

Pantheon Report

Generated at 2018-10-02 10:03:36 (UTC).
Data path: AWS India 2 on `ens5` (*local*) → Saudi Arabia on `enp2s0` (*remote*).
Repeated the test of 18 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.

System info:

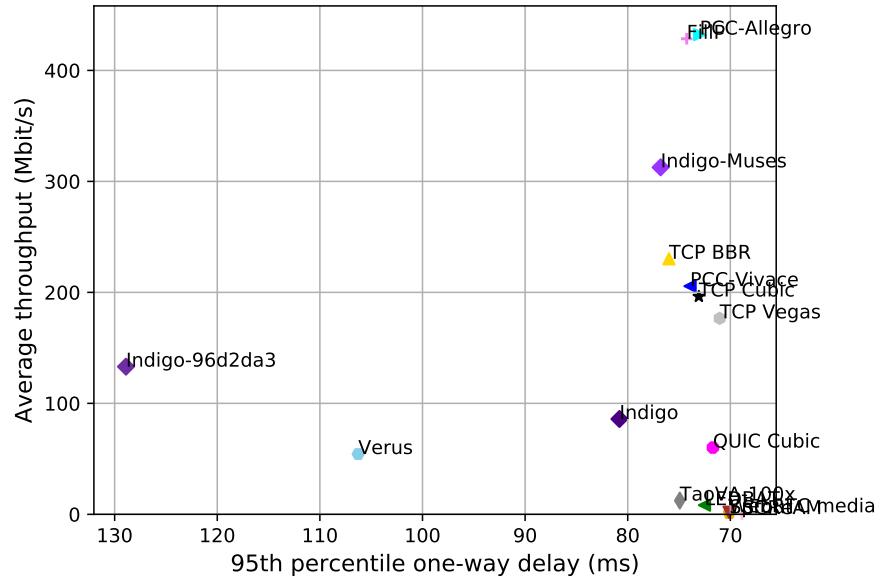
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

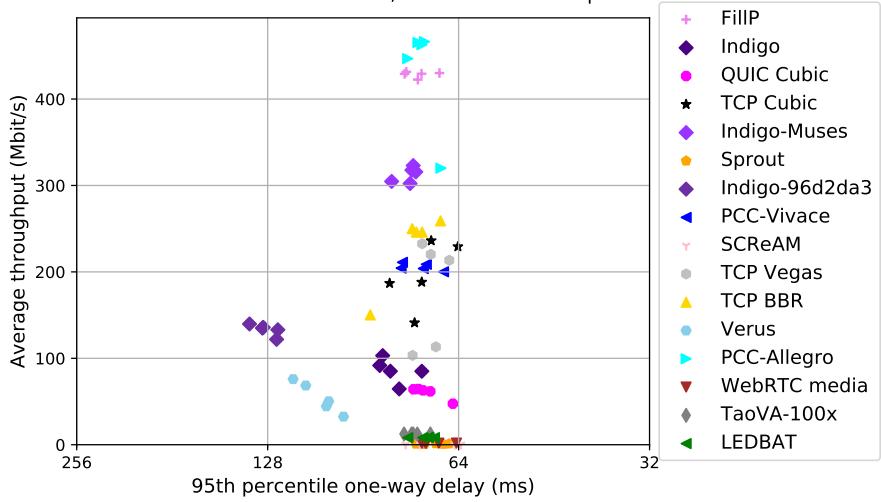
```
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 65ac1b19bbfed0c6349ae986009b4fa8643c40a
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
```

third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS India 2 to Saudi Arabia, 5 runs of 30s each per scheme



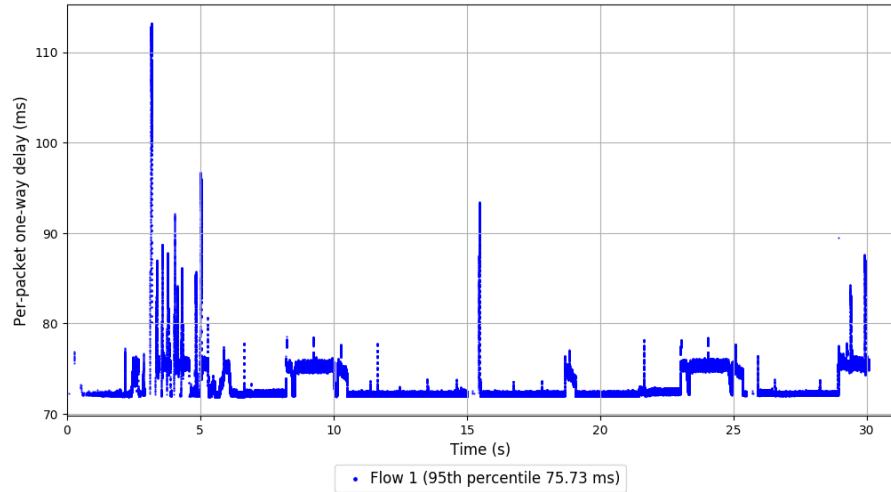
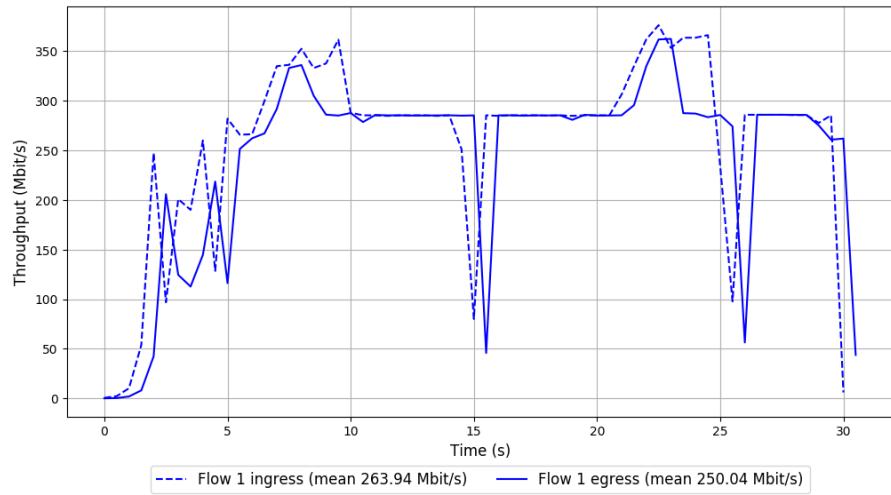
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	230.25	75.98	6.14
Copa	0	N/A	N/A	N/A
TCP Cubic	5	196.29	73.07	0.65
FillP	5	428.50	74.25	9.99
Indigo	5	85.90	80.81	0.14
Indigo-96d2da3	5	133.07	128.90	35.83
LEDBAT	5	8.27	72.52	0.00
Indigo-Muses	5	312.66	76.80	29.75
PCC-Allegro	5	432.28	72.99	4.38
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	60.15	71.70	0.00
SCReAM	5	0.22	68.87	0.00
Sprout	5	0.93	70.11	0.00
TaoVA-100x	5	12.42	74.93	21.09
TCP Vegas	5	176.58	71.04	0.49
Verus	5	54.33	106.27	49.66
PCC-Vivace	5	205.62	73.93	0.90
WebRTC media	5	1.86	70.12	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-10-02 07:13:50
End at: 2018-10-02 07:14:20
Local clock offset: 1.241 ms
Remote clock offset: -35.71 ms

# Below is generated by plot.py at 2018-10-02 09:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.04 Mbit/s
95th percentile per-packet one-way delay: 75.727 ms
Loss rate: 5.26%
-- Flow 1:
Average throughput: 250.04 Mbit/s
95th percentile per-packet one-way delay: 75.727 ms
Loss rate: 5.26%
```

Run 1: Report of TCP BBR — Data Link

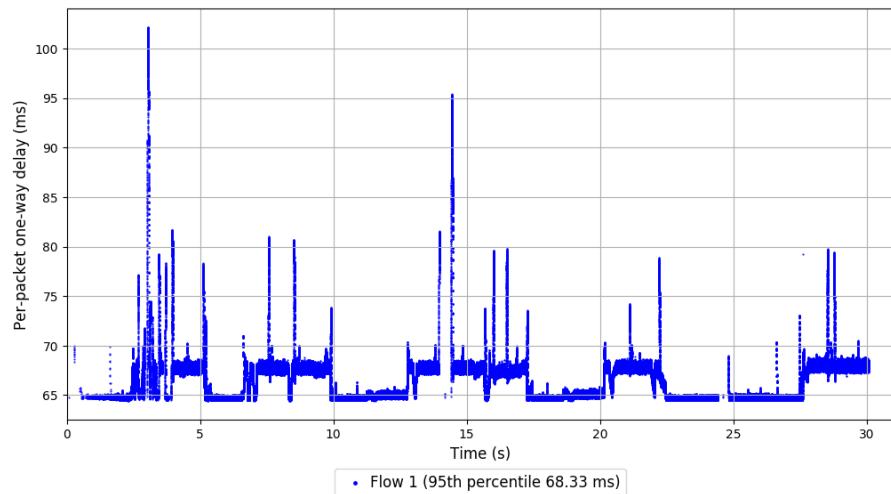
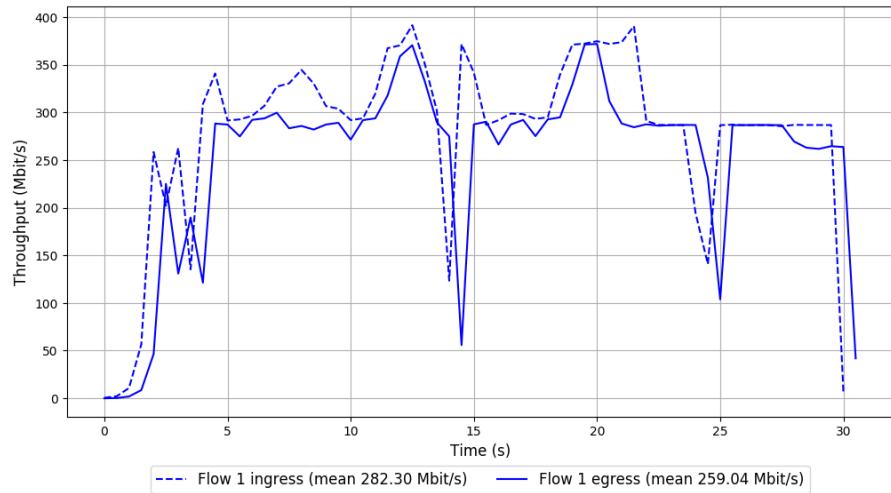


Run 2: Statistics of TCP BBR

```
Start at: 2018-10-02 07:42:42
End at: 2018-10-02 07:43:12
Local clock offset: -1.292 ms
Remote clock offset: -39.985 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 259.04 Mbit/s
95th percentile per-packet one-way delay: 68.329 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 259.04 Mbit/s
95th percentile per-packet one-way delay: 68.329 ms
Loss rate: 8.23%
```

Run 2: Report of TCP BBR — Data Link

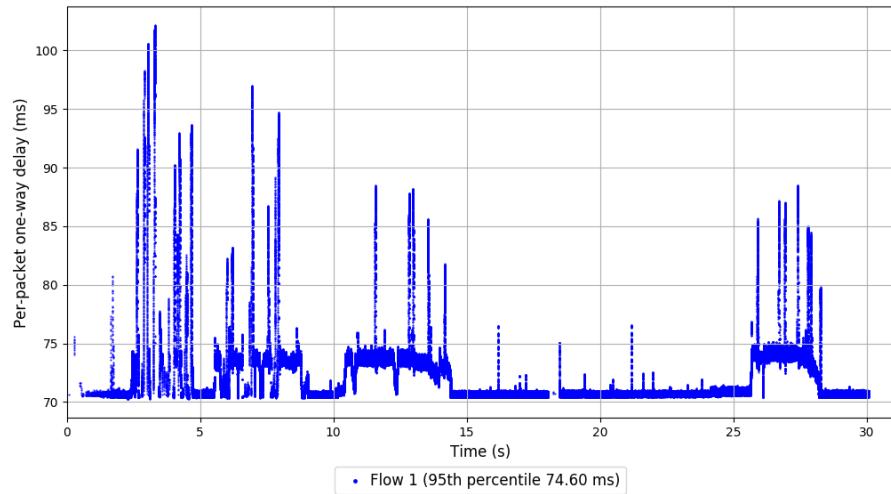
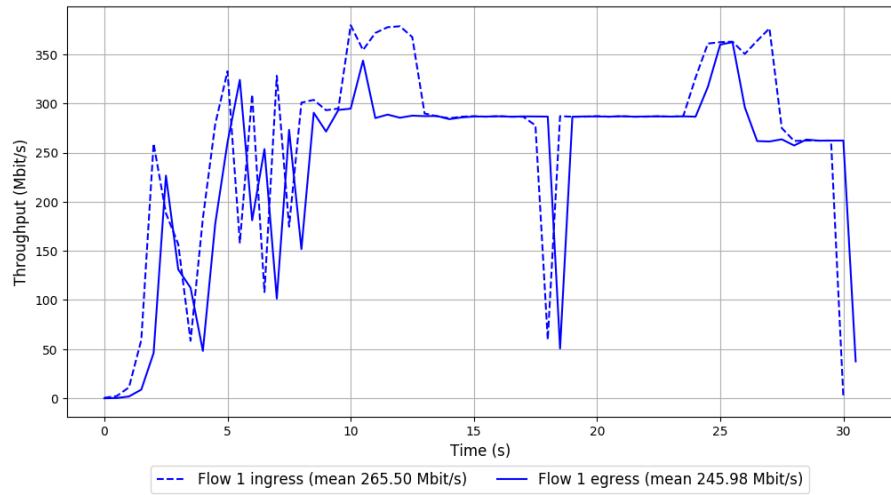


Run 3: Statistics of TCP BBR

```
Start at: 2018-10-02 08:17:30
End at: 2018-10-02 08:18:00
Local clock offset: -2.302 ms
Remote clock offset: -36.435 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.98 Mbit/s
95th percentile per-packet one-way delay: 74.604 ms
Loss rate: 7.35%
-- Flow 1:
Average throughput: 245.98 Mbit/s
95th percentile per-packet one-way delay: 74.604 ms
Loss rate: 7.35%
```

Run 3: Report of TCP BBR — Data Link

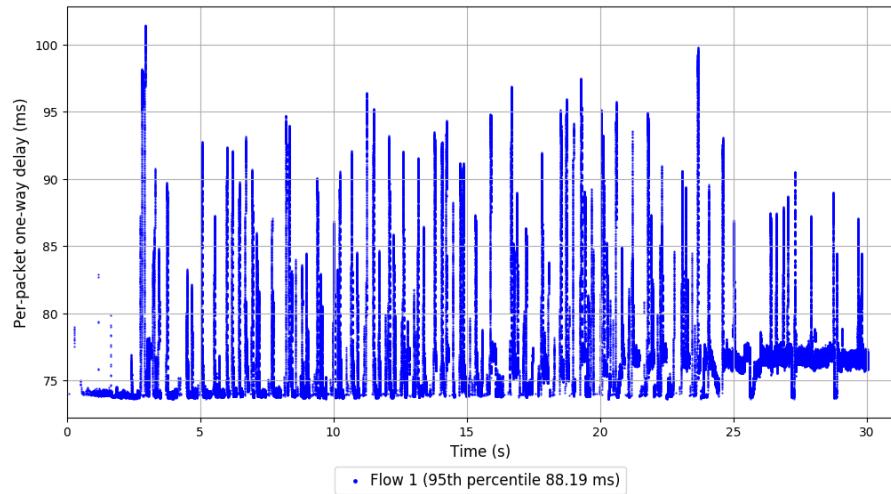
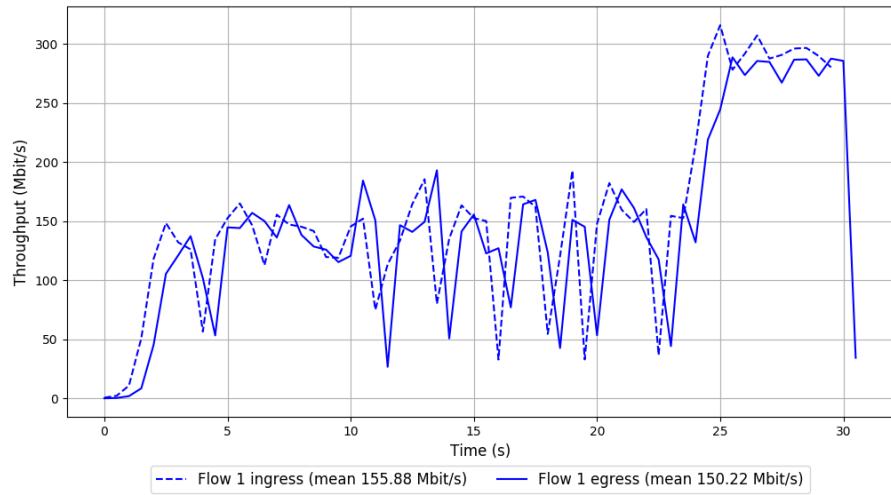


Run 4: Statistics of TCP BBR

```
Start at: 2018-10-02 08:46:29
End at: 2018-10-02 08:46:59
Local clock offset: -2.151 ms
Remote clock offset: -33.717 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 150.22 Mbit/s
95th percentile per-packet one-way delay: 88.186 ms
Loss rate: 3.62%
-- Flow 1:
Average throughput: 150.22 Mbit/s
95th percentile per-packet one-way delay: 88.186 ms
Loss rate: 3.62%
```

Run 4: Report of TCP BBR — Data Link

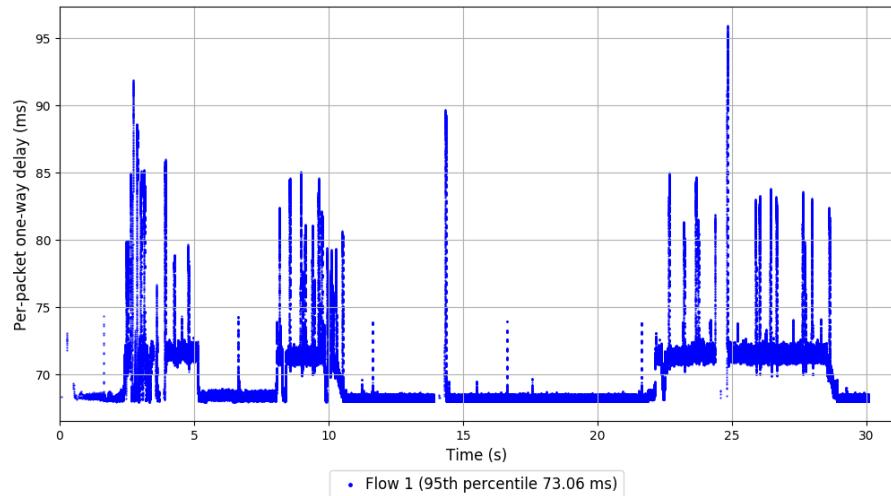
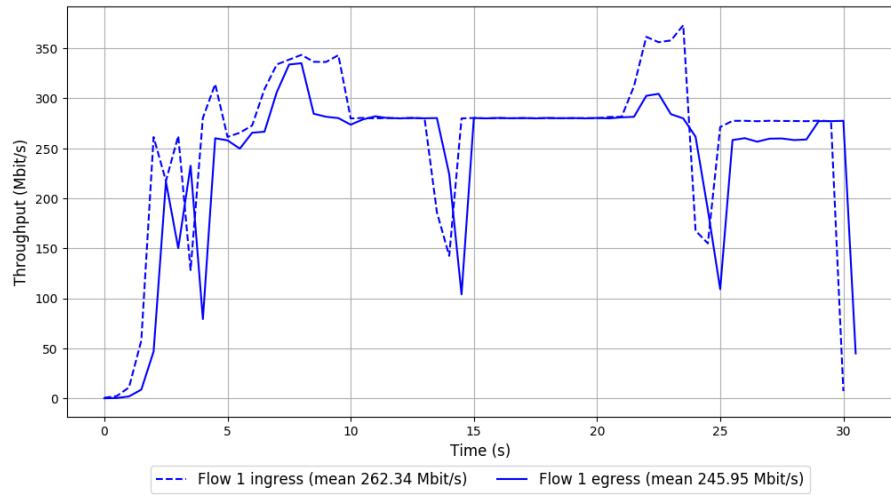


Run 5: Statistics of TCP BBR

```
Start at: 2018-10-02 09:20:58
End at: 2018-10-02 09:21:28
Local clock offset: -3.286 ms
Remote clock offset: -39.946 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.95 Mbit/s
95th percentile per-packet one-way delay: 73.055 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 245.95 Mbit/s
95th percentile per-packet one-way delay: 73.055 ms
Loss rate: 6.25%
```

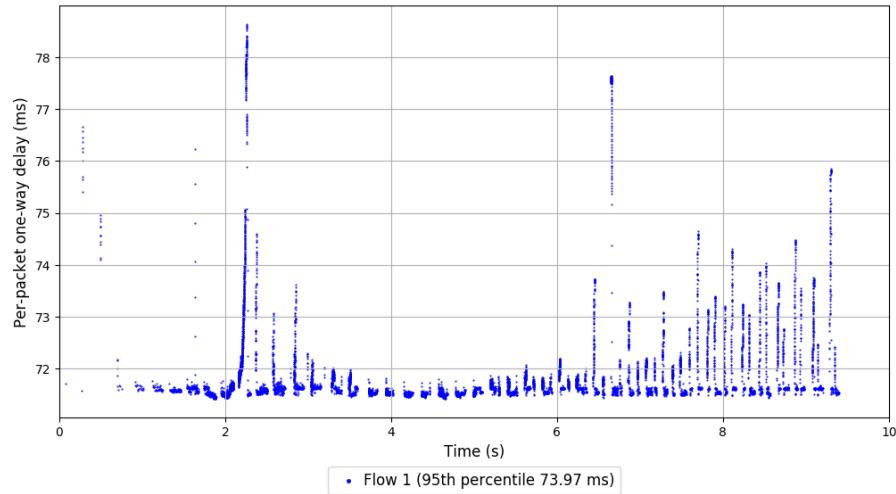
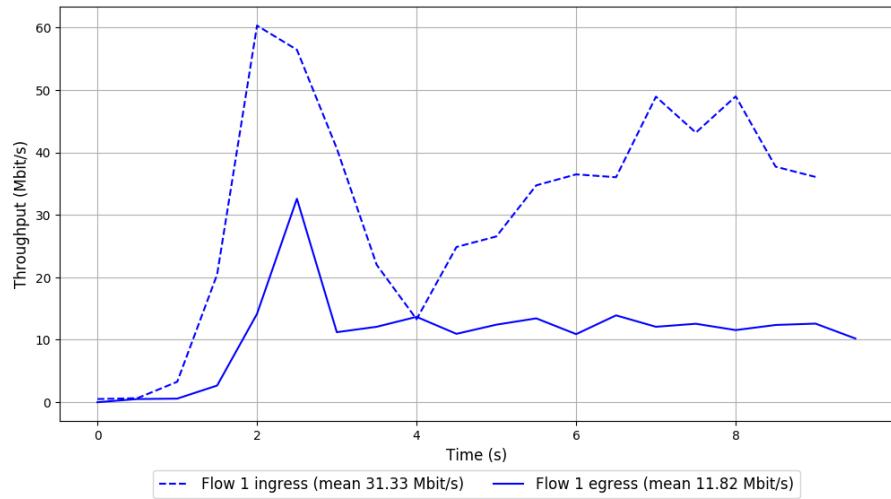
Run 5: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-10-02 07:30:26
End at: 2018-10-02 07:30:56
Local clock offset: -3.817 ms
Remote clock offset: -36.699 ms

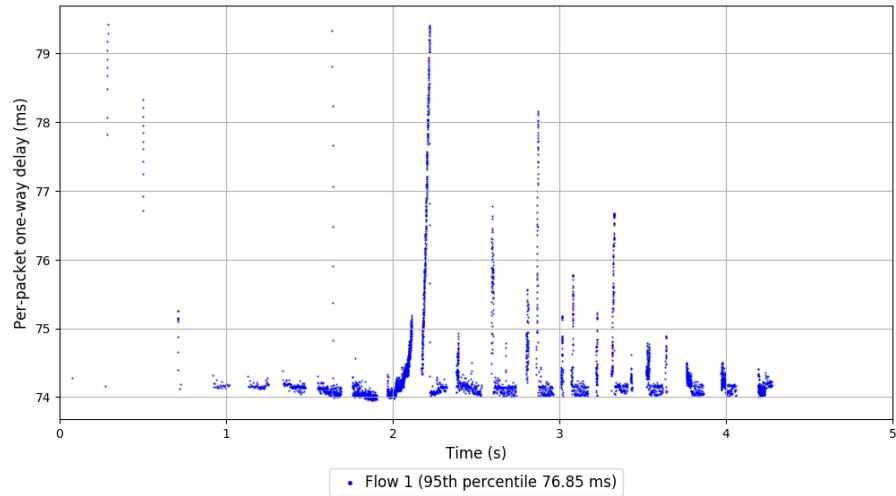
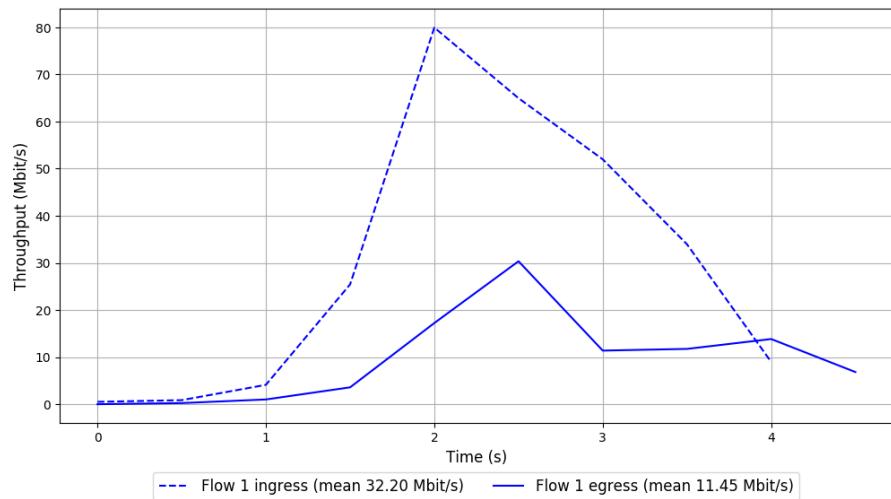
Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-10-02 08:10:59
End at: 2018-10-02 08:11:29
Local clock offset: -6.755 ms
Remote clock offset: -34.978 ms

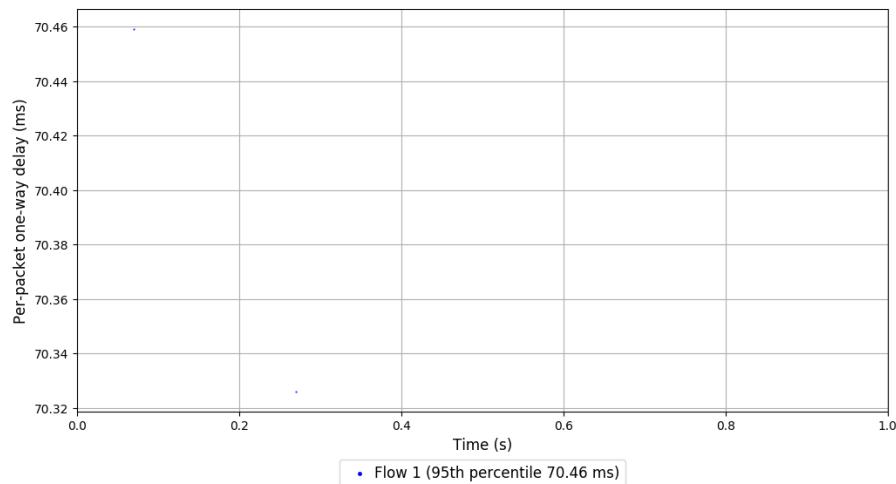
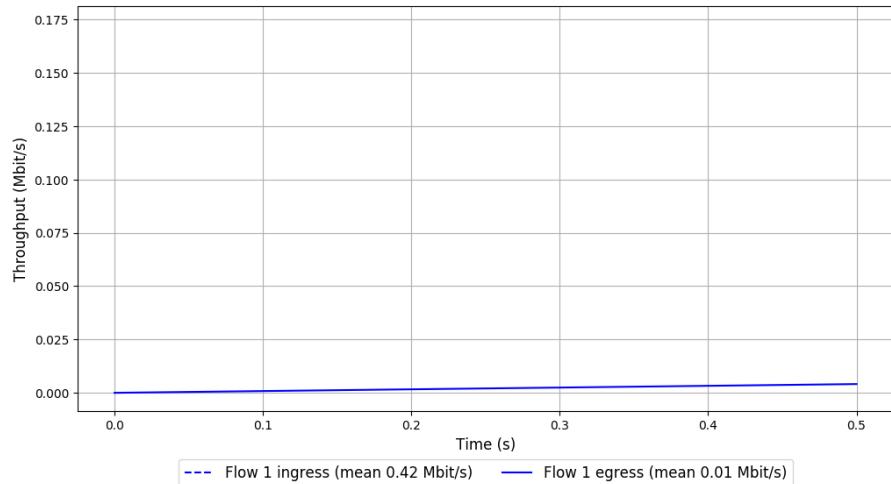
Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-10-02 08:40:00
End at: 2018-10-02 08:40:30
Local clock offset: 1.362 ms
Remote clock offset: -34.19 ms

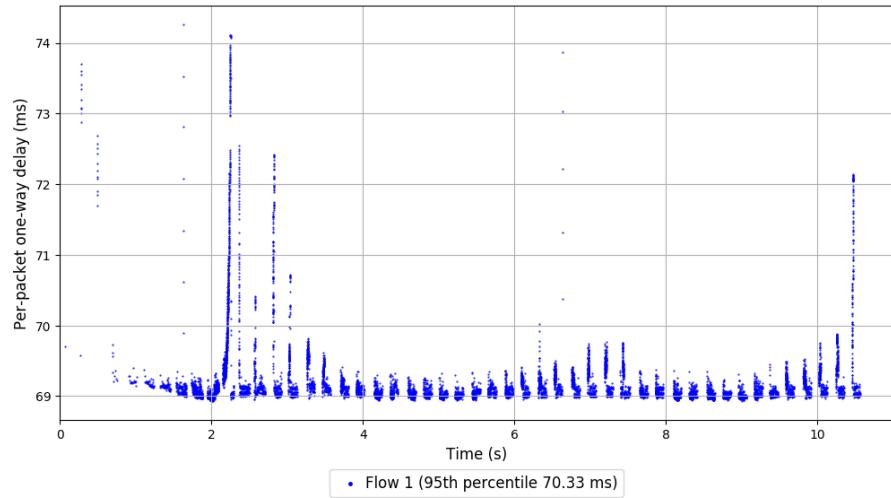
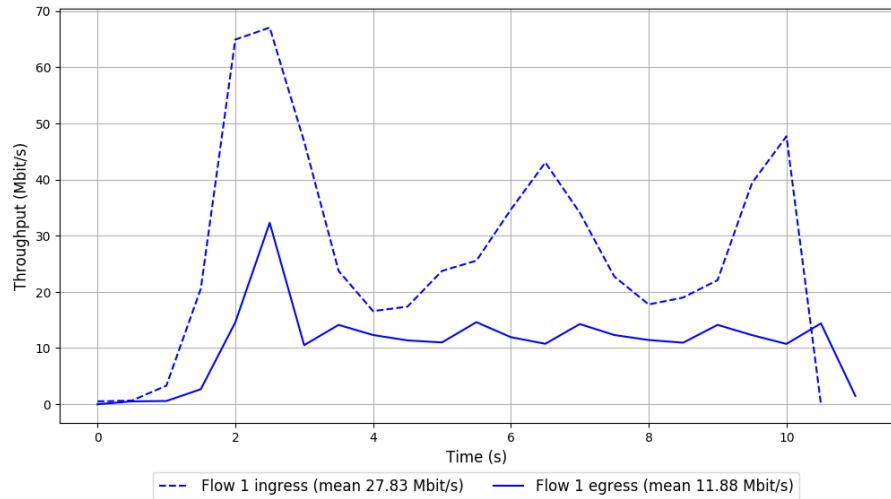
Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-10-02 09:08:50
End at: 2018-10-02 09:09:20
Local clock offset: -1.305 ms
Remote clock offset: -37.159 ms

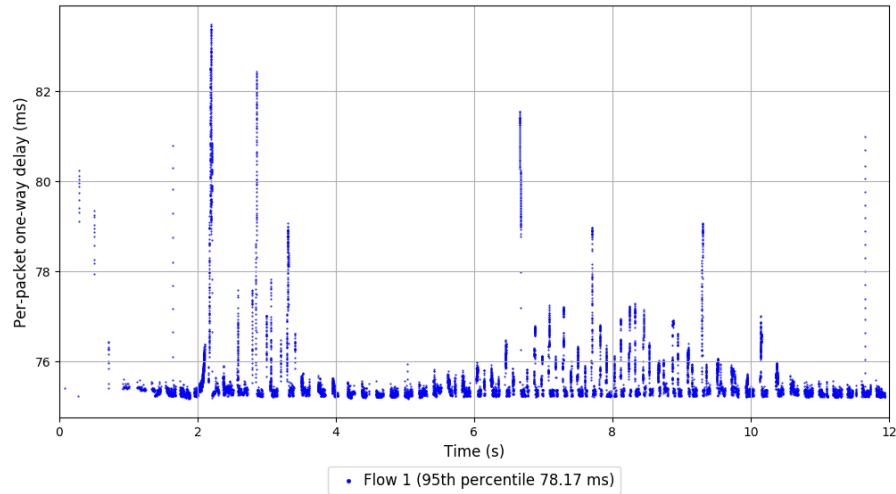
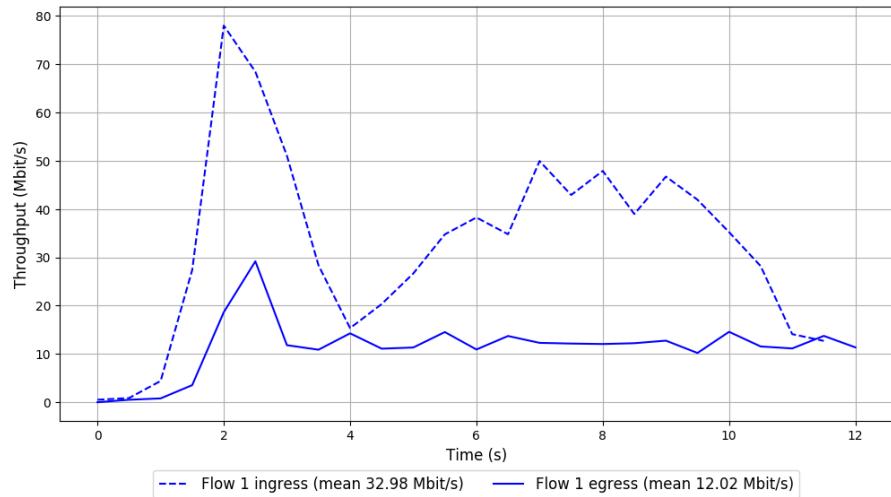
Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-10-02 09:37:41
End at: 2018-10-02 09:38:11
Local clock offset: -4.186 ms
Remote clock offset: -33.646 ms

Run 5: Report of Copa — Data Link

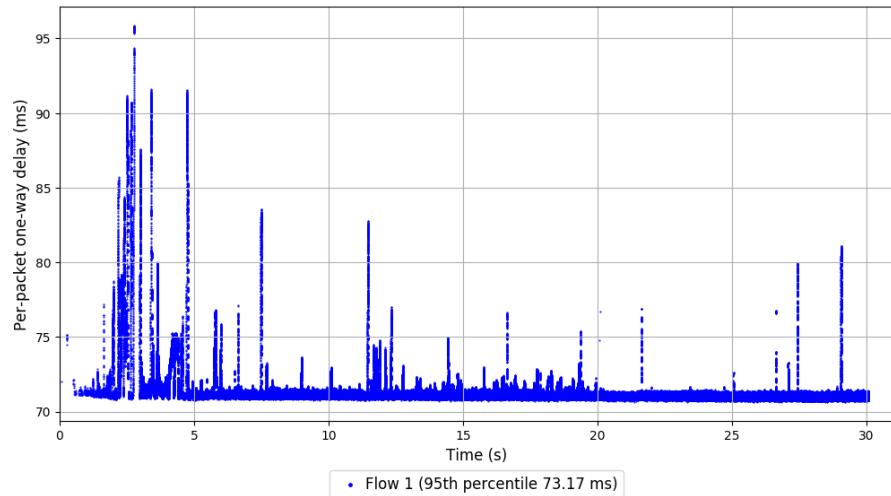
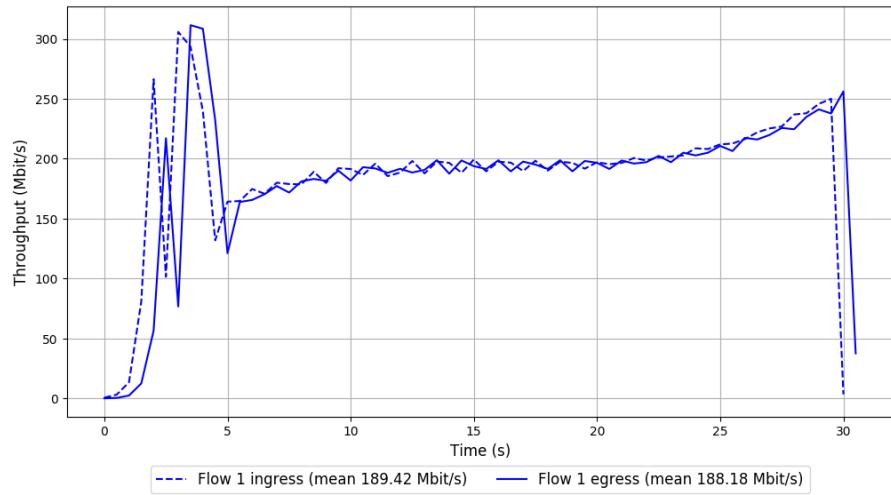


Run 1: Statistics of TCP Cubic

