Pantheon Report

Generated at 2019-12-11 06:29:10 (UTC).

Data path: AWS California 1 on ens5 (*local*) →Stanford on eno1 (*remote*).

Repeated the test of 24 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against time.stanford.edu and have been applied to correct the timestamps in logs.
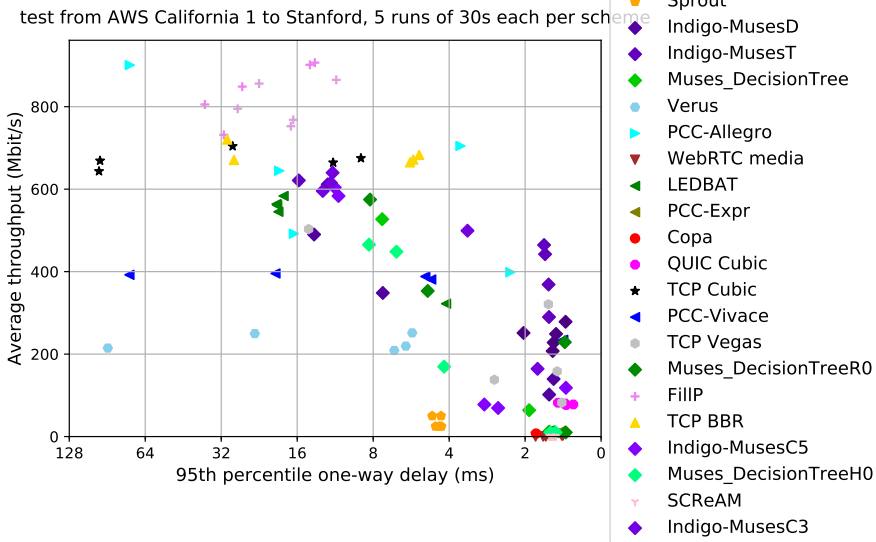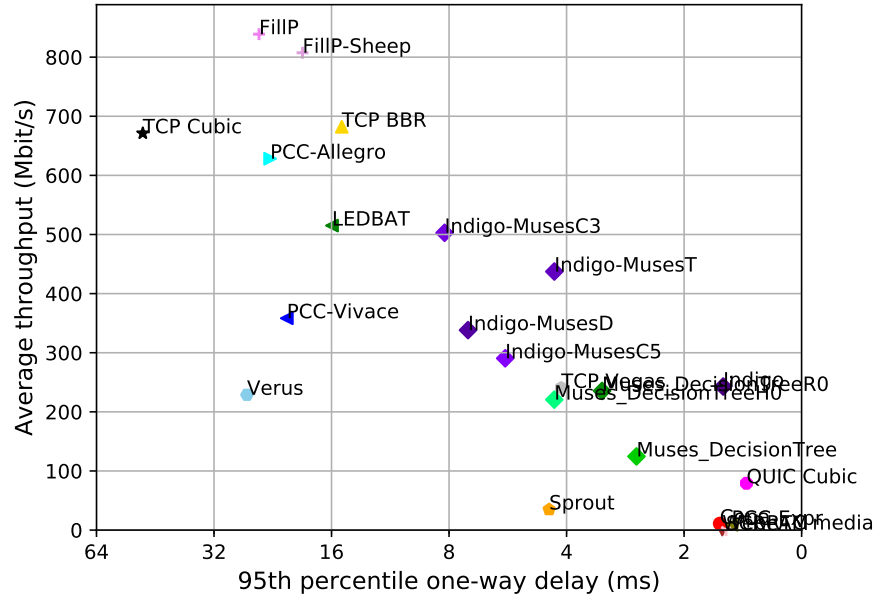
```
System info:
Linux 4.15.0-1054-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

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

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

test from AWS California 1 to Stanford, 5 runs of 30s each per scheme
(mean of all runs by scheme)

test from AWS California 1 to Stanford, 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	682.17	15.06	0.07
Copa	5	10.96	1.39	54.06
TCP Cubic	5	671.20	48.70	0.07
FillP	5	838.83	24.54	5.51
FillP-Sheep	5	807.38	18.99	3.73
Indigo	5	242.82	1.33	0.00
Indigo-MusesC3	5	502.85	8.21	0.01
Indigo-MusesC5	5	290.57	5.74	0.10
Indigo-MusesD	5	338.25	7.15	0.05
Indigo-MusesT	5	437.36	4.30	0.01
LEDBAT	5	515.09	15.96	0.04
Muses_DecisionTree	5	124.62	2.65	0.00
Muses_DecisionTreeH0	5	220.65	4.30	0.01
Muses_DecisionTreeR0	5	235.37	3.24	0.01
PCC-Allegro	5	628.19	22.98	0.27
PCC-Expr	5	8.87	1.19	22.79
QUIC Cubic	5	79.20	0.94	0.00
SCReAM	5	0.22	1.29	0.00
Sprout	5	34.84	4.43	0.00
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	5	240.50	4.13	0.02
Verus	5	228.84	26.35	4.91
PCC-Vivace	5	358.33	20.83	0.01
WebRTC media	5	0.93	1.35	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2019-12-11 03:00:09
End at: 2019-12-11 03:00:39
Local clock offset: 1.907 ms
Remote clock offset: 3.559 ms


# Below is generated by plot.py at 2019-12-11 05:40:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 683.06 Mbit/s
95th percentile per-packet one-way delay: 5.257 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 683.06 Mbit/s
95th percentile per-packet one-way delay: 5.257 ms
Loss rate: 0.01%
```
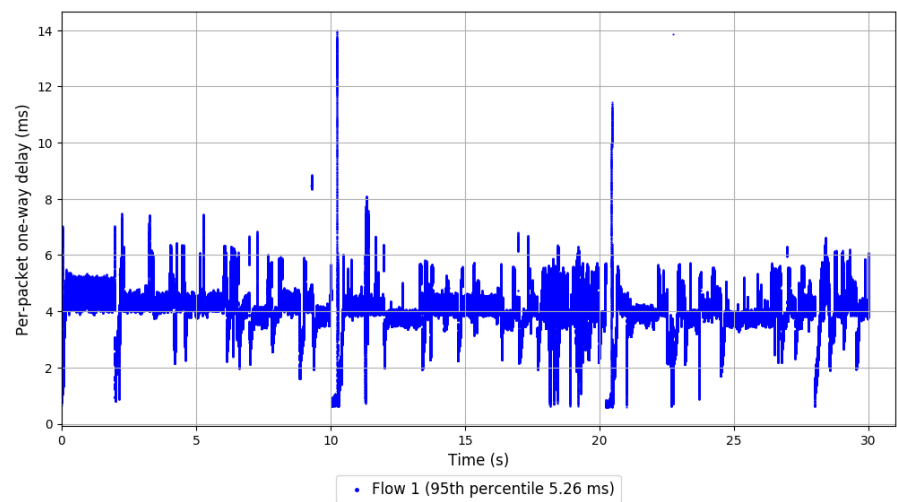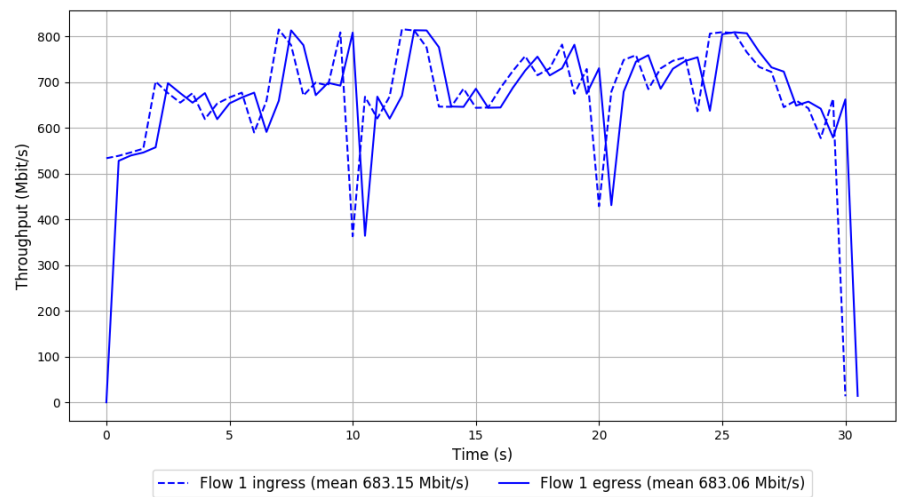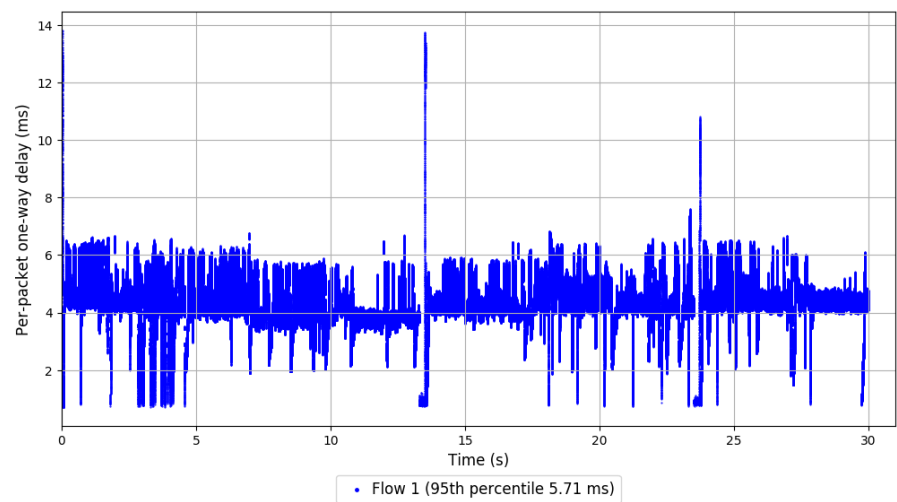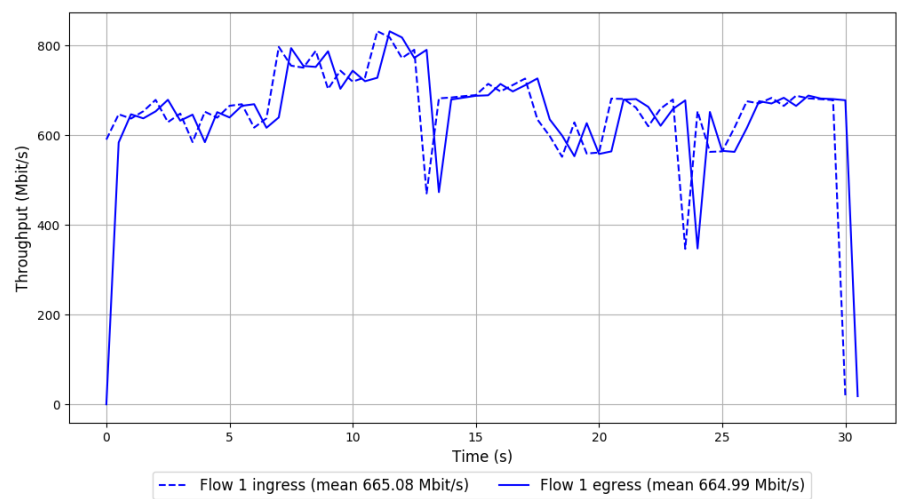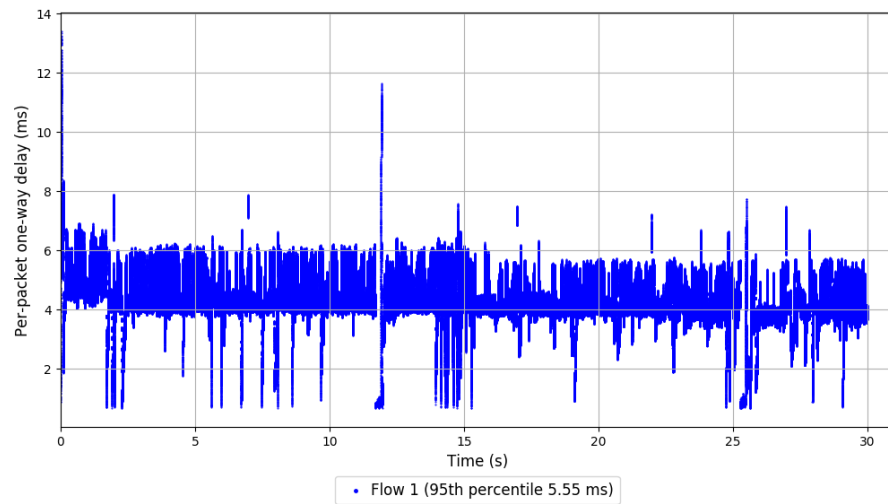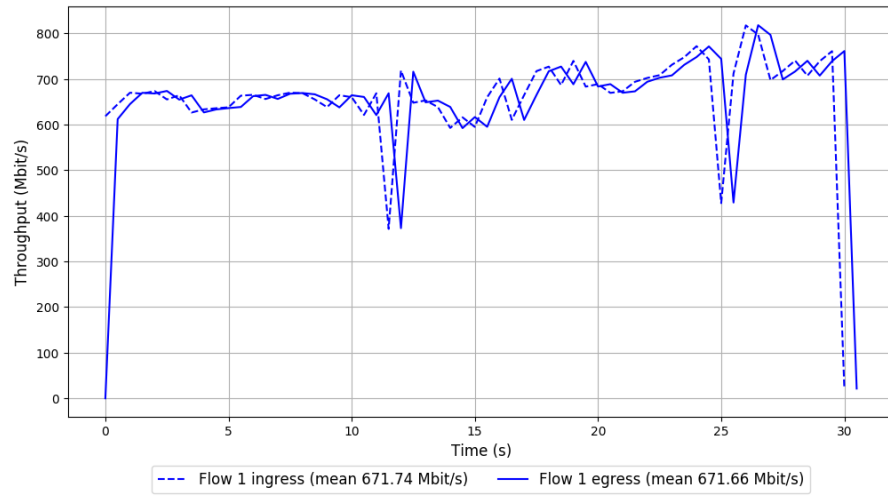
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-12-11 03:33:24
End at: 2019-12-11 03:33:54
Local clock offset: 1.43 ms
Remote clock offset: 1.509 ms


# Below is generated by plot.py at 2019-12-11 05:40:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 664.99 Mbit/s
95th percentile per-packet one-way delay: 5.713 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 664.99 Mbit/s
95th percentile per-packet one-way delay: 5.713 ms
Loss rate: 0.01%
```
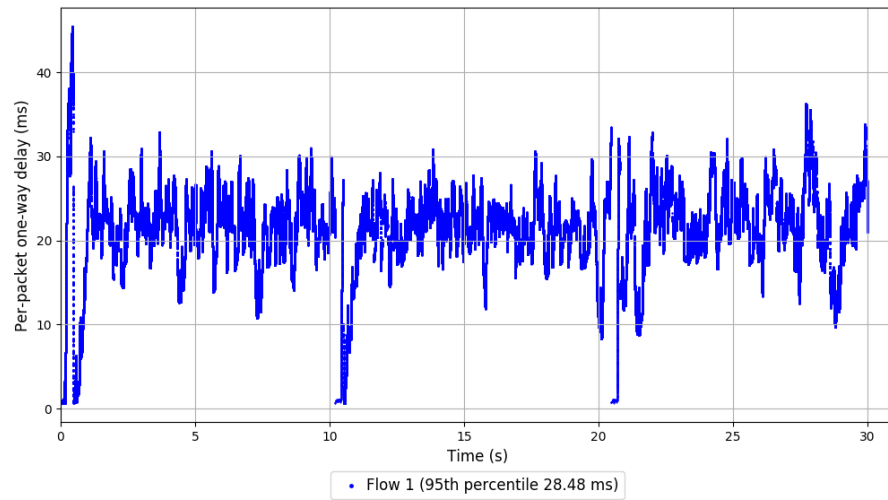
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-12-11 04:06:42
End at: 2019-12-11 04:07:12
Local clock offset: 2.195 ms
Remote clock offset: 0.307 ms


# Below is generated by plot.py at 2019-12-11 05:40:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 671.66 Mbit/s
95th percentile per-packet one-way delay: 5.548 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 671.66 Mbit/s
95th percentile per-packet one-way delay: 5.548 ms
Loss rate: 0.01%
```
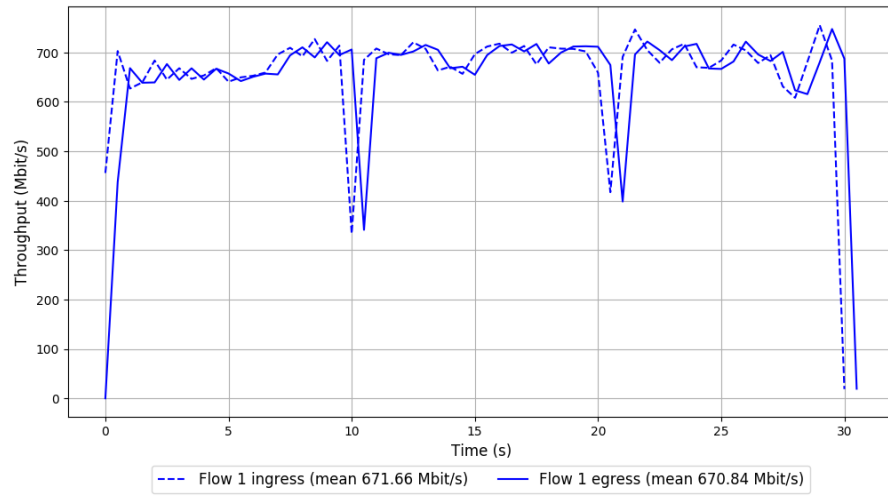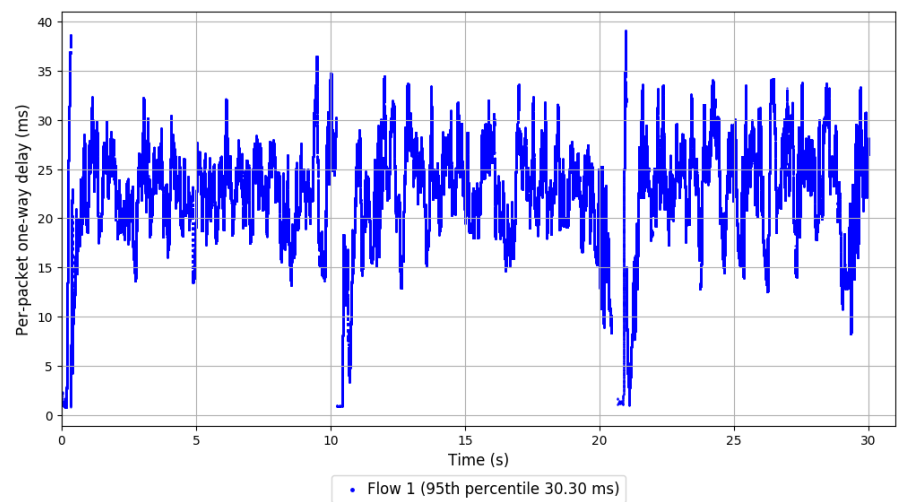
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 671.74 Mbit/s)   Flow 1 egress (mean 671.66 Mbit/s)

Flow 1 (95th percentile 5.55 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-12-11 04:40:29
End at: 2019-12-11 04:40:59
Local clock offset: 2.516 ms
Remote clock offset: 2.77 ms


