

Pantheon Report

Generated at 2019-01-02 21:34:19 (UTC).
Data path: AWS Korea on `ens5` (*local*) → China on `eno1` (*remote*).
Repeated the test of 19 congestion control schemes 5 times.
Each test lasted for 30 seconds running 1 flow.
NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

System info:

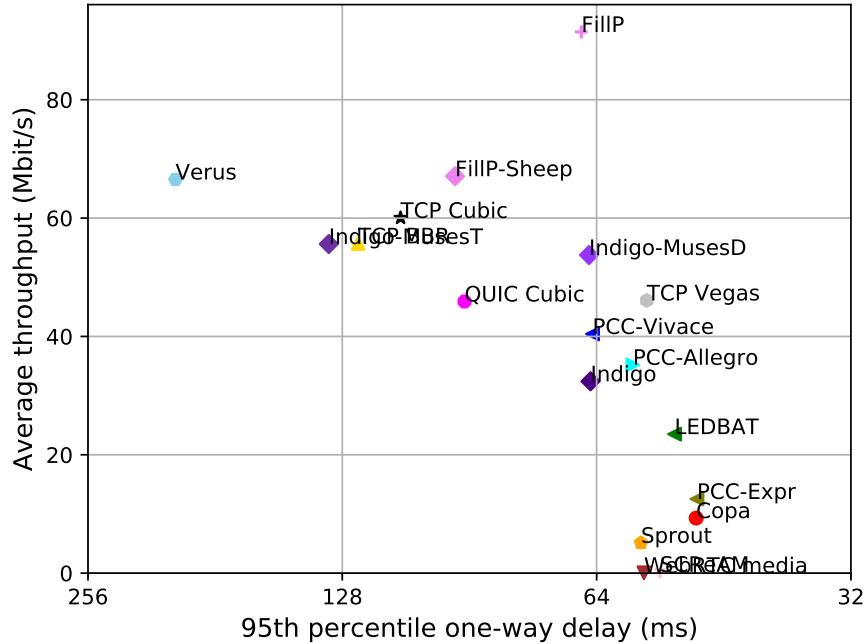
```
Linux 4.15.0-1029-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

Git summary:

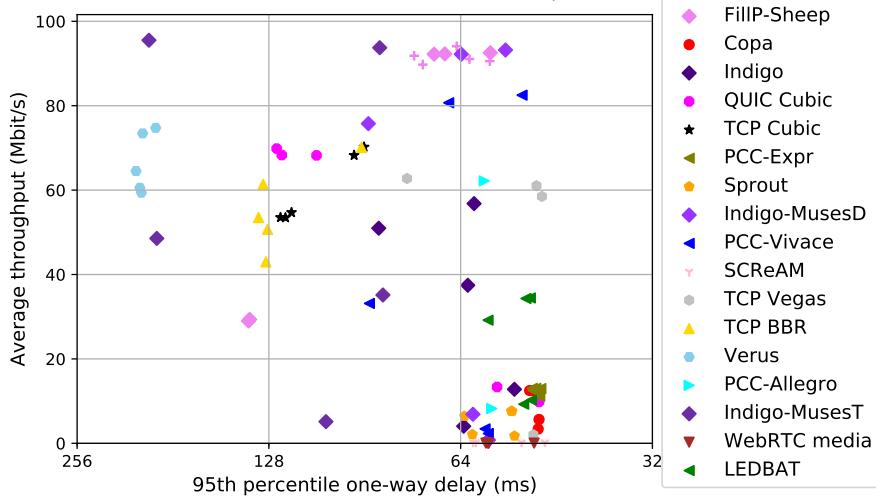
```
branch: muses @ c654af0b7d59d4ef4b914cfac404e1fc2e96dc68
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fc45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d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

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

test from AWS Korea to China, 5 runs of 30s each per scheme
(mean of all runs by scheme)



test from AWS Korea to China, 5 runs of 30s each per scheme



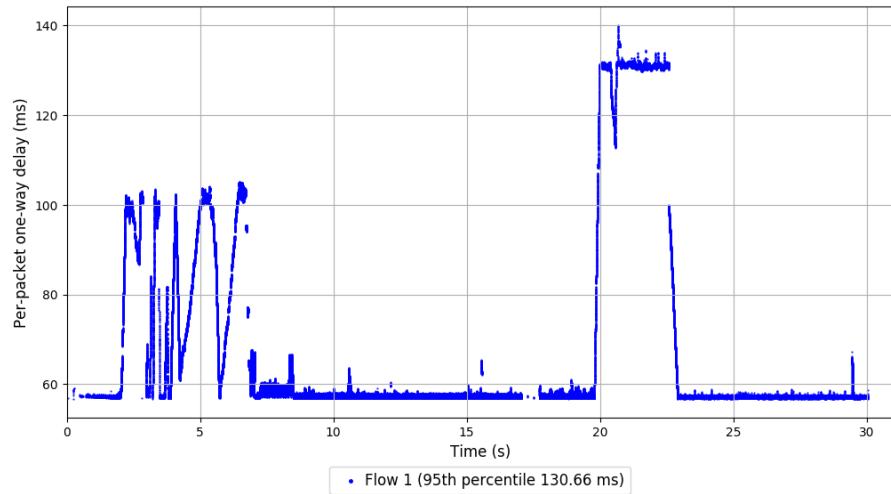
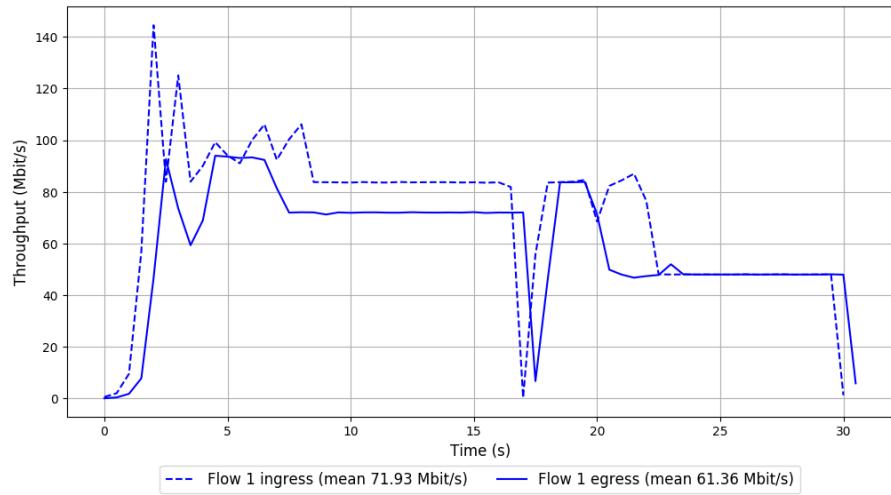
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	55.73	122.61	9.62
Copa	5	9.30	48.79	36.65
TCP Cubic	5	60.03	109.21	1.01
FillP	5	91.46	66.72	0.96
FillP-Sheep	5	67.08	94.14	1.96
Indigo	5	32.41	65.08	0.17
Indigo-MusesD	5	53.76	65.34	0.02
Indigo-MusesT	5	55.62	132.80	5.28
LEDBAT	5	23.49	51.76	0.01
PCC-Allegro	2	35.20	57.98	1.07
PCC-Expr	5	12.54	48.69	34.66
QUIC Cubic	5	45.91	91.73	0.01
SCReAM	5	0.22	53.86	0.00
Sprout	5	5.11	56.71	0.00
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	4	46.09	55.82	0.53
Verus	5	66.52	201.70	33.53
PCC-Vivace	5	40.42	64.72	0.01
WebRTC media	5	0.05	56.26	0.00

Run 1: Statistics of TCP BBR

```
Start at: 2019-01-02 19:46:11
End at: 2019-01-02 19:46:41
Local clock offset: -8.603 ms
Remote clock offset: 42.075 ms

# Below is generated by plot.py at 2019-01-02 21:29:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.36 Mbit/s
95th percentile per-packet one-way delay: 130.656 ms
Loss rate: 14.72%
-- Flow 1:
Average throughput: 61.36 Mbit/s
95th percentile per-packet one-way delay: 130.656 ms
Loss rate: 14.72%
```

Run 1: Report of TCP BBR — Data Link

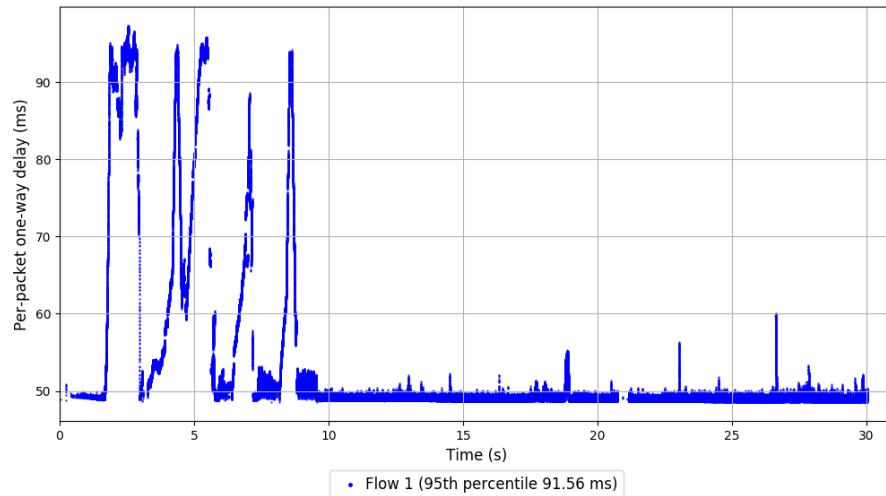
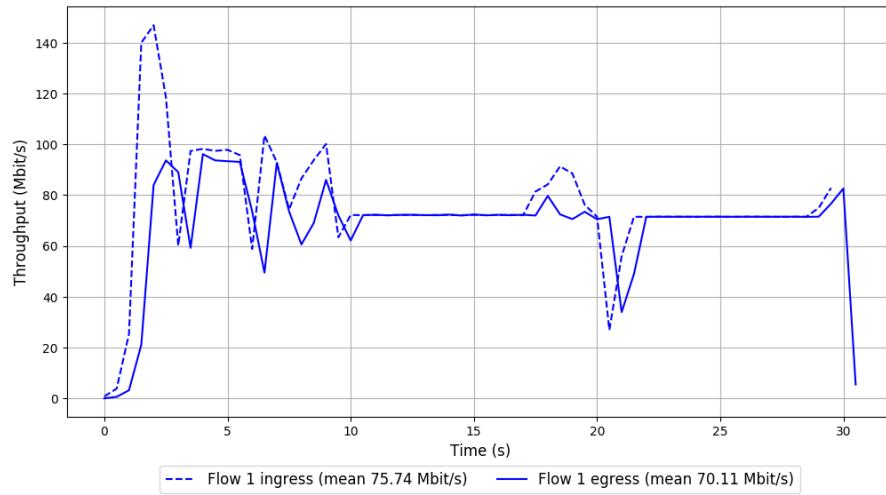


Run 2: Statistics of TCP BBR

```
Start at: 2019-01-02 20:11:39
End at: 2019-01-02 20:12:09
Local clock offset: 2.907 ms
Remote clock offset: 51.971 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 91.561 ms
Loss rate: 7.43%
-- Flow 1:
Average throughput: 70.11 Mbit/s
95th percentile per-packet one-way delay: 91.561 ms
Loss rate: 7.43%
```

Run 2: Report of TCP BBR — Data Link

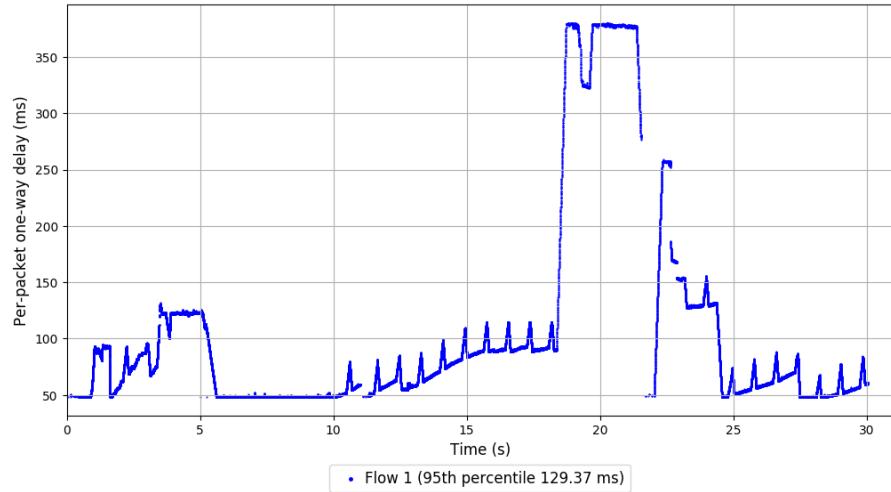
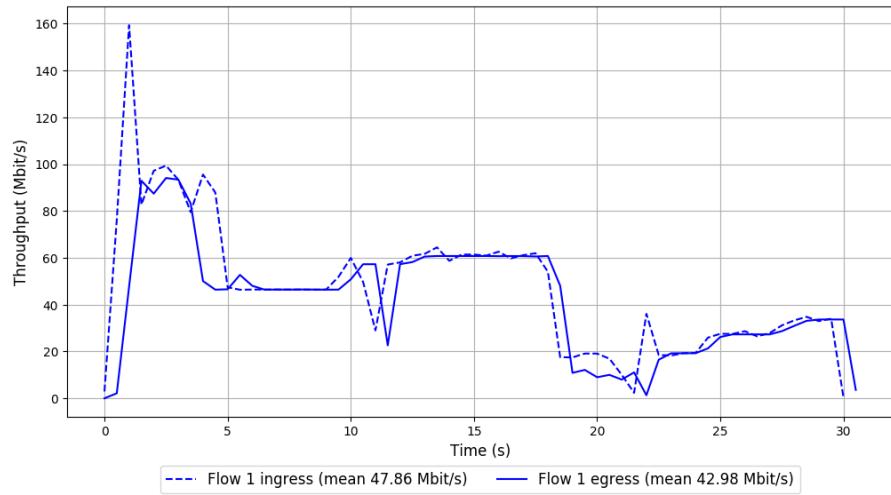


Run 3: Statistics of TCP BBR

```
Start at: 2019-01-02 20:34:54
End at: 2019-01-02 20:35:24
Local clock offset: 2.868 ms
Remote clock offset: 63.273 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.98 Mbit/s
95th percentile per-packet one-way delay: 129.371 ms
Loss rate: 10.18%
-- Flow 1:
Average throughput: 42.98 Mbit/s
95th percentile per-packet one-way delay: 129.371 ms
Loss rate: 10.18%
```

Run 3: Report of TCP BBR — Data Link

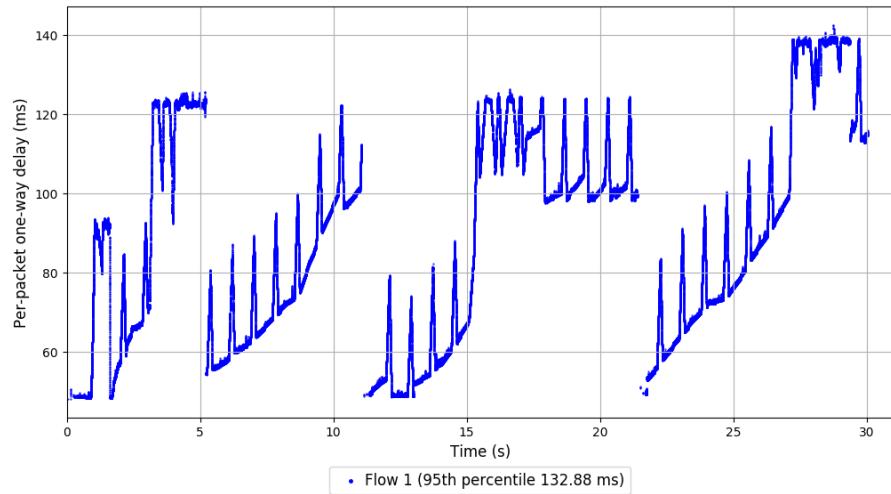
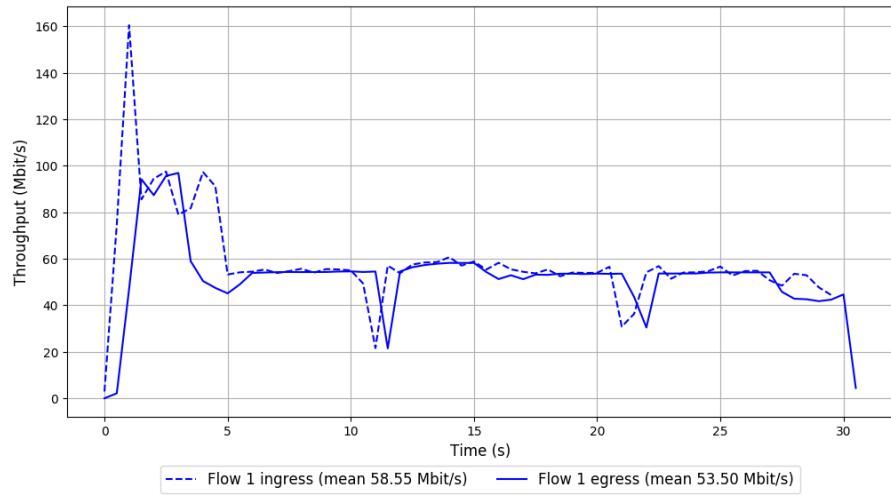


Run 4: Statistics of TCP BBR

```
Start at: 2019-01-02 20:58:45
End at: 2019-01-02 20:59:15
Local clock offset: 5.452 ms
Remote clock offset: 66.218 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.50 Mbit/s
95th percentile per-packet one-way delay: 132.875 ms
Loss rate: 8.62%
-- Flow 1:
Average throughput: 53.50 Mbit/s
95th percentile per-packet one-way delay: 132.875 ms
Loss rate: 8.62%
```

Run 4: Report of TCP BBR — Data Link

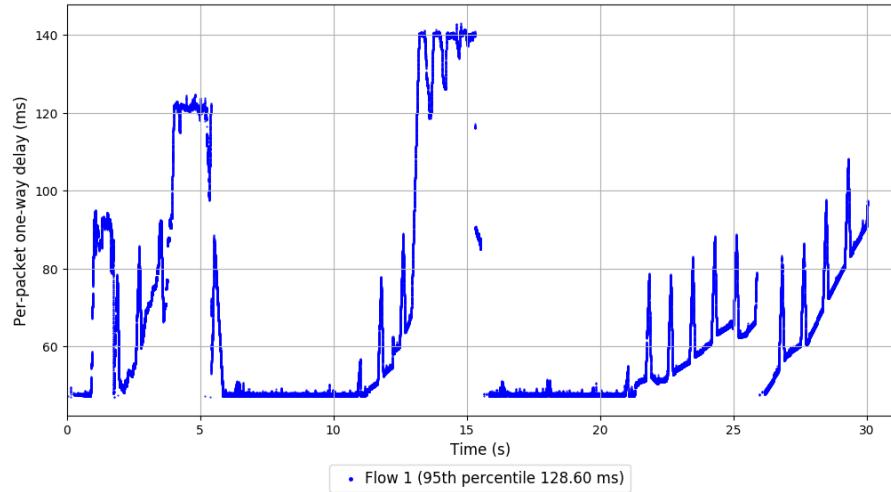
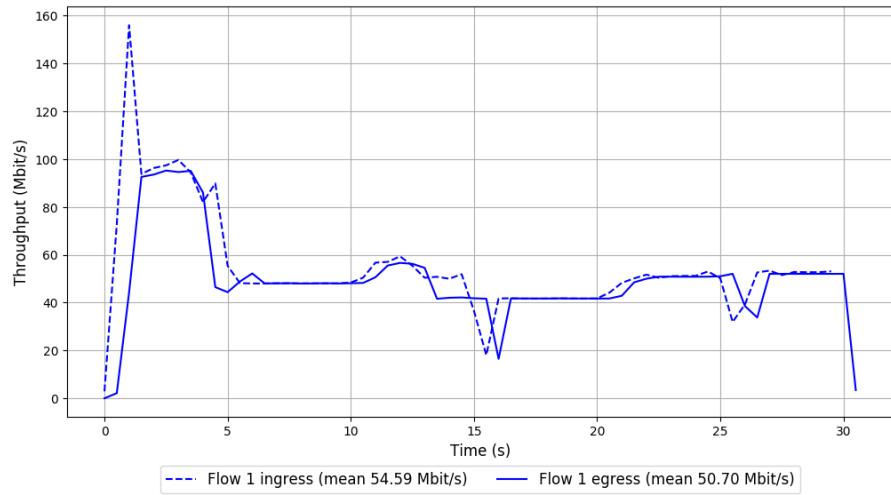


Run 5: Statistics of TCP BBR

```
Start at: 2019-01-02 21:21:44
End at: 2019-01-02 21:22:14
Local clock offset: 12.094 ms
Remote clock offset: 51.977 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.70 Mbit/s
95th percentile per-packet one-way delay: 128.605 ms
Loss rate: 7.13%
-- Flow 1:
Average throughput: 50.70 Mbit/s
95th percentile per-packet one-way delay: 128.605 ms
Loss rate: 7.13%
```

Run 5: Report of TCP BBR — Data Link

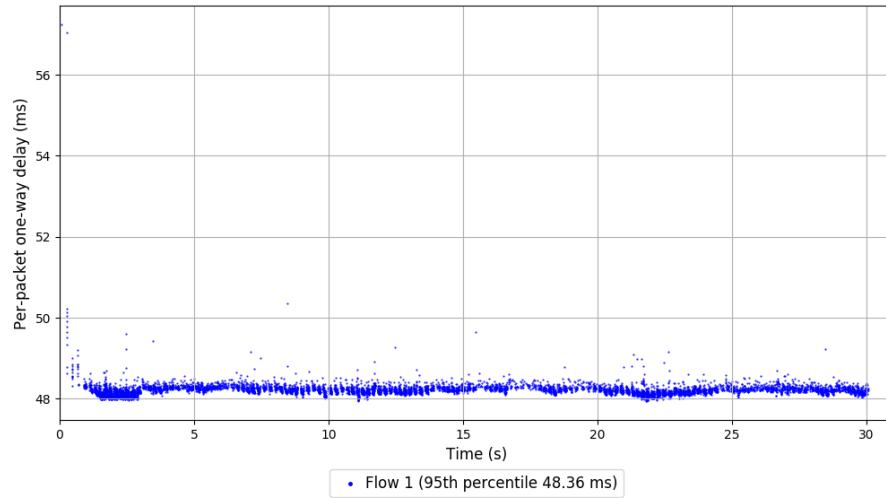
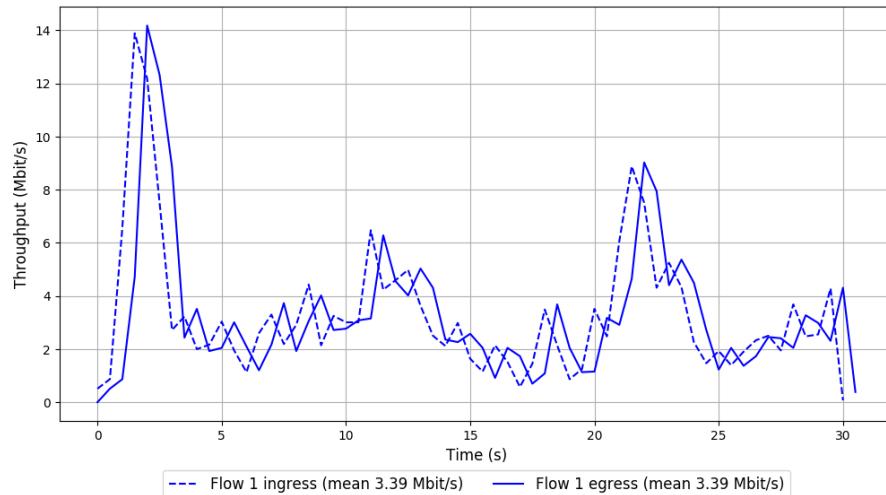


Run 1: Statistics of Copa

```
Start at: 2019-01-02 19:43:34
End at: 2019-01-02 19:44:04
Local clock offset: -8.099 ms
Remote clock offset: 42.431 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 48.360 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 3.39 Mbit/s
95th percentile per-packet one-way delay: 48.360 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link

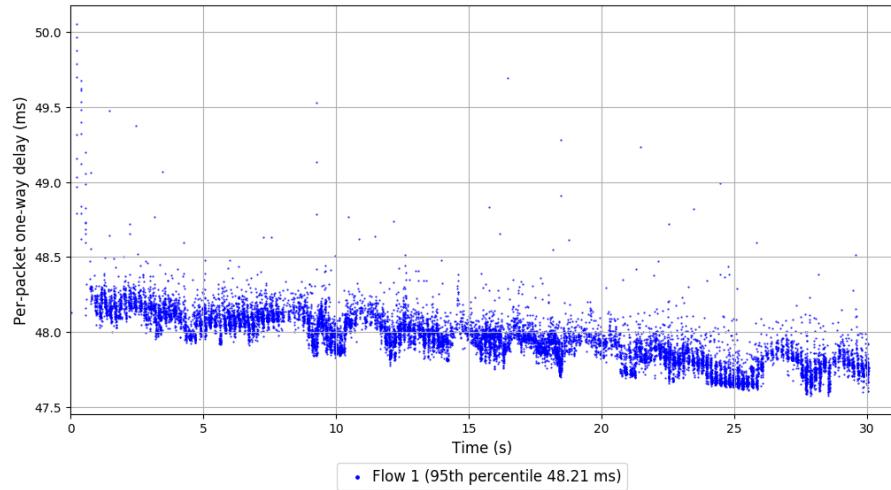
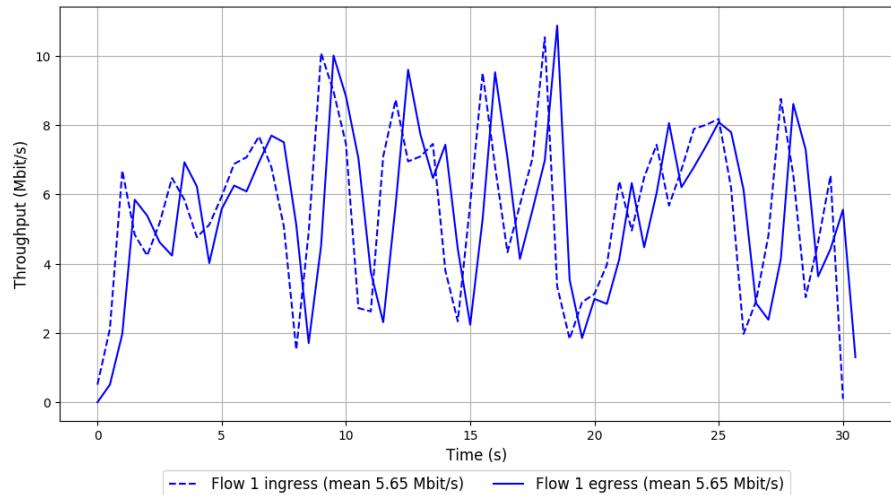


Run 2: Statistics of Copa

```
Start at: 2019-01-02 20:09:16
End at: 2019-01-02 20:09:46
Local clock offset: 2.238 ms
Remote clock offset: 48.874 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 48.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.65 Mbit/s
95th percentile per-packet one-way delay: 48.208 ms
Loss rate: 0.00%
```

Run 2: Report of Copa — Data Link

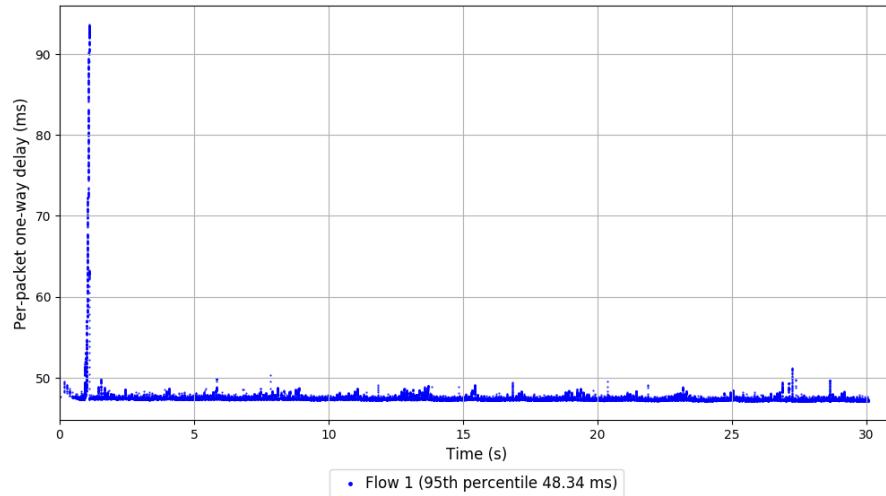
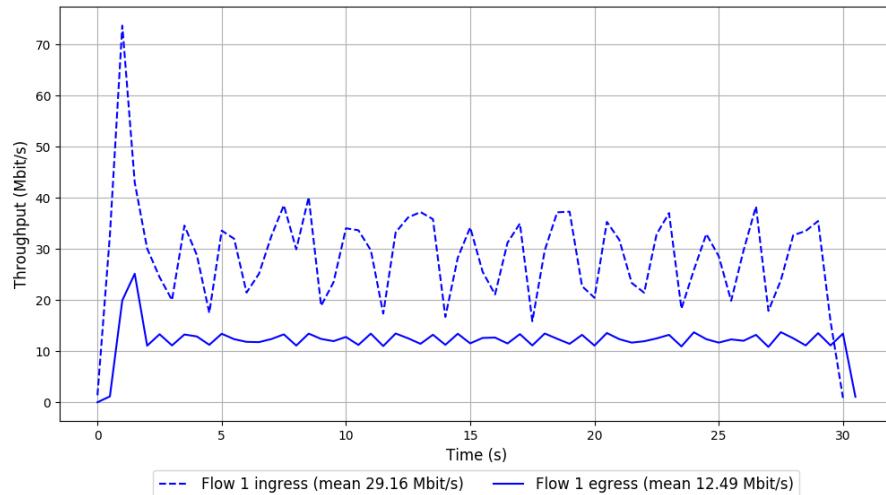


Run 3: Statistics of Copa

```
Start at: 2019-01-02 20:32:36
End at: 2019-01-02 20:33:06
Local clock offset: 3.141 ms
Remote clock offset: 61.625 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 48.339 ms
Loss rate: 57.17%
-- Flow 1:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 48.339 ms
Loss rate: 57.17%
```

Run 3: Report of Copa — Data Link

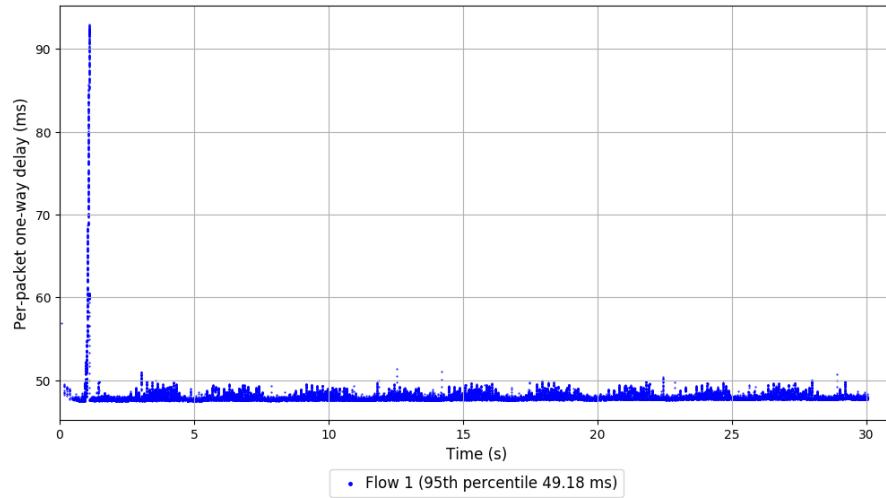
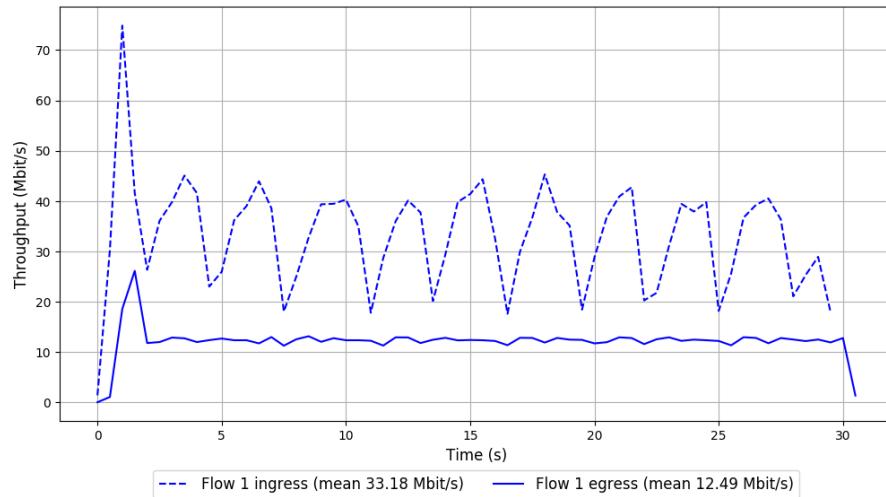


Run 4: Statistics of Copa

```
Start at: 2019-01-02 20:56:22
End at: 2019-01-02 20:56:52
Local clock offset: 4.172 ms
Remote clock offset: 67.602 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 49.177 ms
Loss rate: 62.37%
-- Flow 1:
Average throughput: 12.49 Mbit/s
95th percentile per-packet one-way delay: 49.177 ms
Loss rate: 62.37%
```

Run 4: Report of Copa — Data Link

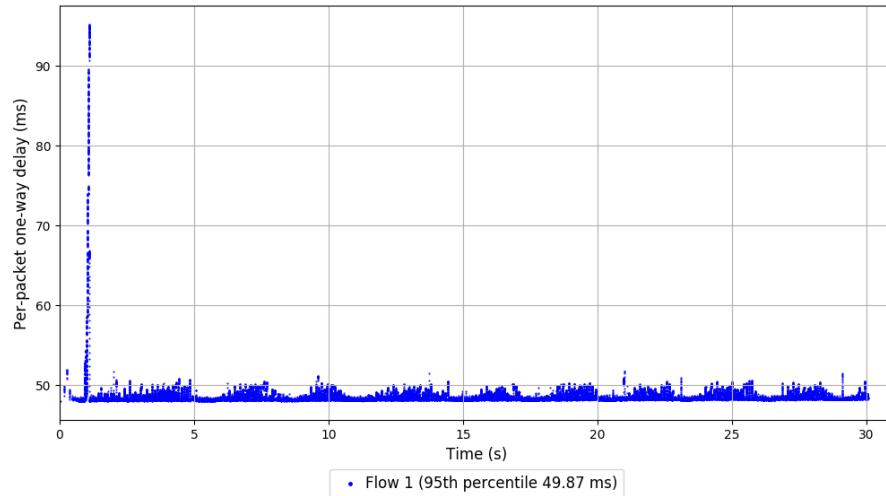
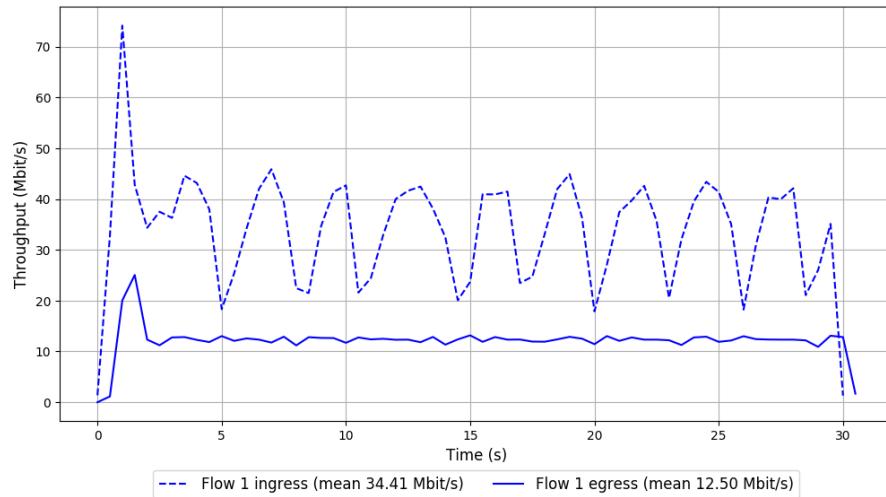


Run 5: Statistics of Copa

```
Start at: 2019-01-02 21:19:21
End at: 2019-01-02 21:19:51
Local clock offset: 11.78 ms
Remote clock offset: 53.12 ms

