Pantheon Report

Generated at 2019-12-11 19:10:31 (UTC).

Data path: GCE Sydney on `ens4` (*local*) →GCE London on `ens4` (*remote*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.
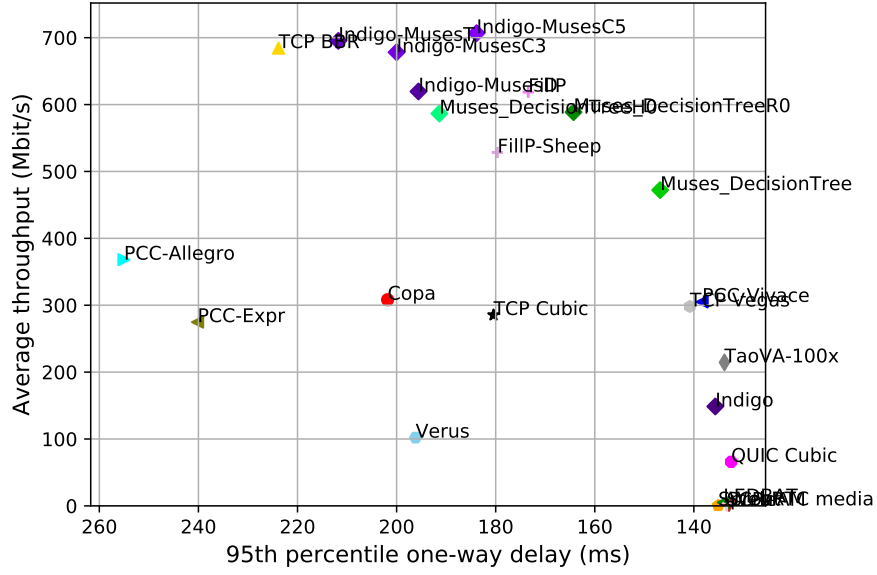
```
System info:
Linux 5.0.0-1025-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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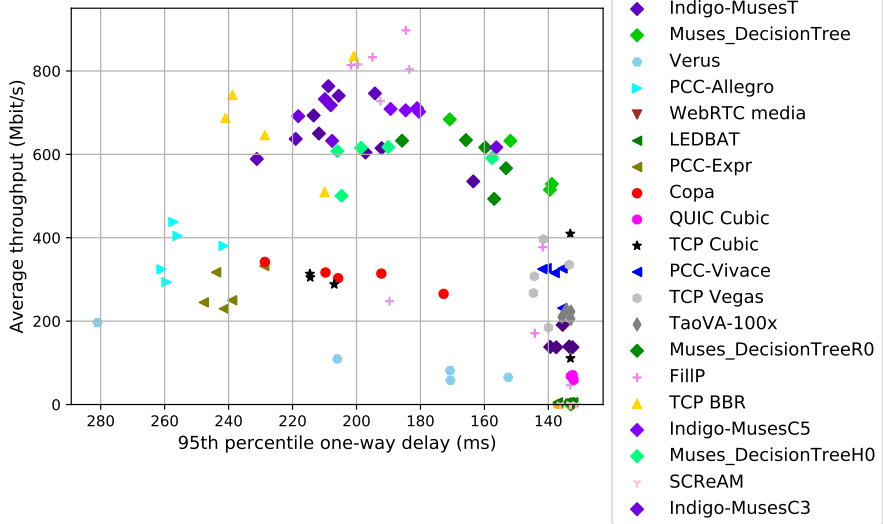
```
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Sydney to GCE London, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Sydney to GCE London, 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	684.40	223.84	4.14
Copa	5	308.25	201.82	0.00
TCP Cubic	5	285.34	180.44	0.08
FillP	5	618.63	173.43	1.76
FillP-Sheep	5	528.37	179.66	0.76
Indigo	5	148.63	135.68	0.00
Indigo-MusesC3	5	678.21	200.01	0.55
Indigo-MusesC5	4	706.79	183.86	0.11
Indigo-MusesD	5	619.55	195.60	0.48
Indigo-MusesT	5	695.23	211.76	0.58
LEDBAT	5	5.20	134.06	0.00
Muses_DecisionTree	5	472.13	146.81	0.07
Muses_DecisionTreeH0	5	586.59	191.37	0.66
Muses_DecisionTreeR0	5	588.69	164.29	0.10
PCC-Allegro	5	368.05	255.03	4.84
PCC-Expr	5	274.74	240.18	3.64
QUIC Cubic	4	65.85	132.48	0.00
SCReAM	5	0.17	133.38	0.00
Sprout	5	0.56	135.10	0.00
TaoVA-100x	5	214.51	133.83	0.00
TCP Vegas	5	298.15	140.81	0.12
Verus	5	102.07	196.17	1.86
PCC-Vivace	5	304.97	138.34	0.05
WebRTC media	5	0.81	132.91	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-12-11 14:44:41
End at: 2019-12-11 14:45:11
Local clock offset: -0.138 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-12-11 17:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 836.36 Mbit/s
95th percentile per-packet one-way delay: 200.798 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 836.36 Mbit/s
95th percentile per-packet one-way delay: 200.798 ms
Loss rate: 1.62%
```
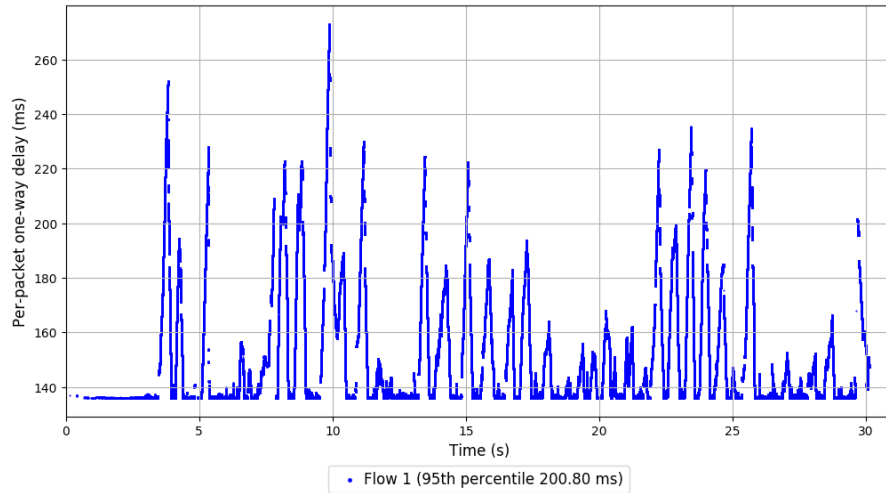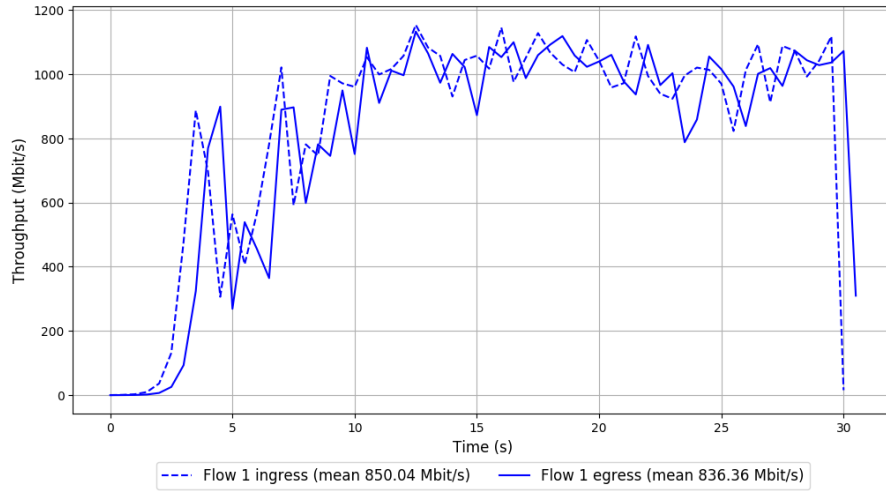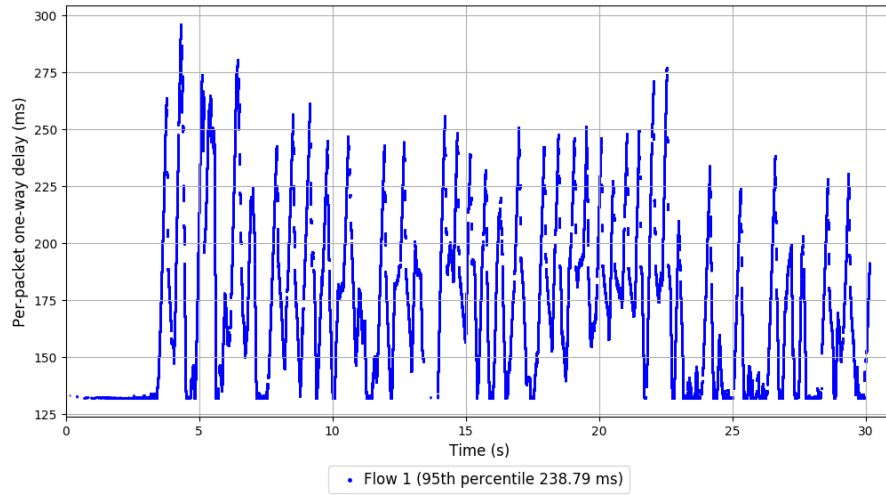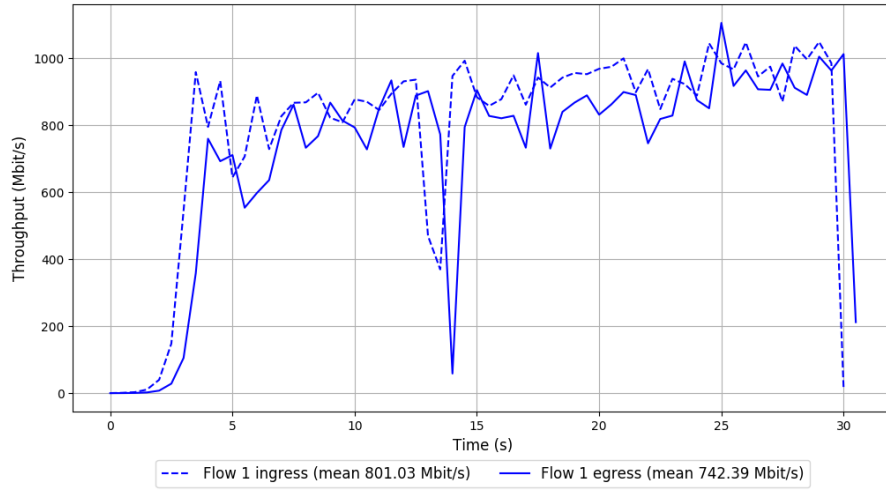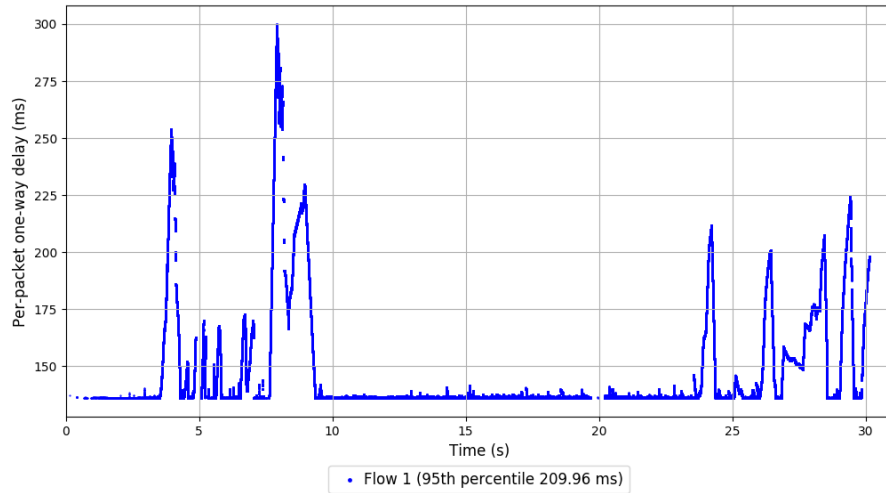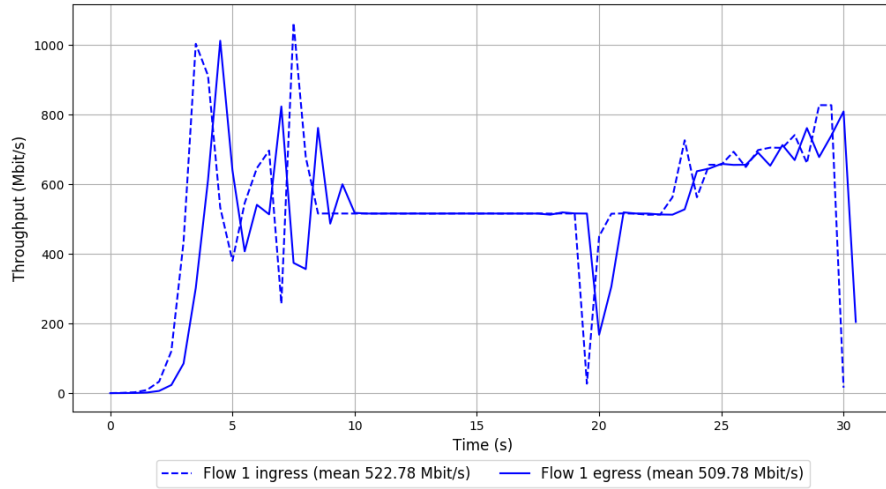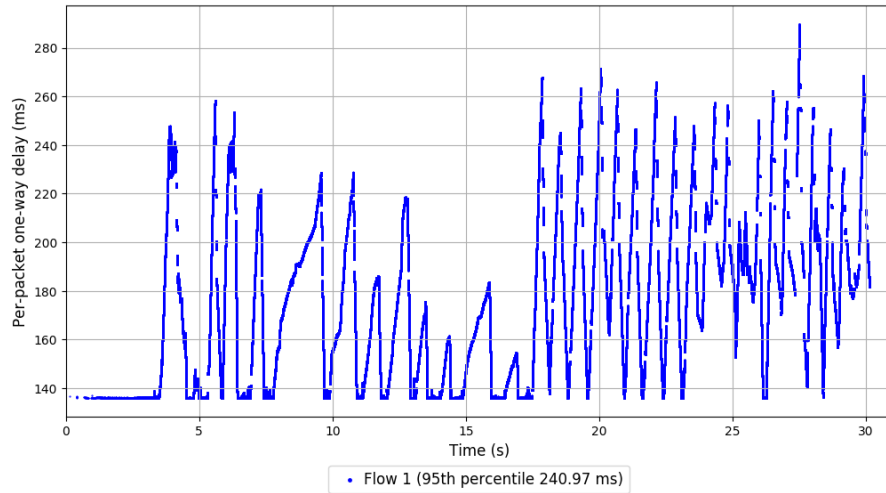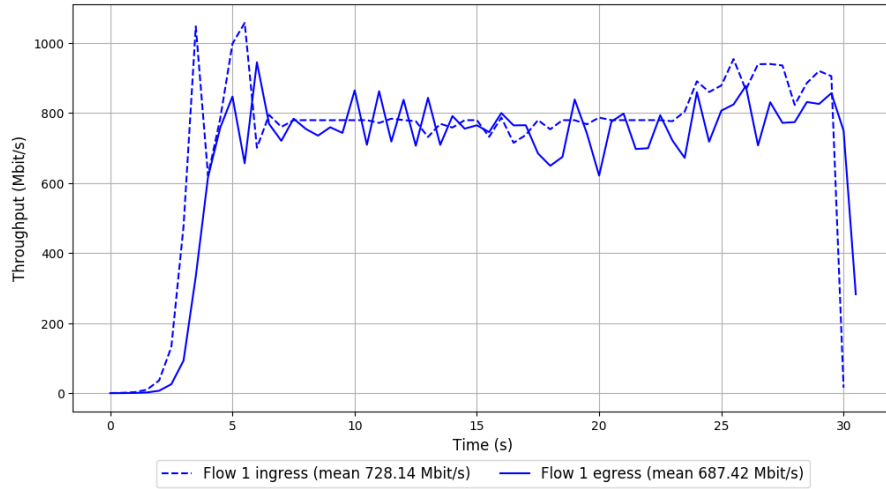
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-12-11 15:20:54
End at: 2019-12-11 15:21:24
Local clock offset: -0.076 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-12-11 17:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 742.39 Mbit/s
95th percentile per-packet one-way delay: 238.795 ms
Loss rate: 7.32%
-- Flow 1:
Average throughput: 742.39 Mbit/s
95th percentile per-packet one-way delay: 238.795 ms
Loss rate: 7.32%
```

Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 801.03 Mbit/s)   Flow 1 egress (mean 742.39 Mbit/s)

• Flow 1 (95th percentile 238.79 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-12-11 15:57:03
End at: 2019-12-11 15:57:33
Local clock offset: -0.237 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-12-11 17:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 509.78 Mbit/s
95th percentile per-packet one-way delay: 209.958 ms
Loss rate: 2.50%
-- Flow 1:
Average throughput: 509.78 Mbit/s
95th percentile per-packet one-way delay: 209.958 ms
Loss rate: 2.50%
```
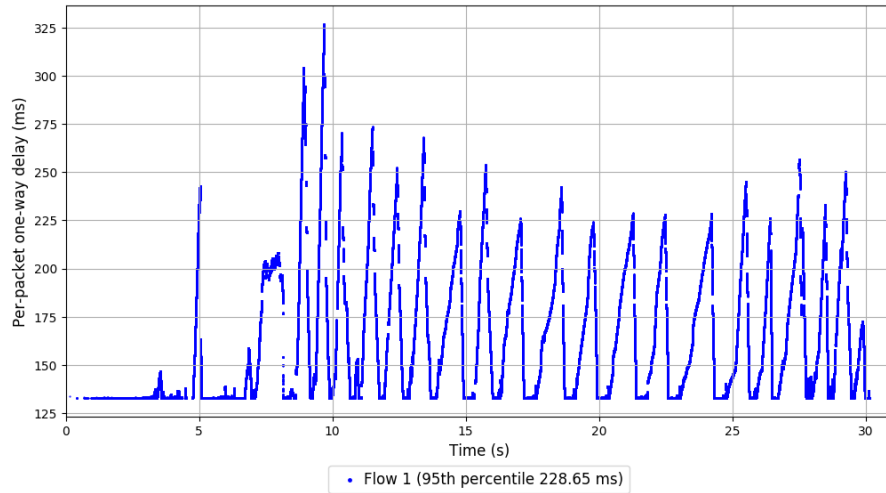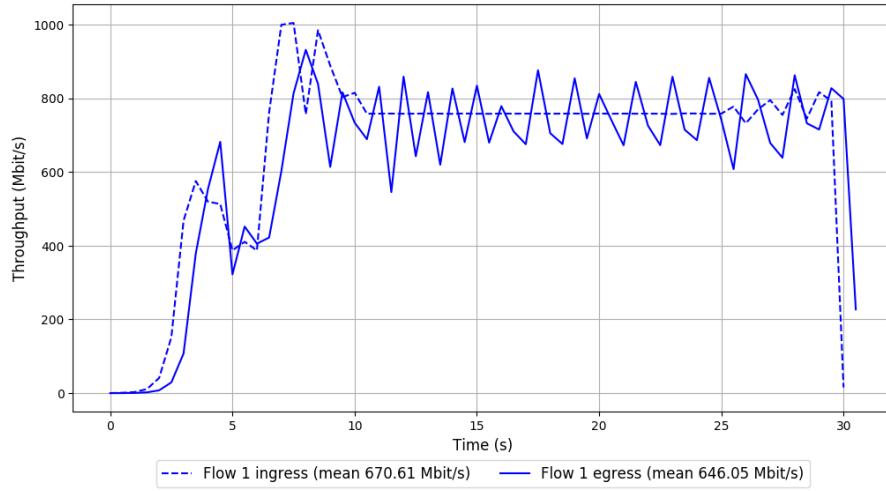
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2019-12-11 16:33:15
End at: 2019-12-11 16:33:45
Local clock offset: -0.355 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-12-11 17:48:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 687.42 Mbit/s
95th percentile per-packet one-way delay: 240.971 ms
Loss rate: 5.60%
-- Flow 1:
Average throughput: 687.42 Mbit/s
95th percentile per-packet one-way delay: 240.971 ms
Loss rate: 5.60%
```
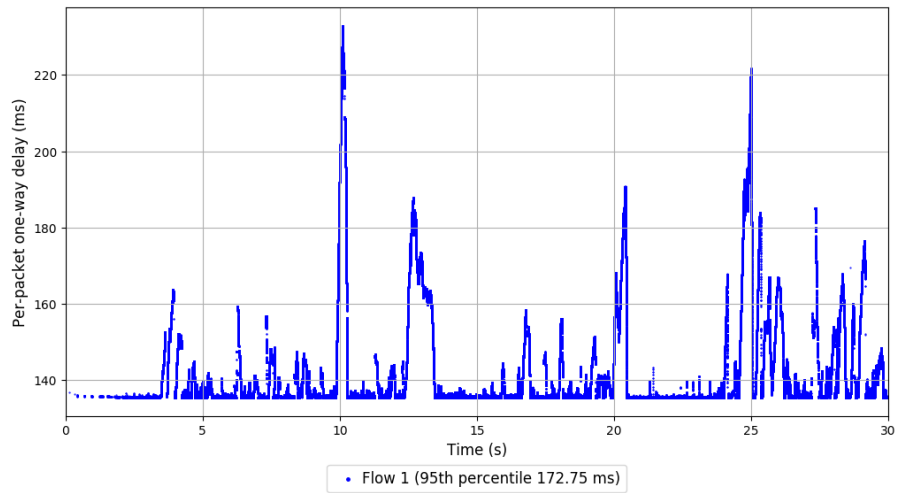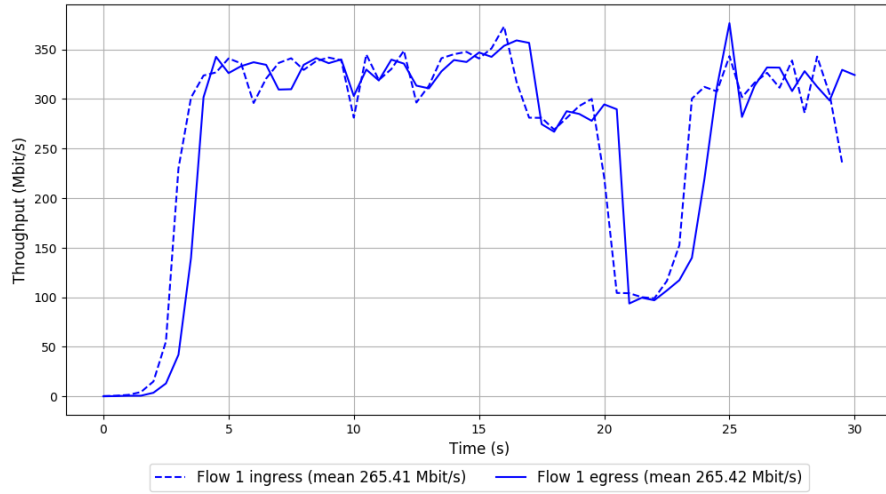
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 728.14 Mbit/s)   Flow 1 egress (mean 687.42 Mbit/s)

• Flow 1 (95th percentile 240.97 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-12-11 17:09:12
End at: 2019-12-11 17:09:42
Local clock offset: -0.24 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2019-12-11 17:48:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 646.05 Mbit/s
95th percentile per-packet one-way delay: 228.654 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 646.05 Mbit/s
95th percentile per-packet one-way delay: 228.654 ms
Loss rate: 3.67%
```
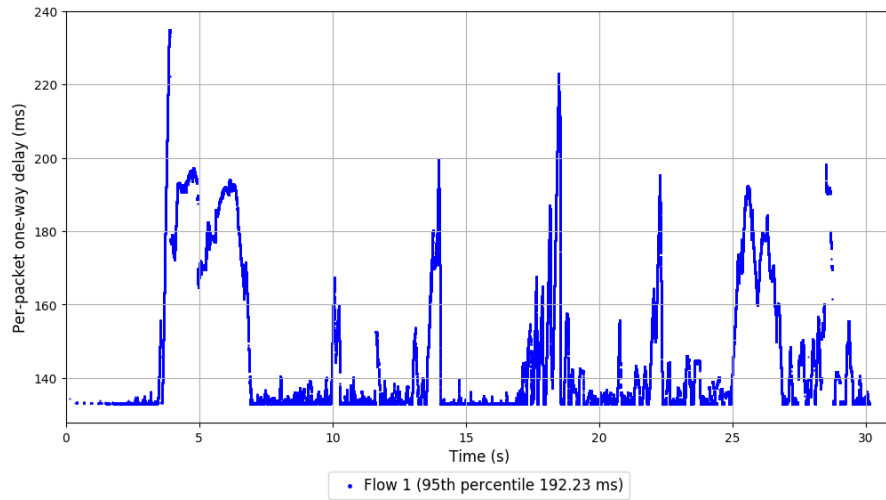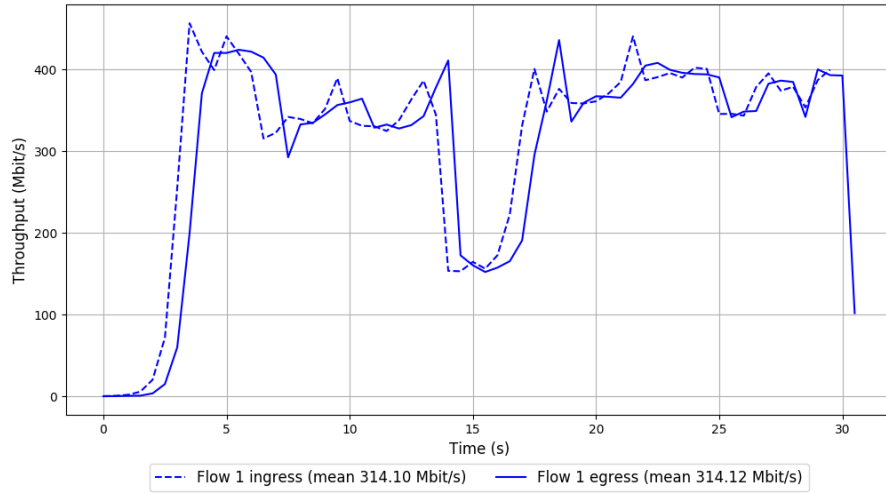
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 670.61 Mbit/s) ----   Flow 1 egress (mean 646.05 Mbit/s) ——

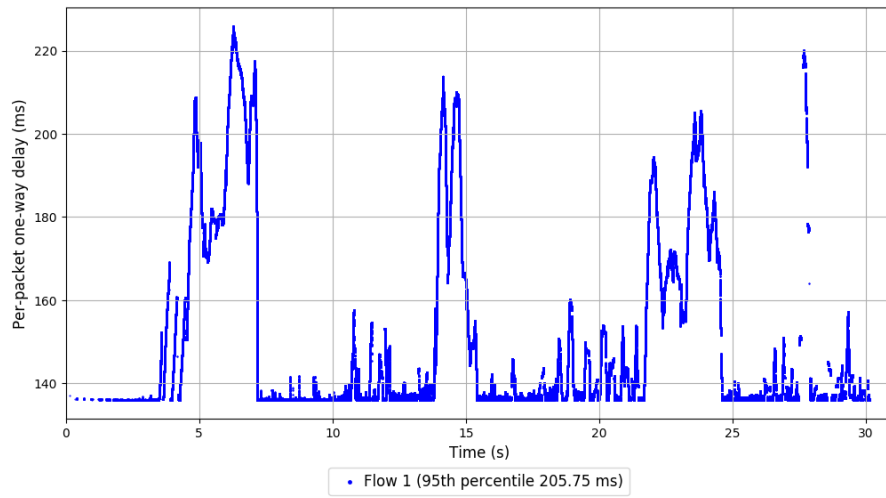• Flow 1 (95th percentile 228.65 ms)

```
Run 1: Statistics of Copa

Start at: 2019-12-11 14:46:26
End at: 2019-12-11 14:46:56
Local clock offset: -0.006 ms
Remote clock offset: -0.46 ms


# Below is generated by plot.py at 2019-12-11 17:48:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.42 Mbit/s
95th percentile per-packet one-way delay: 172.754 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 265.42 Mbit/s
95th percentile per-packet one-way delay: 172.754 ms
Loss rate: 0.00%
```
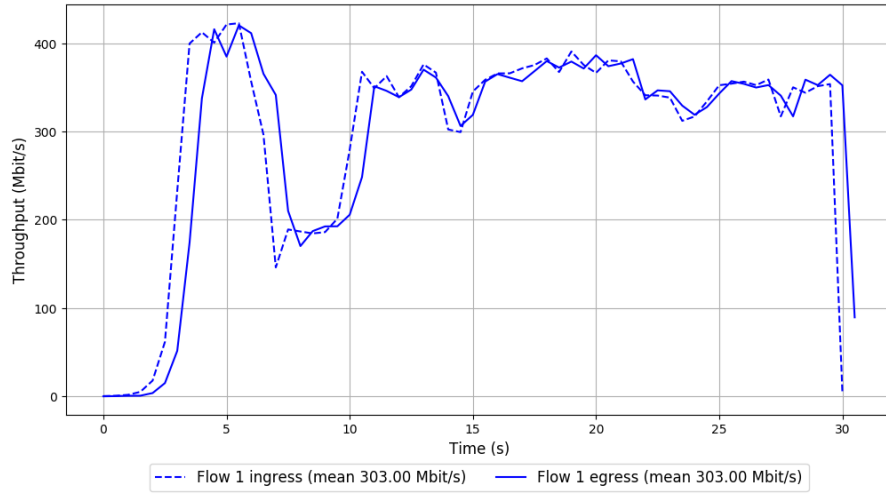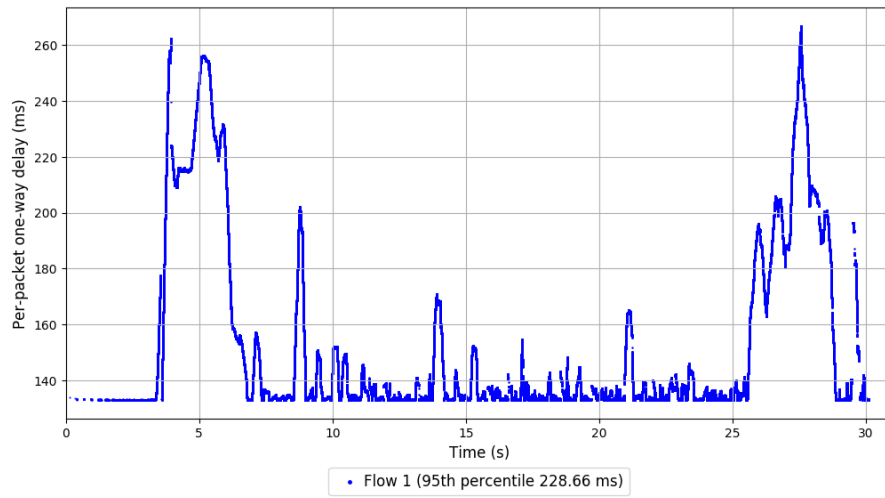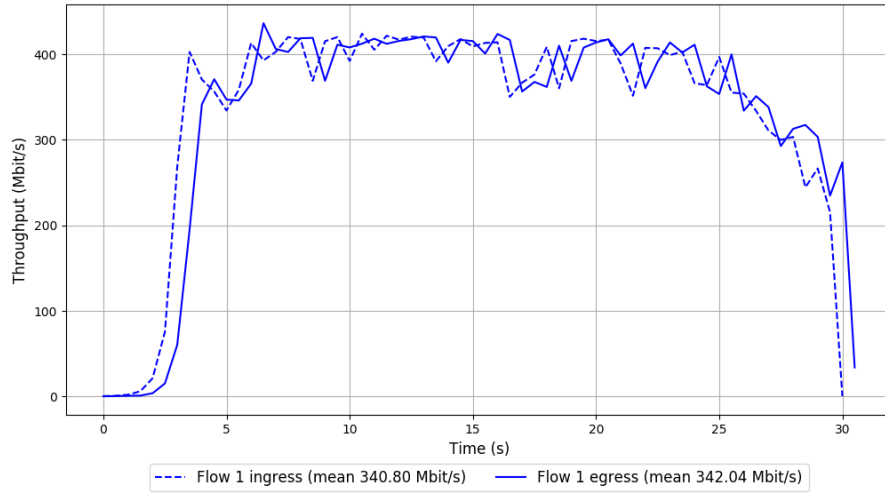
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-12-11 15:22:36
End at: 2019-12-11 15:23:06
Local clock offset: 0.233 ms
Remote clock offset: 0.313 ms


# Below is generated by plot.py at 2019-12-11 17:48:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 314.12 Mbit/s
95th percentile per-packet one-way delay: 192.229 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 314.12 Mbit/s
95th percentile per-packet one-way delay: 192.229 ms
Loss rate: 0.00%
```
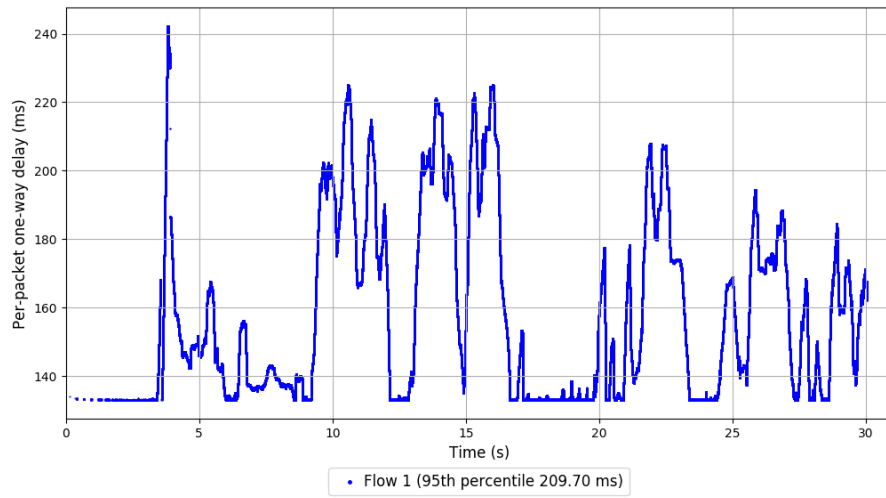
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-12-11 15:58:39
End at: 2019-12-11 15:59:09
Local clock offset: -0.191 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2019-12-11 17:48:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 303.00 Mbit/s
95th percentile per-packet one-way delay: 205.745 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 303.00 Mbit/s
95th percentile per-packet one-way delay: 205.745 ms
Loss rate: 0.01%
```
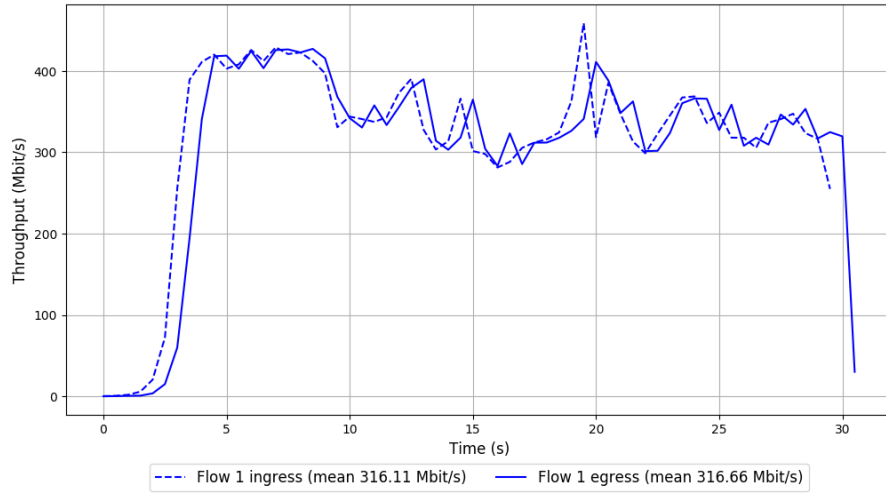
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-12-11 16:34:56
End at: 2019-12-11 16:35:26
Local clock offset: -0.419 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 342.04 Mbit/s
95th percentile per-packet one-way delay: 228.656 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 342.04 Mbit/s
95th percentile per-packet one-way delay: 228.656 ms
Loss rate: 0.00%
```
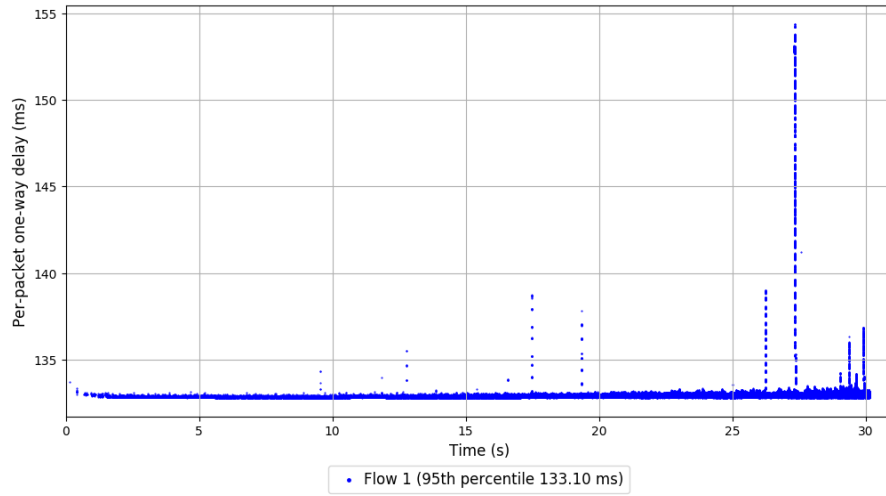
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-12-11 17:10:52
End at: 2019-12-11 17:11:22
Local clock offset: -0.233 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 316.66 Mbit/s
95th percentile per-packet one-way delay: 209.697 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 316.66 Mbit/s
95th percentile per-packet one-way delay: 209.697 ms
Loss rate: 0.00%
```
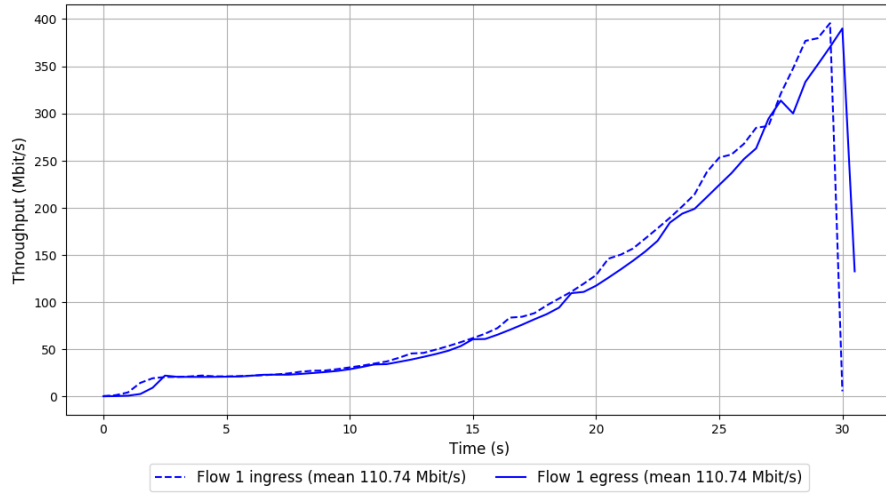
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 316.11 Mbit/s) — Flow 1 egress (mean 316.66 Mbit/s)
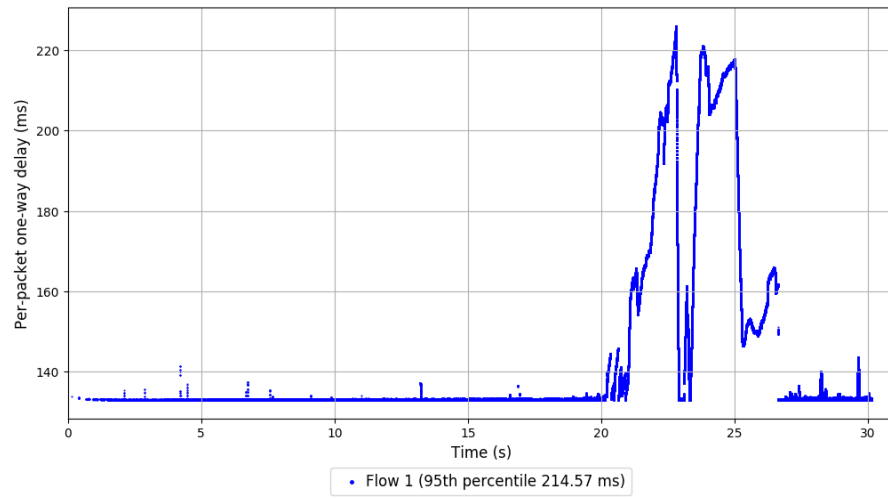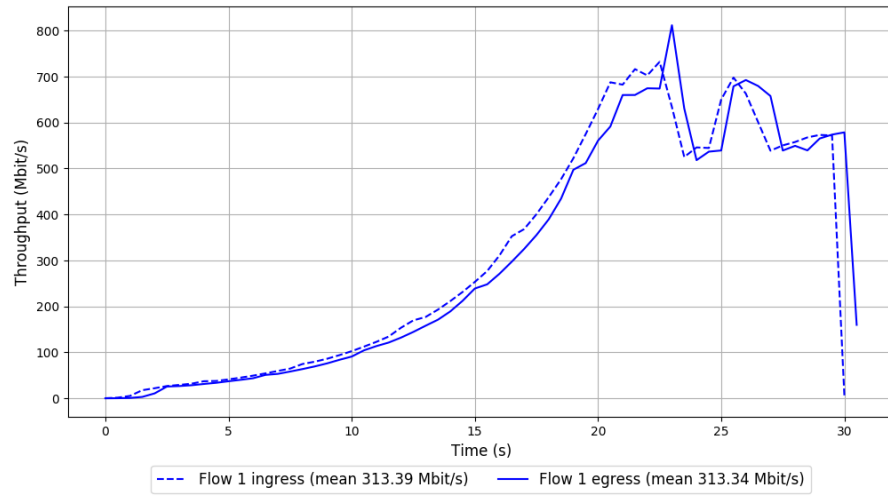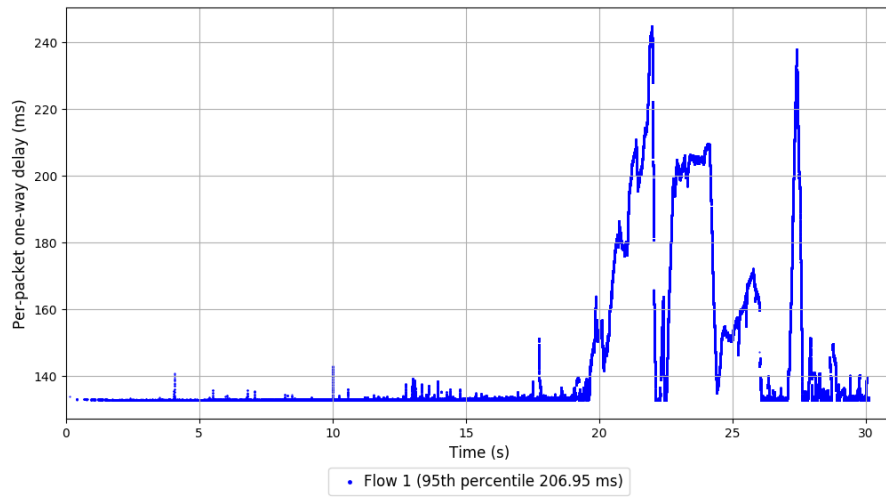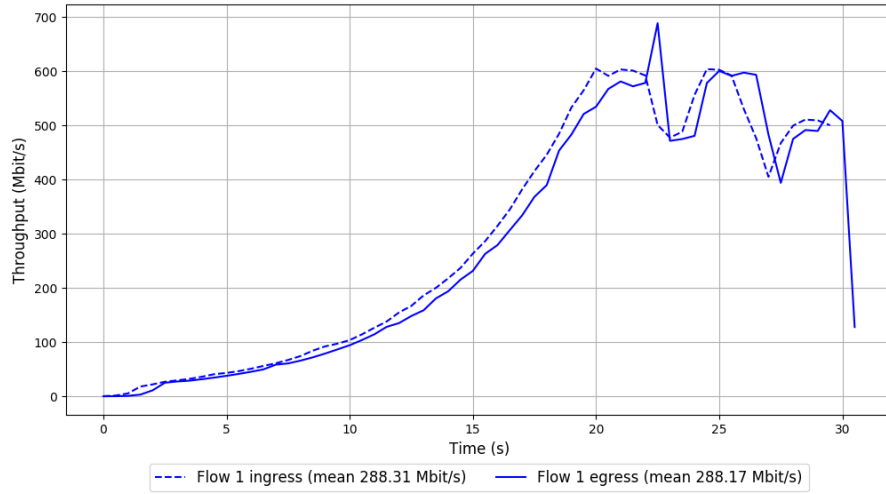

Flow 1 (95th percentile 209.70 ms)

24

```
Run 1: Statistics of TCP Cubic

Start at: 2019-12-11 14:41:59
End at: 2019-12-11 14:42:29
Local clock offset: -0.048 ms
Remote clock offset: -0.08 ms

# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 110.74 Mbit/s
95th percentile per-packet one-way delay: 133.098 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 110.74 Mbit/s
95th percentile per-packet one-way delay: 133.098 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-12-11 15:18:04
End at: 2019-12-11 15:18:34
Local clock offset: -0.166 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 313.34 Mbit/s
95th percentile per-packet one-way delay: 214.570 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 313.34 Mbit/s
95th percentile per-packet one-way delay: 214.570 ms
Loss rate: 0.02%
```
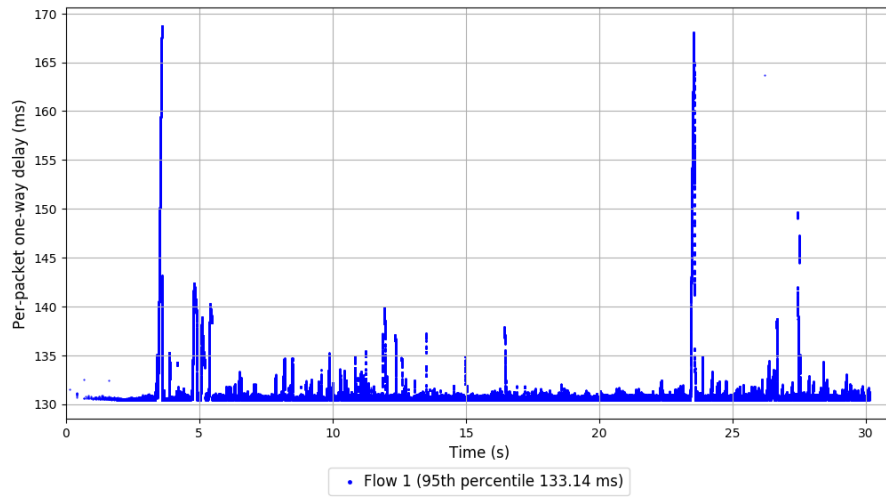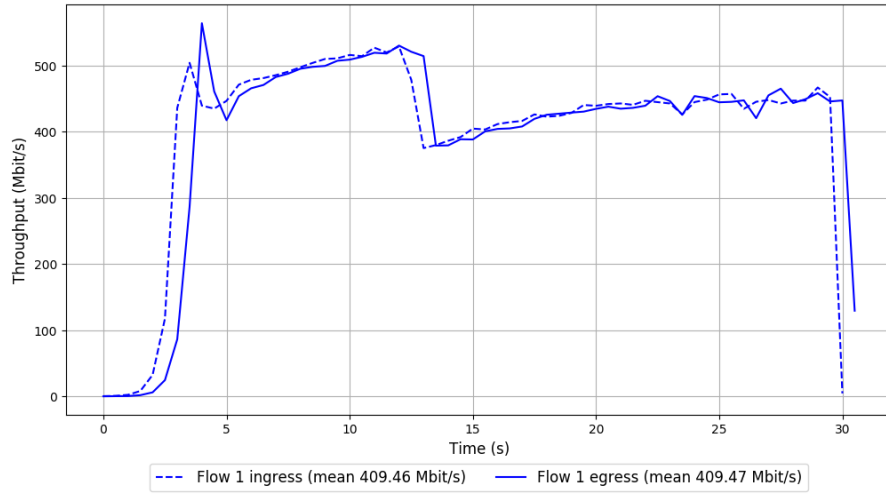
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 313.39 Mbit/s)   Flow 1 egress (mean 313.34 Mbit/s)
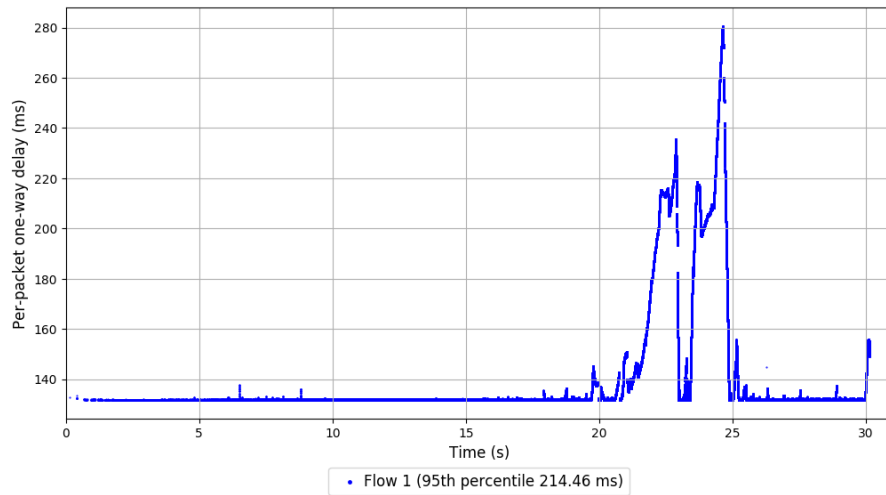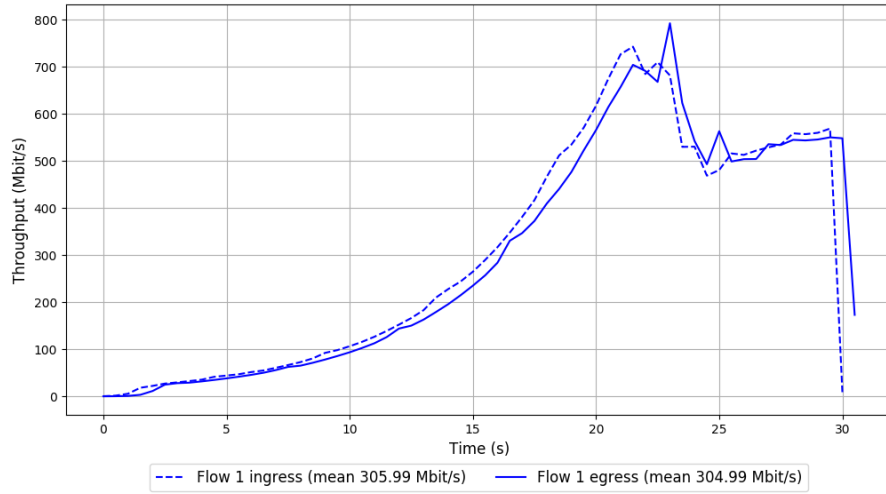

Flow 1 (95th percentile 214.57 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-12-11 15:54:14
End at: 2019-12-11 15:54:44
Local clock offset: -0.242 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 206.948 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 288.17 Mbit/s
95th percentile per-packet one-way delay: 206.948 ms
Loss rate: 0.05%
```
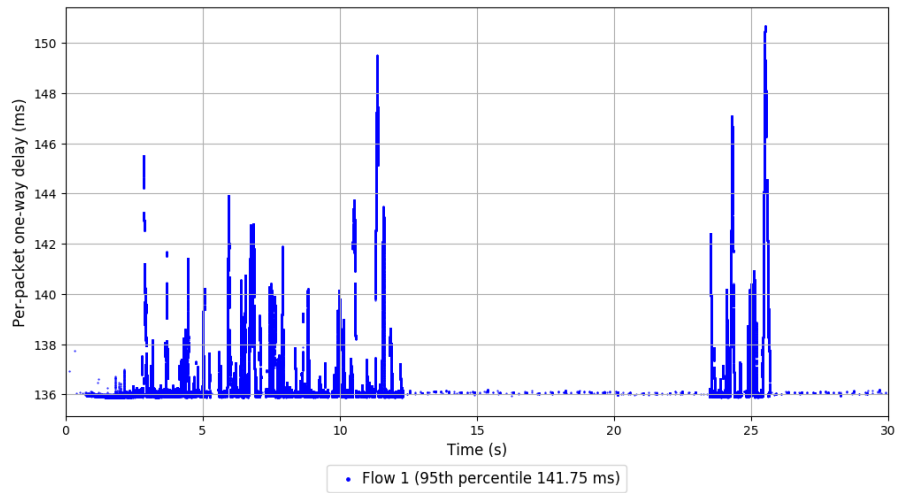
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 288.31 Mbit/s)   Flow 1 egress (mean 288.17 Mbit/s)

Flow 1 (95th percentile 206.95 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-12-11 16:30:21
End at: 2019-12-11 16:30:51
Local clock offset: 0.0 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-12-11 17:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 409.47 Mbit/s
95th percentile per-packet one-way delay: 133.140 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 409.47 Mbit/s
95th percentile per-packet one-way delay: 133.140 ms
Loss rate: 0.00%
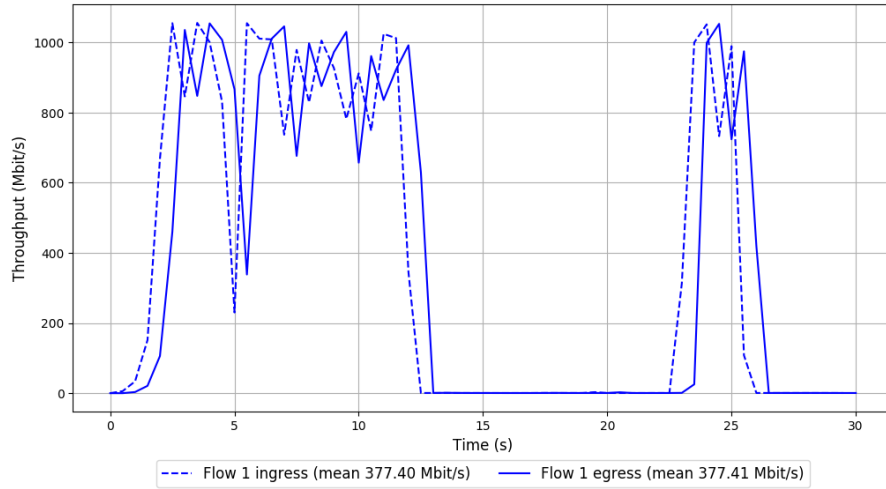```

Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-12-11 17:06:17
End at: 2019-12-11 17:06:47
Local clock offset: 0.158 ms
Remote clock offset: -0.108 ms

Below is generated by plot.py at 2019-12-11 17:53:16
Datalink statistics
-- Total of 1 flow:
Average throughput: 304.99 Mbit/s
95th percentile per-packet one-way delay: 214.461 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 304.99 Mbit/s
95th percentile per-packet one-way delay: 214.461 ms
Loss rate: 0.31%
```
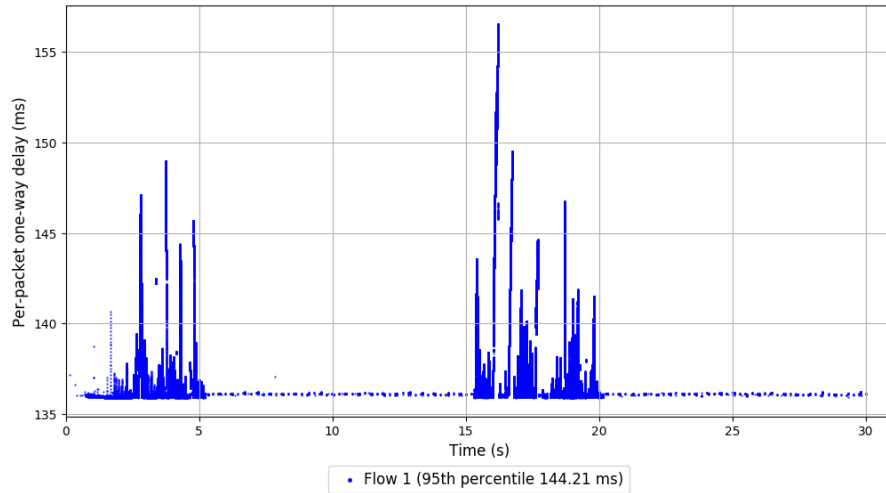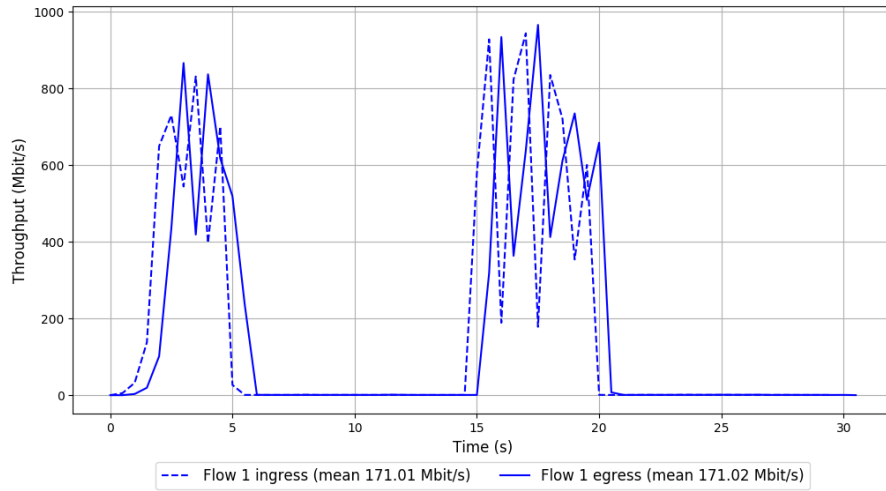
Run 5: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 305.99 Mbit/s) — — — Flow 1 egress (mean 304.99 Mbit/s)



• Flow 1 (95th percentile 214.46 ms)

```
Run 1: Statistics of FillP

Start at: 2019-12-11 14:49:45
End at: 2019-12-11 14:50:15
Local clock offset: -0.065 ms
Remote clock offset: -0.039 ms

Below is generated by plot.py at 2019-12-11 17:54:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 377.41 Mbit/s
95th percentile per-packet one-way delay: 141.752 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 377.41 Mbit/s
95th percentile per-packet one-way delay: 141.752 ms
Loss rate: 0.00%
```
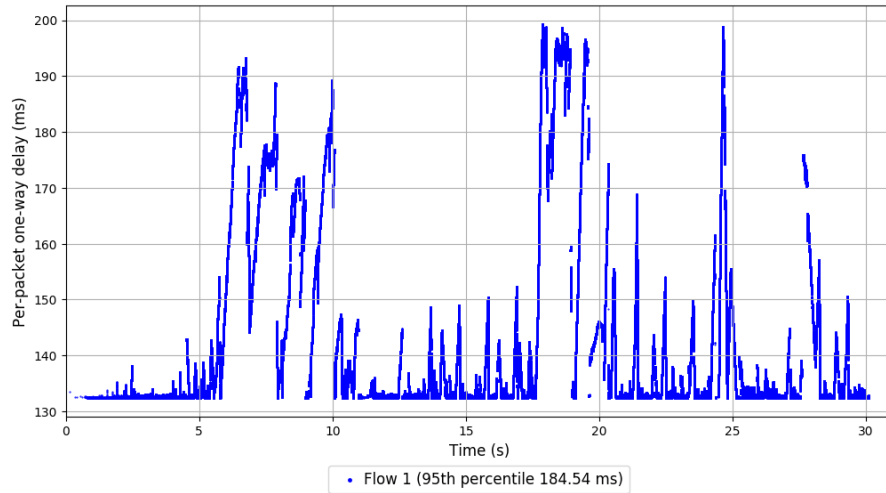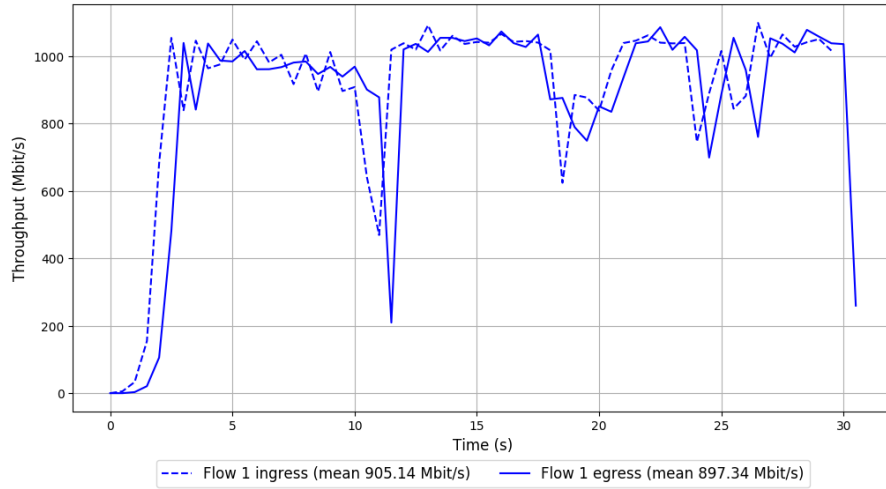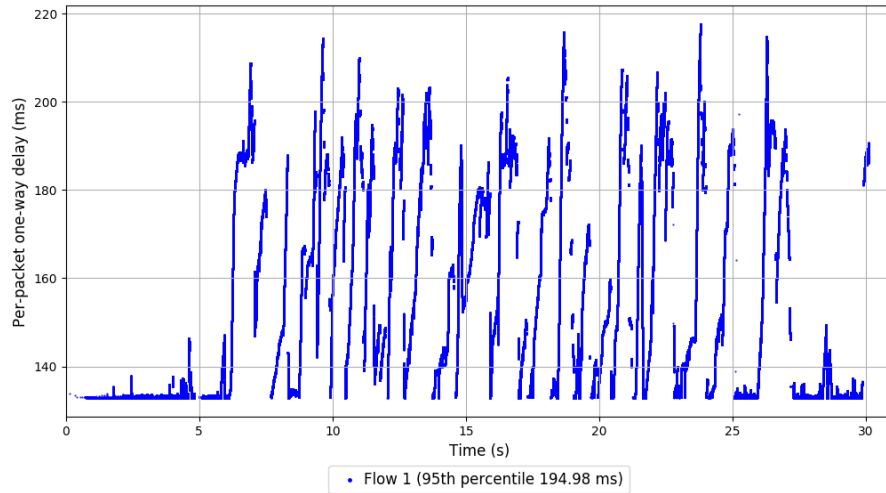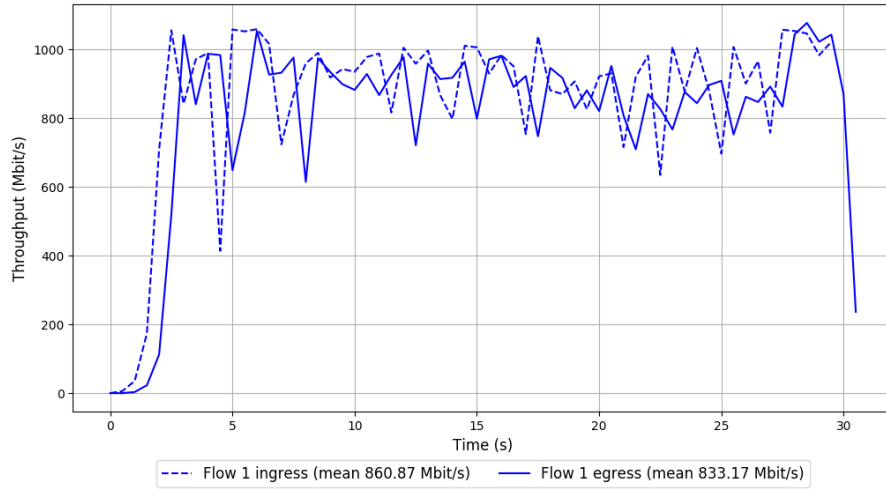
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-12-11 15:25:58
End at: 2019-12-11 15:26:28
Local clock offset: -0.133 ms
Remote clock offset: -0.092 ms

Below is generated by plot.py at 2019-12-11 17:54:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 171.02 Mbit/s
95th percentile per-packet one-way delay: 144.214 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 171.02 Mbit/s
95th percentile per-packet one-way delay: 144.214 ms
Loss rate: 0.00%
```
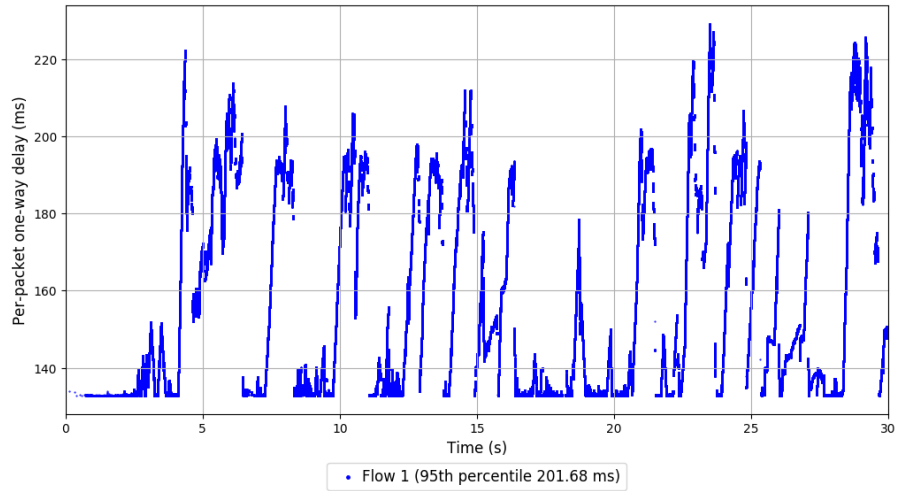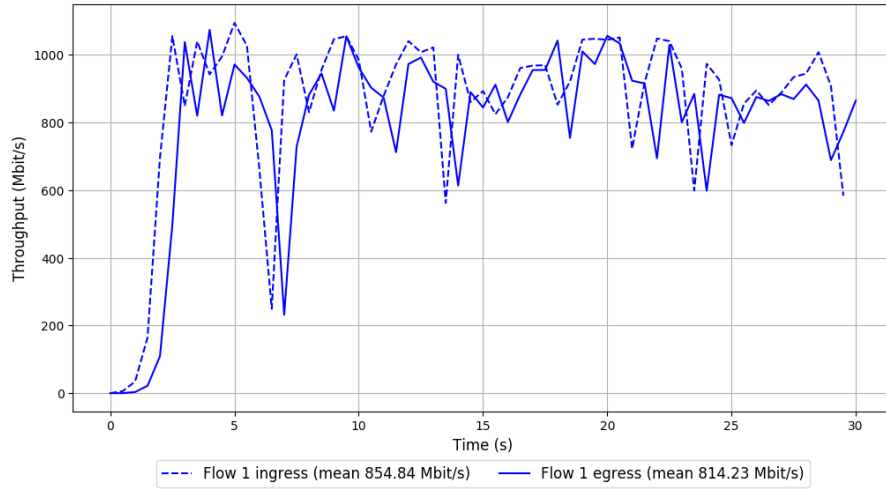
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2019-12-11 16:01:59
End at: 2019-12-11 16:02:29
Local clock offset: 0.072 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2019-12-11 18:06:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 897.34 Mbit/s
95th percentile per-packet one-way delay: 184.541 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 897.34 Mbit/s
95th percentile per-packet one-way delay: 184.541 ms
Loss rate: 0.87%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 905.14 Mbit/s)   Flow 1 egress (mean 897.34 Mbit/s)
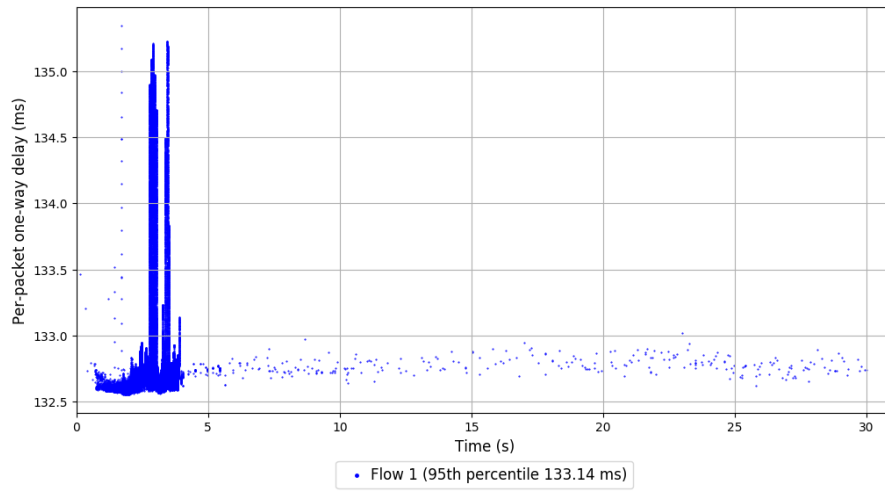

Flow 1 (95th percentile 184.54 ms)

```
Run 4: Statistics of FillP

Start at: 2019-12-11 16:38:12
End at: 2019-12-11 16:38:42
Local clock offset: -0.335 ms
Remote clock offset: -0.021 ms


# Below is generated by plot.py at 2019-12-11 18:06:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 833.17 Mbit/s
95th percentile per-packet one-way delay: 194.976 ms
Loss rate: 3.22%
-- Flow 1:
Average throughput: 833.17 Mbit/s
95th percentile per-packet one-way delay: 194.976 ms
Loss rate: 3.22%
```
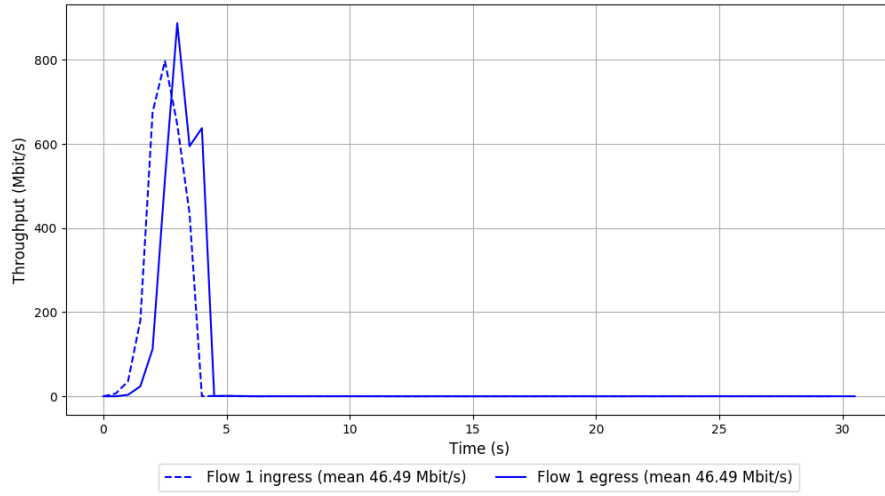
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 860.87 Mbit/s)   Flow 1 egress (mean 833.17 Mbit/s)

• Flow 1 (95th percentile 194.98 ms)

```
Run 5: Statistics of FillP

Start at: 2019-12-11 17:14:14
End at: 2019-12-11 17:14:44
Local clock offset: -0.052 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2019-12-11 18:06:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 814.23 Mbit/s
95th percentile per-packet one-way delay: 201.677 ms
Loss rate: 4.71%
-- Flow 1:
Average throughput: 814.23 Mbit/s
95th percentile per-packet one-way delay: 201.677 ms
Loss rate: 4.71%
```
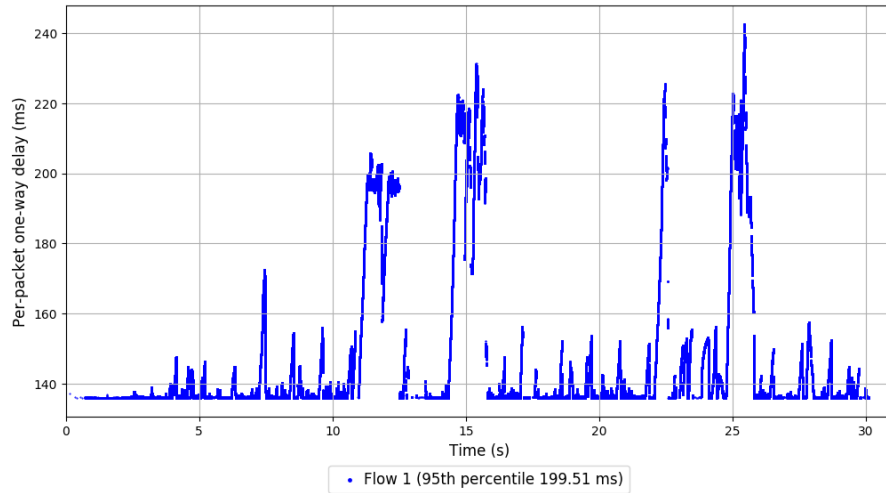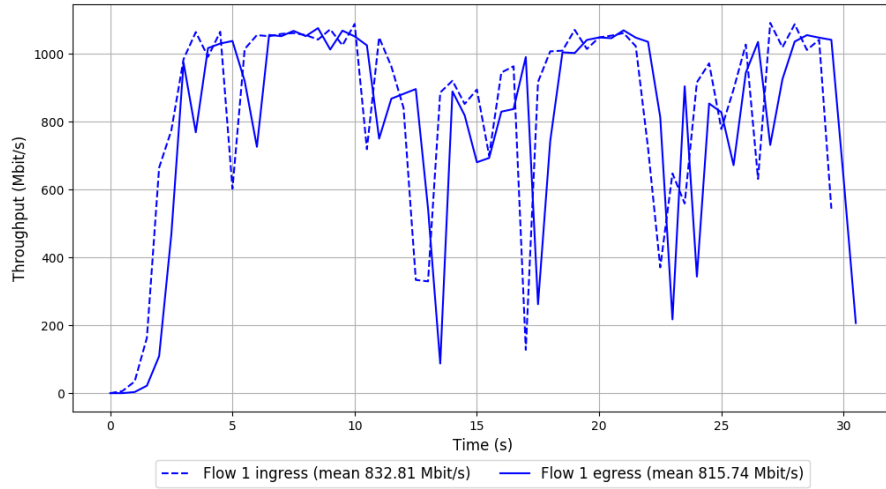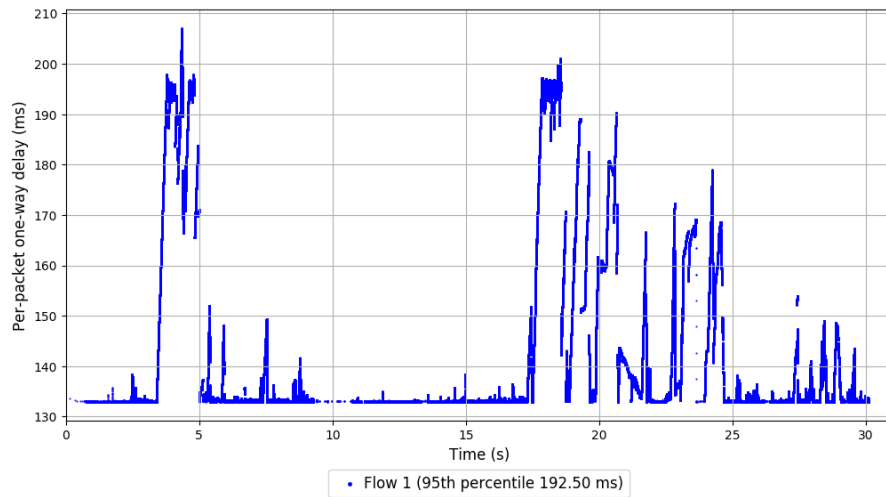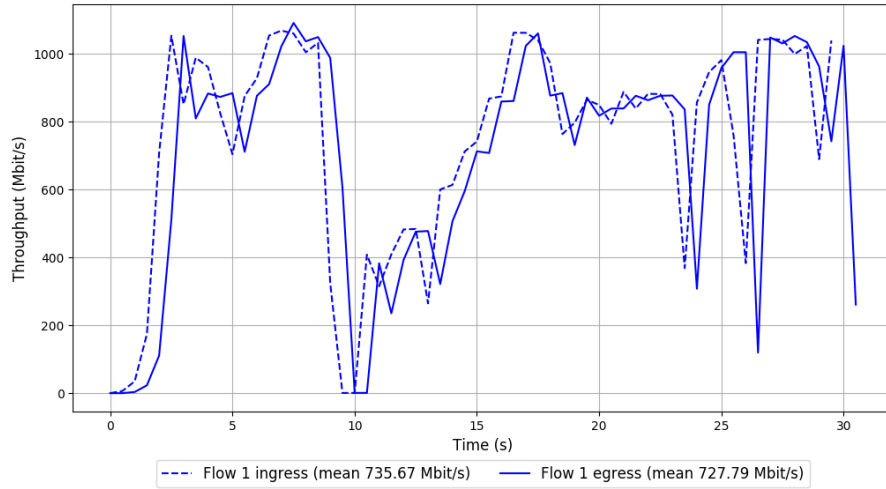
Run 5: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-12-11 14:35:43
End at: 2019-12-11 14:36:13
Local clock offset: -0.088 ms
Remote clock offset: -0.423 ms


# Below is generated by plot.py at 2019-12-11 18:06:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 133.136 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.49 Mbit/s
95th percentile per-packet one-way delay: 133.136 ms
Loss rate: 0.00%
```

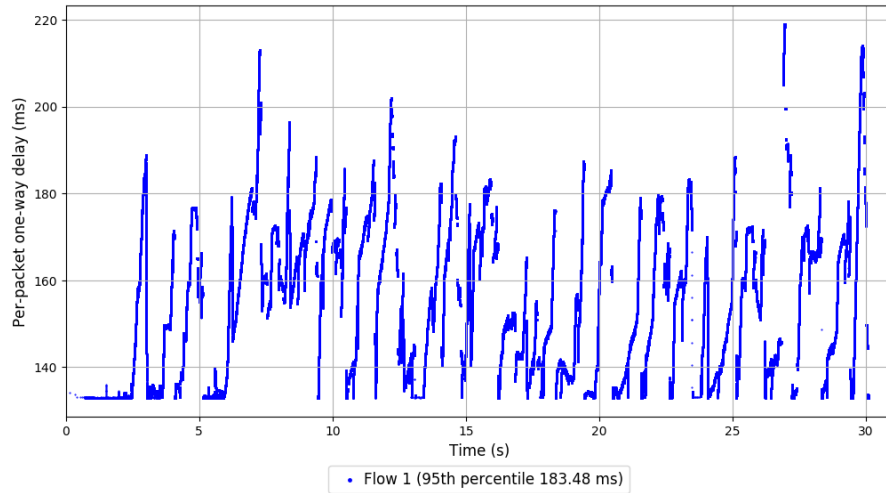Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-12-11 15:11:16
End at: 2019-12-11 15:11:46
Local clock offset: -0.082 ms
Remote clock offset: 0.036 ms


# Below is generated by plot.py at 2019-12-11 18:07:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 815.74 Mbit/s
95th percentile per-packet one-way delay: 199.506 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 815.74 Mbit/s
95th percentile per-packet one-way delay: 199.506 ms
Loss rate: 2.05%
```
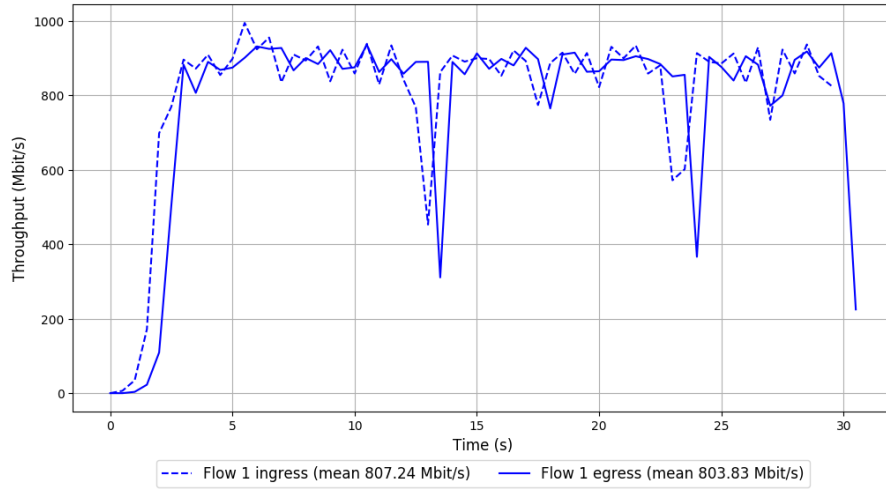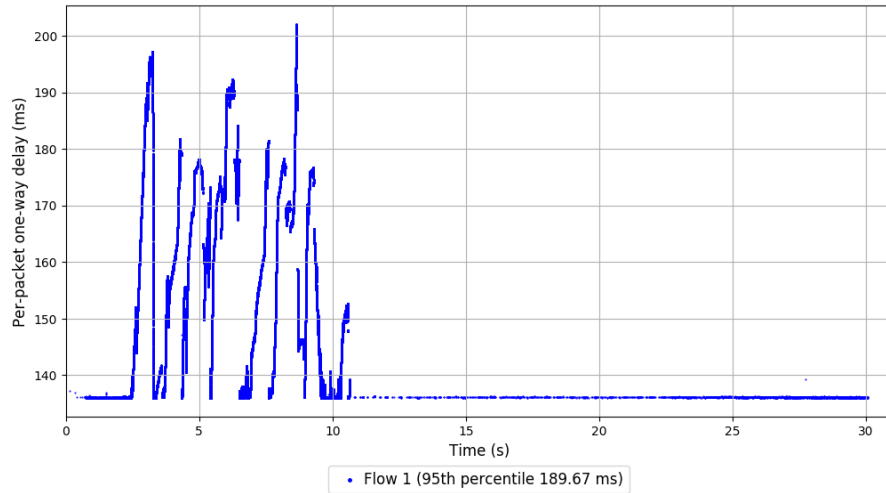
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 832.81 Mbit/s) --- Flow 1 egress (mean 815.74 Mbit/s)

