

Pantheon Report

Generated at 2018-12-11 10:58:40 (UTC).
Data path: AWS Brazil 2 on `ens5` (*local*) → Colombia on `p4p1` (*remote*).
Repeated the test of 19 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

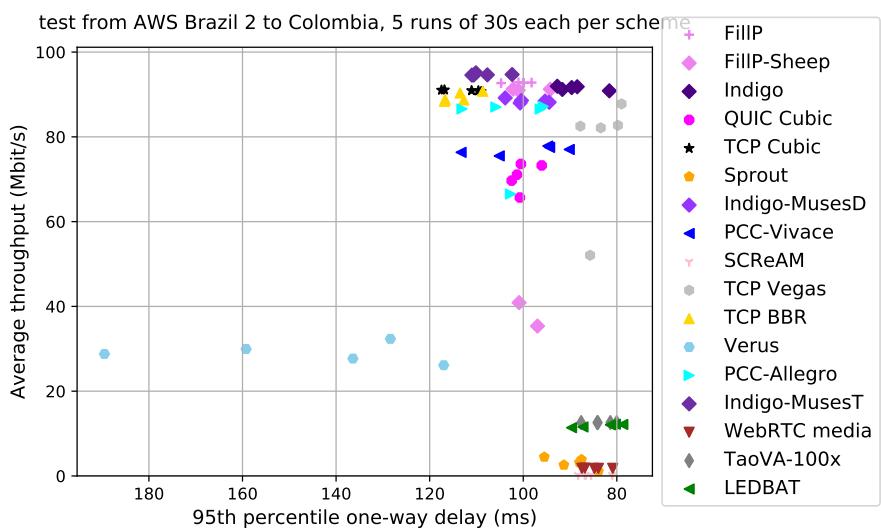
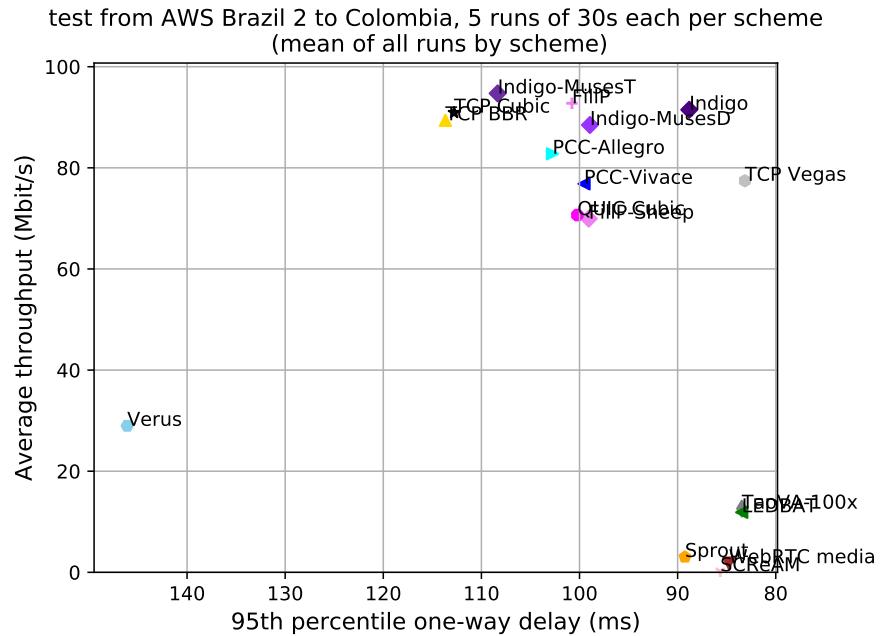
System info:

```
Linux 4.15.0-1029-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 @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fc45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbfed0c6349ae986009b4fa8643c40a
third_party/muses-refactored @ 31f8f0ba8ef8b1da76c2bc0cd0a7850c33ff64fb
third_party/pantheon-tunnel @ f866d3f58d27af942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
```

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



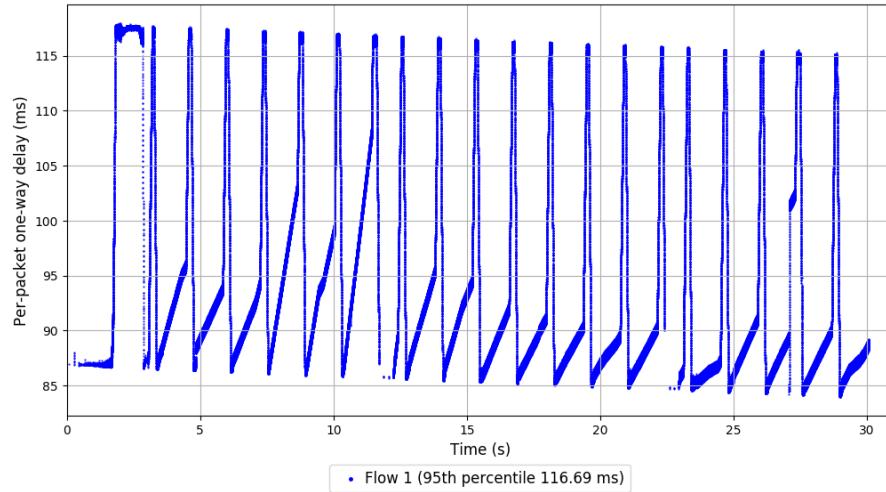
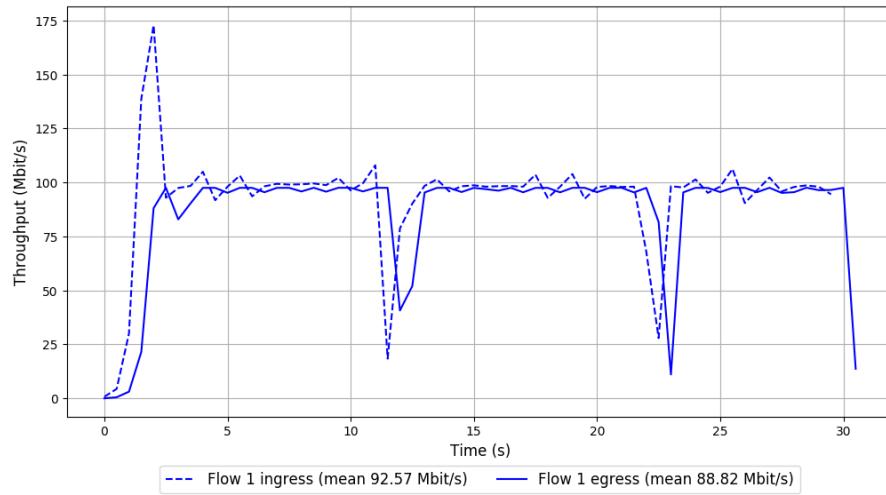
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	89.40	113.67	3.22
Copa	0	N/A	N/A	N/A
TCP Cubic	5	90.92	112.78	0.55
FillP	5	92.77	100.77	1.03
FillP-Sheep	5	69.95	99.06	1.60
Indigo	5	91.49	88.82	0.99
Indigo-MusesD	5	88.48	98.94	2.58
Indigo-MusesT	5	94.72	108.34	0.82
LEDBAT	5	11.87	83.47	0.00
PCC-Allegro	5	82.78	102.75	1.63
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	70.67	100.22	0.35
SCReAM	5	0.22	85.66	0.03
Sprout	5	3.04	89.26	0.00
TaoVA-100x	5	12.59	83.46	27.50
TCP Vegas	5	77.44	83.14	0.61
Verus	5	28.98	146.10	47.65
PCC-Vivace	5	76.85	99.54	0.08
WebRTC media	5	1.81	84.79	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-12-11 09:17:53
End at: 2018-12-11 09:18:23
Local clock offset: 1.946 ms
Remote clock offset: 1005.318 ms

# Below is generated by plot.py at 2018-12-11 10:51:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 116.693 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 116.693 ms
Loss rate: 4.05%
```

Run 1: Report of TCP BBR — Data Link

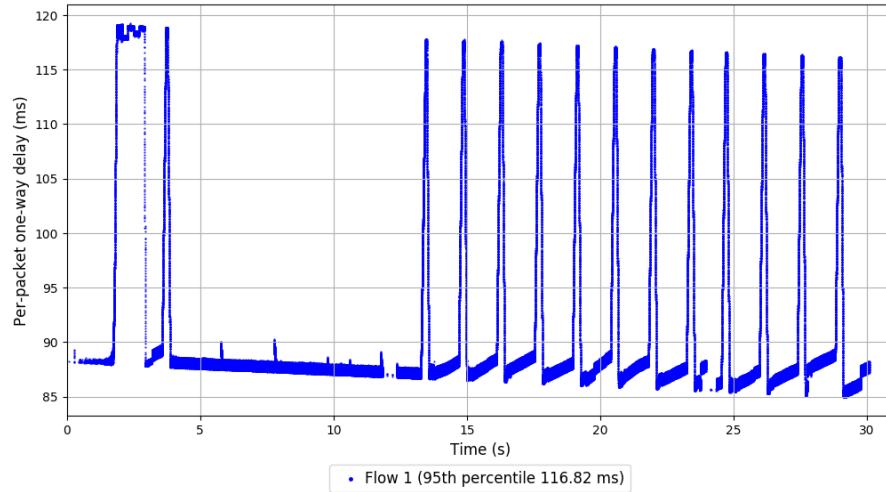
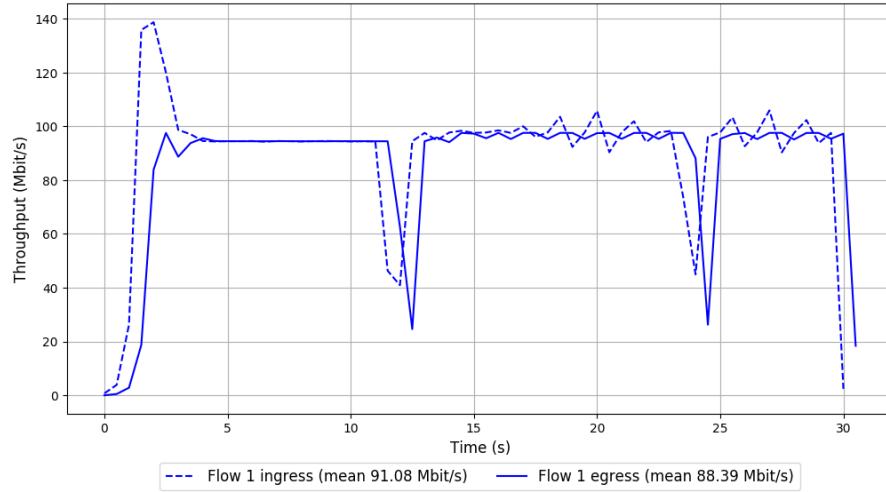


Run 2: Statistics of TCP BBR

```
Start at: 2018-12-11 09:40:06
End at: 2018-12-11 09:40:36
Local clock offset: 4.592 ms
Remote clock offset: 1133.008 ms

# Below is generated by plot.py at 2018-12-11 10:51:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.39 Mbit/s
95th percentile per-packet one-way delay: 116.820 ms
Loss rate: 2.97%
-- Flow 1:
Average throughput: 88.39 Mbit/s
95th percentile per-packet one-way delay: 116.820 ms
Loss rate: 2.97%
```

Run 2: Report of TCP BBR — Data Link

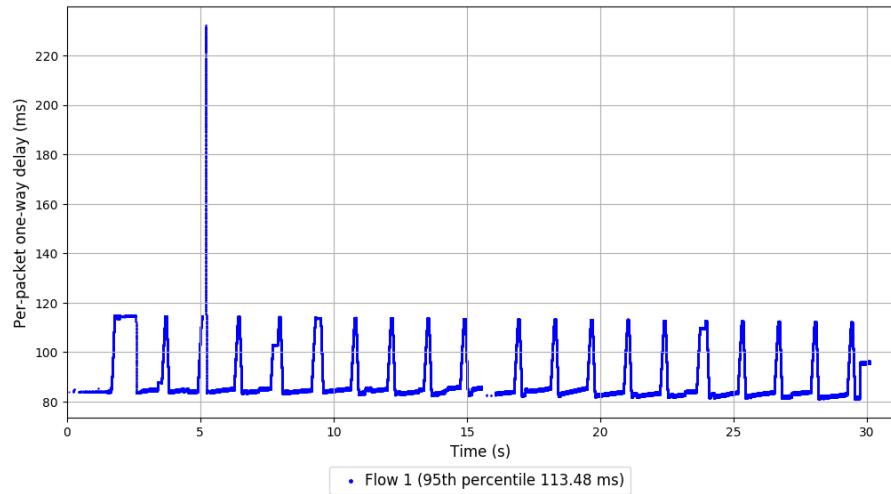
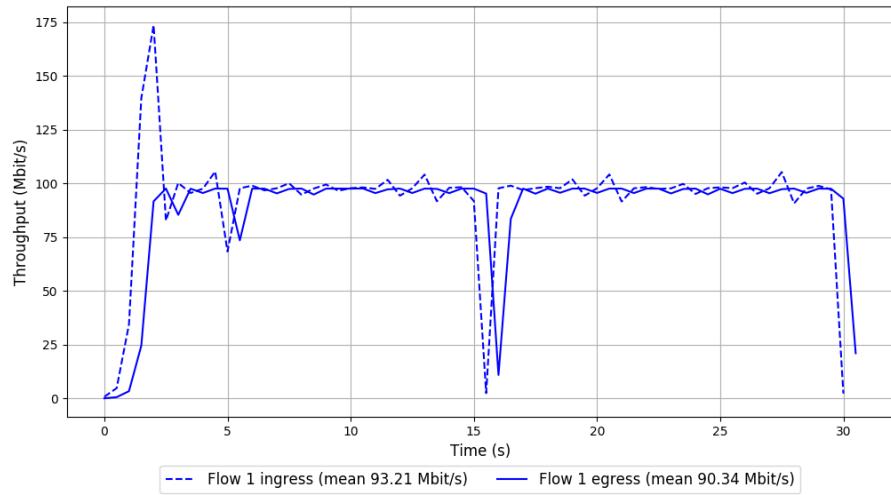


Run 3: Statistics of TCP BBR

```
Start at: 2018-12-11 10:02:19
End at: 2018-12-11 10:02:49
Local clock offset: 2.058 ms
Remote clock offset: 2.765 ms

# Below is generated by plot.py at 2018-12-11 10:51:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 113.485 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 90.34 Mbit/s
95th percentile per-packet one-way delay: 113.485 ms
Loss rate: 3.05%
```

Run 3: Report of TCP BBR — Data Link

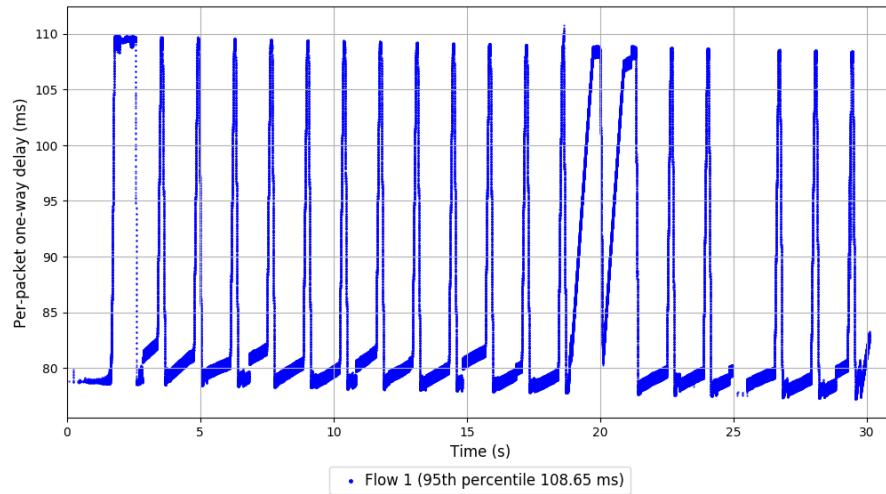
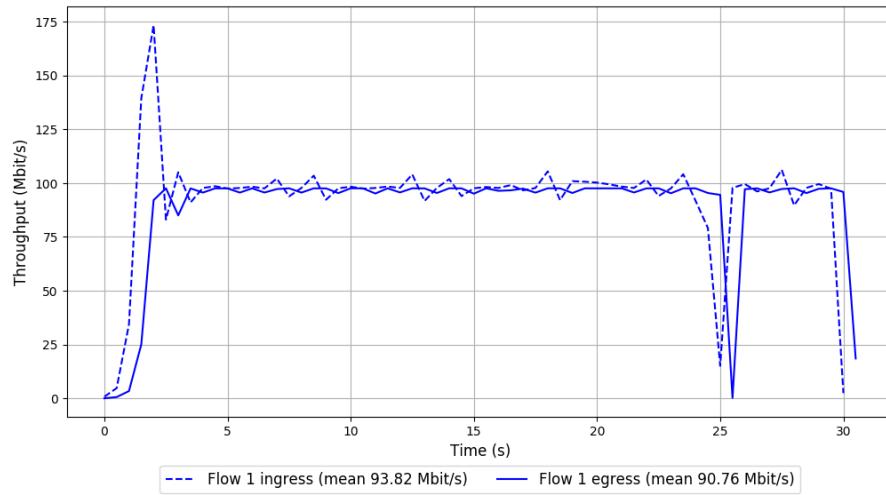


Run 4: Statistics of TCP BBR

```
Start at: 2018-12-11 10:24:33
End at: 2018-12-11 10:25:03
Local clock offset: 0.188 ms
Remote clock offset: 35.378 ms

# Below is generated by plot.py at 2018-12-11 10:51:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 108.647 ms
Loss rate: 3.24%
-- Flow 1:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 108.647 ms
Loss rate: 3.24%
```

Run 4: Report of TCP BBR — Data Link

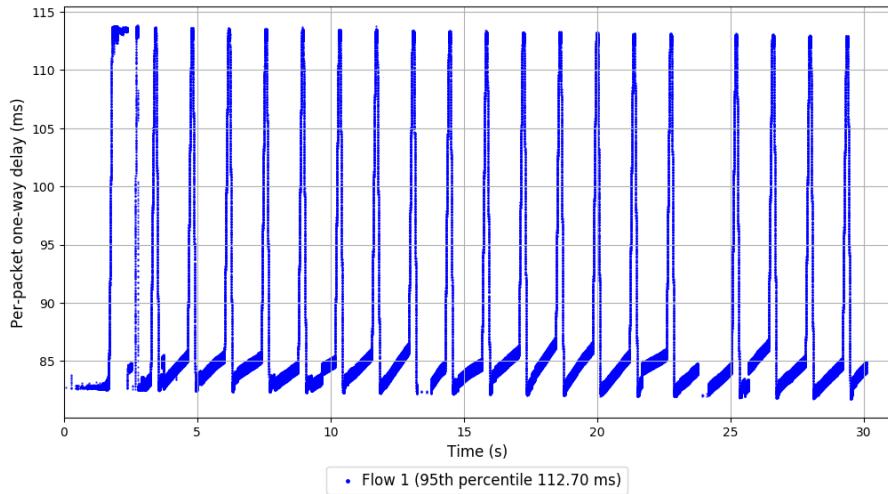
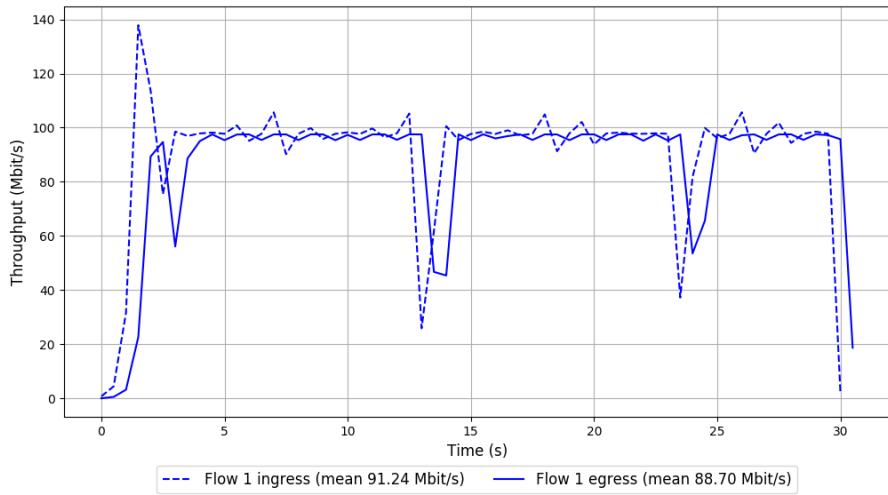


Run 5: Statistics of TCP BBR

```
Start at: 2018-12-11 10:46:48
End at: 2018-12-11 10:47:18
Local clock offset: -0.789 ms
Remote clock offset: 49.806 ms

# Below is generated by plot.py at 2018-12-11 10:51:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 112.705 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 88.70 Mbit/s
95th percentile per-packet one-way delay: 112.705 ms
Loss rate: 2.78%
```

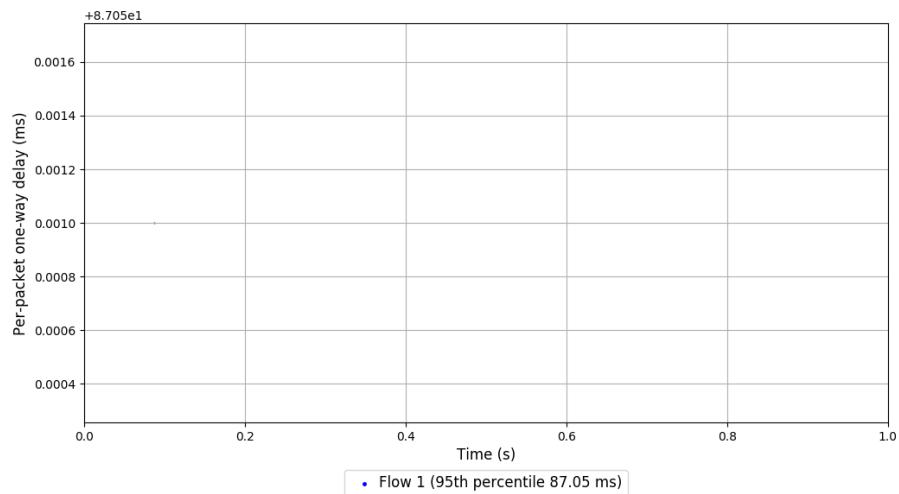
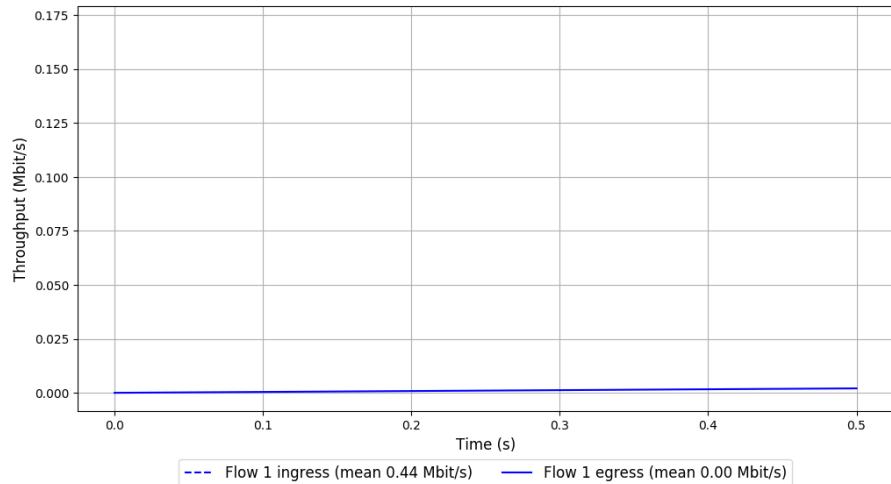
Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-12-11 09:09:44
End at: 2018-12-11 09:10:14
Local clock offset: 2.72 ms
Remote clock offset: 957.901 ms

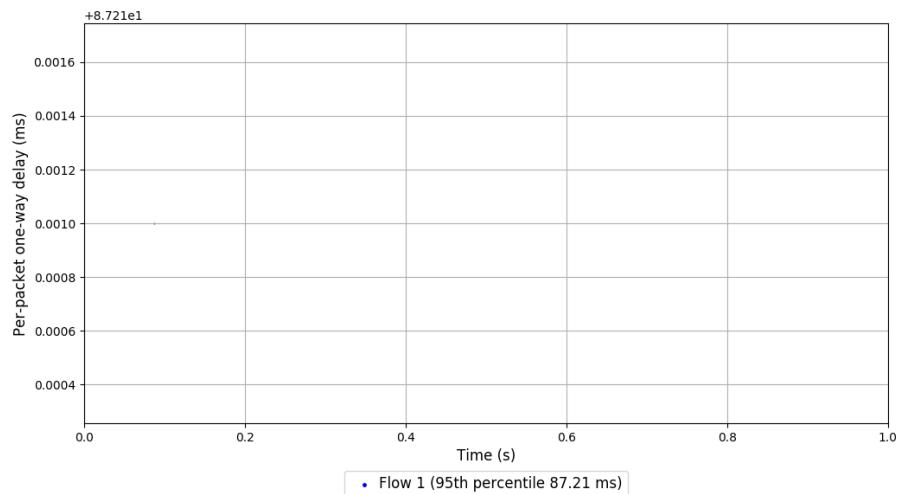
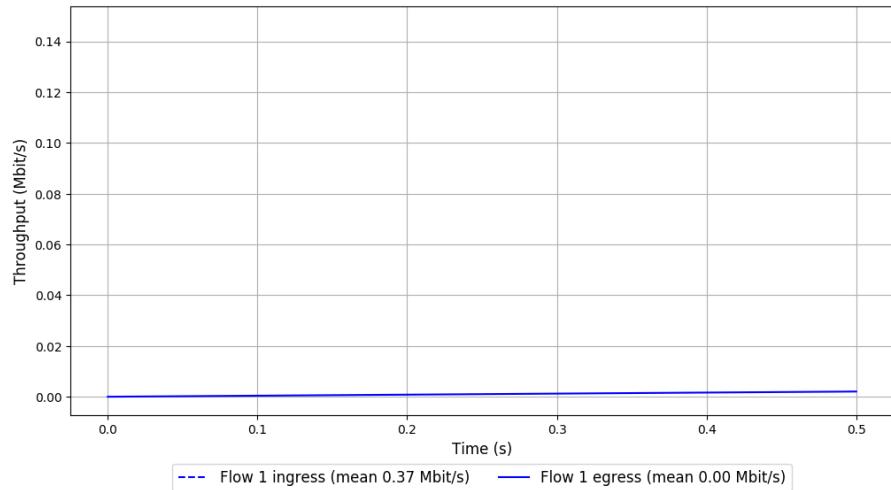
Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-12-11 09:31:58
End at: 2018-12-11 09:32:28
Local clock offset: 4.723 ms
Remote clock offset: 1084.441 ms

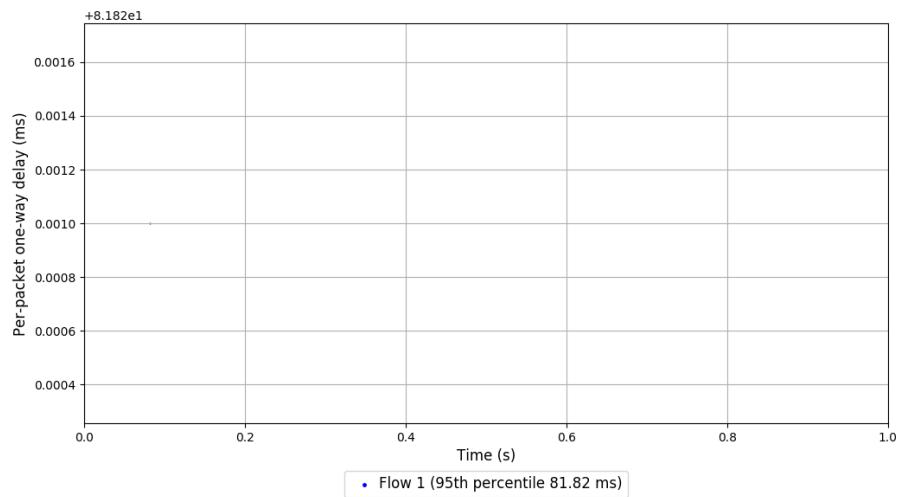
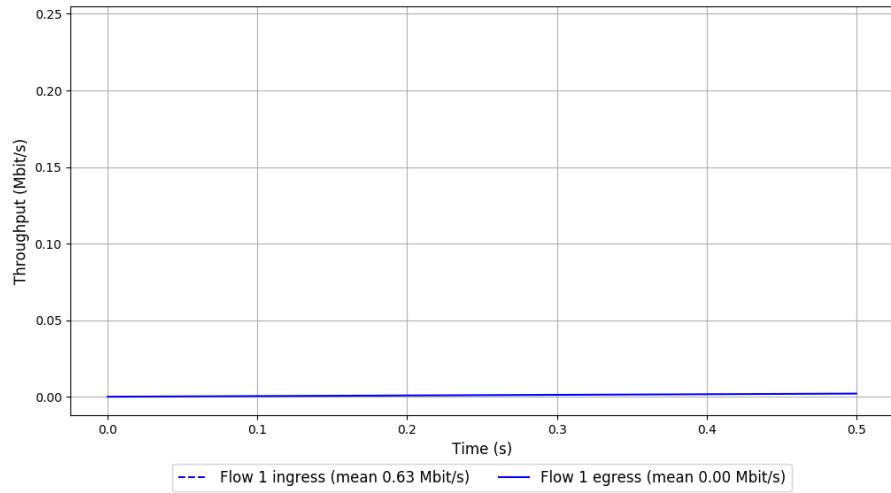
Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-12-11 09:54:10
End at: 2018-12-11 09:54:40
Local clock offset: 2.258 ms
Remote clock offset: 1215.764 ms

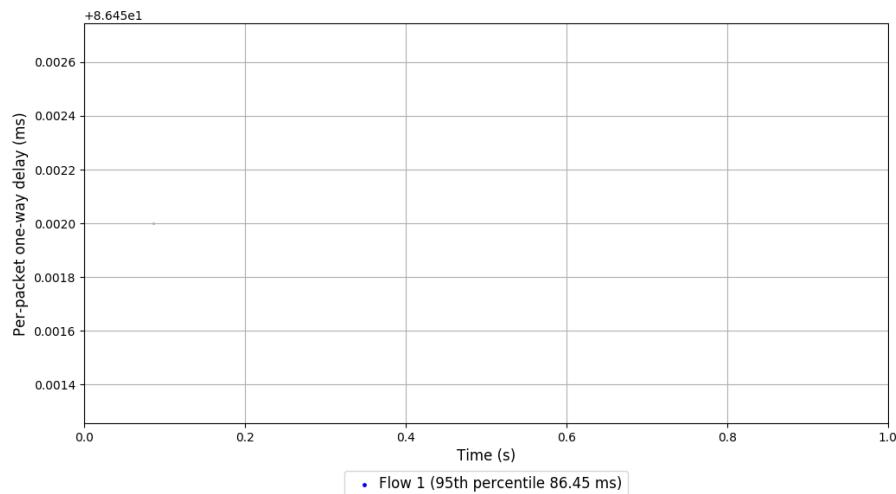
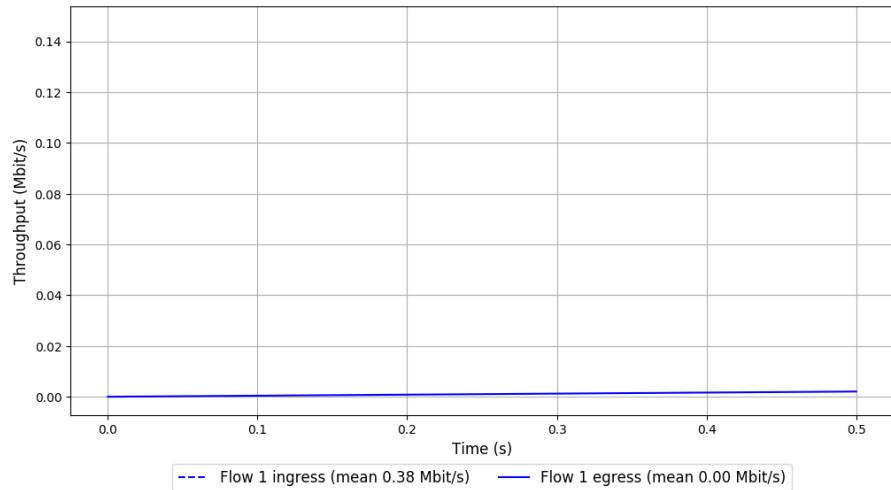
Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-12-11 10:16:25
End at: 2018-12-11 10:16:55
Local clock offset: 0.891 ms
Remote clock offset: 16.993 ms

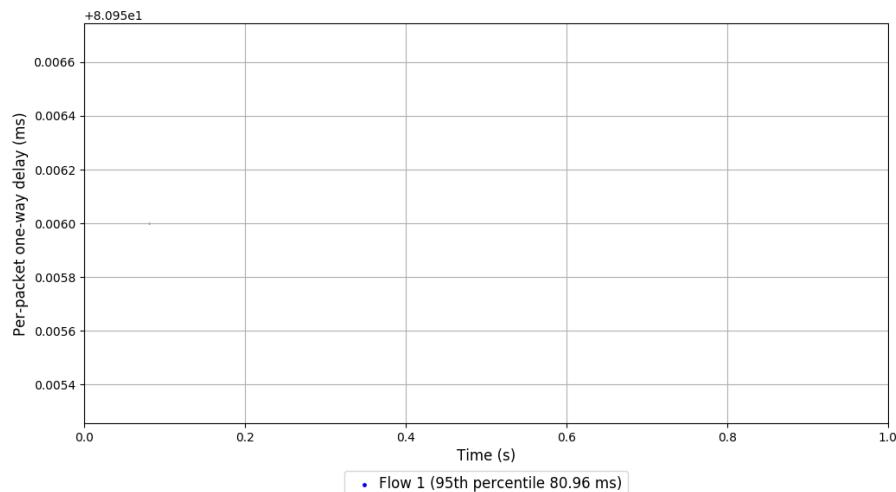
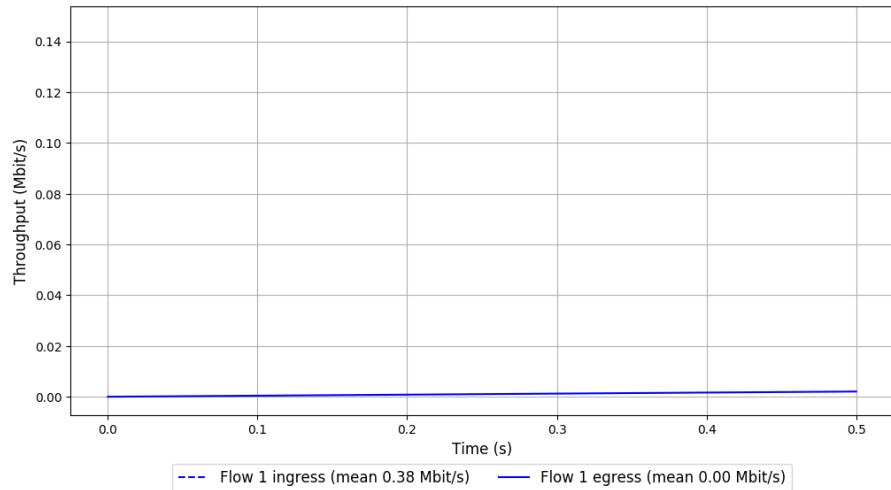
Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-12-11 10:38:39
End at: 2018-12-11 10:39:09
Local clock offset: 0.685 ms
Remote clock offset: 40.252 ms

Run 5: Report of Copa — Data Link

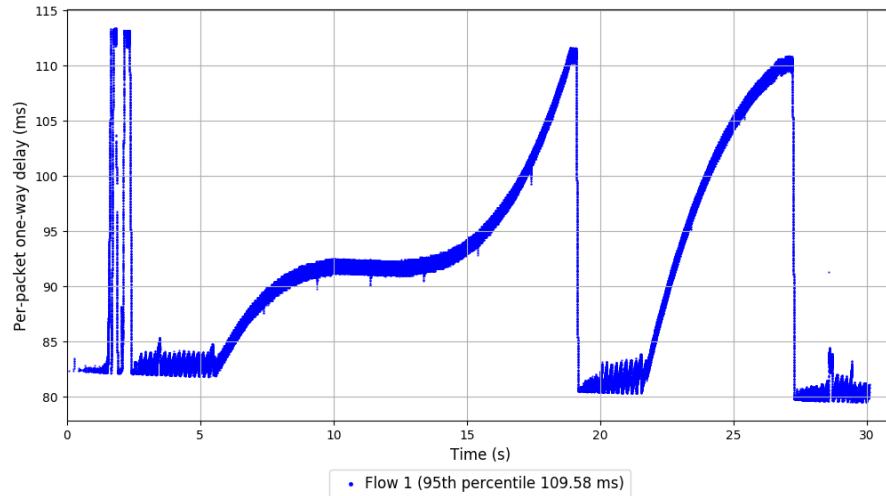
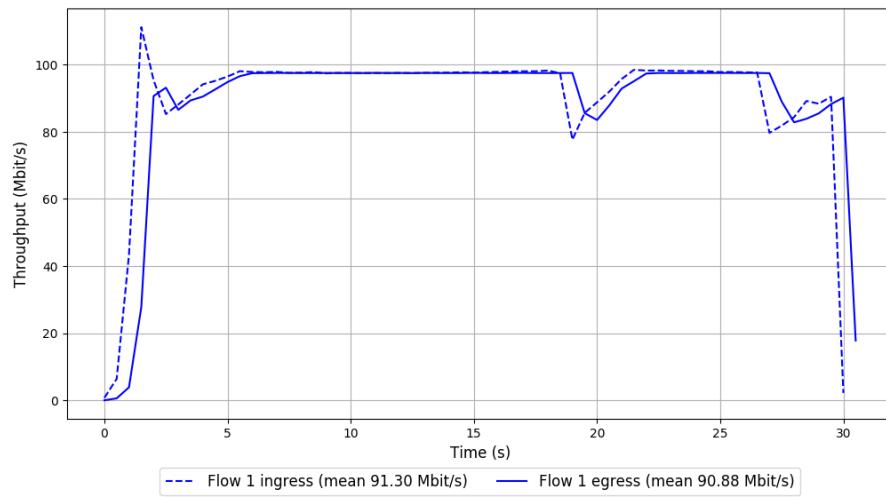


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-12-11 09:03:57
End at: 2018-12-11 09:04:27
Local clock offset: 1.845 ms
Remote clock offset: 918.787 ms

# Below is generated by plot.py at 2018-12-11 10:51:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.88 Mbit/s
95th percentile per-packet one-way delay: 109.582 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 90.88 Mbit/s
95th percentile per-packet one-way delay: 109.582 ms
Loss rate: 0.46%
```

