

## Pantheon Report

Generated at 2018-10-02 09:18:56 (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:

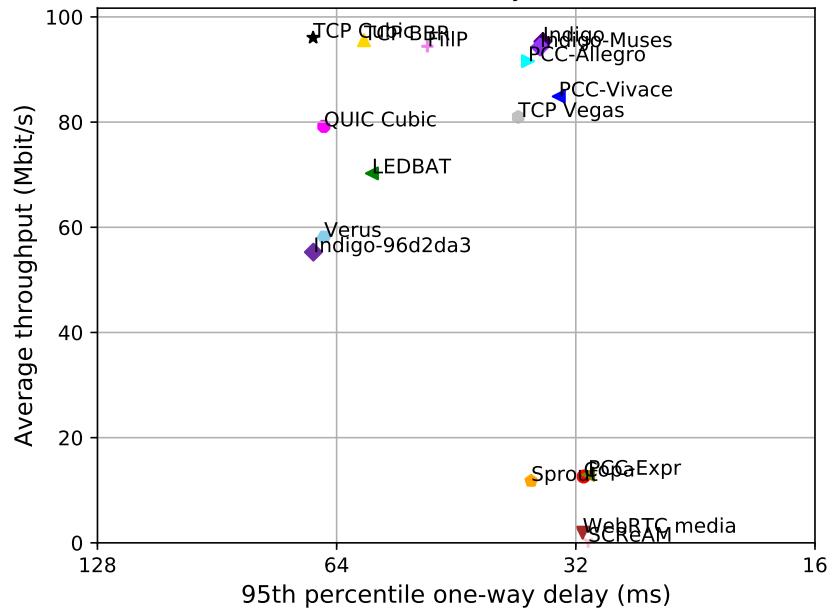
```
Linux 4.15.0-1021-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

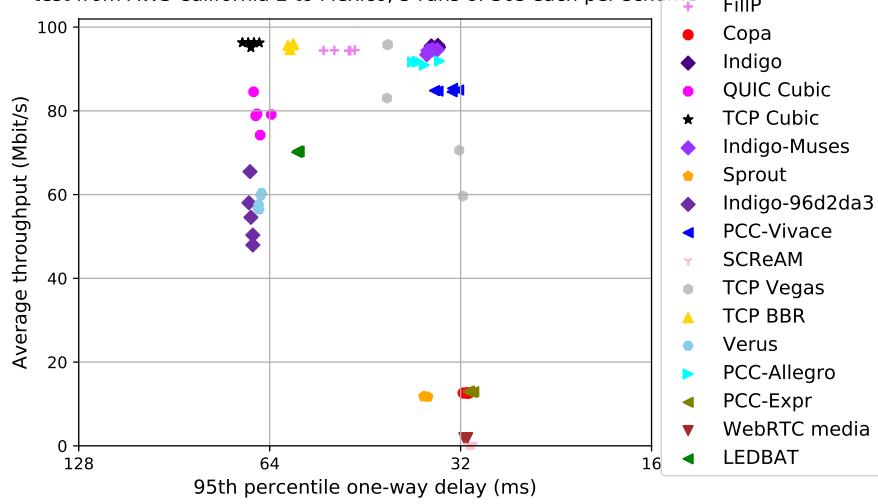
```
branch: muses @ 2e19c0464530faa92c63f8217c9971438a26a3be
third_party/fillp @ 5332fc9127c63565e13f4933b336c02d1aabdac6
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-96d2da3 @ 8413272d46f8aa0bcb967ed7048b6a8f994abb95
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 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



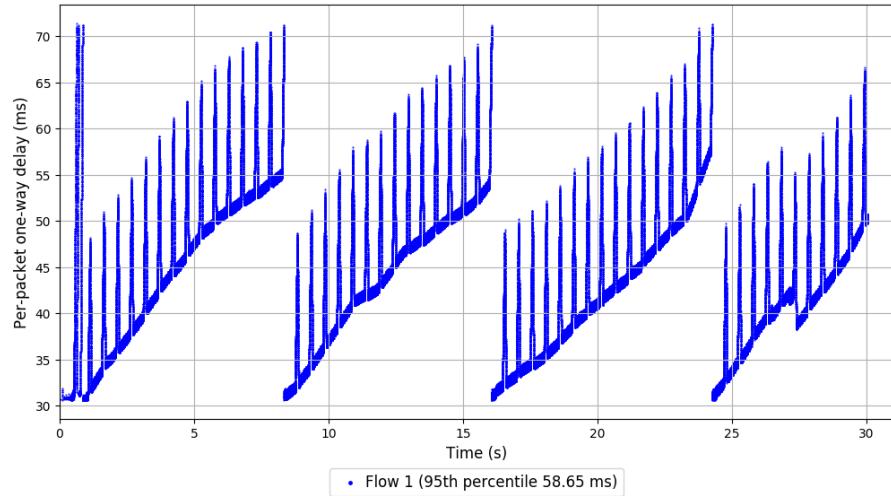
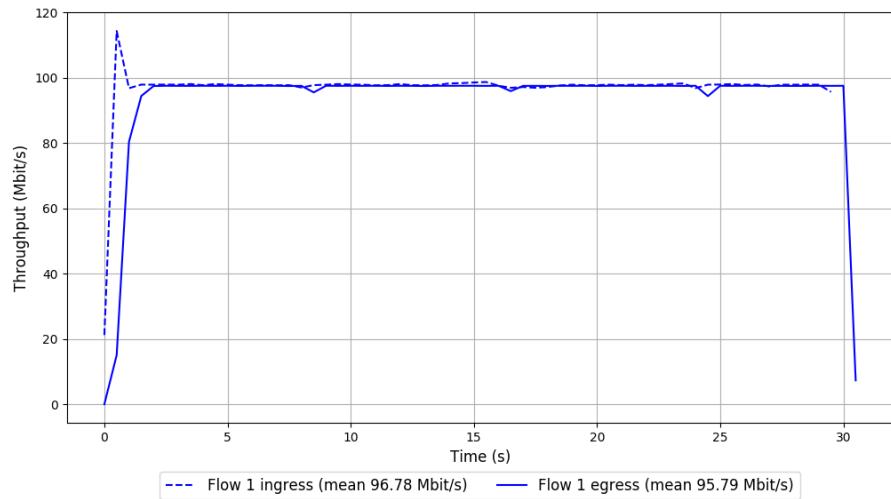
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	95.57	59.12	1.04
Copa	5	12.61	31.29	70.90
TCP Cubic	5	96.05	68.51	0.57
FillP	5	94.41	49.19	1.10
Indigo	5	95.32	35.21	0.00
Indigo-96d2da3	5	55.28	68.46	58.09
LEDBAT	5	70.25	57.78	0.00
Indigo-Muses	5	94.28	35.50	0.34
PCC-Allegro	5	91.59	36.75	0.70
PCC-Expr	5	12.94	30.88	42.93
QUIC Cubic	5	79.19	66.41	1.91
SCReAM	5	0.21	30.88	0.00
Sprout	5	11.78	36.42	0.05
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	80.97	37.82	0.50
Verus	5	58.19	66.36	23.47
PCC-Vivace	5	84.89	33.62	0.01
WebRTC media	5	1.93	31.38	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2018-10-02 07:31:41
End at: 2018-10-02 07:32:11
Local clock offset: -1.803 ms
Remote clock offset: -4.195 ms

# Below is generated by plot.py at 2018-10-02 09:11:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 58.649 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 58.649 ms
Loss rate: 0.95%
```

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

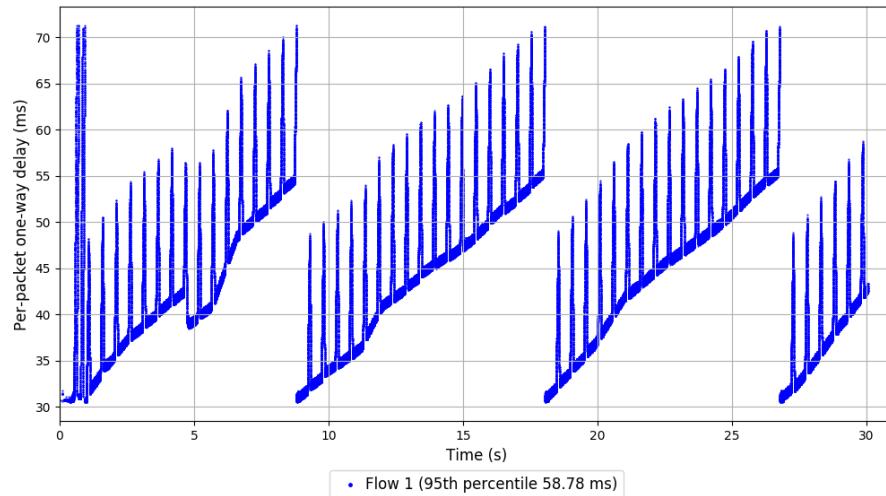
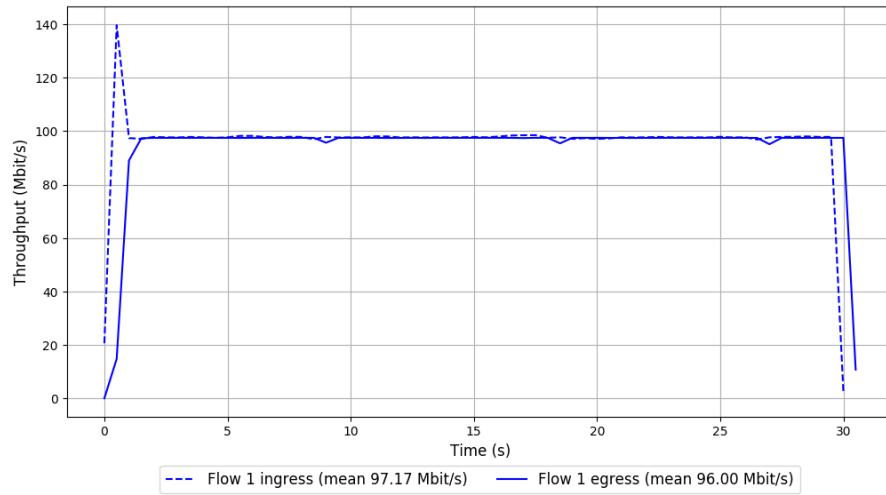


Run 2: Statistics of TCP BBR

```
Start at: 2018-10-02 07:55:14
End at: 2018-10-02 07:55:44
Local clock offset: -4.189 ms
Remote clock offset: -4.507 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.00 Mbit/s
95th percentile per-packet one-way delay: 58.781 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 96.00 Mbit/s
95th percentile per-packet one-way delay: 58.781 ms
Loss rate: 1.16%
```

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

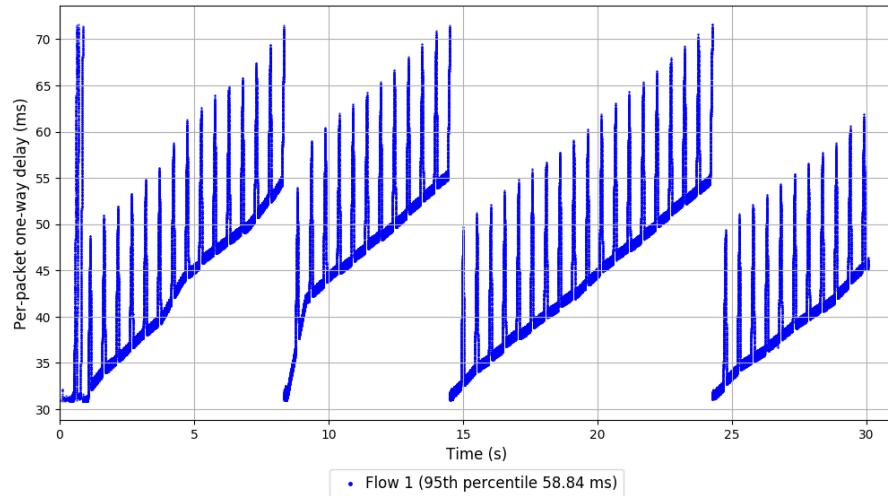
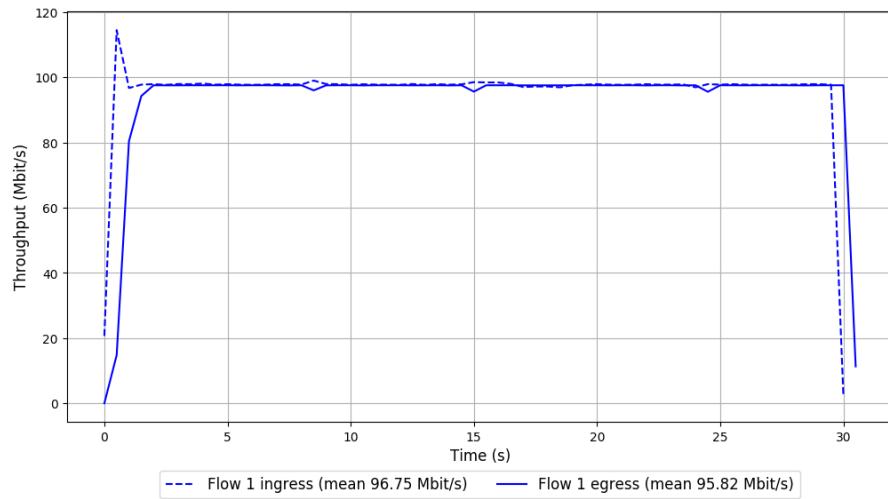


Run 3: Statistics of TCP BBR

```
Start at: 2018-10-02 08:18:44
End at: 2018-10-02 08:19:14
Local clock offset: -3.934 ms
Remote clock offset: -3.905 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 58.835 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 95.82 Mbit/s
95th percentile per-packet one-way delay: 58.835 ms
Loss rate: 0.92%
```

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

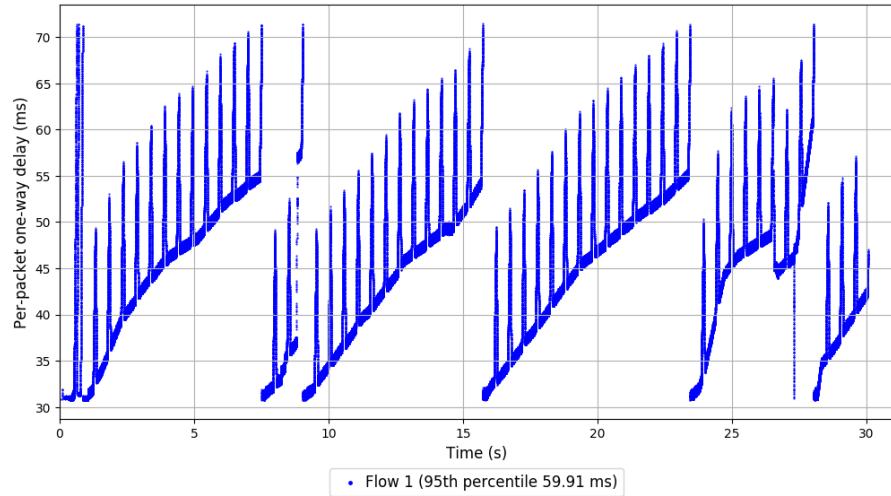
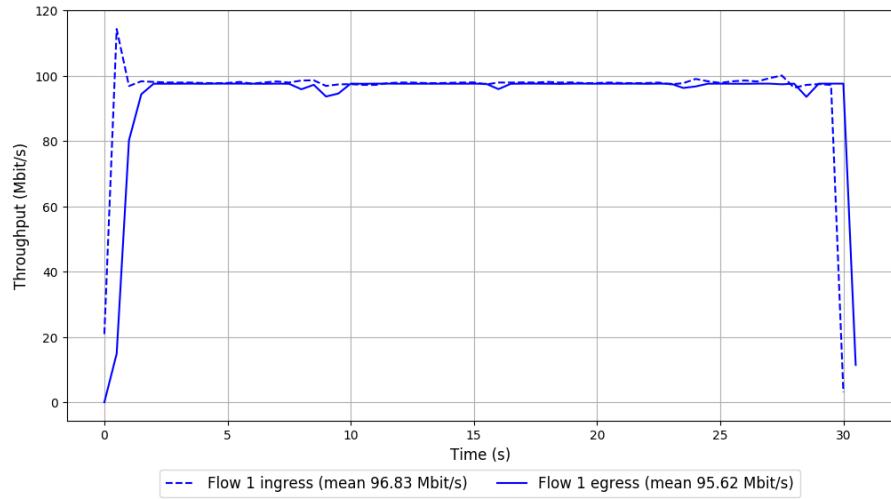


Run 4: Statistics of TCP BBR

```
Start at: 2018-10-02 08:42:17
End at: 2018-10-02 08:42:47
Local clock offset: 0.869 ms
Remote clock offset: -3.892 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.62 Mbit/s
95th percentile per-packet one-way delay: 59.907 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 95.62 Mbit/s
95th percentile per-packet one-way delay: 59.907 ms
Loss rate: 1.20%
```

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

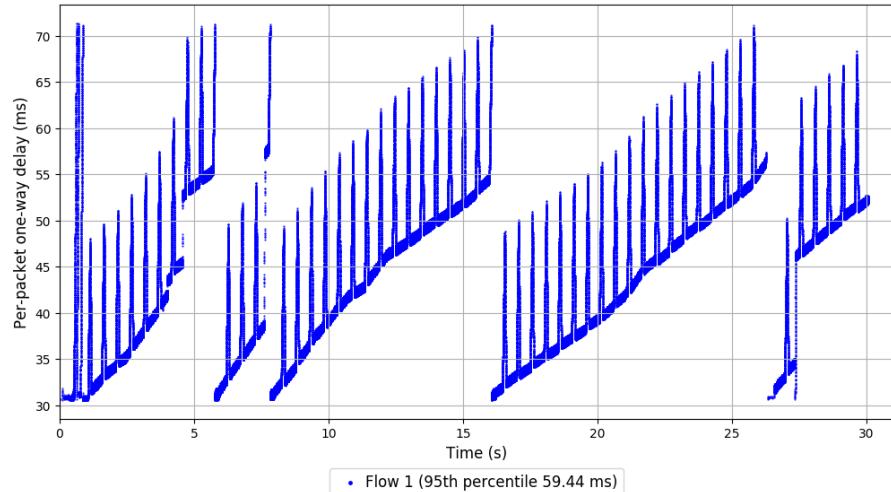
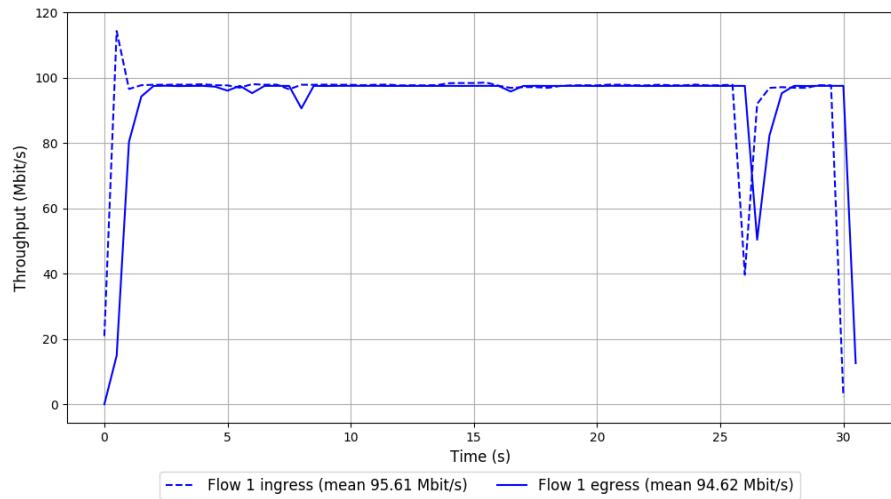


Run 5: Statistics of TCP BBR

```
Start at: 2018-10-02 09:05:51
End at: 2018-10-02 09:06:21
Local clock offset: 4.174 ms
Remote clock offset: -4.32 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.62 Mbit/s
95th percentile per-packet one-way delay: 59.437 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 94.62 Mbit/s
95th percentile per-packet one-way delay: 59.437 ms
Loss rate: 0.96%
```

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

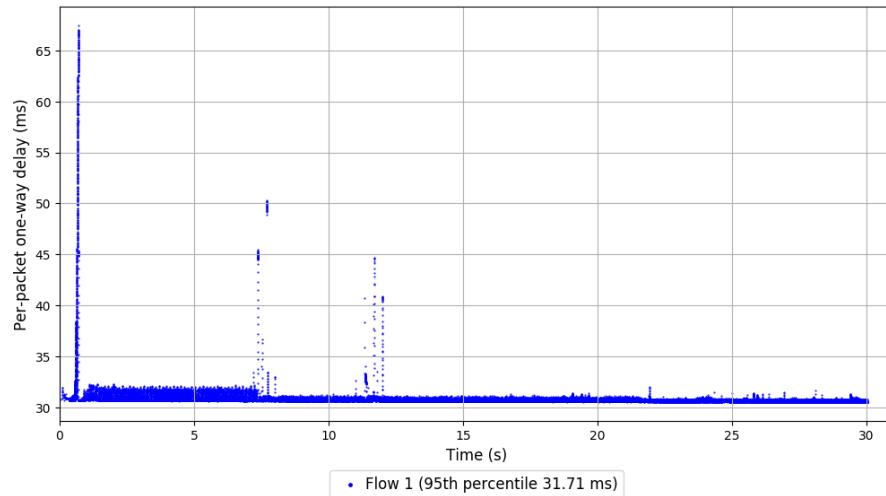
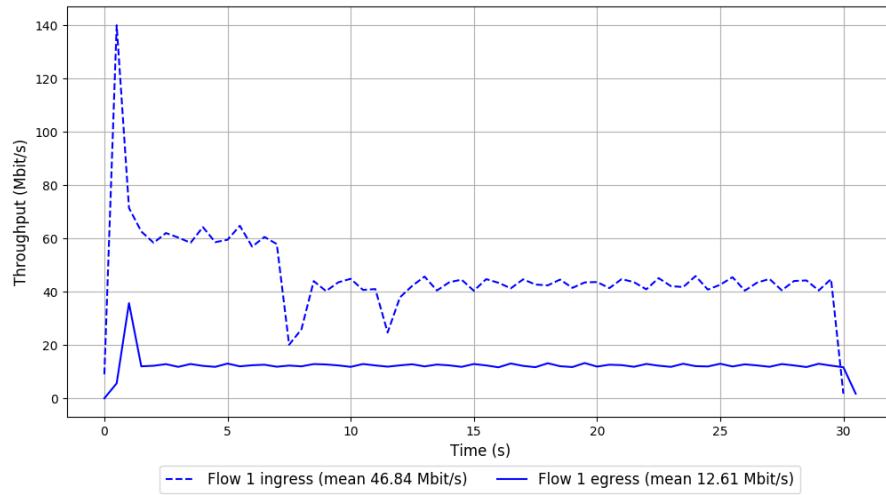


Run 1: Statistics of Copa

```
Start at: 2018-10-02 07:22:30
End at: 2018-10-02 07:23:00
Local clock offset: 0.524 ms
Remote clock offset: -4.011 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.711 ms
Loss rate: 73.07%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.711 ms
Loss rate: 73.07%
```

## Run 1: Report of Copa — Data Link

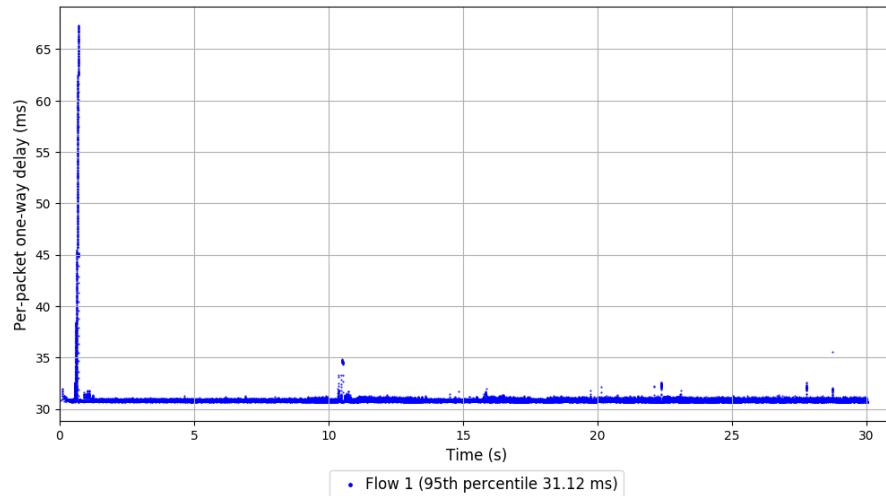
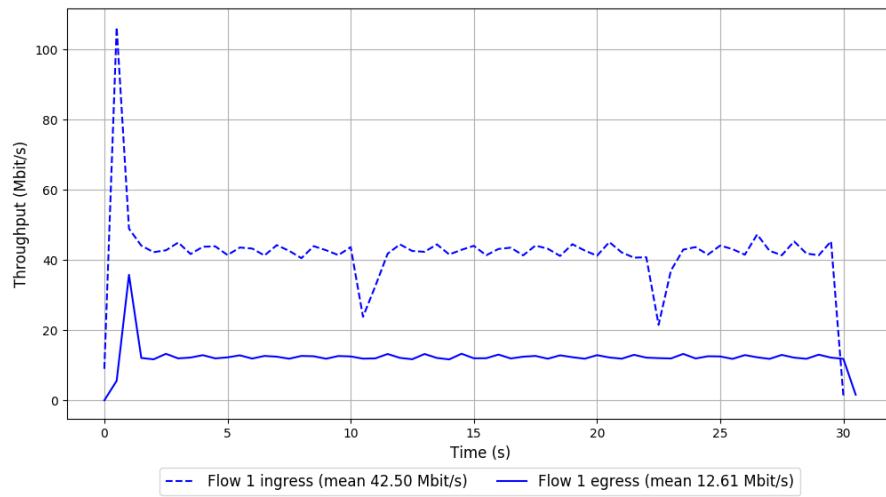


Run 2: Statistics of Copa

```
Start at: 2018-10-02 07:46:02
End at: 2018-10-02 07:46:32
Local clock offset: -3.448 ms
Remote clock offset: -4.275 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.124 ms
Loss rate: 70.33%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.124 ms
Loss rate: 70.33%
```

## Run 2: Report of Copa — Data Link

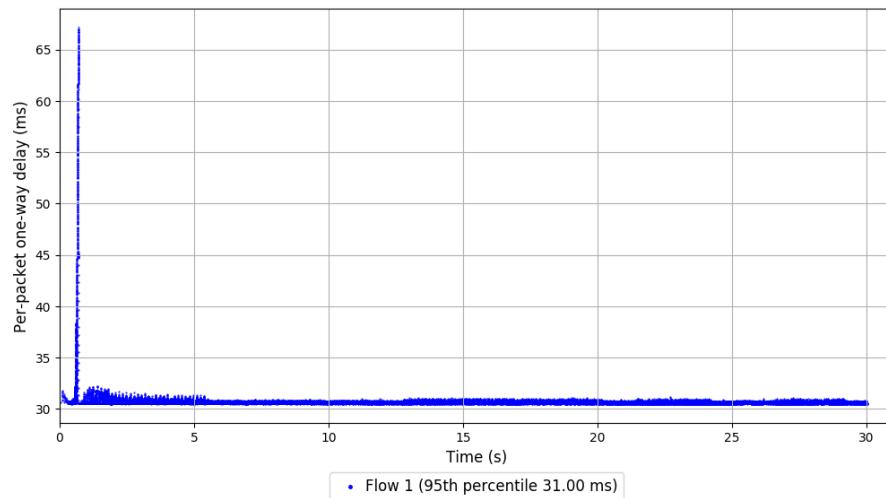
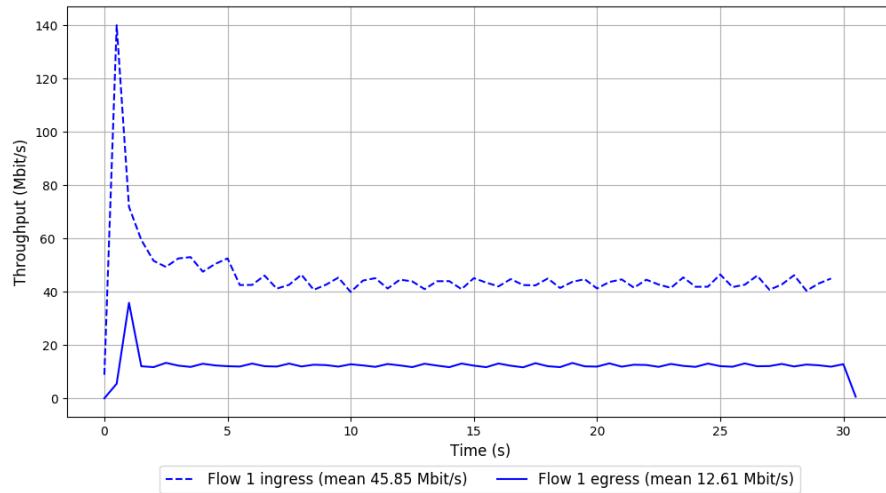


Run 3: Statistics of Copa

```
Start at: 2018-10-02 08:09:34
End at: 2018-10-02 08:10:04
Local clock offset: -5.19 ms
Remote clock offset: -4.136 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.003 ms
Loss rate: 72.49%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.003 ms
Loss rate: 72.49%
```

### Run 3: Report of Copa — Data Link

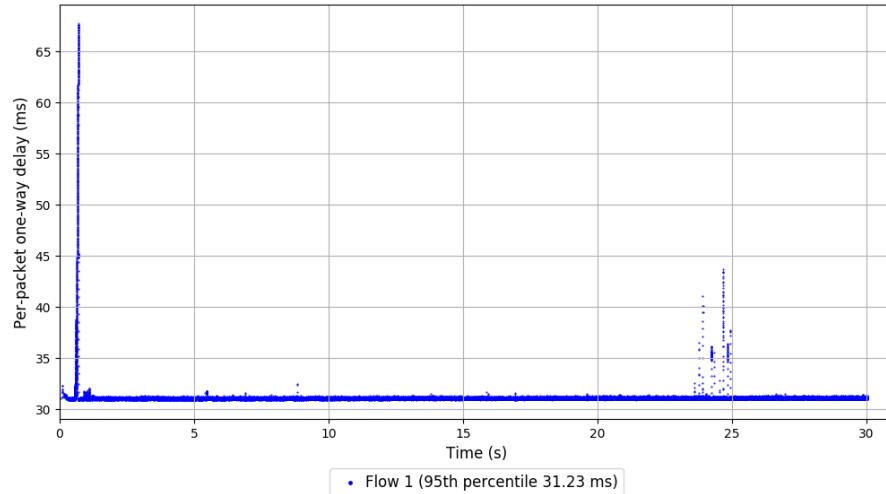
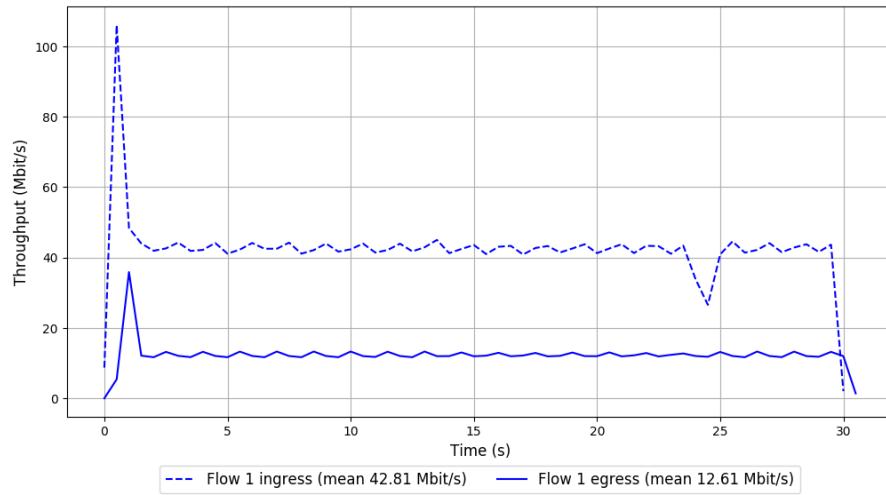


Run 4: Statistics of Copa

```
Start at: 2018-10-02 08:33:06
End at: 2018-10-02 08:33:36
Local clock offset: 0.004 ms
Remote clock offset: -3.6 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.232 ms
Loss rate: 70.54%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.232 ms
Loss rate: 70.54%
```

## Run 4: Report of Copa — Data Link

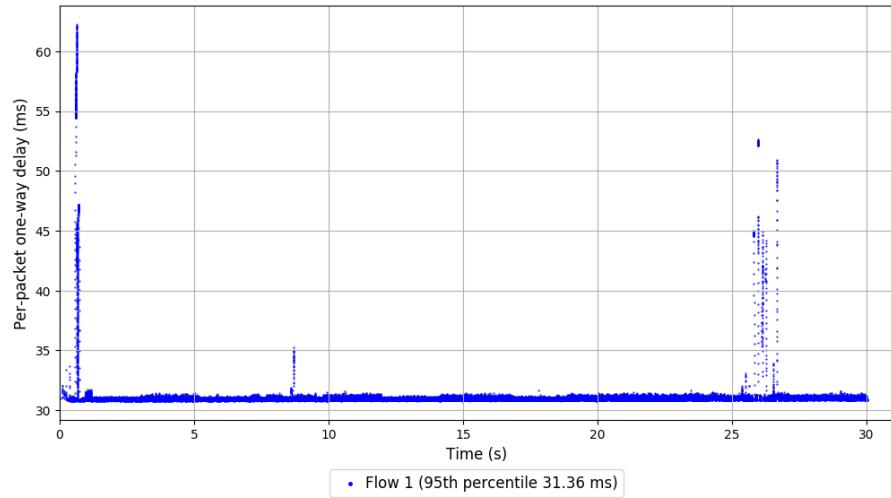
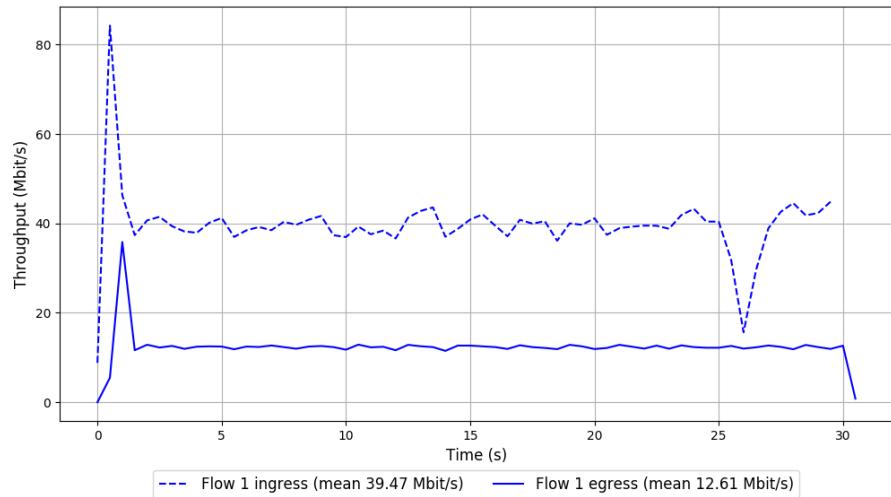


Run 5: Statistics of Copa

```
Start at: 2018-10-02 08:56:39
End at: 2018-10-02 08:57:09
Local clock offset: 3.215 ms
Remote clock offset: -4.035 ms

