Pantheon Report

Generated at 2020-02-17 23:59:43 (UTC).

Data path: AWS India 1 on `ens5` (*local*) →India 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 `nets.org.sg` and have been applied to correct the timestamps in logs.

```
System info:
Linux 4.15.0-1056-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 India 1 to India, 5 runs of 30s each per scheme
(mean of all runs by scheme)
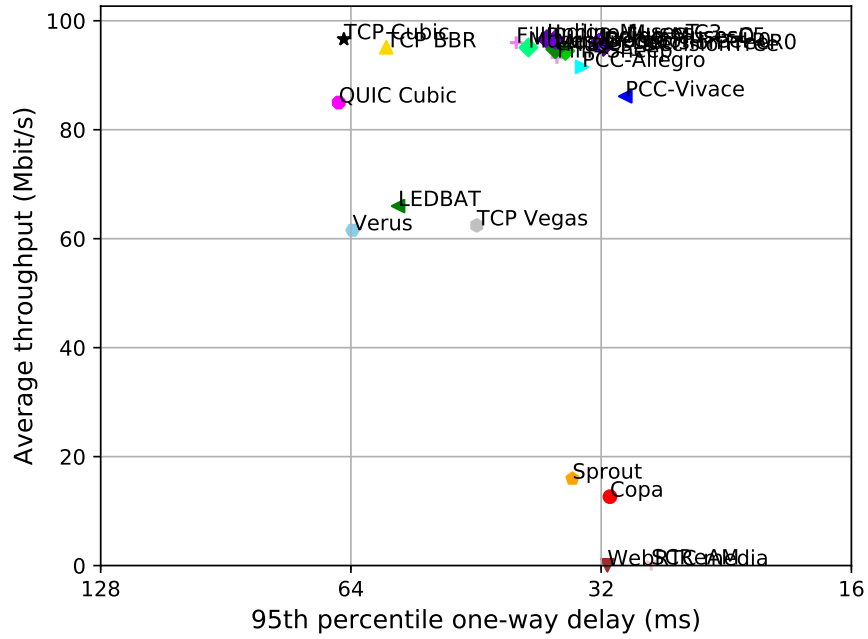
test from AWS India 1 to India, 5 runs of 30s each per scheme
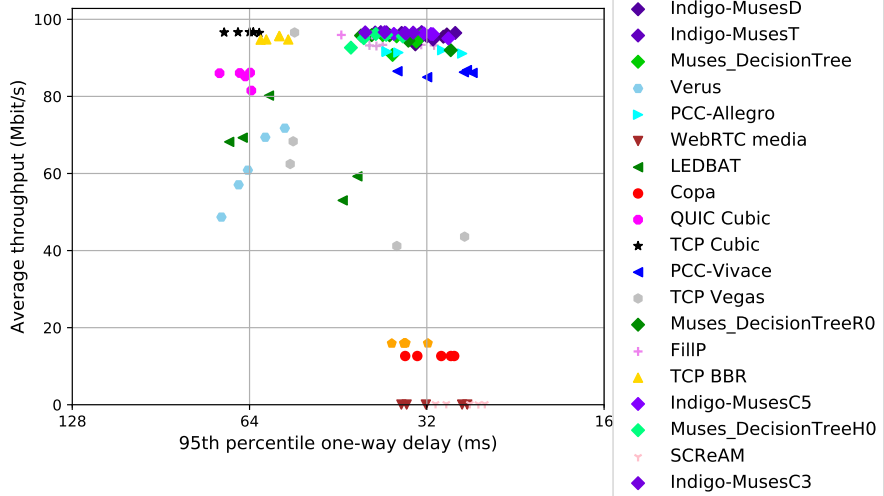
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	95.12	58.03	0.87
Copa	5	12.65	31.23	72.96
TCP Cubic	5	96.61	65.26	0.47
FillP	5	95.98	40.49	0.54
FillP-Sheep	5	93.25	36.17	0.33
Indigo	5	95.21	31.81	0.00
Indigo-MusesC3	5	96.52	36.36	0.09
Indigo-MusesC5	5	95.98	32.18	0.01
Indigo-MusesD	5	95.91	32.15	0.01
Indigo-MusesT	5	96.62	37.19	0.17
LEDBAT	5	65.99	56.16	0.10
Muses_DecisionTree	5	94.47	35.34	0.00
Muses_DecisionTreeH0	5	95.09	39.15	0.10
Muses_DecisionTreeR0	5	94.79	36.33	0.01
PCC-Allegro	5	91.54	33.73	0.52
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	84.99	66.19	1.43
SCReAM	5	0.21	27.86	0.03
Sprout	5	15.96	34.65	0.02
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	62.44	45.16	0.71
Verus	5	61.55	63.72	28.31
PCC-Vivace	5	86.14	29.93	0.00
WebRTC media	5	0.05	31.46	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2020-02-17 21:44:20
End at: 2020-02-17 21:44:50
Local clock offset: 6.494 ms
Remote clock offset: -3.247 ms

# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 56.949 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 95.67 Mbit/s
95th percentile per-packet one-way delay: 56.949 ms
Loss rate: 0.98%
```
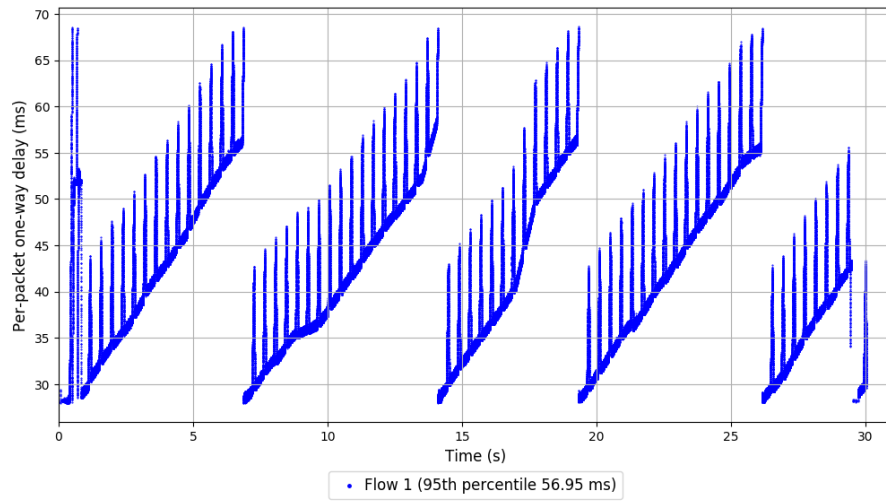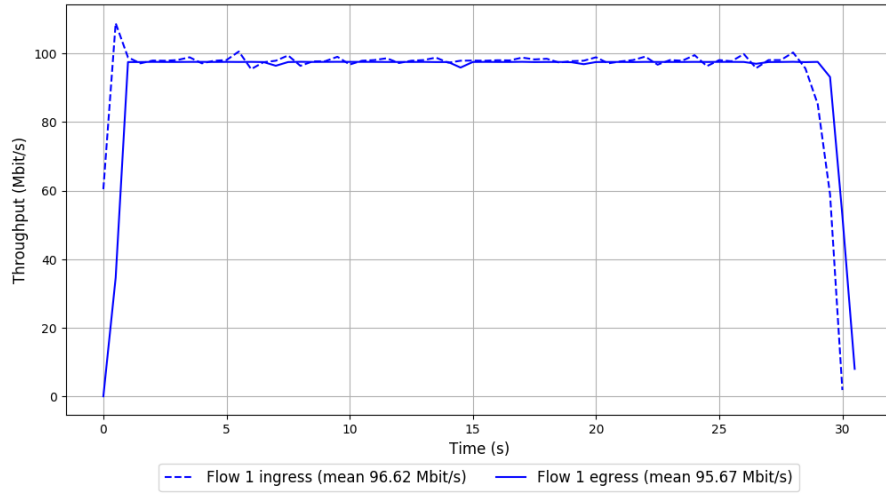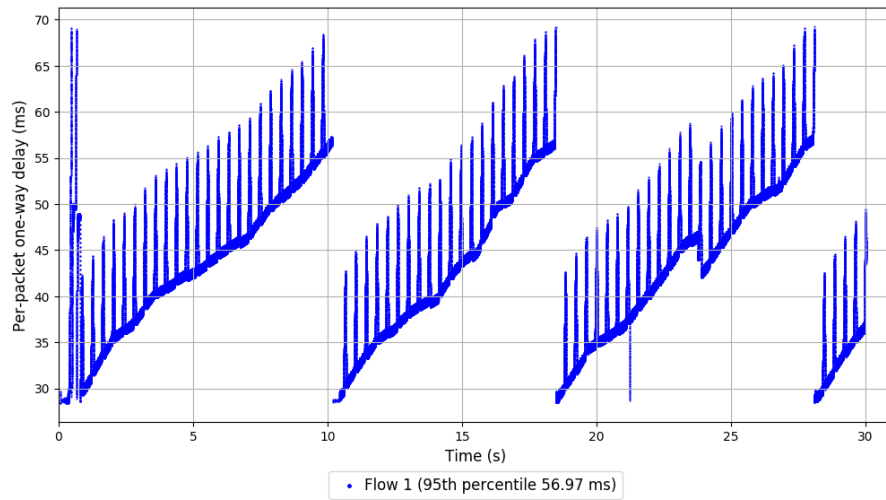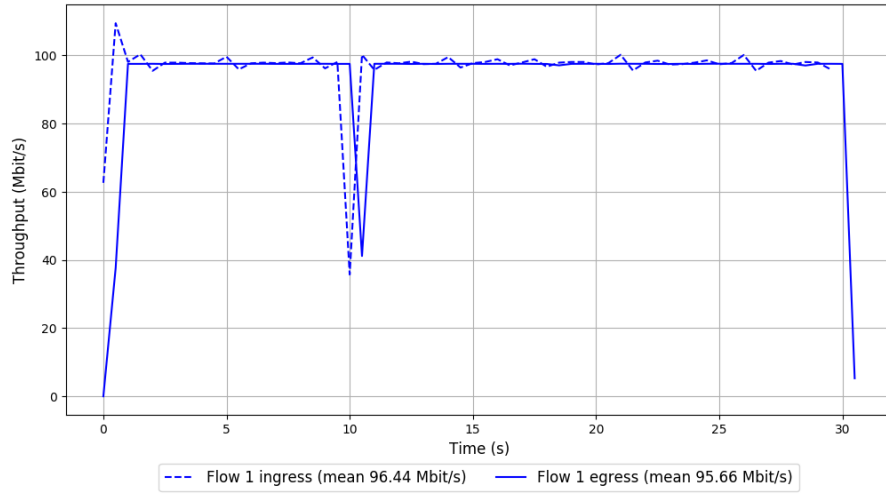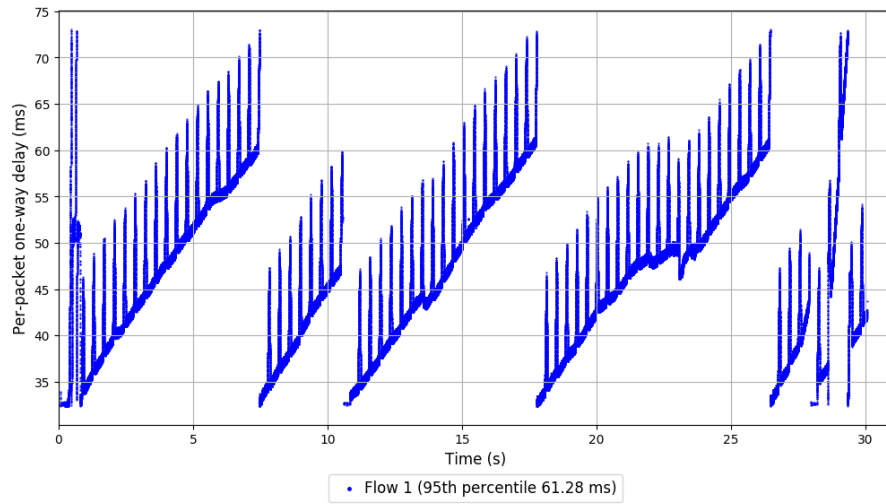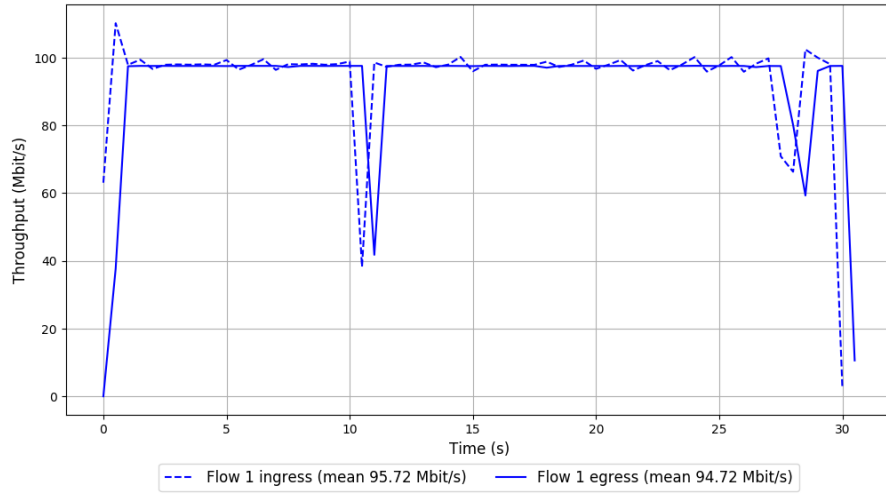
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2020-02-17 22:11:41
End at: 2020-02-17 22:12:11
Local clock offset: 5.931 ms
Remote clock offset: -1.314 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 56.974 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 95.66 Mbit/s
95th percentile per-packet one-way delay: 56.974 ms
Loss rate: 0.75%
```

Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 96.44 Mbit/s) --- Flow 1 egress (mean 95.66 Mbit/s)

• Flow 1 (95th percentile 56.97 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2020-02-17 22:38:55
End at: 2020-02-17 22:39:25
Local clock offset: 1.493 ms
Remote clock offset: -1.714 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 61.285 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 94.72 Mbit/s
95th percentile per-packet one-way delay: 61.285 ms
Loss rate: 1.00%
```
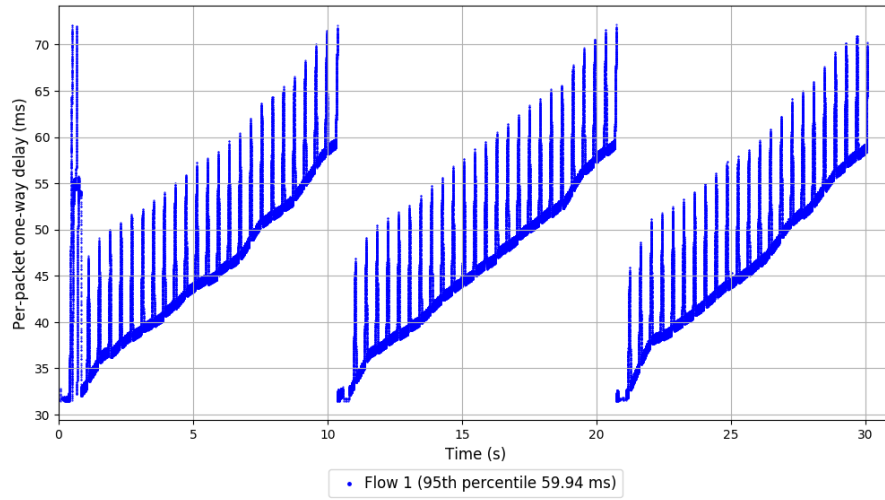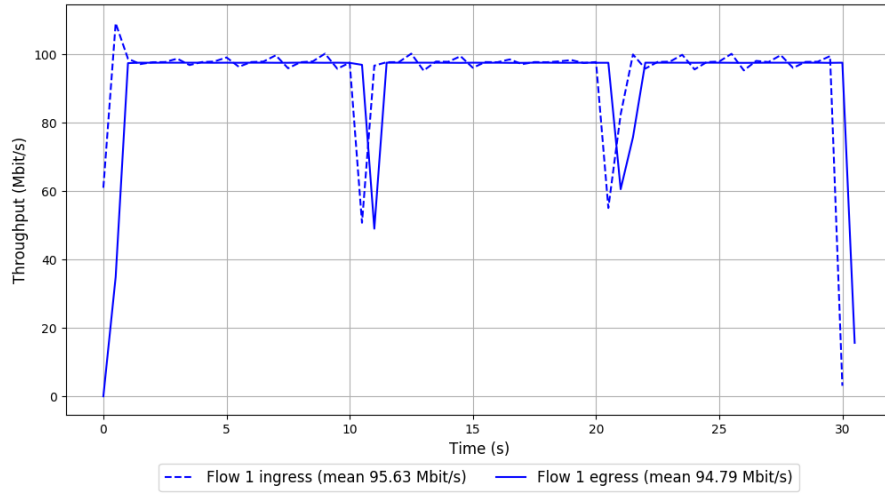
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2020-02-17 23:06:07
End at: 2020-02-17 23:06:37
Local clock offset: 6.237 ms
Remote clock offset: -3.077 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 55.010 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 94.77 Mbit/s
95th percentile per-packet one-way delay: 55.010 ms
Loss rate: 0.86%
```
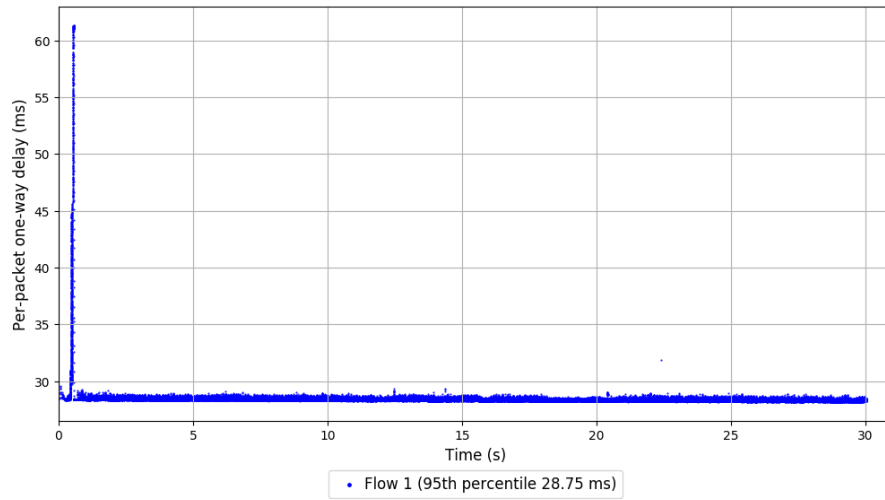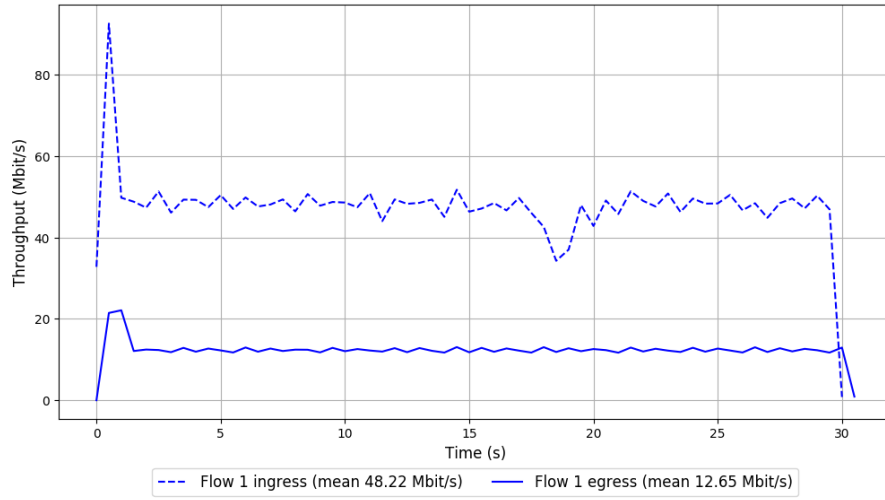
Run 4: Report of TCP BBR — Data Link
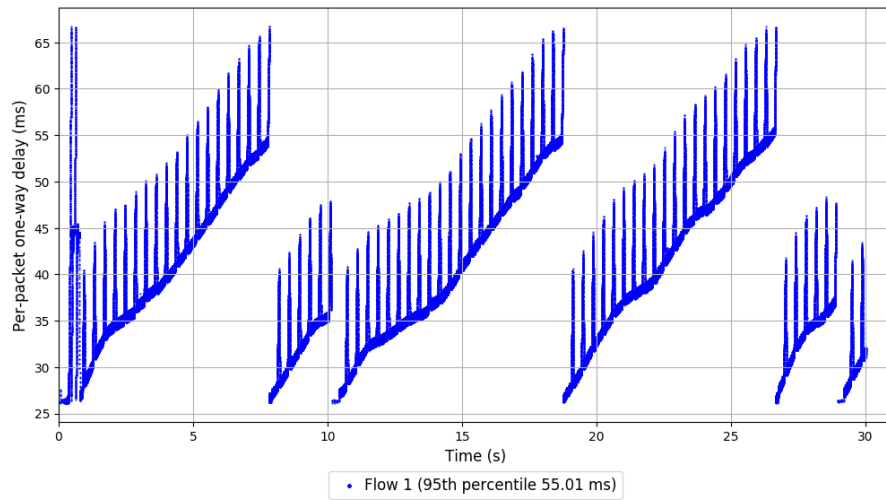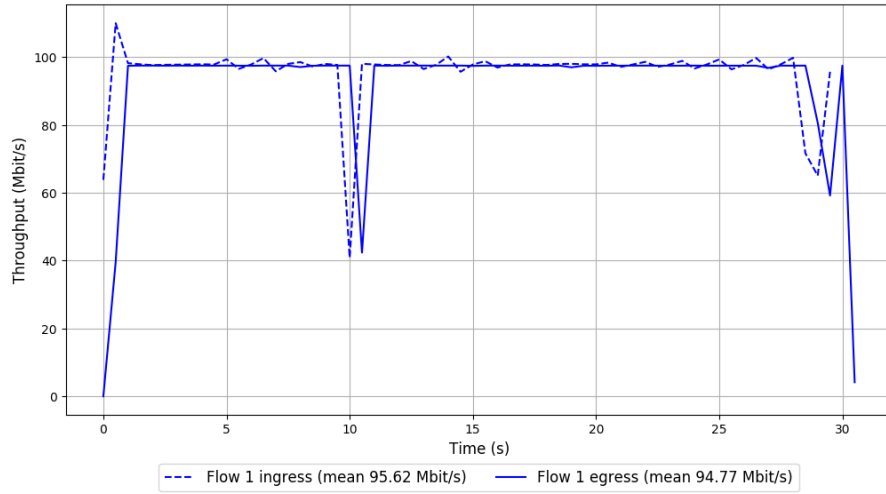
```
Run 5: Statistics of TCP BBR

Start at: 2020-02-17 23:33:21
End at: 2020-02-17 23:33:51
Local clock offset: 1.005 ms
Remote clock offset: -5.944 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 59.938 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 59.938 ms
Loss rate: 0.76%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 95.63 Mbit/s)　　　Flow 1 egress (mean 94.79 Mbit/s)

• Flow 1 (95th percentile 59.94 ms)

```
Run 1: Statistics of Copa

Start at: 2020-02-17 21:36:27
End at: 2020-02-17 21:36:57
Local clock offset: 6.009 ms
Remote clock offset: -2.48 ms

# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 28.752 ms
Loss rate: 73.77%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 28.752 ms
Loss rate: 73.77%
```

Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 48.22 Mbit/s) --- Flow 1 egress (mean 12.65 Mbit/s)

Flow 1 (95th percentile 28.75 ms)

```
Run 2: Statistics of Copa

Start at: 2020-02-17 22:03:48
End at: 2020-02-17 22:04:18
Local clock offset: 5.503 ms
Remote clock offset: -1.347 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 30.243 ms
Loss rate: 73.66%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 30.243 ms
Loss rate: 73.66%
```

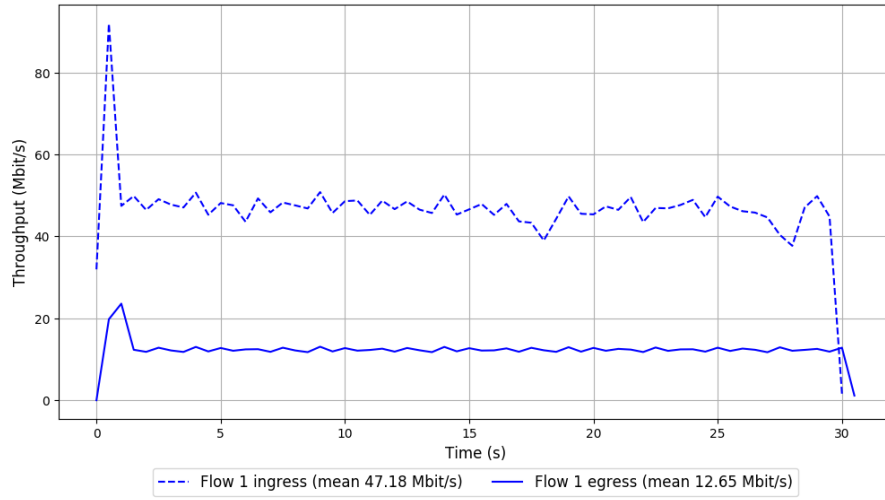Run 2: Report of Copa — Data Link
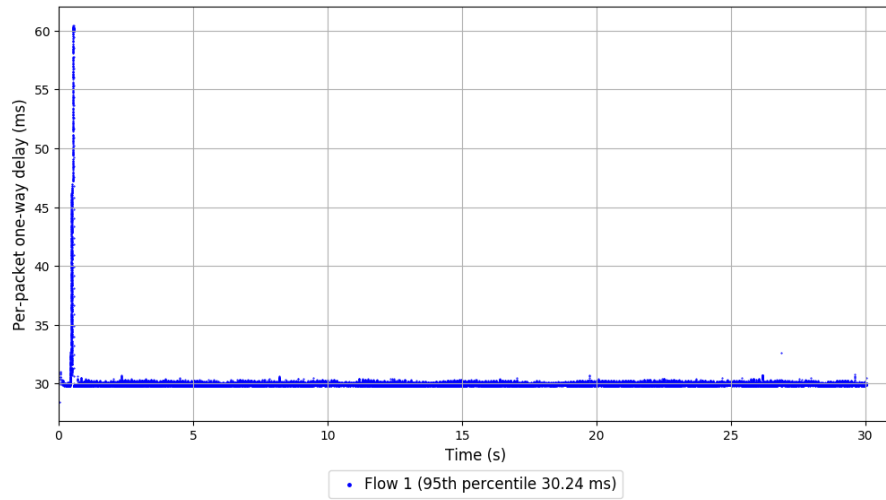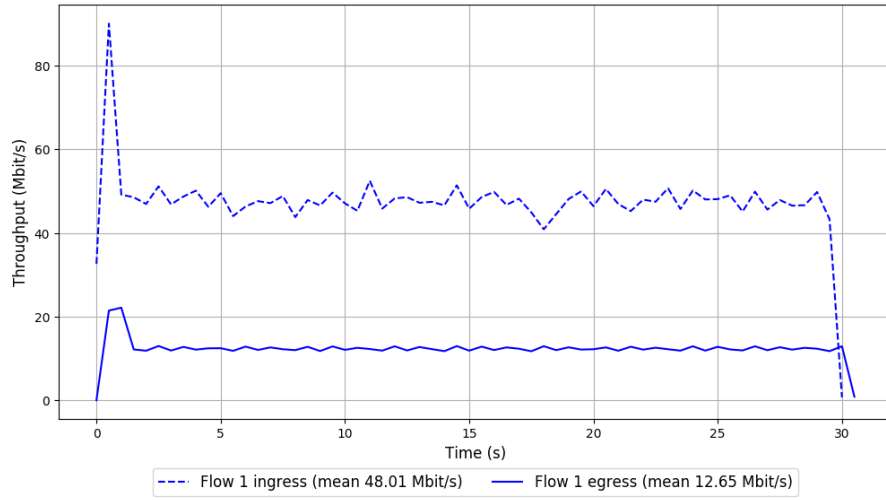
```
Run 3: Statistics of Copa

Start at: 2020-02-17 22:31:02
End at: 2020-02-17 22:31:32
Local clock offset: 2.803 ms
Remote clock offset: -3.381 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 33.213 ms
Loss rate: 73.33%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 33.213 ms
Loss rate: 73.33%
```

Run 3: Report of Copa — Data Link
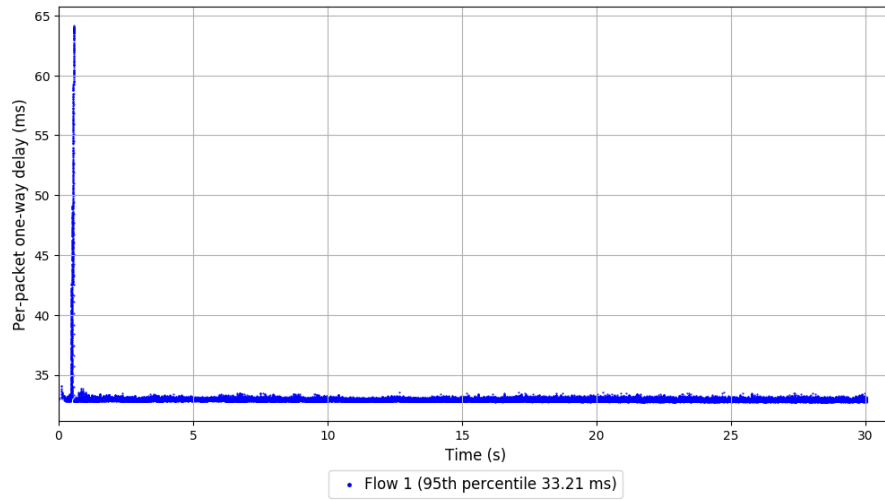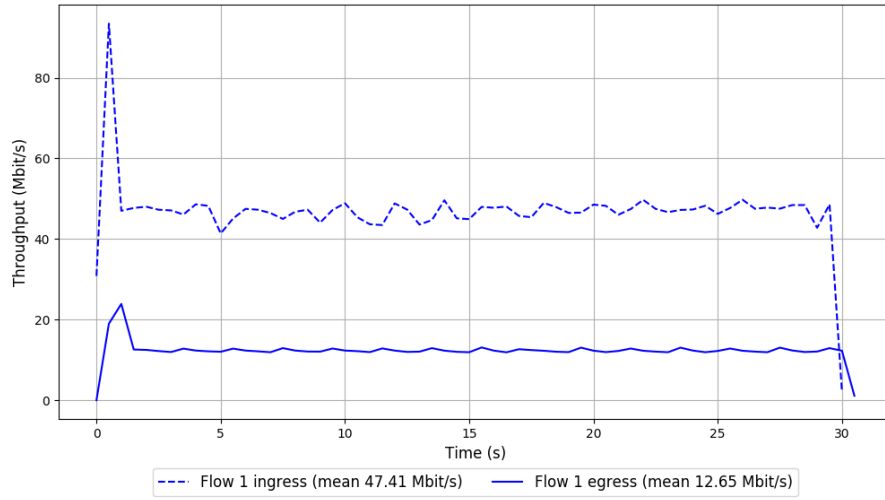
```
Run 4: Statistics of Copa

Start at: 2020-02-17 22:58:16
End at: 2020-02-17 22:58:46
Local clock offset: 1.382 ms
Remote clock offset: -2.593 ms

# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 34.824 ms
Loss rate: 73.19%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 34.824 ms
Loss rate: 73.19%
```

Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 47.18 Mbit/s) — Flow 1 egress (mean 12.65 Mbit/s)

Flow 1 (95th percentile 34.82 ms)
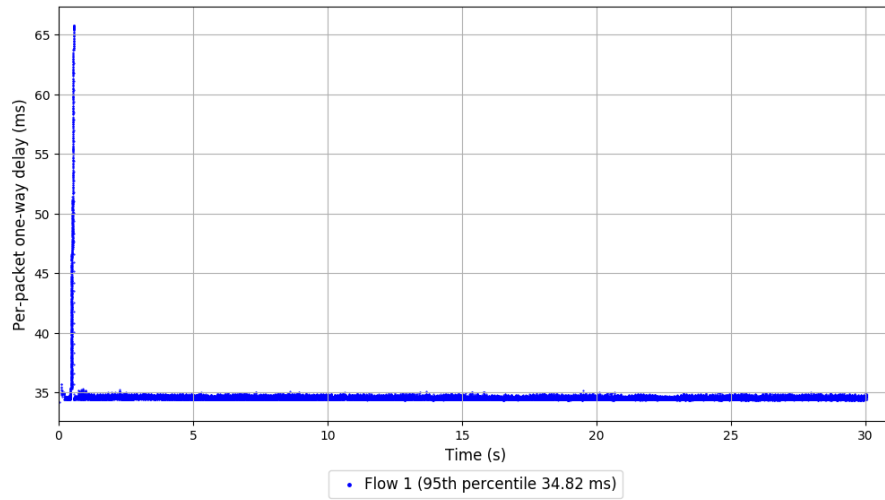
```
Run 5: Statistics of Copa

Start at: 2020-02-17 23:25:28
End at: 2020-02-17 23:25:58
Local clock offset: 6.417 ms
Remote clock offset: -3.472 ms


# Below is generated by plot.py at 2020-02-17 23:48:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 29.124 ms
Loss rate: 70.85%
-- Flow 1:
Average throughput: 12.65 Mbit/s
95th percentile per-packet one-way delay: 29.124 ms
Loss rate: 70.85%
```
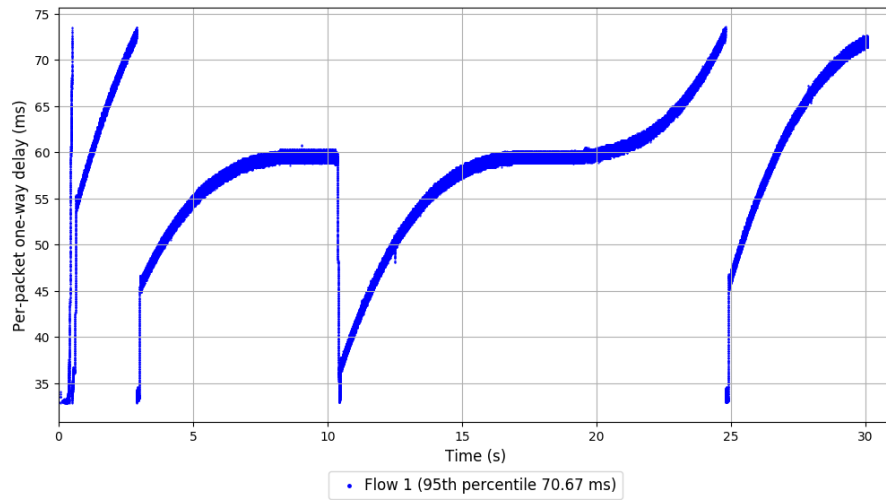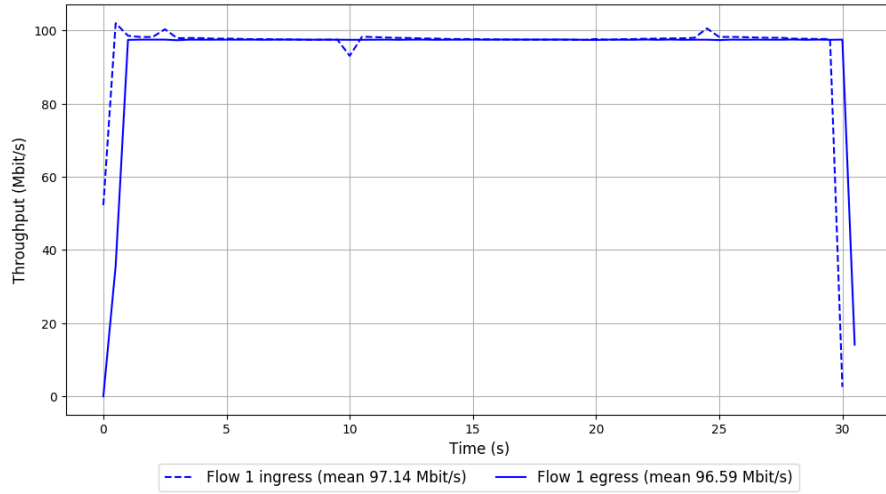
Run 5: Report of Copa — Data Link
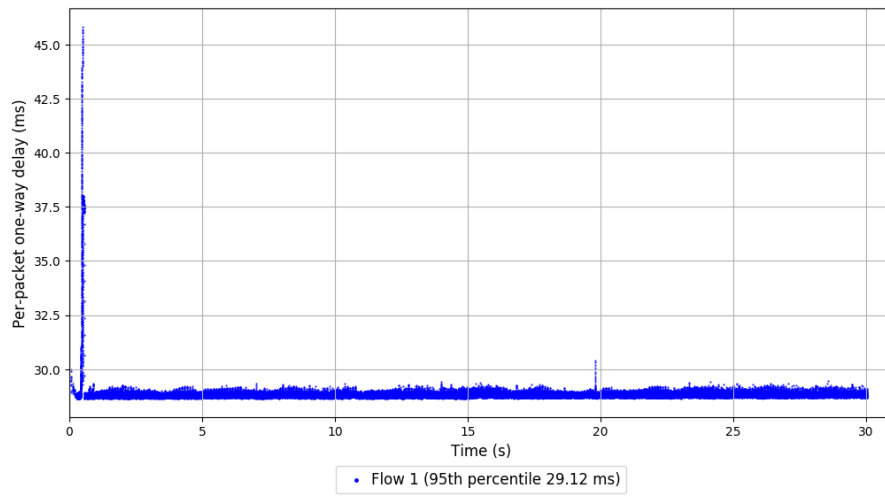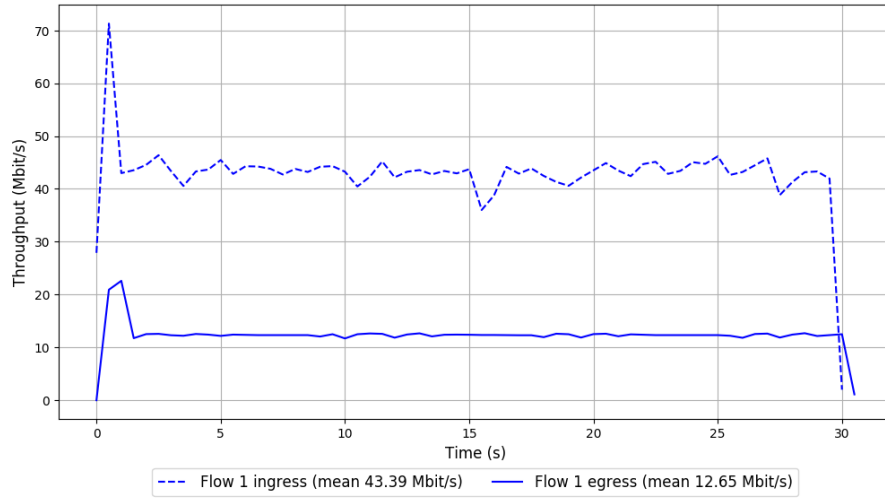
```
Run 1: Statistics of TCP Cubic

Start at: 2020-02-17 21:42:06
End at: 2020-02-17 21:42:36
Local clock offset: 6.927 ms
Remote clock offset: -2.82 ms


# Below is generated by plot.py at 2020-02-17 23:48:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 63.072 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 63.072 ms
Loss rate: 0.47%
```
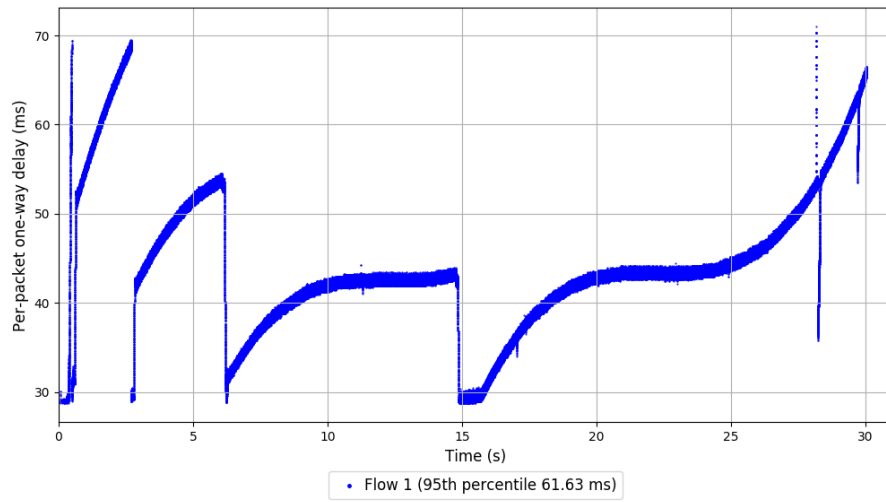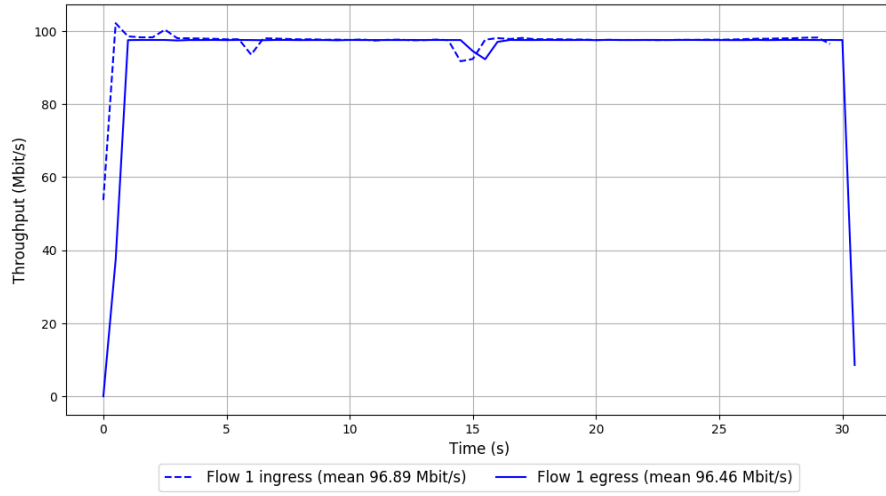
Run 1: Report of TCP Cubic — Data Link
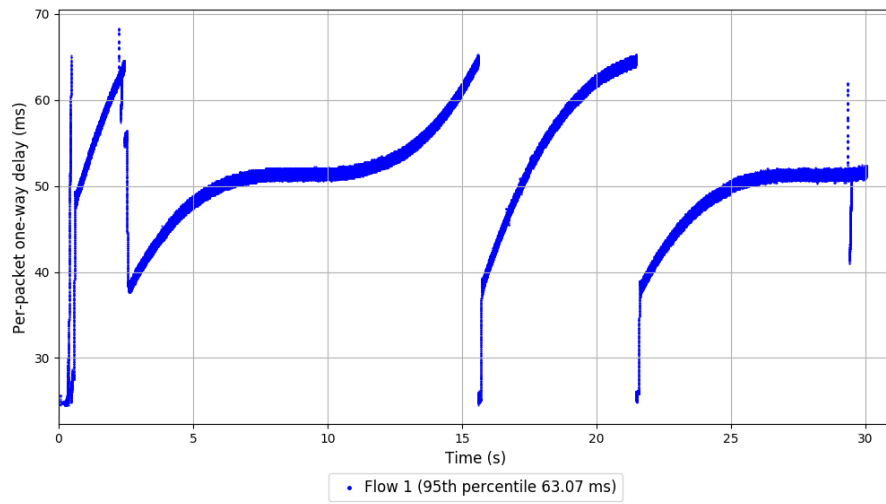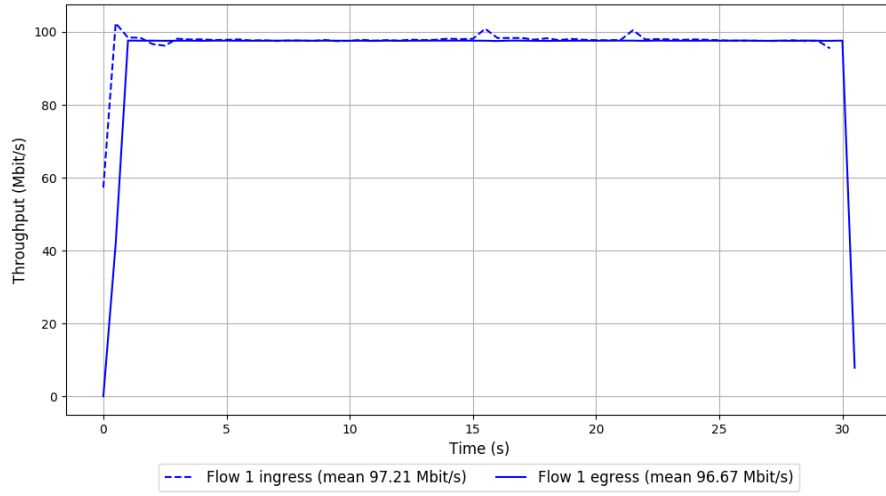
```
Run 2: Statistics of TCP Cubic

Start at: 2020-02-17 22:09:27
End at: 2020-02-17 22:09:57
Local clock offset: 1.54 ms
Remote clock offset: -3.391 ms


# Below is generated by plot.py at 2020-02-17 23:48:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.59 Mbit/s
95th percentile per-packet one-way delay: 70.673 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 96.59 Mbit/s
95th percentile per-packet one-way delay: 70.673 ms
Loss rate: 0.48%
```

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.14 Mbit/s) --- Flow 1 egress (mean 96.59 Mbit/s)

Flow 1 (95th percentile 70.67 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2020-02-17 22:36:41
End at: 2020-02-17 22:37:11
Local clock offset: 6.096 ms
Remote clock offset: -3.013 ms


# Below is generated by plot.py at 2020-02-17 23:48:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 61.626 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 96.46 Mbit/s
95th percentile per-packet one-way delay: 61.626 ms
Loss rate: 0.36%
```

Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2020-02-17 23:03:53
End at: 2020-02-17 23:04:23
Local clock offset: 6.088 ms
Remote clock offset: -2.779 ms


# Below is generated by plot.py at 2020-02-17 23:49:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 63.975 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 96.67 Mbit/s
95th percentile per-packet one-way delay: 63.975 ms
Loss rate: 0.47%
```

