Pantheon Report

Generated at 2019-12-12 08:13:35 (UTC).

Data path: GCE London on ens4 (*local*) →GCE Iowa 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.
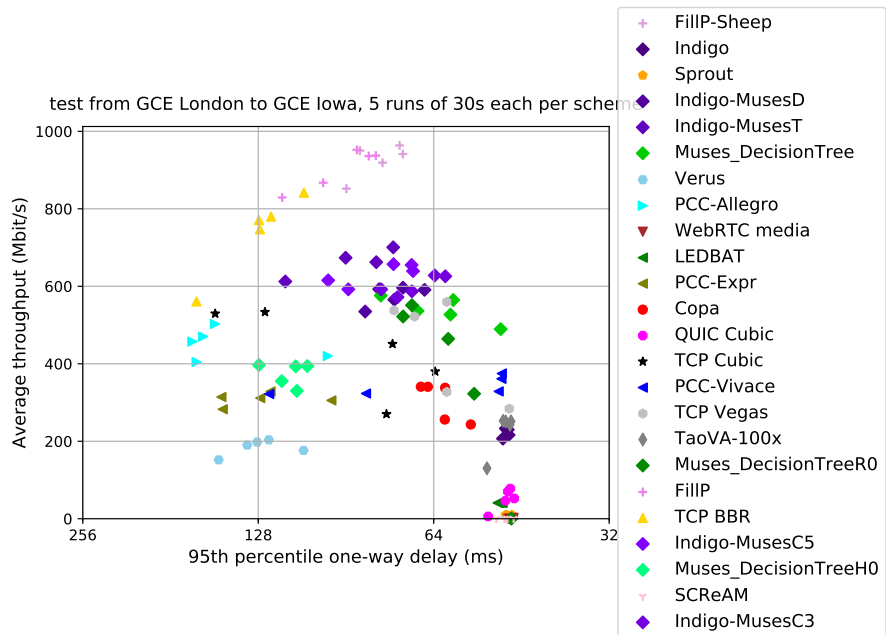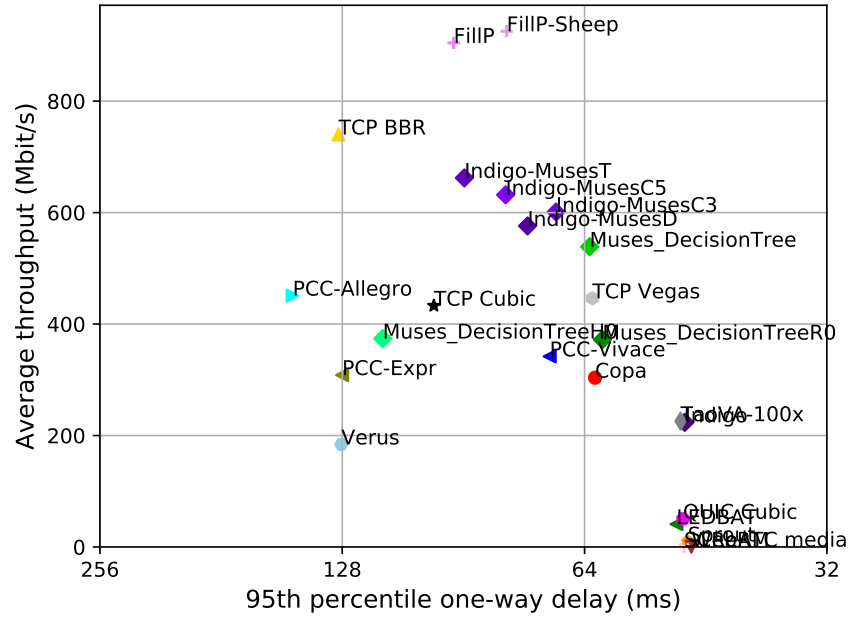
```
System info:
Linux 5.0.0-1025-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912
```

```
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 London to GCE Iowa, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE London to GCE Iowa, 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	740.10	129.34	1.46
Copa	5	303.79	62.11	0.01
TCP Cubic	5	432.88	98.49	0.07
FillP	5	904.45	93.06	0.34
FillP-Sheep	5	925.28	79.98	0.10
Indigo	5	223.63	48.04	0.00
Indigo-MusesC3	5	600.99	69.44	0.04
Indigo-MusesC5	5	631.83	80.22	0.04
Indigo-MusesD	5	576.05	75.34	0.01
Indigo-MusesT	4	662.23	90.27	0.04
LEDBAT	5	41.04	49.21	0.00
Muses_DecisionTree	5	538.71	63.08	0.59
Muses_DecisionTreeH0	5	373.96	114.00	0.20
Muses_DecisionTreeR0	5	372.07	60.81	0.01
PCC-Allegro	5	450.95	147.49	1.42
PCC-Expr	5	308.46	128.05	0.43
QUIC Cubic	5	50.60	48.29	0.00
SCReAM	5	0.22	48.15	0.00
Sprout	5	9.67	47.64	0.00
TaoVA-100x	5	225.71	48.63	0.01
TCP Vegas	5	446.18	62.59	0.00
Verus	5	184.02	128.34	0.17
PCC-Vivace	5	342.03	70.73	0.01
WebRTC media	4	0.58	47.15	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-12-12 03:26:08
End at: 2019-12-12 03:26:38
Local clock offset: -0.521 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2019-12-12 06:24:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 746.96 Mbit/s
95th percentile per-packet one-way delay: 127.163 ms
Loss rate: 2.01%
-- Flow 1:
Average throughput: 746.96 Mbit/s
95th percentile per-packet one-way delay: 127.163 ms
Loss rate: 2.01%
```
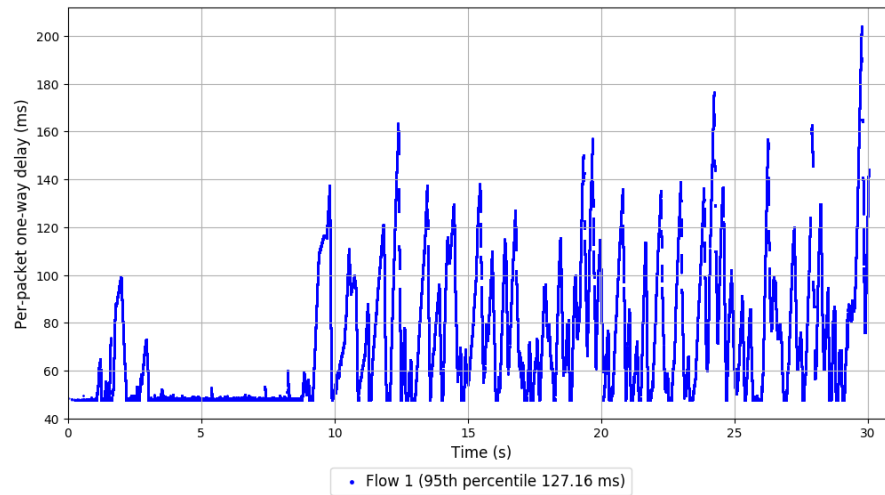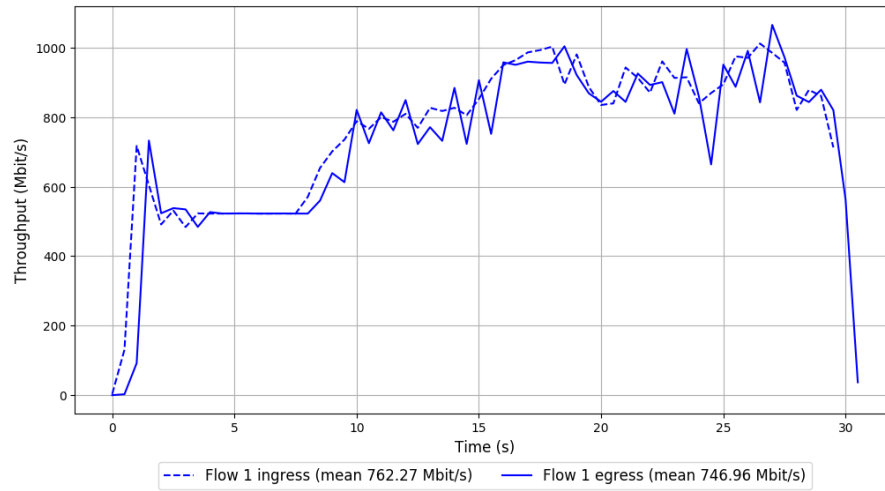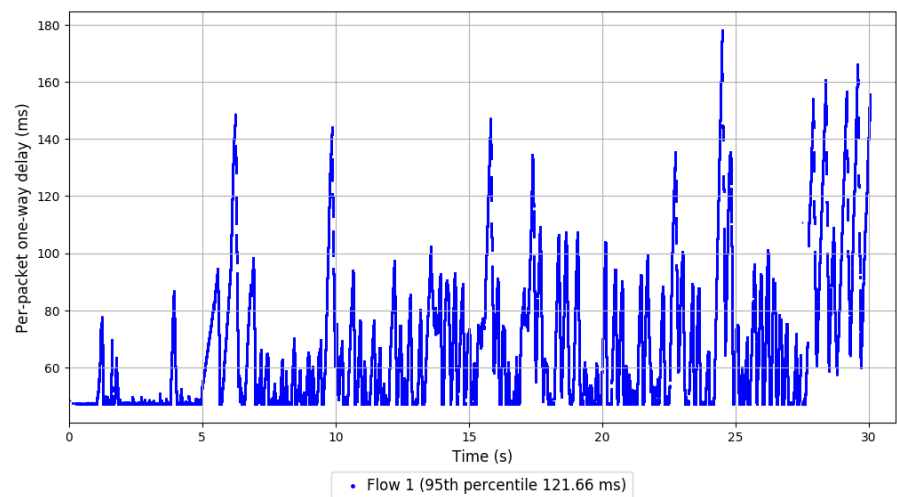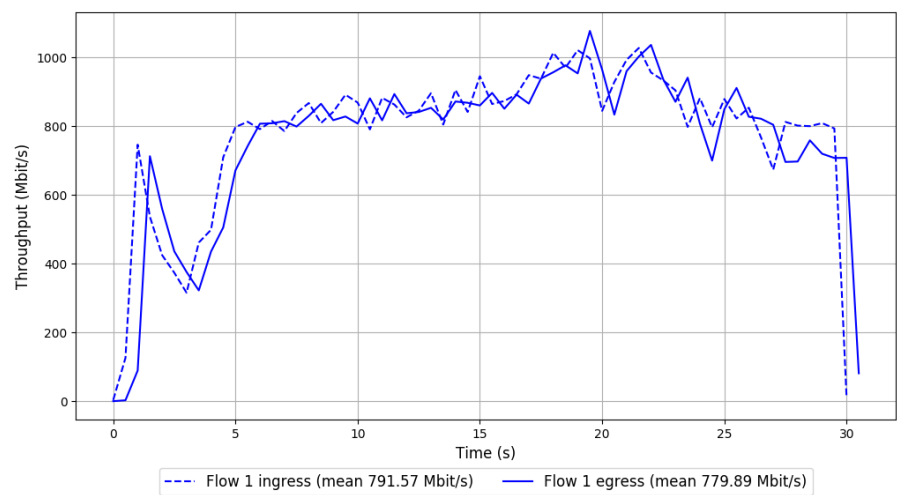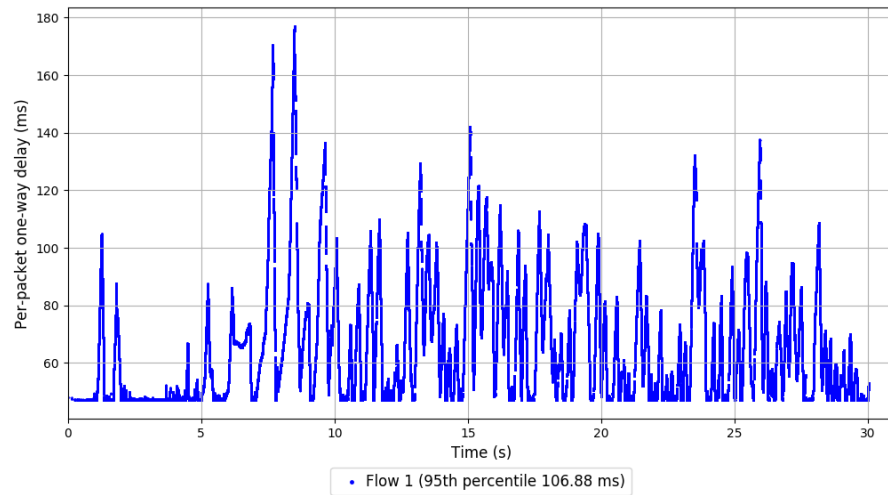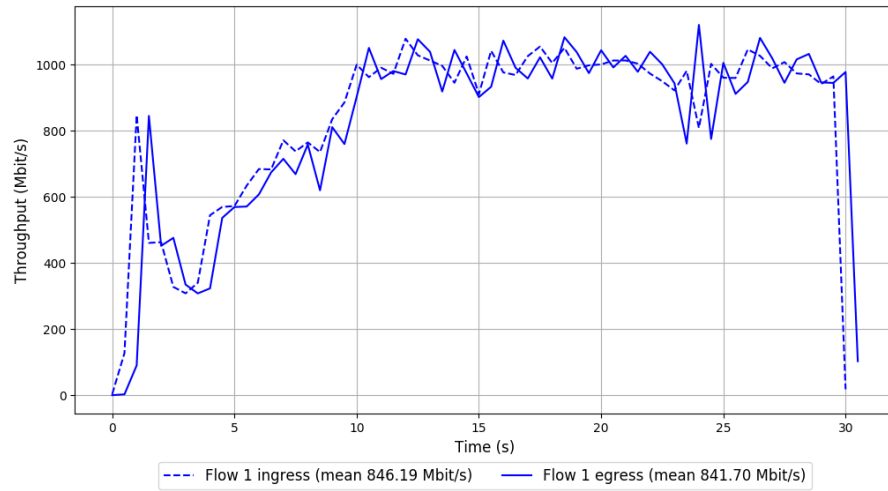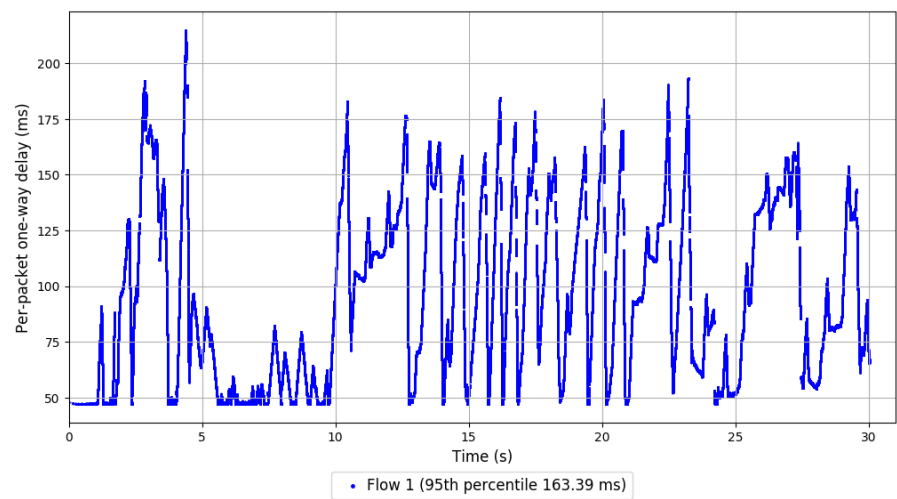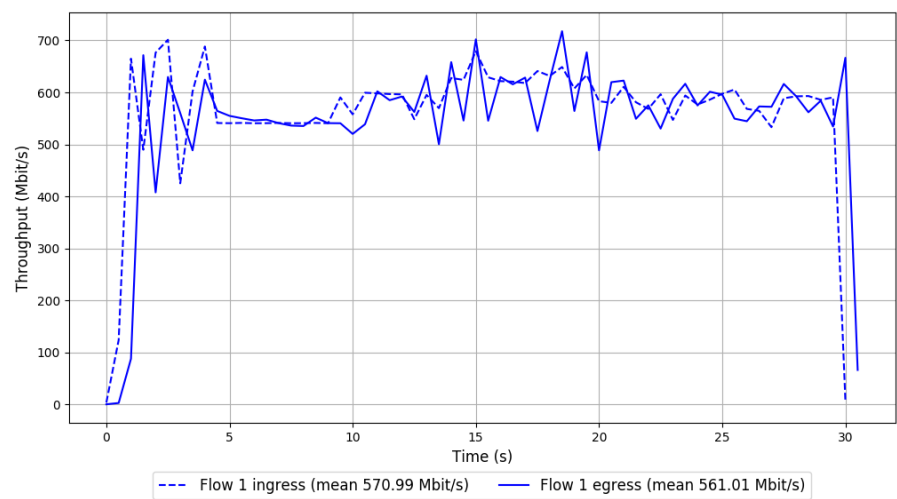
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-12-12 04:00:55
End at: 2019-12-12 04:01:25
Local clock offset: -0.127 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-12-12 06:24:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 779.89 Mbit/s
95th percentile per-packet one-way delay: 121.664 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 779.89 Mbit/s
95th percentile per-packet one-way delay: 121.664 ms
Loss rate: 1.48%
```
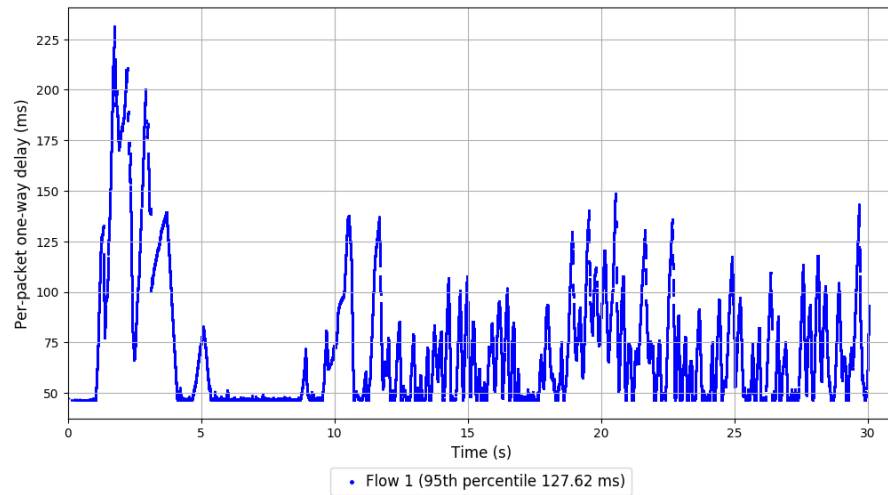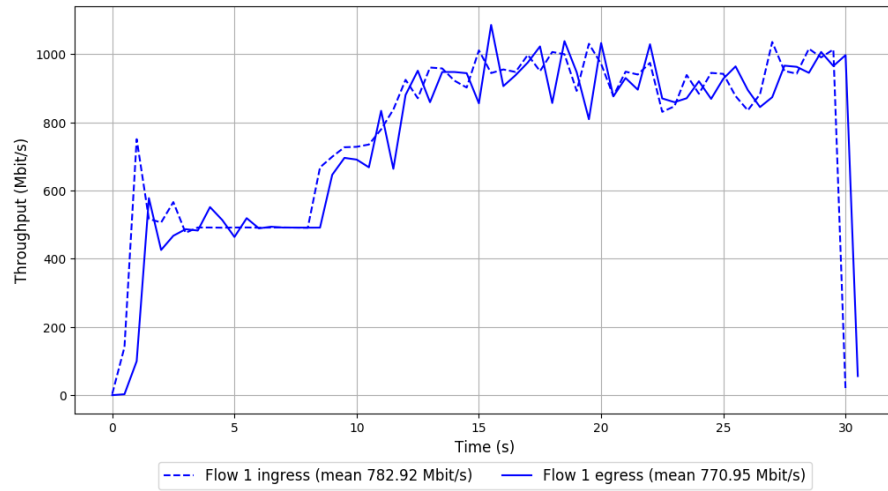
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-12-12 04:36:09
End at: 2019-12-12 04:36:39
Local clock offset: -0.043 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-12-12 06:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 841.70 Mbit/s
95th percentile per-packet one-way delay: 106.882 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 841.70 Mbit/s
95th percentile per-packet one-way delay: 106.882 ms
Loss rate: 0.53%
```

Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 846.19 Mbit/s)   Flow 1 egress (mean 841.70 Mbit/s)

Flow 1 (95th percentile 106.88 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-12-12 05:10:31
End at: 2019-12-12 05:11:01
Local clock offset: -0.037 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2019-12-12 06:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 561.01 Mbit/s
95th percentile per-packet one-way delay: 163.393 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 561.01 Mbit/s
95th percentile per-packet one-way delay: 163.393 ms
Loss rate: 1.75%
```
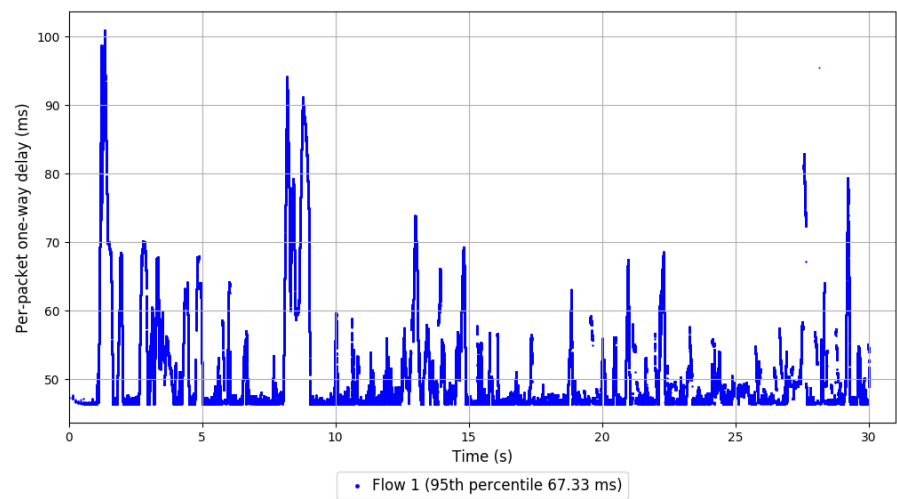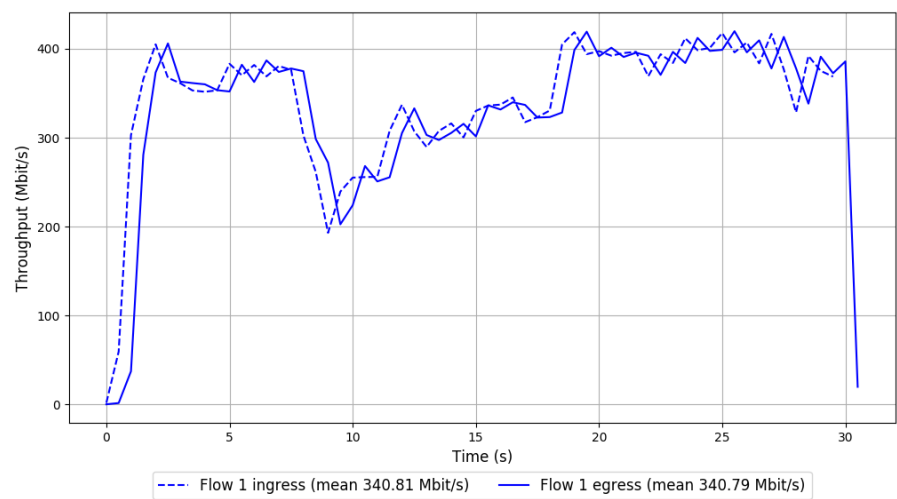
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 570.99 Mbit/s) —— Flow 1 egress (mean 561.01 Mbit/s)

• Flow 1 (95th percentile 163.39 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-12-12 05:45:05
End at: 2019-12-12 05:45:35
Local clock offset: -0.124 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2019-12-12 06:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 770.95 Mbit/s
95th percentile per-packet one-way delay: 127.620 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 770.95 Mbit/s
95th percentile per-packet one-way delay: 127.620 ms
Loss rate: 1.53%
```
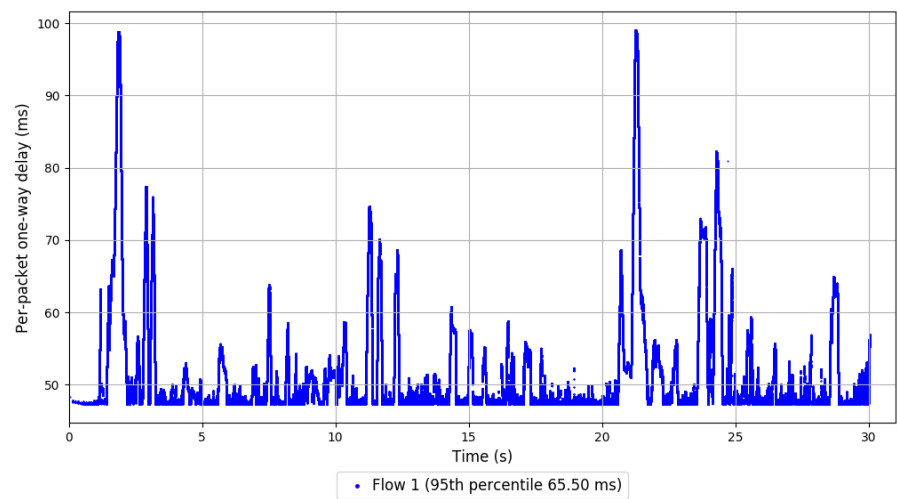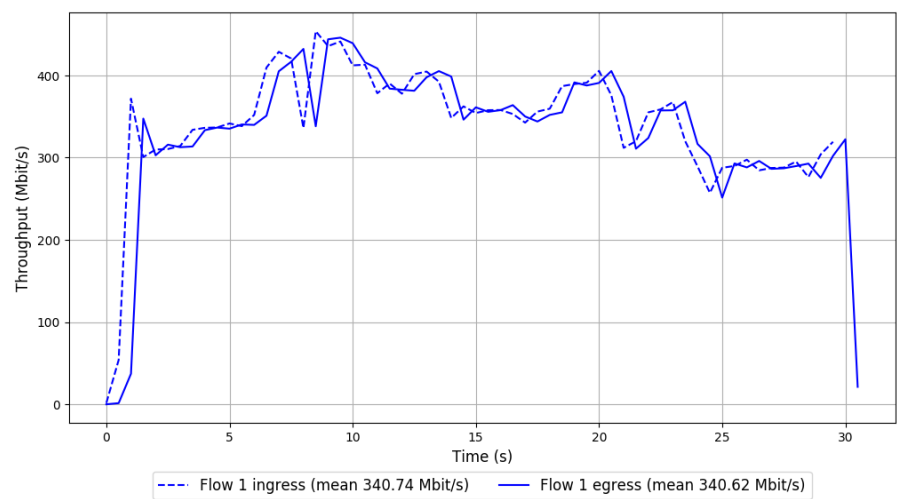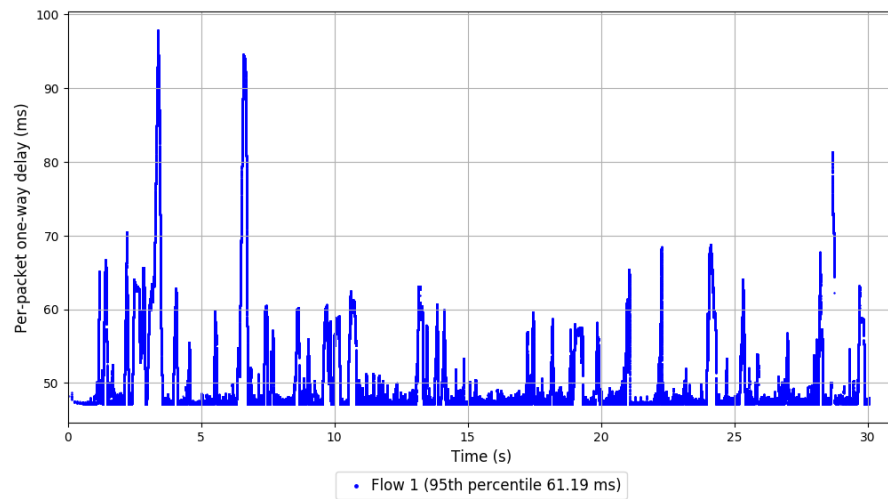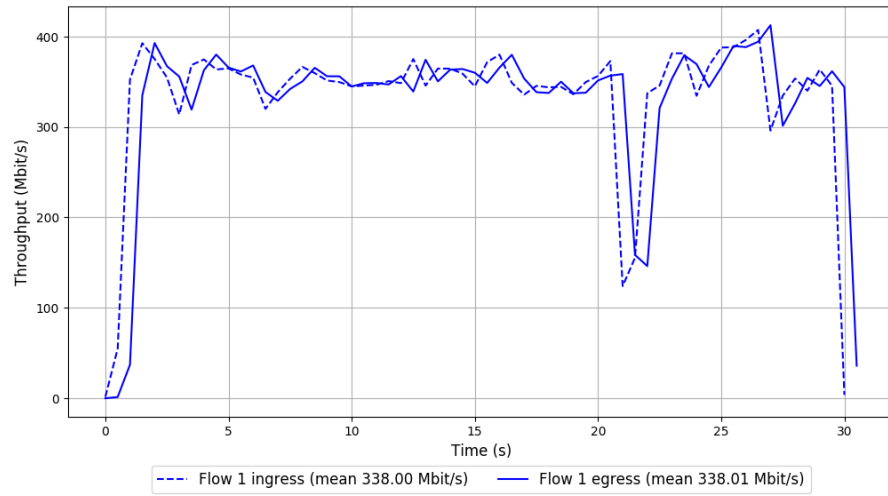
Run 5: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2019-12-12 03:24:31
End at: 2019-12-12 03:25:01
Local clock offset: -0.103 ms
Remote clock offset: 0.007 ms

# Below is generated by plot.py at 2019-12-12 06:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 340.79 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 340.79 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 0.01%
```

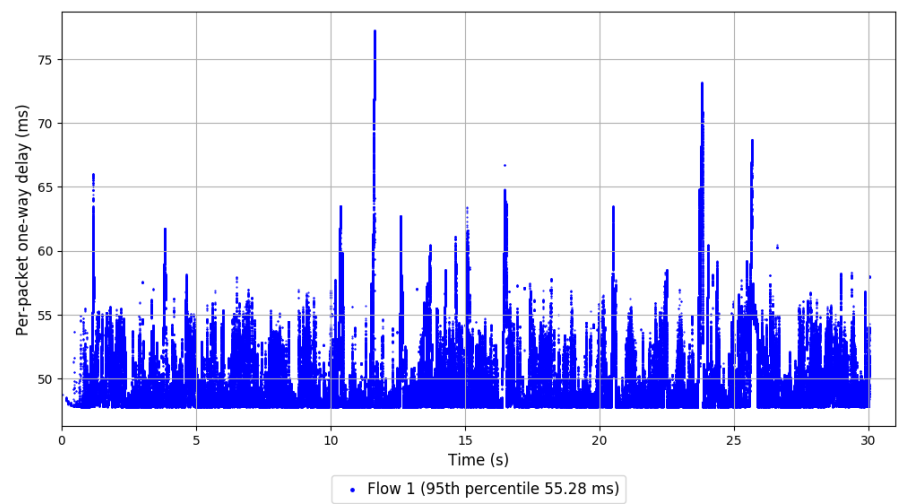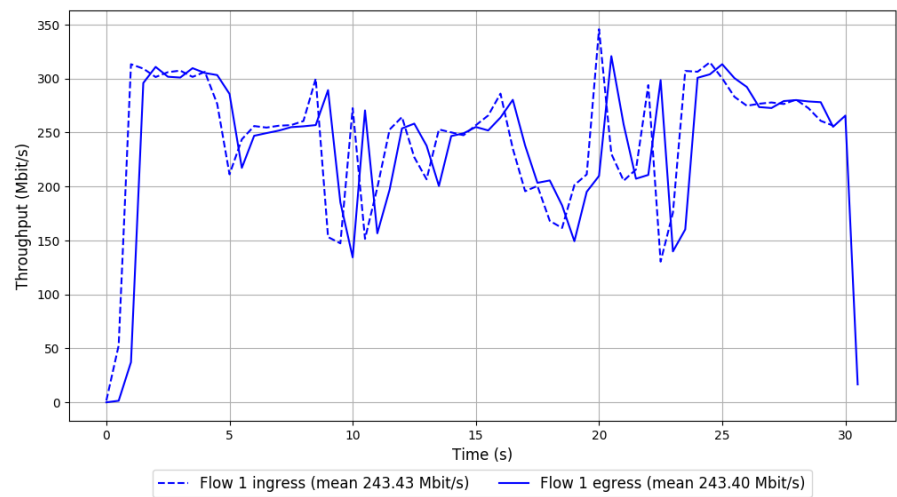Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-12-12 03:59:18
End at: 2019-12-12 03:59:48
Local clock offset: -0.16 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2019-12-12 06:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 340.62 Mbit/s
95th percentile per-packet one-way delay: 65.499 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 340.62 Mbit/s
95th percentile per-packet one-way delay: 65.499 ms
Loss rate: 0.04%
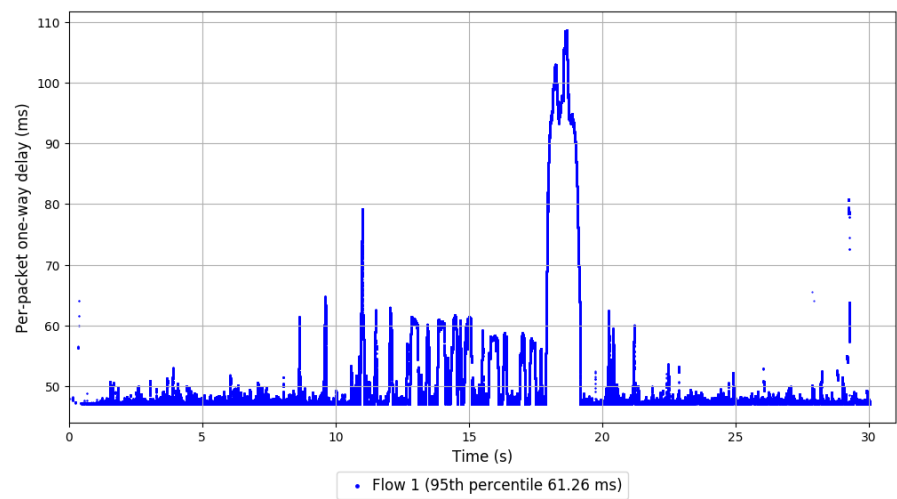```
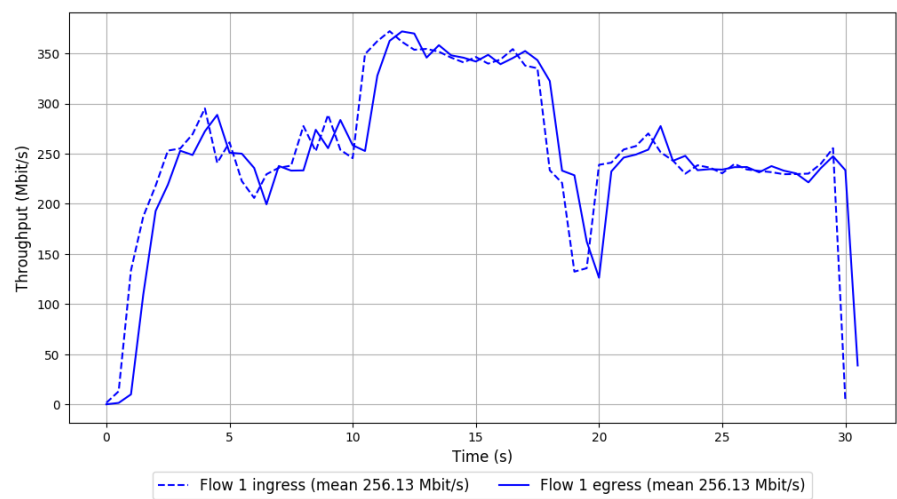
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-12-12 04:34:33
End at: 2019-12-12 04:35:03
Local clock offset: -0.05 ms
Remote clock offset: -0.024 ms

Below is generated by plot.py at 2019-12-12 06:25:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 338.01 Mbit/s
95th percentile per-packet one-way delay: 61.191 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 338.01 Mbit/s
95th percentile per-packet one-way delay: 61.191 ms
Loss rate: 0.00%
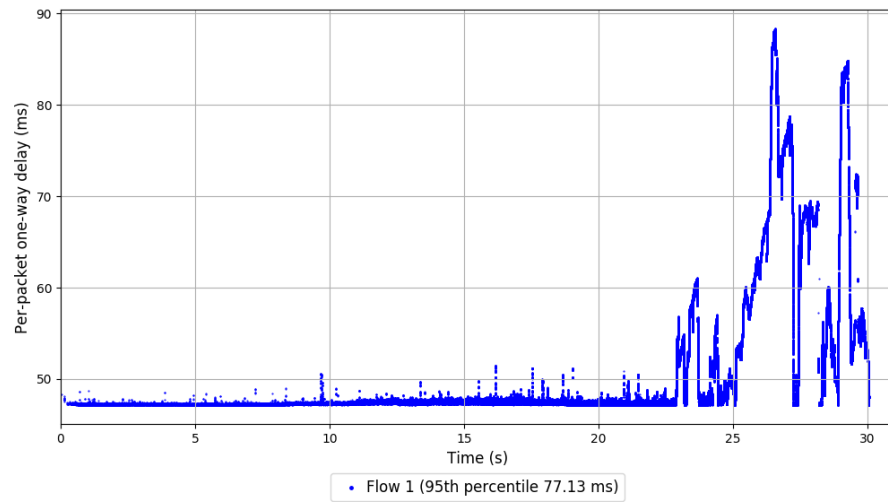```

Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2019-12-12 05:09:03
End at: 2019-12-12 05:09:33
Local clock offset: -0.452 ms
Remote clock offset: -0.138 ms


# Below is generated by plot.py at 2019-12-12 06:28:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.40 Mbit/s
95th percentile per-packet one-way delay: 55.279 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 243.40 Mbit/s
95th percentile per-packet one-way delay: 55.279 ms
Loss rate: 0.02%
```

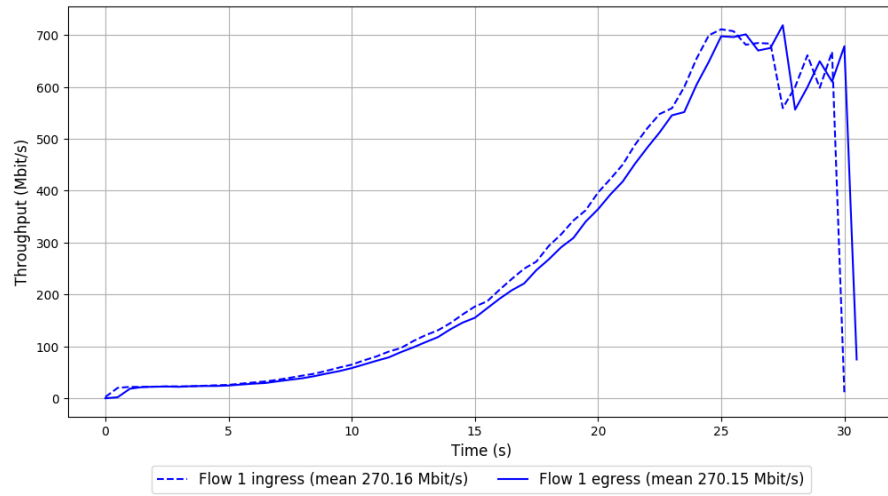Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2019-12-12 05:43:35
End at: 2019-12-12 05:44:05
Local clock offset: -0.074 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2019-12-12 06:30:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.13 Mbit/s
95th percentile per-packet one-way delay: 61.256 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 256.13 Mbit/s
95th percentile per-packet one-way delay: 61.256 ms
Loss rate: 0.00%
```

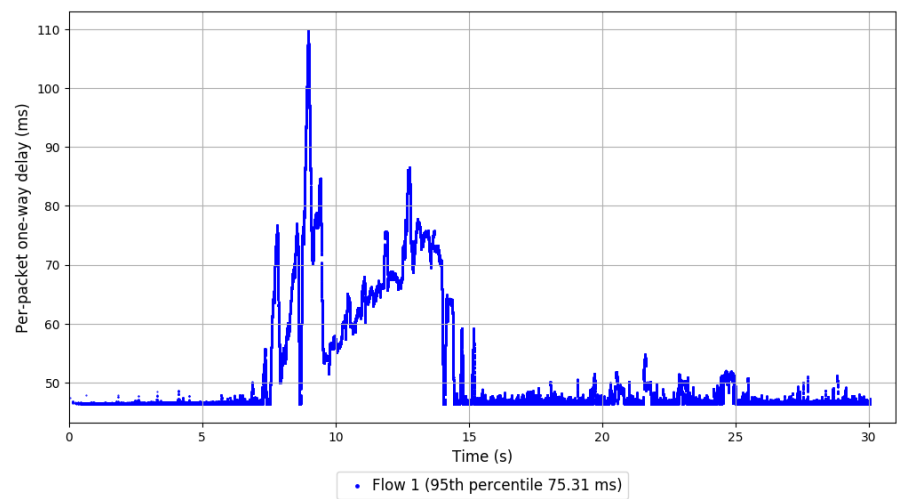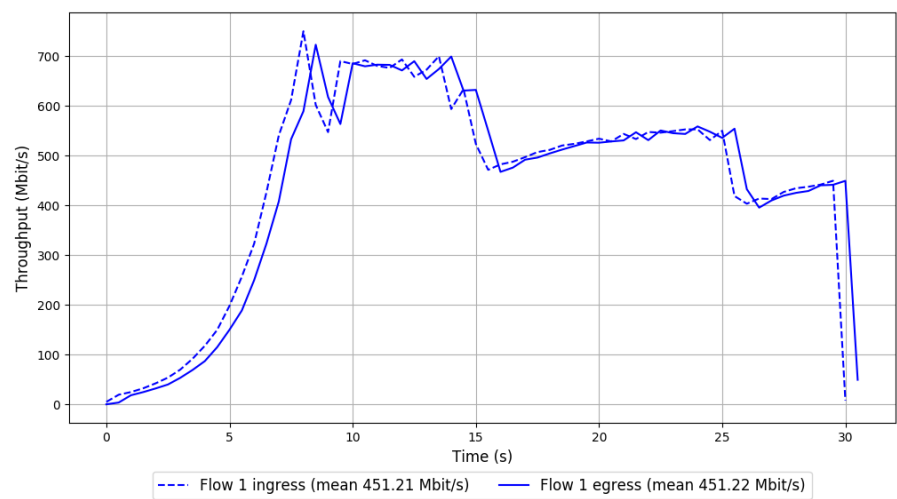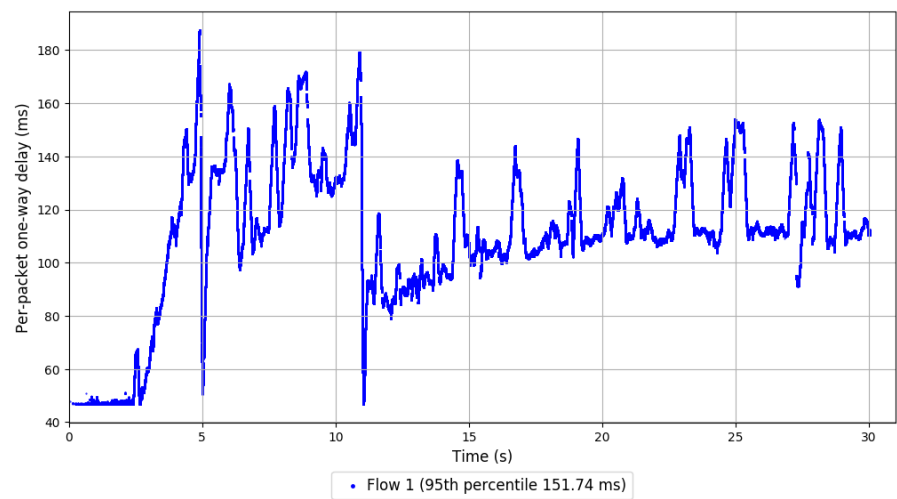Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-12-12 03:09:56
End at: 2019-12-12 03:10:26
Local clock offset: -0.042 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-12-12 06:30:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 270.15 Mbit/s
95th percentile per-packet one-way delay: 77.127 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 270.15 Mbit/s
95th percentile per-packet one-way delay: 77.127 ms
Loss rate: 0.01%
```
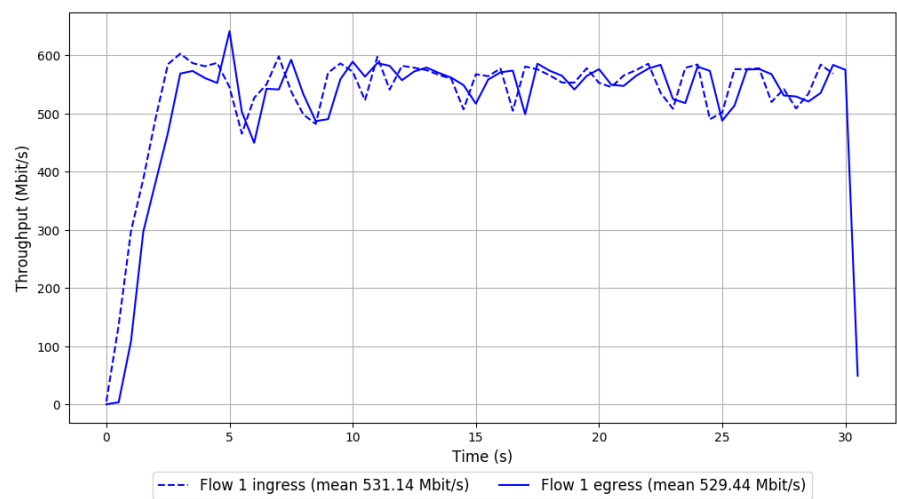
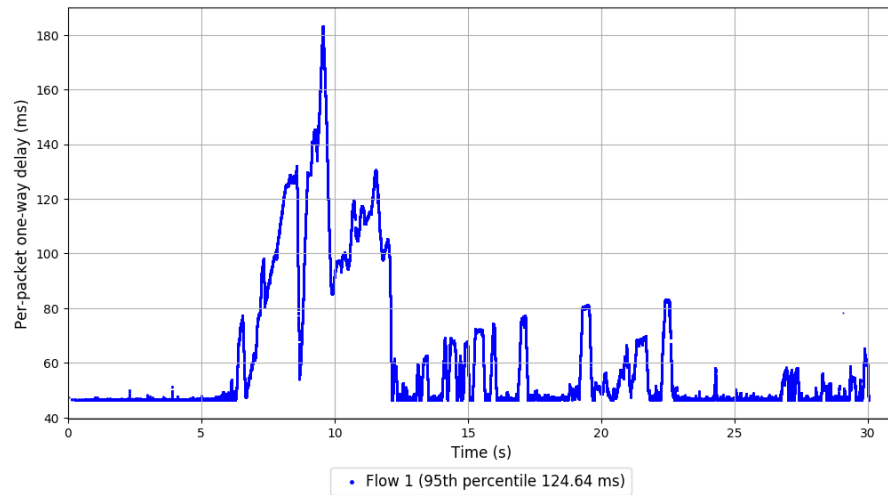Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-12-12 03:44:42
End at: 2019-12-12 03:45:12
Local clock offset: -0.164 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-12-12 06:30:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 451.22 Mbit/s
95th percentile per-packet one-way delay: 75.315 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 451.22 Mbit/s
95th percentile per-packet one-way delay: 75.315 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 451.21 Mbit/s) Flow 1 egress (mean 451.22 Mbit/s)
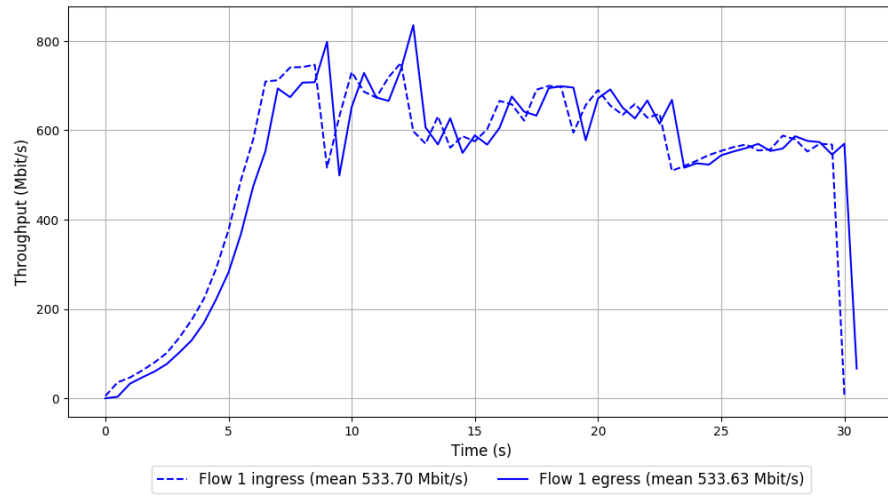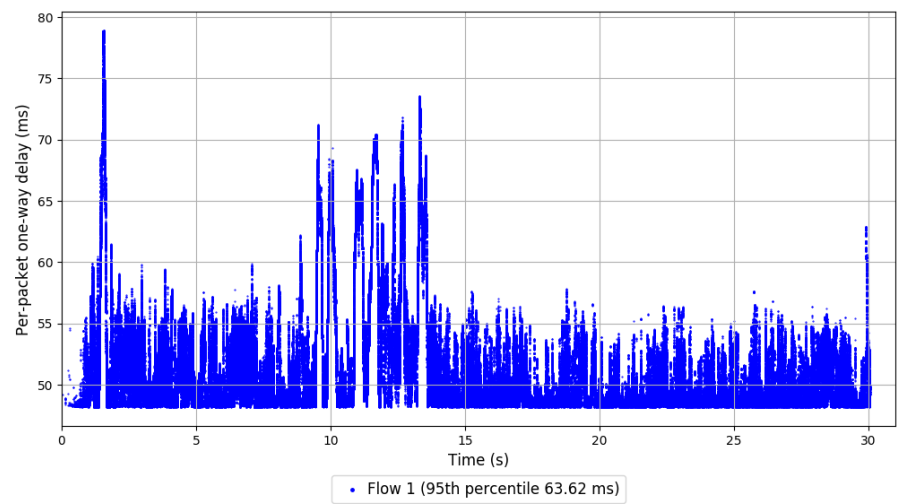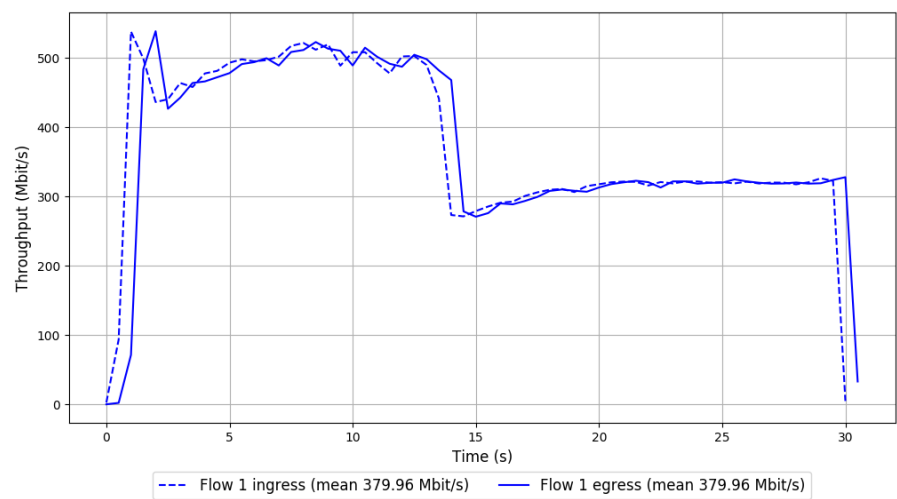