• Flow 1 (95th percentile 199.51 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-12-11 15:47:31
End at: 2019-12-11 15:48:01
Local clock offset: -0.168 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-12-11 18:07:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 727.79 Mbit/s
95th percentile per-packet one-way delay: 192.502 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 727.79 Mbit/s
95th percentile per-packet one-way delay: 192.502 ms
Loss rate: 1.07%
```
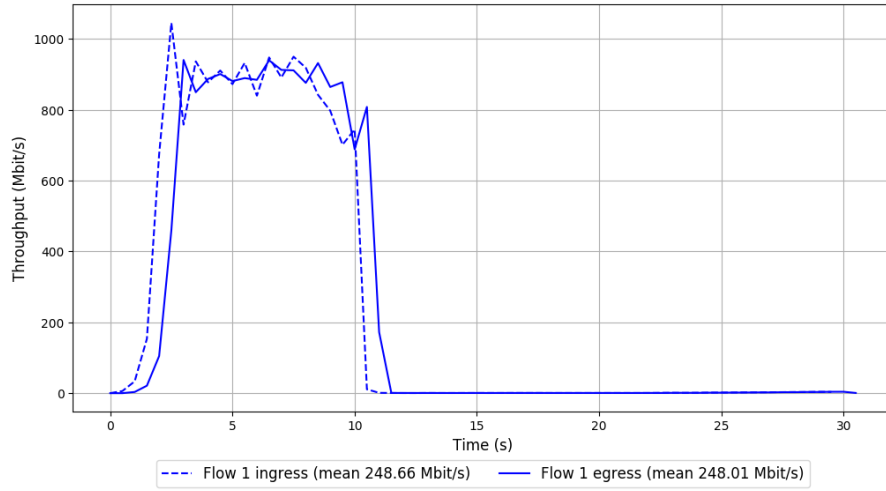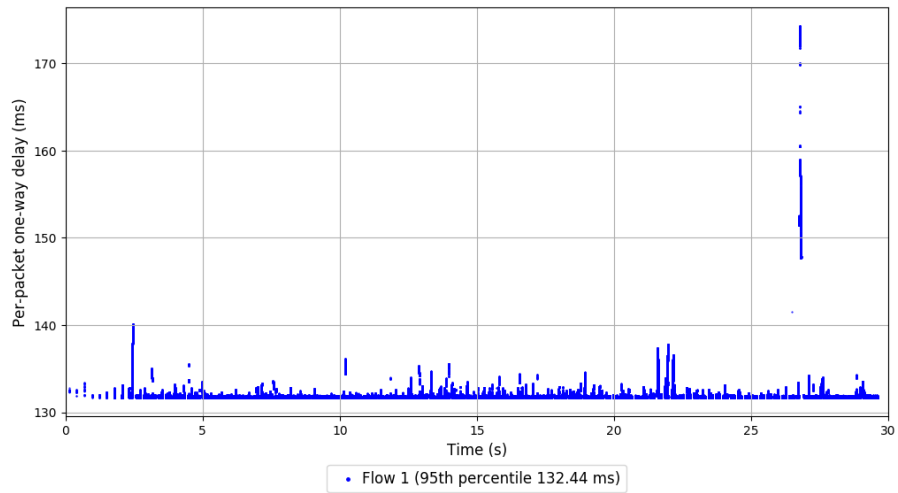
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 735.67 Mbit/s)   Flow 1 egress (mean 727.79 Mbit/s)

• Flow 1 (95th percentile 192.50 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-12-11 16:24:09
End at: 2019-12-11 16:24:39
Local clock offset: -0.325 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2019-12-11 18:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 803.83 Mbit/s
95th percentile per-packet one-way delay: 183.482 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 803.83 Mbit/s
95th percentile per-packet one-way delay: 183.482 ms
Loss rate: 0.43%
```
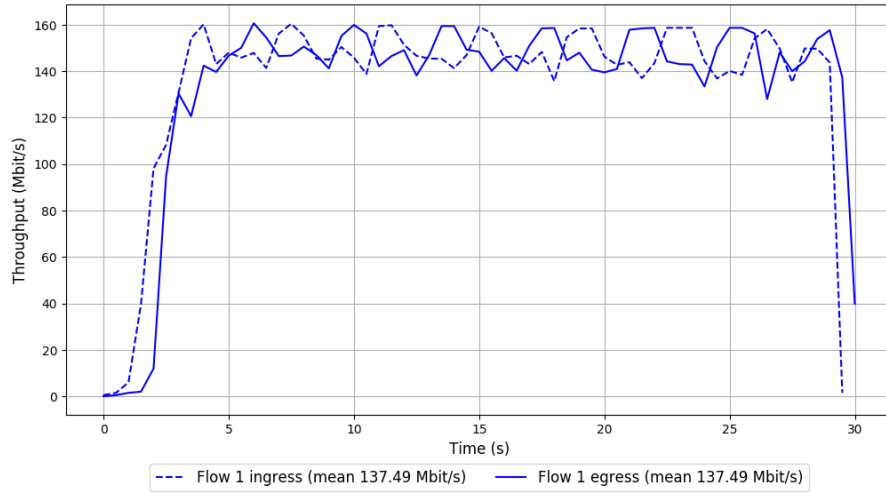
Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-12-11 17:00:00
End at: 2019-12-11 17:00:30
Local clock offset: -0.298 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-12-11 18:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.01 Mbit/s
95th percentile per-packet one-way delay: 189.669 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 248.01 Mbit/s
95th percentile per-packet one-way delay: 189.669 ms
Loss rate: 0.27%
```
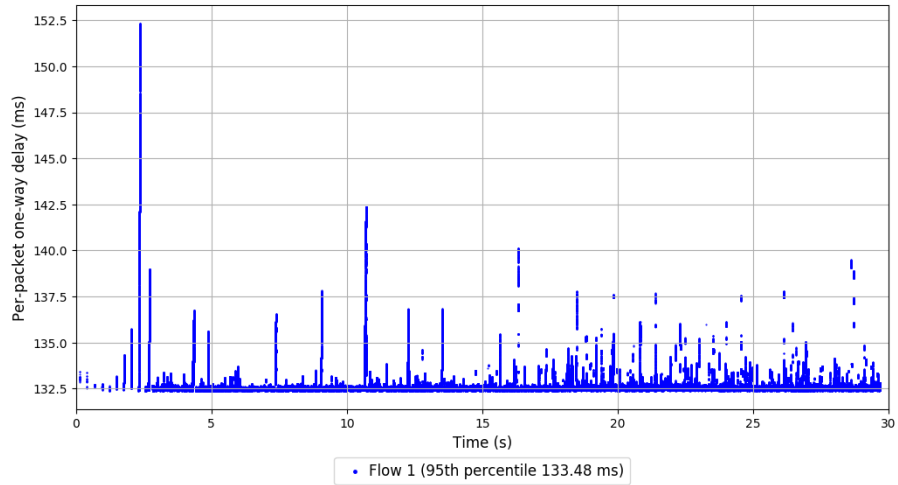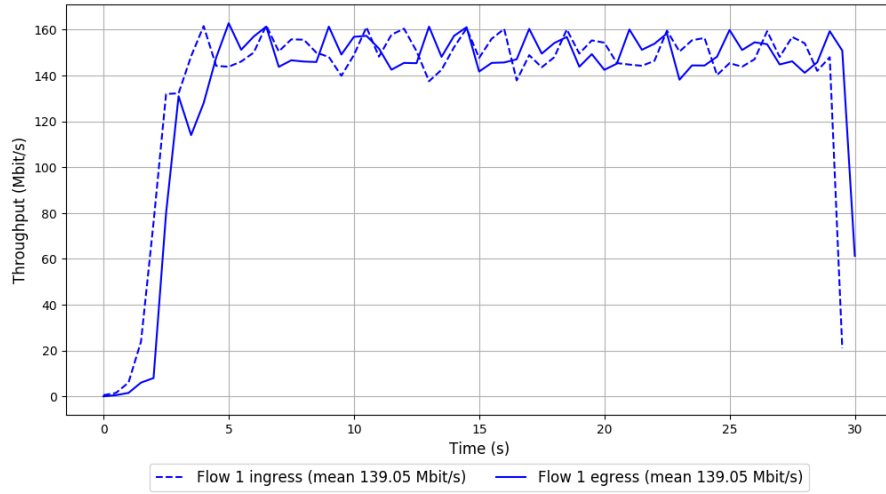
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 248.66 Mbit/s)   Flow 1 egress (mean 248.01 Mbit/s)
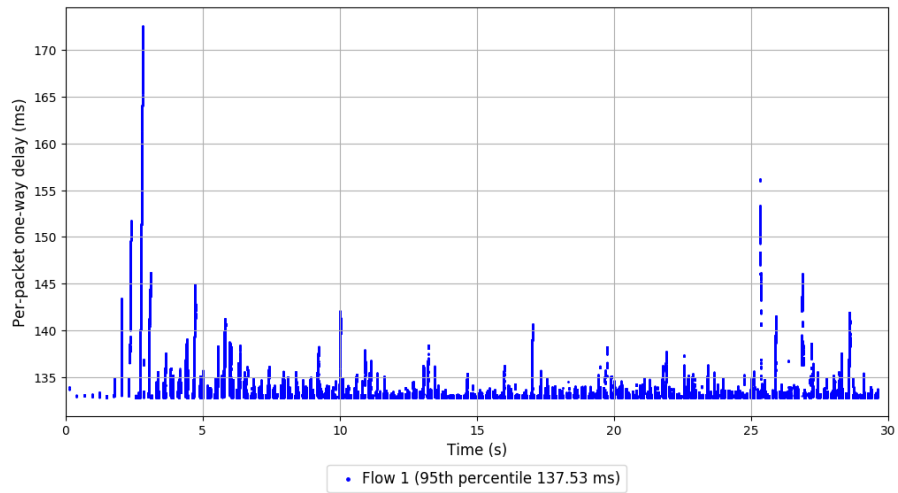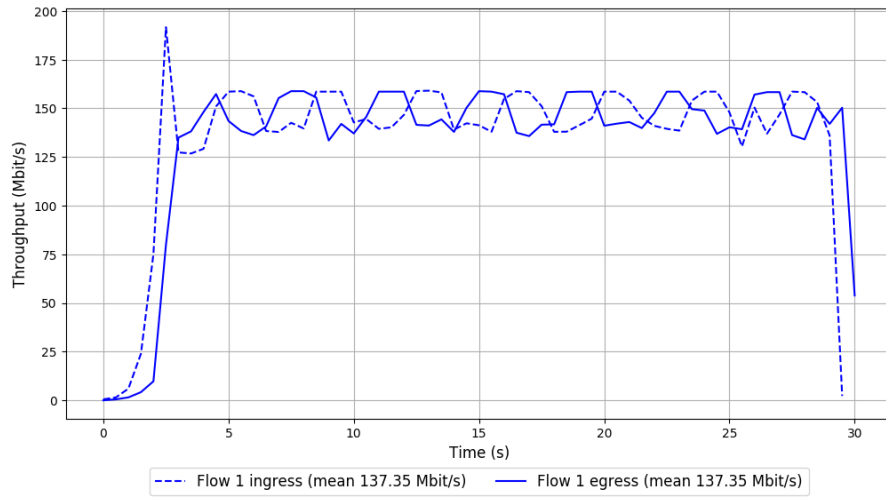

Flow 1 (95th percentile 189.67 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-12-11 14:43:16
End at: 2019-12-11 14:43:46
Local clock offset: 0.244 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-12-11 18:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.49 Mbit/s
95th percentile per-packet one-way delay: 132.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.49 Mbit/s
95th percentile per-packet one-way delay: 132.443 ms
Loss rate: 0.00%
```
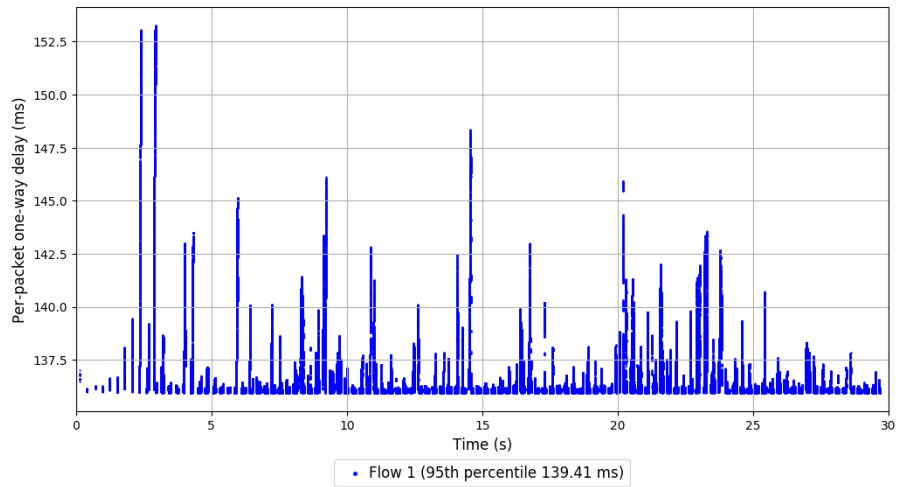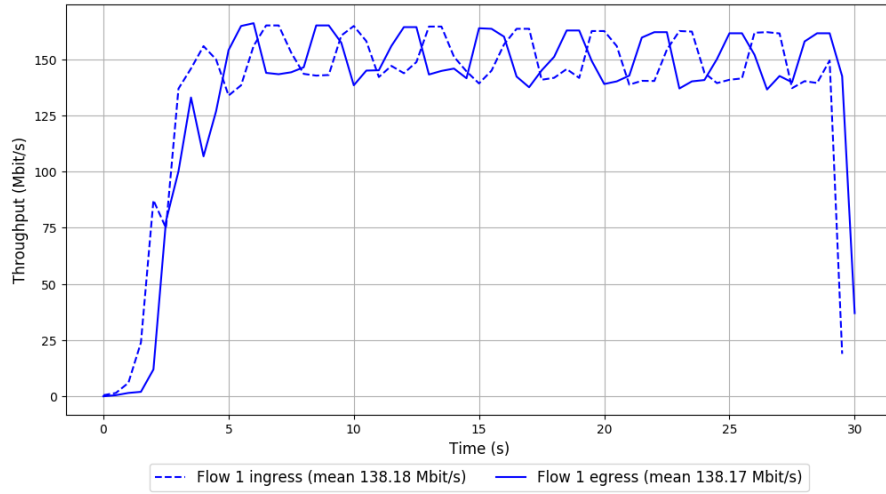
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-12-11 15:19:31
End at: 2019-12-11 15:20:01
Local clock offset: 0.199 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2019-12-11 18:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.05 Mbit/s
95th percentile per-packet one-way delay: 133.479 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 139.05 Mbit/s
95th percentile per-packet one-way delay: 133.479 ms
Loss rate: 0.00%
```
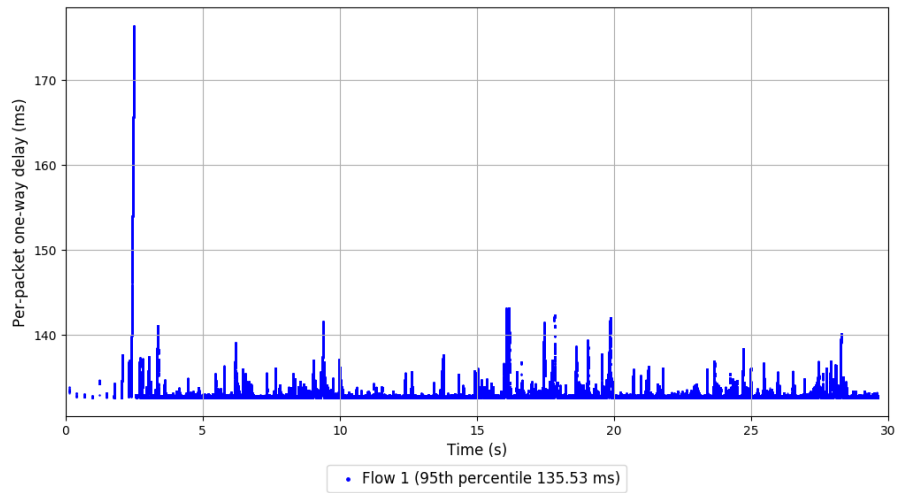
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-12-11 15:55:40
End at: 2019-12-11 15:56:10
Local clock offset: -0.221 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2019-12-11 18:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.35 Mbit/s
95th percentile per-packet one-way delay: 137.532 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 137.35 Mbit/s
95th percentile per-packet one-way delay: 137.532 ms
Loss rate: 0.00%
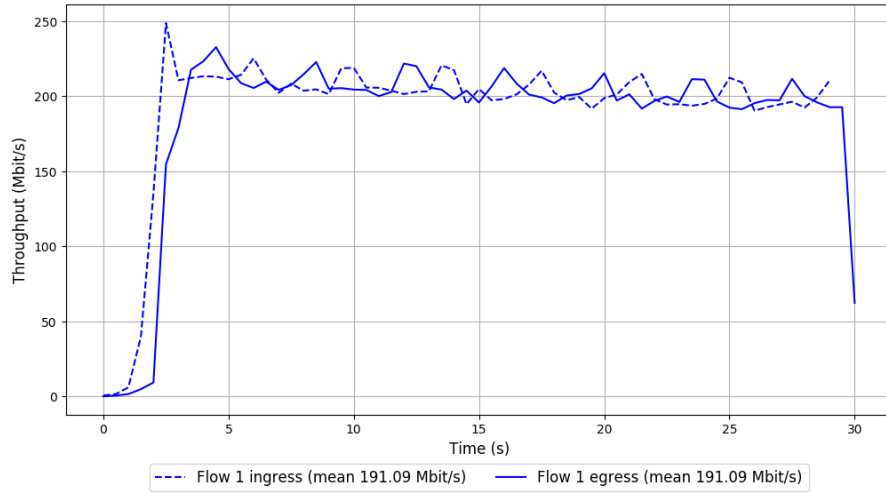```
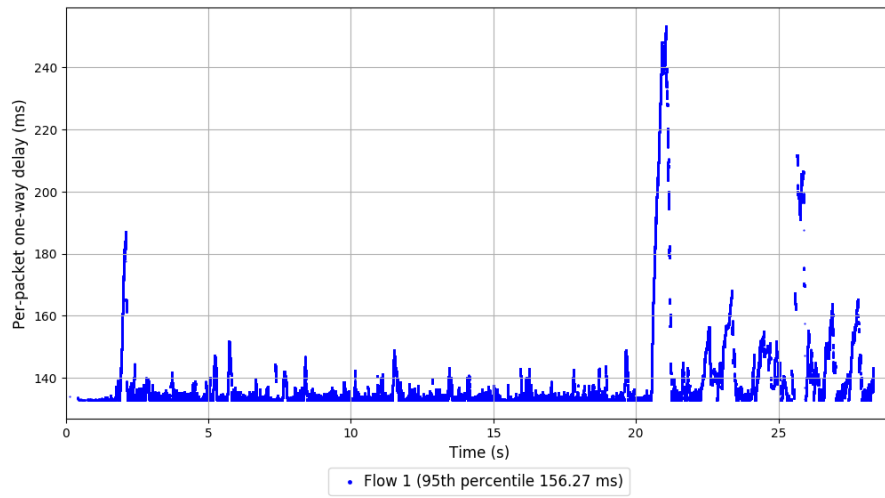
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-12-11 16:31:52
End at: 2019-12-11 16:32:22
Local clock offset: -0.329 ms
Remote clock offset: -0.019 ms

Below is generated by plot.py at 2019-12-11 18:07:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 138.17 Mbit/s
95th percentile per-packet one-way delay: 139.411 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 138.17 Mbit/s
95th percentile per-packet one-way delay: 139.411 ms
Loss rate: 0.01%
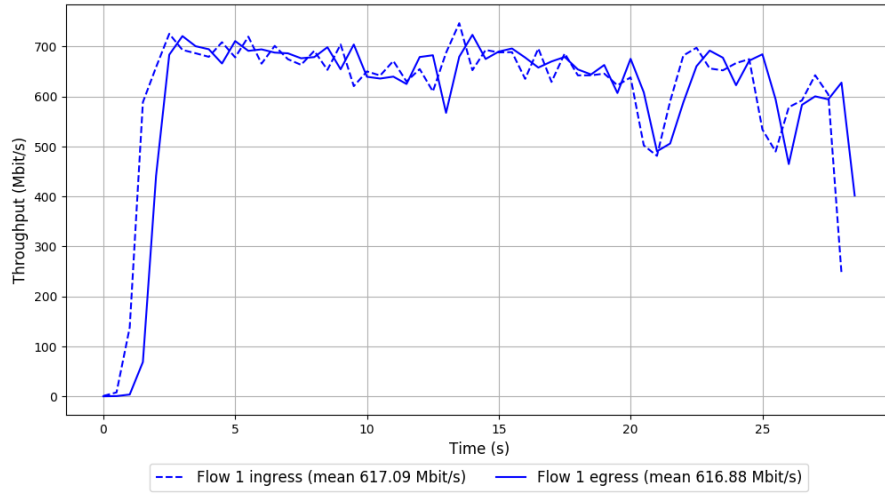```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-12-11 17:07:44
End at: 2019-12-11 17:08:14
Local clock offset: -0.115 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2019-12-11 18:07:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.09 Mbit/s
95th percentile per-packet one-way delay: 135.533 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.09 Mbit/s
95th percentile per-packet one-way delay: 135.533 ms
Loss rate: 0.00%
```
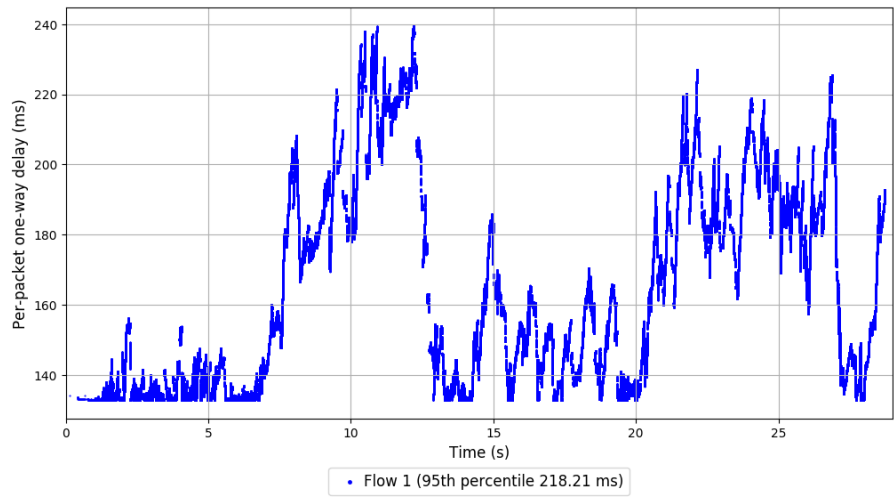
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-11 14:51:13
End at: 2019-12-11 14:51:43
Local clock offset: -0.108 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-12-11 18:14:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 616.88 Mbit/s
95th percentile per-packet one-way delay: 156.266 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 616.88 Mbit/s
95th percentile per-packet one-way delay: 156.266 ms
Loss rate: 0.03%
```
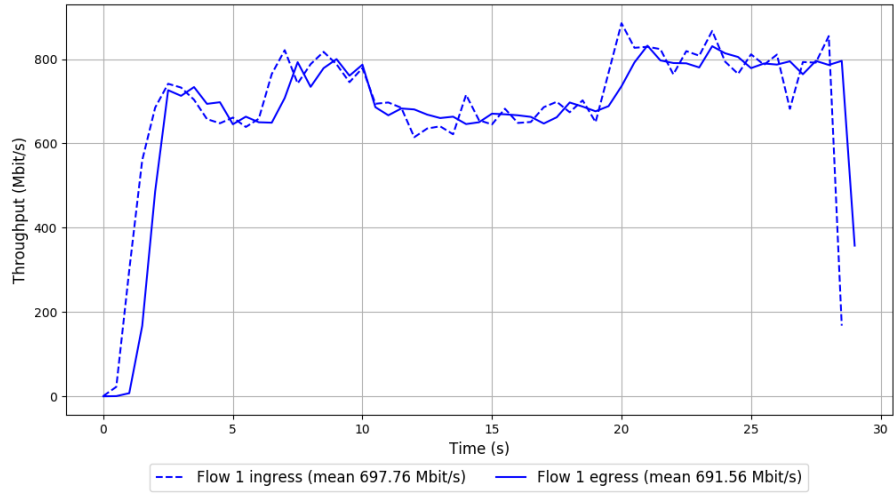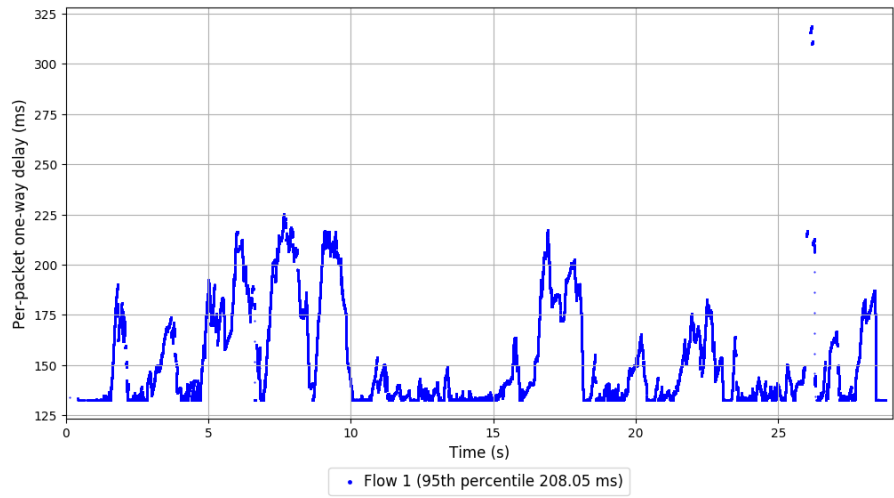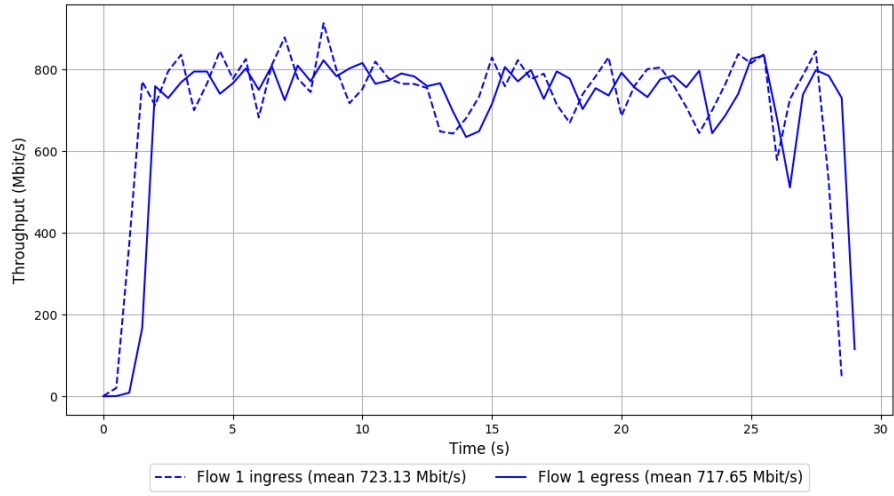
Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 617.09 Mbit/s)   Flow 1 egress (mean 616.88 Mbit/s)

Flow 1 (95th percentile 156.27 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-11 15:27:16
End at: 2019-12-11 15:27:46
Local clock offset: -0.048 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2019-12-11 18:16:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 691.56 Mbit/s
95th percentile per-packet one-way delay: 218.212 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 691.56 Mbit/s
95th percentile per-packet one-way delay: 218.212 ms
Loss rate: 0.89%
```

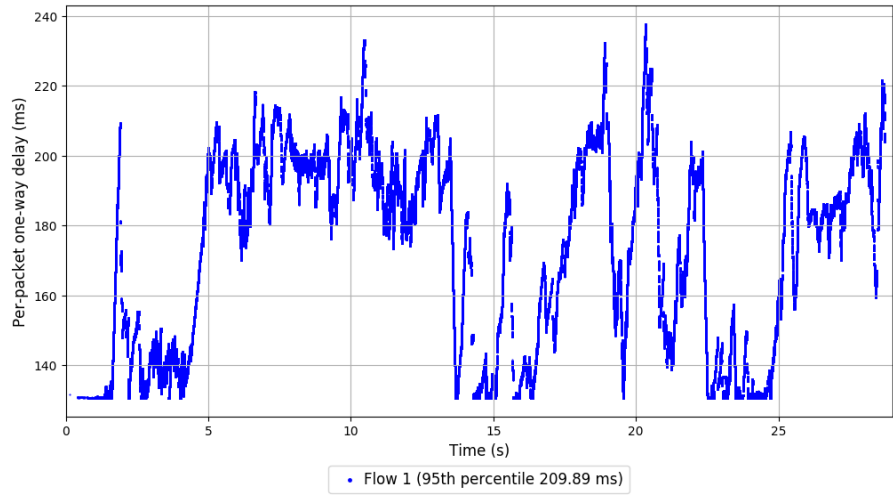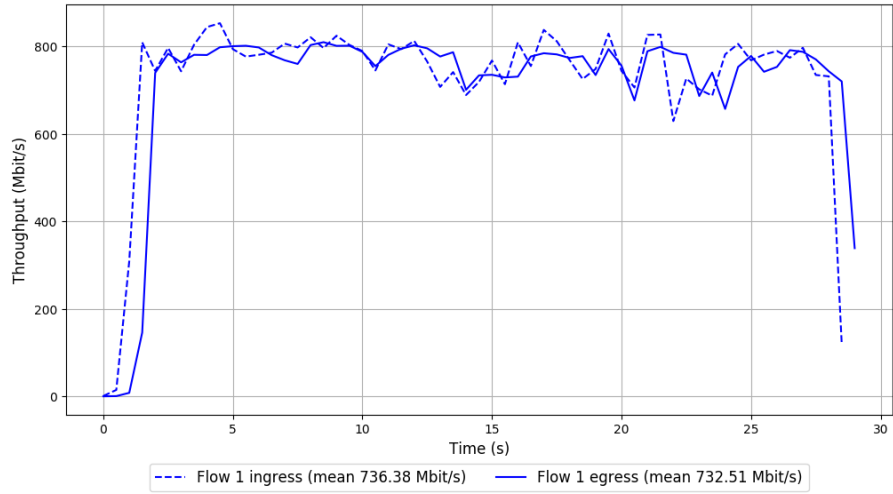Run 2: Report of Indigo-MusesC3 — Data Link

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```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-11 16:03:47
End at: 2019-12-11 16:04:17
Local clock offset: -0.204 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-12-11 18:16:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 717.65 Mbit/s
95th percentile per-packet one-way delay: 208.046 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 717.65 Mbit/s
95th percentile per-packet one-way delay: 208.046 ms
Loss rate: 0.76%
```
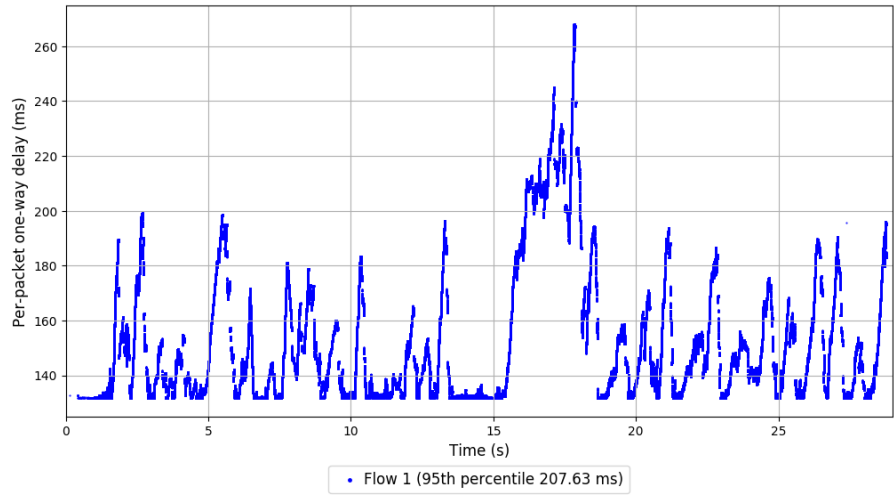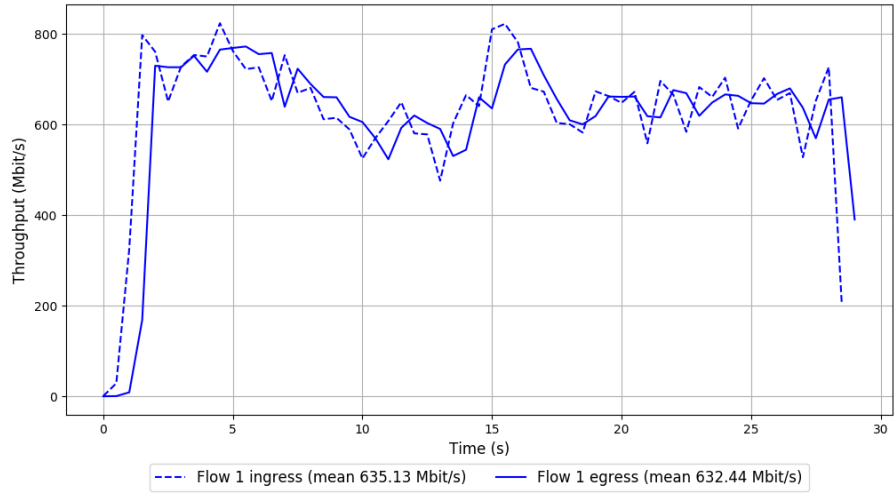
Run 3: Report of Indigo-MusesC3 — Data Link
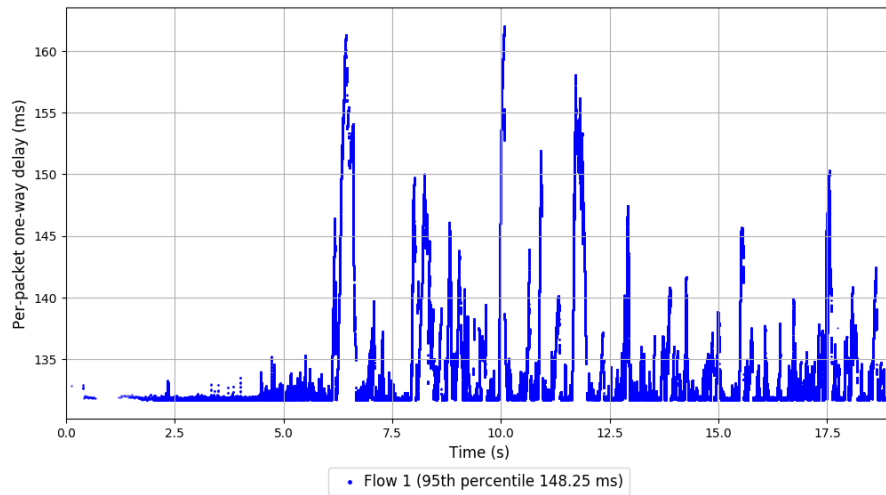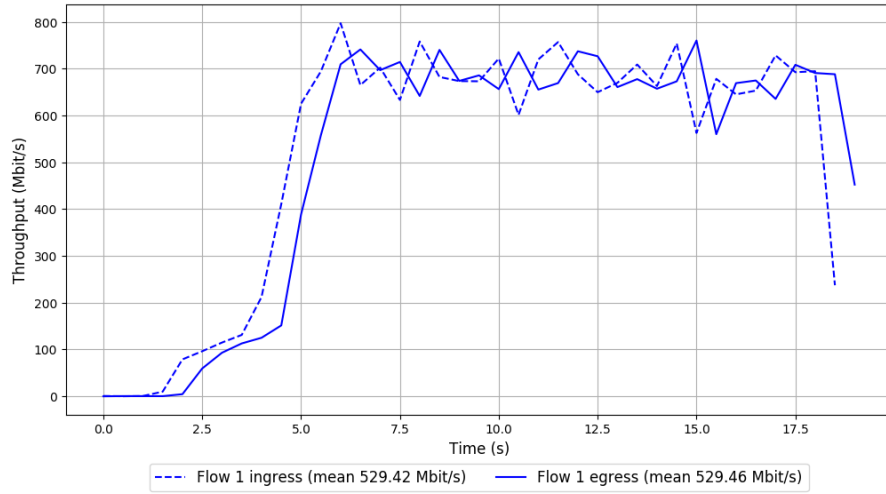

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```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-11 16:39:57
End at: 2019-12-11 16:40:27
Local clock offset: -0.236 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-12-11 18:16:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 732.51 Mbit/s
95th percentile per-packet one-way delay: 209.892 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 732.51 Mbit/s
95th percentile per-packet one-way delay: 209.892 ms
Loss rate: 0.63%
```

Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 736.38 Mbit/s) --- Flow 1 egress (mean 732.51 Mbit/s)

Flow 1 (95th percentile 209.89 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-11 17:15:59
End at: 2019-12-11 17:16:29
Local clock offset: 0.137 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-12-11 18:16:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 632.44 Mbit/s
95th percentile per-packet one-way delay: 207.631 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 632.44 Mbit/s
95th percentile per-packet one-way delay: 207.631 ms
Loss rate: 0.42%
```
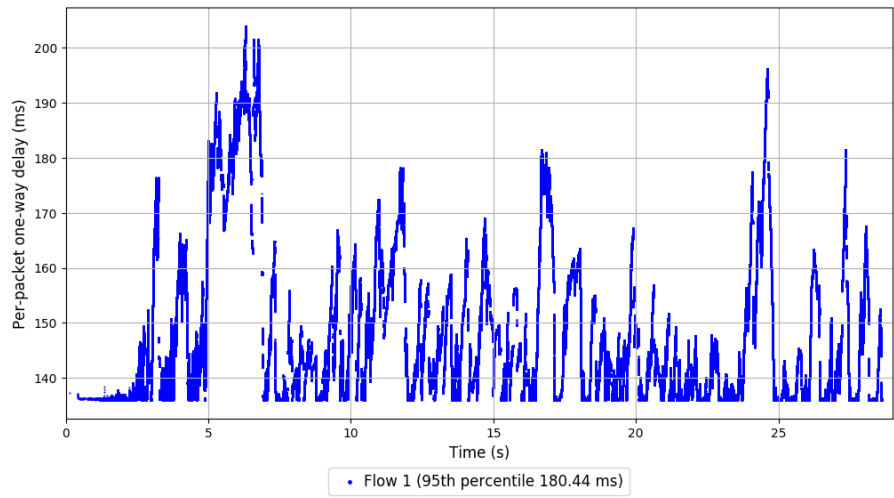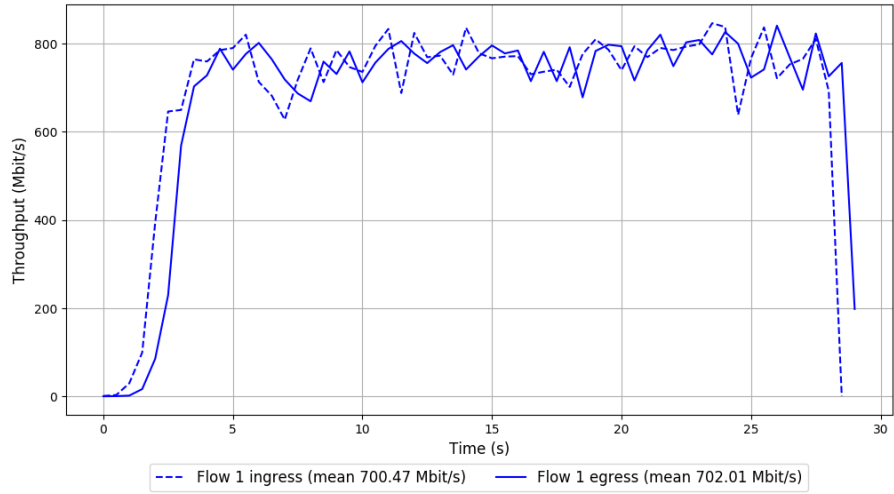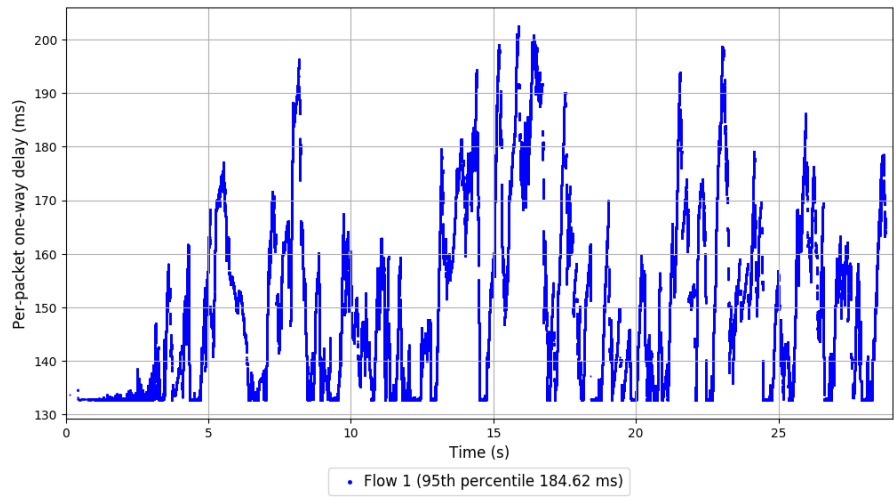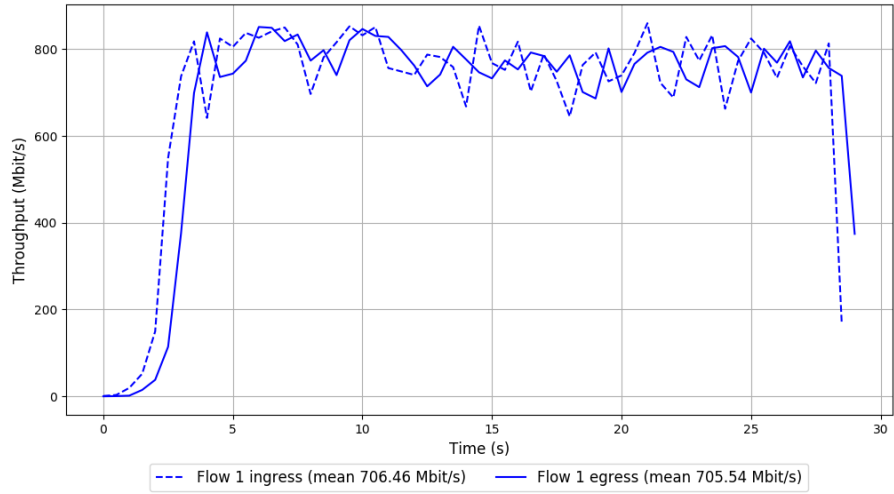
Run 5: Report of Indigo-MusesC3 — Data Link

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```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-11 14:31:40
End at: 2019-12-11 14:32:10
Local clock offset: -0.166 ms
Remote clock offset: -0.495 ms
```

Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-11 15:07:03
End at: 2019-12-11 15:07:33
Local clock offset: -0.125 ms
Remote clock offset: 0.018 ms


# Below is generated by plot.py at 2019-12-11 18:17:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 702.01 Mbit/s
95th percentile per-packet one-way delay: 180.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 702.01 Mbit/s
95th percentile per-packet one-way delay: 180.435 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 700.47 Mbit/s)   Flow 1 egress (mean 702.01 Mbit/s)
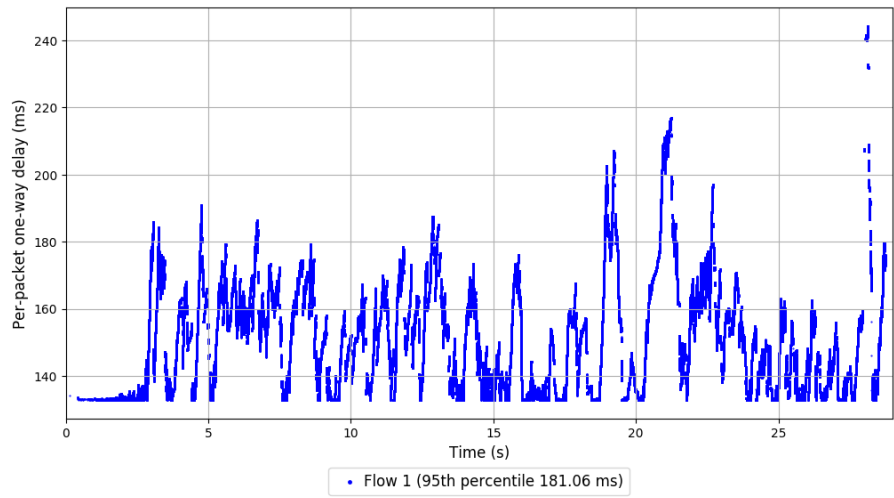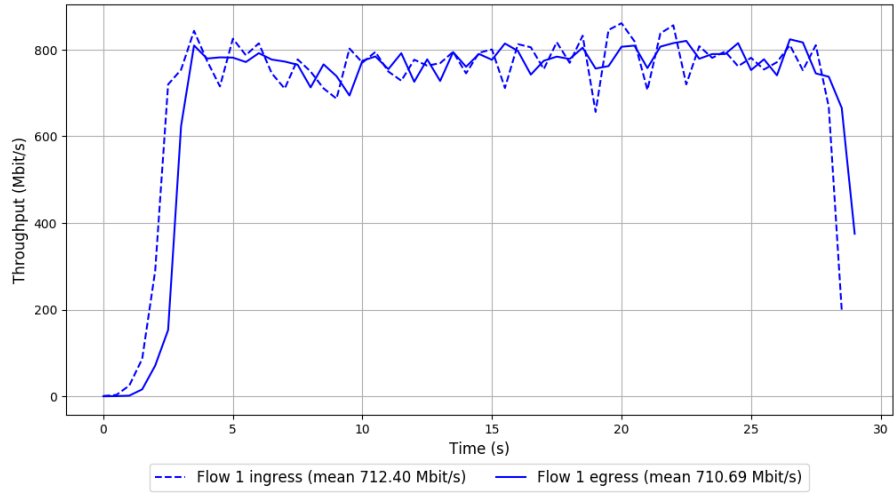

Flow 1 (95th percentile 180.44 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-11 15:43:16
End at: 2019-12-11 15:43:46
Local clock offset: -0.195 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-12-11 18:17:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 705.54 Mbit/s
95th percentile per-packet one-way delay: 184.616 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 705.54 Mbit/s
95th percentile per-packet one-way delay: 184.616 ms
Loss rate: 0.13%
```
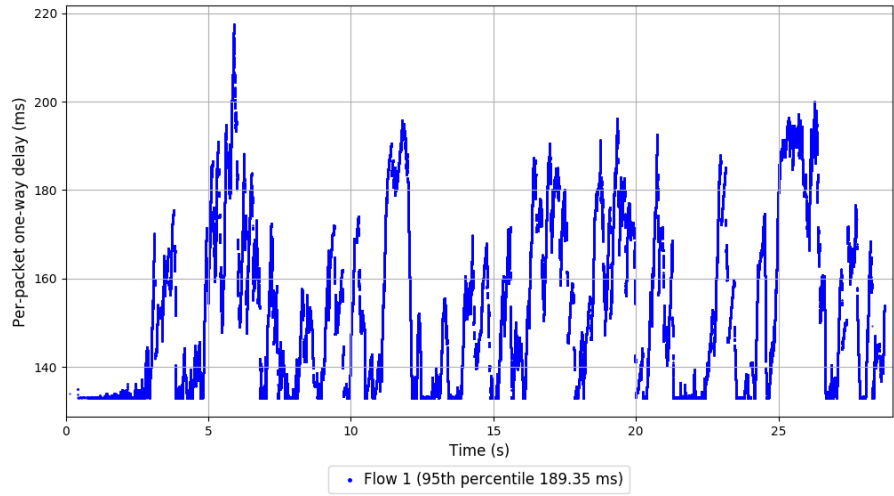
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 706.46 Mbit/s) —— Flow 1 egress (mean 705.54 Mbit/s)

• Flow 1 (95th percentile 184.62 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-11 16:19:43
End at: 2019-12-11 16:20:13
Local clock offset: -0.294 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2019-12-11 18:23:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 710.69 Mbit/s
95th percentile per-packet one-way delay: 181.056 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 710.69 Mbit/s
95th percentile per-packet one-way delay: 181.056 ms
Loss rate: 0.24%
```
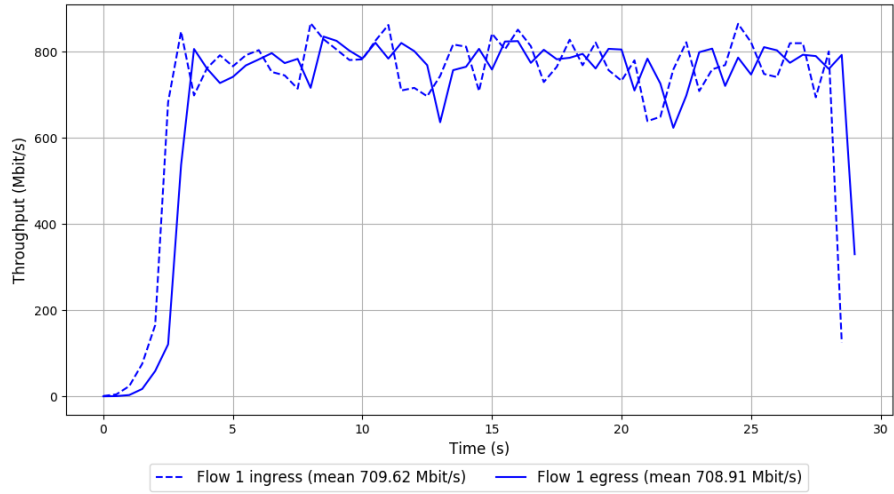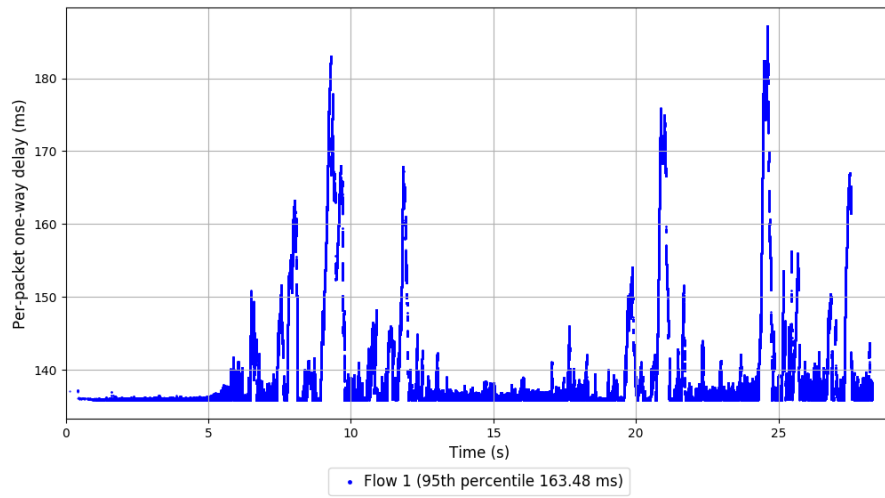
Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 712.40 Mbit/s)   Flow 1 egress (mean 710.69 Mbit/s)

Flow 1 (95th percentile 181.06 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-11 16:55:47
End at: 2019-12-11 16:56:17
Local clock offset: -0.389 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-12-11 18:25:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 708.91 Mbit/s
95th percentile per-packet one-way delay: 189.348 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 708.91 Mbit/s
95th percentile per-packet one-way delay: 189.348 ms
Loss rate: 0.09%
```
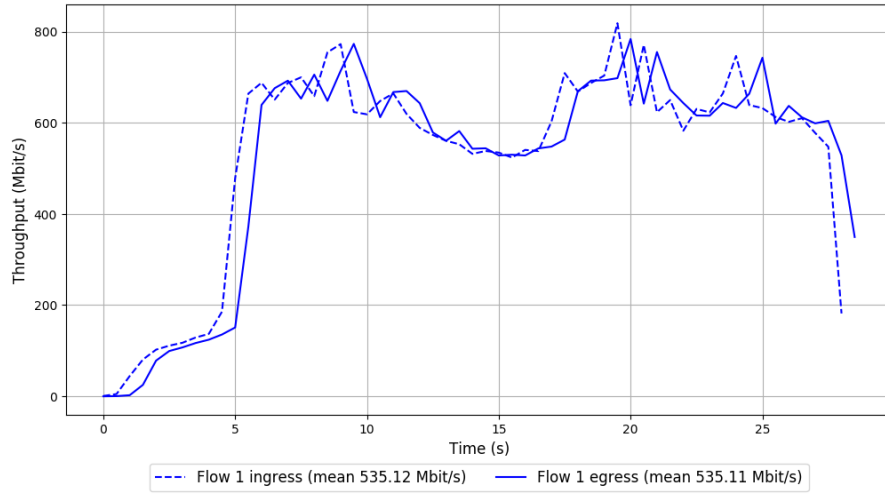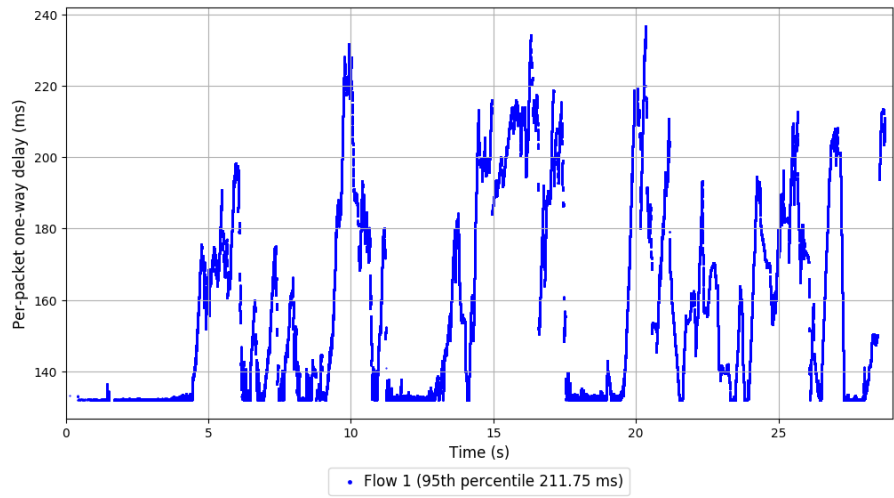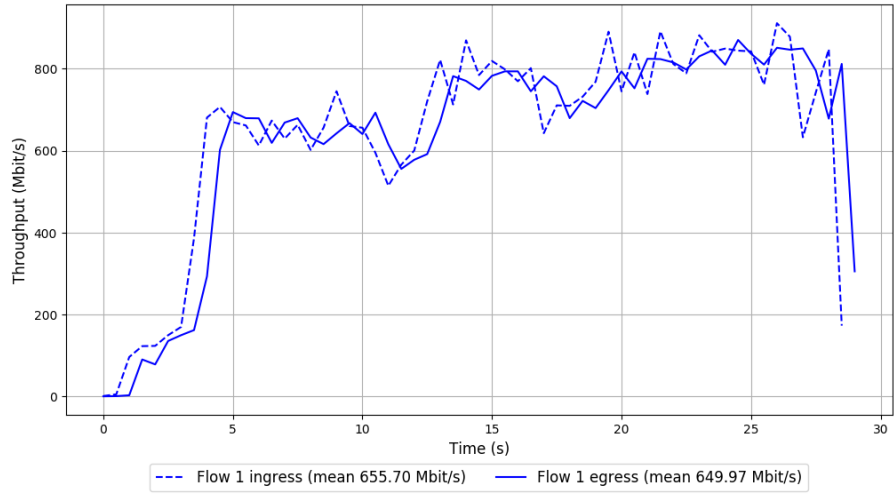
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 709.62 Mbit/s) — — —   Flow 1 egress (mean 708.91 Mbit/s) ——
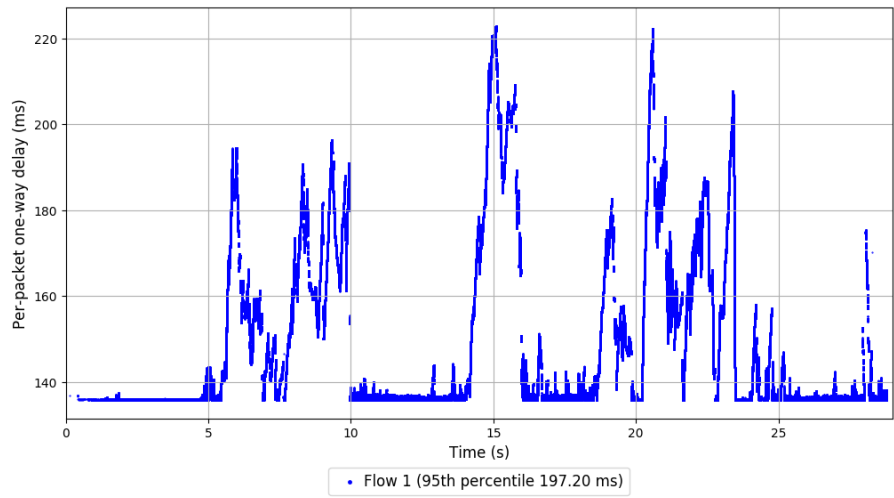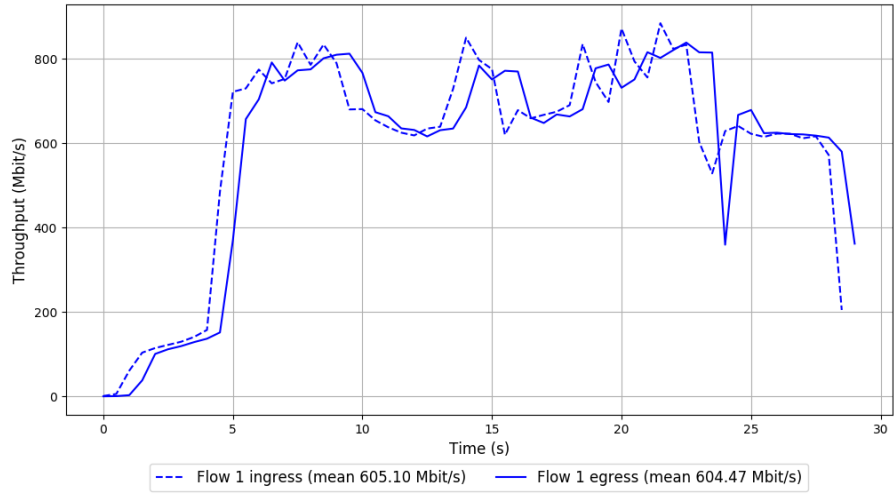

• Flow 1 (95th percentile 189.35 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-11 14:55:35
End at: 2019-12-11 14:56:05
Local clock offset: -0.066 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-12-11 18:25:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 535.11 Mbit/s
95th percentile per-packet one-way delay: 163.479 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 535.11 Mbit/s
95th percentile per-packet one-way delay: 163.479 ms
Loss rate: 0.00%
```
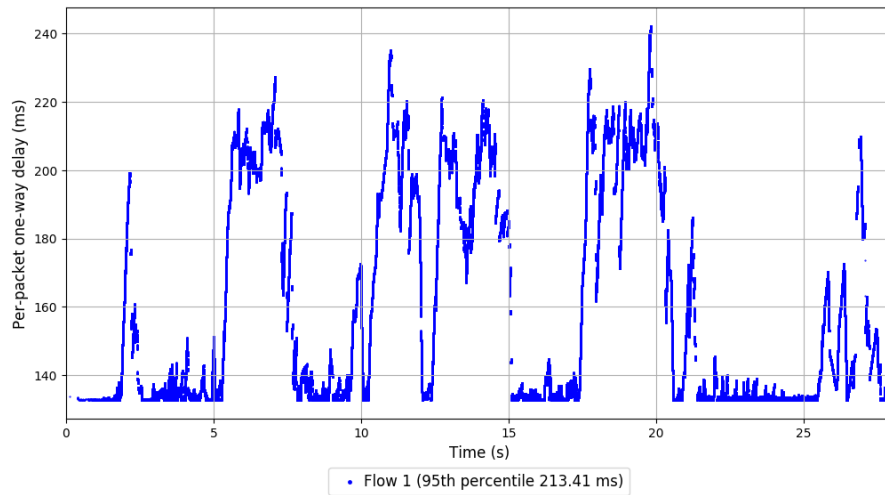
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-11 15:31:46
End at: 2019-12-11 15:32:16
Local clock offset: -0.189 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-12-11 18:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 649.97 Mbit/s
95th percentile per-packet one-way delay: 211.749 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 649.97 Mbit/s
95th percentile per-packet one-way delay: 211.749 ms
Loss rate: 0.87%
```
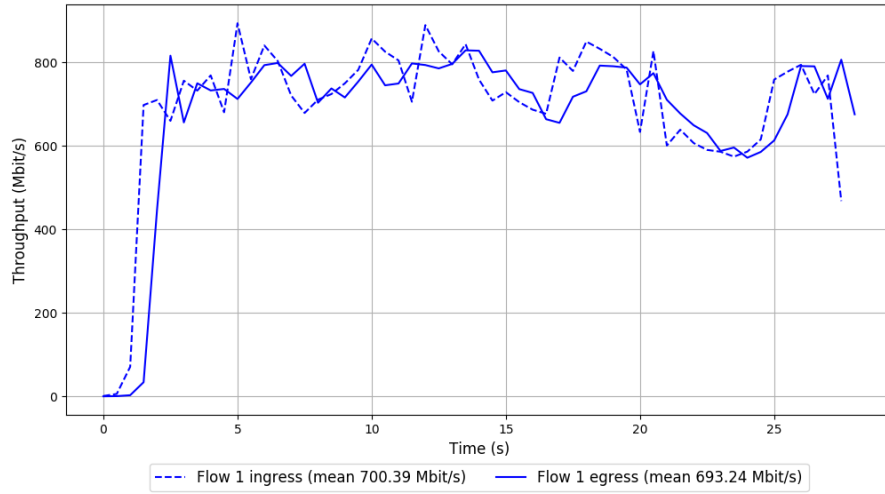
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-11 16:08:19
End at: 2019-12-11 16:08:49
Local clock offset: -0.194 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2019-12-11 18:25:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 604.47 Mbit/s
95th percentile per-packet one-way delay: 197.196 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 604.47 Mbit/s
95th percentile per-packet one-way delay: 197.196 ms
Loss rate: 0.12%
```
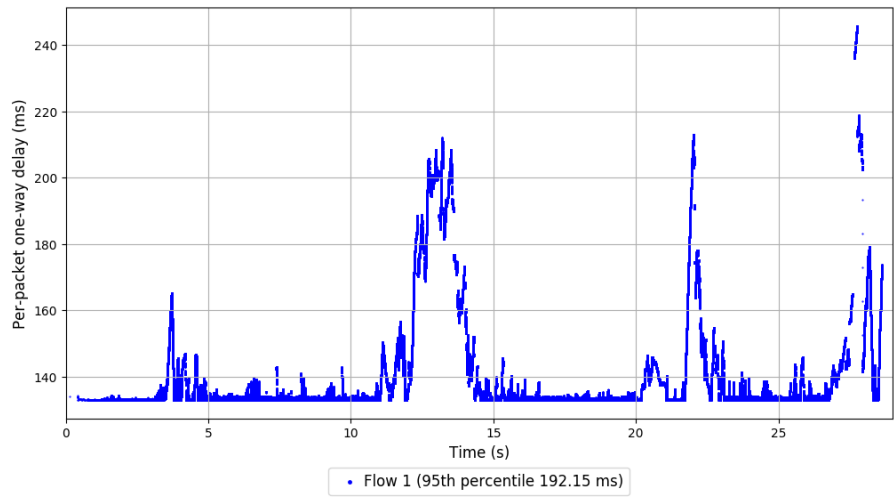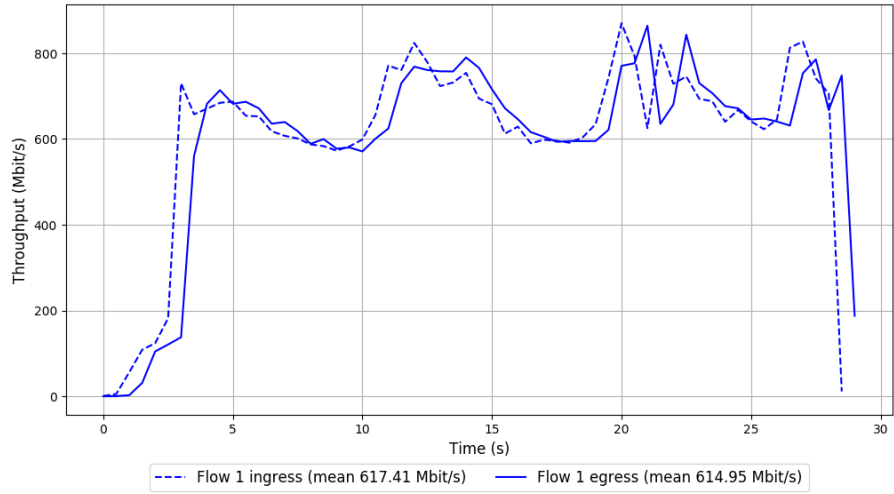
Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 605.10 Mbit/s) --- Flow 1 egress (mean 604.47 Mbit/s)

