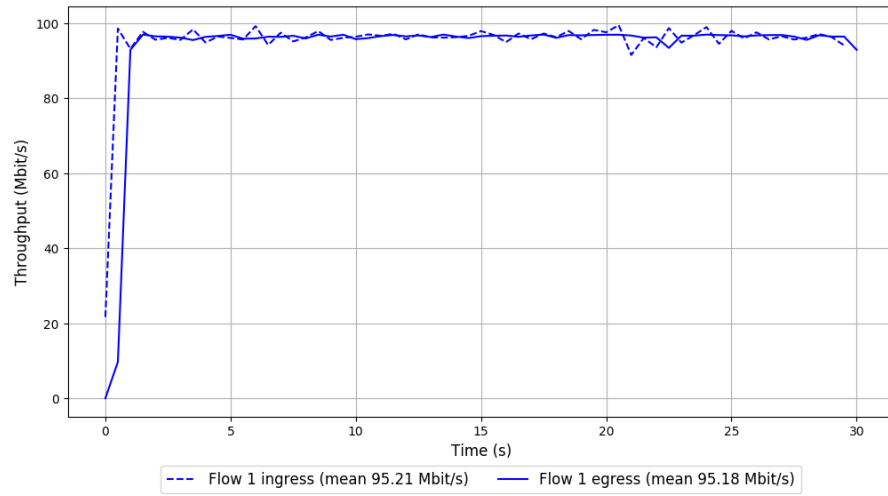


Run 2: Statistics of FillP

Start at: 2019-02-05 13:31:27  
End at: 2019-02-05 13:31:57  
Local clock offset: 0.684 ms  
Remote clock offset: -7.908 ms

# Below is generated by plot.py at 2019-02-05 15:14:43  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.18 Mbit/s  
95th percentile per-packet one-way delay: 84.593 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 95.18 Mbit/s  
95th percentile per-packet one-way delay: 84.593 ms  
Loss rate: 0.28%

## Run 2: Report of FillP — Data Link

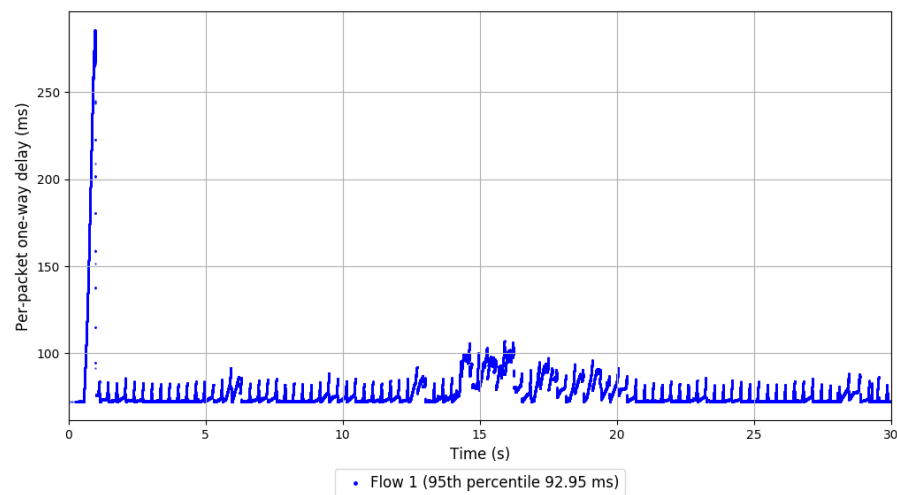
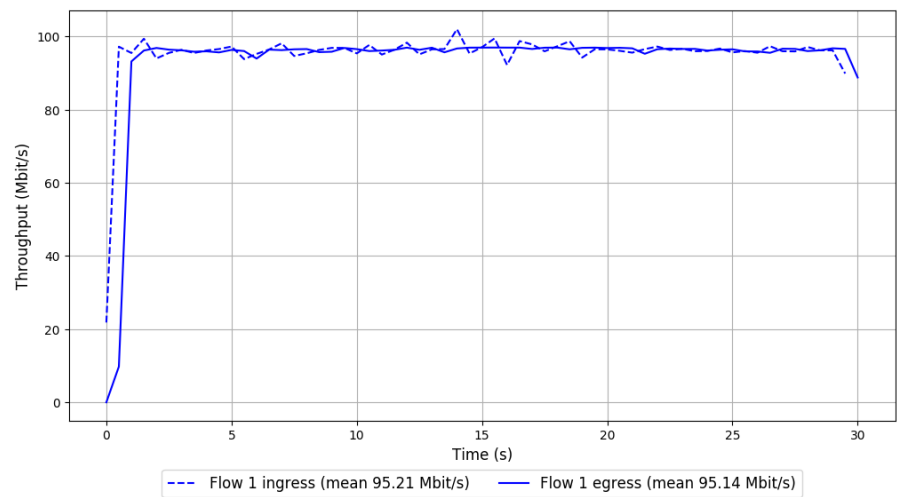


Run 3: Statistics of FillP

Start at: 2019-02-05 13:59:08  
End at: 2019-02-05 13:59:38  
Local clock offset: -0.373 ms  
Remote clock offset: -9.428 ms

# Below is generated by plot.py at 2019-02-05 15:14:47  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.14 Mbit/s  
95th percentile per-packet one-way delay: 92.953 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 95.14 Mbit/s  
95th percentile per-packet one-way delay: 92.953 ms  
Loss rate: 0.33%

Run 3: Report of FillP — Data Link

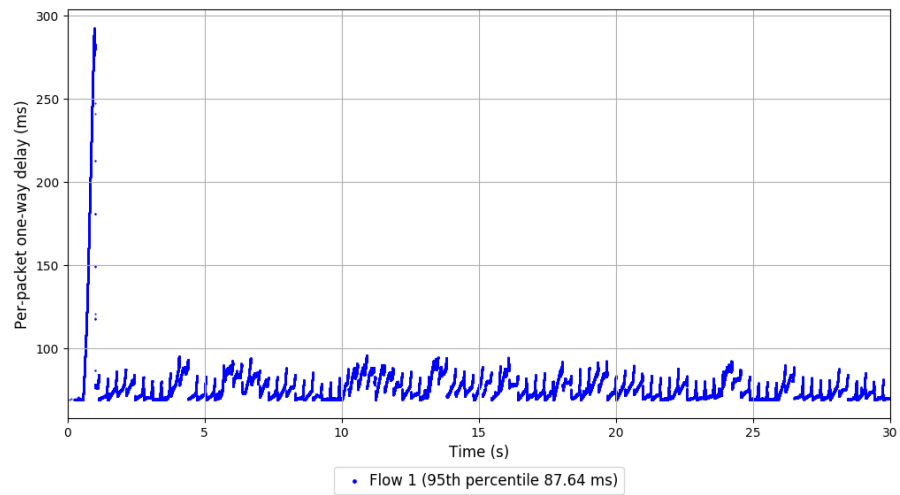
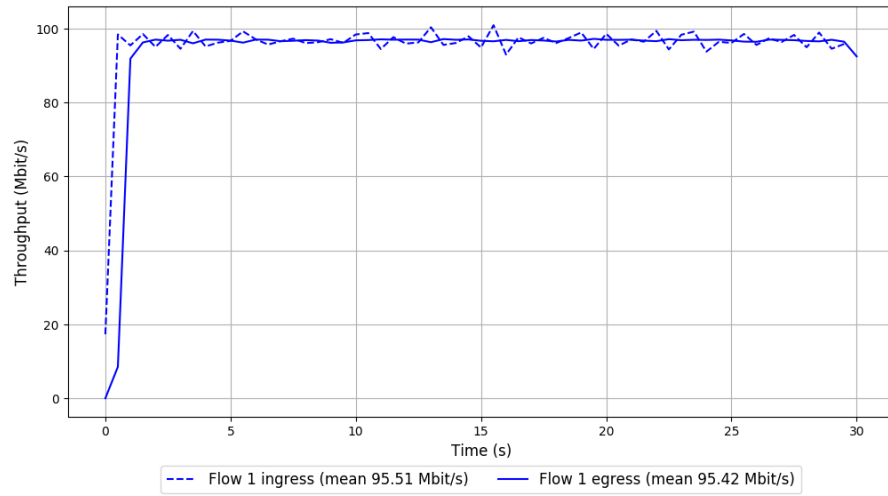


Run 4: Statistics of FillP

Start at: 2019-02-05 14:27:02  
End at: 2019-02-05 14:27:32  
Local clock offset: -2.027 ms  
Remote clock offset: -6.824 ms

# Below is generated by plot.py at 2019-02-05 15:14:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.42 Mbit/s  
95th percentile per-packet one-way delay: 87.637 ms  
Loss rate: 0.36%  
-- Flow 1:  
Average throughput: 95.42 Mbit/s  
95th percentile per-packet one-way delay: 87.637 ms  
Loss rate: 0.36%

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

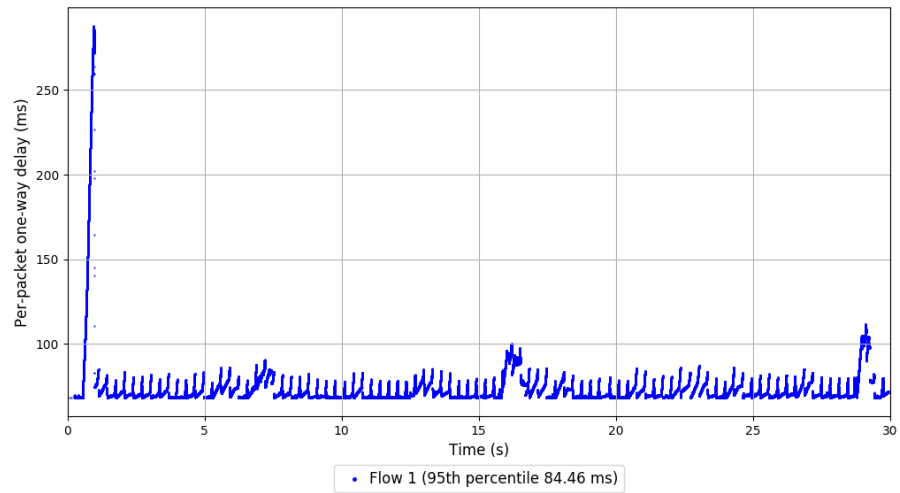
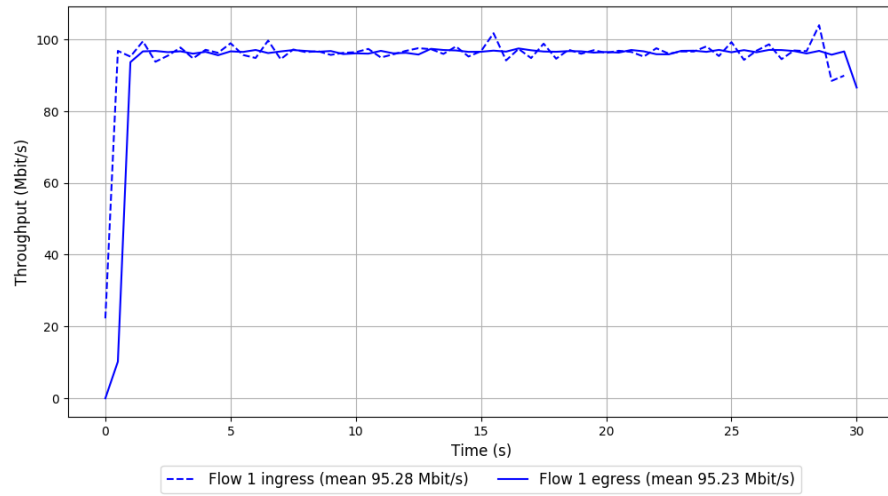


Run 5: Statistics of FillP

Start at: 2019-02-05 14:54:13  
End at: 2019-02-05 14:54:43  
Local clock offset: -2.003 ms  
Remote clock offset: -7.241 ms

# Below is generated by plot.py at 2019-02-05 15:15:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.23 Mbit/s  
95th percentile per-packet one-way delay: 84.461 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 95.23 Mbit/s  
95th percentile per-packet one-way delay: 84.461 ms  
Loss rate: 0.31%

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





Run 1: Statistics of FillP-Sheep

Start at: 2019-02-05 12:53:49

End at: 2019-02-05 12:54:19

Local clock offset: -1.323 ms

Remote clock offset: -14.508 ms

# Below is generated by plot.py at 2019-02-05 15:15:07

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.42 Mbit/s

95th percentile per-packet one-way delay: 100.250 ms

Loss rate: 0.29%

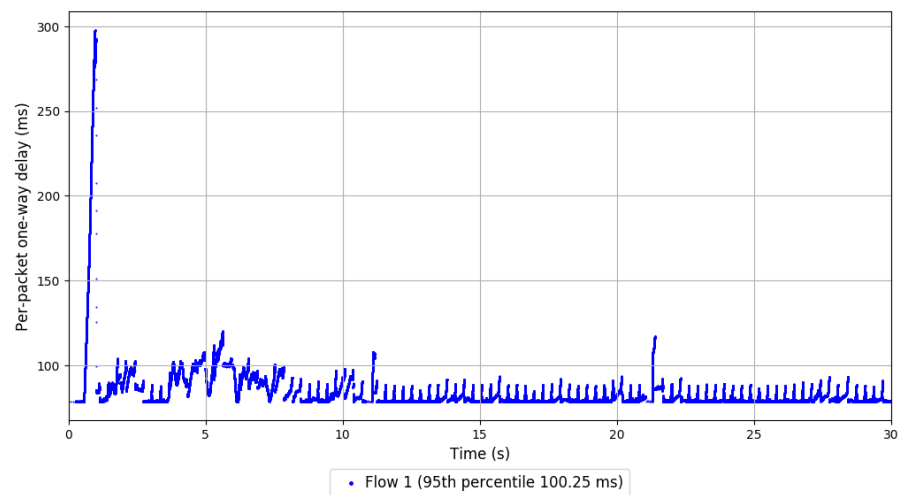
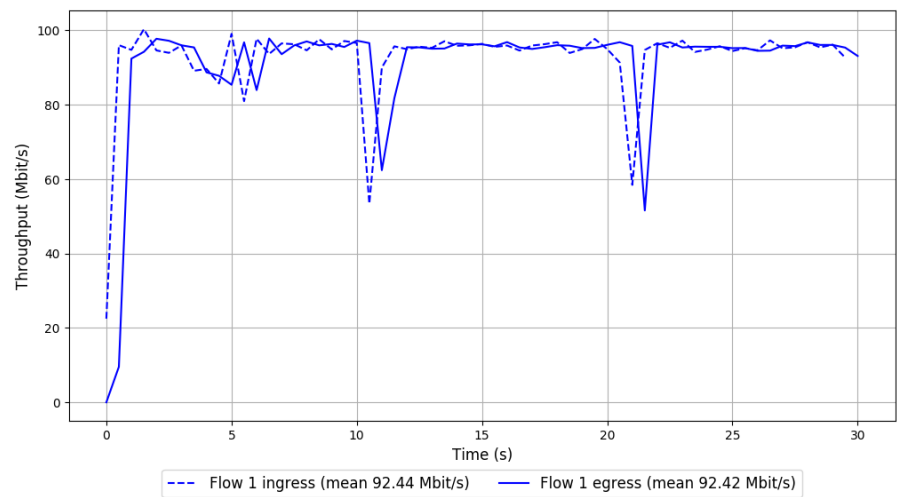
-- Flow 1:

Average throughput: 92.42 Mbit/s

95th percentile per-packet one-way delay: 100.250 ms

Loss rate: 0.29%

Run 1: Report of FillP-Sheep — Data Link



Run 2: Statistics of FillP-Sheep

Start at: 2019-02-05 13:20:47

End at: 2019-02-05 13:21:17

Local clock offset: 0.3 ms

Remote clock offset: -8.058 ms

# Below is generated by plot.py at 2019-02-05 15:15:10

# Datalink statistics

-- Total of 1 flow:

Average throughput: 92.64 Mbit/s

95th percentile per-packet one-way delay: 79.248 ms

Loss rate: 0.26%

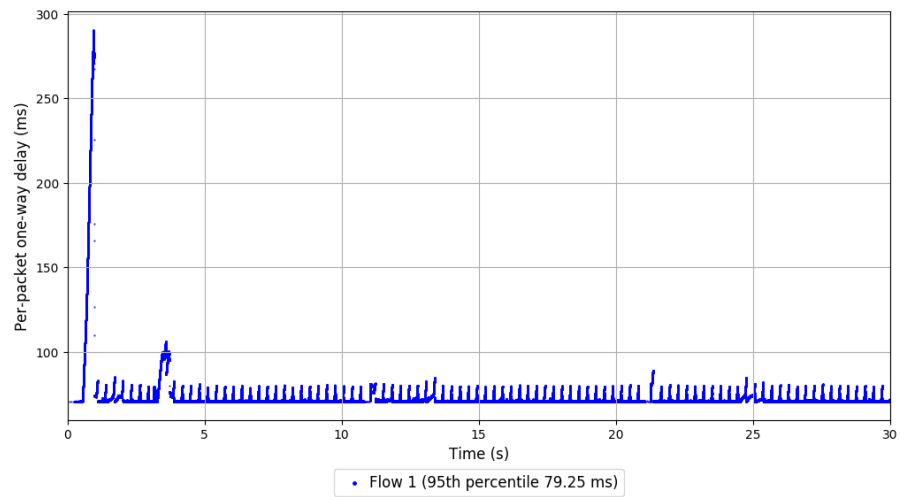
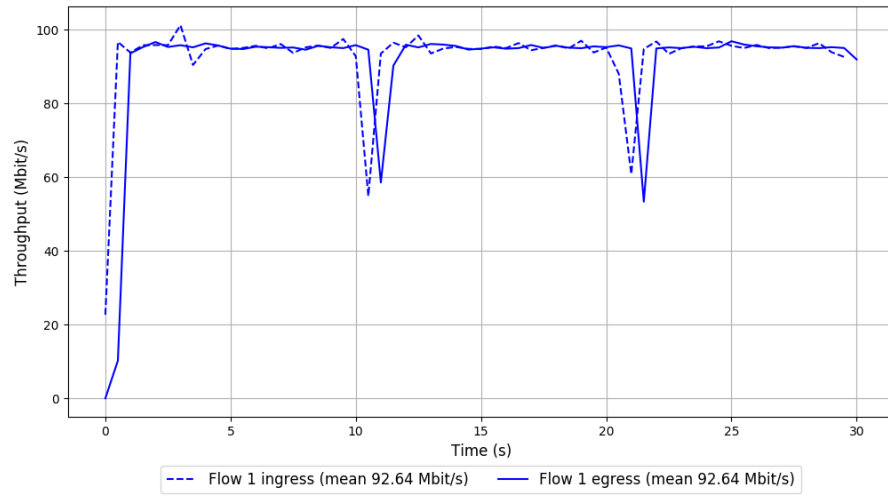
-- Flow 1:

Average throughput: 92.64 Mbit/s

95th percentile per-packet one-way delay: 79.248 ms

Loss rate: 0.26%

## Run 2: Report of FillP-Sheep — Data Link

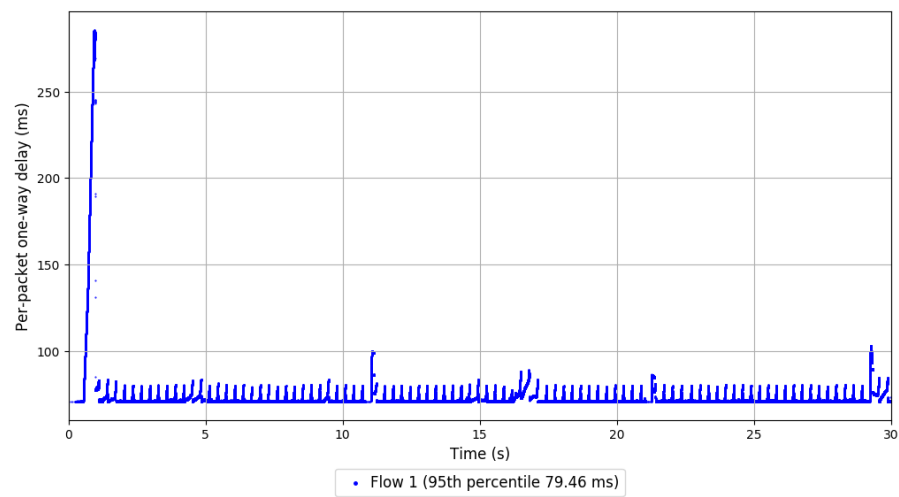
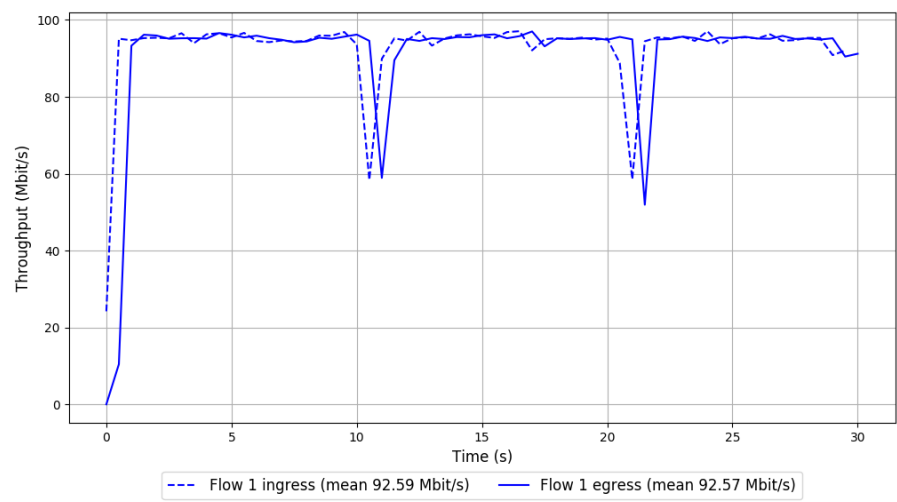


Run 3: Statistics of FillP-Sheep

Start at: 2019-02-05 13:49:02  
End at: 2019-02-05 13:49:32  
Local clock offset: 1.393 ms  
Remote clock offset: -6.977 ms

# Below is generated by plot.py at 2019-02-05 15:15:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.57 Mbit/s  
95th percentile per-packet one-way delay: 79.461 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 92.57 Mbit/s  
95th percentile per-packet one-way delay: 79.461 ms  
Loss rate: 0.27%

Run 3: Report of FillP-Sheep — Data Link

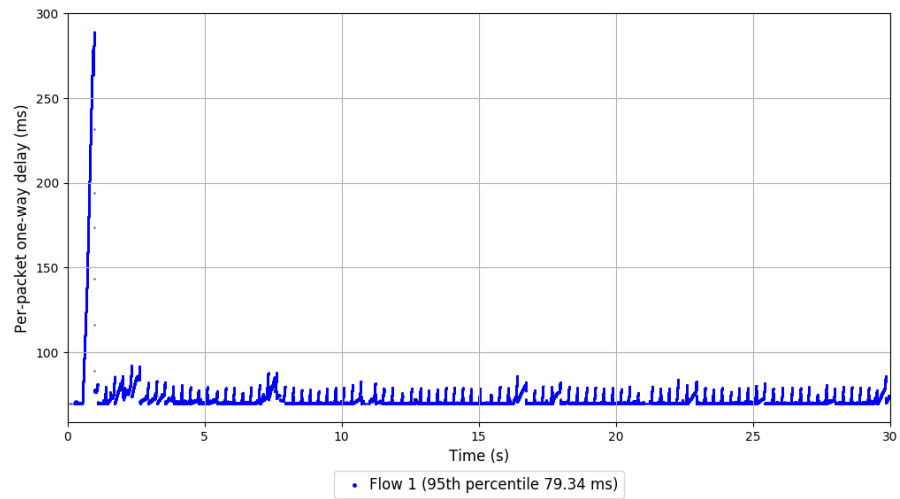
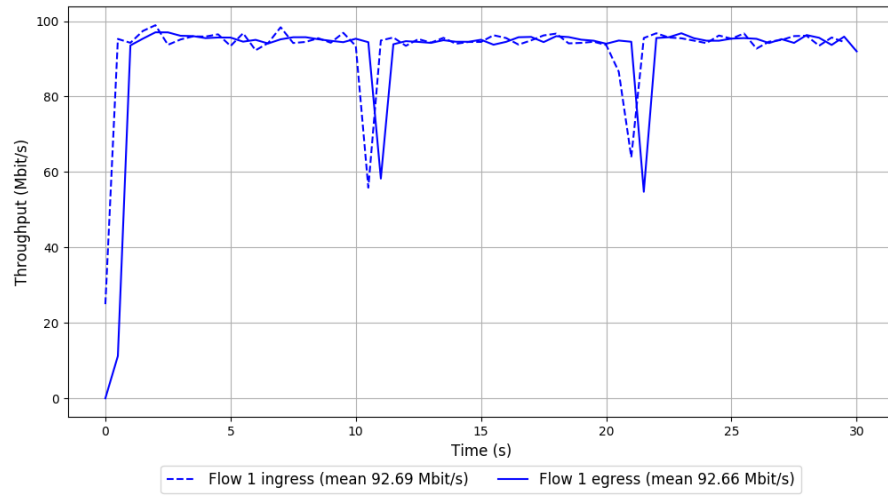


Run 4: Statistics of FillP-Sheep

Start at: 2019-02-05 14:16:27  
End at: 2019-02-05 14:16:57  
Local clock offset: -1.643 ms  
Remote clock offset: -8.592 ms

# Below is generated by plot.py at 2019-02-05 15:15:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.66 Mbit/s  
95th percentile per-packet one-way delay: 79.343 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 92.66 Mbit/s  
95th percentile per-packet one-way delay: 79.343 ms  
Loss rate: 0.29%

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



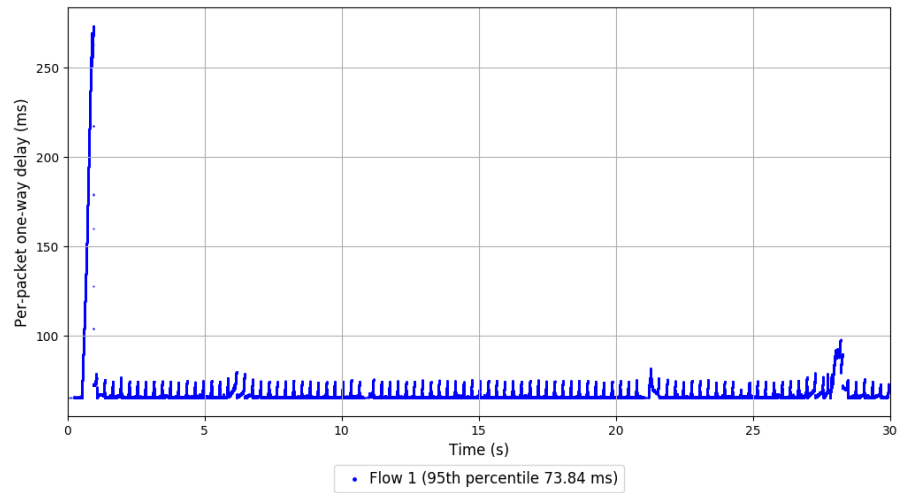
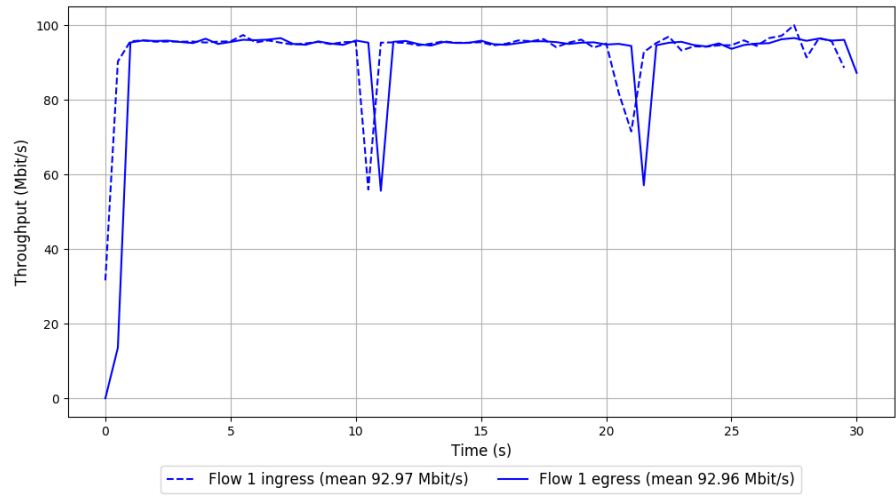


Run 5: Statistics of FillP-Sheep

Start at: 2019-02-05 14:44:10  
End at: 2019-02-05 14:44:40  
Local clock offset: -1.285 ms  
Remote clock offset: -7.151 ms

# Below is generated by plot.py at 2019-02-05 15:16:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.96 Mbit/s  
95th percentile per-packet one-way delay: 73.839 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 92.96 Mbit/s  
95th percentile per-packet one-way delay: 73.839 ms  
Loss rate: 0.26%

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

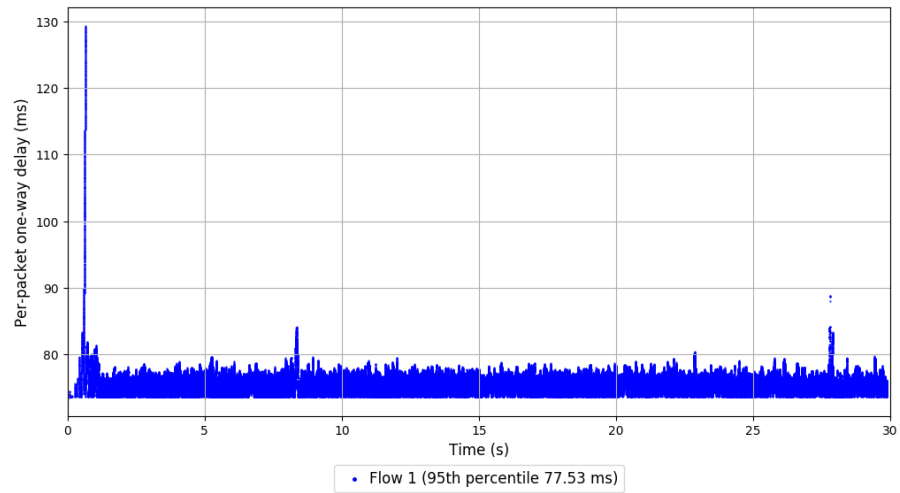
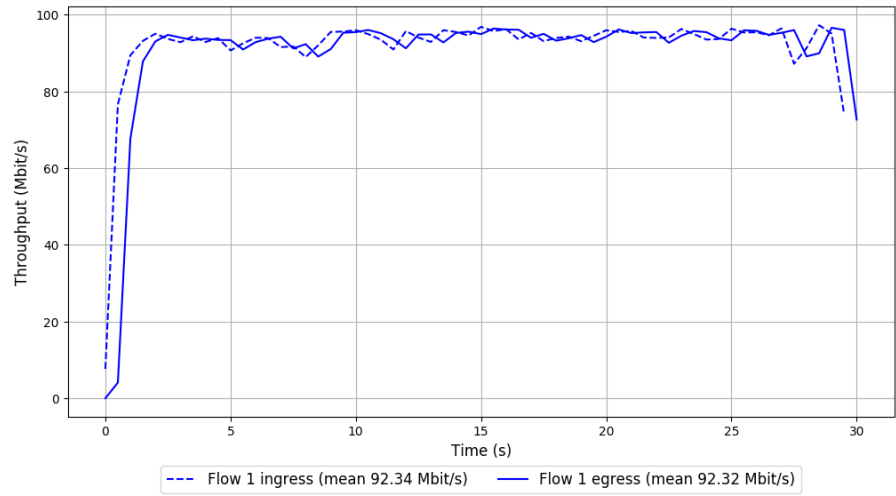


Run 1: Statistics of Indigo

Start at: 2019-02-05 13:18:11  
End at: 2019-02-05 13:18:41  
Local clock offset: 3.38 ms  
Remote clock offset: -8.323 ms

# Below is generated by plot.py at 2019-02-05 15:16:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.32 Mbit/s  
95th percentile per-packet one-way delay: 77.532 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 92.32 Mbit/s  
95th percentile per-packet one-way delay: 77.532 ms  
Loss rate: 0.28%

## Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2019-02-05 13:46:06

End at: 2019-02-05 13:46:36

Local clock offset: -3.173 ms

Remote clock offset: -8.36 ms

# Below is generated by plot.py at 2019-02-05 15:16:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 85.23 Mbit/s

95th percentile per-packet one-way delay: 69.684 ms

Loss rate: 0.25%

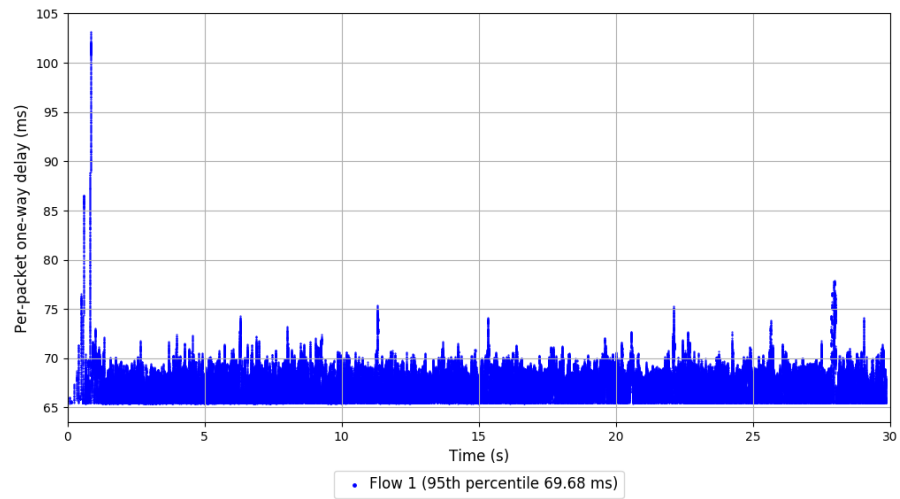
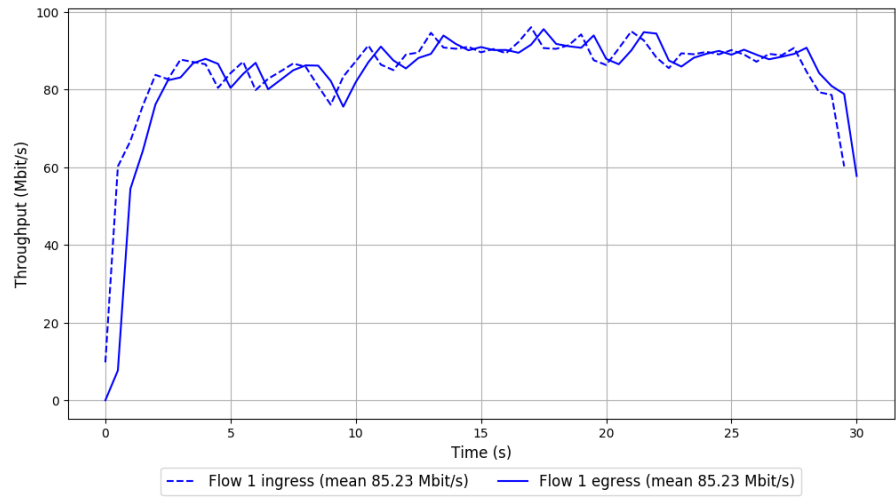
-- Flow 1:

Average throughput: 85.23 Mbit/s

95th percentile per-packet one-way delay: 69.684 ms

Loss rate: 0.25%

## Run 2: Report of Indigo — Data Link

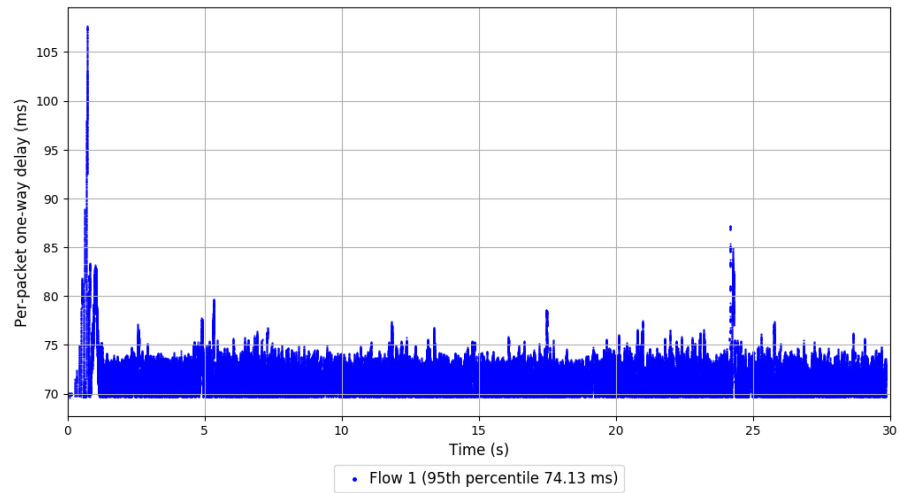
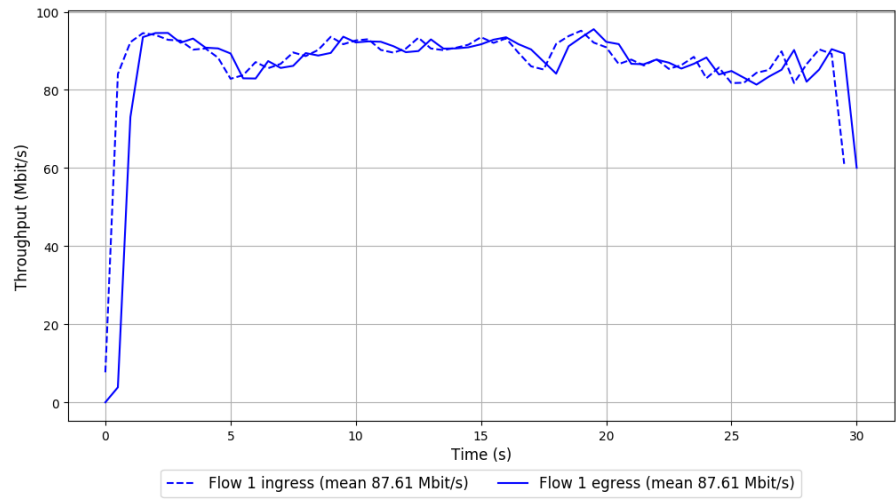