# Below is generated by plot.py at 2019-12-11 05:40:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 670.84 Mbit/s
95th percentile per-packet one-way delay: 28.480 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 670.84 Mbit/s
95th percentile per-packet one-way delay: 28.480 ms
Loss rate: 0.12%
```
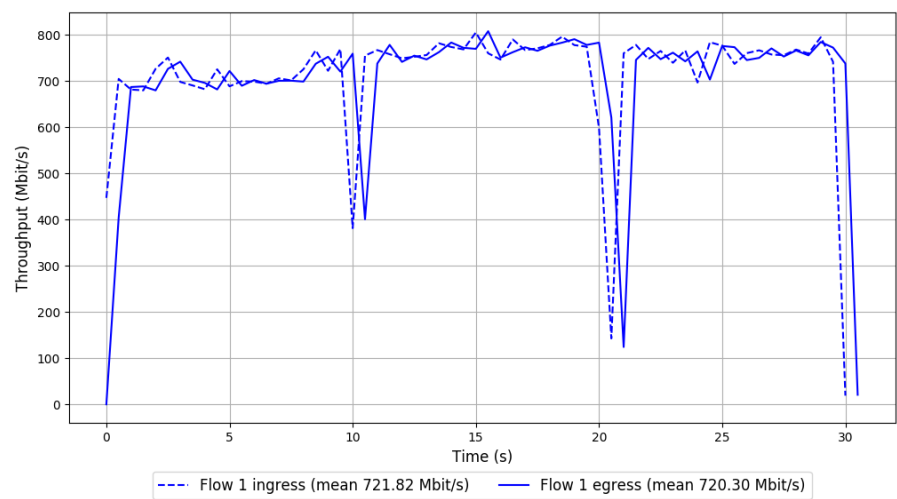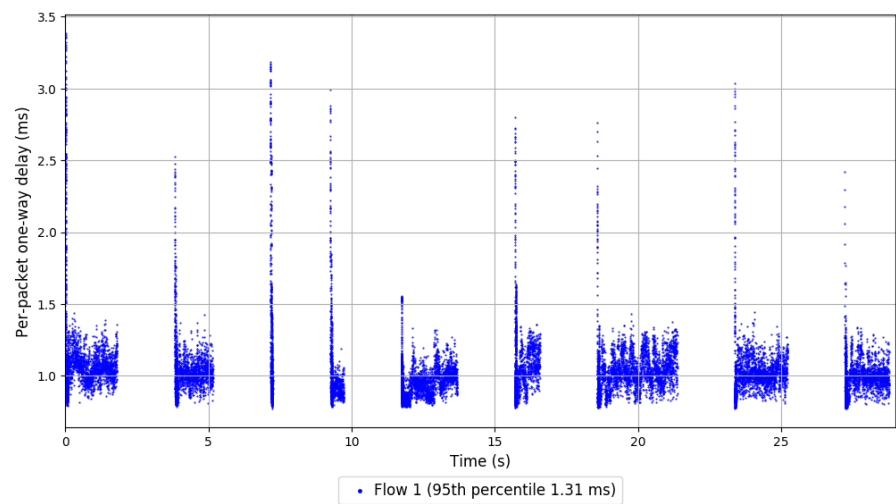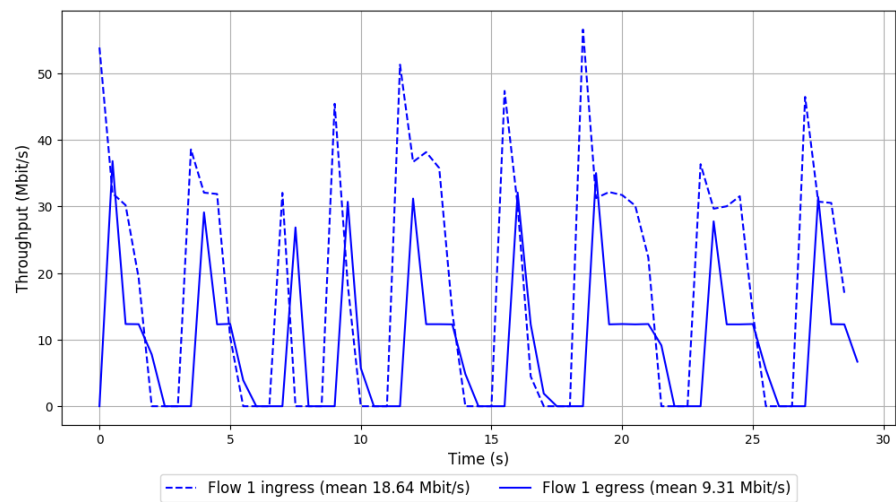
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 671.66 Mbit/s) — — — Flow 1 egress (mean 670.84 Mbit/s)

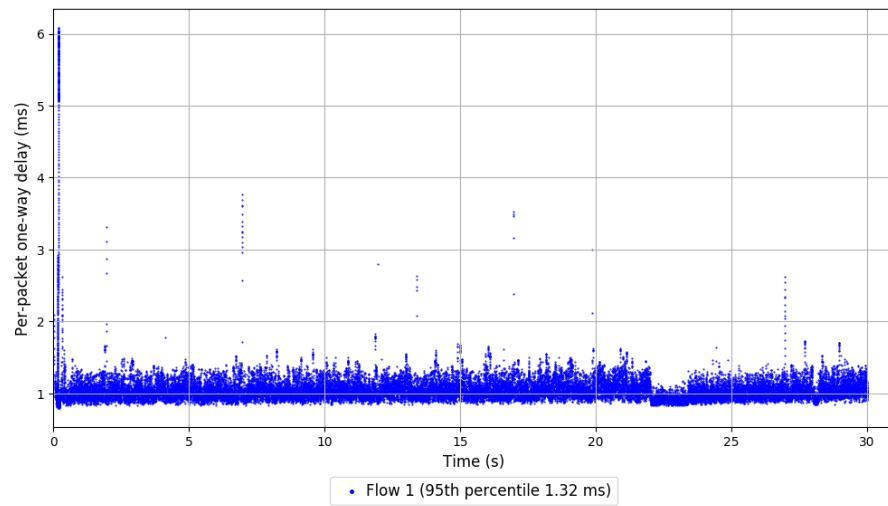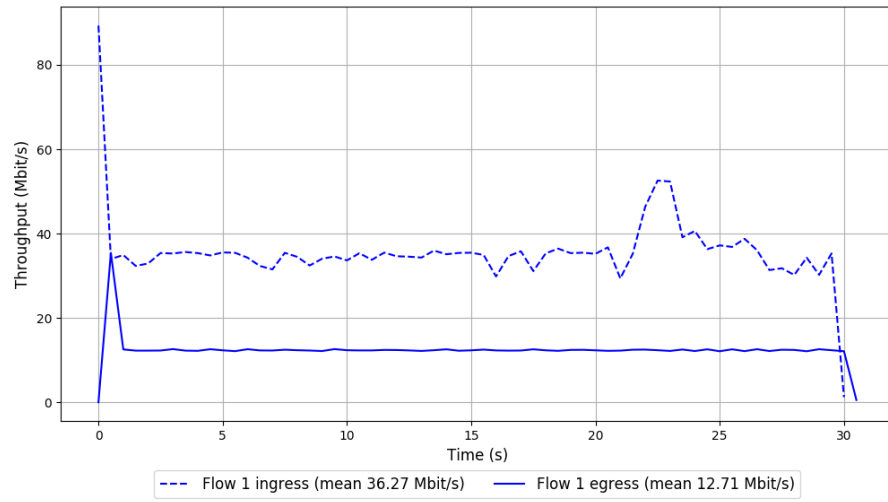

• Flow 1 (95th percentile 28.48 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-12-11 05:12:47
End at: 2019-12-11 05:13:17
Local clock offset: 2.91 ms
Remote clock offset: 0.743 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 720.30 Mbit/s
95th percentile per-packet one-way delay: 30.302 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 720.30 Mbit/s
95th percentile per-packet one-way delay: 30.302 ms
Loss rate: 0.21%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 721.82 Mbit/s)   Flow 1 egress (mean 720.30 Mbit/s)

Flow 1 (95th percentile 30.30 ms)

14

```
Run 1: Statistics of Copa

Start at: 2019-12-11 03:12:46
End at: 2019-12-11 03:13:16
Local clock offset: 1.823 ms
Remote clock offset: 5.181 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 50.04%
-- Flow 1:
Average throughput: 9.31 Mbit/s
95th percentile per-packet one-way delay: 1.315 ms
Loss rate: 50.04%
```
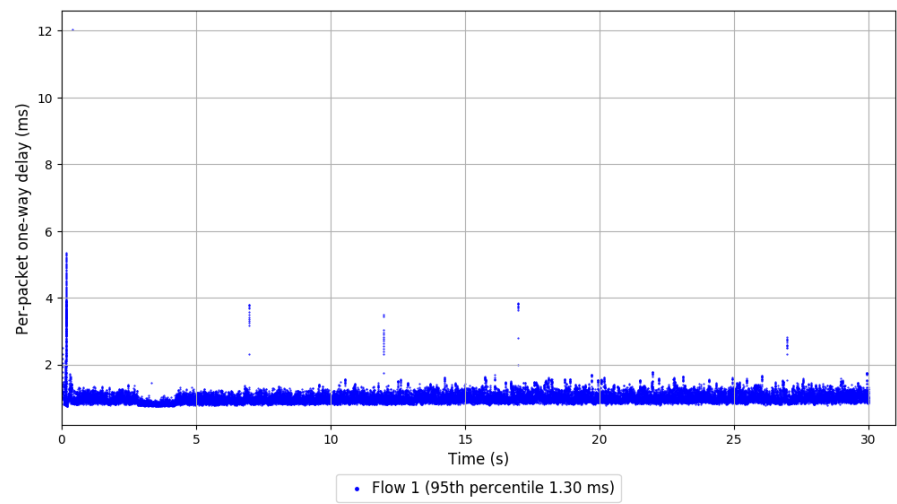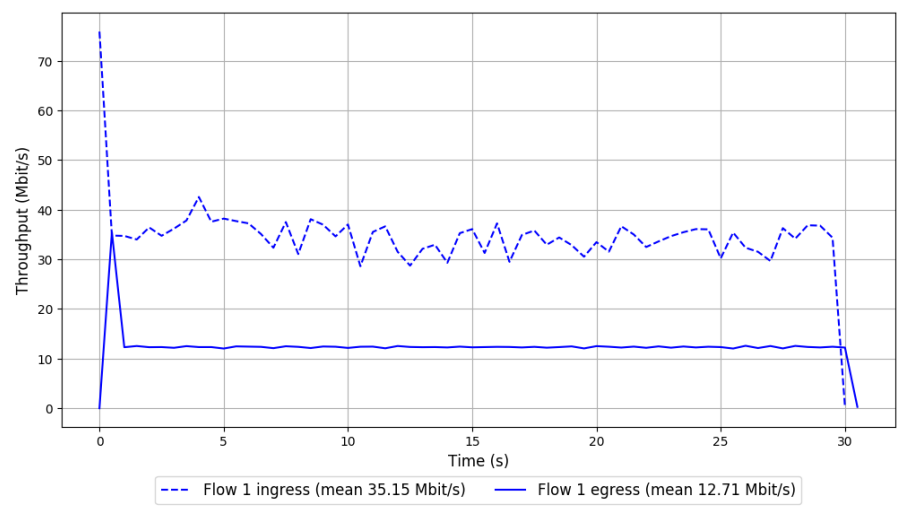
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-12-11 03:46:04
End at: 2019-12-11 03:46:34
Local clock offset: 2.141 ms
Remote clock offset: 0.69 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 64.96%
-- Flow 1:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.319 ms
Loss rate: 64.96%
```
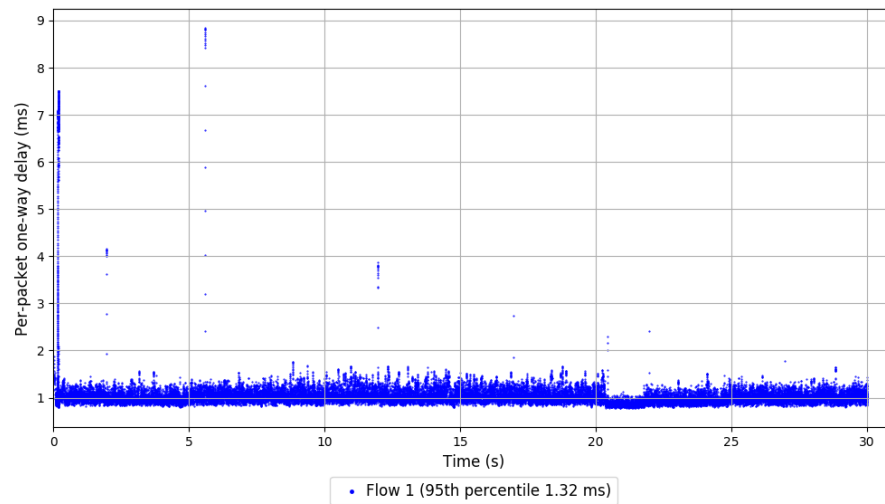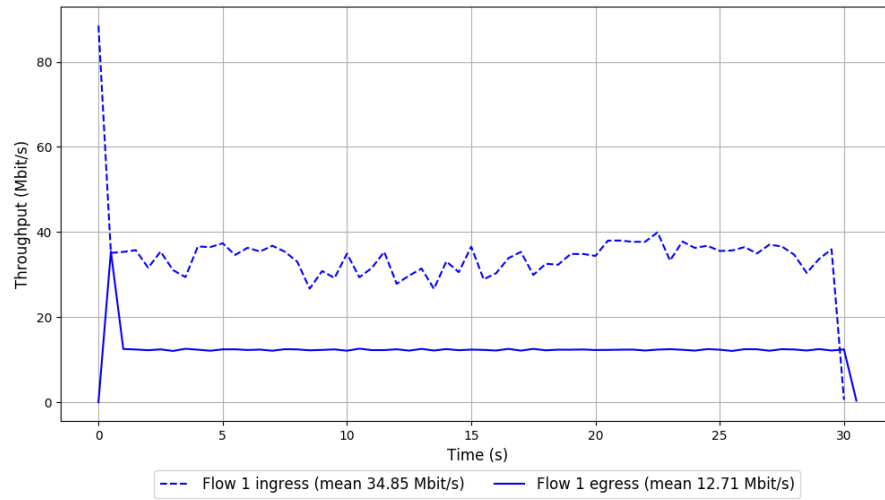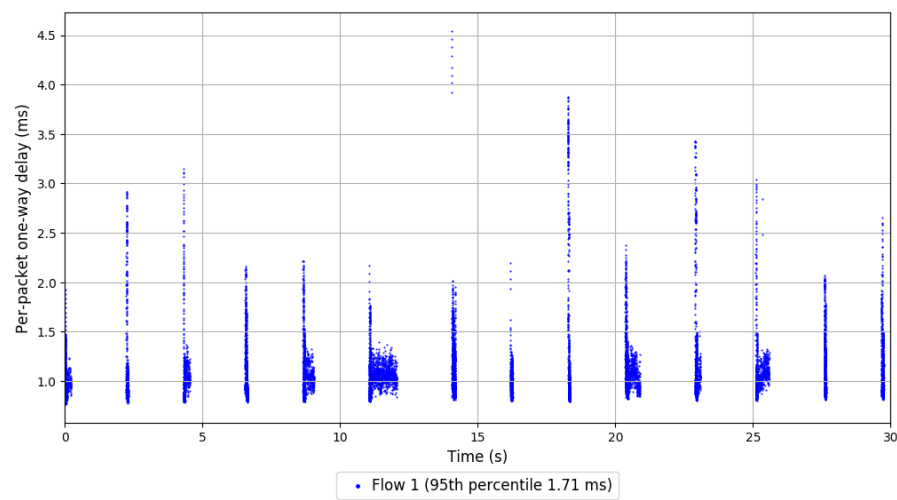
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 36.27 Mbit/s)   Flow 1 egress (mean 12.71 Mbit/s)

Flow 1 (95th percentile 1.32 ms)

```
Run 3: Statistics of Copa

Start at: 2019-12-11 04:19:24
End at: 2019-12-11 04:19:54
Local clock offset: 2.587 ms
Remote clock offset: 0.306 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 63.85%
-- Flow 1:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 63.85%
```
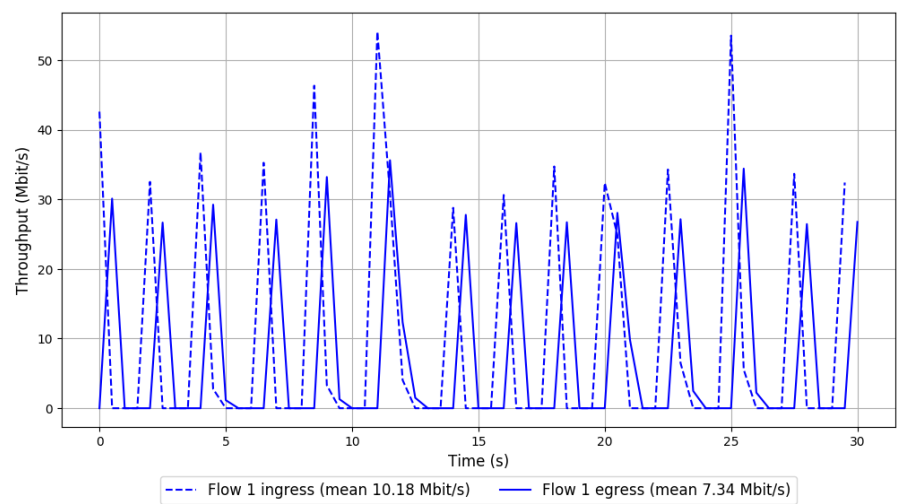
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 35.15 Mbit/s)   Flow 1 egress (mean 12.71 Mbit/s)

Flow 1 (95th percentile 1.30 ms)

```
Run 4: Statistics of Copa

Start at: 2019-12-11 04:52:36
End at: 2019-12-11 04:53:06
Local clock offset: 2.968 ms
Remote clock offset: 3.824 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 63.53%
-- Flow 1:
Average throughput: 12.71 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 63.53%
```
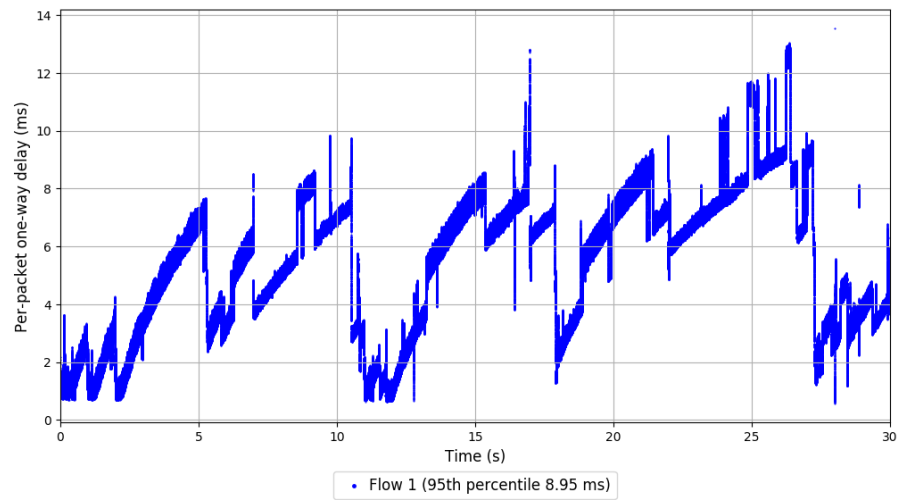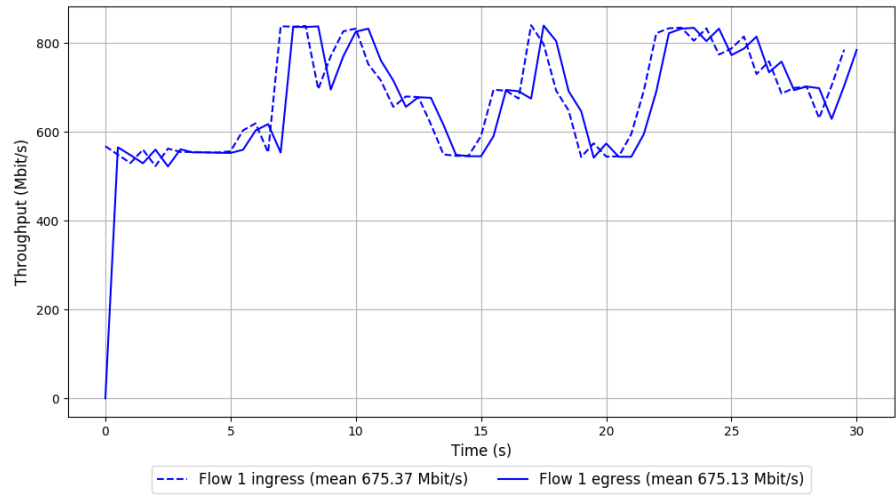
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 34.85 Mbit/s)   Flow 1 egress (mean 12.71 Mbit/s)

