Pantheon Report

Generated at 2019-11-24 07:14:03 (UTC).

Data path: AWS California 2 on `ens5` (*local*) →Mexico on `em1` (*remote*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `time.stanford.edu` and have been applied to correct the timestamps in logs.
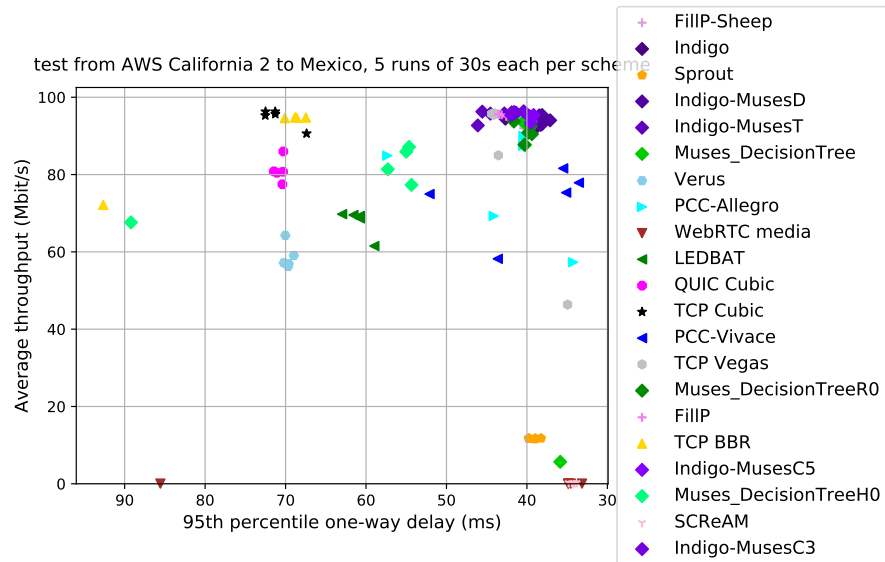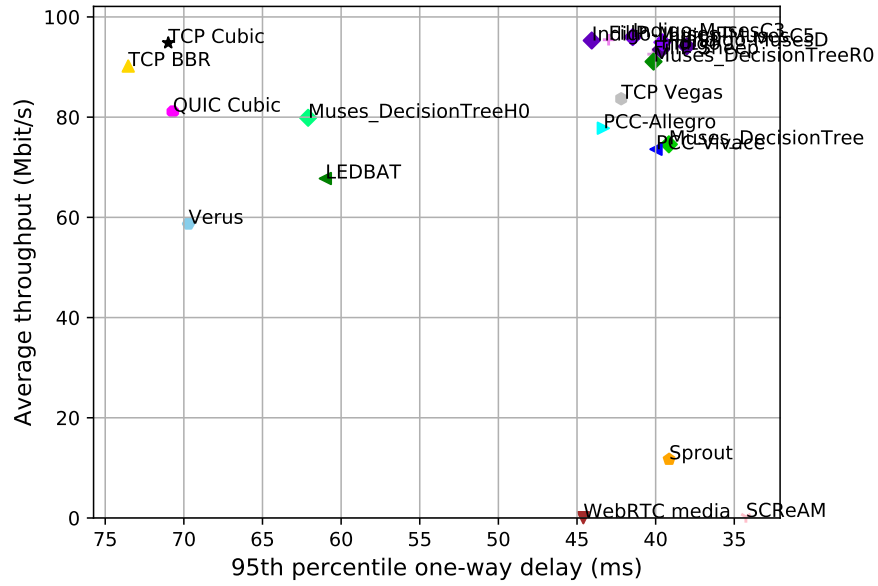
```
System info:
Linux 4.15.0-1051-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ de42328552b3776a75a932a94dfafd722537b0ec
third_party/fillp @ d6da1459332fcee56963885d7eba17e6a32d4519
third_party/fillp-sheep @ 0e5bb722943babcd2b090d2c64fcd45e12e923f9
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/muses @ 5ce721187ad823da20955337730c746486ca4966
third_party/muses_dtree @ 387225f7b5f61ddbe92d708a8869ffbb84eb3200
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
```

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

test from AWS California 2 to Mexico, 5 runs of 30s each per scheme
(mean of all runs by scheme)

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

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scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	90.20	73.54	6.26
Copa	0	N/A	N/A	N/A
TCP Cubic	5	94.82	70.99	0.71
FillP	5	95.45	42.99	0.65
FillP-Sheep	5	92.56	40.16	0.52
Indigo	5	93.49	39.66	0.00
Indigo-MusesC3	5	95.98	41.46	0.01
Indigo-MusesC5	5	94.94	39.57	0.06
Indigo-MusesD	5	94.13	38.02	0.04
Indigo-MusesT	5	95.29	44.06	0.46
LEDBAT	5	67.75	61.00	0.05
Muses_DecisionTree	5	74.58	39.16	0.03
Muses_DecisionTreeH0	5	79.87	62.10	5.11
Muses_DecisionTreeR0	5	91.08	40.13	0.03
PCC-Allegro	5	77.79	43.33	0.70
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	81.10	70.70	1.78
SCReAM	5	0.21	34.26	0.00
Sprout	5	11.72	39.14	0.00
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	83.67	42.19	0.48
Verus	5	58.73	69.71	24.62
PCC-Vivace	5	73.59	39.98	0.11
WebRTC media	5	0.05	44.60	3.52

```
Run 1: Statistics of TCP BBR

Start at: 2019-11-23 22:20:31
End at: 2019-11-23 22:21:01
Local clock offset: -8.84 ms
Remote clock offset: 6.288 ms


# Below is generated by plot.py at 2019-11-24 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.74 Mbit/s
95th percentile per-packet one-way delay: 67.475 ms
Loss rate: 4.48%
-- Flow 1:
Average throughput: 94.74 Mbit/s
95th percentile per-packet one-way delay: 67.475 ms
Loss rate: 4.48%
```
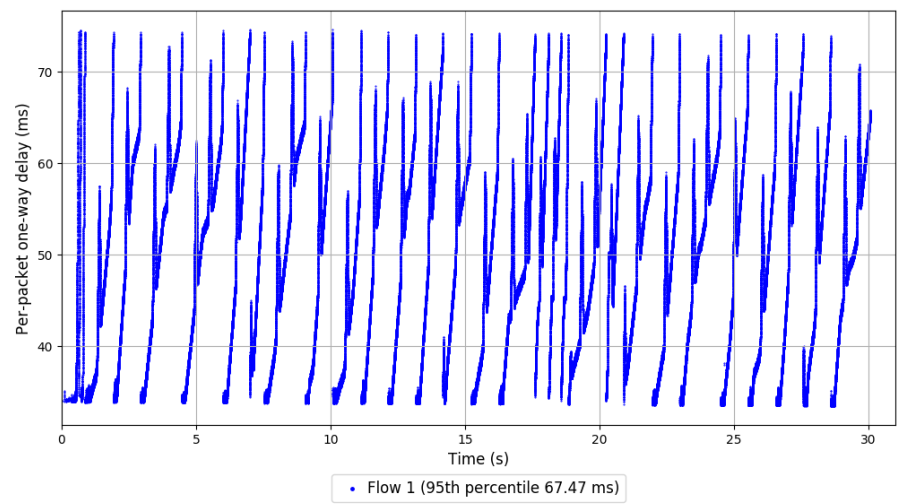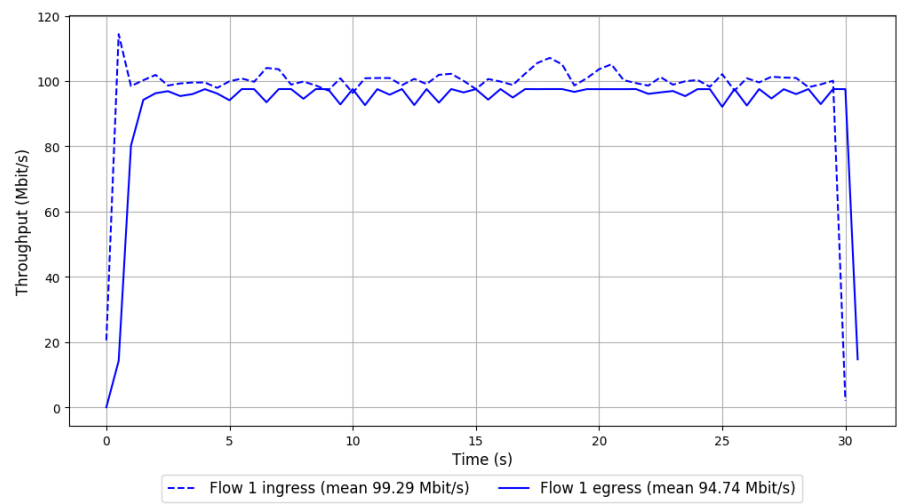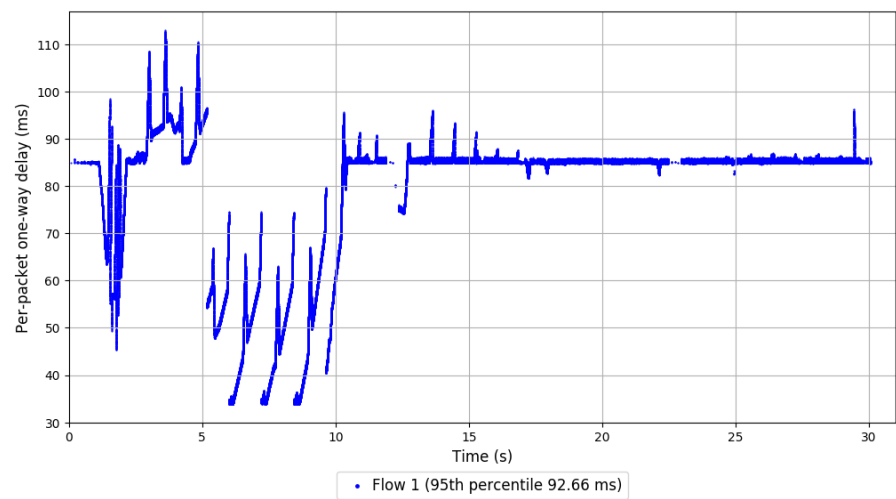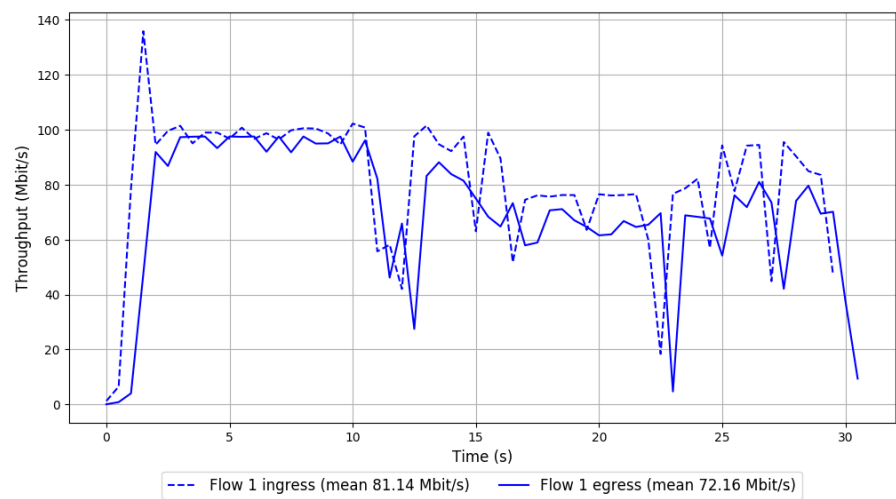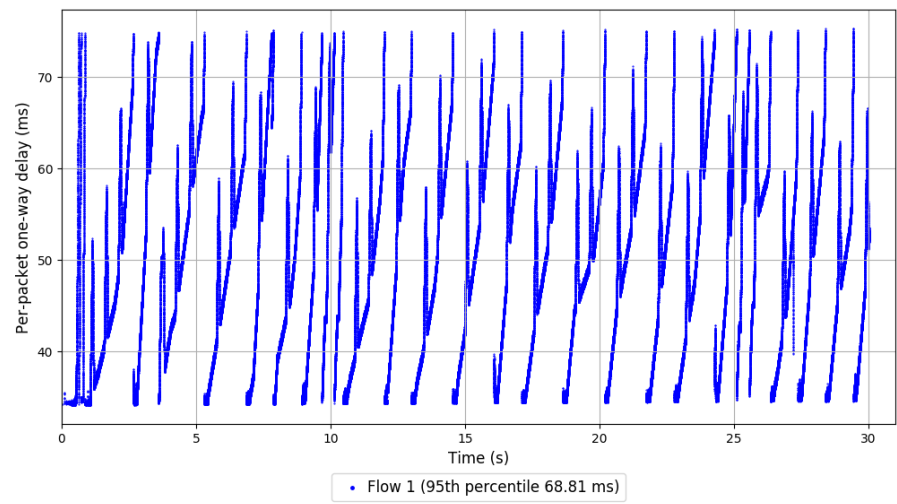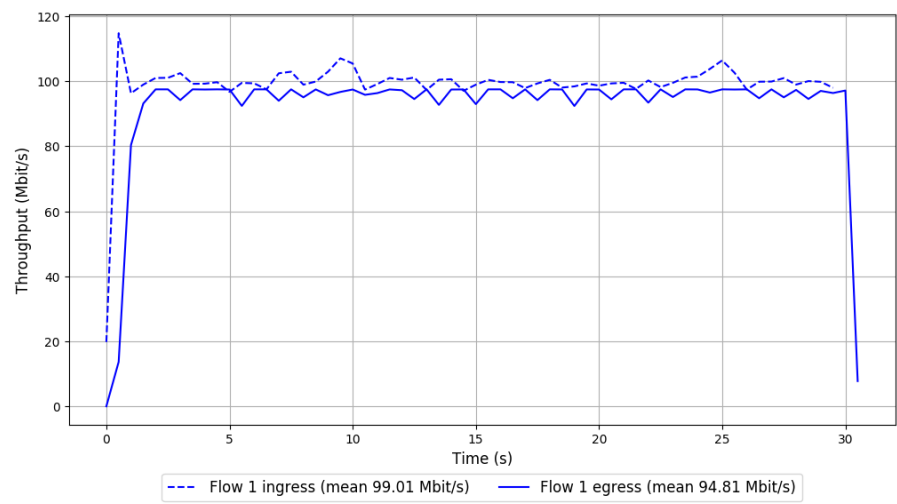
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 99.29 Mbit/s)   Flow 1 egress (mean 94.74 Mbit/s)

• Flow 1 (95th percentile 67.47 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-11-23 23:24:15
End at: 2019-11-23 23:24:45
Local clock offset: -20.245 ms
Remote clock offset: 6.544 ms


# Below is generated by plot.py at 2019-11-24 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.16 Mbit/s
95th percentile per-packet one-way delay: 92.658 ms
Loss rate: 11.07%
-- Flow 1:
Average throughput: 72.16 Mbit/s
95th percentile per-packet one-way delay: 92.658 ms
Loss rate: 11.07%
```
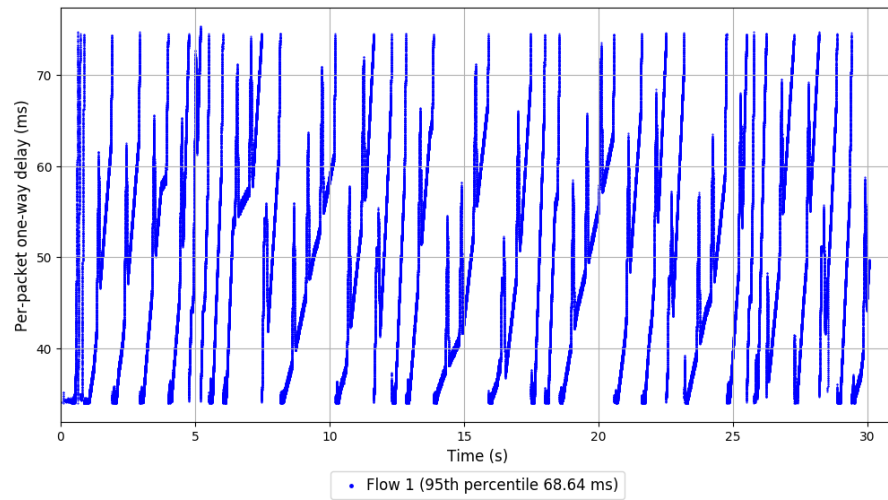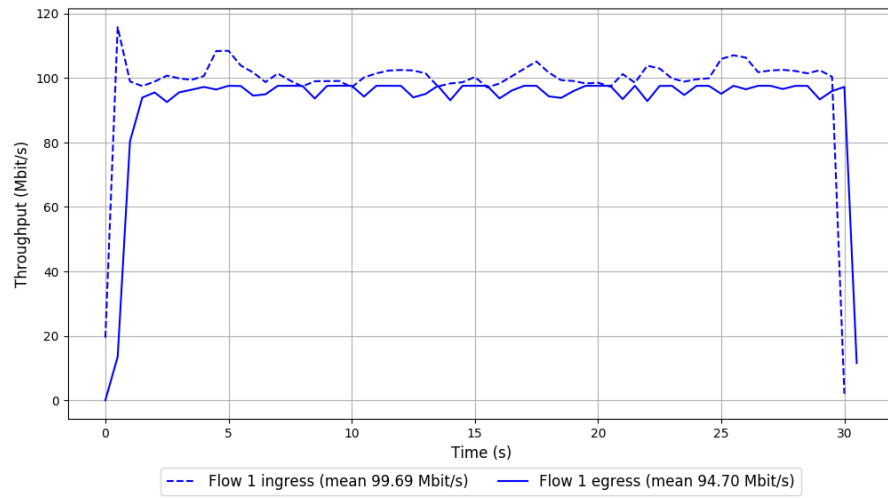
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-11-24 00:13:49
End at: 2019-11-24 00:14:19
Local clock offset: -8.516 ms
Remote clock offset: 5.818 ms


# Below is generated by plot.py at 2019-11-24 07:03:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 68.815 ms
Loss rate: 4.17%
-- Flow 1:
Average throughput: 94.81 Mbit/s
95th percentile per-packet one-way delay: 68.815 ms
Loss rate: 4.17%
```
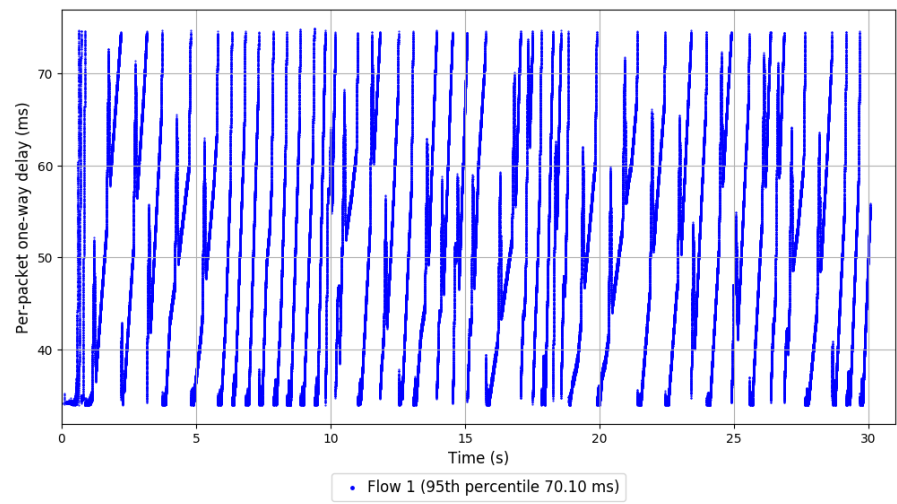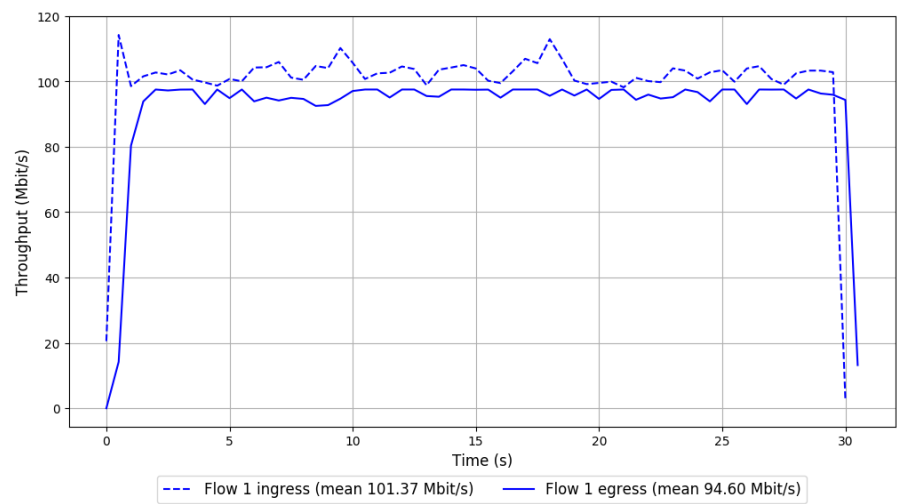
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 99.01 Mbit/s)   Flow 1 egress (mean 94.81 Mbit/s)

Flow 1 (95th percentile 68.81 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-11-24 01:22:50
End at: 2019-11-24 01:23:20
Local clock offset: 0.988 ms
Remote clock offset: 5.942 ms


# Below is generated by plot.py at 2019-11-24 07:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 68.636 ms
Loss rate: 4.97%
-- Flow 1:
Average throughput: 94.70 Mbit/s
95th percentile per-packet one-way delay: 68.636 ms
Loss rate: 4.97%
```

Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 99.69 Mbit/s)   Flow 1 egress (mean 94.70 Mbit/s)

Flow 1 (95th percentile 68.64 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-11-24 05:09:50
End at: 2019-11-24 05:10:20
Local clock offset: 2.94 ms
Remote clock offset: 4.19 ms


# Below is generated by plot.py at 2019-11-24 07:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.60 Mbit/s
95th percentile per-packet one-way delay: 70.097 ms
Loss rate: 6.61%
-- Flow 1:
Average throughput: 94.60 Mbit/s
95th percentile per-packet one-way delay: 70.097 ms
Loss rate: 6.61%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 101.37 Mbit/s) ----   Flow 1 egress (mean 94.60 Mbit/s) ——

• Flow 1 (95th percentile 70.10 ms)

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```
Run 1: Statistics of Copa

Start at: 2019-11-23 22:57:41
End at: 2019-11-23 22:58:11
Local clock offset: -32.149 ms
Remote clock offset: 6.111 ms
```

Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 0.86 Mbit/s) —— Flow 1 egress (mean 0.00 Mbit/s)

• Flow 1 (95th percentile 33.49 ms)

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Run 2: Statistics of Copa

Start at: 2019-11-23 23:51:17
End at: 2019-11-23 23:51:47
Local clock offset: -11.155 ms
Remote clock offset: 6.635 ms

Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 0.86 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 34.19 ms)

Run 3: Statistics of Copa

Start at: 2019-11-24 00:54:14
End at: 2019-11-24 00:54:44
Local clock offset: -0.701 ms
Remote clock offset: 6.036 ms

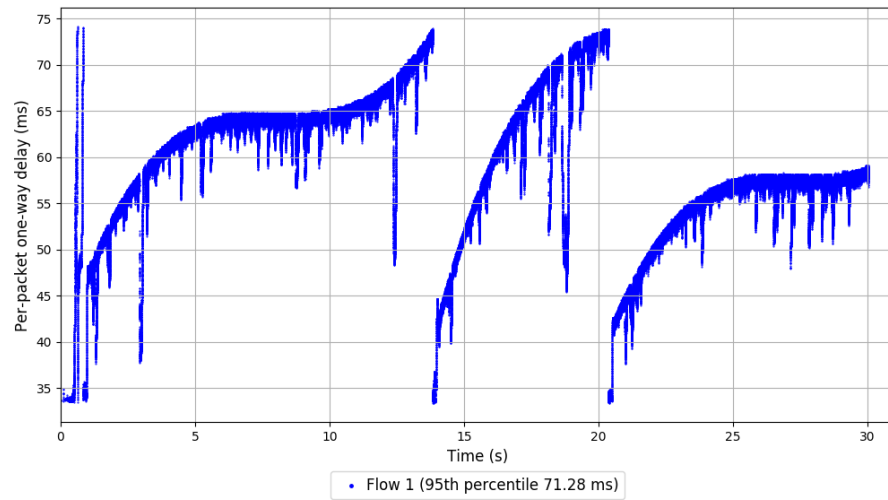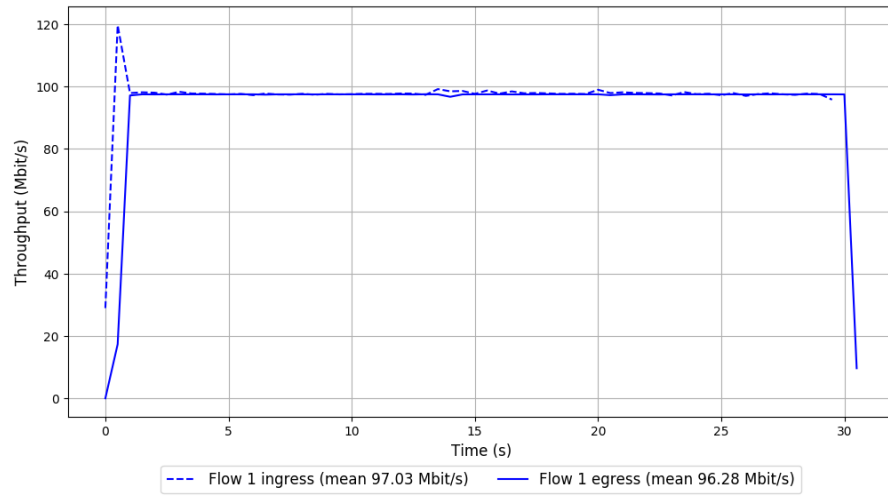Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 0.86 Mbit/s) — Flow 1 egress (mean 0.00 Mbit/s)
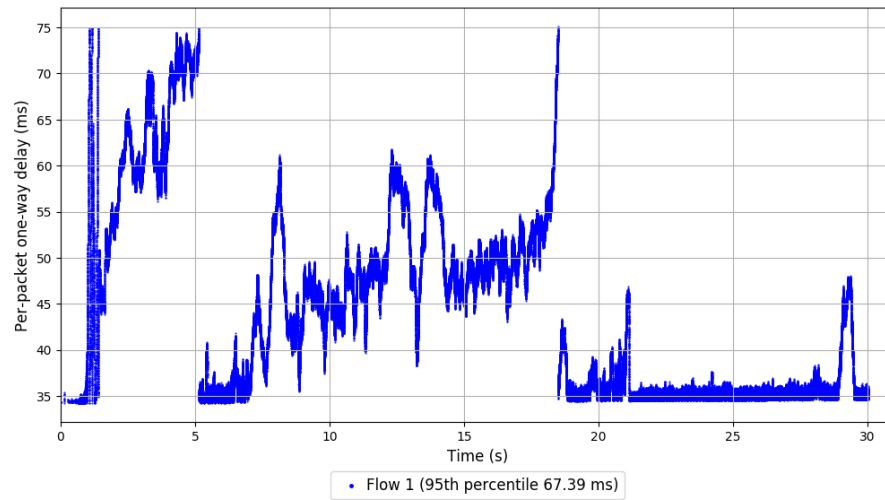

• Flow 1 (95th percentile 34.18 ms)

```
Run 4: Statistics of Copa

Start at: 2019-11-24 02:59:59
End at: 2019-11-24 03:00:29
Local clock offset: 1.778 ms
Remote clock offset: 4.024 ms
```

Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-11-24 06:29:25
End at: 2019-11-24 06:29:55
Local clock offset: 2.467 ms
Remote clock offset: 3.988 ms
```

Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 0.52 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 34.15 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2019-11-23 22:49:32
End at: 2019-11-23 22:50:02
Local clock offset: -23.019 ms
Remote clock offset: 6.147 ms


# Below is generated by plot.py at 2019-11-24 07:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 71.281 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 71.281 ms
Loss rate: 0.69%
```
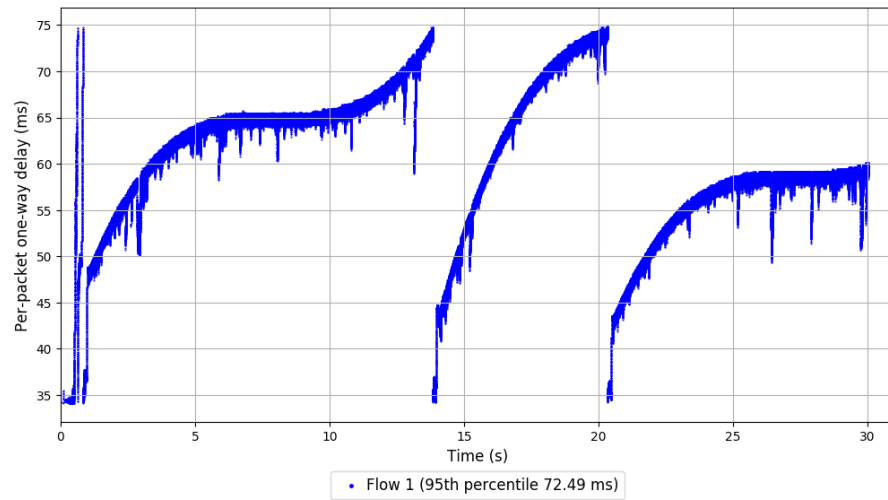
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-11-23 23:46:55
End at: 2019-11-23 23:47:25
Local clock offset: -13.948 ms
Remote clock offset: 6.822 ms


# Below is generated by plot.py at 2019-11-24 07:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.61 Mbit/s
95th percentile per-packet one-way delay: 67.390 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 90.61 Mbit/s
95th percentile per-packet one-way delay: 67.390 ms
Loss rate: 0.99%
```
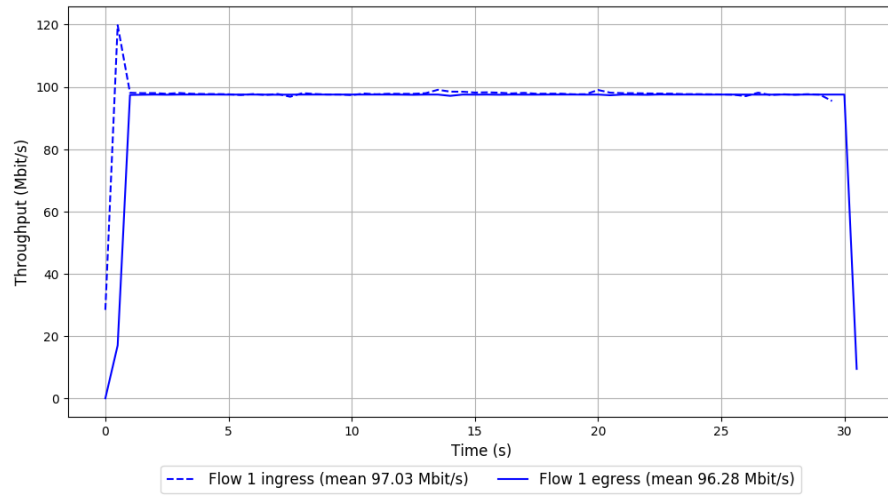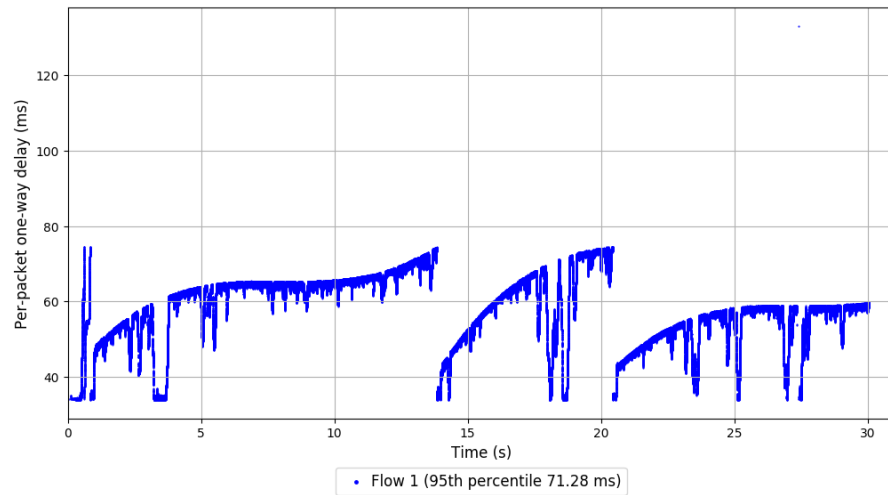
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2019-11-24 00:48:06
End at: 2019-11-24 00:48:36
Local clock offset: -1.427 ms
Remote clock offset: 6.087 ms


# Below is generated by plot.py at 2019-11-24 07:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 72.491 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 96.28 Mbit/s
95th percentile per-packet one-way delay: 72.491 ms
Loss rate: 0.68%
```
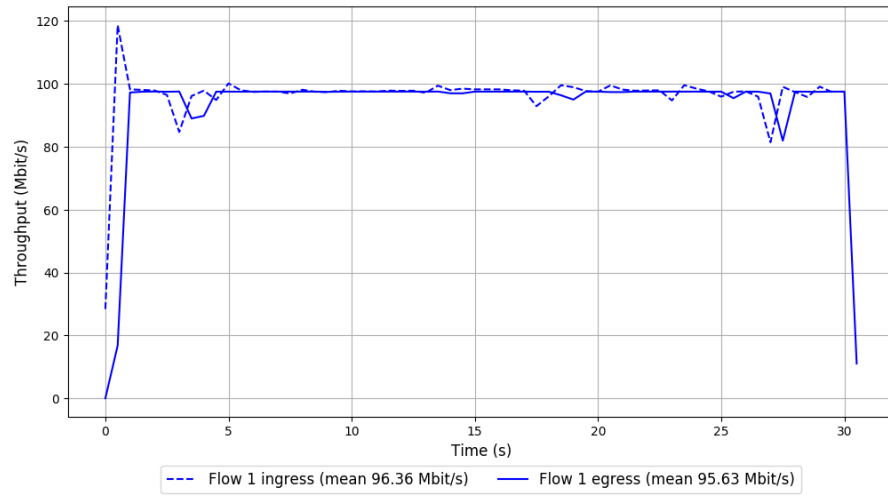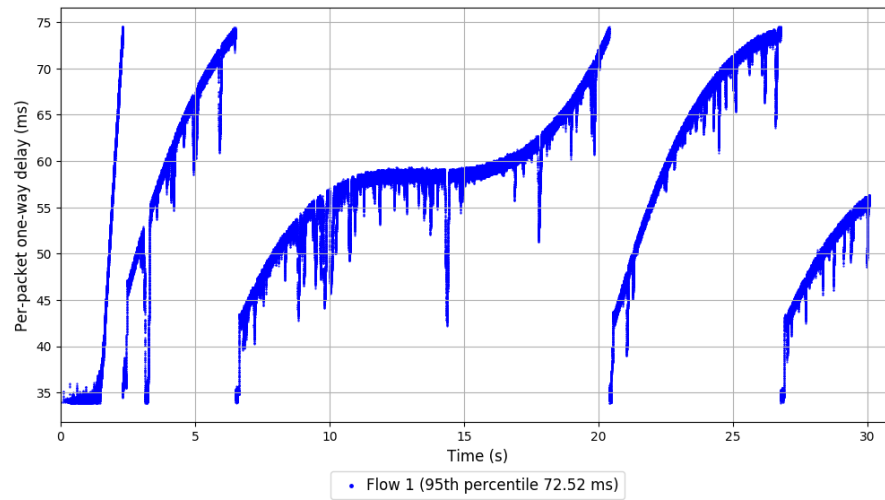
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.03 Mbit/s)   Flow 1 egress (mean 96.28 Mbit/s)

Flow 1 (95th percentile 72.49 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-11-24 02:31:27
End at: 2019-11-24 02:31:57
Local clock offset: 2.584 ms
Remote clock offset: 3.186 ms


# Below is generated by plot.py at 2019-11-24 07:03:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 71.276 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 95.63 Mbit/s
95th percentile per-packet one-way delay: 71.276 ms
Loss rate: 0.67%
```
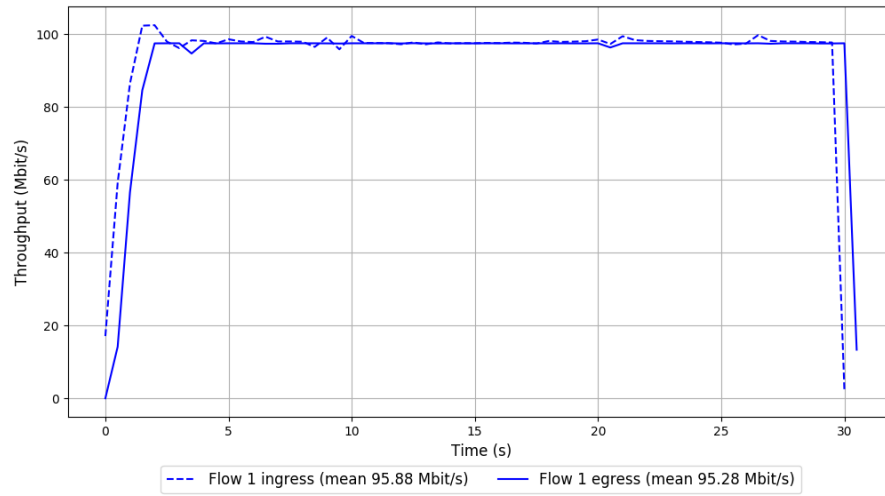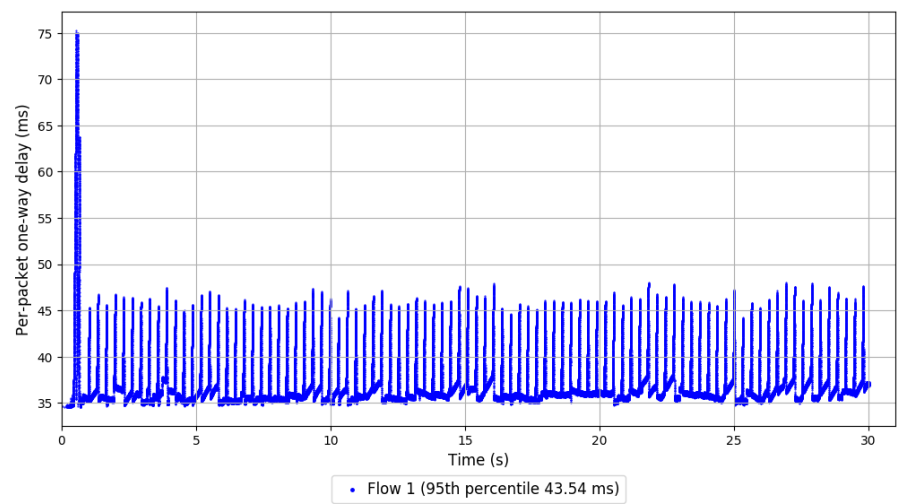
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-11-24 06:19:03
End at: 2019-11-24 06:19:33
Local clock offset: 2.576 ms
Remote clock offset: 4.087 ms


# Below is generated by plot.py at 2019-11-24 07:04:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 72.522 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 95.28 Mbit/s
95th percentile per-packet one-way delay: 72.522 ms
Loss rate: 0.54%
```
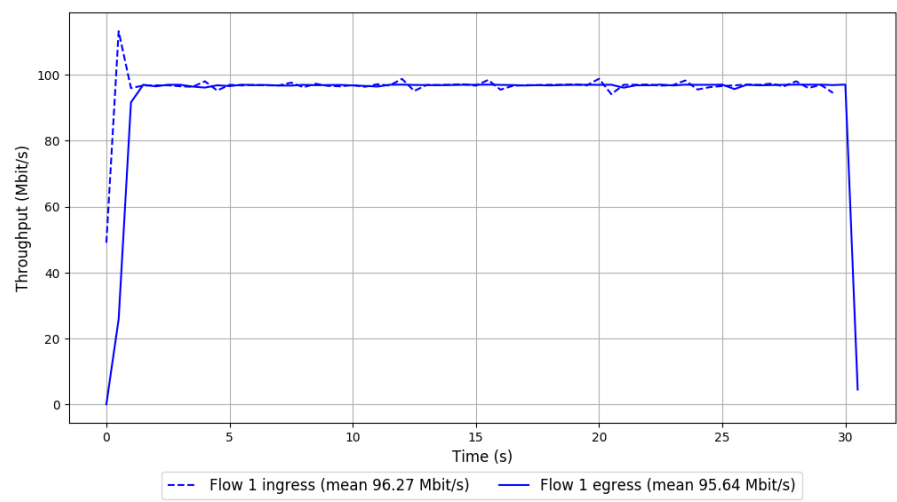
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 95.88 Mbit/s) ----- Flow 1 egress (mean 95.28 Mbit/s)
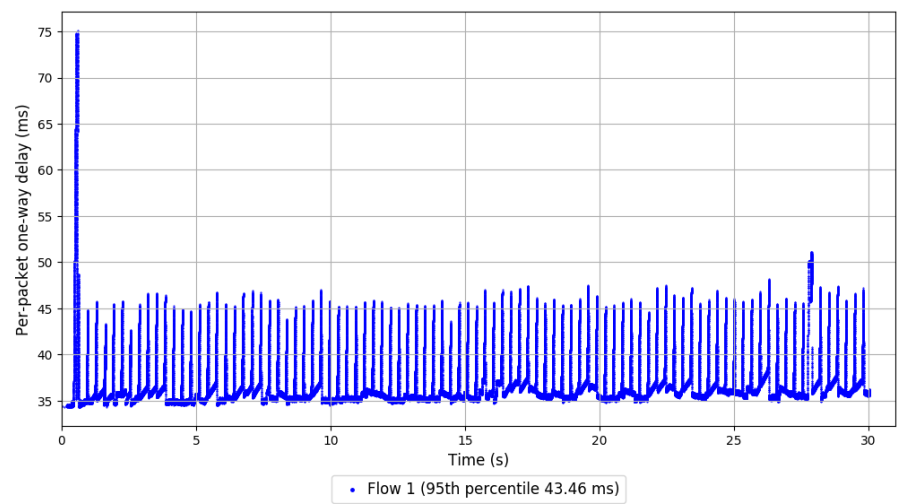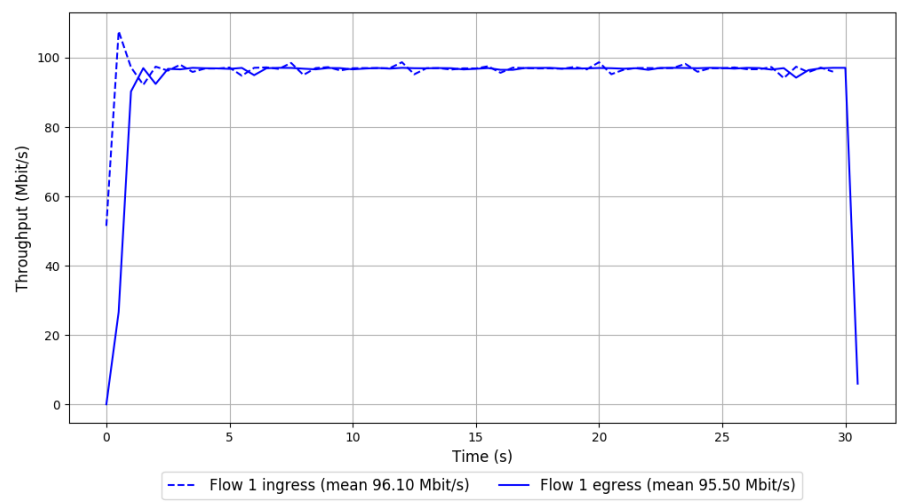

Flow 1 (95th percentile 72.52 ms)

```
Run 1: Statistics of FillP

Start at: 2019-11-23 22:14:11
End at: 2019-11-23 22:14:41
Local clock offset: -5.751 ms
Remote clock offset: 6.085 ms


# Below is generated by plot.py at 2019-11-24 07:04:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 43.541 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 95.64 Mbit/s
95th percentile per-packet one-way delay: 43.541 ms
Loss rate: 0.64%
```
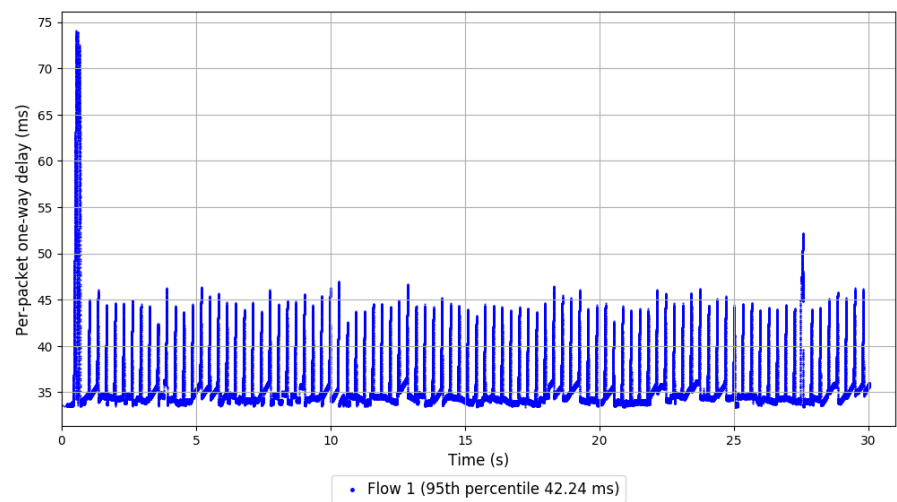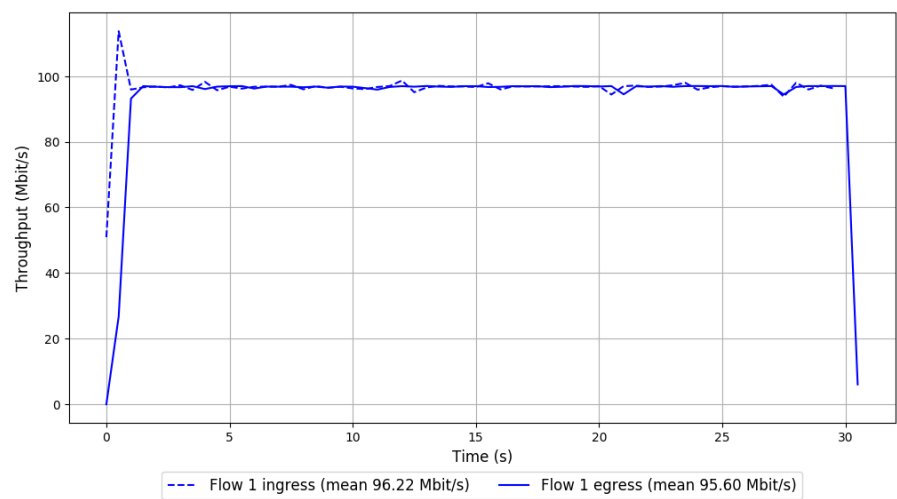
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 96.27 Mbit/s) --- Flow 1 egress (mean 95.64 Mbit/s)