# Below is generated by plot.py at 2019-01-02 21:29:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 49.867 ms
Loss rate: 63.69%
-- Flow 1:
Average throughput: 12.50 Mbit/s
95th percentile per-packet one-way delay: 49.867 ms
Loss rate: 63.69%
```

Run 5: Report of Copa — Data Link

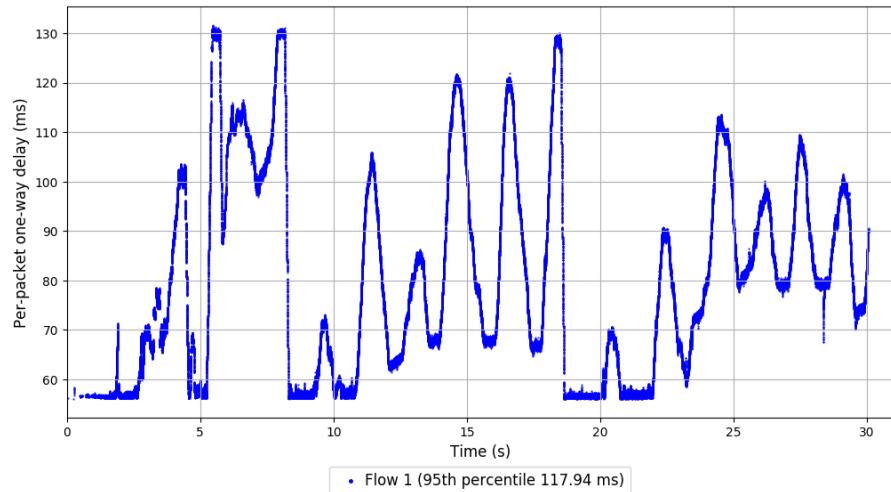
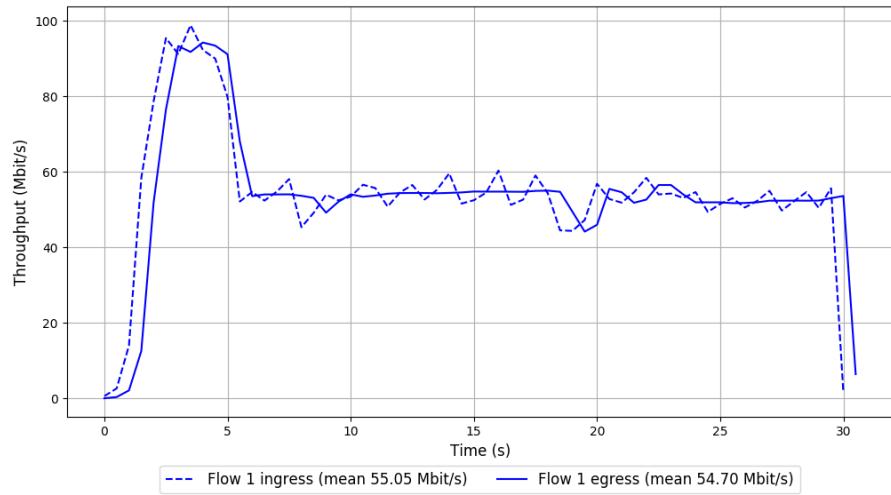


```
Run 1: Statistics of TCP Cubic
```

```
Start at: 2019-01-02 19:49:22
End at: 2019-01-02 19:49:52
Local clock offset: -8.985 ms
Remote clock offset: 41.628 ms

# Below is generated by plot.py at 2019-01-02 21:29:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.70 Mbit/s
95th percentile per-packet one-way delay: 117.944 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 54.70 Mbit/s
95th percentile per-packet one-way delay: 117.944 ms
Loss rate: 0.66%
```

Run 1: Report of TCP Cubic — Data Link

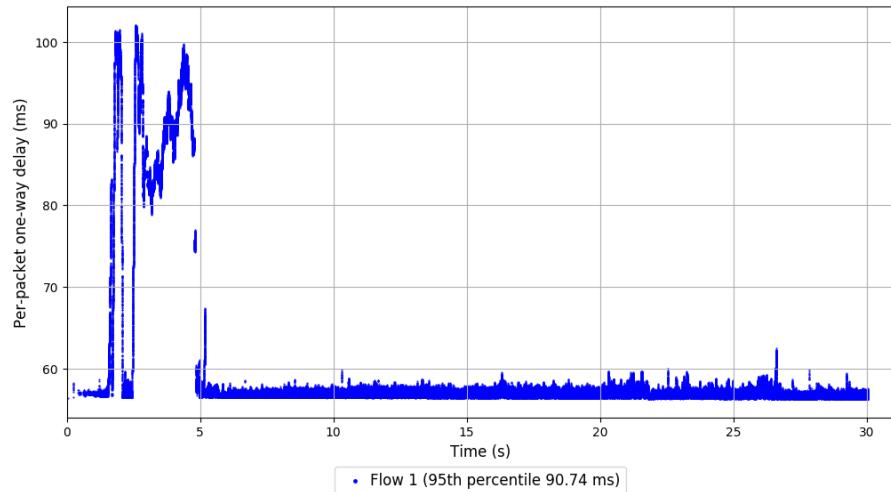
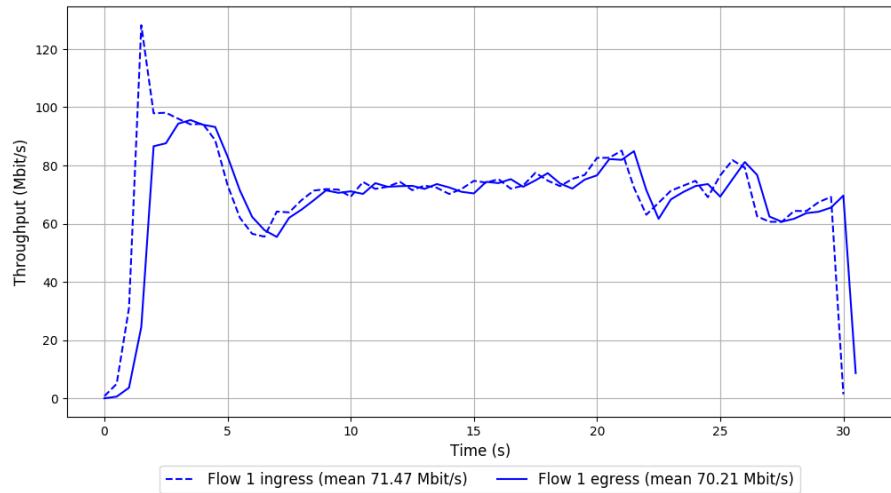


Run 2: Statistics of TCP Cubic

```
Start at: 2019-01-02 20:14:13
End at: 2019-01-02 20:14:43
Local clock offset: 3.851 ms
Remote clock offset: 52.769 ms

# Below is generated by plot.py at 2019-01-02 21:29:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.21 Mbit/s
95th percentile per-packet one-way delay: 90.742 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 70.21 Mbit/s
95th percentile per-packet one-way delay: 90.742 ms
Loss rate: 1.79%
```

Run 2: Report of TCP Cubic — Data Link

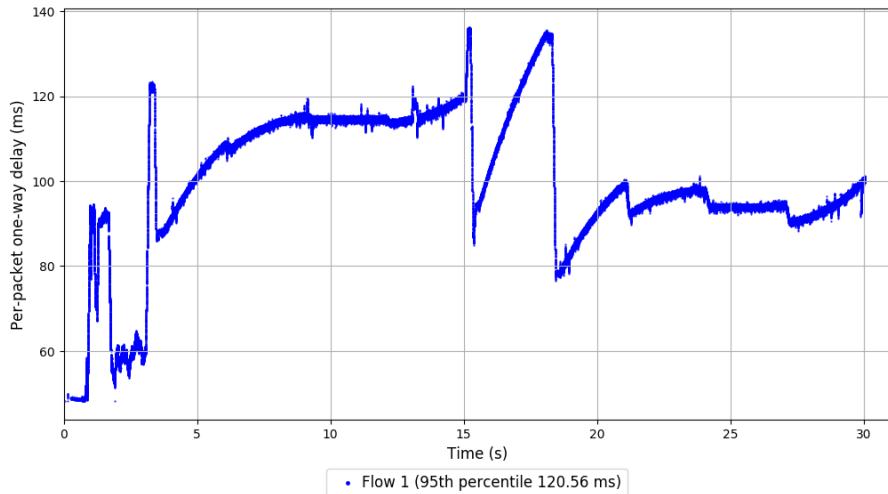
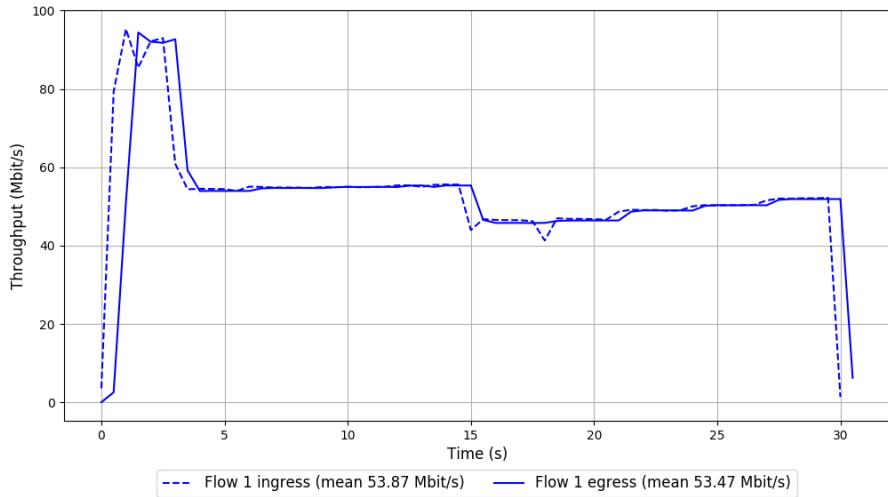


Run 3: Statistics of TCP Cubic

```
Start at: 2019-01-02 20:37:12
End at: 2019-01-02 20:37:42
Local clock offset: 3.017 ms
Remote clock offset: 64.098 ms

# Below is generated by plot.py at 2019-01-02 21:29:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 120.557 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 53.47 Mbit/s
95th percentile per-packet one-way delay: 120.557 ms
Loss rate: 0.74%
```

Run 3: Report of TCP Cubic — Data Link

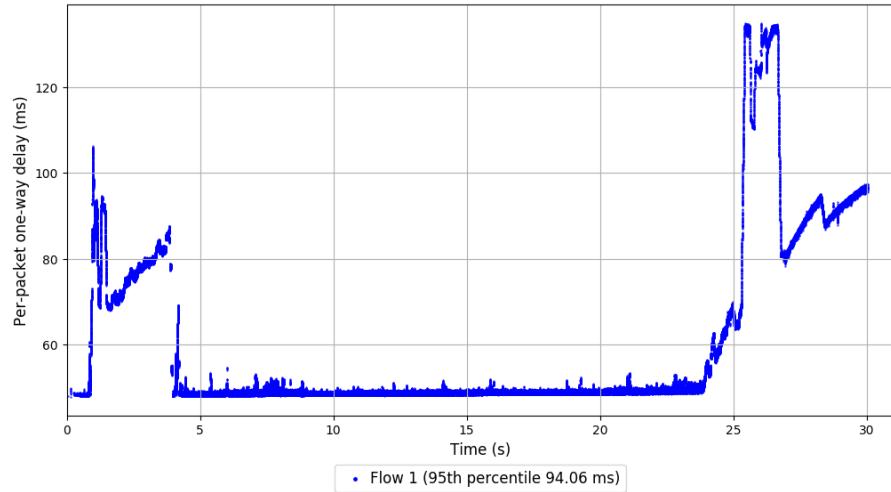
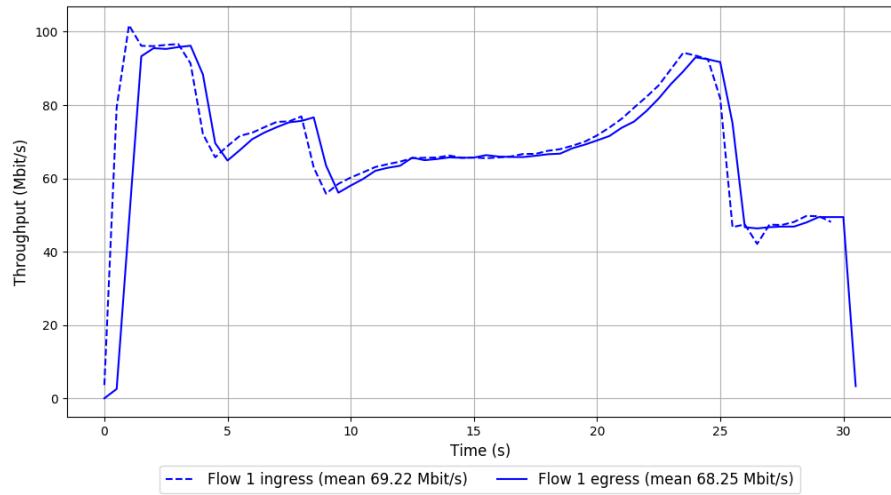


Run 4: Statistics of TCP Cubic

```
Start at: 2019-01-02 21:01:05
End at: 2019-01-02 21:01:35
Local clock offset: 6.871 ms
Remote clock offset: 62.744 ms

# Below is generated by plot.py at 2019-01-02 21:29:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.25 Mbit/s
95th percentile per-packet one-way delay: 94.061 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 68.25 Mbit/s
95th percentile per-packet one-way delay: 94.061 ms
Loss rate: 1.40%
```

Run 4: Report of TCP Cubic — Data Link

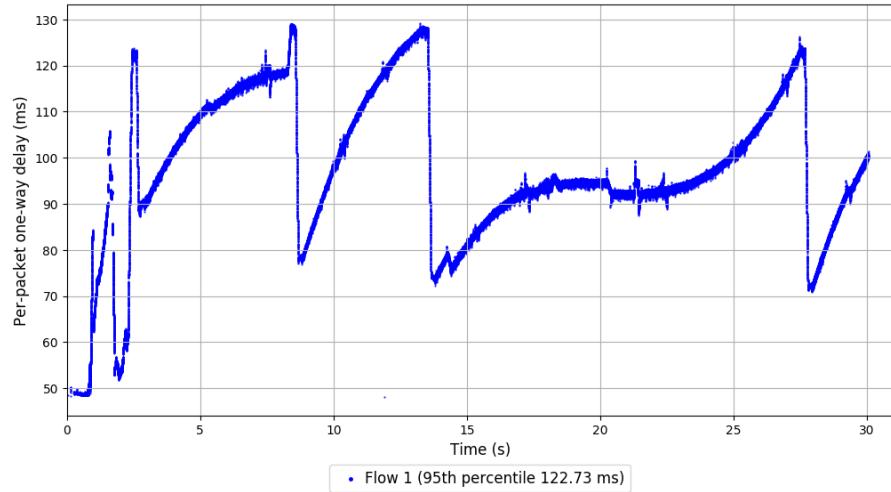
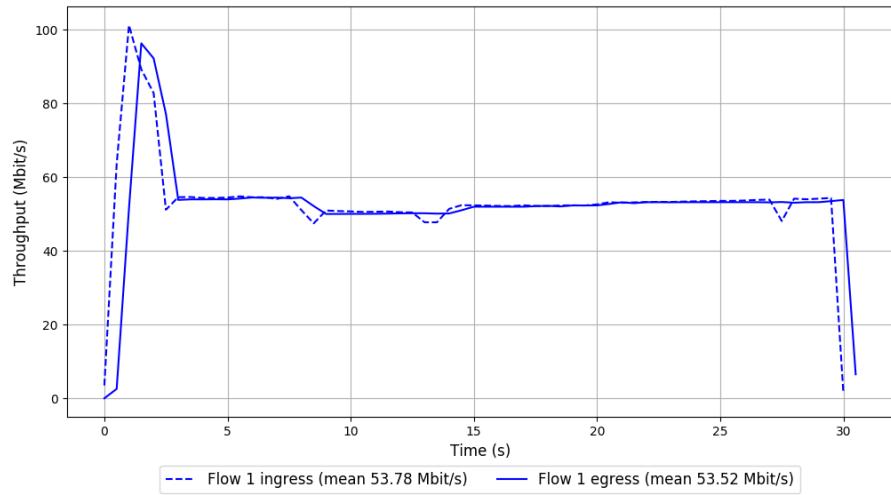


Run 5: Statistics of TCP Cubic

```
Start at: 2019-01-02 21:24:04
End at: 2019-01-02 21:24:34
Local clock offset: 12.716 ms
Remote clock offset: 53.064 ms

# Below is generated by plot.py at 2019-01-02 21:29:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.52 Mbit/s
95th percentile per-packet one-way delay: 122.726 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 53.52 Mbit/s
95th percentile per-packet one-way delay: 122.726 ms
Loss rate: 0.48%
```

Run 5: Report of TCP Cubic — Data Link

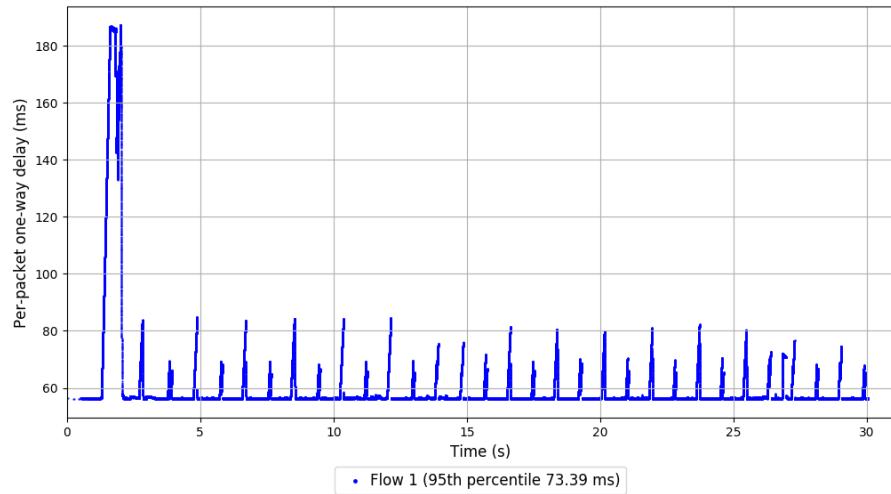
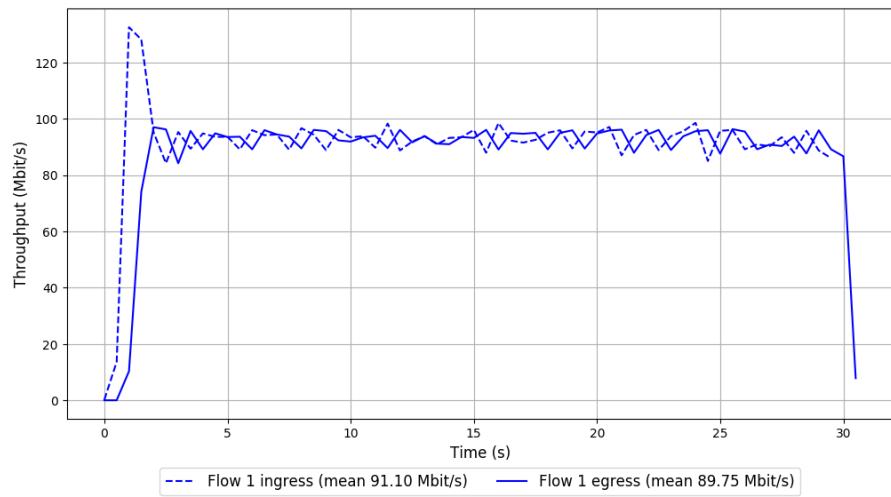


```
Run 1: Statistics of FillP
```

```
Start at: 2019-01-02 19:51:22
End at: 2019-01-02 19:51:52
Local clock offset: -9.197 ms
Remote clock offset: 41.842 ms

# Below is generated by plot.py at 2019-01-02 21:30:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 73.385 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 89.75 Mbit/s
95th percentile per-packet one-way delay: 73.385 ms
Loss rate: 1.51%
```

Run 1: Report of FillP — Data Link

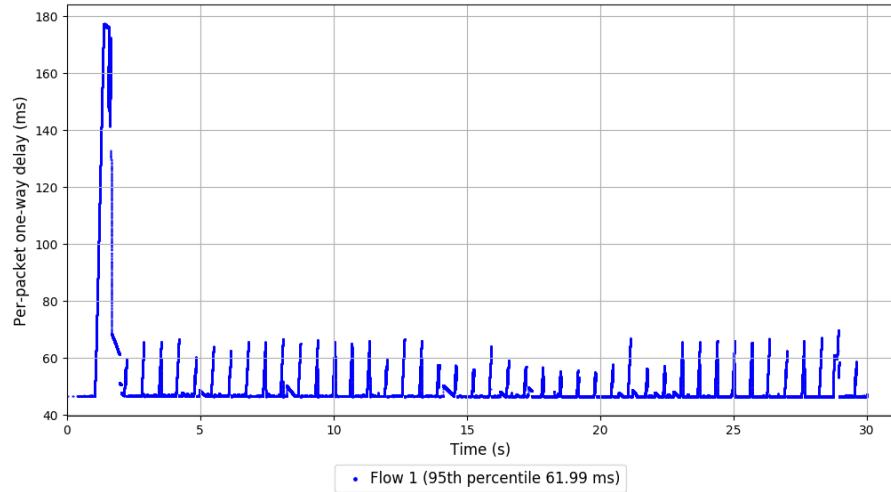
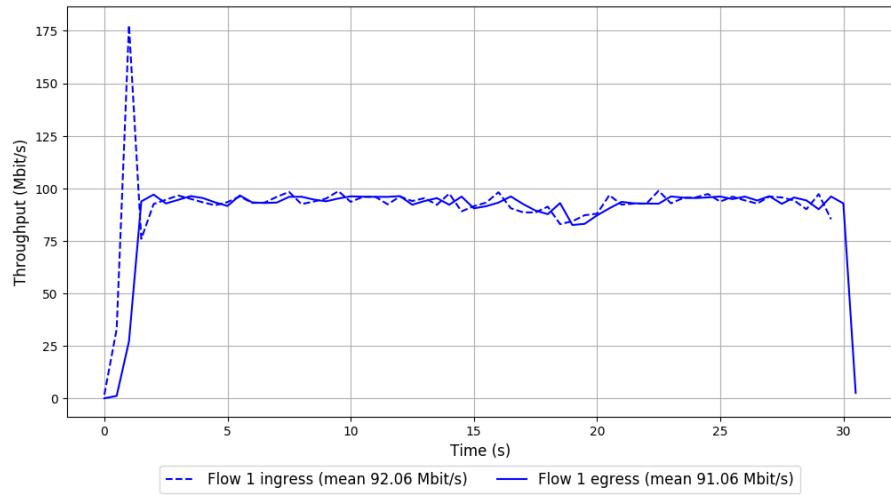


Run 2: Statistics of FillP

```
Start at: 2019-01-02 20:15:27
End at: 2019-01-02 20:15:57
Local clock offset: 4.112 ms
Remote clock offset: 53.673 ms

# Below is generated by plot.py at 2019-01-02 21:30:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.06 Mbit/s
95th percentile per-packet one-way delay: 61.995 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 91.06 Mbit/s
95th percentile per-packet one-way delay: 61.995 ms
Loss rate: 1.09%
```

Run 2: Report of FillP — Data Link

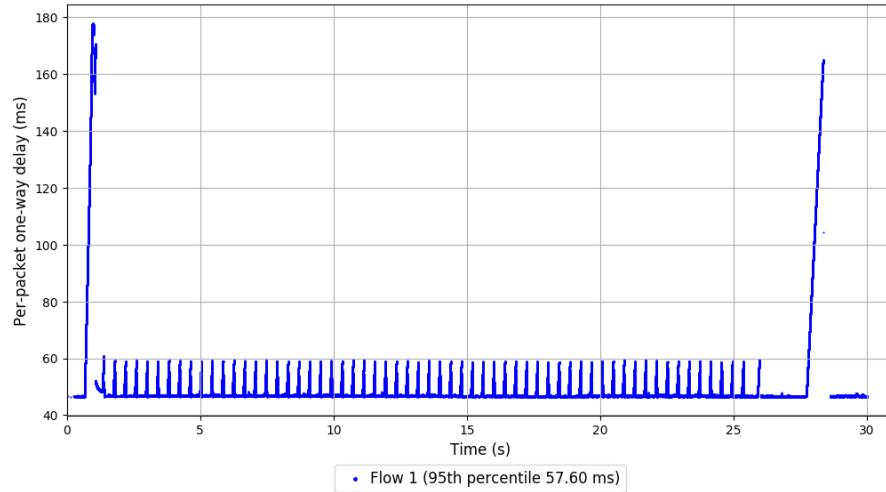
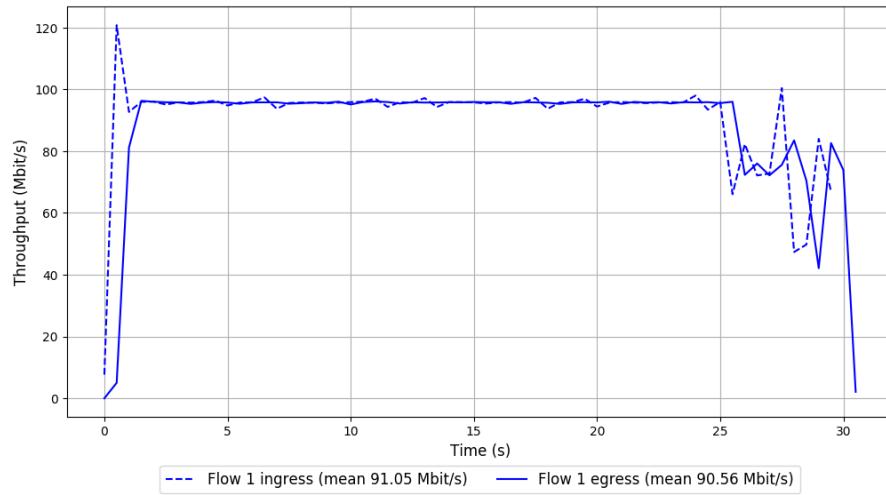


Run 3: Statistics of FillP

```
Start at: 2019-01-02 20:38:23
End at: 2019-01-02 20:38:53
Local clock offset: 2.575 ms
Remote clock offset: 62.96 ms

# Below is generated by plot.py at 2019-01-02 21:30:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 57.597 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 90.56 Mbit/s
95th percentile per-packet one-way delay: 57.597 ms
Loss rate: 0.54%
```

Run 3: Report of FillP — Data Link

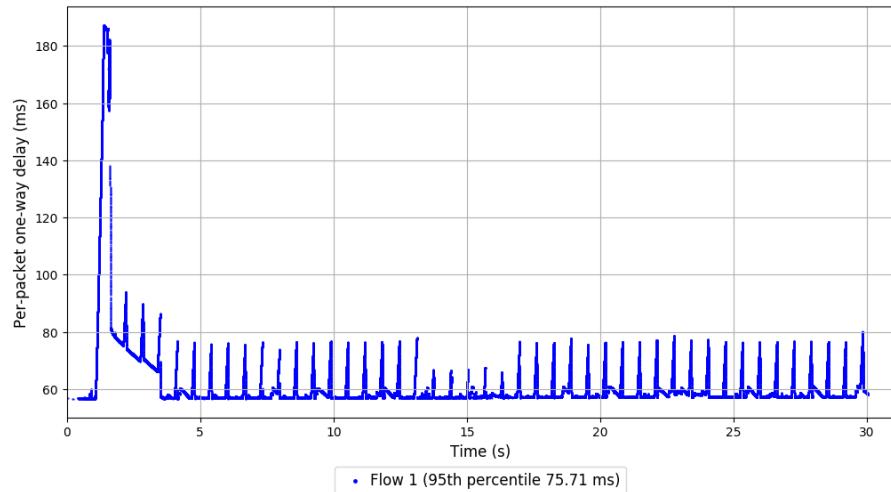
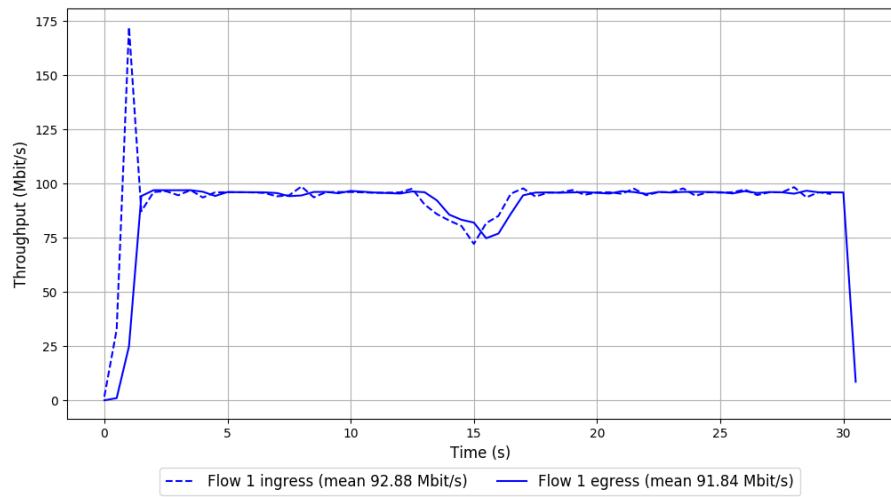


Run 4: Statistics of FillP

```
Start at: 2019-01-02 21:02:17
End at: 2019-01-02 21:02:47
Local clock offset: 7.374 ms
Remote clock offset: 61.105 ms

# Below is generated by plot.py at 2019-01-02 21:30:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 75.708 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 91.84 Mbit/s
95th percentile per-packet one-way delay: 75.708 ms
Loss rate: 1.14%
```

Run 4: Report of FillP — Data Link

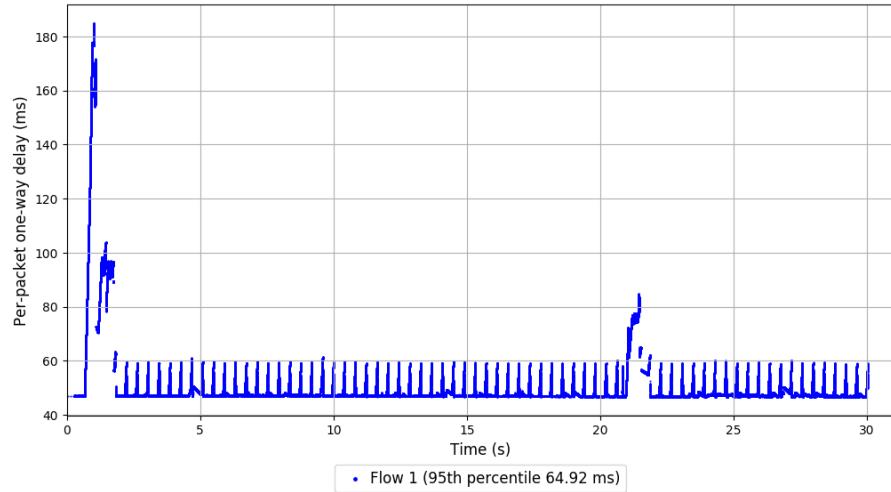
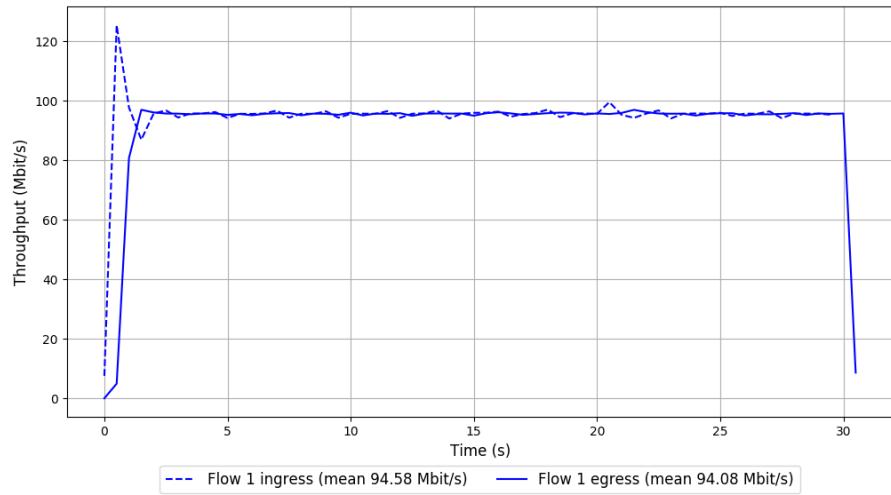


Run 5: Statistics of FillP

```
Start at: 2019-01-02 21:25:15
End at: 2019-01-02 21:25:45
Local clock offset: 11.931 ms
Remote clock offset: 51.683 ms

# Below is generated by plot.py at 2019-01-02 21:30:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.08 Mbit/s
95th percentile per-packet one-way delay: 64.916 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 94.08 Mbit/s
95th percentile per-packet one-way delay: 64.916 ms
Loss rate: 0.53%
```

Run 5: Report of FillP — Data Link

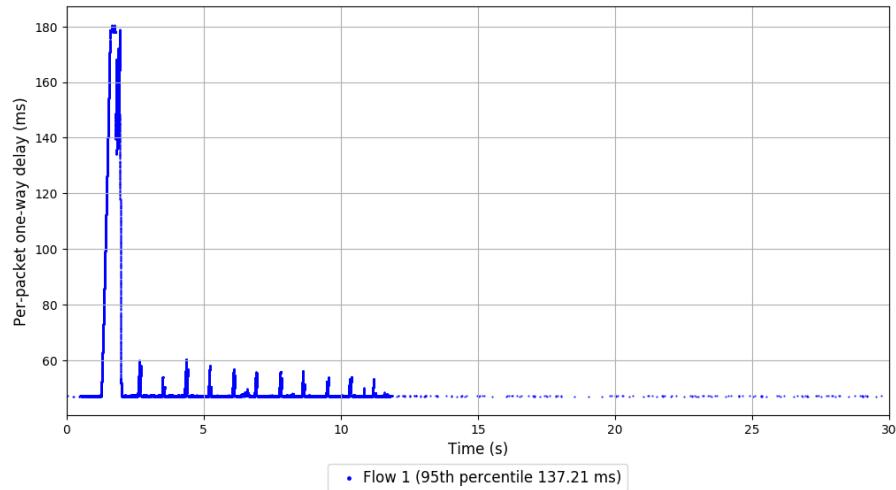
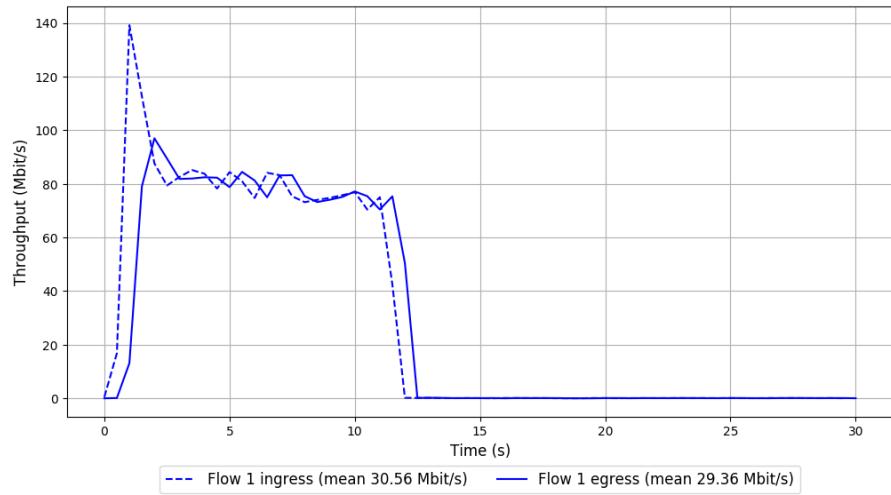


```
Run 1: Statistics of FillP-Sheep
```

```
Start at: 2019-01-02 19:35:49
End at: 2019-01-02 19:36:19
Local clock offset: -7.302 ms
Remote clock offset: 41.746 ms

# Below is generated by plot.py at 2019-01-02 21:30:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 137.210 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 29.36 Mbit/s
95th percentile per-packet one-way delay: 137.210 ms
Loss rate: 3.93%
```

Run 1: Report of FillP-Sheep — Data Link

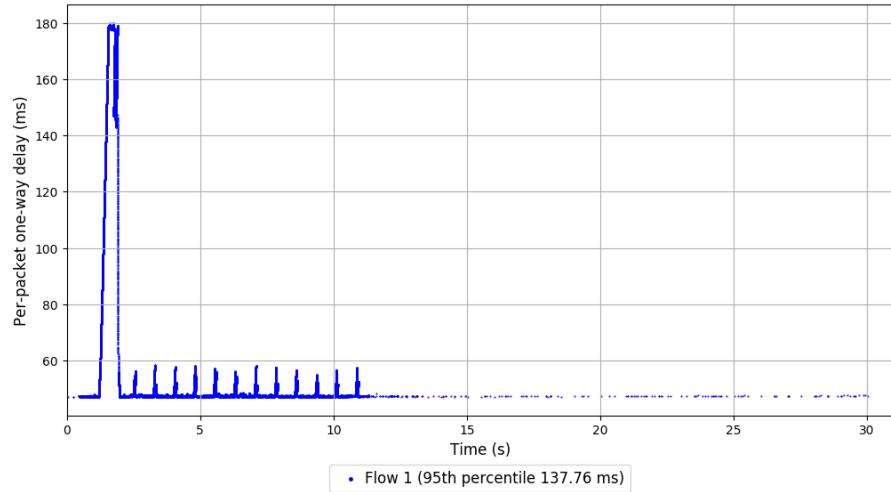
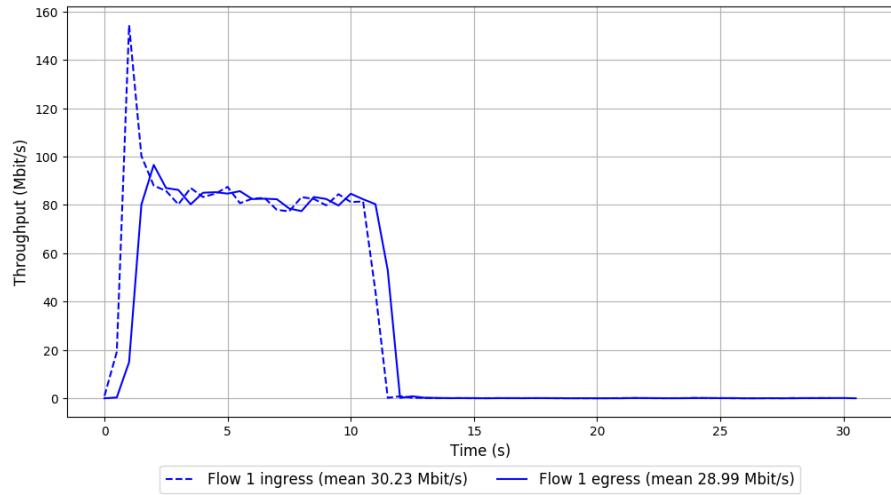


Run 2: Statistics of FillP-Sheep