Run 1: Report of TCP Cubic — Data Link

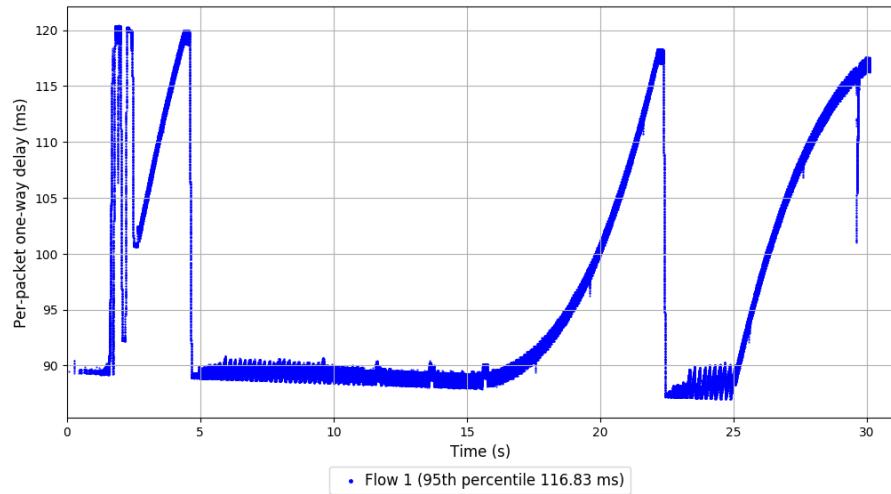
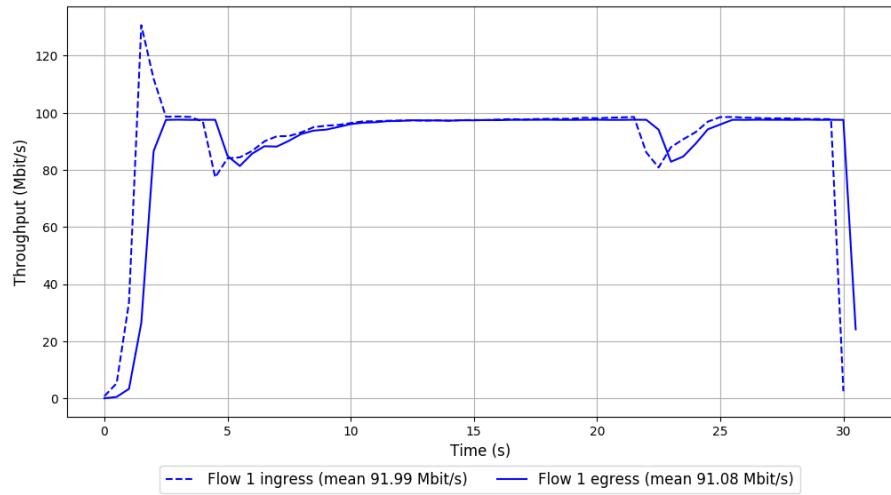


Run 2: Statistics of TCP Cubic

```
Start at: 2018-12-11 09:26:12
End at: 2018-12-11 09:26:43
Local clock offset: 3.319 ms
Remote clock offset: 1052.39 ms

# Below is generated by plot.py at 2018-12-11 10:51:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.08 Mbit/s
95th percentile per-packet one-way delay: 116.835 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 91.08 Mbit/s
95th percentile per-packet one-way delay: 116.835 ms
Loss rate: 0.91%
```

Run 2: Report of TCP Cubic — Data Link

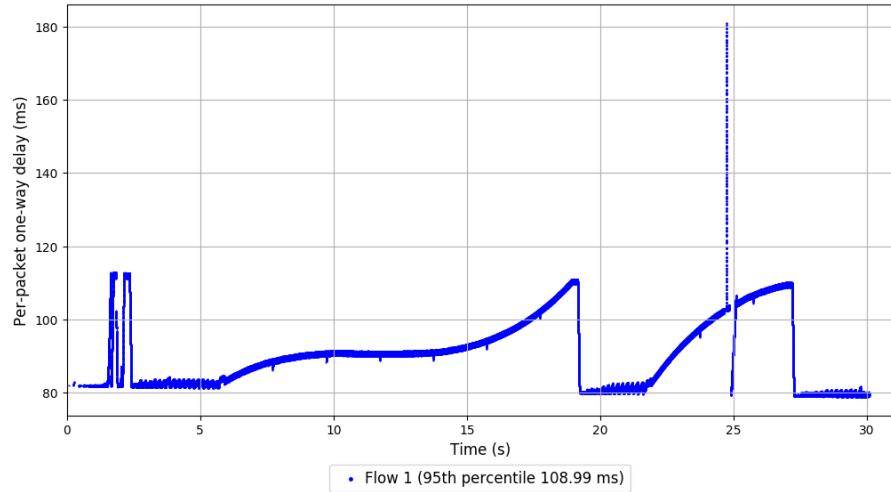
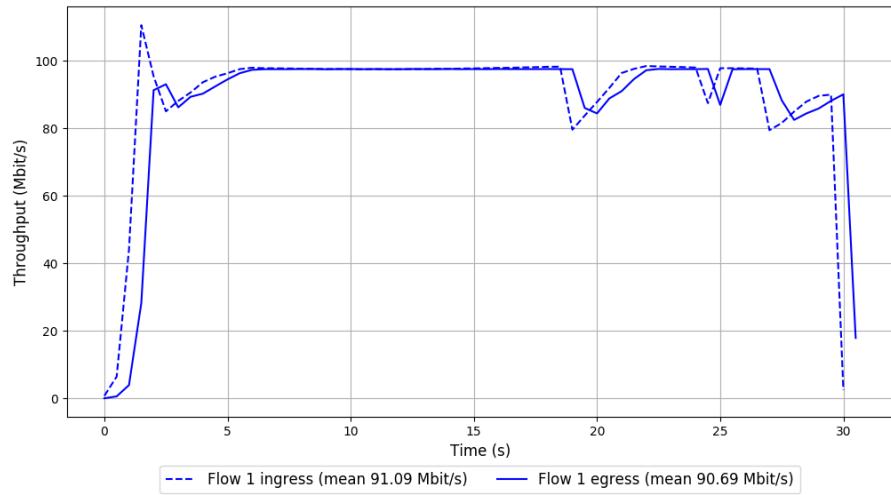


Run 3: Statistics of TCP Cubic

```
Start at: 2018-12-11 09:48:24
End at: 2018-12-11 09:48:54
Local clock offset: 2.532 ms
Remote clock offset: 1181.858 ms

# Below is generated by plot.py at 2018-12-11 10:51:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.69 Mbit/s
95th percentile per-packet one-way delay: 108.990 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 90.69 Mbit/s
95th percentile per-packet one-way delay: 108.990 ms
Loss rate: 0.45%
```

Run 3: Report of TCP Cubic — Data Link

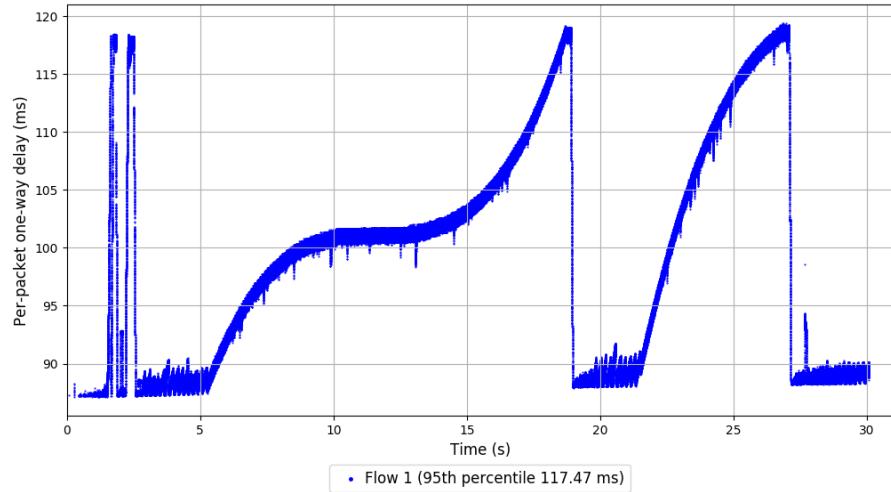
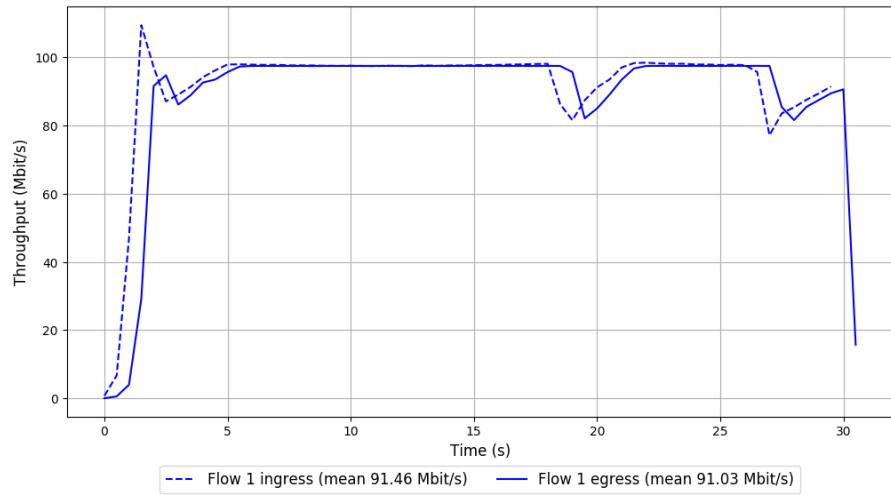


Run 4: Statistics of TCP Cubic

```
Start at: 2018-12-11 10:10:38
End at: 2018-12-11 10:11:08
Local clock offset: 1.858 ms
Remote clock offset: 9.532 ms

# Below is generated by plot.py at 2018-12-11 10:53:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.03 Mbit/s
95th percentile per-packet one-way delay: 117.473 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 91.03 Mbit/s
95th percentile per-packet one-way delay: 117.473 ms
Loss rate: 0.46%
```

Run 4: Report of TCP Cubic — Data Link

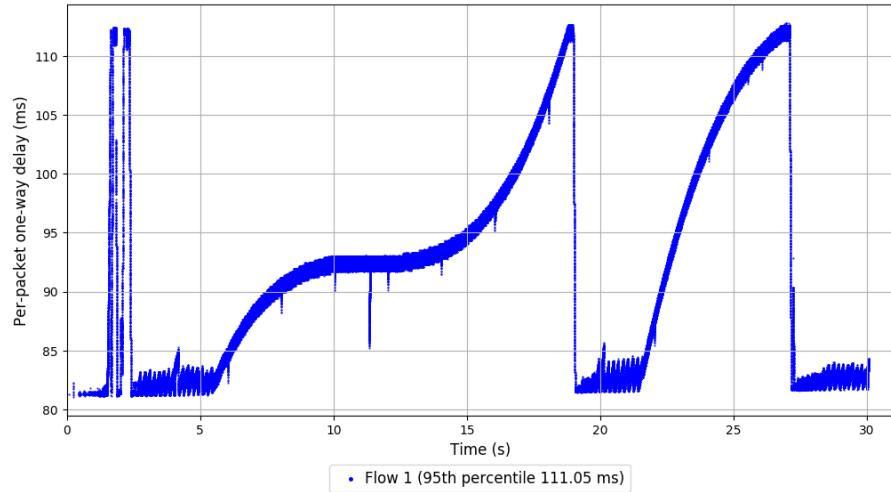
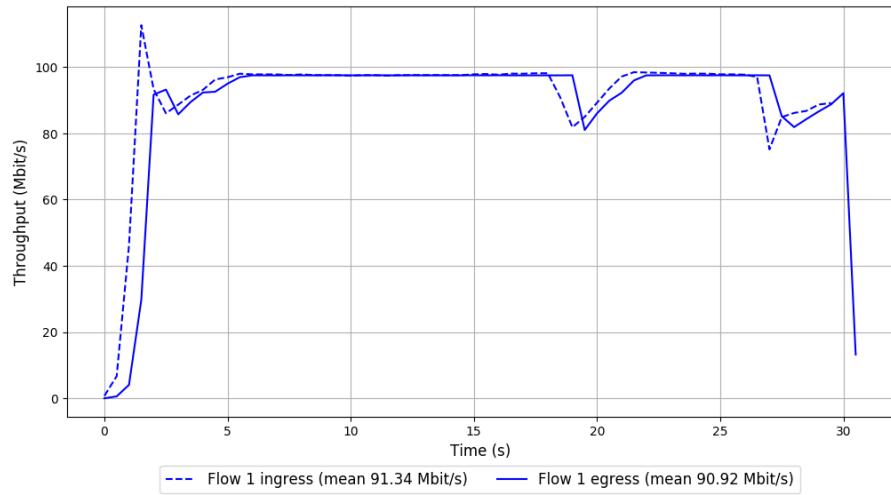


Run 5: Statistics of TCP Cubic

```
Start at: 2018-12-11 10:32:52
End at: 2018-12-11 10:33:22
Local clock offset: -0.461 ms
Remote clock offset: 41.054 ms

# Below is generated by plot.py at 2018-12-11 10:53:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 111.045 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 90.92 Mbit/s
95th percentile per-packet one-way delay: 111.045 ms
Loss rate: 0.46%
```

Run 5: Report of TCP Cubic — Data Link

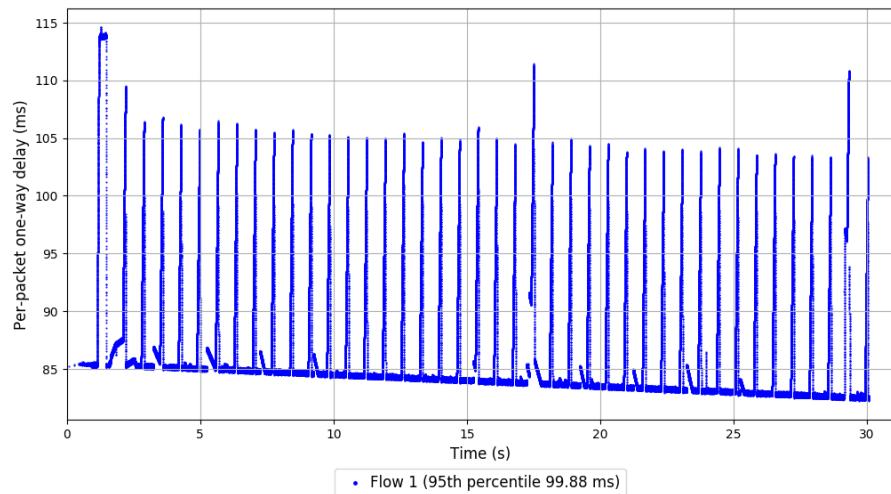
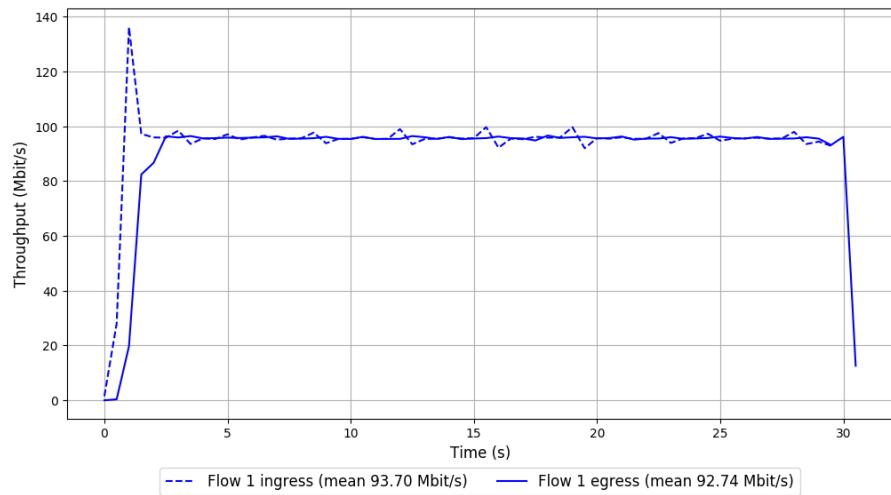


```
Run 1: Statistics of FillP

Start at: 2018-12-11 09:10:51
End at: 2018-12-11 09:11:21
Local clock offset: 1.641 ms
Remote clock offset: 962.692 ms

# Below is generated by plot.py at 2018-12-11 10:53:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 99.882 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 99.882 ms
Loss rate: 1.03%
```

Run 1: Report of FillP — Data Link

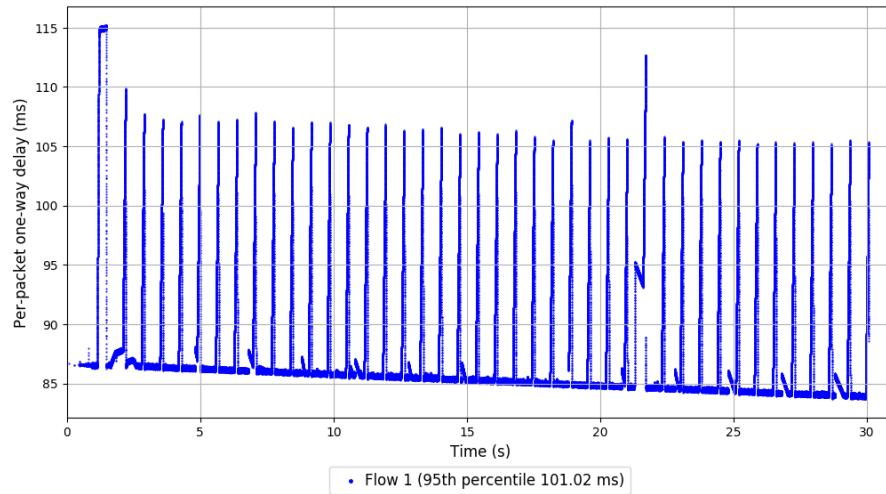
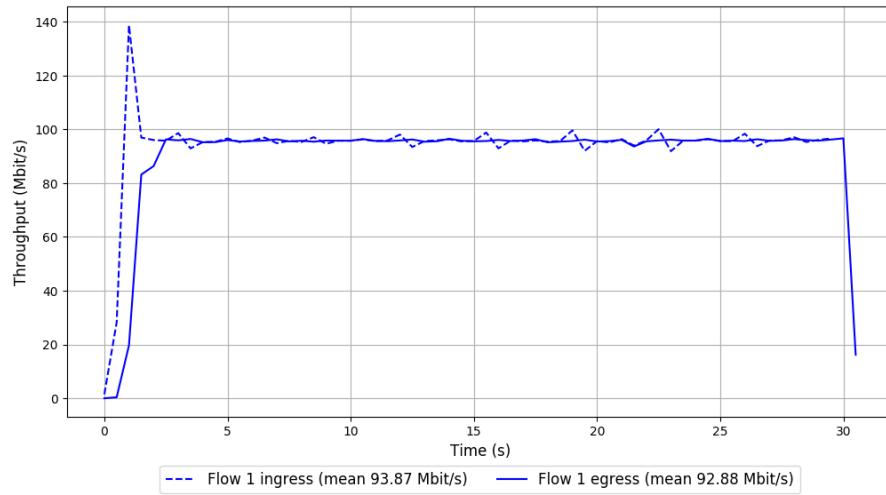


Run 2: Statistics of FillP

```
Start at: 2018-12-11 09:33:05
End at: 2018-12-11 09:38:35
Local clock offset: 4.143 ms
Remote clock offset: 1095.354 ms

# Below is generated by plot.py at 2018-12-11 10:53:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 101.024 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 92.88 Mbit/s
95th percentile per-packet one-way delay: 101.024 ms
Loss rate: 1.05%
```

Run 2: Report of FillP — Data Link

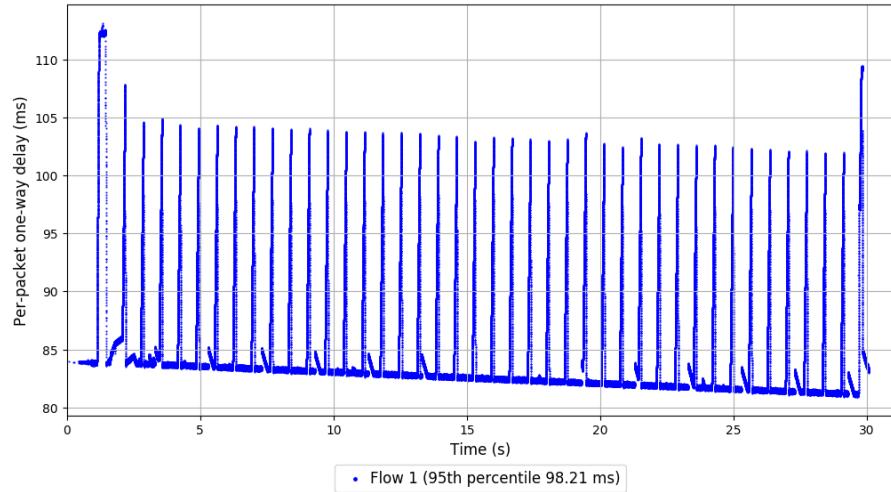
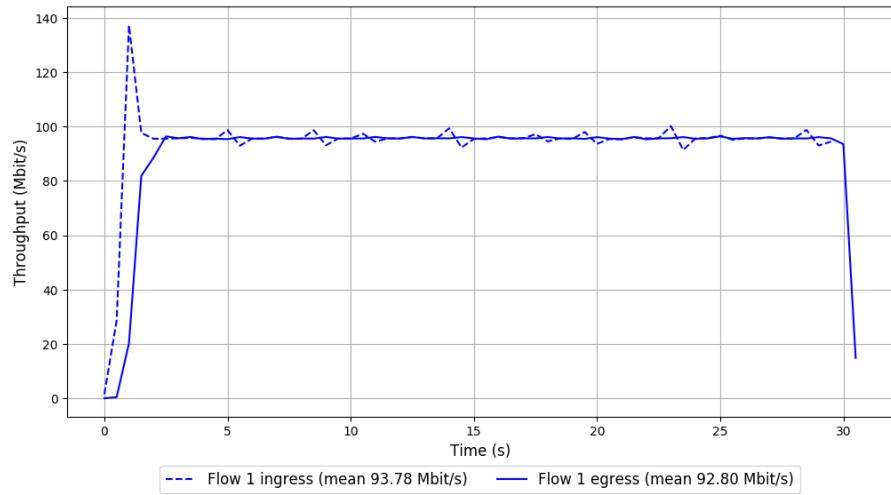


Run 3: Statistics of FillP

```
Start at: 2018-12-11 09:55:17
End at: 2018-12-11 09:55:47
Local clock offset: 2.294 ms
Remote clock offset: 1226.805 ms

# Below is generated by plot.py at 2018-12-11 10:53:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.80 Mbit/s
95th percentile per-packet one-way delay: 98.207 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 92.80 Mbit/s
95th percentile per-packet one-way delay: 98.207 ms
Loss rate: 1.04%
```

Run 3: Report of FillP — Data Link

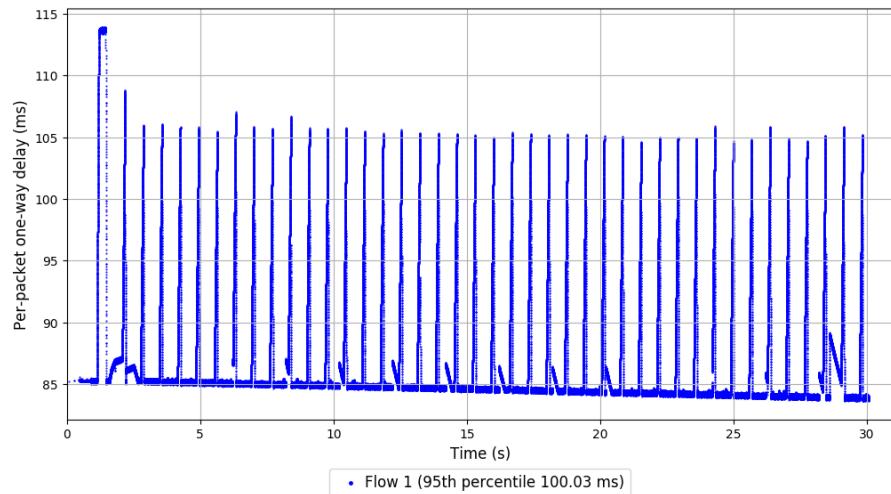
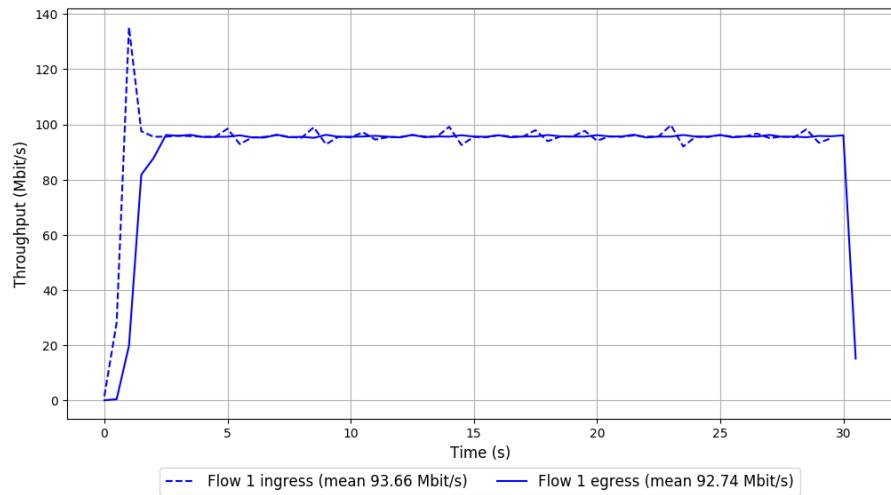


Run 4: Statistics of FillP

```
Start at: 2018-12-11 10:17:32
End at: 2018-12-11 10:18:02
Local clock offset: 0.717 ms
Remote clock offset: 21.188 ms

# Below is generated by plot.py at 2018-12-11 10:53:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 100.029 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 92.74 Mbit/s
95th percentile per-packet one-way delay: 100.029 ms
Loss rate: 0.98%
```

Run 4: Report of FillP — Data Link

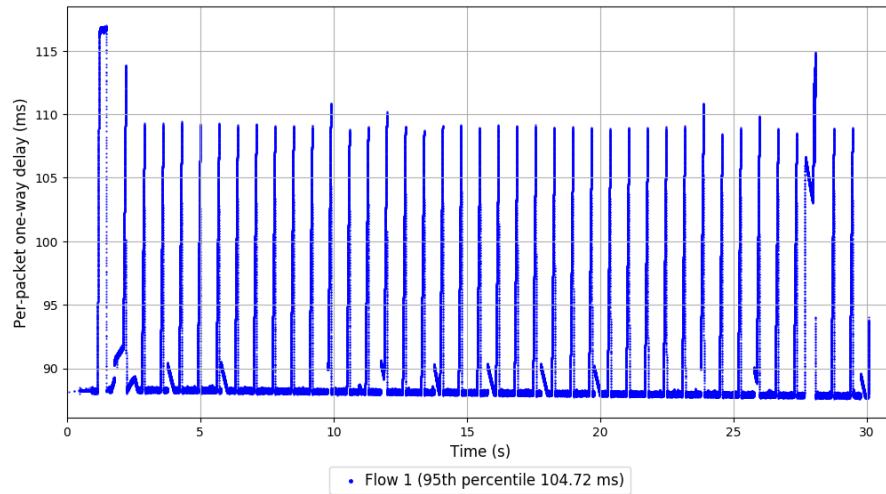
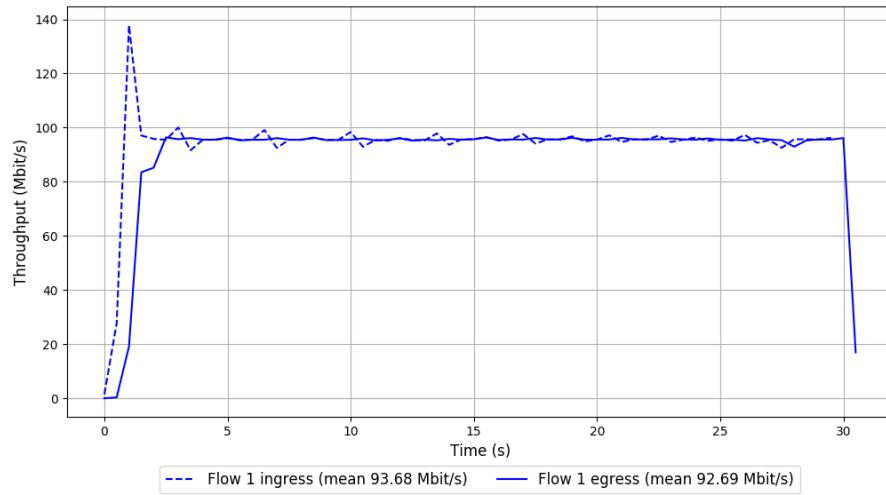


Run 5: Statistics of FillP

```
Start at: 2018-12-11 10:39:46
End at: 2018-12-11 10:40:16
Local clock offset: -0.518 ms
Remote clock offset: 46.231 ms

# Below is generated by plot.py at 2018-12-11 10:53:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.69 Mbit/s
95th percentile per-packet one-way delay: 104.721 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 92.69 Mbit/s
95th percentile per-packet one-way delay: 104.721 ms
Loss rate: 1.04%
```

Run 5: Report of FillP — Data Link

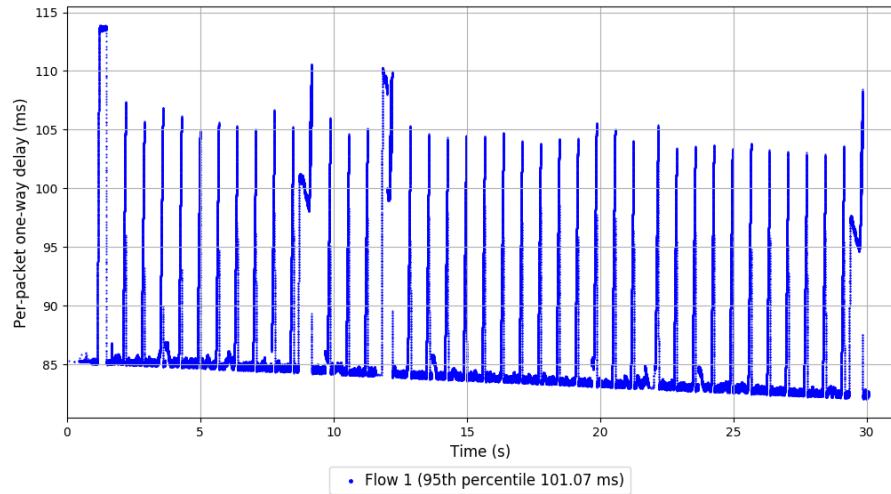
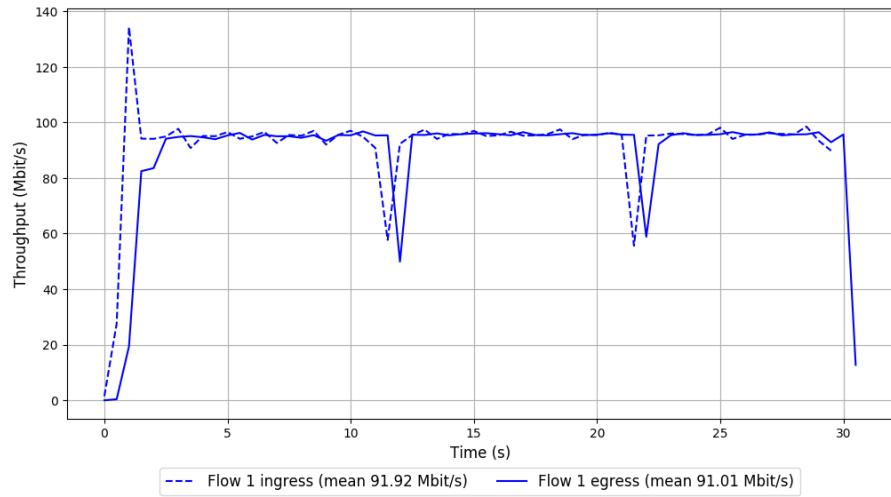


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2018-12-11 09:08:32
End at: 2018-12-11 09:09:02
Local clock offset: 2.291 ms
Remote clock offset: 948.871 ms

# Below is generated by plot.py at 2018-12-11 10:53:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 101.072 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 91.01 Mbit/s
95th percentile per-packet one-way delay: 101.072 ms
Loss rate: 1.00%
```

Run 1: Report of FillP-Sheep — Data Link

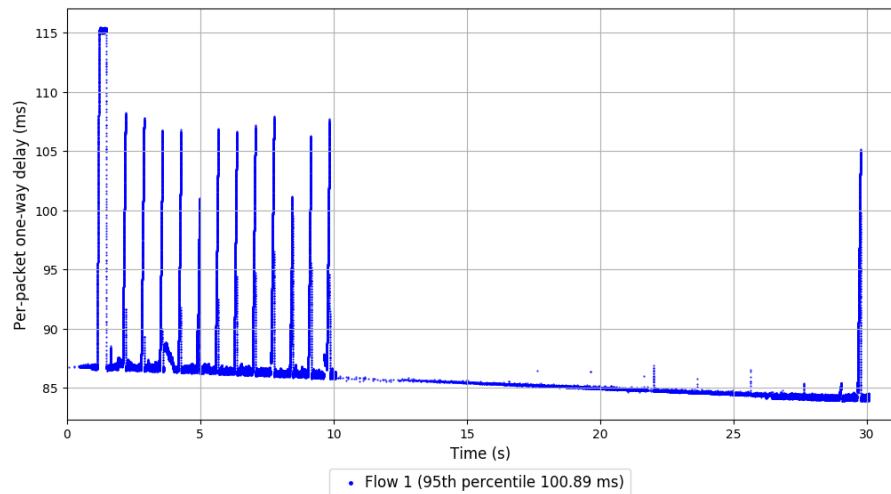
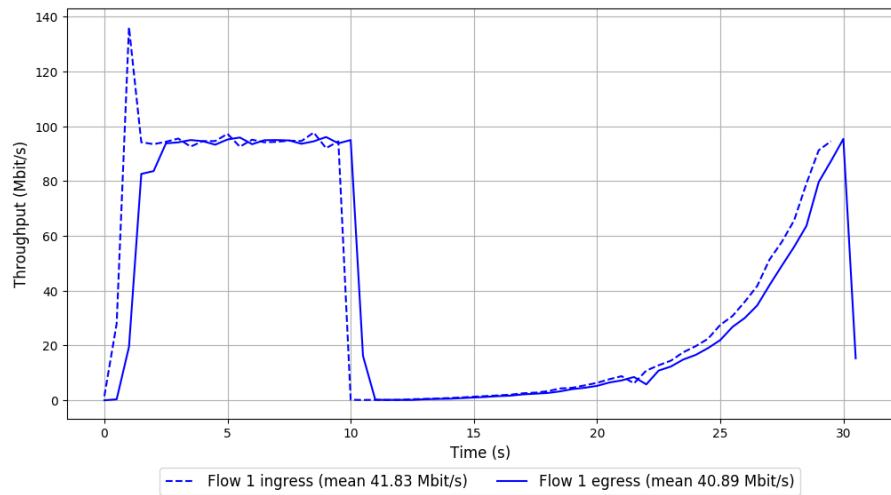


Run 2: Statistics of FillP-Sheep

```
Start at: 2018-12-11 09:30:48
End at: 2018-12-11 09:31:18
Local clock offset: 3.525 ms
Remote clock offset: 1082.066 ms