Run 4: Report of TCP Cubic — Data Link
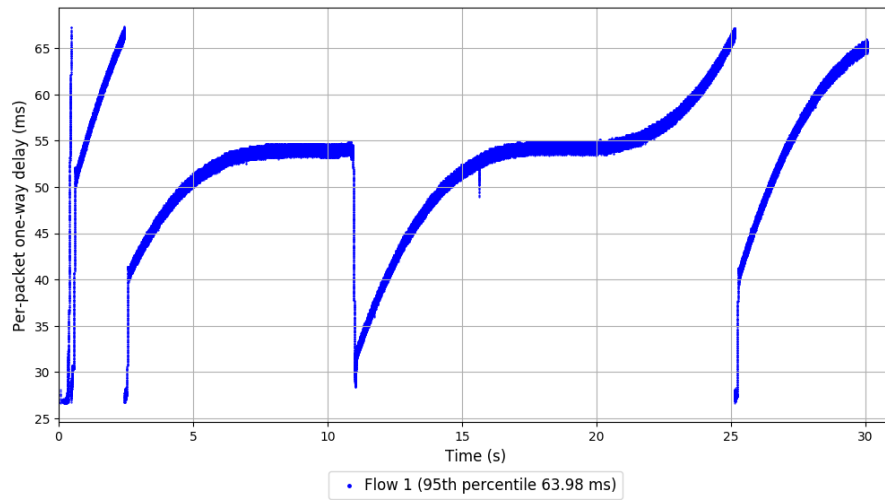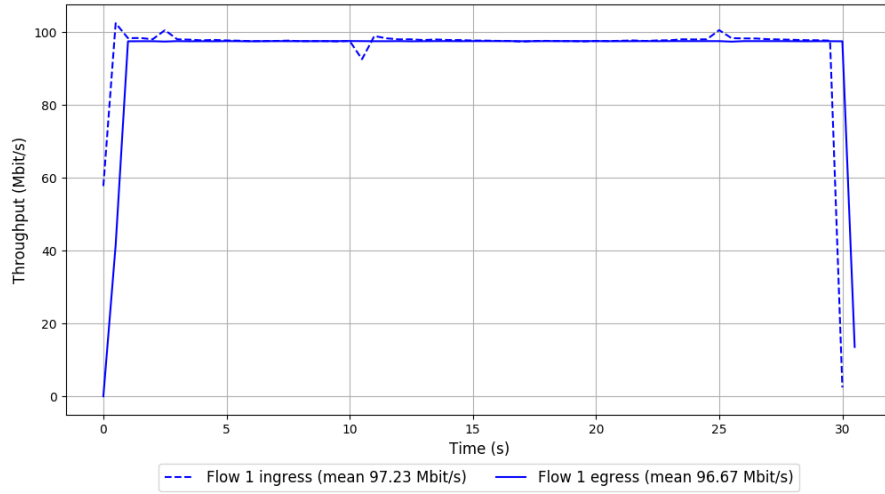
```
Run 5: Statistics of TCP Cubic

Start at: 2020-02-17 23:31:06
End at: 2020-02-17 23:31:36
Local clock offset: 5.245 ms
Remote clock offset: -3.297 ms


# Below is generated by plot.py at 2020-02-17 23:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 66.959 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 66.959 ms
Loss rate: 0.57%
```
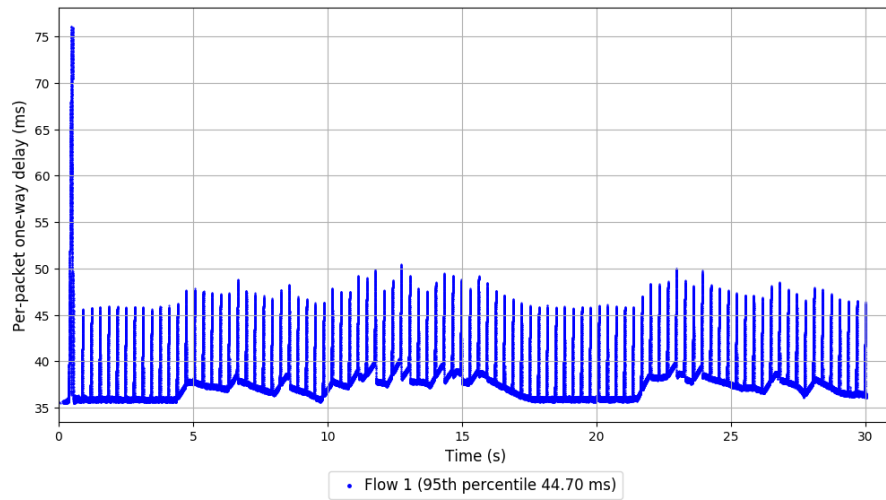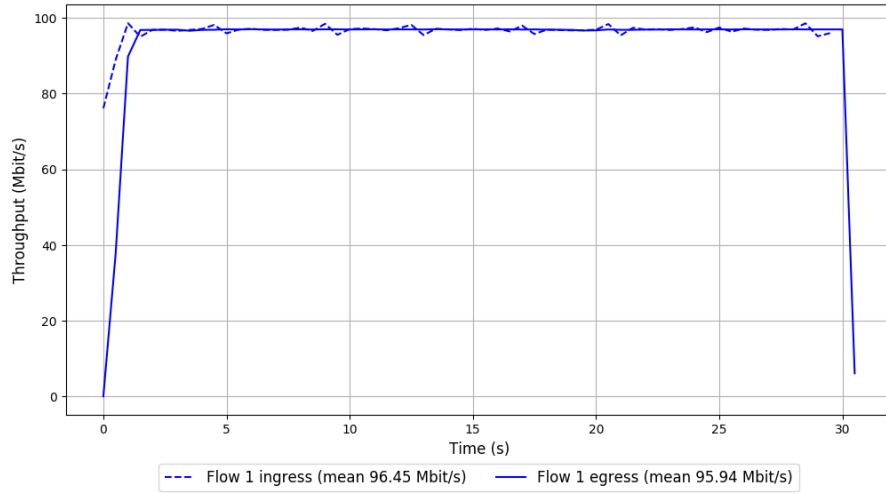
Run 5: Report of TCP Cubic — Data Link
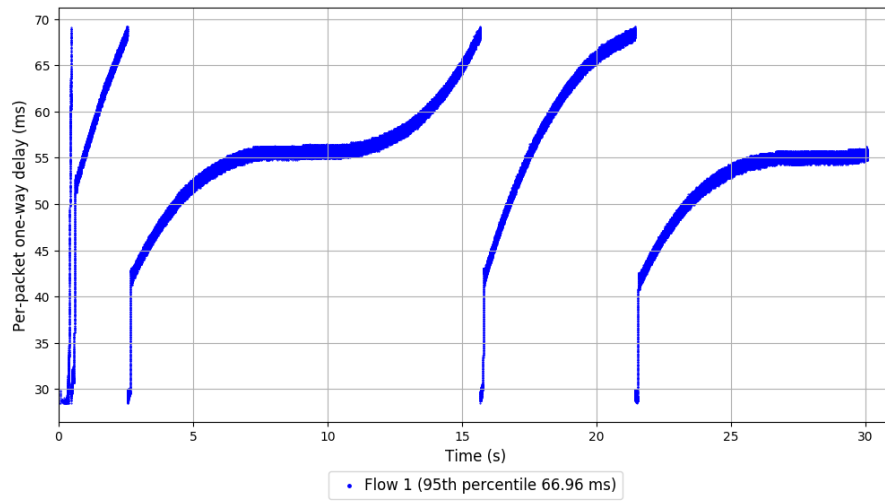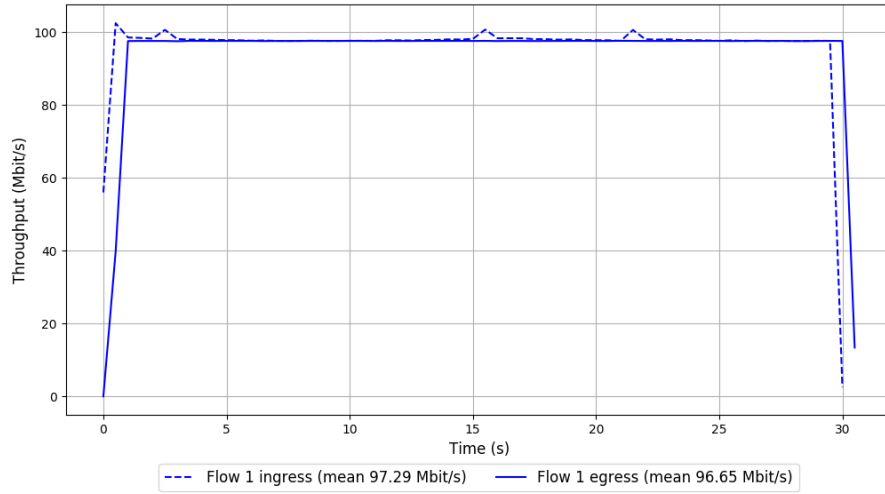
```
Run 1: Statistics of FillP

Start at: 2020-02-17 21:45:29
End at: 2020-02-17 21:45:59
Local clock offset: 6.204 ms
Remote clock offset: -0.813 ms

# Below is generated by plot.py at 2020-02-17 23:49:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 39.612 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 95.92 Mbit/s
95th percentile per-packet one-way delay: 39.612 ms
Loss rate: 0.59%
```
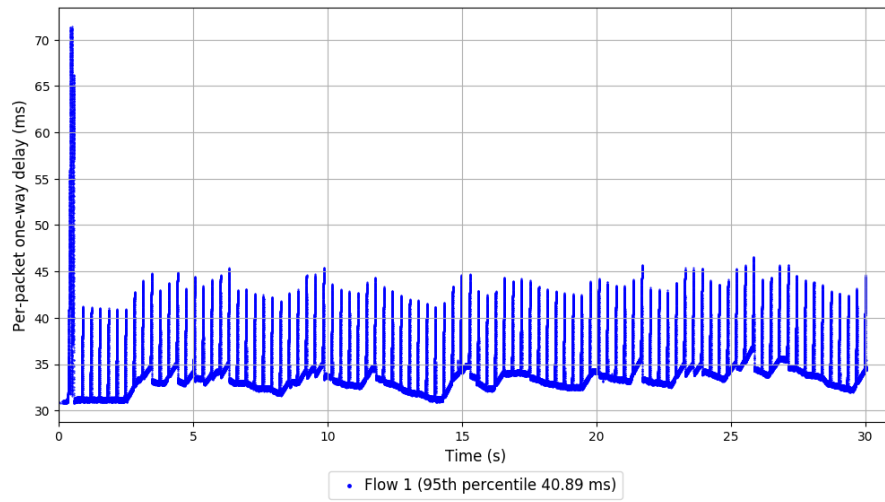
Run 1: Report of FillP — Data Link
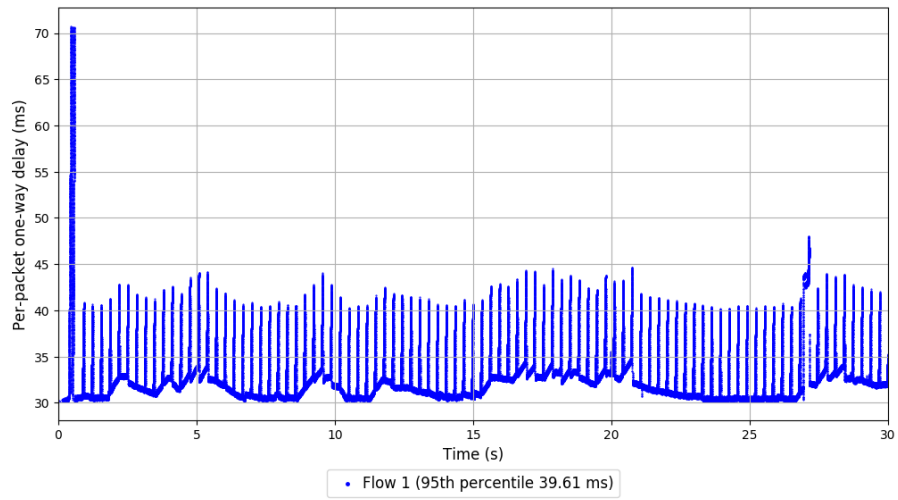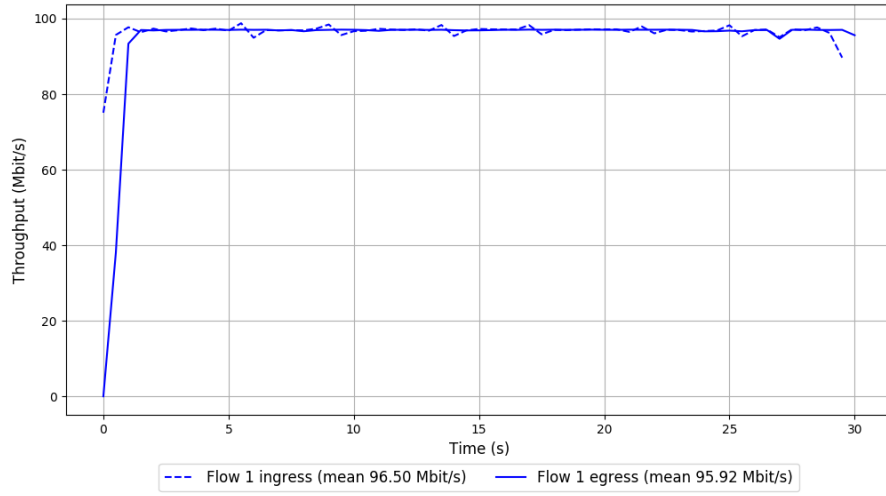
```
Run 2: Statistics of FillP

Start at: 2020-02-17 22:12:50
End at: 2020-02-17 22:13:20
Local clock offset: 0.963 ms
Remote clock offset: -0.518 ms


# Below is generated by plot.py at 2020-02-17 23:49:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 44.703 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 95.94 Mbit/s
95th percentile per-packet one-way delay: 44.703 ms
Loss rate: 0.53%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 96.45 Mbit/s) --- Flow 1 egress (mean 95.94 Mbit/s)

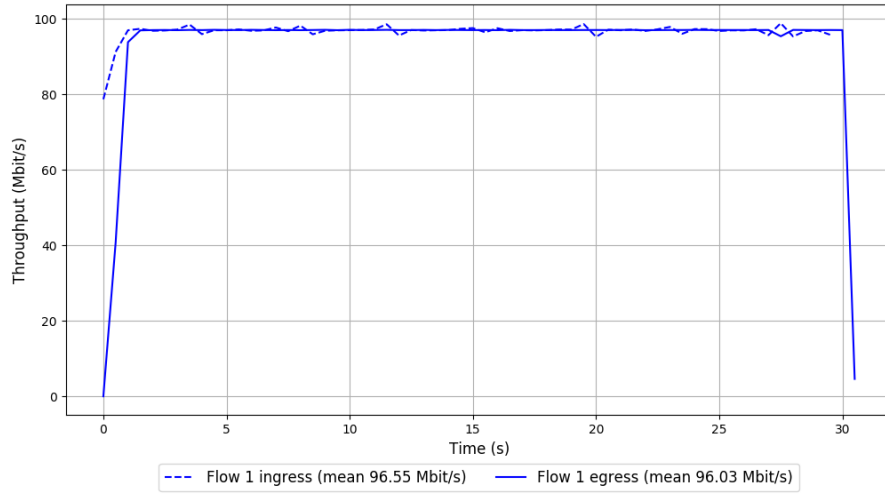Flow 1 (95th percentile 44.70 ms)

```
Run 3: Statistics of FillP

Start at: 2020-02-17 22:40:04
End at: 2020-02-17 22:40:34
Local clock offset: 1.53 ms
Remote clock offset: -2.738 ms

# Below is generated by plot.py at 2020-02-17 23:49:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 40.894 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 96.06 Mbit/s
95th percentile per-packet one-way delay: 40.894 ms
Loss rate: 0.54%
```

Run 3: Report of FillP — Data Link
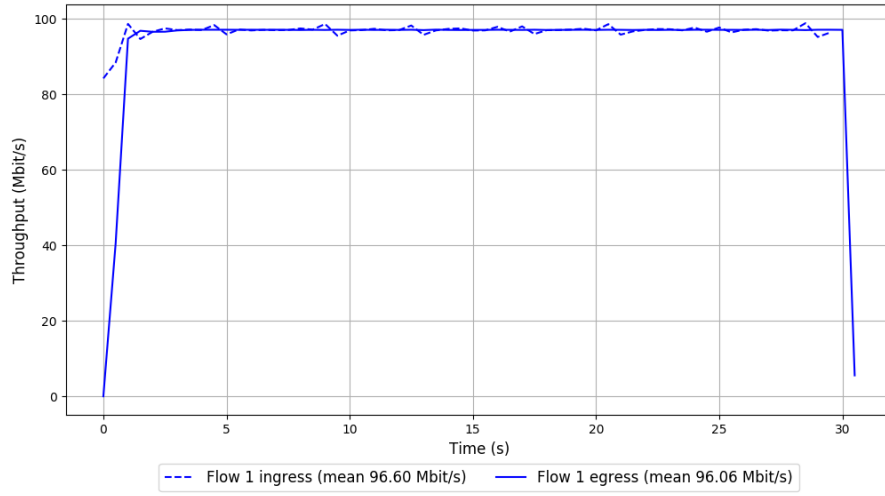
```
Run 4: Statistics of FillP

Start at: 2020-02-17 23:07:17
End at: 2020-02-17 23:07:47
Local clock offset: 6.343 ms
Remote clock offset: -2.919 ms


# Below is generated by plot.py at 2020-02-17 23:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.03 Mbit/s
95th percentile per-packet one-way delay: 37.024 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 96.03 Mbit/s
95th percentile per-packet one-way delay: 37.024 ms
Loss rate: 0.52%
```

Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 96.55 Mbit/s)   Flow 1 egress (mean 96.03 Mbit/s)

Flow 1 (95th percentile 37.02 ms)
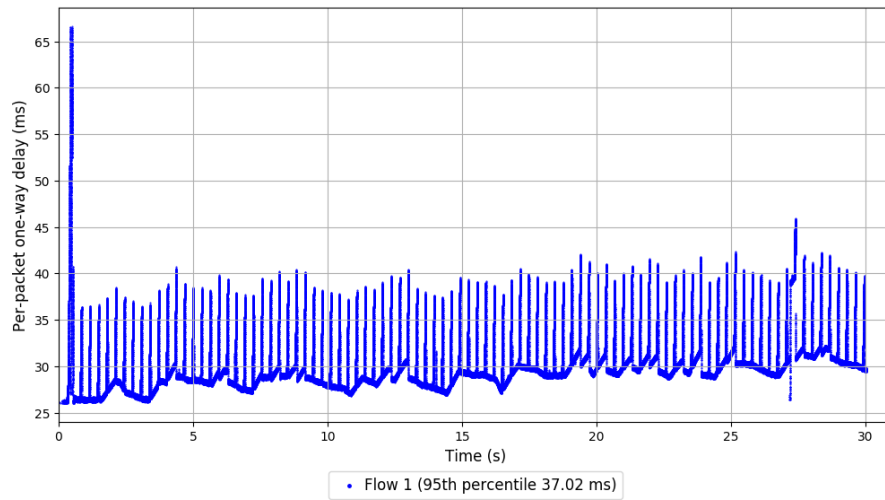
```
Run 5: Statistics of FillP

Start at: 2020-02-17 23:34:30
End at: 2020-02-17 23:35:00
Local clock offset: 0.797 ms
Remote clock offset: -5.552 ms

# Below is generated by plot.py at 2020-02-17 23:50:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.97 Mbit/s
95th percentile per-packet one-way delay: 40.203 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 95.97 Mbit/s
95th percentile per-packet one-way delay: 40.203 ms
Loss rate: 0.52%
```

Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 96.47 Mbit/s)   Flow 1 egress (mean 95.97 Mbit/s)

Flow 1 (95th percentile 40.20 ms)
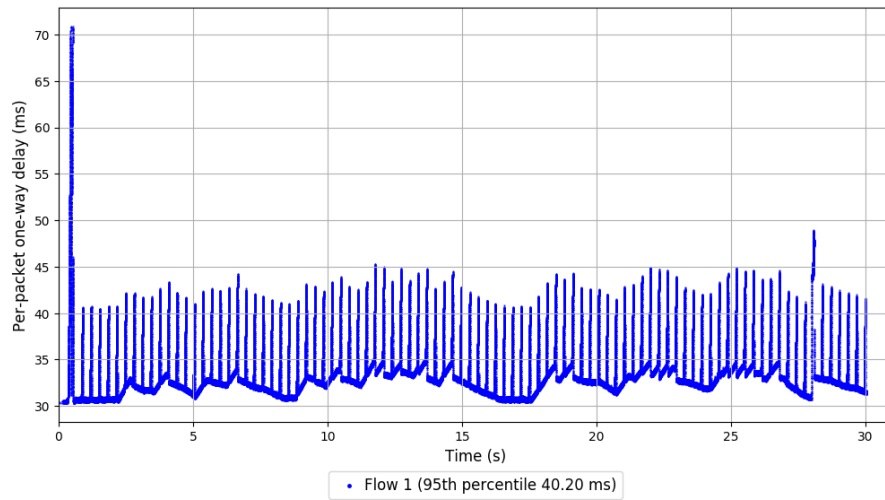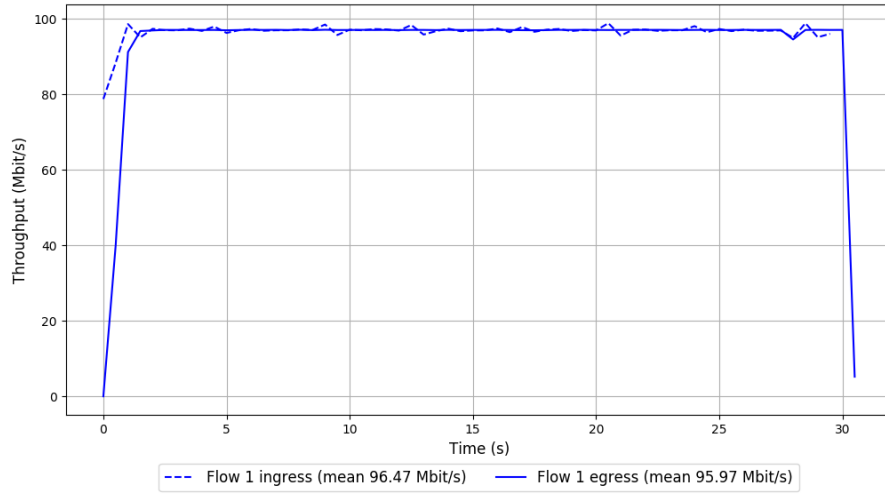
```
Run 1: Statistics of FillP-Sheep

Start at: 2020-02-17 21:37:34
End at: 2020-02-17 21:38:04
Local clock offset: 6.289 ms
Remote clock offset: 0.116 ms


# Below is generated by plot.py at 2020-02-17 23:50:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.38 Mbit/s
95th percentile per-packet one-way delay: 32.710 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 93.38 Mbit/s
95th percentile per-packet one-way delay: 32.710 ms
Loss rate: 0.41%
```
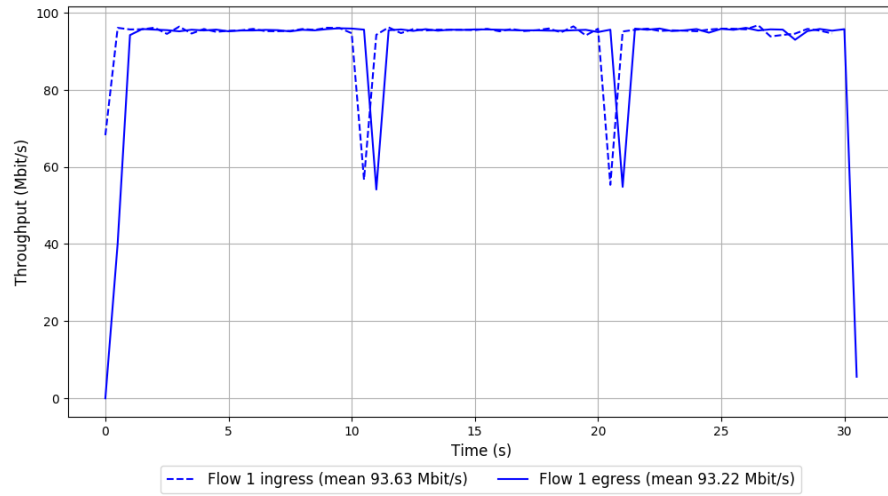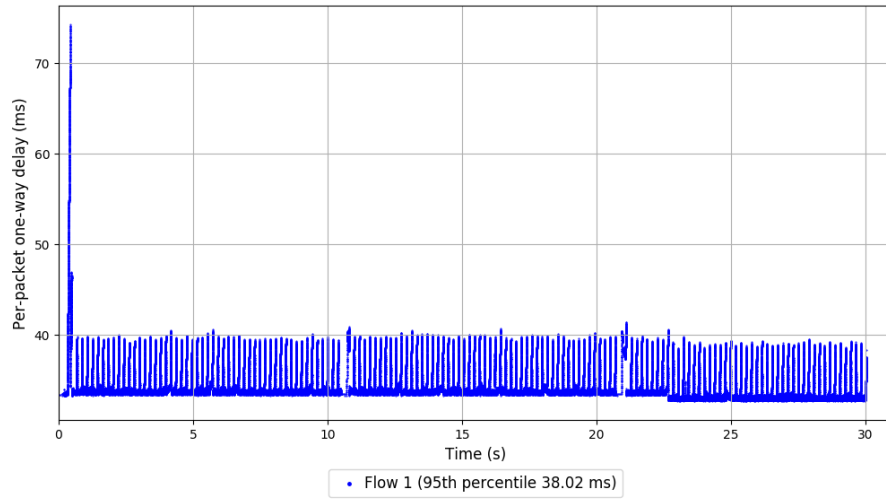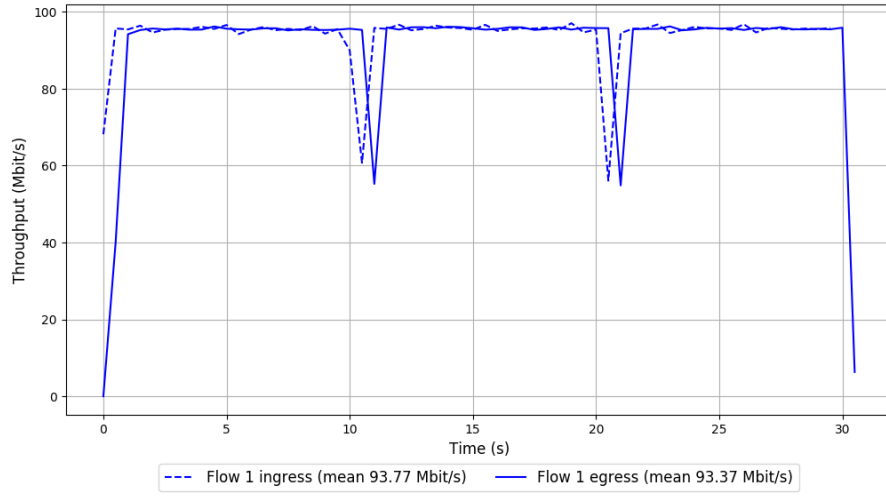
Run 1: Report of FillP-Sheep — Data Link
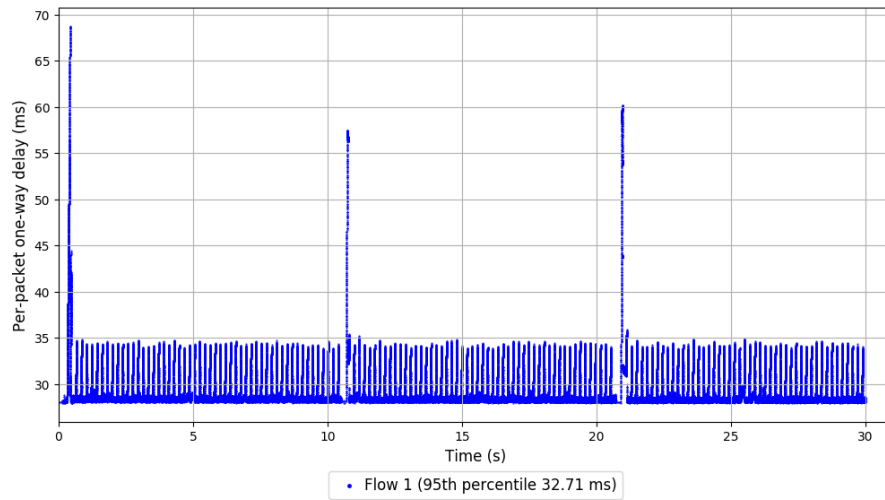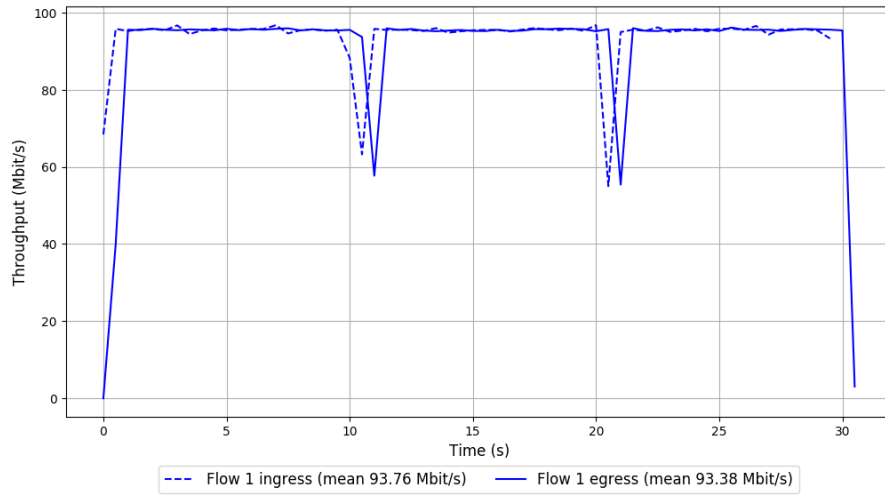
```
Run 2: Statistics of FillP-Sheep

Start at: 2020-02-17 22:04:54
End at: 2020-02-17 22:05:24
Local clock offset: 1.46 ms
Remote clock offset: -0.864 ms


# Below is generated by plot.py at 2020-02-17 23:50:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.22 Mbit/s
95th percentile per-packet one-way delay: 40.043 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 93.22 Mbit/s
95th percentile per-packet one-way delay: 40.043 ms
Loss rate: 0.43%
```
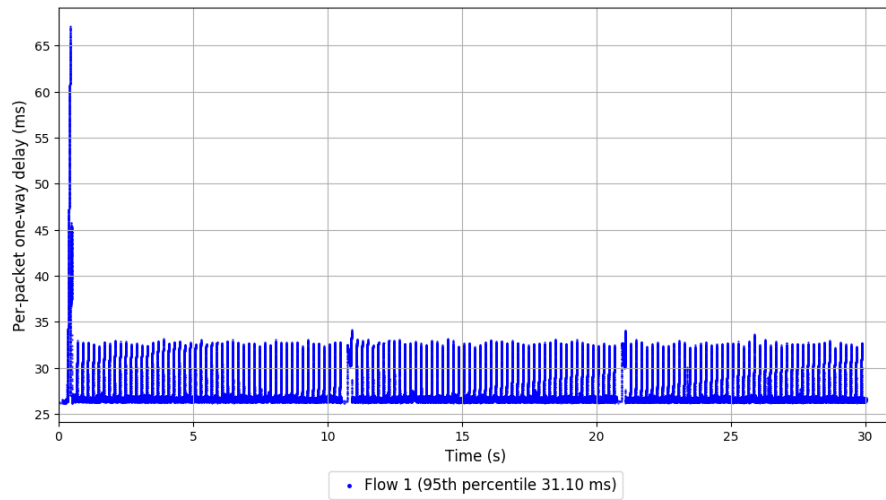
Run 2: Report of FillP-Sheep — Data Link
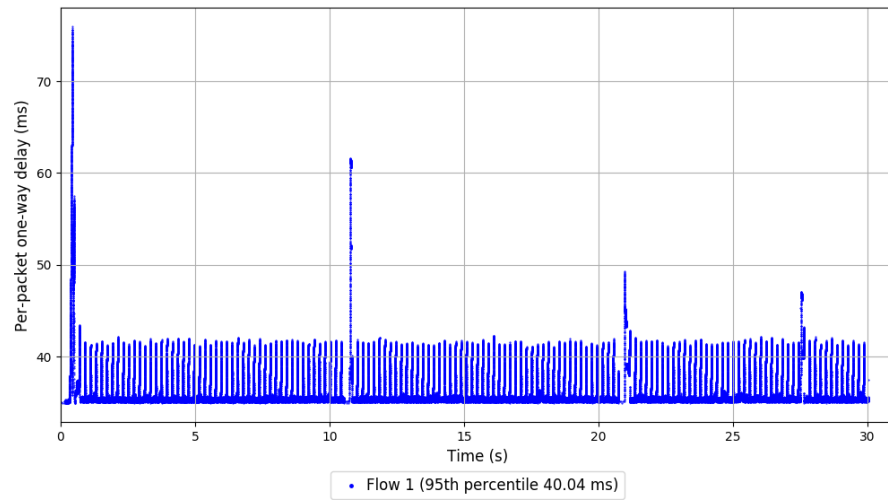
```
Run 3: Statistics of FillP-Sheep

Start at: 2020-02-17 22:32:08
End at: 2020-02-17 22:32:39
Local clock offset: 1.838 ms
Remote clock offset: -1.402 ms


# Below is generated by plot.py at 2020-02-17 23:50:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.37 Mbit/s
95th percentile per-packet one-way delay: 38.019 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 93.37 Mbit/s
95th percentile per-packet one-way delay: 38.019 ms
Loss rate: 0.41%
```

Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 93.77 Mbit/s)   Flow 1 egress (mean 93.37 Mbit/s)

Flow 1 (95th percentile 38.02 ms)

Run 4: Statistics of FillP-Sheep

Start at: 2020-02-17 22:59:22
End at: 2020-02-17 22:59:52
Local clock offset: 7.19 ms
Remote clock offset: -4.679 ms

Below is generated by plot.py at 2020-02-17 23:50:47
Datalink statistics
-- Total of 1 flow:
Average throughput: 93.23 Mbit/s
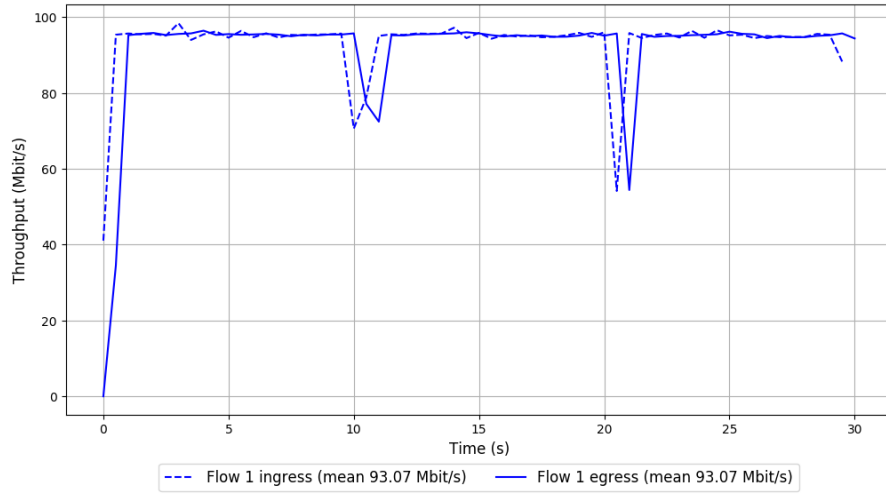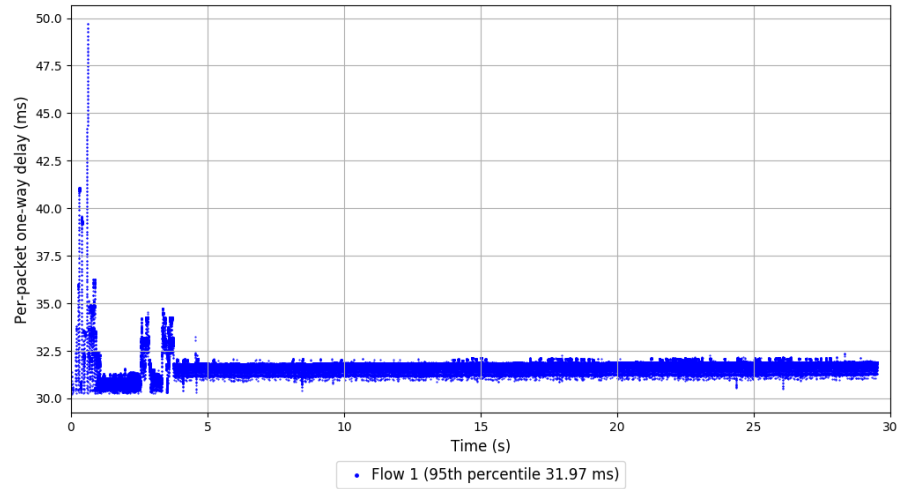95th percentile per-packet one-way delay: 31.104 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 93.23 Mbit/s
95th percentile per-packet one-way delay: 31.104 ms
Loss rate: 0.41%

Run 4: Report of FillP-Sheep — Data Link
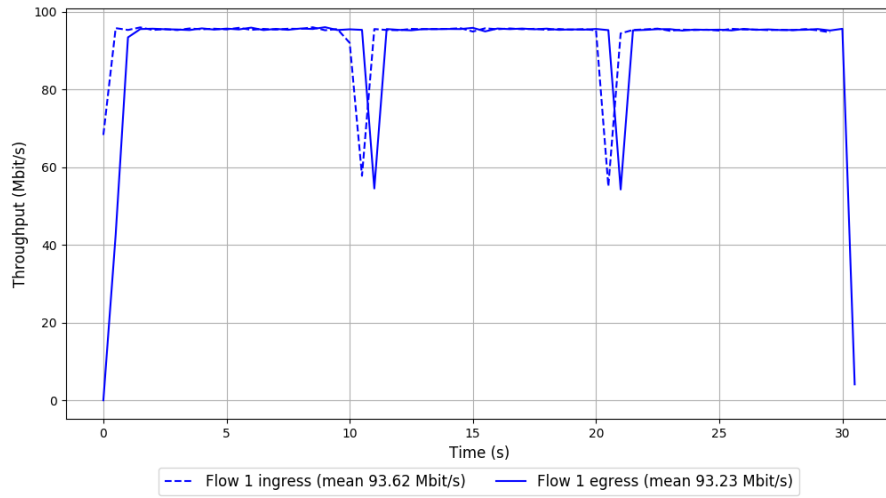
```
Run 5: Statistics of FillP-Sheep

Start at: 2020-02-17 23:26:35
End at: 2020-02-17 23:27:05
Local clock offset: 2.123 ms
Remote clock offset: -3.356 ms


# Below is generated by plot.py at 2020-02-17 23:50:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.07 Mbit/s
95th percentile per-packet one-way delay: 38.971 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.07 Mbit/s
95th percentile per-packet one-way delay: 38.971 ms
Loss rate: 0.00%
```

Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 93.07 Mbit/s)   Flow 1 egress (mean 93.07 Mbit/s)

Flow 1 (95th percentile 38.97 ms)
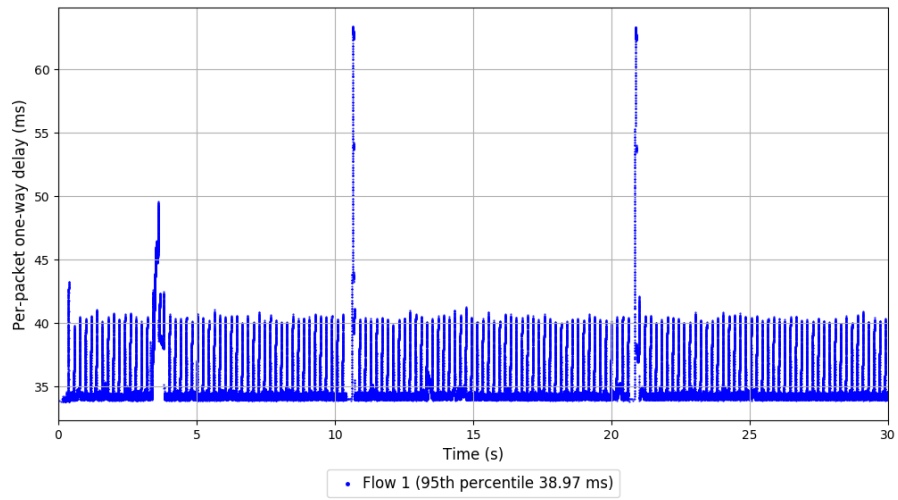
```
Run 1: Statistics of Indigo

Start at: 2020-02-17 21:34:09
End at: 2020-02-17 21:34:39
Local clock offset: 2.545 ms
Remote clock offset: -1.554 ms

# Below is generated by plot.py at 2020-02-17 23:50:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 31.974 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.59 Mbit/s
95th percentile per-packet one-way delay: 31.974 ms
Loss rate: 0.00%
```
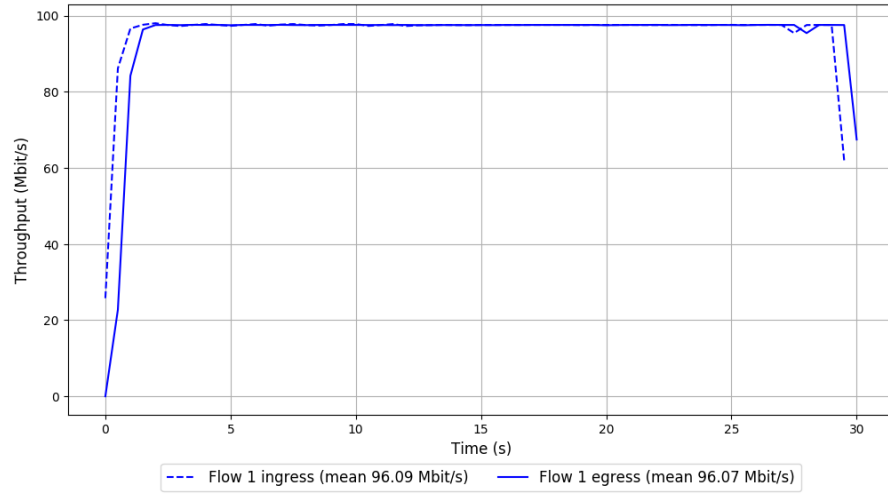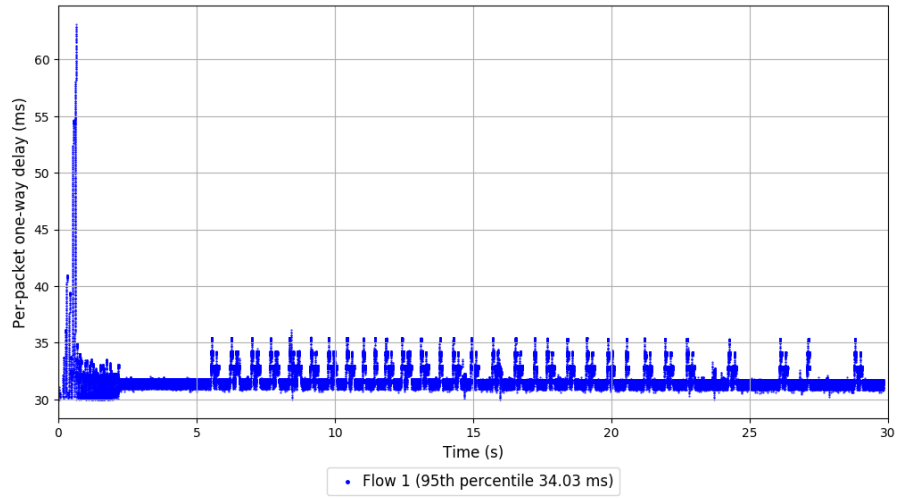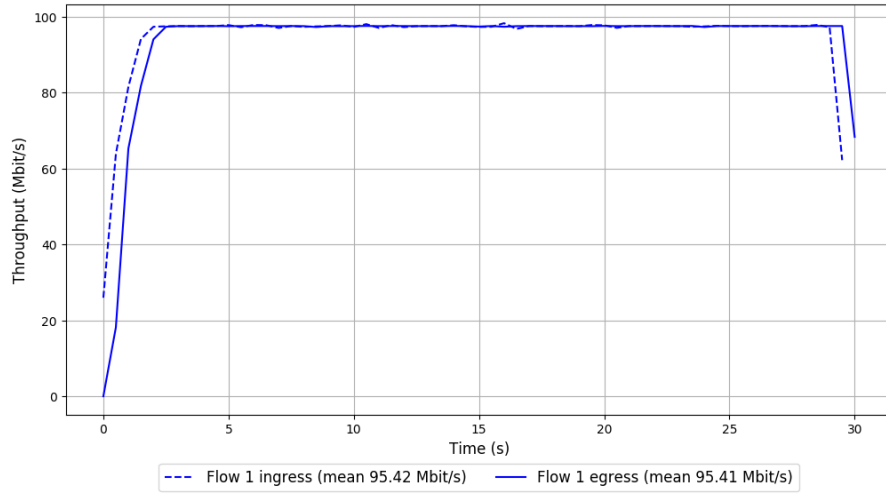
Run 1: Report of Indigo — Data Link
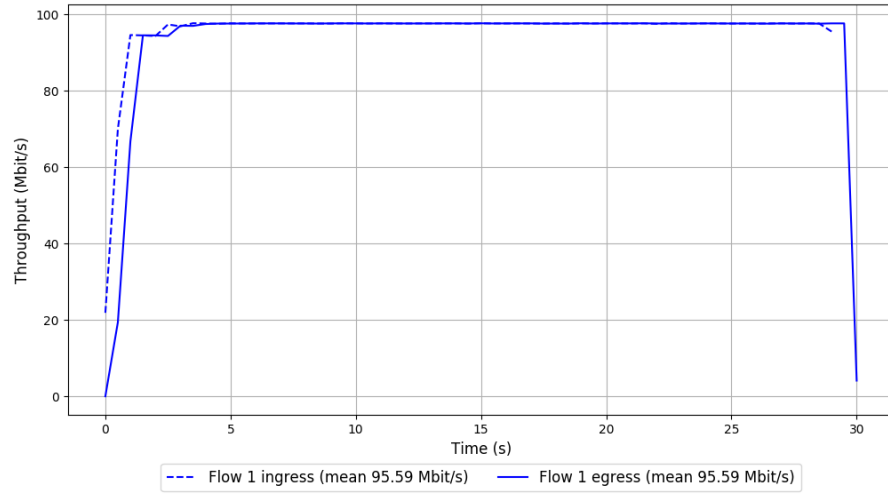
```
Run 2: Statistics of Indigo

Start at: 2020-02-17 22:01:28
End at: 2020-02-17 22:01:58
Local clock offset: 7.2 ms
Remote clock offset: -1.689 ms


# Below is generated by plot.py at 2020-02-17 23:50:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 29.591 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.07 Mbit/s
95th percentile per-packet one-way delay: 29.591 ms
Loss rate: 0.01%
```
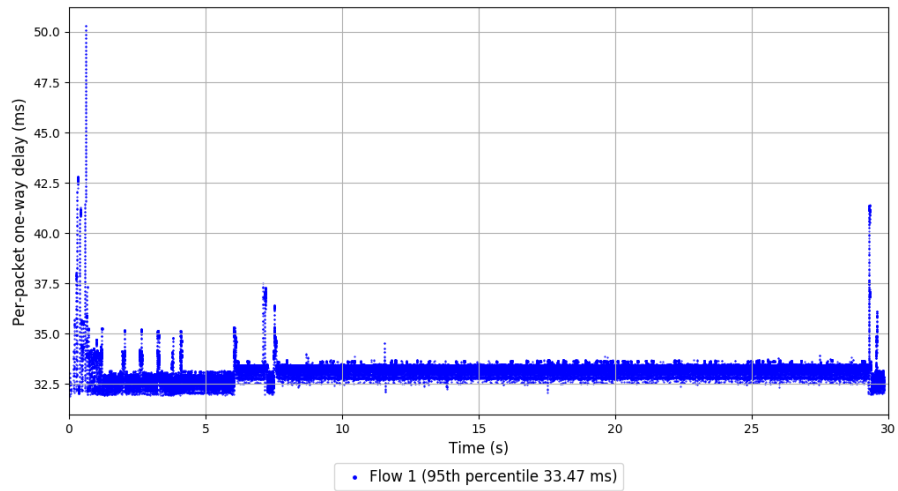
Run 2: Report of Indigo — Data Link
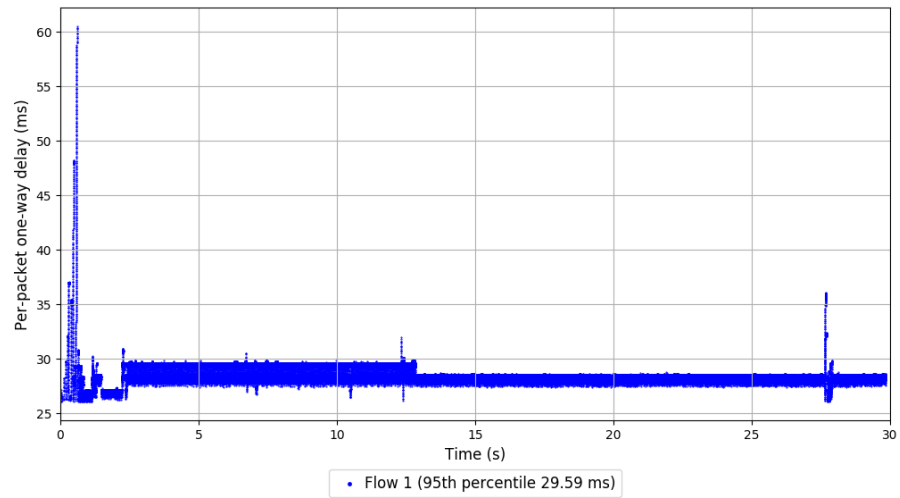
```
Run 3: Statistics of Indigo