# Below is generated by plot.py at 2018-10-02 09:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.360 ms
Loss rate: 68.05%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 31.360 ms
Loss rate: 68.05%
```

## Run 5: Report of Copa — Data Link

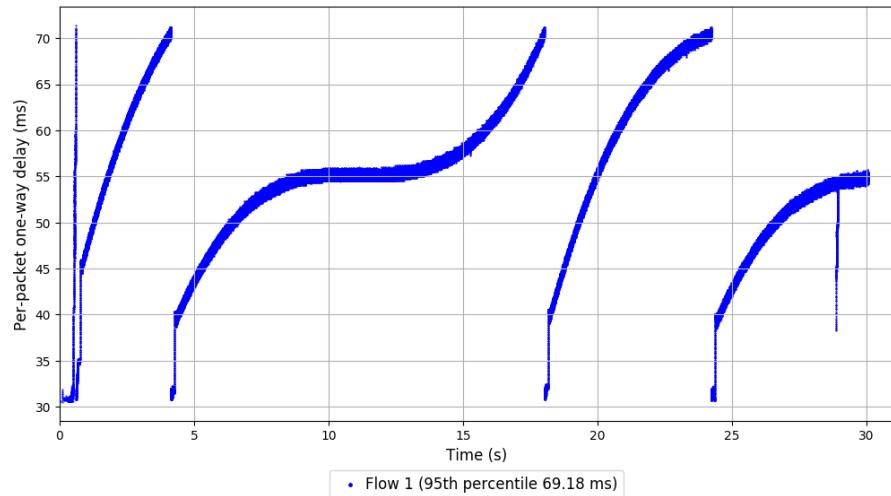
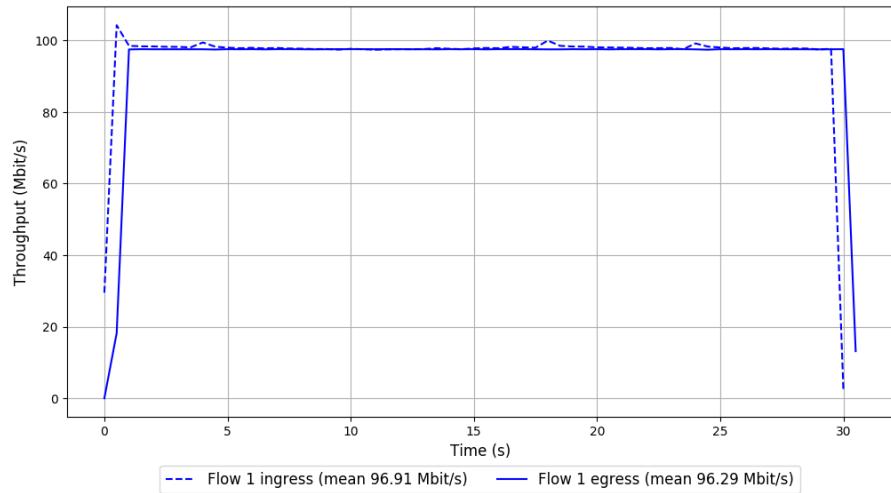


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2018-10-02 07:34:22
End at: 2018-10-02 07:34:52
Local clock offset: -2.215 ms
Remote clock offset: -4.201 ms

# Below is generated by plot.py at 2018-10-02 09:11:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 69.182 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 69.182 ms
Loss rate: 0.55%
```

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

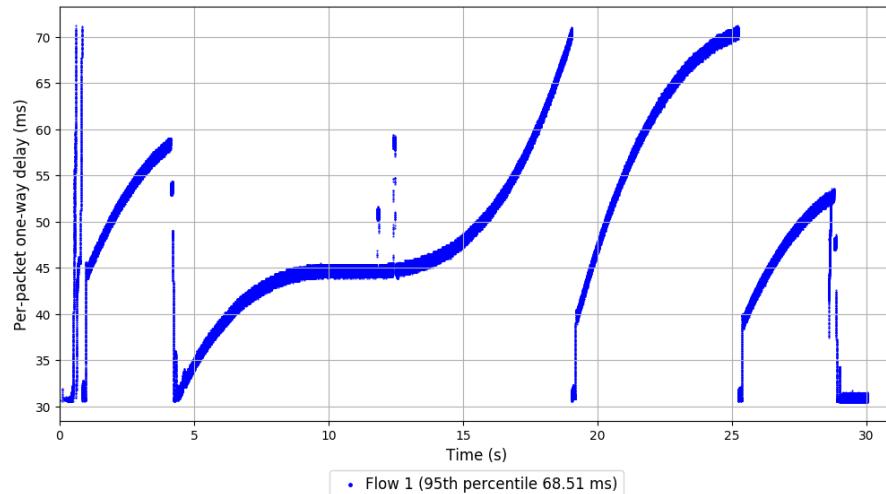
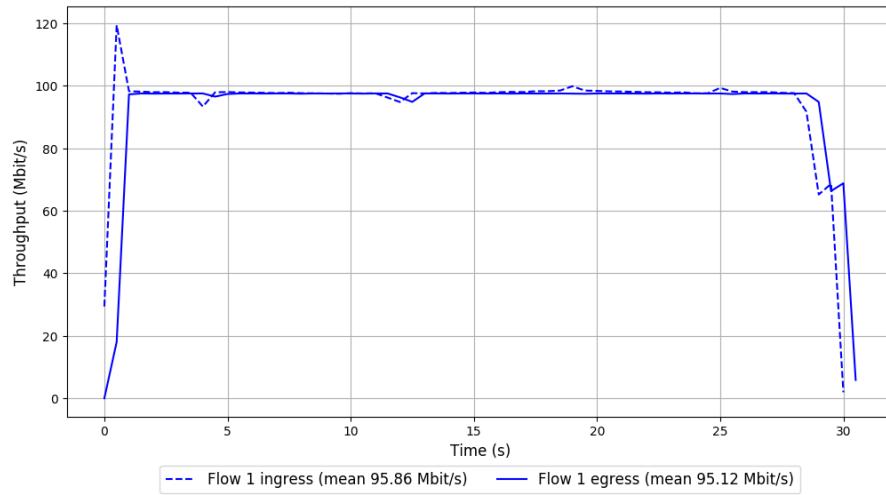


Run 2: Statistics of TCP Cubic

```
Start at: 2018-10-02 07:57:54
End at: 2018-10-02 07:58:24
Local clock offset: -4.385 ms
Remote clock offset: -4.488 ms

# Below is generated by plot.py at 2018-10-02 09:11:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 68.513 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 95.12 Mbit/s
95th percentile per-packet one-way delay: 68.513 ms
Loss rate: 0.77%
```

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

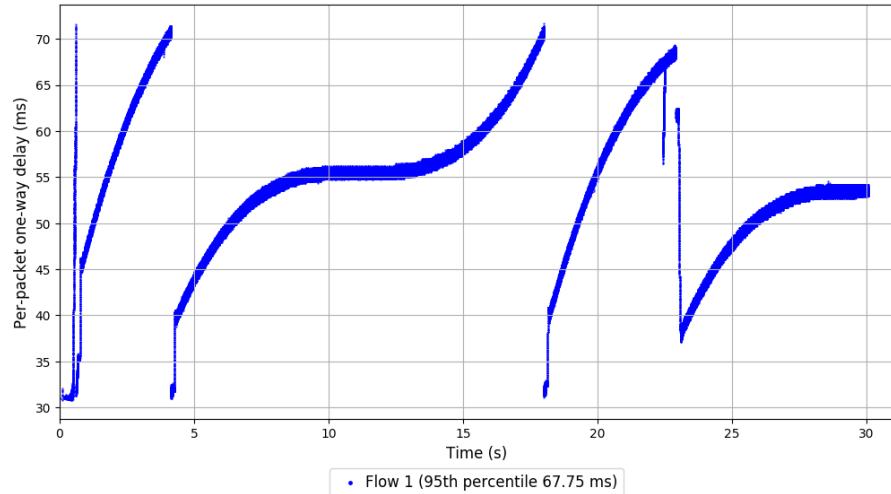
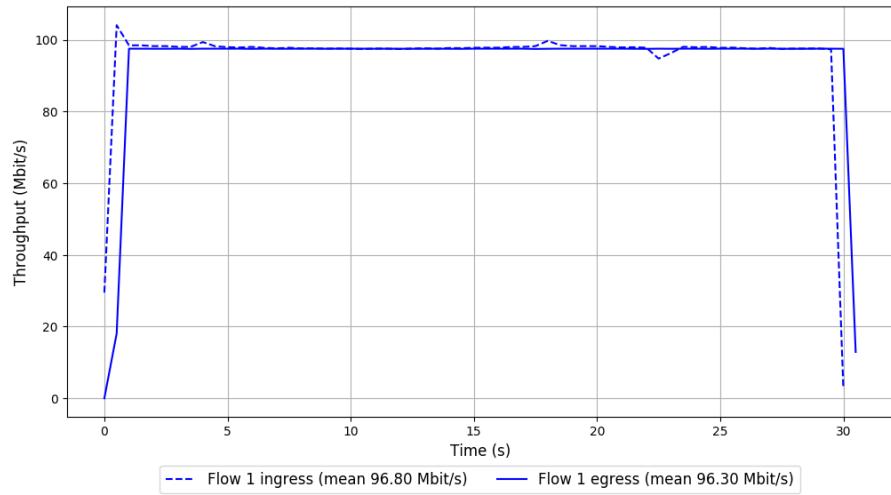


Run 3: Statistics of TCP Cubic

```
Start at: 2018-10-02 08:21:25
End at: 2018-10-02 08:21:55
Local clock offset: -2.685 ms
Remote clock offset: -3.742 ms

# Below is generated by plot.py at 2018-10-02 09:11:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 67.748 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 96.30 Mbit/s
95th percentile per-packet one-way delay: 67.748 ms
Loss rate: 0.44%
```

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

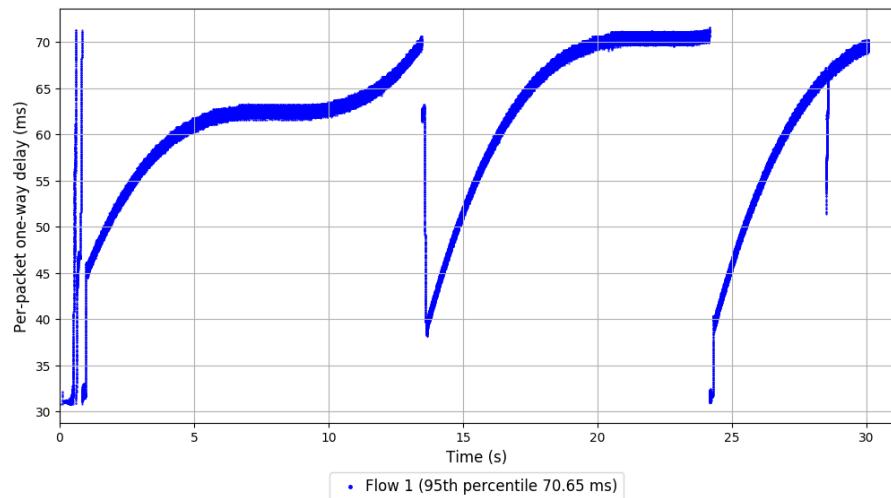
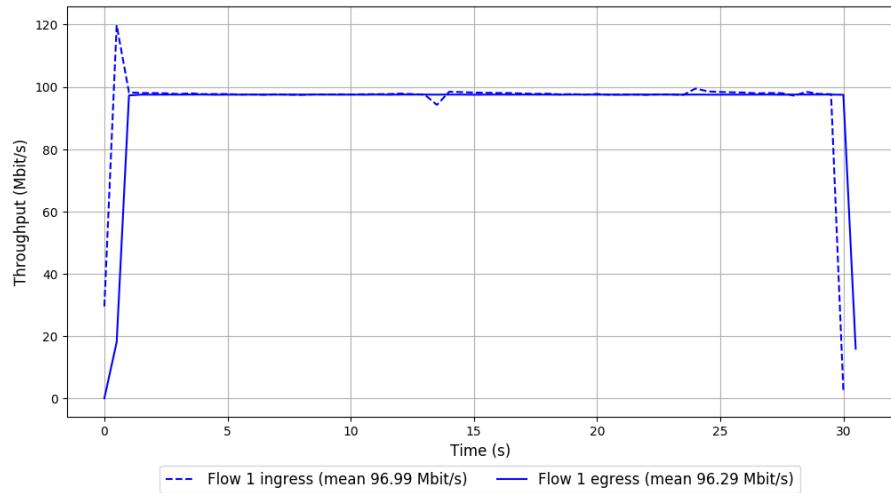


Run 4: Statistics of TCP Cubic

```
Start at: 2018-10-02 08:44:58
End at: 2018-10-02 08:45:28
Local clock offset: 1.059 ms
Remote clock offset: -3.786 ms

# Below is generated by plot.py at 2018-10-02 09:12:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 70.654 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 96.29 Mbit/s
95th percentile per-packet one-way delay: 70.654 ms
Loss rate: 0.59%
```

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

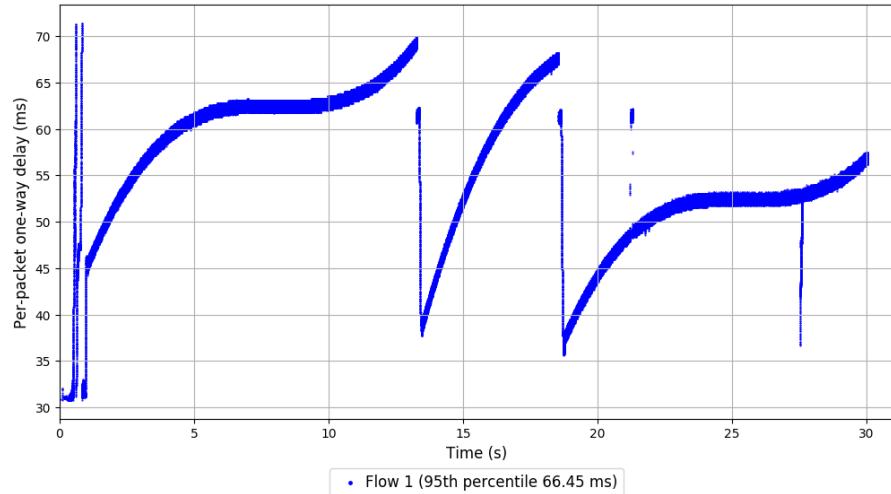
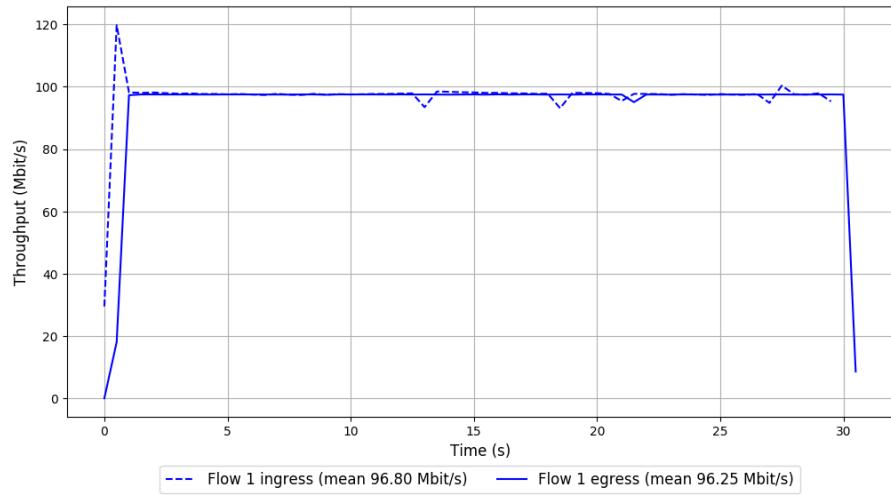


Run 5: Statistics of TCP Cubic

```
Start at: 2018-10-02 09:08:32
End at: 2018-10-02 09:09:02
Local clock offset: 4.4 ms
Remote clock offset: -4.167 ms

# Below is generated by plot.py at 2018-10-02 09:12:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 66.448 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 96.25 Mbit/s
95th percentile per-packet one-way delay: 66.448 ms
Loss rate: 0.48%
```

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

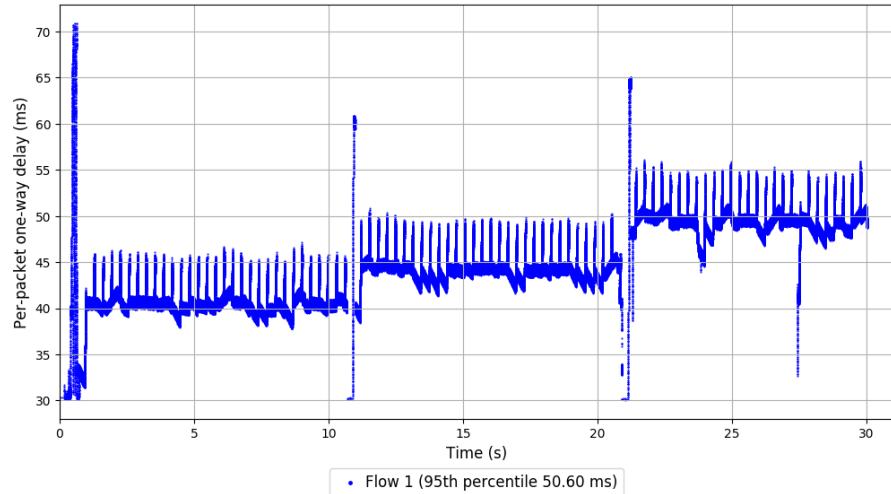
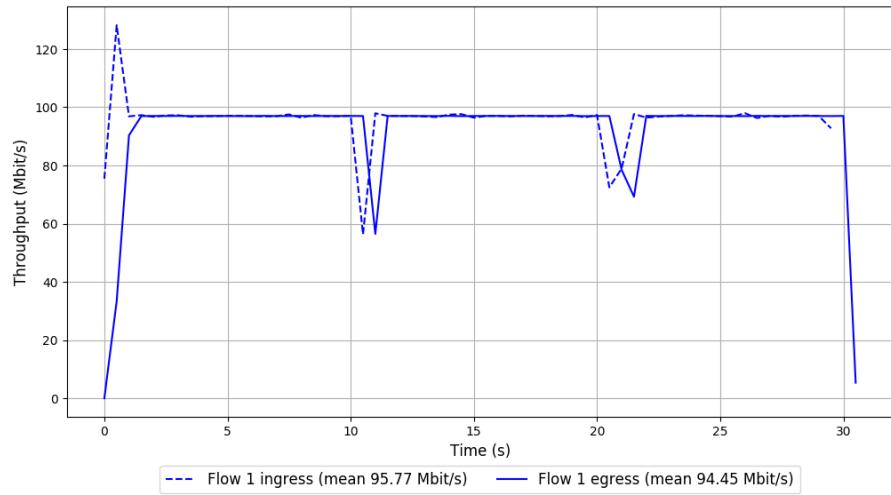


```
Run 1: Statistics of FillP
```

```
Start at: 2018-10-02 07:19:55
End at: 2018-10-02 07:20:25
Local clock offset: 1.665 ms
Remote clock offset: -4.282 ms

# Below is generated by plot.py at 2018-10-02 09:12:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 50.605 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 50.605 ms
Loss rate: 1.31%
```

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

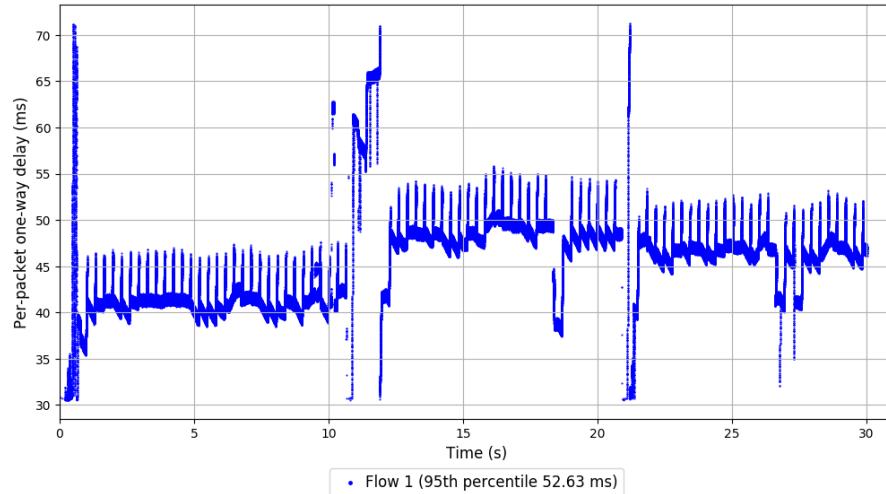
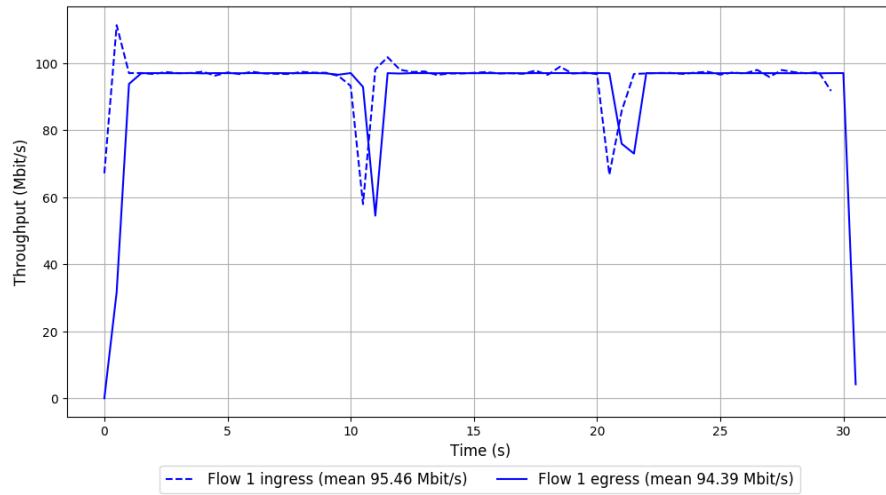


Run 2: Statistics of FillP

```
Start at: 2018-10-02 07:43:27
End at: 2018-10-02 07:43:57
Local clock offset: -3.213 ms
Remote clock offset: -4.257 ms

# Below is generated by plot.py at 2018-10-02 09:12:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.39 Mbit/s
95th percentile per-packet one-way delay: 52.627 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 94.39 Mbit/s
95th percentile per-packet one-way delay: 52.627 ms
Loss rate: 1.07%
```

## Run 2: Report of FillP — Data Link

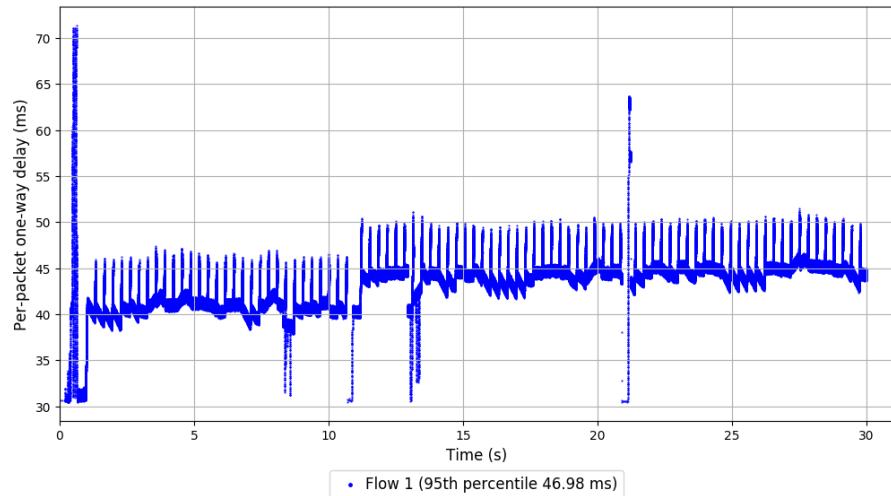
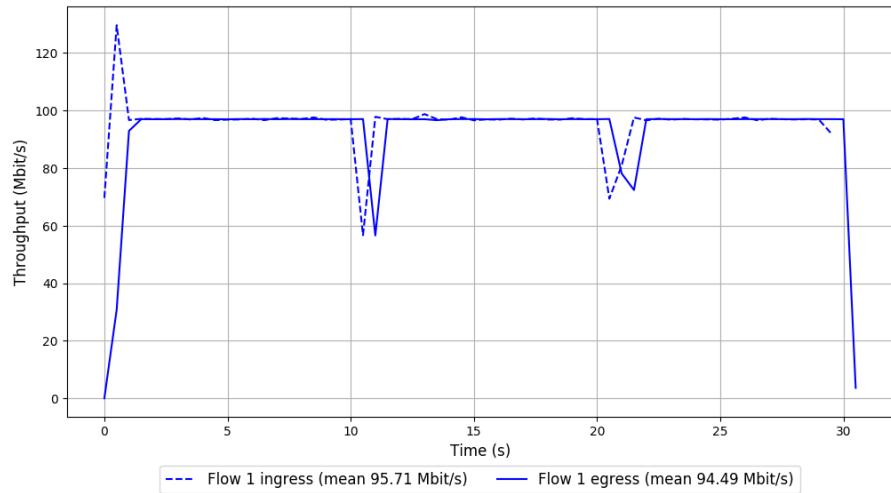


Run 3: Statistics of FillP

```
Start at: 2018-10-02 08:07:00
End at: 2018-10-02 08:07:30
Local clock offset: -5.017 ms
Remote clock offset: -4.06 ms

# Below is generated by plot.py at 2018-10-02 09:12:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.49 Mbit/s
95th percentile per-packet one-way delay: 46.983 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 94.49 Mbit/s
95th percentile per-packet one-way delay: 46.983 ms
Loss rate: 1.23%
```

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

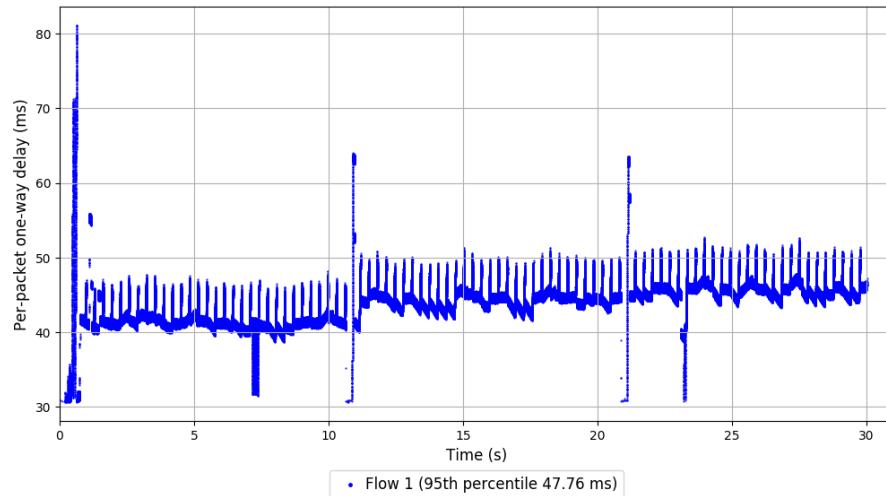
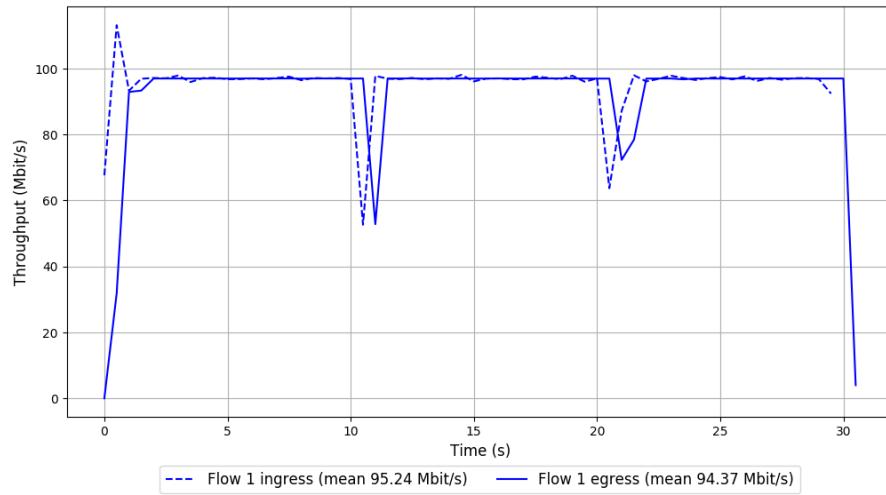


```
Run 4: Statistics of FillP
```

```
Start at: 2018-10-02 08:30:31
End at: 2018-10-02 08:31:01
Local clock offset: -0.376 ms
Remote clock offset: -3.72 ms

# Below is generated by plot.py at 2018-10-02 09:13:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.37 Mbit/s
95th percentile per-packet one-way delay: 47.759 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 94.37 Mbit/s
95th percentile per-packet one-way delay: 47.759 ms
Loss rate: 0.86%
```

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

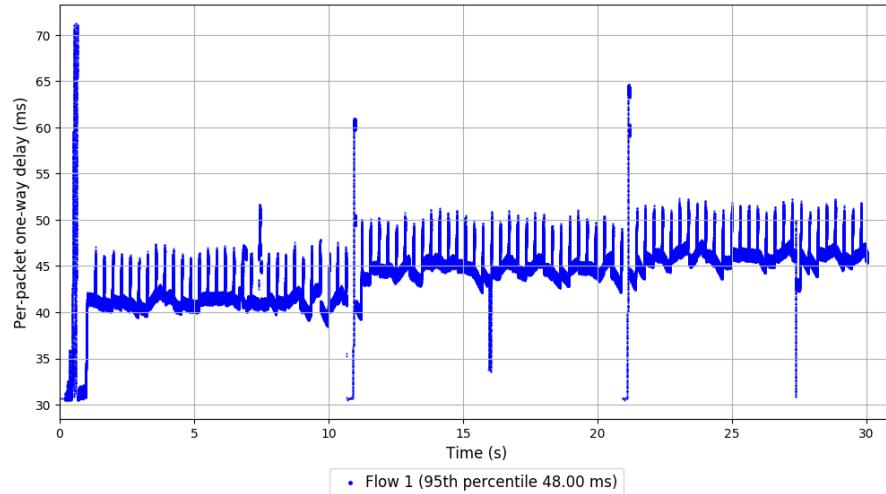
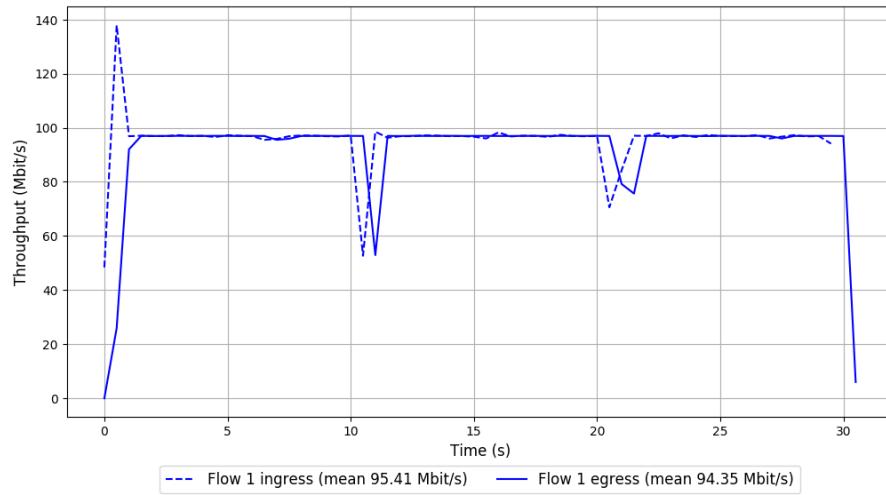


Run 5: Statistics of FillP

```
Start at: 2018-10-02 08:54:04
End at: 2018-10-02 08:54:34
Local clock offset: 2.808 ms
Remote clock offset: -4.212 ms

# Below is generated by plot.py at 2018-10-02 09:13:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 47.996 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 94.35 Mbit/s
95th percentile per-packet one-way delay: 47.996 ms
Loss rate: 1.05%
```

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

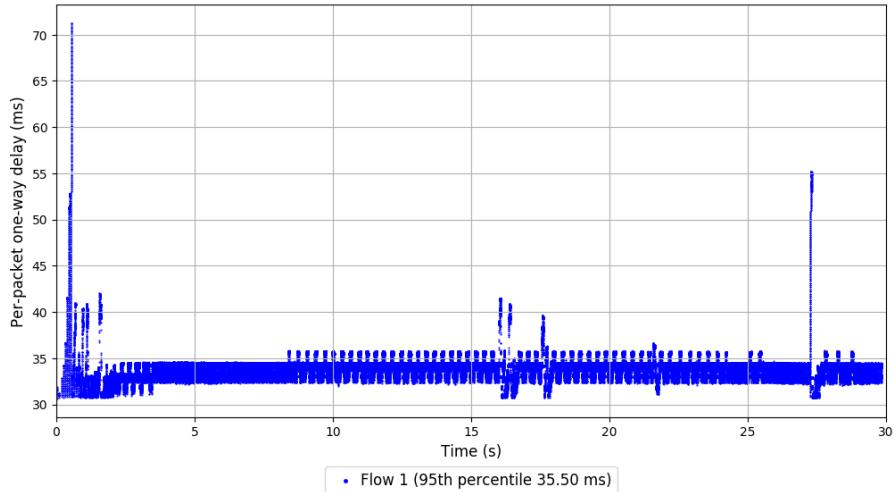
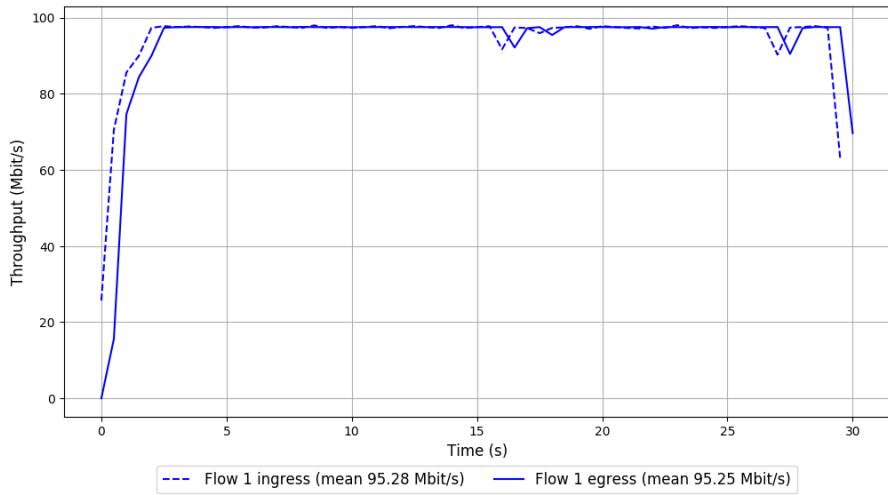


Run 1: Statistics of Indigo

```
Start at: 2018-10-02 07:29:01
End at: 2018-10-02 07:29:31
Local clock offset: -1.286 ms
Remote clock offset: -4.026 ms

# Below is generated by plot.py at 2018-10-02 09:13:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.25 Mbit/s
95th percentile per-packet one-way delay: 35.500 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 95.25 Mbit/s
95th percentile per-packet one-way delay: 35.500 ms
Loss rate: 0.02%
```