Flow 1 (95th percentile 1.32 ms)

```
Run 5: Statistics of Copa

Start at: 2019-12-11 05:25:00
End at: 2019-12-11 05:25:30
Local clock offset: 2.808 ms
Remote clock offset: -0.893 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 1.712 ms
Loss rate: 27.91%
-- Flow 1:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 1.712 ms
Loss rate: 27.91%
```
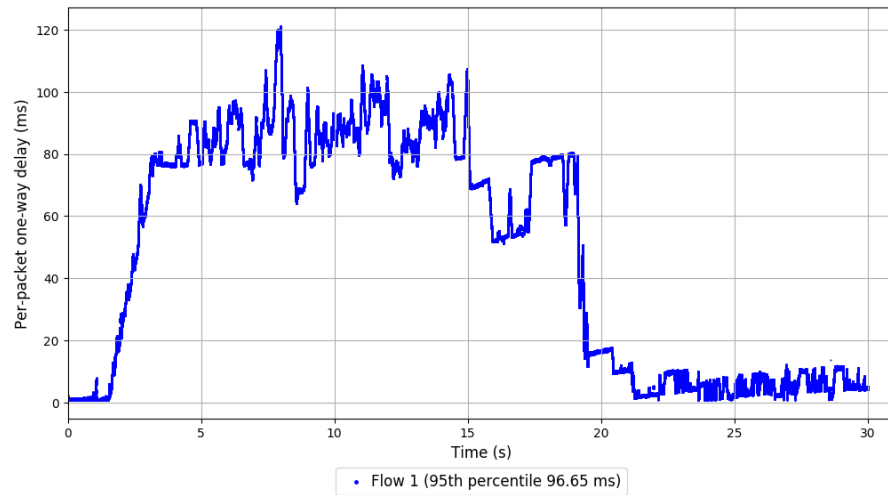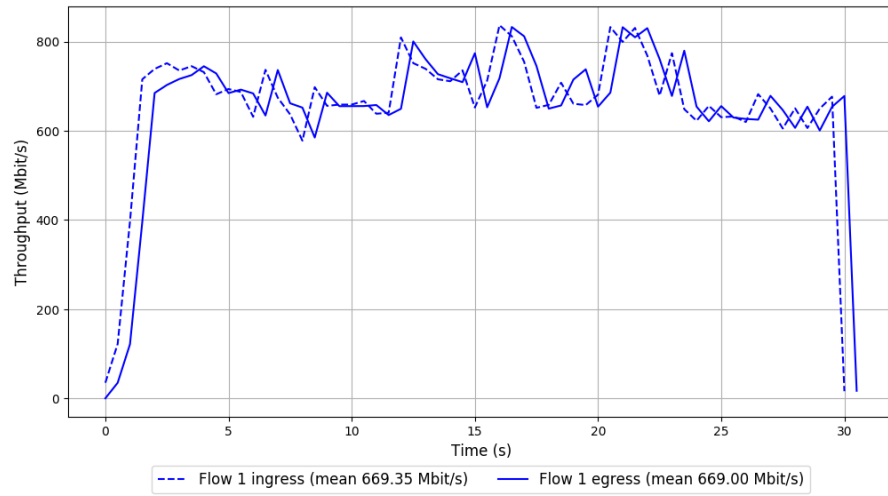
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-12-11 02:53:30
End at: 2019-12-11 02:54:00
Local clock offset: 1.957 ms
Remote clock offset: 2.421 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 675.13 Mbit/s
95th percentile per-packet one-way delay: 8.945 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 675.13 Mbit/s
95th percentile per-packet one-way delay: 8.945 ms
Loss rate: 0.03%
```
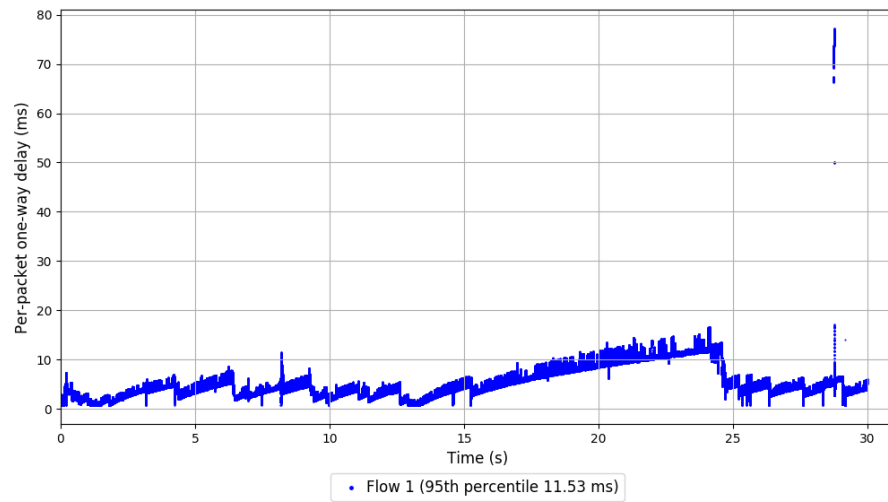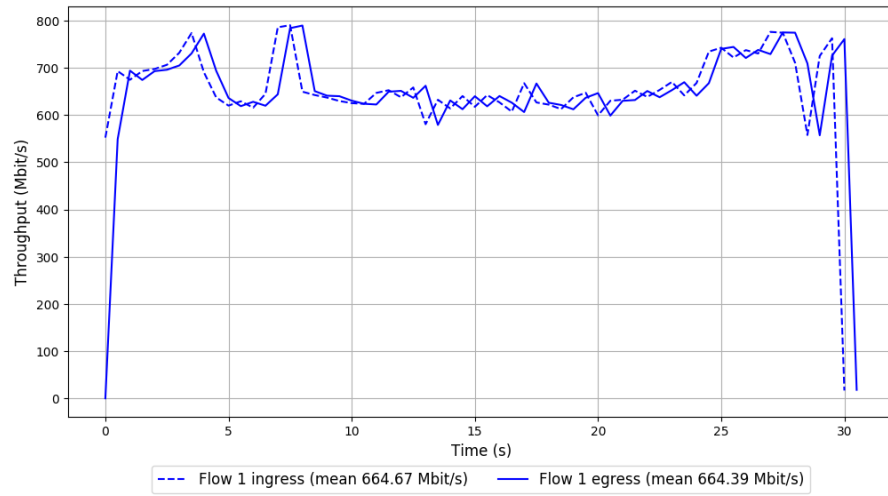
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-12-11 03:26:44
End at: 2019-12-11 03:27:14
Local clock offset: 1.776 ms
Remote clock offset: 2.828 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 669.00 Mbit/s
95th percentile per-packet one-way delay: 96.646 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 669.00 Mbit/s
95th percentile per-packet one-way delay: 96.646 ms
Loss rate: 0.05%
```
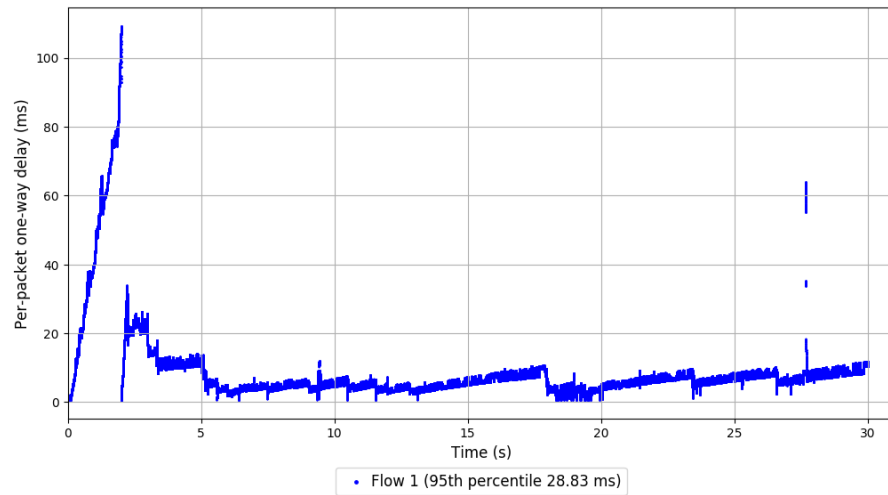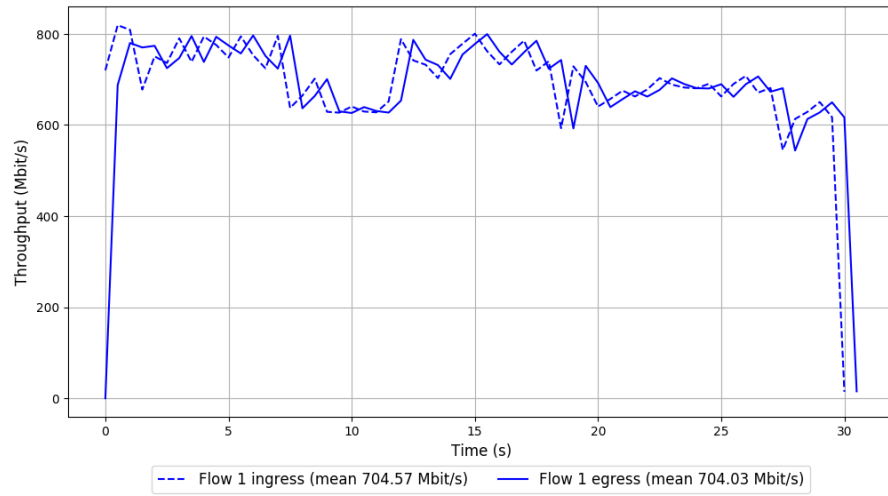
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 669.35 Mbit/s)   Flow 1 egress (mean 669.00 Mbit/s)

Flow 1 (95th percentile 96.65 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-12-11 04:00:02
End at: 2019-12-11 04:00:32
Local clock offset: 2.35 ms
Remote clock offset: 0.445 ms


# Below is generated by plot.py at 2019-12-11 05:40:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 664.39 Mbit/s
95th percentile per-packet one-way delay: 11.527 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 664.39 Mbit/s
95th percentile per-packet one-way delay: 11.527 ms
Loss rate: 0.04%
```
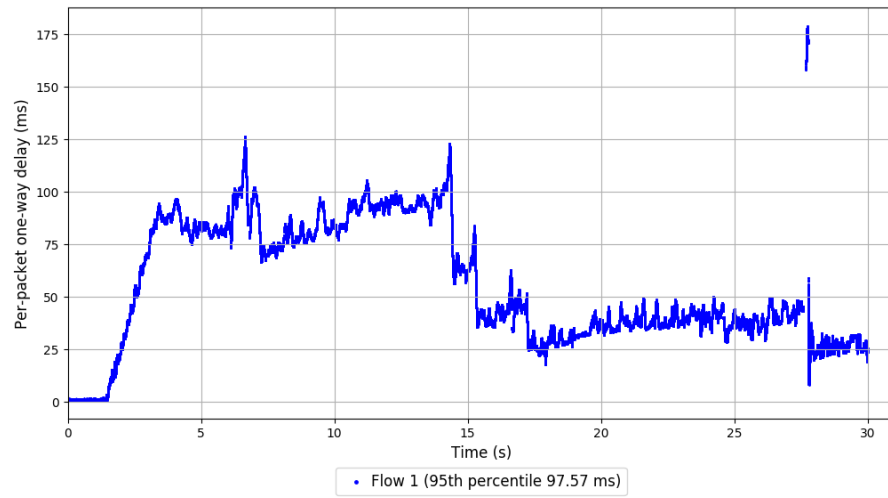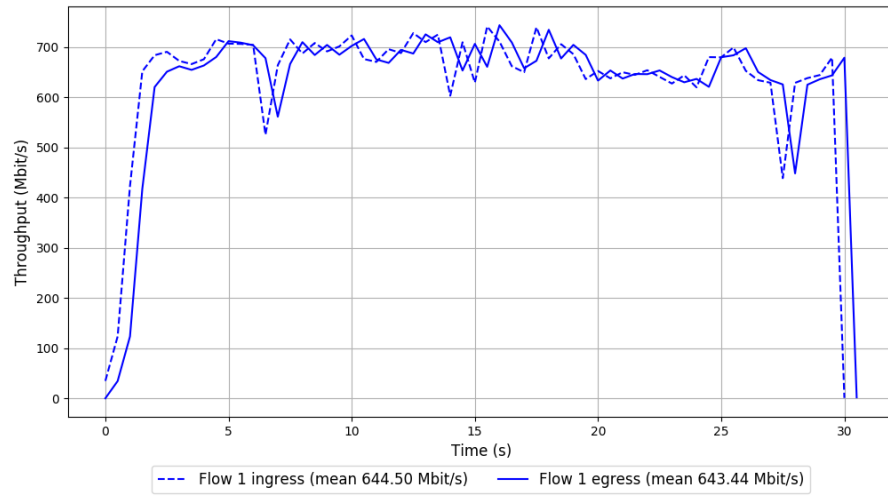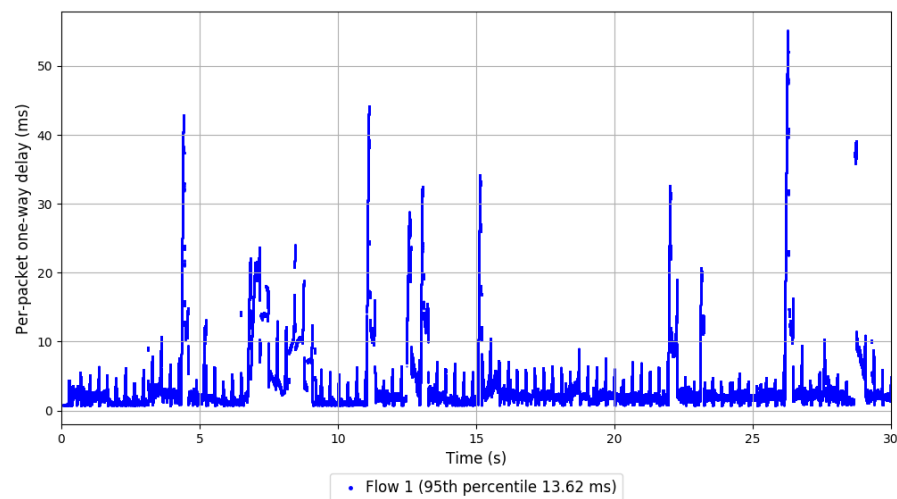
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 664.67 Mbit/s)   Flow 1 egress (mean 664.39 Mbit/s)

Flow 1 (95th percentile 11.53 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-12-11 04:33:38
End at: 2019-12-11 04:34:08
Local clock offset: 2.496 ms
Remote clock offset: 1.738 ms


# Below is generated by plot.py at 2019-12-11 05:46:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 704.03 Mbit/s
95th percentile per-packet one-way delay: 28.828 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 704.03 Mbit/s
95th percentile per-packet one-way delay: 28.828 ms
Loss rate: 0.07%
```
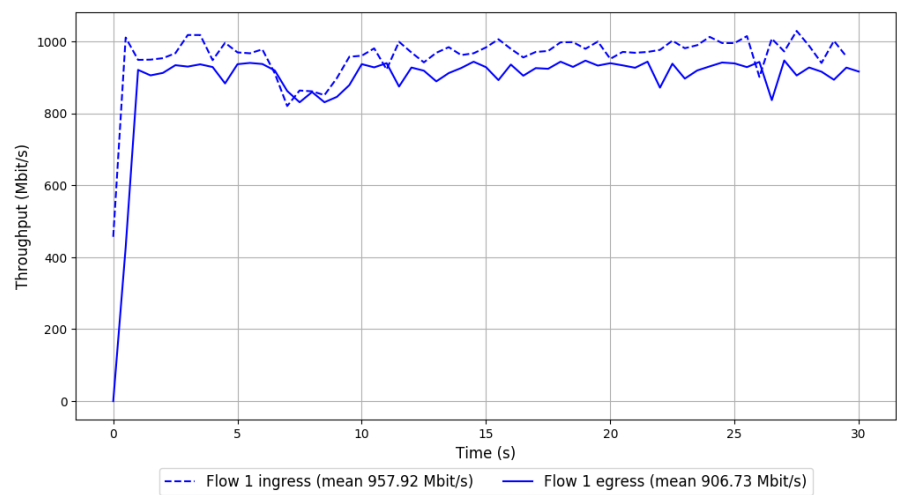
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 704.57 Mbit/s) — — — Flow 1 egress (mean 704.03 Mbit/s)

Flow 1 (95th percentile 28.83 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2019-12-11 05:06:03
End at: 2019-12-11 05:06:33
Local clock offset: 2.983 ms
Remote clock offset: 2.639 ms


# Below is generated by plot.py at 2019-12-11 05:46:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 643.44 Mbit/s
95th percentile per-packet one-way delay: 97.568 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 643.44 Mbit/s
95th percentile per-packet one-way delay: 97.568 ms
Loss rate: 0.17%
```

Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-12-11 02:43:20
End at: 2019-12-11 02:43:50
Local clock offset: 2.331 ms
Remote clock offset: -0.304 ms


# Below is generated by plot.py at 2019-12-11 05:52:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 906.73 Mbit/s
95th percentile per-packet one-way delay: 13.615 ms
Loss rate: 5.34%
-- Flow 1:
Average throughput: 906.73 Mbit/s
95th percentile per-packet one-way delay: 13.615 ms
Loss rate: 5.34%
```
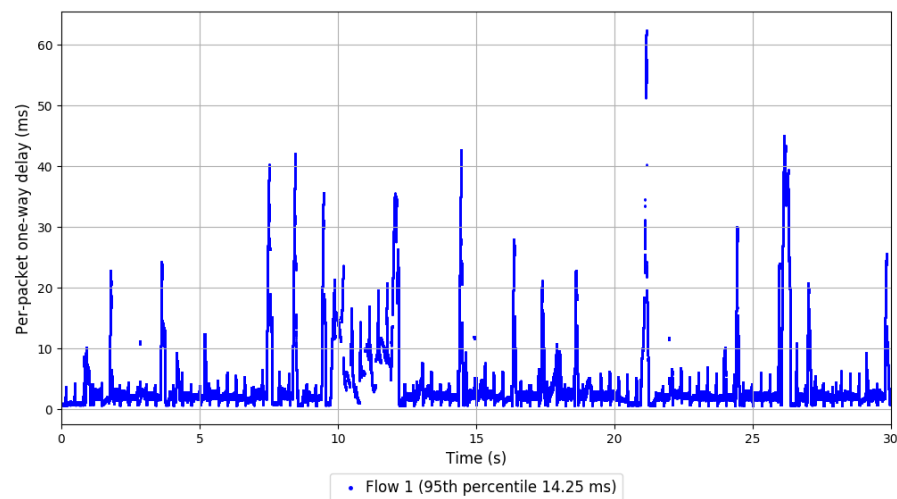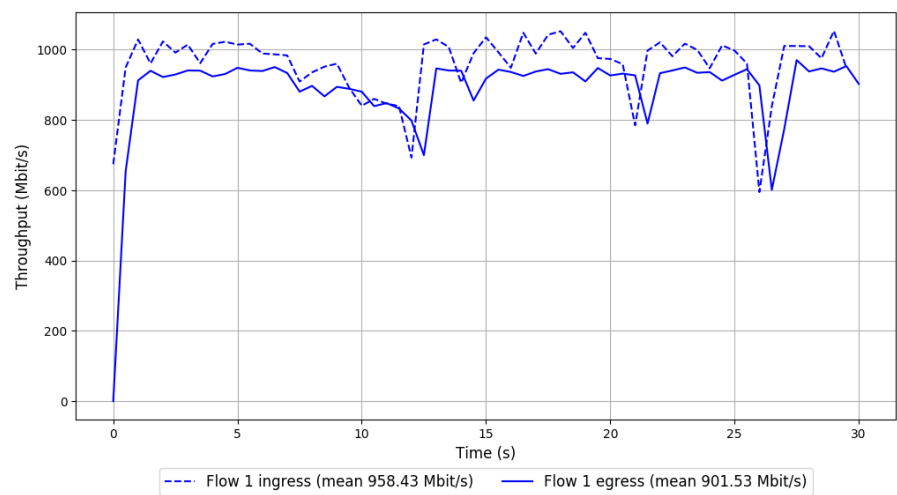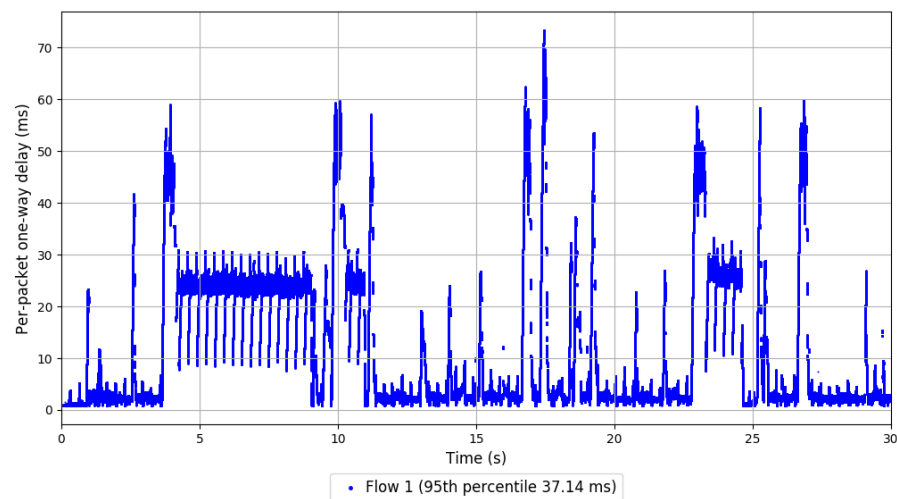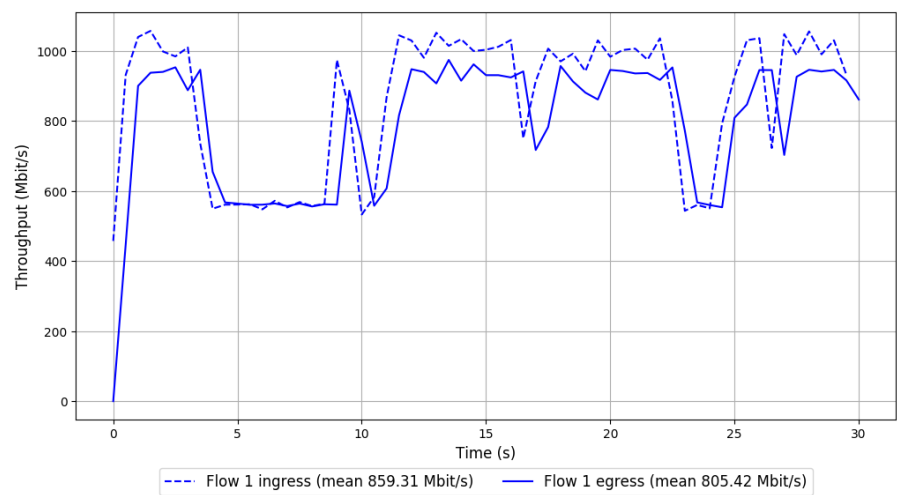
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 957.92 Mbit/s)   Flow 1 egress (mean 906.73 Mbit/s)