Flow 1 (95th percentile 75.31 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-12-12 04:19:34
End at: 2019-12-12 04:20:04
Local clock offset: -0.52 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2019-12-12 06:32:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 529.44 Mbit/s
95th percentile per-packet one-way delay: 151.738 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 529.44 Mbit/s
95th percentile per-packet one-way delay: 151.738 ms
Loss rate: 0.32%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 531.14 Mbit/s) --- Flow 1 egress (mean 529.44 Mbit/s)

• Flow 1 (95th percentile 151.74 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-12-12 04:54:34
End at: 2019-12-12 04:55:04
Local clock offset: -0.062 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-12-12 06:33:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 533.63 Mbit/s
95th percentile per-packet one-way delay: 124.640 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 533.63 Mbit/s
95th percentile per-packet one-way delay: 124.640 ms
Loss rate: 0.02%
```
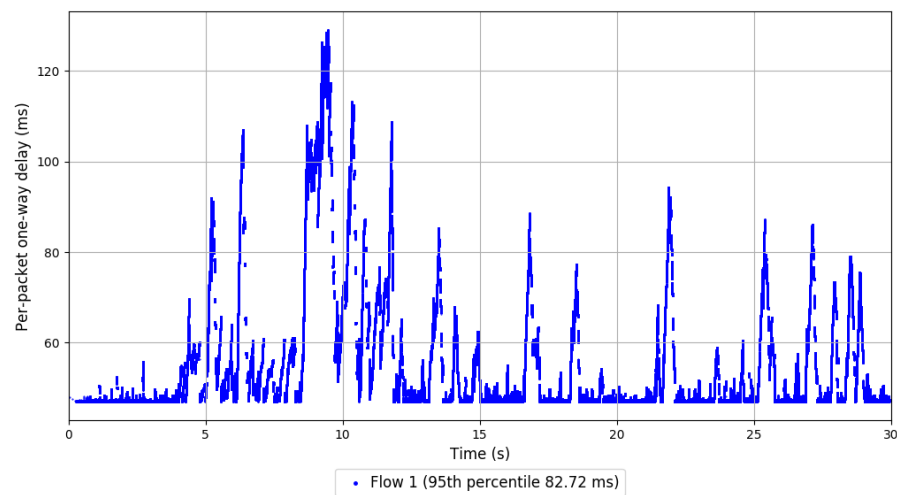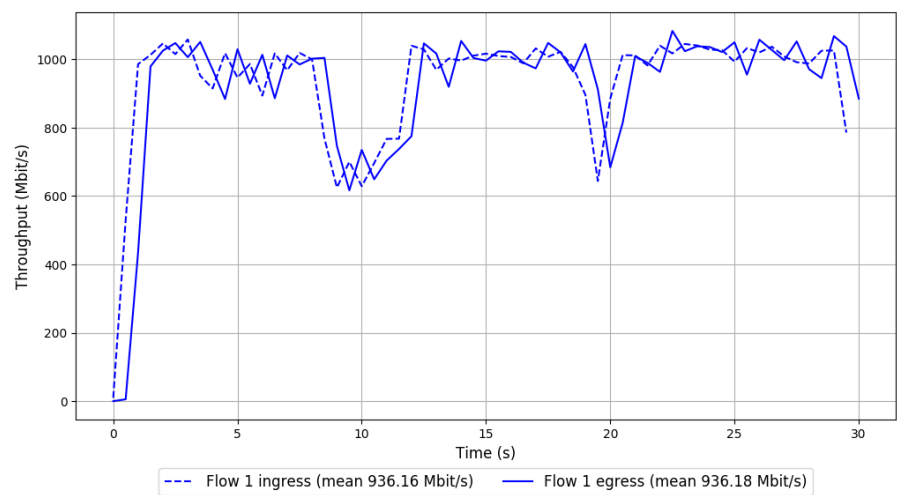
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 533.70 Mbit/s)   Flow 1 egress (mean 533.63 Mbit/s)

Flow 1 (95th percentile 124.64 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-12-12 05:28:53
End at: 2019-12-12 05:29:23
Local clock offset: -0.859 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-12-12 06:33:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 379.96 Mbit/s
95th percentile per-packet one-way delay: 63.623 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 379.96 Mbit/s
95th percentile per-packet one-way delay: 63.623 ms
Loss rate: 0.01%
```
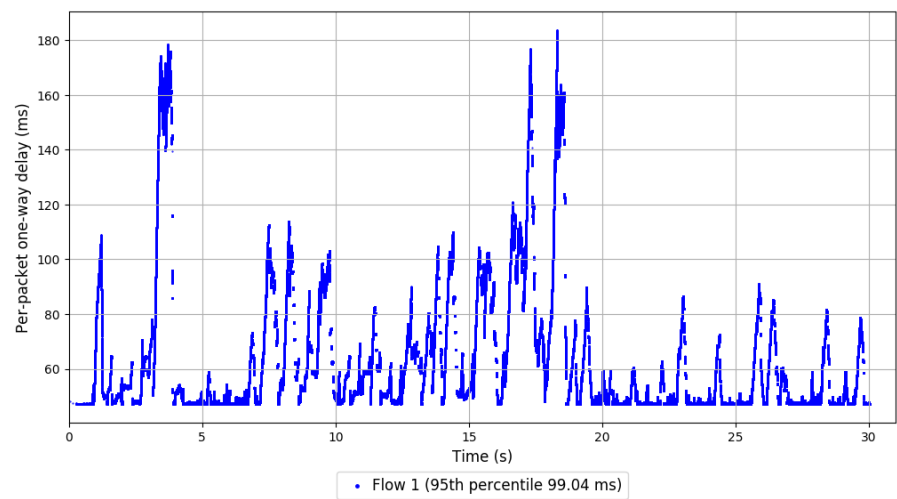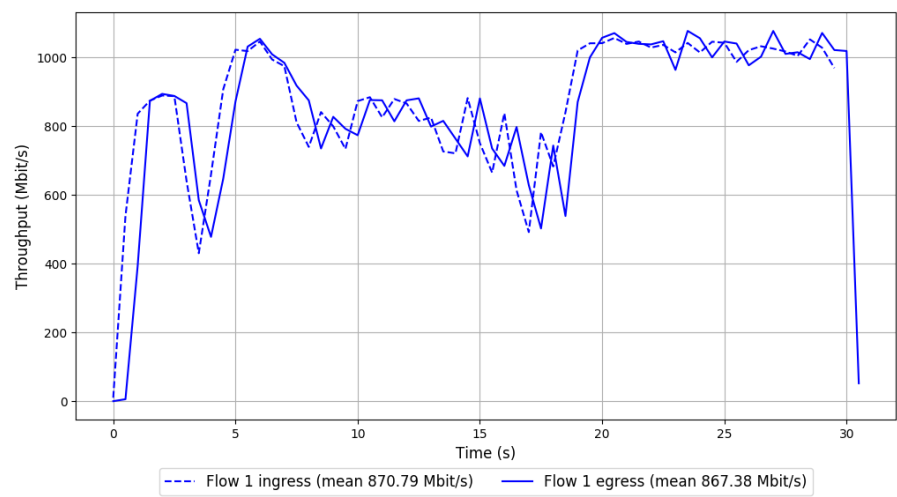
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 379.96 Mbit/s)   Flow 1 egress (mean 379.96 Mbit/s)
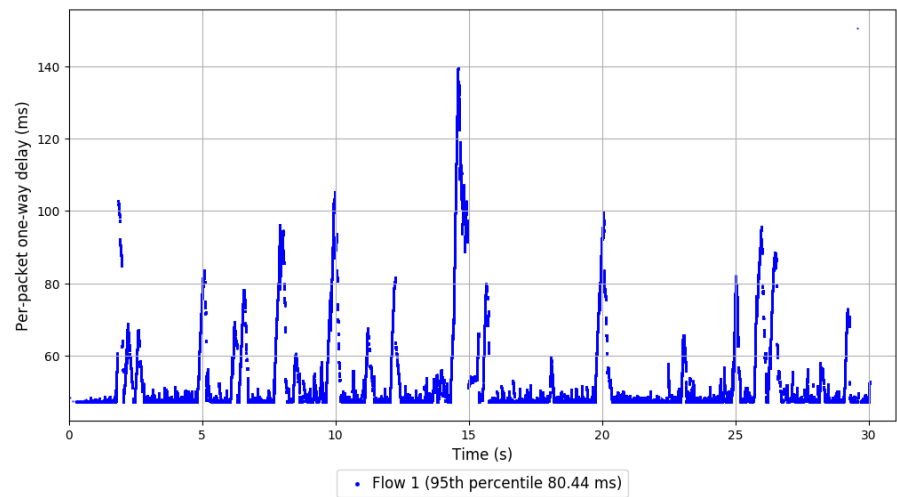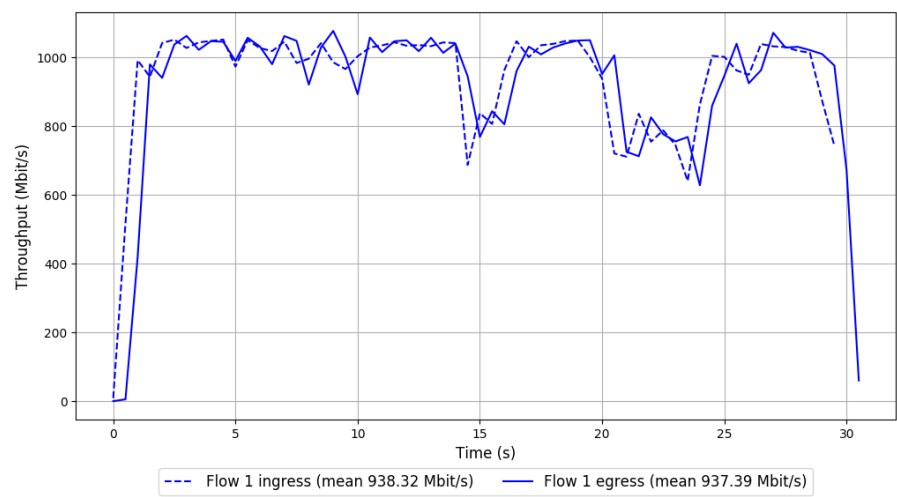

Flow 1 (95th percentile 63.62 ms)

```
Run 1: Statistics of FillP

Start at: 2019-12-12 03:16:42
End at: 2019-12-12 03:17:12
Local clock offset: 0.242 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-12-12 06:45:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 936.18 Mbit/s
95th percentile per-packet one-way delay: 82.717 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 936.18 Mbit/s
95th percentile per-packet one-way delay: 82.717 ms
Loss rate: 0.00%
```
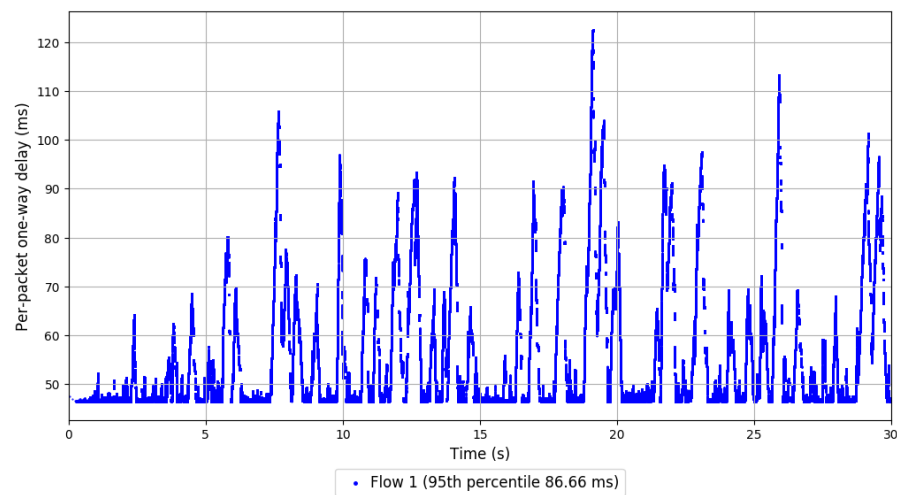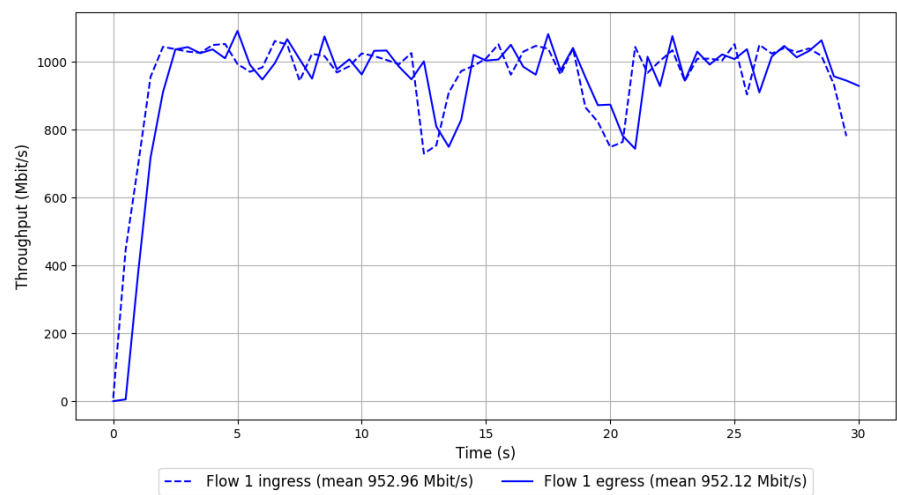
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2019-12-12 03:51:32
End at: 2019-12-12 03:52:02
Local clock offset: -0.202 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-12-12 06:45:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 867.38 Mbit/s
95th percentile per-packet one-way delay: 99.043 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 867.38 Mbit/s
95th percentile per-packet one-way delay: 99.043 ms
Loss rate: 0.39%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 870.79 Mbit/s)   Flow 1 egress (mean 867.38 Mbit/s)
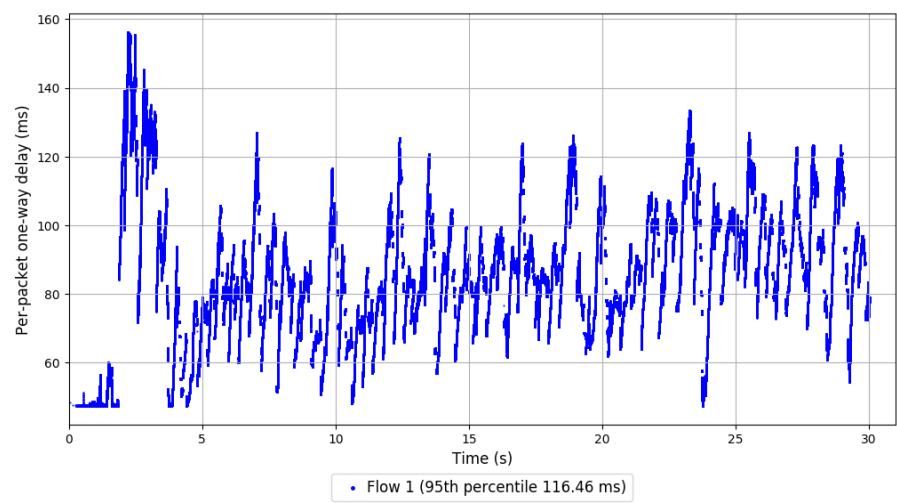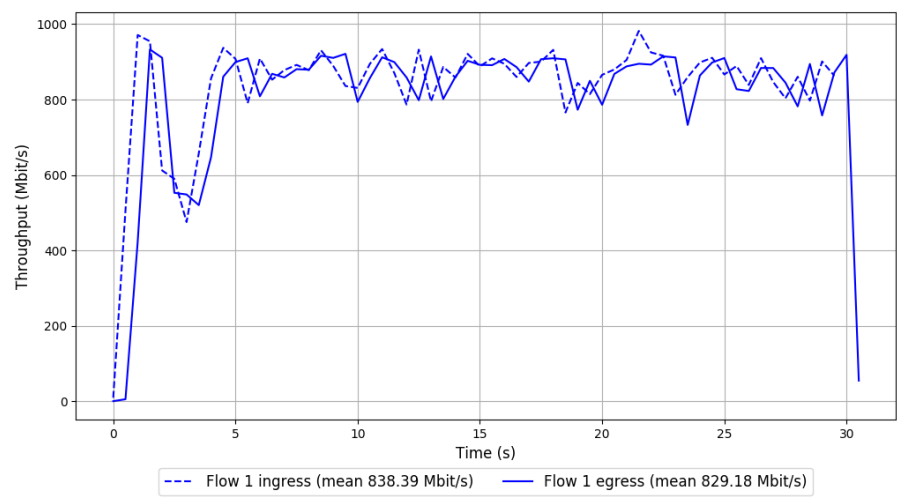

Flow 1 (95th percentile 99.04 ms)

```
Run 3: Statistics of FillP

Start at: 2019-12-12 04:26:41
End at: 2019-12-12 04:27:11
Local clock offset: -0.084 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2019-12-12 06:49:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 937.39 Mbit/s
95th percentile per-packet one-way delay: 80.442 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 937.39 Mbit/s
95th percentile per-packet one-way delay: 80.442 ms
Loss rate: 0.10%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 938.32 Mbit/s)   Flow 1 egress (mean 937.39 Mbit/s)

• Flow 1 (95th percentile 80.44 ms)

```
Run 4: Statistics of FillP

Start at: 2019-12-12 05:01:34
End at: 2019-12-12 05:02:04
Local clock offset: 0.731 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2019-12-12 06:50:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 952.12 Mbit/s
95th percentile per-packet one-way delay: 86.659 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 952.12 Mbit/s
95th percentile per-packet one-way delay: 86.659 ms
Loss rate: 0.09%
```
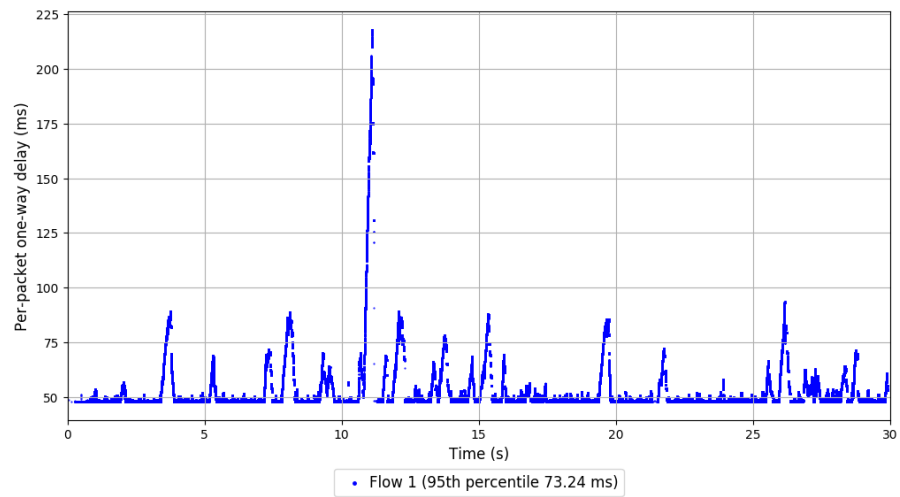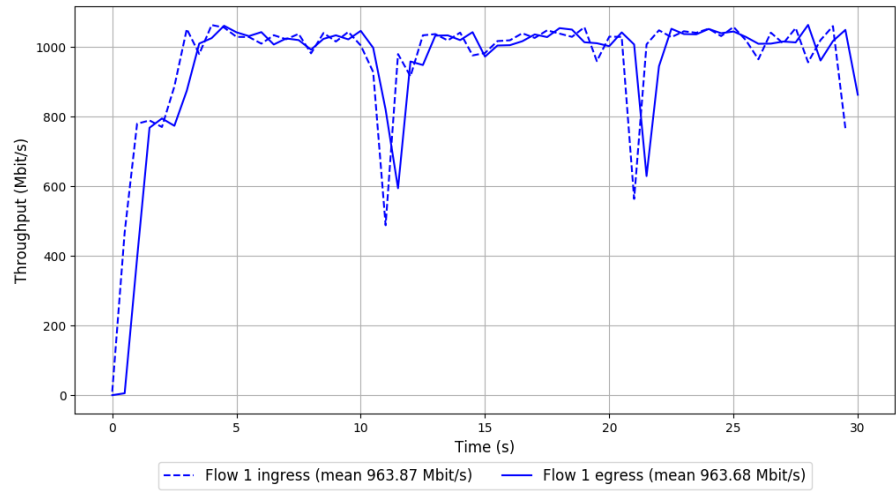
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 952.96 Mbit/s)   Flow 1 egress (mean 952.12 Mbit/s)
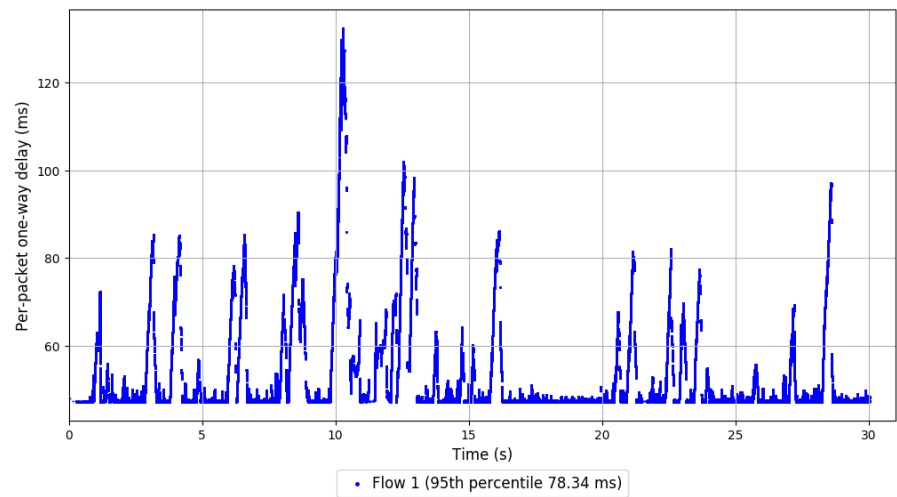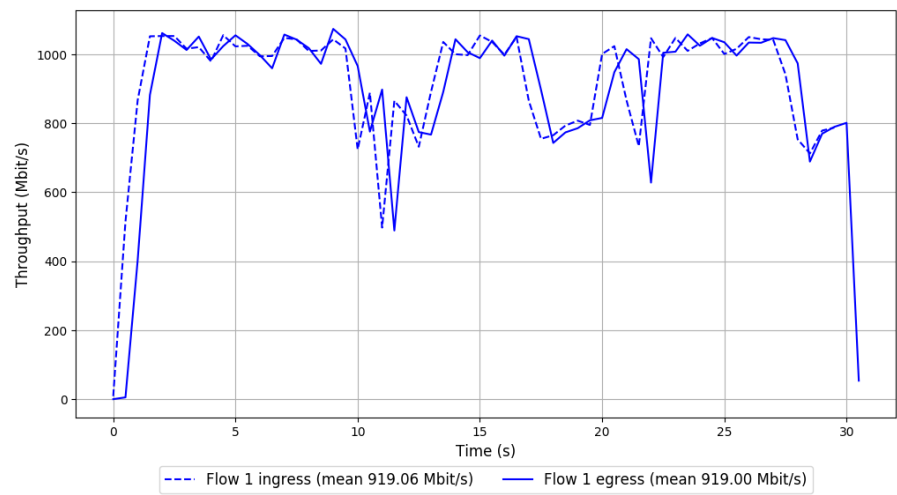

Flow 1 (95th percentile 86.66 ms)

```
Run 5: Statistics of FillP

Start at: 2019-12-12 05:35:49
End at: 2019-12-12 05:36:19
Local clock offset: -0.064 ms
Remote clock offset: -0.154 ms


# Below is generated by plot.py at 2019-12-12 06:50:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 829.18 Mbit/s
95th percentile per-packet one-way delay: 116.463 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 829.18 Mbit/s
95th percentile per-packet one-way delay: 116.463 ms
Loss rate: 1.10%
```

Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 838.39 Mbit/s)   Flow 1 egress (mean 829.18 Mbit/s)
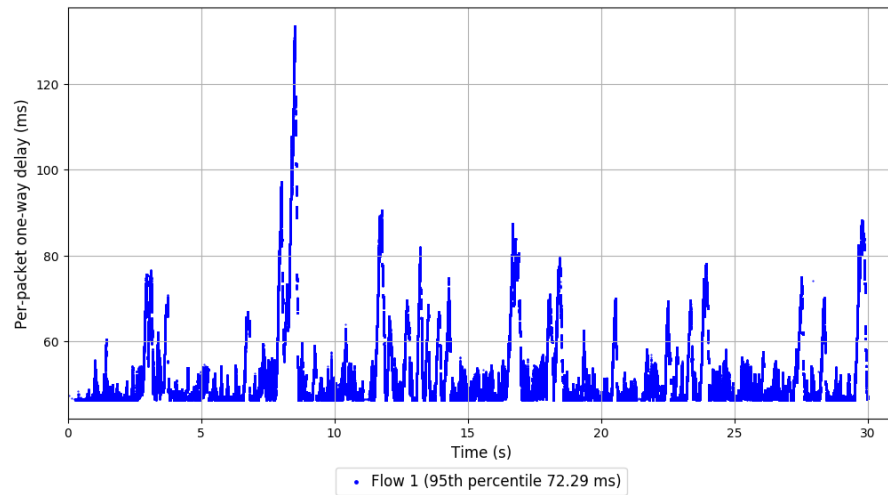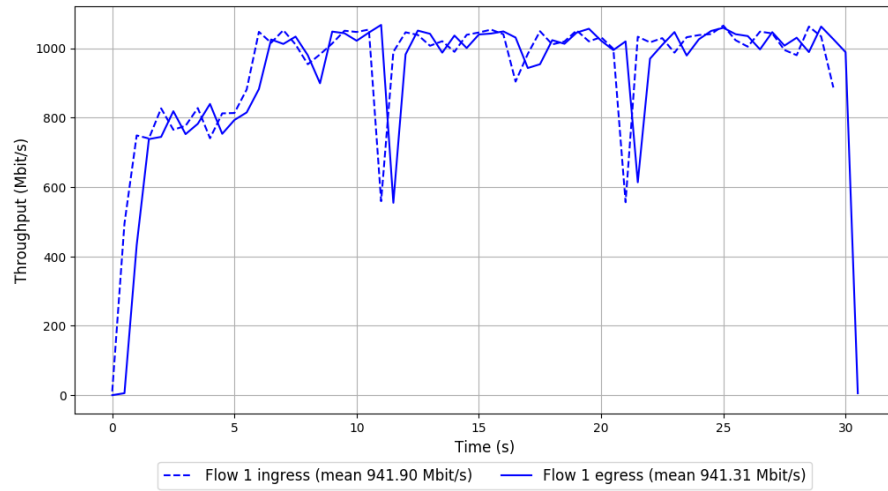

Flow 1 (95th percentile 116.46 ms)

44

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-12-12 03:30:27
End at: 2019-12-12 03:30:57
Local clock offset: -0.9 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2019-12-12 06:51:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 963.68 Mbit/s
95th percentile per-packet one-way delay: 73.242 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 963.68 Mbit/s
95th percentile per-packet one-way delay: 73.242 ms
Loss rate: 0.02%
```
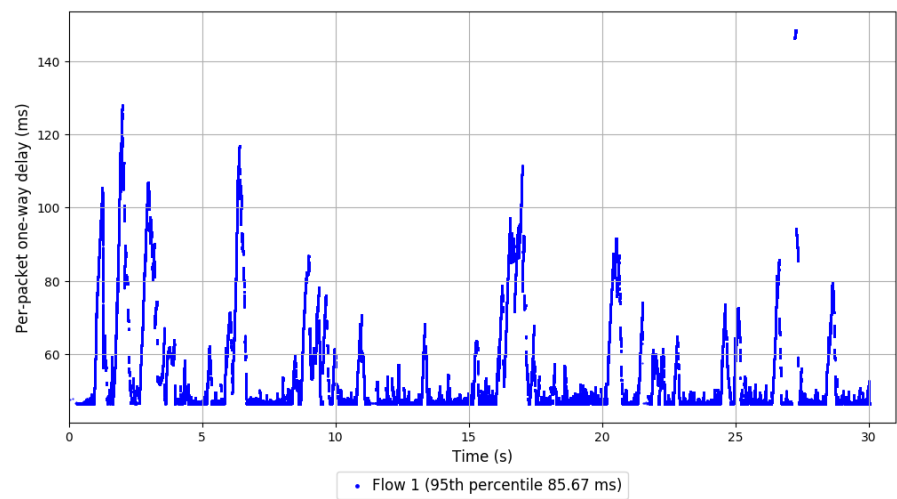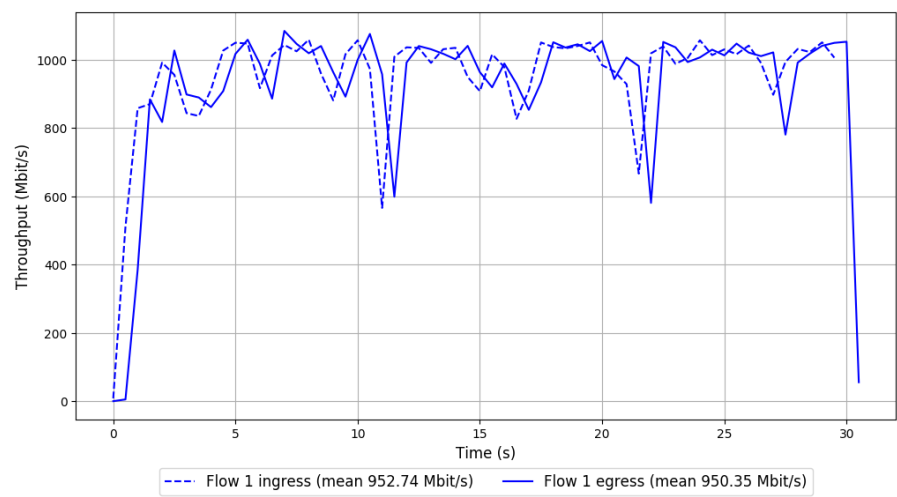
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 963.87 Mbit/s) ----   Flow 1 egress (mean 963.68 Mbit/s) ——

• Flow 1 (95th percentile 73.24 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-12-12 04:05:13
End at: 2019-12-12 04:05:43
Local clock offset: -0.087 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2019-12-12 06:52:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 919.00 Mbit/s
95th percentile per-packet one-way delay: 78.336 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 919.00 Mbit/s
95th percentile per-packet one-way delay: 78.336 ms
Loss rate: 0.01%
```
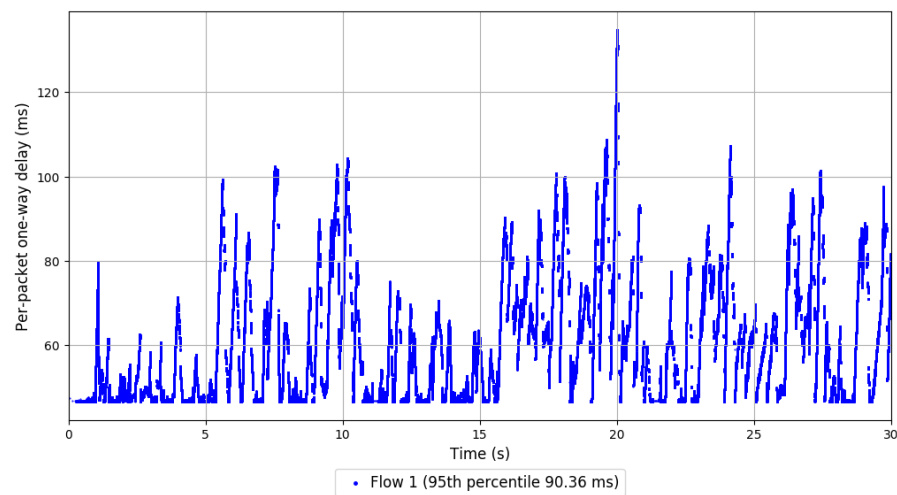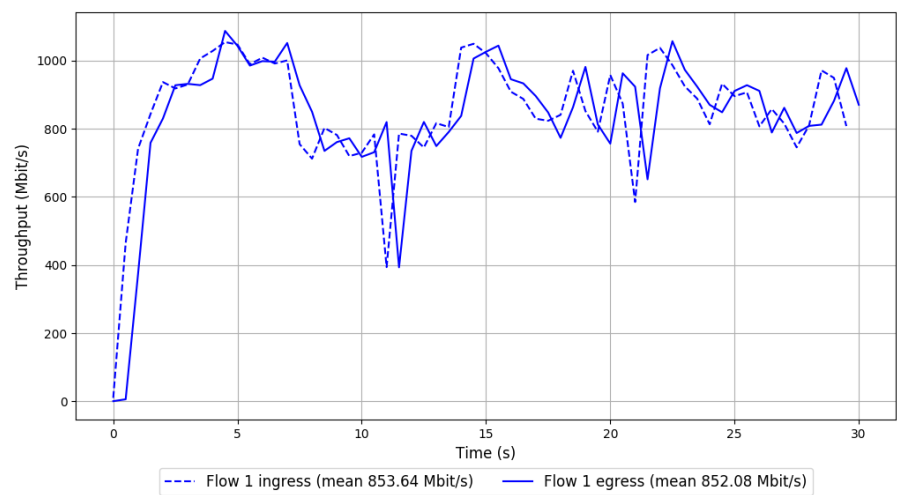
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-12-12 04:40:27
End at: 2019-12-12 04:40:57
Local clock offset: -0.036 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-12-12 06:53:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 941.31 Mbit/s
95th percentile per-packet one-way delay: 72.293 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 941.31 Mbit/s
95th percentile per-packet one-way delay: 72.293 ms
Loss rate: 0.06%
```

Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 941.90 Mbit/s) --- Flow 1 egress (mean 941.31 Mbit/s)