## Run 1: Report of Indigo — Data Link

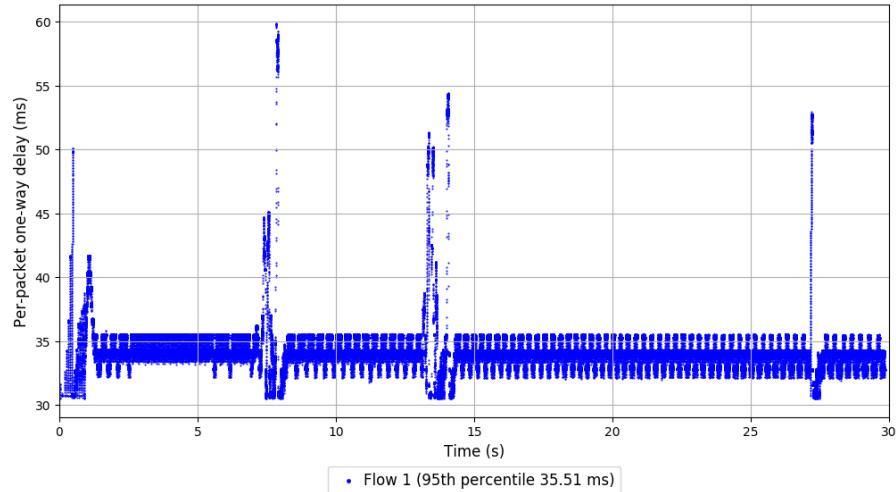
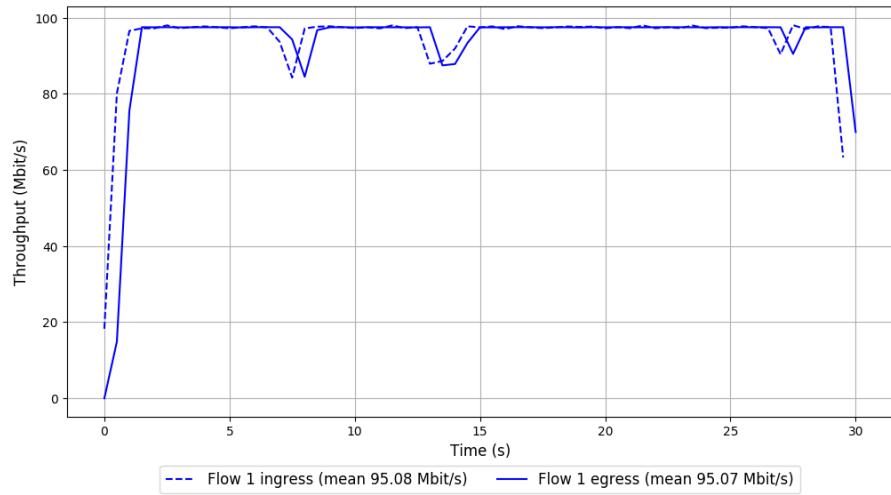


Run 2: Statistics of Indigo

```
Start at: 2018-10-02 07:52:34
End at: 2018-10-02 07:53:04
Local clock offset: -3.969 ms
Remote clock offset: -4.501 ms

# Below is generated by plot.py at 2018-10-02 09:13:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 35.509 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.07 Mbit/s
95th percentile per-packet one-way delay: 35.509 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

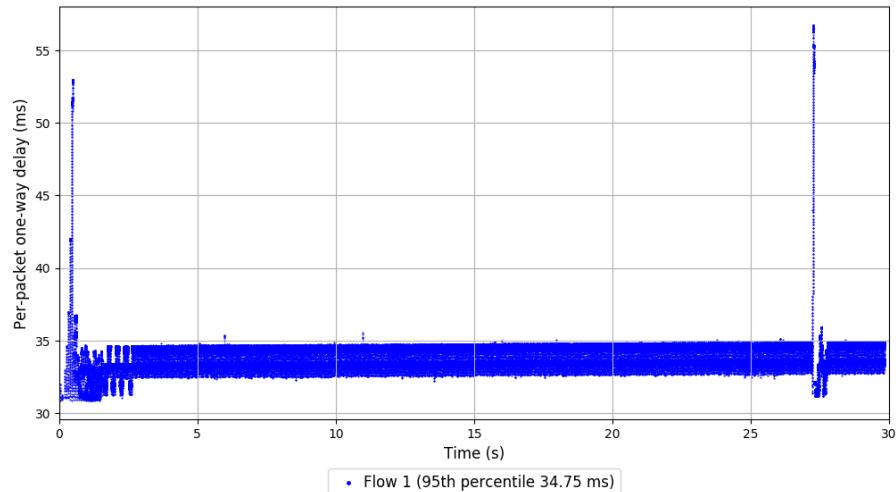
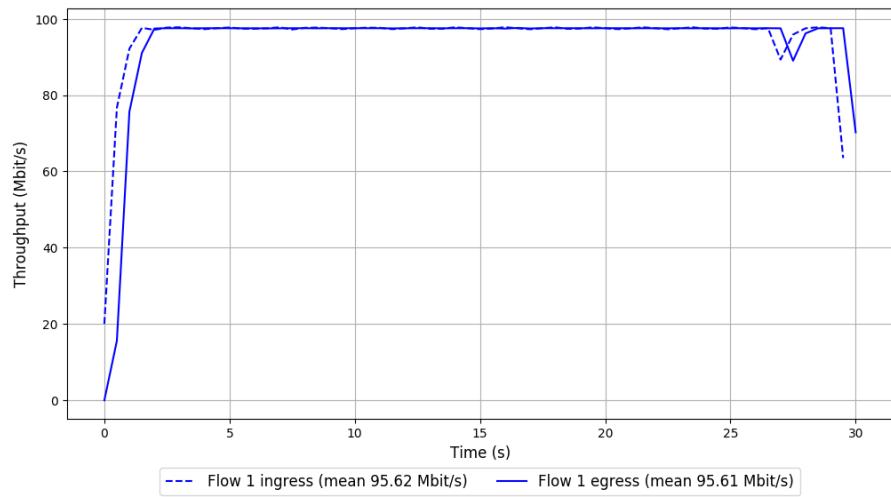


Run 3: Statistics of Indigo

```
Start at: 2018-10-02 08:16:04
End at: 2018-10-02 08:16:34
Local clock offset: -5.507 ms
Remote clock offset: -3.955 ms

# Below is generated by plot.py at 2018-10-02 09:13:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 34.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.61 Mbit/s
95th percentile per-packet one-way delay: 34.752 ms
Loss rate: 0.00%
```

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

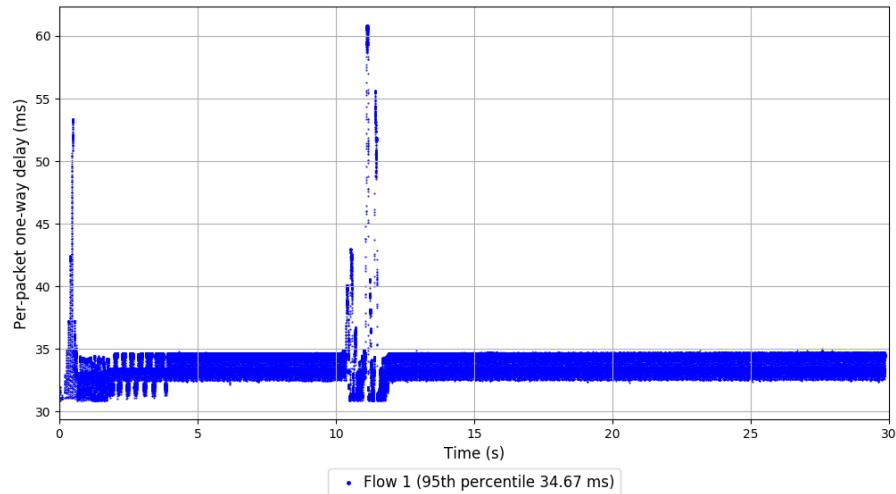
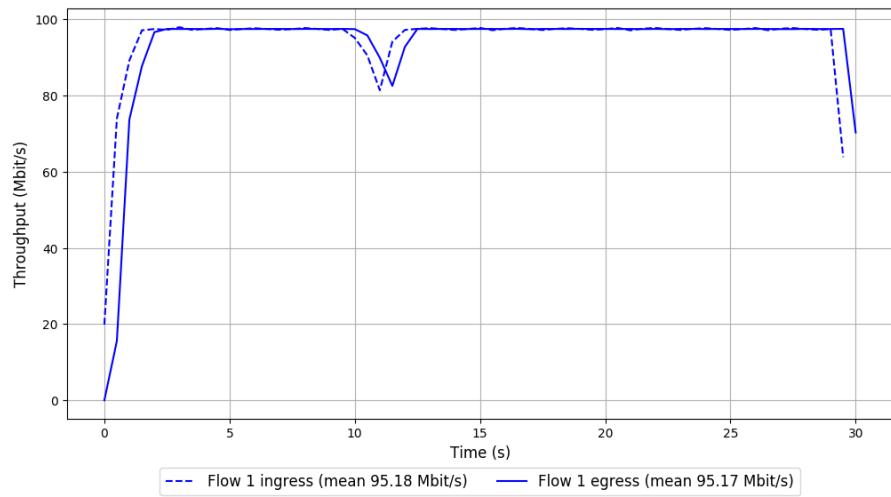


Run 4: Statistics of Indigo

```
Start at: 2018-10-02 08:39:37
End at: 2018-10-02 08:40:07
Local clock offset: 0.677 ms
Remote clock offset: -3.685 ms

# Below is generated by plot.py at 2018-10-02 09:13:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.17 Mbit/s
95th percentile per-packet one-way delay: 34.671 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.17 Mbit/s
95th percentile per-packet one-way delay: 34.671 ms
Loss rate: 0.00%
```

## Run 4: Report of Indigo — Data Link

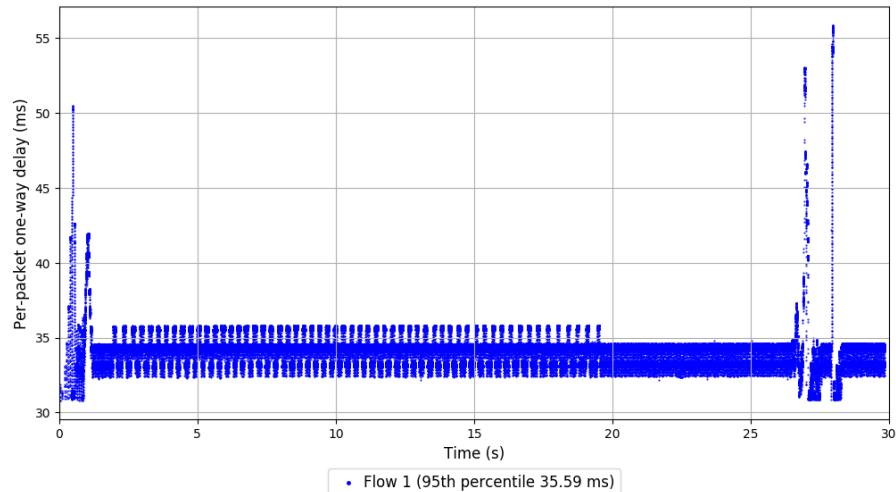
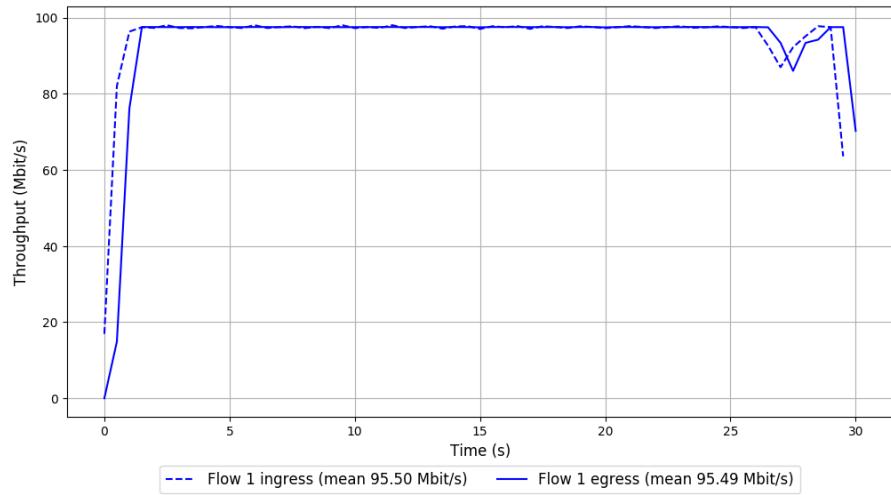


Run 5: Statistics of Indigo

```
Start at: 2018-10-02 09:03:11
End at: 2018-10-02 09:03:41
Local clock offset: 3.922 ms
Remote clock offset: -4.139 ms

# Below is generated by plot.py at 2018-10-02 09:13:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 35.594 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 35.594 ms
Loss rate: 0.00%
```

## Run 5: Report of Indigo — Data Link

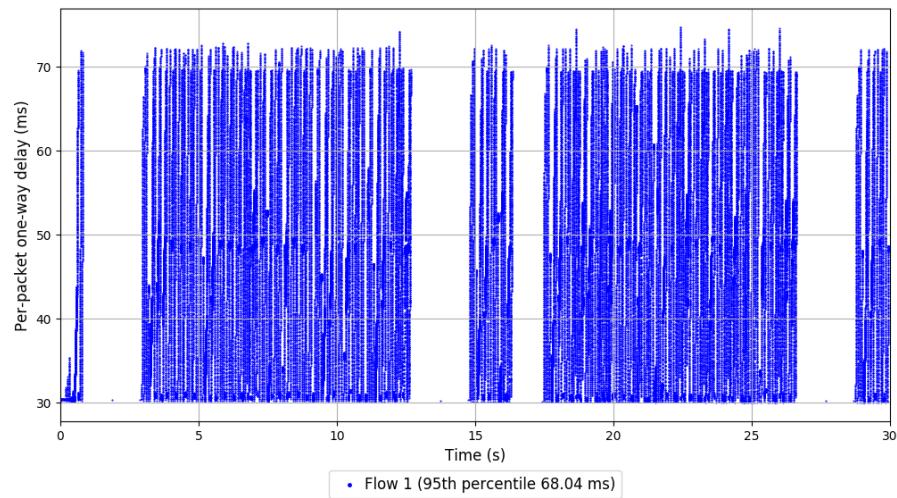
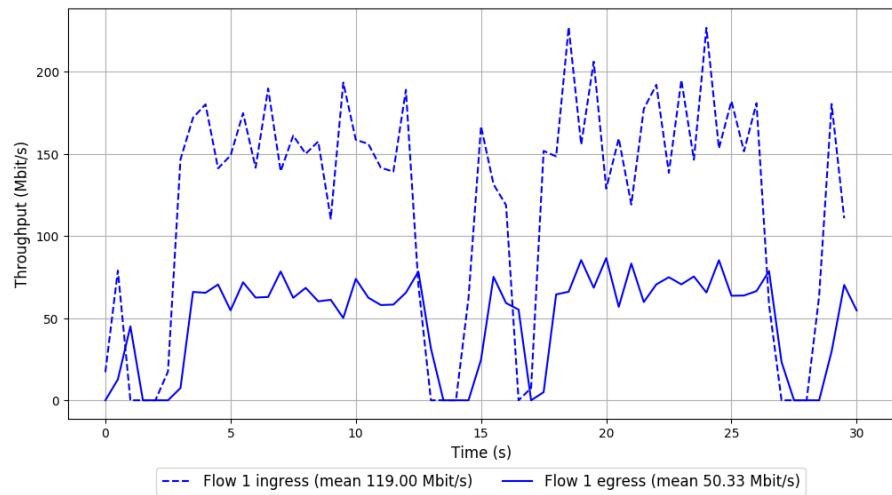


Run 1: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 07:18:36
End at: 2018-10-02 07:19:06
Local clock offset: 2.341 ms
Remote clock offset: -4.323 ms

# Below is generated by plot.py at 2018-10-02 09:13:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.33 Mbit/s
95th percentile per-packet one-way delay: 68.038 ms
Loss rate: 57.68%
-- Flow 1:
Average throughput: 50.33 Mbit/s
95th percentile per-packet one-way delay: 68.038 ms
Loss rate: 57.68%
```

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

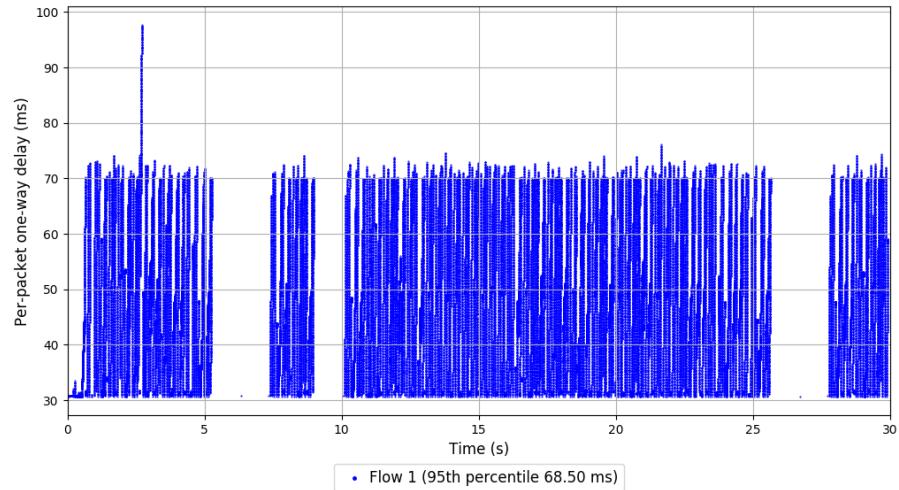
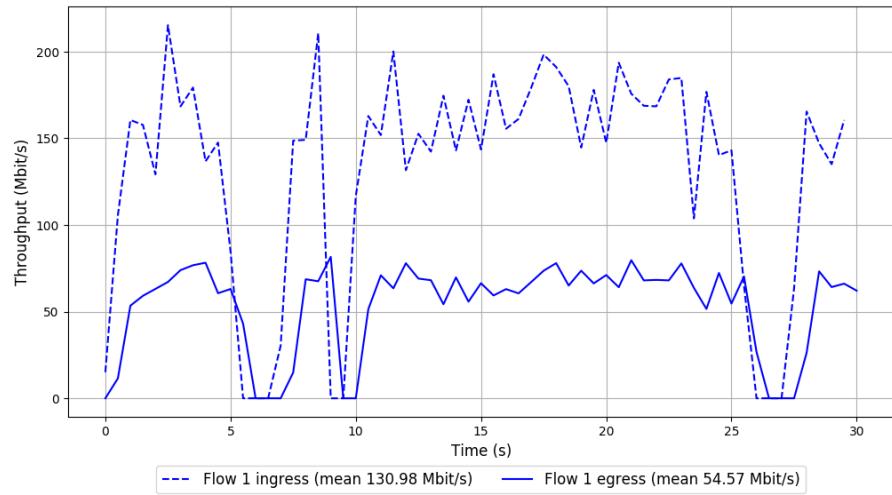


Run 2: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 07:42:08
End at: 2018-10-02 07:42:38
Local clock offset: -3.097 ms
Remote clock offset: -4.28 ms

# Below is generated by plot.py at 2018-10-02 09:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.57 Mbit/s
95th percentile per-packet one-way delay: 68.502 ms
Loss rate: 58.30%
-- Flow 1:
Average throughput: 54.57 Mbit/s
95th percentile per-packet one-way delay: 68.502 ms
Loss rate: 58.30%
```

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

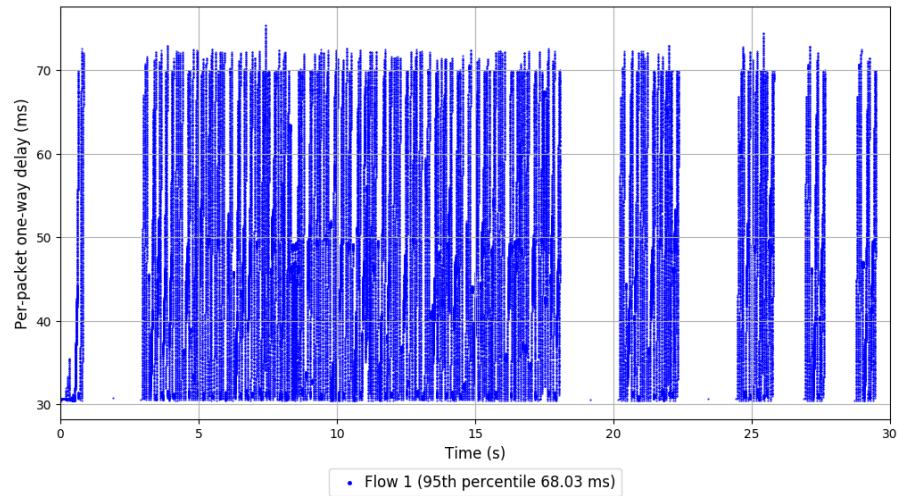
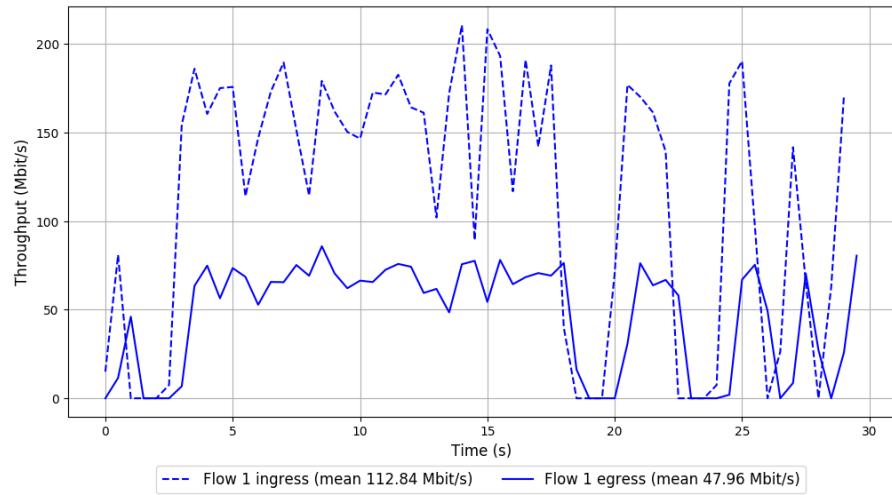


Run 3: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 08:05:41
End at: 2018-10-02 08:06:11
Local clock offset: -4.932 ms
Remote clock offset: -4.315 ms

# Below is generated by plot.py at 2018-10-02 09:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 68.035 ms
Loss rate: 57.49%
-- Flow 1:
Average throughput: 47.96 Mbit/s
95th percentile per-packet one-way delay: 68.035 ms
Loss rate: 57.49%
```

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

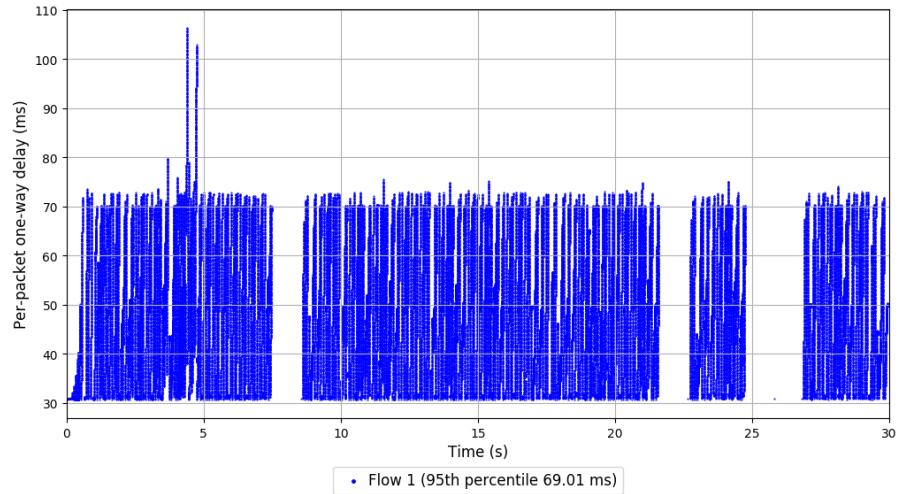
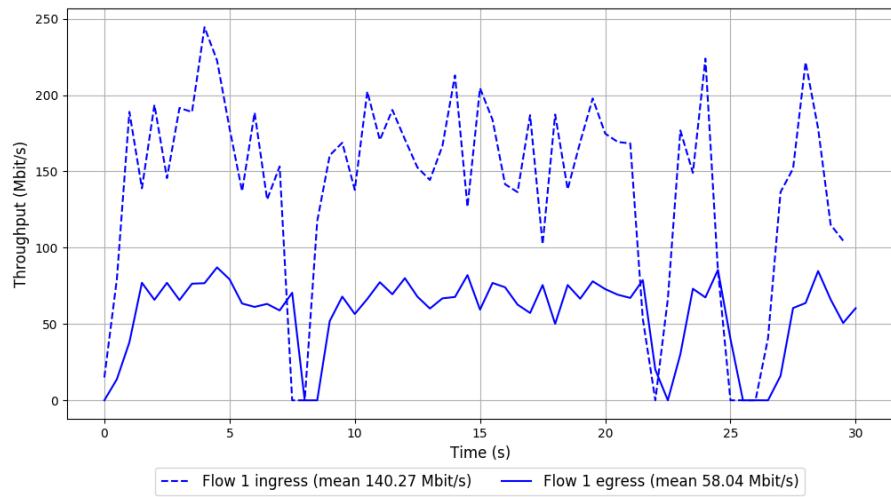


Run 4: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 08:29:12
End at: 2018-10-02 08:29:42
Local clock offset: -0.579 ms
Remote clock offset: -3.753 ms

# Below is generated by plot.py at 2018-10-02 09:14:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 69.008 ms
Loss rate: 58.60%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 69.008 ms
Loss rate: 58.60%
```

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

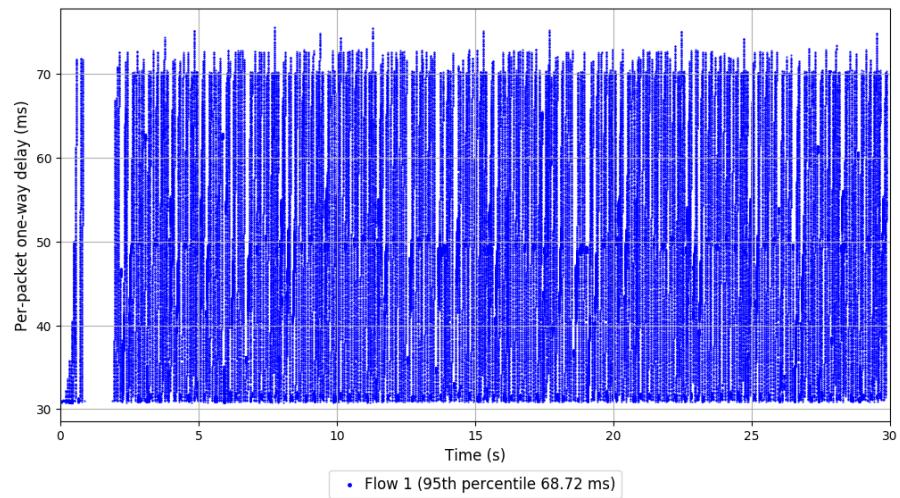
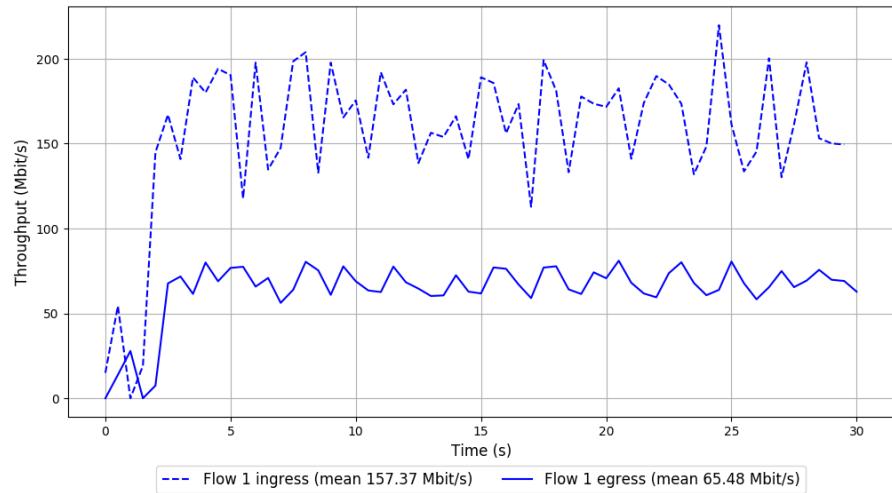


Run 5: Statistics of Indigo-96d2da3

```
Start at: 2018-10-02 08:52:45
End at: 2018-10-02 08:53:15
Local clock offset: 2.6 ms
Remote clock offset: -4.005 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.48 Mbit/s
95th percentile per-packet one-way delay: 68.722 ms
Loss rate: 58.39%
-- Flow 1:
Average throughput: 65.48 Mbit/s
95th percentile per-packet one-way delay: 68.722 ms
Loss rate: 58.39%
```

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

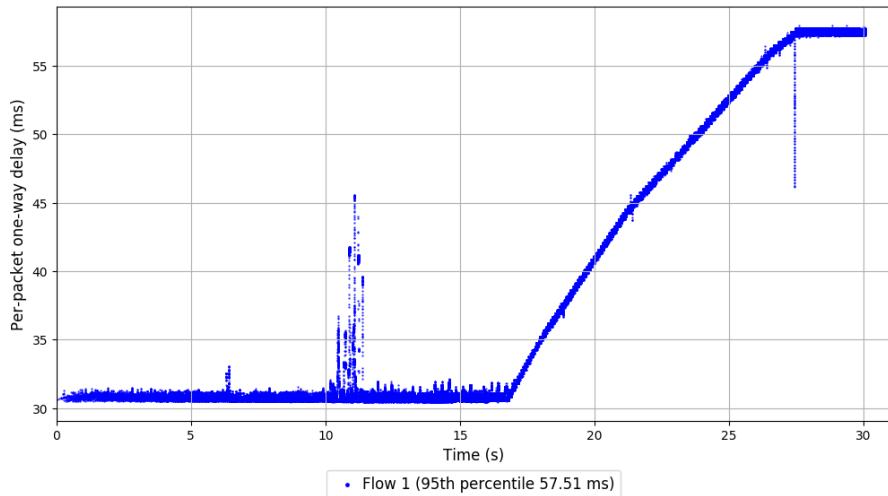
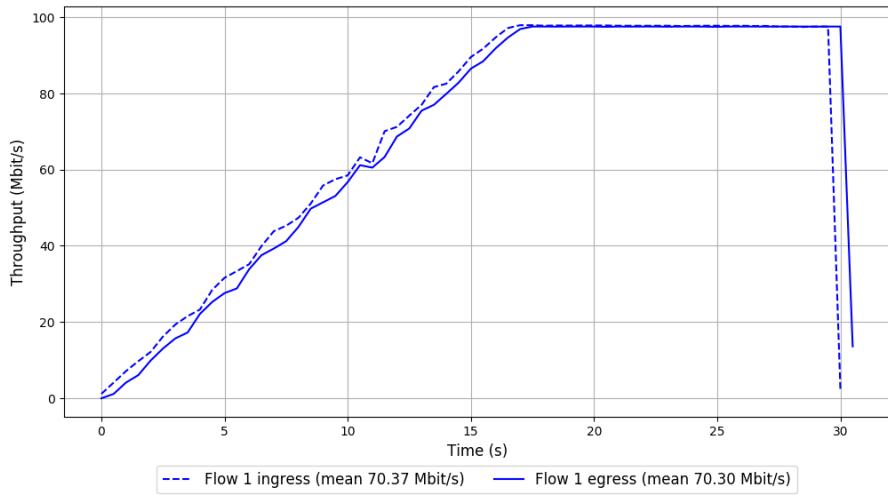


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2018-10-02 07:25:06
End at: 2018-10-02 07:25:36
Local clock offset: -0.33 ms
Remote clock offset: -4.176 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 57.505 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.30 Mbit/s
95th percentile per-packet one-way delay: 57.505 ms
Loss rate: 0.00%
```

## Run 1: Report of LEDBAT — Data Link

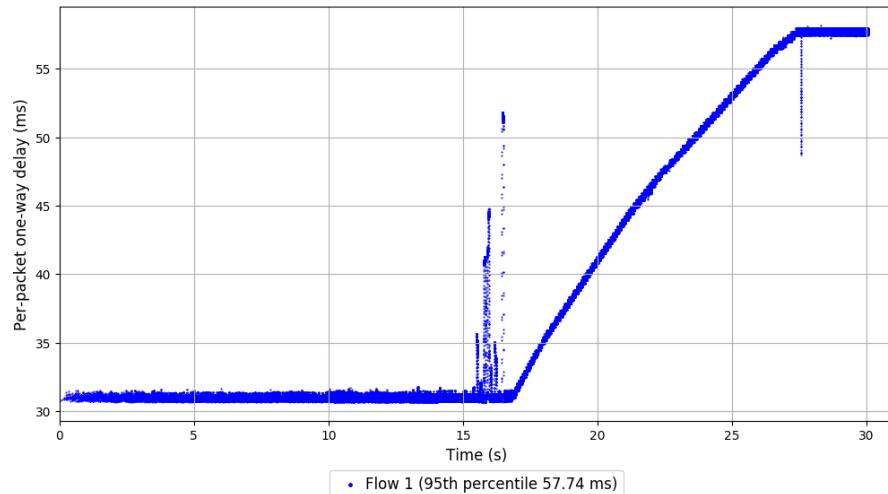
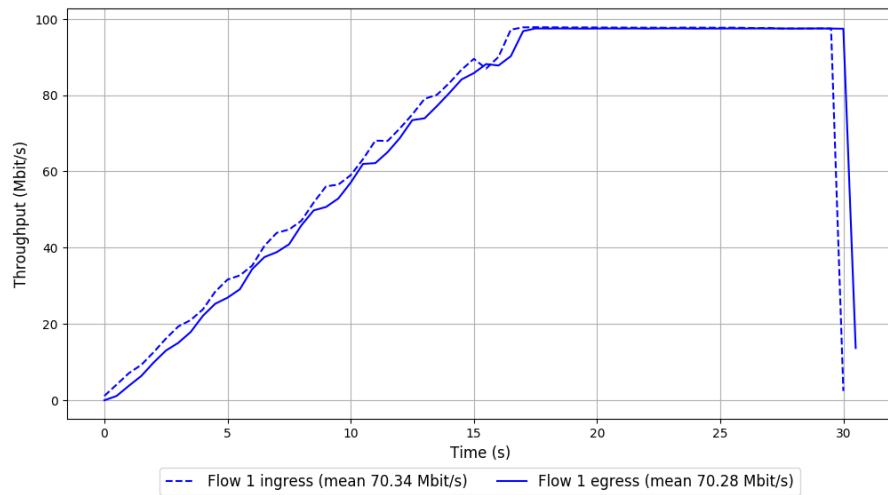


Run 2: Statistics of LEDBAT

```
Start at: 2018-10-02 07:48:39
End at: 2018-10-02 07:49:09
Local clock offset: -3.682 ms
Remote clock offset: -4.347 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.28 Mbit/s
95th percentile per-packet one-way delay: 57.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.28 Mbit/s
95th percentile per-packet one-way delay: 57.737 ms
Loss rate: 0.00%
```

## Run 2: Report of LEDBAT — Data Link

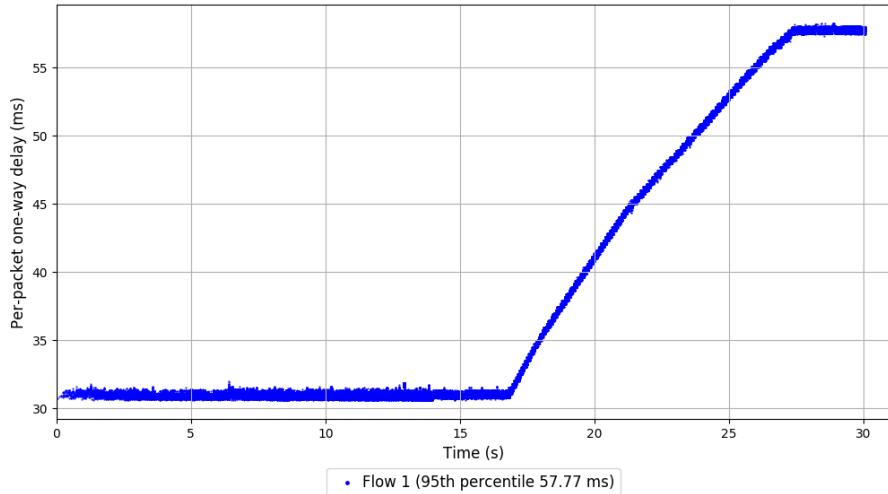
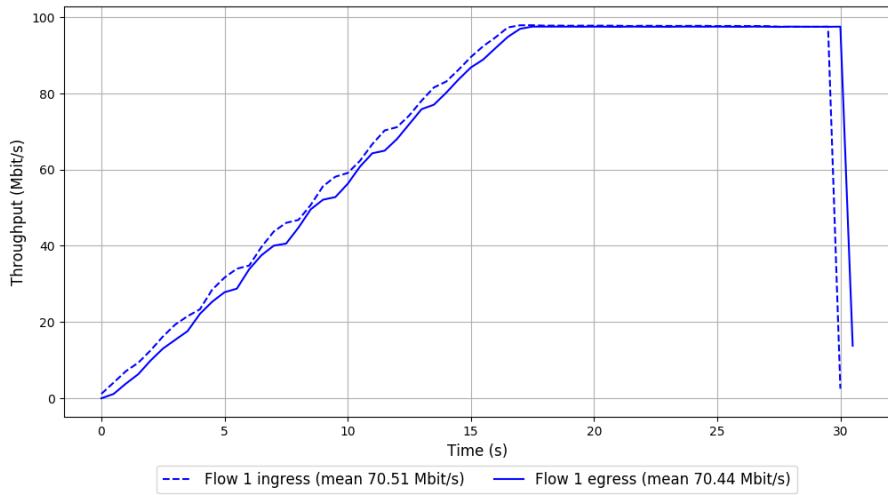