# Below is generated by plot.py at 2018-12-11 10:53:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 100.888 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 40.89 Mbit/s
95th percentile per-packet one-way delay: 100.888 ms
Loss rate: 2.26%
```

Run 2: Report of FillP-Sheep — Data Link

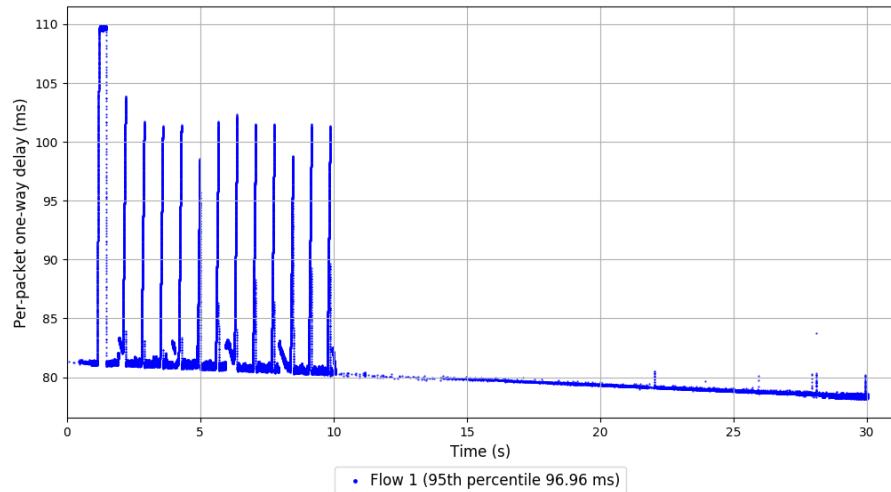
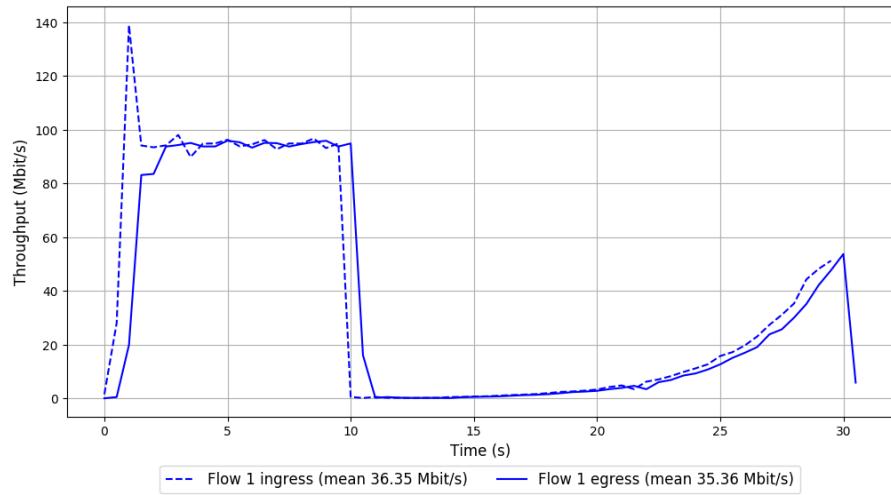


Run 3: Statistics of FillP-Sheep

```
Start at: 2018-12-11 09:53:00
End at: 2018-12-11 09:53:30
Local clock offset: 2.245 ms
Remote clock offset: 1208.95 ms

# Below is generated by plot.py at 2018-12-11 10:53:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 96.958 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 35.36 Mbit/s
95th percentile per-packet one-way delay: 96.958 ms
Loss rate: 2.74%
```

Run 3: Report of FillP-Sheep — Data Link

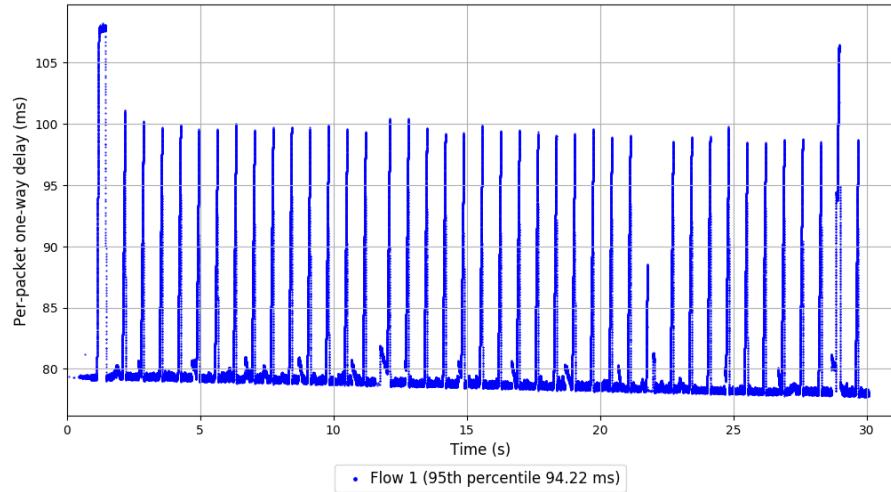
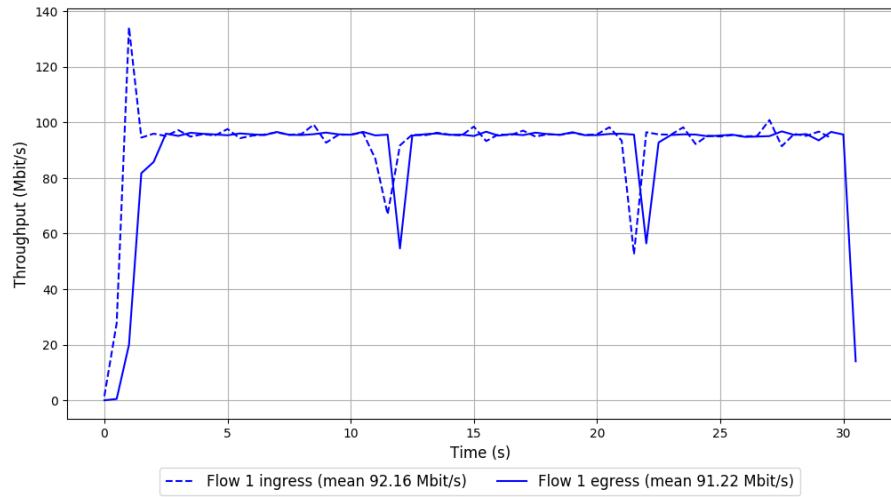


Run 4: Statistics of FillP-Sheep

```
Start at: 2018-12-11 10:15:13
End at: 2018-12-11 10:15:43
Local clock offset: 1.135 ms
Remote clock offset: 7.98 ms

# Below is generated by plot.py at 2018-12-11 10:54:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.22 Mbit/s
95th percentile per-packet one-way delay: 94.220 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 91.22 Mbit/s
95th percentile per-packet one-way delay: 94.220 ms
Loss rate: 1.02%
```

Run 4: Report of FillP-Sheep — Data Link

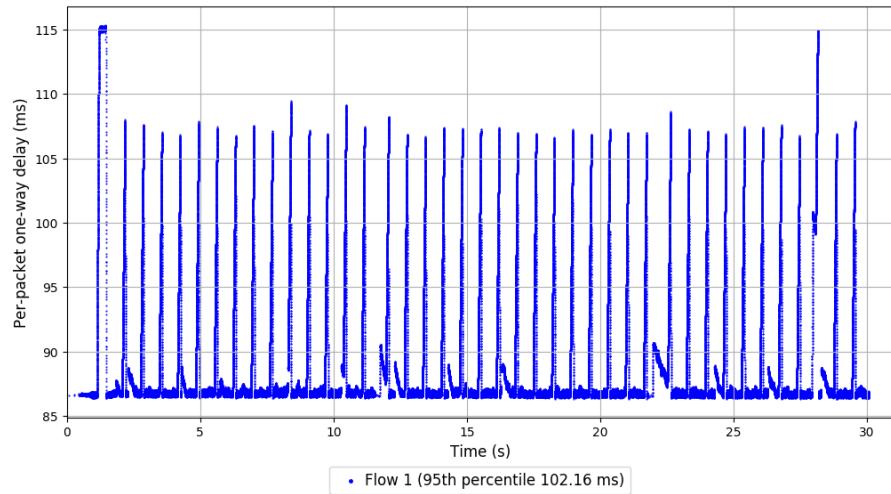
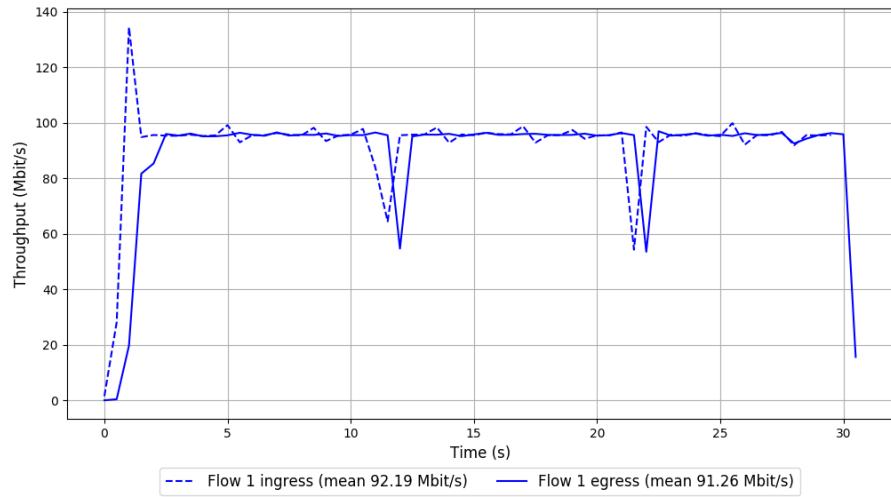


Run 5: Statistics of FillP-Sheep

```
Start at: 2018-12-11 10:37:28
End at: 2018-12-11 10:37:58
Local clock offset: -0.27 ms
Remote clock offset: 45.169 ms

# Below is generated by plot.py at 2018-12-11 10:54:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 102.160 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 91.26 Mbit/s
95th percentile per-packet one-way delay: 102.160 ms
Loss rate: 1.00%
```

Run 5: Report of FillP-Sheep — Data Link

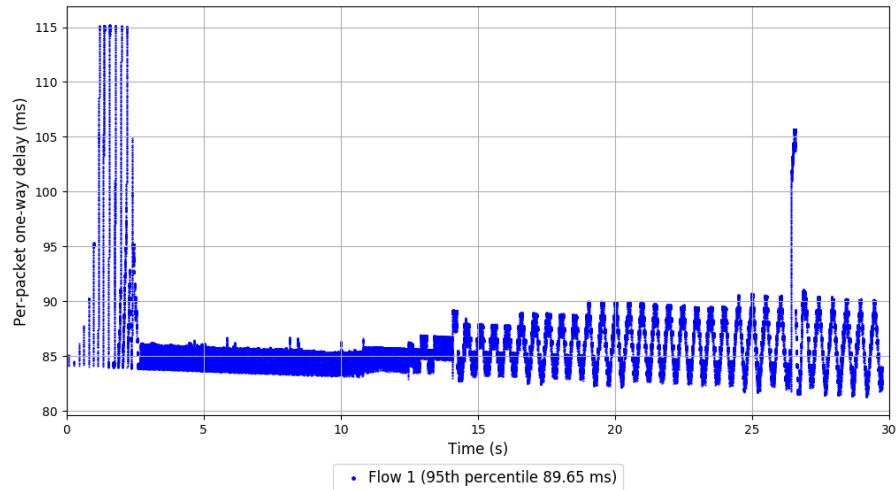
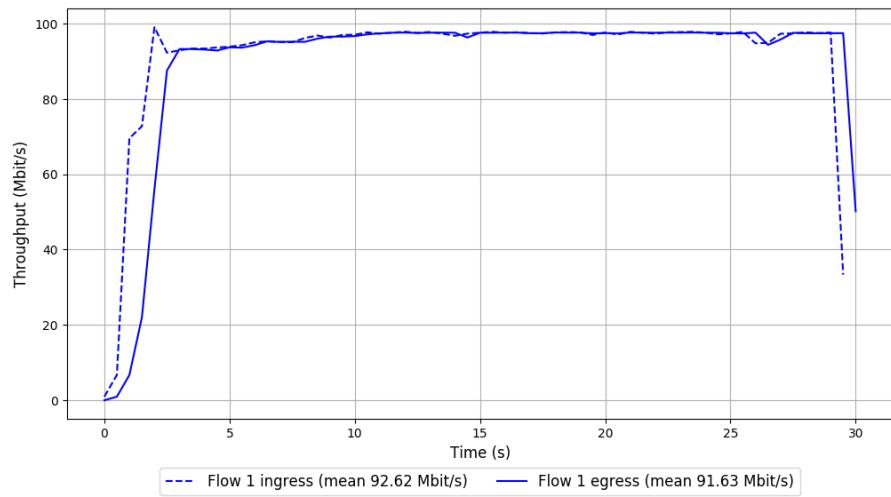


Run 1: Statistics of Indigo

```
Start at: 2018-12-11 09:19:05
End at: 2018-12-11 09:19:35
Local clock offset: 1.288 ms
Remote clock offset: 1012.056 ms

# Below is generated by plot.py at 2018-12-11 10:54:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.63 Mbit/s
95th percentile per-packet one-way delay: 89.648 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 91.63 Mbit/s
95th percentile per-packet one-way delay: 89.648 ms
Loss rate: 1.08%
```

Run 1: Report of Indigo — Data Link

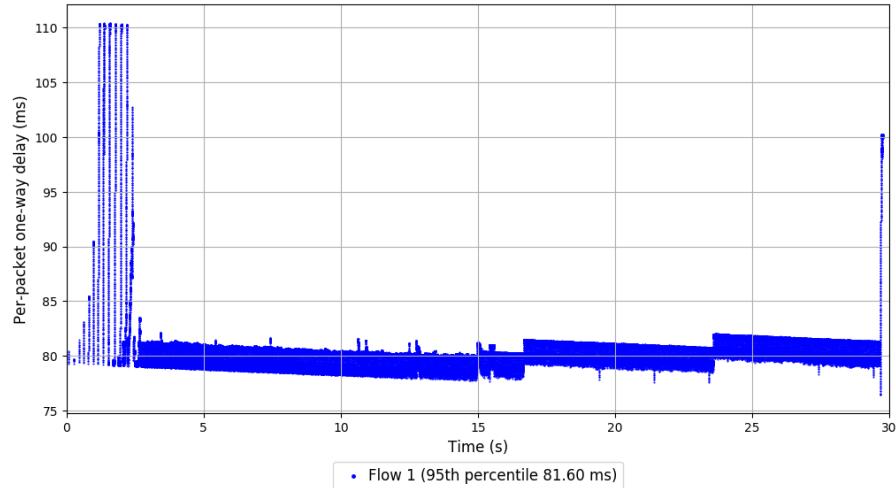
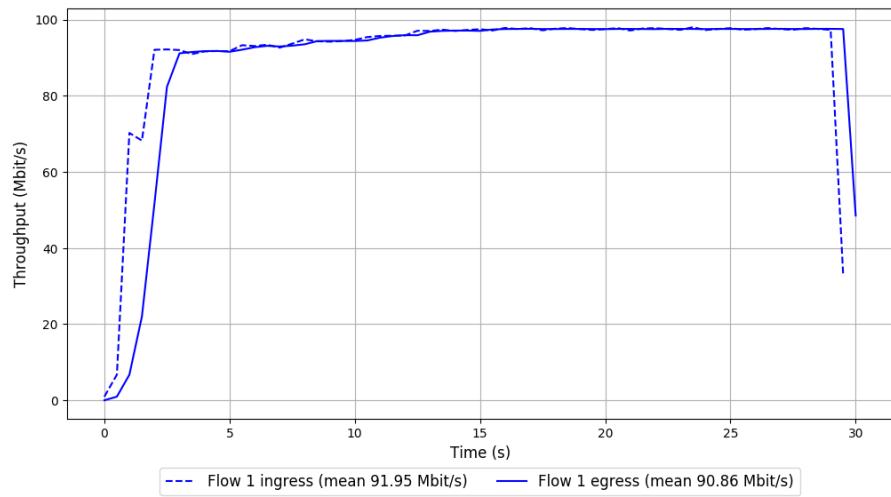


Run 2: Statistics of Indigo

```
Start at: 2018-12-11 09:41:18
End at: 2018-12-11 09:41:48
Local clock offset: 3.92 ms
Remote clock offset: 1139.191 ms

# Below is generated by plot.py at 2018-12-11 10:54:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 81.601 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 90.86 Mbit/s
95th percentile per-packet one-way delay: 81.601 ms
Loss rate: 1.11%
```

Run 2: Report of Indigo — Data Link

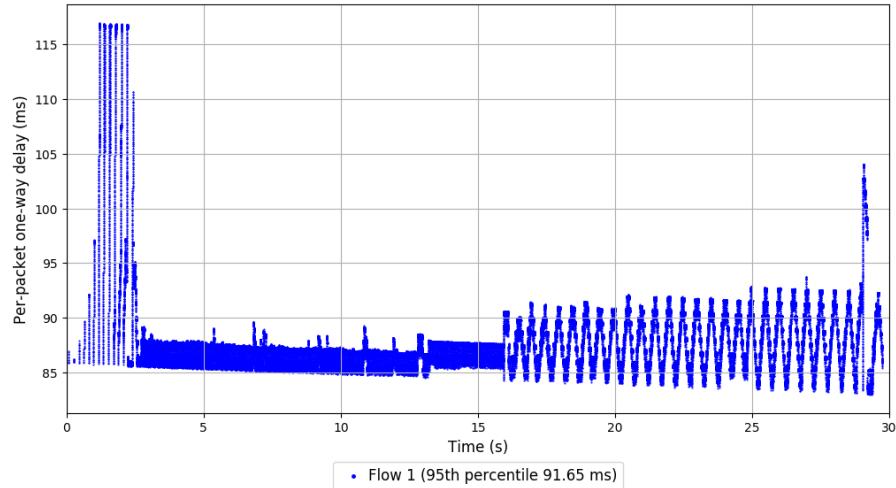
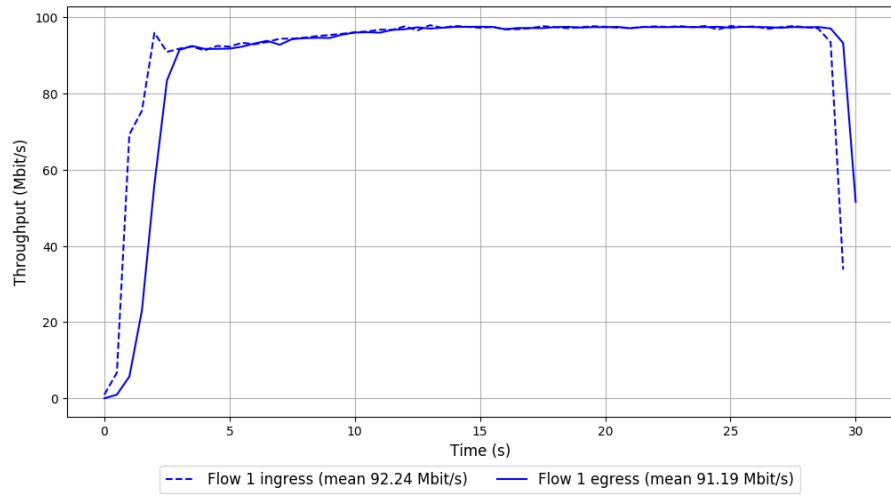


Run 3: Statistics of Indigo

```
Start at: 2018-12-11 10:03:31
End at: 2018-12-11 10:04:01
Local clock offset: 3.079 ms
Remote clock offset: 10.813 ms

# Below is generated by plot.py at 2018-12-11 10:54:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.19 Mbit/s
95th percentile per-packet one-way delay: 91.653 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 91.19 Mbit/s
95th percentile per-packet one-way delay: 91.653 ms
Loss rate: 1.14%
```

Run 3: Report of Indigo — Data Link

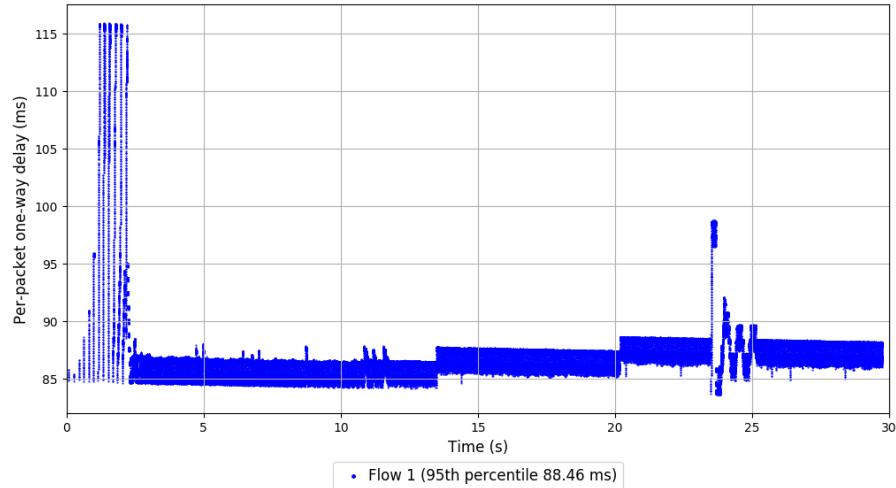
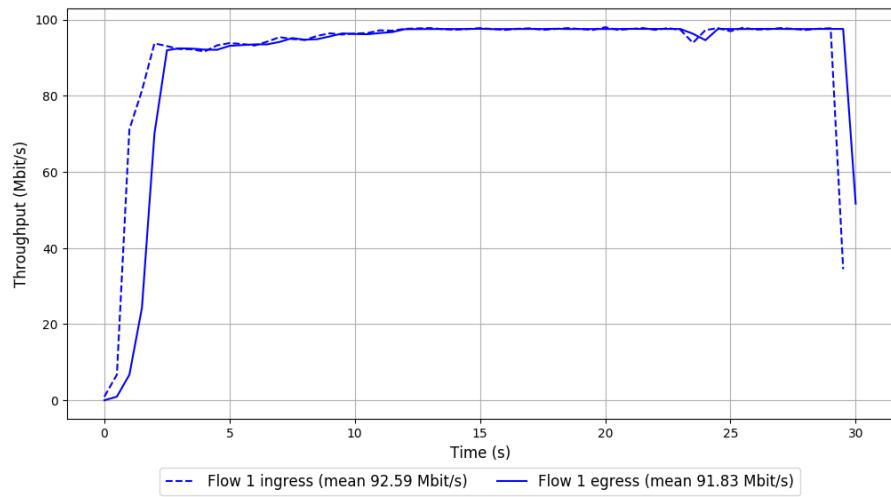


Run 4: Statistics of Indigo

```
Start at: 2018-12-11 10:25:45
End at: 2018-12-11 10:26:15
Local clock offset: -0.696 ms
Remote clock offset: 43.876 ms

# Below is generated by plot.py at 2018-12-11 10:54:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.83 Mbit/s
95th percentile per-packet one-way delay: 88.460 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 91.83 Mbit/s
95th percentile per-packet one-way delay: 88.460 ms
Loss rate: 0.81%
```

Run 4: Report of Indigo — Data Link

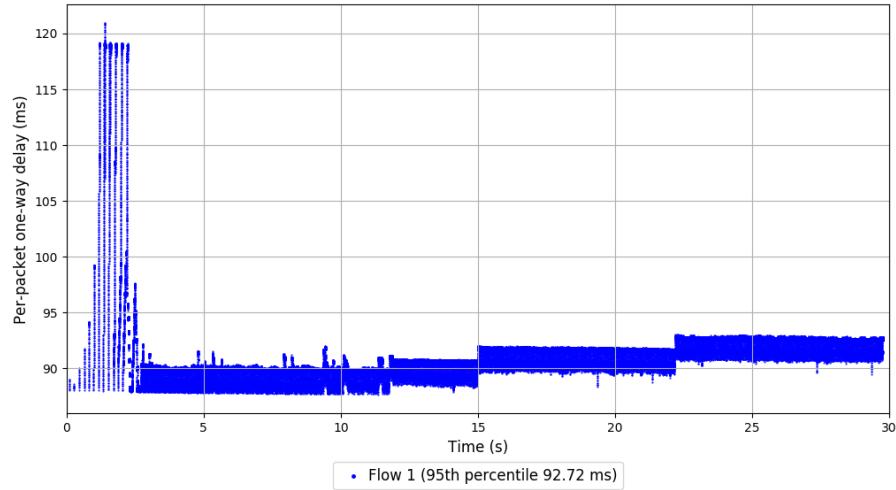
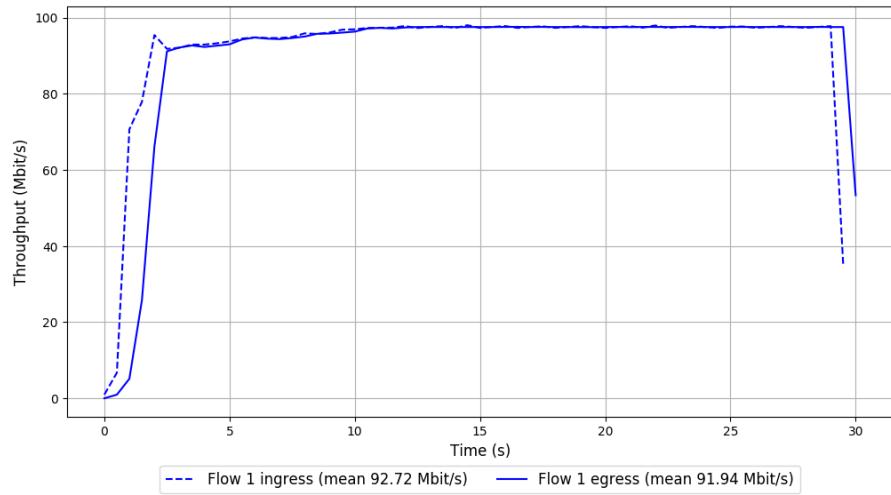


Run 5: Statistics of Indigo

```
Start at: 2018-12-11 10:48:00
End at: 2018-12-11 10:48:30
Local clock offset: -1.733 ms
Remote clock offset: 56.797 ms

# Below is generated by plot.py at 2018-12-11 10:54:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.94 Mbit/s
95th percentile per-packet one-way delay: 92.720 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 91.94 Mbit/s
95th percentile per-packet one-way delay: 92.720 ms
Loss rate: 0.83%
```

Run 5: Report of Indigo — Data Link

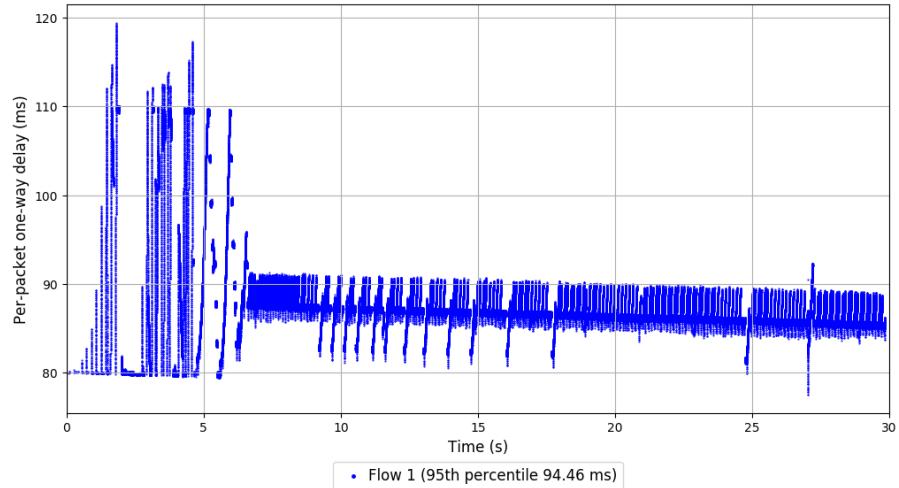
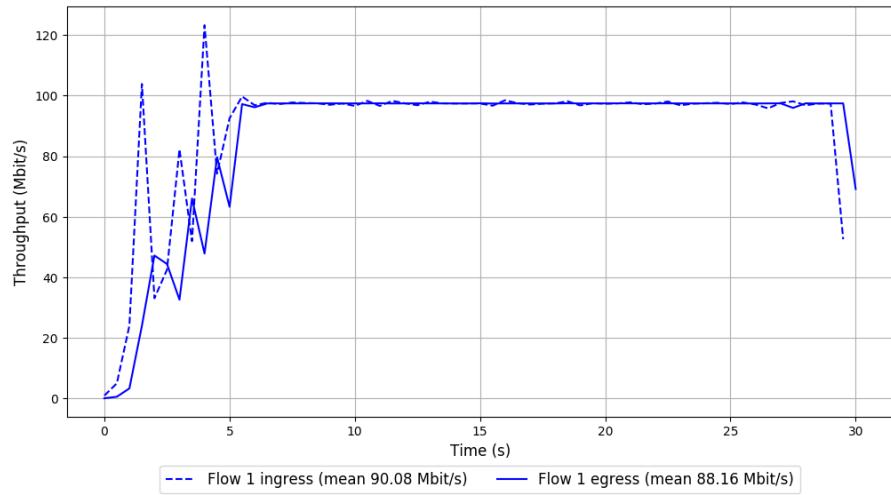


Run 1: Statistics of Indigo-MusesD

```
Start at: 2018-12-11 09:00:23
End at: 2018-12-11 09:00:53
Local clock offset: 0.326 ms
Remote clock offset: 895.938 ms

# Below is generated by plot.py at 2018-12-11 10:54:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.16 Mbit/s
95th percentile per-packet one-way delay: 94.458 ms
Loss rate: 2.12%
-- Flow 1:
Average throughput: 88.16 Mbit/s
95th percentile per-packet one-way delay: 94.458 ms
Loss rate: 2.12%
```

Run 1: Report of Indigo-MusesD — Data Link

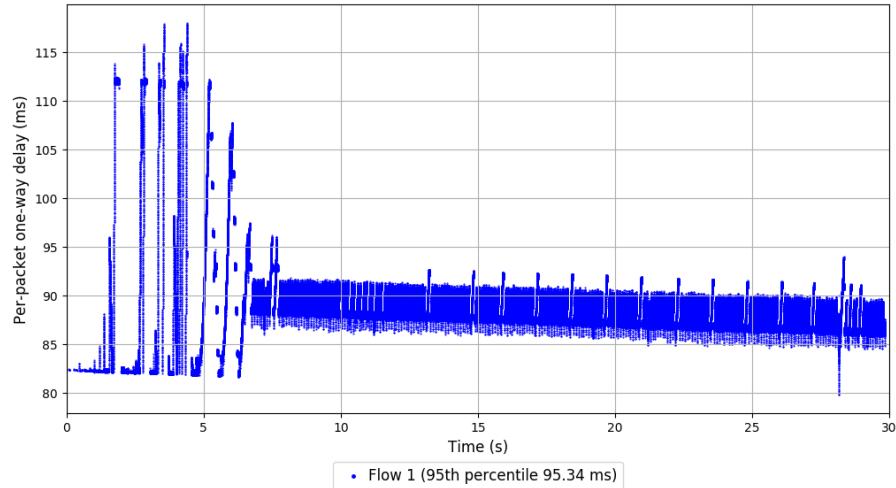
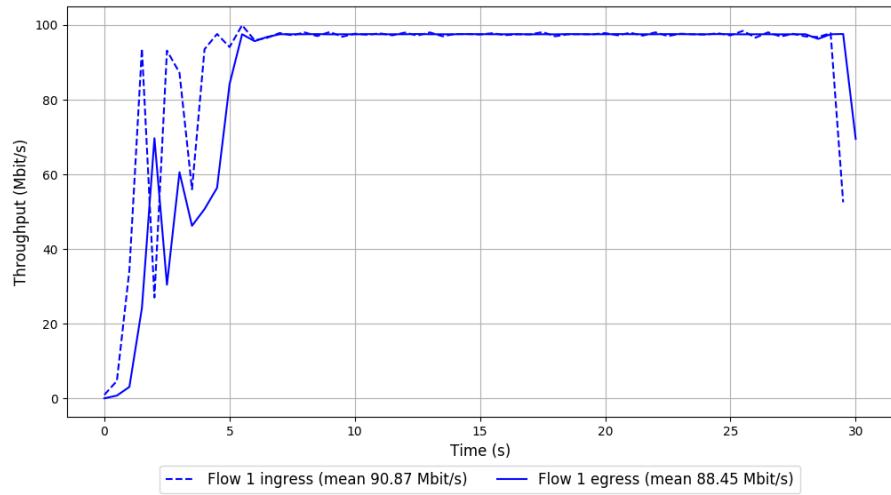


Run 2: Statistics of Indigo-MusesD

```
Start at: 2018-12-11 09:22:39
End at: 2018-12-11 09:23:09
Local clock offset: 2.636 ms
Remote clock offset: 1029.655 ms

# Below is generated by plot.py at 2018-12-11 10:55:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.45 Mbit/s
95th percentile per-packet one-way delay: 95.341 ms
Loss rate: 2.66%
-- Flow 1:
Average throughput: 88.45 Mbit/s
95th percentile per-packet one-way delay: 95.341 ms
Loss rate: 2.66%
```

Run 2: Report of Indigo-MusesD — Data Link

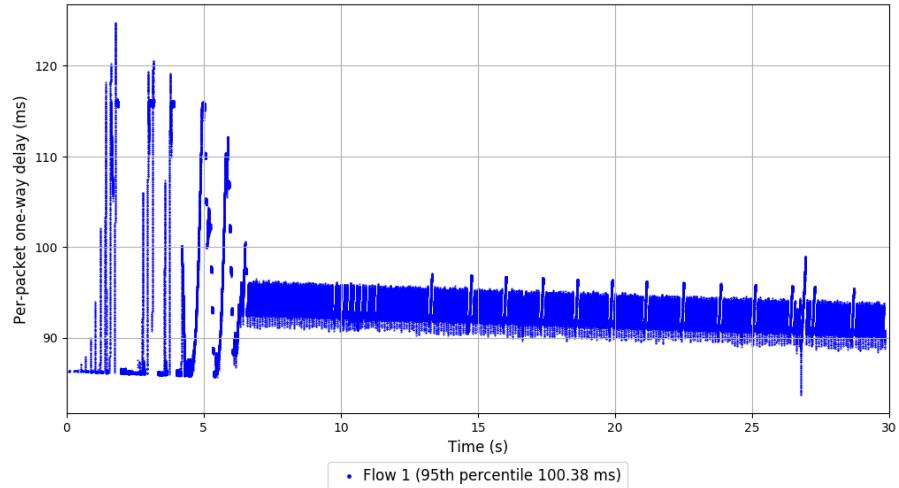
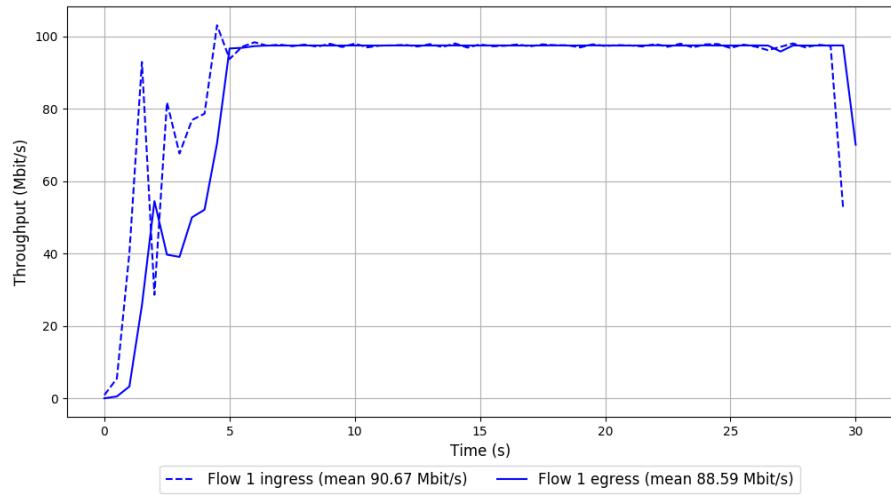


Run 3: Statistics of Indigo-MusesD

```
Start at: 2018-12-11 09:44:51
End at: 2018-12-11 09:45:21
Local clock offset: 3.278 ms
Remote clock offset: 1165.794 ms

# Below is generated by plot.py at 2018-12-11 10:55:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.59 Mbit/s
95th percentile per-packet one-way delay: 100.380 ms
Loss rate: 2.29%
-- Flow 1:
Average throughput: 88.59 Mbit/s
95th percentile per-packet one-way delay: 100.380 ms
Loss rate: 2.29%
```

Run 3: Report of Indigo-MusesD — Data Link

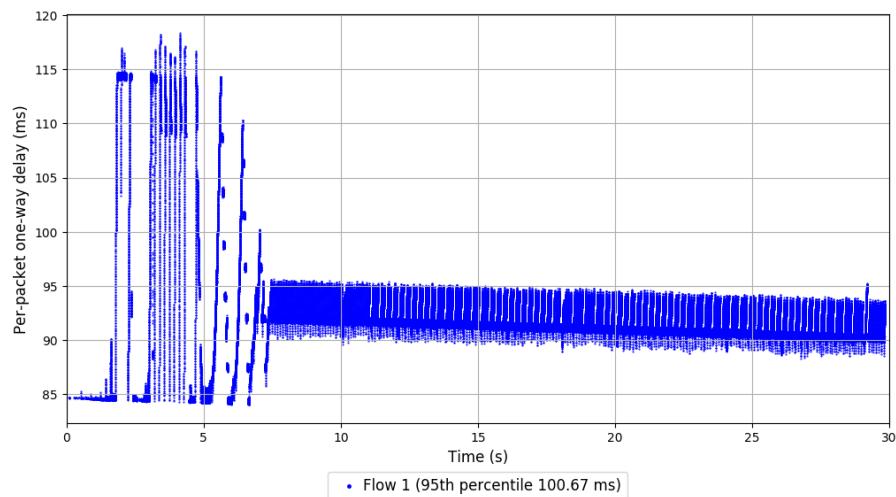
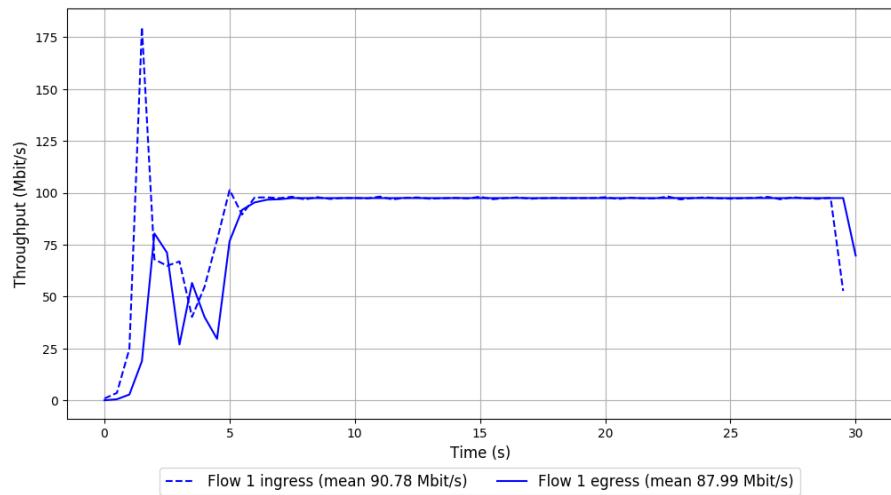


Run 4: Statistics of Indigo-MusesD