Flow 1 (95th percentile 197.20 ms)

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-11 16:44:29
End at: 2019-12-11 16:44:59
Local clock offset: -0.371 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2019-12-11 18:27:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 693.24 Mbit/s
95th percentile per-packet one-way delay: 213.412 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 693.24 Mbit/s
95th percentile per-packet one-way delay: 213.412 ms
Loss rate: 1.02%
```
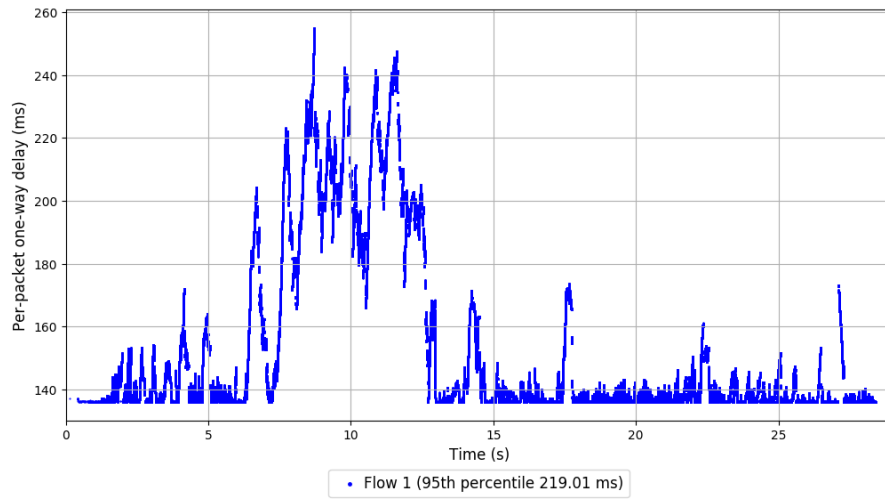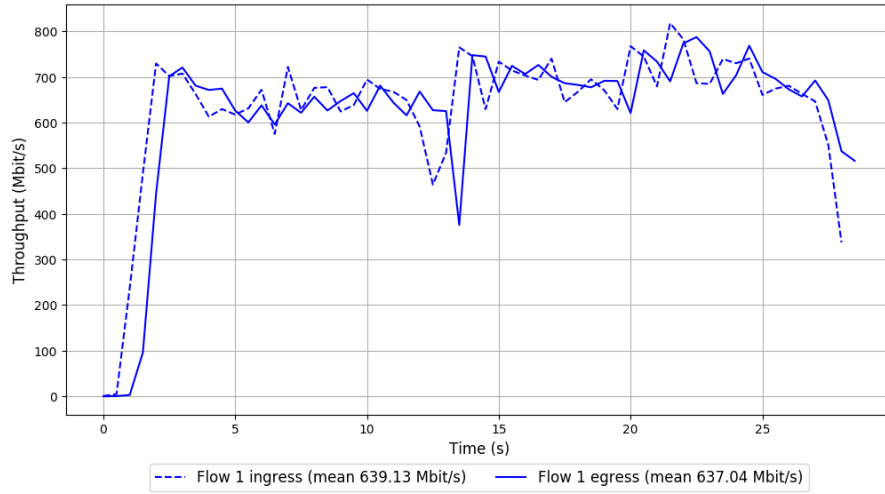
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-11 17:20:28
End at: 2019-12-11 17:20:58
Local clock offset: 0.136 ms
Remote clock offset: 0.241 ms


# Below is generated by plot.py at 2019-12-11 18:27:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 614.95 Mbit/s
95th percentile per-packet one-way delay: 192.149 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 614.95 Mbit/s
95th percentile per-packet one-way delay: 192.149 ms
Loss rate: 0.40%
```
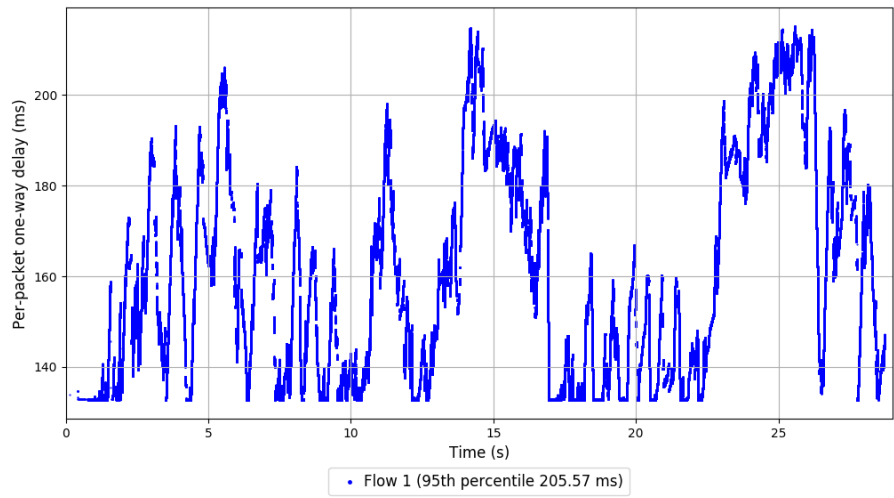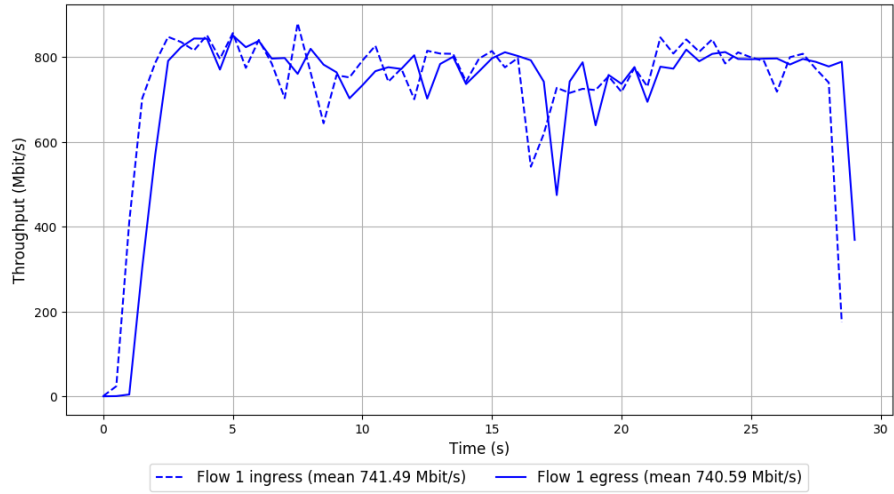
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-11 14:40:16
End at: 2019-12-11 14:40:46
Local clock offset: -0.12 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2019-12-11 18:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 637.04 Mbit/s
95th percentile per-packet one-way delay: 219.007 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 637.04 Mbit/s
95th percentile per-packet one-way delay: 219.007 ms
Loss rate: 0.34%
```
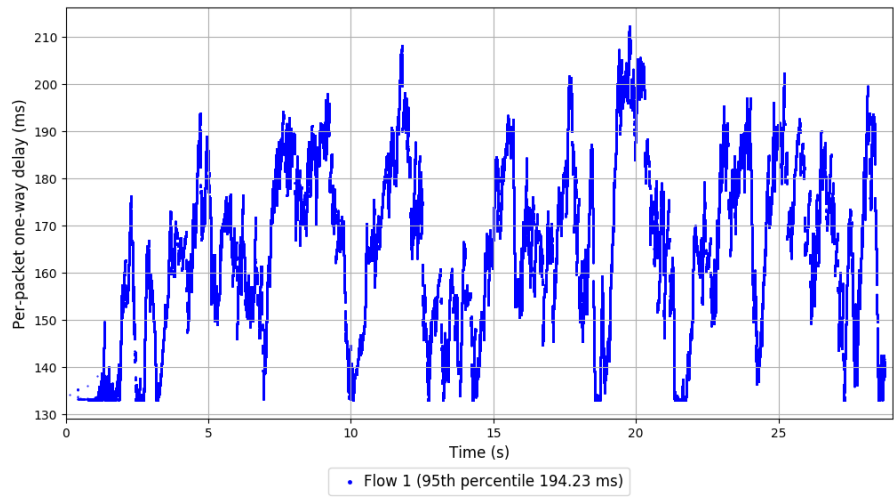
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-11 15:16:17
End at: 2019-12-11 15:16:47
Local clock offset: -0.083 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-12-11 18:34:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 740.59 Mbit/s
95th percentile per-packet one-way delay: 205.571 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 740.59 Mbit/s
95th percentile per-packet one-way delay: 205.571 ms
Loss rate: 0.12%
```
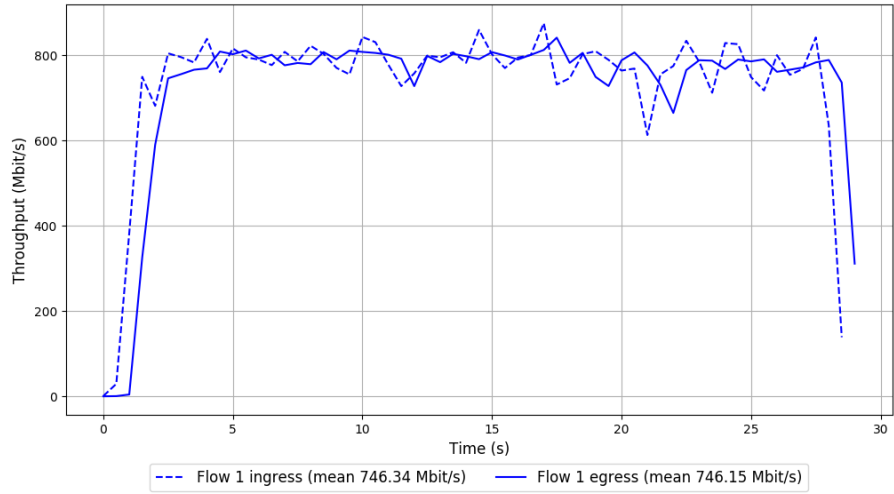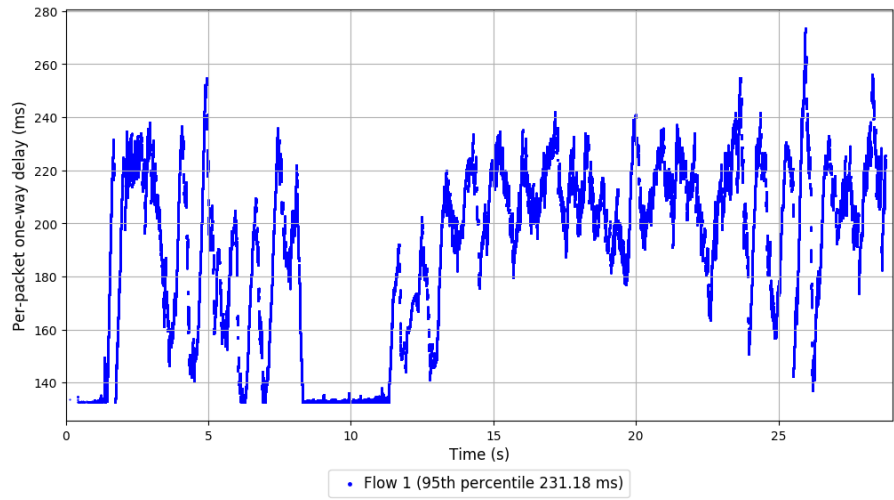
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-11 15:52:28
End at: 2019-12-11 15:52:58
Local clock offset: -0.091 ms
Remote clock offset: 0.111 ms


# Below is generated by plot.py at 2019-12-11 18:35:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 746.15 Mbit/s
95th percentile per-packet one-way delay: 194.233 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 746.15 Mbit/s
95th percentile per-packet one-way delay: 194.233 ms
Loss rate: 0.03%
```
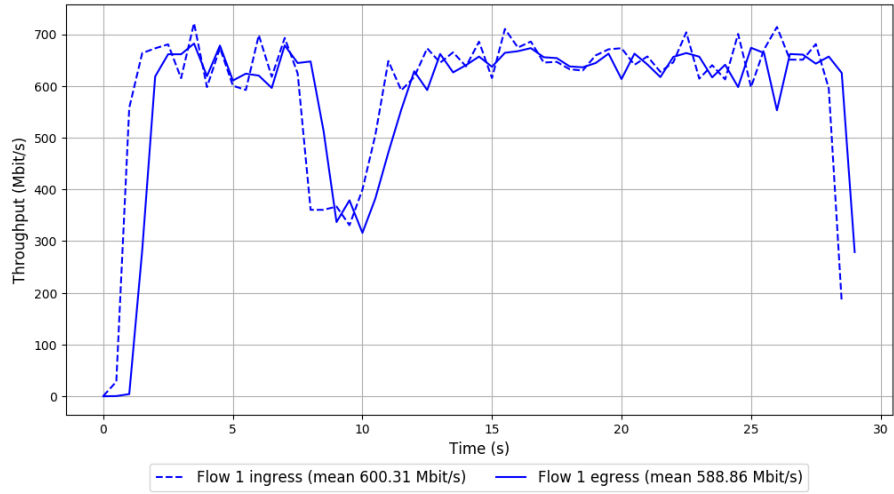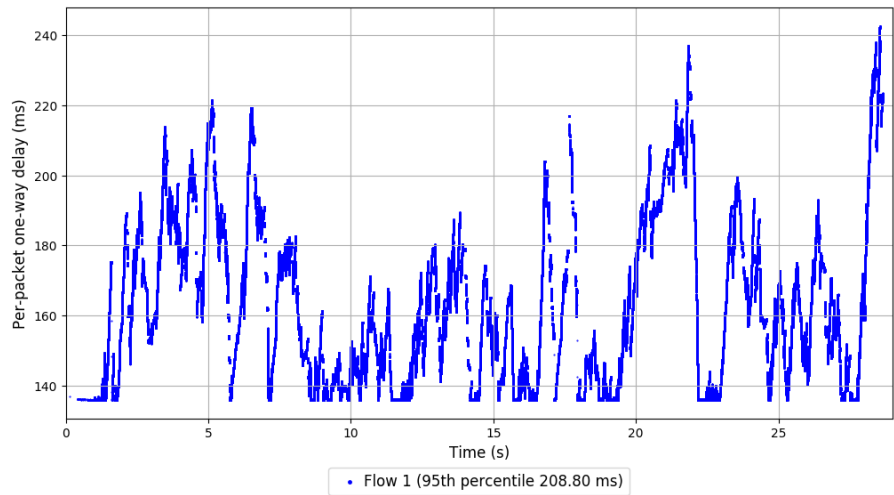
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-11 16:28:42
End at: 2019-12-11 16:29:12
Local clock offset: -0.31 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-12-11 18:35:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 588.86 Mbit/s
95th percentile per-packet one-way delay: 231.177 ms
Loss rate: 1.89%
-- Flow 1:
Average throughput: 588.86 Mbit/s
95th percentile per-packet one-way delay: 231.177 ms
Loss rate: 1.89%
```
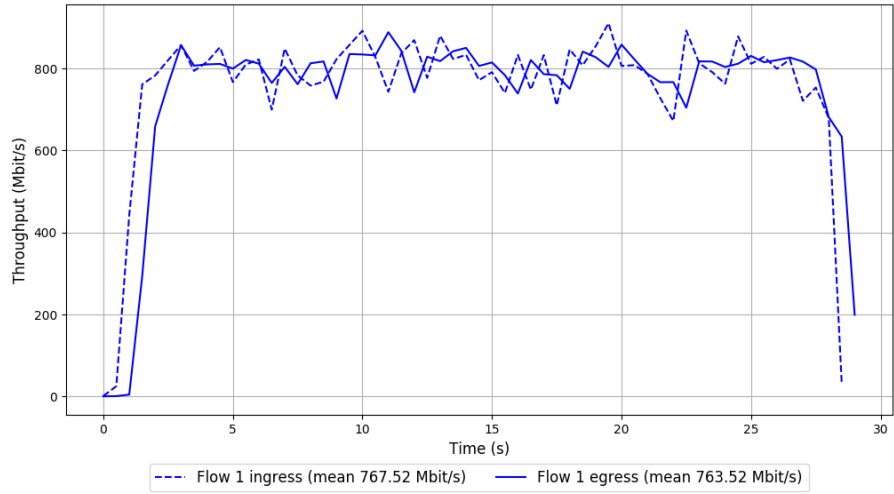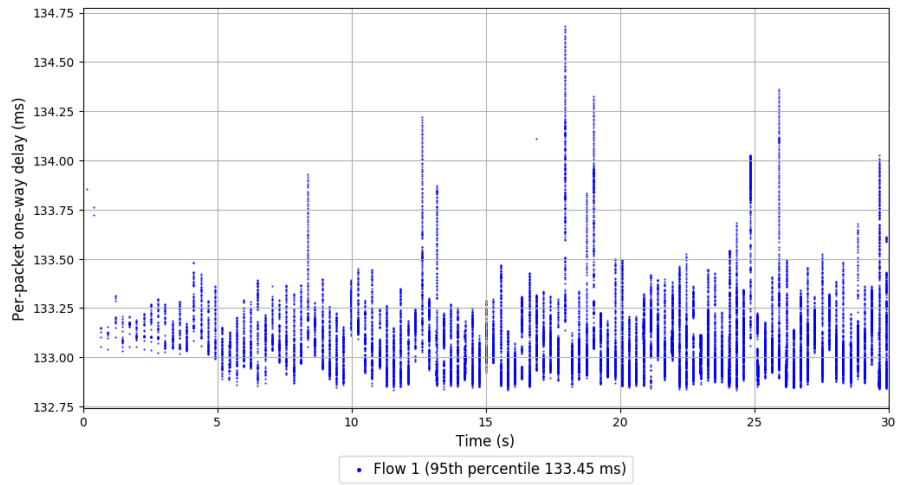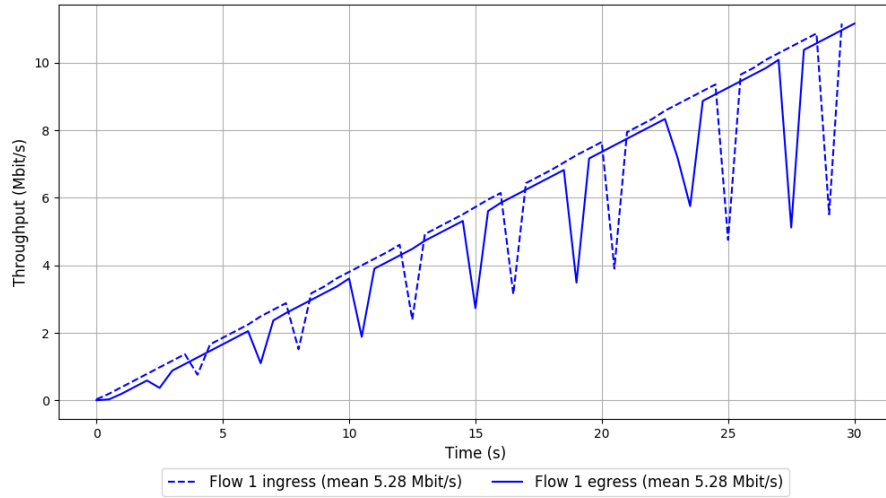
Run 4: Report of Indigo-MusesT — Data Link

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```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-11 17:04:30
End at: 2019-12-11 17:05:00
Local clock offset: -0.235 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 763.52 Mbit/s
95th percentile per-packet one-way delay: 208.803 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 763.52 Mbit/s
95th percentile per-packet one-way delay: 208.803 ms
Loss rate: 0.52%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-12-11 14:34:31
End at: 2019-12-11 14:35:01
Local clock offset: -0.062 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 133.452 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.28 Mbit/s
95th percentile per-packet one-way delay: 133.452 ms
Loss rate: 0.00%
```
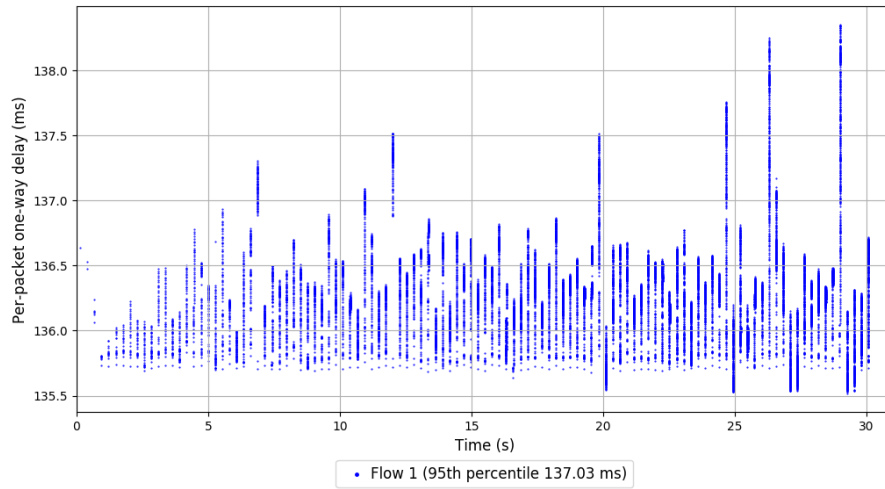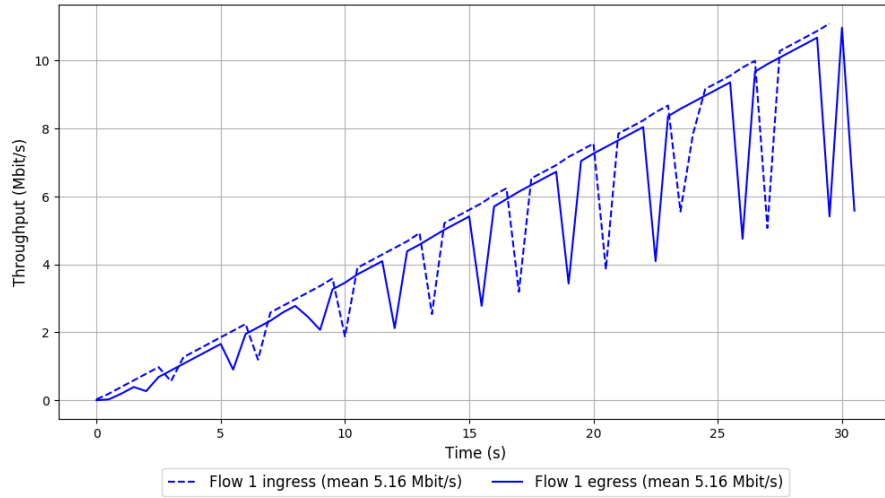
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-12-11 15:10:04
End at: 2019-12-11 15:10:34
Local clock offset: 0.349 ms
Remote clock offset: 0.045 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 137.034 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 137.034 ms
Loss rate: 0.00%
```
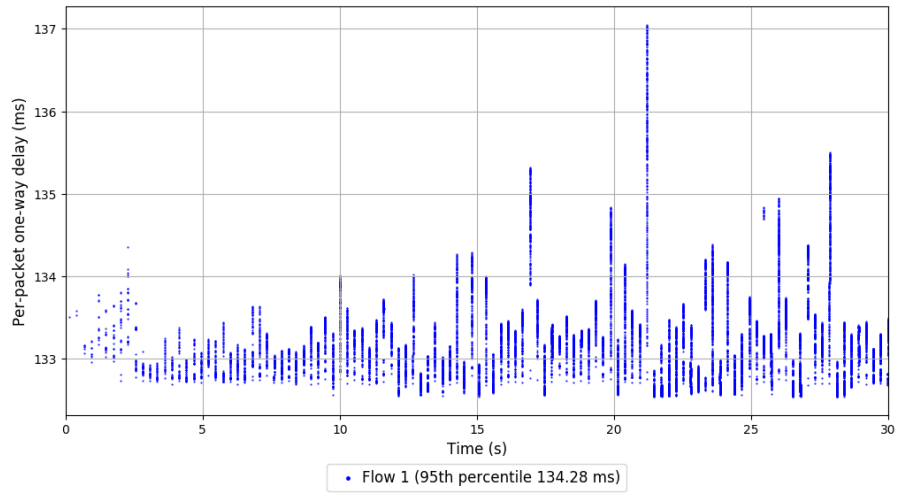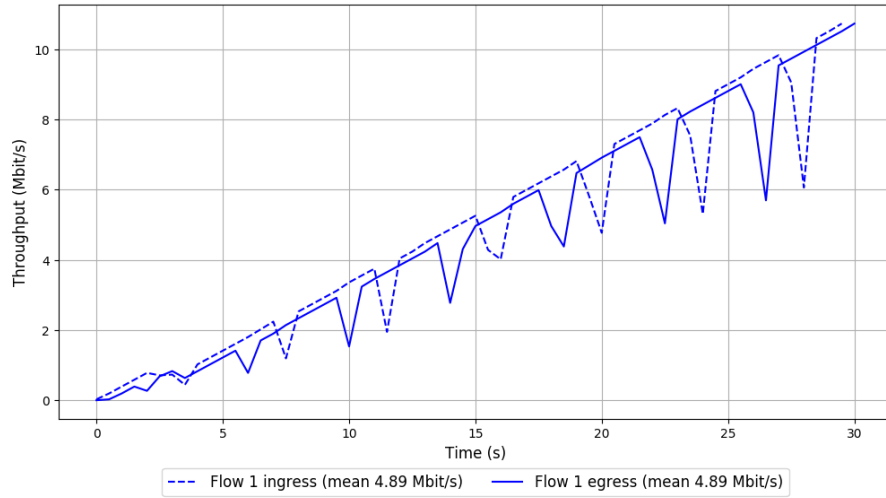
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.16 Mbit/s)   Flow 1 egress (mean 5.16 Mbit/s)

Flow 1 (95th percentile 137.03 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-12-11 15:46:19
End at: 2019-12-11 15:46:49
Local clock offset: 0.107 ms
Remote clock offset: -0.11 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 134.280 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 134.280 ms
Loss rate: 0.00%
```
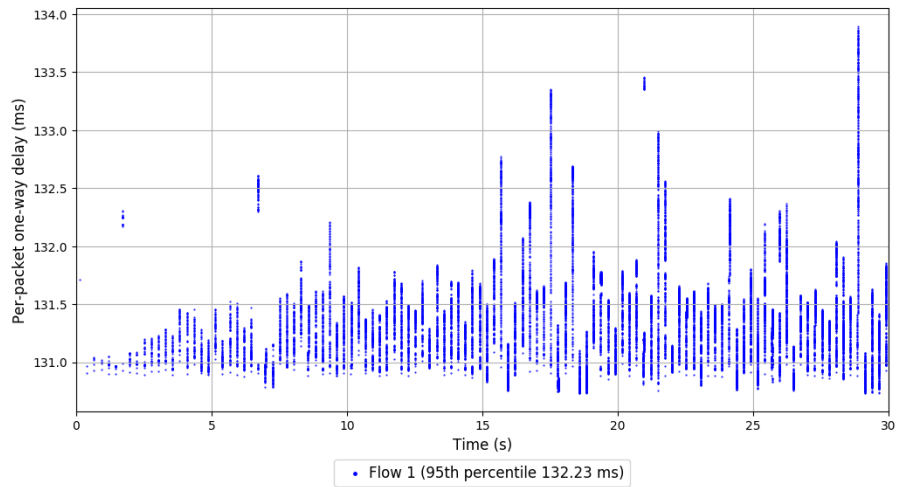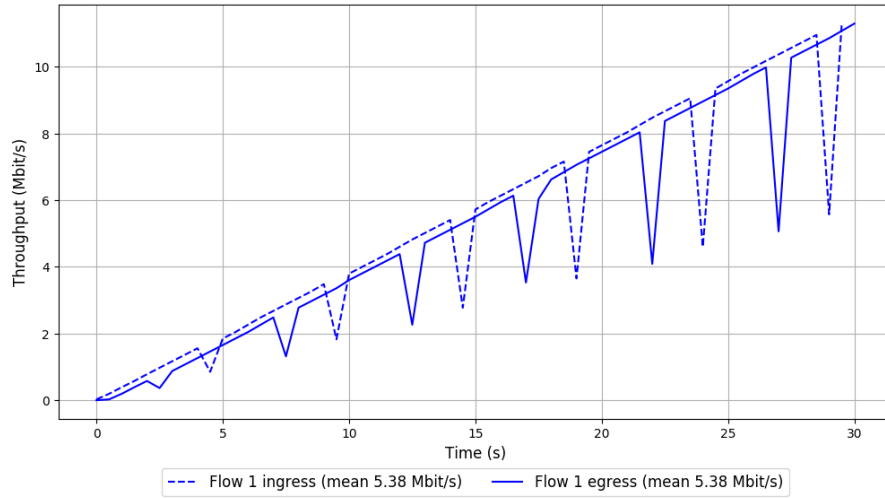
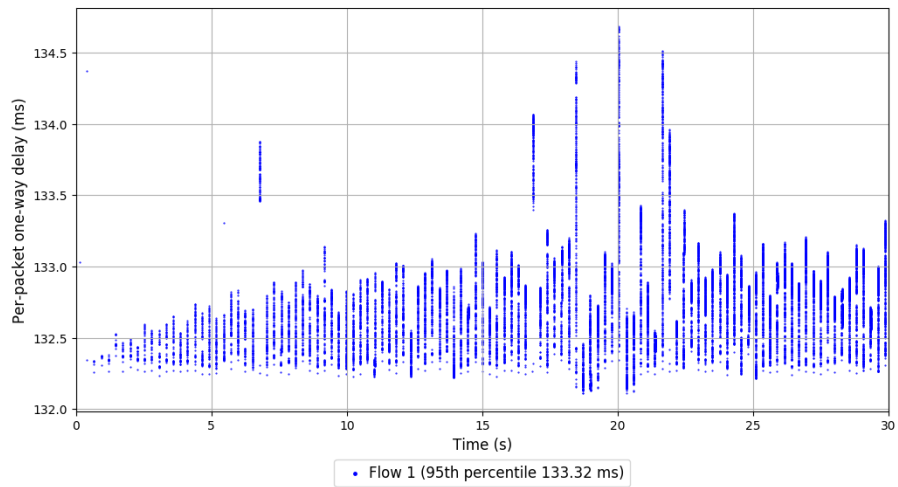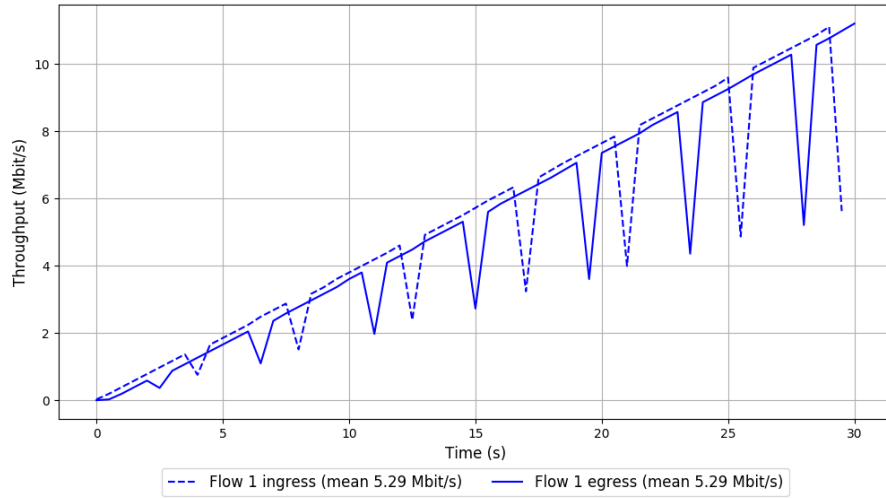Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 4.89 Mbit/s)   Flow 1 egress (mean 4.89 Mbit/s)

Flow 1 (95th percentile 134.28 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-12-11 16:22:57
End at: 2019-12-11 16:23:27
Local clock offset: -0.259 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 132.228 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.38 Mbit/s
95th percentile per-packet one-way delay: 132.228 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 5.38 Mbit/s) — — —   Flow 1 egress (mean 5.38 Mbit/s) ———

Flow 1 (95th percentile 132.23 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-12-11 16:58:48
End at: 2019-12-11 16:59:18
Local clock offset: -0.375 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.29 Mbit/s
95th percentile per-packet one-way delay: 133.319 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 5.29 Mbit/s
95th percentile per-packet one-way delay: 133.319 ms
Loss rate: 0.00%
```
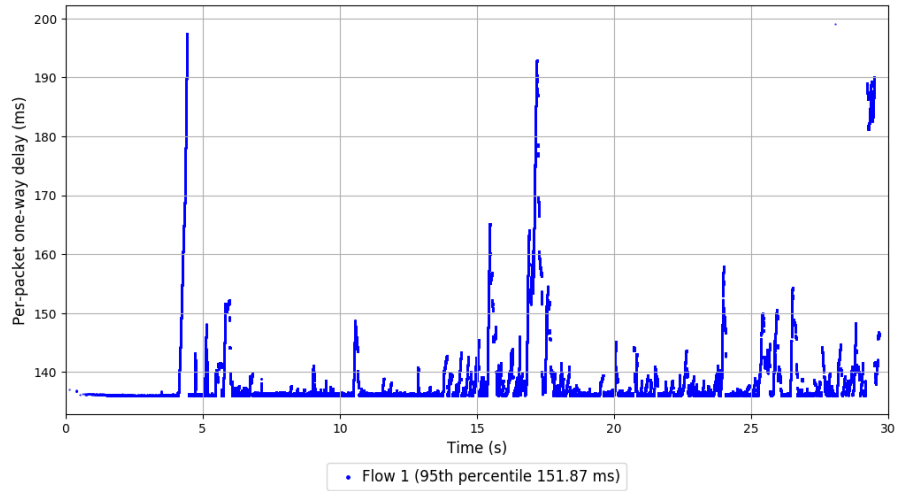
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 14:38:31
End at: 2019-12-11 14:39:01
Local clock offset: -0.169 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-12-11 18:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 632.49 Mbit/s
95th percentile per-packet one-way delay: 151.874 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 632.49 Mbit/s
95th percentile per-packet one-way delay: 151.874 ms
Loss rate: 0.05%
```
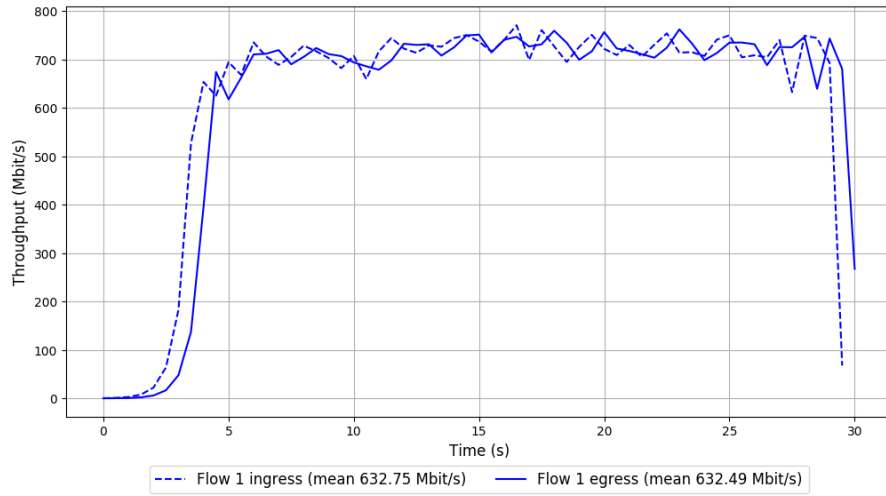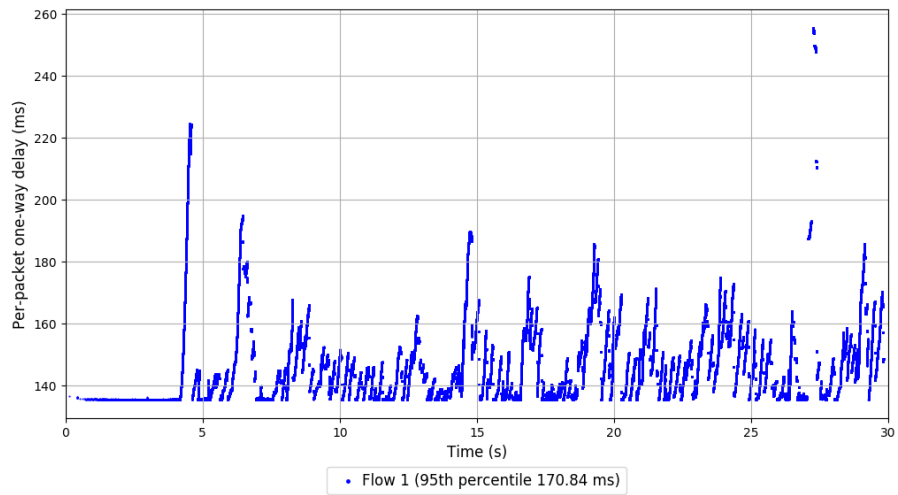
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 15:14:31
End at: 2019-12-11 15:15:01
Local clock offset: -0.071 ms
Remote clock offset: -0.42 ms


# Below is generated by plot.py at 2019-12-11 18:37:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 684.00 Mbit/s
95th percentile per-packet one-way delay: 170.839 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 684.00 Mbit/s
95th percentile per-packet one-way delay: 170.839 ms
Loss rate: 0.30%
```
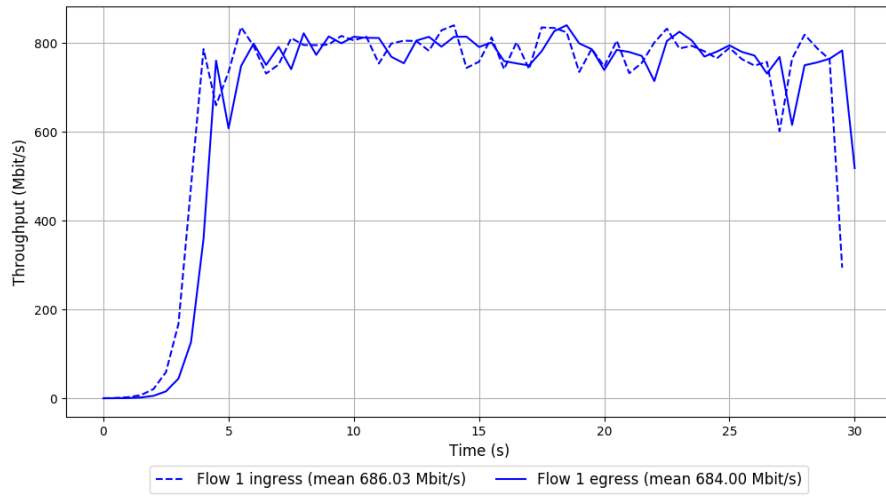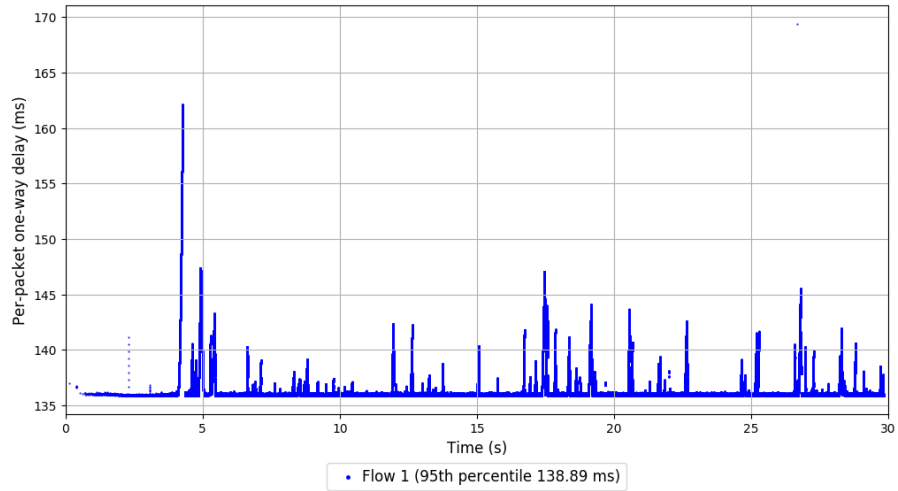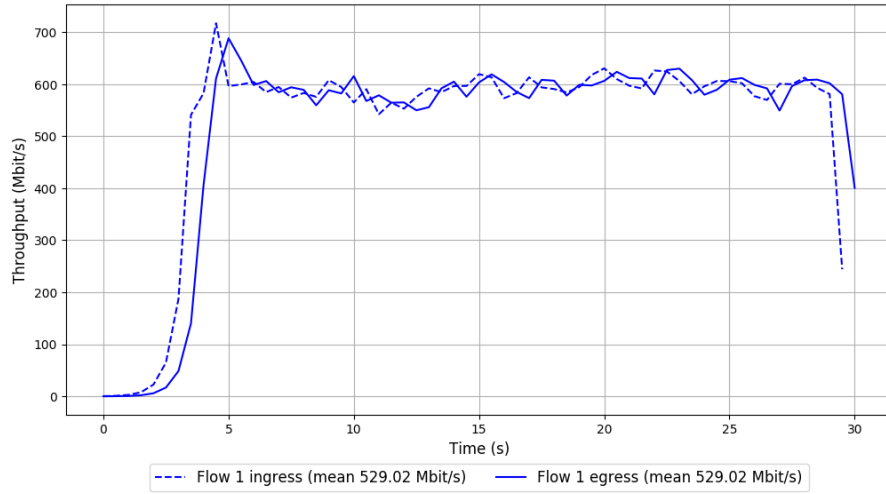
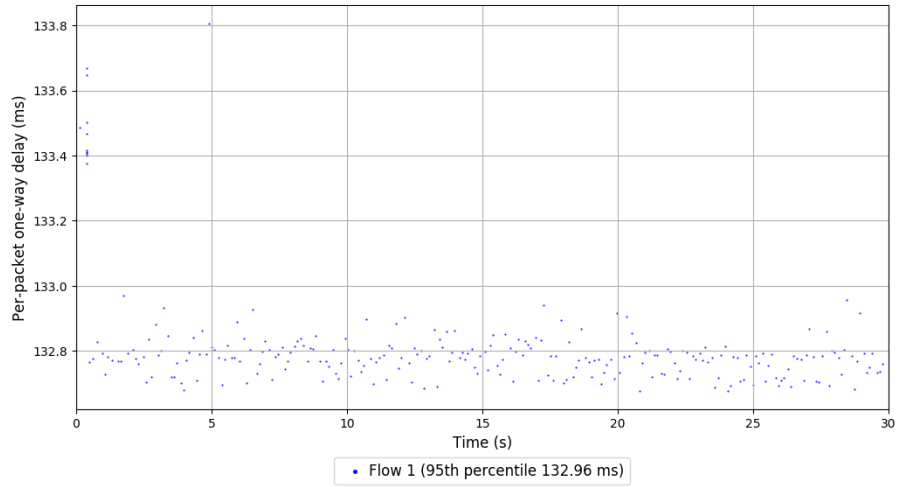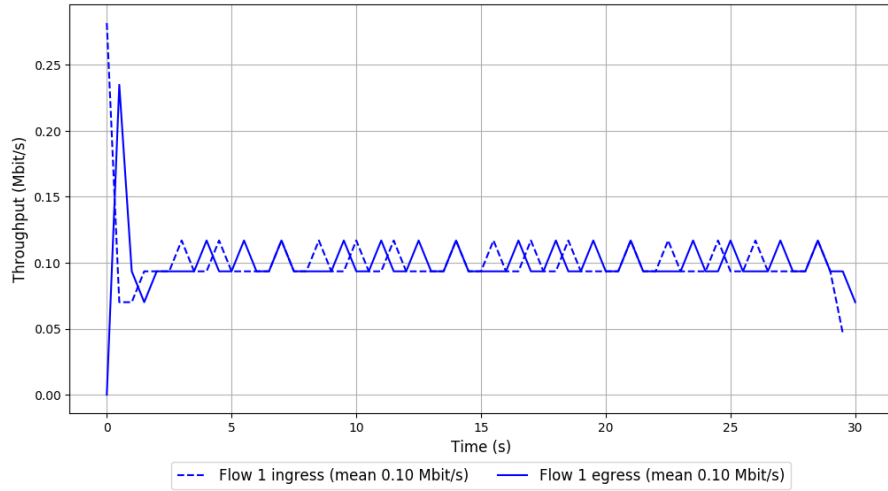Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 15:50:51
End at: 2019-12-11 15:51:21
Local clock offset: -0.171 ms
Remote clock offset: -0.193 ms