Run 3: Statistics of LEDBAT

```
Start at: 2018-10-02 08:12:10
End at: 2018-10-02 08:12:40
Local clock offset: -5.368 ms
Remote clock offset: -3.917 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 57.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.44 Mbit/s
95th percentile per-packet one-way delay: 57.766 ms
Loss rate: 0.00%
```

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

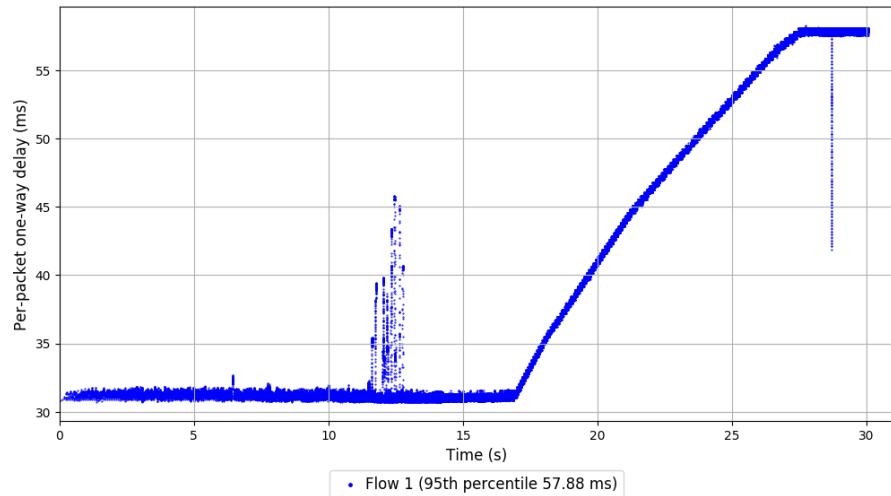
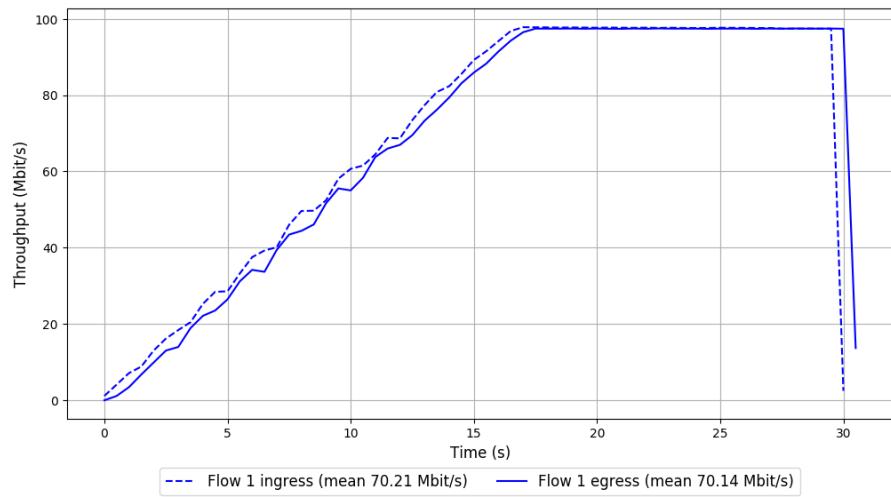


Run 4: Statistics of LEDBAT

```
Start at: 2018-10-02 08:35:42
End at: 2018-10-02 08:36:12
Local clock offset: 0.323 ms
Remote clock offset: -3.829 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 57.875 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.14 Mbit/s
95th percentile per-packet one-way delay: 57.875 ms
Loss rate: 0.00%
```

## Run 4: Report of LEDBAT — Data Link

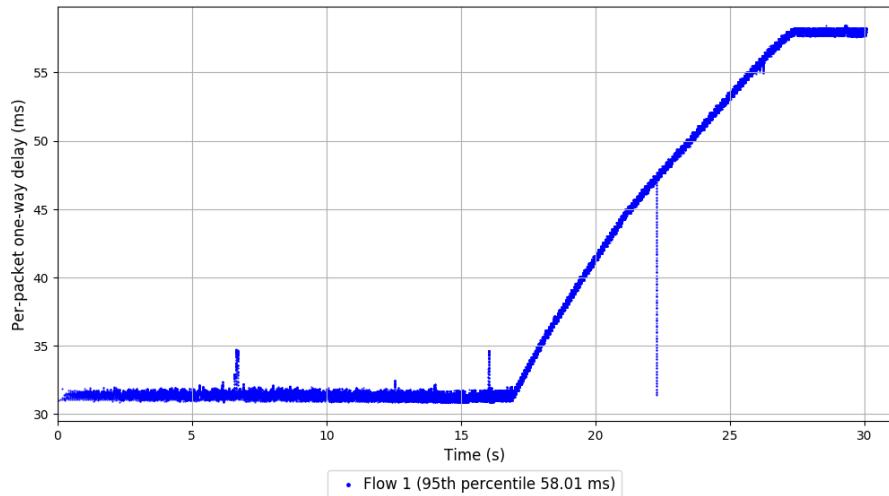
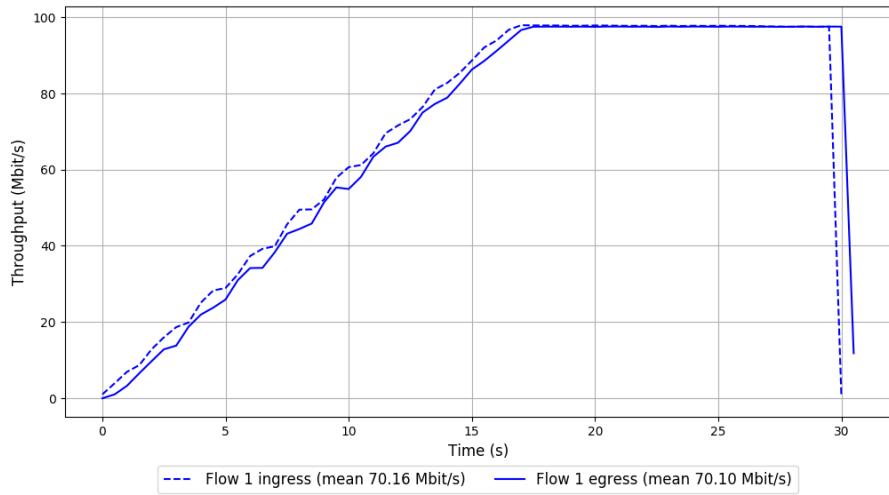


Run 5: Statistics of LEDBAT

```
Start at: 2018-10-02 08:59:16
End at: 2018-10-02 08:59:46
Local clock offset: 3.513 ms
Remote clock offset: -4.06 ms

# Below is generated by plot.py at 2018-10-02 09:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 58.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.10 Mbit/s
95th percentile per-packet one-way delay: 58.012 ms
Loss rate: 0.00%
```

## Run 5: Report of LEDBAT — Data Link

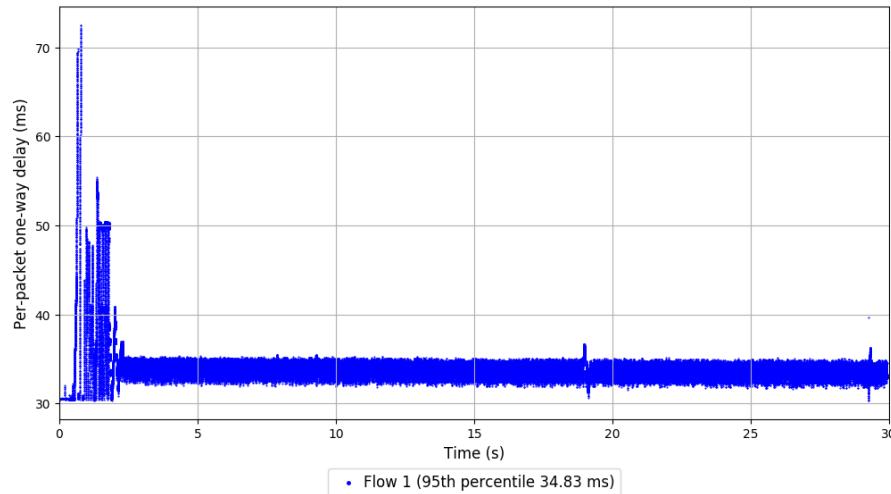
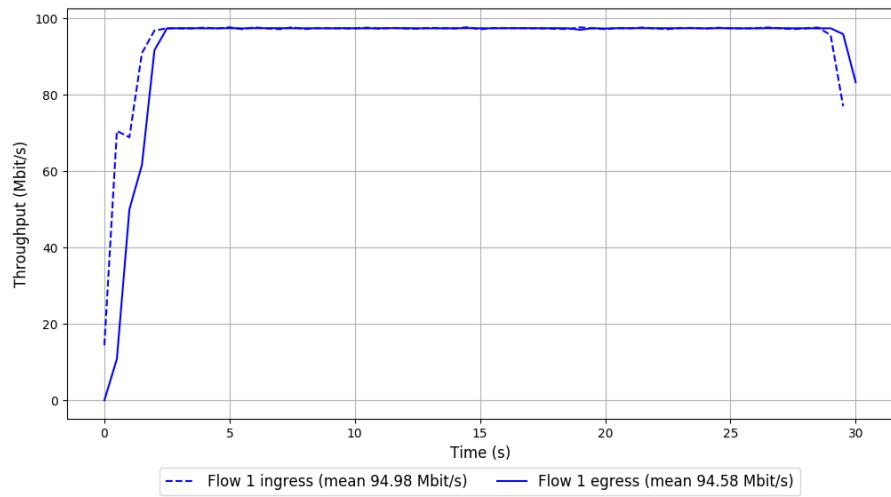


Run 1: Statistics of Indigo-Muses

```
Start at: 2018-10-02 07:15:59
End at: 2018-10-02 07:16:29
Local clock offset: 3.93 ms
Remote clock offset: -4.122 ms

# Below is generated by plot.py at 2018-10-02 09:15:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 34.829 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 94.58 Mbit/s
95th percentile per-packet one-way delay: 34.829 ms
Loss rate: 0.42%
```

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

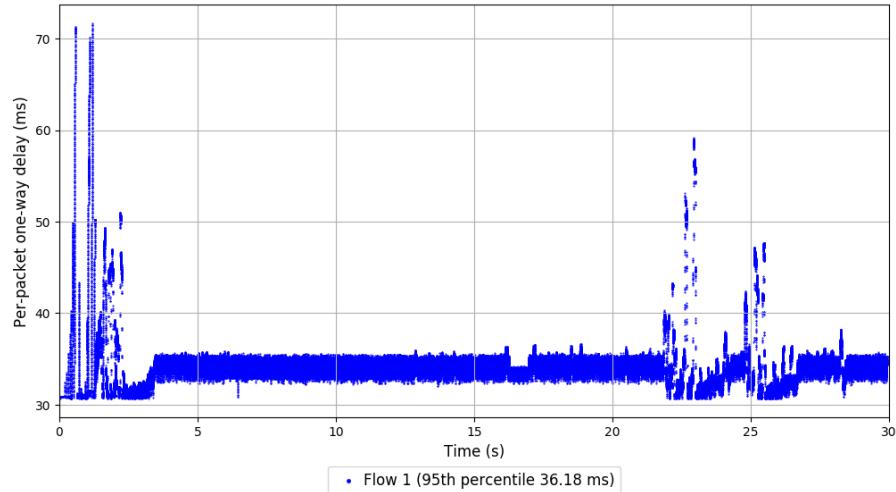
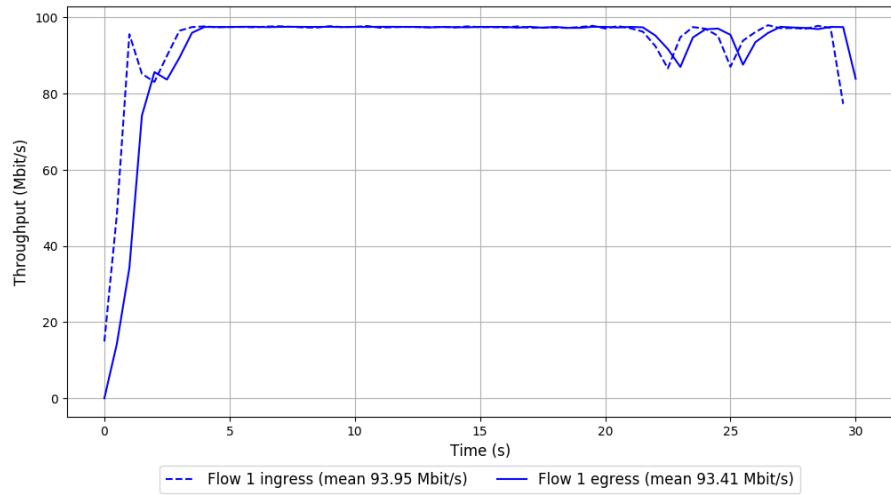


Run 2: Statistics of Indigo-Muses

```
Start at: 2018-10-02 07:39:32
End at: 2018-10-02 07:40:02
Local clock offset: -2.846 ms
Remote clock offset: -4.213 ms

# Below is generated by plot.py at 2018-10-02 09:15:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 36.179 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 93.41 Mbit/s
95th percentile per-packet one-way delay: 36.179 ms
Loss rate: 0.56%
```

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

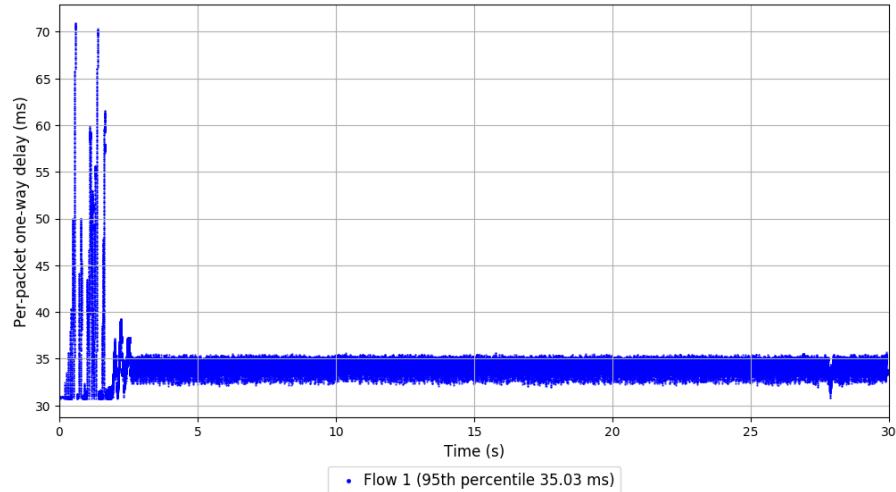
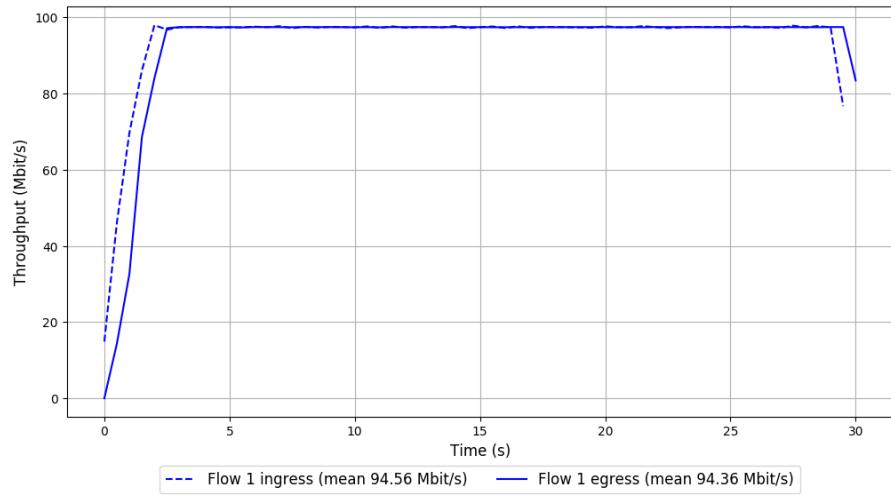


Run 3: Statistics of Indigo-Muses

```
Start at: 2018-10-02 08:03:05
End at: 2018-10-02 08:03:35
Local clock offset: -4.722 ms
Remote clock offset: -4.117 ms

# Below is generated by plot.py at 2018-10-02 09:15:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 35.028 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 94.36 Mbit/s
95th percentile per-packet one-way delay: 35.028 ms
Loss rate: 0.20%
```

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

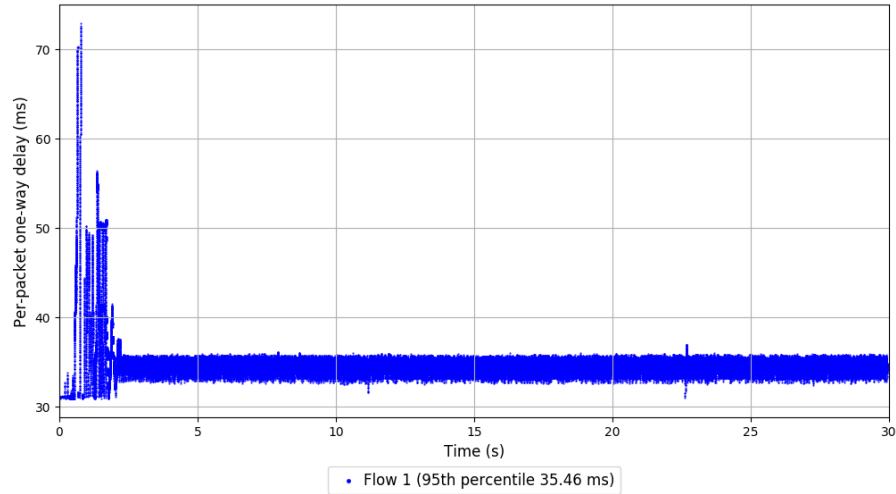
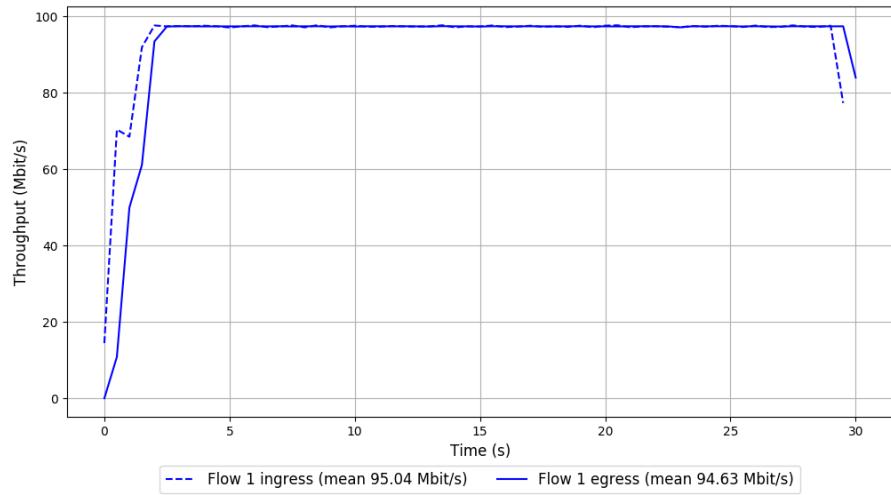


Run 4: Statistics of Indigo-Muses

```
Start at: 2018-10-02 08:26:35
End at: 2018-10-02 08:27:05
Local clock offset: -1.137 ms
Remote clock offset: -3.546 ms

# Below is generated by plot.py at 2018-10-02 09:15:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 35.459 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 94.63 Mbit/s
95th percentile per-packet one-way delay: 35.459 ms
Loss rate: 0.41%
```

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

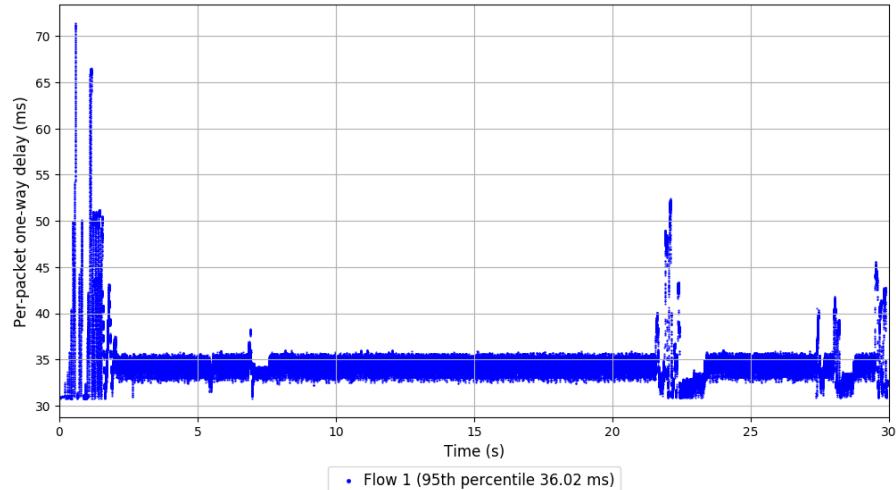
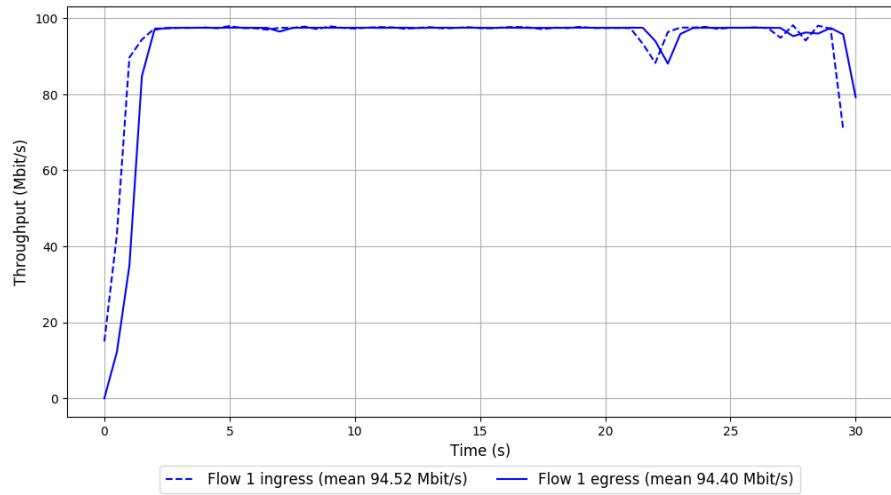


Run 5: Statistics of Indigo-Muses

```
Start at: 2018-10-02 08:50:08
End at: 2018-10-02 08:50:38
Local clock offset: 2.153 ms
Remote clock offset: -3.934 ms

# Below is generated by plot.py at 2018-10-02 09:15:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 36.017 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 94.40 Mbit/s
95th percentile per-packet one-way delay: 36.017 ms
Loss rate: 0.13%
```

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

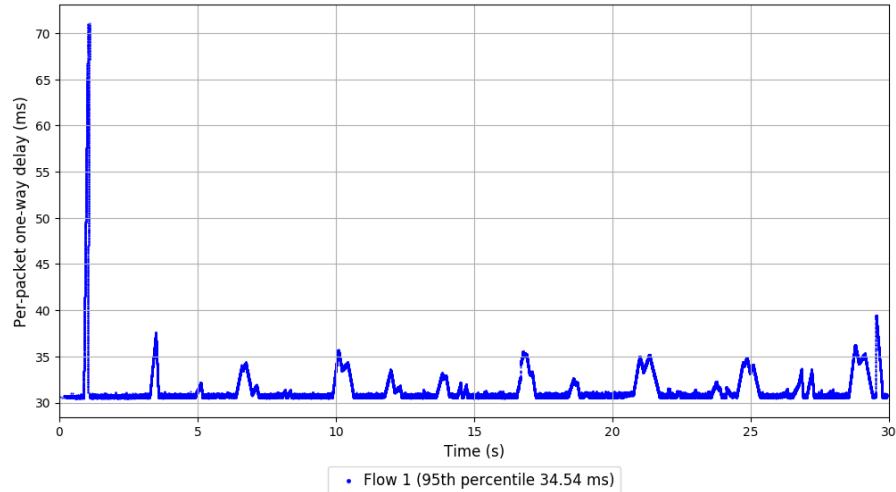
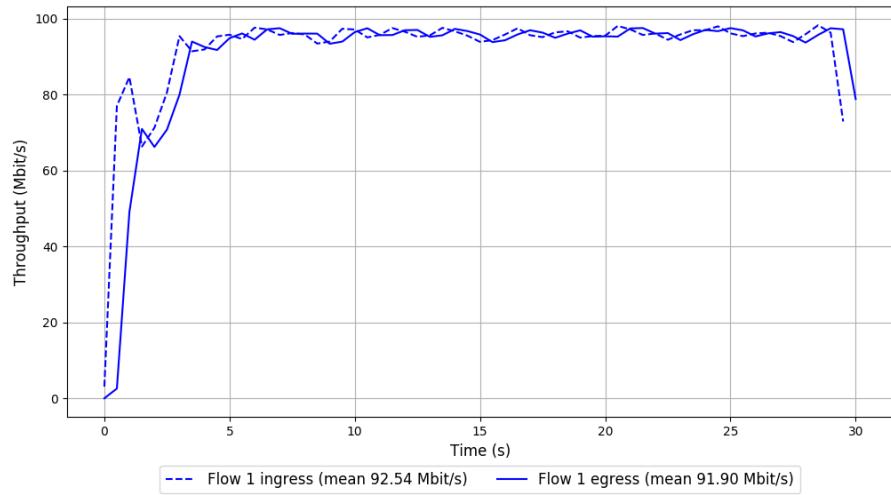


Run 1: Statistics of PCC-Allegro

```
Start at: 2018-10-02 07:12:08
End at: 2018-10-02 07:12:38
Local clock offset: 3.955 ms
Remote clock offset: -4.248 ms

# Below is generated by plot.py at 2018-10-02 09:15:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 34.542 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 91.90 Mbit/s
95th percentile per-packet one-way delay: 34.542 ms
Loss rate: 0.69%
```

Run 1: Report of PCC-Allegro — Data Link

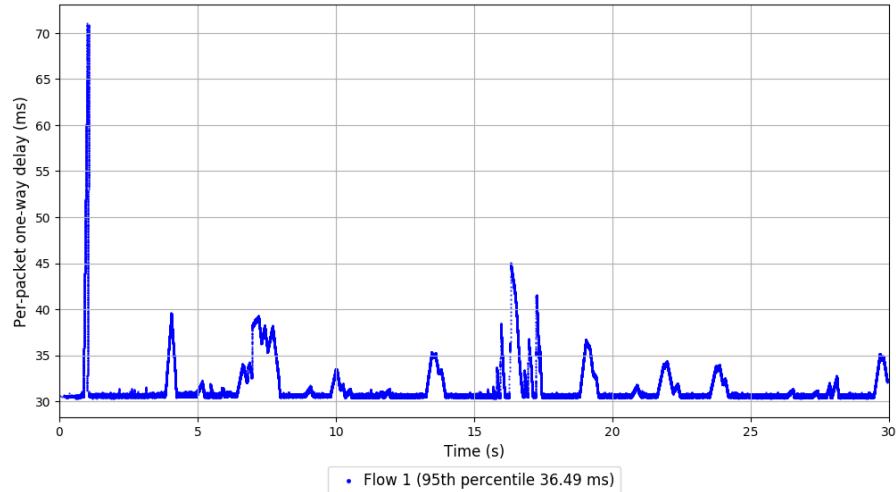
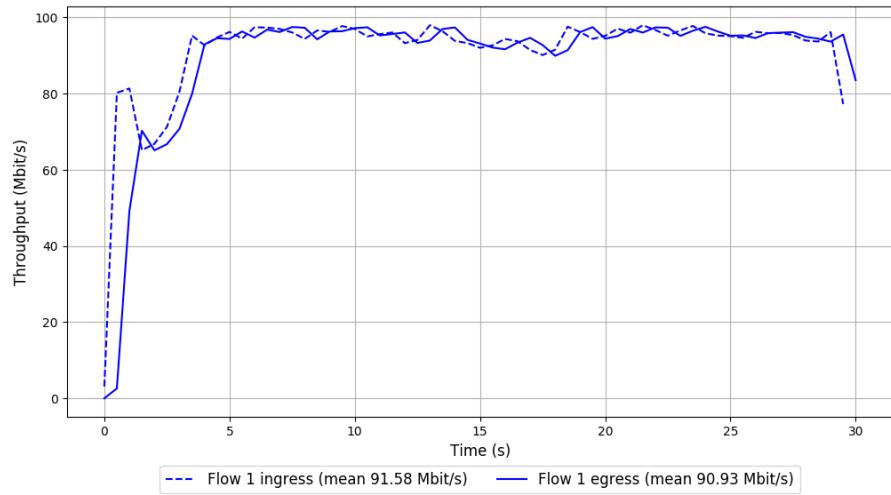


Run 2: Statistics of PCC-Allegro

```
Start at: 2018-10-02 07:35:42
End at: 2018-10-02 07:36:12
Local clock offset: -2.383 ms
Remote clock offset: -4.363 ms

# Below is generated by plot.py at 2018-10-02 09:15:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.93 Mbit/s
95th percentile per-packet one-way delay: 36.492 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 90.93 Mbit/s
95th percentile per-packet one-way delay: 36.492 ms
Loss rate: 0.71%
```

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

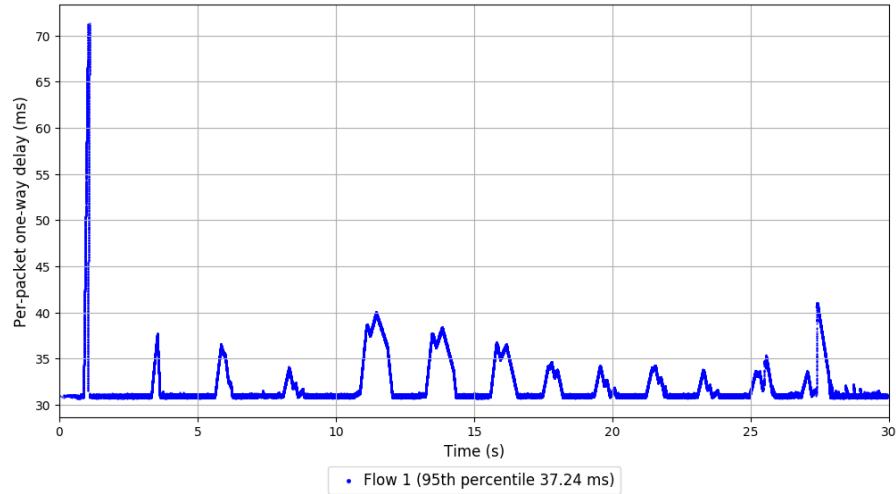
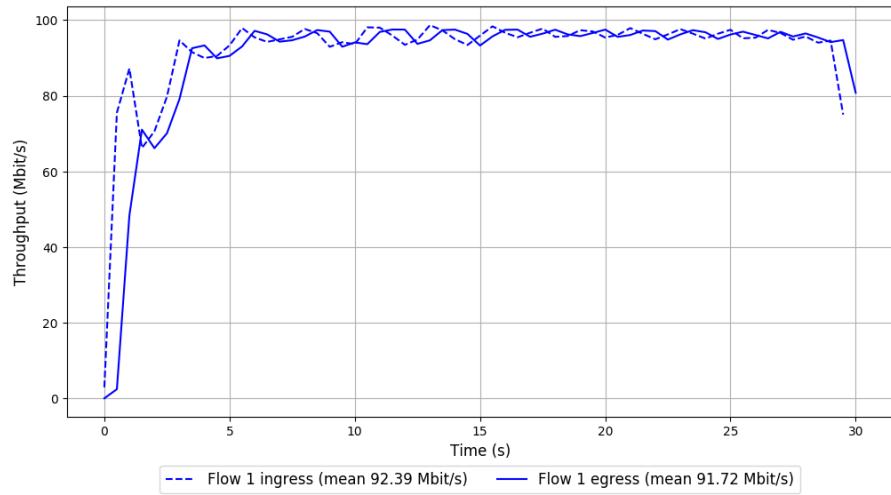


Run 3: Statistics of PCC-Allegro

```
Start at: 2018-10-02 07:59:14
End at: 2018-10-02 07:59:44
Local clock offset: -4.484 ms
Remote clock offset: -4.132 ms

# Below is generated by plot.py at 2018-10-02 09:15:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 37.241 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 91.72 Mbit/s
95th percentile per-packet one-way delay: 37.241 ms
Loss rate: 0.72%
```

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

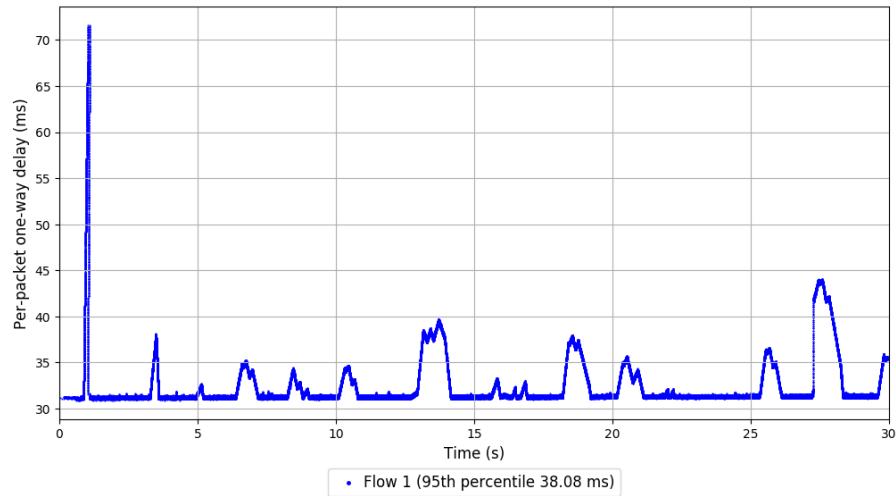
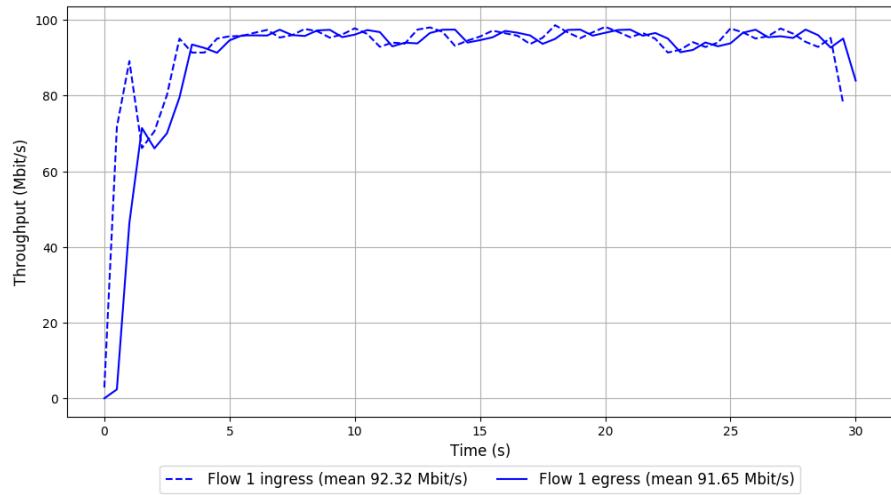