Start at: 2020-02-17 22:28:44
End at: 2020-02-17 22:29:14
Local clock offset: 3.868 ms
Remote clock offset: -3.274 ms


# Below is generated by plot.py at 2020-02-17 23:51:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 34.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.41 Mbit/s
95th percentile per-packet one-way delay: 34.028 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo — Data Link

Flow 1 ingress (mean 95.42 Mbit/s) ---- Flow 1 egress (mean 95.41 Mbit/s) ——

Flow 1 (95th percentile 34.03 ms)

```
Run 4: Statistics of Indigo

Start at: 2020-02-17 22:55:58
End at: 2020-02-17 22:56:28
Local clock offset: 1.367 ms
Remote clock offset: -2.897 ms


# Below is generated by plot.py at 2020-02-17 23:51:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.50 Mbit/s
95th percentile per-packet one-way delay: 33.467 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 93.50 Mbit/s
95th percentile per-packet one-way delay: 33.467 ms
Loss rate: 0.01%
```
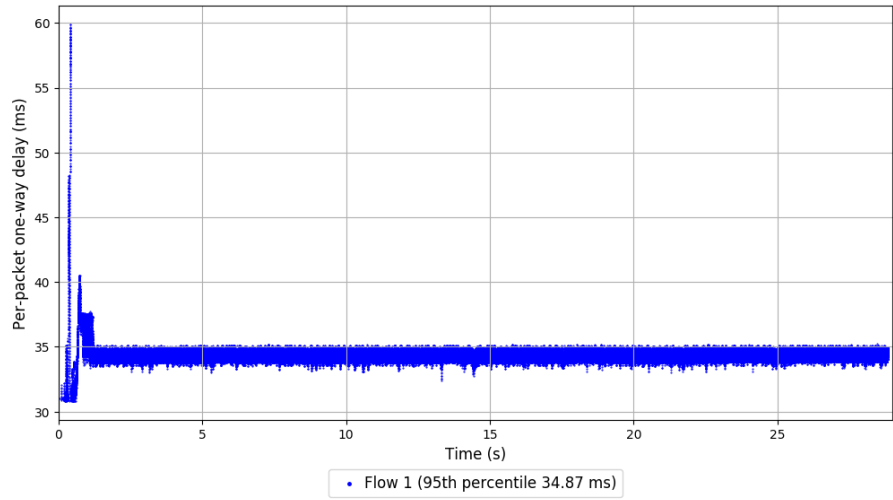
Run 4: Report of Indigo — Data Link
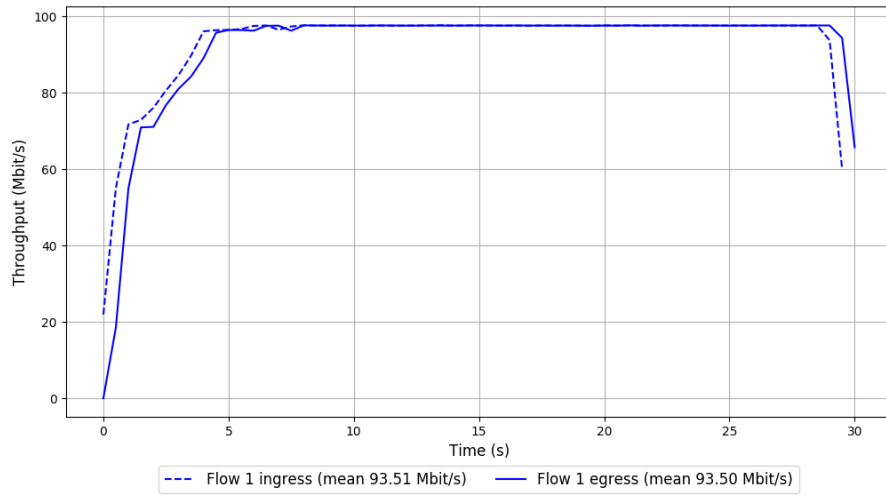
```
Run 5: Statistics of Indigo

Start at: 2020-02-17 23:23:11
End at: 2020-02-17 23:23:41
Local clock offset: 6.43 ms
Remote clock offset: -1.483 ms


# Below is generated by plot.py at 2020-02-17 23:51:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 29.995 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.49 Mbit/s
95th percentile per-packet one-way delay: 29.995 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo — Data Link

Flow 1 ingress (mean 95.49 Mbit/s) ------ Flow 1 egress (mean 95.49 Mbit/s)

Flow 1 (95th percentile 30.00 ms)
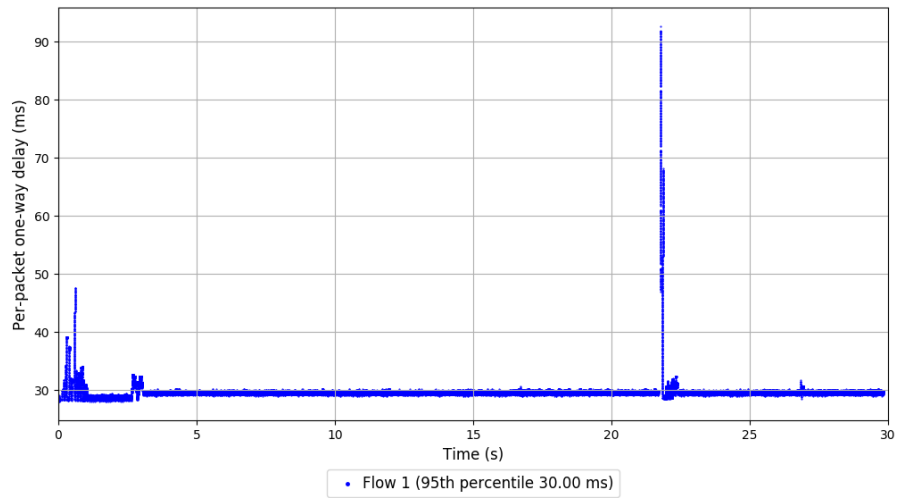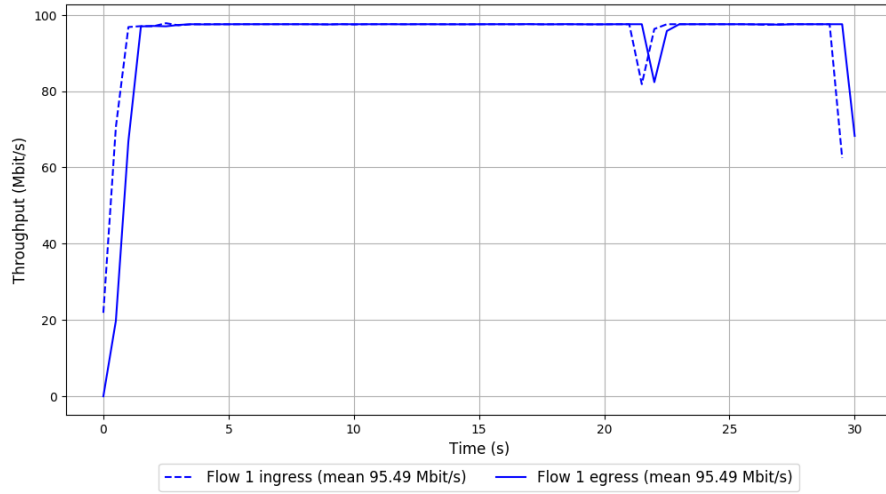
```
Run 1: Statistics of Indigo-MusesC3

Start at: 2020-02-17 21:55:46
End at: 2020-02-17 21:56:16
Local clock offset: 6.798 ms
Remote clock offset: 1.18 ms


# Below is generated by plot.py at 2020-02-17 23:51:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 34.868 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 96.50 Mbit/s
95th percentile per-packet one-way delay: 34.868 ms
Loss rate: 0.02%
```
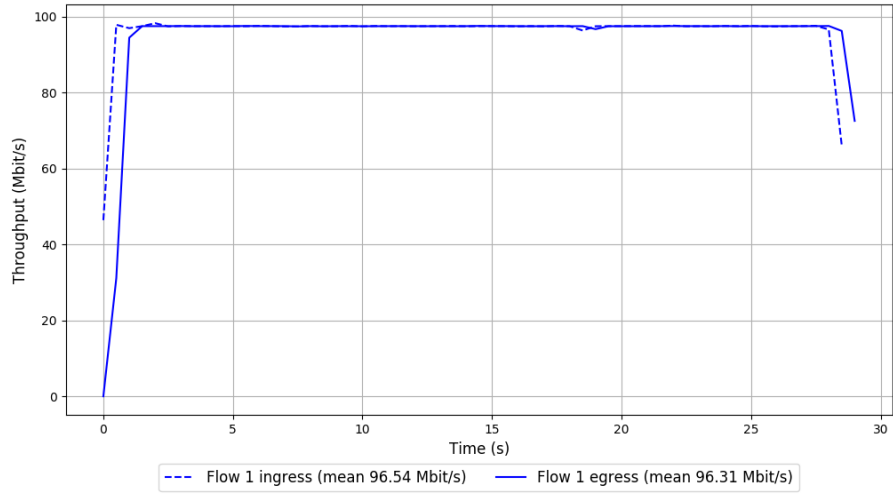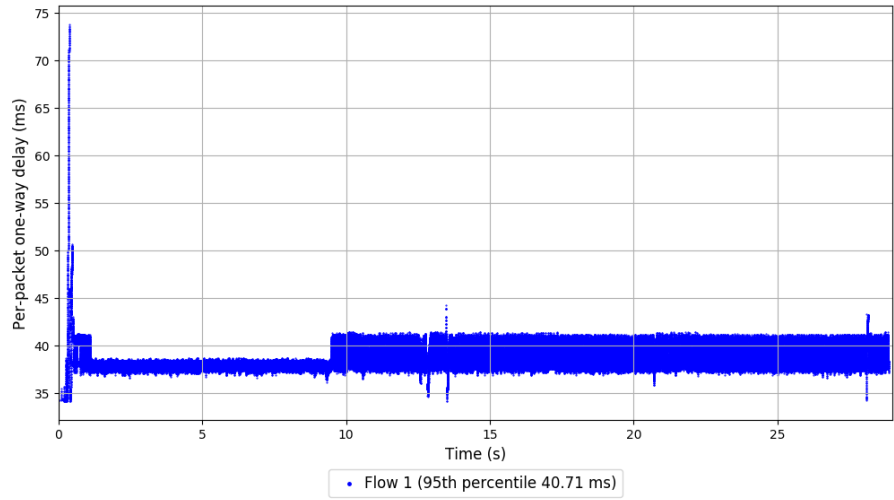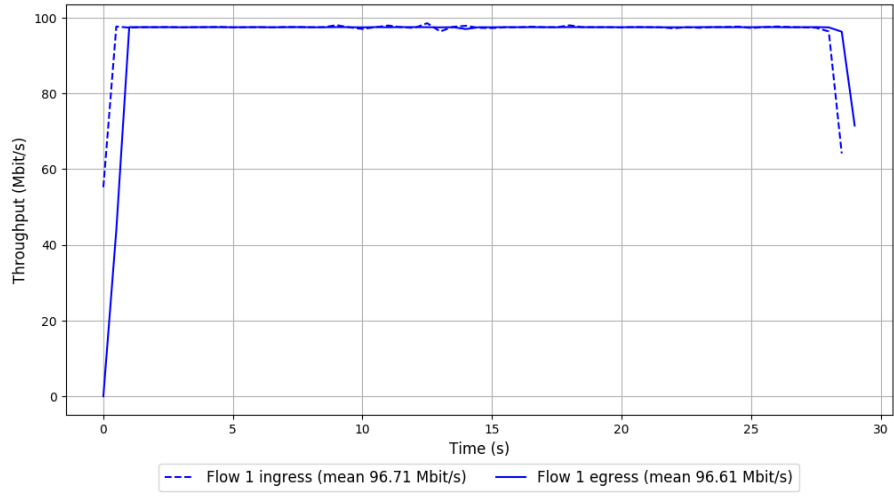
Run 1: Report of Indigo-MusesC3 — Data Link

66
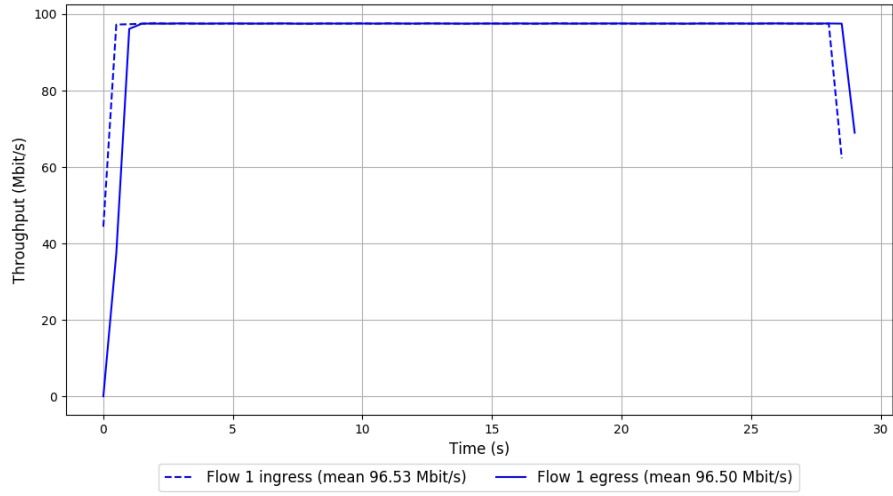
```
Run 2: Statistics of Indigo-MusesC3

Start at: 2020-02-17 22:23:07
End at: 2020-02-17 22:23:37
Local clock offset: 7.58 ms
Remote clock offset: -2.648 ms


# Below is generated by plot.py at 2020-02-17 23:51:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 34.710 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 96.31 Mbit/s
95th percentile per-packet one-way delay: 34.710 ms
Loss rate: 0.22%
```
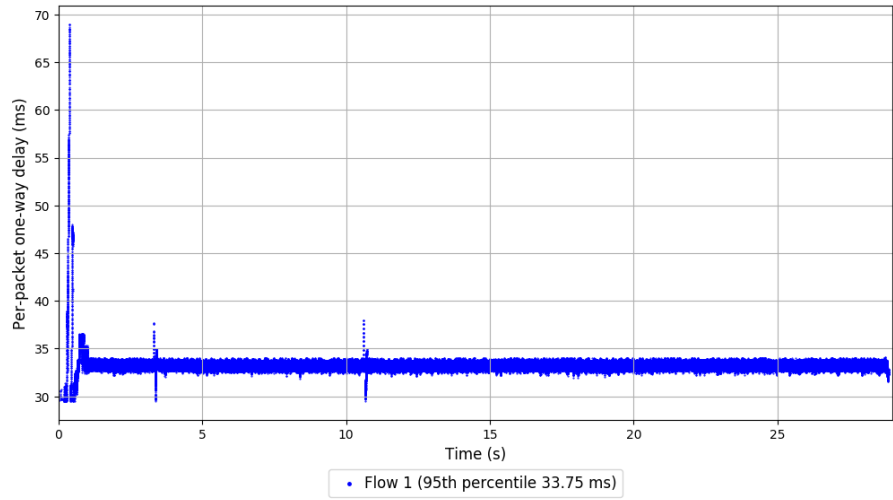
Run 2: Report of Indigo-MusesC3 — Data Link
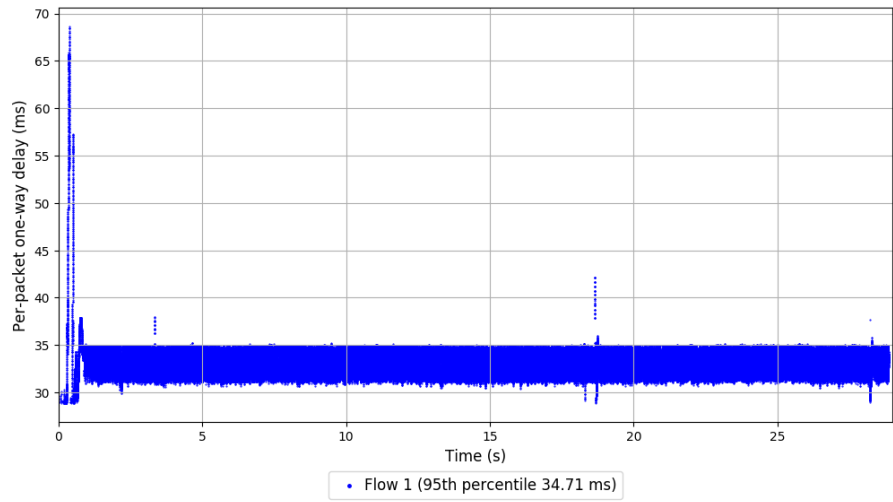
```
Run 3: Statistics of Indigo-MusesC3

Start at: 2020-02-17 22:50:21
End at: 2020-02-17 22:50:51
Local clock offset: 1.494 ms
Remote clock offset: -2.401 ms


# Below is generated by plot.py at 2020-02-17 23:51:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.61 Mbit/s
95th percentile per-packet one-way delay: 40.710 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 96.61 Mbit/s
95th percentile per-packet one-way delay: 40.710 ms
Loss rate: 0.09%
```

Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 96.71 Mbit/s) ---- Flow 1 egress (mean 96.61 Mbit/s) ——

• Flow 1 (95th percentile 40.71 ms)

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2020-02-17 23:17:33
End at: 2020-02-17 23:18:03
Local clock offset: 6.325 ms
Remote clock offset: -2.13 ms


# Below is generated by plot.py at 2020-02-17 23:51:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 33.752 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 96.54 Mbit/s
95th percentile per-packet one-way delay: 33.752 ms
Loss rate: 0.09%
```

Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 96.64 Mbit/s)   Flow 1 egress (mean 96.54 Mbit/s)

Flow 1 (95th percentile 33.75 ms)
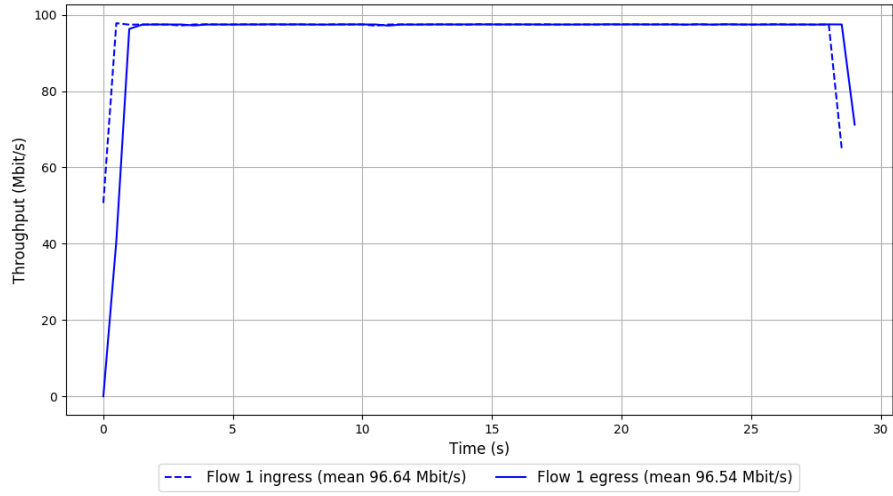
```
Run 5: Statistics of Indigo-MusesC3

Start at: 2020-02-17 23:44:47
End at: 2020-02-17 23:45:17
Local clock offset: 1.633 ms
Remote clock offset: -2.827 ms


# Below is generated by plot.py at 2020-02-17 23:52:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 37.735 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 96.65 Mbit/s
95th percentile per-packet one-way delay: 37.735 ms
Loss rate: 0.02%
```
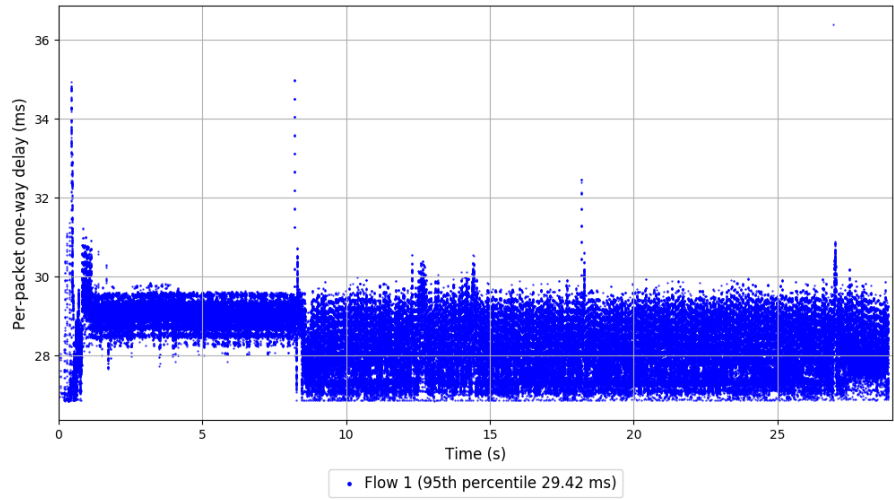
Run 5: Report of Indigo-MusesC3 — Data Link
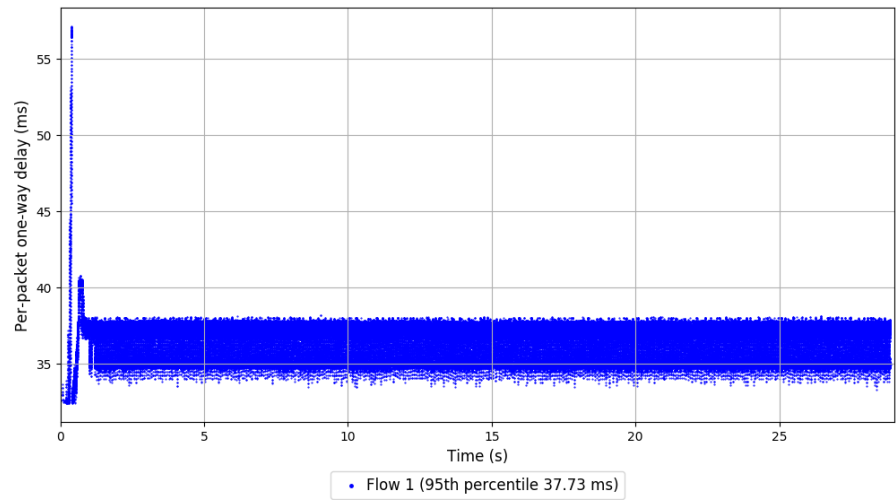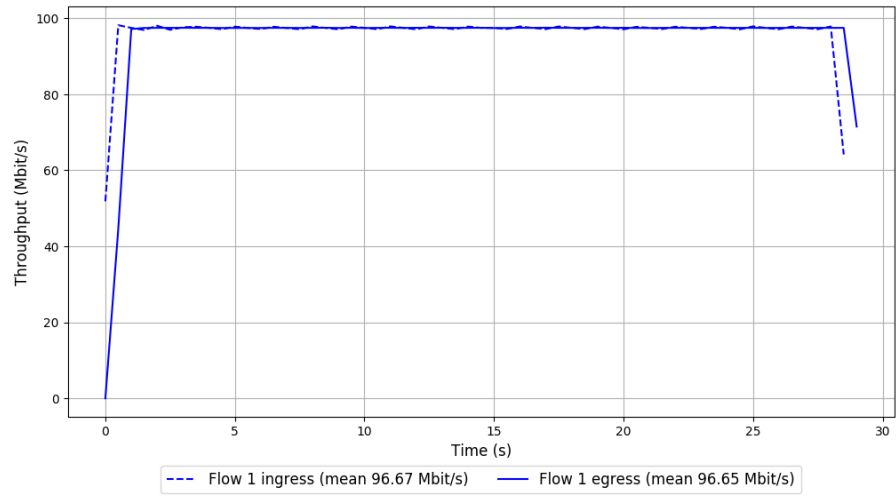
```
Run 1: Statistics of Indigo-MusesC5

Start at: 2020-02-17 21:39:51
End at: 2020-02-17 21:40:21
Local clock offset: 0.978 ms
Remote clock offset: -1.277 ms


# Below is generated by plot.py at 2020-02-17 23:52:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.21 Mbit/s
95th percentile per-packet one-way delay: 36.398 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 96.21 Mbit/s
95th percentile per-packet one-way delay: 36.398 ms
Loss rate: 0.03%
```
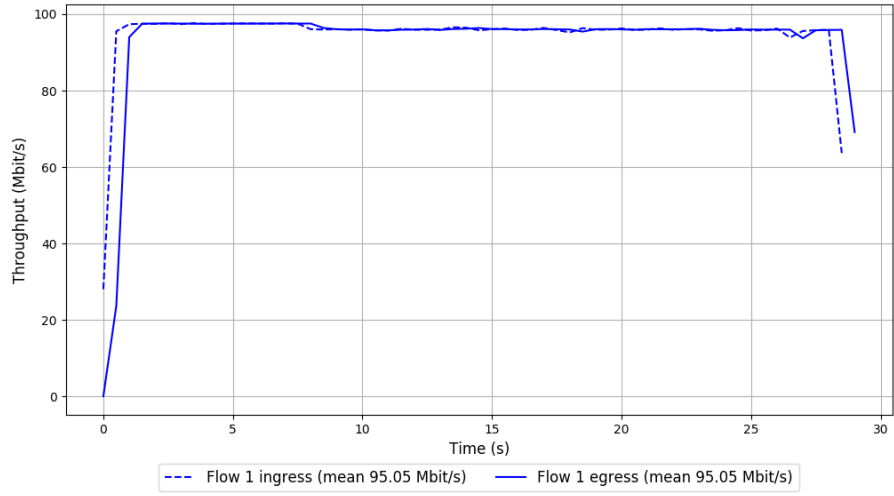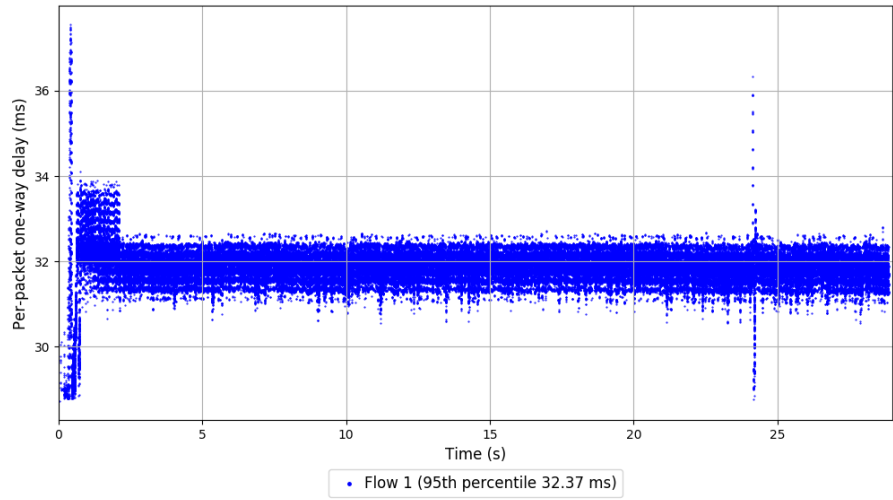
Run 1: Report of Indigo-MusesC5 — Data Link

76
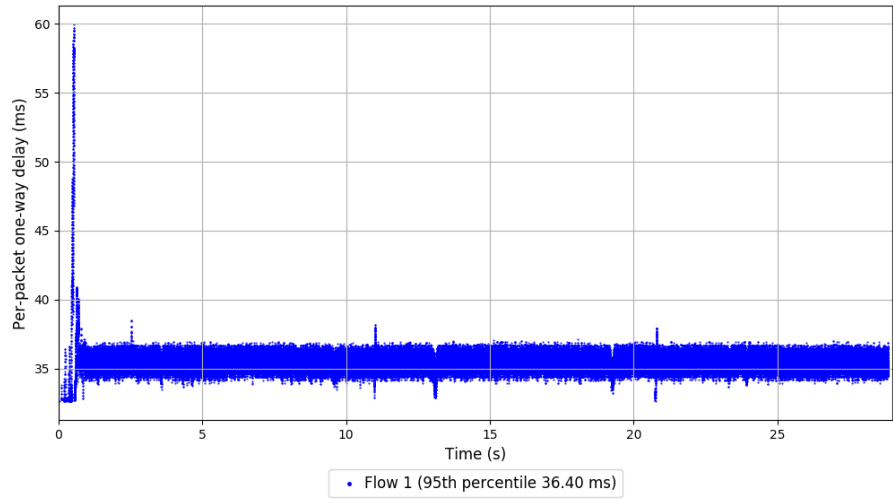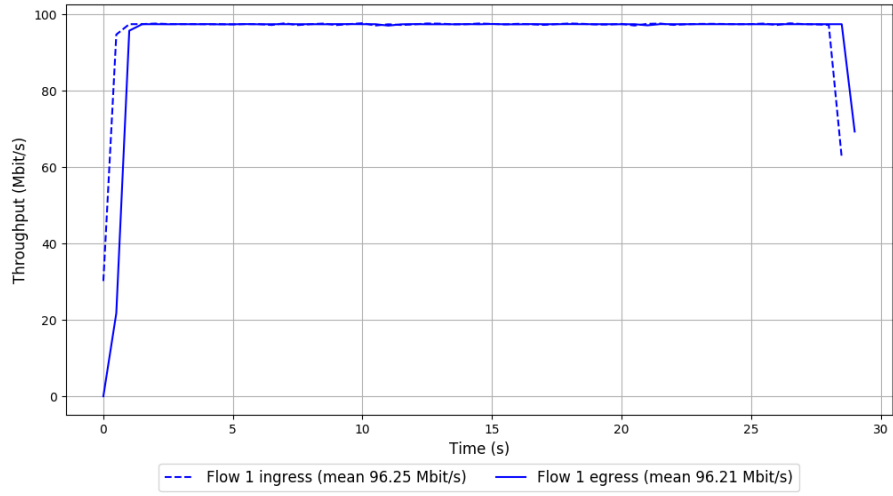
```
Run 2: Statistics of Indigo-MusesC5

Start at: 2020-02-17 22:07:12
End at: 2020-02-17 22:07:42
Local clock offset: 6.663 ms
Remote clock offset: -1.758 ms

# Below is generated by plot.py at 2020-02-17 23:52:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 29.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.05 Mbit/s
95th percentile per-packet one-way delay: 29.418 ms
Loss rate: 0.00%
```
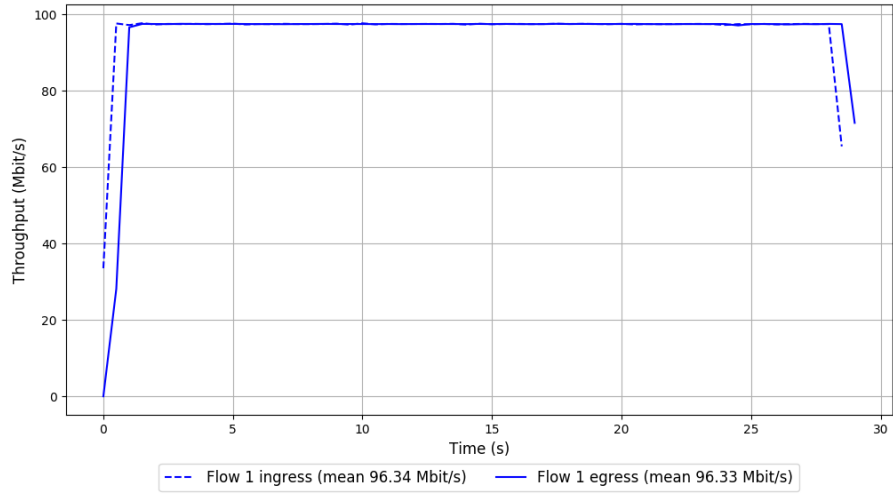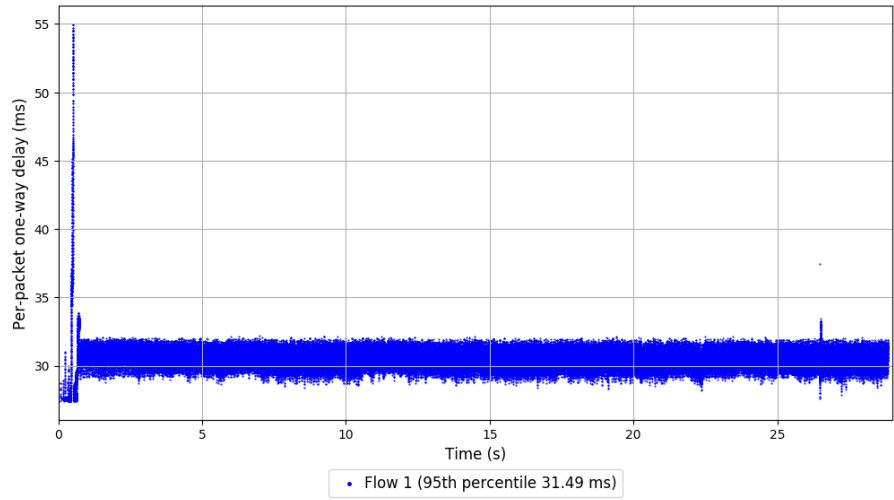
Run 2: Report of Indigo-MusesC5 — Data Link

78

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2020-02-17 22:34:26
End at: 2020-02-17 22:34:56
Local clock offset: 7.244 ms
Remote clock offset: -2.08 ms

# Below is generated by plot.py at 2020-02-17 23:52:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 32.365 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.33 Mbit/s
95th percentile per-packet one-way delay: 32.365 ms
Loss rate: 0.00%
```
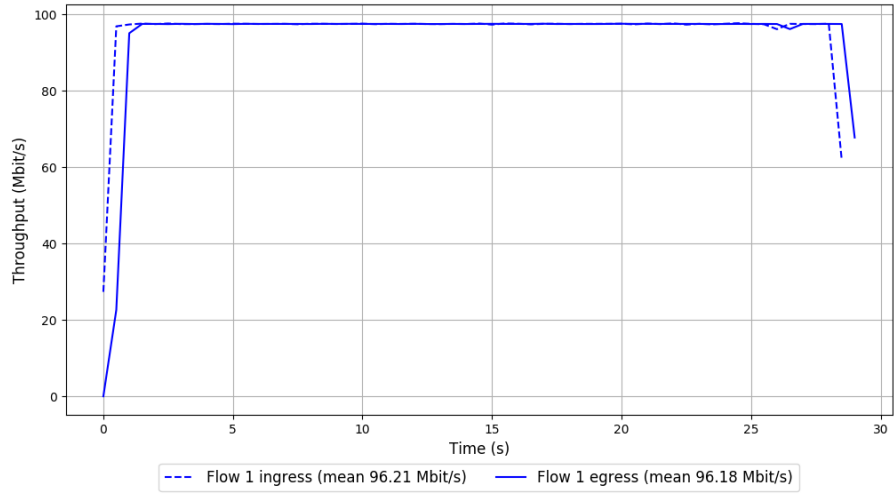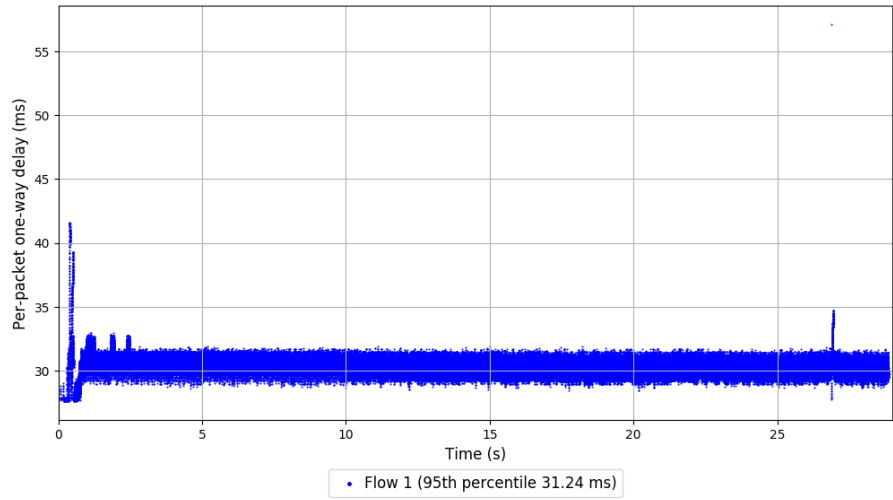
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 96.34 Mbit/s) ----- Flow 1 egress (mean 96.33 Mbit/s) ——

• Flow 1 (95th percentile 32.37 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2020-02-17 23:01:38
End at: 2020-02-17 23:02:08
Local clock offset: 6.26 ms
Remote clock offset: -2.331 ms


# Below is generated by plot.py at 2020-02-17 23:52:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.18 Mbit/s
95th percentile per-packet one-way delay: 31.487 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.18 Mbit/s
95th percentile per-packet one-way delay: 31.487 ms
Loss rate: 0.01%
```
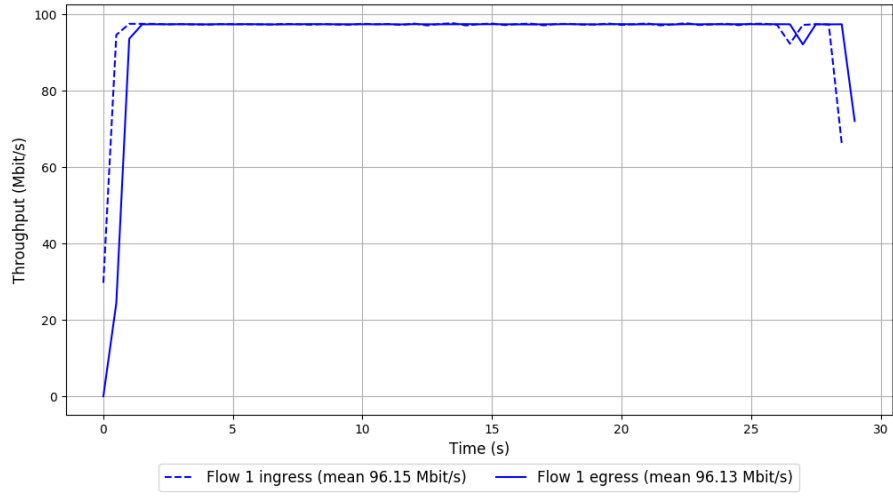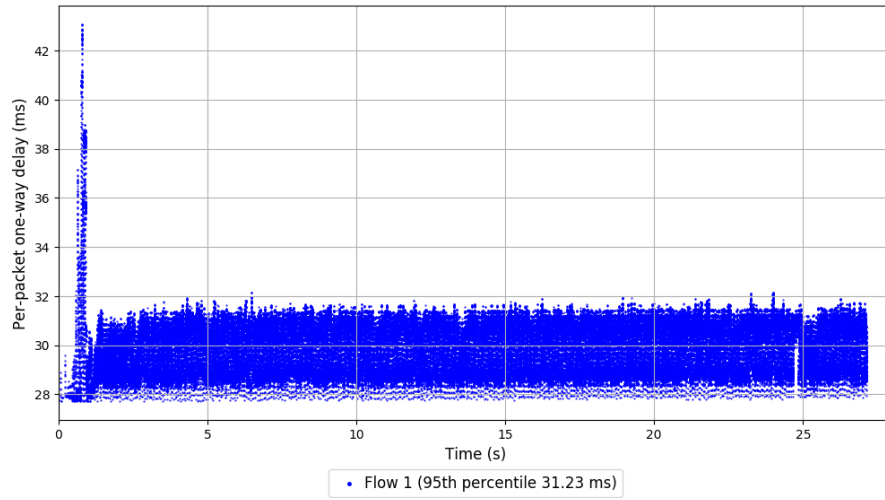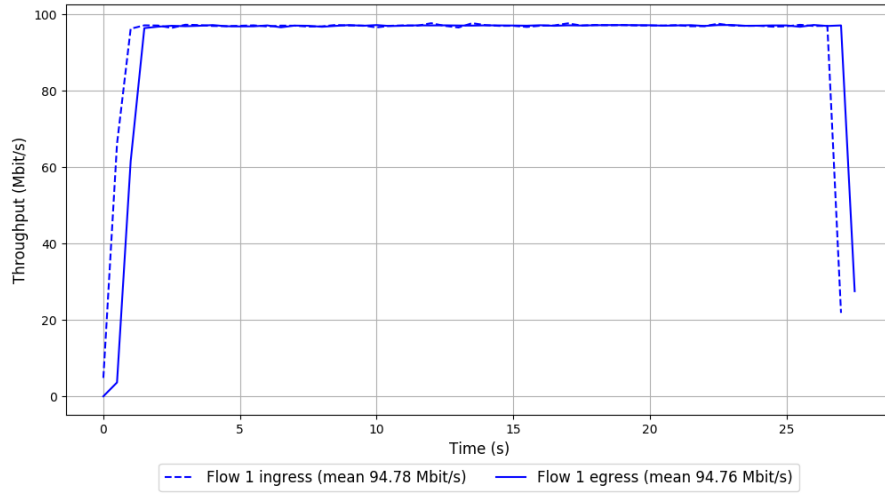
Run 4: Report of Indigo-MusesC5 — Data Link

- - - - Flow 1 ingress (mean 96.21 Mbit/s)   ——— Flow 1 egress (mean 96.18 Mbit/s)

• Flow 1 (95th percentile 31.49 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2020-02-17 23:28:51
End at: 2020-02-17 23:29:21
Local clock offset: 5.614 ms
Remote clock offset: -3.975 ms


# Below is generated by plot.py at 2020-02-17 23:52:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 31.237 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.13 Mbit/s
95th percentile per-packet one-way delay: 31.237 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 96.15 Mbit/s) ----   Flow 1 egress (mean 96.13 Mbit/s) ——

• Flow 1 (95th percentile 31.24 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2020-02-17 21:31:55
End at: 2020-02-17 21:32:25
Local clock offset: 5.103 ms
Remote clock offset: -1.036 ms

# Below is generated by plot.py at 2020-02-17 23:52:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 31.228 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 94.76 Mbit/s
95th percentile per-packet one-way delay: 31.228 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 94.78 Mbit/s) ----- Flow 1 egress (mean 94.76 Mbit/s)

• Flow 1 (95th percentile 31.23 ms)

```
Run 2: Statistics of Indigo-MusesD

Start at: 2020-02-17 21:59:14
End at: 2020-02-17 21:59:44
Local clock offset: 2.413 ms
Remote clock offset: -2.393 ms

# Below is generated by plot.py at 2020-02-17 23:53:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.03 Mbit/s
95th percentile per-packet one-way delay: 33.040 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.03 Mbit/s
95th percentile per-packet one-way delay: 33.040 ms
Loss rate: 0.01%
```
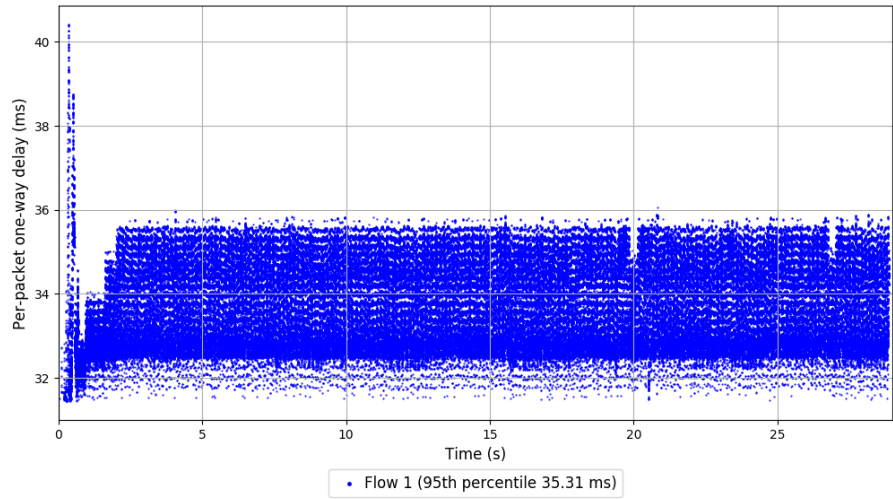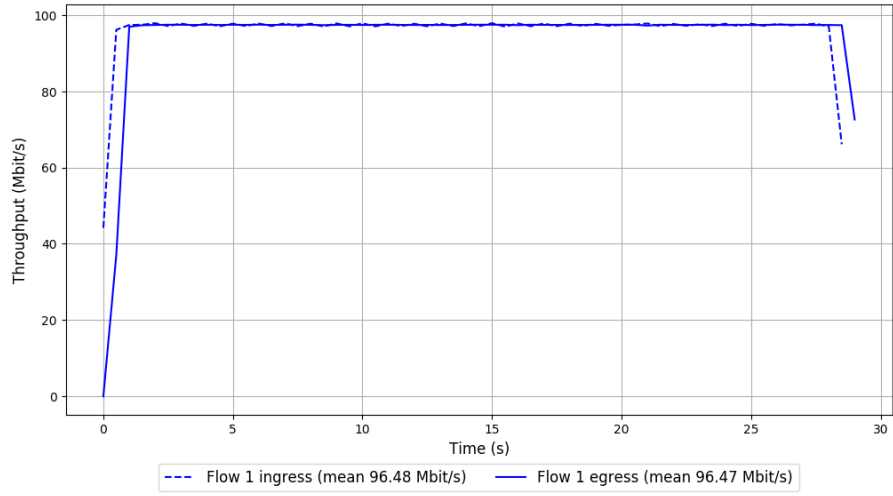
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2020-02-17 22:26:30
End at: 2020-02-17 22:27:00
Local clock offset: 4.134 ms
Remote clock offset: -10.021 ms


# Below is generated by plot.py at 2020-02-17 23:53:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 28.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 28.634 ms
Loss rate: 0.00%
```
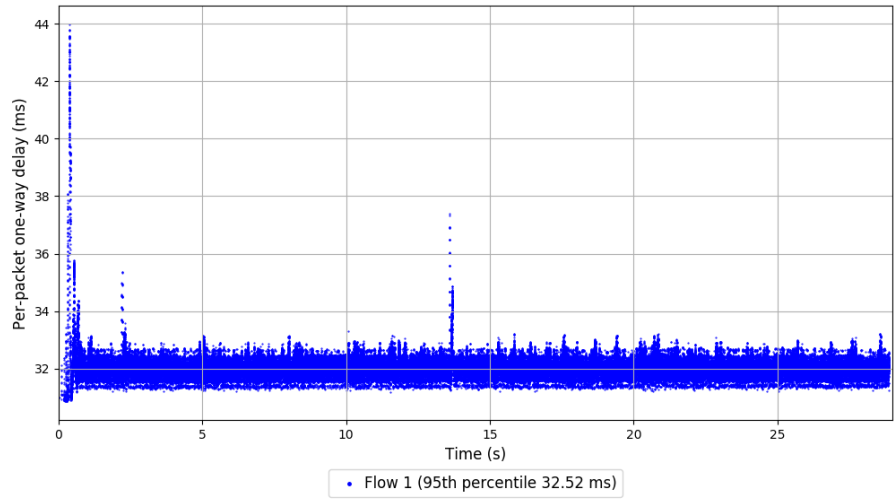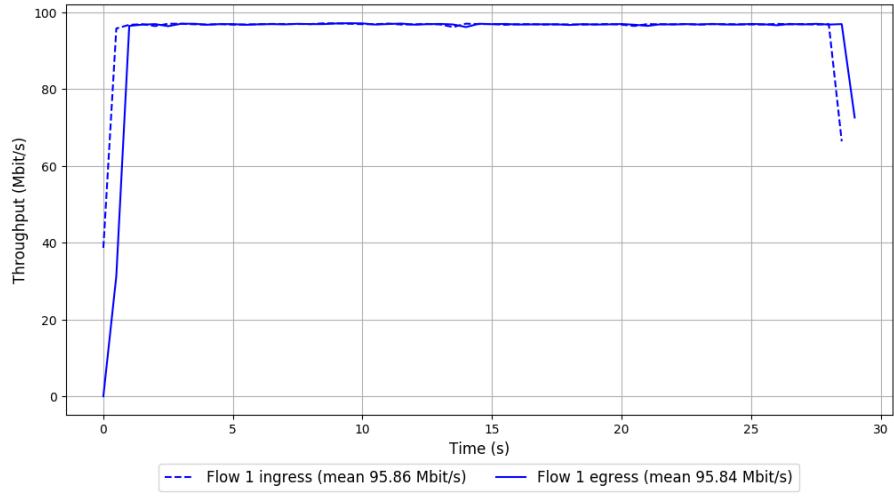
Run 3: Report of Indigo-MusesD — Data Link
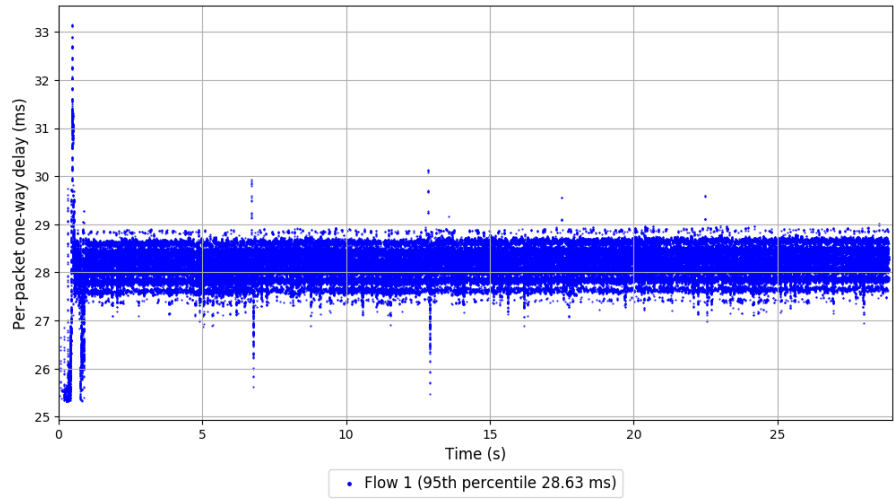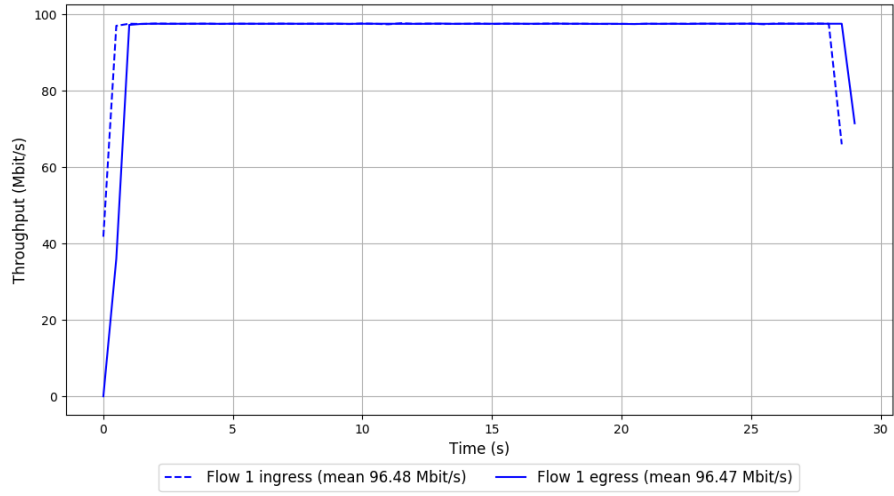
```
Run 4: Statistics of Indigo-MusesD

