

## Pantheon Report

Generated at 2018-11-02 20:12:51 (UTC).  
Data path: AWS California 2 on `ens5` (*local*) → Mexico on `em1` (*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 `time.stanford.edu` and have been applied to correct the timestamps in logs.

System info:

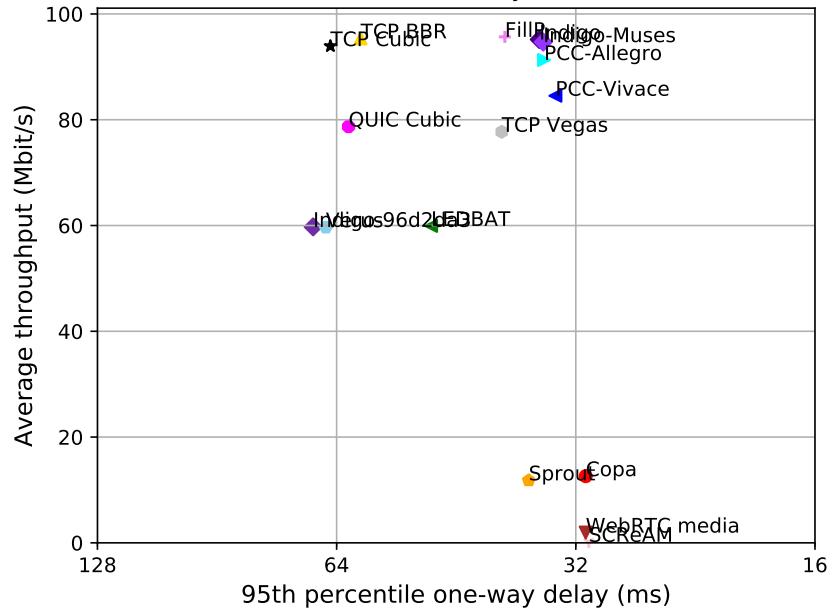
```
Linux 4.15.0-1023-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

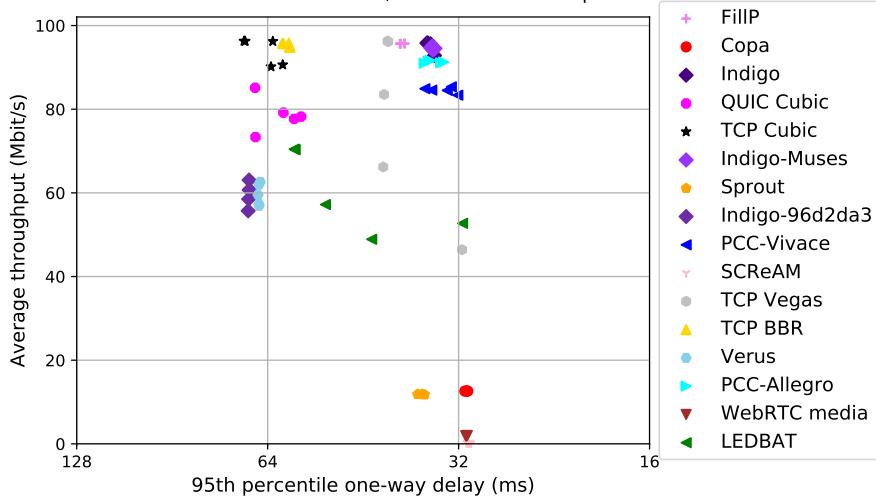
```
branch: muses @ 794ca3866981572cb73700a276691acf79c60f2b
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
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 California 2 to Mexico, 5 runs of 30s each per scheme  
(mean of all runs by scheme)



test from AWS California 2 to Mexico, 5 runs of 30s each per scheme



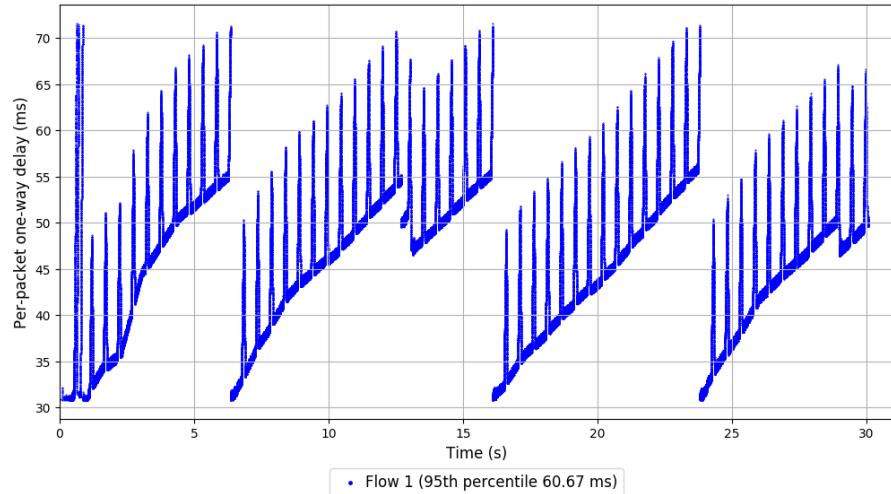
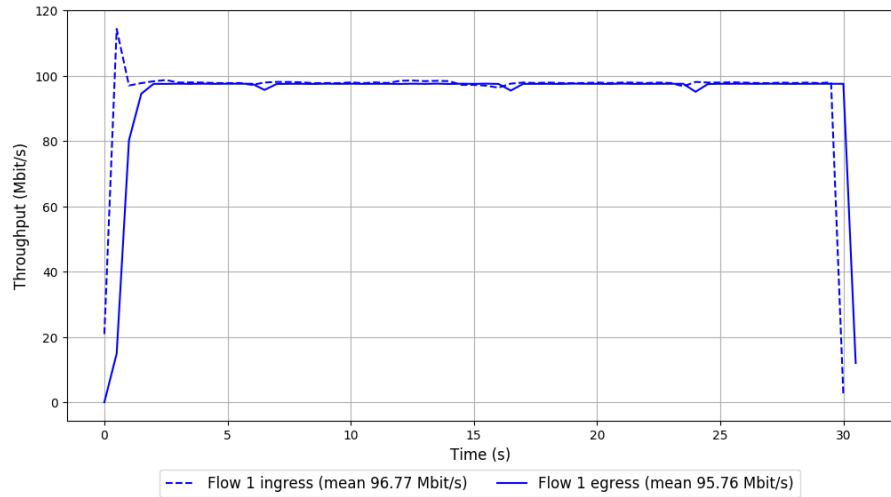
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	95.39	59.70	1.01
Copa	5	12.61	31.09	70.84
TCP Cubic	5	93.92	65.17	0.42
FillP	5	95.67	39.31	0.67
Indigo	5	95.18	35.58	0.02
Indigo-96d2da3	5	59.74	68.51	58.97
LEDBAT	5	59.92	48.68	0.01
Indigo-Muses	5	94.67	35.17	0.27
PCC-Allegro	5	91.29	35.08	0.71
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	78.71	61.83	1.55
SCReAM	5	0.19	30.82	0.05
Sprout	5	11.82	36.68	0.04
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	77.72	39.66	0.38
Verus	5	59.67	66.03	22.09
PCC-Vivace	5	84.54	33.95	0.01
WebRTC media	5	1.94	31.10	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-11-02 18:17:29
End at: 2018-11-02 18:17:59
Local clock offset: 2.507 ms
Remote clock offset: -2.854 ms

# Below is generated by plot.py at 2018-11-02 20:05:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 60.666 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 60.666 ms
Loss rate: 0.97%
```

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

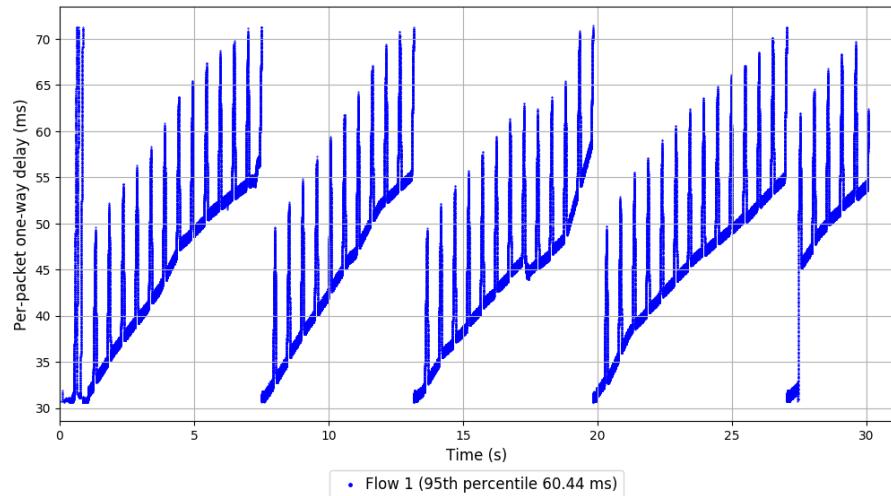
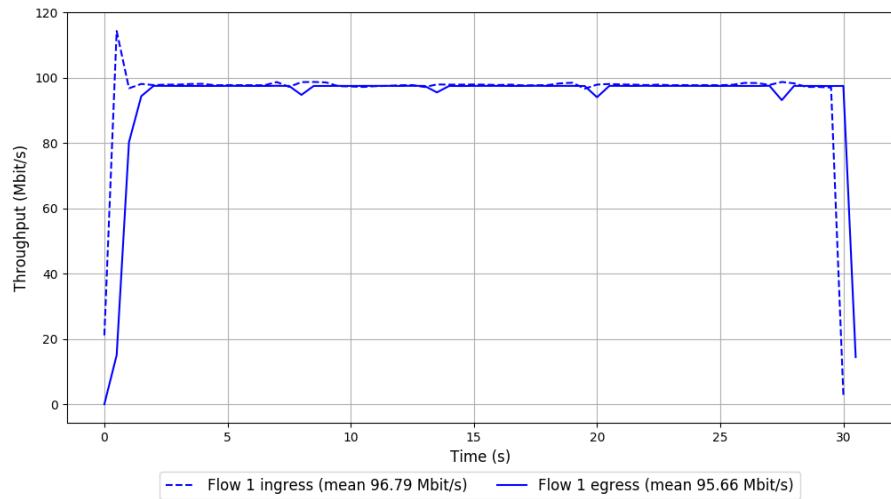


Run 2: Statistics of TCP BBR

```
Start at: 2018-11-02 18:41:07
End at: 2018-11-02 18:41:37
Local clock offset: 3.912 ms
Remote clock offset: -2.895 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 60.438 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 60.438 ms
Loss rate: 1.07%
```

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

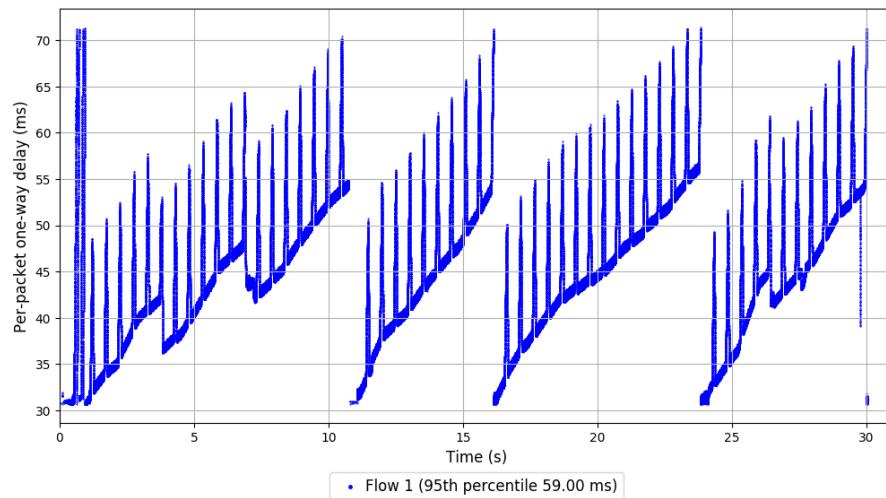
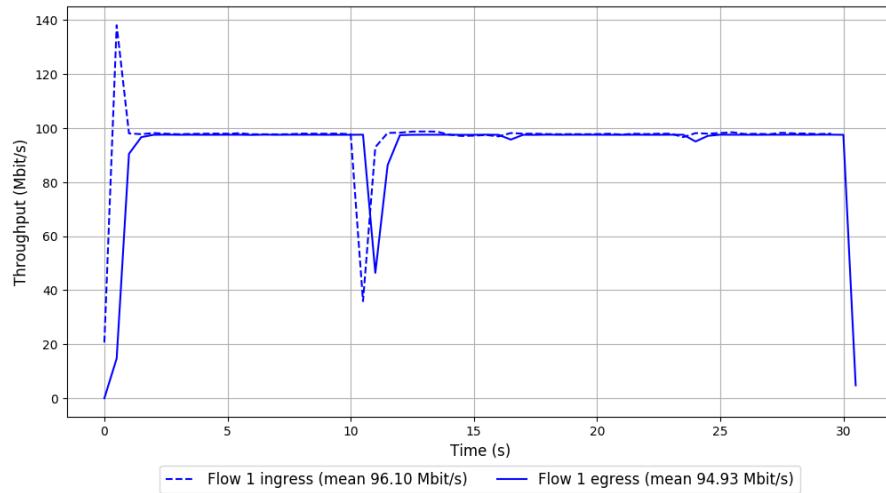


Run 3: Statistics of TCP BBR

```
Start at: 2018-11-02 19:04:50
End at: 2018-11-02 19:05:20
Local clock offset: 5.545 ms
Remote clock offset: -2.39 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.93 Mbit/s
95th percentile per-packet one-way delay: 58.997 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 94.93 Mbit/s
95th percentile per-packet one-way delay: 58.997 ms
Loss rate: 1.21%
```

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

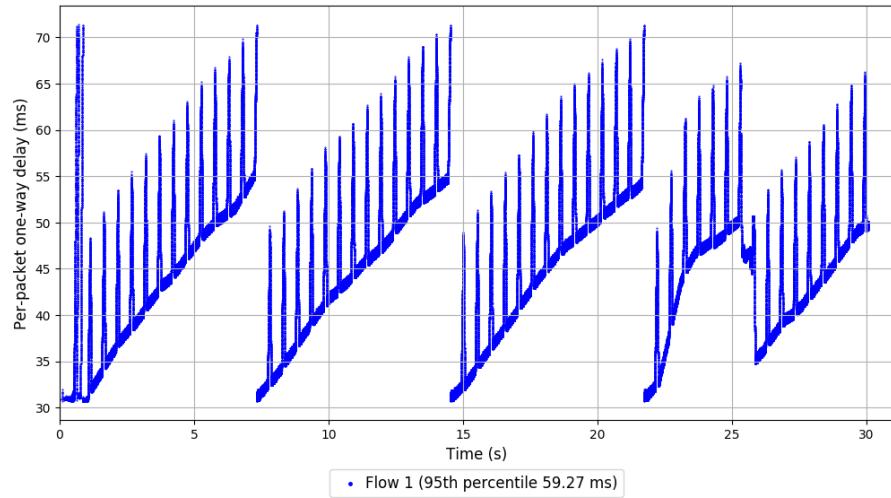
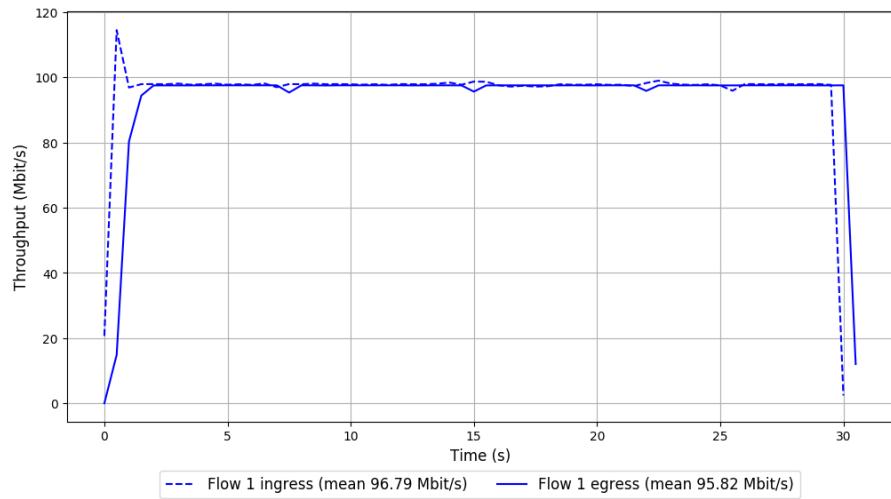


Run 4: Statistics of TCP BBR

```
Start at: 2018-11-02 19:28:27
End at: 2018-11-02 19:28:57
Local clock offset: 6.02 ms
Remote clock offset: -2.048 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 59.271 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 59.271 ms
Loss rate: 0.94%
```

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

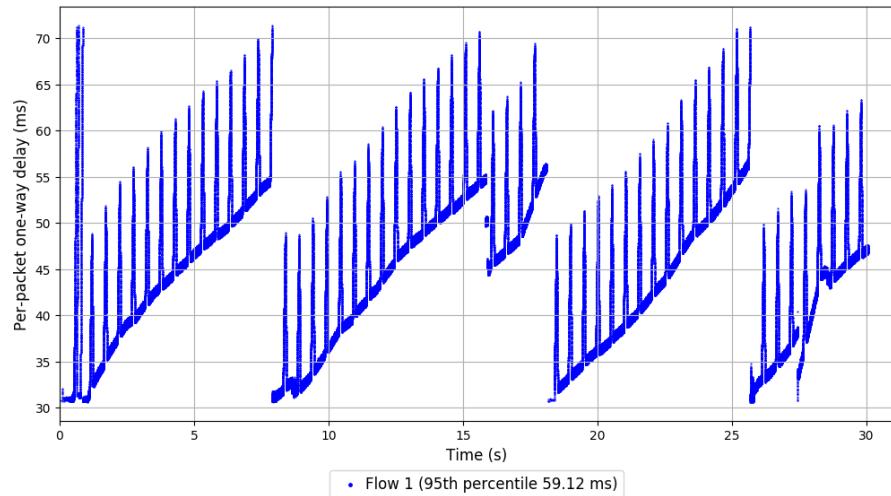
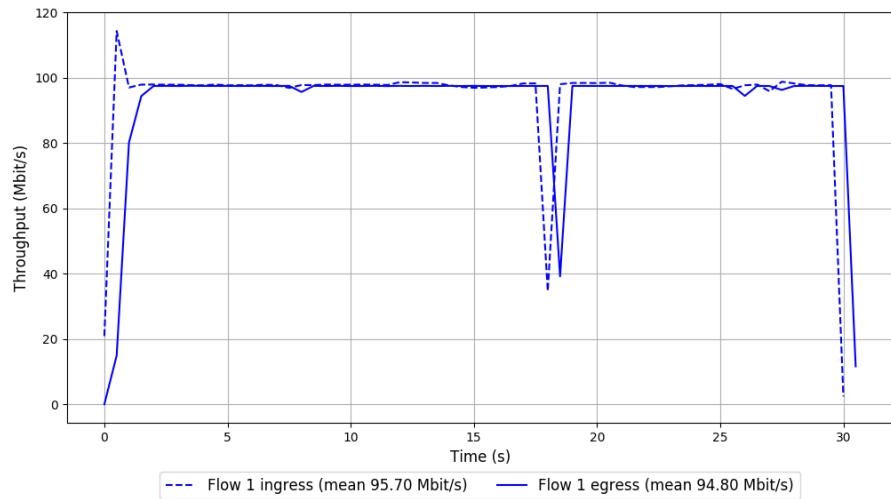


Run 5: Statistics of TCP BBR

```
Start at: 2018-11-02 19:51:59
End at: 2018-11-02 19:52:29
Local clock offset: 1.913 ms
Remote clock offset: -1.756 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 59.117 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 94.80 Mbit/s
95th percentile per-packet one-way delay: 59.117 ms
Loss rate: 0.88%
```

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

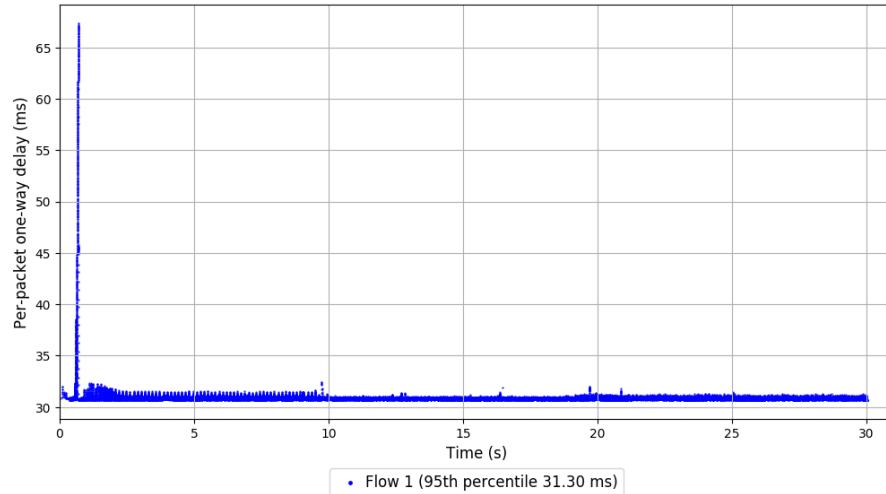
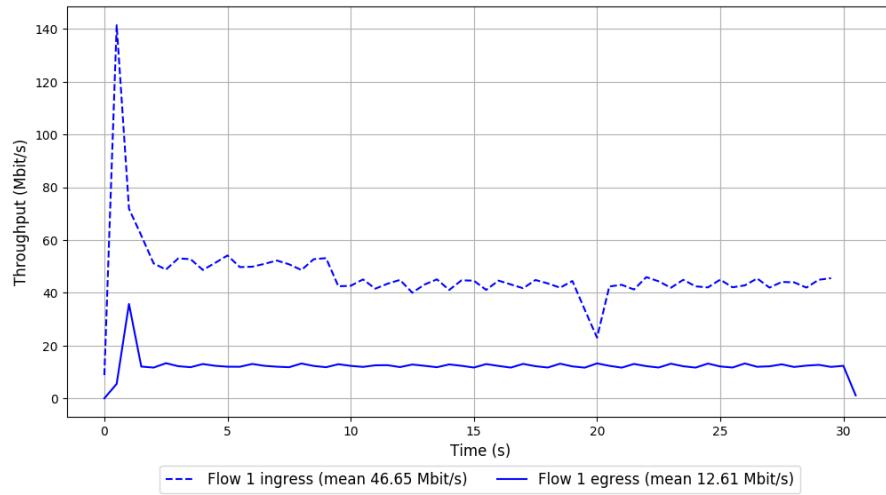


Run 1: Statistics of Copa

```
Start at: 2018-11-02 18:22:48
End at: 2018-11-02 18:23:18
Local clock offset: 2.372 ms
Remote clock offset: -2.99 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.297 ms
Loss rate: 72.97%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.297 ms
Loss rate: 72.97%
```

## Run 1: Report of Copa — Data Link

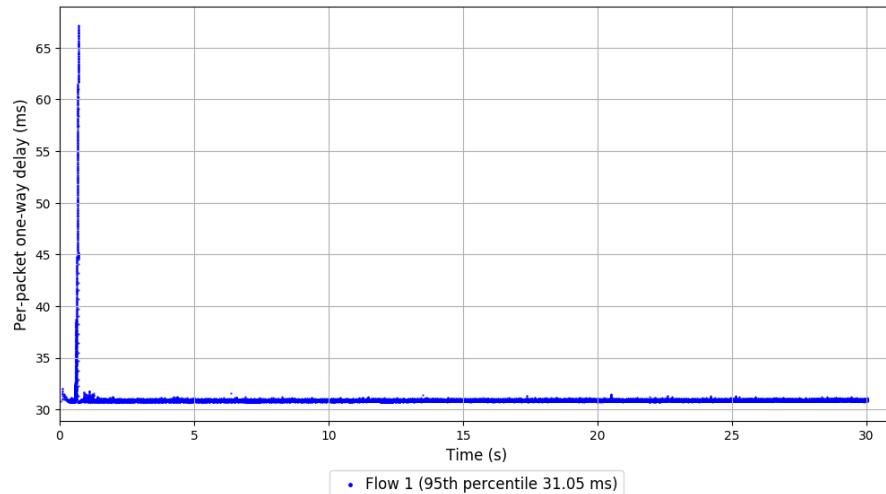
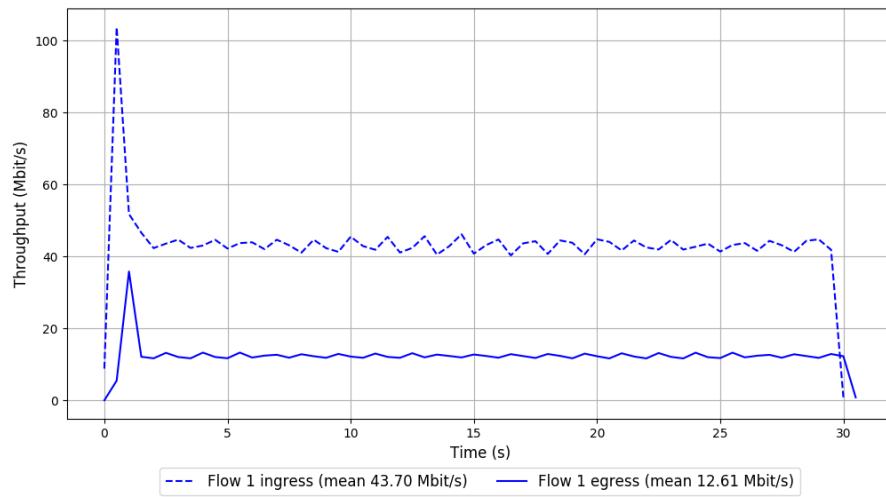


Run 2: Statistics of Copa

```
Start at: 2018-11-02 18:46:23
End at: 2018-11-02 18:46:53
Local clock offset: 4.628 ms
Remote clock offset: -2.698 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.053 ms
Loss rate: 71.15%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.053 ms
Loss rate: 71.15%
```

## Run 2: Report of Copa — Data Link

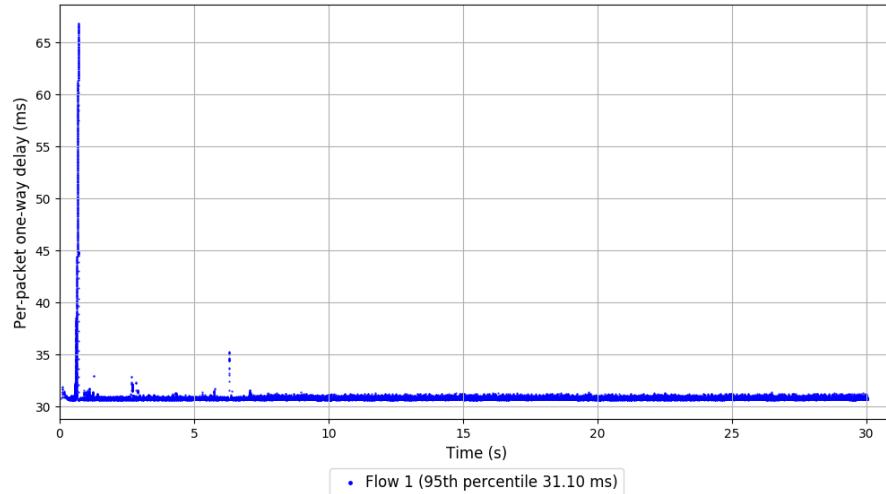
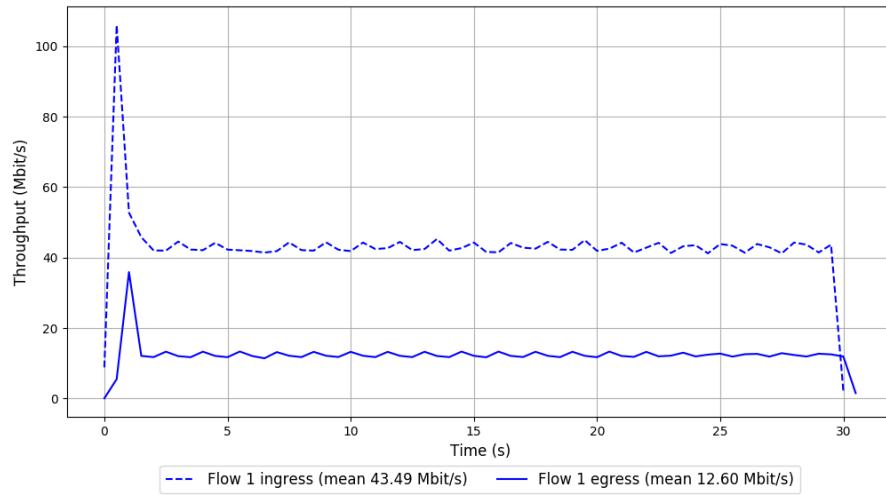


Run 3: Statistics of Copa

```
Start at: 2018-11-02 19:10:04
End at: 2018-11-02 19:10:34
Local clock offset: 5.695 ms
Remote clock offset: -2.388 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.60 Mbit/s
95th percentile per-packet one-way delay: 31.102 ms
Loss rate: 71.02%
-- Flow 1:
Average throughput: 12.60 Mbit/s
95th percentile per-packet one-way delay: 31.102 ms
Loss rate: 71.02%
```

### Run 3: Report of Copa — Data Link

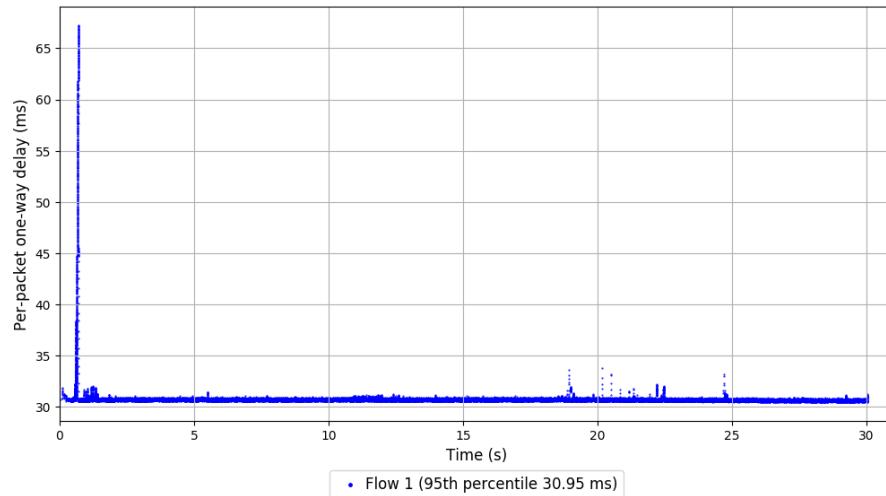
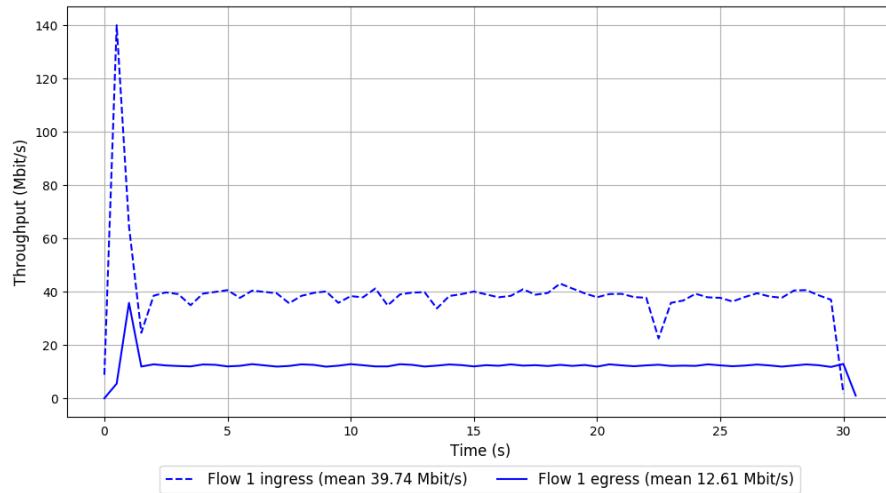


Run 4: Statistics of Copa

```
Start at: 2018-11-02 19:33:42
End at: 2018-11-02 19:34:12
Local clock offset: 6.04 ms
Remote clock offset: -2.129 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 30.950 ms
Loss rate: 68.26%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 30.950 ms
Loss rate: 68.26%
```

### Run 4: Report of Copa — Data Link

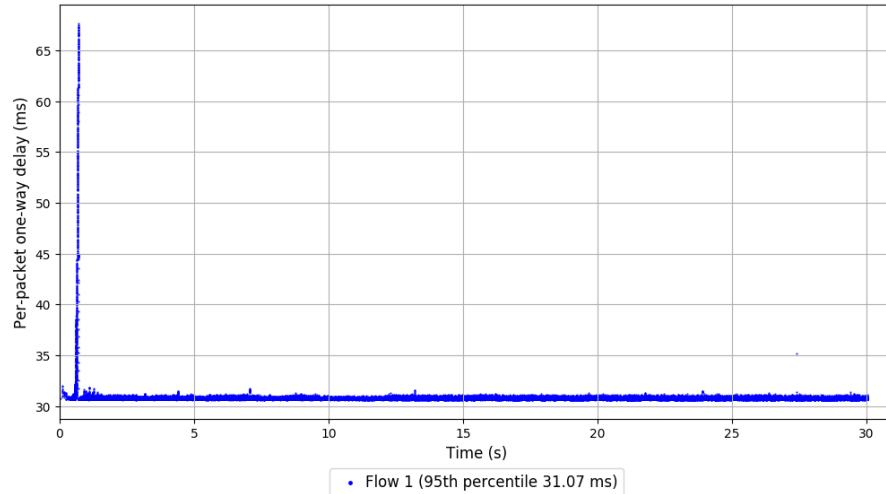
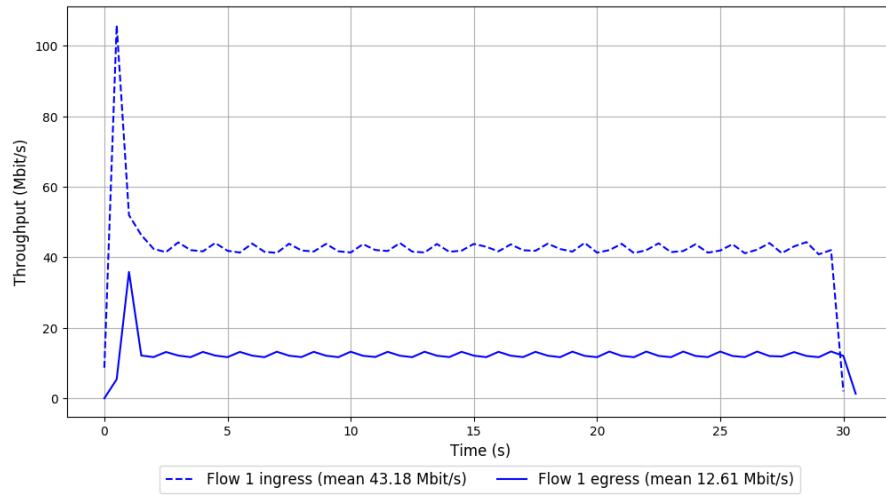


Run 5: Statistics of Copa

```
Start at: 2018-11-02 19:57:12
End at: 2018-11-02 19:57:42
Local clock offset: 1.266 ms
Remote clock offset: -1.765 ms