• Flow 1 (95th percentile 43.54 ms)

```
Run 2: Statistics of FillP

Start at: 2019-11-23 23:18:06
End at: 2019-11-23 23:18:37
Local clock offset: -24.632 ms
Remote clock offset: 6.275 ms


# Below is generated by plot.py at 2019-11-24 07:04:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.50 Mbit/s
95th percentile per-packet one-way delay: 43.460 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 95.50 Mbit/s
95th percentile per-packet one-way delay: 43.460 ms
Loss rate: 0.61%
```
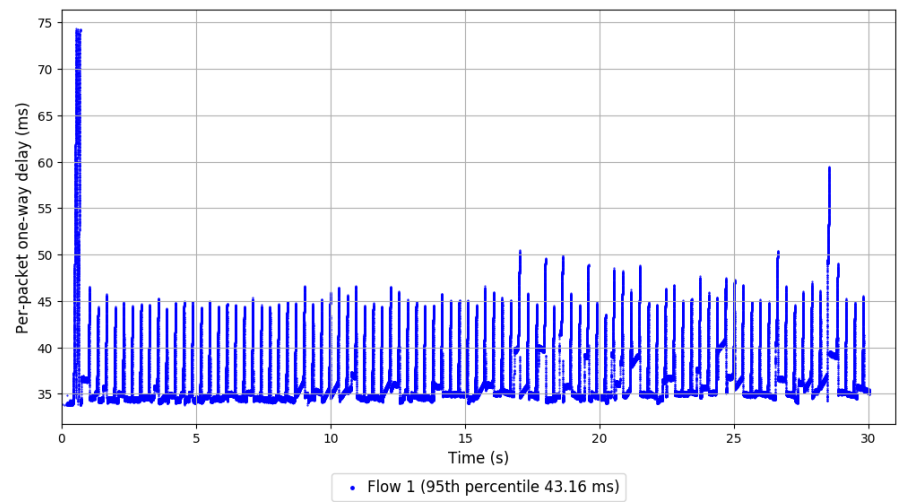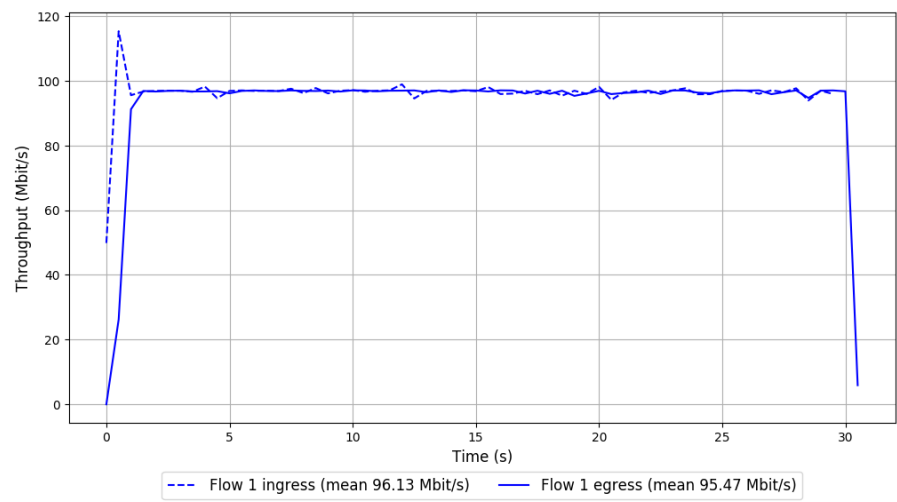
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 96.10 Mbit/s)   Flow 1 egress (mean 95.50 Mbit/s)

Flow 1 (95th percentile 43.46 ms)

```
Run 3: Statistics of FillP

Start at: 2019-11-24 00:08:36
End at: 2019-11-24 00:09:06
Local clock offset: -13.877 ms
Remote clock offset: 5.851 ms


# Below is generated by plot.py at 2019-11-24 07:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.60 Mbit/s
95th percentile per-packet one-way delay: 42.236 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 95.60 Mbit/s
95th percentile per-packet one-way delay: 42.236 ms
Loss rate: 0.64%
```
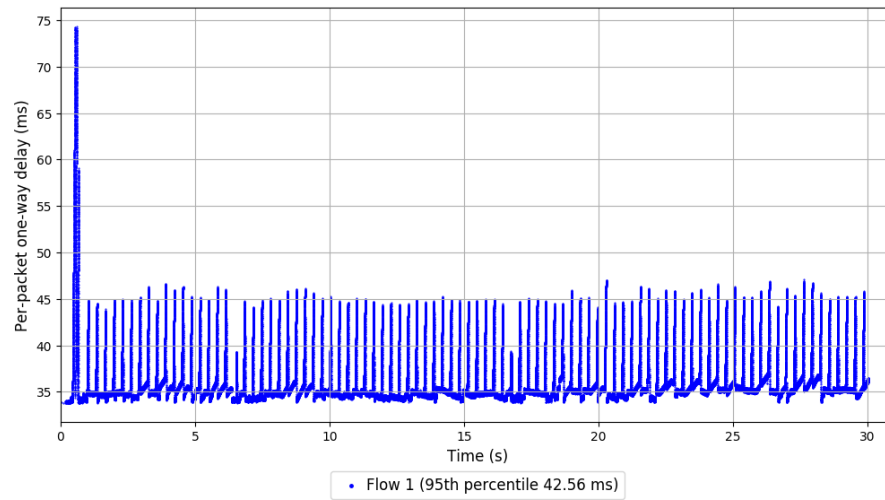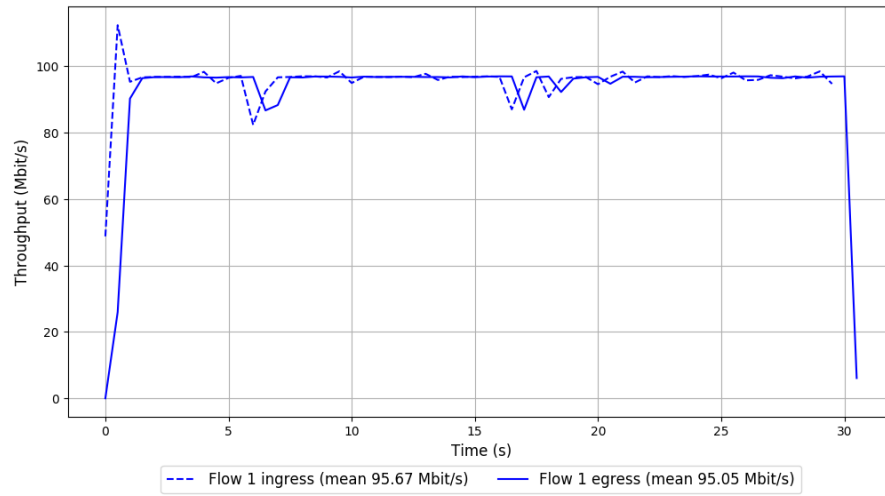
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 96.22 Mbit/s)   Flow 1 egress (mean 95.60 Mbit/s)

• Flow 1 (95th percentile 42.24 ms)

```
Run 4: Statistics of FillP

Start at: 2019-11-24 01:16:51
End at: 2019-11-24 01:17:21
Local clock offset: 0.451 ms
Remote clock offset: 5.886 ms


# Below is generated by plot.py at 2019-11-24 07:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 43.157 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 95.47 Mbit/s
95th percentile per-packet one-way delay: 43.157 ms
Loss rate: 0.69%
```
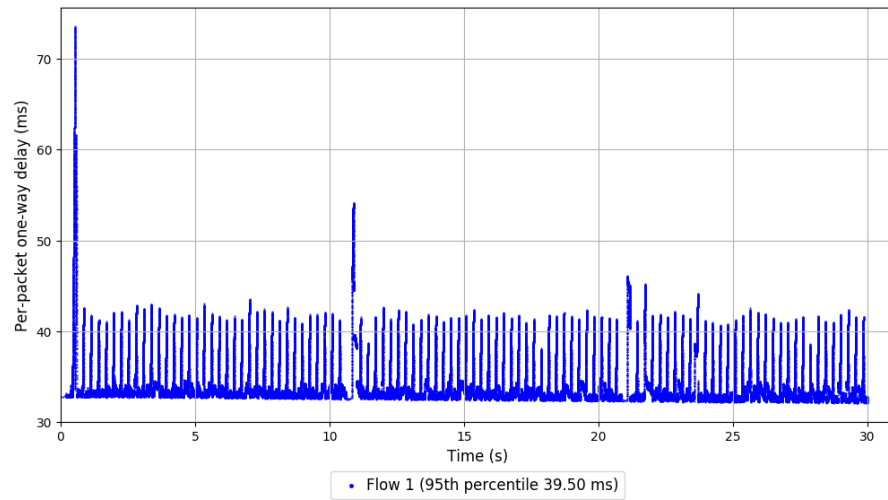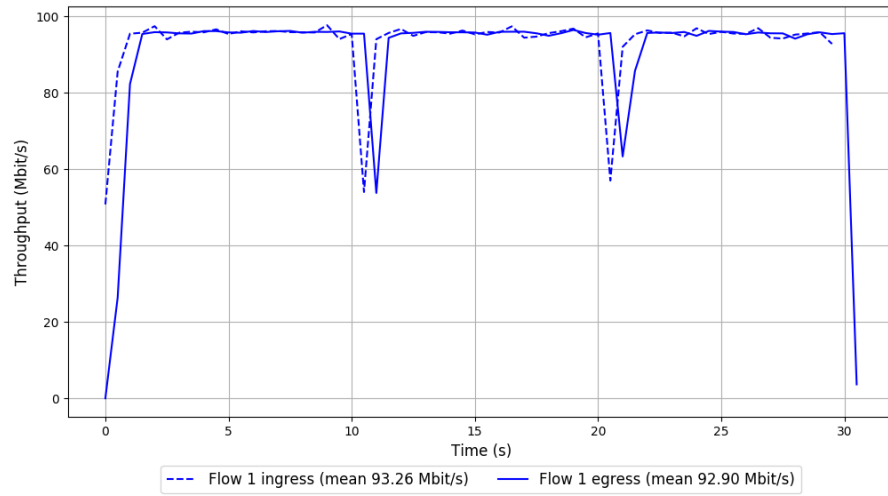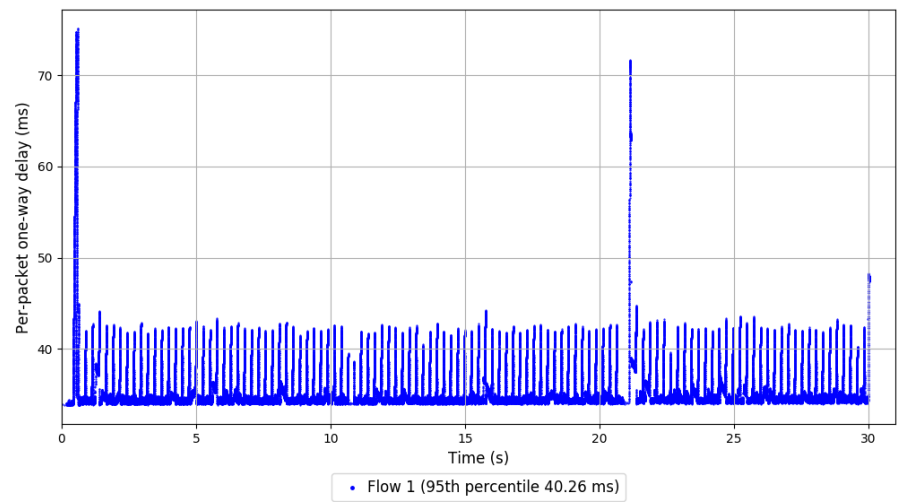
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 96.13 Mbit/s)   Flow 1 egress (mean 95.47 Mbit/s)

Flow 1 (95th percentile 43.16 ms)

```
Run 5: Statistics of FillP

Start at: 2019-11-24 04:57:32
End at: 2019-11-24 04:58:02
Local clock offset: 2.983 ms
Remote clock offset: 3.943 ms


# Below is generated by plot.py at 2019-11-24 07:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 42.558 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 42.558 ms
Loss rate: 0.65%
```
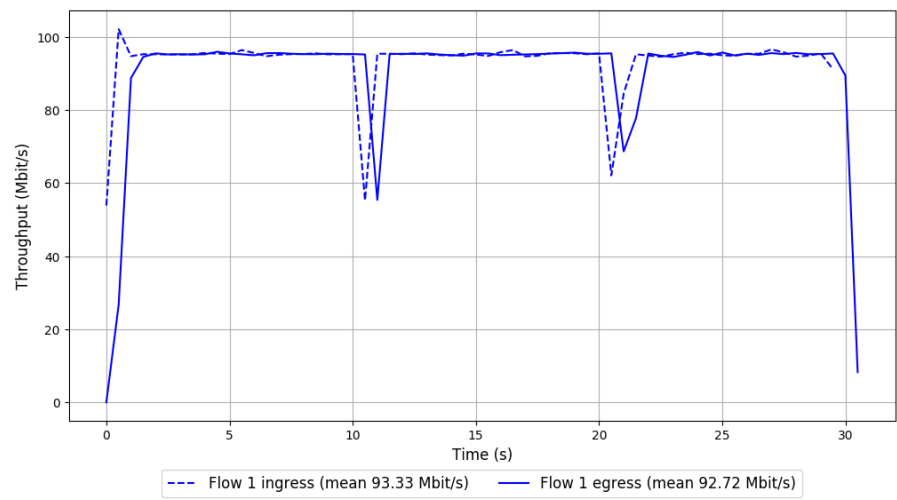
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-11-23 22:58:48
End at: 2019-11-23 22:59:18
Local clock offset: -33.37 ms
Remote clock offset: 5.982 ms


# Below is generated by plot.py at 2019-11-24 07:04:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 39.500 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 92.90 Mbit/s
95th percentile per-packet one-way delay: 39.500 ms
Loss rate: 0.38%
```
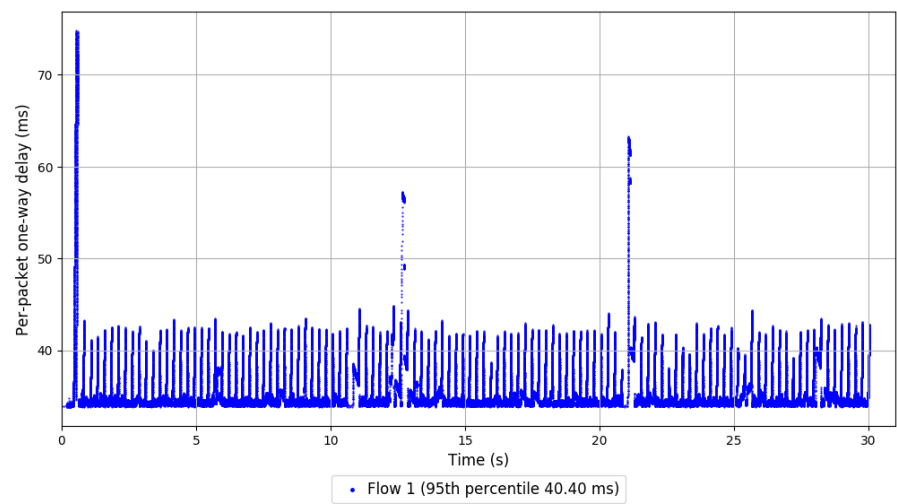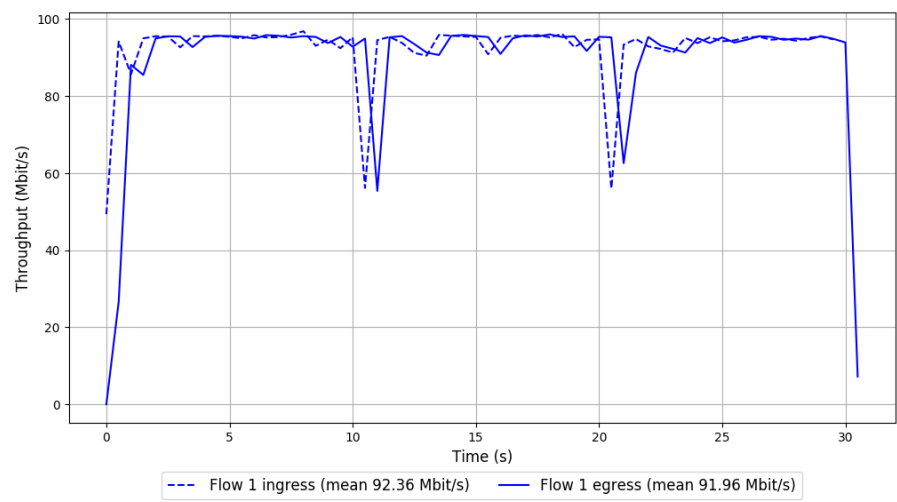
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-11-23 23:52:24
End at: 2019-11-23 23:52:54
Local clock offset: -10.857 ms
Remote clock offset: 6.484 ms


# Below is generated by plot.py at 2019-11-24 07:05:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.72 Mbit/s
95th percentile per-packet one-way delay: 40.259 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 92.72 Mbit/s
95th percentile per-packet one-way delay: 40.259 ms
Loss rate: 0.61%
```
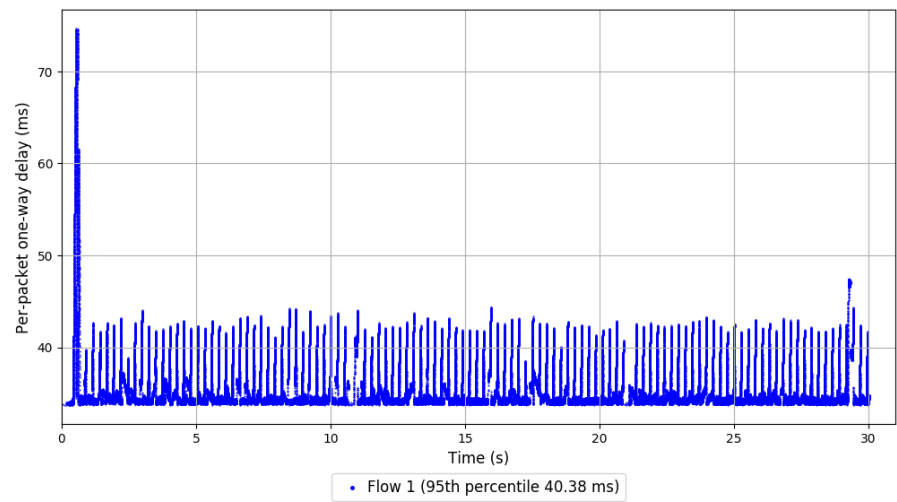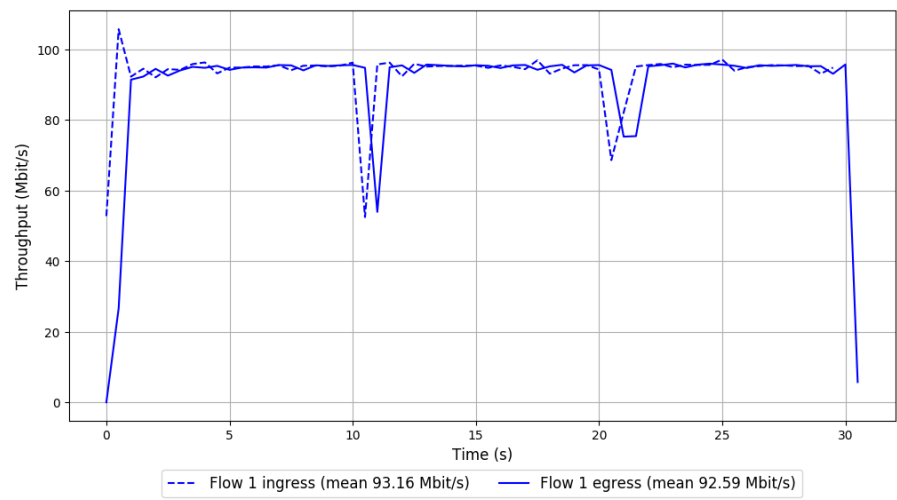
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 93.33 Mbit/s)   Flow 1 egress (mean 92.72 Mbit/s)

Flow 1 (95th percentile 40.26 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-11-24 00:55:21
End at: 2019-11-24 00:55:51
Local clock offset: -0.701 ms
Remote clock offset: 5.977 ms


# Below is generated by plot.py at 2019-11-24 07:05:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 40.399 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 91.96 Mbit/s
95th percentile per-packet one-way delay: 40.399 ms
Loss rate: 0.41%
```
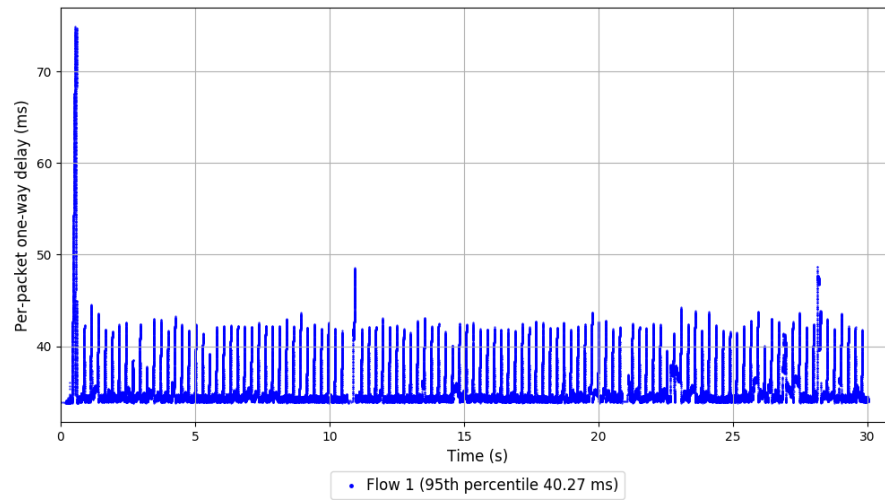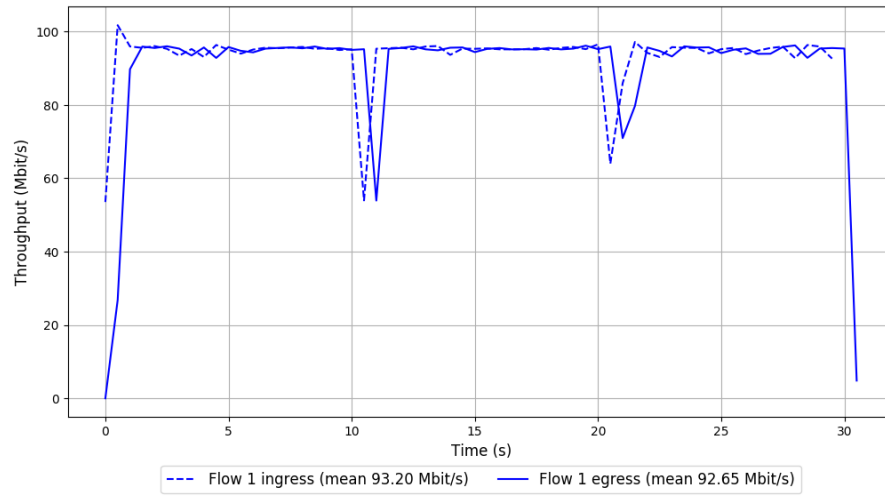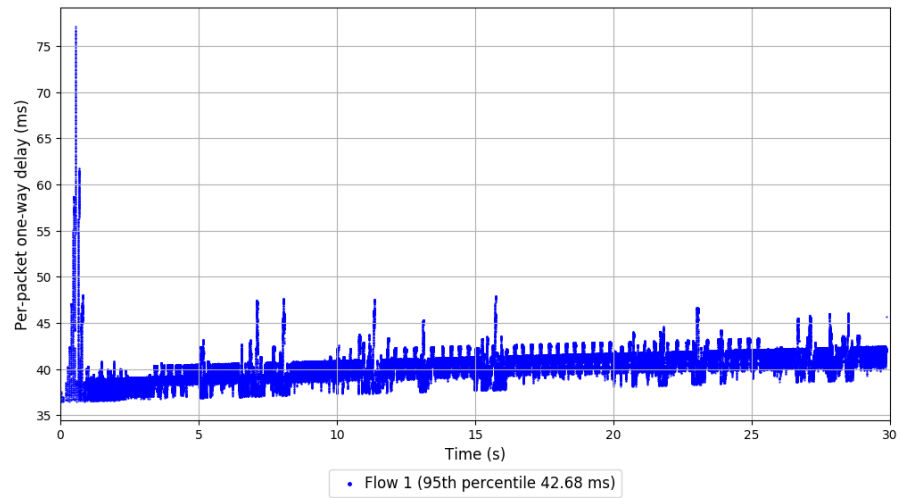
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 92.36 Mbit/s)   Flow 1 egress (mean 91.96 Mbit/s)

Flow 1 (95th percentile 40.40 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-11-24 03:01:08
End at: 2019-11-24 03:01:38
Local clock offset: 1.745 ms
Remote clock offset: 4.013 ms


# Below is generated by plot.py at 2019-11-24 07:05:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 40.382 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 92.59 Mbit/s
95th percentile per-packet one-way delay: 40.382 ms
Loss rate: 0.60%
```
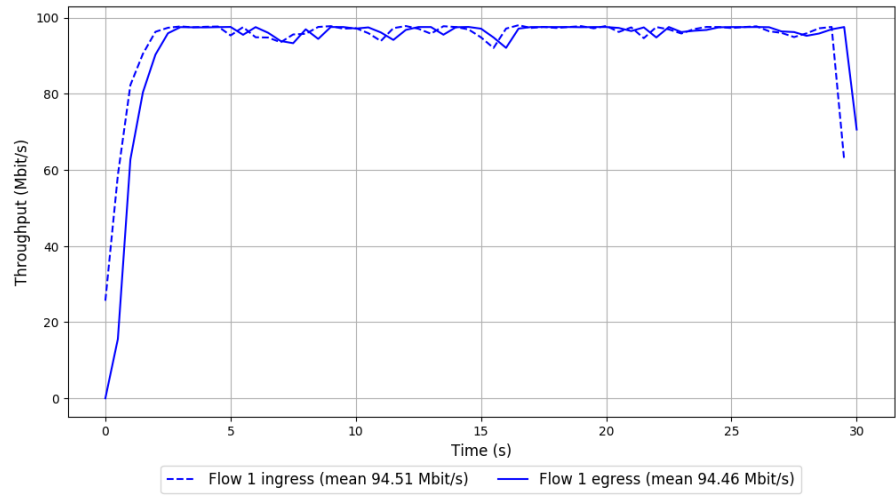
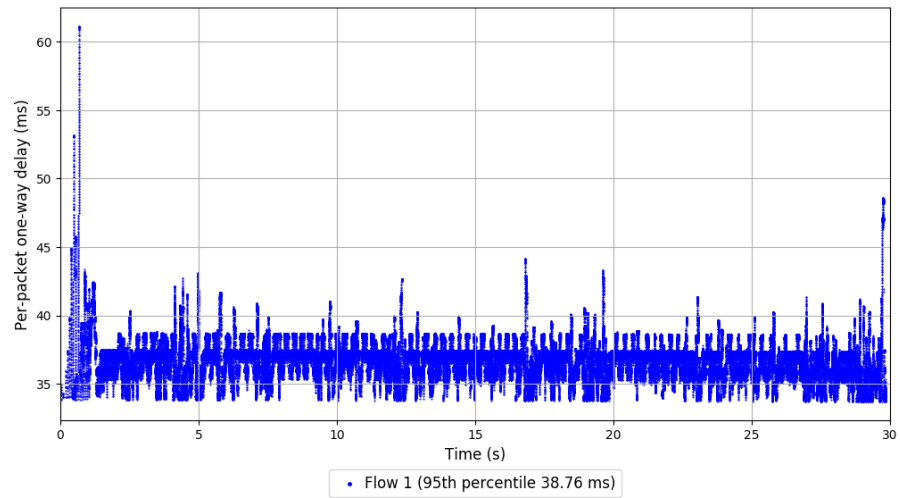Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-11-24 06:30:32
End at: 2019-11-24 06:31:03
Local clock offset: 2.464 ms
Remote clock offset: 4.036 ms


# Below is generated by plot.py at 2019-11-24 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.65 Mbit/s
95th percentile per-packet one-way delay: 40.267 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 92.65 Mbit/s
95th percentile per-packet one-way delay: 40.267 ms
Loss rate: 0.59%
```
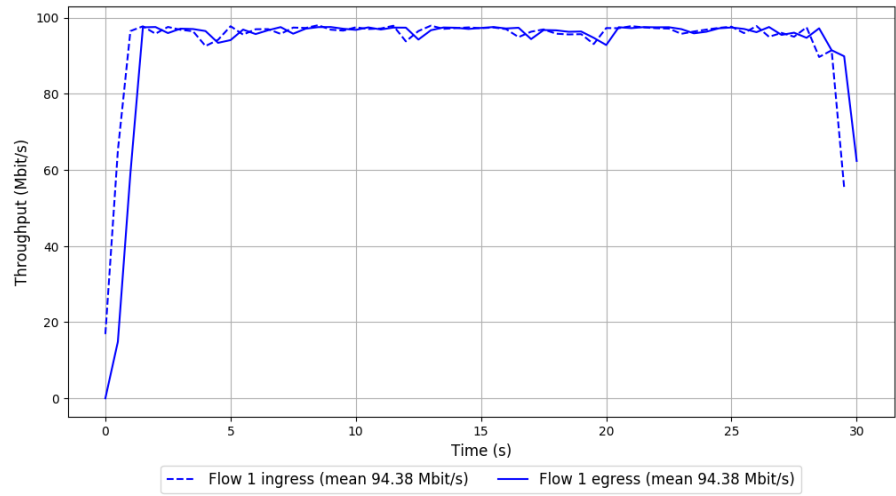
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 93.20 Mbit/s) --- Flow 1 egress (mean 92.65 Mbit/s)

Flow 1 (95th percentile 40.27 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-11-23 23:09:44
End at: 2019-11-23 23:10:14
Local clock offset: -50.067 ms
Remote clock offset: 6.132 ms


# Below is generated by plot.py at 2019-11-24 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 42.680 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 94.46 Mbit/s
95th percentile per-packet one-way delay: 42.680 ms
Loss rate: 0.02%
```
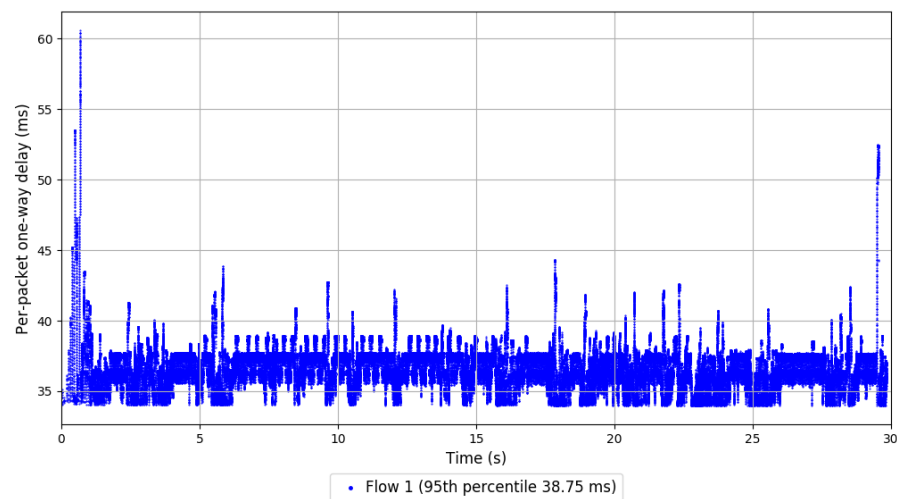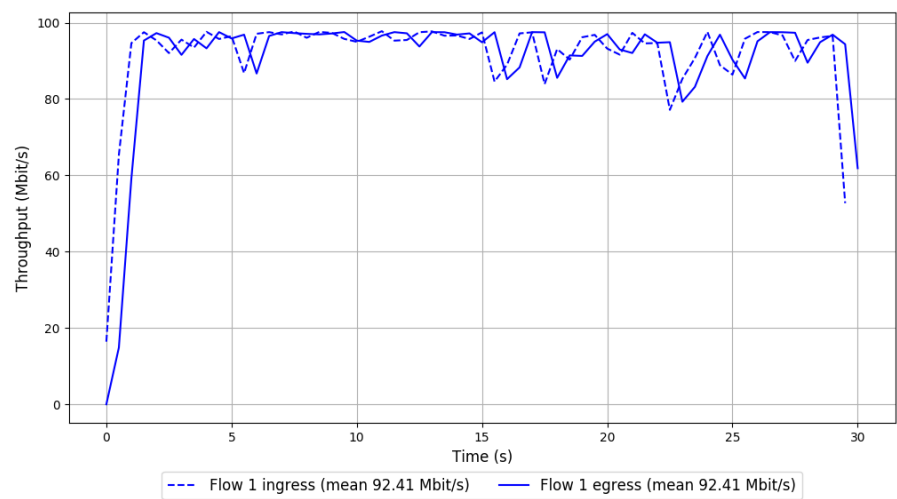
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-11-24 00:02:33
End at: 2019-11-24 00:03:03
Local clock offset: -11.686 ms
Remote clock offset: 6.15 ms


# Below is generated by plot.py at 2019-11-24 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 38.758 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.38 Mbit/s
95th percentile per-packet one-way delay: 38.758 ms
Loss rate: 0.00%
```
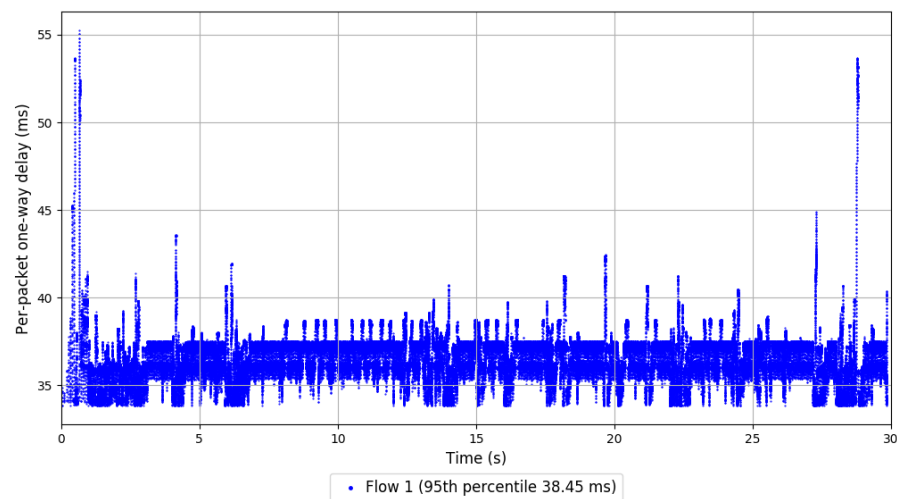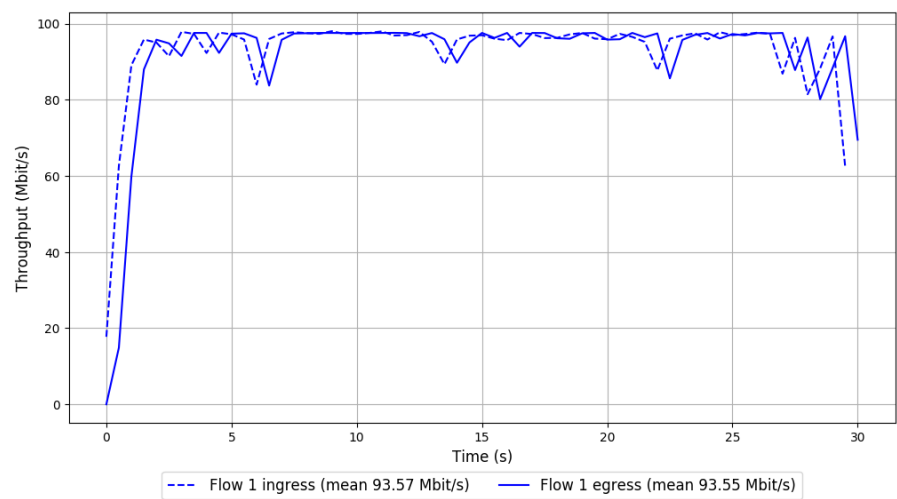
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-11-24 01:07:35
End at: 2019-11-24 01:08:05
Local clock offset: -1.525 ms
Remote clock offset: 6.02 ms


# Below is generated by plot.py at 2019-11-24 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.41 Mbit/s
95th percentile per-packet one-way delay: 38.748 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.41 Mbit/s
95th percentile per-packet one-way delay: 38.748 ms
Loss rate: 0.00%
```
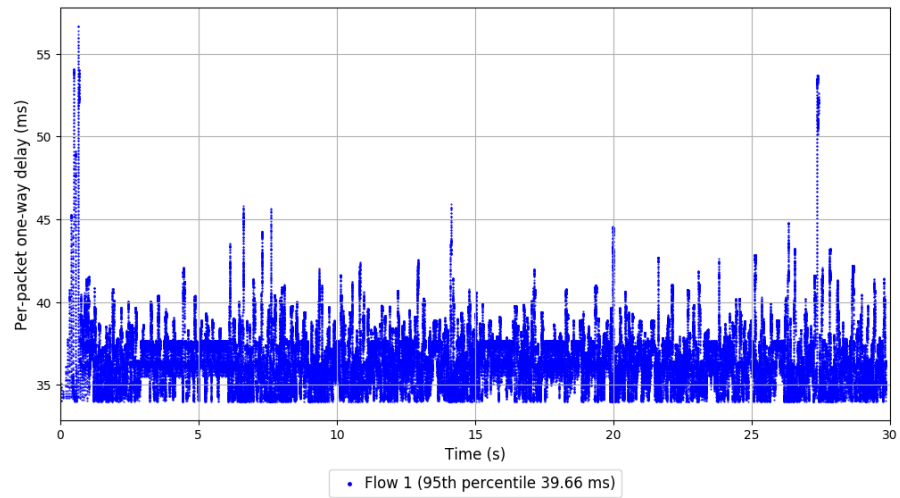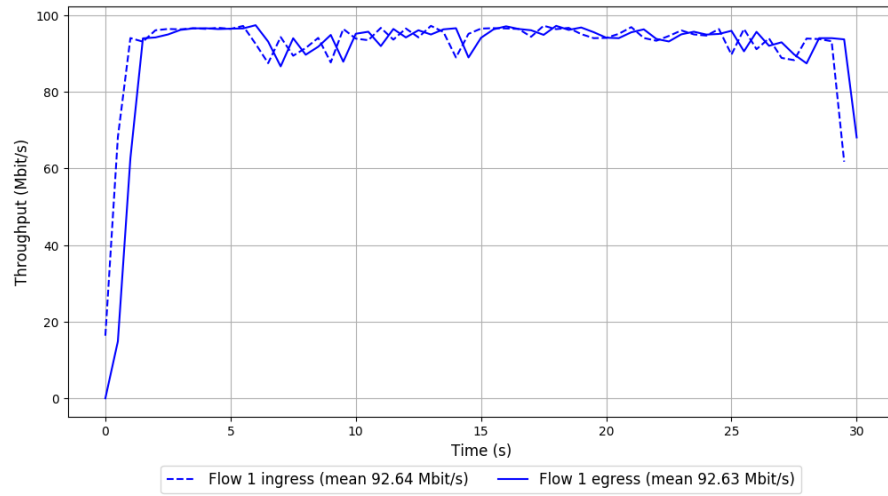
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-11-24 04:10:00
End at: 2019-11-24 04:10:30
Local clock offset: 2.791 ms
Remote clock offset: 3.996 ms


# Below is generated by plot.py at 2019-11-24 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 38.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.55 Mbit/s
95th percentile per-packet one-way delay: 38.452 ms
Loss rate: 0.00%
```

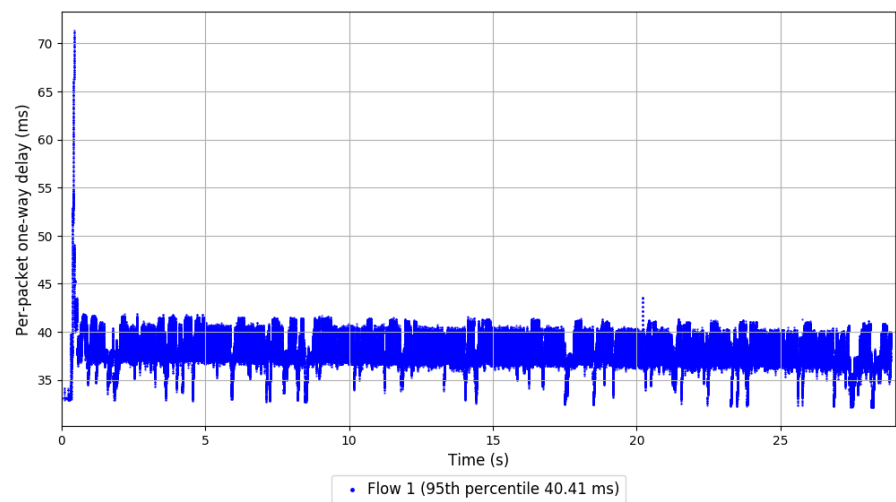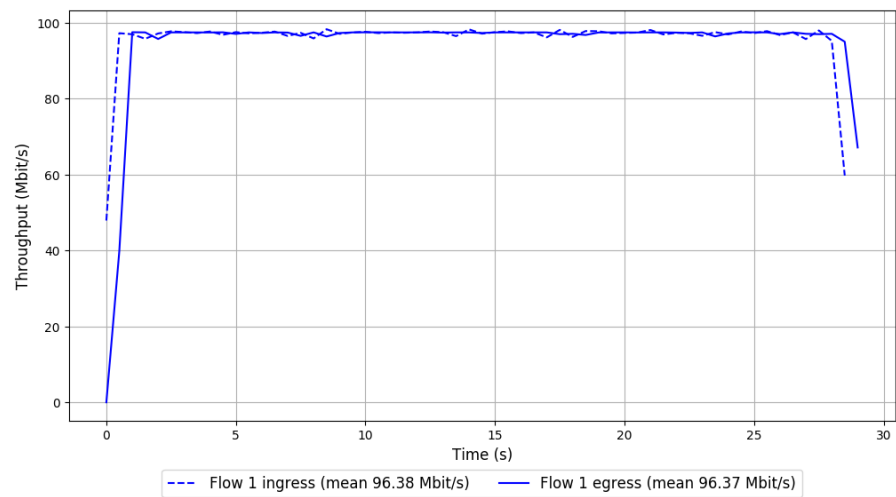Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 93.57 Mbit/s) ----- Flow 1 egress (mean 93.55 Mbit/s)

Flow 1 (95th percentile 38.45 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-11-24 06:49:49
End at: 2019-11-24 06:50:19
Local clock offset: 2.749 ms
Remote clock offset: 4.259 ms


# Below is generated by plot.py at 2019-11-24 07:06:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.63 Mbit/s
95th percentile per-packet one-way delay: 39.663 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 92.63 Mbit/s
95th percentile per-packet one-way delay: 39.663 ms
Loss rate: 0.00%
```
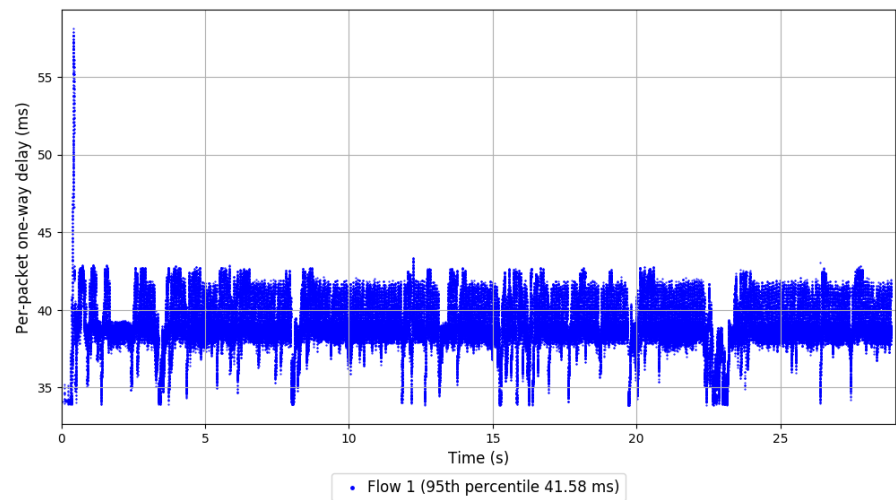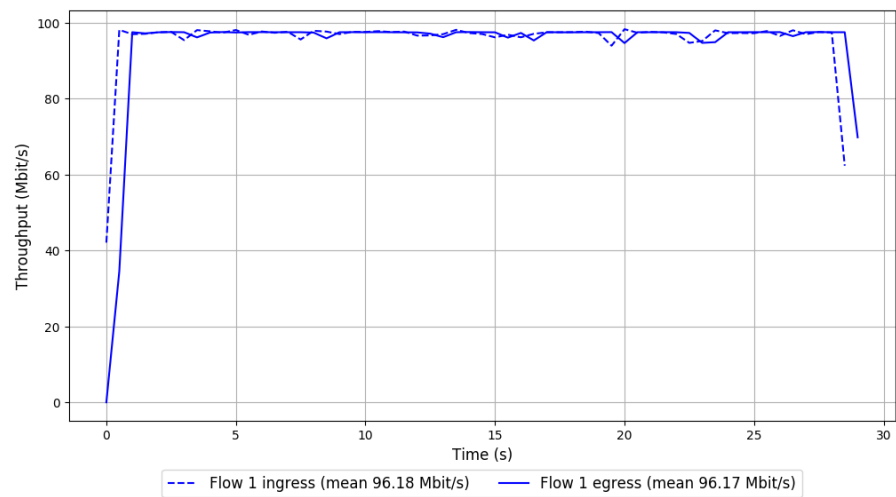
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-11-23 23:06:54
End at: 2019-11-23 23:07:24
Local clock offset: -45.771 ms
Remote clock offset: 6.09 ms