```
Start at: 2018-12-11 10:07:04
End at: 2018-12-11 10:07:34
Local clock offset: 2.603 ms
Remote clock offset: 3.135 ms

# Below is generated by plot.py at 2018-12-11 10:55:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.99 Mbit/s
95th percentile per-packet one-way delay: 100.673 ms
Loss rate: 3.06%
-- Flow 1:
Average throughput: 87.99 Mbit/s
95th percentile per-packet one-way delay: 100.673 ms
Loss rate: 3.06%
```

Run 4: Report of Indigo-MusesD — Data Link

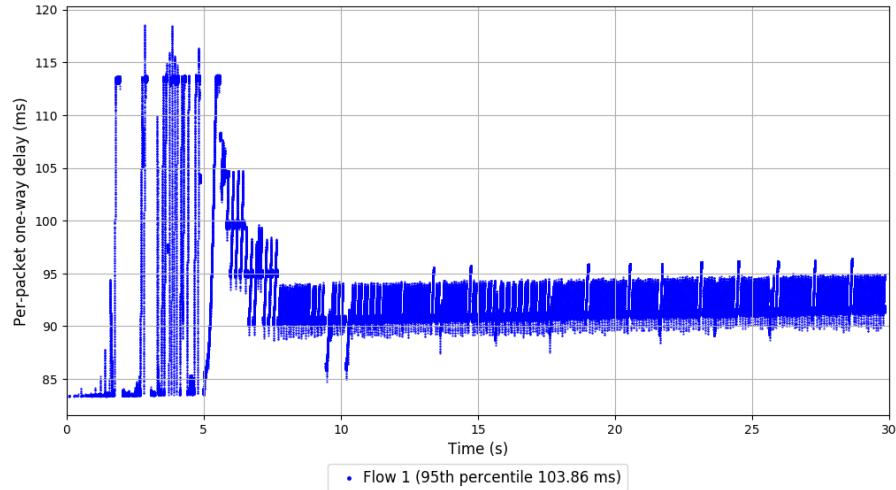
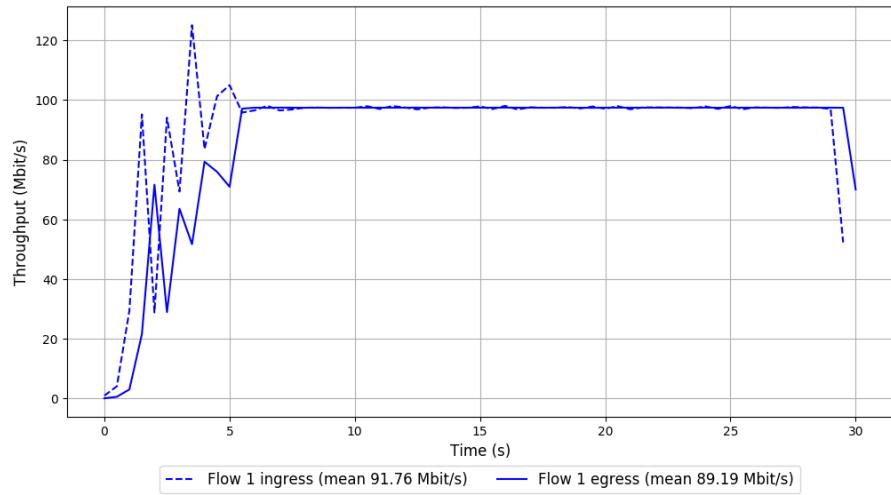


Run 5: Statistics of Indigo-MusesD

```
Start at: 2018-12-11 10:29:18
End at: 2018-12-11 10:29:48
Local clock offset: 0.238 ms
Remote clock offset: 49.859 ms

# Below is generated by plot.py at 2018-12-11 10:55:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 103.858 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 89.19 Mbit/s
95th percentile per-packet one-way delay: 103.858 ms
Loss rate: 2.78%
```

Run 5: Report of Indigo-MusesD — Data Link

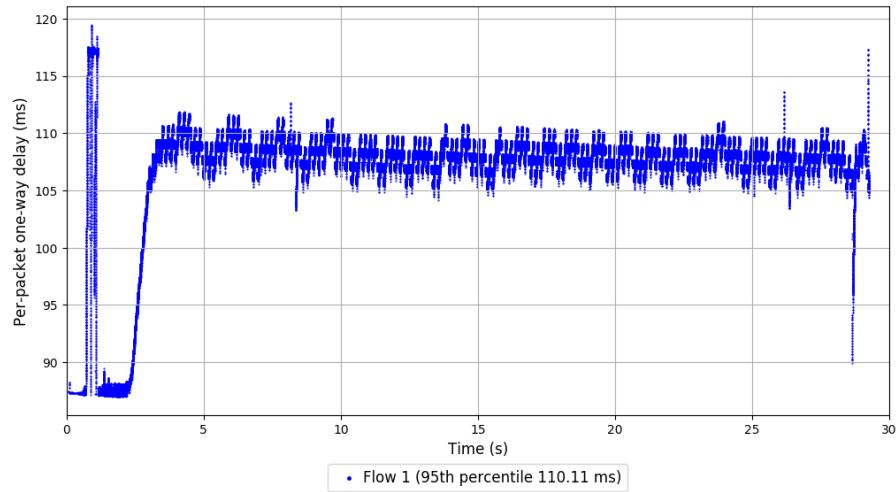
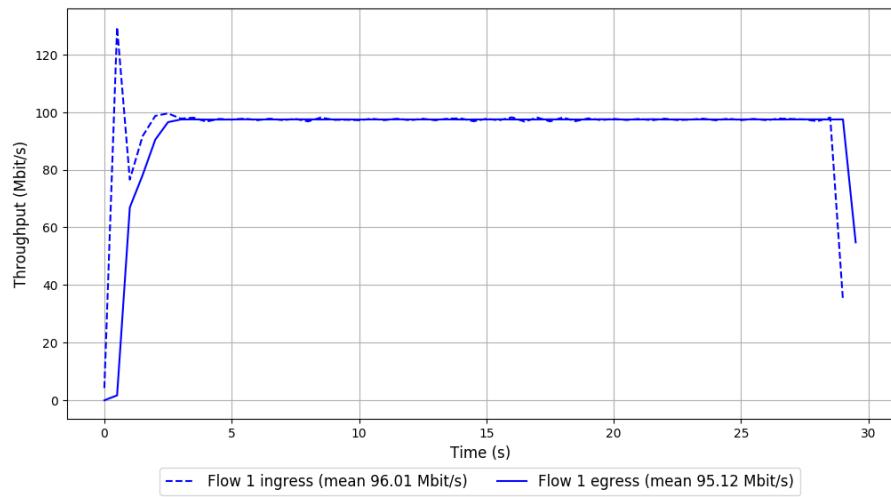


```
Run 1: Statistics of Indigo-MusesT
```

```
Start at: 2018-12-11 09:12:02
End at: 2018-12-11 09:12:32
Local clock offset: 1.384 ms
Remote clock offset: 965.695 ms

# Below is generated by plot.py at 2018-12-11 10:55:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 110.115 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 110.115 ms
Loss rate: 0.88%
```

Run 1: Report of Indigo-MusesT — Data Link

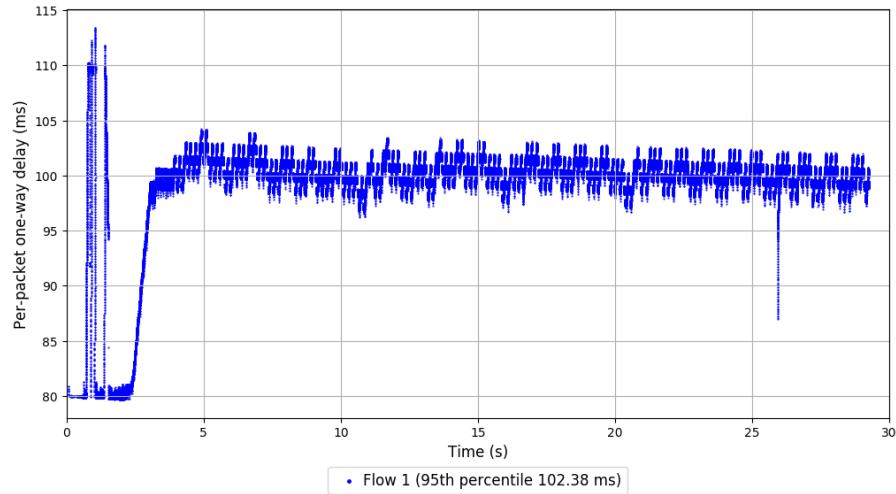
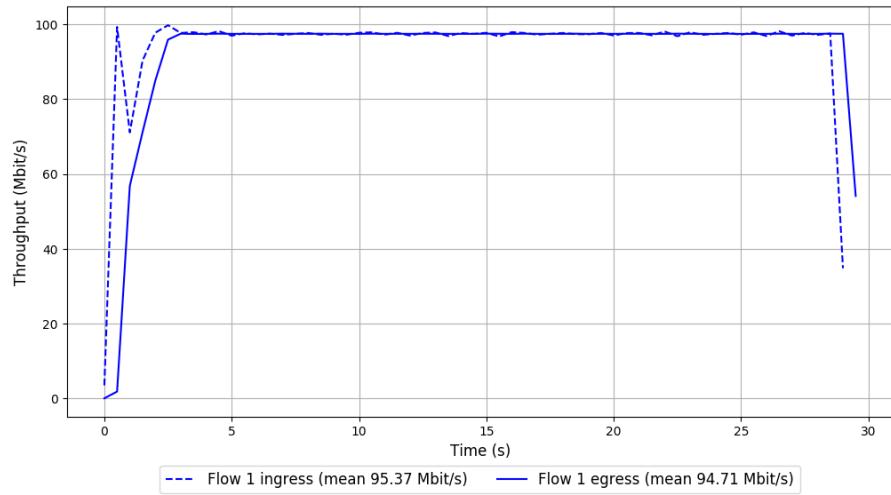


Run 2: Statistics of Indigo-MusesT

```
Start at: 2018-12-11 09:34:17
End at: 2018-12-11 09:34:47
Local clock offset: 4.373 ms
Remote clock offset: 1095.655 ms

# Below is generated by plot.py at 2018-12-11 10:55:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.71 Mbit/s
95th percentile per-packet one-way delay: 102.378 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 94.71 Mbit/s
95th percentile per-packet one-way delay: 102.378 ms
Loss rate: 0.62%
```

Run 2: Report of Indigo-MusesT — Data Link

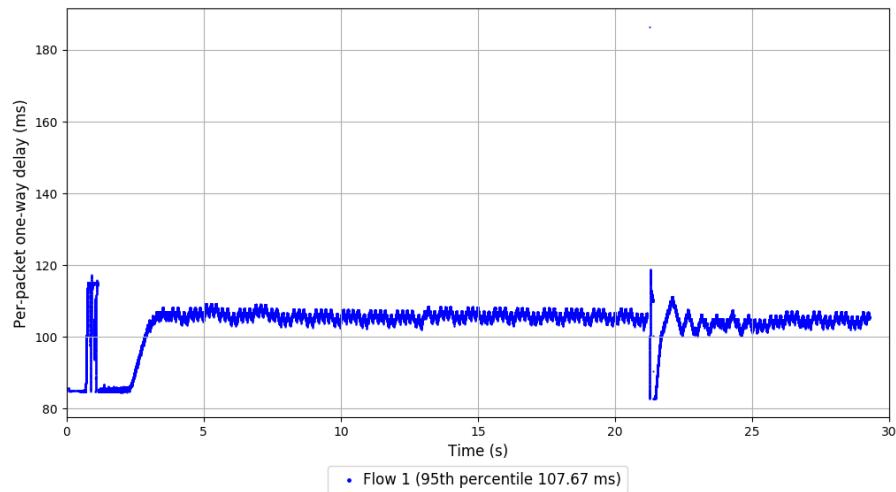
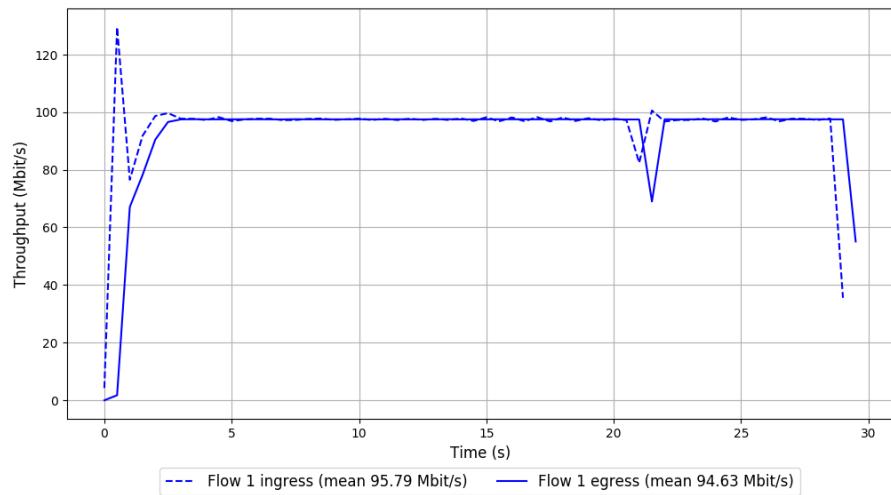


Run 3: Statistics of Indigo-MusesT

```
Start at: 2018-12-11 09:56:28
End at: 2018-12-11 09:56:58
Local clock offset: 2.267 ms
Remote clock offset: 1227.063 ms

# Below is generated by plot.py at 2018-12-11 10:55:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 107.669 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 107.669 ms
Loss rate: 1.16%
```

Run 3: Report of Indigo-MusesT — Data Link

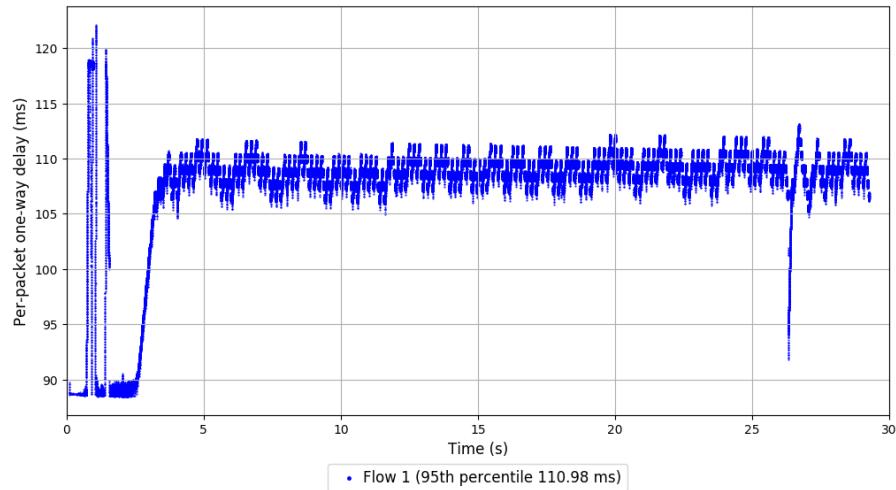
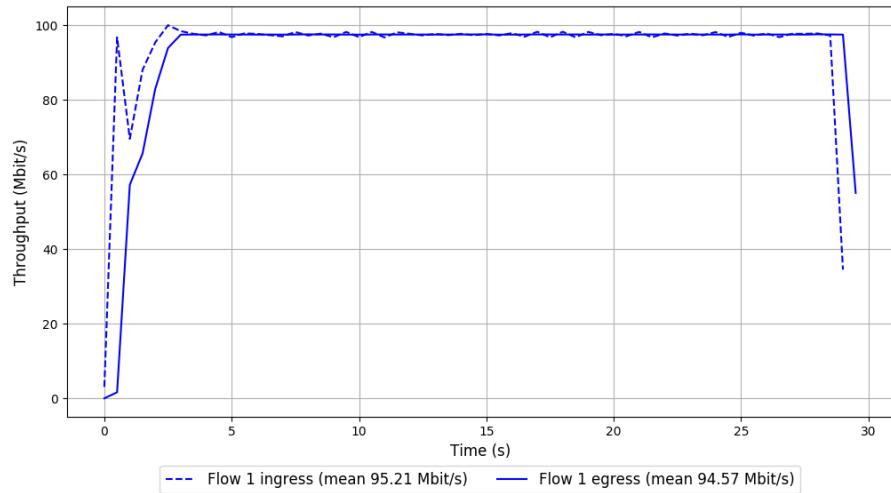


Run 4: Statistics of Indigo-MusesT

```
Start at: 2018-12-11 10:18:43
End at: 2018-12-11 10:19:13
Local clock offset: 0.54 ms
Remote clock offset: 22.592 ms

# Below is generated by plot.py at 2018-12-11 10:55:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 110.977 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 94.57 Mbit/s
95th percentile per-packet one-way delay: 110.977 ms
Loss rate: 0.62%
```

Run 4: Report of Indigo-MusesT — Data Link

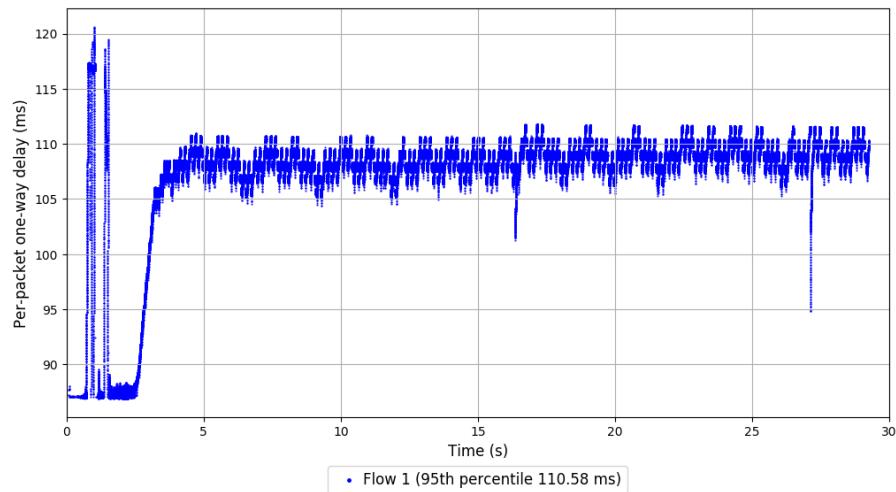
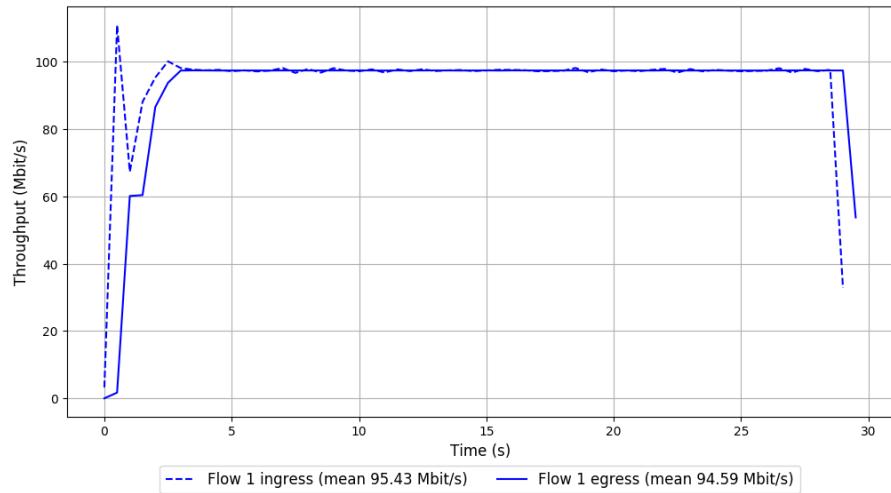


Run 5: Statistics of Indigo-MusesT

```
Start at: 2018-12-11 10:40:58
End at: 2018-12-11 10:41:28
Local clock offset: 0.115 ms
Remote clock offset: 44.856 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.59 Mbit/s
95th percentile per-packet one-way delay: 110.584 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 94.59 Mbit/s
95th percentile per-packet one-way delay: 110.584 ms
Loss rate: 0.81%
```

Run 5: Report of Indigo-MusesT — Data Link

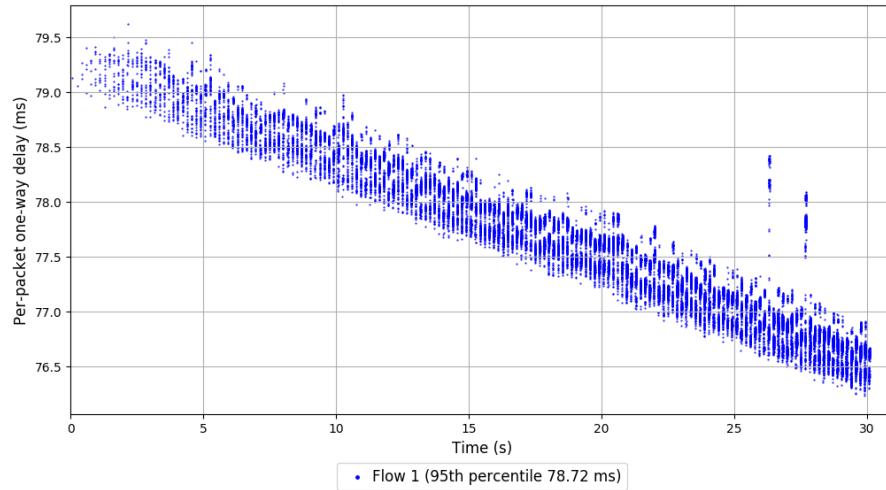
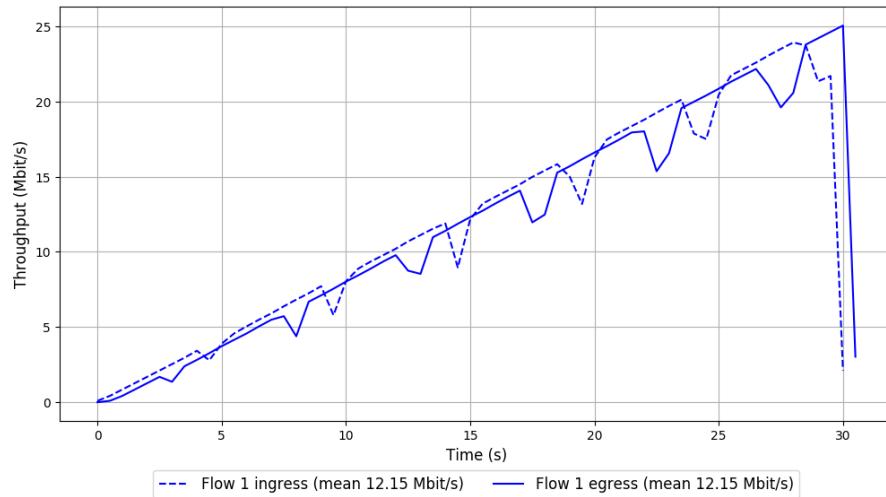


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-12-11 09:07:24
End at: 2018-12-11 09:07:54
Local clock offset: 1.956 ms
Remote clock offset: 937.559 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 78.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 78.722 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

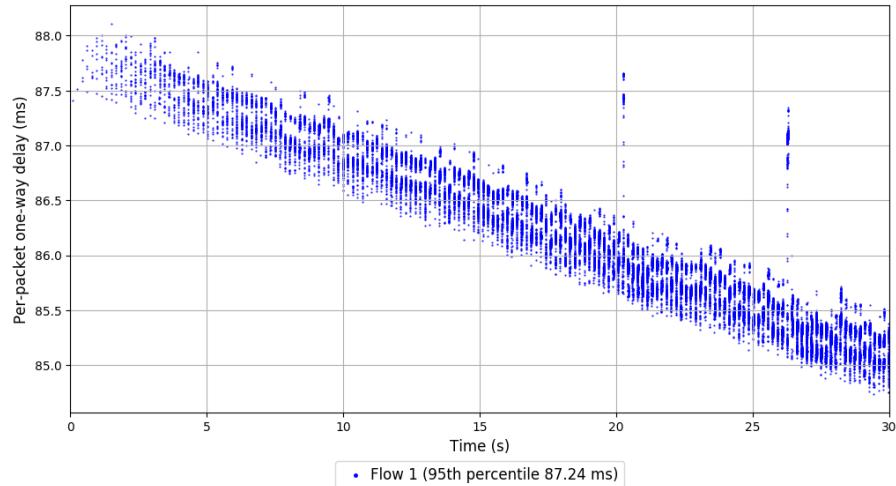
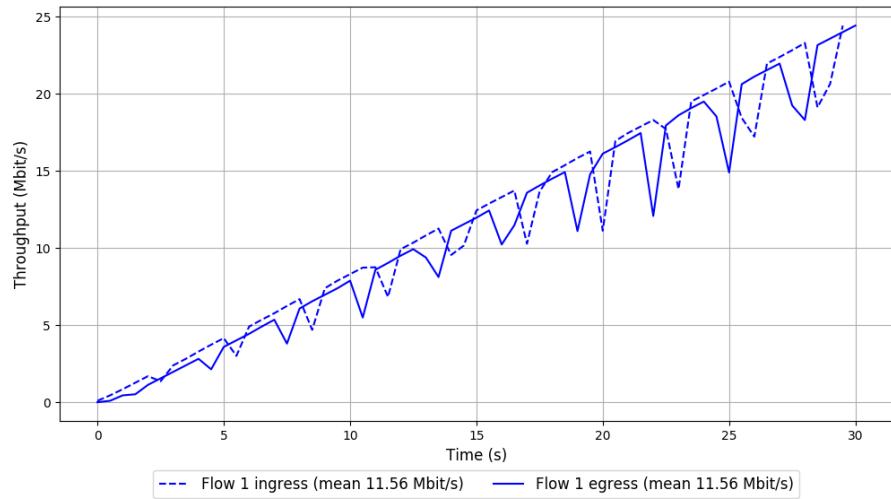


Run 2: Statistics of LEDBAT

```
Start at: 2018-12-11 09:29:40
End at: 2018-12-11 09:30:10
Local clock offset: 3.268 ms
Remote clock offset: 1073.622 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 87.237 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.56 Mbit/s
95th percentile per-packet one-way delay: 87.237 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

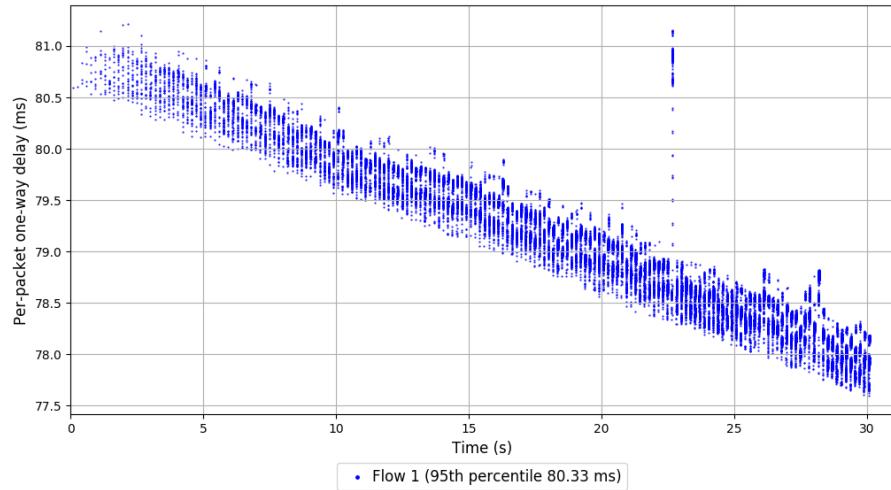
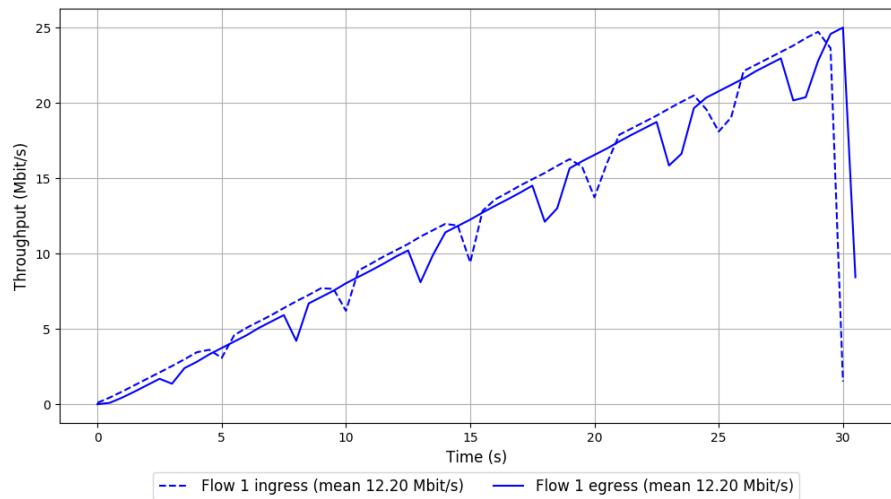


Run 3: Statistics of LEDBAT

```
Start at: 2018-12-11 09:51:51
End at: 2018-12-11 09:52:21
Local clock offset: 1.393 ms
Remote clock offset: 1202.563 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 80.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 80.328 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

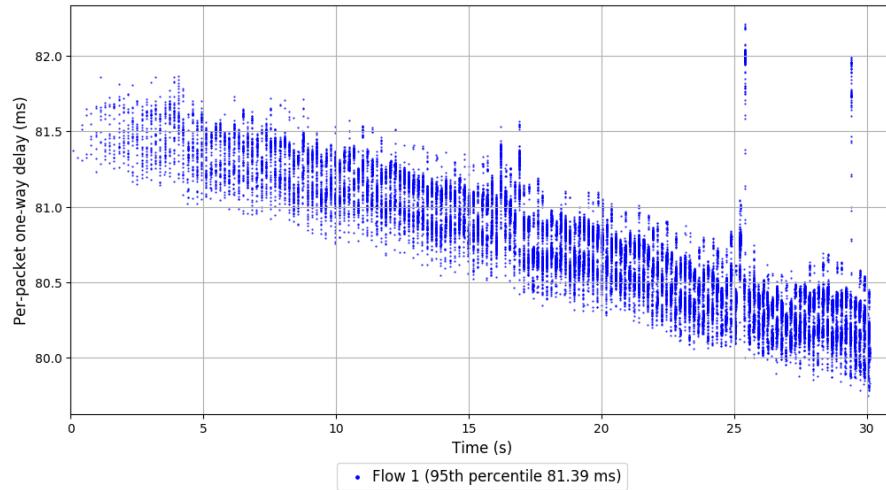
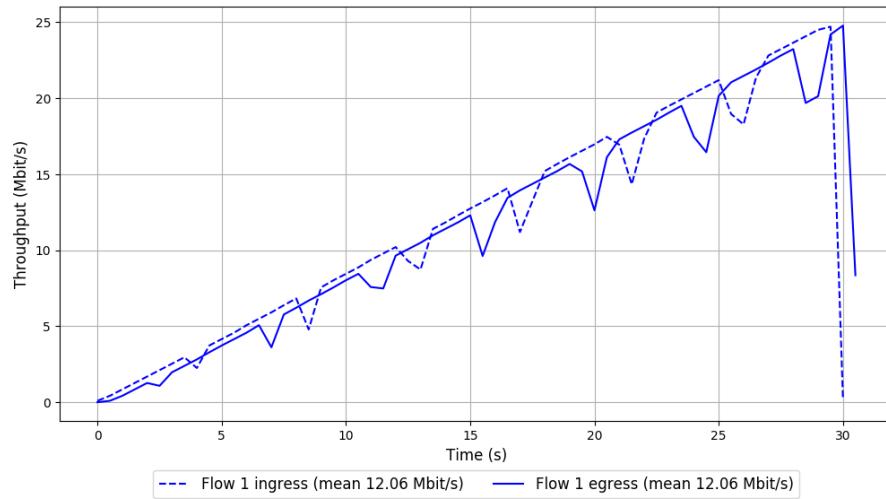


Run 4: Statistics of LEDBAT

```
Start at: 2018-12-11 10:14:05
End at: 2018-12-11 10:14:35
Local clock offset: 0.601 ms
Remote clock offset: 6.327 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 81.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.06 Mbit/s
95th percentile per-packet one-way delay: 81.387 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

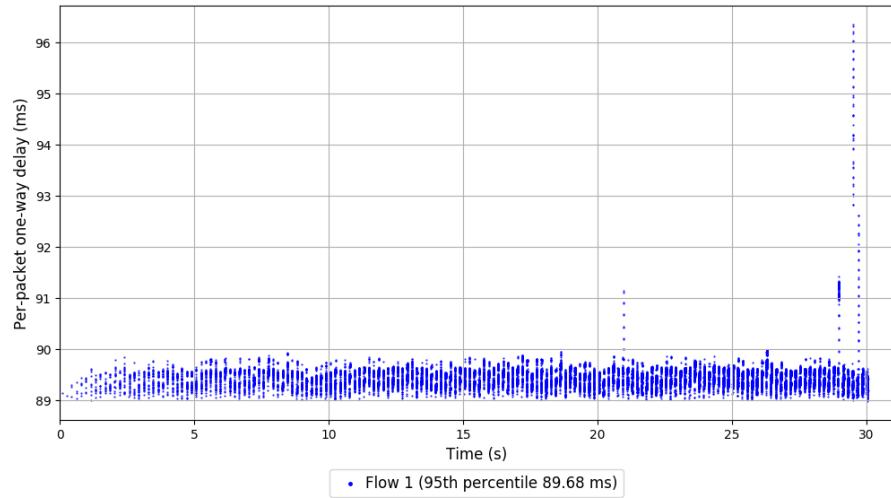
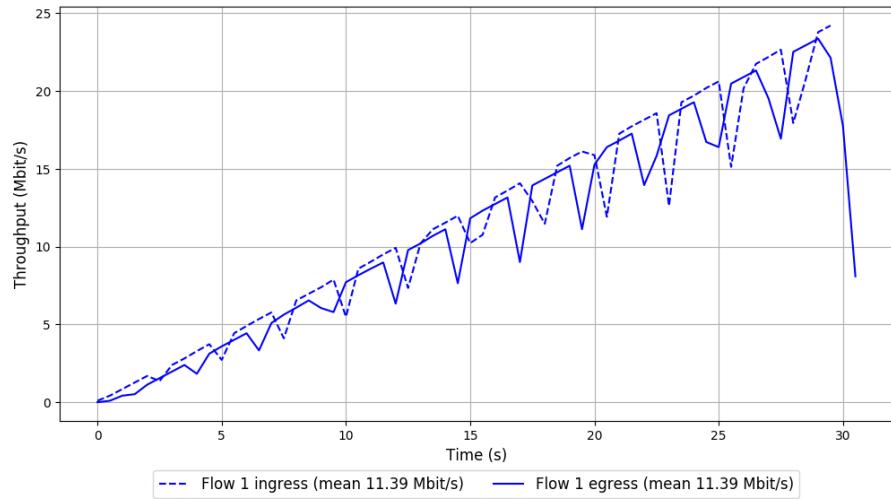


Run 5: Statistics of LEDBAT

```
Start at: 2018-12-11 10:36:19
End at: 2018-12-11 10:36:49
Local clock offset: 0.578 ms
Remote clock offset: 43.05 ms

# Below is generated by plot.py at 2018-12-11 10:56:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 89.681 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 89.681 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

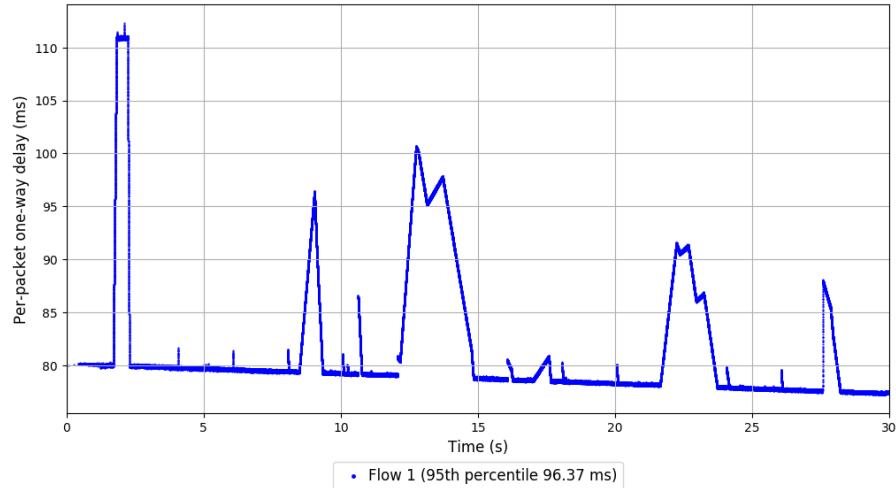
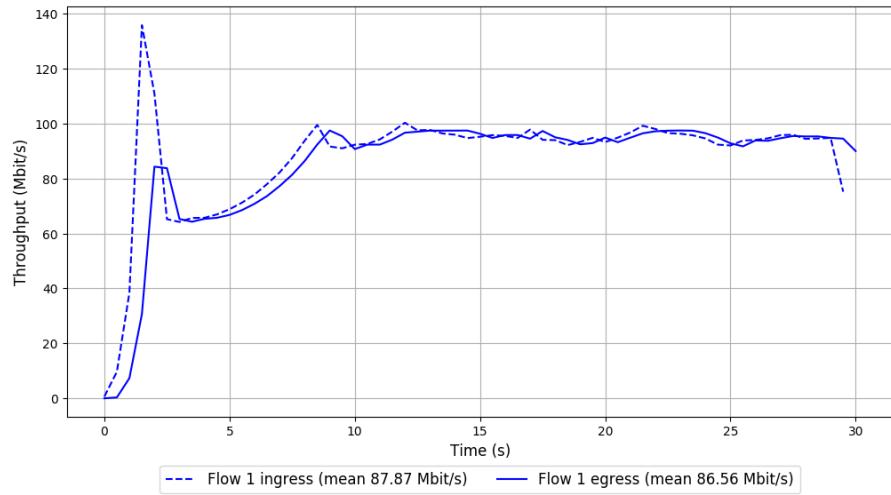


Run 1: Statistics of PCC-Allegro