Flow 1 (95th percentile 13.62 ms)

```
Run 2: Statistics of FillP

Start at: 2019-12-11 03:16:47
End at: 2019-12-11 03:17:17
Local clock offset: 1.973 ms
Remote clock offset: 5.47 ms


# Below is generated by plot.py at 2019-12-11 05:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 901.53 Mbit/s
95th percentile per-packet one-way delay: 14.250 ms
Loss rate: 5.94%
-- Flow 1:
Average throughput: 901.53 Mbit/s
95th percentile per-packet one-way delay: 14.250 ms
Loss rate: 5.94%
```
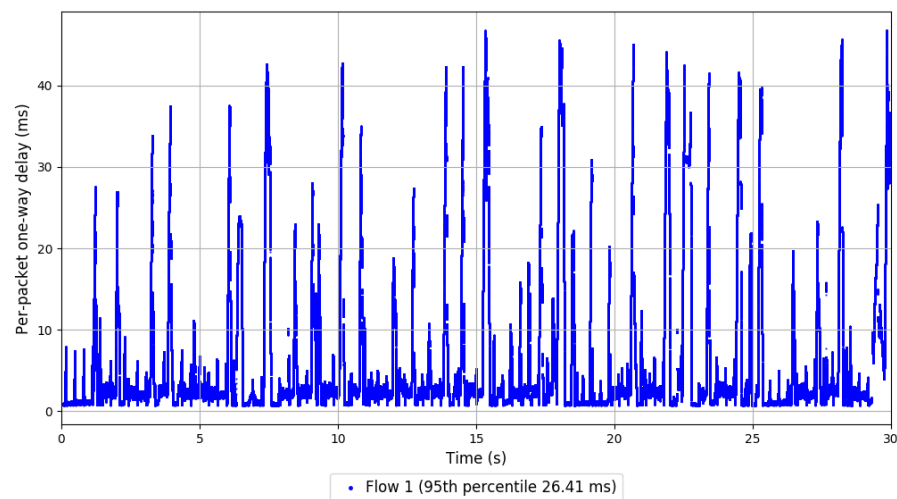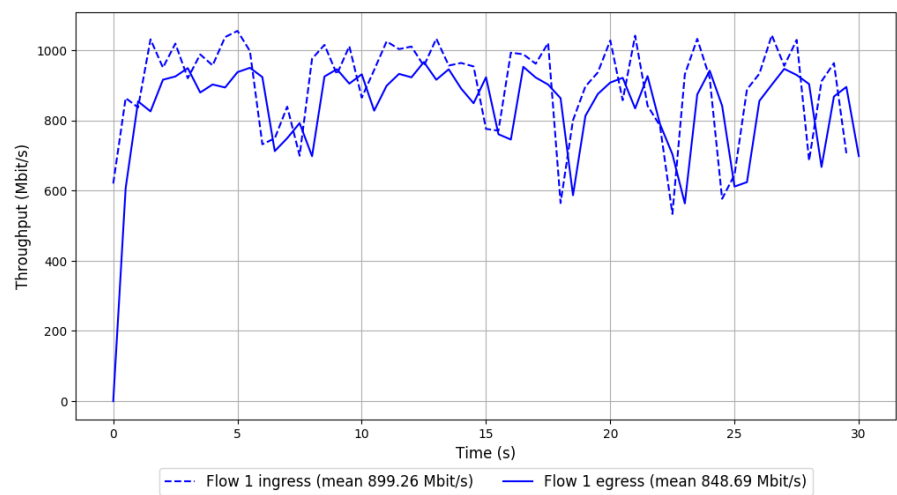
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 958.43 Mbit/s)   Flow 1 egress (mean 901.53 Mbit/s)

• Flow 1 (95th percentile 14.25 ms)

```
Run 3: Statistics of FillP

Start at: 2019-12-11 03:50:19
End at: 2019-12-11 03:50:49
Local clock offset: 2.332 ms
Remote clock offset: 0.616 ms


# Below is generated by plot.py at 2019-12-11 05:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 805.42 Mbit/s
95th percentile per-packet one-way delay: 37.144 ms
Loss rate: 6.27%
-- Flow 1:
Average throughput: 805.42 Mbit/s
95th percentile per-packet one-way delay: 37.144 ms
Loss rate: 6.27%
```
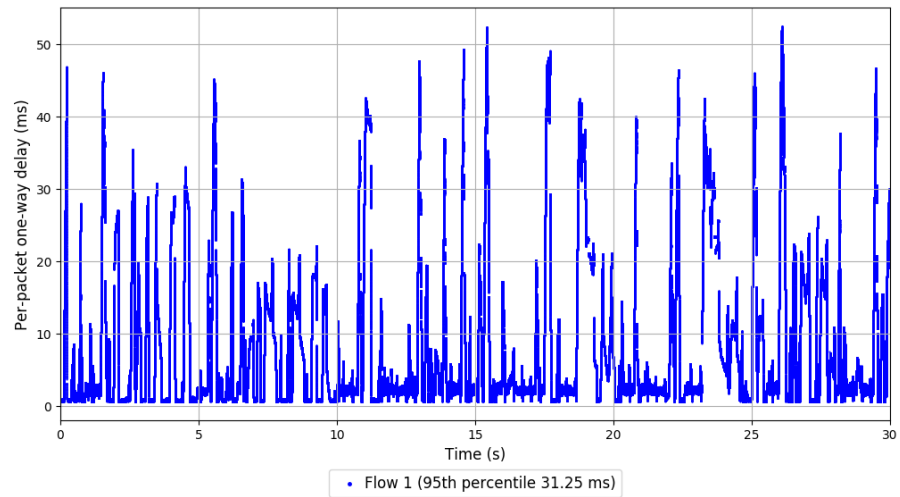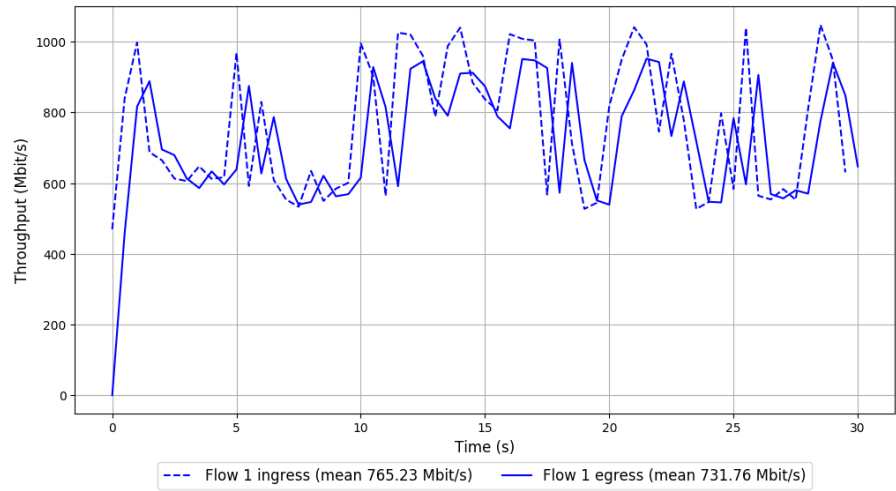
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 859.31 Mbit/s)　　Flow 1 egress (mean 805.42 Mbit/s)

• Flow 1 (95th percentile 37.14 ms)

```
Run 4: Statistics of FillP

Start at: 2019-12-11 04:23:27
End at: 2019-12-11 04:23:57
Local clock offset: 2.615 ms
Remote clock offset: 0.233 ms


# Below is generated by plot.py at 2019-12-11 05:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 848.69 Mbit/s
95th percentile per-packet one-way delay: 26.415 ms
Loss rate: 5.62%
-- Flow 1:
Average throughput: 848.69 Mbit/s
95th percentile per-packet one-way delay: 26.415 ms
Loss rate: 5.62%
```
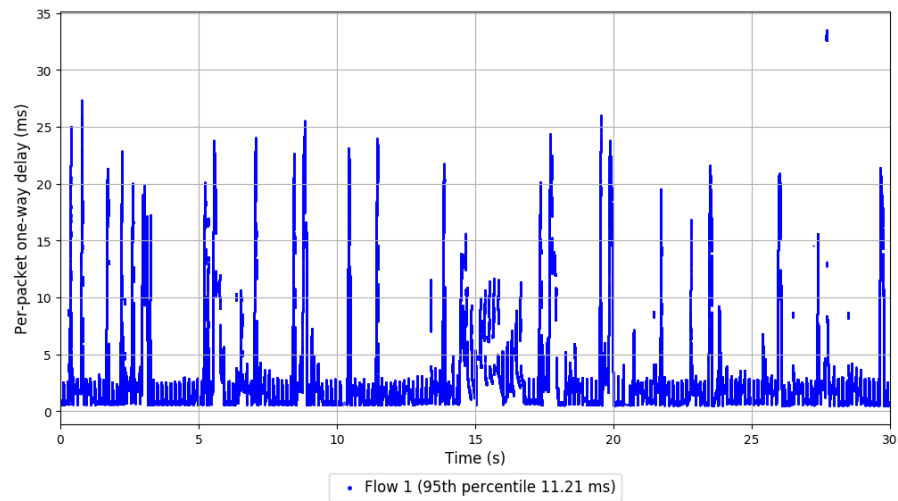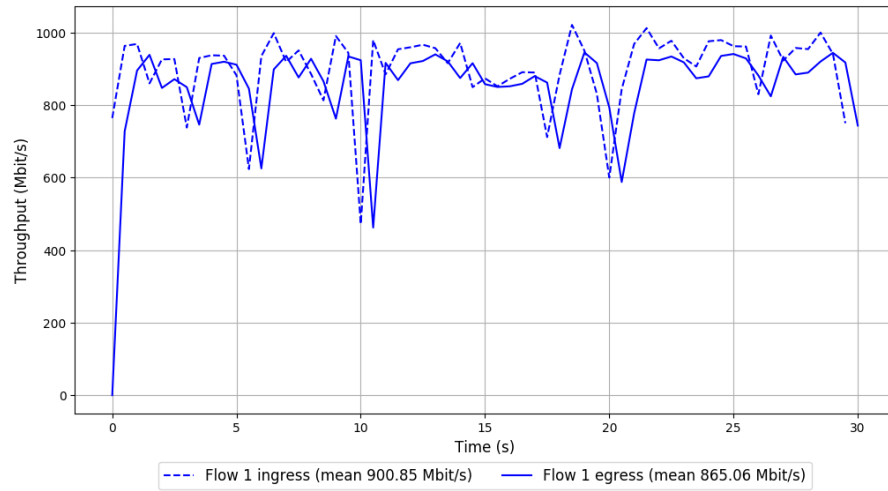
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 899.26 Mbit/s)   Flow 1 egress (mean 848.69 Mbit/s)

• Flow 1 (95th percentile 26.41 ms)

```
Run 5: Statistics of FillP

Start at: 2019-12-11 04:56:33
End at: 2019-12-11 04:57:03
Local clock offset: 2.992 ms
Remote clock offset: 3.963 ms


# Below is generated by plot.py at 2019-12-11 05:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 731.76 Mbit/s
95th percentile per-packet one-way delay: 31.254 ms
Loss rate: 4.37%
-- Flow 1:
Average throughput: 731.76 Mbit/s
95th percentile per-packet one-way delay: 31.254 ms
Loss rate: 4.37%
```
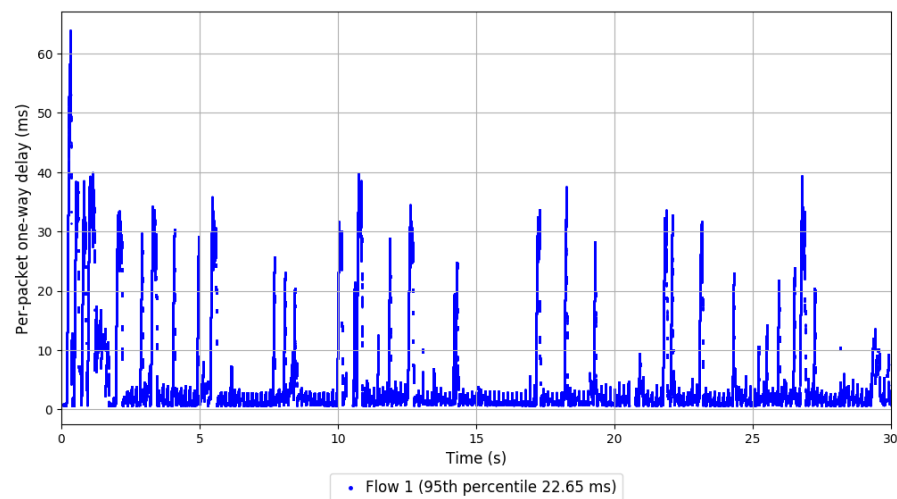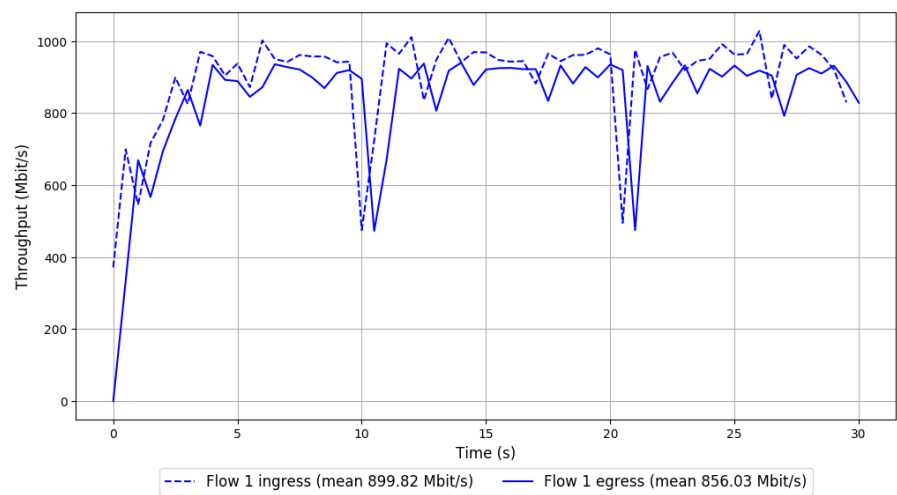
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 765.23 Mbit/s)   Flow 1 egress (mean 731.76 Mbit/s)

Flow 1 (95th percentile 31.25 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-12-11 03:01:42
End at: 2019-12-11 03:02:12
Local clock offset: 1.851 ms
Remote clock offset: 3.767 ms


# Below is generated by plot.py at 2019-12-11 05:52:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 865.06 Mbit/s
95th percentile per-packet one-way delay: 11.208 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 865.06 Mbit/s
95th percentile per-packet one-way delay: 11.208 ms
Loss rate: 3.97%
```
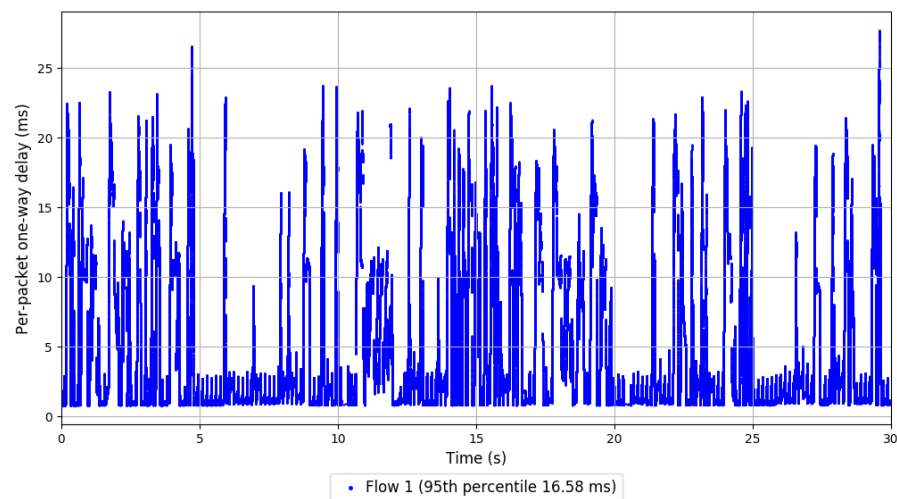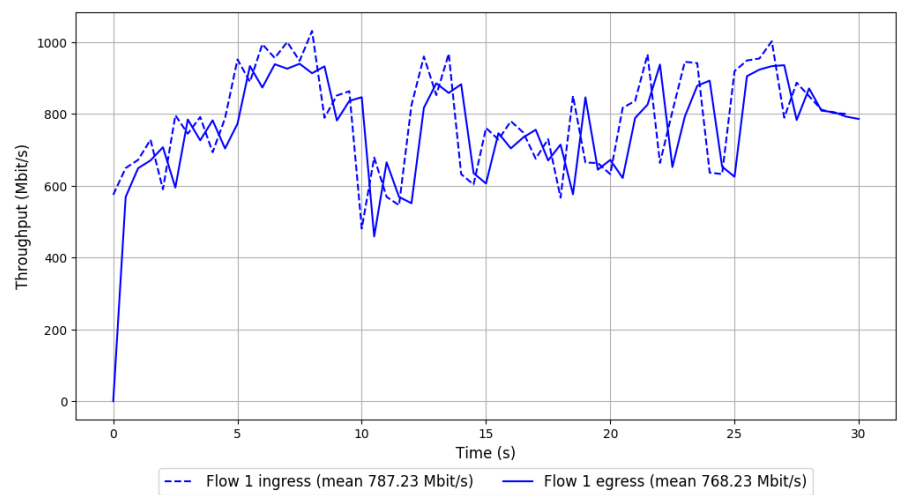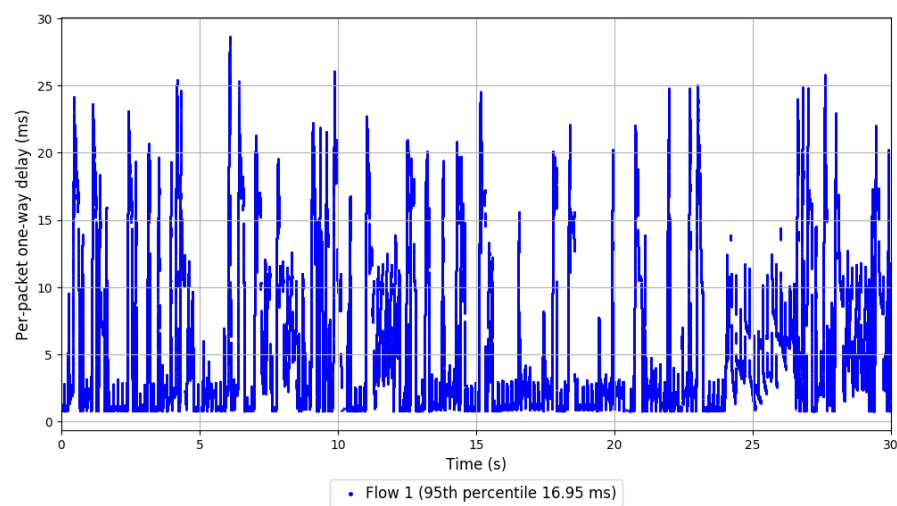
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-12-11 03:34:57
End at: 2019-12-11 03:35:27
Local clock offset: 1.333 ms
Remote clock offset: 1.294 ms


# Below is generated by plot.py at 2019-12-11 05:59:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 856.03 Mbit/s
95th percentile per-packet one-way delay: 22.648 ms
Loss rate: 4.86%
-- Flow 1:
Average throughput: 856.03 Mbit/s
95th percentile per-packet one-way delay: 22.648 ms
Loss rate: 4.86%
```
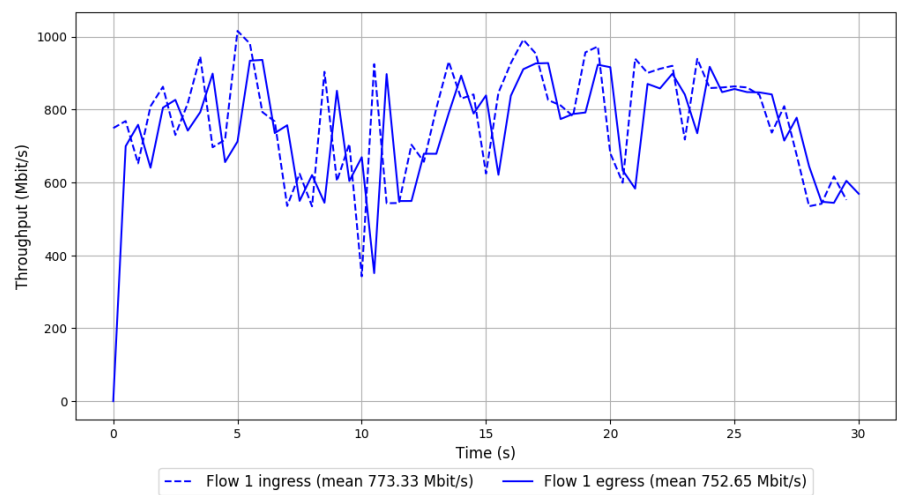
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-12-11 04:08:16
End at: 2019-12-11 04:08:46
Local clock offset: 2.136 ms
Remote clock offset: 0.371 ms