Run 4: Statistics of PCC-Allegro

```
Start at: 2018-10-02 08:22:45
End at: 2018-10-02 08:23:15
Local clock offset: -2.281 ms
Remote clock offset: -3.609 ms

# Below is generated by plot.py at 2018-10-02 09:16:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.65 Mbit/s
95th percentile per-packet one-way delay: 38.076 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 91.65 Mbit/s
95th percentile per-packet one-way delay: 38.076 ms
Loss rate: 0.72%
```

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

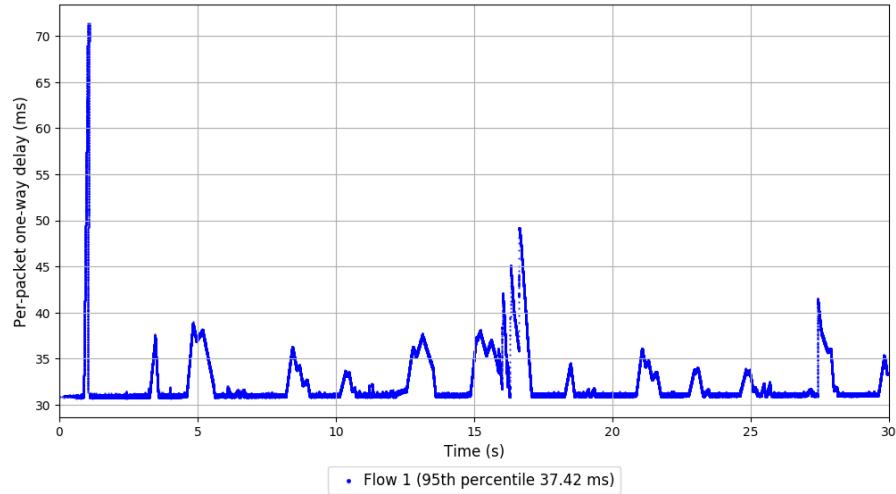
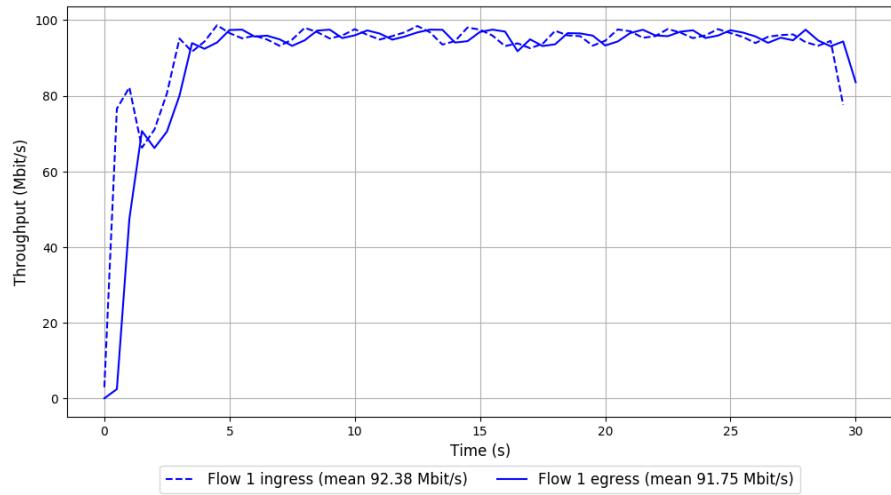


Run 5: Statistics of PCC-Allegro

```
Start at: 2018-10-02 08:46:18
End at: 2018-10-02 08:46:48
Local clock offset: 1.202 ms
Remote clock offset: -3.996 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 37.421 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 91.75 Mbit/s
95th percentile per-packet one-way delay: 37.421 ms
Loss rate: 0.67%
```

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

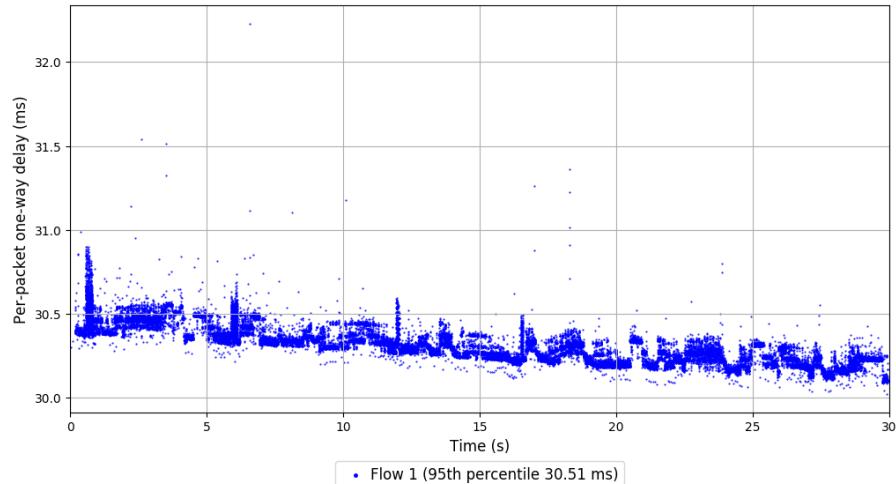
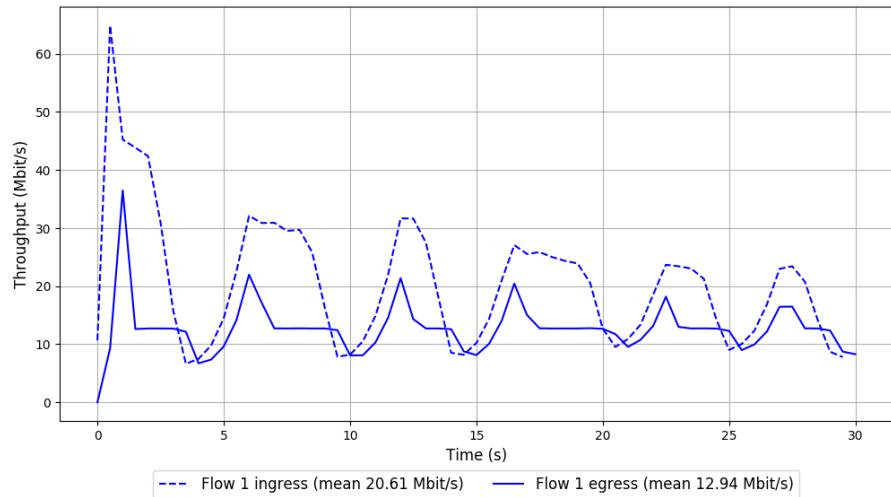


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2018-10-02 07:17:19
End at: 2018-10-02 07:17:49
Local clock offset: 3.131 ms
Remote clock offset: -4.074 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 30.511 ms
Loss rate: 37.21%
-- Flow 1:
Average throughput: 12.94 Mbit/s
95th percentile per-packet one-way delay: 30.511 ms
Loss rate: 37.21%
```

Run 1: Report of PCC-Expr — Data Link

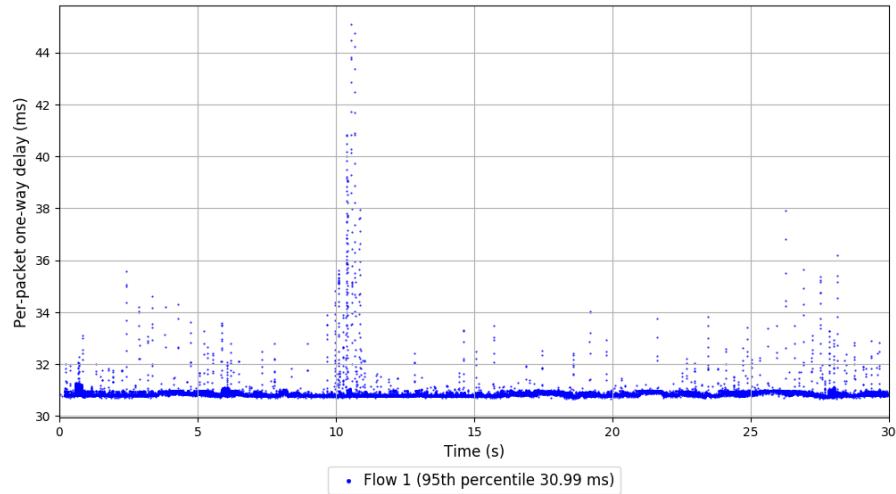
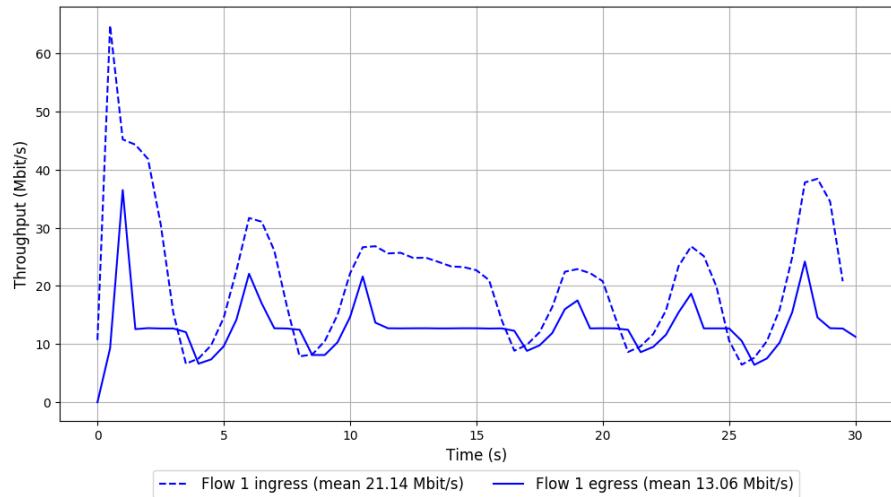


Run 2: Statistics of PCC-Expr

```
Start at: 2018-10-02 07:40:52
End at: 2018-10-02 07:41:22
Local clock offset: -2.97 ms
Remote clock offset: -4.109 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.988 ms
Loss rate: 38.22%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 30.988 ms
Loss rate: 38.22%
```

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

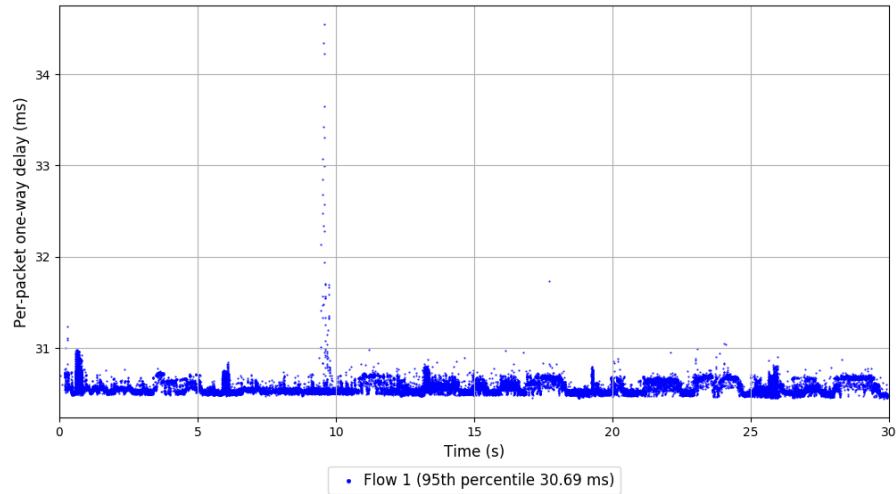
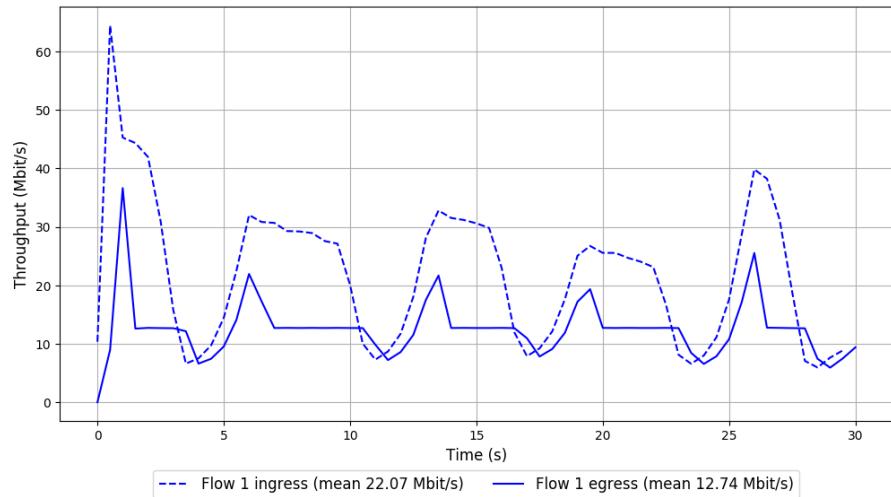


Run 3: Statistics of PCC-Expr

```
Start at: 2018-10-02 08:04:25
End at: 2018-10-02 08:04:55
Local clock offset: -4.818 ms
Remote clock offset: -4.276 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 30.693 ms
Loss rate: 42.29%
-- Flow 1:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 30.693 ms
Loss rate: 42.29%
```

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

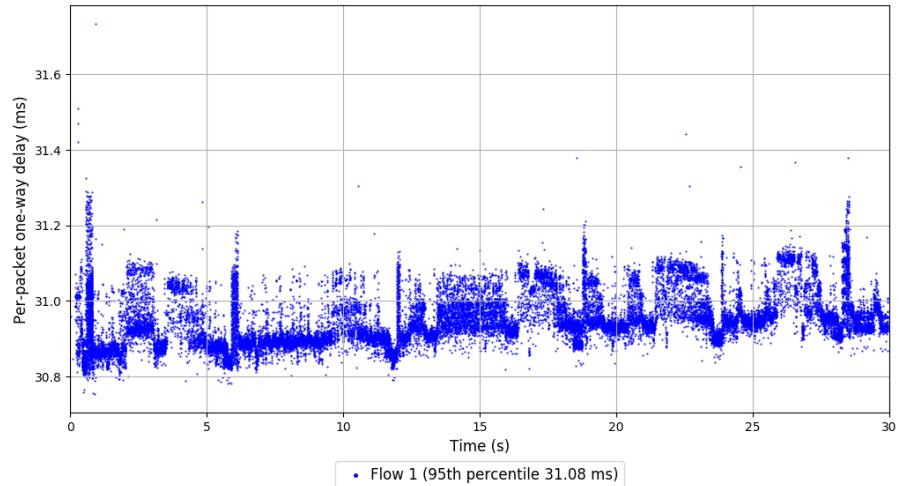
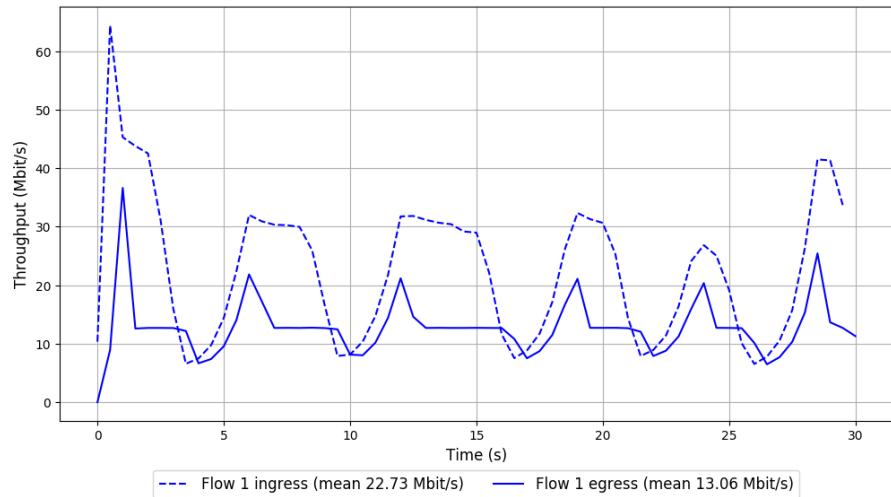


Run 4: Statistics of PCC-Expr

```
Start at: 2018-10-02 08:27:55
End at: 2018-10-02 08:28:25
Local clock offset: -0.87 ms
Remote clock offset: -3.665 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.080 ms
Loss rate: 42.54%
-- Flow 1:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 31.080 ms
Loss rate: 42.54%
```

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

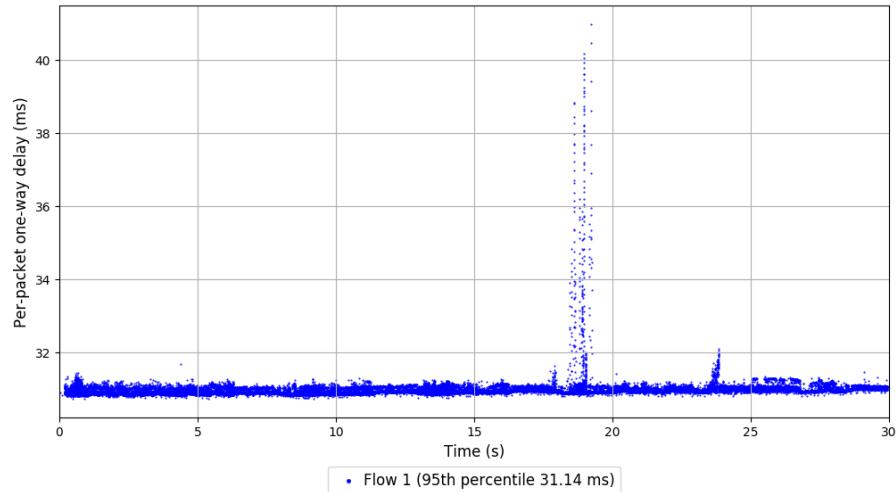
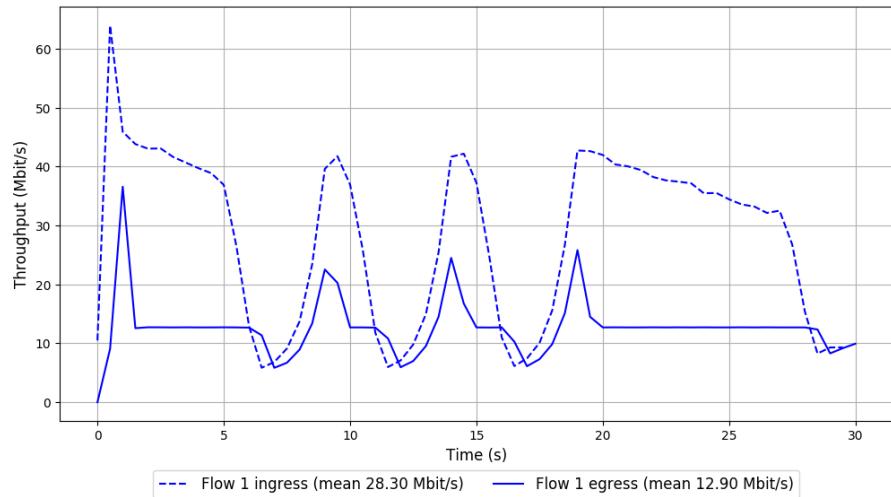


Run 5: Statistics of PCC-Expr

```
Start at: 2018-10-02 08:51:28
End at: 2018-10-02 08:51:58
Local clock offset: 2.367 ms
Remote clock offset: -3.986 ms

# Below is generated by plot.py at 2018-10-02 09:16:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 31.135 ms
Loss rate: 54.41%
-- Flow 1:
Average throughput: 12.90 Mbit/s
95th percentile per-packet one-way delay: 31.135 ms
Loss rate: 54.41%
```

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

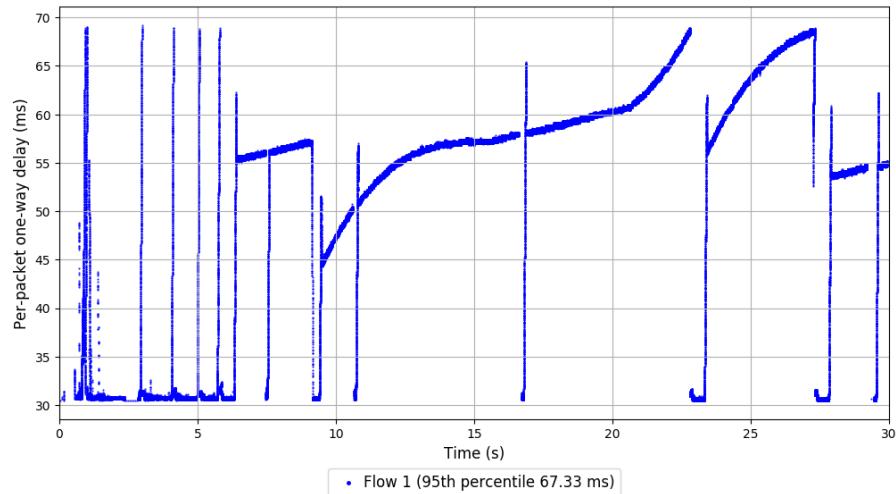
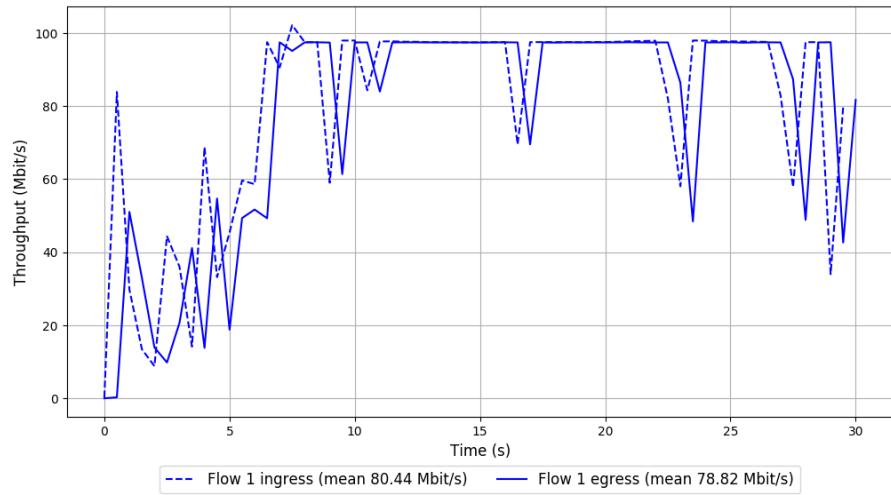


Run 1: Statistics of QUIC Cubic

```
Start at: 2018-10-02 07:23:46
End at: 2018-10-02 07:24:17
Local clock offset: 0.108 ms
Remote clock offset: -4.082 ms

# Below is generated by plot.py at 2018-10-02 09:17:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.82 Mbit/s
95th percentile per-packet one-way delay: 67.326 ms
Loss rate: 1.93%
-- Flow 1:
Average throughput: 78.82 Mbit/s
95th percentile per-packet one-way delay: 67.326 ms
Loss rate: 1.93%
```

Run 1: Report of QUIC Cubic — Data Link

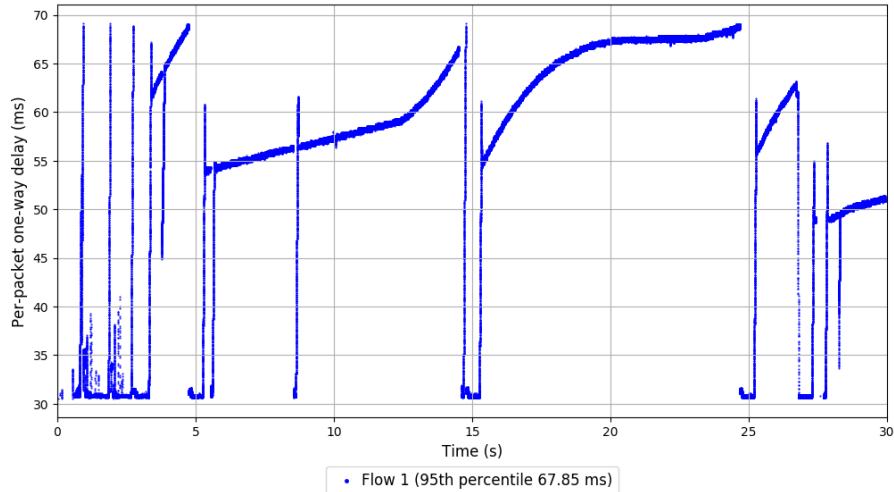
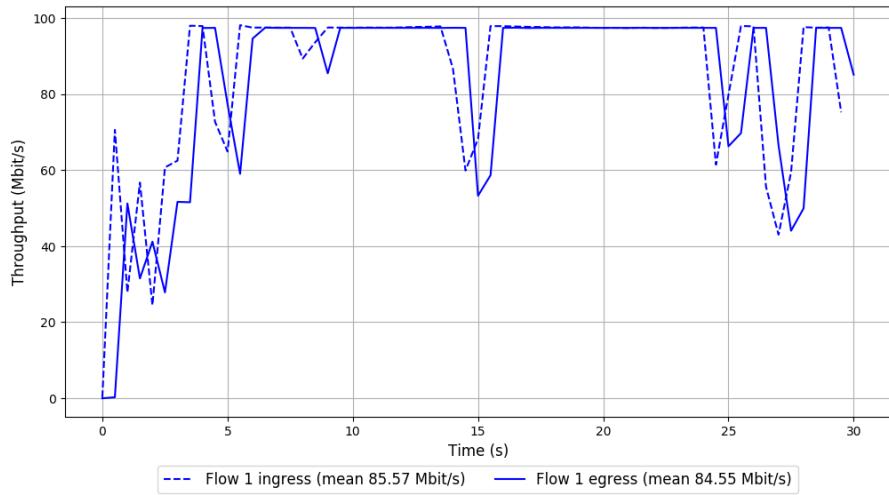


Run 2: Statistics of QUIC Cubic

```
Start at: 2018-10-02 07:47:19
End at: 2018-10-02 07:47:49
Local clock offset: -3.569 ms
Remote clock offset: -4.298 ms

# Below is generated by plot.py at 2018-10-02 09:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 67.846 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 67.846 ms
Loss rate: 1.13%
```

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

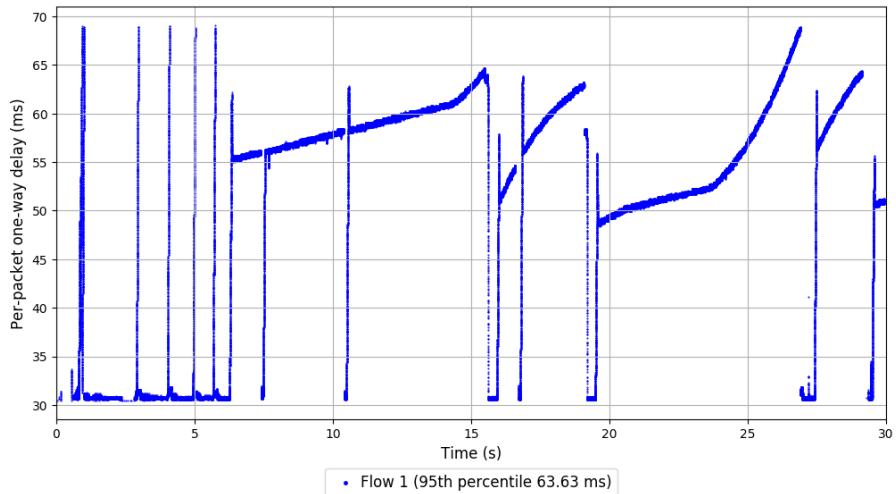
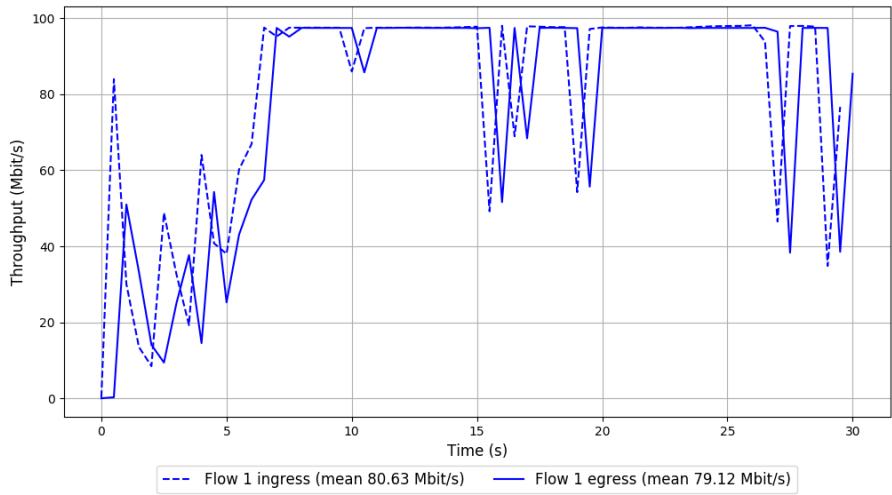


Run 3: Statistics of QUIC Cubic

```
Start at: 2018-10-02 08:10:51
End at: 2018-10-02 08:11:21
Local clock offset: -5.265 ms
Remote clock offset: -3.962 ms

# Below is generated by plot.py at 2018-10-02 09:17:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 63.631 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 79.12 Mbit/s
95th percentile per-packet one-way delay: 63.631 ms
Loss rate: 1.80%
```

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

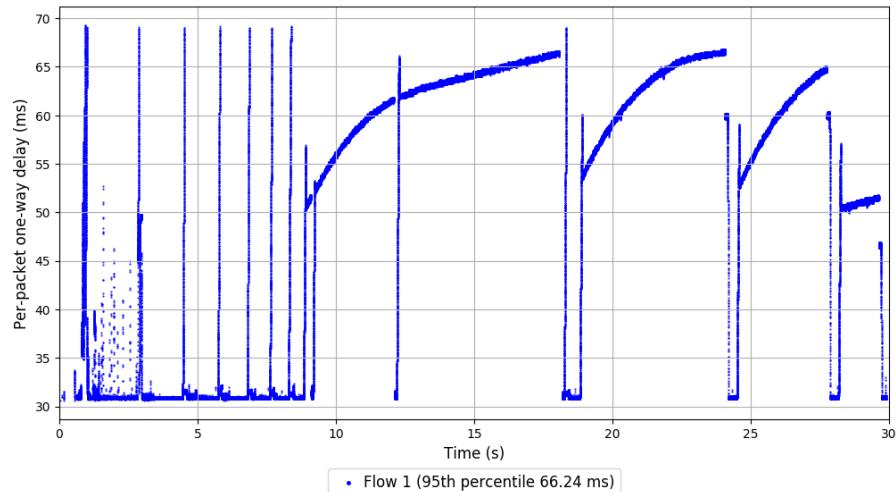
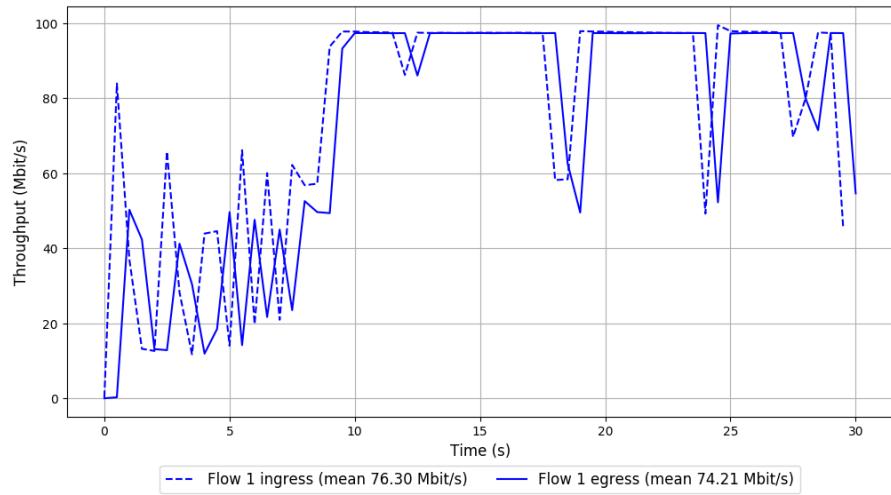


Run 4: Statistics of QUIC Cubic

```
Start at: 2018-10-02 08:34:23
End at: 2018-10-02 08:34:53
Local clock offset: 0.163 ms
Remote clock offset: -3.755 ms

# Below is generated by plot.py at 2018-10-02 09:17:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.21 Mbit/s
95th percentile per-packet one-way delay: 66.241 ms
Loss rate: 2.73%
-- Flow 1:
Average throughput: 74.21 Mbit/s
95th percentile per-packet one-way delay: 66.241 ms
Loss rate: 2.73%
```

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

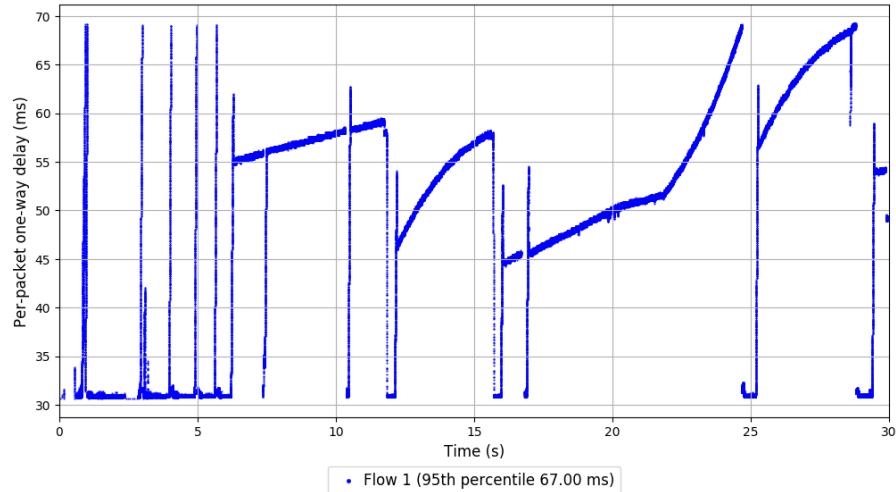
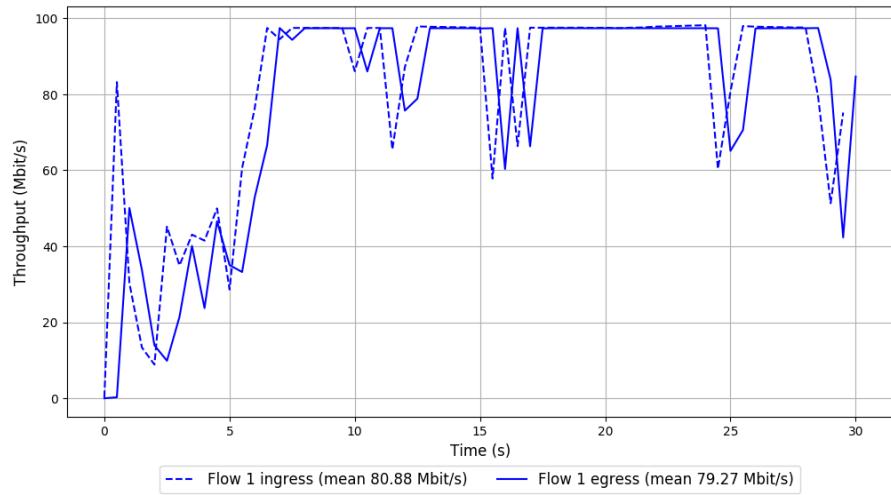


Run 5: Statistics of QUIC Cubic