```
Start at: 2018-10-02 07:17:57
End at: 2018-10-02 07:18:27
Local clock offset: 0.695 ms
Remote clock offset: -34.899 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.18 Mbit/s
95th percentile per-packet one-way delay: 73.174 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 188.18 Mbit/s
95th percentile per-packet one-way delay: 73.174 ms
Loss rate: 0.66%
```

Run 1: Report of TCP Cubic — Data Link

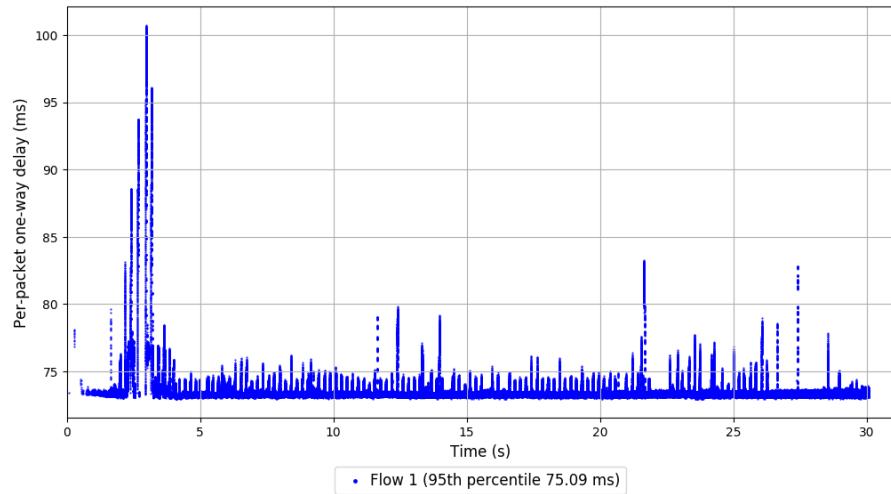
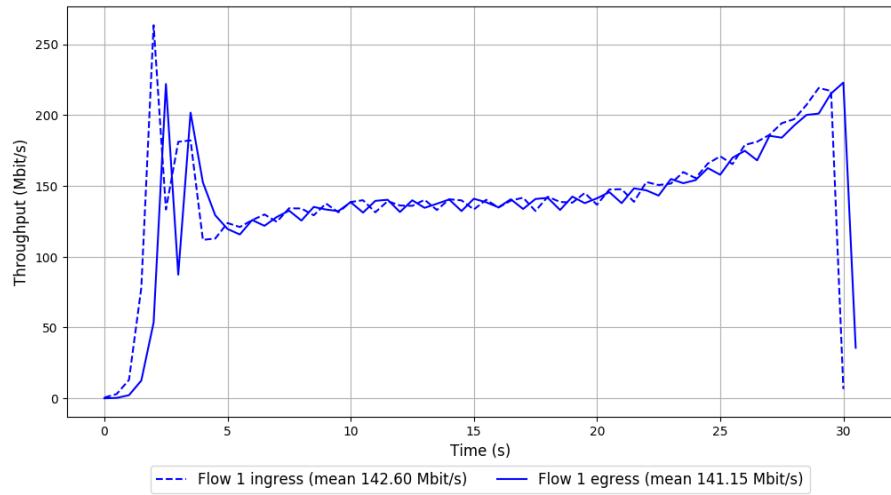


Run 2: Statistics of TCP Cubic

```
Start at: 2018-10-02 07:52:54
End at: 2018-10-02 07:53:24
Local clock offset: -2.109 ms
Remote clock offset: -34.273 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 141.15 Mbit/s
95th percentile per-packet one-way delay: 75.094 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 141.15 Mbit/s
95th percentile per-packet one-way delay: 75.094 ms
Loss rate: 1.02%
```

Run 2: Report of TCP Cubic — Data Link

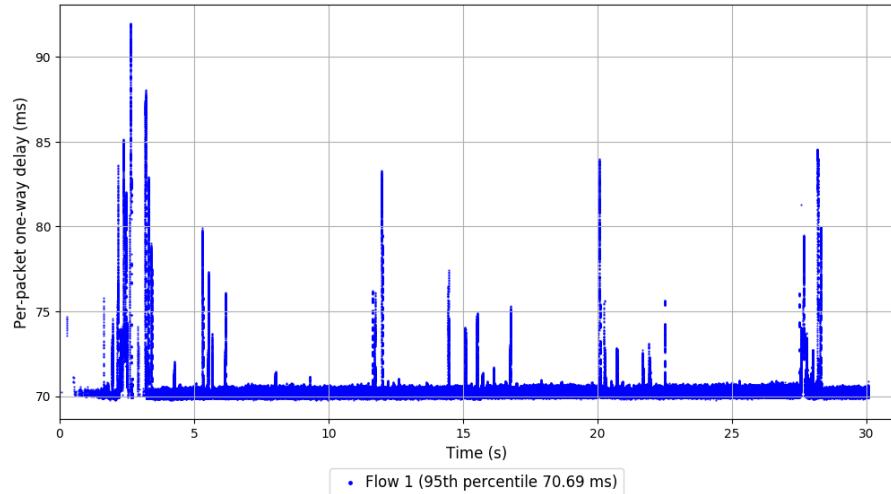
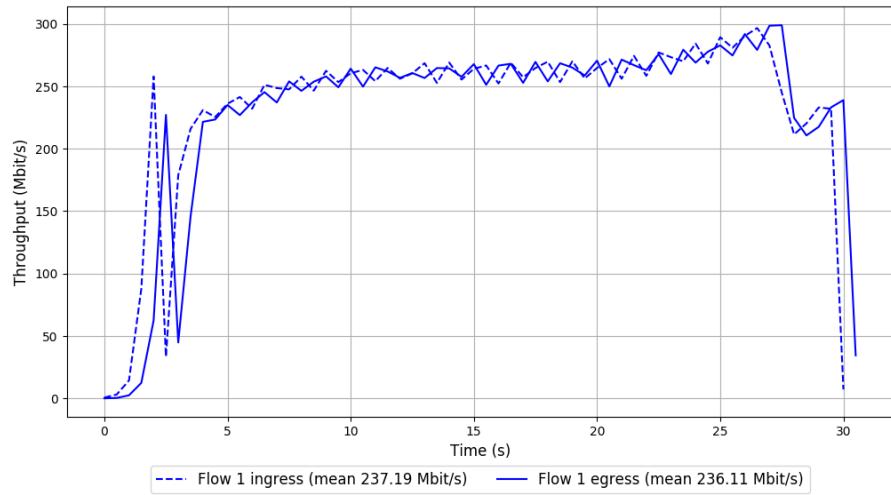


Run 3: Statistics of TCP Cubic

```
Start at: 2018-10-02 08:21:43
End at: 2018-10-02 08:22:13
Local clock offset: -4.621 ms
Remote clock offset: -39.778 ms

# Below is generated by plot.py at 2018-10-02 09:47:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.11 Mbit/s
95th percentile per-packet one-way delay: 70.692 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 236.11 Mbit/s
95th percentile per-packet one-way delay: 70.692 ms
Loss rate: 0.45%
```

Run 3: Report of TCP Cubic — Data Link

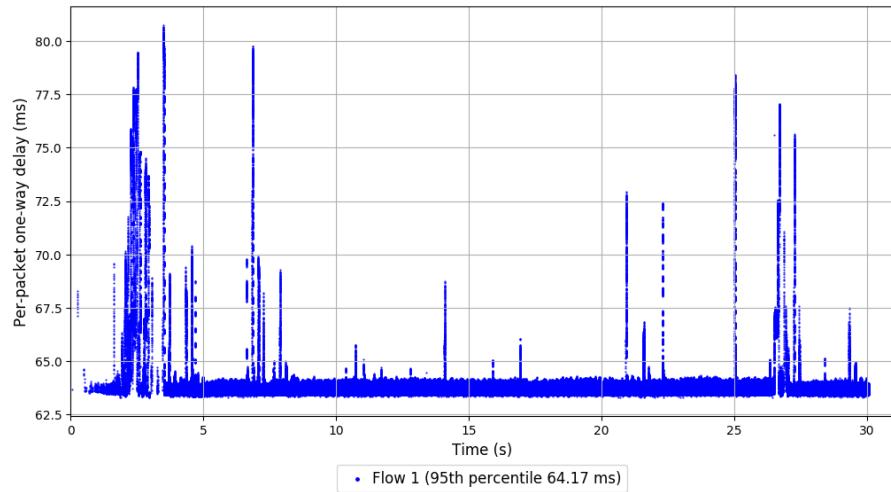
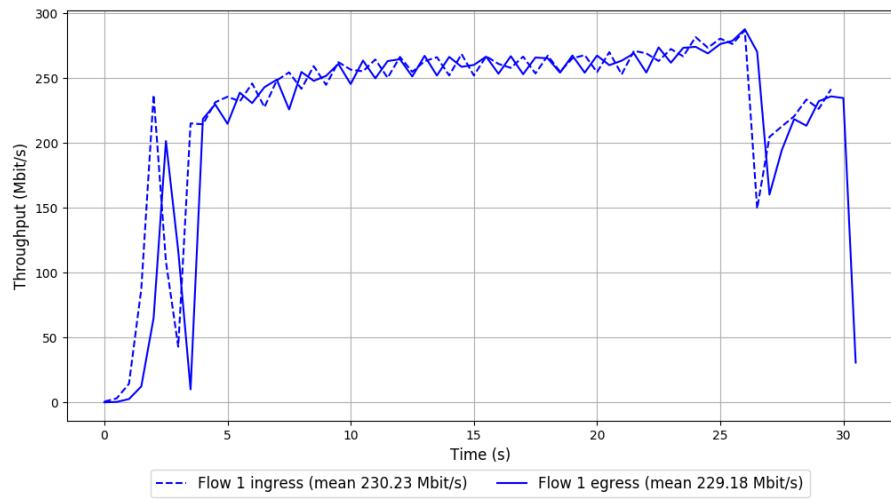


Run 4: Statistics of TCP Cubic

```
Start at: 2018-10-02 08:56:12
End at: 2018-10-02 08:56:42
Local clock offset: 0.654 ms
Remote clock offset: -41.128 ms

# Below is generated by plot.py at 2018-10-02 09:48:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.18 Mbit/s
95th percentile per-packet one-way delay: 64.166 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 229.18 Mbit/s
95th percentile per-packet one-way delay: 64.166 ms
Loss rate: 0.45%
```

Run 4: Report of TCP Cubic — Data Link

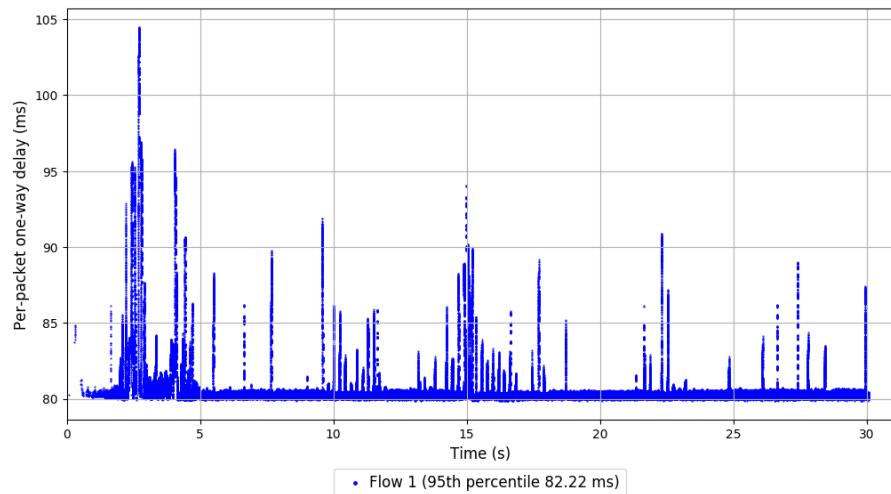
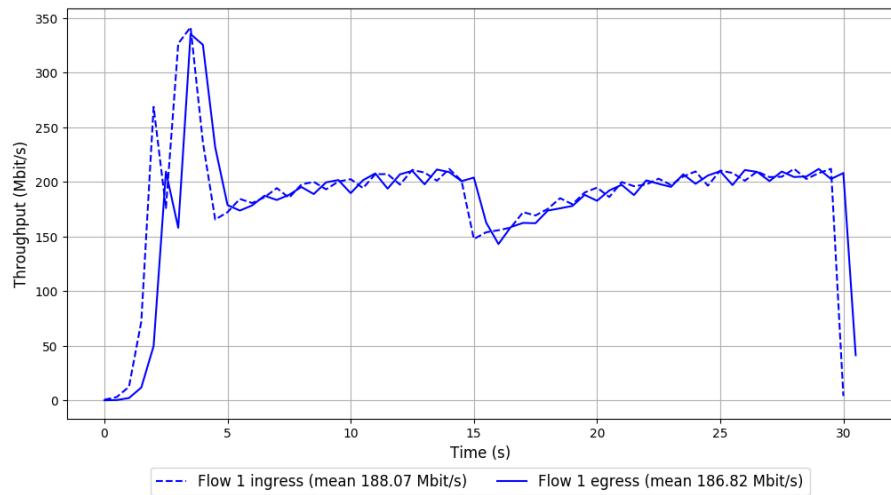


Run 5: Statistics of TCP Cubic

```
Start at: 2018-10-02 09:25:14
End at: 2018-10-02 09:25:44
Local clock offset: -5.853 ms
Remote clock offset: -32.889 ms

# Below is generated by plot.py at 2018-10-02 09:48:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.82 Mbit/s
95th percentile per-packet one-way delay: 82.216 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 186.82 Mbit/s
95th percentile per-packet one-way delay: 82.216 ms
Loss rate: 0.67%
```

Run 5: Report of TCP Cubic — Data Link

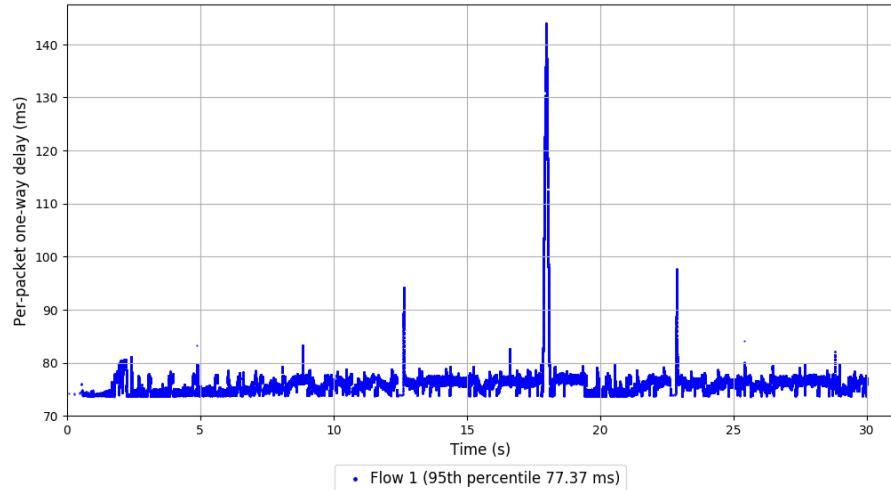
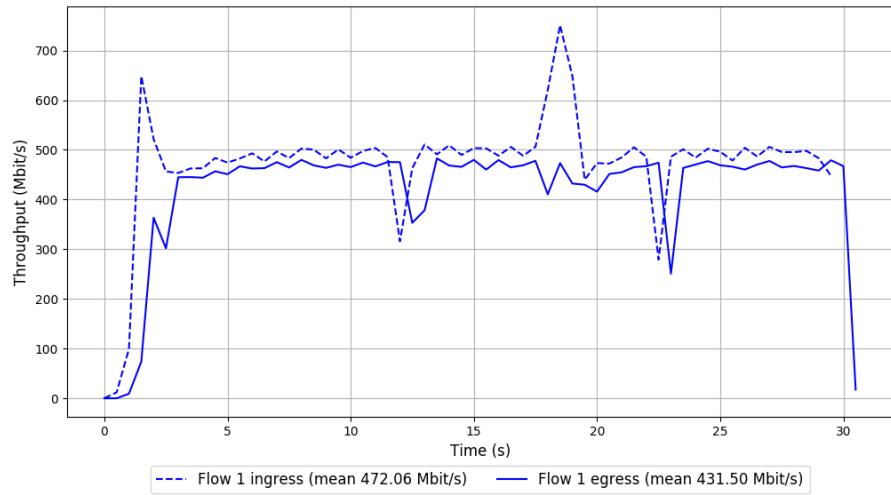


```
Run 1: Statistics of FillP

Start at: 2018-10-02 07:34:06
End at: 2018-10-02 07:34:36
Local clock offset: -3.769 ms
Remote clock offset: -33.661 ms

# Below is generated by plot.py at 2018-10-02 09:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 431.50 Mbit/s
95th percentile per-packet one-way delay: 77.371 ms
Loss rate: 8.58%
-- Flow 1:
Average throughput: 431.50 Mbit/s
95th percentile per-packet one-way delay: 77.371 ms
Loss rate: 8.58%
```

Run 1: Report of FillP — Data Link

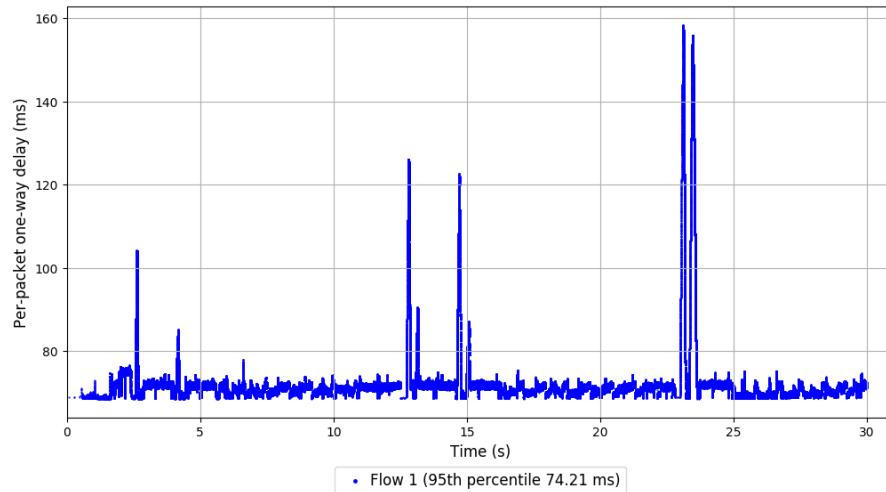
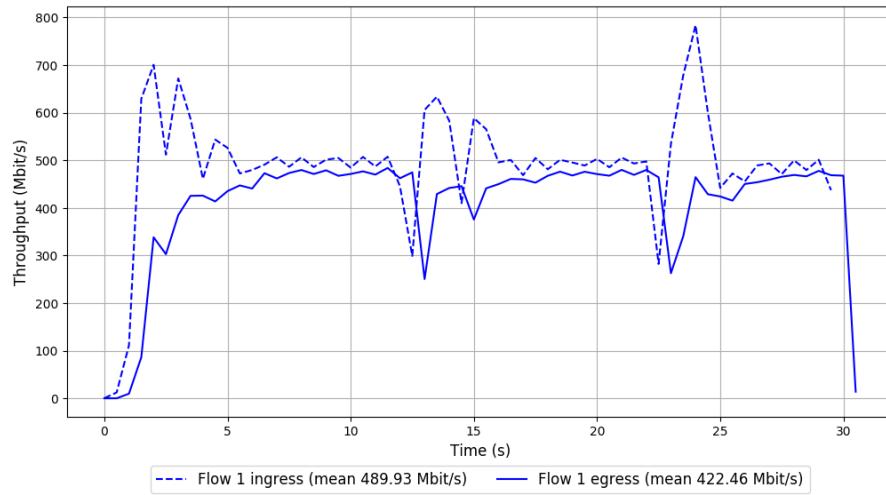


Run 2: Statistics of FillP

```
Start at: 2018-10-02 08:14:38
End at: 2018-10-02 08:15:08
Local clock offset: -4.985 ms
Remote clock offset: -39.862 ms

# Below is generated by plot.py at 2018-10-02 09:53:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 422.46 Mbit/s
95th percentile per-packet one-way delay: 74.210 ms
Loss rate: 13.76%
-- Flow 1:
Average throughput: 422.46 Mbit/s
95th percentile per-packet one-way delay: 74.210 ms
Loss rate: 13.76%
```

Run 2: Report of FillP — Data Link

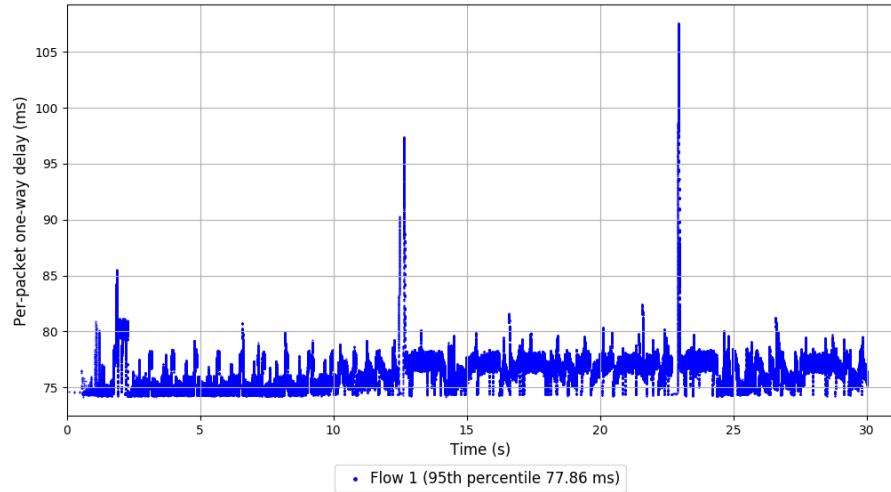
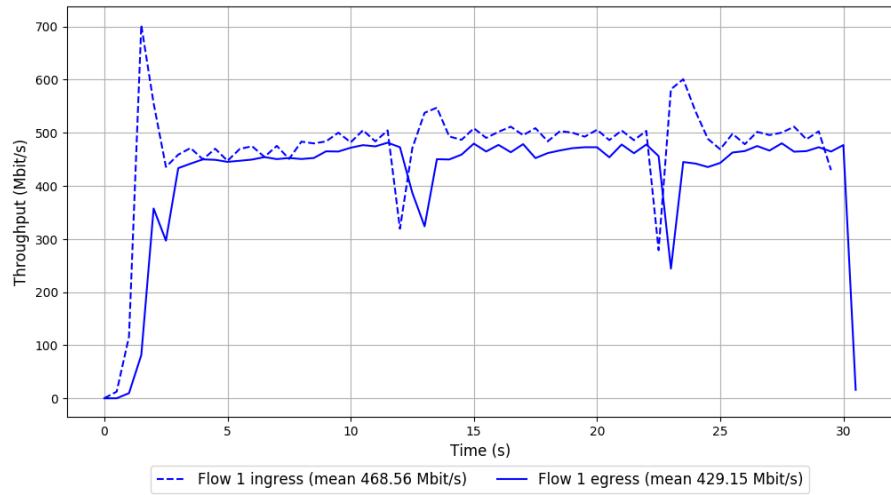


Run 3: Statistics of FillP

```
Start at: 2018-10-02 08:43:37
End at: 2018-10-02 08:44:07
Local clock offset: -5.609 ms
Remote clock offset: -39.637 ms

# Below is generated by plot.py at 2018-10-02 09:53:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 429.15 Mbit/s
95th percentile per-packet one-way delay: 77.857 ms
Loss rate: 8.41%
-- Flow 1:
Average throughput: 429.15 Mbit/s
95th percentile per-packet one-way delay: 77.857 ms
Loss rate: 8.41%
```

Run 3: Report of FillP — Data Link

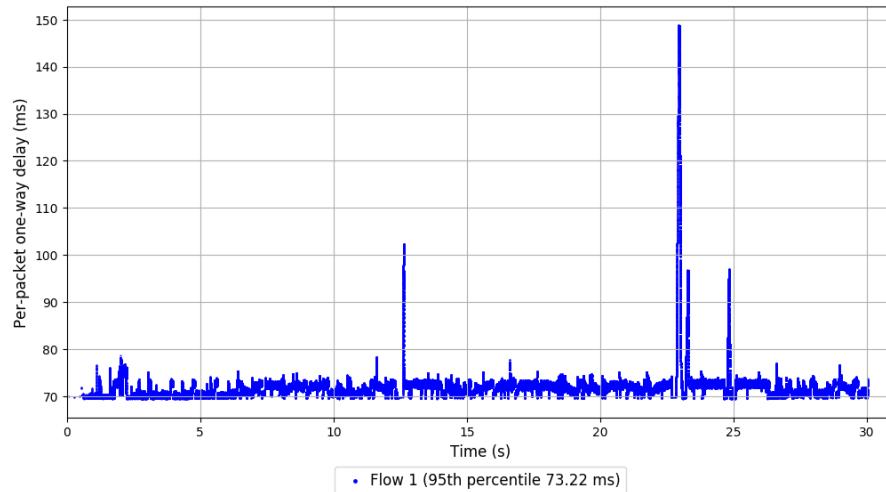
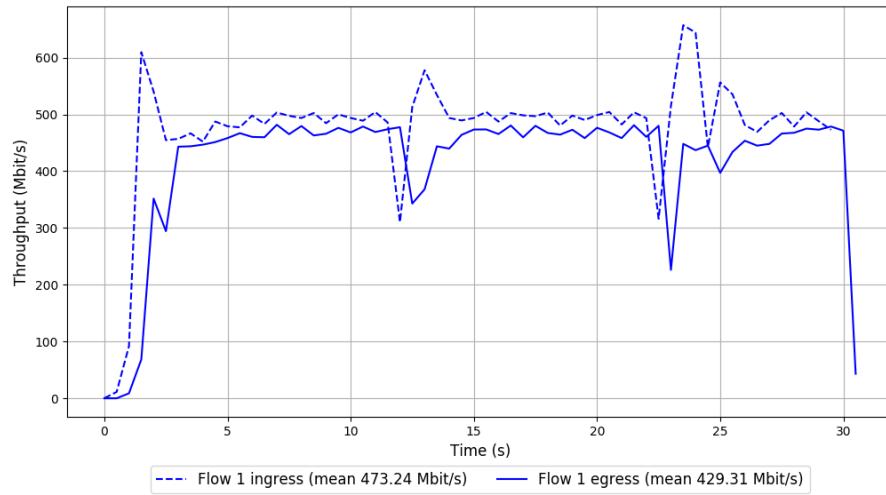


Run 4: Statistics of FillP

```
Start at: 2018-10-02 09:12:30
End at: 2018-10-02 09:13:00
Local clock offset: -4.115 ms
Remote clock offset: -39.315 ms

# Below is generated by plot.py at 2018-10-02 09:53:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 429.31 Mbit/s
95th percentile per-packet one-way delay: 73.225 ms
Loss rate: 9.27%
-- Flow 1:
Average throughput: 429.31 Mbit/s
95th percentile per-packet one-way delay: 73.225 ms
Loss rate: 9.27%
```

Run 4: Report of FillP — Data Link

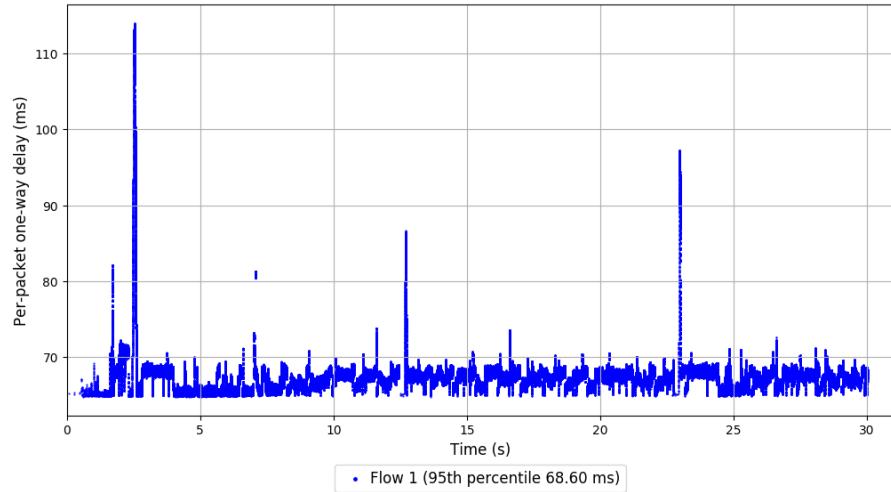
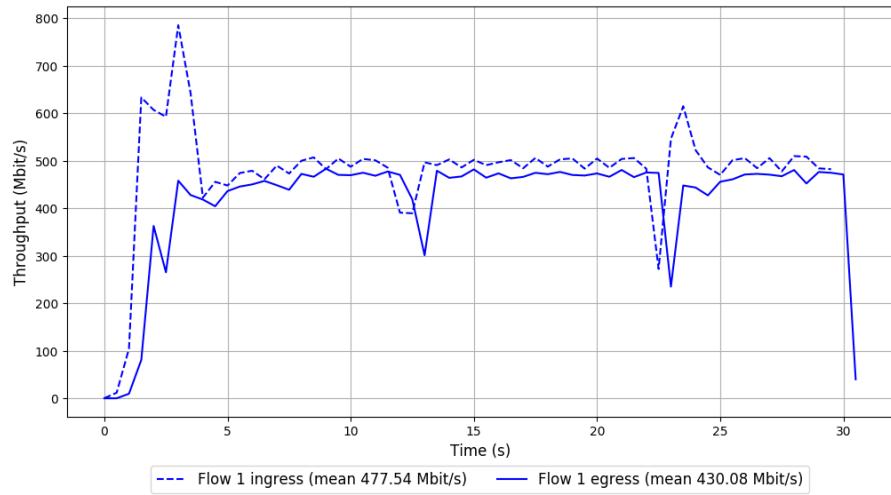


Run 5: Statistics of FillP

```
Start at: 2018-10-02 09:41:21
End at: 2018-10-02 09:41:51
Local clock offset: -0.112 ms
Remote clock offset: -39.978 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 430.08 Mbit/s
95th percentile per-packet one-way delay: 68.604 ms
Loss rate: 9.93%
-- Flow 1:
Average throughput: 430.08 Mbit/s
95th percentile per-packet one-way delay: 68.604 ms
Loss rate: 9.93%
```

Run 5: Report of FillP — Data Link

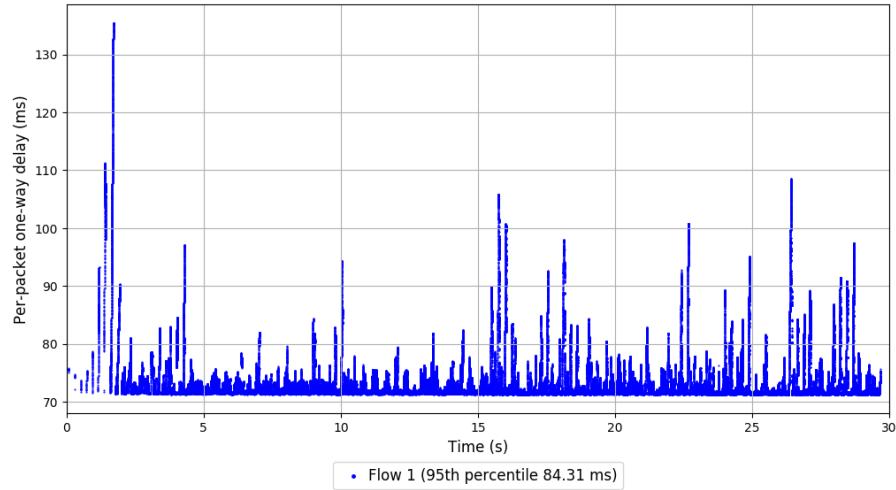
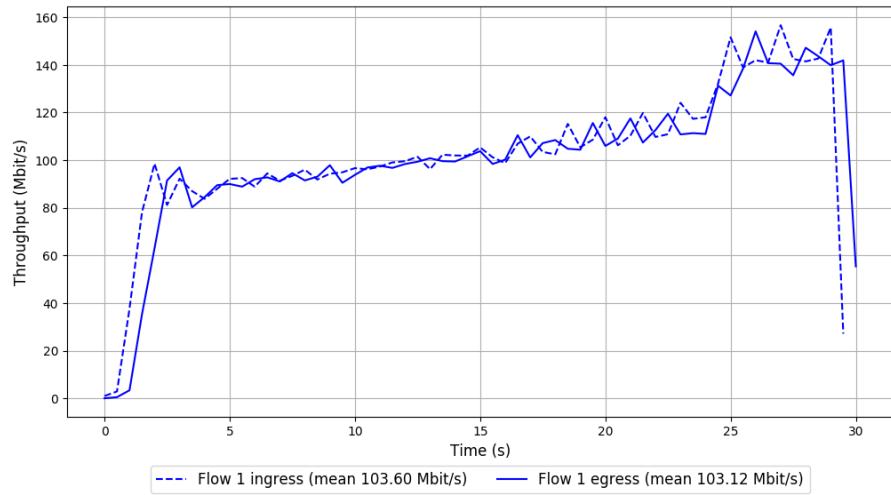


Run 1: Statistics of Indigo