# Below is generated by plot.py at 2019-12-11 05:59:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 768.23 Mbit/s
95th percentile per-packet one-way delay: 16.582 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 768.23 Mbit/s
95th percentile per-packet one-way delay: 16.582 ms
Loss rate: 2.41%
```
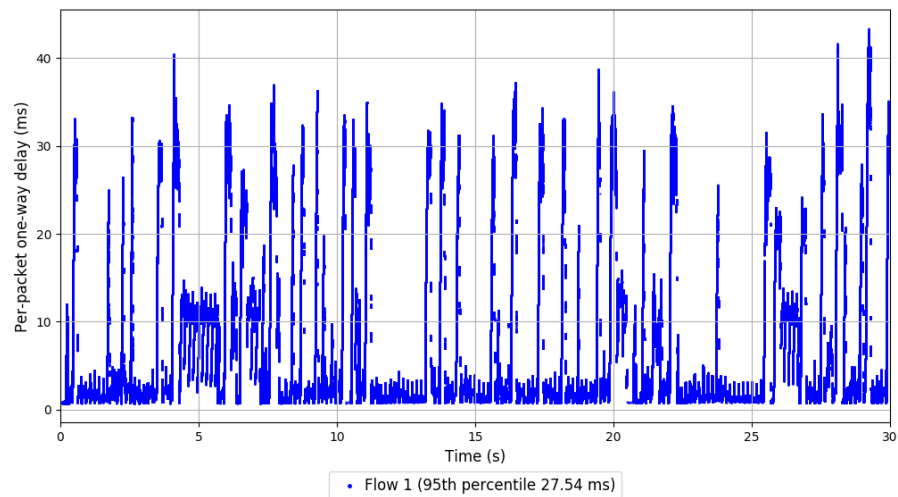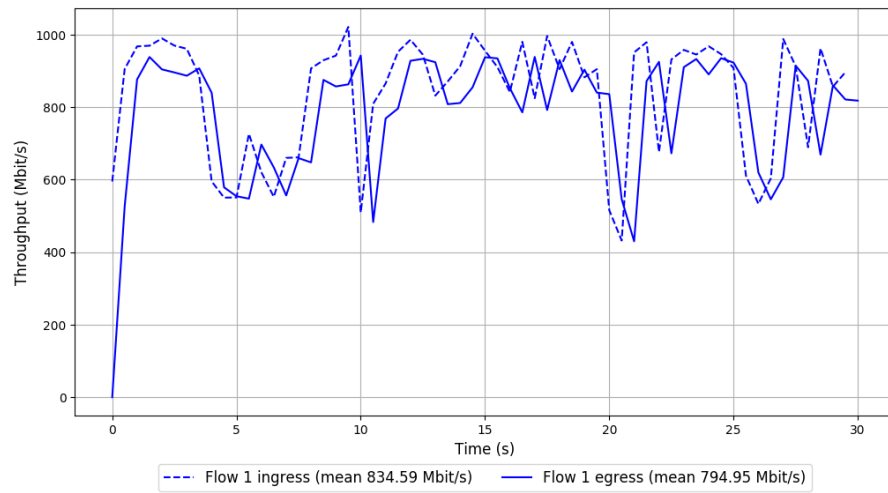
Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 787.23 Mbit/s)   Flow 1 egress (mean 768.23 Mbit/s)

Flow 1 (95th percentile 16.58 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-12-11 04:42:02
End at: 2019-12-11 04:42:32
Local clock offset: 2.601 ms
Remote clock offset: 3.015 ms


# Below is generated by plot.py at 2019-12-11 06:01:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 752.65 Mbit/s
95th percentile per-packet one-way delay: 16.951 ms
Loss rate: 2.67%
-- Flow 1:
Average throughput: 752.65 Mbit/s
95th percentile per-packet one-way delay: 16.951 ms
Loss rate: 2.67%
```
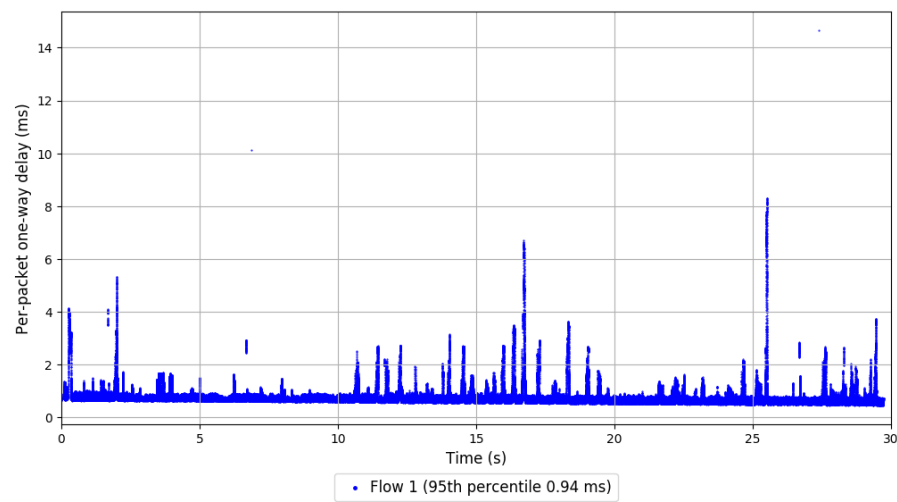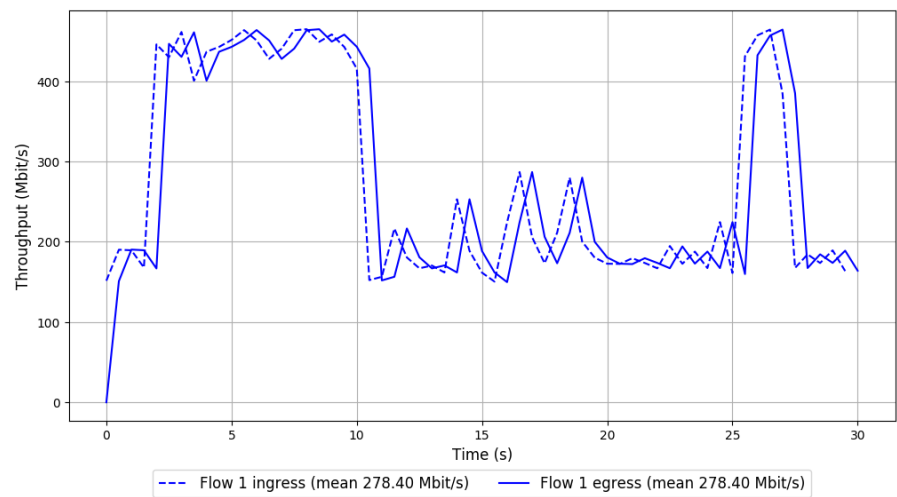
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 773.33 Mbit/s) --- Flow 1 egress (mean 752.65 Mbit/s)

Flow 1 (95th percentile 16.95 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-12-11 05:14:22
End at: 2019-12-11 05:14:52
Local clock offset: 2.908 ms
Remote clock offset: 0.371 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 794.95 Mbit/s
95th percentile per-packet one-way delay: 27.539 ms
Loss rate: 4.75%
-- Flow 1:
Average throughput: 794.95 Mbit/s
95th percentile per-packet one-way delay: 27.539 ms
Loss rate: 4.75%
```
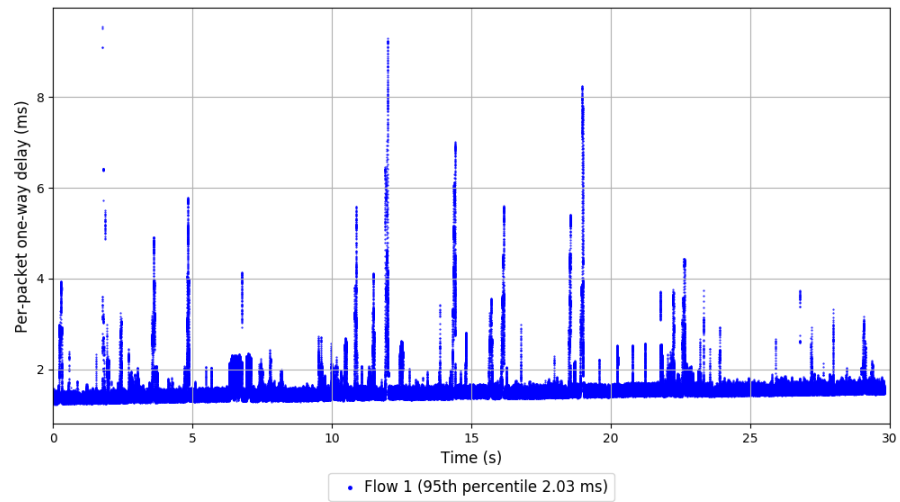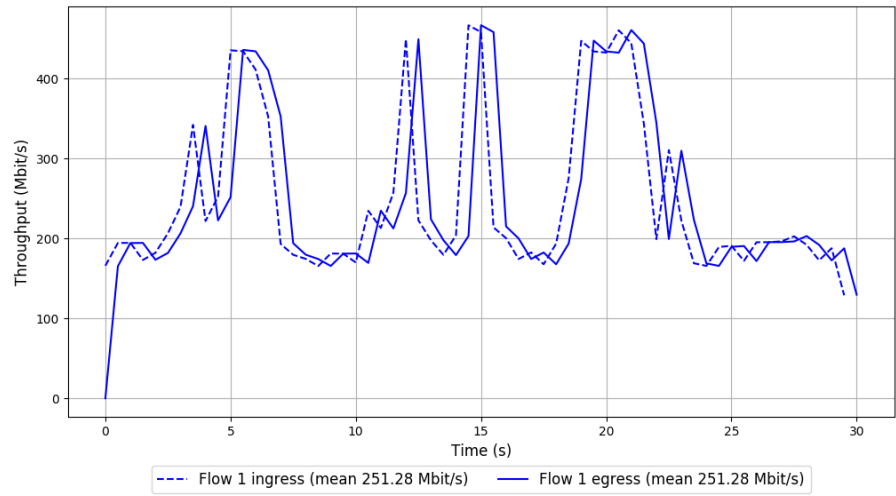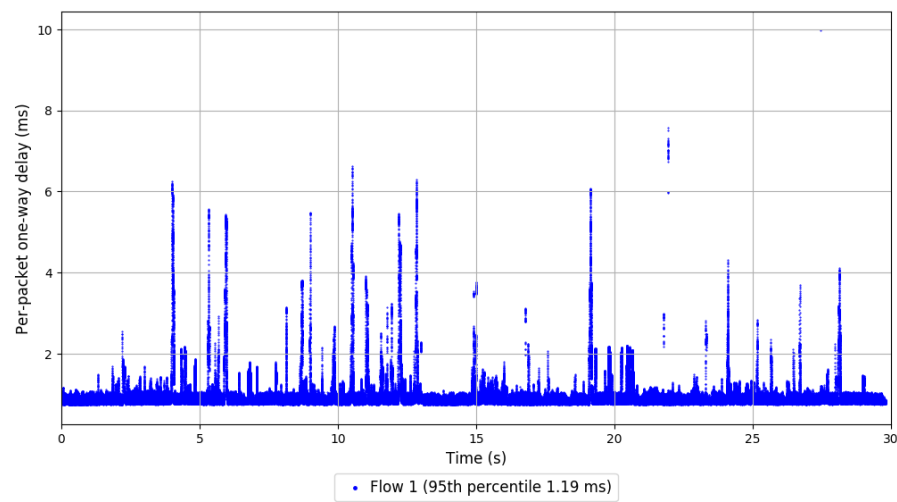
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 834.59 Mbit/s) Flow 1 egress (mean 794.95 Mbit/s)

Flow 1 (95th percentile 27.54 ms)

```
Run 1: Statistics of Indigo

Start at: 2019-12-11 02:49:06
End at: 2019-12-11 02:49:36
Local clock offset: 2.25 ms
Remote clock offset: 1.041 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 278.40 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 278.40 Mbit/s
95th percentile per-packet one-way delay: 0.935 ms
Loss rate: 0.00%
```
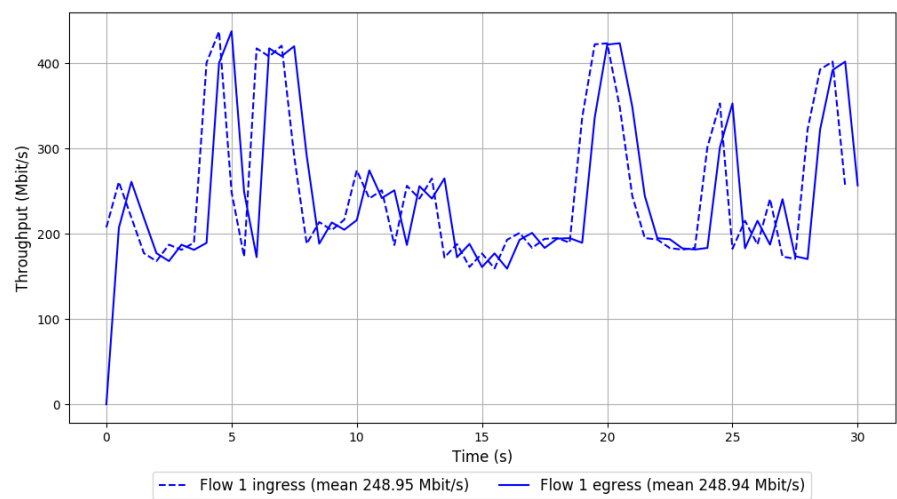
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-12-11 03:22:21
End at: 2019-12-11 03:22:51
Local clock offset: 1.518 ms
Remote clock offset: 4.536 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.28 Mbit/s
95th percentile per-packet one-way delay: 2.029 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.28 Mbit/s
95th percentile per-packet one-way delay: 2.029 ms
Loss rate: 0.00%
```
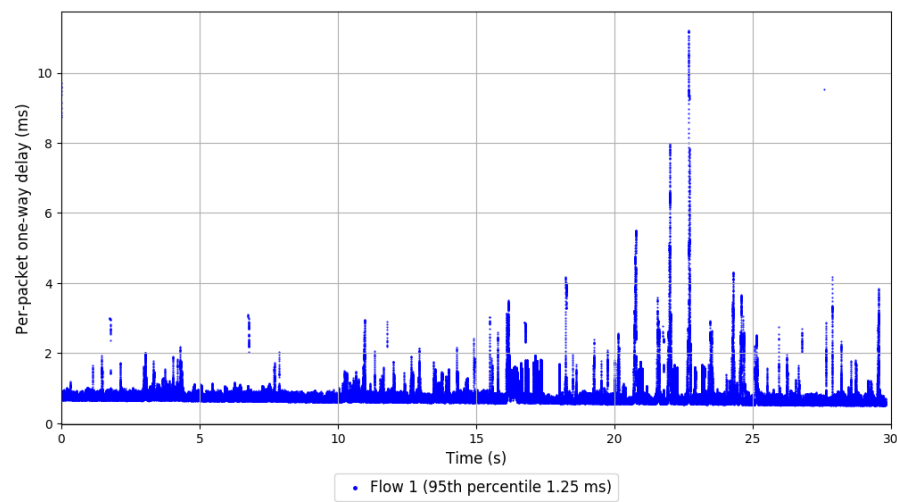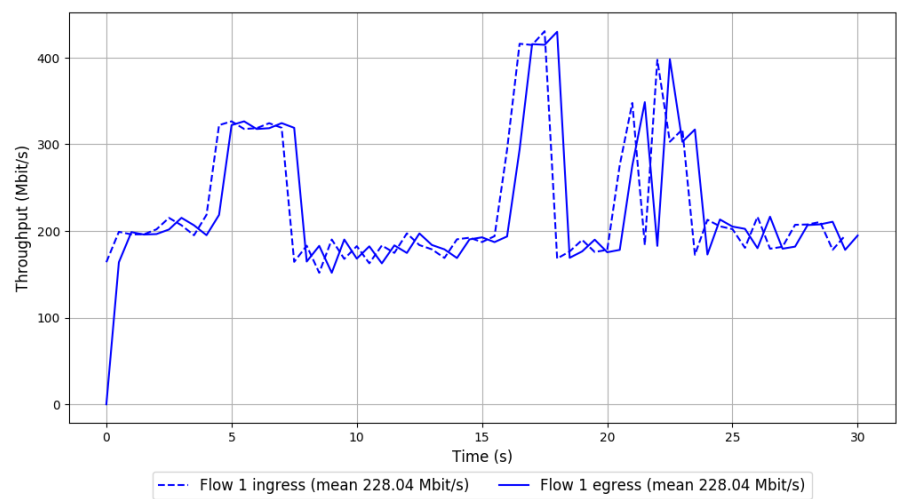
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-12-11 03:55:43
End at: 2019-12-11 03:56:13
Local clock offset: 2.357 ms
Remote clock offset: 0.461 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.94 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.94 Mbit/s
95th percentile per-packet one-way delay: 1.186 ms
Loss rate: 0.00%
```
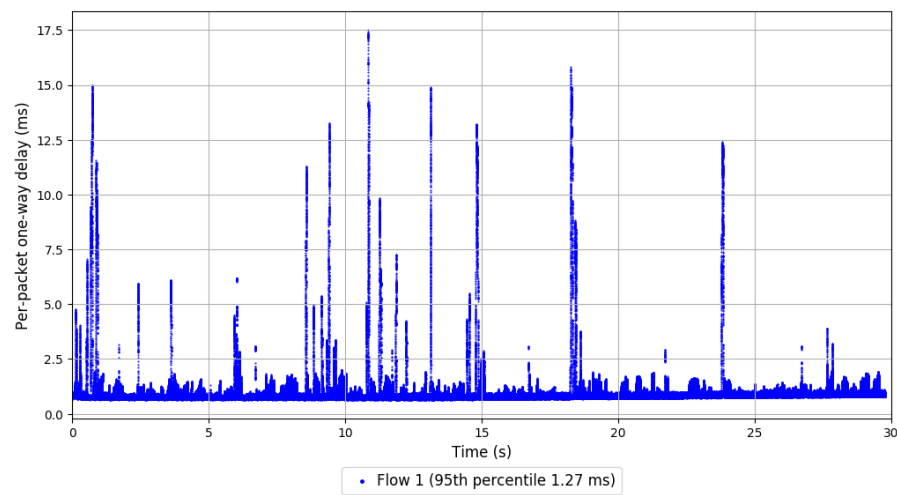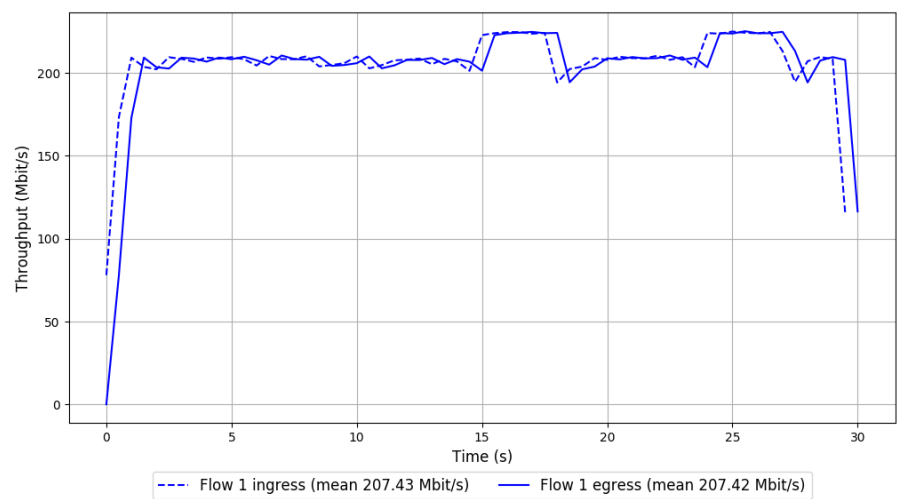
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-12-11 04:29:18
End at: 2019-12-11 04:29:48
Local clock offset: 2.552 ms
Remote clock offset: 0.633 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.04 Mbit/s
95th percentile per-packet one-way delay: 1.249 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.04 Mbit/s
95th percentile per-packet one-way delay: 1.249 ms
Loss rate: 0.00%
```
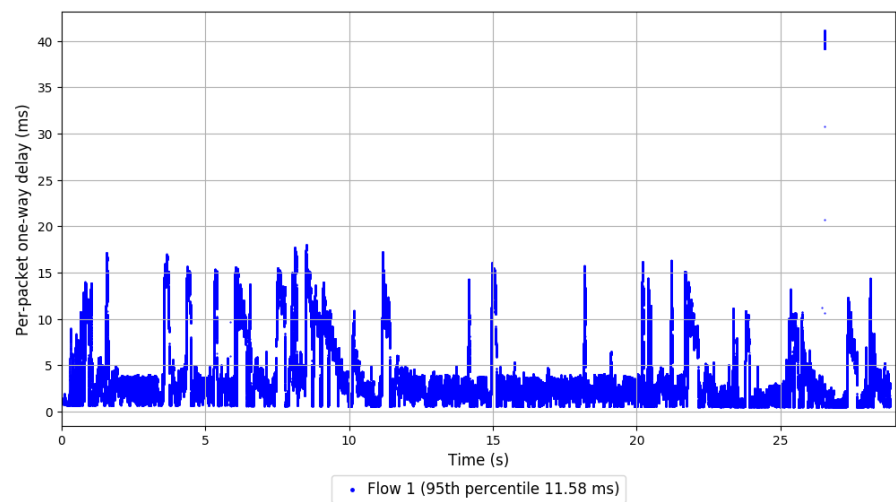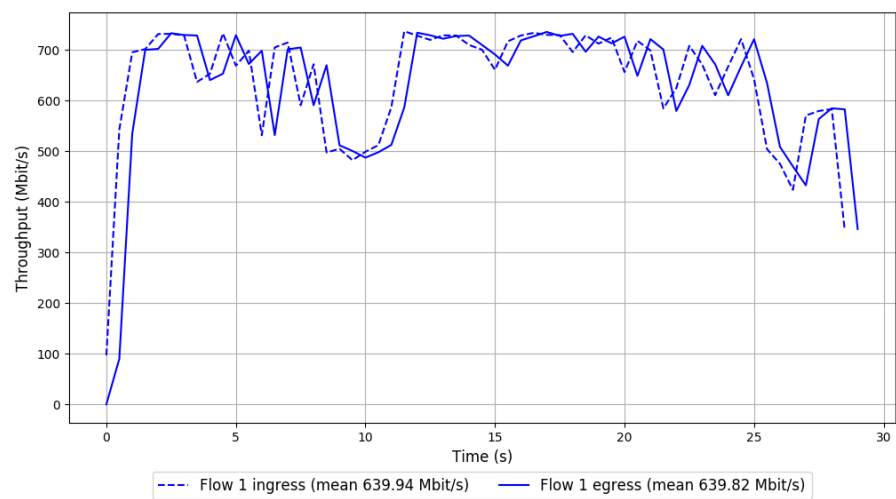
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 228.04 Mbit/s)   Flow 1 egress (mean 228.04 Mbit/s)