Run 3: Statistics of Indigo

Start at: 2019-02-05 14:13:50  
End at: 2019-02-05 14:14:20  
Local clock offset: -1.28 ms  
Remote clock offset: -8.088 ms

# Below is generated by plot.py at 2019-02-05 15:16:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 87.61 Mbit/s  
95th percentile per-packet one-way delay: 74.129 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 87.61 Mbit/s  
95th percentile per-packet one-way delay: 74.129 ms  
Loss rate: 0.27%

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



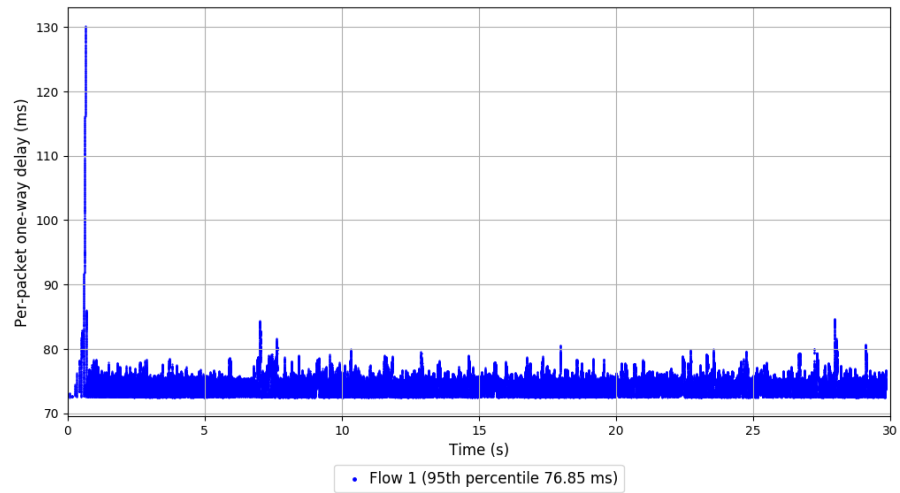
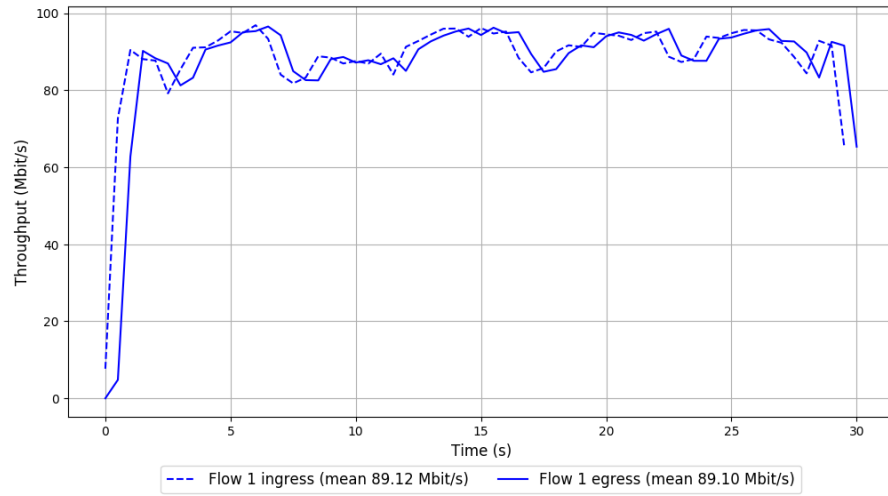


Run 4: Statistics of Indigo

Start at: 2019-02-05 14:41:50  
End at: 2019-02-05 14:42:20  
Local clock offset: 1.12 ms  
Remote clock offset: -9.375 ms

# Below is generated by plot.py at 2019-02-05 15:16:10  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 89.10 Mbit/s  
95th percentile per-packet one-way delay: 76.849 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 89.10 Mbit/s  
95th percentile per-packet one-way delay: 76.849 ms  
Loss rate: 0.27%

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



Run 5: Statistics of Indigo

Start at: 2019-02-05 15:08:51

End at: 2019-02-05 15:09:21

Local clock offset: -0.155 ms

Remote clock offset: -6.72 ms

# Below is generated by plot.py at 2019-02-05 15:16:14

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.48 Mbit/s

95th percentile per-packet one-way delay: 76.461 ms

Loss rate: 0.28%

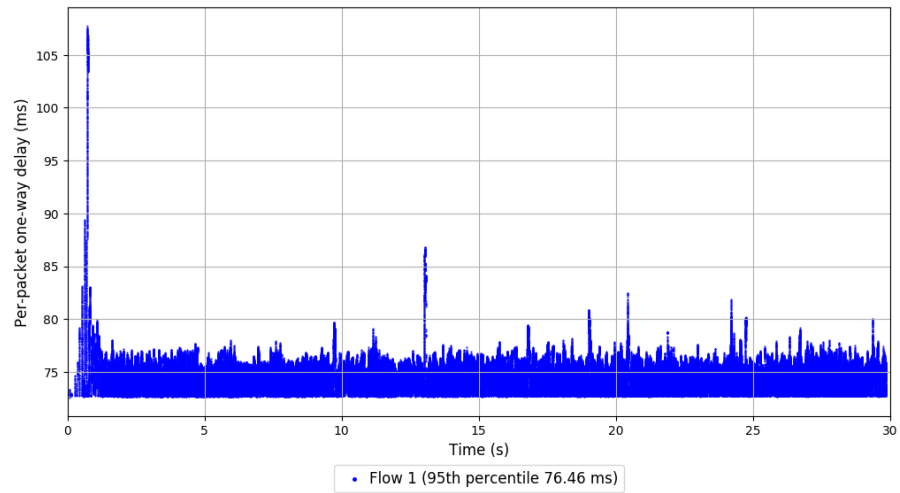
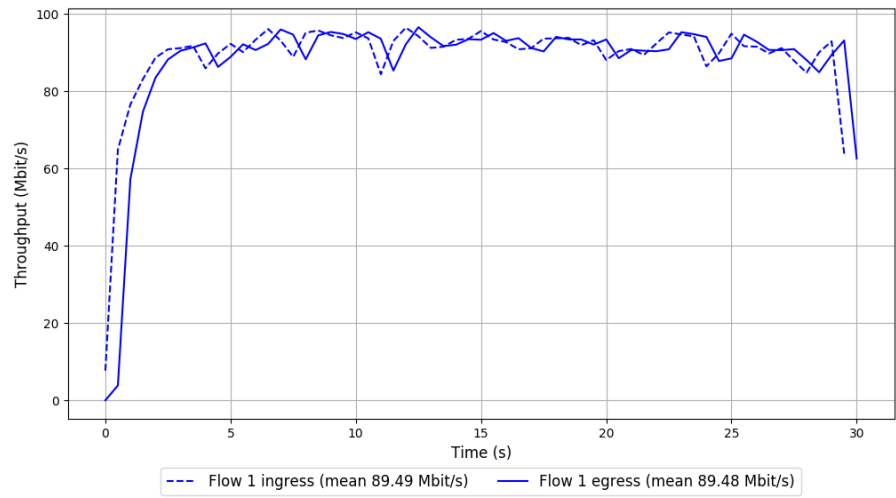
-- Flow 1:

Average throughput: 89.48 Mbit/s

95th percentile per-packet one-way delay: 76.461 ms

Loss rate: 0.28%

## Run 5: Report of Indigo — Data Link



Run 1: Statistics of Indigo-MusesC3

Start at: 2019-02-05 13:16:47

End at: 2019-02-05 13:17:17

Local clock offset: 0.129 ms

Remote clock offset: -7.88 ms

# Below is generated by plot.py at 2019-02-05 15:16:23

# Datalink statistics

-- Total of 1 flow:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 74.883 ms

Loss rate: 0.29%

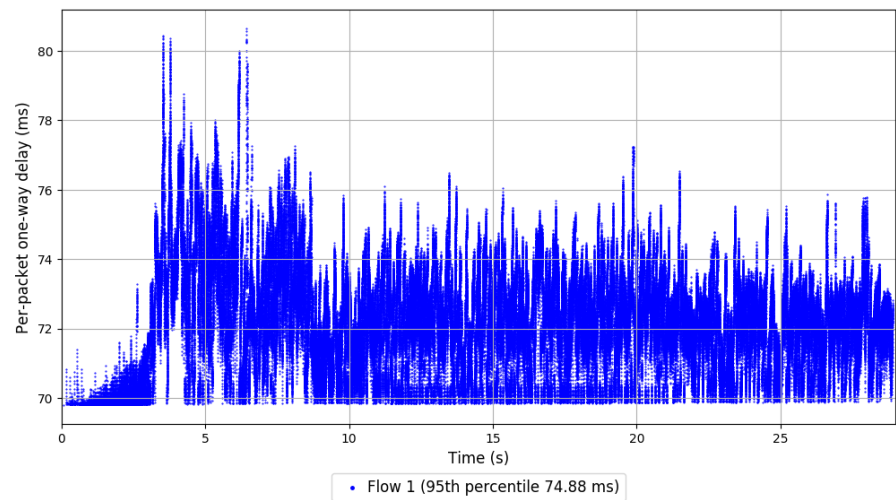
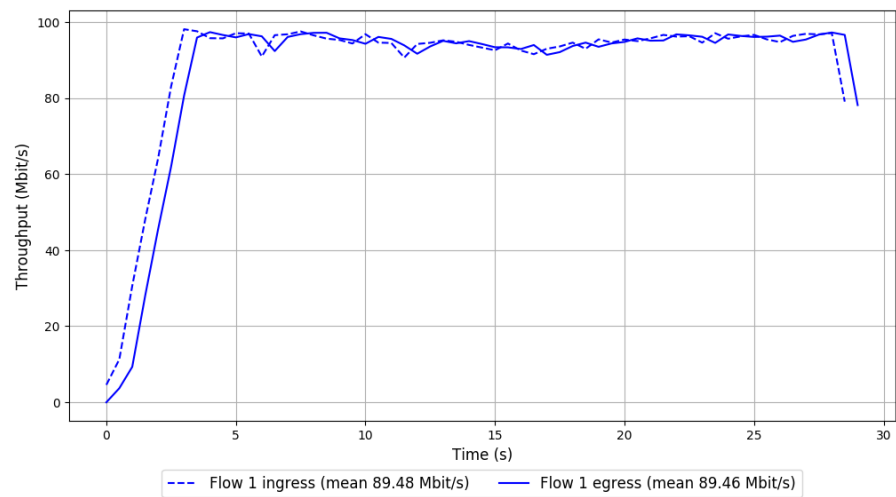
-- Flow 1:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 74.883 ms

Loss rate: 0.29%

Run 1: Report of Indigo-MusesC3 — Data Link

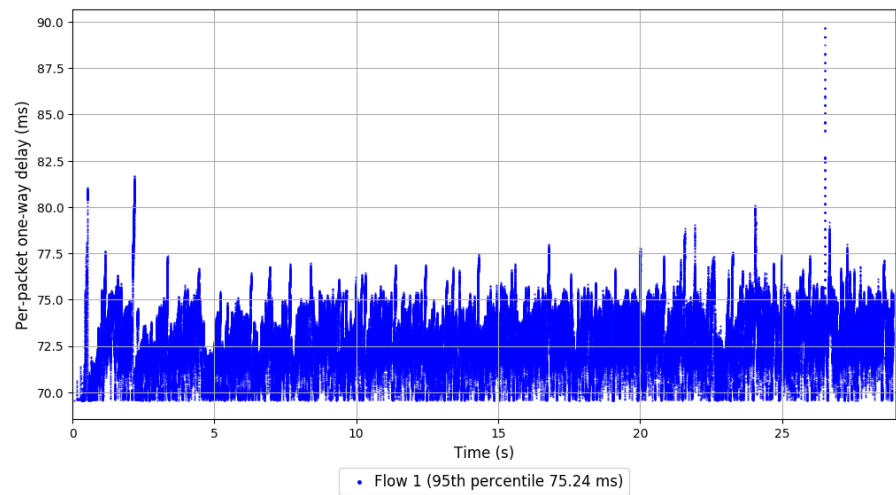
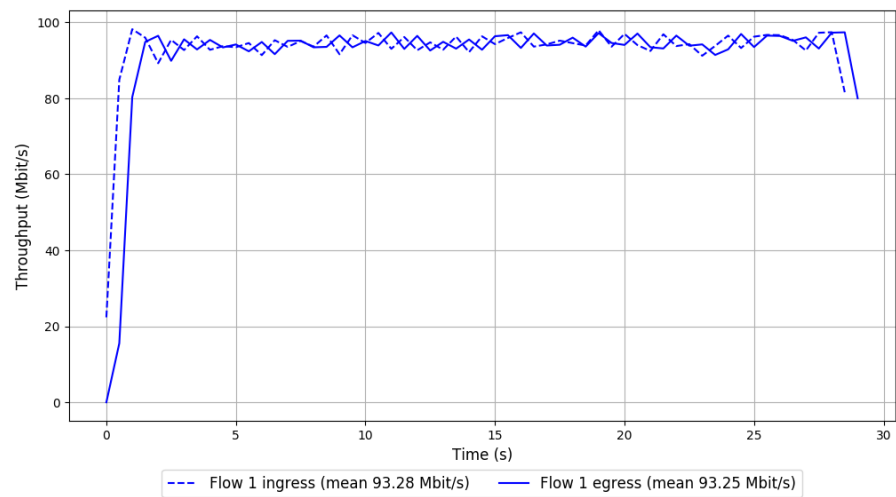


Run 2: Statistics of Indigo-MusesC3

Start at: 2019-02-05 13:44:39  
End at: 2019-02-05 13:45:09  
Local clock offset: 0.036 ms  
Remote clock offset: -7.004 ms

# Below is generated by plot.py at 2019-02-05 15:16:47  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 93.25 Mbit/s  
95th percentile per-packet one-way delay: 75.241 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 93.25 Mbit/s  
95th percentile per-packet one-way delay: 75.241 ms  
Loss rate: 0.29%

Run 2: Report of Indigo-MusesC3 — Data Link



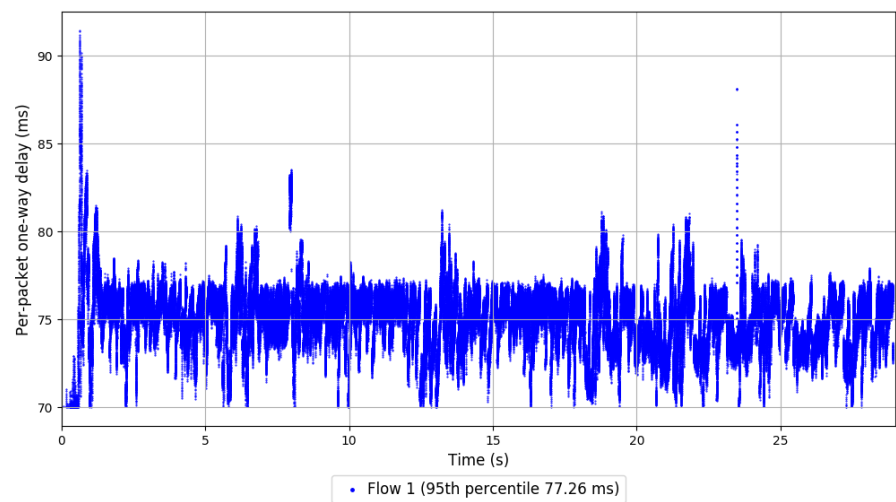
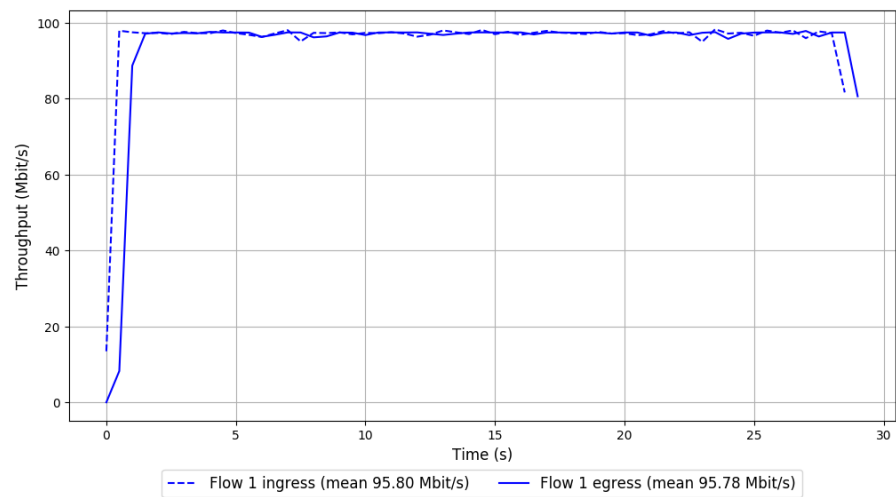


Run 3: Statistics of Indigo-MusesC3

Start at: 2019-02-05 14:12:33  
End at: 2019-02-05 14:13:03  
Local clock offset: -0.534 ms  
Remote clock offset: -7.605 ms

# Below is generated by plot.py at 2019-02-05 15:16:54  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 77.263 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 95.78 Mbit/s  
95th percentile per-packet one-way delay: 77.263 ms  
Loss rate: 0.28%

Run 3: Report of Indigo-MusesC3 — Data Link

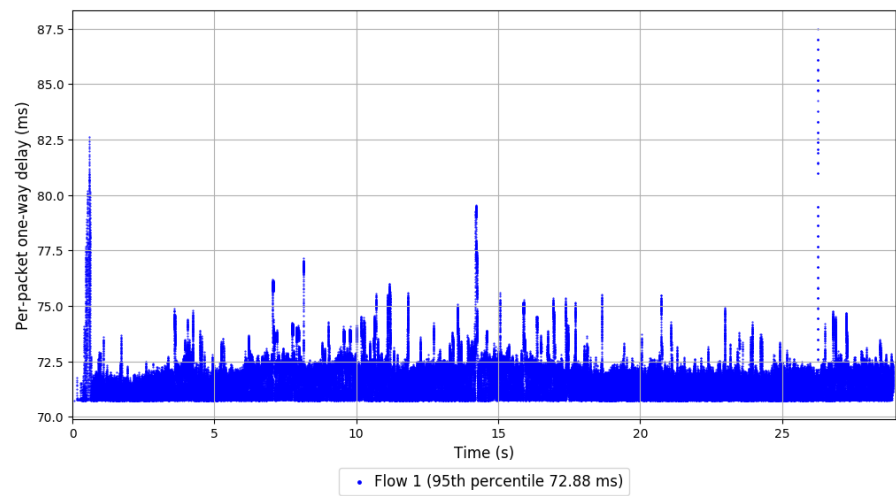
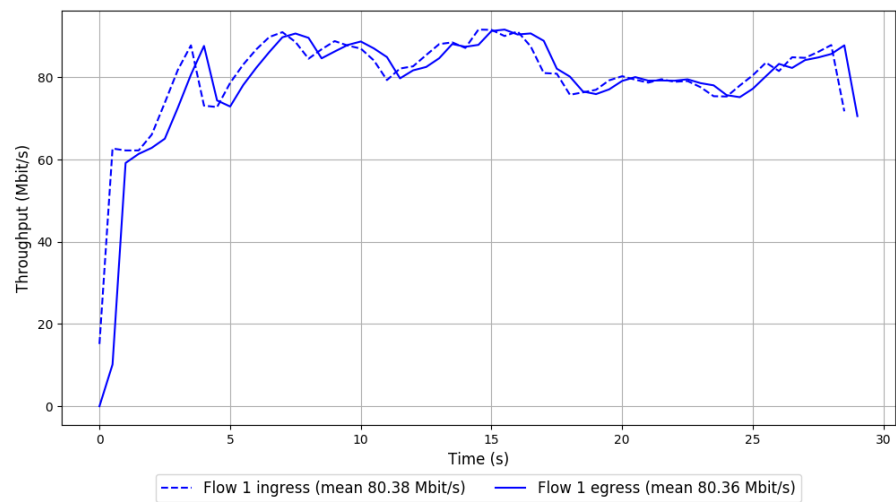


Run 4: Statistics of Indigo-MusesC3

Start at: 2019-02-05 14:40:31  
End at: 2019-02-05 14:41:01  
Local clock offset: 1.897 ms  
Remote clock offset: -6.802 ms

# Below is generated by plot.py at 2019-02-05 15:16:54  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 80.36 Mbit/s  
95th percentile per-packet one-way delay: 72.884 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 80.36 Mbit/s  
95th percentile per-packet one-way delay: 72.884 ms  
Loss rate: 0.30%

Run 4: Report of Indigo-MusesC3 — Data Link

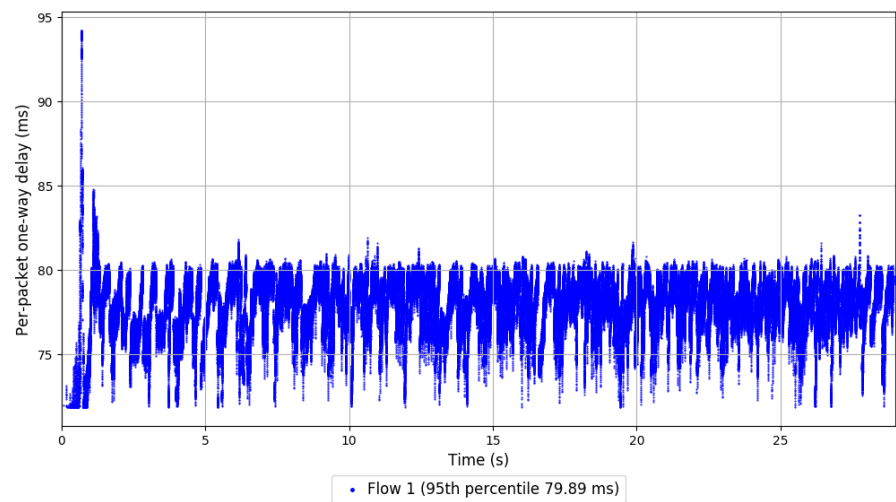
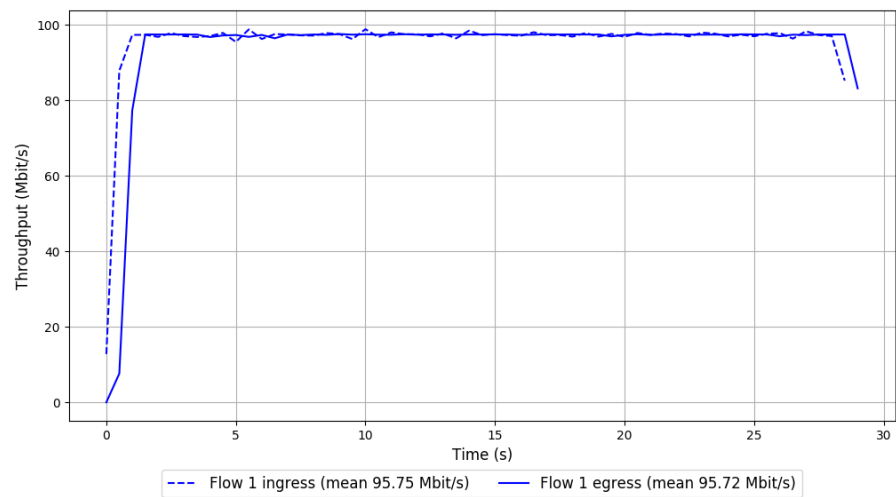


Run 5: Statistics of Indigo-MusesC3

Start at: 2019-02-05 15:07:26  
End at: 2019-02-05 15:07:56  
Local clock offset: -0.658 ms  
Remote clock offset: -5.914 ms

# Below is generated by plot.py at 2019-02-05 15:17:11  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 95.72 Mbit/s  
95th percentile per-packet one-way delay: 79.886 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 95.72 Mbit/s  
95th percentile per-packet one-way delay: 79.886 ms  
Loss rate: 0.31%

Run 5: Report of Indigo-MusesC3 — Data Link

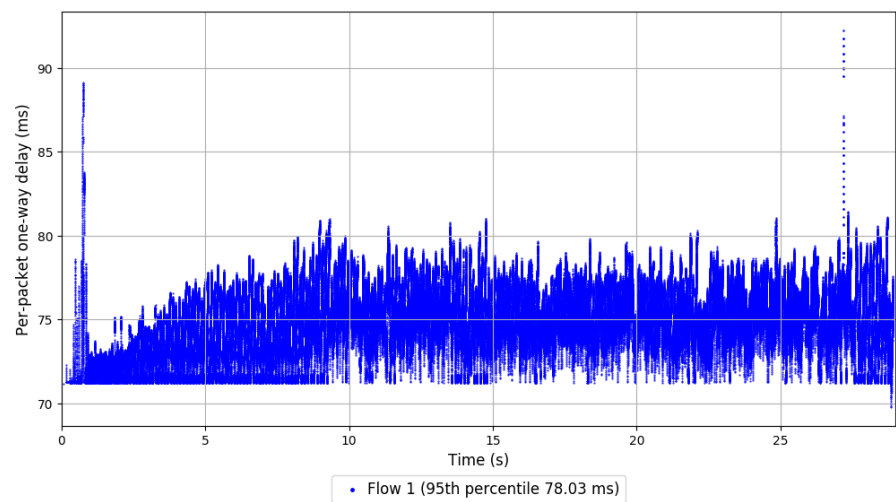
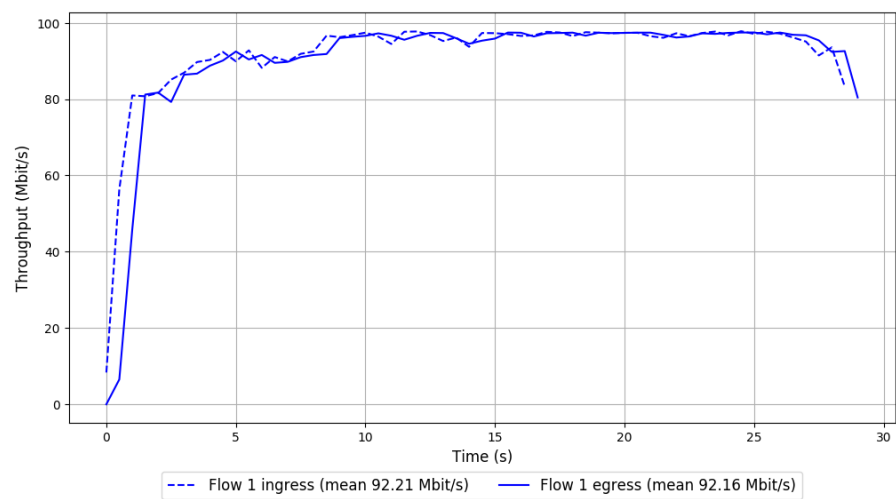


Run 1: Statistics of Indigo-MusesC5

Start at: 2019-02-05 13:11:51  
End at: 2019-02-05 13:12:21  
Local clock offset: 0.663 ms  
Remote clock offset: -6.505 ms

# Below is generated by plot.py at 2019-02-05 15:17:11  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 92.16 Mbit/s  
95th percentile per-packet one-way delay: 78.027 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 92.16 Mbit/s  
95th percentile per-packet one-way delay: 78.027 ms  
Loss rate: 0.32%

Run 1: Report of Indigo-MusesC5 — Data Link





Run 2: Statistics of Indigo-MusesC5

Start at: 2019-02-05 13:39:44

End at: 2019-02-05 13:40:14

Local clock offset: -0.23 ms

Remote clock offset: -8.501 ms

# Below is generated by plot.py at 2019-02-05 15:17:16

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.96 Mbit/s

95th percentile per-packet one-way delay: 77.506 ms

Loss rate: 0.29%

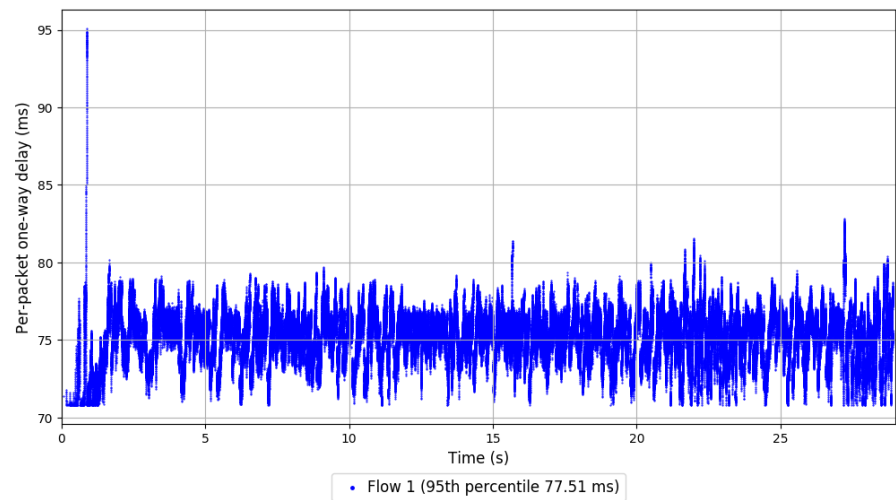
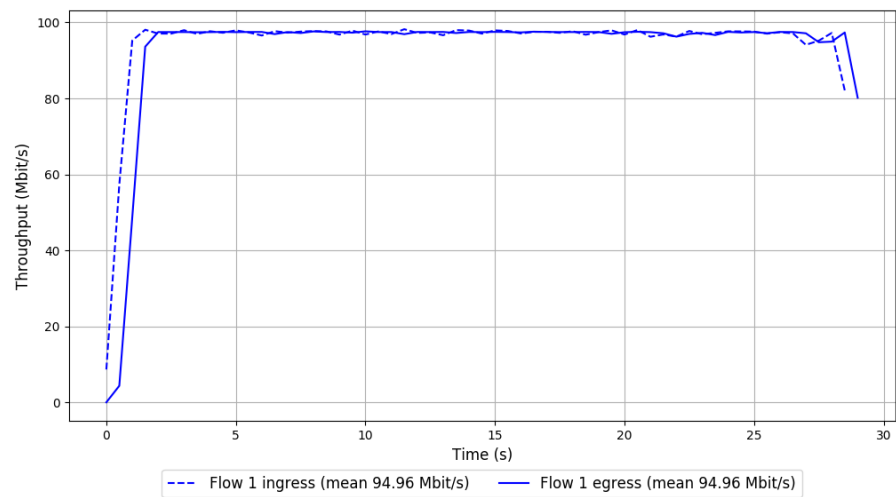
-- Flow 1:

Average throughput: 94.96 Mbit/s

95th percentile per-packet one-way delay: 77.506 ms

Loss rate: 0.29%

Run 2: Report of Indigo-MusesC5 — Data Link

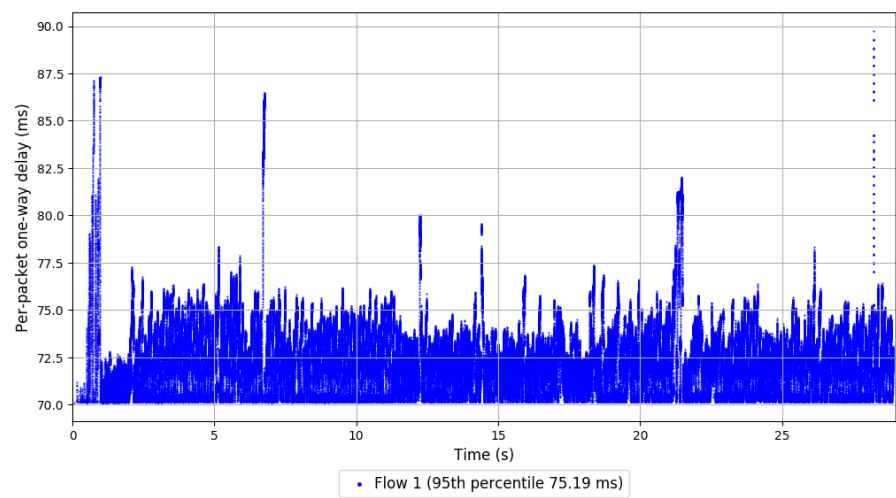
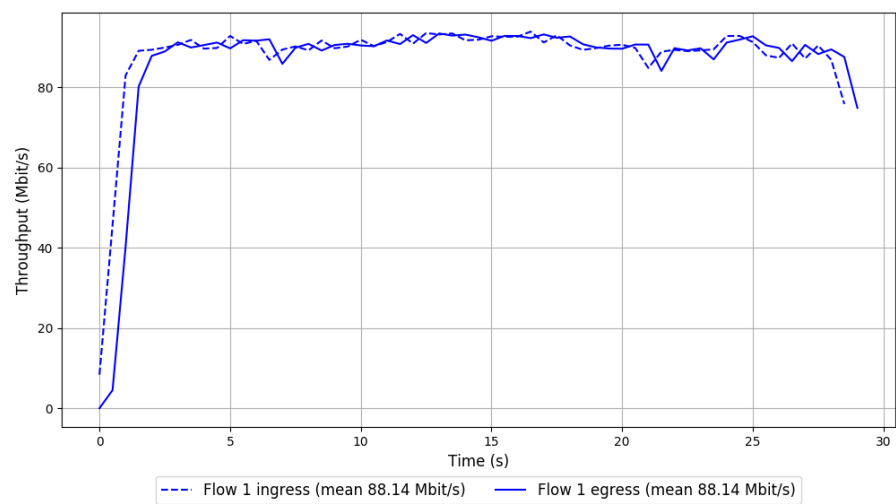


Run 3: Statistics of Indigo-MusesC5

Start at: 2019-02-05 14:07:20  
End at: 2019-02-05 14:07:50  
Local clock offset: -0.431 ms  
Remote clock offset: -7.675 ms

# Below is generated by plot.py at 2019-02-05 15:17:17  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 88.14 Mbit/s  
95th percentile per-packet one-way delay: 75.194 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 88.14 Mbit/s  
95th percentile per-packet one-way delay: 75.194 ms  
Loss rate: 0.27%

Run 3: Report of Indigo-MusesC5 — Data Link



Run 4: Statistics of Indigo-MusesC5

Start at: 2019-02-05 14:35:12

End at: 2019-02-05 14:35:42

Local clock offset: -0.447 ms

Remote clock offset: -7.53 ms

# Below is generated by plot.py at 2019-02-05 15:17:29

# Datalink statistics

-- Total of 1 flow:

Average throughput: 88.97 Mbit/s

95th percentile per-packet one-way delay: 76.902 ms

Loss rate: 0.30%

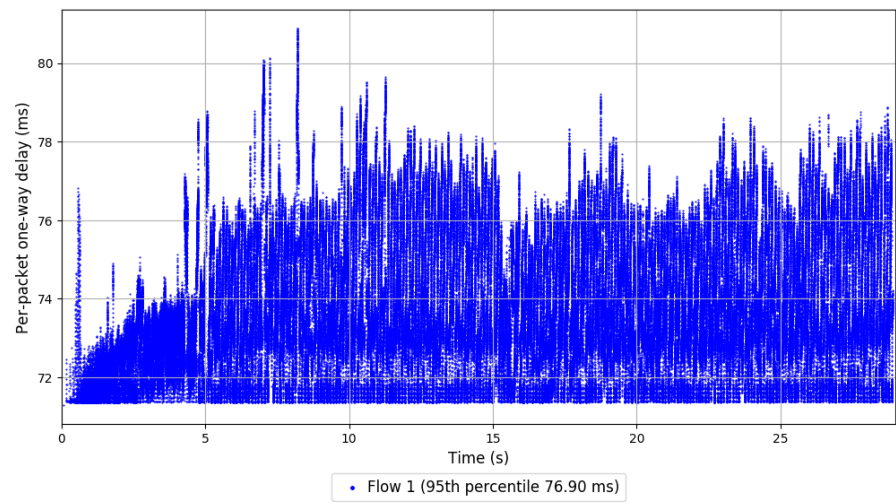
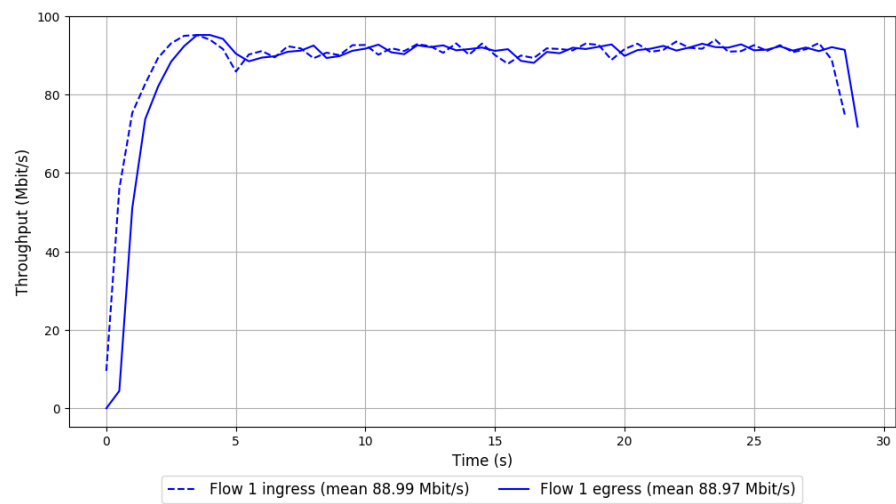
-- Flow 1:

Average throughput: 88.97 Mbit/s

95th percentile per-packet one-way delay: 76.902 ms

Loss rate: 0.30%

Run 4: Report of Indigo-MusesC5 — Data Link



Run 5: Statistics of Indigo-MusesC5

Start at: 2019-02-05 15:02:28

End at: 2019-02-05 15:02:58

Local clock offset: 1.263 ms

Remote clock offset: -6.903 ms

# Below is generated by plot.py at 2019-02-05 15:17:53

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.31 Mbit/s

95th percentile per-packet one-way delay: 81.228 ms

Loss rate: 0.31%

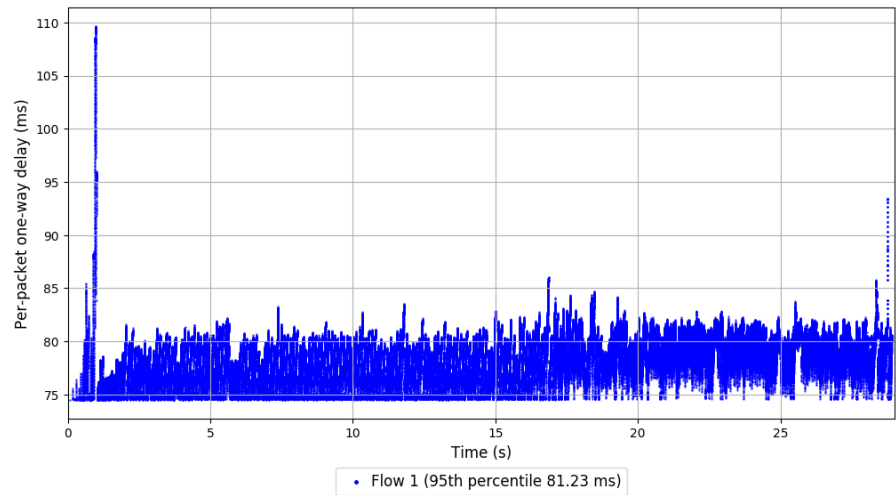
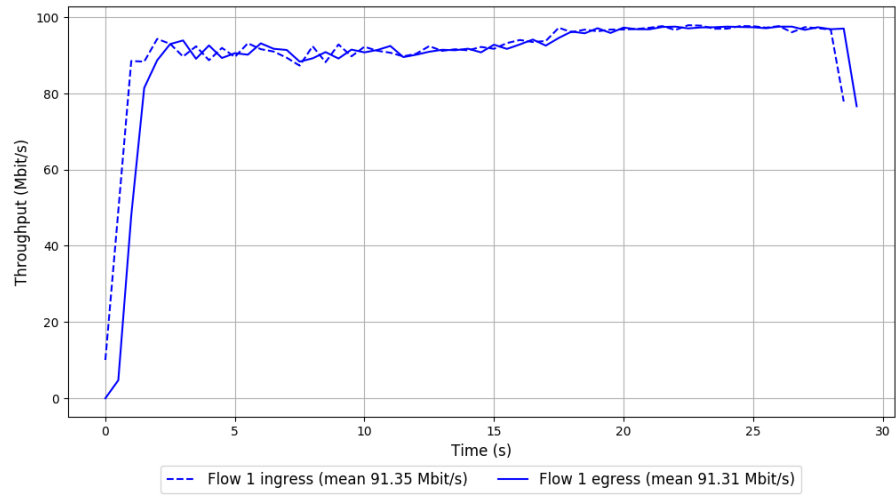
-- Flow 1:

Average throughput: 91.31 Mbit/s

95th percentile per-packet one-way delay: 81.228 ms

Loss rate: 0.31%

### Run 5: Report of Indigo-MusesC5 — Data Link





Run 1: Statistics of Indigo-MusesD

Start at: 2019-02-05 12:55:01

End at: 2019-02-05 12:55:31

Local clock offset: 0.98 ms

Remote clock offset: -31.848 ms

# Below is generated by plot.py at 2019-02-05 15:17:58

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.71 Mbit/s

95th percentile per-packet one-way delay: 101.461 ms

Loss rate: 0.29%

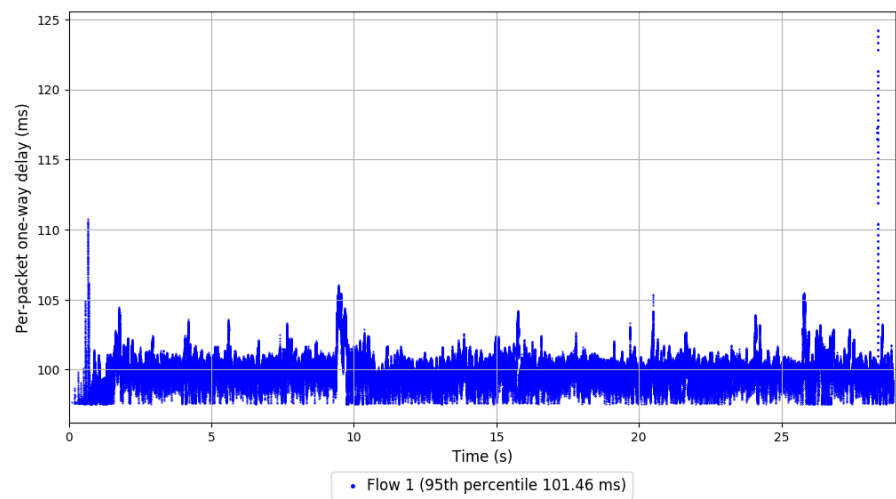
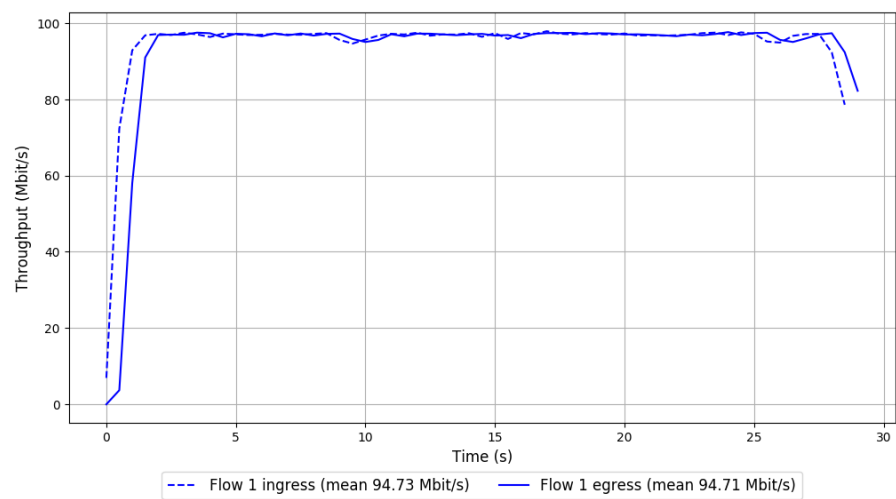
-- Flow 1:

Average throughput: 94.71 Mbit/s

95th percentile per-packet one-way delay: 101.461 ms

Loss rate: 0.29%

Run 1: Report of Indigo-MusesD — Data Link

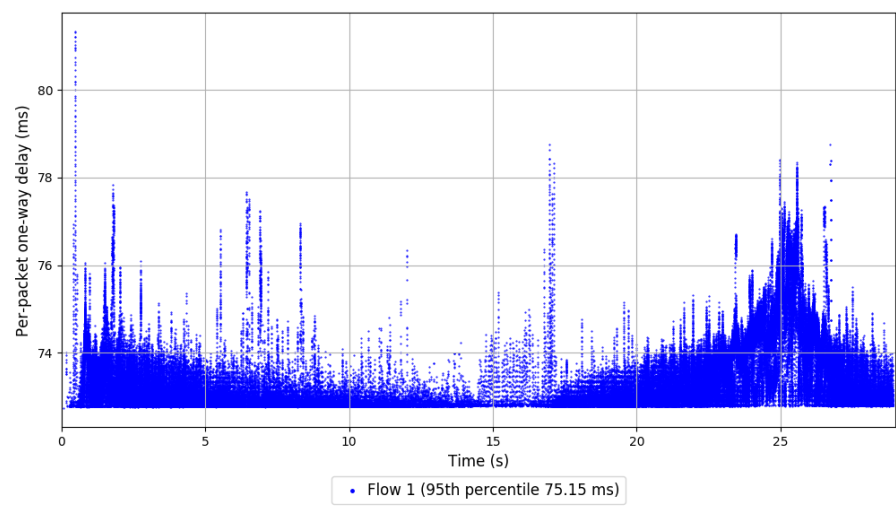
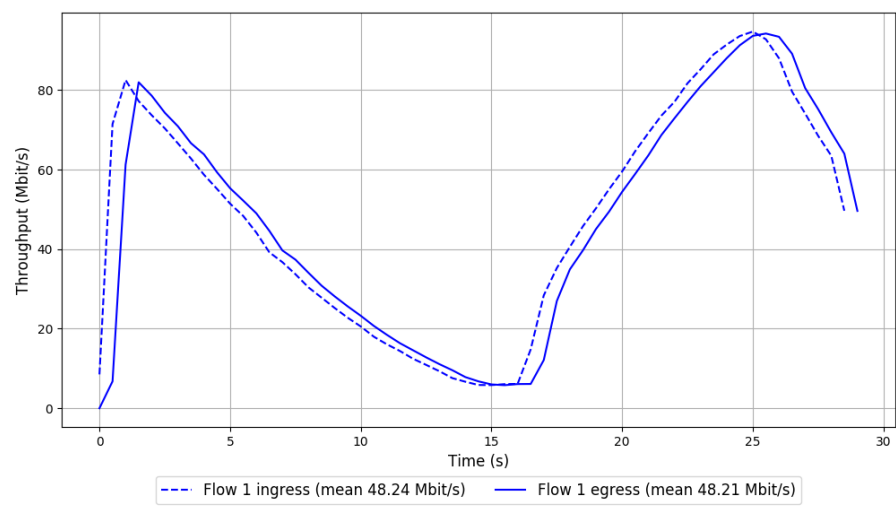


Run 2: Statistics of Indigo-MusesD

Start at: 2019-02-05 13:22:01  
End at: 2019-02-05 13:22:31  
Local clock offset: 1.41 ms  
Remote clock offset: -8.594 ms

# Below is generated by plot.py at 2019-02-05 15:17:58  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 48.21 Mbit/s  
95th percentile per-packet one-way delay: 75.148 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 48.21 Mbit/s  
95th percentile per-packet one-way delay: 75.148 ms  
Loss rate: 0.32%

Run 2: Report of Indigo-MusesD — Data Link

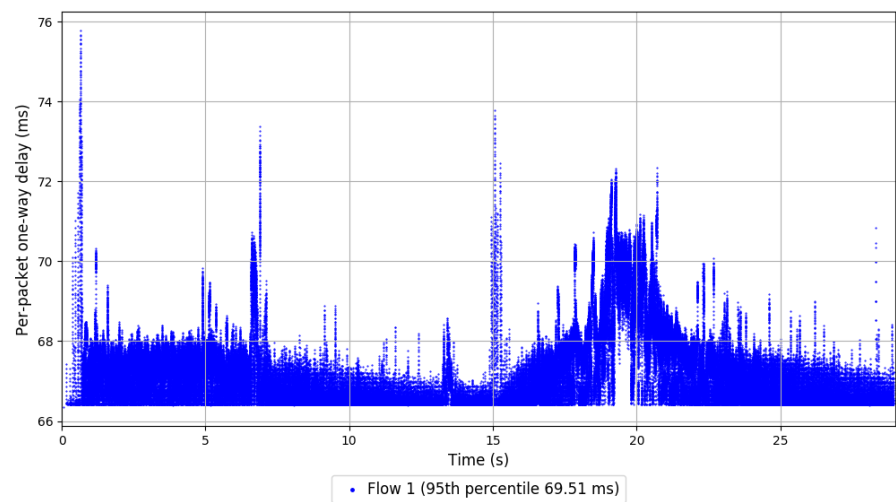
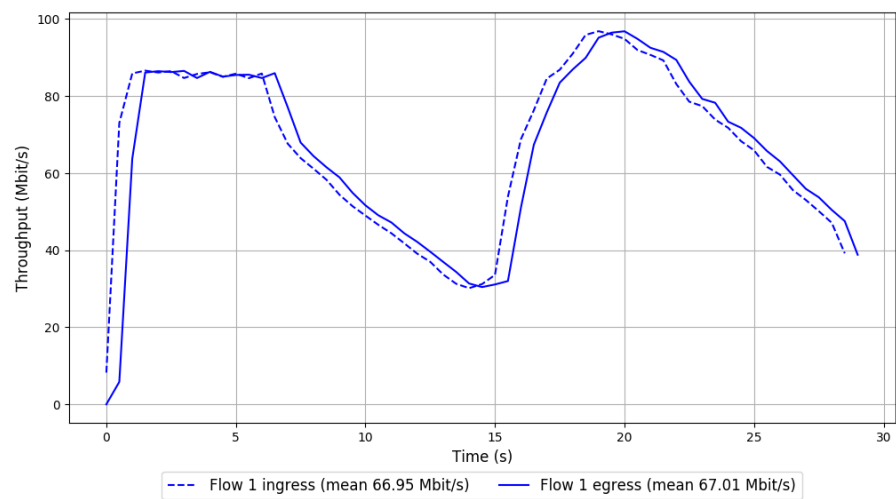


Run 3: Statistics of Indigo-MusesD

Start at: 2019-02-05 13:50:20  
End at: 2019-02-05 13:50:50  
Local clock offset: -0.995 ms  
Remote clock offset: -7.032 ms

# Below is generated by plot.py at 2019-02-05 15:17:58  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 67.01 Mbit/s  
95th percentile per-packet one-way delay: 69.513 ms  
Loss rate: 0.17%  
-- Flow 1:  
Average throughput: 67.01 Mbit/s  
95th percentile per-packet one-way delay: 69.513 ms  
Loss rate: 0.17%

Run 3: Report of Indigo-MusesD — Data Link

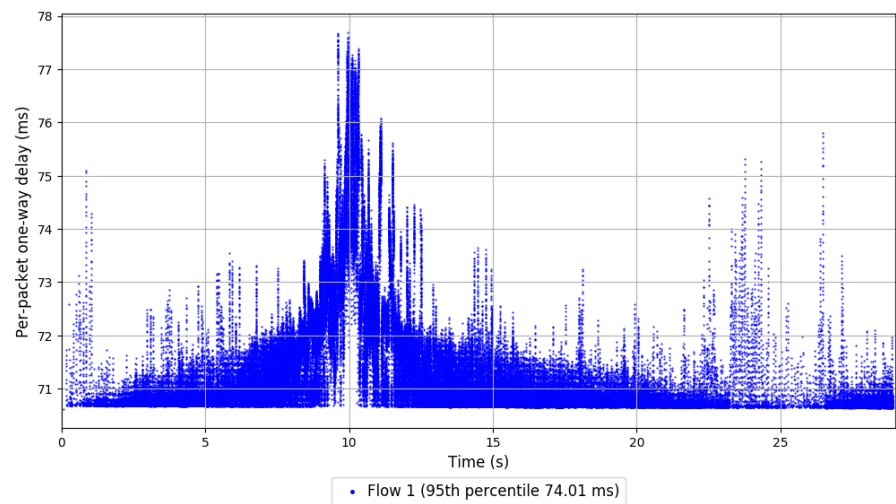
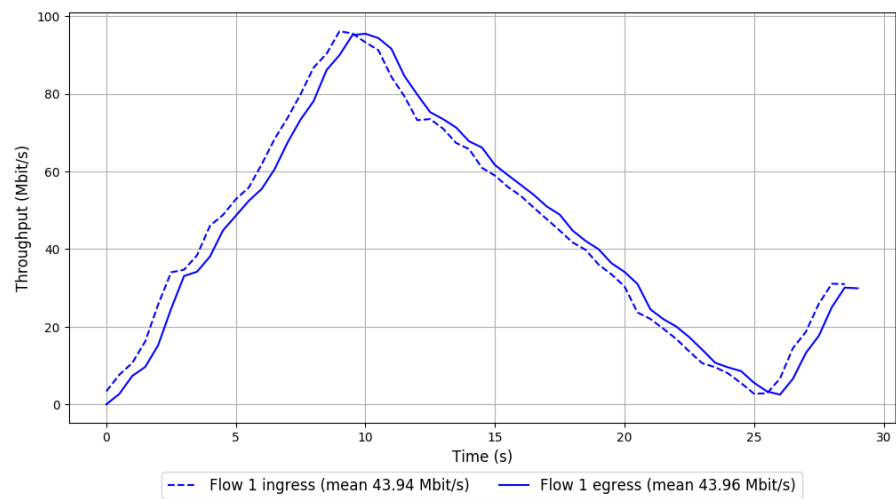


Run 4: Statistics of Indigo-MusesD

Start at: 2019-02-05 14:17:59  
End at: 2019-02-05 14:18:29  
Local clock offset: -0.885 ms  
Remote clock offset: -8.286 ms

# Below is generated by plot.py at 2019-02-05 15:17:58  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 43.96 Mbit/s  
95th percentile per-packet one-way delay: 74.008 ms  
Loss rate: 0.23%  
-- Flow 1:  
Average throughput: 43.96 Mbit/s  
95th percentile per-packet one-way delay: 74.008 ms  
Loss rate: 0.23%

Run 4: Report of Indigo-MusesD — Data Link





Run 5: Statistics of Indigo-MusesD

Start at: 2019-02-05 14:45:26

End at: 2019-02-05 14:45:56

Local clock offset: 0.761 ms

Remote clock offset: -7.75 ms

# Below is generated by plot.py at 2019-02-05 15:17:58

# Datalink statistics

-- Total of 1 flow:

Average throughput: 57.00 Mbit/s

95th percentile per-packet one-way delay: 73.259 ms

Loss rate: 0.25%

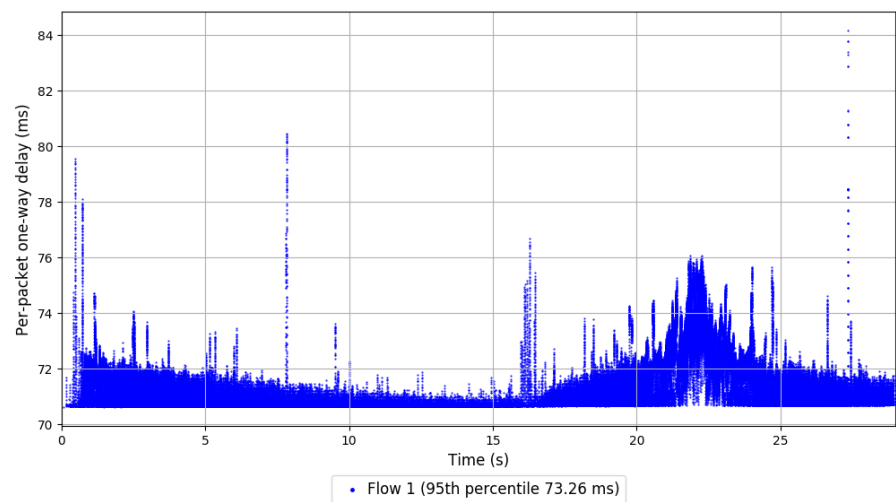
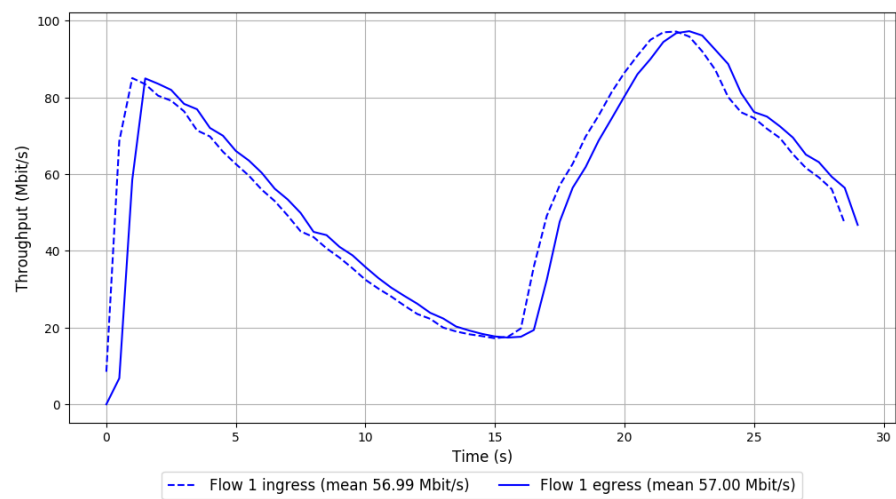
-- Flow 1:

Average throughput: 57.00 Mbit/s

95th percentile per-packet one-way delay: 73.259 ms

Loss rate: 0.25%

Run 5: Report of Indigo-MusesD — Data Link

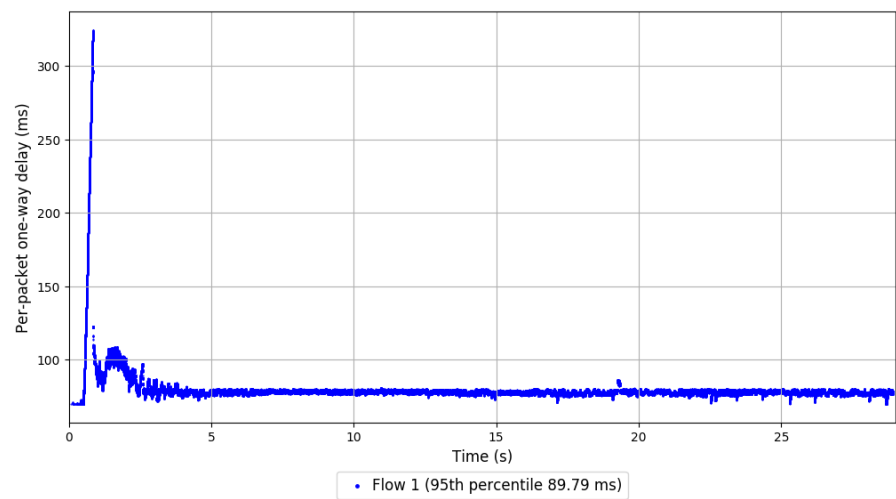
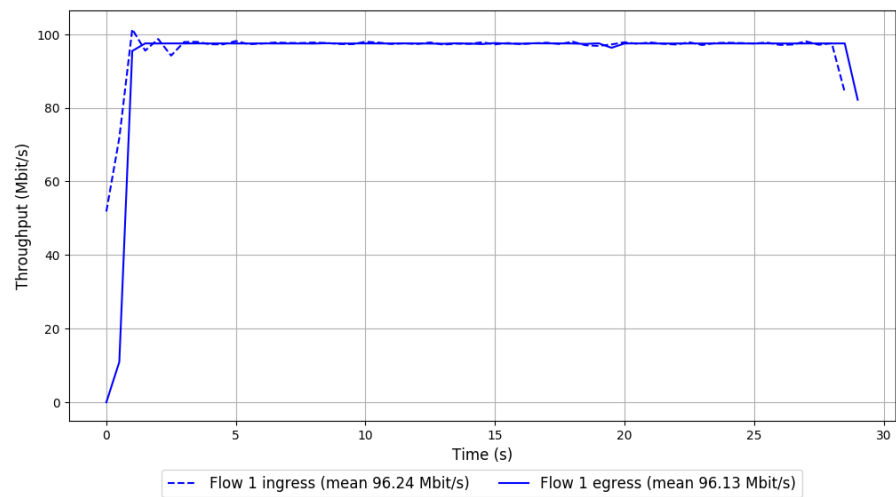


Run 1: Statistics of Indigo-MusesT

Start at: 2019-02-05 13:09:11  
End at: 2019-02-05 13:09:41  
Local clock offset: -1.237 ms  
Remote clock offset: -6.844 ms

# Below is generated by plot.py at 2019-02-05 15:18:25  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 96.13 Mbit/s  
95th percentile per-packet one-way delay: 89.789 ms  
Loss rate: 0.39%  
-- Flow 1:  
Average throughput: 96.13 Mbit/s  
95th percentile per-packet one-way delay: 89.789 ms  
Loss rate: 0.39%

Run 1: Report of Indigo-MusesT — Data Link



Run 2: Statistics of Indigo-MusesT

Start at: 2019-02-05 13:37:13

End at: 2019-02-05 13:37:43

Local clock offset: 1.137 ms

Remote clock offset: -7.823 ms

# Below is generated by plot.py at 2019-02-05 15:18:37

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.20 Mbit/s

95th percentile per-packet one-way delay: 93.010 ms

Loss rate: 0.35%

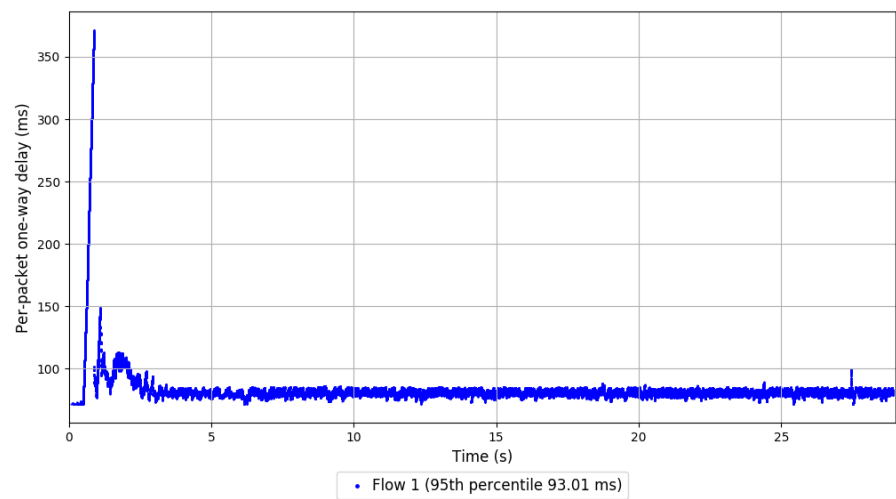
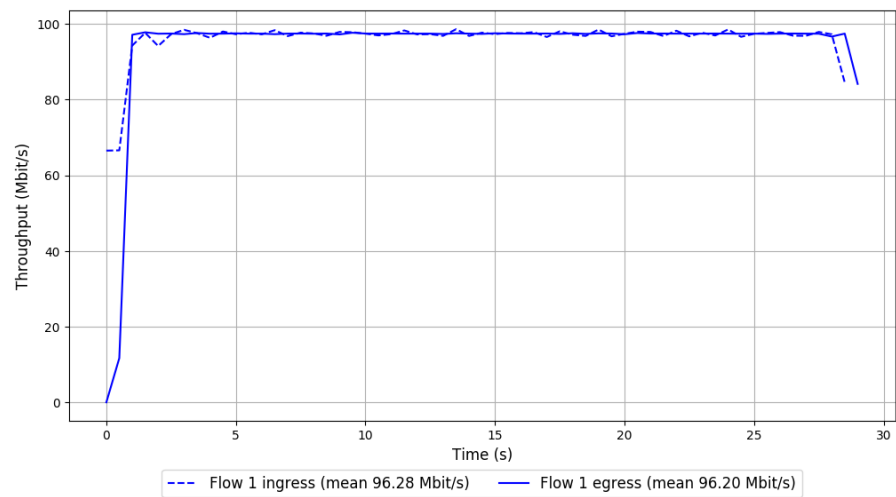
-- Flow 1:

Average throughput: 96.20 Mbit/s

95th percentile per-packet one-way delay: 93.010 ms

Loss rate: 0.35%

Run 2: Report of Indigo-MusesT — Data Link



Run 3: Statistics of Indigo-MusesT

Start at: 2019-02-05 14:04:48

End at: 2019-02-05 14:05:18

Local clock offset: -2.178 ms

Remote clock offset: -9.658 ms

# Below is generated by plot.py at 2019-02-05 15:18:40

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.97 Mbit/s

95th percentile per-packet one-way delay: 83.555 ms

Loss rate: 0.38%

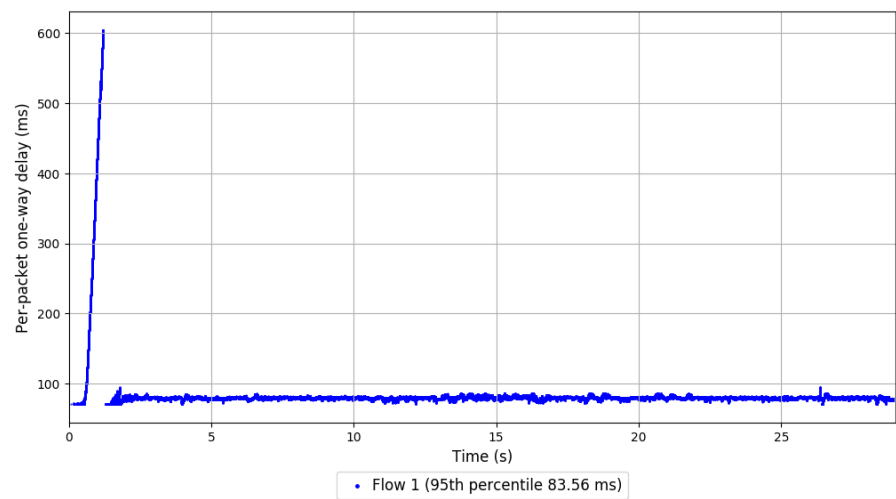
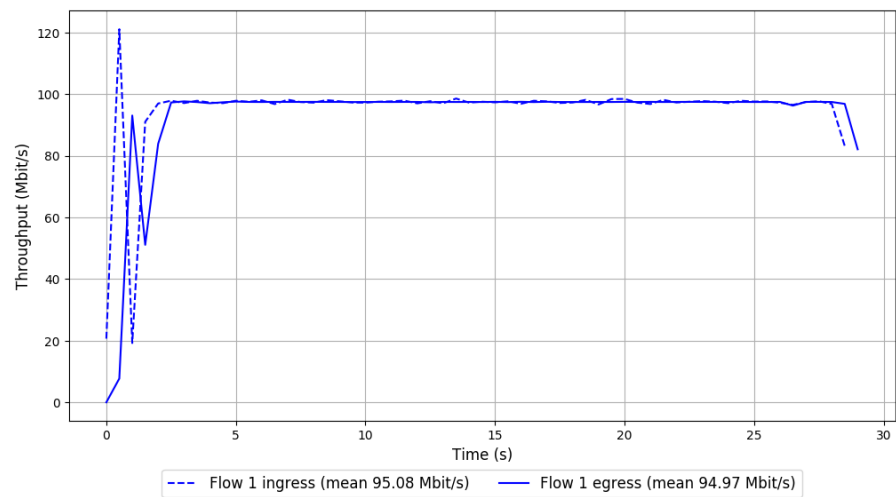
-- Flow 1:

Average throughput: 94.97 Mbit/s

95th percentile per-packet one-way delay: 83.555 ms

Loss rate: 0.38%

Run 3: Report of Indigo-MusesT — Data Link





Run 4: Statistics of Indigo-MusesT

Start at: 2019-02-05 14:32:29

End at: 2019-02-05 14:32:59

Local clock offset: -0.131 ms

Remote clock offset: -8.532 ms

# Below is generated by plot.py at 2019-02-05 15:18:52

# Datalink statistics

-- Total of 1 flow:

Average throughput: 96.18 Mbit/s

95th percentile per-packet one-way delay: 95.649 ms

Loss rate: 0.41%

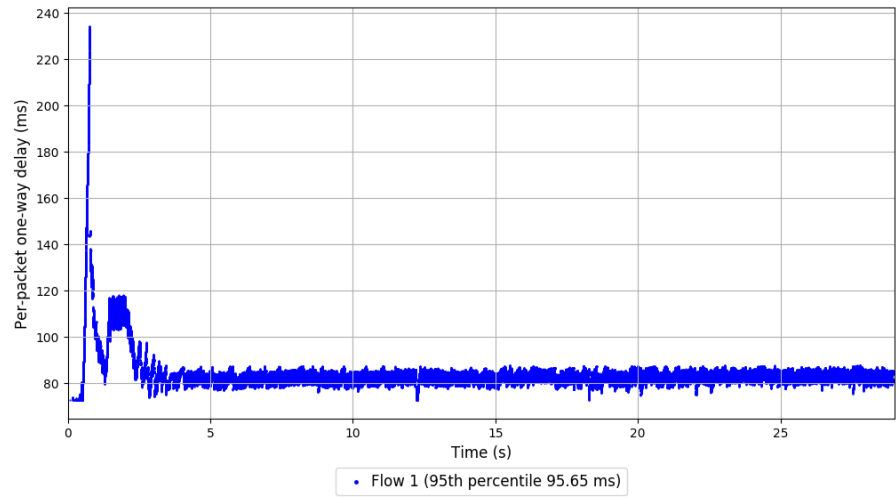
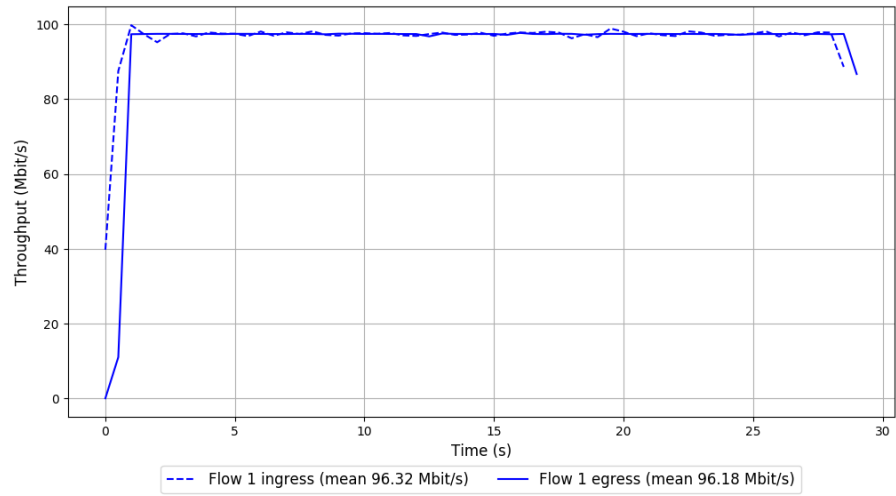
-- Flow 1:

Average throughput: 96.18 Mbit/s

95th percentile per-packet one-way delay: 95.649 ms

Loss rate: 0.41%

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



Run 5: Statistics of Indigo-MusesT

Start at: 2019-02-05 14:59:56

End at: 2019-02-05 15:00:26

Local clock offset: -3.185 ms

Remote clock offset: -6.752 ms

# Below is generated by plot.py at 2019-02-05 15:19:01

# Datalink statistics

-- Total of 1 flow:

Average throughput: 94.65 Mbit/s

95th percentile per-packet one-way delay: 80.260 ms

Loss rate: 0.31%

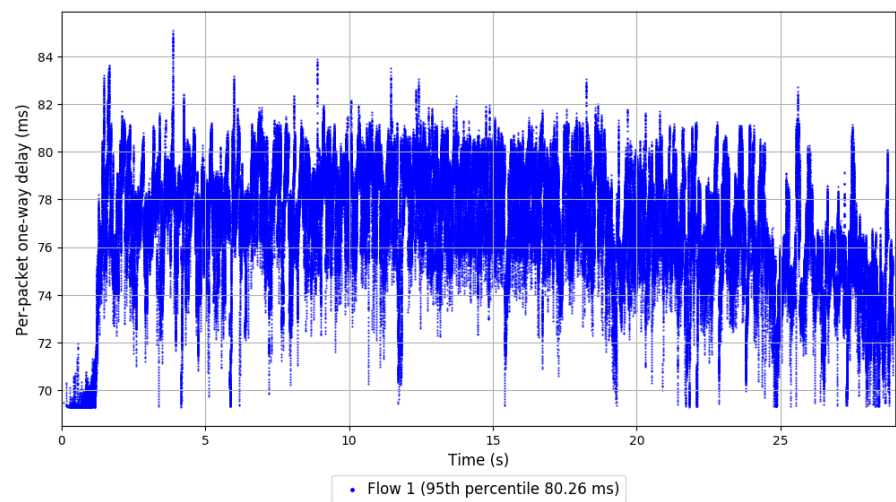
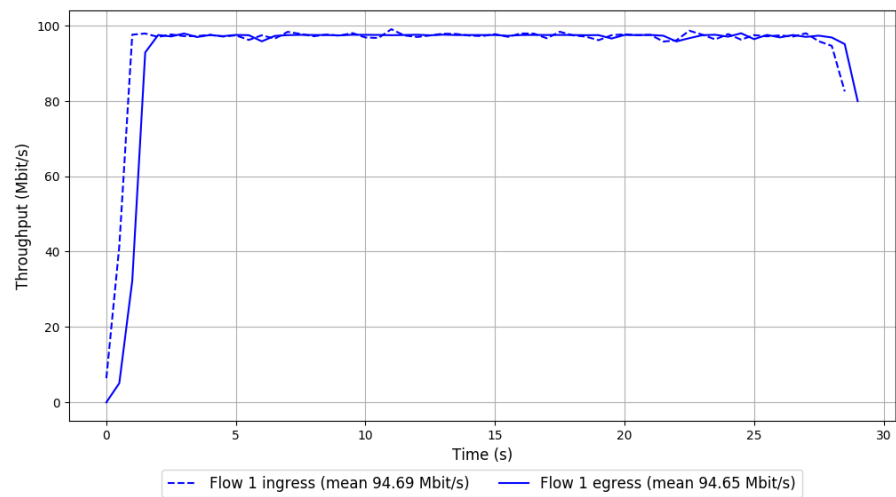
-- Flow 1:

Average throughput: 94.65 Mbit/s

95th percentile per-packet one-way delay: 80.260 ms

Loss rate: 0.31%

Run 5: Report of Indigo-MusesT — Data Link

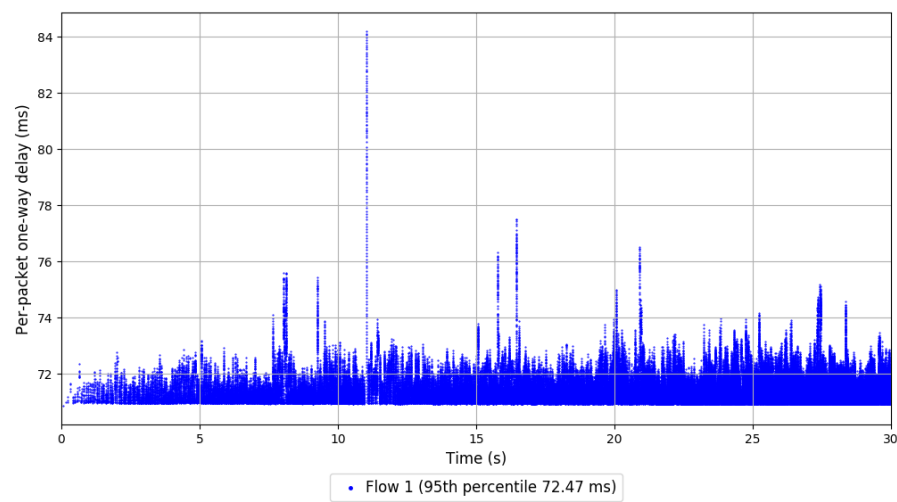
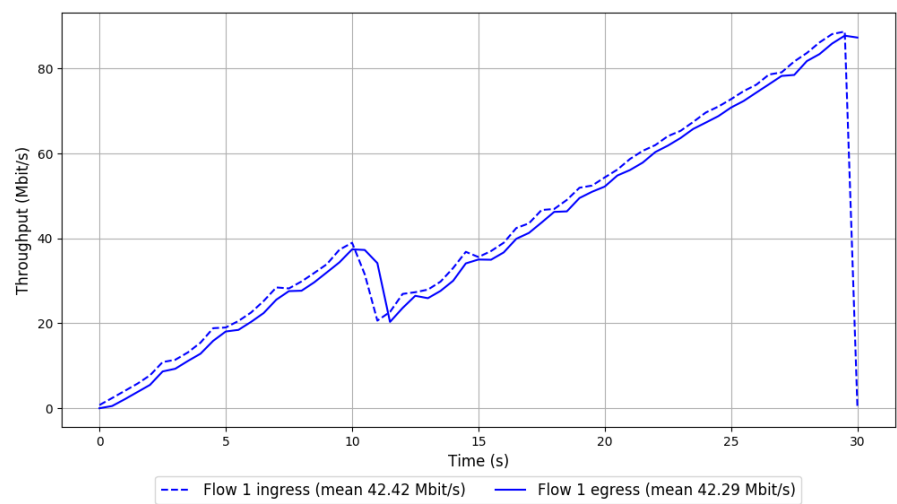


Run 1: Statistics of LEDBAT

Start at: 2019-02-05 13:05:10  
End at: 2019-02-05 13:05:40  
Local clock offset: 0.503 ms  
Remote clock offset: -6.092 ms

# Below is generated by plot.py at 2019-02-05 15:19:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 42.29 Mbit/s  
95th percentile per-packet one-way delay: 72.472 ms  
Loss rate: 0.57%  
-- Flow 1:  
Average throughput: 42.29 Mbit/s  
95th percentile per-packet one-way delay: 72.472 ms  
Loss rate: 0.57%

Run 1: Report of LEDBAT — Data Link

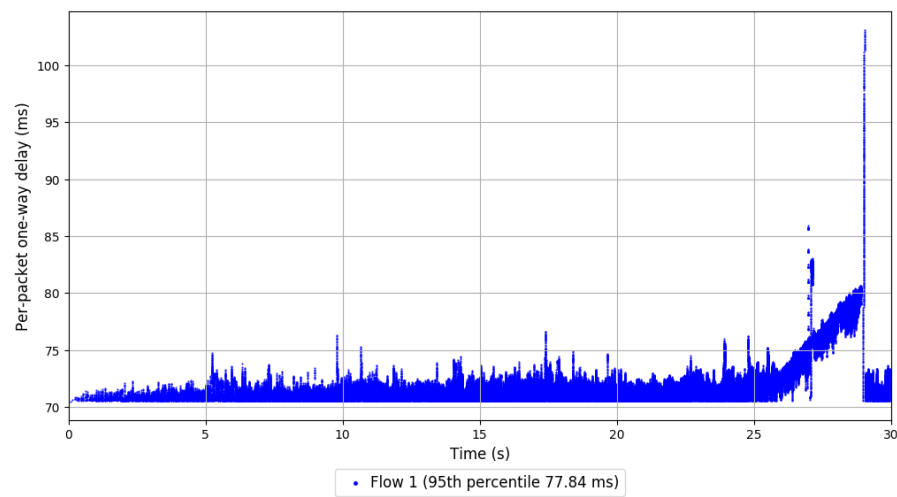
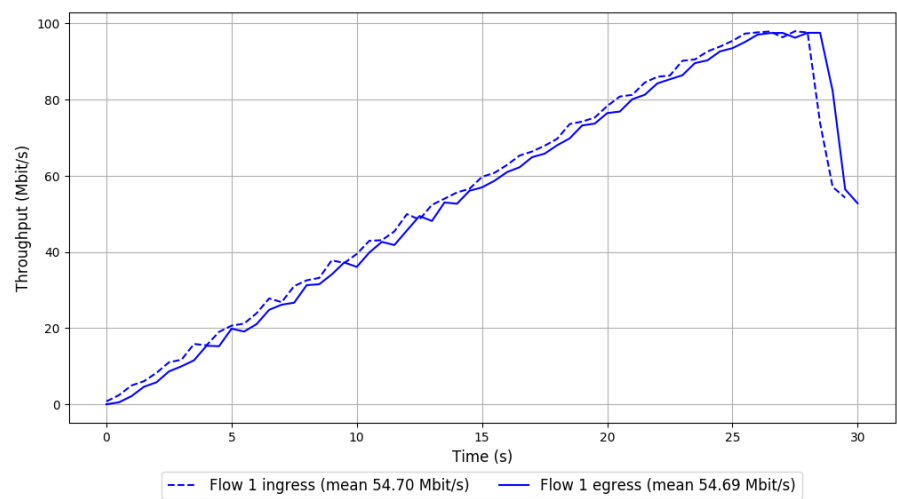


Run 2: Statistics of LEDBAT

Start at: 2019-02-05 13:32:48  
End at: 2019-02-05 13:33:18  
Local clock offset: 0.39 ms  
Remote clock offset: -7.575 ms

# Below is generated by plot.py at 2019-02-05 15:19:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 54.69 Mbit/s  
95th percentile per-packet one-way delay: 77.844 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 54.69 Mbit/s  
95th percentile per-packet one-way delay: 77.844 ms  
Loss rate: 0.28%

Run 2: Report of LEDBAT — Data Link



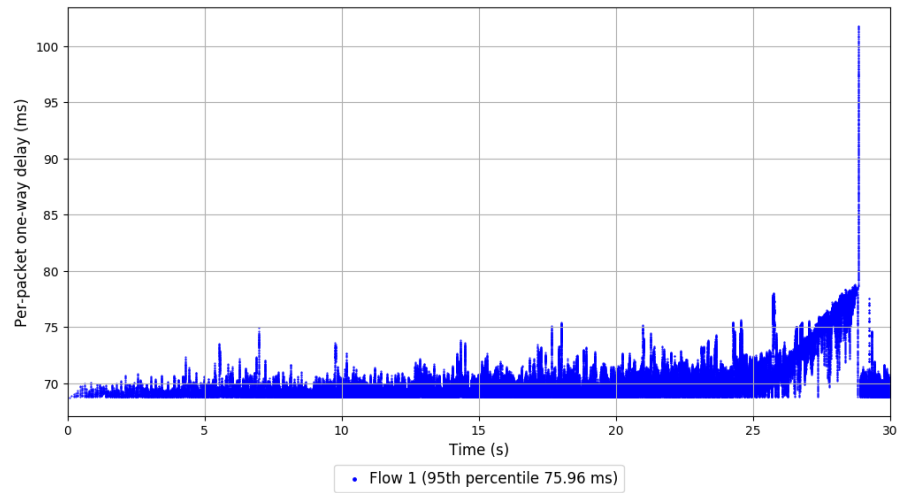
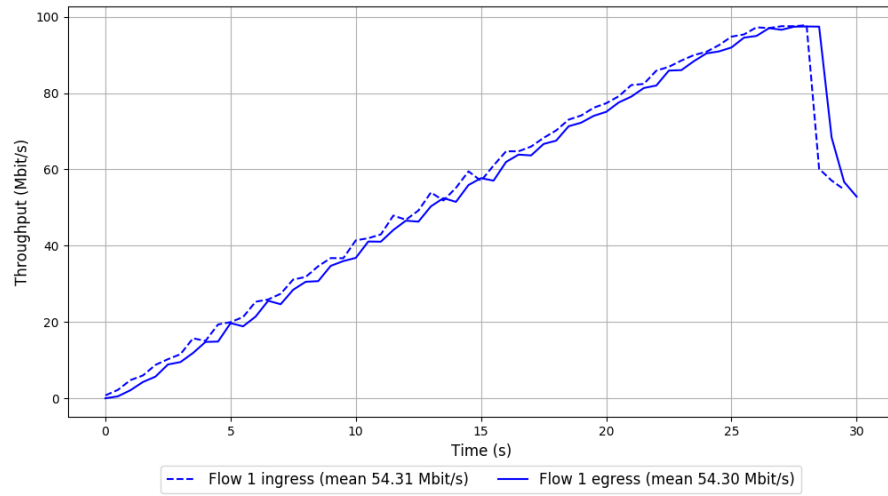


Run 3: Statistics of LEDBAT

Start at: 2019-02-05 14:00:20  
End at: 2019-02-05 14:00:50  
Local clock offset: -2.257 ms  
Remote clock offset: -8.284 ms

# Below is generated by plot.py at 2019-02-05 15:19:01  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 54.30 Mbit/s  
95th percentile per-packet one-way delay: 75.962 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 54.30 Mbit/s  
95th percentile per-packet one-way delay: 75.962 ms  
Loss rate: 0.28%

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

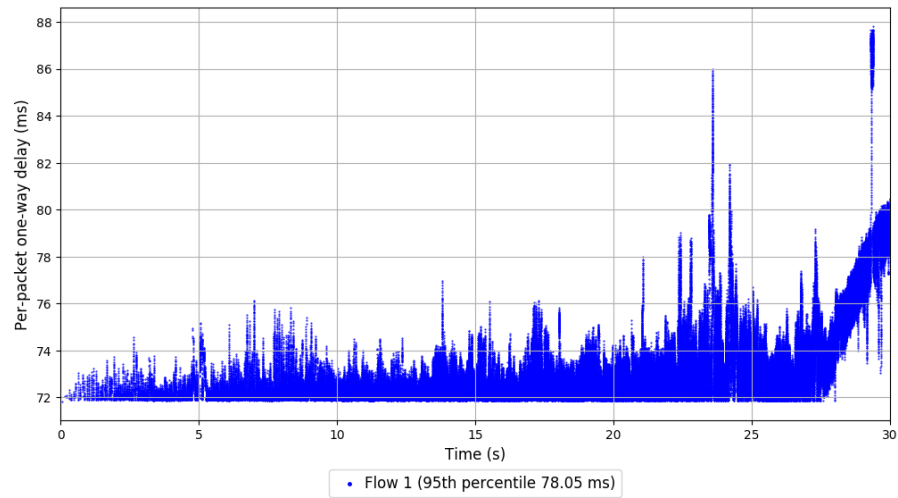
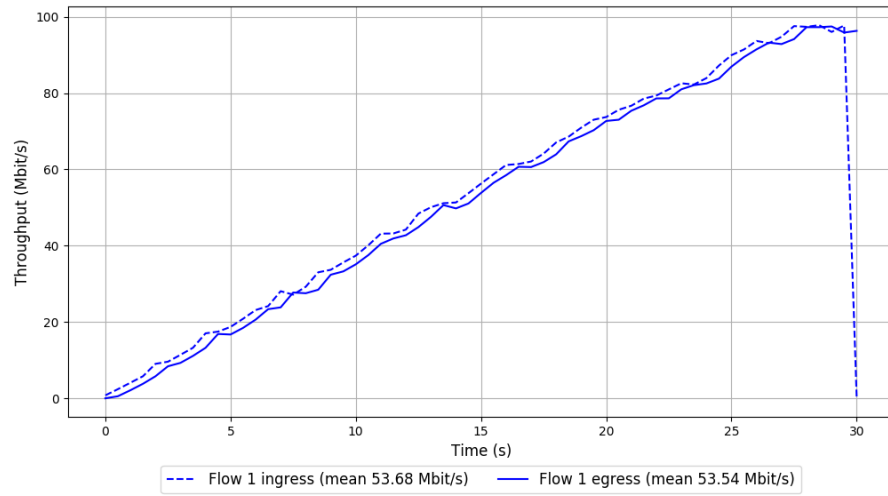


Run 4: Statistics of LEDBAT

Start at: 2019-02-05 14:28:20  
End at: 2019-02-05 14:28:50  
Local clock offset: 0.205 ms  
Remote clock offset: -7.239 ms

# Below is generated by plot.py at 2019-02-05 15:19:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 53.54 Mbit/s  
95th percentile per-packet one-way delay: 78.049 ms  
Loss rate: 0.52%  
-- Flow 1:  
Average throughput: 53.54 Mbit/s  
95th percentile per-packet one-way delay: 78.049 ms  
Loss rate: 0.52%

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

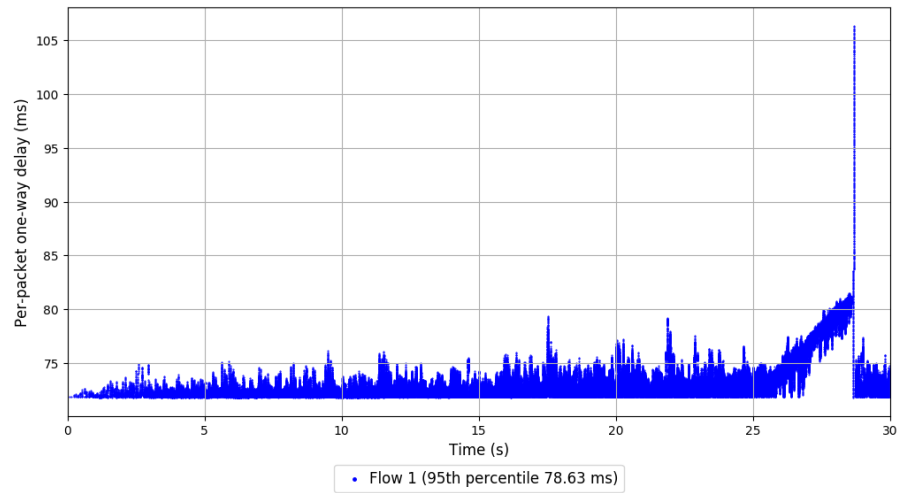
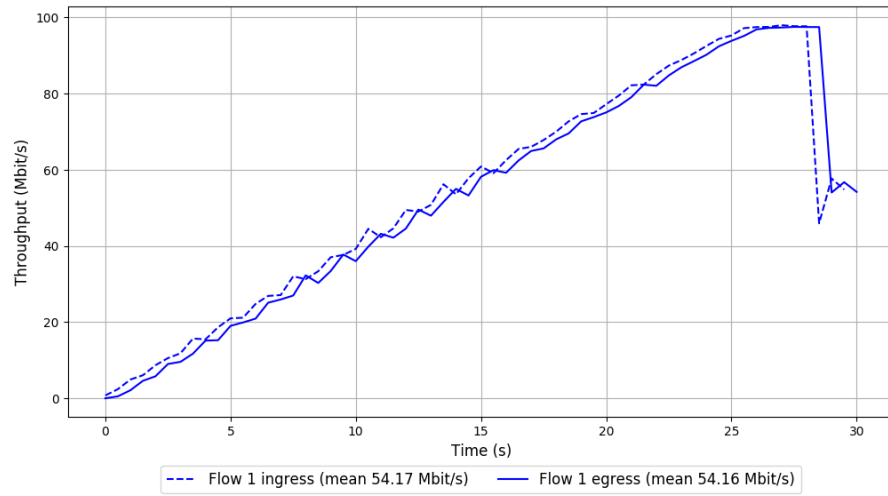


Run 5: Statistics of LEDBAT

Start at: 2019-02-05 14:55:33  
End at: 2019-02-05 14:56:03  
Local clock offset: 0.795 ms  
Remote clock offset: -7.794 ms

# Below is generated by plot.py at 2019-02-05 15:19:05  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 54.16 Mbit/s  
95th percentile per-packet one-way delay: 78.630 ms  
Loss rate: 0.28%  
-- Flow 1:  
Average throughput: 54.16 Mbit/s  
95th percentile per-packet one-way delay: 78.630 ms  
Loss rate: 0.28%

## Run 5: Report of LEDBAT — Data Link

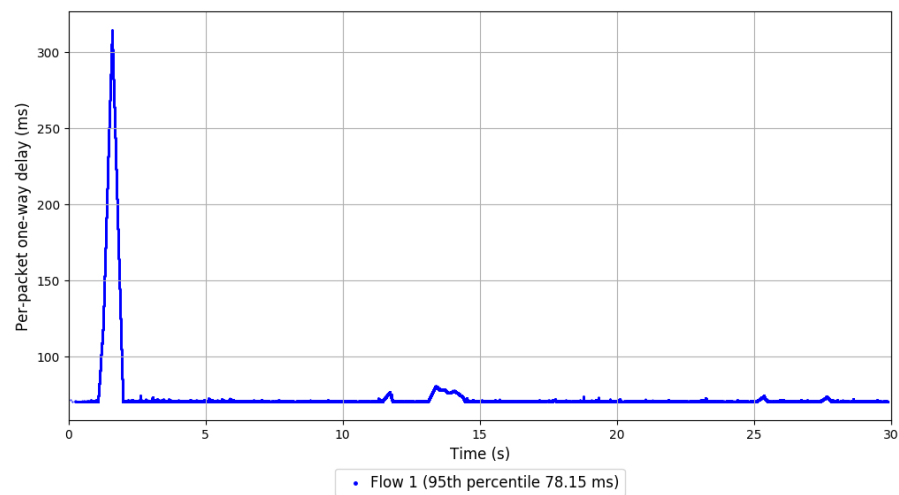
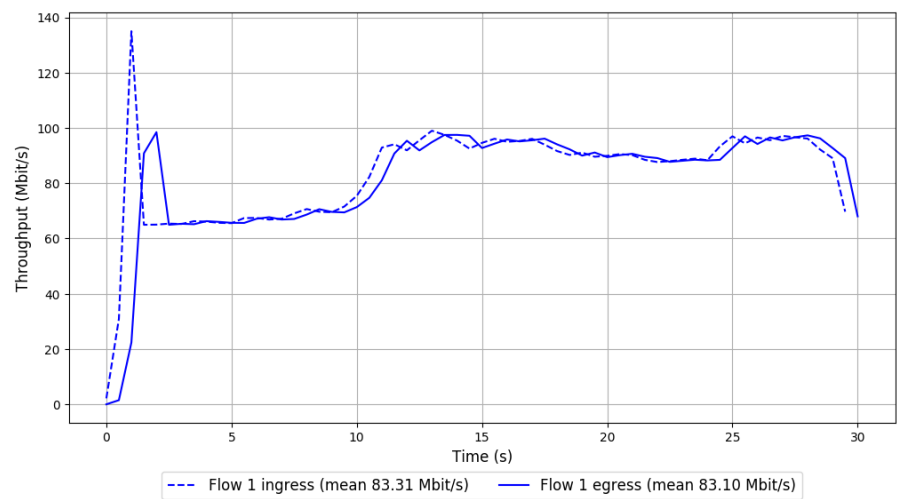


```
Run 1: Statistics of PCC-Allegro

Start at: 2019-02-05 12:52:31
End at: 2019-02-05 12:53:01
Local clock offset: -1.794 ms
Remote clock offset: -7.044 ms

# Below is generated by plot.py at 2019-02-05 15:19:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.10 Mbit/s
95th percentile per-packet one-way delay: 78.149 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 83.10 Mbit/s
95th percentile per-packet one-way delay: 78.149 ms
Loss rate: 0.51%
```

Run 1: Report of PCC-Allegro — Data Link





Run 2: Statistics of PCC-Allegro

Start at: 2019-02-05 13:19:36

End at: 2019-02-05 13:20:06

Local clock offset: 0.589 ms

Remote clock offset: -7.94 ms

# Below is generated by plot.py at 2019-02-05 15:19:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.10 Mbit/s

95th percentile per-packet one-way delay: 71.570 ms

Loss rate: 0.34%

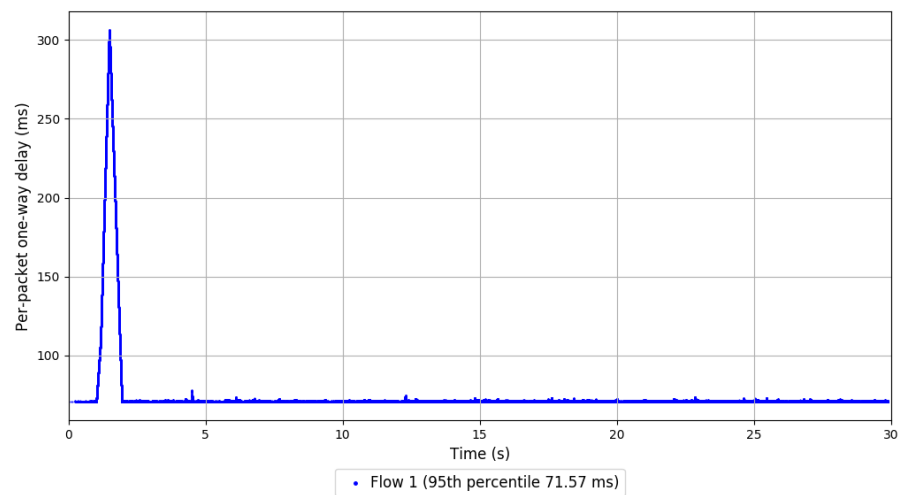
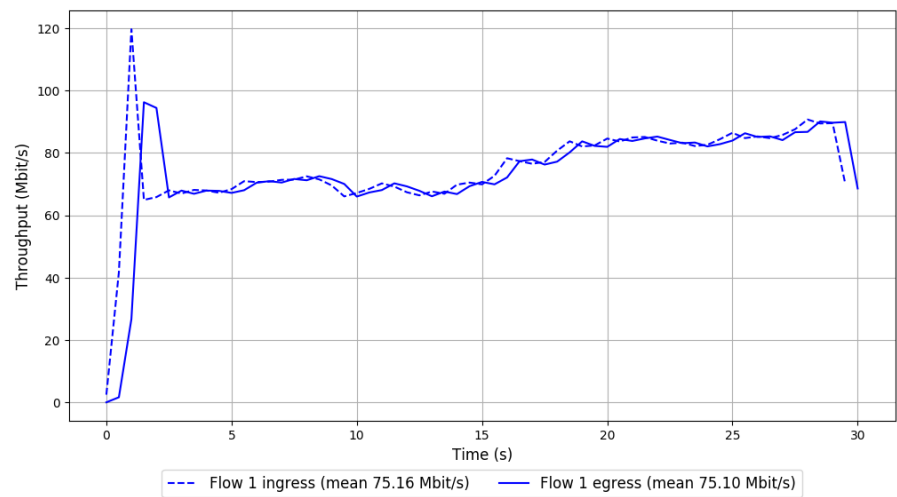
-- Flow 1:

Average throughput: 75.10 Mbit/s

95th percentile per-packet one-way delay: 71.570 ms

Loss rate: 0.34%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2019-02-05 13:47:38

End at: 2019-02-05 13:48:08

Local clock offset: -1.834 ms

Remote clock offset: -7.359 ms

# Below is generated by plot.py at 2019-02-05 15:19:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 75.86 Mbit/s

95th percentile per-packet one-way delay: 71.200 ms

Loss rate: 0.34%

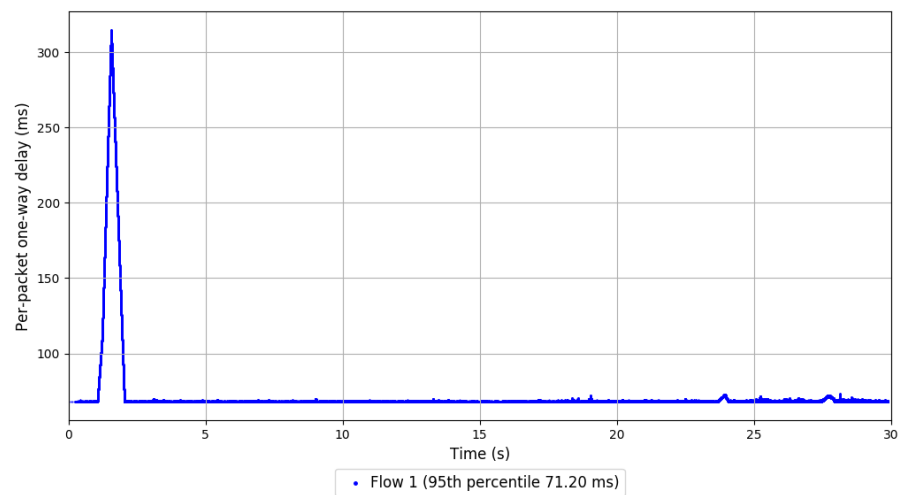
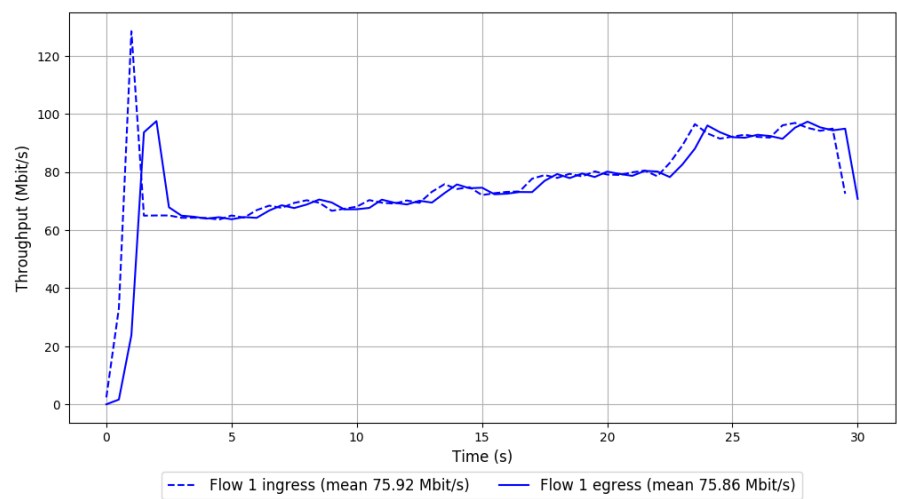
-- Flow 1:

Average throughput: 75.86 Mbit/s

95th percentile per-packet one-way delay: 71.200 ms

Loss rate: 0.34%

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

Start at: 2019-02-05 14:15:13

End at: 2019-02-05 14:15:43

Local clock offset: -3.582 ms

Remote clock offset: -13.621 ms

# Below is generated by plot.py at 2019-02-05 15:19:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 70.27 Mbit/s

95th percentile per-packet one-way delay: 73.781 ms

Loss rate: 0.30%

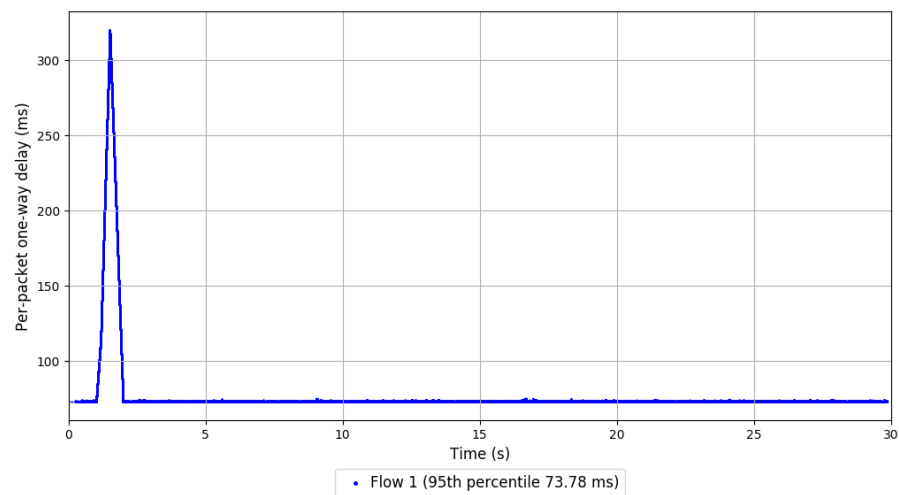
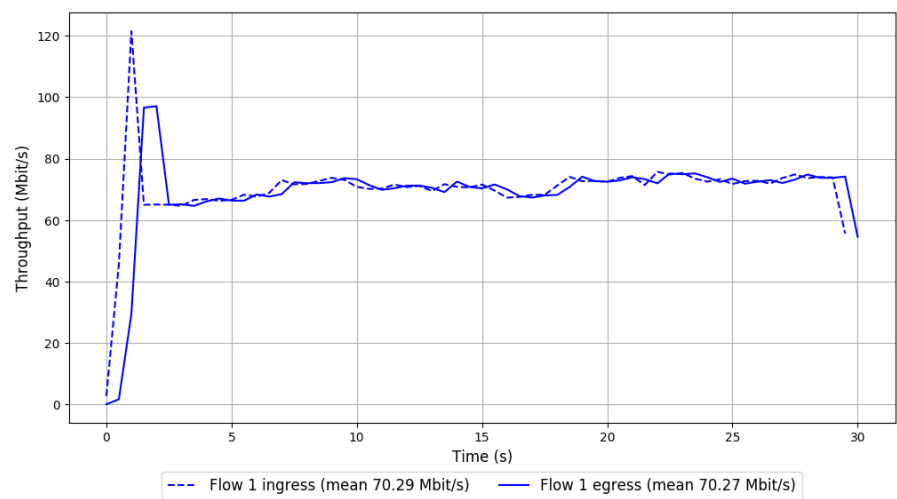
-- Flow 1:

Average throughput: 70.27 Mbit/s

95th percentile per-packet one-way delay: 73.781 ms

Loss rate: 0.30%

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

Start at: 2019-02-05 14:43:04

End at: 2019-02-05 14:43:34

Local clock offset: 2.596 ms

Remote clock offset: -7.667 ms

# Below is generated by plot.py at 2019-02-05 15:19:36

# Datalink statistics

-- Total of 1 flow:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 73.170 ms

Loss rate: 0.33%

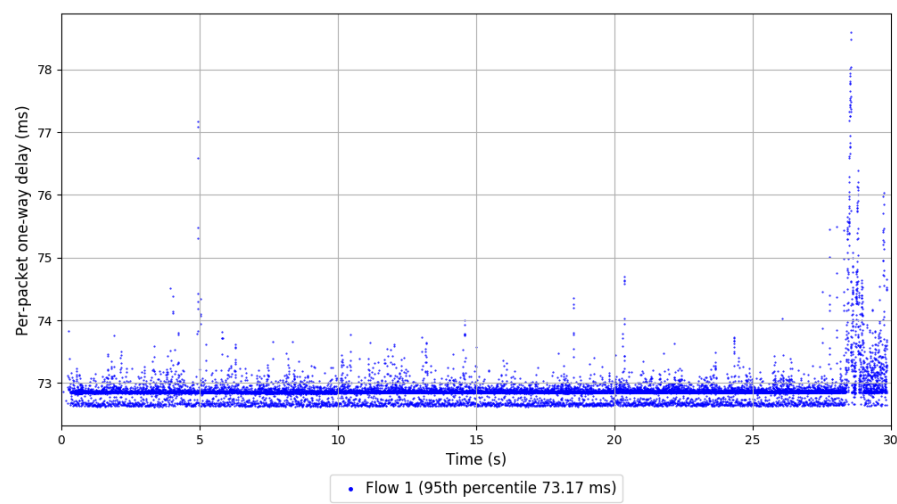
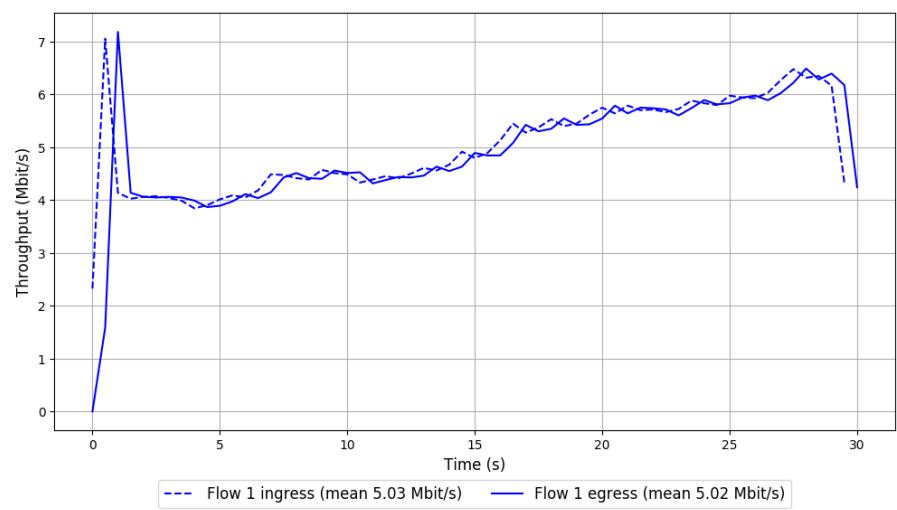
-- Flow 1:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 73.170 ms