# Below is generated by plot.py at 2018-11-02 20:05:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.067 ms
Loss rate: 70.79%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.067 ms
Loss rate: 70.79%
```

## Run 5: Report of Copa — Data Link

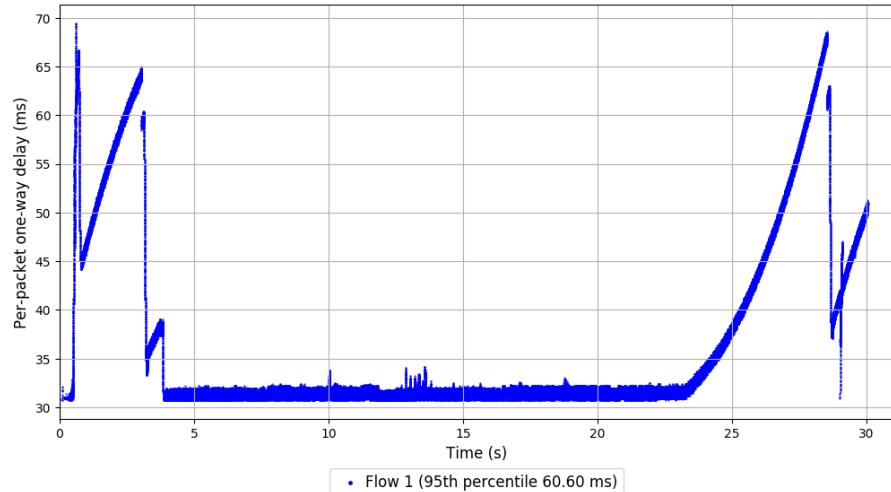
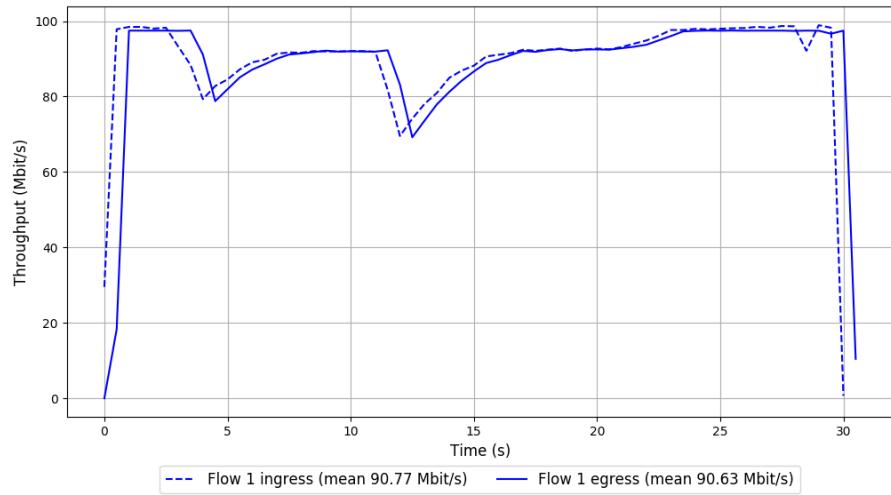


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-11-02 18:14:50
End at: 2018-11-02 18:15:20
Local clock offset: 2.582 ms
Remote clock offset: -2.913 ms

# Below is generated by plot.py at 2018-11-02 20:05:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 60.600 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 60.600 ms
Loss rate: 0.09%
```

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

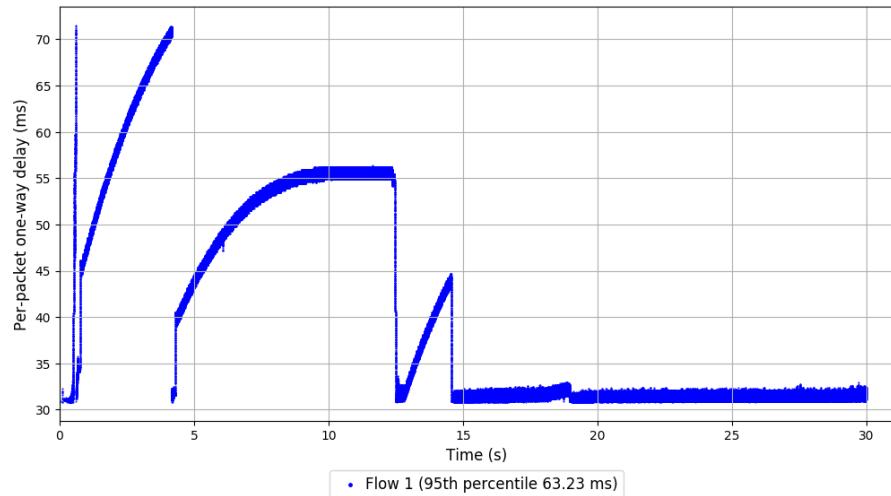
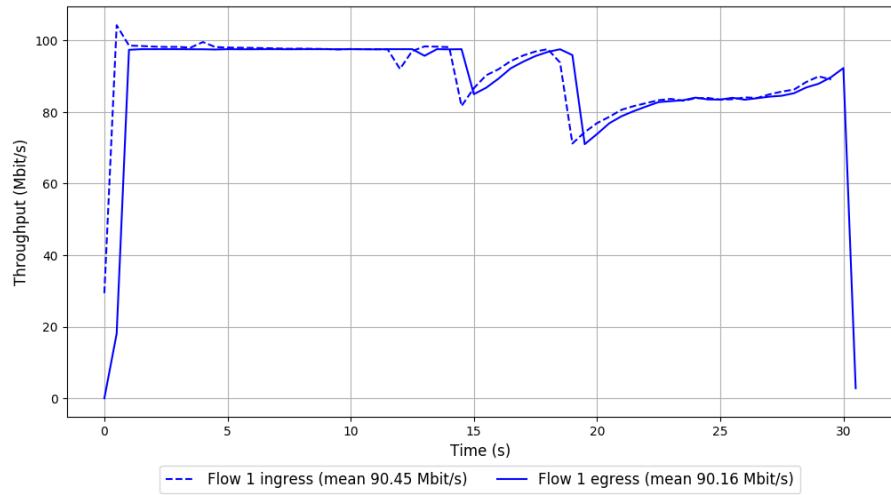


Run 2: Statistics of TCP Cubic

```
Start at: 2018-11-02 18:38:28
End at: 2018-11-02 18:38:58
Local clock offset: 3.427 ms
Remote clock offset: -2.797 ms

# Below is generated by plot.py at 2018-11-02 20:05:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 63.233 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 90.16 Mbit/s
95th percentile per-packet one-way delay: 63.233 ms
Loss rate: 0.31%
```

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

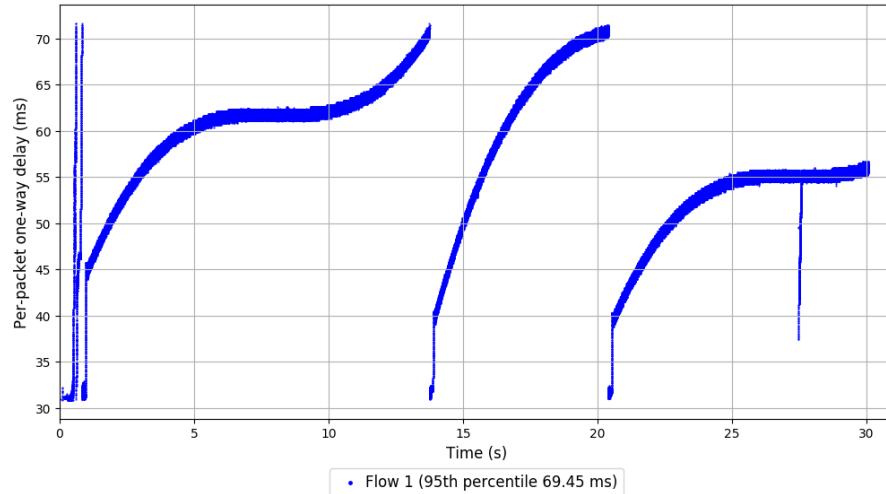
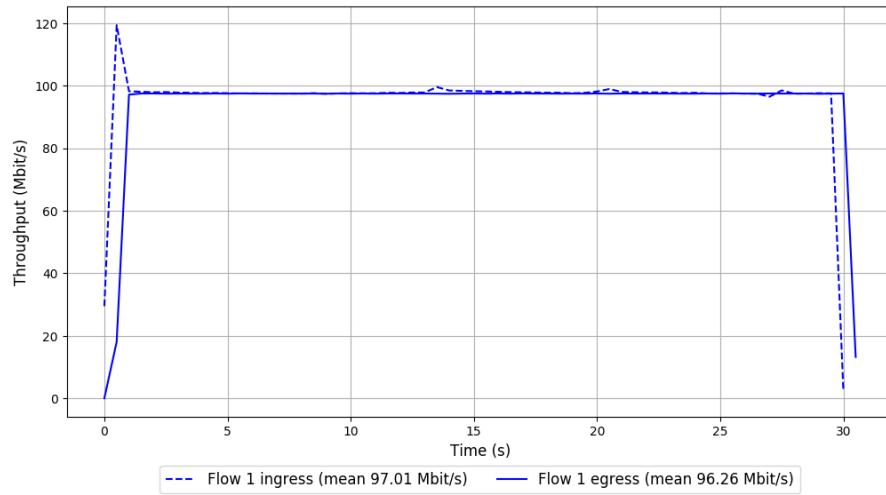


Run 3: Statistics of TCP Cubic

```
Start at: 2018-11-02 19:02:11
End at: 2018-11-02 19:02:41
Local clock offset: 5.472 ms
Remote clock offset: -2.261 ms

# Below is generated by plot.py at 2018-11-02 20:05:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 69.450 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 96.26 Mbit/s
95th percentile per-packet one-way delay: 69.450 ms
Loss rate: 0.69%
```

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

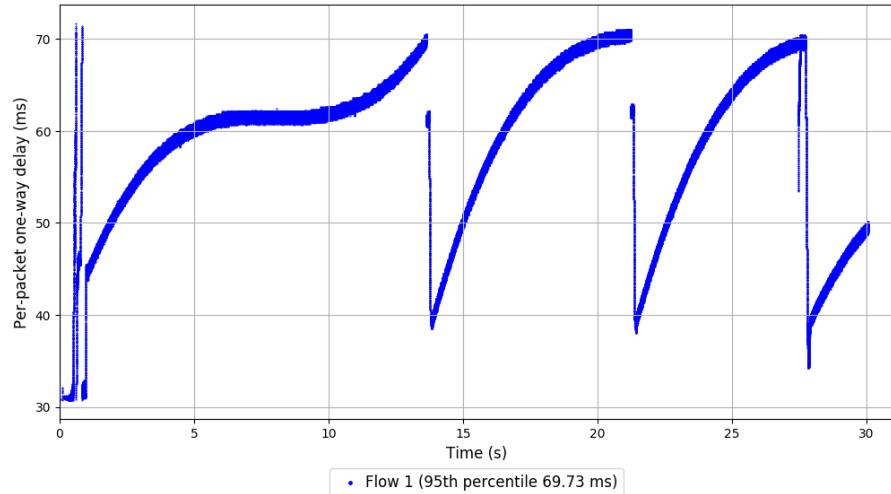
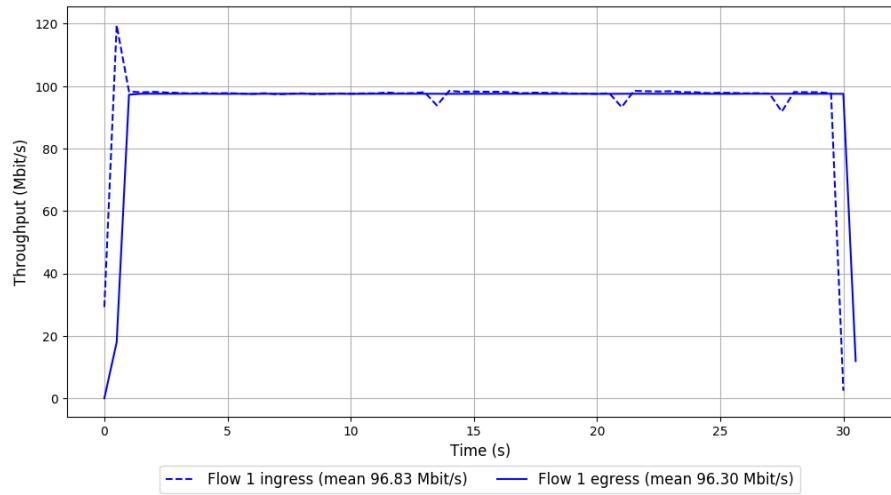


Run 4: Statistics of TCP Cubic

```
Start at: 2018-11-02 19:25:48
End at: 2018-11-02 19:26:18
Local clock offset: 5.989 ms
Remote clock offset: -2.049 ms

# Below is generated by plot.py at 2018-11-02 20:06:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 69.730 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 69.730 ms
Loss rate: 0.49%
```

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

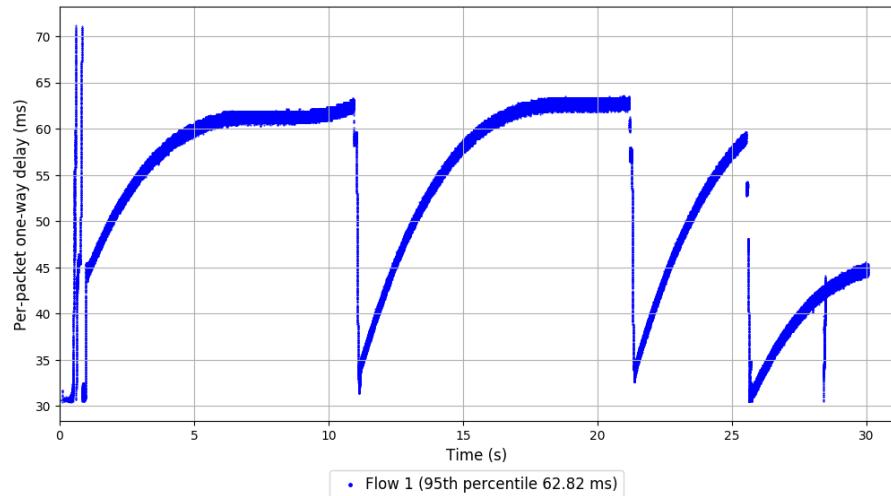
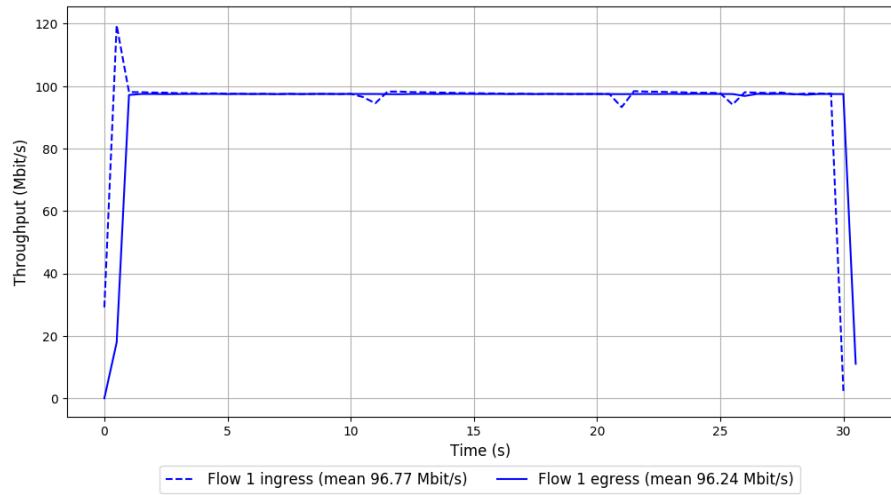


Run 5: Statistics of TCP Cubic

```
Start at: 2018-11-02 19:49:20
End at: 2018-11-02 19:49:50
Local clock offset: 2.216 ms
Remote clock offset: -2.007 ms

# Below is generated by plot.py at 2018-11-02 20:06:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 62.820 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 96.24 Mbit/s
95th percentile per-packet one-way delay: 62.820 ms
Loss rate: 0.50%
```

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

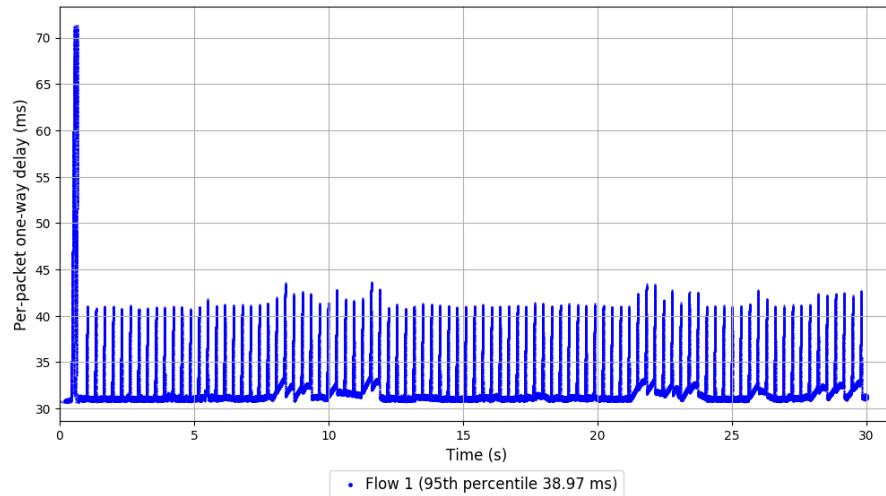
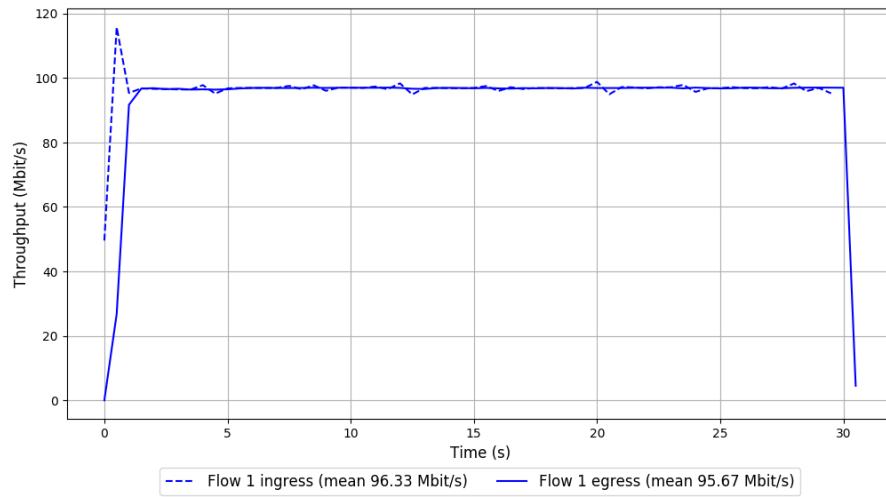


```
Run 1: Statistics of FillP

Start at: 2018-11-02 18:21:24
End at: 2018-11-02 18:21:54
Local clock offset: 2.37 ms
Remote clock offset: -2.845 ms

# Below is generated by plot.py at 2018-11-02 20:06:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 38.970 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 38.970 ms
Loss rate: 0.69%
```

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

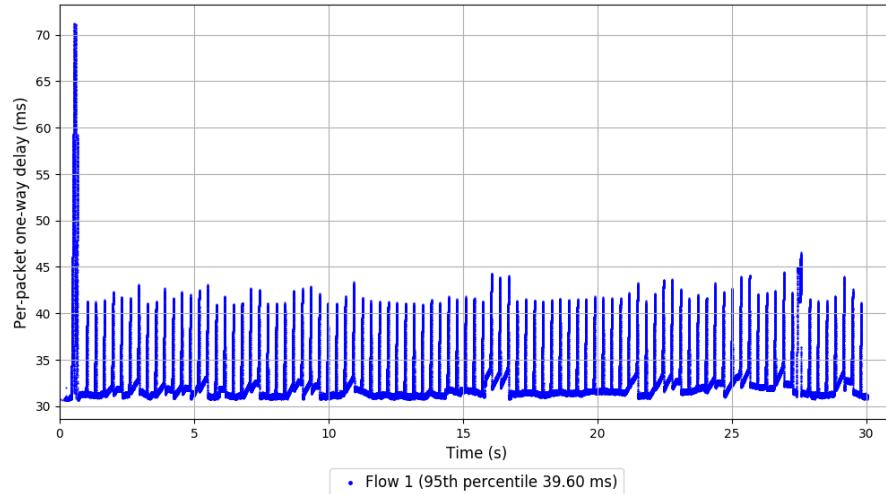
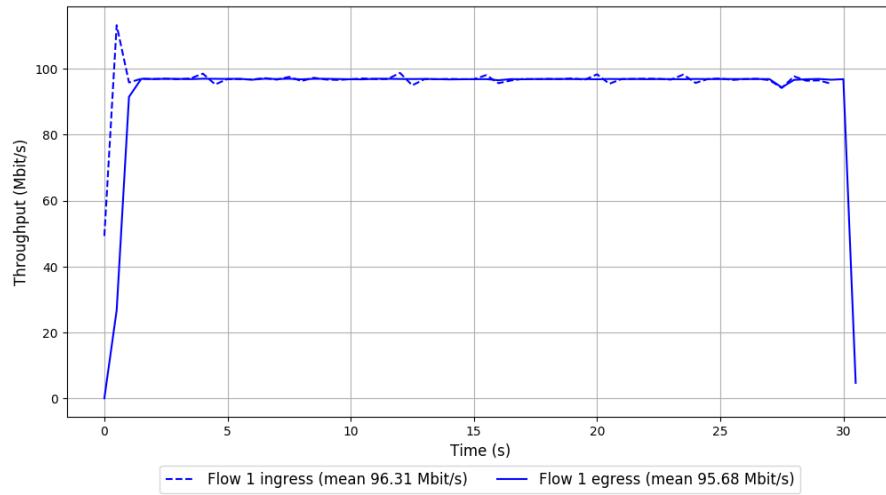


Run 2: Statistics of FillP

```
Start at: 2018-11-02 18:45:03
End at: 2018-11-02 18:45:33
Local clock offset: 4.495 ms
Remote clock offset: -2.688 ms

# Below is generated by plot.py at 2018-11-02 20:06:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 39.599 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 95.68 Mbit/s
95th percentile per-packet one-way delay: 39.599 ms
Loss rate: 0.65%
```

## Run 2: Report of FillP — Data Link

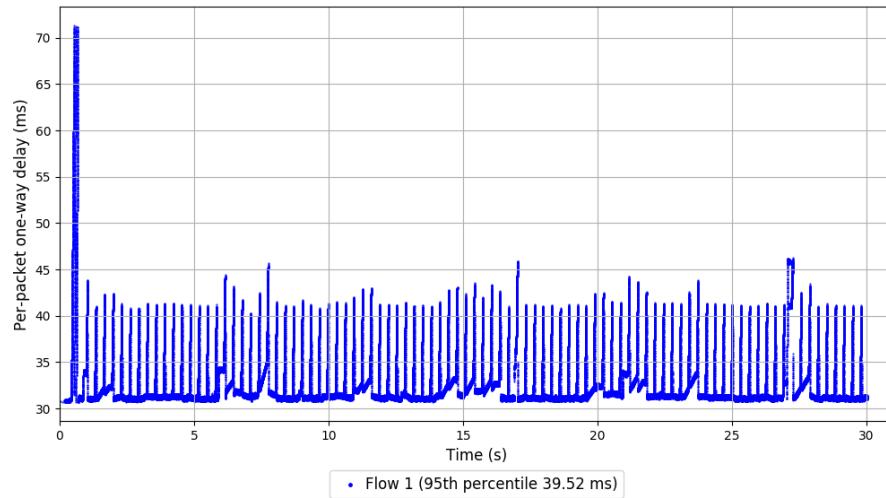
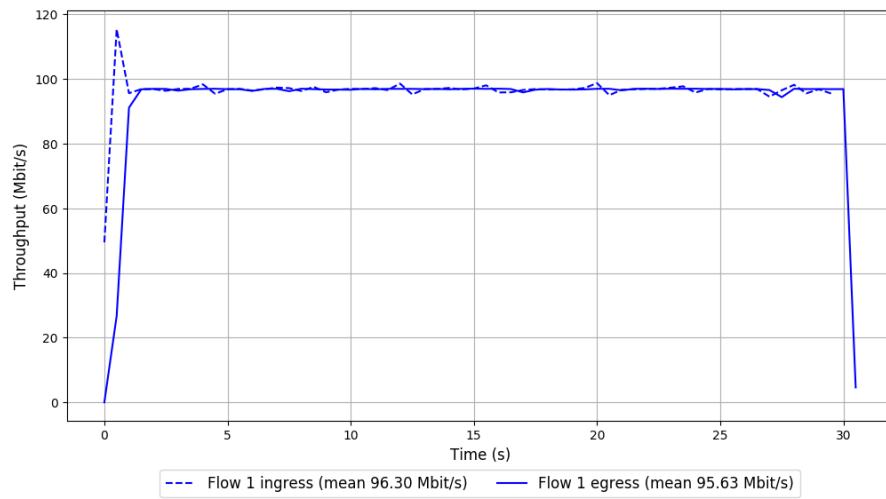


Run 3: Statistics of FillP

```
Start at: 2018-11-02 19:08:45
End at: 2018-11-02 19:09:15
Local clock offset: 5.657 ms
Remote clock offset: -2.238 ms

# Below is generated by plot.py at 2018-11-02 20:06:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 39.522 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 39.522 ms
Loss rate: 0.70%
```

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

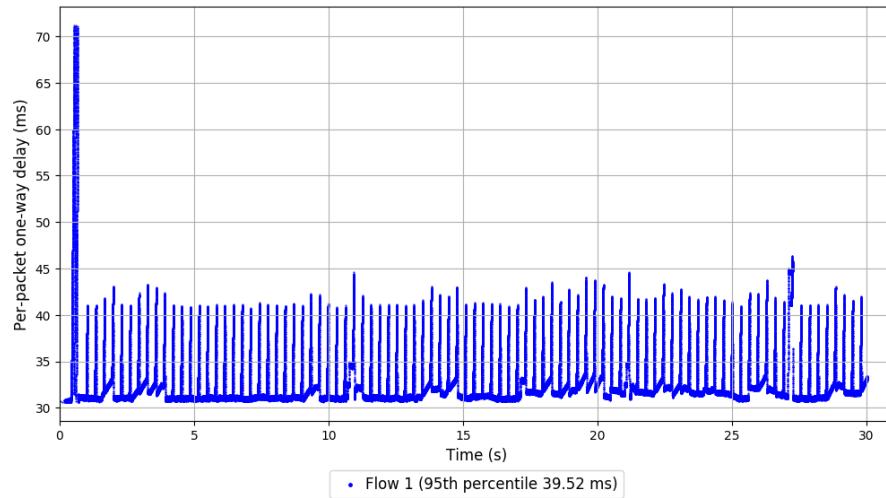
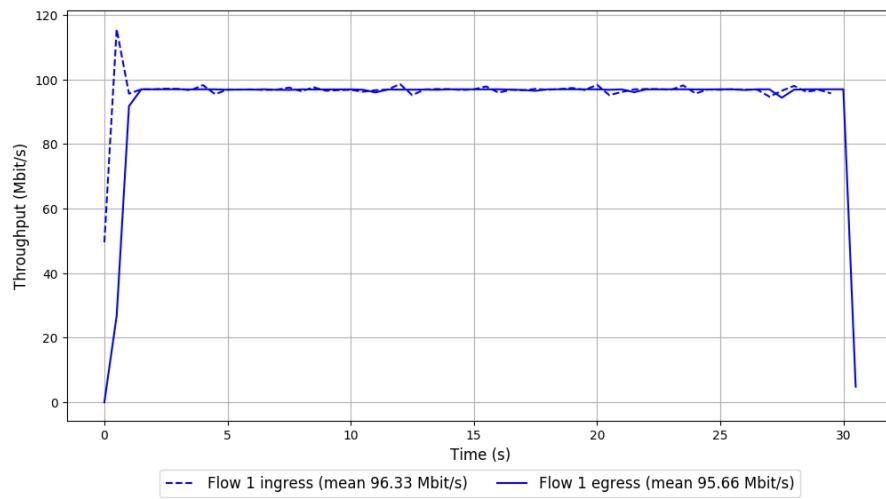


Run 4: Statistics of FillP

```
Start at: 2018-11-02 19:32:22
End at: 2018-11-02 19:32:52
Local clock offset: 6.06 ms
Remote clock offset: -1.939 ms

# Below is generated by plot.py at 2018-11-02 20:06:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 39.515 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 39.515 ms
Loss rate: 0.68%
```

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

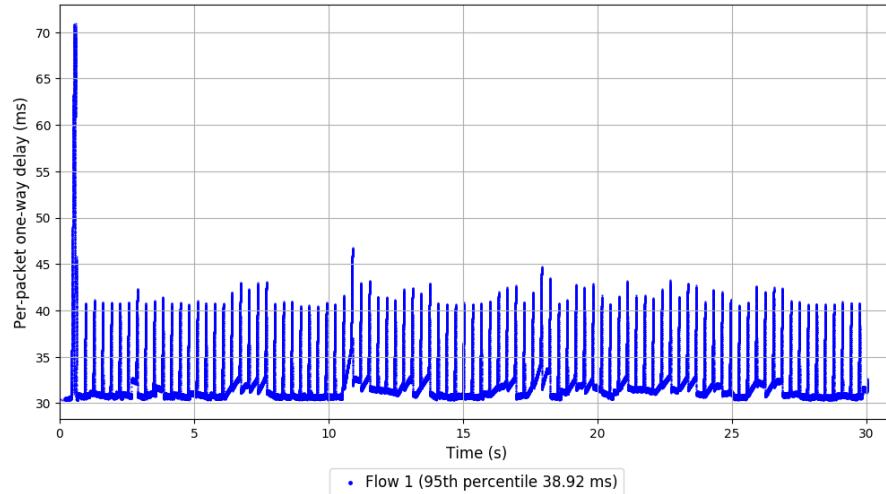
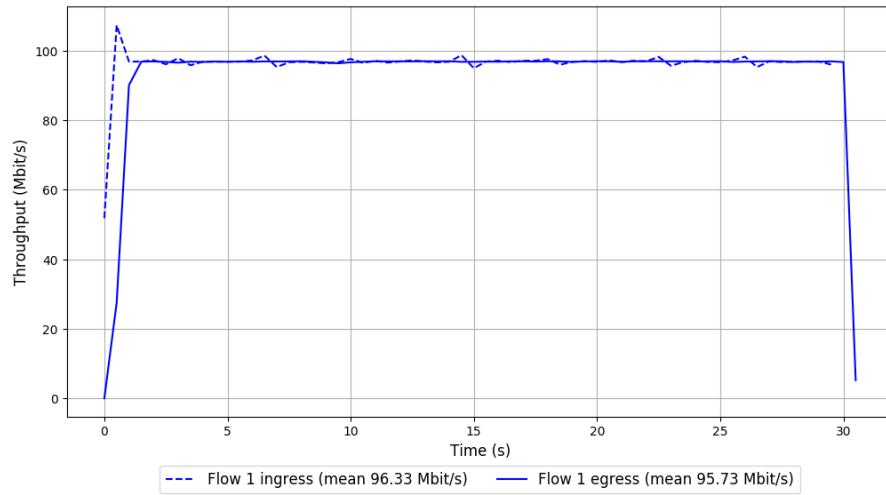


Run 5: Statistics of FillP

```
Start at: 2018-11-02 19:55:53
End at: 2018-11-02 19:56:23
Local clock offset: 1.423 ms
Remote clock offset: -1.917 ms

# Below is generated by plot.py at 2018-11-02 20:07:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 38.920 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 38.920 ms
Loss rate: 0.62%
```

## Run 5: Report of FillP — Data Link

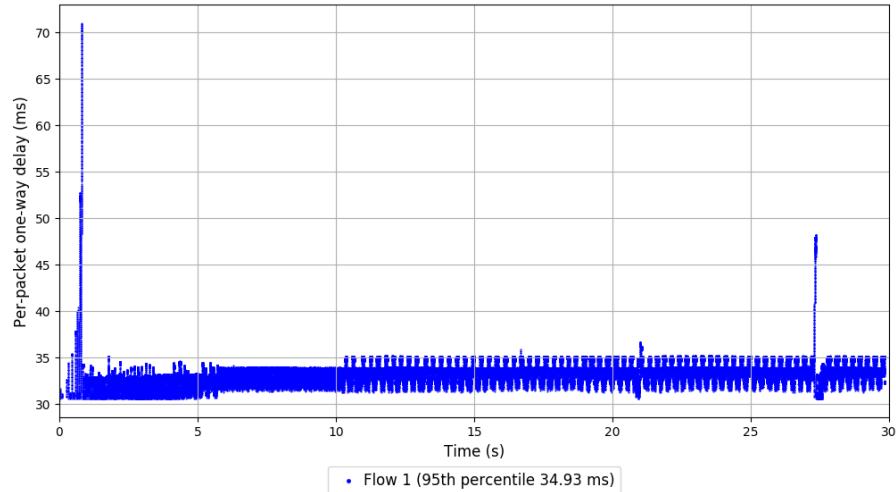
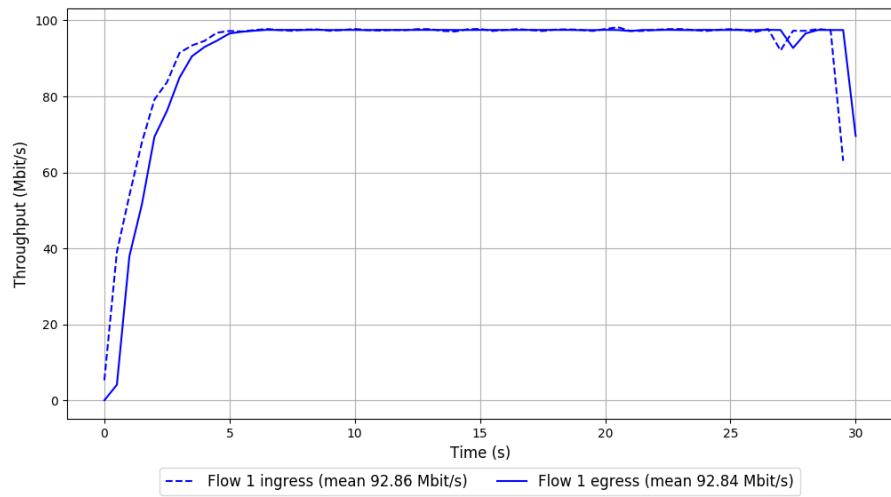


Run 1: Statistics of Indigo

```
Start at: 2018-11-02 18:13:30
End at: 2018-11-02 18:14:00
Local clock offset: 2.602 ms
Remote clock offset: -3.084 ms

# Below is generated by plot.py at 2018-11-02 20:07:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 34.930 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 92.84 Mbit/s
95th percentile per-packet one-way delay: 34.930 ms
Loss rate: 0.02%
```