Start at: 2020-02-17 22:53:44
End at: 2020-02-17 22:54:14
Local clock offset: 5.817 ms
Remote clock offset: -0.644 ms

# Below is generated by plot.py at 2020-02-17 23:53:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 35.314 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 96.47 Mbit/s
95th percentile per-packet one-way delay: 35.314 ms
Loss rate: 0.01%
```

Run 4: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 96.48 Mbit/s)   Flow 1 egress (mean 96.47 Mbit/s)

• Flow 1 (95th percentile 35.31 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2020-02-17 23:20:57
End at: 2020-02-17 23:21:27
Local clock offset: 5.724 ms
Remote clock offset: -1.539 ms


# Below is generated by plot.py at 2020-02-17 23:53:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 32.519 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.84 Mbit/s
95th percentile per-packet one-way delay: 32.519 ms
Loss rate: 0.01%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 95.86 Mbit/s)　　Flow 1 egress (mean 95.84 Mbit/s)

Flow 1 (95th percentile 32.52 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2020-02-17 21:52:20
End at: 2020-02-17 21:52:50
Local clock offset: 6.541 ms
Remote clock offset: 1.378 ms


# Below is generated by plot.py at 2020-02-17 23:53:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.64 Mbit/s
95th percentile per-packet one-way delay: 38.305 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 96.64 Mbit/s
95th percentile per-packet one-way delay: 38.305 ms
Loss rate: 0.08%
```
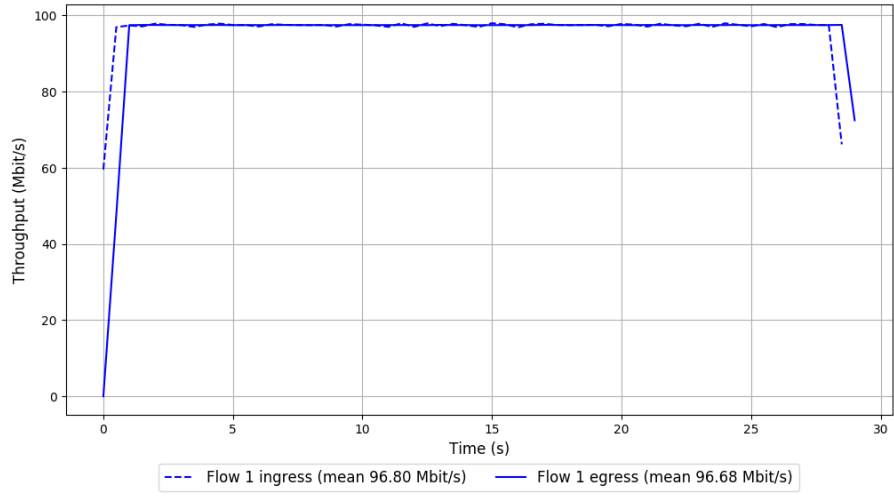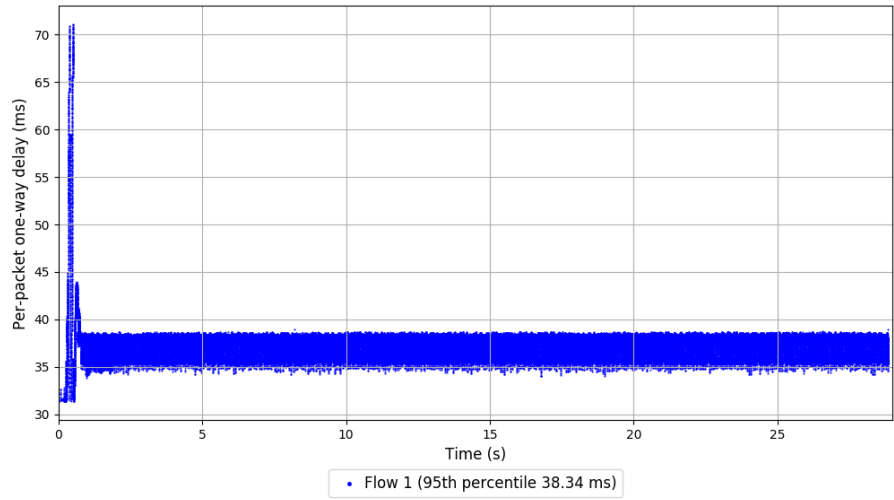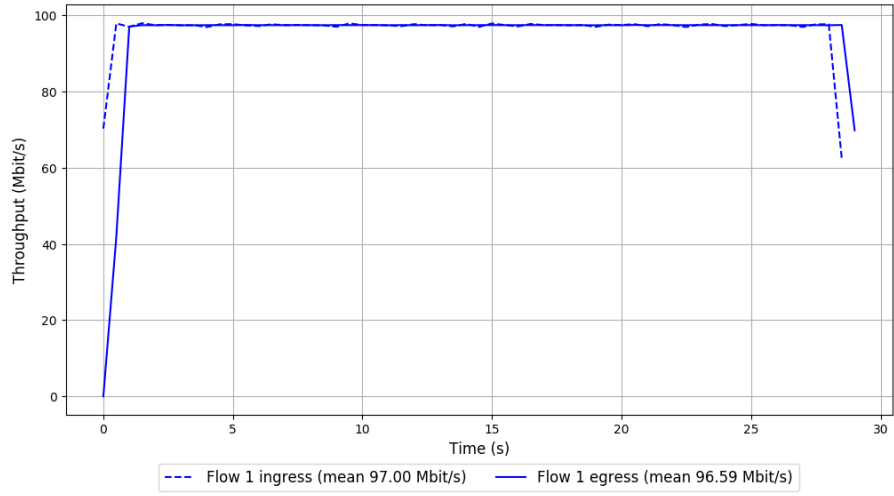
Run 1: Report of Indigo-MusesT — Data Link
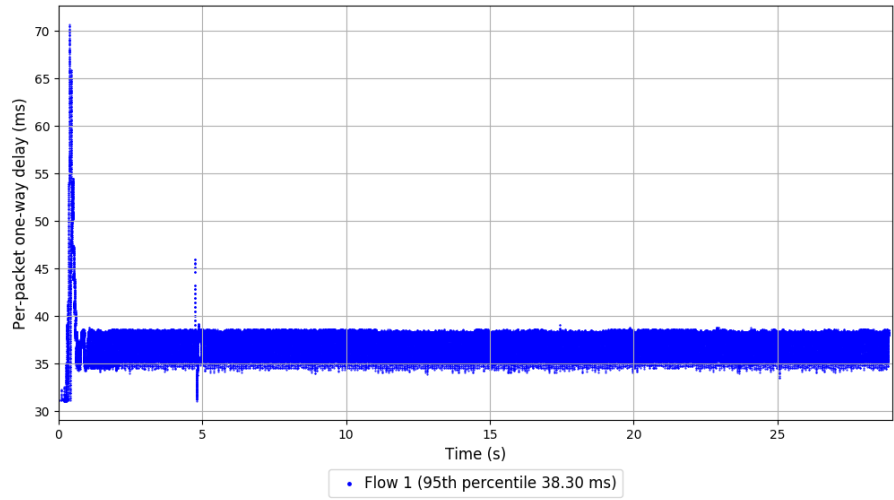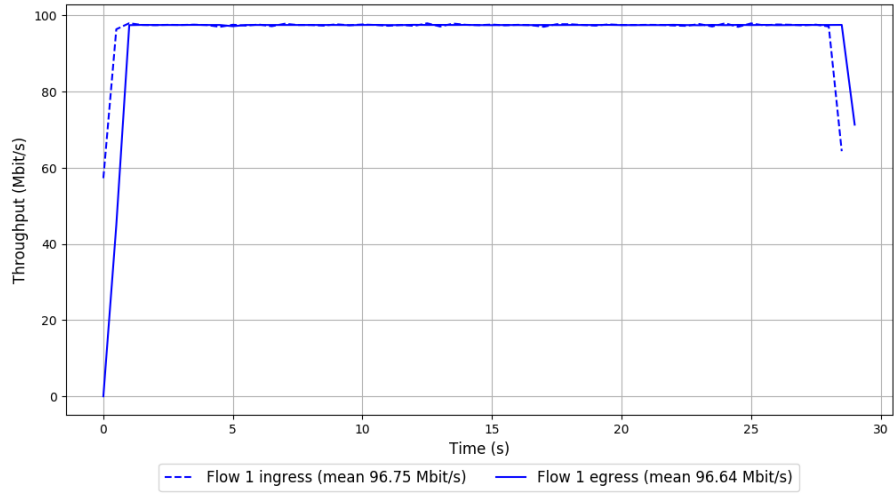
```
Run 2: Statistics of Indigo-MusesT

Start at: 2020-02-17 22:19:41
End at: 2020-02-17 22:20:11
Local clock offset: 3.316 ms
Remote clock offset: -1.709 ms


# Below is generated by plot.py at 2020-02-17 23:53:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 37.472 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 96.62 Mbit/s
95th percentile per-packet one-way delay: 37.472 ms
Loss rate: 0.15%
```

Run 2: Report of Indigo-MusesT — Data Link
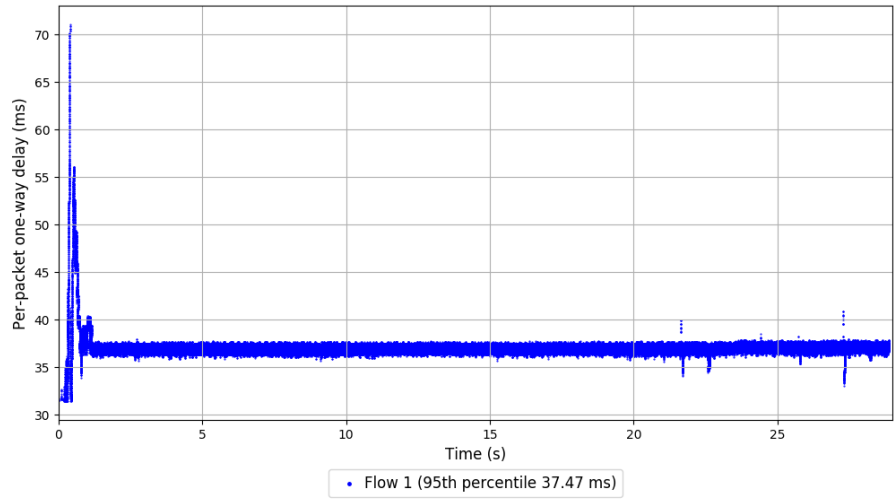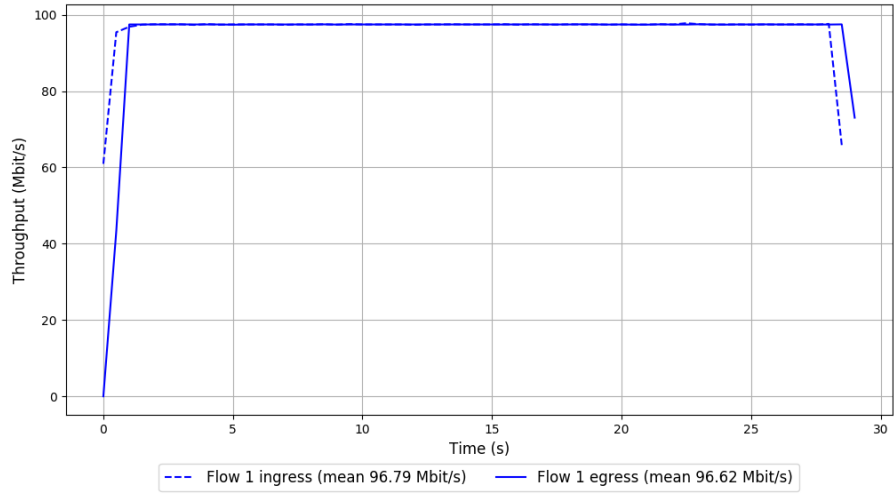
```
Run 3: Statistics of Indigo-MusesT

Start at: 2020-02-17 22:46:55
End at: 2020-02-17 22:47:25
Local clock offset: 6.069 ms
Remote clock offset: -3.745 ms

# Below is generated by plot.py at 2020-02-17 23:53:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 32.659 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 96.68 Mbit/s
95th percentile per-packet one-way delay: 32.659 ms
Loss rate: 0.09%
```

Run 3: Report of Indigo-MusesT — Data Link
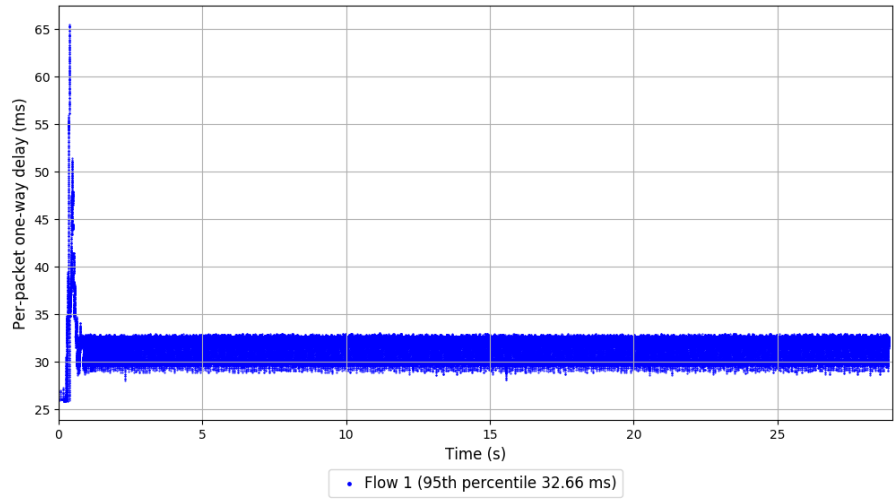
```
Run 4: Statistics of Indigo-MusesT

Start at: 2020-02-17 23:14:07
End at: 2020-02-17 23:14:37
Local clock offset: 2.22 ms
Remote clock offset: -1.987 ms


# Below is generated by plot.py at 2020-02-17 23:54:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.59 Mbit/s
95th percentile per-packet one-way delay: 38.335 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 96.59 Mbit/s
95th percentile per-packet one-way delay: 38.335 ms
Loss rate: 0.39%
```
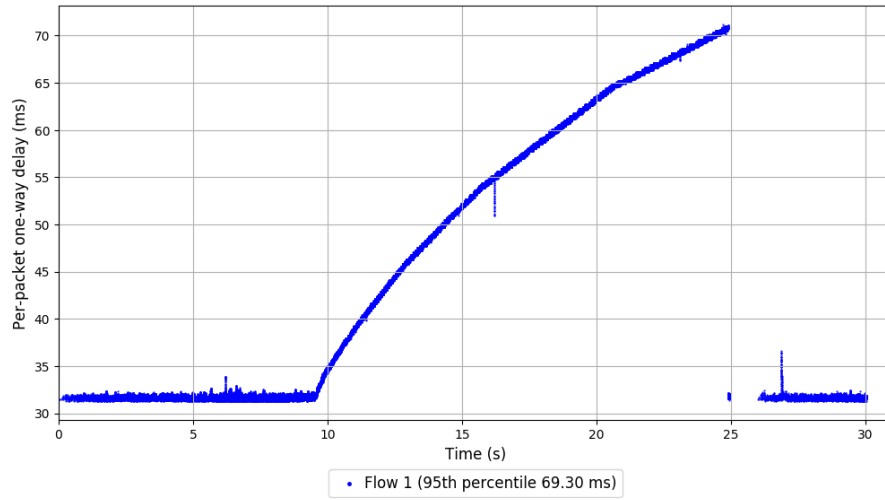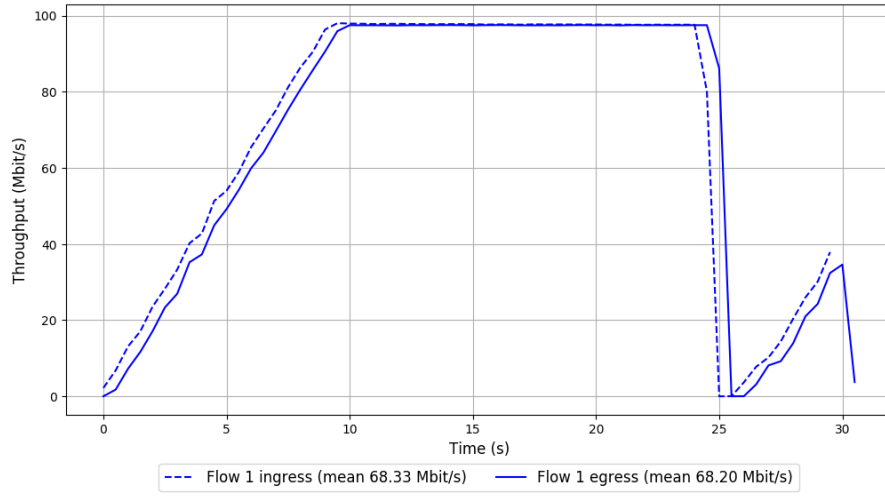
Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2020-02-17 23:41:21
End at: 2020-02-17 23:41:51
Local clock offset: -1.574 ms
Remote clock offset: -5.039 ms


# Below is generated by plot.py at 2020-02-17 23:54:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 39.156 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 96.57 Mbit/s
95th percentile per-packet one-way delay: 39.156 ms
Loss rate: 0.12%
```

Run 5: Report of Indigo-MusesT — Data Link
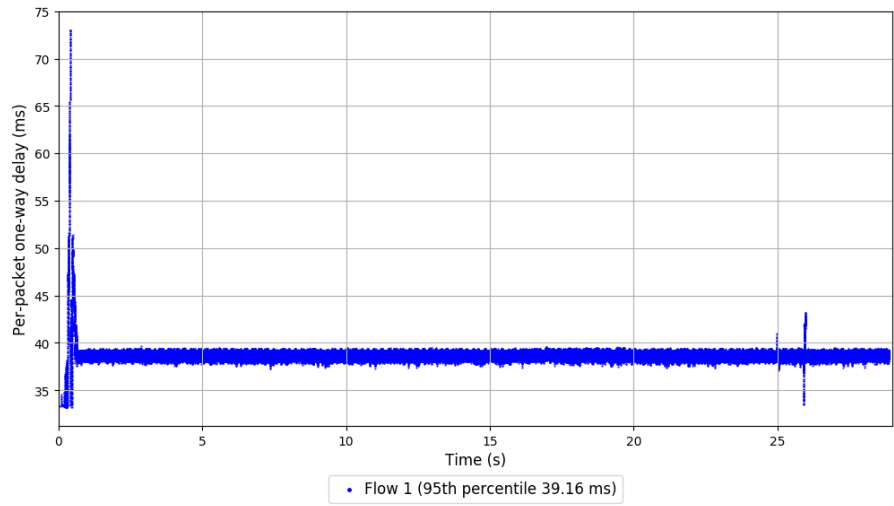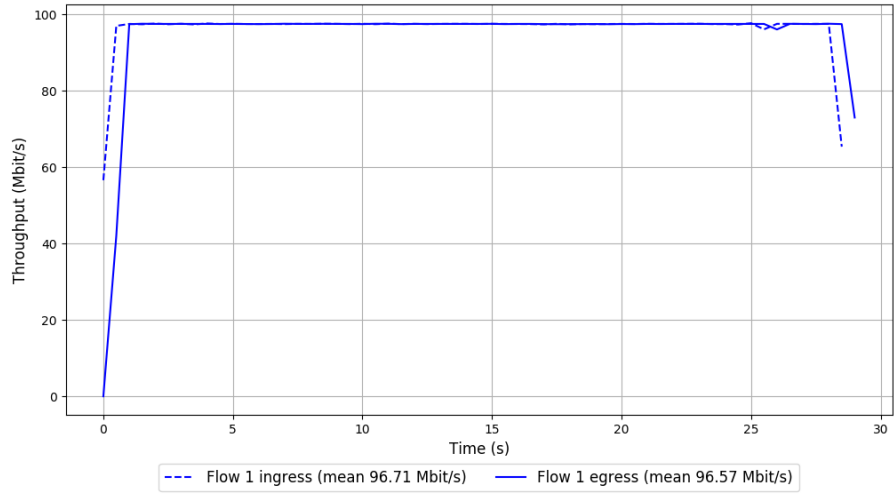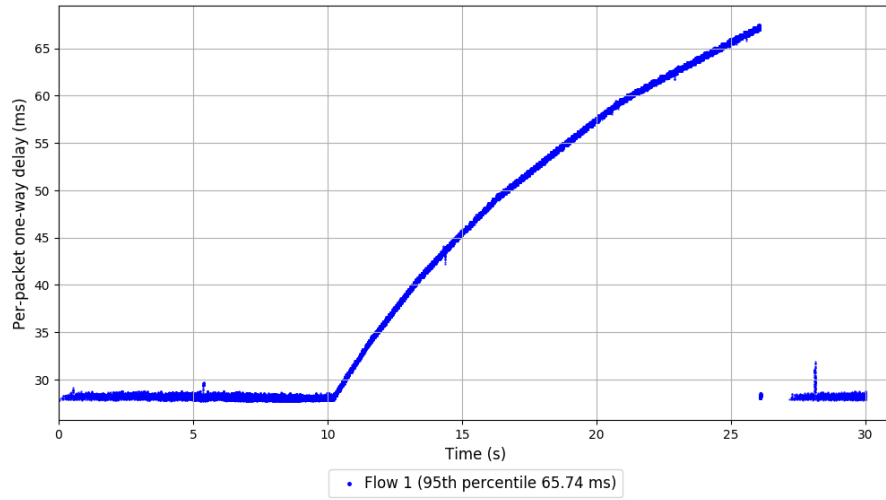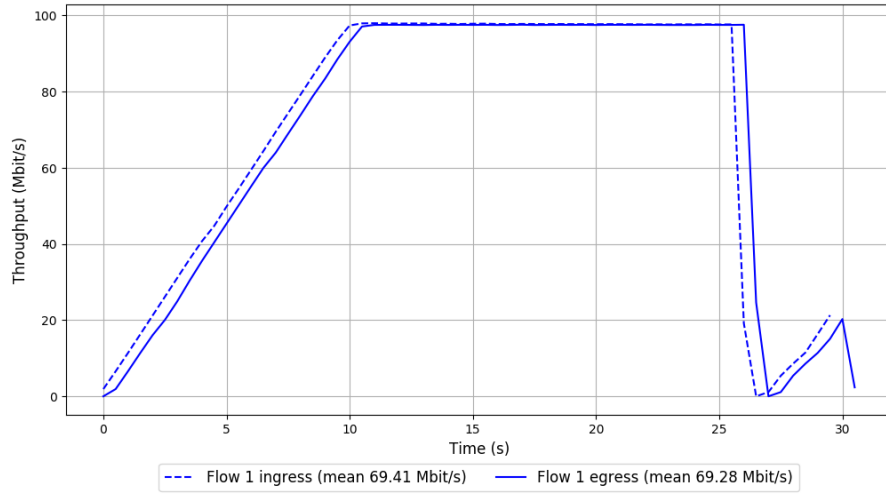
```
Run 1: Statistics of LEDBAT

Start at: 2020-02-17 21:38:42
End at: 2020-02-17 21:39:12
Local clock offset: 1.748 ms
Remote clock offset: -1.065 ms

# Below is generated by plot.py at 2020-02-17 23:54:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.20 Mbit/s
95th percentile per-packet one-way delay: 69.299 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 68.20 Mbit/s
95th percentile per-packet one-way delay: 69.299 ms
Loss rate: 0.19%
```

Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 68.33 Mbit/s) — Flow 1 egress (mean 68.20 Mbit/s)

• Flow 1 (95th percentile 69.30 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2020-02-17 22:06:02
End at: 2020-02-17 22:06:32
Local clock offset: 6.731 ms
Remote clock offset: -2.029 ms

# Below is generated by plot.py at 2020-02-17 23:54:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 59.326 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 80.21 Mbit/s
95th percentile per-packet one-way delay: 59.326 ms
Loss rate: 0.02%
```

Run 2: Report of LEDBAT — Data Link
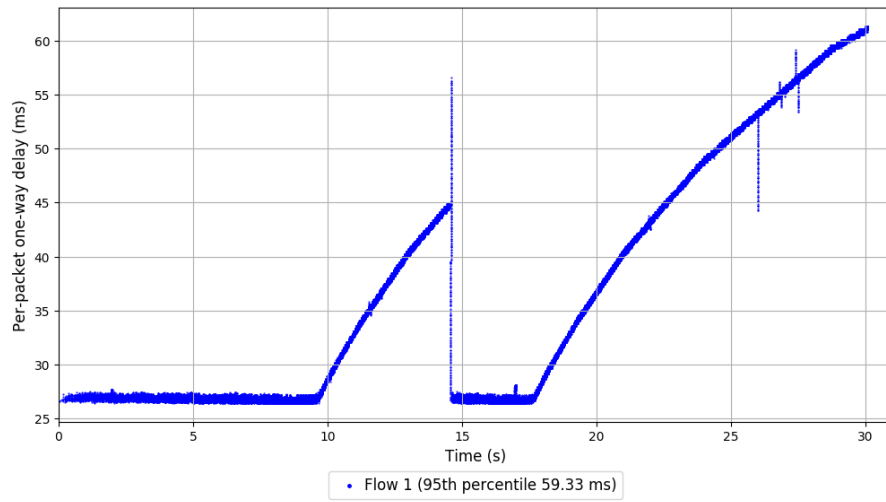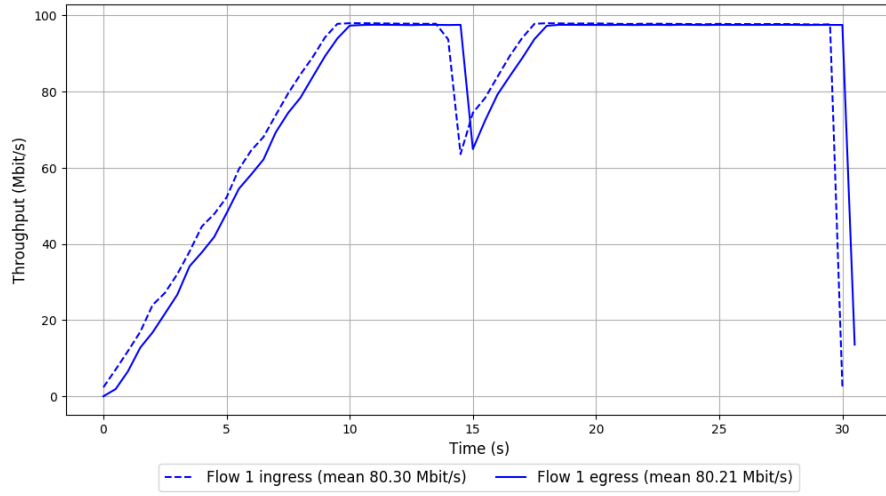
```
Run 3: Statistics of LEDBAT

Start at: 2020-02-17 22:33:17
End at: 2020-02-17 22:33:47
Local clock offset: 6.527 ms
Remote clock offset: -3.824 ms

# Below is generated by plot.py at 2020-02-17 23:54:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 65.743 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 69.28 Mbit/s
95th percentile per-packet one-way delay: 65.743 ms
Loss rate: 0.18%
```

## Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2020-02-17 23:00:30
End at: 2020-02-17 23:01:00
Local clock offset: 5.978 ms
Remote clock offset: -4.901 ms

# Below is generated by plot.py at 2020-02-17 23:54:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.02 Mbit/s
95th percentile per-packet one-way delay: 44.471 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 53.02 Mbit/s
95th percentile per-packet one-way delay: 44.471 ms
Loss rate: 0.07%
```

Run 4: Report of LEDBAT — Data Link
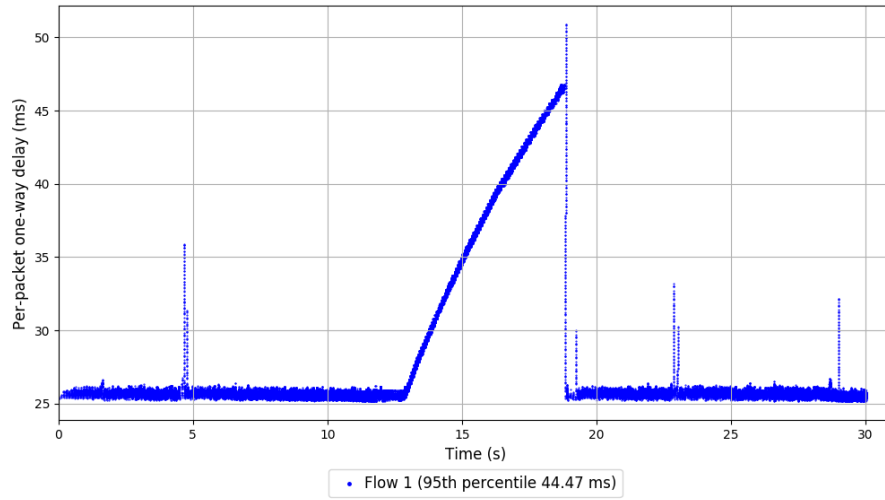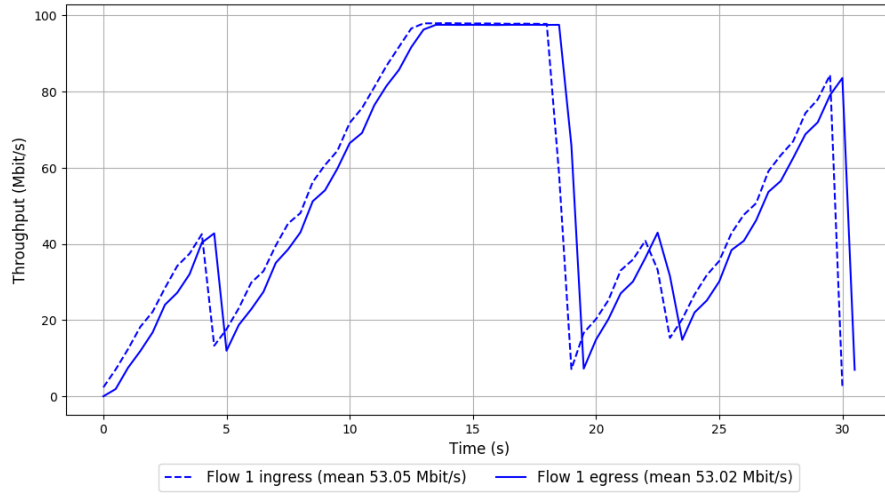
```
Run 5: Statistics of LEDBAT

Start at: 2020-02-17 23:27:43
End at: 2020-02-17 23:28:13
Local clock offset: 6.677 ms
Remote clock offset: -2.432 ms

# Below is generated by plot.py at 2020-02-17 23:54:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 41.983 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 59.26 Mbit/s
95th percentile per-packet one-way delay: 41.983 ms
Loss rate: 0.04%
```
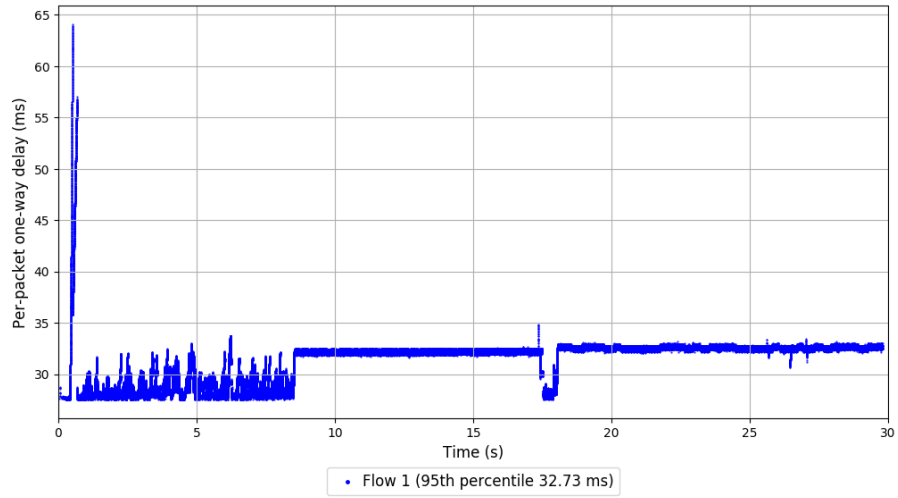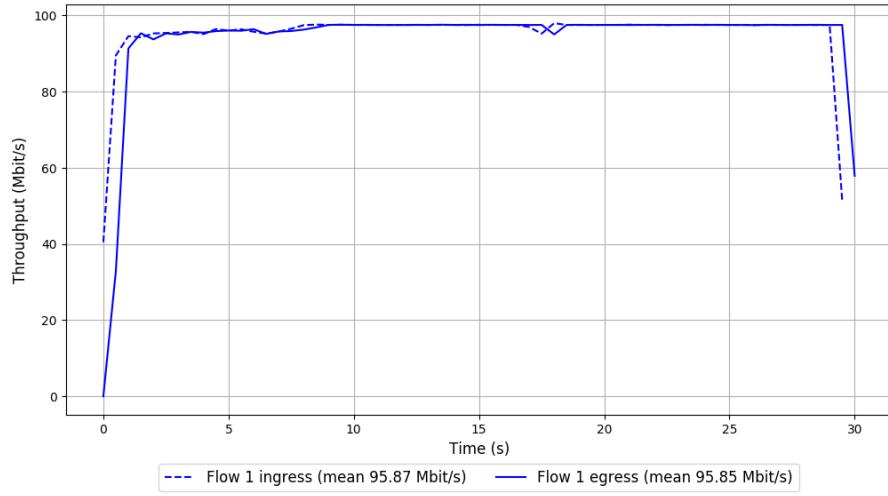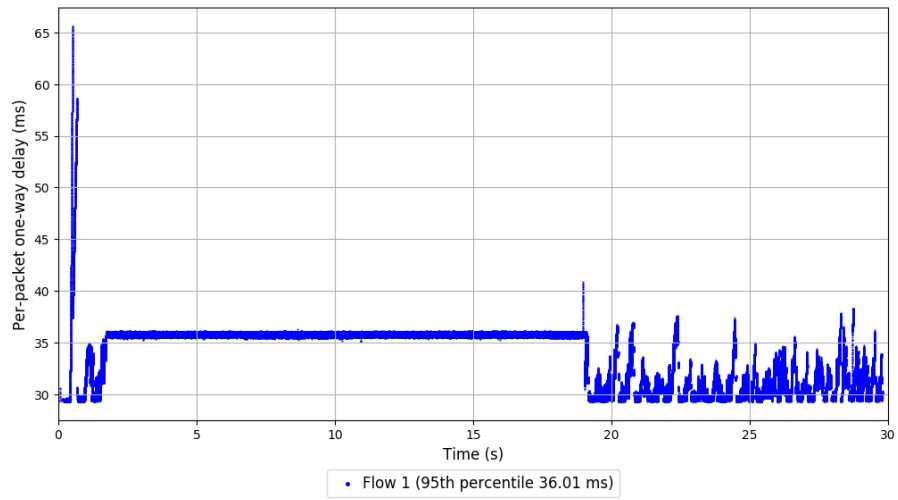
Run 5: Report of LEDBAT — Data Link
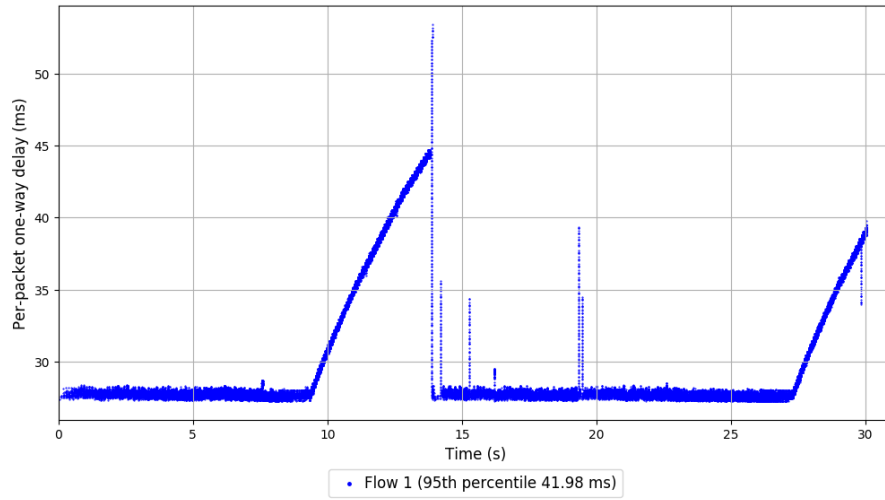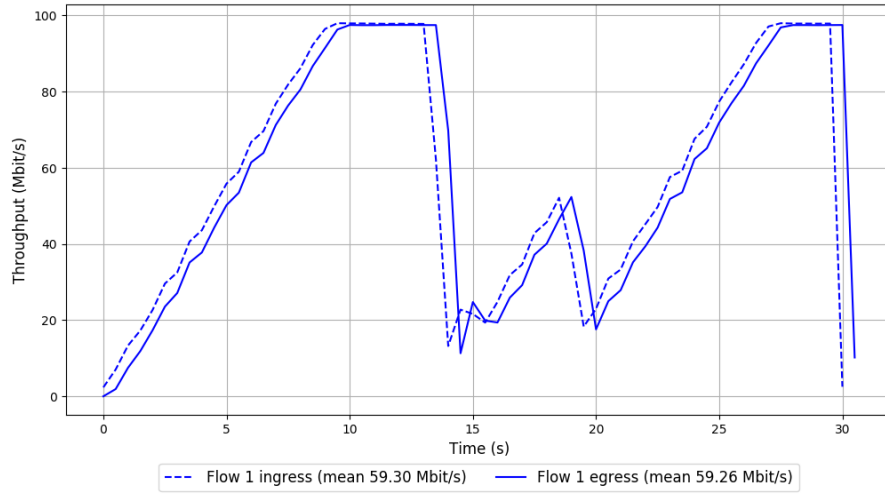
```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2020-02-17 21:48:57
End at: 2020-02-17 21:49:27
Local clock offset: 1.815 ms
Remote clock offset: -0.832 ms


# Below is generated by plot.py at 2020-02-17 23:54:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 36.585 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 90.76 Mbit/s
95th percentile per-packet one-way delay: 36.585 ms
Loss rate: 0.00%
```
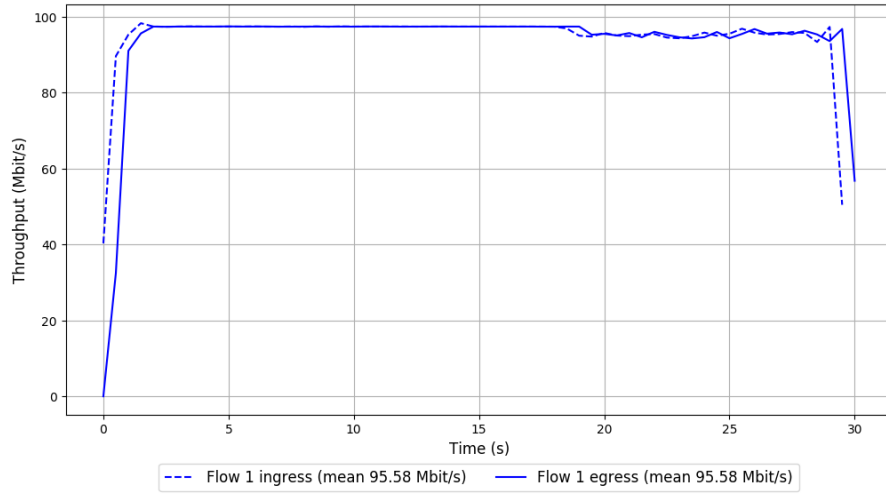
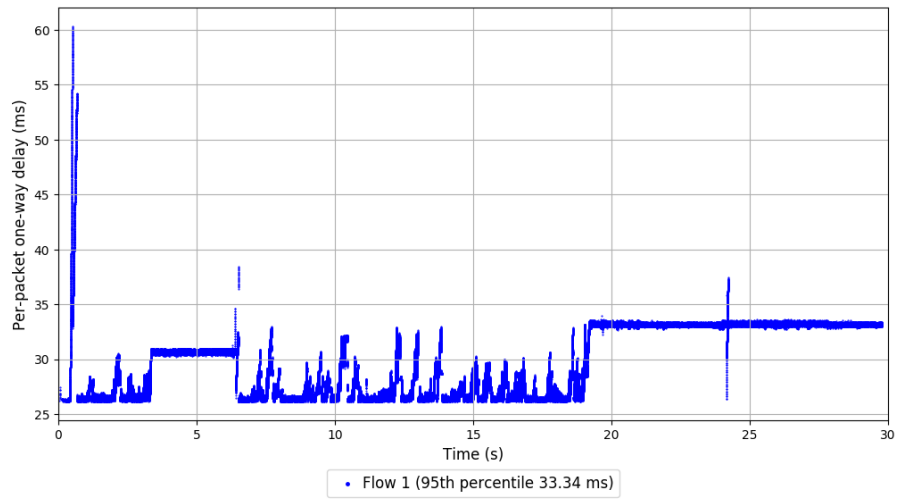Run 1: Report of Muses_DecisionTree — Data Link
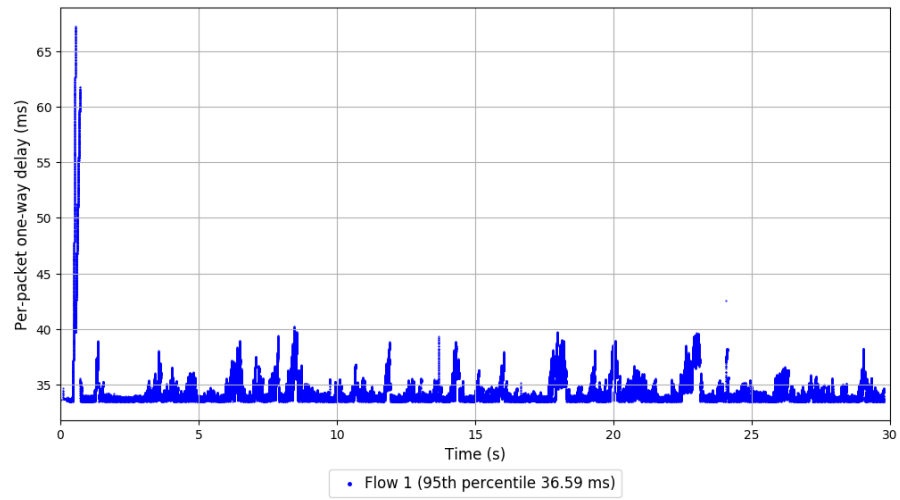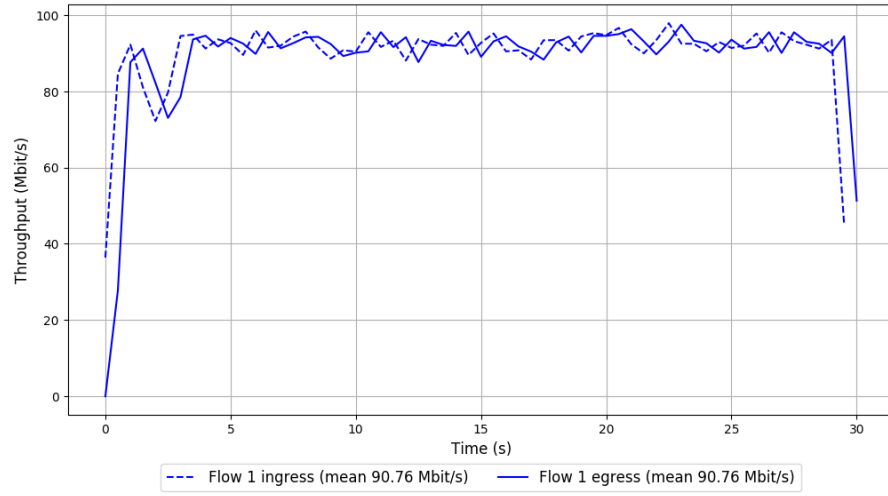
```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2020-02-17 22:16:17
End at: 2020-02-17 22:16:47
Local clock offset: 7.057 ms
Remote clock offset: -0.71 ms