```
Start at: 2019-01-02 20:03:09
End at: 2019-01-02 20:03:39
Local clock offset: -0.972 ms
Remote clock offset: 41.884 ms

# Below is generated by plot.py at 2019-01-02 21:30:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 137.764 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 28.99 Mbit/s
95th percentile per-packet one-way delay: 137.764 ms
Loss rate: 4.10%
```

Run 2: Report of FillP-Sheep — Data Link

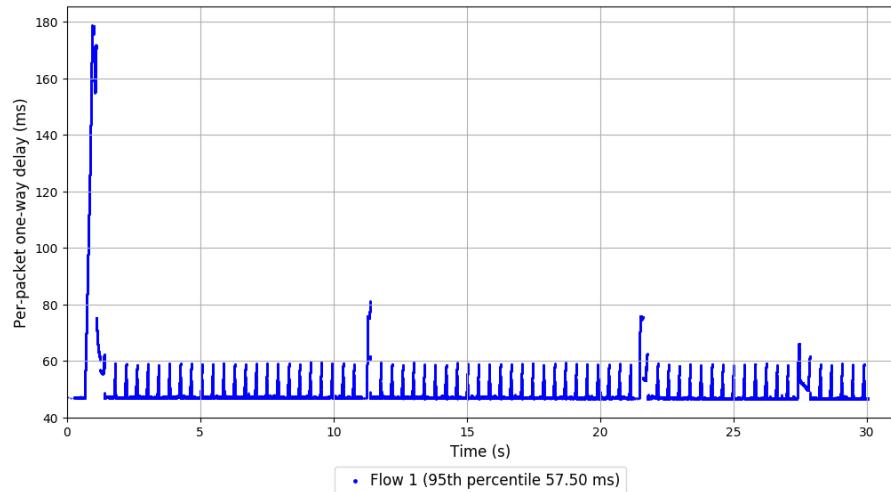
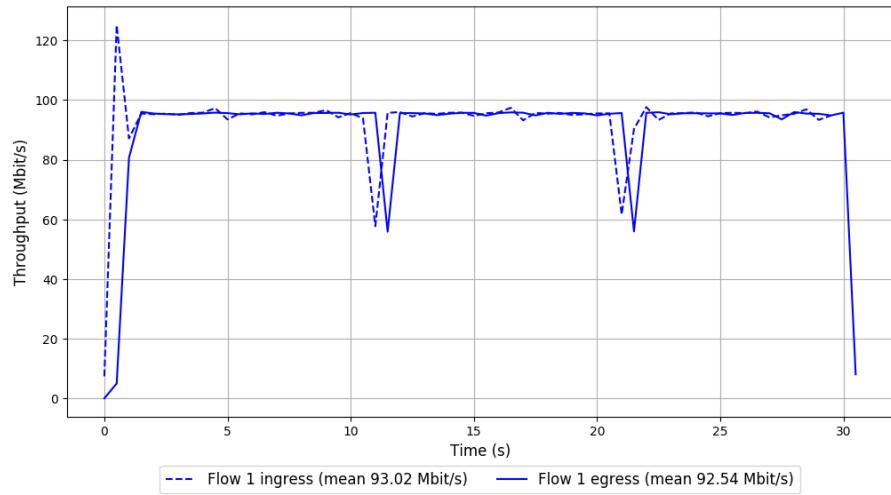


Run 3: Statistics of FillP-Sheep

```
Start at: 2019-01-02 20:26:40
End at: 2019-01-02 20:27:10
Local clock offset: 4.746 ms
Remote clock offset: 59.629 ms

# Below is generated by plot.py at 2019-01-02 21:31:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 57.496 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 92.54 Mbit/s
95th percentile per-packet one-way delay: 57.496 ms
Loss rate: 0.52%
```

Run 3: Report of FillP-Sheep — Data Link

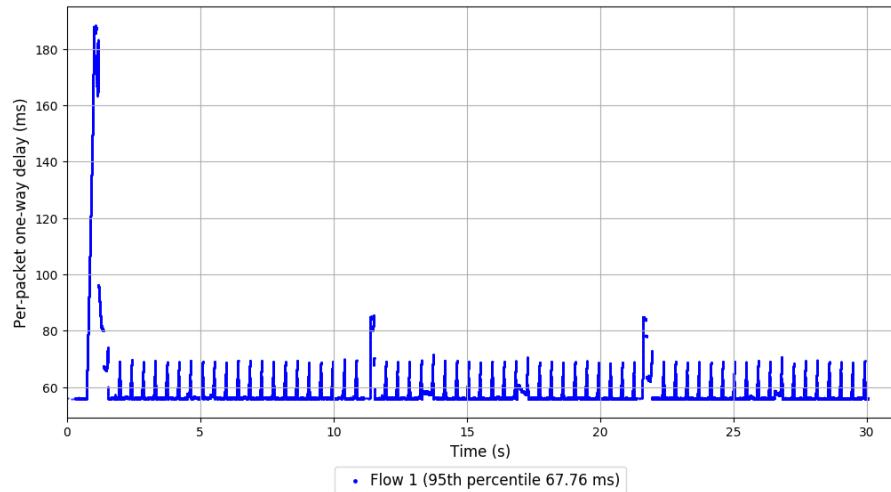
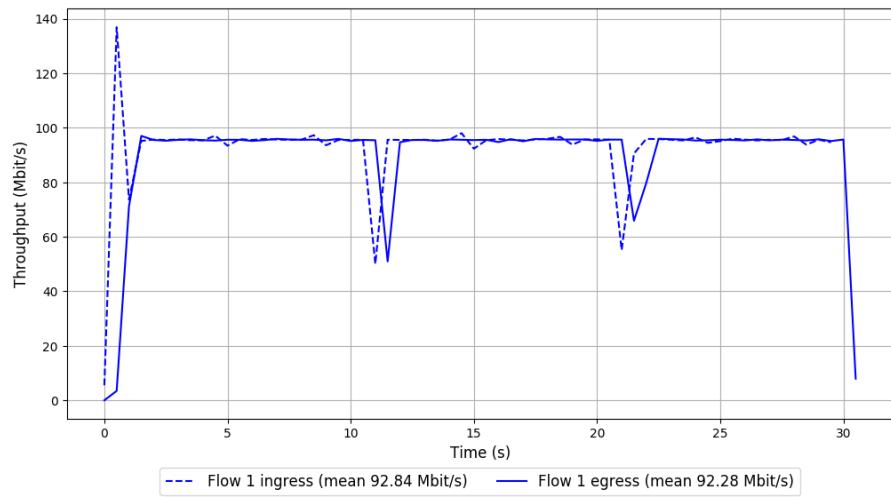


Run 4: Statistics of FillP-Sheep

```
Start at: 2019-01-02 20:50:13
End at: 2019-01-02 20:50:44
Local clock offset: 2.68 ms
Remote clock offset: 65.821 ms

# Below is generated by plot.py at 2019-01-02 21:31:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 67.763 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 92.28 Mbit/s
95th percentile per-packet one-way delay: 67.763 ms
Loss rate: 0.64%
```

Run 4: Report of FillP-Sheep — Data Link

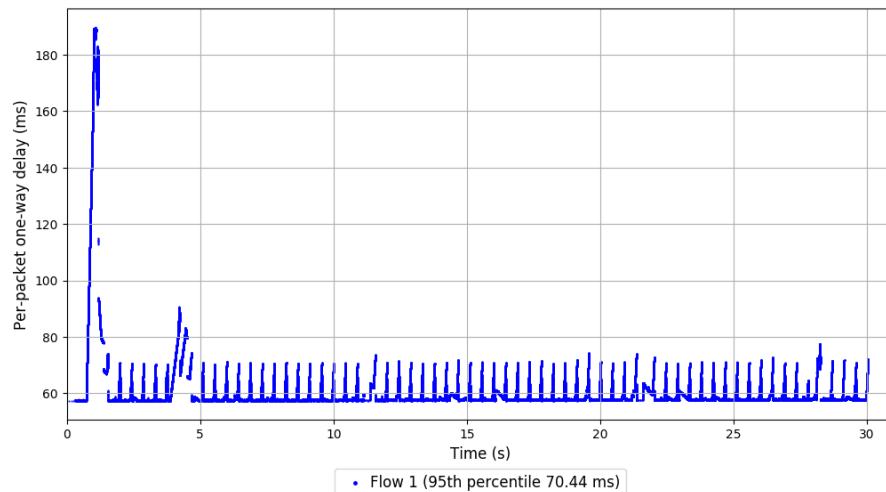
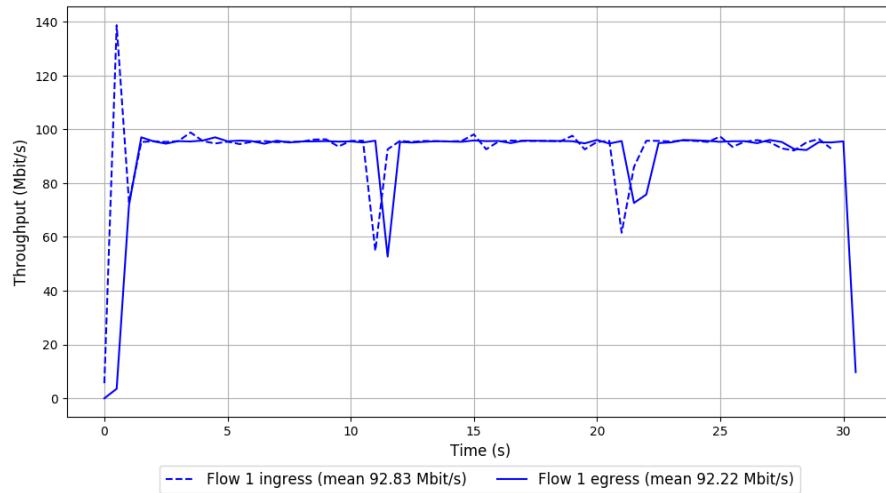


Run 5: Statistics of FillP-Sheep

```
Start at: 2019-01-02 21:12:56
End at: 2019-01-02 21:13:27
Local clock offset: 10.425 ms
Remote clock offset: 54.707 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 70.443 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 92.22 Mbit/s
95th percentile per-packet one-way delay: 70.443 ms
Loss rate: 0.62%
```

Run 5: Report of FillP-Sheep — Data Link

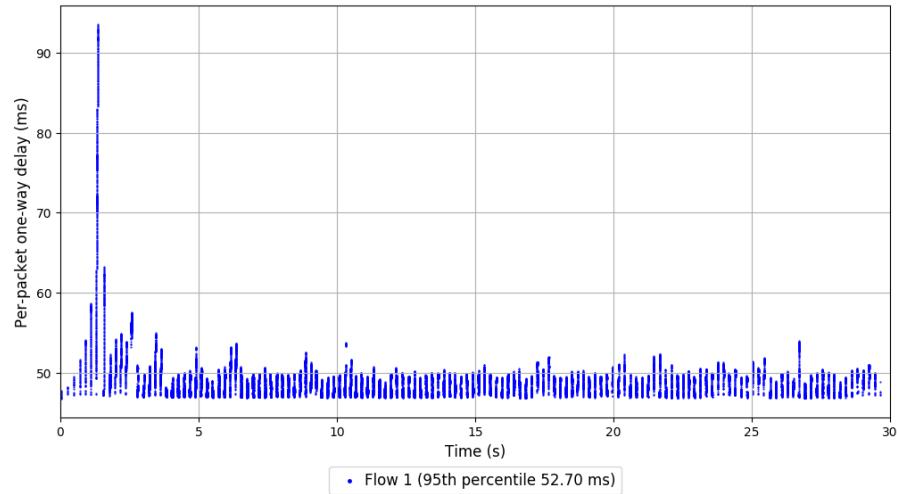
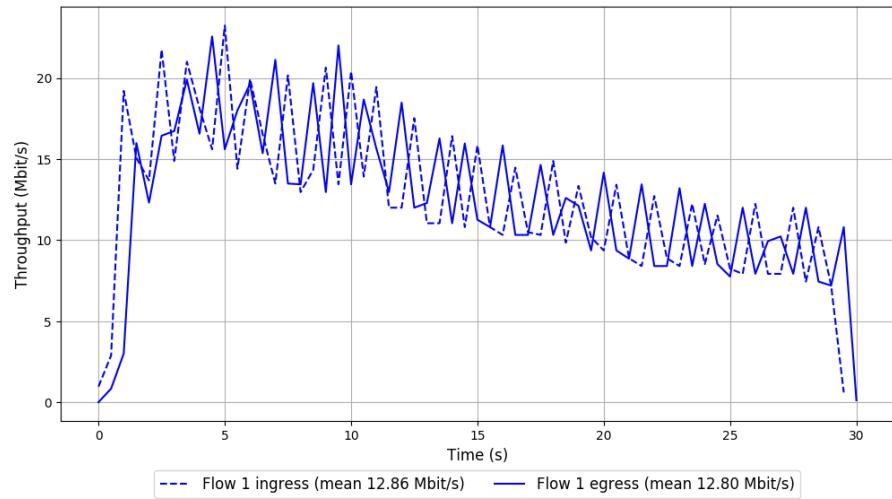


Run 1: Statistics of Indigo

```
Start at: 2019-01-02 19:25:42
End at: 2019-01-02 19:26:12
Local clock offset: -5.772 ms
Remote clock offset: 41.9 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 52.696 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 52.696 ms
Loss rate: 0.49%
```

Run 1: Report of Indigo — Data Link

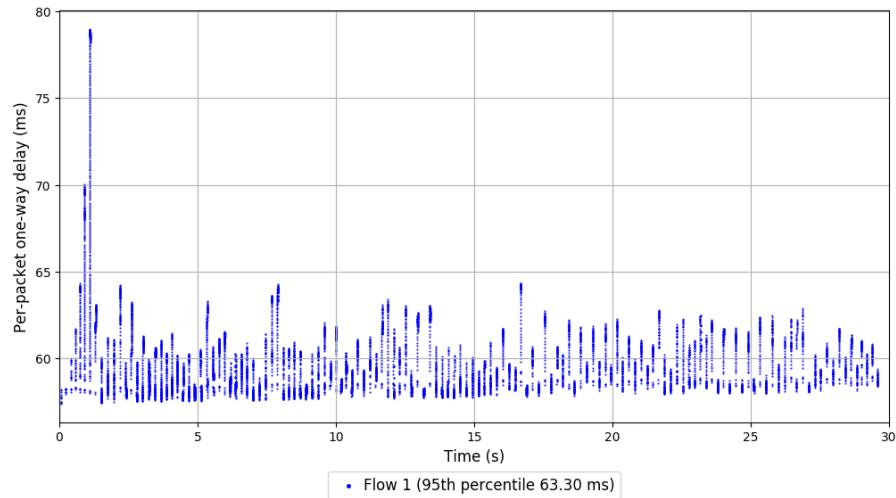
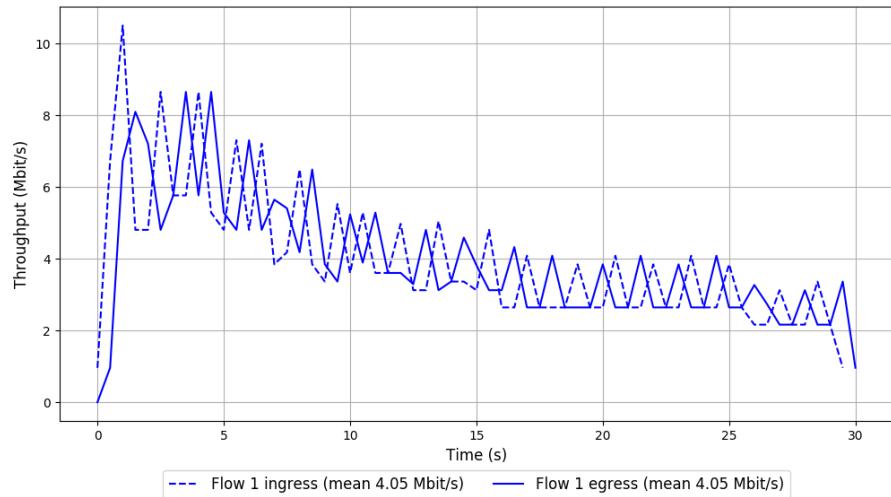


Run 2: Statistics of Indigo

```
Start at: 2019-01-02 19:55:28
End at: 2019-01-02 19:55:58
Local clock offset: -8.489 ms
Remote clock offset: 41.763 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 63.299 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 63.299 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link

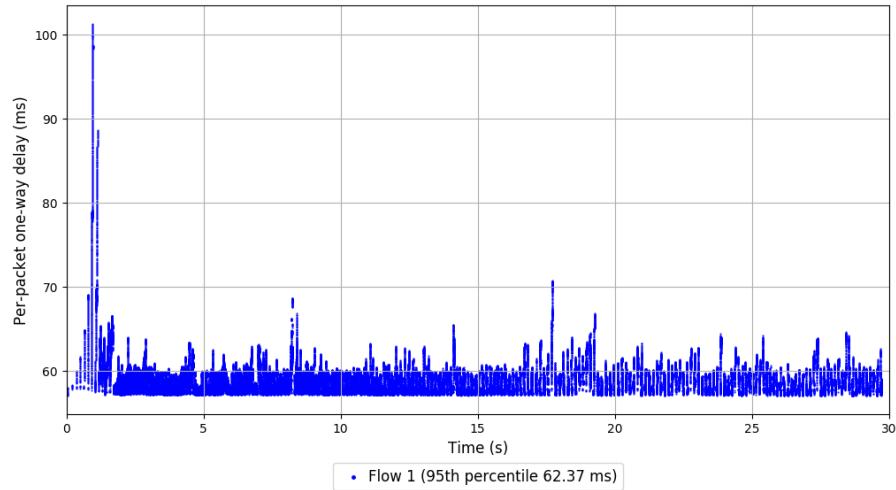
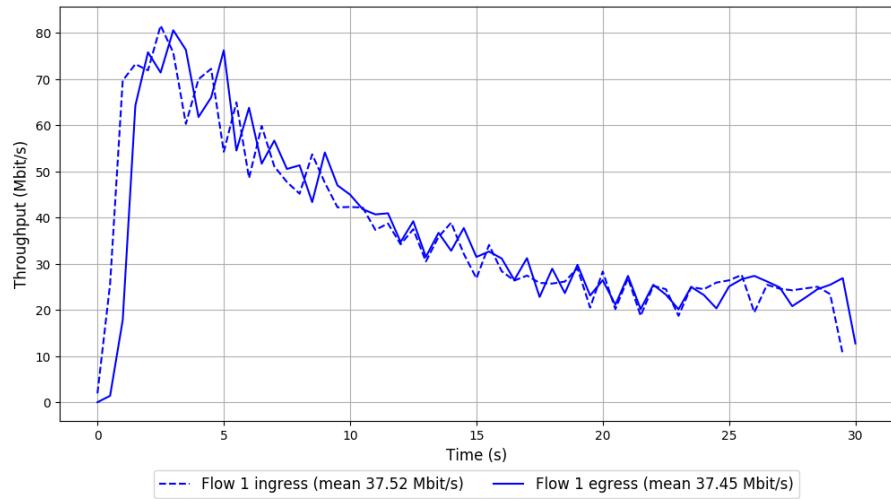


Run 3: Statistics of Indigo

```
Start at: 2019-01-02 20:19:20
End at: 2019-01-02 20:19:50
Local clock offset: 4.994 ms
Remote clock offset: 56.746 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.45 Mbit/s
95th percentile per-packet one-way delay: 62.370 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 37.45 Mbit/s
95th percentile per-packet one-way delay: 62.370 ms
Loss rate: 0.17%
```

Run 3: Report of Indigo — Data Link

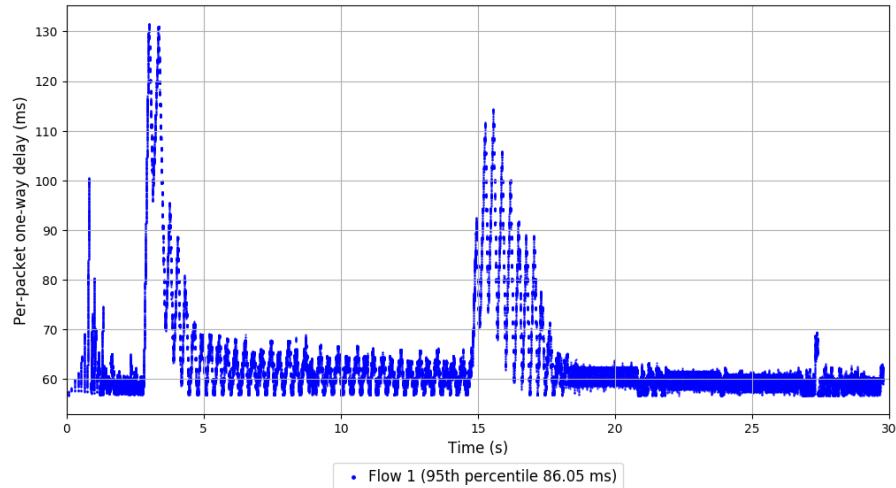
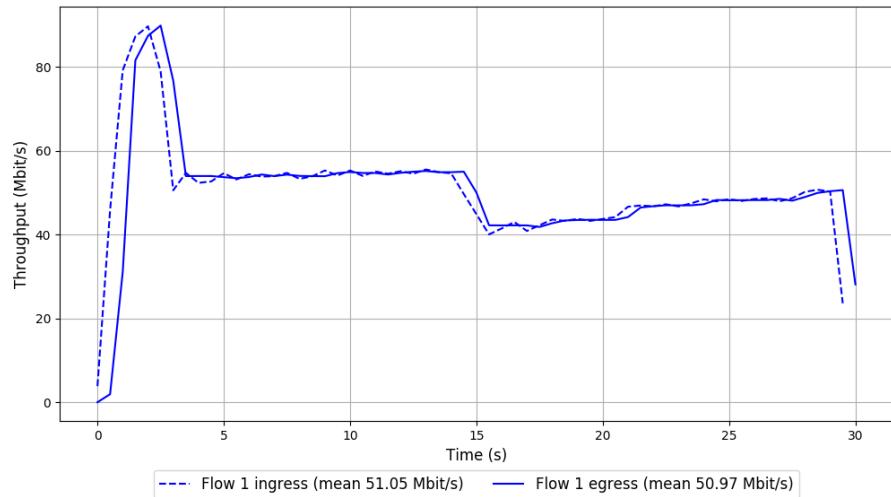


Run 4: Statistics of Indigo

```
Start at: 2019-01-02 20:42:42
End at: 2019-01-02 20:43:12
Local clock offset: 2.492 ms
Remote clock offset: 64.33 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.97 Mbit/s
95th percentile per-packet one-way delay: 86.046 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 50.97 Mbit/s
95th percentile per-packet one-way delay: 86.046 ms
Loss rate: 0.20%
```

Run 4: Report of Indigo — Data Link

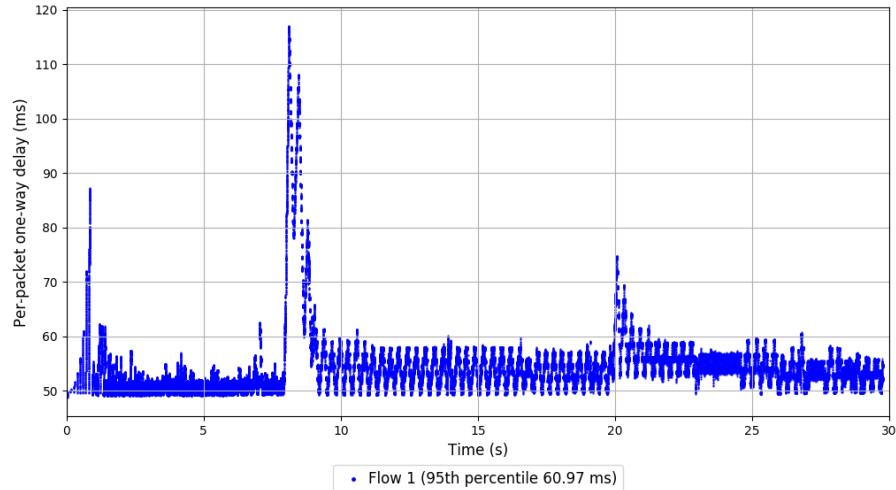
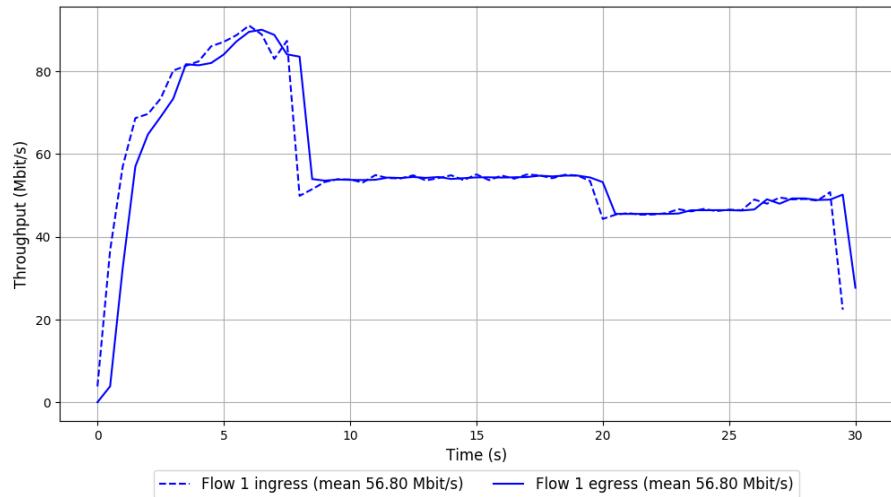


Run 5: Statistics of Indigo

```
Start at: 2019-01-02 21:05:52
End at: 2019-01-02 21:06:22
Local clock offset: 8.581 ms
Remote clock offset: 59.433 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 60.966 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 56.80 Mbit/s
95th percentile per-packet one-way delay: 60.966 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo — Data Link

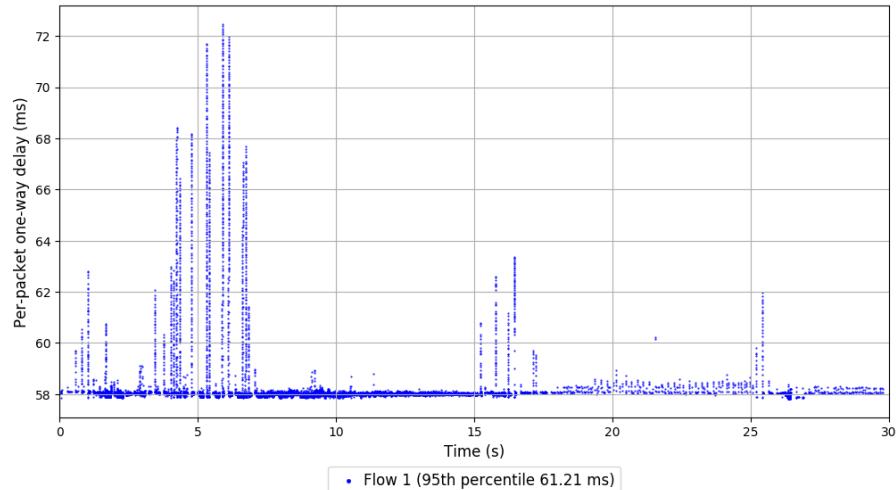
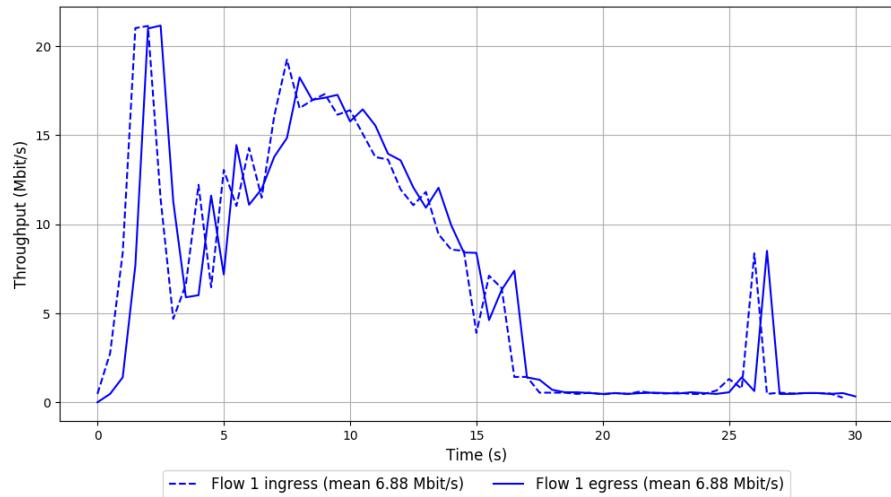


Run 1: Statistics of Indigo-MusesD

```
Start at: 2019-01-02 19:24:21
End at: 2019-01-02 19:24:51
Local clock offset: -5.791 ms
Remote clock offset: 43.066 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.88 Mbit/s
95th percentile per-packet one-way delay: 61.210 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.88 Mbit/s
95th percentile per-packet one-way delay: 61.210 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesD — Data Link

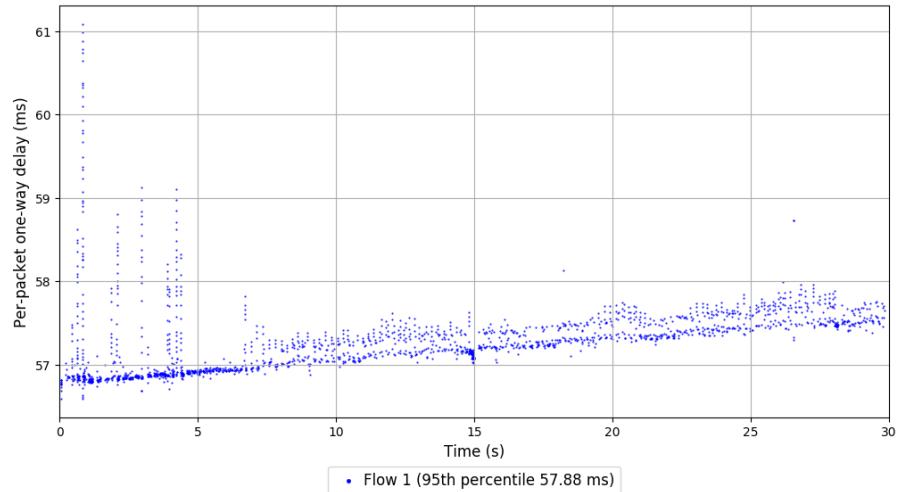
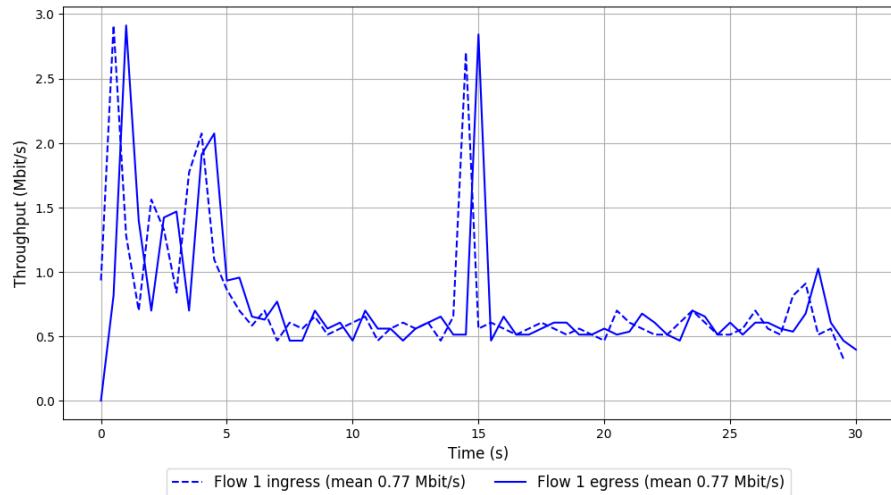


Run 2: Statistics of Indigo-MusesD

```
Start at: 2019-01-02 19:54:18
End at: 2019-01-02 19:54:48
Local clock offset: -9.595 ms
Remote clock offset: 41.704 ms

# Below is generated by plot.py at 2019-01-02 21:31:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 57.876 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 57.876 ms
Loss rate: 0.05%
```

Run 2: Report of Indigo-MusesD — Data Link

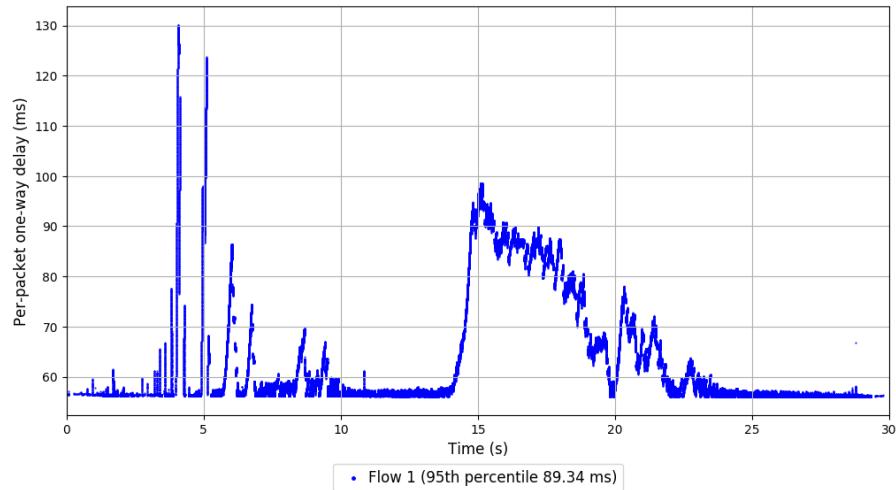
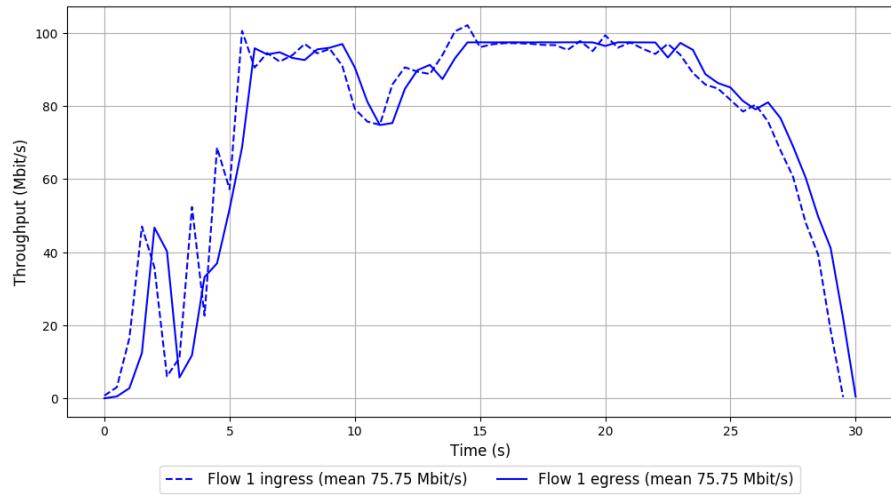


Run 3: Statistics of Indigo-MusesD

```
Start at: 2019-01-02 20:18:00
End at: 2019-01-02 20:18:30
Local clock offset: 4.514 ms
Remote clock offset: 55.364 ms

# Below is generated by plot.py at 2019-01-02 21:31:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.75 Mbit/s
95th percentile per-packet one-way delay: 89.340 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.75 Mbit/s
95th percentile per-packet one-way delay: 89.340 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesD — Data Link

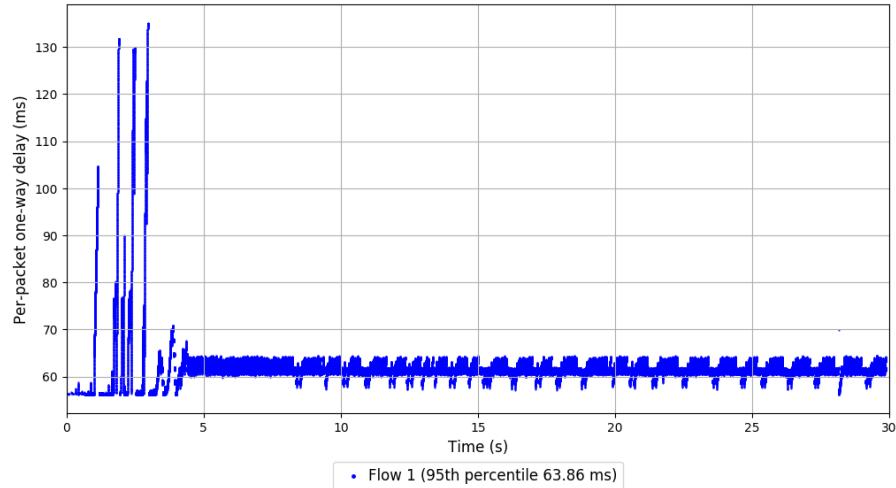
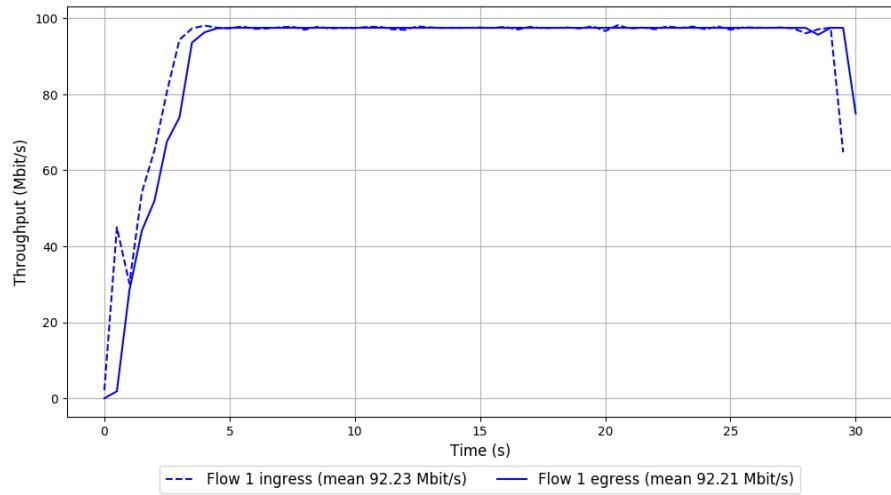


Run 4: Statistics of Indigo-MusesD