```
Start at: 2018-10-02 07:32:49
End at: 2018-10-02 07:33:19
Local clock offset: -2.878 ms
Remote clock offset: -35.331 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 103.12 Mbit/s
95th percentile per-packet one-way delay: 84.309 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 103.12 Mbit/s
95th percentile per-packet one-way delay: 84.309 ms
Loss rate: 0.47%
```

Run 1: Report of Indigo — Data Link

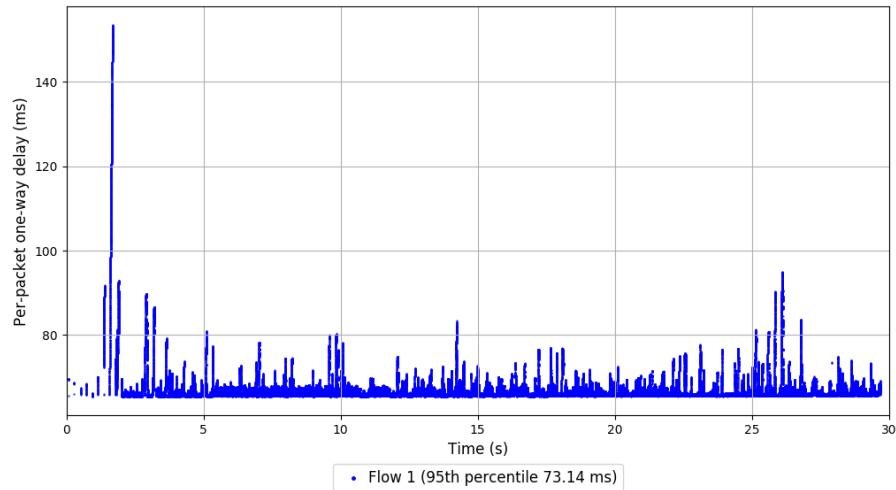
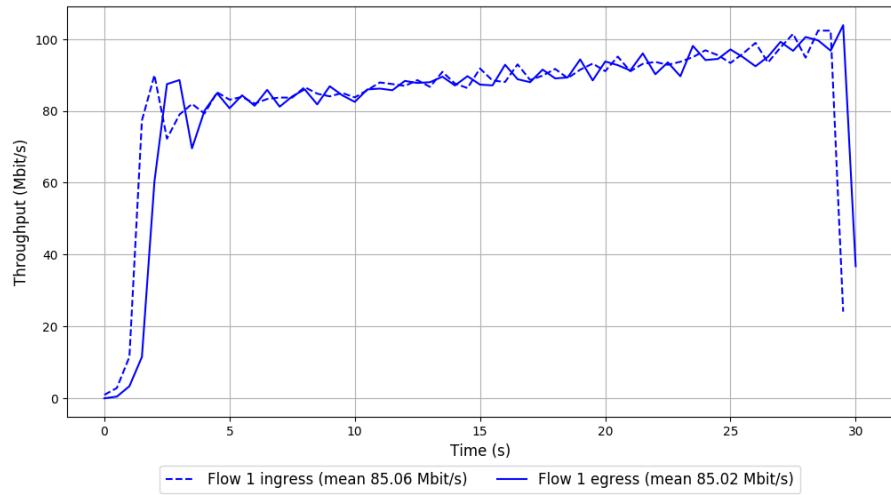


Run 2: Statistics of Indigo

```
Start at: 2018-10-02 08:13:22
End at: 2018-10-02 08:13:52
Local clock offset: -1.826 ms
Remote clock offset: -39.658 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.02 Mbit/s
95th percentile per-packet one-way delay: 73.143 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 85.02 Mbit/s
95th percentile per-packet one-way delay: 73.143 ms
Loss rate: 0.05%
```

Run 2: Report of Indigo — Data Link

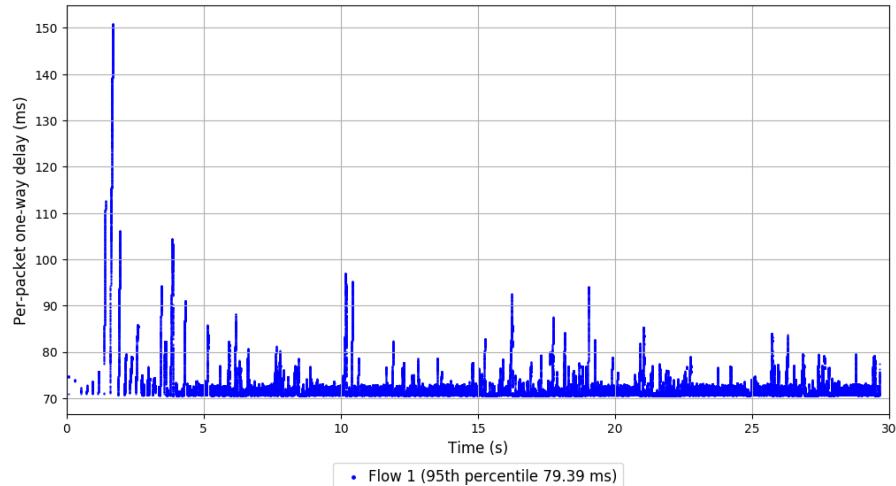
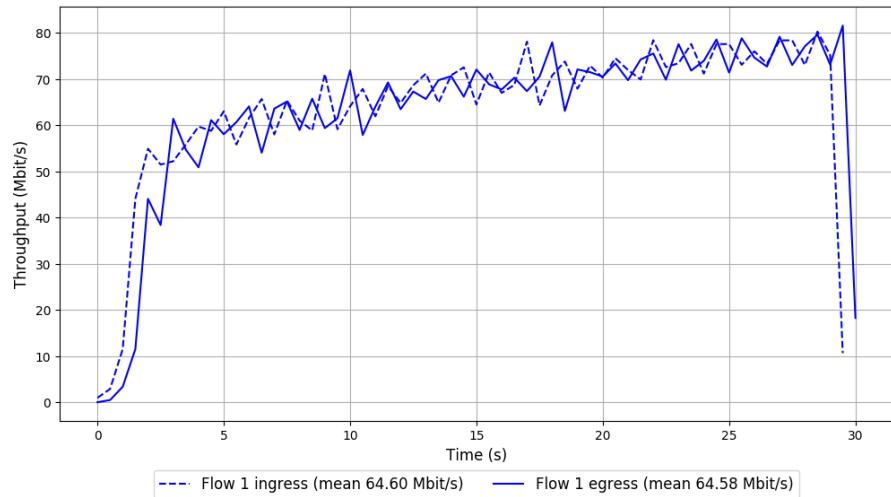


Run 3: Statistics of Indigo

```
Start at: 2018-10-02 08:42:22
End at: 2018-10-02 08:42:52
Local clock offset: 1.186 ms
Remote clock offset: -33.6 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.58 Mbit/s
95th percentile per-packet one-way delay: 79.390 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 64.58 Mbit/s
95th percentile per-packet one-way delay: 79.390 ms
Loss rate: 0.02%
```

Run 3: Report of Indigo — Data Link

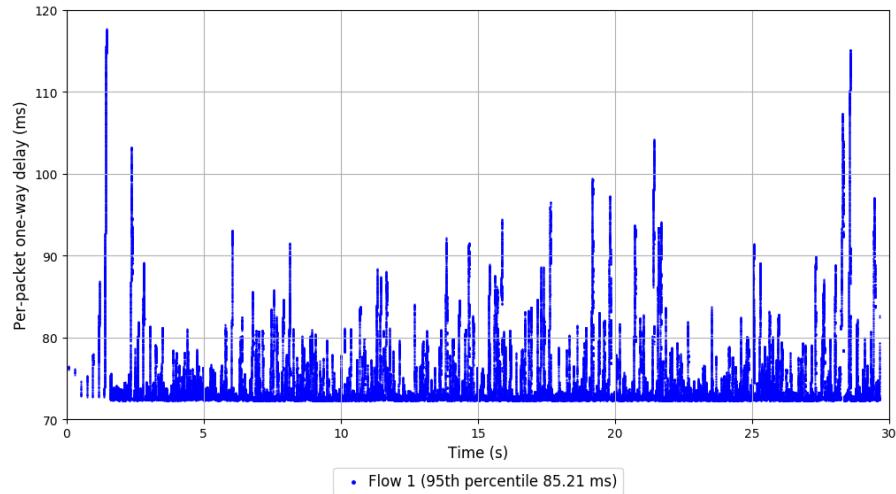
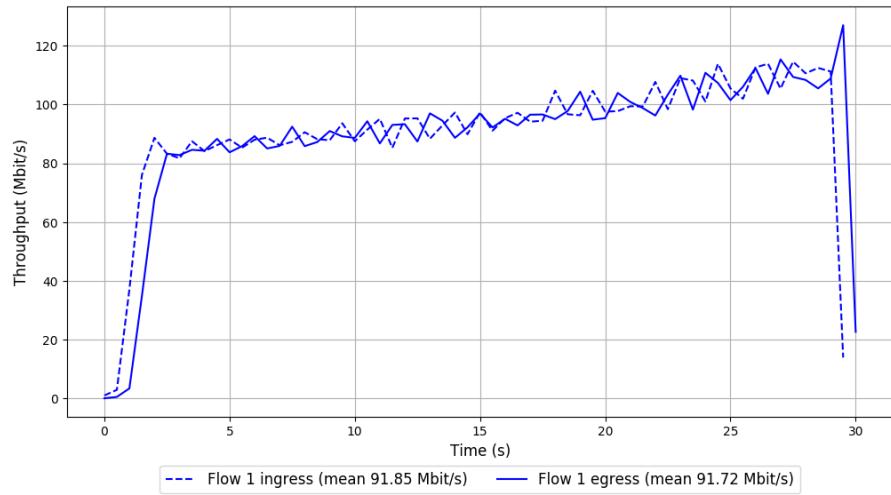


Run 4: Statistics of Indigo

```
Start at: 2018-10-02 09:11:13
End at: 2018-10-02 09:11:43
Local clock offset: 0.4 ms
Remote clock offset: -34.364 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 85.214 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 85.214 ms
Loss rate: 0.15%
```

Run 4: Report of Indigo — Data Link

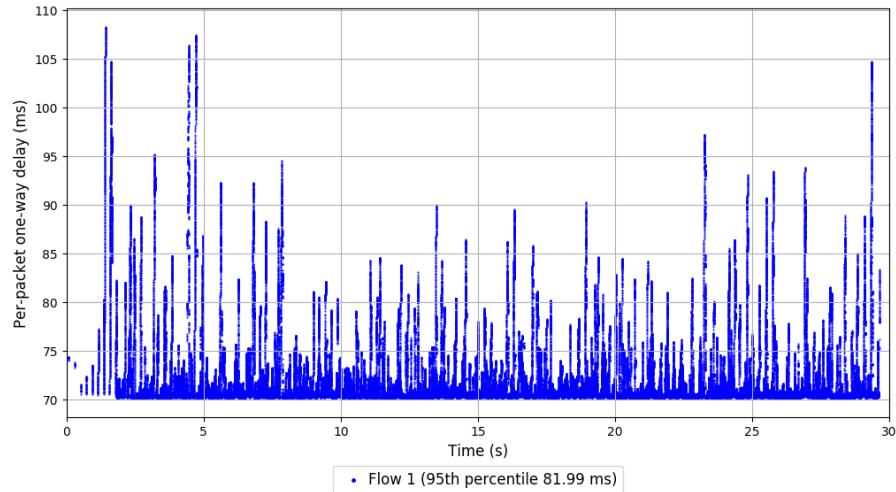
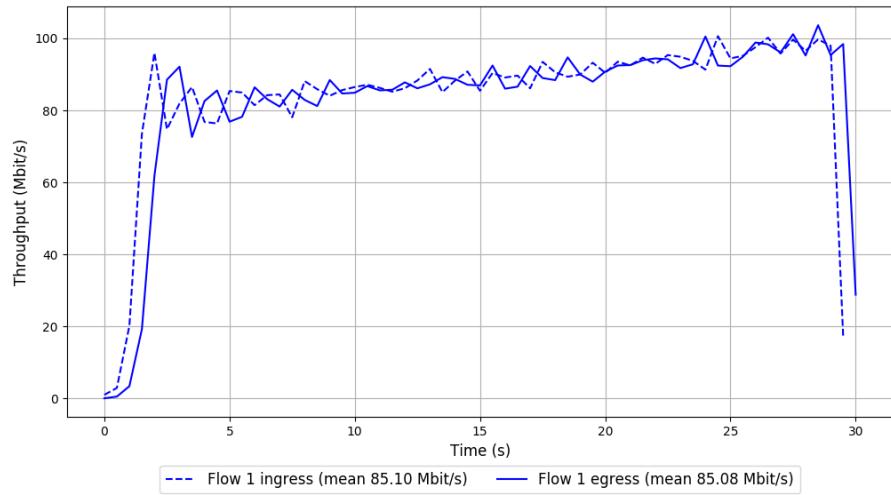


Run 5: Statistics of Indigo

```
Start at: 2018-10-02 09:40:04
End at: 2018-10-02 09:40:34
Local clock offset: -0.119 ms
Remote clock offset: -34.322 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 81.988 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 85.08 Mbit/s
95th percentile per-packet one-way delay: 81.988 ms
Loss rate: 0.02%
```

Run 5: Report of Indigo — Data Link

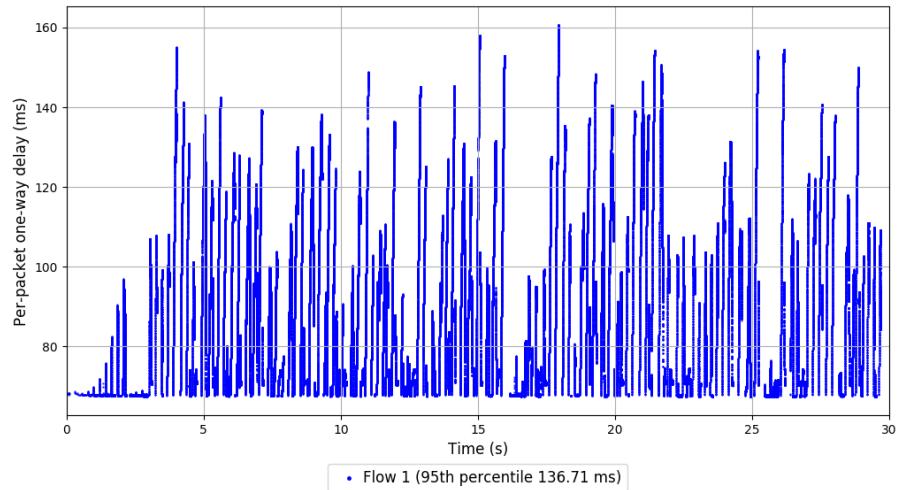
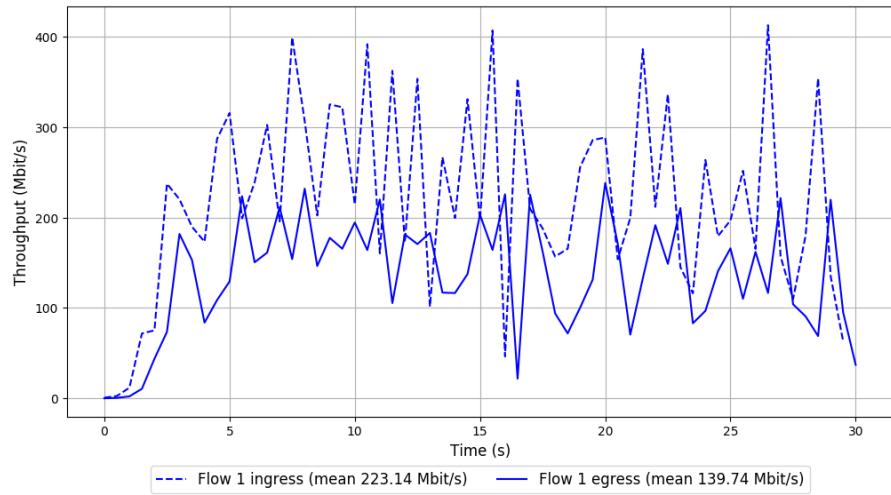


```
Run 1: Statistics of Indigo-96d2da3
```

```
Start at: 2018-10-02 07:19:17
End at: 2018-10-02 07:19:47
Local clock offset: 1.238 ms
Remote clock offset: -39.849 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.74 Mbit/s
95th percentile per-packet one-way delay: 136.706 ms
Loss rate: 37.34%
-- Flow 1:
Average throughput: 139.74 Mbit/s
95th percentile per-packet one-way delay: 136.706 ms
Loss rate: 37.34%
```

Run 1: Report of Indigo-96d2da3 — Data Link

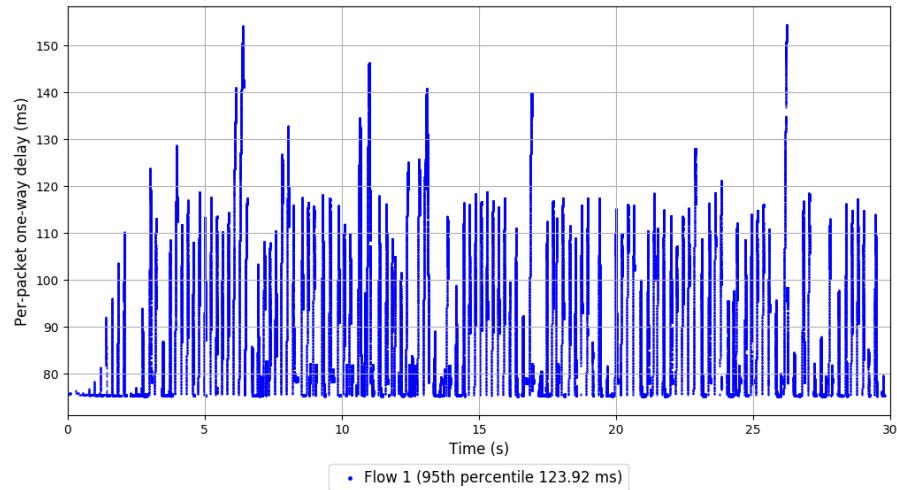
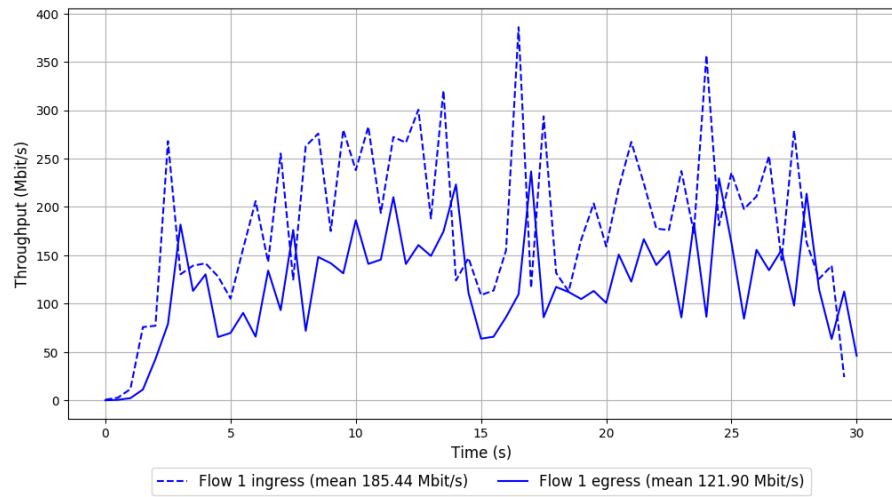


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 07:54:11
End at: 2018-10-02 07:54:41
Local clock offset: -6.725 ms
Remote clock offset: -34.069 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.90 Mbit/s
95th percentile per-packet one-way delay: 123.918 ms
Loss rate: 34.27%
-- Flow 1:
Average throughput: 121.90 Mbit/s
95th percentile per-packet one-way delay: 123.918 ms
Loss rate: 34.27%
```

Run 2: Report of Indigo-96d2da3 — Data Link

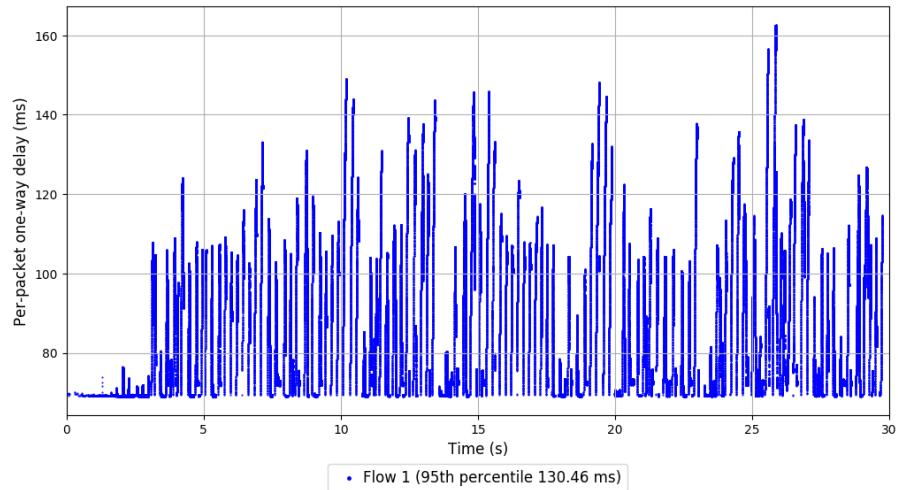
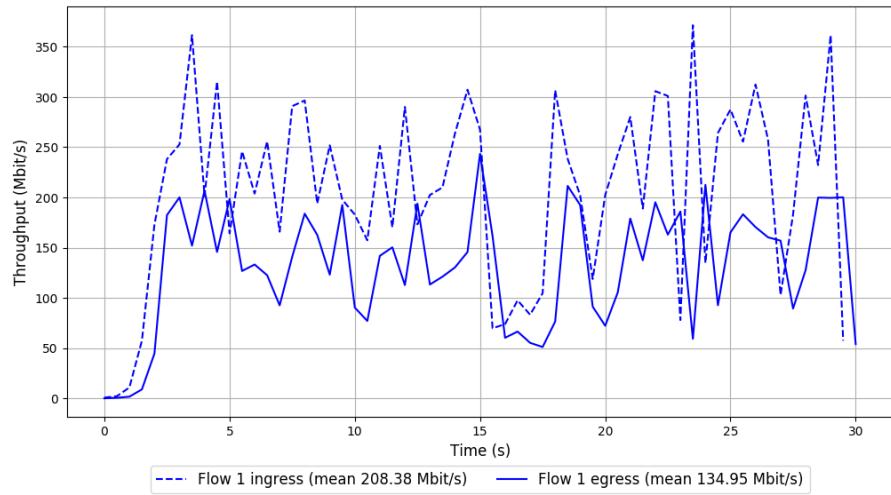


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 08:23:05
End at: 2018-10-02 08:23:35
Local clock offset: -3.519 ms
Remote clock offset: -39.795 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 134.95 Mbit/s
95th percentile per-packet one-way delay: 130.461 ms
Loss rate: 35.22%
-- Flow 1:
Average throughput: 134.95 Mbit/s
95th percentile per-packet one-way delay: 130.461 ms
Loss rate: 35.22%
```

Run 3: Report of Indigo-96d2da3 — Data Link

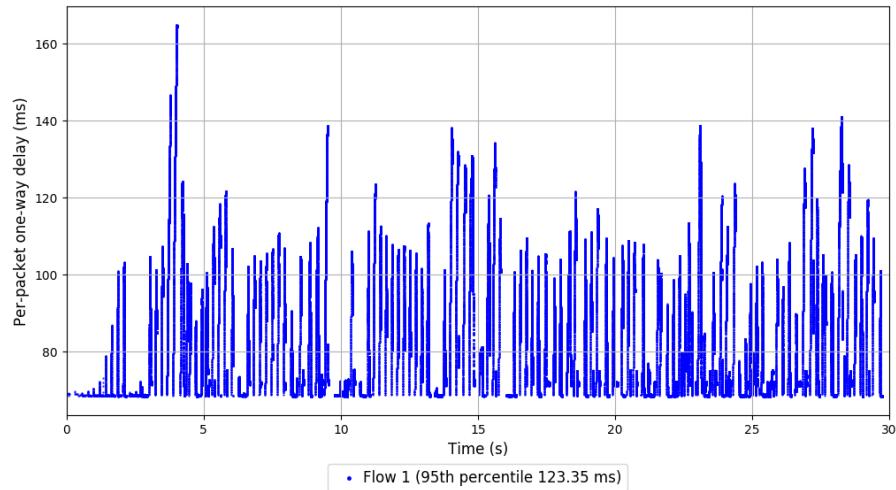
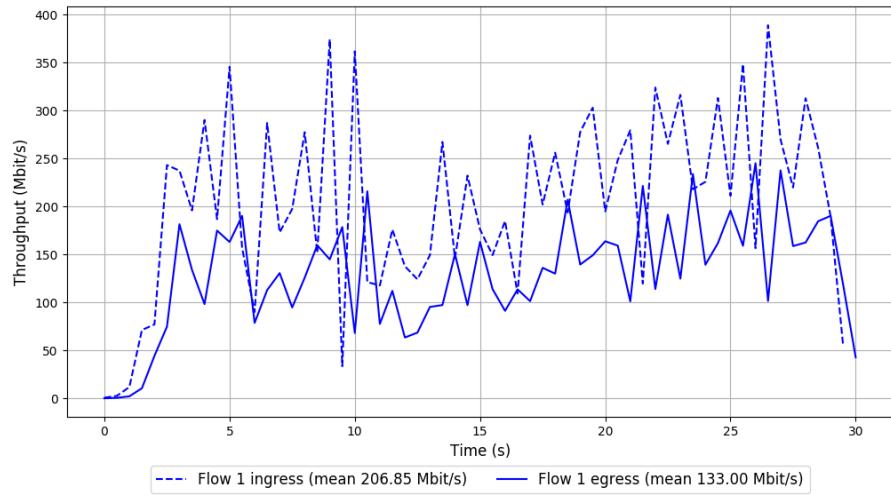


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 08:57:42
End at: 2018-10-02 08:58:12
Local clock offset: -1.058 ms
Remote clock offset: -40.08 ms

# Below is generated by plot.py at 2018-10-02 09:53:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.00 Mbit/s
95th percentile per-packet one-way delay: 123.346 ms
Loss rate: 35.70%
-- Flow 1:
Average throughput: 133.00 Mbit/s
95th percentile per-packet one-way delay: 123.346 ms
Loss rate: 35.70%
```

Run 4: Report of Indigo-96d2da3 — Data Link

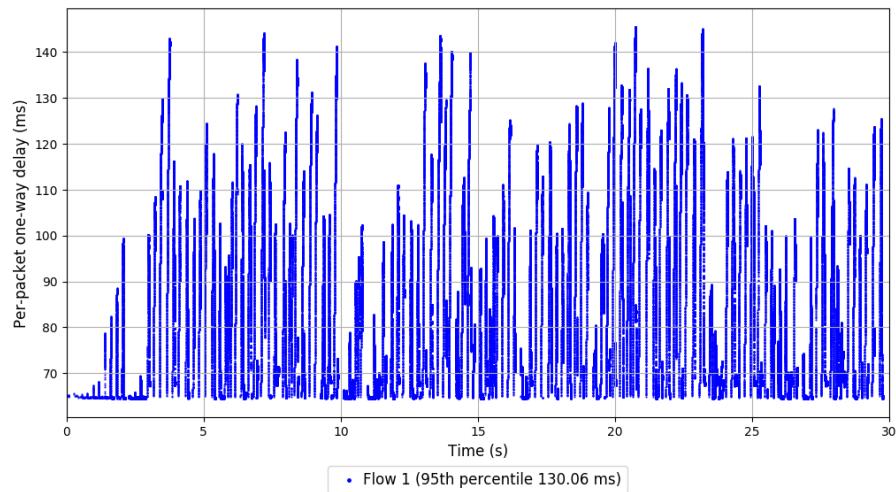
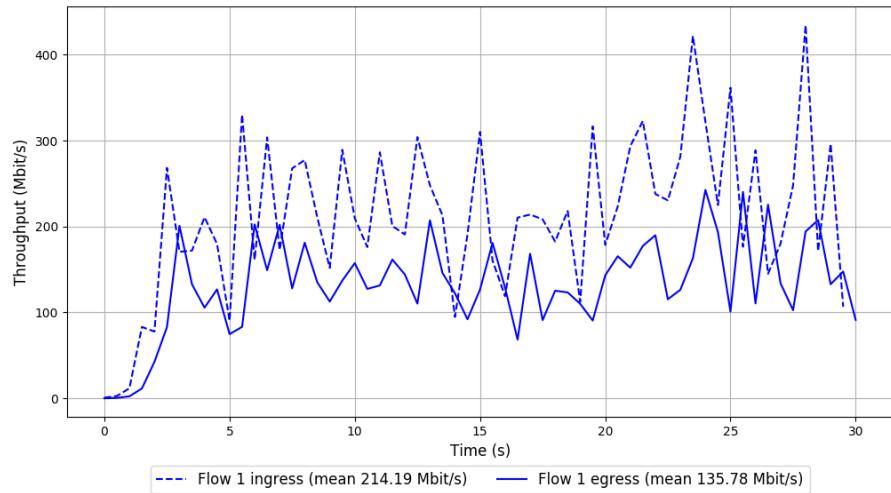


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 09:26:34
End at: 2018-10-02 09:27:04
Local clock offset: 0.405 ms
Remote clock offset: -39.646 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 135.78 Mbit/s
95th percentile per-packet one-way delay: 130.060 ms
Loss rate: 36.61%
-- Flow 1:
Average throughput: 135.78 Mbit/s
95th percentile per-packet one-way delay: 130.060 ms
Loss rate: 36.61%
```

Run 5: Report of Indigo-96d2da3 — Data Link

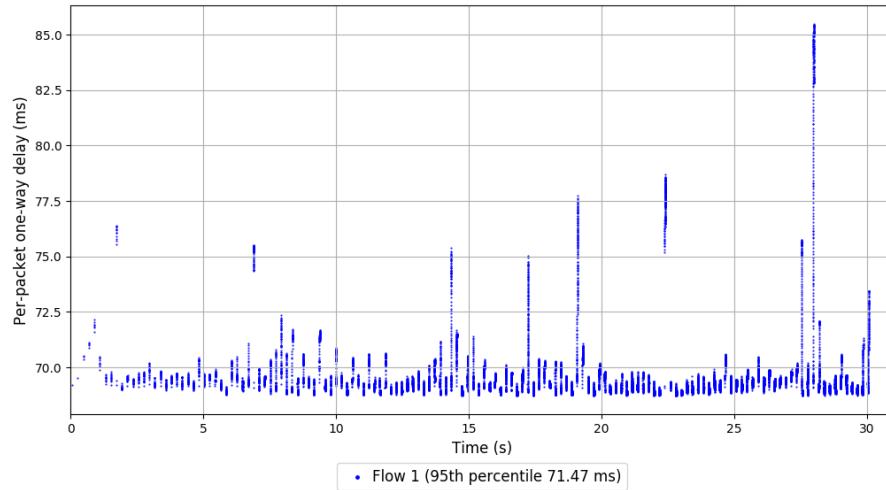
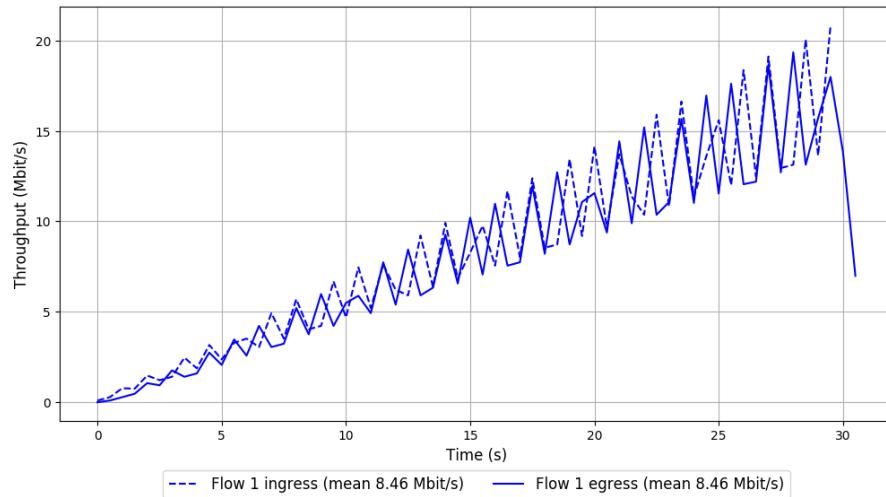


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-10-02 07:31:37
End at: 2018-10-02 07:32:07
Local clock offset: -2.66 ms
Remote clock offset: -37.47 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 71.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 71.470 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

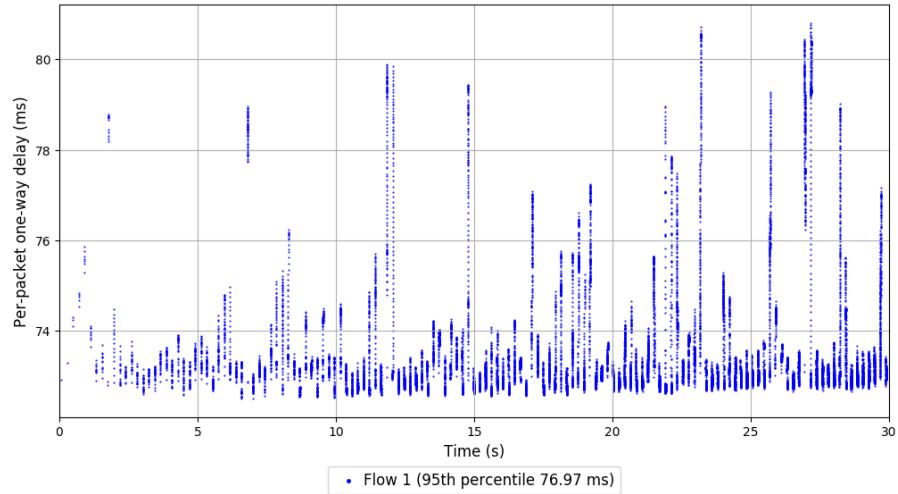
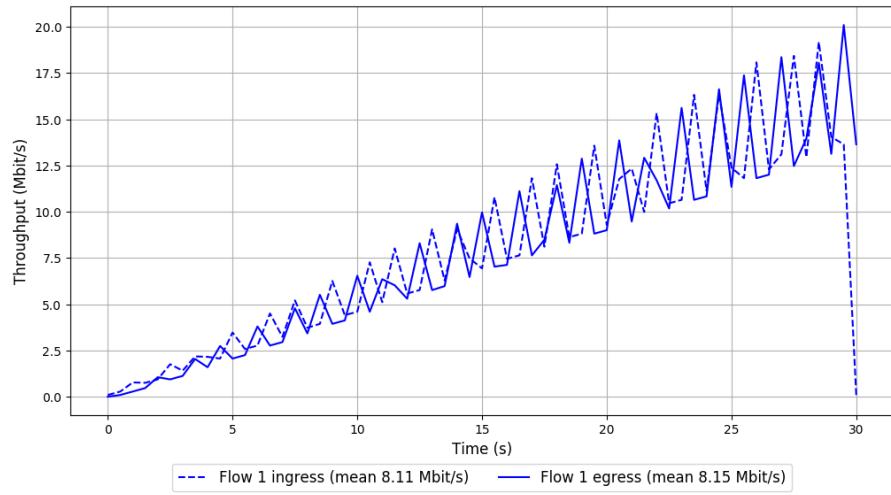


Run 2: Statistics of LEDBAT