• Flow 1 (95th percentile 72.29 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-12-12 05:14:42
End at: 2019-12-12 05:15:12
Local clock offset: -0.079 ms
Remote clock offset: -0.149 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 950.35 Mbit/s
95th percentile per-packet one-way delay: 85.666 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 950.35 Mbit/s
95th percentile per-packet one-way delay: 85.666 ms
Loss rate: 0.25%
```
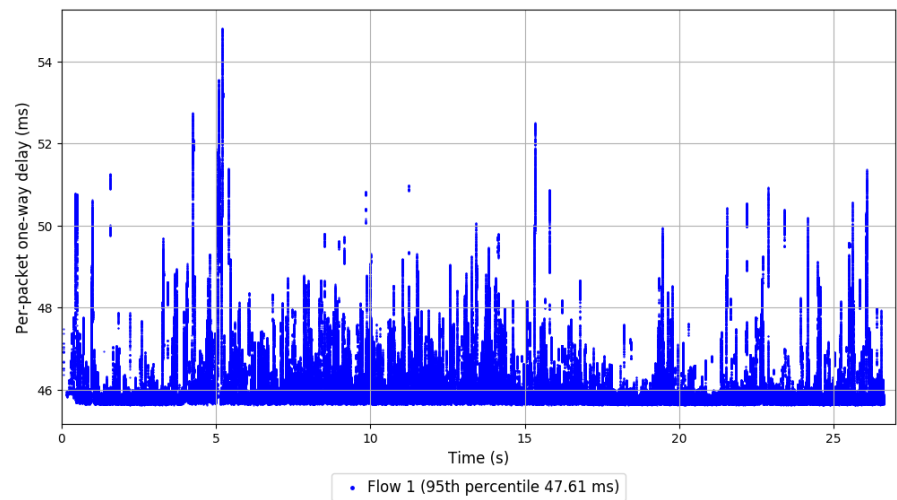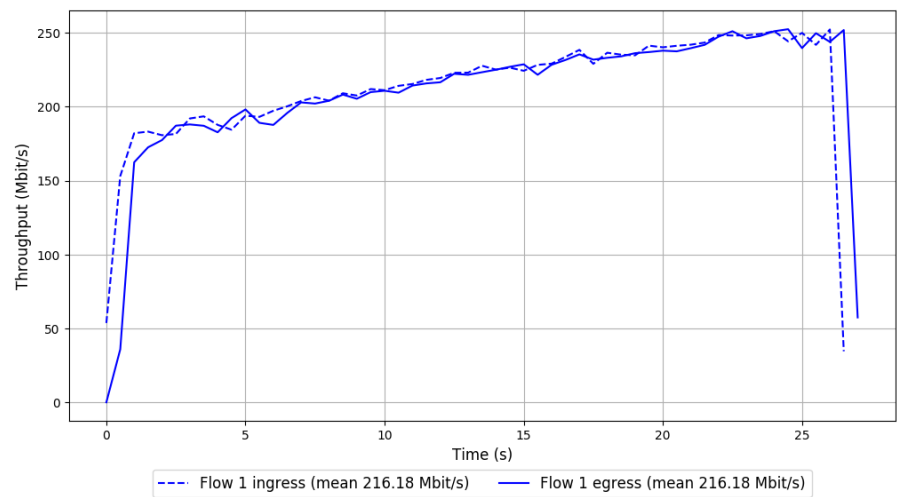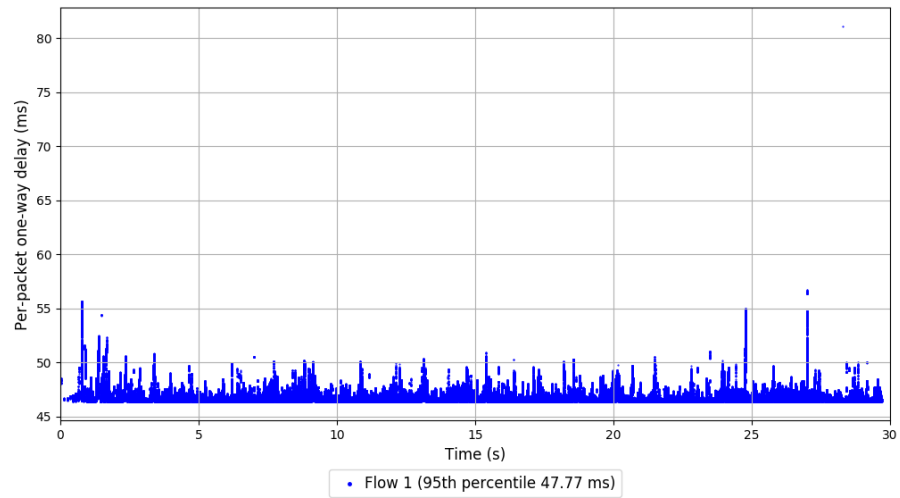
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 952.74 Mbit/s)   —— Flow 1 egress (mean 950.35 Mbit/s)

• Flow 1 (95th percentile 85.67 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-12-12 05:49:23
End at: 2019-12-12 05:49:53
Local clock offset: 0.355 ms
Remote clock offset: -0.125 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 852.08 Mbit/s
95th percentile per-packet one-way delay: 90.357 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 852.08 Mbit/s
95th percentile per-packet one-way delay: 90.357 ms
Loss rate: 0.18%
```
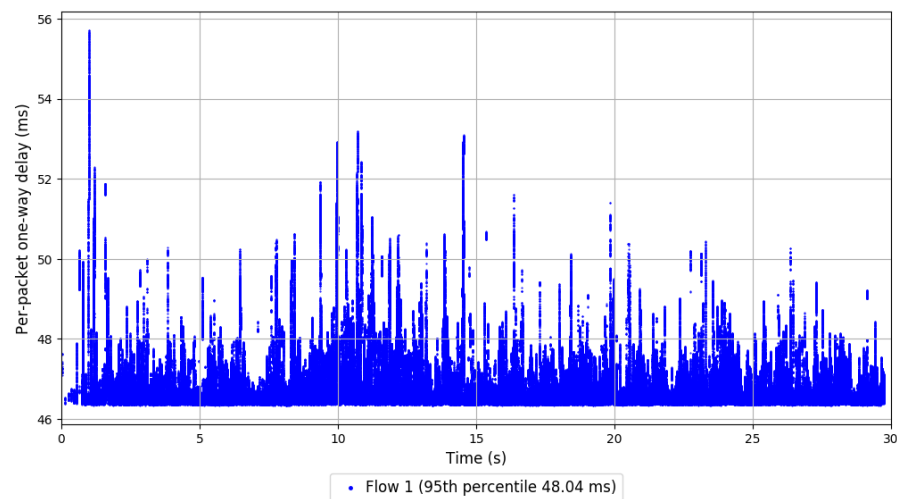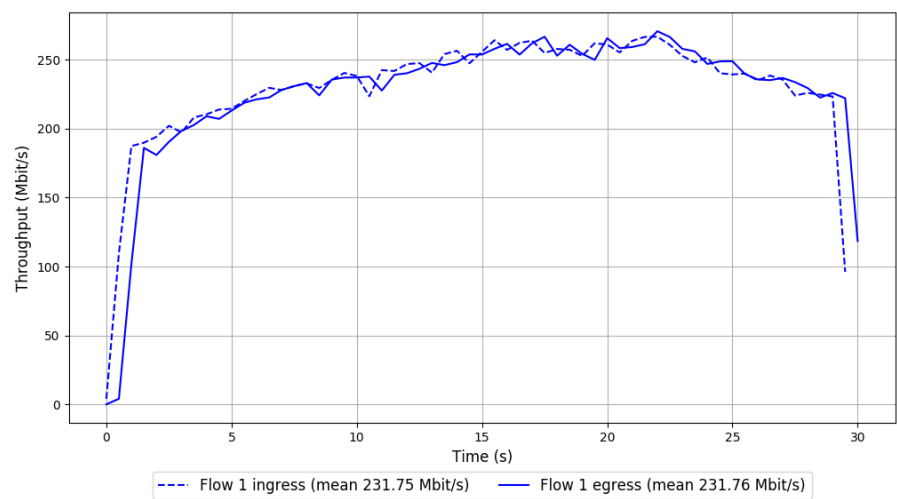
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-12-12 03:38:12
End at: 2019-12-12 03:38:42
Local clock offset: 0.597 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.18 Mbit/s
95th percentile per-packet one-way delay: 47.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.18 Mbit/s
95th percentile per-packet one-way delay: 47.611 ms
Loss rate: 0.00%
```
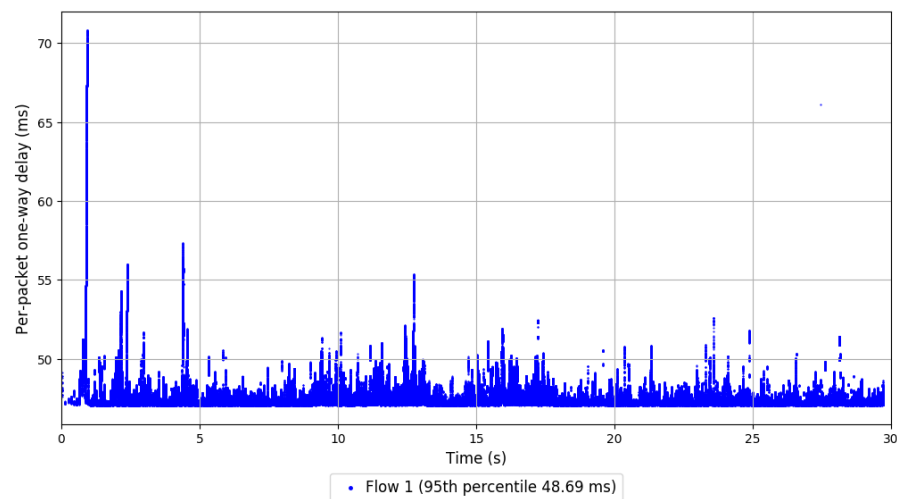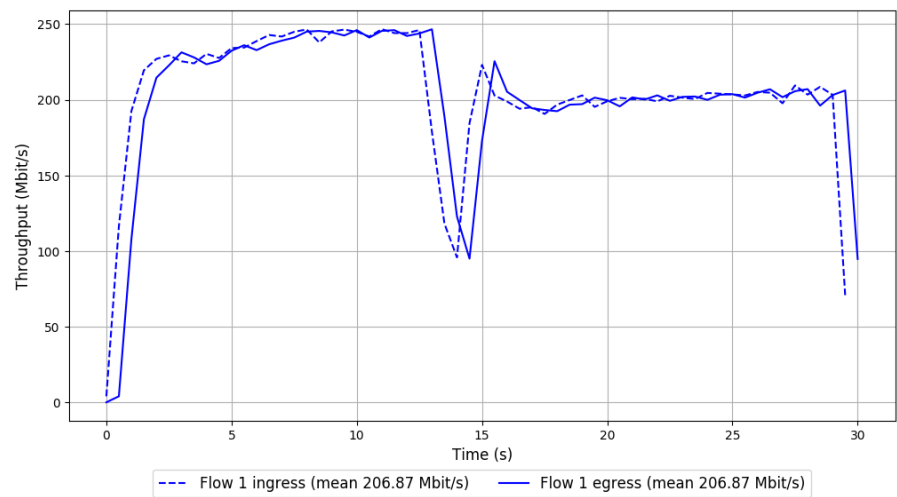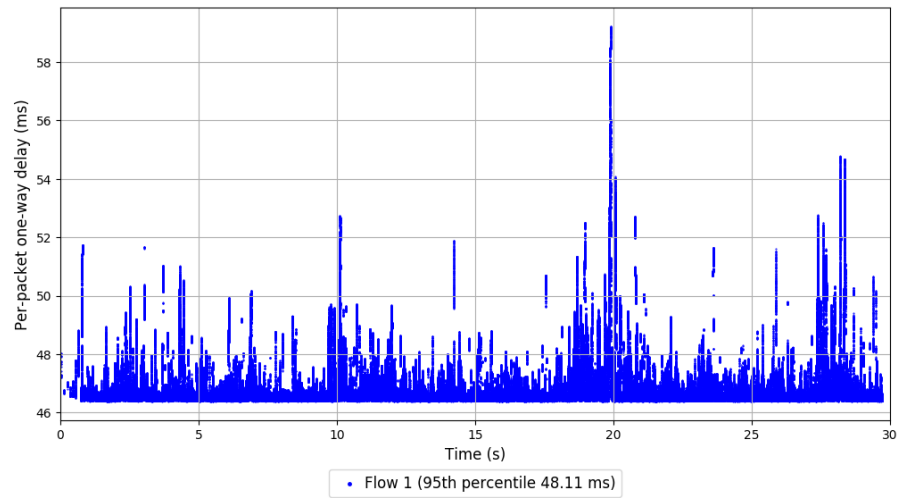
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-12-12 04:12:59
End at: 2019-12-12 04:13:29
Local clock offset: -0.127 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.01 Mbit/s
95th percentile per-packet one-way delay: 47.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 230.01 Mbit/s
95th percentile per-packet one-way delay: 47.773 ms
Loss rate: 0.00%
```
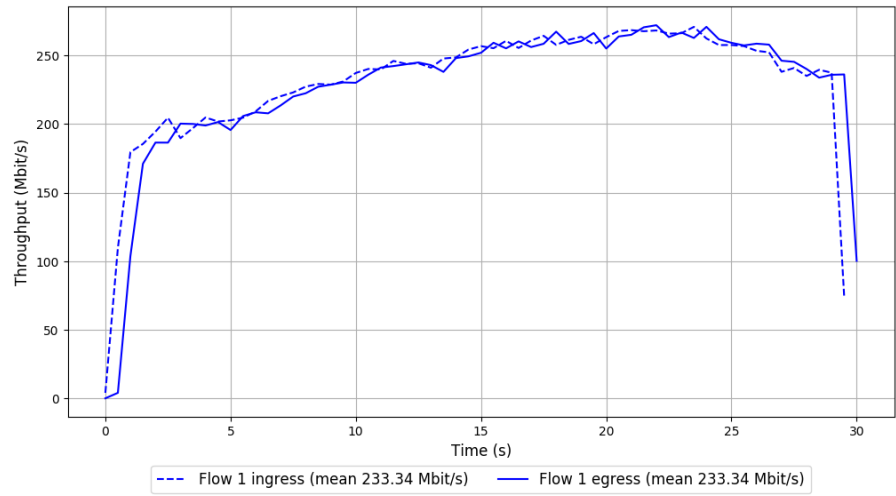
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-12-12 04:48:02
End at: 2019-12-12 04:48:32
Local clock offset: -0.031 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.76 Mbit/s
95th percentile per-packet one-way delay: 48.041 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.76 Mbit/s
95th percentile per-packet one-way delay: 48.041 ms
Loss rate: 0.00%
```
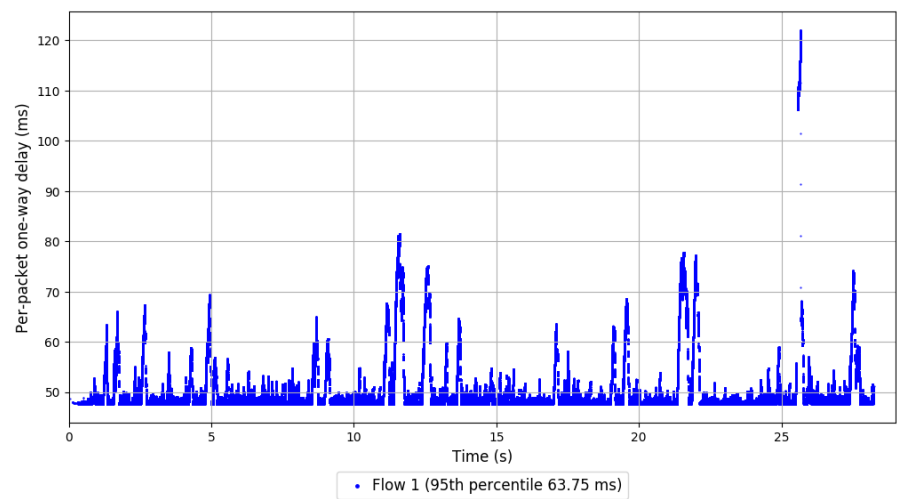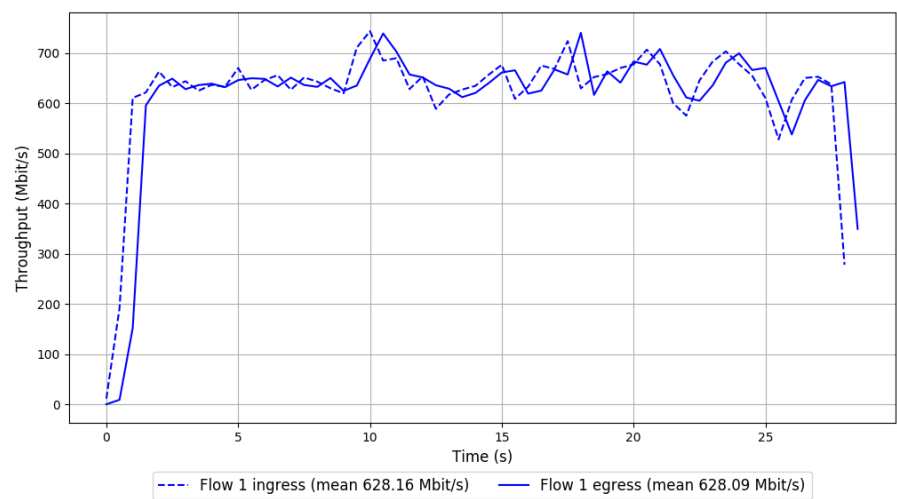
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-12-12 05:22:27
End at: 2019-12-12 05:22:57
Local clock offset: -0.079 ms
Remote clock offset: -0.186 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.87 Mbit/s
95th percentile per-packet one-way delay: 48.686 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 206.87 Mbit/s
95th percentile per-packet one-way delay: 48.686 ms
Loss rate: 0.01%
```
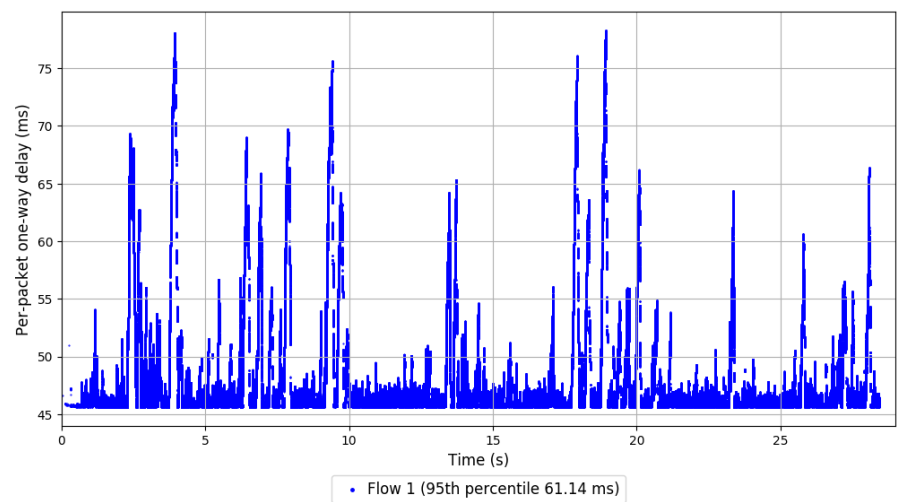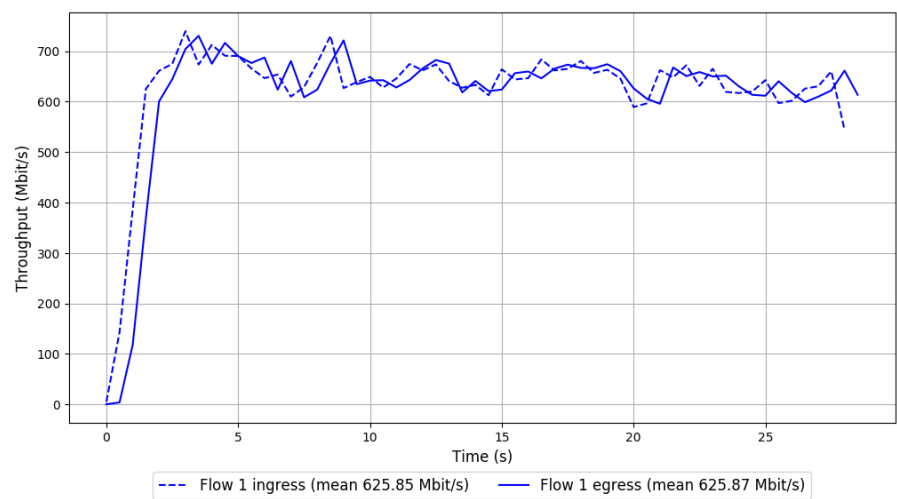
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-12-12 05:56:56
End at: 2019-12-12 05:57:26
Local clock offset: -0.073 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.34 Mbit/s
95th percentile per-packet one-way delay: 48.108 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 233.34 Mbit/s
95th percentile per-packet one-way delay: 48.108 ms
Loss rate: 0.00%
```
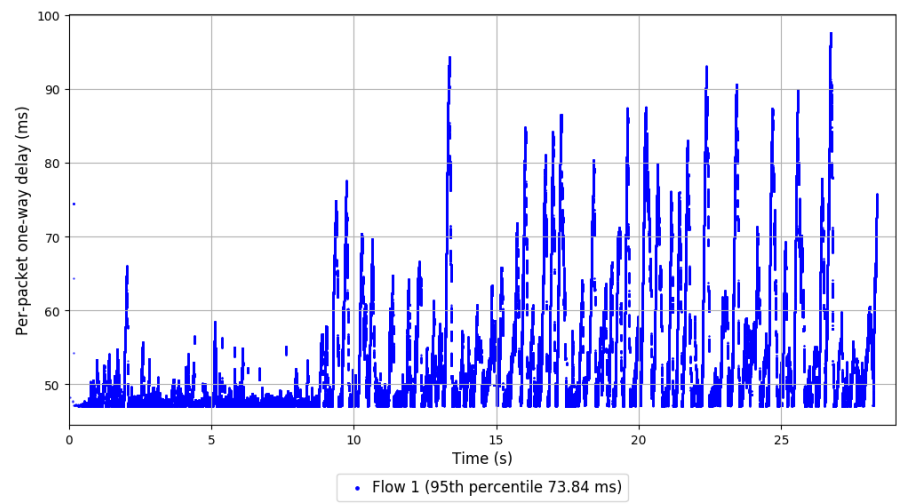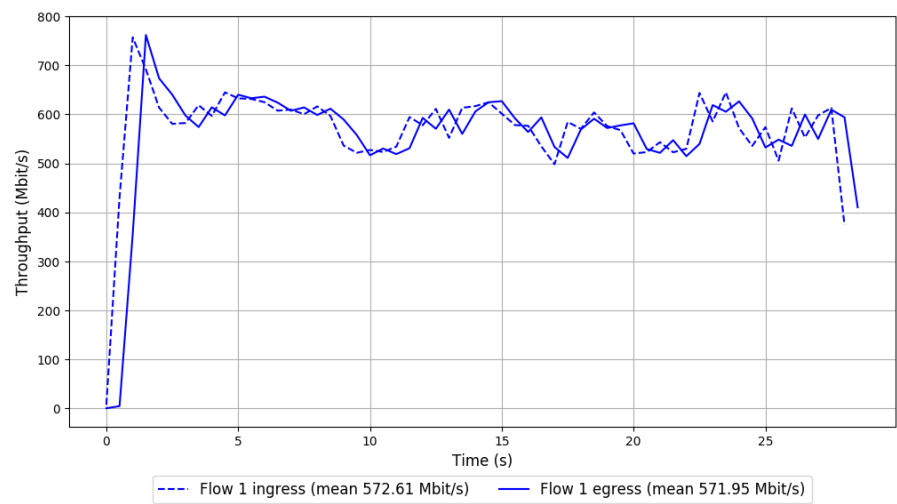
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-12 03:19:58
End at: 2019-12-12 03:20:28
Local clock offset: -0.503 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 628.09 Mbit/s
95th percentile per-packet one-way delay: 63.746 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 628.09 Mbit/s
95th percentile per-packet one-way delay: 63.746 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-12 03:54:40
End at: 2019-12-12 03:55:10
Local clock offset: 0.625 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2019-12-12 07:05:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 625.87 Mbit/s
95th percentile per-packet one-way delay: 61.136 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 625.87 Mbit/s
95th percentile per-packet one-way delay: 61.136 ms
Loss rate: 0.00%
```
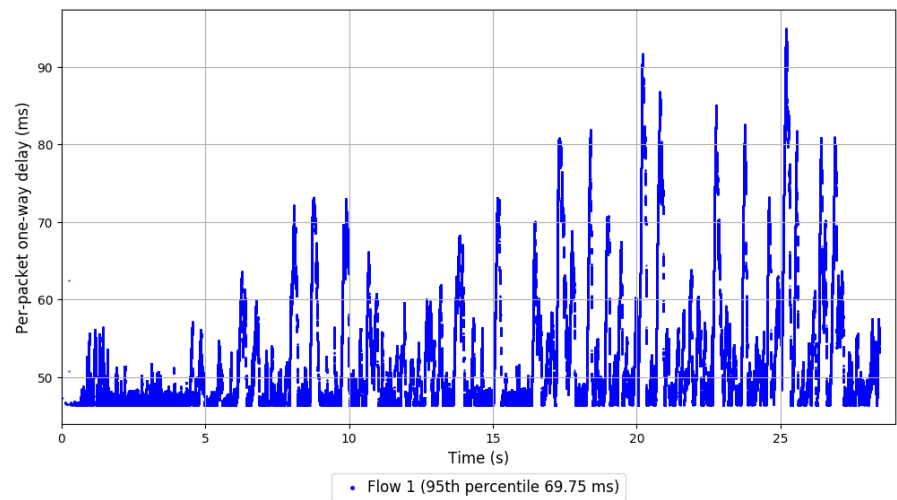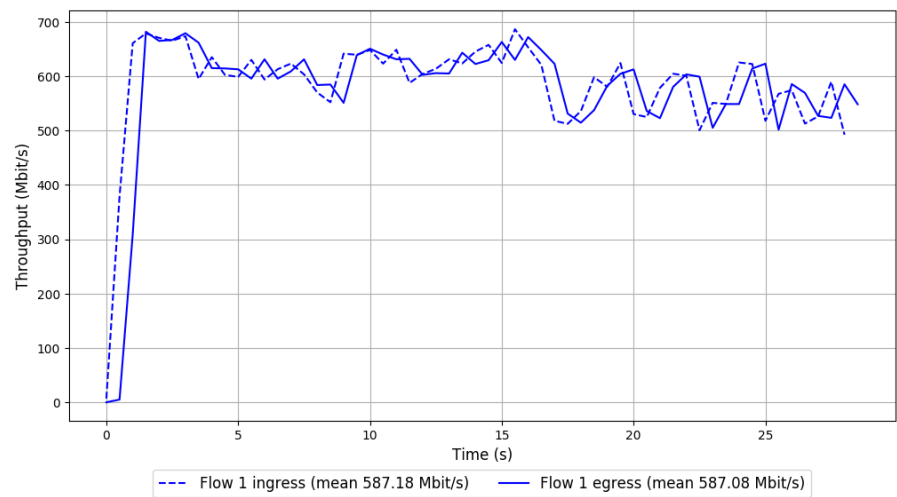
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-12 04:29:54
End at: 2019-12-12 04:30:24
Local clock offset: -0.026 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-12-12 07:06:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 571.95 Mbit/s
95th percentile per-packet one-way delay: 73.840 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 571.95 Mbit/s
95th percentile per-packet one-way delay: 73.840 ms
Loss rate: 0.12%
```
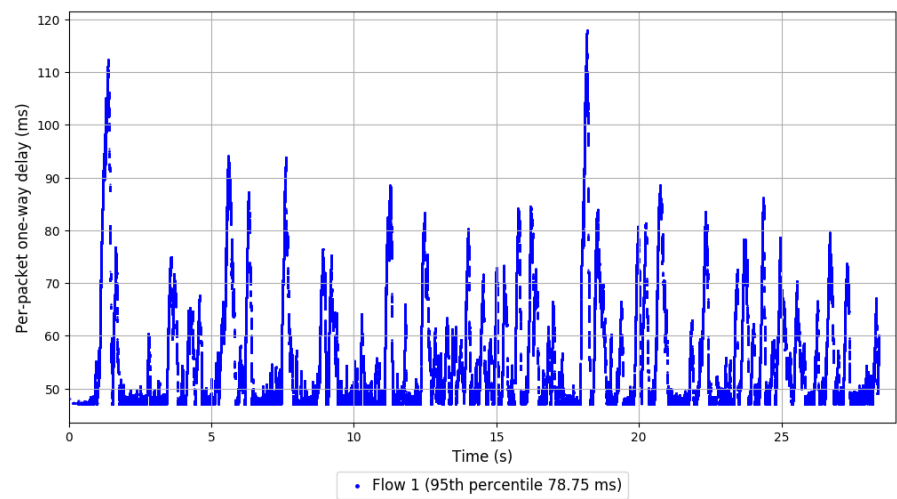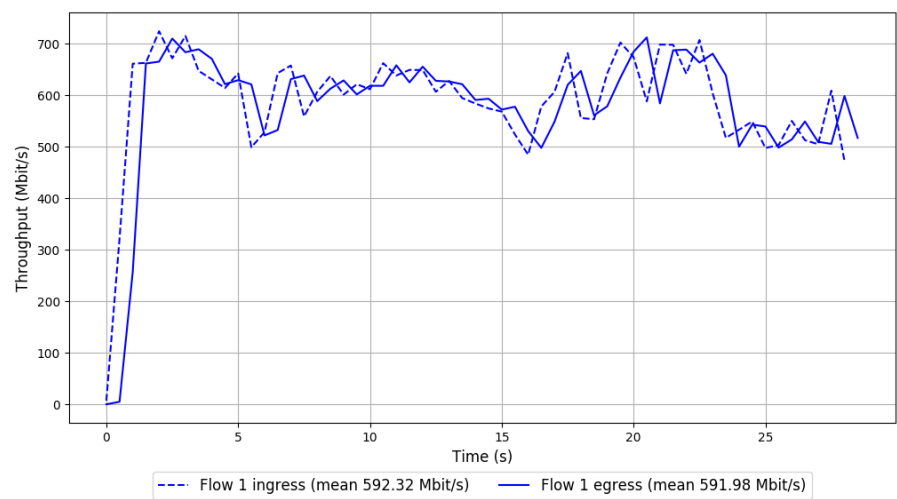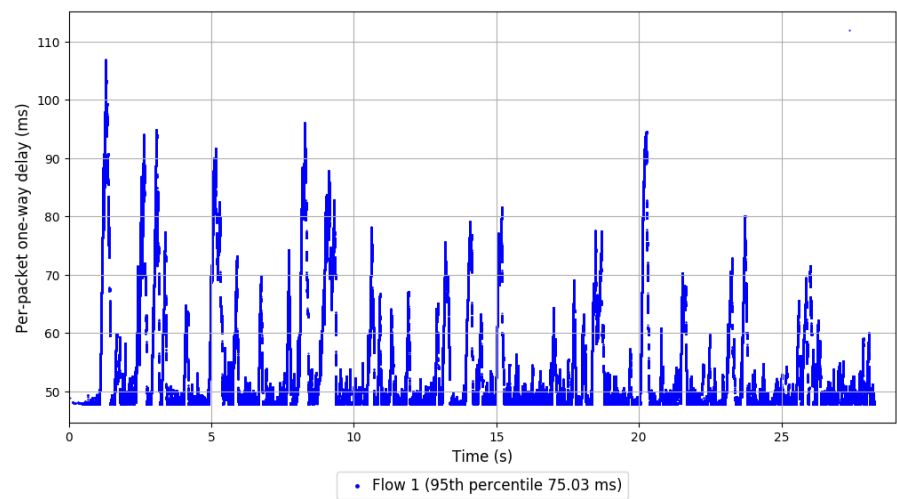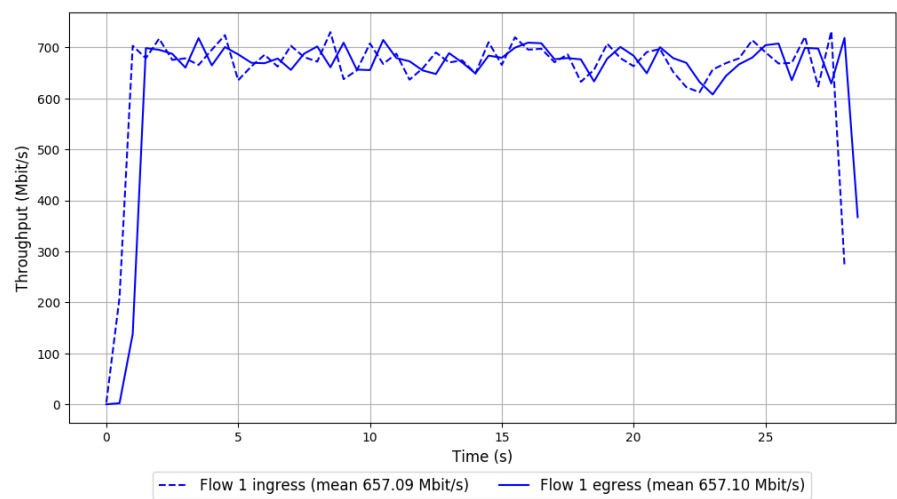
Run 3: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 572.61 Mbit/s) —— Flow 1 egress (mean 571.95 Mbit/s)

• Flow 1 (95th percentile 73.84 ms)

70

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-12 05:04:50
End at: 2019-12-12 05:05:20
Local clock offset: -0.072 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-12-12 07:07:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 587.08 Mbit/s
95th percentile per-packet one-way delay: 69.755 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 587.08 Mbit/s
95th percentile per-packet one-way delay: 69.755 ms
Loss rate: 0.02%
```

Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-12 05:38:58
End at: 2019-12-12 05:39:28
Local clock offset: -0.067 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2019-12-12 07:08:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 591.98 Mbit/s
95th percentile per-packet one-way delay: 78.747 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 591.98 Mbit/s
95th percentile per-packet one-way delay: 78.747 ms
Loss rate: 0.06%
```
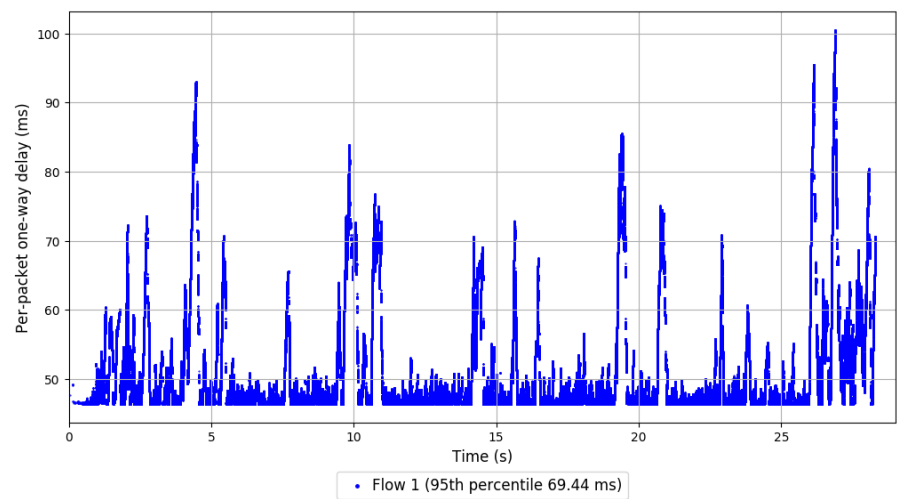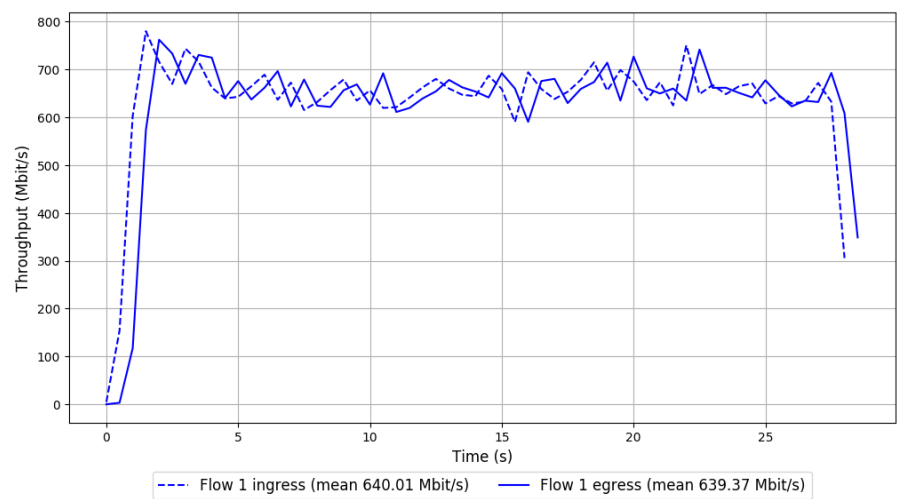
Run 5: Report of Indigo-MusesC3 — Data Link

- - - - Flow 1 ingress (mean 592.32 Mbit/s) ——— Flow 1 egress (mean 591.98 Mbit/s)
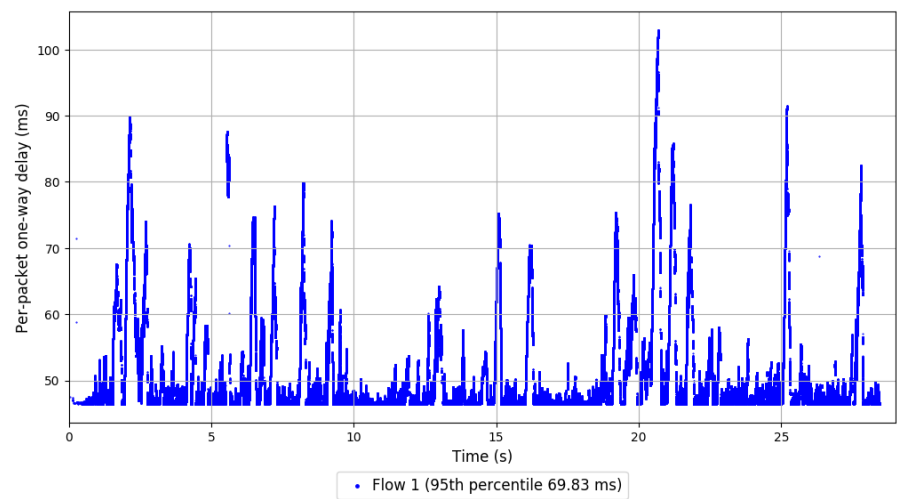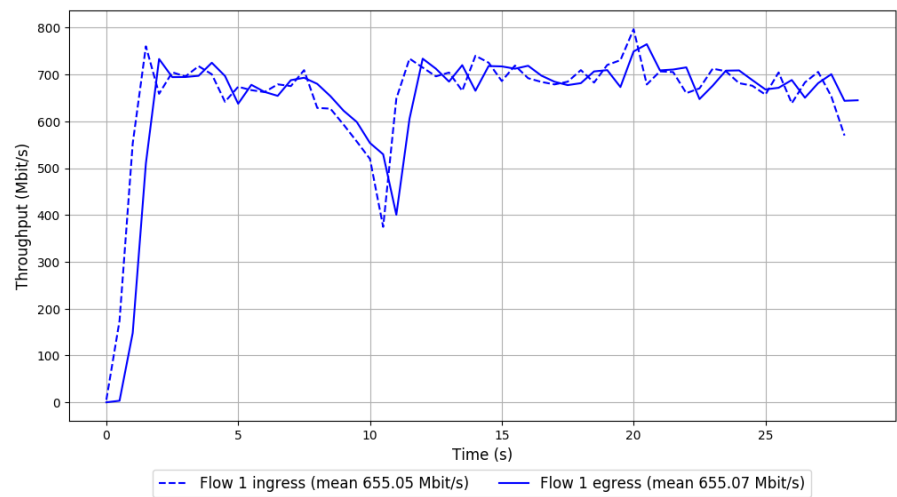

• Flow 1 (95th percentile 78.75 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-12 03:35:07
End at: 2019-12-12 03:35:37
Local clock offset: -0.913 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2019-12-12 07:10:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 657.10 Mbit/s
95th percentile per-packet one-way delay: 75.026 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 657.10 Mbit/s
95th percentile per-packet one-way delay: 75.026 ms
Loss rate: 0.00%
```
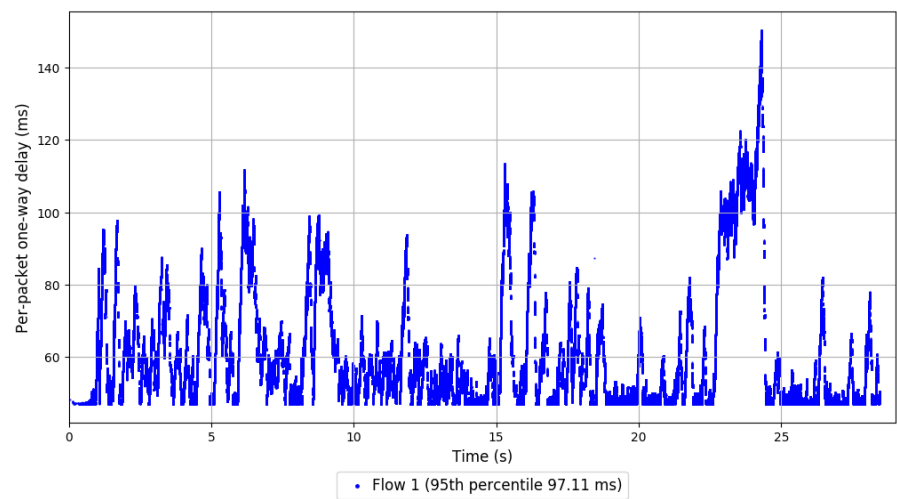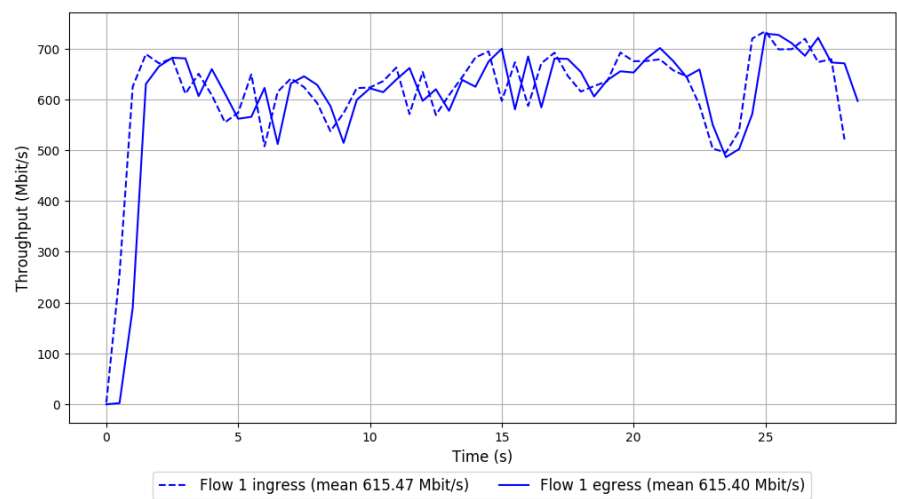
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-12 04:09:55
End at: 2019-12-12 04:10:25
Local clock offset: -0.085 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-12-12 07:14:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 639.37 Mbit/s
95th percentile per-packet one-way delay: 69.442 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 639.37 Mbit/s
95th percentile per-packet one-way delay: 69.442 ms
Loss rate: 0.10%
```

Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 640.01 Mbit/s) --- Flow 1 egress (mean 639.37 Mbit/s)
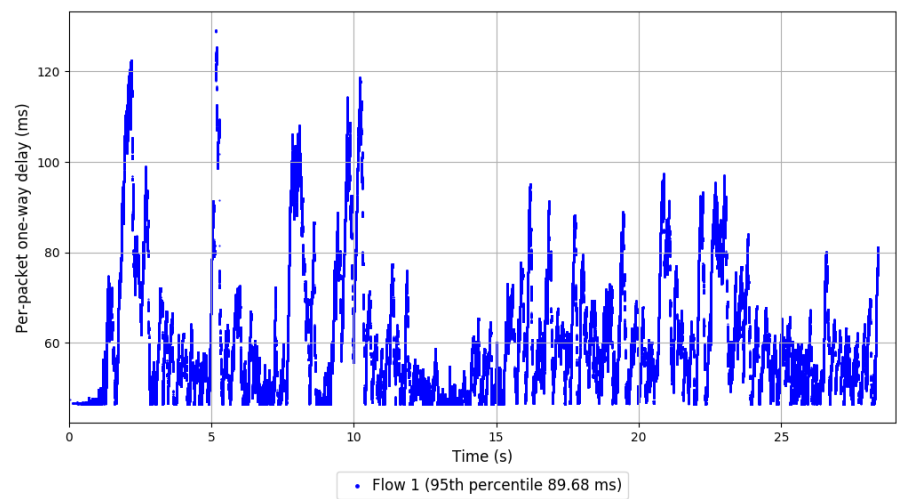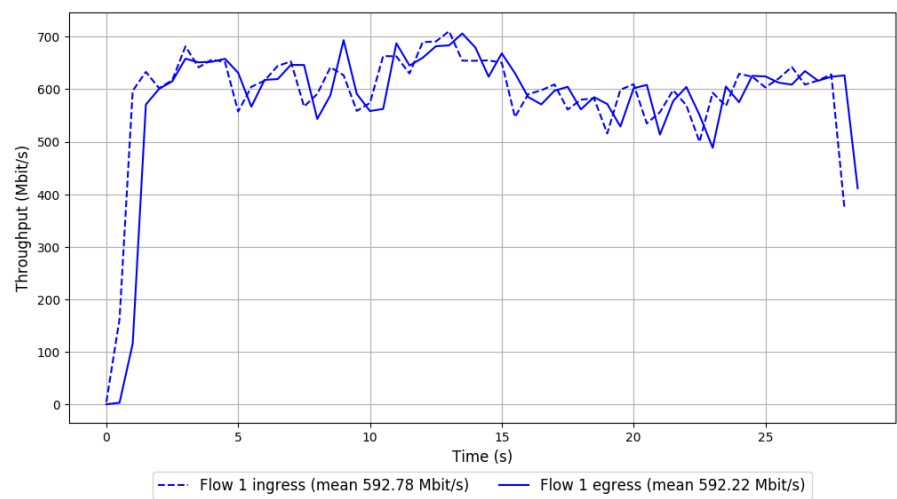

Flow 1 (95th percentile 69.44 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-12 04:45:07
End at: 2019-12-12 04:45:37
Local clock offset: -0.079 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-12-12 07:15:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 655.07 Mbit/s
95th percentile per-packet one-way delay: 69.832 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 655.07 Mbit/s
95th percentile per-packet one-way delay: 69.832 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 655.05 Mbit/s)   Flow 1 egress (mean 655.07 Mbit/s)

Flow 1 (95th percentile 69.83 ms)

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-12 05:19:24
End at: 2019-12-12 05:19:54
Local clock offset: -0.044 ms
Remote clock offset: -0.154 ms


# Below is generated by plot.py at 2019-12-12 07:16:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 615.40 Mbit/s
95th percentile per-packet one-way delay: 97.111 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 615.40 Mbit/s
95th percentile per-packet one-way delay: 97.111 ms
Loss rate: 0.01%
```
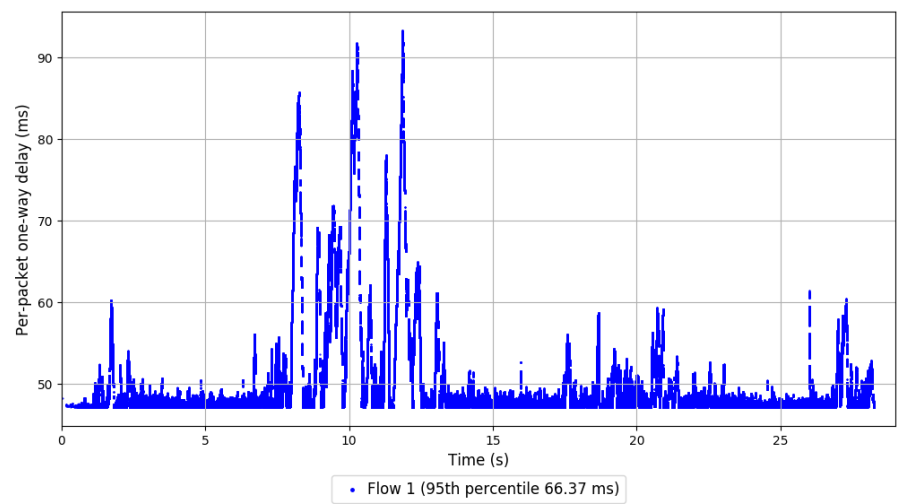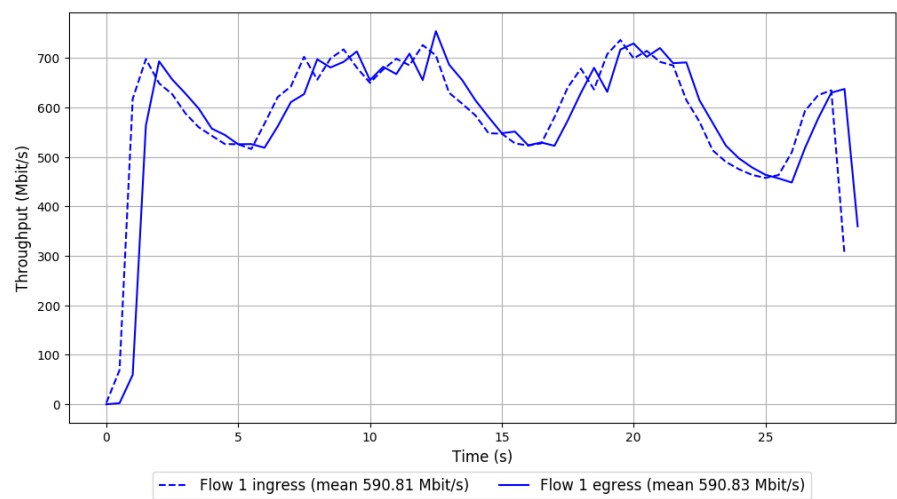
Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 615.47 Mbit/s)   Flow 1 egress (mean 615.40 Mbit/s)

• Flow 1 (95th percentile 97.11 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-12 05:53:55
End at: 2019-12-12 05:54:25
Local clock offset: -0.095 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2019-12-12 07:16:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 592.22 Mbit/s
95th percentile per-packet one-way delay: 89.678 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 592.22 Mbit/s
95th percentile per-packet one-way delay: 89.678 ms
Loss rate: 0.09%
```
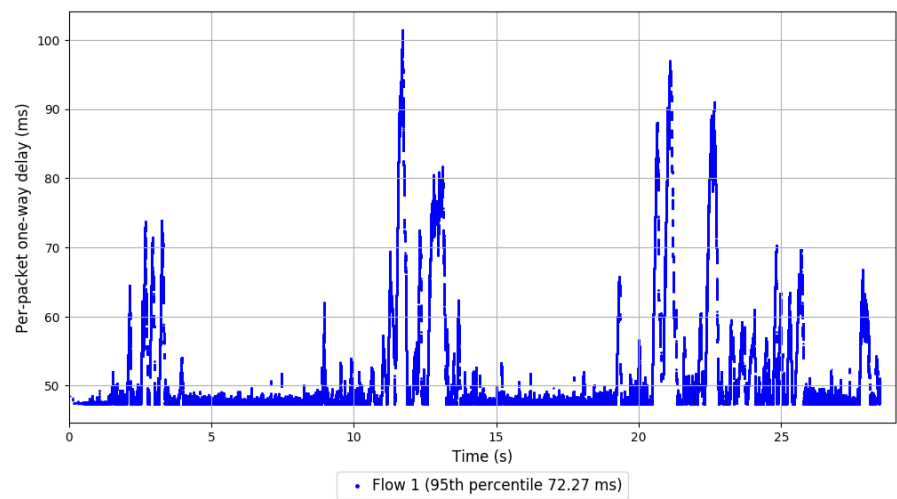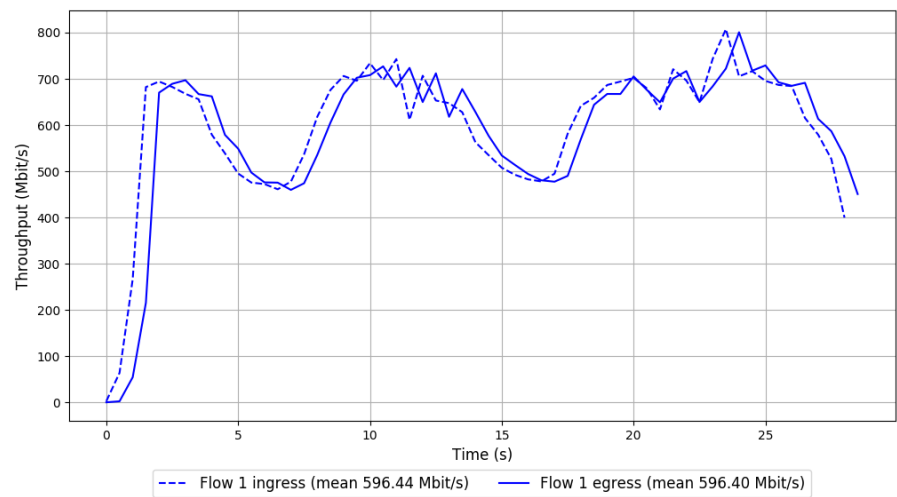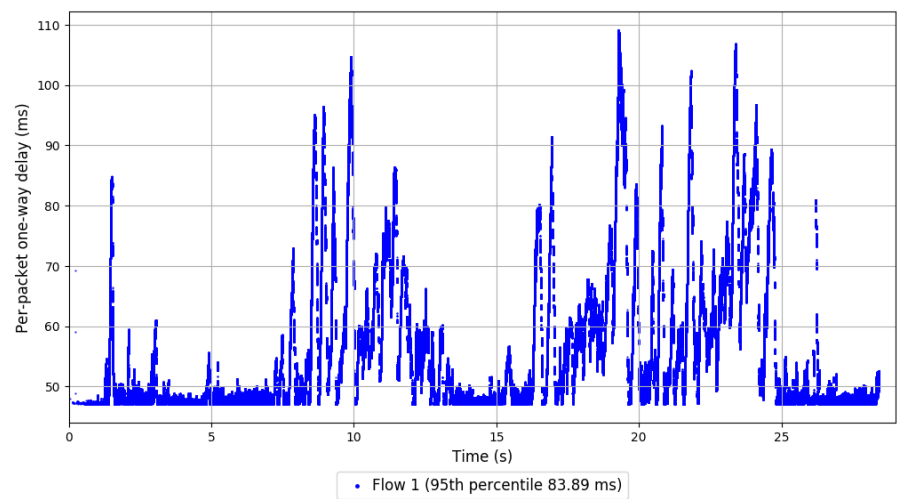
Run 5: Report of Indigo-MusesC5 — Data Link

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-12 03:27:47
End at: 2019-12-12 03:28:17
Local clock offset: -0.14 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-12-12 07:16:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 590.83 Mbit/s
95th percentile per-packet one-way delay: 66.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 590.83 Mbit/s
95th percentile per-packet one-way delay: 66.367 ms
Loss rate: 0.00%
```
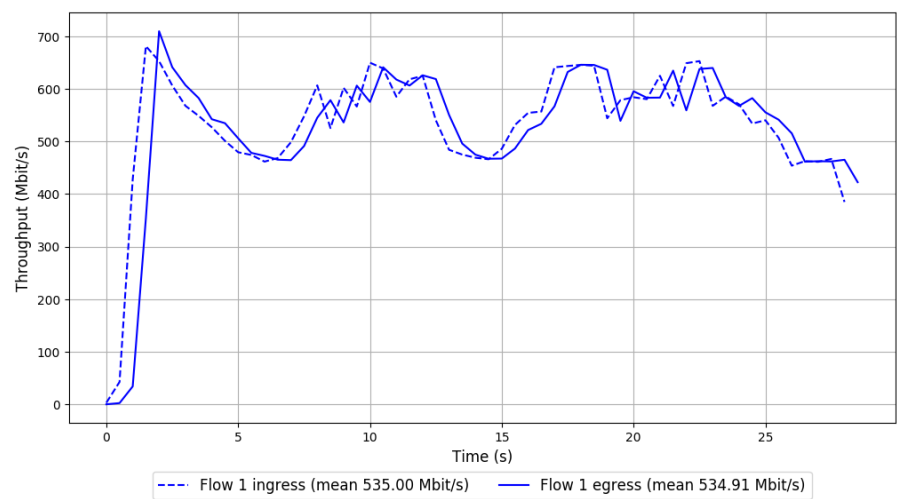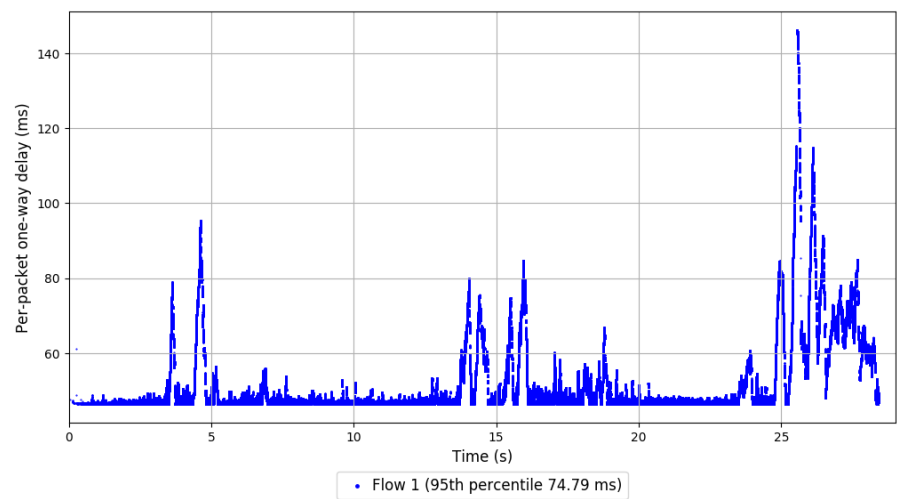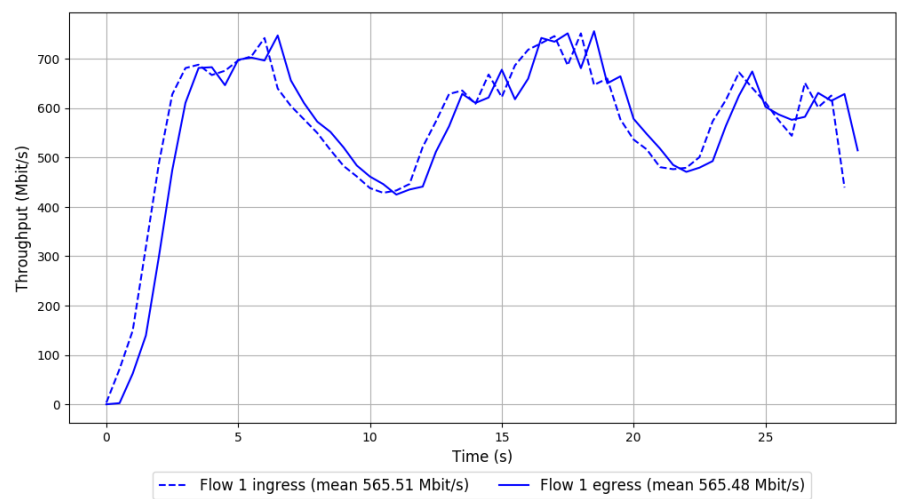
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-12 04:02:33
End at: 2019-12-12 04:03:03
Local clock offset: -0.048 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2019-12-12 07:17:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 596.40 Mbit/s
95th percentile per-packet one-way delay: 72.265 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 596.40 Mbit/s
95th percentile per-packet one-way delay: 72.265 ms
Loss rate: 0.01%
```
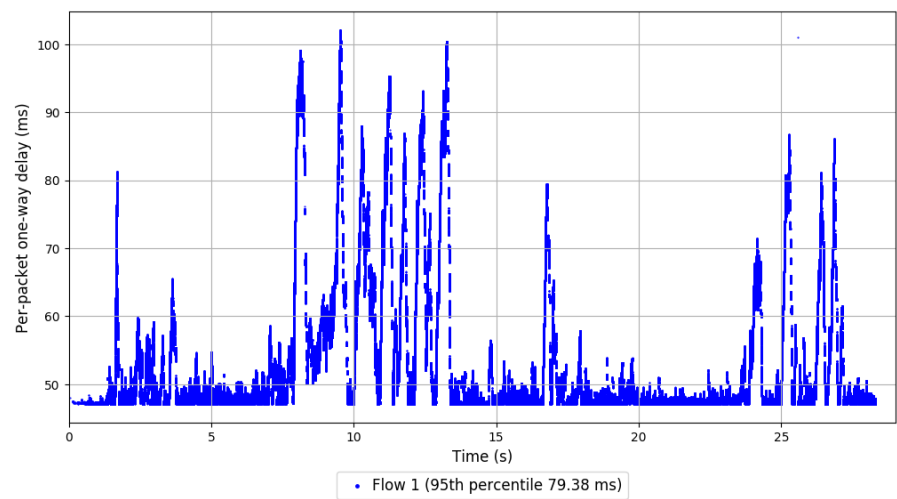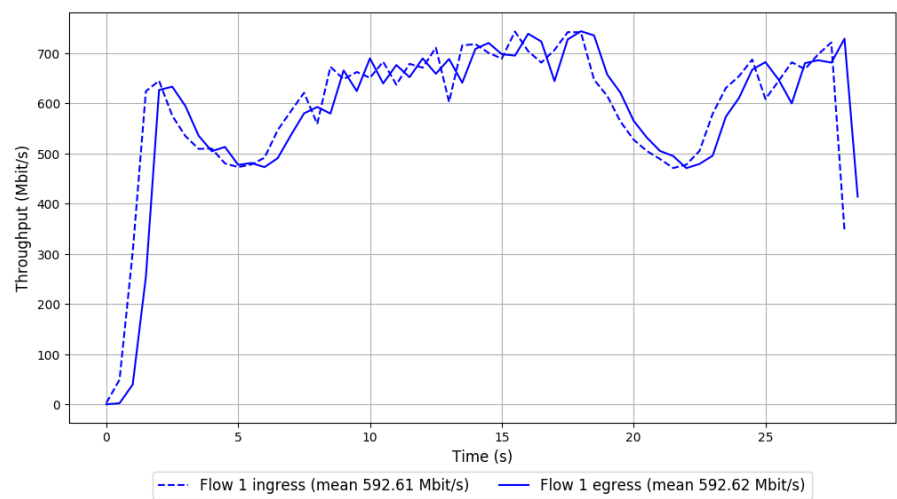
Run 2: Report of Indigo-MusesD — Data Link
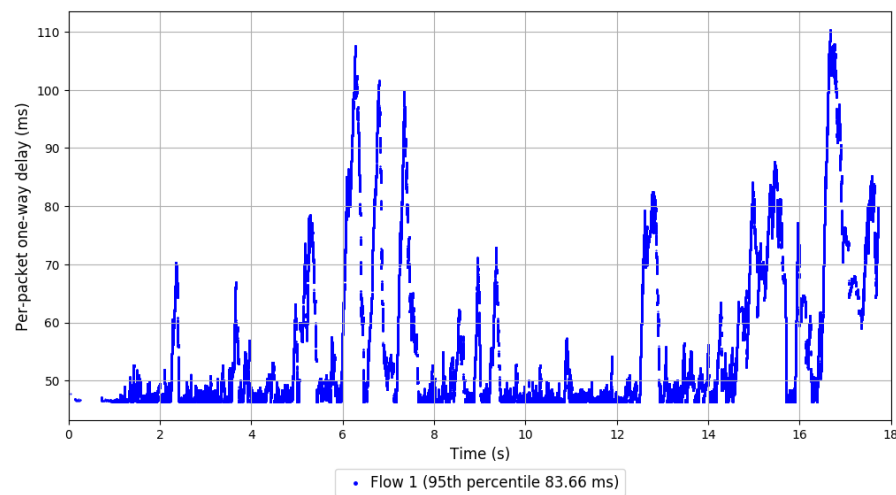
```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-12 04:37:49
End at: 2019-12-12 04:38:19
Local clock offset: -0.058 ms
Remote clock offset: -0.056 ms