# Below is generated by plot.py at 2019-11-24 07:06:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 40.408 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.37 Mbit/s
95th percentile per-packet one-way delay: 40.408 ms
Loss rate: 0.00%
```
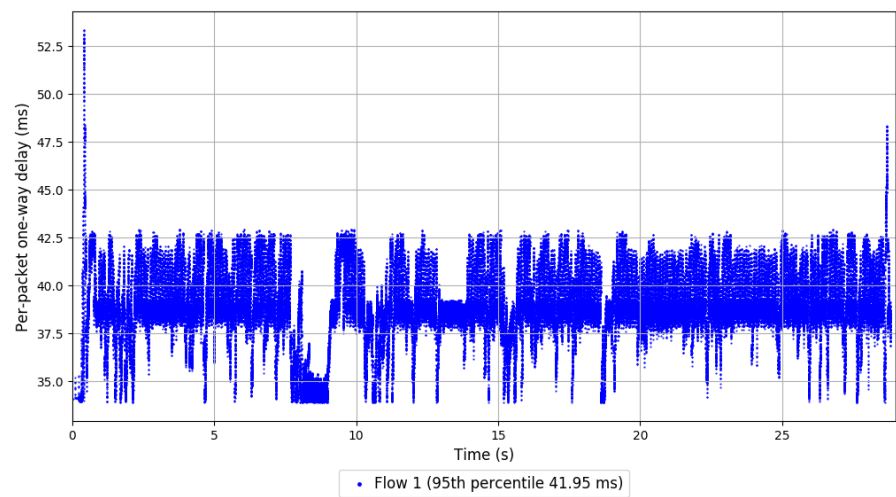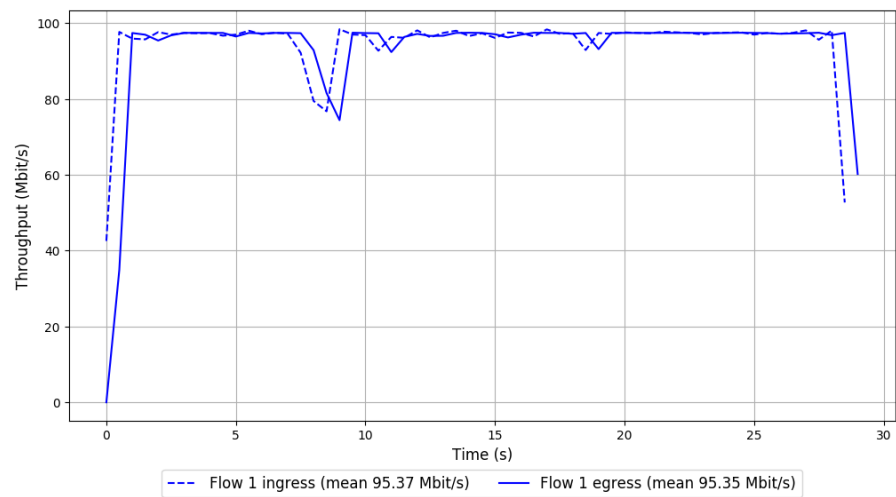
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-11-23 23:59:00
End at: 2019-11-23 23:59:30
Local clock offset: -10.865 ms
Remote clock offset: 6.305 ms


# Below is generated by plot.py at 2019-11-24 07:06:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.17 Mbit/s
95th percentile per-packet one-way delay: 41.581 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.17 Mbit/s
95th percentile per-packet one-way delay: 41.581 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-11-24 01:03:47
End at: 2019-11-24 01:04:17
Local clock offset: -1.138 ms
Remote clock offset: 6.028 ms


# Below is generated by plot.py at 2019-11-24 07:06:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.35 Mbit/s
95th percentile per-packet one-way delay: 41.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.35 Mbit/s
95th percentile per-packet one-way delay: 41.947 ms
Loss rate: 0.00%
```
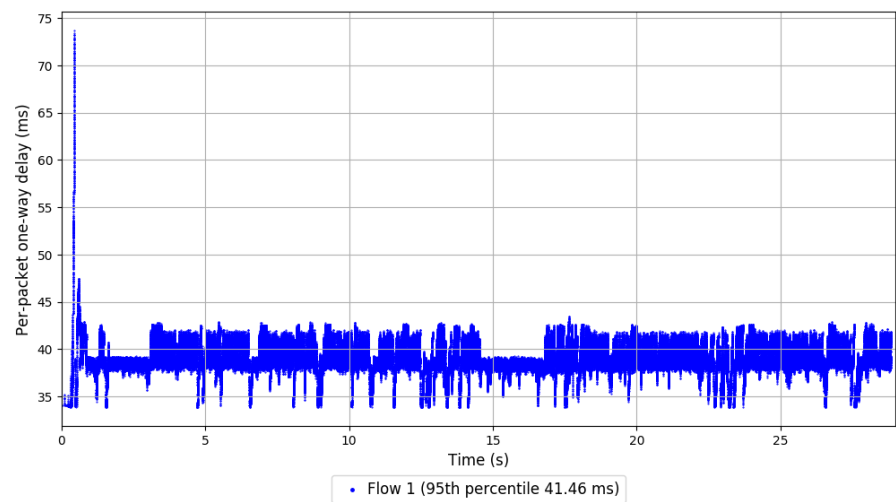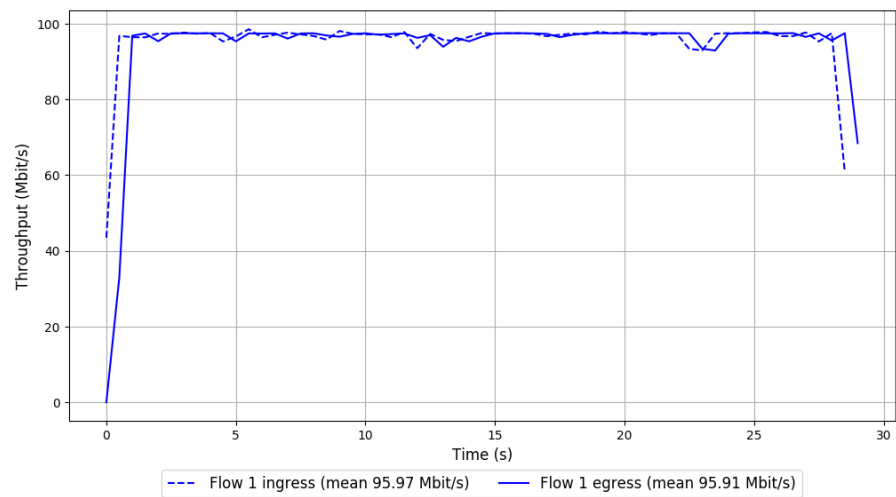
Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 95.37 Mbit/s) --- Flow 1 egress (mean 95.35 Mbit/s)

Flow 1 (95th percentile 41.95 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-11-24 03:38:01
End at: 2019-11-24 03:38:31
Local clock offset: 3.351 ms
Remote clock offset: 4.068 ms


# Below is generated by plot.py at 2019-11-24 07:06:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 41.463 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 95.91 Mbit/s
95th percentile per-packet one-way delay: 41.463 ms
Loss rate: 0.05%
```
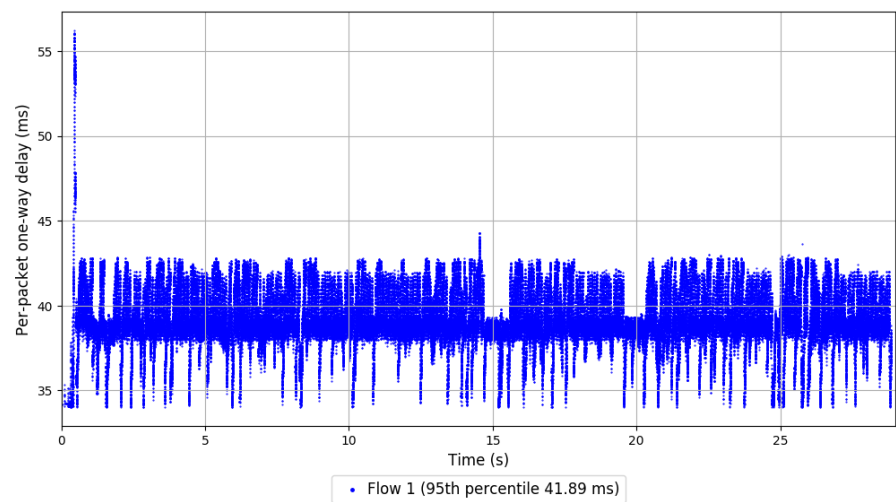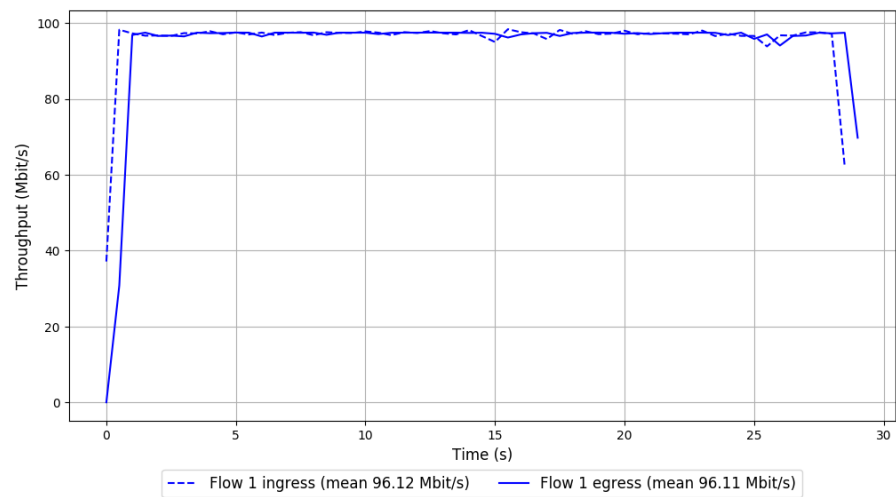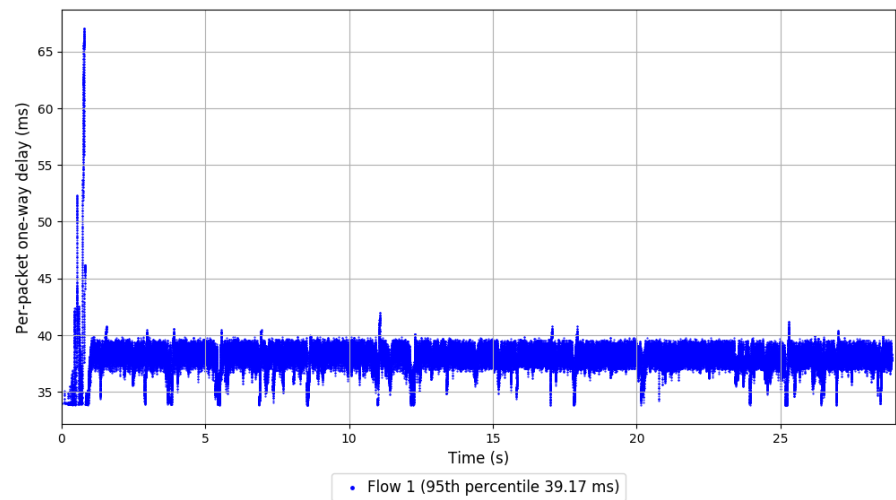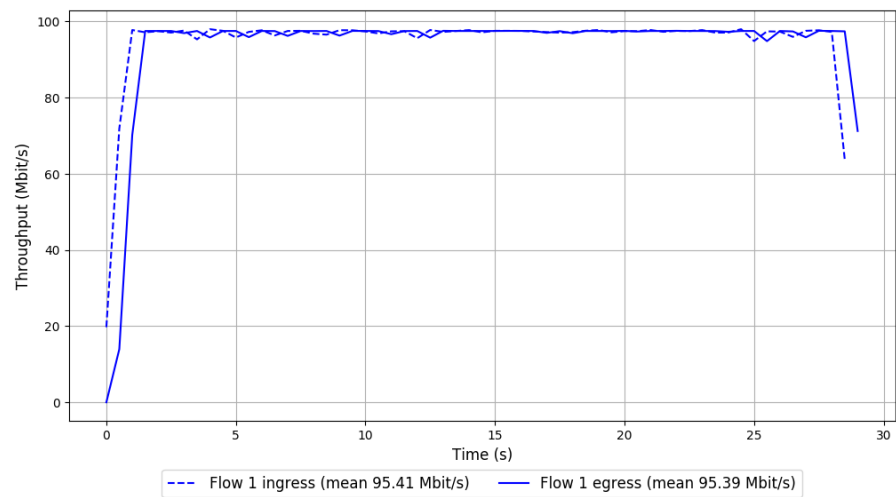
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-11-24 06:43:48
End at: 2019-11-24 06:44:18
Local clock offset: 2.613 ms
Remote clock offset: 4.15 ms


# Below is generated by plot.py at 2019-11-24 07:06:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 41.890 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.11 Mbit/s
95th percentile per-packet one-way delay: 41.890 ms
Loss rate: 0.00%
```
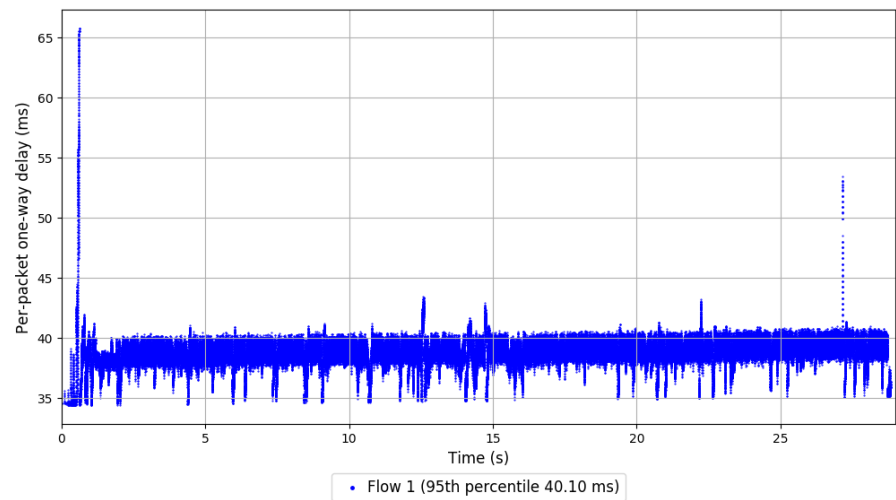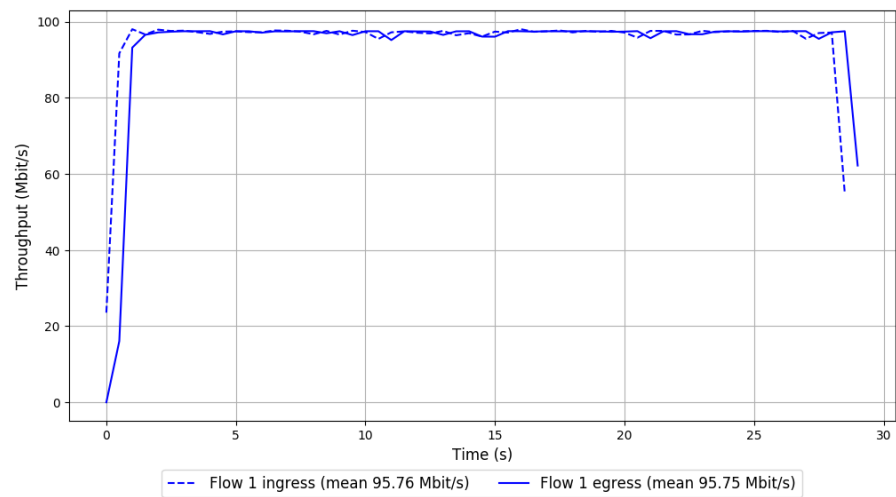
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-11-23 22:44:56
End at: 2019-11-23 22:45:26
Local clock offset: -21.186 ms
Remote clock offset: 6.243 ms


# Below is generated by plot.py at 2019-11-24 07:06:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 39.169 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.39 Mbit/s
95th percentile per-packet one-way delay: 39.169 ms
Loss rate: 0.00%
```
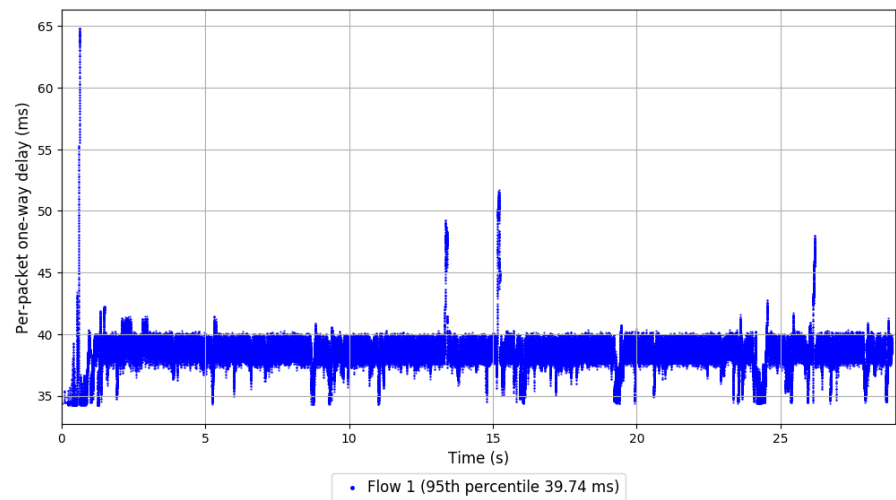
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-11-23 23:43:14
End at: 2019-11-23 23:43:44
Local clock offset: -18.455 ms
Remote clock offset: 6.848 ms


# Below is generated by plot.py at 2019-11-24 07:06:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 40.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.75 Mbit/s
95th percentile per-packet one-way delay: 40.101 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-11-24 00:43:27
End at: 2019-11-24 00:43:57
Local clock offset: -3.097 ms
Remote clock offset: 6.089 ms


# Below is generated by plot.py at 2019-11-24 07:07:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.19 Mbit/s
95th percentile per-packet one-way delay: 39.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.19 Mbit/s
95th percentile per-packet one-way delay: 39.737 ms
Loss rate: 0.00%
```
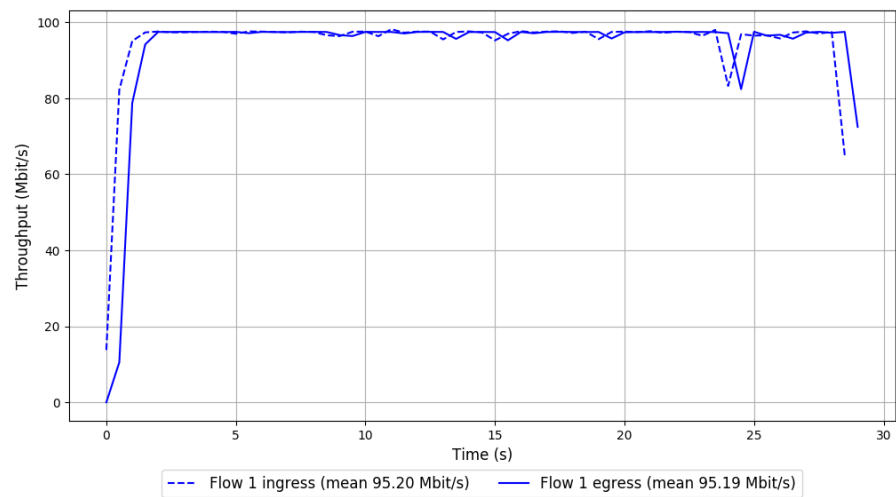
Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-11-24 02:11:44
End at: 2019-11-24 02:12:14
Local clock offset: 2.277 ms
Remote clock offset: 4.832 ms


# Below is generated by plot.py at 2019-11-24 07:07:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.40 Mbit/s
95th percentile per-packet one-way delay: 39.516 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 93.40 Mbit/s
95th percentile per-packet one-way delay: 39.516 ms
Loss rate: 0.28%
```
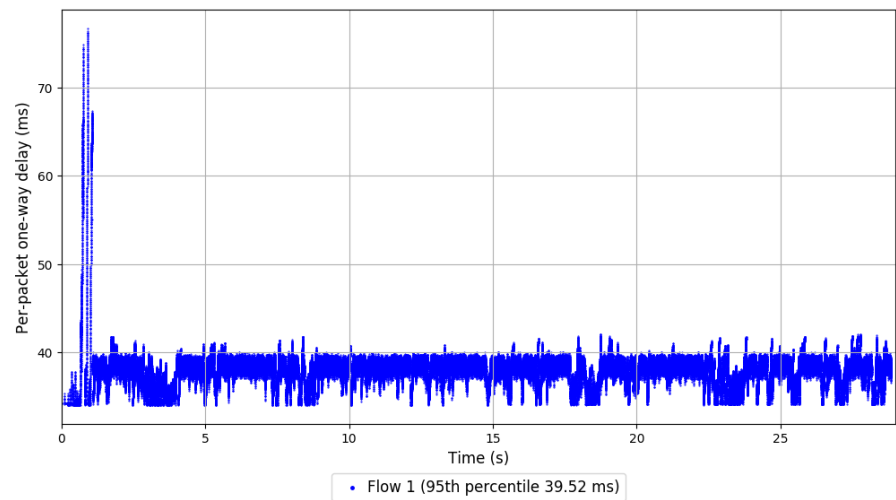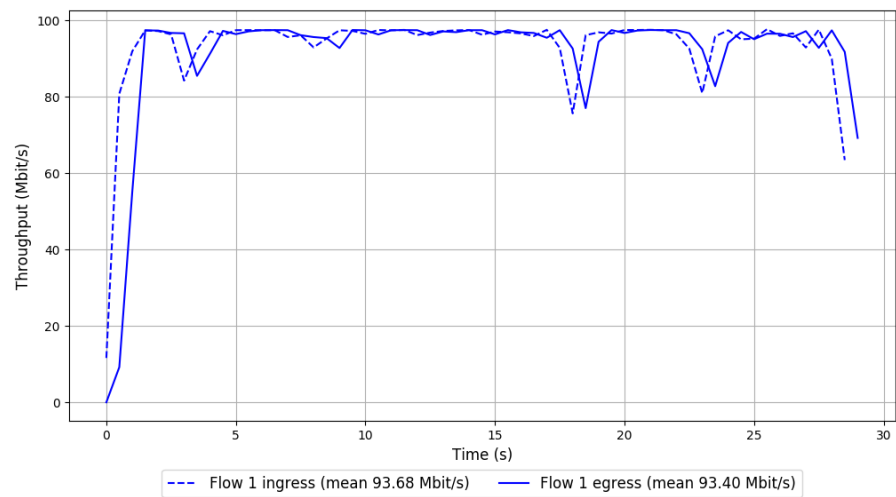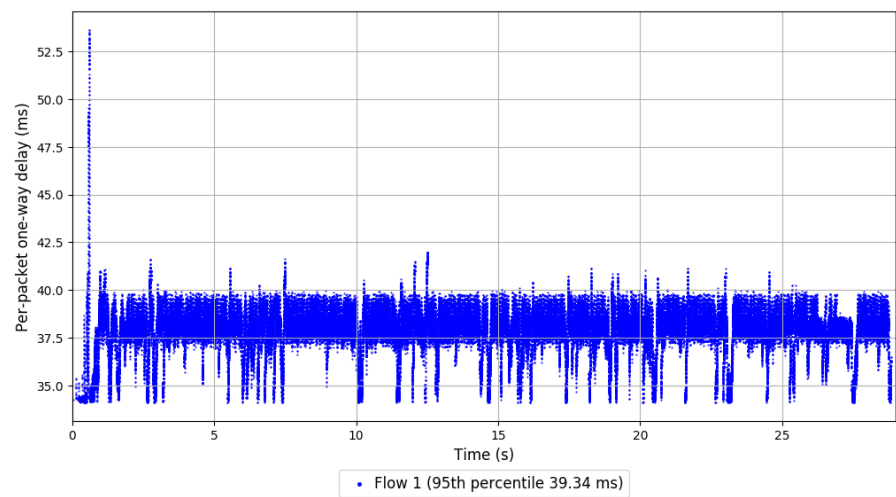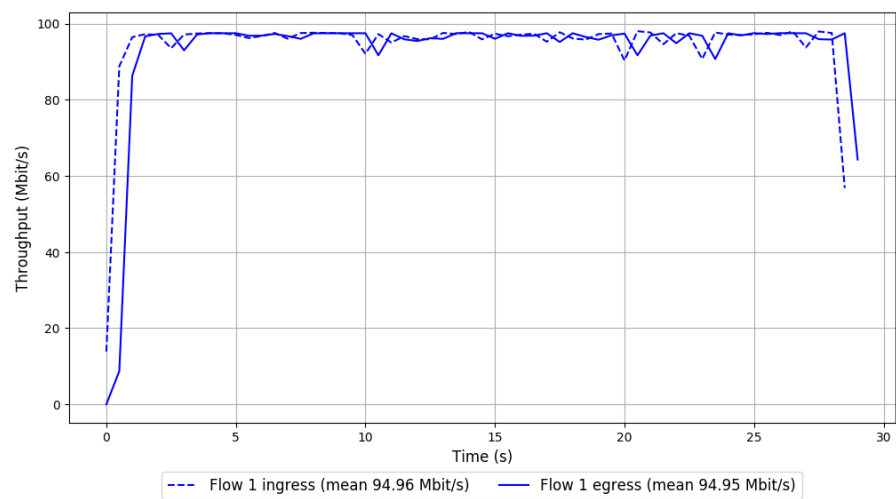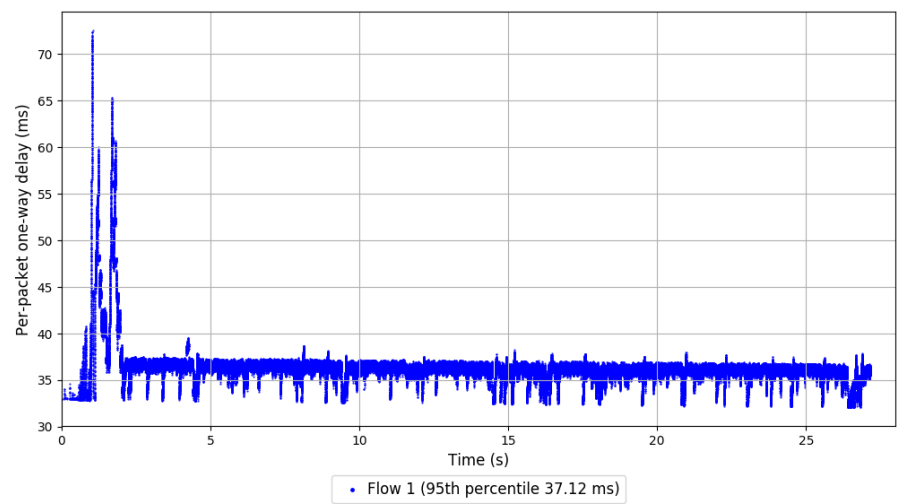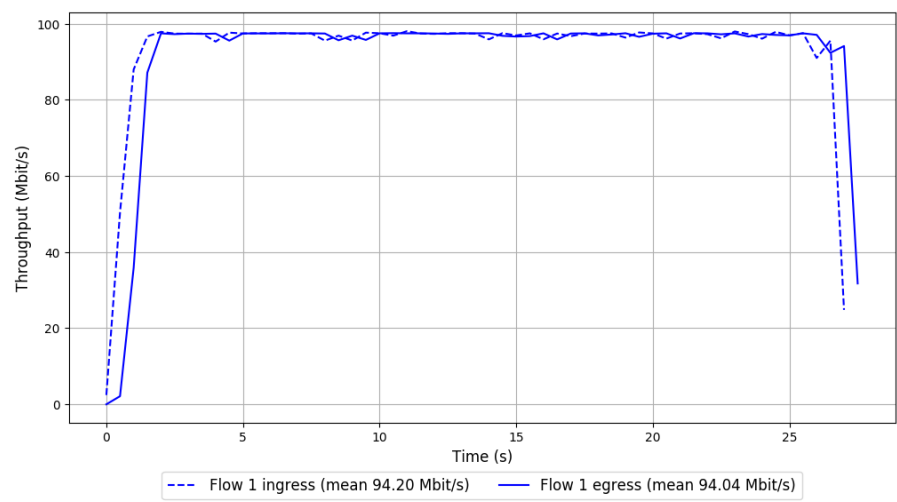
Run 4: Report of Indigo-MusesC5 — Data Link

- - - Flow 1 ingress (mean 93.68 Mbit/s) —— Flow 1 egress (mean 93.40 Mbit/s)

• Flow 1 (95th percentile 39.52 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-11-24 06:13:02
End at: 2019-11-24 06:13:32
Local clock offset: 2.611 ms
Remote clock offset: 4.329 ms


# Below is generated by plot.py at 2019-11-24 07:07:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 39.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.95 Mbit/s
95th percentile per-packet one-way delay: 39.339 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 94.96 Mbit/s)   Flow 1 egress (mean 94.95 Mbit/s)
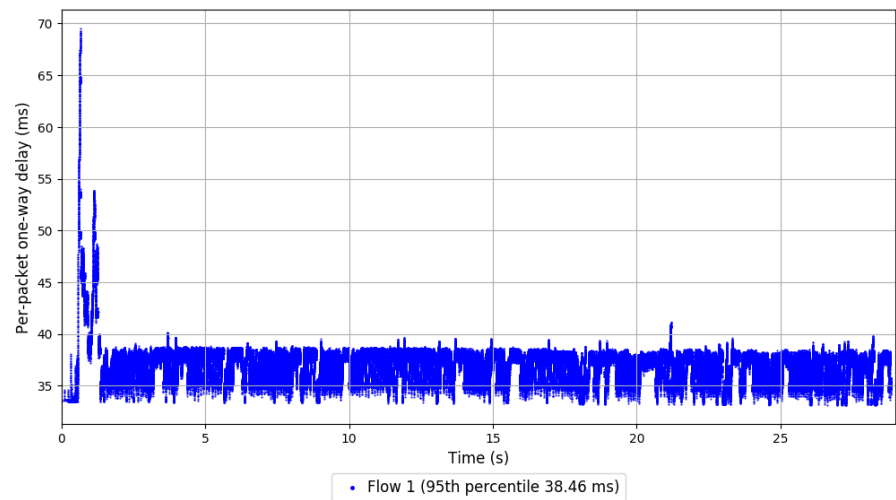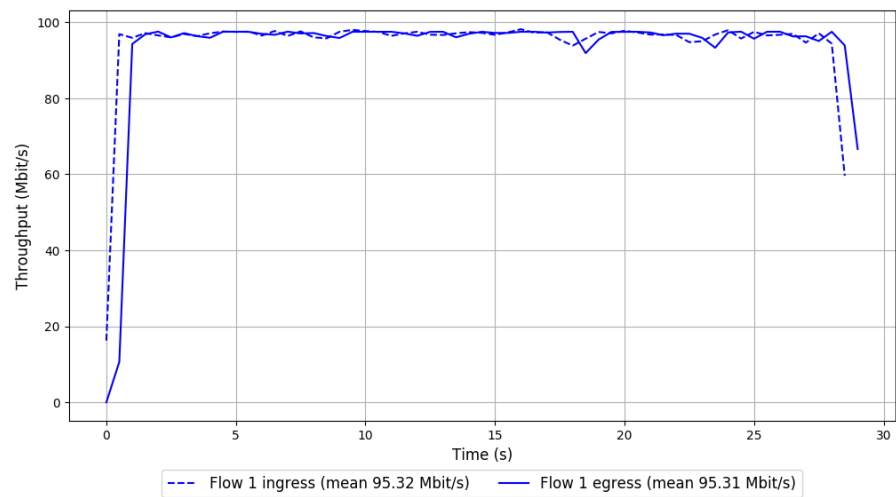

Flow 1 (95th percentile 39.34 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-11-23 22:38:04
End at: 2019-11-23 22:38:34
Local clock offset: -21.767 ms
Remote clock offset: 6.351 ms


# Below is generated by plot.py at 2019-11-24 07:07:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 37.119 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 94.04 Mbit/s
95th percentile per-packet one-way delay: 37.119 ms
Loss rate: 0.16%
```

Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 94.20 Mbit/s) --- Flow 1 egress (mean 94.04 Mbit/s)

• Flow 1 (95th percentile 37.12 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-11-23 23:36:25
End at: 2019-11-23 23:36:55
Local clock offset: -24.437 ms
Remote clock offset: 6.906 ms


# Below is generated by plot.py at 2019-11-24 07:07:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 38.456 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.31 Mbit/s
95th percentile per-packet one-way delay: 38.456 ms
Loss rate: 0.00%
```
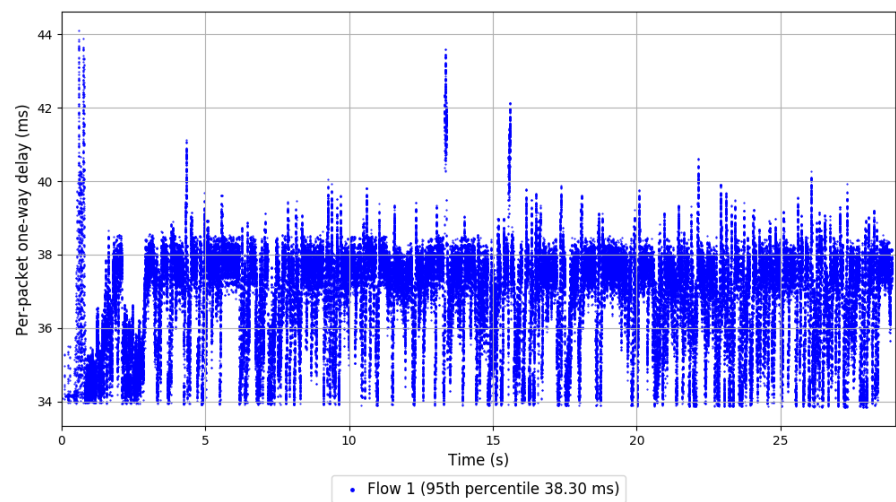
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-11-24 00:35:55
End at: 2019-11-24 00:36:25
Local clock offset: -4.796 ms
Remote clock offset: 6.172 ms


# Below is generated by plot.py at 2019-11-24 07:07:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 38.299 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 38.299 ms
Loss rate: 0.02%
```
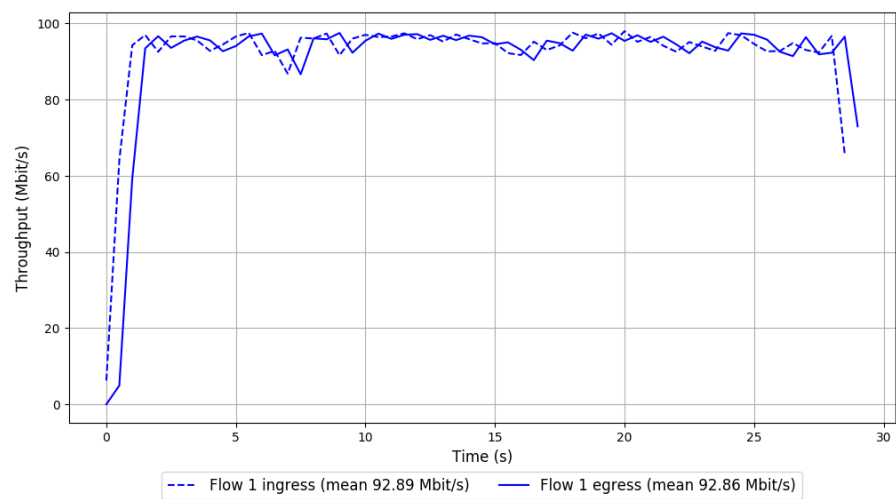
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-11-24 01:51:49
End at: 2019-11-24 01:52:19
Local clock offset: 2.181 ms
Remote clock offset: 5.777 ms


# Below is generated by plot.py at 2019-11-24 07:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 38.131 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.03 Mbit/s
95th percentile per-packet one-way delay: 38.131 ms
Loss rate: 0.00%
```
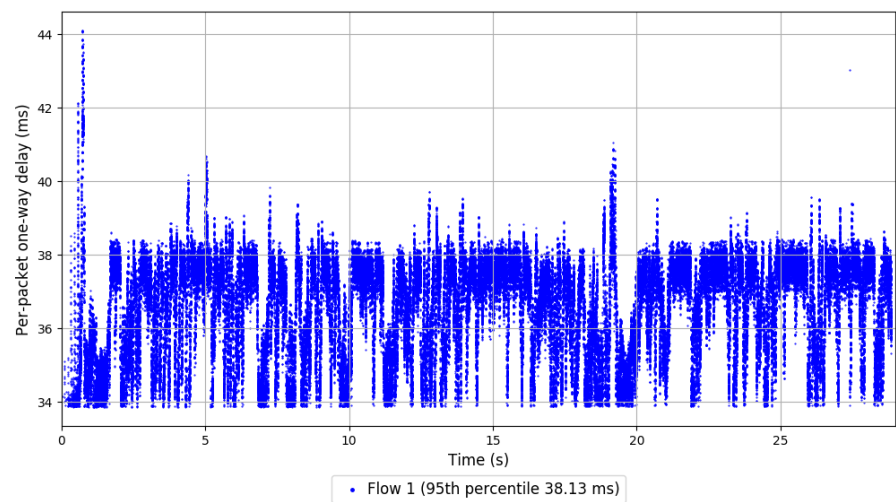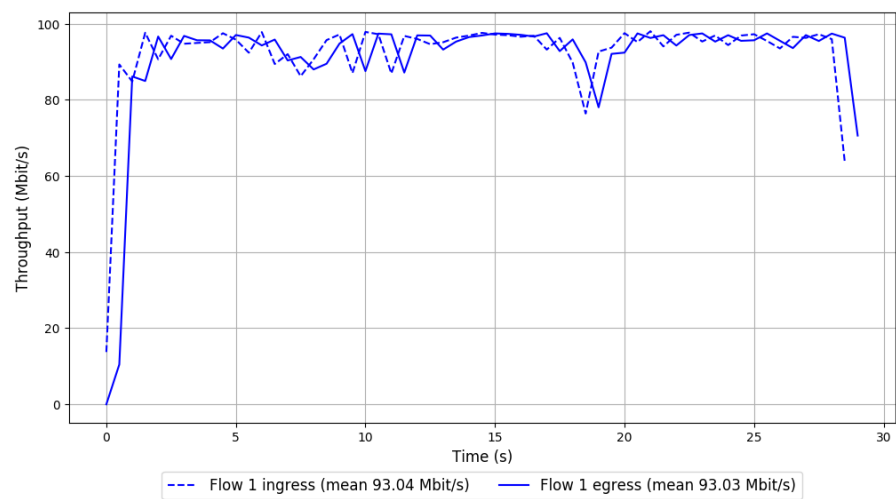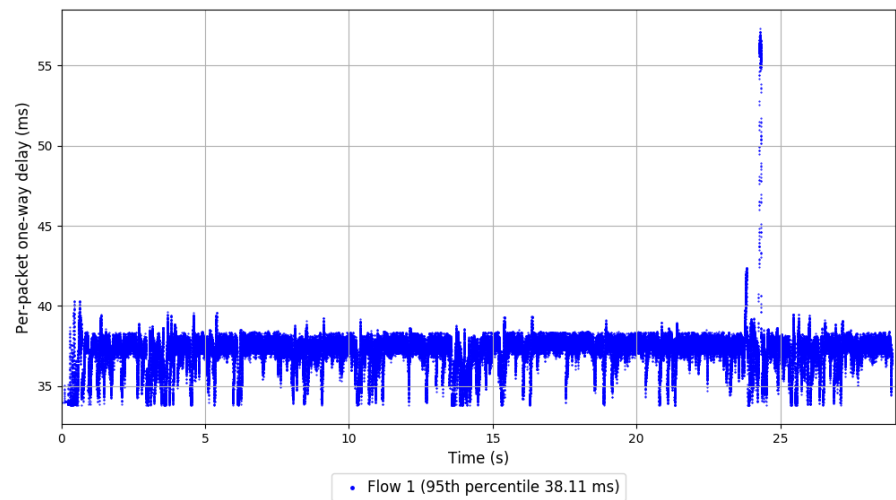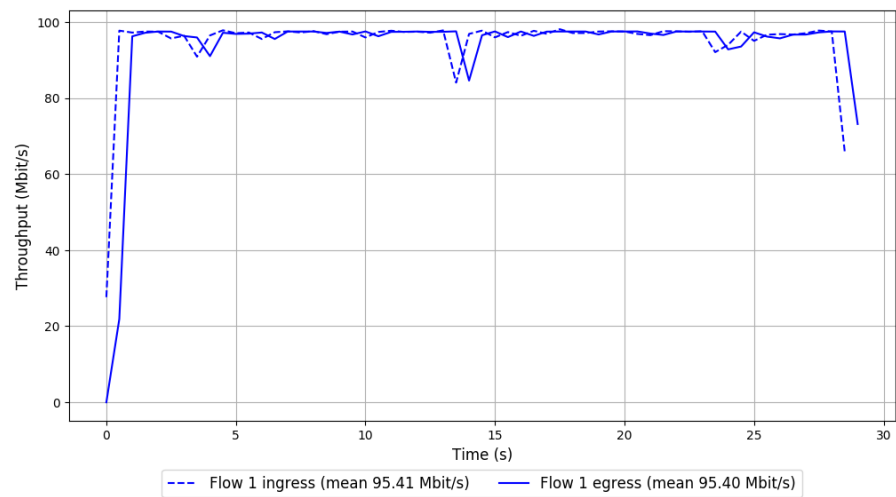
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-11-24 05:55:09
End at: 2019-11-24 05:55:39
Local clock offset: 2.731 ms
Remote clock offset: 4.263 ms


# Below is generated by plot.py at 2019-11-24 07:08:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 38.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.40 Mbit/s
95th percentile per-packet one-way delay: 38.111 ms
Loss rate: 0.00%
```
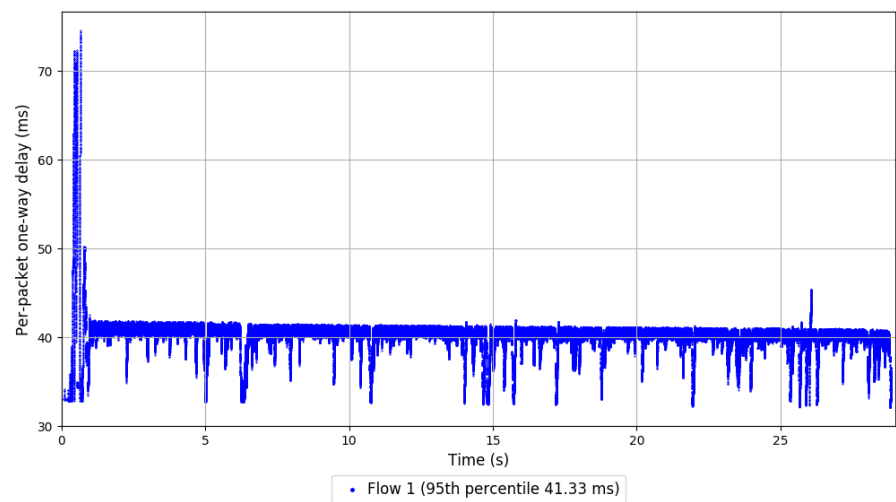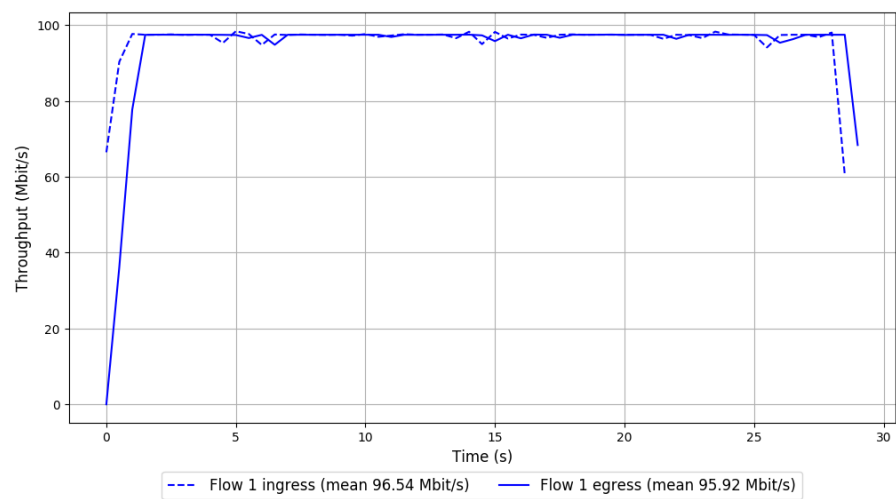
Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 95.41 Mbit/s) --- Flow 1 egress (mean 95.40 Mbit/s)
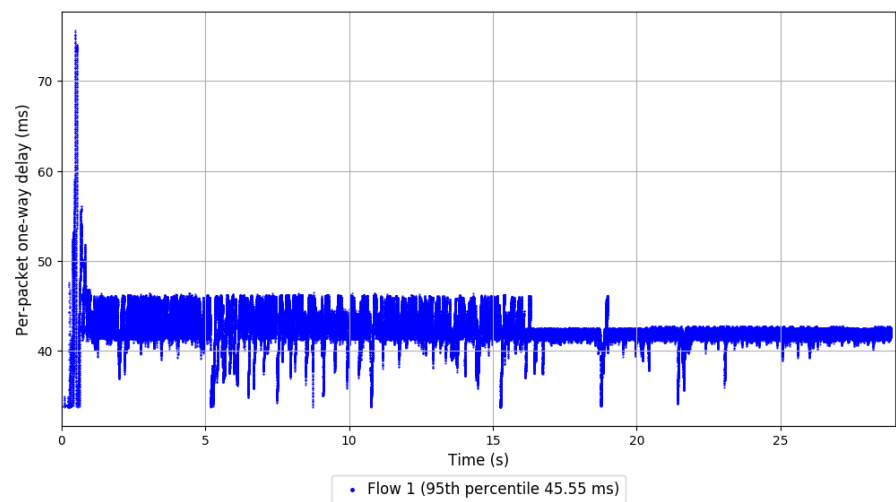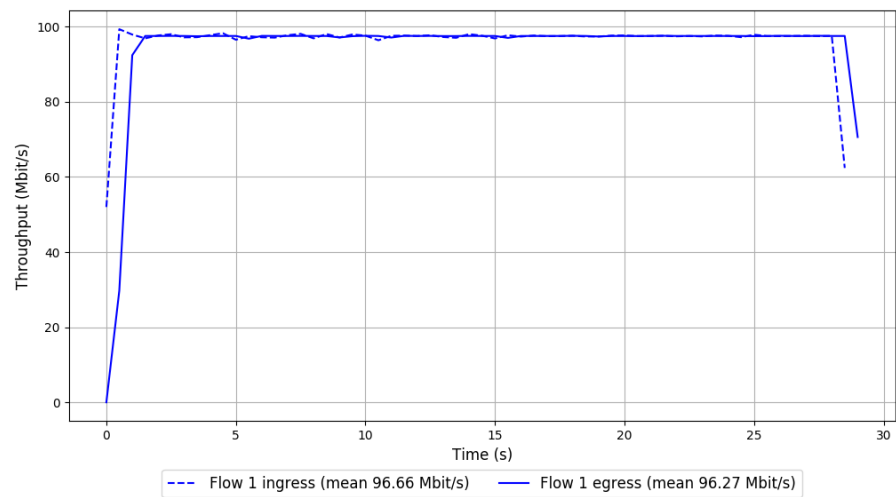