# Below is generated by plot.py at 2020-02-17 23:55:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 32.725 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 32.725 ms
Loss rate: 0.00%
```
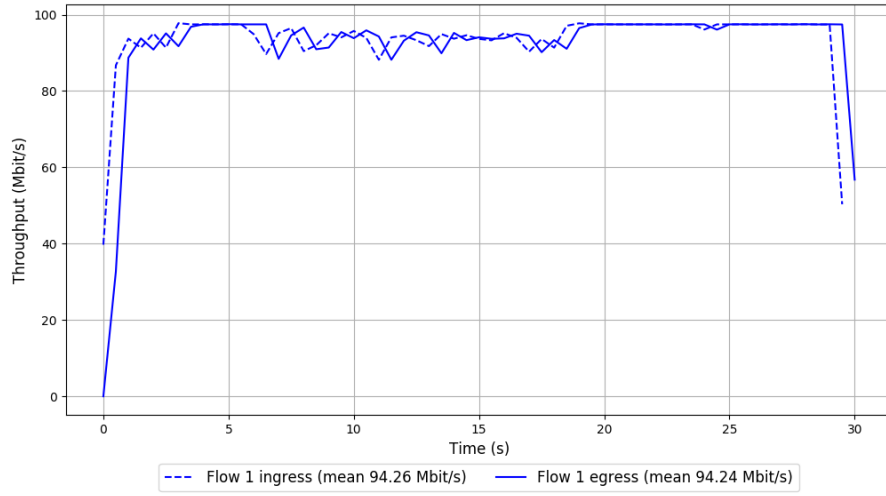
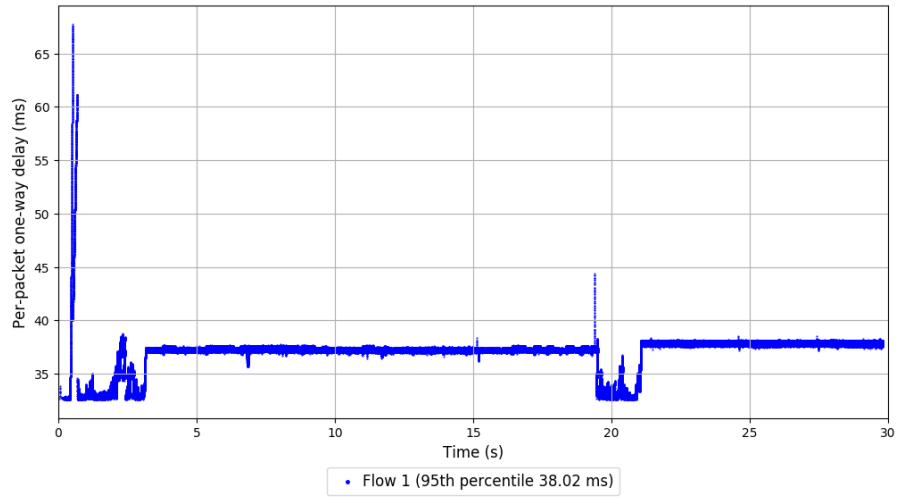Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2020-02-17 22:43:31
End at: 2020-02-17 22:44:01
Local clock offset: 3.263 ms
Remote clock offset: -2.722 ms


# Below is generated by plot.py at 2020-02-17 23:55:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.58 Mbit/s
95th percentile per-packet one-way delay: 36.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.58 Mbit/s
95th percentile per-packet one-way delay: 36.012 ms
Loss rate: 0.00%
```
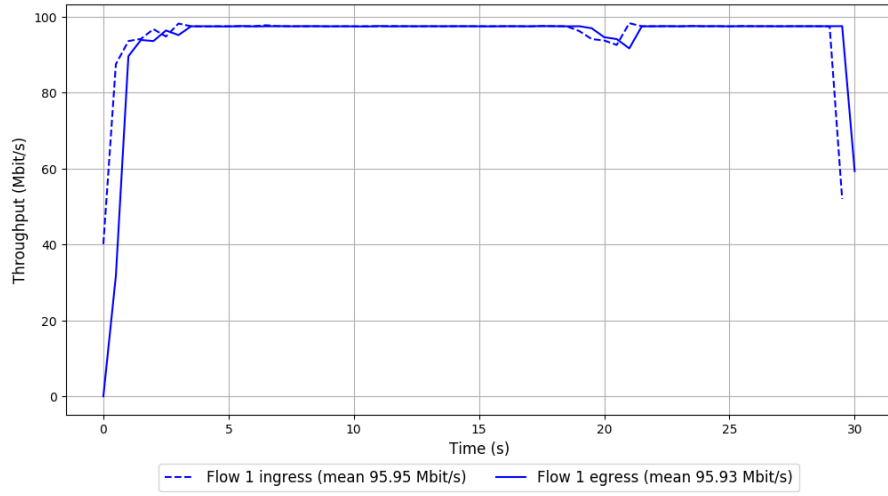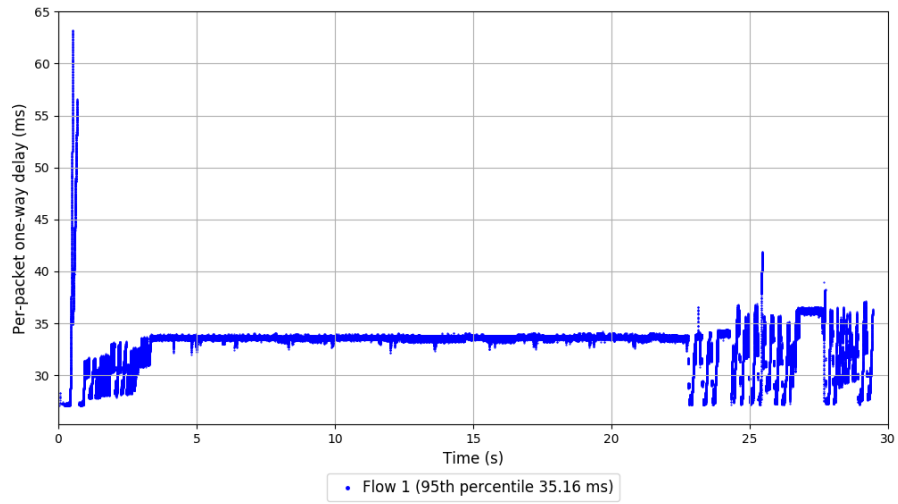
Run 3: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 95.58 Mbit/s)   Flow 1 egress (mean 95.58 Mbit/s)
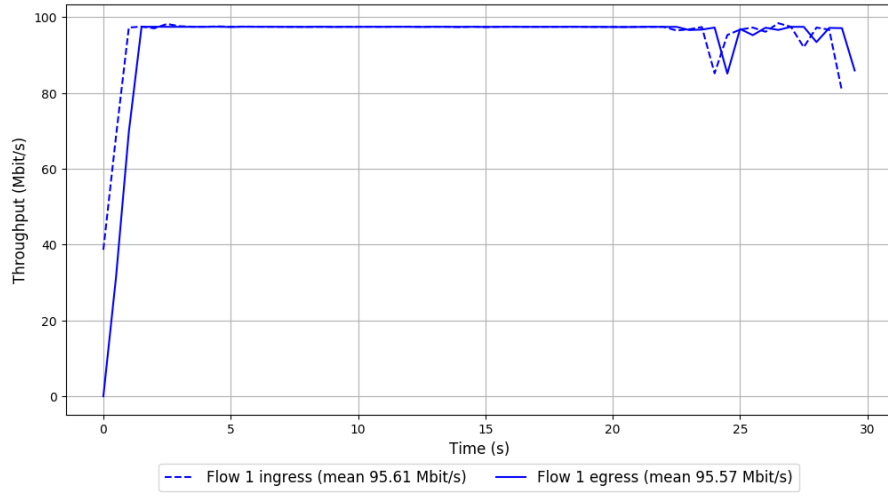

Flow 1 (95th percentile 36.01 ms)

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2020-02-17 23:10:44
End at: 2020-02-17 23:11:14
Local clock offset: 5.792 ms
Remote clock offset: -3.892 ms


# Below is generated by plot.py at 2020-02-17 23:55:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 33.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.24 Mbit/s
95th percentile per-packet one-way delay: 33.335 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2020-02-17 23:37:57
End at: 2020-02-17 23:38:27
Local clock offset: 1.005 ms
Remote clock offset: -2.389 ms


# Below is generated by plot.py at 2020-02-17 23:55:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.93 Mbit/s
95th percentile per-packet one-way delay: 38.024 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.93 Mbit/s
95th percentile per-packet one-way delay: 38.024 ms
Loss rate: 0.01%
```
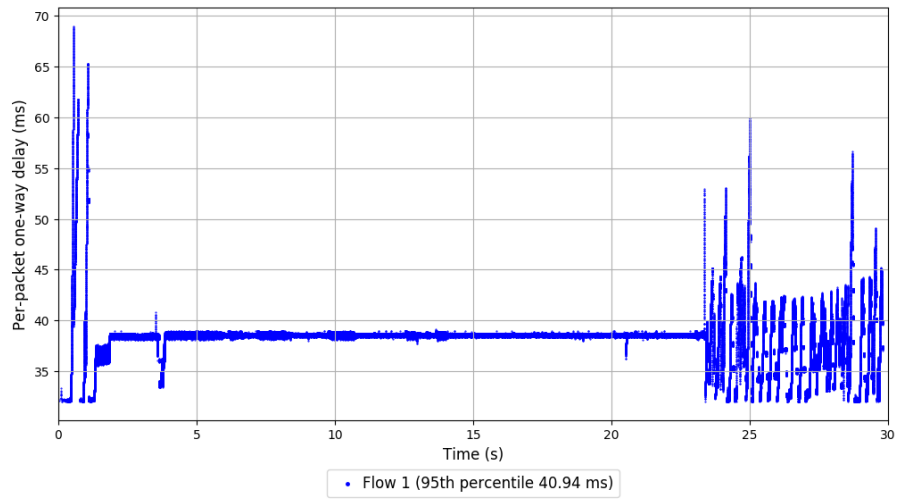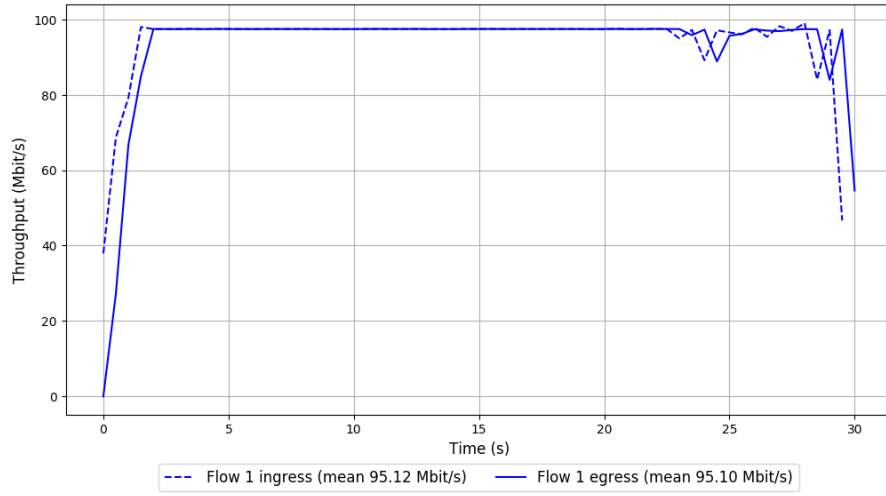
Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 95.95 Mbit/s) ——— Flow 1 egress (mean 95.93 Mbit/s)

• Flow 1 (95th percentile 38.02 ms)

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-17 21:30:46
End at: 2020-02-17 21:31:16
Local clock offset: 4.756 ms
Remote clock offset: -2.613 ms


# Below is generated by plot.py at 2020-02-17 23:55:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 35.159 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.57 Mbit/s
95th percentile per-packet one-way delay: 35.159 ms
Loss rate: 0.01%
```
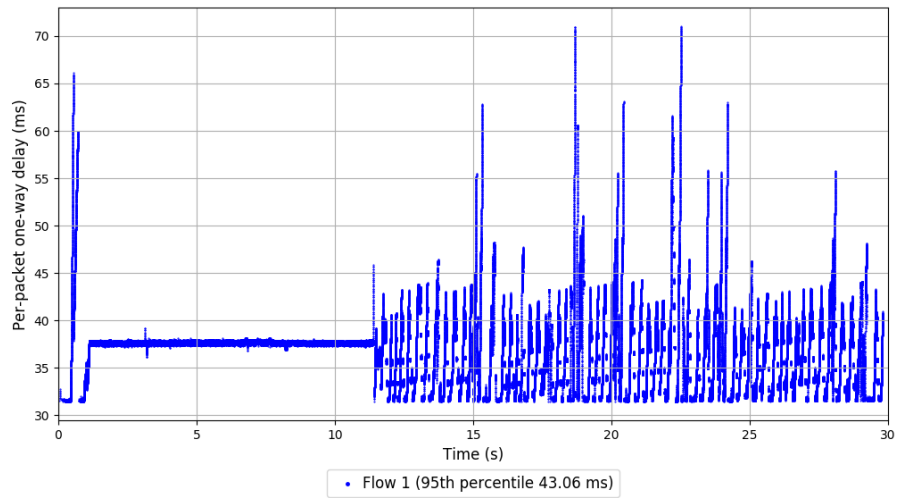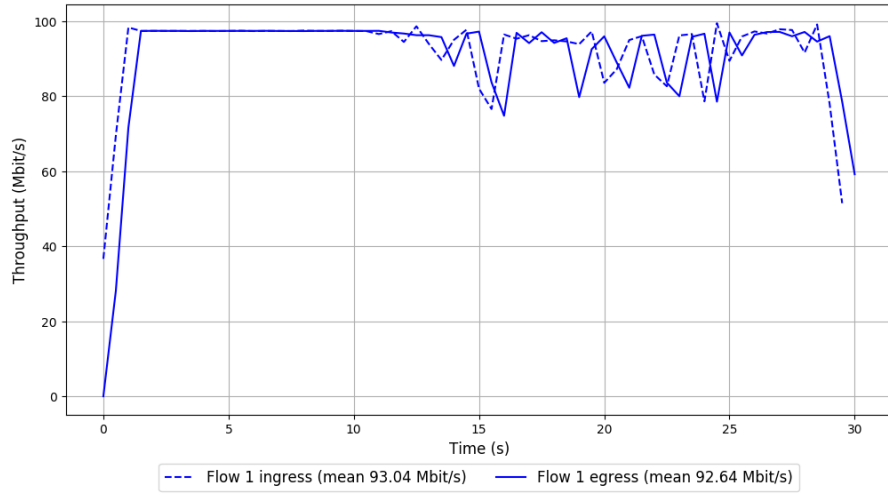
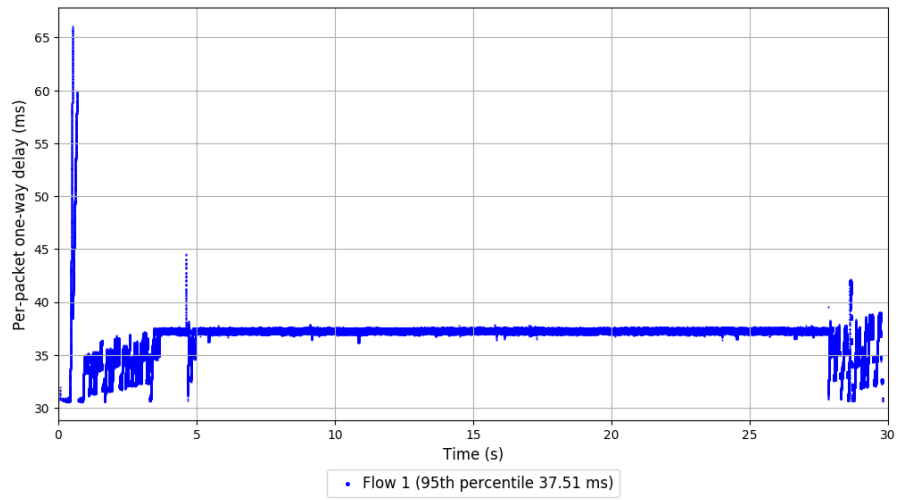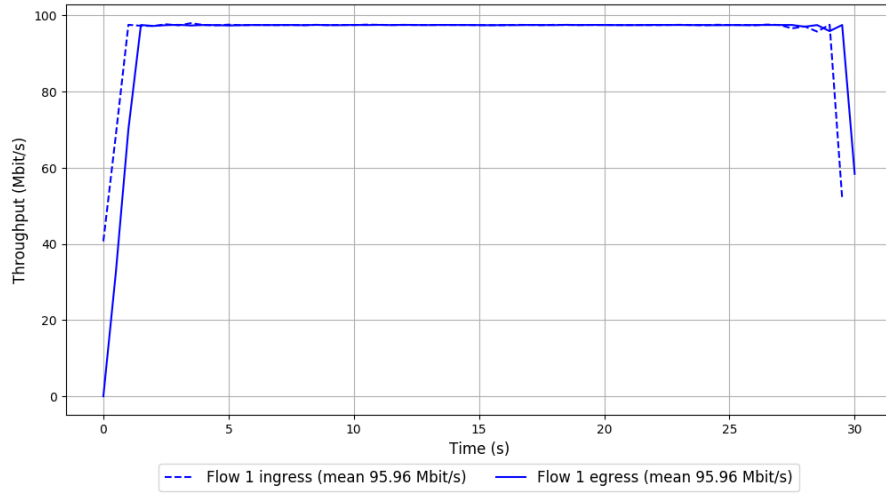Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-17 21:58:05
End at: 2020-02-17 21:58:35
Local clock offset: 5.577 ms
Remote clock offset: 0.158 ms


# Below is generated by plot.py at 2020-02-17 23:55:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.10 Mbit/s
95th percentile per-packet one-way delay: 40.941 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.10 Mbit/s
95th percentile per-packet one-way delay: 40.941 ms
Loss rate: 0.01%
```
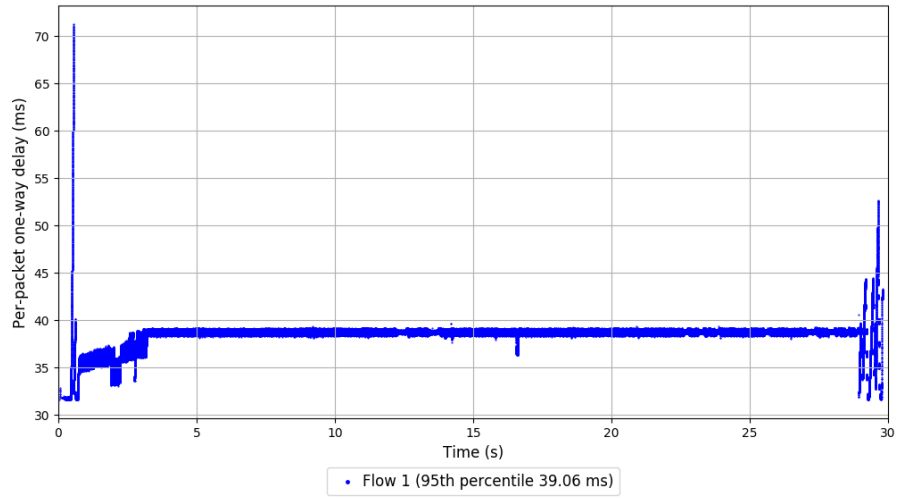
Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-17 22:25:21
End at: 2020-02-17 22:25:51
Local clock offset: 8.169 ms
Remote clock offset: 0.965 ms


# Below is generated by plot.py at 2020-02-17 23:55:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 43.060 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 92.64 Mbit/s
95th percentile per-packet one-way delay: 43.060 ms
Loss rate: 0.40%
```
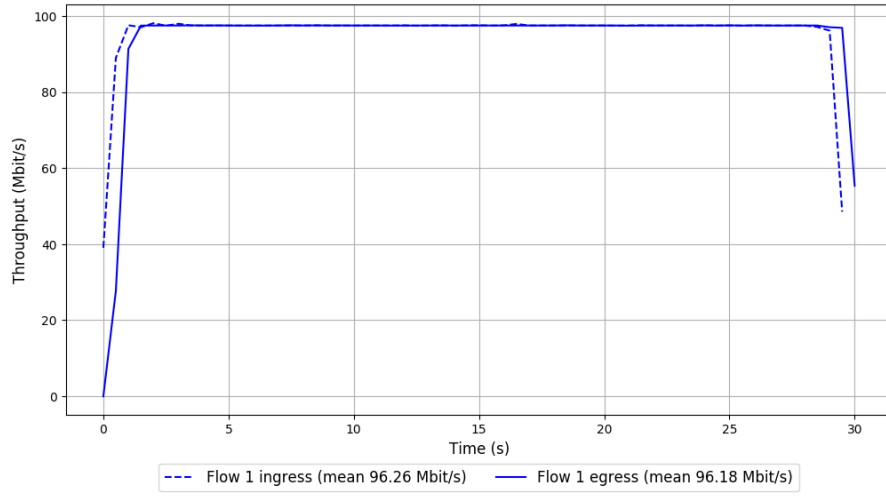
Run 3: Report of Muses_DecisionTreeH0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-17 22:52:35
End at: 2020-02-17 22:53:05
Local clock offset: 2.498 ms
Remote clock offset: -2.484 ms


# Below is generated by plot.py at 2020-02-17 23:56:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 37.511 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 95.96 Mbit/s
95th percentile per-packet one-way delay: 37.511 ms
Loss rate: 0.01%
```
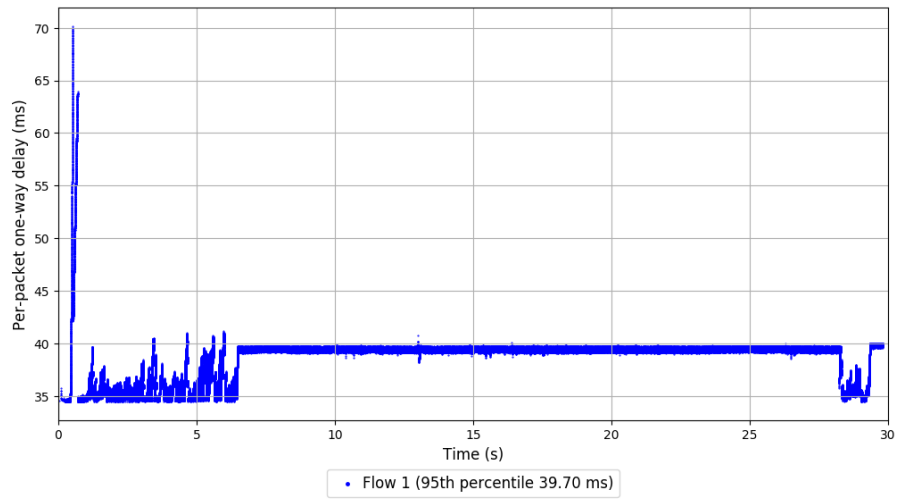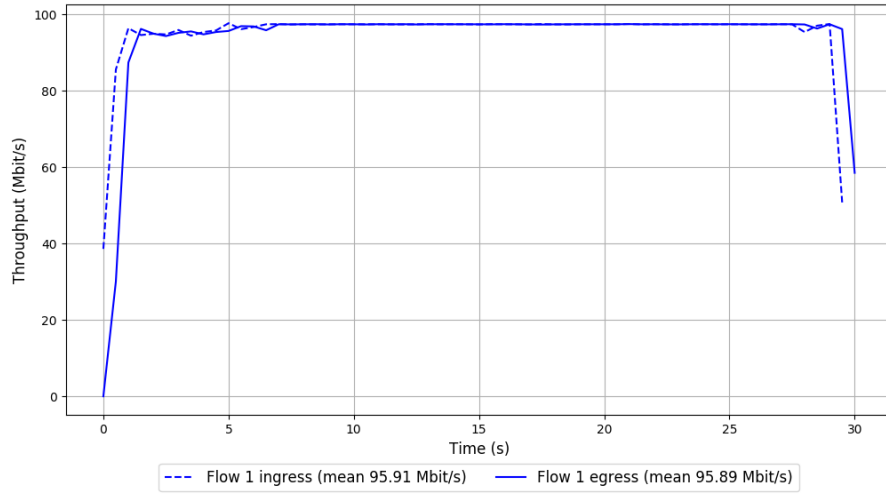
Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2020-02-17 23:19:47
End at: 2020-02-17 23:20:17
Local clock offset: 6.26 ms
Remote clock offset: -0.505 ms


# Below is generated by plot.py at 2020-02-17 23:56:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.18 Mbit/s
95th percentile per-packet one-way delay: 39.061 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 96.18 Mbit/s
95th percentile per-packet one-way delay: 39.061 ms
Loss rate: 0.05%
```
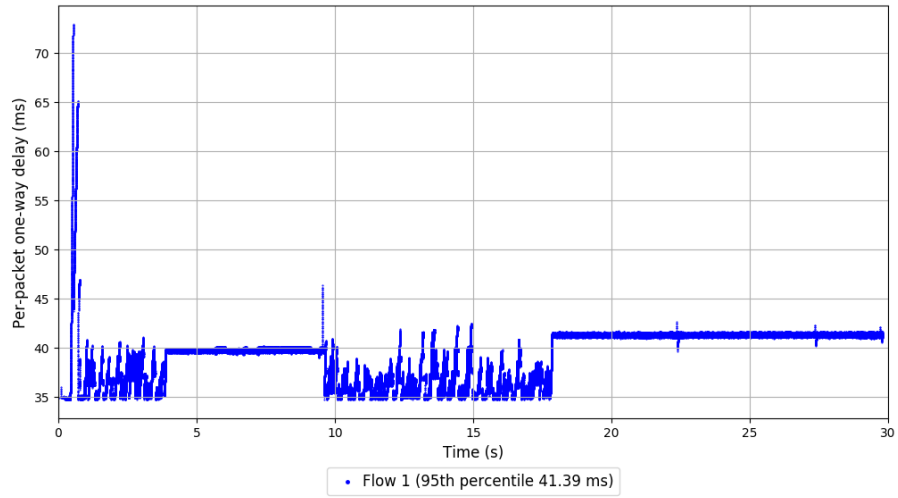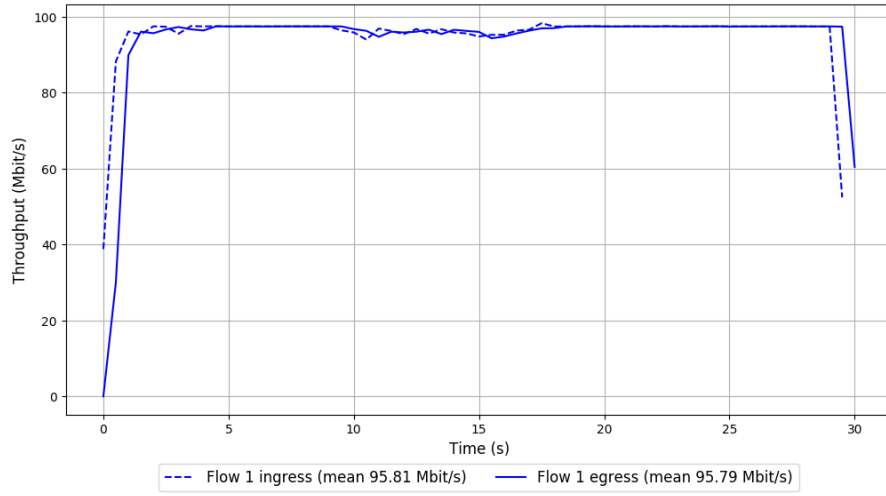
Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-17 21:51:11
End at: 2020-02-17 21:51:41
Local clock offset: 1.376 ms
Remote clock offset: 1.118 ms


# Below is generated by plot.py at 2020-02-17 23:56:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 39.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.89 Mbit/s
95th percentile per-packet one-way delay: 39.699 ms
Loss rate: 0.00%
```
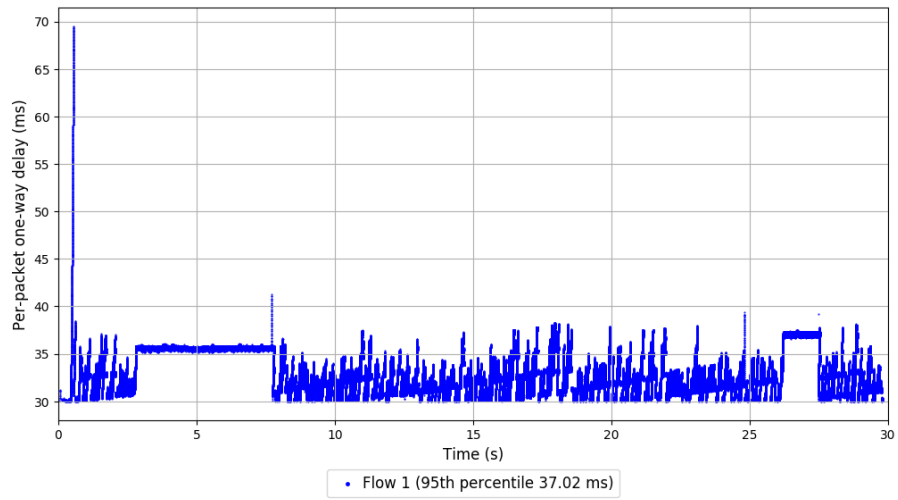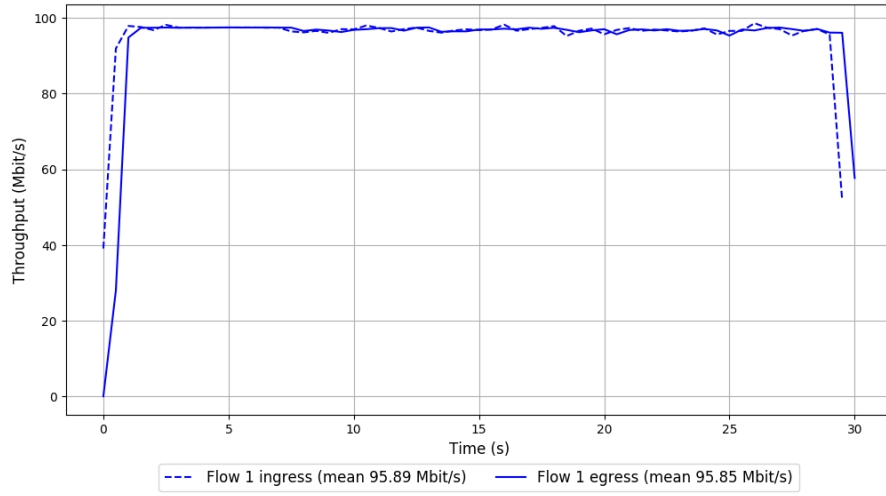
Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-17 22:18:31
End at: 2020-02-17 22:19:01
Local clock offset: 2.834 ms
Remote clock offset: 1.215 ms


# Below is generated by plot.py at 2020-02-17 23:56:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 41.387 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.79 Mbit/s
95th percentile per-packet one-way delay: 41.387 ms
Loss rate: 0.00%
```
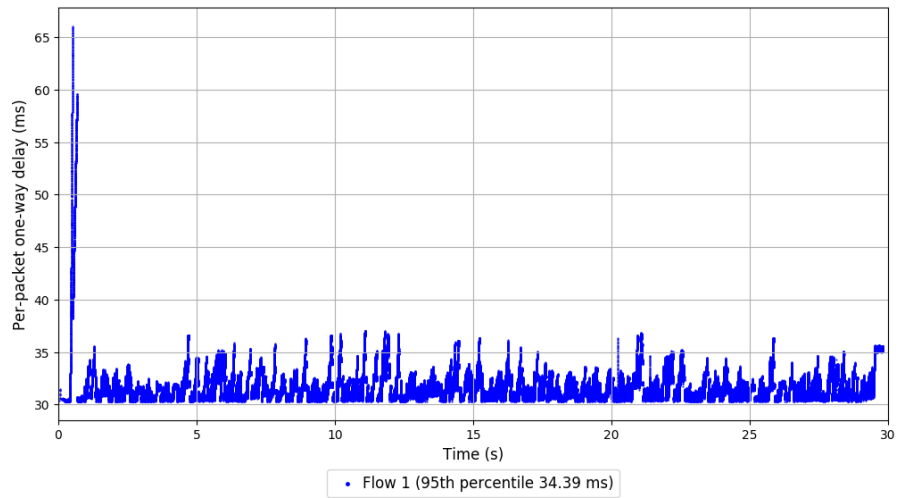
Run 2: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 95.81 Mbit/s)   Flow 1 egress (mean 95.79 Mbit/s)

• Flow 1 (95th percentile 41.39 ms)

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-17 22:45:46
End at: 2020-02-17 22:46:16
Local clock offset: 5.854 ms
Remote clock offset: -2.191 ms


# Below is generated by plot.py at 2020-02-17 23:56:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 37.020 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 95.85 Mbit/s
95th percentile per-packet one-way delay: 37.020 ms
Loss rate: 0.04%
```
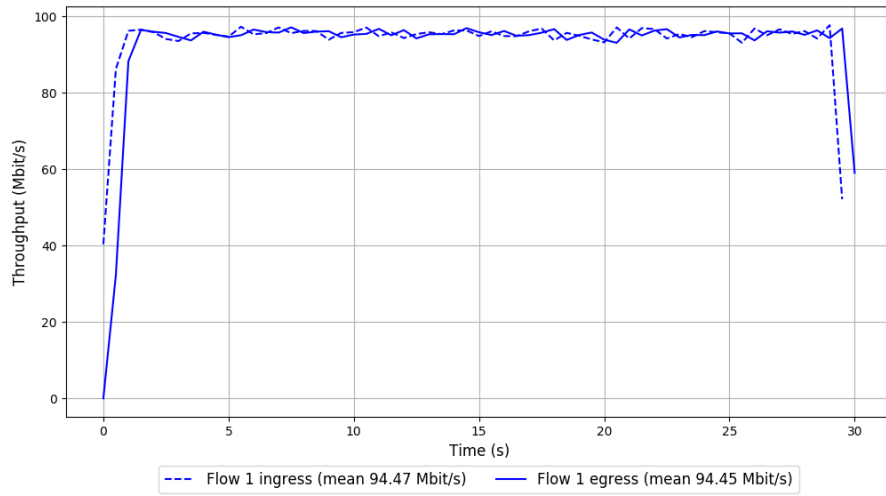
Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-17 23:12:58
End at: 2020-02-17 23:13:28
Local clock offset: 1.92 ms
Remote clock offset: -3.37 ms


# Below is generated by plot.py at 2020-02-17 23:56:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 34.394 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 94.45 Mbit/s
95th percentile per-packet one-way delay: 34.394 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 94.47 Mbit/s)   —— Flow 1 egress (mean 94.45 Mbit/s)

• Flow 1 (95th percentile 34.39 ms)

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2020-02-17 23:40:12
End at: 2020-02-17 23:40:42
Local clock offset: 5.27 ms
Remote clock offset: -6.948 ms


# Below is generated by plot.py at 2020-02-17 23:56:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 29.145 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 29.145 ms
Loss rate: 0.01%
```

Run 5: Report of Muses_DecisionTreeR0 — Data Link
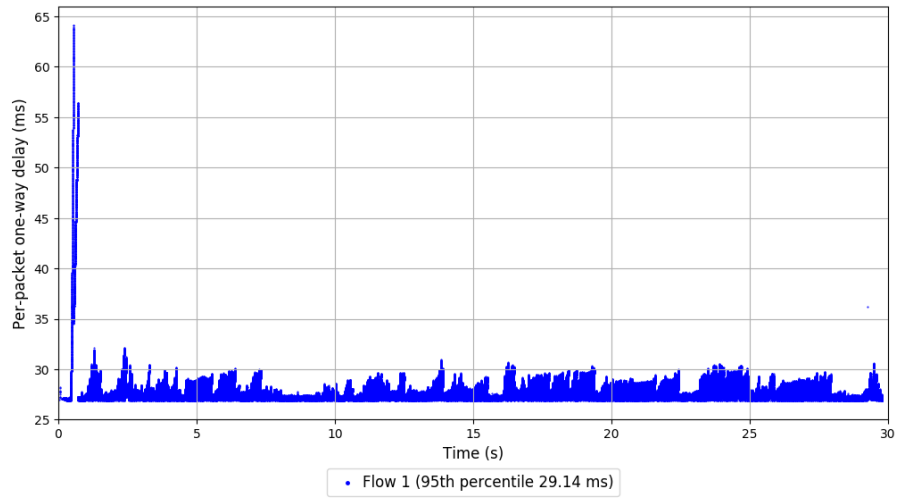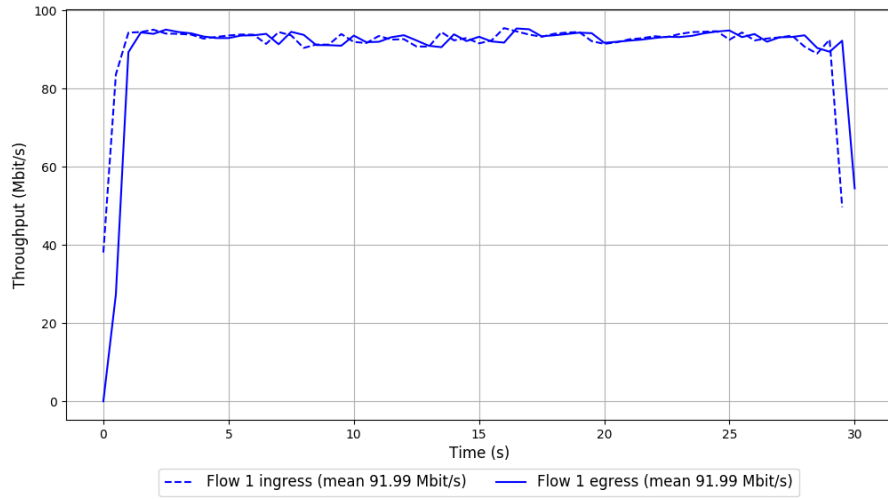
```
Run 1: Statistics of PCC-Allegro

Start at: 2020-02-17 21:53:29
End at: 2020-02-17 21:53:59
Local clock offset: 2.492 ms
Remote clock offset: -0.925 ms


# Below is generated by plot.py at 2020-02-17 23:56:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.55 Mbit/s
95th percentile per-packet one-way delay: 37.423 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 91.55 Mbit/s
95th percentile per-packet one-way delay: 37.423 ms
Loss rate: 0.49%
```
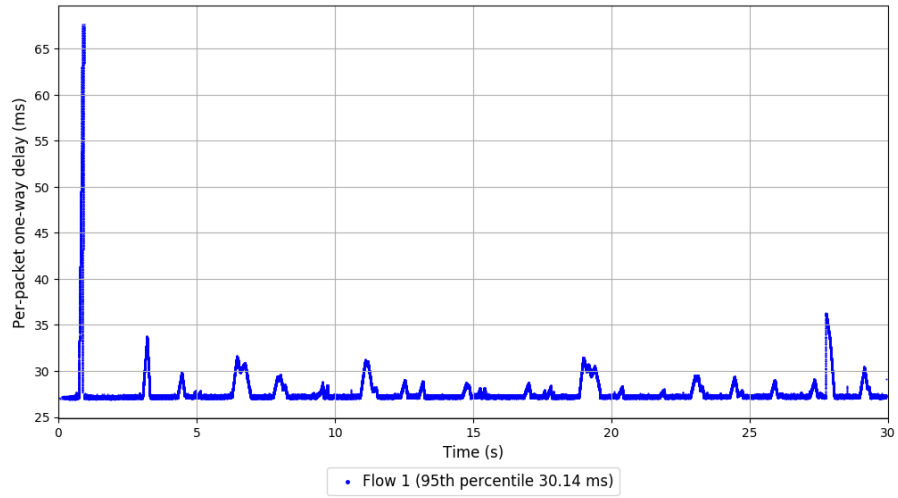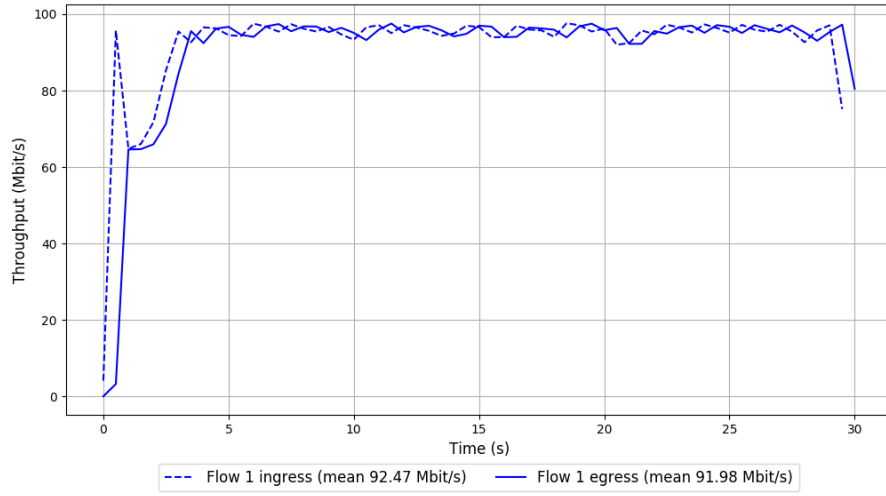
Run 1: Report of PCC-Allegro — Data Link
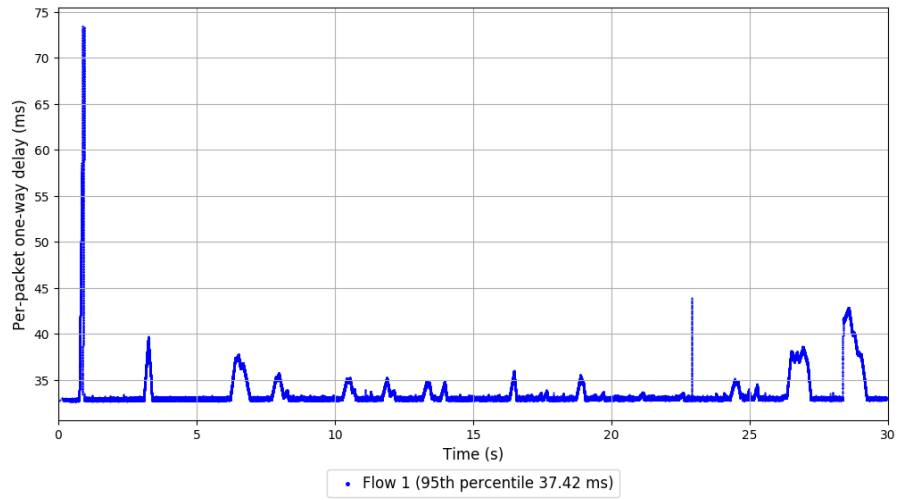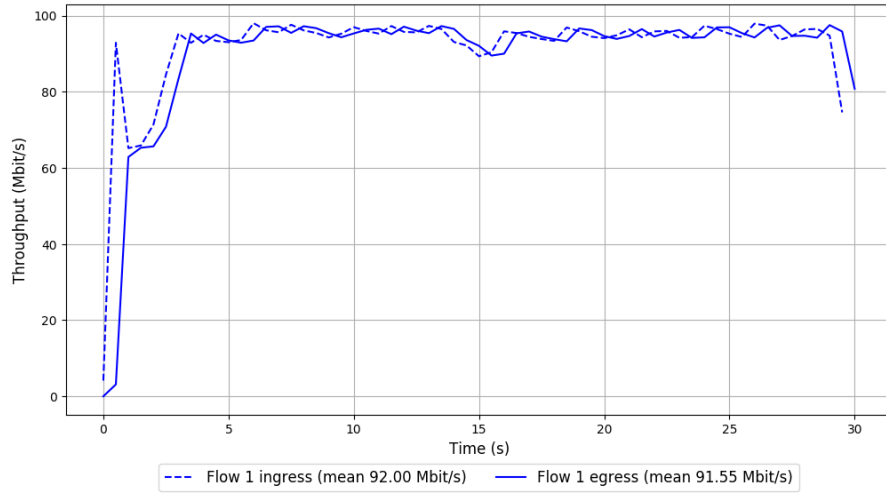
```
Run 2: Statistics of PCC-Allegro

Start at: 2020-02-17 22:20:50
End at: 2020-02-17 22:21:20
Local clock offset: 6.506 ms
Remote clock offset: -2.181 ms


# Below is generated by plot.py at 2020-02-17 23:57:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 35.766 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 91.37 Mbit/s
95th percentile per-packet one-way delay: 35.766 ms
Loss rate: 0.58%
```
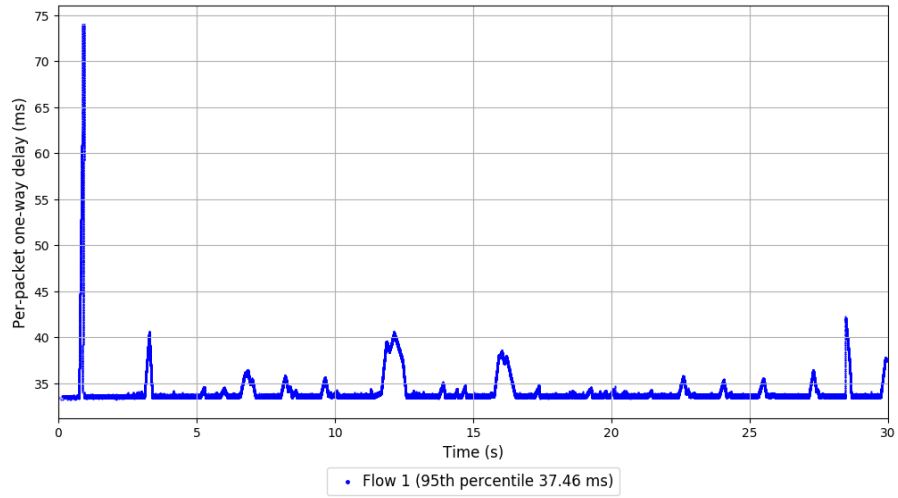
Run 2: Report of PCC-Allegro — Data Link
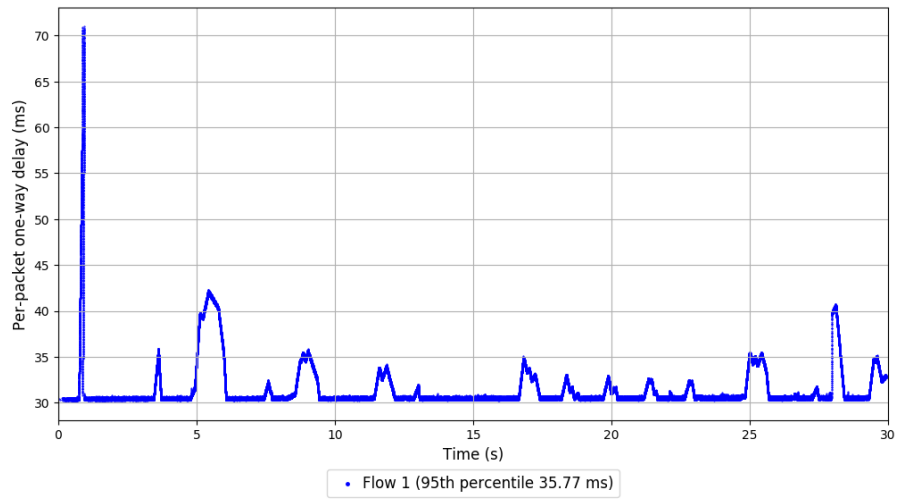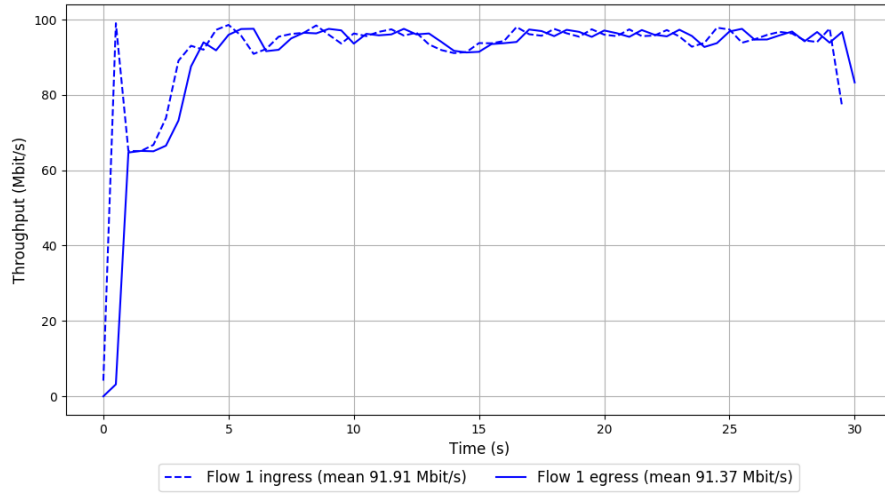
```
Run 3: Statistics of PCC-Allegro

Start at: 2020-02-17 22:48:04
End at: 2020-02-17 22:48:34
Local clock offset: 5.78 ms
Remote clock offset: -4.823 ms


# Below is generated by plot.py at 2020-02-17 23:57:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.98 Mbit/s
95th percentile per-packet one-way delay: 30.137 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 91.98 Mbit/s
95th percentile per-packet one-way delay: 30.137 ms
Loss rate: 0.52%
```

Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 92.47 Mbit/s) — — — Flow 1 egress (mean 91.98 Mbit/s)

Flow 1 (95th percentile 30.14 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2020-02-17 23:15:16
End at: 2020-02-17 23:15:46
Local clock offset: 1.24 ms
Remote clock offset: -3.7 ms