Flow 1 (95th percentile 1.25 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-12-11 05:02:02
End at: 2019-12-11 05:02:32
Local clock offset: 2.975 ms
Remote clock offset: 4.121 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.42 Mbit/s
95th percentile per-packet one-way delay: 1.275 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 207.42 Mbit/s
95th percentile per-packet one-way delay: 1.275 ms
Loss rate: 0.00%
```
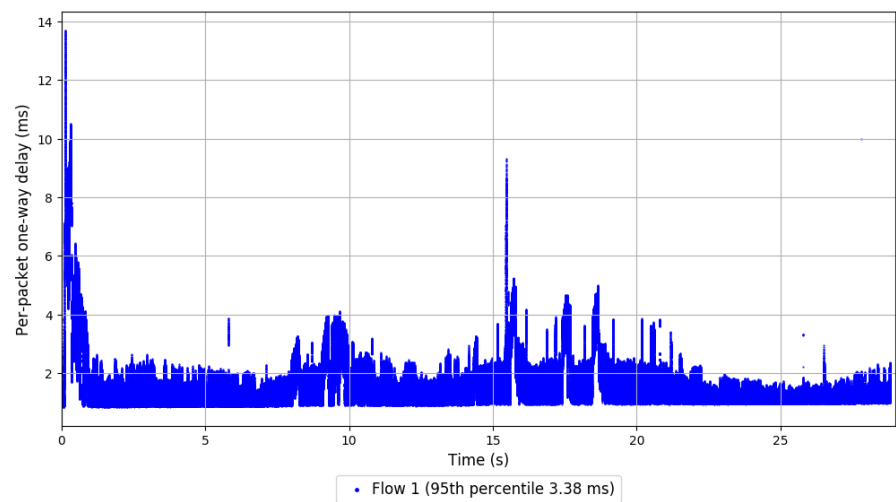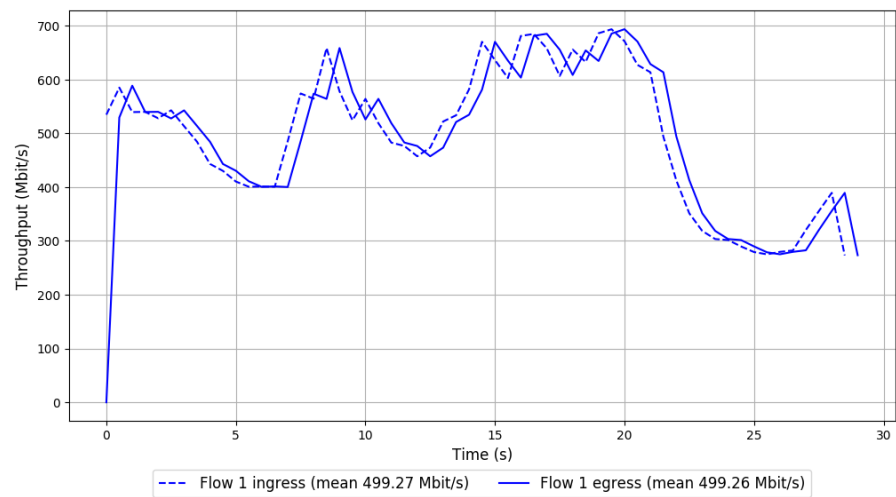
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-12-11 02:51:57
End at: 2019-12-11 02:52:27
Local clock offset: 2.123 ms
Remote clock offset: 1.982 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 639.82 Mbit/s
95th percentile per-packet one-way delay: 11.583 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 639.82 Mbit/s
95th percentile per-packet one-way delay: 11.583 ms
Loss rate: 0.02%
```
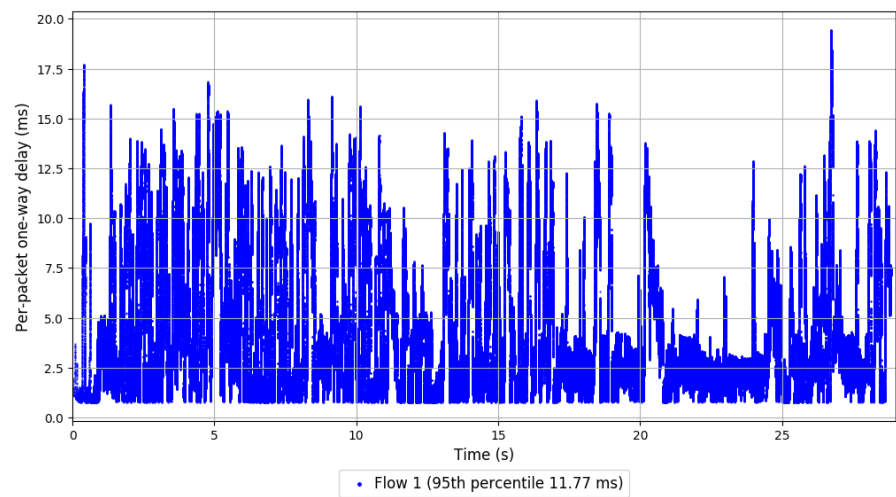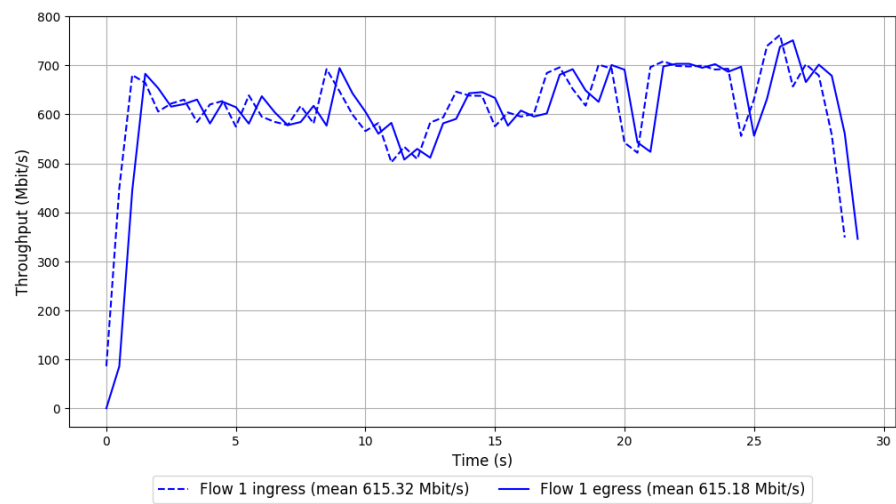
Run 1: Report of Indigo-MusesC3 — Data Link

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```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-12-11 03:25:16
End at: 2019-12-11 03:25:46
Local clock offset: 1.839 ms
Remote clock offset: 3.395 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 499.26 Mbit/s
95th percentile per-packet one-way delay: 3.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 499.26 Mbit/s
95th percentile per-packet one-way delay: 3.383 ms
Loss rate: 0.00%
```
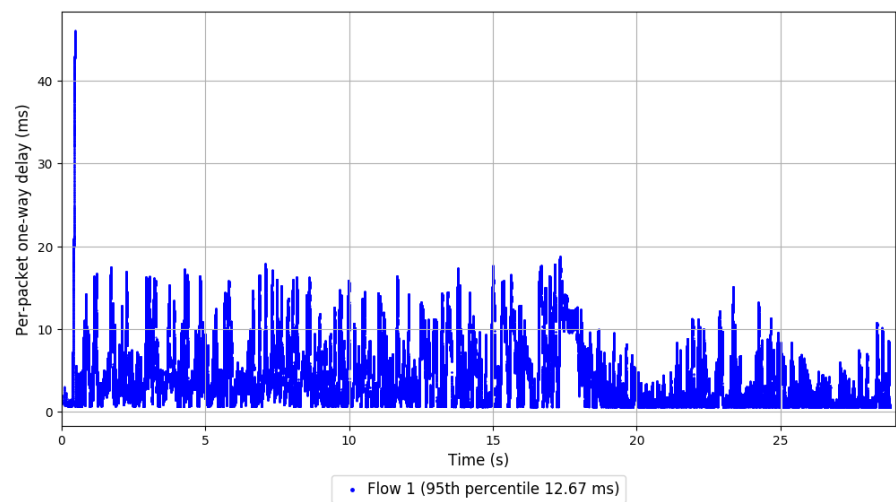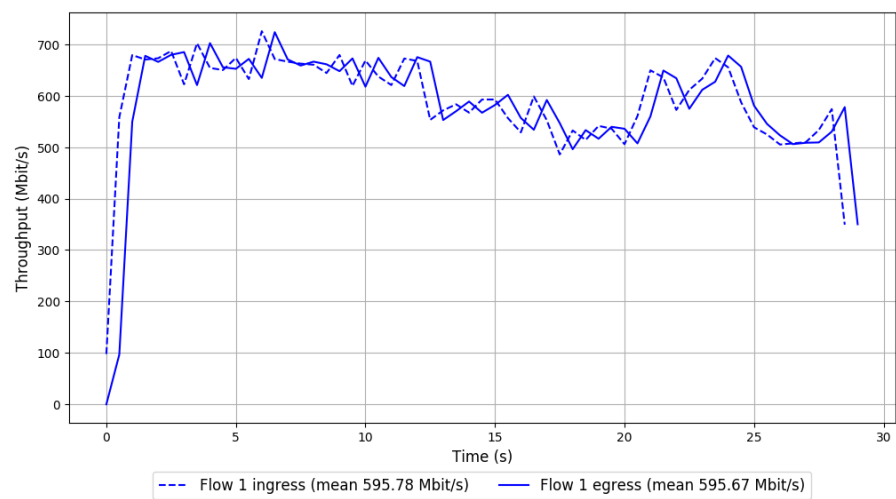
Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-12-11 03:58:31
End at: 2019-12-11 03:59:01
Local clock offset: 2.353 ms
Remote clock offset: 0.443 ms


# Below is generated by plot.py at 2019-12-11 06:02:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 615.18 Mbit/s
95th percentile per-packet one-way delay: 11.766 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 615.18 Mbit/s
95th percentile per-packet one-way delay: 11.766 ms
Loss rate: 0.02%
```
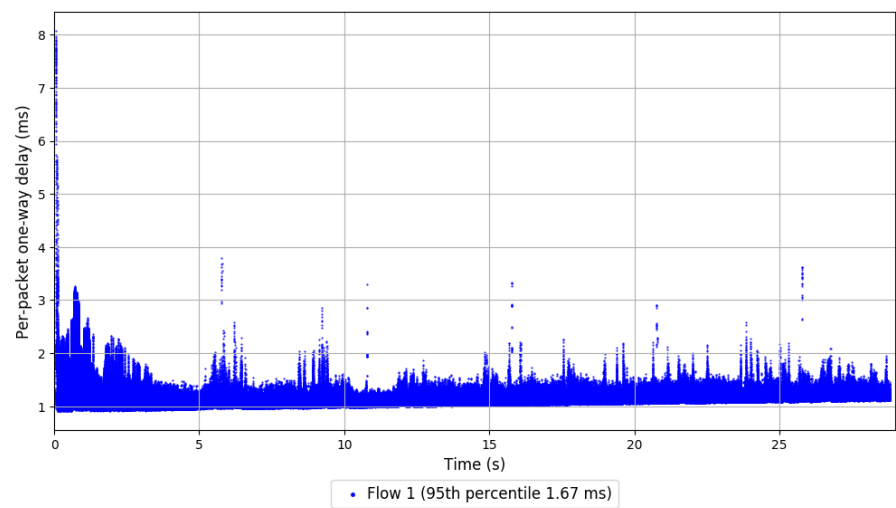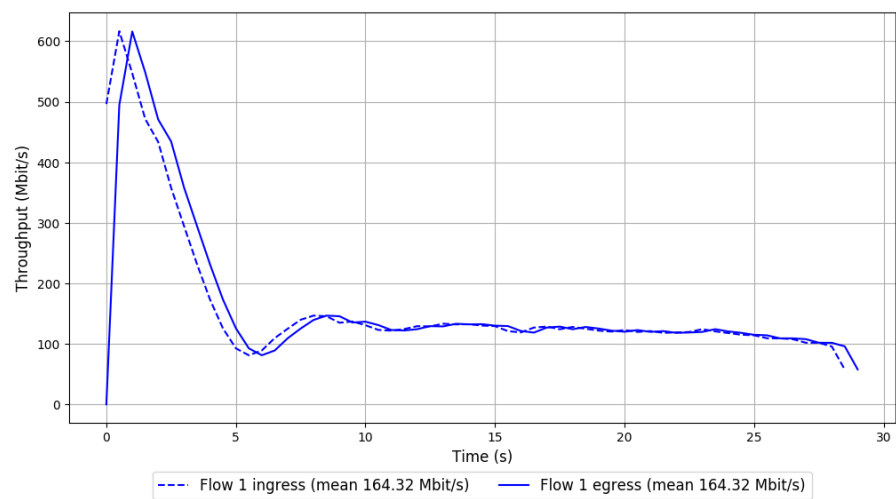
Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-12-11 04:32:07
End at: 2019-12-11 04:32:37
Local clock offset: 2.508 ms
Remote clock offset: 1.43 ms


# Below is generated by plot.py at 2019-12-11 06:04:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 595.67 Mbit/s
95th percentile per-packet one-way delay: 12.670 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 595.67 Mbit/s
95th percentile per-packet one-way delay: 12.670 ms
Loss rate: 0.02%
```
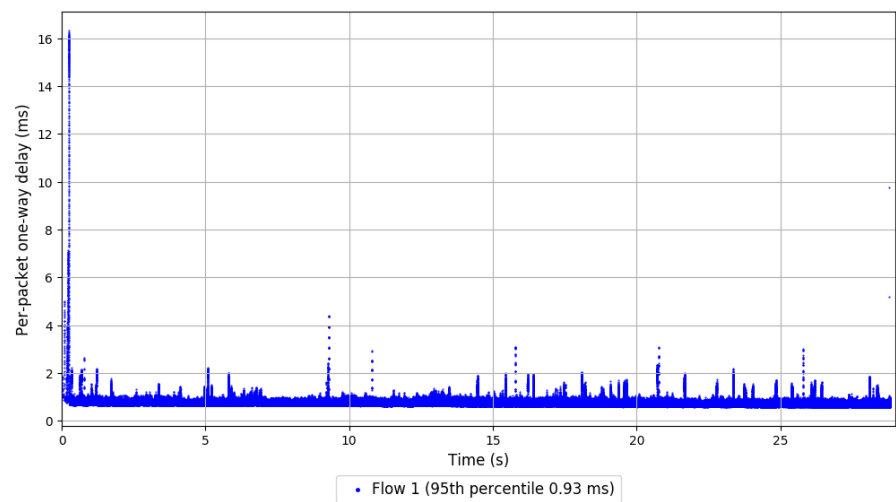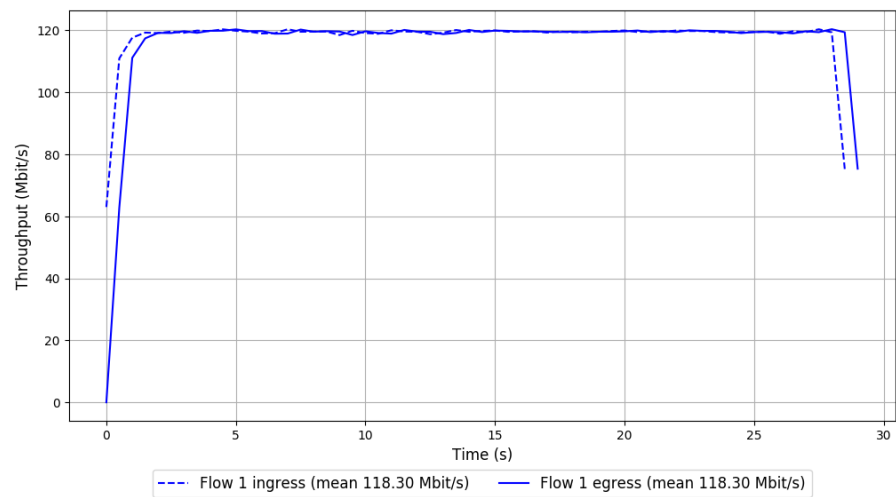
Run 4: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 595.78 Mbit/s)   Flow 1 egress (mean 595.67 Mbit/s)

• Flow 1 (95th percentile 12.67 ms)

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-12-11 05:04:45
End at: 2019-12-11 05:05:15
Local clock offset: 2.978 ms
Remote clock offset: 3.206 ms


# Below is generated by plot.py at 2019-12-11 06:04:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 164.32 Mbit/s
95th percentile per-packet one-way delay: 1.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 164.32 Mbit/s
95th percentile per-packet one-way delay: 1.673 ms
Loss rate: 0.00%
```
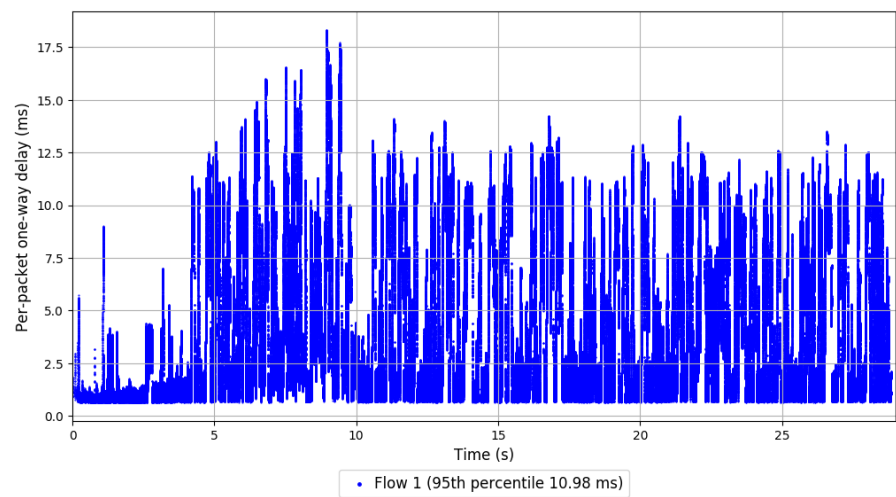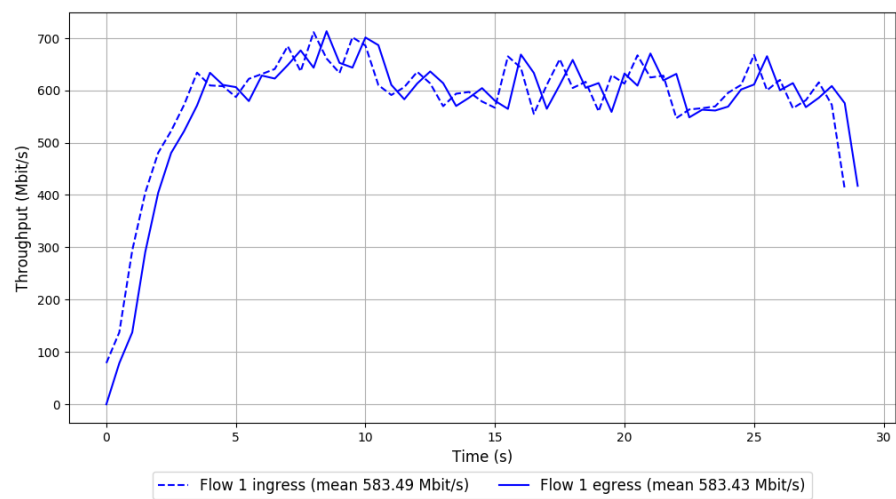
Run 5: Report of Indigo-MusesC3 — Data Link