```
Start at: 2018-12-11 09:02:46
End at: 2018-12-11 09:03:16
Local clock offset: 0.656 ms
Remote clock offset: 911.154 ms

# Below is generated by plot.py at 2018-12-11 10:56:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.56 Mbit/s
95th percentile per-packet one-way delay: 96.367 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 86.56 Mbit/s
95th percentile per-packet one-way delay: 96.367 ms
Loss rate: 1.50%
```

Run 1: Report of PCC-Allegro — Data Link

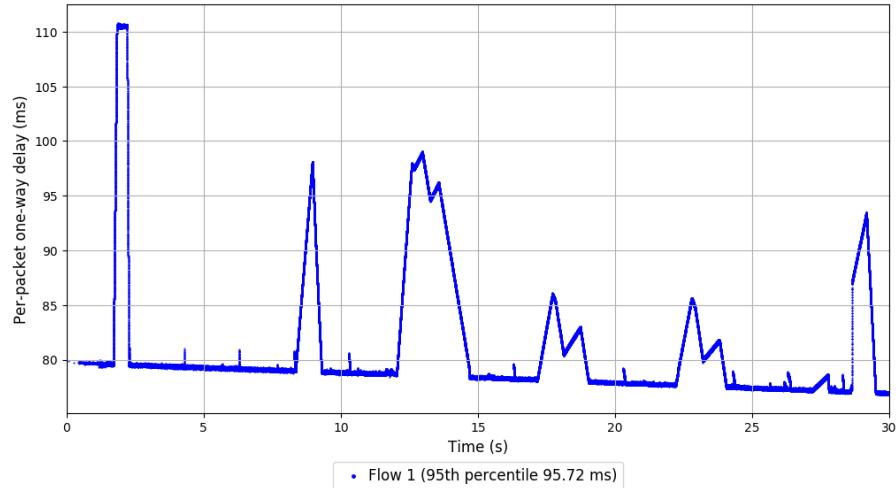
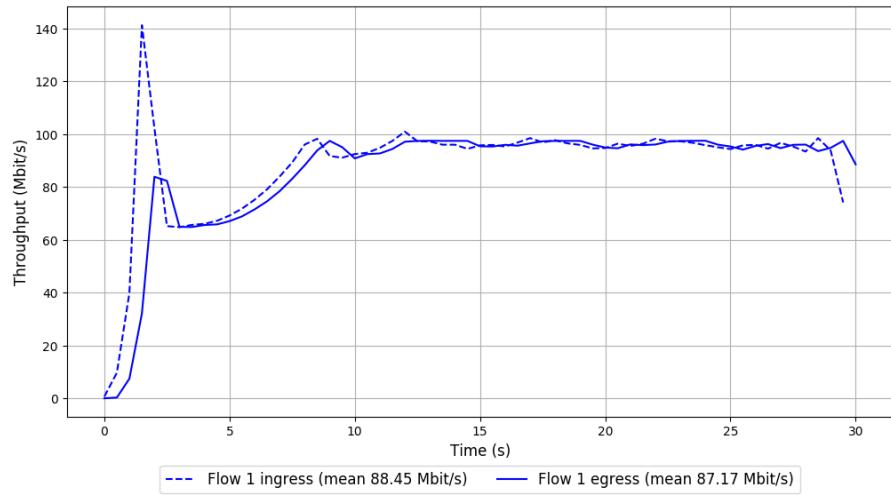


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-12-11 09:25:02
End at: 2018-12-11 09:25:32
Local clock offset: 3.094 ms
Remote clock offset: 1041.614 ms

# Below is generated by plot.py at 2018-12-11 10:56:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 95.725 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 87.17 Mbit/s
95th percentile per-packet one-way delay: 95.725 ms
Loss rate: 1.46%
```

Run 2: Report of PCC-Allegro — Data Link

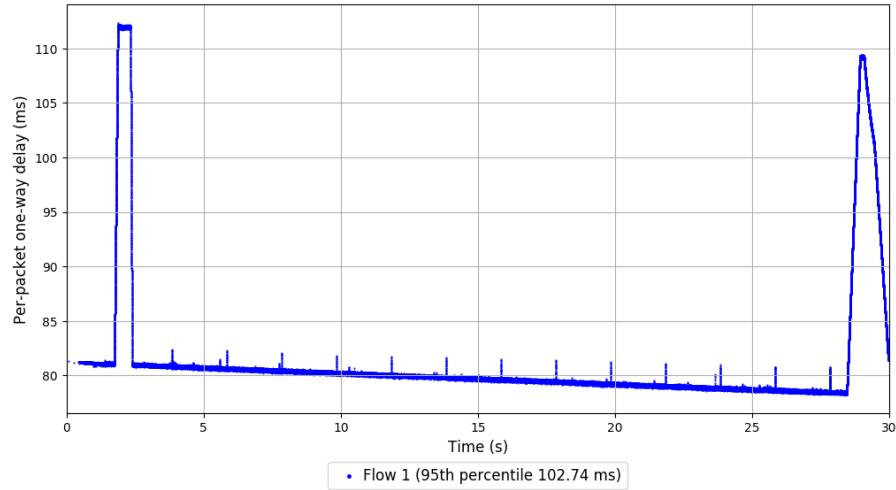
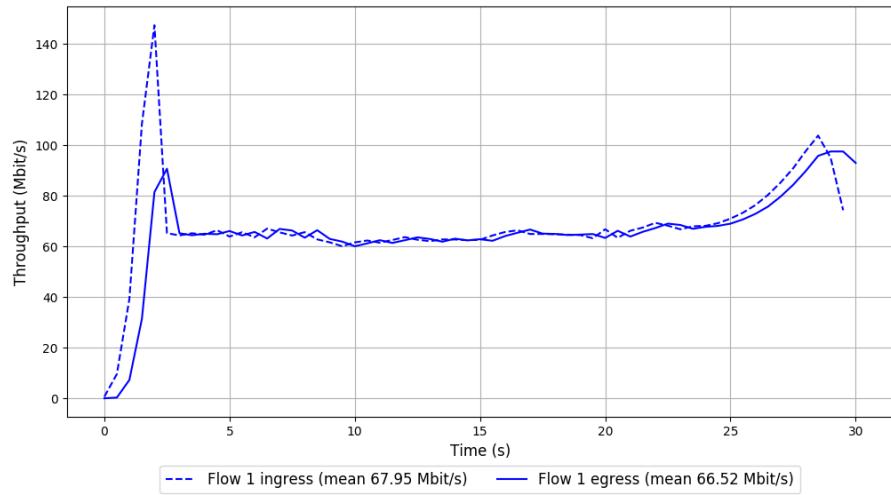


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-12-11 09:47:14
End at: 2018-12-11 09:47:44
Local clock offset: 1.866 ms
Remote clock offset: 1174.804 ms

# Below is generated by plot.py at 2018-12-11 10:56:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.52 Mbit/s
95th percentile per-packet one-way delay: 102.739 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 66.52 Mbit/s
95th percentile per-packet one-way delay: 102.739 ms
Loss rate: 2.11%
```

Run 3: Report of PCC-Allegro — Data Link

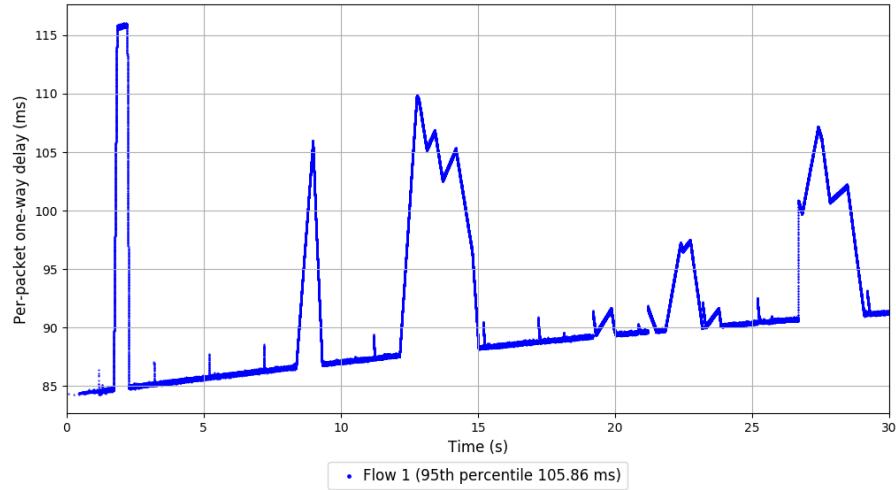
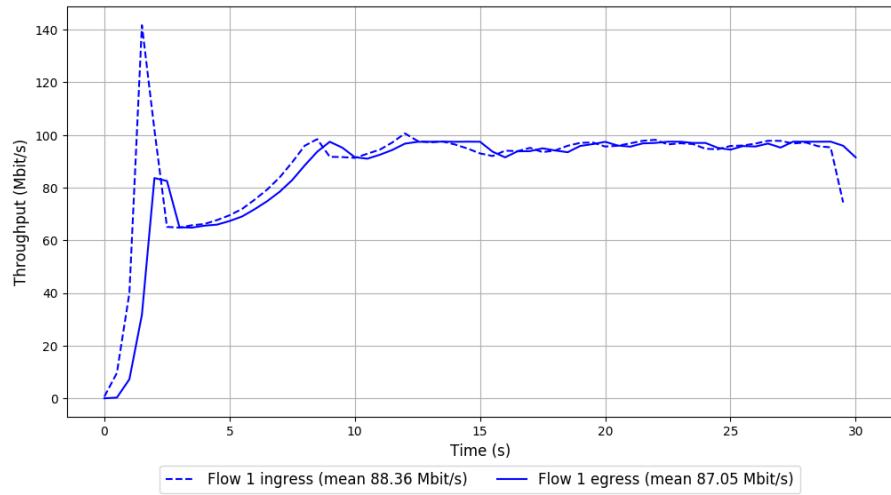


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-12-11 10:09:27
End at: 2018-12-11 10:09:57
Local clock offset: 2.309 ms
Remote clock offset: 17.377 ms

# Below is generated by plot.py at 2018-12-11 10:56:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.05 Mbit/s
95th percentile per-packet one-way delay: 105.856 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 87.05 Mbit/s
95th percentile per-packet one-way delay: 105.856 ms
Loss rate: 1.47%
```

Run 4: Report of PCC-Allegro — Data Link

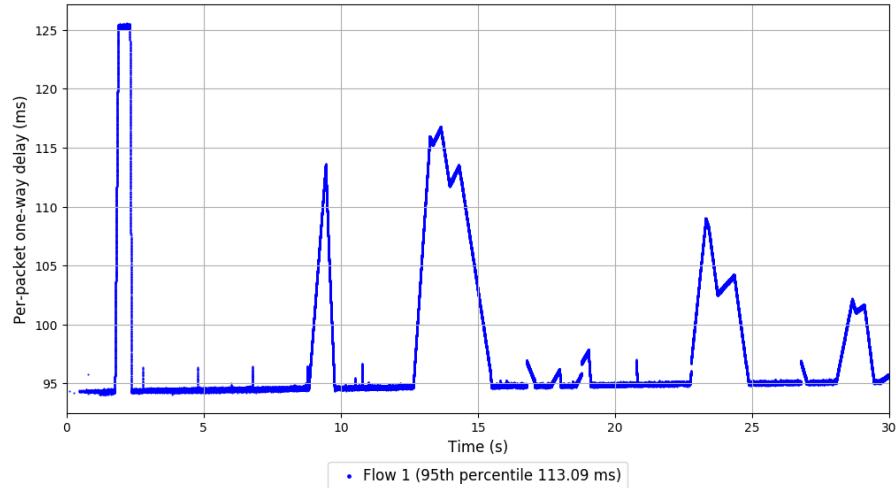
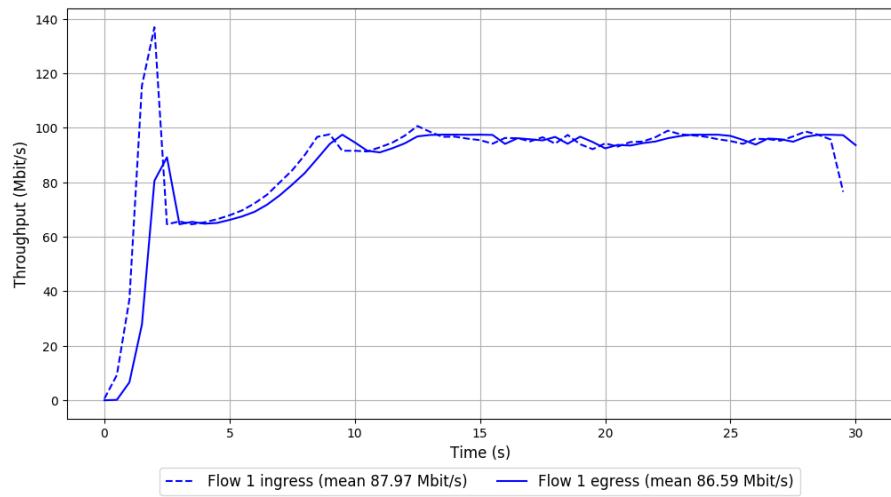


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-12-11 10:31:41
End at: 2018-12-11 10:32:11
Local clock offset: -0.535 ms
Remote clock offset: 49.097 ms

# Below is generated by plot.py at 2018-12-11 10:56:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 113.086 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 86.59 Mbit/s
95th percentile per-packet one-way delay: 113.086 ms
Loss rate: 1.59%
```

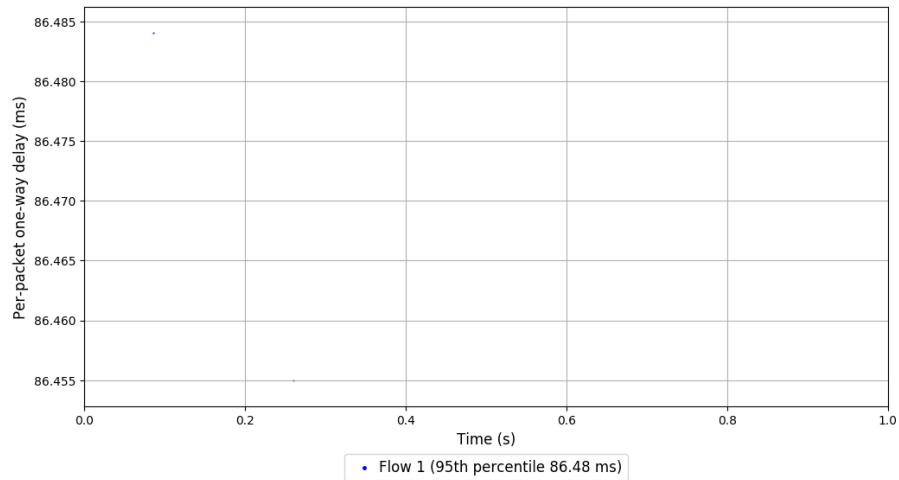
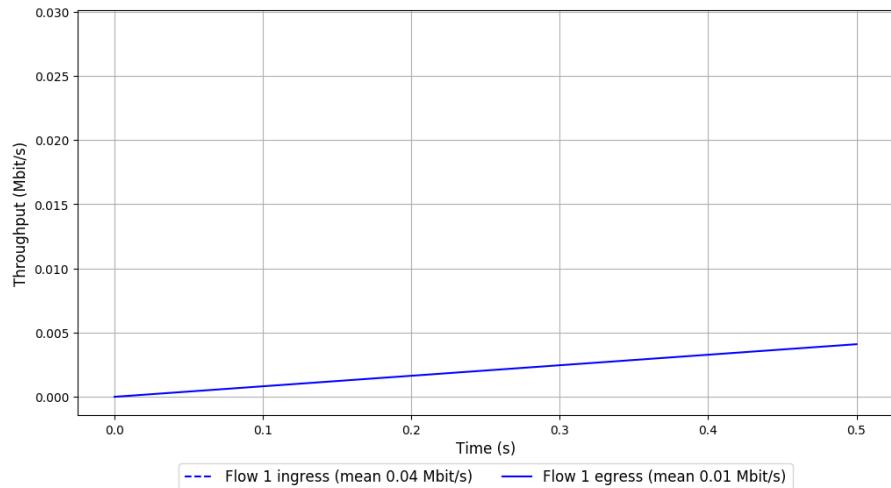
Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-12-11 09:20:18
End at: 2018-12-11 09:20:49
Local clock offset: 2.263 ms
Remote clock offset: 1020.419 ms

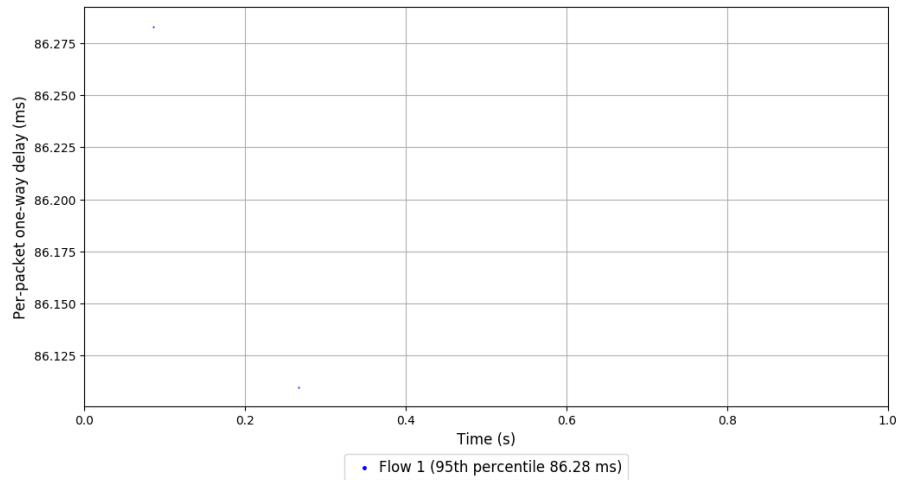
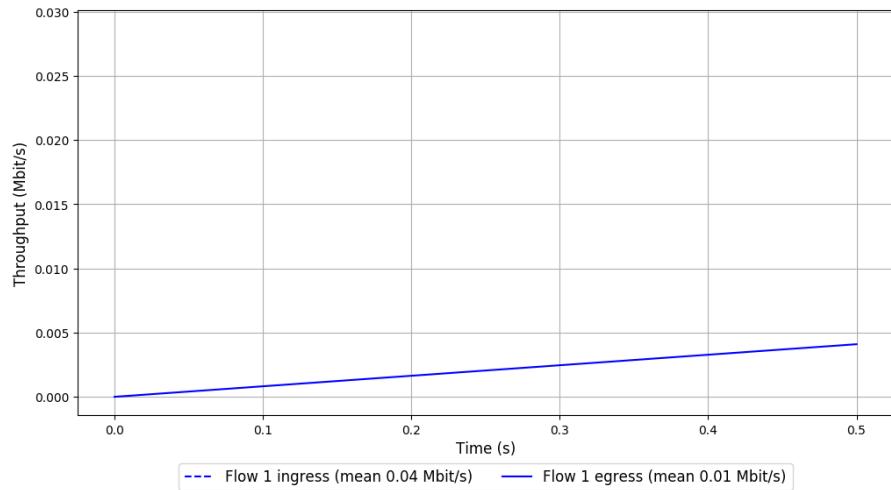
Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-12-11 09:42:31
End at: 2018-12-11 09:43:01
Local clock offset: 4.089 ms
Remote clock offset: 1146.11 ms

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

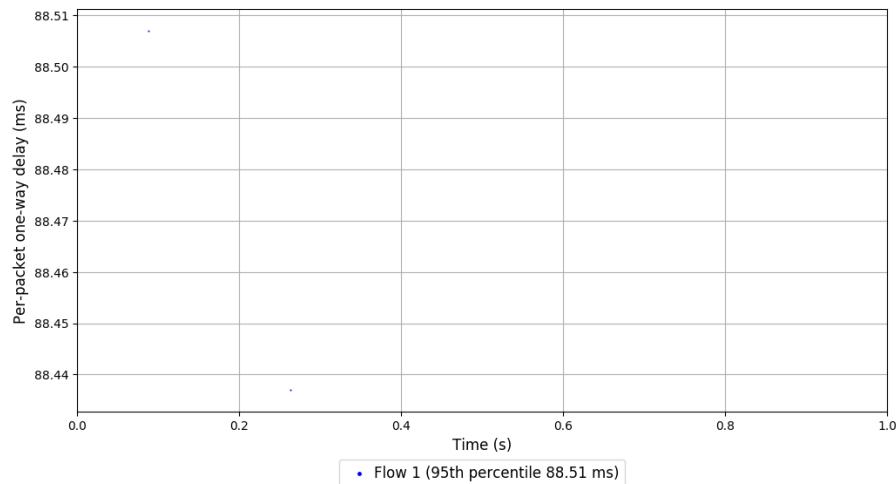
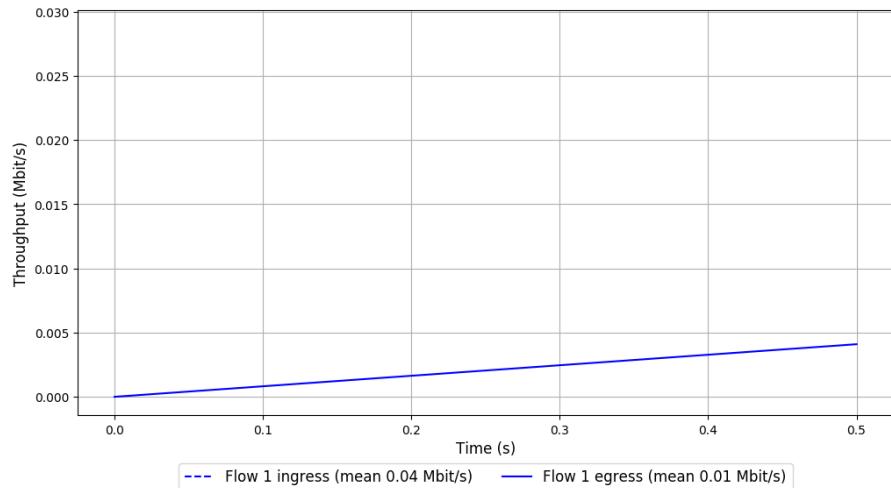
Start at: 2018-12-11 10:04:44

End at: 2018-12-11 10:05:14

Local clock offset: 2.361 ms

Remote clock offset: 19.13 ms

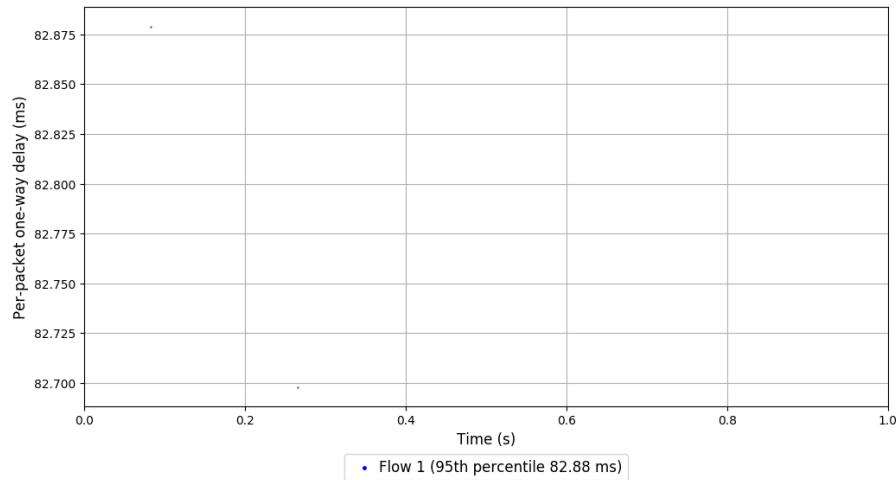
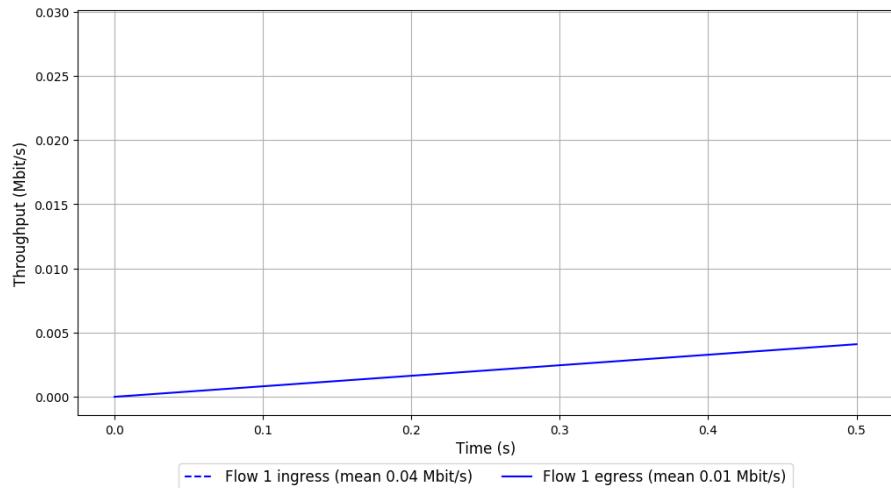
Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-12-11 10:26:58
End at: 2018-12-11 10:27:28
Local clock offset: -0.67 ms
Remote clock offset: 43.618 ms

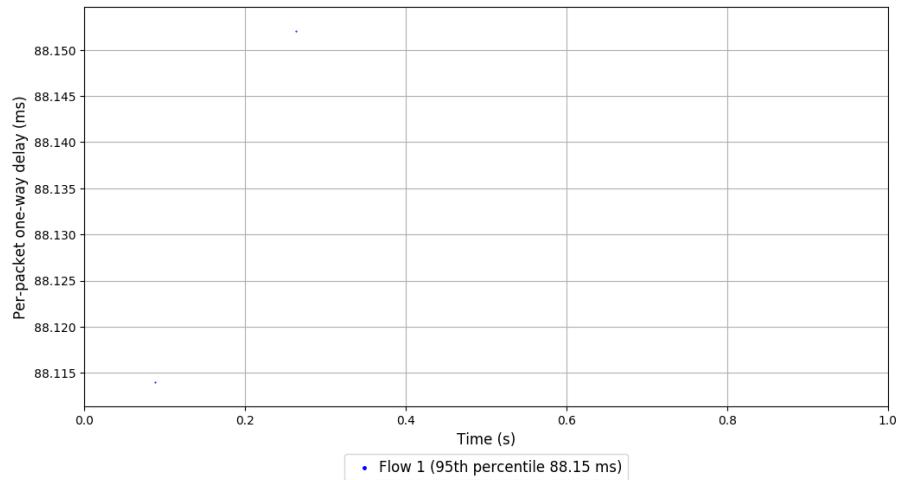
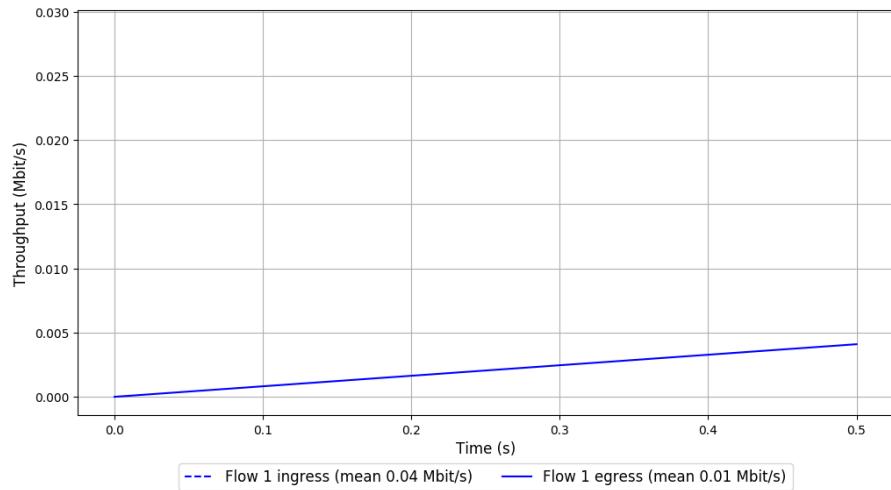
Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-12-11 10:49:13
End at: 2018-12-11 10:49:43
Local clock offset: -1.021 ms
Remote clock offset: 58.766 ms

Run 5: Report of PCC-Expr — Data Link

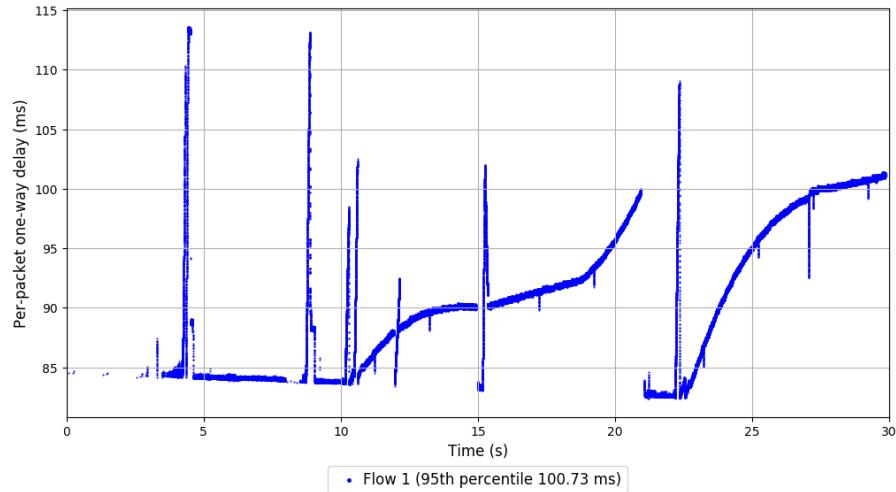
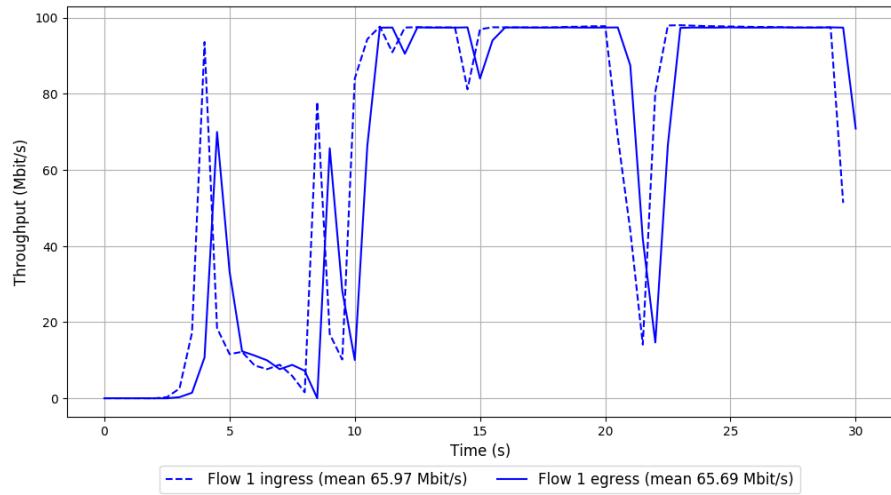


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-12-11 09:01:35
End at: 2018-12-11 09:02:05
Local clock offset: 1.362 ms
Remote clock offset: 907.133 ms

# Below is generated by plot.py at 2018-12-11 10:56:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.69 Mbit/s
95th percentile per-packet one-way delay: 100.726 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 65.69 Mbit/s
95th percentile per-packet one-way delay: 100.726 ms
Loss rate: 0.37%
```

Run 1: Report of QUIC Cubic — Data Link

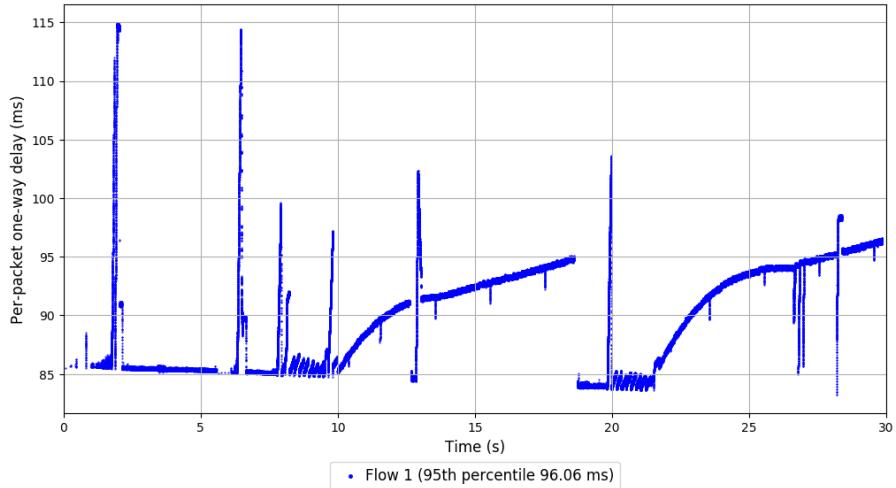
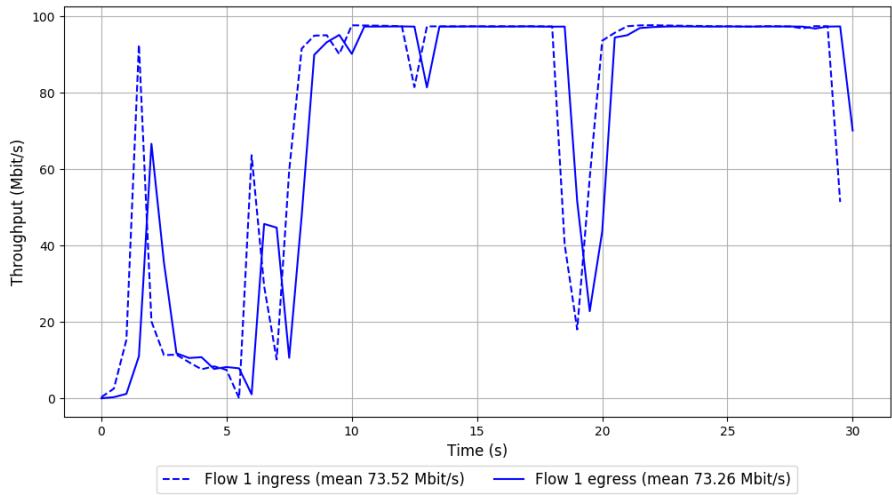


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-12-11 09:23:50
End at: 2018-12-11 09:24:20
Local clock offset: 2.739 ms
Remote clock offset: 1040.464 ms

# Below is generated by plot.py at 2018-12-11 10:56:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.26 Mbit/s
95th percentile per-packet one-way delay: 96.055 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 73.26 Mbit/s
95th percentile per-packet one-way delay: 96.055 ms
Loss rate: 0.33%
```

Run 2: Report of QUIC Cubic — Data Link

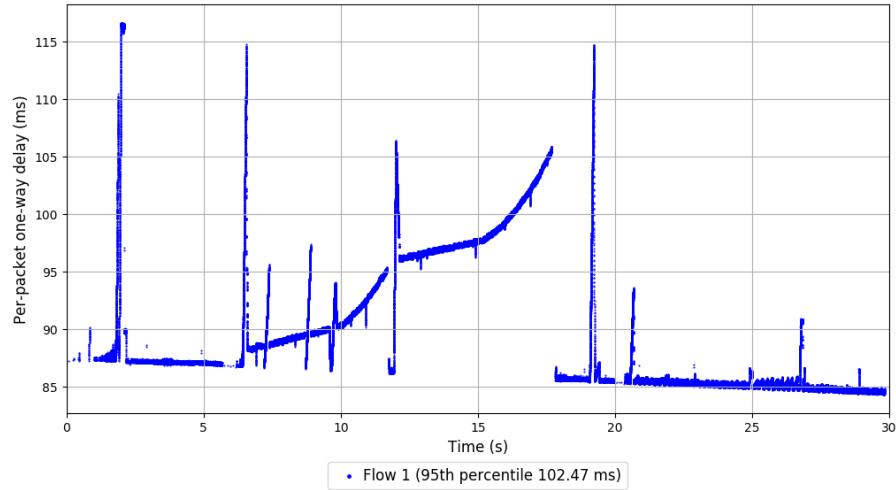
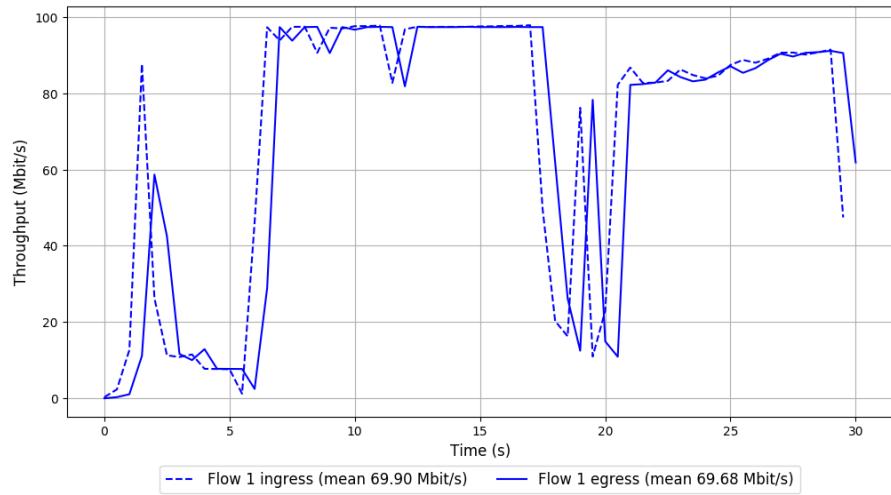


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-12-11 09:46:03
End at: 2018-12-11 09:46:33
Local clock offset: 2.933 ms
Remote clock offset: 1168.171 ms

# Below is generated by plot.py at 2018-12-11 10:57:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 102.471 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 102.471 ms
Loss rate: 0.35%
```