```
Start at: 2018-10-02 08:12:10
End at: 2018-10-02 08:12:40
Local clock offset: -6.882 ms
Remote clock offset: -39.794 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 76.972 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 8.15 Mbit/s
95th percentile per-packet one-way delay: 76.972 ms
Loss rate: 0.02%
```

Run 2: Report of LEDBAT — Data Link

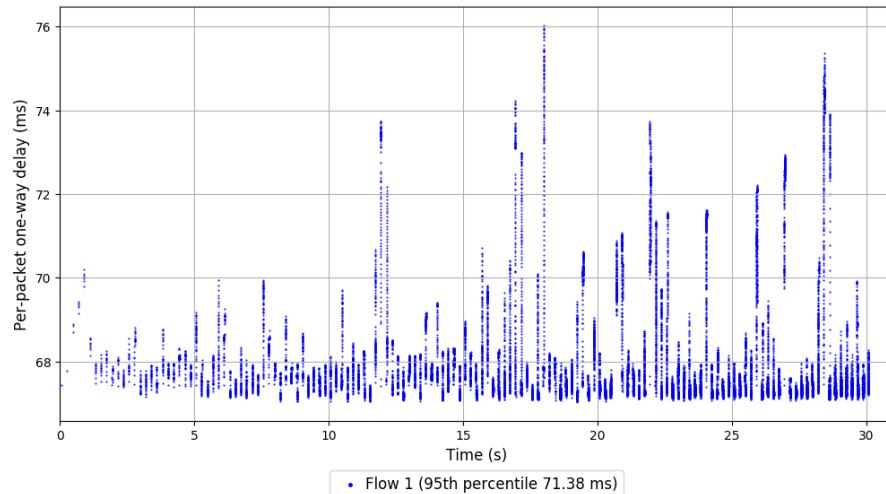
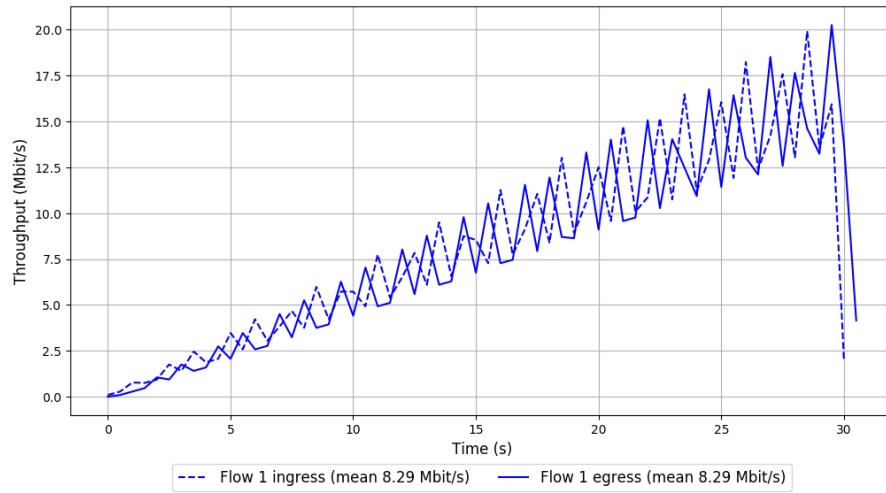


Run 3: Statistics of LEDBAT

```
Start at: 2018-10-02 08:41:10
End at: 2018-10-02 08:41:40
Local clock offset: -0.542 ms
Remote clock offset: -38.734 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 71.380 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.29 Mbit/s
95th percentile per-packet one-way delay: 71.380 ms
Loss rate: 0.00%
```

Run 3: Report of LEDBAT — Data Link

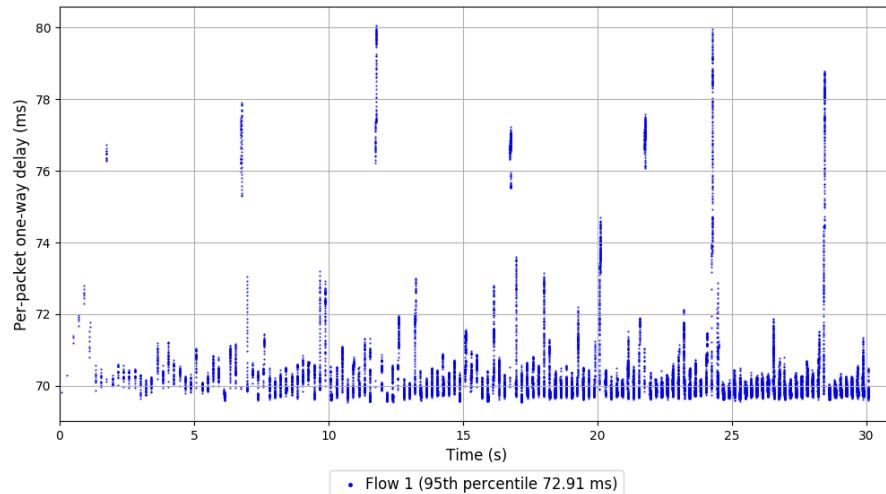
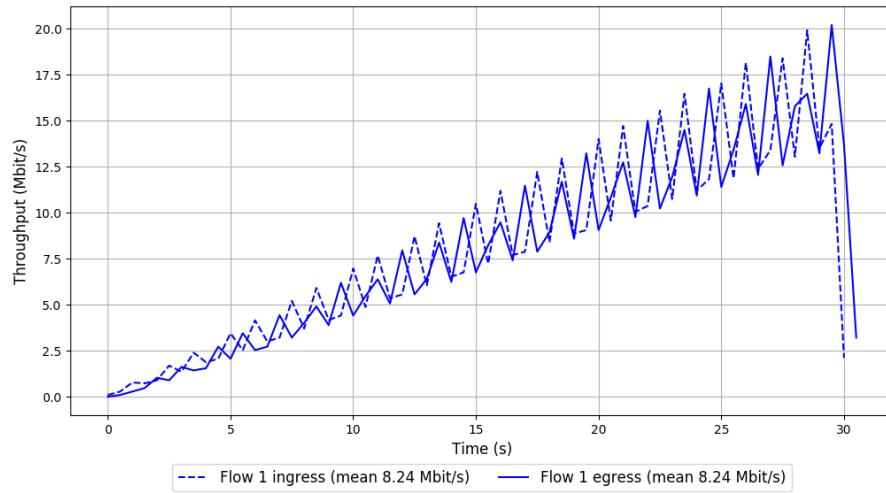


Run 4: Statistics of LEDBAT

```
Start at: 2018-10-02 09:10:01
End at: 2018-10-02 09:10:32
Local clock offset: -0.174 ms
Remote clock offset: -35.239 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 72.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.24 Mbit/s
95th percentile per-packet one-way delay: 72.912 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

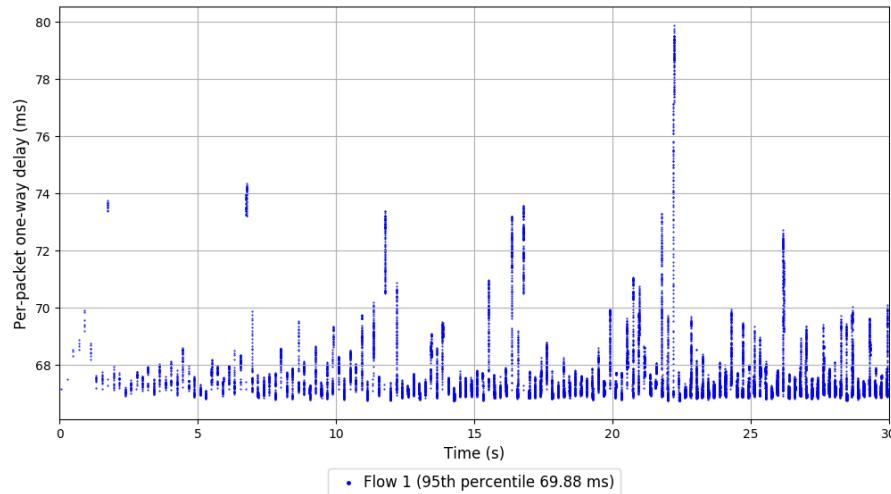
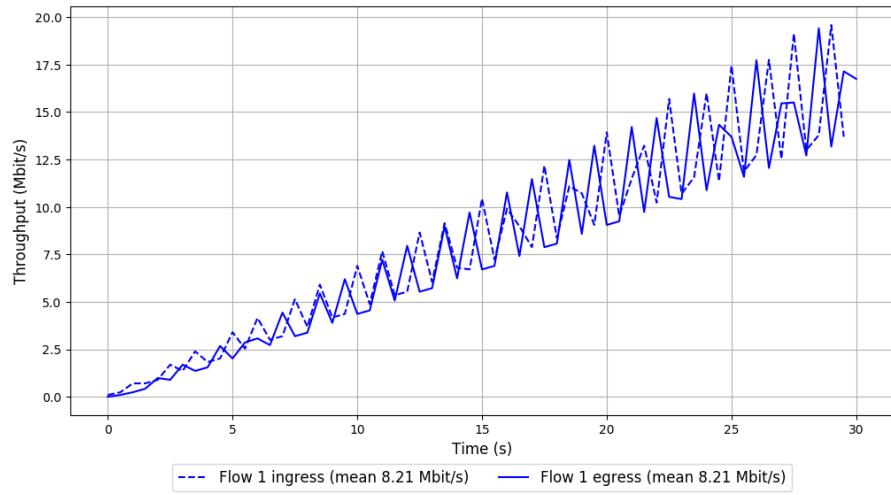


Run 5: Statistics of LEDBAT

```
Start at: 2018-10-02 09:38:52
End at: 2018-10-02 09:39:22
Local clock offset: -2.433 ms
Remote clock offset: -39.838 ms

# Below is generated by plot.py at 2018-10-02 09:53:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 69.879 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.21 Mbit/s
95th percentile per-packet one-way delay: 69.879 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

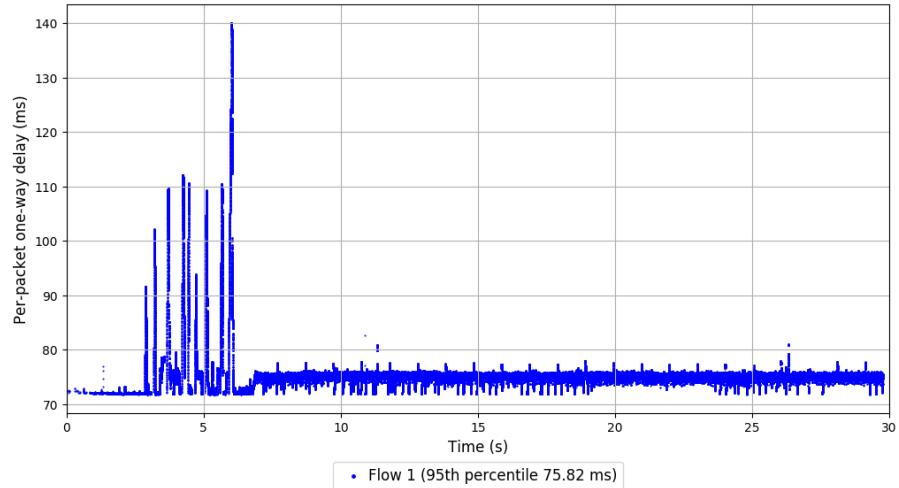
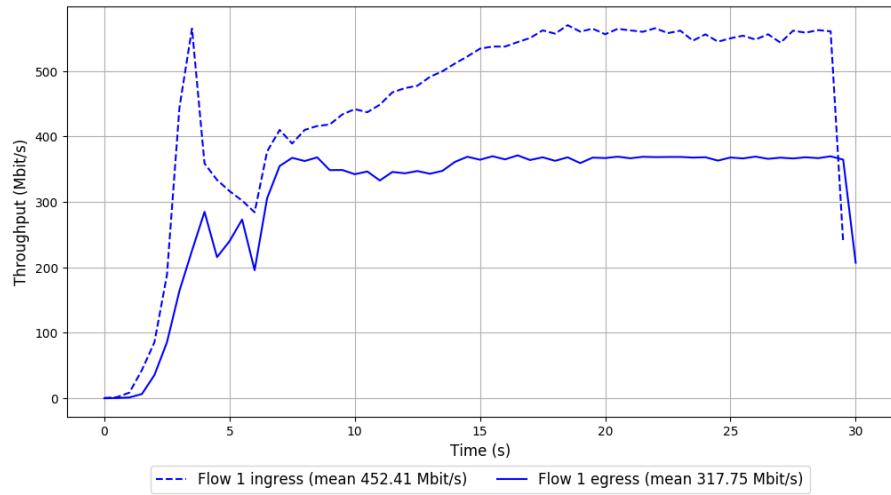


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-10-02 07:16:31
End at: 2018-10-02 07:17:01
Local clock offset: -0.877 ms
Remote clock offset: -38.615 ms

# Below is generated by plot.py at 2018-10-02 09:56:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 317.75 Mbit/s
95th percentile per-packet one-way delay: 75.821 ms
Loss rate: 29.76%
-- Flow 1:
Average throughput: 317.75 Mbit/s
95th percentile per-packet one-way delay: 75.821 ms
Loss rate: 29.76%
```

Run 1: Report of Indigo-Muses — Data Link

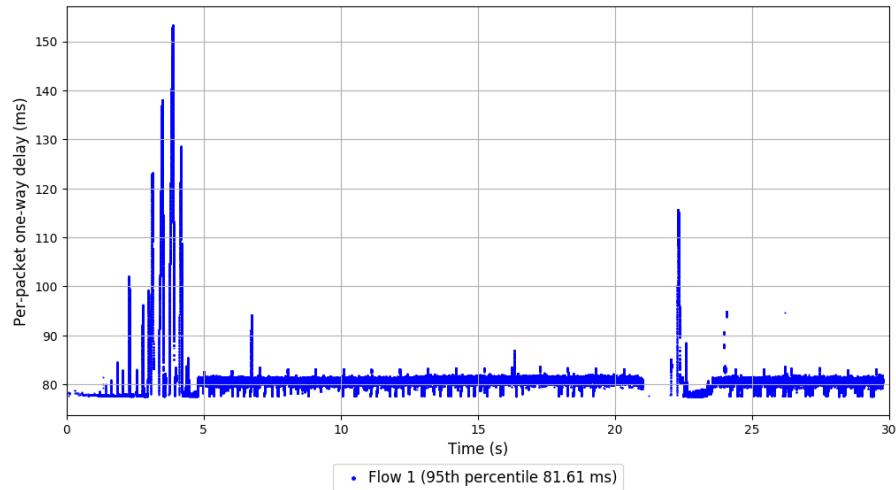
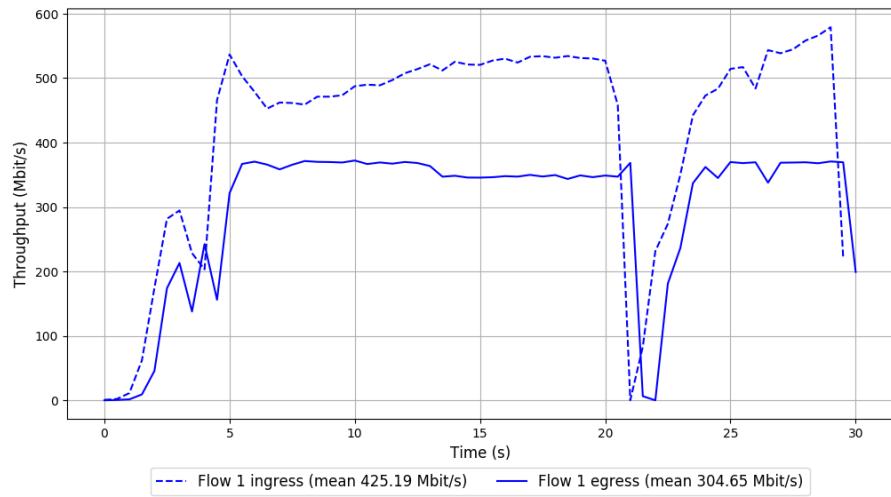


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-10-02 07:51:09
End at: 2018-10-02 07:51:39
Local clock offset: -9.261 ms
Remote clock offset: -34.461 ms

# Below is generated by plot.py at 2018-10-02 09:57:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 304.65 Mbit/s
95th percentile per-packet one-way delay: 81.608 ms
Loss rate: 28.34%
-- Flow 1:
Average throughput: 304.65 Mbit/s
95th percentile per-packet one-way delay: 81.608 ms
Loss rate: 28.34%
```

Run 2: Report of Indigo-Muses — Data Link

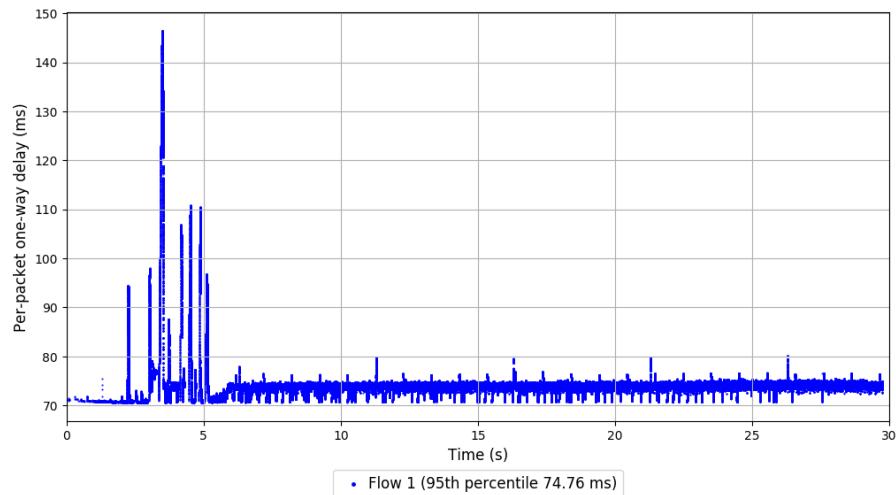
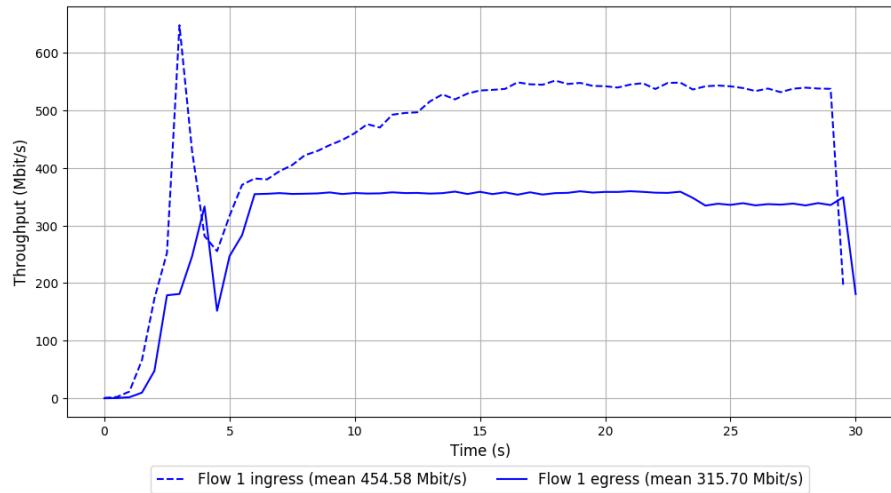


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-10-02 08:20:16
End at: 2018-10-02 08:20:46
Local clock offset: -5.615 ms
Remote clock offset: -39.944 ms

# Below is generated by plot.py at 2018-10-02 09:57:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.70 Mbit/s
95th percentile per-packet one-way delay: 74.764 ms
Loss rate: 30.54%
-- Flow 1:
Average throughput: 315.70 Mbit/s
95th percentile per-packet one-way delay: 74.764 ms
Loss rate: 30.54%
```

Run 3: Report of Indigo-Muses — Data Link

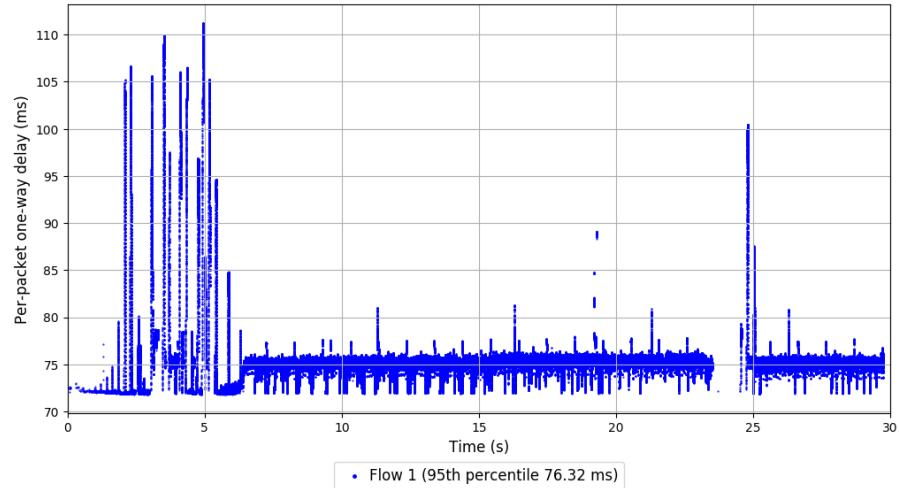
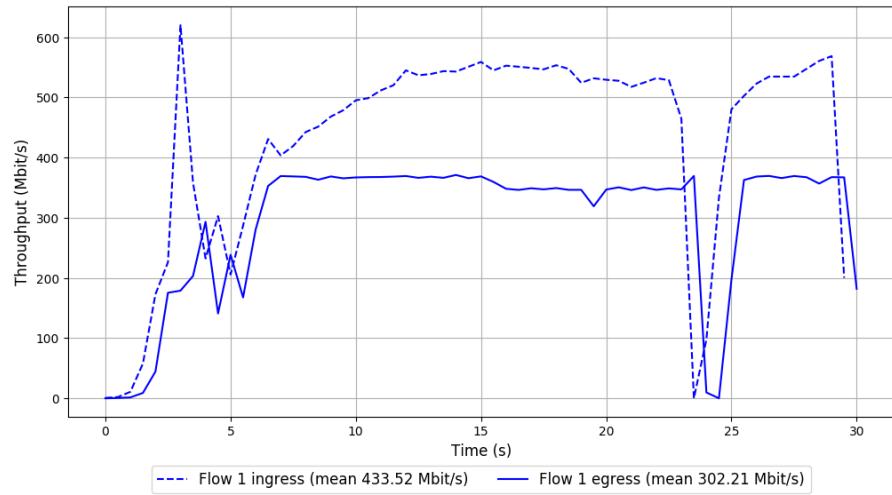


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-10-02 08:49:11
End at: 2018-10-02 08:49:41
Local clock offset: -5.565 ms
Remote clock offset: -39.332 ms

# Below is generated by plot.py at 2018-10-02 09:57:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 302.21 Mbit/s
95th percentile per-packet one-way delay: 76.323 ms
Loss rate: 30.28%
-- Flow 1:
Average throughput: 302.21 Mbit/s
95th percentile per-packet one-way delay: 76.323 ms
Loss rate: 30.28%
```

Run 4: Report of Indigo-Muses — Data Link

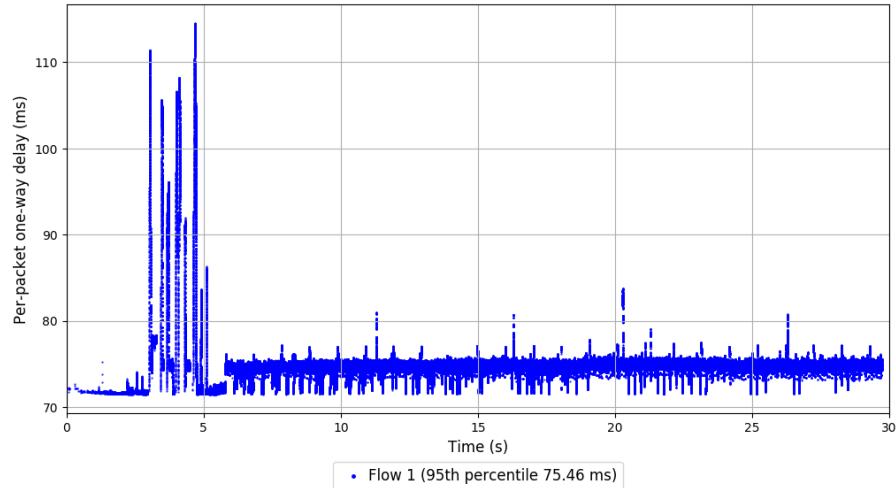
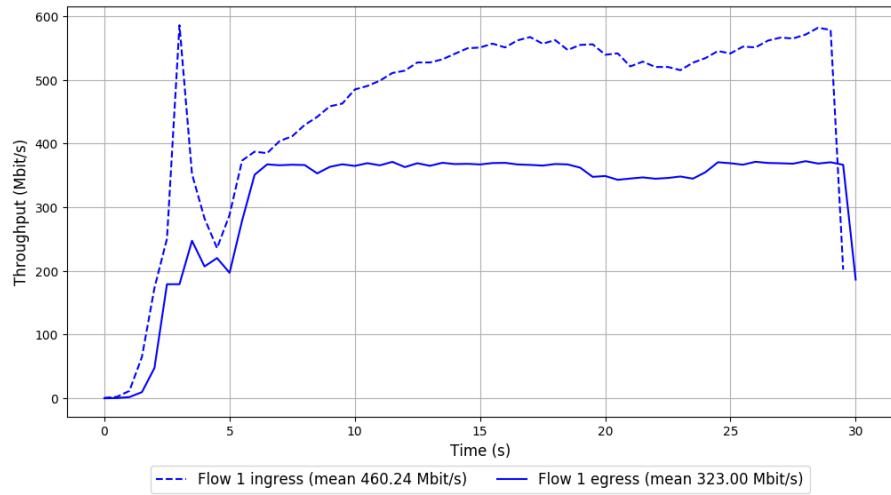


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-10-02 09:23:46
End at: 2018-10-02 09:24:17
Local clock offset: -2.185 ms
Remote clock offset: -35.227 ms

# Below is generated by plot.py at 2018-10-02 09:58:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 323.00 Mbit/s
95th percentile per-packet one-way delay: 75.463 ms
Loss rate: 29.81%
-- Flow 1:
Average throughput: 323.00 Mbit/s
95th percentile per-packet one-way delay: 75.463 ms
Loss rate: 29.81%
```

Run 5: Report of Indigo-Muses — Data Link

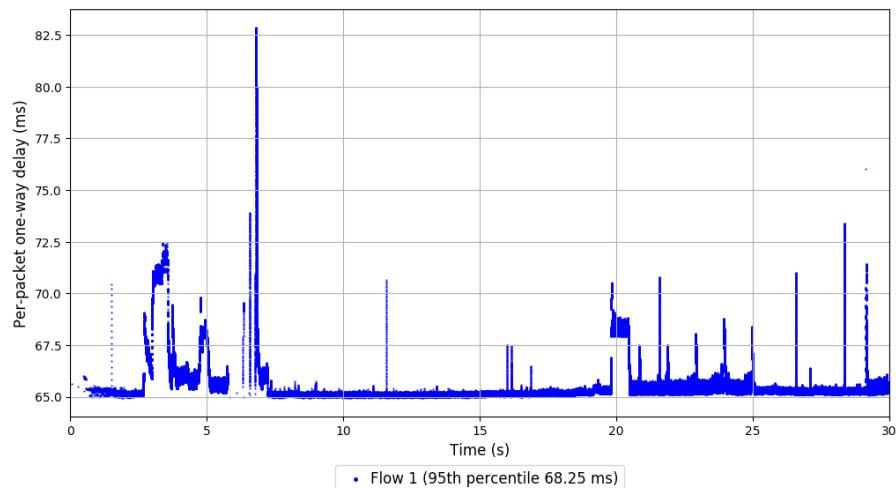
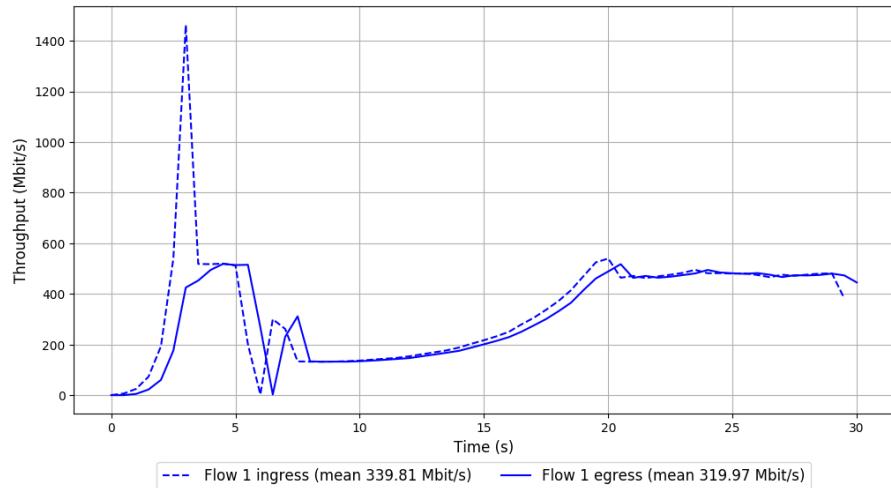


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-10-02 07:26:31
End at: 2018-10-02 07:27:01
Local clock offset: -0.358 ms
Remote clock offset: -39.894 ms

# Below is generated by plot.py at 2018-10-02 09:58:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 319.97 Mbit/s
95th percentile per-packet one-way delay: 68.251 ms
Loss rate: 5.84%
-- Flow 1:
Average throughput: 319.97 Mbit/s
95th percentile per-packet one-way delay: 68.251 ms
Loss rate: 5.84%
```

Run 1: Report of PCC-Allegro — Data Link

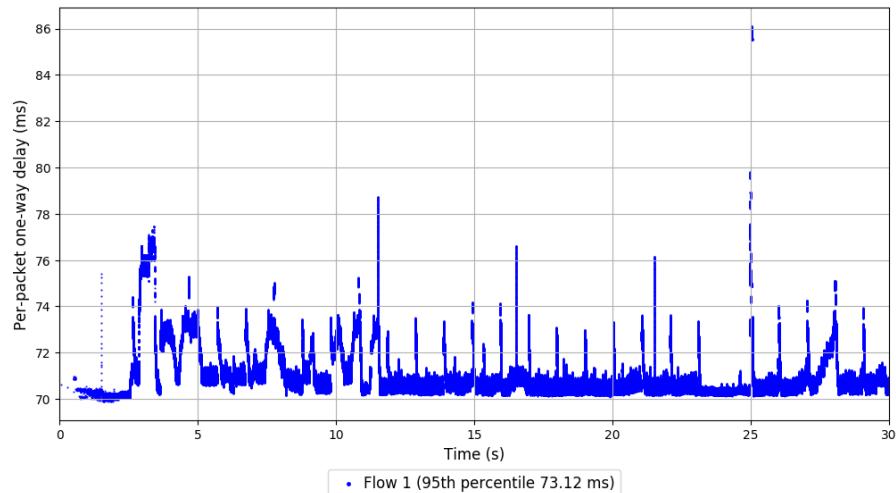
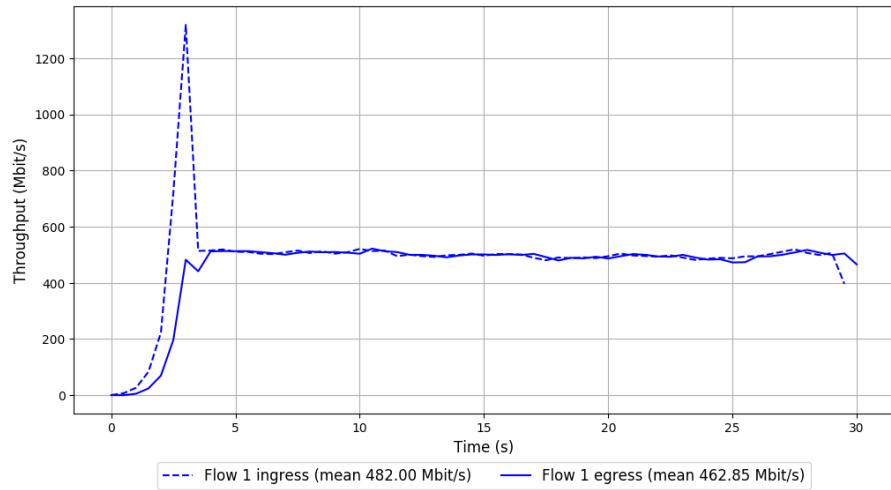


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-10-02 08:07:07
End at: 2018-10-02 08:07:37
Local clock offset: -2.871 ms
Remote clock offset: -36.716 ms

# Below is generated by plot.py at 2018-10-02 09:59:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 462.85 Mbit/s
95th percentile per-packet one-way delay: 73.116 ms
Loss rate: 3.98%
-- Flow 1:
Average throughput: 462.85 Mbit/s
95th percentile per-packet one-way delay: 73.116 ms
Loss rate: 3.98%
```

Run 2: Report of PCC-Allegro — Data Link

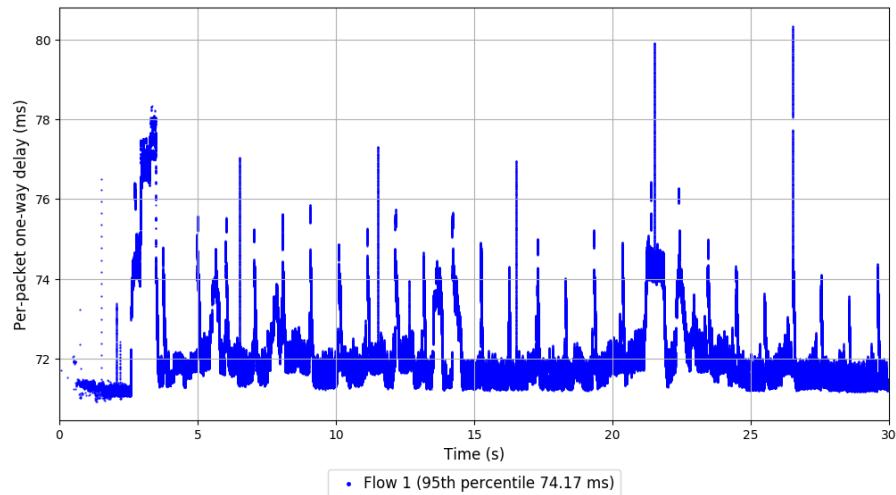
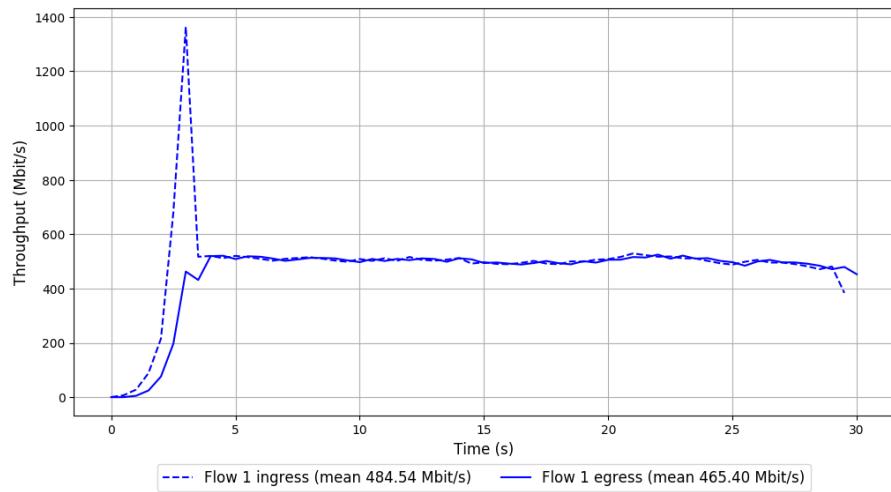


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-10-02 08:36:08
End at: 2018-10-02 08:36:38
Local clock offset: -0.533 ms
Remote clock offset: -34.953 ms