## Run 1: Report of Indigo — Data Link

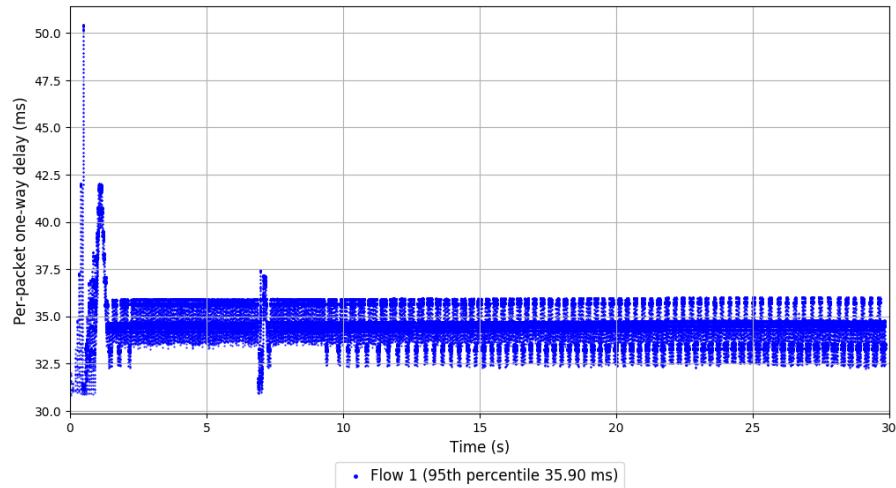
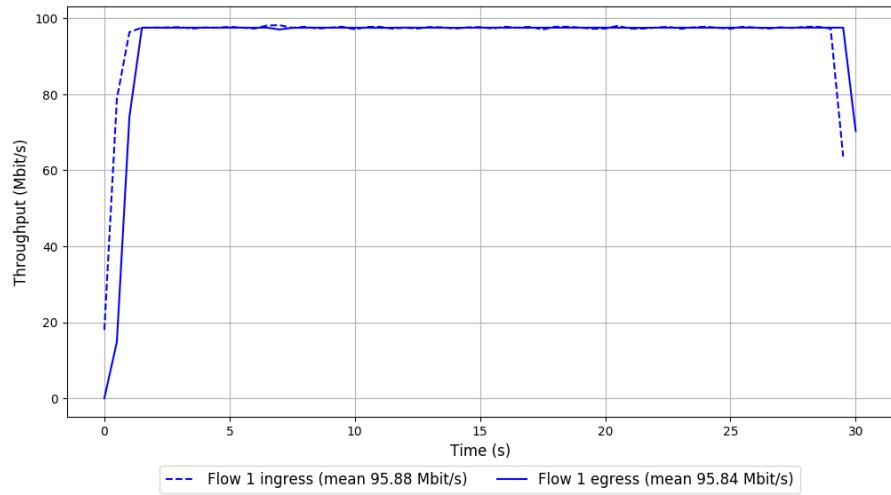


Run 2: Statistics of Indigo

```
Start at: 2018-11-02 18:37:07
End at: 2018-11-02 18:37:37
Local clock offset: 3.055 ms
Remote clock offset: -2.721 ms

# Below is generated by plot.py at 2018-11-02 20:07:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 35.897 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 35.897 ms
Loss rate: 0.03%
```

## Run 2: Report of Indigo — Data Link

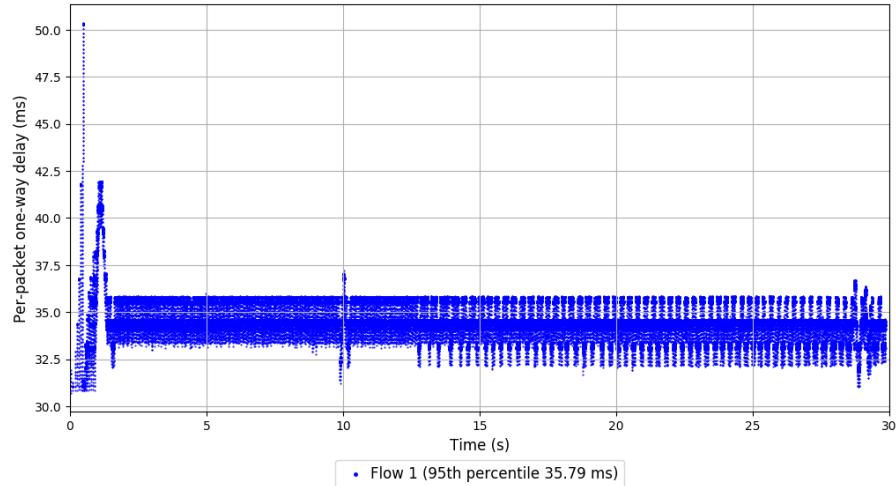
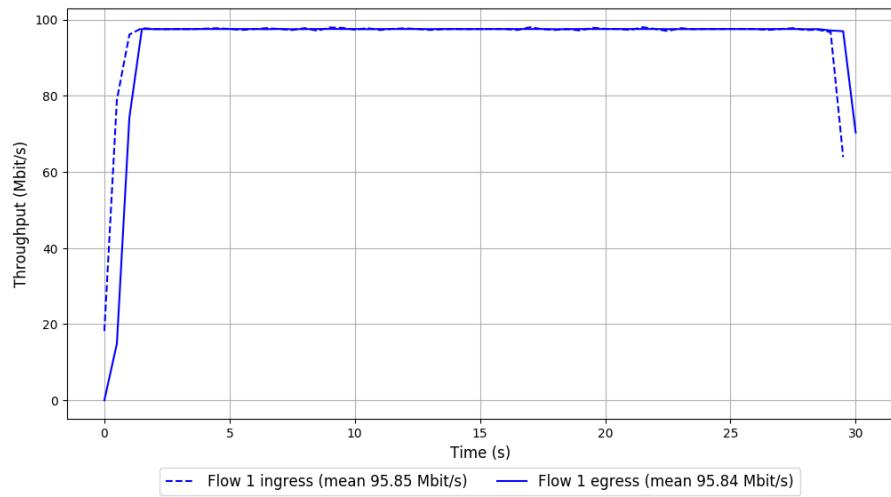


Run 3: Statistics of Indigo

```
Start at: 2018-11-02 19:00:49
End at: 2018-11-02 19:01:19
Local clock offset: 5.407 ms
Remote clock offset: -2.317 ms

# Below is generated by plot.py at 2018-11-02 20:07:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 35.787 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 35.787 ms
Loss rate: 0.01%
```

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

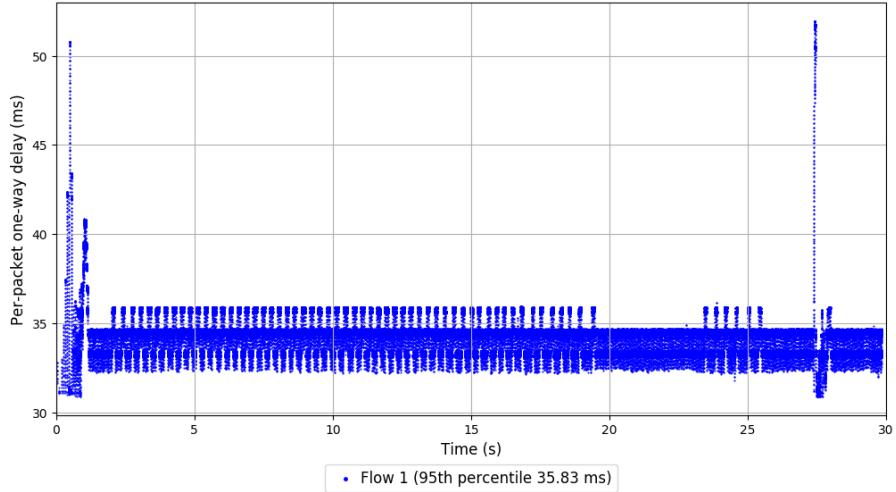
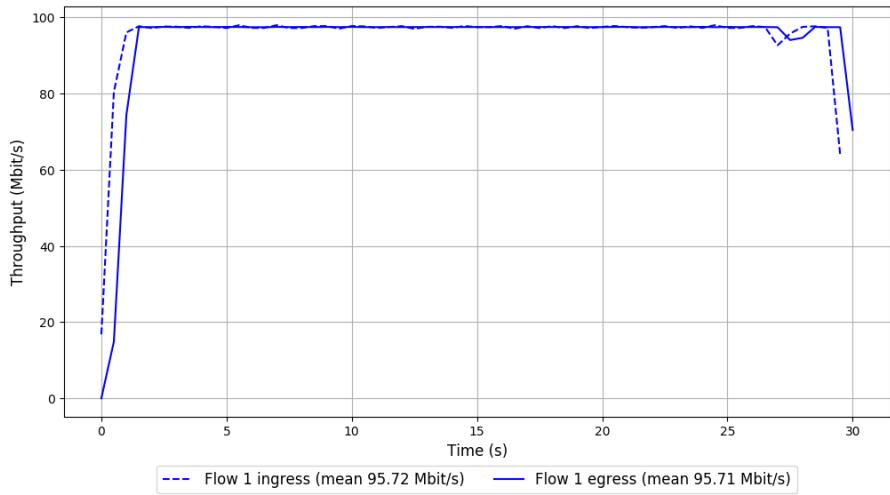


Run 4: Statistics of Indigo

```
Start at: 2018-11-02 19:24:27
End at: 2018-11-02 19:24:57
Local clock offset: 5.976 ms
Remote clock offset: -1.883 ms

# Below is generated by plot.py at 2018-11-02 20:07:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 35.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 35.827 ms
Loss rate: 0.00%
```

## Run 4: Report of Indigo — Data Link

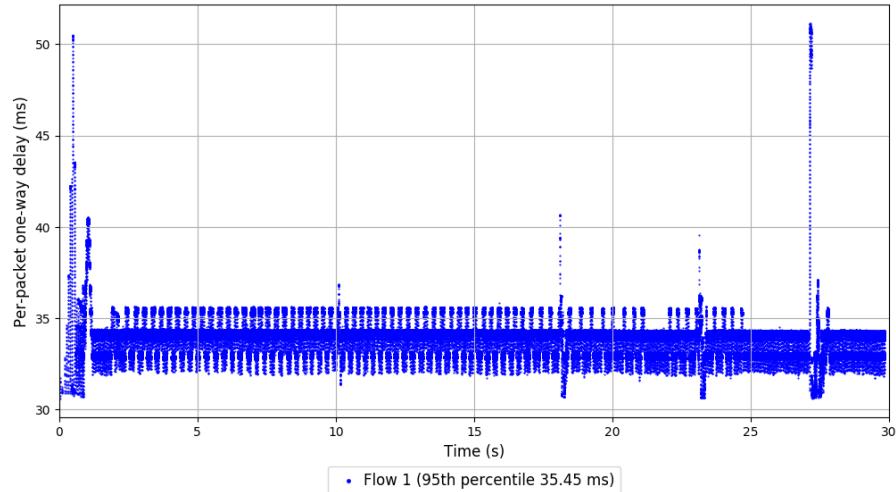
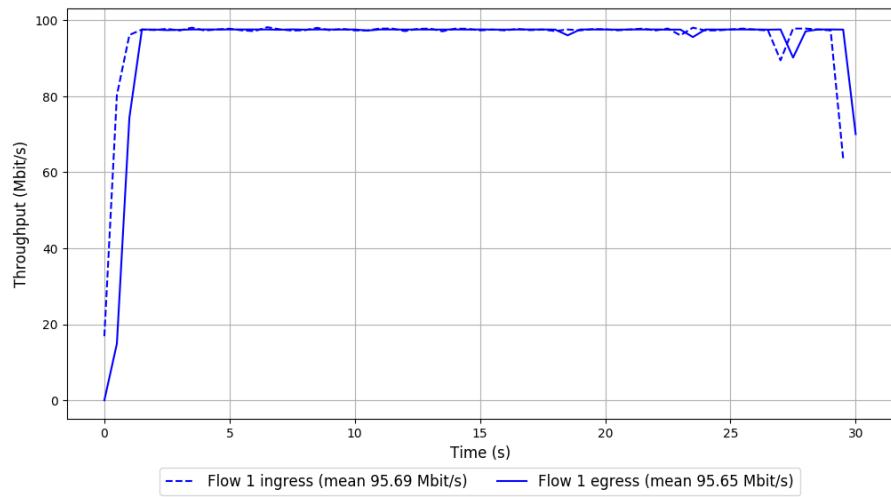


Run 5: Statistics of Indigo

```
Start at: 2018-11-02 19:47:59
End at: 2018-11-02 19:48:29
Local clock offset: 2.396 ms
Remote clock offset: -1.764 ms

# Below is generated by plot.py at 2018-11-02 20:07:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 35.455 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 95.65 Mbit/s
95th percentile per-packet one-way delay: 35.455 ms
Loss rate: 0.03%
```

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

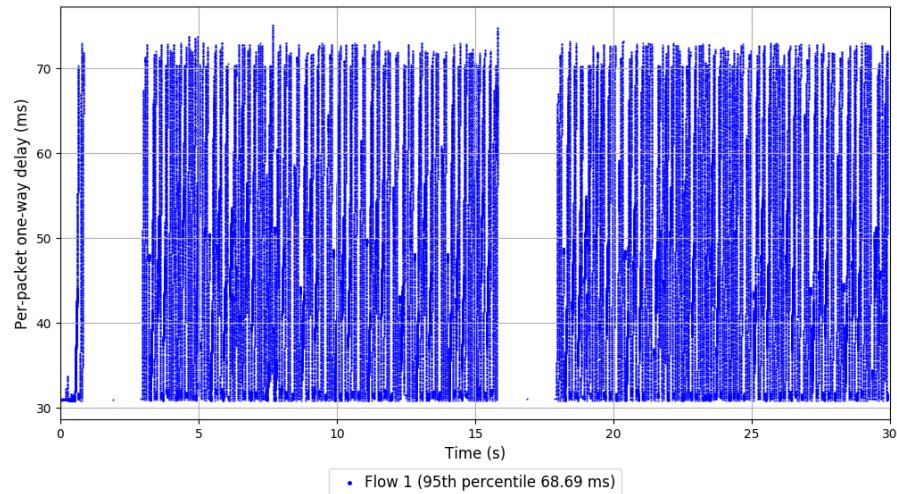
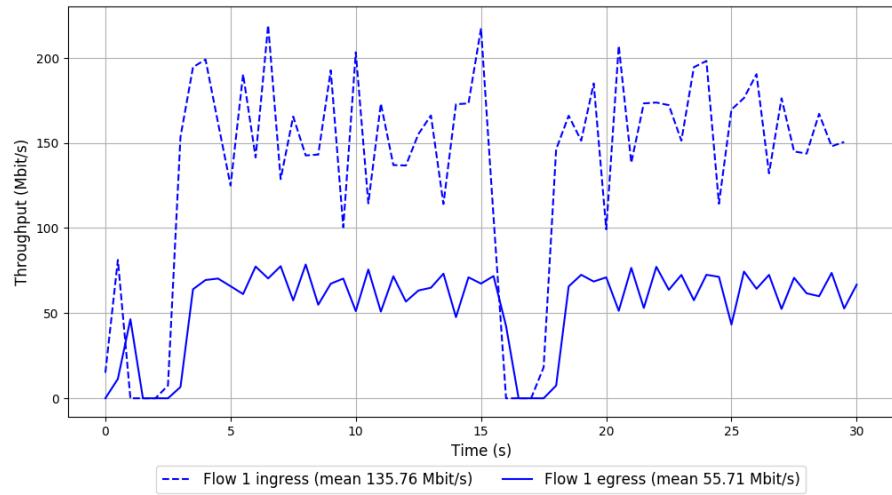


```
Run 1: Statistics of Indigo-96d2da3
```

```
Start at: 2018-11-02 18:24:05
End at: 2018-11-02 18:24:35
Local clock offset: 2.362 ms
Remote clock offset: -2.824 ms

# Below is generated by plot.py at 2018-11-02 20:07:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 68.690 ms
Loss rate: 58.96%
-- Flow 1:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 68.690 ms
Loss rate: 58.96%
```

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

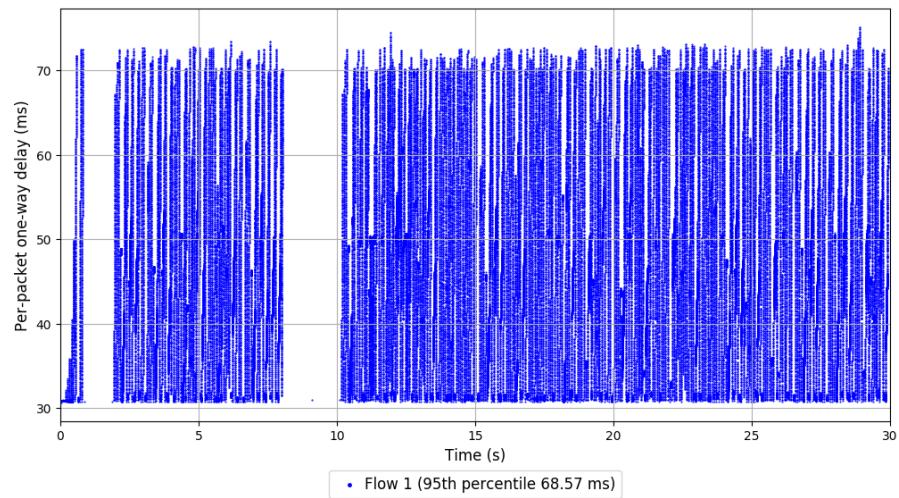
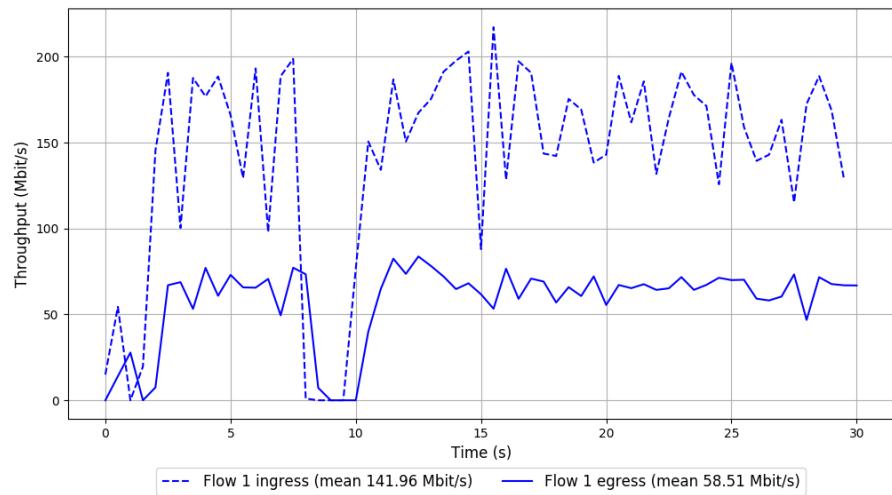


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-11-02 18:47:39
End at: 2018-11-02 18:48:09
Local clock offset: 4.749 ms
Remote clock offset: -2.625 ms

# Below is generated by plot.py at 2018-11-02 20:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 68.572 ms
Loss rate: 58.75%
-- Flow 1:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 68.572 ms
Loss rate: 58.75%
```

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

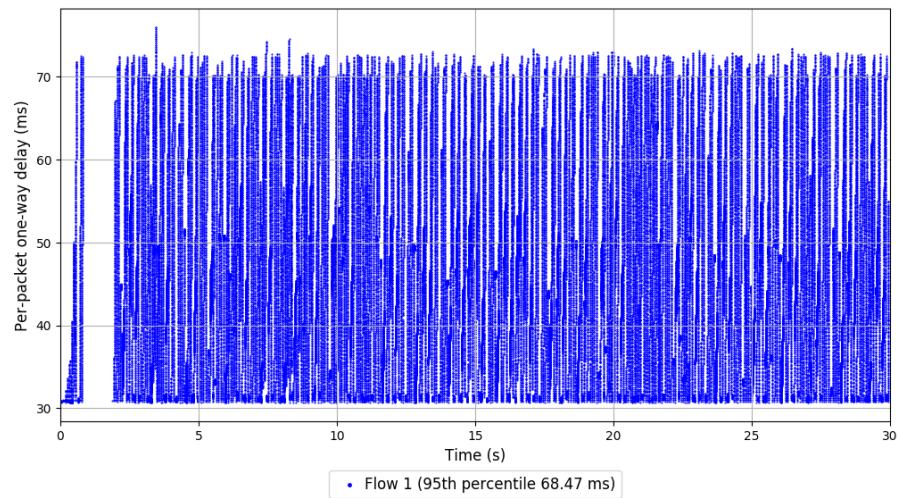
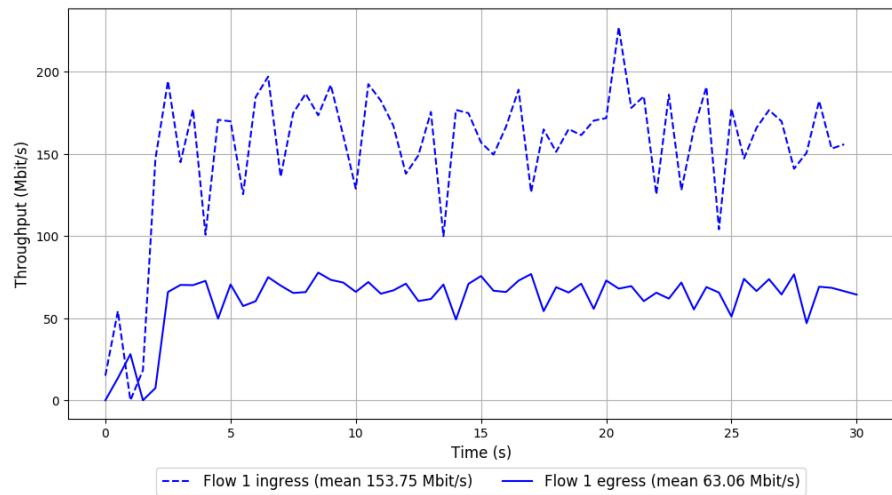


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-11-02 19:11:21
End at: 2018-11-02 19:11:51
Local clock offset: 5.721 ms
Remote clock offset: -2.253 ms

# Below is generated by plot.py at 2018-11-02 20:08:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 68.470 ms
Loss rate: 58.95%
-- Flow 1:
Average throughput: 63.06 Mbit/s
95th percentile per-packet one-way delay: 68.470 ms
Loss rate: 58.95%
```

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

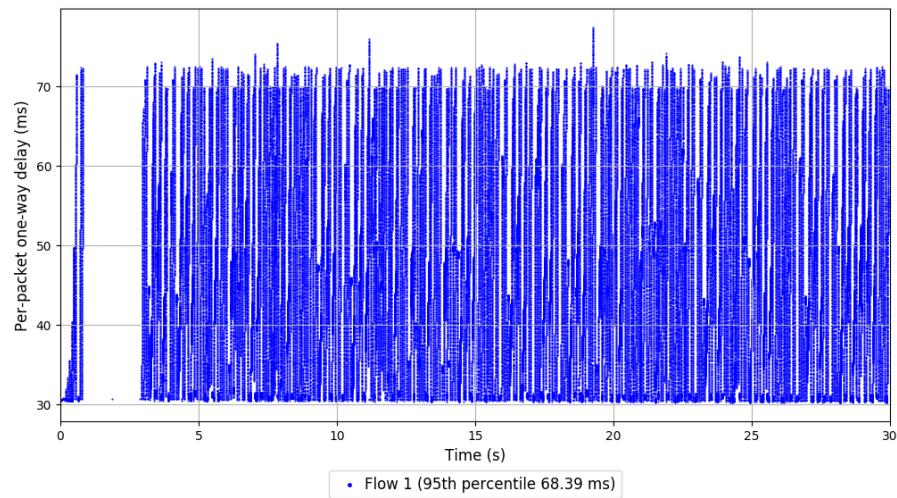
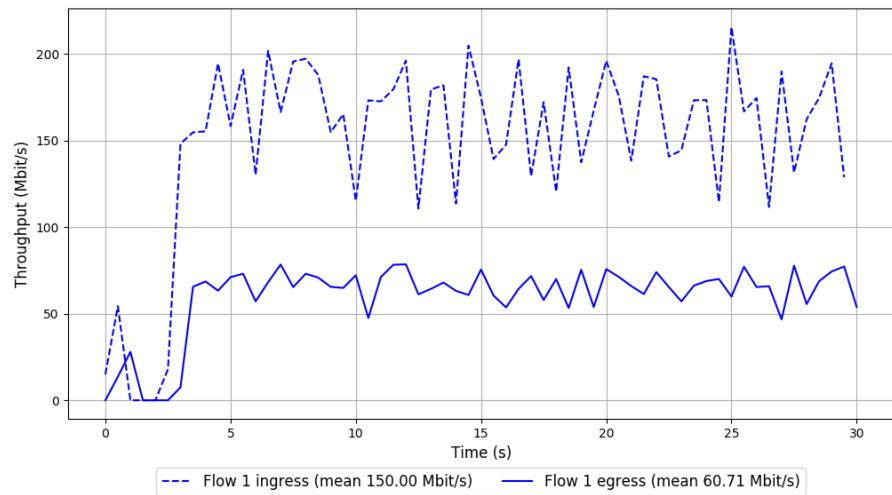


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-11-02 19:34:58
End at: 2018-11-02 19:35:28
Local clock offset: 5.844 ms
Remote clock offset: -1.921 ms

# Below is generated by plot.py at 2018-11-02 20:08:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 68.390 ms
Loss rate: 59.49%
-- Flow 1:
Average throughput: 60.71 Mbit/s
95th percentile per-packet one-way delay: 68.390 ms
Loss rate: 59.49%
```

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

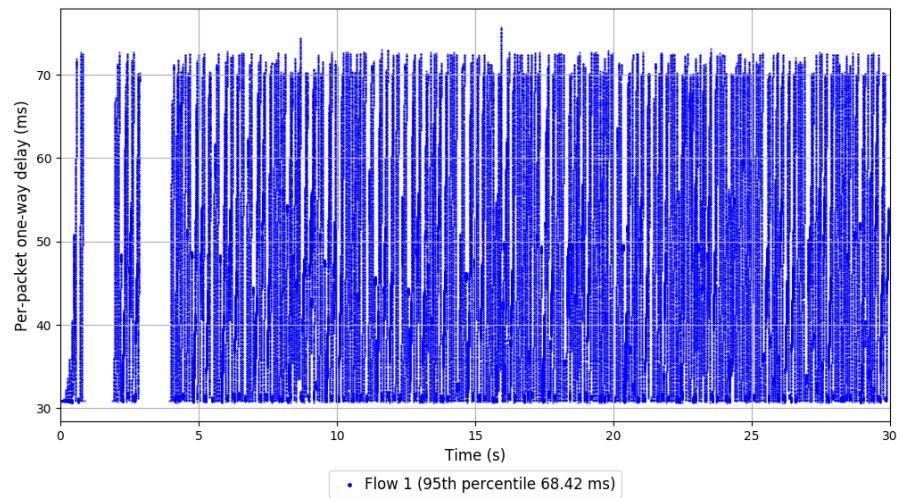
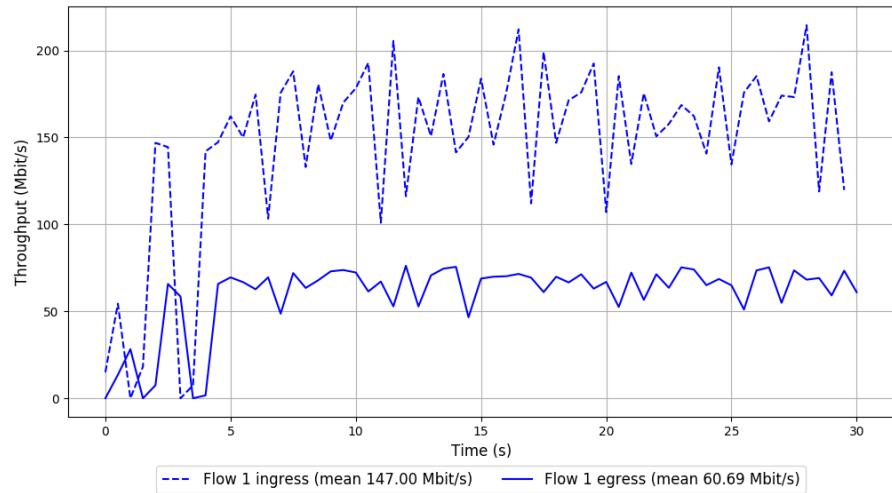


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-11-02 19:58:29
End at: 2018-11-02 19:58:59
Local clock offset: 1.224 ms
Remote clock offset: -1.707 ms

# Below is generated by plot.py at 2018-11-02 20:08:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.69 Mbit/s
95th percentile per-packet one-way delay: 68.420 ms
Loss rate: 58.68%
-- Flow 1:
Average throughput: 60.69 Mbit/s
95th percentile per-packet one-way delay: 68.420 ms
Loss rate: 58.68%
```

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

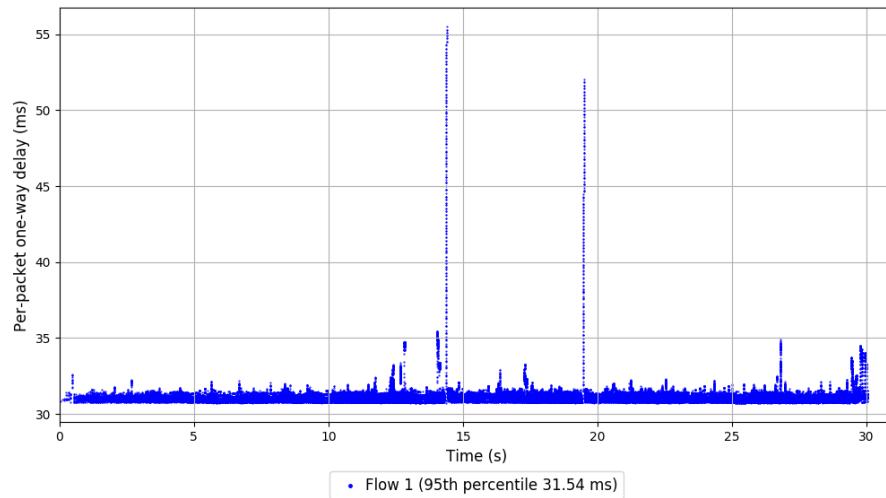
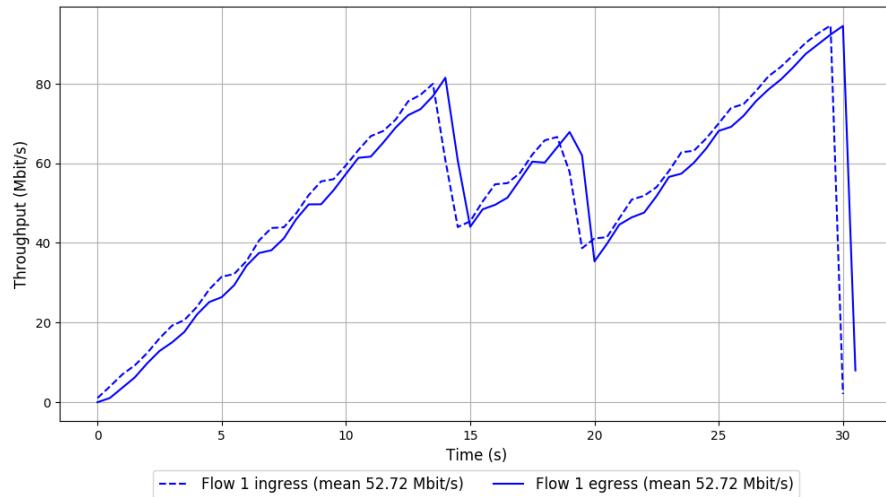


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-11-02 18:09:35
End at: 2018-11-02 18:10:05
Local clock offset: 2.673 ms
Remote clock offset: -3.123 ms

# Below is generated by plot.py at 2018-11-02 20:08:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.72 Mbit/s
95th percentile per-packet one-way delay: 31.544 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.72 Mbit/s
95th percentile per-packet one-way delay: 31.544 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

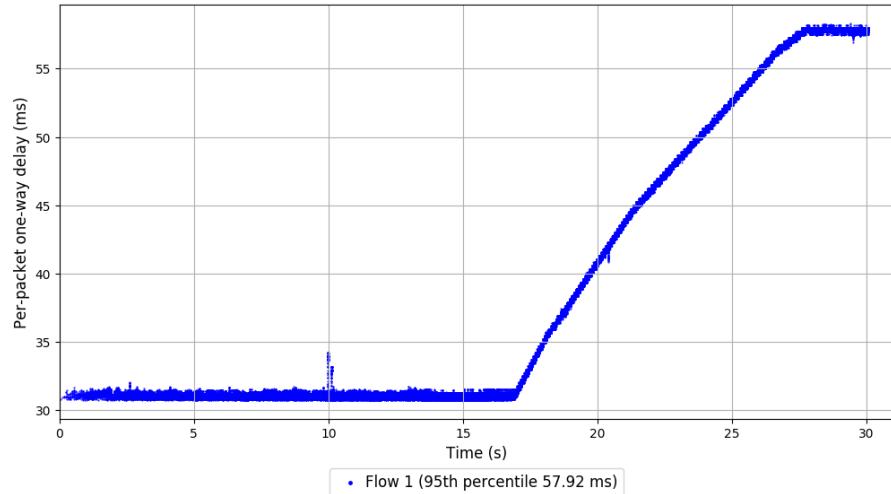
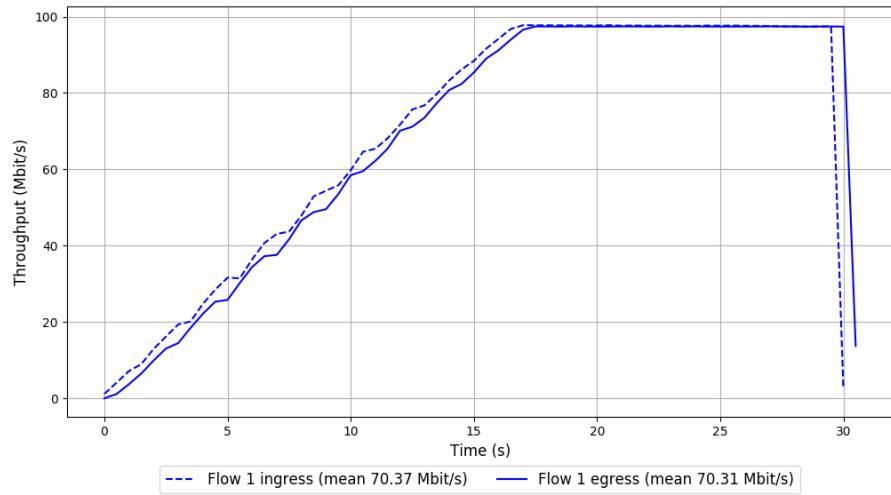


Run 2: Statistics of LEDBAT

```
Start at: 2018-11-02 18:33:10
End at: 2018-11-02 18:33:40
Local clock offset: 2.233 ms
Remote clock offset: -2.82 ms

# Below is generated by plot.py at 2018-11-02 20:08:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.31 Mbit/s
95th percentile per-packet one-way delay: 57.921 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.31 Mbit/s
95th percentile per-packet one-way delay: 57.921 ms
Loss rate: 0.00%
```