Run 3: Report of QUIC Cubic — Data Link

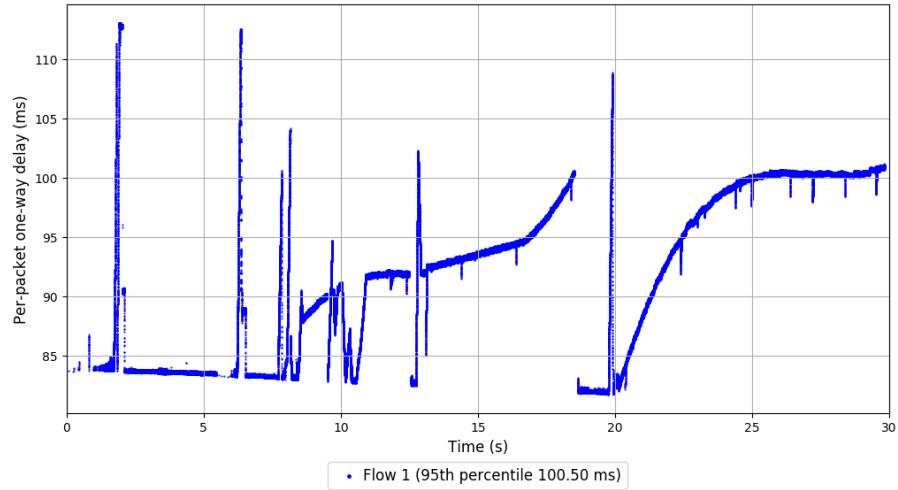
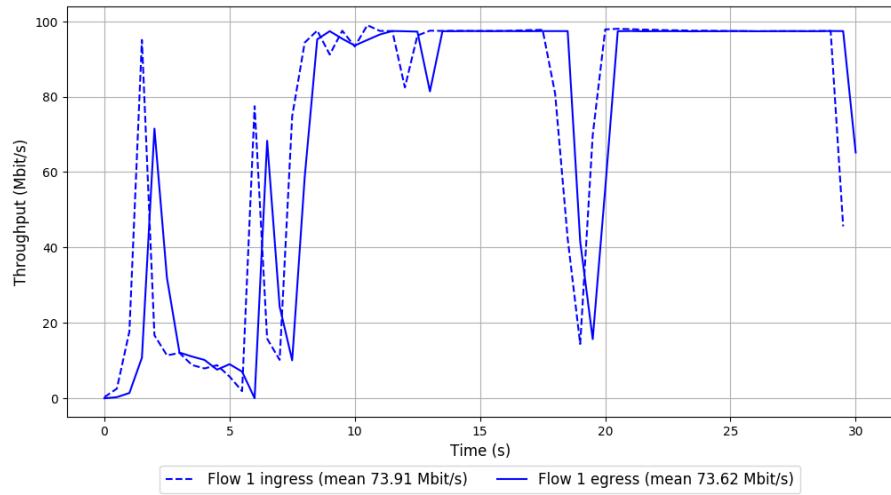


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-12-11 10:08:15
End at: 2018-12-11 10:08:45
Local clock offset: 3.76 ms
Remote clock offset: 15.751 ms

# Below is generated by plot.py at 2018-12-11 10:57:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 100.502 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 73.62 Mbit/s
95th percentile per-packet one-way delay: 100.502 ms
Loss rate: 0.34%
```

Run 4: Report of QUIC Cubic — Data Link

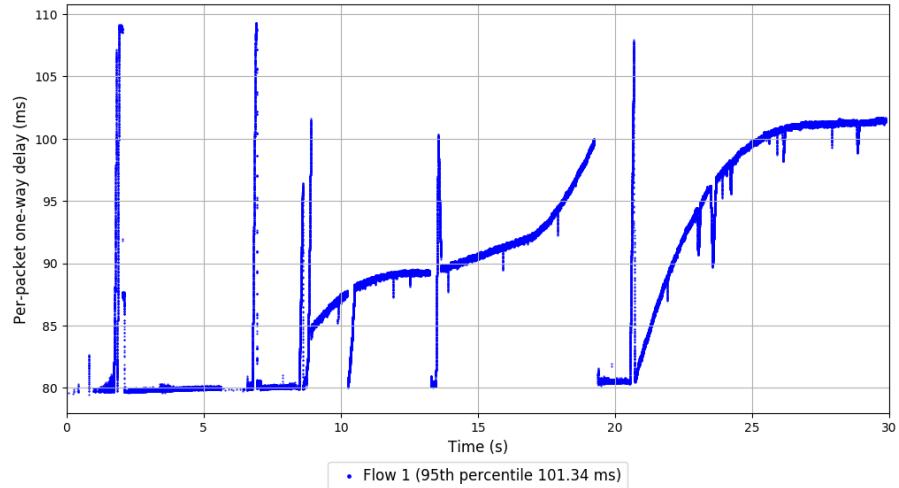
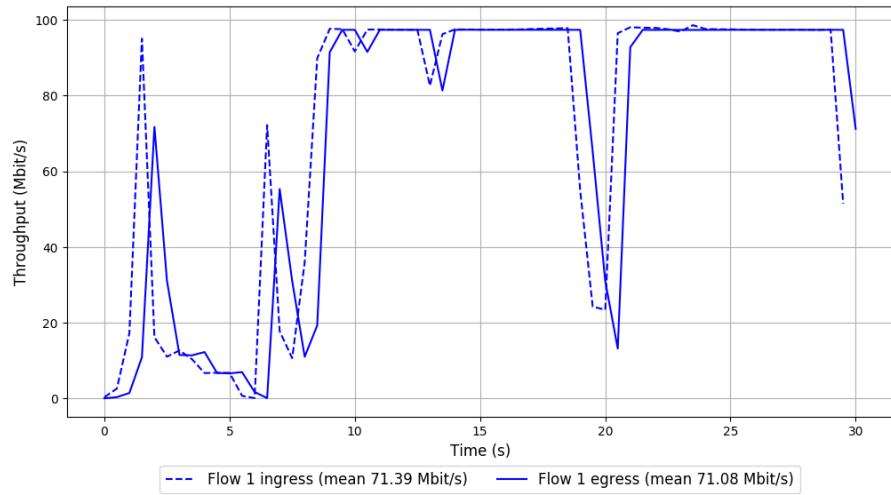


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-12-11 10:30:30
End at: 2018-12-11 10:31:00
Local clock offset: 0.261 ms
Remote clock offset: 45.516 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.08 Mbit/s
95th percentile per-packet one-way delay: 101.345 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 71.08 Mbit/s
95th percentile per-packet one-way delay: 101.345 ms
Loss rate: 0.37%
```

Run 5: Report of QUIC Cubic — Data Link

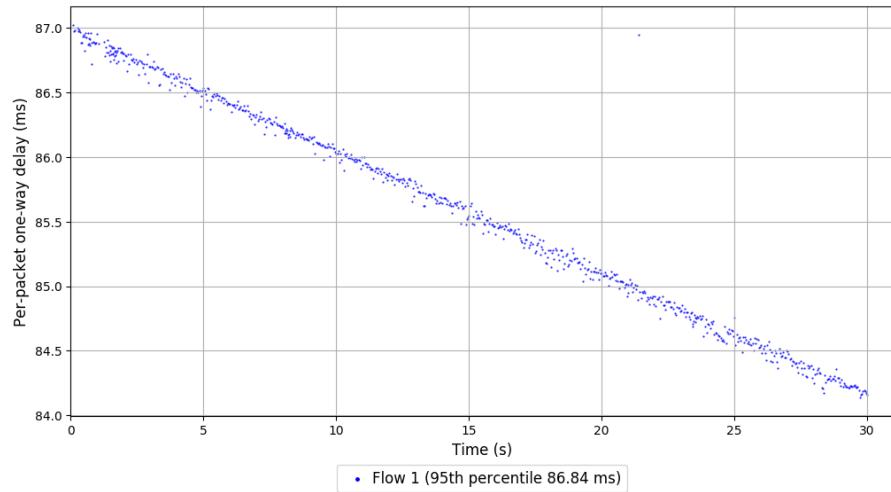
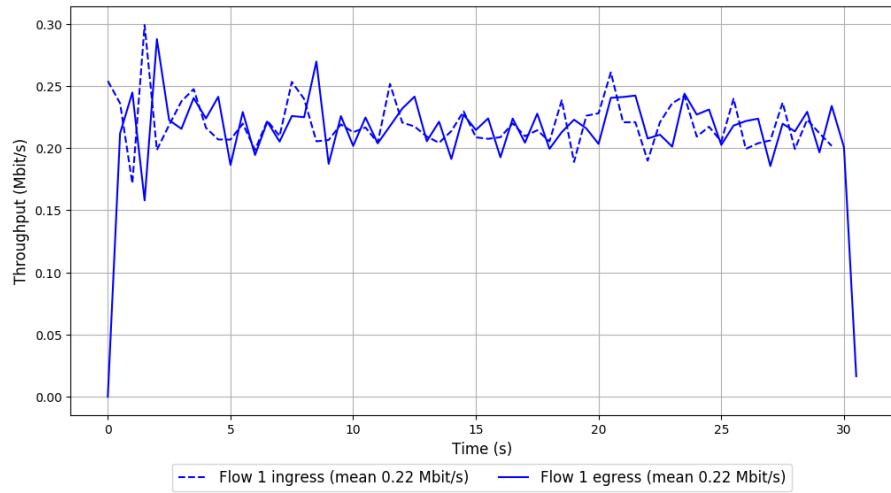


```
Run 1: Statistics of SCReAM

Start at: 2018-12-11 09:05:09
End at: 2018-12-11 09:05:39
Local clock offset: 1.282 ms
Remote clock offset: 929.457 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.841 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.841 ms
Loss rate: 0.13%
```

Run 1: Report of SCReAM — Data Link

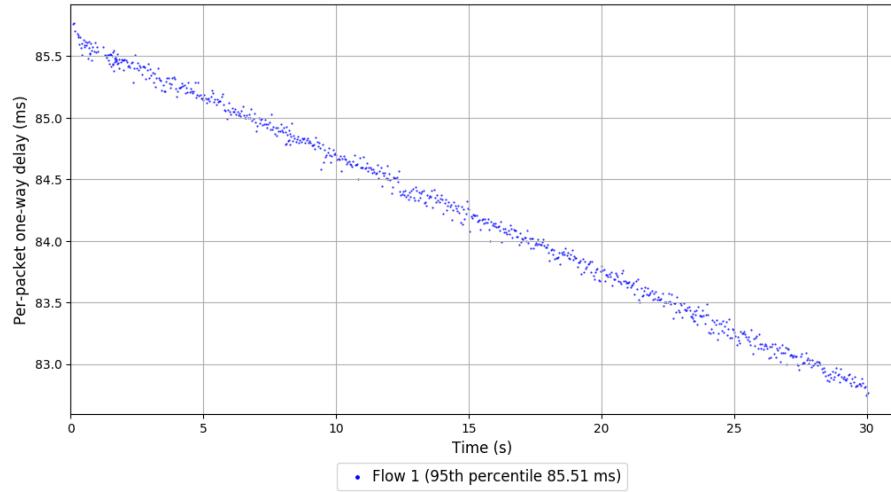
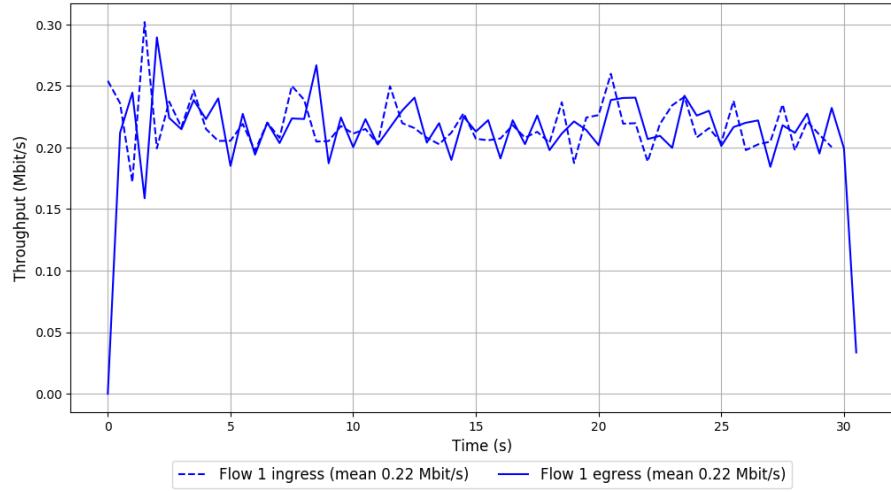


Run 2: Statistics of SCReAM

```
Start at: 2018-12-11 09:27:24
End at: 2018-12-11 09:27:54
Local clock offset: 2.733 ms
Remote clock offset: 1056.852 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.506 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

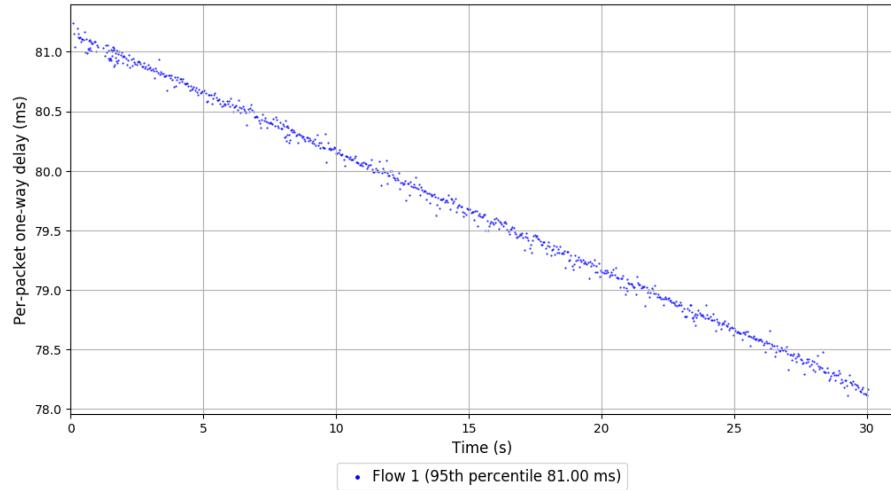
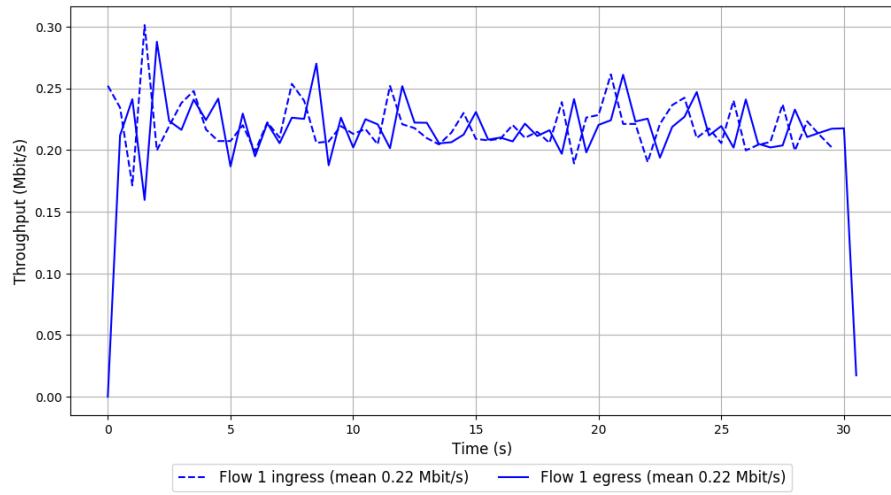


Run 3: Statistics of SCReAM

```
Start at: 2018-12-11 09:49:36
End at: 2018-12-11 09:50:06
Local clock offset: 1.463 ms
Remote clock offset: 1187.72 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.004 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.004 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

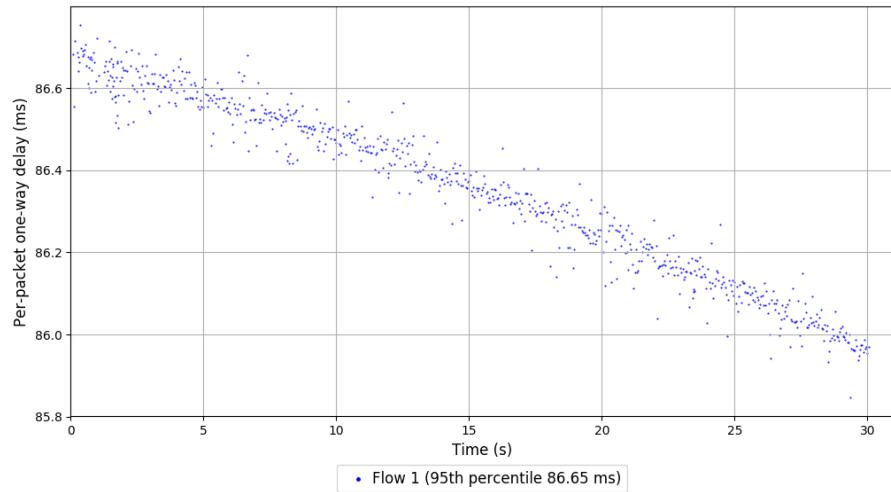
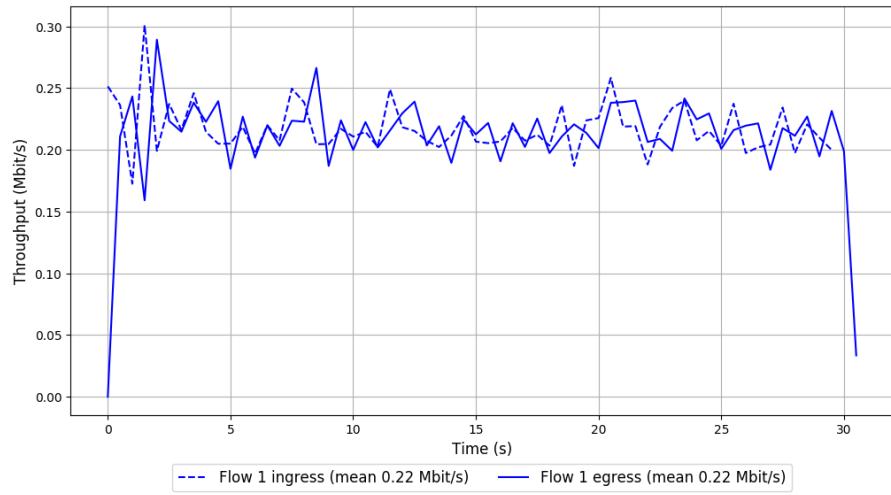


Run 4: Statistics of SCReAM

```
Start at: 2018-12-11 10:11:50
End at: 2018-12-11 10:12:20
Local clock offset: 2.202 ms
Remote clock offset: 1.065 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.652 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.652 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

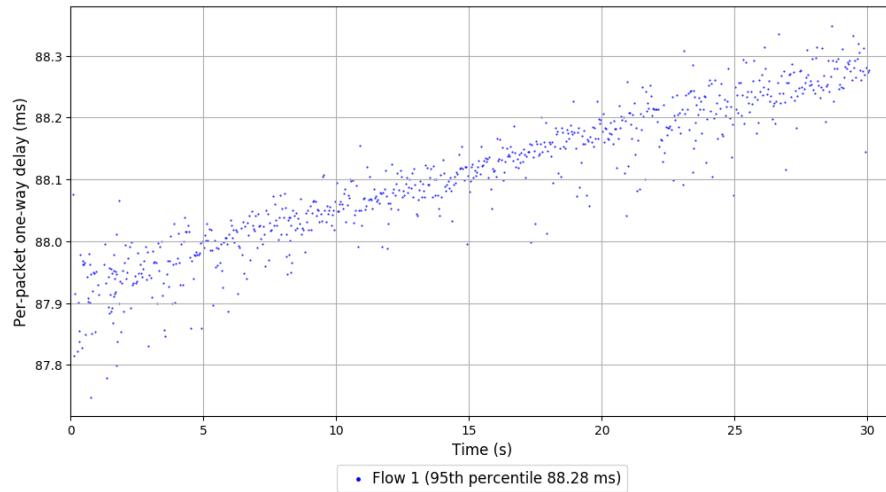
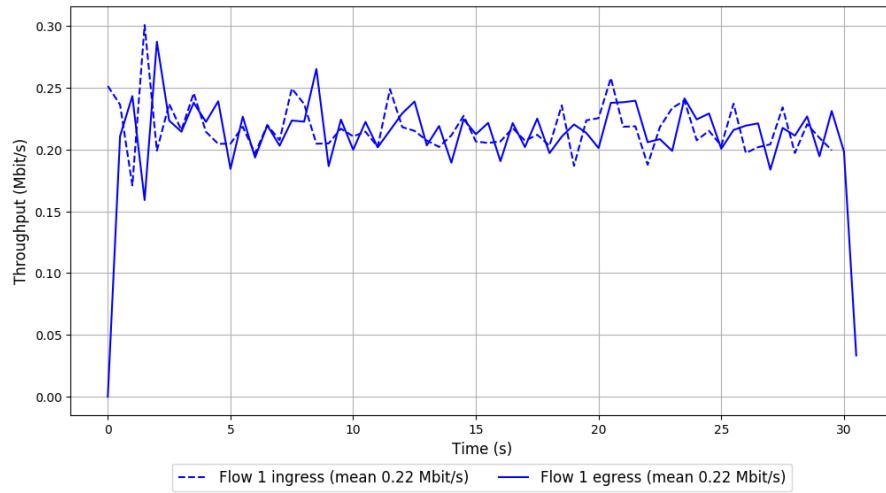


Run 5: Statistics of SCReAM

```
Start at: 2018-12-11 10:34:04
End at: 2018-12-11 10:34:34
Local clock offset: -0.387 ms
Remote clock offset: 39.9 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.275 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.275 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

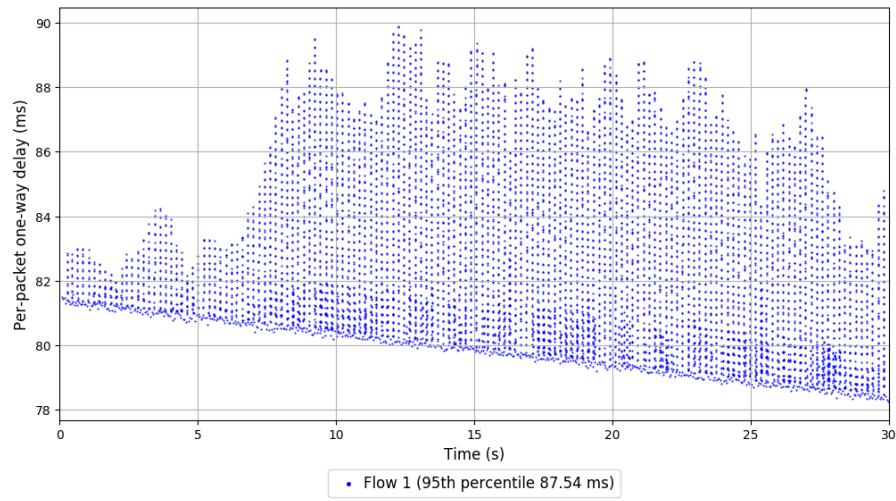
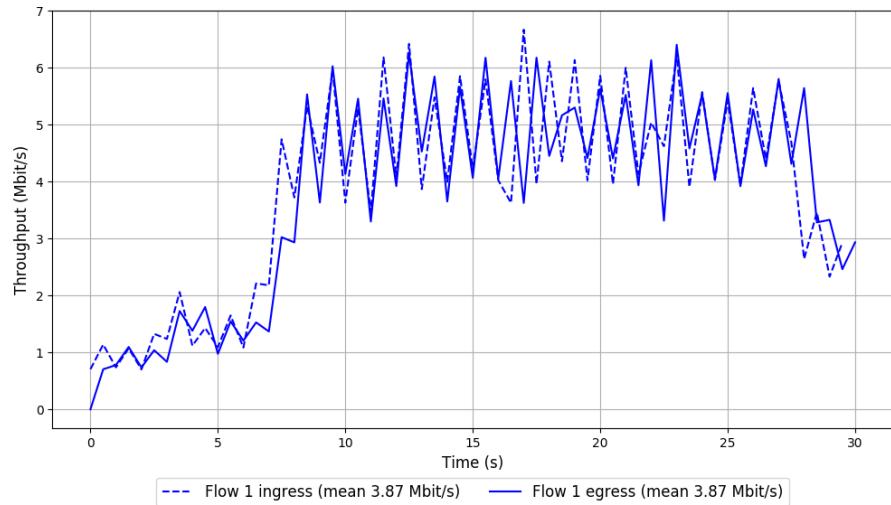


Run 1: Statistics of Sprout

```
Start at: 2018-12-11 09:13:15
End at: 2018-12-11 09:13:45
Local clock offset: 2.061 ms
Remote clock offset: 971.244 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 87.543 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.87 Mbit/s
95th percentile per-packet one-way delay: 87.543 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

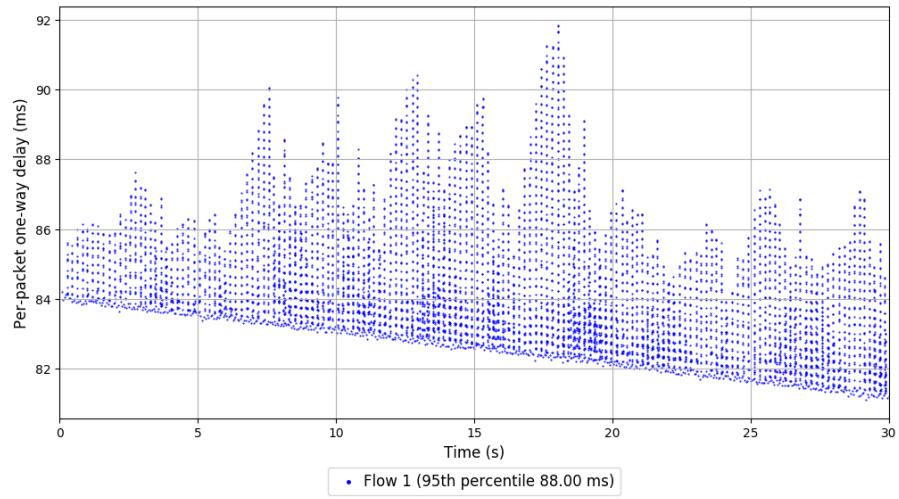
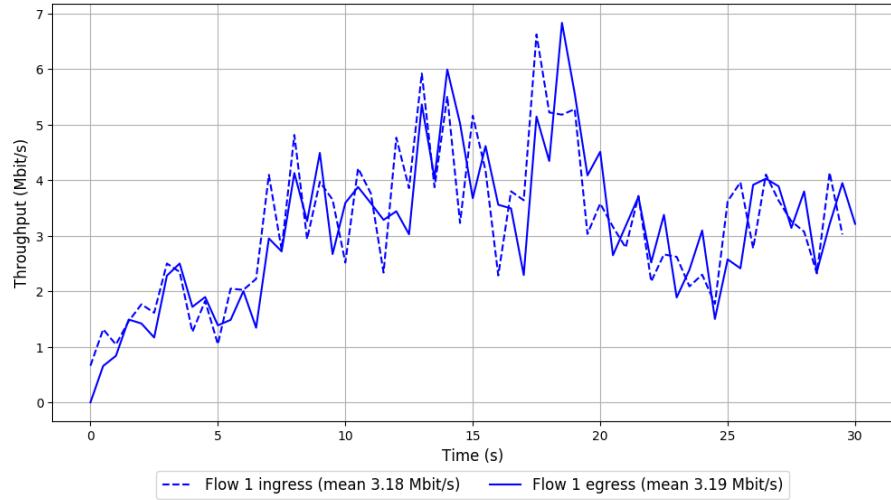


Run 2: Statistics of Sprout

```
Start at: 2018-12-11 09:35:29
End at: 2018-12-11 09:35:59
Local clock offset: 5.712 ms
Remote clock offset: 1109.624 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 87.995 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 87.995 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

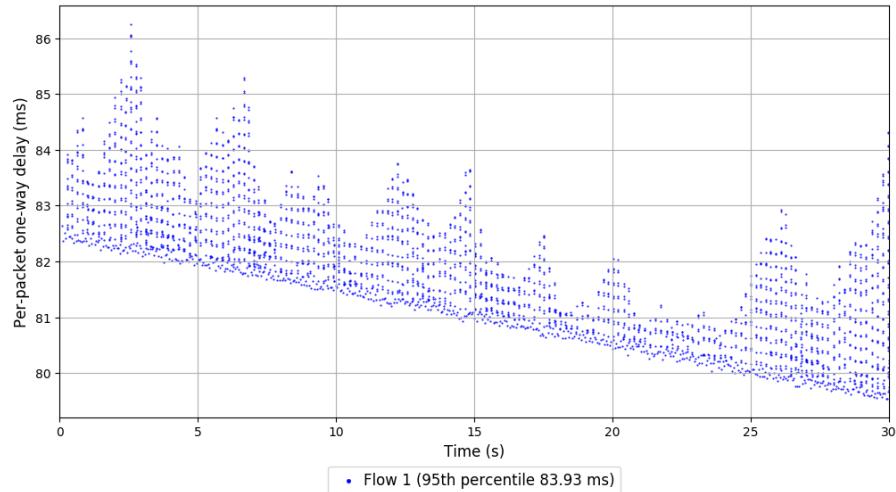
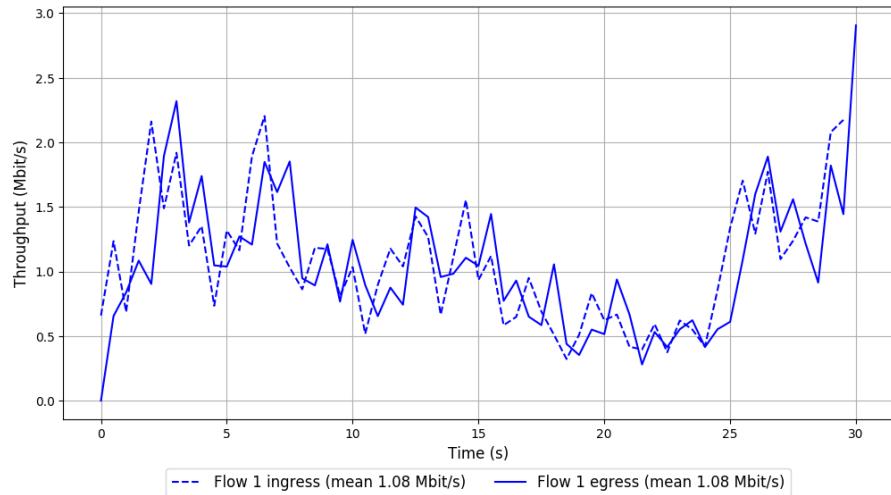


Run 3: Statistics of Sprout

```
Start at: 2018-12-11 09:57:40
End at: 2018-12-11 09:58:10
Local clock offset: 1.564 ms
Remote clock offset: 1237.008 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 83.928 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 83.928 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

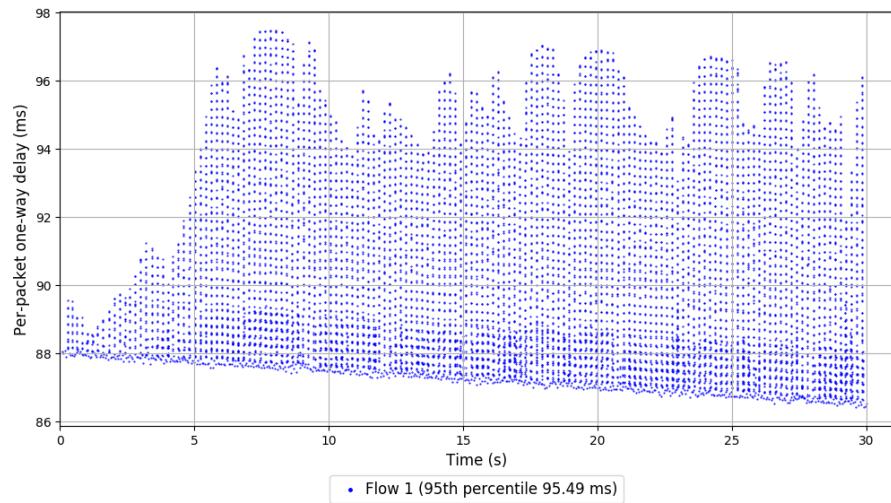
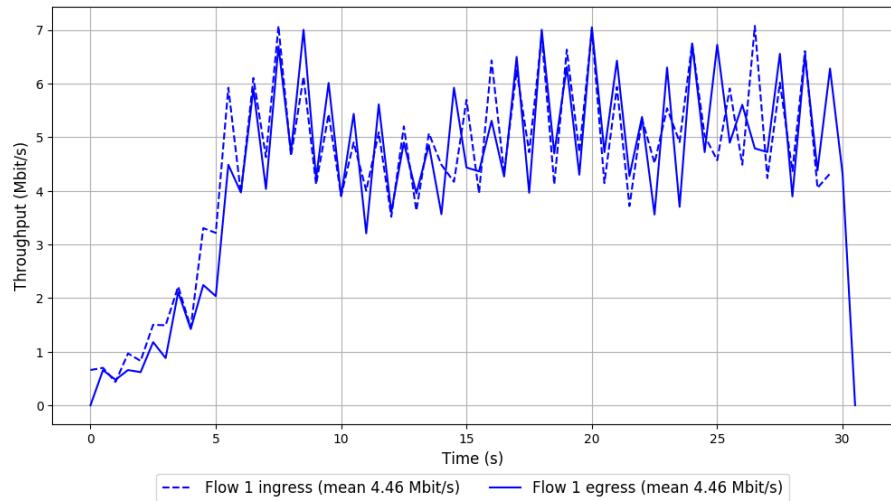


Run 4: Statistics of Sprout

```
Start at: 2018-12-11 10:19:55
End at: 2018-12-11 10:20:25
Local clock offset: 0.349 ms
Remote clock offset: 26.885 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 95.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 95.494 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

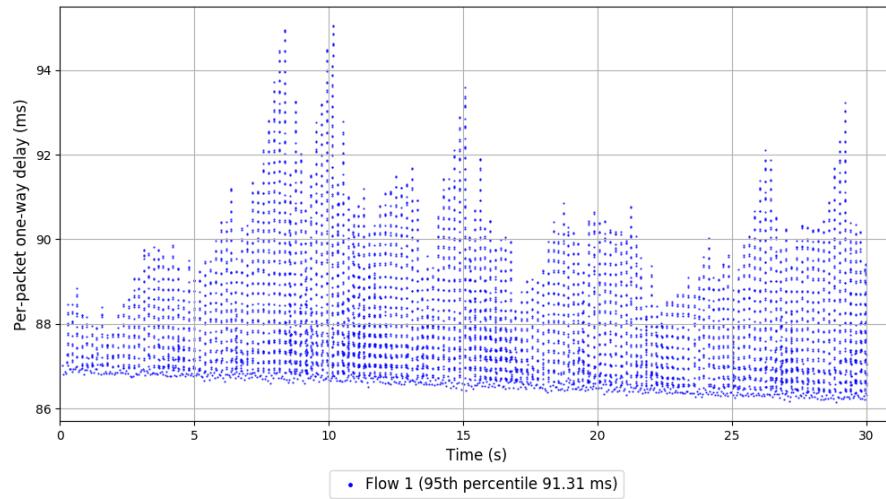
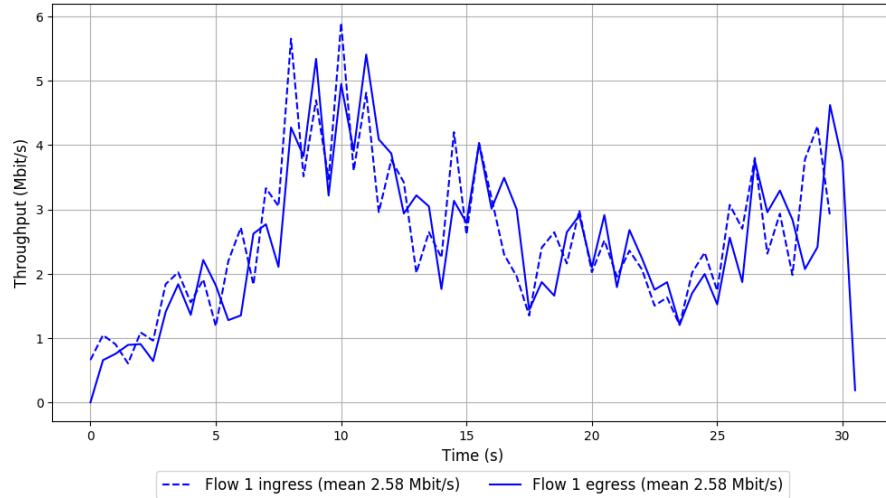