```
Start at: 2018-10-02 08:57:56
End at: 2018-10-02 08:58:26
Local clock offset: 3.354 ms
Remote clock offset: -4.093 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 66.996 ms
Loss rate: 1.94%
-- Flow 1:
Average throughput: 79.27 Mbit/s
95th percentile per-packet one-way delay: 66.996 ms
Loss rate: 1.94%
```

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

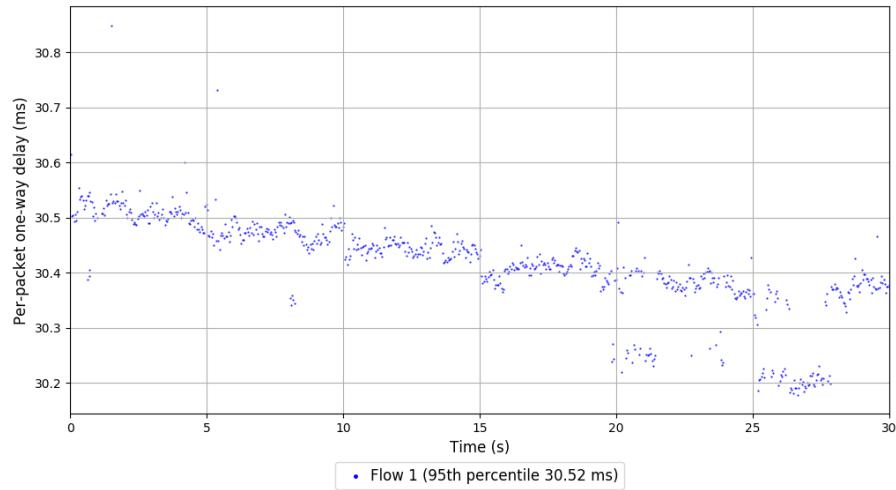
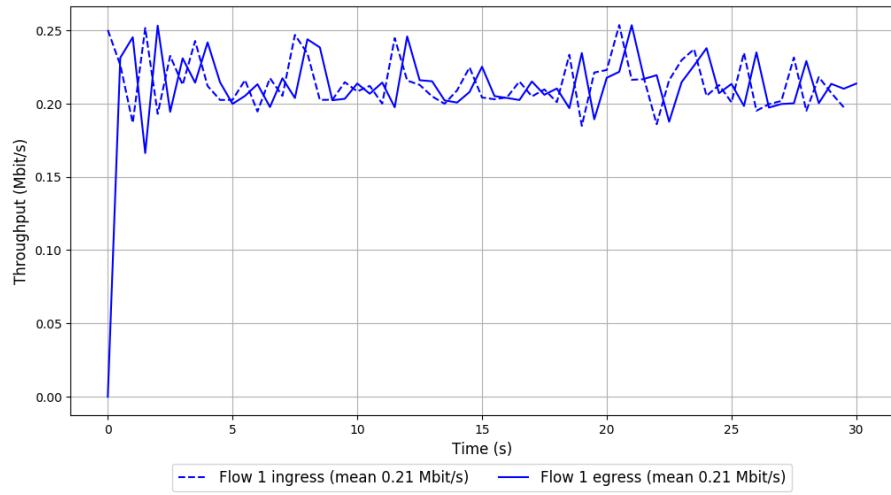


Run 1: Statistics of SCReAM

```
Start at: 2018-10-02 07:21:14
End at: 2018-10-02 07:21:44
Local clock offset: 1.14 ms
Remote clock offset: -4.107 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.522 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

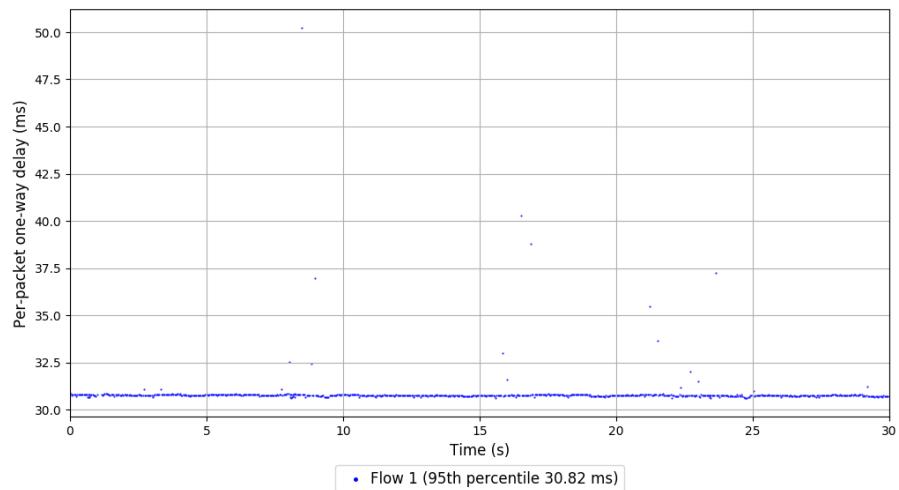
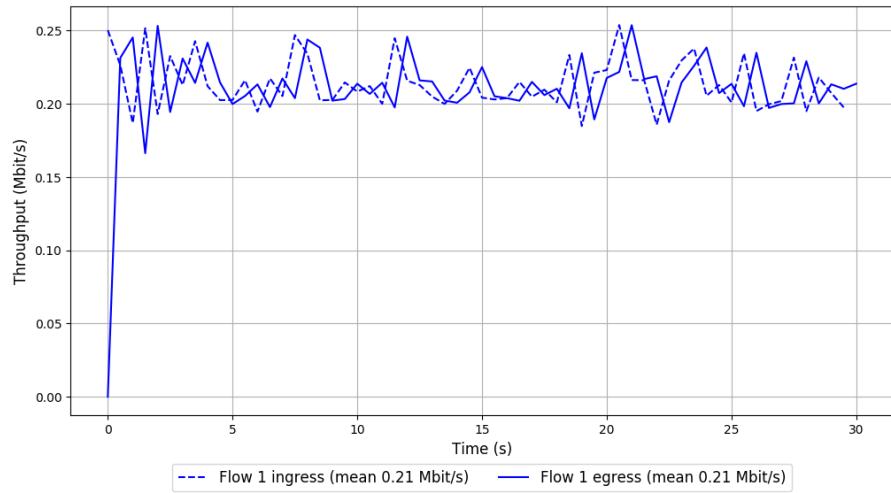


Run 2: Statistics of SCReAM

```
Start at: 2018-10-02 07:44:47
End at: 2018-10-02 07:45:17
Local clock offset: -3.359 ms
Remote clock offset: -4.287 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.821 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.821 ms
Loss rate: 0.00%
```

## Run 2: Report of SCReAM — Data Link

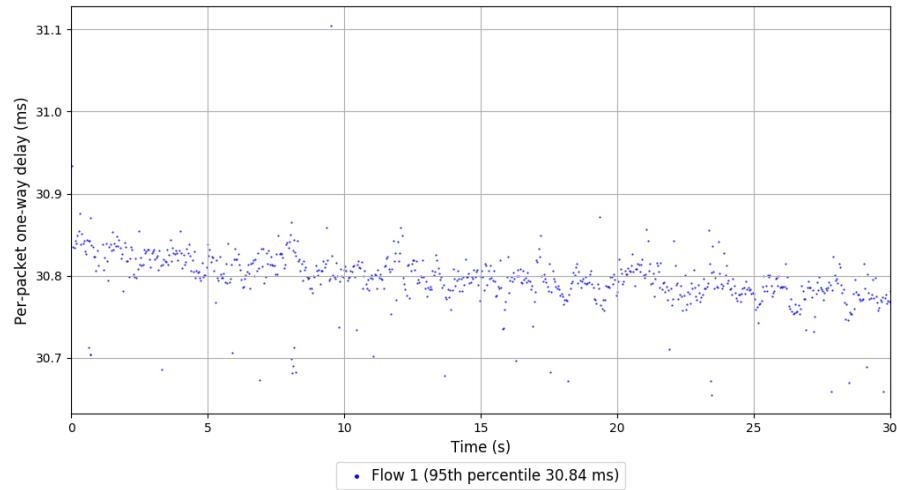
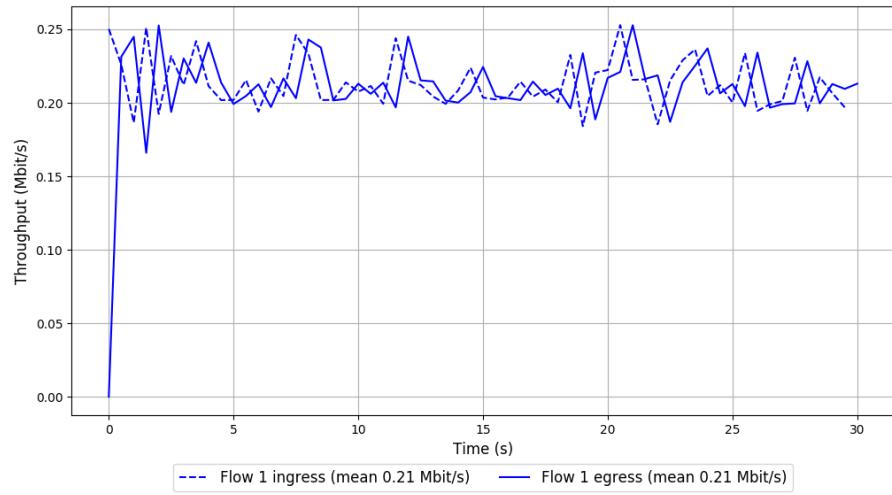


Run 3: Statistics of SCReAM

```
Start at: 2018-10-02 08:08:19
End at: 2018-10-02 08:08:49
Local clock offset: -5.09 ms
Remote clock offset: -4.029 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.839 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.839 ms
Loss rate: 0.00%
```

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

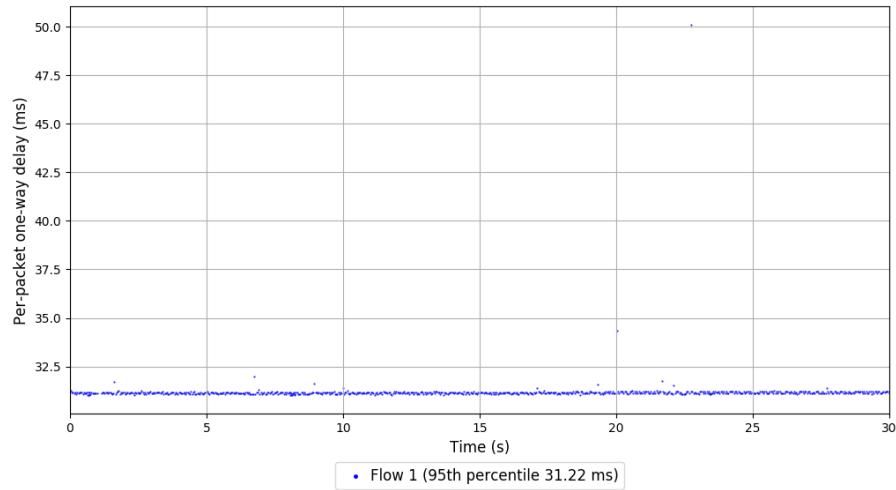
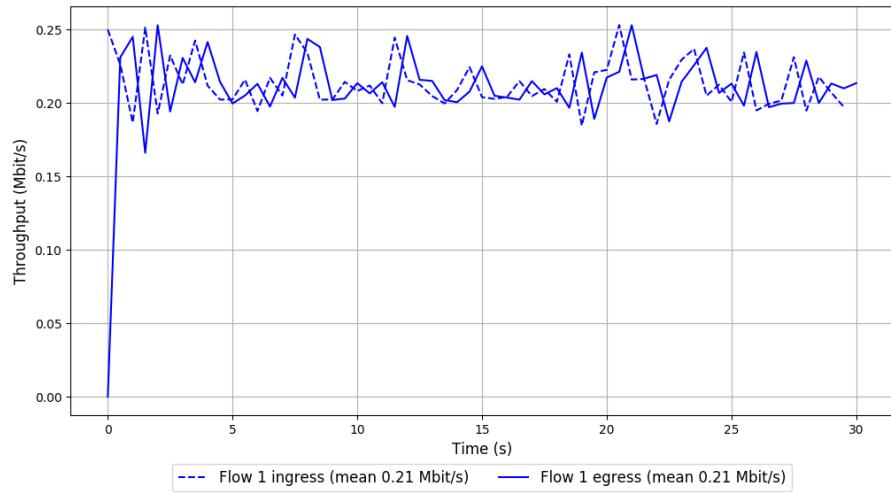


Run 4: Statistics of SCReAM

```
Start at: 2018-10-02 08:31:50
End at: 2018-10-02 08:32:20
Local clock offset: -0.168 ms
Remote clock offset: -3.449 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 31.216 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

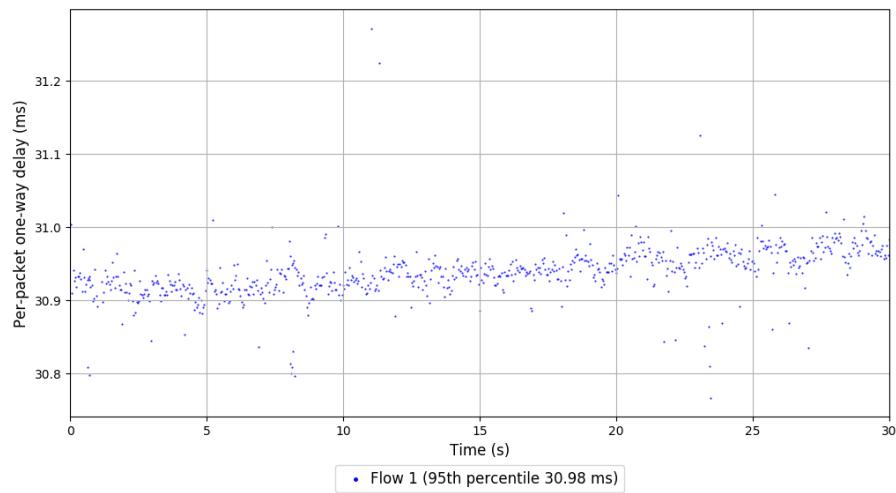
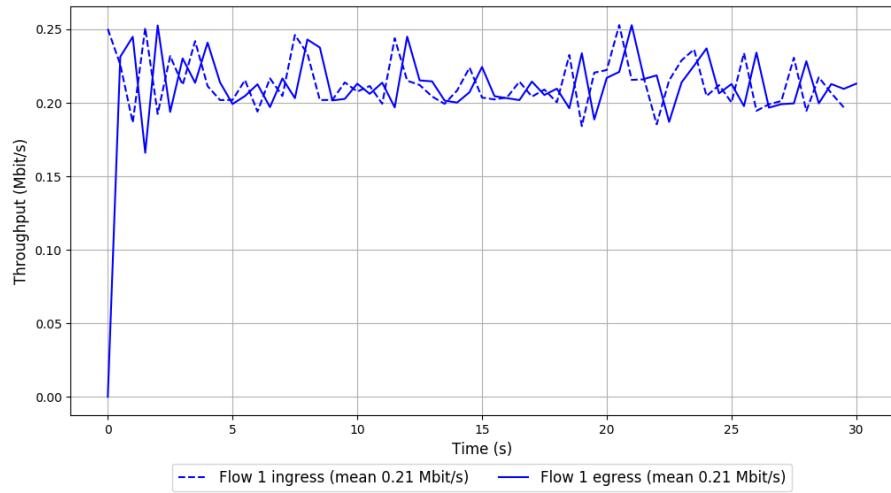


Run 5: Statistics of SCReAM

```
Start at: 2018-10-02 08:55:23
End at: 2018-10-02 08:55:53
Local clock offset: 3.017 ms
Remote clock offset: -4.028 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.985 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 30.985 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

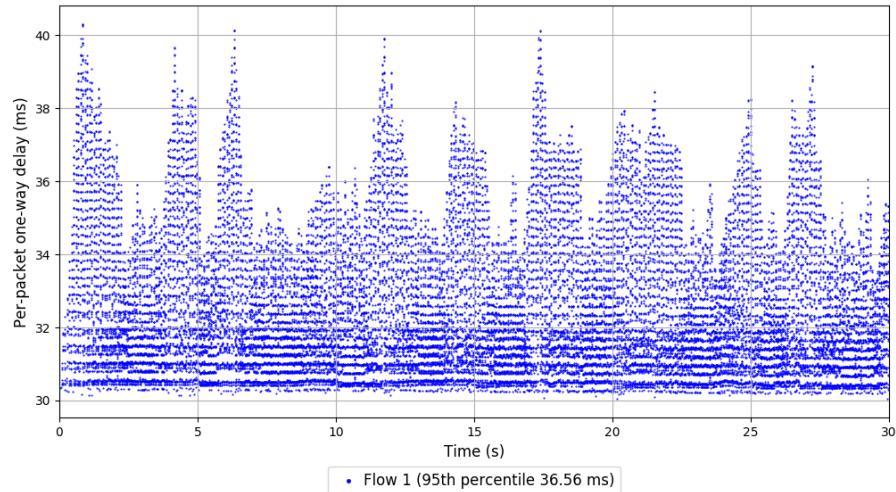
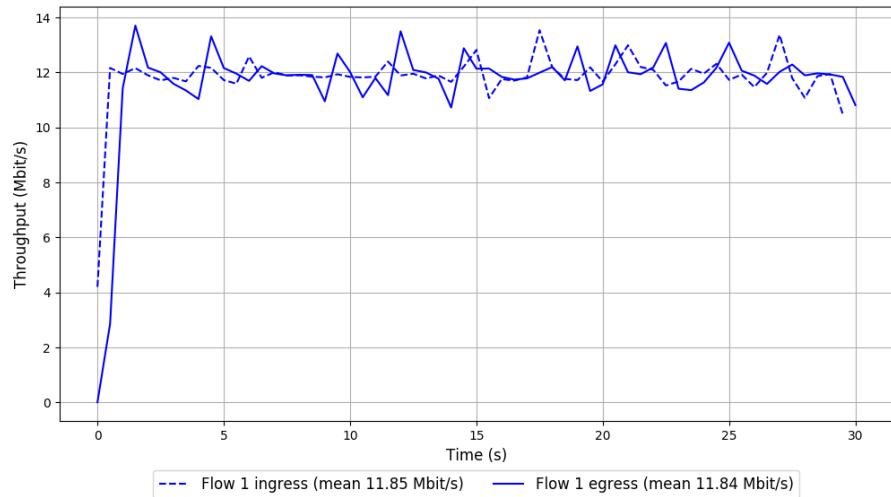


Run 1: Statistics of Sprout

```
Start at: 2018-10-02 07:26:26
End at: 2018-10-02 07:26:56
Local clock offset: -0.626 ms
Remote clock offset: -4.397 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 36.565 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.84 Mbit/s
95th percentile per-packet one-way delay: 36.565 ms
Loss rate: 0.00%
```

## Run 1: Report of Sprout — Data Link

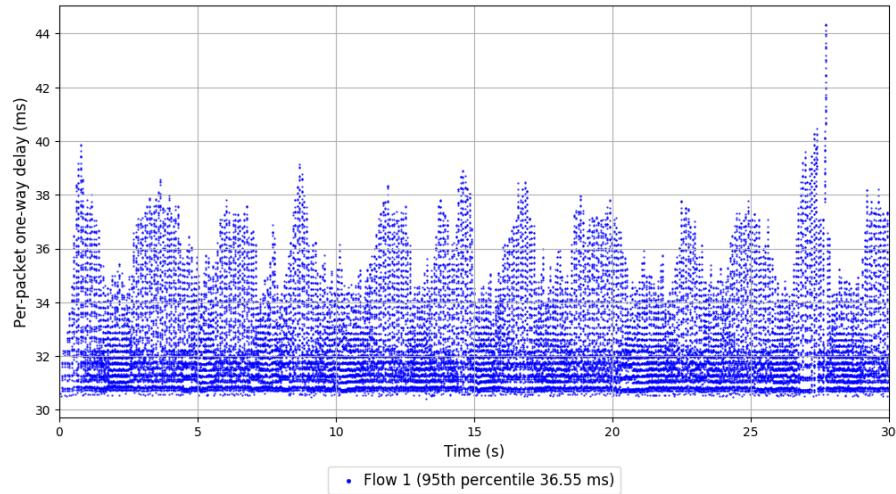
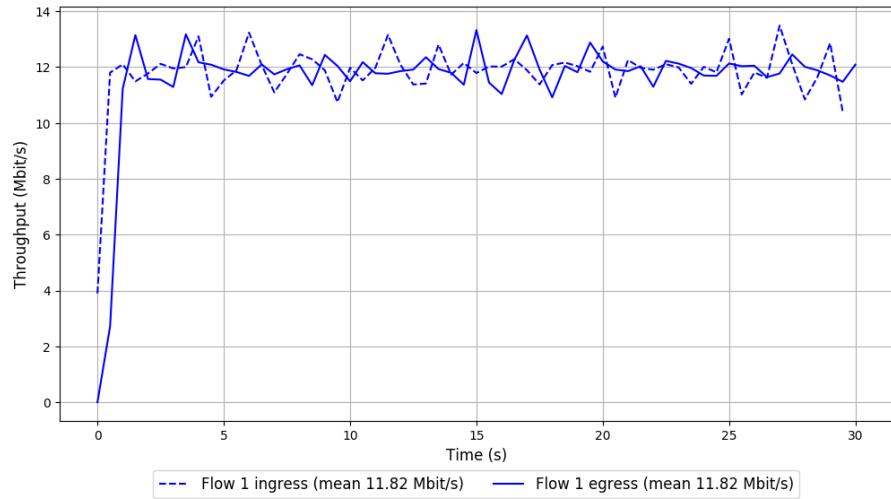


Run 2: Statistics of Sprout

```
Start at: 2018-10-02 07:49:58
End at: 2018-10-02 07:50:28
Local clock offset: -3.786 ms
Remote clock offset: -4.51 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 36.546 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 11.82 Mbit/s
95th percentile per-packet one-way delay: 36.546 ms
Loss rate: 0.03%
```

## Run 2: Report of Sprout — Data Link

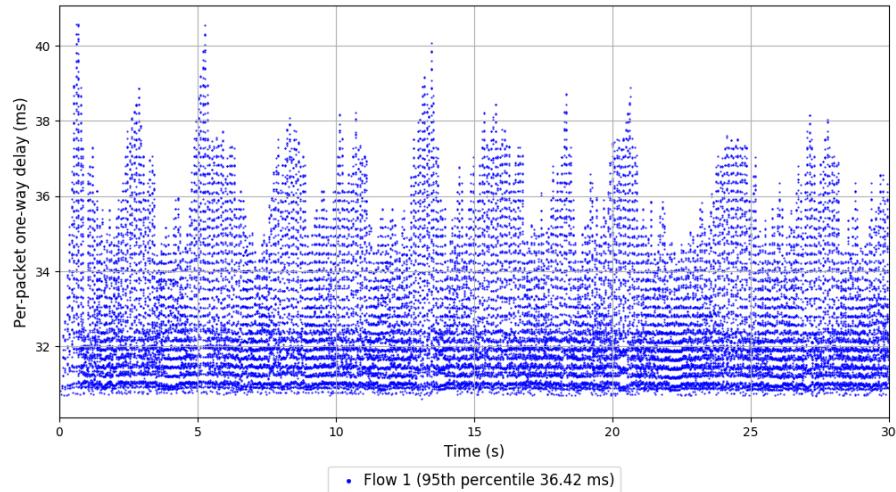
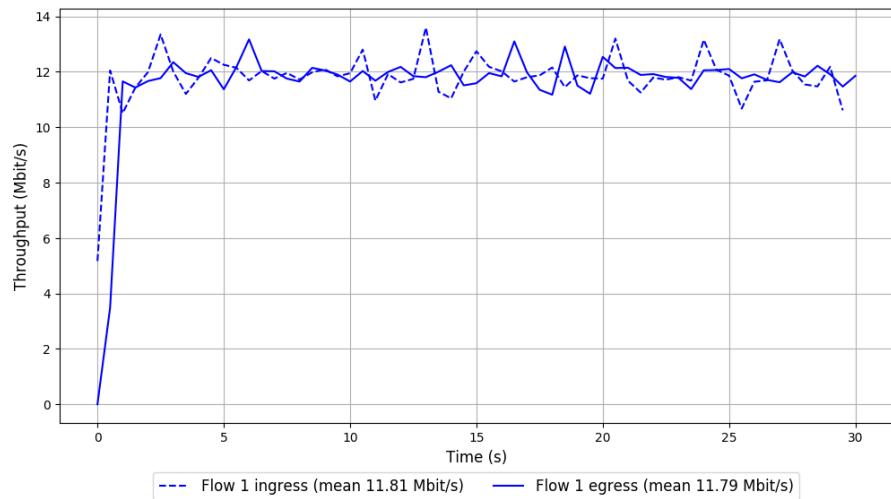


Run 3: Statistics of Sprout

```
Start at: 2018-10-02 08:13:30
End at: 2018-10-02 08:14:00
Local clock offset: -5.466 ms
Remote clock offset: -3.808 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 36.416 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 36.416 ms
Loss rate: 0.12%
```

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

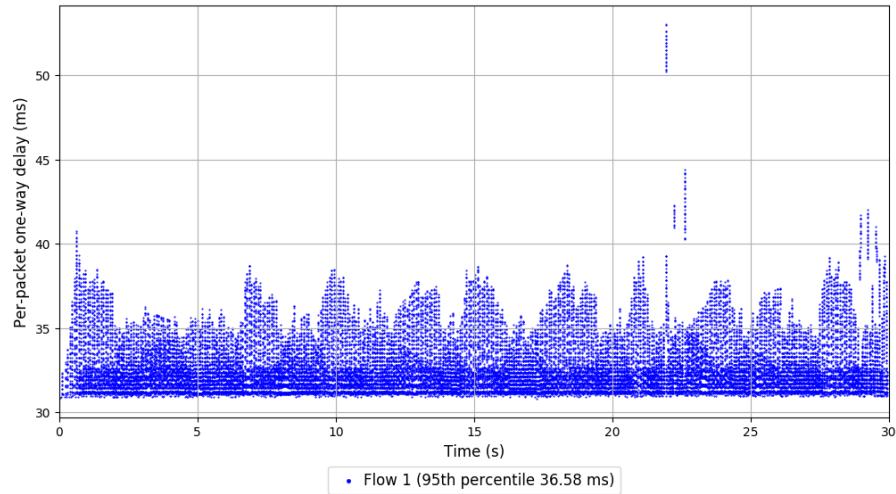
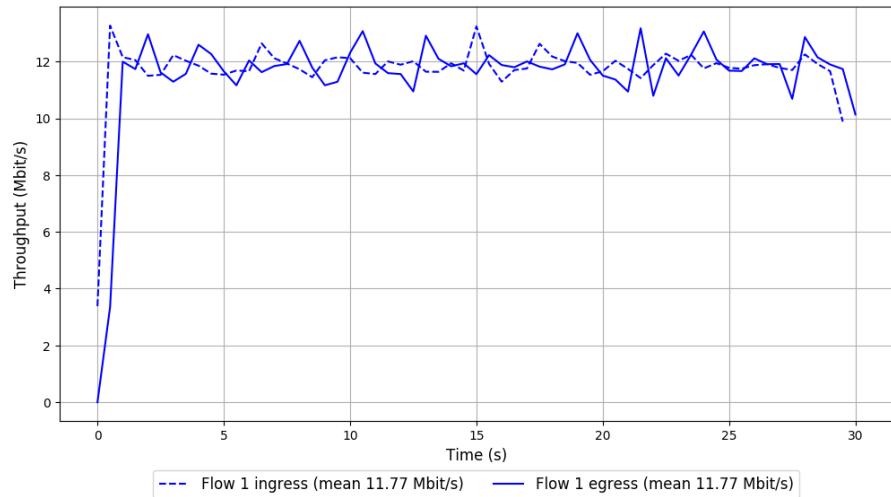


Run 4: Statistics of Sprout

```
Start at: 2018-10-02 08:37:02
End at: 2018-10-02 08:37:32
Local clock offset: 0.439 ms
Remote clock offset: -3.662 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 36.579 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 36.579 ms
Loss rate: 0.00%
```

## Run 4: Report of Sprout — Data Link

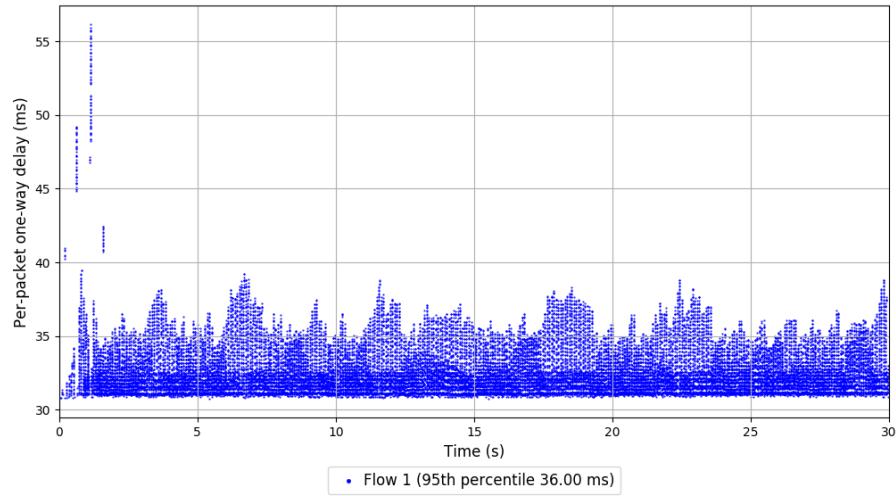
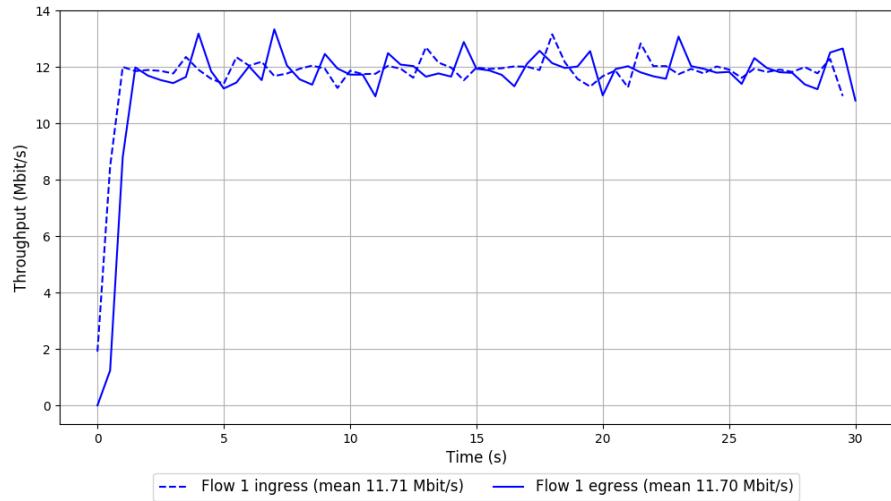


Run 5: Statistics of Sprout

```
Start at: 2018-10-02 09:00:35
End at: 2018-10-02 09:01:05
Local clock offset: 3.645 ms
Remote clock offset: -4.078 ms

# Below is generated by plot.py at 2018-10-02 09:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 36.002 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 36.002 ms
Loss rate: 0.10%
```

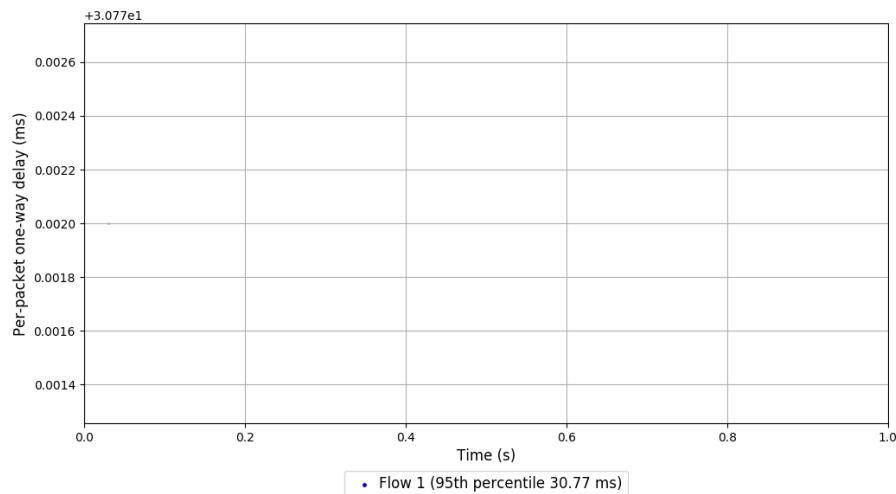
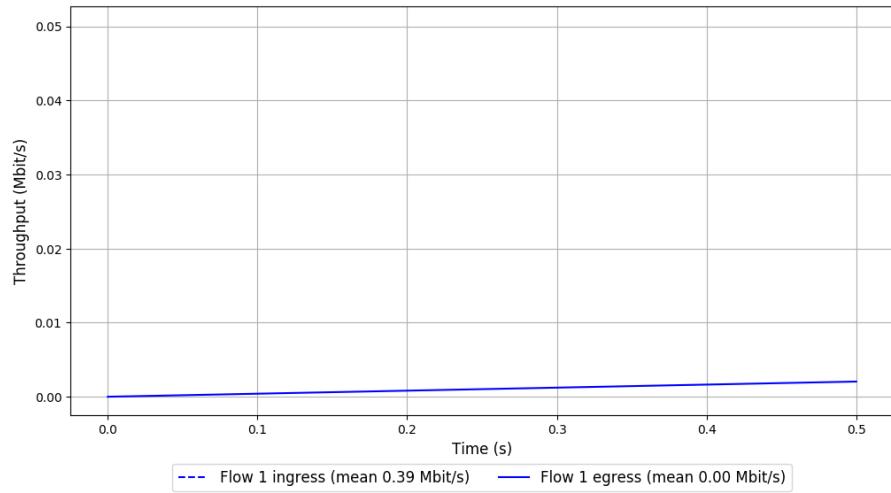
## Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-10-02 07:13:27  
End at: 2018-10-02 07:13:57  
Local clock offset: 3.951 ms  
Remote clock offset: -4.117 ms

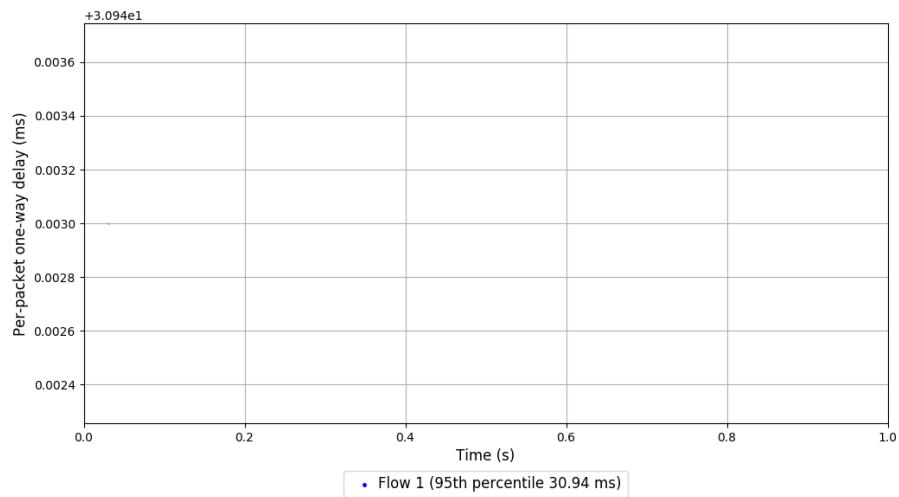
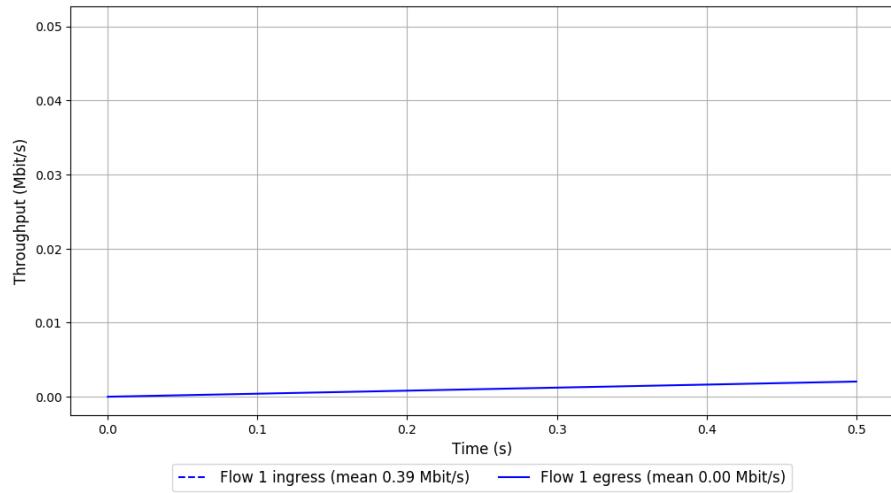
Run 1: Report of TaoVA-100x — Data Link