## Run 2: Report of LEDBAT — Data Link

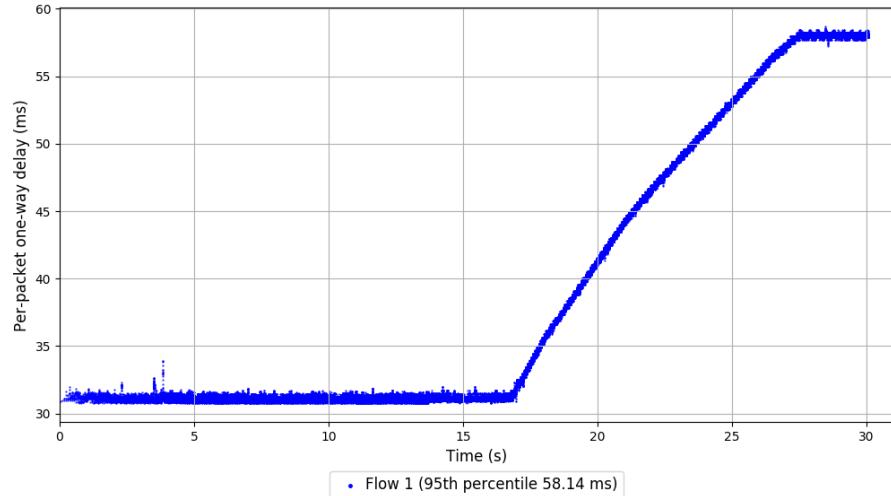
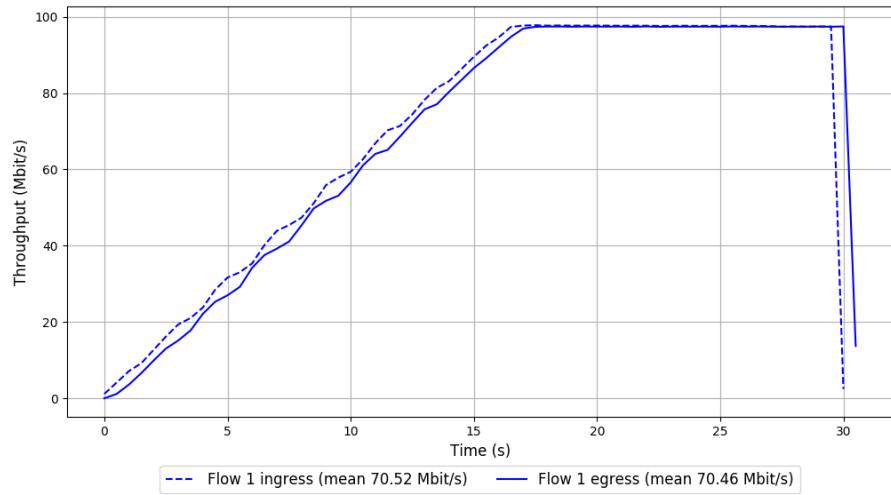


Run 3: Statistics of LEDBAT

```
Start at: 2018-11-02 18:56:52
End at: 2018-11-02 18:57:22
Local clock offset: 5.281 ms
Remote clock offset: -2.388 ms

# Below is generated by plot.py at 2018-11-02 20:08:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 58.136 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 58.136 ms
Loss rate: 0.00%
```

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

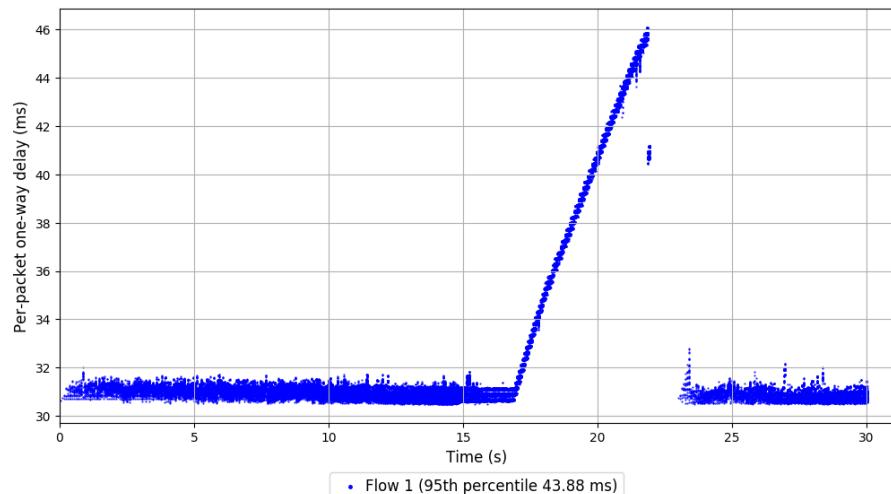
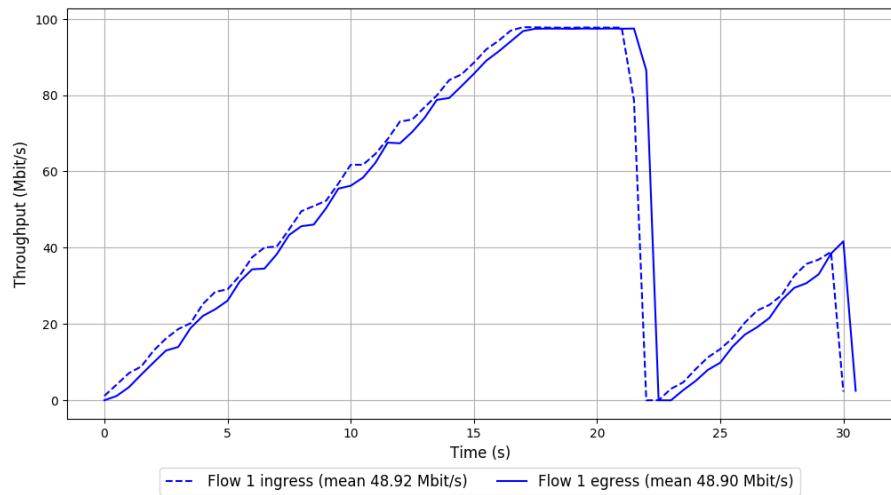


Run 4: Statistics of LEDBAT

```
Start at: 2018-11-02 19:20:32
End at: 2018-11-02 19:21:02
Local clock offset: 5.895 ms
Remote clock offset: -2.31 ms

# Below is generated by plot.py at 2018-11-02 20:08:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.90 Mbit/s
95th percentile per-packet one-way delay: 43.875 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 48.90 Mbit/s
95th percentile per-packet one-way delay: 43.875 ms
Loss rate: 0.03%
```

## Run 4: Report of LEDBAT — Data Link

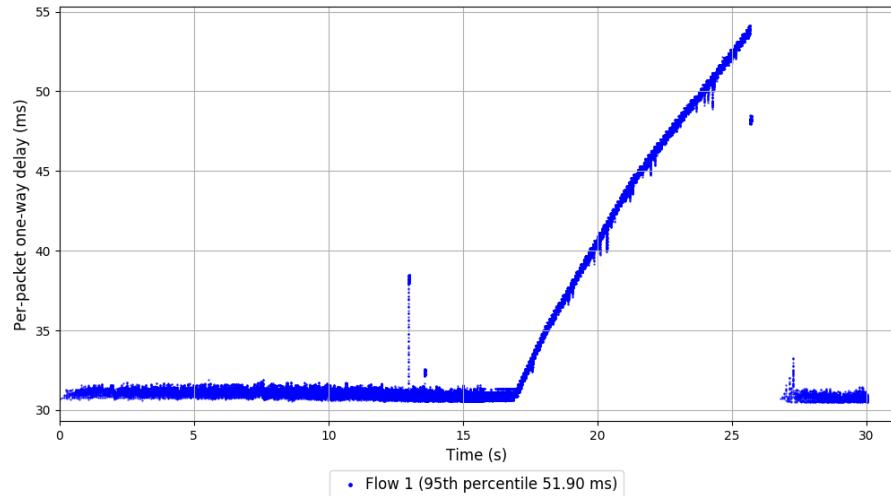
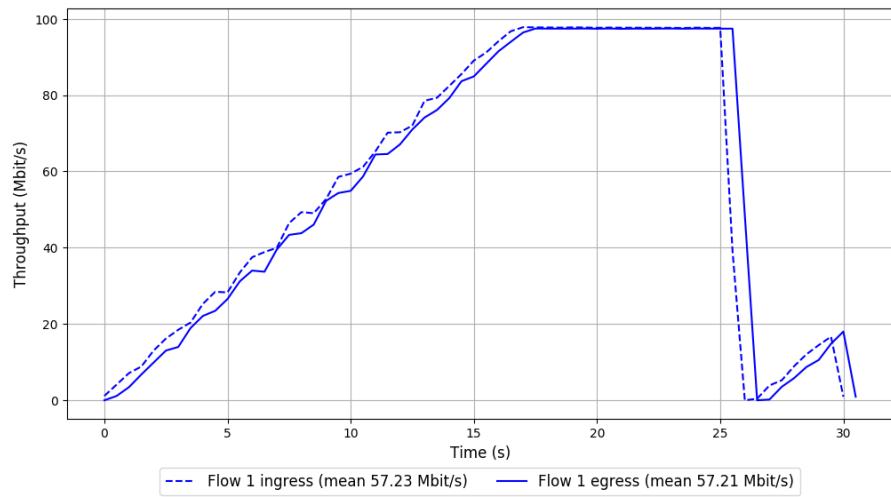


Run 5: Statistics of LEDBAT

```
Start at: 2018-11-02 19:44:03
End at: 2018-11-02 19:44:33
Local clock offset: 3.039 ms
Remote clock offset: -1.868 ms

# Below is generated by plot.py at 2018-11-02 20:08:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.21 Mbit/s
95th percentile per-packet one-way delay: 51.902 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 57.21 Mbit/s
95th percentile per-packet one-way delay: 51.902 ms
Loss rate: 0.03%
```

## Run 5: Report of LEDBAT — Data Link

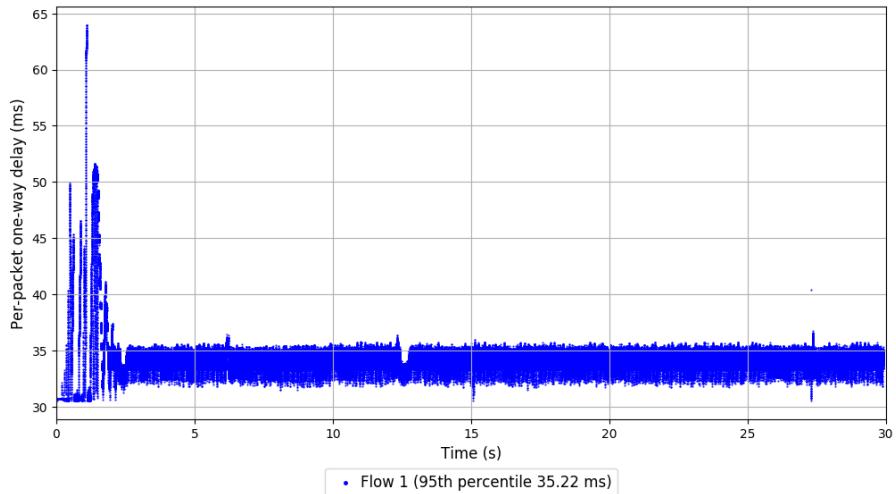
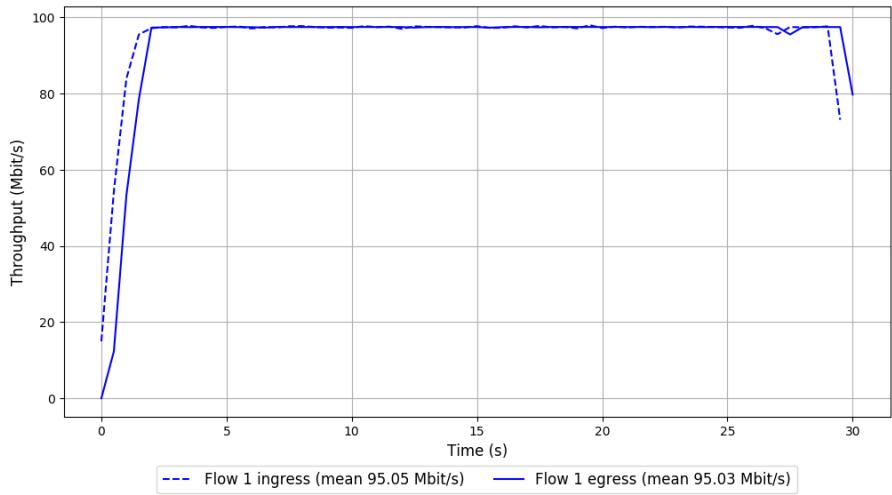


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-11-02 18:25:24
End at: 2018-11-02 18:25:54
Local clock offset: 2.347 ms
Remote clock offset: -3.083 ms

# Below is generated by plot.py at 2018-11-02 20:09:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.03 Mbit/s
95th percentile per-packet one-way delay: 35.218 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.03 Mbit/s
95th percentile per-packet one-way delay: 35.218 ms
Loss rate: 0.01%
```

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

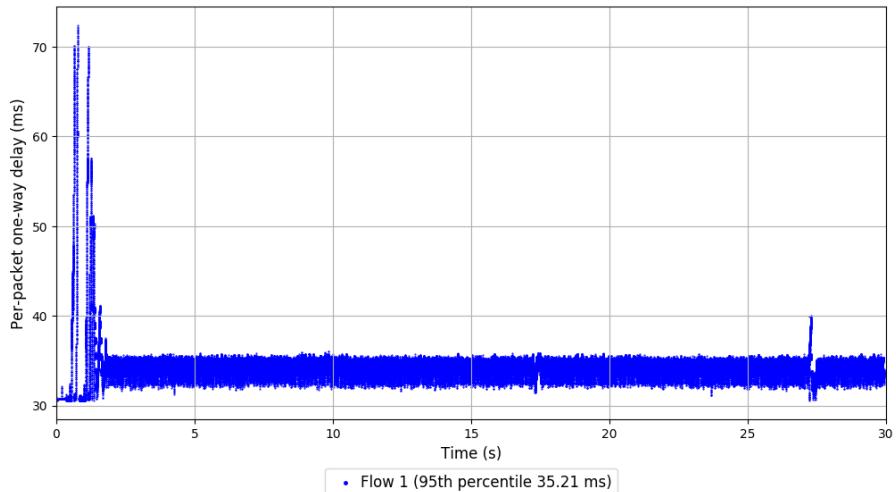
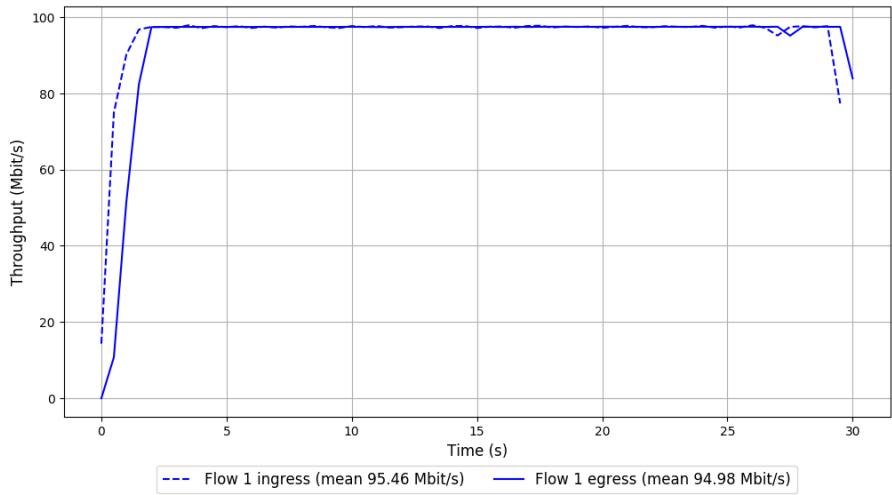


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-11-02 18:48:59
End at: 2018-11-02 18:49:30
Local clock offset: 4.855 ms
Remote clock offset: -2.798 ms

# Below is generated by plot.py at 2018-11-02 20:09:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.98 Mbit/s
95th percentile per-packet one-way delay: 35.211 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 94.98 Mbit/s
95th percentile per-packet one-way delay: 35.211 ms
Loss rate: 0.49%
```

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

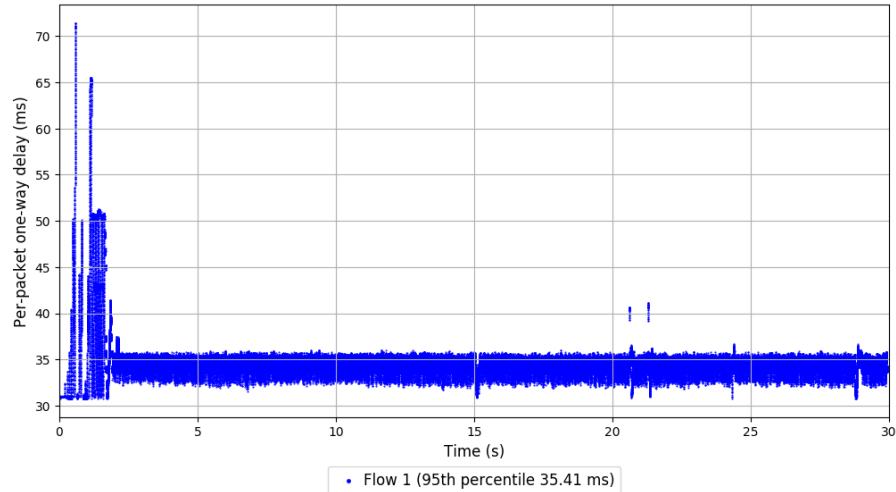
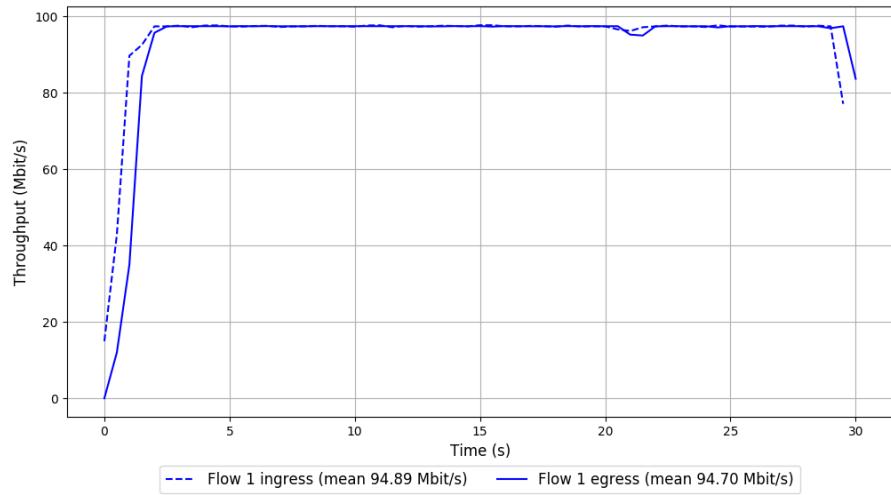


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-11-02 19:12:41
End at: 2018-11-02 19:13:11
Local clock offset: 5.766 ms
Remote clock offset: -2.162 ms

# Below is generated by plot.py at 2018-11-02 20:09:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 35.413 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 35.413 ms
Loss rate: 0.18%
```

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

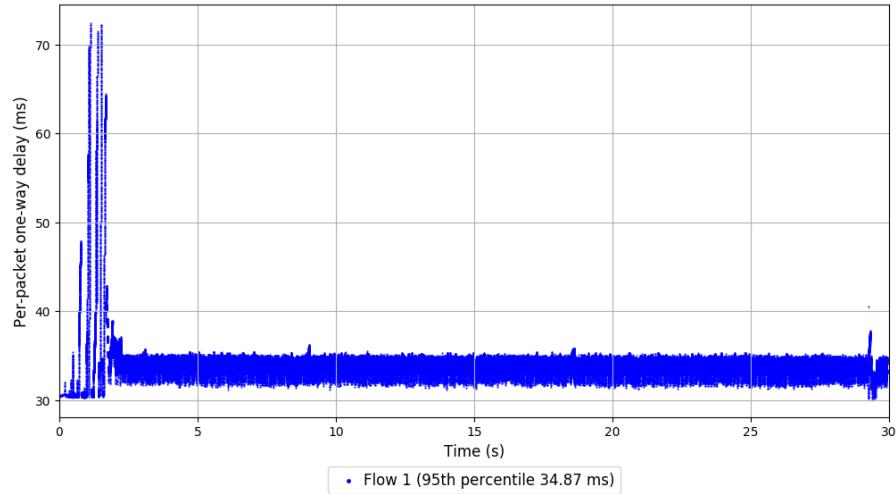
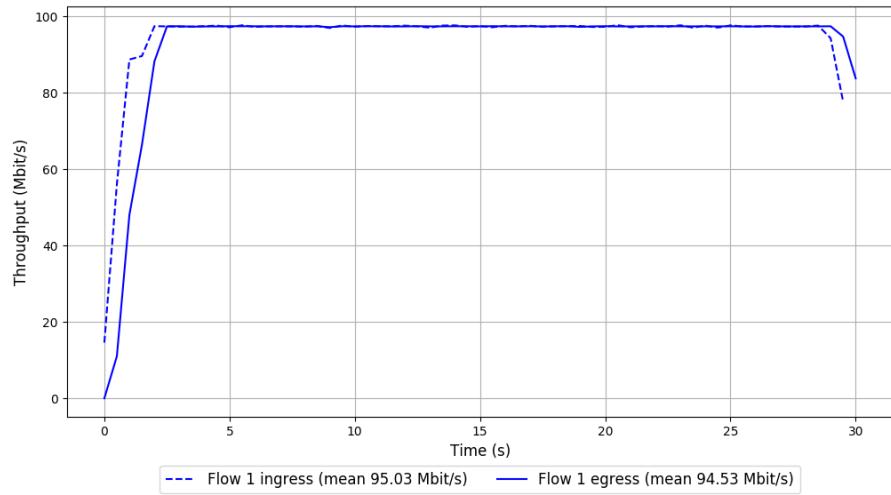


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-11-02 19:36:18
End at: 2018-11-02 19:36:48
Local clock offset: 5.3 ms
Remote clock offset: -2.059 ms

# Below is generated by plot.py at 2018-11-02 20:09:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 34.866 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 94.53 Mbit/s
95th percentile per-packet one-way delay: 34.866 ms
Loss rate: 0.51%
```

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

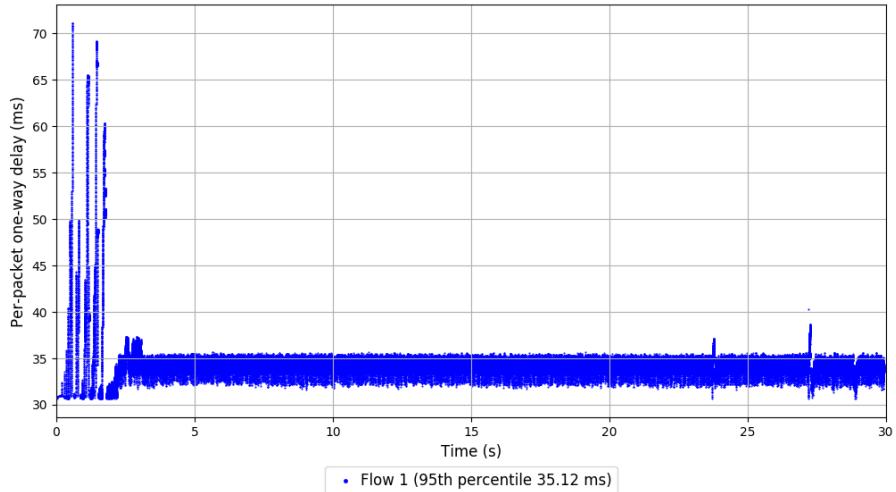
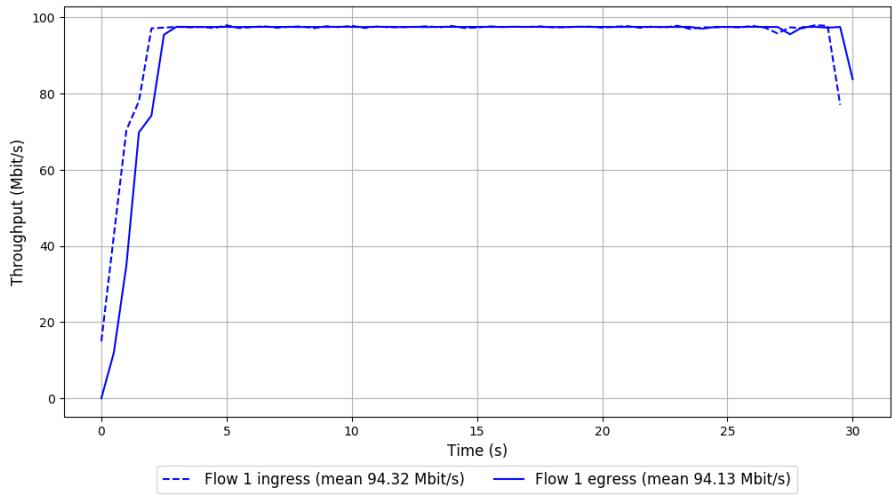


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-11-02 19:59:49
End at: 2018-11-02 20:00:19
Local clock offset: 1.037 ms
Remote clock offset: -1.688 ms

# Below is generated by plot.py at 2018-11-02 20:09:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 35.125 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 94.13 Mbit/s
95th percentile per-packet one-way delay: 35.125 ms
Loss rate: 0.18%
```

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

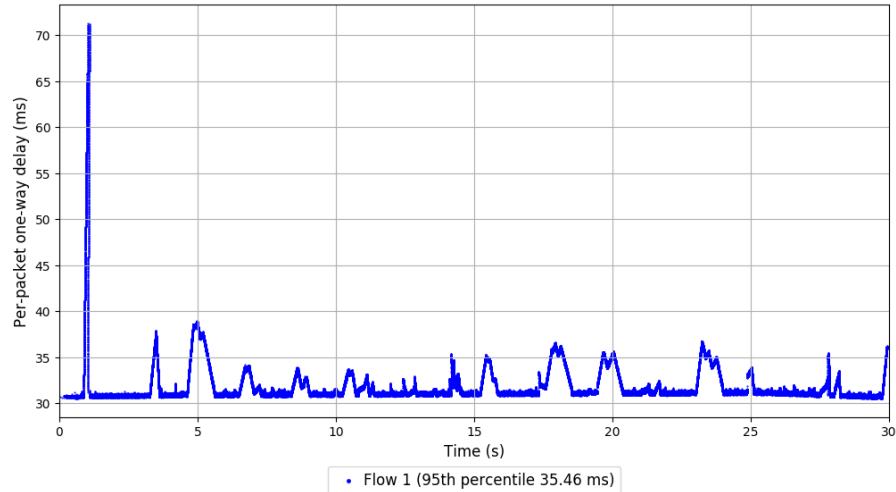
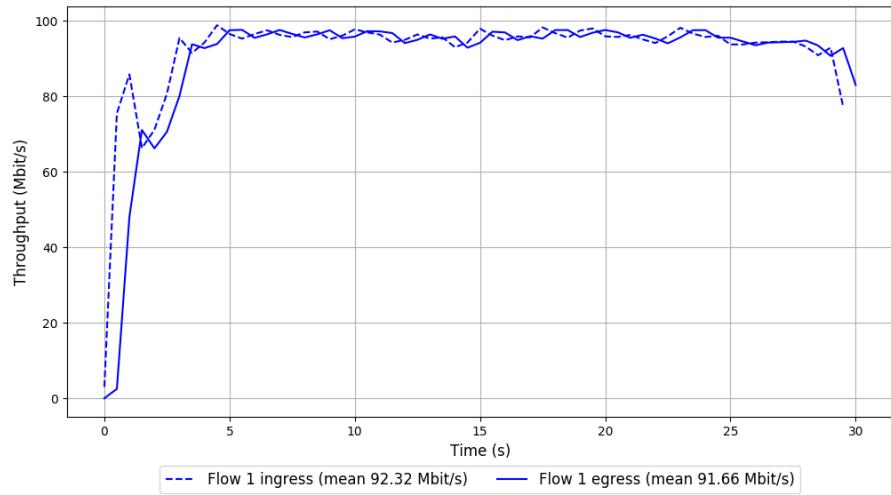


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2018-11-02 18:05:45
End at: 2018-11-02 18:06:15
Local clock offset: 6.079 ms
Remote clock offset: -3.133 ms

# Below is generated by plot.py at 2018-11-02 20:09:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 35.464 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 91.66 Mbit/s
95th percentile per-packet one-way delay: 35.464 ms
Loss rate: 0.70%
```

Run 1: Report of PCC-Allegro — Data Link

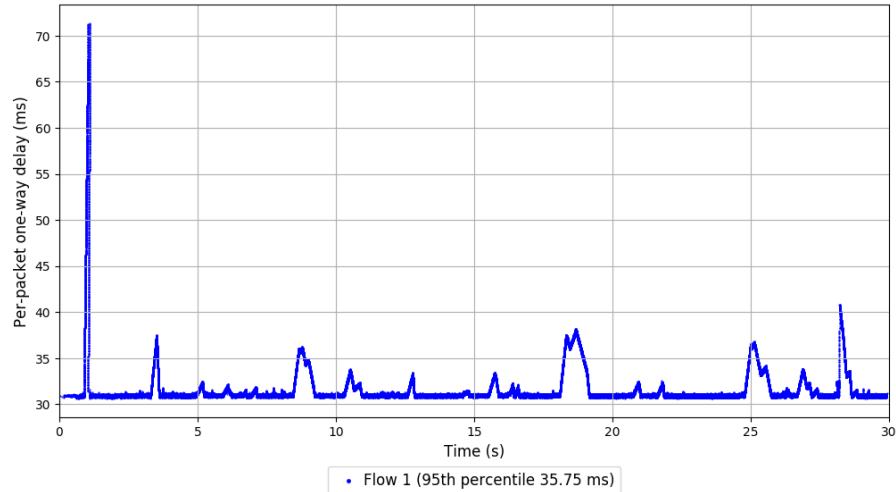
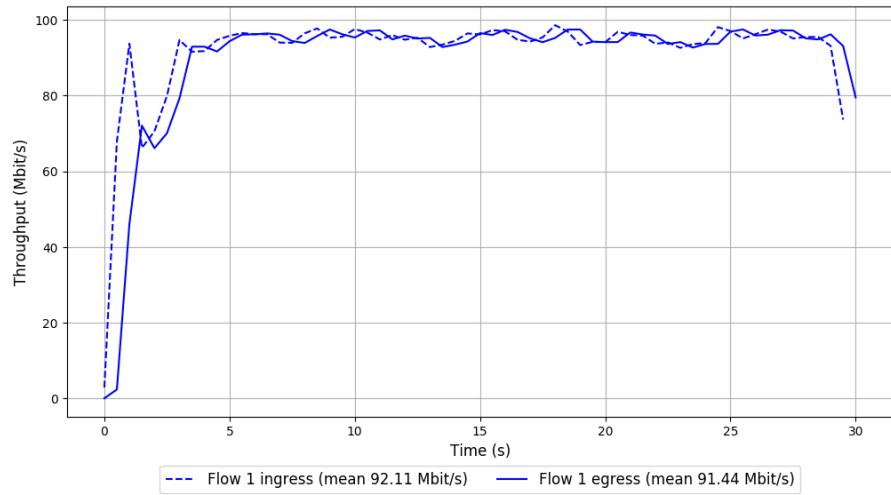


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-11-02 18:29:19
End at: 2018-11-02 18:29:49
Local clock offset: 2.298 ms
Remote clock offset: -2.879 ms

# Below is generated by plot.py at 2018-11-02 20:09:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.44 Mbit/s
95th percentile per-packet one-way delay: 35.752 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 91.44 Mbit/s
95th percentile per-packet one-way delay: 35.752 ms
Loss rate: 0.73%
```

## Run 2: Report of PCC-Allegro — Data Link

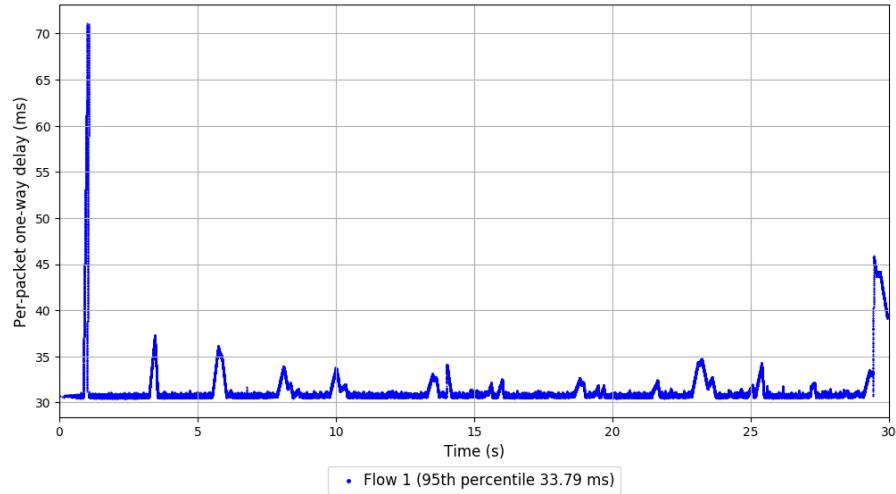
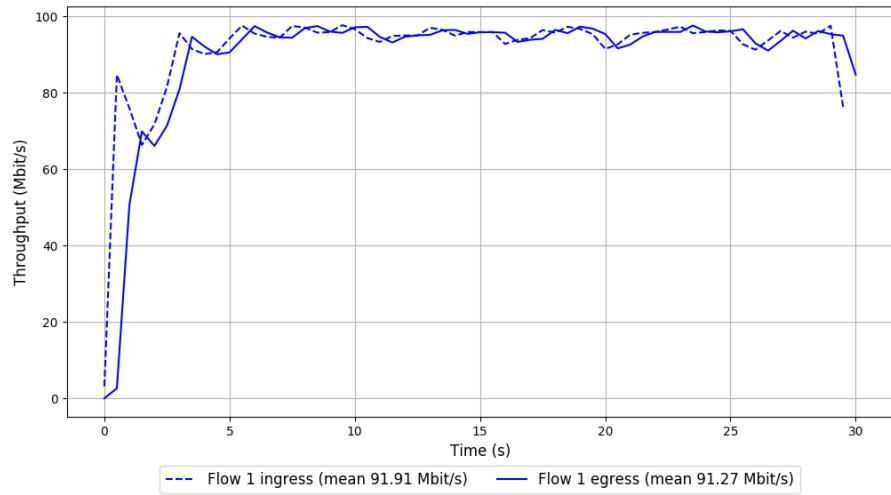


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-11-02 18:53:01
End at: 2018-11-02 18:53:31
Local clock offset: 5.102 ms
Remote clock offset: -2.781 ms

# Below is generated by plot.py at 2018-11-02 20:09:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.27 Mbit/s
95th percentile per-packet one-way delay: 33.786 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 91.27 Mbit/s
95th percentile per-packet one-way delay: 33.786 ms
Loss rate: 0.67%
```

### Run 3: Report of PCC-Allegro — Data Link

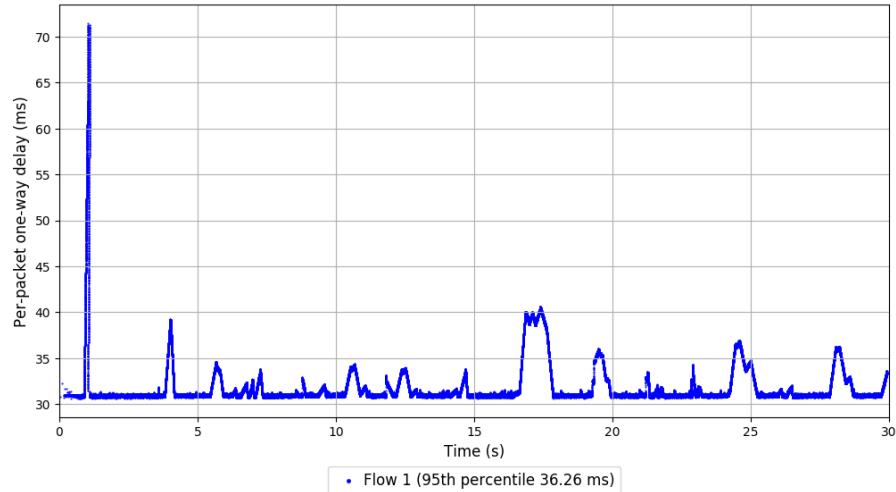
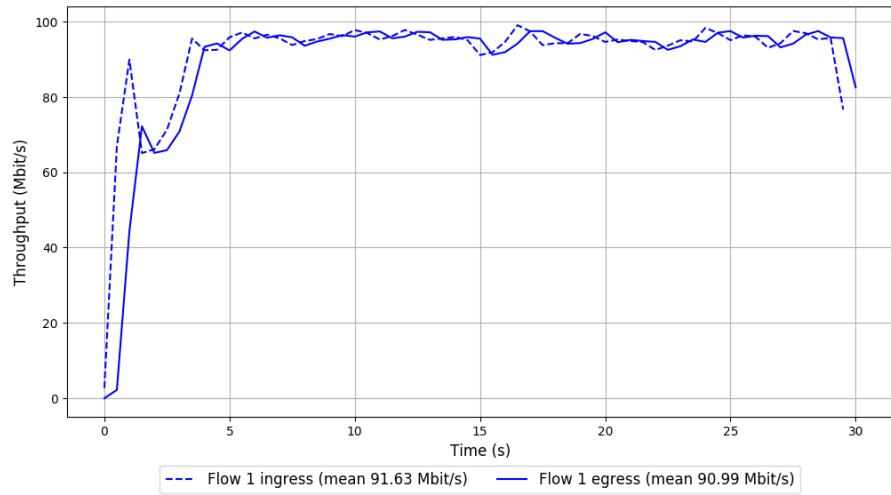