```
Start at: 2019-01-02 20:41:30
End at: 2019-01-02 20:42:00
Local clock offset: 2.523 ms
Remote clock offset: 63.715 ms

# Below is generated by plot.py at 2019-01-02 21:31:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 63.857 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 92.21 Mbit/s
95th percentile per-packet one-way delay: 63.857 ms
Loss rate: 0.03%
```

Run 4: Report of Indigo-MusesD — Data Link

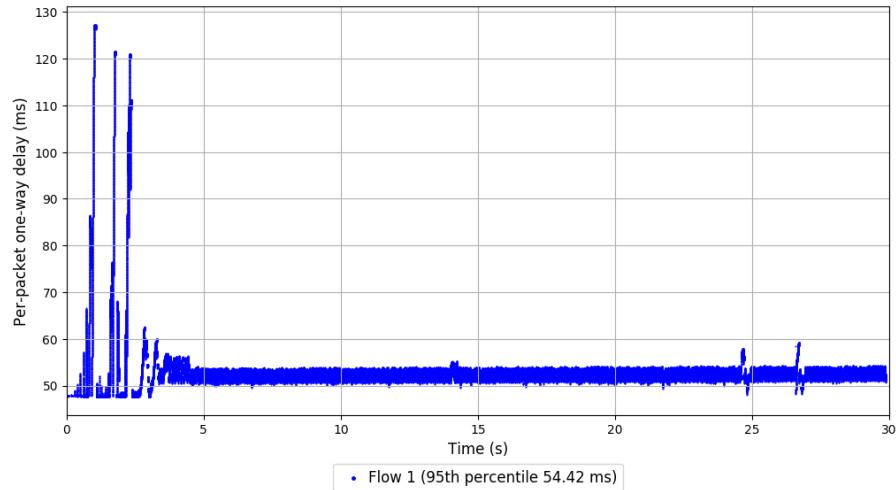
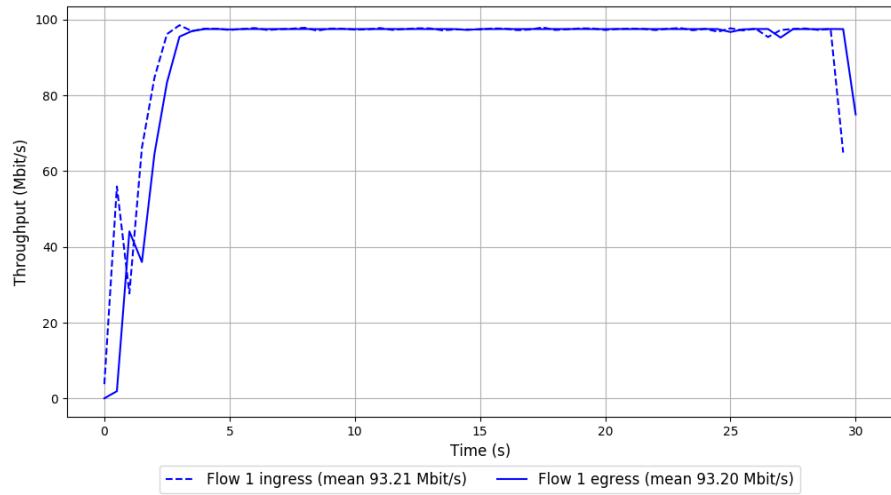


Run 5: Statistics of Indigo-MusesD

```
Start at: 2019-01-02 21:04:40
End at: 2019-01-02 21:05:10
Local clock offset: 8.165 ms
Remote clock offset: 58.768 ms

# Below is generated by plot.py at 2019-01-02 21:32:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 54.423 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 54.423 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

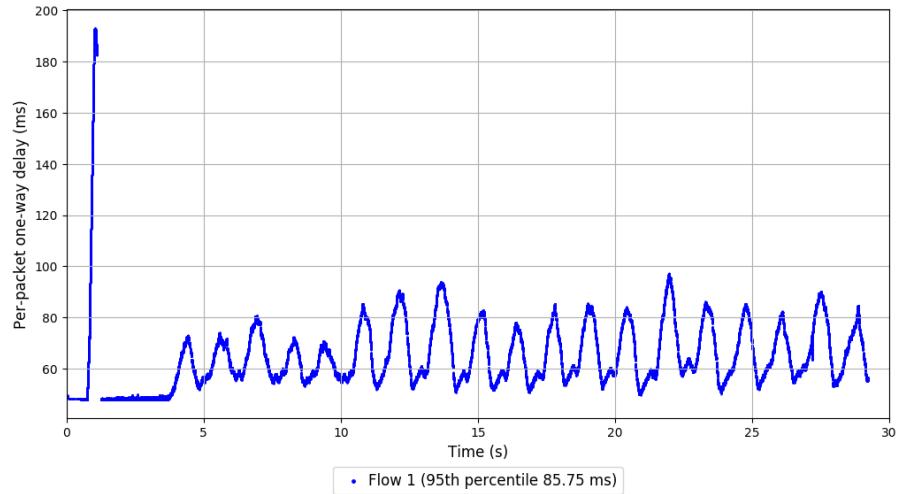
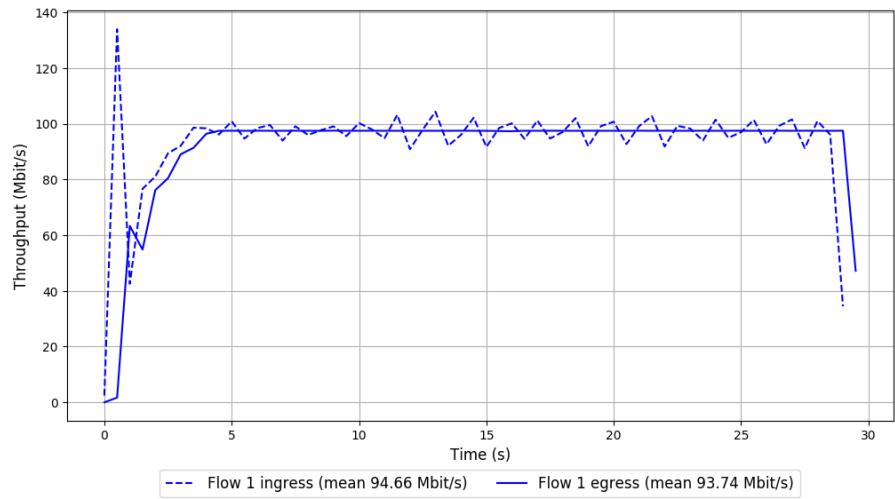


```
Run 1: Statistics of Indigo-MusesT
```

```
Start at: 2019-01-02 19:31:31
End at: 2019-01-02 19:32:02
Local clock offset: -6.642 ms
Remote clock offset: 42.829 ms

# Below is generated by plot.py at 2019-01-02 21:32:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 85.749 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 93.74 Mbit/s
95th percentile per-packet one-way delay: 85.749 ms
Loss rate: 0.94%
```

Run 1: Report of Indigo-MusesT — Data Link

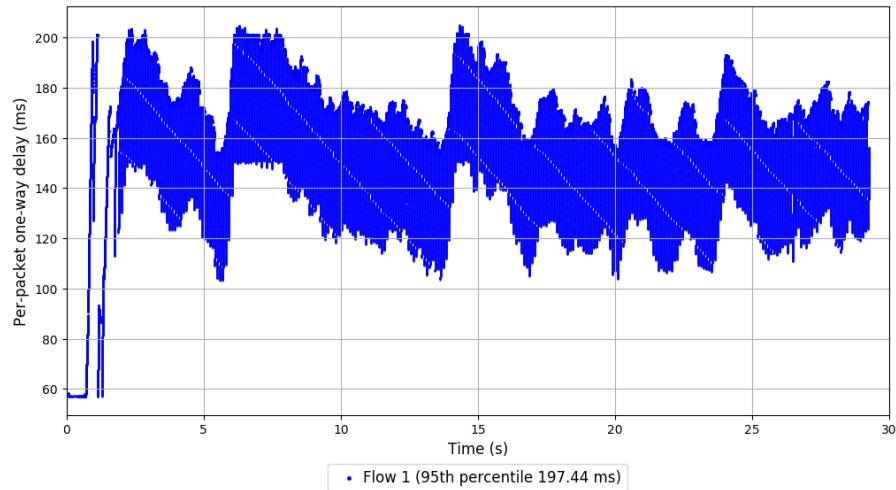
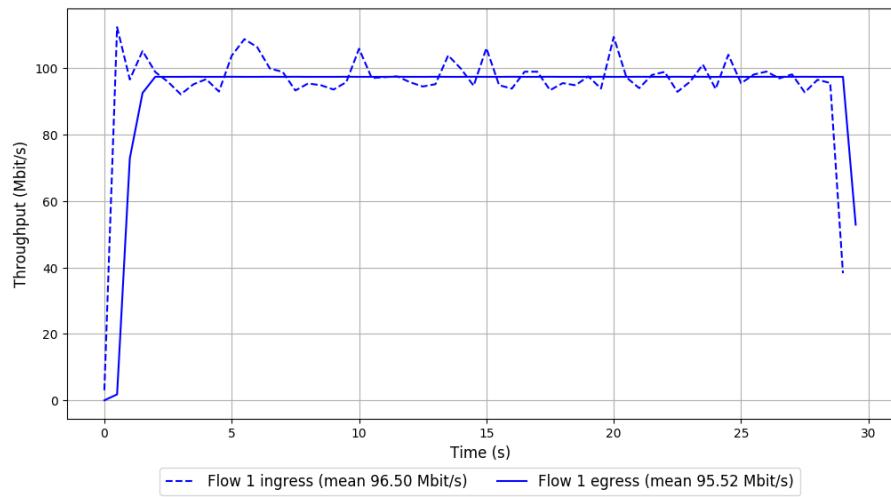


Run 2: Statistics of Indigo-MusesT

```
Start at: 2019-01-02 20:00:20
End at: 2019-01-02 20:00:50
Local clock offset: -2.986 ms
Remote clock offset: 42.145 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.52 Mbit/s
95th percentile per-packet one-way delay: 197.442 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 95.52 Mbit/s
95th percentile per-packet one-way delay: 197.442 ms
Loss rate: 0.84%
```

Run 2: Report of Indigo-MusesT — Data Link

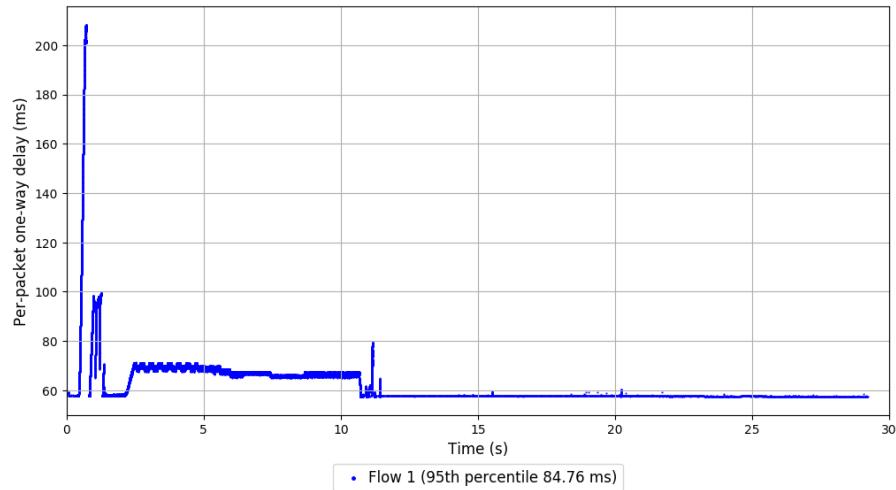
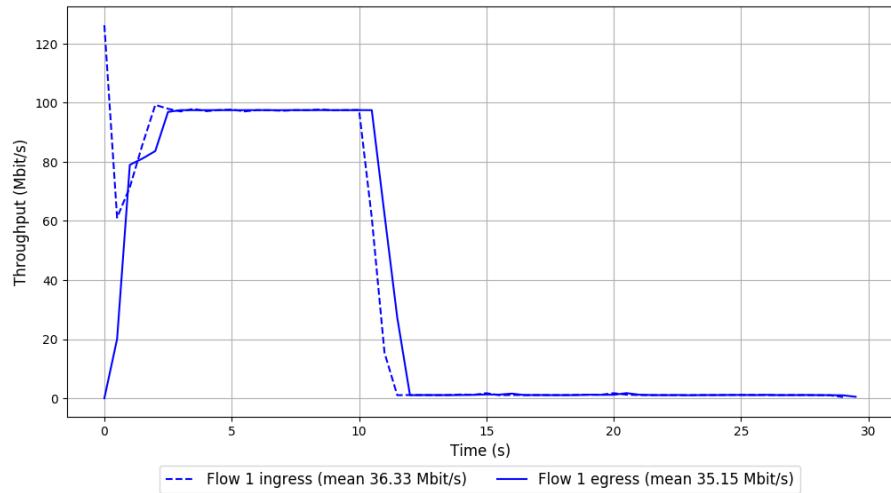


Run 3: Statistics of Indigo-MusesT

```
Start at: 2019-01-02 20:24:02
End at: 2019-01-02 20:24:32
Local clock offset: 5.806 ms
Remote clock offset: 59.912 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 84.756 ms
Loss rate: 3.30%
-- Flow 1:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 84.756 ms
Loss rate: 3.30%
```

Run 3: Report of Indigo-MusesT — Data Link

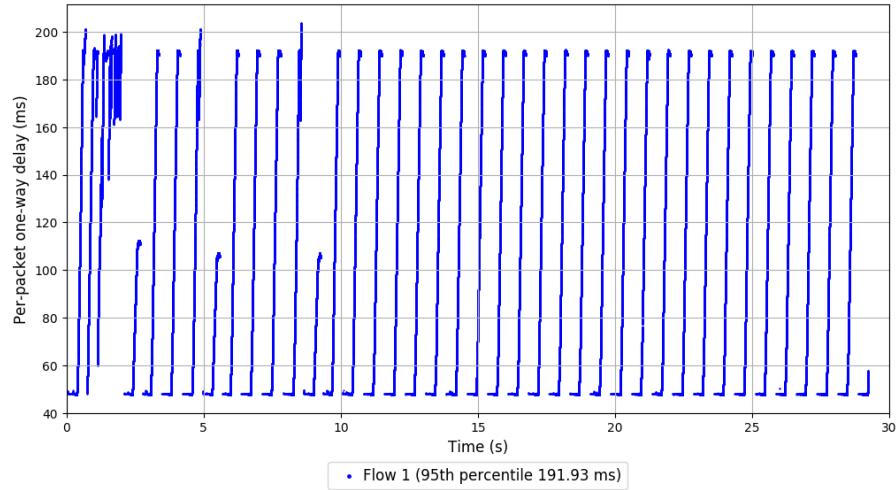
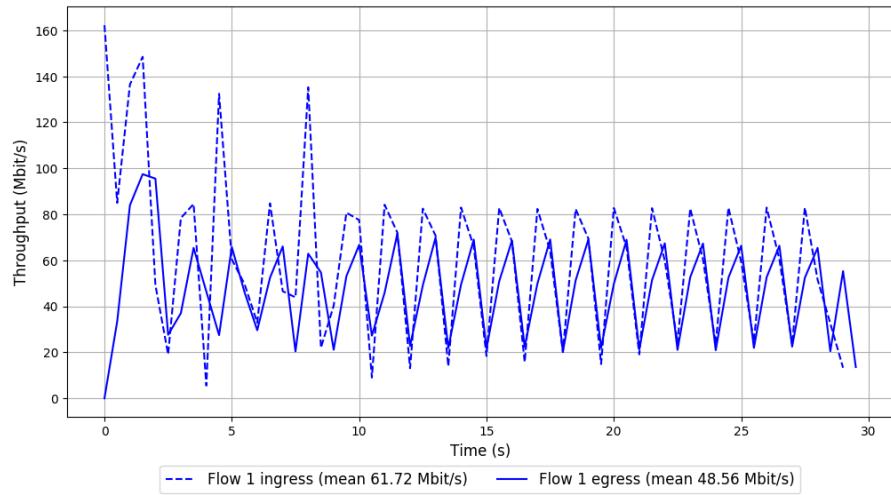


Run 4: Statistics of Indigo-MusesT

```
Start at: 2019-01-02 20:47:53
End at: 2019-01-02 20:48:23
Local clock offset: 2.269 ms
Remote clock offset: 66.089 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.56 Mbit/s
95th percentile per-packet one-way delay: 191.929 ms
Loss rate: 21.30%
-- Flow 1:
Average throughput: 48.56 Mbit/s
95th percentile per-packet one-way delay: 191.929 ms
Loss rate: 21.30%
```

Run 4: Report of Indigo-MusesT — Data Link

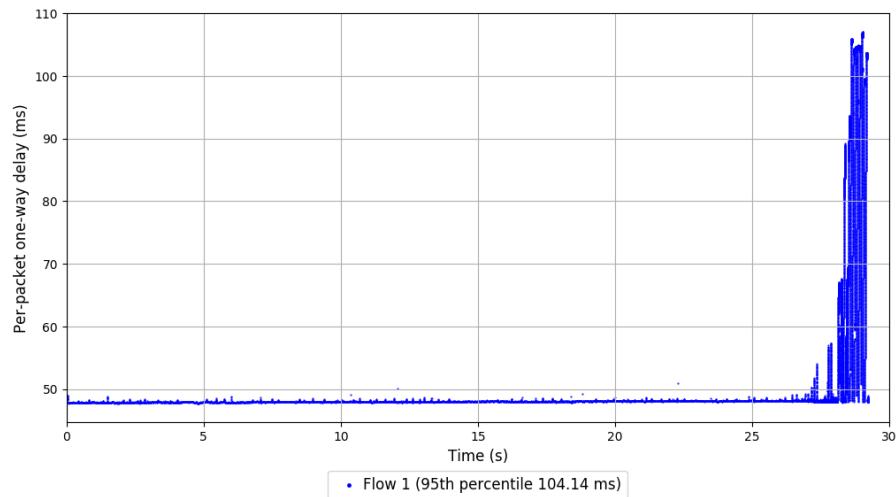
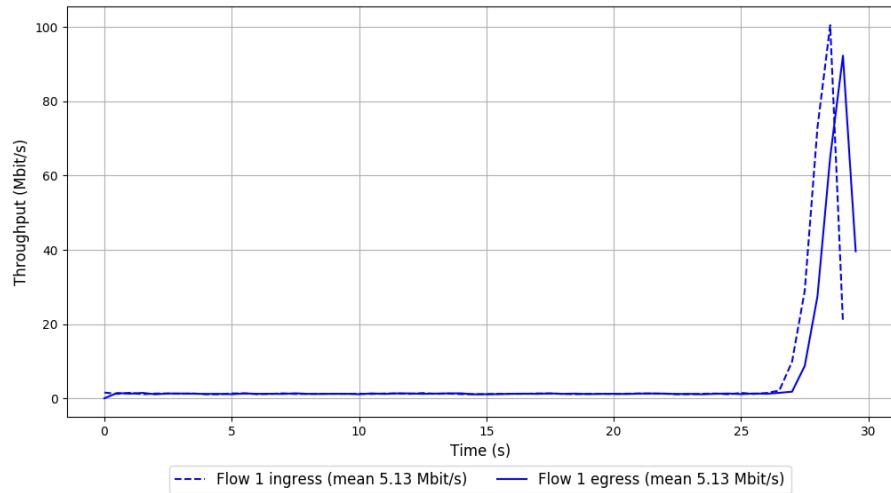


Run 5: Statistics of Indigo-MusesT

```
Start at: 2019-01-02 21:10:35
End at: 2019-01-02 21:11:05
Local clock offset: 10.023 ms
Remote clock offset: 55.278 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 104.135 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.13 Mbit/s
95th percentile per-packet one-way delay: 104.135 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesT — Data Link

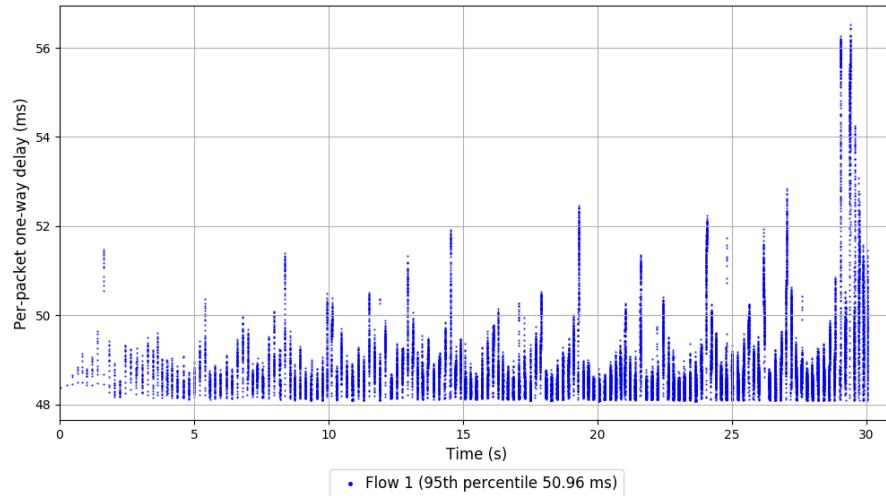
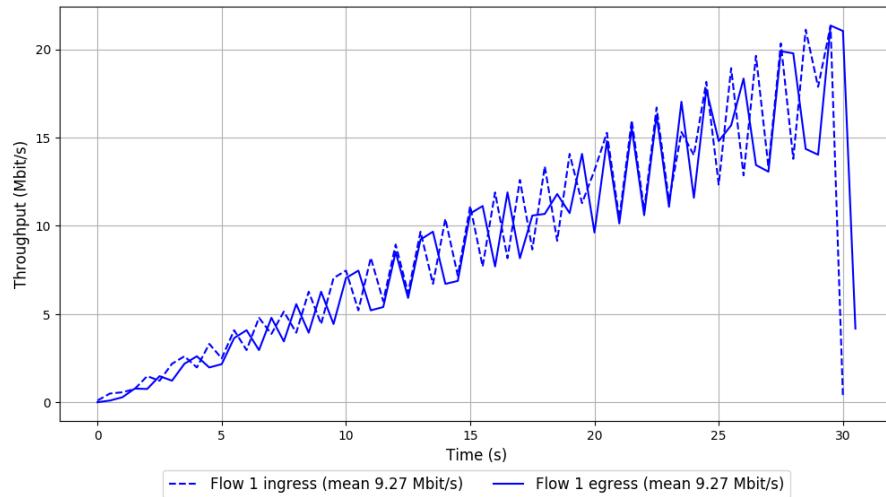


```
Run 1: Statistics of LEDBAT
```

```
Start at: 2019-01-02 19:37:26
End at: 2019-01-02 19:37:56
Local clock offset: -7.458 ms
Remote clock offset: 42.883 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 50.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 50.959 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

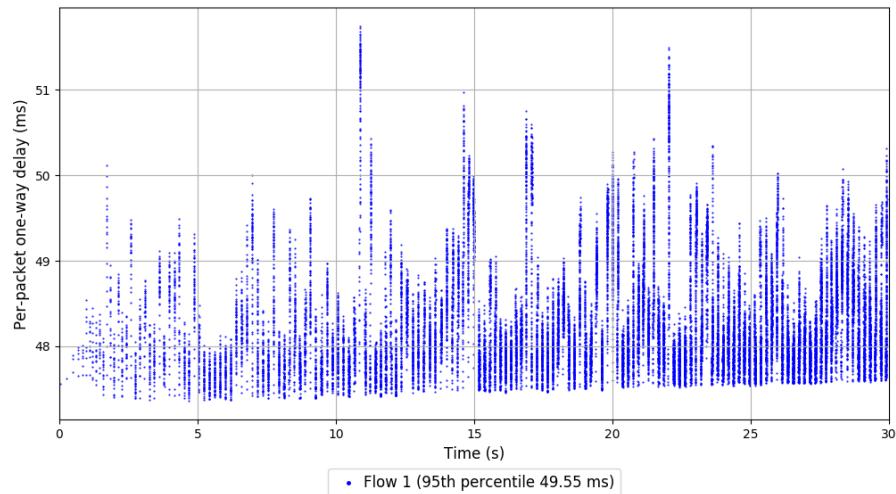
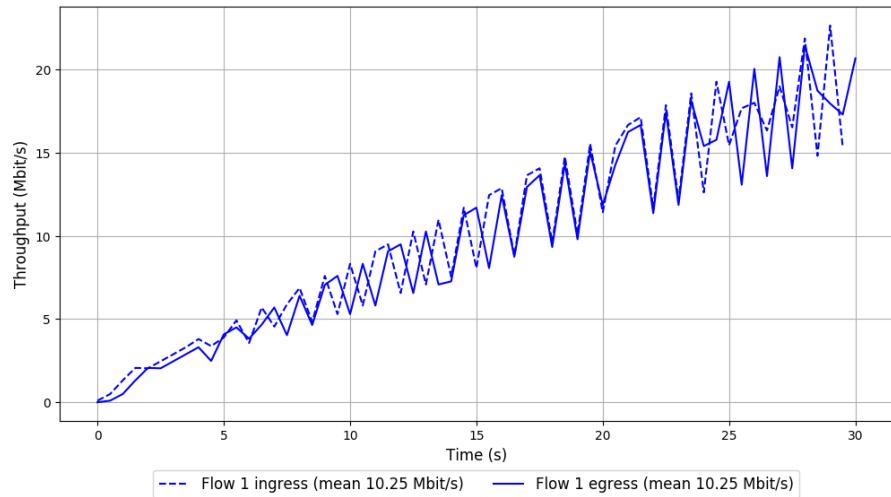


Run 2: Statistics of LEDBAT

```
Start at: 2019-01-02 20:04:29
End at: 2019-01-02 20:04:59
Local clock offset: 0.155 ms
Remote clock offset: 42.059 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 49.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.25 Mbit/s
95th percentile per-packet one-way delay: 49.555 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link

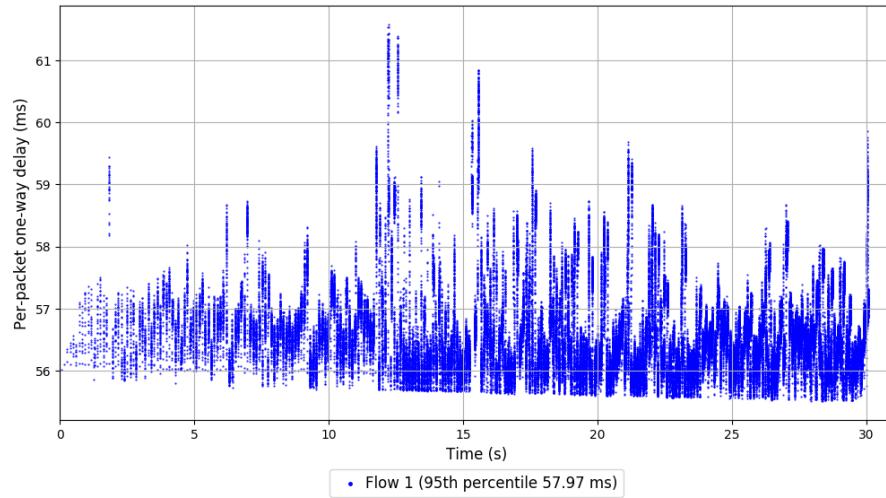
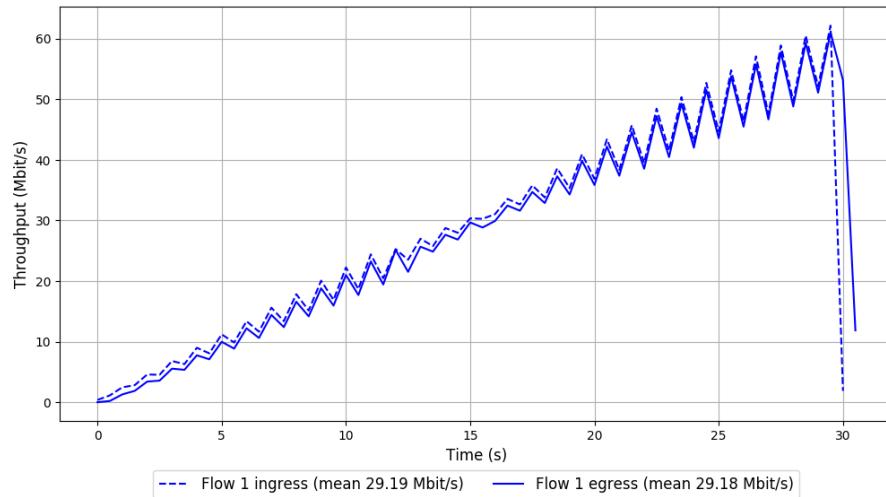


Run 3: Statistics of LEDBAT

```
Start at: 2019-01-02 20:27:53
End at: 2019-01-02 20:28:23
Local clock offset: 4.463 ms
Remote clock offset: 59.789 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 57.967 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 29.18 Mbit/s
95th percentile per-packet one-way delay: 57.967 ms
Loss rate: 0.06%
```

Run 3: Report of LEDBAT — Data Link

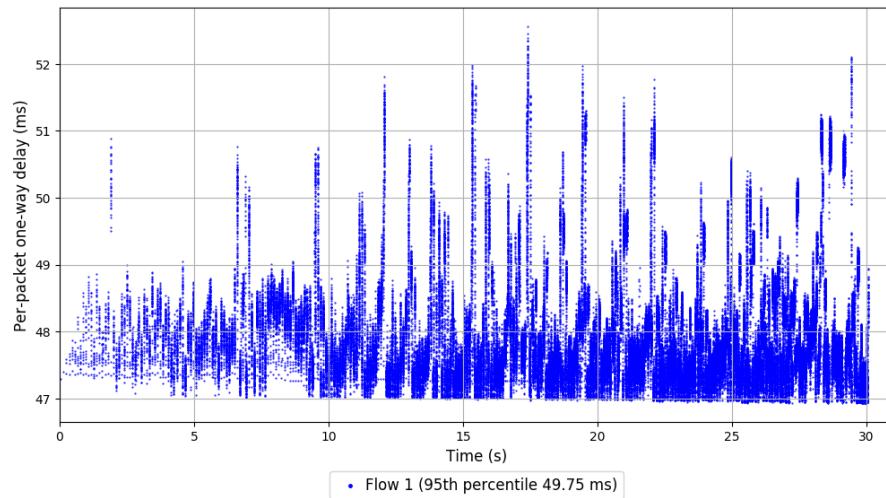
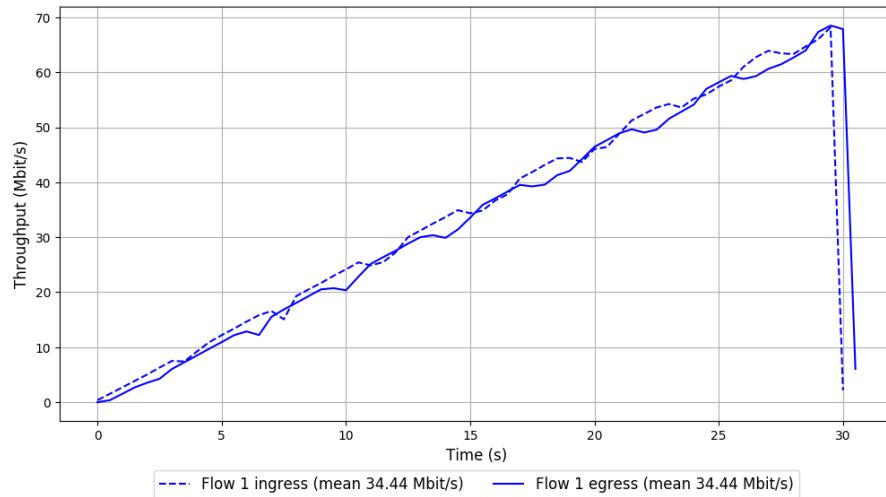


Run 4: Statistics of LEDBAT

```
Start at: 2019-01-02 20:51:26
End at: 2019-01-02 20:51:56
Local clock offset: 2.501 ms
Remote clock offset: 66.181 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.44 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

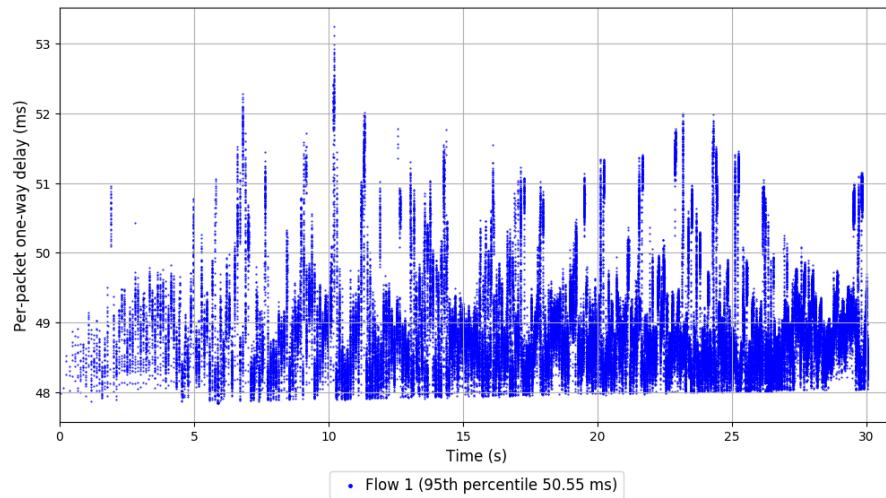
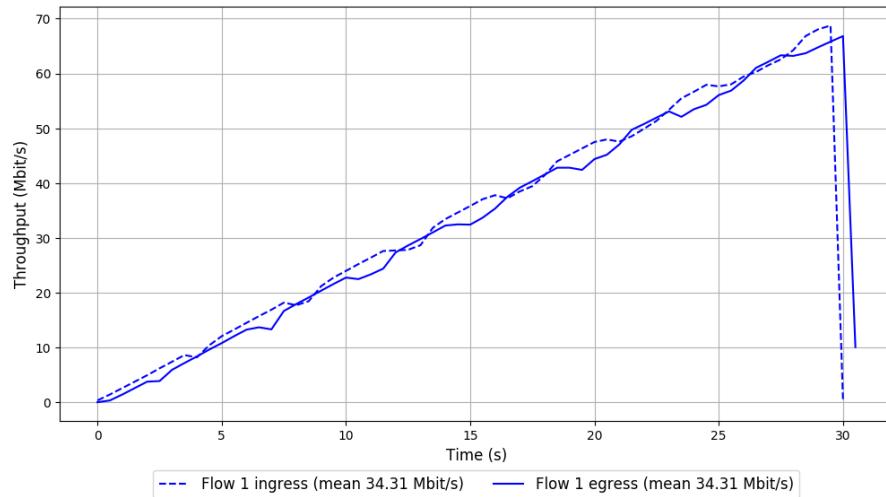


Run 5: Statistics of LEDBAT

```
Start at: 2019-01-02 21:14:11
End at: 2019-01-02 21:14:41
Local clock offset: 10.849 ms
Remote clock offset: 54.448 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 50.554 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.31 Mbit/s
95th percentile per-packet one-way delay: 50.554 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

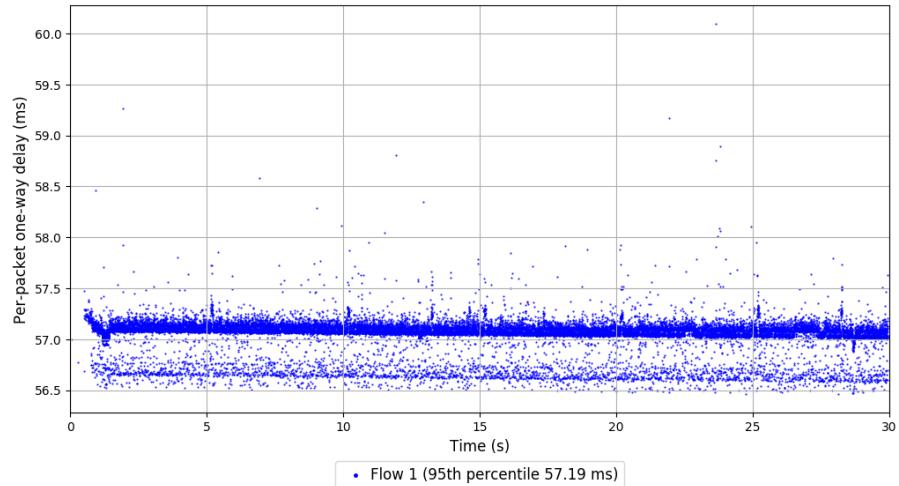
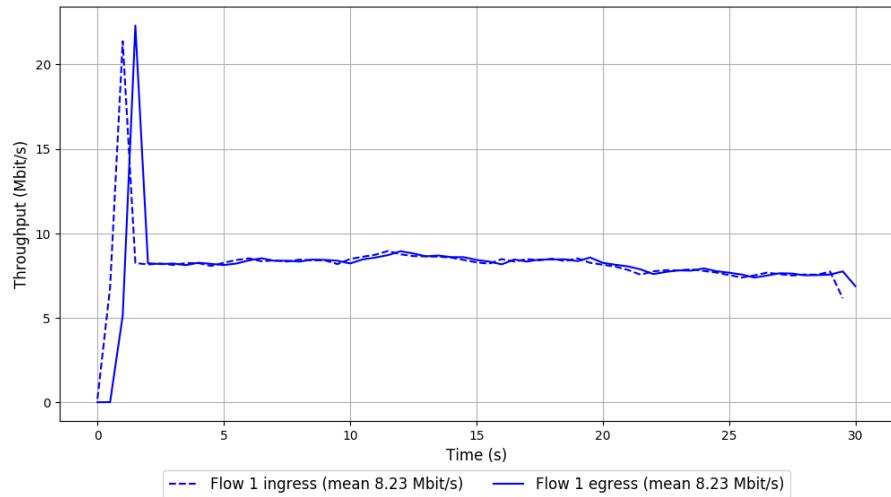