# Below is generated by plot.py at 2019-12-11 18:37:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 529.02 Mbit/s
95th percentile per-packet one-way delay: 138.887 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 529.02 Mbit/s
95th percentile per-packet one-way delay: 138.887 ms
Loss rate: 0.01%
```

Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 16:27:32
End at: 2019-12-11 16:28:02
Local clock offset: 0.005 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2019-12-11 18:37:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 132.955 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 132.955 ms
Loss rate: 0.00%
```
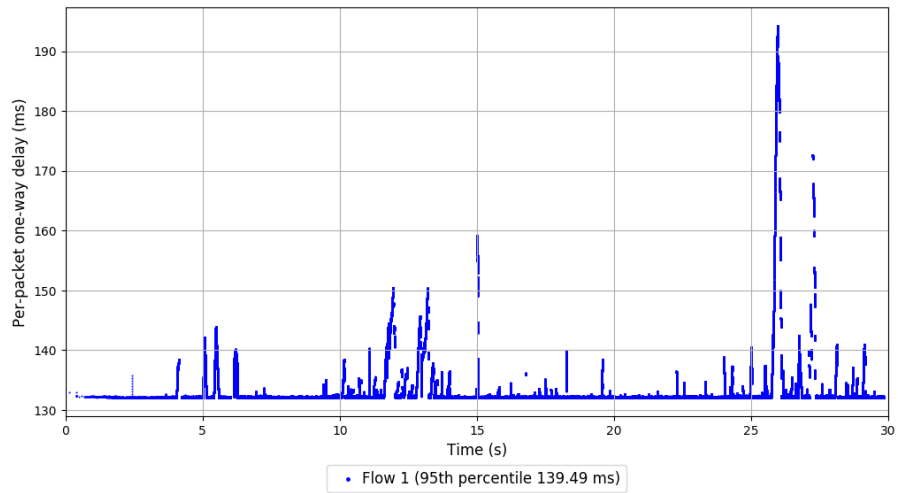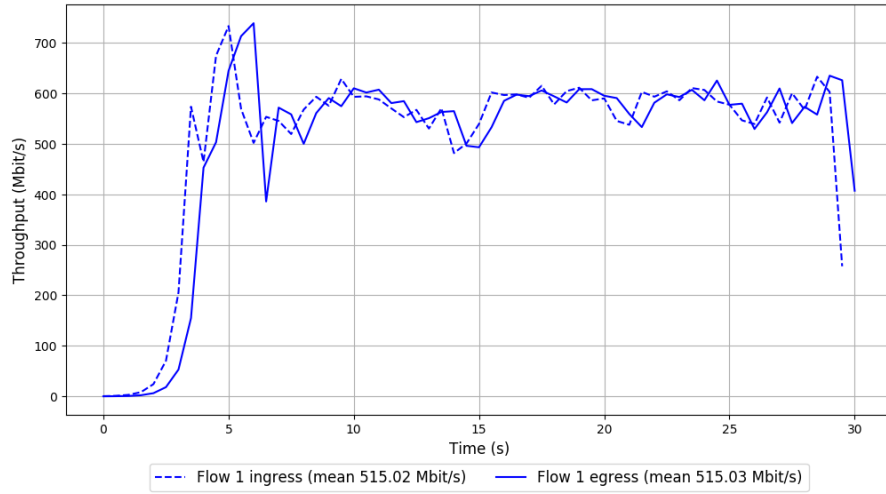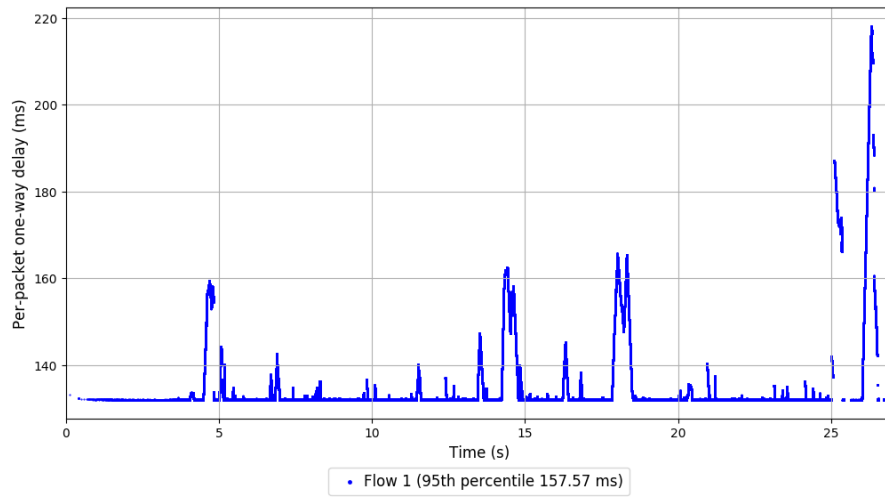
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 17:02:54
End at: 2019-12-11 17:03:24
Local clock offset: -0.279 ms
Remote clock offset: -0.12 ms


# Below is generated by plot.py at 2019-12-11 18:37:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 515.03 Mbit/s
95th percentile per-packet one-way delay: 139.493 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 515.03 Mbit/s
95th percentile per-packet one-way delay: 139.493 ms
Loss rate: 0.00%
```

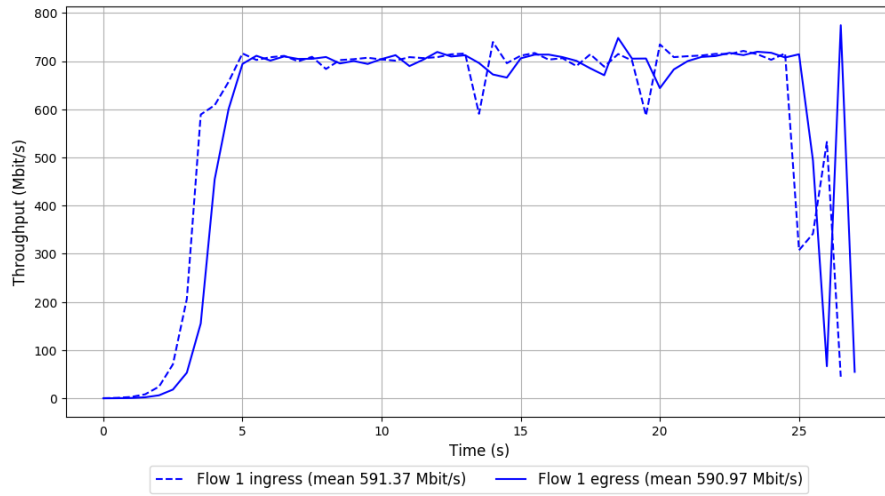Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 14:28:50
End at: 2019-12-11 14:29:20
Local clock offset: -0.106 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-12-11 18:42:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.97 Mbit/s
95th percentile per-packet one-way delay: 157.570 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 590.97 Mbit/s
95th percentile per-packet one-way delay: 157.570 ms
Loss rate: 0.07%
```

Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 15:04:14
End at: 2019-12-11 15:04:44
Local clock offset: -0.019 ms
Remote clock offset: 0.011 ms


# Below is generated by plot.py at 2019-12-11 18:42:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.63 Mbit/s
95th percentile per-packet one-way delay: 204.670 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 500.63 Mbit/s
95th percentile per-packet one-way delay: 204.670 ms
Loss rate: 1.36%
```
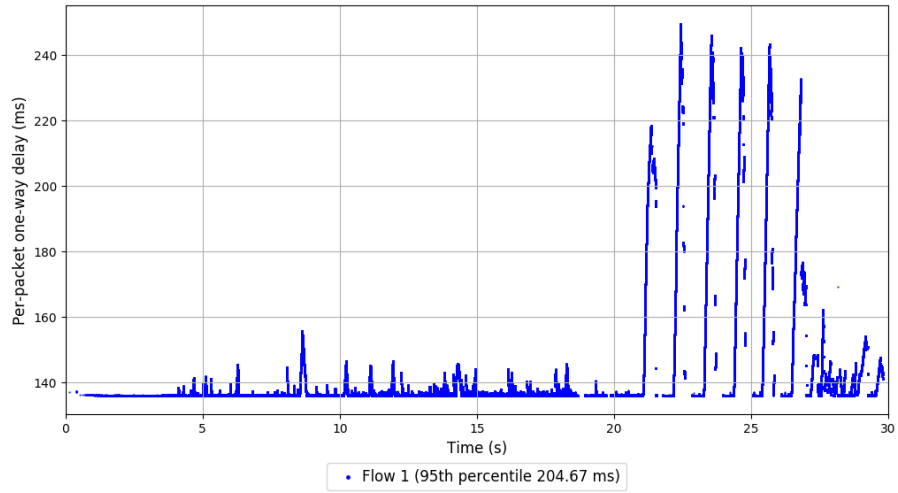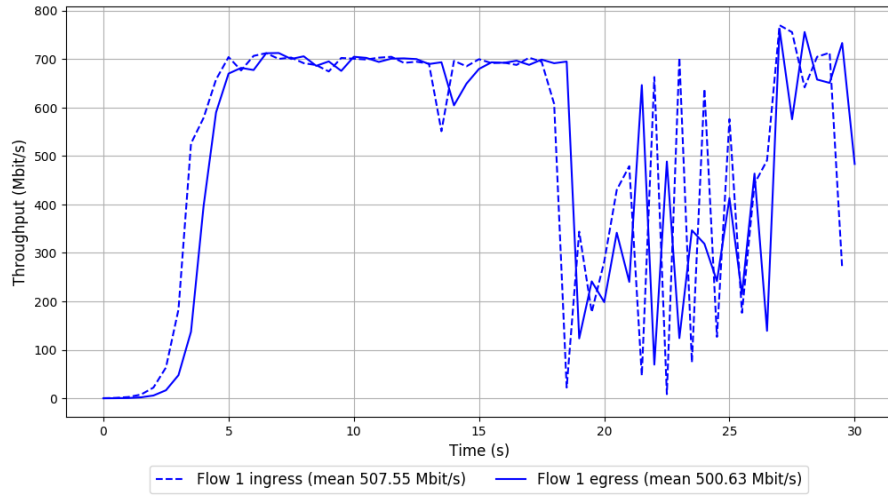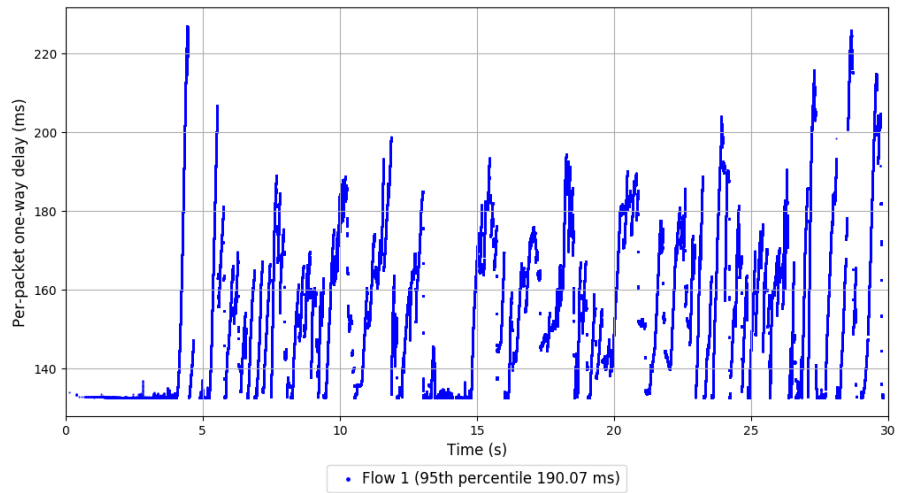
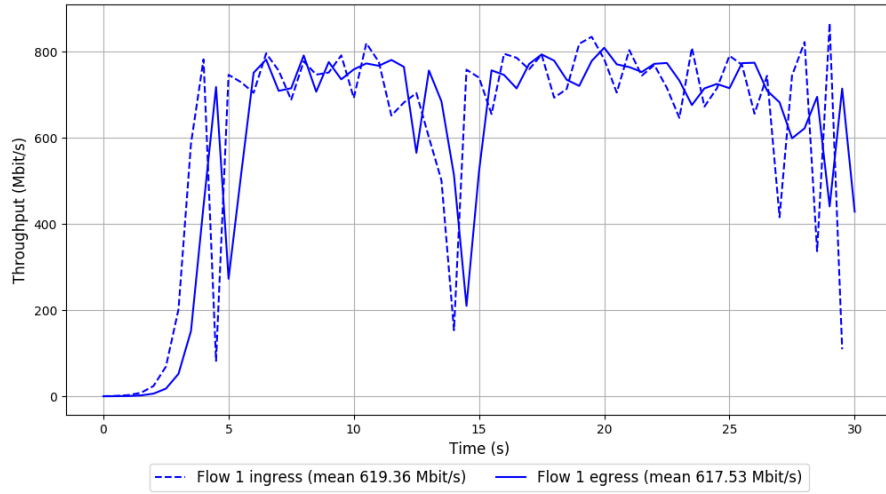Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 15:40:24
End at: 2019-12-11 15:40:54
Local clock offset: -0.132 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2019-12-11 18:44:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 617.53 Mbit/s
95th percentile per-packet one-way delay: 190.067 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 617.53 Mbit/s
95th percentile per-packet one-way delay: 190.067 ms
Loss rate: 0.30%
```

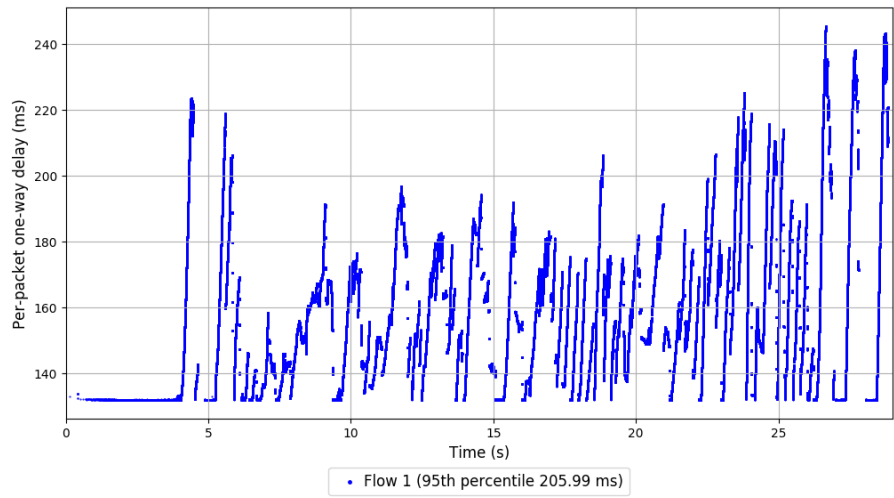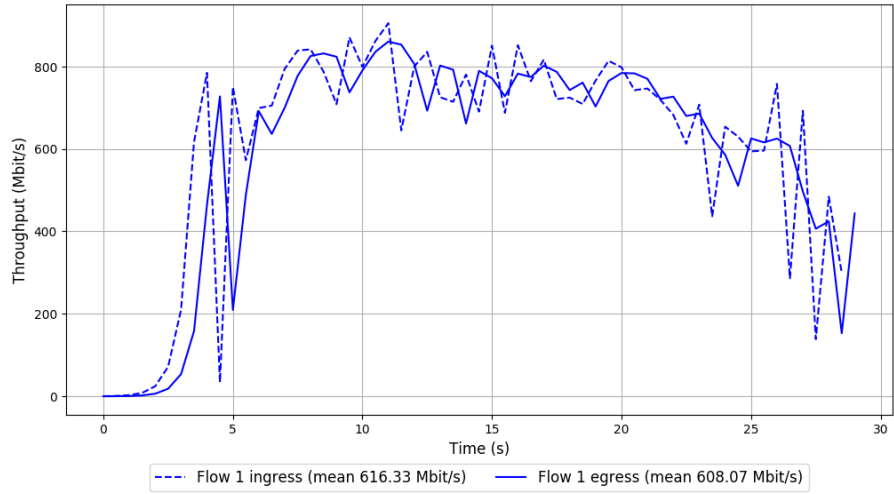Run 3: Report of Muses_DecisionTreeH0 — Data Link

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```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 16:16:54
End at: 2019-12-11 16:17:24
Local clock offset: -0.245 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2019-12-11 18:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 608.07 Mbit/s
95th percentile per-packet one-way delay: 205.985 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 608.07 Mbit/s
95th percentile per-packet one-way delay: 205.985 ms
Loss rate: 1.23%
```

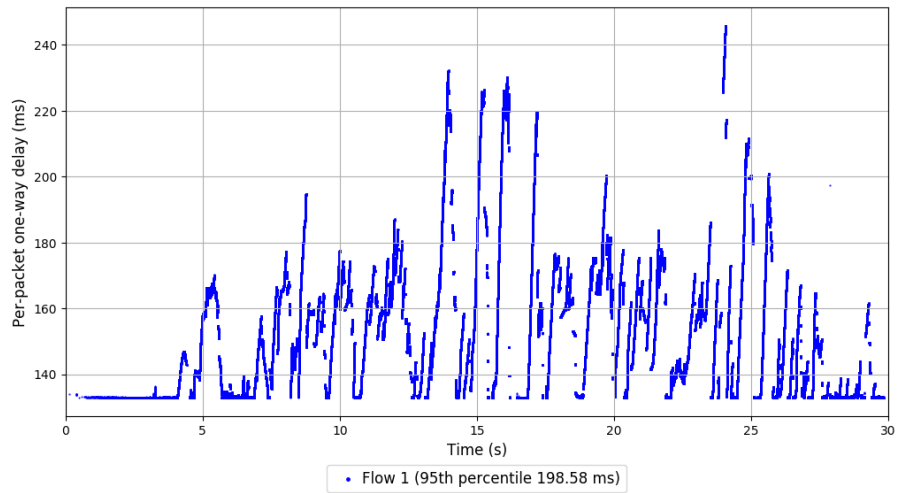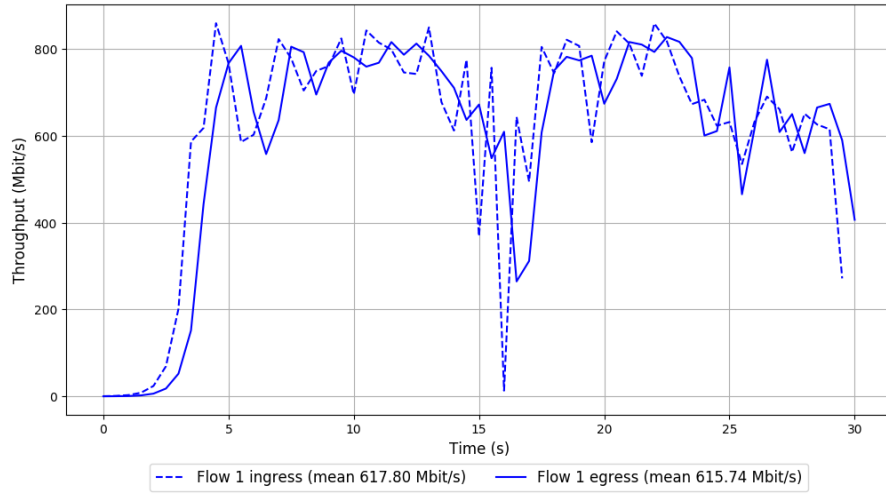Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 16:52:55
End at: 2019-12-11 16:53:25
Local clock offset: -0.47 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-12-11 18:45:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 615.74 Mbit/s
95th percentile per-packet one-way delay: 198.580 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 615.74 Mbit/s
95th percentile per-packet one-way delay: 198.580 ms
Loss rate: 0.34%
```

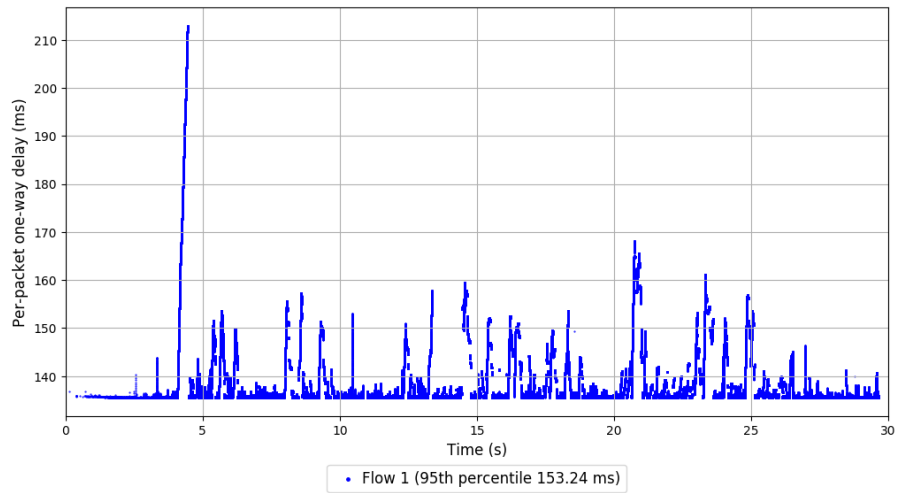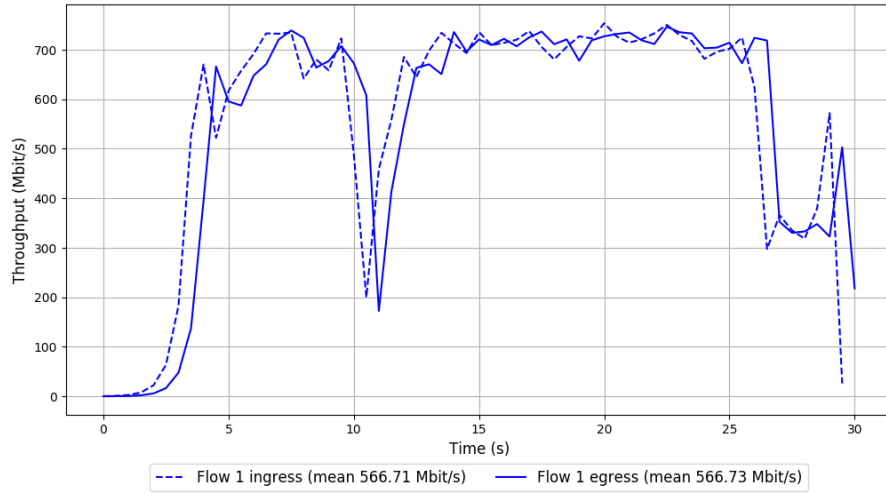Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 14:48:04
End at: 2019-12-11 14:48:34
Local clock offset: 0.249 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-12-11 18:45:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 566.73 Mbit/s
95th percentile per-packet one-way delay: 153.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 566.73 Mbit/s
95th percentile per-packet one-way delay: 153.238 ms
Loss rate: 0.00%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 15:24:16
End at: 2019-12-11 15:24:46
Local clock offset: -0.164 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-12-11 18:45:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 616.62 Mbit/s
95th percentile per-packet one-way delay: 159.744 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 616.62 Mbit/s
95th percentile per-packet one-way delay: 159.744 ms
Loss rate: 0.10%
```
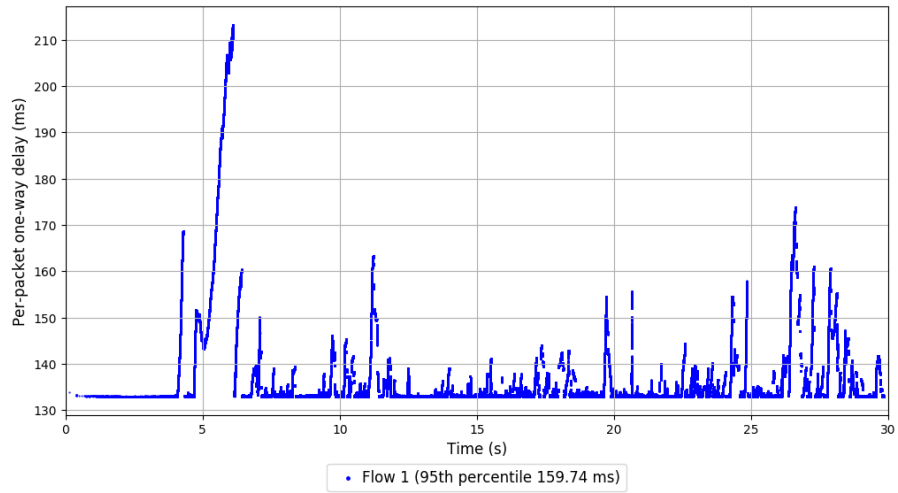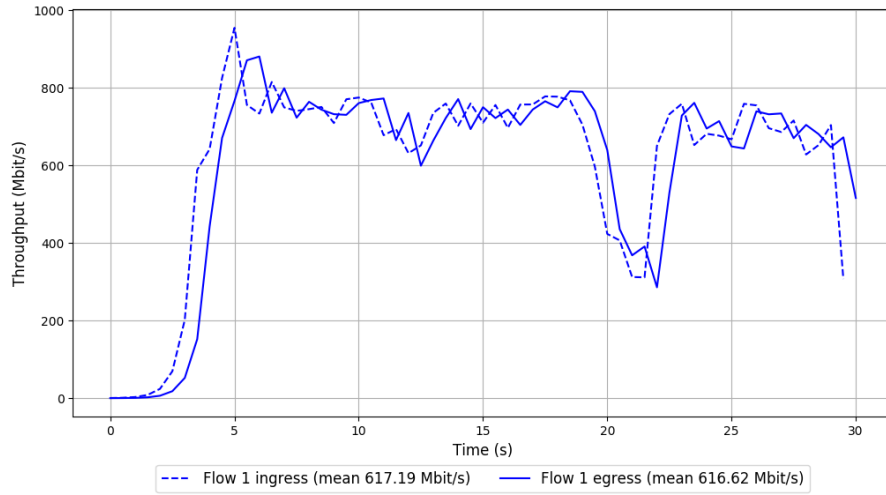
Run 2: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 617.19 Mbit/s)   Flow 1 egress (mean 616.62 Mbit/s)

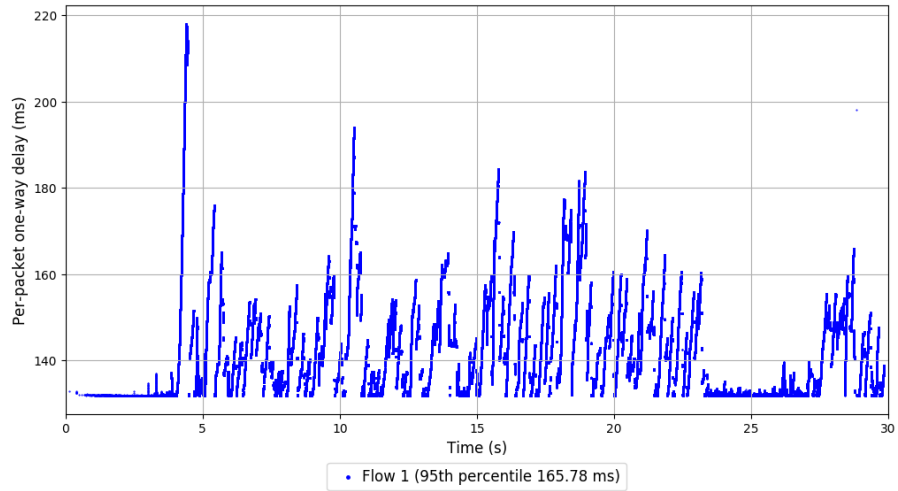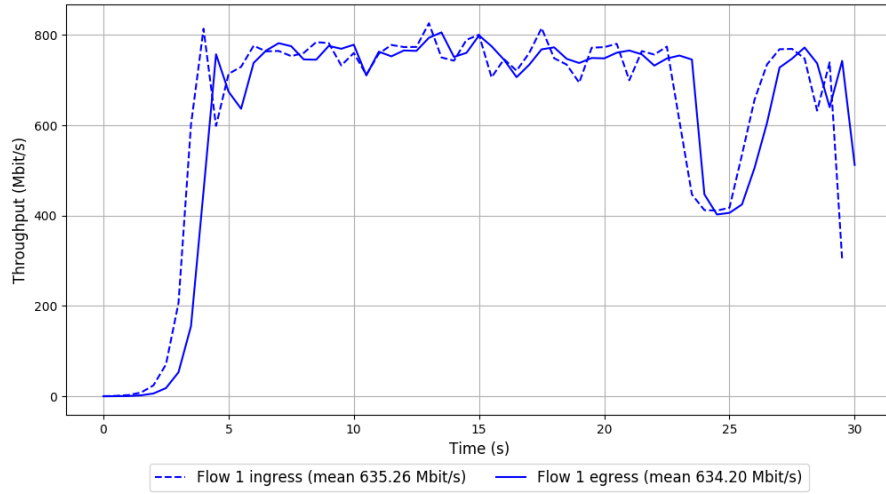Flow 1 (95th percentile 159.74 ms)

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 16:00:18
End at: 2019-12-11 16:00:48
Local clock offset: -0.148 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2019-12-11 18:46:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 634.20 Mbit/s
95th percentile per-packet one-way delay: 165.780 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 634.20 Mbit/s
95th percentile per-packet one-way delay: 165.780 ms
Loss rate: 0.17%
```

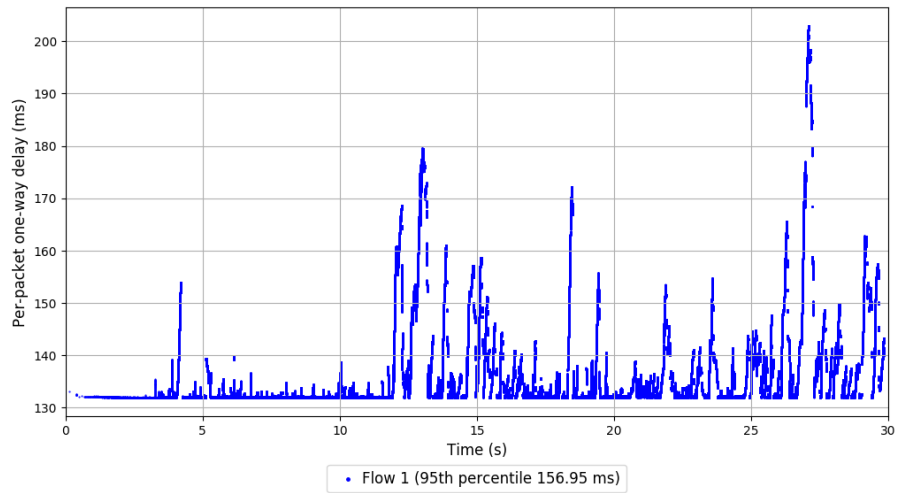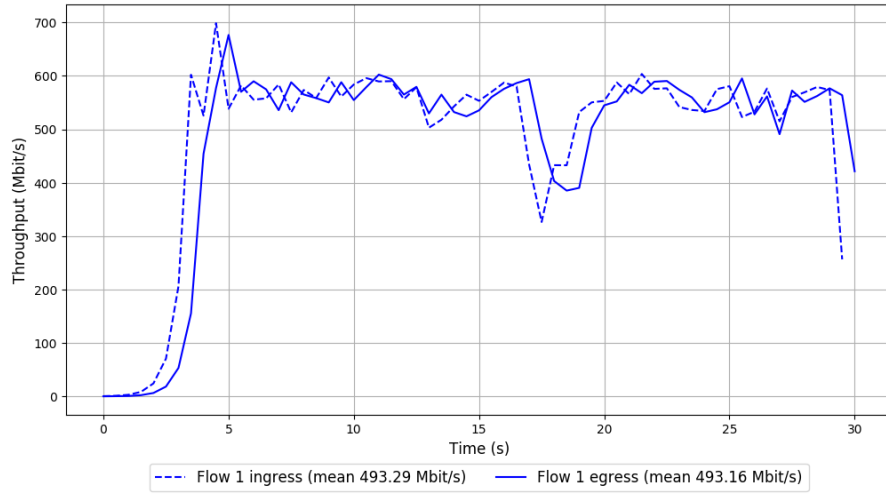Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 16:36:38
End at: 2019-12-11 16:37:08
Local clock offset: -0.256 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-12-11 18:48:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 493.16 Mbit/s
95th percentile per-packet one-way delay: 156.947 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 493.16 Mbit/s
95th percentile per-packet one-way delay: 156.947 ms
Loss rate: 0.02%
```

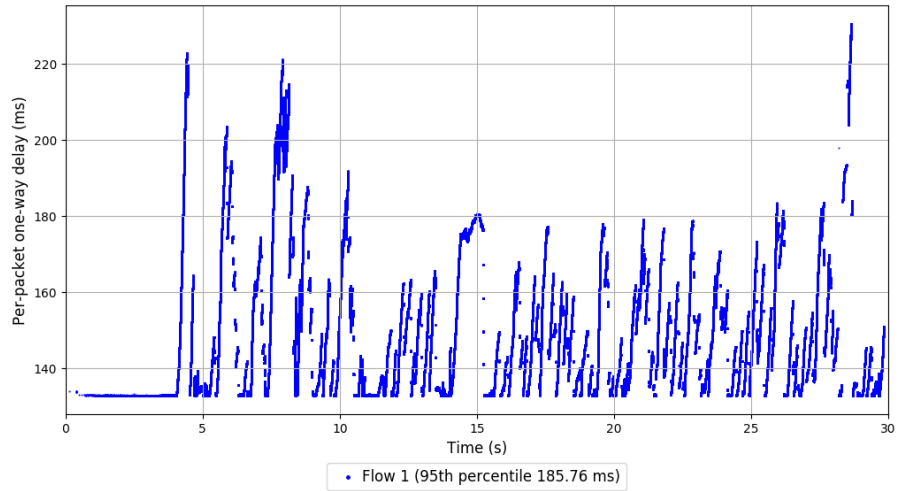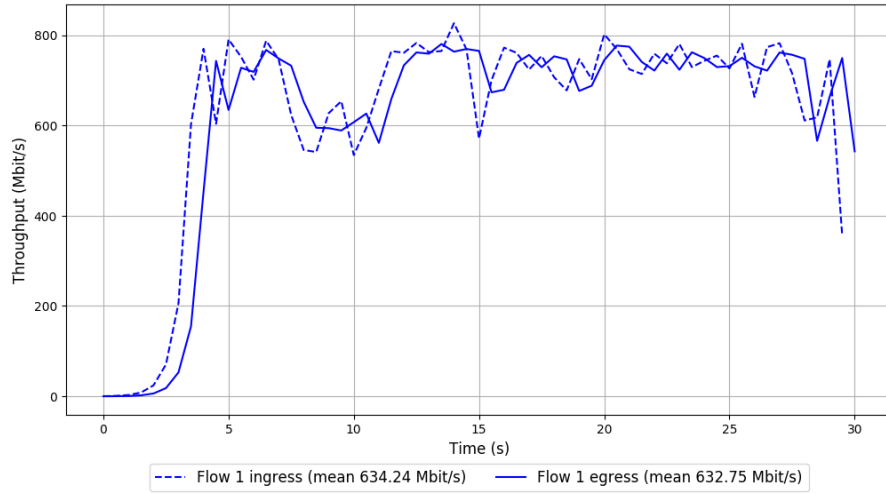Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 17:12:32
End at: 2019-12-11 17:13:02
Local clock offset: -0.077 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-12-11 18:51:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 632.75 Mbit/s
95th percentile per-packet one-way delay: 185.760 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 632.75 Mbit/s
95th percentile per-packet one-way delay: 185.760 ms
Loss rate: 0.23%
```

Run 5: Report of Muses_DecisionTreeR0 — Data Link

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```
Run 1: Statistics of PCC-Allegro

Start at: 2019-12-11 14:27:15
End at: 2019-12-11 14:27:45
Local clock offset: -0.122 ms
Remote clock offset: -0.173 ms


# Below is generated by plot.py at 2019-12-11 18:53:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 324.22 Mbit/s
95th percentile per-packet one-way delay: 260.970 ms
Loss rate: 7.53%
-- Flow 1:
Average throughput: 324.22 Mbit/s
95th percentile per-packet one-way delay: 260.970 ms
Loss rate: 7.53%
```
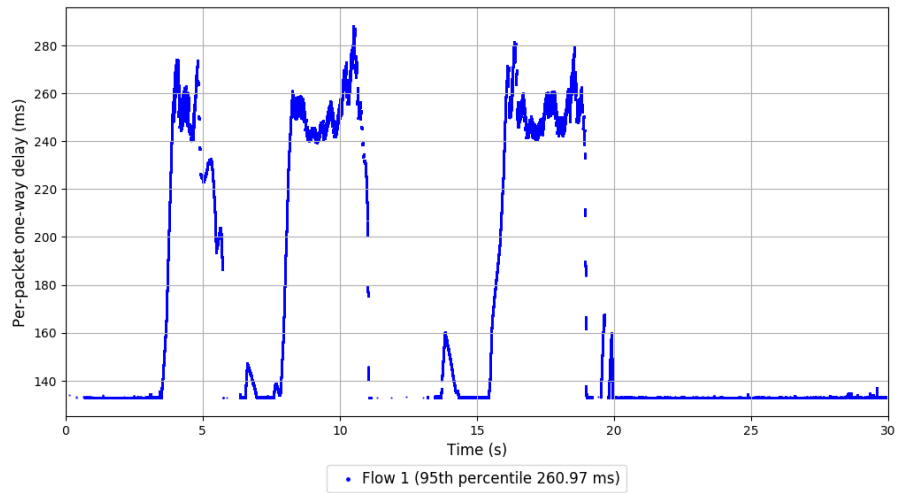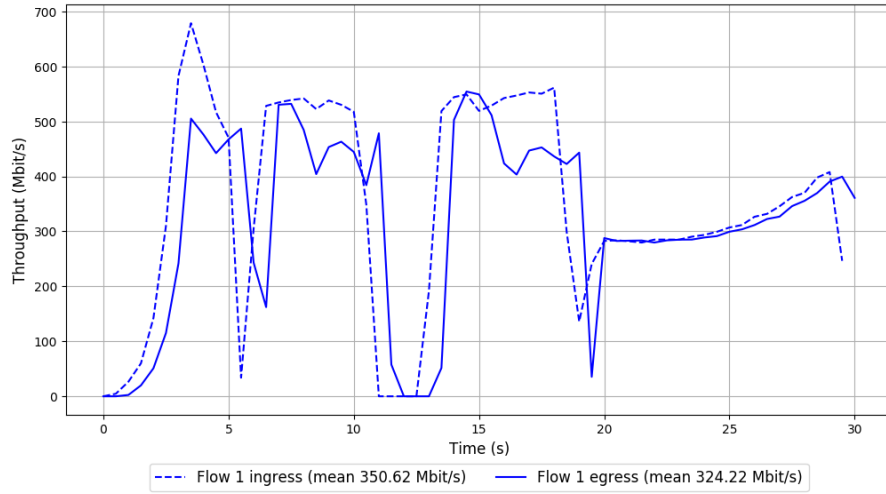
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-12-11 15:02:33
End at: 2019-12-11 15:03:03
Local clock offset: -0.092 ms
Remote clock offset: 0.013 ms


# Below is generated by plot.py at 2019-12-11 18:56:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 404.40 Mbit/s
95th percentile per-packet one-way delay: 255.953 ms
Loss rate: 4.05%
-- Flow 1:
Average throughput: 404.40 Mbit/s
95th percentile per-packet one-way delay: 255.953 ms
Loss rate: 4.05%
```
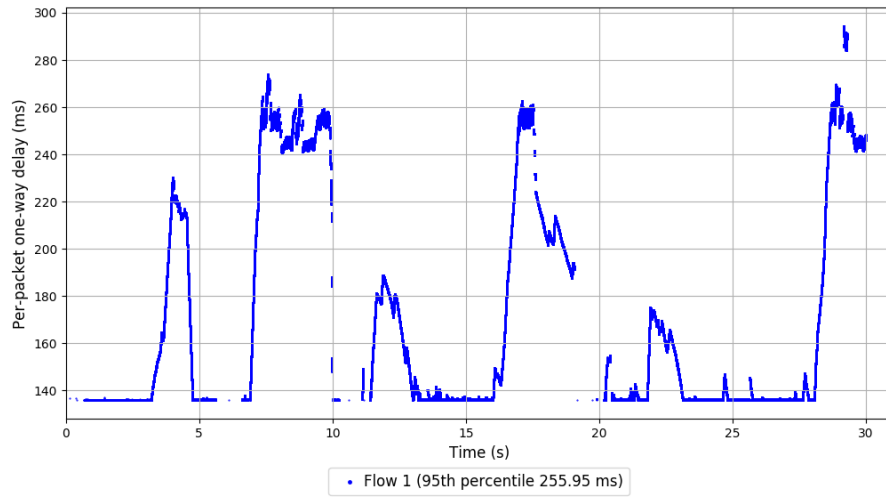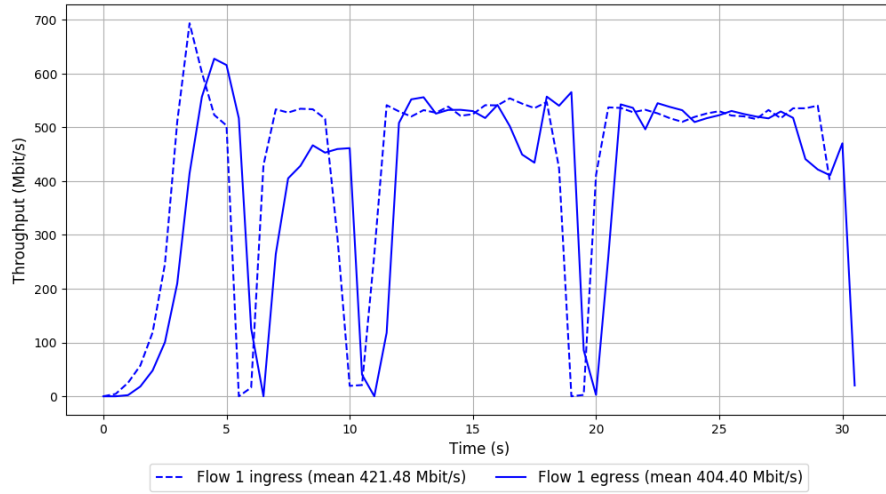
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-12-11 15:38:48
End at: 2019-12-11 15:39:18
Local clock offset: -0.081 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2019-12-11 18:56:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.47 Mbit/s
95th percentile per-packet one-way delay: 241.559 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 380.47 Mbit/s
95th percentile per-packet one-way delay: 241.559 ms
Loss rate: 1.62%
```
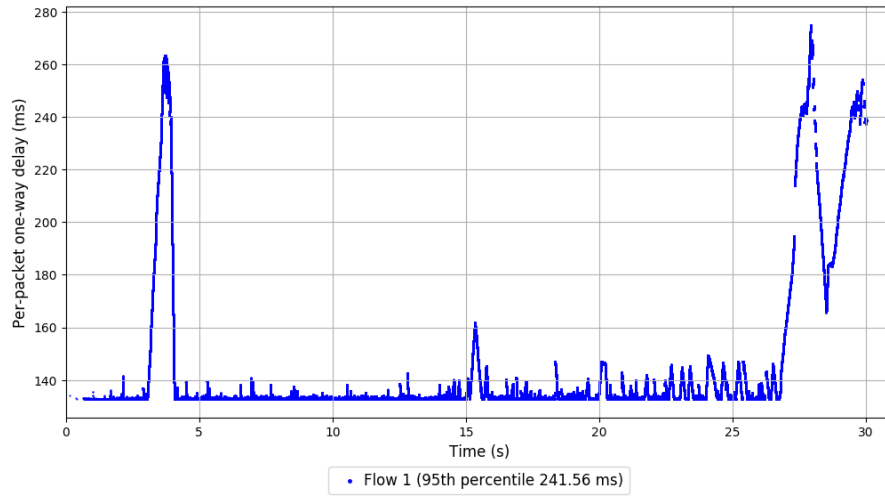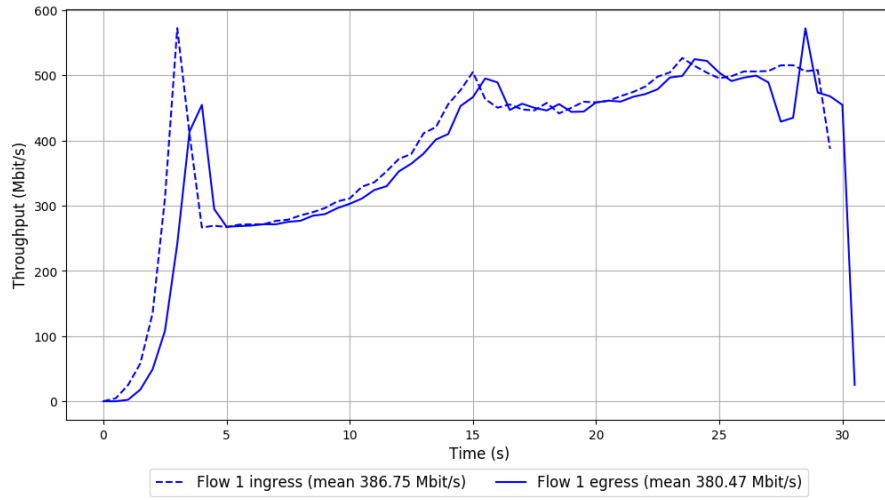
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 386.75 Mbit/s) --- Flow 1 egress (mean 380.47 Mbit/s)

Flow 1 (95th percentile 241.56 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-12-11 16:15:15
End at: 2019-12-11 16:15:45
Local clock offset: 0.087 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-12-11 18:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 437.72 Mbit/s
95th percentile per-packet one-way delay: 257.273 ms
Loss rate: 5.65%
-- Flow 1:
Average throughput: 437.72 Mbit/s
95th percentile per-packet one-way delay: 257.273 ms
Loss rate: 5.65%
```
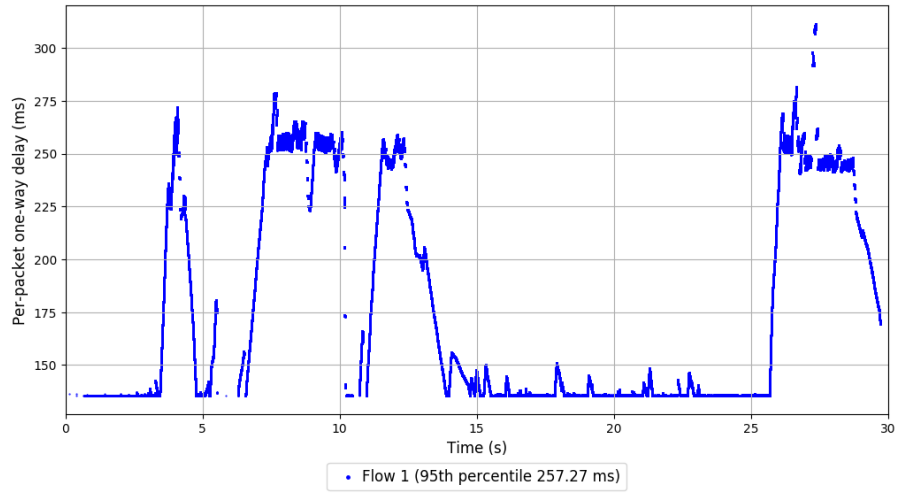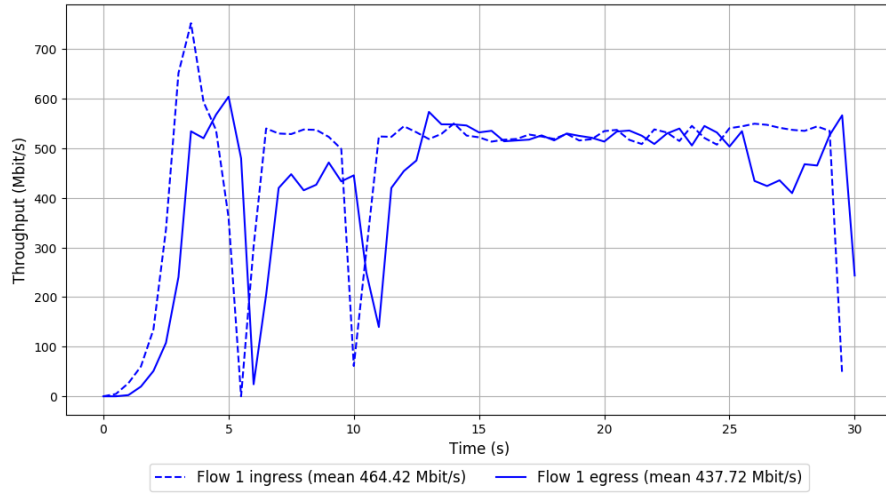
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-12-11 16:51:24
End at: 2019-12-11 16:51:54
Local clock offset: -0.032 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-12-11 18:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 293.45 Mbit/s
95th percentile per-packet one-way delay: 259.405 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 293.45 Mbit/s
95th percentile per-packet one-way delay: 259.405 ms
Loss rate: 5.37%
```
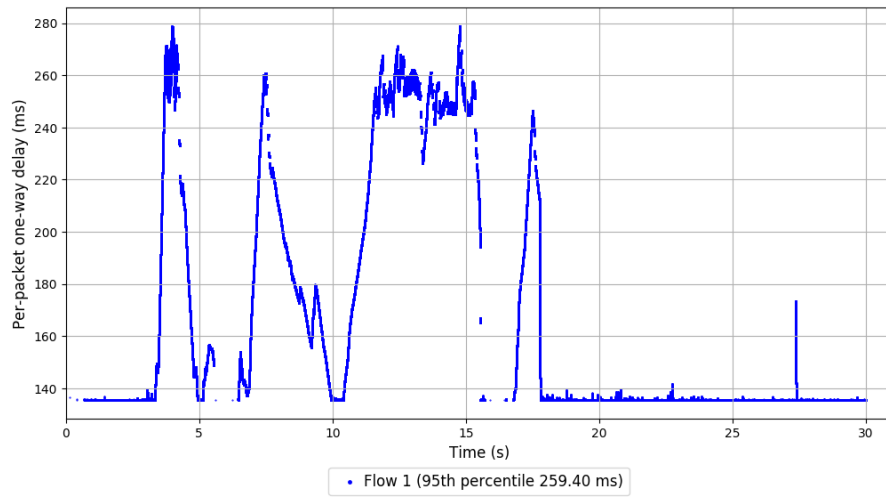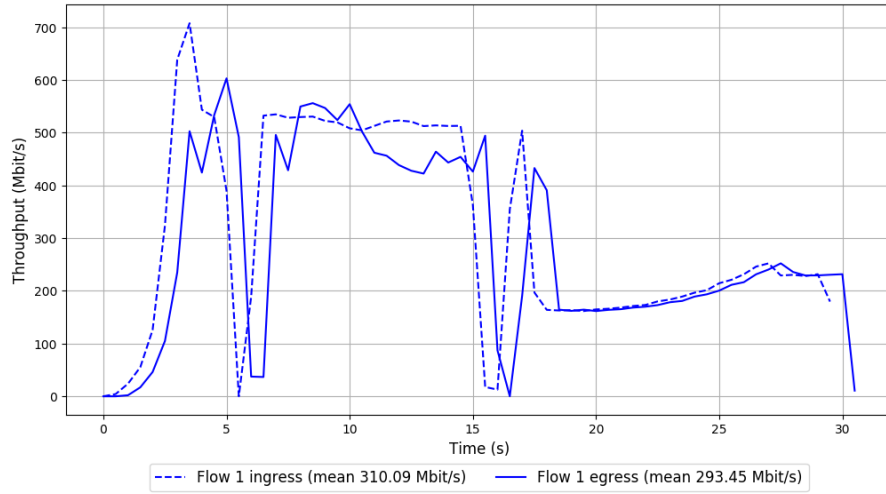
Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-12-11 14:36:57
End at: 2019-12-11 14:37:27
Local clock offset: -0.123 ms
Remote clock offset: -0.478 ms


# Below is generated by plot.py at 2019-12-11 18:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.01 Mbit/s
95th percentile per-packet one-way delay: 238.885 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 250.01 Mbit/s
95th percentile per-packet one-way delay: 238.885 ms
Loss rate: 1.54%
```
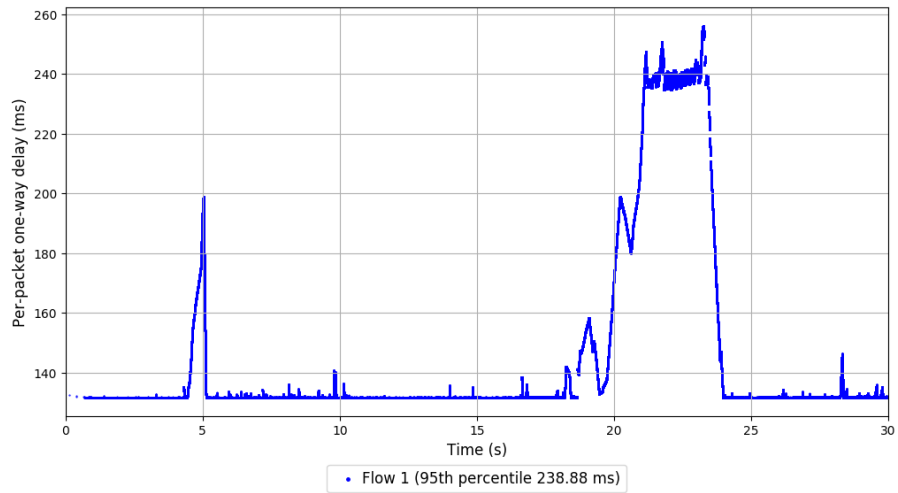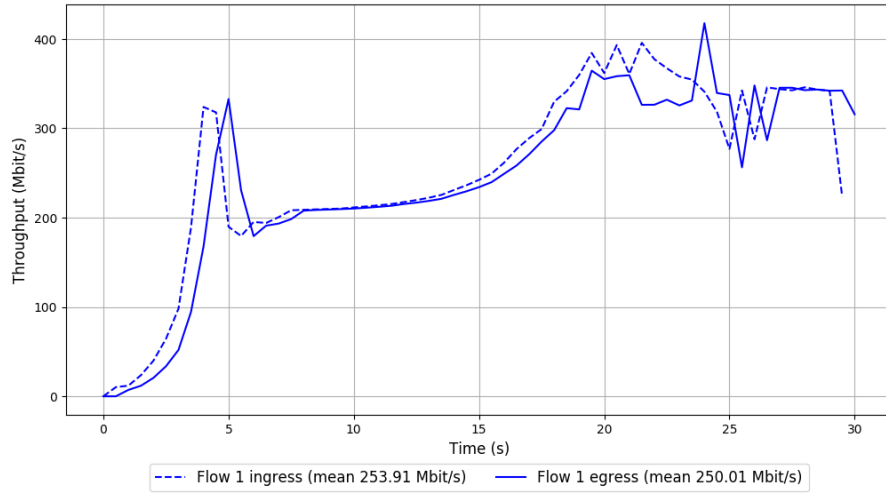
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-12-11 15:12:59
End at: 2019-12-11 15:13:29
Local clock offset: -0.016 ms
Remote clock offset: -0.366 ms