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-11-02 19:16:37
End at: 2018-11-02 19:17:07
Local clock offset: 5.855 ms
Remote clock offset: -2.138 ms

# Below is generated by plot.py at 2018-11-02 20:10:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 36.263 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 36.263 ms
Loss rate: 0.69%
```

## Run 4: Report of PCC-Allegro — Data Link

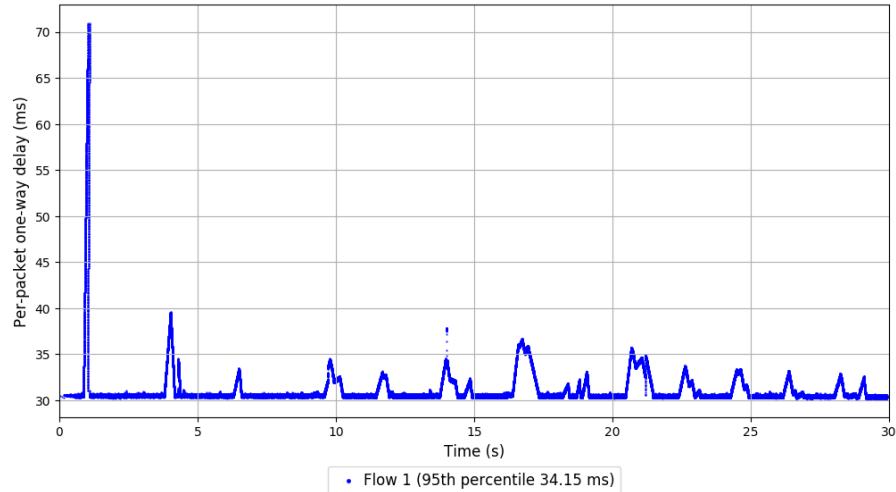
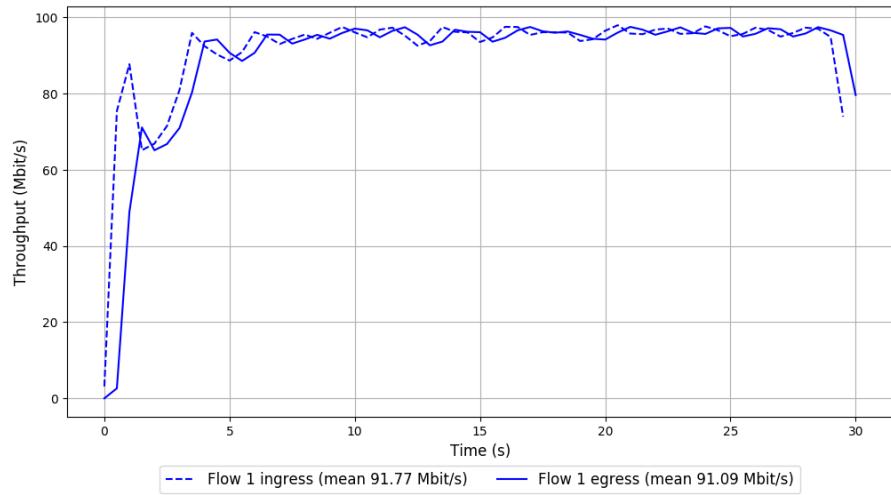


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-11-02 19:40:13
End at: 2018-11-02 19:40:43
Local clock offset: 3.974 ms
Remote clock offset: -2.073 ms

# Below is generated by plot.py at 2018-11-02 20:10:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 34.146 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 34.146 ms
Loss rate: 0.74%
```

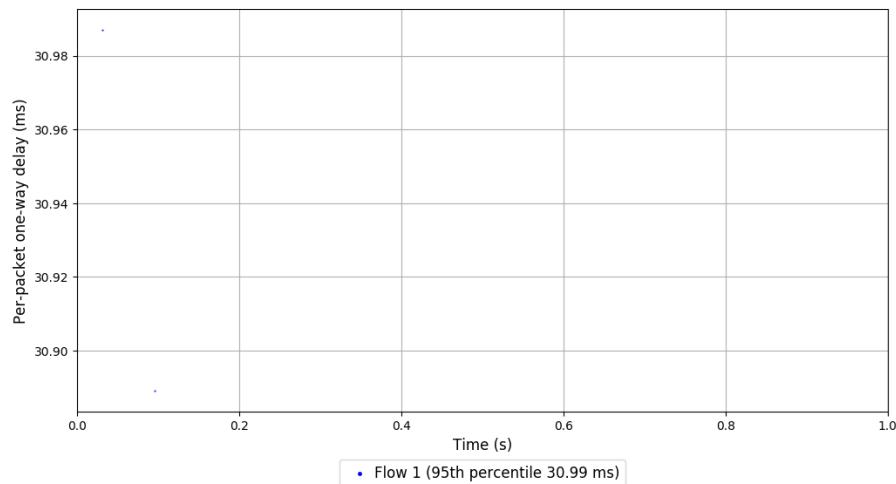
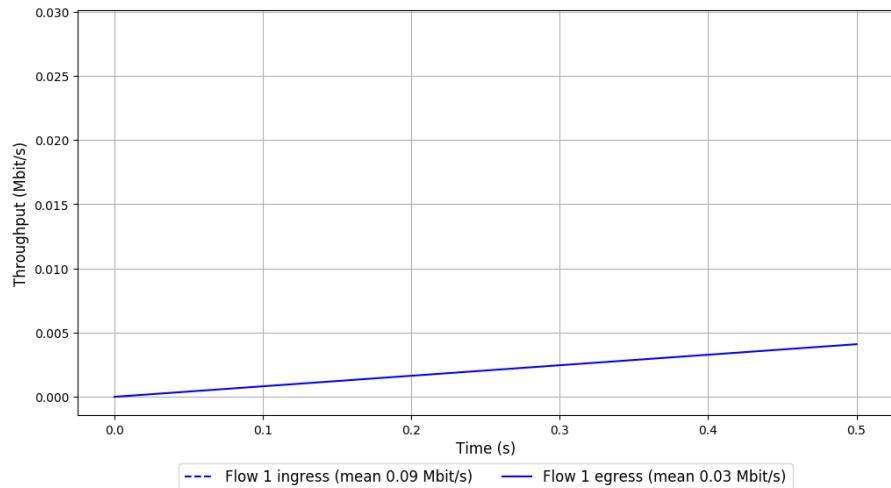
### Run 5: Report of PCC-Allegro — Data Link



Run 1: Statistics of PCC-Expr

Start at: 2018-11-02 18:18:49  
End at: 2018-11-02 18:19:19  
Local clock offset: 2.465 ms  
Remote clock offset: -2.907 ms

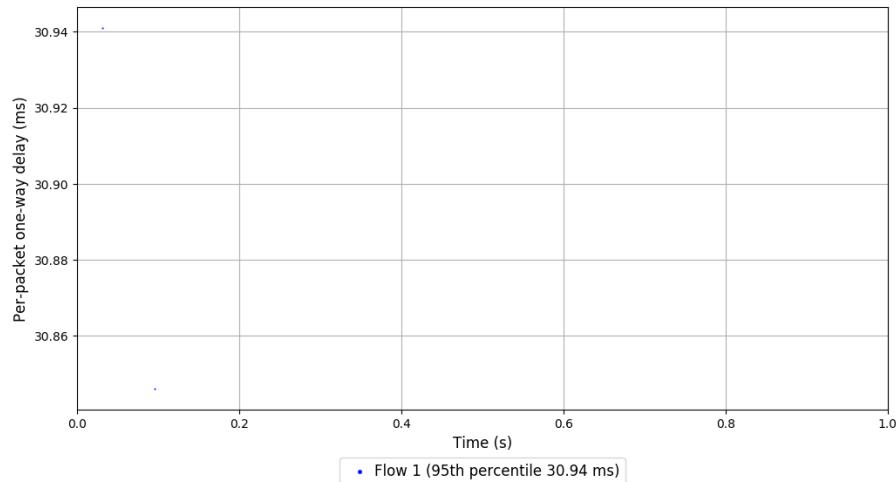
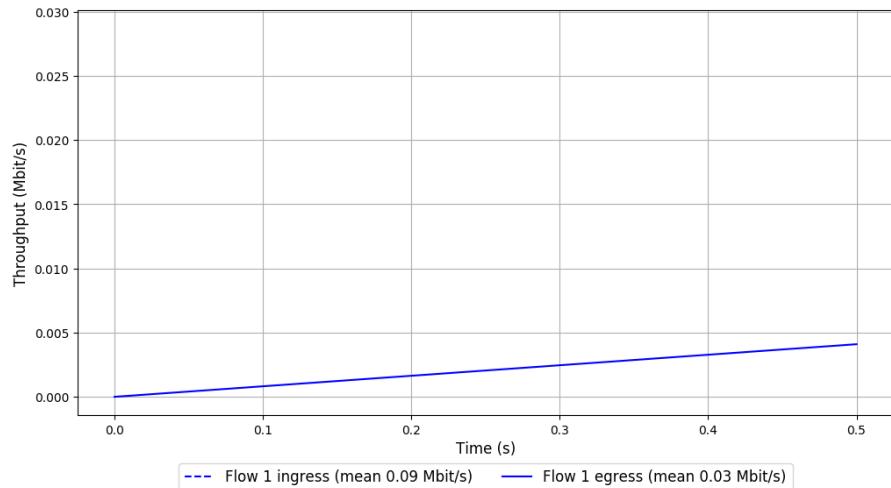
## Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-11-02 18:42:28  
End at: 2018-11-02 18:42:58  
Local clock offset: 4.137 ms  
Remote clock offset: -2.758 ms

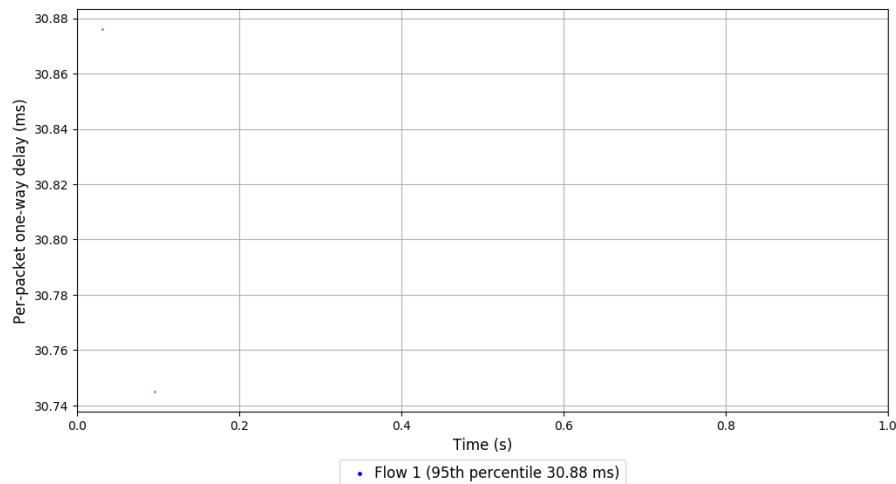
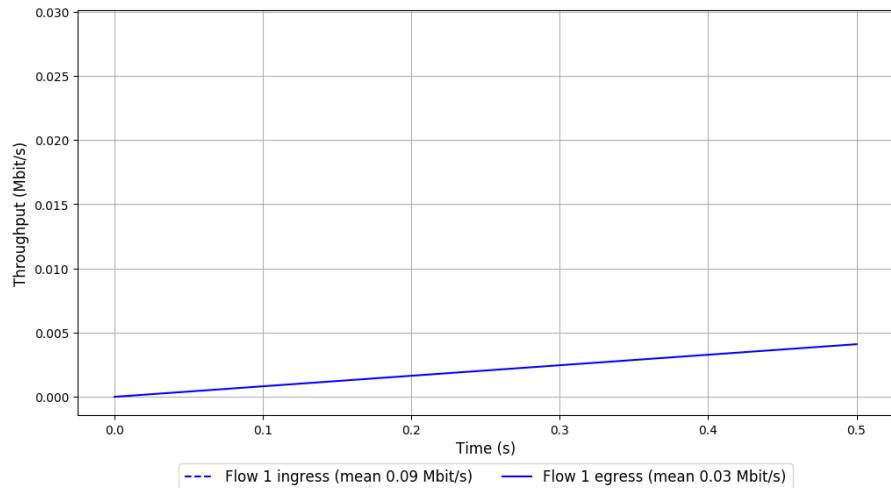
## Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-11-02 19:06:11  
End at: 2018-11-02 19:06:41  
Local clock offset: 5.589 ms  
Remote clock offset: -2.337 ms

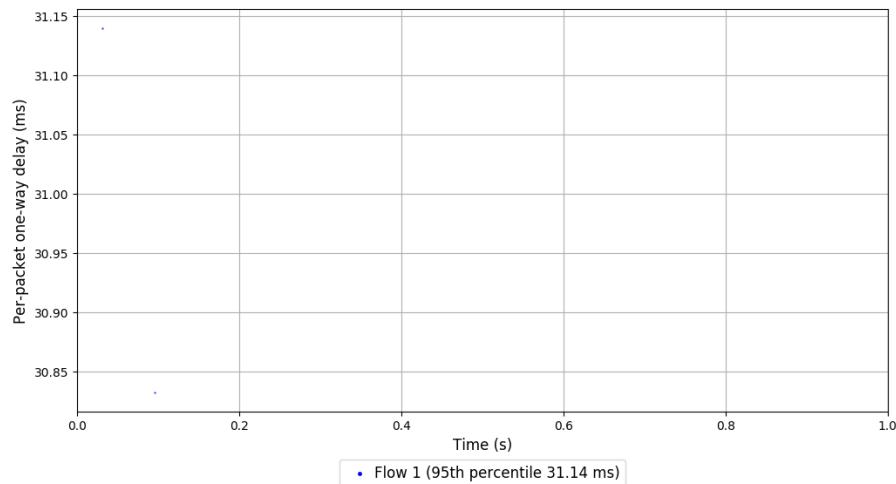
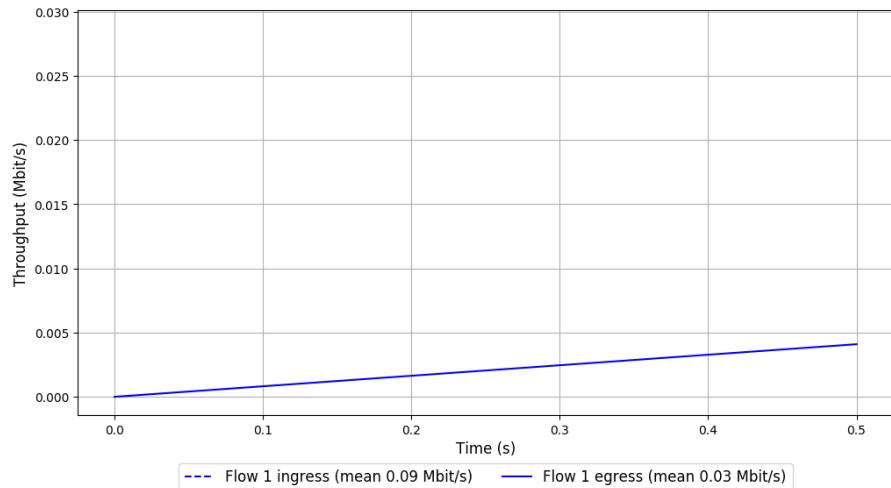
### Run 3: Report of PCC-Expr — Data Link



Run 4: Statistics of PCC-Expr

Start at: 2018-11-02 19:29:47  
End at: 2018-11-02 19:30:17  
Local clock offset: 6.034 ms  
Remote clock offset: -1.944 ms

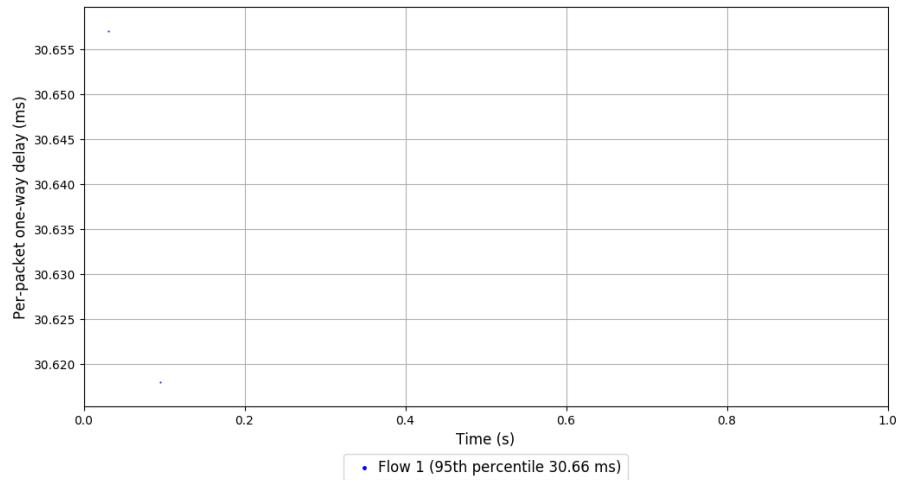
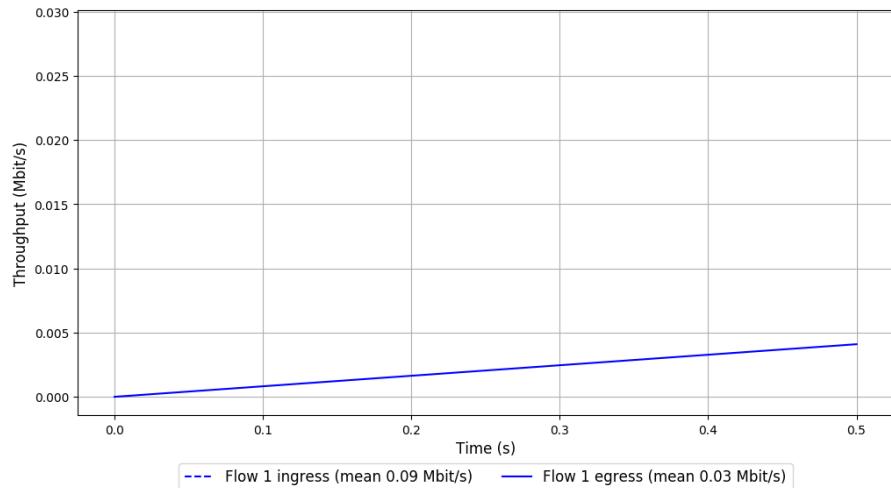
## Run 4: Report of PCC-Expr — Data Link



Run 5: Statistics of PCC-Expr

Start at: 2018-11-02 19:53:19  
End at: 2018-11-02 19:53:49  
Local clock offset: 1.761 ms  
Remote clock offset: -1.956 ms

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

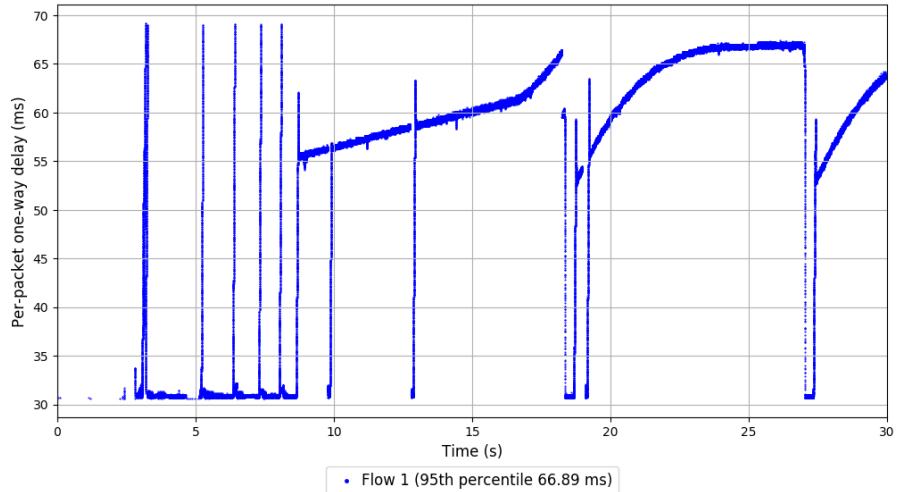
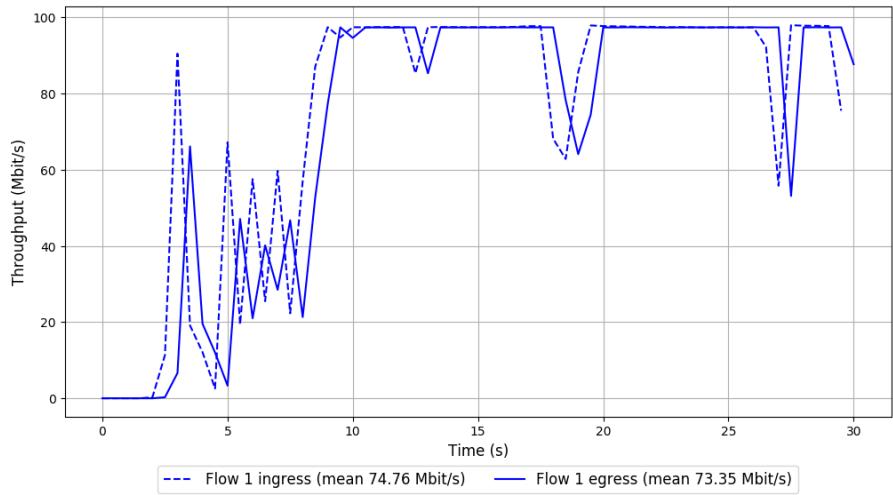


```
Run 1: Statistics of QUIC Cubic
```

```
Start at: 2018-11-02 18:28:00
End at: 2018-11-02 18:28:30
Local clock offset: 2.288 ms
Remote clock offset: -2.86 ms

# Below is generated by plot.py at 2018-11-02 20:10:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.35 Mbit/s
95th percentile per-packet one-way delay: 66.889 ms
Loss rate: 1.78%
-- Flow 1:
Average throughput: 73.35 Mbit/s
95th percentile per-packet one-way delay: 66.889 ms
Loss rate: 1.78%
```

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

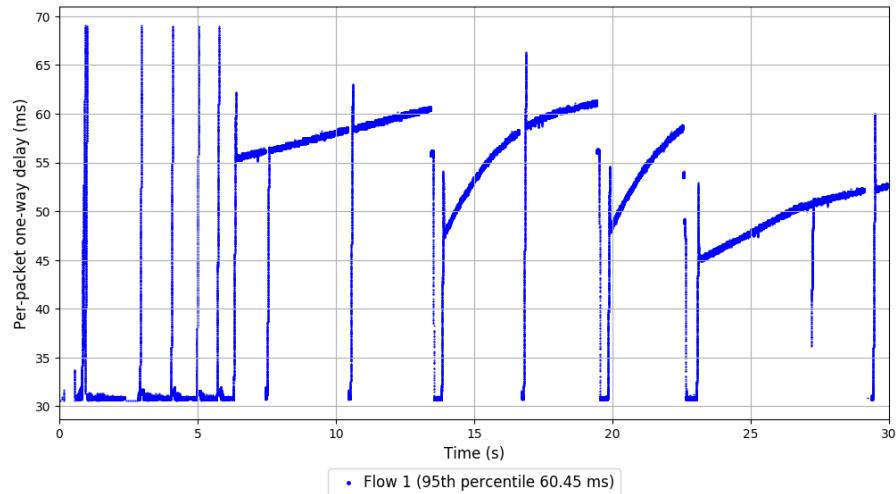
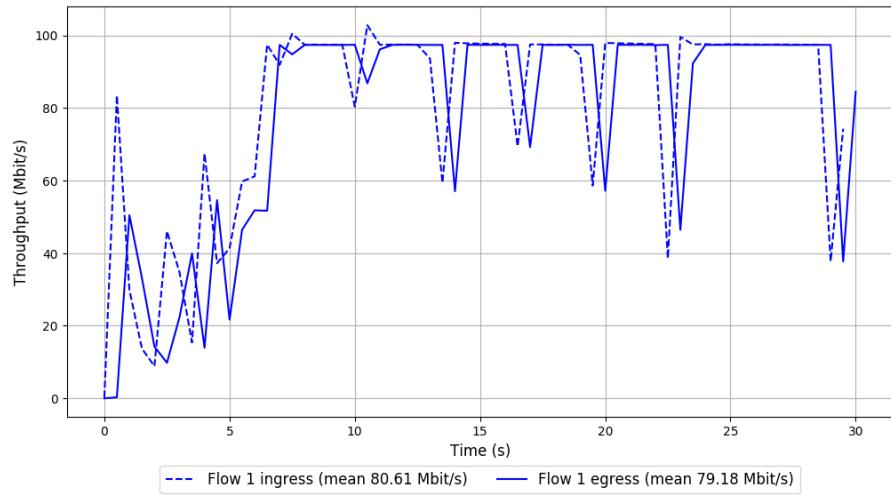


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-11-02 18:51:36
End at: 2018-11-02 18:52:06
Local clock offset: 5.027 ms
Remote clock offset: -2.599 ms

# Below is generated by plot.py at 2018-11-02 20:10:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 60.447 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 79.18 Mbit/s
95th percentile per-packet one-way delay: 60.447 ms
Loss rate: 1.70%
```

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

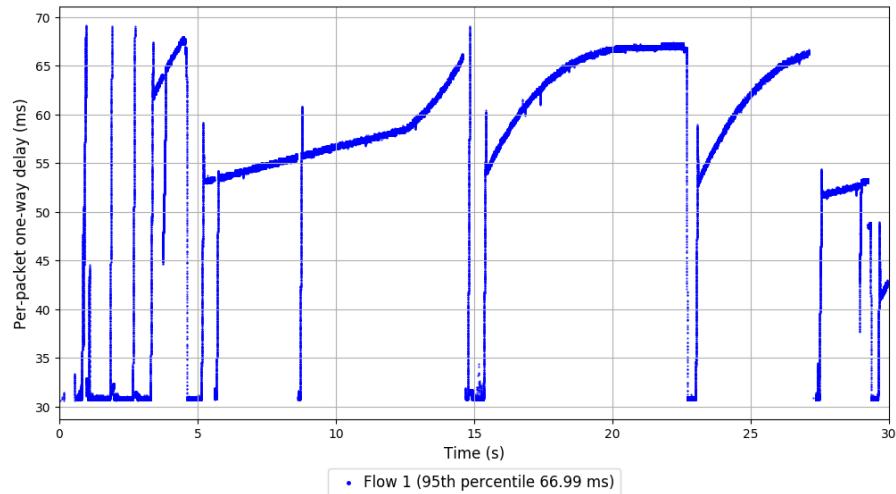
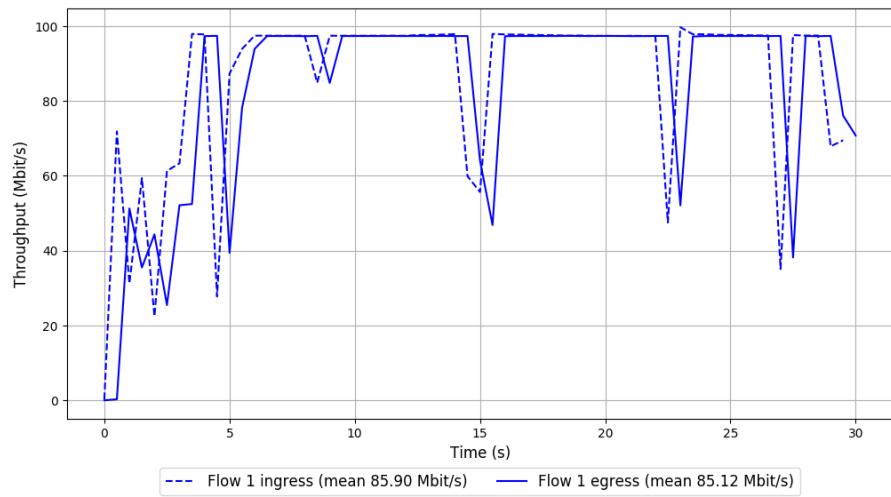


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-11-02 19:15:17
End at: 2018-11-02 19:15:47
Local clock offset: 5.813 ms
Remote clock offset: -2.168 ms

# Below is generated by plot.py at 2018-11-02 20:11:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.12 Mbit/s
95th percentile per-packet one-way delay: 66.989 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 85.12 Mbit/s
95th percentile per-packet one-way delay: 66.989 ms
Loss rate: 0.86%
```

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

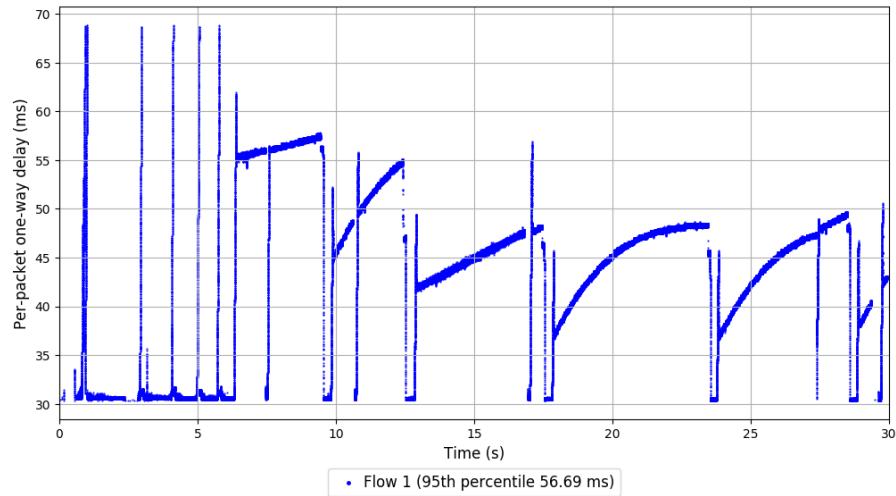
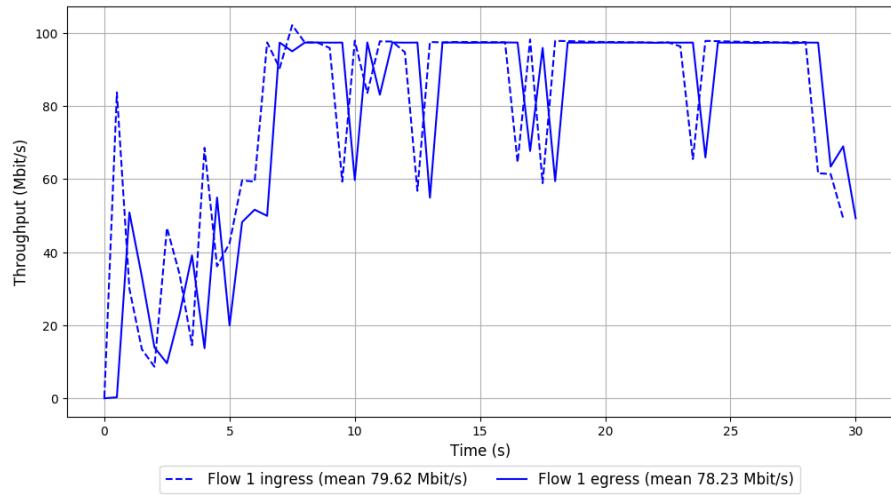


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-11-02 19:38:54
End at: 2018-11-02 19:39:24
Local clock offset: 4.373 ms
Remote clock offset: -1.878 ms

# Below is generated by plot.py at 2018-11-02 20:11:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.23 Mbit/s
95th percentile per-packet one-way delay: 56.686 ms
Loss rate: 1.71%
-- Flow 1:
Average throughput: 78.23 Mbit/s
95th percentile per-packet one-way delay: 56.686 ms
Loss rate: 1.71%
```

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

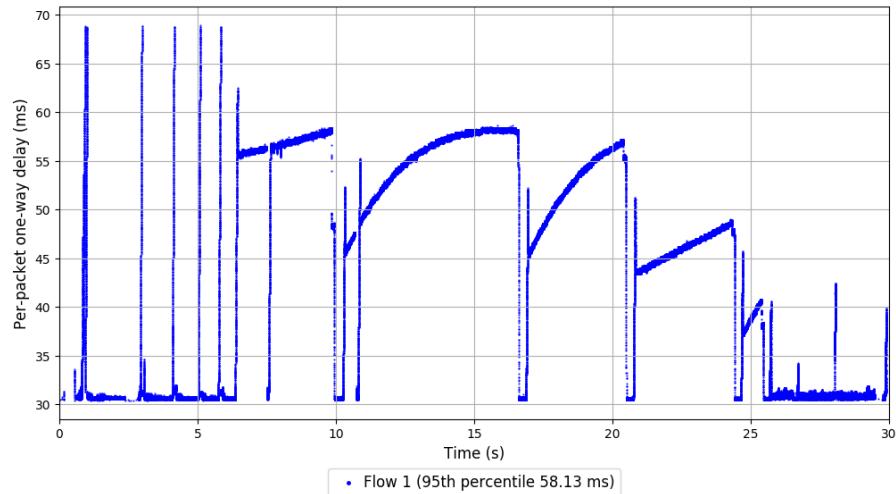
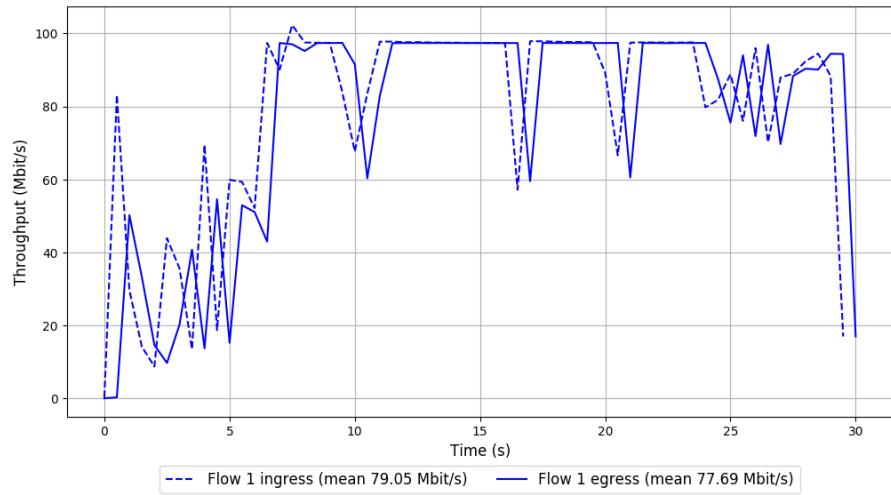


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-11-02 20:02:24
End at: 2018-11-02 20:02:54
Local clock offset: 0.797 ms
Remote clock offset: -1.756 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 58.131 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 77.69 Mbit/s
95th percentile per-packet one-way delay: 58.131 ms
Loss rate: 1.72%
```