Run 2: Statistics of TaoVA-100x

Start at: 2018-10-02 07:37:00  
End at: 2018-10-02 07:37:30  
Local clock offset: -2.554 ms  
Remote clock offset: -4.075 ms

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



Run 3: Statistics of TaoVA-100x

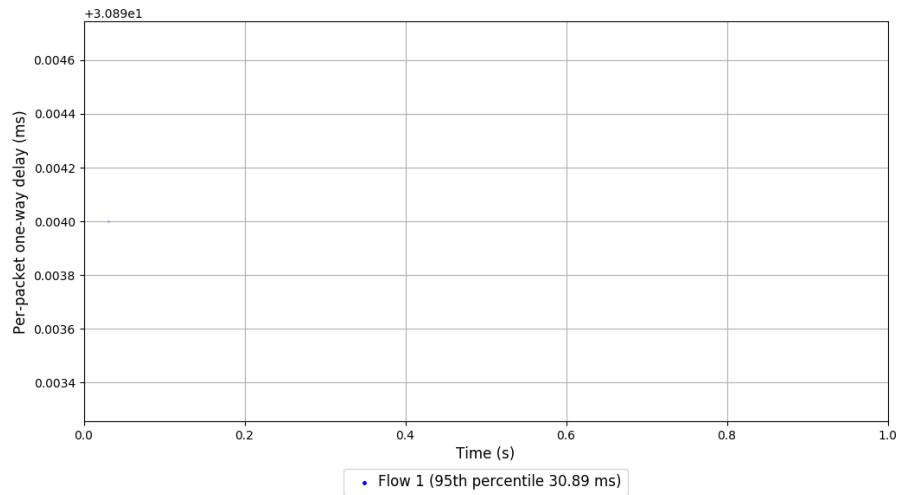
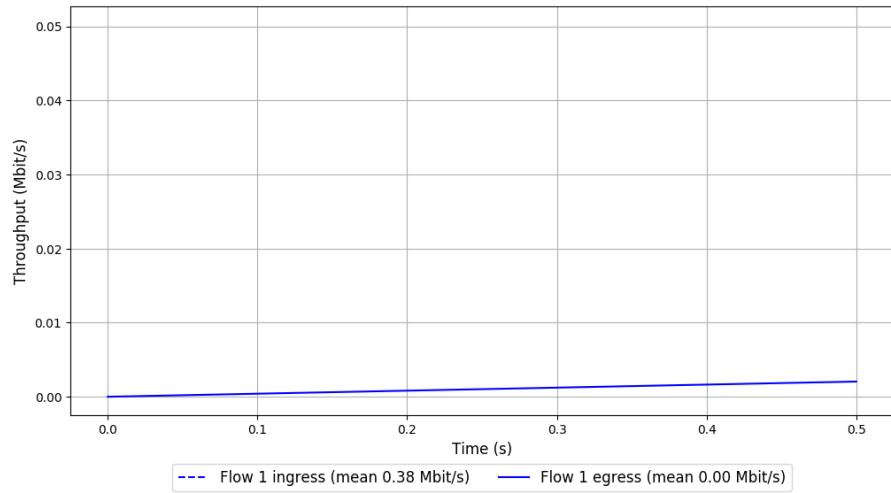
Start at: 2018-10-02 08:00:33

End at: 2018-10-02 08:01:03

Local clock offset: -4.579 ms

Remote clock offset: -4.182 ms

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



Run 4: Statistics of TaoVA-100x

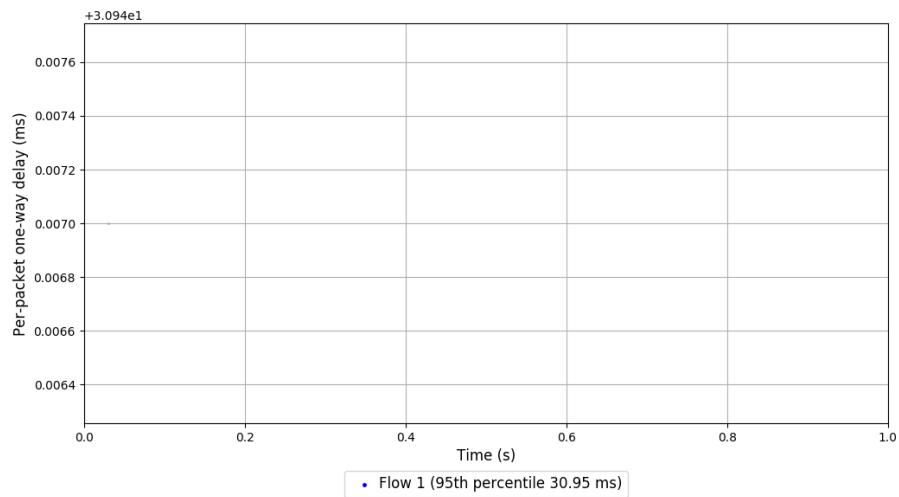
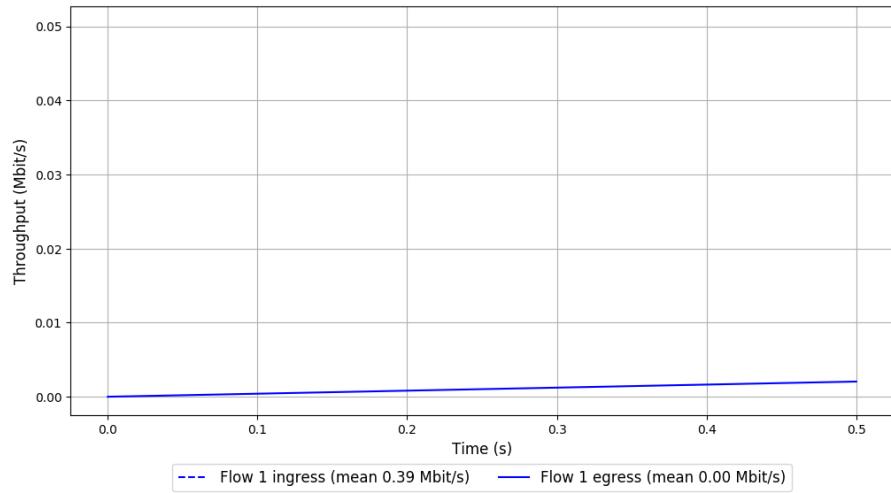
Start at: 2018-10-02 08:24:04

End at: 2018-10-02 08:24:34

Local clock offset: -1.813 ms

Remote clock offset: -3.642 ms

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



Run 5: Statistics of TaoVA-100x

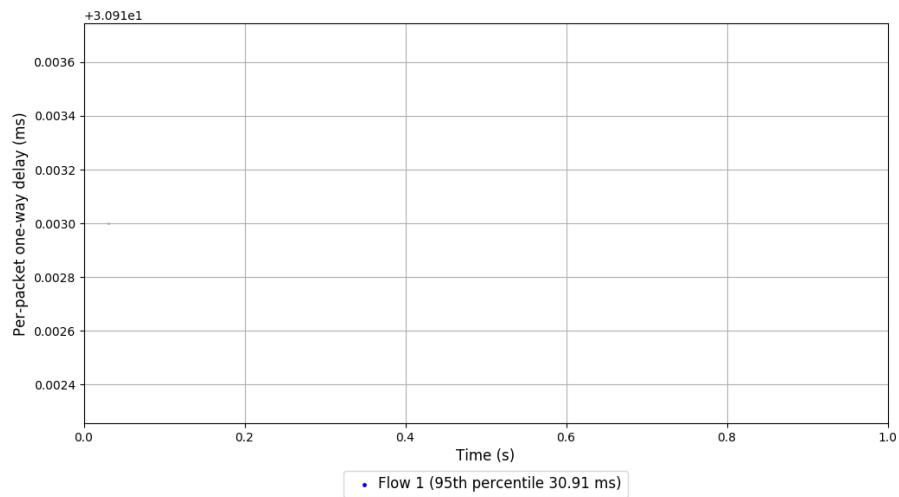
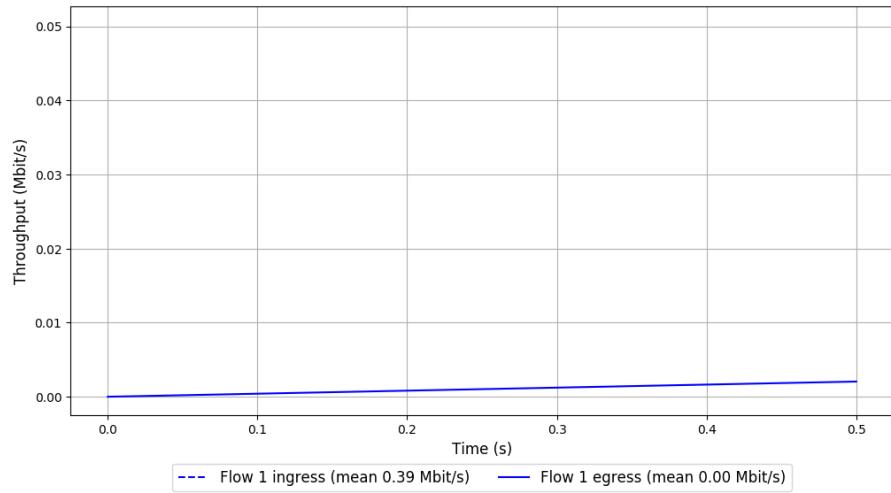
Start at: 2018-10-02 08:47:36

End at: 2018-10-02 08:48:06

Local clock offset: 1.55 ms

Remote clock offset: -3.95 ms

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

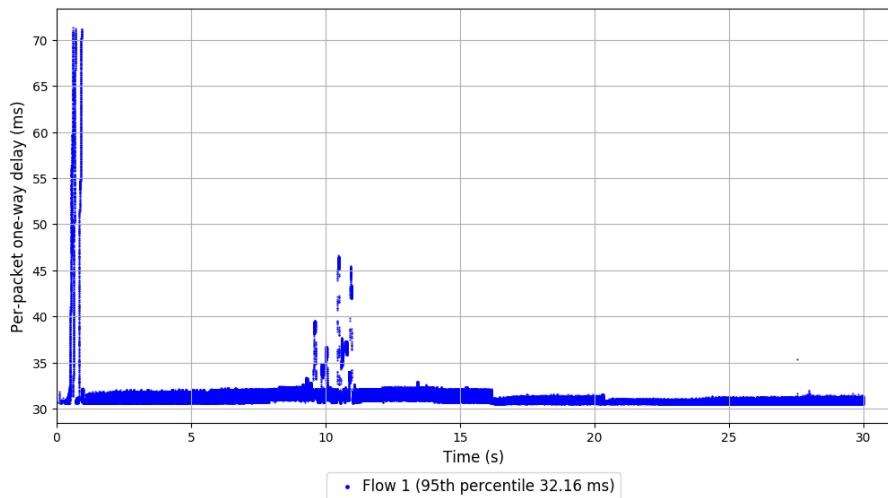
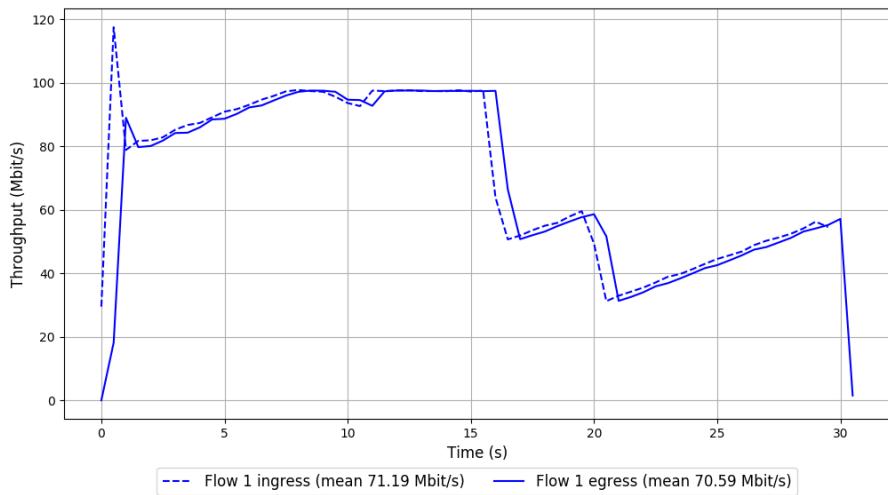


Run 1: Statistics of TCP Vegas

```
Start at: 2018-10-02 07:27:42
End at: 2018-10-02 07:28:12
Local clock offset: -1.001 ms
Remote clock offset: -4.133 ms

# Below is generated by plot.py at 2018-10-02 09:17:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.59 Mbit/s
95th percentile per-packet one-way delay: 32.162 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 70.59 Mbit/s
95th percentile per-packet one-way delay: 32.162 ms
Loss rate: 0.83%
```

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

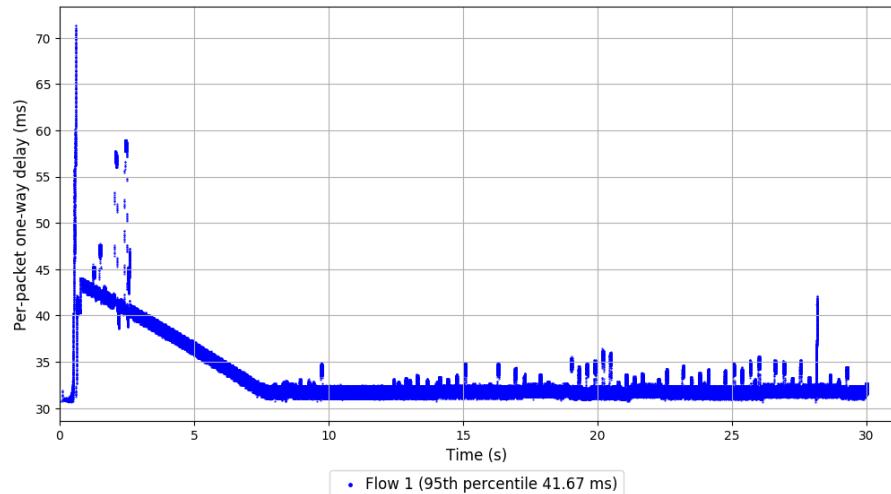
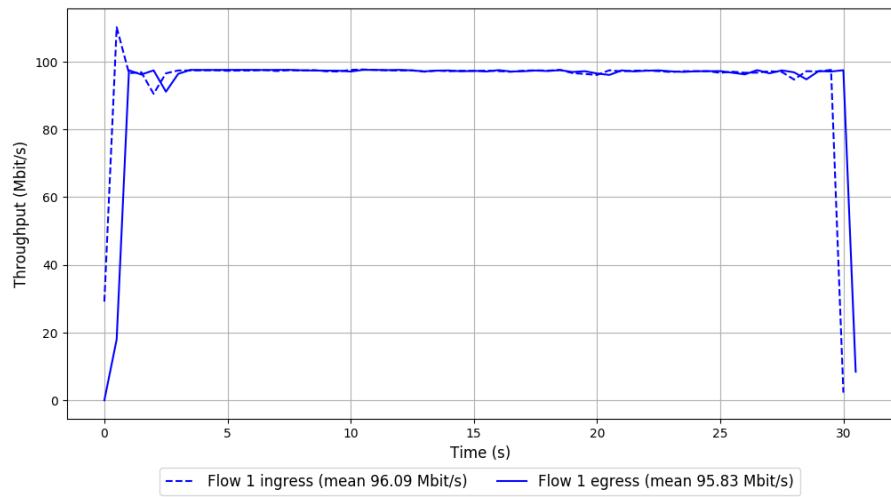


Run 2: Statistics of TCP Vegas

```
Start at: 2018-10-02 07:51:14
End at: 2018-10-02 07:51:44
Local clock offset: -3.897 ms
Remote clock offset: -4.406 ms

# Below is generated by plot.py at 2018-10-02 09:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 41.669 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 41.669 ms
Loss rate: 0.27%
```

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

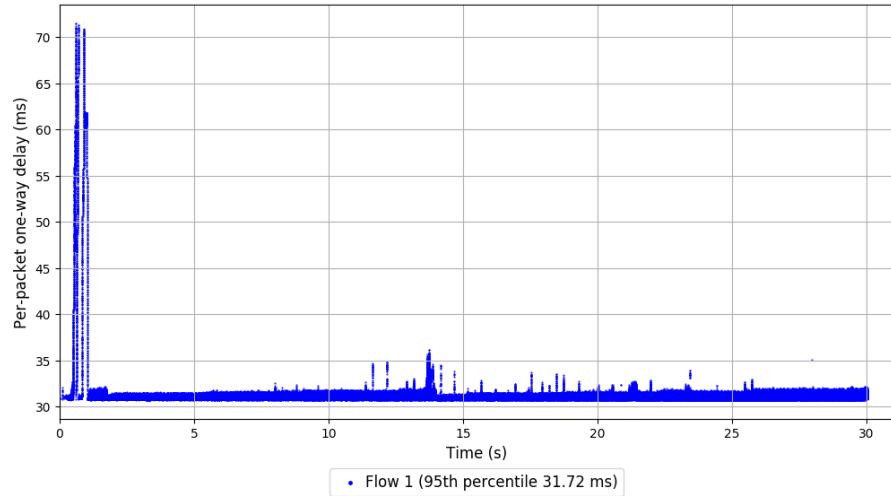
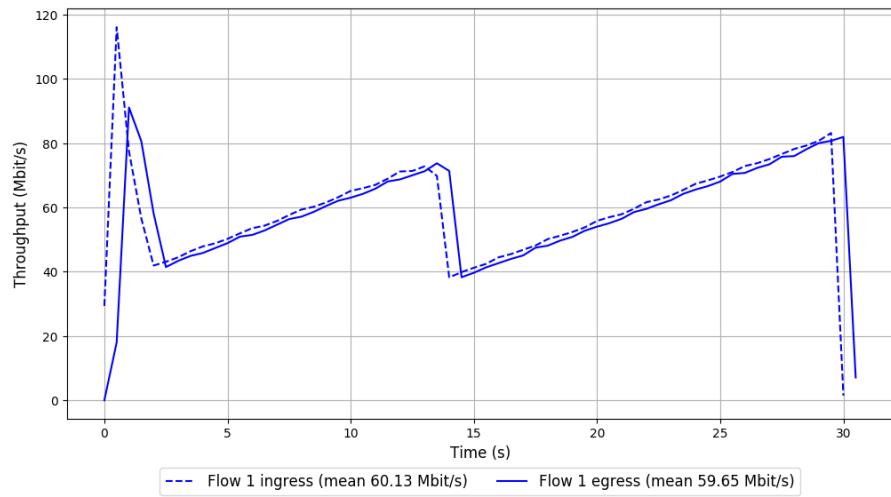


Run 3: Statistics of TCP Vegas

```
Start at: 2018-10-02 08:14:46
End at: 2018-10-02 08:15:16
Local clock offset: -5.539 ms
Remote clock offset: -3.781 ms

# Below is generated by plot.py at 2018-10-02 09:17:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 31.717 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 59.65 Mbit/s
95th percentile per-packet one-way delay: 31.717 ms
Loss rate: 0.81%
```

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

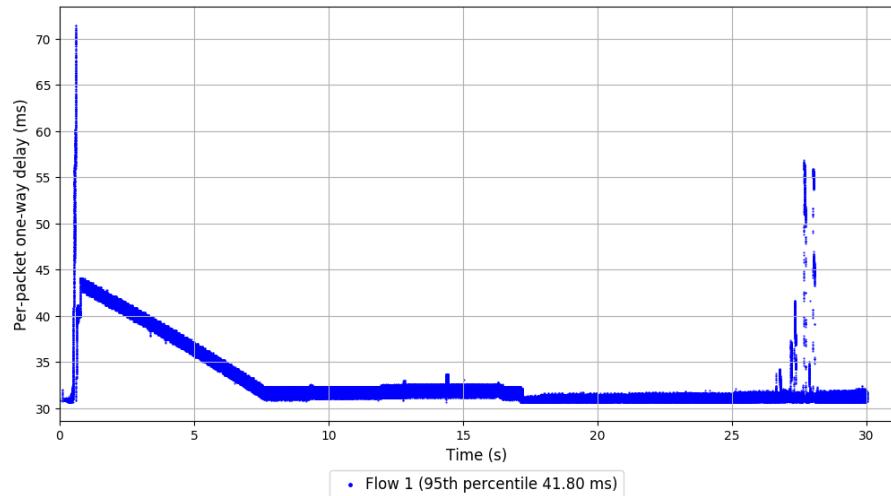
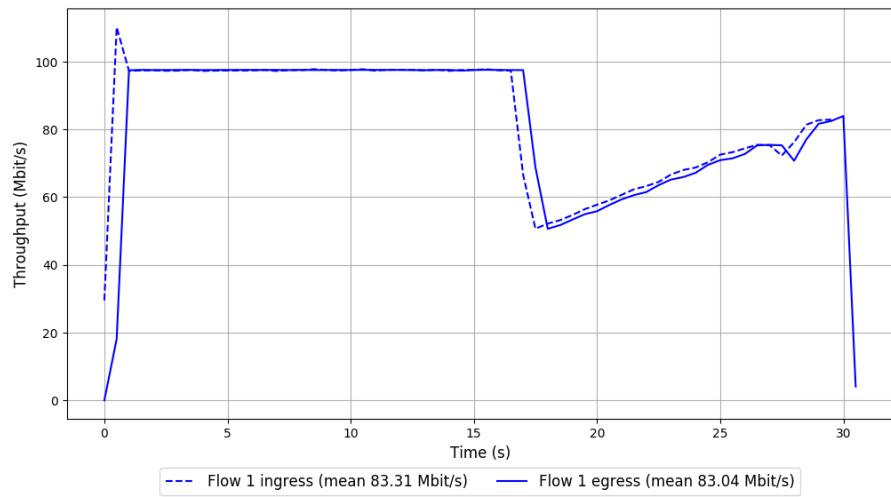


Run 4: Statistics of TCP Vegas

```
Start at: 2018-10-02 08:38:18
End at: 2018-10-02 08:38:48
Local clock offset: 0.546 ms
Remote clock offset: -3.879 ms

# Below is generated by plot.py at 2018-10-02 09:18:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.04 Mbit/s
95th percentile per-packet one-way delay: 41.802 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 83.04 Mbit/s
95th percentile per-packet one-way delay: 41.802 ms
Loss rate: 0.33%
```

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

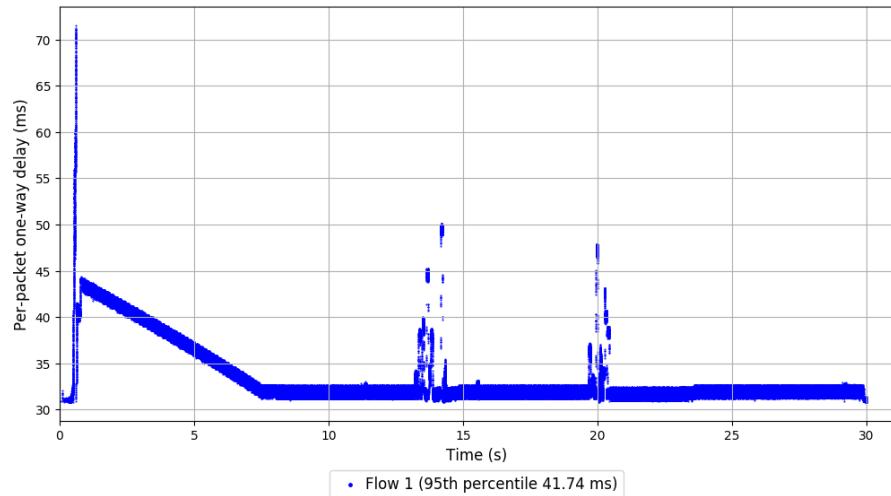
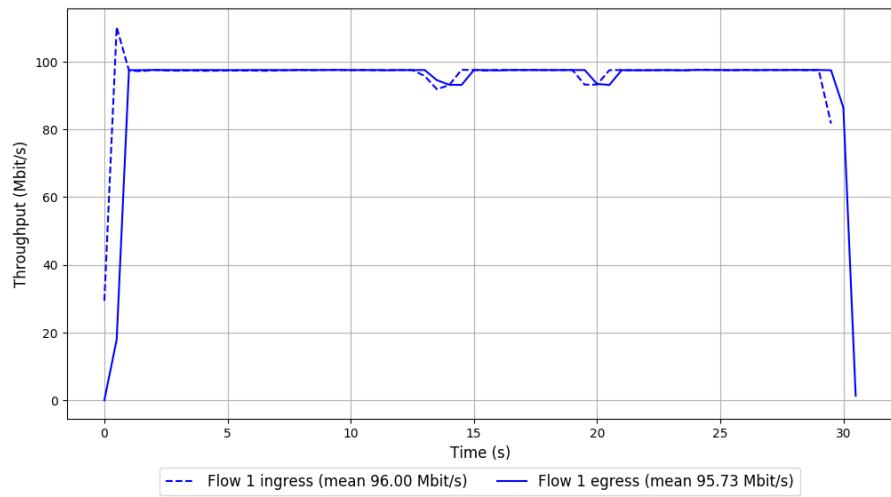


Run 5: Statistics of TCP Vegas

```
Start at: 2018-10-02 09:01:51
End at: 2018-10-02 09:02:21
Local clock offset: 3.79 ms
Remote clock offset: -4.118 ms

# Below is generated by plot.py at 2018-10-02 09:18:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 41.745 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 95.73 Mbit/s
95th percentile per-packet one-way delay: 41.745 ms
Loss rate: 0.28%
```

Run 5: Report of TCP Vegas — Data Link

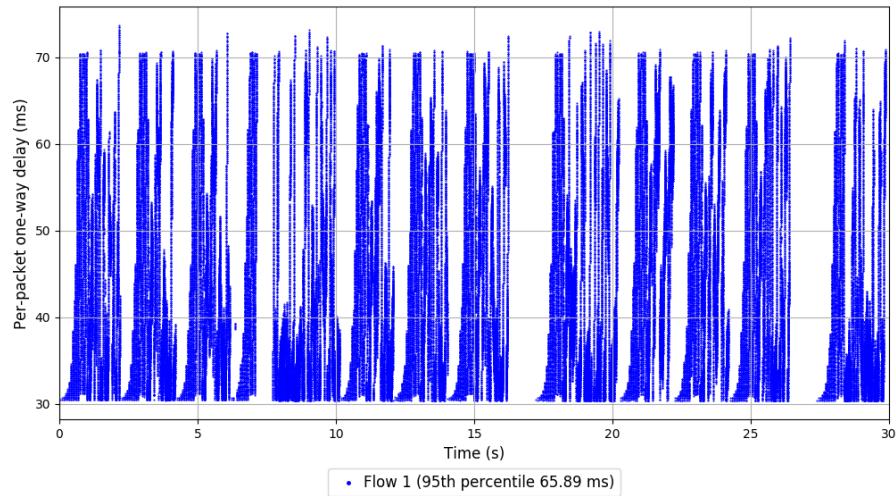
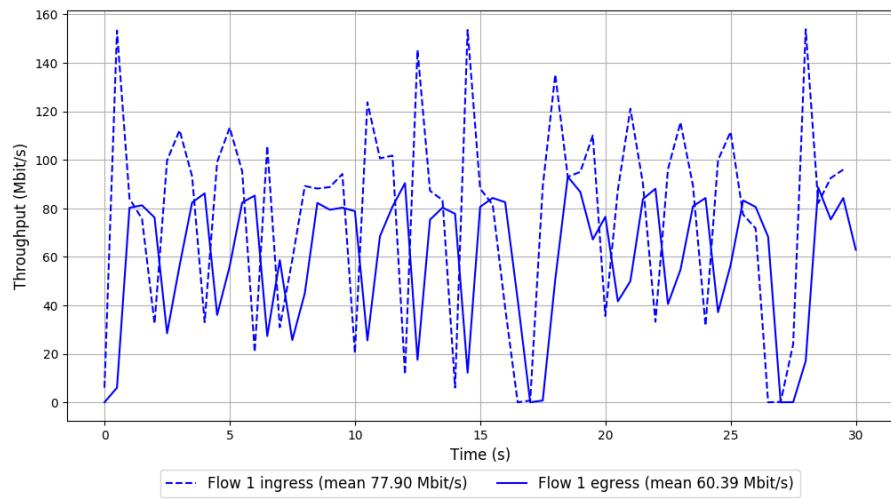


Run 1: Statistics of Verus

```
Start at: 2018-10-02 07:30:22
End at: 2018-10-02 07:30:52
Local clock offset: -1.544 ms
Remote clock offset: -4.38 ms

# Below is generated by plot.py at 2018-10-02 09:18:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.39 Mbit/s
95th percentile per-packet one-way delay: 65.893 ms
Loss rate: 22.44%
-- Flow 1:
Average throughput: 60.39 Mbit/s
95th percentile per-packet one-way delay: 65.893 ms
Loss rate: 22.44%
```

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

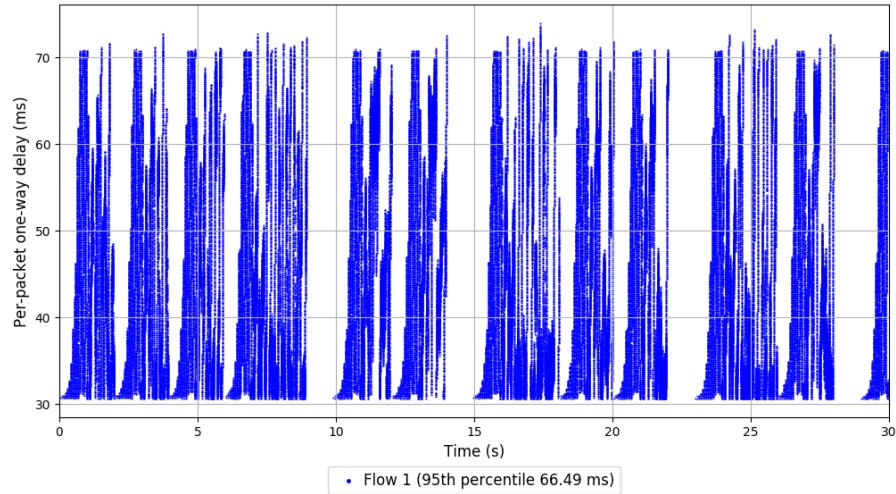
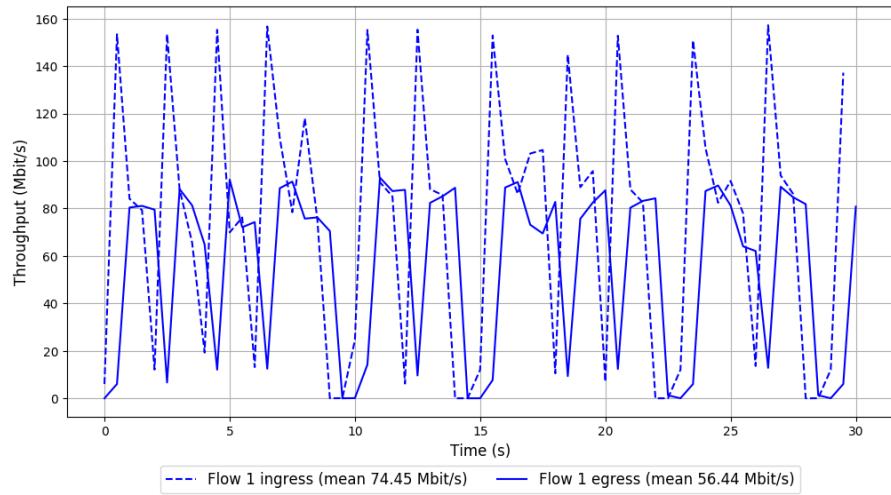


Run 2: Statistics of Verus

```
Start at: 2018-10-02 07:53:55
End at: 2018-10-02 07:54:25
Local clock offset: -4.094 ms
Remote clock offset: -4.311 ms

# Below is generated by plot.py at 2018-10-02 09:18:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 66.487 ms
Loss rate: 24.19%
-- Flow 1:
Average throughput: 56.44 Mbit/s
95th percentile per-packet one-way delay: 66.487 ms
Loss rate: 24.19%
```

## Run 2: Report of Verus — Data Link

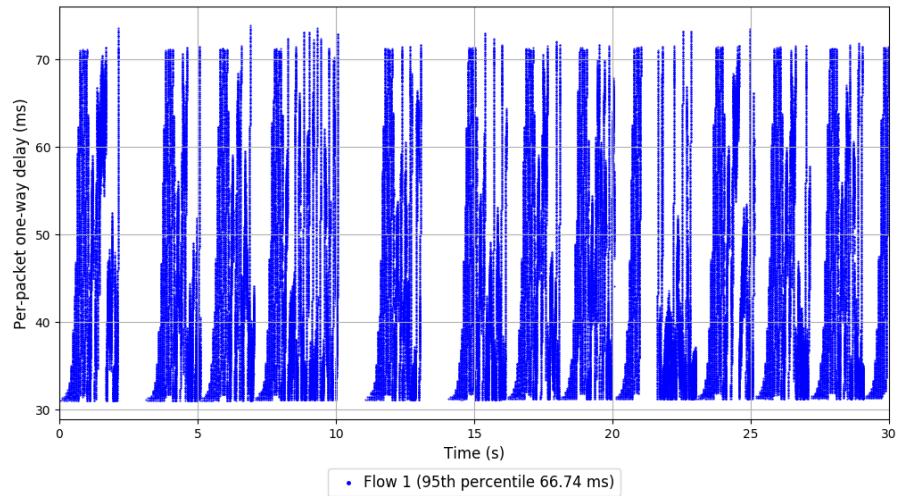
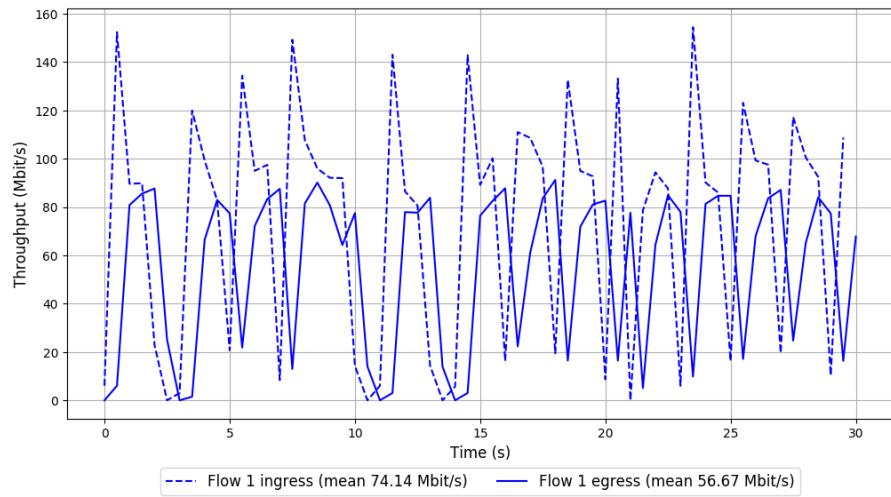