# Below is generated by plot.py at 2020-02-17 23:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 37.460 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 91.68 Mbit/s
95th percentile per-packet one-way delay: 37.460 ms
Loss rate: 0.54%
```

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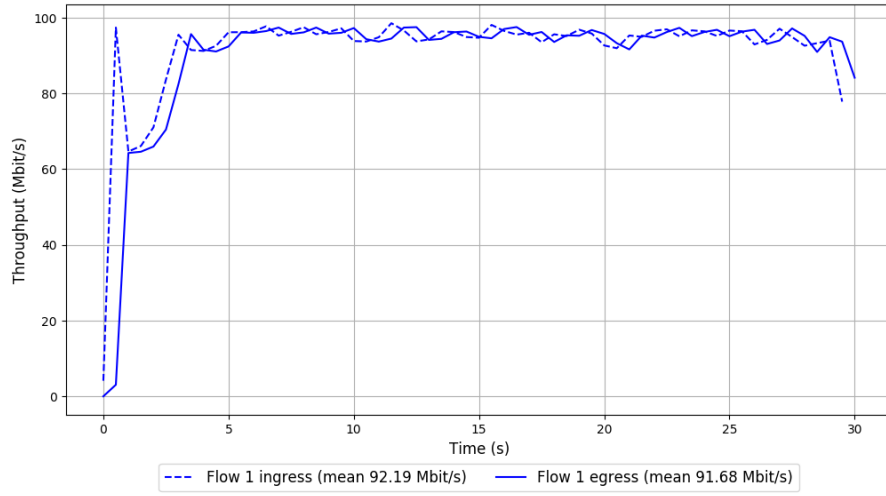
```
Run 5: Statistics of PCC-Allegro

Start at: 2020-02-17 23:42:30
End at: 2020-02-17 23:43:00
Local clock offset: 5.084 ms
Remote clock offset: -5.748 ms


# Below is generated by plot.py at 2020-02-17 23:57:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 91.11 Mbit/s
95th percentile per-packet one-way delay: 27.869 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 91.11 Mbit/s
95th percentile per-packet one-way delay: 27.869 ms
Loss rate: 0.49%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 91.57 Mbit/s)   Flow 1 egress (mean 91.11 Mbit/s)

Flow 1 (95th percentile 27.87 ms)
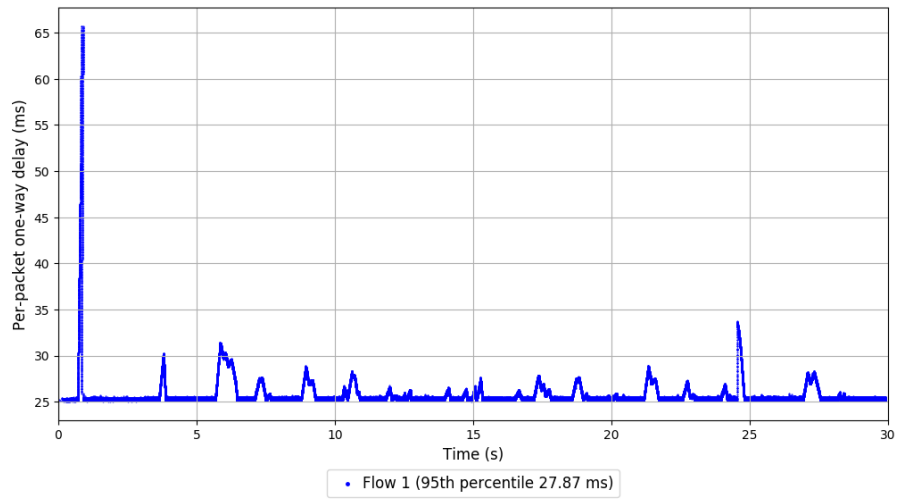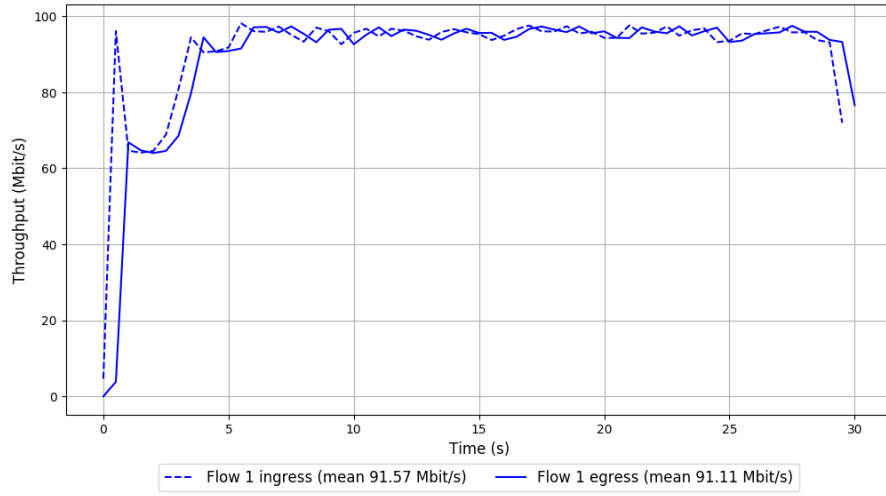
Run 1: Statistics of PCC-Expr

Start at: 2020-02-17 21:43:15
End at: 2020-02-17 21:43:45
Local clock offset: 1.799 ms
Remote clock offset: -1.138 ms

Run 1: Report of PCC-Expr — Data Link
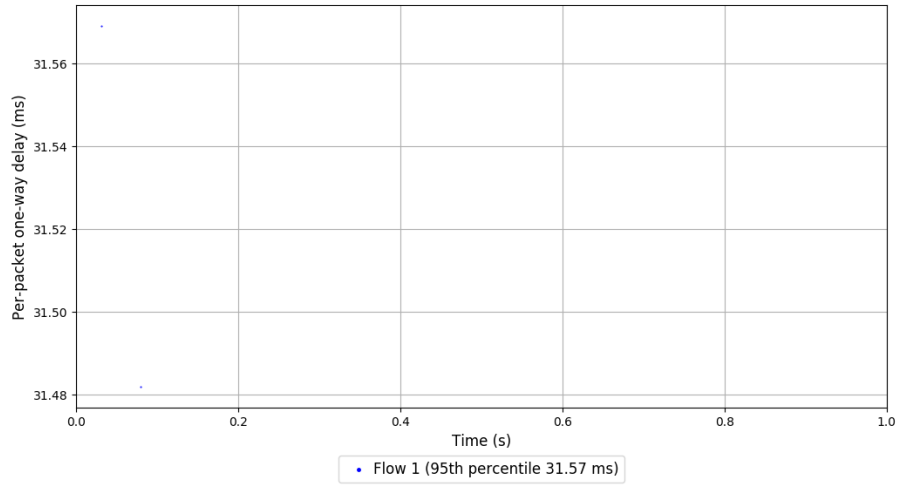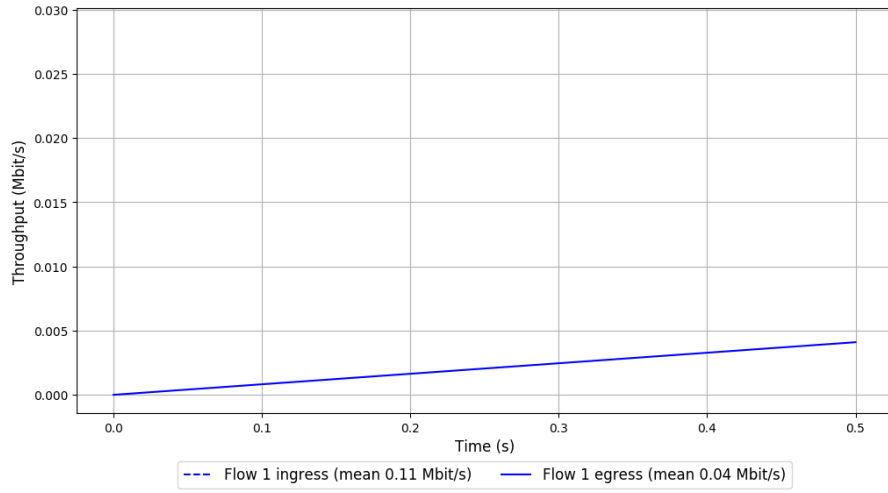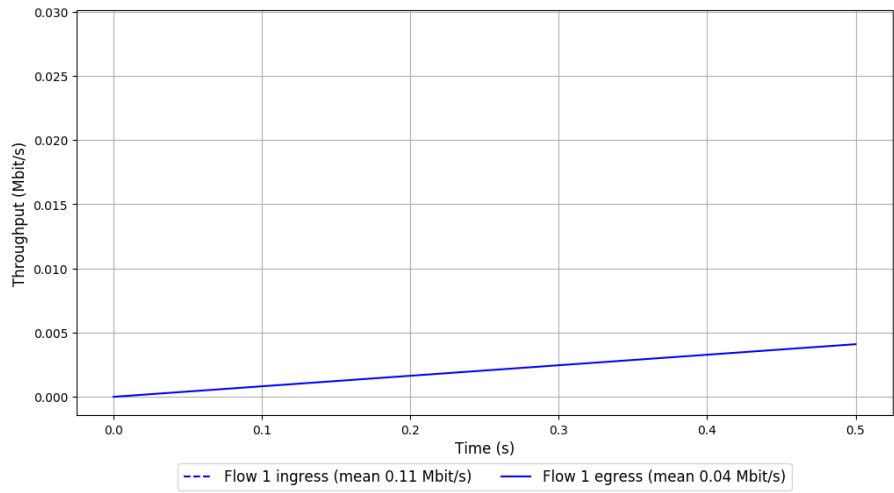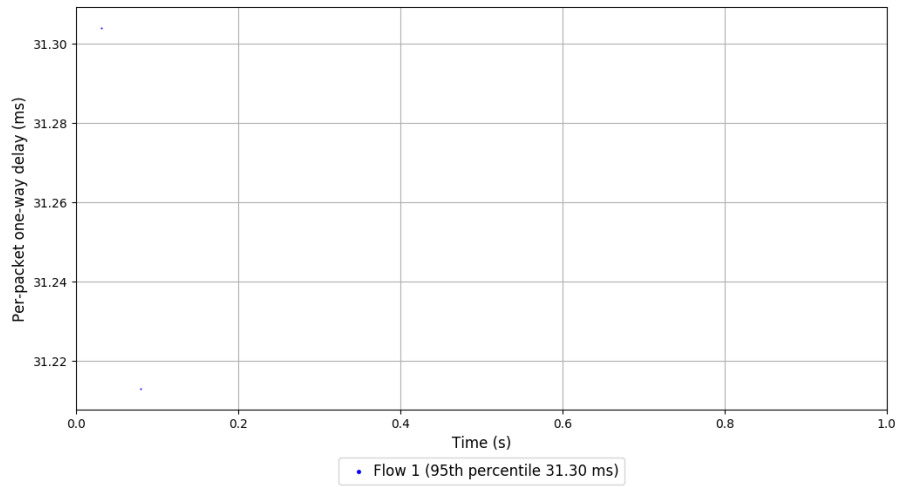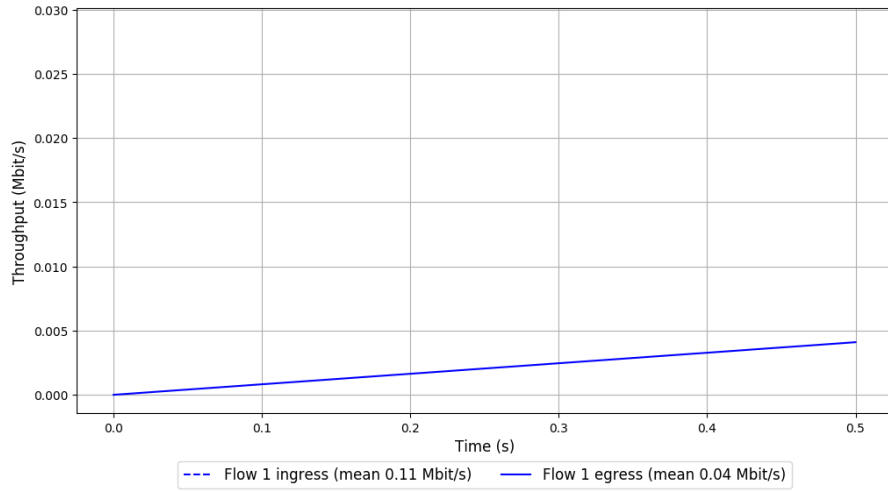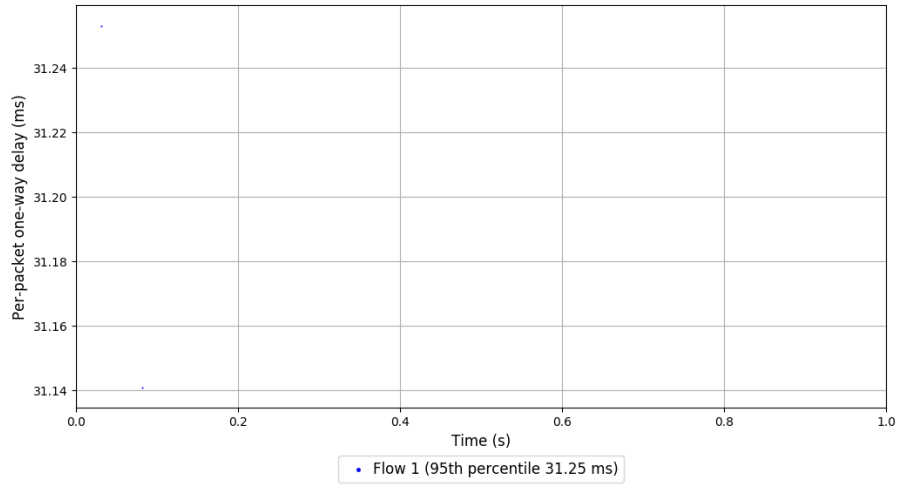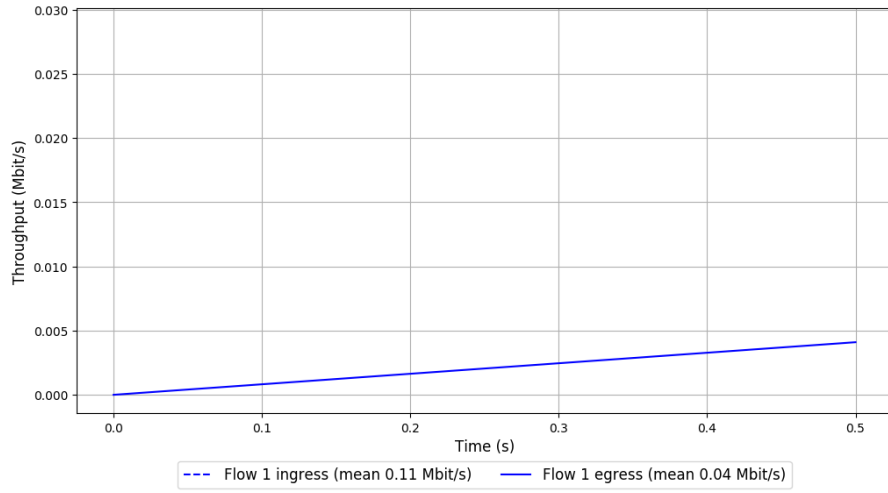
```
Run 2: Statistics of PCC-Expr

Start at: 2020-02-17 22:10:36
End at: 2020-02-17 22:11:06
Local clock offset: 1.761 ms
Remote clock offset: -2.569 ms
```

Run 2: Report of PCC-Expr — Data Link
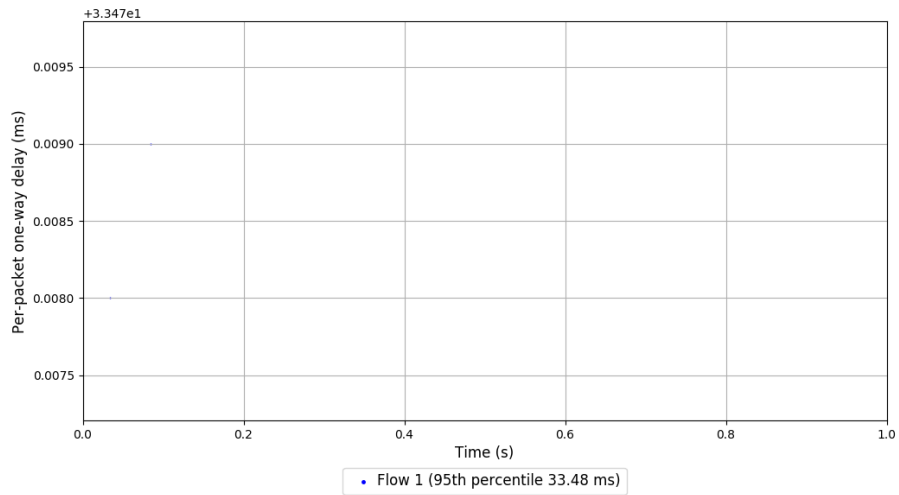
```
Run 3: Statistics of PCC-Expr

Start at: 2020-02-17 22:37:50
End at: 2020-02-17 22:38:20
Local clock offset: 2.563 ms
Remote clock offset: -1.966 ms
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2020-02-17 23:05:02
End at: 2020-02-17 23:05:32
Local clock offset: 5.476 ms
Remote clock offset: -1.078 ms
```

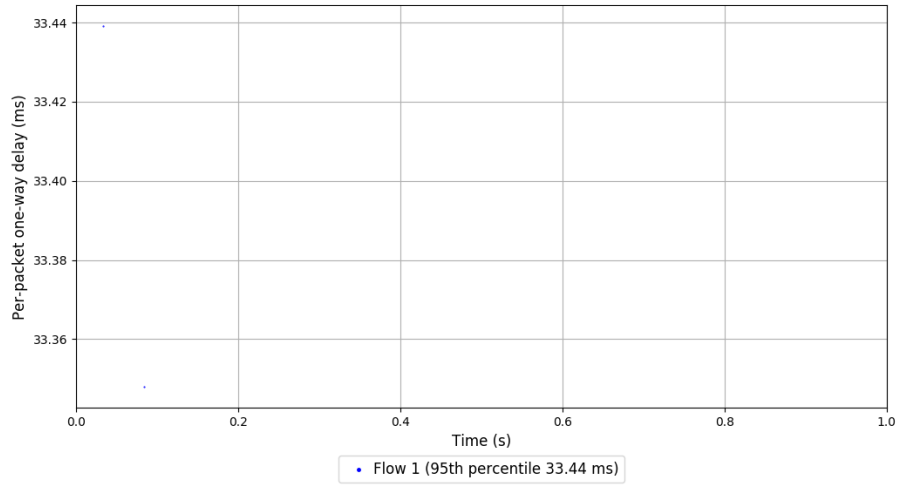# Run 4: Report of PCC-Expr — Data Link
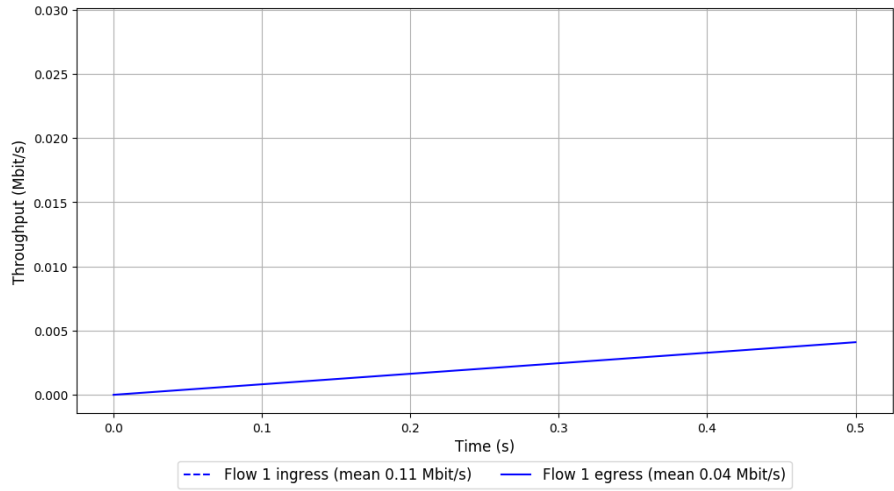
```
Run 5: Statistics of PCC-Expr

Start at: 2020-02-17 23:32:15
End at: 2020-02-17 23:32:45
Local clock offset: 0.899 ms
Remote clock offset: -4.126 ms
```

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

```
Run 1: Statistics of QUIC Cubic

Start at: 2020-02-17 21:54:37
End at: 2020-02-17 21:55:07
Local clock offset: 6.146 ms
Remote clock offset: -1.968 ms


# Below is generated by plot.py at 2020-02-17 23:57:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.51 Mbit/s
95th percentile per-packet one-way delay: 63.563 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 81.51 Mbit/s
95th percentile per-packet one-way delay: 63.563 ms
Loss rate: 1.36%
```

Run 1: Report of QUIC Cubic — Data Link
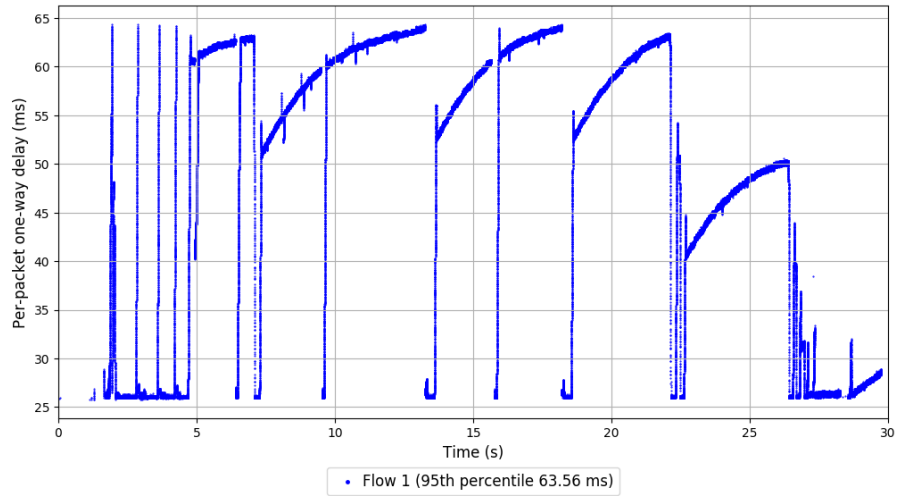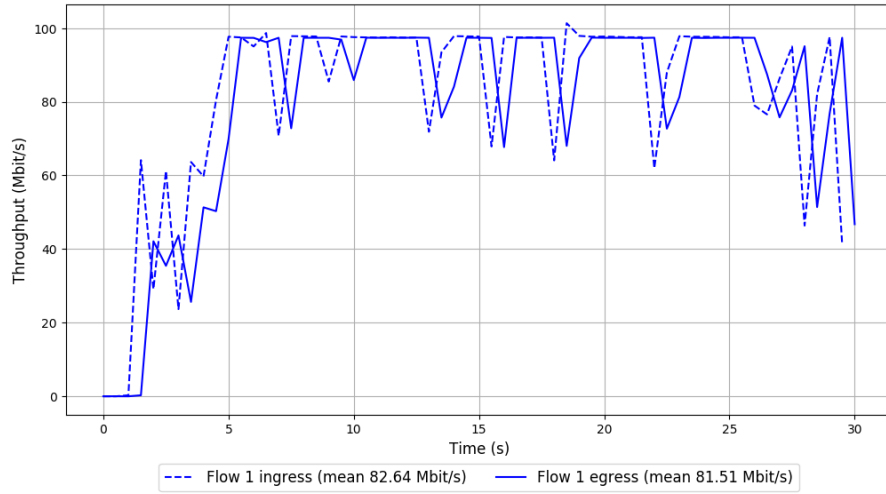
```
Run 2: Statistics of QUIC Cubic

Start at: 2020-02-17 22:21:58
End at: 2020-02-17 22:22:28
Local clock offset: 7.108 ms
Remote clock offset: -2.697 ms

# Below is generated by plot.py at 2020-02-17 23:57:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.17 Mbit/s
95th percentile per-packet one-way delay: 63.867 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 86.17 Mbit/s
95th percentile per-packet one-way delay: 63.867 ms
Loss rate: 1.31%
```
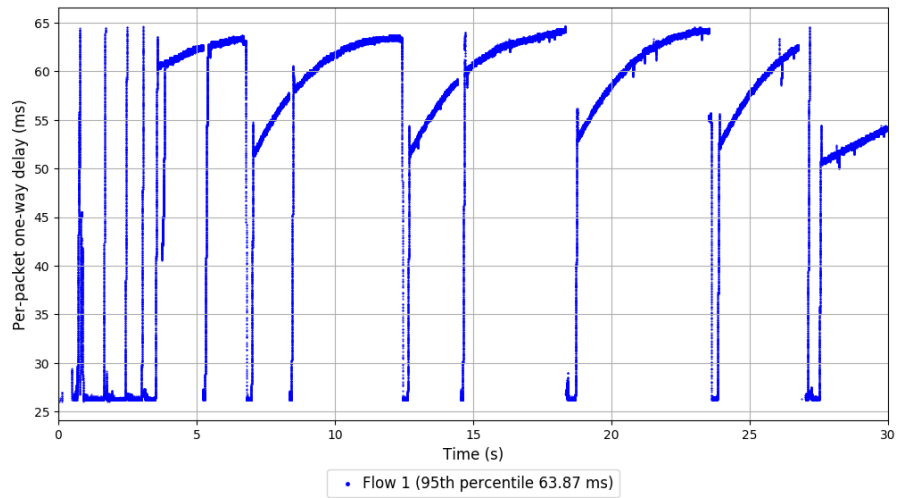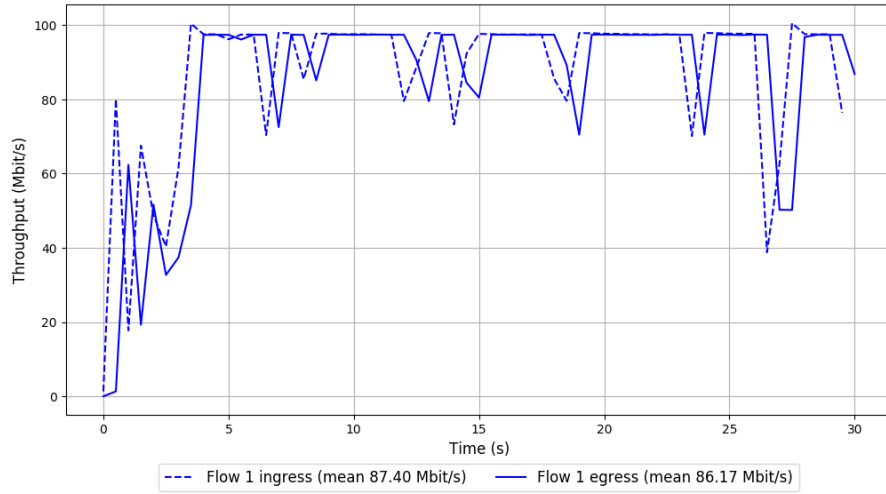
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2020-02-17 22:49:12
End at: 2020-02-17 22:49:42
Local clock offset: 1.81 ms
Remote clock offset: -1.87 ms


# Below is generated by plot.py at 2020-02-17 23:57:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 71.963 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 86.02 Mbit/s
95th percentile per-packet one-way delay: 71.963 ms
Loss rate: 1.39%
```
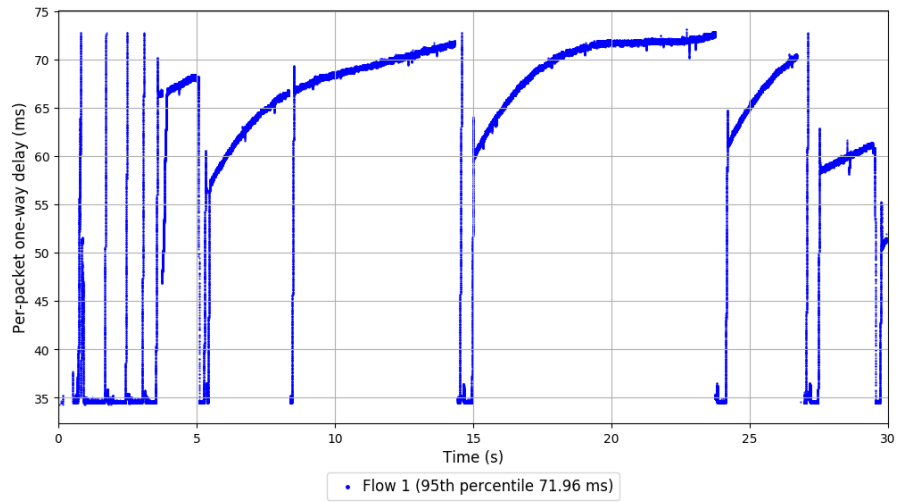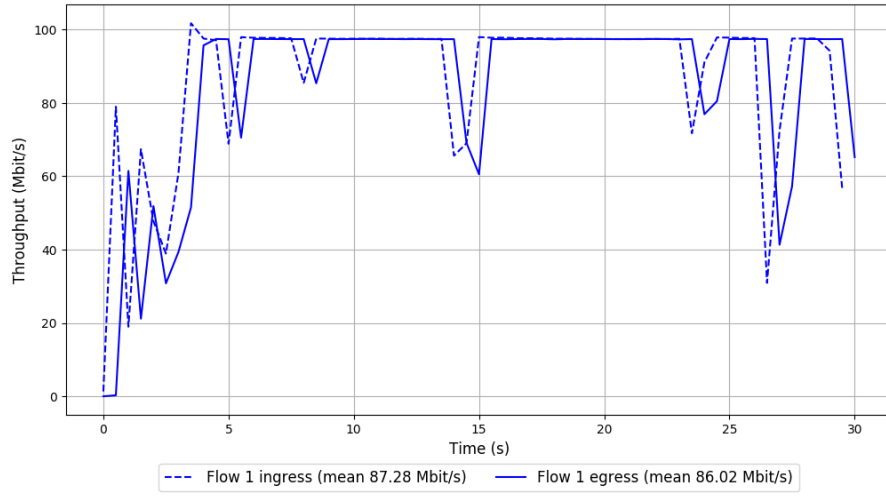
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 87.28 Mbit/s)   Flow 1 egress (mean 86.02 Mbit/s)

Flow 1 (95th percentile 71.96 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2020-02-17 23:16:24
End at: 2020-02-17 23:16:54
Local clock offset: 5.946 ms
Remote clock offset: -3.056 ms


# Below is generated by plot.py at 2020-02-17 23:58:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 66.495 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 86.07 Mbit/s
95th percentile per-packet one-way delay: 66.495 ms
Loss rate: 1.54%
```
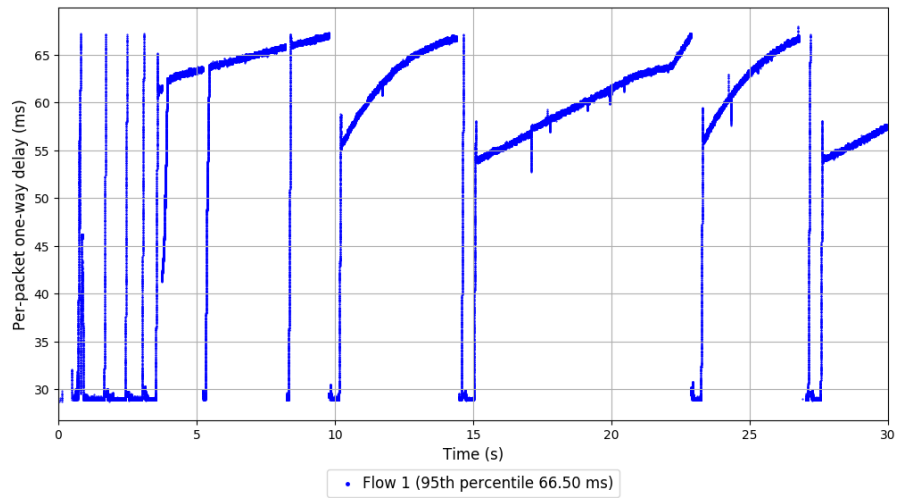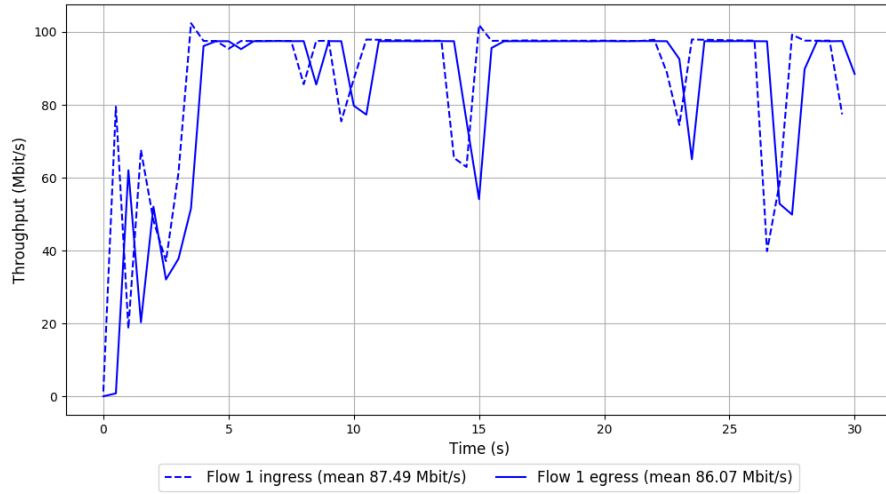
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 87.49 Mbit/s)   Flow 1 egress (mean 86.07 Mbit/s)

Flow 1 (95th percentile 66.50 ms)

172

```
Run 5: Statistics of QUIC Cubic

Start at: 2020-02-17 23:43:38
End at: 2020-02-17 23:44:08
Local clock offset: 5.296 ms
Remote clock offset: -3.447 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.19 Mbit/s
95th percentile per-packet one-way delay: 65.071 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 85.19 Mbit/s
95th percentile per-packet one-way delay: 65.071 ms
Loss rate: 1.53%
```
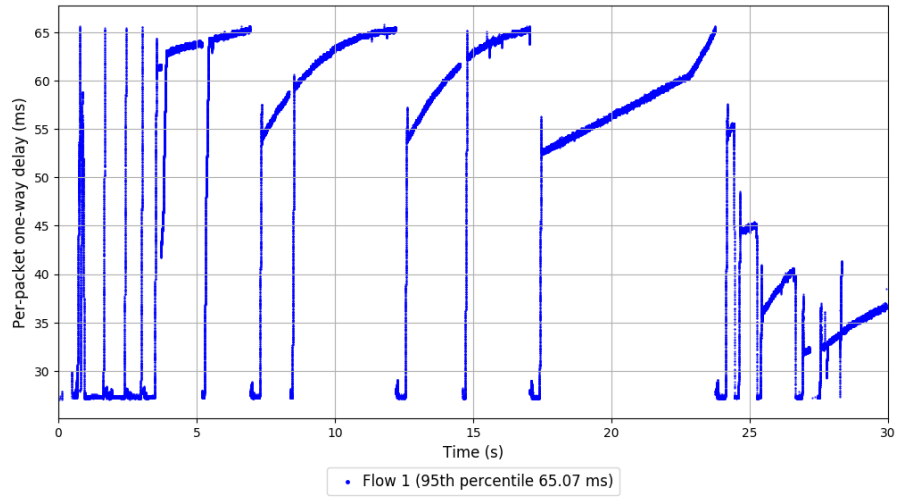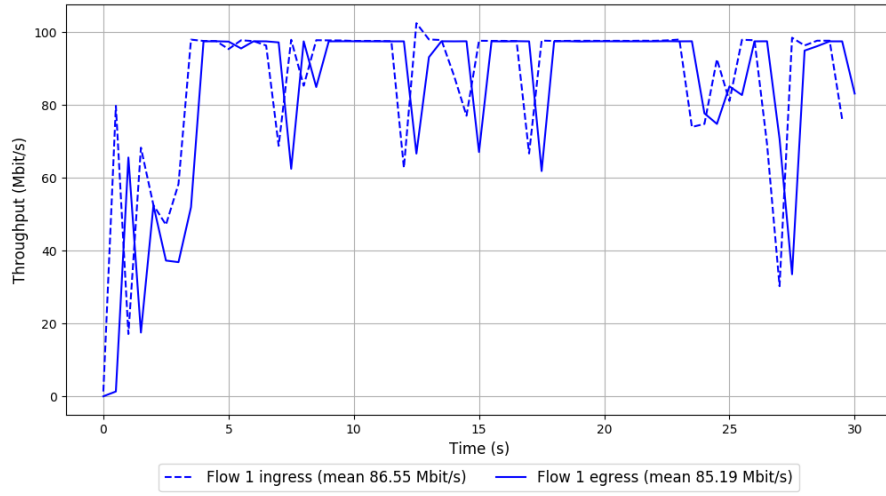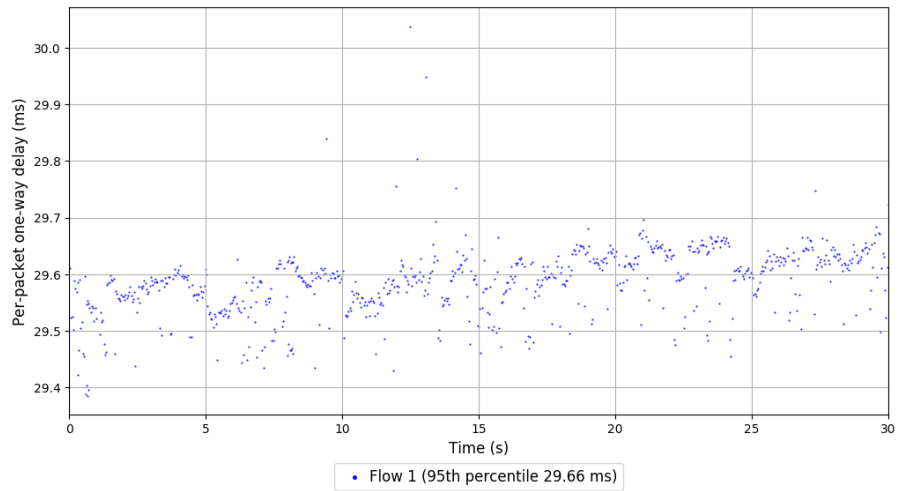
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 86.55 Mbit/s) --- Flow 1 egress (mean 85.19 Mbit/s)

Flow 1 (95th percentile 65.07 ms)

```
Run 1: Statistics of SCReAM

Start at: 2020-02-17 21:33:04
End at: 2020-02-17 21:33:34
Local clock offset: 1.884 ms
Remote clock offset: -2.746 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.658 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 29.658 ms
Loss rate: 0.00%
```
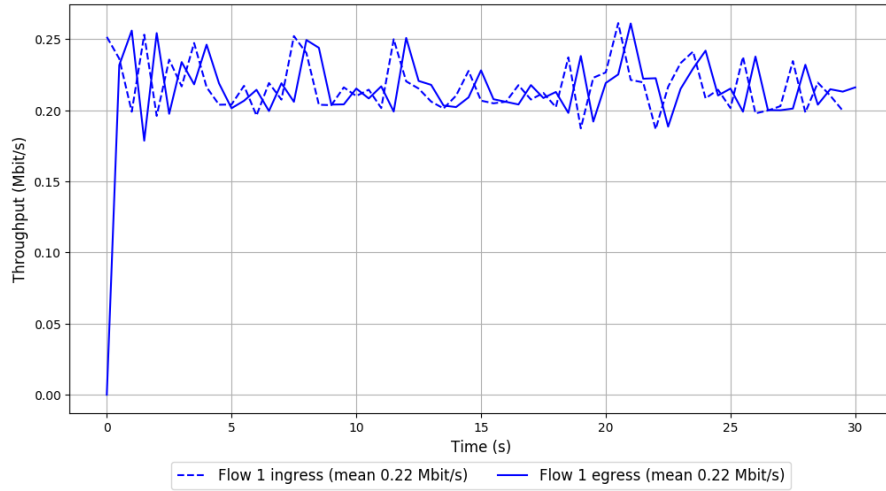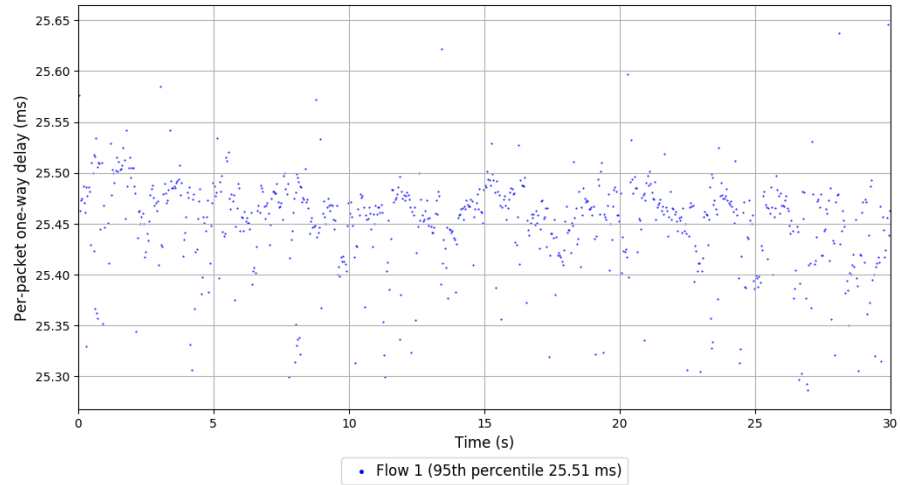
Run 1: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) — — —   Flow 1 egress (mean 0.22 Mbit/s) ——

• Flow 1 (95th percentile 29.66 ms)

```
Run 2: Statistics of SCReAM

Start at: 2020-02-17 22:00:23
End at: 2020-02-17 22:00:53
Local clock offset: 6.895 ms
Remote clock offset: -2.047 ms

# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.506 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 25.506 ms
Loss rate: 0.00%
```
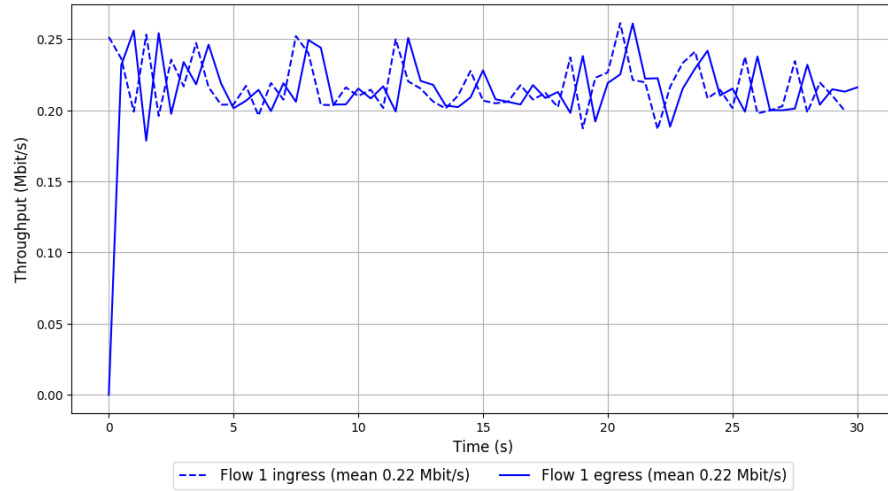
Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s) — — —   Flow 1 egress (mean 0.22 Mbit/s) ——

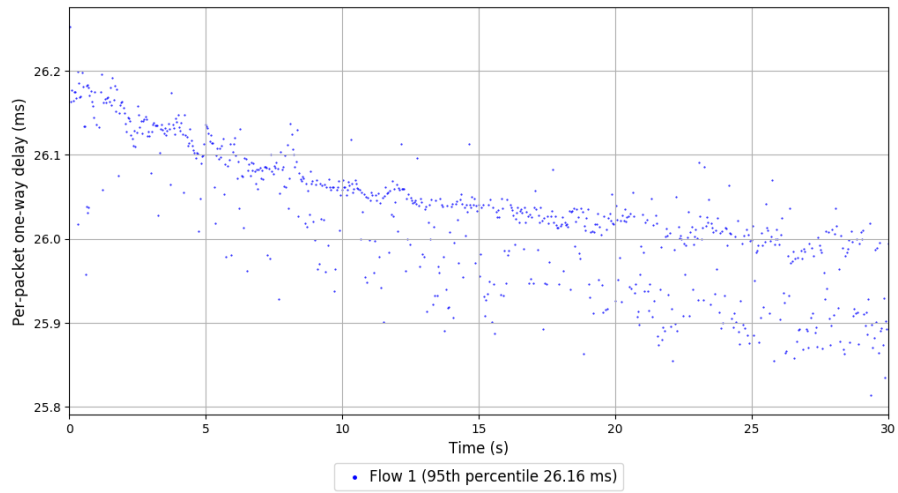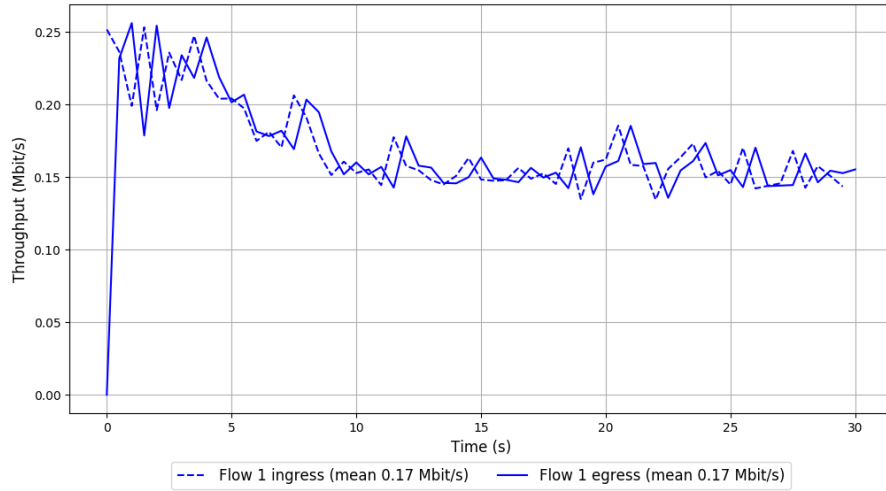Flow 1 (95th percentile 25.51 ms)

```
Run 3: Statistics of SCReAM

Start at: 2020-02-17 22:27:39
End at: 2020-02-17 22:28:09
Local clock offset: 7.967 ms
Remote clock offset: -2.617 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 26.158 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 26.158 ms
Loss rate: 0.15%
```

Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.17 Mbit/s)   Flow 1 egress (mean 0.17 Mbit/s)

Flow 1 (95th percentile 26.16 ms)

```
Run 4: Statistics of SCReAM

Start at: 2020-02-17 22:54:53
End at: 2020-02-17 22:55:23
Local clock offset: 7.252 ms
Remote clock offset: -3.85 ms

# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.046 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 27.046 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link
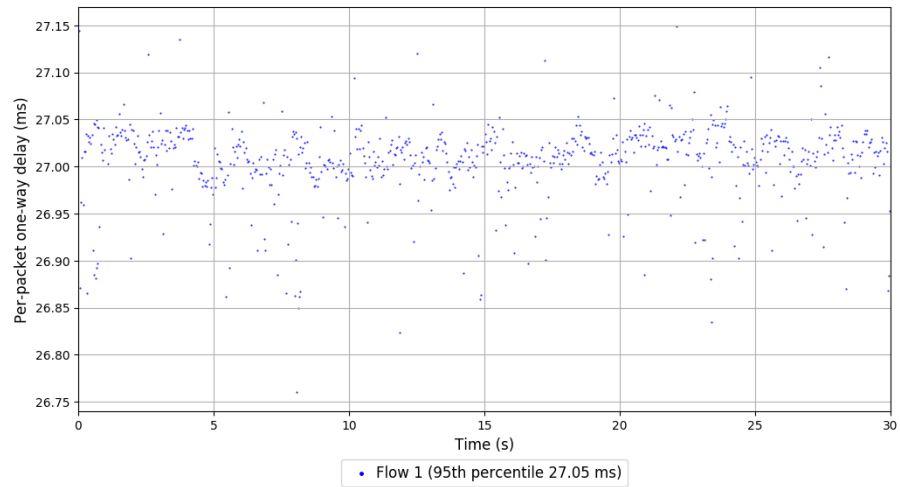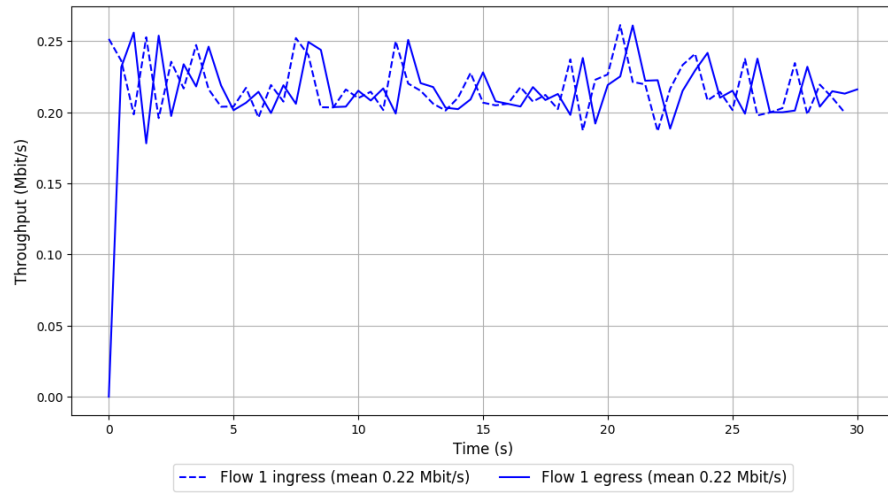
```
Run 5: Statistics of SCReAM