```
Run 1: Statistics of PCC-Allegro
```

```
Start at: 2019-01-02 19:28:31
End at: 2019-01-02 19:29:01
Local clock offset: -6.428 ms
Remote clock offset: 42.336 ms

# Below is generated by plot.py at 2019-01-02 21:32:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 57.194 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 8.23 Mbit/s
95th percentile per-packet one-way delay: 57.194 ms
Loss rate: 0.03%
```

Run 1: Report of PCC-Allegro — Data Link

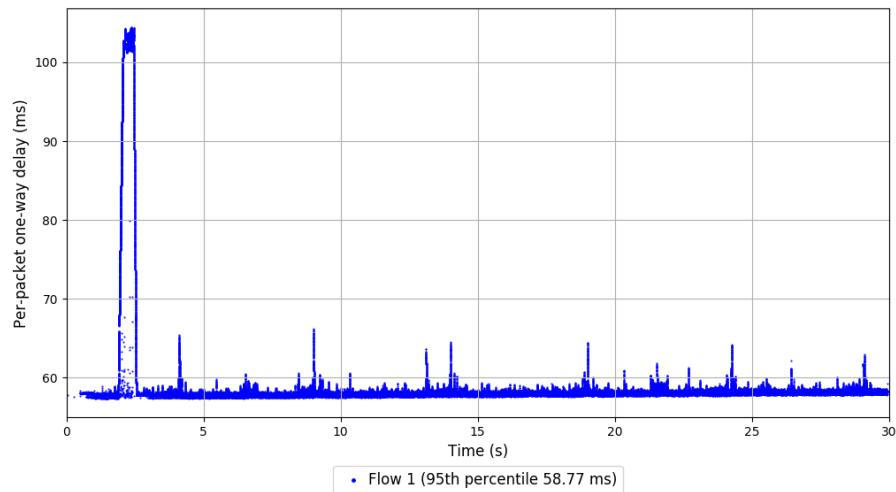
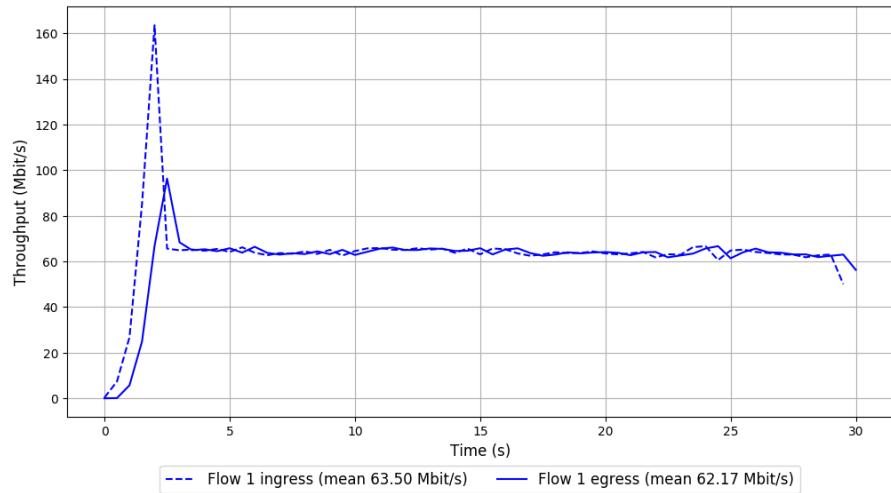


Run 2: Statistics of PCC-Allegro

```
Start at: 2019-01-02 19:57:52
End at: 2019-01-02 19:58:23
Local clock offset: -5.416 ms
Remote clock offset: 42.182 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 58.766 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 58.766 ms
Loss rate: 2.11%
```

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

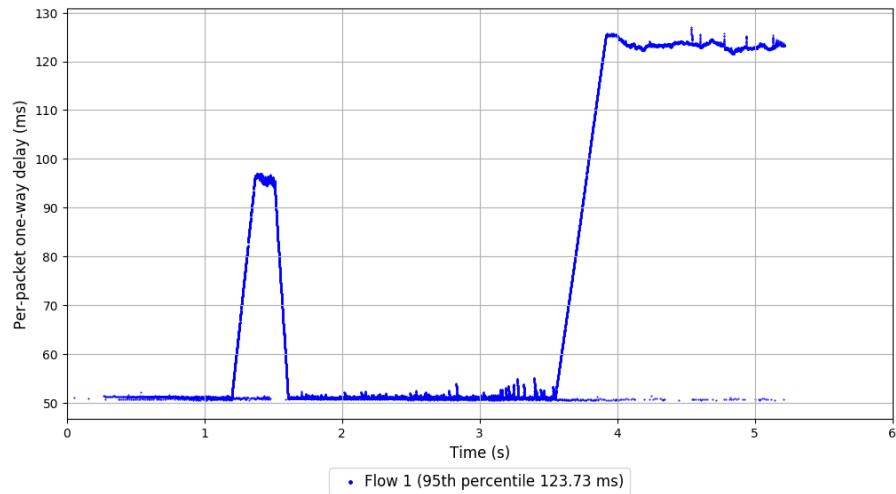
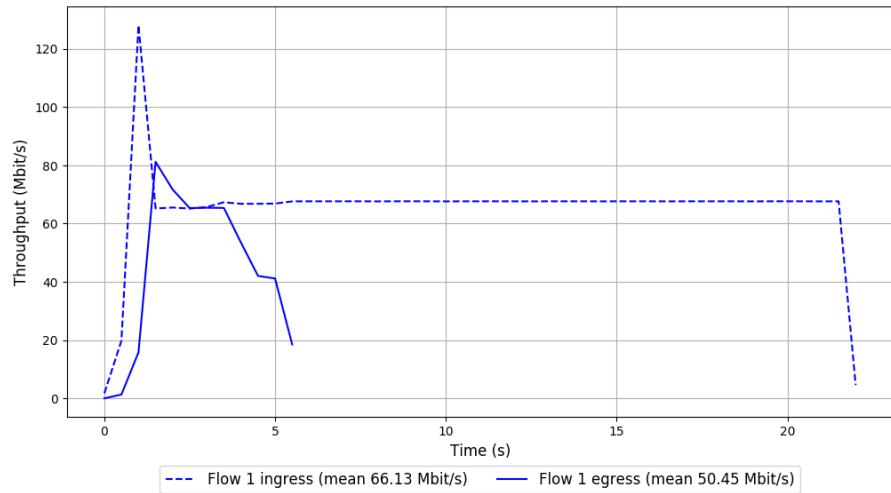
Start at: 2019-01-02 20:21:39

End at: 2019-01-02 20:22:09

Local clock offset: 5.329 ms

Remote clock offset: 60.992 ms

Run 3: Report of PCC-Allegro — Data Link



Run 4: Statistics of PCC-Allegro

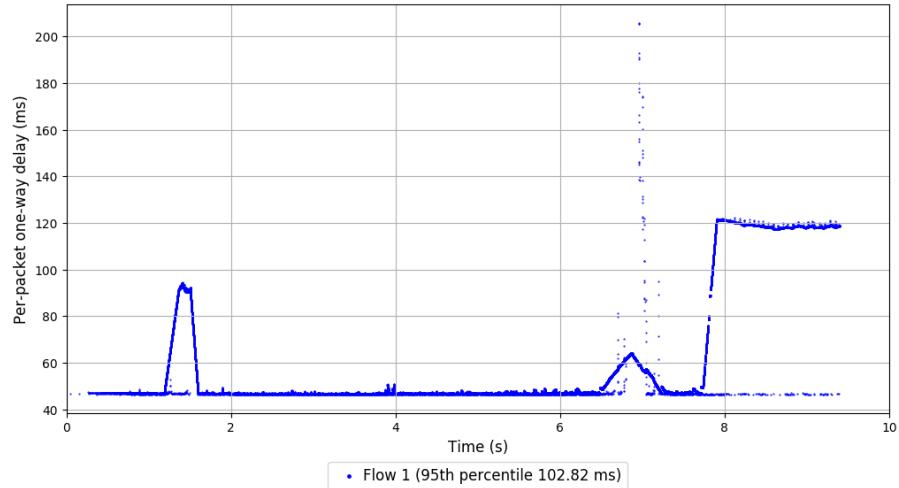
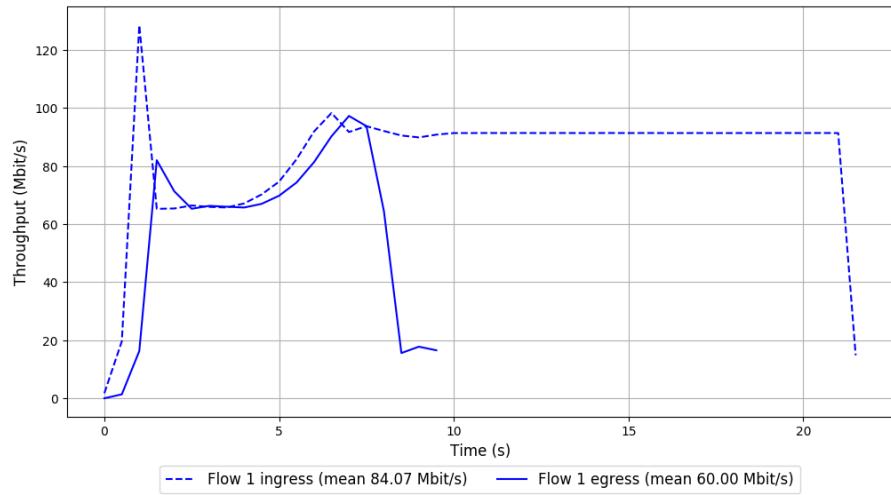
Start at: 2019-01-02 20:45:02

End at: 2019-01-02 20:45:32

Local clock offset: 2.574 ms

Remote clock offset: 64.543 ms

Run 4: Report of PCC-Allegro — Data Link



Run 5: Statistics of PCC-Allegro

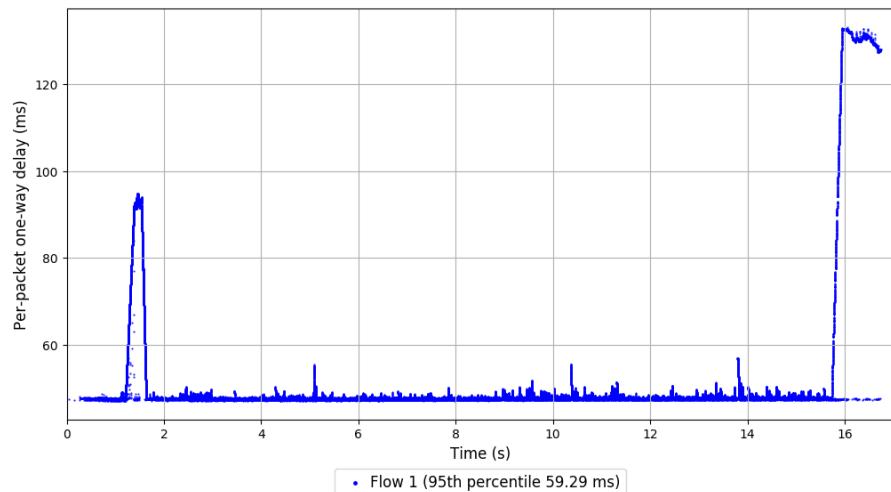
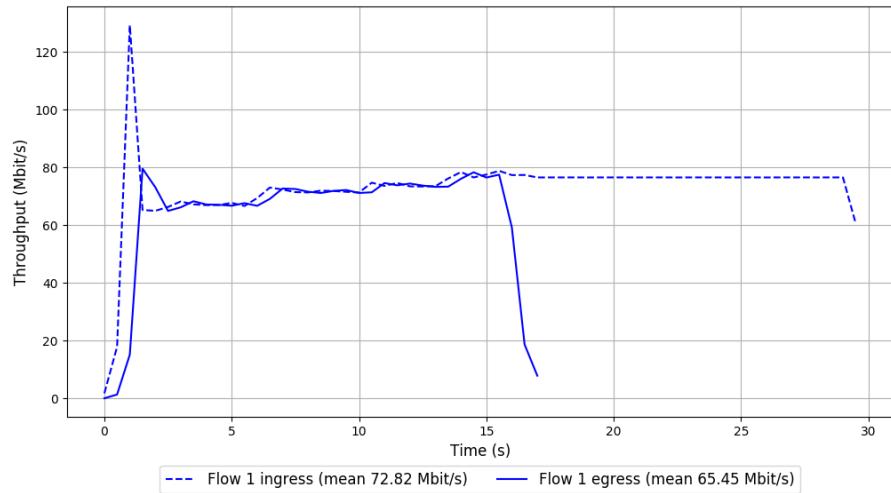
Start at: 2019-01-02 21:08:11

End at: 2019-01-02 21:08:41

Local clock offset: 9.403 ms

Remote clock offset: 56.504 ms

Run 5: Report of PCC-Allegro — Data Link

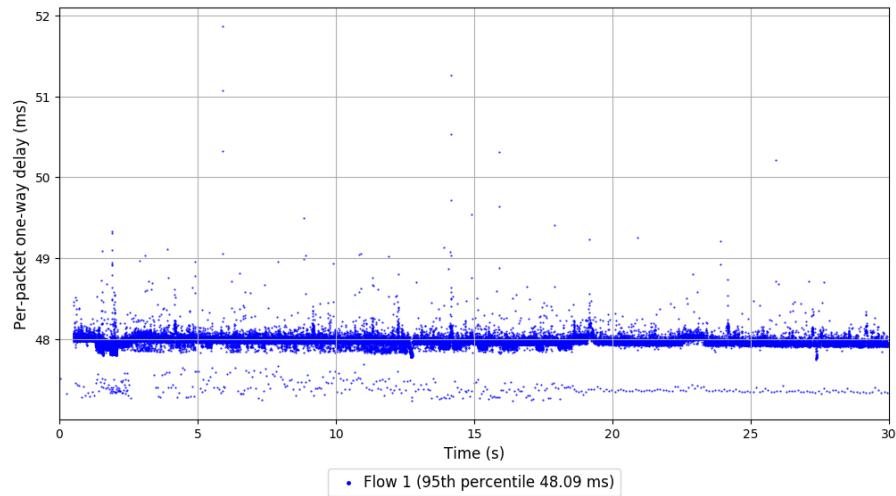
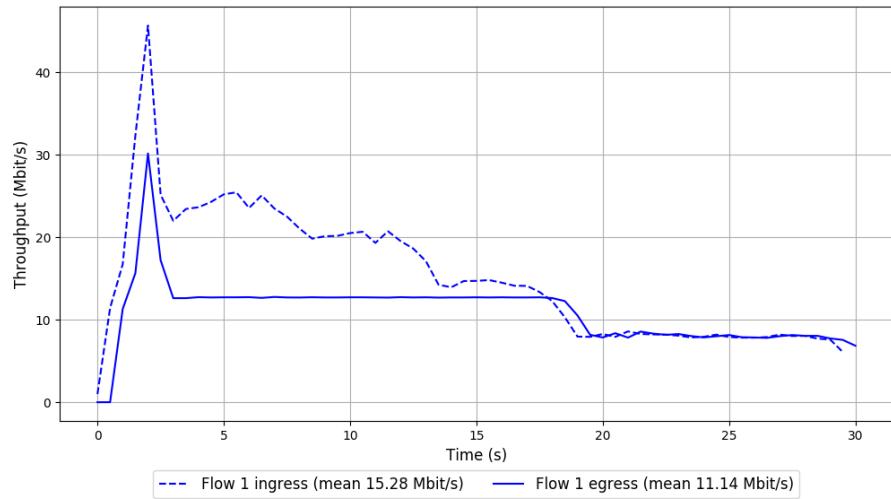


```
Run 1: Statistics of PCC-Expr
```

```
Start at: 2019-01-02 19:44:47
End at: 2019-01-02 19:45:17
Local clock offset: -8.398 ms
Remote clock offset: 42.163 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 48.089 ms
Loss rate: 27.11%
-- Flow 1:
Average throughput: 11.14 Mbit/s
95th percentile per-packet one-way delay: 48.089 ms
Loss rate: 27.11%
```

Run 1: Report of PCC-Expr — Data Link

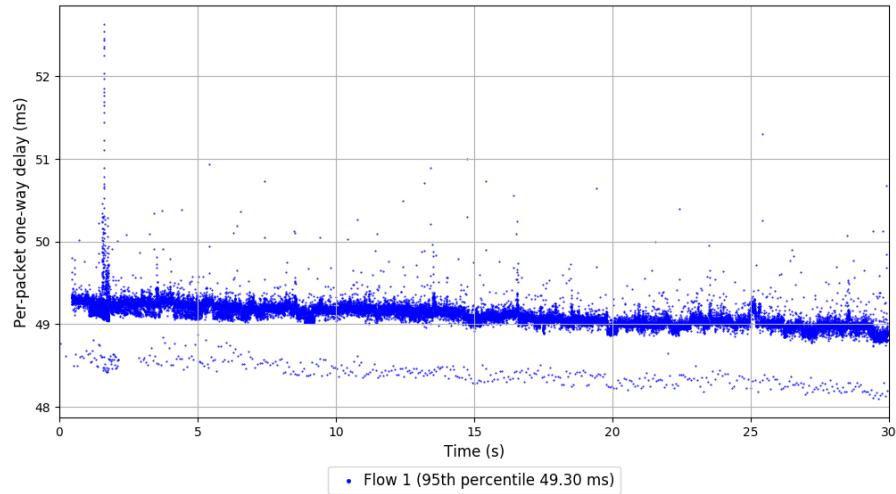
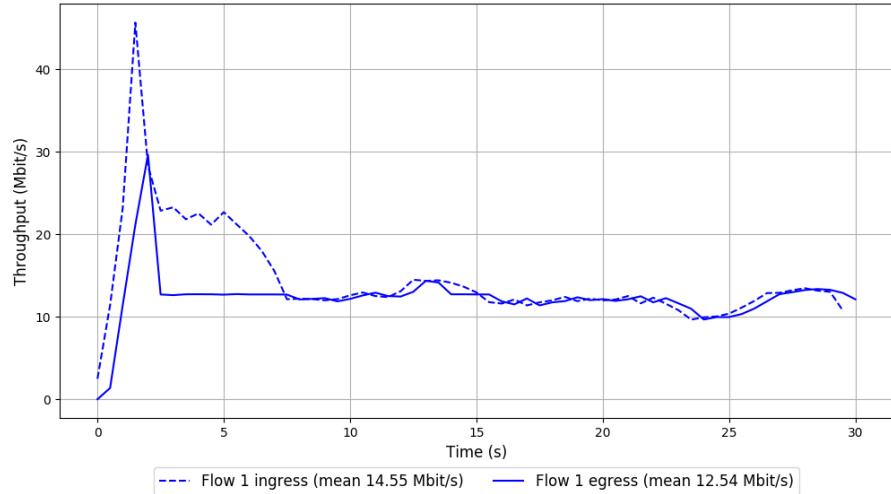


Run 2: Statistics of PCC-Expr

```
Start at: 2019-01-02 20:10:27
End at: 2019-01-02 20:10:57
Local clock offset: 2.479 ms
Remote clock offset: 50.968 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.54 Mbit/s
95th percentile per-packet one-way delay: 49.299 ms
Loss rate: 13.80%
-- Flow 1:
Average throughput: 12.54 Mbit/s
95th percentile per-packet one-way delay: 49.299 ms
Loss rate: 13.80%
```

Run 2: Report of PCC-Expr — Data Link

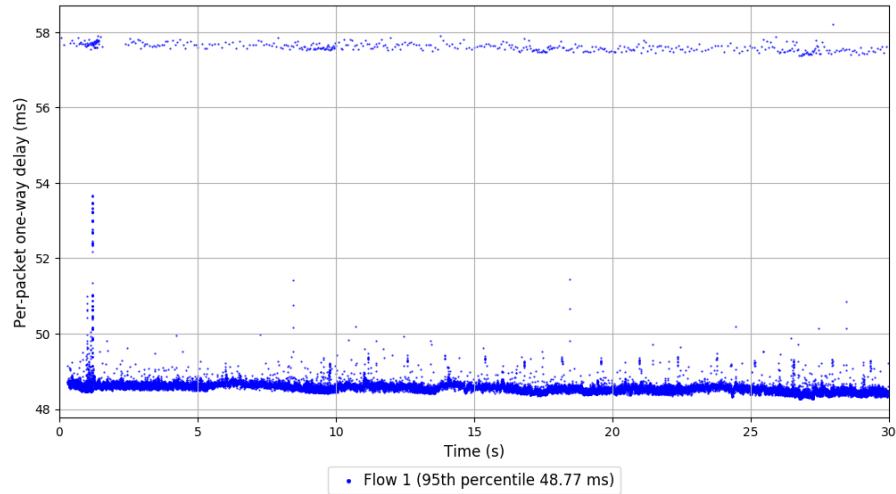
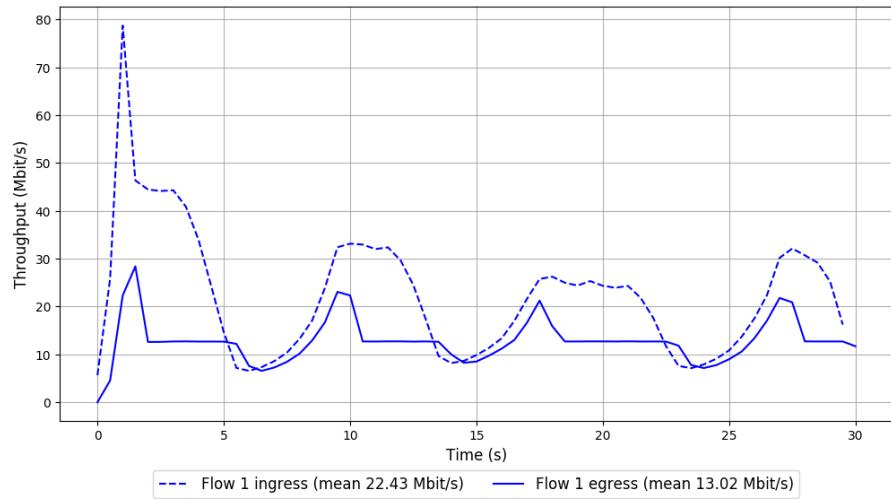


Run 3: Statistics of PCC-Expr

```
Start at: 2019-01-02 20:33:45
End at: 2019-01-02 20:34:15
Local clock offset: 3.102 ms
Remote clock offset: 63.029 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 48.765 ms
Loss rate: 41.98%
-- Flow 1:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 48.765 ms
Loss rate: 41.98%
```

Run 3: Report of PCC-Expr — Data Link

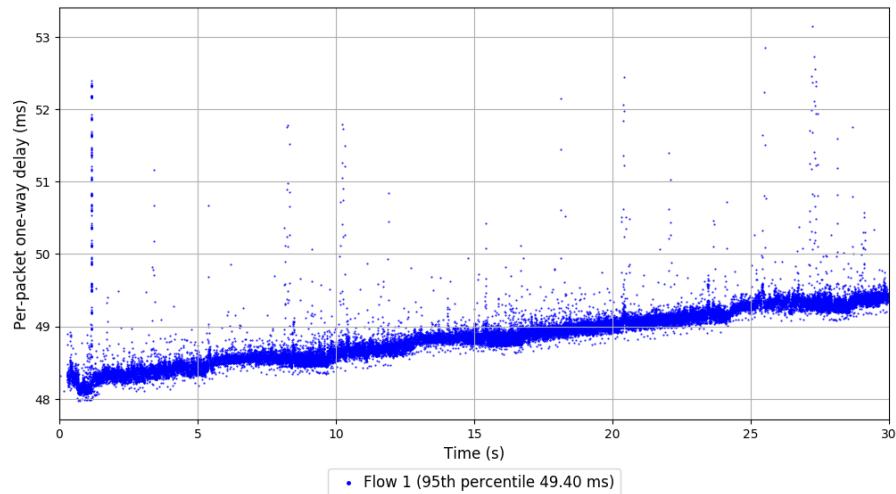
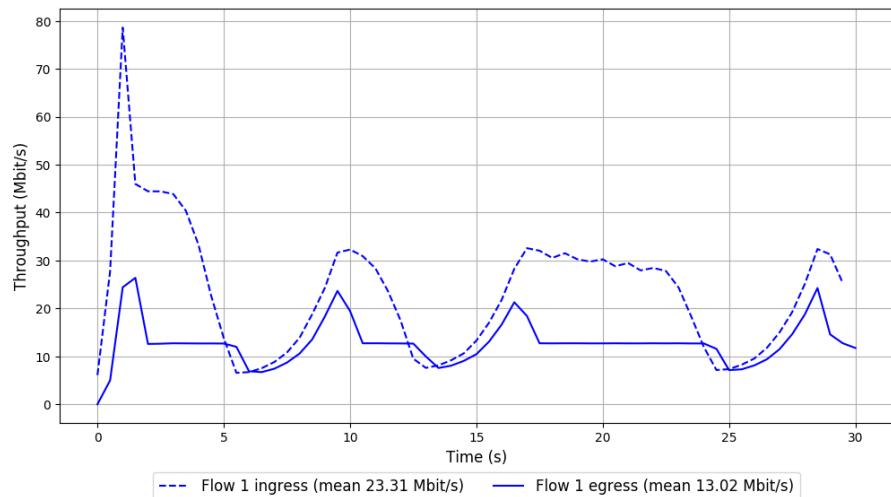


Run 4: Statistics of PCC-Expr

```
Start at: 2019-01-02 20:57:35
End at: 2019-01-02 20:58:05
Local clock offset: 4.907 ms
Remote clock offset: 68.4 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 49.395 ms
Loss rate: 44.14%
-- Flow 1:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 49.395 ms
Loss rate: 44.14%
```

Run 4: Report of PCC-Expr — Data Link

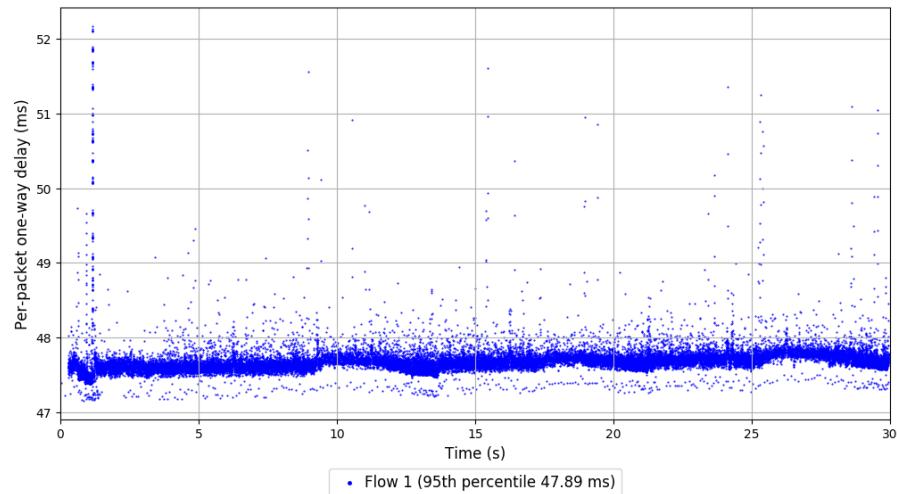
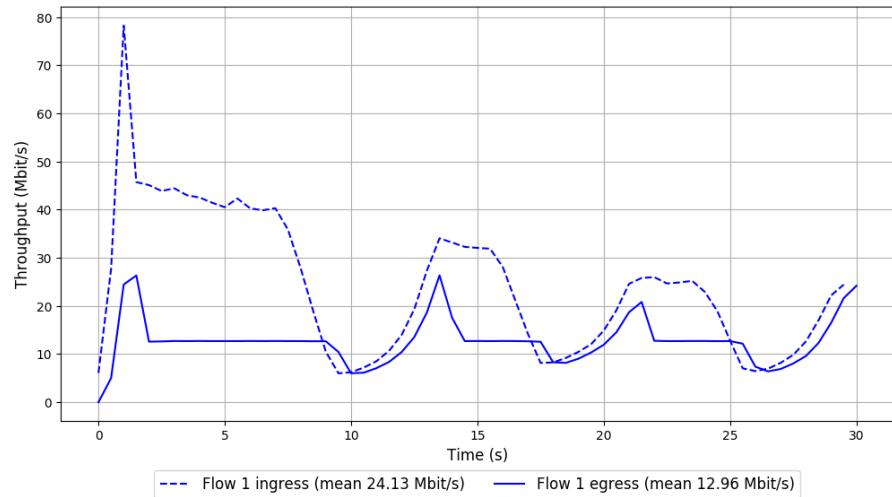


Run 5: Statistics of PCC-Expr

```
Start at: 2019-01-02 21:20:34
End at: 2019-01-02 21:21:05
Local clock offset: 11.957 ms
Remote clock offset: 52.426 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 47.894 ms
Loss rate: 46.29%
-- Flow 1:
Average throughput: 12.96 Mbit/s
95th percentile per-packet one-way delay: 47.894 ms
Loss rate: 46.29%
```

Run 5: Report of PCC-Expr — Data Link

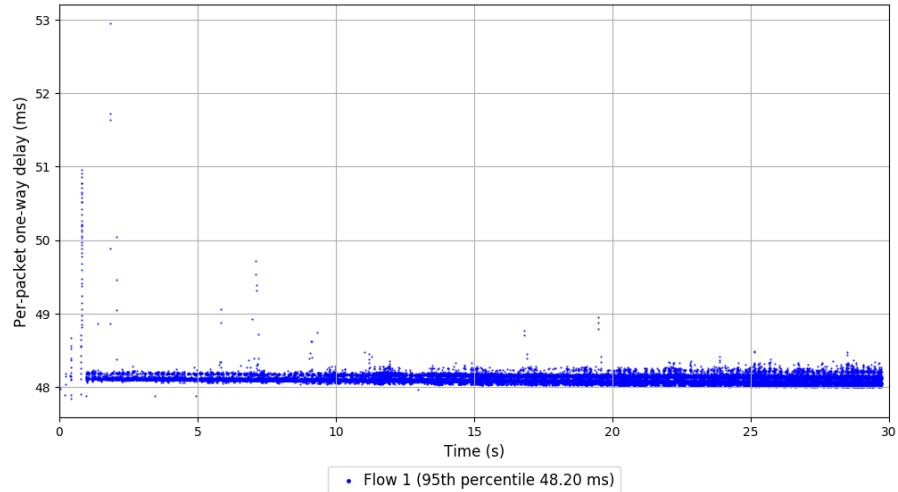
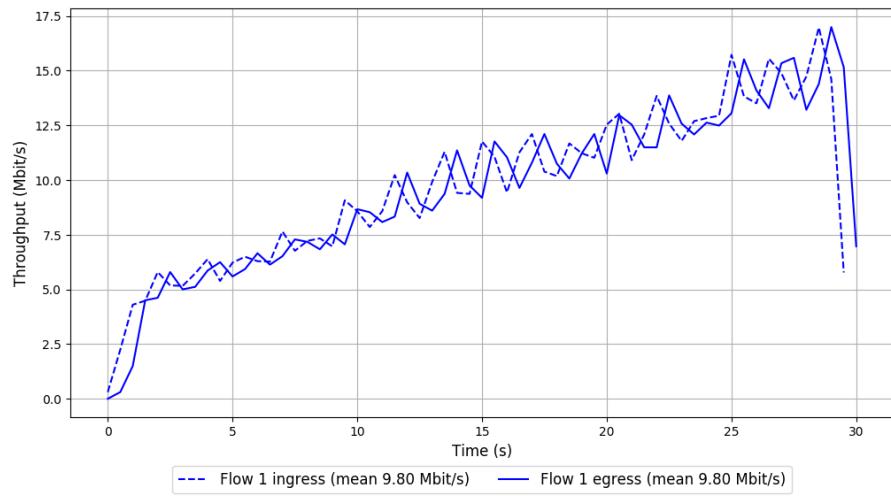


Run 1: Statistics of QUIC Cubic

```
Start at: 2019-01-02 19:41:08
End at: 2019-01-02 19:41:38
Local clock offset: -7.815 ms
Remote clock offset: 42.837 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 48.202 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 48.202 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

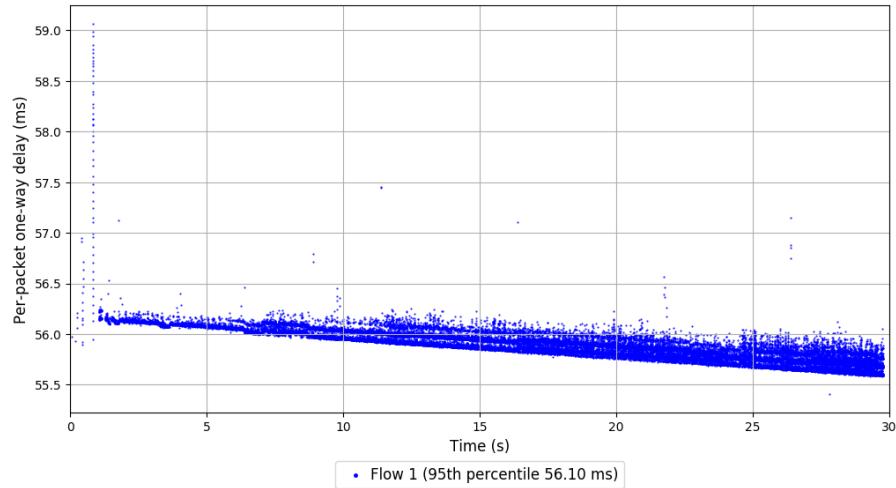
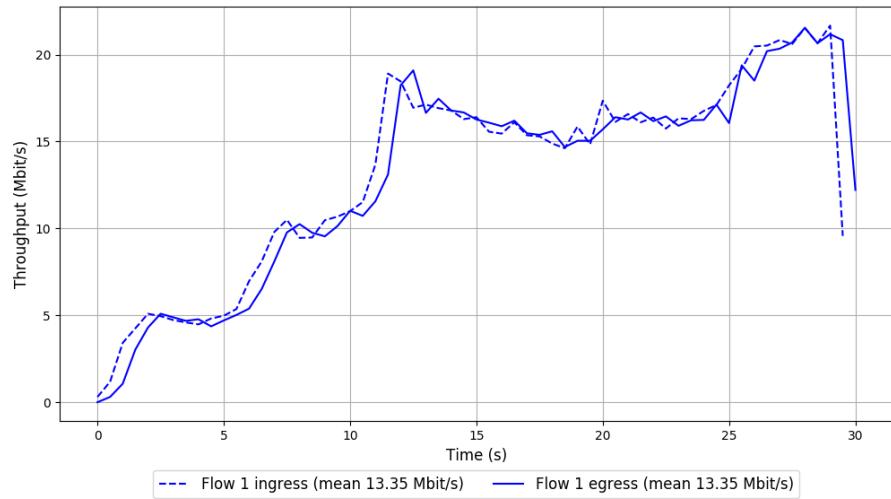


Run 2: Statistics of QUIC Cubic

```
Start at: 2019-01-02 20:06:56
End at: 2019-01-02 20:07:26
Local clock offset: 1.159 ms
Remote clock offset: 44.55 ms

# Below is generated by plot.py at 2019-01-02 21:32:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 56.105 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 56.105 ms
Loss rate: 0.03%
```

Run 2: Report of QUIC Cubic — Data Link

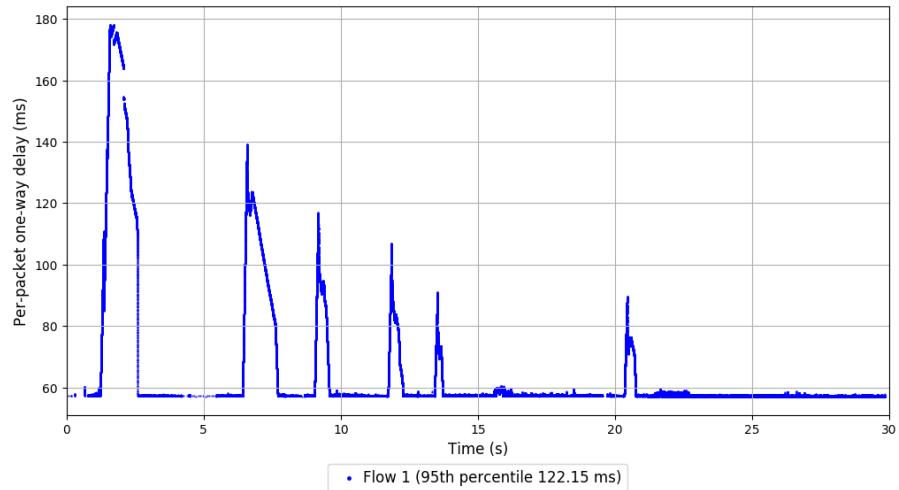
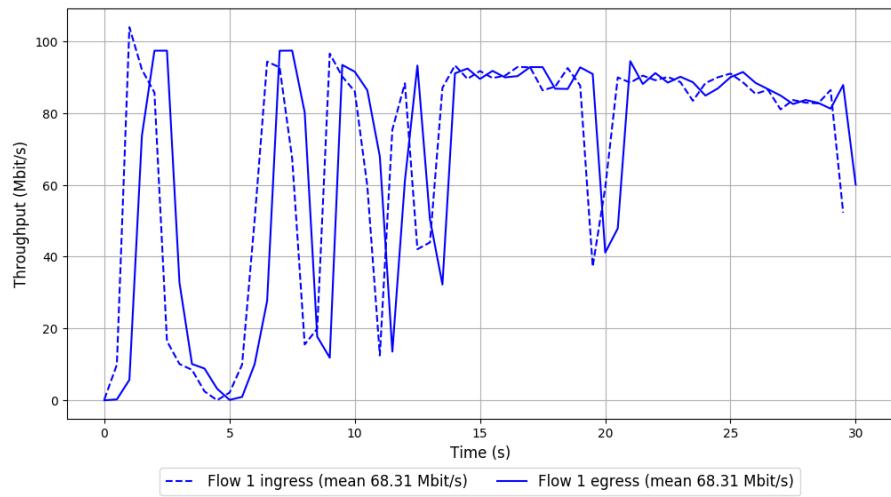