# Below is generated by plot.py at 2019-12-12 07:17:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 534.91 Mbit/s
95th percentile per-packet one-way delay: 83.892 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 534.91 Mbit/s
95th percentile per-packet one-way delay: 83.892 ms
Loss rate: 0.02%
```

Run 3: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 535.00 Mbit/s)   Flow 1 egress (mean 534.91 Mbit/s)

Flow 1 (95th percentile 83.89 ms)

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-12 05:12:03
End at: 2019-12-12 05:12:33
Local clock offset: -0.102 ms
Remote clock offset: -0.135 ms


# Below is generated by plot.py at 2019-12-12 07:20:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 565.48 Mbit/s
95th percentile per-packet one-way delay: 74.792 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 565.48 Mbit/s
95th percentile per-packet one-way delay: 74.792 ms
Loss rate: 0.01%
```
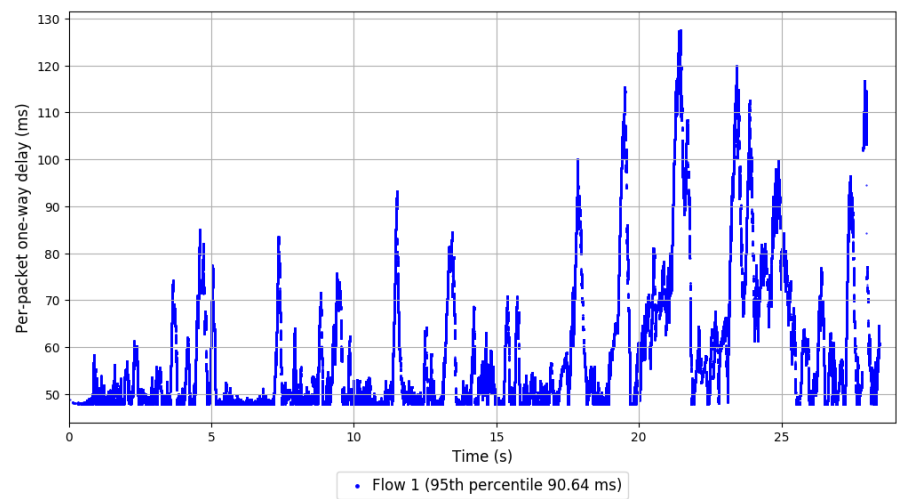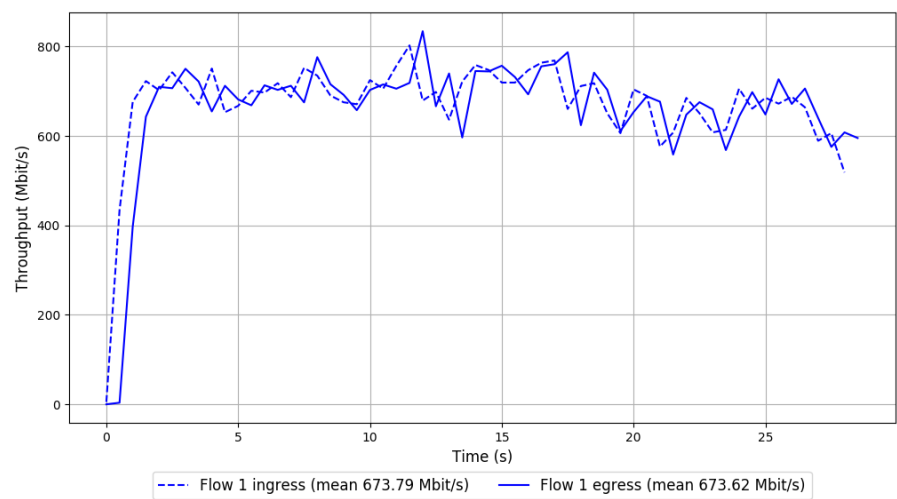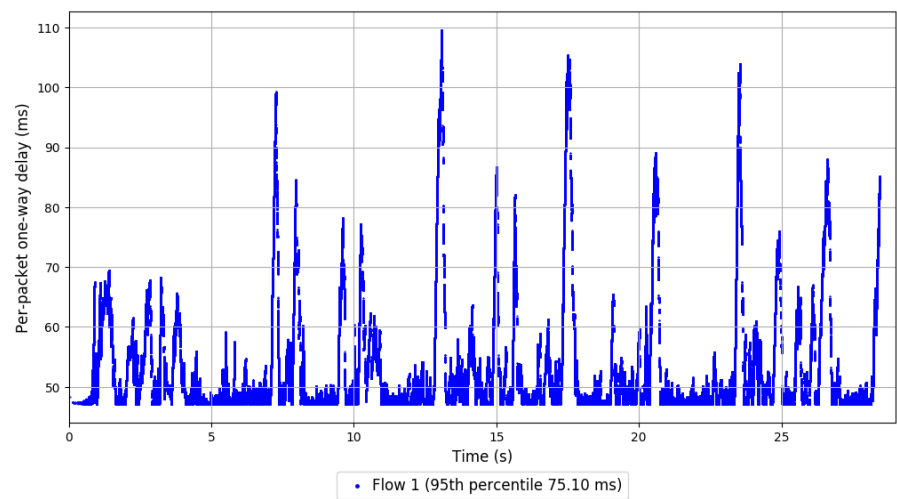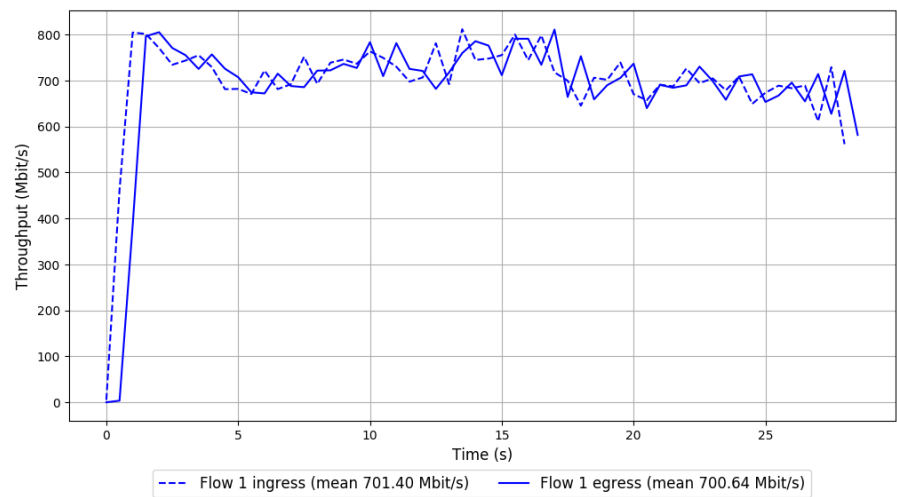
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-12 05:46:43
End at: 2019-12-12 05:47:13
Local clock offset: -0.093 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2019-12-12 07:24:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 592.62 Mbit/s
95th percentile per-packet one-way delay: 79.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 592.62 Mbit/s
95th percentile per-packet one-way delay: 79.375 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 592.61 Mbit/s)   Flow 1 egress (mean 592.62 Mbit/s)

• Flow 1 (95th percentile 79.38 ms)

Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-12 03:07:25
End at: 2019-12-12 03:07:55
Local clock offset: -0.026 ms
Remote clock offset: -0.011 ms

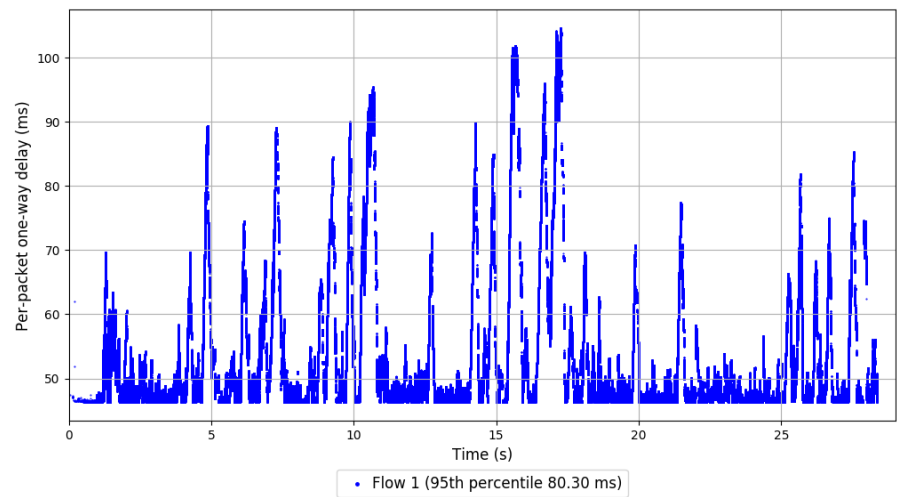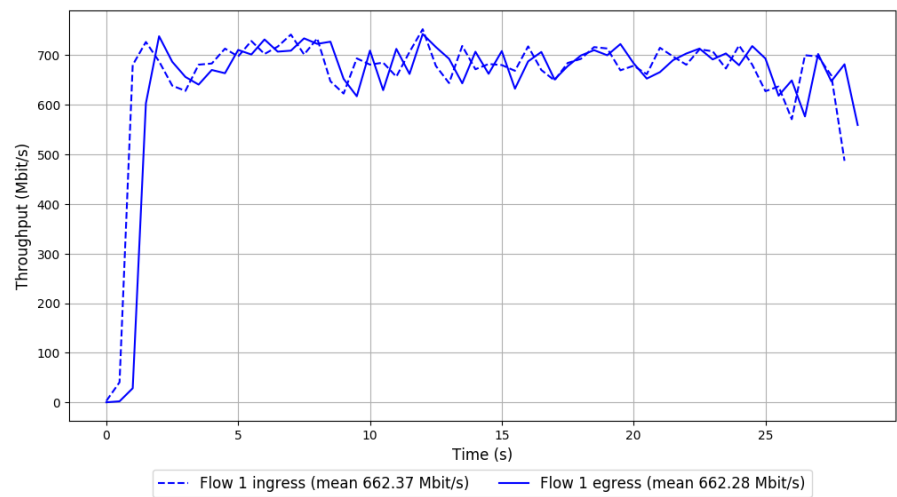Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-12 03:41:58
End at: 2019-12-12 03:42:28
Local clock offset: -0.964 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2019-12-12 07:27:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 673.62 Mbit/s
95th percentile per-packet one-way delay: 90.641 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 673.62 Mbit/s
95th percentile per-packet one-way delay: 90.641 ms
Loss rate: 0.03%
```
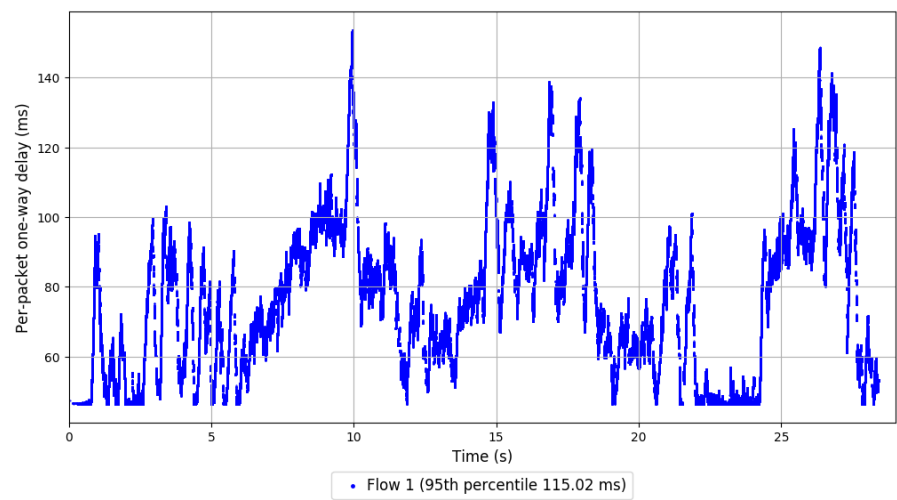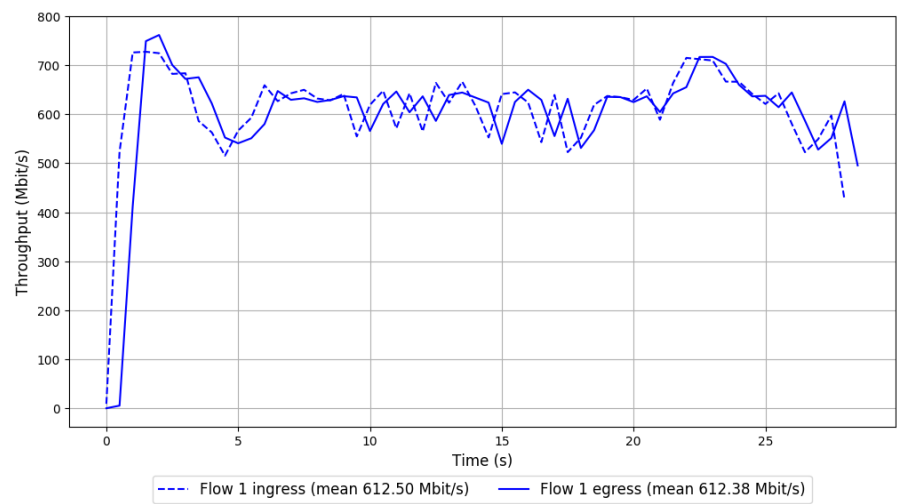
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-12 04:16:49
End at: 2019-12-12 04:17:19
Local clock offset: -0.126 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-12-12 07:27:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 700.64 Mbit/s
95th percentile per-packet one-way delay: 75.101 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 700.64 Mbit/s
95th percentile per-packet one-way delay: 75.101 ms
Loss rate: 0.11%
```
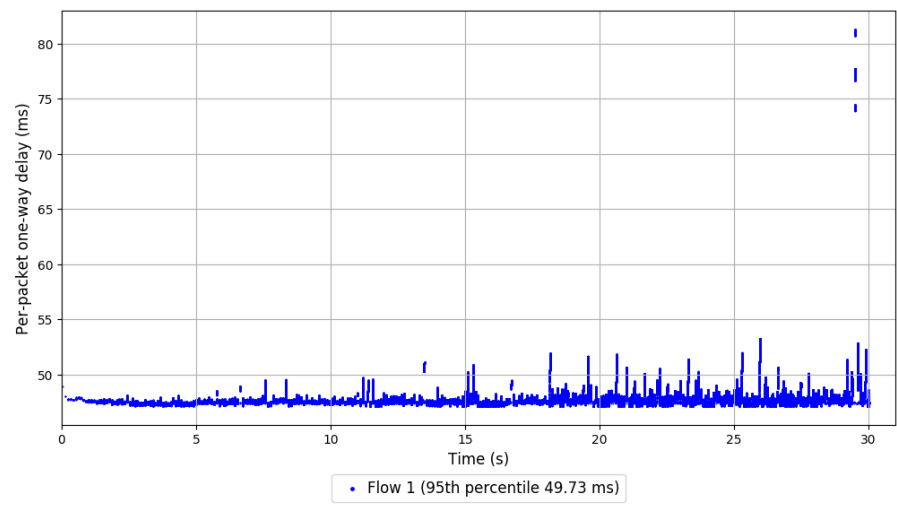
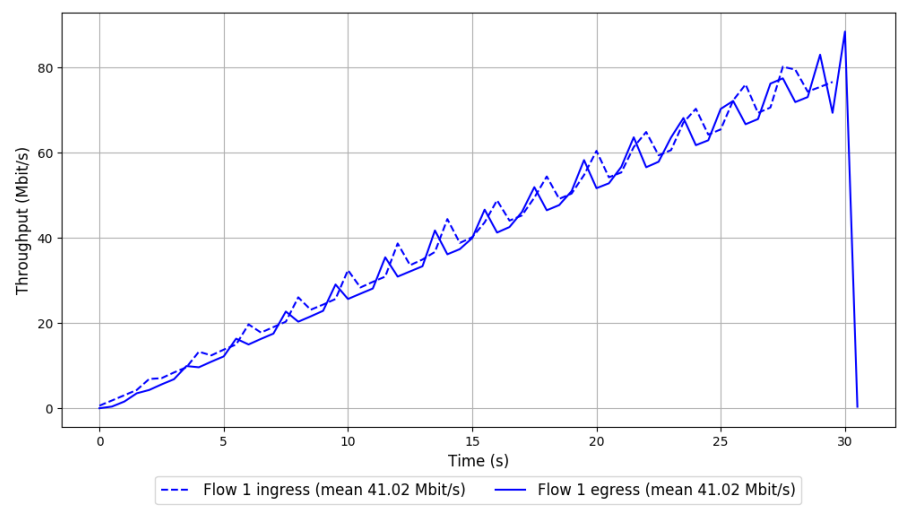Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-12 04:51:50
End at: 2019-12-12 04:52:20
Local clock offset: -0.025 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-12-12 07:27:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 662.28 Mbit/s
95th percentile per-packet one-way delay: 80.303 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 662.28 Mbit/s
95th percentile per-packet one-way delay: 80.303 ms
Loss rate: 0.01%
```
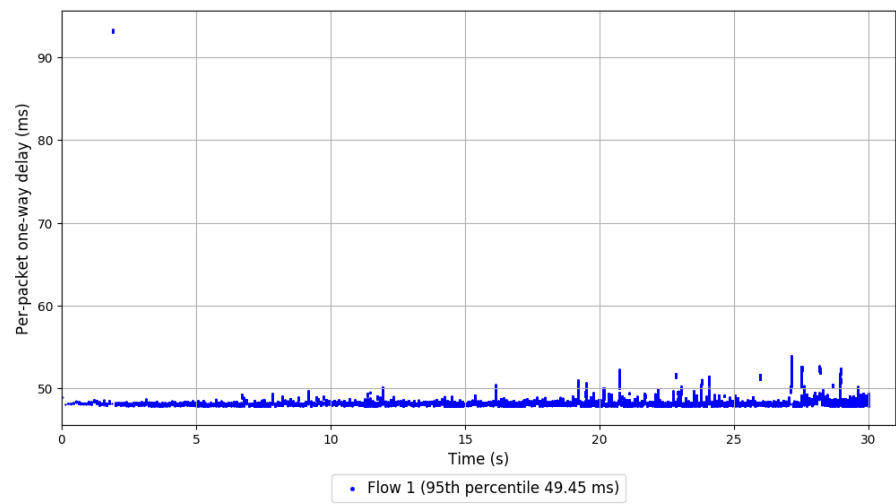
Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-12 05:26:12
End at: 2019-12-12 05:26:42
Local clock offset: -0.034 ms
Remote clock offset: -0.176 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 612.38 Mbit/s
95th percentile per-packet one-way delay: 115.022 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 612.38 Mbit/s
95th percentile per-packet one-way delay: 115.022 ms
Loss rate: 0.02%
```

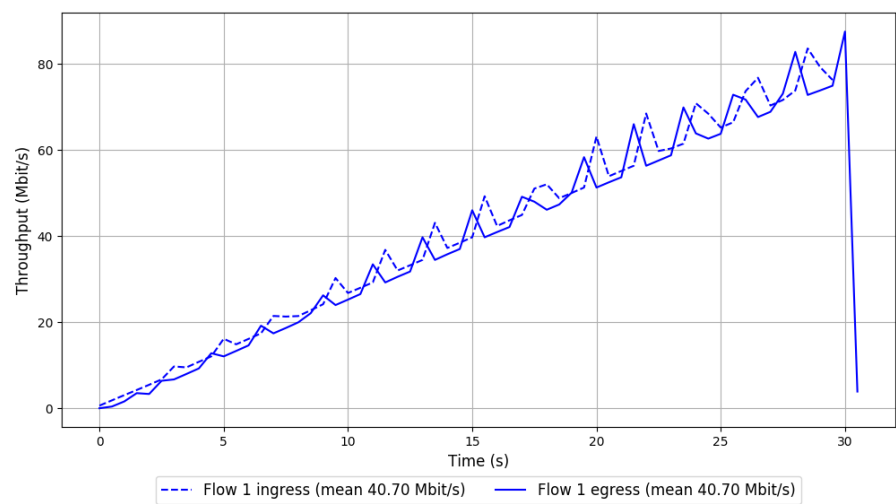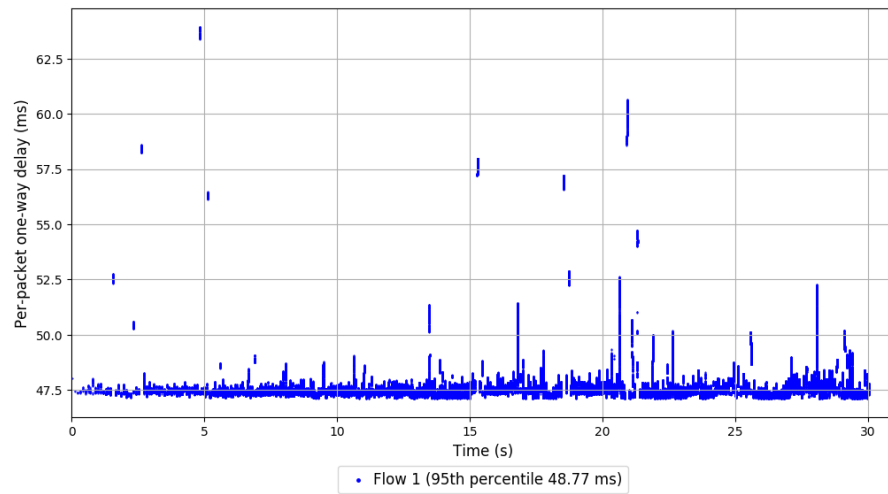Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-12-12 03:05:02
End at: 2019-12-12 03:05:32
Local clock offset: -0.053 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 49.730 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.02 Mbit/s
95th percentile per-packet one-way delay: 49.730 ms
Loss rate: 0.00%
```

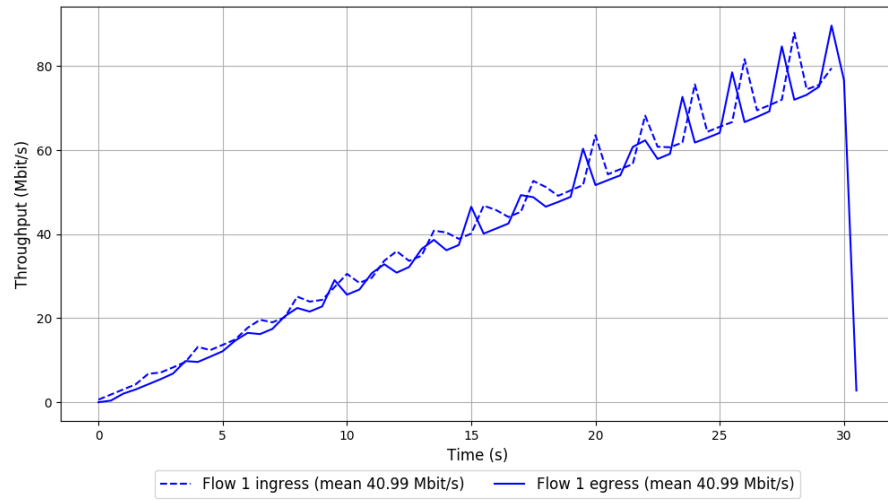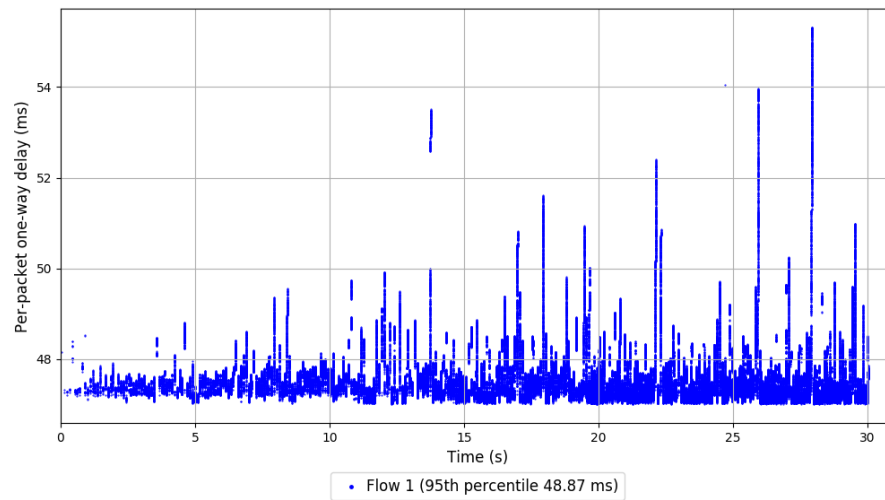# Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 41.02 Mbit/s) --- Flow 1 egress (mean 41.02 Mbit/s)

Flow 1 (95th percentile 49.73 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-12-12 03:39:36
End at: 2019-12-12 03:40:06
Local clock offset: -0.591 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.70 Mbit/s
95th percentile per-packet one-way delay: 49.449 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.70 Mbit/s
95th percentile per-packet one-way delay: 49.449 ms
Loss rate: 0.00%
```

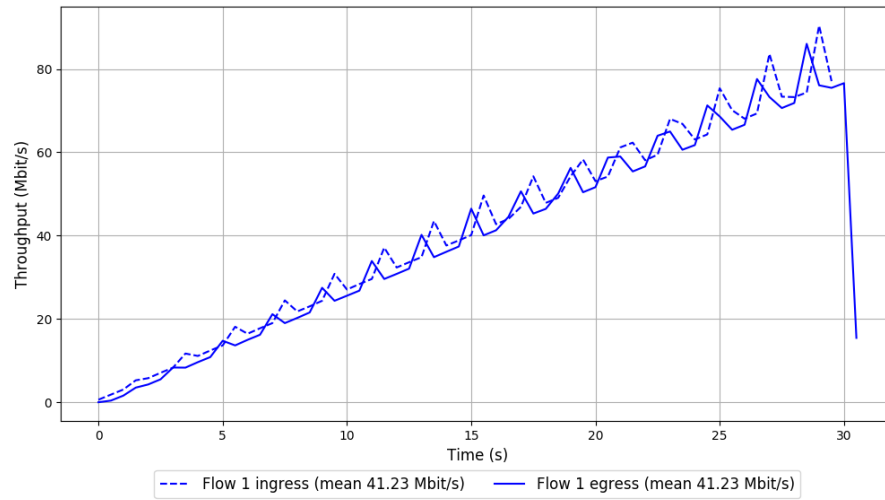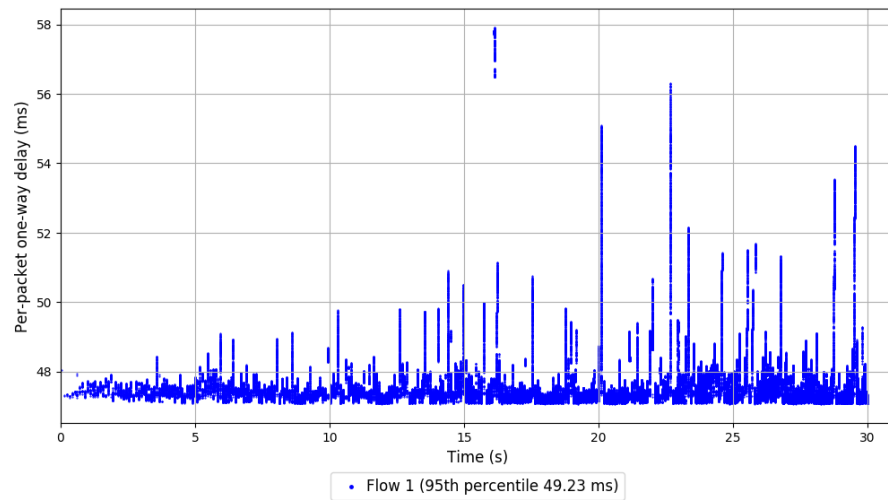Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-12-12 04:14:26
End at: 2019-12-12 04:14:56
Local clock offset: -0.14 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 48.773 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.99 Mbit/s
95th percentile per-packet one-way delay: 48.773 ms
Loss rate: 0.00%
```

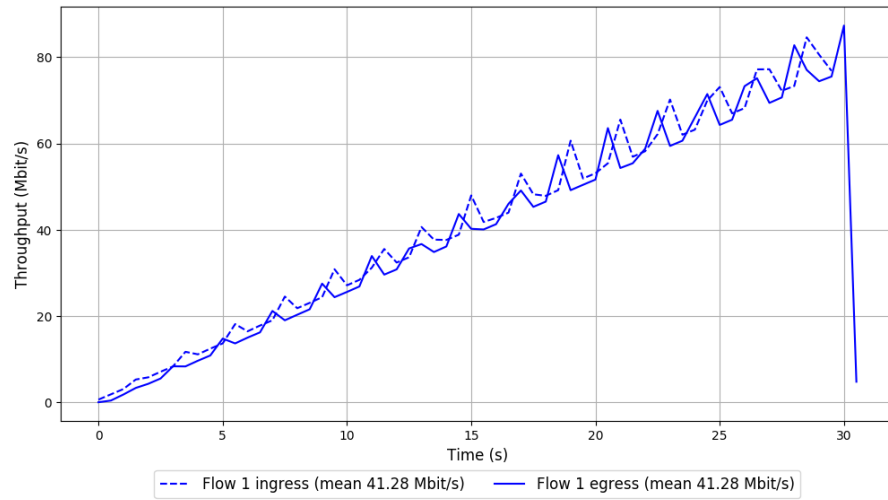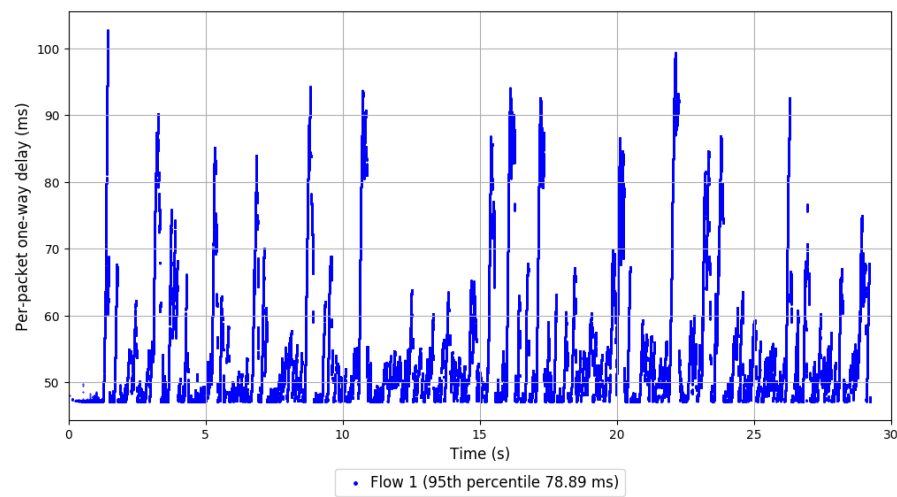# Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 40.99 Mbit/s) —— Flow 1 egress (mean 40.99 Mbit/s)

• Flow 1 (95th percentile 48.77 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-12-12 04:49:29
End at: 2019-12-12 04:49:59
Local clock offset: 0.012 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 48.866 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.23 Mbit/s
95th percentile per-packet one-way delay: 48.866 ms
Loss rate: 0.00%
```

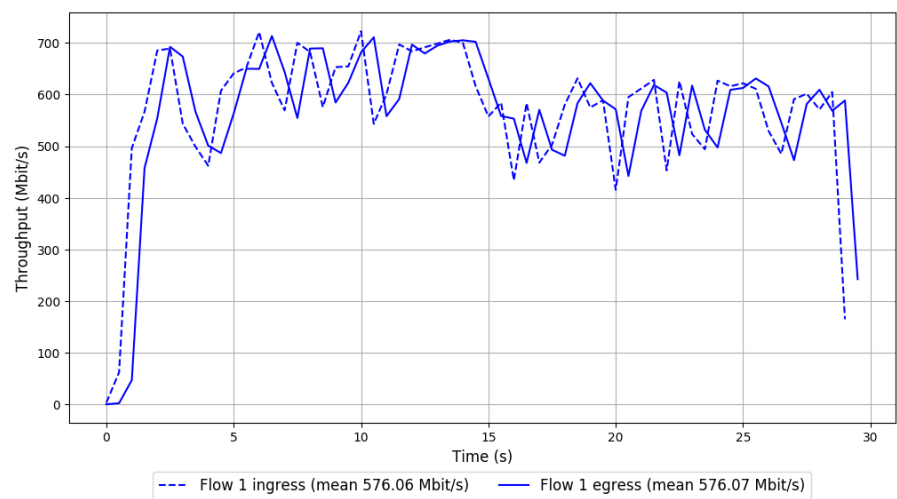Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-12-12 05:23:52
End at: 2019-12-12 05:24:22
Local clock offset: -0.036 ms
Remote clock offset: -0.163 ms


# Below is generated by plot.py at 2019-12-12 07:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 49.231 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 41.28 Mbit/s
95th percentile per-packet one-way delay: 49.231 ms
Loss rate: 0.00%
```
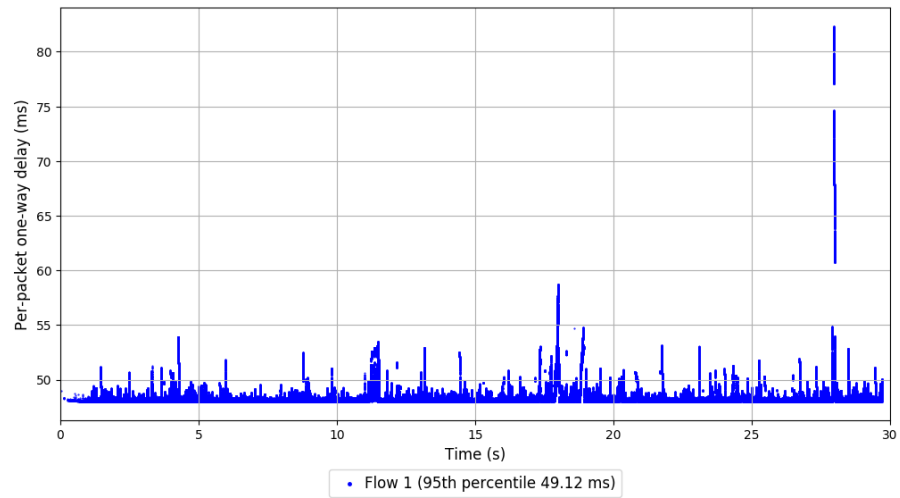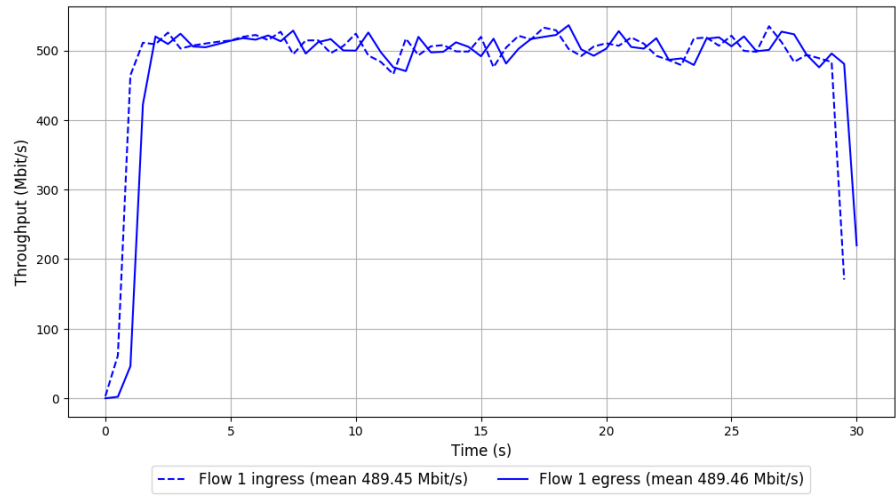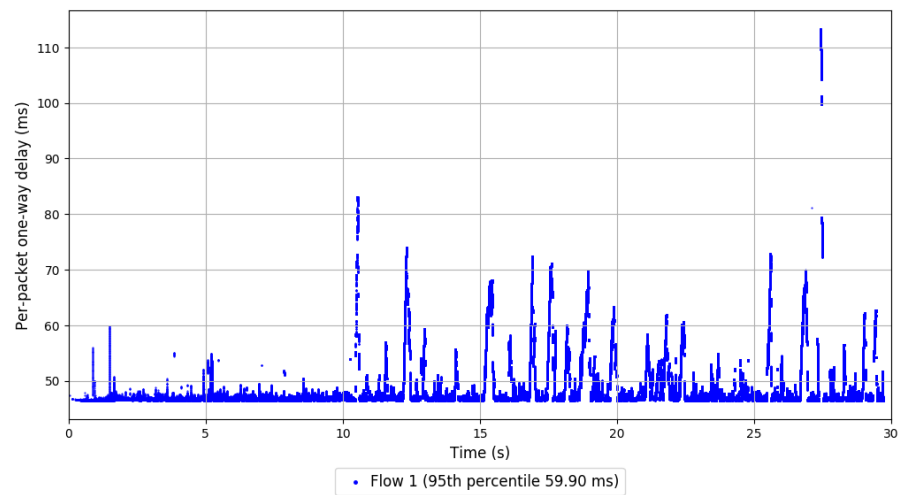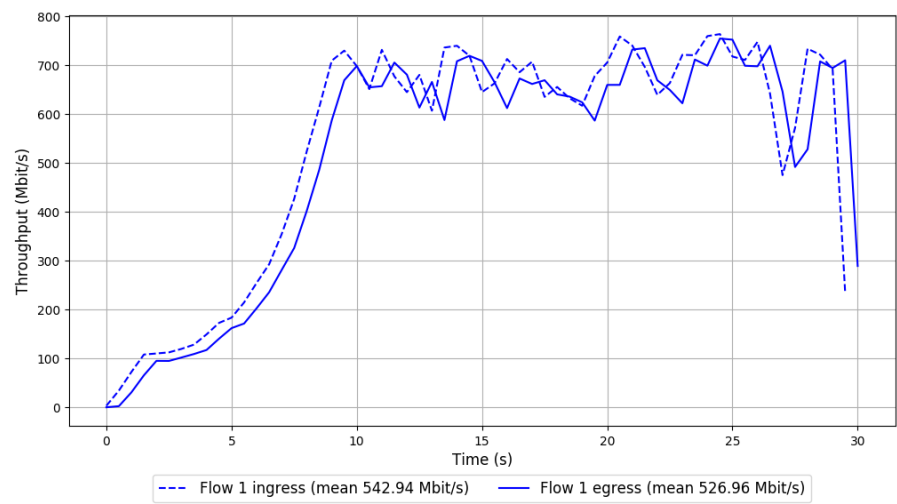
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 03:18:25
End at: 2019-12-12 03:18:55
Local clock offset: -0.127 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-12-12 07:32:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 576.07 Mbit/s
95th percentile per-packet one-way delay: 78.888 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 576.07 Mbit/s
95th percentile per-packet one-way delay: 78.888 ms
Loss rate: 0.00%
```

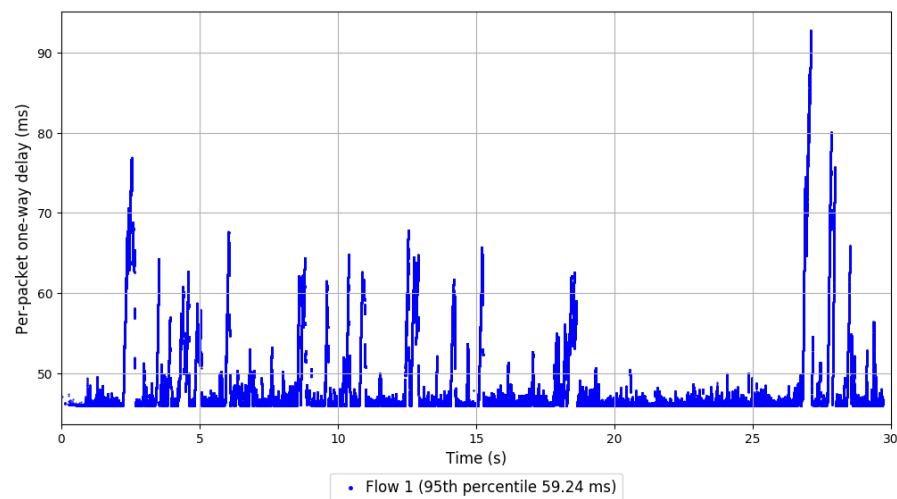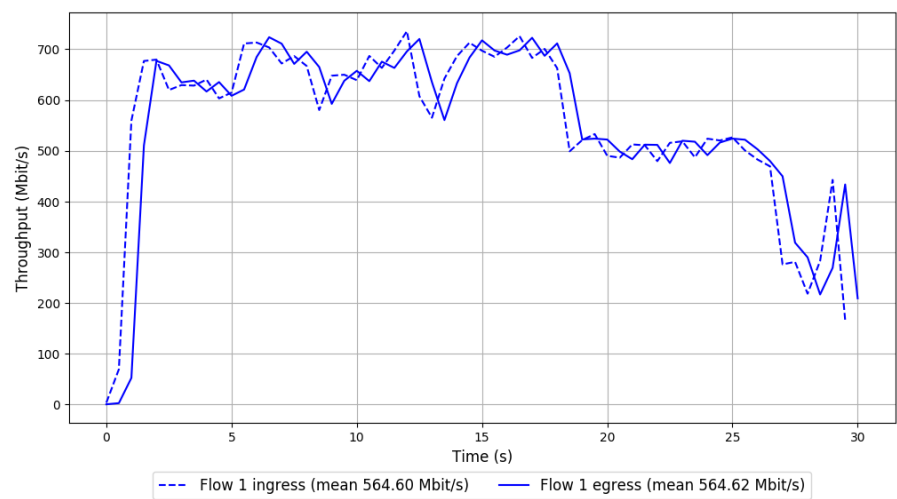Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 03:53:11
End at: 2019-12-12 03:53:41
Local clock offset: -0.909 ms
Remote clock offset: -0.021 ms