# Below is generated by plot.py at 2019-12-11 18:57:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.69 Mbit/s
95th percentile per-packet one-way delay: 241.474 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 229.69 Mbit/s
95th percentile per-packet one-way delay: 241.474 ms
Loss rate: 0.87%
```
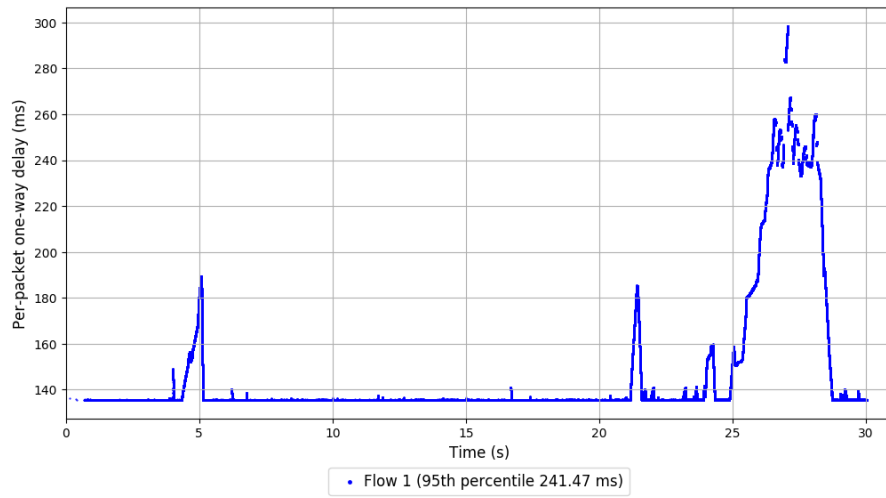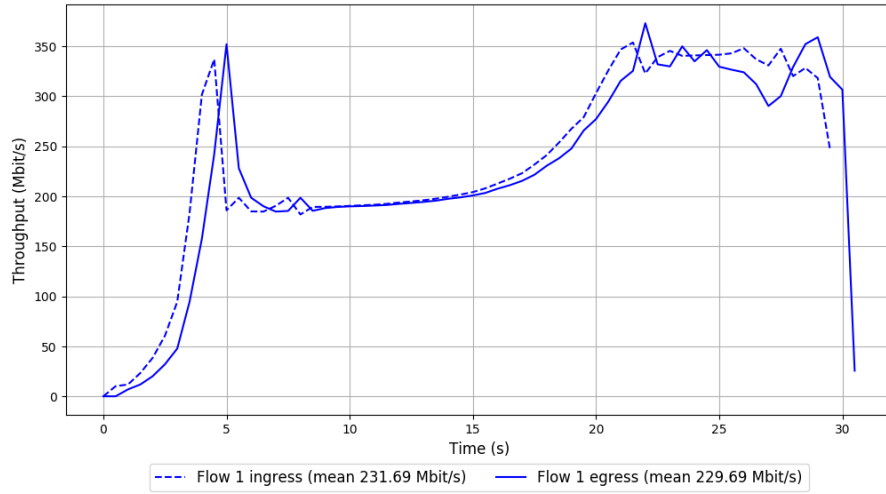
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 231.69 Mbit/s)   Flow 1 egress (mean 229.69 Mbit/s)
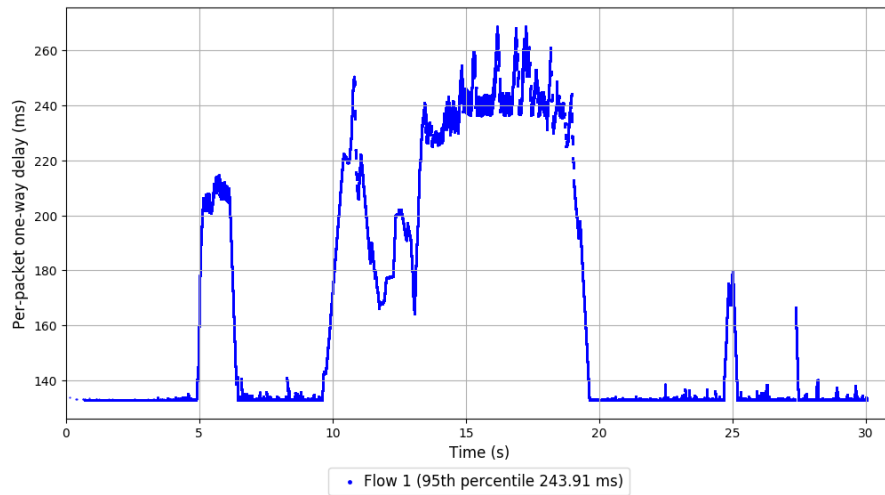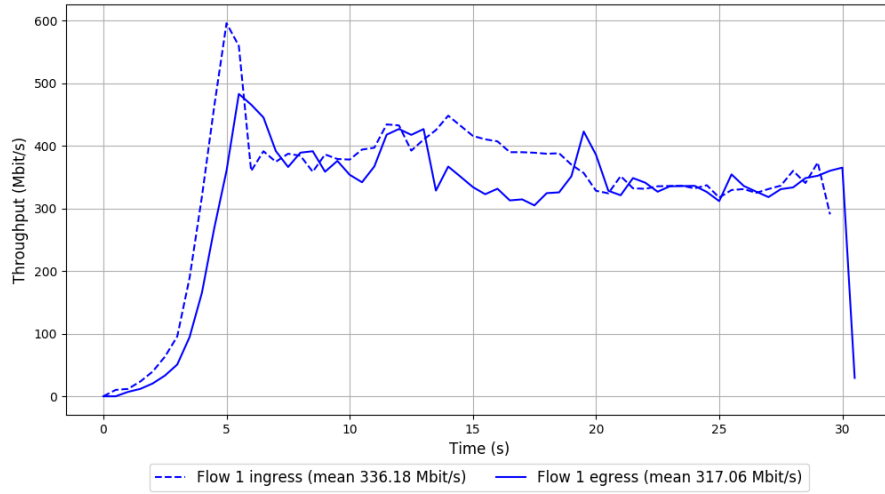

Flow 1 (95th percentile 241.47 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2019-12-11 15:49:11
End at: 2019-12-11 15:49:41
Local clock offset: -0.14 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2019-12-11 19:01:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 317.06 Mbit/s
95th percentile per-packet one-way delay: 243.915 ms
Loss rate: 5.69%
-- Flow 1:
Average throughput: 317.06 Mbit/s
95th percentile per-packet one-way delay: 243.915 ms
Loss rate: 5.69%
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-12-11 16:25:52
End at: 2019-12-11 16:26:22
Local clock offset: -0.275 ms
Remote clock offset: 0.002 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 332.04 Mbit/s
95th percentile per-packet one-way delay: 228.855 ms
Loss rate: 2.30%
-- Flow 1:
Average throughput: 332.04 Mbit/s
95th percentile per-packet one-way delay: 228.855 ms
Loss rate: 2.30%
```
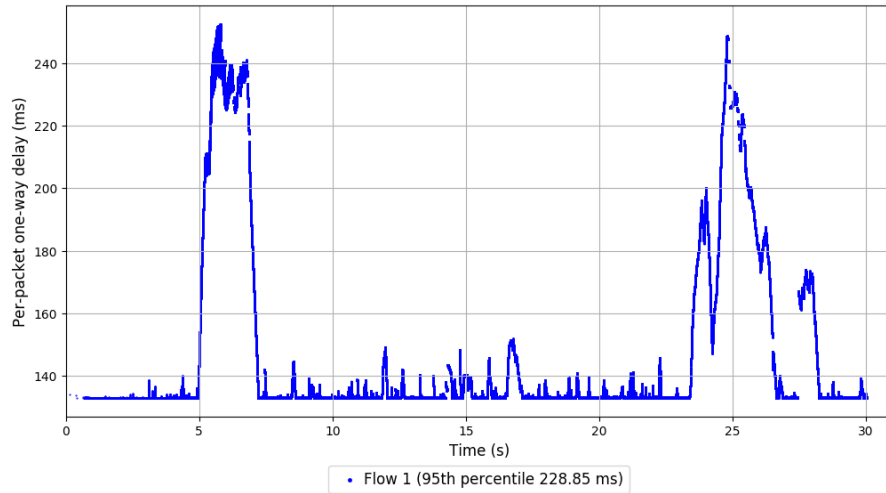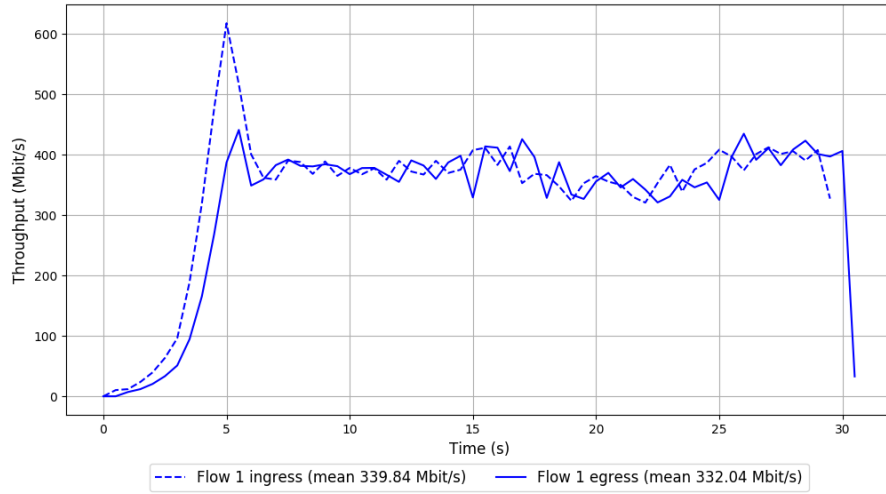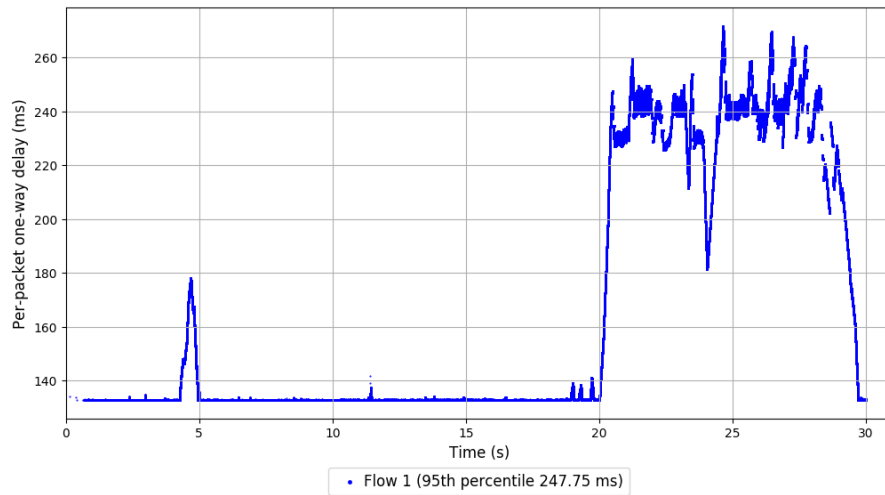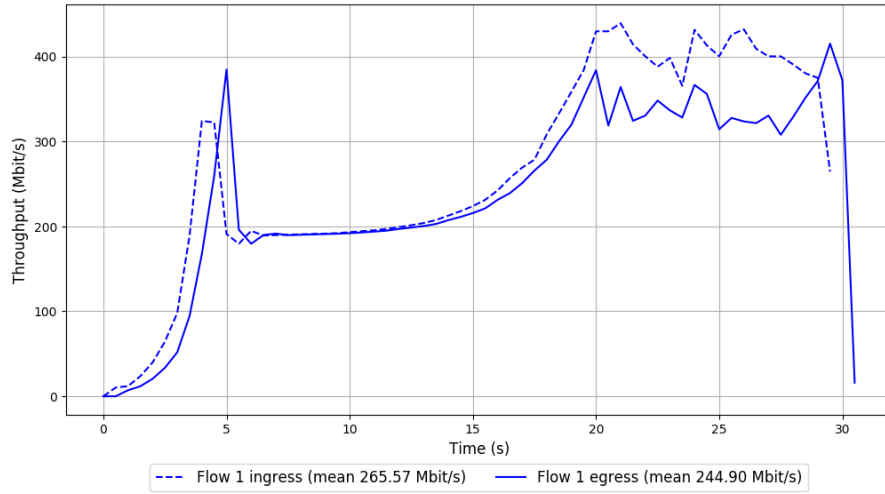
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-12-11 17:01:21
End at: 2019-12-11 17:01:51
Local clock offset: -0.202 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.90 Mbit/s
95th percentile per-packet one-way delay: 247.754 ms
Loss rate: 7.79%
-- Flow 1:
Average throughput: 244.90 Mbit/s
95th percentile per-packet one-way delay: 247.754 ms
Loss rate: 7.79%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 265.57 Mbit/s)   Flow 1 egress (mean 244.90 Mbit/s)

Flow 1 (95th percentile 247.75 ms)
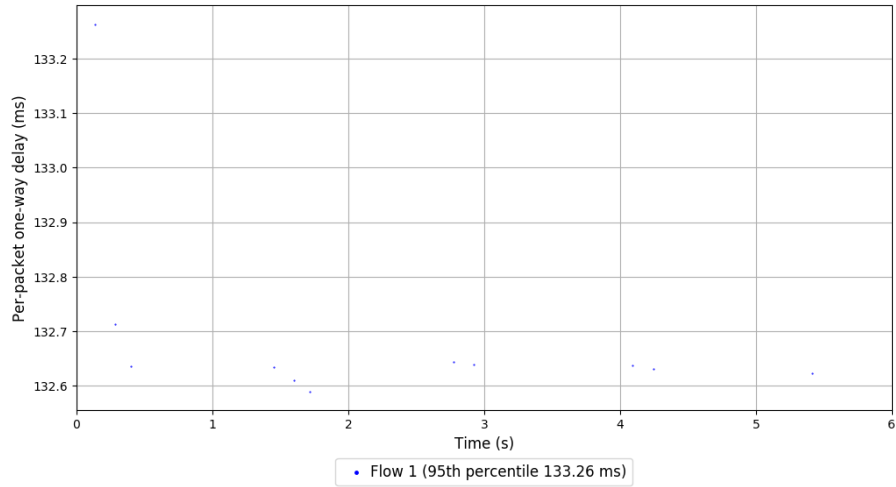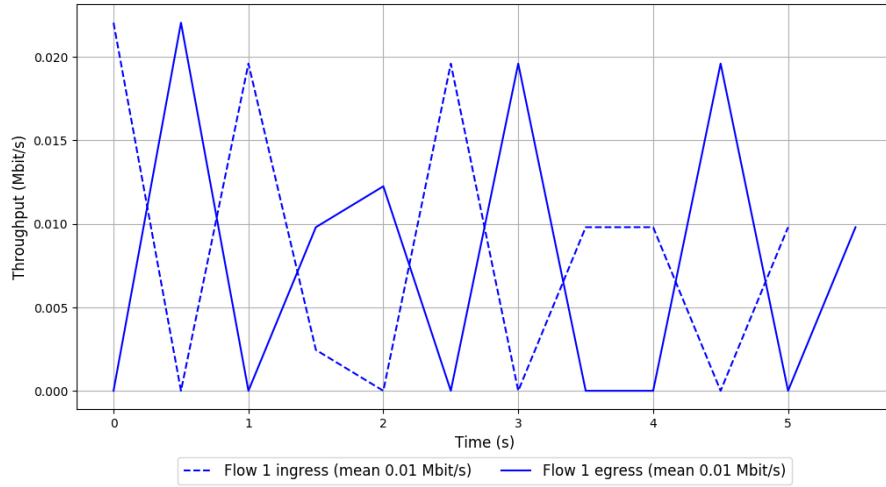
Run 1: Statistics of QUIC Cubic

Start at: 2019-12-11 14:54:24
End at: 2019-12-11 14:54:54
Local clock offset: -0.07 ms
Remote clock offset: -0.391 ms

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-12-11 15:30:32
End at: 2019-12-11 15:31:02
Local clock offset: -0.17 ms
Remote clock offset: -0.094 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 132.044 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 58.89 Mbit/s
95th percentile per-packet one-way delay: 132.044 ms
Loss rate: 0.00%
```
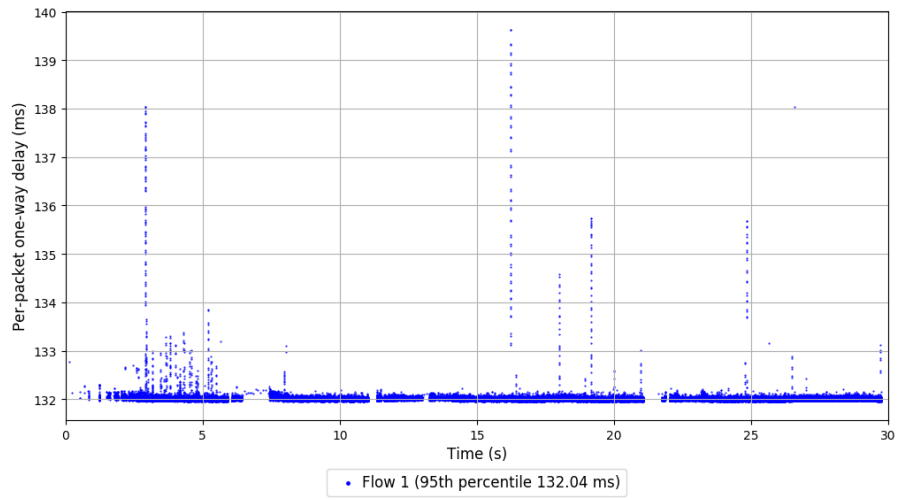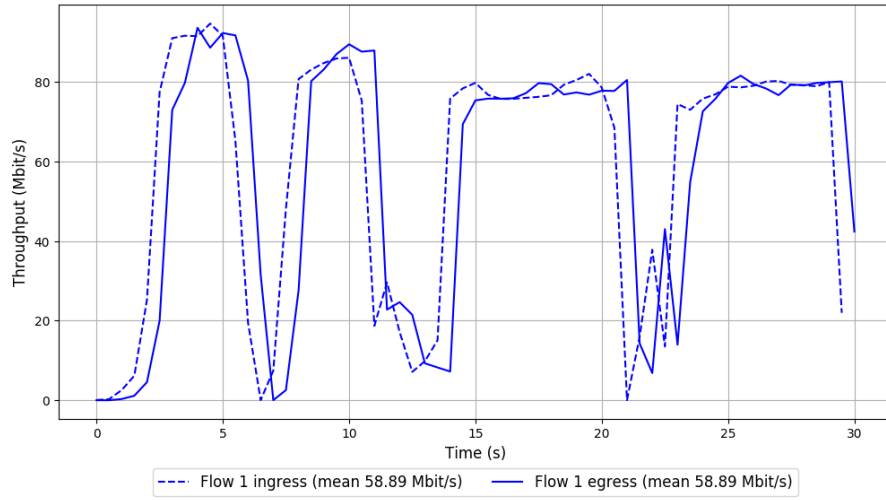
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-12-11 16:07:04
End at: 2019-12-11 16:07:34
Local clock offset: -0.267 ms
Remote clock offset: -0.43 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.80 Mbit/s
95th percentile per-packet one-way delay: 132.362 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.80 Mbit/s
95th percentile per-packet one-way delay: 132.362 ms
Loss rate: 0.00%
```
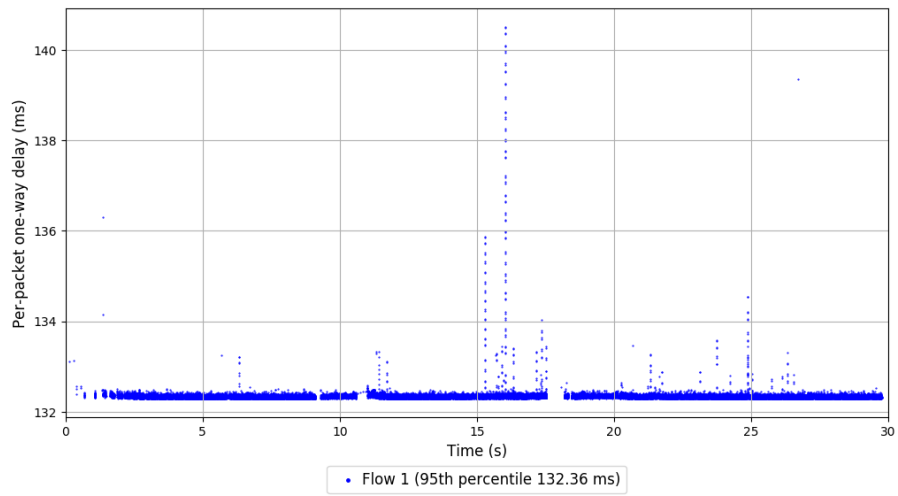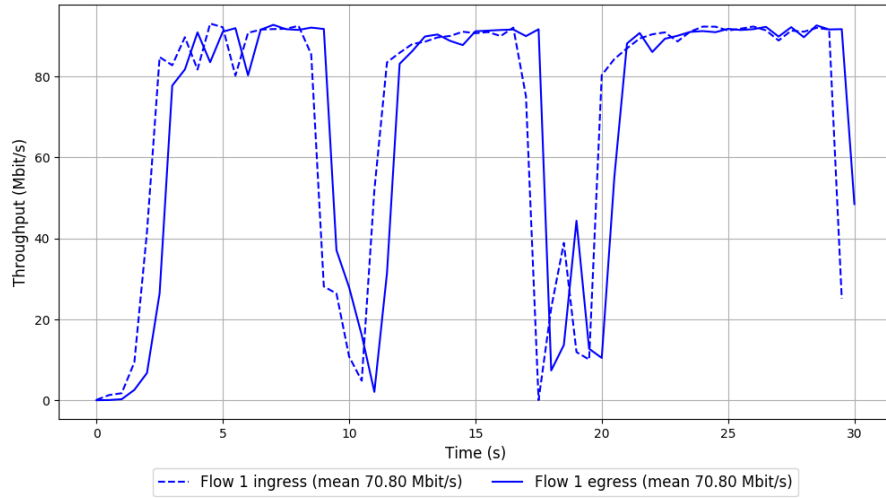
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 70.80 Mbit/s) — — — — Flow 1 egress (mean 70.80 Mbit/s)

Flow 1 (95th percentile 132.36 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-12-11 16:43:14
End at: 2019-12-11 16:43:44
Local clock offset: -0.382 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.18 Mbit/s
95th percentile per-packet one-way delay: 133.014 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 68.18 Mbit/s
95th percentile per-packet one-way delay: 133.014 ms
Loss rate: 0.00%
```
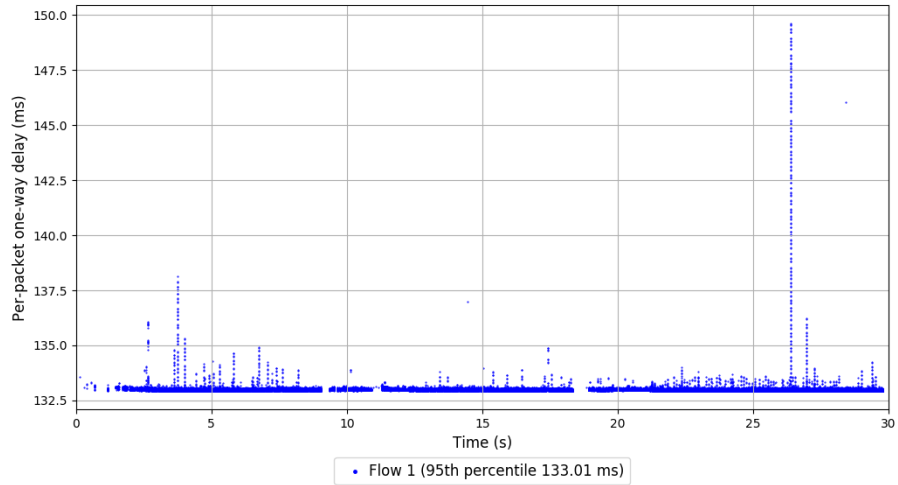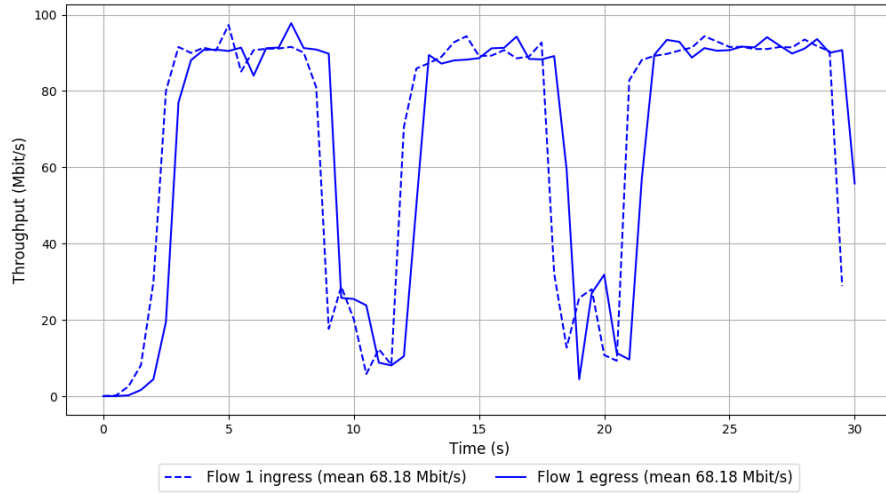
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-12-11 17:19:13
End at: 2019-12-11 17:19:43
Local clock offset: 0.18 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 132.493 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.52 Mbit/s
95th percentile per-packet one-way delay: 132.493 ms
Loss rate: 0.00%
```
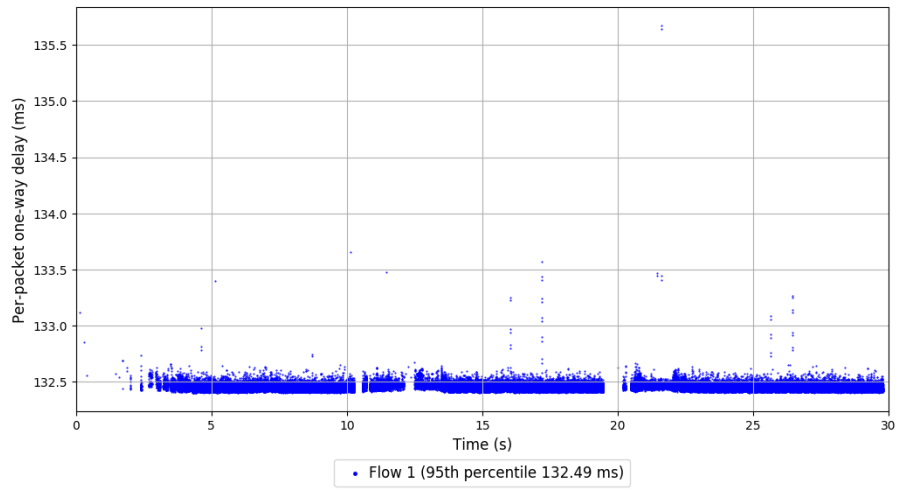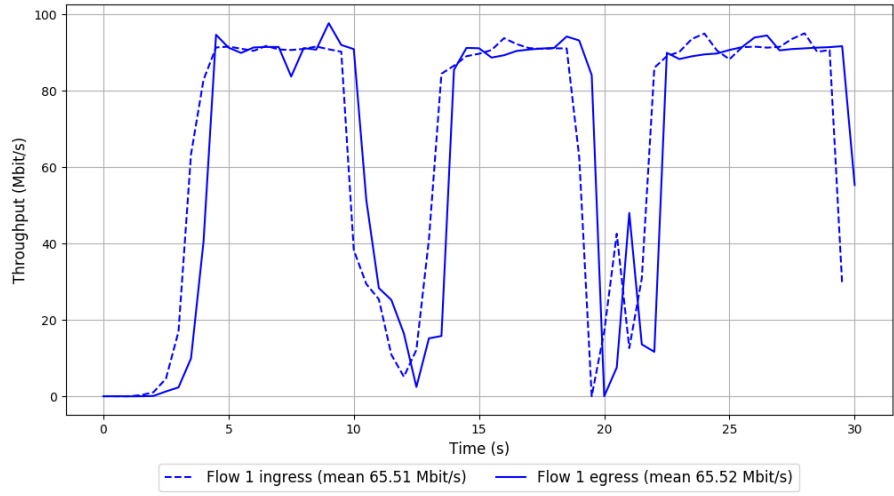
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 65.51 Mbit/s) --- Flow 1 egress (mean 65.52 Mbit/s)
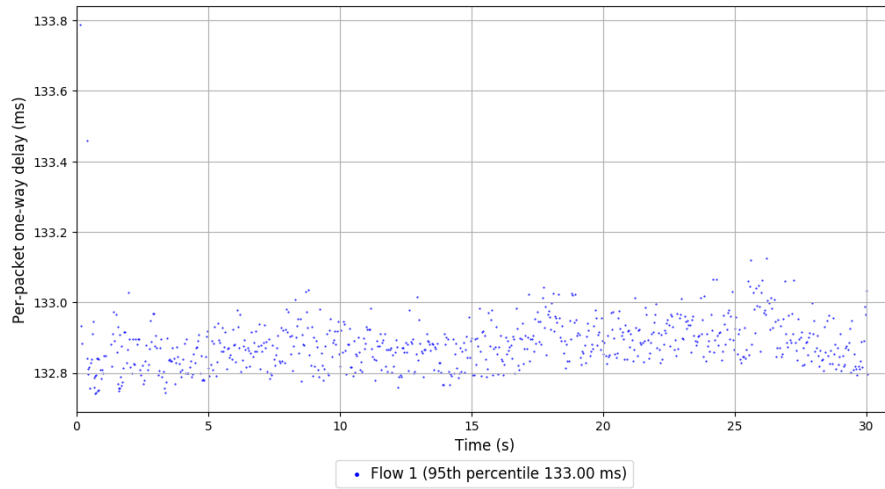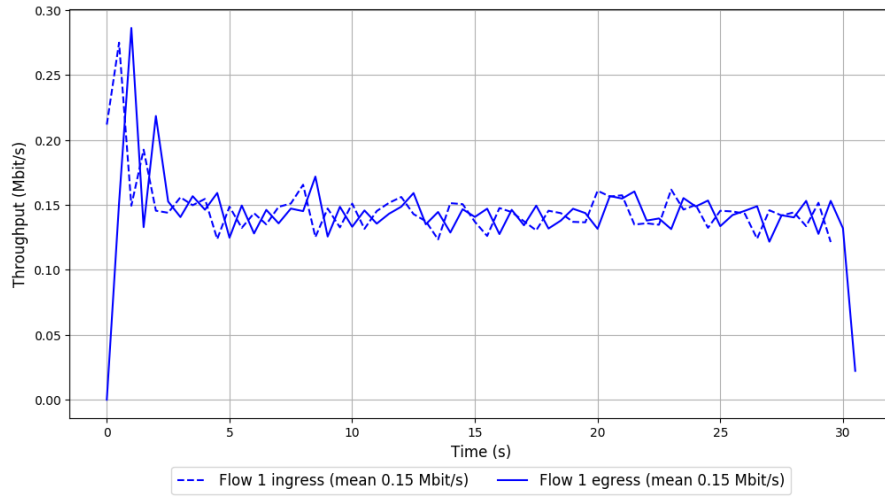

Flow 1 (95th percentile 132.49 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-12-11 14:30:29
End at: 2019-12-11 14:30:59
Local clock offset: -0.194 ms
Remote clock offset: -0.478 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.999 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 132.999 ms
Loss rate: 0.00%
```

Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-12-11 15:05:52
End at: 2019-12-11 15:06:22
Local clock offset: 0.28 ms
Remote clock offset: -0.782 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 131.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 131.238 ms
Loss rate: 0.00%
```
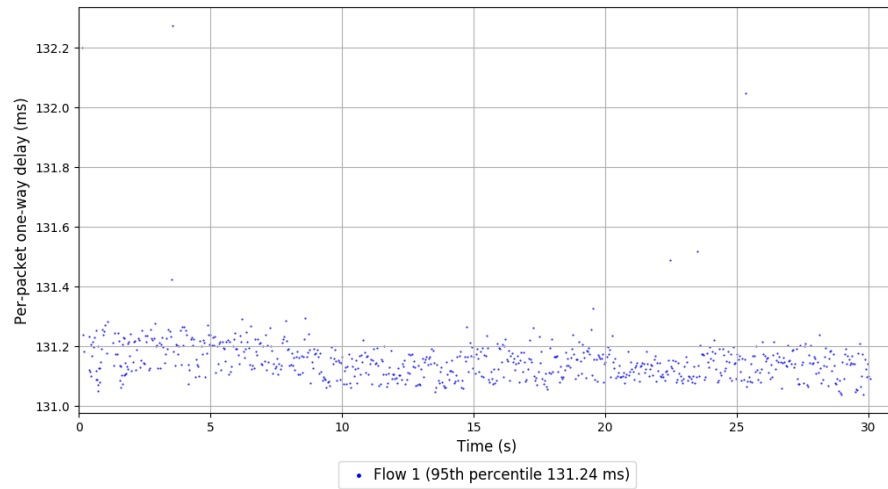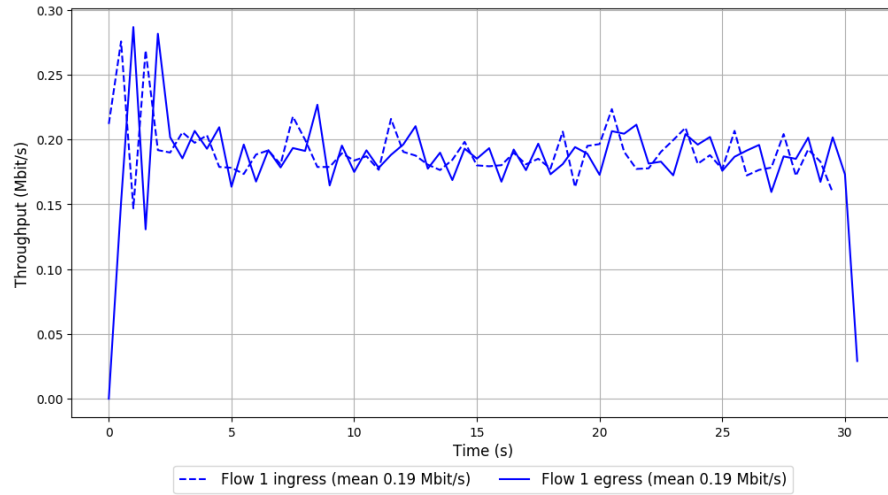
Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.19 Mbit/s) — Flow 1 egress (mean 0.19 Mbit/s)
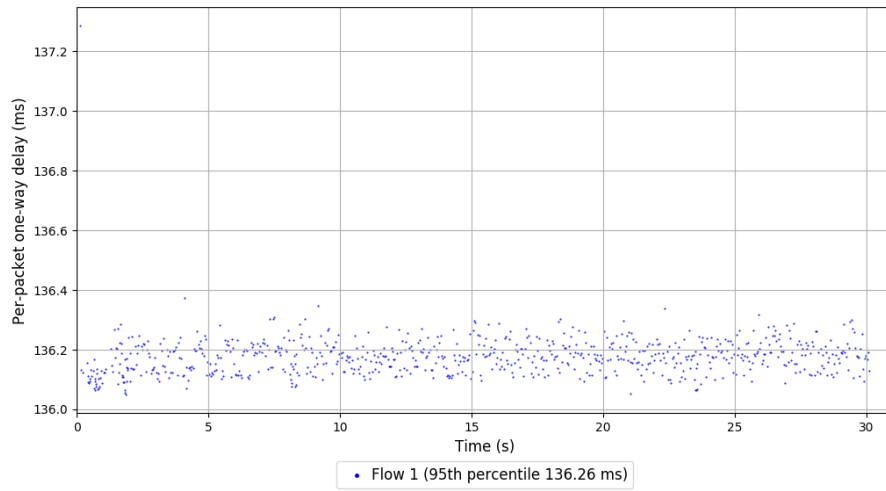