Run 3: Statistics of QUIC Cubic

```
Start at: 2019-01-02 20:30:16
End at: 2019-01-02 20:30:46
Local clock offset: 3.711 ms
Remote clock offset: 61.904 ms

# Below is generated by plot.py at 2019-01-02 21:33:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.31 Mbit/s
95th percentile per-packet one-way delay: 122.151 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 68.31 Mbit/s
95th percentile per-packet one-way delay: 122.151 ms
Loss rate: 0.04%
```

Run 3: Report of QUIC Cubic — Data Link

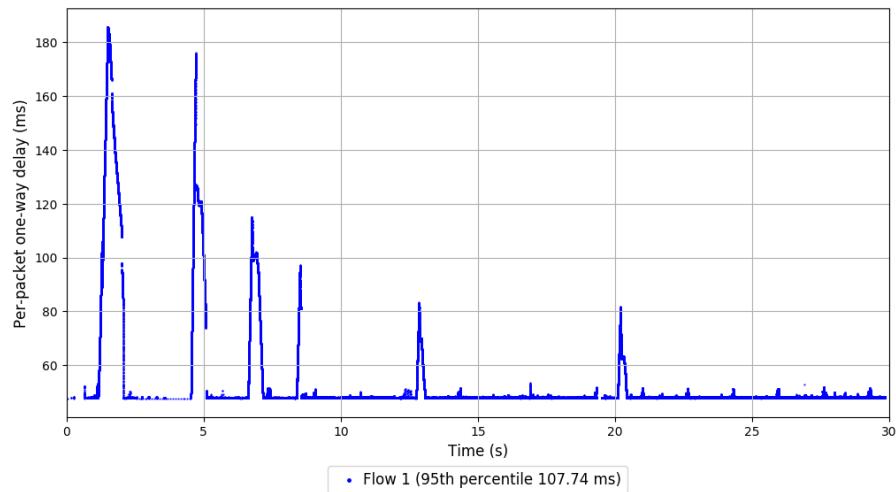
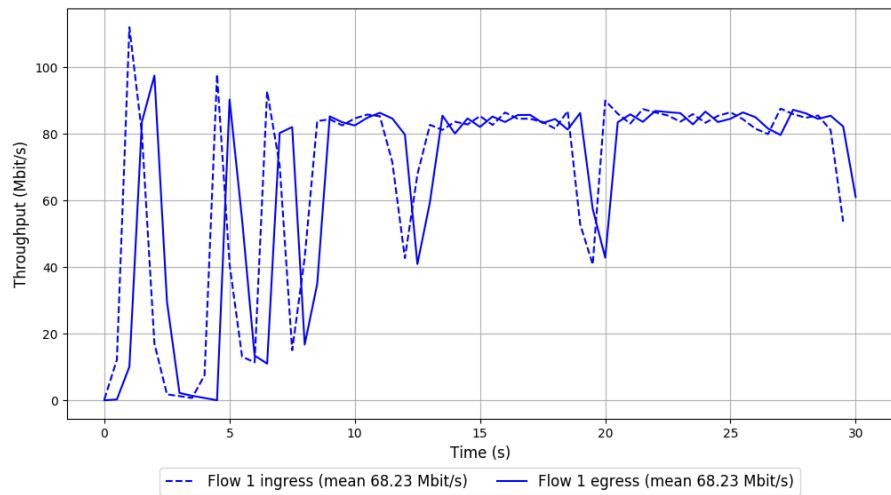


Run 4: Statistics of QUIC Cubic

```
Start at: 2019-01-02 20:53:49
End at: 2019-01-02 20:54:19
Local clock offset: 2.468 ms
Remote clock offset: 67.406 ms

# Below is generated by plot.py at 2019-01-02 21:33:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.23 Mbit/s
95th percentile per-packet one-way delay: 107.742 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.23 Mbit/s
95th percentile per-packet one-way delay: 107.742 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

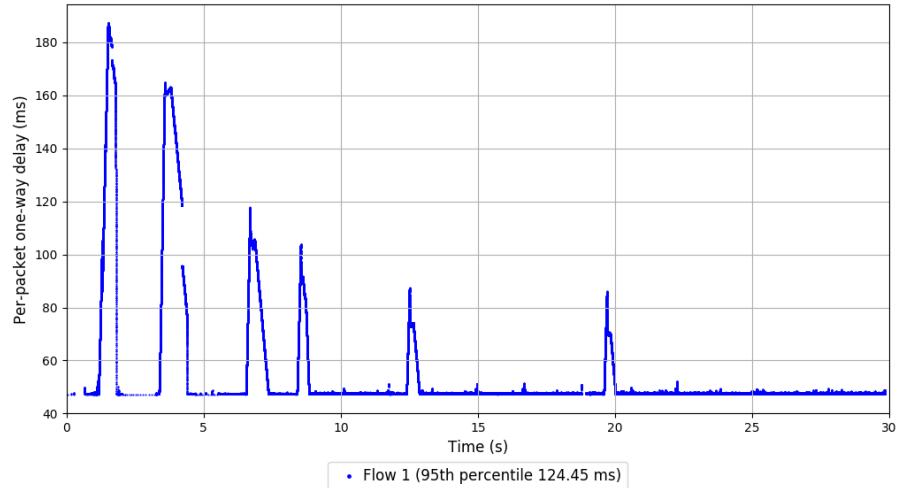
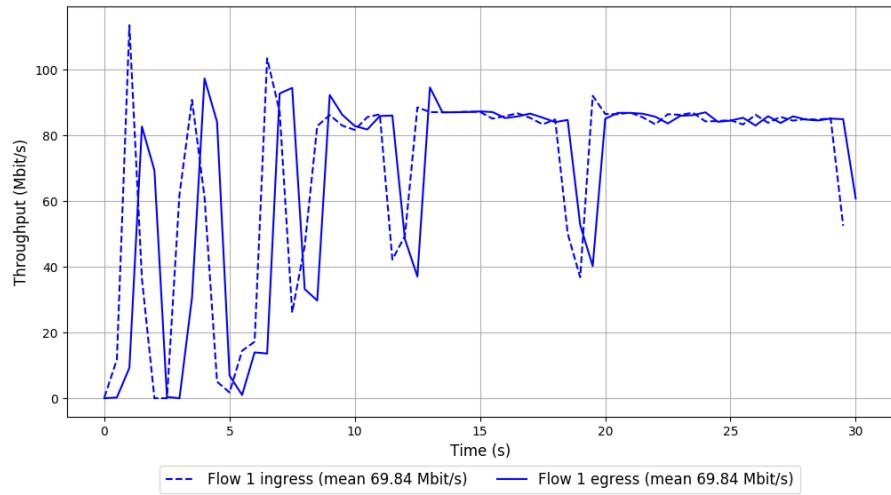


Run 5: Statistics of QUIC Cubic

```
Start at: 2019-01-02 21:16:38
End at: 2019-01-02 21:17:08
Local clock offset: 11.448 ms
Remote clock offset: 53.215 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 124.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.84 Mbit/s
95th percentile per-packet one-way delay: 124.447 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

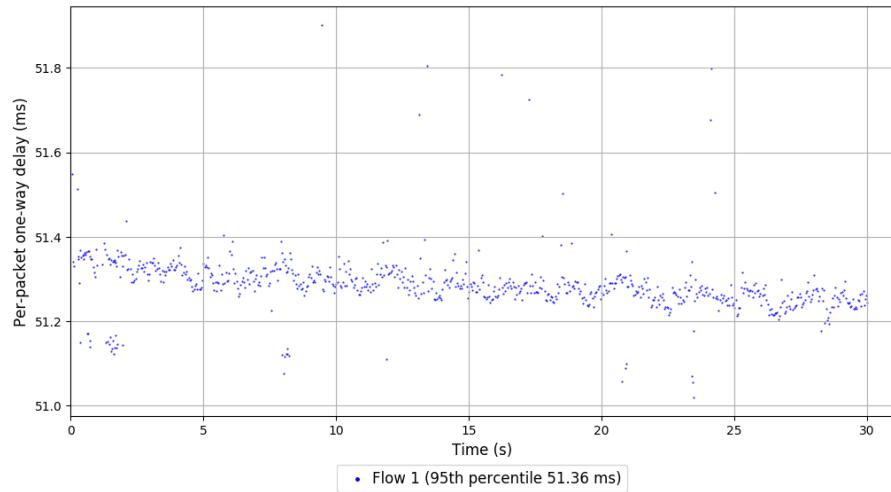
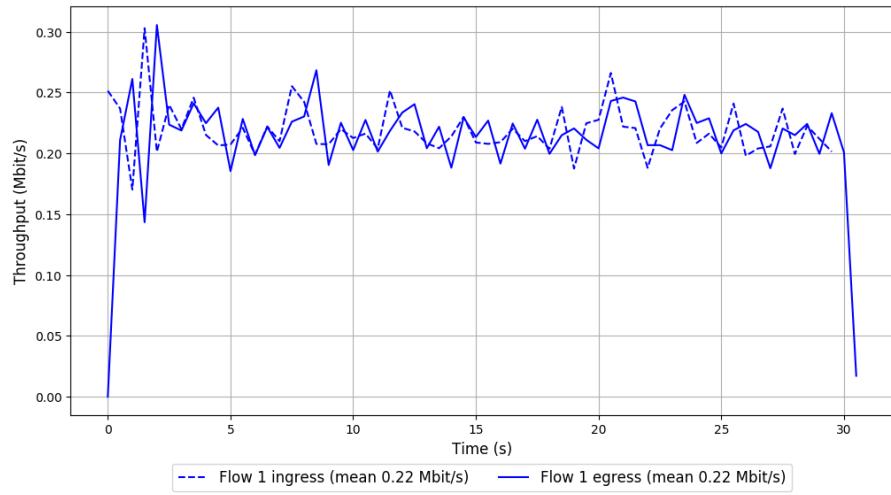


Run 1: Statistics of SCReAM

```
Start at: 2019-01-02 19:27:20
End at: 2019-01-02 19:27:50
Local clock offset: -6.104 ms
Remote clock offset: 45.891 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.358 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

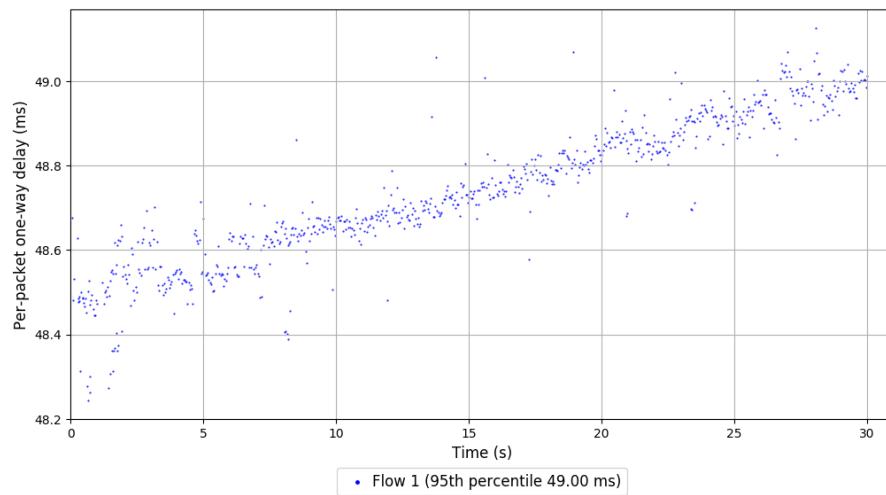
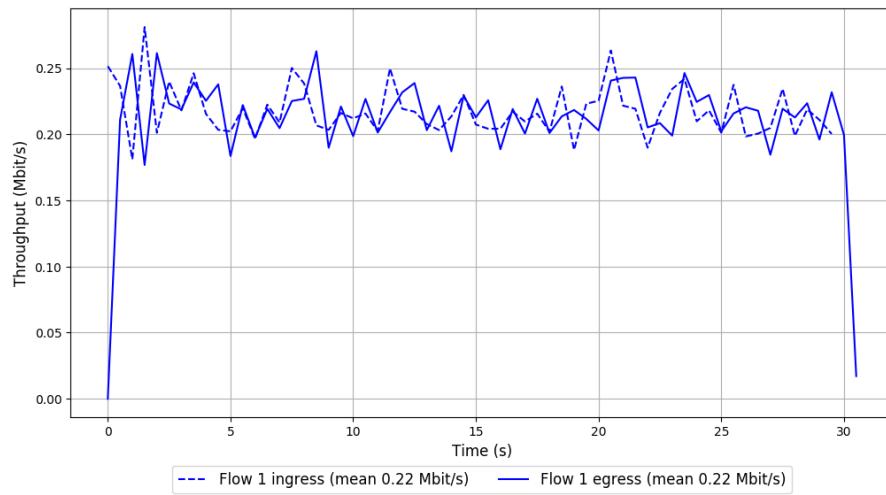


Run 2: Statistics of SCReAM

```
Start at: 2019-01-02 19:56:42
End at: 2019-01-02 19:57:12
Local clock offset: -6.696 ms
Remote clock offset: 42.536 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.996 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.996 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

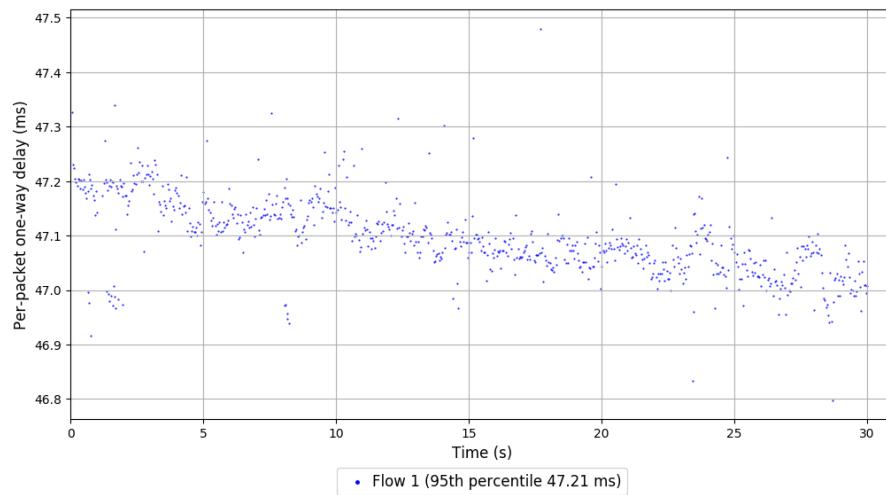
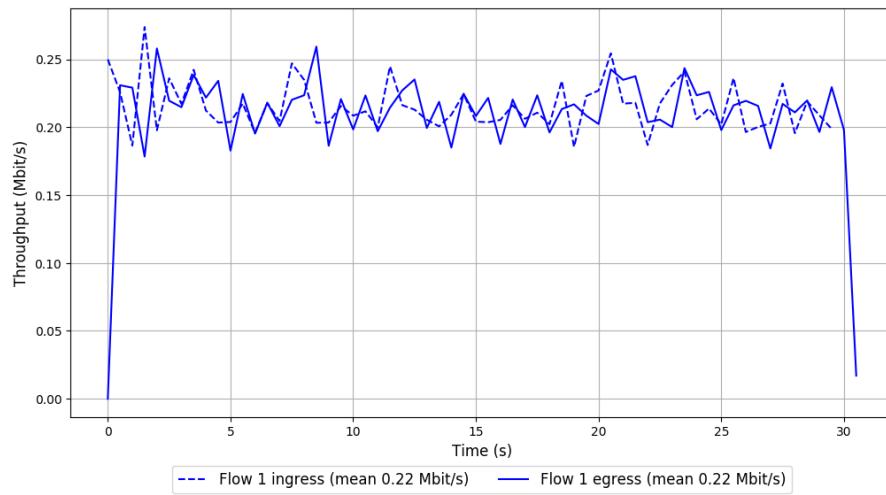


Run 3: Statistics of SCReAM

```
Start at: 2019-01-02 20:20:31
End at: 2019-01-02 20:21:01
Local clock offset: 5.118 ms
Remote clock offset: 56.757 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.208 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.208 ms
Loss rate: 0.00%
```

Run 3: Report of SCReAM — Data Link

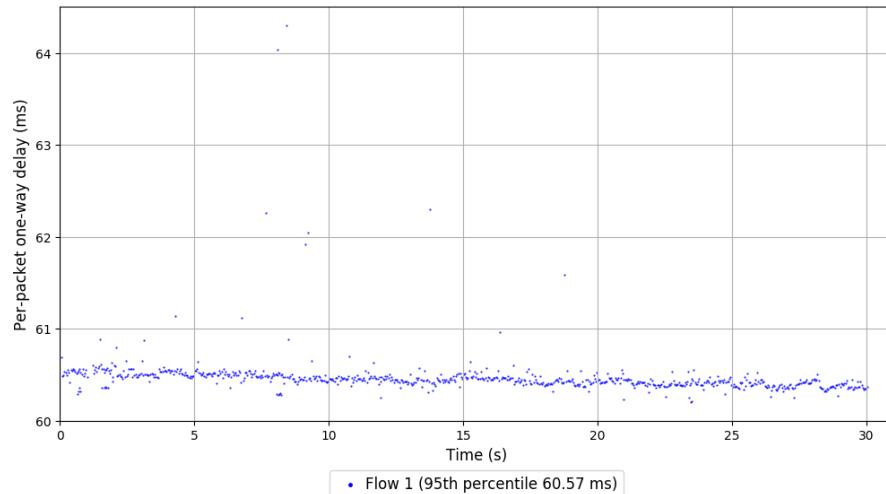
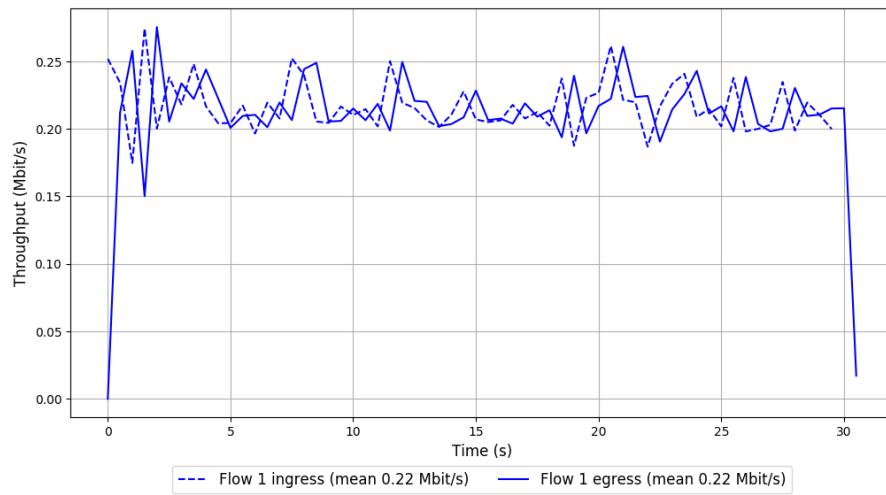


Run 4: Statistics of SCReAM

```
Start at: 2019-01-02 20:43:53
End at: 2019-01-02 20:44:24
Local clock offset: 2.475 ms
Remote clock offset: 68.484 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.566 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link

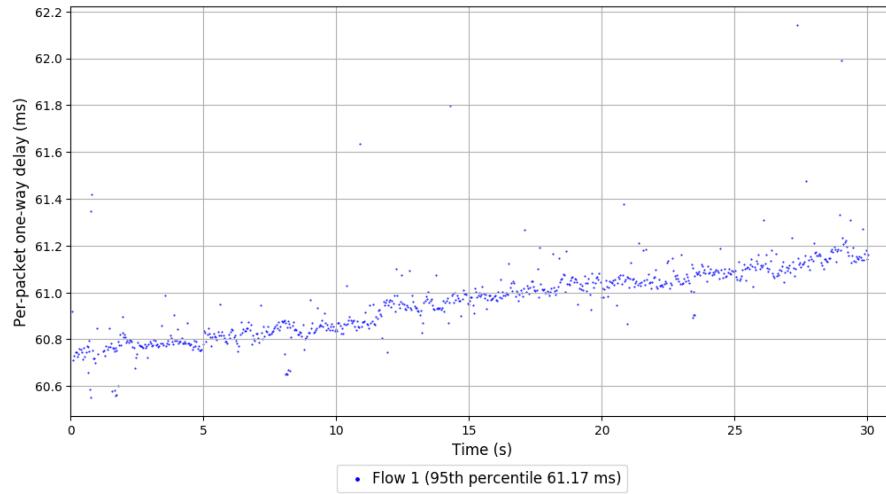
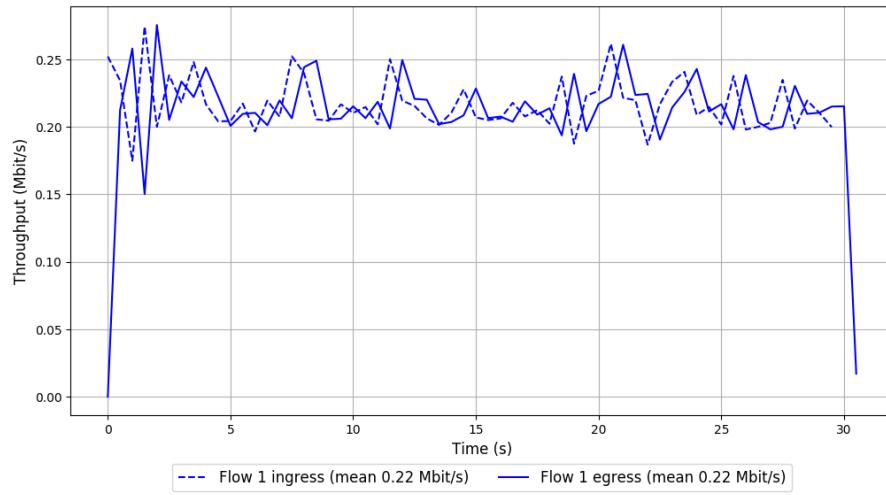


Run 5: Statistics of SCReAM

```
Start at: 2019-01-02 21:07:04
End at: 2019-01-02 21:07:34
Local clock offset: 9.037 ms
Remote clock offset: 61.133 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.172 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.172 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

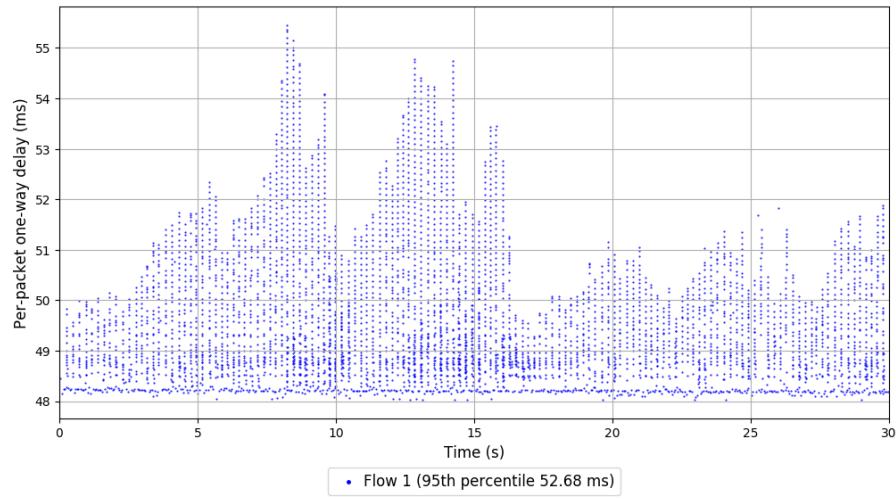
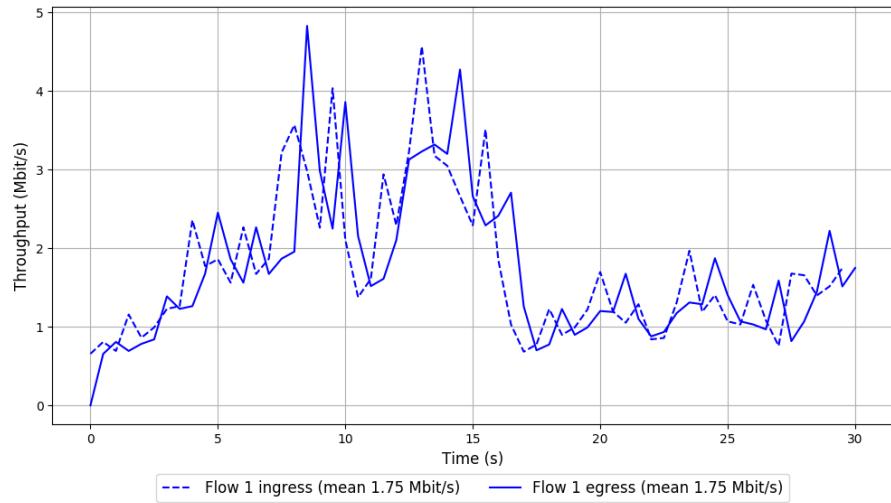


Run 1: Statistics of Sprout

```
Start at: 2019-01-02 19:34:36
End at: 2019-01-02 19:35:07
Local clock offset: -7.177 ms
Remote clock offset: 43.071 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 52.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.75 Mbit/s
95th percentile per-packet one-way delay: 52.680 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

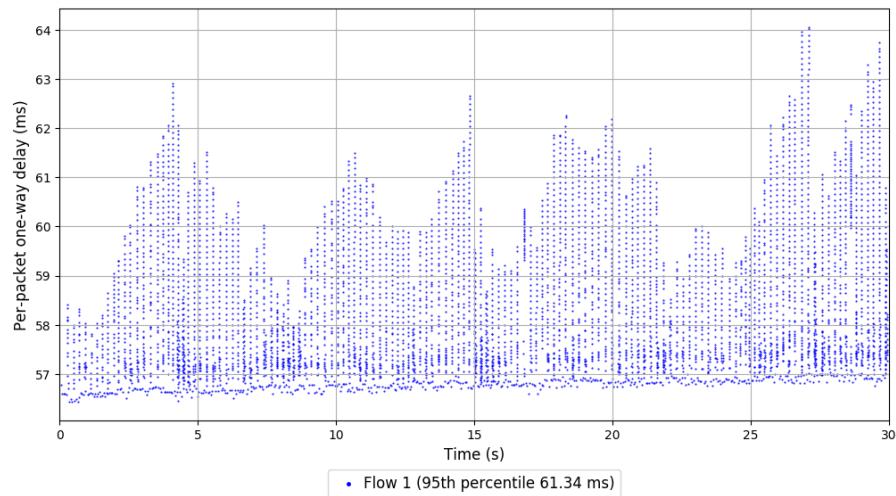
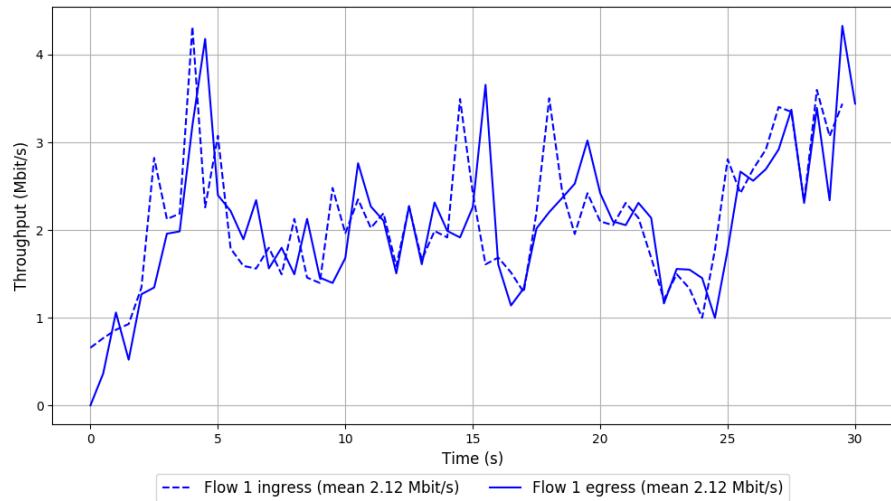


Run 2: Statistics of Sprout

```
Start at: 2019-01-02 20:01:57
End at: 2019-01-02 20:02:27
Local clock offset: -1.742 ms
Remote clock offset: 41.916 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 61.337 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 61.337 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

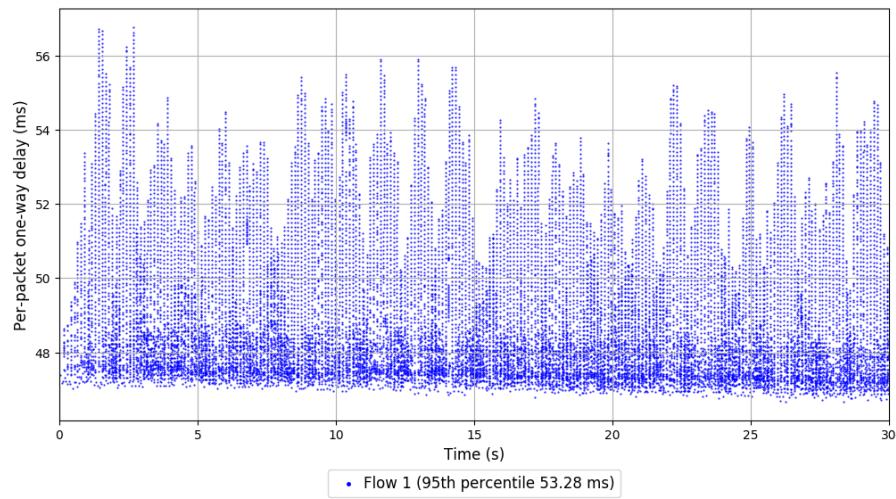
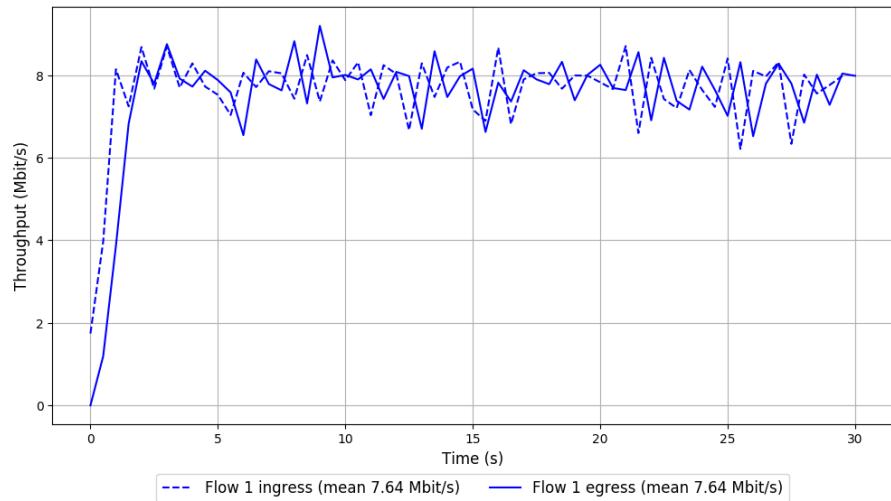


Run 3: Statistics of Sprout

```
Start at: 2019-01-02 20:25:31
End at: 2019-01-02 20:26:01
Local clock offset: 5.314 ms
Remote clock offset: 59.556 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 53.285 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.64 Mbit/s
95th percentile per-packet one-way delay: 53.285 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

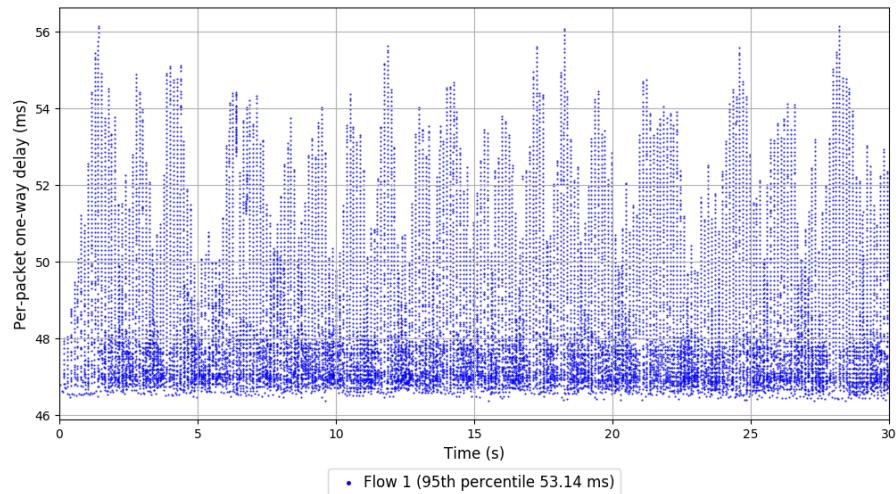
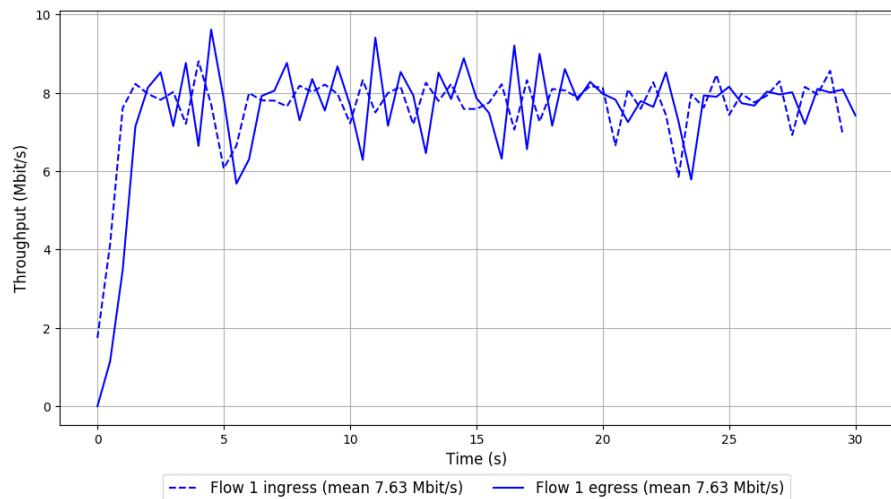


Run 4: Statistics of Sprout

```
Start at: 2019-01-02 20:49:05
End at: 2019-01-02 20:49:35
Local clock offset: 2.595 ms
Remote clock offset: 65.554 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 53.136 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.63 Mbit/s
95th percentile per-packet one-way delay: 53.136 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

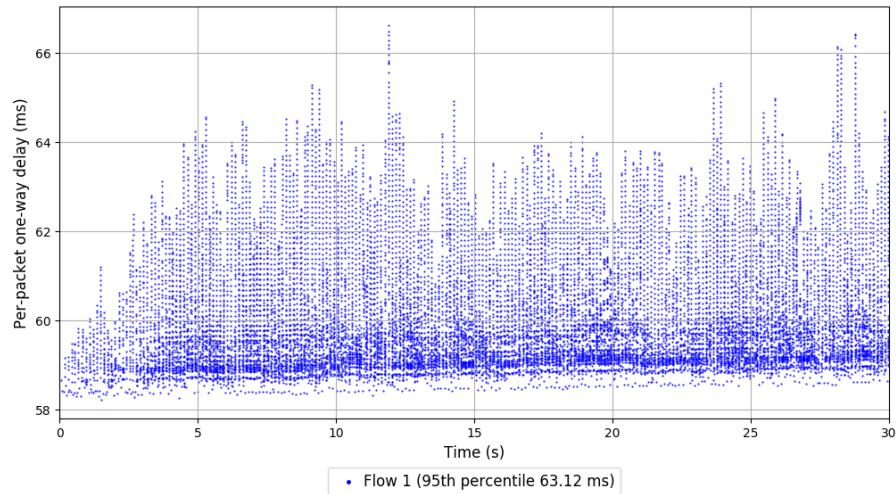
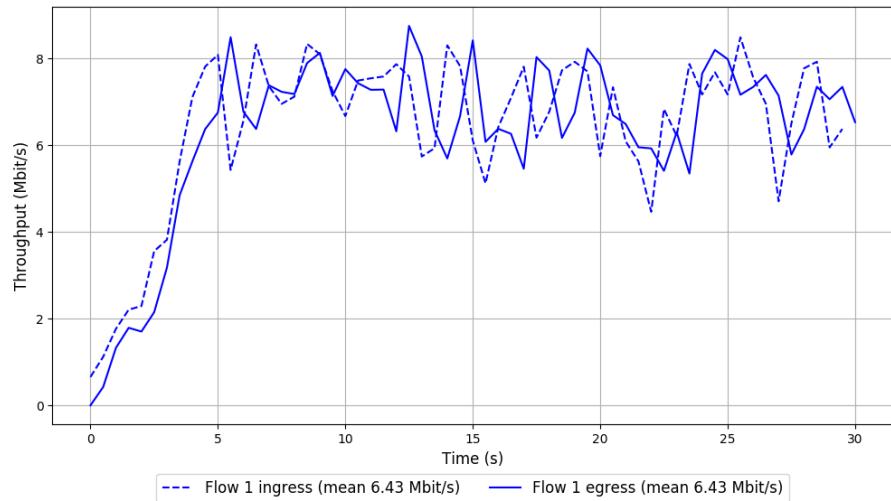