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

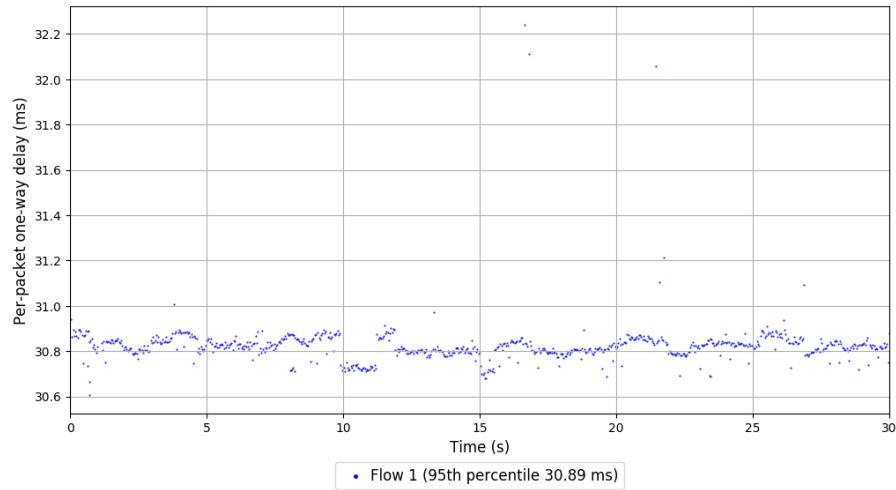
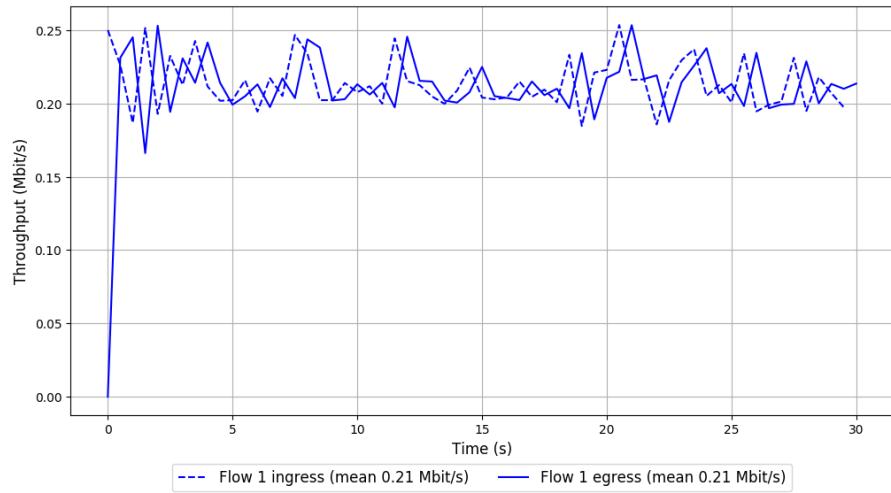


Run 1: Statistics of SCReAM

```
Start at: 2018-11-02 18:26:44
End at: 2018-11-02 18:27:14
Local clock offset: 2.334 ms
Remote clock offset: -2.876 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.885 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.885 ms
Loss rate: 0.00%
```

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

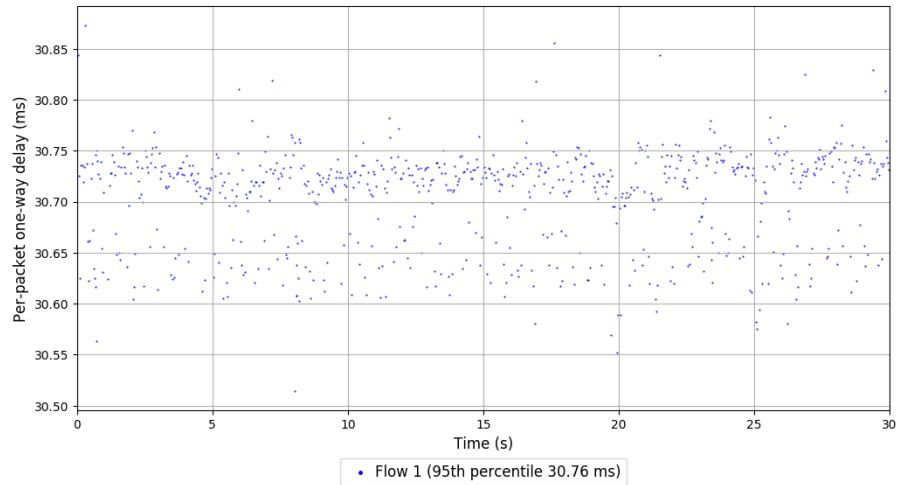
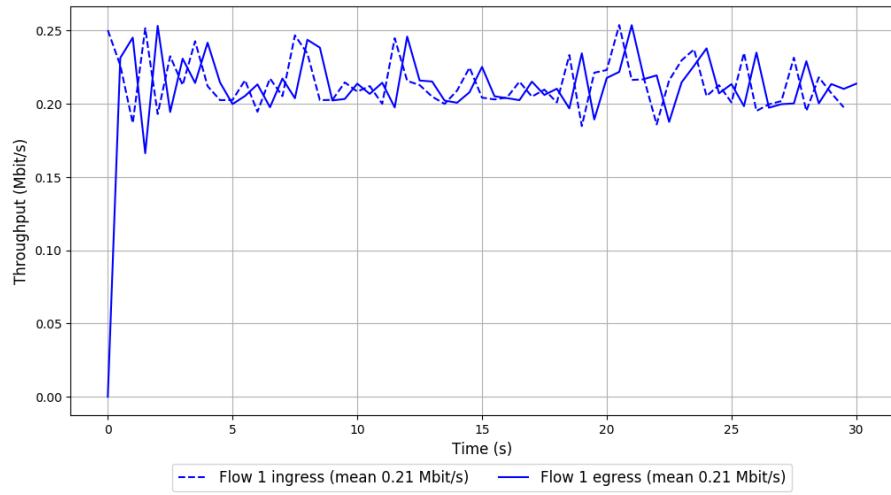


Run 2: Statistics of SCReAM

```
Start at: 2018-11-02 18:50:20
End at: 2018-11-02 18:50:50
Local clock offset: 4.927 ms
Remote clock offset: -2.796 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.757 ms
Loss rate: 0.00%
```

## Run 2: Report of SCReAM — Data Link

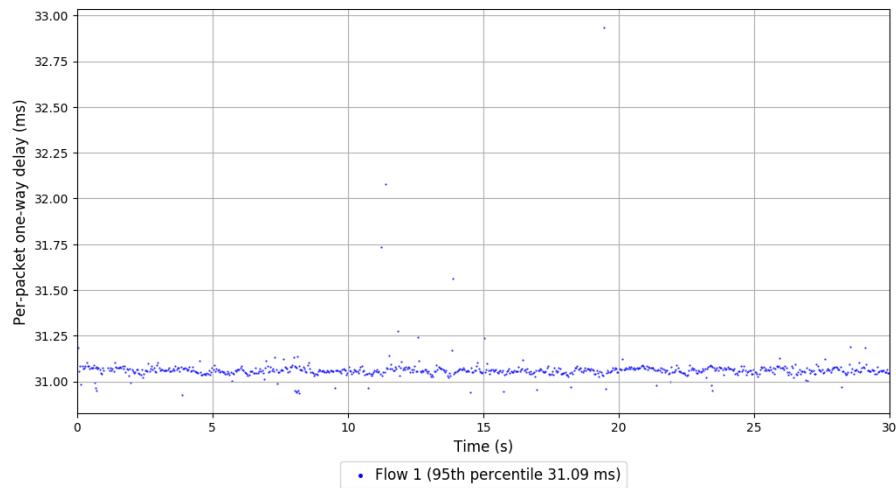
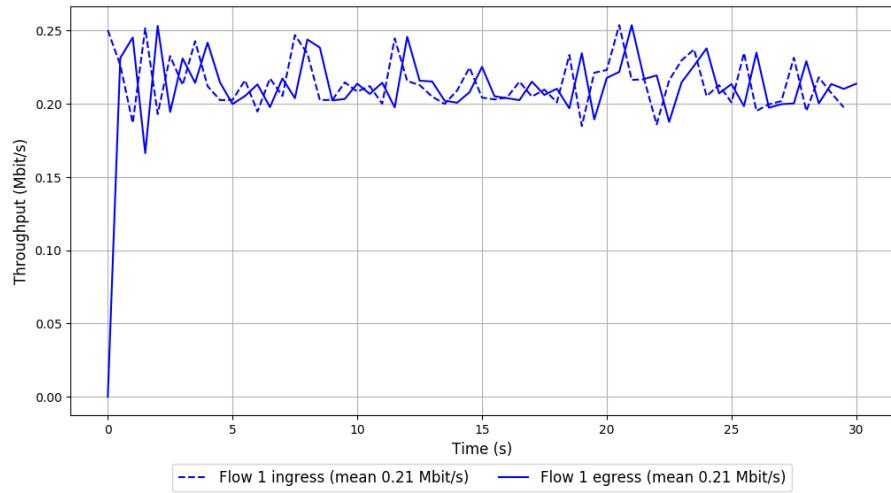


Run 3: Statistics of SCReAM

```
Start at: 2018-11-02 19:14:01
End at: 2018-11-02 19:14:31
Local clock offset: 5.803 ms
Remote clock offset: -2.074 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.090 ms
Loss rate: 0.00%
```

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

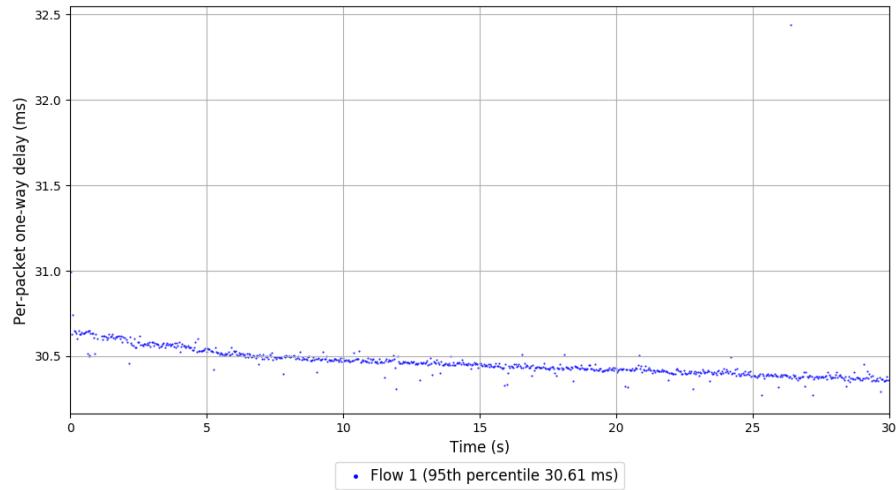
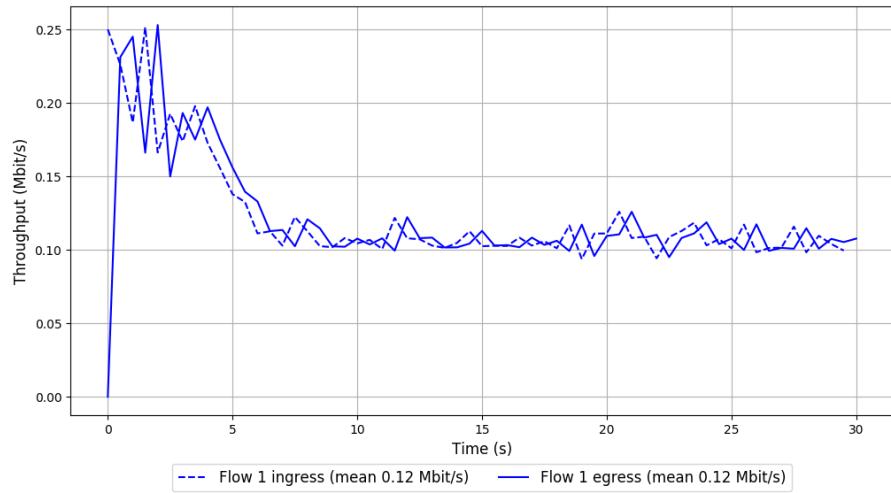


Run 4: Statistics of SCReAM

```
Start at: 2018-11-02 19:37:38
End at: 2018-11-02 19:38:08
Local clock offset: 4.828 ms
Remote clock offset: -1.92 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 30.609 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 30.609 ms
Loss rate: 0.26%
```

## Run 4: Report of SCReAM — Data Link

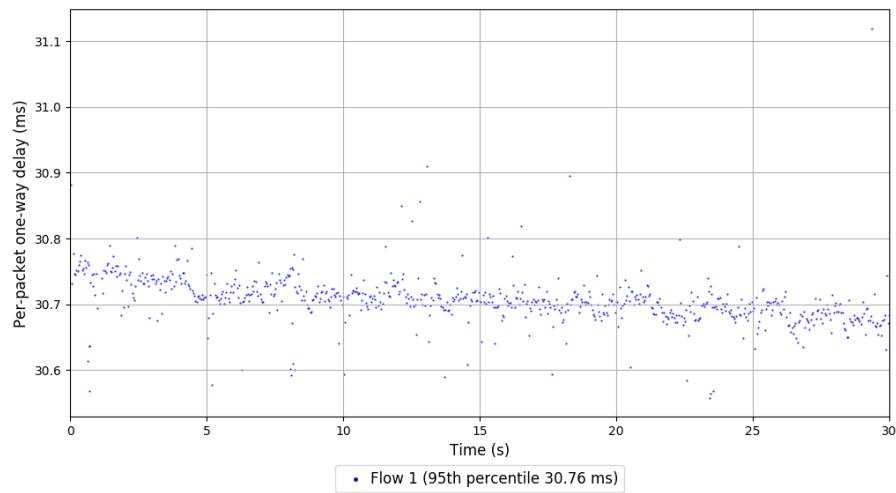
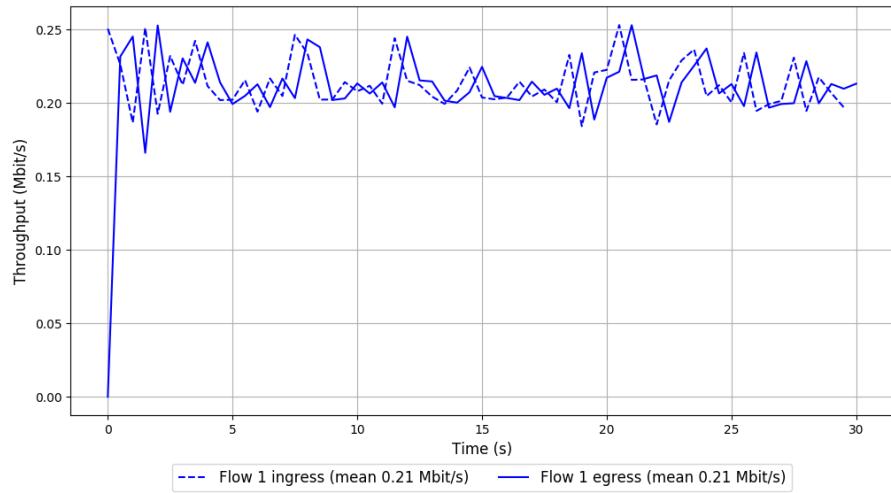


Run 5: Statistics of SCReAM

```
Start at: 2018-11-02 20:01:08
End at: 2018-11-02 20:01:38
Local clock offset: 0.928 ms
Remote clock offset: -1.765 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.756 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.756 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

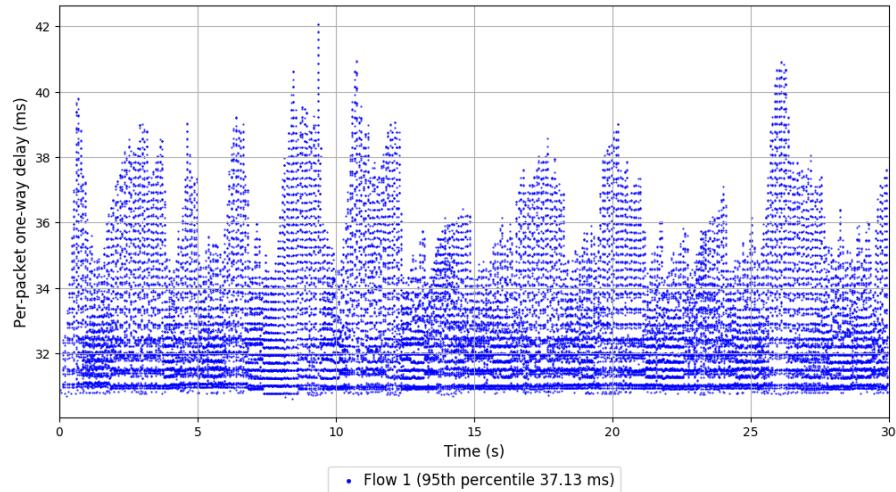
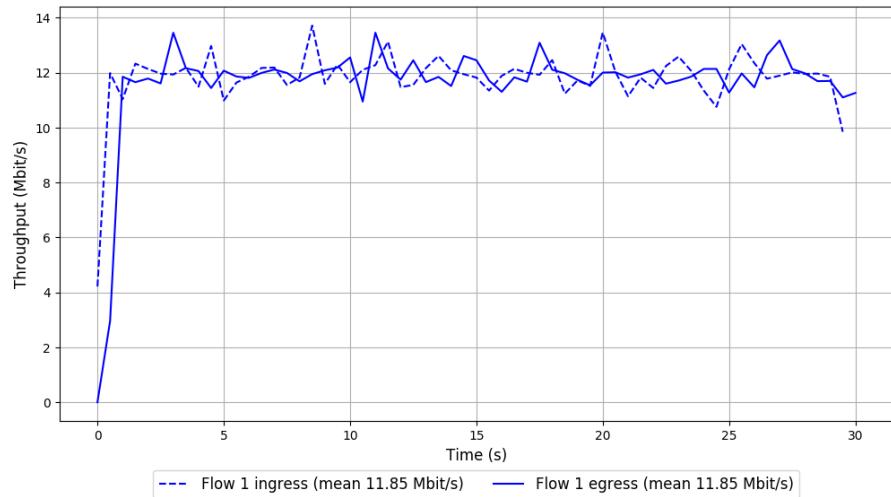


Run 1: Statistics of Sprout

```
Start at: 2018-11-02 18:12:14
End at: 2018-11-02 18:12:44
Local clock offset: 2.634 ms
Remote clock offset: -3.026 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 37.134 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 37.134 ms
Loss rate: 0.00%
```

## Run 1: Report of Sprout — Data Link

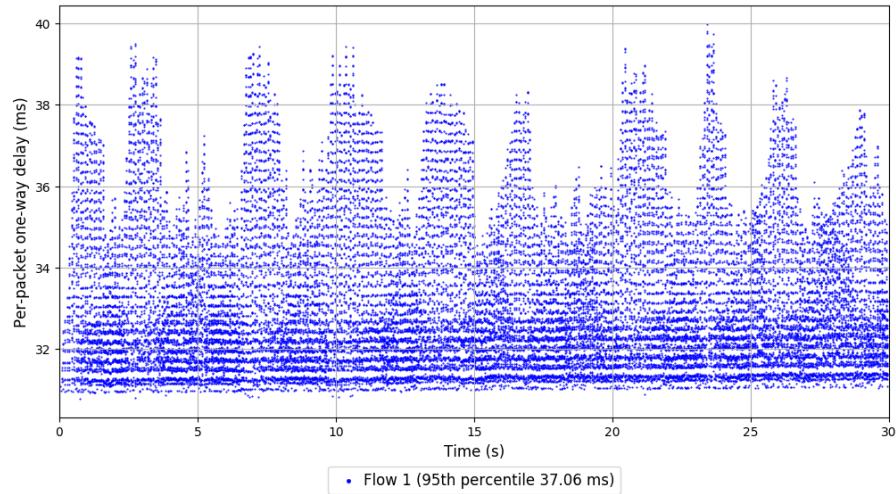
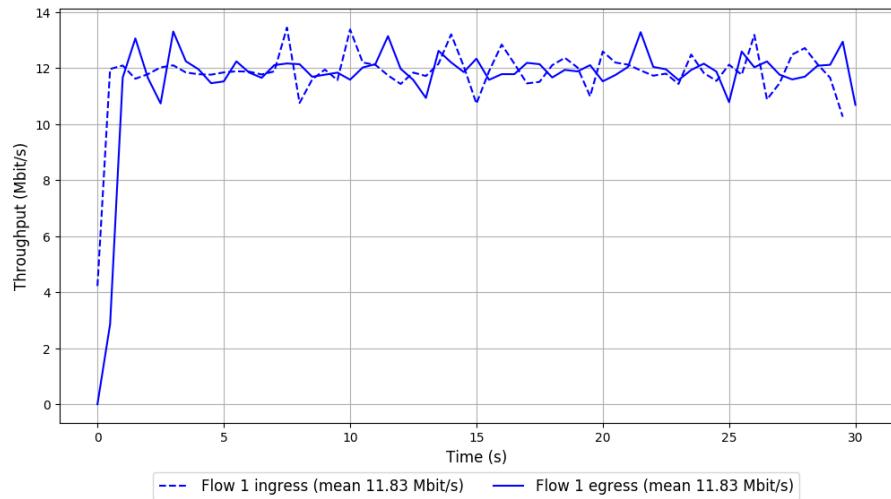


Run 2: Statistics of Sprout

```
Start at: 2018-11-02 18:35:50
End at: 2018-11-02 18:36:20
Local clock offset: 2.608 ms
Remote clock offset: -2.838 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 0.00%
```

## Run 2: Report of Sprout — Data Link

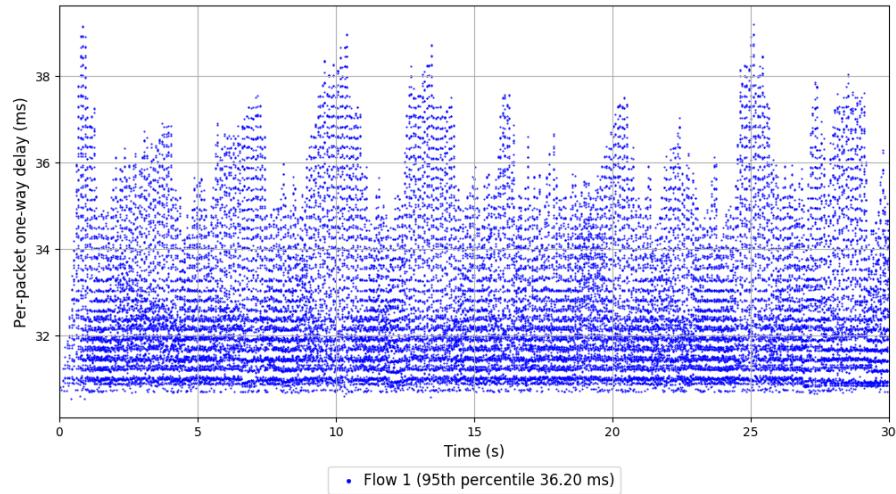
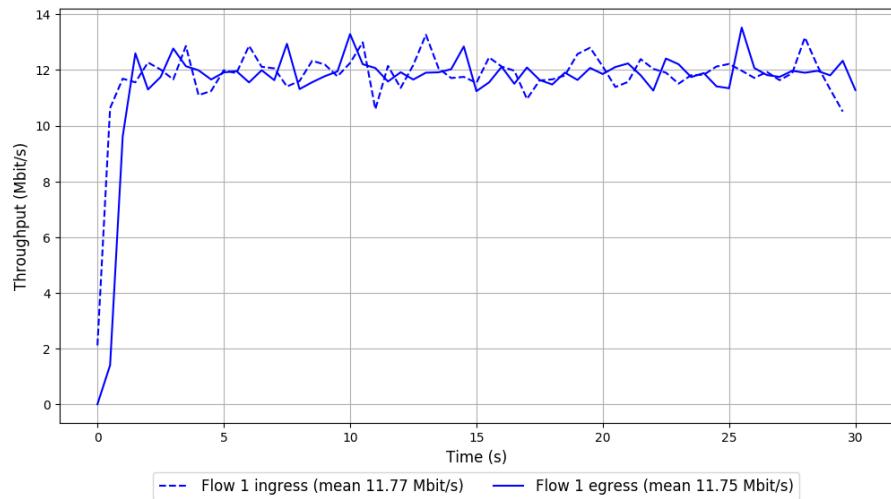


Run 3: Statistics of Sprout

```
Start at: 2018-11-02 18:59:33
End at: 2018-11-02 19:00:03
Local clock offset: 5.376 ms
Remote clock offset: -2.45 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 36.199 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 36.199 ms
Loss rate: 0.17%
```

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

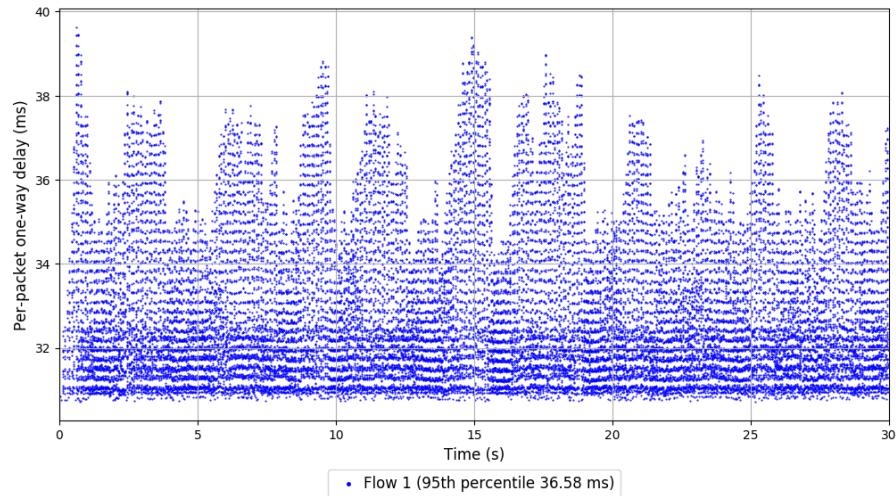
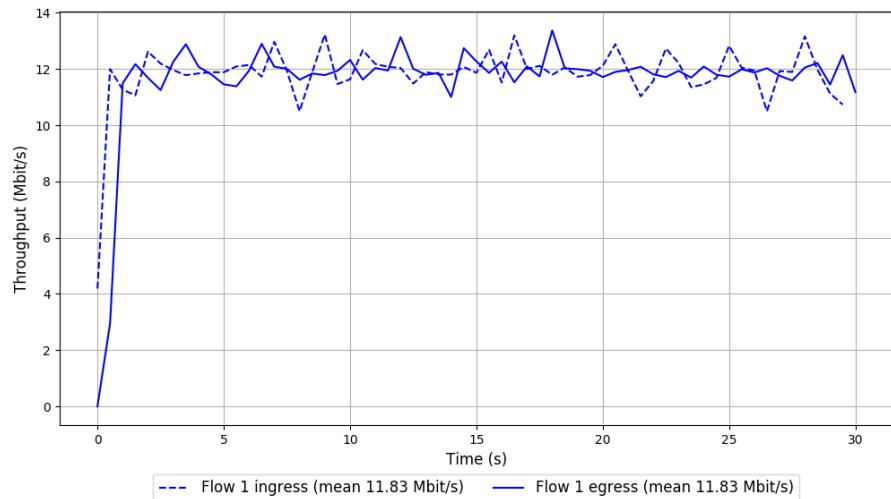


Run 4: Statistics of Sprout

```
Start at: 2018-11-02 19:23:11
End at: 2018-11-02 19:23:41
Local clock offset: 5.94 ms
Remote clock offset: -2.064 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.580 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.580 ms
Loss rate: 0.00%
```

## Run 4: Report of Sprout — Data Link

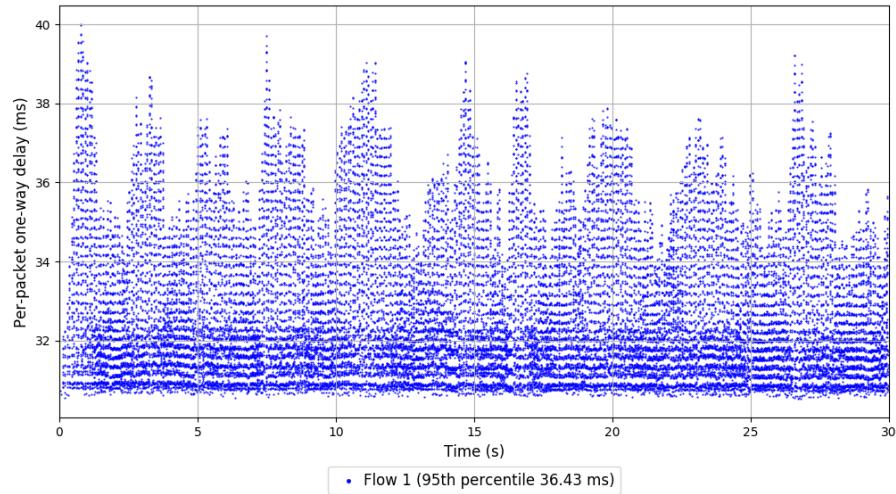
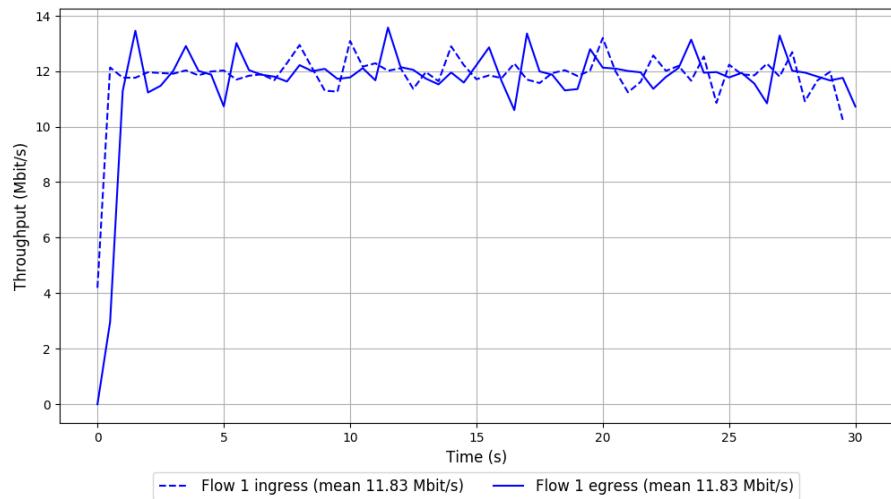


Run 5: Statistics of Sprout

```
Start at: 2018-11-02 19:46:43
End at: 2018-11-02 19:47:13
Local clock offset: 2.588 ms
Remote clock offset: -1.809 ms