# Below is generated by plot.py at 2019-12-12 07:32:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 489.46 Mbit/s
95th percentile per-packet one-way delay: 49.123 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 489.46 Mbit/s
95th percentile per-packet one-way delay: 49.123 ms
Loss rate: 0.00%
```

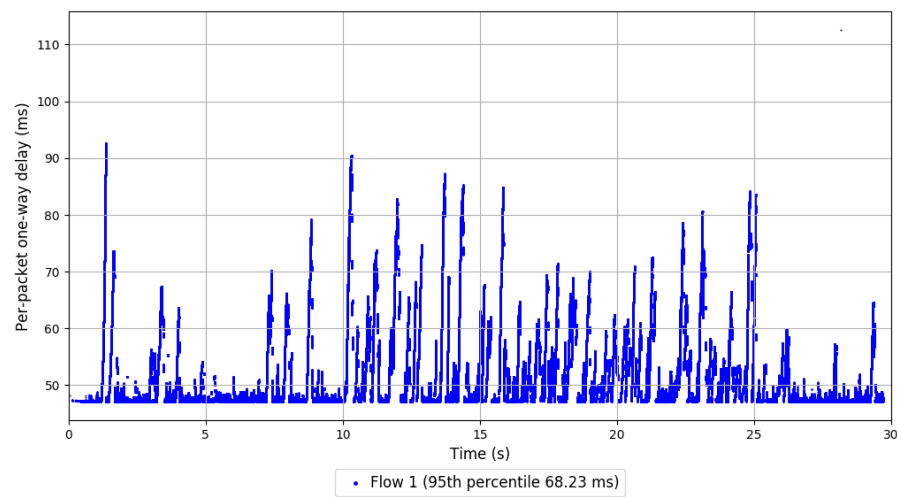Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 04:28:23
End at: 2019-12-12 04:28:53
Local clock offset: -0.107 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2019-12-12 07:32:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 526.96 Mbit/s
95th percentile per-packet one-way delay: 59.900 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 526.96 Mbit/s
95th percentile per-packet one-way delay: 59.900 ms
Loss rate: 2.94%
```
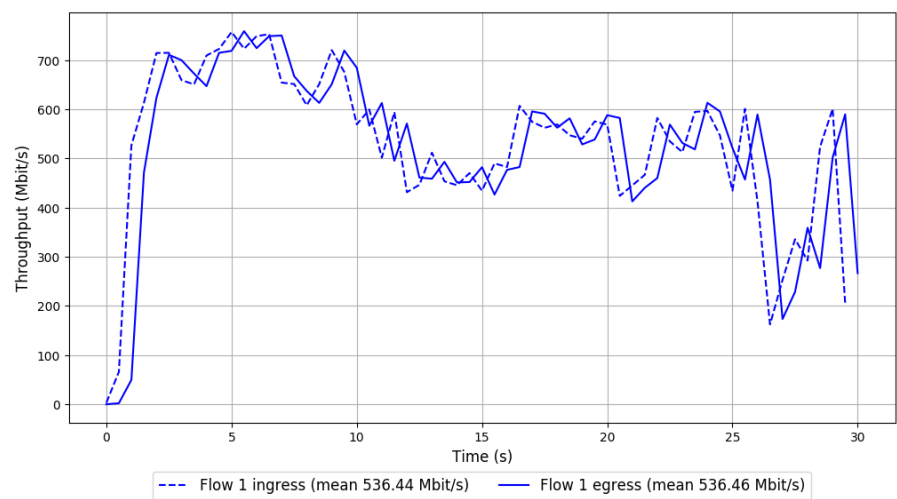
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 05:03:17
End at: 2019-12-12 05:03:47
Local clock offset: 0.367 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-12-12 07:34:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.62 Mbit/s
95th percentile per-packet one-way delay: 59.244 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 564.62 Mbit/s
95th percentile per-packet one-way delay: 59.244 ms
Loss rate: 0.00%
```
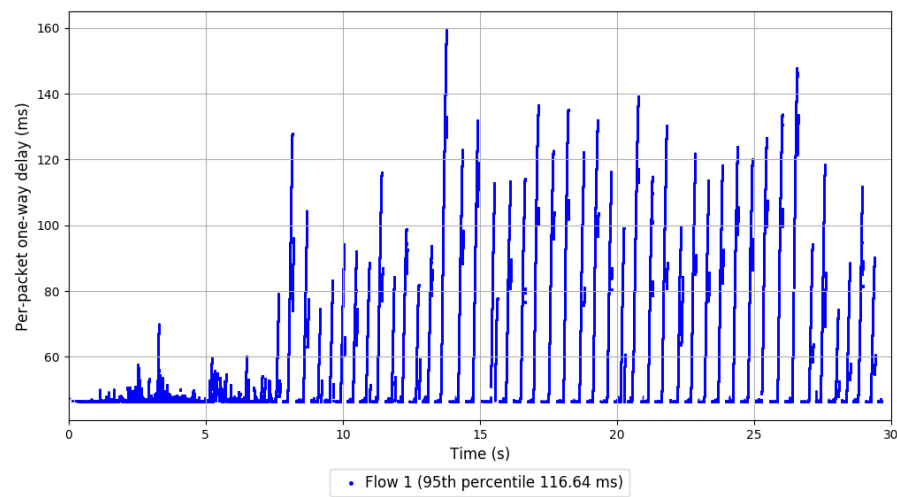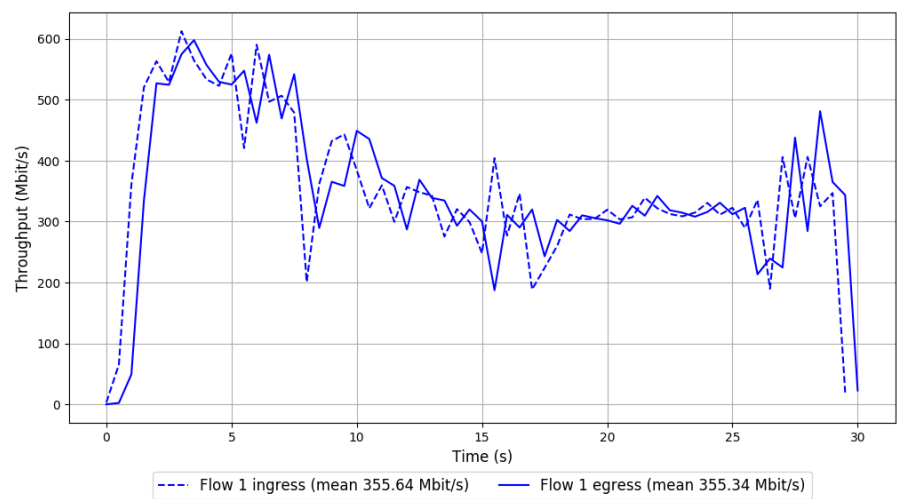
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-12-12 05:37:27
End at: 2019-12-12 05:37:57
Local clock offset: 0.009 ms
Remote clock offset: -0.115 ms


# Below is generated by plot.py at 2019-12-12 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 536.46 Mbit/s
95th percentile per-packet one-way delay: 68.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 536.46 Mbit/s
95th percentile per-packet one-way delay: 68.235 ms
Loss rate: 0.00%
```
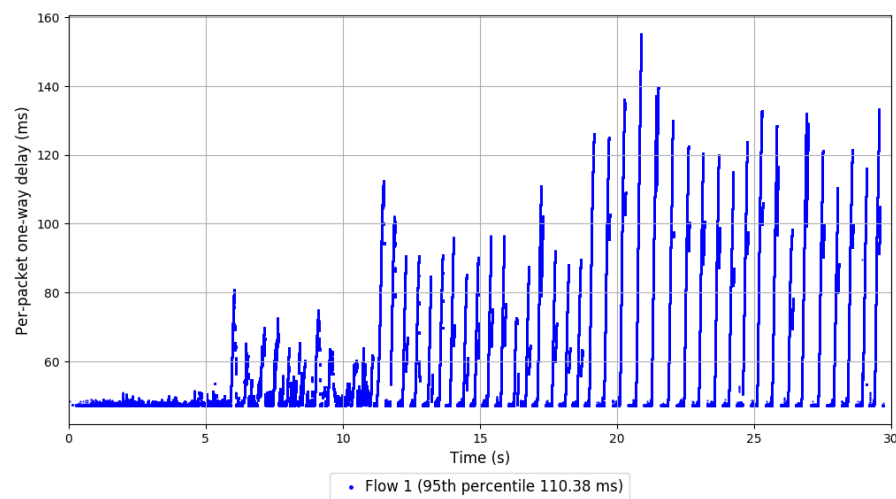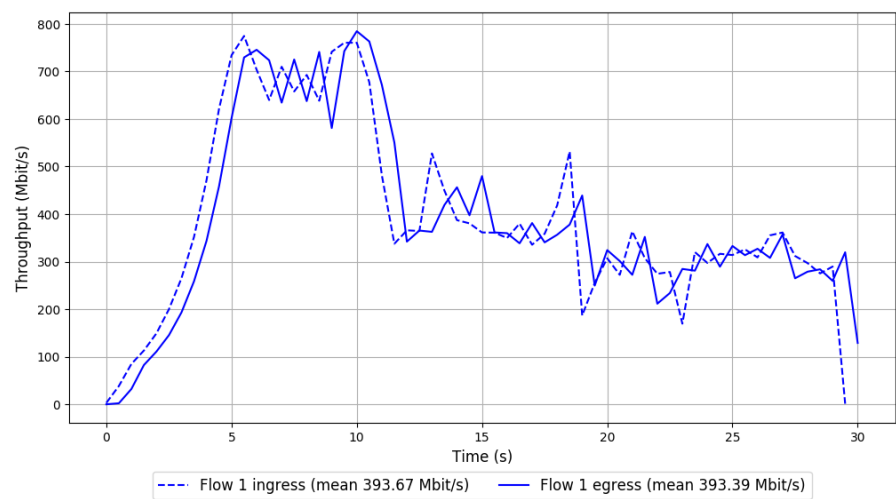
Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 03:33:44
End at: 2019-12-12 03:34:14
Local clock offset: -0.142 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2019-12-12 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 355.34 Mbit/s
95th percentile per-packet one-way delay: 116.639 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 355.34 Mbit/s
95th percentile per-packet one-way delay: 116.639 ms
Loss rate: 0.09%
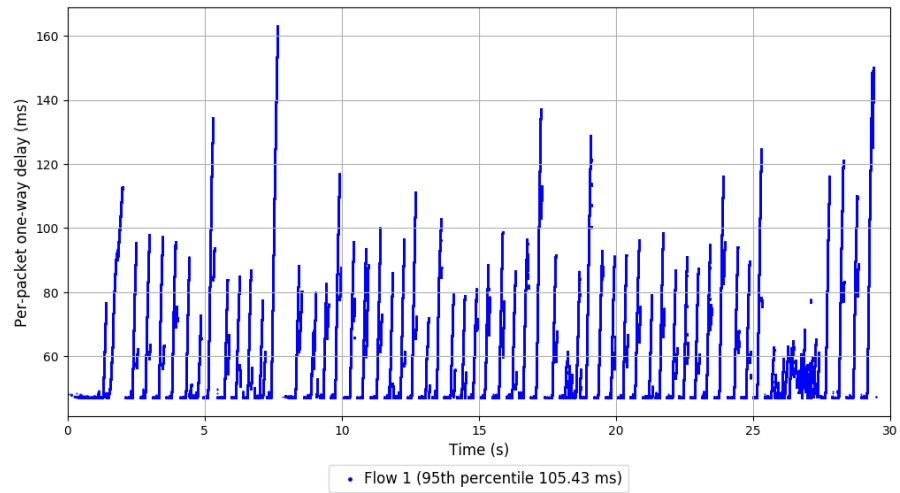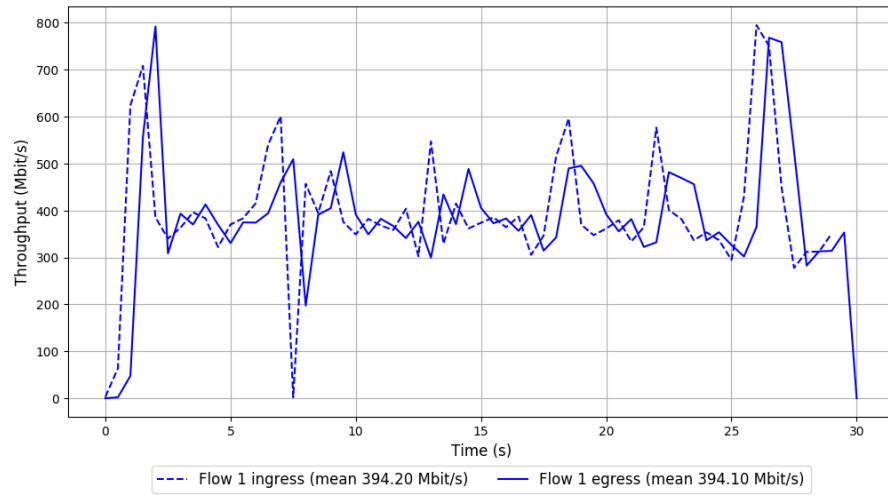```

Run 1: Report of Muses_DecisionTreeH0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 04:08:29
End at: 2019-12-12 04:08:59
Local clock offset: -0.096 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2019-12-12 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 393.39 Mbit/s
95th percentile per-packet one-way delay: 110.383 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 393.39 Mbit/s
95th percentile per-packet one-way delay: 110.383 ms
Loss rate: 0.08%
```

Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 04:43:43
End at: 2019-12-12 04:44:13
Local clock offset: -0.003 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2019-12-12 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.10 Mbit/s
95th percentile per-packet one-way delay: 105.426 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 394.10 Mbit/s
95th percentile per-packet one-way delay: 105.426 ms
Loss rate: 0.03%
```
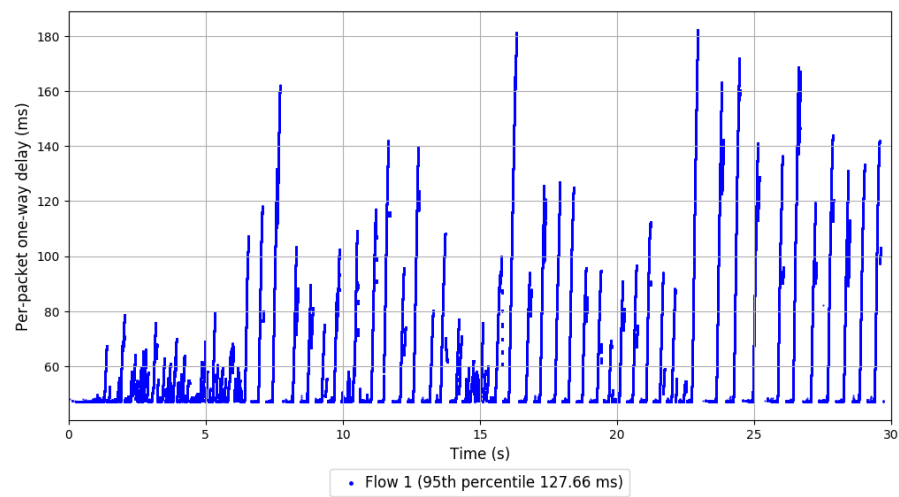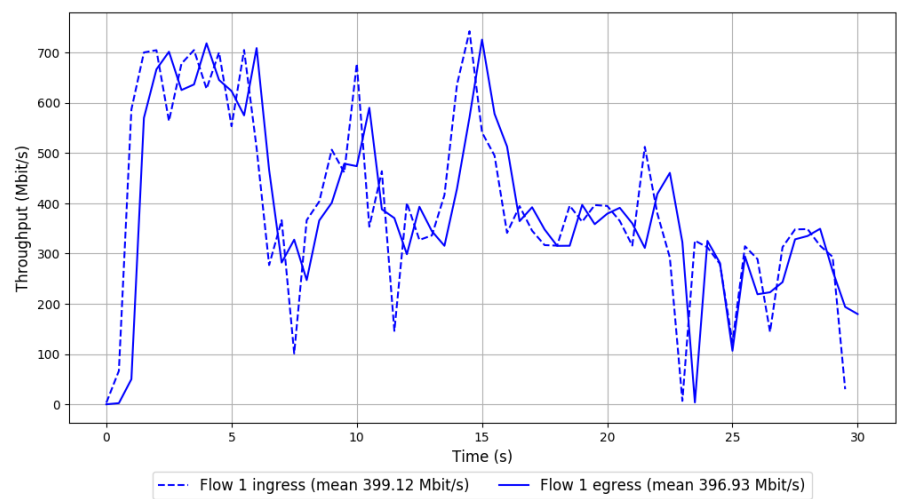
Run 3: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 394.20 Mbit/s)   Flow 1 egress (mean 394.10 Mbit/s)
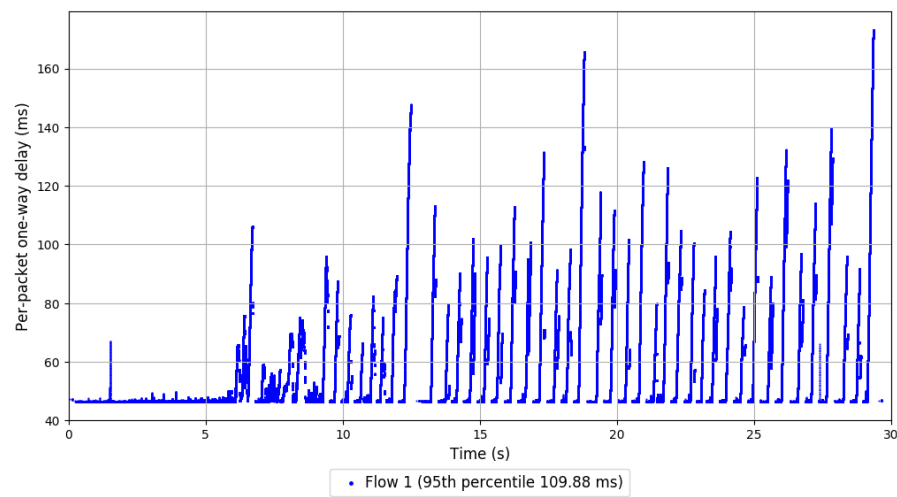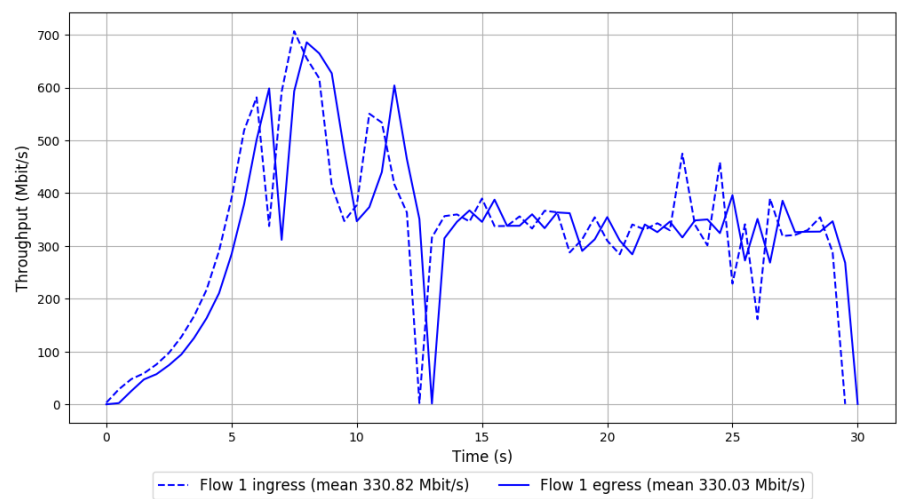

Flow 1 (95th percentile 105.43 ms)

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 05:17:58
End at: 2019-12-12 05:18:28
Local clock offset: -0.075 ms
Remote clock offset: -0.17 ms


# Below is generated by plot.py at 2019-12-12 07:38:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 396.93 Mbit/s
95th percentile per-packet one-way delay: 127.655 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 396.93 Mbit/s
95th percentile per-packet one-way delay: 127.655 ms
Loss rate: 0.55%
```

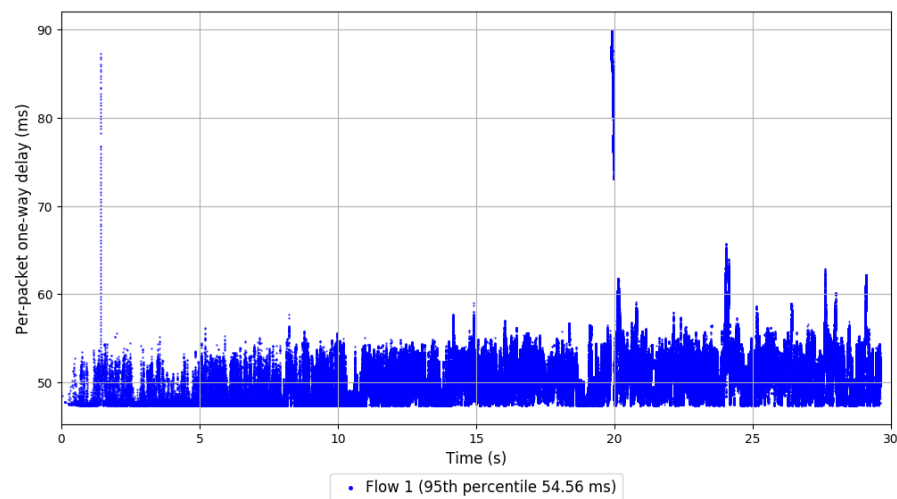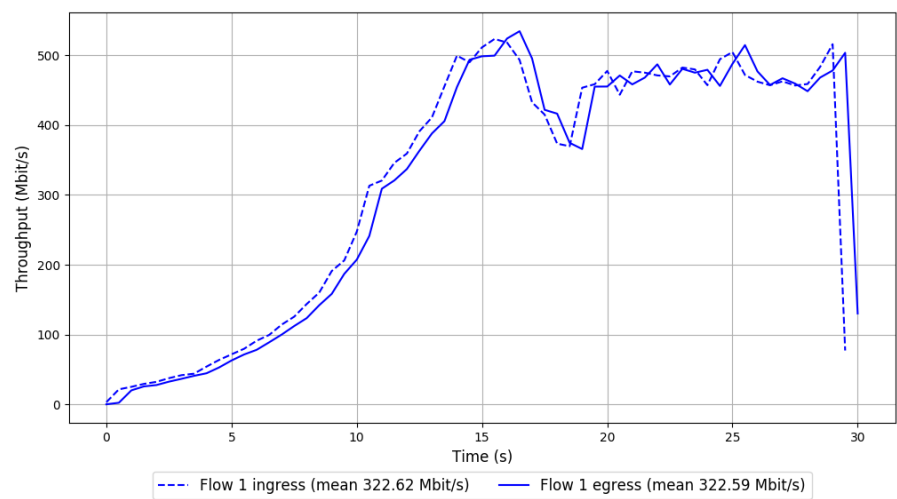Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-12 05:52:32
End at: 2019-12-12 05:53:02
Local clock offset: -0.095 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2019-12-12 07:38:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 330.03 Mbit/s
95th percentile per-packet one-way delay: 109.875 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 330.03 Mbit/s
95th percentile per-packet one-way delay: 109.875 ms
Loss rate: 0.24%
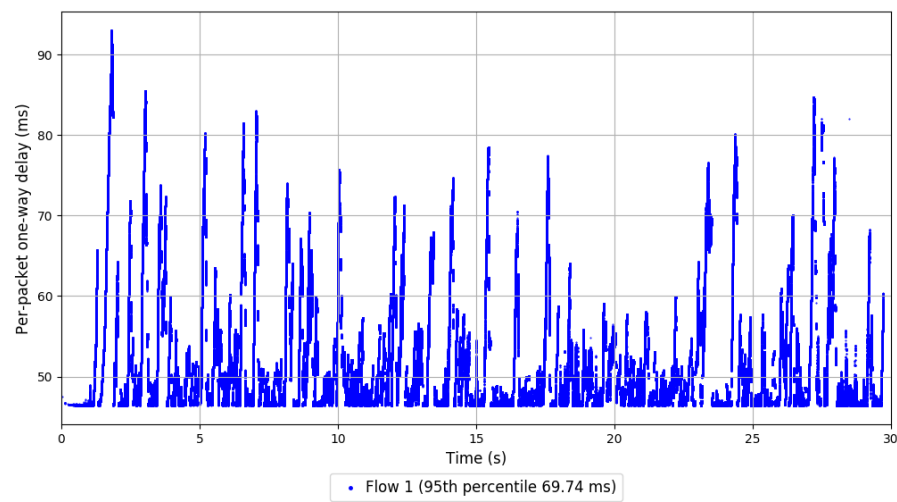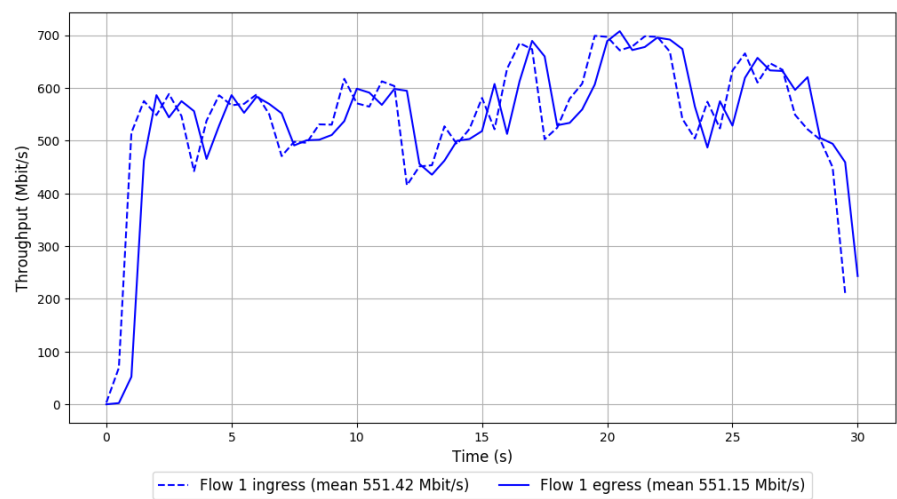```

Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 03:23:09
End at: 2019-12-12 03:23:39
Local clock offset: -0.087 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2019-12-12 07:38:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.59 Mbit/s
95th percentile per-packet one-way delay: 54.558 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 322.59 Mbit/s
95th percentile per-packet one-way delay: 54.558 ms
Loss rate: 0.01%
```

Run 1: Report of Muses_DecisionTreeR0 — Data Link

```
Run 2: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 03:57:46
End at: 2019-12-12 03:58:16
Local clock offset: -0.135 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-12-12 07:42:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 551.15 Mbit/s
95th percentile per-packet one-way delay: 69.741 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 551.15 Mbit/s
95th percentile per-packet one-way delay: 69.741 ms
Loss rate: 0.05%
```

Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 04:33:03
End at: 2019-12-12 04:33:33
Local clock offset: 0.737 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2019-12-12 07:42:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 522.03 Mbit/s
95th percentile per-packet one-way delay: 72.230 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 522.03 Mbit/s
95th percentile per-packet one-way delay: 72.230 ms
Loss rate: 0.00%
```
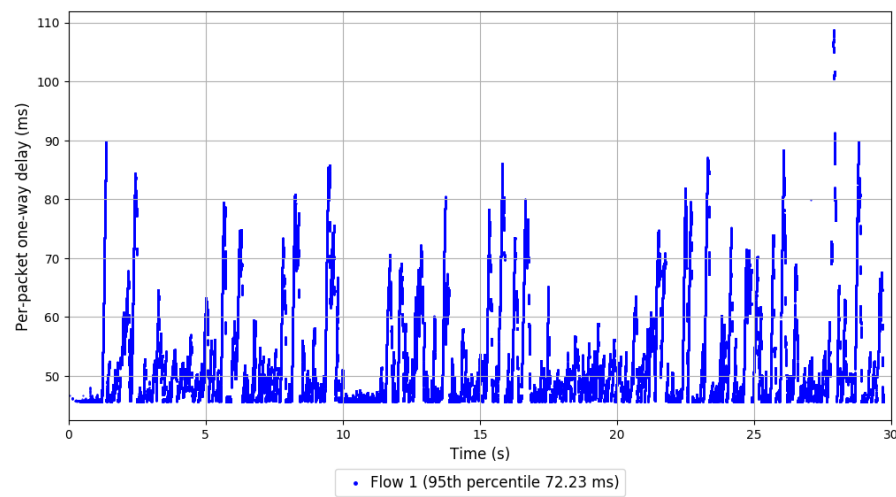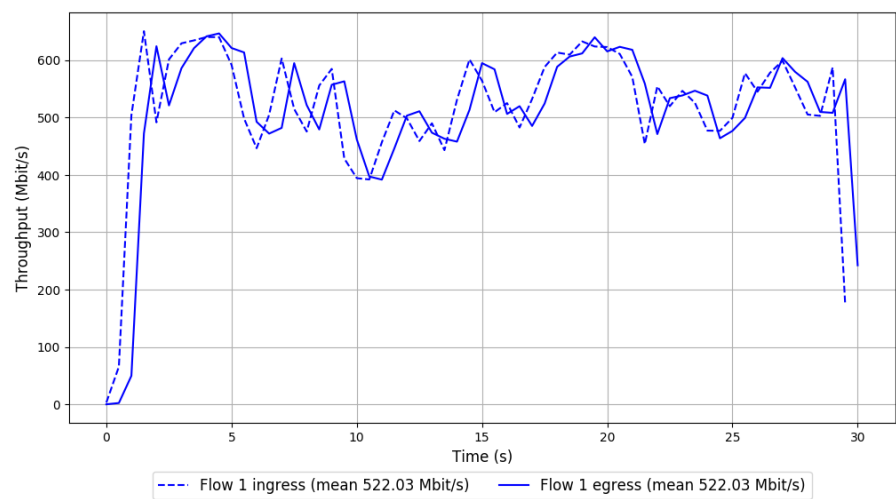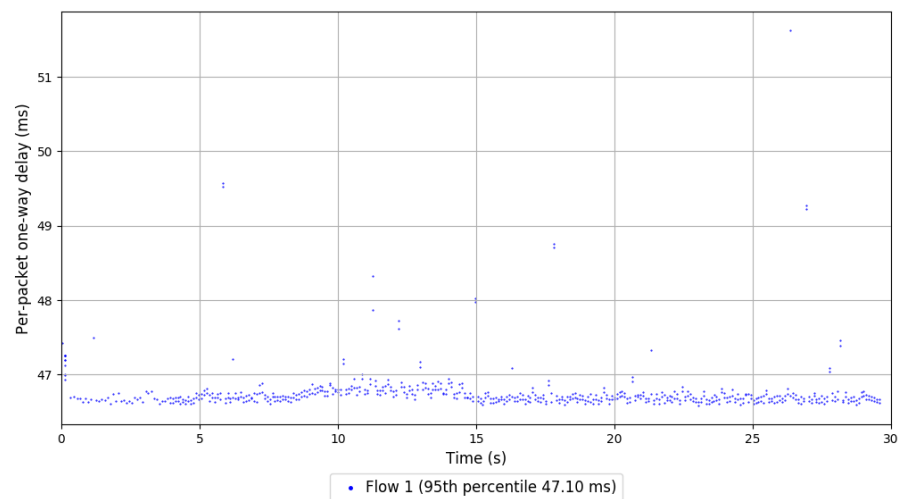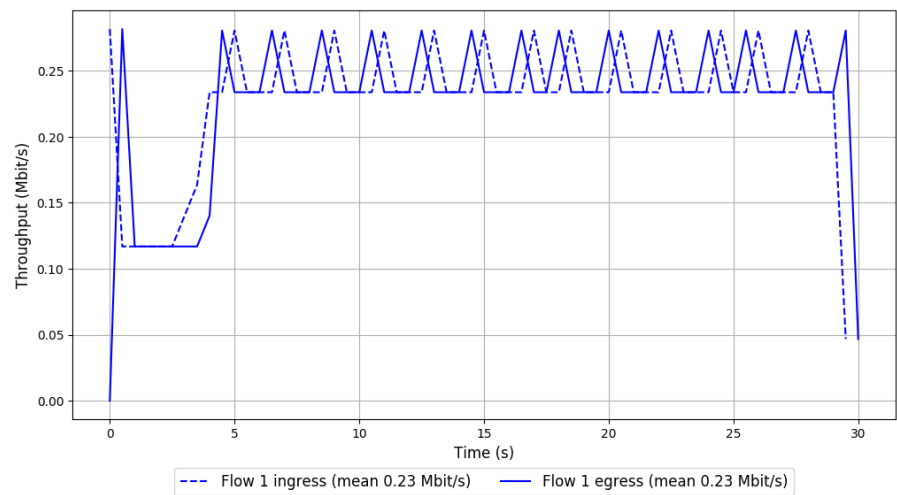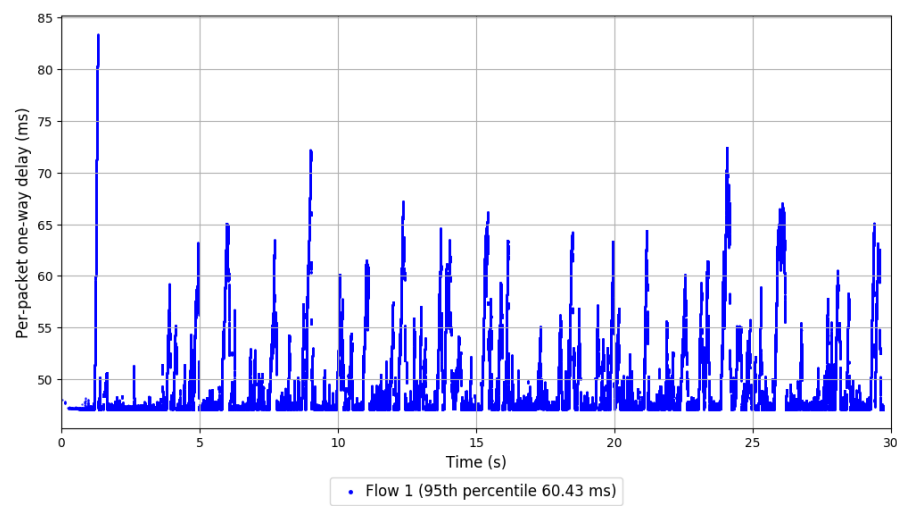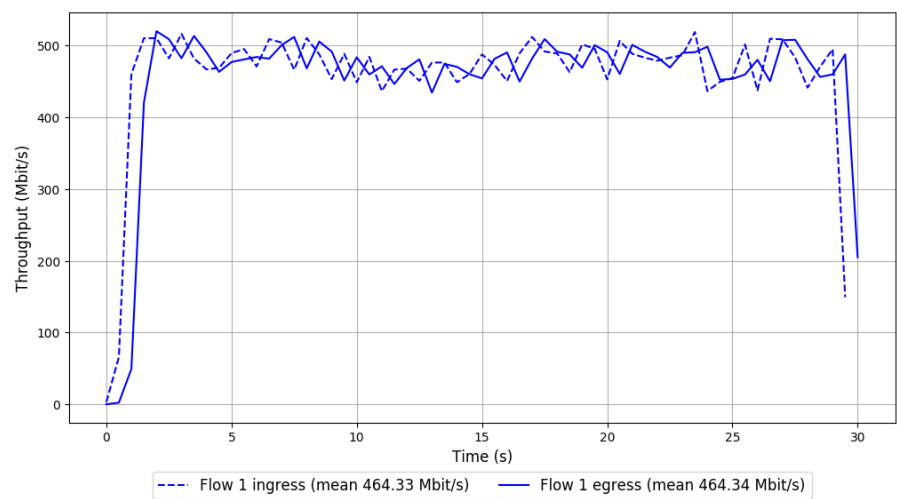
Run 3: Report of Muses_DecisionTreeR0 — Data Link

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 05:07:55
End at: 2019-12-12 05:08:25
Local clock offset: -0.08 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2019-12-12 07:42:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 47.097 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 47.097 ms
Loss rate: 0.00%
```

Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-12 05:42:07
End at: 2019-12-12 05:42:37
Local clock offset: -0.07 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2019-12-12 07:42:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 464.34 Mbit/s
95th percentile per-packet one-way delay: 60.433 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 464.34 Mbit/s
95th percentile per-packet one-way delay: 60.433 ms
Loss rate: 0.00%
```

Run 5: Report of Muses_DecisionTreeR0 — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-12-12 03:21:33
End at: 2019-12-12 03:22:03
Local clock offset: 0.676 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2019-12-12 07:51:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 470.19 Mbit/s
95th percentile per-packet one-way delay: 159.081 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 470.19 Mbit/s
95th percentile per-packet one-way delay: 159.081 ms
Loss rate: 2.67%
```
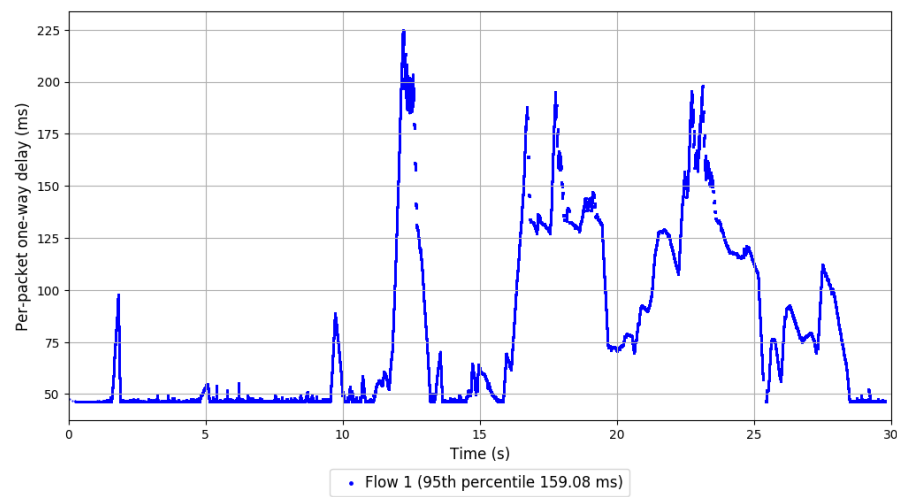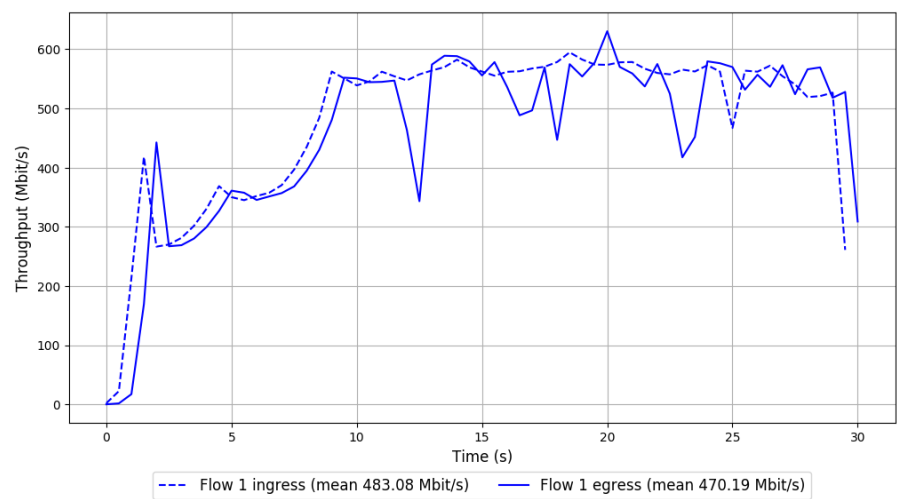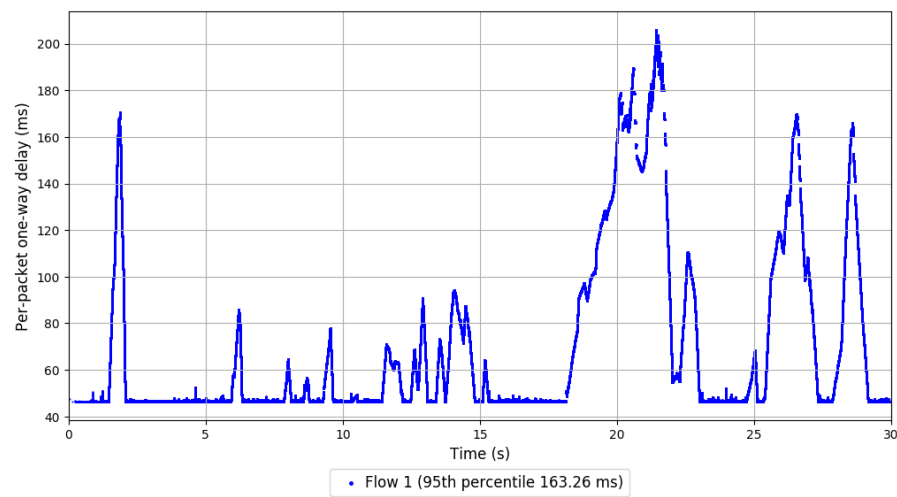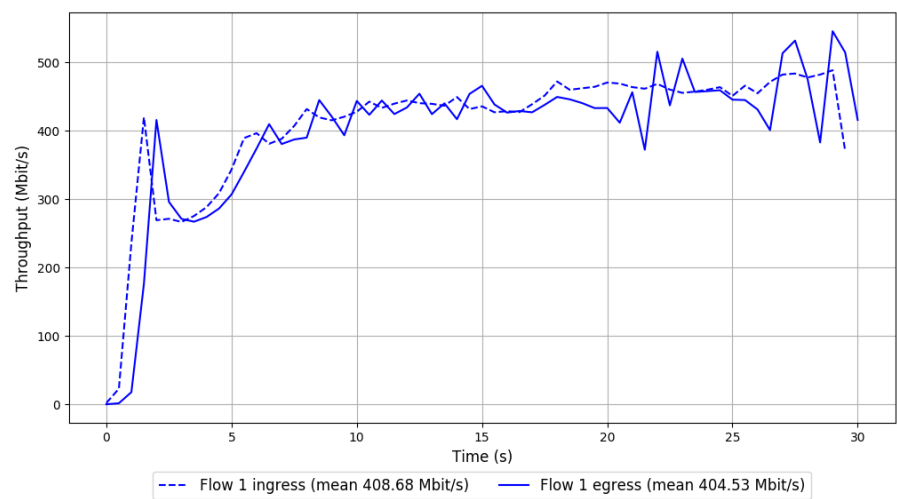
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-12-12 03:56:15
End at: 2019-12-12 03:56:45
Local clock offset: -0.132 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2019-12-12 07:51:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 404.53 Mbit/s
95th percentile per-packet one-way delay: 163.256 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 404.53 Mbit/s
95th percentile per-packet one-way delay: 163.256 ms
Loss rate: 1.02%
```
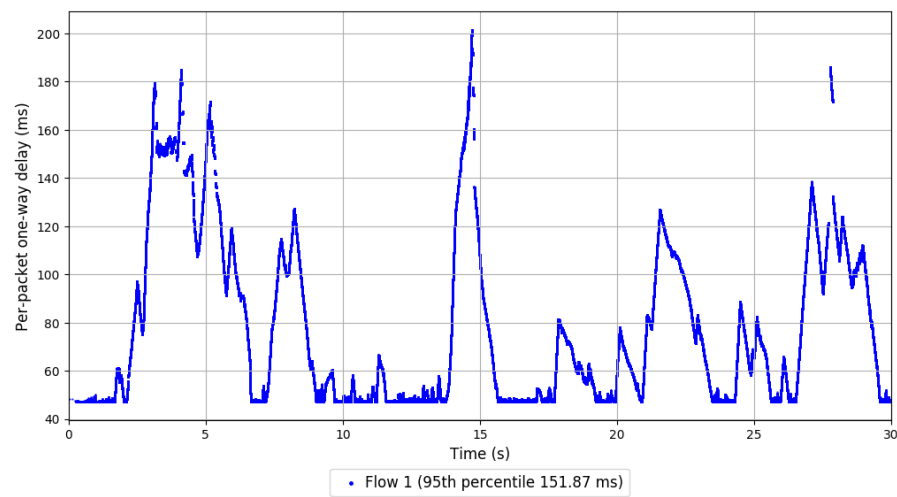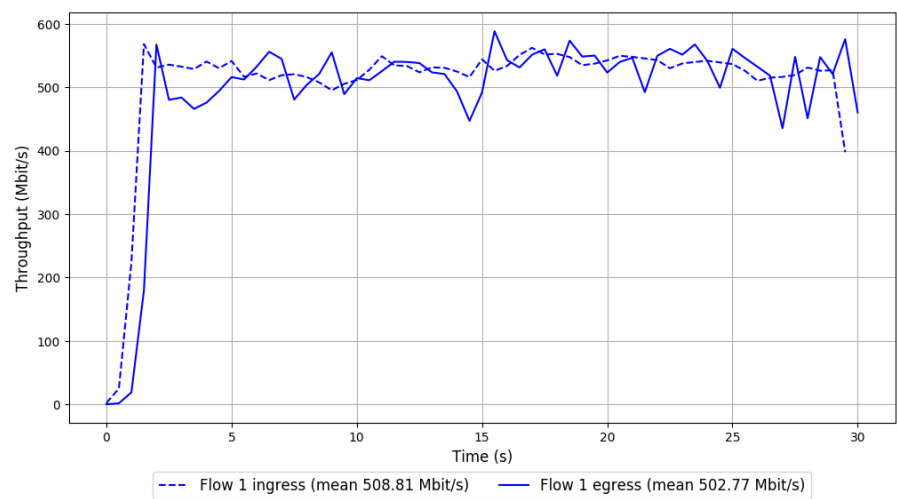
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 408.68 Mbit/s)   Flow 1 egress (mean 404.53 Mbit/s)

Flow 1 (95th percentile 163.26 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-12-12 04:31:26
End at: 2019-12-12 04:31:56
Local clock offset: -0.826 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-12-12 07:55:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 502.77 Mbit/s
95th percentile per-packet one-way delay: 151.873 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 502.77 Mbit/s
95th percentile per-packet one-way delay: 151.873 ms
Loss rate: 1.19%
```
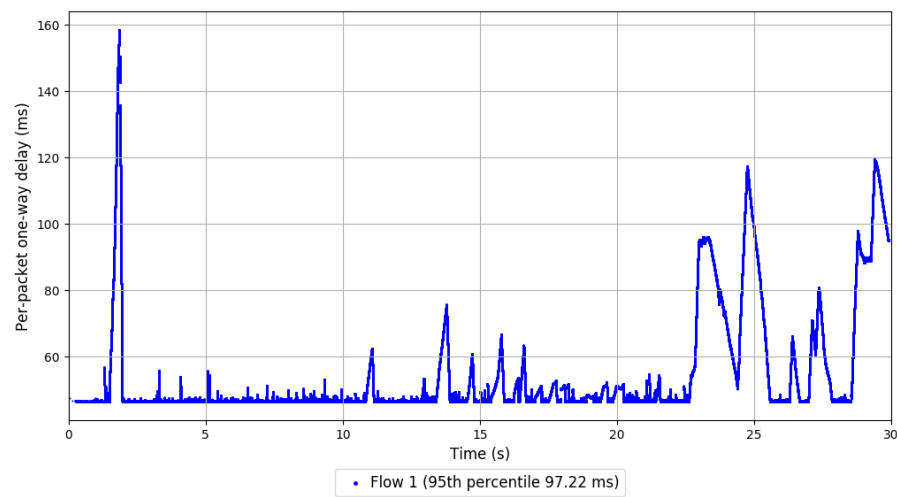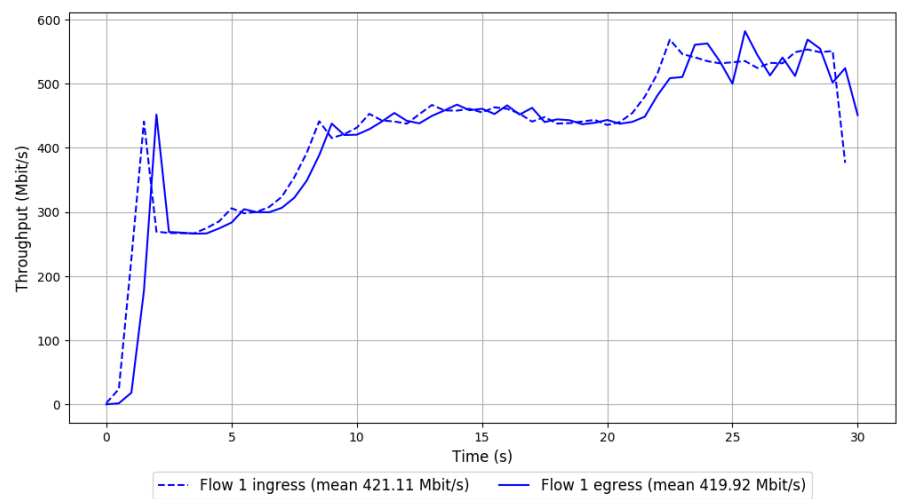
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 508.81 Mbit/s)   Flow 1 egress (mean 502.77 Mbit/s)