Run 5: Statistics of Sprout

```
Start at: 2019-01-02 21:11:47
End at: 2019-01-02 21:12:17
Local clock offset: 10.112 ms
Remote clock offset: 56.284 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 63.125 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 63.125 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

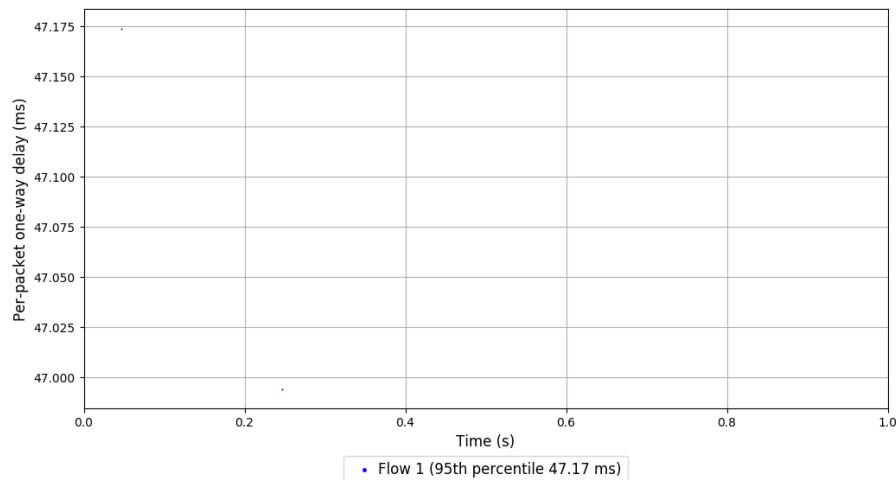
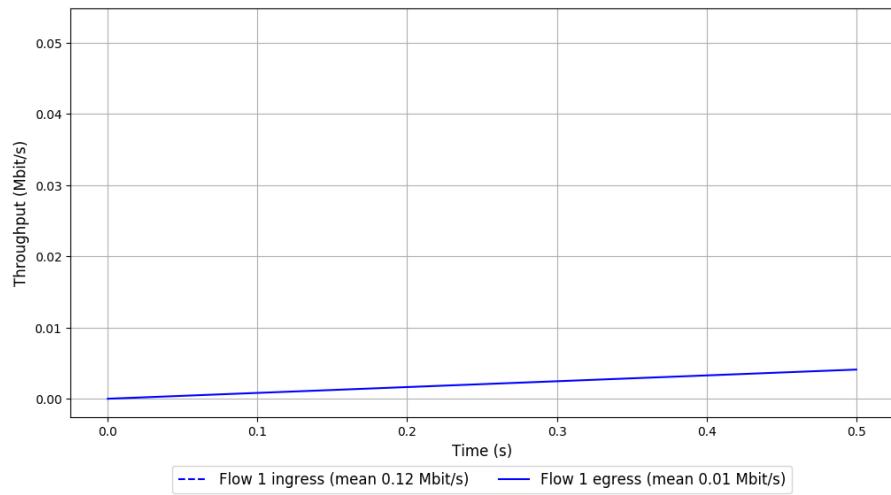
Start at: 2019-01-02 19:42:25

End at: 2019-01-02 19:42:55

Local clock offset: -8.148 ms

Remote clock offset: 41.625 ms

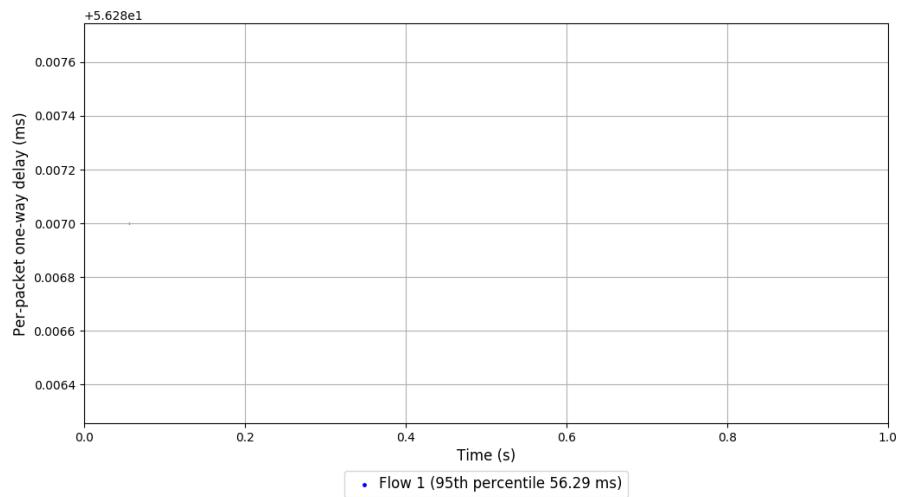
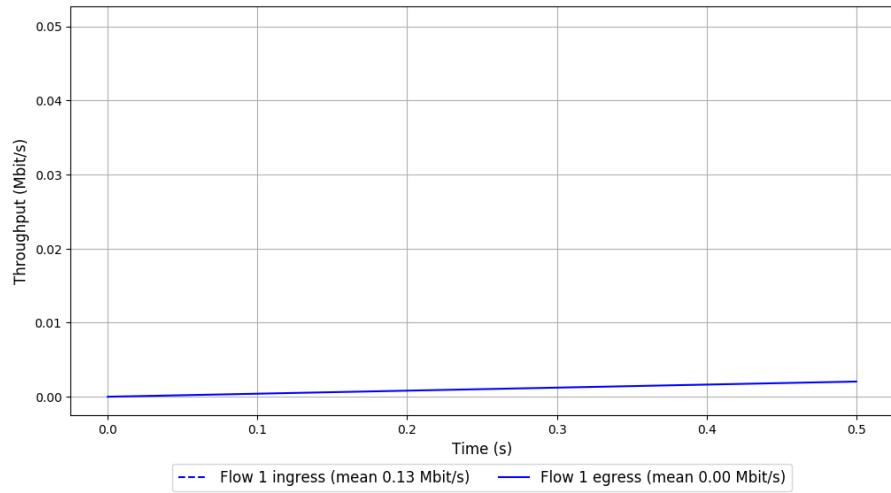
Run 1: Report of TaoVA-100x — Data Link



Run 2: Statistics of TaoVA-100x

Start at: 2019-01-02 20:08:07
End at: 2019-01-02 20:08:37
Local clock offset: 1.967 ms
Remote clock offset: 46.346 ms

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



Run 3: Statistics of TaoVA-100x

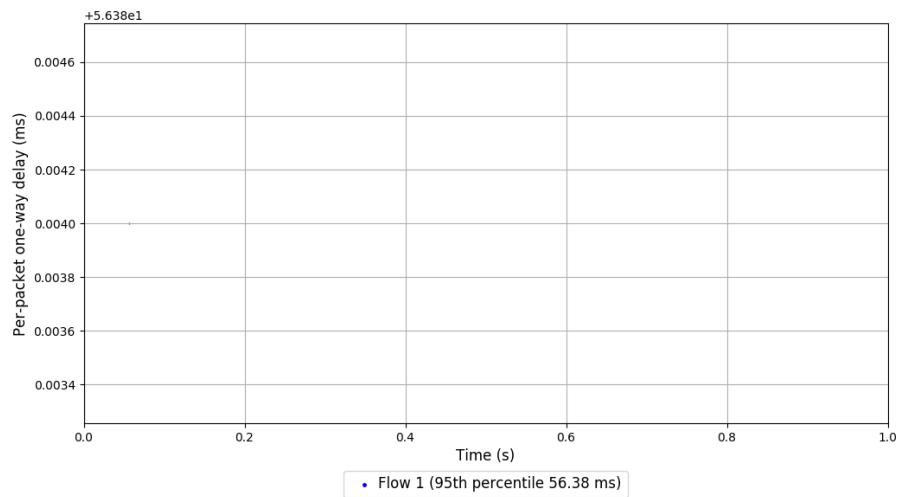
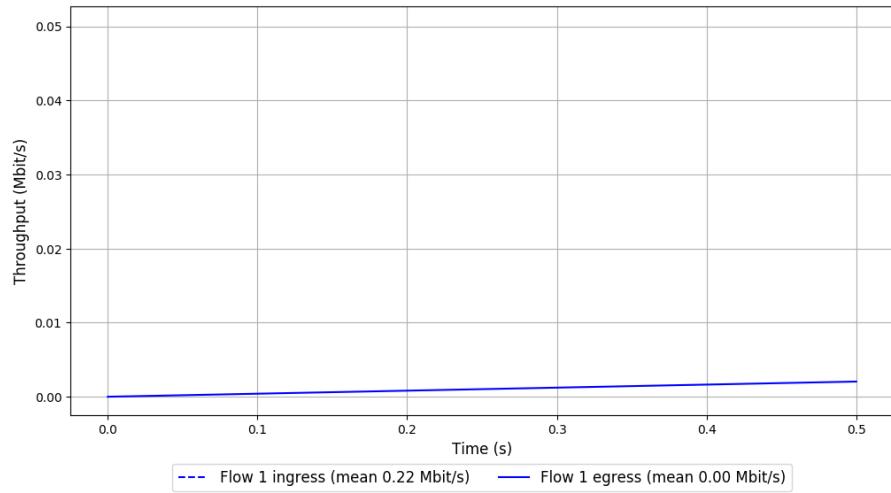
Start at: 2019-01-02 20:31:28

End at: 2019-01-02 20:31:58

Local clock offset: 3.608 ms

Remote clock offset: 61.207 ms

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



Run 4: Statistics of TaoVA-100x

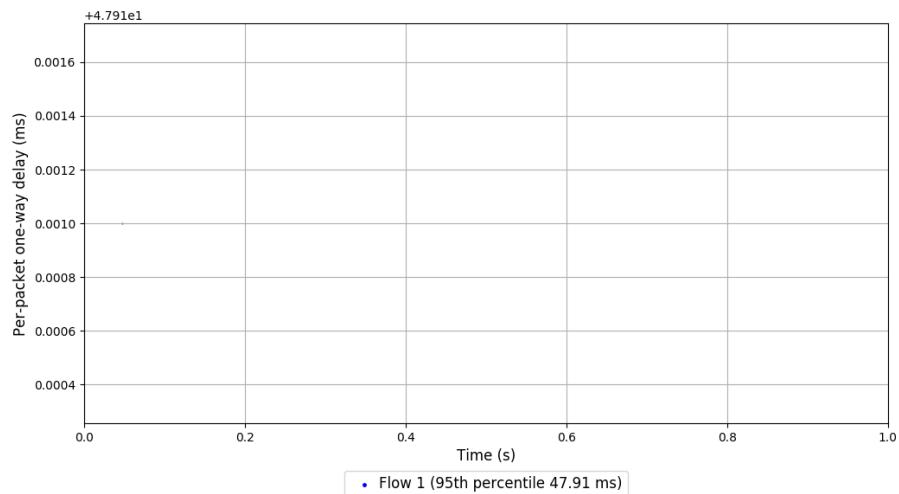
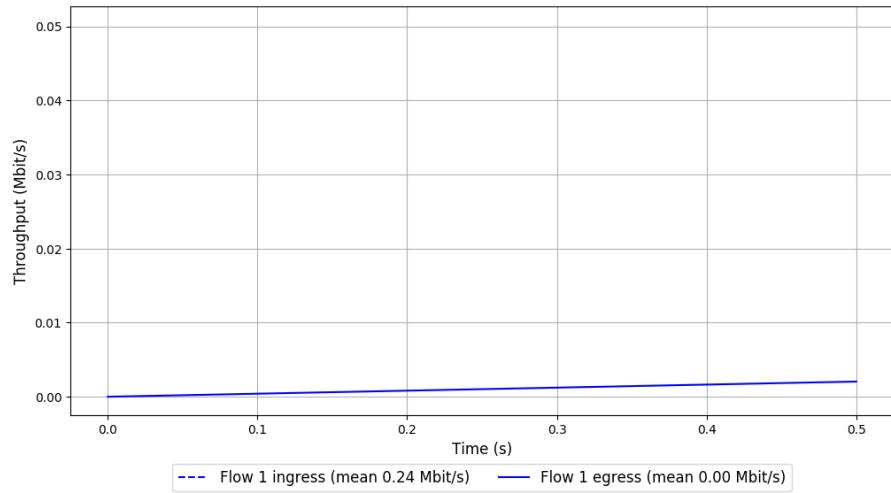
Start at: 2019-01-02 20:55:14

End at: 2019-01-02 20:55:44

Local clock offset: 2.951 ms

Remote clock offset: 67.167 ms

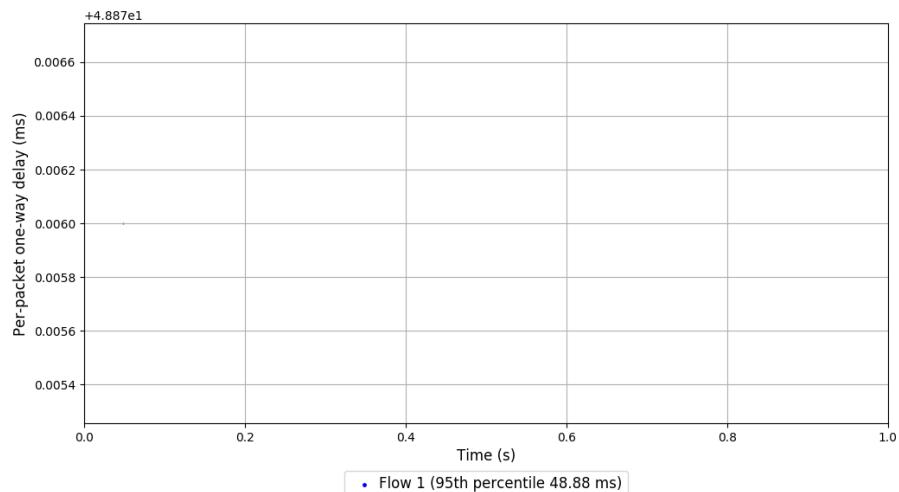
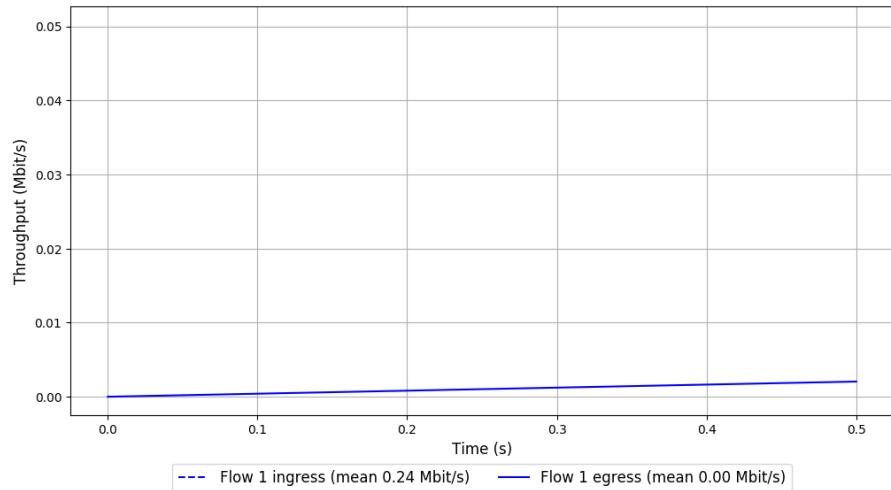
Run 4: Report of TaoVA-100x — Data Link



Run 5: Statistics of TaoVA-100x

Start at: 2019-01-02 21:17:50
End at: 2019-01-02 21:18:20
Local clock offset: 11.565 ms
Remote clock offset: 54.109 ms

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

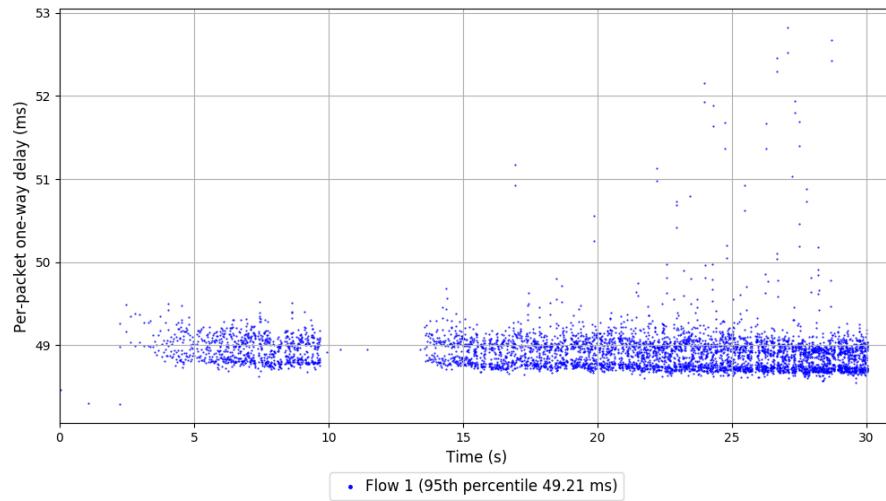
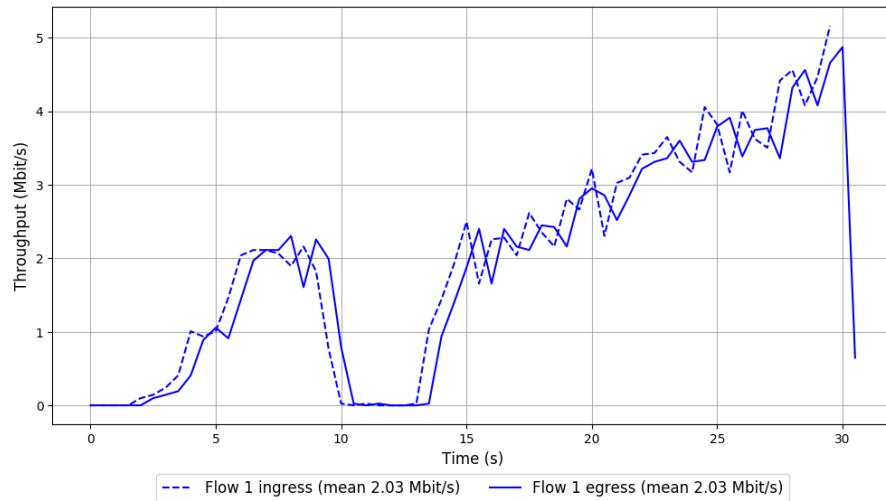


Run 1: Statistics of TCP Vegas

```
Start at: 2019-01-02 19:53:09
End at: 2019-01-02 19:53:39
Local clock offset: -9.444 ms
Remote clock offset: 43.19 ms

# Below is generated by plot.py at 2019-01-02 21:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 49.211 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 49.211 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

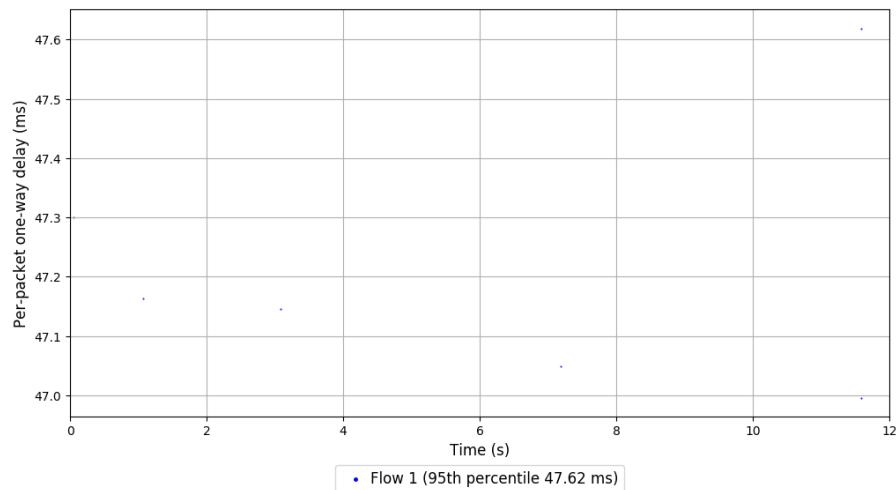
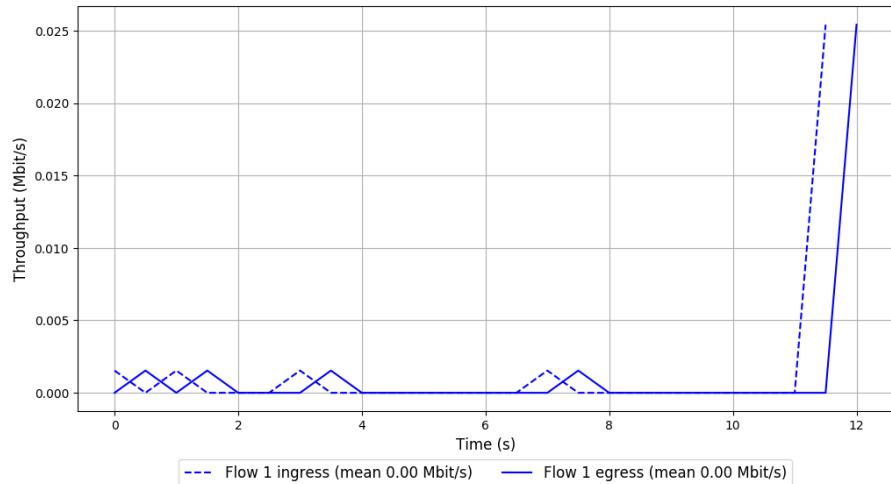
Start at: 2019-01-02 20:16:51

End at: 2019-01-02 20:17:21

Local clock offset: 4.335 ms

Remote clock offset: 54.739 ms

Run 2: Report of TCP Vegas — Data Link

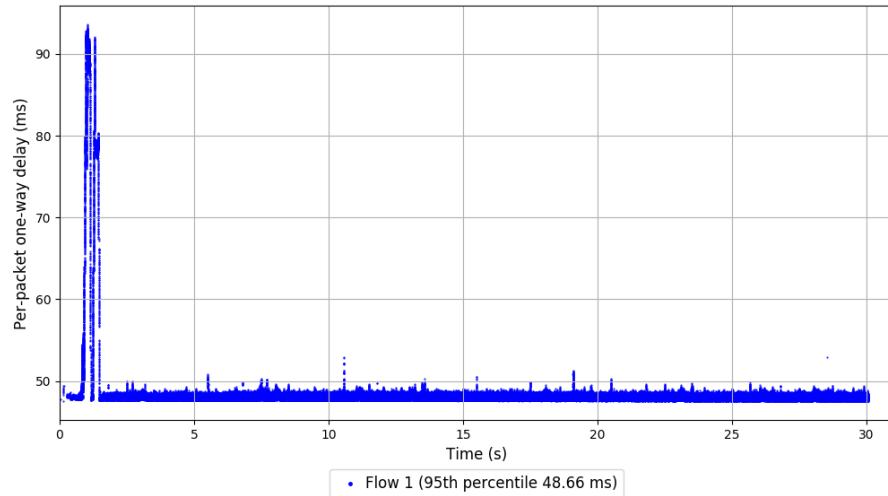
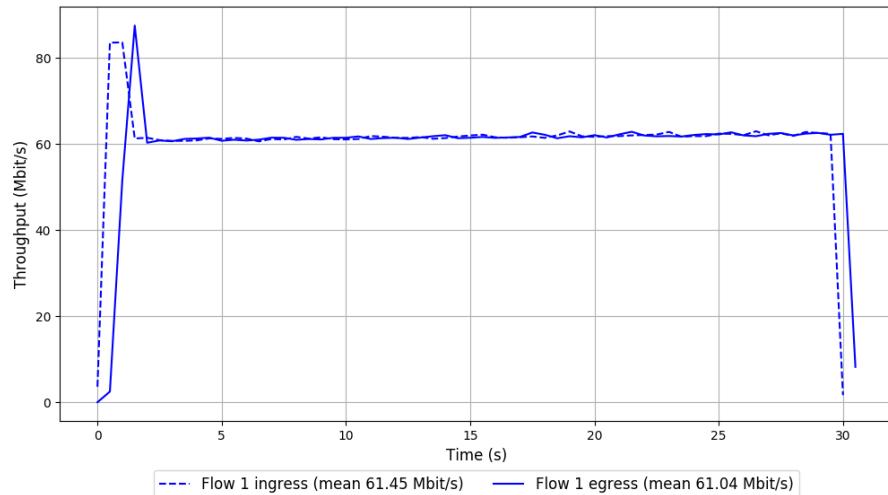


Run 3: Statistics of TCP Vegas

```
Start at: 2019-01-02 20:40:18
End at: 2019-01-02 20:40:48
Local clock offset: 2.588 ms
Remote clock offset: 63.904 ms

# Below is generated by plot.py at 2019-01-02 21:33:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 48.656 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 61.04 Mbit/s
95th percentile per-packet one-way delay: 48.656 ms
Loss rate: 0.66%
```

Run 3: Report of TCP Vegas — Data Link

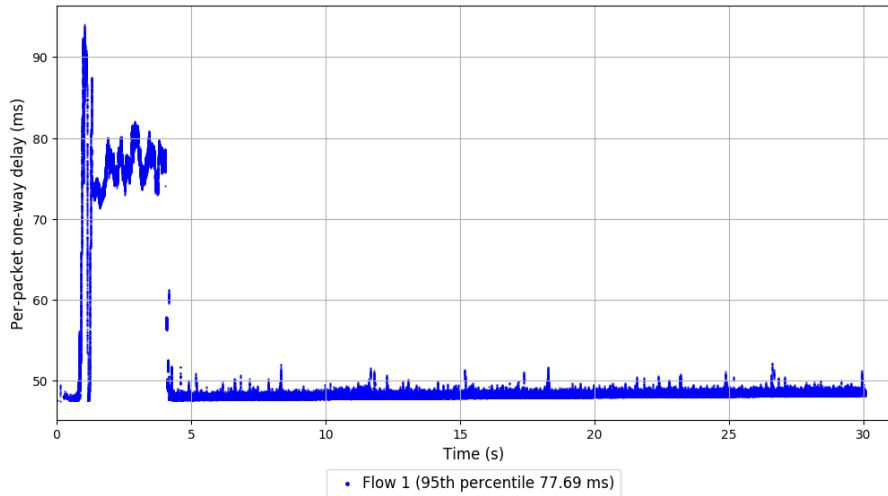
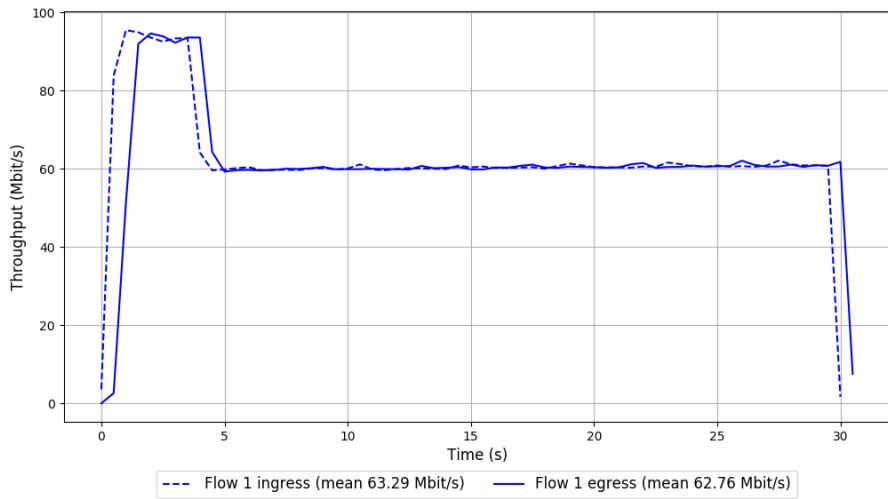


Run 4: Statistics of TCP Vegas

```
Start at: 2019-01-02 21:03:29
End at: 2019-01-02 21:03:59
Local clock offset: 7.617 ms
Remote clock offset: 59.842 ms

# Below is generated by plot.py at 2019-01-02 21:33:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 77.689 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 62.76 Mbit/s
95th percentile per-packet one-way delay: 77.689 ms
Loss rate: 0.84%
```

Run 4: Report of TCP Vegas — Data Link

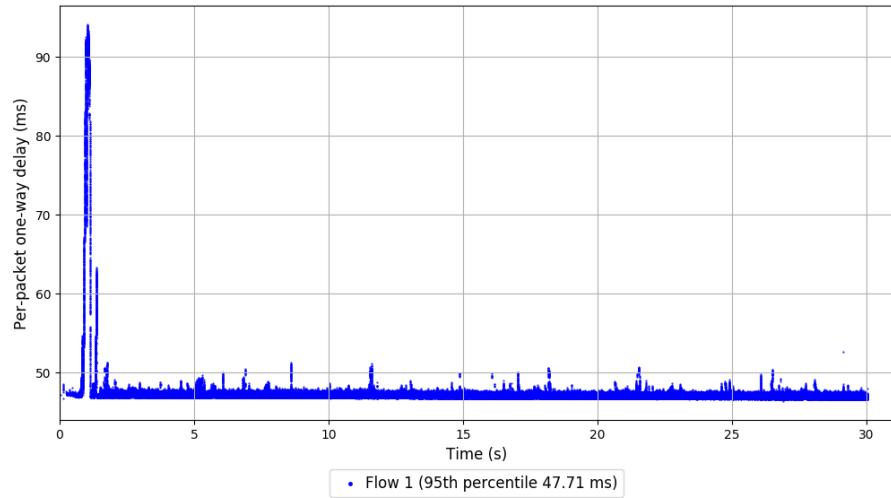
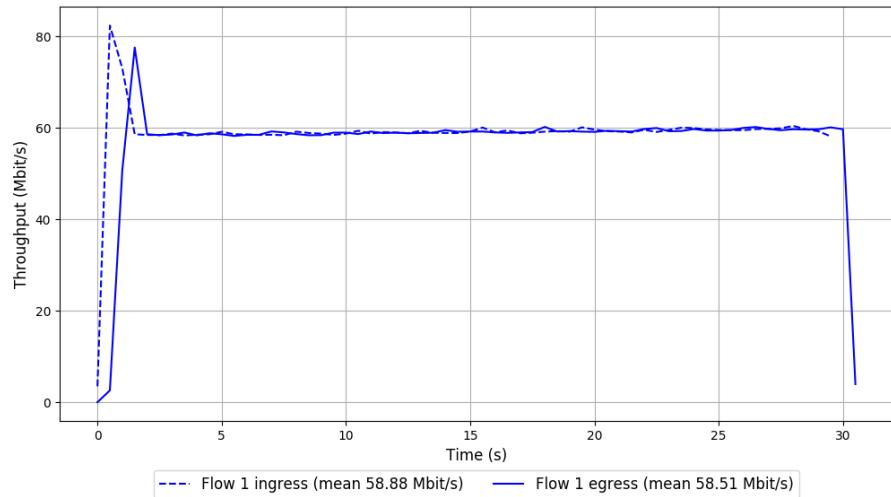


Run 5: Statistics of TCP Vegas

```
Start at: 2019-01-02 21:27:08
End at: 2019-01-02 21:27:38
Local clock offset: 10.536 ms
Remote clock offset: 51.388 ms

# Below is generated by plot.py at 2019-01-02 21:33:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 47.708 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 58.51 Mbit/s
95th percentile per-packet one-way delay: 47.708 ms
Loss rate: 0.63%
```

Run 5: Report of TCP Vegas — Data Link

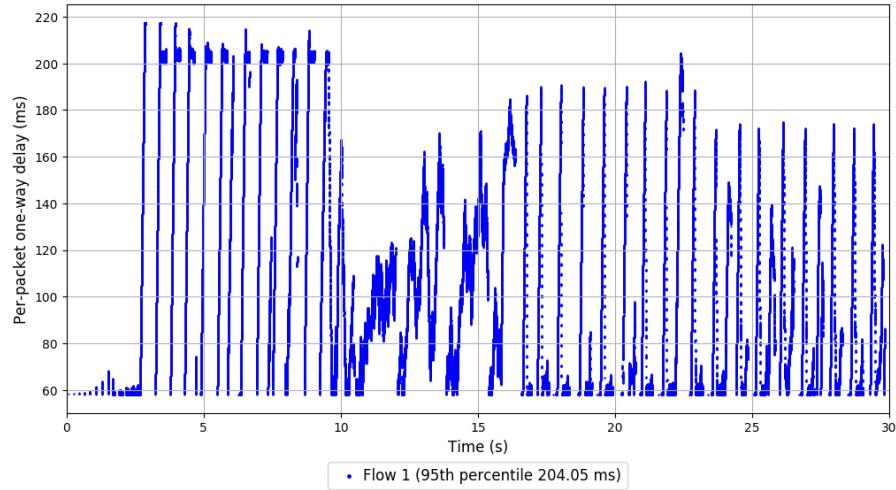
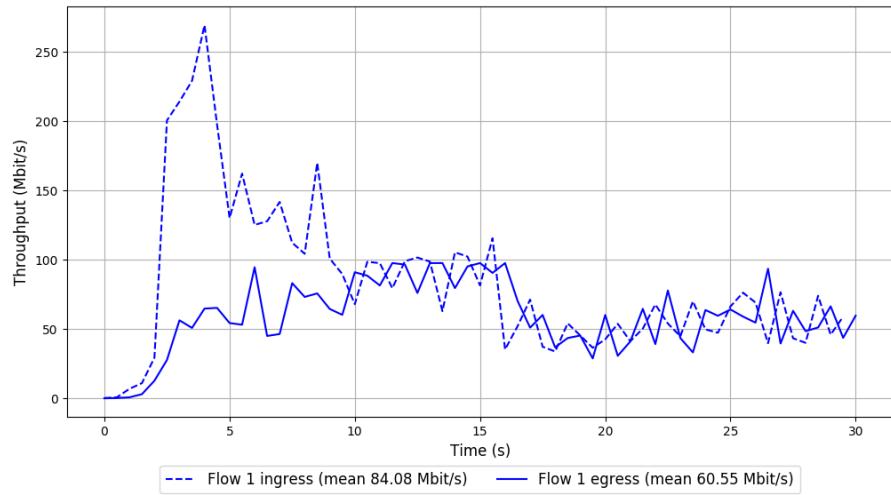


```
Run 1: Statistics of Verus
```

```
Start at: 2019-01-02 19:39:13
End at: 2019-01-02 19:39:43
Local clock offset: -7.766 ms
Remote clock offset: 43.026 ms

# Below is generated by plot.py at 2019-01-02 21:33:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.55 Mbit/s
95th percentile per-packet one-way delay: 204.054 ms
Loss rate: 27.94%
-- Flow 1:
Average throughput: 60.55 Mbit/s
95th percentile per-packet one-way delay: 204.054 ms
Loss rate: 27.94%
```

Run 1: Report of Verus — Data Link

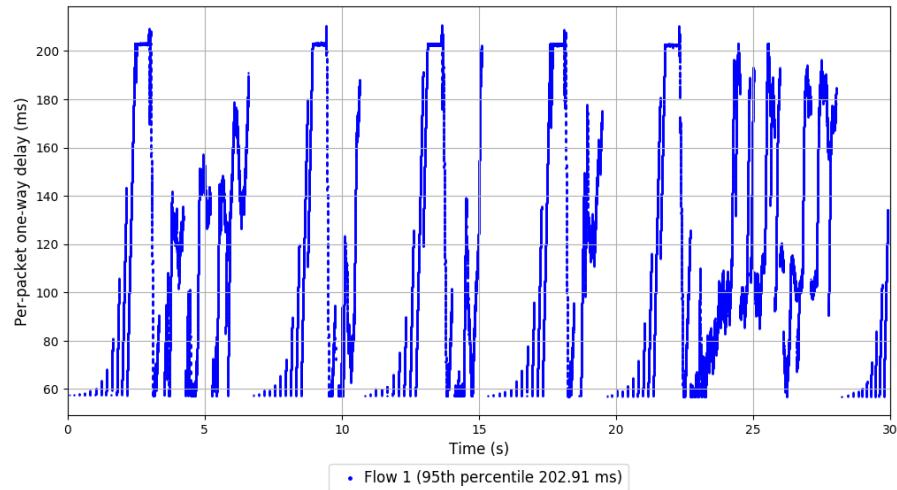
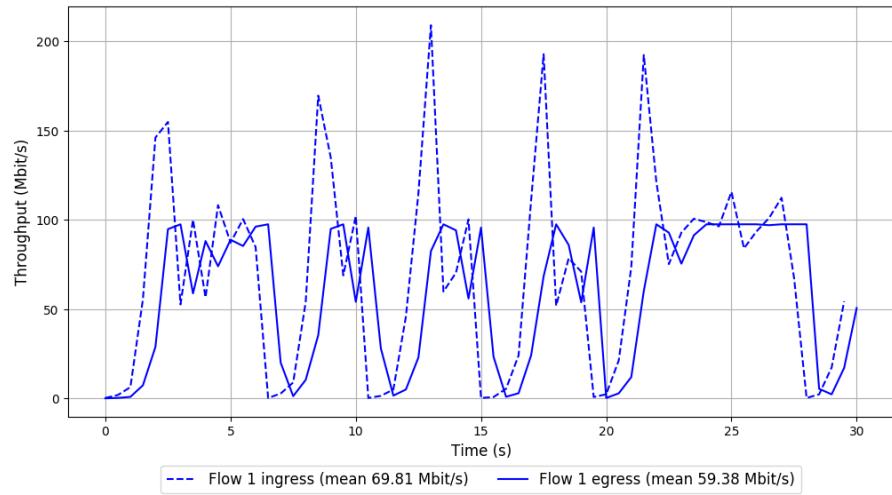


Run 2: Statistics of Verus

```
Start at: 2019-01-02 20:05:41
End at: 2019-01-02 20:06:11
Local clock offset: 0.785 ms
Remote clock offset: 43.859 ms

# Below is generated by plot.py at 2019-01-02 21:33:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.38 Mbit/s
95th percentile per-packet one-way delay: 202.911 ms
Loss rate: 14.75%
-- Flow 1:
Average throughput: 59.38 Mbit/s
95th percentile per-packet one-way delay: 202.911 ms
Loss rate: 14.75%
```