Start at: 2020-02-17 23:22:05
End at: 2020-02-17 23:22:36
Local clock offset: 2.065 ms
Remote clock offset: -3.522 ms

# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.927 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 30.927 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.22 Mbit/s)   Flow 1 egress (mean 0.22 Mbit/s)

Flow 1 (95th percentile 30.93 ms)
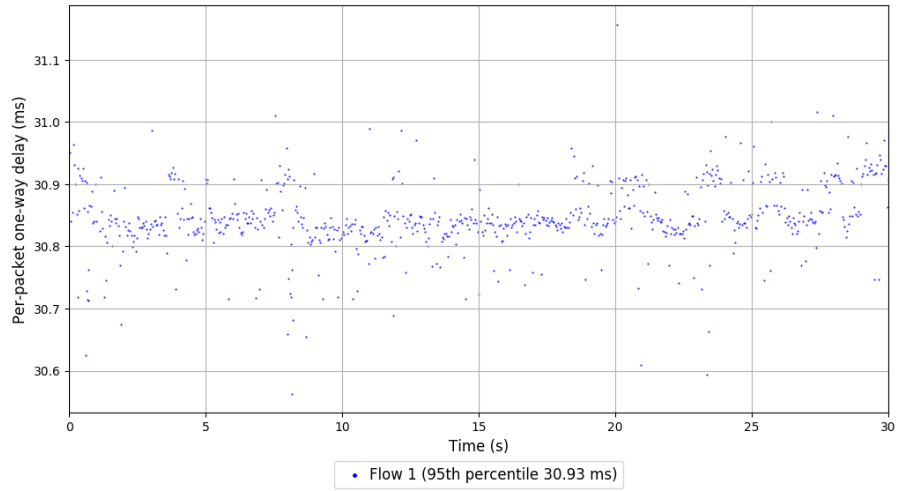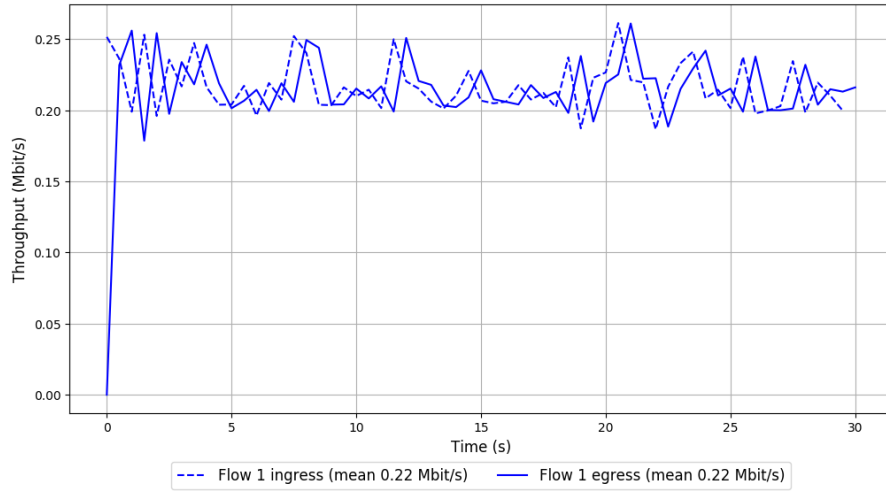
```
Run 1: Statistics of Sprout

Start at: 2020-02-17 21:41:00
End at: 2020-02-17 21:41:30
Local clock offset: 5.746 ms
Remote clock offset: -3.019 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 31.873 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.96 Mbit/s
95th percentile per-packet one-way delay: 31.873 ms
Loss rate: 0.00%
```
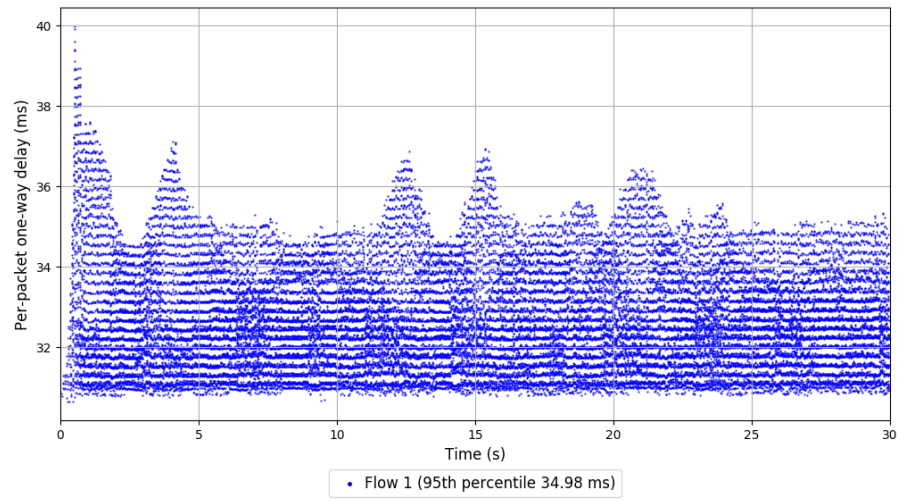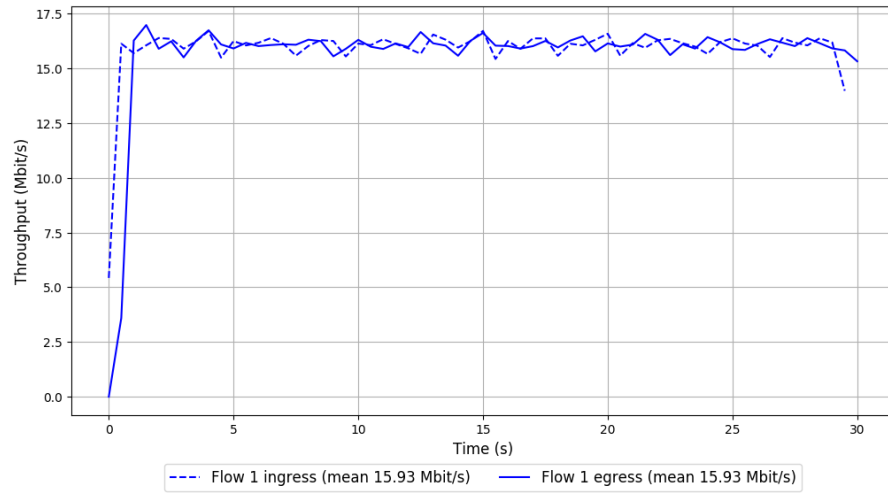
Run 1: Report of Sprout — Data Link
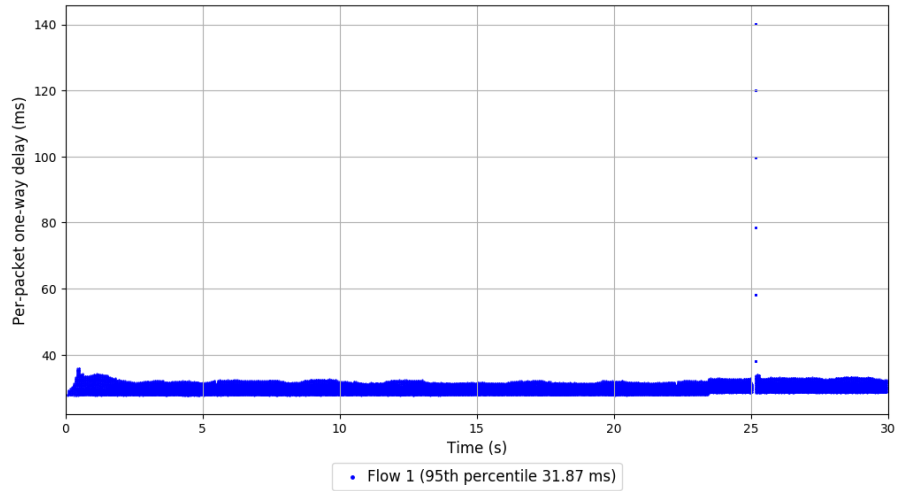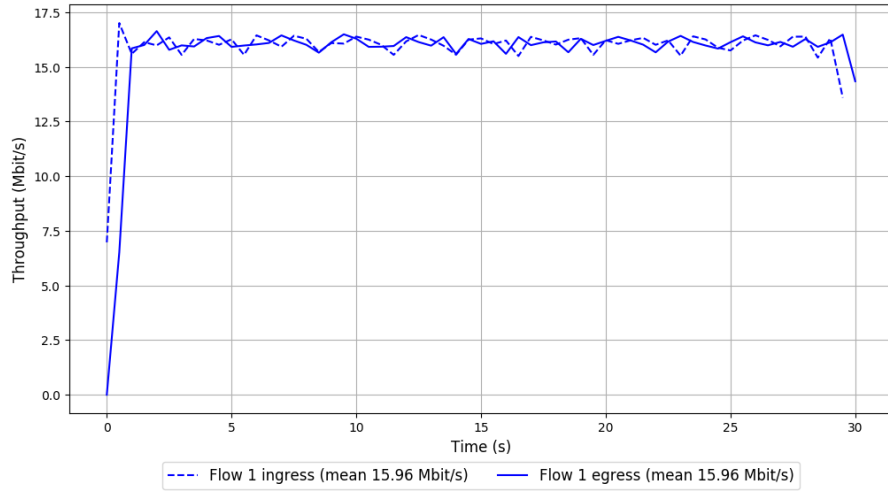
```
Run 2: Statistics of Sprout

Start at: 2020-02-17 22:08:21
End at: 2020-02-17 22:08:51
Local clock offset: 1.329 ms
Remote clock offset: -3.366 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 34.979 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.93 Mbit/s
95th percentile per-packet one-way delay: 34.979 ms
Loss rate: 0.00%
```
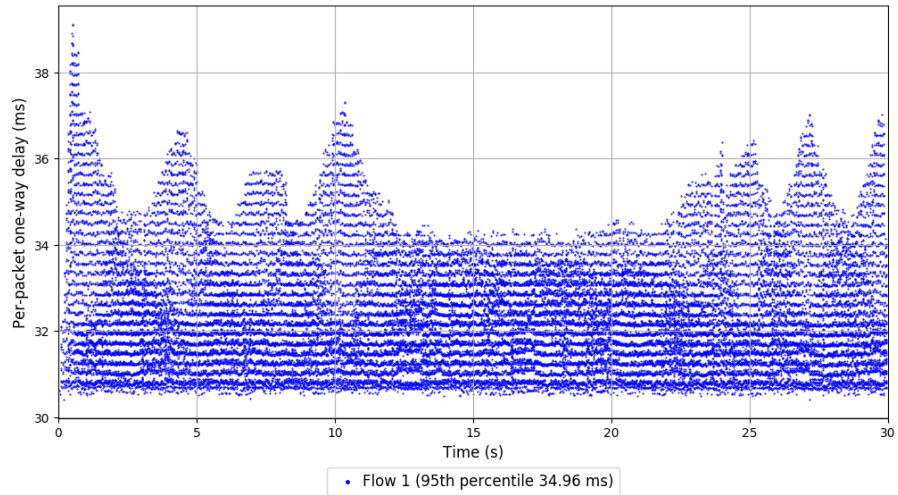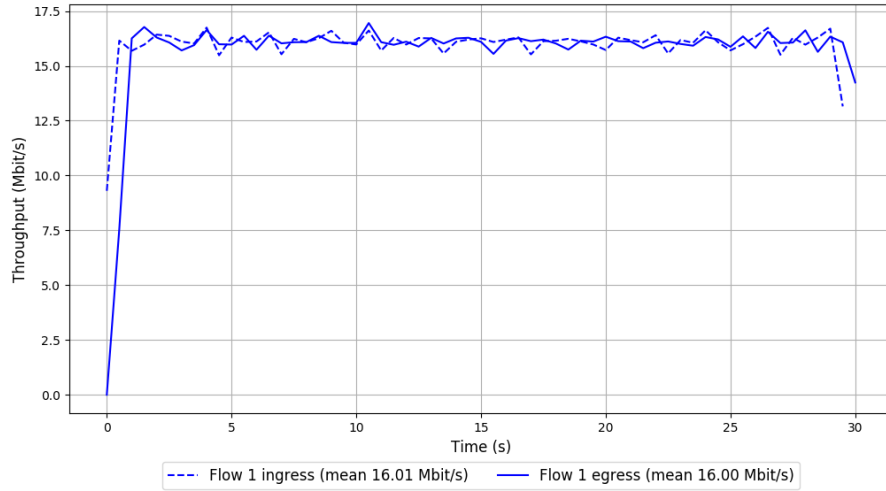
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2020-02-17 22:35:35
End at: 2020-02-17 22:36:05
Local clock offset: 6.102 ms
Remote clock offset: 1.278 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 34.958 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 34.958 ms
Loss rate: 0.06%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 16.01 Mbit/s)   Flow 1 egress (mean 16.00 Mbit/s)

Flow 1 (95th percentile 34.96 ms)

```
Run 4: Statistics of Sprout

Start at: 2020-02-17 23:02:47
End at: 2020-02-17 23:03:17
Local clock offset: 1.816 ms
Remote clock offset: -2.872 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 15.92 Mbit/s
95th percentile per-packet one-way delay: 36.702 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 15.92 Mbit/s
95th percentile per-packet one-way delay: 36.702 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link
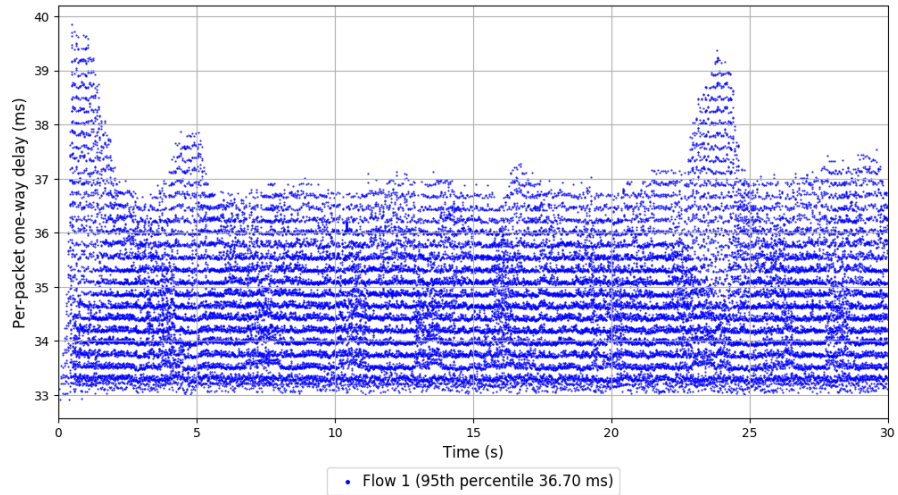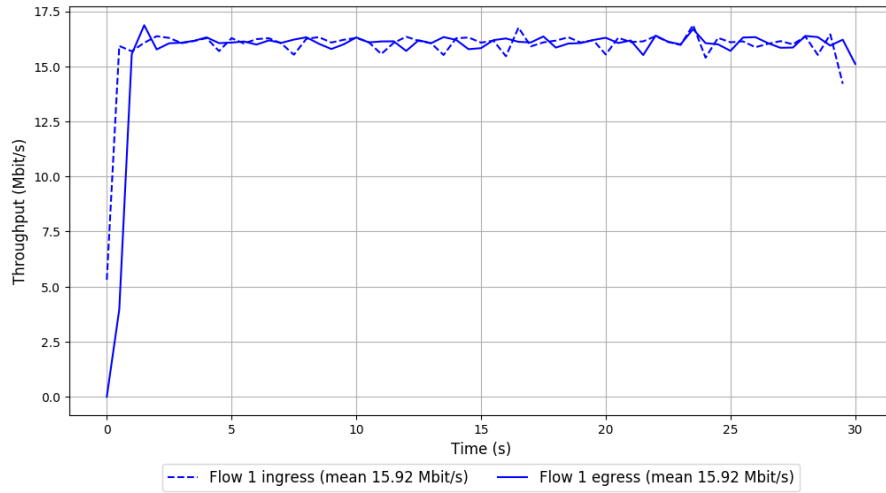
```
Run 5: Statistics of Sprout

Start at: 2020-02-17 23:30:00
End at: 2020-02-17 23:30:30
Local clock offset: 2.598 ms
Remote clock offset: -3.287 ms


# Below is generated by plot.py at 2020-02-17 23:58:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 34.756 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 16.01 Mbit/s
95th percentile per-packet one-way delay: 34.756 ms
Loss rate: 0.06%
```

Run 5: Report of Sprout — Data Link
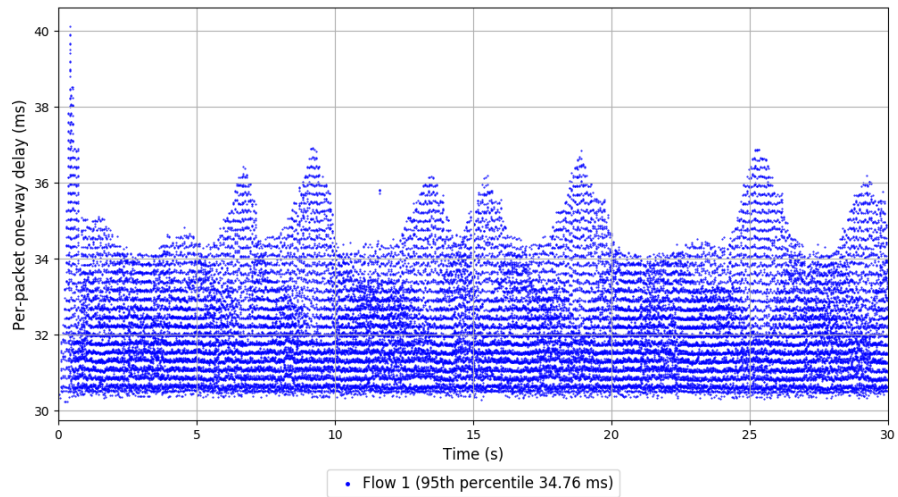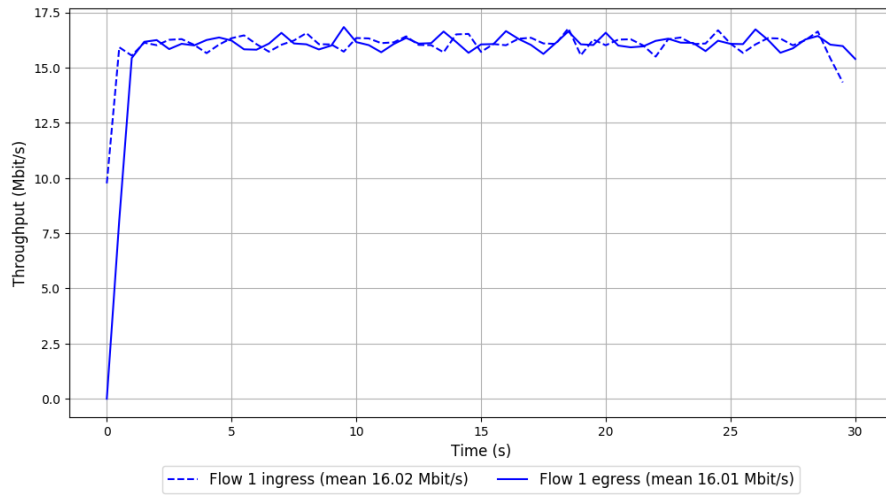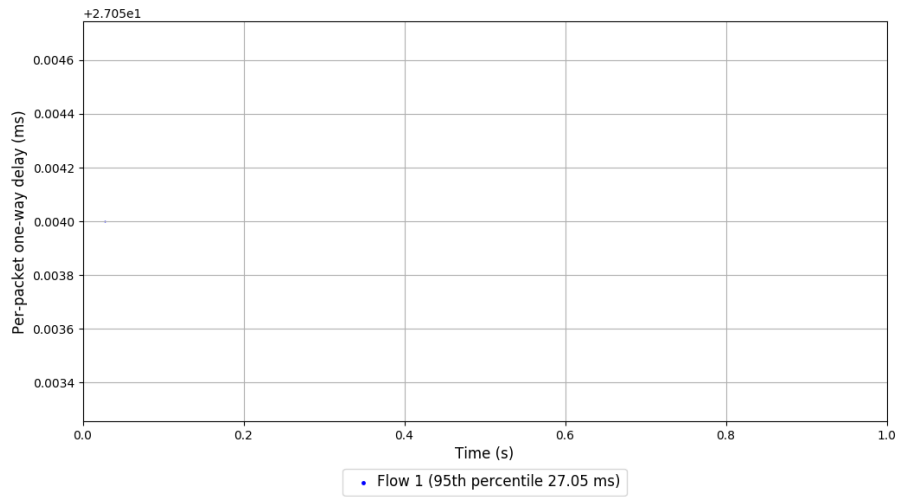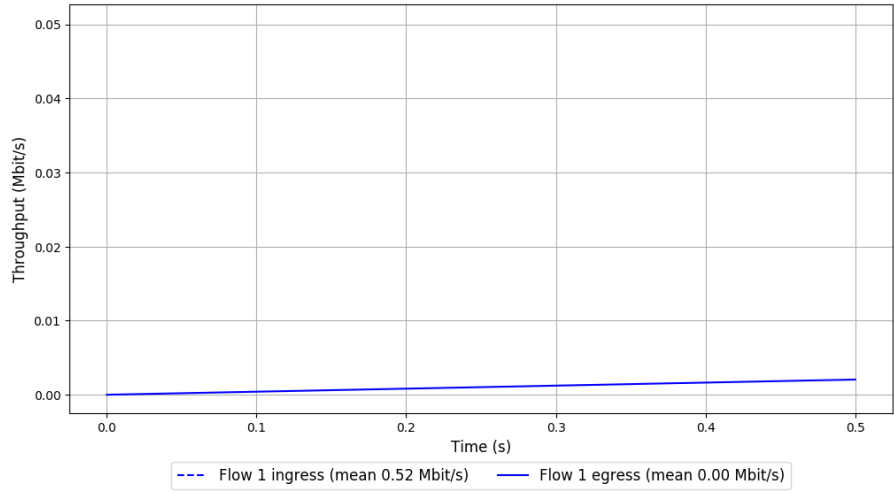
```
Run 1: Statistics of TaoVA-100x

Start at: 2020-02-17 21:29:41
End at: 2020-02-17 21:30:11
Local clock offset: 5.018 ms
Remote clock offset: -1.203 ms
```
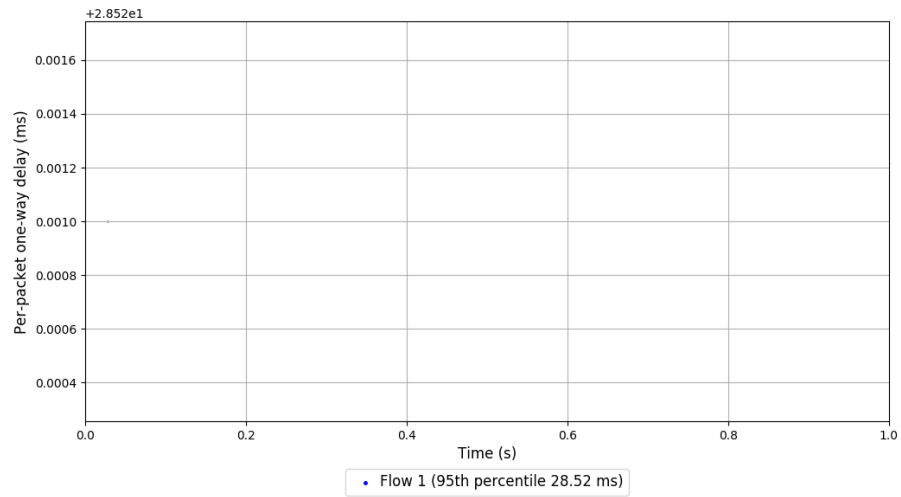
Run 1: Report of TaoVA-100x — Data Link

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

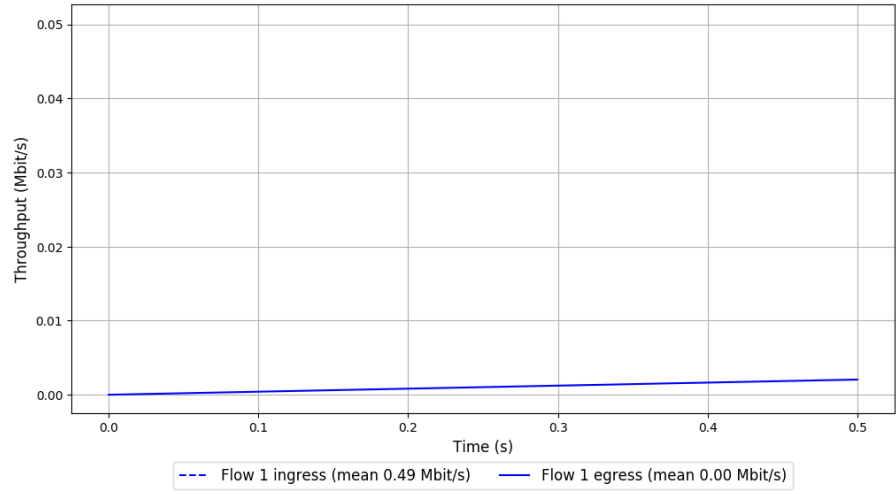Flow 1 (95th percentile 27.05 ms)

```
Run 2: Statistics of TaoVA-100x

Start at: 2020-02-17 21:56:55
End at: 2020-02-17 21:57:25
Local clock offset: 6.386 ms
Remote clock offset: -2.539 ms
```

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

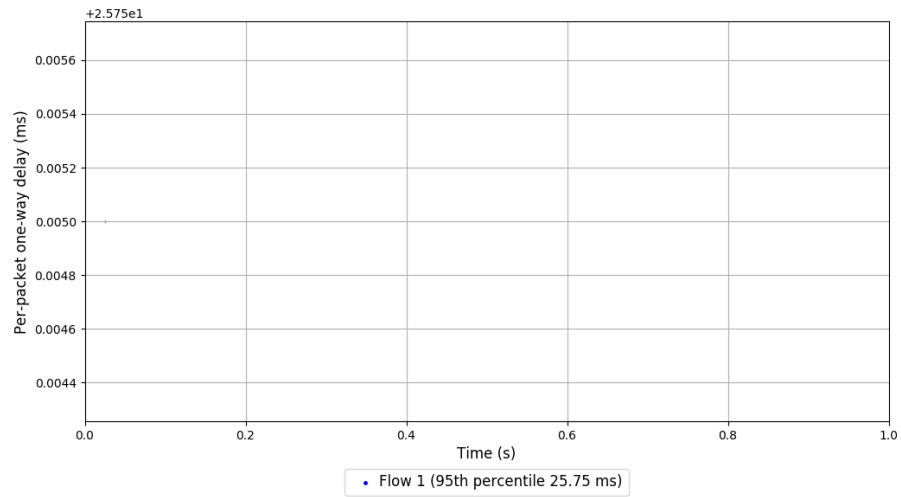Flow 1 ingress (mean 0.49 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 28.52 ms)

198

```
Run 3: Statistics of TaoVA-100x

Start at: 2020-02-17 22:24:15
End at: 2020-02-17 22:24:46
Local clock offset: 8.141 ms
Remote clock offset: -3.207 ms
```
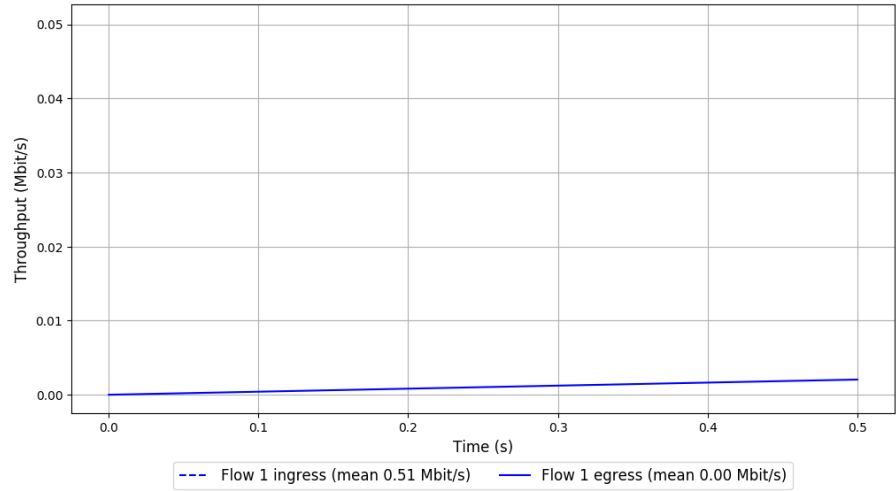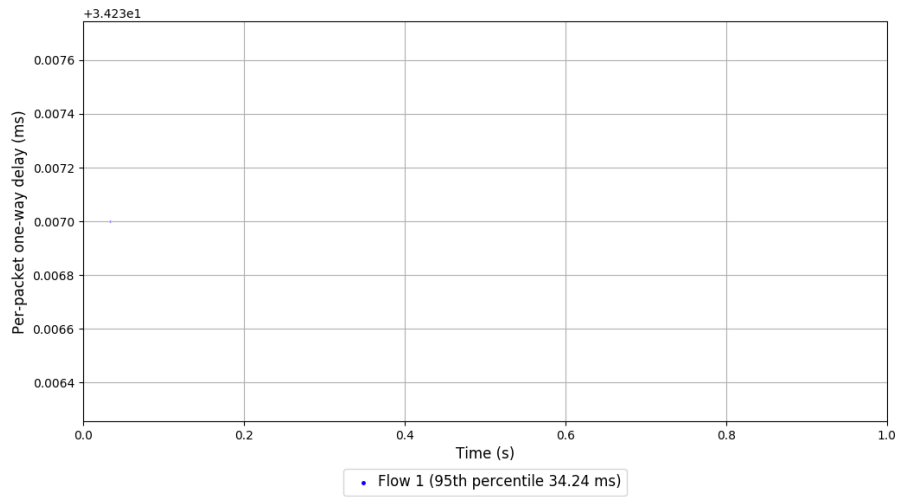
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.51 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 25.75 ms)

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

Start at: 2020-02-17 22:51:30
End at: 2020-02-17 22:52:00
Local clock offset: 2.211 ms
Remote clock offset: 0.334 ms
```
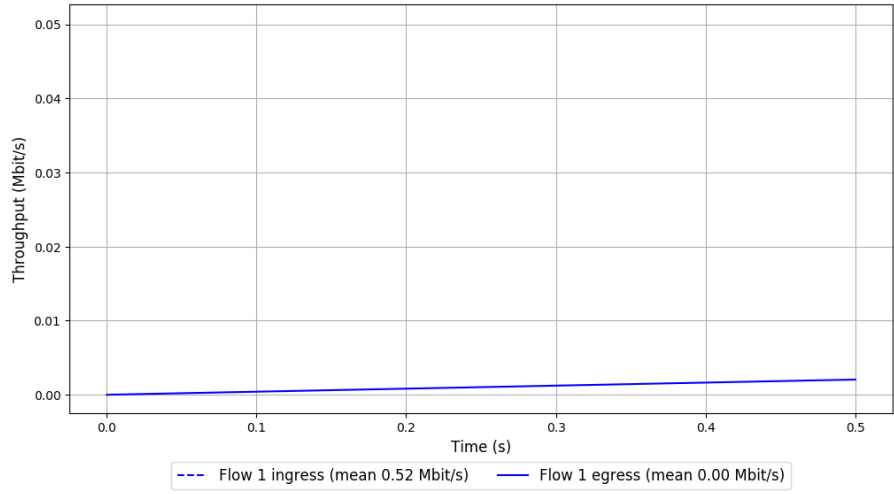
Run 4: Report of TaoVA-100x — Data Link

```
Run 5: Statistics of TaoVA-100x

Start at: 2020-02-17 23:18:42
End at: 2020-02-17 23:19:12
Local clock offset: 6.016 ms
Remote clock offset: -0.448 ms
```
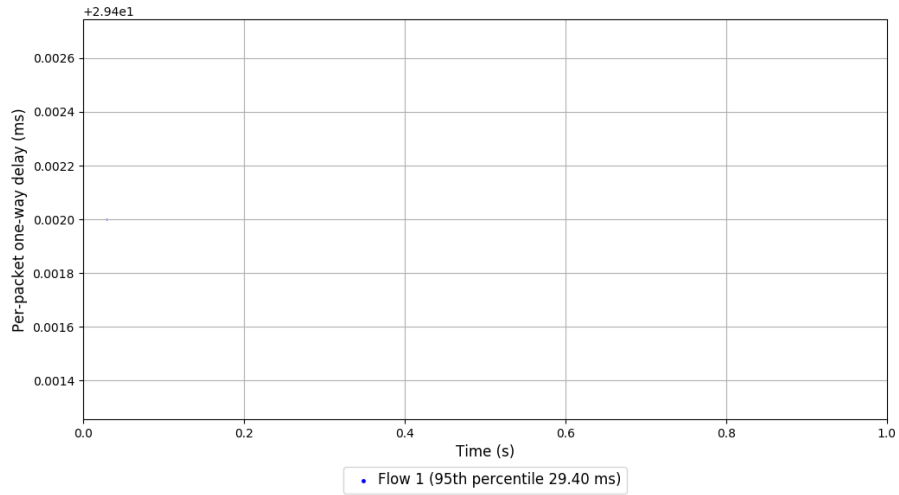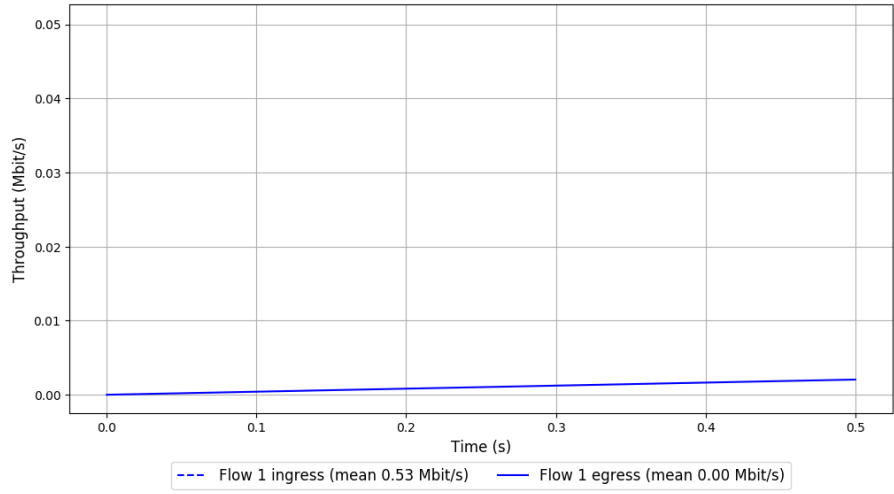
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 0.53 Mbit/s) --- Flow 1 egress (mean 0.00 Mbit/s)
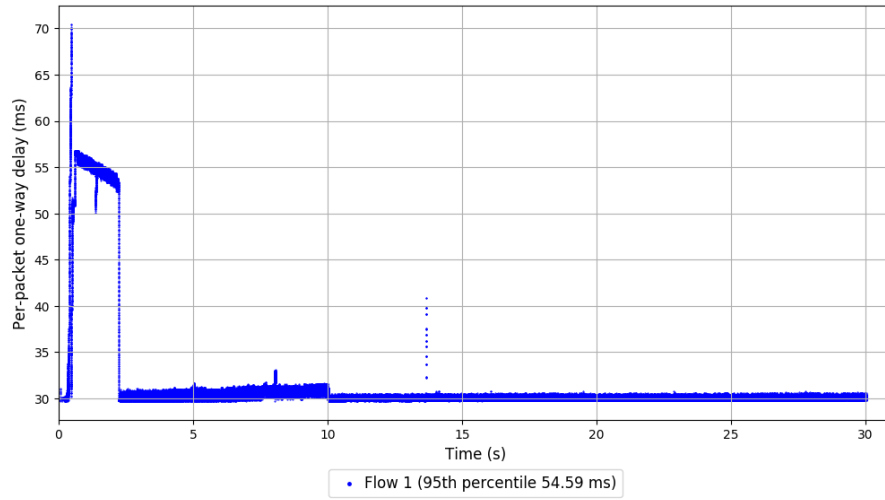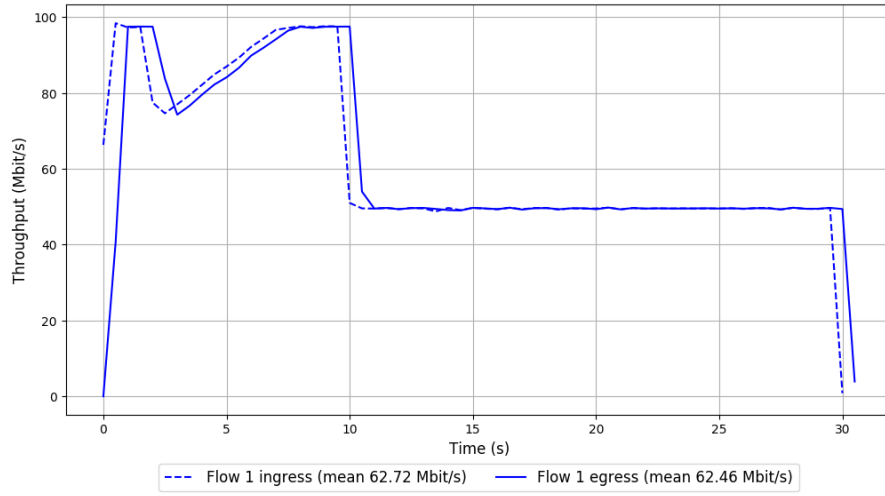

Flow 1 (95th percentile 29.40 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2020-02-17 21:35:19
End at: 2020-02-17 21:35:50
Local clock offset: 2.188 ms
Remote clock offset: -2.697 ms


# Below is generated by plot.py at 2020-02-17 23:58:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 54.594 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 62.46 Mbit/s
95th percentile per-packet one-way delay: 54.594 ms
Loss rate: 0.42%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2020-02-17 22:02:39
End at: 2020-02-17 22:03:09
Local clock offset: 6.884 ms
Remote clock offset: 0.66 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 53.669 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 96.58 Mbit/s
95th percentile per-packet one-way delay: 53.669 ms
Loss rate: 0.27%
```
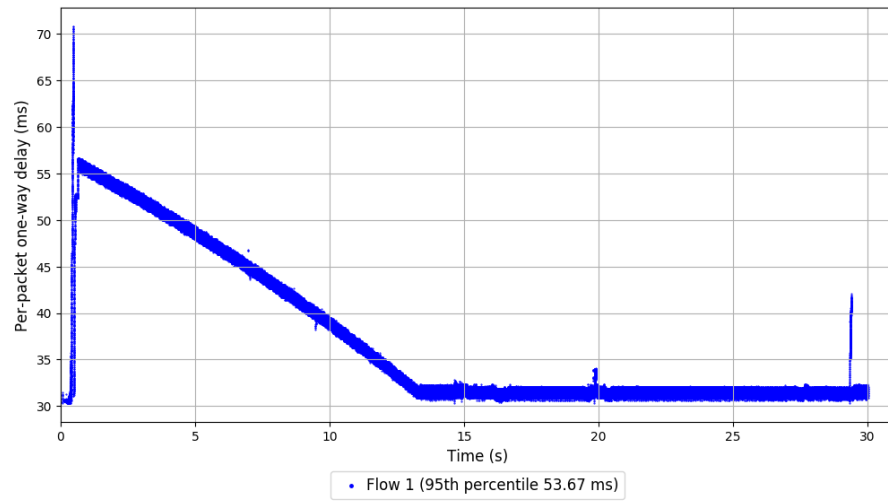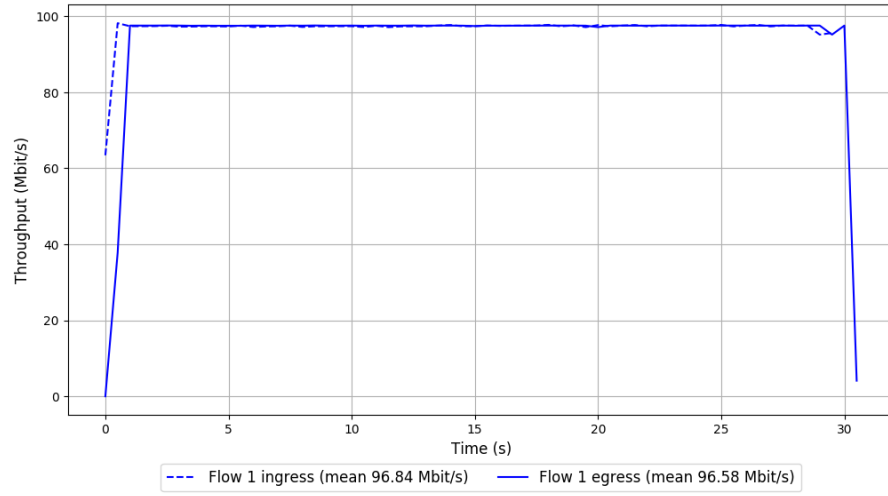
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2020-02-17 22:29:54
End at: 2020-02-17 22:30:24
Local clock offset: 7.808 ms
Remote clock offset: 0.754 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 53.962 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 68.35 Mbit/s
95th percentile per-packet one-way delay: 53.962 ms
Loss rate: 0.39%
```
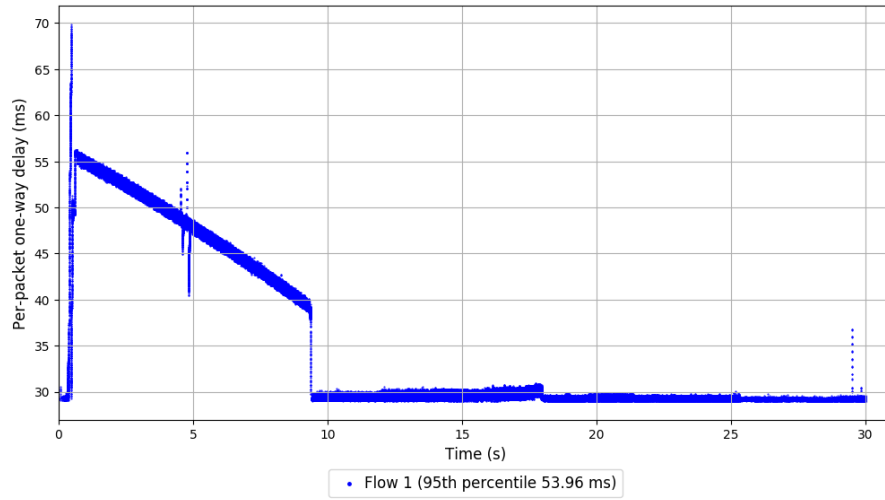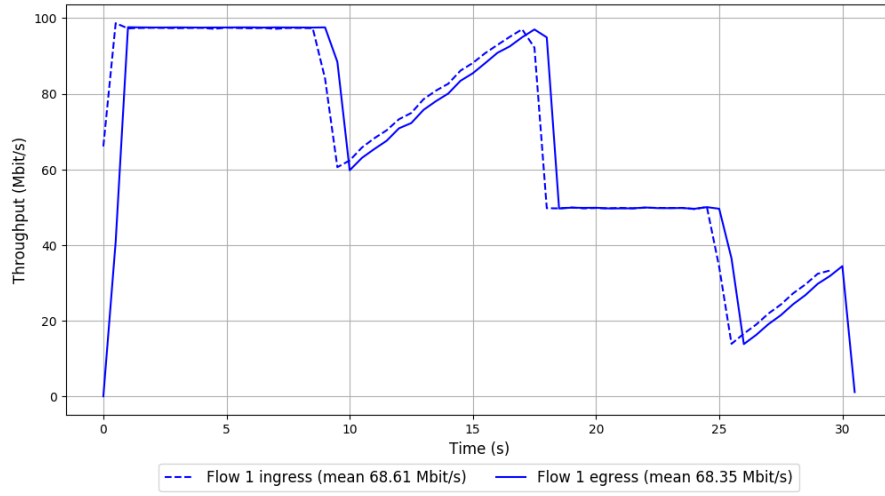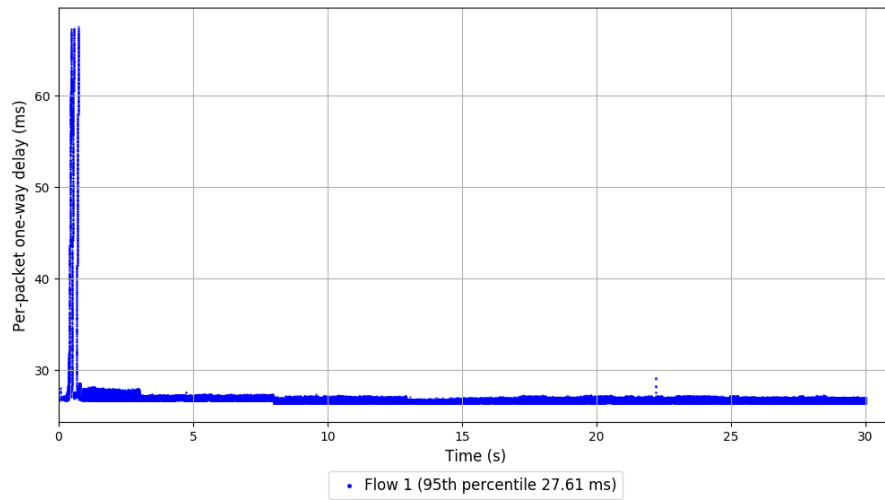
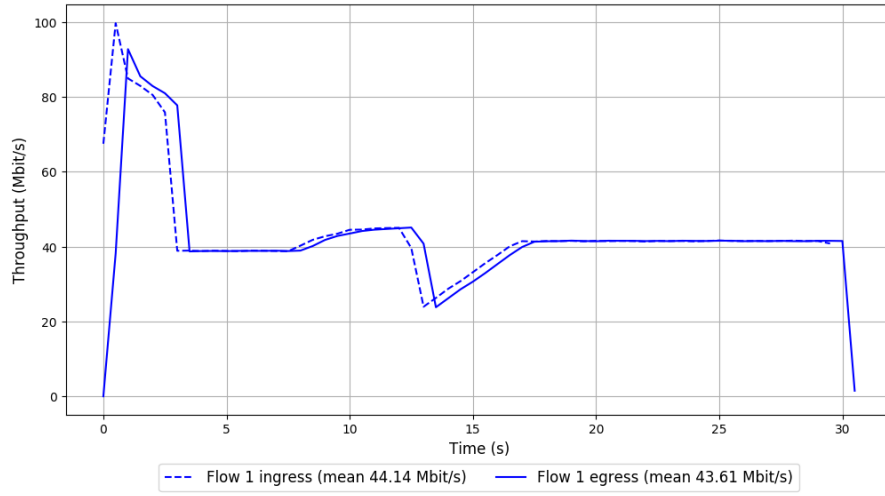Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2020-02-17 22:57:09
End at: 2020-02-17 22:57:39
Local clock offset: 6.938 ms
Remote clock offset: -4.767 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.61 Mbit/s
95th percentile per-packet one-way delay: 27.608 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 43.61 Mbit/s
95th percentile per-packet one-way delay: 27.608 ms
Loss rate: 1.19%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2020-02-17 23:24:21
End at: 2020-02-17 23:24:51
Local clock offset: 1.413 ms
Remote clock offset: -2.074 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.19 Mbit/s
95th percentile per-packet one-way delay: 35.983 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 41.19 Mbit/s
95th percentile per-packet one-way delay: 35.983 ms
Loss rate: 1.27%
```
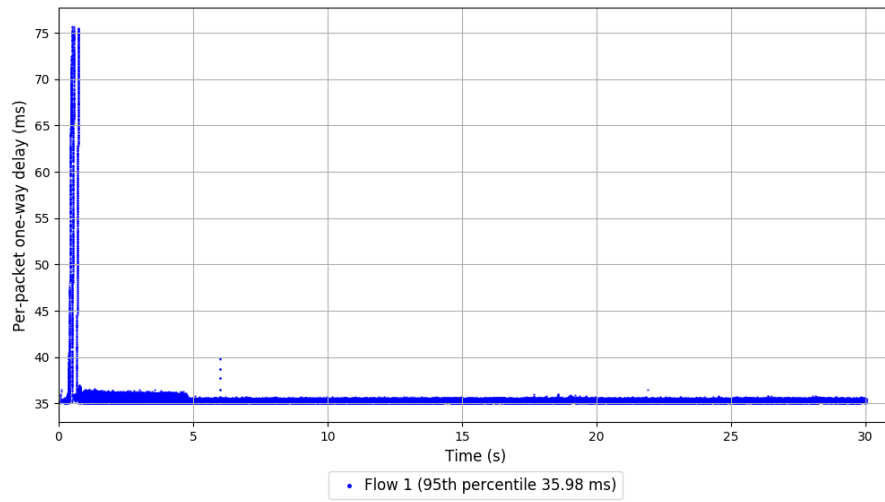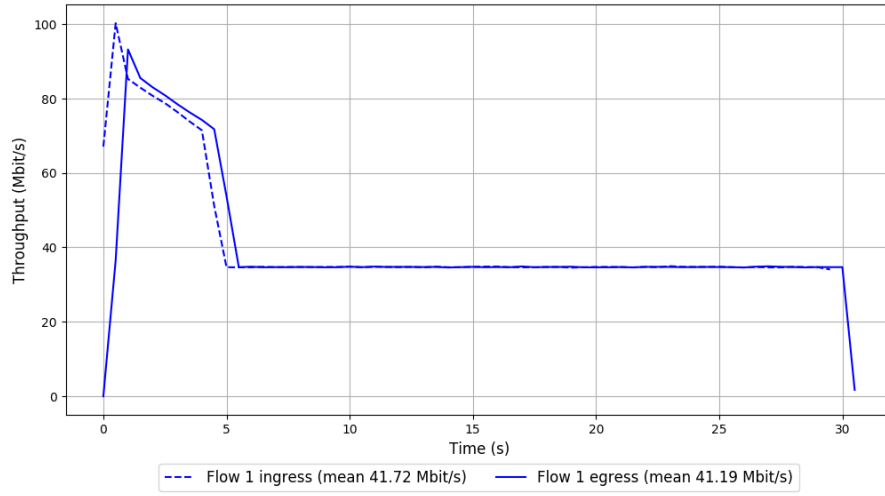
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 41.72 Mbit/s)   Flow 1 egress (mean 41.19 Mbit/s)

• Flow 1 (95th percentile 35.98 ms)