• Flow 1 (95th percentile 38.11 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-11-23 23:04:15
End at: 2019-11-23 23:04:45
Local clock offset: -41.53 ms
Remote clock offset: 6.052 ms


# Below is generated by plot.py at 2019-11-24 07:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 41.325 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 41.325 ms
Loss rate: 0.63%
```

Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-11-23 23:56:24
End at: 2019-11-23 23:56:54
Local clock offset: -10.523 ms
Remote clock offset: 6.16 ms


# Below is generated by plot.py at 2019-11-24 07:08:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 45.547 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 96.27 Mbit/s
95th percentile per-packet one-way delay: 45.547 ms
Loss rate: 0.37%
```

Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-11-24 01:00:18
End at: 2019-11-24 01:00:48
Local clock offset: -0.854 ms
Remote clock offset: 5.994 ms


# Below is generated by plot.py at 2019-11-24 07:08:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 44.542 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 95.77 Mbit/s
95th percentile per-packet one-way delay: 44.542 ms
Loss rate: 0.29%
```
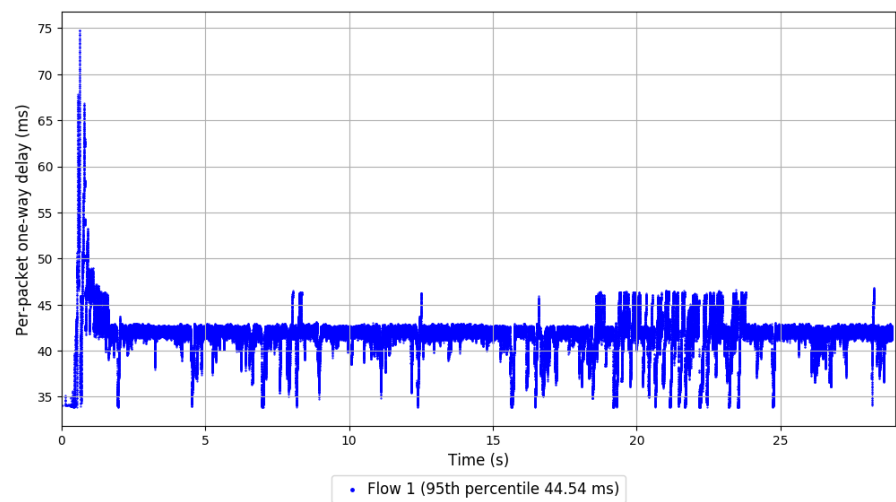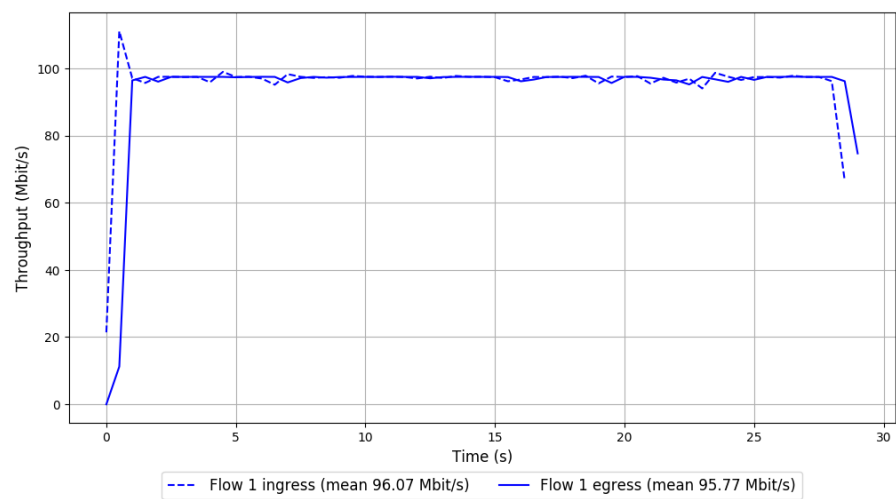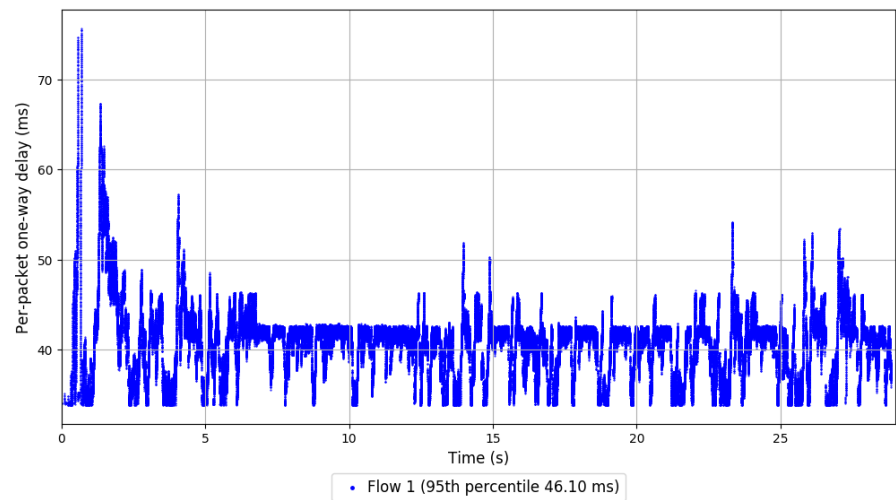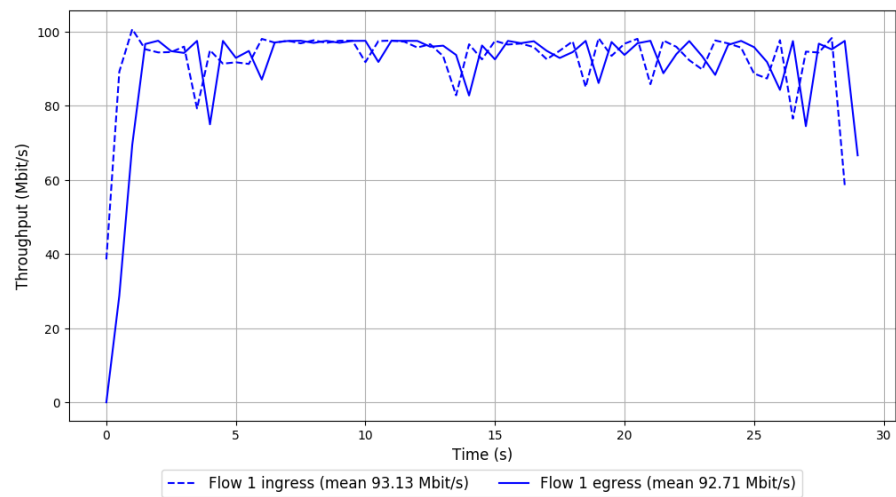
Run 3: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 96.07 Mbit/s) —— Flow 1 egress (mean 95.77 Mbit/s)

• Flow 1 (95th percentile 44.54 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-11-24 03:24:18
End at: 2019-11-24 03:24:48
Local clock offset: 3.084 ms
Remote clock offset: 4.059 ms


# Below is generated by plot.py at 2019-11-24 07:08:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.71 Mbit/s
95th percentile per-packet one-way delay: 46.105 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 92.71 Mbit/s
95th percentile per-packet one-way delay: 46.105 ms
Loss rate: 0.43%
```

Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-11-24 06:38:23
End at: 2019-11-24 06:38:53
Local clock offset: 2.432 ms
Remote clock offset: 4.109 ms


# Below is generated by plot.py at 2019-11-24 07:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 42.803 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 95.80 Mbit/s
95th percentile per-packet one-way delay: 42.803 ms
Loss rate: 0.58%
```
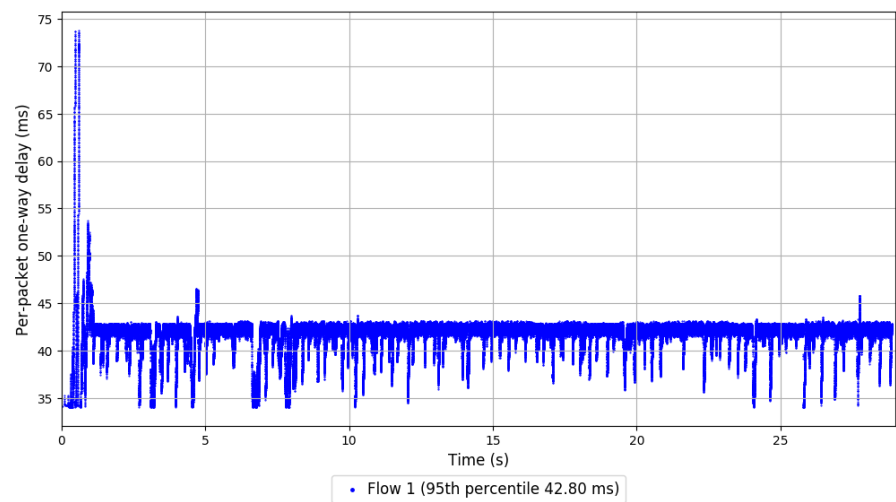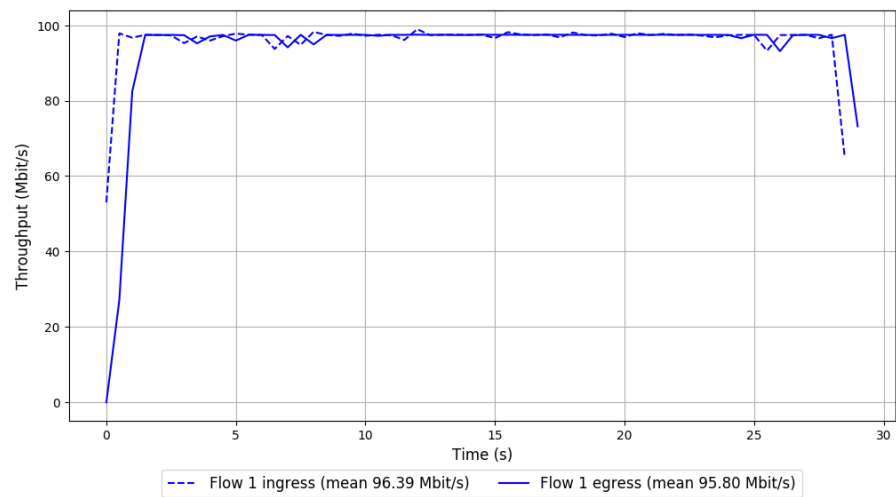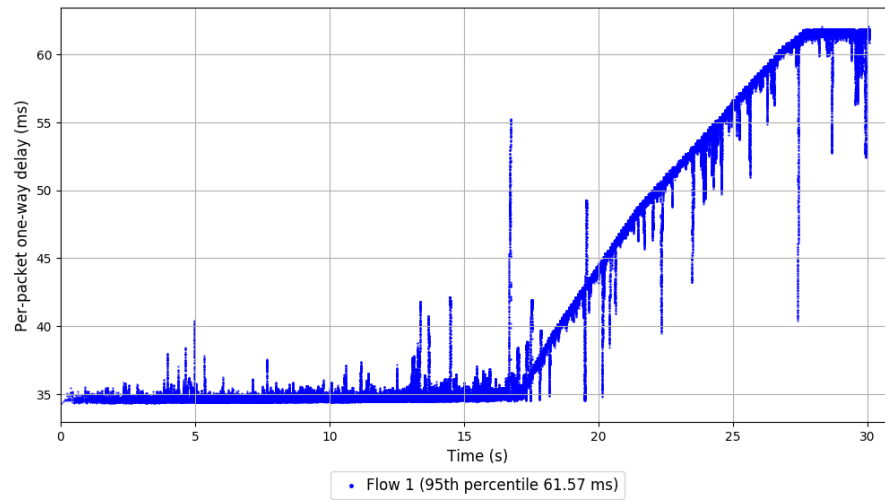
Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 96.39 Mbit/s)   Flow 1 egress (mean 95.80 Mbit/s)
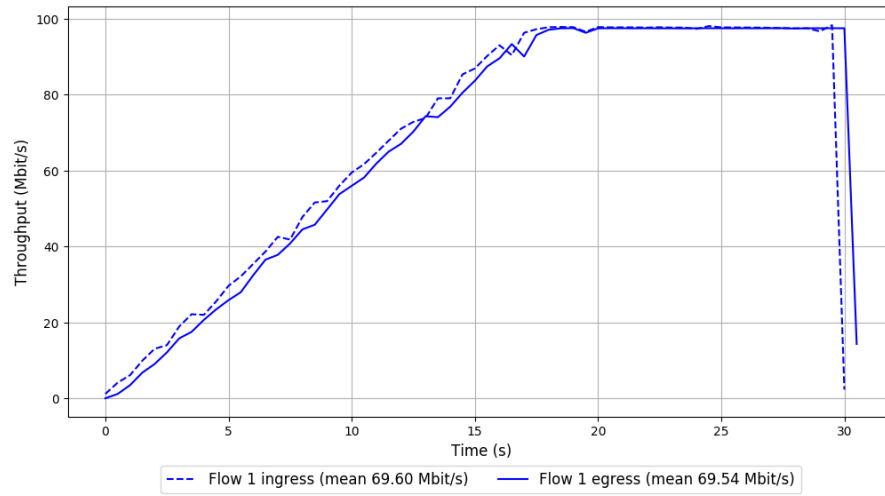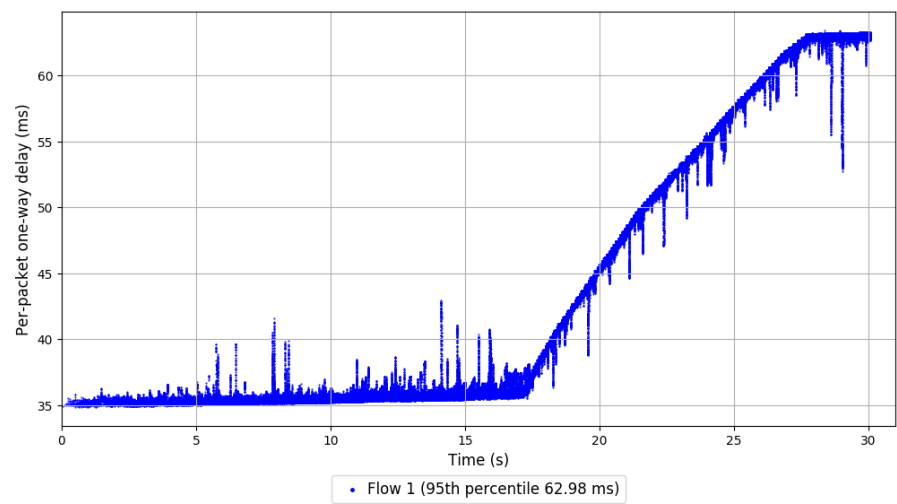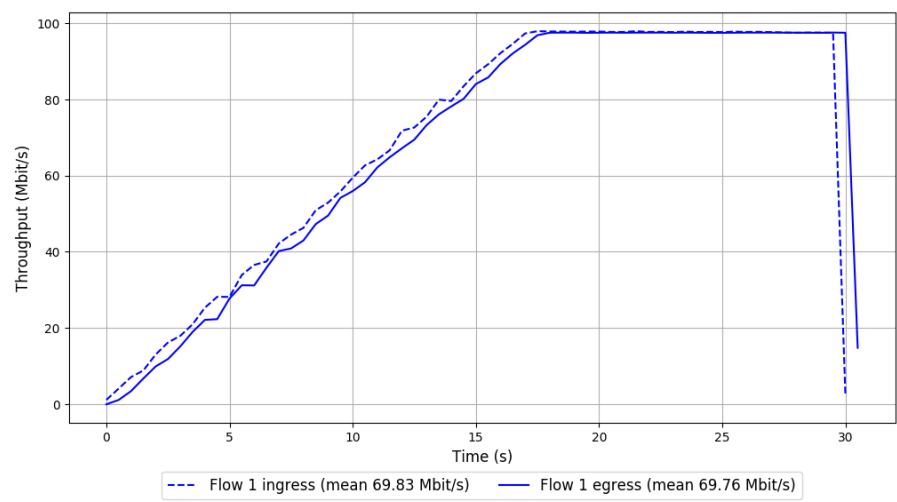

• Flow 1 (95th percentile 42.80 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-11-23 22:41:48
End at: 2019-11-23 22:42:18
Local clock offset: -22.404 ms
Remote clock offset: 6.261 ms


# Below is generated by plot.py at 2019-11-24 07:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.54 Mbit/s
95th percentile per-packet one-way delay: 61.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.54 Mbit/s
95th percentile per-packet one-way delay: 61.567 ms
Loss rate: 0.00%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 69.60 Mbit/s)   Flow 1 egress (mean 69.54 Mbit/s)

Flow 1 (95th percentile 61.57 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-11-23 23:39:49
End at: 2019-11-23 23:40:19
Local clock offset: -25.968 ms
Remote clock offset: 6.84 ms


# Below is generated by plot.py at 2019-11-24 07:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.76 Mbit/s
95th percentile per-packet one-way delay: 62.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.76 Mbit/s
95th percentile per-packet one-way delay: 62.975 ms
Loss rate: 0.00%
```
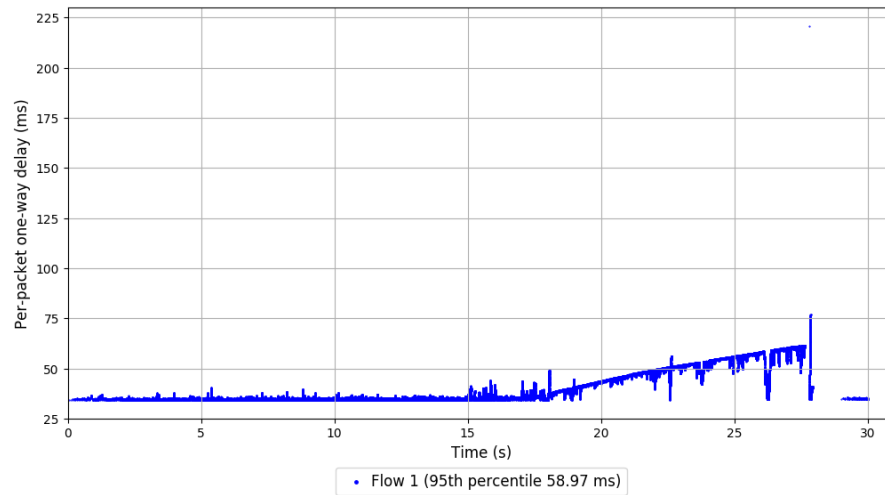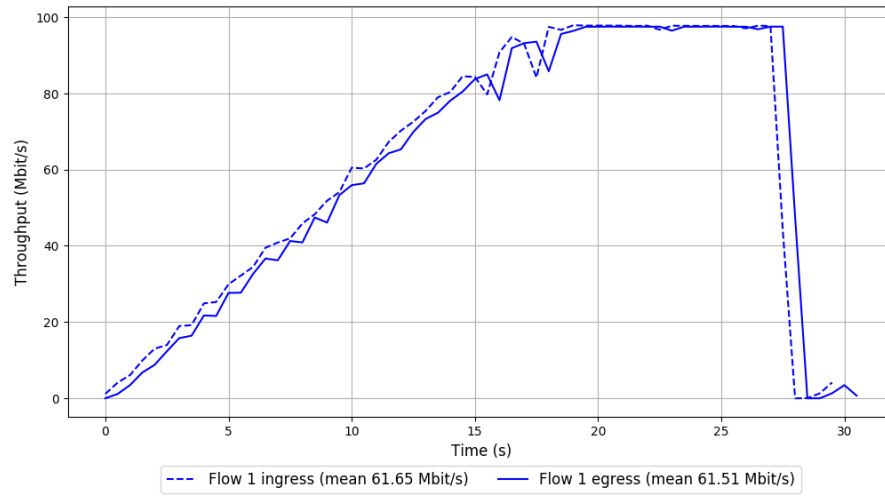
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 69.83 Mbit/s) ---- Flow 1 egress (mean 69.76 Mbit/s)

• Flow 1 (95th percentile 62.98 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-11-24 00:39:46
End at: 2019-11-24 00:40:16
Local clock offset: -5.336 ms
Remote clock offset: 6.043 ms


# Below is generated by plot.py at 2019-11-24 07:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.51 Mbit/s
95th percentile per-packet one-way delay: 58.967 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 61.51 Mbit/s
95th percentile per-packet one-way delay: 58.967 ms
Loss rate: 0.23%
```
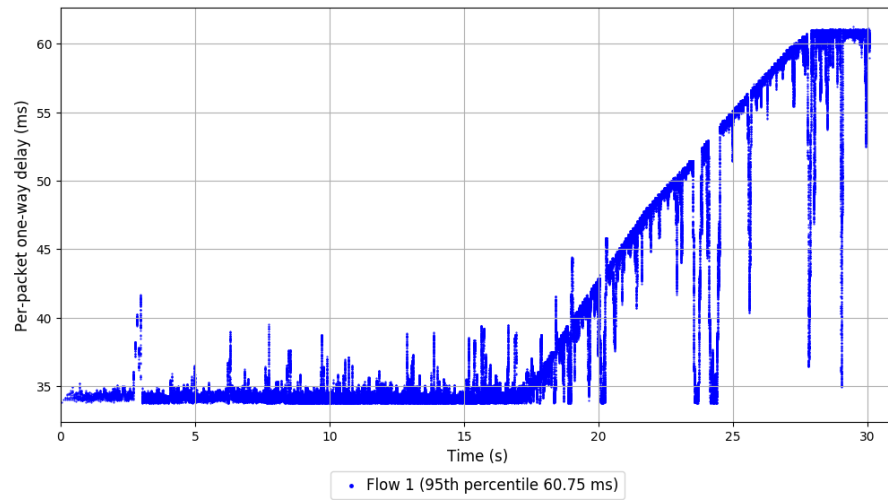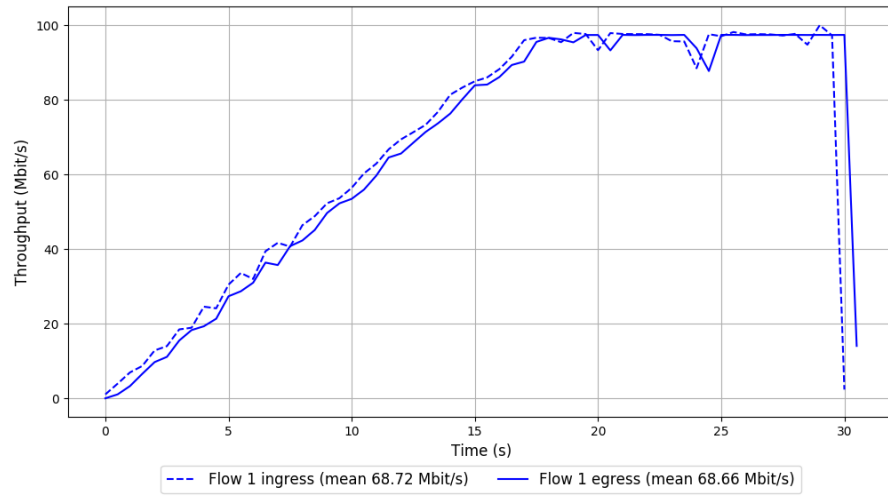
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 61.65 Mbit/s) ——— Flow 1 egress (mean 61.51 Mbit/s)

• Flow 1 (95th percentile 58.97 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-11-24 02:01:30
End at: 2019-11-24 02:02:00
Local clock offset: 2.24 ms
Remote clock offset: 5.679 ms


# Below is generated by plot.py at 2019-11-24 07:09:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.66 Mbit/s
95th percentile per-packet one-way delay: 60.750 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.66 Mbit/s
95th percentile per-packet one-way delay: 60.750 ms
Loss rate: 0.00%
```
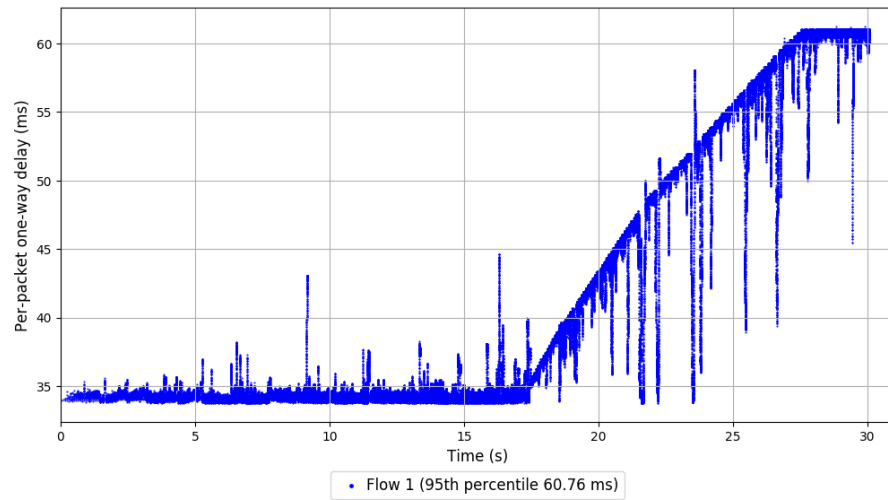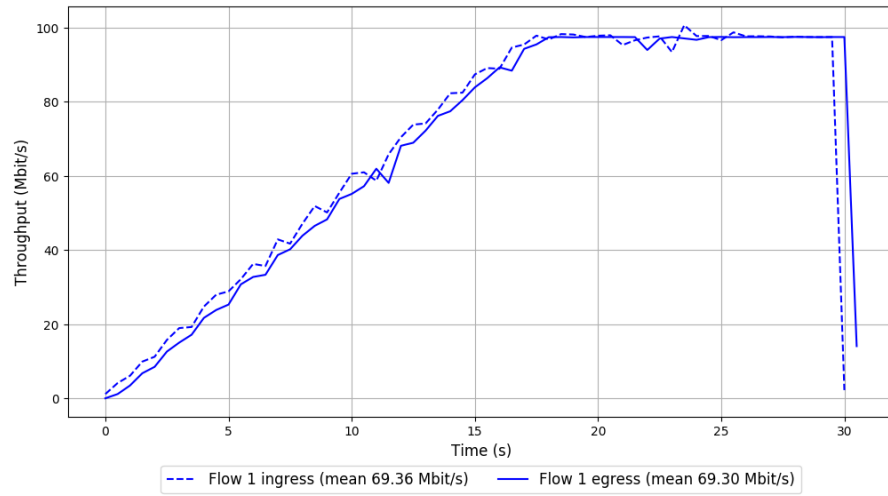
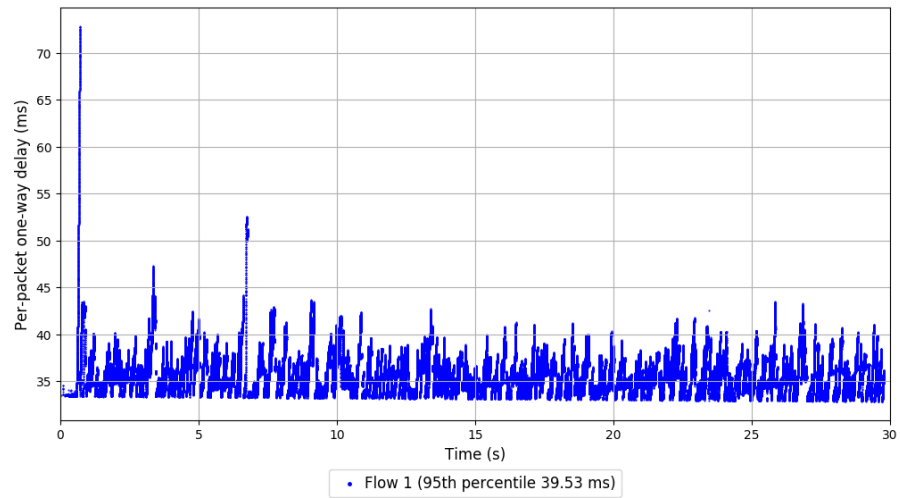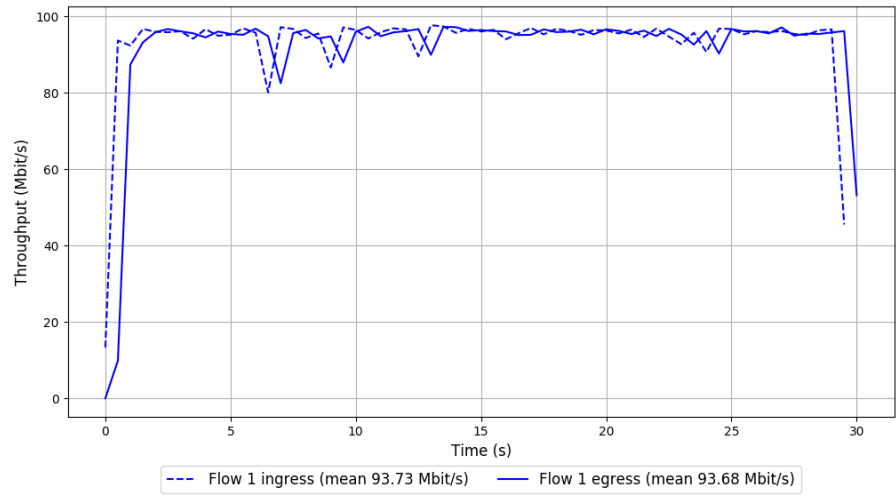# Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 68.72 Mbit/s) --- Flow 1 egress (mean 68.66 Mbit/s)

• Flow 1 (95th percentile 60.75 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-11-24 06:09:37
End at: 2019-11-24 06:10:07
Local clock offset: 2.651 ms
Remote clock offset: 4.178 ms


# Below is generated by plot.py at 2019-11-24 07:09:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.30 Mbit/s
95th percentile per-packet one-way delay: 60.763 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 69.30 Mbit/s
95th percentile per-packet one-way delay: 60.763 ms
Loss rate: 0.00%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 69.36 Mbit/s) --- Flow 1 egress (mean 69.30 Mbit/s)

Flow 1 (95th percentile 60.76 ms)

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-11-23 22:53:01
End at: 2019-11-23 22:53:31
Local clock offset: -26.288 ms
Remote clock offset: 6.108 ms


# Below is generated by plot.py at 2019-11-24 07:09:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 39.533 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 93.68 Mbit/s
95th percentile per-packet one-way delay: 39.533 ms
Loss rate: 0.04%
```
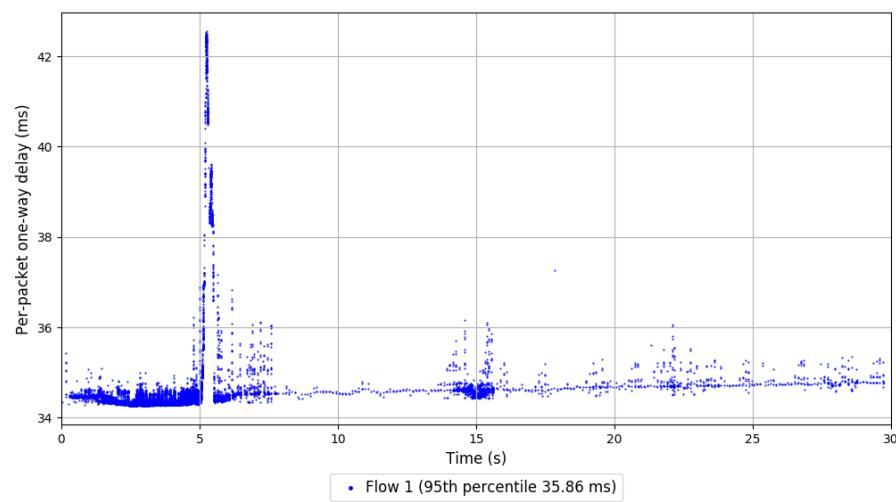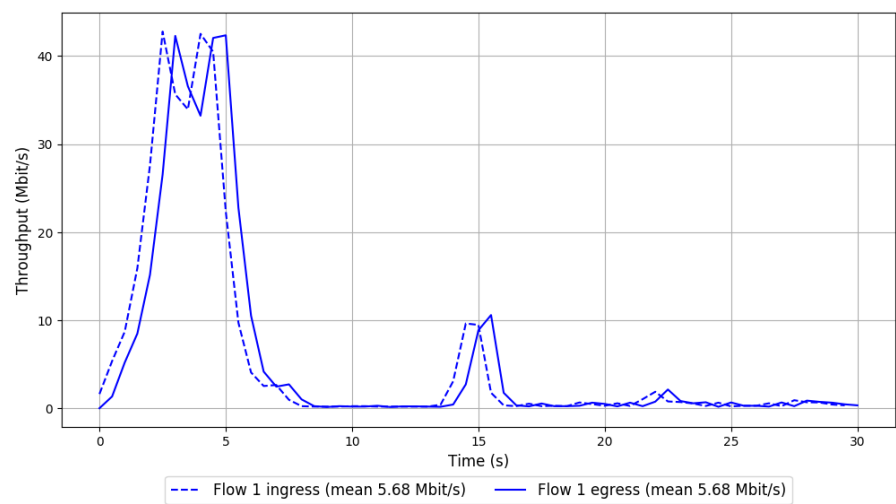
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-11-23 23:48:51
End at: 2019-11-23 23:49:21
Local clock offset: -12.48 ms
Remote clock offset: 6.811 ms


# Below is generated by plot.py at 2019-11-24 07:09:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 35.858 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.68 Mbit/s
95th percentile per-packet one-way delay: 35.858 ms
Loss rate: 0.00%
```
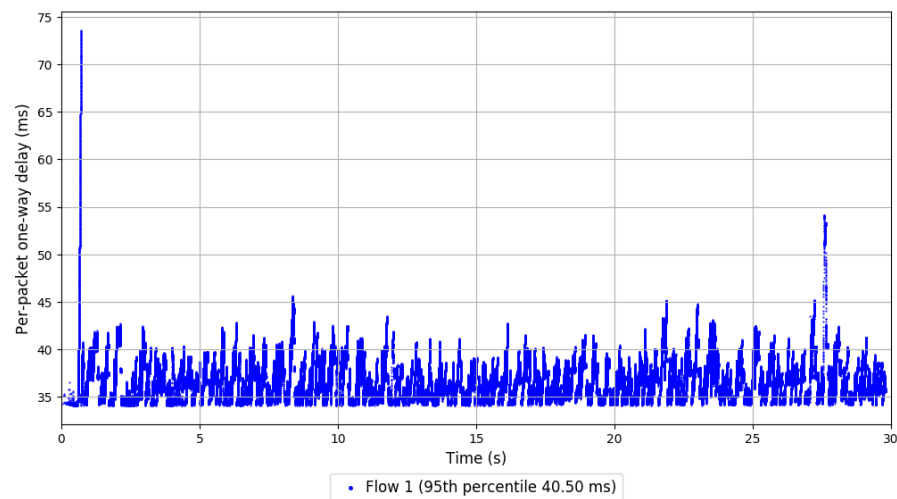
Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 00:50:32
End at: 2019-11-24 00:51:02
Local clock offset: -1.053 ms
Remote clock offset: 6.087 ms


# Below is generated by plot.py at 2019-11-24 07:09:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 40.496 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 40.496 ms
Loss rate: 0.07%
```
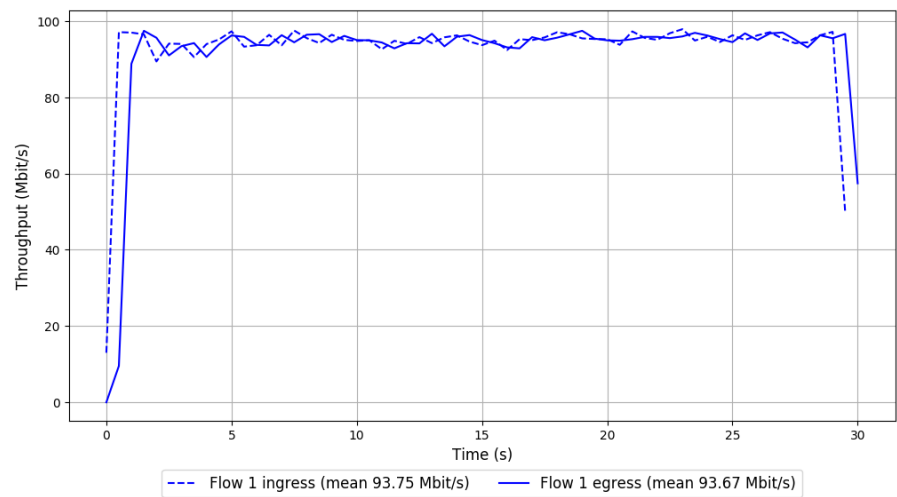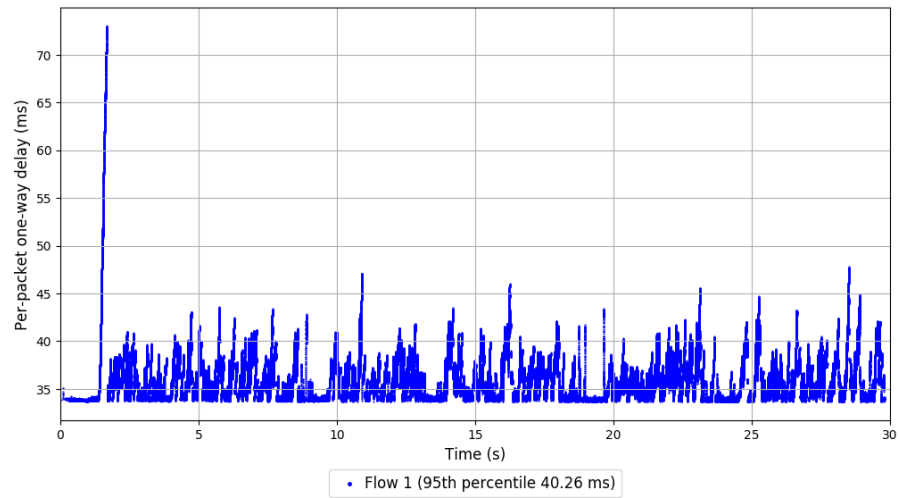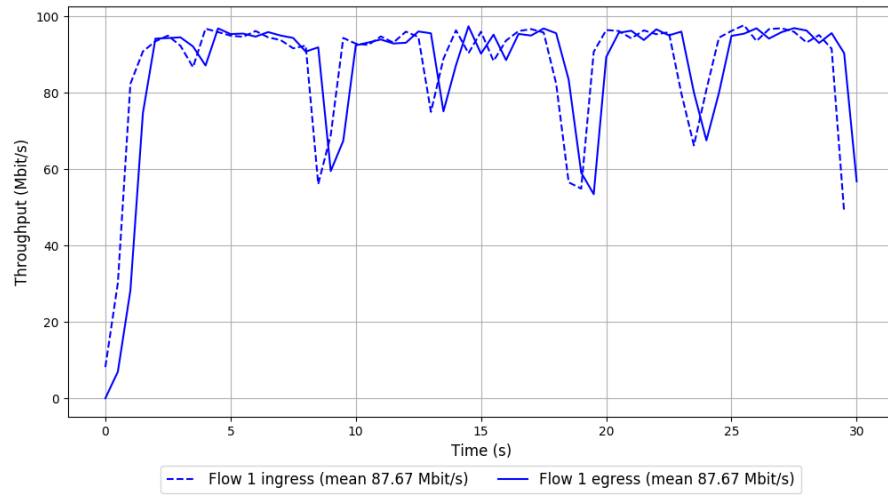
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 02:46:27
End at: 2019-11-24 02:46:57
Local clock offset: 2.216 ms
Remote clock offset: 3.315 ms


# Below is generated by plot.py at 2019-11-24 07:09:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 40.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.67 Mbit/s
95th percentile per-packet one-way delay: 40.256 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-11-24 06:23:07
End at: 2019-11-24 06:23:37
Local clock offset: 2.529 ms
Remote clock offset: 4.134 ms


# Below is generated by plot.py at 2019-11-24 07:09:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 39.657 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 92.19 Mbit/s
95th percentile per-packet one-way delay: 39.657 ms
Loss rate: 0.06%
```
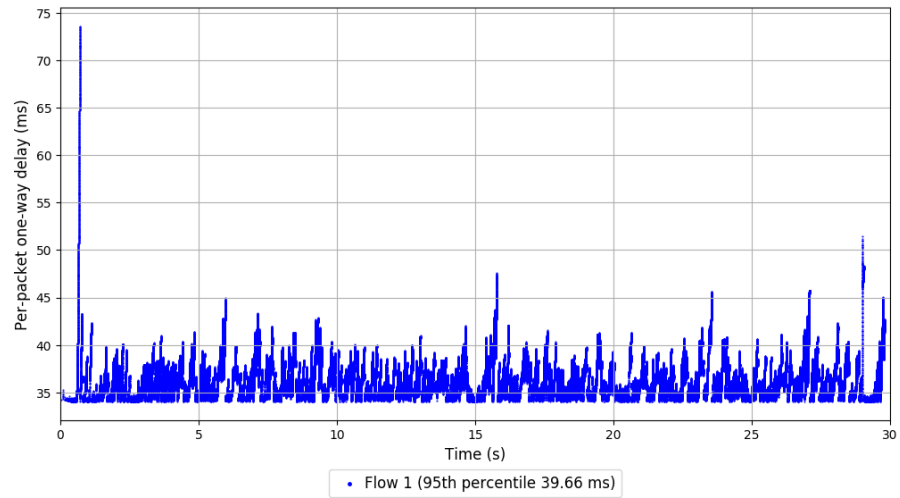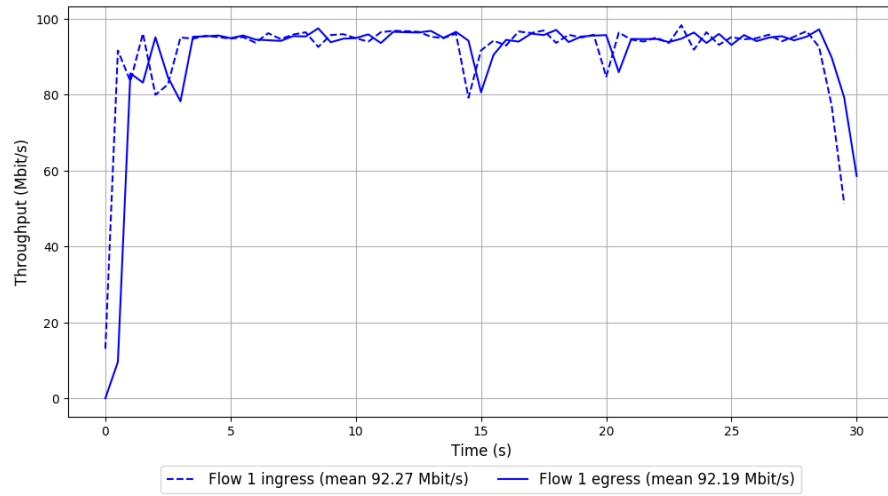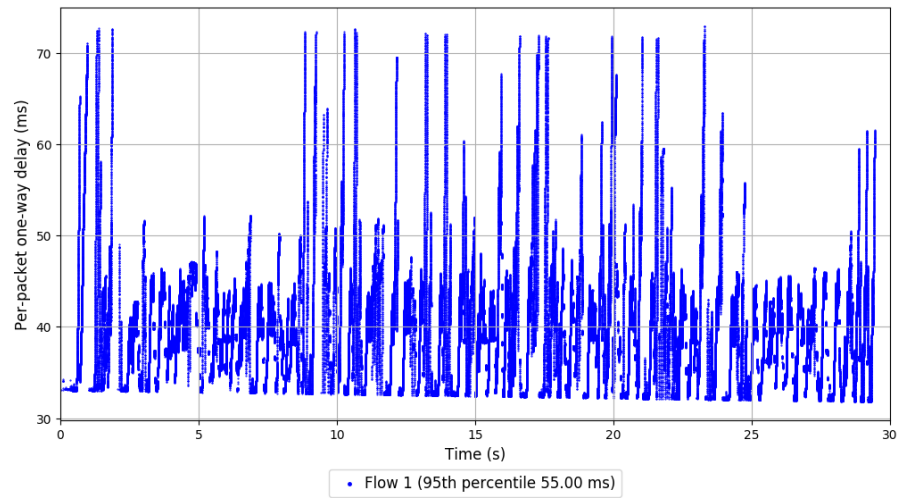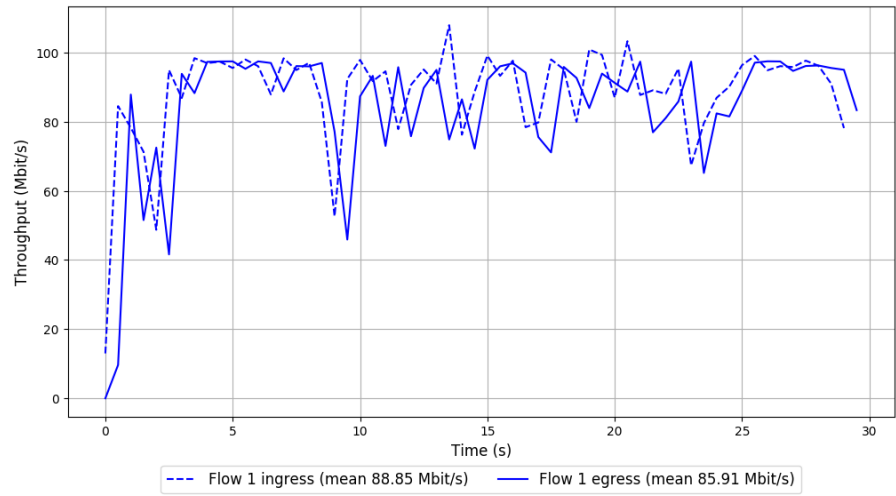
Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 92.27 Mbit/s)   Flow 1 egress (mean 92.19 Mbit/s)
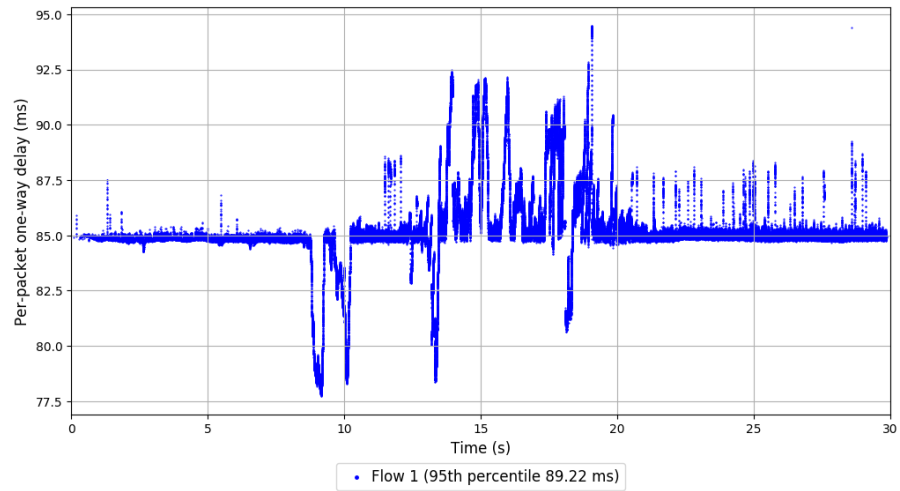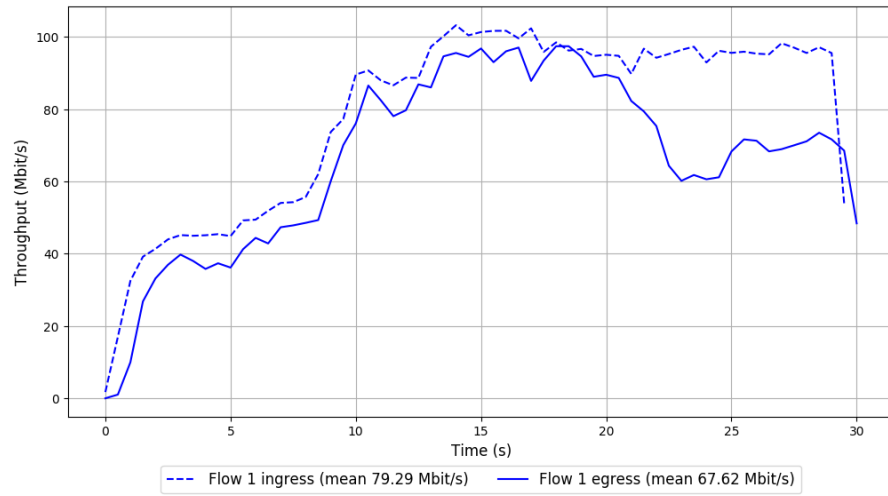