Run 3: Statistics of Verus

```
Start at: 2018-10-02 08:17:25
End at: 2018-10-02 08:17:55
Local clock offset: -4.744 ms
Remote clock offset: -3.8 ms

# Below is generated by plot.py at 2018-10-02 09:18:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 66.744 ms
Loss rate: 23.54%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 66.744 ms
Loss rate: 23.54%
```

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

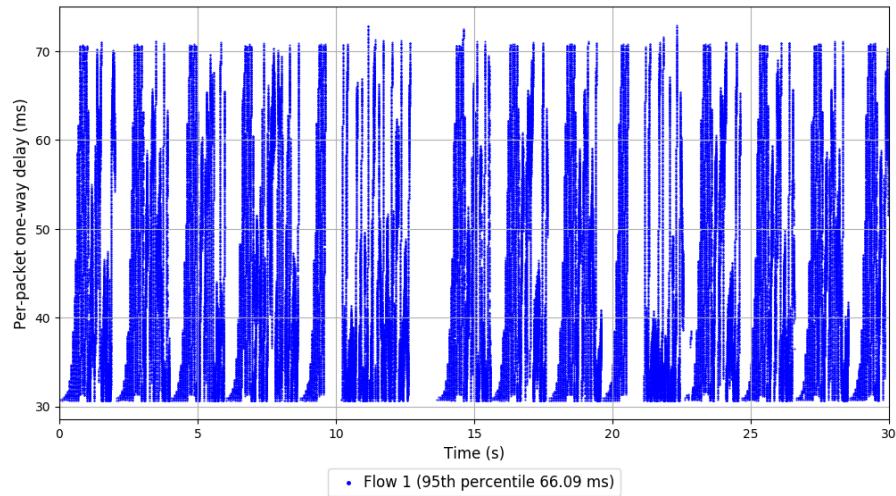
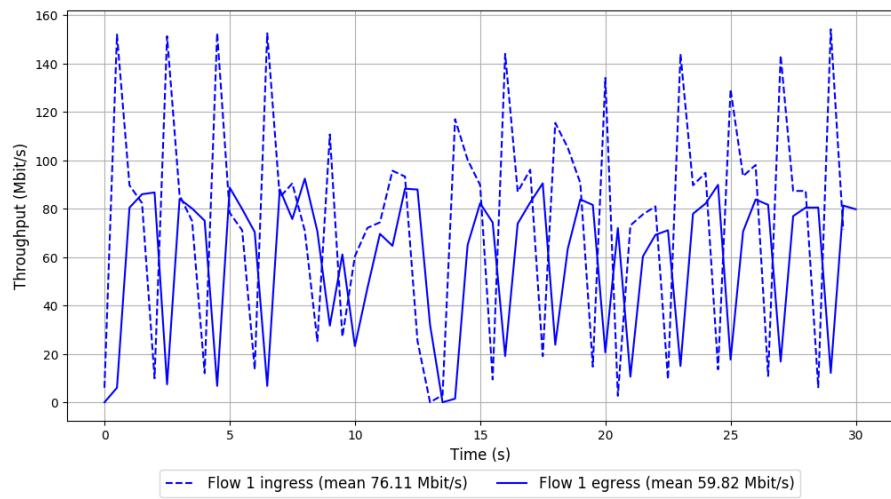


Run 4: Statistics of Verus

```
Start at: 2018-10-02 08:40:58
End at: 2018-10-02 08:41:28
Local clock offset: 0.764 ms
Remote clock offset: -3.865 ms

# Below is generated by plot.py at 2018-10-02 09:18:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 66.090 ms
Loss rate: 21.34%
-- Flow 1:
Average throughput: 59.82 Mbit/s
95th percentile per-packet one-way delay: 66.090 ms
Loss rate: 21.34%
```

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

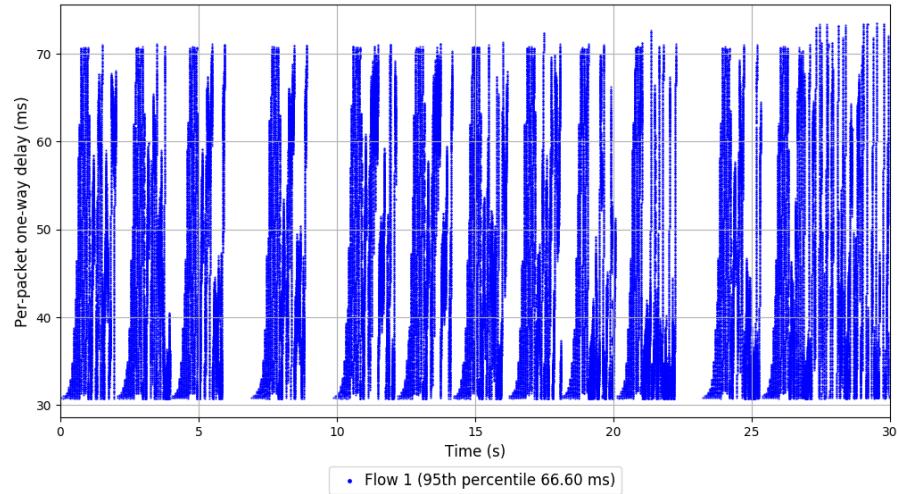
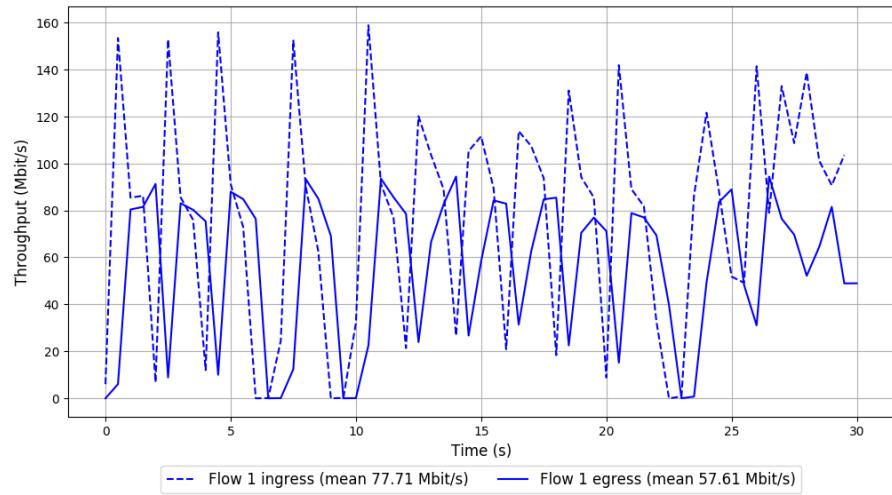


Run 5: Statistics of Verus

```
Start at: 2018-10-02 09:04:32
End at: 2018-10-02 09:05:02
Local clock offset: 4.044 ms
Remote clock offset: -4.163 ms

# Below is generated by plot.py at 2018-10-02 09:18:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.61 Mbit/s
95th percentile per-packet one-way delay: 66.598 ms
Loss rate: 25.85%
-- Flow 1:
Average throughput: 57.61 Mbit/s
95th percentile per-packet one-way delay: 66.598 ms
Loss rate: 25.85%
```

Run 5: Report of Verus — Data Link

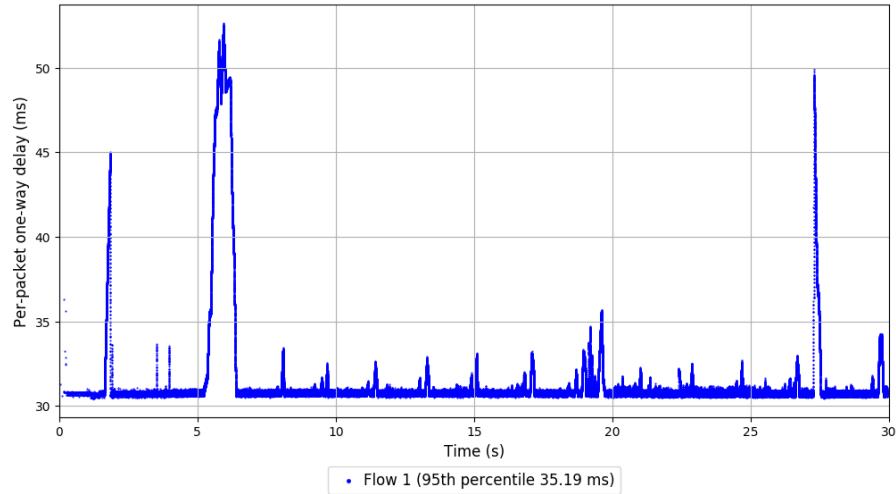
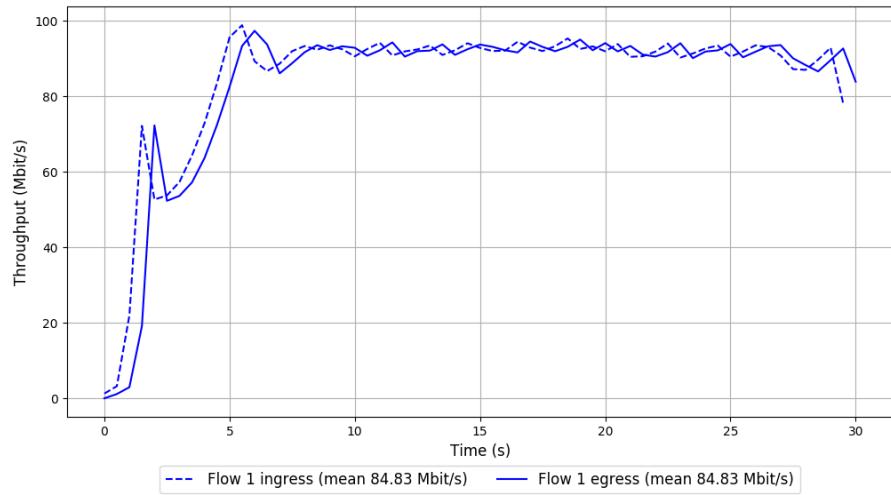


Run 1: Statistics of PCC-Vivace

```
Start at: 2018-10-02 07:33:01
End at: 2018-10-02 07:33:31
Local clock offset: -1.982 ms
Remote clock offset: -4.188 ms

# Below is generated by plot.py at 2018-10-02 09:18:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.83 Mbit/s
95th percentile per-packet one-way delay: 35.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.83 Mbit/s
95th percentile per-packet one-way delay: 35.186 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

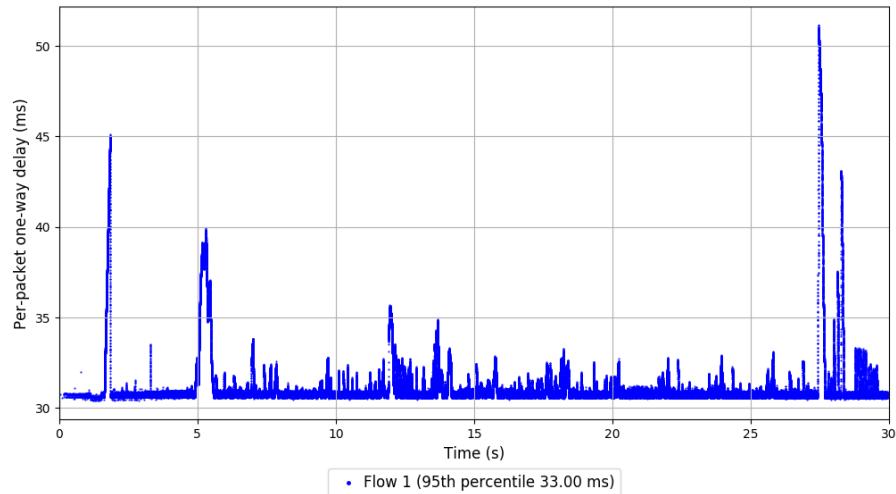
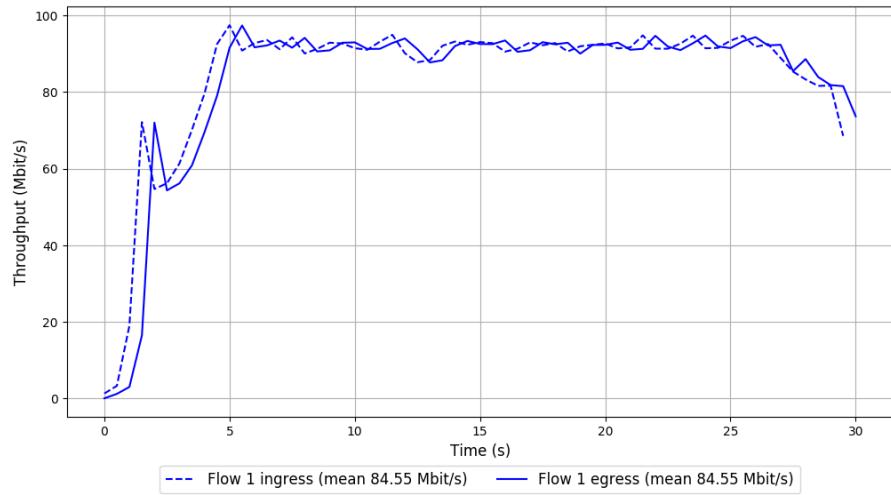


Run 2: Statistics of PCC-Vivace

```
Start at: 2018-10-02 07:56:33
End at: 2018-10-02 07:57:03
Local clock offset: -4.279 ms
Remote clock offset: -4.444 ms

# Below is generated by plot.py at 2018-10-02 09:18:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 33.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.55 Mbit/s
95th percentile per-packet one-way delay: 33.003 ms
Loss rate: 0.00%
```

Run 2: Report of PCC-Vivace — Data Link

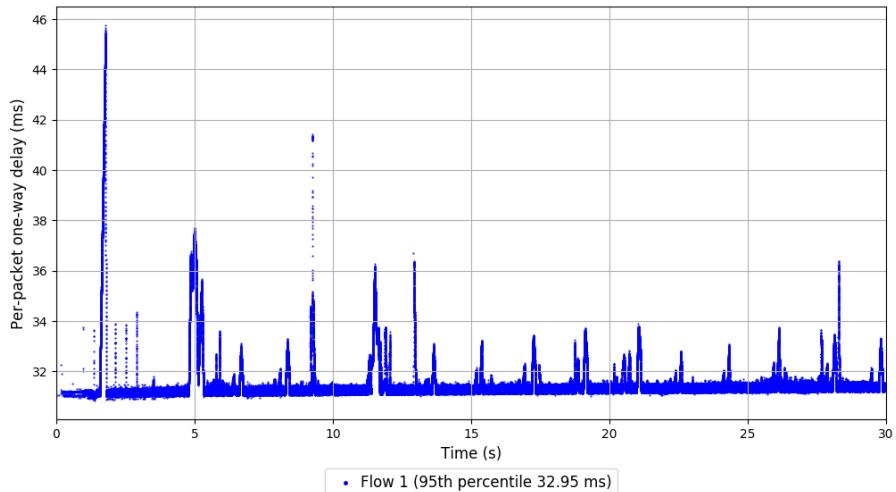
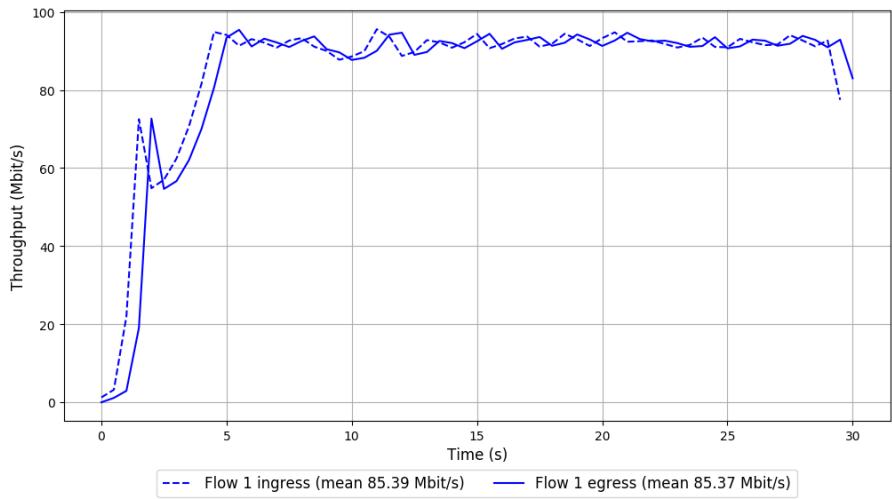


Run 3: Statistics of PCC-Vivace

```
Start at: 2018-10-02 08:20:04
End at: 2018-10-02 08:20:34
Local clock offset: -3.315 ms
Remote clock offset: -3.699 ms

# Below is generated by plot.py at 2018-10-02 09:18:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.37 Mbit/s
95th percentile per-packet one-way delay: 32.945 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 85.37 Mbit/s
95th percentile per-packet one-way delay: 32.945 ms
Loss rate: 0.02%
```

Run 3: Report of PCC-Vivace — Data Link

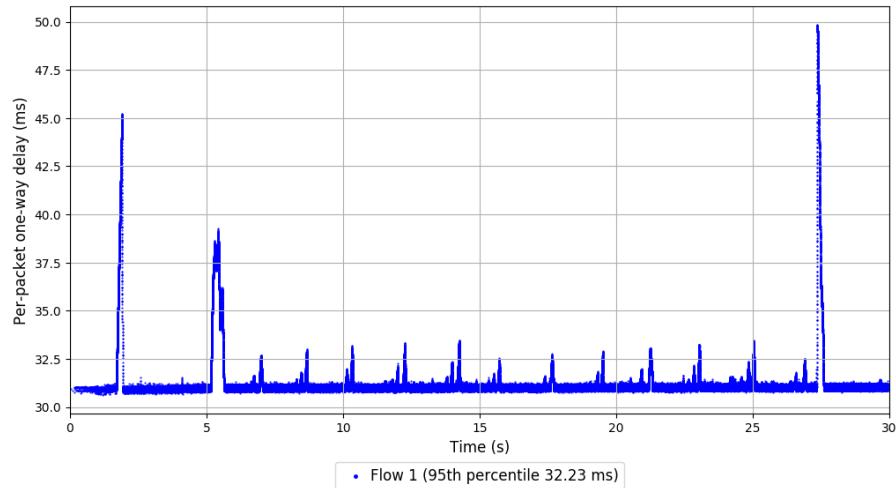
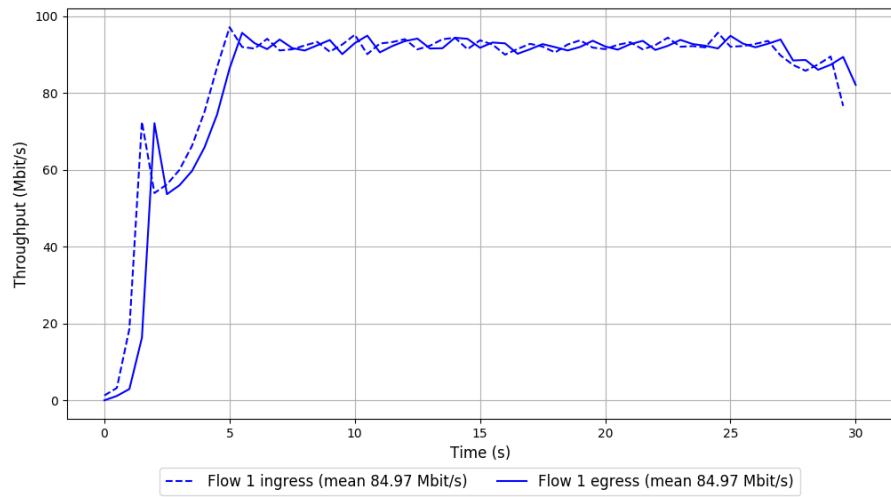


Run 4: Statistics of PCC-Vivace

```
Start at: 2018-10-02 08:43:37
End at: 2018-10-02 08:44:07
Local clock offset: 0.957 ms
Remote clock offset: -3.768 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.97 Mbit/s
95th percentile per-packet one-way delay: 32.233 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 84.97 Mbit/s
95th percentile per-packet one-way delay: 32.233 ms
Loss rate: 0.01%
```

Run 4: Report of PCC-Vivace — Data Link

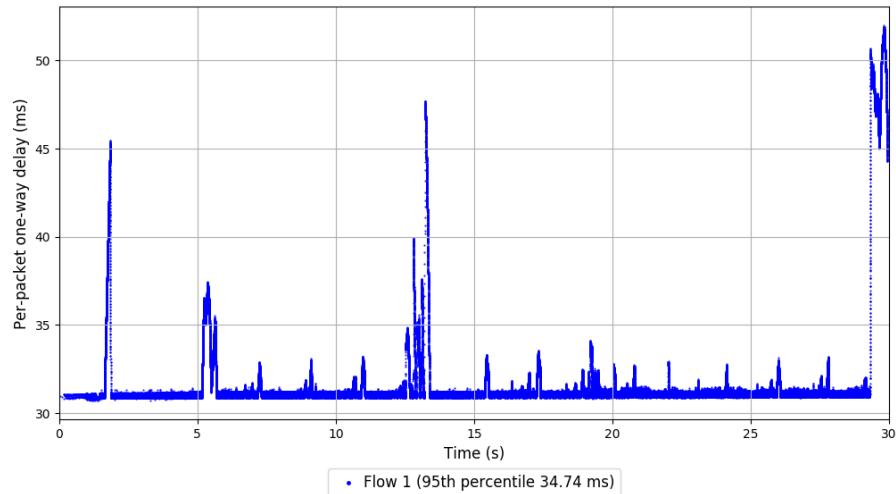
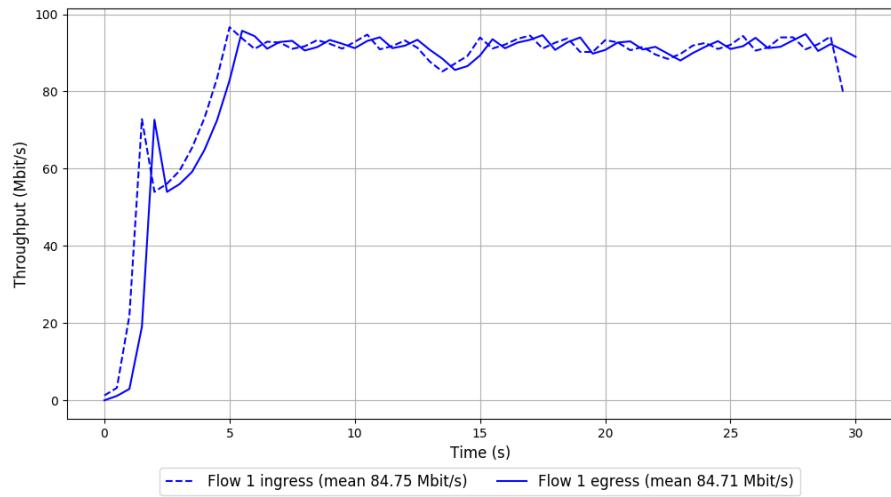


Run 5: Statistics of PCC-Vivace

```
Start at: 2018-10-02 09:07:11
End at: 2018-10-02 09:07:41
Local clock offset: 4.292 ms
Remote clock offset: -4.152 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.71 Mbit/s
95th percentile per-packet one-way delay: 34.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.71 Mbit/s
95th percentile per-packet one-way delay: 34.741 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

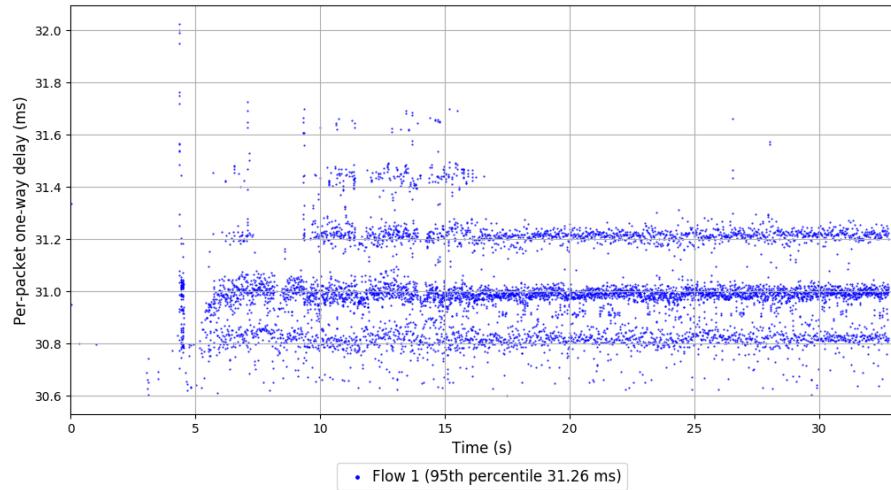
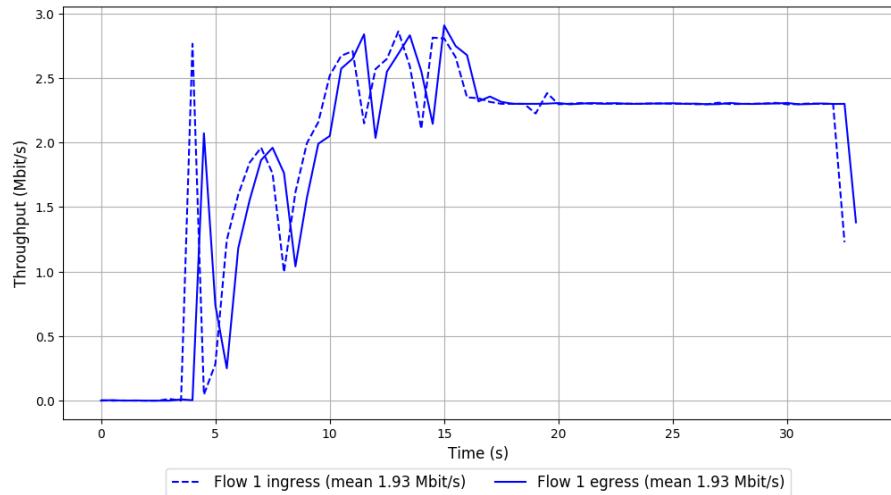


```
Run 1: Statistics of WebRTC media
```

```
Start at: 2018-10-02 07:14:43
End at: 2018-10-02 07:15:13
Local clock offset: 3.973 ms
Remote clock offset: -4.092 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.260 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.260 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

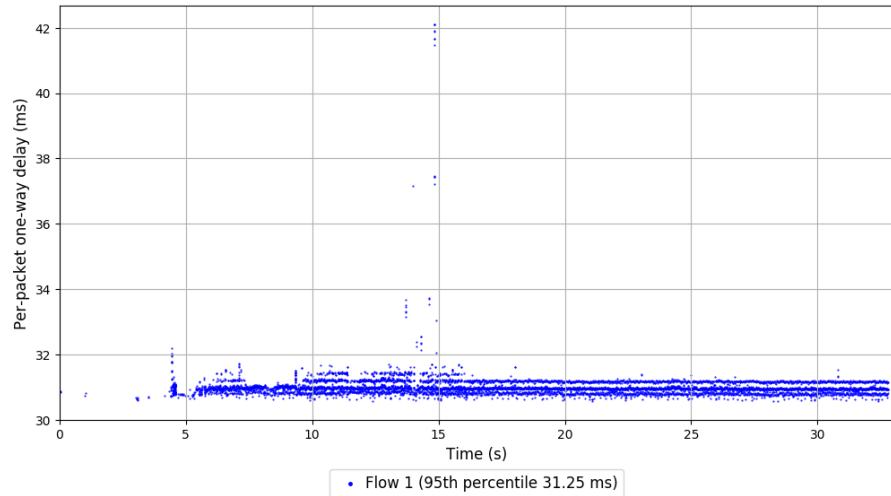
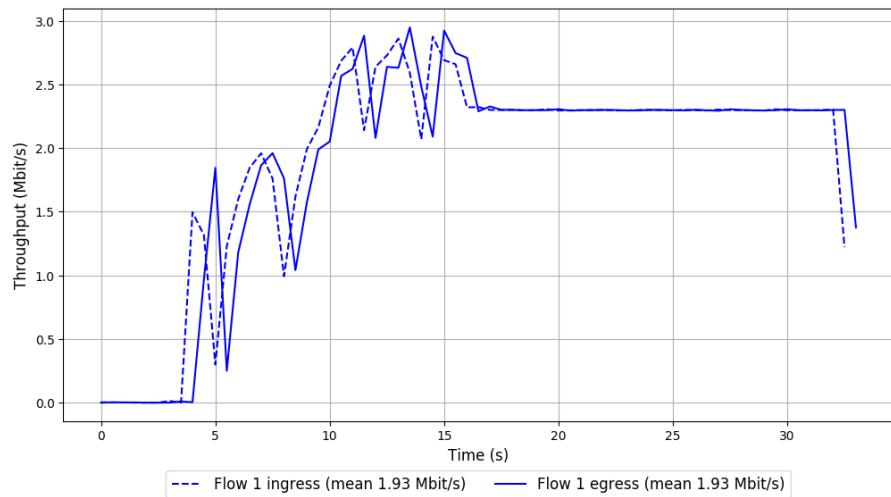


Run 2: Statistics of WebRTC media

```
Start at: 2018-10-02 07:38:16
End at: 2018-10-02 07:38:46
Local clock offset: -2.725 ms
Remote clock offset: -4.073 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.245 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.245 ms
Loss rate: 0.00%
```

## Run 2: Report of WebRTC media — Data Link

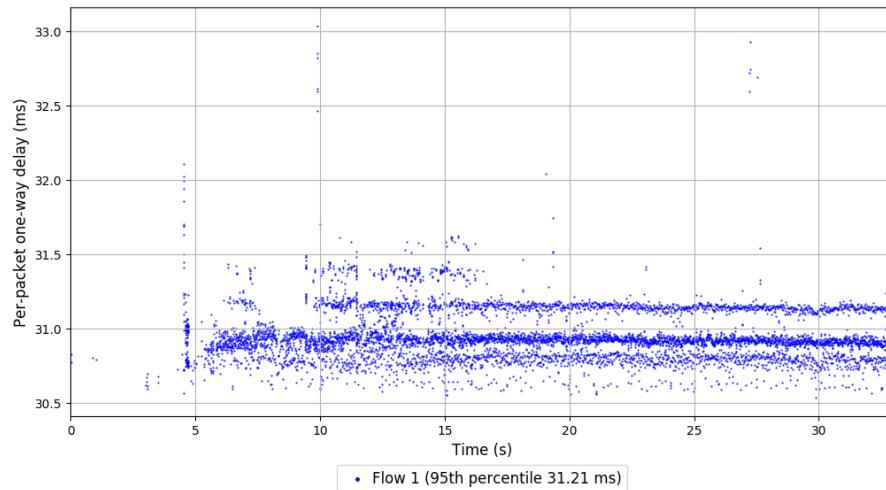
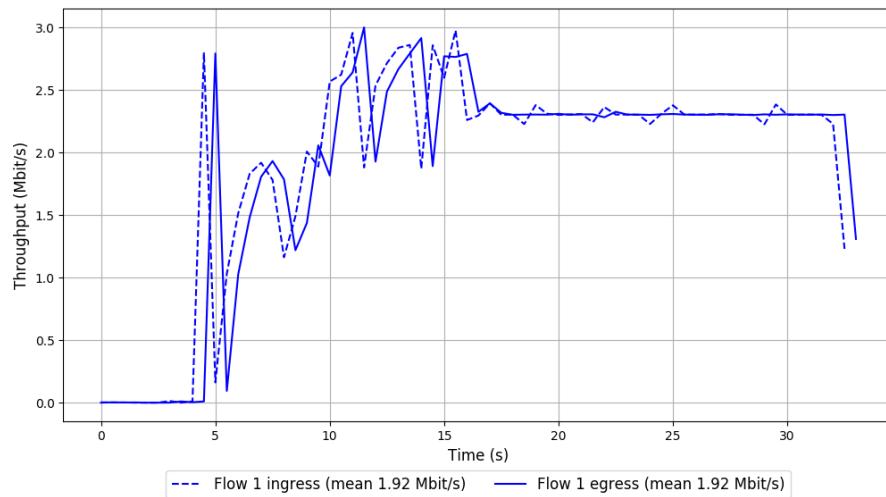


Run 3: Statistics of WebRTC media

```
Start at: 2018-10-02 08:01:49
End at: 2018-10-02 08:02:19
Local clock offset: -4.641 ms
Remote clock offset: -4.174 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 31.210 ms
Loss rate: 0.00%
```

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

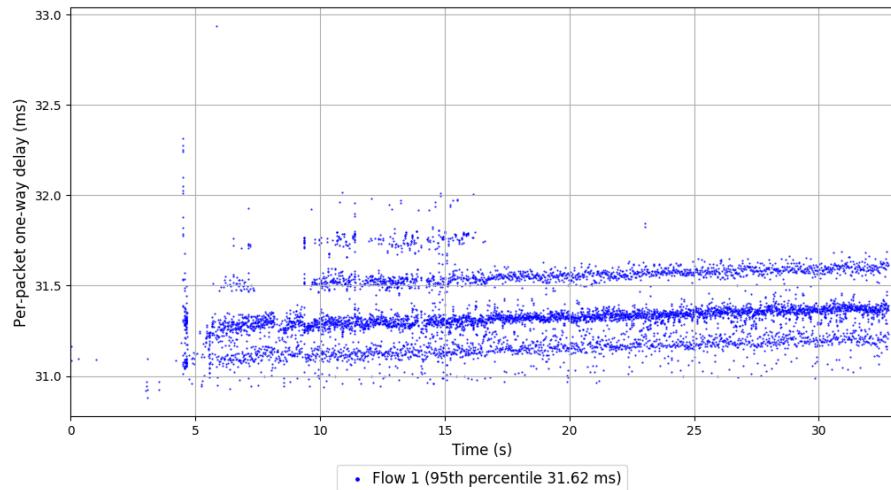
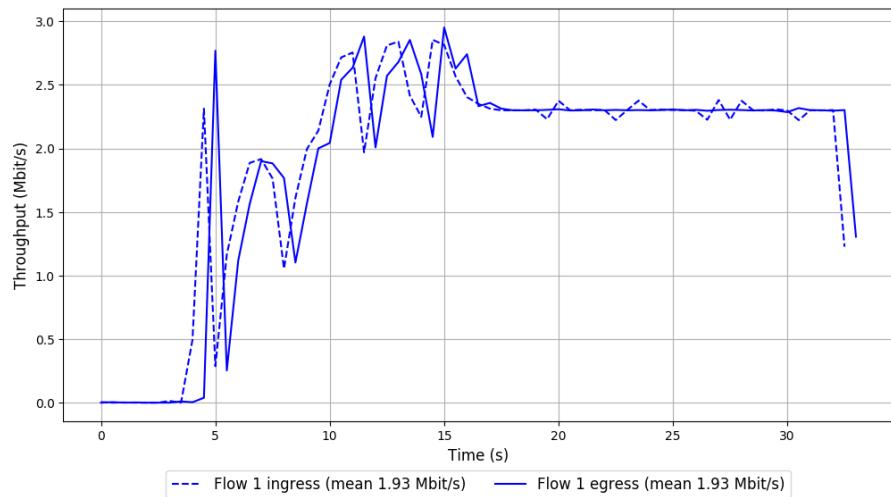


Run 4: Statistics of WebRTC media

```
Start at: 2018-10-02 08:25:19
End at: 2018-10-02 08:25:49
Local clock offset: -1.481 ms
Remote clock offset: -3.516 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.618 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.618 ms
Loss rate: 0.00%
```

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



Run 5: Statistics of WebRTC media

```
Start at: 2018-10-02 08:48:52
End at: 2018-10-02 08:49:22
Local clock offset: 1.903 ms
Remote clock offset: -3.849 ms

# Below is generated by plot.py at 2018-10-02 09:18:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 31.555 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