Run 5: Statistics of Sprout

```
Start at: 2018-12-11 10:42:10
End at: 2018-12-11 10:42:40
Local clock offset: -1.062 ms
Remote clock offset: 47.464 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 91.315 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 91.315 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

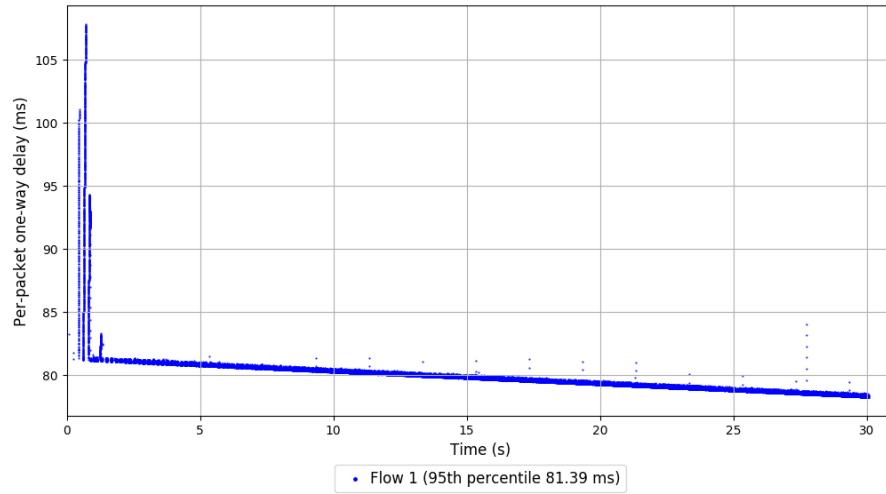
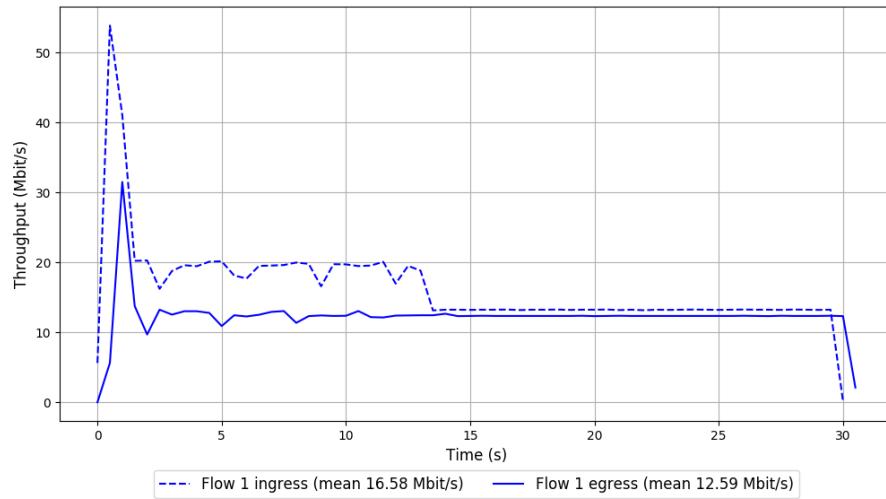


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-12-11 09:14:23
End at: 2018-12-11 09:14:53
Local clock offset: 1.991 ms
Remote clock offset: 980.192 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 81.390 ms
Loss rate: 24.07%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 81.390 ms
Loss rate: 24.07%
```

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

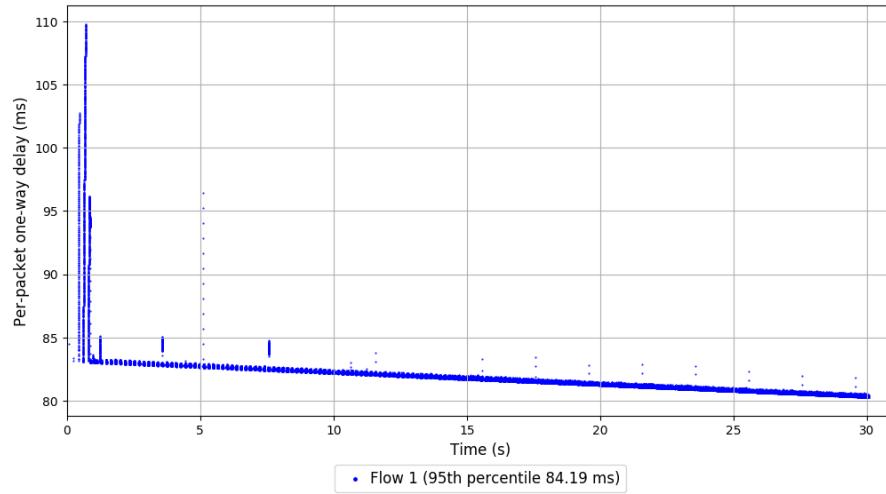
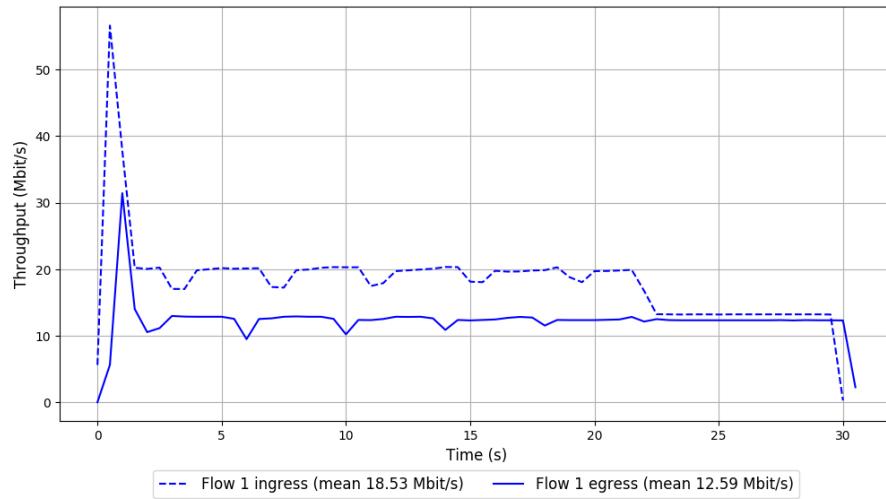


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-12-11 09:36:37
End at: 2018-12-11 09:37:07
Local clock offset: 5.967 ms
Remote clock offset: 1115.537 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 84.186 ms
Loss rate: 32.05%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 84.186 ms
Loss rate: 32.05%
```

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

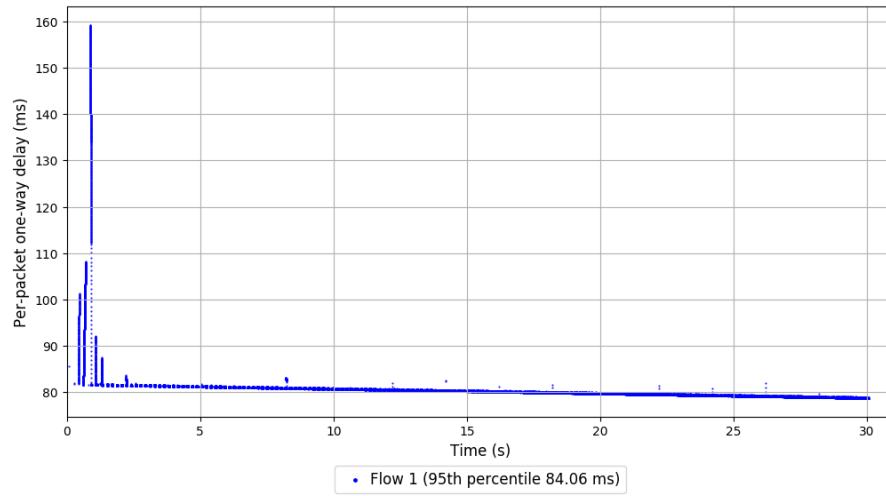
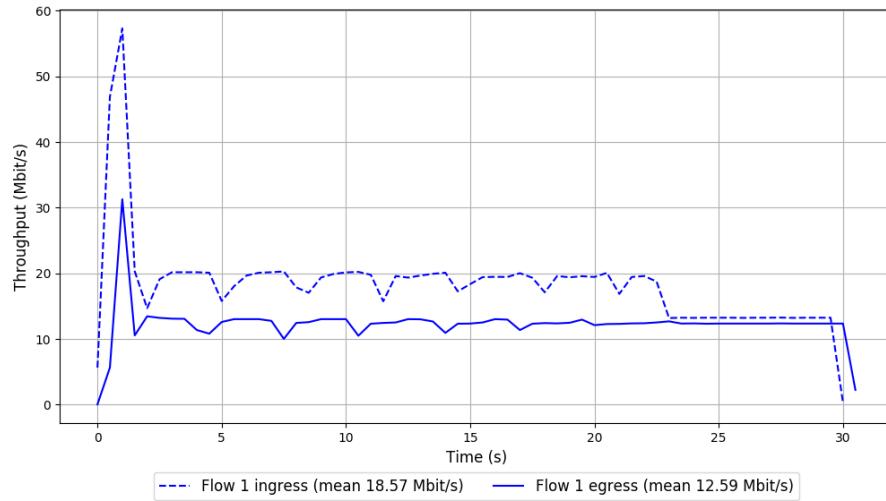


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-12-11 09:58:48
End at: 2018-12-11 09:59:18
Local clock offset: 1.676 ms
Remote clock offset: 1242.727 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 84.056 ms
Loss rate: 32.20%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 84.056 ms
Loss rate: 32.20%
```

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

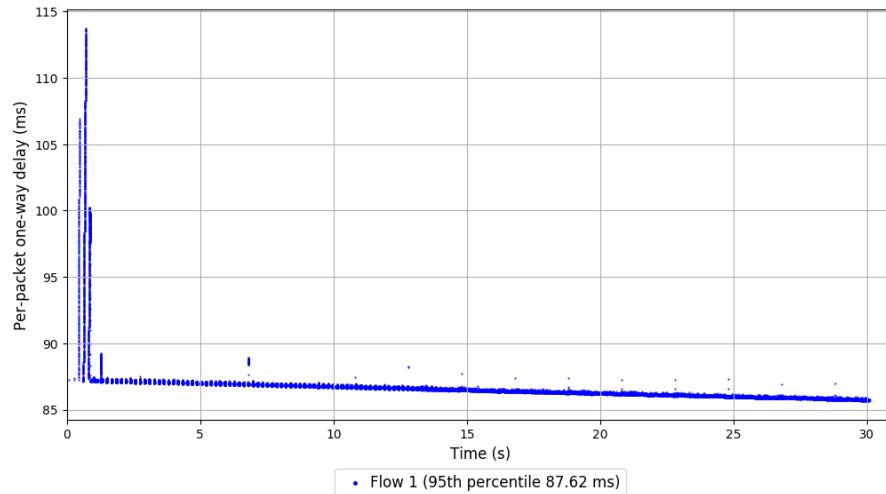
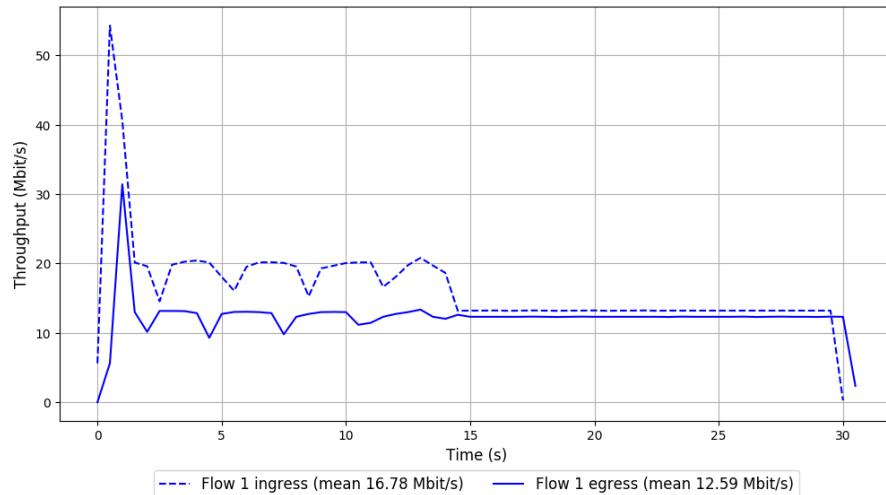


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-12-11 10:21:03
End at: 2018-12-11 10:21:33
Local clock offset: -0.584 ms
Remote clock offset: 30.811 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 87.619 ms
Loss rate: 24.99%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 87.619 ms
Loss rate: 24.99%
```

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

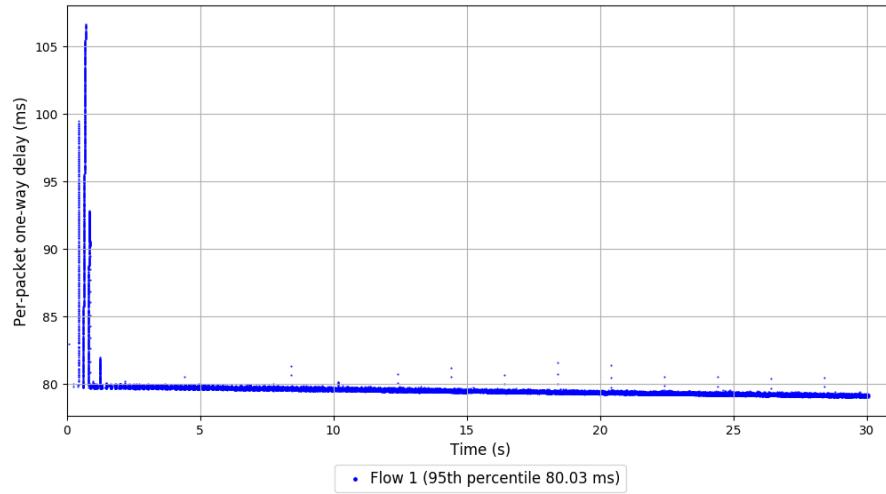
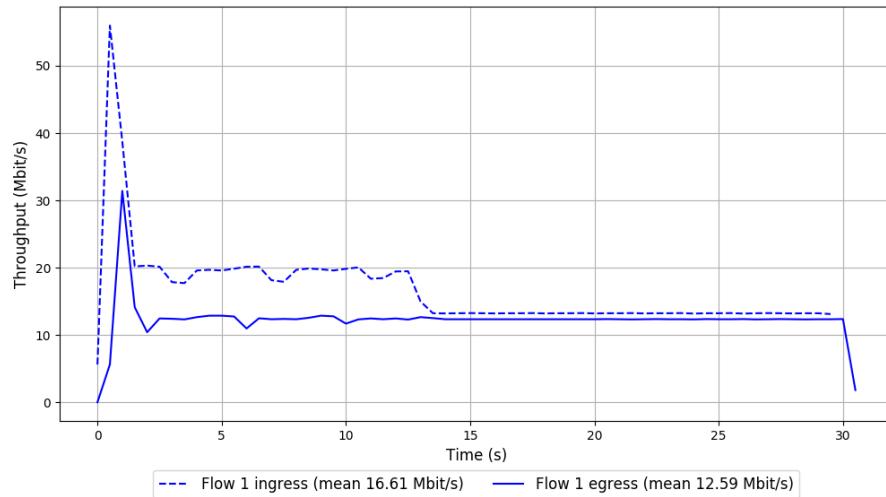


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-12-11 10:43:18
End at: 2018-12-11 10:43:48
Local clock offset: -1.286 ms
Remote clock offset: 43.563 ms

# Below is generated by plot.py at 2018-12-11 10:57:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 80.031 ms
Loss rate: 24.19%
-- Flow 1:
Average throughput: 12.59 Mbit/s
95th percentile per-packet one-way delay: 80.031 ms
Loss rate: 24.19%
```

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

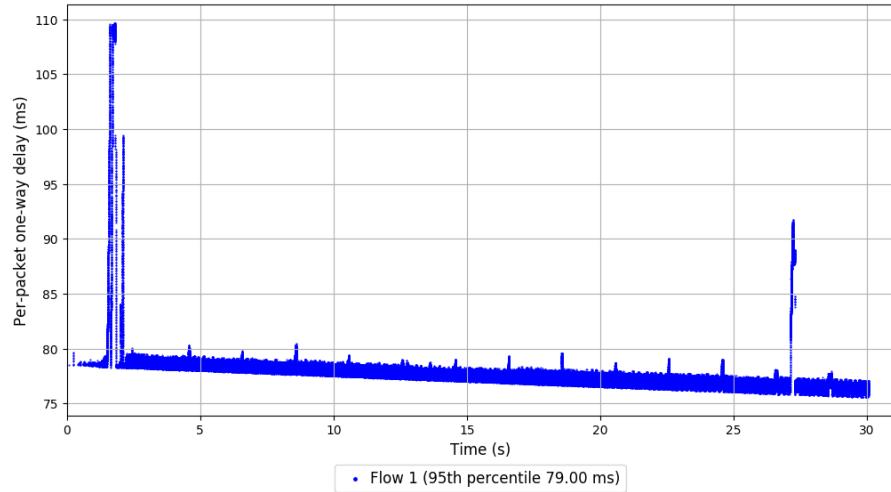
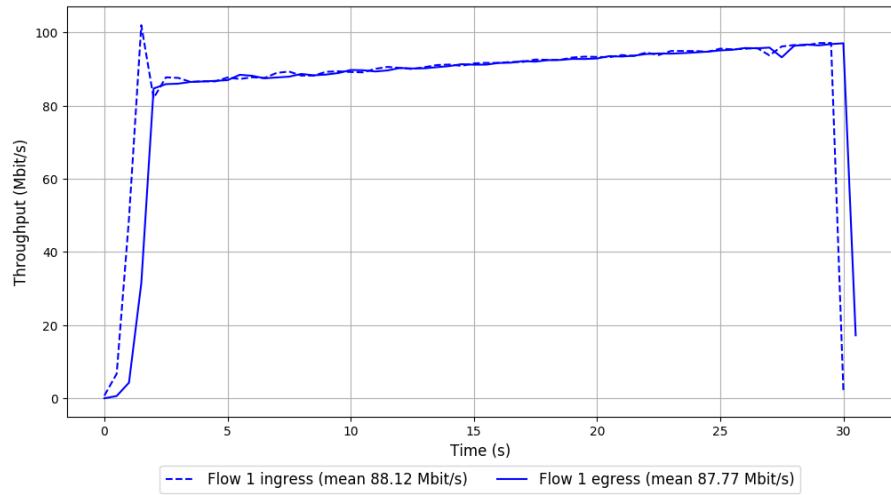


Run 1: Statistics of TCP Vegas

```
Start at: 2018-12-11 09:16:42
End at: 2018-12-11 09:17:12
Local clock offset: 1.098 ms
Remote clock offset: 992.211 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.77 Mbit/s
95th percentile per-packet one-way delay: 78.995 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 87.77 Mbit/s
95th percentile per-packet one-way delay: 78.995 ms
Loss rate: 0.41%
```

Run 1: Report of TCP Vegas — Data Link

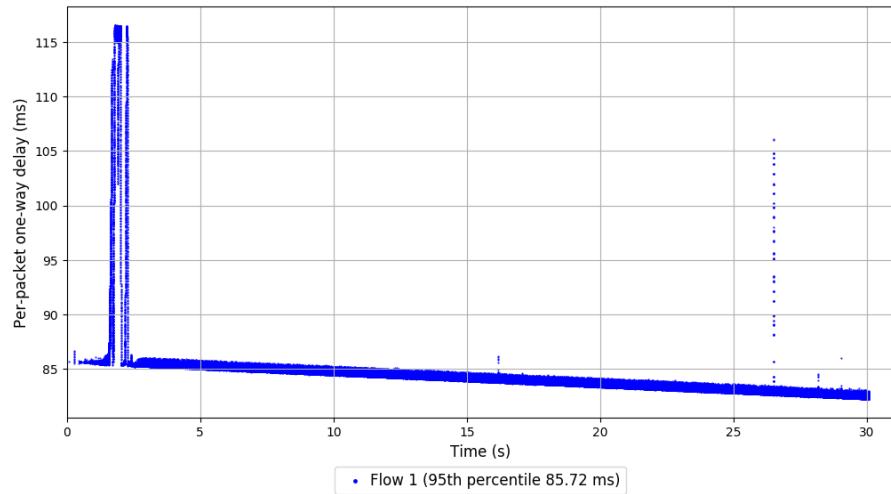
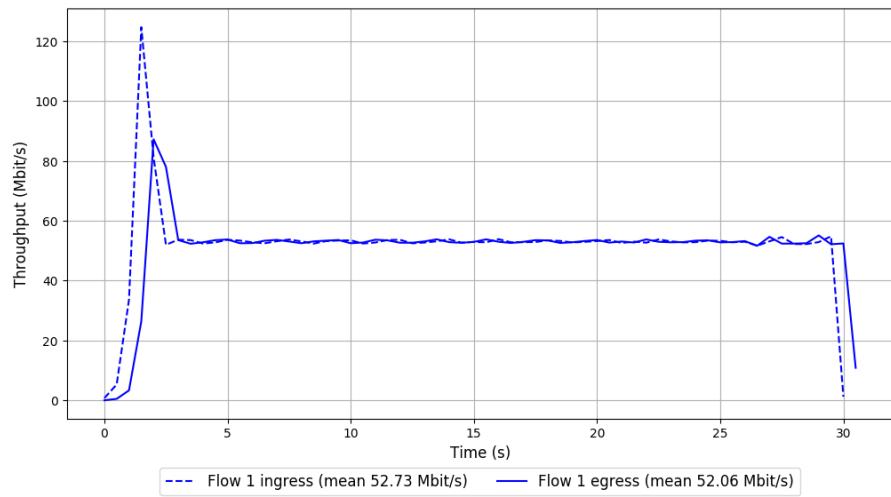


Run 2: Statistics of TCP Vegas

```
Start at: 2018-12-11 09:38:56
End at: 2018-12-11 09:39:26
Local clock offset: 5.352 ms
Remote clock offset: 1123.458 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.06 Mbit/s
95th percentile per-packet one-way delay: 85.717 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 52.06 Mbit/s
95th percentile per-packet one-way delay: 85.717 ms
Loss rate: 1.29%
```

Run 2: Report of TCP Vegas — Data Link

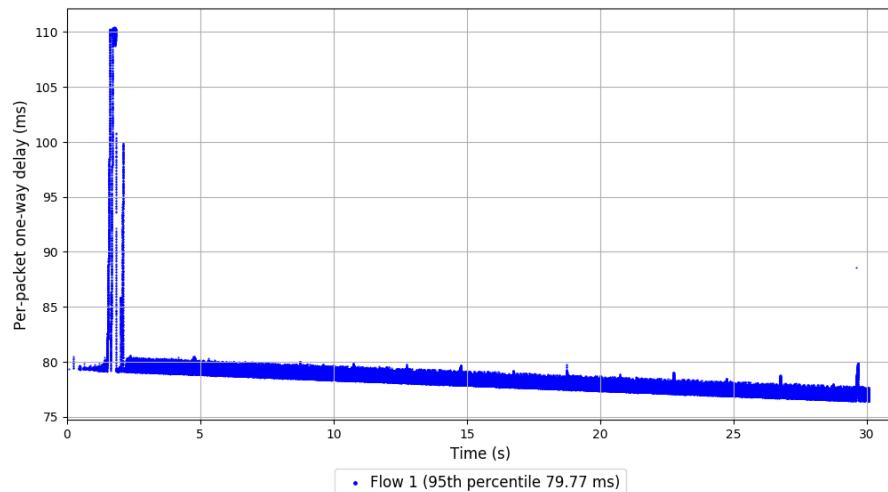
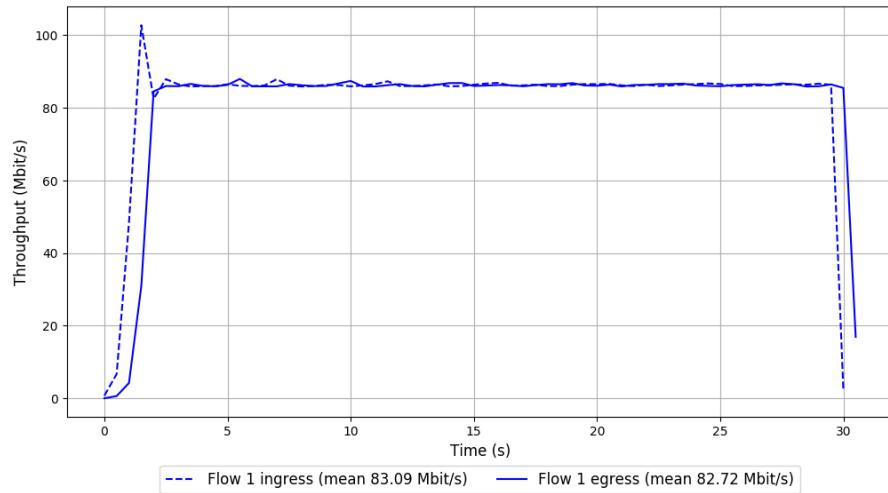


Run 3: Statistics of TCP Vegas

```
Start at: 2018-12-11 10:01:07
End at: 2018-12-11 10:01:37
Local clock offset: 2.777 ms
Remote clock offset: 1256.521 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.72 Mbit/s
95th percentile per-packet one-way delay: 79.772 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 82.72 Mbit/s
95th percentile per-packet one-way delay: 79.772 ms
Loss rate: 0.44%
```

Run 3: Report of TCP Vegas — Data Link

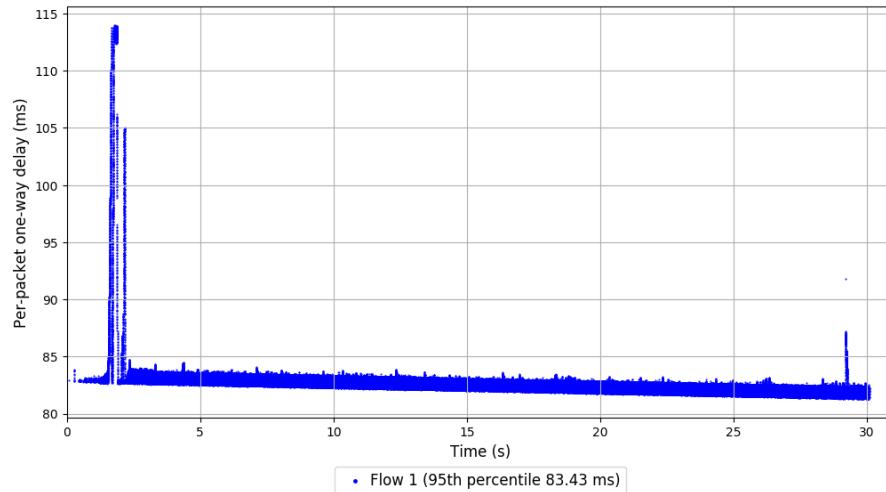
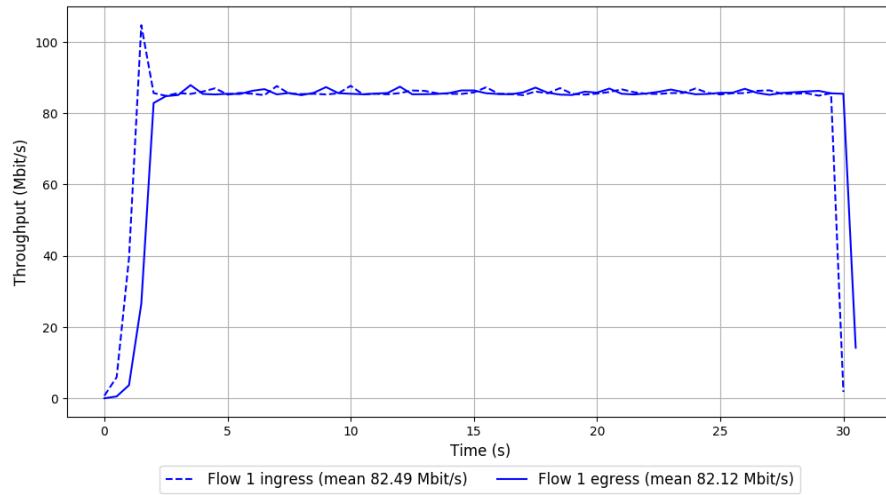


Run 4: Statistics of TCP Vegas

```
Start at: 2018-12-11 10:23:22
End at: 2018-12-11 10:23:52
Local clock offset: 0.211 ms
Remote clock offset: 31.665 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.12 Mbit/s
95th percentile per-packet one-way delay: 83.428 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 82.12 Mbit/s
95th percentile per-packet one-way delay: 83.428 ms
Loss rate: 0.46%
```

Run 4: Report of TCP Vegas — Data Link

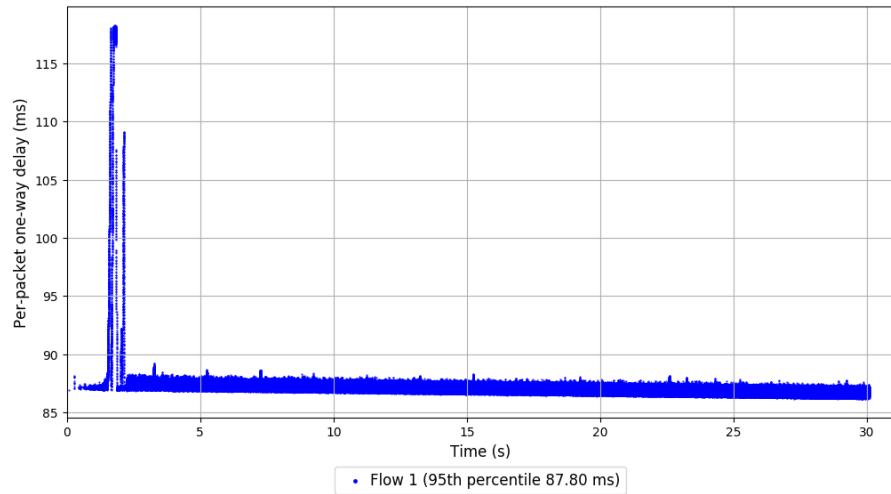
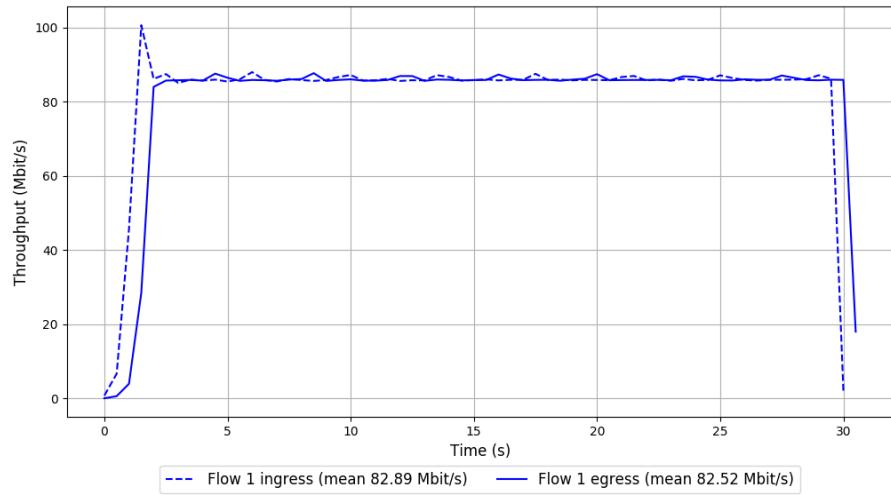


Run 5: Statistics of TCP Vegas

```
Start at: 2018-12-11 10:45:37
End at: 2018-12-11 10:46:07
Local clock offset: -1.5 ms
Remote clock offset: 52.689 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.52 Mbit/s
95th percentile per-packet one-way delay: 87.798 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 82.52 Mbit/s
95th percentile per-packet one-way delay: 87.798 ms
Loss rate: 0.44%
```

Run 5: Report of TCP Vegas — Data Link

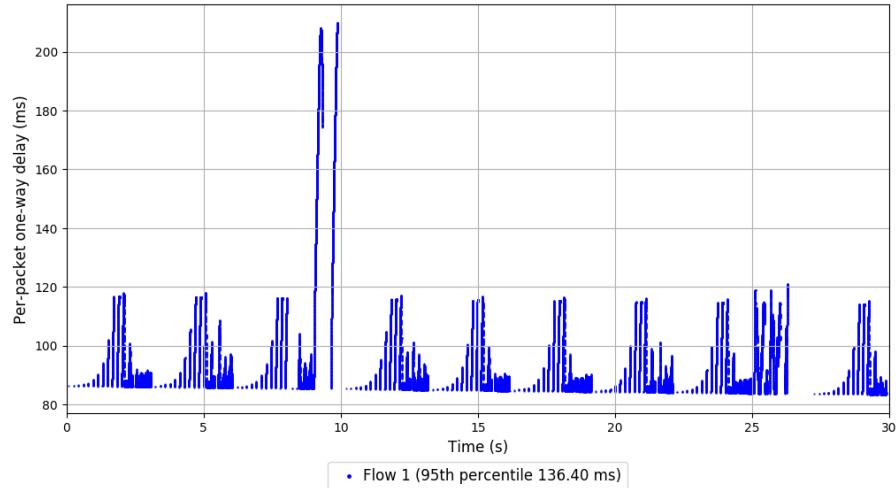
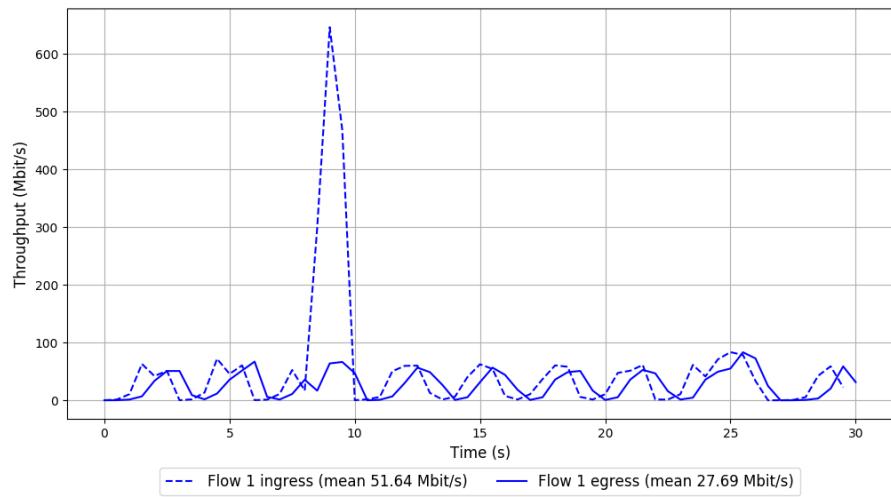


Run 1: Statistics of Verus

```
Start at: 2018-12-11 09:15:32
End at: 2018-12-11 09:16:02
Local clock offset: 1.102 ms
Remote clock offset: 990.043 ms

# Below is generated by plot.py at 2018-12-11 10:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 136.404 ms
Loss rate: 46.37%
-- Flow 1:
Average throughput: 27.69 Mbit/s
95th percentile per-packet one-way delay: 136.404 ms
Loss rate: 46.37%
```

Run 1: Report of Verus — Data Link

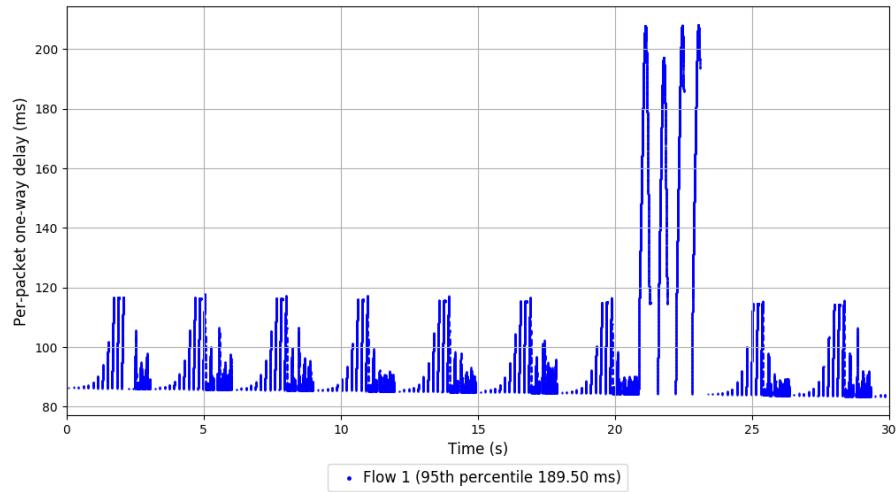
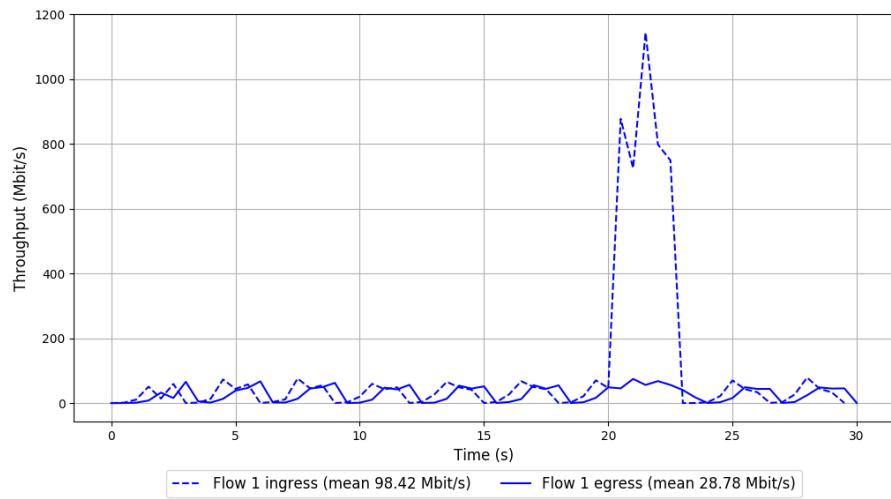


Run 2: Statistics of Verus

```
Start at: 2018-12-11 09:37:45
End at: 2018-12-11 09:38:15
Local clock offset: 6.286 ms
Remote clock offset: 1123.043 ms

# Below is generated by plot.py at 2018-12-11 10:58:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.78 Mbit/s
95th percentile per-packet one-way delay: 189.501 ms
Loss rate: 70.76%
-- Flow 1:
Average throughput: 28.78 Mbit/s
95th percentile per-packet one-way delay: 189.501 ms
Loss rate: 70.76%
```