• Flow 1 (95th percentile 151.87 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-12-12 05:06:22
End at: 2019-12-12 05:06:52
Local clock offset: -0.078 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2019-12-12 07:55:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 419.92 Mbit/s
95th percentile per-packet one-way delay: 97.217 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 419.92 Mbit/s
95th percentile per-packet one-way delay: 97.217 ms
Loss rate: 0.29%
```
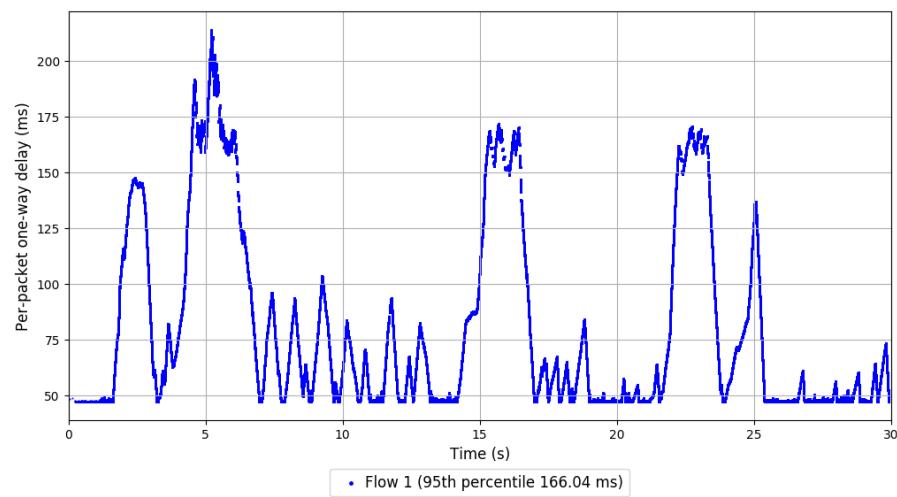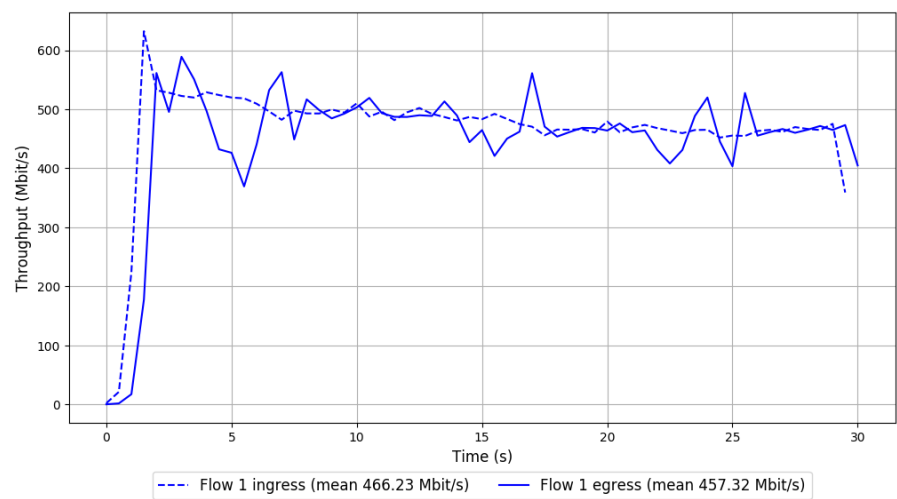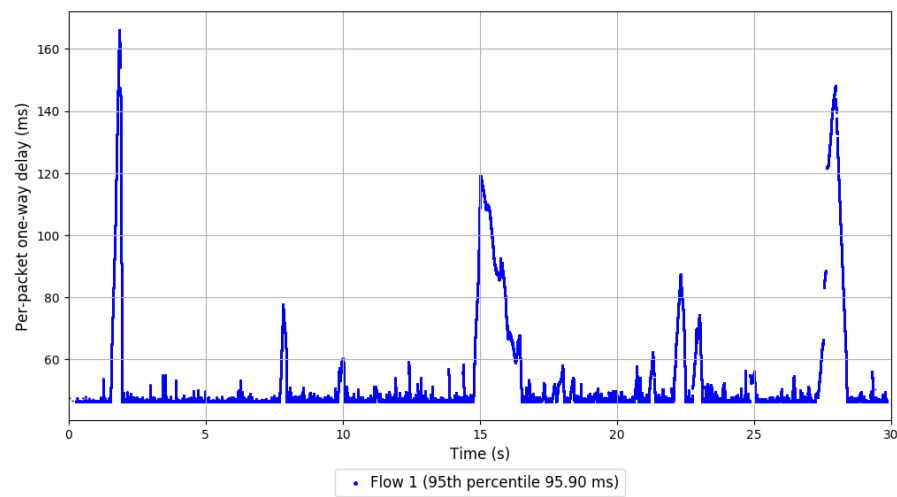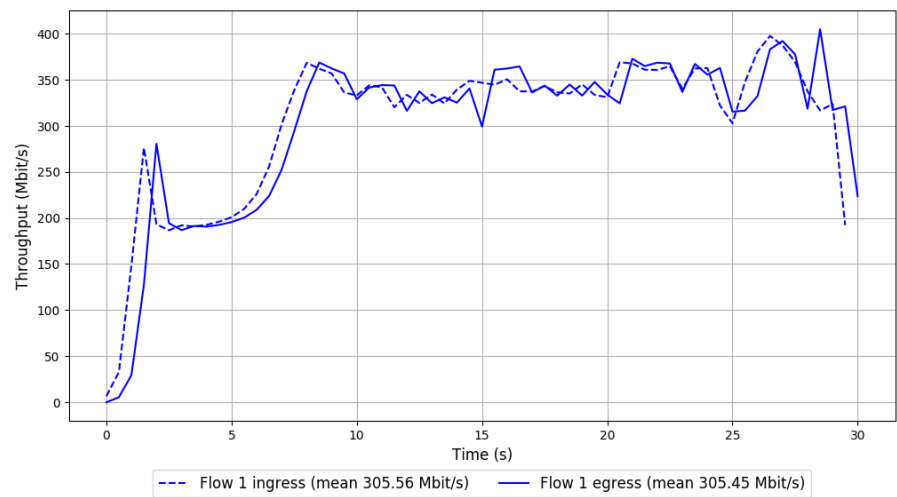
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 421.11 Mbit/s) ——— Flow 1 egress (mean 419.92 Mbit/s)

• Flow 1 (95th percentile 97.22 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-12-12 05:40:31
End at: 2019-12-12 05:41:01
Local clock offset: -0.056 ms
Remote clock offset: -0.14 ms


# Below is generated by plot.py at 2019-12-12 07:55:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 457.32 Mbit/s
95th percentile per-packet one-way delay: 166.039 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 457.32 Mbit/s
95th percentile per-packet one-way delay: 166.039 ms
Loss rate: 1.91%
```

Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-12-12 03:32:11
End at: 2019-12-12 03:32:41
Local clock offset: -0.124 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2019-12-12 07:55:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.45 Mbit/s
95th percentile per-packet one-way delay: 95.902 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 305.45 Mbit/s
95th percentile per-packet one-way delay: 95.902 ms
Loss rate: 0.04%
```

Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-12-12 04:06:55
End at: 2019-12-12 04:07:25
Local clock offset: -0.124 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-12-12 07:55:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 328.60 Mbit/s
95th percentile per-packet one-way delay: 121.956 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 328.60 Mbit/s
95th percentile per-packet one-way delay: 121.956 ms
Loss rate: 0.40%
```
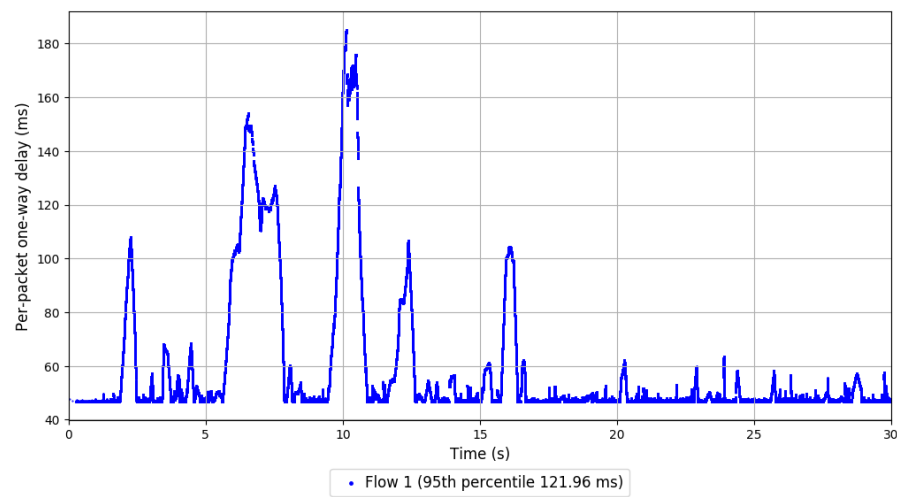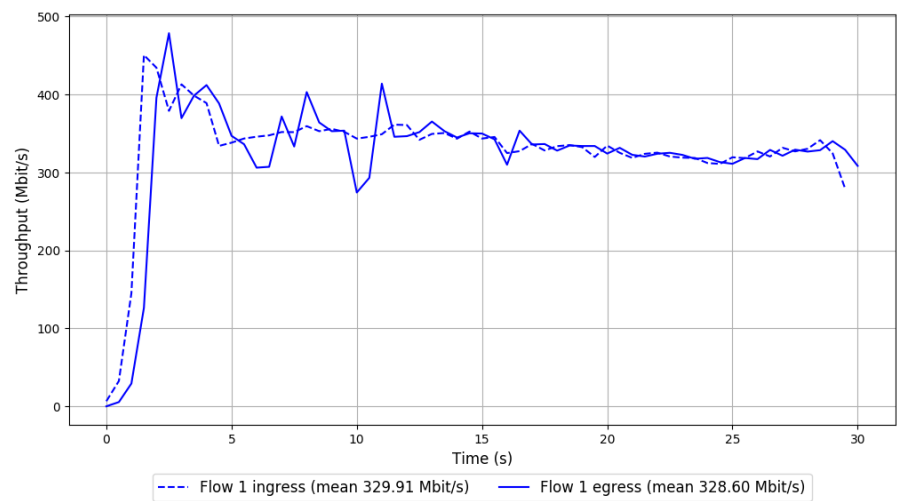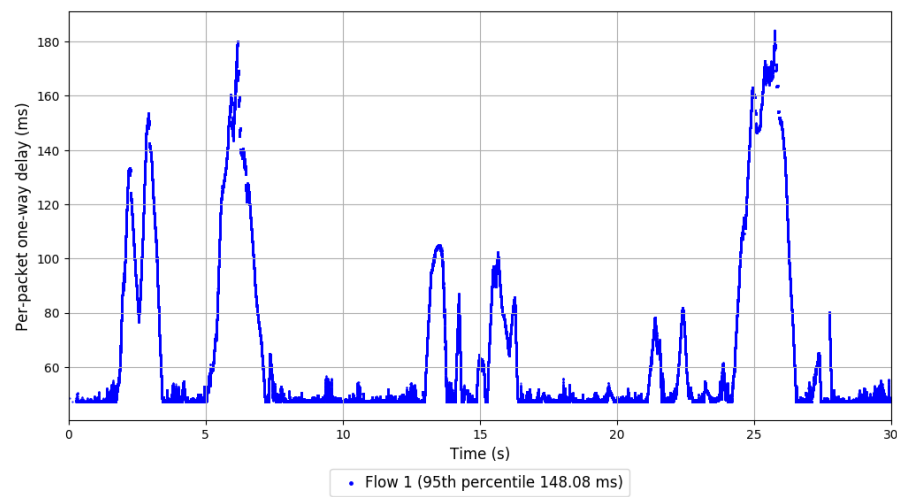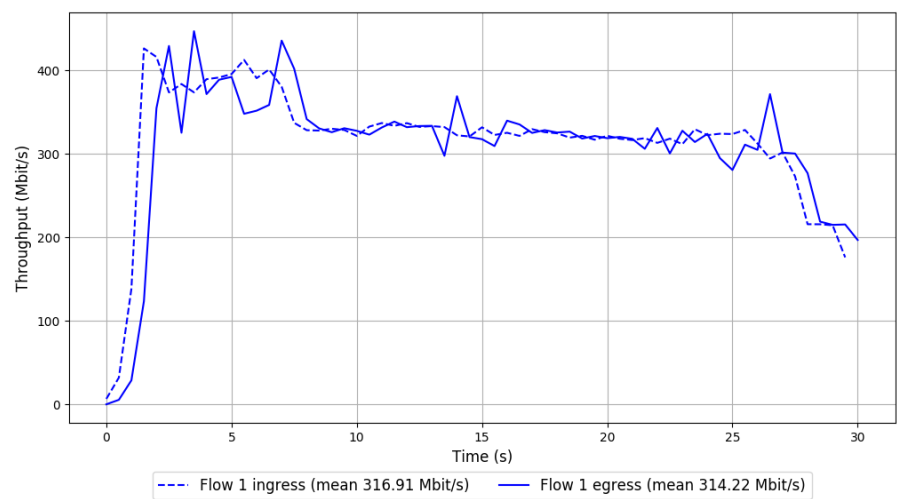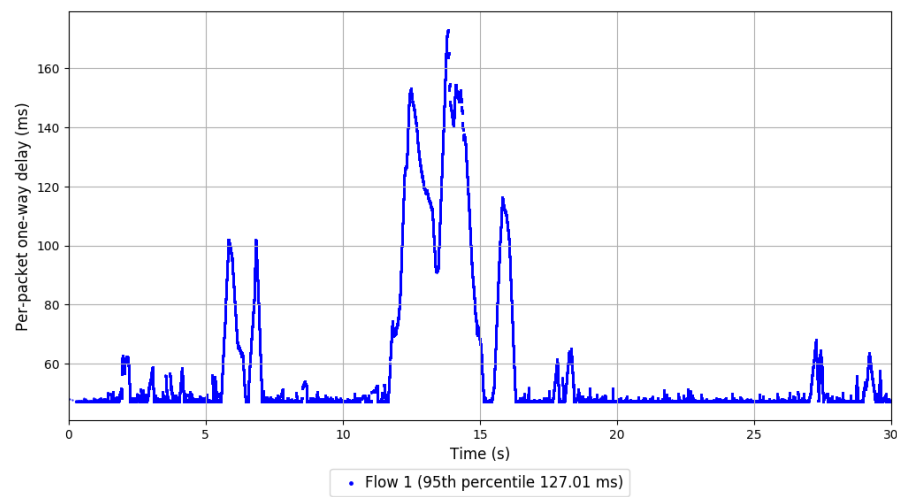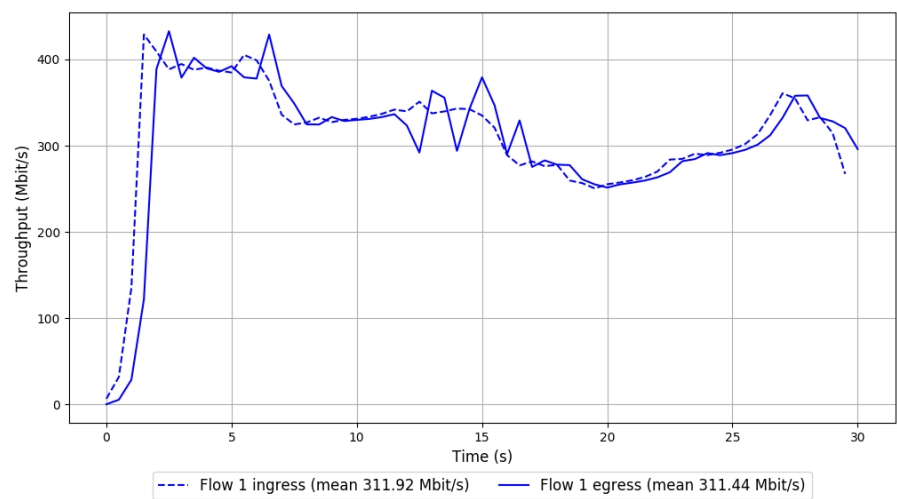
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-12-12 04:42:09
End at: 2019-12-12 04:42:39
Local clock offset: -0.053 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2019-12-12 07:55:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 314.22 Mbit/s
95th percentile per-packet one-way delay: 148.080 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 314.22 Mbit/s
95th percentile per-packet one-way delay: 148.080 ms
Loss rate: 0.85%
```
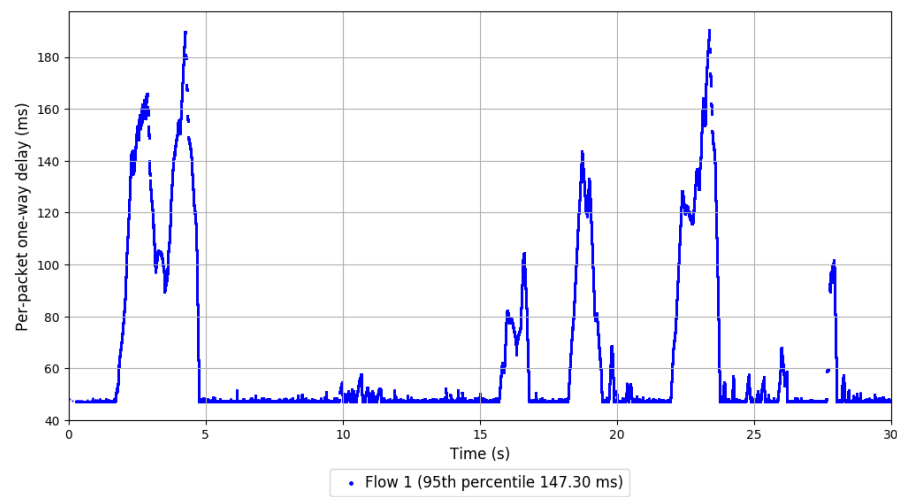
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-12-12 05:16:25
End at: 2019-12-12 05:16:55
Local clock offset: -0.02 ms
Remote clock offset: -0.132 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 311.44 Mbit/s
95th percentile per-packet one-way delay: 127.011 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 311.44 Mbit/s
95th percentile per-packet one-way delay: 127.011 ms
Loss rate: 0.16%
```
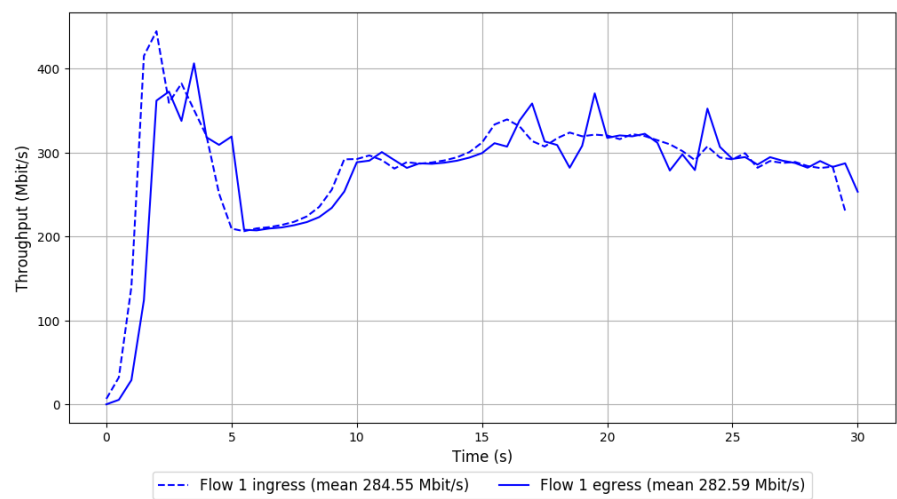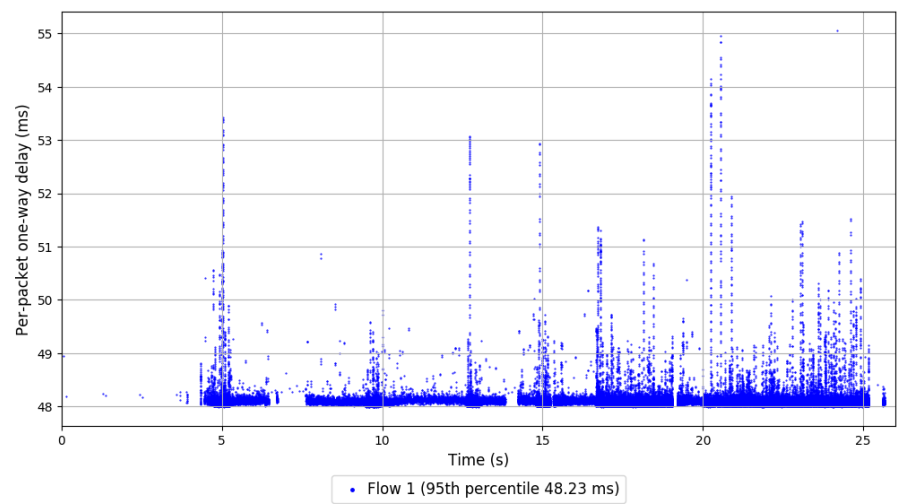
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-12-12 05:51:02
End at: 2019-12-12 05:51:32
Local clock offset: -0.08 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.59 Mbit/s
95th percentile per-packet one-way delay: 147.296 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 282.59 Mbit/s
95th percentile per-packet one-way delay: 147.296 ms
Loss rate: 0.69%
```

Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 284.55 Mbit/s) --- Flow 1 egress (mean 282.59 Mbit/s)
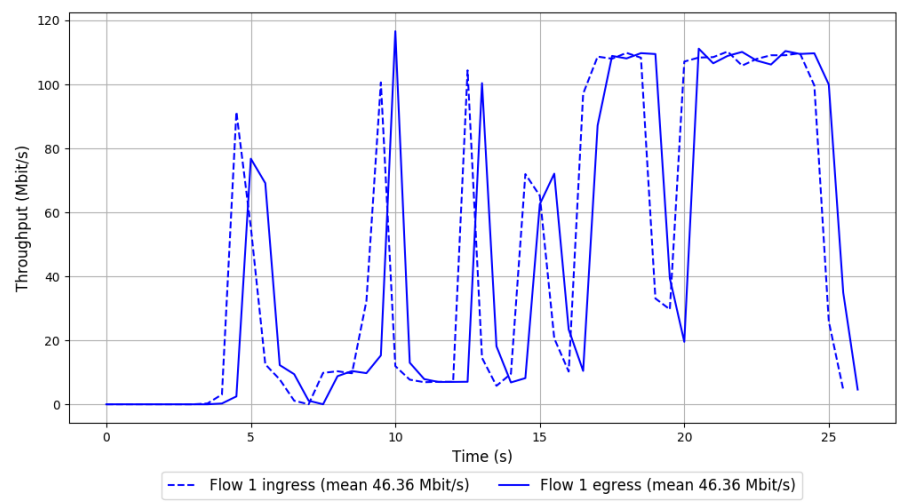

• Flow 1 (95th percentile 147.30 ms)

164

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-12-12 03:06:15
End at: 2019-12-12 03:06:45
Local clock offset: -0.804 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 48.227 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.36 Mbit/s
95th percentile per-packet one-way delay: 48.227 ms
Loss rate: 0.00%
```
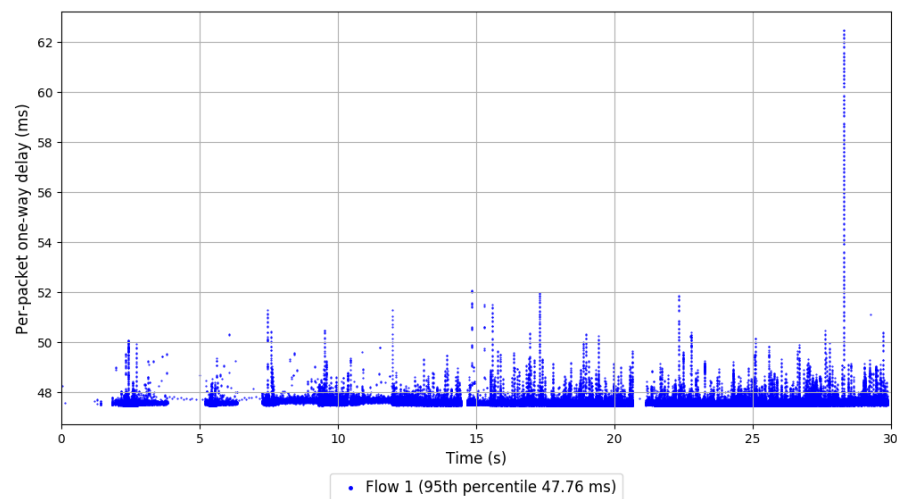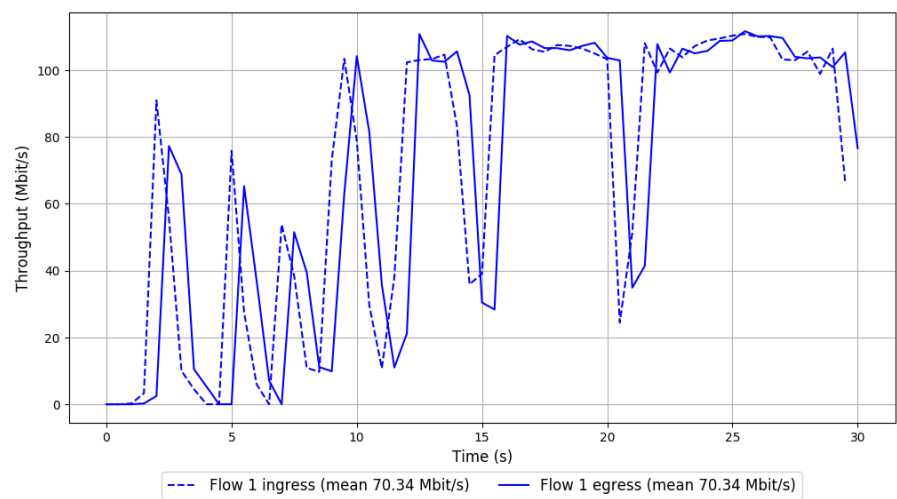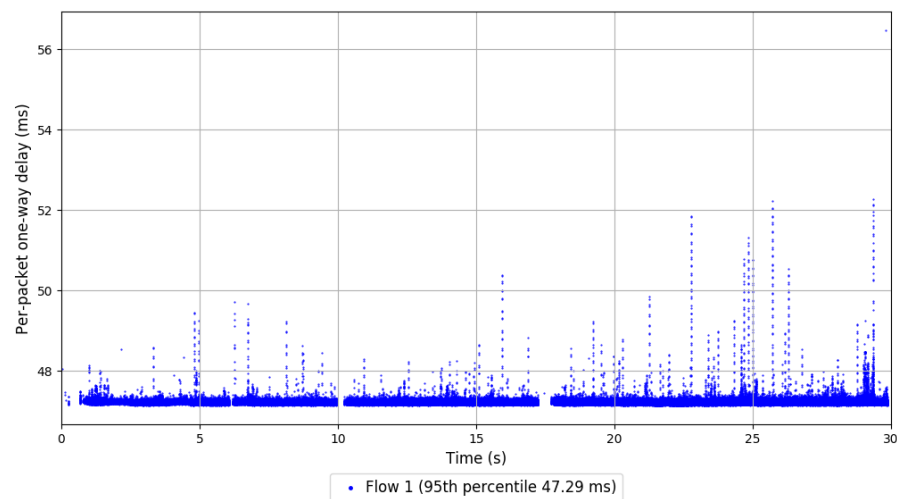
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-12-12 03:40:47
End at: 2019-12-12 03:41:17
Local clock offset: -0.57 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.34 Mbit/s
95th percentile per-packet one-way delay: 47.762 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.34 Mbit/s
95th percentile per-packet one-way delay: 47.762 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 70.34 Mbit/s) --- Flow 1 egress (mean 70.34 Mbit/s)

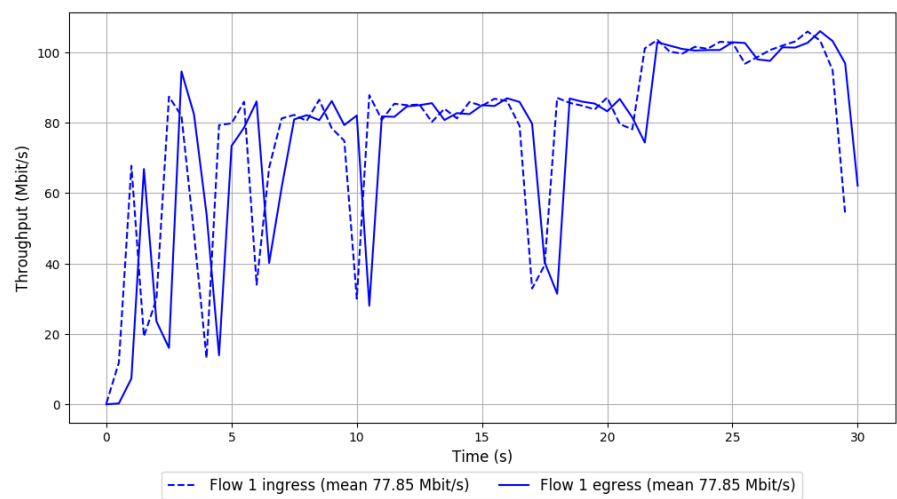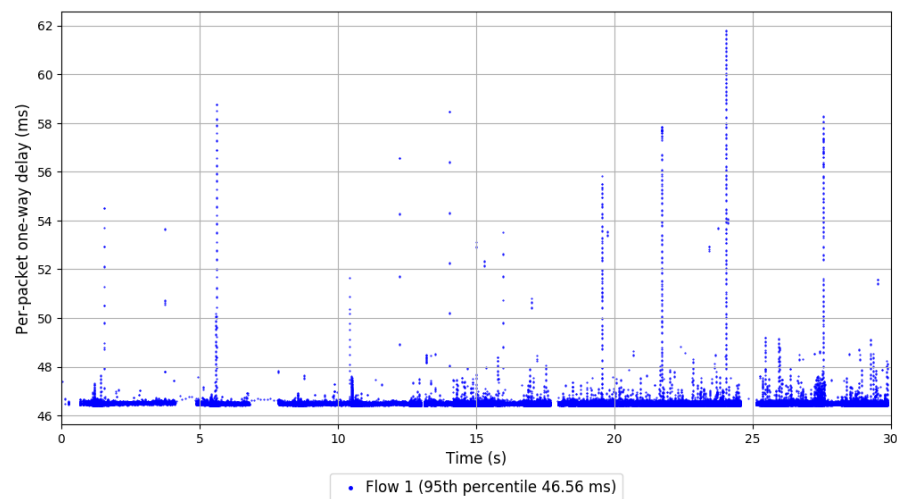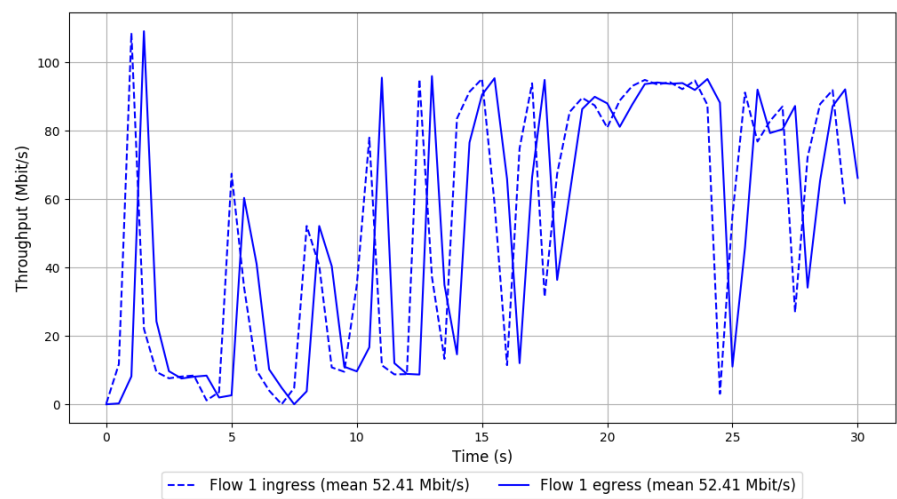

Flow 1 (95th percentile 47.76 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-12-12 04:15:38
End at: 2019-12-12 04:16:08
Local clock offset: -0.857 ms
Remote clock offset: -0.089 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.85 Mbit/s
95th percentile per-packet one-way delay: 47.286 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.85 Mbit/s
95th percentile per-packet one-way delay: 47.286 ms
Loss rate: 0.00%
```

Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 77.85 Mbit/s)   Flow 1 egress (mean 77.85 Mbit/s)

Flow 1 (95th percentile 47.29 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-12-12 04:50:40
End at: 2019-12-12 04:51:10
Local clock offset: -0.039 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.41 Mbit/s
95th percentile per-packet one-way delay: 46.562 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.41 Mbit/s
95th percentile per-packet one-way delay: 46.562 ms
Loss rate: 0.00%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-12-12 05:25:04
End at: 2019-12-12 05:25:34
Local clock offset: -0.057 ms
Remote clock offset: -0.158 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 51.630 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 6.04 Mbit/s
95th percentile per-packet one-way delay: 51.630 ms
Loss rate: 0.00%
```
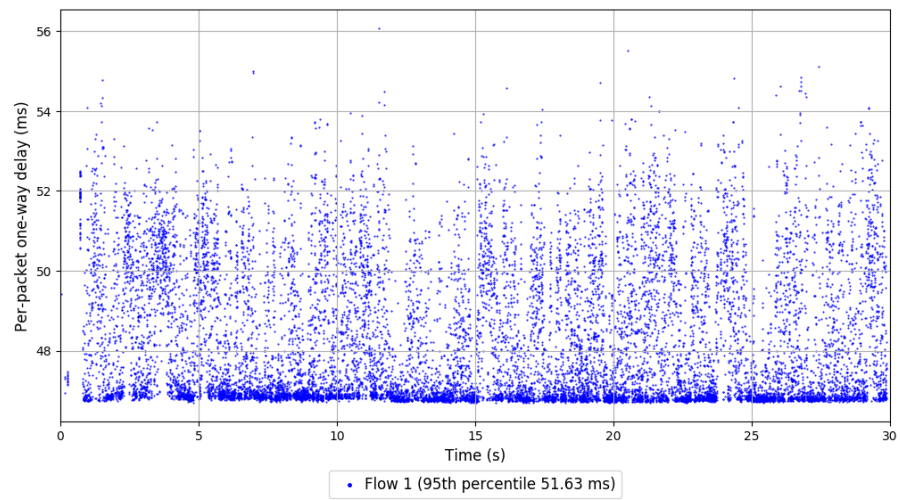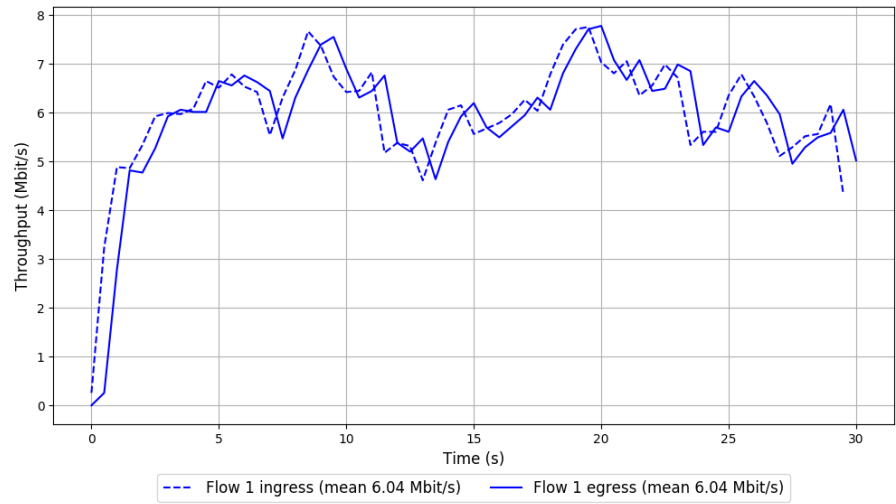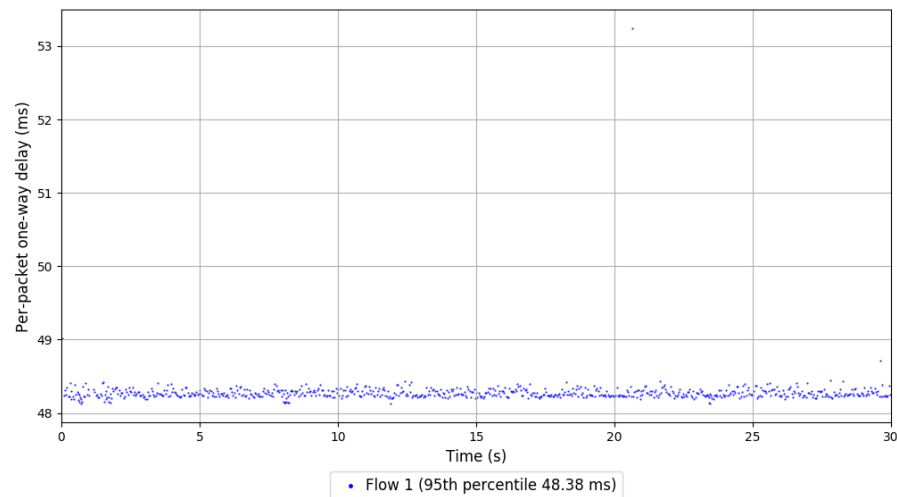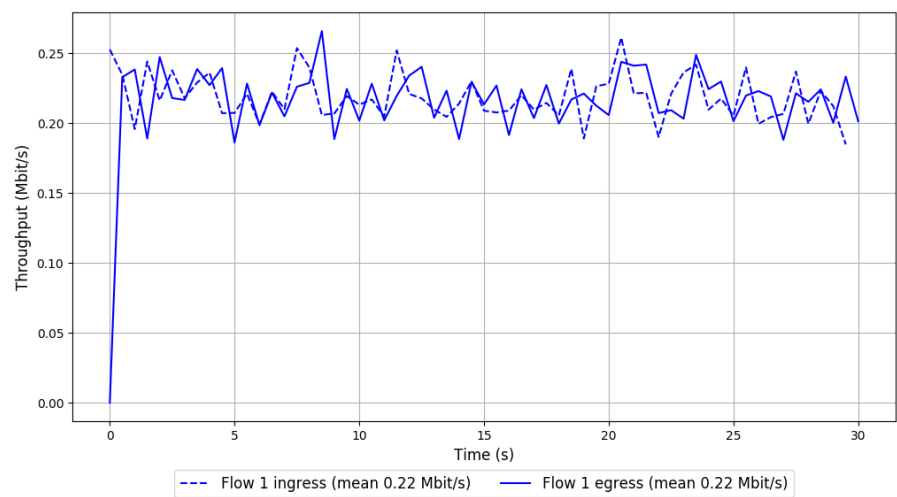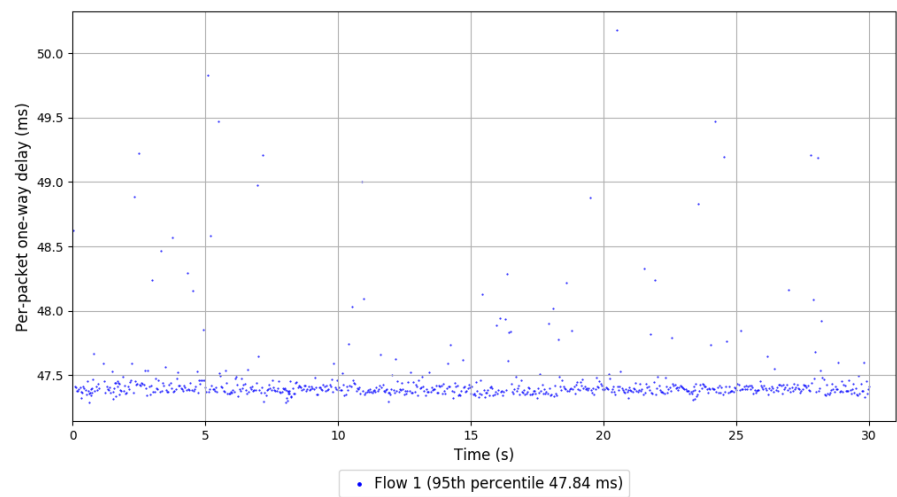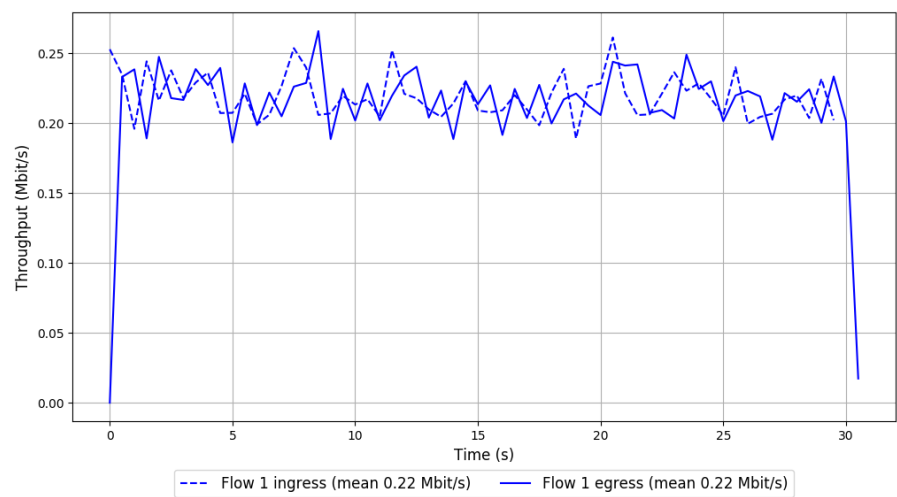
Run 5: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2019-12-12 03:29:20
End at: 2019-12-12 03:29:50
Local clock offset: -0.87 ms
Remote clock offset: 0.031 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.375 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.375 ms
Loss rate: 0.00%
```

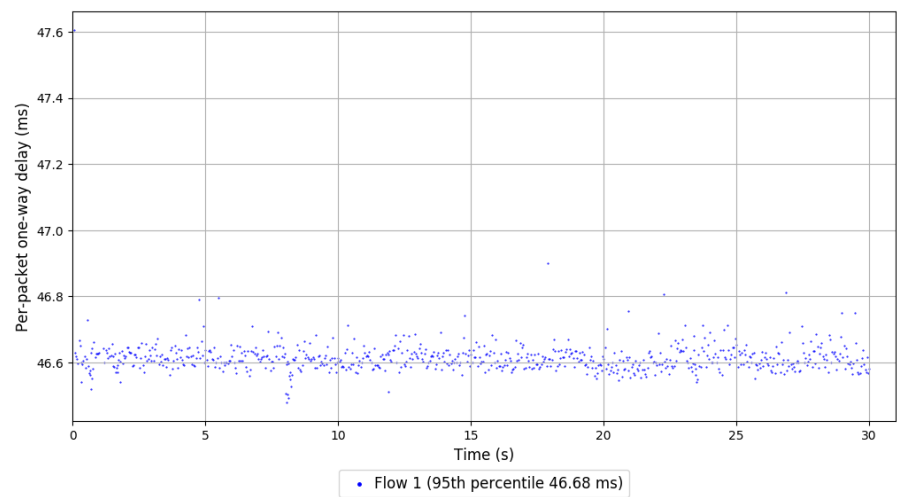# Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-12-12 04:04:06
End at: 2019-12-12 04:04:36
Local clock offset: -0.142 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.844 ms
Loss rate: 0.00%
```

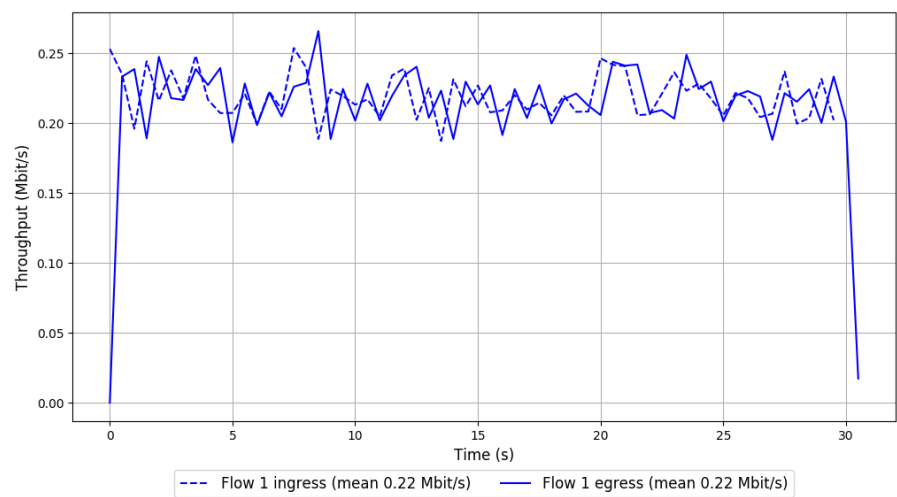Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-12-12 04:39:20
End at: 2019-12-12 04:39:50
Local clock offset: -0.028 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 46.676 ms
Loss rate: 0.00%
```
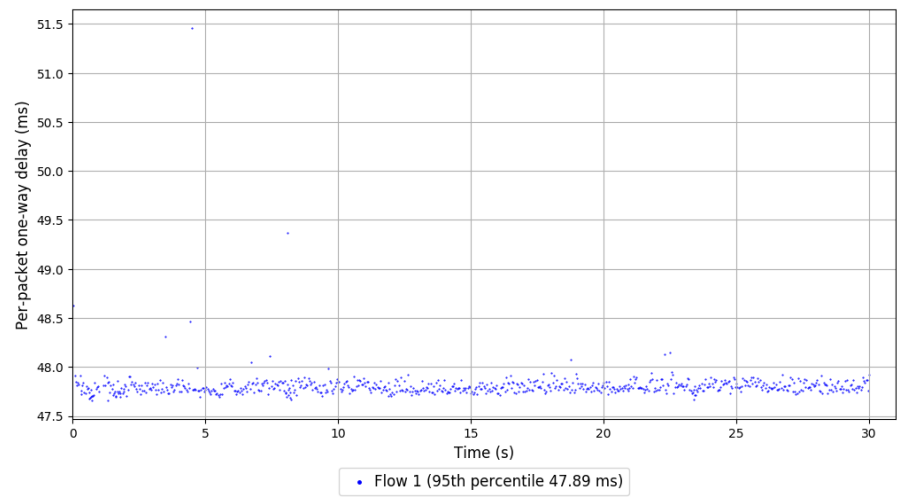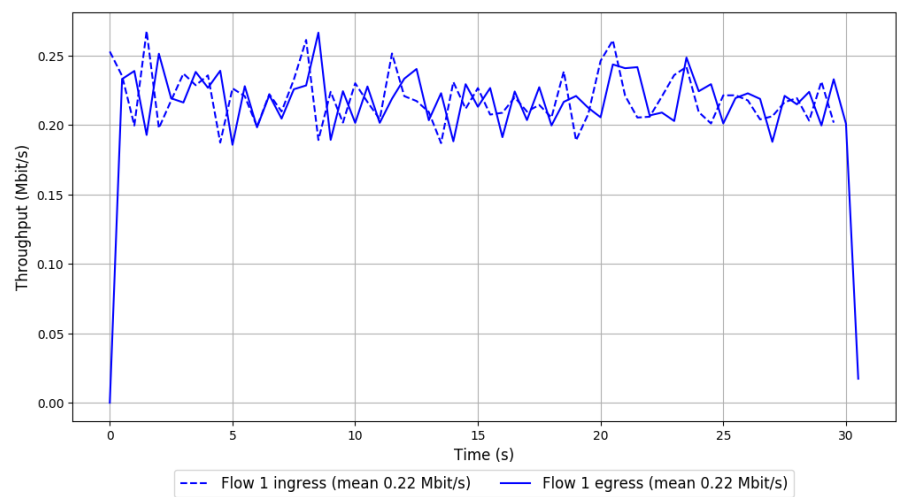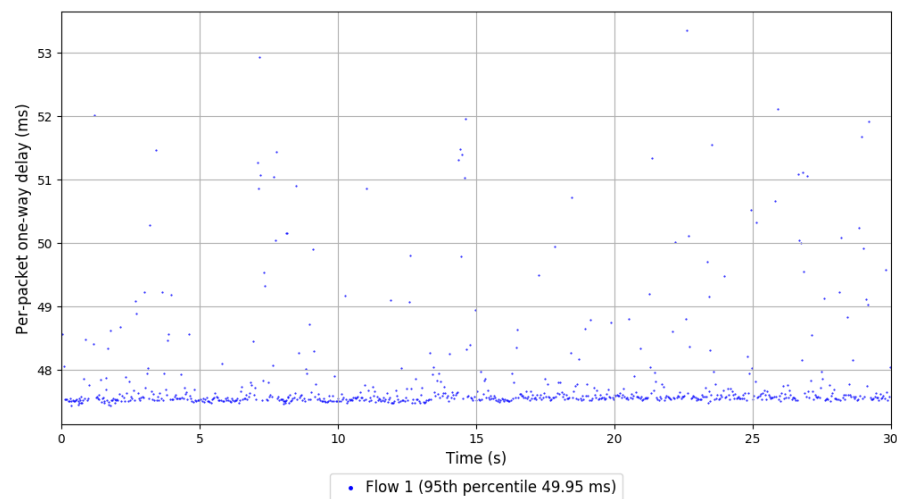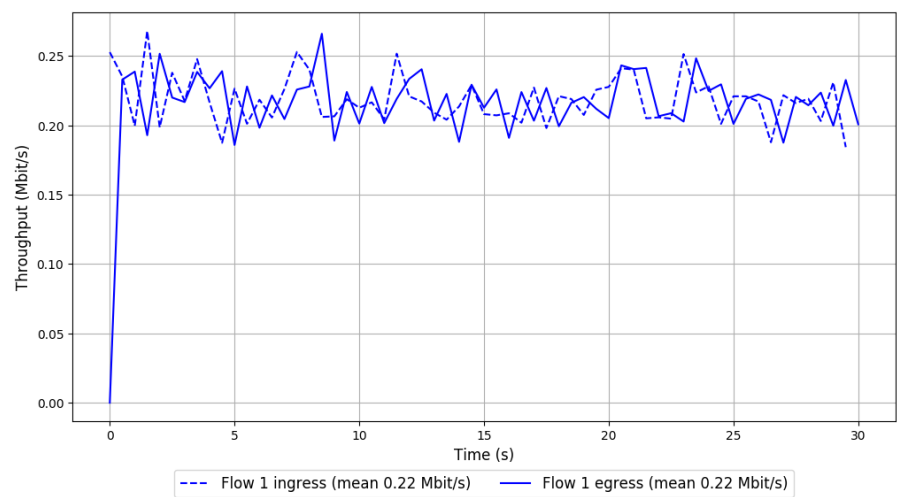
Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 46.68 ms)

180