Loss rate: 0.33%

Run 5: Report of PCC-Allegro — Data Link



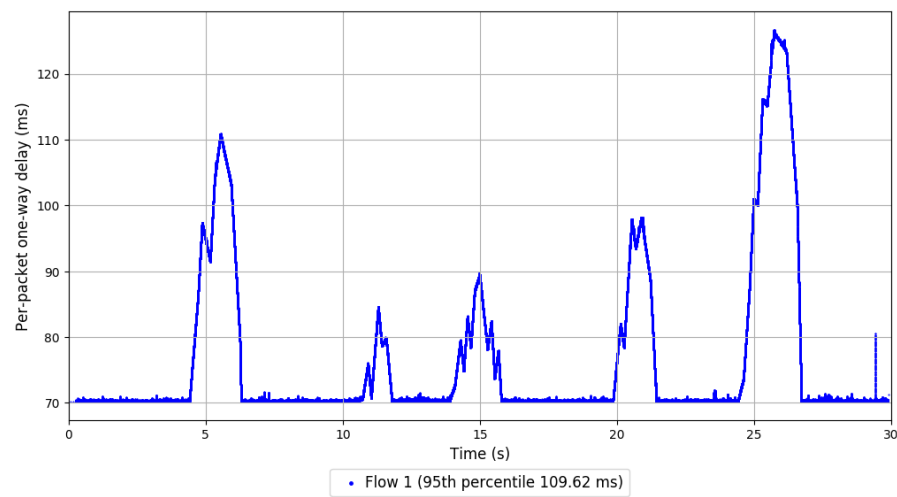
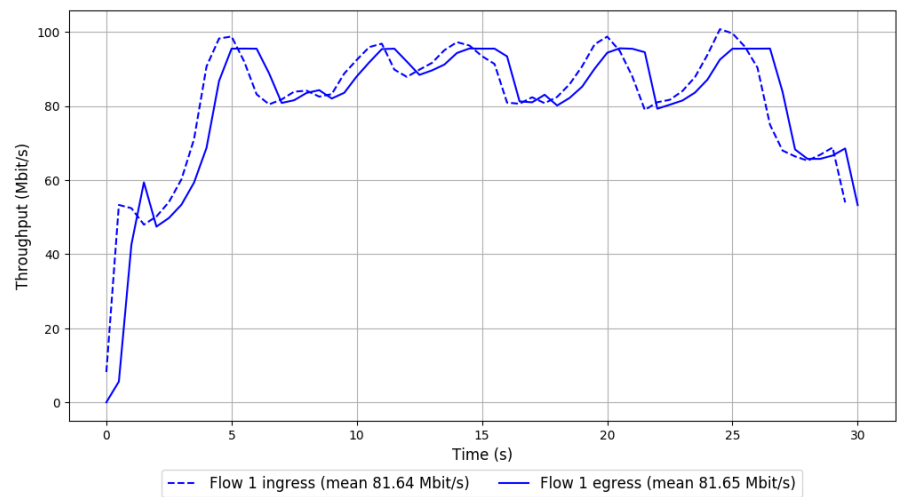


Run 1: Statistics of PCC-Expr

Start at: 2019-02-05 13:15:25  
End at: 2019-02-05 13:15:55  
Local clock offset: -0.366 ms  
Remote clock offset: -8.985 ms

# Below is generated by plot.py at 2019-02-05 15:20:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 81.65 Mbit/s  
95th percentile per-packet one-way delay: 109.619 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 81.65 Mbit/s  
95th percentile per-packet one-way delay: 109.619 ms  
Loss rate: 0.24%

Run 1: Report of PCC-Expr — Data Link

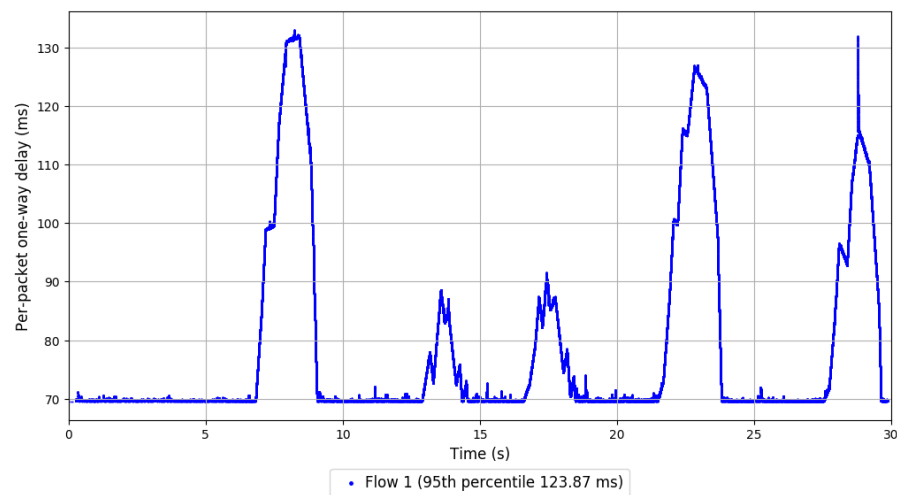
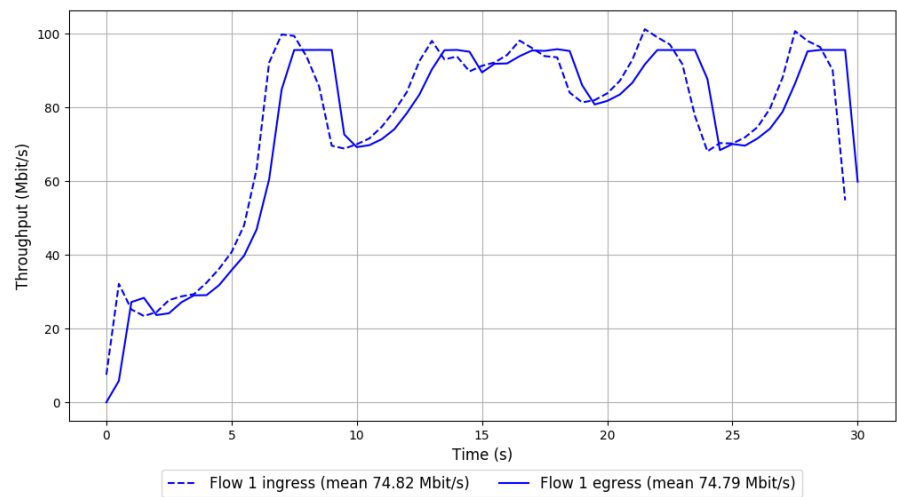


Run 2: Statistics of PCC-Expr

Start at: 2019-02-05 13:43:16  
End at: 2019-02-05 13:43:46  
Local clock offset: -0.851 ms  
Remote clock offset: -7.392 ms

# Below is generated by plot.py at 2019-02-05 15:20:48  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 74.79 Mbit/s  
95th percentile per-packet one-way delay: 123.868 ms  
Loss rate: 0.29%  
-- Flow 1:  
Average throughput: 74.79 Mbit/s  
95th percentile per-packet one-way delay: 123.868 ms  
Loss rate: 0.29%

Run 2: Report of PCC-Expr — Data Link

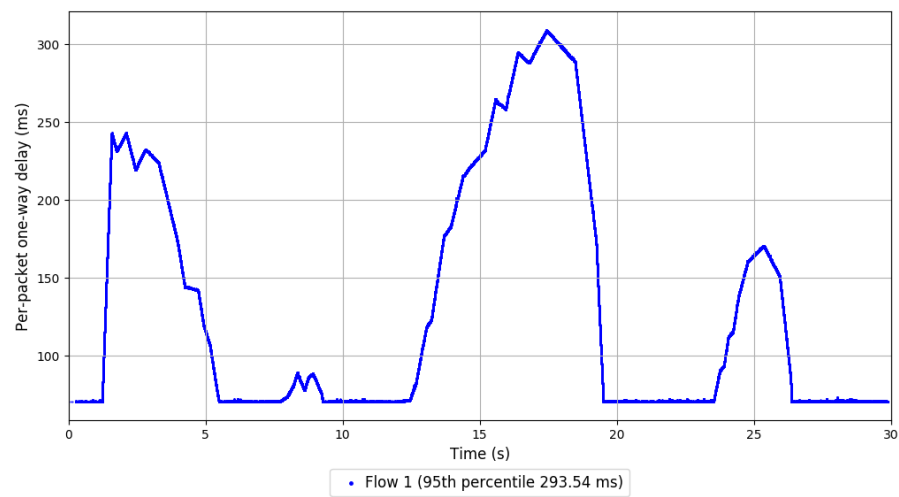
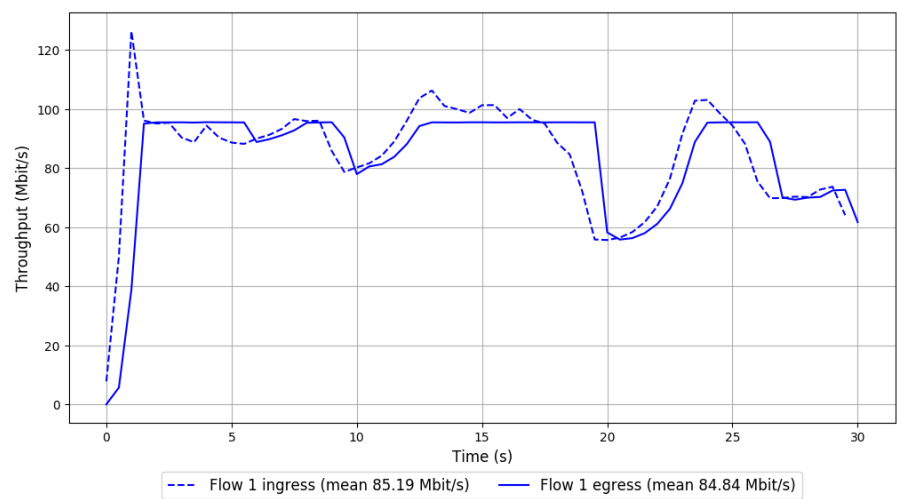


Run 3: Statistics of PCC-Expr

Start at: 2019-02-05 14:10:54  
End at: 2019-02-05 14:11:24  
Local clock offset: -0.997 ms  
Remote clock offset: -6.281 ms

# Below is generated by plot.py at 2019-02-05 15:21:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 84.84 Mbit/s  
95th percentile per-packet one-way delay: 293.538 ms  
Loss rate: 0.69%  
-- Flow 1:  
Average throughput: 84.84 Mbit/s  
95th percentile per-packet one-way delay: 293.538 ms  
Loss rate: 0.69%

Run 3: Report of PCC-Expr — Data Link

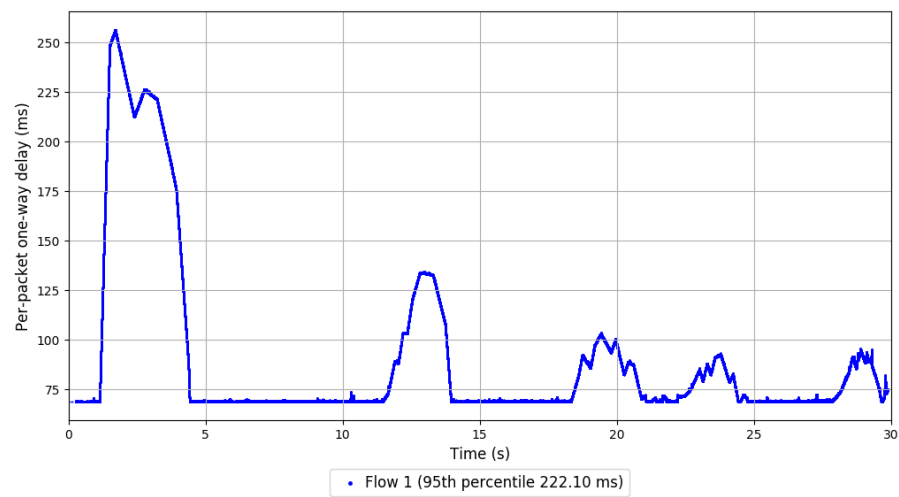
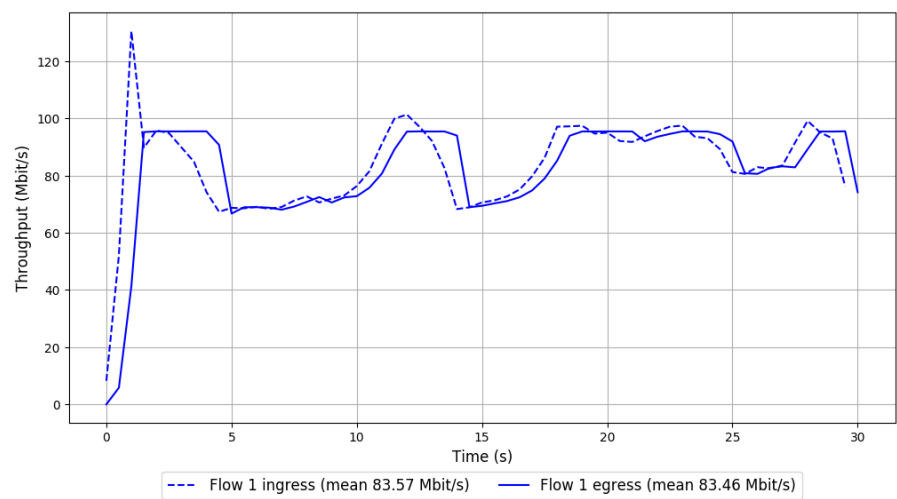


Run 4: Statistics of PCC-Expr

Start at: 2019-02-05 14:38:49  
End at: 2019-02-05 14:39:19  
Local clock offset: -1.702 ms  
Remote clock offset: -5.759 ms

# Below is generated by plot.py at 2019-02-05 15:21:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 83.46 Mbit/s  
95th percentile per-packet one-way delay: 222.105 ms  
Loss rate: 0.41%  
-- Flow 1:  
Average throughput: 83.46 Mbit/s  
95th percentile per-packet one-way delay: 222.105 ms  
Loss rate: 0.41%

Run 4: Report of PCC-Expr — Data Link





Run 5: Statistics of PCC-Expr

Start at: 2019-02-05 15:05:59

End at: 2019-02-05 15:06:29

Local clock offset: -0.483 ms

Remote clock offset: -7.14 ms

# Below is generated by plot.py at 2019-02-05 15:21:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 77.83 Mbit/s

95th percentile per-packet one-way delay: 162.537 ms

Loss rate: 0.32%

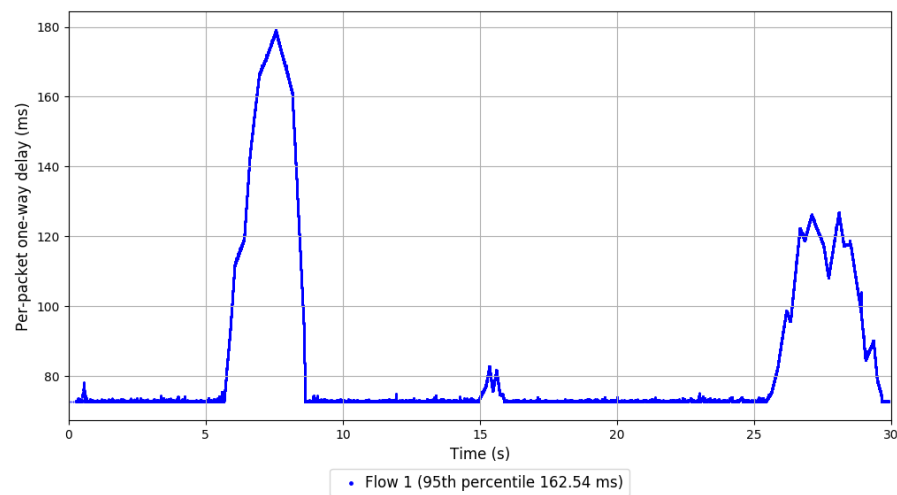
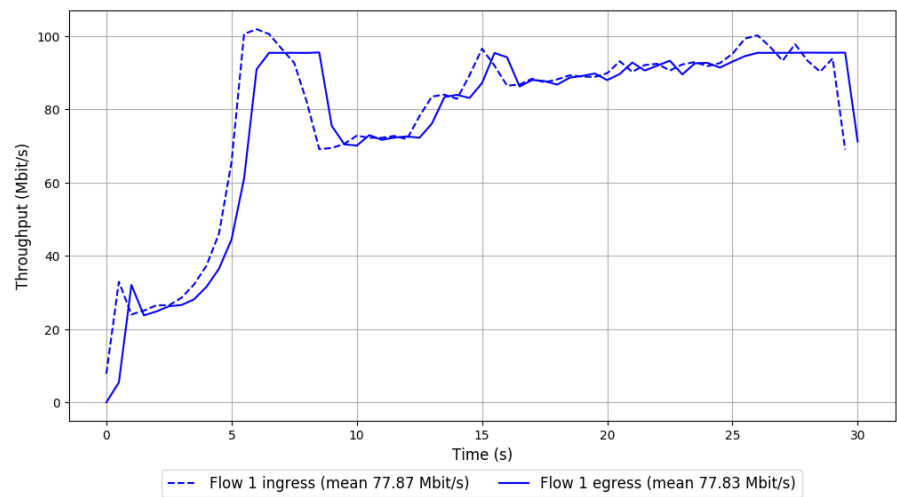
-- Flow 1:

Average throughput: 77.83 Mbit/s

95th percentile per-packet one-way delay: 162.537 ms

Loss rate: 0.32%

Run 5: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2019-02-05 13:10:29

End at: 2019-02-05 13:10:59

Local clock offset: -0.172 ms

Remote clock offset: -7.683 ms

# Below is generated by plot.py at 2019-02-05 15:21:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 73.81 Mbit/s

95th percentile per-packet one-way delay: 87.536 ms

Loss rate: 0.34%

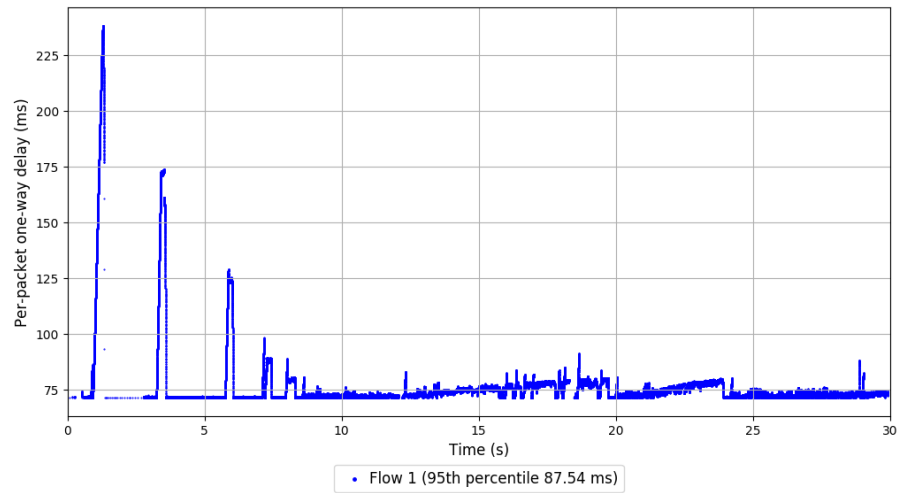
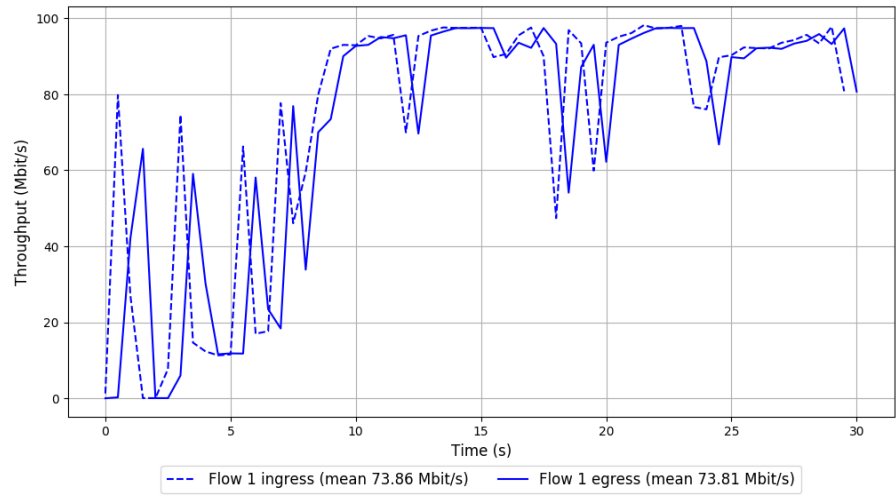
-- Flow 1:

Average throughput: 73.81 Mbit/s

95th percentile per-packet one-way delay: 87.536 ms

Loss rate: 0.34%

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



Run 2: Statistics of QUIC Cubic

Start at: 2019-02-05 13:38:27

End at: 2019-02-05 13:38:57

Local clock offset: -0.189 ms

Remote clock offset: -6.966 ms

# Below is generated by plot.py at 2019-02-05 15:21:21

# Datalink statistics

-- Total of 1 flow:

Average throughput: 74.47 Mbit/s

95th percentile per-packet one-way delay: 85.761 ms

Loss rate: 0.37%

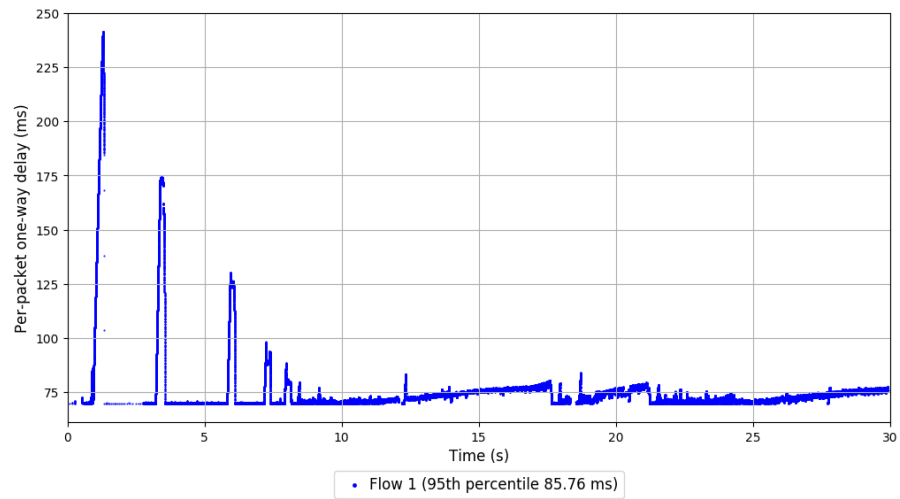
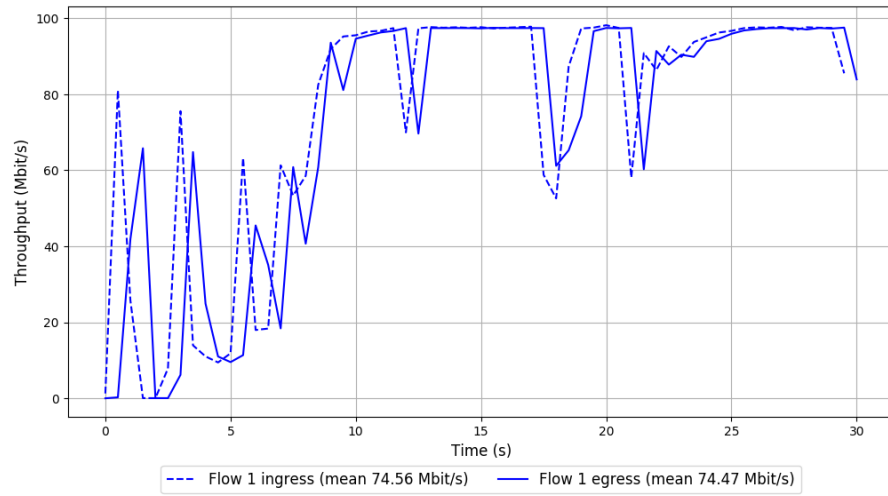
-- Flow 1:

Average throughput: 74.47 Mbit/s

95th percentile per-packet one-way delay: 85.761 ms

Loss rate: 0.37%

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

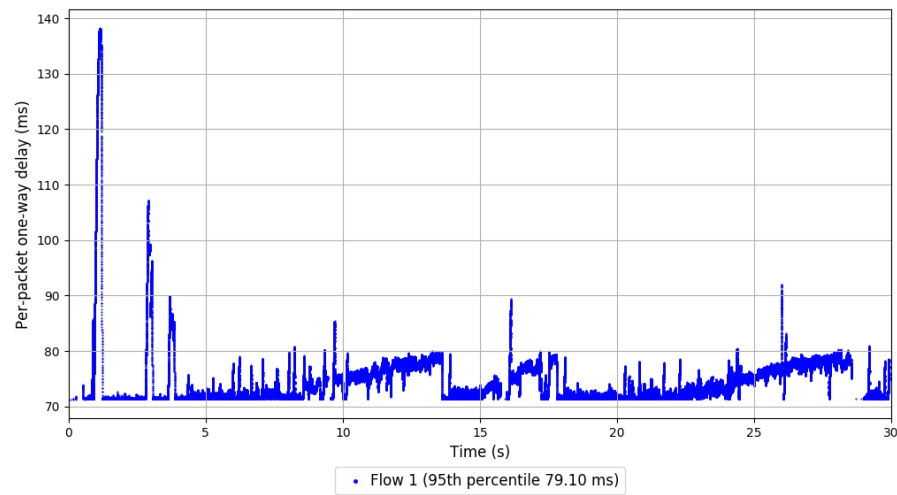
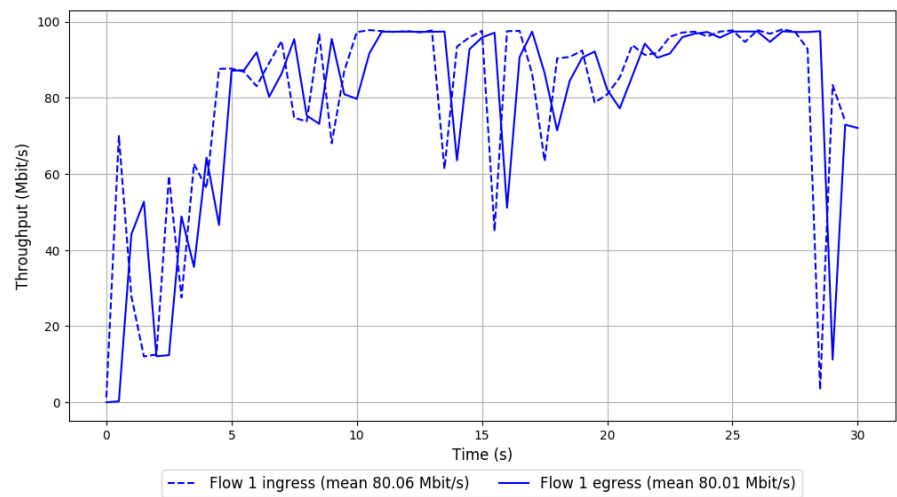


Run 3: Statistics of QUIC Cubic

Start at: 2019-02-05 14:06:06  
End at: 2019-02-05 14:06:36  
Local clock offset: -0.017 ms  
Remote clock offset: -8.502 ms

# Below is generated by plot.py at 2019-02-05 15:21:21  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 80.01 Mbit/s  
95th percentile per-packet one-way delay: 79.102 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 80.01 Mbit/s  
95th percentile per-packet one-way delay: 79.102 ms  
Loss rate: 0.32%

Run 3: Report of QUIC Cubic — Data Link





Run 4: Statistics of QUIC Cubic

Start at: 2019-02-05 14:33:54

End at: 2019-02-05 14:34:24

Local clock offset: -2.506 ms

Remote clock offset: -5.81 ms

# Below is generated by plot.py at 2019-02-05 15:21:25

# Datalink statistics

-- Total of 1 flow:

Average throughput: 71.18 Mbit/s

95th percentile per-packet one-way delay: 82.979 ms

Loss rate: 0.46%

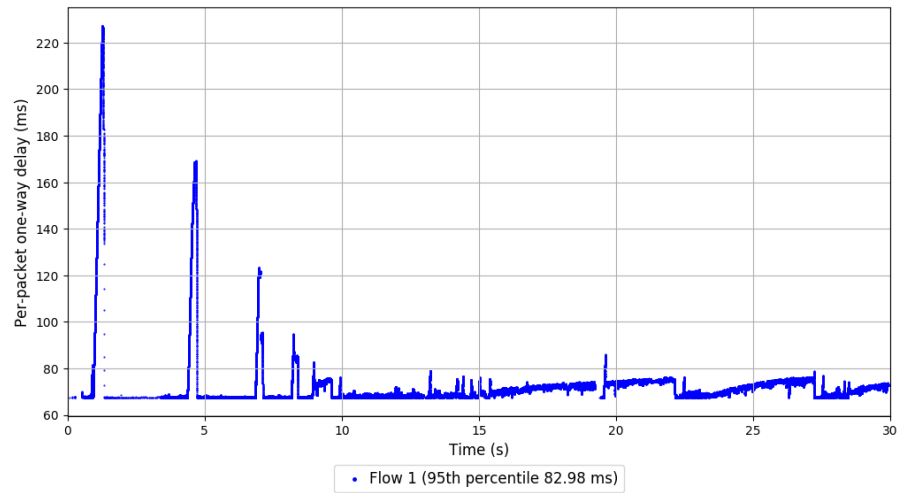
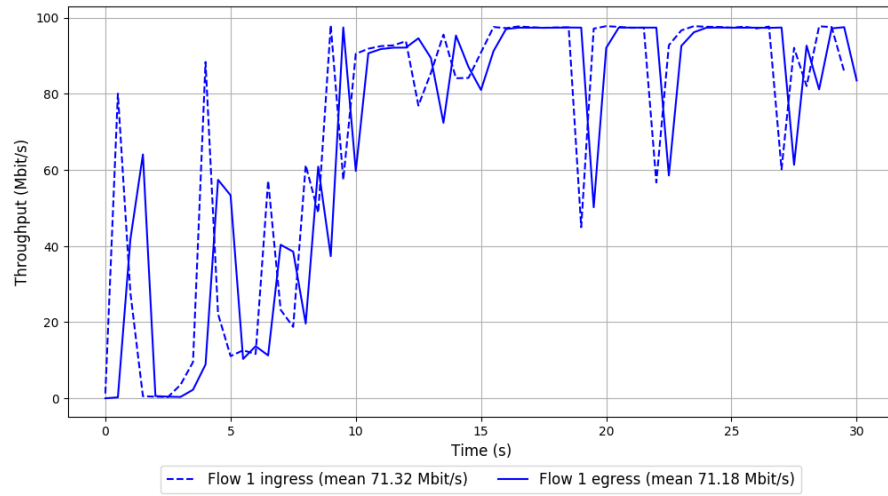
-- Flow 1:

Average throughput: 71.18 Mbit/s

95th percentile per-packet one-way delay: 82.979 ms

Loss rate: 0.46%

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



Run 5: Statistics of QUIC Cubic

Start at: 2019-02-05 15:01:15

End at: 2019-02-05 15:01:45

Local clock offset: 0.33 ms

Remote clock offset: -7.759 ms

# Below is generated by plot.py at 2019-02-05 15:21:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 77.68 Mbit/s

95th percentile per-packet one-way delay: 78.894 ms

Loss rate: 0.01%

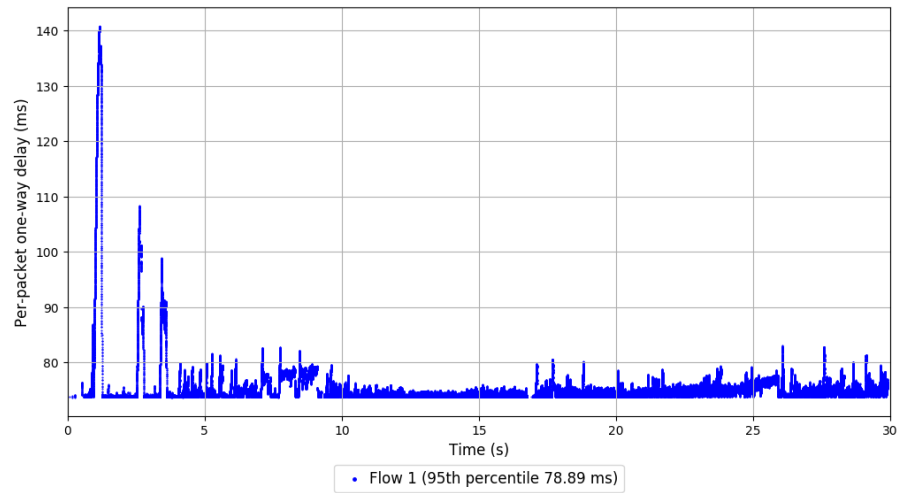
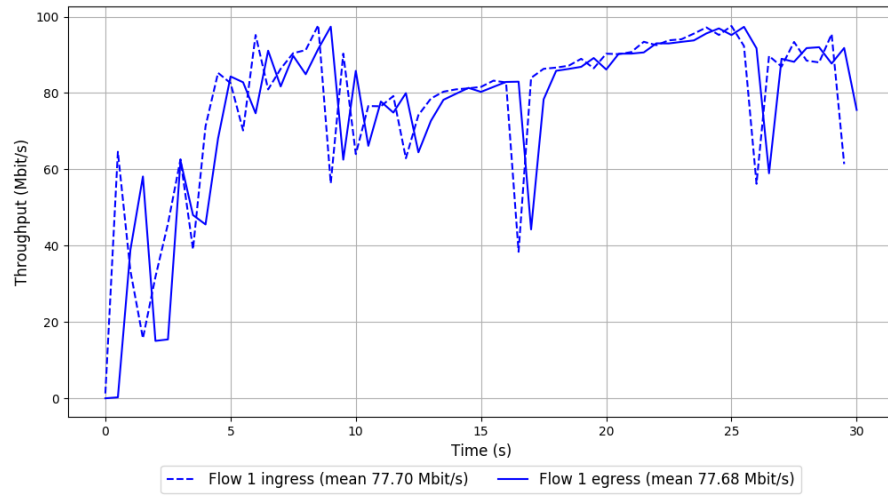
-- Flow 1:

Average throughput: 77.68 Mbit/s

95th percentile per-packet one-way delay: 78.894 ms

Loss rate: 0.01%

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

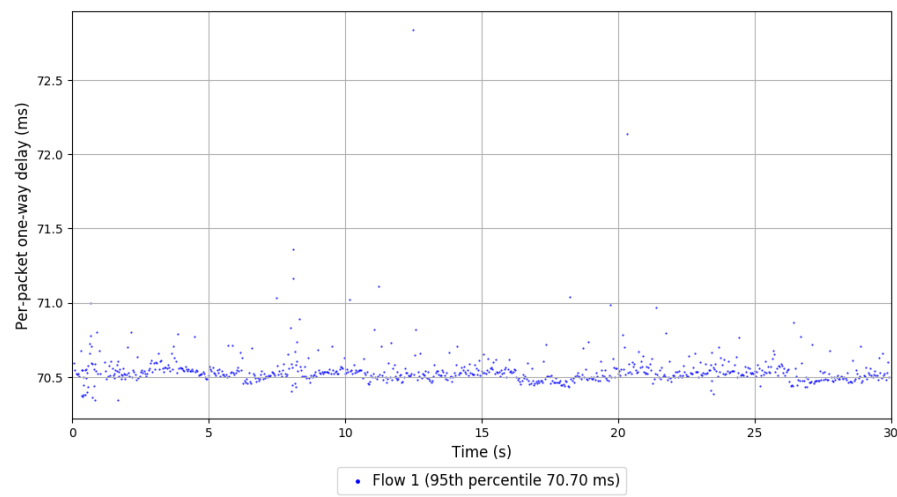
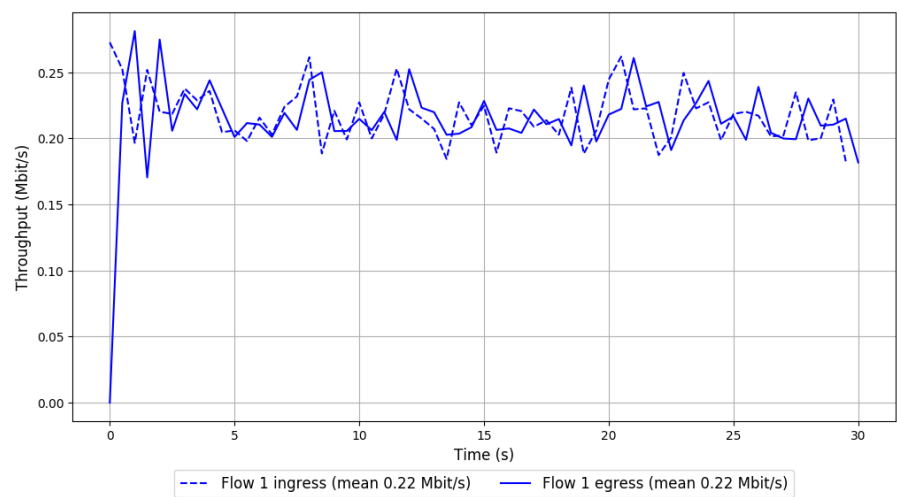


Run 1: Statistics of SCReAM

Start at: 2019-02-05 13:02:47  
End at: 2019-02-05 13:03:17  
Local clock offset: -0.493 ms  
Remote clock offset: -6.115 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.702 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.702 ms  
Loss rate: 0.25%