Flow 1 (95th percentile 39.66 ms)

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-23 22:25:22
End at: 2019-11-23 22:25:52
Local clock offset: -17.577 ms
Remote clock offset: 6.255 ms


# Below is generated by plot.py at 2019-11-24 07:09:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.91 Mbit/s
95th percentile per-packet one-way delay: 54.996 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 85.91 Mbit/s
95th percentile per-packet one-way delay: 54.996 ms
Loss rate: 3.22%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-23 23:27:09
End at: 2019-11-23 23:27:39
Local clock offset: -20.218 ms
Remote clock offset: 6.652 ms


# Below is generated by plot.py at 2019-11-24 07:09:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.62 Mbit/s
95th percentile per-packet one-way delay: 89.216 ms
Loss rate: 14.71%
-- Flow 1:
Average throughput: 67.62 Mbit/s
95th percentile per-packet one-way delay: 89.216 ms
Loss rate: 14.71%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 00:18:01
End at: 2019-11-24 00:18:31
Local clock offset: -5.721 ms
Remote clock offset: 5.629 ms


# Below is generated by plot.py at 2019-11-24 07:10:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 54.649 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 54.649 ms
Loss rate: 2.84%
```
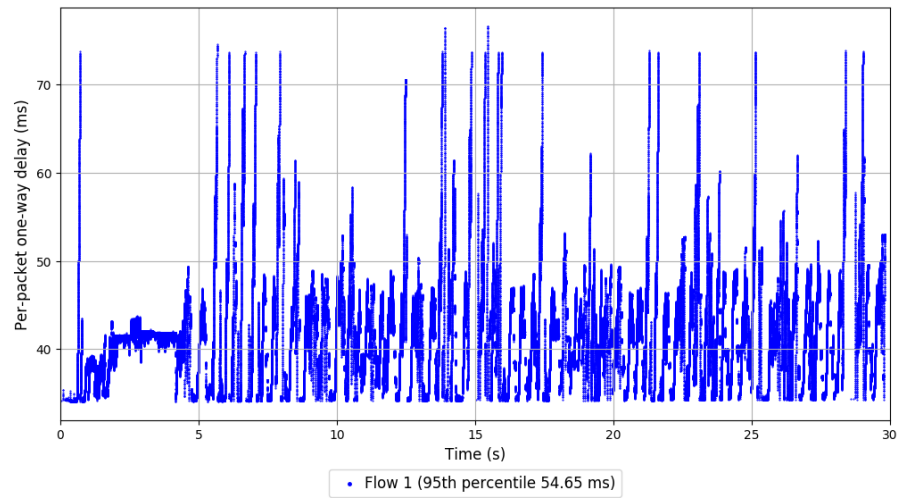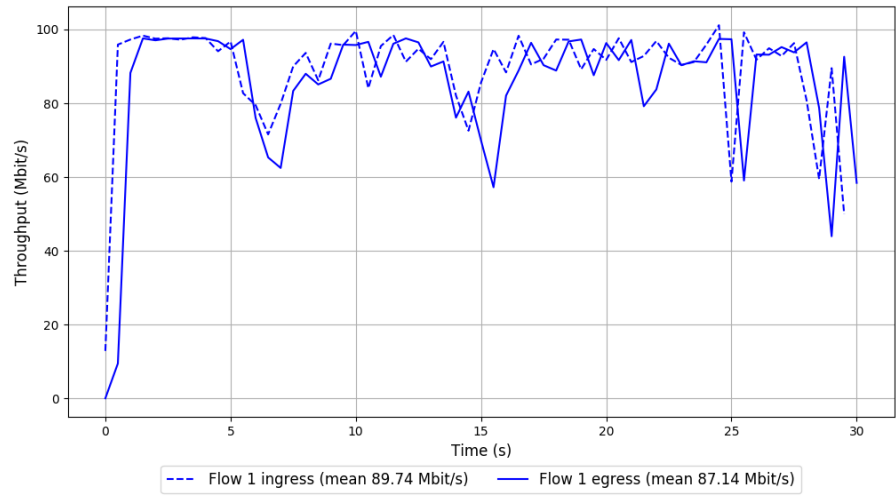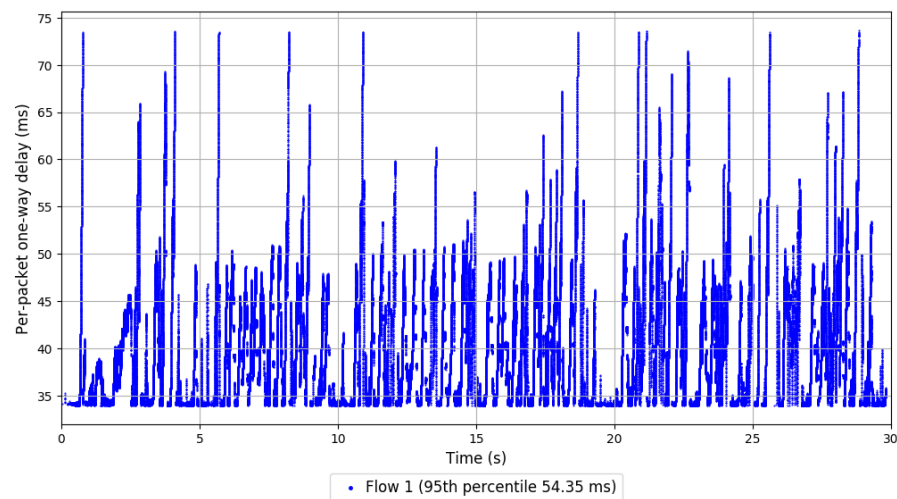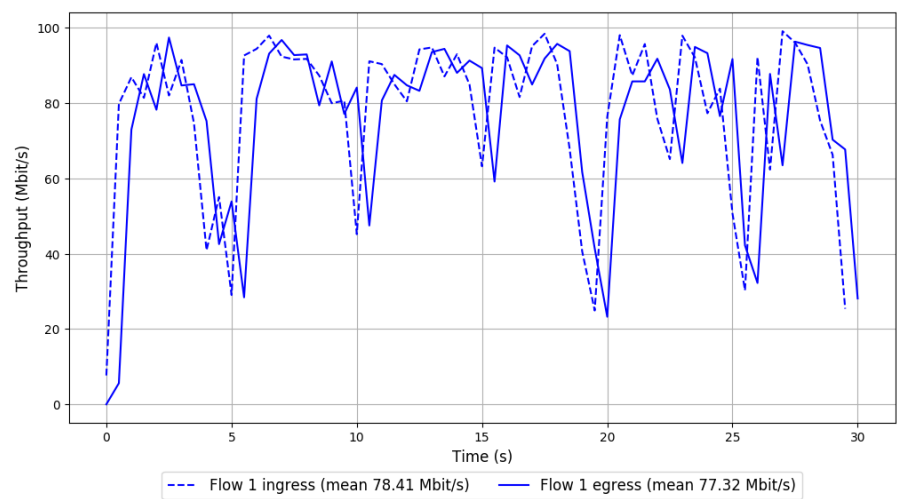
Run 3: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 89.74 Mbit/s) --- Flow 1 egress (mean 87.14 Mbit/s)

• Flow 1 (95th percentile 54.65 ms)

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 01:28:11
End at: 2019-11-24 01:28:41
Local clock offset: 1.049 ms
Remote clock offset: 5.921 ms


# Below is generated by plot.py at 2019-11-24 07:10:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.32 Mbit/s
95th percentile per-packet one-way delay: 54.347 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 77.32 Mbit/s
95th percentile per-packet one-way delay: 54.347 ms
Loss rate: 1.38%
```

Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-11-24 05:22:20
End at: 2019-11-24 05:22:50
Local clock offset: 2.72 ms
Remote clock offset: 4.146 ms


# Below is generated by plot.py at 2019-11-24 07:10:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 57.289 ms
Loss rate: 3.40%
-- Flow 1:
Average throughput: 81.36 Mbit/s
95th percentile per-packet one-way delay: 57.289 ms
Loss rate: 3.40%
```
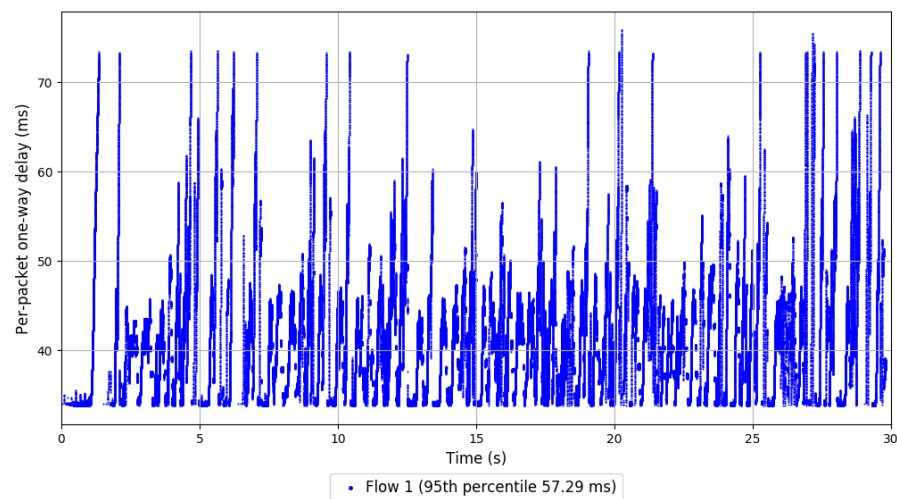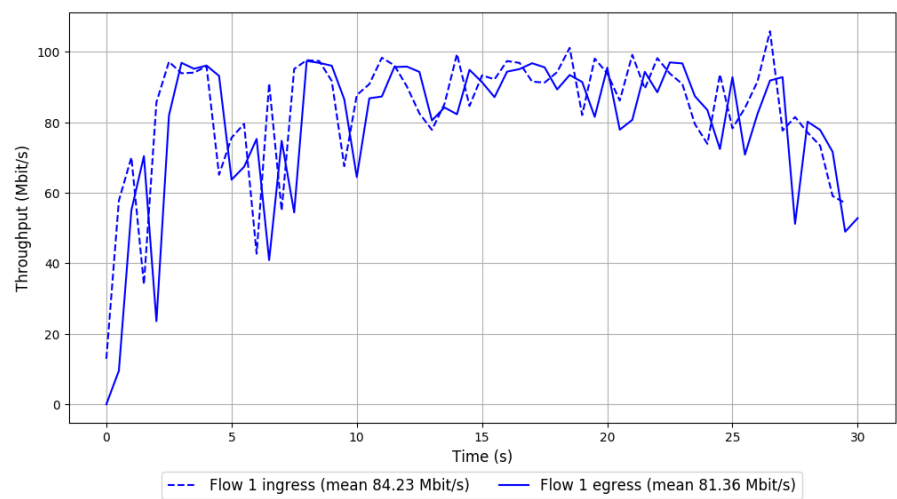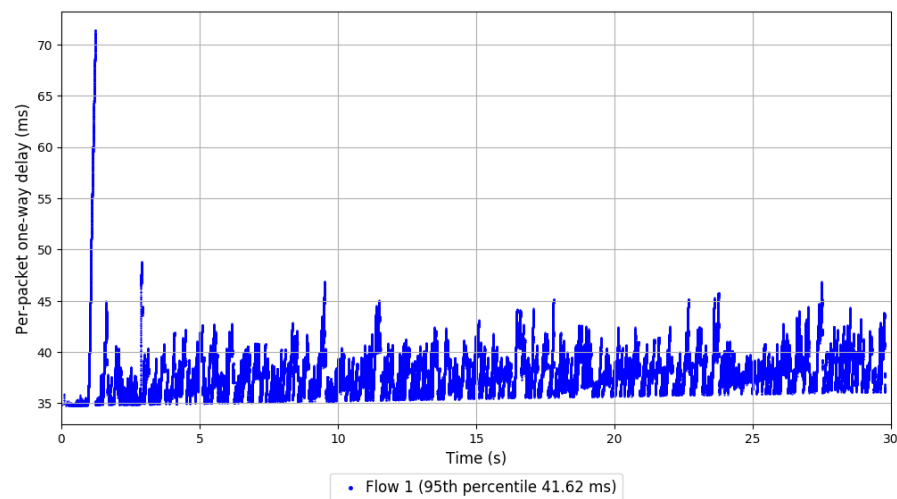
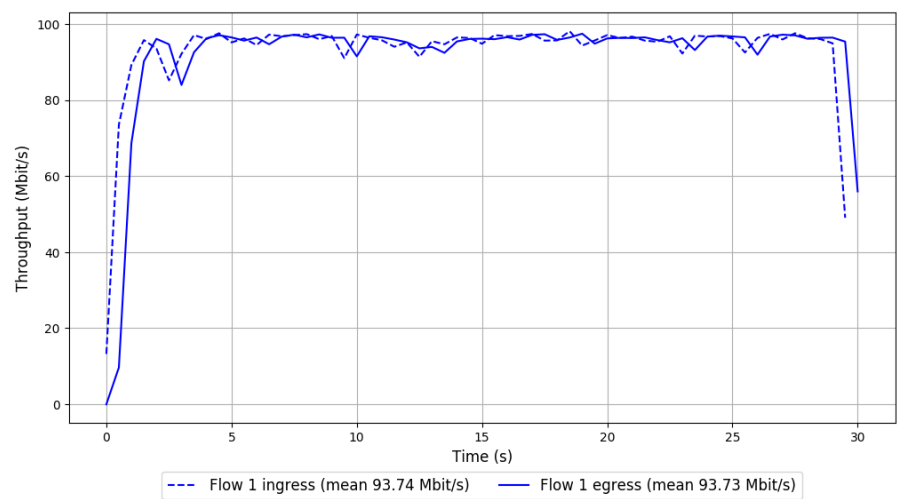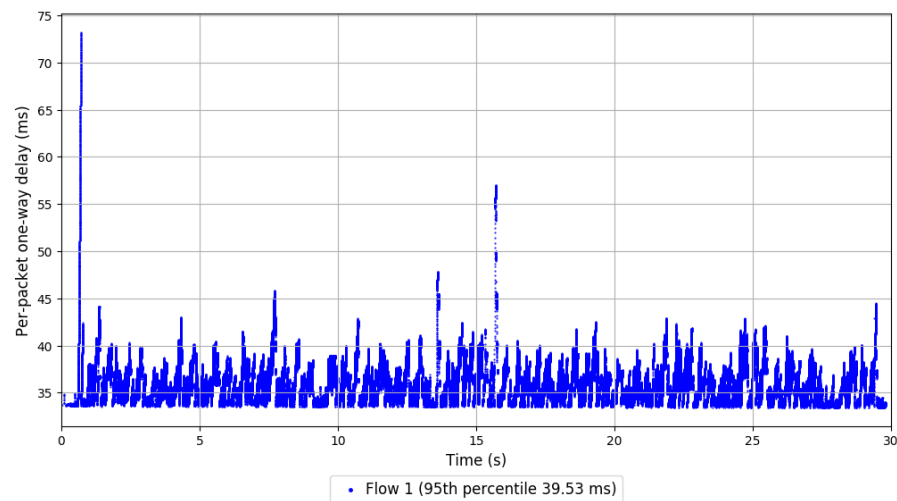Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-23 23:13:31
End at: 2019-11-23 23:14:01
Local clock offset: -33.992 ms
Remote clock offset: 6.137 ms


# Below is generated by plot.py at 2019-11-24 07:10:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 41.618 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.73 Mbit/s
95th percentile per-packet one-way delay: 41.618 ms
Loss rate: 0.00%
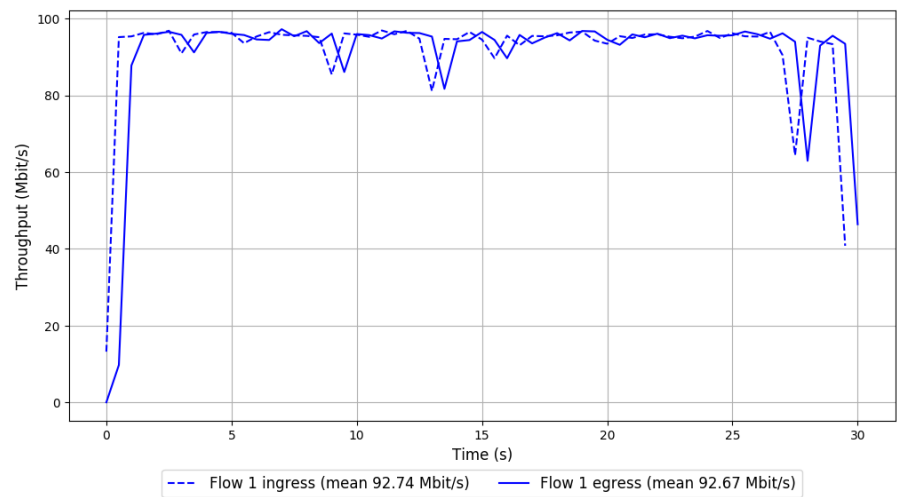```

Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 00:05:18
End at: 2019-11-24 00:05:48
Local clock offset: -12.525 ms
Remote clock offset: 5.89 ms


# Below is generated by plot.py at 2019-11-24 07:10:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.67 Mbit/s
95th percentile per-packet one-way delay: 39.526 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 92.67 Mbit/s
95th percentile per-packet one-way delay: 39.526 ms
Loss rate: 0.07%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 01:12:44
End at: 2019-11-24 01:13:14
Local clock offset: -0.483 ms
Remote clock offset: 5.962 ms


# Below is generated by plot.py at 2019-11-24 07:10:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.74 Mbit/s
95th percentile per-packet one-way delay: 40.310 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 87.74 Mbit/s
95th percentile per-packet one-way delay: 40.310 ms
Loss rate: 0.00%
```
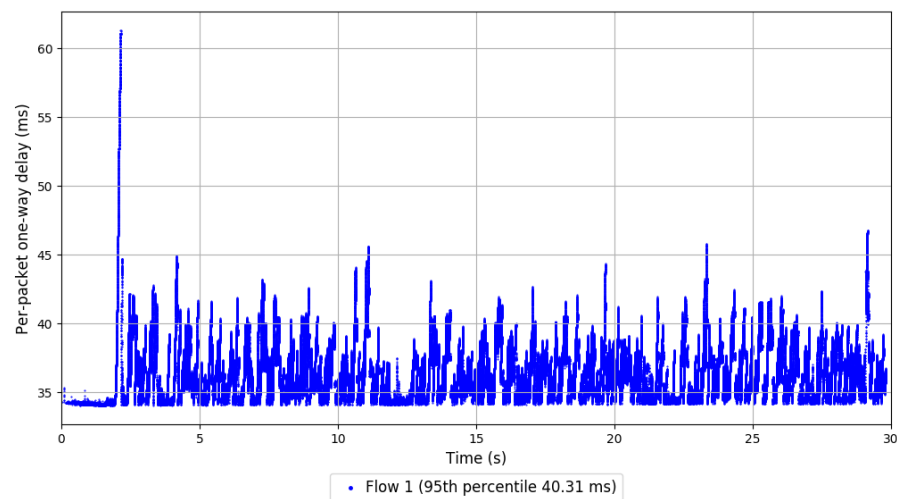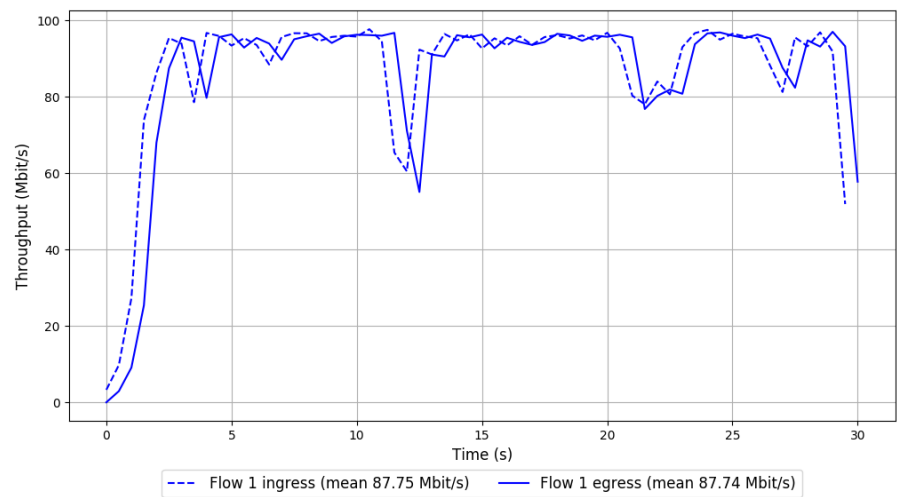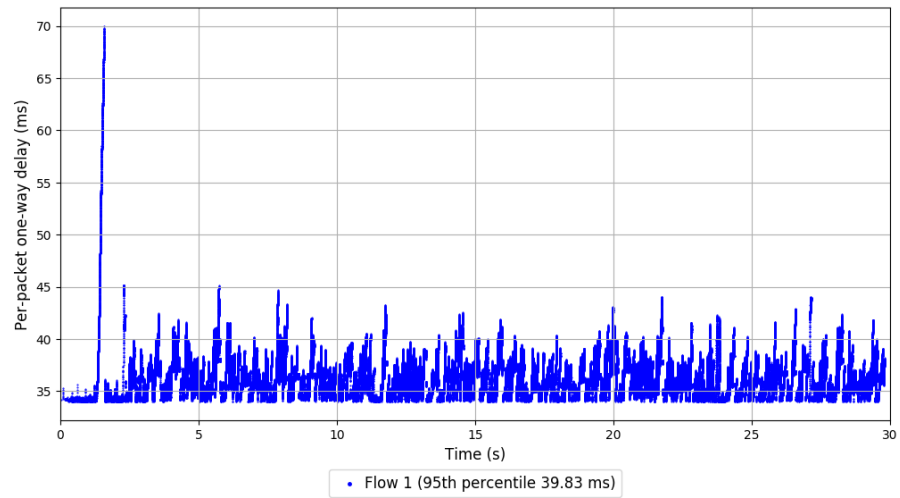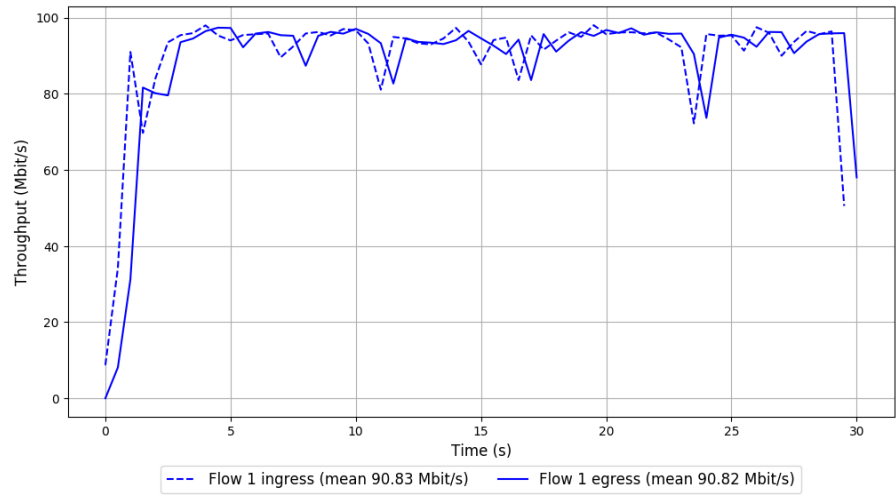
Run 3: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 87.75 Mbit/s)   Flow 1 egress (mean 87.74 Mbit/s)

Flow 1 (95th percentile 40.31 ms)

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 04:38:17
End at: 2019-11-24 04:38:47
Local clock offset: 3.016 ms
Remote clock offset: 4.144 ms


# Below is generated by plot.py at 2019-11-24 07:11:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 39.828 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.82 Mbit/s
95th percentile per-packet one-way delay: 39.828 ms
Loss rate: 0.00%
```
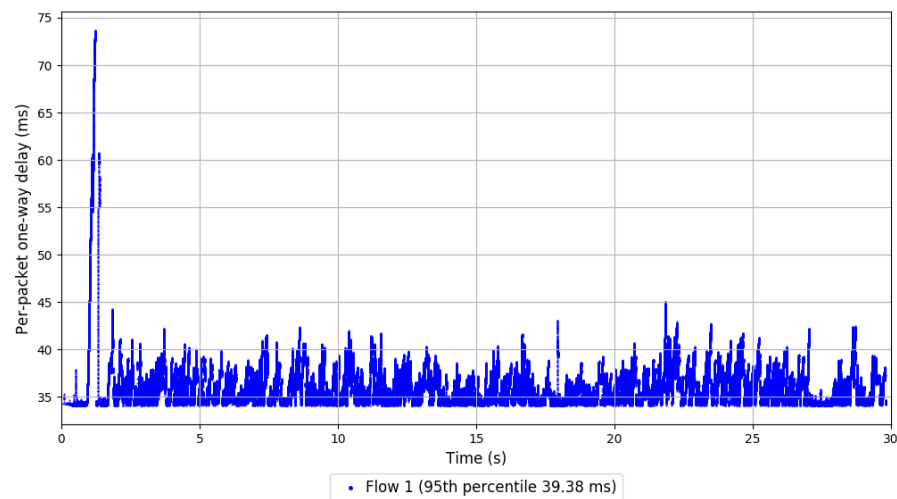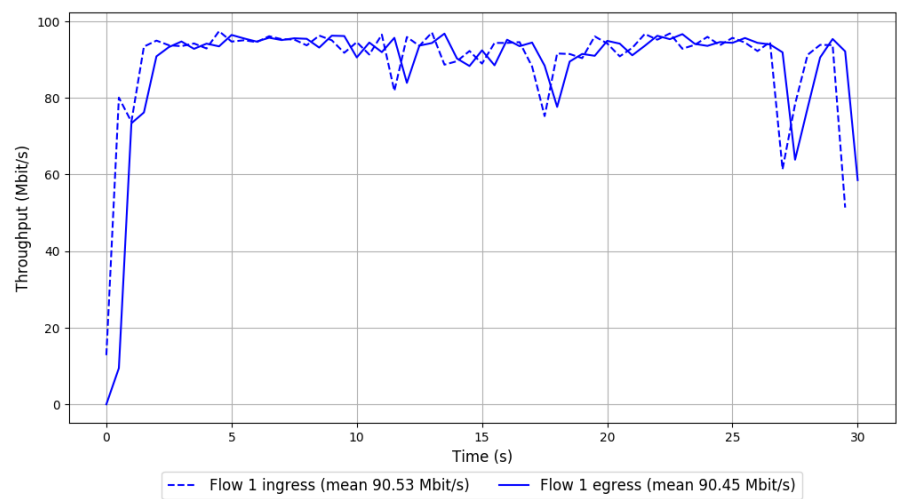
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-11-24 06:57:05
End at: 2019-11-24 06:57:35
Local clock offset: 2.819 ms
Remote clock offset: 4.37 ms


# Below is generated by plot.py at 2019-11-24 07:11:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.45 Mbit/s
95th percentile per-packet one-way delay: 39.383 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 90.45 Mbit/s
95th percentile per-packet one-way delay: 39.383 ms
Loss rate: 0.08%
```

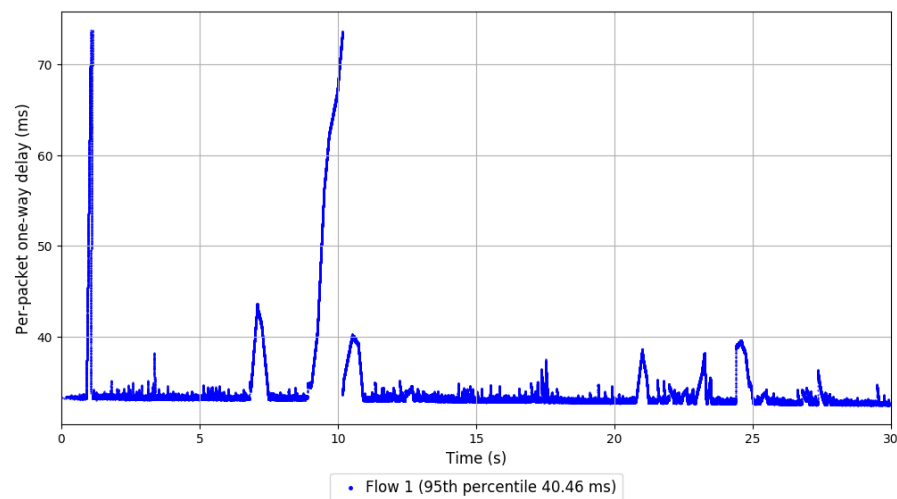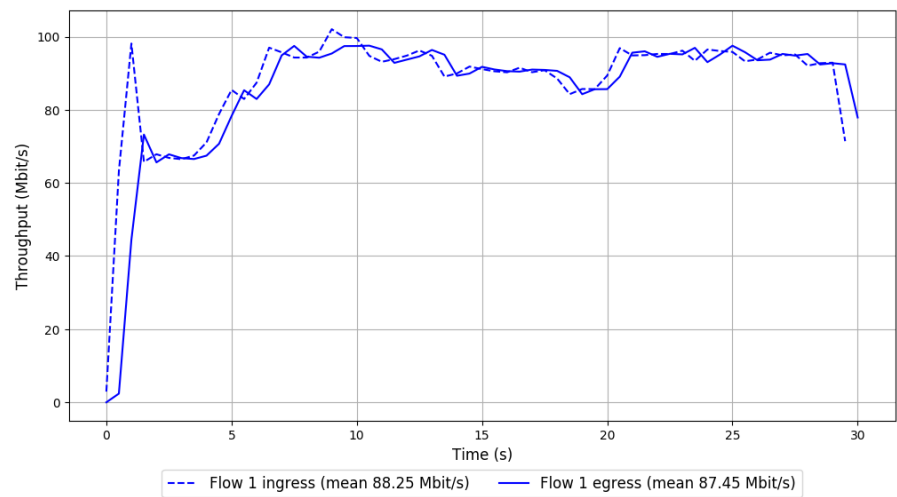Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-11-23 23:01:47
End at: 2019-11-23 23:02:17
Local clock offset: -37.967 ms
Remote clock offset: 6.052 ms


# Below is generated by plot.py at 2019-11-24 07:11:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 40.456 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 40.456 ms
Loss rate: 0.91%
```

Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 88.25 Mbit/s)   Flow 1 egress (mean 87.45 Mbit/s)
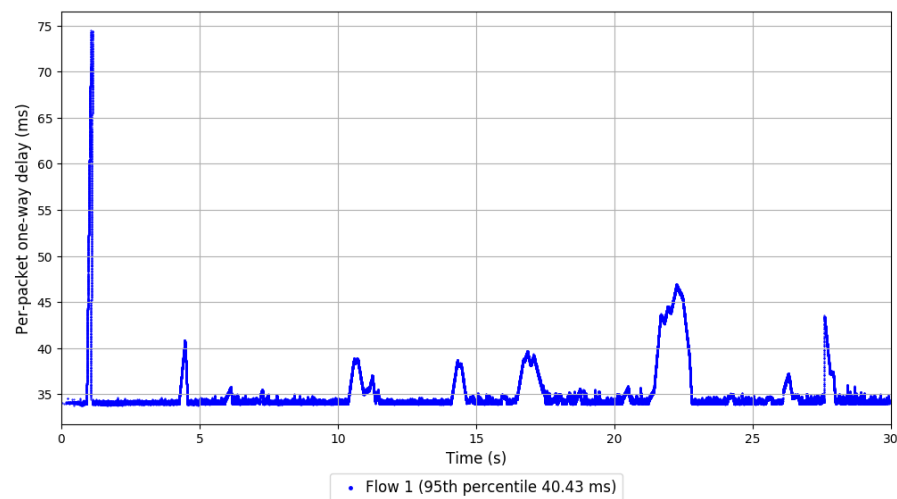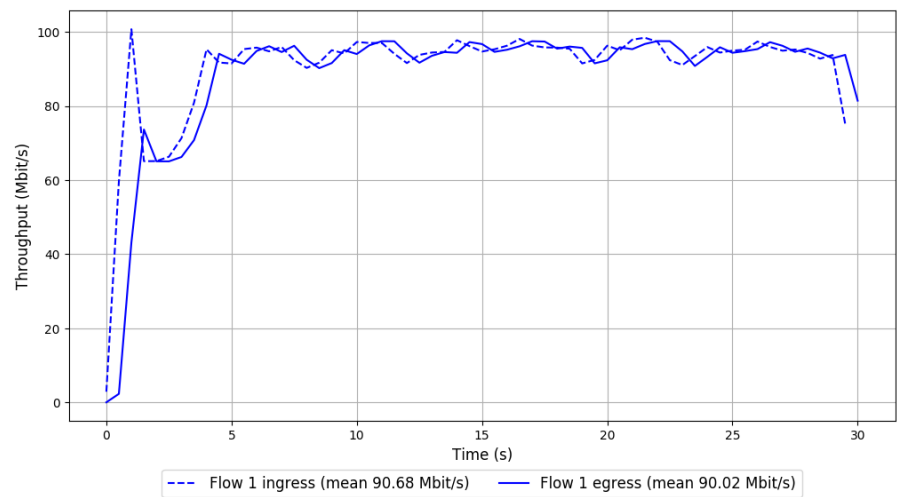

Flow 1 (95th percentile 40.46 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-11-23 23:54:34
End at: 2019-11-23 23:55:04
Local clock offset: -10.523 ms
Remote clock offset: 6.4 ms


# Below is generated by plot.py at 2019-11-24 07:11:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.02 Mbit/s
95th percentile per-packet one-way delay: 40.429 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 90.02 Mbit/s
95th percentile per-packet one-way delay: 40.429 ms
Loss rate: 0.73%
```

Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-11-24 00:57:57
End at: 2019-11-24 00:58:27
Local clock offset: -0.773 ms
Remote clock offset: 6.0 ms


# Below is generated by plot.py at 2019-11-24 07:11:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 44.130 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 44.130 ms
Loss rate: 0.95%
```
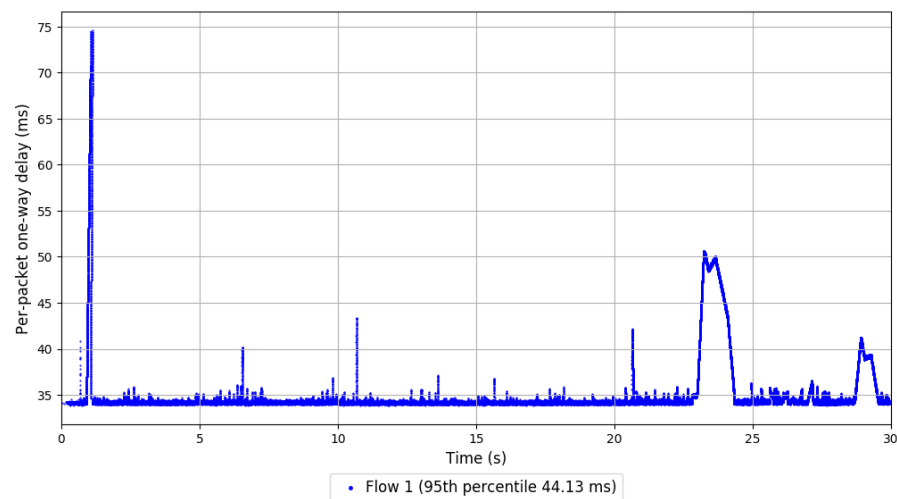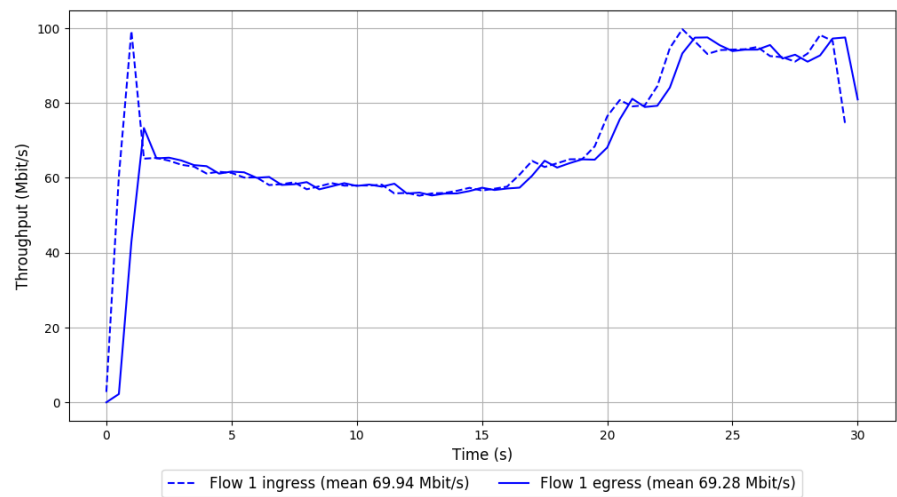
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-11-24 03:09:27
End at: 2019-11-24 03:09:57
Local clock offset: 1.482 ms
Remote clock offset: 4.086 ms


# Below is generated by plot.py at 2019-11-24 07:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.89 Mbit/s
95th percentile per-packet one-way delay: 57.356 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 84.89 Mbit/s
95th percentile per-packet one-way delay: 57.356 ms
Loss rate: 0.90%
```
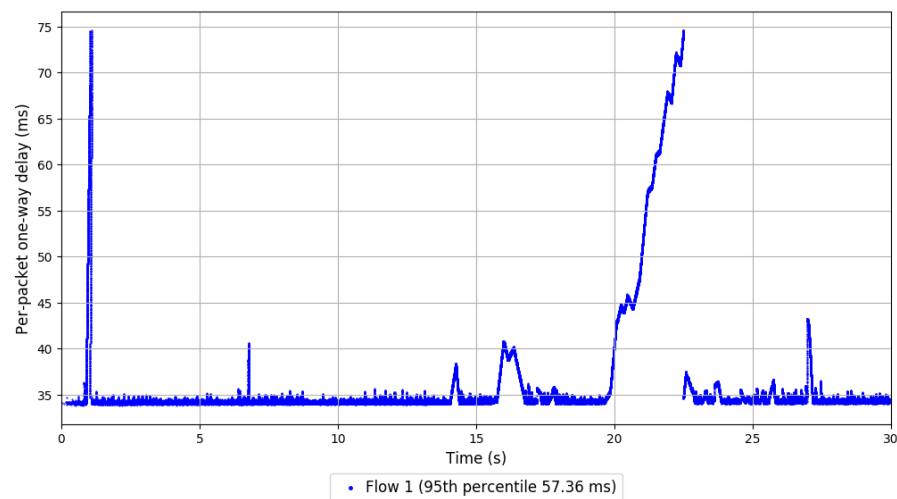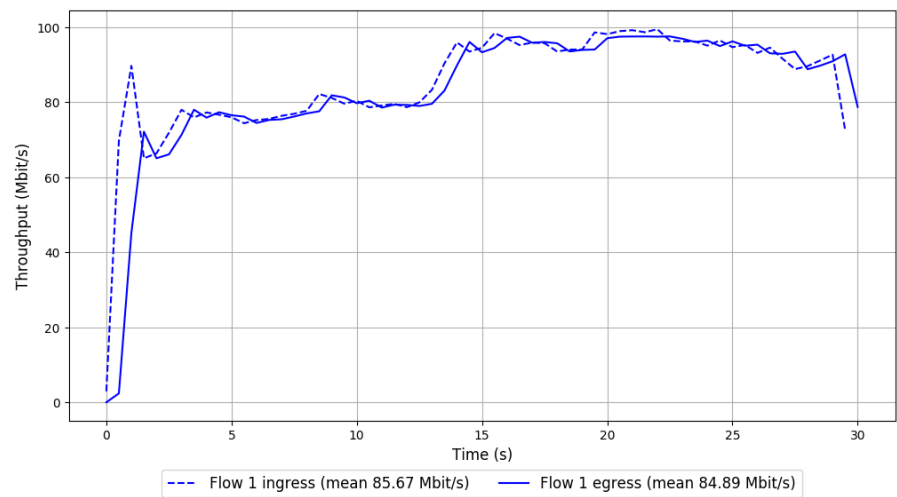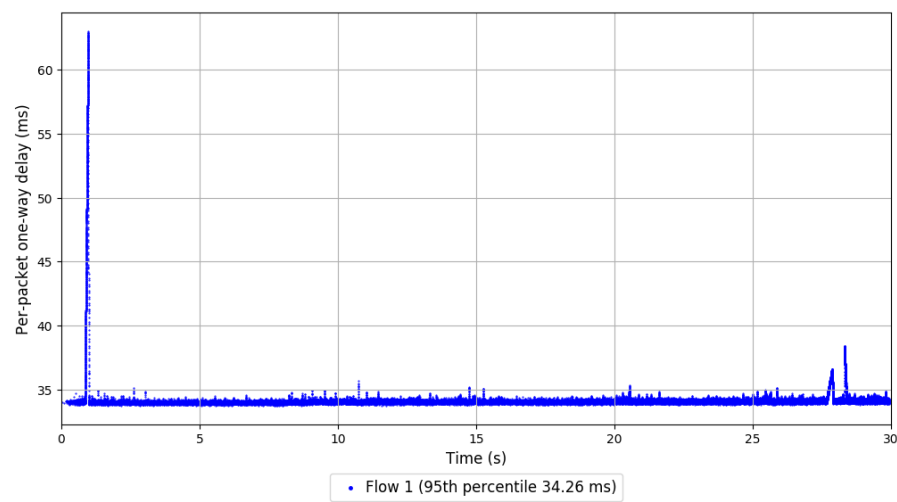
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 85.67 Mbit/s) — — — Flow 1 egress (mean 84.89 Mbit/s) ———

• Flow 1 (95th percentile 57.36 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-11-24 06:35:54
End at: 2019-11-24 06:36:24
Local clock offset: 2.431 ms
Remote clock offset: 3.983 ms


# Below is generated by plot.py at 2019-11-24 07:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 34.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.31 Mbit/s
95th percentile per-packet one-way delay: 34.256 ms
Loss rate: 0.00%
```
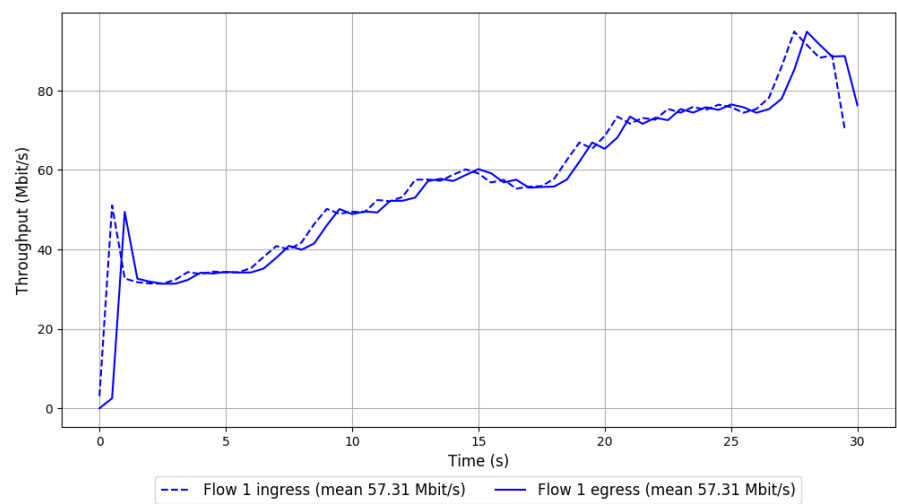
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 57.31 Mbit/s) --- Flow 1 egress (mean 57.31 Mbit/s)

Flow 1 (95th percentile 34.26 ms)
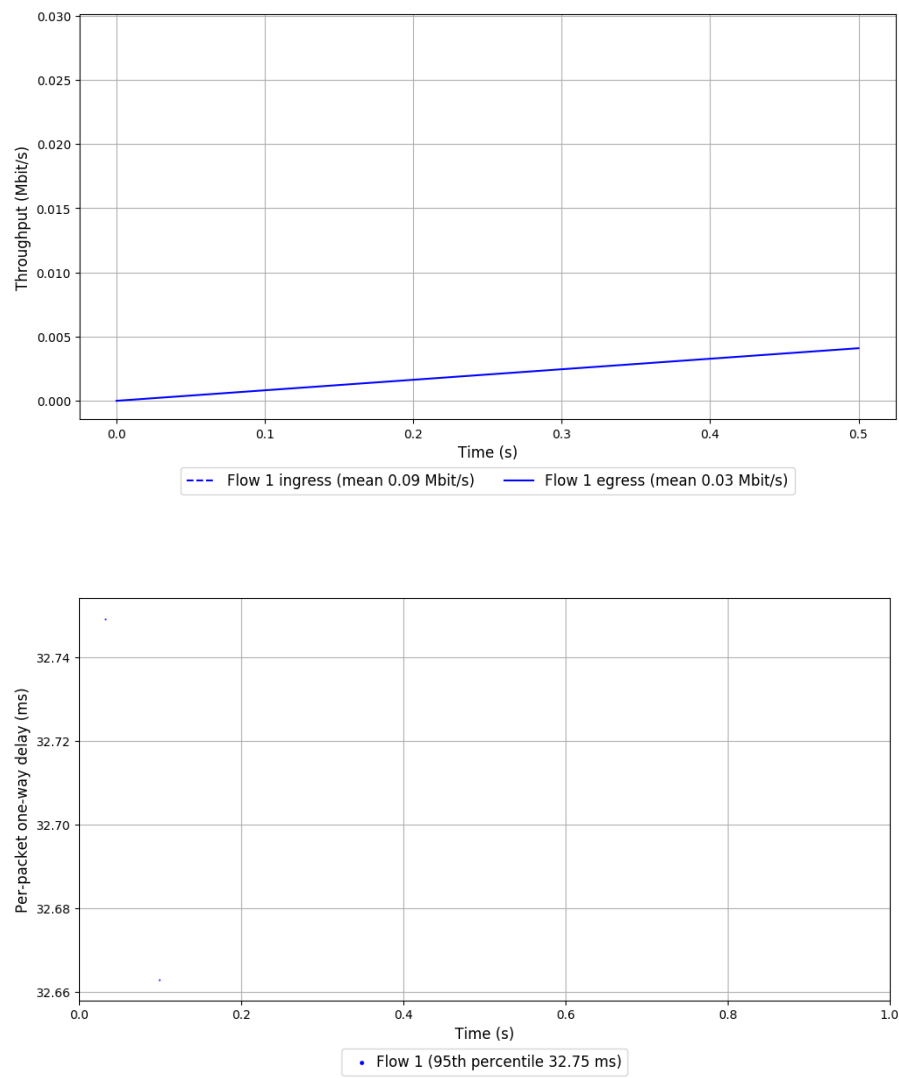
```
Run 1: Statistics of PCC-Expr