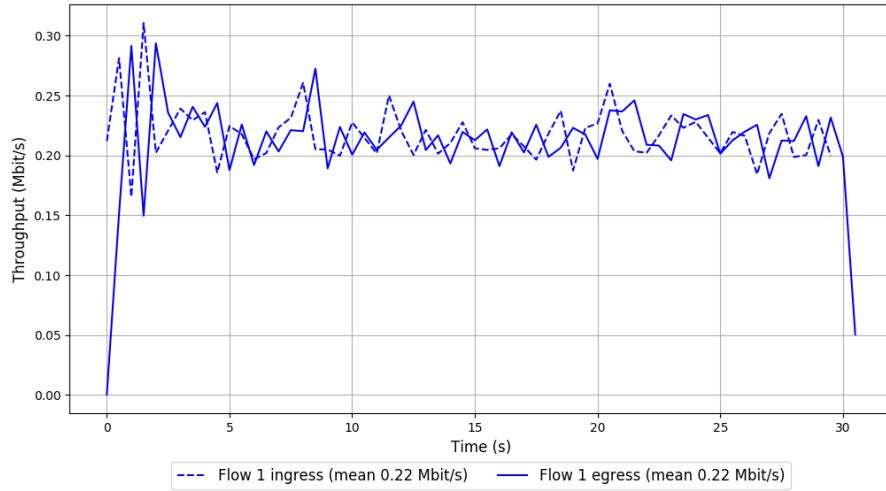
• Flow 1 (95th percentile 131.24 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-12-11 15:42:05
End at: 2019-12-11 15:42:35
Local clock offset: -0.189 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.264 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.264 ms
Loss rate: 0.00%
```

Run 3: 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 136.26 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-12-11 16:18:33
End at: 2019-12-11 16:19:03
Local clock offset: -0.28 ms
Remote clock offset: 0.01 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.155 ms
Loss rate: 0.00%
```
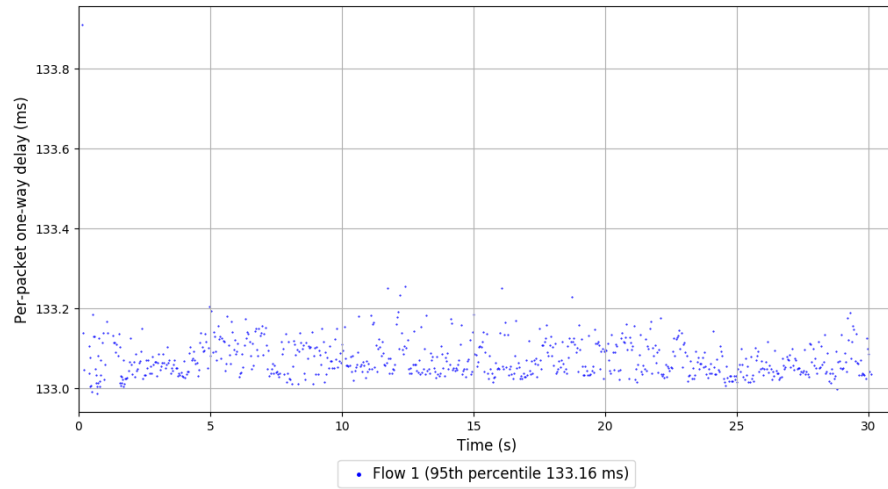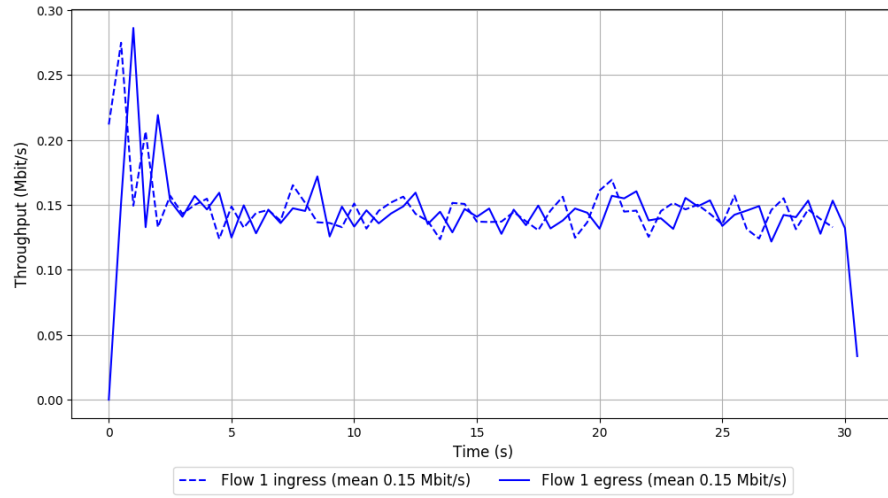
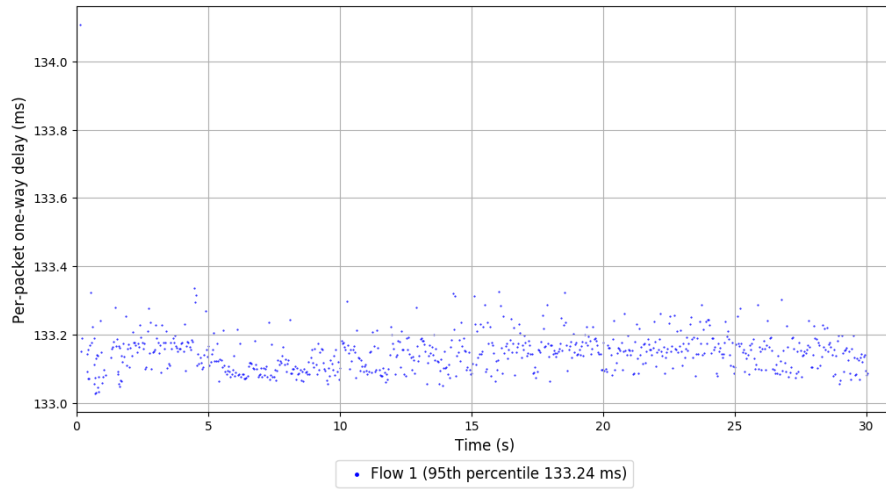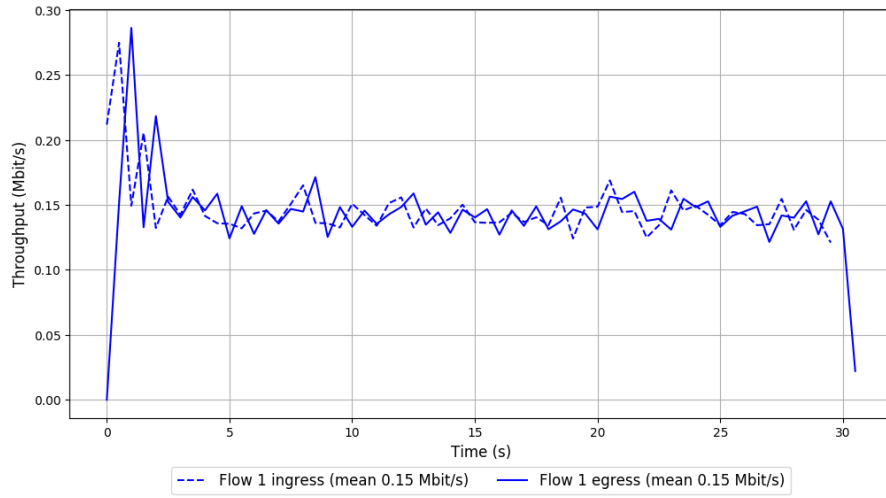Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-12-11 16:54:36
End at: 2019-12-11 16:55:06
Local clock offset: -0.417 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 133.241 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.15 Mbit/s)   Flow 1 egress (mean 0.15 Mbit/s)

Flow 1 (95th percentile 133.24 ms)

```
Run 1: Statistics of Sprout

Start at: 2019-12-11 14:59:56
End at: 2019-12-11 15:00:26
Local clock offset: -0.099 ms
Remote clock offset: 0.392 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 137.158 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 137.158 ms
Loss rate: 0.00%
```
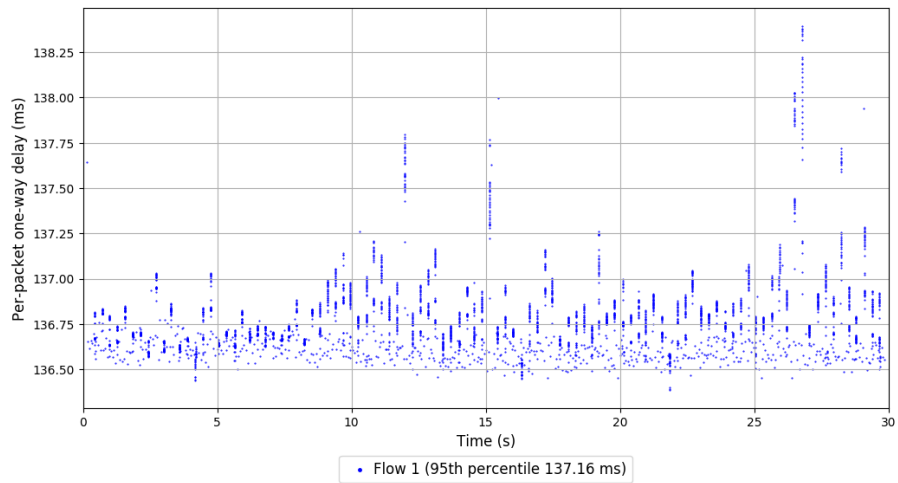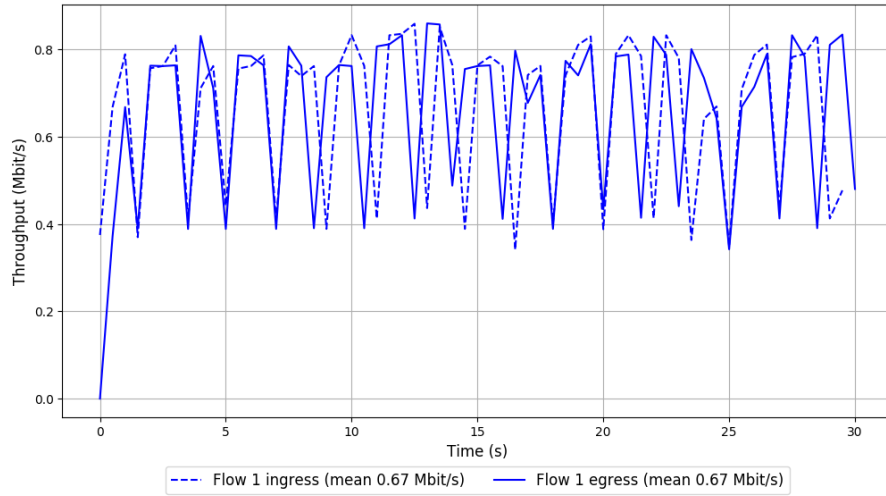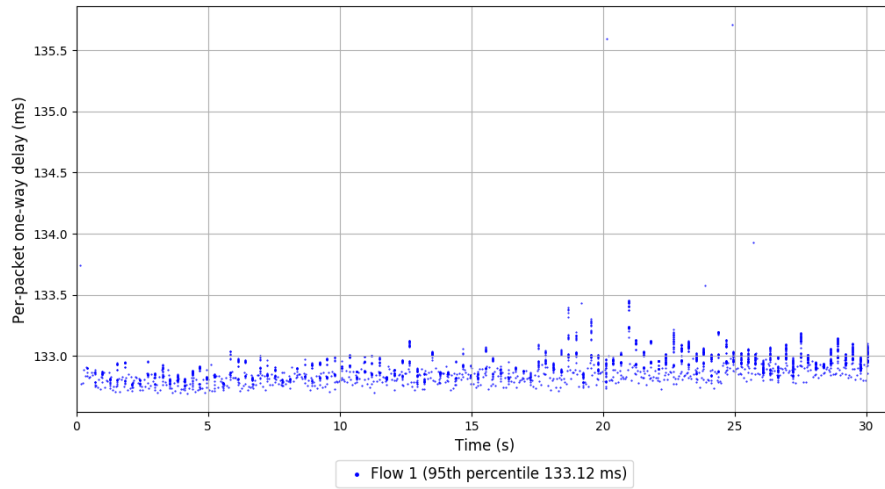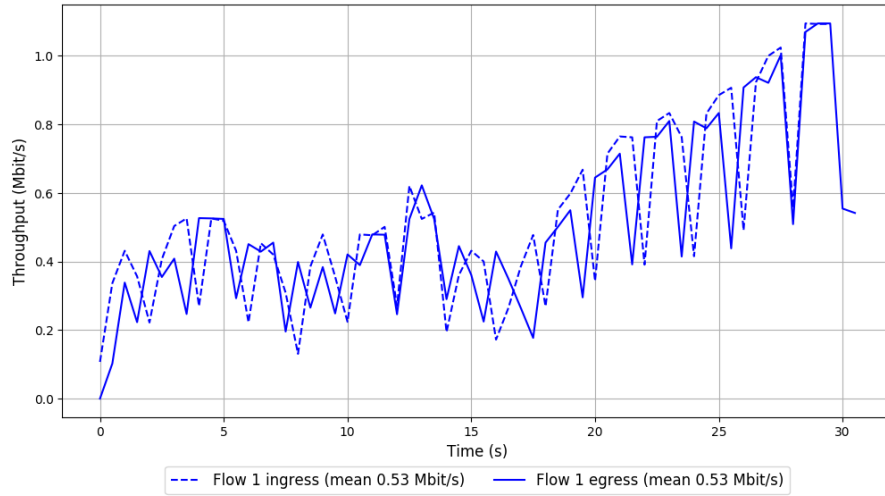
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-12-11 15:36:07
End at: 2019-12-11 15:36:37
Local clock offset: -0.164 ms
Remote clock offset: -0.109 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 133.116 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 133.116 ms
Loss rate: 0.00%
```
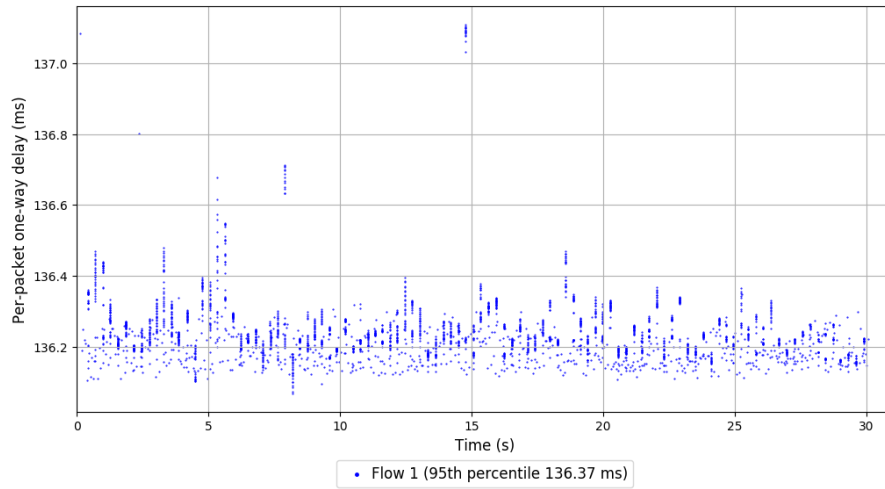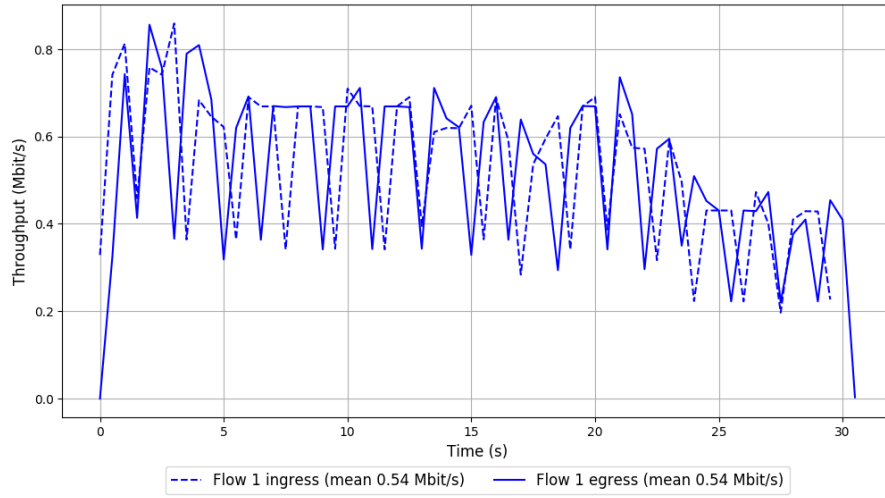
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-12-11 16:12:38
End at: 2019-12-11 16:13:08
Local clock offset: -0.345 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 136.368 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 136.368 ms
Loss rate: 0.00%
```
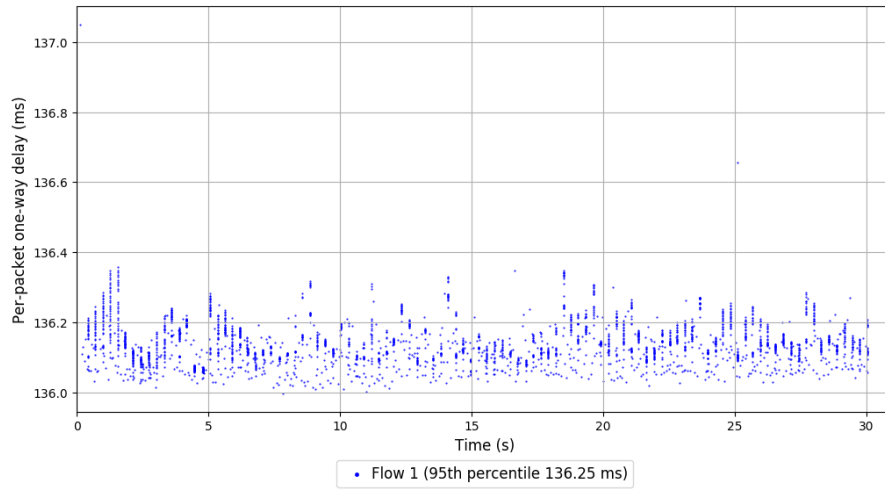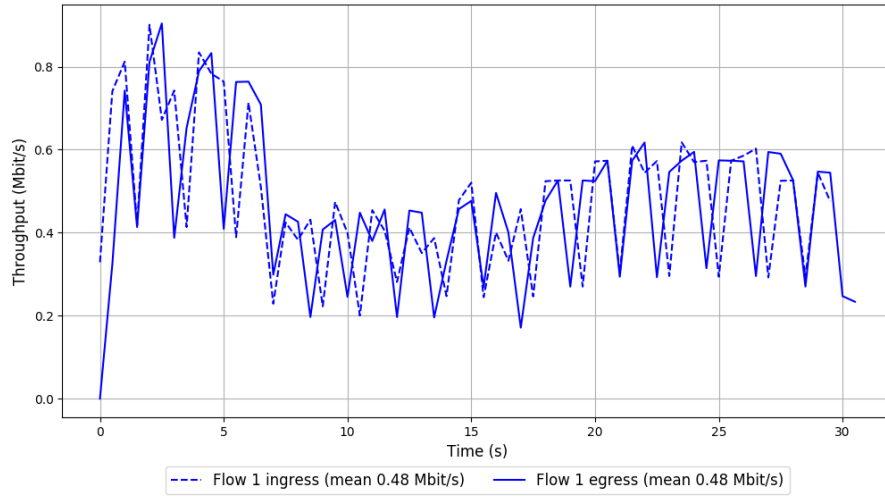
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-12-11 16:48:53
End at: 2019-12-11 16:49:23
Local clock offset: -0.397 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 136.249 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 136.249 ms
Loss rate: 0.00%
```
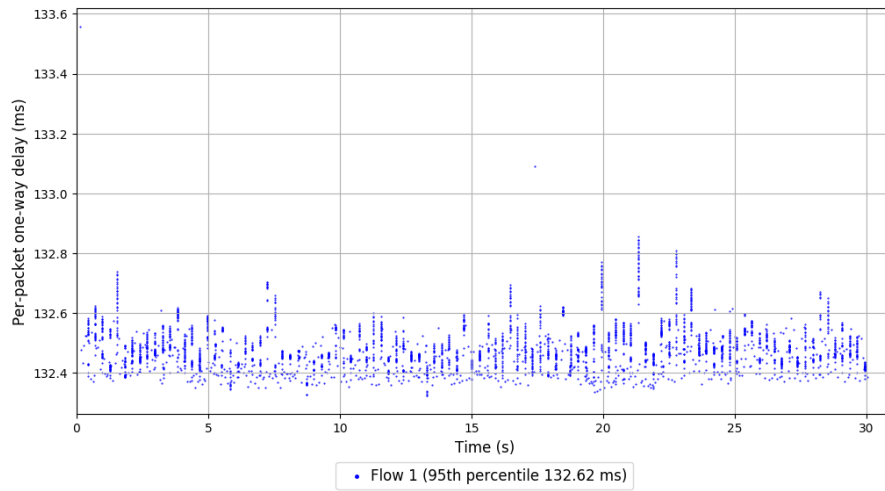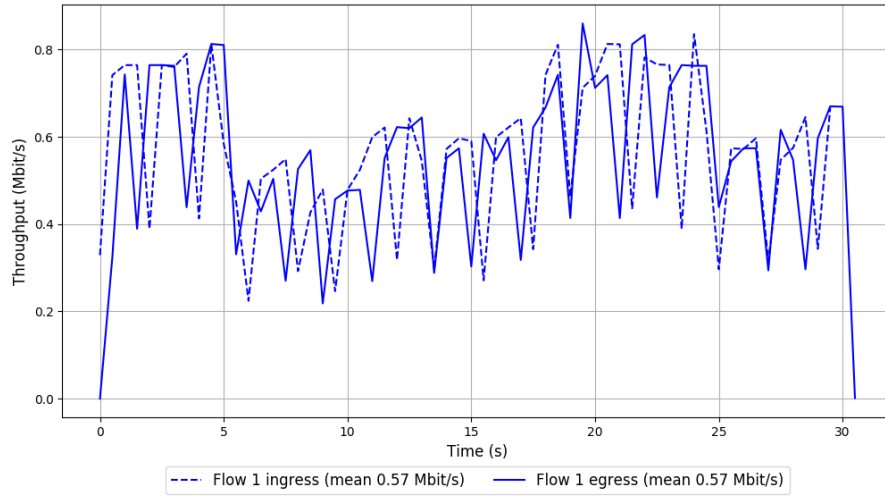
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-12-11 17:24:50
End at: 2019-12-11 17:25:20
Local clock offset: 0.301 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 132.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 132.615 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 0.57 Mbit/s) --- Flow 1 egress (mean 0.57 Mbit/s)
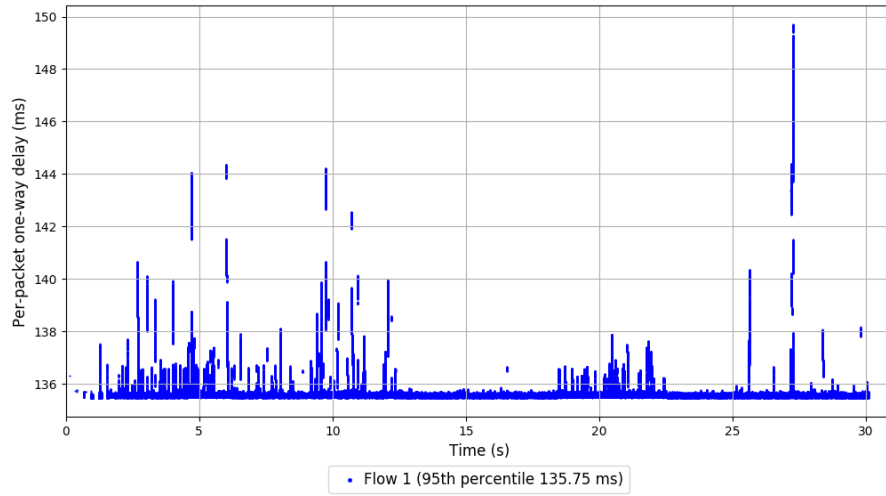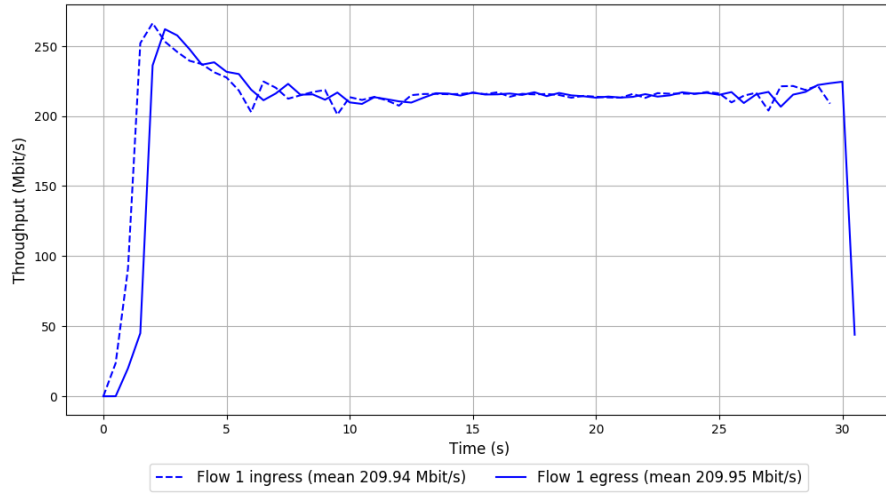

Flow 1 (95th percentile 132.62 ms)

```
Run 1: Statistics of TaoVA-100x

Start at: 2019-12-11 14:57:13
End at: 2019-12-11 14:57:43
Local clock offset: -0.039 ms
Remote clock offset: -0.396 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.95 Mbit/s
95th percentile per-packet one-way delay: 135.755 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.95 Mbit/s
95th percentile per-packet one-way delay: 135.755 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 209.94 Mbit/s)   Flow 1 egress (mean 209.95 Mbit/s)

• Flow 1 (95th percentile 135.75 ms)

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

Start at: 2019-12-11 15:33:27
End at: 2019-12-11 15:33:57
Local clock offset: -0.111 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 205.60 Mbit/s
95th percentile per-packet one-way delay: 132.941 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 205.60 Mbit/s
95th percentile per-packet one-way delay: 132.941 ms
Loss rate: 0.00%
```
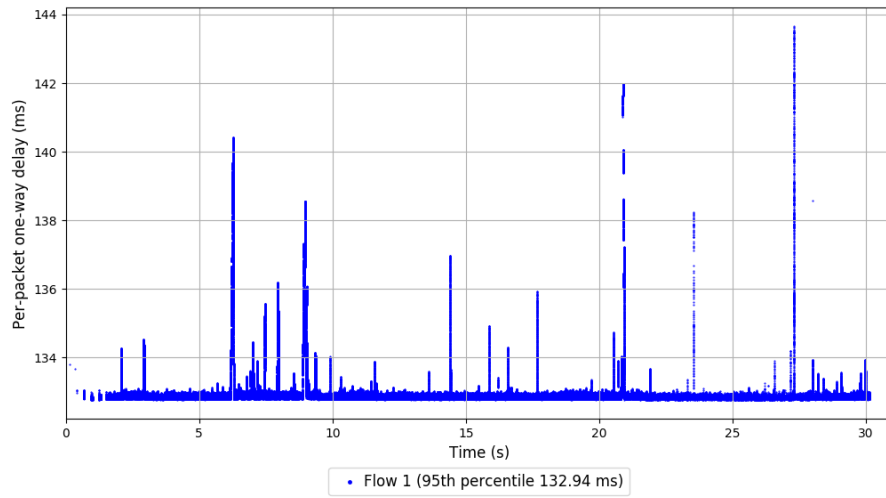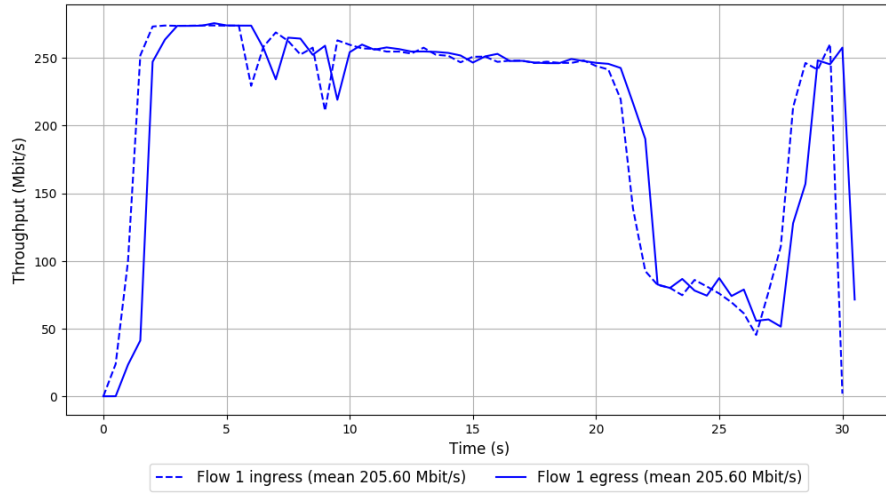
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 205.60 Mbit/s) --- Flow 1 egress (mean 205.60 Mbit/s)

· Flow 1 (95th percentile 132.94 ms)

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

Start at: 2019-12-11 16:09:58
End at: 2019-12-11 16:10:28
Local clock offset: -0.242 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2019-12-11 19:03:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.70 Mbit/s
95th percentile per-packet one-way delay: 133.170 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.70 Mbit/s
95th percentile per-packet one-way delay: 133.170 ms
Loss rate: 0.00%
```
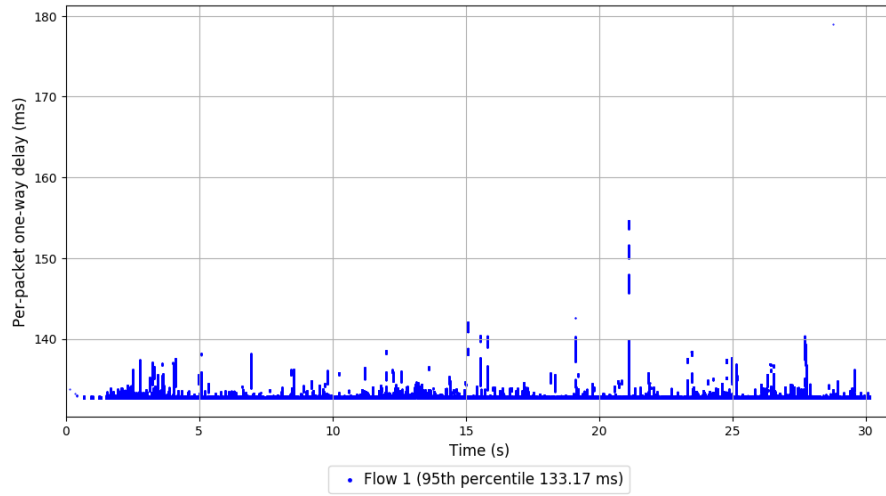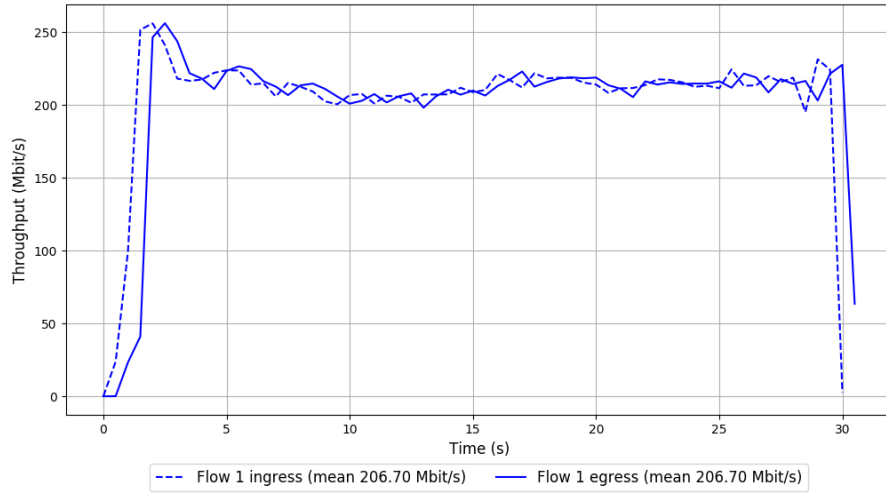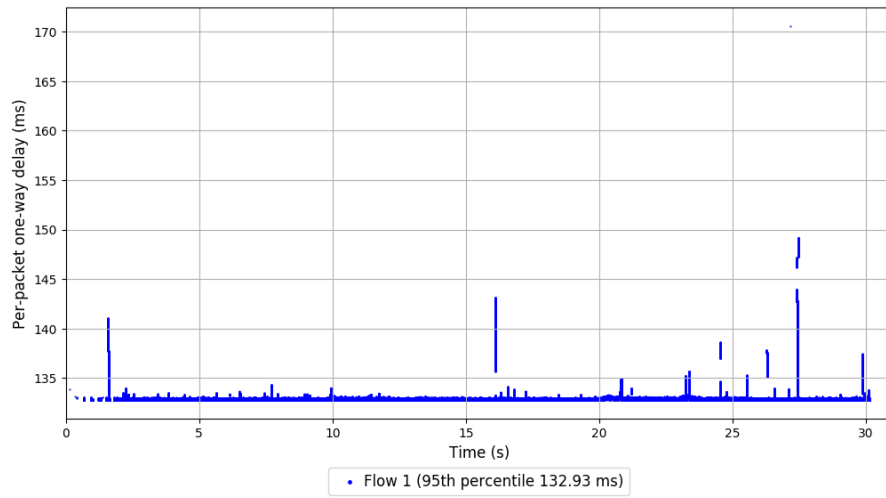
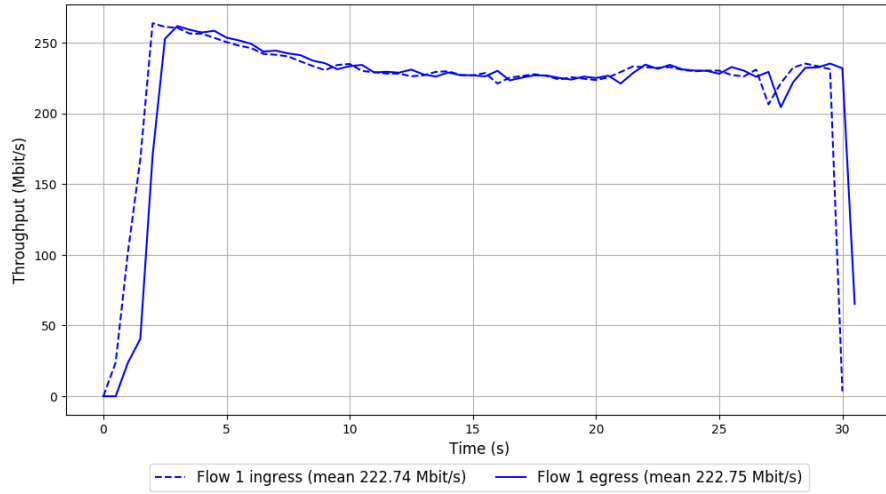Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2019-12-11 16:46:11
End at: 2019-12-11 16:46:41
Local clock offset: -0.321 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2019-12-11 19:03:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.75 Mbit/s
95th percentile per-packet one-way delay: 132.934 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.75 Mbit/s
95th percentile per-packet one-way delay: 132.934 ms
Loss rate: 0.00%
```

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

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

Start at: 2019-12-11 17:22:07
End at: 2019-12-11 17:22:37
Local clock offset: 0.188 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-12-11 19:04:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.56 Mbit/s
95th percentile per-packet one-way delay: 134.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.56 Mbit/s
95th percentile per-packet one-way delay: 134.353 ms
Loss rate: 0.00%
```
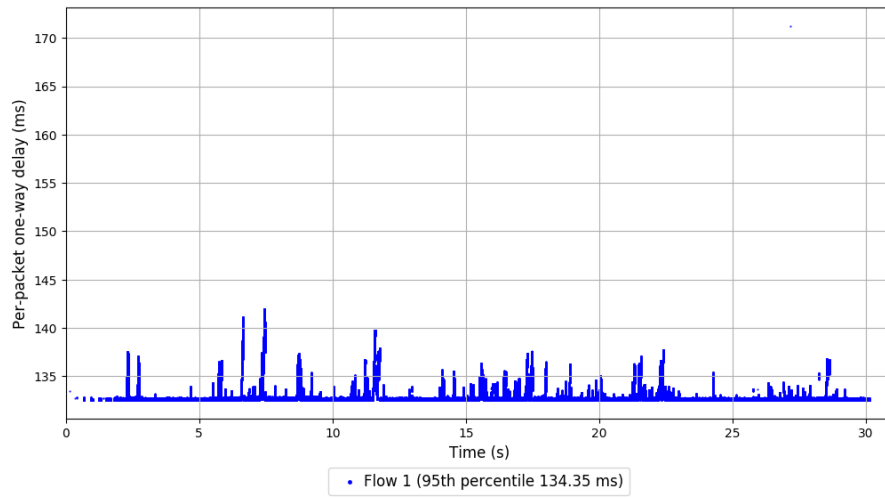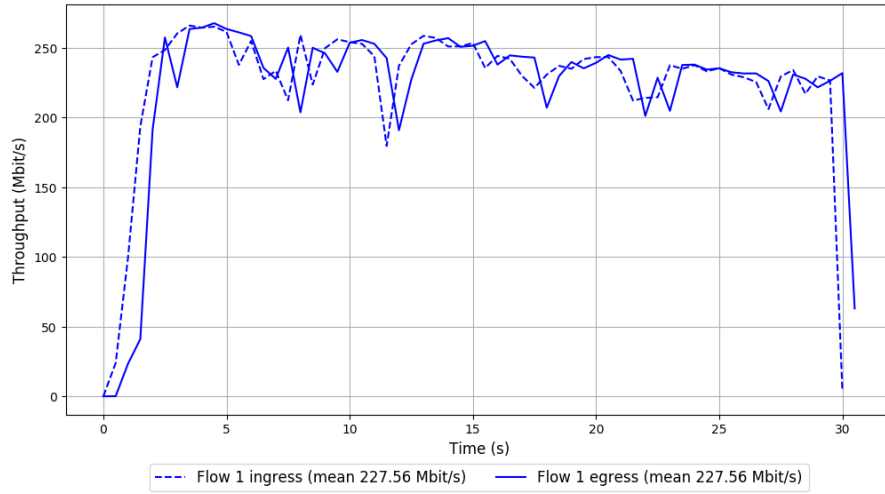
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 227.56 Mbit/s) --- Flow 1 egress (mean 227.56 Mbit/s)
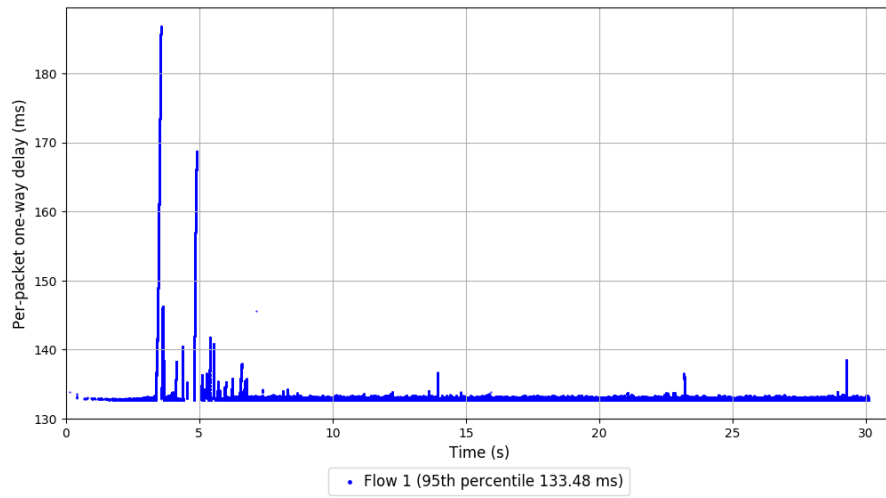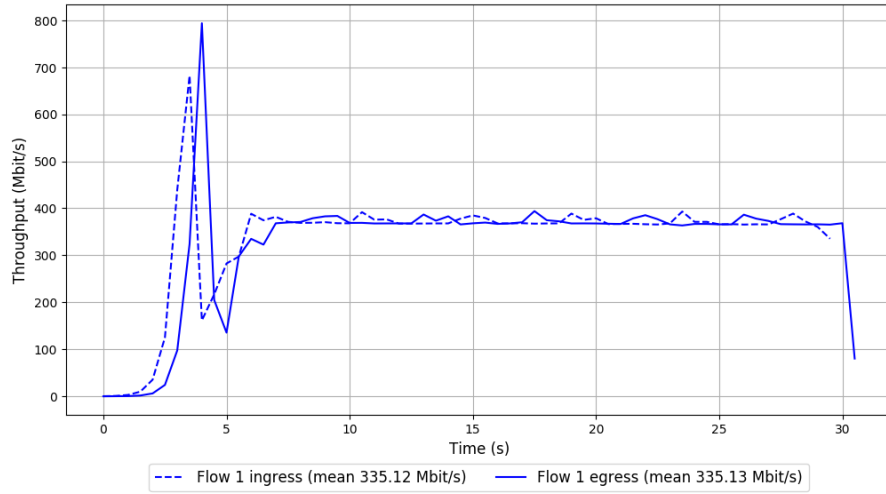

Flow 1 (95th percentile 134.35 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-12-11 14:25:45
End at: 2019-12-11 14:26:15
Local clock offset: -0.144 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-12-11 19:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 335.13 Mbit/s
95th percentile per-packet one-way delay: 133.483 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 335.13 Mbit/s
95th percentile per-packet one-way delay: 133.483 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 335.12 Mbit/s) ——— Flow 1 egress (mean 335.13 Mbit/s)

• Flow 1 (95th percentile 133.48 ms)

```
Run 2: Statistics of TCP Vegas

Start at: 2019-12-11 15:01:07
End at: 2019-12-11 15:01:37
Local clock offset: 0.315 ms
Remote clock offset: 0.359 ms


# Below is generated by plot.py at 2019-12-11 19:06:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 267.30 Mbit/s
95th percentile per-packet one-way delay: 144.662 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 267.30 Mbit/s
95th percentile per-packet one-way delay: 144.662 ms
Loss rate: 0.00%
```
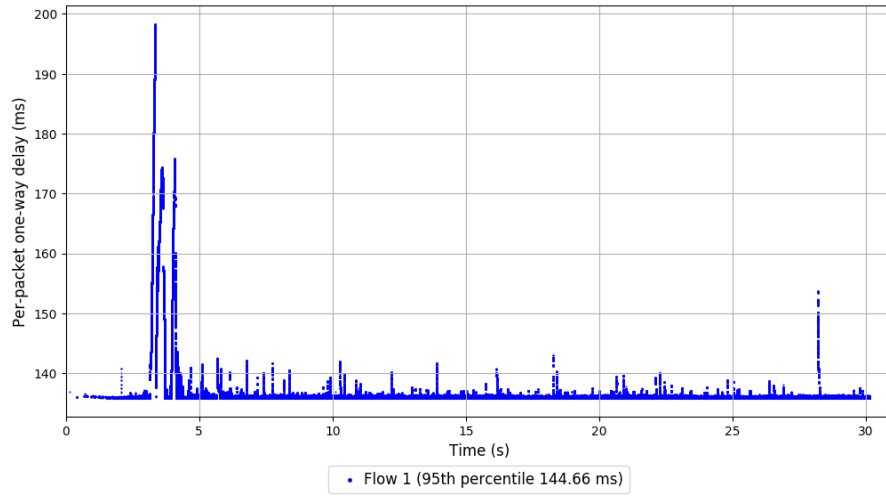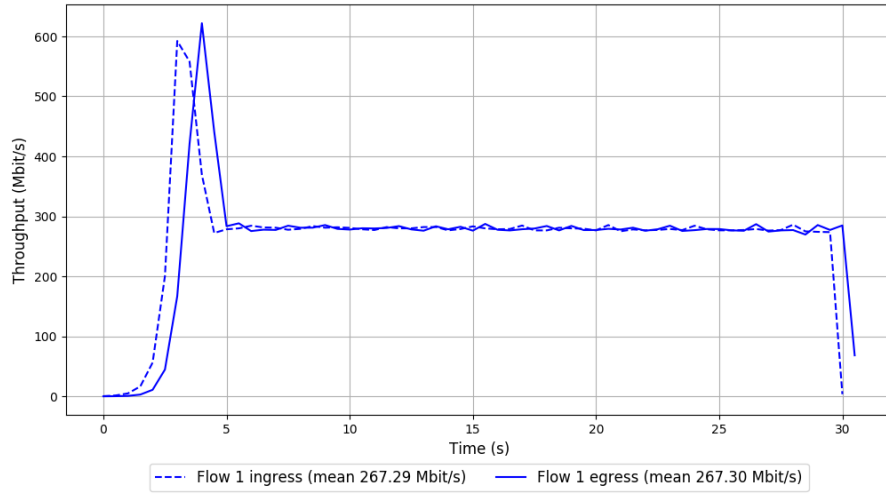
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 267.29 Mbit/s)   Flow 1 egress (mean 267.30 Mbit/s)
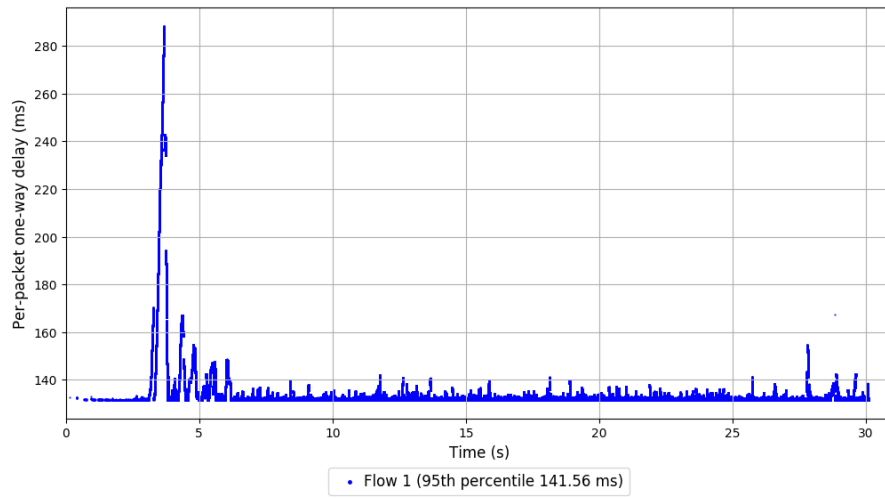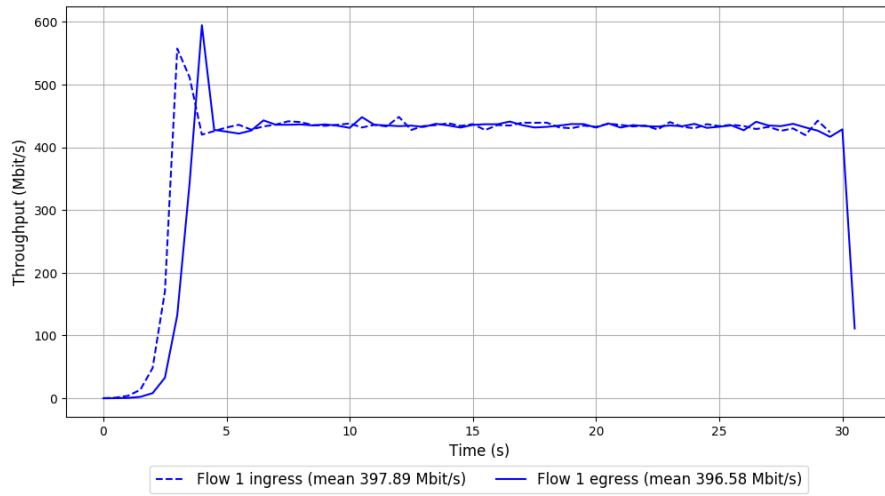

Flow 1 (95th percentile 144.66 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2019-12-11 15:37:18
End at: 2019-12-11 15:37:48
Local clock offset: -0.093 ms
Remote clock offset: -0.443 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 396.58 Mbit/s
95th percentile per-packet one-way delay: 141.558 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 396.58 Mbit/s
95th percentile per-packet one-way delay: 141.558 ms
Loss rate: 0.33%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 397.89 Mbit/s)   Flow 1 egress (mean 396.58 Mbit/s)
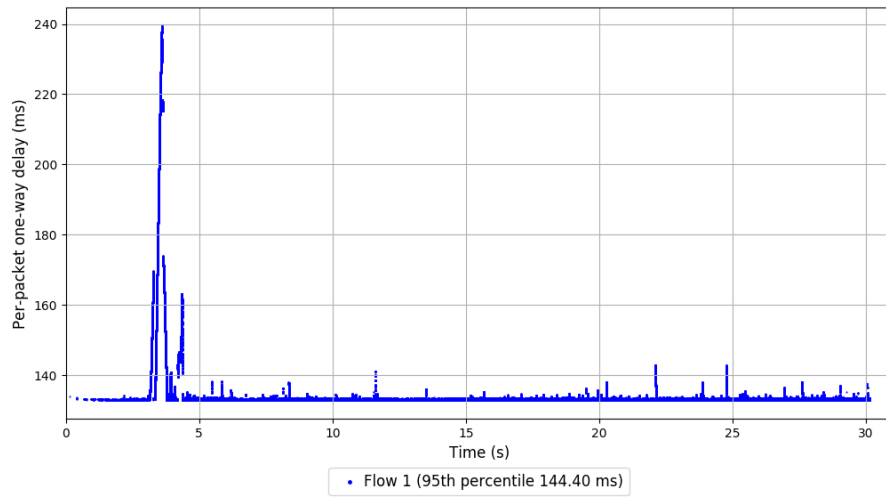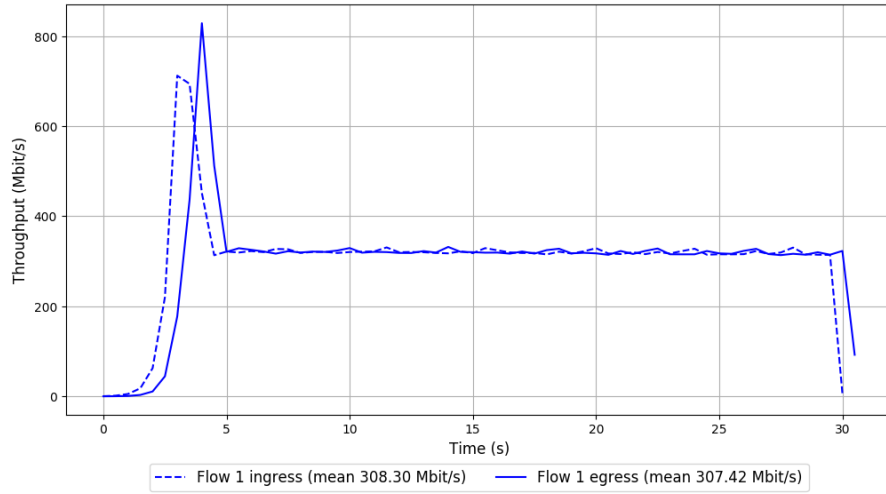