Run 1: Report of SReAM — Data Link

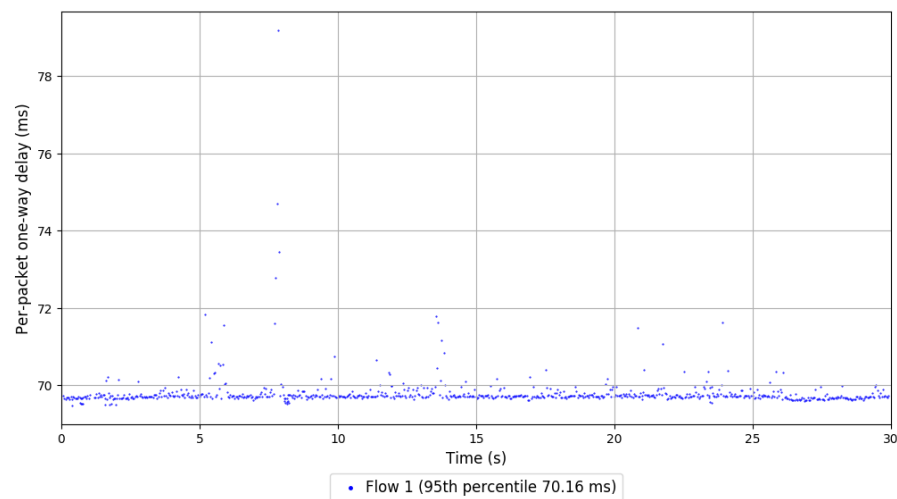
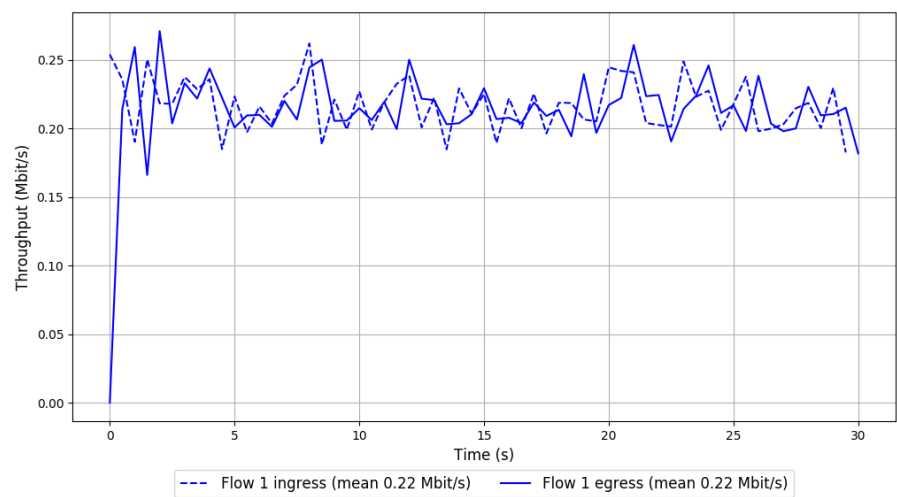


Run 2: Statistics of SCReAM

Start at: 2019-02-05 13:30:22  
End at: 2019-02-05 13:30:52  
Local clock offset: -0.439 ms  
Remote clock offset: -7.455 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.162 ms  
Loss rate: 0.25%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 70.162 ms  
Loss rate: 0.25%

Run 2: Report of SReAM — Data Link





Run 3: Statistics of SCReAM

Start at: 2019-02-05 13:58:02

End at: 2019-02-05 13:58:32

Local clock offset: -1.177 ms

Remote clock offset: -9.4 ms

# Below is generated by plot.py at 2019-02-05 15:21:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 71.687 ms

Loss rate: 0.26%

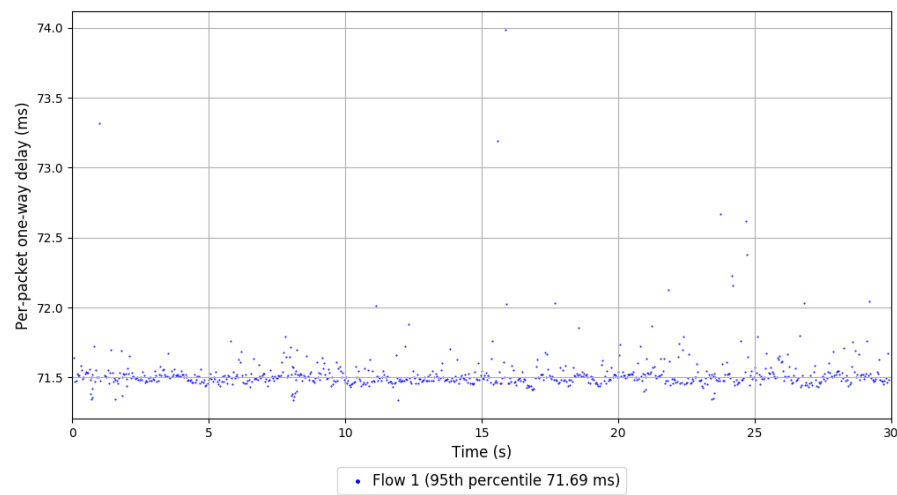
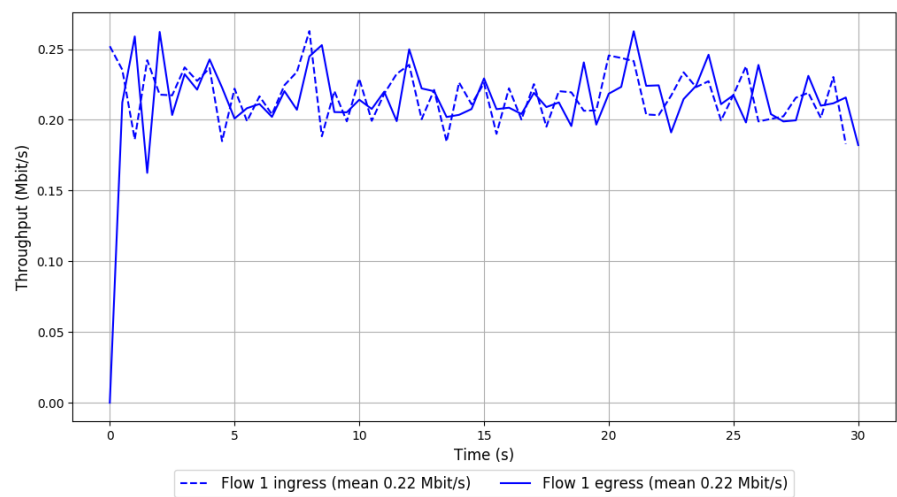
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 71.687 ms

Loss rate: 0.26%

Run 3: Report of SReAM — Data Link

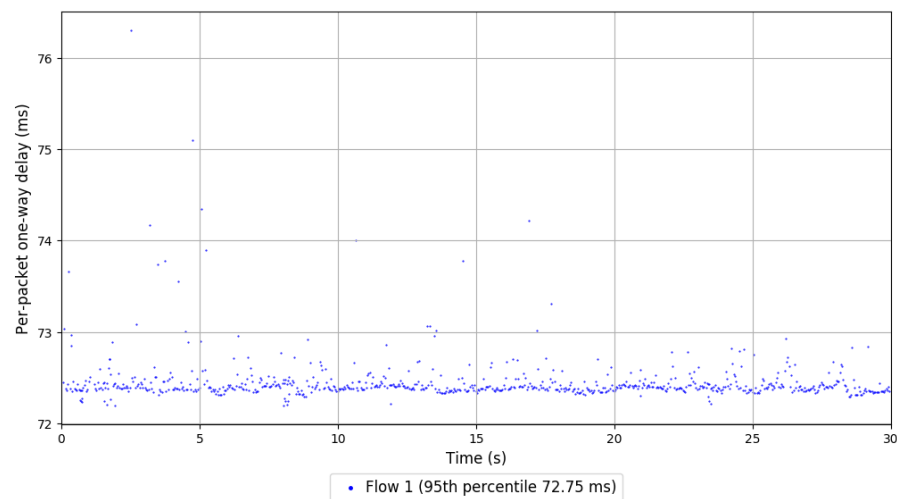
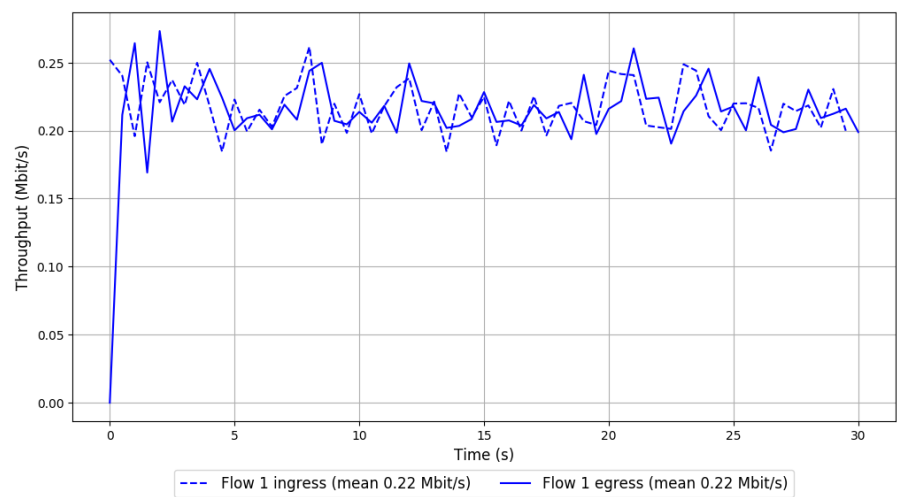


Run 4: Statistics of SCReAM

Start at: 2019-02-05 14:25:57  
End at: 2019-02-05 14:26:27  
Local clock offset: -1.172 ms  
Remote clock offset: -8.489 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 72.752 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 0.22 Mbit/s  
95th percentile per-packet one-way delay: 72.752 ms  
Loss rate: 0.26%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2019-02-05 14:53:07

End at: 2019-02-05 14:53:37

Local clock offset: 1.535 ms

Remote clock offset: -8.94 ms

# Below is generated by plot.py at 2019-02-05 15:21:31

# Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 73.859 ms

Loss rate: 0.26%

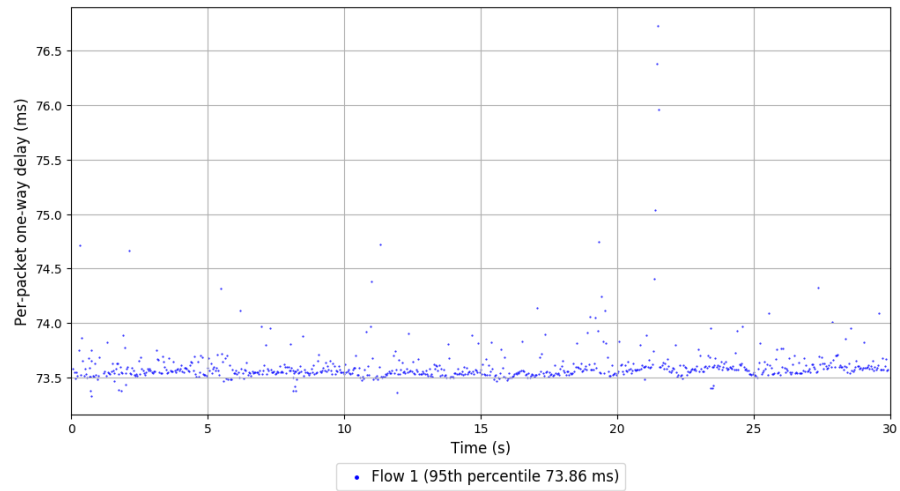
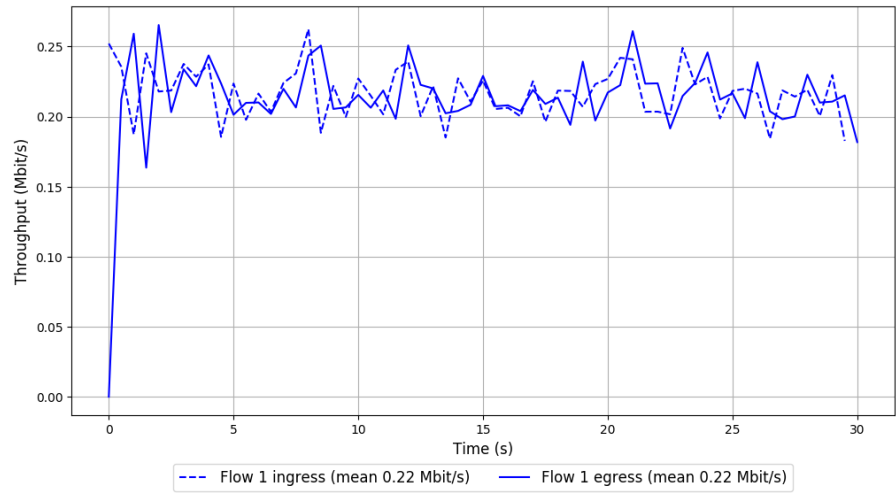
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 73.859 ms

Loss rate: 0.26%

## Run 5: Report of SReAM — Data Link

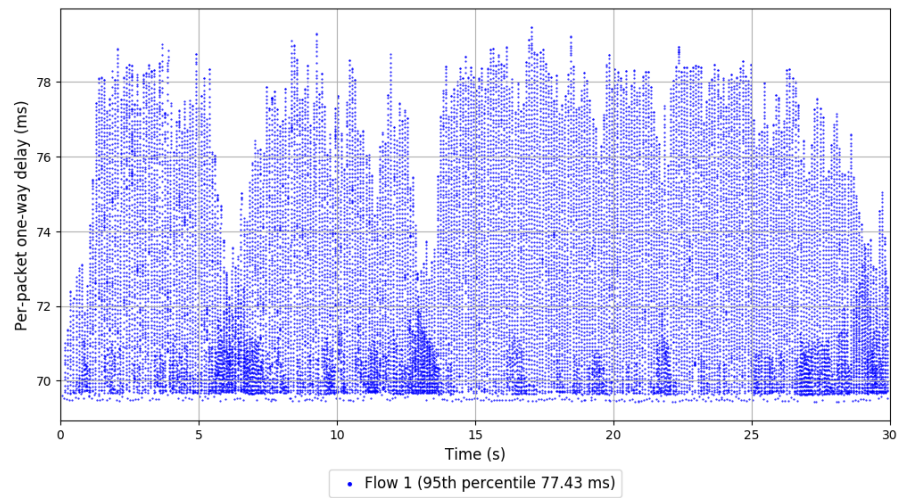
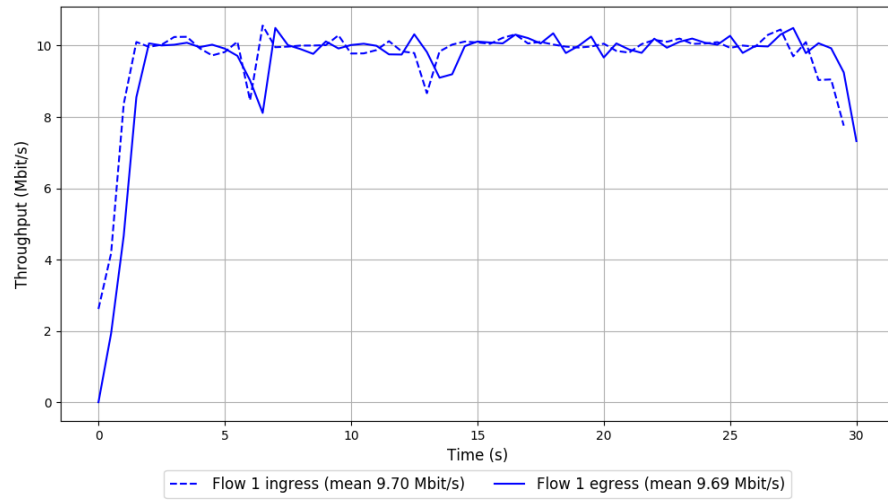


Run 1: Statistics of Sprout

Start at: 2019-02-05 13:13:13  
End at: 2019-02-05 13:13:43  
Local clock offset: 0.322 ms  
Remote clock offset: -7.567 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 9.69 Mbit/s  
95th percentile per-packet one-way delay: 77.427 ms  
Loss rate: 0.21%  
-- Flow 1:  
Average throughput: 9.69 Mbit/s  
95th percentile per-packet one-way delay: 77.427 ms  
Loss rate: 0.21%

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



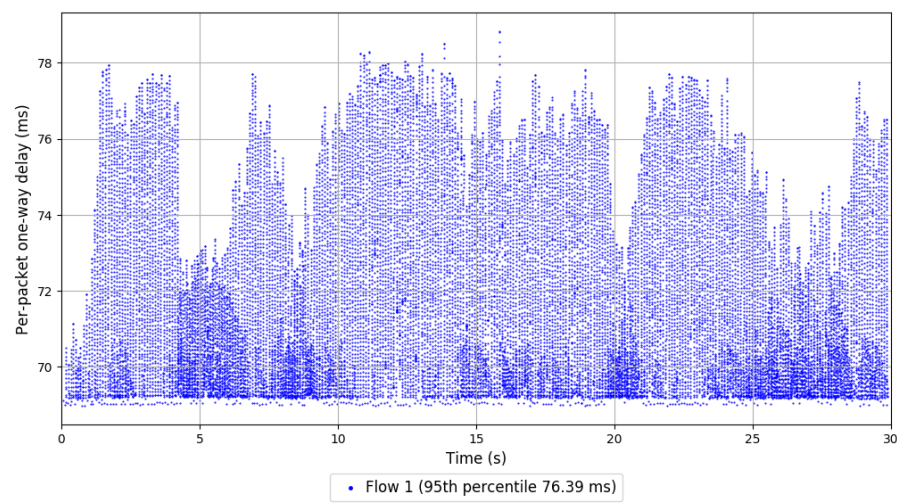
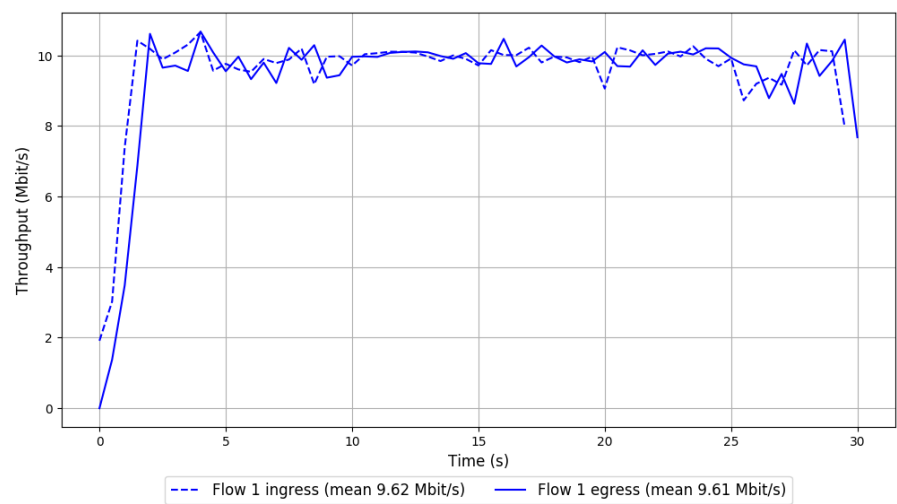


Run 2: Statistics of Sprout

Start at: 2019-02-05 13:41:03  
End at: 2019-02-05 13:41:33  
Local clock offset: -1.348 ms  
Remote clock offset: -7.893 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 9.61 Mbit/s  
95th percentile per-packet one-way delay: 76.388 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 9.61 Mbit/s  
95th percentile per-packet one-way delay: 76.388 ms  
Loss rate: 0.33%

Run 2: Report of Sprout — Data Link

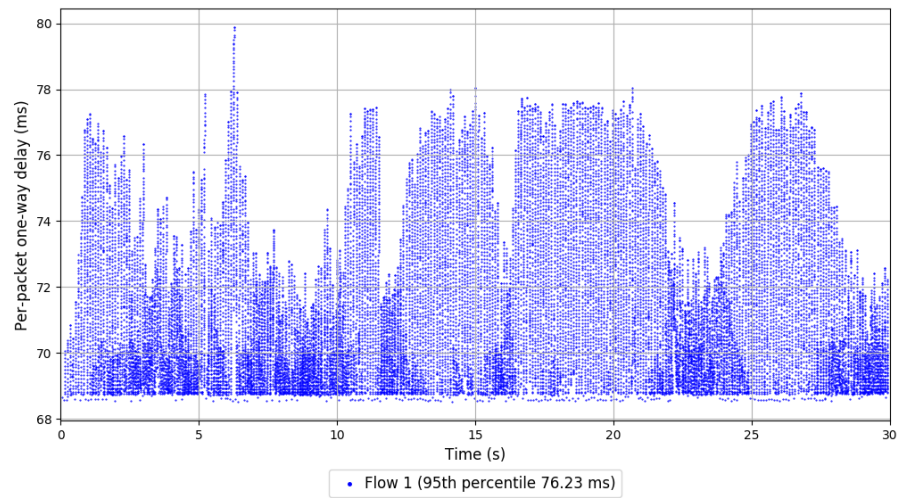
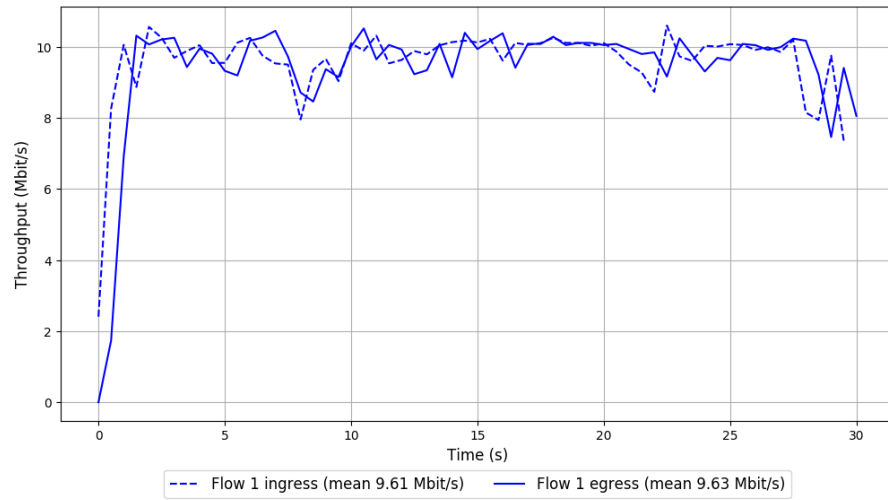


Run 3: Statistics of Sprout

Start at: 2019-02-05 14:08:41  
End at: 2019-02-05 14:09:11  
Local clock offset: -1.123 ms  
Remote clock offset: -6.895 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 9.63 Mbit/s  
95th percentile per-packet one-way delay: 76.233 ms  
Loss rate: 0.12%  
-- Flow 1:  
Average throughput: 9.63 Mbit/s  
95th percentile per-packet one-way delay: 76.233 ms  
Loss rate: 0.12%

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

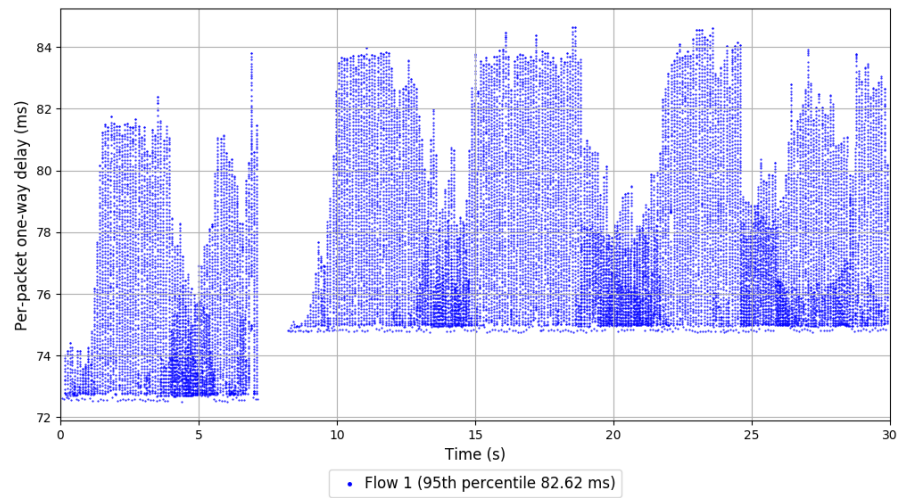
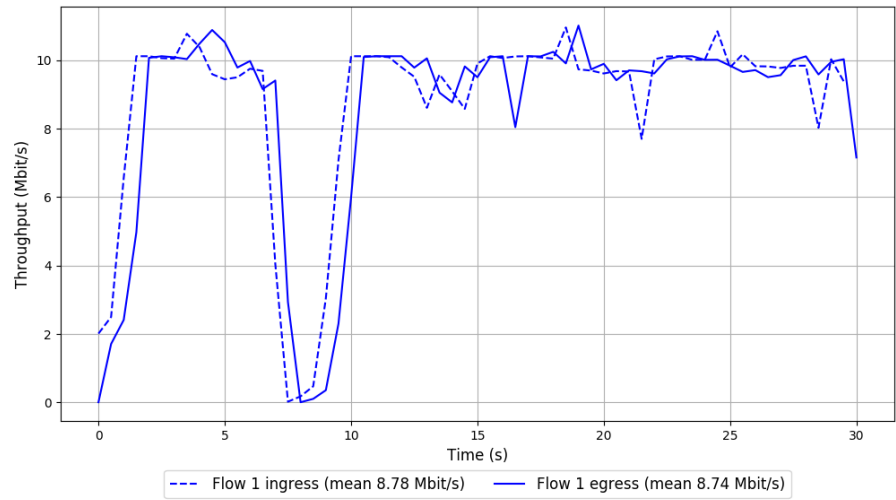


Run 4: Statistics of Sprout

Start at: 2019-02-05 14:36:36  
End at: 2019-02-05 14:37:06  
Local clock offset: 0.796 ms  
Remote clock offset: -9.809 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 8.74 Mbit/s  
95th percentile per-packet one-way delay: 82.616 ms  
Loss rate: 0.81%  
-- Flow 1:  
Average throughput: 8.74 Mbit/s  
95th percentile per-packet one-way delay: 82.616 ms  
Loss rate: 0.81%

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

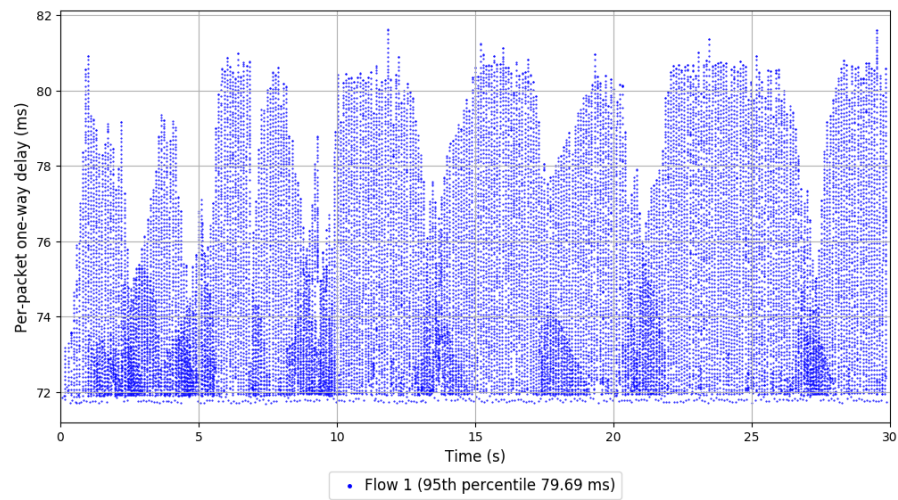
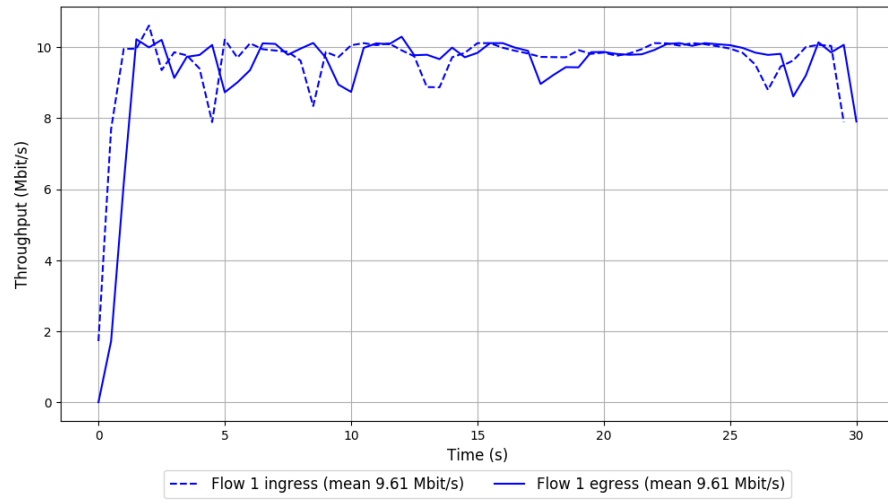


Run 5: Statistics of Sprout

Start at: 2019-02-05 15:03:44  
End at: 2019-02-05 15:04:14  
Local clock offset: -1.486 ms  
Remote clock offset: -7.453 ms

# Below is generated by plot.py at 2019-02-05 15:21:31  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 9.61 Mbit/s  
95th percentile per-packet one-way delay: 79.688 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 9.61 Mbit/s  
95th percentile per-packet one-way delay: 79.688 ms  
Loss rate: 0.34%

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





Run 1: Statistics of TaoVA-100x

Start at: 2019-02-05 13:07:45

End at: 2019-02-05 13:08:15

Local clock offset: 2.765 ms

Remote clock offset: -6.309 ms

# Below is generated by plot.py at 2019-02-05 15:23:00

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.78 Mbit/s

95th percentile per-packet one-way delay: 82.286 ms

Loss rate: 0.26%

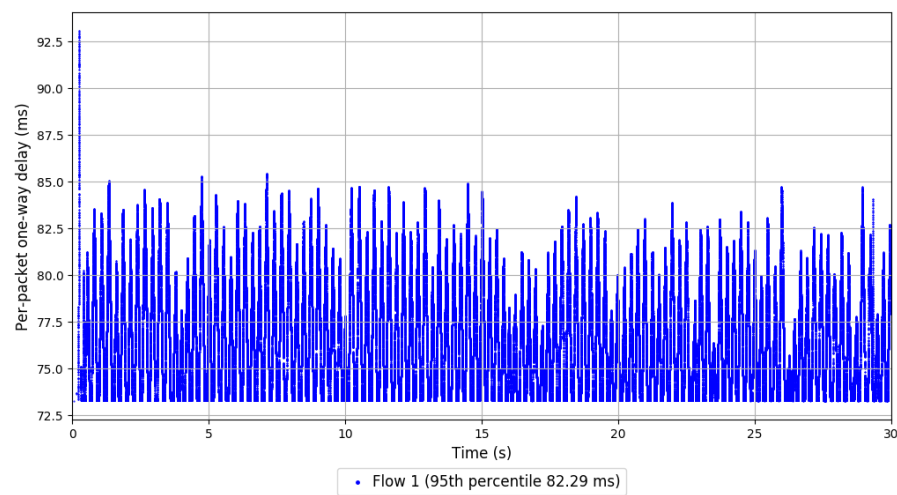
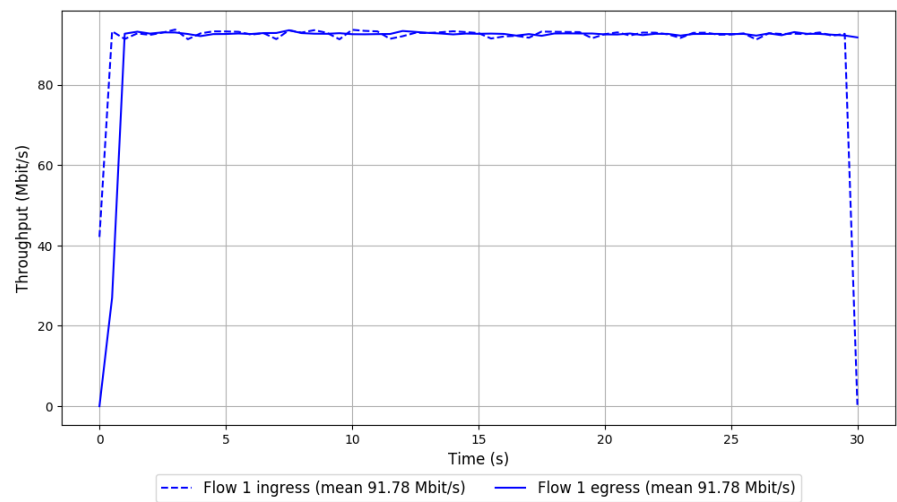
-- Flow 1:

Average throughput: 91.78 Mbit/s

95th percentile per-packet one-way delay: 82.286 ms

Loss rate: 0.26%

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



Run 2: Statistics of TaoVA-100x

Start at: 2019-02-05 13:35:35

End at: 2019-02-05 13:36:05

Local clock offset: -1.811 ms

Remote clock offset: -8.03 ms

# Below is generated by plot.py at 2019-02-05 15:23:03

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.60 Mbit/s

95th percentile per-packet one-way delay: 77.234 ms

Loss rate: 0.28%

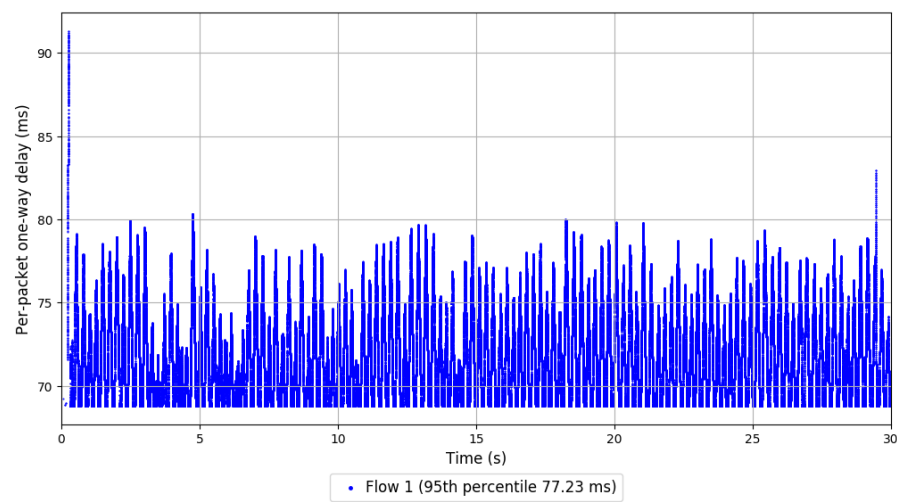
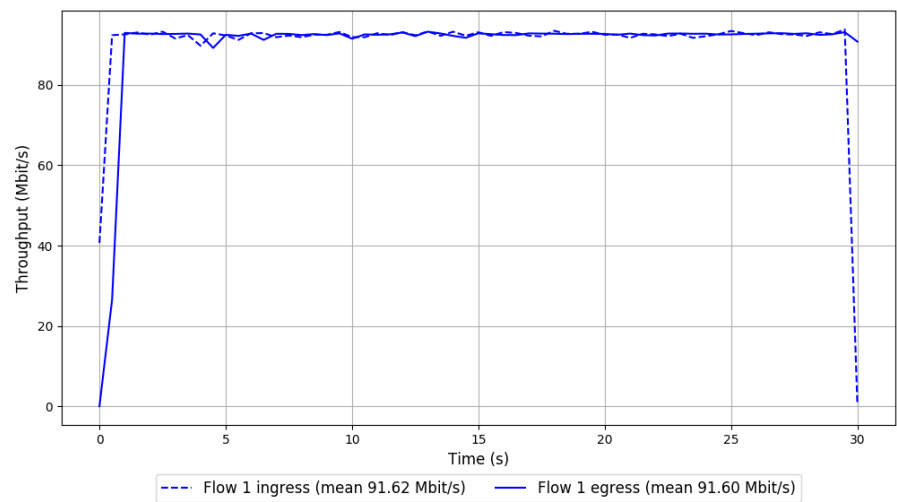
-- Flow 1:

Average throughput: 91.60 Mbit/s

95th percentile per-packet one-way delay: 77.234 ms

Loss rate: 0.28%

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

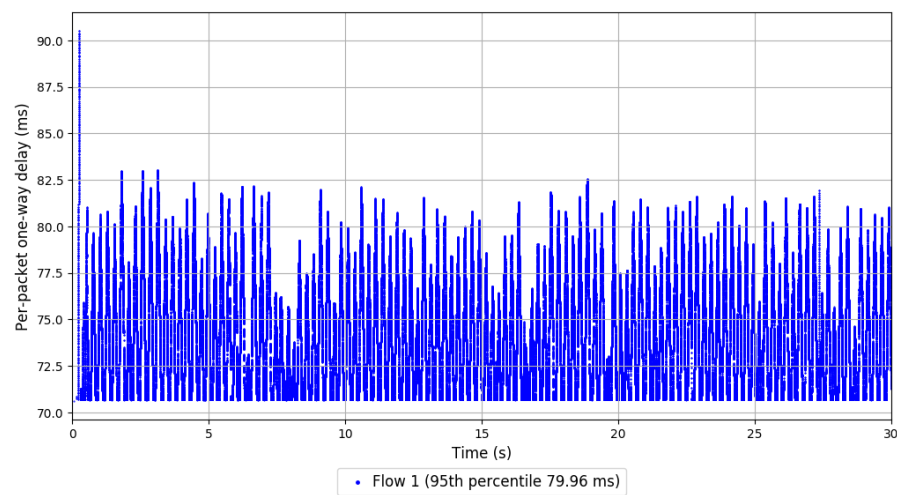
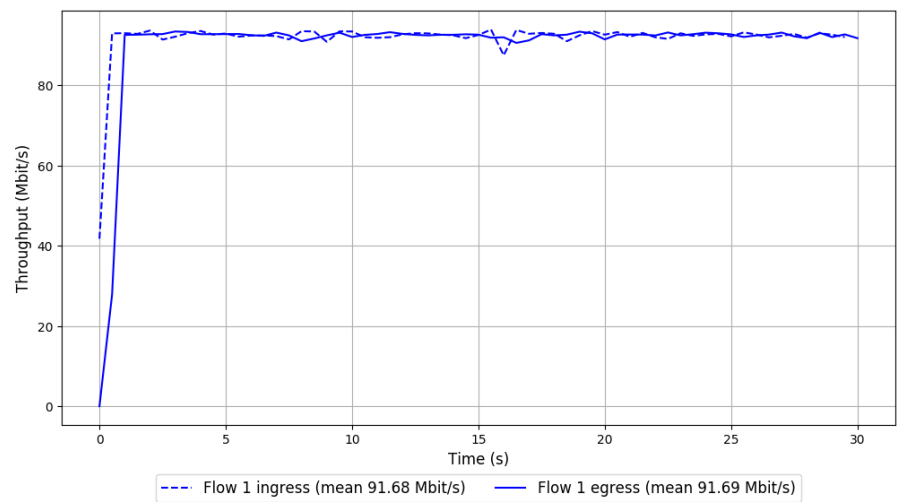


Run 3: Statistics of TaoVA-100x

Start at: 2019-02-05 14:02:56  
End at: 2019-02-05 14:03:26  
Local clock offset: -0.982 ms  
Remote clock offset: -8.945 ms

# Below is generated by plot.py at 2019-02-05 15:23:03  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.69 Mbit/s  
95th percentile per-packet one-way delay: 79.960 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 91.69 Mbit/s  
95th percentile per-packet one-way delay: 79.960 ms  
Loss rate: 0.24%

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



Run 4: Statistics of TaoVA-100x

Start at: 2019-02-05 14:31:04

End at: 2019-02-05 14:31:34

Local clock offset: -2.209 ms

Remote clock offset: -7.358 ms

# Below is generated by plot.py at 2019-02-05 15:23:06

# Datalink statistics

-- Total of 1 flow:

Average throughput: 91.71 Mbit/s

95th percentile per-packet one-way delay: 78.740 ms

Loss rate: 0.27%

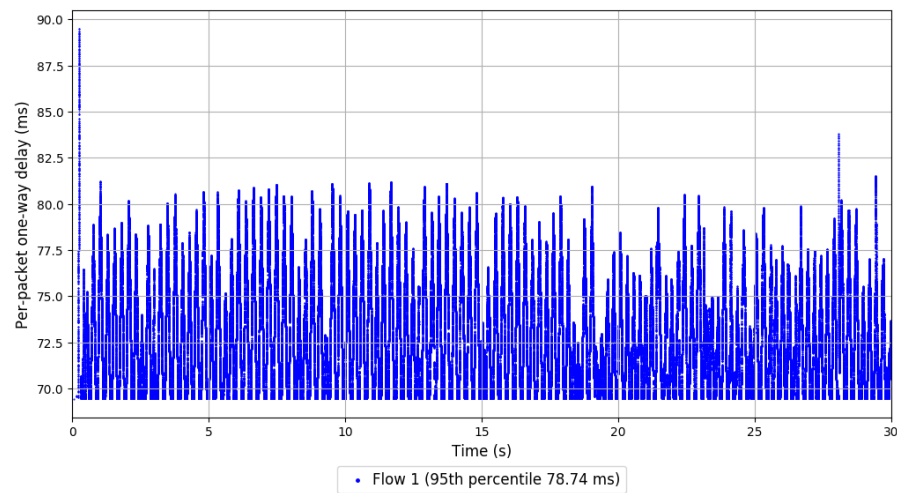
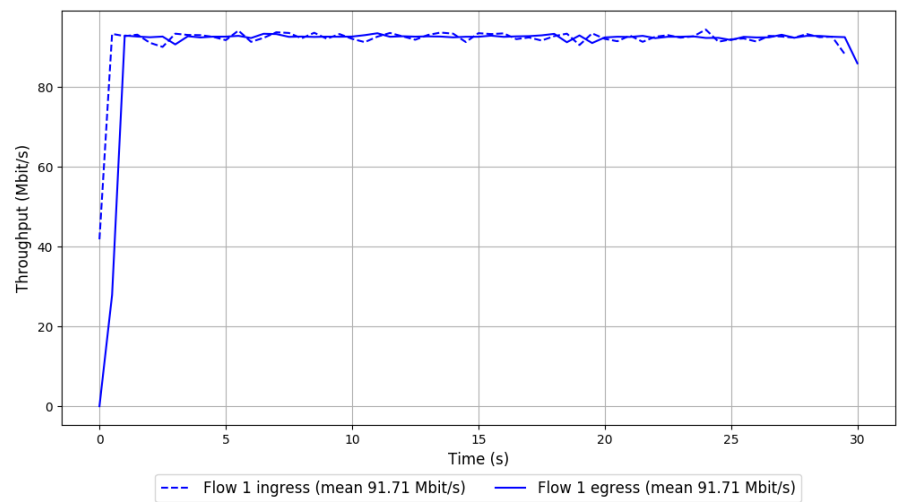
-- Flow 1:

Average throughput: 91.71 Mbit/s

95th percentile per-packet one-way delay: 78.740 ms

Loss rate: 0.27%

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



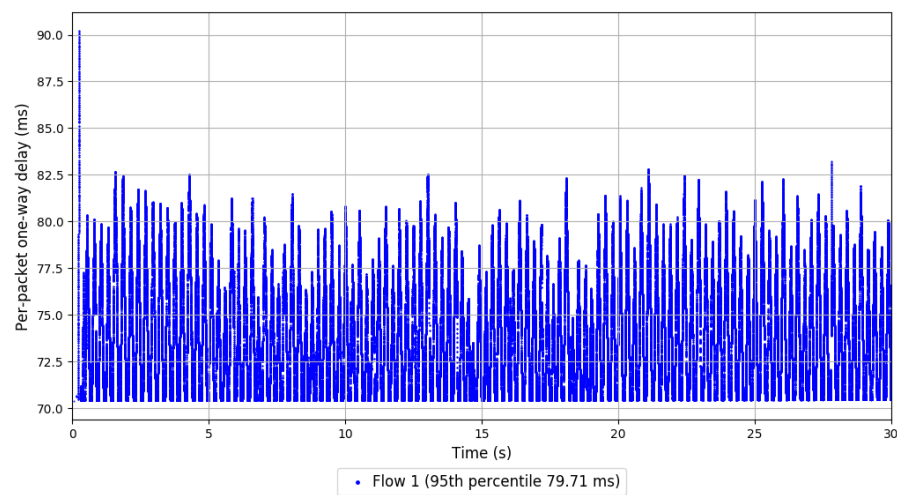
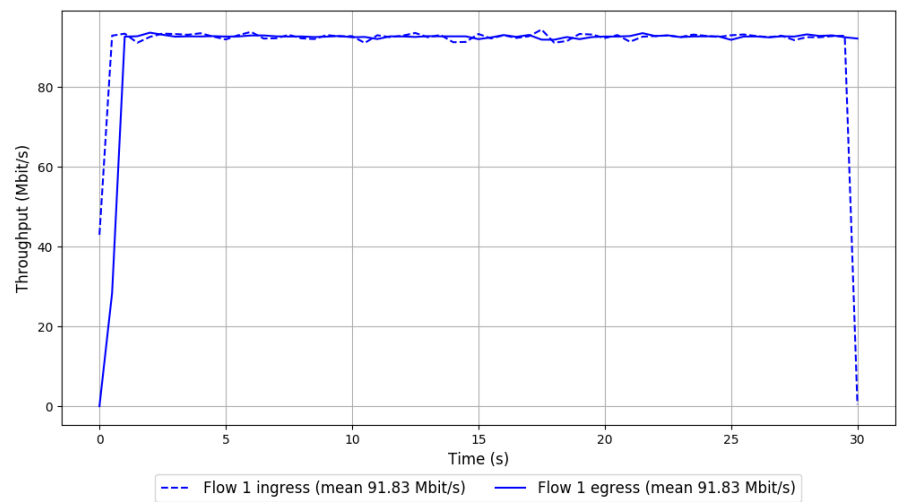


Run 5: Statistics of TaoVA-100x

Start at: 2019-02-05 14:58:20  
End at: 2019-02-05 14:58:50  
Local clock offset: -1.921 ms  
Remote clock offset: -8.951 ms

# Below is generated by plot.py at 2019-02-05 15:23:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 91.83 Mbit/s  
95th percentile per-packet one-way delay: 79.714 ms  
Loss rate: 0.26%  
-- Flow 1:  
Average throughput: 91.83 Mbit/s  
95th percentile per-packet one-way delay: 79.714 ms  
Loss rate: 0.26%

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

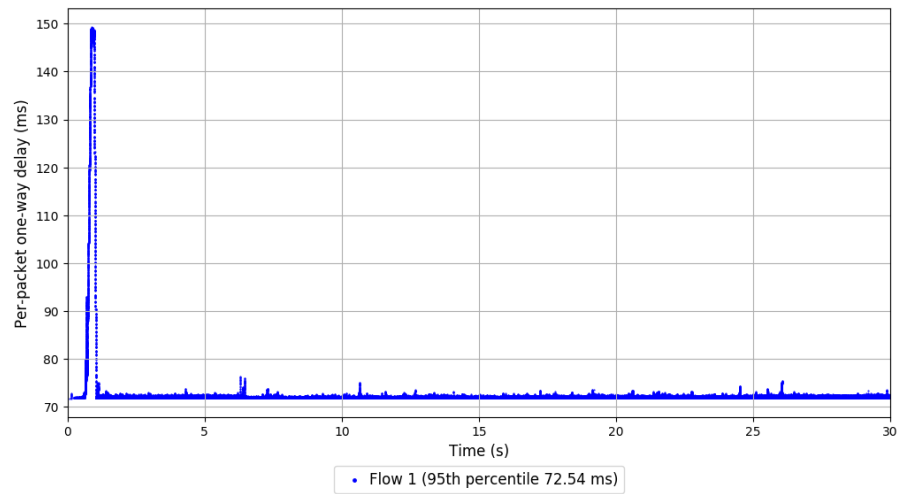
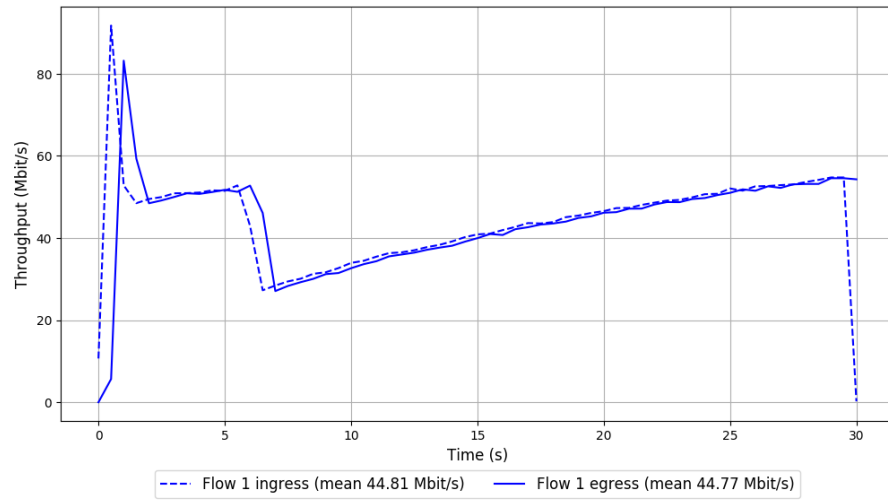


Run 1: Statistics of TCP Vegas

Start at: 2019-02-05 12:58:55  
End at: 2019-02-05 12:59:25  
Local clock offset: 2.145 ms  
Remote clock offset: -6.864 ms

# Below is generated by plot.py at 2019-02-05 15:23:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 44.77 Mbit/s  
95th percentile per-packet one-way delay: 72.537 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 44.77 Mbit/s  
95th percentile per-packet one-way delay: 72.537 ms  
Loss rate: 0.34%

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

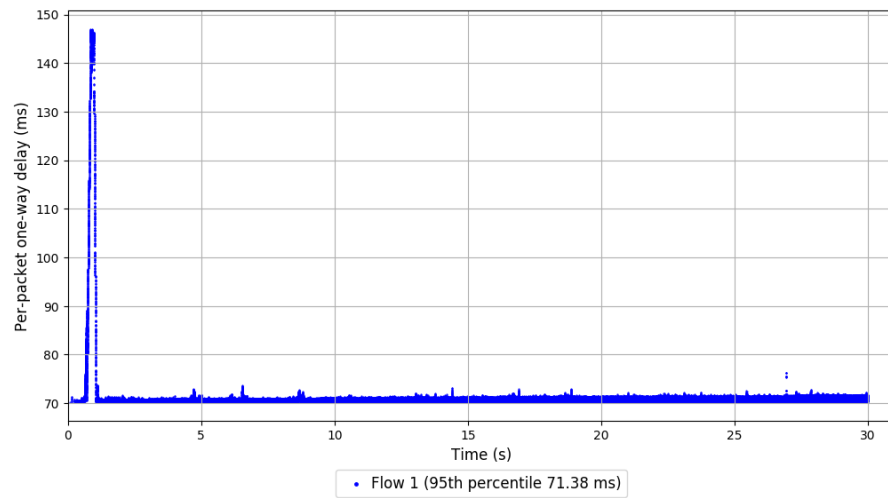
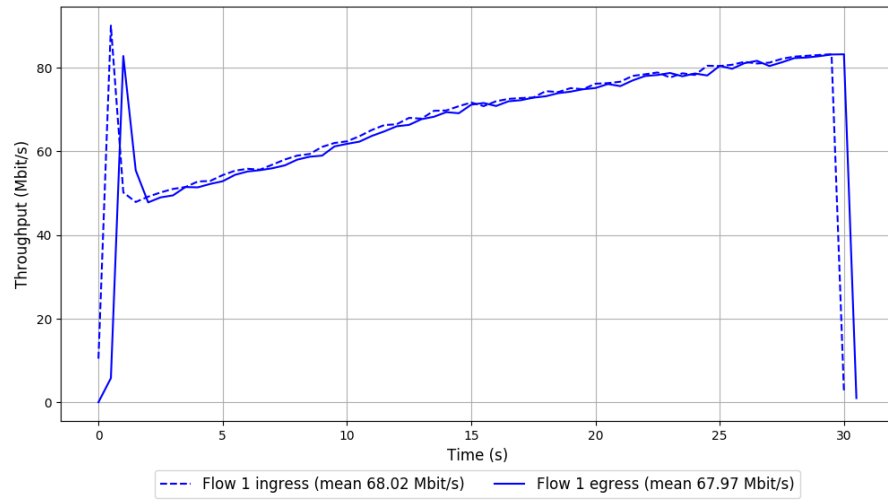


Run 2: Statistics of TCP Vegas

Start at: 2019-02-05 13:26:03  
End at: 2019-02-05 13:26:33  
Local clock offset: 0.304 ms  
Remote clock offset: -7.529 ms

# Below is generated by plot.py at 2019-02-05 15:23:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 67.97 Mbit/s  
95th percentile per-packet one-way delay: 71.376 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 67.97 Mbit/s  
95th percentile per-packet one-way delay: 71.376 ms  
Loss rate: 0.32%

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

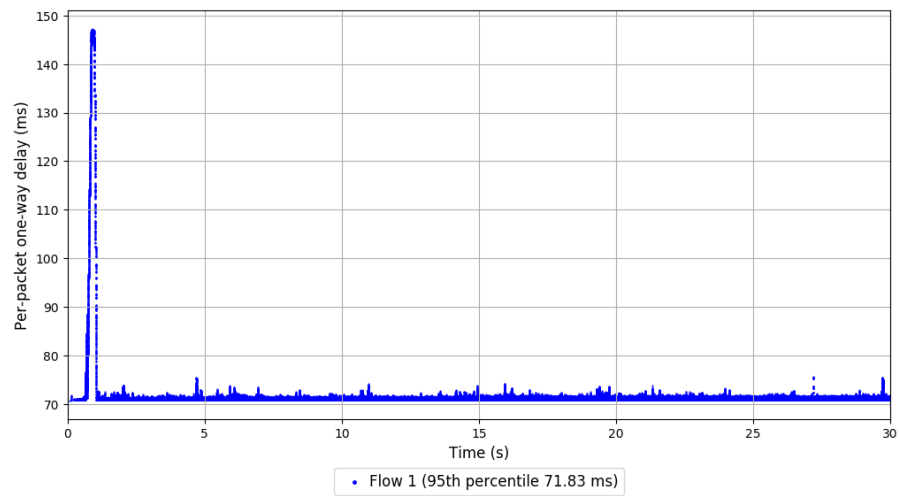
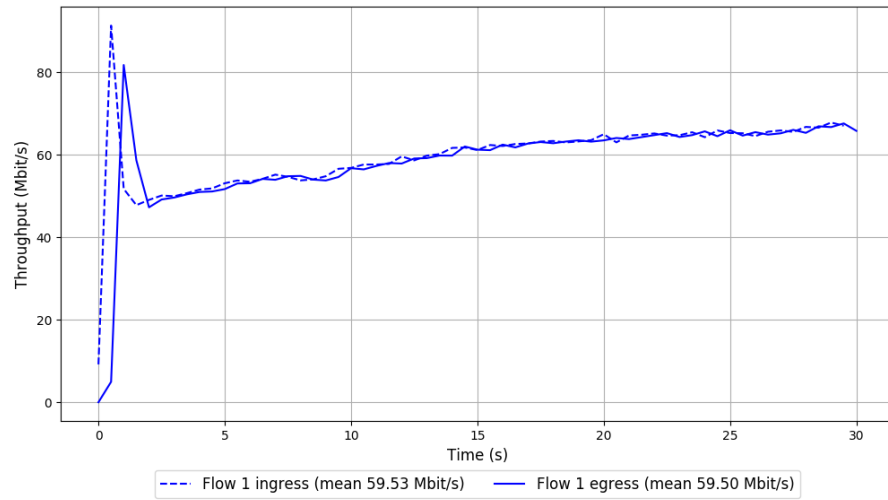


Run 3: Statistics of TCP Vegas

Start at: 2019-02-05 13:53:53  
End at: 2019-02-05 13:54:23  
Local clock offset: -0.976 ms  
Remote clock offset: -8.597 ms

# Below is generated by plot.py at 2019-02-05 15:23:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 59.50 Mbit/s  
95th percentile per-packet one-way delay: 71.834 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 59.50 Mbit/s  
95th percentile per-packet one-way delay: 71.834 ms  
Loss rate: 0.30%

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



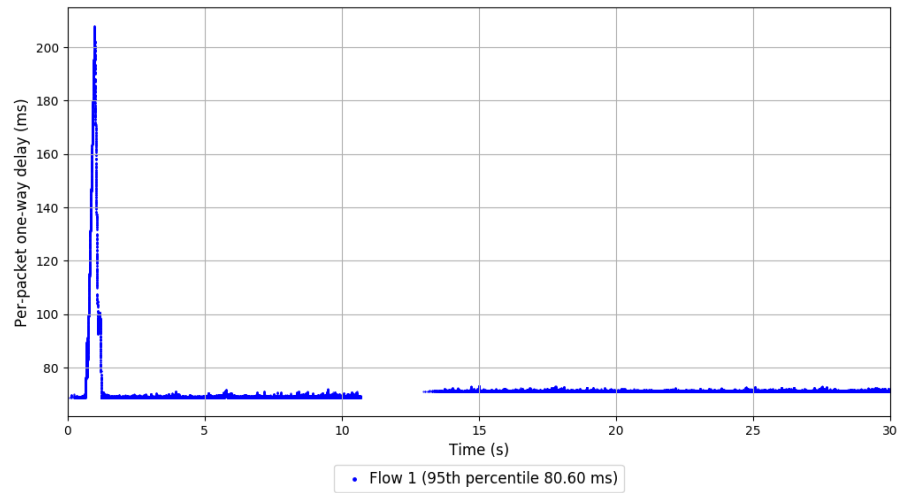
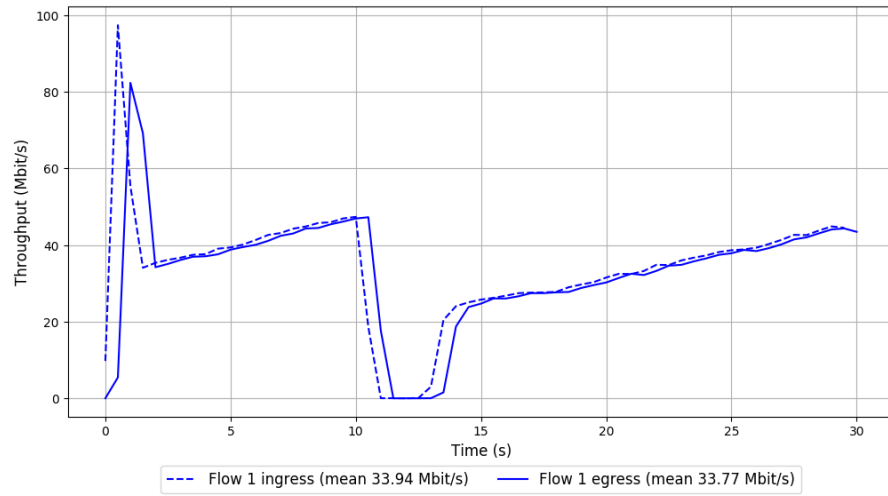


Run 4: Statistics of TCP Vegas

Start at: 2019-02-05 14:22:03  
End at: 2019-02-05 14:22:33  
Local clock offset: -2.57 ms  
Remote clock offset: -8.903 ms

# Below is generated by plot.py at 2019-02-05 15:23:07  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 80.601 ms  
Loss rate: 0.78%  
-- Flow 1:  
Average throughput: 33.77 Mbit/s  
95th percentile per-packet one-way delay: 80.601 ms  
Loss rate: 0.78%

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

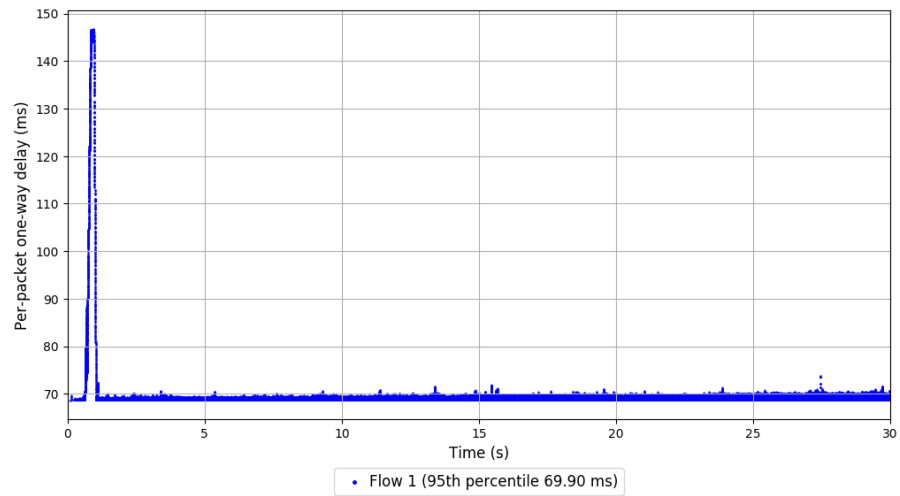
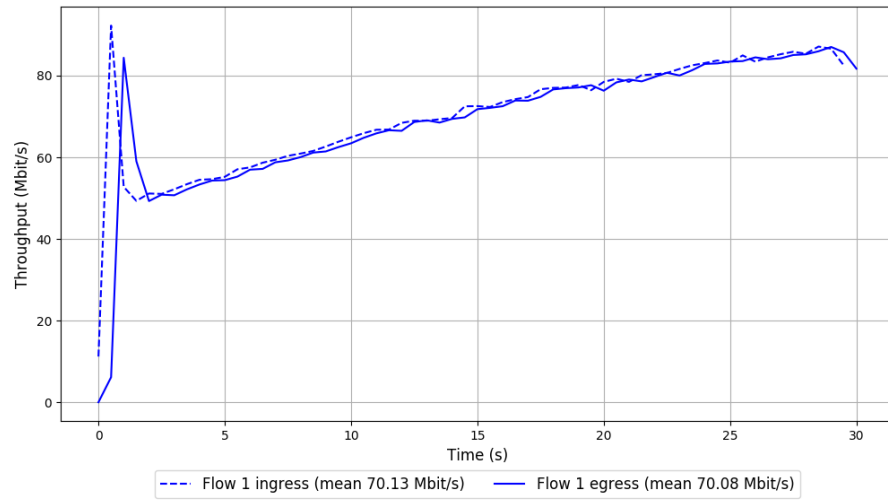


Run 5: Statistics of TCP Vegas

Start at: 2019-02-05 14:49:07  
End at: 2019-02-05 14:49:37  
Local clock offset: -1.74 ms  
Remote clock offset: -7.791 ms

# Below is generated by plot.py at 2019-02-05 15:23:08  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 70.08 Mbit/s  
95th percentile per-packet one-way delay: 69.896 ms  
Loss rate: 0.32%  
-- Flow 1:  
Average throughput: 70.08 Mbit/s  
95th percentile per-packet one-way delay: 69.896 ms  
Loss rate: 0.32%

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

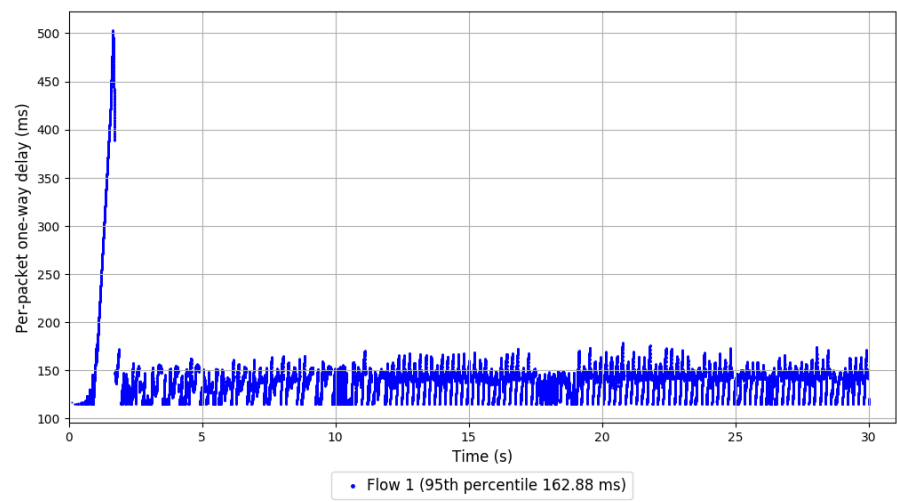
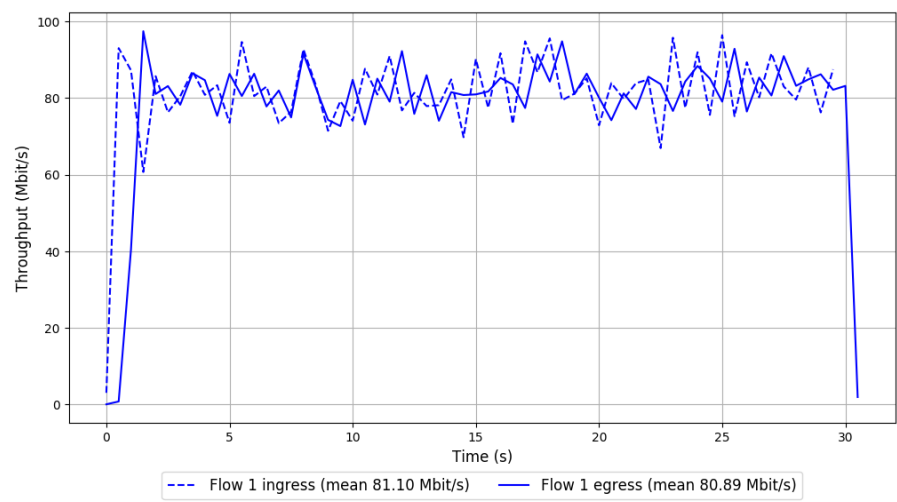


Run 1: Statistics of Verus

Start at: 2019-02-05 13:00:11  
End at: 2019-02-05 13:00:41  
Local clock offset: 0.837 ms  
Remote clock offset: -49.313 ms

# Below is generated by plot.py at 2019-02-05 15:23:17  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 80.89 Mbit/s  
95th percentile per-packet one-way delay: 162.883 ms  
Loss rate: 0.51%  
-- Flow 1:  
Average throughput: 80.89 Mbit/s  
95th percentile per-packet one-way delay: 162.883 ms  
Loss rate: 0.51%

Run 1: Report of Verus — Data Link

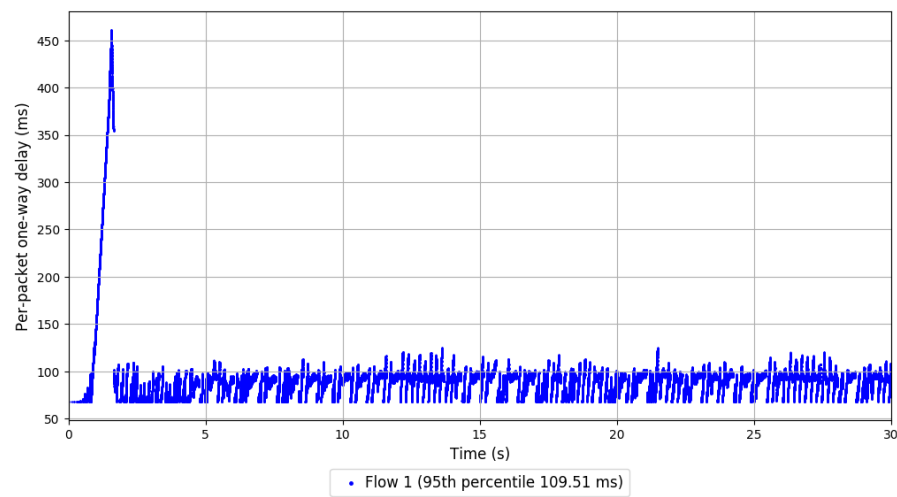
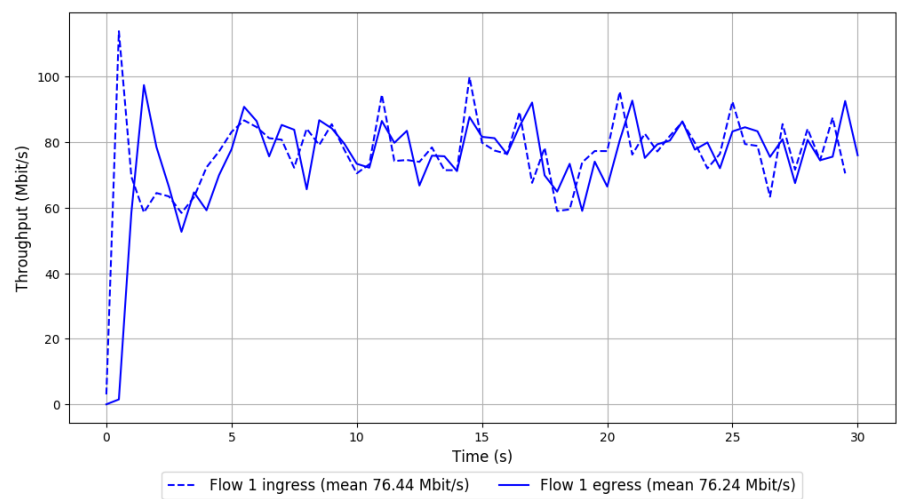


Run 2: Statistics of Verus

Start at: 2019-02-05 13:27:19  
End at: 2019-02-05 13:27:49  
Local clock offset: -0.592 ms  
Remote clock offset: -8.101 ms

# Below is generated by plot.py at 2019-02-05 15:23:17  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 76.24 Mbit/s  
95th percentile per-packet one-way delay: 109.509 ms  
Loss rate: 0.27%  
-- Flow 1:  
Average throughput: 76.24 Mbit/s  
95th percentile per-packet one-way delay: 109.509 ms  
Loss rate: 0.27%

Run 2: Report of Verus — Data Link



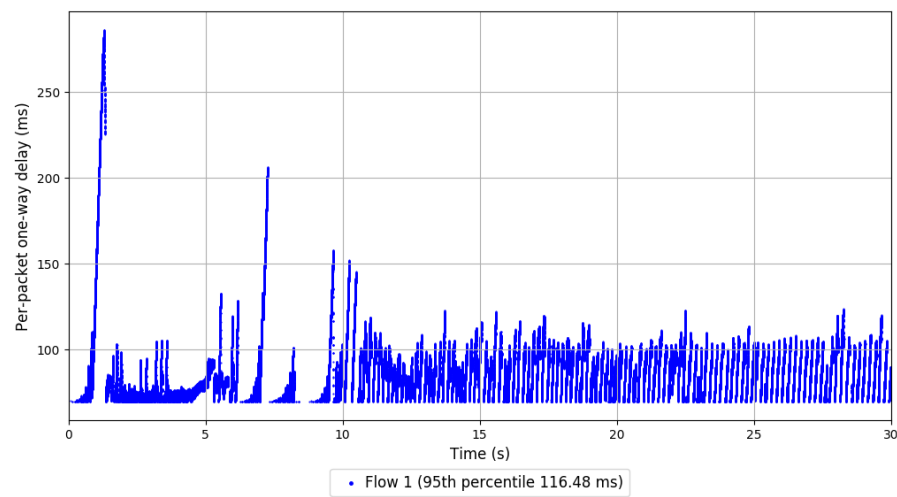
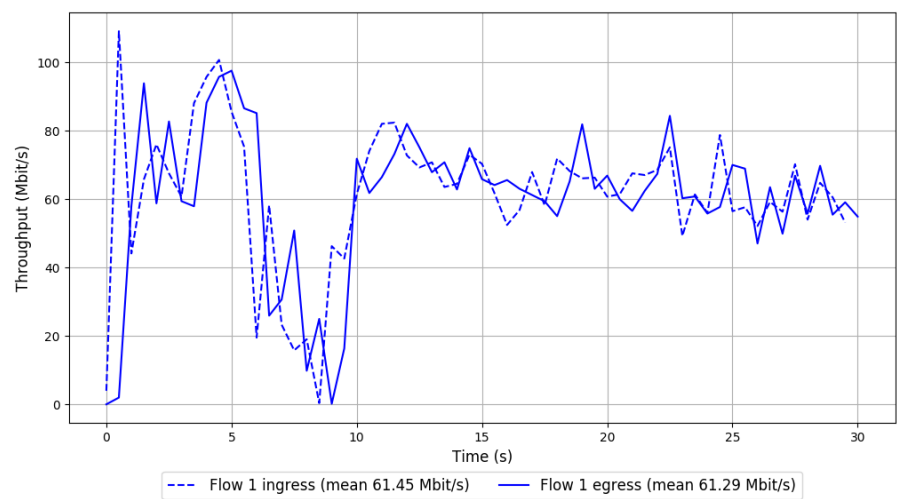


Run 3: Statistics of Verus

Start at: 2019-02-05 13:55:08  
End at: 2019-02-05 13:55:38  
Local clock offset: -1.442 ms  
Remote clock offset: -7.892 ms

# Below is generated by plot.py at 2019-02-05 15:23:44  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 61.29 Mbit/s  
95th percentile per-packet one-way delay: 116.482 ms  
Loss rate: 0.34%  
-- Flow 1:  
Average throughput: 61.29 Mbit/s  
95th percentile per-packet one-way delay: 116.482 ms  
Loss rate: 0.34%