Start at: 2019-11-23 22:13:03
End at: 2019-11-23 22:13:33
Local clock offset: -4.289 ms
Remote clock offset: 6.136 ms
```

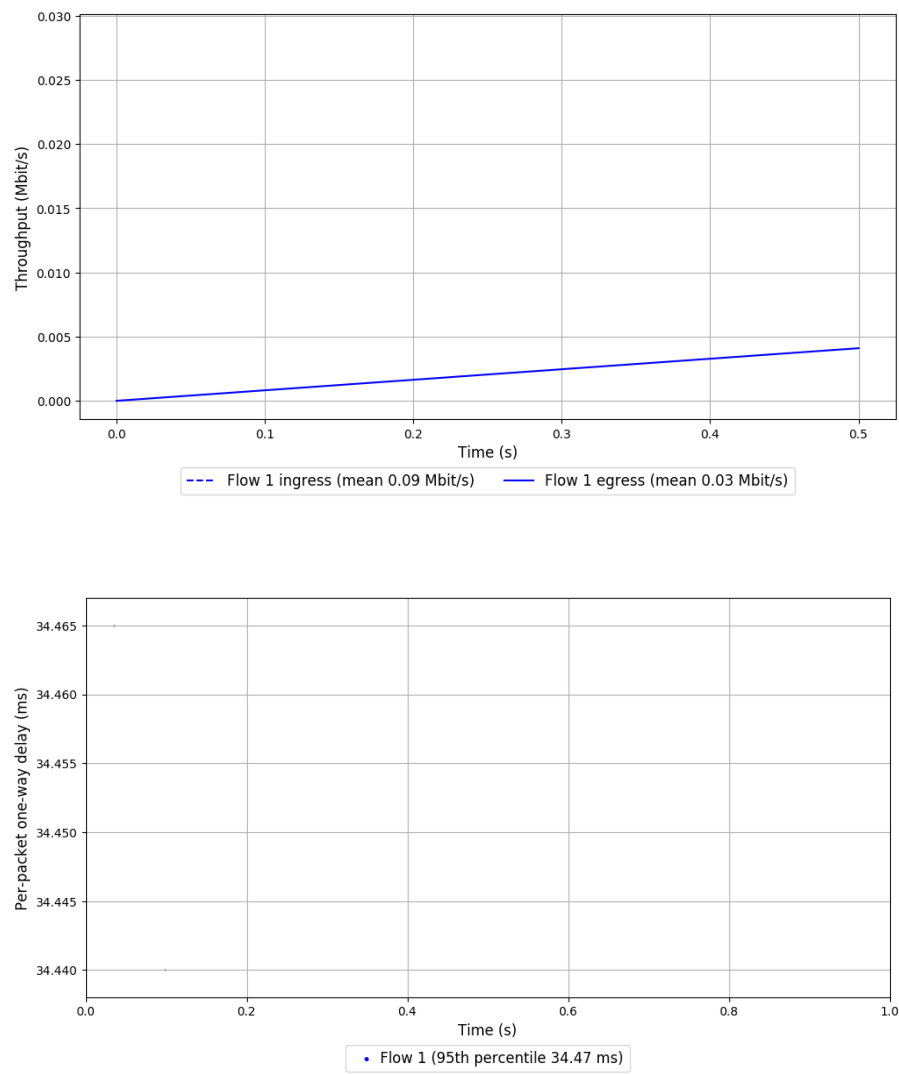Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-11-23 23:17:00
End at: 2019-11-23 23:17:30
Local clock offset: -26.042 ms
Remote clock offset: 6.349 ms
```

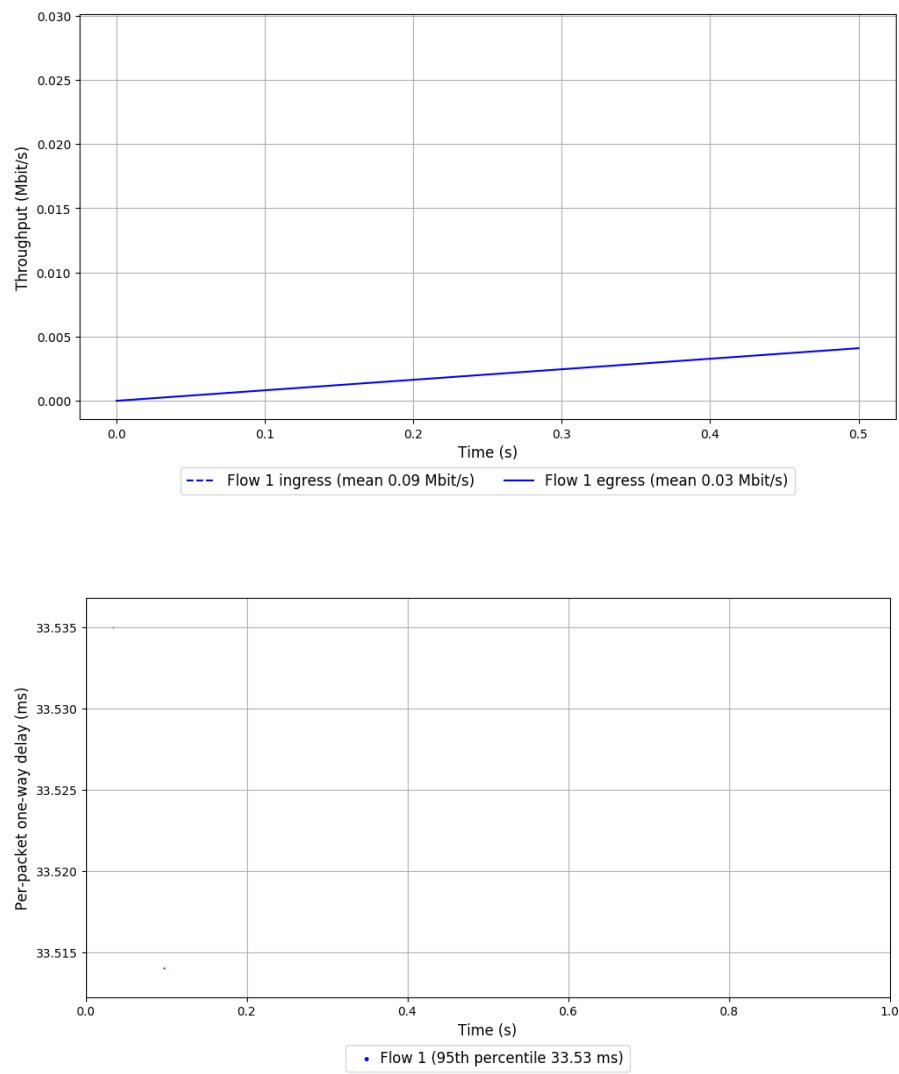## Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-11-24 00:07:30
End at: 2019-11-24 00:08:00
Local clock offset: -13.408 ms
Remote clock offset: 5.808 ms
```

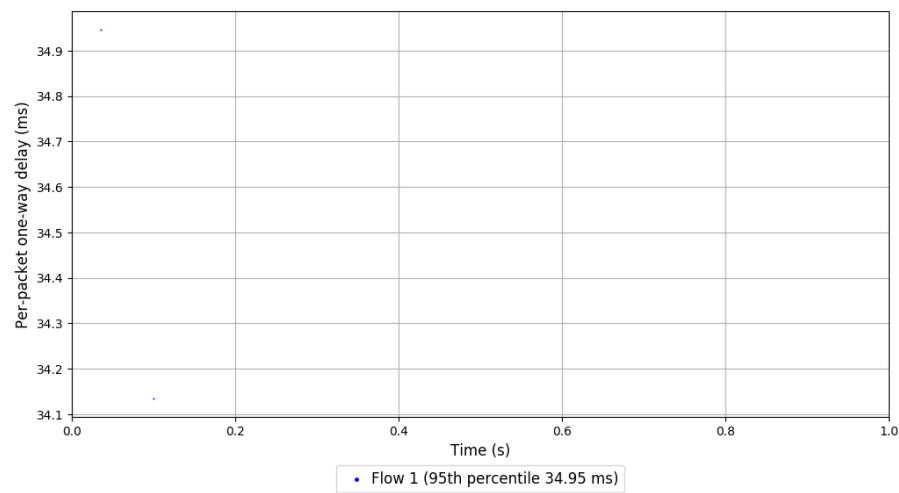## Run 3: Report of PCC-Expr — Data Link
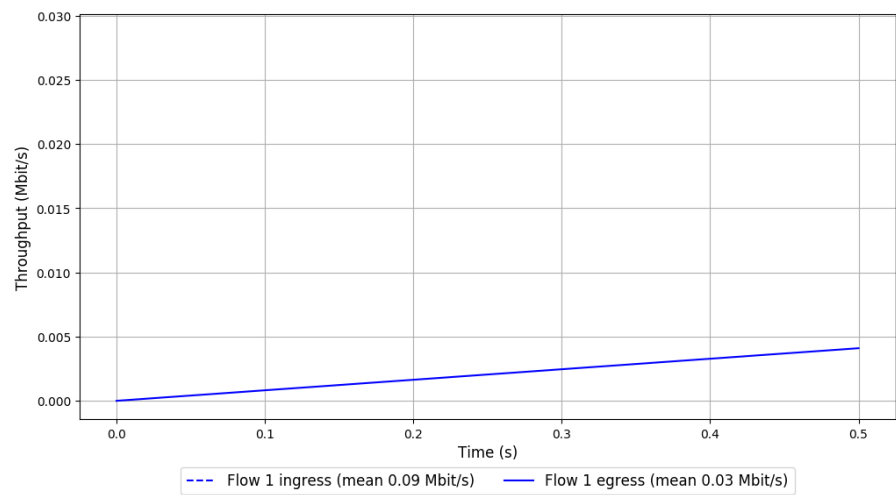
```
Run 4: Statistics of PCC-Expr

Start at: 2019-11-24 01:15:43
End at: 2019-11-24 01:16:13
Local clock offset: 0.293 ms
Remote clock offset: 6.0 ms
```

Run 4: Report of PCC-Expr — Data Link
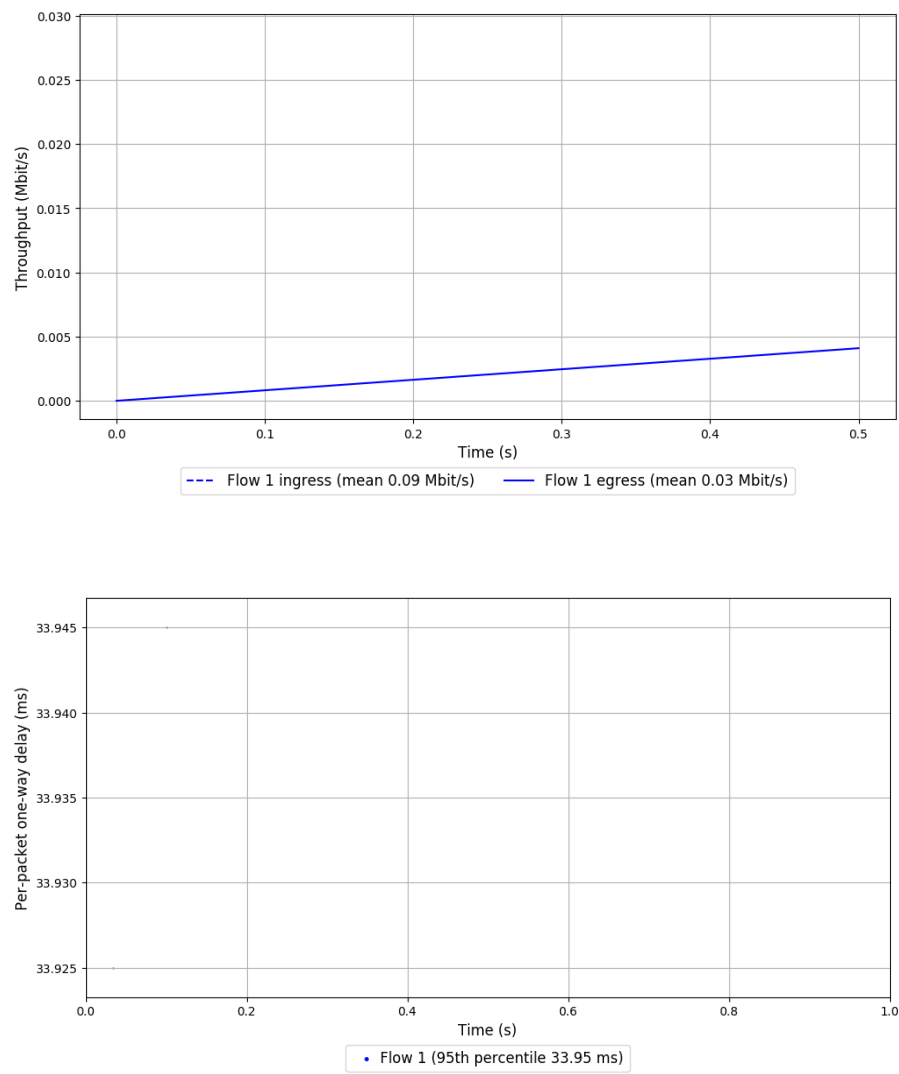
```
Run 5: Statistics of PCC-Expr

Start at: 2019-11-24 04:56:25
End at: 2019-11-24 04:56:55
Local clock offset: 3.035 ms
Remote clock offset: 3.946 ms
```
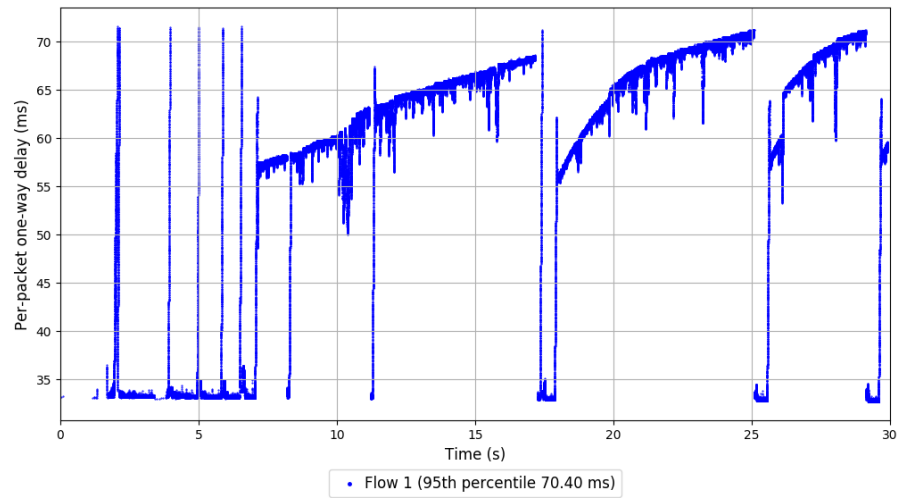
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.09 Mbit/s)   Flow 1 egress (mean 0.03 Mbit/s)
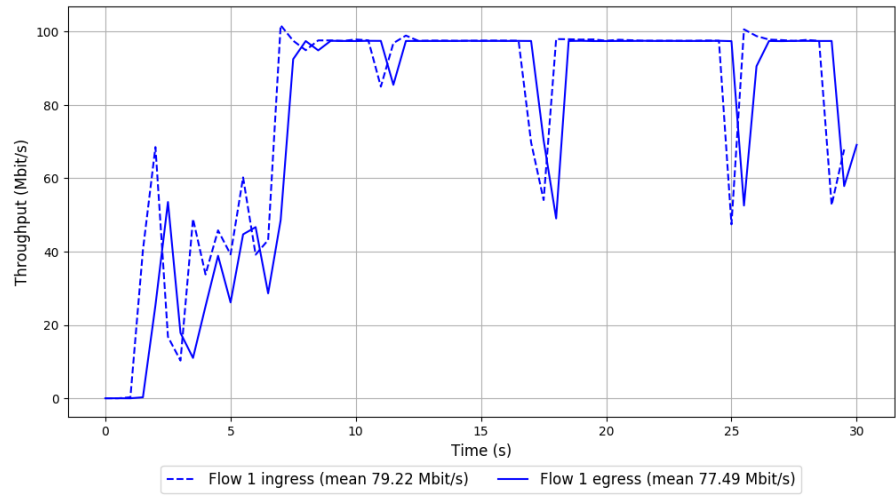

Flow 1 (95th percentile 33.95 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-11-23 22:33:01
End at: 2019-11-23 22:33:31
Local clock offset: -15.223 ms
Remote clock offset: 6.167 ms


# Below is generated by plot.py at 2019-11-24 07:12:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 70.396 ms
Loss rate: 2.10%
-- Flow 1:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 70.396 ms
Loss rate: 2.10%
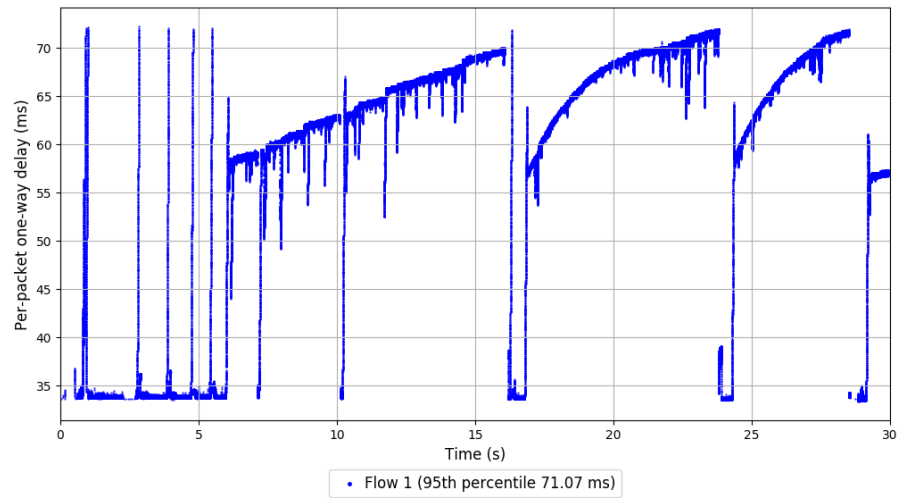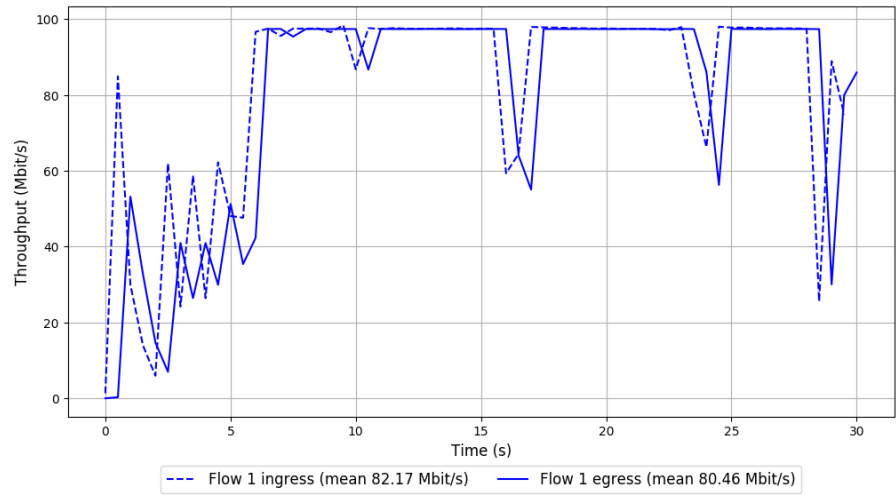```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-11-23 23:31:51
End at: 2019-11-23 23:32:21
Local clock offset: -21.894 ms
Remote clock offset: 6.771 ms


# Below is generated by plot.py at 2019-11-24 07:12:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 71.070 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 80.46 Mbit/s
95th percentile per-packet one-way delay: 71.070 ms
Loss rate: 2.01%
```

Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 82.17 Mbit/s)   Flow 1 egress (mean 80.46 Mbit/s)

Flow 1 (95th percentile 71.07 ms)

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```
Run 3: Statistics of QUIC Cubic

Start at: 2019-11-24 00:28:35
End at: 2019-11-24 00:29:05
Local clock offset: -3.891 ms
Remote clock offset: 5.883 ms


# Below is generated by plot.py at 2019-11-24 07:12:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.72 Mbit/s
95th percentile per-packet one-way delay: 70.314 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 80.72 Mbit/s
95th percentile per-packet one-way delay: 70.314 ms
Loss rate: 1.85%
```
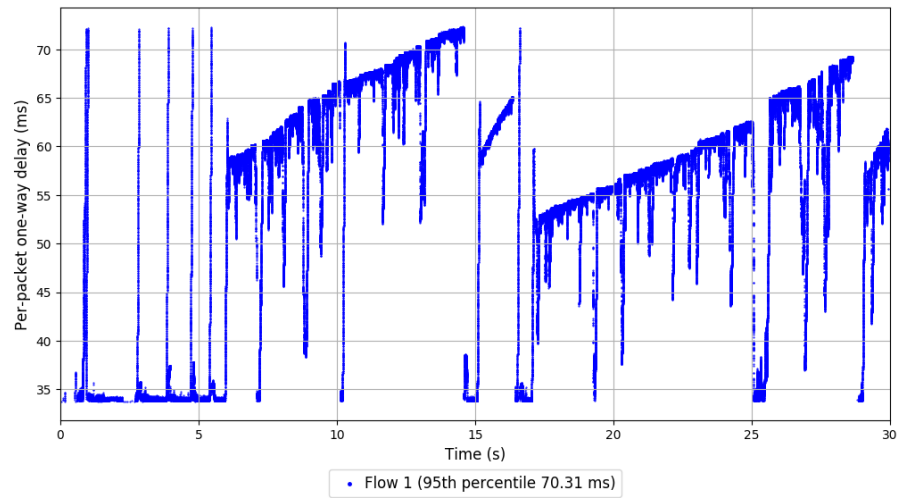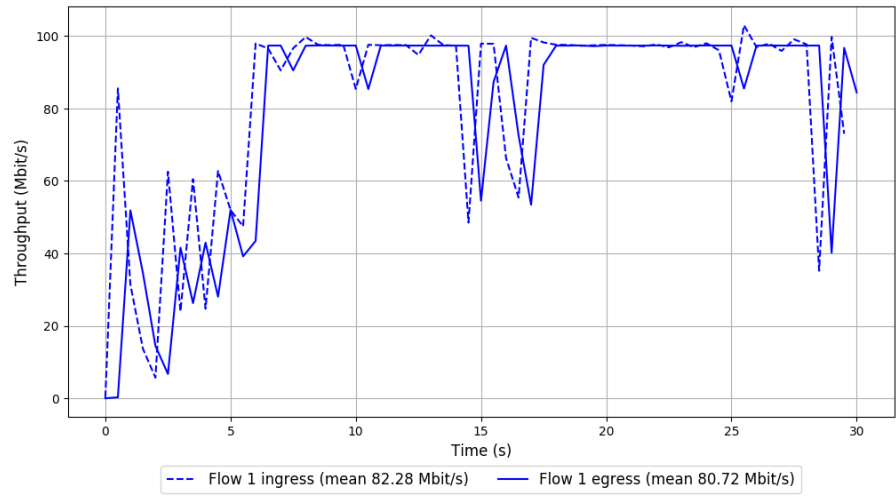
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-11-24 01:40:09
End at: 2019-11-24 01:40:39
Local clock offset: 0.65 ms
Remote clock offset: 5.761 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.98 Mbit/s
95th percentile per-packet one-way delay: 70.278 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 85.98 Mbit/s
95th percentile per-packet one-way delay: 70.278 ms
Loss rate: 1.08%
```
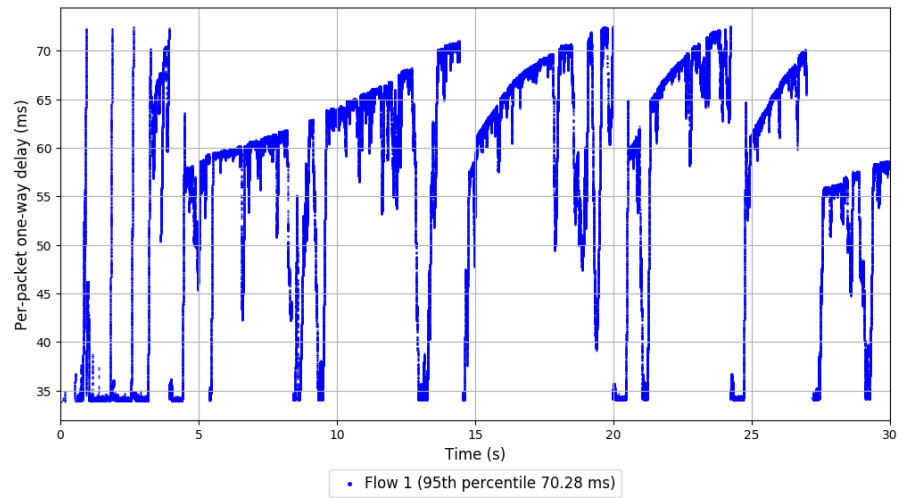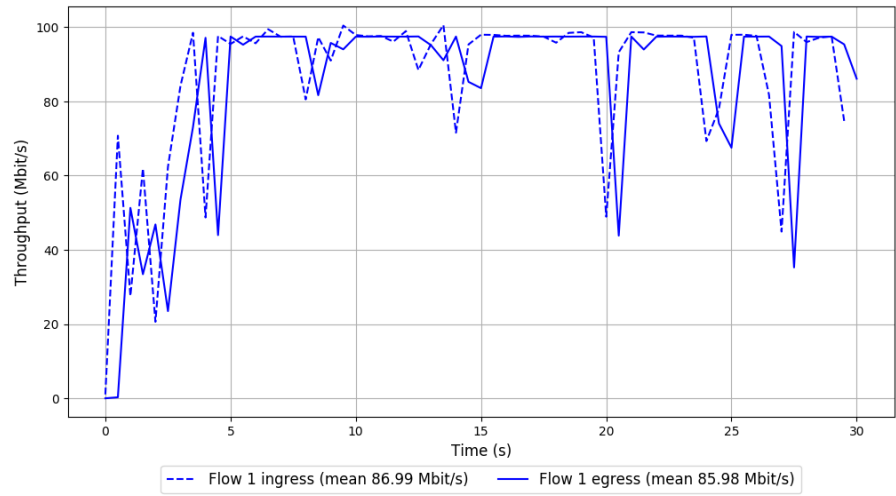
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 86.99 Mbit/s) ---- Flow 1 egress (mean 85.98 Mbit/s) ——

• Flow 1 (95th percentile 70.28 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-11-24 05:41:51
End at: 2019-11-24 05:42:21
Local clock offset: 2.59 ms
Remote clock offset: 4.305 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.83 Mbit/s
95th percentile per-packet one-way delay: 71.449 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 80.83 Mbit/s
95th percentile per-packet one-way delay: 71.449 ms
Loss rate: 1.88%
```
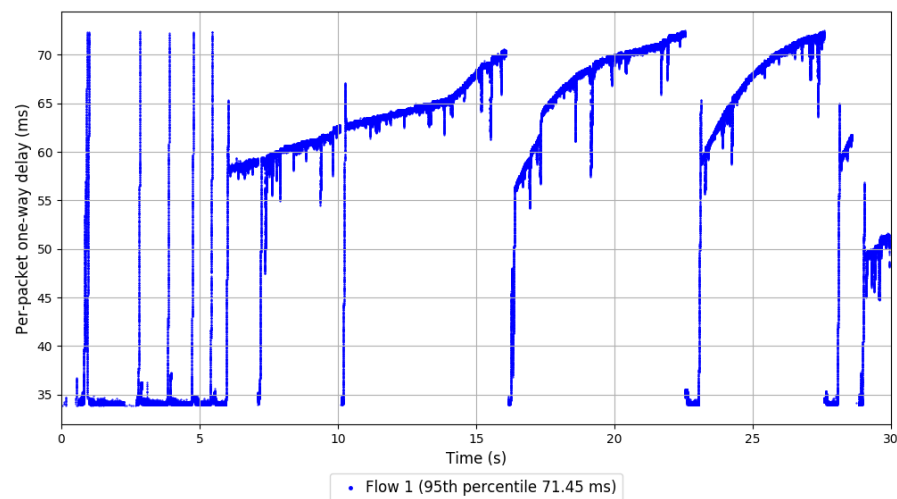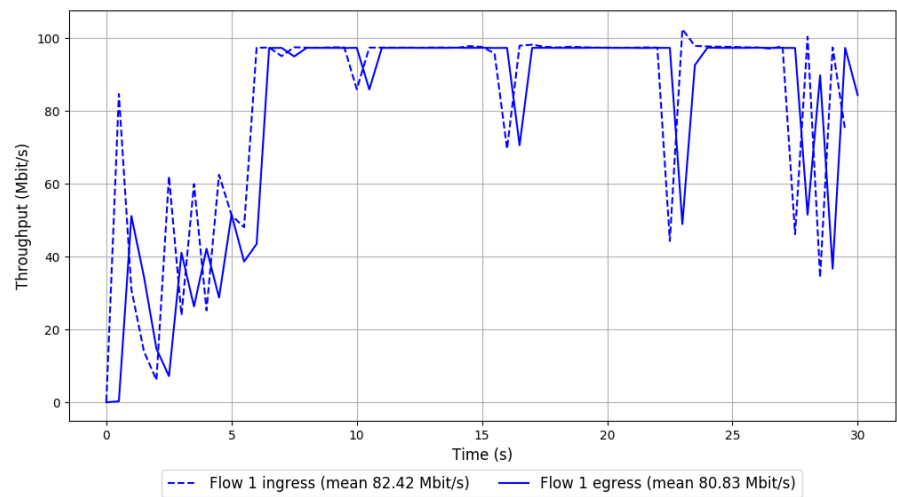
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 82.42 Mbit/s) ——— Flow 1 egress (mean 80.83 Mbit/s)
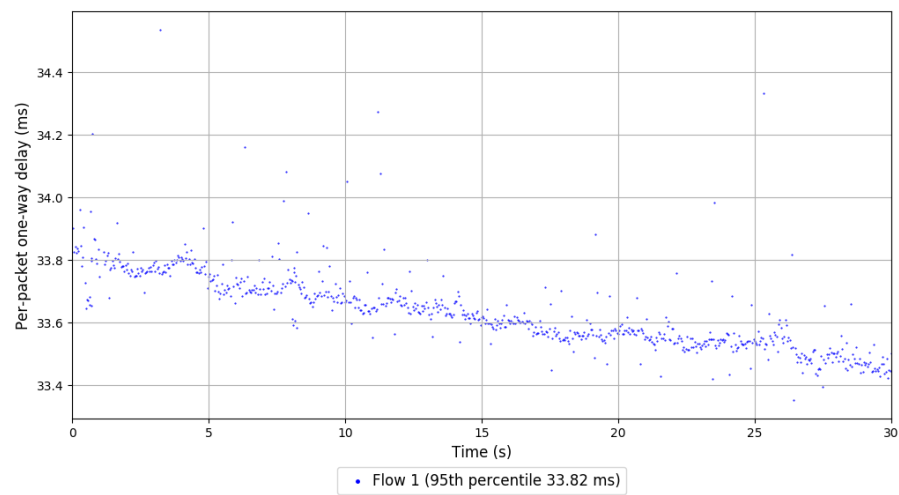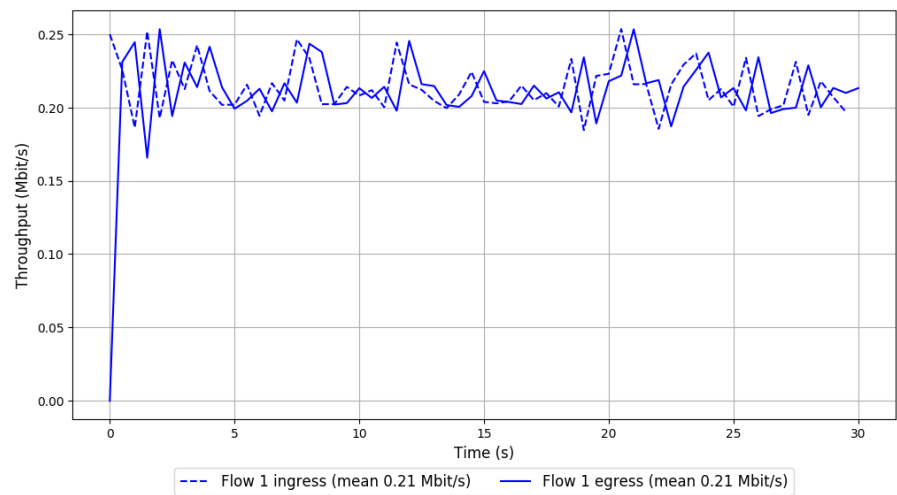

• Flow 1 (95th percentile 71.45 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-11-23 22:48:24
End at: 2019-11-23 22:48:54
Local clock offset: -22.365 ms
Remote clock offset: 6.166 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.823 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 33.823 ms
Loss rate: 0.00%
```

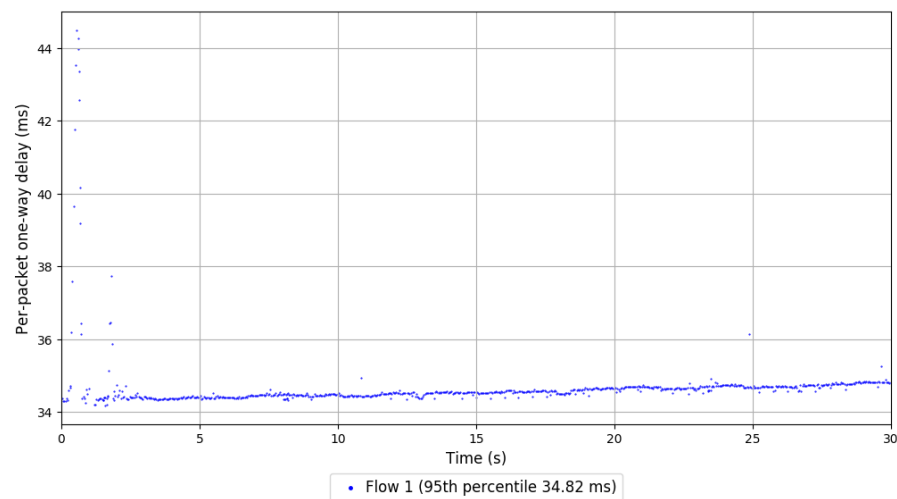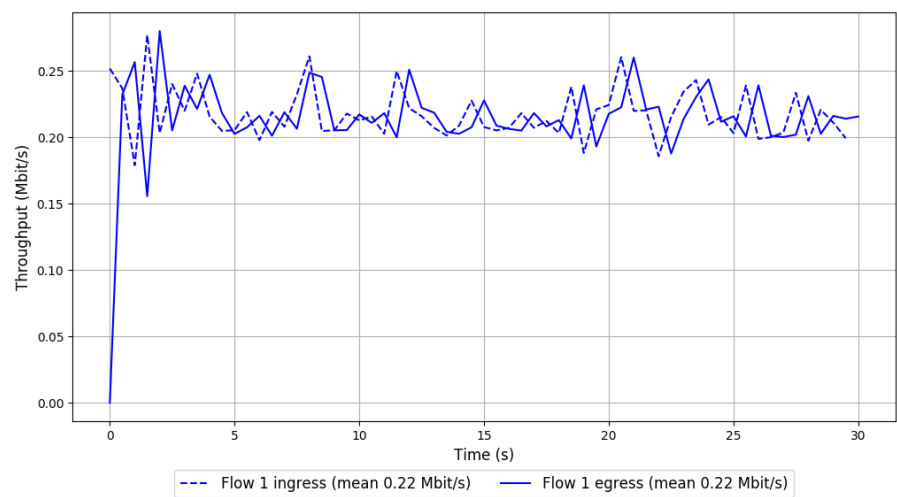Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-11-23 23:45:48
End at: 2019-11-23 23:46:18
Local clock offset: -14.885 ms
Remote clock offset: 6.837 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.816 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 34.816 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-11-24 00:46:58
End at: 2019-11-24 00:47:28
Local clock offset: -1.681 ms
Remote clock offset: 6.095 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.408 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.408 ms
Loss rate: 0.00%
```
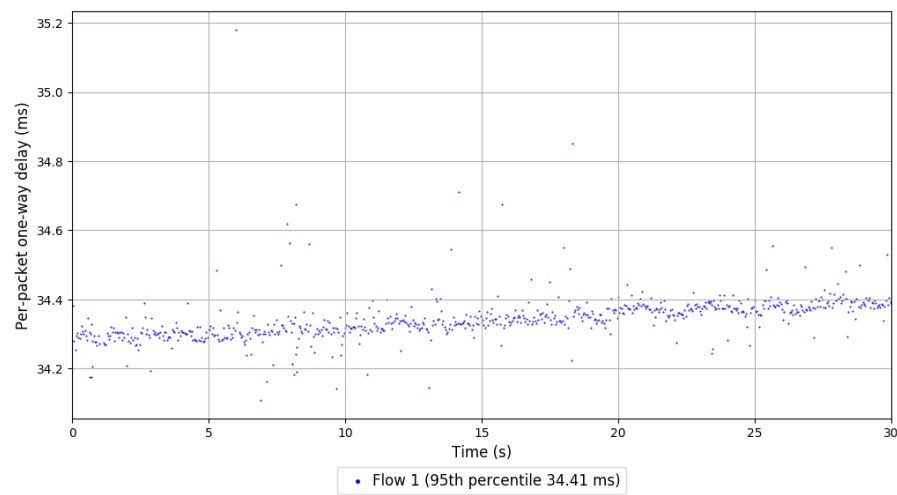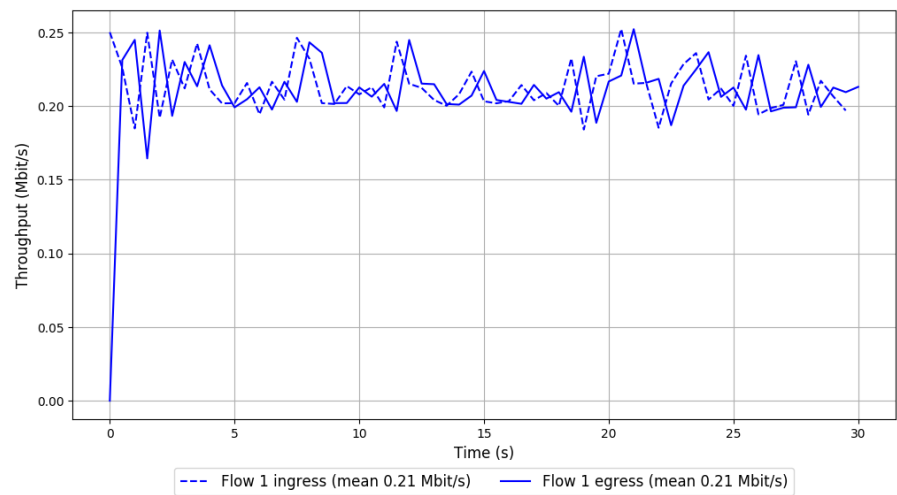
Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.21 Mbit/s) --- Flow 1 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 34.41 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-11-24 02:30:15
End at: 2019-11-24 02:30:45
Local clock offset: 2.643 ms
Remote clock offset: 3.319 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.101 ms
Loss rate: 0.00%
```
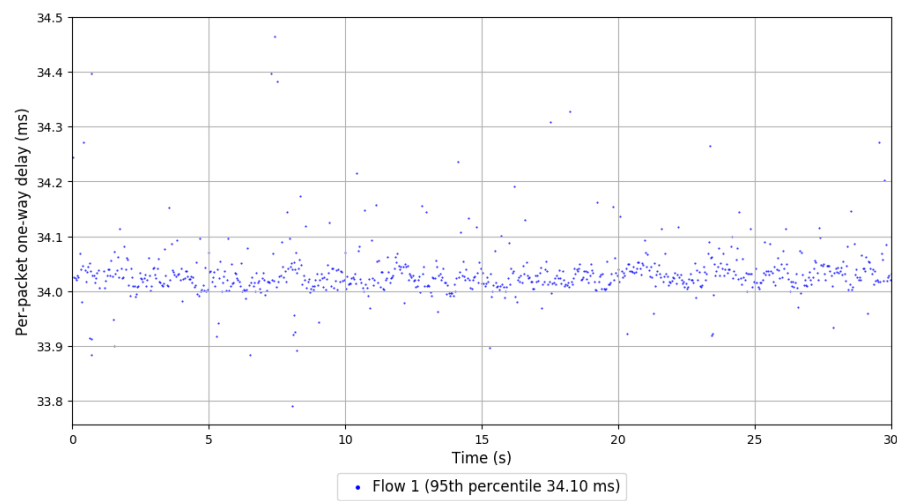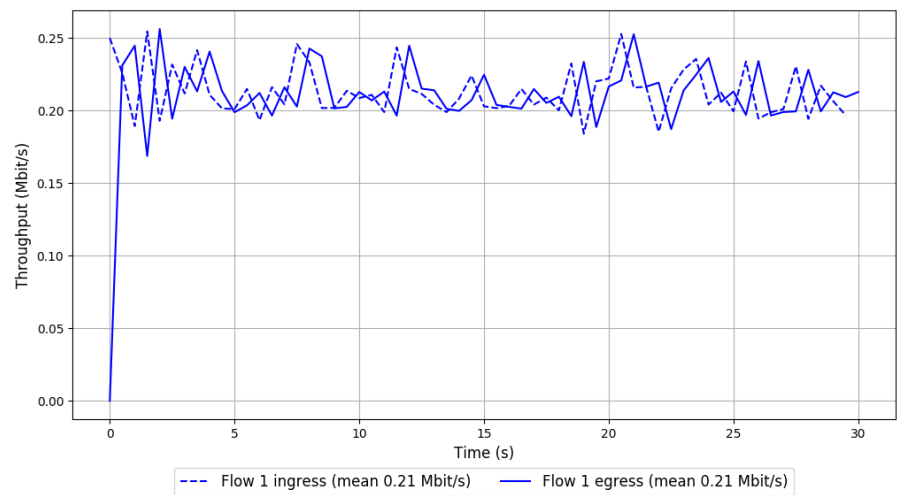
Run 4: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.21 Mbit/s)   Flow 1 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 34.10 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-11-24 06:17:53
End at: 2019-11-24 06:18:23
Local clock offset: 2.574 ms
Remote clock offset: 4.178 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.160 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 34.160 ms
Loss rate: 0.00%
```
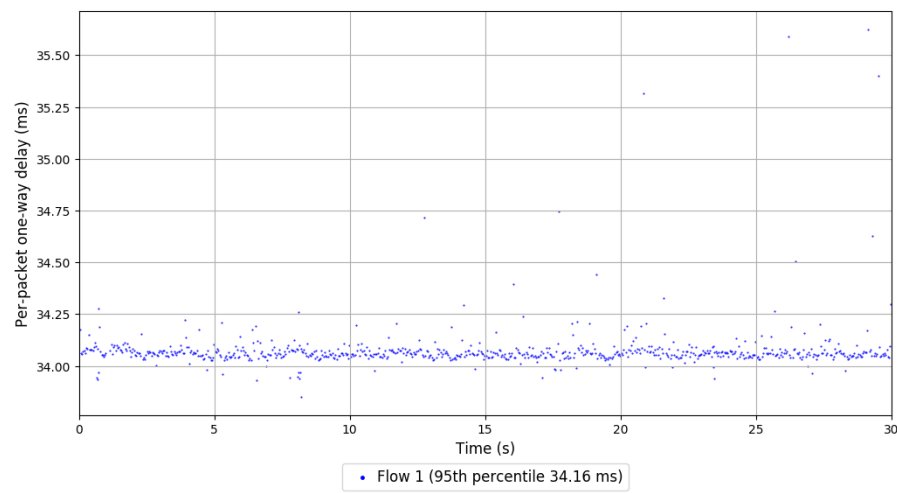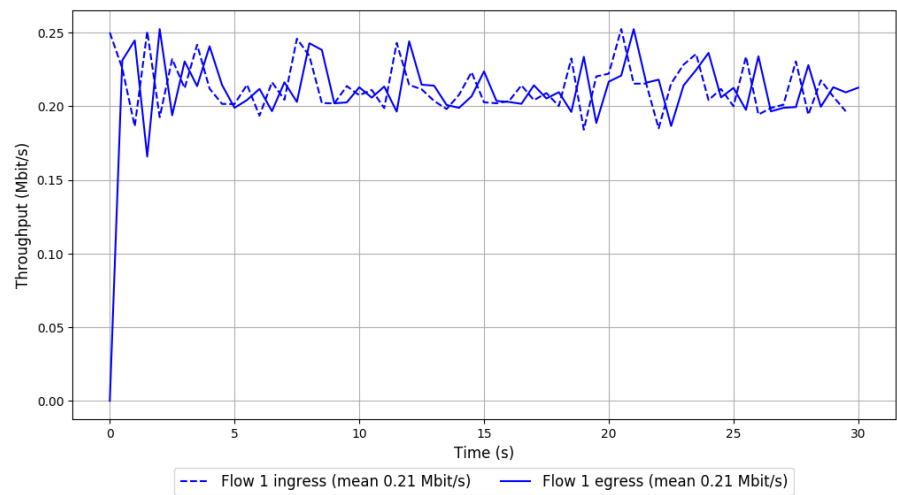
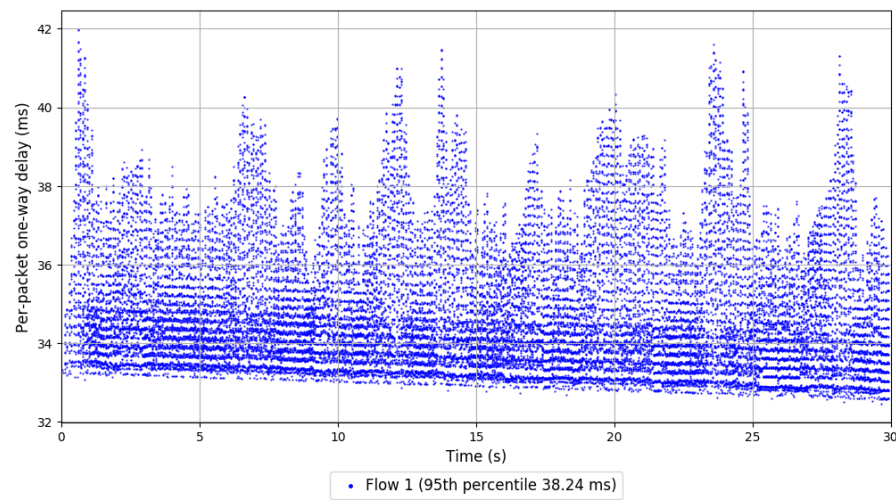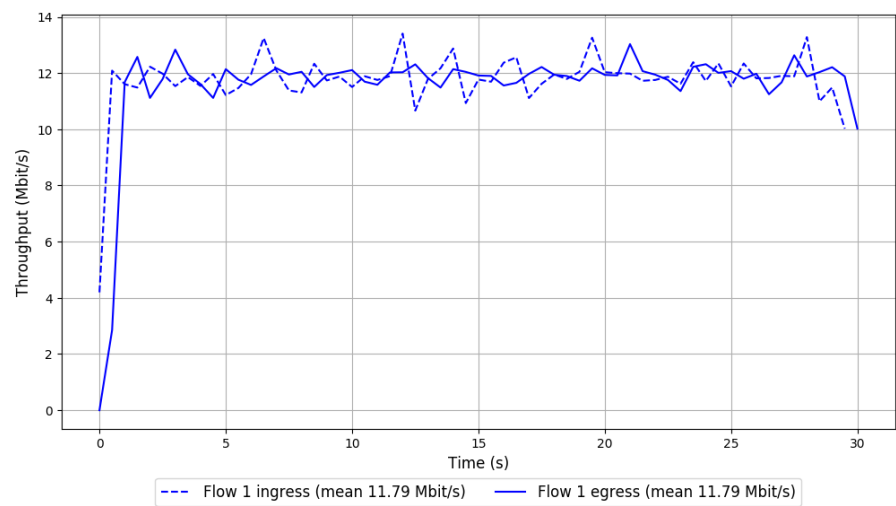## Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-11-23 22:56:12
End at: 2019-11-23 22:56:42
Local clock offset: -29.944 ms
Remote clock offset: 6.136 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 38.245 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.79 Mbit/s
95th percentile per-packet one-way delay: 38.245 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 11.79 Mbit/s)   Flow 1 egress (mean 11.79 Mbit/s)

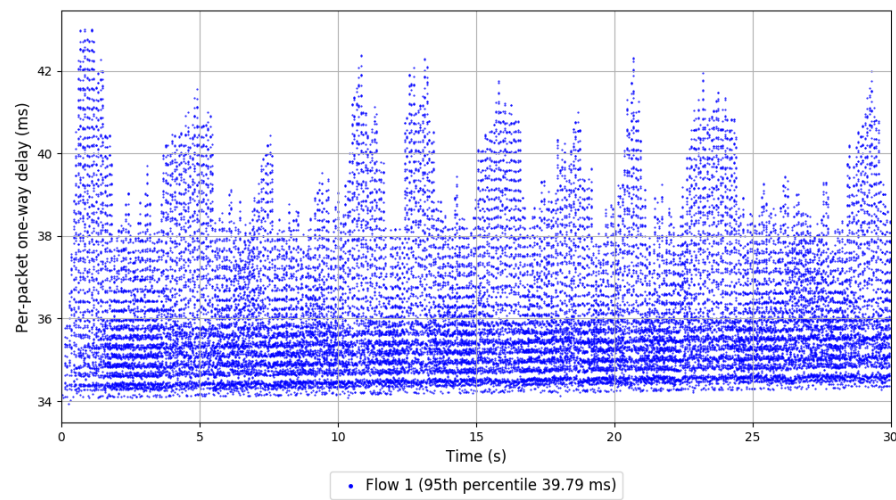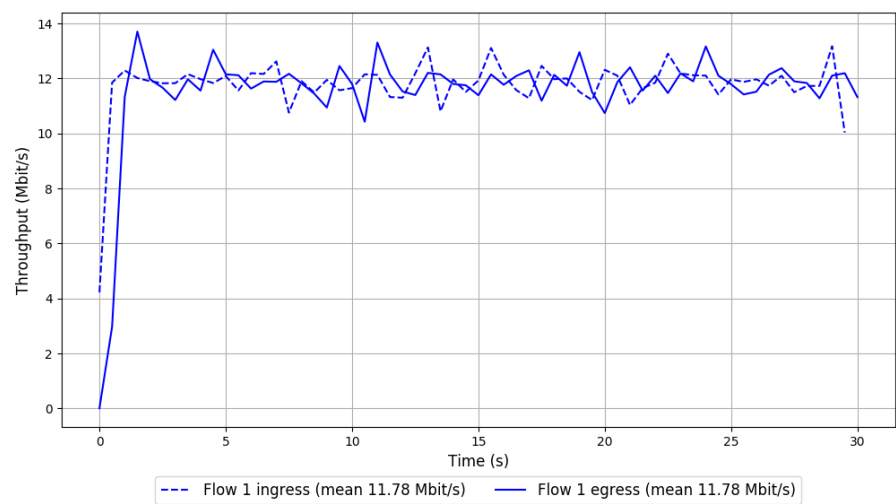Flow 1 (95th percentile 38.24 ms)