```
Run 1: Statistics of Verus

Start at: 2020-02-17 21:46:38
End at: 2020-02-17 21:47:08
Local clock offset: 5.53 ms
Remote clock offset: 0.936 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.40 Mbit/s
95th percentile per-packet one-way delay: 60.177 ms
Loss rate: 10.41%
-- Flow 1:
Average throughput: 69.40 Mbit/s
95th percentile per-packet one-way delay: 60.177 ms
Loss rate: 10.41%
```
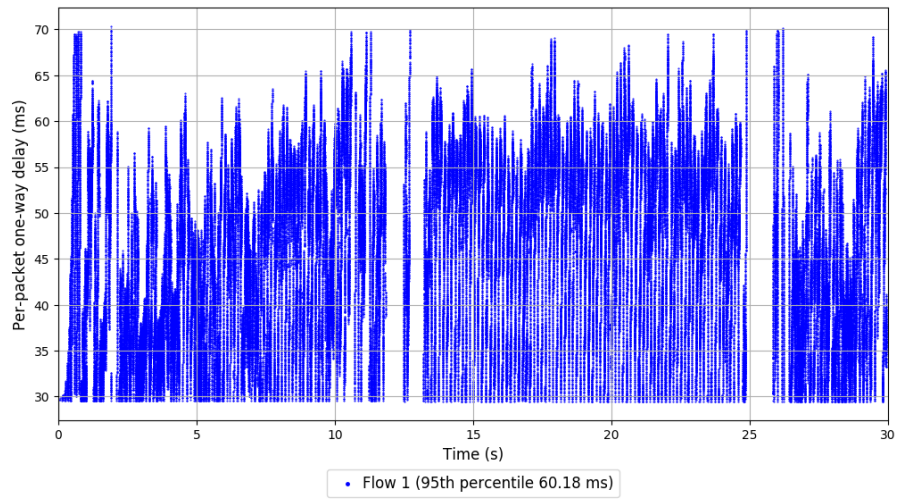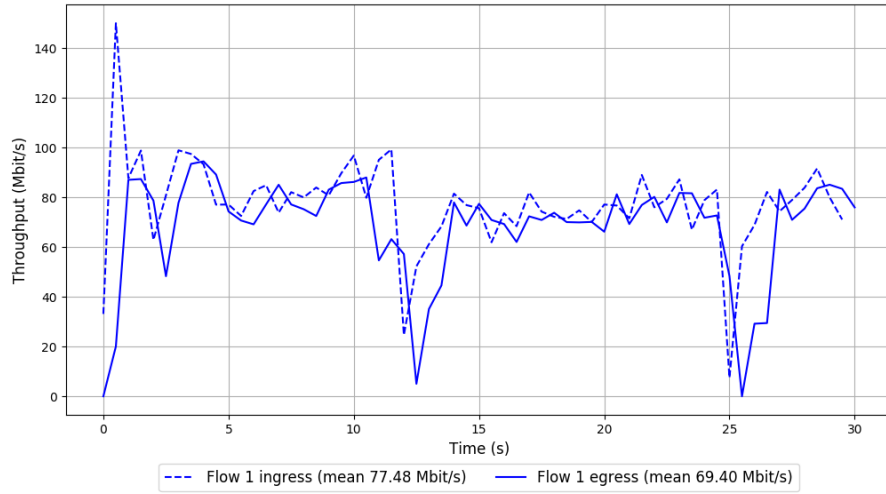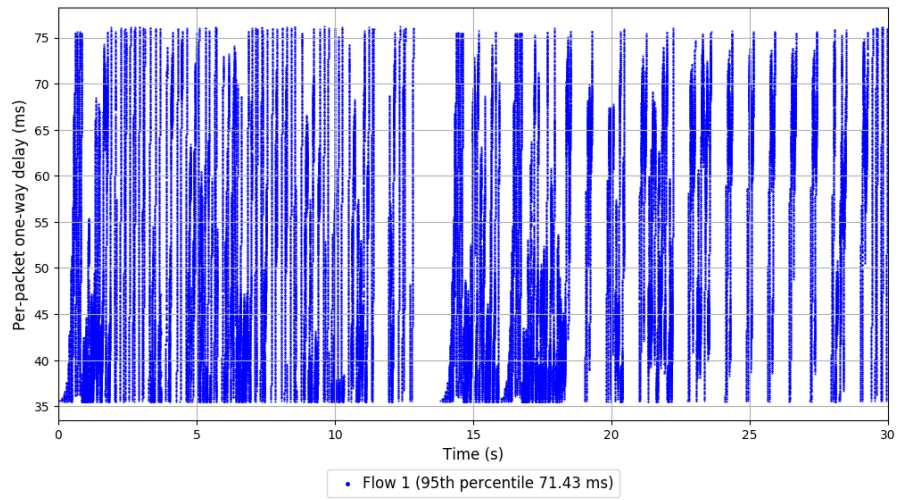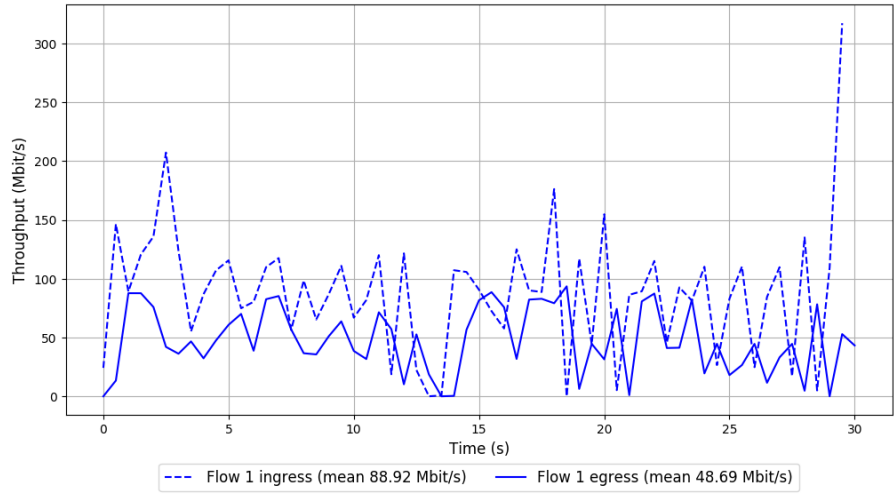
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2020-02-17 22:13:58
End at: 2020-02-17 22:14:28
Local clock offset: 2.094 ms
Remote clock offset: -0.602 ms


# Below is generated by plot.py at 2020-02-17 23:58:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 71.430 ms
Loss rate: 45.23%
-- Flow 1:
Average throughput: 48.69 Mbit/s
95th percentile per-packet one-way delay: 71.430 ms
Loss rate: 45.23%
```
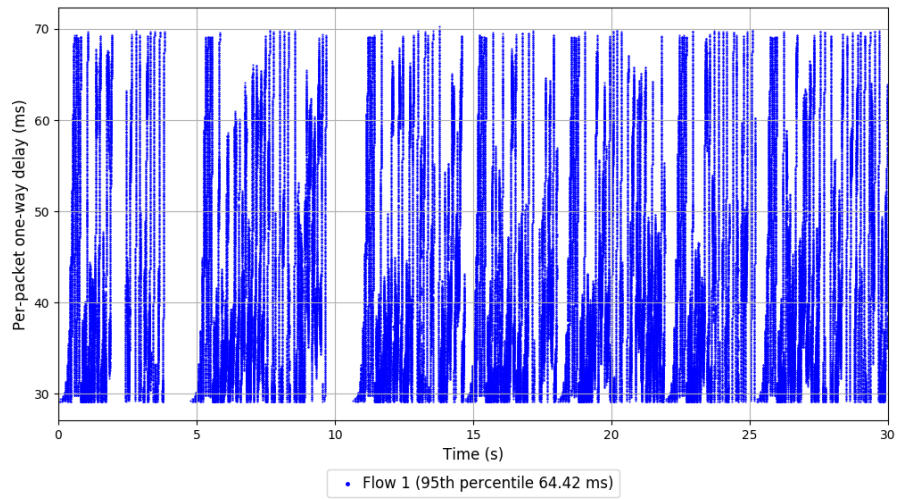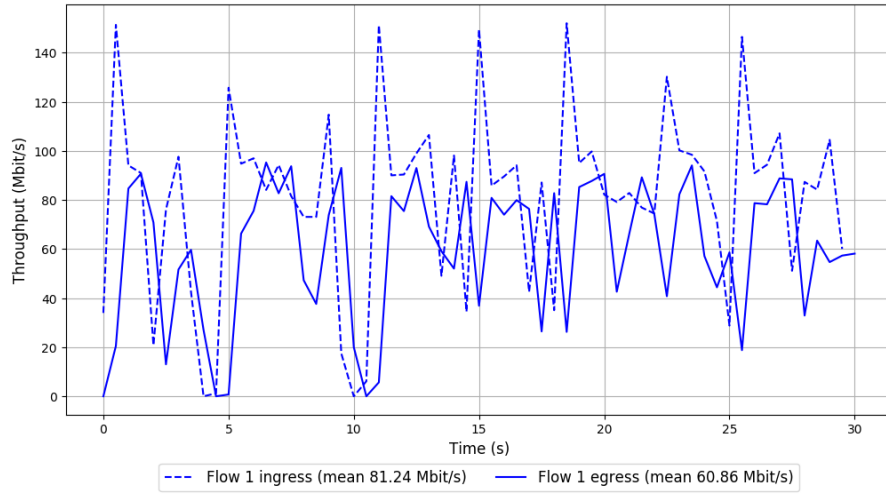
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2020-02-17 22:41:13
End at: 2020-02-17 22:41:43
Local clock offset: 6.095 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2020-02-17 23:59:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 64.421 ms
Loss rate: 25.06%
-- Flow 1:
Average throughput: 60.86 Mbit/s
95th percentile per-packet one-way delay: 64.421 ms
Loss rate: 25.06%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2020-02-17 23:08:25
End at: 2020-02-17 23:08:55
Local clock offset: 5.507 ms
Remote clock offset: -4.308 ms


# Below is generated by plot.py at 2020-02-17 23:59:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.76 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 10.35%
-- Flow 1:
Average throughput: 71.76 Mbit/s
95th percentile per-packet one-way delay: 55.757 ms
Loss rate: 10.35%
```
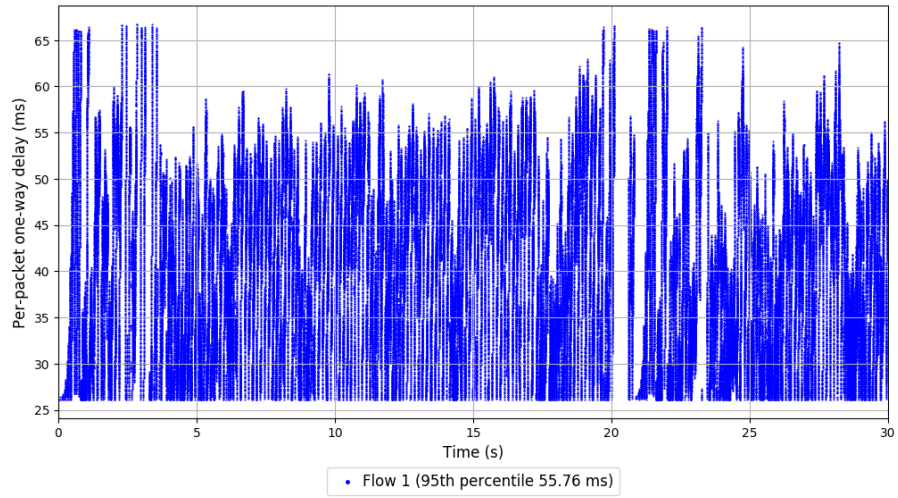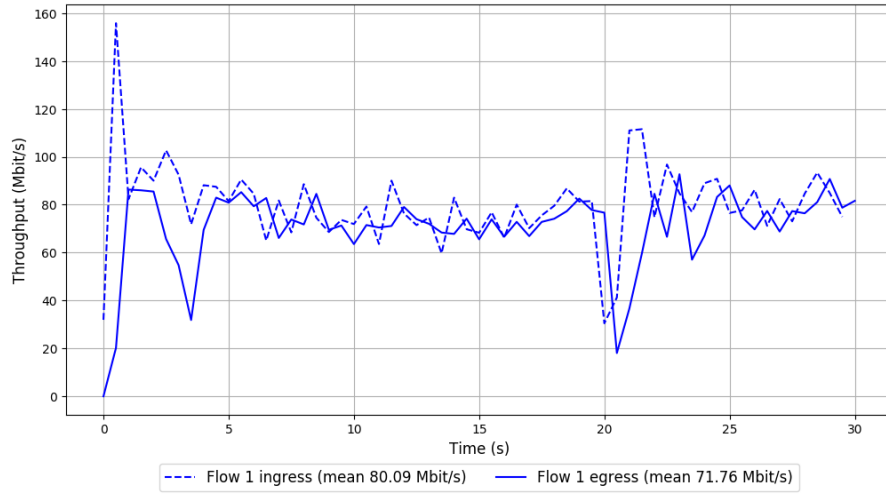
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 80.09 Mbit/s)   Flow 1 egress (mean 71.76 Mbit/s)

• Flow 1 (95th percentile 55.76 ms)

```
Run 5: Statistics of Verus

Start at: 2020-02-17 23:35:38
End at: 2020-02-17 23:36:08
Local clock offset: 1.858 ms
Remote clock offset: -3.446 ms


# Below is generated by plot.py at 2020-02-17 23:59:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 66.790 ms
Loss rate: 50.50%
-- Flow 1:
Average throughput: 57.06 Mbit/s
95th percentile per-packet one-way delay: 66.790 ms
Loss rate: 50.50%
```
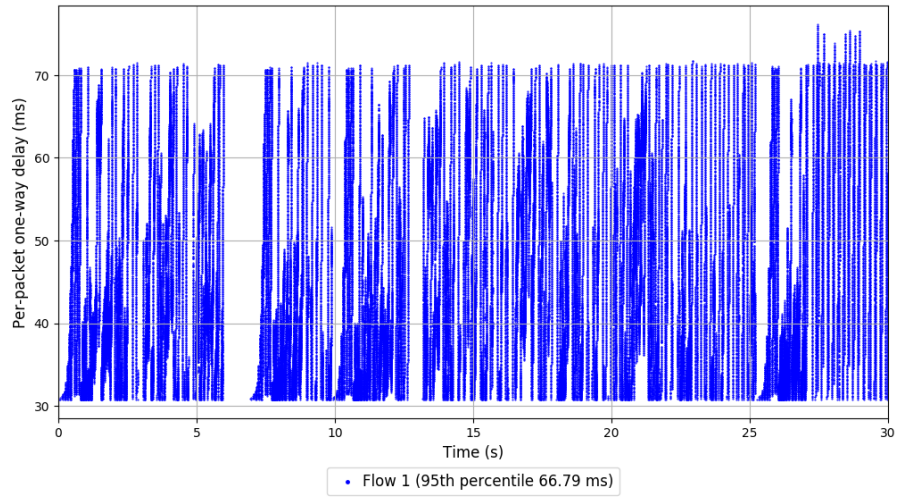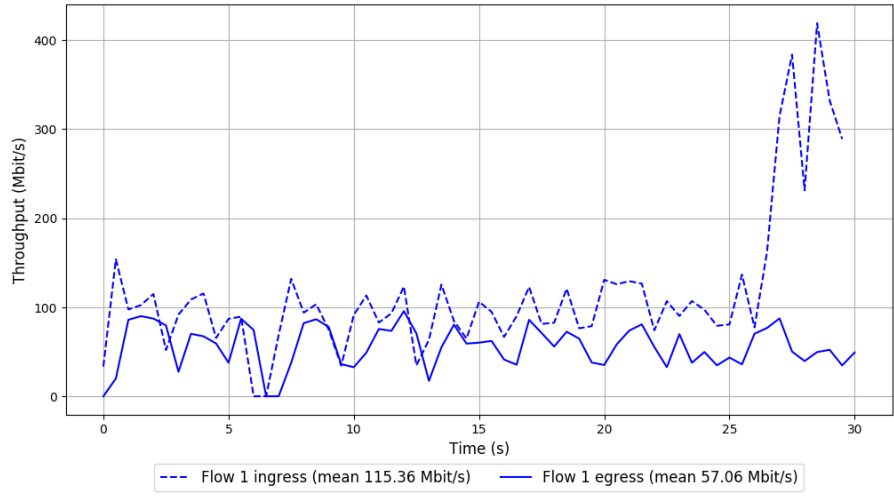
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2020-02-17 21:47:47
End at: 2020-02-17 21:48:17
Local clock offset: 5.719 ms
Remote clock offset: -3.001 ms


# Below is generated by plot.py at 2020-02-17 23:59:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.28 Mbit/s
95th percentile per-packet one-way delay: 27.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 86.28 Mbit/s
95th percentile per-packet one-way delay: 27.685 ms
Loss rate: 0.00%
```
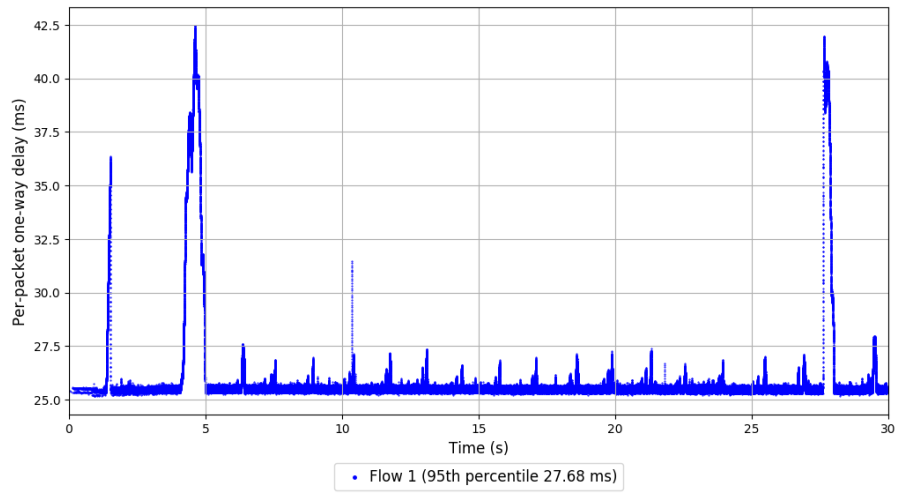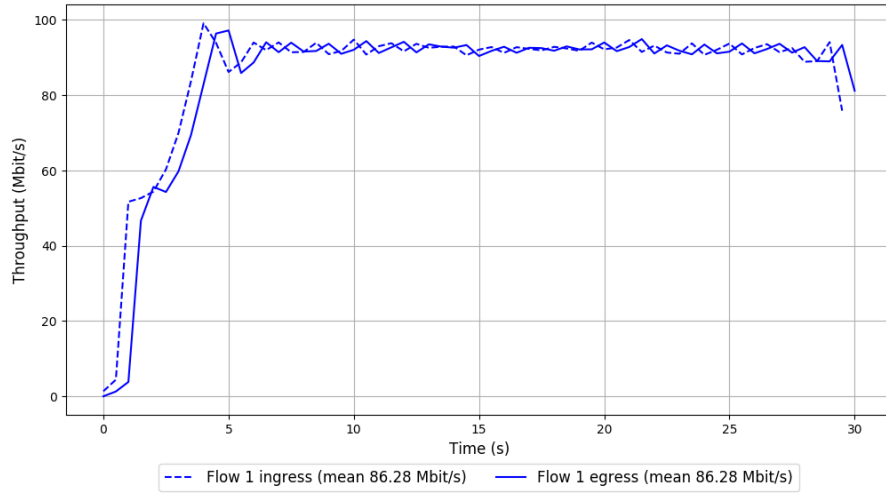
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 86.28 Mbit/s) --- Flow 1 egress (mean 86.28 Mbit/s)

Flow 1 (95th percentile 27.68 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2020-02-17 22:15:07
End at: 2020-02-17 22:15:37
Local clock offset: 2.621 ms
Remote clock offset: -1.12 ms


# Below is generated by plot.py at 2020-02-17 23:59:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.53 Mbit/s
95th percentile per-packet one-way delay: 35.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 86.53 Mbit/s
95th percentile per-packet one-way delay: 35.892 ms
Loss rate: 0.00%
```
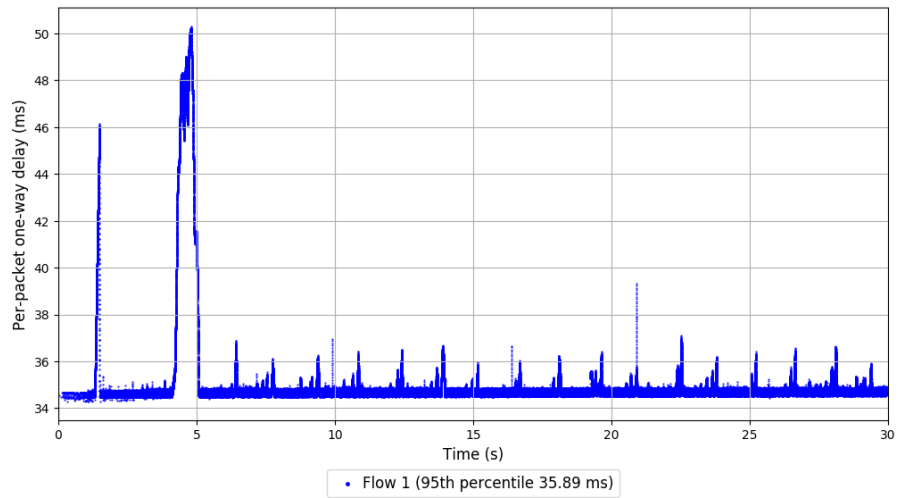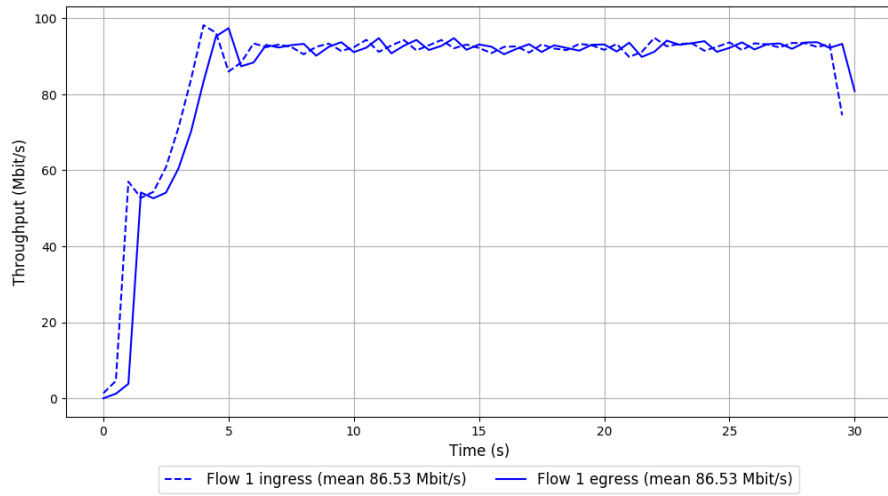
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2020-02-17 22:42:21
End at: 2020-02-17 22:42:51
Local clock offset: 6.217 ms
Remote clock offset: -4.16 ms


# Below is generated by plot.py at 2020-02-17 23:59:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 26.761 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 86.10 Mbit/s
95th percentile per-packet one-way delay: 26.761 ms
Loss rate: 0.00%
```
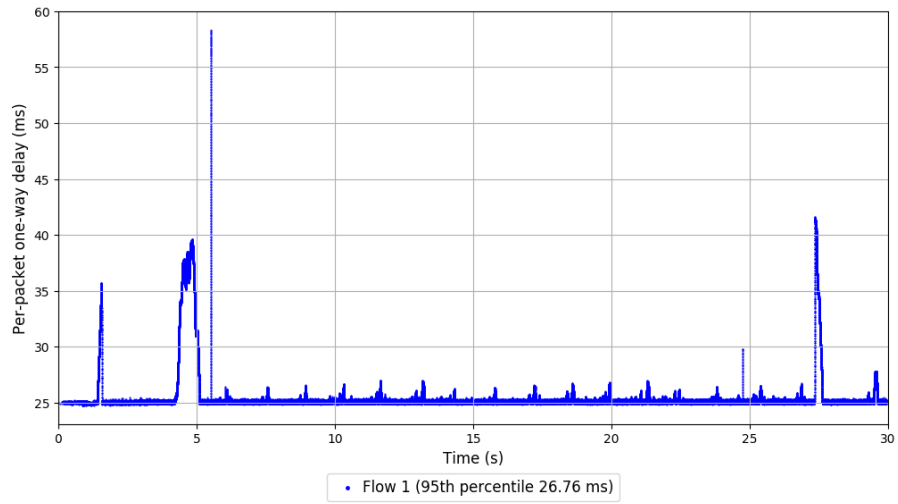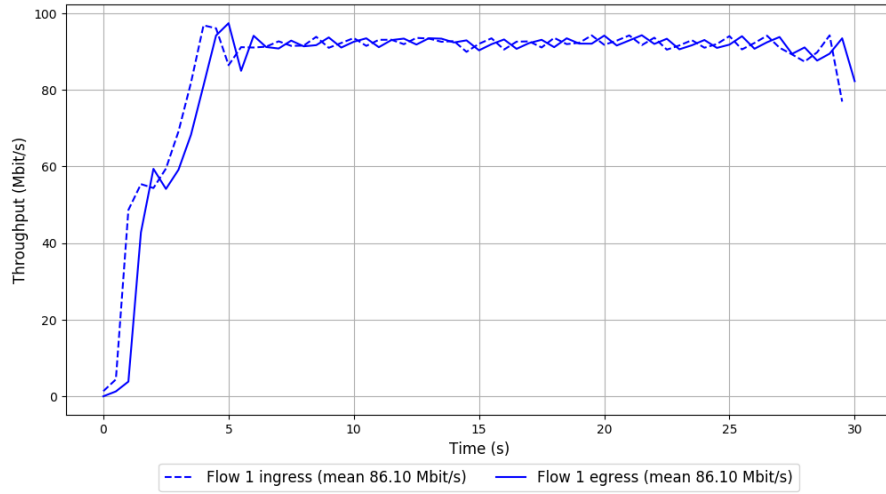
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 86.10 Mbit/s) ----- Flow 1 egress (mean 86.10 Mbit/s)

Flow 1 (95th percentile 26.76 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2020-02-17 23:09:34
End at: 2020-02-17 23:10:04
Local clock offset: 6.103 ms
Remote clock offset: -3.492 ms


# Below is generated by plot.py at 2020-02-17 23:59:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 27.358 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 27.358 ms
Loss rate: 0.00%
```
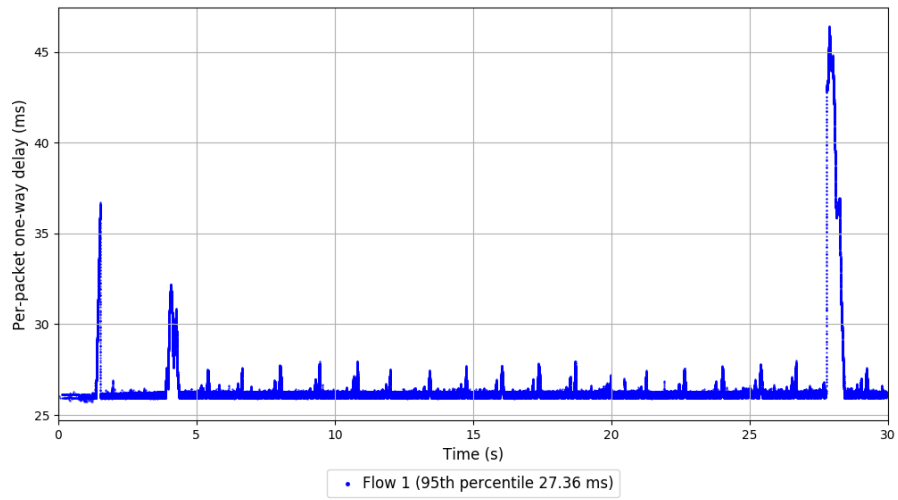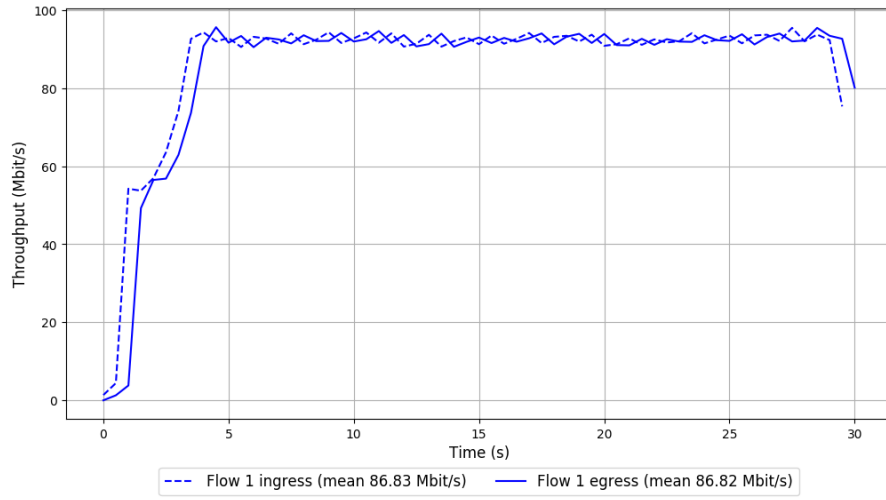
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 86.83 Mbit/s) ----- Flow 1 egress (mean 86.82 Mbit/s)

• Flow 1 (95th percentile 27.36 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2020-02-17 23:36:47
End at: 2020-02-17 23:37:17
Local clock offset: 5.56 ms
Remote clock offset: -2.935 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.98 Mbit/s
95th percentile per-packet one-way delay: 31.959 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.98 Mbit/s
95th percentile per-packet one-way delay: 31.959 ms
Loss rate: 0.00%
```
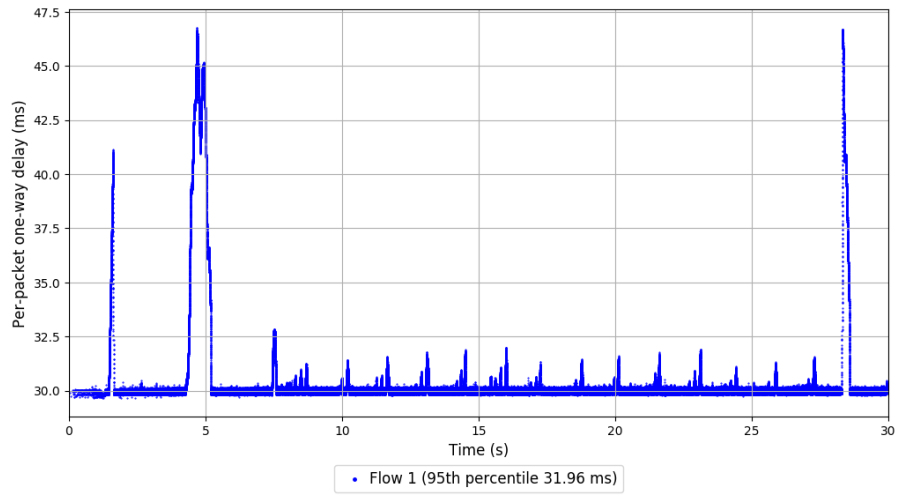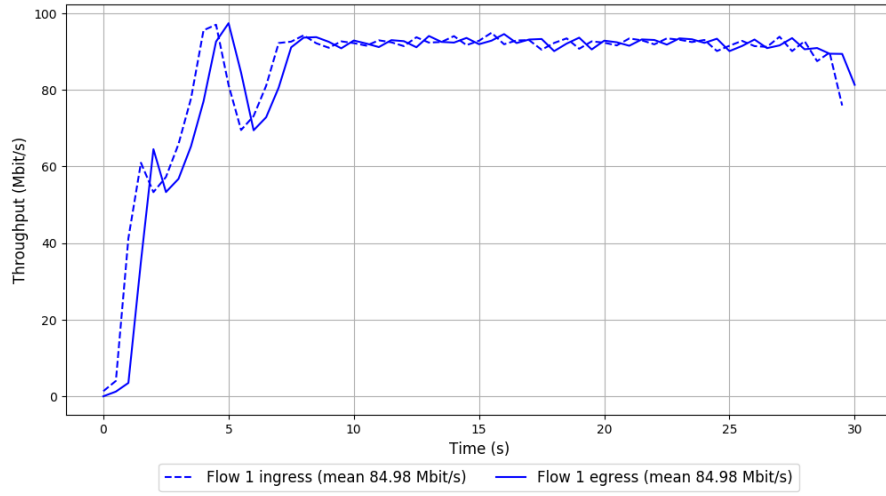
Run 5: Report of PCC-Vivace — Data Link

234

```
Run 1: Statistics of WebRTC media

Start at: 2020-02-17 21:50:06
End at: 2020-02-17 21:50:36
Local clock offset: 4.688 ms
Remote clock offset: 1.217 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.627 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 34.627 ms
Loss rate: 0.00%
```
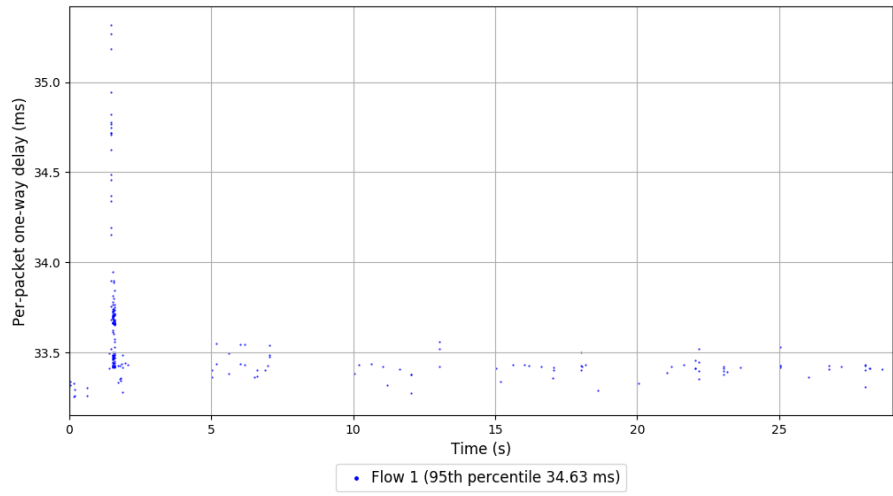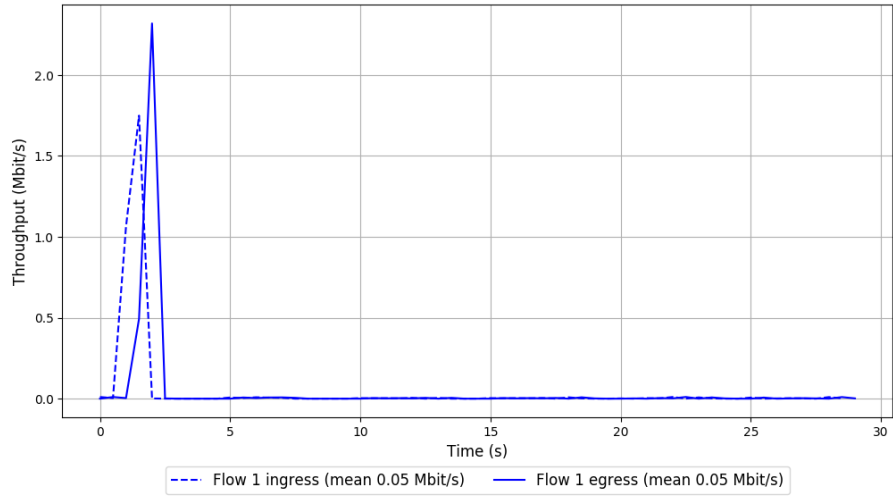
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2020-02-17 22:17:26
End at: 2020-02-17 22:17:56
Local clock offset: 1.7 ms
Remote clock offset: -3.072 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.119 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 32.119 ms
Loss rate: 0.00%
```
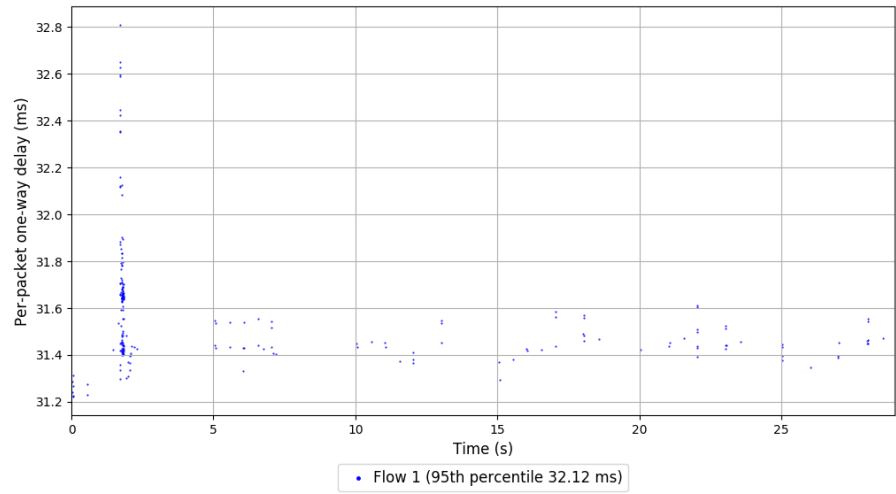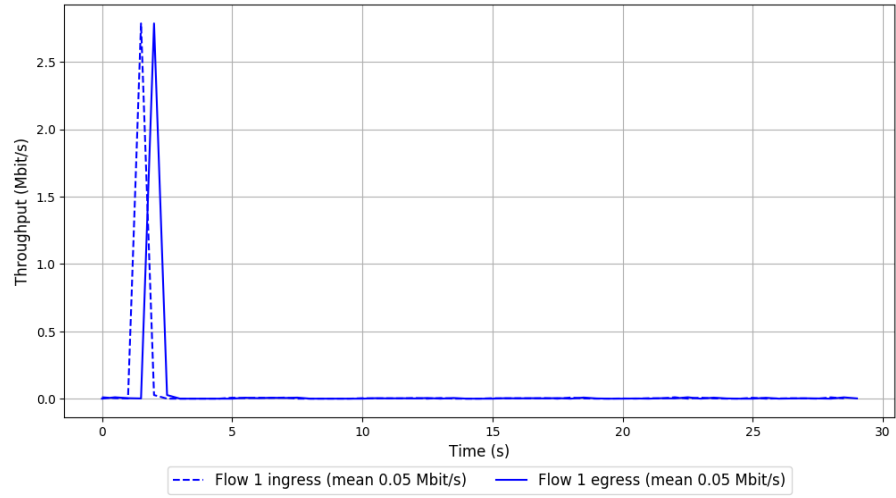
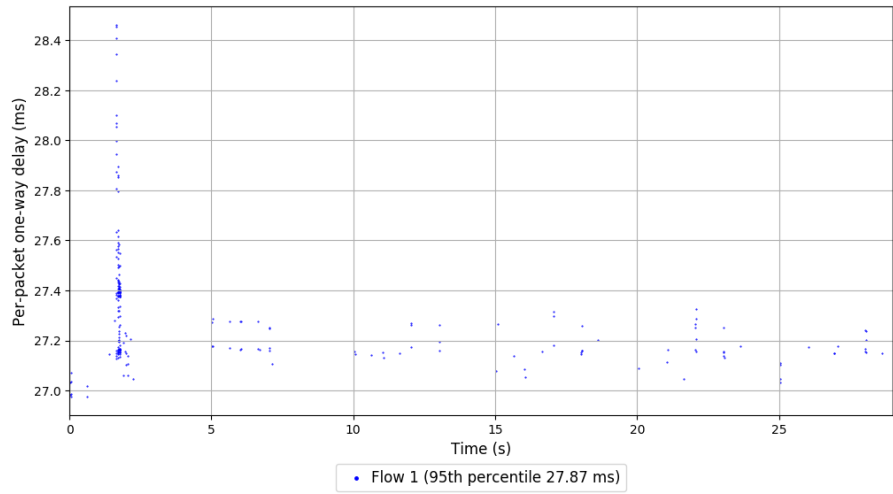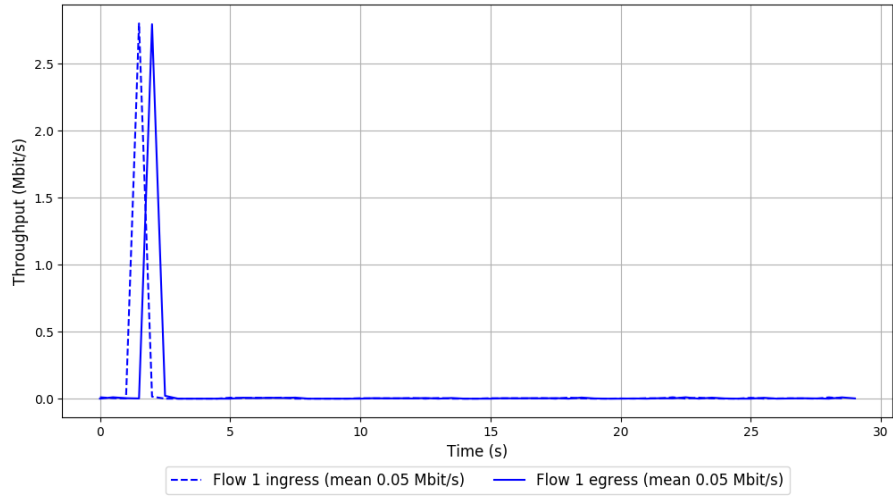Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2020-02-17 22:44:41
End at: 2020-02-17 22:45:11
Local clock offset: 6.168 ms
Remote clock offset: -1.948 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.874 ms
Loss rate: 0.00%
```

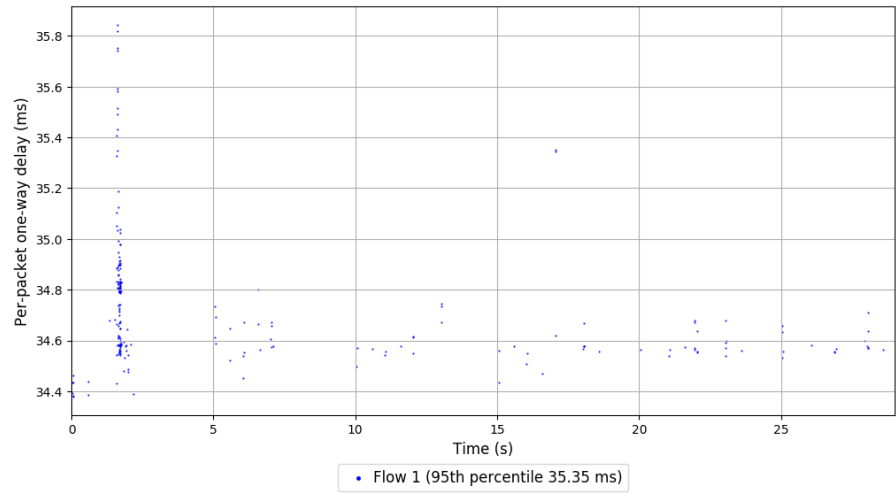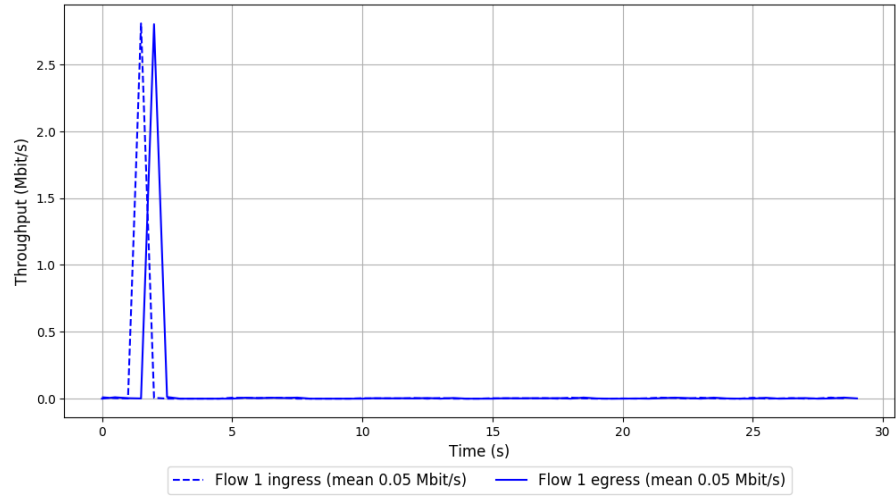Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2020-02-17 23:11:53
End at: 2020-02-17 23:12:23
Local clock offset: 0.989 ms
Remote clock offset: -2.693 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.347 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 35.347 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2020-02-17 23:39:07
End at: 2020-02-17 23:39:37
Local clock offset: 4.839 ms
Remote clock offset: -4.587 ms


# Below is generated by plot.py at 2020-02-17 23:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 27.319 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link