Run 2: Report of Verus — Data Link

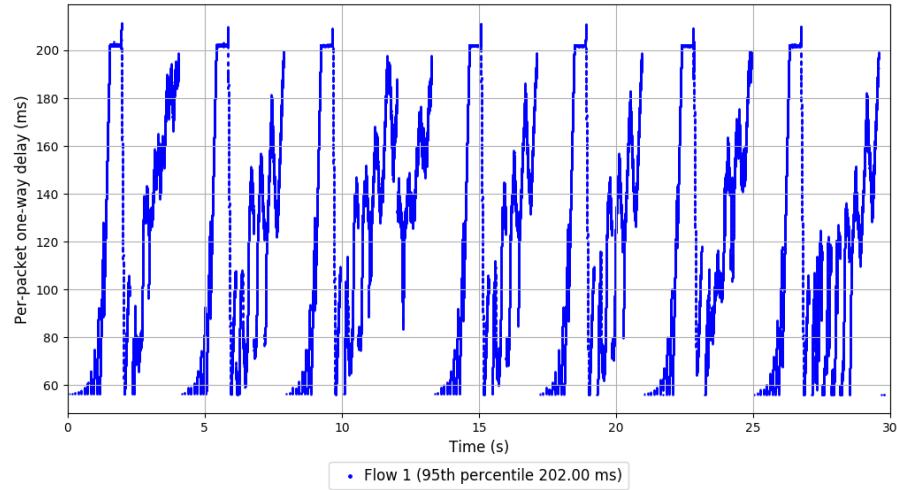
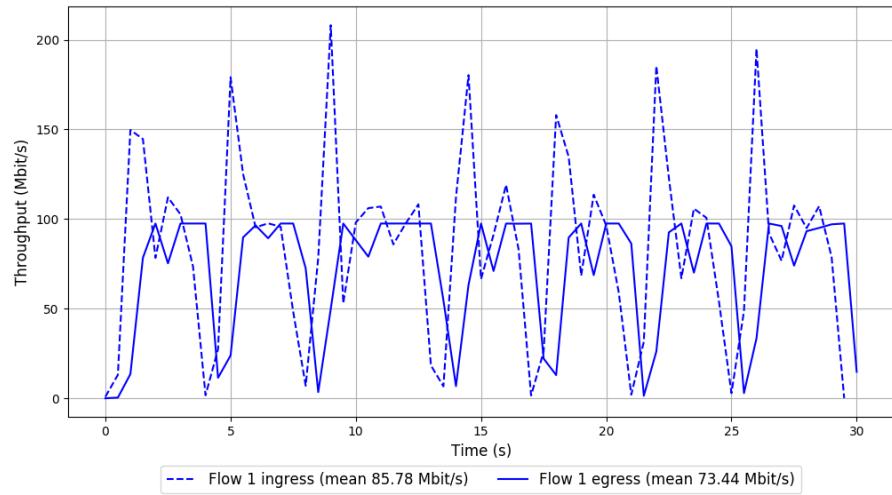


Run 3: Statistics of Verus

```
Start at: 2019-01-02 20:29:03
End at: 2019-01-02 20:29:33
Local clock offset: 4.11 ms
Remote clock offset: 60.349 ms

# Below is generated by plot.py at 2019-01-02 21:34:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 202.004 ms
Loss rate: 14.39%
-- Flow 1:
Average throughput: 73.44 Mbit/s
95th percentile per-packet one-way delay: 202.004 ms
Loss rate: 14.39%
```

Run 3: Report of Verus — Data Link

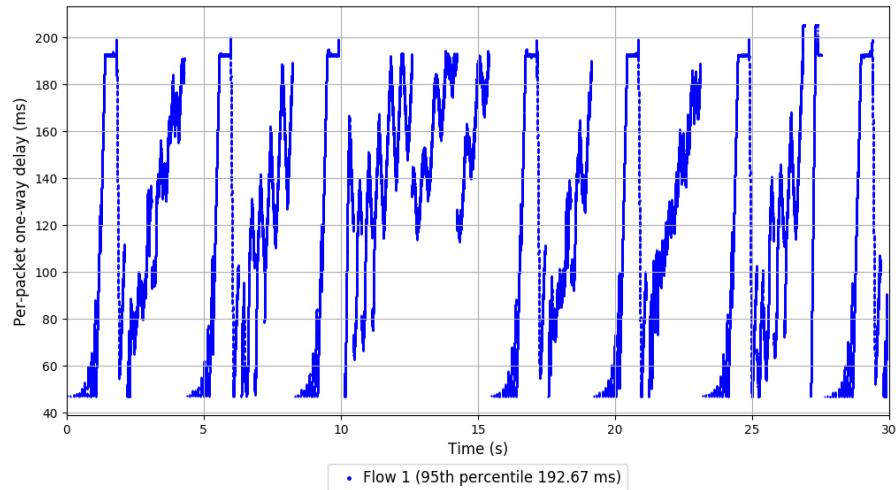
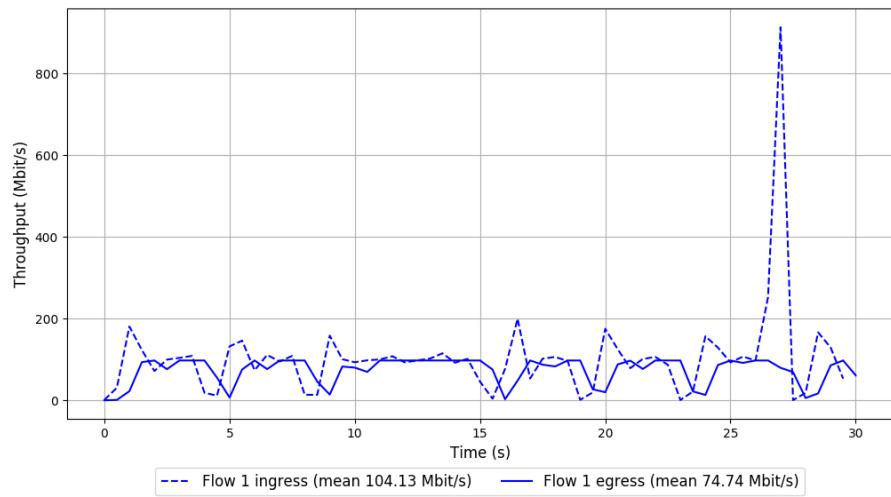


Run 4: Statistics of Verus

```
Start at: 2019-01-02 20:52:36
End at: 2019-01-02 20:53:06
Local clock offset: 2.527 ms
Remote clock offset: 66.424 ms

# Below is generated by plot.py at 2019-01-02 21:34:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.74 Mbit/s
95th percentile per-packet one-way delay: 192.667 ms
Loss rate: 28.16%
-- Flow 1:
Average throughput: 74.74 Mbit/s
95th percentile per-packet one-way delay: 192.667 ms
Loss rate: 28.16%
```

Run 4: Report of Verus — Data Link

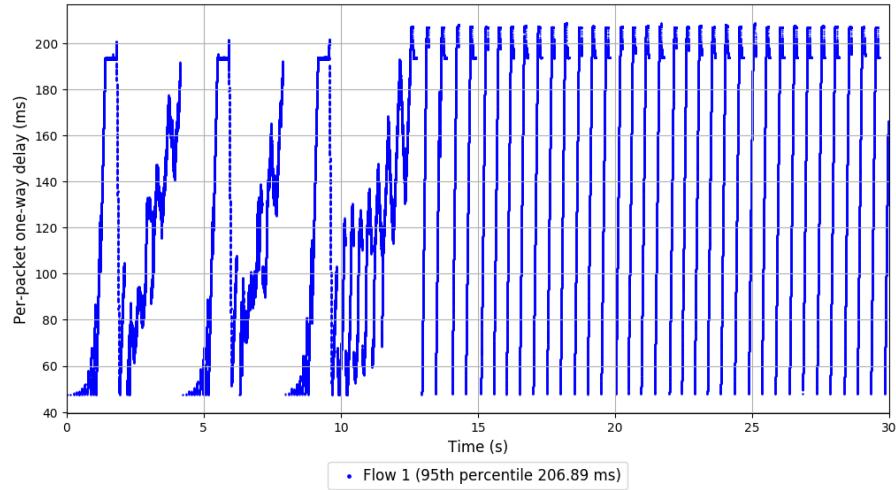
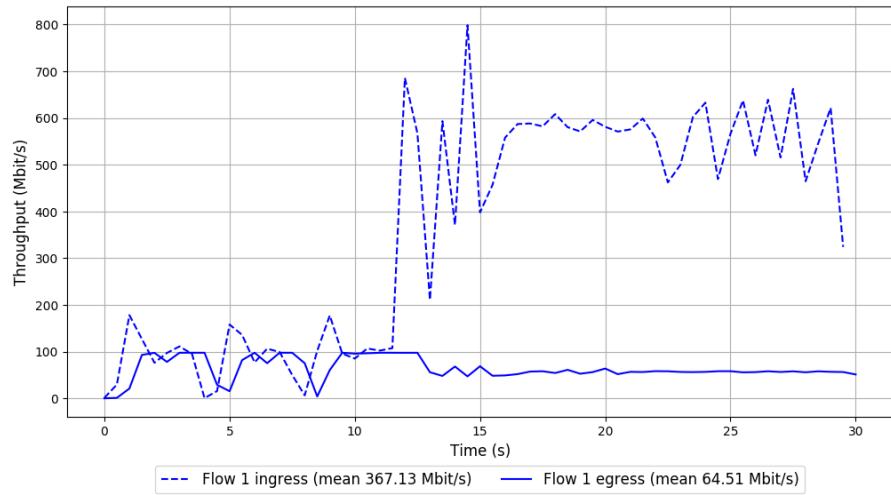


Run 5: Statistics of Verus

```
Start at: 2019-01-02 21:15:22
End at: 2019-01-02 21:15:52
Local clock offset: 10.882 ms
Remote clock offset: 53.484 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.51 Mbit/s
95th percentile per-packet one-way delay: 206.888 ms
Loss rate: 82.40%
-- Flow 1:
Average throughput: 64.51 Mbit/s
95th percentile per-packet one-way delay: 206.888 ms
Loss rate: 82.40%
```

Run 5: Report of Verus — Data Link

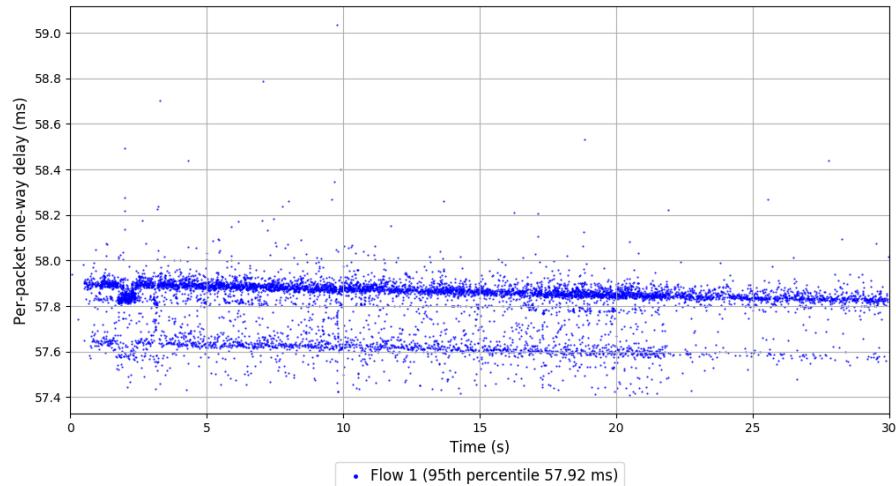
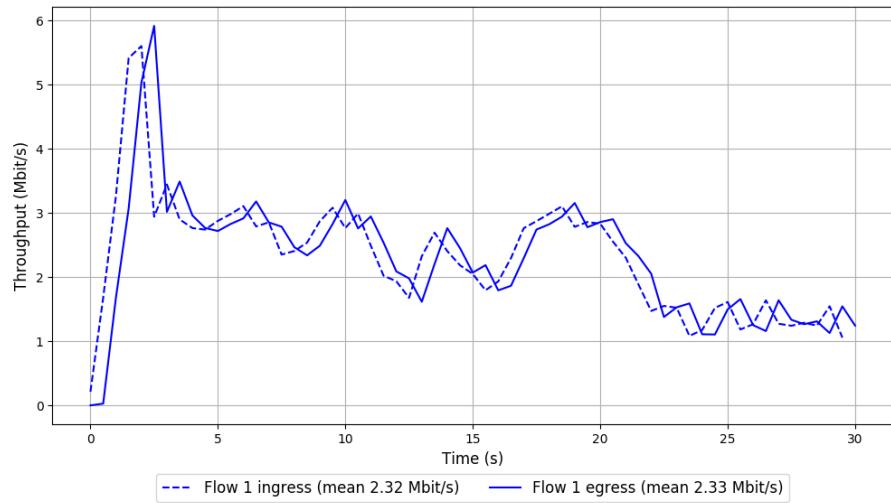


```
Run 1: Statistics of PCC-Vivace
```

```
Start at: 2019-01-02 19:29:56
End at: 2019-01-02 19:30:26
Local clock offset: -6.518 ms
Remote clock offset: 43.194 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 57.918 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 57.918 ms
Loss rate: 0.02%
```

Run 1: Report of PCC-Vivace — Data Link

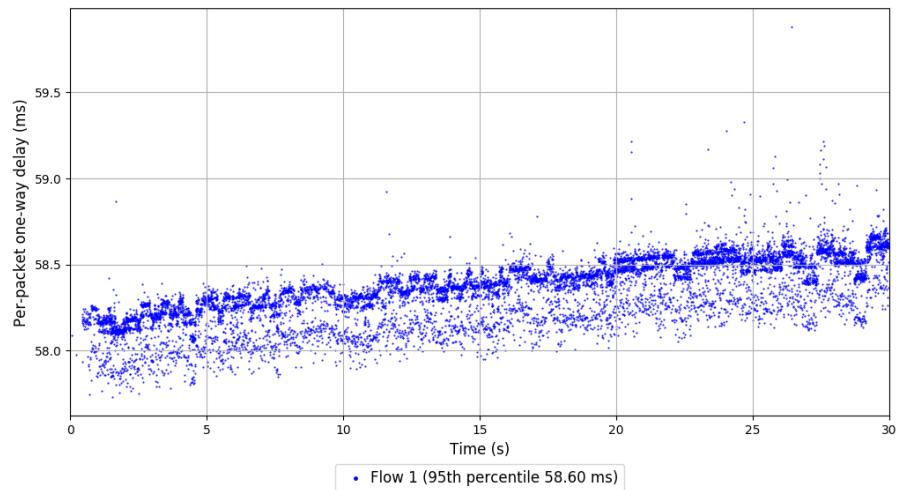
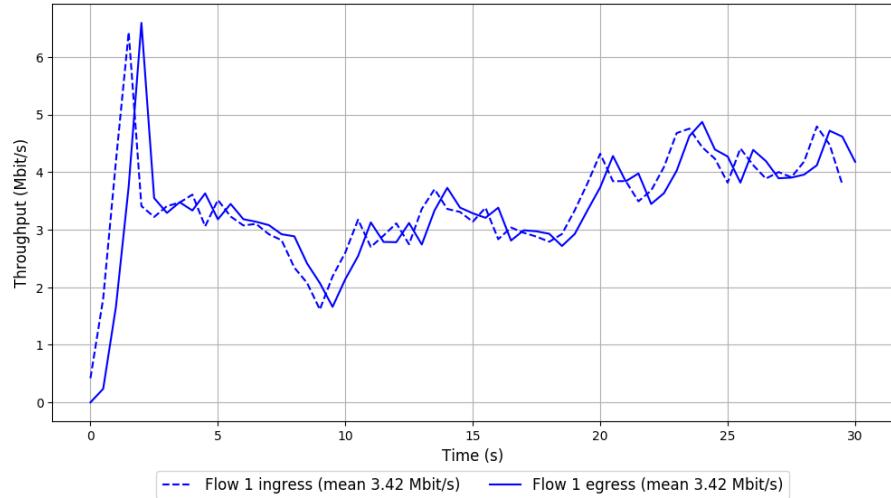


Run 2: Statistics of PCC-Vivace

```
Start at: 2019-01-02 19:59:09
End at: 2019-01-02 19:59:39
Local clock offset: -4.01 ms
Remote clock offset: 43.082 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 58.598 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 58.598 ms
Loss rate: 0.03%
```

Run 2: Report of PCC-Vivace — Data Link

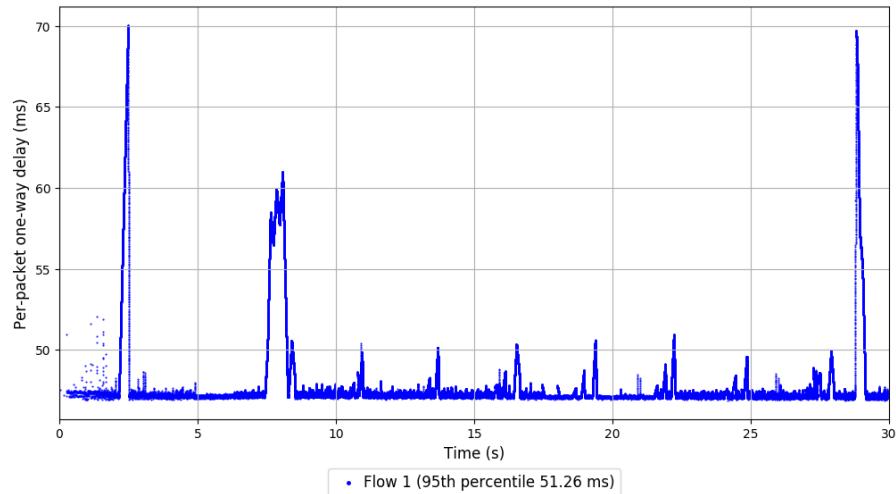
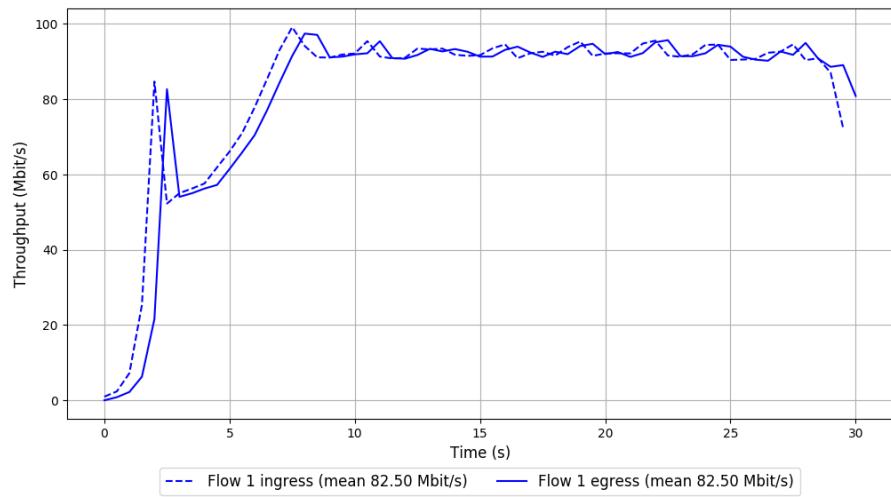


Run 3: Statistics of PCC-Vivace

```
Start at: 2019-01-02 20:22:48
End at: 2019-01-02 20:23:18
Local clock offset: 5.416 ms
Remote clock offset: 58.088 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.50 Mbit/s
95th percentile per-packet one-way delay: 51.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.50 Mbit/s
95th percentile per-packet one-way delay: 51.261 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

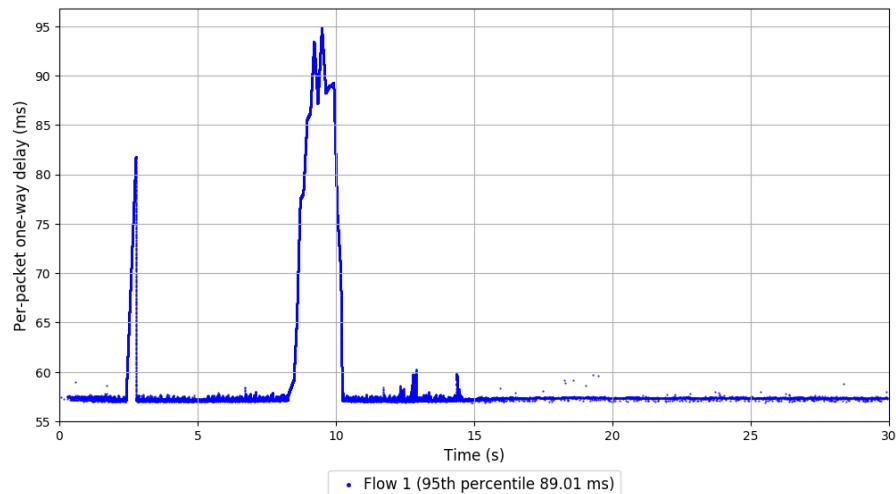
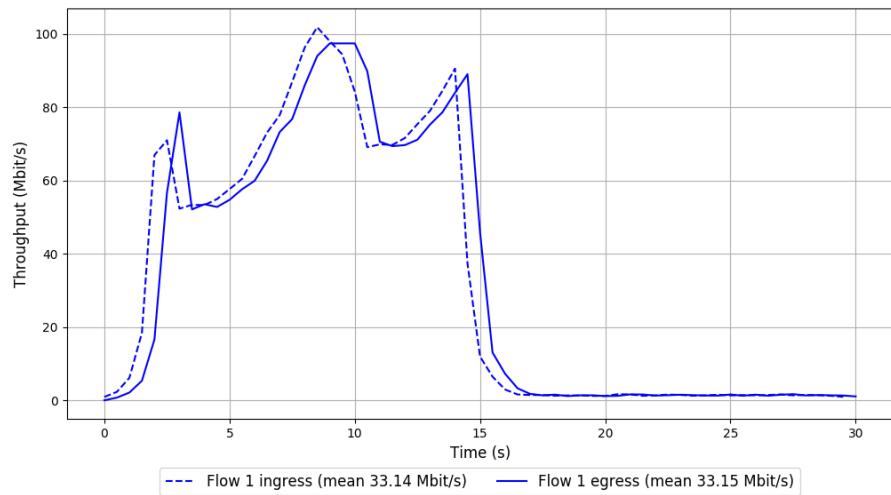


Run 4: Statistics of PCC-Vivace

```
Start at: 2019-01-02 20:46:11
End at: 2019-01-02 20:46:41
Local clock offset: 2.516 ms
Remote clock offset: 66.02 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.15 Mbit/s
95th percentile per-packet one-way delay: 89.011 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.15 Mbit/s
95th percentile per-packet one-way delay: 89.011 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

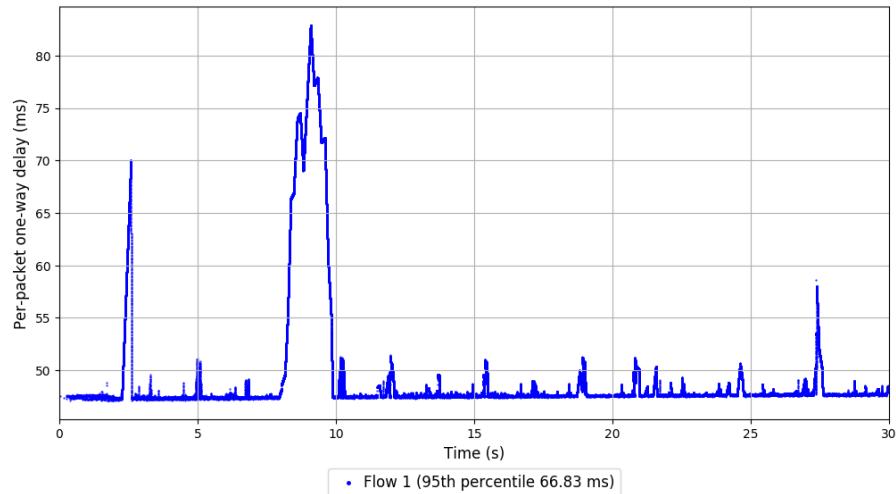
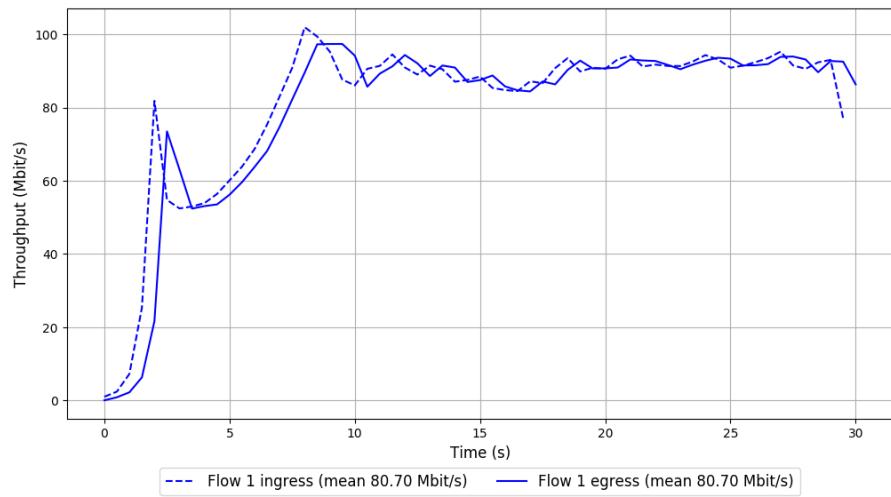


Run 5: Statistics of PCC-Vivace

```
Start at: 2019-01-02 21:09:22
End at: 2019-01-02 21:09:52
Local clock offset: 9.838 ms
Remote clock offset: 56.005 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.70 Mbit/s
95th percentile per-packet one-way delay: 66.830 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.70 Mbit/s
95th percentile per-packet one-way delay: 66.830 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Vivace — Data Link

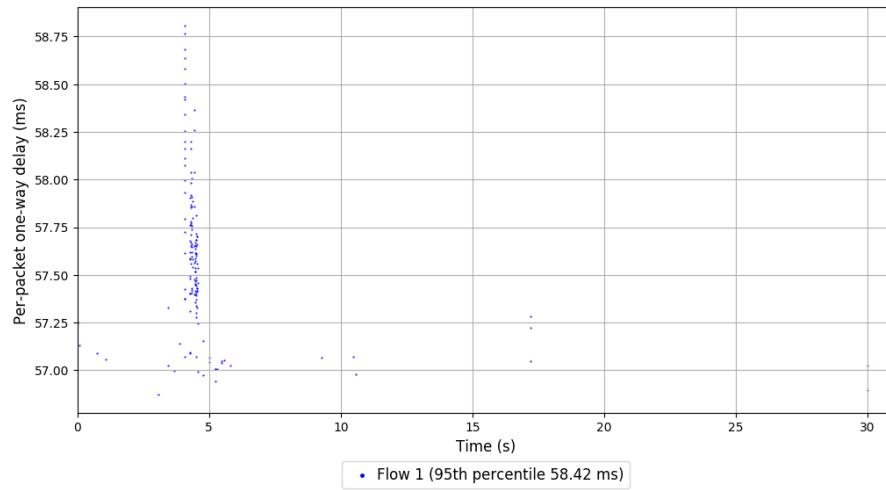
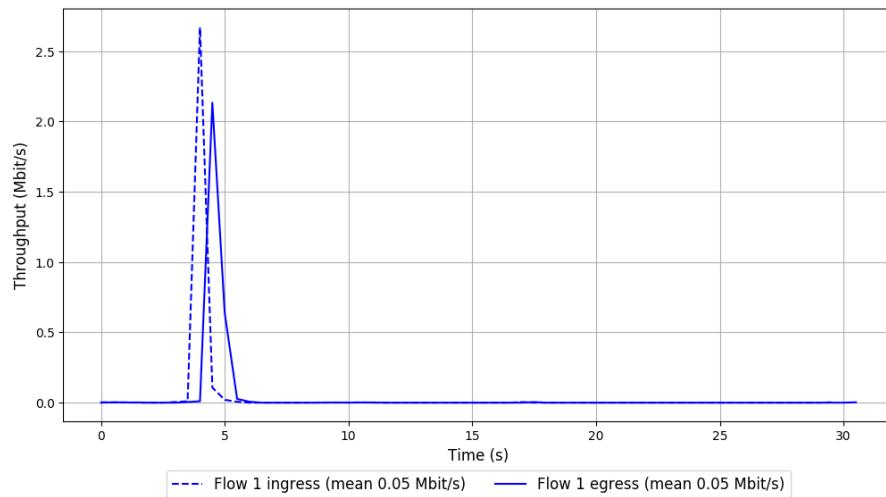


```
Run 1: Statistics of WebRTC media

Start at: 2019-01-02 19:48:13
End at: 2019-01-02 19:48:43
Local clock offset: -8.884 ms
Remote clock offset: 42.025 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.421 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

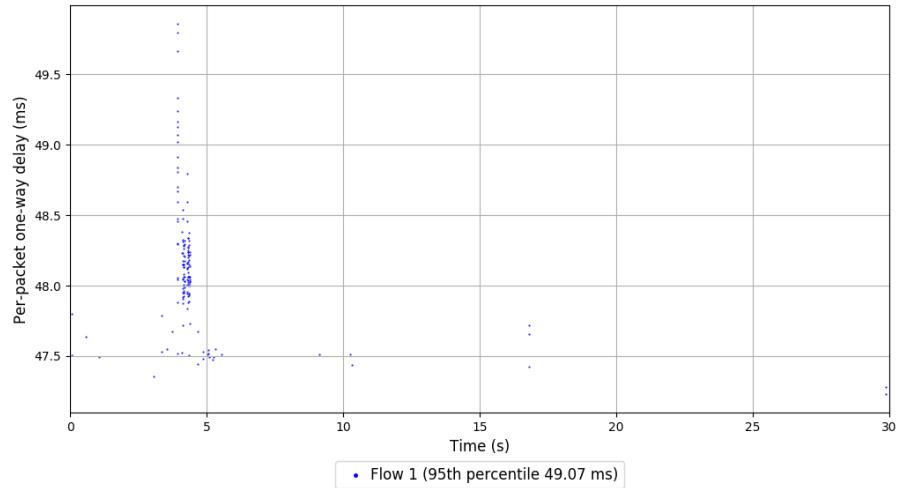
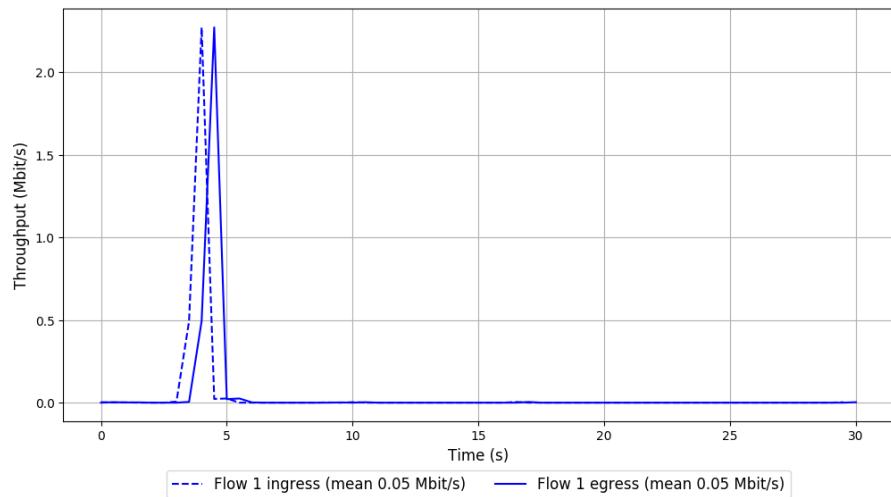


Run 2: Statistics of WebRTC media

```
Start at: 2019-01-02 20:13:03
End at: 2019-01-02 20:13:33
Local clock offset: 3.486 ms
Remote clock offset: 52.339 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 49.072 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 49.072 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

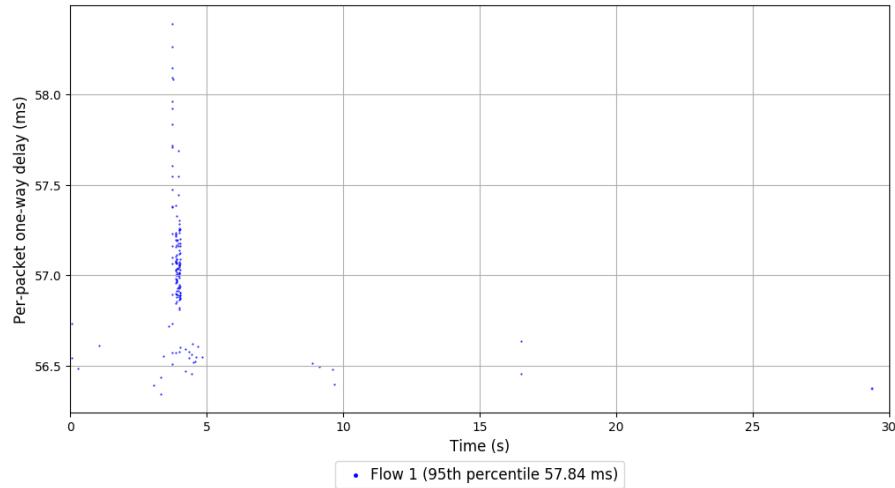
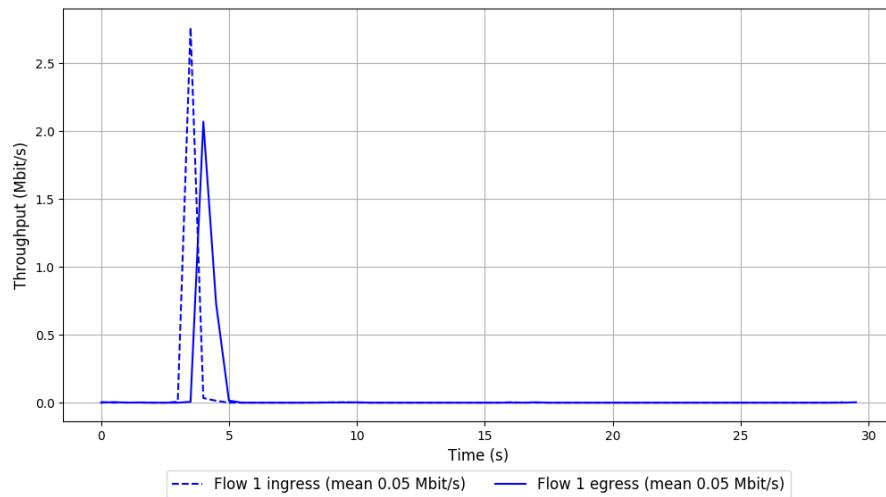


Run 3: Statistics of WebRTC media

```
Start at: 2019-01-02 20:36:05
End at: 2019-01-02 20:36:35
Local clock offset: 2.844 ms
Remote clock offset: 62.373 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.837 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

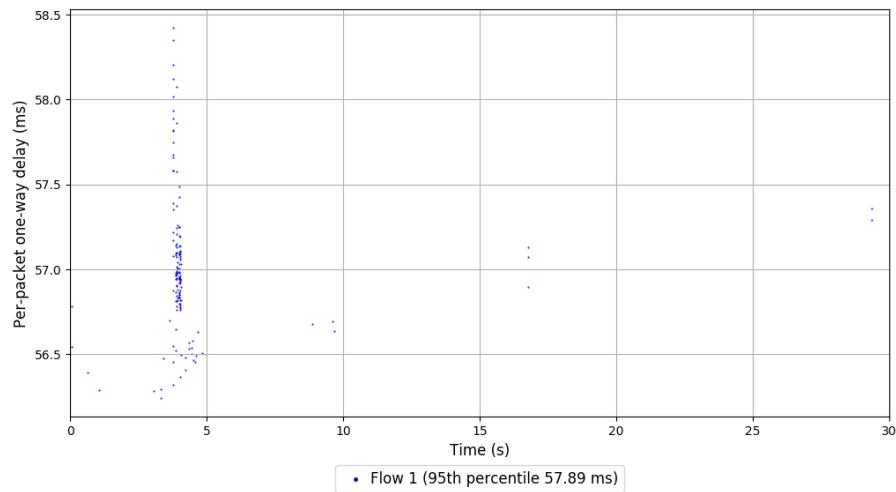
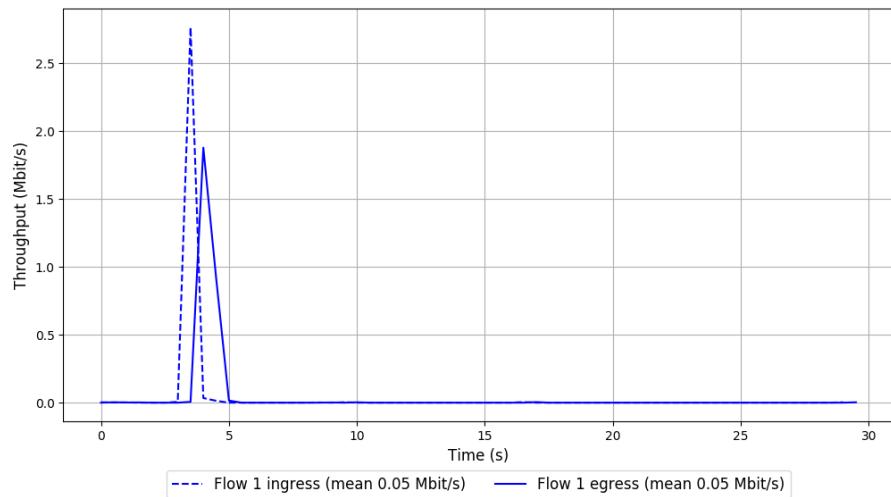


Run 4: Statistics of WebRTC media

```
Start at: 2019-01-02 20:59:57
End at: 2019-01-02 21:00:27
Local clock offset: 6.448 ms
Remote clock offset: 64.172 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 57.890 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

```
Start at: 2019-01-02 21:22:56
End at: 2019-01-02 21:23:26
Local clock offset: 12.577 ms
Remote clock offset: 51.926 ms

# Below is generated by plot.py at 2019-01-02 21:34:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.066 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 58.066 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