```
Run 4: Statistics of SCReAM

Start at: 2019-12-12 05:13:35
End at: 2019-12-12 05:14:05
Local clock offset: -0.489 ms
Remote clock offset: -0.13 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 47.892 ms
Loss rate: 0.00%
```
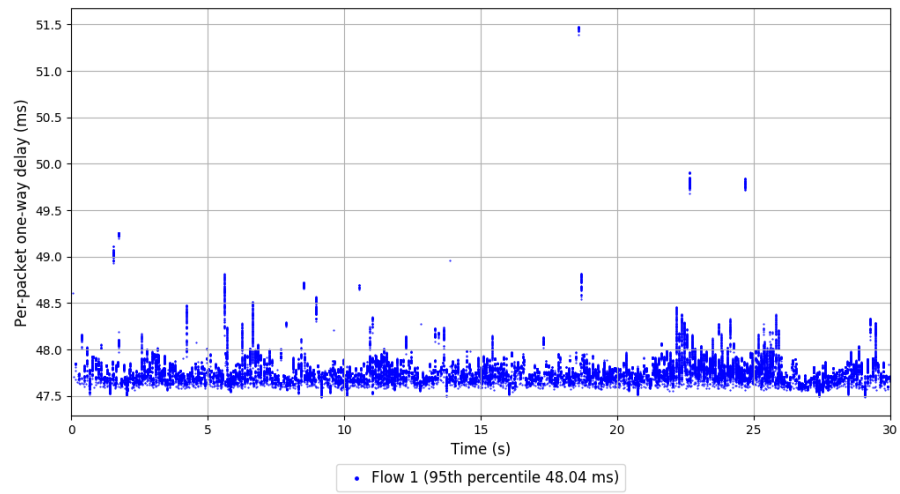
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-12-12 05:48:16
End at: 2019-12-12 05:48:46
Local clock offset: -0.046 ms
Remote clock offset: -0.104 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.947 ms
Loss rate: 0.00%
```

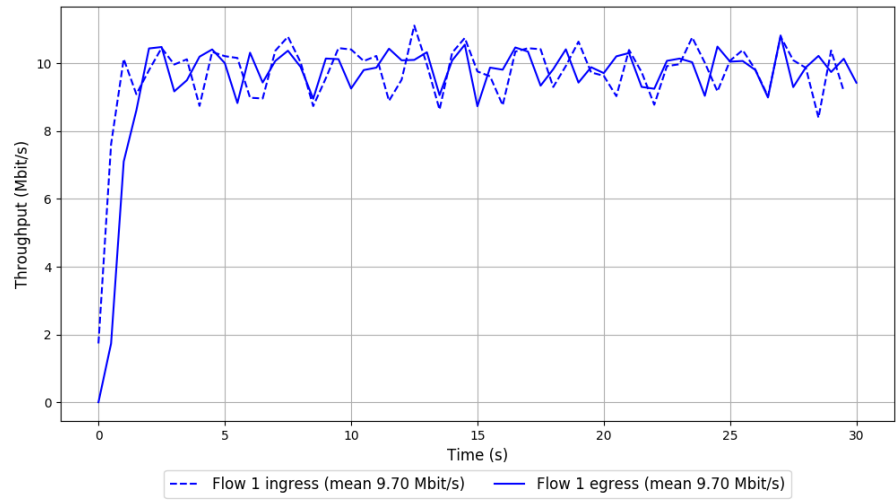Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-12-12 03:11:16
End at: 2019-12-12 03:11:46
Local clock offset: -0.075 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 48.037 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 48.037 ms
Loss rate: 0.00%
```
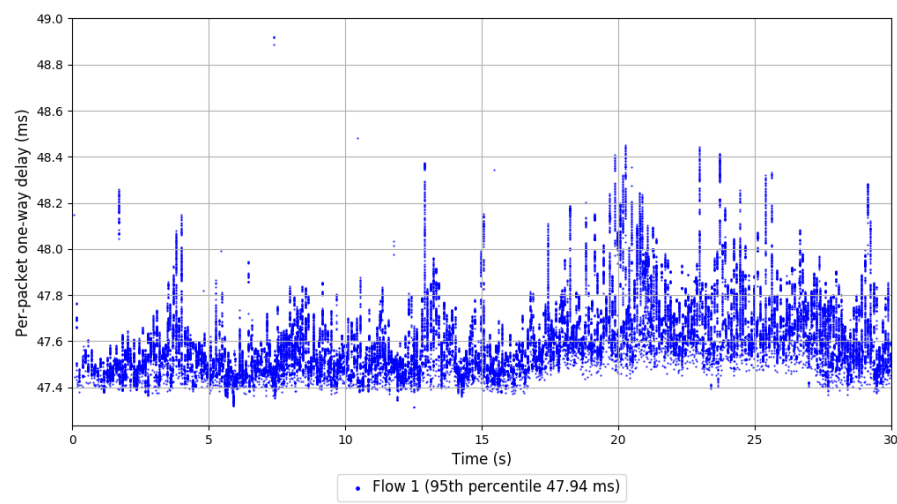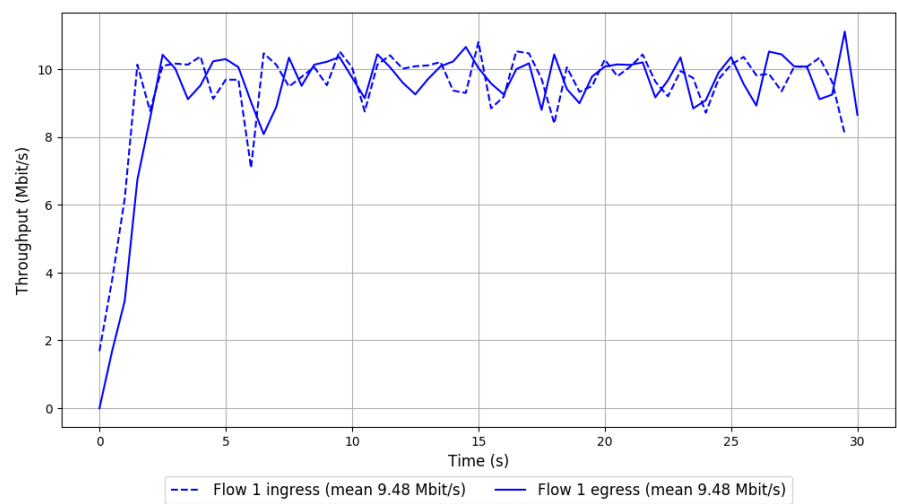
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-12-12 03:46:10
End at: 2019-12-12 03:46:40
Local clock offset: -0.154 ms
Remote clock offset: 0.027 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 47.940 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.48 Mbit/s
95th percentile per-packet one-way delay: 47.940 ms
Loss rate: 0.00%
```

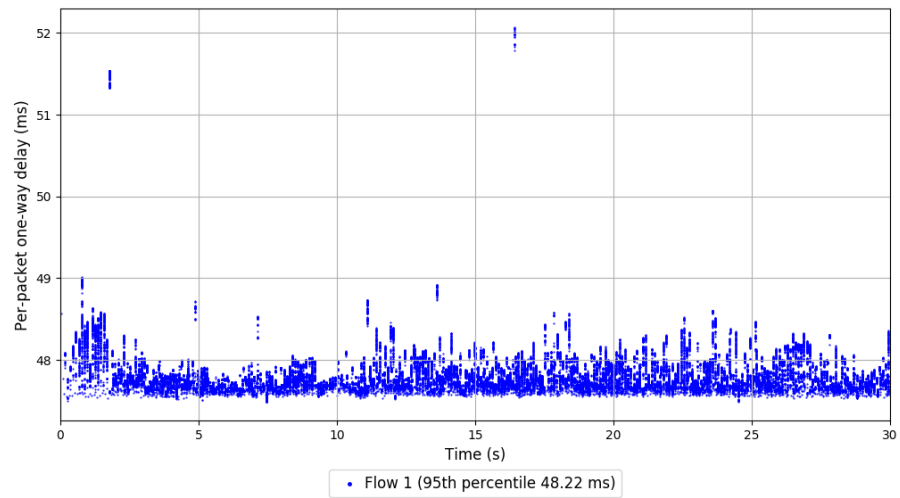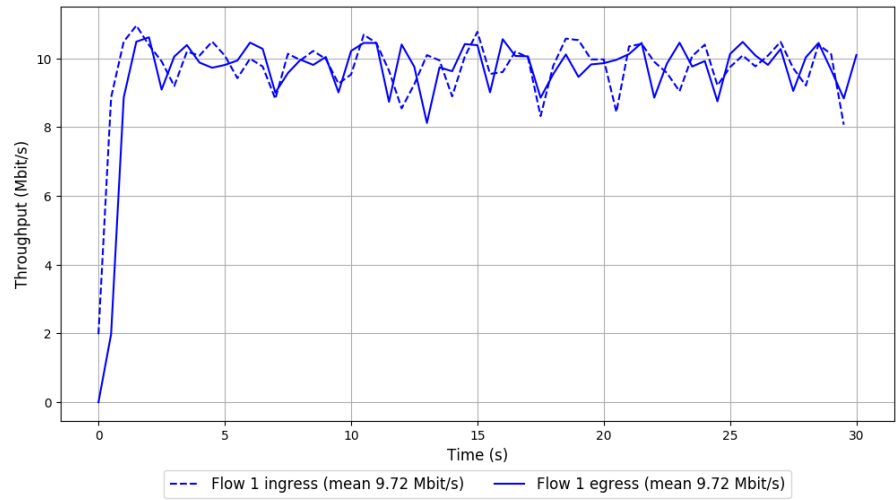Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-12-12 04:21:05
End at: 2019-12-12 04:21:35
Local clock offset: -0.136 ms
Remote clock offset: -0.076 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 48.219 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 48.219 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 9.72 Mbit/s)   Flow 1 egress (mean 9.72 Mbit/s)

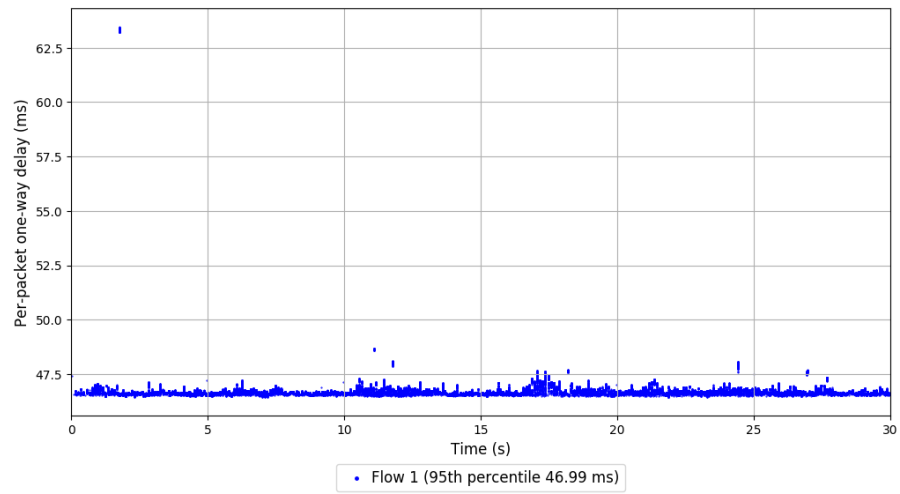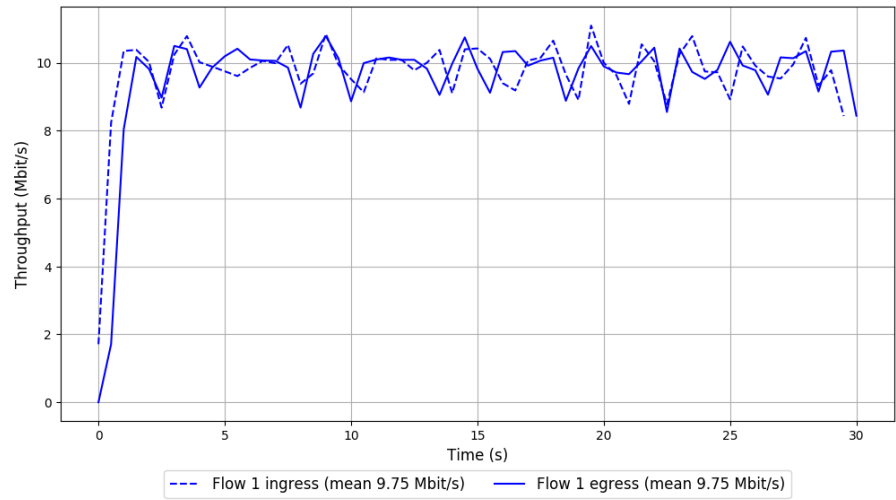Flow 1 (95th percentile 48.22 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-12-12 04:56:05
End at: 2019-12-12 04:56:35
Local clock offset: -0.051 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.75 Mbit/s
95th percentile per-packet one-way delay: 46.986 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.75 Mbit/s
95th percentile per-packet one-way delay: 46.986 ms
Loss rate: 0.00%
```
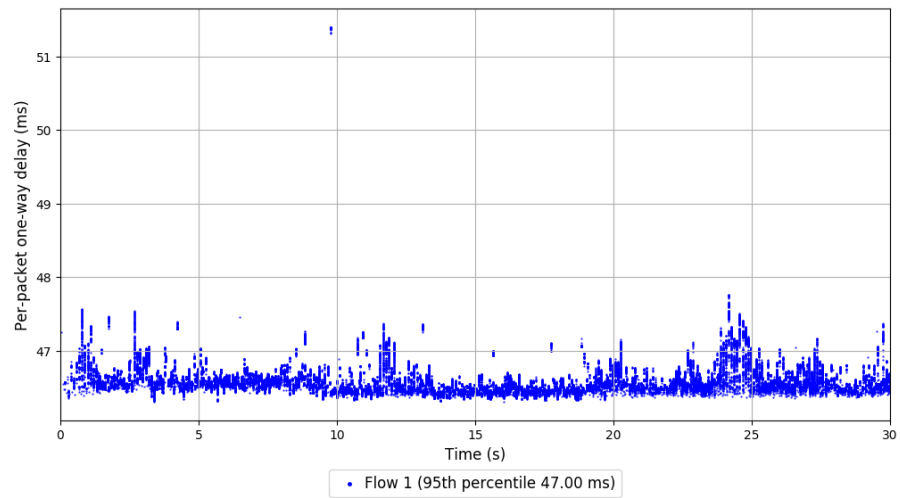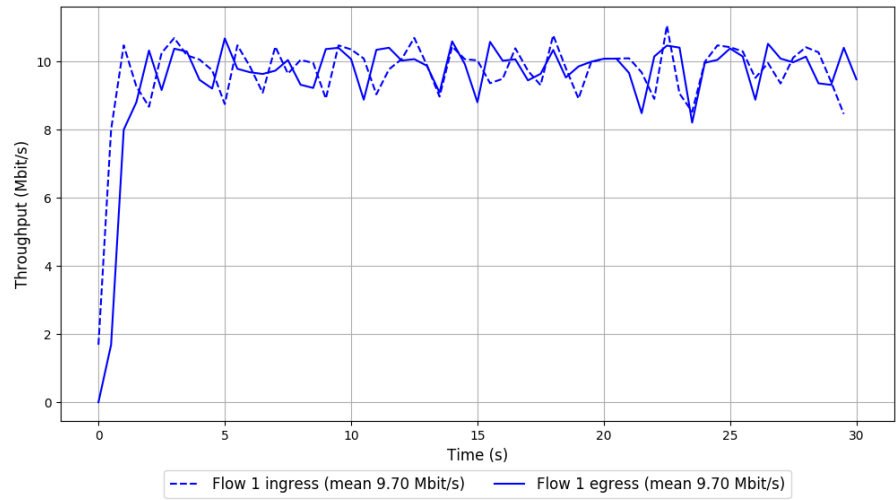
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-12-12 05:30:18
End at: 2019-12-12 05:30:48
Local clock offset: 0.353 ms
Remote clock offset: -0.17 ms


# Below is generated by plot.py at 2019-12-12 08:00:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 47.001 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.70 Mbit/s
95th percentile per-packet one-way delay: 47.001 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

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

Start at: 2019-12-12 03:36:43
End at: 2019-12-12 03:37:13
Local clock offset: -0.572 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2019-12-12 08:02:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.03 Mbit/s
95th percentile per-packet one-way delay: 48.166 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.03 Mbit/s
95th percentile per-packet one-way delay: 48.166 ms
Loss rate: 0.00%
```
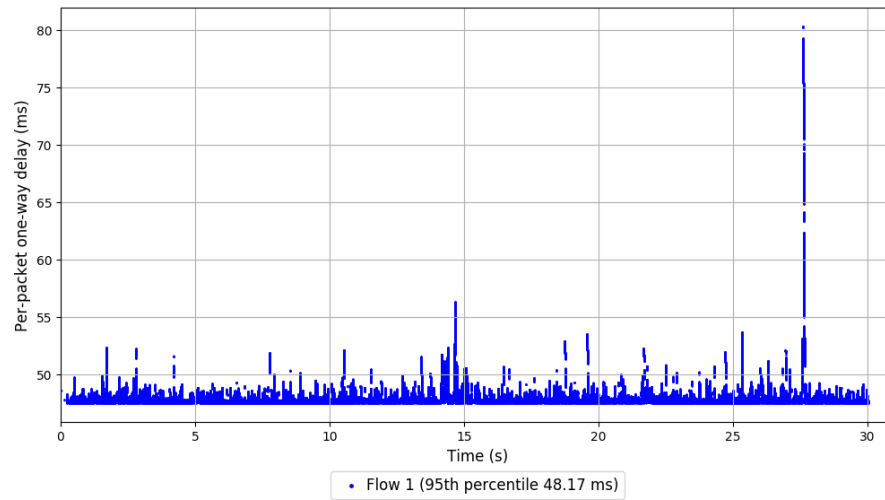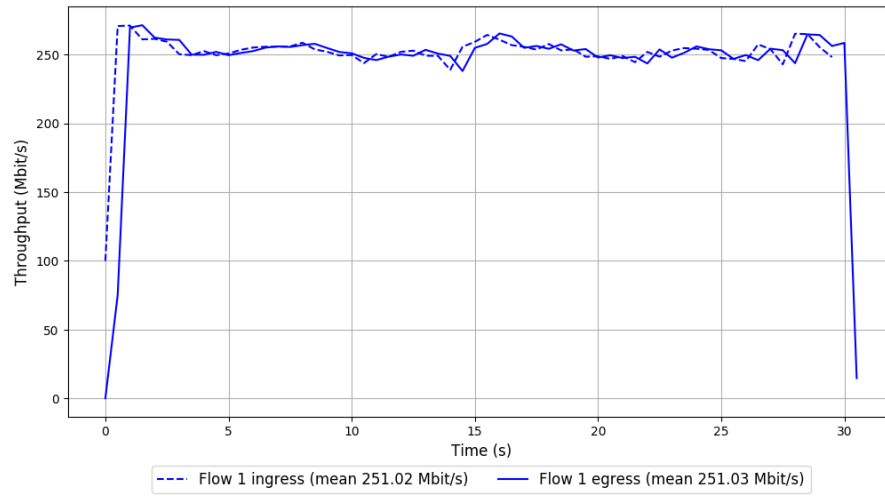
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-12-12 04:11:30
End at: 2019-12-12 04:12:00
Local clock offset: -0.529 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2019-12-12 08:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.85 Mbit/s
95th percentile per-packet one-way delay: 48.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 252.85 Mbit/s
95th percentile per-packet one-way delay: 48.643 ms
Loss rate: 0.00%
```
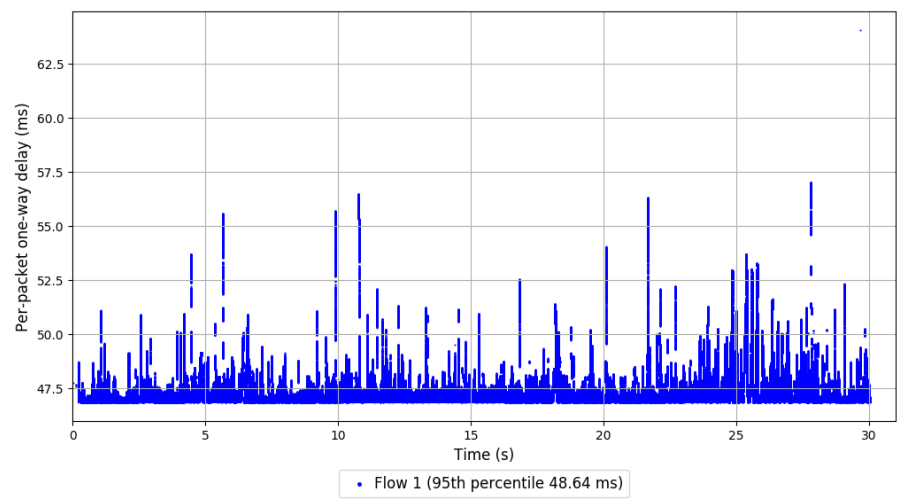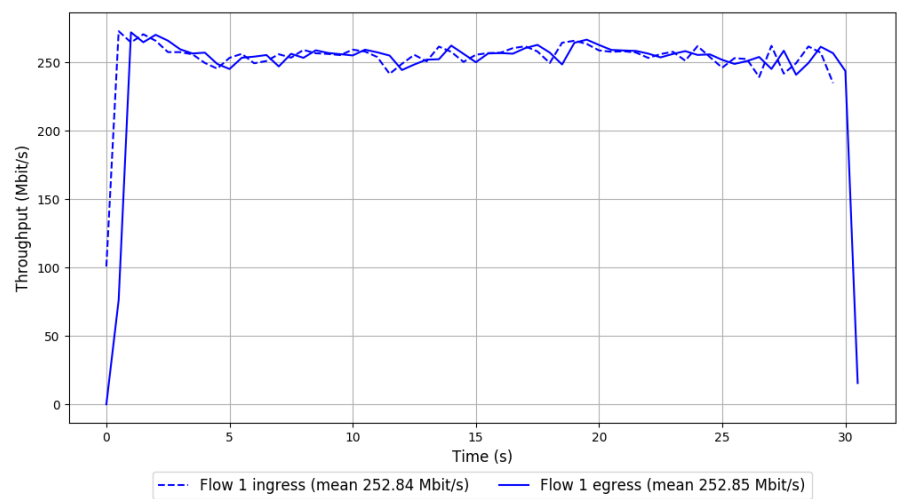
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-12-12 04:46:43
End at: 2019-12-12 04:47:13
Local clock offset: -0.061 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-12-12 08:03:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.34 Mbit/s
95th percentile per-packet one-way delay: 51.854 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 130.34 Mbit/s
95th percentile per-packet one-way delay: 51.854 ms
Loss rate: 0.00%
```
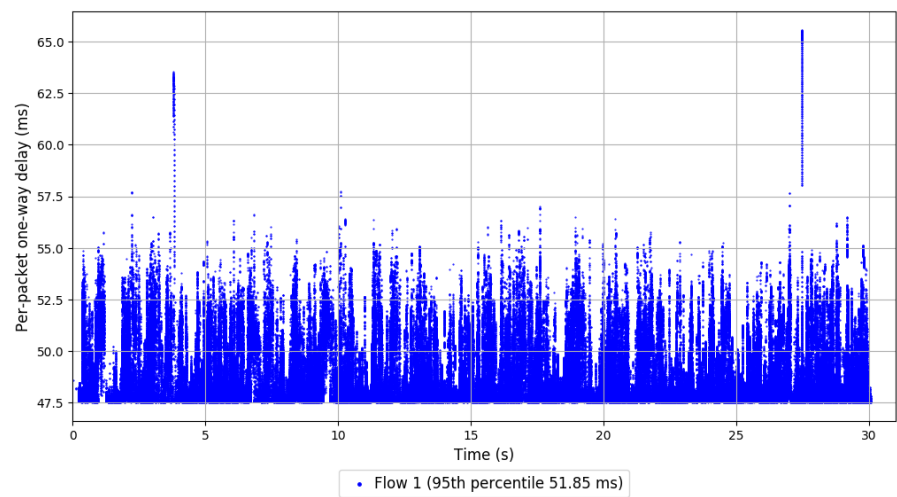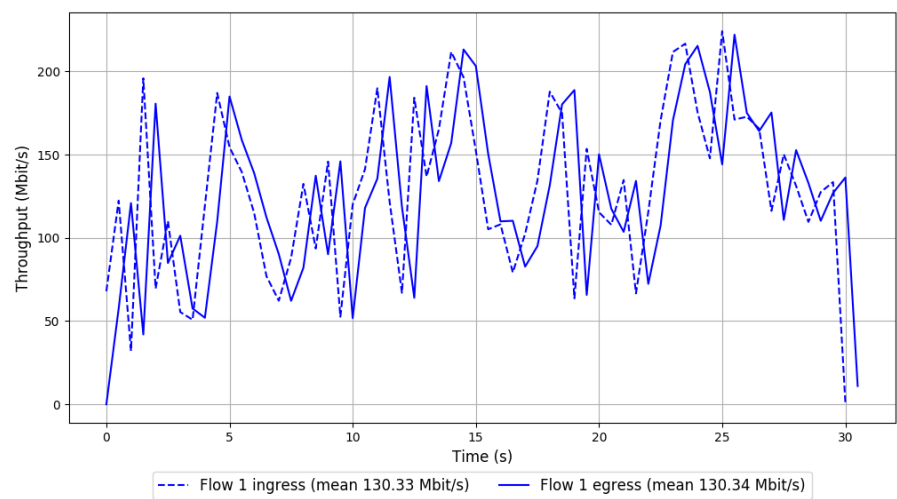
Run 3: Report of TaoVA-100x — Data Link
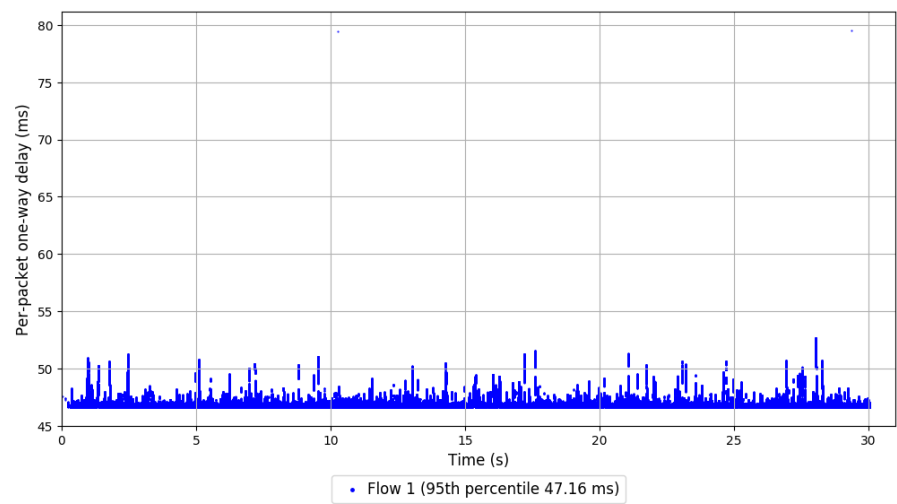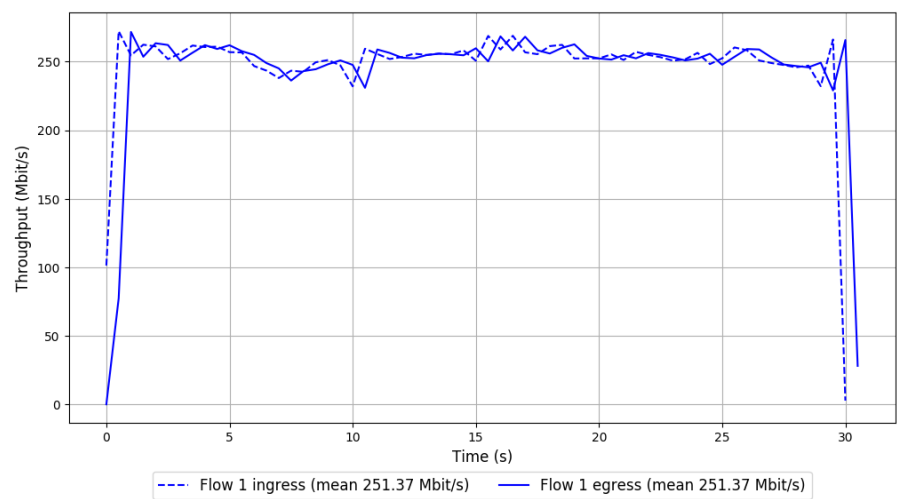

200

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

Start at: 2019-12-12 05:20:58
End at: 2019-12-12 05:21:28
Local clock offset: -0.067 ms
Remote clock offset: -0.171 ms


# Below is generated by plot.py at 2019-12-12 08:03:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.37 Mbit/s
95th percentile per-packet one-way delay: 47.159 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.37 Mbit/s
95th percentile per-packet one-way delay: 47.159 ms
Loss rate: 0.00%
```
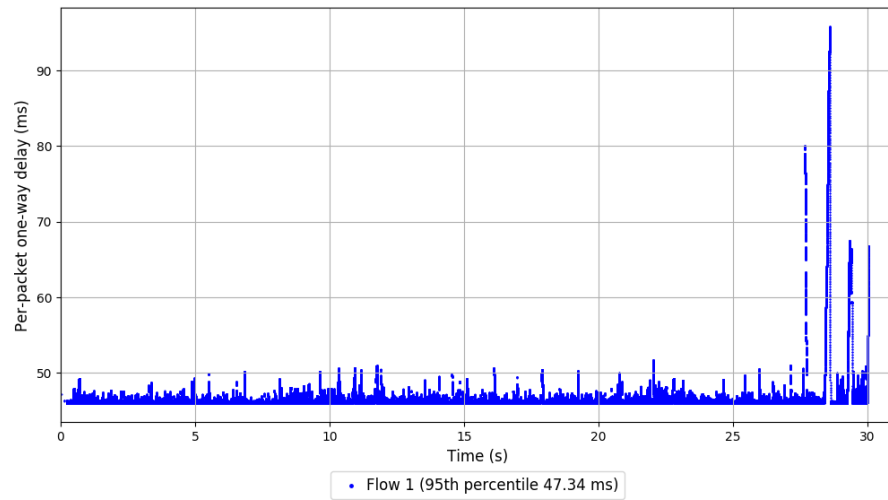
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 251.37 Mbit/s) — — — Flow 1 egress (mean 251.37 Mbit/s)

• Flow 1 (95th percentile 47.16 ms)

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

Start at: 2019-12-12 05:55:28
End at: 2019-12-12 05:55:58
Local clock offset: 0.344 ms
Remote clock offset: -0.118 ms


# Below is generated by plot.py at 2019-12-12 08:03:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 242.95 Mbit/s
95th percentile per-packet one-way delay: 47.337 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 242.95 Mbit/s
95th percentile per-packet one-way delay: 47.337 ms
Loss rate: 0.05%
```
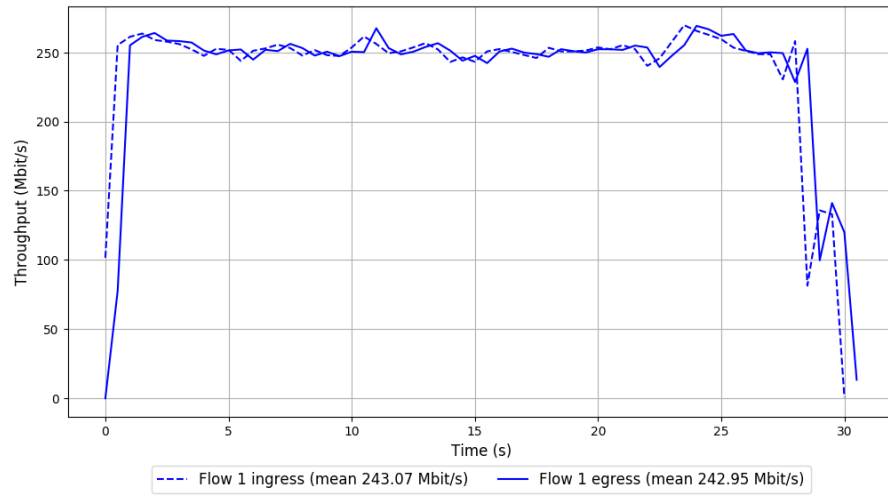
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 243.07 Mbit/s)   Flow 1 egress (mean 242.95 Mbit/s)
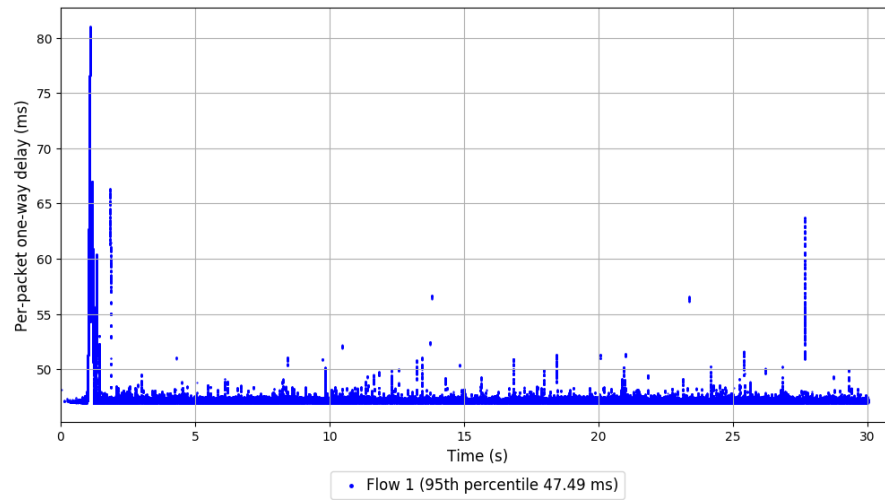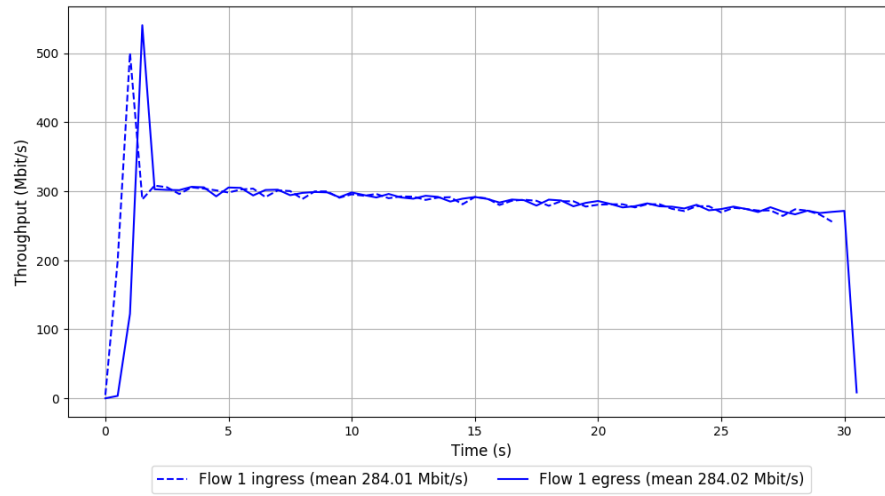

Flow 1 (95th percentile 47.34 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2019-12-12 03:13:56
End at: 2019-12-12 03:14:26
Local clock offset: 0.336 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2019-12-12 08:03:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 284.02 Mbit/s
95th percentile per-packet one-way delay: 47.489 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 284.02 Mbit/s
95th percentile per-packet one-way delay: 47.489 ms
Loss rate: 0.00%
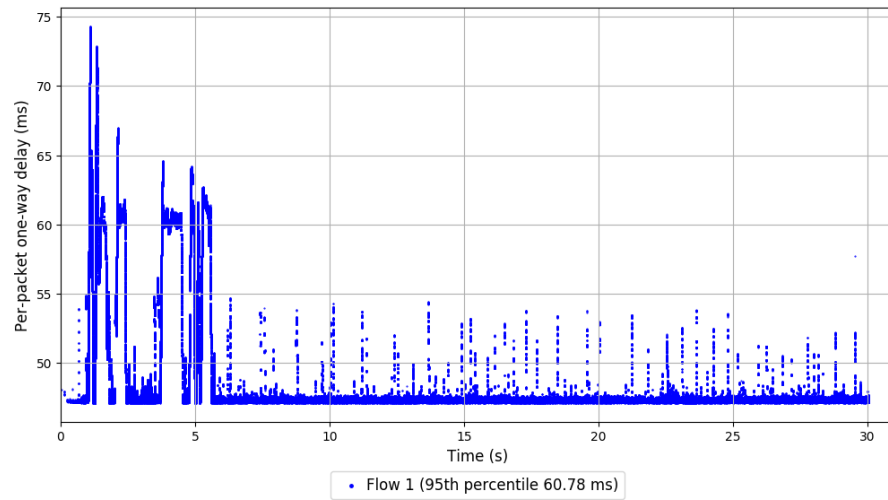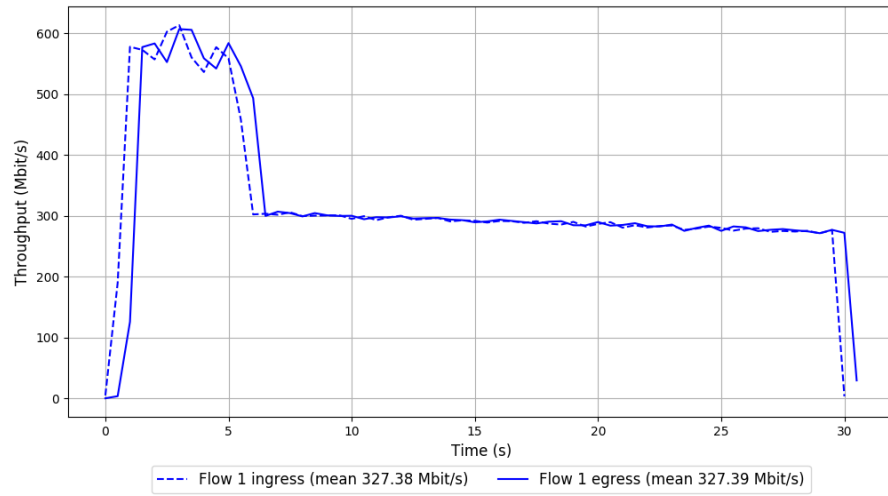```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-12-12 03:48:46
End at: 2019-12-12 03:49:16
Local clock offset: -0.161 ms
Remote clock offset: -0.048 ms

Below is generated by plot.py at 2019-12-12 08:04:29
Datalink statistics
-- Total of 1 flow:
Average throughput: 327.39 Mbit/s
95th percentile per-packet one-way delay: 60.780 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 327.39 Mbit/s
95th percentile per-packet one-way delay: 60.780 ms
Loss rate: 0.00%
```
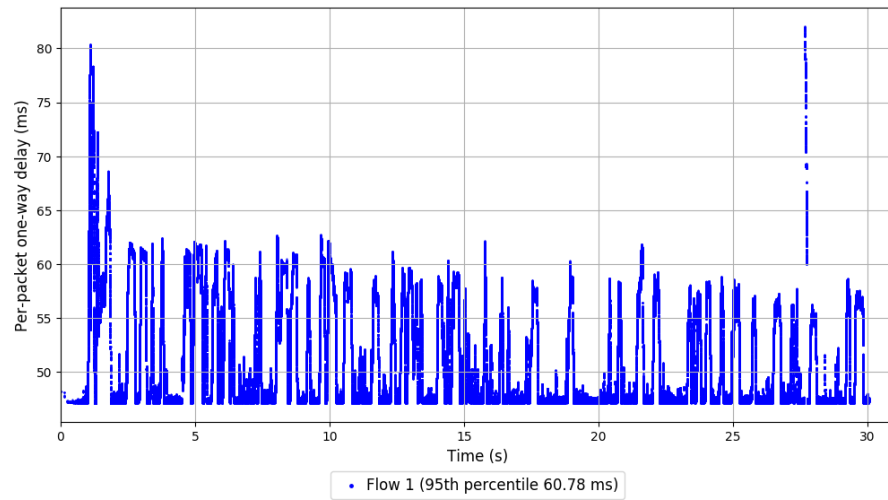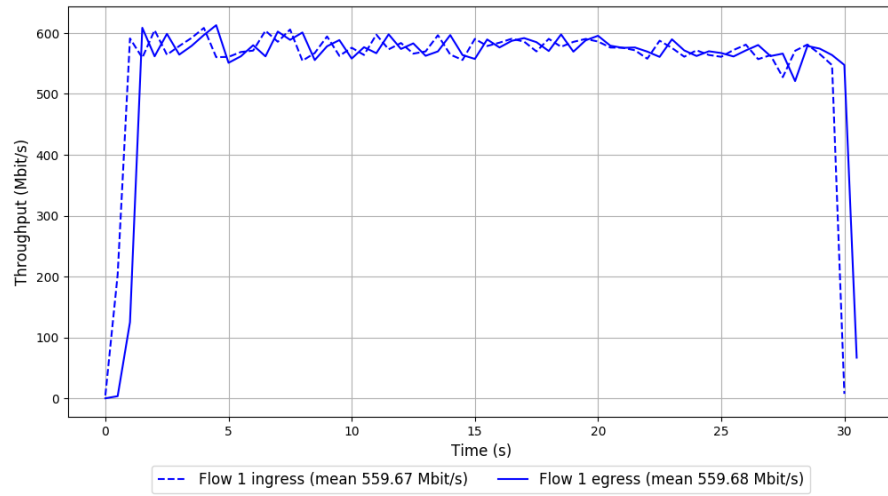
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-12-12 04:23:43
End at: 2019-12-12 04:24:13
Local clock offset: -0.076 ms
Remote clock offset: -0.073 ms

Below is generated by plot.py at 2019-12-12 08:10:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 559.68 Mbit/s
95th percentile per-packet one-way delay: 60.785 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 559.68 Mbit/s
95th percentile per-packet one-way delay: 60.785 ms
Loss rate: 0.00%
```
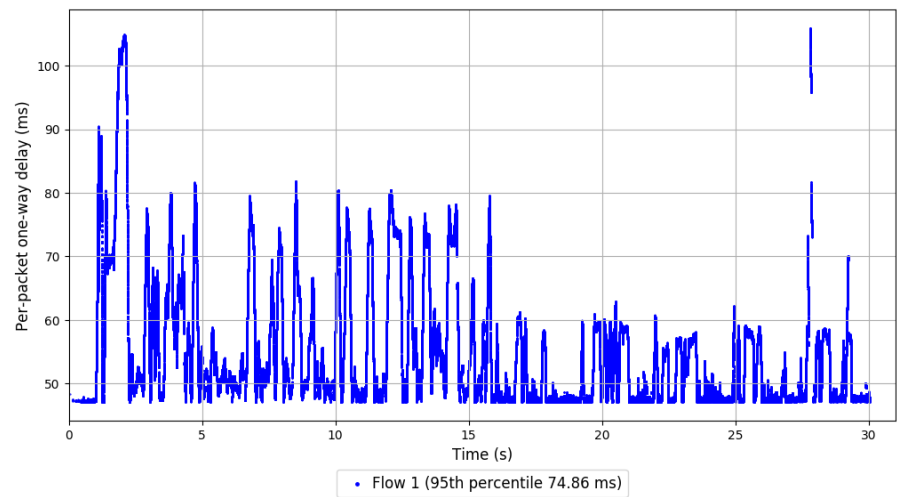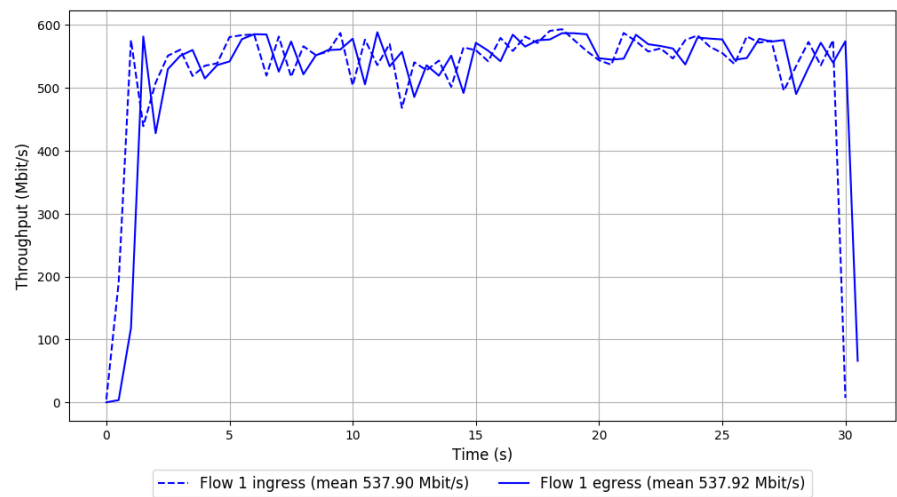
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-12-12 04:58:41
End at: 2019-12-12 04:59:11
Local clock offset: -0.061 ms
Remote clock offset: -0.073 ms