# Below is generated by plot.py at 2018-10-02 09:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.40 Mbit/s
95th percentile per-packet one-way delay: 74.170 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 465.40 Mbit/s
95th percentile per-packet one-way delay: 74.170 ms
Loss rate: 3.95%
```

Run 3: Report of PCC-Allegro — Data Link

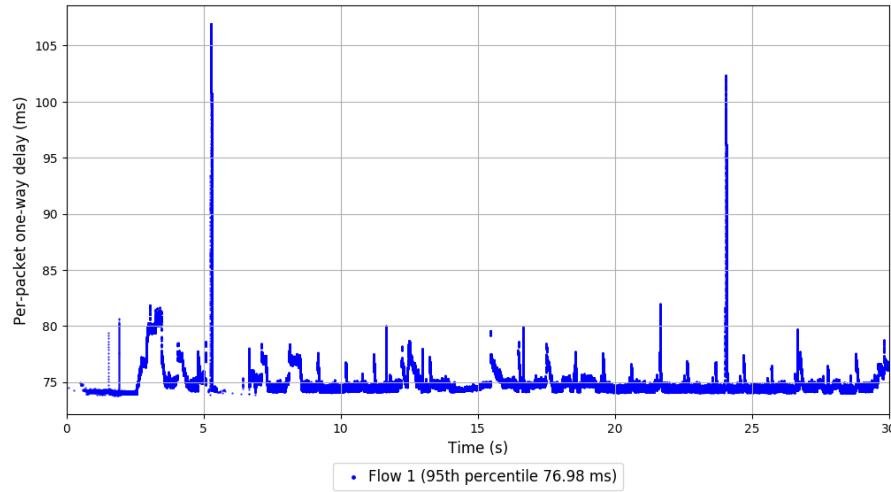
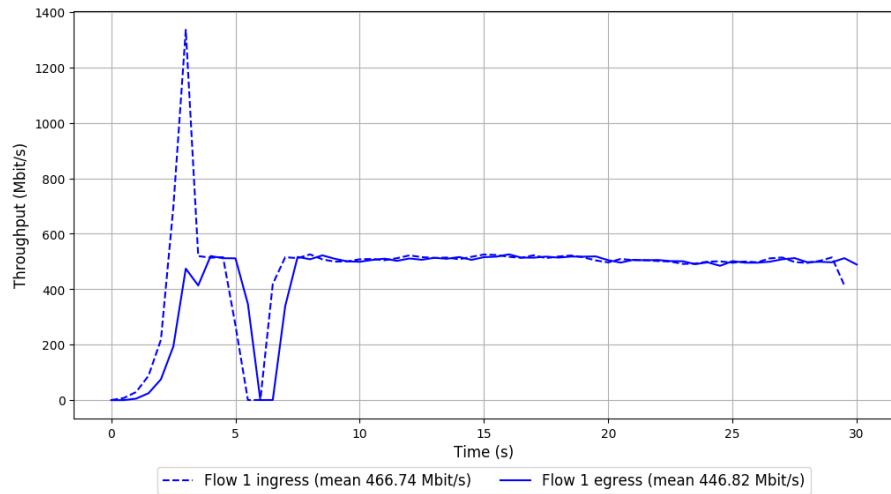


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-10-02 09:04:57
End at: 2018-10-02 09:05:27
Local clock offset: -3.406 ms
Remote clock offset: -34.365 ms

# Below is generated by plot.py at 2018-10-02 10:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 446.82 Mbit/s
95th percentile per-packet one-way delay: 76.979 ms
Loss rate: 4.26%
-- Flow 1:
Average throughput: 446.82 Mbit/s
95th percentile per-packet one-way delay: 76.979 ms
Loss rate: 4.26%
```

Run 4: Report of PCC-Allegro — Data Link

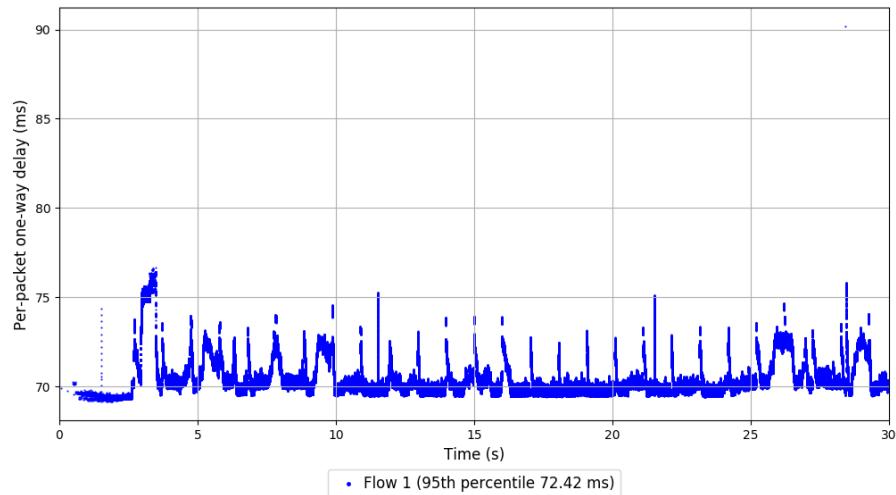
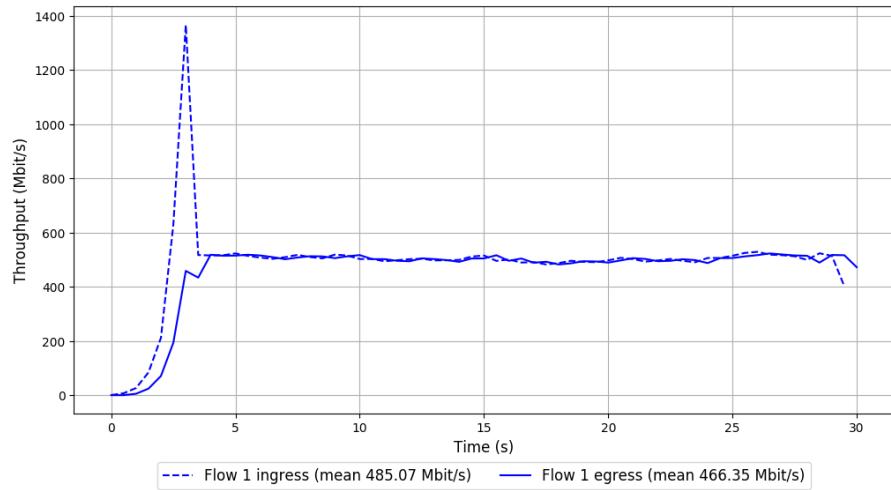


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-10-02 09:33:49
End at: 2018-10-02 09:34:19
Local clock offset: -1.618 ms
Remote clock offset: -36.602 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 466.35 Mbit/s
95th percentile per-packet one-way delay: 72.418 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 466.35 Mbit/s
95th percentile per-packet one-way delay: 72.418 ms
Loss rate: 3.86%
```

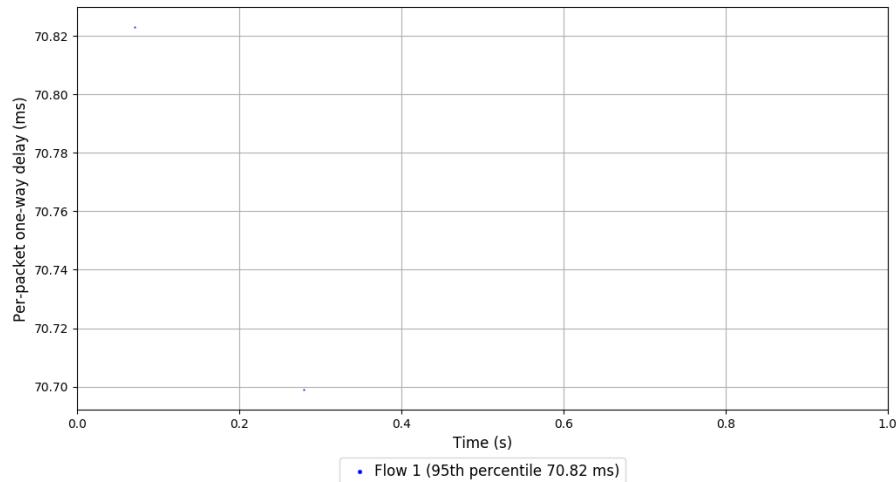
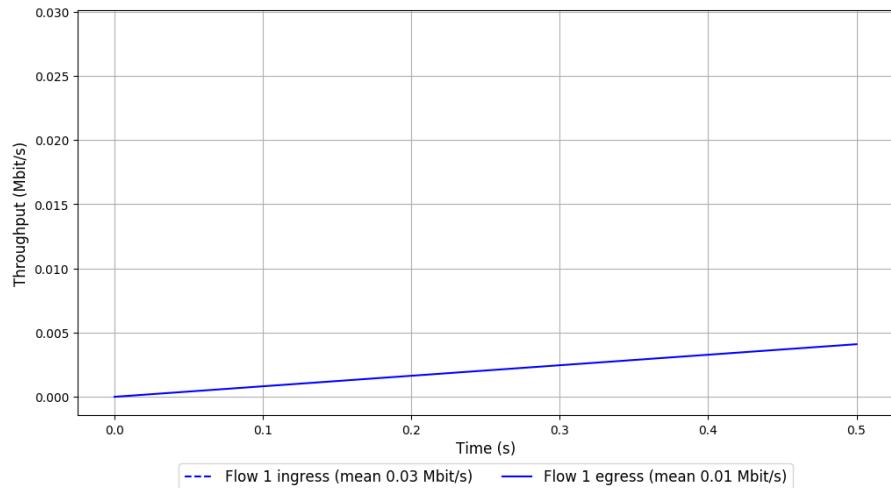
Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-10-02 07:20:35
End at: 2018-10-02 07:21:05
Local clock offset: -2.166 ms
Remote clock offset: -37.147 ms

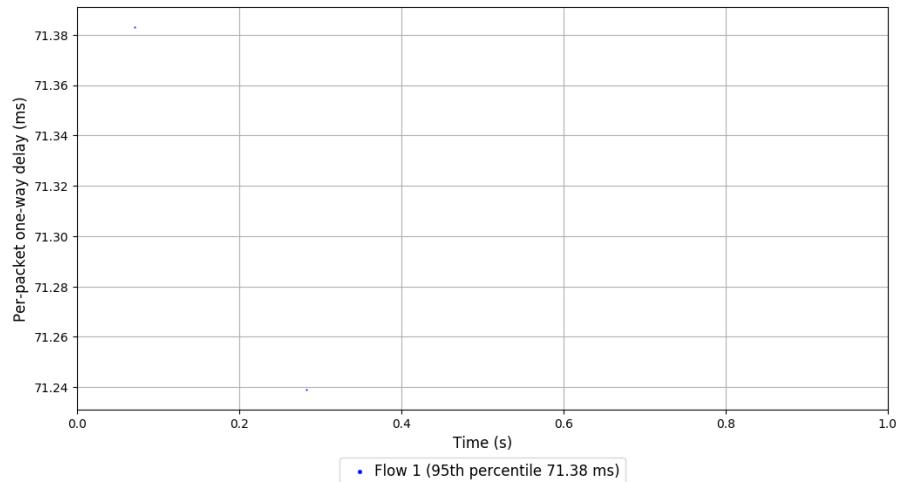
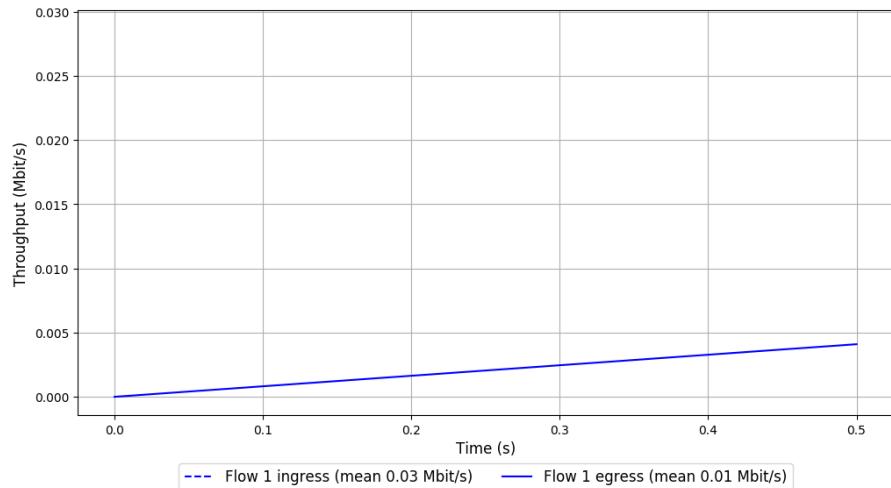
Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-10-02 08:01:03
End at: 2018-10-02 08:01:33
Local clock offset: -6.093 ms
Remote clock offset: -39.696 ms

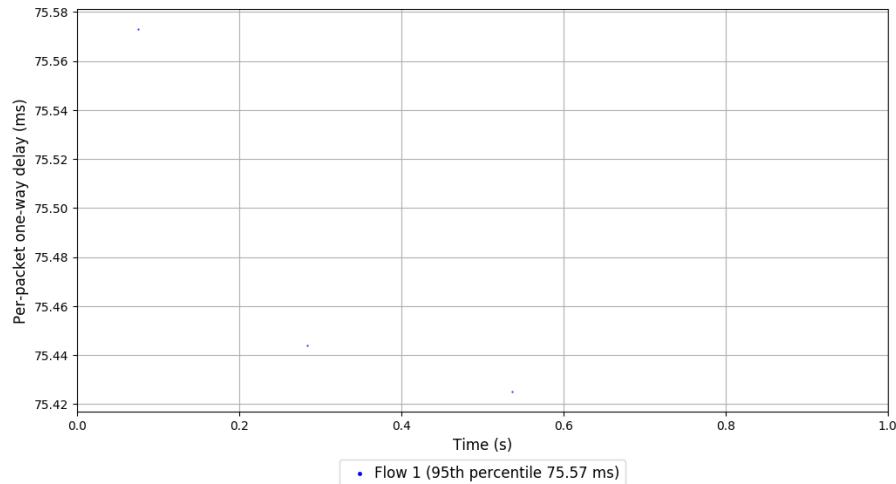
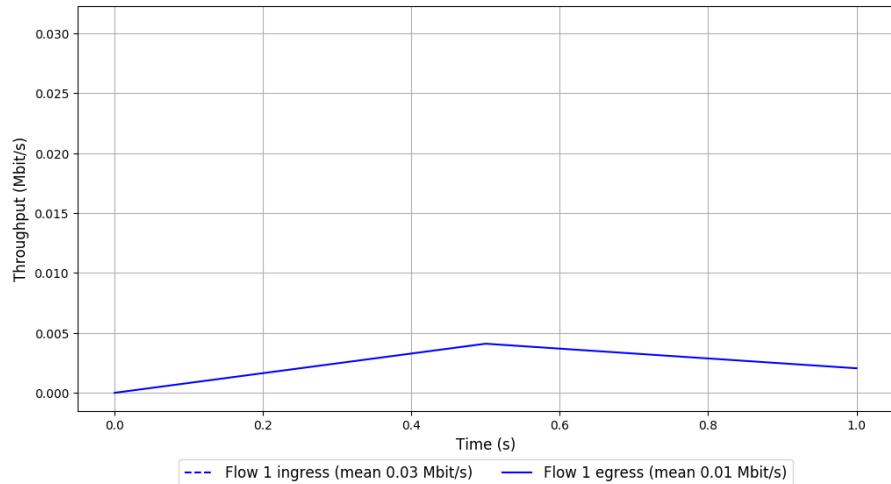
Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-10-02 08:24:23
End at: 2018-10-02 08:24:53
Local clock offset: -3.812 ms
Remote clock offset: -33.968 ms

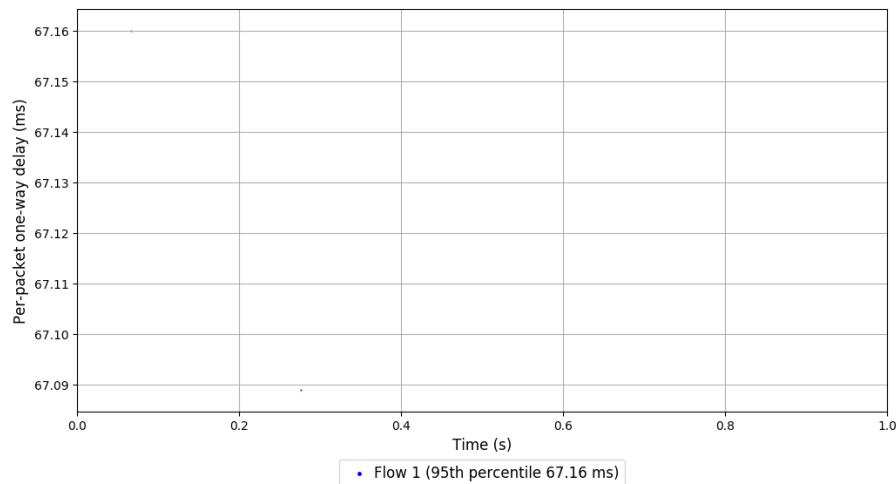
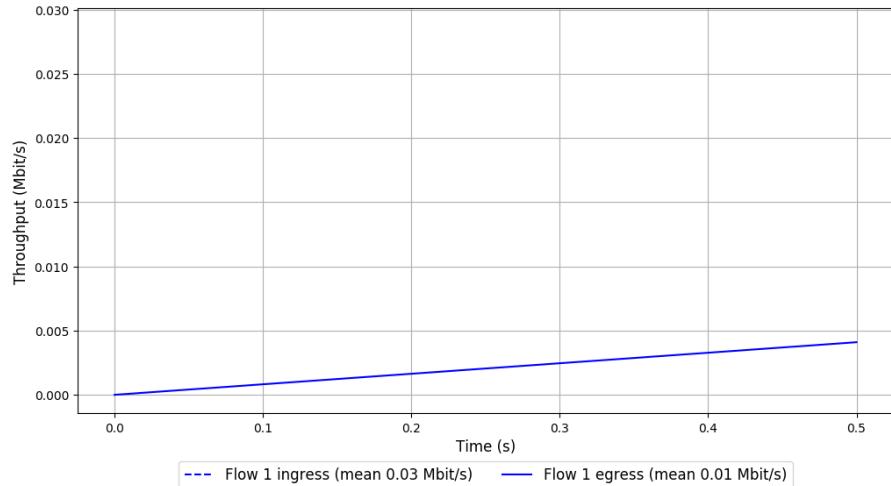
Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-10-02 08:59:00
End at: 2018-10-02 08:59:30
Local clock offset: -1.329 ms
Remote clock offset: -39.709 ms

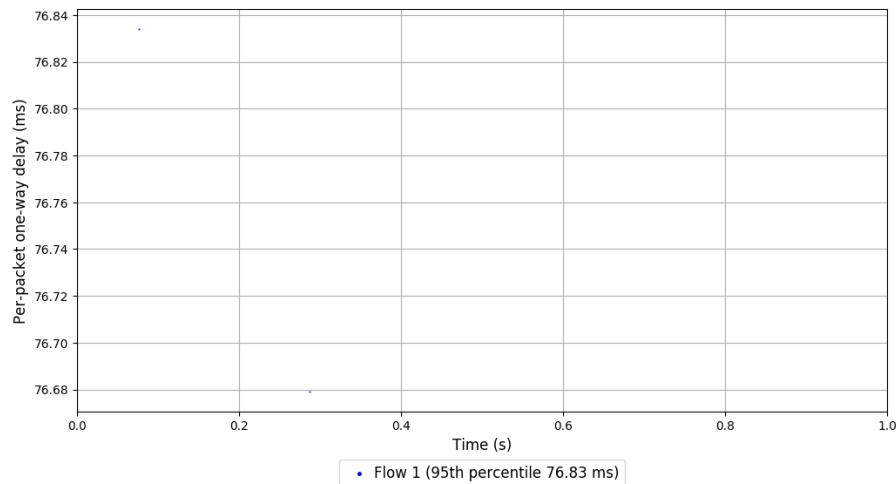
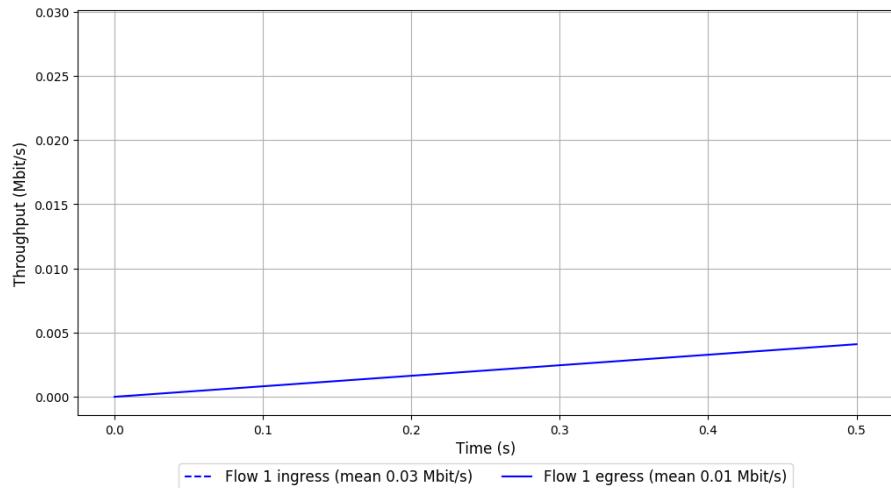
Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-10-02 09:27:52
End at: 2018-10-02 09:28:22
Local clock offset: -2.153 ms
Remote clock offset: -33.311 ms

Run 5: Report of PCC-Expr — Data Link

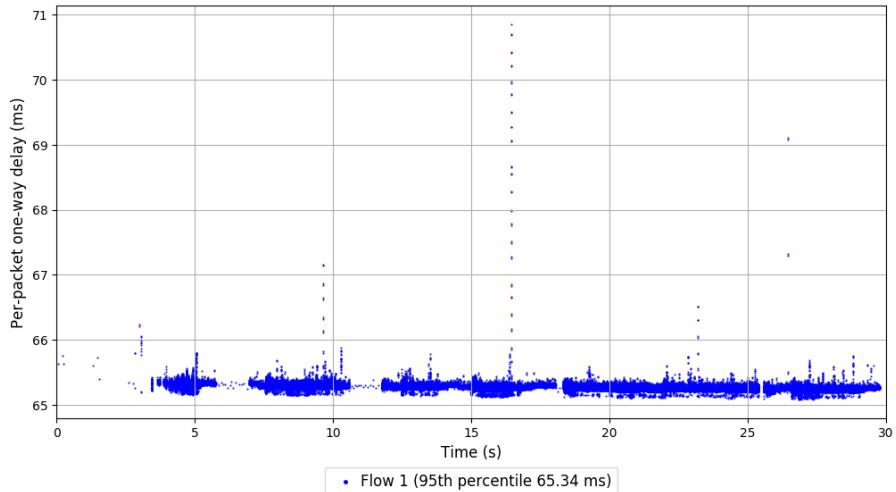
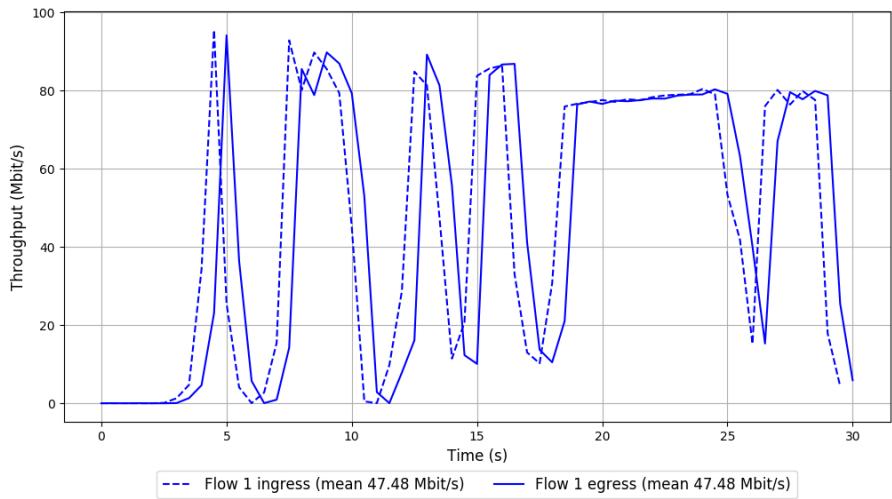


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-10-02 07:21:45
End at: 2018-10-02 07:22:15
Local clock offset: 0.282 ms
Remote clock offset: -39.829 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 65.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 65.342 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

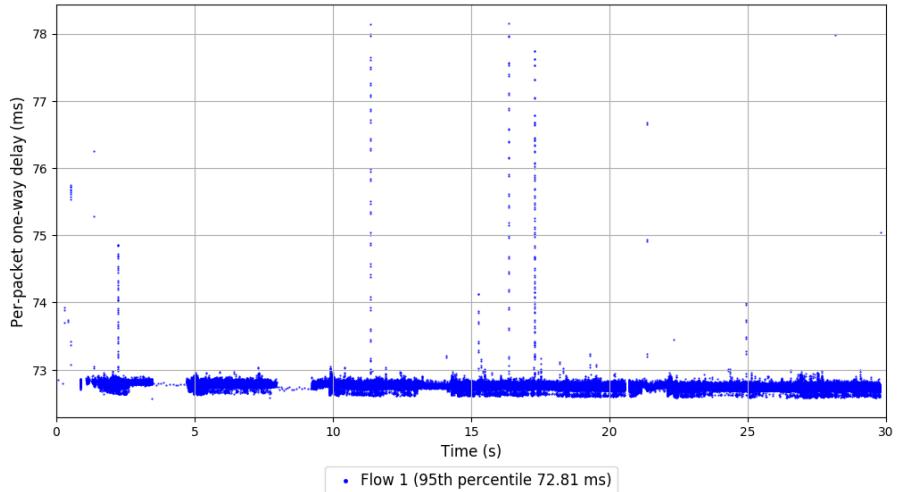
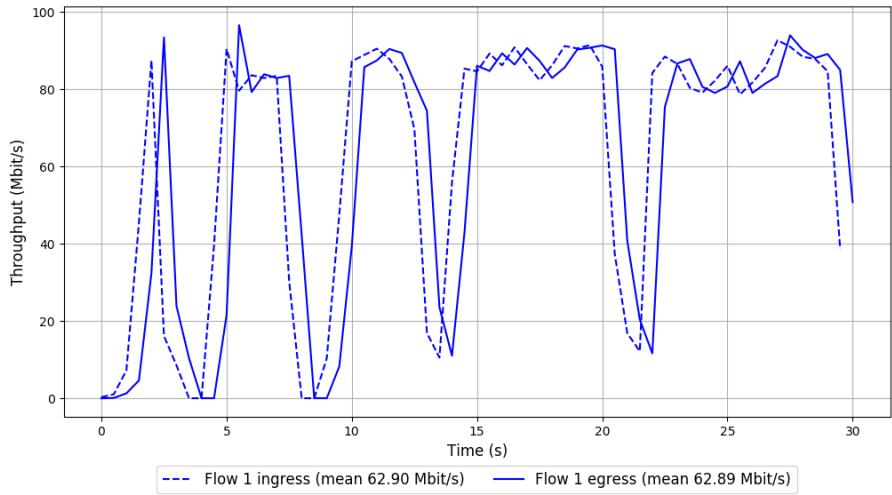


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-10-02 08:02:13
End at: 2018-10-02 08:02:43
Local clock offset: -5.652 ms
Remote clock offset: -35.127 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 72.815 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 62.89 Mbit/s
95th percentile per-packet one-way delay: 72.815 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

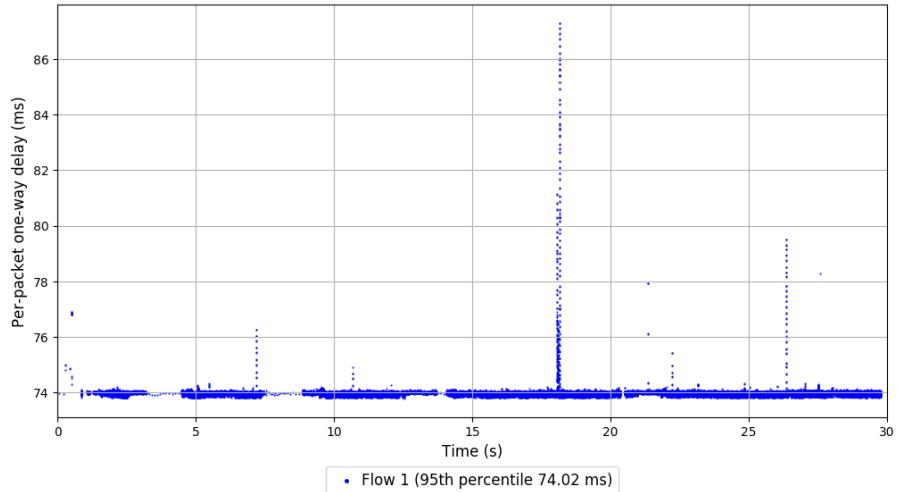
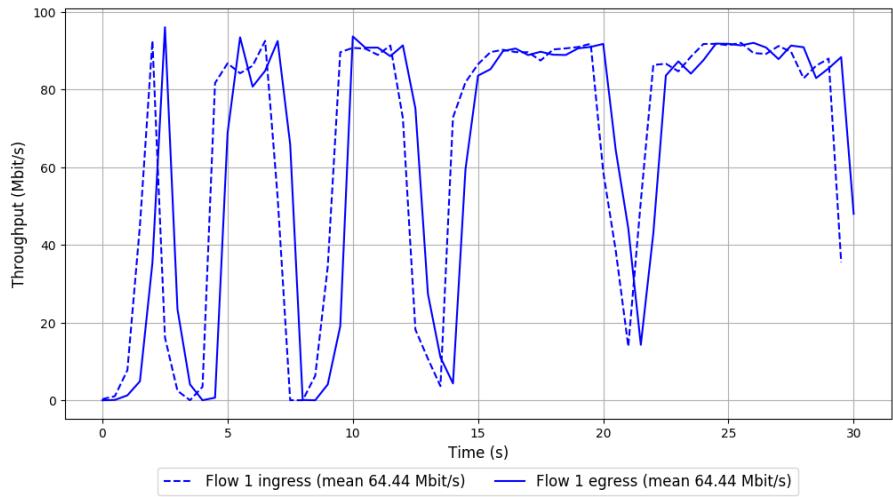


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-10-02 08:31:13
End at: 2018-10-02 08:31:43
Local clock offset: -1.702 ms
Remote clock offset: -33.327 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 74.018 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.44 Mbit/s
95th percentile per-packet one-way delay: 74.018 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

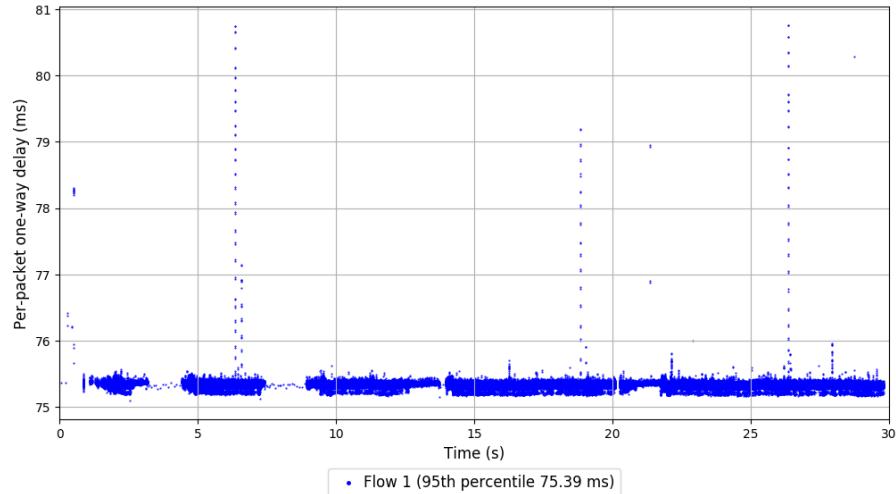
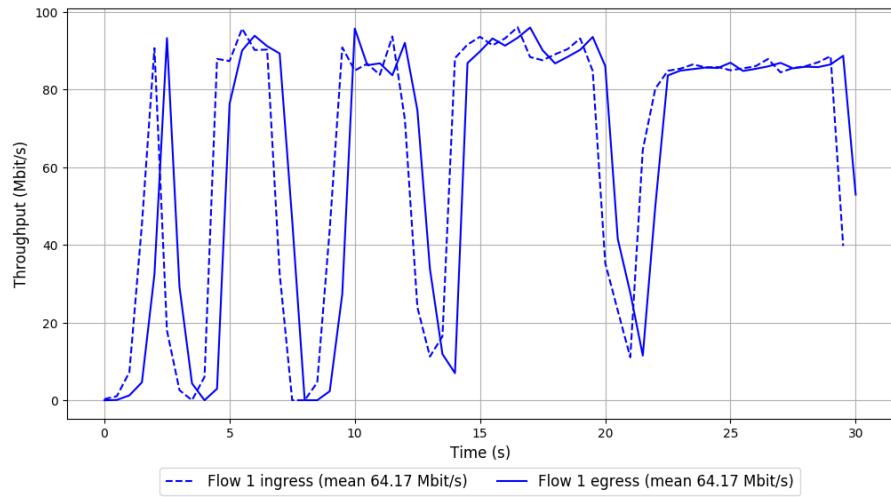


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-10-02 09:00:10
End at: 2018-10-02 09:00:40
Local clock offset: -4.445 ms
Remote clock offset: -34.405 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.17 Mbit/s
95th percentile per-packet one-way delay: 75.385 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 64.17 Mbit/s
95th percentile per-packet one-way delay: 75.385 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

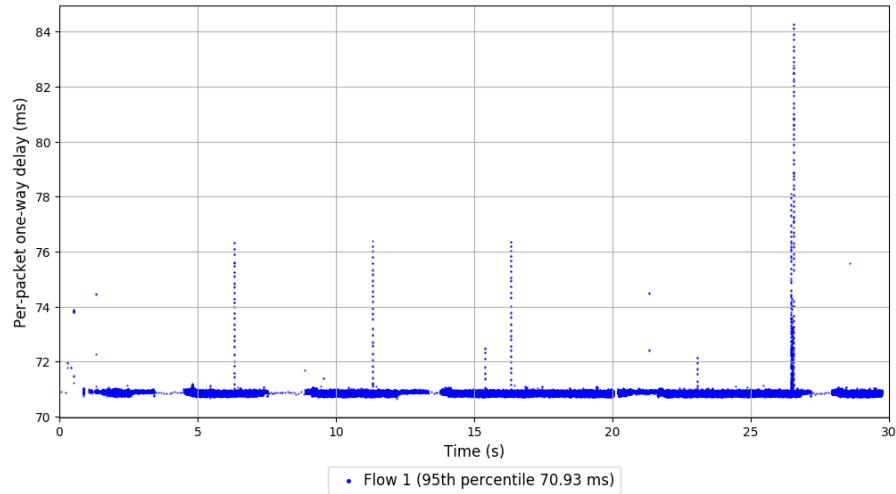
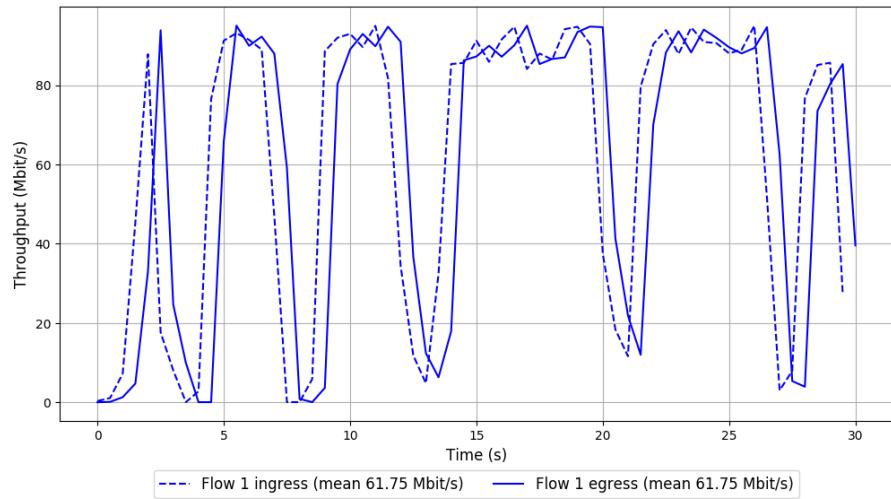


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-10-02 09:29:02
End at: 2018-10-02 09:29:32
Local clock offset: -6.391 ms
Remote clock offset: -40.01 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 70.932 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 61.75 Mbit/s
95th percentile per-packet one-way delay: 70.932 ms
Loss rate: 0.01%
```