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-12-11 03:03:18
End at: 2019-12-11 03:03:48
Local clock offset: 1.769 ms
Remote clock offset: 4.037 ms


# Below is generated by plot.py at 2019-12-11 06:04:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.30 Mbit/s
95th percentile per-packet one-way delay: 0.927 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 118.30 Mbit/s
95th percentile per-packet one-way delay: 0.927 ms
Loss rate: 0.00%
```
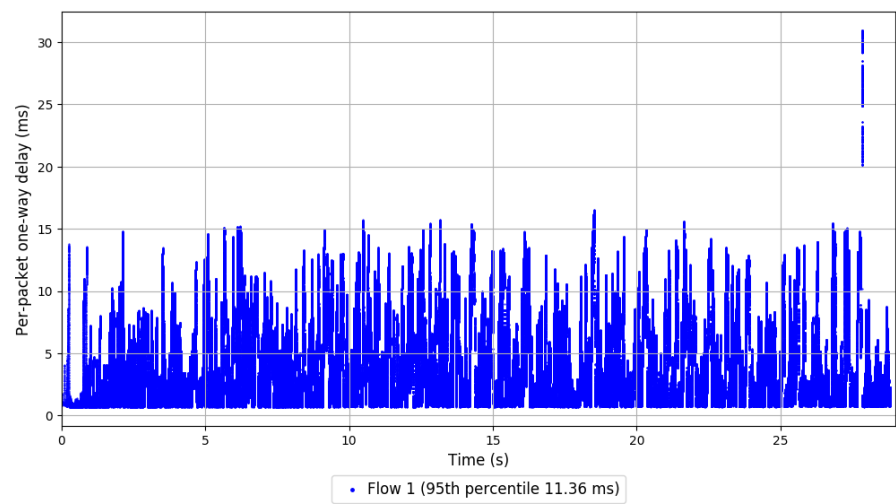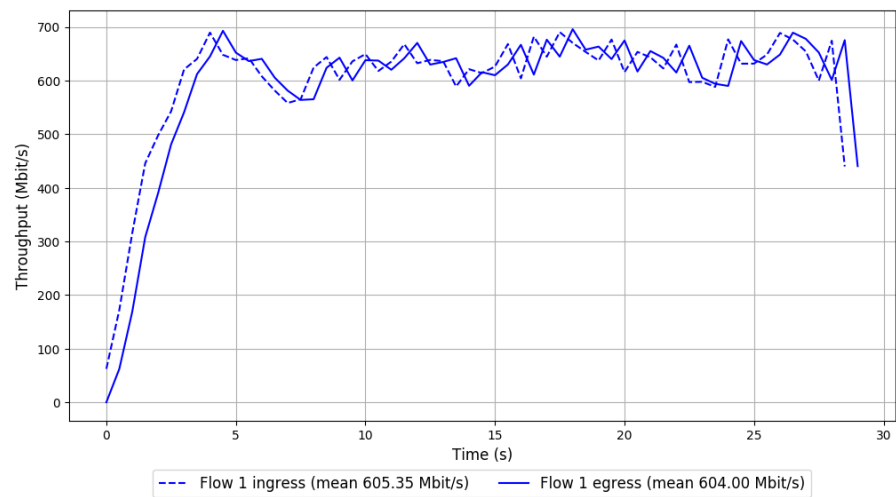
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-12-11 03:36:33
End at: 2019-12-11 03:37:03
Local clock offset: 1.24 ms
Remote clock offset: 1.125 ms


# Below is generated by plot.py at 2019-12-11 06:06:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 583.43 Mbit/s
95th percentile per-packet one-way delay: 10.978 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 583.43 Mbit/s
95th percentile per-packet one-way delay: 10.978 ms
Loss rate: 0.01%
```
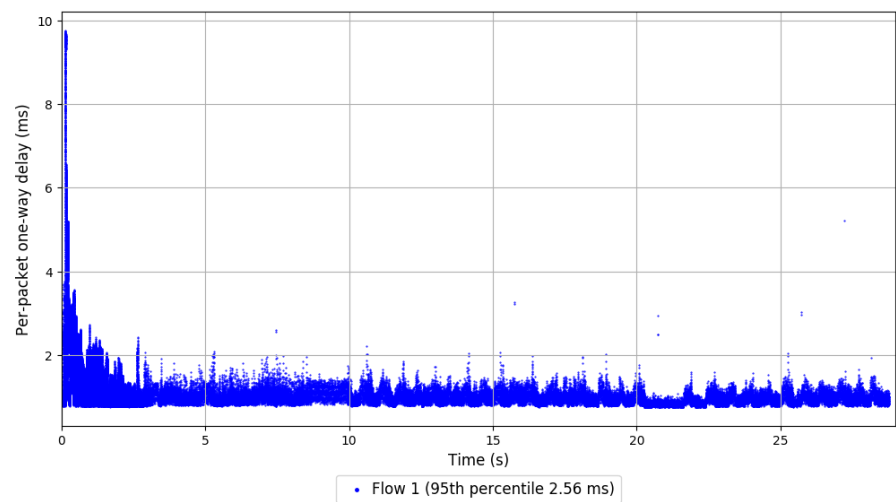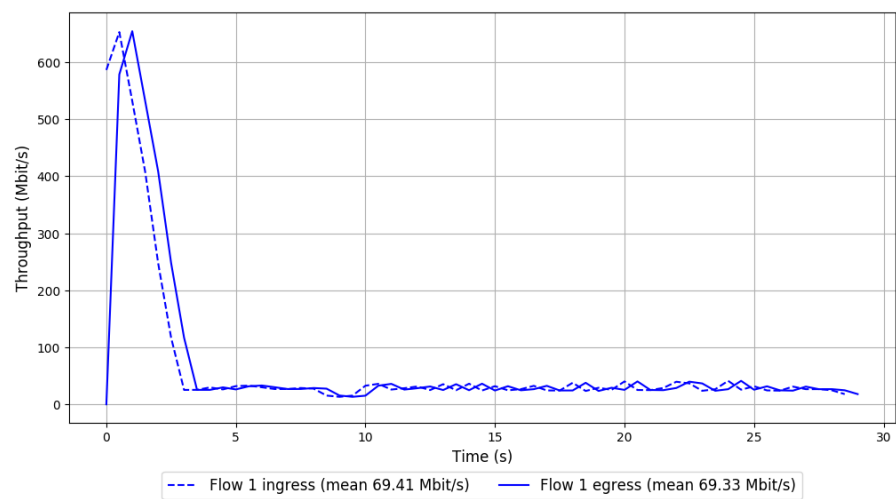
Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-12-11 04:09:49
End at: 2019-12-11 04:10:19
Local clock offset: 2.233 ms
Remote clock offset: 0.235 ms


# Below is generated by plot.py at 2019-12-11 06:07:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 604.00 Mbit/s
95th percentile per-packet one-way delay: 11.358 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 604.00 Mbit/s
95th percentile per-packet one-way delay: 11.358 ms
Loss rate: 0.24%
```
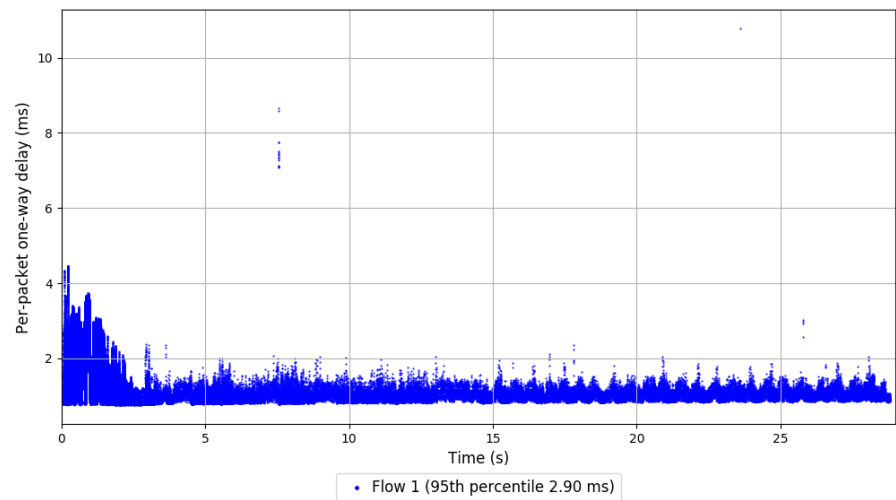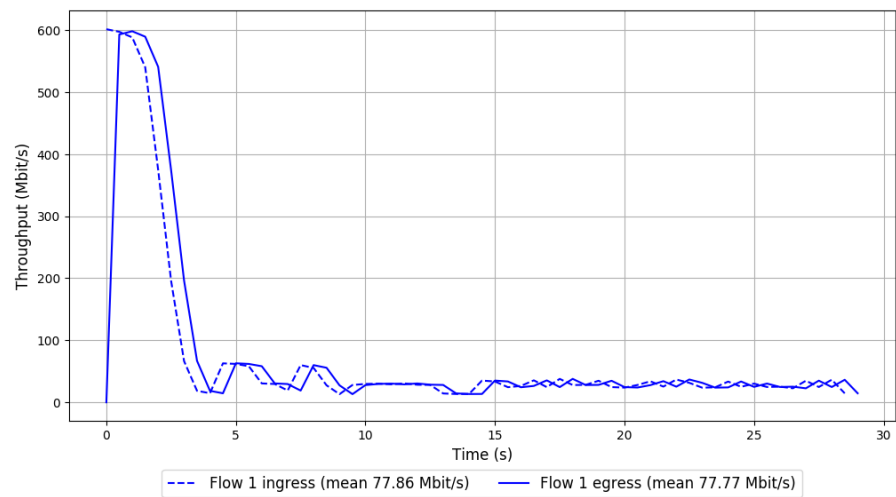
Run 3: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 605.35 Mbit/s)   Flow 1 egress (mean 604.00 Mbit/s)

• Flow 1 (95th percentile 11.36 ms)

Run 4: Statistics of Indigo-MusesC5

Start at: 2019-12-11 04:43:35
End at: 2019-12-11 04:44:05
Local clock offset: 2.728 ms
Remote clock offset: 3.195 ms

Below is generated by plot.py at 2019-12-11 06:07:40
Datalink statistics
-- Total of 1 flow:
Average throughput: 69.33 Mbit/s
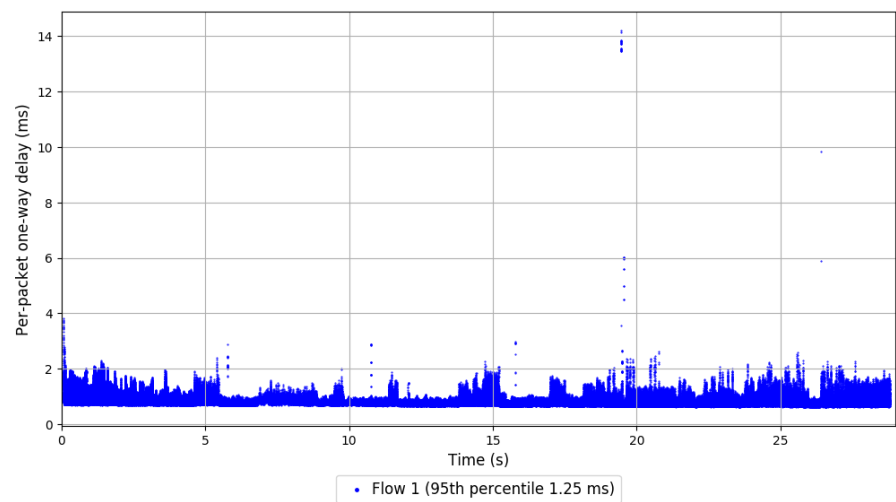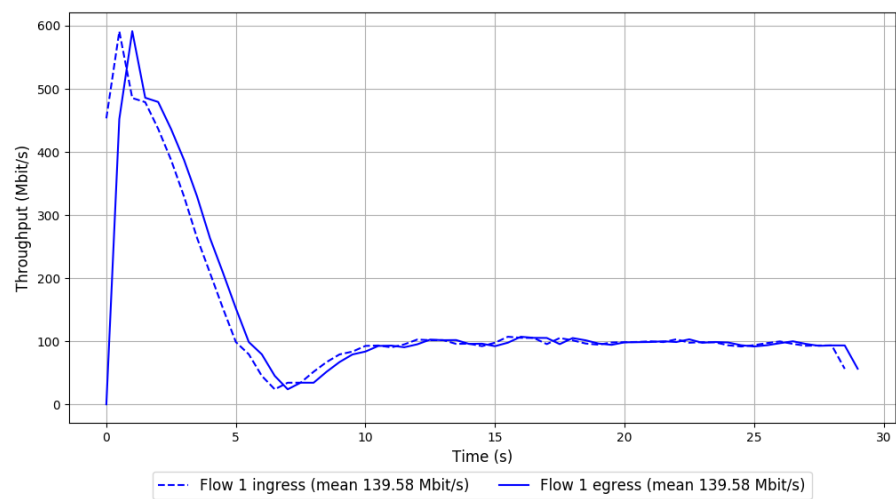95th percentile per-packet one-way delay: 2.559 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 69.33 Mbit/s
95th percentile per-packet one-way delay: 2.559 ms
Loss rate: 0.12%

Run 4: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 69.41 Mbit/s)   Flow 1 egress (mean 69.33 Mbit/s)

Flow 1 (95th percentile 2.56 ms)

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-12-11 05:15:56
End at: 2019-12-11 05:16:26
Local clock offset: 2.881 ms
Remote clock offset: 0.161 ms

# Below is generated by plot.py at 2019-12-11 06:07:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.77 Mbit/s
95th percentile per-packet one-way delay: 2.902 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 77.77 Mbit/s
95th percentile per-packet one-way delay: 2.902 ms
Loss rate: 0.12%
```
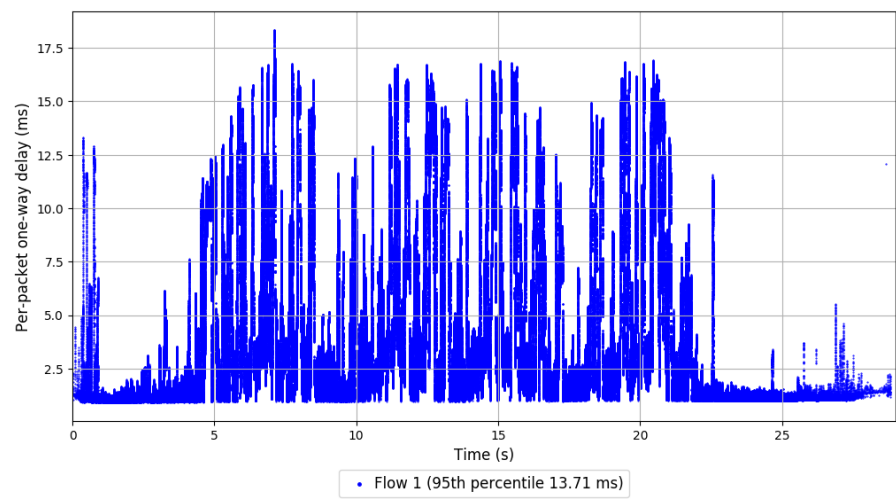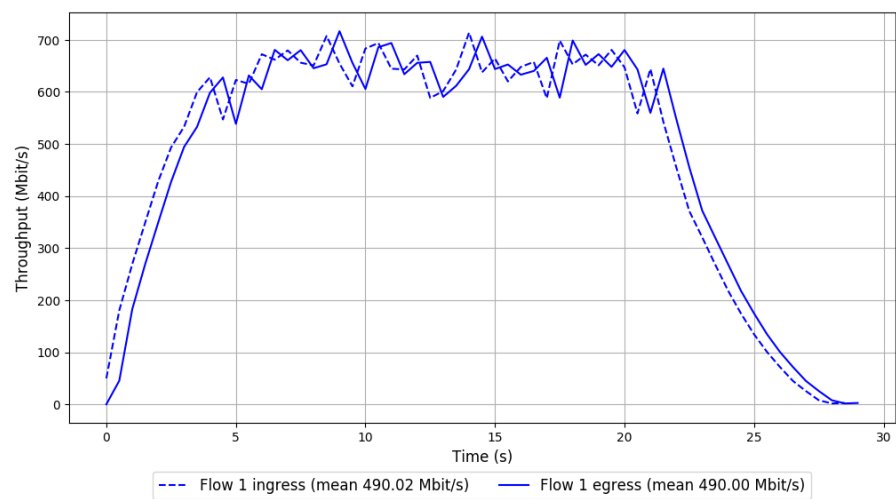
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 77.86 Mbit/s) — — — Flow 1 egress (mean 77.77 Mbit/s)

Flow 1 (95th percentile 2.90 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-12-11 03:07:20
End at: 2019-12-11 03:07:50
Local clock offset: 1.528 ms
Remote clock offset: 4.627 ms