Below is generated by plot.py at 2019-12-12 08:10:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 537.92 Mbit/s
95th percentile per-packet one-way delay: 74.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 537.92 Mbit/s
95th percentile per-packet one-way delay: 74.856 ms
Loss rate: 0.00%
```
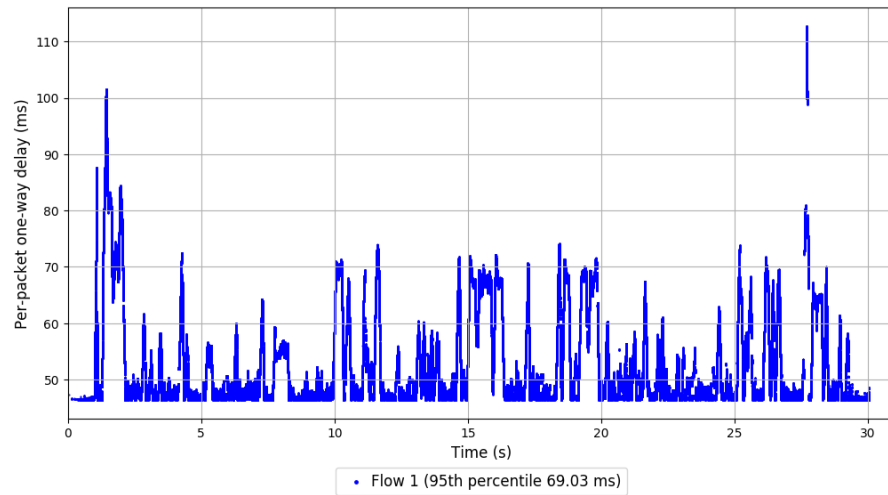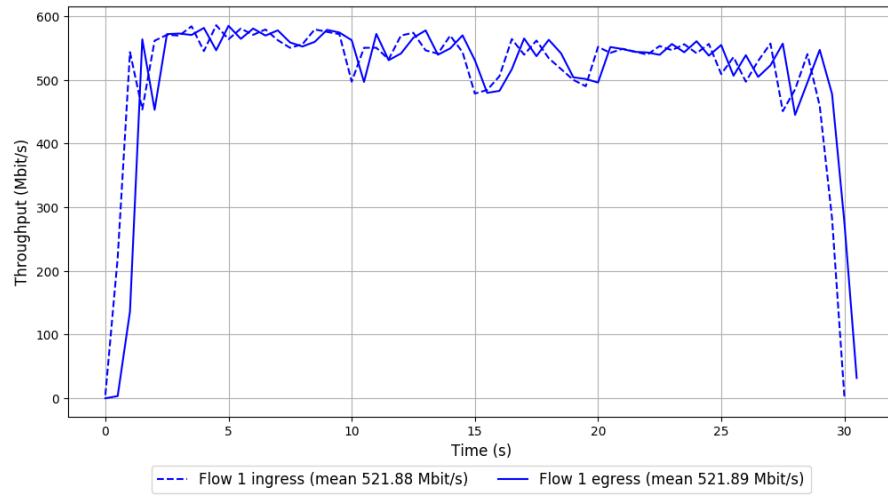
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-12-12 05:32:53
End at: 2019-12-12 05:33:23
Local clock offset: -0.071 ms
Remote clock offset: -0.161 ms

Below is generated by plot.py at 2019-12-12 08:10:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 521.89 Mbit/s
95th percentile per-packet one-way delay: 69.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 521.89 Mbit/s
95th percentile per-packet one-way delay: 69.032 ms
Loss rate: 0.00%
```
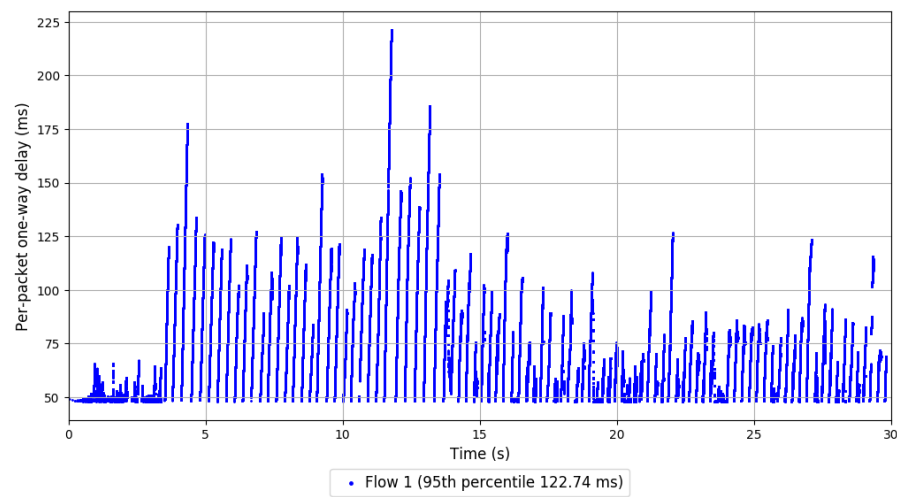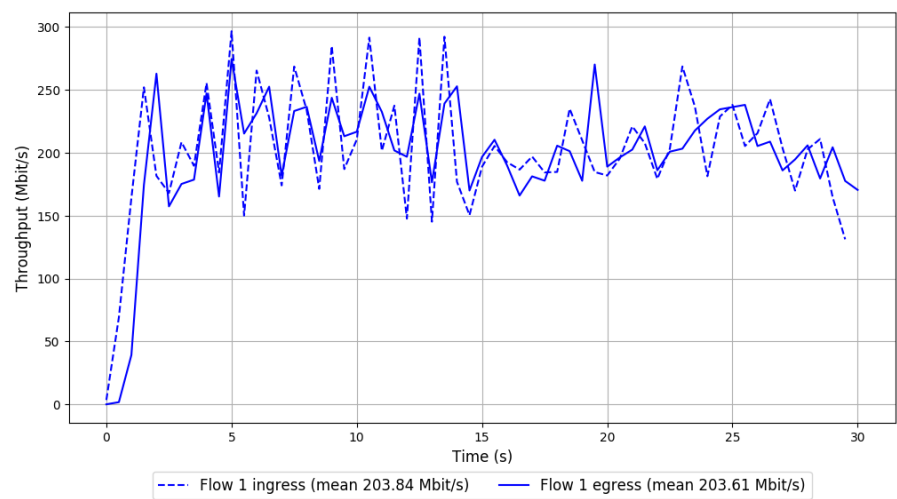
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-12-12 03:15:16
End at: 2019-12-12 03:15:46
Local clock offset: -0.812 ms
Remote clock offset: -0.034 ms

Below is generated by plot.py at 2019-12-12 08:10:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 203.61 Mbit/s
95th percentile per-packet one-way delay: 122.743 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 203.61 Mbit/s
95th percentile per-packet one-way delay: 122.743 ms
Loss rate: 0.12%
```
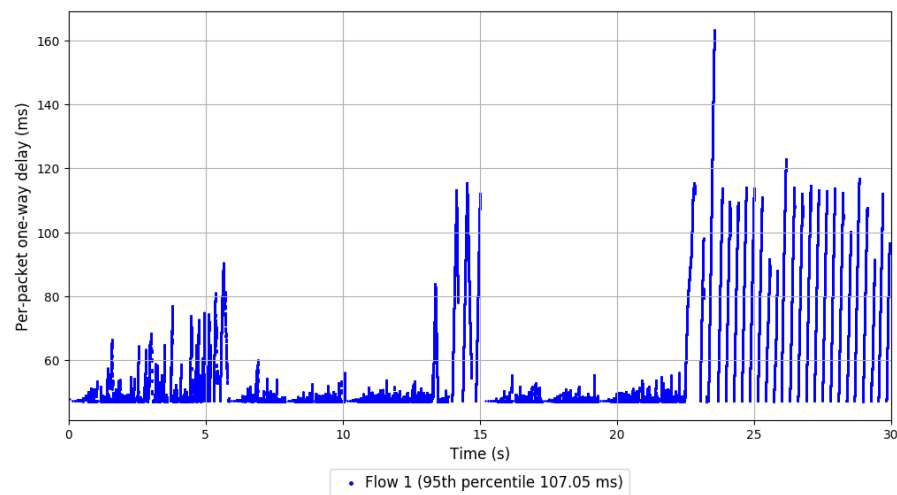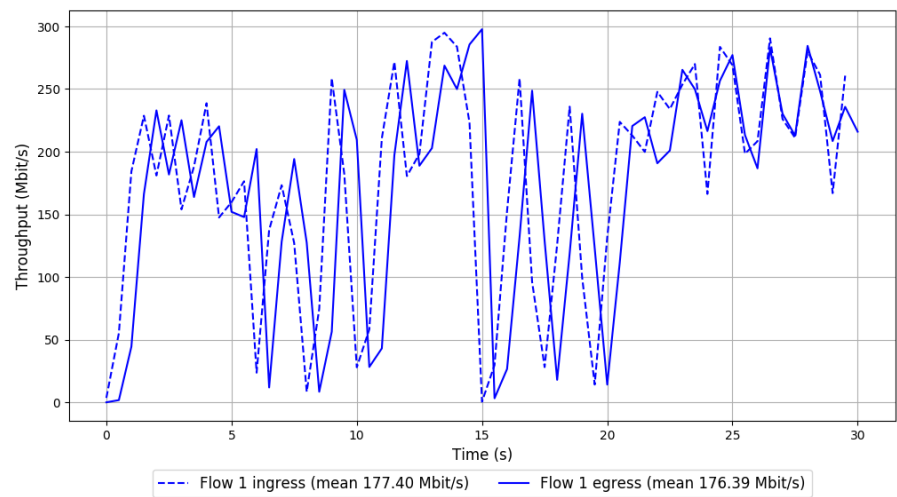
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-12-12 03:50:09
End at: 2019-12-12 03:50:39
Local clock offset: -0.165 ms
Remote clock offset: -0.013 ms

Below is generated by plot.py at 2019-12-12 08:10:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 176.39 Mbit/s
95th percentile per-packet one-way delay: 107.045 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 176.39 Mbit/s
95th percentile per-packet one-way delay: 107.045 ms
Loss rate: 0.57%
```
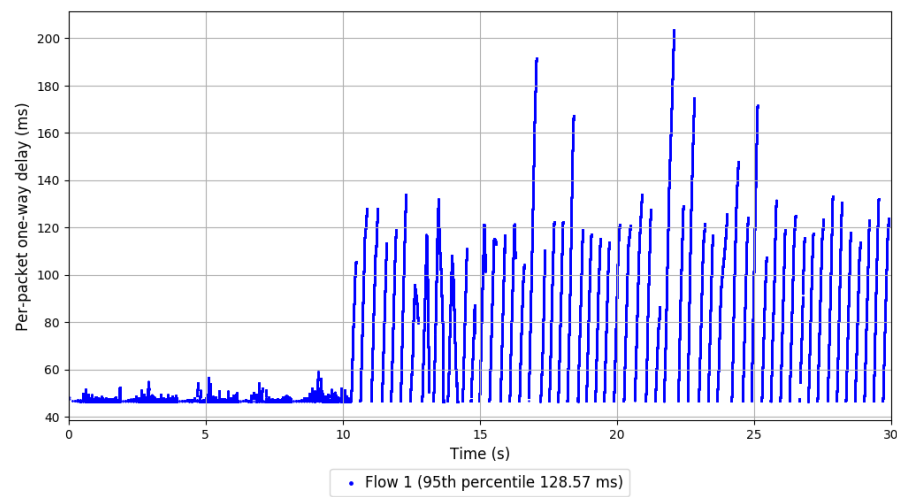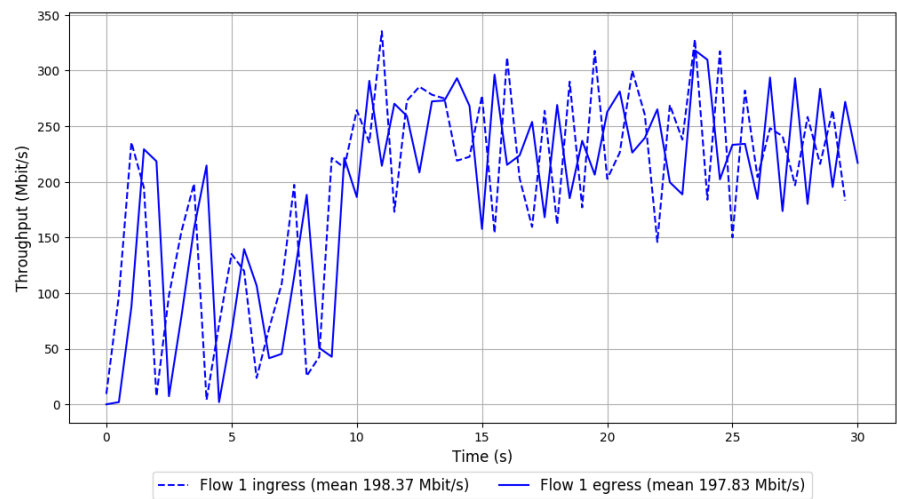
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-12-12 04:25:16
End at: 2019-12-12 04:25:46
Local clock offset: -0.066 ms
Remote clock offset: -0.106 ms

Below is generated by plot.py at 2019-12-12 08:10:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 197.83 Mbit/s
95th percentile per-packet one-way delay: 128.566 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 197.83 Mbit/s
95th percentile per-packet one-way delay: 128.566 ms
Loss rate: 0.02%
```
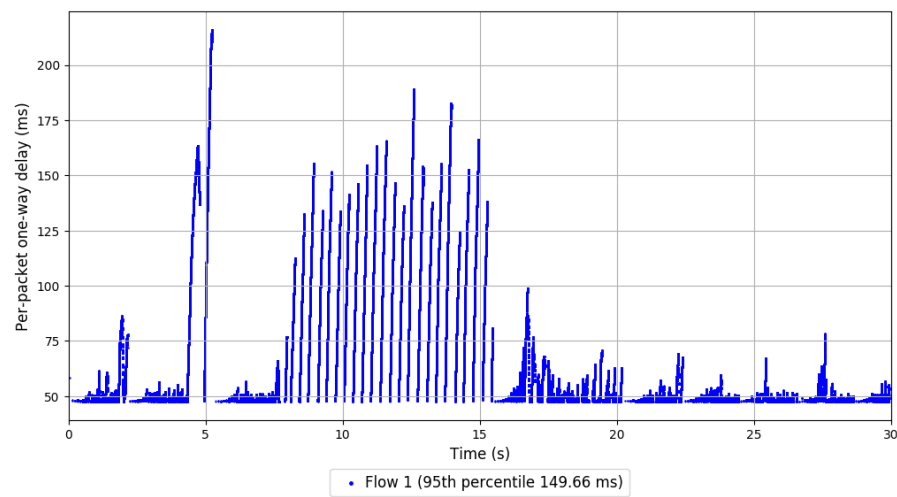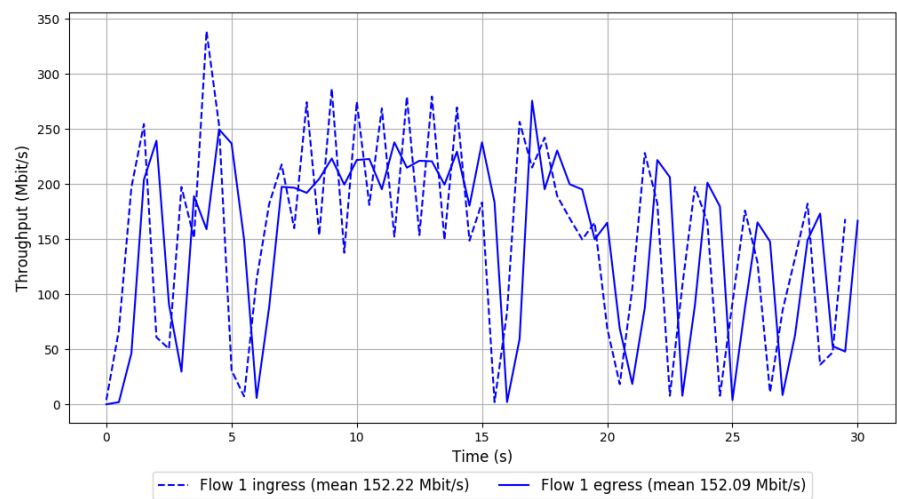
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-12-12 05:00:13
End at: 2019-12-12 05:00:43
Local clock offset: -0.054 ms
Remote clock offset: -0.084 ms

Below is generated by plot.py at 2019-12-12 08:10:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 152.09 Mbit/s
95th percentile per-packet one-way delay: 149.657 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 152.09 Mbit/s
95th percentile per-packet one-way delay: 149.657 ms
Loss rate: 0.12%
```
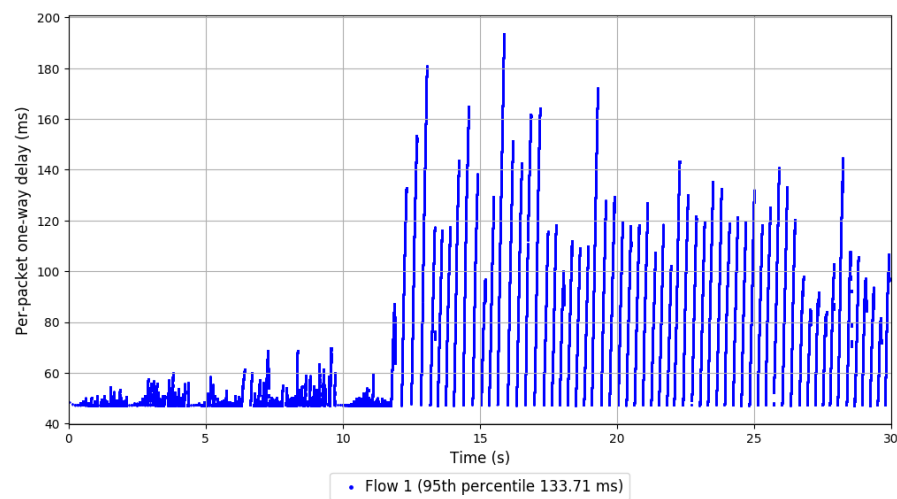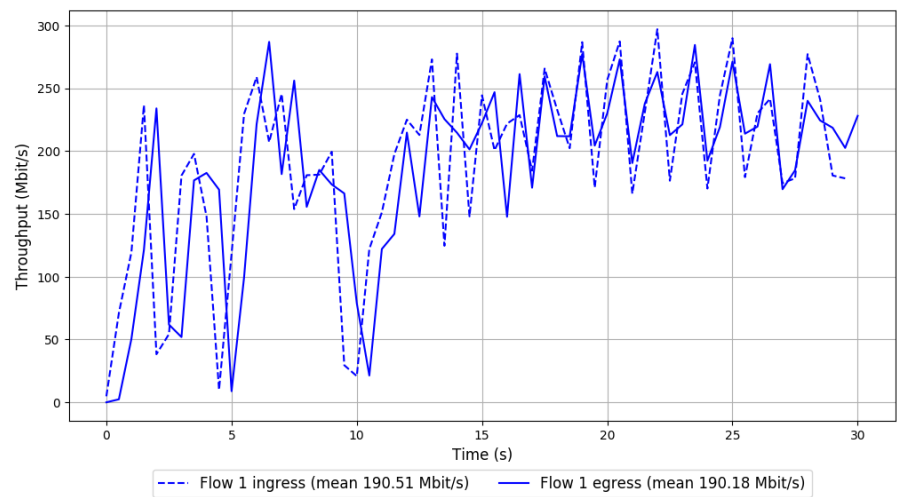
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-12-12 05:34:25
End at: 2019-12-12 05:34:55
Local clock offset: -0.023 ms
Remote clock offset: -0.127 ms


# Below is generated by plot.py at 2019-12-12 08:10:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.18 Mbit/s
95th percentile per-packet one-way delay: 133.707 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 190.18 Mbit/s
95th percentile per-packet one-way delay: 133.707 ms
Loss rate: 0.03%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 190.51 Mbit/s)   Flow 1 egress (mean 190.18 Mbit/s)
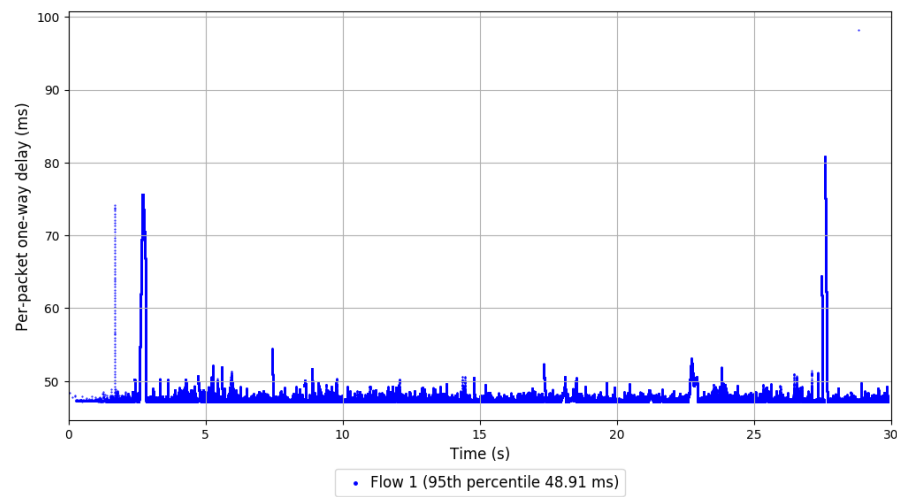

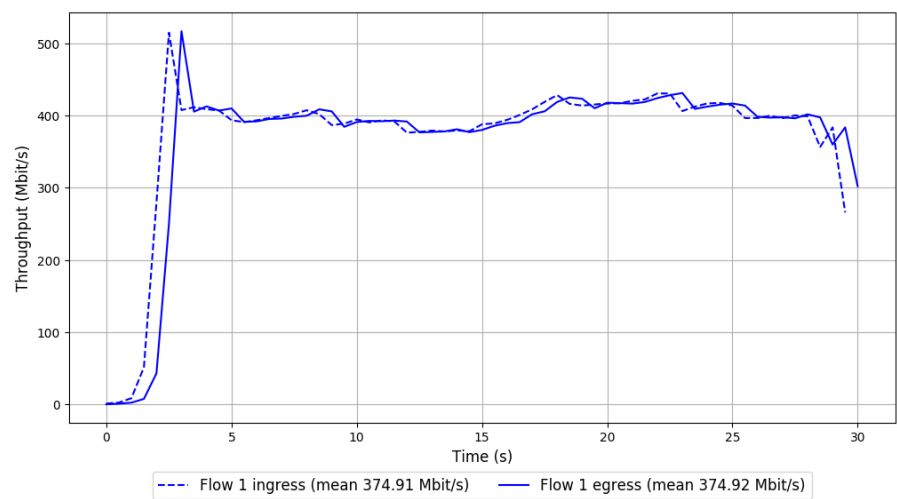
• Flow 1 (95th percentile 133.71 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-12-12 03:12:25
End at: 2019-12-12 03:12:55
Local clock offset: -0.012 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2019-12-12 08:13:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.92 Mbit/s
95th percentile per-packet one-way delay: 48.912 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 374.92 Mbit/s
95th percentile per-packet one-way delay: 48.912 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-12-12 03:47:18
End at: 2019-12-12 03:47:48
Local clock offset: -0.125 ms
Remote clock offset: 0.018 ms


# Below is generated by plot.py at 2019-12-12 08:13:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 328.71 Mbit/s
95th percentile per-packet one-way delay: 49.520 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 328.71 Mbit/s
95th percentile per-packet one-way delay: 49.520 ms
Loss rate: 0.00%
```
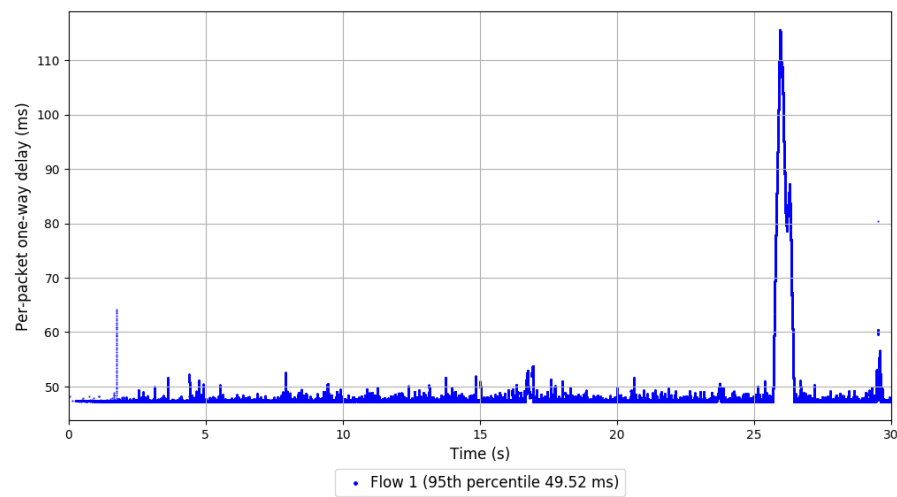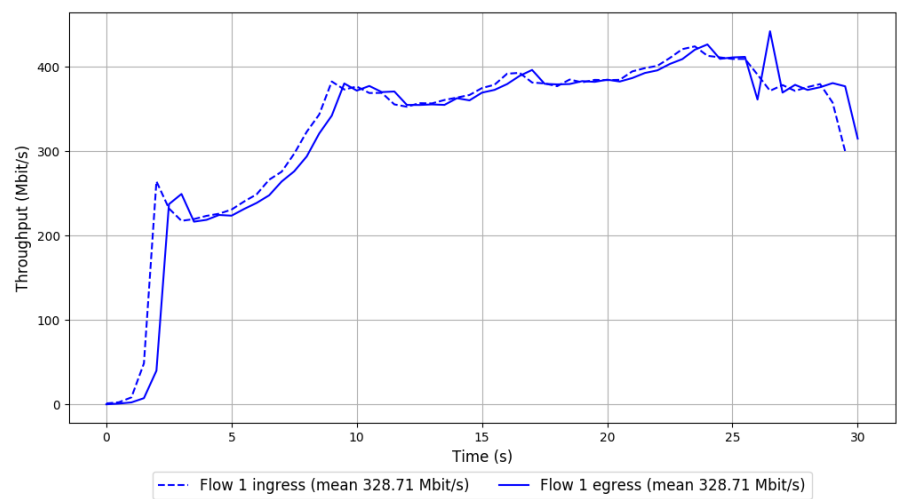
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-12-12 04:22:14
End at: 2019-12-12 04:22:44
Local clock offset: -0.094 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 361.20 Mbit/s
95th percentile per-packet one-way delay: 48.986 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 361.20 Mbit/s
95th percentile per-packet one-way delay: 48.986 ms
Loss rate: 0.01%
```
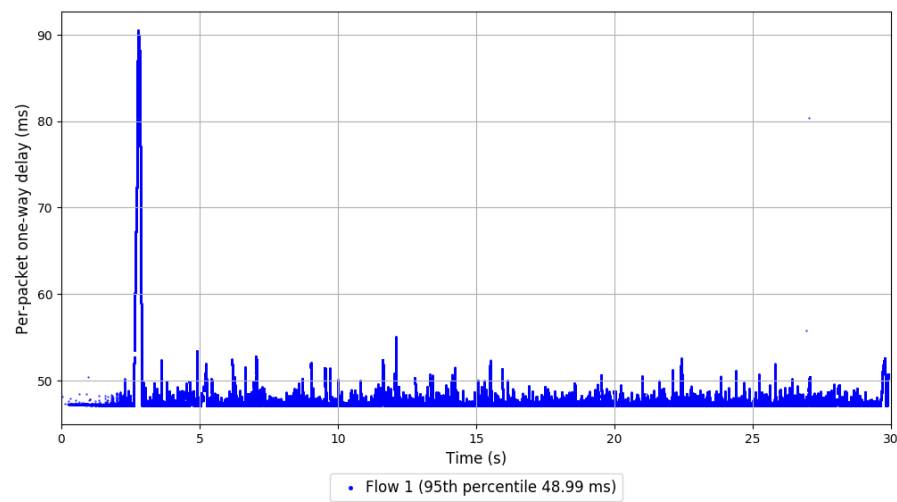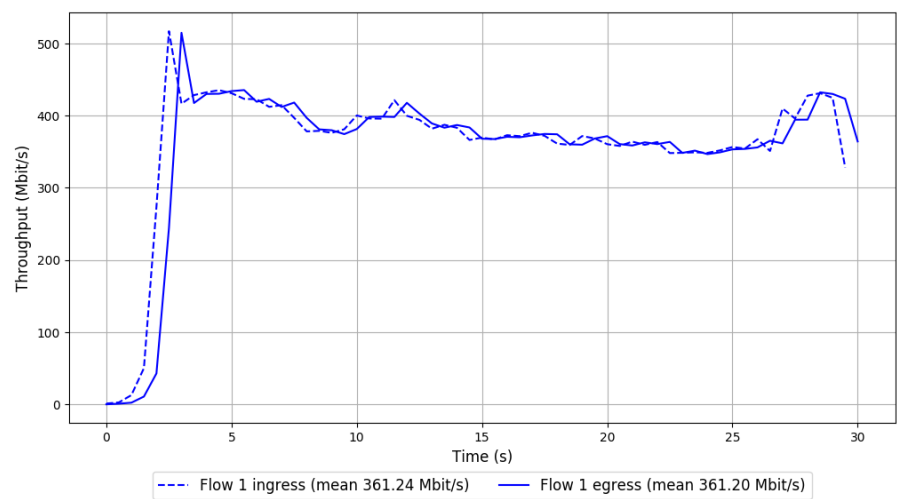
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 361.24 Mbit/s)   Flow 1 egress (mean 361.20 Mbit/s)

Flow 1 (95th percentile 48.99 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-12-12 04:57:14
End at: 2019-12-12 04:57:44
Local clock offset: -0.039 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.08 Mbit/s
95th percentile per-packet one-way delay: 122.585 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 322.08 Mbit/s
95th percentile per-packet one-way delay: 122.585 ms
Loss rate: 0.04%
```
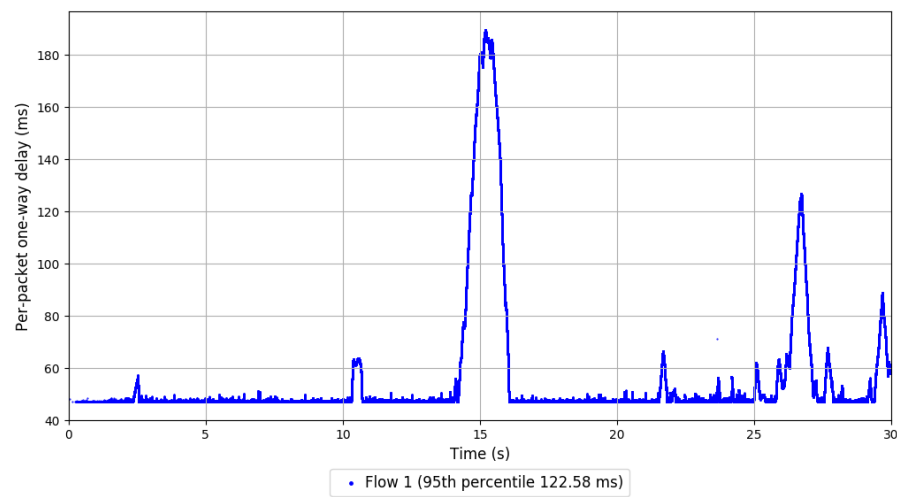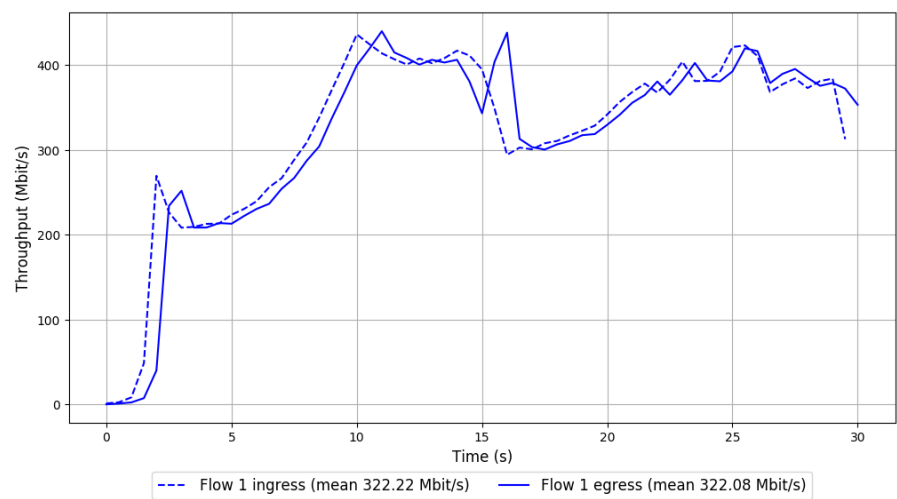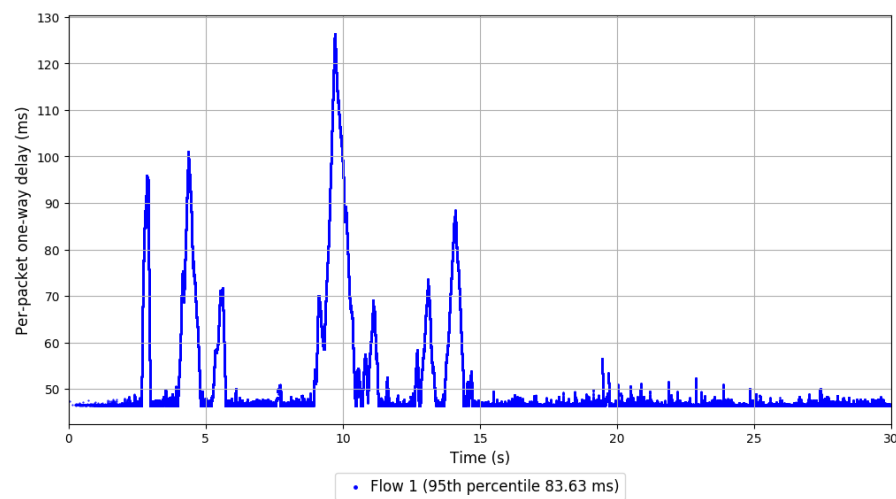
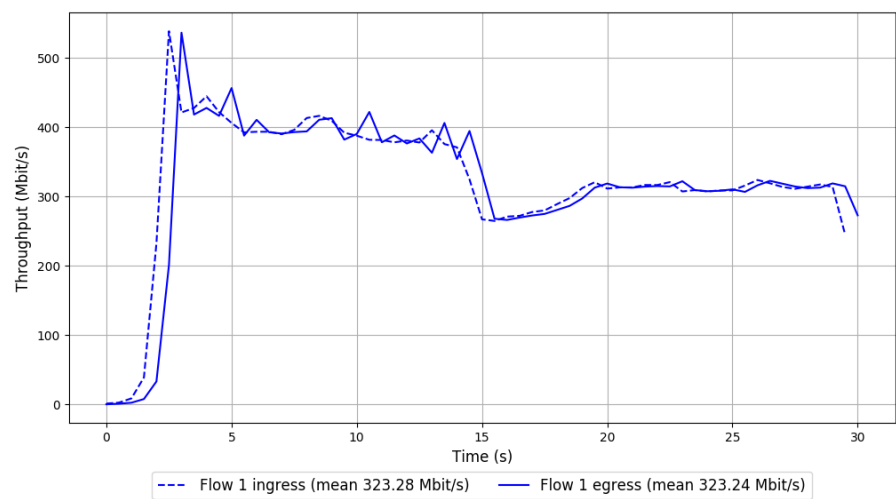Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-12-12 05:31:26
End at: 2019-12-12 05:31:56
Local clock offset: -0.08 ms
Remote clock offset: -0.145 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 323.24 Mbit/s
95th percentile per-packet one-way delay: 83.630 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 323.24 Mbit/s
95th percentile per-packet one-way delay: 83.630 ms
Loss rate: 0.02%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 323.28 Mbit/s)　　Flow 1 egress (mean 323.24 Mbit/s)

• Flow 1 (95th percentile 83.63 ms)
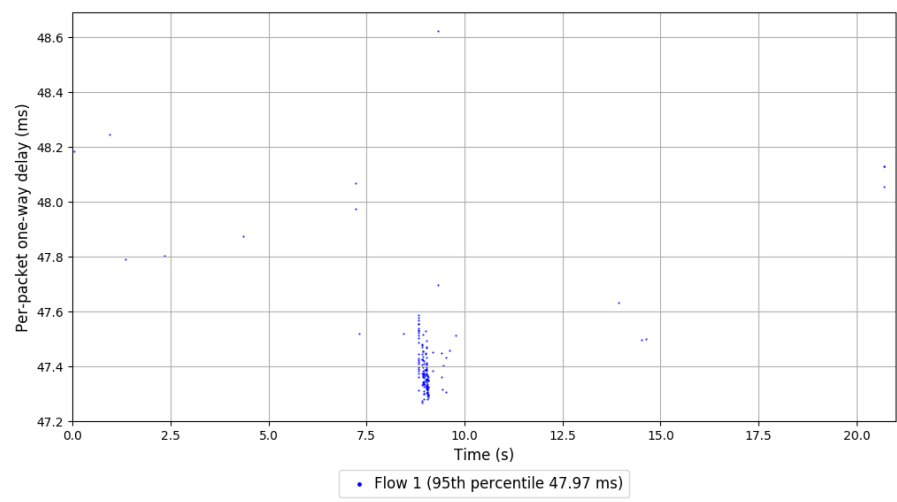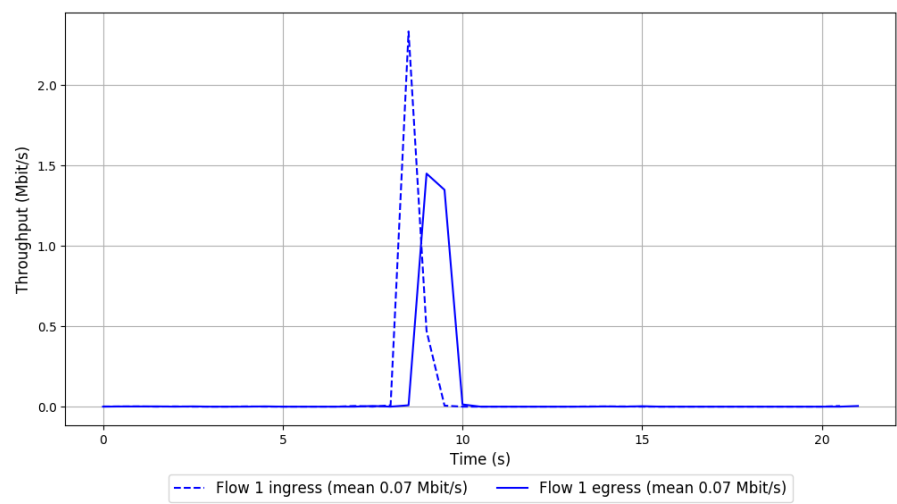
```
Run 1: Statistics of WebRTC media

Start at: 2019-12-12 03:08:49
End at: 2019-12-12 03:09:19
Local clock offset: -0.044 ms
Remote clock offset: -0.031 ms
```

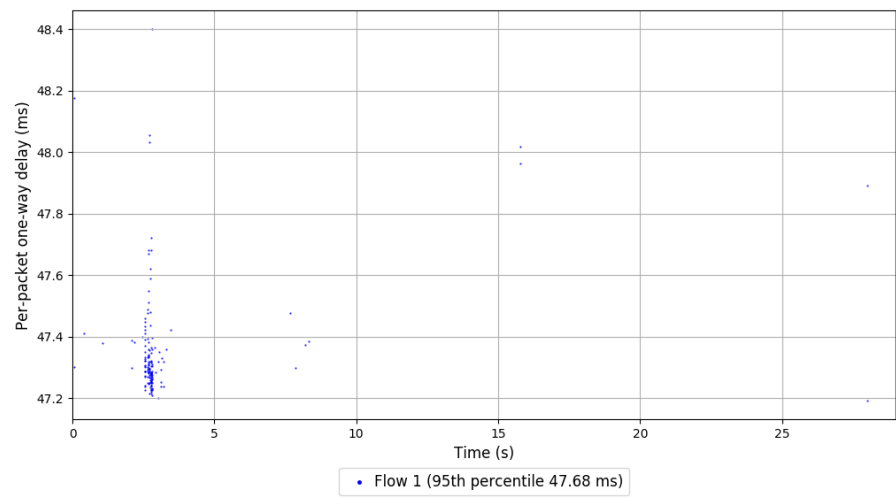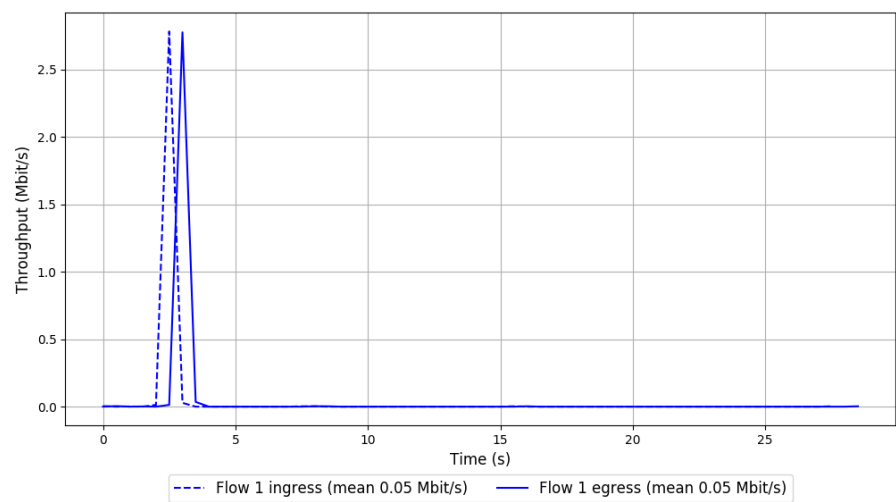Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-12-12 03:43:35
End at: 2019-12-12 03:44:05
Local clock offset: -0.92 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.682 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.682 ms
Loss rate: 0.00%
```

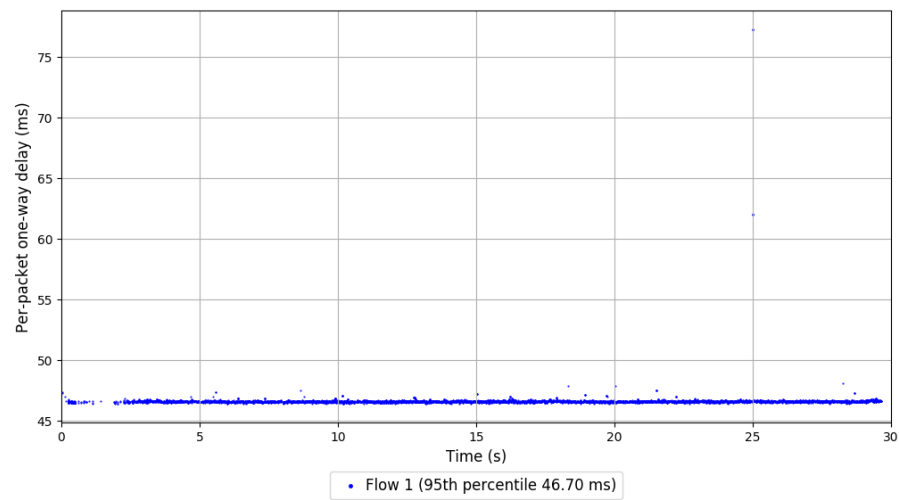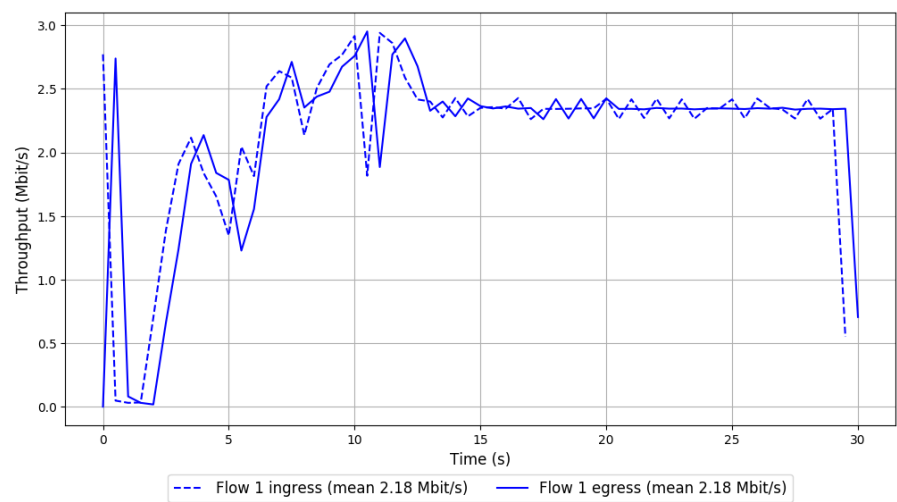Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-12-12 04:18:26
End at: 2019-12-12 04:18:56
Local clock offset: -0.111 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 46.700 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 46.700 ms
Loss rate: 0.00%
```

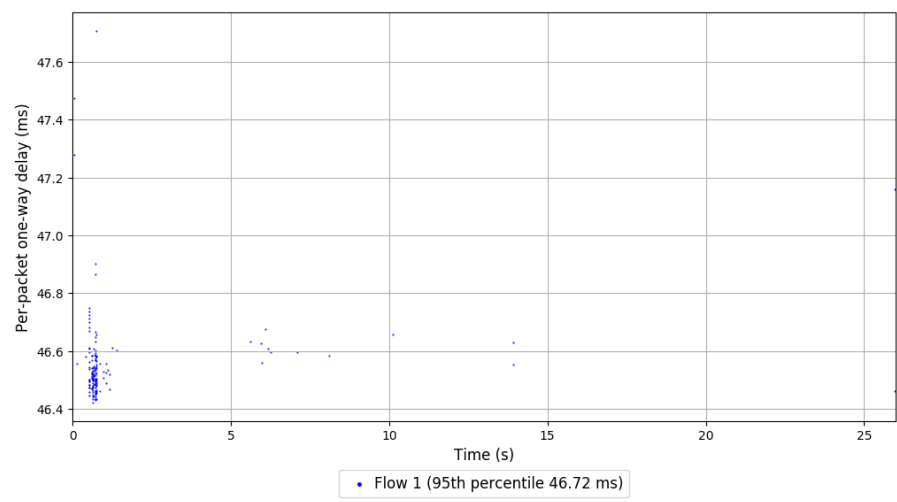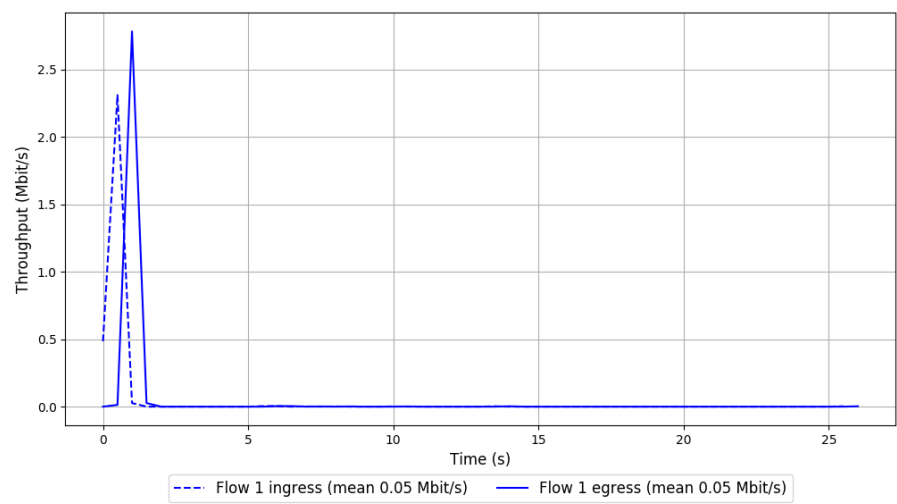Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-12-12 04:53:26
End at: 2019-12-12 04:53:56
Local clock offset: -0.034 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.724 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 46.724 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-12-12 05:27:45
End at: 2019-12-12 05:28:15
Local clock offset: -0.037 ms
Remote clock offset: -0.166 ms


# Below is generated by plot.py at 2019-12-12 08:13:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.511 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 47.511 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link