Run 5: Report of QUIC Cubic — Data Link

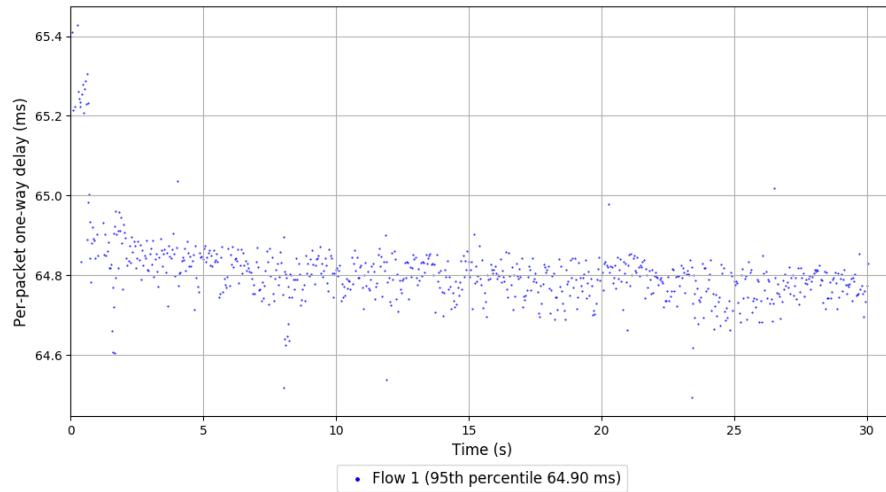
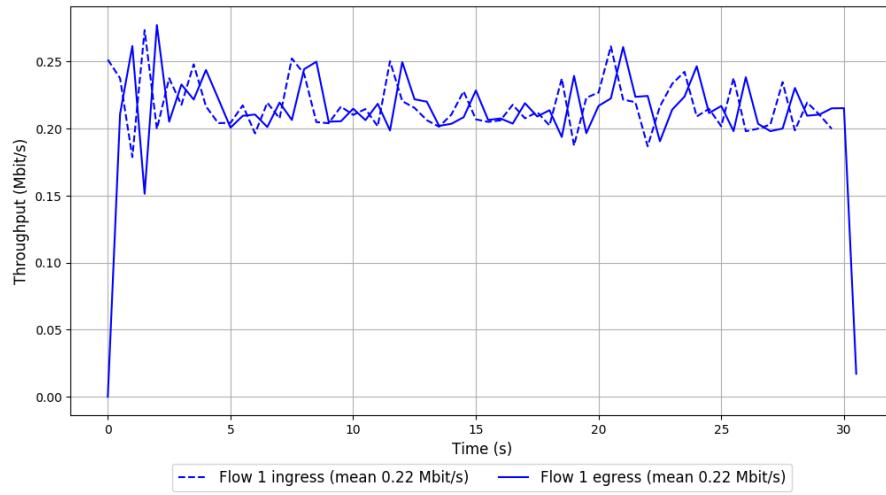


Run 1: Statistics of SCReAM

```
Start at: 2018-10-02 07:24:10
End at: 2018-10-02 07:24:40
Local clock offset: 0.125 ms
Remote clock offset: -40.388 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.900 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.900 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

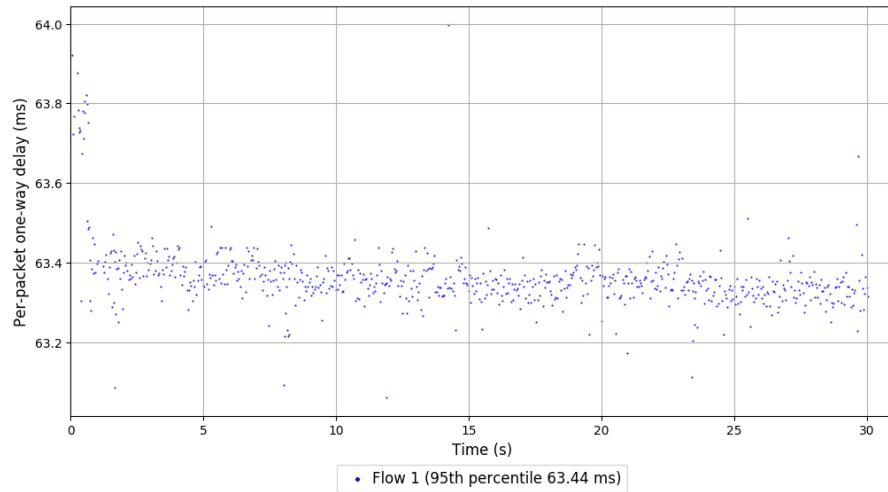
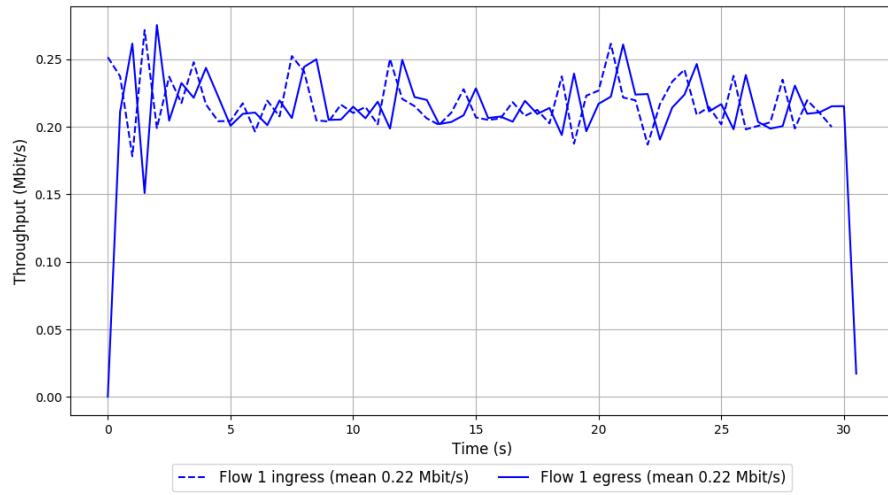


Run 2: Statistics of SCReAM

```
Start at: 2018-10-02 08:04:47
End at: 2018-10-02 08:05:17
Local clock offset: -2.645 ms
Remote clock offset: -41.17 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.443 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

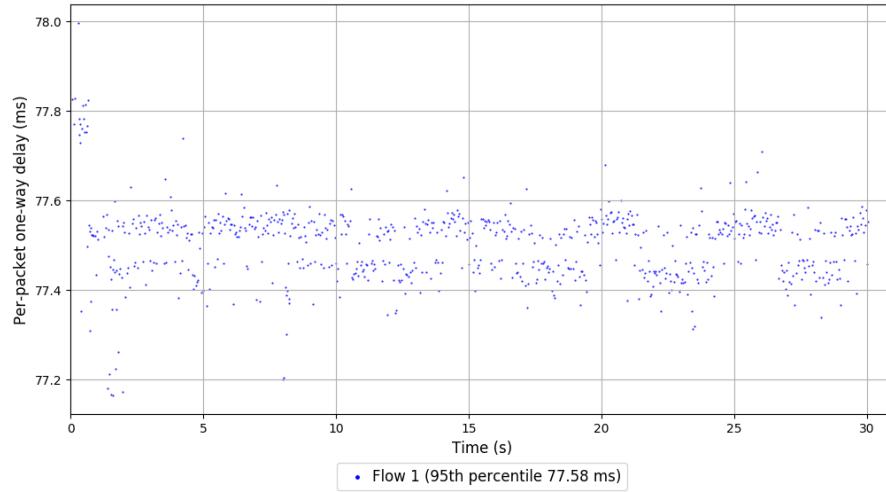
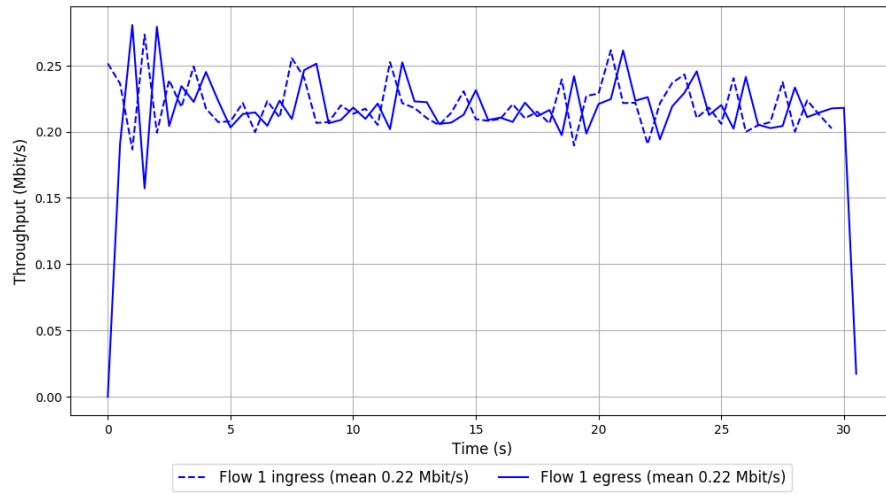


Run 3: Statistics of SCReAM

```
Start at: 2018-10-02 08:33:47
End at: 2018-10-02 08:34:17
Local clock offset: -6.052 ms
Remote clock offset: -36.723 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.585 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.585 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

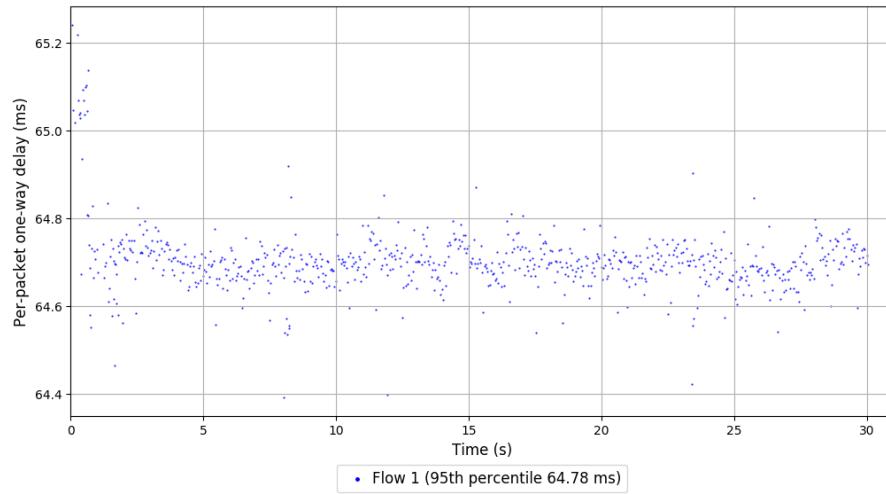
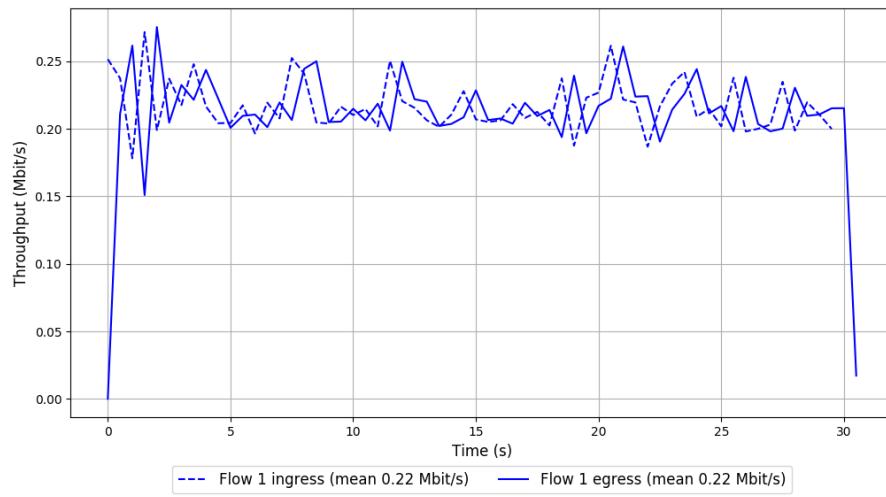


Run 4: Statistics of SCReAM

```
Start at: 2018-10-02 09:02:37
End at: 2018-10-02 09:03:07
Local clock offset: 0.507 ms
Remote clock offset: -39.632 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.784 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 64.784 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

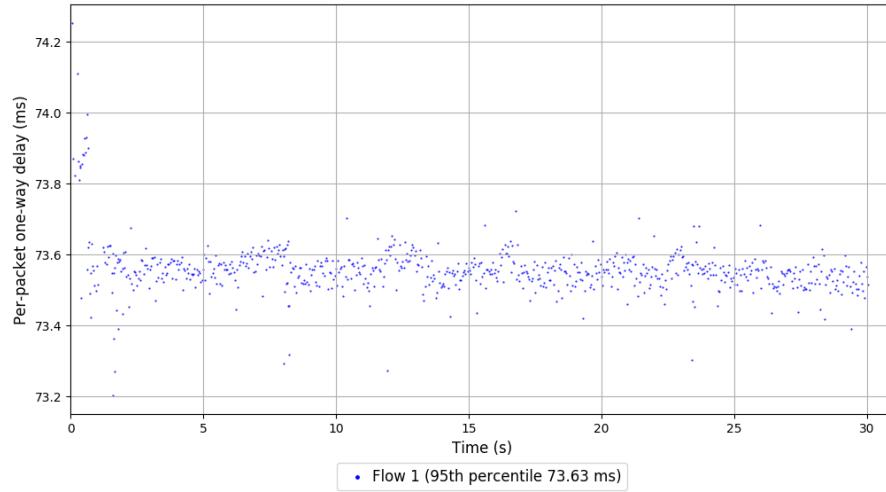
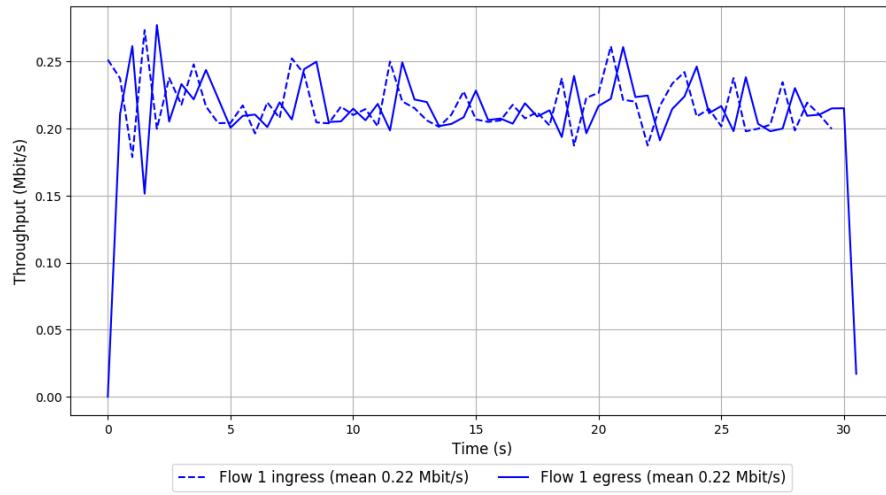


Run 5: Statistics of SCReAM

```
Start at: 2018-10-02 09:31:28
End at: 2018-10-02 09:31:58
Local clock offset: -5.976 ms
Remote clock offset: -36.846 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 73.628 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 73.628 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

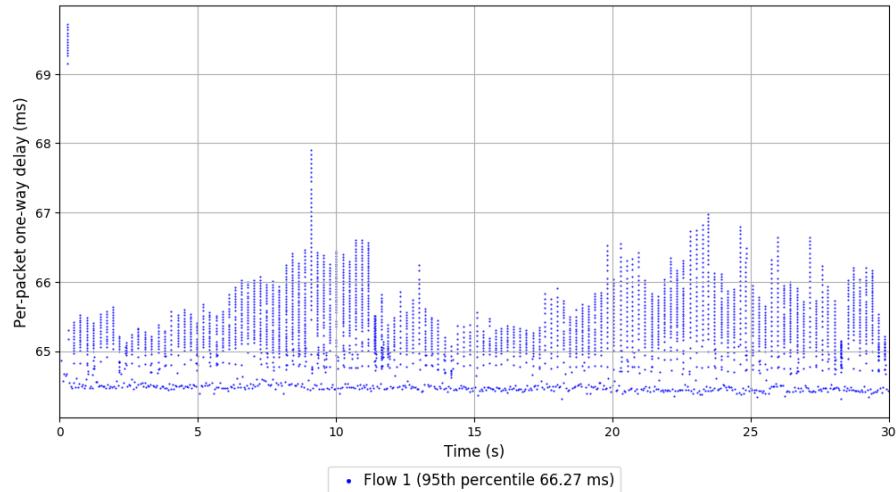
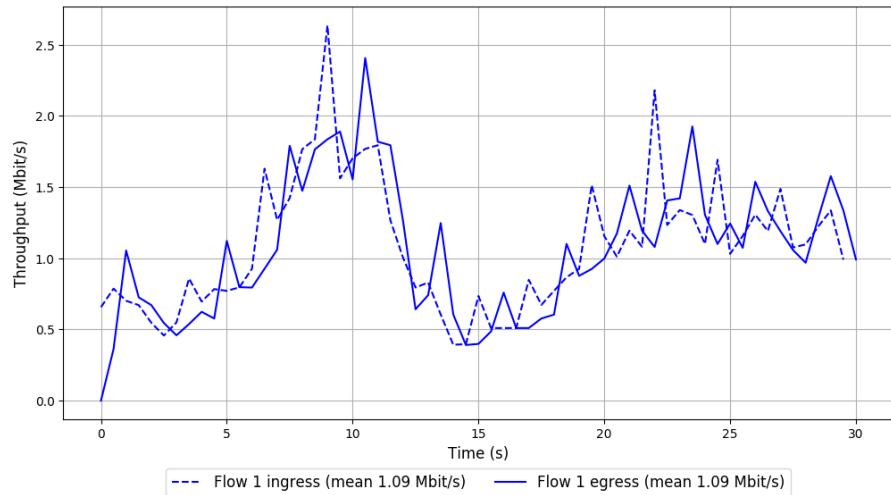


Run 1: Statistics of Sprout

```
Start at: 2018-10-02 07:25:20
End at: 2018-10-02 07:25:50
Local clock offset: -0.145 ms
Remote clock offset: -40.608 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 66.272 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 66.272 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

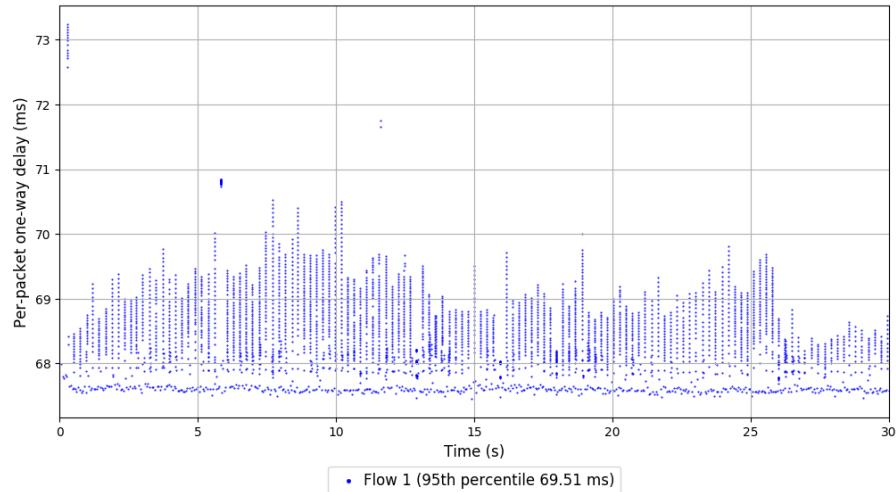
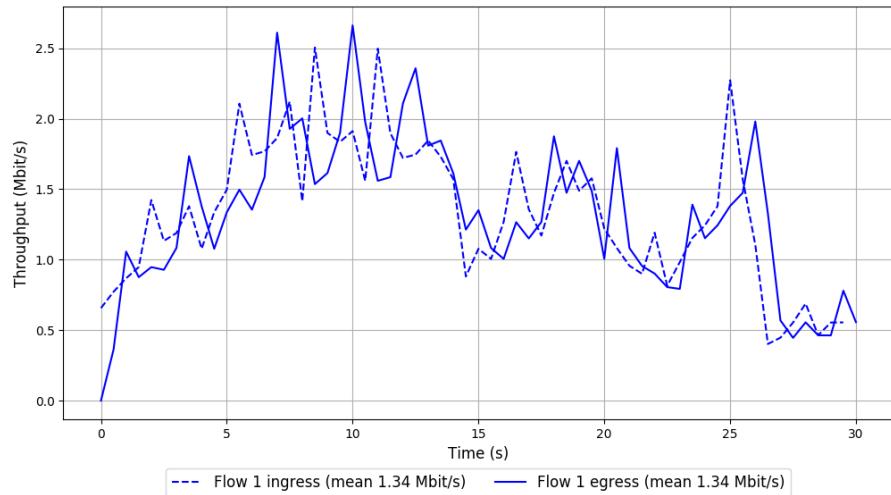


Run 2: Statistics of Sprout

```
Start at: 2018-10-02 08:05:57
End at: 2018-10-02 08:06:27
Local clock offset: -5.5 ms
Remote clock offset: -39.74 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 69.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 69.513 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

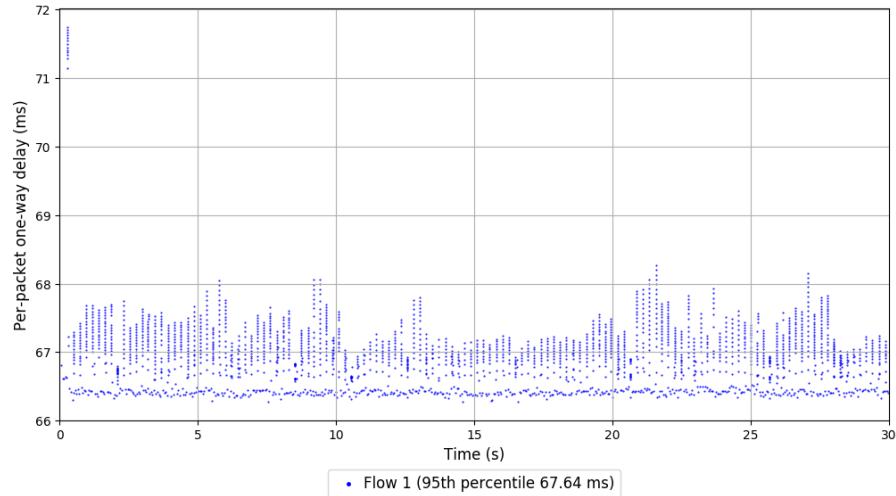
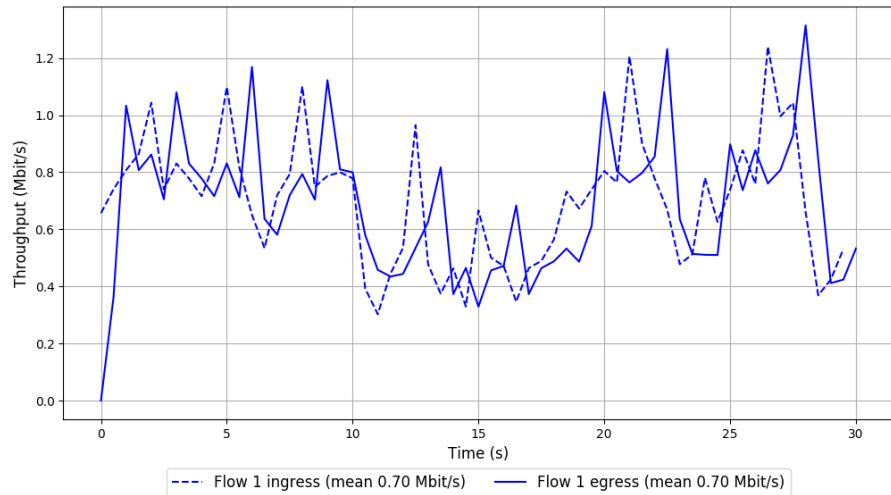


Run 3: Statistics of Sprout

```
Start at: 2018-10-02 08:34:57
End at: 2018-10-02 08:35:27
Local clock offset: -0.92 ms
Remote clock offset: -40.04 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 67.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 67.636 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

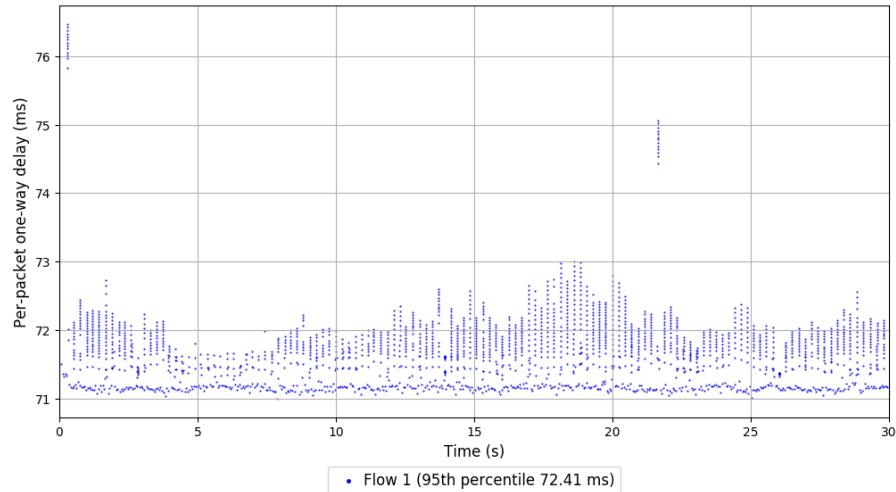
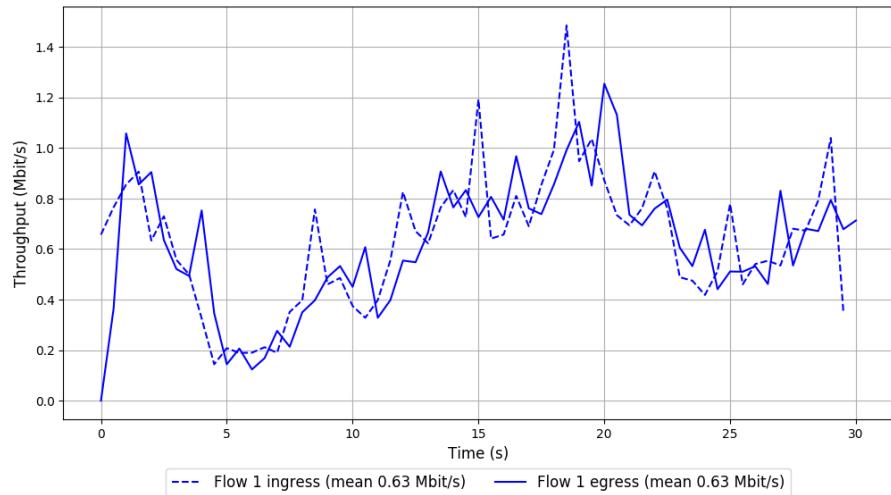


Run 4: Statistics of Sprout

```
Start at: 2018-10-02 09:03:47
End at: 2018-10-02 09:04:17
Local clock offset: -5.501 ms
Remote clock offset: -42.072 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 72.405 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 72.405 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

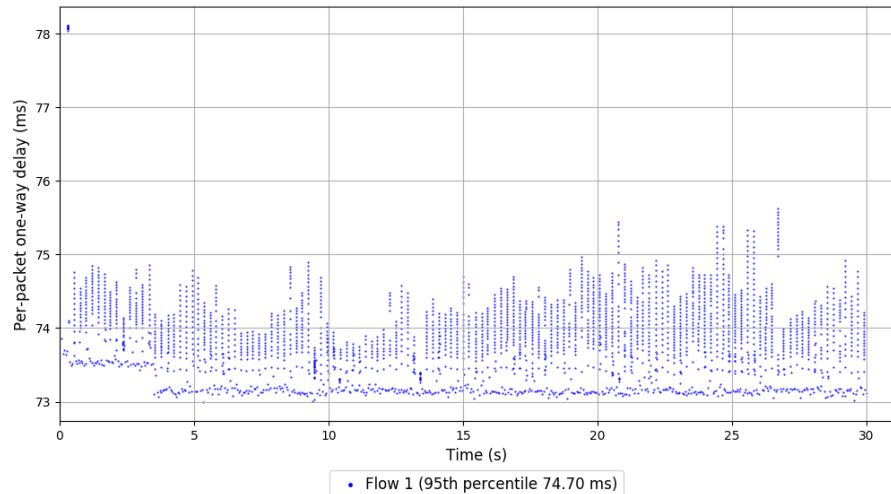
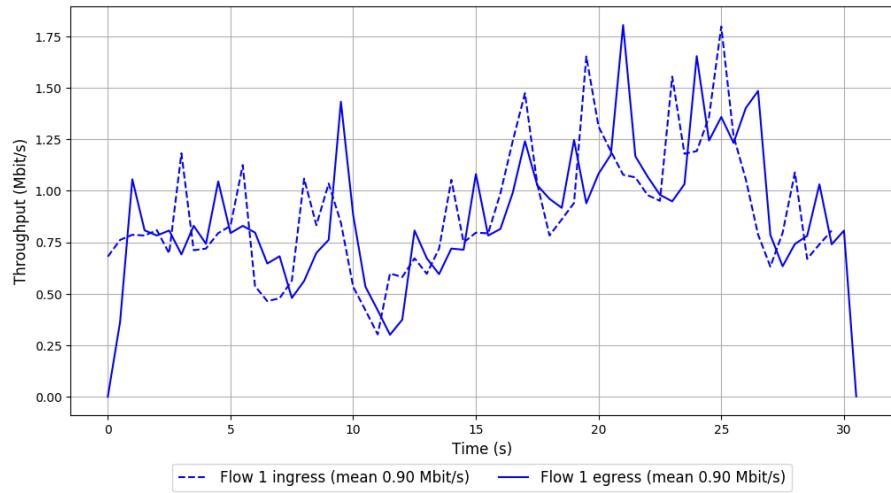


Run 5: Statistics of Sprout

```
Start at: 2018-10-02 09:32:39
End at: 2018-10-02 09:33:09
Local clock offset: -3.553 ms
Remote clock offset: -34.605 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 74.701 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 74.701 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

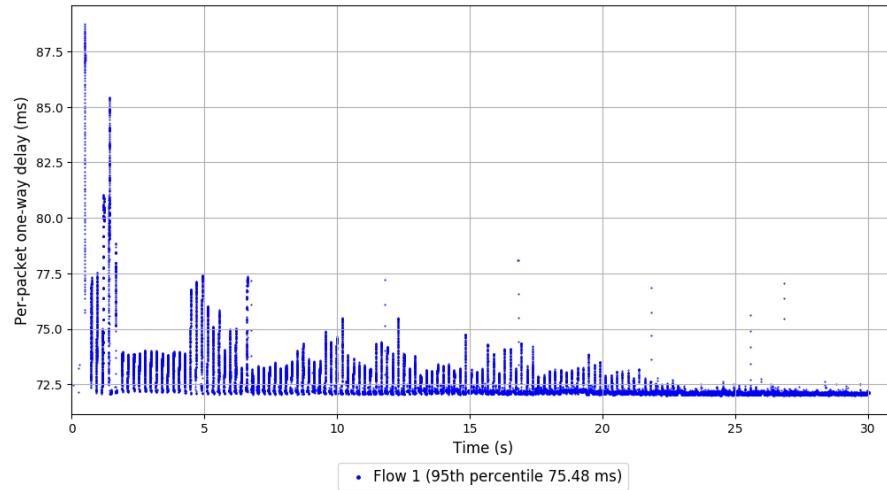
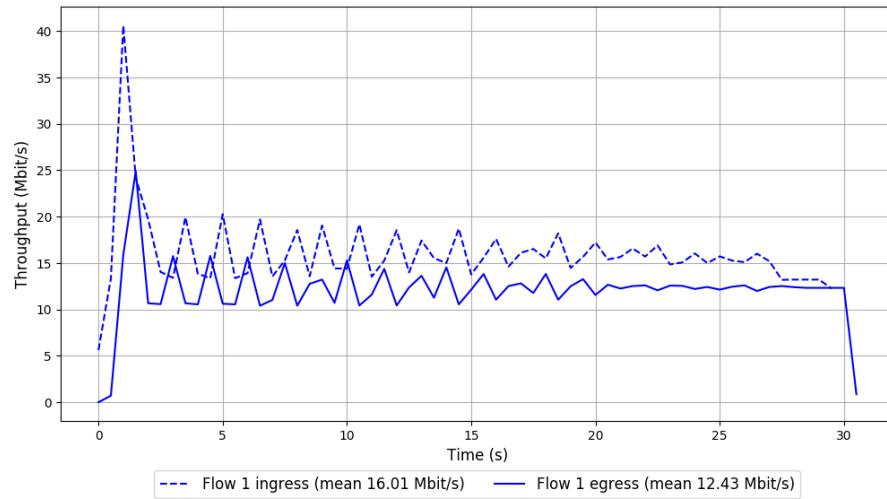


Run 1: Statistics of TaoVA-100x

```
Start at: 2018-10-02 07:22:58
End at: 2018-10-02 07:23:28
Local clock offset: -1.733 ms
Remote clock offset: -35.229 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 75.478 ms
Loss rate: 22.40%
-- Flow 1:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 75.478 ms
Loss rate: 22.40%
```

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

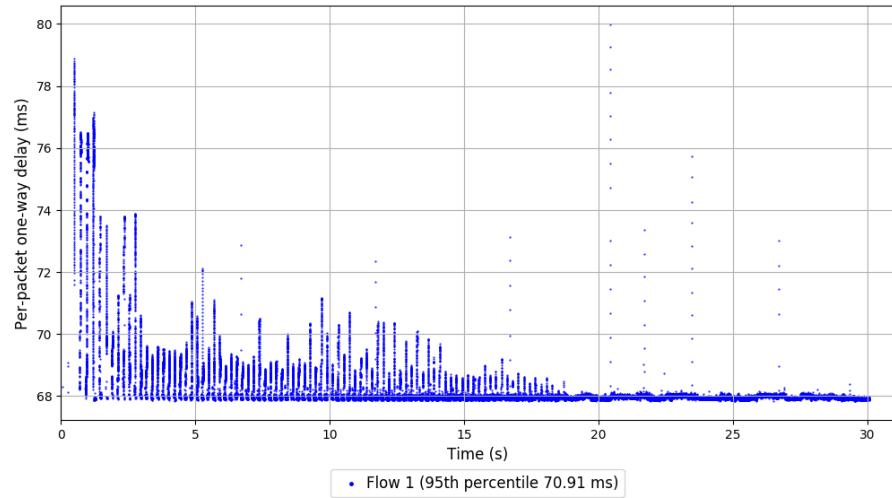
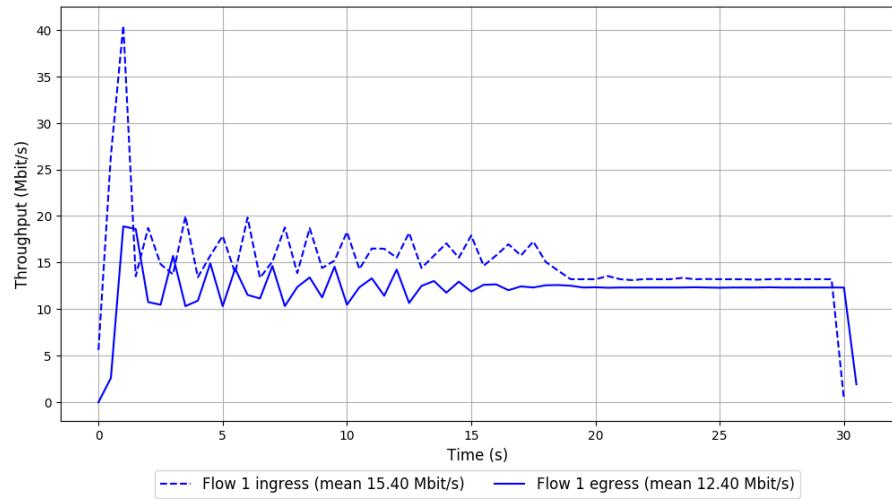