```
Run 2: Statistics of Sprout

Start at: 2019-11-23 23:50:00
End at: 2019-11-23 23:50:31
Local clock offset: -11.651 ms
Remote clock offset: 6.733 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 39.793 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.78 Mbit/s
95th percentile per-packet one-way delay: 39.793 ms
Loss rate: 0.00%
```

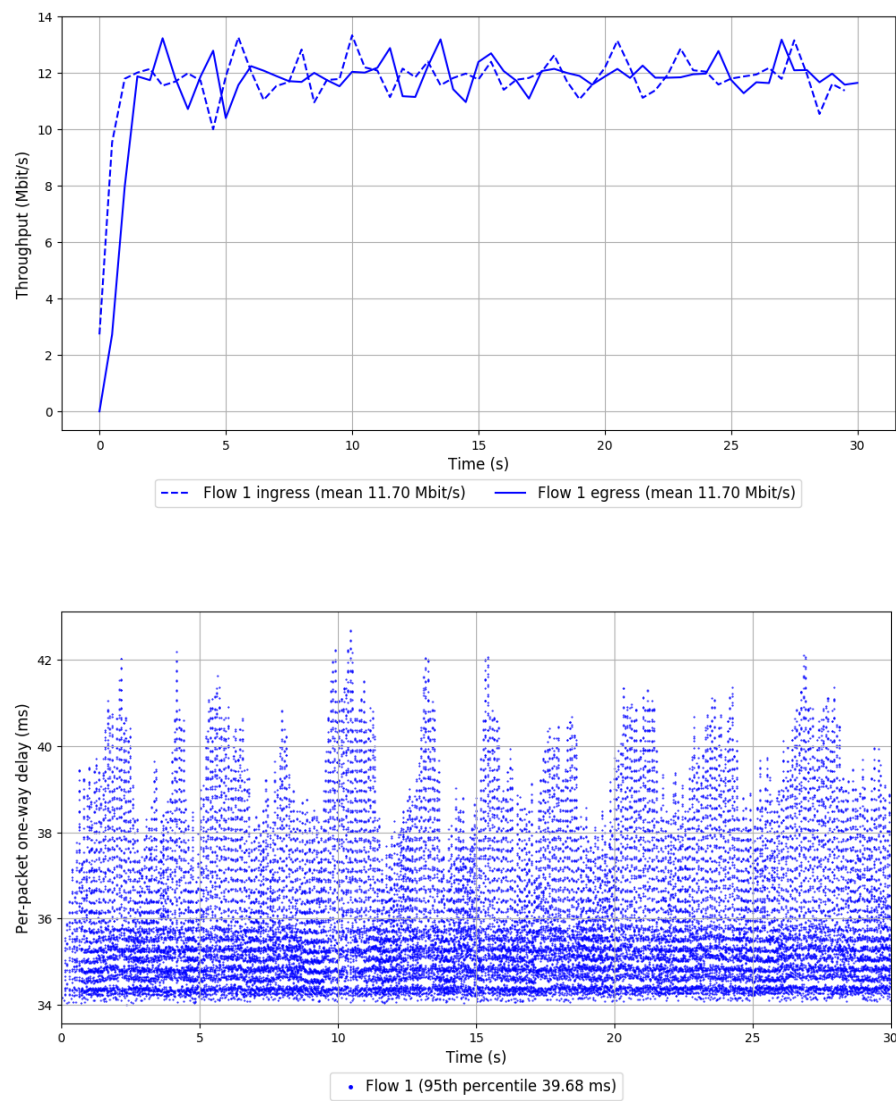Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-11-24 00:52:53
End at: 2019-11-24 00:53:23
Local clock offset: -0.779 ms
Remote clock offset: 6.049 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 39.678 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.70 Mbit/s
95th percentile per-packet one-way delay: 39.678 ms
Loss rate: 0.00%
```
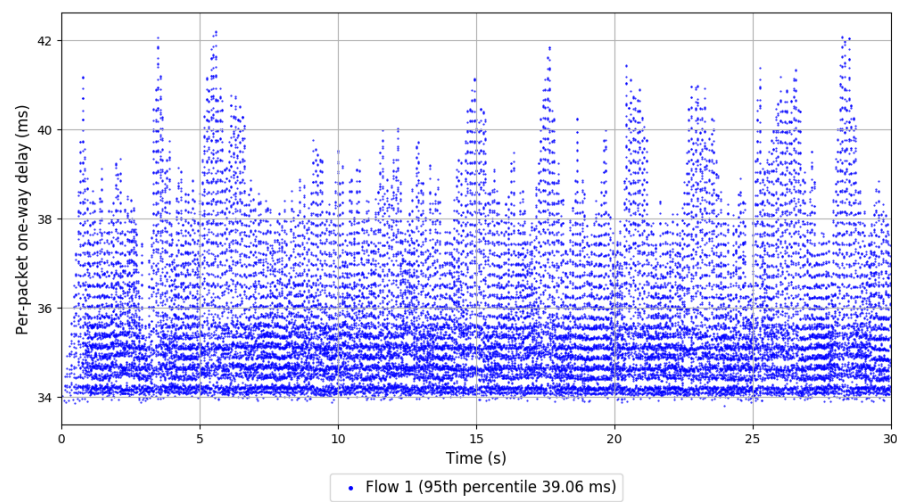
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-11-24 02:58:12
End at: 2019-11-24 02:58:42
Local clock offset: 1.81 ms
Remote clock offset: 4.027 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 39.060 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.58 Mbit/s
95th percentile per-packet one-way delay: 39.060 ms
Loss rate: 0.00%
```
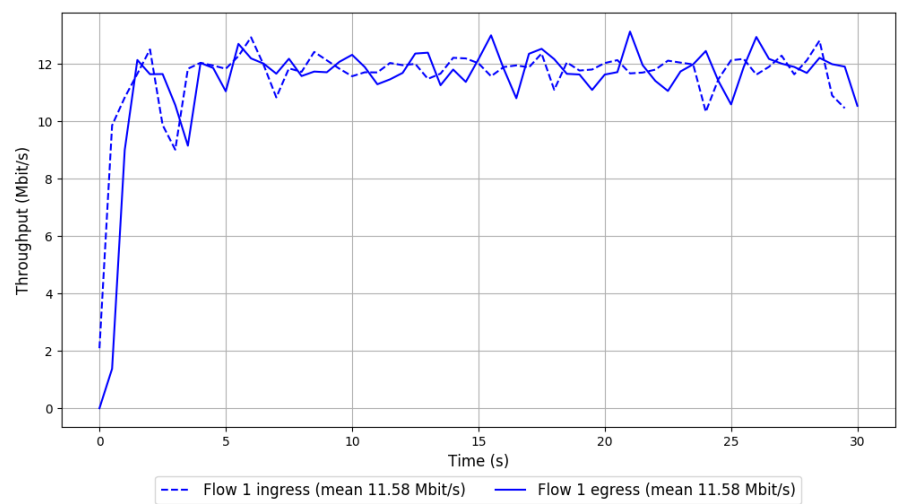
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-11-24 06:27:58
End at: 2019-11-24 06:28:28
Local clock offset: 2.463 ms
Remote clock offset: 3.98 ms


# Below is generated by plot.py at 2019-11-24 07:12:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 38.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.75 Mbit/s
95th percentile per-packet one-way delay: 38.939 ms
Loss rate: 0.00%
```
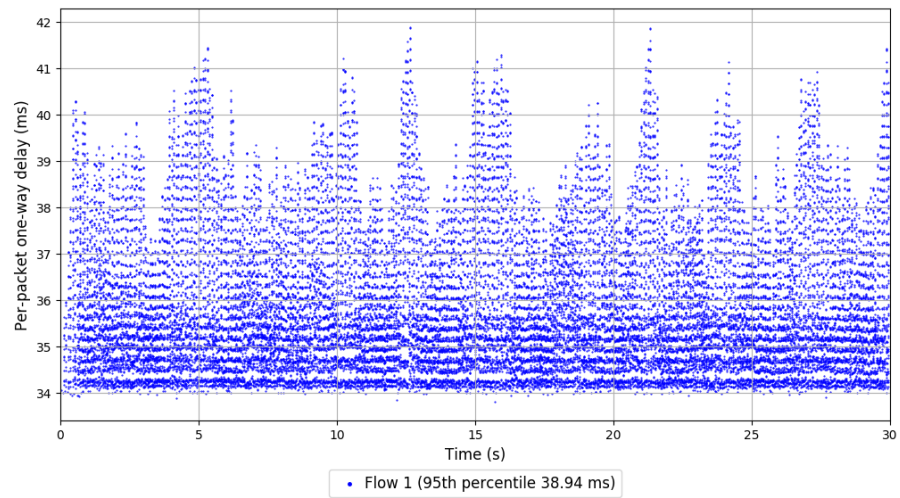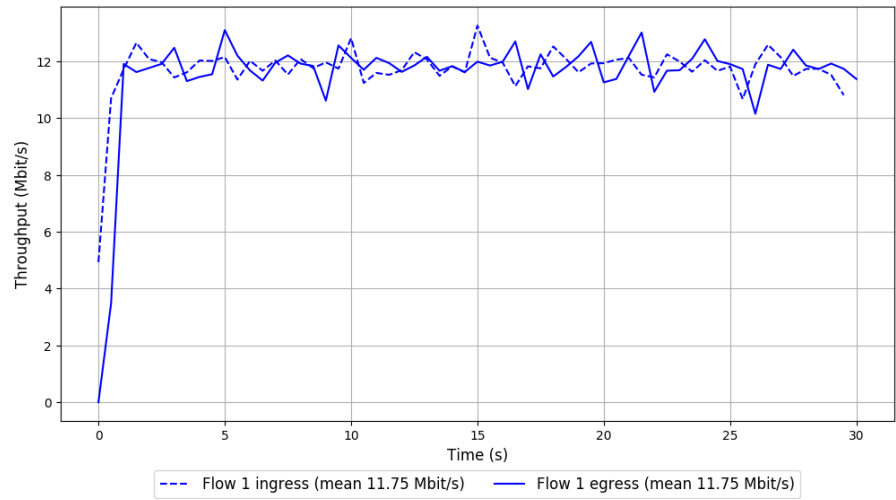
Run 5: Report of Sprout — Data Link
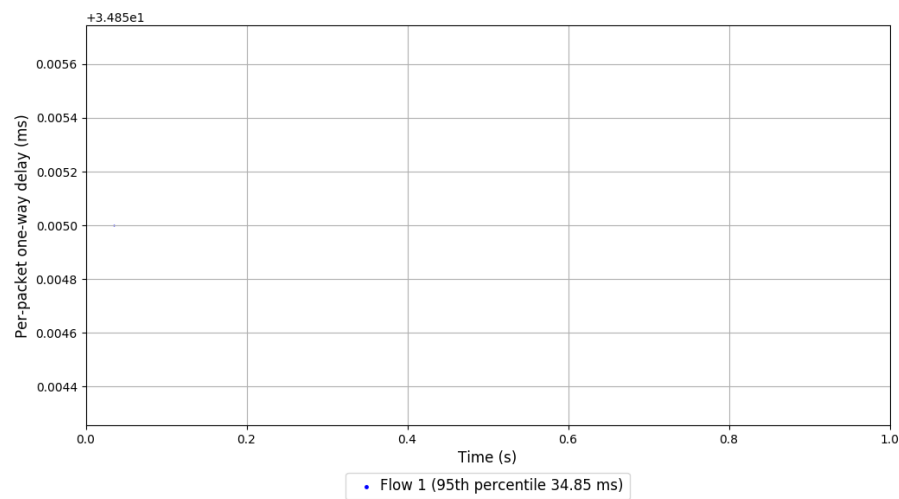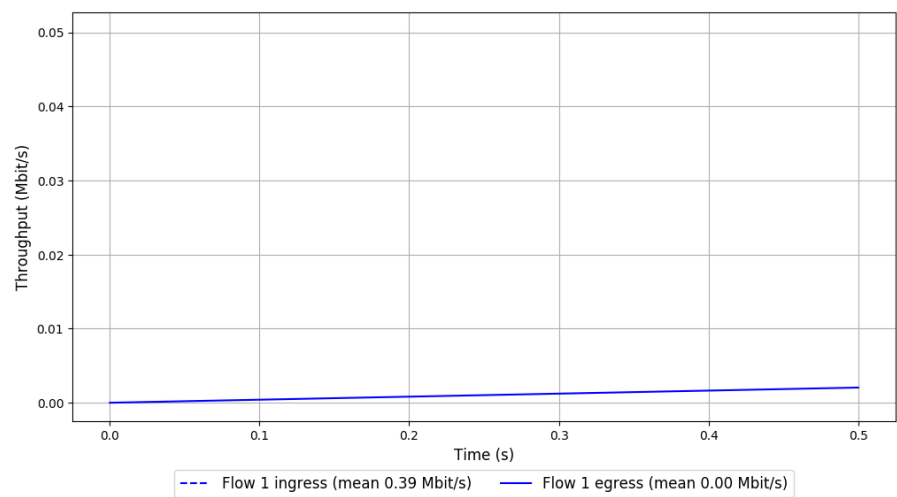
```
Run 1: Statistics of TaoVA-100x

Start at: 2019-11-23 22:28:29
End at: 2019-11-23 22:28:59
Local clock offset: -16.397 ms
Remote clock offset: 6.326 ms
```

Run 1: Report of TaoVA-100x — Data Link
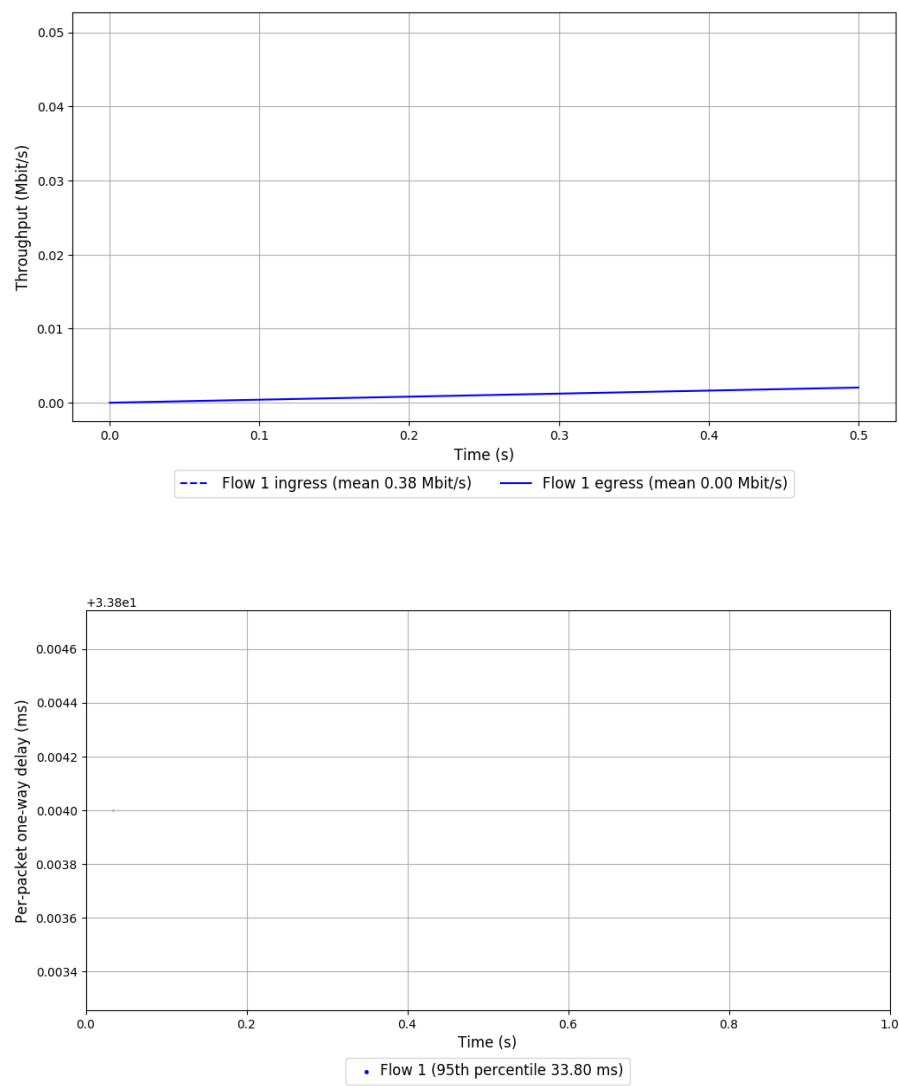
```
Run 2: Statistics of TaoVA-100x

Start at: 2019-11-23 23:28:24
End at: 2019-11-23 23:28:54
Local clock offset: -20.485 ms
Remote clock offset: 6.594 ms
```

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

Flow 1 ingress (mean 0.38 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 33.80 ms)
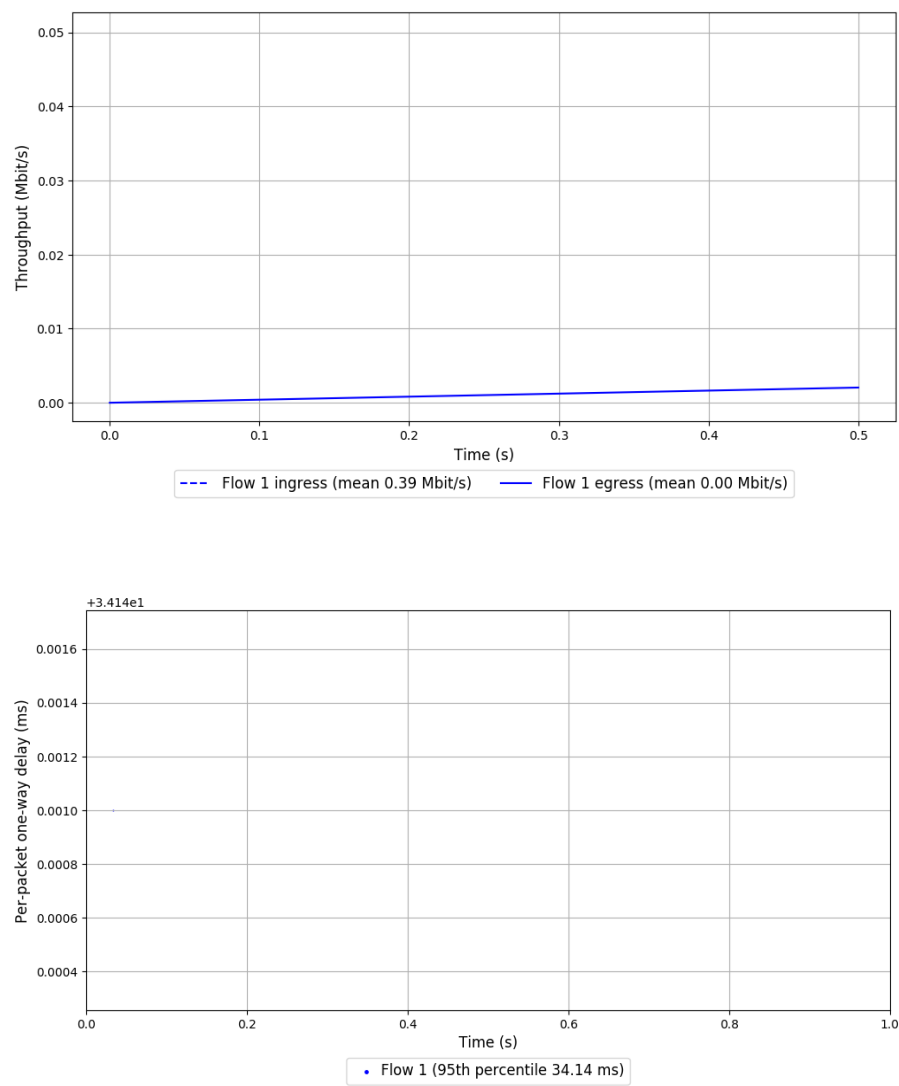
```
Run 3: Statistics of TaoVA-100x

Start at: 2019-11-24 00:22:40
End at: 2019-11-24 00:23:10
Local clock offset: -4.199 ms
Remote clock offset: 5.825 ms
```

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

Flow 1 ingress (mean 0.39 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 34.14 ms)

200

```
Run 4: Statistics of TaoVA-100x

Start at: 2019-11-24 01:33:00
End at: 2019-11-24 01:33:30
Local clock offset: 0.871 ms
Remote clock offset: 5.949 ms
```
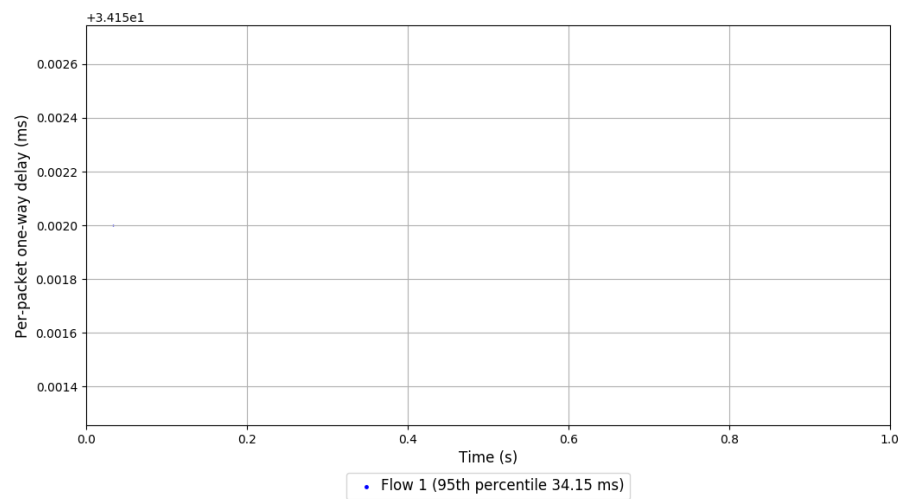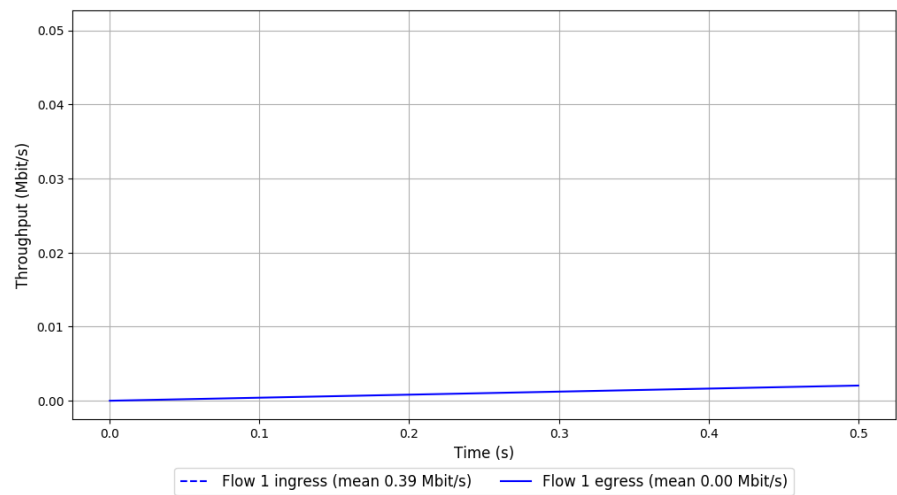
Run 4: Report of TaoVA-100x — Data Link
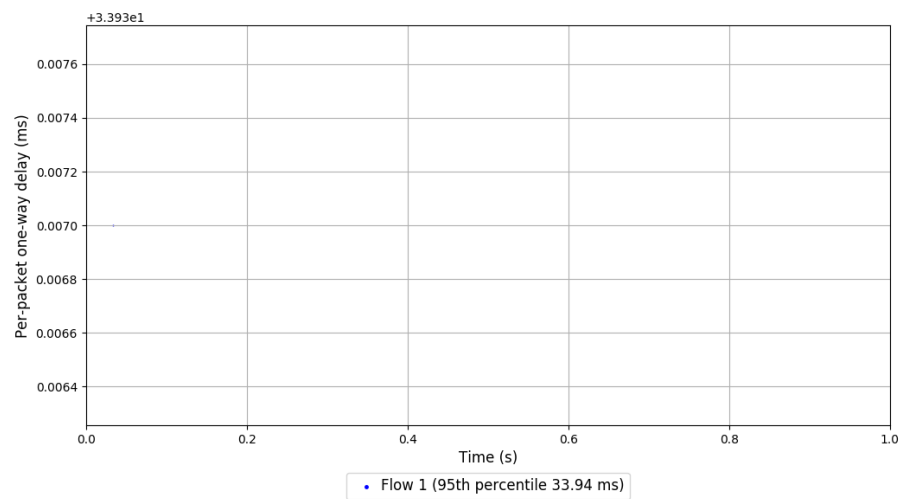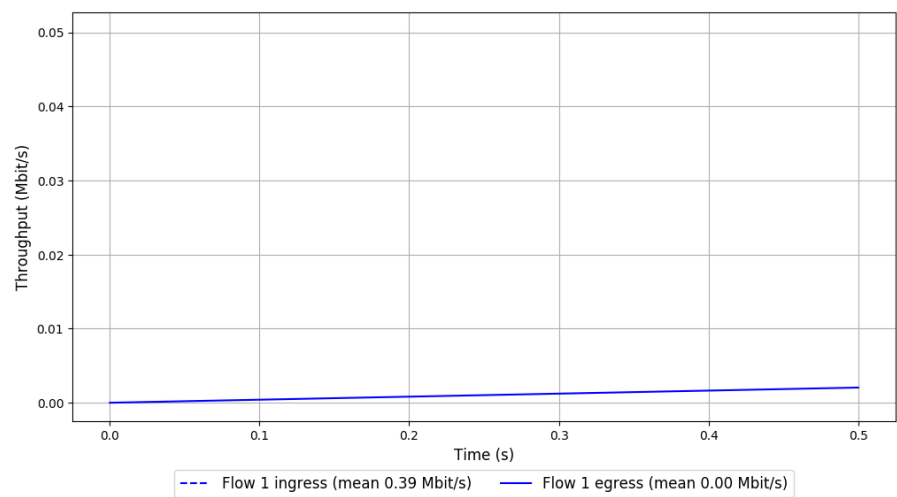
```
Run 5: Statistics of TaoVA-100x

Start at: 2019-11-24 05:31:34
End at: 2019-11-24 05:32:05
Local clock offset: 2.612 ms
Remote clock offset: 4.242 ms
```

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

Flow 1 ingress (mean 0.39 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)
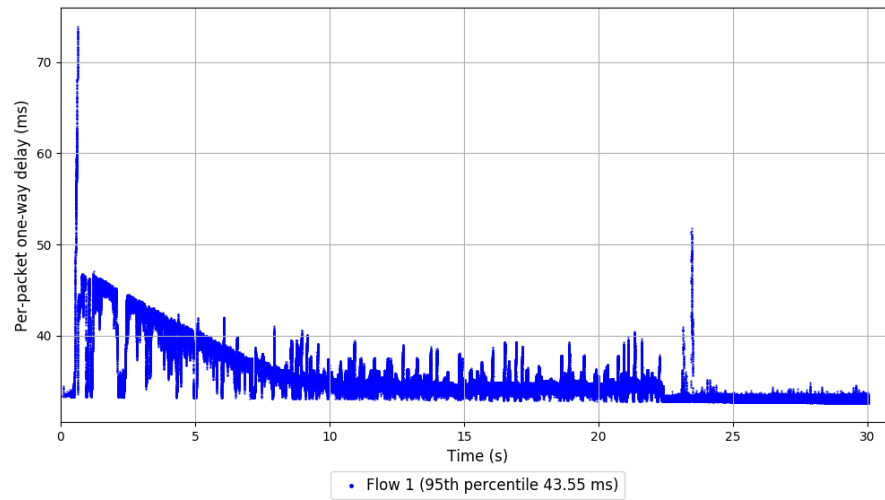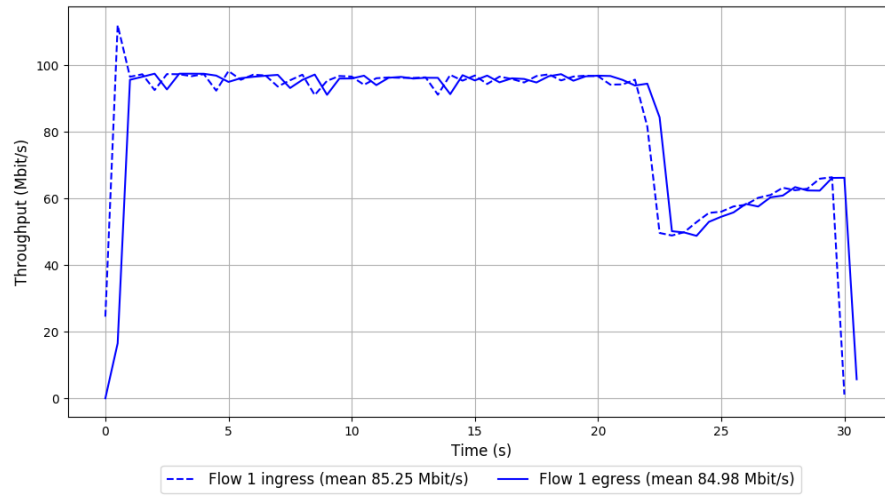

Flow 1 (95th percentile 33.94 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-11-23 22:35:10
End at: 2019-11-23 22:35:40
Local clock offset: -17.532 ms
Remote clock offset: 6.379 ms


# Below is generated by plot.py at 2019-11-24 07:13:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.98 Mbit/s
95th percentile per-packet one-way delay: 43.545 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 84.98 Mbit/s
95th percentile per-packet one-way delay: 43.545 ms
Loss rate: 0.31%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-11-23 23:33:54
End at: 2019-11-23 23:34:25
Local clock offset: -22.94 ms
Remote clock offset: 6.78 ms


# Below is generated by plot.py at 2019-11-24 07:13:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 44.085 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 95.46 Mbit/s
95th percentile per-packet one-way delay: 44.085 ms
Loss rate: 0.27%
```
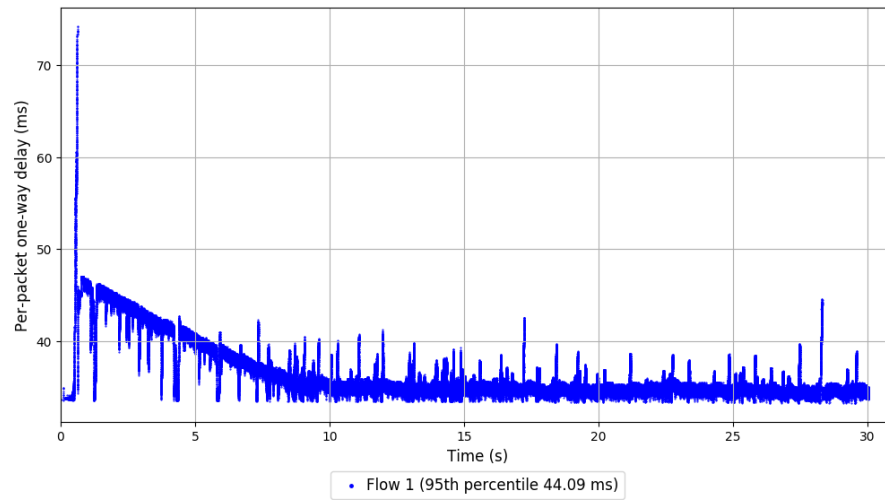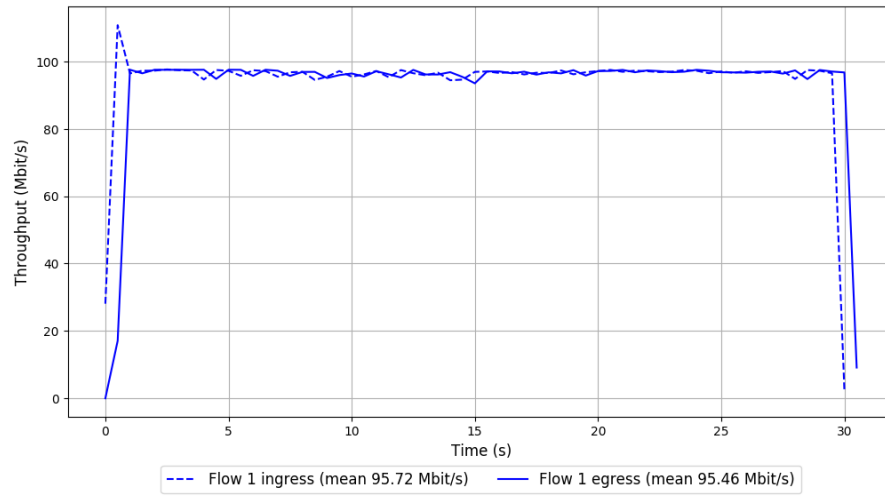
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 95.72 Mbit/s) --- Flow 1 egress (mean 95.46 Mbit/s)

Flow 1 (95th percentile 44.09 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-11-24 00:32:15
End at: 2019-11-24 00:32:45
Local clock offset: -4.226 ms
Remote clock offset: 6.001 ms


# Below is generated by plot.py at 2019-11-24 07:13:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 44.000 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 44.000 ms
Loss rate: 0.27%
```
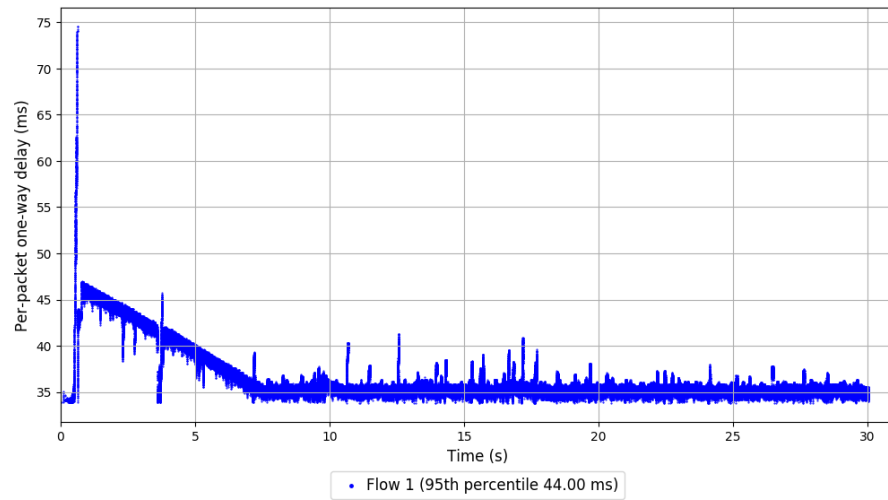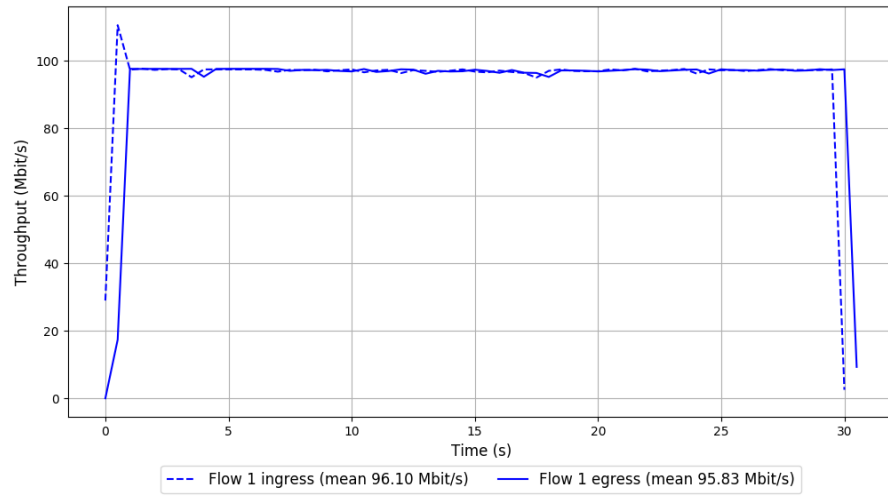
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 96.10 Mbit/s)   Flow 1 egress (mean 95.83 Mbit/s)

• Flow 1 (95th percentile 44.00 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-11-24 01:46:08
End at: 2019-11-24 01:46:38
Local clock offset: 1.77 ms
Remote clock offset: 5.82 ms


# Below is generated by plot.py at 2019-11-24 07:13:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 34.942 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 34.942 ms
Loss rate: 1.25%
```
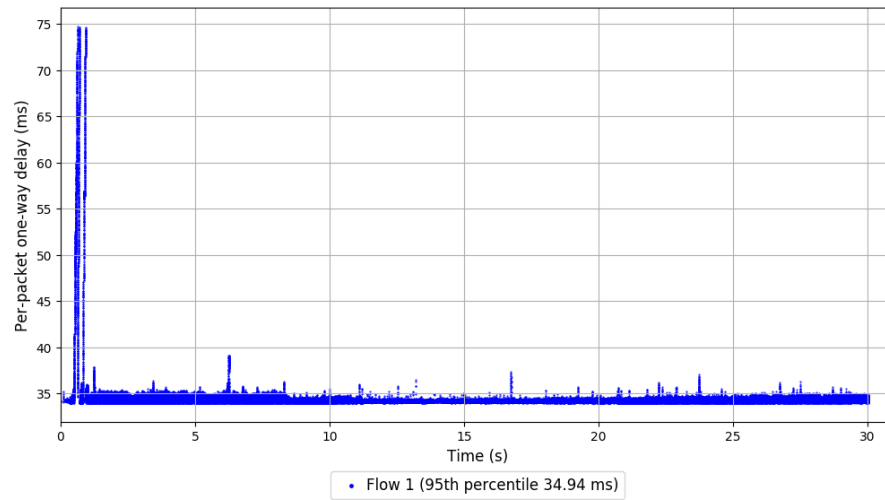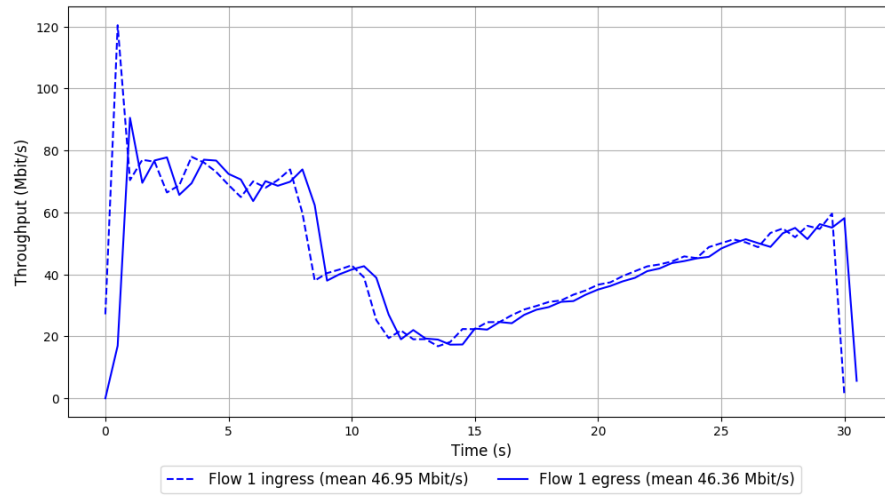
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 46.95 Mbit/s) — — — Flow 1 egress (mean 46.36 Mbit/s)

• Flow 1 (95th percentile 34.94 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2019-11-24 05:49:26
End at: 2019-11-24 05:49:56
Local clock offset: 2.656 ms
Remote clock offset: 4.2 ms


# Below is generated by plot.py at 2019-11-24 07:13:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 44.385 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 95.71 Mbit/s
95th percentile per-packet one-way delay: 44.385 ms
Loss rate: 0.28%
```
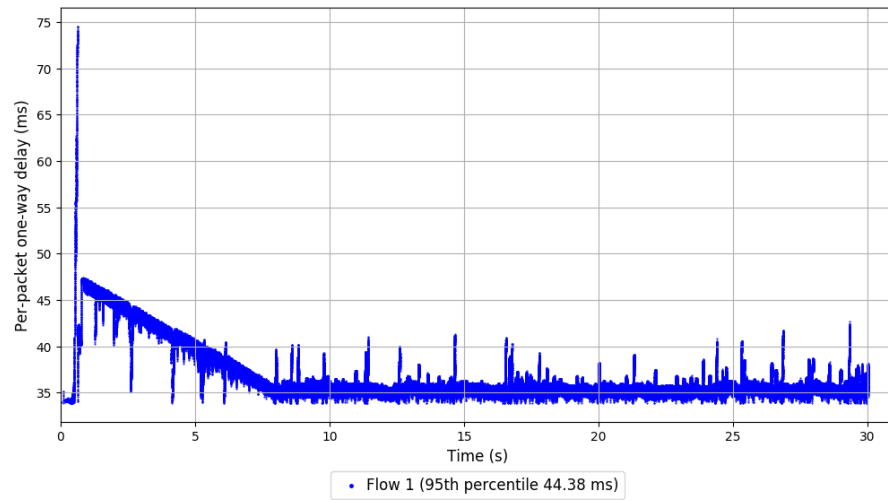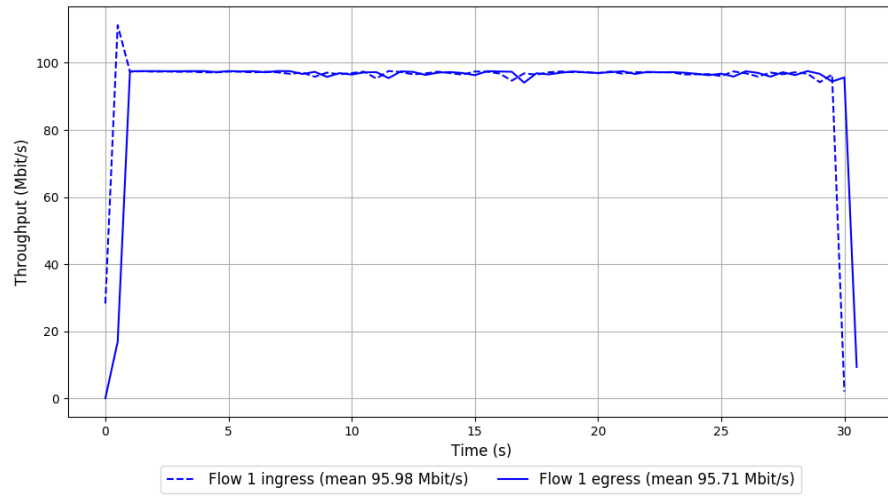
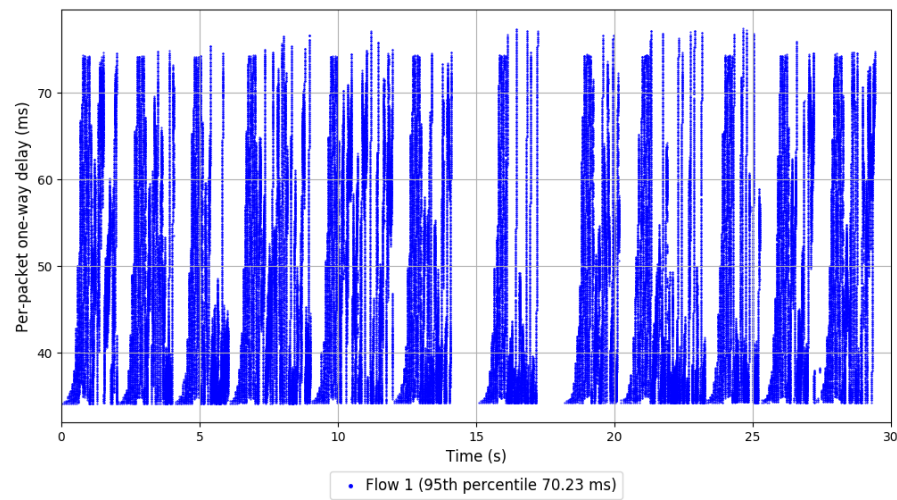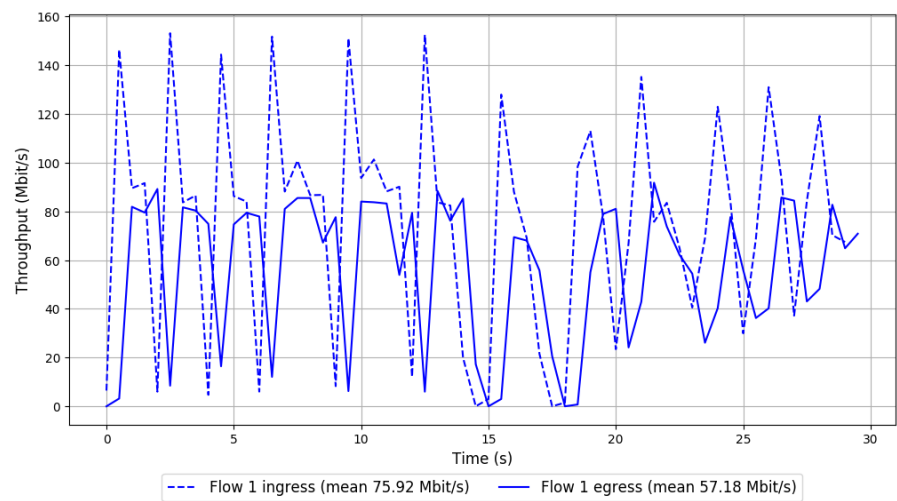Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-11-23 22:29:36
End at: 2019-11-23 22:30:06
Local clock offset: -14.962 ms
Remote clock offset: 6.284 ms