Run 2: Report of Verus — Data Link

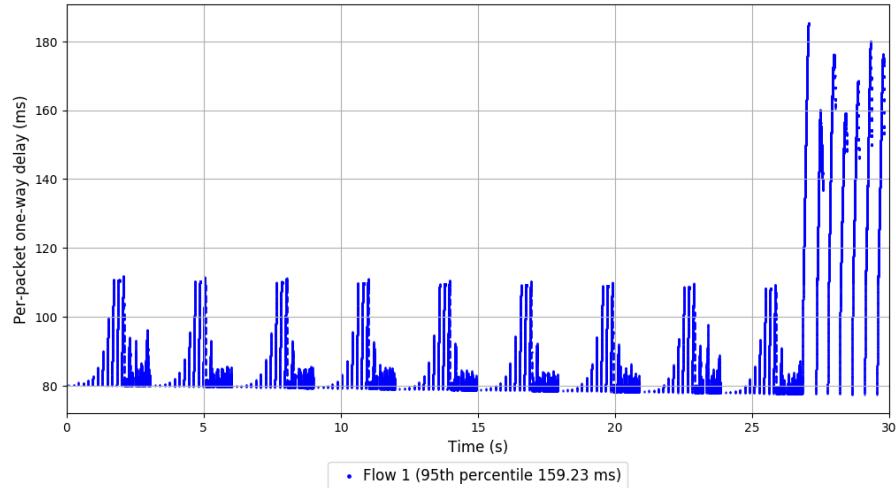
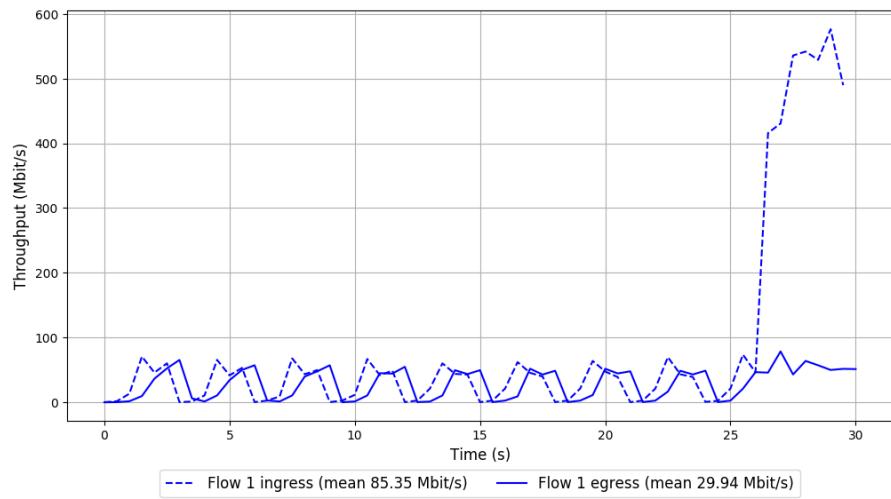


Run 3: Statistics of Verus

```
Start at: 2018-12-11 09:59:57
End at: 2018-12-11 10:00:27
Local clock offset: 2.581 ms
Remote clock offset: 1248.424 ms

# Below is generated by plot.py at 2018-12-11 10:58:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.94 Mbit/s
95th percentile per-packet one-way delay: 159.229 ms
Loss rate: 64.83%
-- Flow 1:
Average throughput: 29.94 Mbit/s
95th percentile per-packet one-way delay: 159.229 ms
Loss rate: 64.83%
```

Run 3: Report of Verus — Data Link

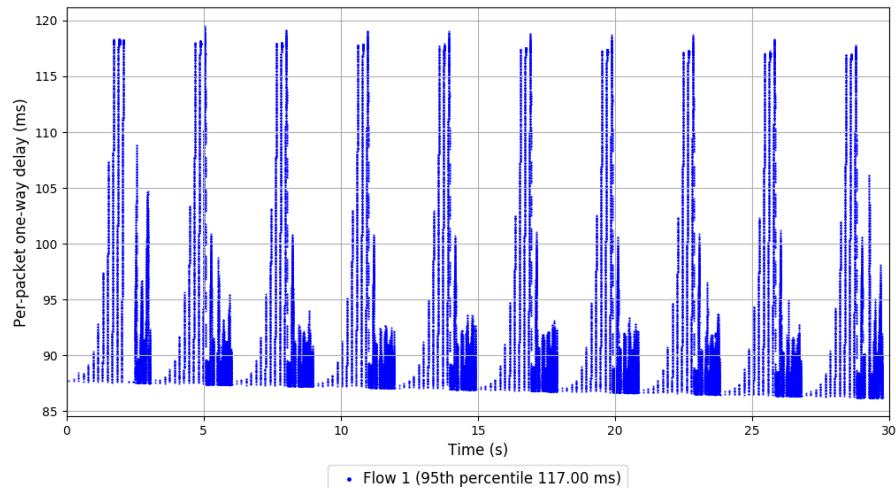
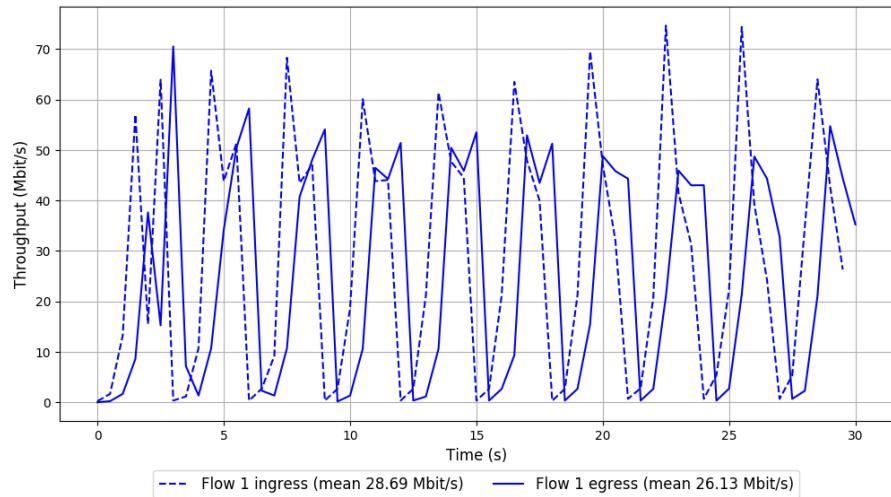


Run 4: Statistics of Verus

```
Start at: 2018-12-11 10:22:12
End at: 2018-12-11 10:22:42
Local clock offset: 0.198 ms
Remote clock offset: 35.059 ms

# Below is generated by plot.py at 2018-12-11 10:58:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 116.995 ms
Loss rate: 8.93%
-- Flow 1:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 116.995 ms
Loss rate: 8.93%
```

Run 4: Report of Verus — Data Link

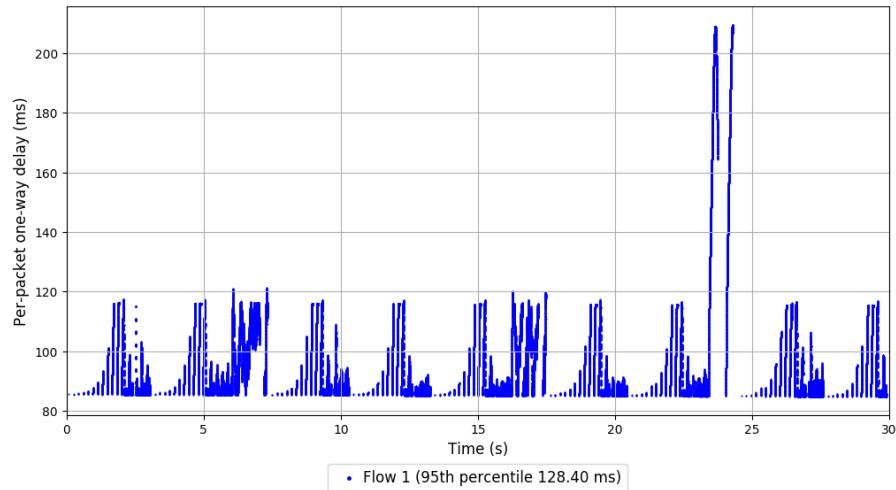
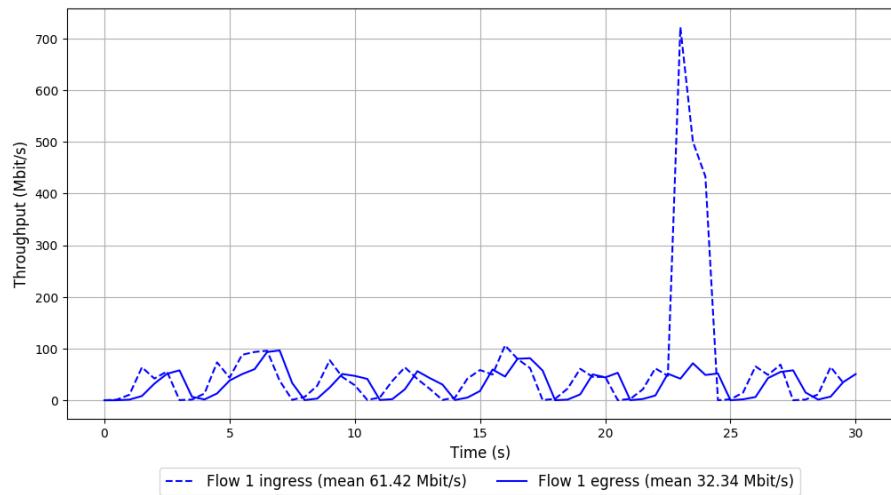


Run 5: Statistics of Verus

```
Start at: 2018-12-11 10:44:27
End at: 2018-12-11 10:44:57
Local clock offset: -0.517 ms
Remote clock offset: 49.813 ms

# Below is generated by plot.py at 2018-12-11 10:58:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 128.395 ms
Loss rate: 47.34%
-- Flow 1:
Average throughput: 32.34 Mbit/s
95th percentile per-packet one-way delay: 128.395 ms
Loss rate: 47.34%
```

Run 5: Report of Verus — Data Link

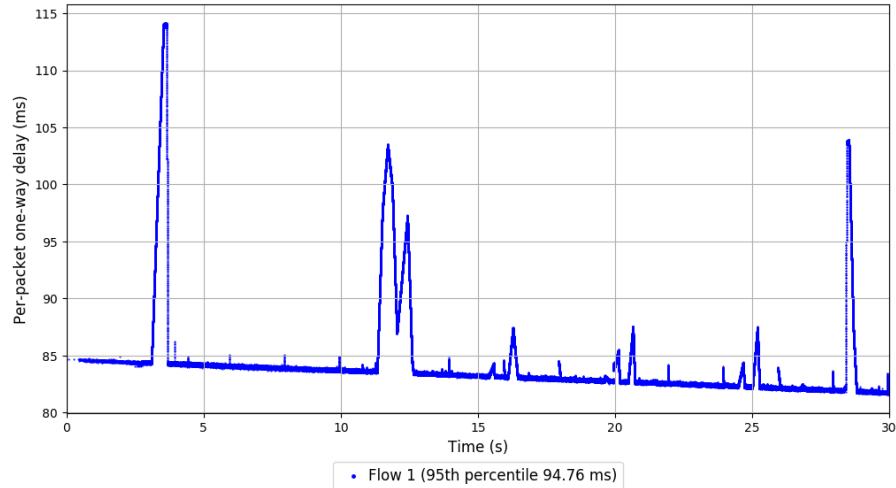
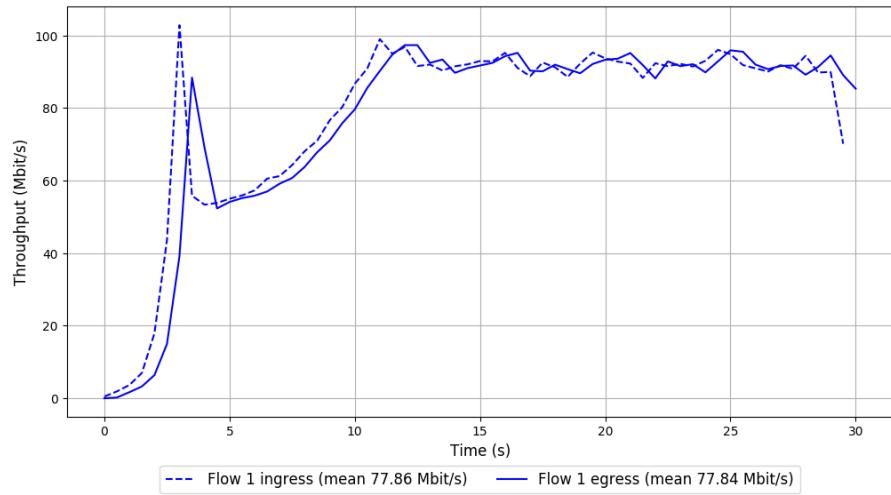


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-12-11 08:59:10
End at: 2018-12-11 08:59:40
Local clock offset: 0.395 ms
Remote clock offset: 892.543 ms

# Below is generated by plot.py at 2018-12-11 10:58:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 94.761 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.84 Mbit/s
95th percentile per-packet one-way delay: 94.761 ms
Loss rate: 0.04%
```

Run 1: Report of PCC-Vivace — Data Link

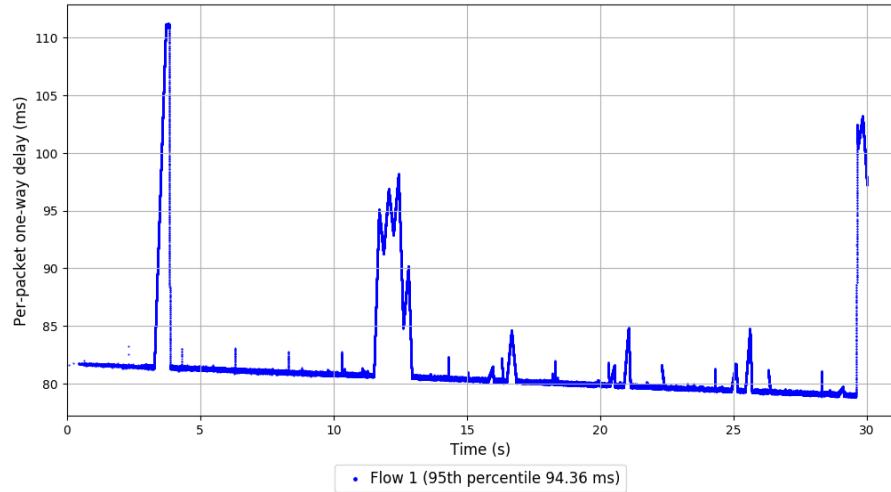
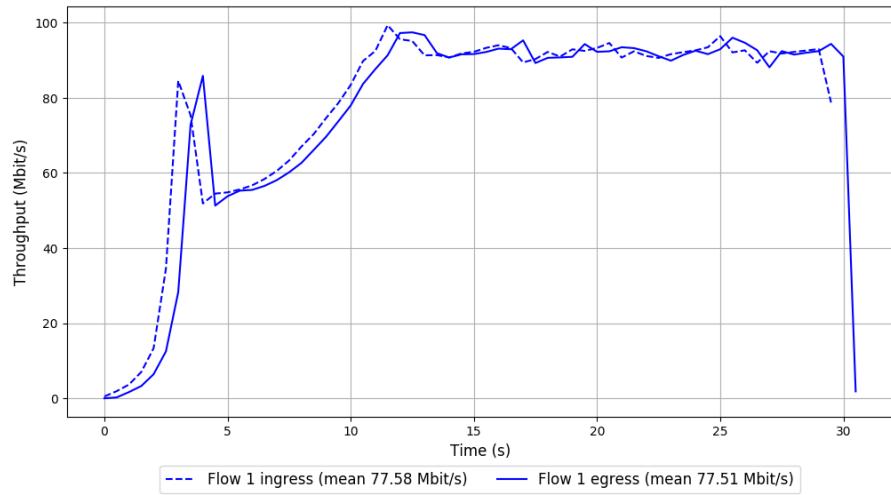


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-12-11 09:21:26
End at: 2018-12-11 09:21:56
Local clock offset: 1.501 ms
Remote clock offset: 1020.909 ms

# Below is generated by plot.py at 2018-12-11 10:58:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.51 Mbit/s
95th percentile per-packet one-way delay: 94.365 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.51 Mbit/s
95th percentile per-packet one-way delay: 94.365 ms
Loss rate: 0.04%
```

Run 2: Report of PCC-Vivace — Data Link

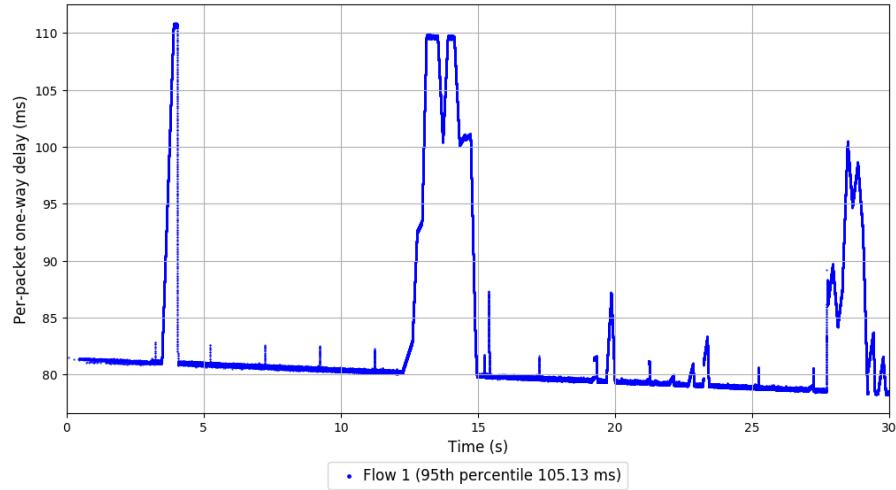
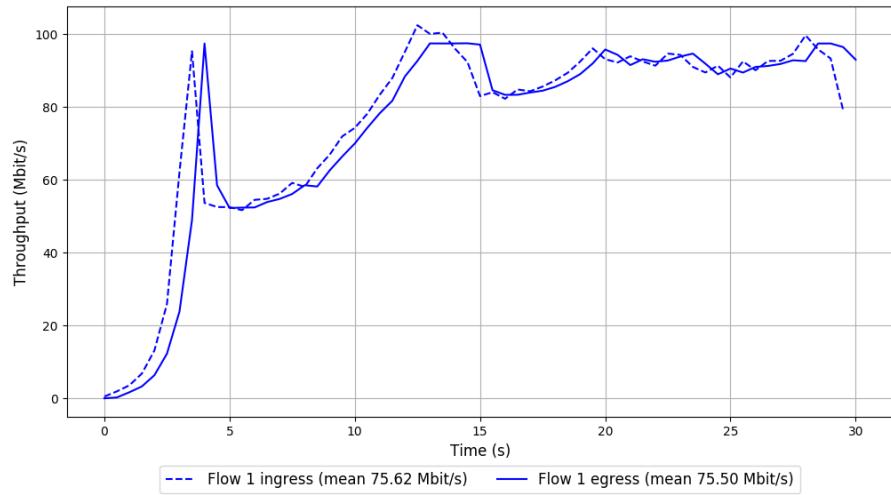


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-12-11 09:43:39
End at: 2018-12-11 09:44:09
Local clock offset: 2.772 ms
Remote clock offset: 1151.81 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.50 Mbit/s
95th percentile per-packet one-way delay: 105.134 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 75.50 Mbit/s
95th percentile per-packet one-way delay: 105.134 ms
Loss rate: 0.17%
```

Run 3: Report of PCC-Vivace — Data Link

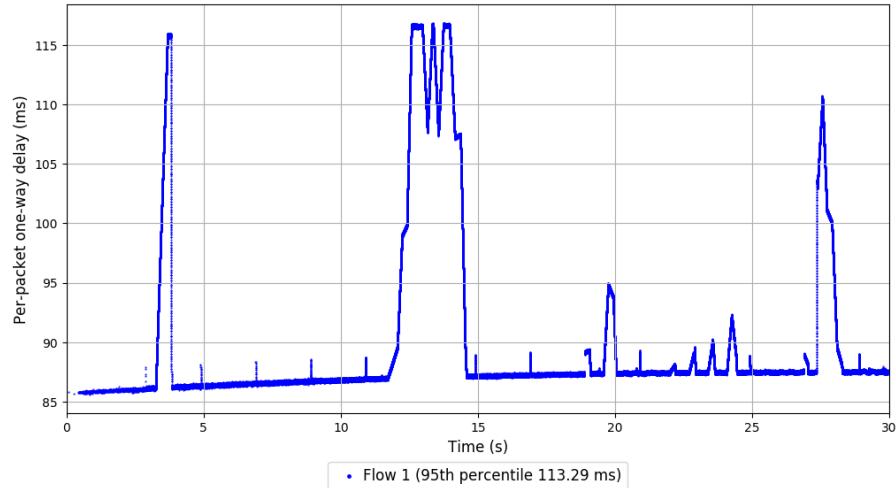
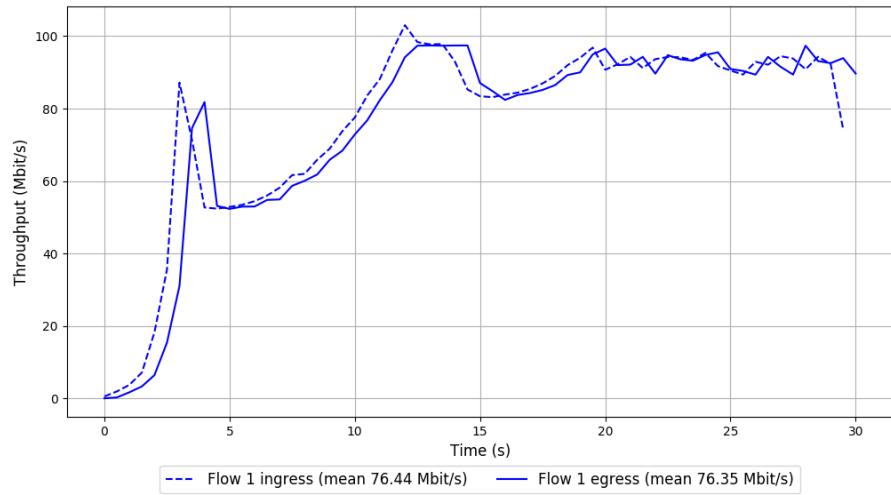


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-12-11 10:05:51
End at: 2018-12-11 10:06:21
Local clock offset: 3.367 ms
Remote clock offset: 10.542 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.35 Mbit/s
95th percentile per-packet one-way delay: 113.289 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 76.35 Mbit/s
95th percentile per-packet one-way delay: 113.289 ms
Loss rate: 0.12%
```

Run 4: Report of PCC-Vivace — Data Link

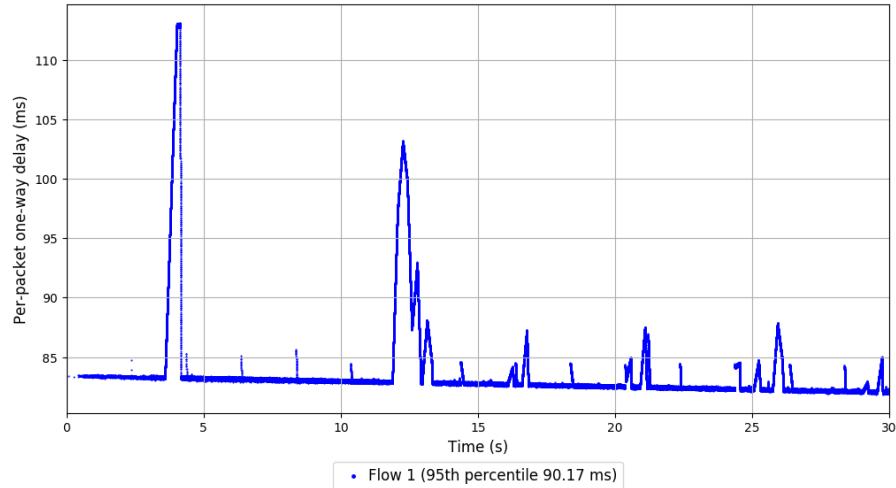
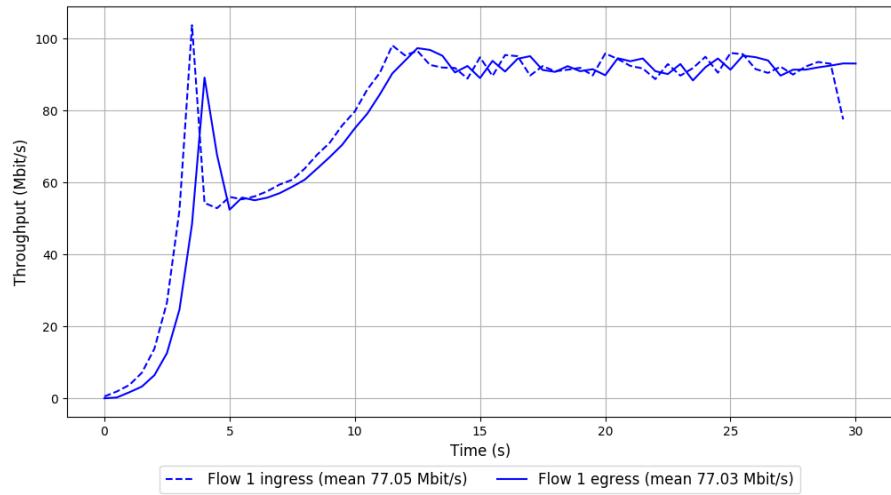


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-12-11 10:28:06
End at: 2018-12-11 10:28:36
Local clock offset: 0.195 ms
Remote clock offset: 50.37 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.03 Mbit/s
95th percentile per-packet one-way delay: 90.174 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 77.03 Mbit/s
95th percentile per-packet one-way delay: 90.174 ms
Loss rate: 0.04%
```

Run 5: Report of PCC-Vivace — Data Link

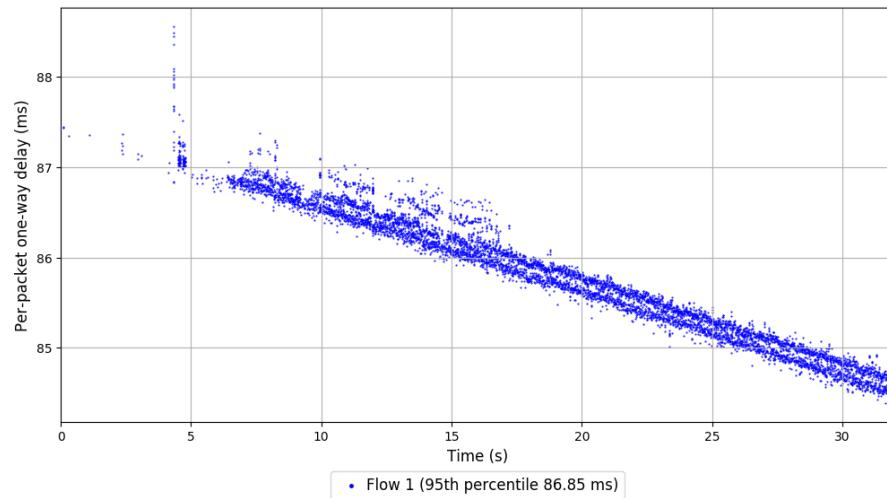
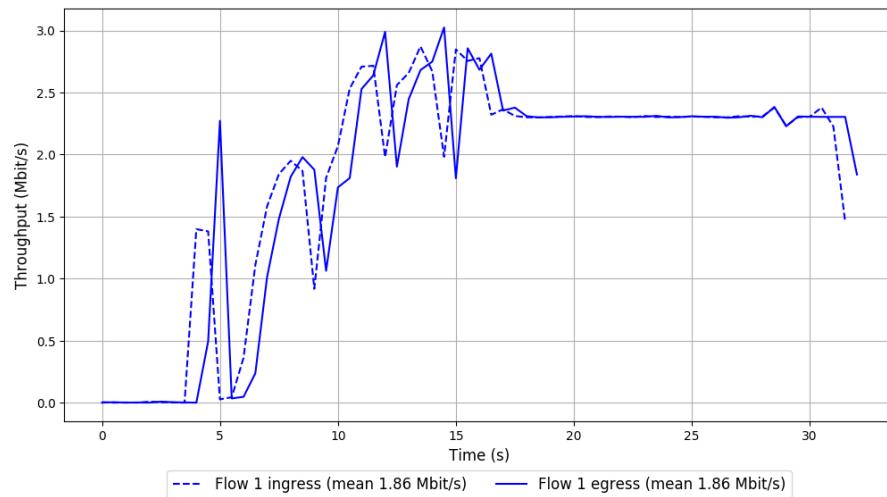


```
Run 1: Statistics of WebRTC media

Start at: 2018-12-11 09:06:16
End at: 2018-12-11 09:06:46
Local clock offset: 1.546 ms
Remote clock offset: 935.879 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 86.847 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

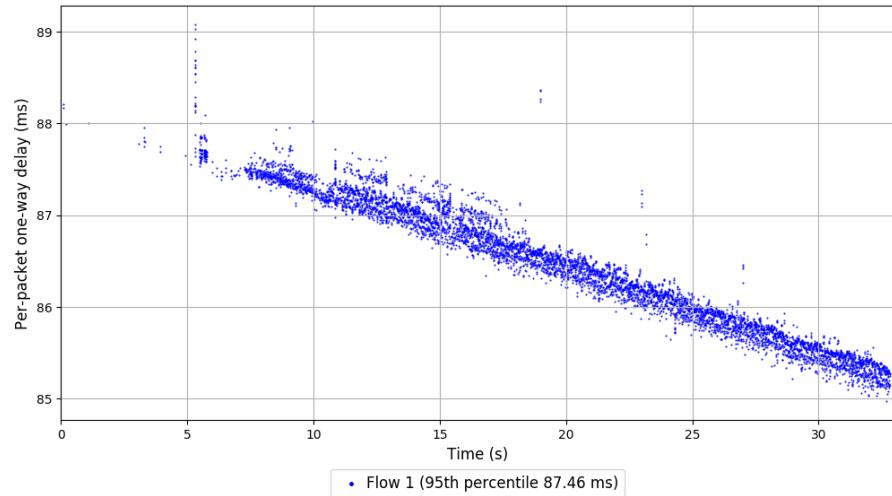
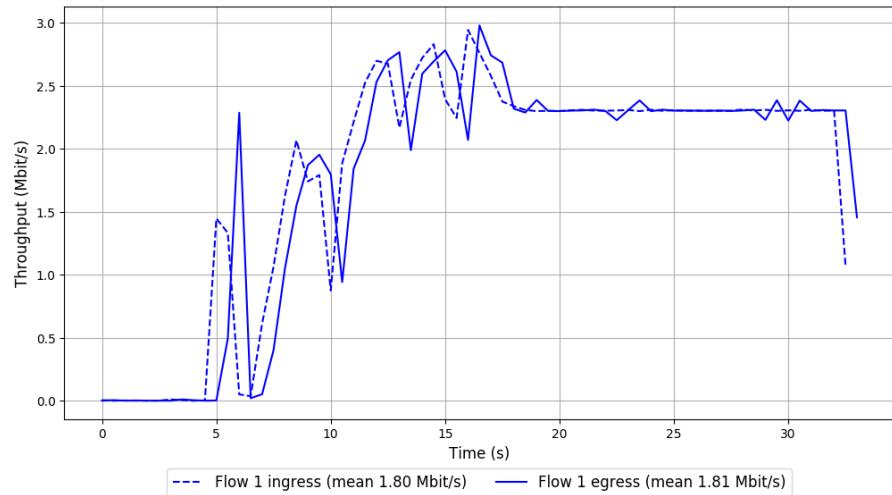


Run 2: Statistics of WebRTC media

```
Start at: 2018-12-11 09:28:32
End at: 2018-12-11 09:29:02
Local clock offset: 3.015 ms
Remote clock offset: 1069.602 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 87.462 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 87.462 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

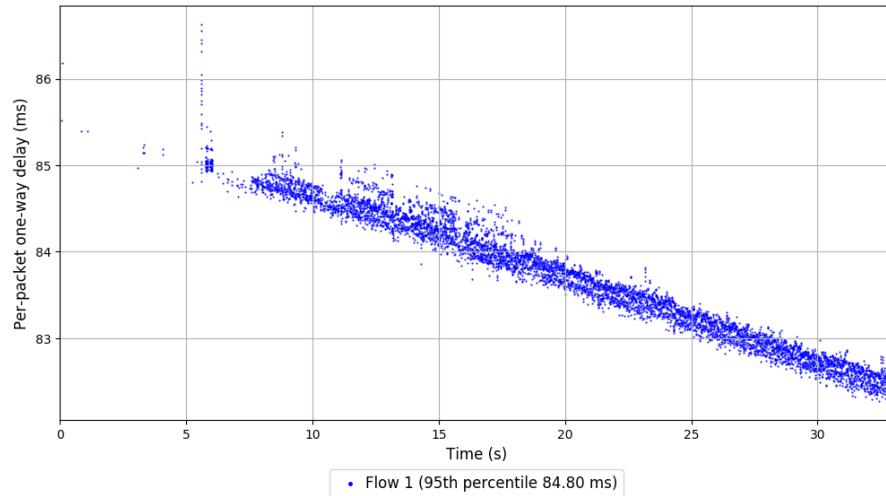
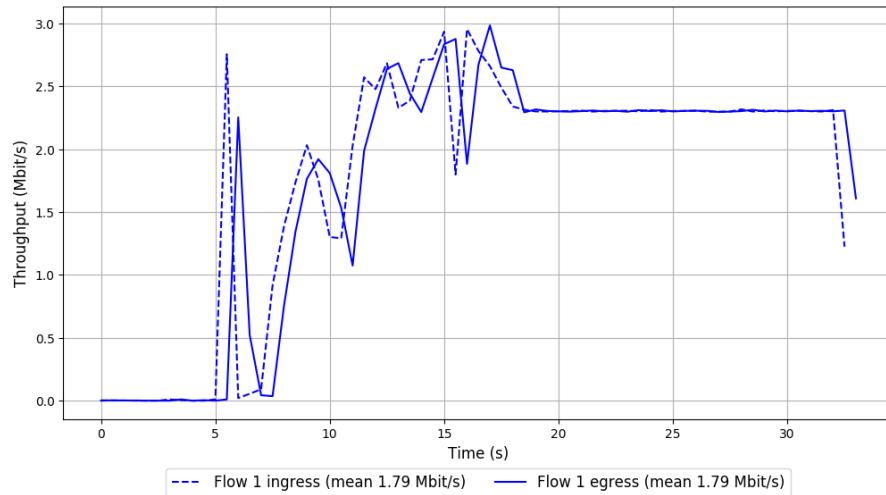


Run 3: Statistics of WebRTC media

```
Start at: 2018-12-11 09:50:44
End at: 2018-12-11 09:51:14
Local clock offset: 2.315 ms
Remote clock offset: 1198.766 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 84.797 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 84.797 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

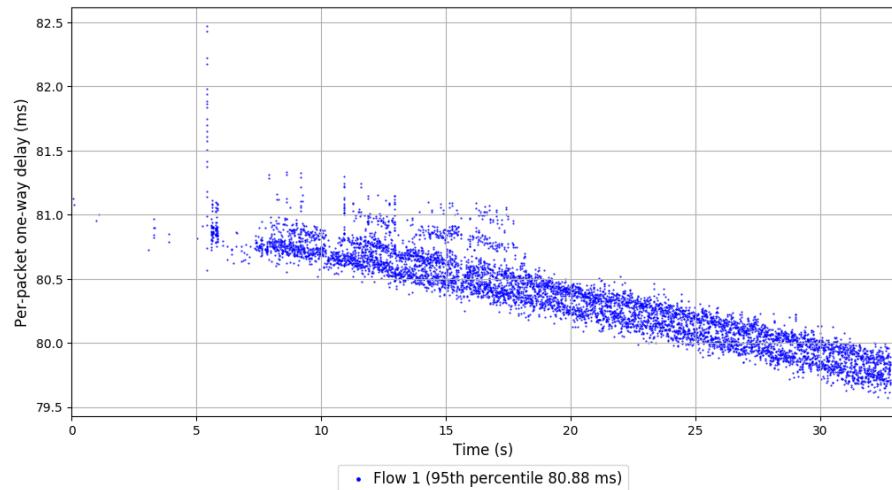
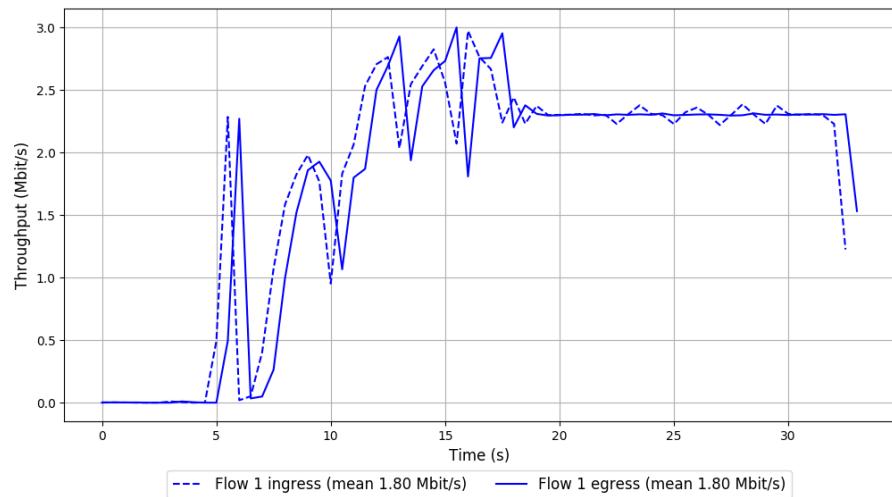


Run 4: Statistics of WebRTC media

```
Start at: 2018-12-11 10:12:57
End at: 2018-12-11 10:13:27
Local clock offset: 1.699 ms
Remote clock offset: 2.684 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 80.882 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 80.882 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-12-11 10:35:11
End at: 2018-12-11 10:35:41
Local clock offset: 0.527 ms
Remote clock offset: 40.399 ms

# Below is generated by plot.py at 2018-12-11 10:58:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 83.946 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 83.946 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