Run 2: Statistics of TaoVA-100x

```
Start at: 2018-10-02 08:03:34
End at: 2018-10-02 08:04:04
Local clock offset: -5.018 ms
Remote clock offset: -39.26 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 70.905 ms
Loss rate: 19.47%
-- Flow 1:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 70.905 ms
Loss rate: 19.47%
```

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

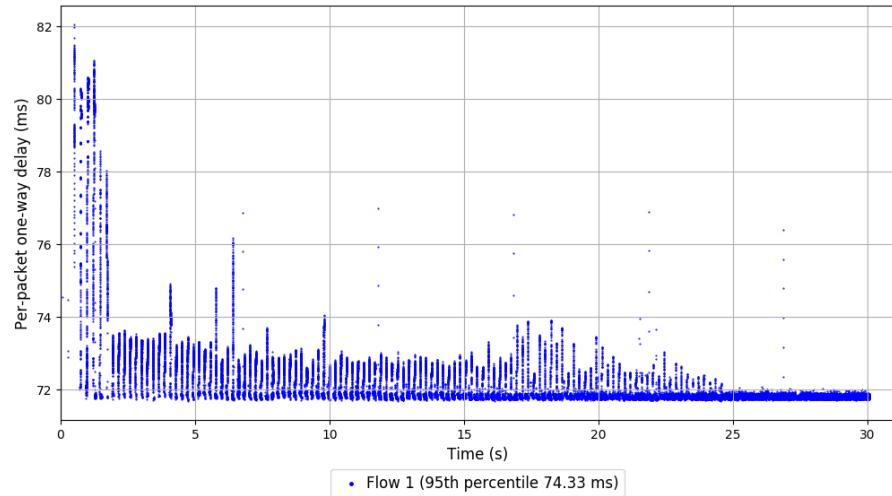
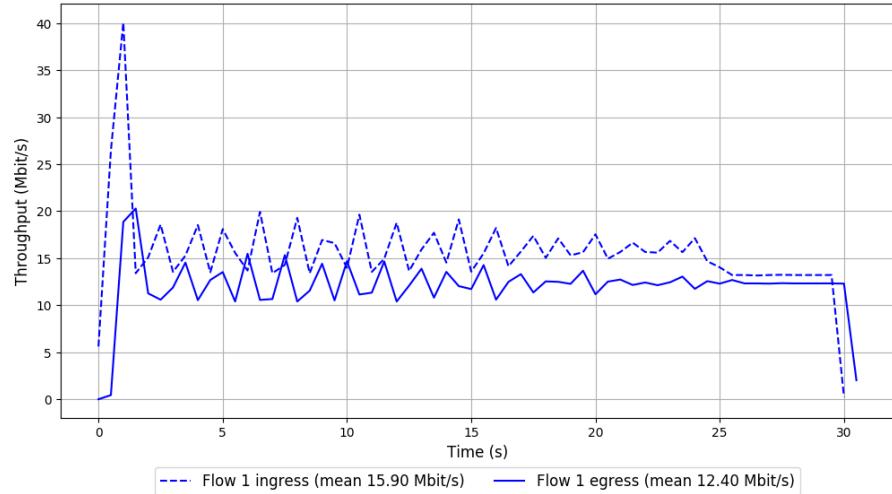


Run 3: Statistics of TaoVA-100x

```
Start at: 2018-10-02 08:32:35
End at: 2018-10-02 08:33:05
Local clock offset: -1.149 ms
Remote clock offset: -35.01 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 74.335 ms
Loss rate: 22.04%
-- Flow 1:
Average throughput: 12.40 Mbit/s
95th percentile per-packet one-way delay: 74.335 ms
Loss rate: 22.04%
```

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

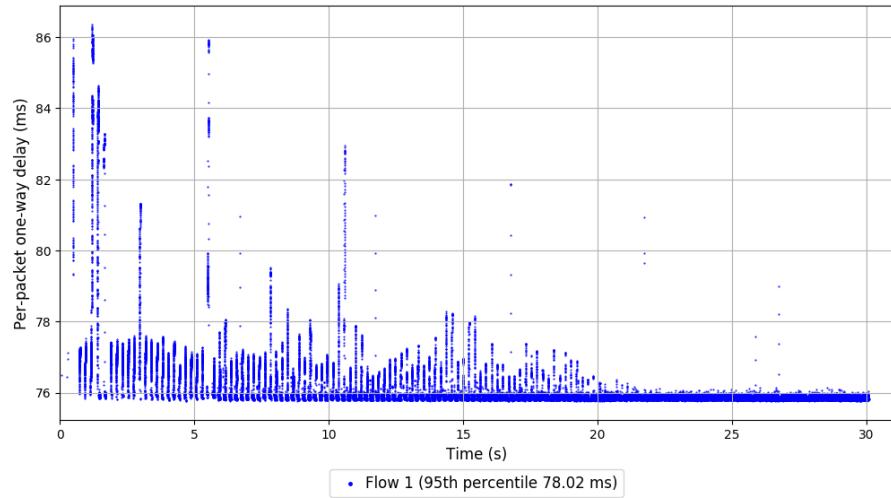
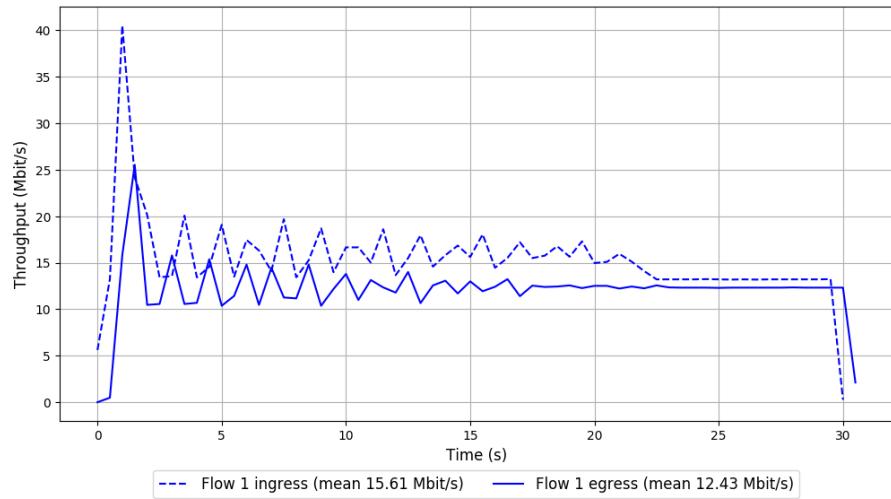


Run 4: Statistics of TaoVA-100x

```
Start at: 2018-10-02 09:01:24
End at: 2018-10-02 09:01:54
Local clock offset: -5.474 ms
Remote clock offset: -34.658 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 78.016 ms
Loss rate: 20.35%
-- Flow 1:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 78.016 ms
Loss rate: 20.35%
```

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

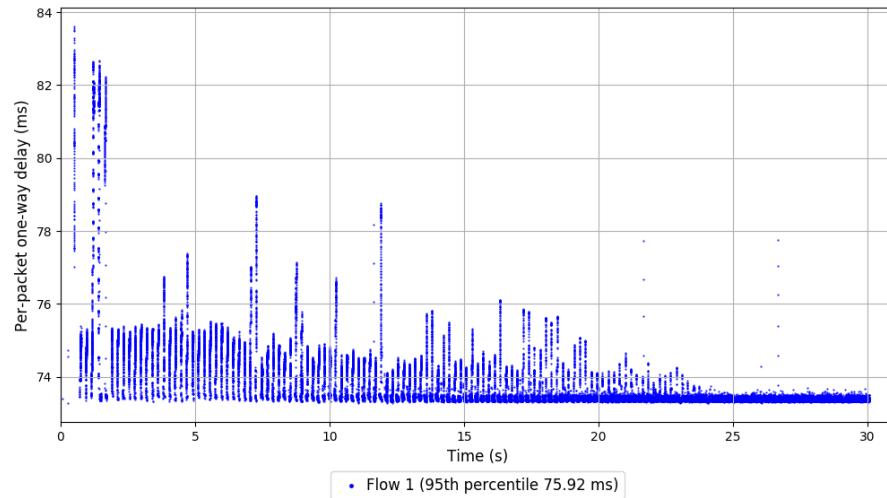
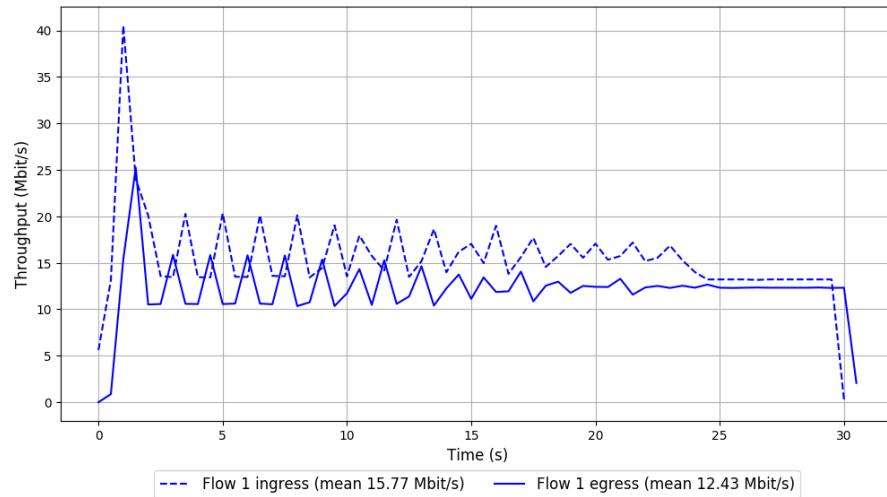


Run 5: Statistics of TaoVA-100x

```
Start at: 2018-10-02 09:30:16
End at: 2018-10-02 09:30:46
Local clock offset: -2.435 ms
Remote clock offset: -33.962 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 75.919 ms
Loss rate: 21.18%
-- Flow 1:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 75.919 ms
Loss rate: 21.18%
```

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

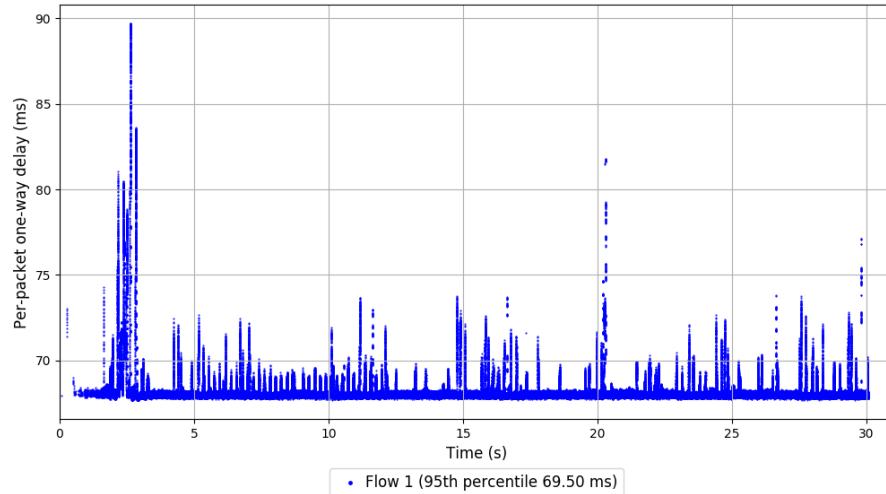
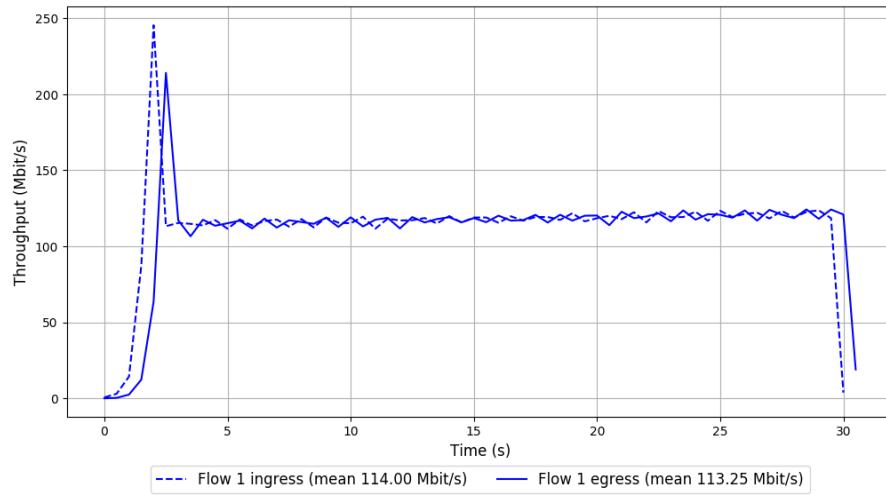


Run 1: Statistics of TCP Vegas

```
Start at: 2018-10-02 07:15:14
End at: 2018-10-02 07:15:44
Local clock offset: -1.14 ms
Remote clock offset: -40.2 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 113.25 Mbit/s
95th percentile per-packet one-way delay: 69.498 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 113.25 Mbit/s
95th percentile per-packet one-way delay: 69.498 ms
Loss rate: 0.66%
```

Run 1: Report of TCP Vegas — Data Link

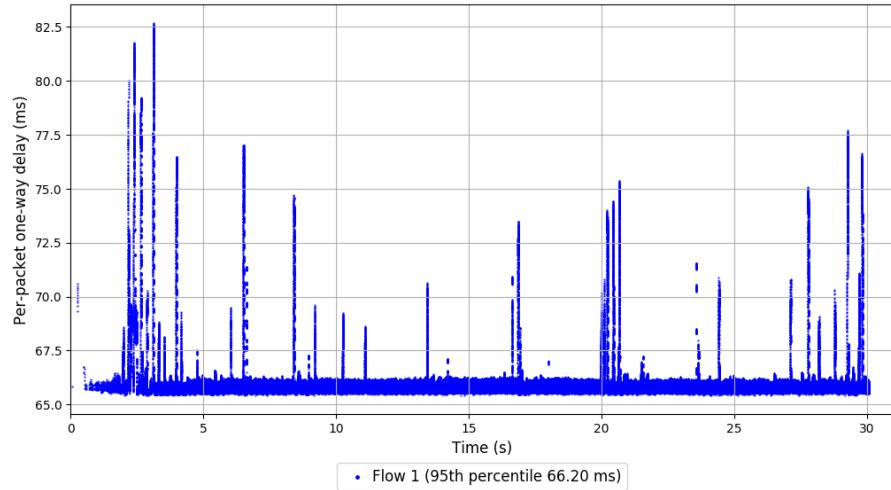
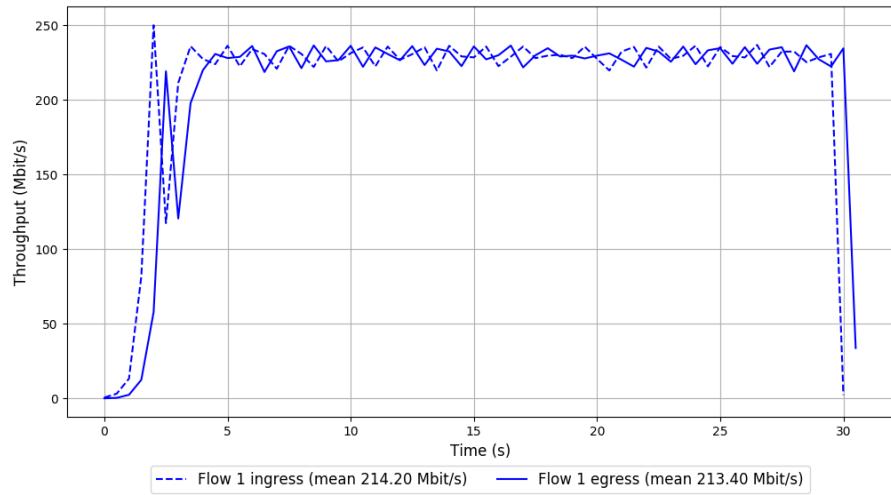


Run 2: Statistics of TCP Vegas

```
Start at: 2018-10-02 07:44:07
End at: 2018-10-02 07:44:37
Local clock offset: -2.018 ms
Remote clock offset: -39.711 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.40 Mbit/s
95th percentile per-packet one-way delay: 66.201 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 213.40 Mbit/s
95th percentile per-packet one-way delay: 66.201 ms
Loss rate: 0.37%
```

Run 2: Report of TCP Vegas — Data Link

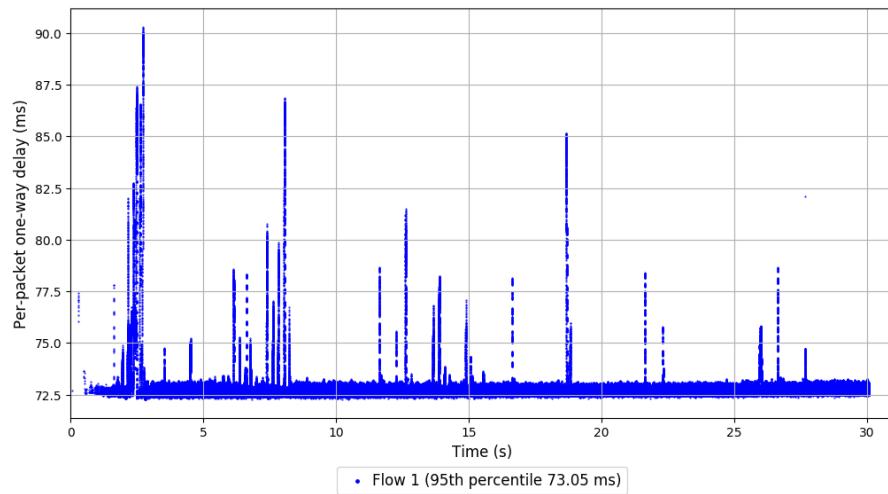
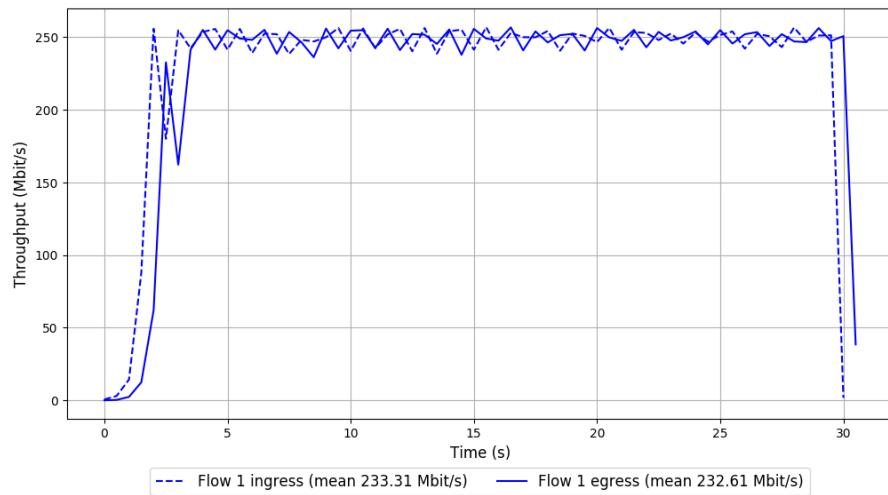


Run 3: Statistics of TCP Vegas

```
Start at: 2018-10-02 08:18:54
End at: 2018-10-02 08:19:24
Local clock offset: -4.34 ms
Remote clock offset: -36.548 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.61 Mbit/s
95th percentile per-packet one-way delay: 73.052 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 232.61 Mbit/s
95th percentile per-packet one-way delay: 73.052 ms
Loss rate: 0.30%
```

Run 3: Report of TCP Vegas — Data Link

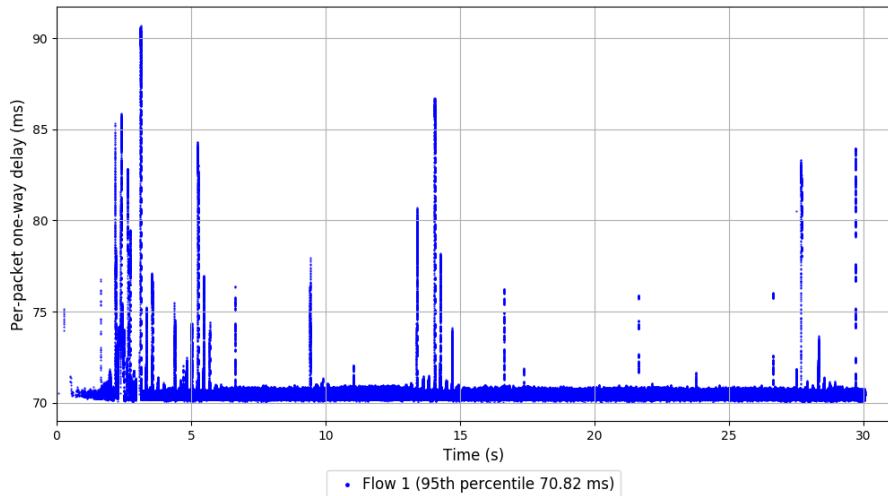
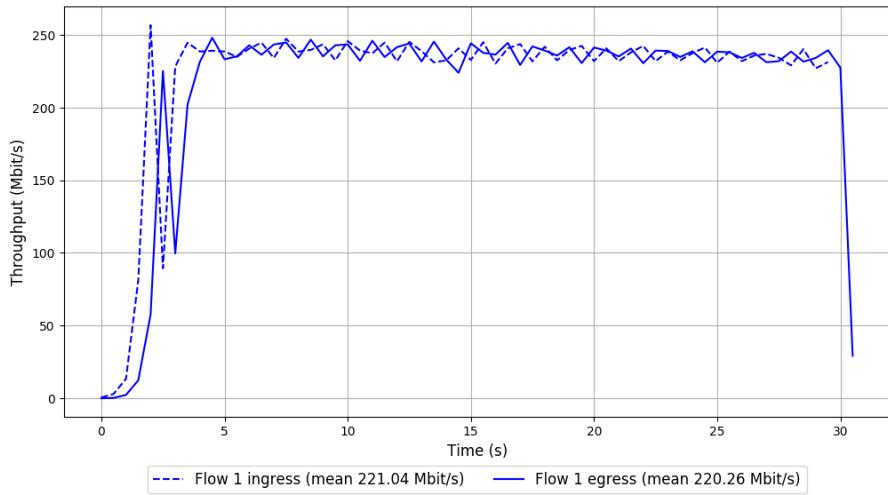


Run 4: Statistics of TCP Vegas

```
Start at: 2018-10-02 08:47:50
End at: 2018-10-02 08:48:20
Local clock offset: 0.602 ms
Remote clock offset: -34.561 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.26 Mbit/s
95th percentile per-packet one-way delay: 70.818 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 220.26 Mbit/s
95th percentile per-packet one-way delay: 70.818 ms
Loss rate: 0.35%
```

Run 4: Report of TCP Vegas — Data Link

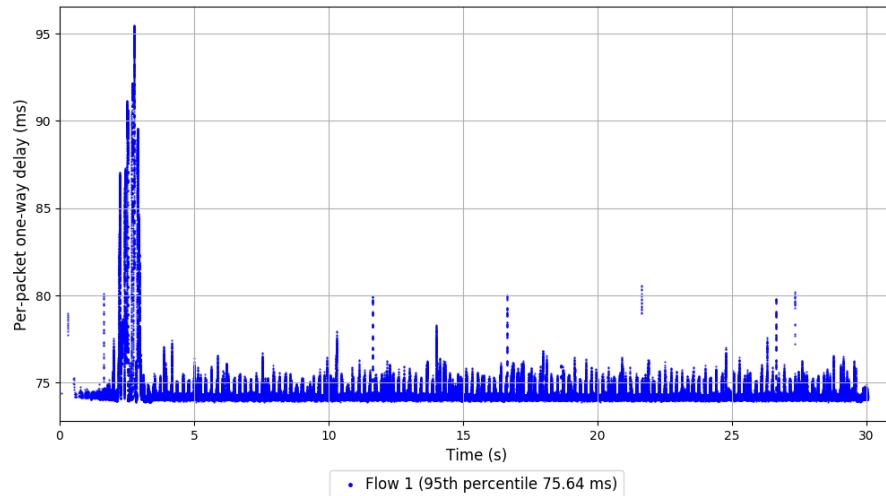
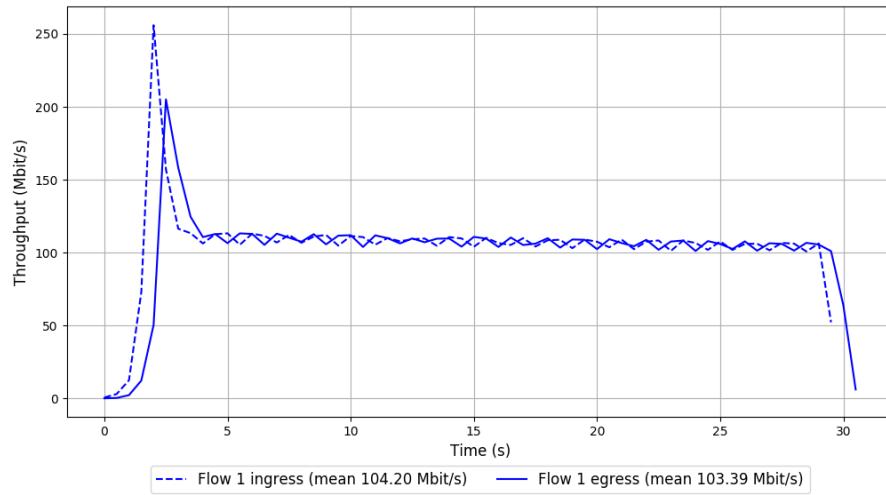


Run 5: Statistics of TCP Vegas

```
Start at: 2018-10-02 09:22:31
End at: 2018-10-02 09:23:01
Local clock offset: -6.206 ms
Remote clock offset: -39.307 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 103.39 Mbit/s
95th percentile per-packet one-way delay: 75.635 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 103.39 Mbit/s
95th percentile per-packet one-way delay: 75.635 ms
Loss rate: 0.78%
```

Run 5: Report of TCP Vegas — Data Link

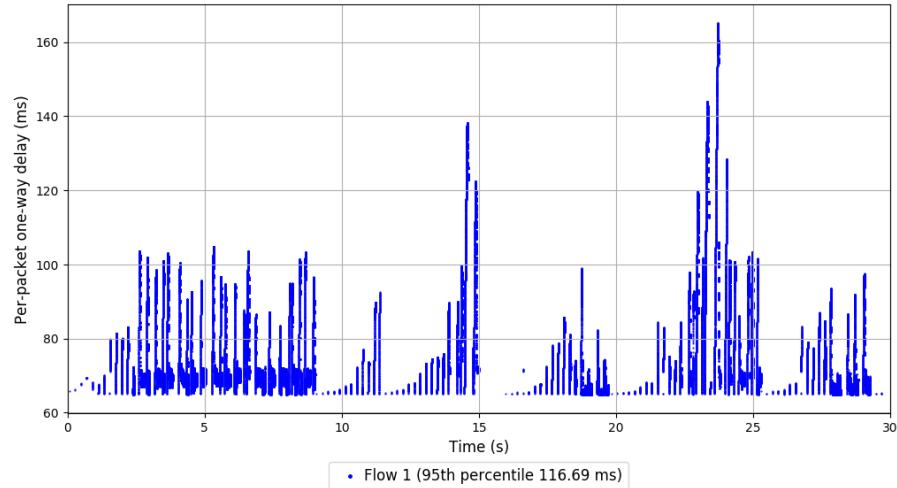
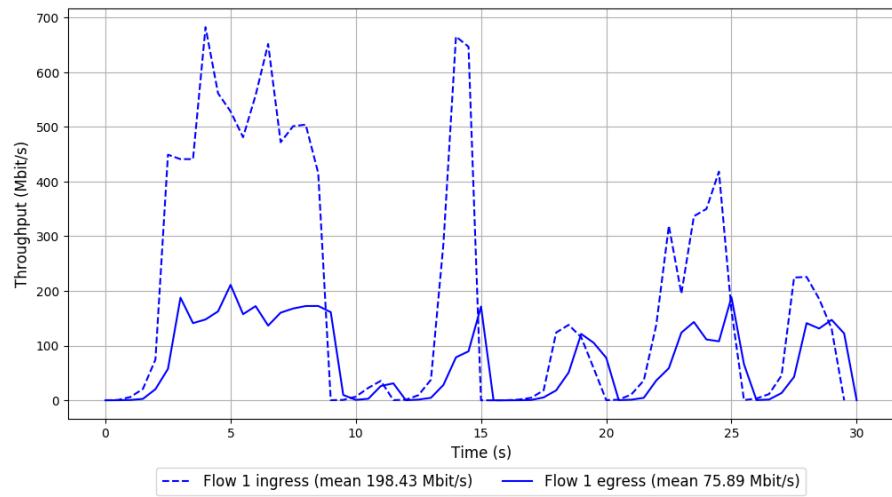


Run 1: Statistics of Verus

```
Start at: 2018-10-02 07:29:09
End at: 2018-10-02 07:29:39
Local clock offset: -0.698 ms
Remote clock offset: -40.309 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 116.691 ms
Loss rate: 61.75%
-- Flow 1:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 116.691 ms
Loss rate: 61.75%
```

Run 1: Report of Verus — Data Link

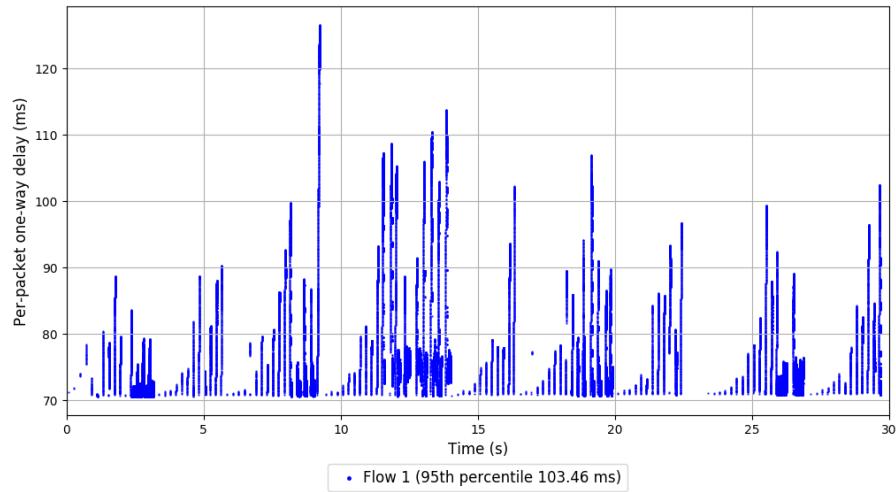
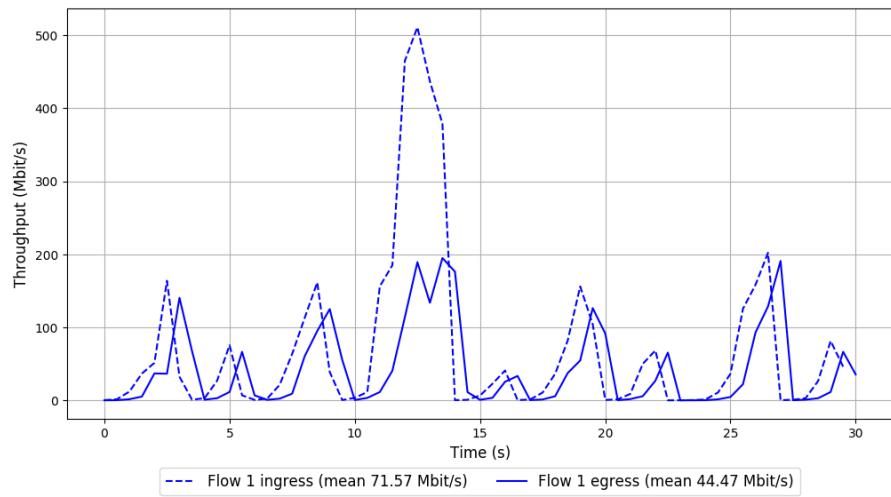


Run 2: Statistics of Verus

```
Start at: 2018-10-02 08:09:45
End at: 2018-10-02 08:10:15
Local clock offset: -5.562 ms
Remote clock offset: -36.366 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 103.458 ms
Loss rate: 37.86%
-- Flow 1:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 103.458 ms
Loss rate: 37.86%
```

Run 2: Report of Verus — Data Link

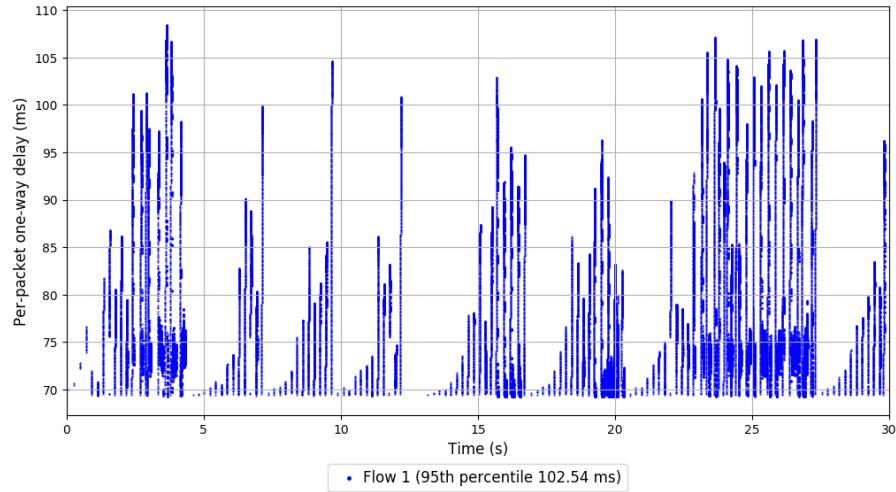
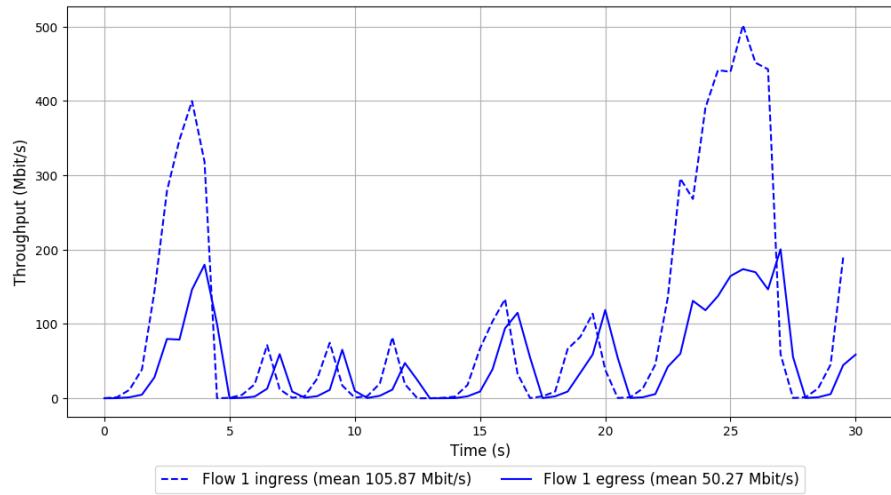