# Below is generated by plot.py at 2018-11-02 20:11:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.433 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 11.83 Mbit/s
95th percentile per-packet one-way delay: 36.433 ms
Loss rate: 0.02%
```

## Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

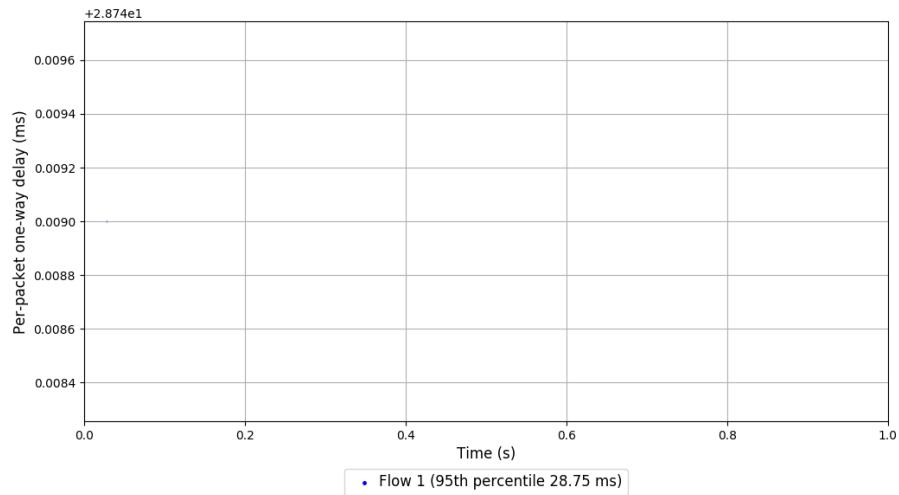
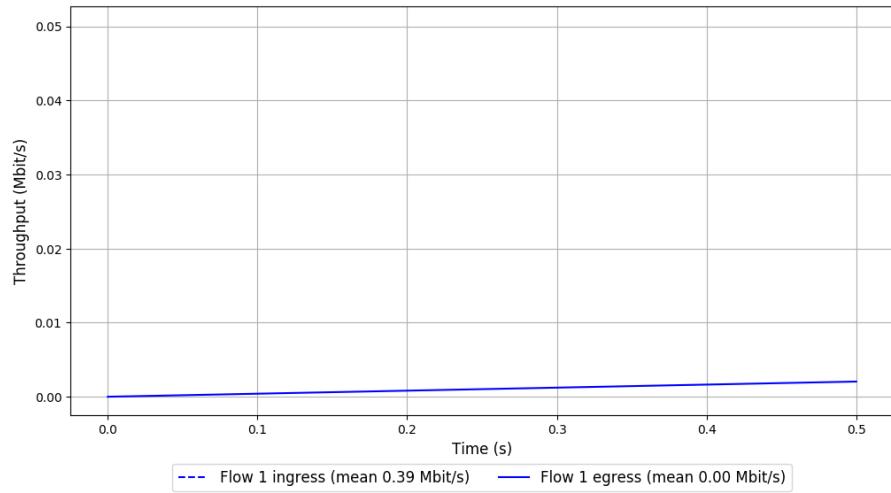
Start at: 2018-11-02 18:07:04

End at: 2018-11-02 18:07:34

Local clock offset: 5.422 ms

Remote clock offset: -3.115 ms

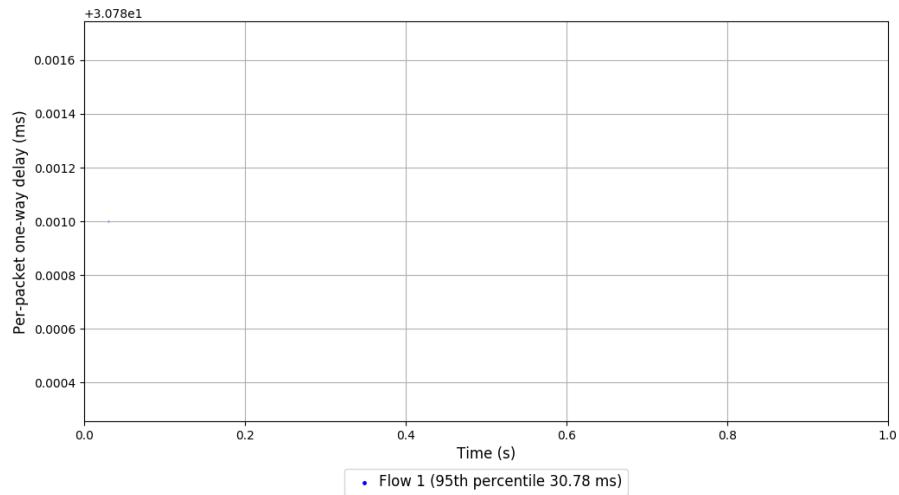
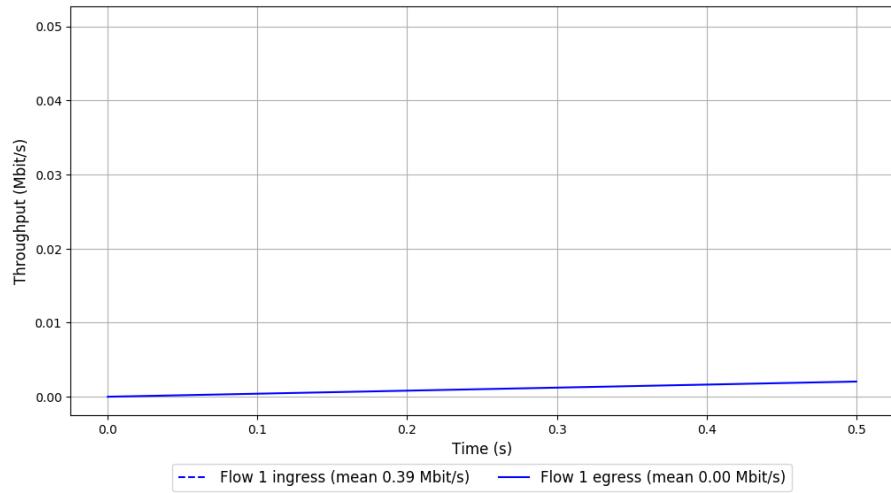
Run 1: Report of TaoVA-100x — Data Link



Run 2: Statistics of TaoVA-100x

Start at: 2018-11-02 18:30:38  
End at: 2018-11-02 18:31:08  
Local clock offset: 2.282 ms  
Remote clock offset: -2.893 ms

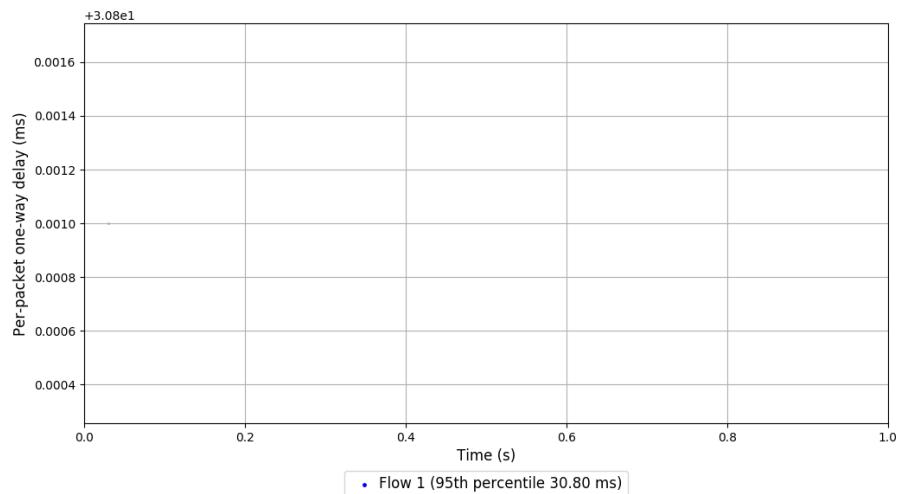
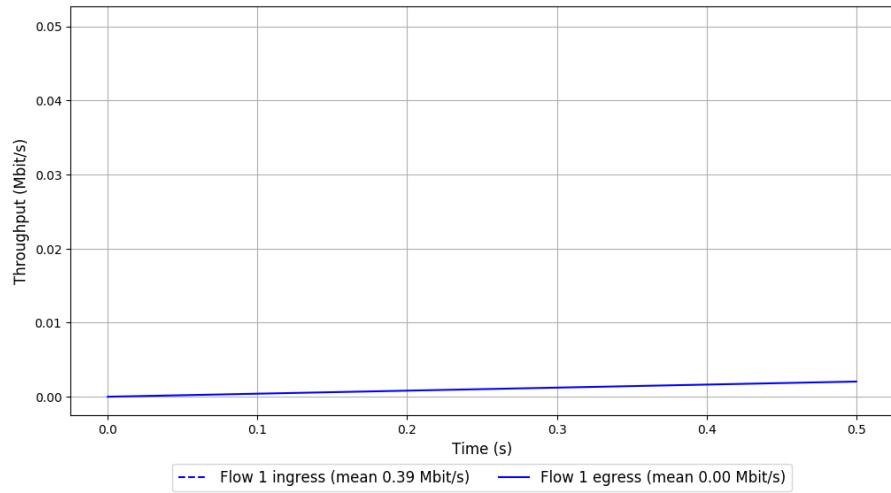
Run 2: Report of TaoVA-100x — Data Link



Run 3: Statistics of TaoVA-100x

Start at: 2018-11-02 18:54:20  
End at: 2018-11-02 18:54:50  
Local clock offset: 5.167 ms  
Remote clock offset: -2.538 ms

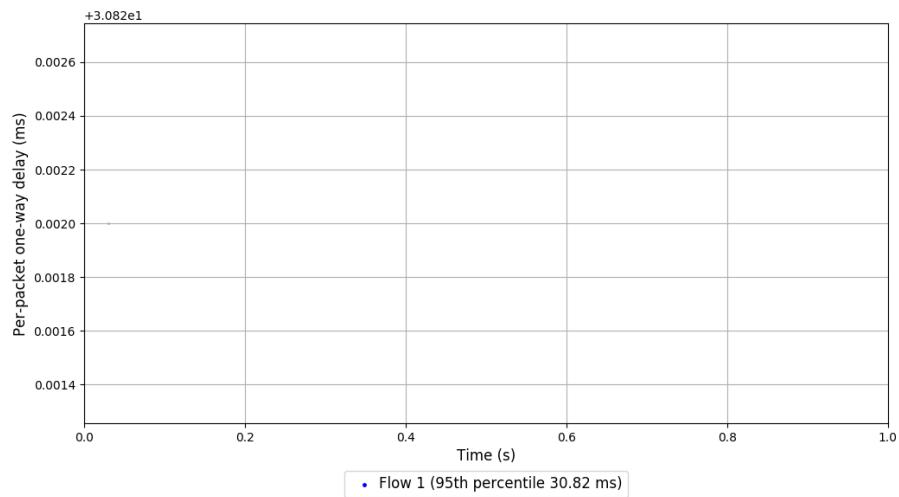
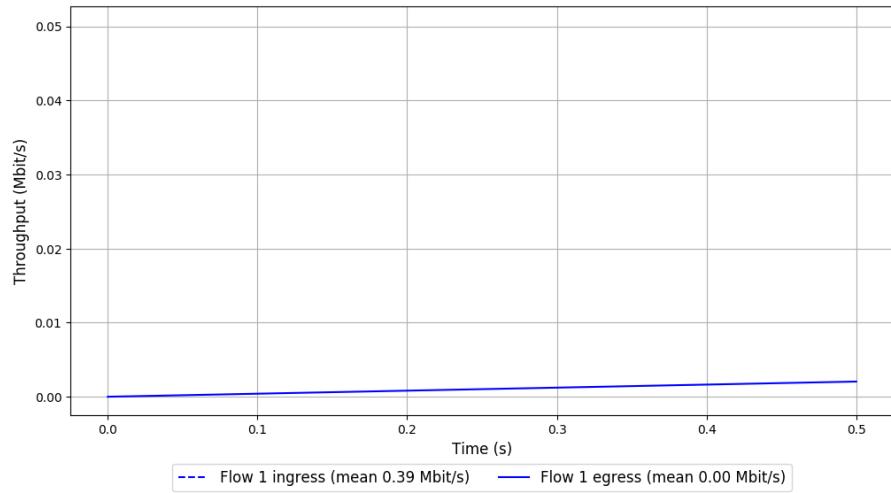
Run 3: Report of TaoVA-100x — Data Link



Run 4: Statistics of TaoVA-100x

Start at: 2018-11-02 19:17:55  
End at: 2018-11-02 19:18:25  
Local clock offset: 5.882 ms  
Remote clock offset: -2.148 ms

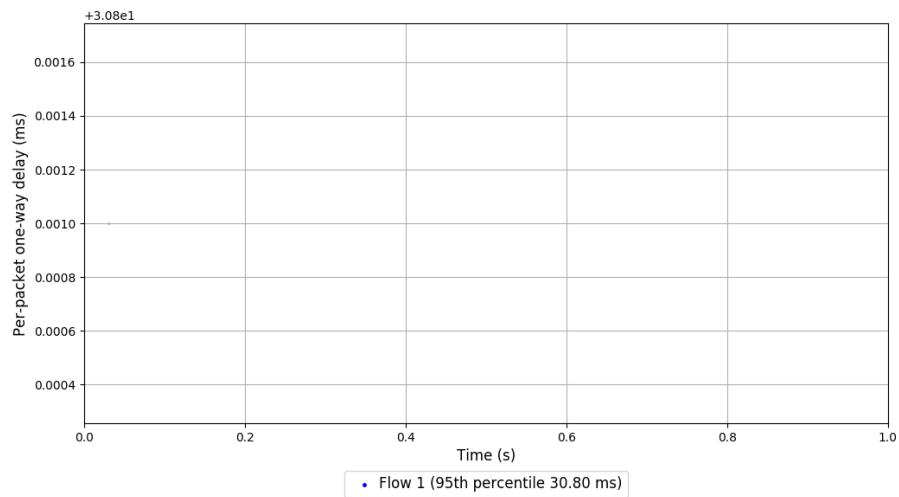
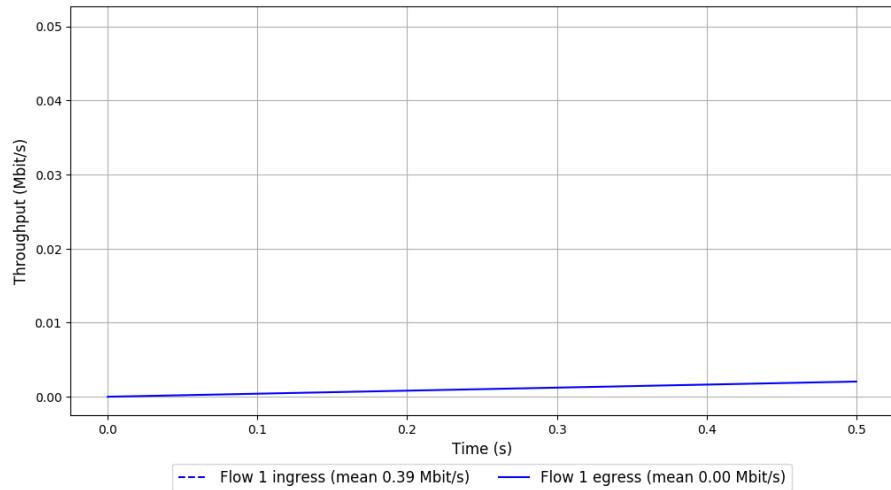
Run 4: Report of TaoVA-100x — Data Link



Run 5: Statistics of TaoVA-100x

Start at: 2018-11-02 19:41:31  
End at: 2018-11-02 19:42:01  
Local clock offset: 3.571 ms  
Remote clock offset: -1.811 ms

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

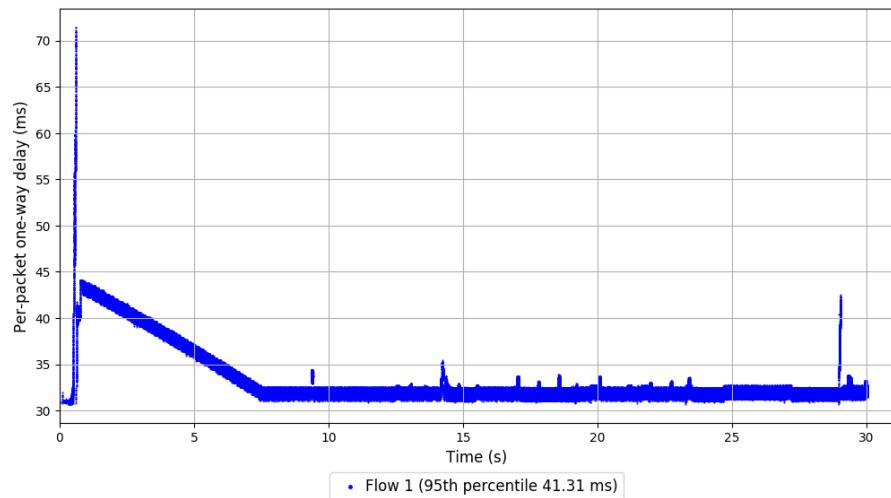
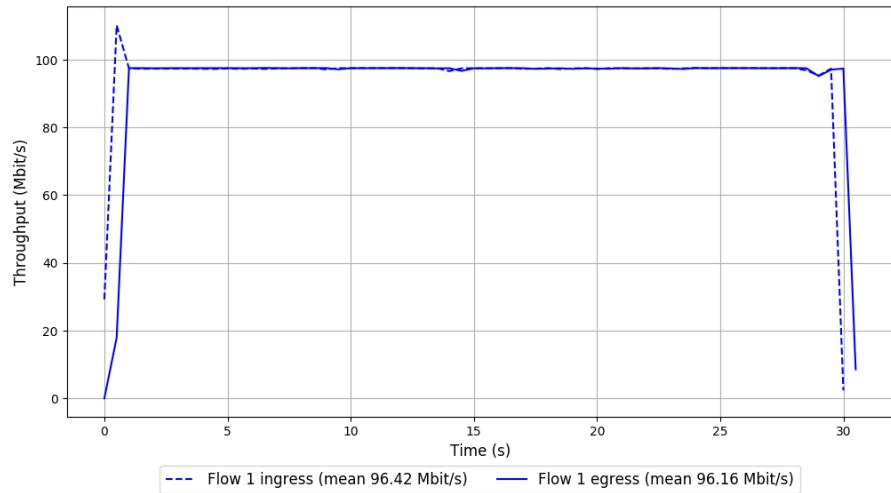


Run 1: Statistics of TCP Vegas

```
Start at: 2018-11-02 18:20:04
End at: 2018-11-02 18:20:34
Local clock offset: 2.42 ms
Remote clock offset: -2.969 ms

# Below is generated by plot.py at 2018-11-02 20:11:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.16 Mbit/s
95th percentile per-packet one-way delay: 41.310 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.16 Mbit/s
95th percentile per-packet one-way delay: 41.310 ms
Loss rate: 0.27%
```

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

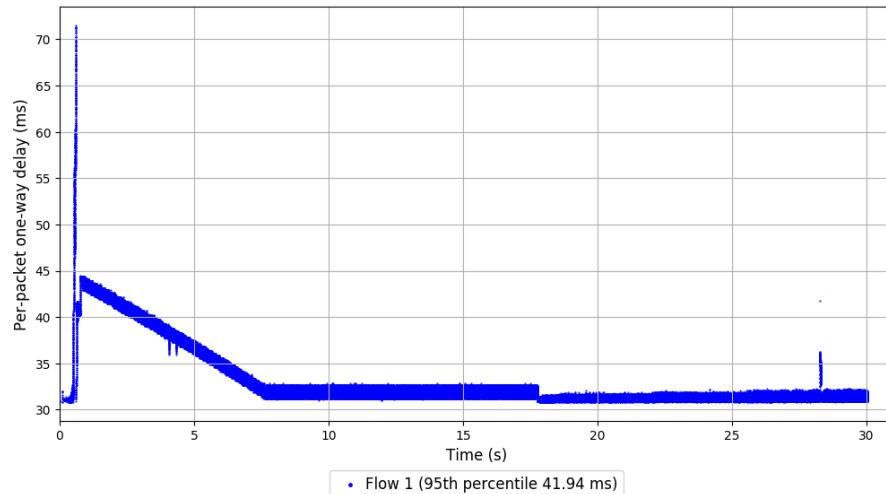
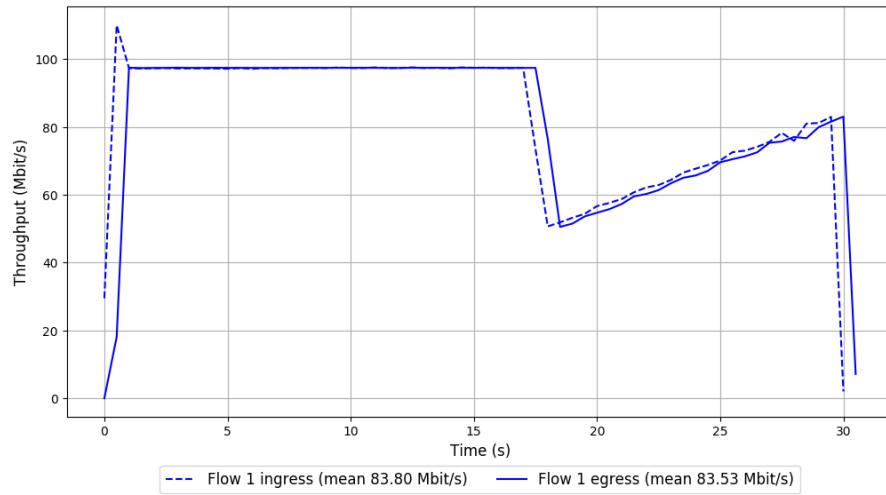


Run 2: Statistics of TCP Vegas

```
Start at: 2018-11-02 18:43:43
End at: 2018-11-02 18:44:13
Local clock offset: 4.316 ms
Remote clock offset: -2.715 ms

# Below is generated by plot.py at 2018-11-02 20:11:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.53 Mbit/s
95th percentile per-packet one-way delay: 41.938 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 83.53 Mbit/s
95th percentile per-packet one-way delay: 41.938 ms
Loss rate: 0.32%
```

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

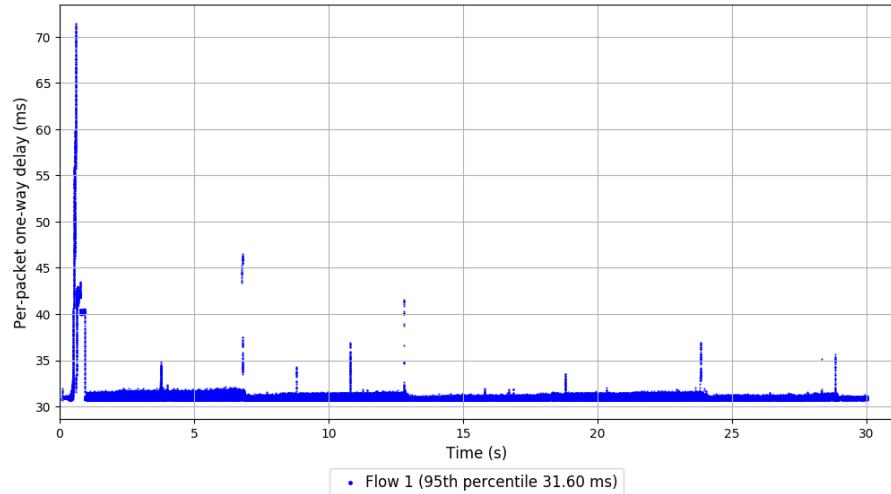
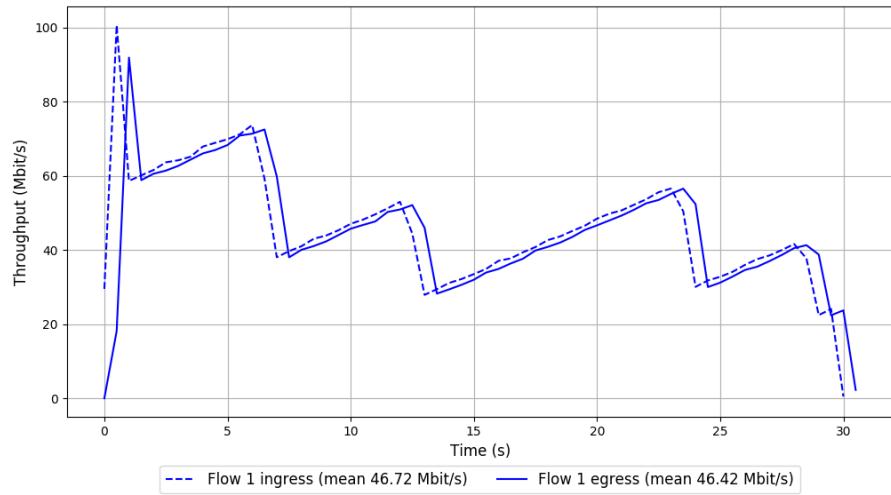


Run 3: Statistics of TCP Vegas

```
Start at: 2018-11-02 19:07:26
End at: 2018-11-02 19:07:56
Local clock offset: 5.621 ms
Remote clock offset: -2.3 ms

# Below is generated by plot.py at 2018-11-02 20:11:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 31.599 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 46.42 Mbit/s
95th percentile per-packet one-way delay: 31.599 ms
Loss rate: 0.65%
```

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

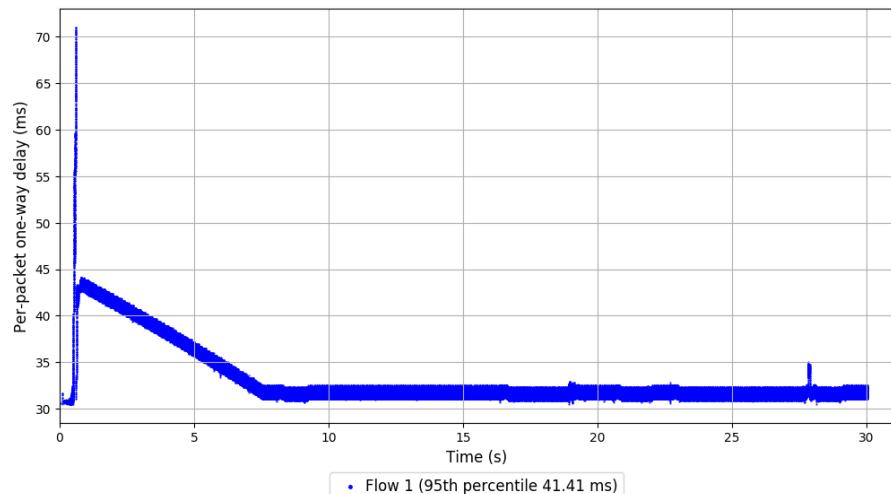
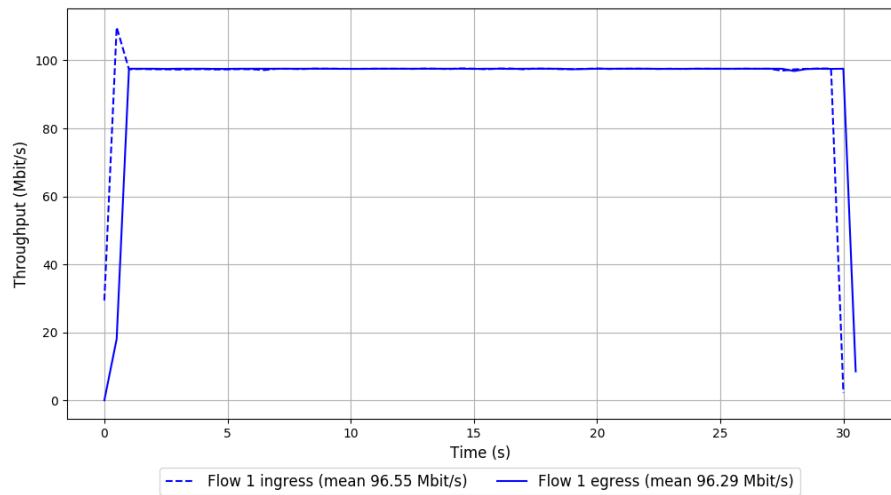


Run 4: Statistics of TCP Vegas

```
Start at: 2018-11-02 19:31:02
End at: 2018-11-02 19:31:32
Local clock offset: 6.055 ms
Remote clock offset: -2.16 ms

# Below is generated by plot.py at 2018-11-02 20:12:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 41.407 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 41.407 ms
Loss rate: 0.26%
```

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

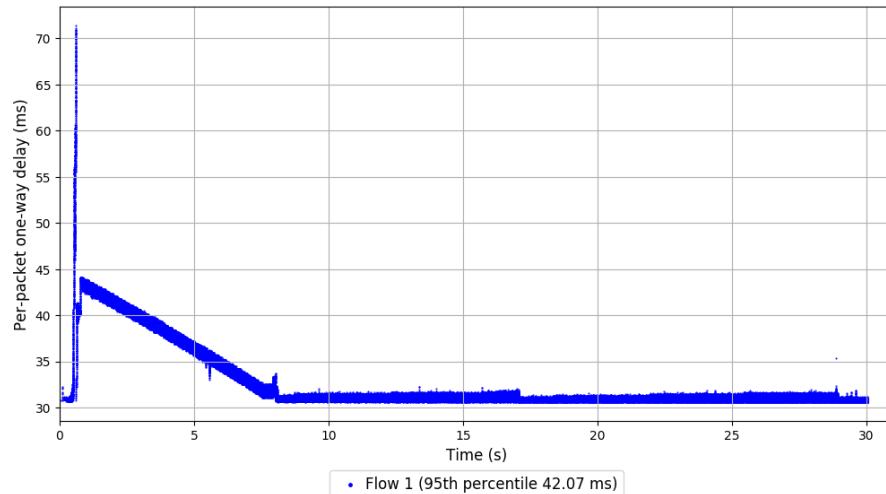
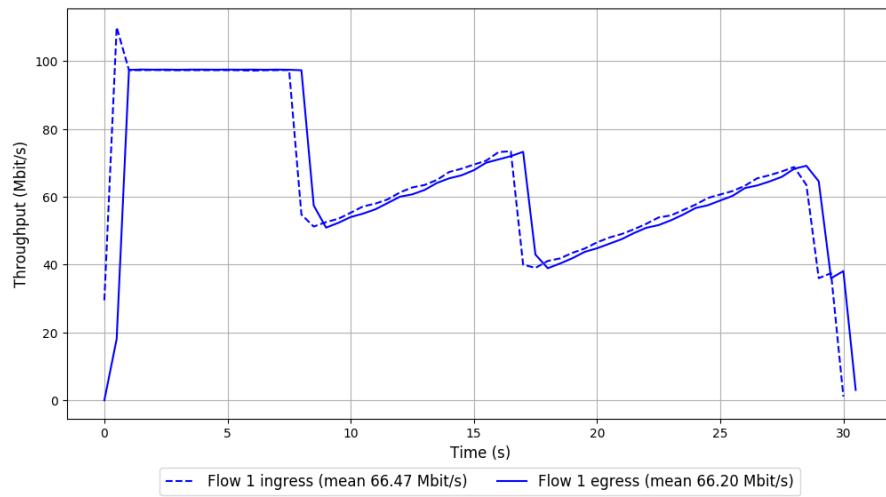


Run 5: Statistics of TCP Vegas

```
Start at: 2018-11-02 19:54:34
End at: 2018-11-02 19:55:04
Local clock offset: 1.586 ms
Remote clock offset: -1.748 ms

# Below is generated by plot.py at 2018-11-02 20:12:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 42.069 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 66.20 Mbit/s
95th percentile per-packet one-way delay: 42.069 ms
Loss rate: 0.41%
```

Run 5: Report of TCP Vegas — Data Link

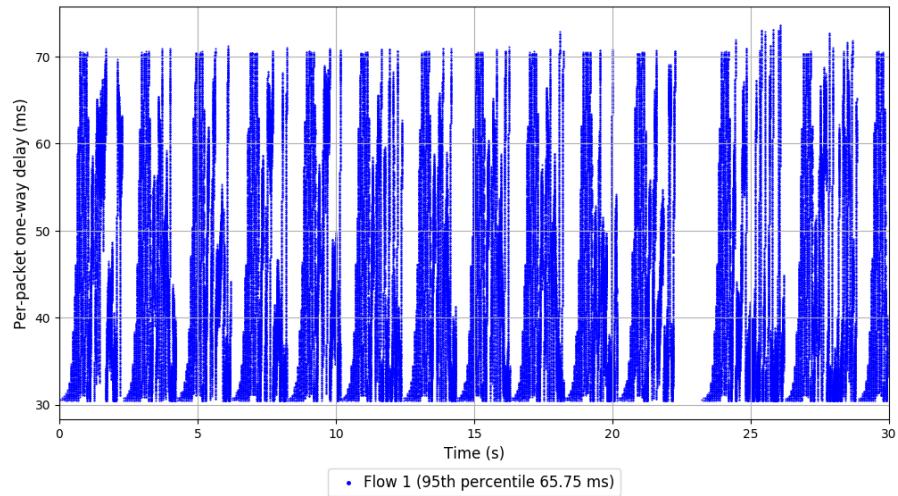
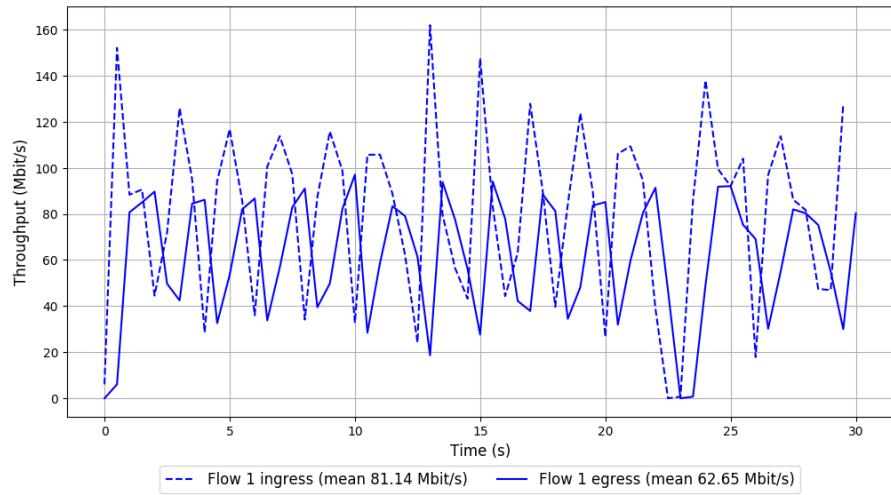


Run 1: Statistics of Verus

```
Start at: 2018-11-02 18:16:10
End at: 2018-11-02 18:16:40
Local clock offset: 2.547 ms
Remote clock offset: -3.178 ms

# Below is generated by plot.py at 2018-11-02 20:12:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 65.749 ms
Loss rate: 22.78%
-- Flow 1:
Average throughput: 62.65 Mbit/s
95th percentile per-packet one-way delay: 65.749 ms
Loss rate: 22.78%
```

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

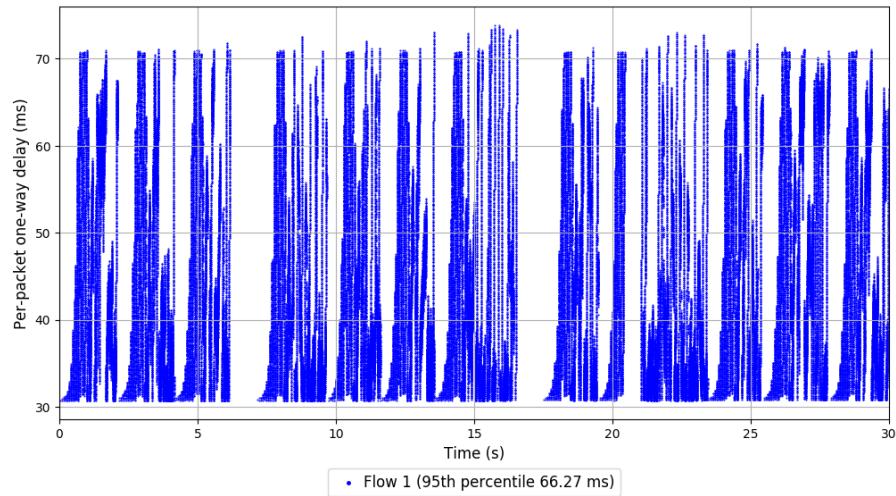
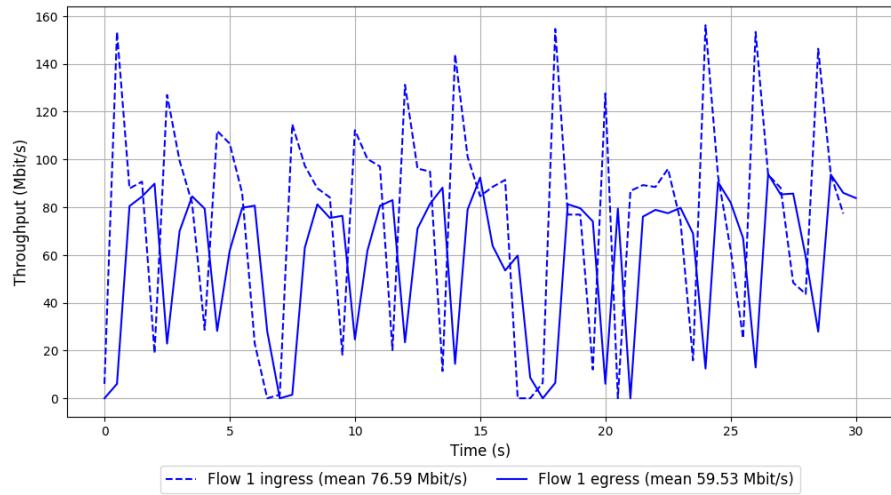


Run 2: Statistics of Verus

```
Start at: 2018-11-02 18:39:48
End at: 2018-11-02 18:40:18
Local clock offset: 3.669 ms
Remote clock offset: -2.928 ms

# Below is generated by plot.py at 2018-11-02 20:12:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.53 Mbit/s
95th percentile per-packet one-way delay: 66.268 ms
Loss rate: 22.17%
-- Flow 1:
Average throughput: 59.53 Mbit/s
95th percentile per-packet one-way delay: 66.268 ms
Loss rate: 22.17%
```

## Run 2: Report of Verus — Data Link

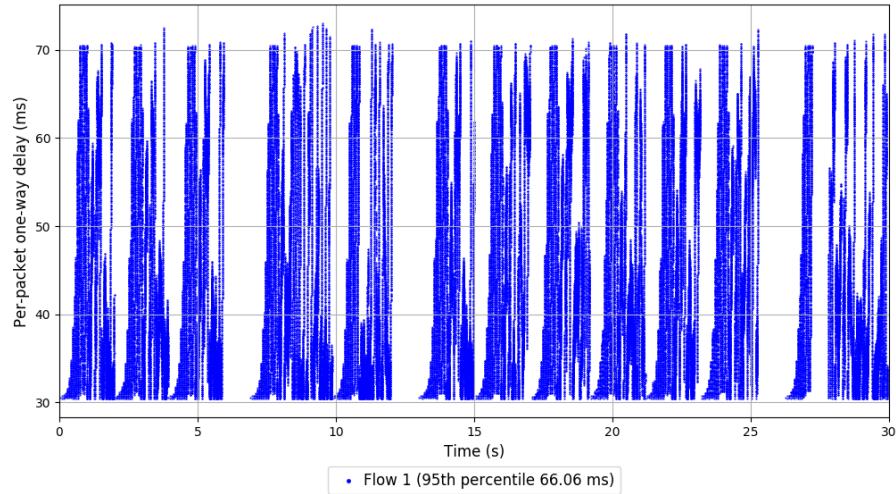
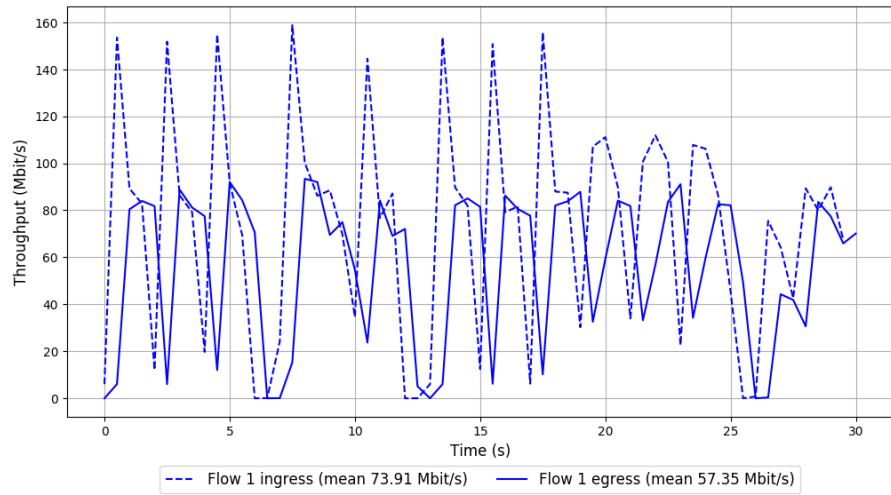


Run 3: Statistics of Verus