# Below is generated by plot.py at 2019-11-24 07:13:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 70.227 ms
Loss rate: 24.60%
-- Flow 1:
Average throughput: 57.18 Mbit/s
95th percentile per-packet one-way delay: 70.227 ms
Loss rate: 24.60%
```
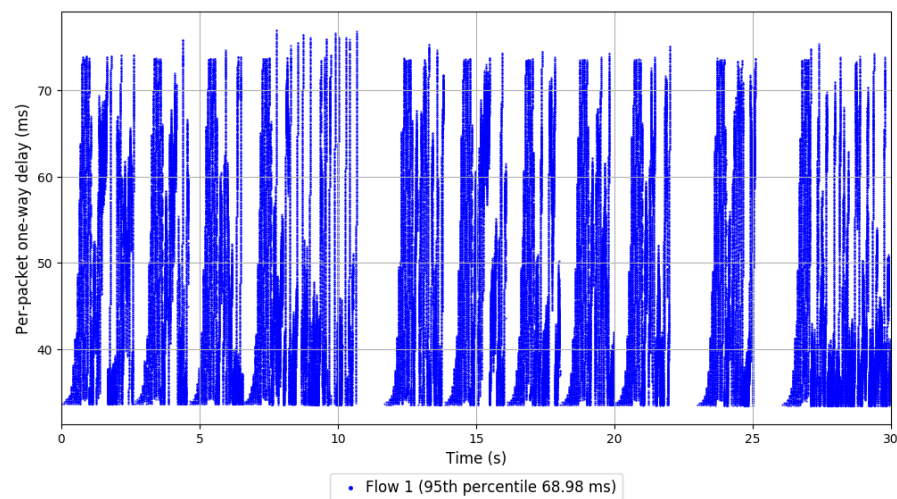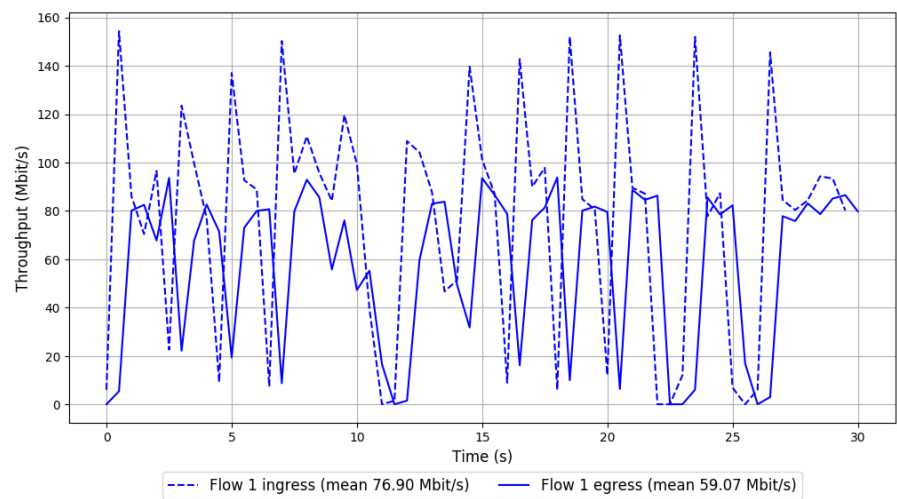
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-11-23 23:29:32
End at: 2019-11-23 23:30:02
Local clock offset: -20.788 ms
Remote clock offset: 6.645 ms


# Below is generated by plot.py at 2019-11-24 07:13:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.07 Mbit/s
95th percentile per-packet one-way delay: 68.976 ms
Loss rate: 23.18%
-- Flow 1:
Average throughput: 59.07 Mbit/s
95th percentile per-packet one-way delay: 68.976 ms
Loss rate: 23.18%
```

Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 76.90 Mbit/s)   Flow 1 egress (mean 59.07 Mbit/s)

· Flow 1 (95th percentile 68.98 ms)

```
Run 3: Statistics of Verus

Start at: 2019-11-24 00:23:48
End at: 2019-11-24 00:24:18
Local clock offset: -3.992 ms
Remote clock offset: 6.017 ms


# Below is generated by plot.py at 2019-11-24 07:13:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.25 Mbit/s
95th percentile per-packet one-way delay: 70.029 ms
Loss rate: 25.32%
-- Flow 1:
Average throughput: 64.25 Mbit/s
95th percentile per-packet one-way delay: 70.029 ms
Loss rate: 25.32%
```
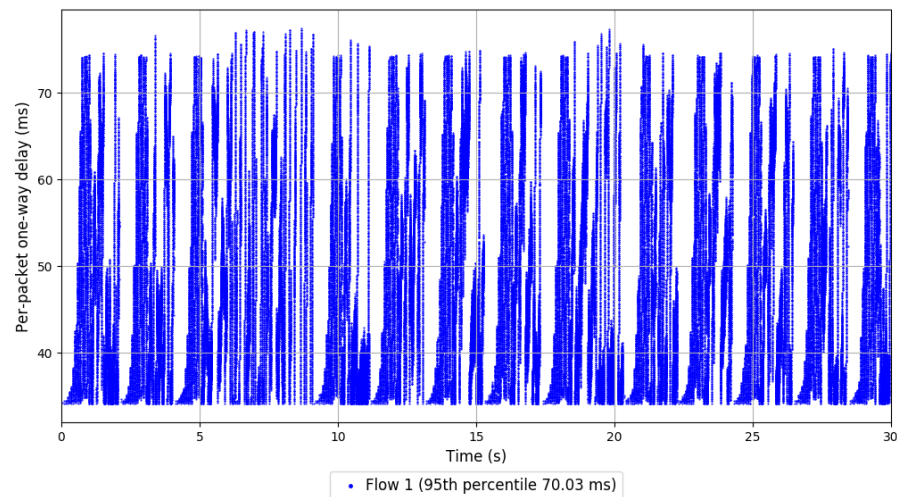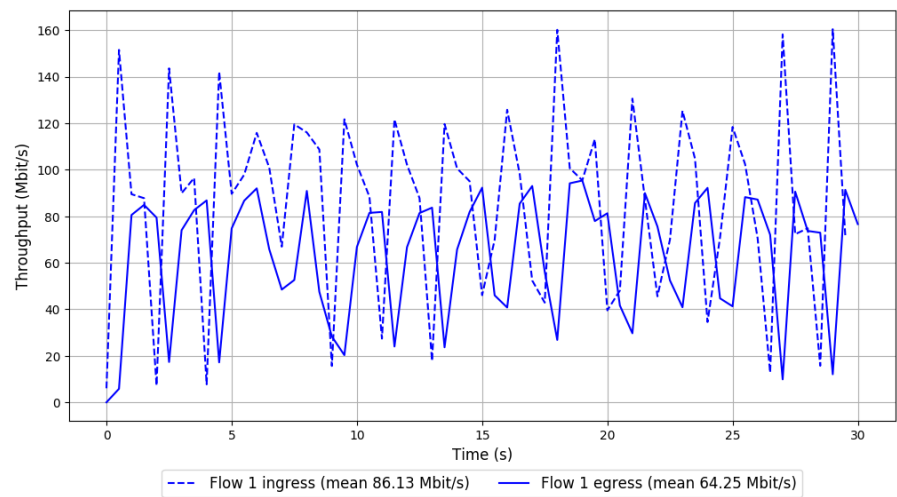
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-11-24 01:34:08
End at: 2019-11-24 01:34:38
Local clock offset: 0.854 ms
Remote clock offset: 5.921 ms


# Below is generated by plot.py at 2019-11-24 07:13:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 69.691 ms
Loss rate: 24.61%
-- Flow 1:
Average throughput: 56.21 Mbit/s
95th percentile per-packet one-way delay: 69.691 ms
Loss rate: 24.61%
```
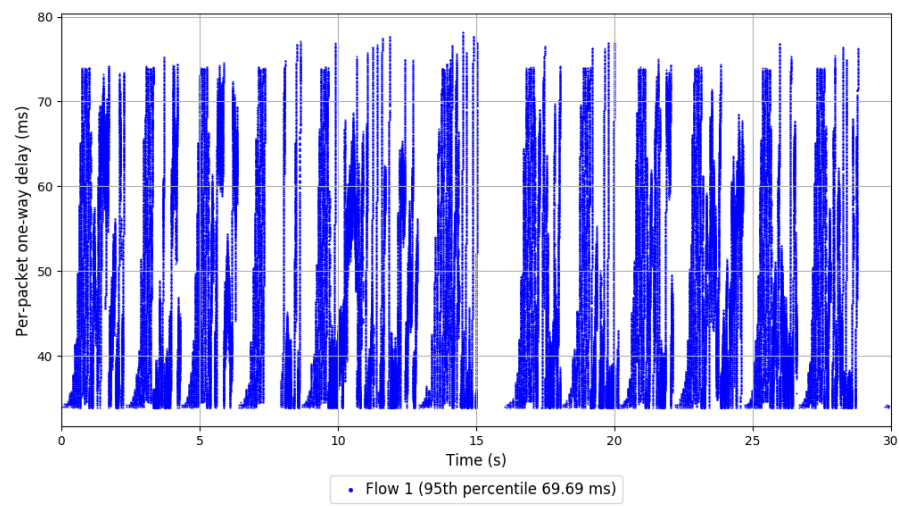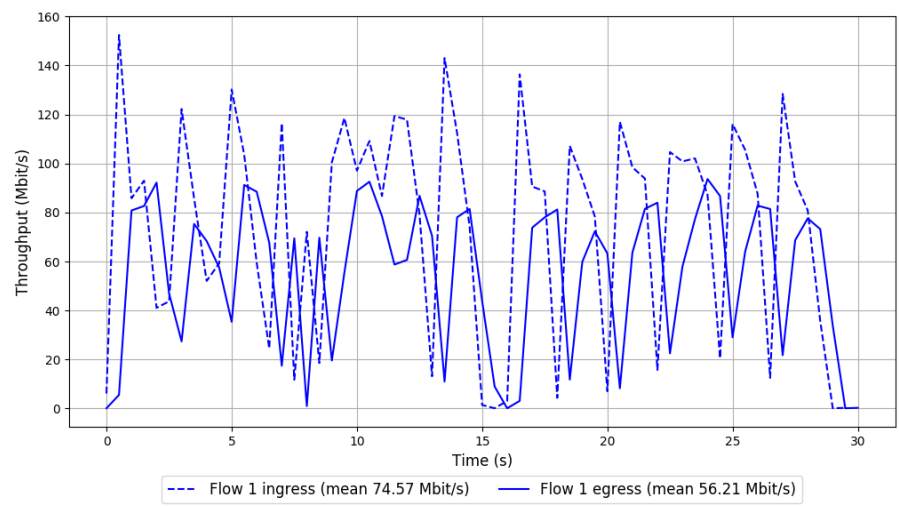
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-11-24 05:32:44
End at: 2019-11-24 05:33:14
Local clock offset: 2.63 ms
Remote clock offset: 4.194 ms


# Below is generated by plot.py at 2019-11-24 07:13:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 69.605 ms
Loss rate: 25.39%
-- Flow 1:
Average throughput: 56.94 Mbit/s
95th percentile per-packet one-way delay: 69.605 ms
Loss rate: 25.39%
```
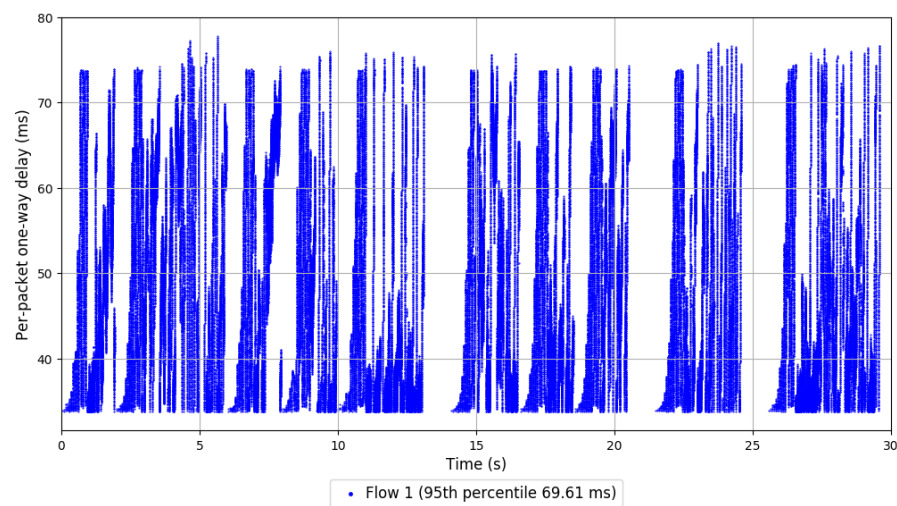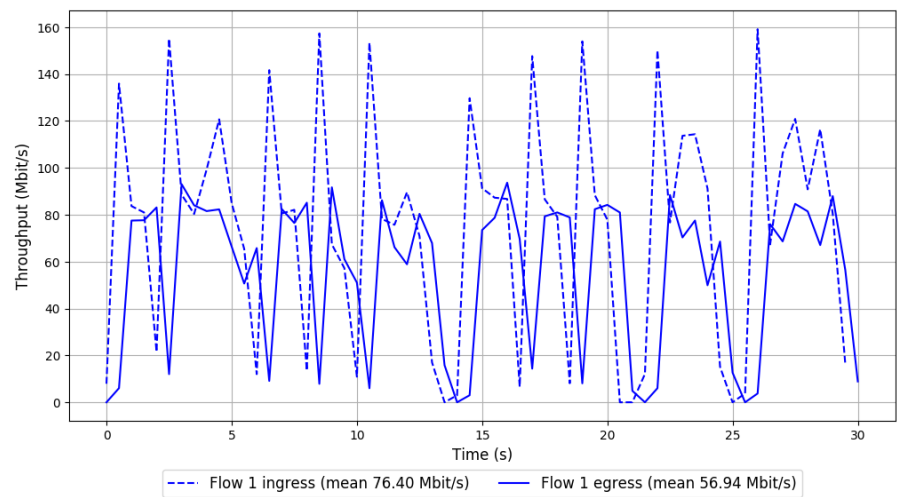
Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 76.40 Mbit/s) --- Flow 1 egress (mean 56.94 Mbit/s)

• Flow 1 (95th percentile 69.61 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-11-23 22:16:42
End at: 2019-11-23 22:17:12
Local clock offset: -8.106 ms
Remote clock offset: 6.164 ms


# Below is generated by plot.py at 2019-11-24 07:13:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.89 Mbit/s
95th percentile per-packet one-way delay: 33.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.89 Mbit/s
95th percentile per-packet one-way delay: 33.545 ms
Loss rate: 0.00%
```
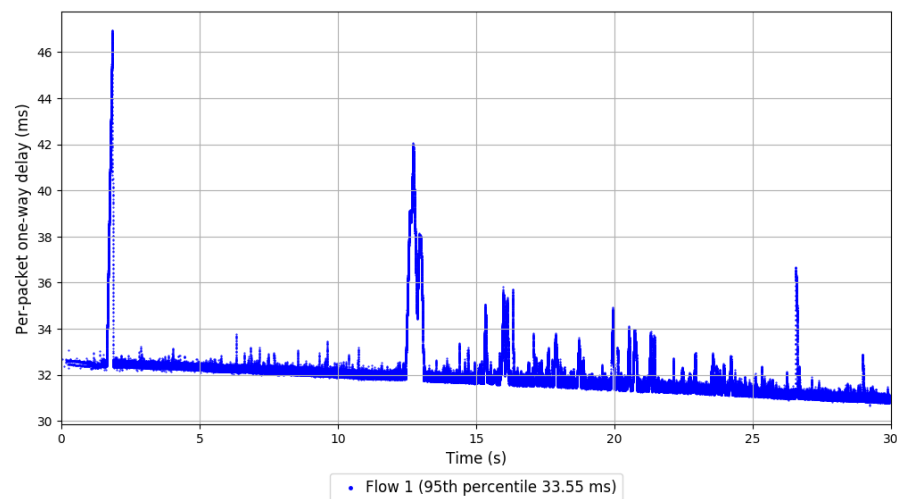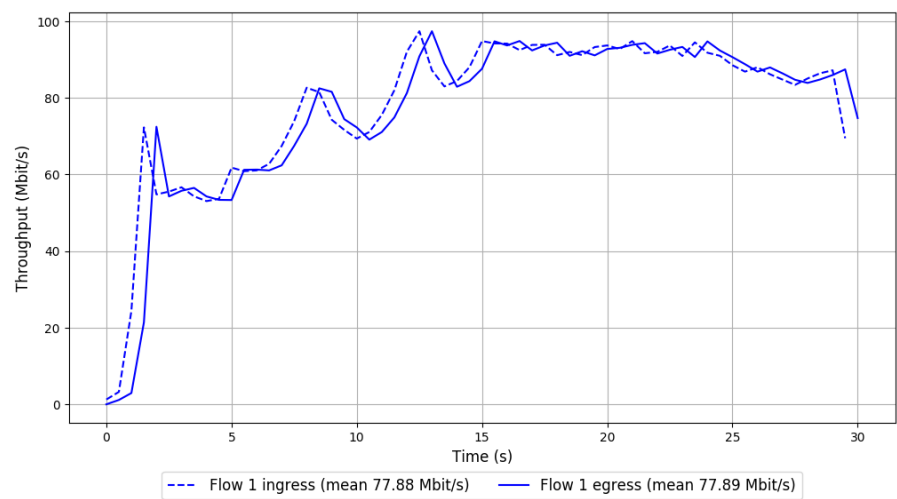
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 77.88 Mbit/s)   Flow 1 egress (mean 77.89 Mbit/s)
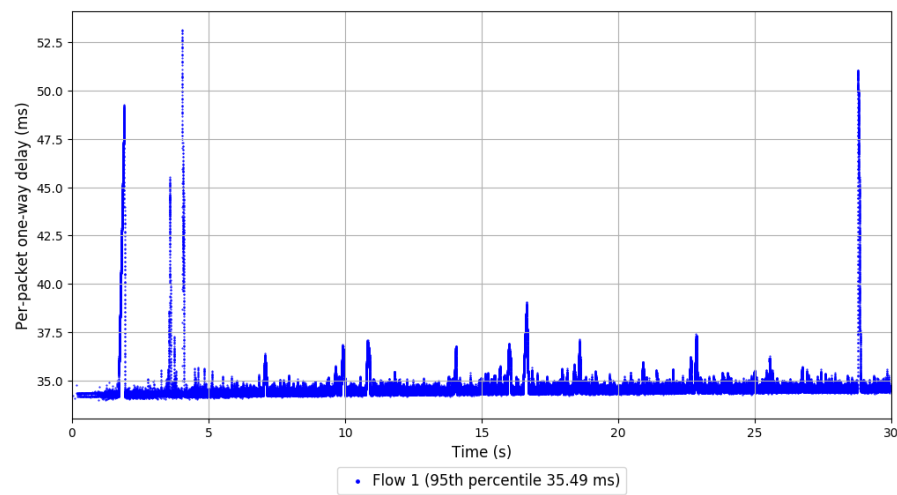
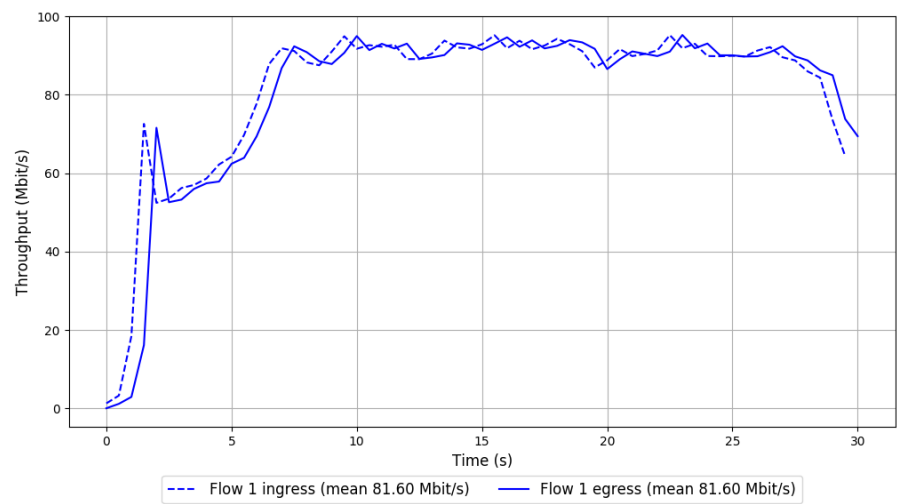

• Flow 1 (95th percentile 33.55 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-11-23 23:20:55
End at: 2019-11-23 23:21:25
Local clock offset: -21.656 ms
Remote clock offset: 6.379 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.60 Mbit/s
95th percentile per-packet one-way delay: 35.494 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.60 Mbit/s
95th percentile per-packet one-way delay: 35.494 ms
Loss rate: 0.00%
```
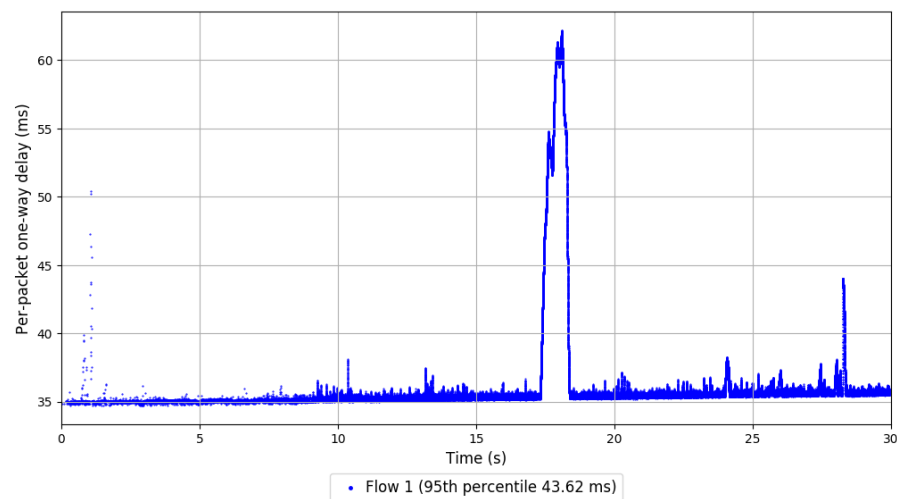
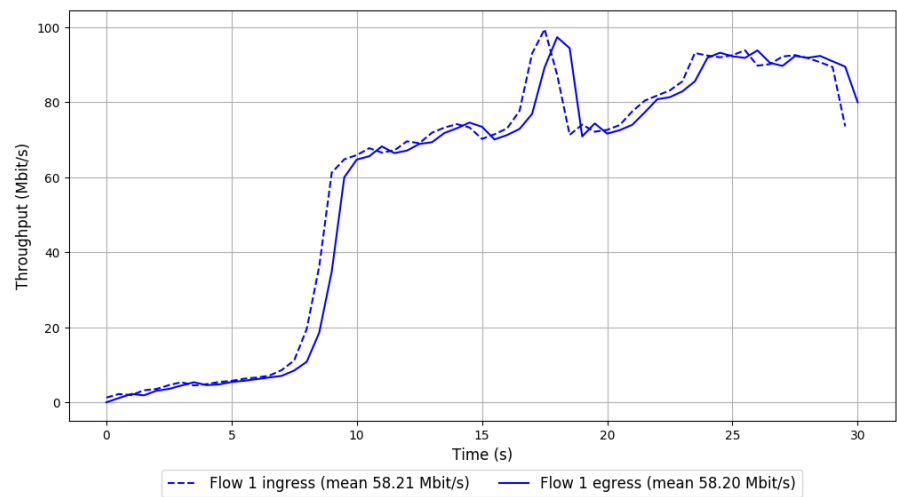# Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-11-24 00:10:59
End at: 2019-11-24 00:11:29
Local clock offset: -12.263 ms
Remote clock offset: 5.935 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 43.622 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.20 Mbit/s
95th percentile per-packet one-way delay: 43.622 ms
Loss rate: 0.00%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 58.21 Mbit/s) —— Flow 1 egress (mean 58.20 Mbit/s)

· Flow 1 (95th percentile 43.62 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-11-24 01:19:33
End at: 2019-11-24 01:20:03
Local clock offset: 0.785 ms
Remote clock offset: 5.951 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.95 Mbit/s
95th percentile per-packet one-way delay: 52.107 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 74.95 Mbit/s
95th percentile per-packet one-way delay: 52.107 ms
Loss rate: 0.55%
```
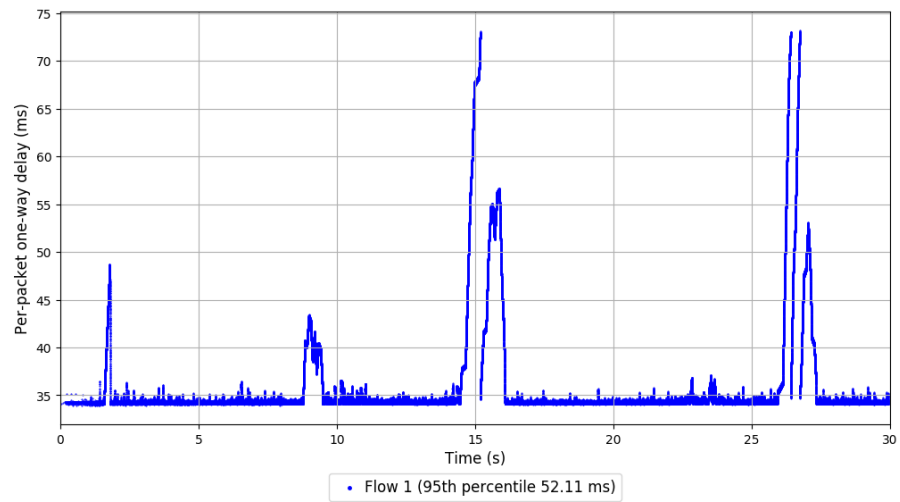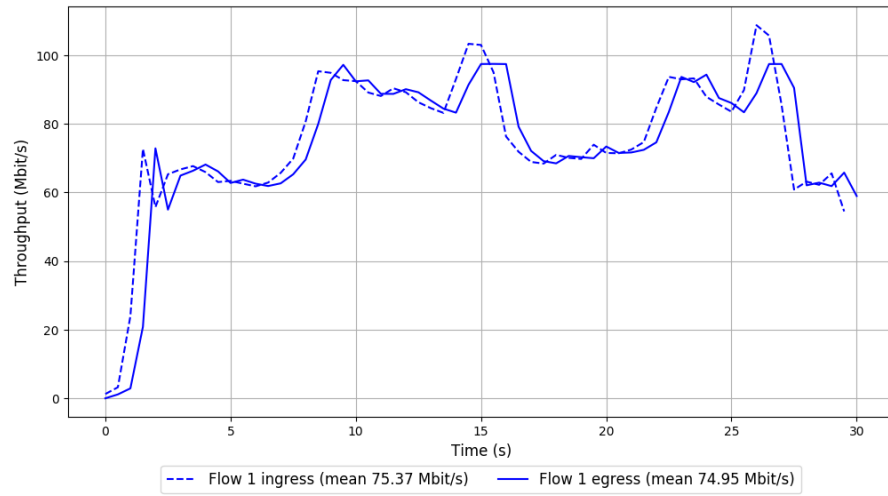
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 75.37 Mbit/s) --- Flow 1 egress (mean 74.95 Mbit/s)

• Flow 1 (95th percentile 52.11 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-11-24 05:02:12
End at: 2019-11-24 05:02:42
Local clock offset: 3.024 ms
Remote clock offset: 4.041 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.33 Mbit/s
95th percentile per-packet one-way delay: 35.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 75.33 Mbit/s
95th percentile per-packet one-way delay: 35.124 ms
Loss rate: 0.00%
```
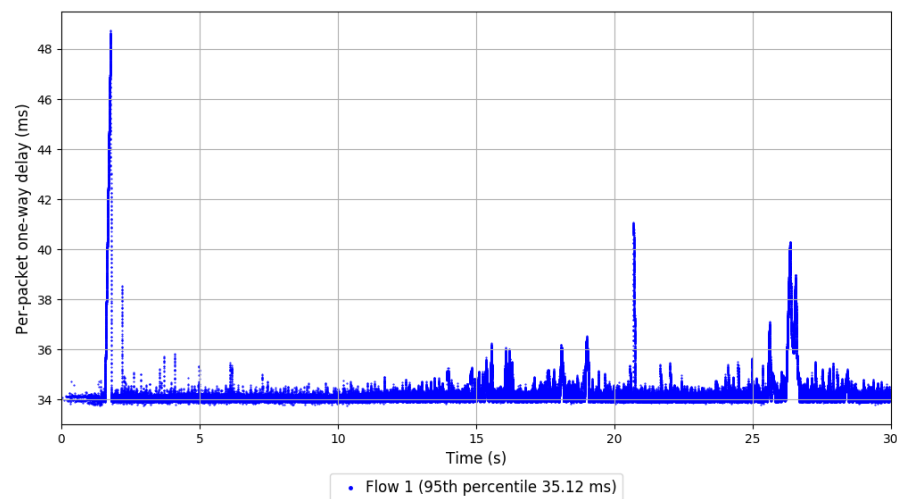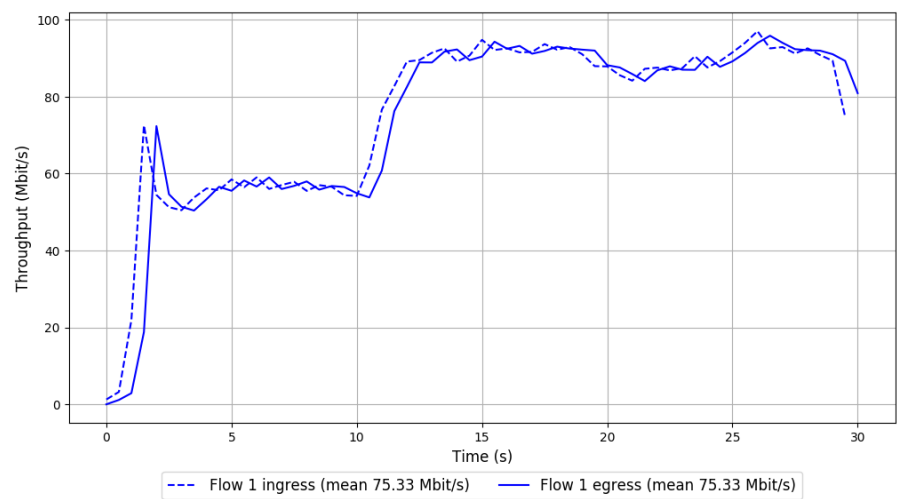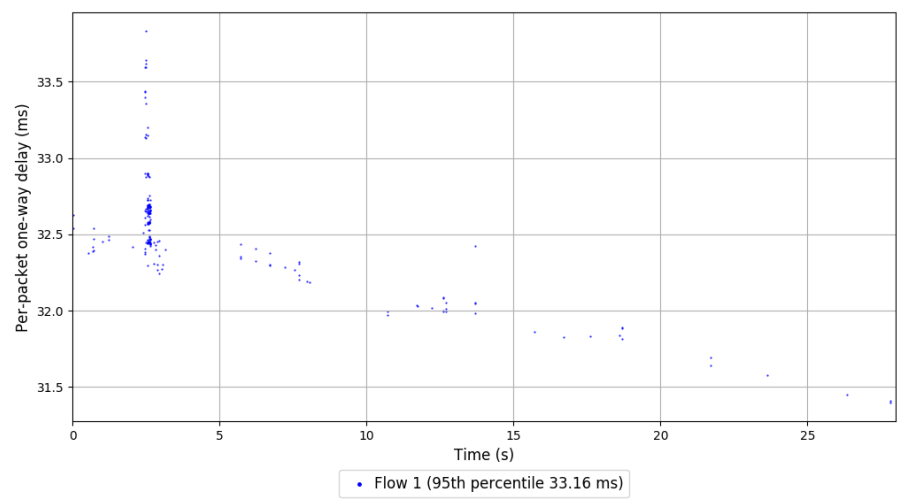
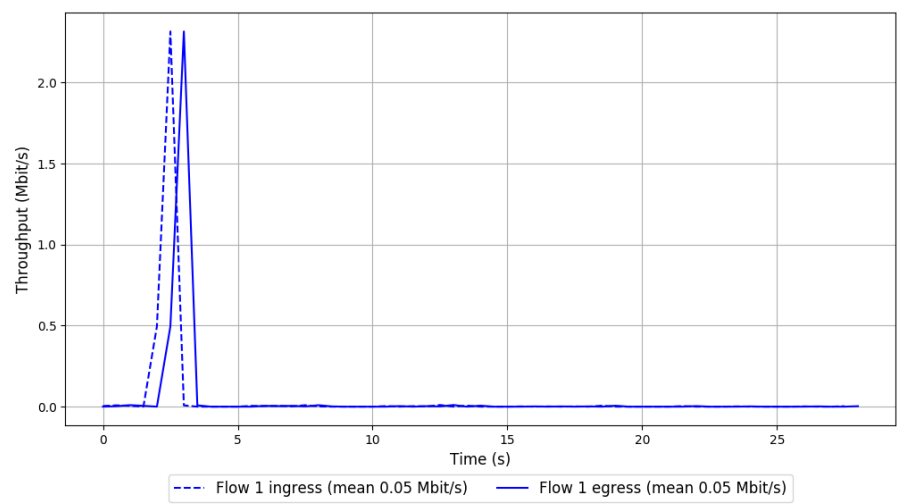## Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-11-23 22:24:16
End at: 2019-11-23 22:24:46
Local clock offset: -14.294 ms
Remote clock offset: 6.276 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 33.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 33.156 ms
Loss rate: 0.00%
```
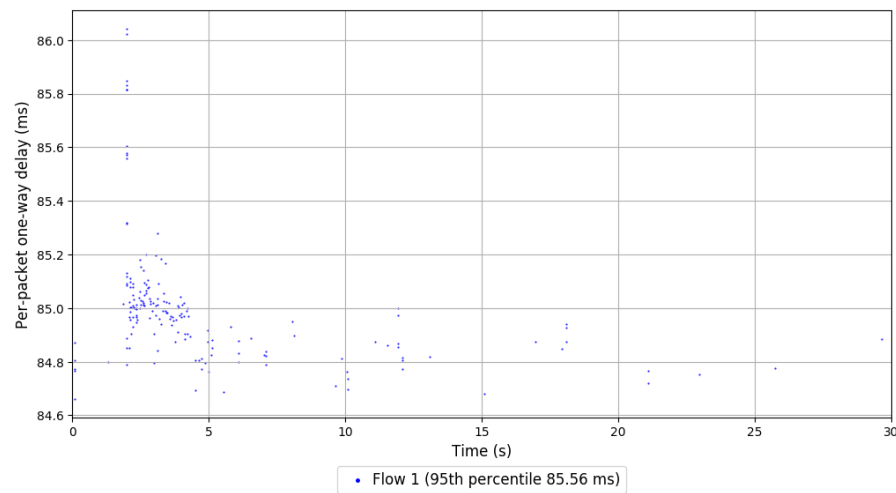
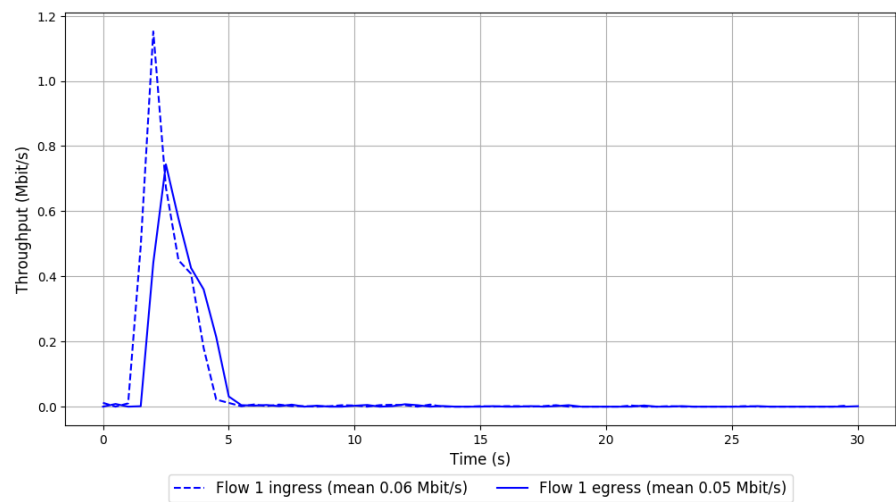Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-11-23 23:26:00
End at: 2019-11-23 23:26:30
Local clock offset: -20.107 ms
Remote clock offset: 6.551 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.559 ms
Loss rate: 17.62%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 85.559 ms
Loss rate: 17.62%
```

Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-11-24 00:16:53
End at: 2019-11-24 00:17:23
Local clock offset: -6.197 ms
Remote clock offset: 5.727 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.847 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.847 ms
Loss rate: 0.00%
```
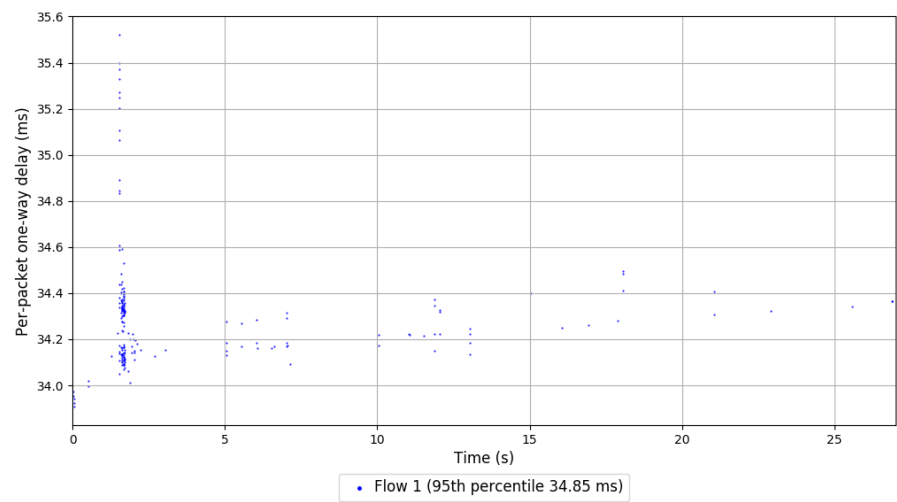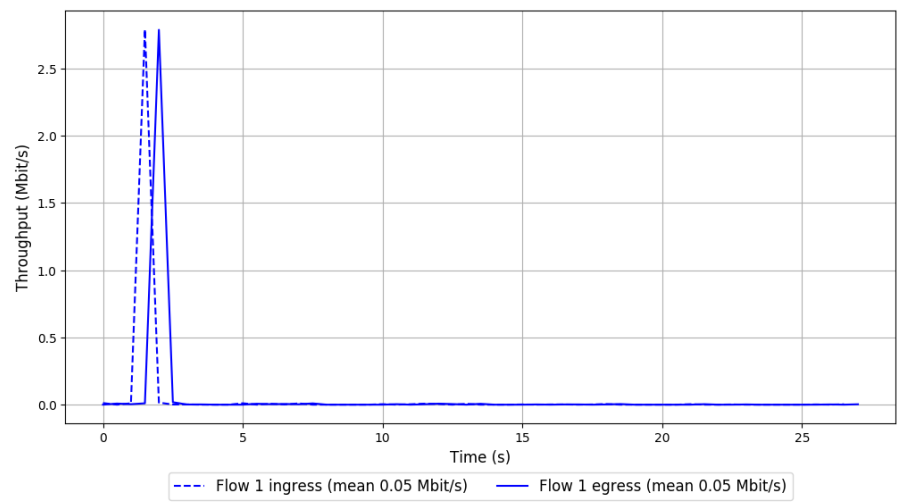
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-11-24 01:27:02
End at: 2019-11-24 01:27:32
Local clock offset: 1.057 ms
Remote clock offset: 5.945 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.879 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.879 ms
Loss rate: 0.00%
```
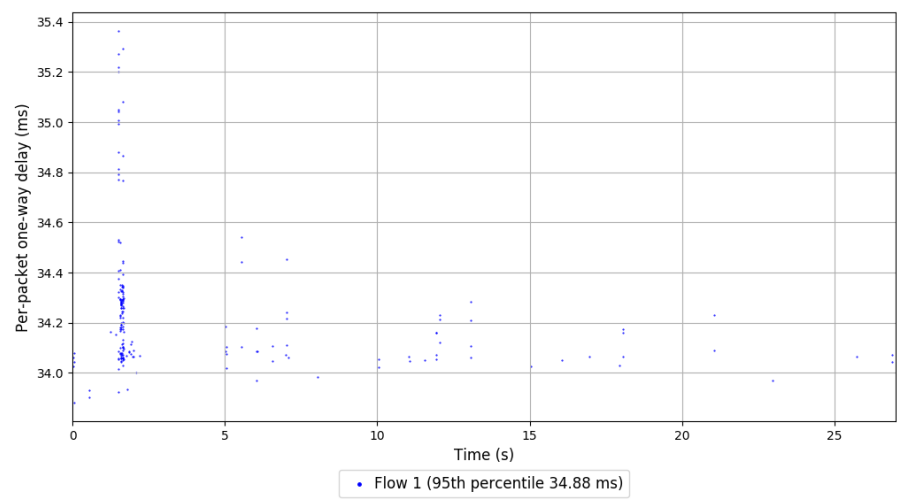
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-11-24 05:20:44
End at: 2019-11-24 05:21:14
Local clock offset: 2.705 ms
Remote clock offset: 4.081 ms


# Below is generated by plot.py at 2019-11-24 07:14:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.551 ms
Loss rate: 0.00%
```
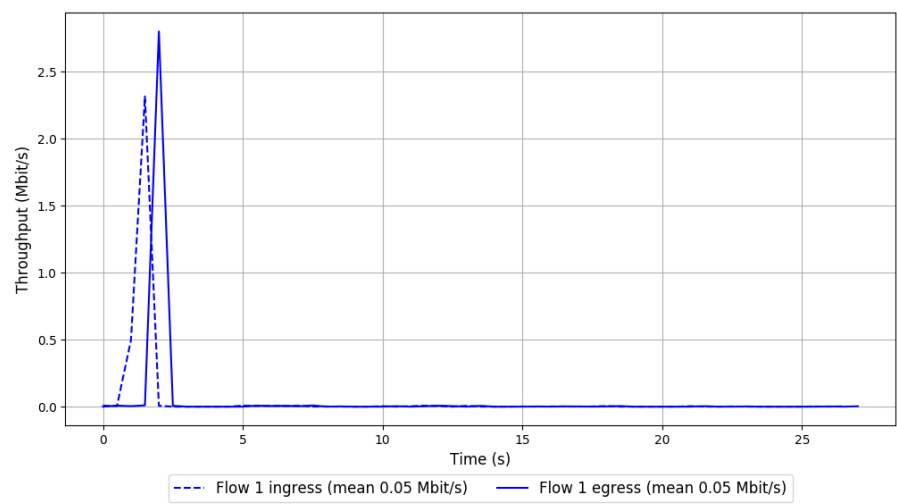
Run 5: Report of WebRTC media — Data Link