Run 3: Report of Verus — Data Link

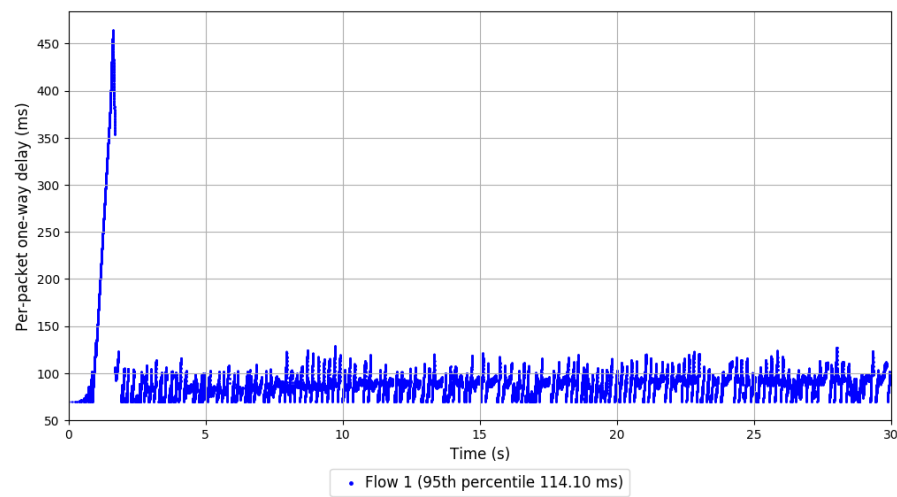
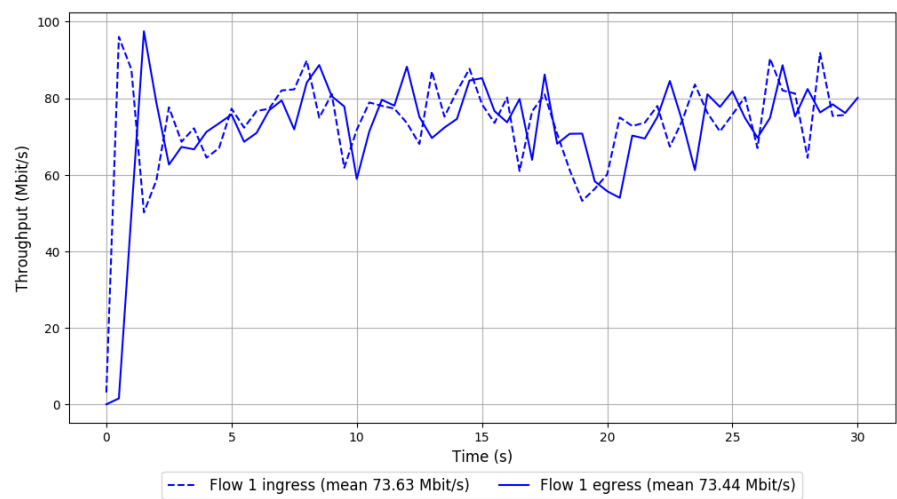


Run 4: Statistics of Verus

Start at: 2019-02-05 14:23:16  
End at: 2019-02-05 14:23:46  
Local clock offset: -1.07 ms  
Remote clock offset: -6.125 ms

# Below is generated by plot.py at 2019-02-05 15:23:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 73.44 Mbit/s  
95th percentile per-packet one-way delay: 114.103 ms  
Loss rate: 0.40%  
-- Flow 1:  
Average throughput: 73.44 Mbit/s  
95th percentile per-packet one-way delay: 114.103 ms  
Loss rate: 0.40%

Run 4: Report of Verus — Data Link

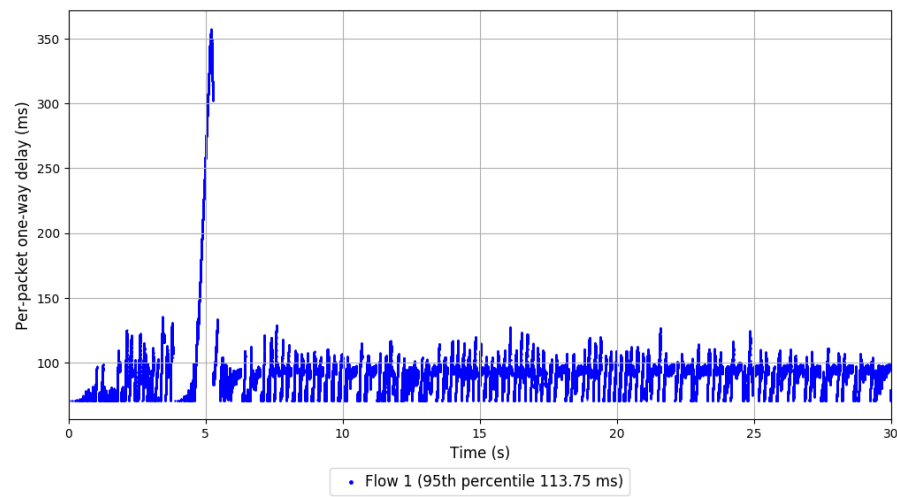
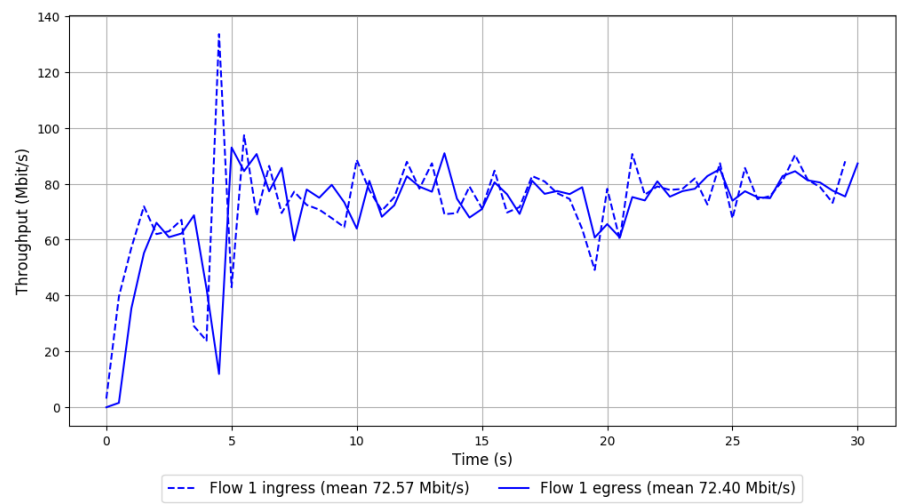


Run 5: Statistics of Verus

Start at: 2019-02-05 14:50:20  
End at: 2019-02-05 14:50:50  
Local clock offset: 0.456 ms  
Remote clock offset: -7.253 ms

# Below is generated by plot.py at 2019-02-05 15:23:56  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 72.40 Mbit/s  
95th percentile per-packet one-way delay: 113.750 ms  
Loss rate: 0.48%  
-- Flow 1:  
Average throughput: 72.40 Mbit/s  
95th percentile per-packet one-way delay: 113.750 ms  
Loss rate: 0.48%

Run 5: Report of Verus — Data Link

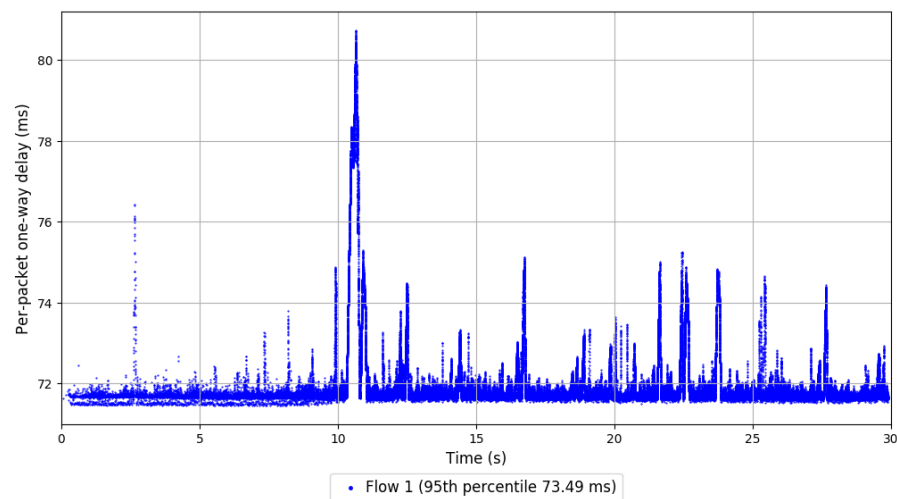
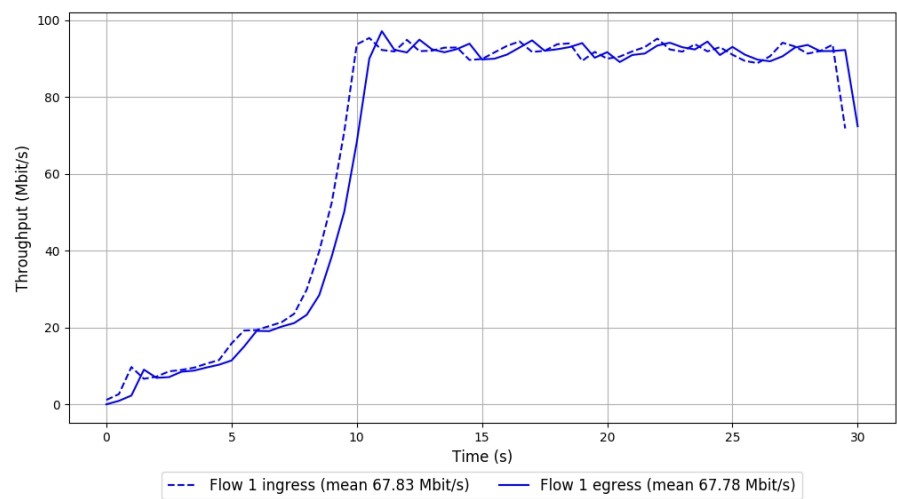


Run 1: Statistics of PCC-Vivace

Start at: 2019-02-05 12:57:33  
End at: 2019-02-05 12:58:03  
Local clock offset: 0.403 ms  
Remote clock offset: -6.594 ms

# Below is generated by plot.py at 2019-02-05 15:23:59  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 67.78 Mbit/s  
95th percentile per-packet one-way delay: 73.493 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 67.78 Mbit/s  
95th percentile per-packet one-way delay: 73.493 ms  
Loss rate: 0.33%

Run 1: Report of PCC-Vivace — Data Link



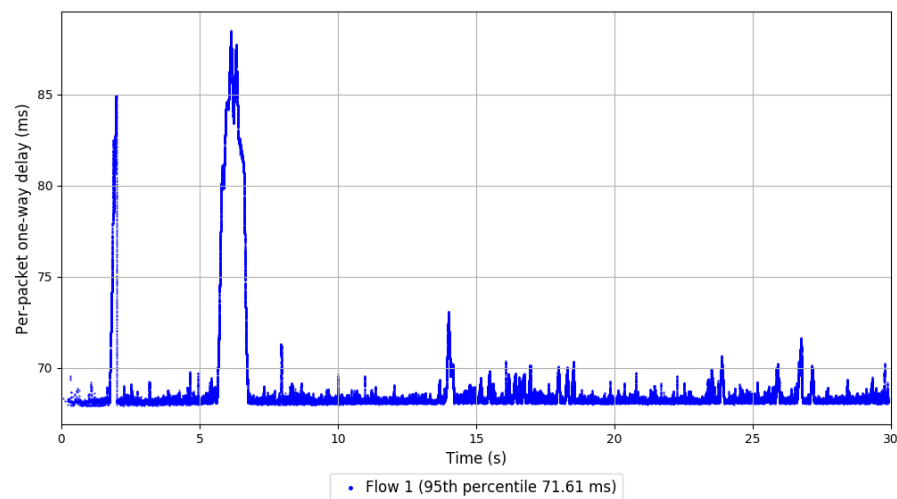
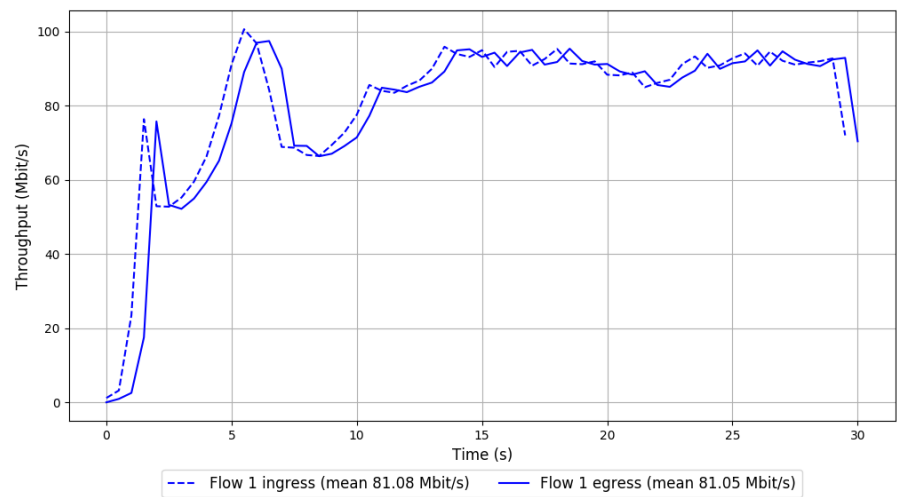


Run 2: Statistics of PCC-Vivace

Start at: 2019-02-05 13:24:27  
End at: 2019-02-05 13:24:57  
Local clock offset: -1.033 ms  
Remote clock offset: -6.694 ms

# Below is generated by plot.py at 2019-02-05 15:24:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 81.05 Mbit/s  
95th percentile per-packet one-way delay: 71.608 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 81.05 Mbit/s  
95th percentile per-packet one-way delay: 71.608 ms  
Loss rate: 0.30%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2019-02-05 13:52:40

End at: 2019-02-05 13:53:10

Local clock offset: 0.572 ms

Remote clock offset: -9.41 ms

# Below is generated by plot.py at 2019-02-05 15:24:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 65.30 Mbit/s

95th percentile per-packet one-way delay: 74.002 ms

Loss rate: 0.35%

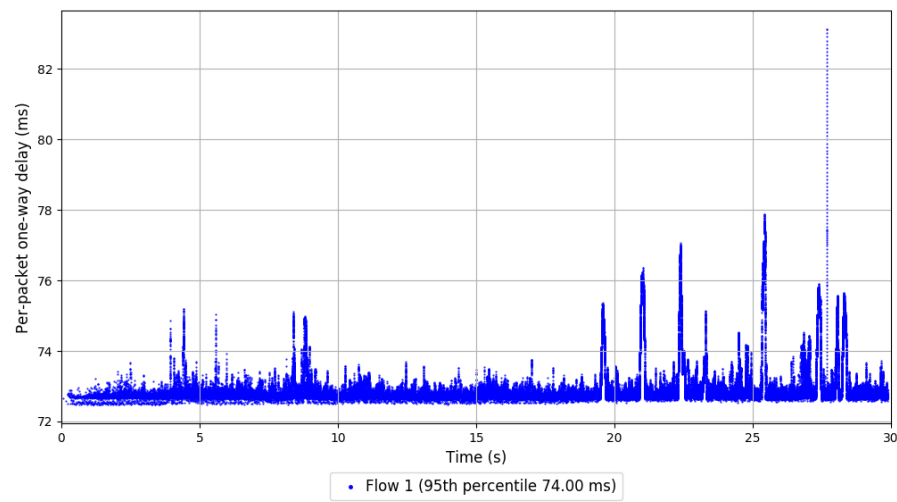
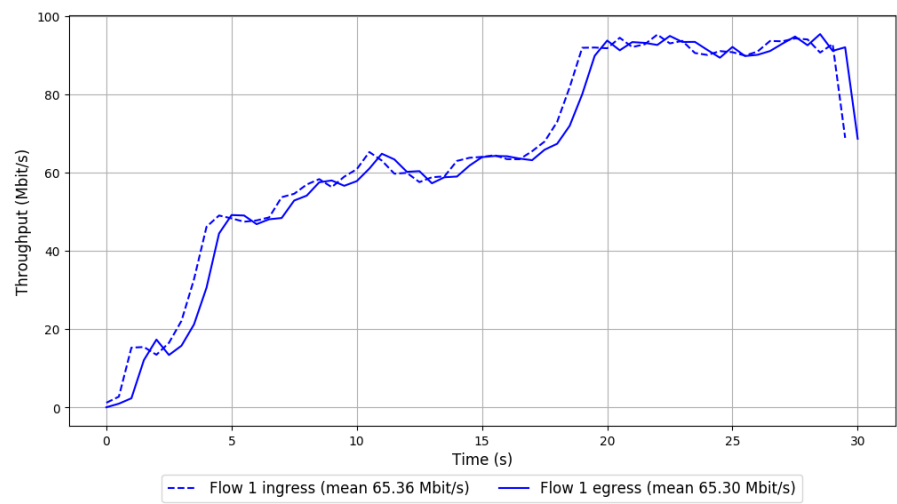
-- Flow 1:

Average throughput: 65.30 Mbit/s

95th percentile per-packet one-way delay: 74.002 ms

Loss rate: 0.35%

Run 3: Report of PCC-Vivace — Data Link



Run 4: Statistics of PCC-Vivace

Start at: 2019-02-05 14:20:30

End at: 2019-02-05 14:21:00

Local clock offset: -0.381 ms

Remote clock offset: -7.46 ms

# Below is generated by plot.py at 2019-02-05 15:24:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 78.27 Mbit/s

95th percentile per-packet one-way delay: 72.420 ms

Loss rate: 0.31%

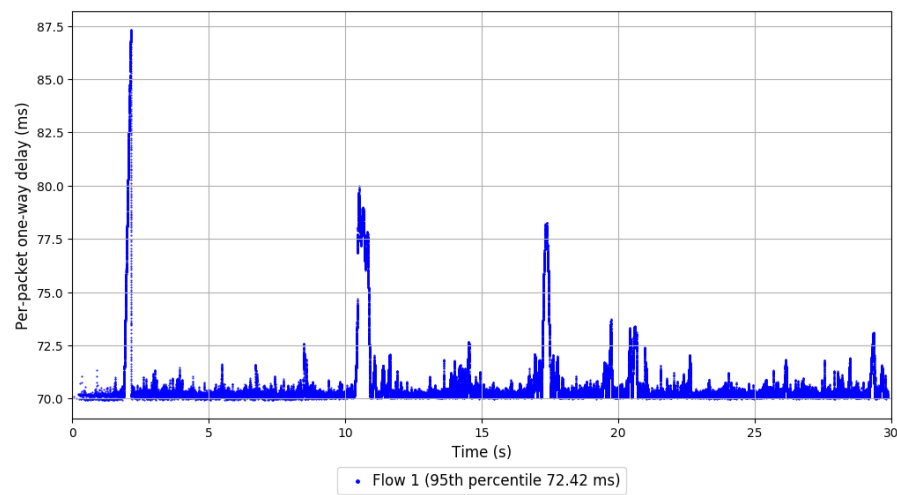
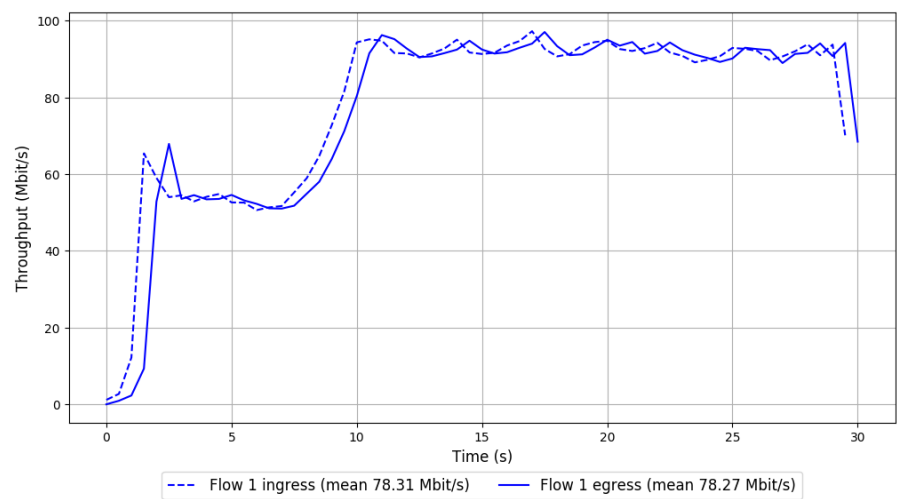
-- Flow 1:

Average throughput: 78.27 Mbit/s

95th percentile per-packet one-way delay: 72.420 ms

Loss rate: 0.31%

Run 4: Report of PCC-Vivace — Data Link



Run 5: Statistics of PCC-Vivace

Start at: 2019-02-05 14:47:54

End at: 2019-02-05 14:48:24

Local clock offset: -1.945 ms

Remote clock offset: -8.521 ms

# Below is generated by plot.py at 2019-02-05 15:24:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 54.54 Mbit/s

95th percentile per-packet one-way delay: 72.345 ms

Loss rate: 0.45%

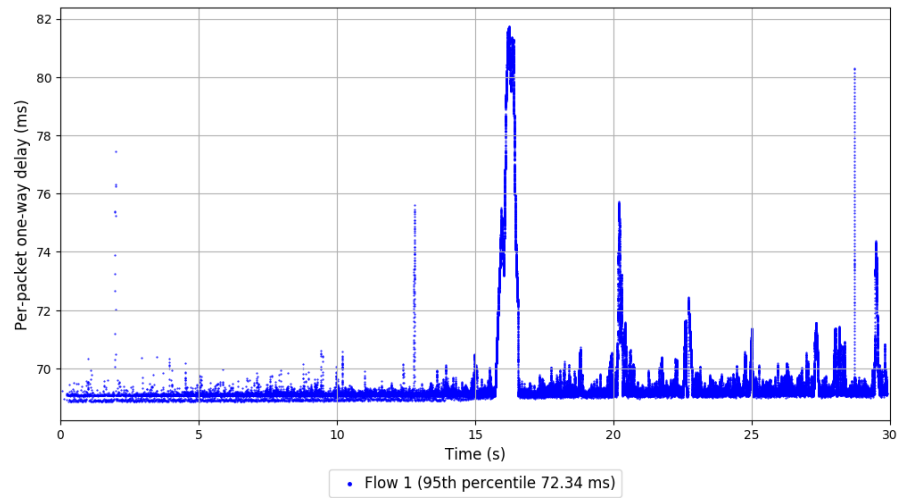
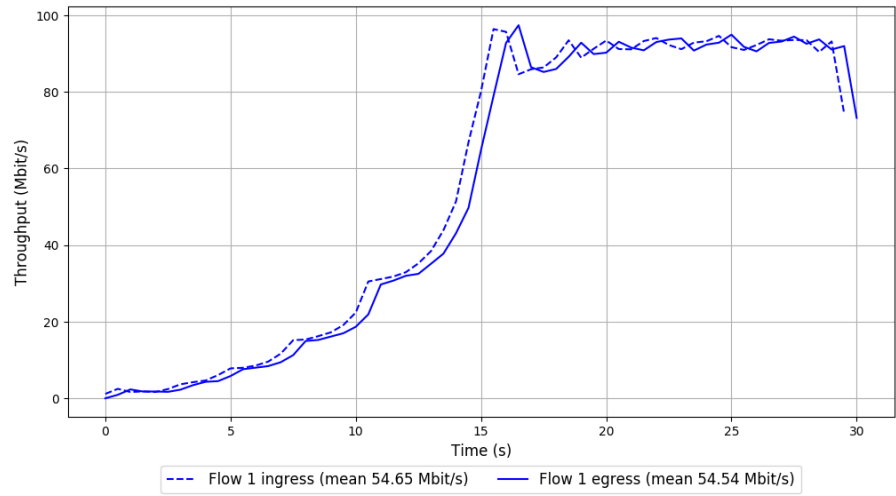
-- Flow 1:

Average throughput: 54.54 Mbit/s

95th percentile per-packet one-way delay: 72.345 ms

Loss rate: 0.45%

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





Run 1: Statistics of WebRTC media

Start at: 2019-02-05 13:14:19

End at: 2019-02-05 13:14:49

Local clock offset: 1.251 ms

Remote clock offset: -6.81 ms

# Below is generated by plot.py at 2019-02-05 15:24:04

# Datalink statistics

-- Total of 1 flow:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 70.241 ms

Loss rate: 0.26%

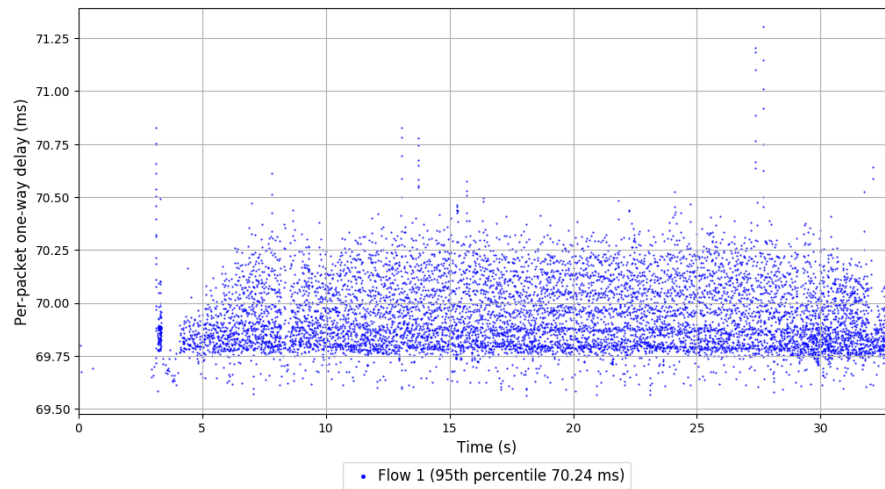
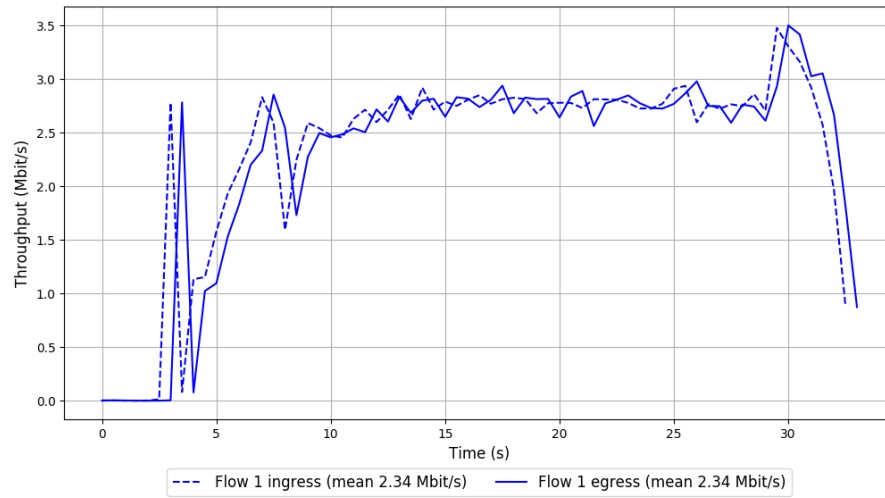
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 70.241 ms

Loss rate: 0.26%

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

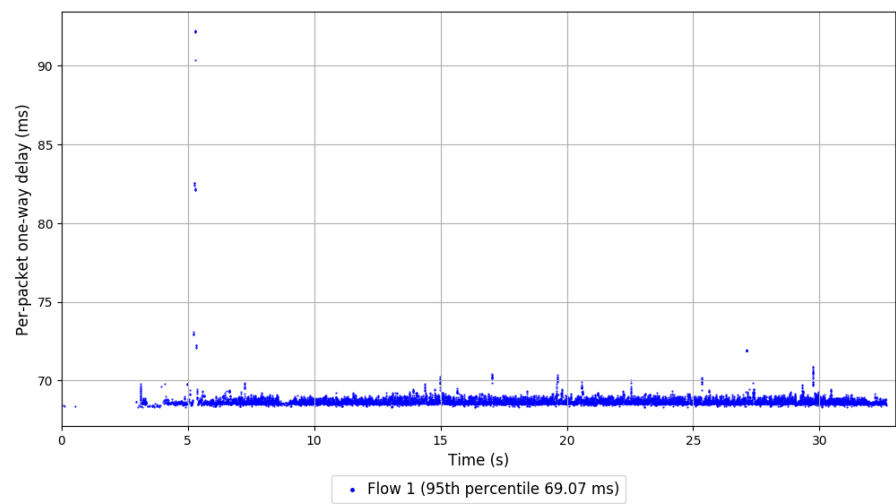
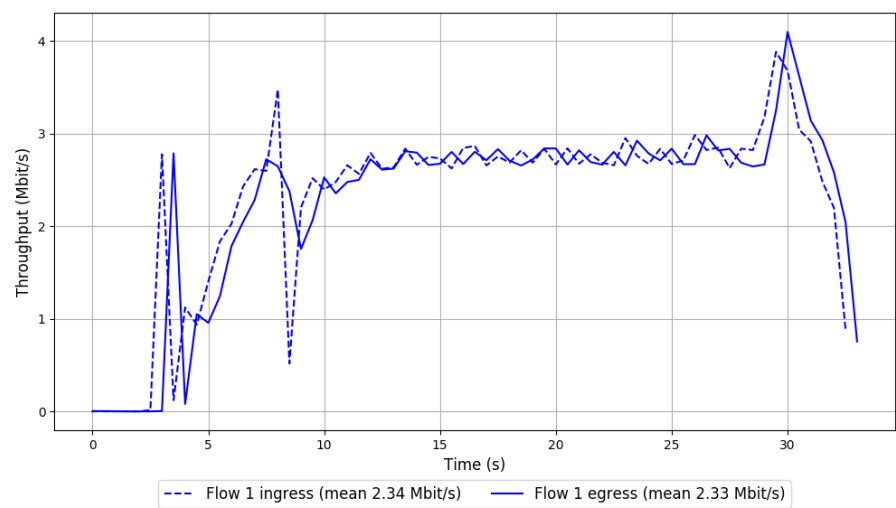


Run 2: Statistics of WebRTC media

Start at: 2019-02-05 13:42:10  
End at: 2019-02-05 13:42:40  
Local clock offset: -2.135 ms  
Remote clock offset: -8.156 ms

# Below is generated by plot.py at 2019-02-05 15:24:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.33 Mbit/s  
95th percentile per-packet one-way delay: 69.067 ms  
Loss rate: 0.33%  
-- Flow 1:  
Average throughput: 2.33 Mbit/s  
95th percentile per-packet one-way delay: 69.067 ms  
Loss rate: 0.33%

Run 2: Report of WebRTC media — Data Link

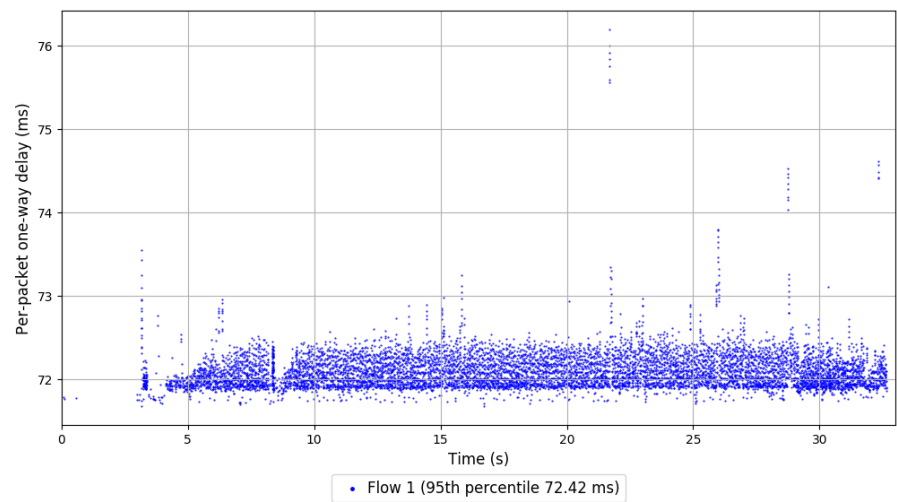
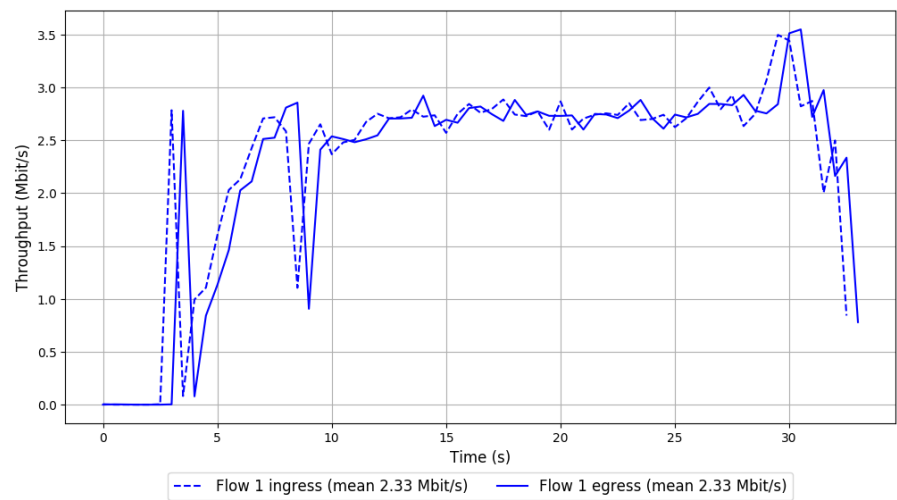


Run 3: Statistics of WebRTC media

Start at: 2019-02-05 14:09:48  
End at: 2019-02-05 14:10:18  
Local clock offset: -0.919 ms  
Remote clock offset: -7.682 ms

# Below is generated by plot.py at 2019-02-05 15:24:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.33 Mbit/s  
95th percentile per-packet one-way delay: 72.424 ms  
Loss rate: 0.30%  
-- Flow 1:  
Average throughput: 2.33 Mbit/s  
95th percentile per-packet one-way delay: 72.424 ms  
Loss rate: 0.30%

Run 3: Report of WebRTC media — Data Link

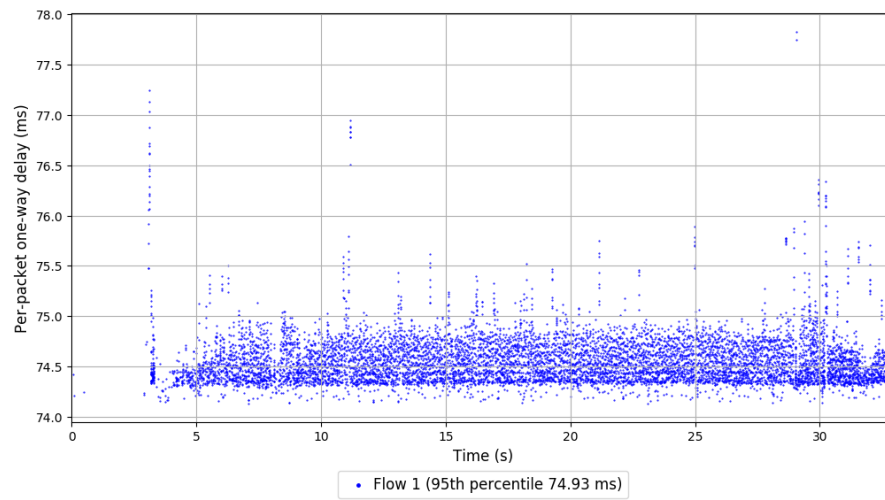
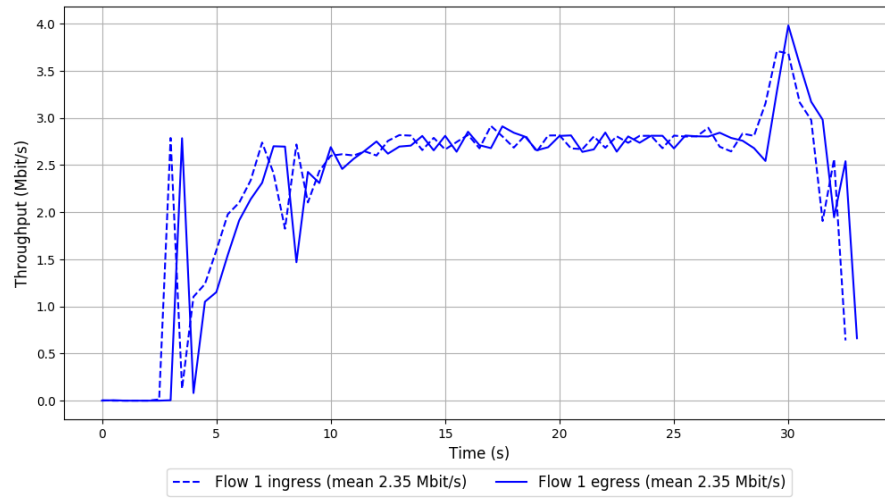


Run 4: Statistics of WebRTC media

Start at: 2019-02-05 14:37:43  
End at: 2019-02-05 14:38:13  
Local clock offset: 1.849 ms  
Remote clock offset: -8.234 ms

# Below is generated by plot.py at 2019-02-05 15:24:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay: 74.926 ms  
Loss rate: 0.24%  
-- Flow 1:  
Average throughput: 2.35 Mbit/s  
95th percentile per-packet one-way delay: 74.926 ms  
Loss rate: 0.24%

#### Run 4: Report of WebRTC media — Data Link





Run 5: Statistics of WebRTC media

Start at: 2019-02-05 15:04:53  
End at: 2019-02-05 15:05:23  
Local clock offset: -0.549 ms  
Remote clock offset: -7.306 ms

# Below is generated by plot.py at 2019-02-05 15:24:04  
# Datalink statistics  
-- Total of 1 flow:  
Average throughput: 2.34 Mbit/s  
95th percentile per-packet one-way delay: 73.326 ms  
Loss rate: 0.31%  
-- Flow 1:  
Average throughput: 2.34 Mbit/s  
95th percentile per-packet one-way delay: 73.326 ms  
Loss rate: 0.31%

Run 5: Report of WebRTC media — Data Link