```
Start at: 2018-11-02 19:03:31
End at: 2018-11-02 19:04:01
Local clock offset: 5.521 ms
Remote clock offset: -2.586 ms

# Below is generated by plot.py at 2018-11-02 20:12:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.35 Mbit/s
95th percentile per-packet one-way delay: 66.060 ms
Loss rate: 22.40%
-- Flow 1:
Average throughput: 57.35 Mbit/s
95th percentile per-packet one-way delay: 66.060 ms
Loss rate: 22.40%
```

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

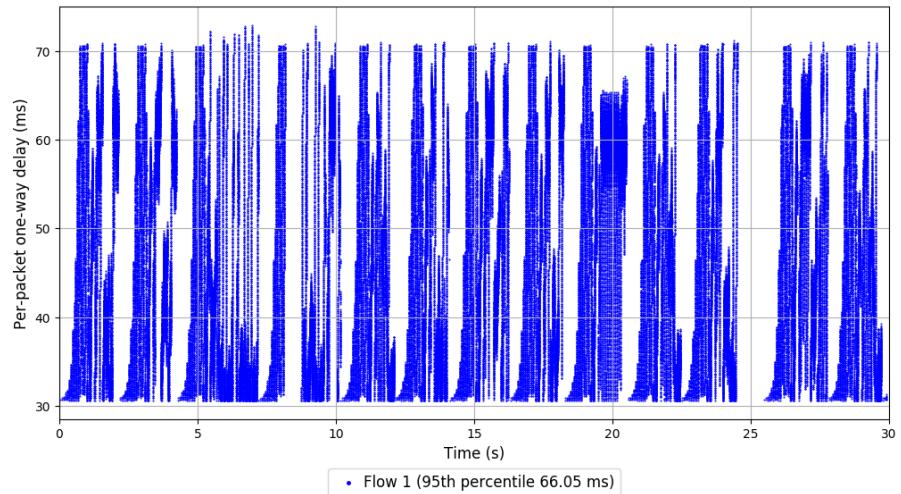
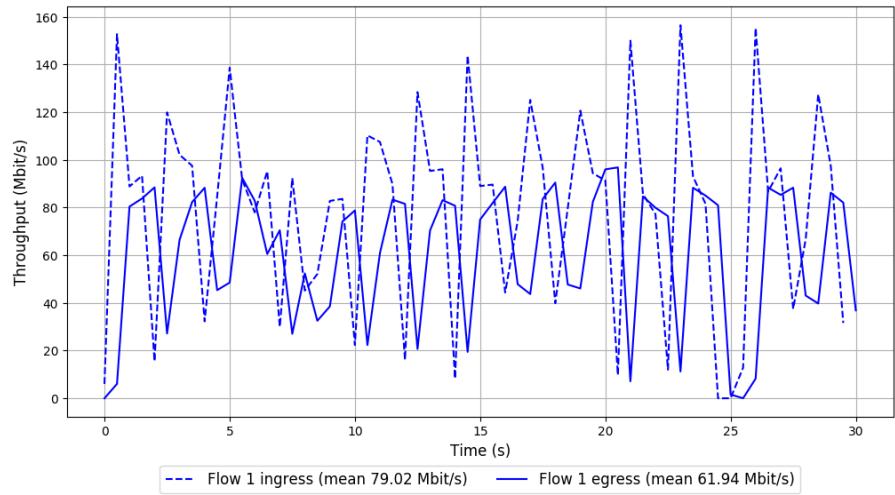


Run 4: Statistics of Verus

```
Start at: 2018-11-02 19:27:08
End at: 2018-11-02 19:27:38
Local clock offset: 6.008 ms
Remote clock offset: -2.182 ms

# Below is generated by plot.py at 2018-11-02 20:12:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 66.047 ms
Loss rate: 21.61%
-- Flow 1:
Average throughput: 61.94 Mbit/s
95th percentile per-packet one-way delay: 66.047 ms
Loss rate: 21.61%
```

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

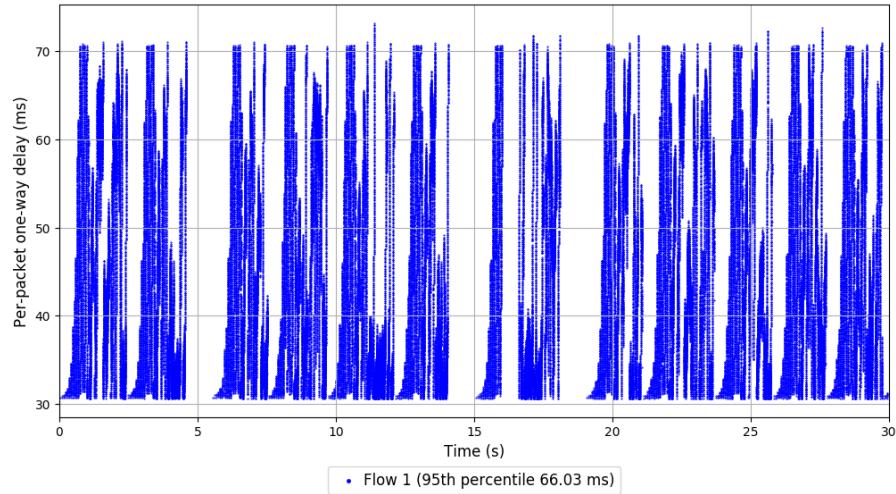
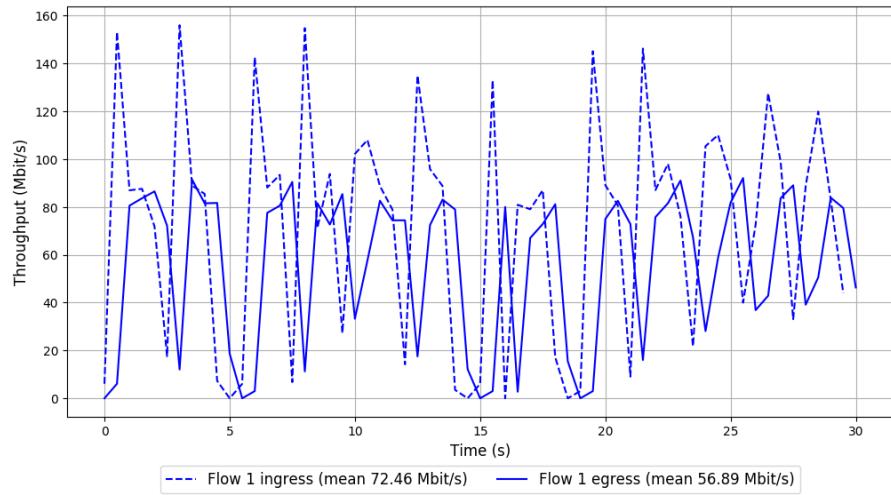


Run 5: Statistics of Verus

```
Start at: 2018-11-02 19:50:40
End at: 2018-11-02 19:51:10
Local clock offset: 2.053 ms
Remote clock offset: -1.811 ms

# Below is generated by plot.py at 2018-11-02 20:12:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 66.033 ms
Loss rate: 21.47%
-- Flow 1:
Average throughput: 56.89 Mbit/s
95th percentile per-packet one-way delay: 66.033 ms
Loss rate: 21.47%
```

Run 5: Report of Verus — Data Link

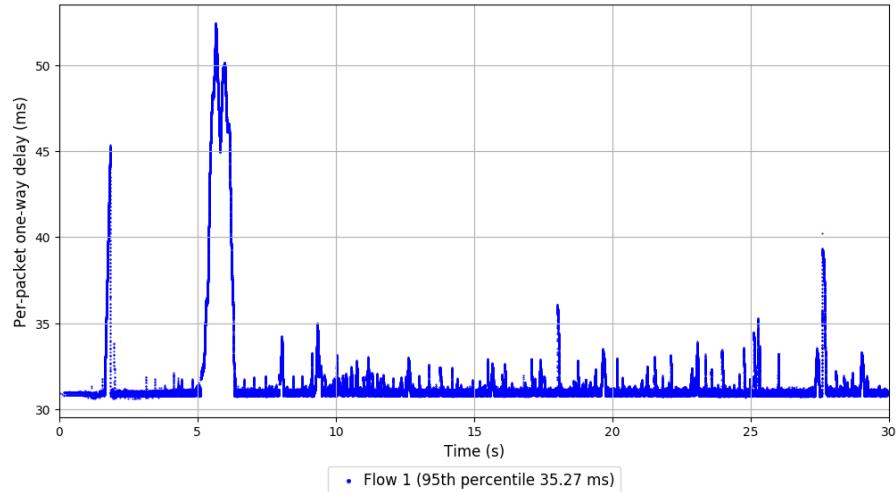
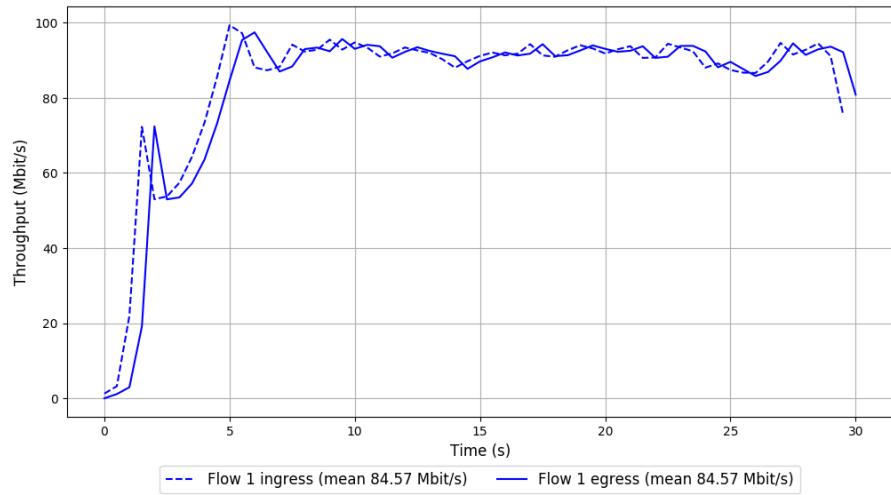


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2018-11-02 18:10:53
End at: 2018-11-02 18:11:23
Local clock offset: 2.673 ms
Remote clock offset: -3.044 ms

# Below is generated by plot.py at 2018-11-02 20:12:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.57 Mbit/s
95th percentile per-packet one-way delay: 35.275 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.57 Mbit/s
95th percentile per-packet one-way delay: 35.275 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

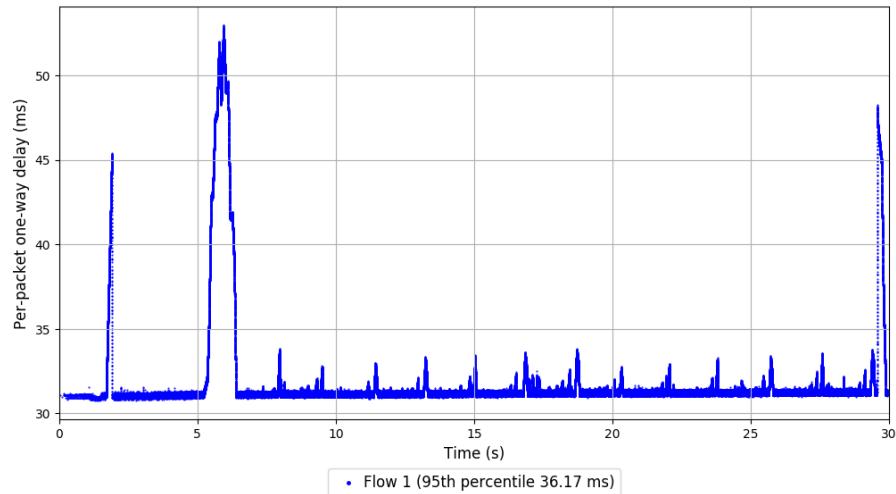
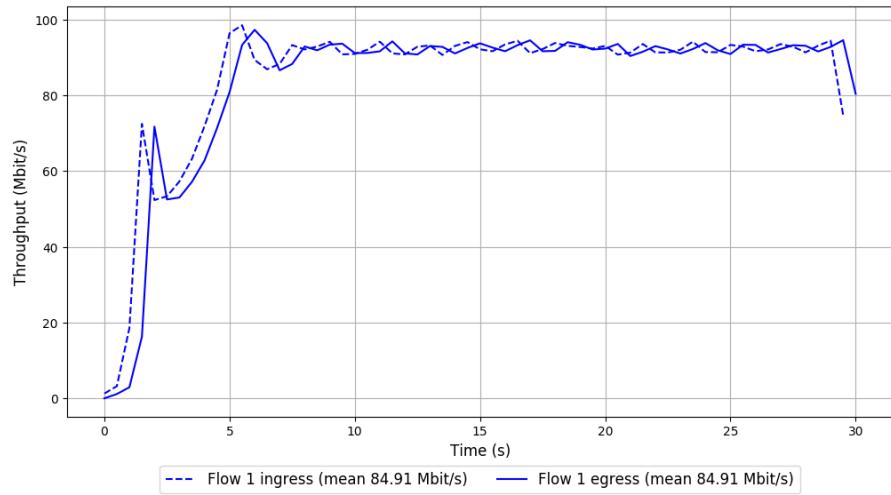


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-11-02 18:34:29
End at: 2018-11-02 18:34:59
Local clock offset: 2.234 ms
Remote clock offset: -2.81 ms

# Below is generated by plot.py at 2018-11-02 20:12:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.91 Mbit/s
95th percentile per-packet one-way delay: 36.168 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.91 Mbit/s
95th percentile per-packet one-way delay: 36.168 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

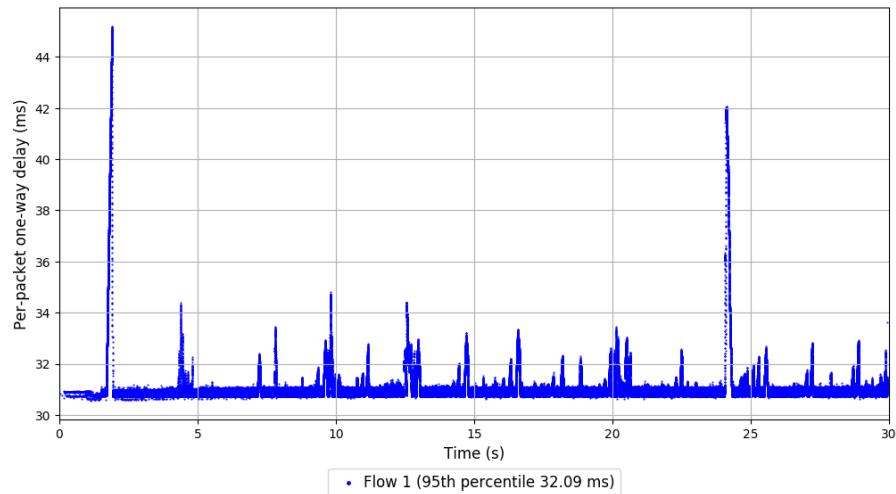
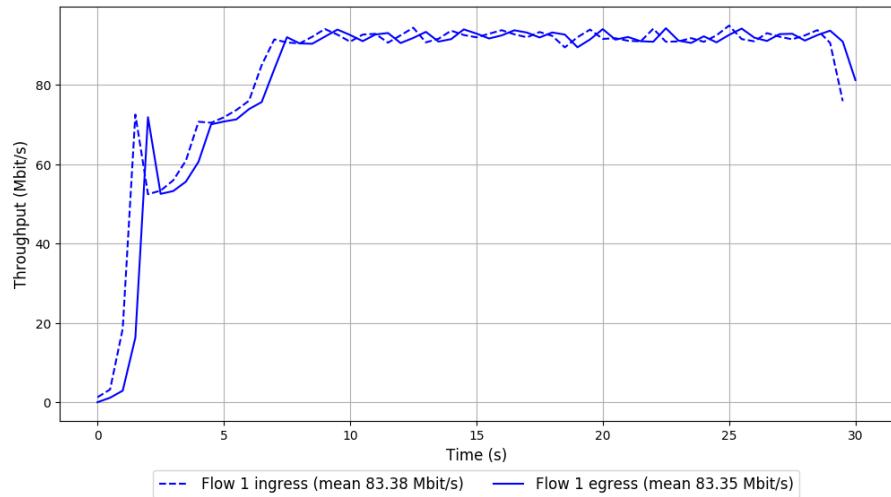


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-11-02 18:58:12
End at: 2018-11-02 18:58:42
Local clock offset: 5.326 ms
Remote clock offset: -2.495 ms

# Below is generated by plot.py at 2018-11-02 20:12:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.35 Mbit/s
95th percentile per-packet one-way delay: 32.095 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 83.35 Mbit/s
95th percentile per-packet one-way delay: 32.095 ms
Loss rate: 0.03%
```

Run 3: Report of PCC-Vivace — Data Link

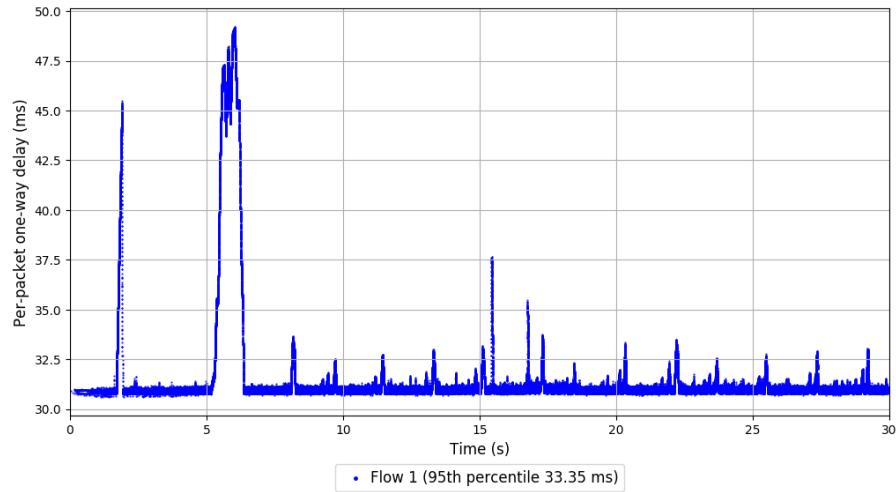
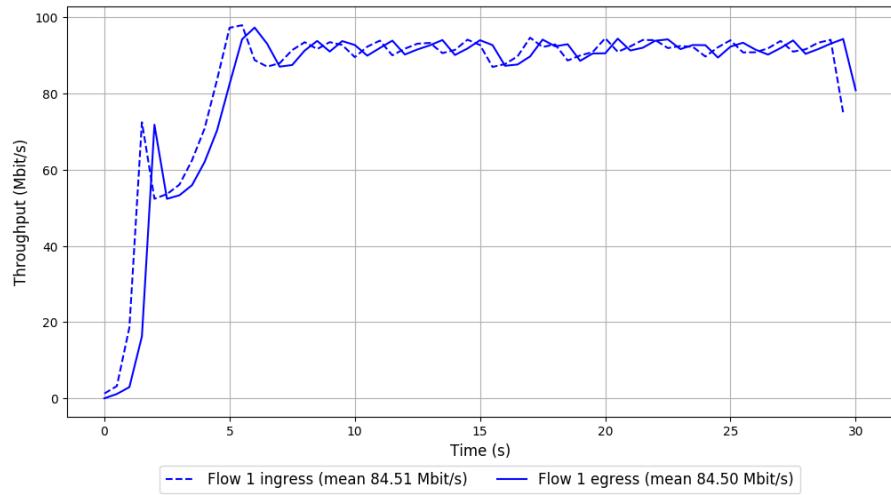


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-11-02 19:21:50
End at: 2018-11-02 19:22:20
Local clock offset: 5.924 ms
Remote clock offset: -2.036 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.50 Mbit/s
95th percentile per-packet one-way delay: 33.351 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 84.50 Mbit/s
95th percentile per-packet one-way delay: 33.351 ms
Loss rate: 0.01%
```

Run 4: Report of PCC-Vivace — Data Link

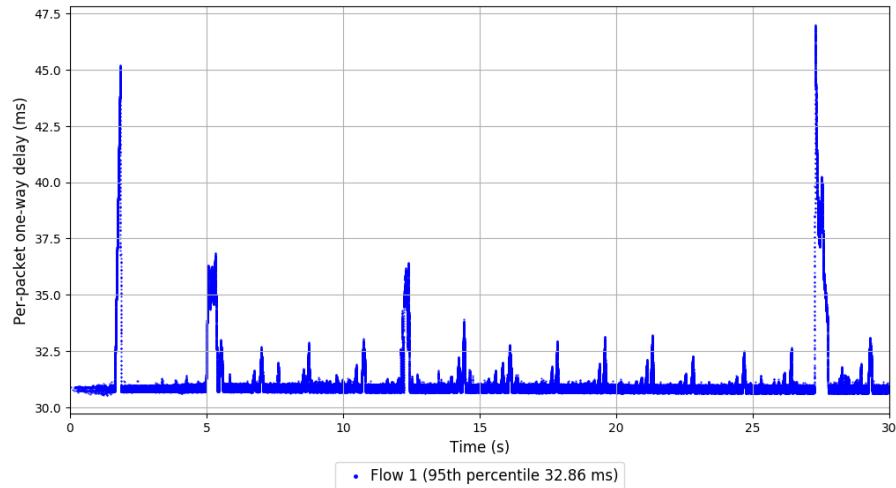
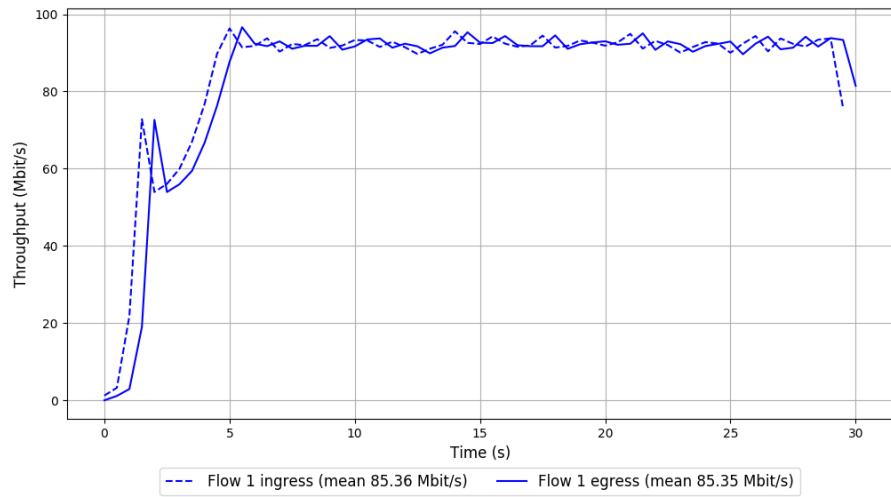


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-11-02 19:45:22
End at: 2018-11-02 19:45:52
Local clock offset: 2.785 ms
Remote clock offset: -1.773 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.35 Mbit/s
95th percentile per-packet one-way delay: 32.864 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 85.35 Mbit/s
95th percentile per-packet one-way delay: 32.864 ms
Loss rate: 0.01%
```

Run 5: Report of PCC-Vivace — Data Link

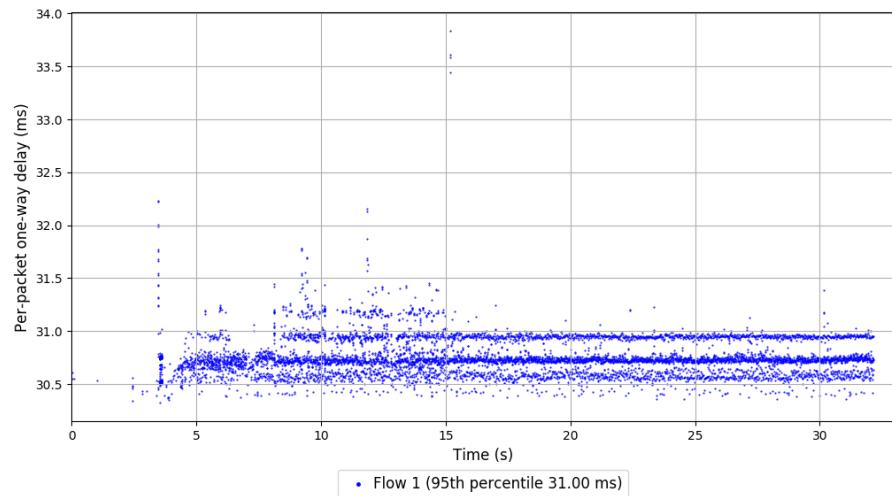
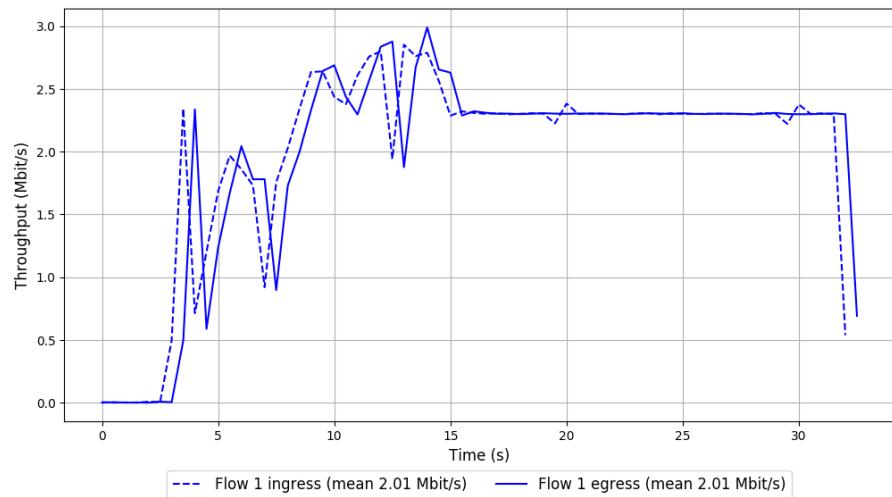


```
Run 1: Statistics of WebRTC media

Start at: 2018-11-02 18:08:19
End at: 2018-11-02 18:08:49
Local clock offset: 2.831 ms
Remote clock offset: -3.127 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 31.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 31.002 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

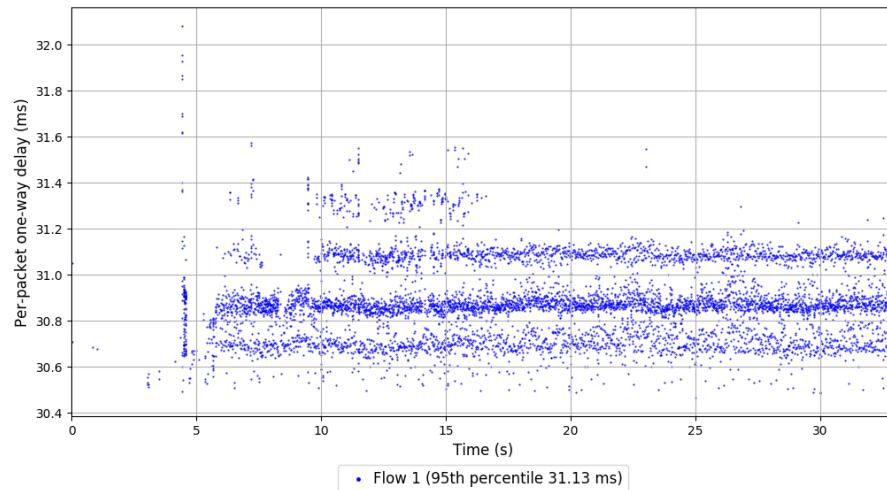
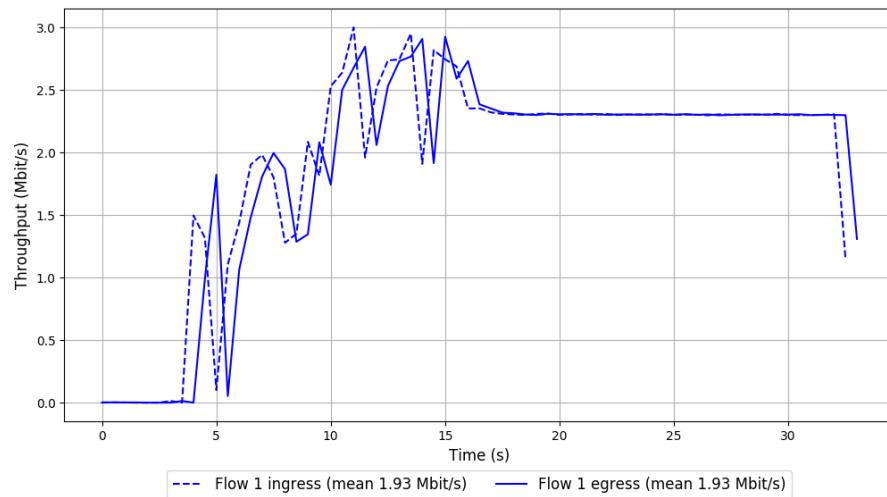


Run 2: Statistics of WebRTC media

```
Start at: 2018-11-02 18:31:53
End at: 2018-11-02 18:32:23
Local clock offset: 2.267 ms
Remote clock offset: -2.891 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.132 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.132 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

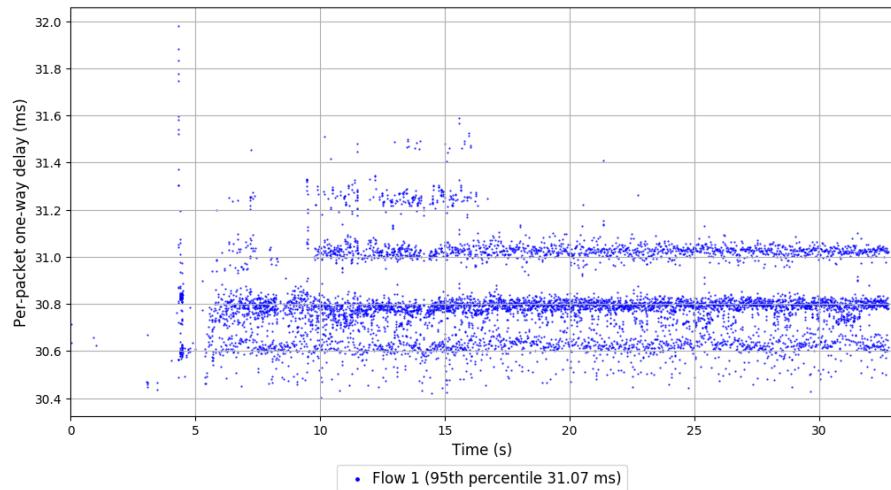
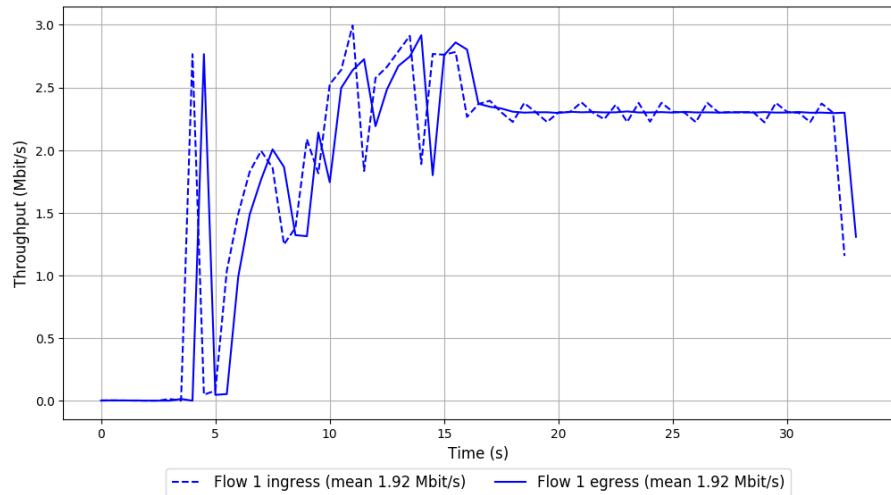


Run 3: Statistics of WebRTC media

```
Start at: 2018-11-02 18:55:36
End at: 2018-11-02 18:56:06
Local clock offset: 5.212 ms
Remote clock offset: -2.66 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.070 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.070 ms
Loss rate: 0.00%
```

### Run 3: Report of WebRTC media — Data Link

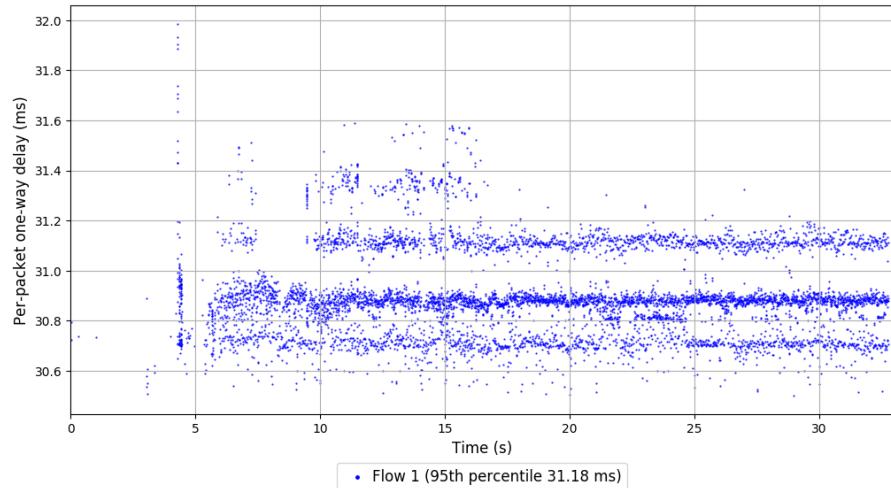
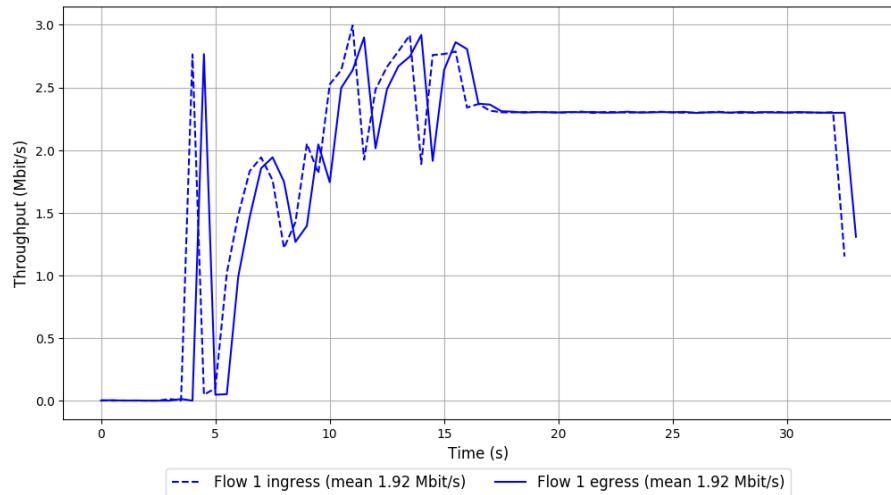


Run 4: Statistics of WebRTC media

```
Start at: 2018-11-02 19:19:16
End at: 2018-11-02 19:19:46
Local clock offset: 5.895 ms
Remote clock offset: -2.136 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.175 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.175 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2018-11-02 19:42:47
End at: 2018-11-02 19:43:17
Local clock offset: 3.329 ms
Remote clock offset: -1.787 ms

# Below is generated by plot.py at 2018-11-02 20:12:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.118 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