Flow 1 (95th percentile 141.56 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-12-11 16:13:48
End at: 2019-12-11 16:14:18
Local clock offset: -0.283 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 307.42 Mbit/s
95th percentile per-packet one-way delay: 144.396 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 307.42 Mbit/s
95th percentile per-packet one-way delay: 144.396 ms
Loss rate: 0.29%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 308.30 Mbit/s)   Flow 1 egress (mean 307.42 Mbit/s)
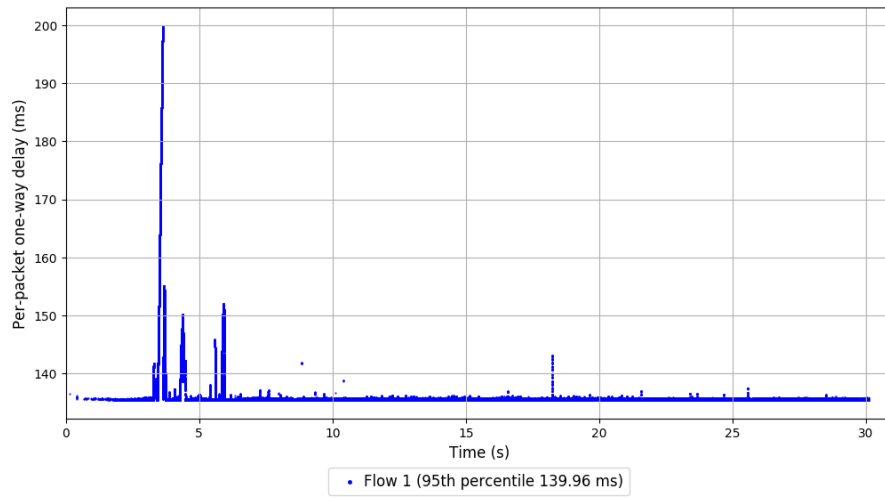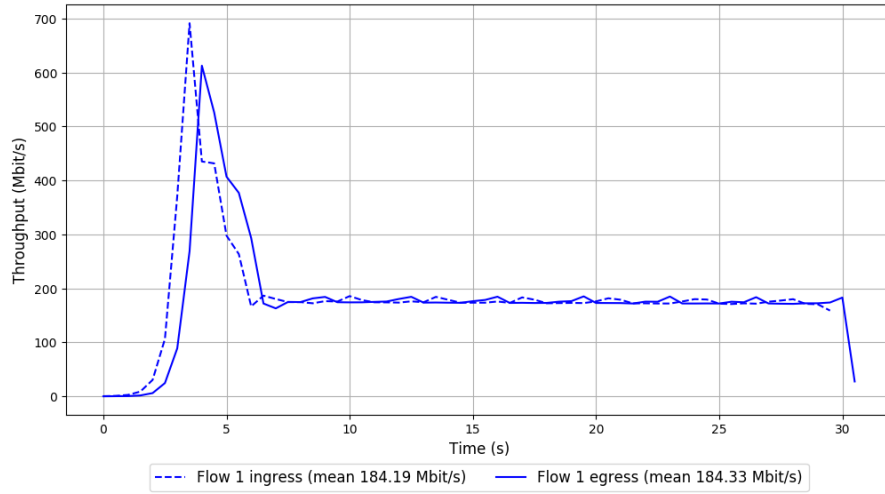

Flow 1 (95th percentile 144.40 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2019-12-11 16:50:03
End at: 2019-12-11 16:50:33
Local clock offset: 0.013 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.33 Mbit/s
95th percentile per-packet one-way delay: 139.958 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.33 Mbit/s
95th percentile per-packet one-way delay: 139.958 ms
Loss rate: 0.00%
```
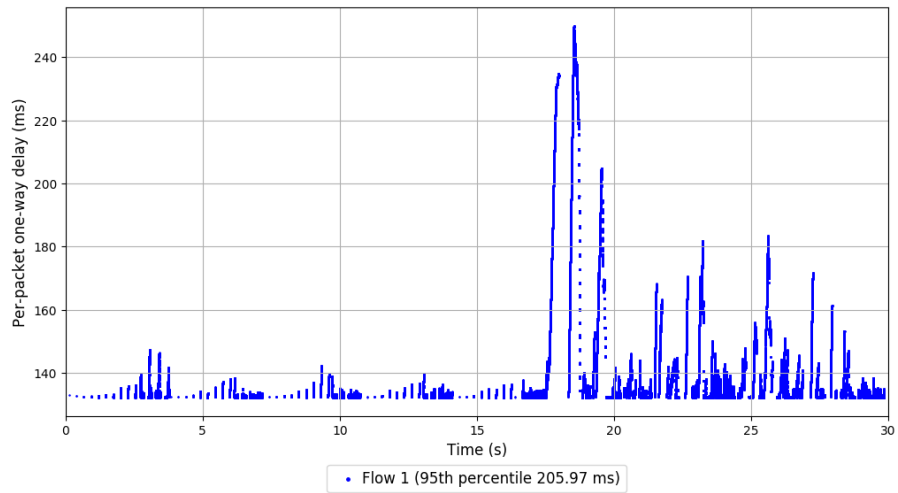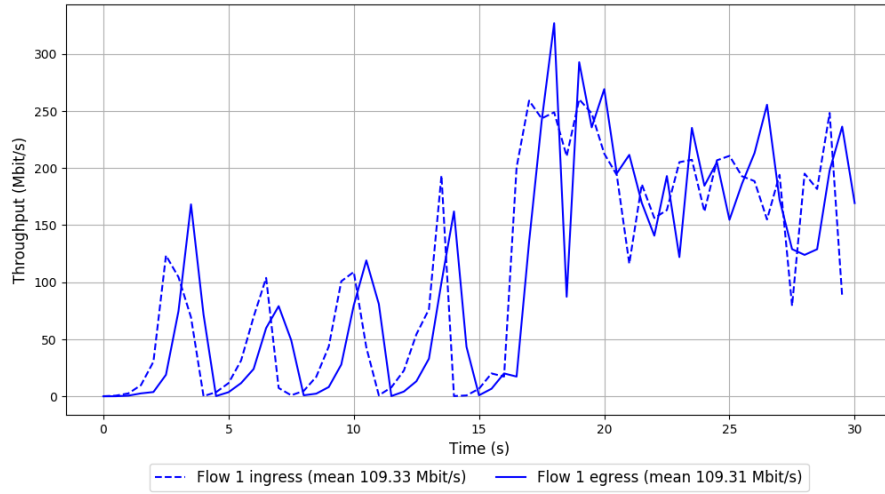
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-12-11 14:33:09
End at: 2019-12-11 14:33:39
Local clock offset: 0.233 ms
Remote clock offset: -0.462 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 109.31 Mbit/s
95th percentile per-packet one-way delay: 205.973 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 109.31 Mbit/s
95th percentile per-packet one-way delay: 205.973 ms
Loss rate: 0.01%
```

Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-12-11 15:08:47
End at: 2019-12-11 15:09:17
Local clock offset: -0.06 ms
Remote clock offset: 0.015 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.11 Mbit/s
95th percentile per-packet one-way delay: 170.620 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 58.11 Mbit/s
95th percentile per-packet one-way delay: 170.620 ms
Loss rate: 0.01%
```
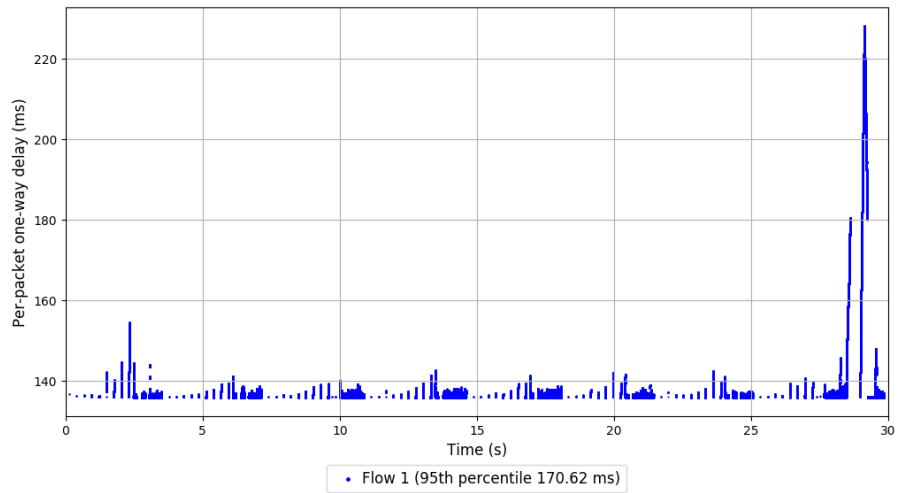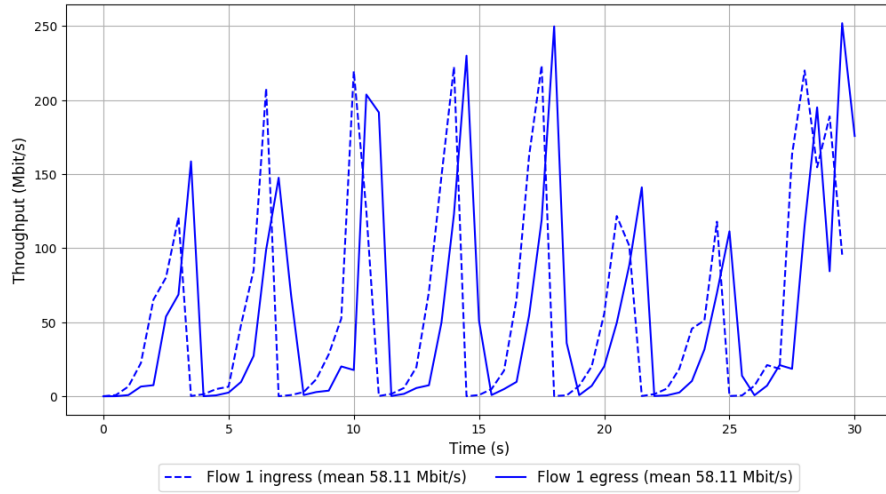
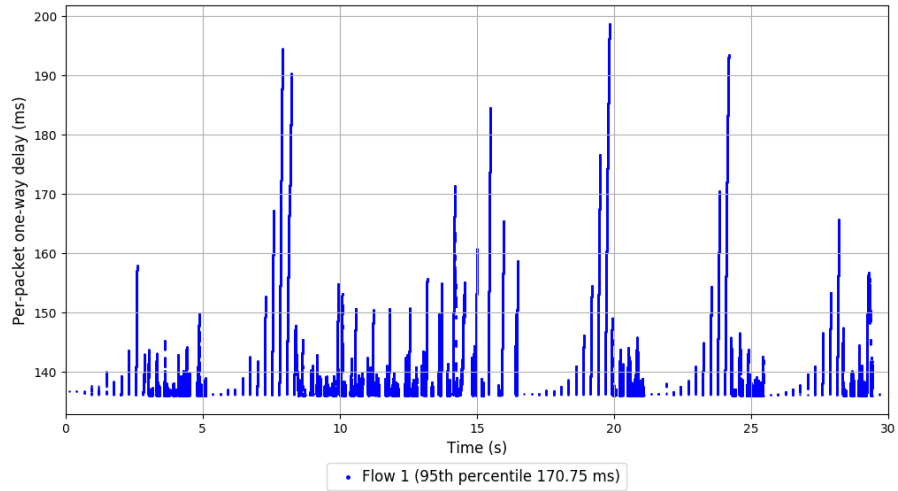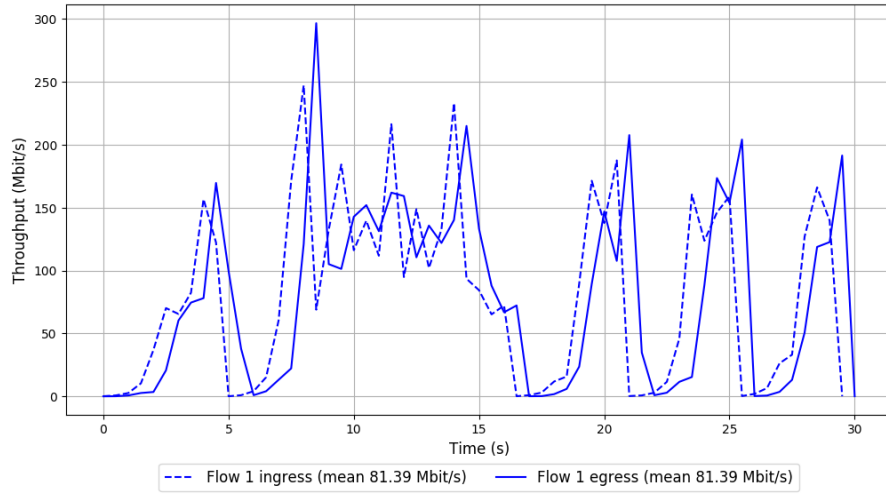## Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-12-11 15:45:01
End at: 2019-12-11 15:45:31
Local clock offset: -0.191 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2019-12-11 19:08:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 170.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 81.39 Mbit/s
95th percentile per-packet one-way delay: 170.745 ms
Loss rate: 0.00%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-12-11 16:21:28
End at: 2019-12-11 16:21:58
Local clock offset: 0.036 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2019-12-11 19:10:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.40 Mbit/s
95th percentile per-packet one-way delay: 280.979 ms
Loss rate: 9.27%
-- Flow 1:
Average throughput: 196.40 Mbit/s
95th percentile per-packet one-way delay: 280.979 ms
Loss rate: 9.27%
```
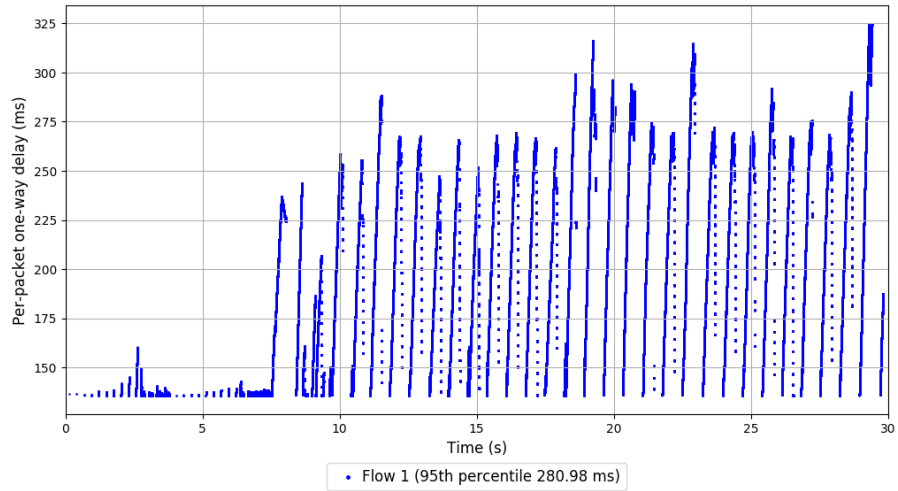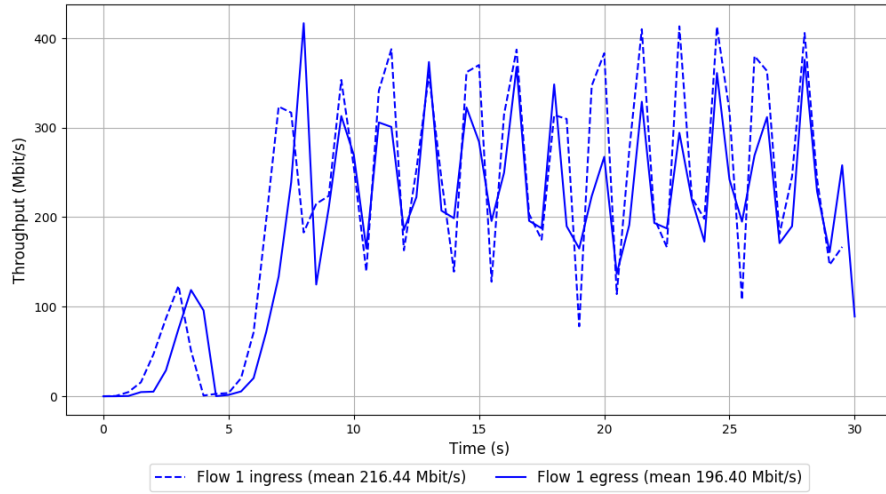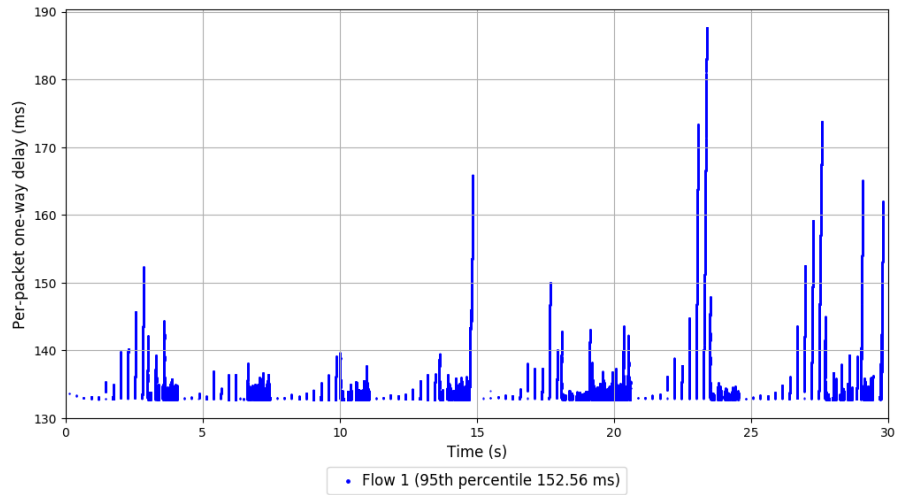
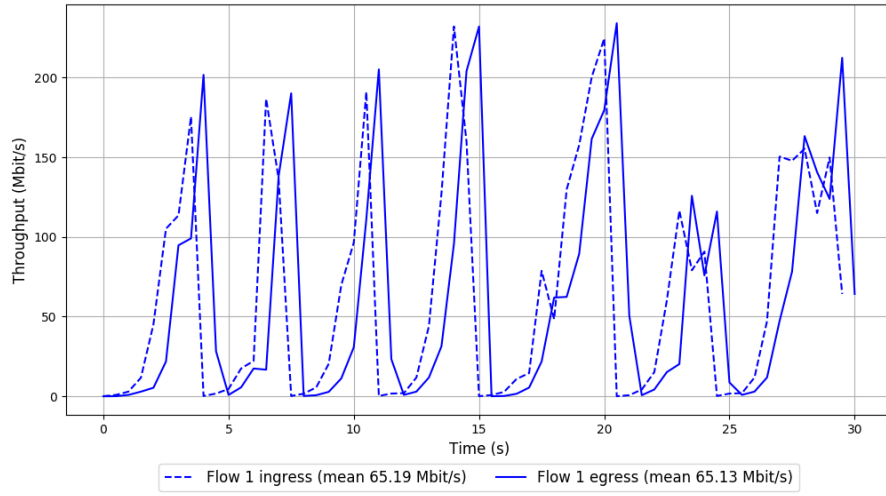## Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-12-11 16:57:31
End at: 2019-12-11 16:58:01
Local clock offset: -0.287 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-12-11 19:10:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.13 Mbit/s
95th percentile per-packet one-way delay: 152.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 65.13 Mbit/s
95th percentile per-packet one-way delay: 152.556 ms
Loss rate: 0.00%
```

Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-12-11 14:52:56
End at: 2019-12-11 14:53:26
Local clock offset: -0.084 ms
Remote clock offset: -0.366 ms


# Below is generated by plot.py at 2019-12-11 19:10:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.21 Mbit/s
95th percentile per-packet one-way delay: 135.651 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.21 Mbit/s
95th percentile per-packet one-way delay: 135.651 ms
Loss rate: 0.00%
```
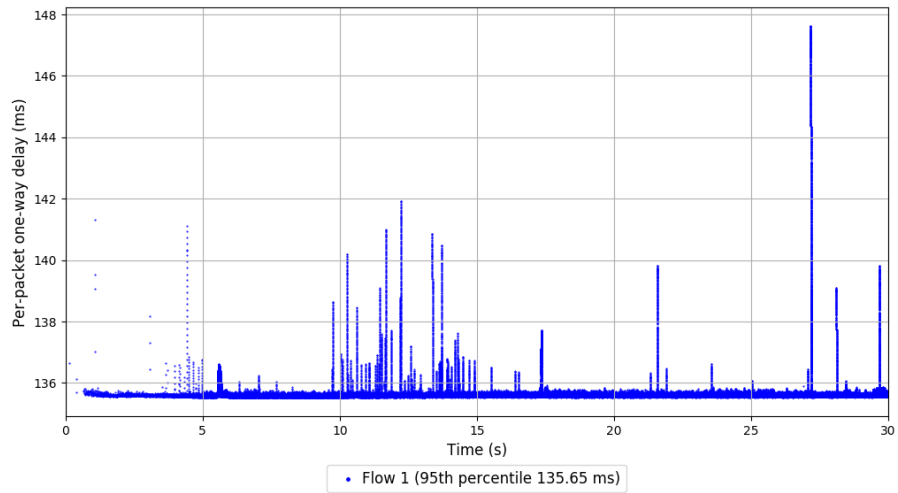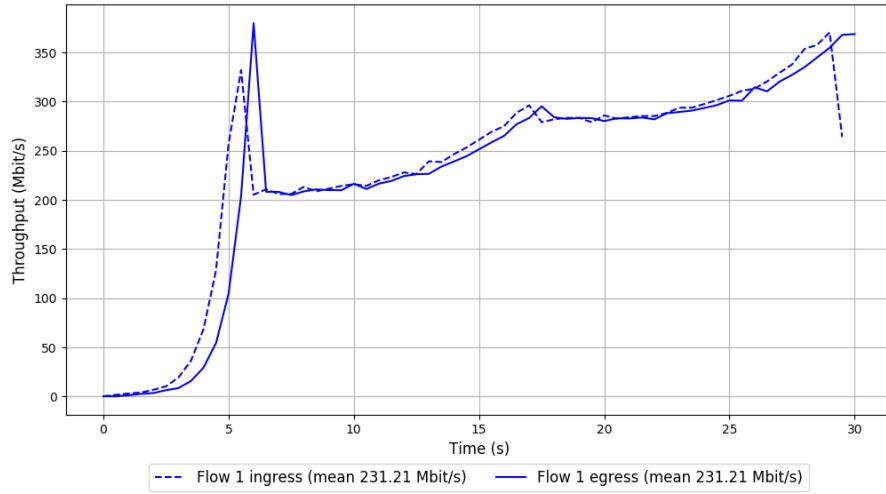
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-12-11 15:29:00
End at: 2019-12-11 15:29:30
Local clock offset: 0.256 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2019-12-11 19:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 315.49 Mbit/s
95th percentile per-packet one-way delay: 138.031 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 315.49 Mbit/s
95th percentile per-packet one-way delay: 138.031 ms
Loss rate: 0.00%
```
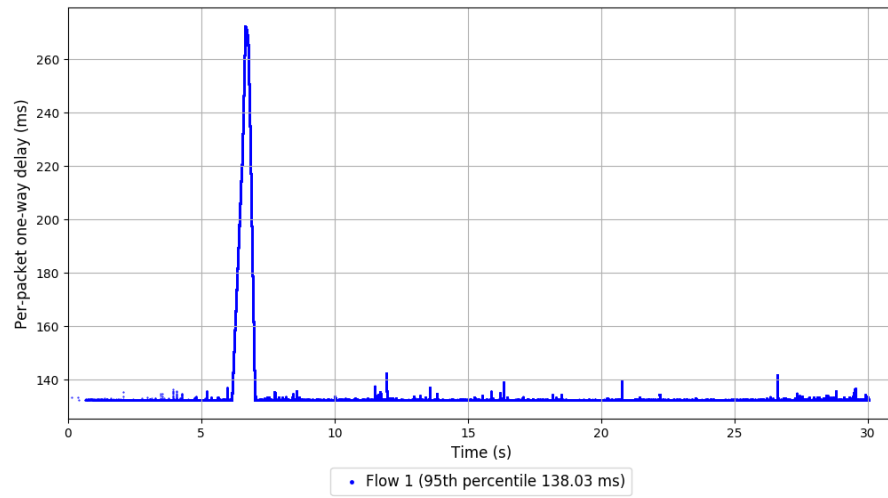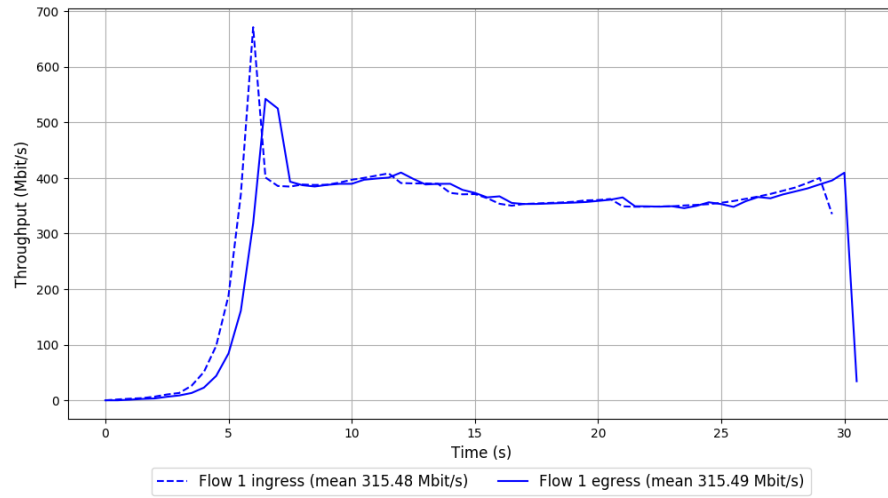
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 315.48 Mbit/s)   Flow 1 egress (mean 315.49 Mbit/s)
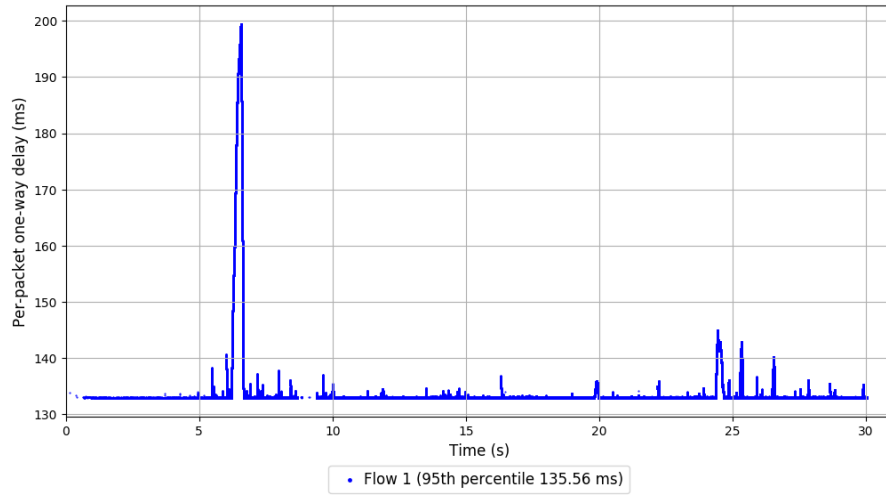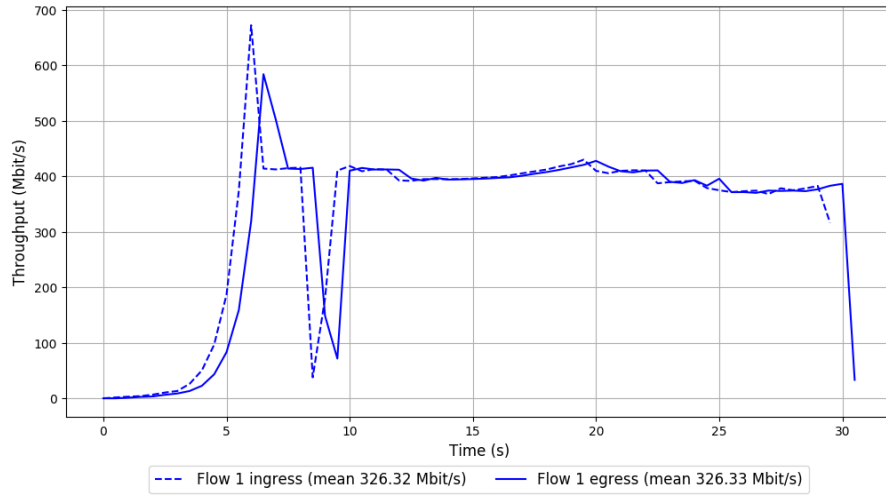

Flow 1 (95th percentile 138.03 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-12-11 16:05:31
End at: 2019-12-11 16:06:01
Local clock offset: -0.258 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-12-11 19:10:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 326.33 Mbit/s
95th percentile per-packet one-way delay: 135.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 326.33 Mbit/s
95th percentile per-packet one-way delay: 135.559 ms
Loss rate: 0.00%
```

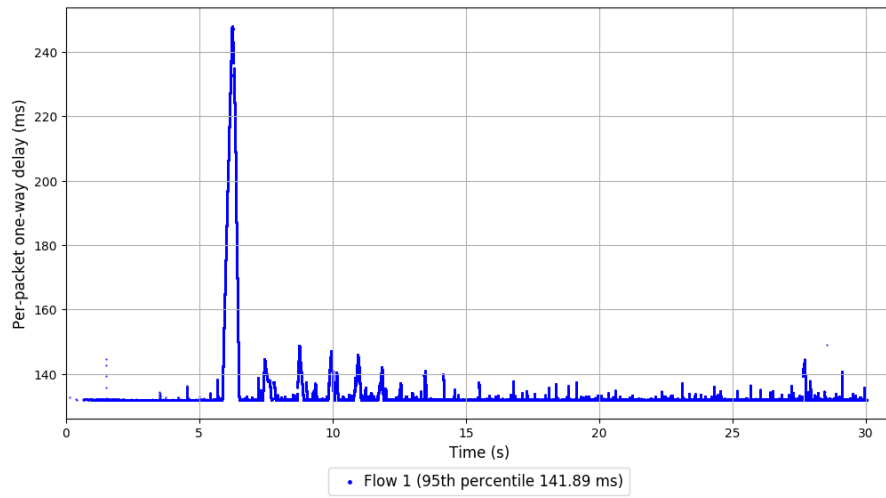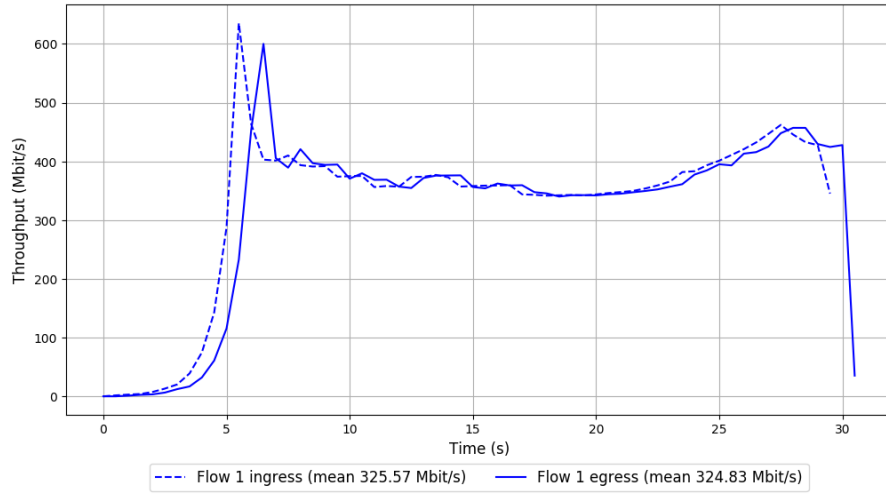# Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-12-11 16:41:42
End at: 2019-12-11 16:42:12
Local clock offset: -0.325 ms
Remote clock offset: -0.137 ms

# Below is generated by plot.py at 2019-12-11 19:10:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 324.83 Mbit/s
95th percentile per-packet one-way delay: 141.889 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 324.83 Mbit/s
95th percentile per-packet one-way delay: 141.889 ms
Loss rate: 0.23%
```

Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-12-11 17:17:40
End at: 2019-12-11 17:18:10
Local clock offset: 0.215 ms
Remote clock offset: -0.147 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 327.01 Mbit/s
95th percentile per-packet one-way delay: 140.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 327.01 Mbit/s
95th percentile per-packet one-way delay: 140.555 ms
Loss rate: 0.00%
```
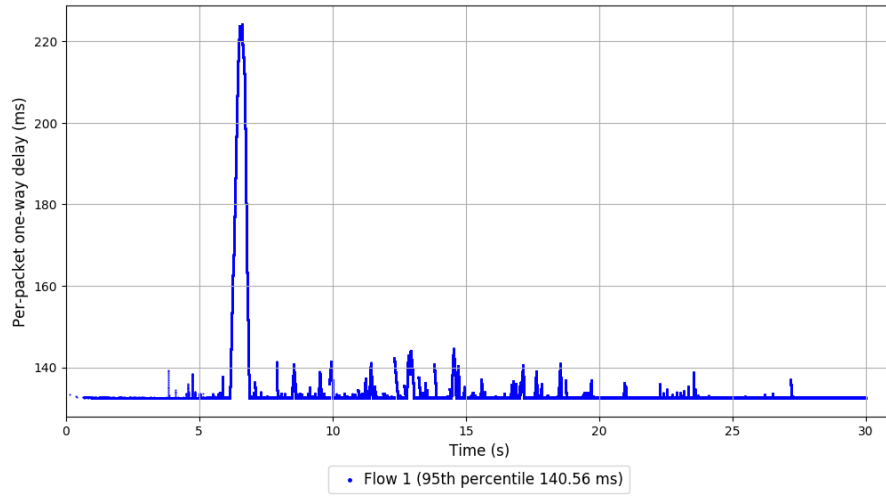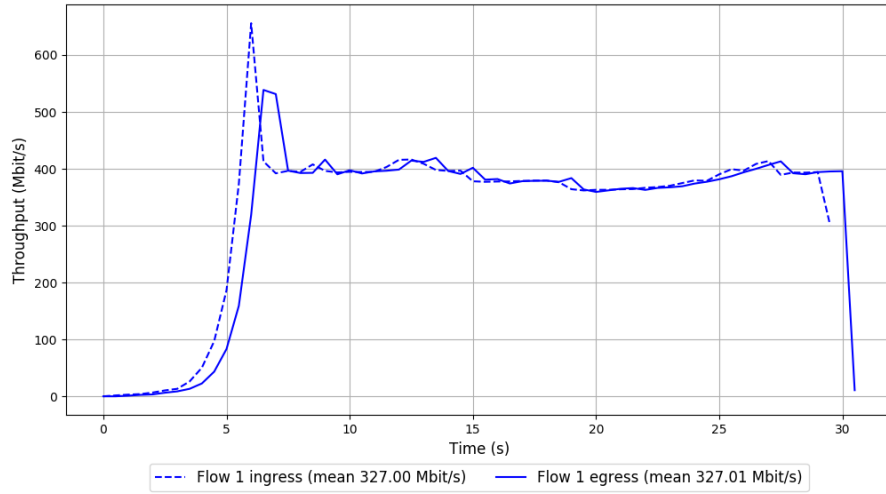
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 327.00 Mbit/s)   Flow 1 egress (mean 327.01 Mbit/s)

Flow 1 (95th percentile 140.56 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2019-12-11 14:58:45
End at: 2019-12-11 14:59:15
Local clock offset: -0.03 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 133.191 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 133.191 ms
Loss rate: 0.00%
```
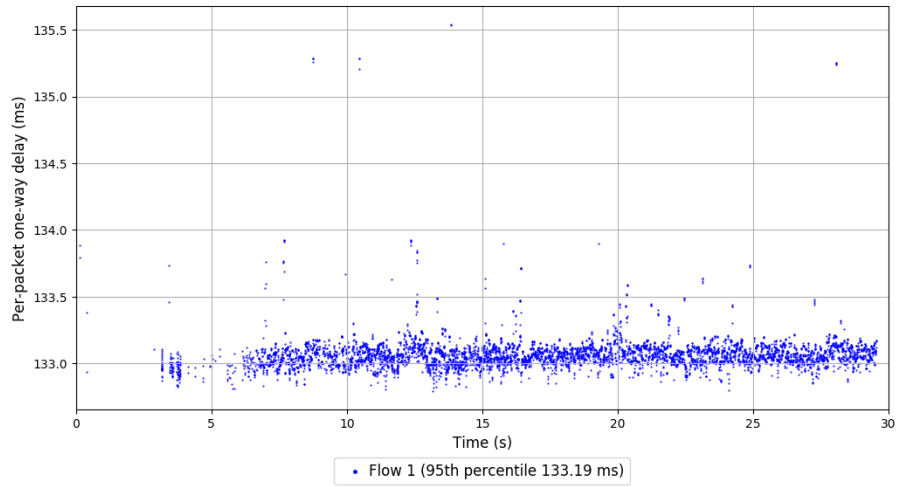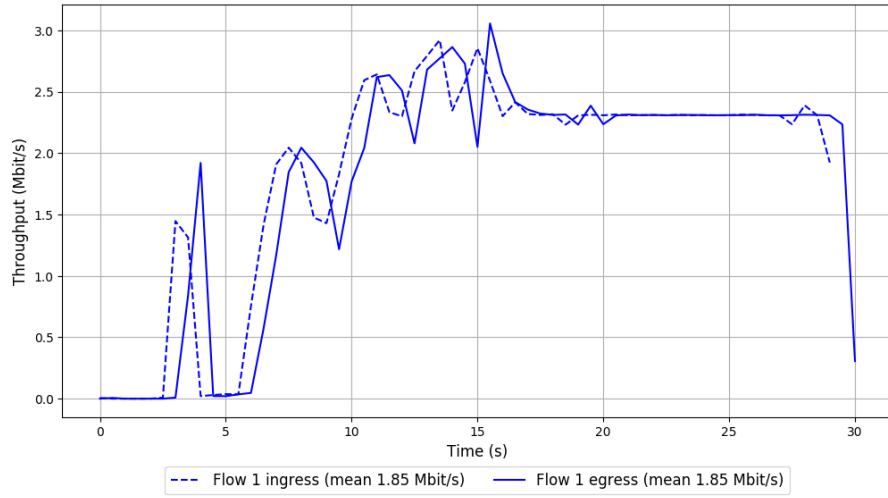
Run 1: Report of WebRTC media — Data Link
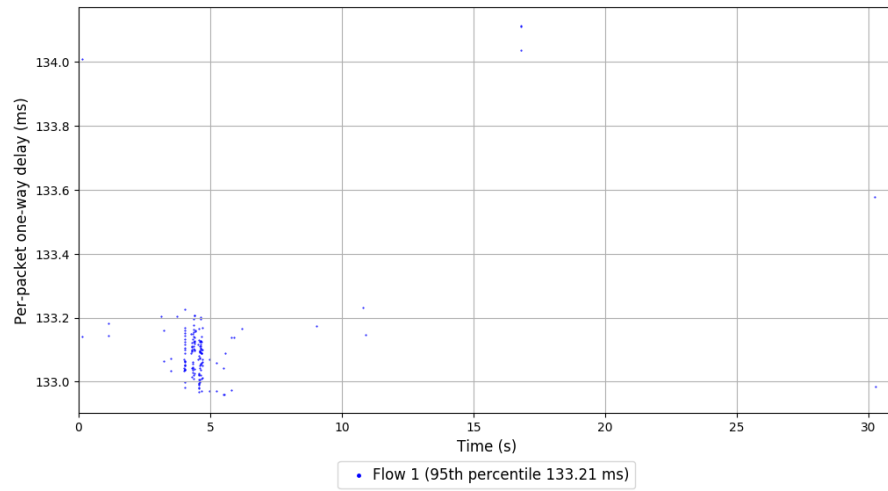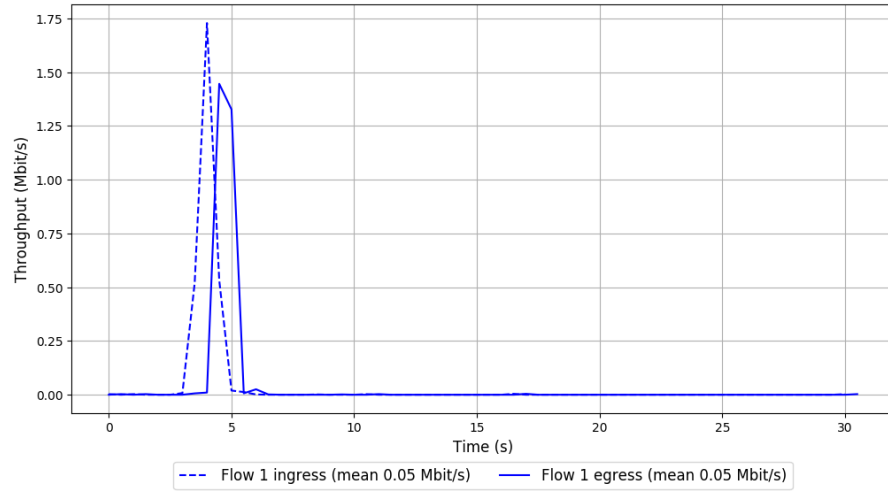


```
Run 2: Statistics of WebRTC media

Start at: 2019-12-11 15:34:57
End at: 2019-12-11 15:35:27
Local clock offset: -0.216 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.206 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.206 ms
Loss rate: 0.00%
```

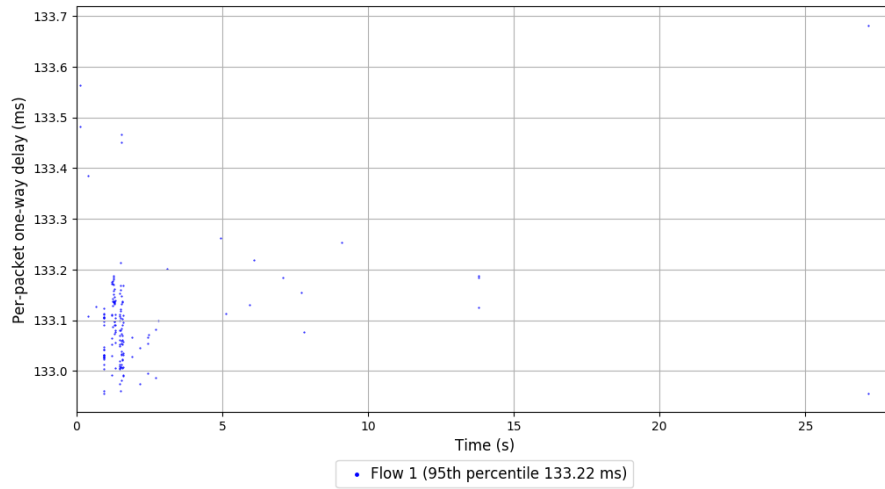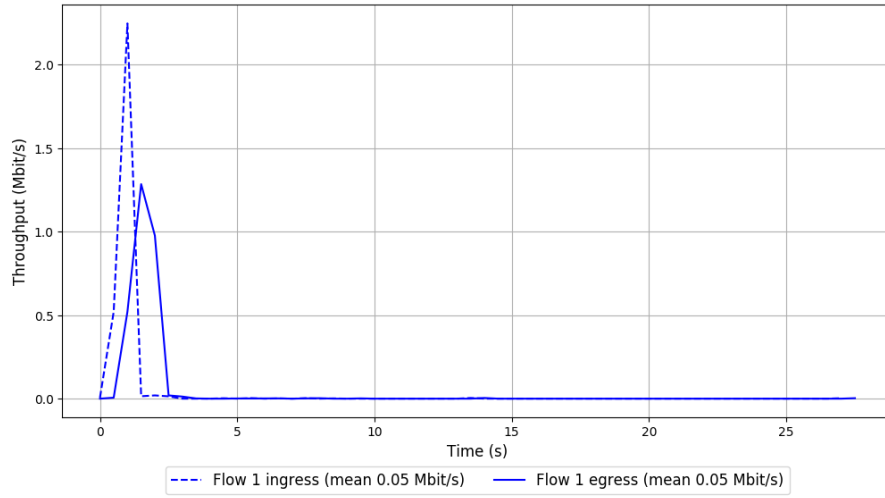Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-12-11 16:11:28
End at: 2019-12-11 16:11:58
Local clock offset: -0.308 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.219 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 133.219 ms
Loss rate: 0.00%
```

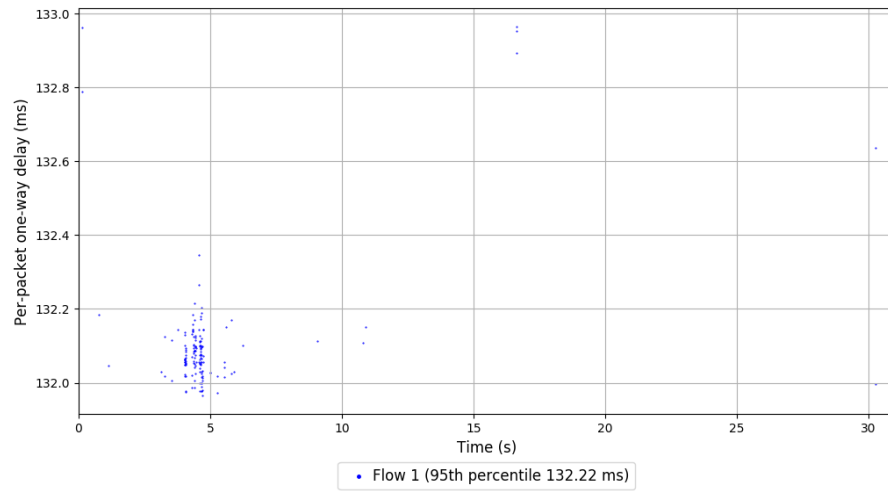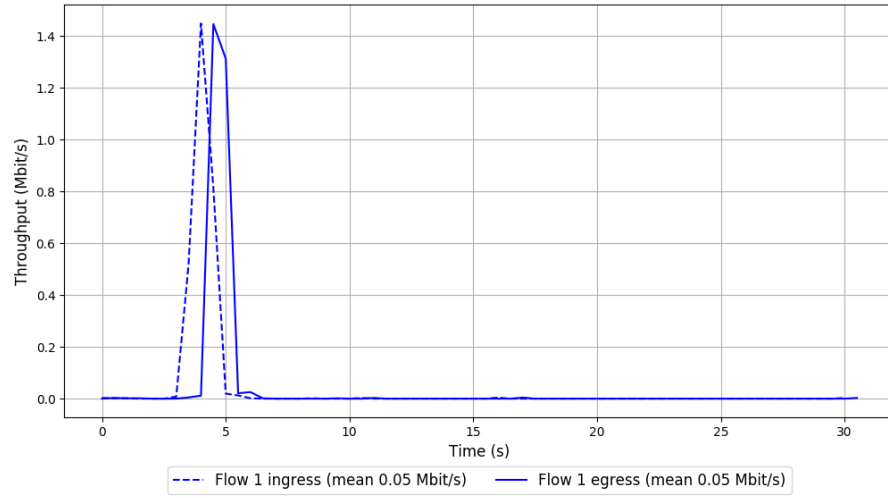Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-12-11 16:47:43
End at: 2019-12-11 16:48:13
Local clock offset: -0.307 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 132.216 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-12-11 17:23:39
End at: 2019-12-11 17:24:09
Local clock offset: 0.207 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-12-11 19:10:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 132.715 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 132.715 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link