Run 3: Statistics of Verus

```
Start at: 2018-10-02 08:38:45
End at: 2018-10-02 08:39:15
Local clock offset: -1.015 ms
Remote clock offset: -37.346 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 102.536 ms
Loss rate: 52.51%
-- Flow 1:
Average throughput: 50.27 Mbit/s
95th percentile per-packet one-way delay: 102.536 ms
Loss rate: 52.51%
```

Run 3: Report of Verus — Data Link

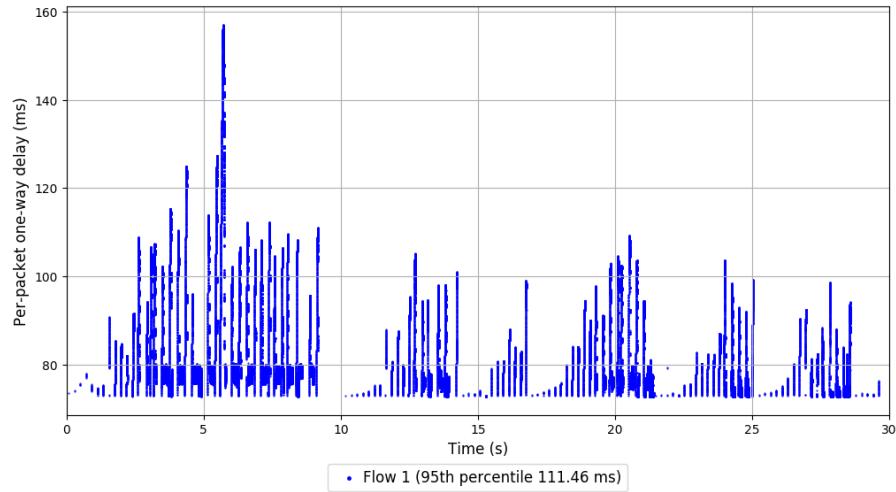
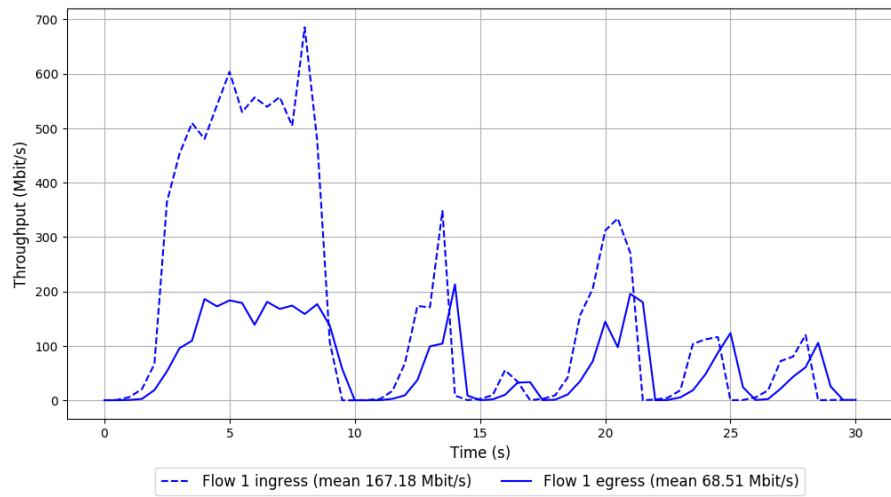


Run 4: Statistics of Verus

```
Start at: 2018-10-02 09:07:34
End at: 2018-10-02 09:08:04
Local clock offset: -2.346 ms
Remote clock offset: -34.453 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.51 Mbit/s
95th percentile per-packet one-way delay: 111.456 ms
Loss rate: 59.02%
-- Flow 1:
Average throughput: 68.51 Mbit/s
95th percentile per-packet one-way delay: 111.456 ms
Loss rate: 59.02%
```

Run 4: Report of Verus — Data Link

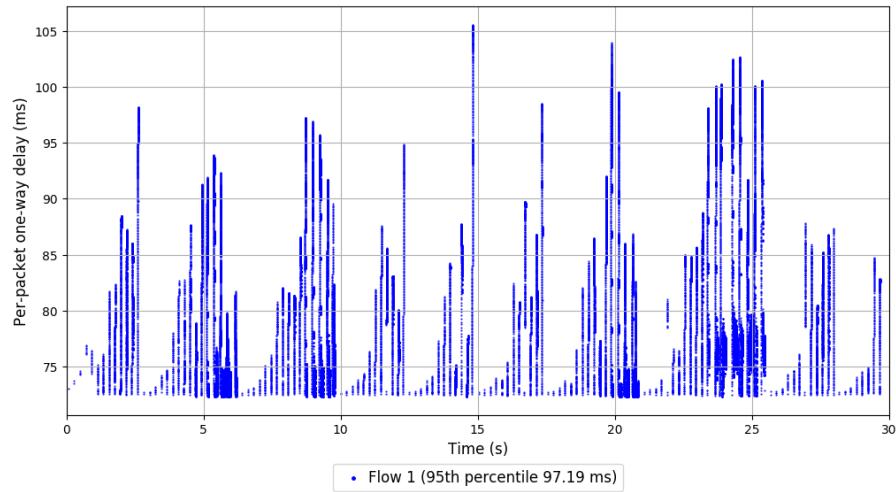
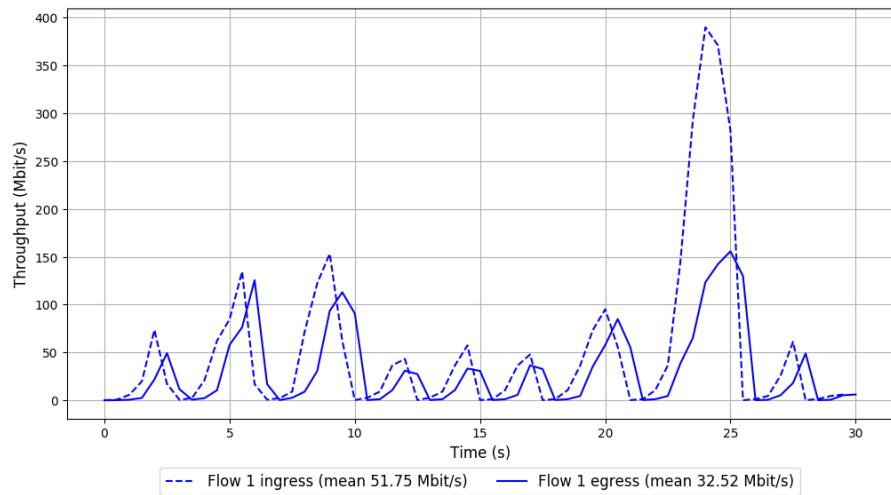


Run 5: Statistics of Verus

```
Start at: 2018-10-02 09:36:27
End at: 2018-10-02 09:36:57
Local clock offset: -6.929 ms
Remote clock offset: -39.077 ms

# Below is generated by plot.py at 2018-10-02 10:02:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 97.188 ms
Loss rate: 37.14%
-- Flow 1:
Average throughput: 32.52 Mbit/s
95th percentile per-packet one-way delay: 97.188 ms
Loss rate: 37.14%
```

Run 5: Report of Verus — Data Link

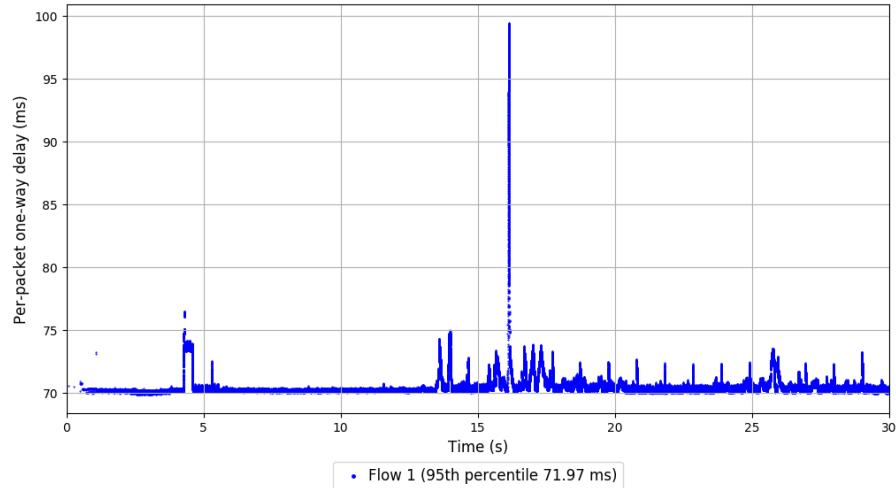
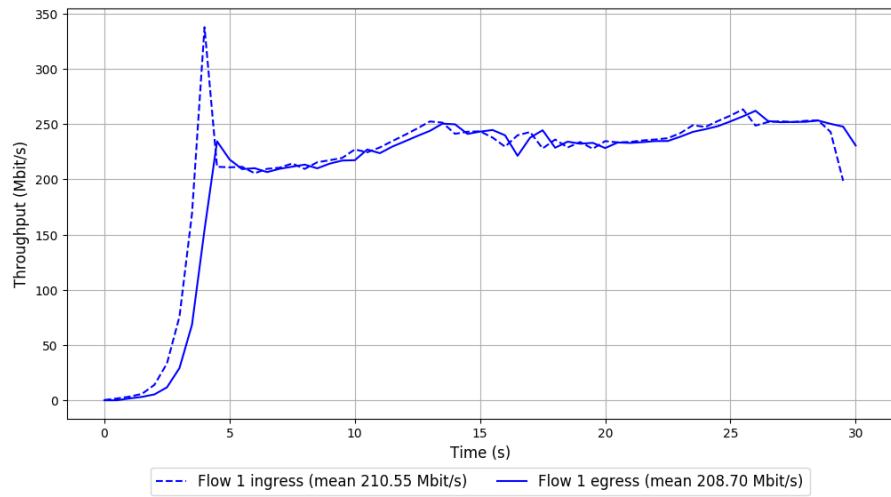


Run 1: Statistics of PCC-Vivace

```
Start at: 2018-10-02 07:12:26
End at: 2018-10-02 07:12:56
Local clock offset: -0.565 ms
Remote clock offset: -37.356 ms

# Below is generated by plot.py at 2018-10-02 10:03:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.70 Mbit/s
95th percentile per-packet one-way delay: 71.971 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 208.70 Mbit/s
95th percentile per-packet one-way delay: 71.971 ms
Loss rate: 0.88%
```

Run 1: Report of PCC-Vivace — Data Link

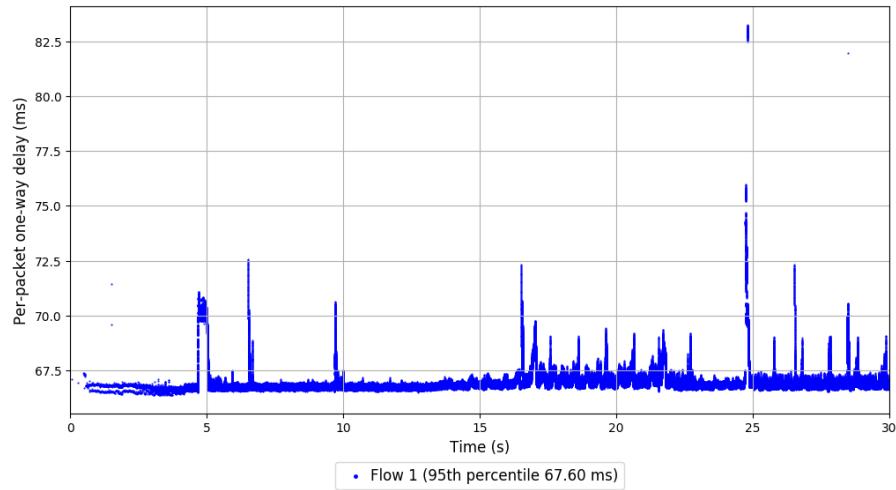
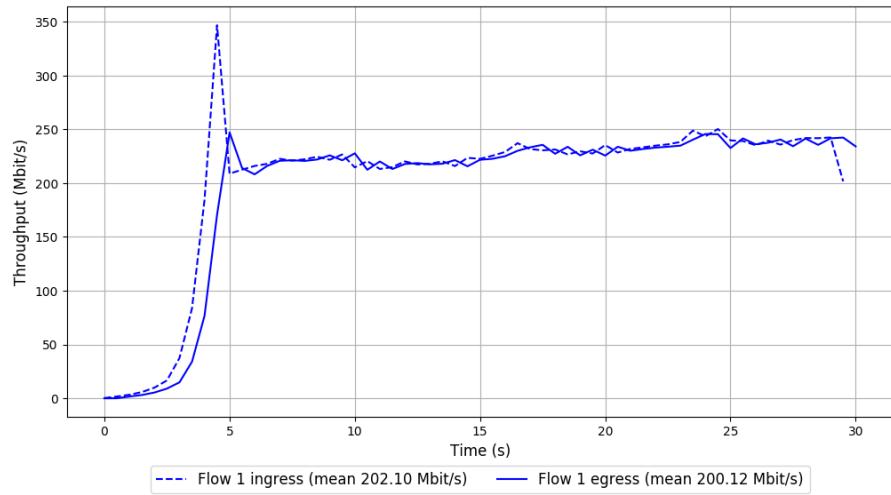


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-10-02 07:41:08
End at: 2018-10-02 07:41:39
Local clock offset: -3.172 ms
Remote clock offset: -39.389 ms

# Below is generated by plot.py at 2018-10-02 10:03:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 200.12 Mbit/s
95th percentile per-packet one-way delay: 67.597 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 200.12 Mbit/s
95th percentile per-packet one-way delay: 67.597 ms
Loss rate: 0.98%
```

Run 2: Report of PCC-Vivace — Data Link

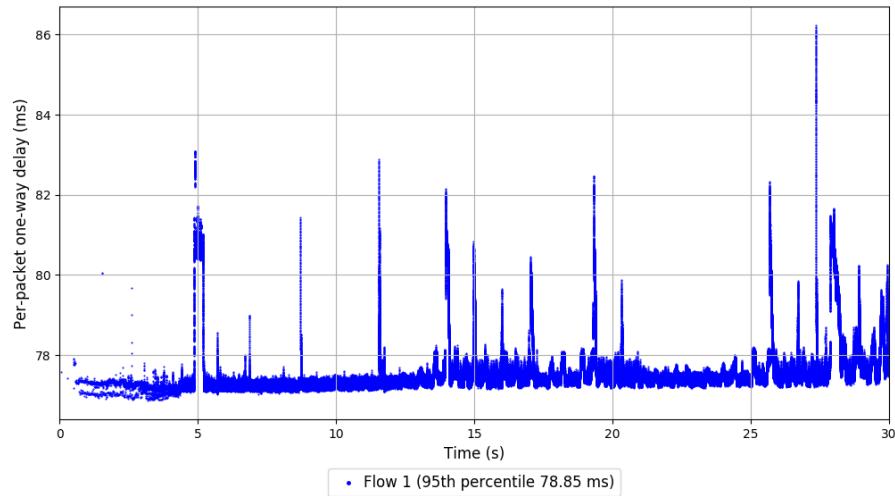
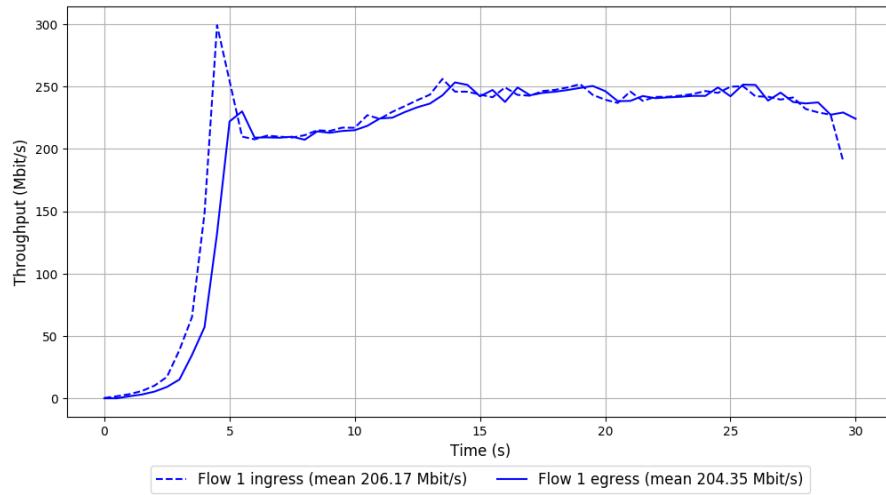


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-10-02 08:16:06
End at: 2018-10-02 08:16:36
Local clock offset: -6.995 ms
Remote clock offset: -33.646 ms

# Below is generated by plot.py at 2018-10-02 10:03:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.35 Mbit/s
95th percentile per-packet one-way delay: 78.854 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 204.35 Mbit/s
95th percentile per-packet one-way delay: 78.854 ms
Loss rate: 0.88%
```

Run 3: Report of PCC-Vivace — Data Link

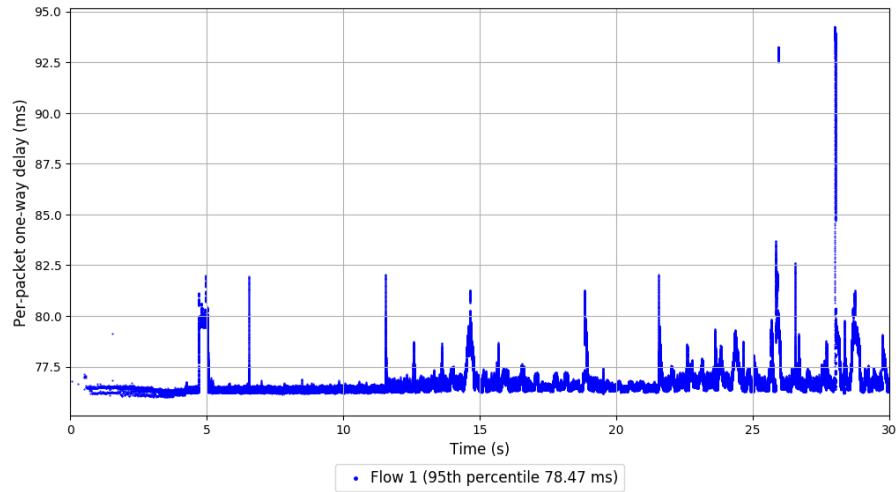
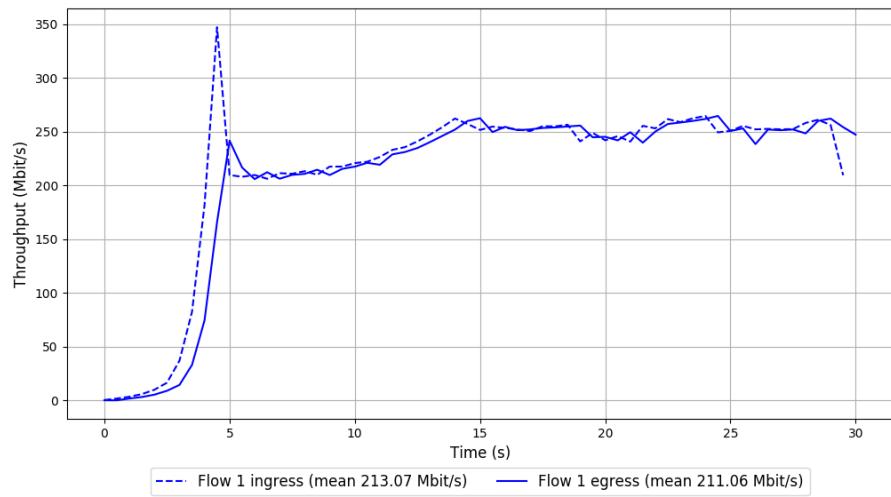


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-10-02 08:45:05
End at: 2018-10-02 08:45:35
Local clock offset: -3.2 ms
Remote clock offset: -34.657 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.06 Mbit/s
95th percentile per-packet one-way delay: 78.474 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 211.06 Mbit/s
95th percentile per-packet one-way delay: 78.474 ms
Loss rate: 0.95%
```

Run 4: Report of PCC-Vivace — Data Link

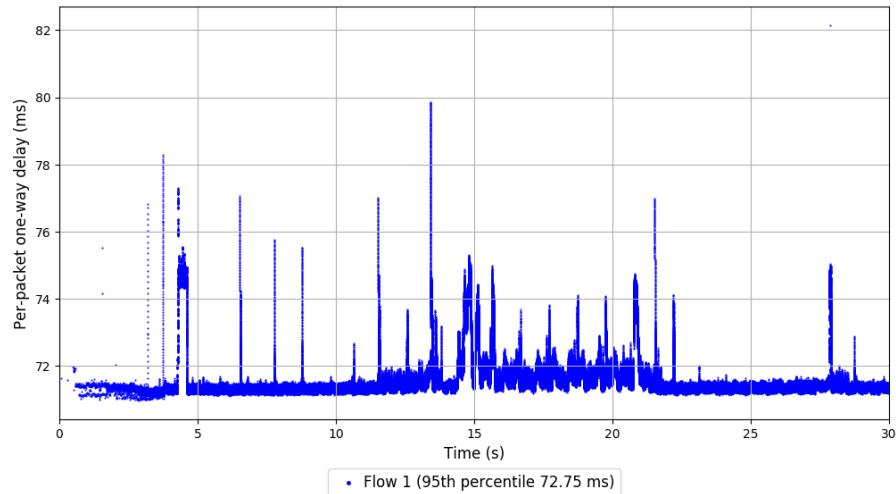
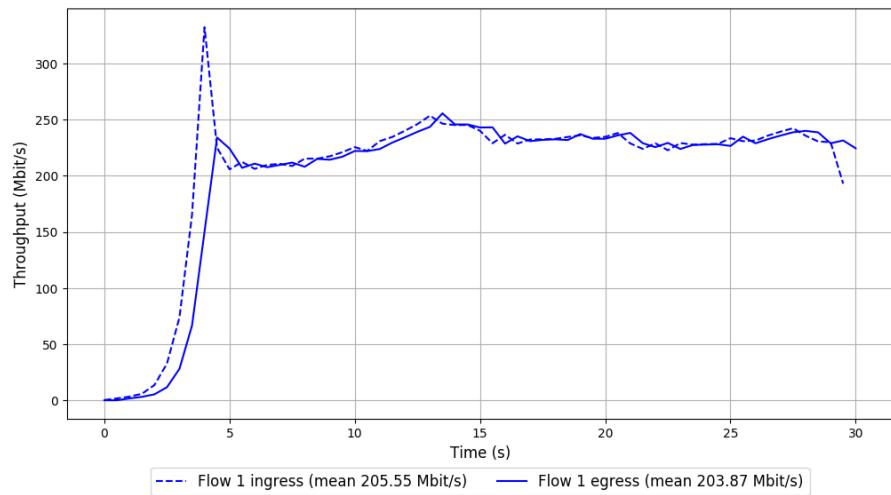


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-10-02 09:13:57
End at: 2018-10-02 09:14:27
Local clock offset: -6.387 ms
Remote clock offset: -40.025 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.87 Mbit/s
95th percentile per-packet one-way delay: 72.752 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 203.87 Mbit/s
95th percentile per-packet one-way delay: 72.752 ms
Loss rate: 0.82%
```

Run 5: Report of PCC-Vivace — Data Link

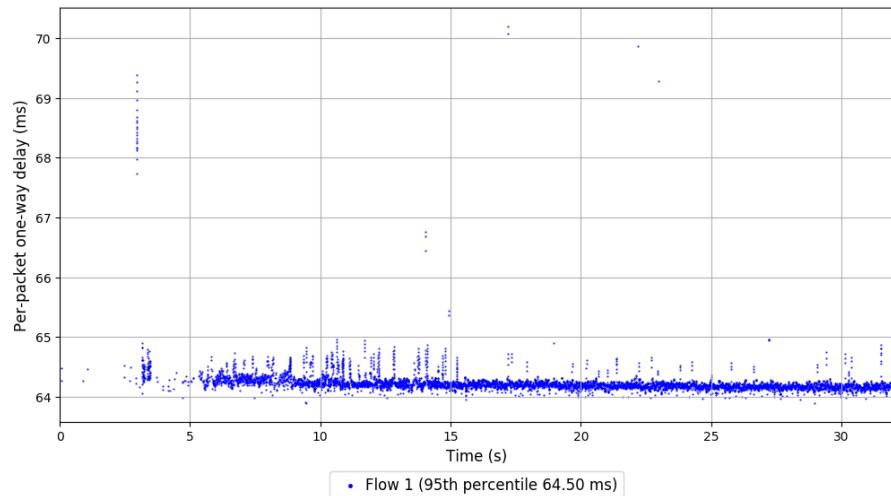
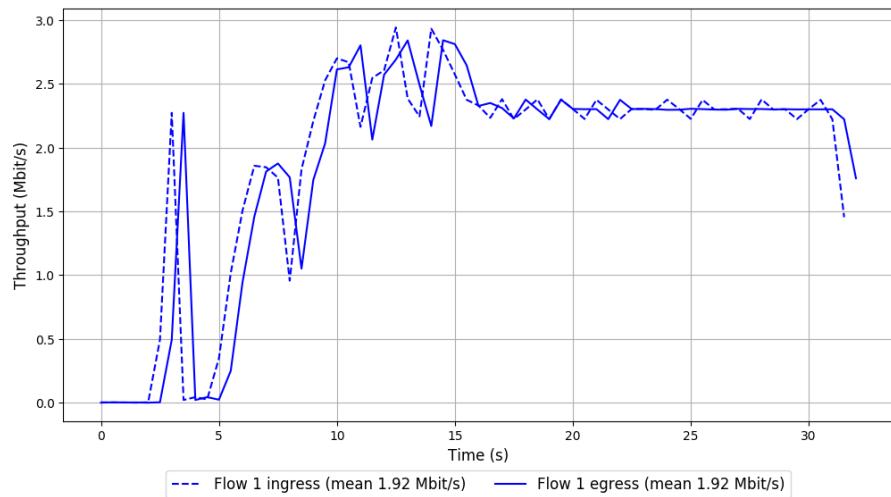


```
Run 1: Statistics of WebRTC media

Start at: 2018-10-02 07:27:59
End at: 2018-10-02 07:28:29
Local clock offset: -0.257 ms
Remote clock offset: -40.608 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 64.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 64.495 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

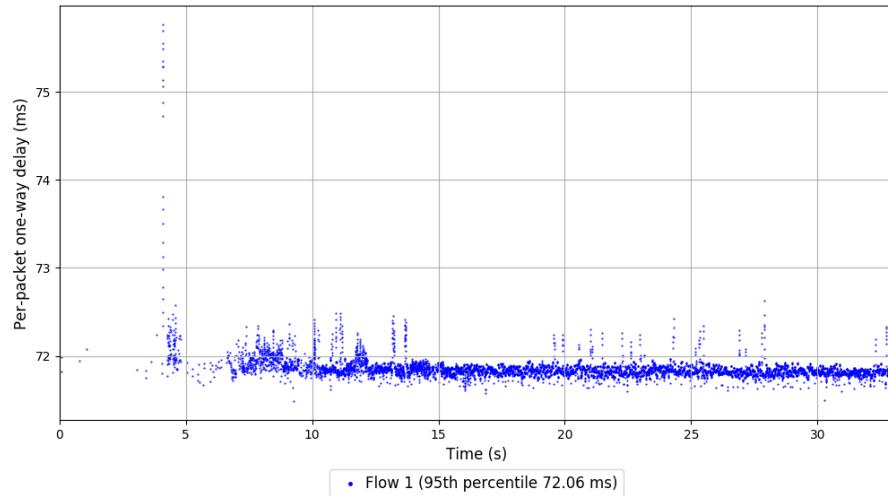
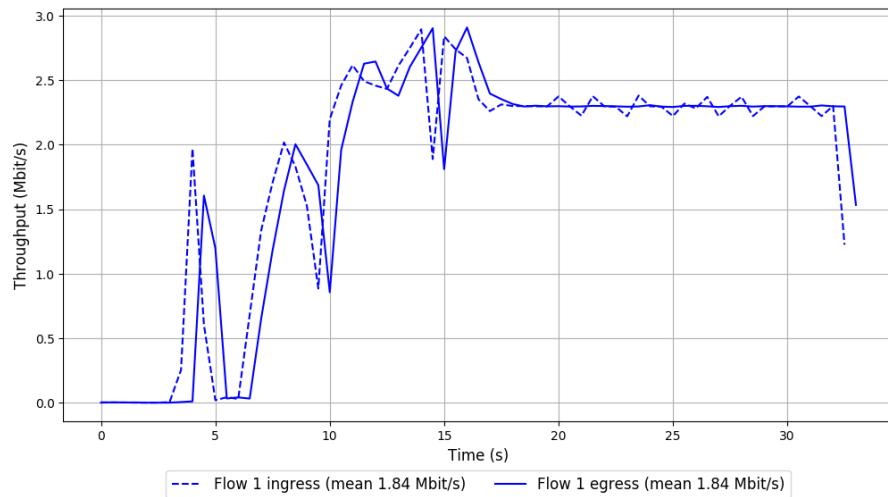


Run 2: Statistics of WebRTC media

```
Start at: 2018-10-02 08:08:34
End at: 2018-10-02 08:09:04
Local clock offset: -10.336 ms
Remote clock offset: -39.869 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 72.063 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 72.063 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

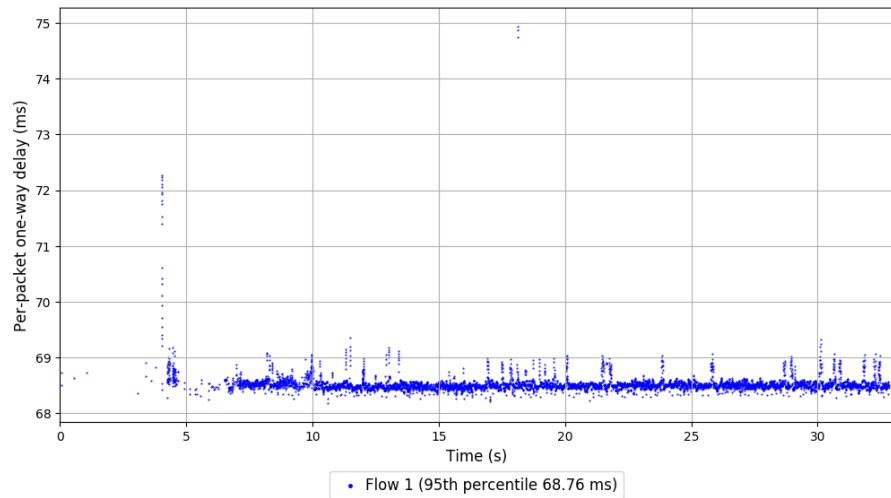
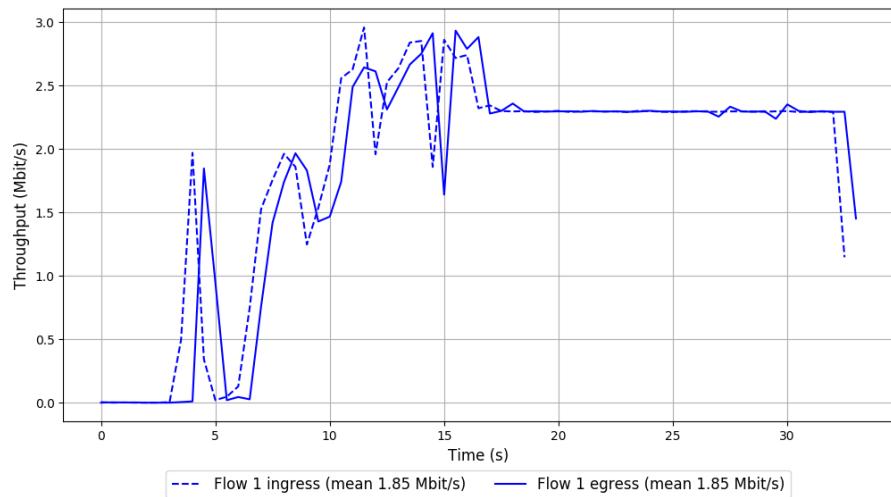


Run 3: Statistics of WebRTC media

```
Start at: 2018-10-02 08:37:34
End at: 2018-10-02 08:38:05
Local clock offset: 1.492 ms
Remote clock offset: -36.121 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 68.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 68.764 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

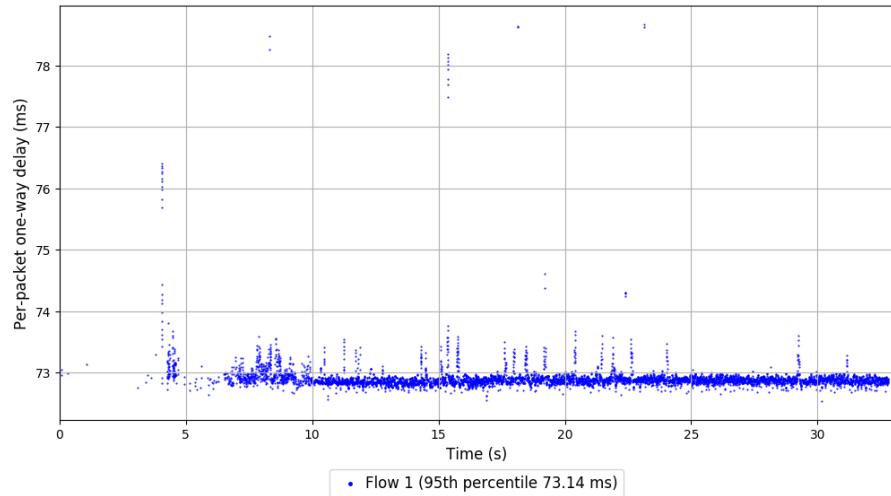
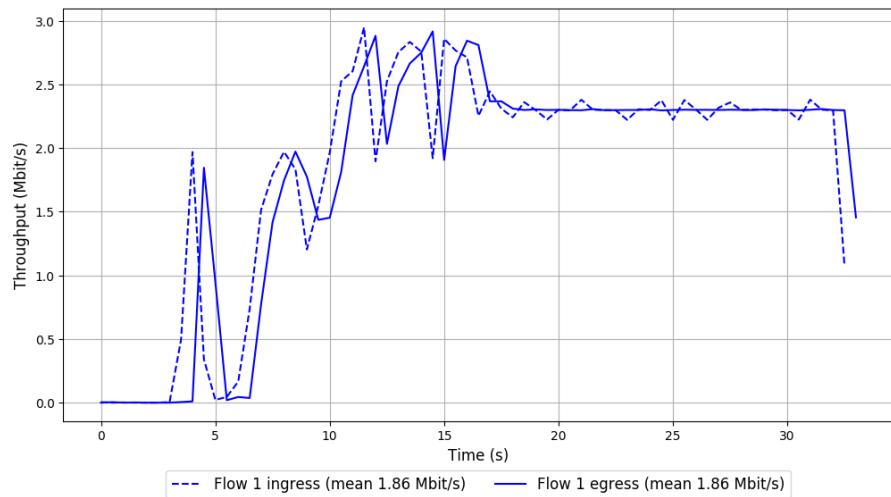


Run 4: Statistics of WebRTC media

```
Start at: 2018-10-02 09:06:23
End at: 2018-10-02 09:06:53
Local clock offset: -2.386 ms
Remote clock offset: -34.493 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 73.135 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 73.135 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-10-02 09:35:16
End at: 2018-10-02 09:35:46
Local clock offset: -1.644 ms
Remote clock offset: -36.687 ms

# Below is generated by plot.py at 2018-10-02 10:03:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 72.145 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 72.145 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