# Below is generated by plot.py at 2019-12-11 06:07:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.58 Mbit/s
95th percentile per-packet one-way delay: 1.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 139.58 Mbit/s
95th percentile per-packet one-way delay: 1.250 ms
Loss rate: 0.00%
```
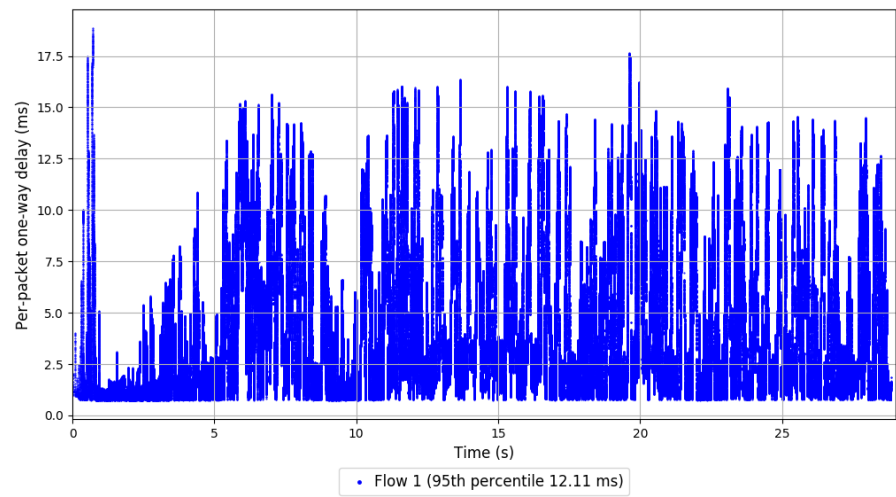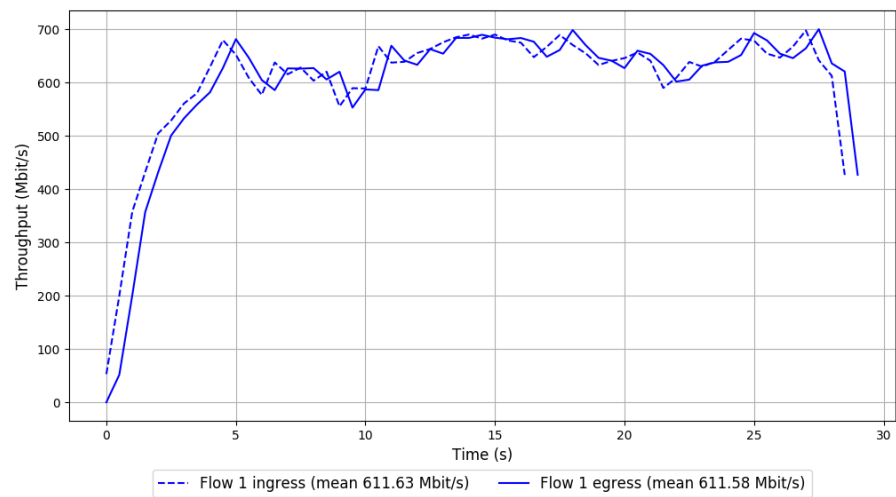
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-12-11 03:40:35
End at: 2019-12-11 03:41:05
Local clock offset: 1.423 ms
Remote clock offset: 0.931 ms


# Below is generated by plot.py at 2019-12-11 06:07:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 490.00 Mbit/s
95th percentile per-packet one-way delay: 13.714 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 490.00 Mbit/s
95th percentile per-packet one-way delay: 13.714 ms
Loss rate: 0.01%
```
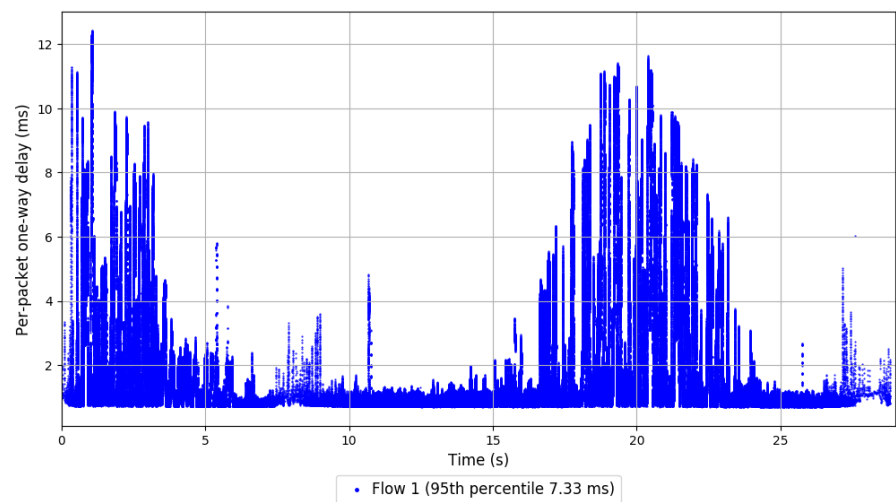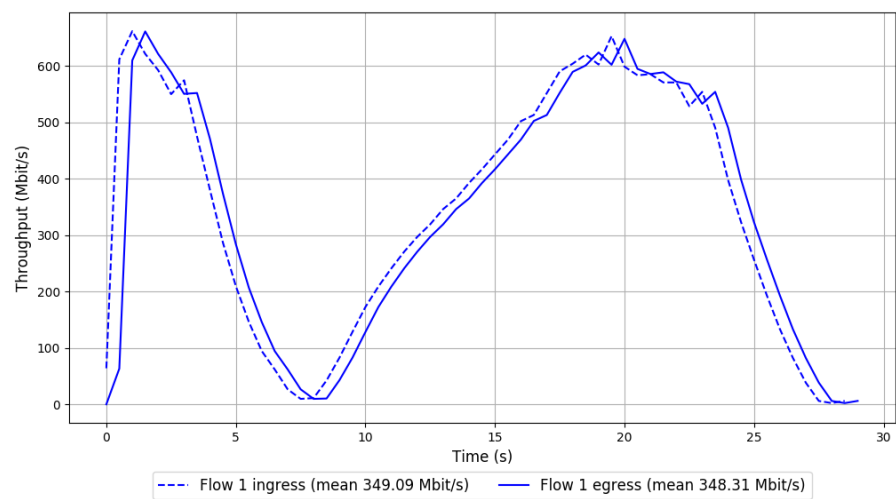
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-12-11 04:13:49
End at: 2019-12-11 04:14:19
Local clock offset: 2.469 ms
Remote clock offset: 0.29 ms


# Below is generated by plot.py at 2019-12-11 06:09:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 611.58 Mbit/s
95th percentile per-packet one-way delay: 12.106 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 611.58 Mbit/s
95th percentile per-packet one-way delay: 12.106 ms
Loss rate: 0.01%
```
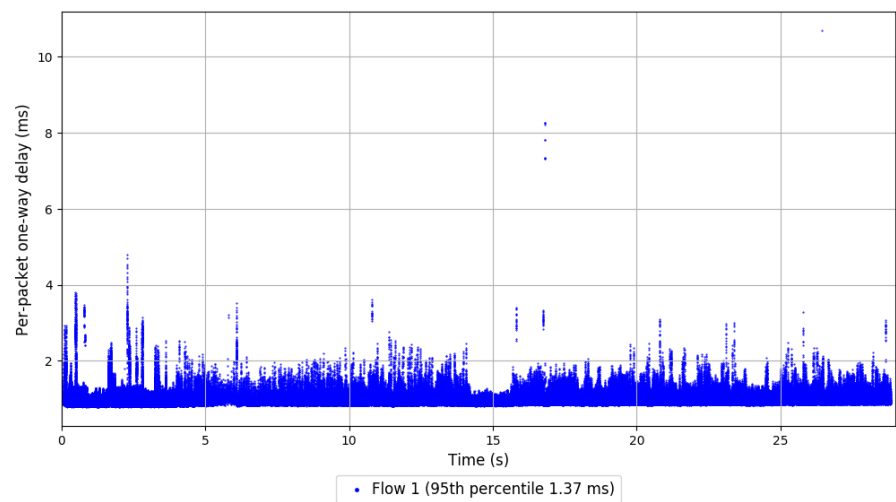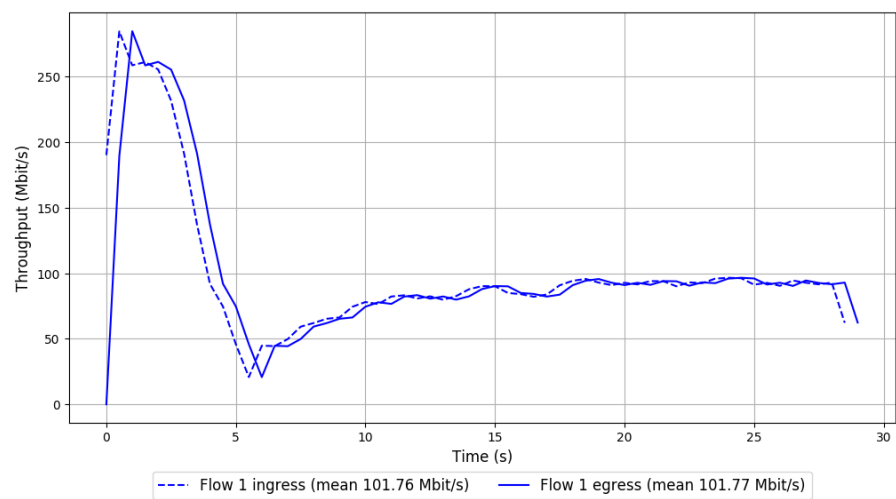
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-12-11 04:47:19
End at: 2019-12-11 04:47:49
Local clock offset: 2.863 ms
Remote clock offset: 3.448 ms

# Below is generated by plot.py at 2019-12-11 06:09:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 348.31 Mbit/s
95th percentile per-packet one-way delay: 7.327 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 348.31 Mbit/s
95th percentile per-packet one-way delay: 7.327 ms
Loss rate: 0.22%
```
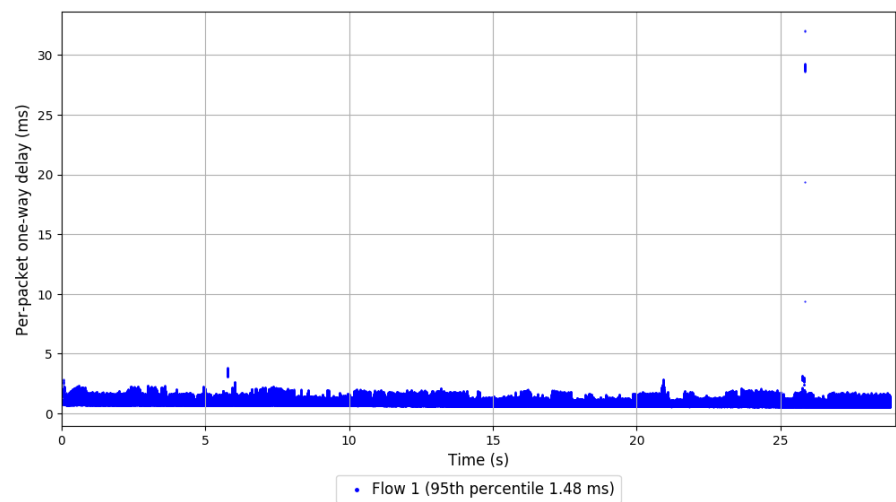
Run 4: Report of Indigo-MusesD — Data Link

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-12-11 05:19:41
End at: 2019-12-11 05:20:11
Local clock offset: 2.846 ms
Remote clock offset: -0.31 ms


# Below is generated by plot.py at 2019-12-11 06:09:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 101.77 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 101.77 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 0.00%
```
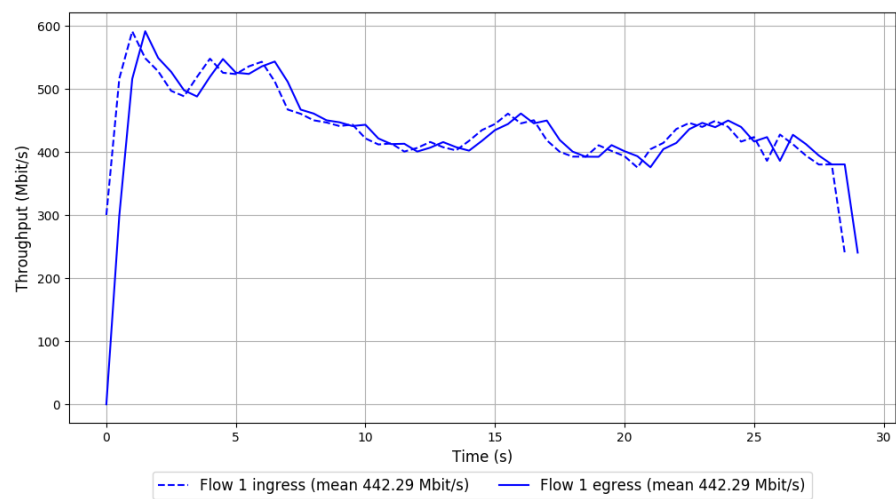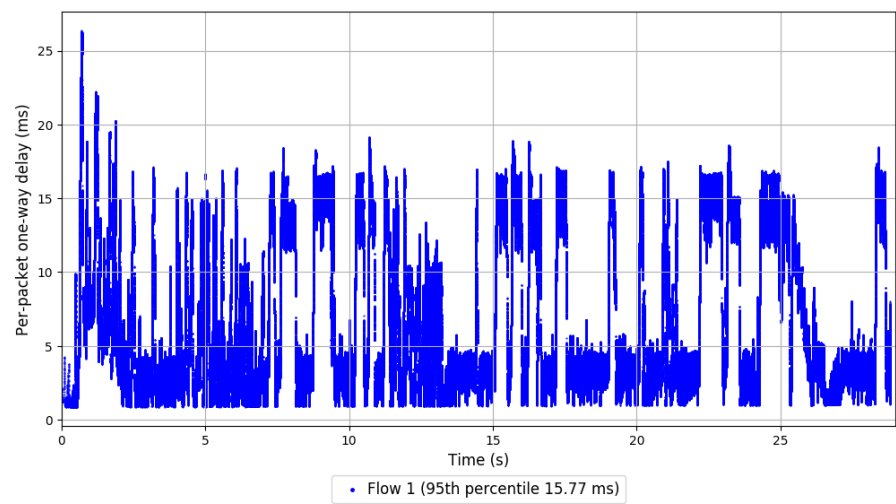
Run 5: Report of Indigo-MusesD — Data Link

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-12-11 02:50:31
End at: 2019-12-11 02:51:01
Local clock offset: 2.236 ms
Remote clock offset: 1.603 ms


# Below is generated by plot.py at 2019-12-11 06:09:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 442.29 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 442.29 Mbit/s
95th percentile per-packet one-way delay: 1.475 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-12-11 03:23:44
End at: 2019-12-11 03:24:14
Local clock offset: 1.907 ms
Remote clock offset: 3.965 ms


# Below is generated by plot.py at 2019-12-11 06:10:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 621.25 Mbit/s
95th percentile per-packet one-way delay: 15.767 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 621.25 Mbit/s
95th percentile per-packet one-way delay: 15.767 ms
Loss rate: 0.03%
```
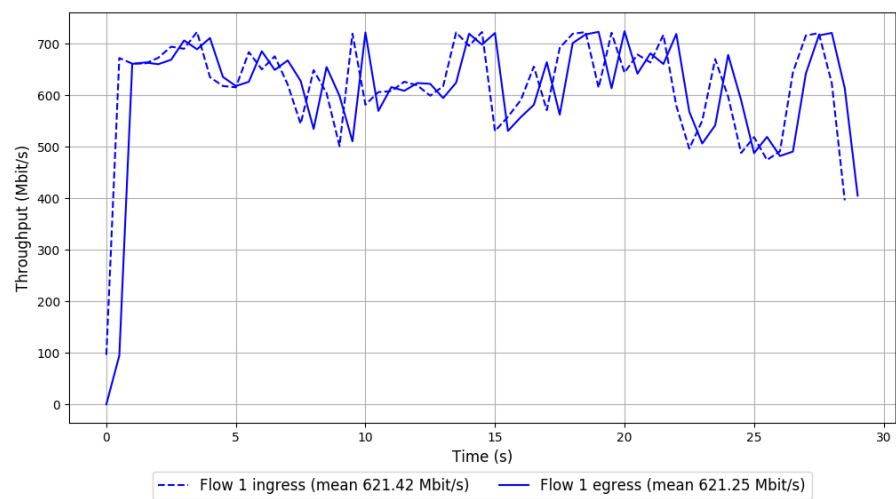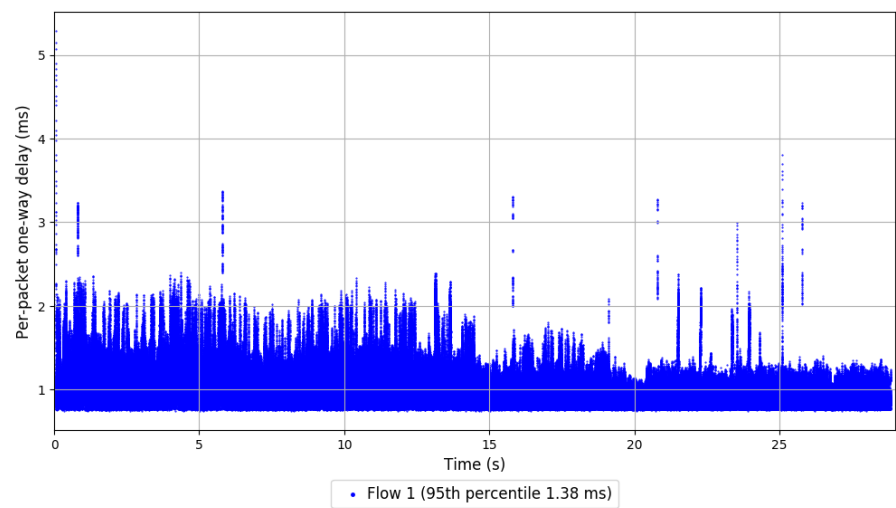
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-12-11 03:57:06
End at: 2019-12-11 03:57:37
Local clock offset: 2.376 ms
Remote clock offset: 0.487 ms


# Below is generated by plot.py at 2019-12-11 06:10:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 368.78 Mbit/s
95th percentile per-packet one-way delay: 1.383 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 368.78 Mbit/s
95th percentile per-packet one-way delay: 1.383 ms
Loss rate: 0.01%
```
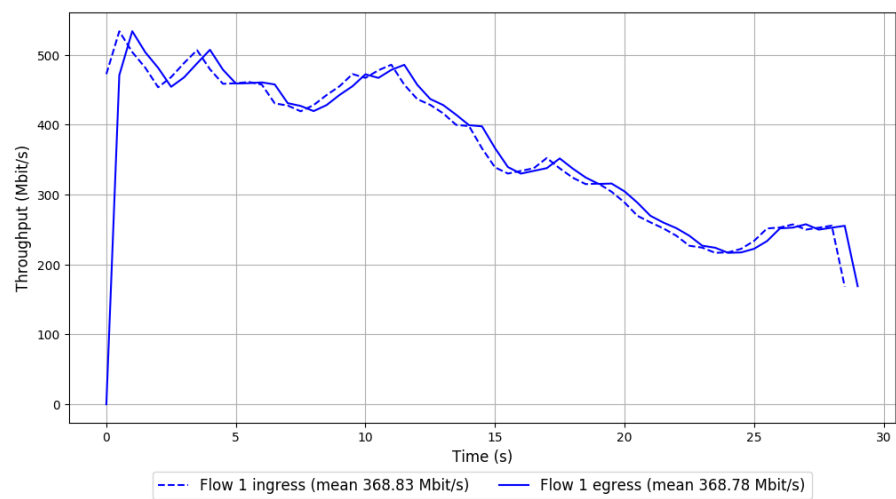
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-12-11 04:30:40
End at: 2019-12-11 04:31:10
Local clock offset: 2.525 ms
Remote clock offset: 1.046 ms


# Below is generated by plot.py at 2019-12-11 06:11:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 464.58 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 464.58 Mbit/s
95th percentile per-packet one-way delay: 1.501 ms
Loss rate: 0.03%
```
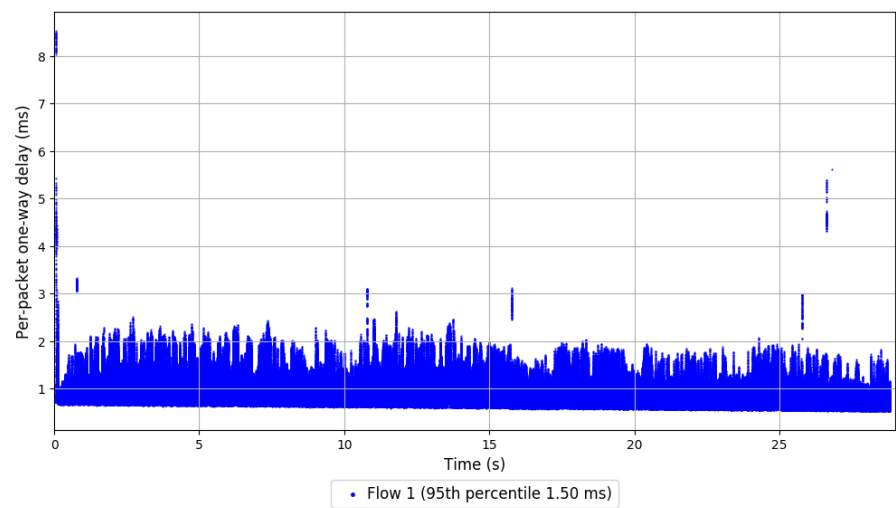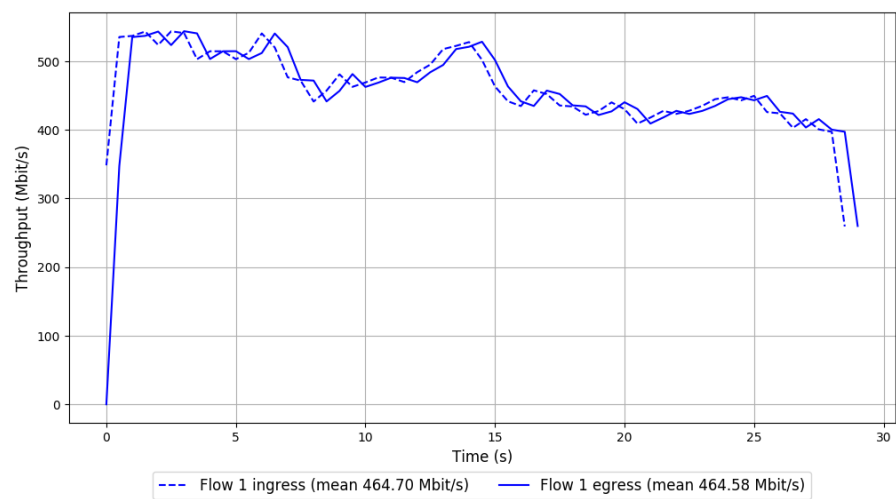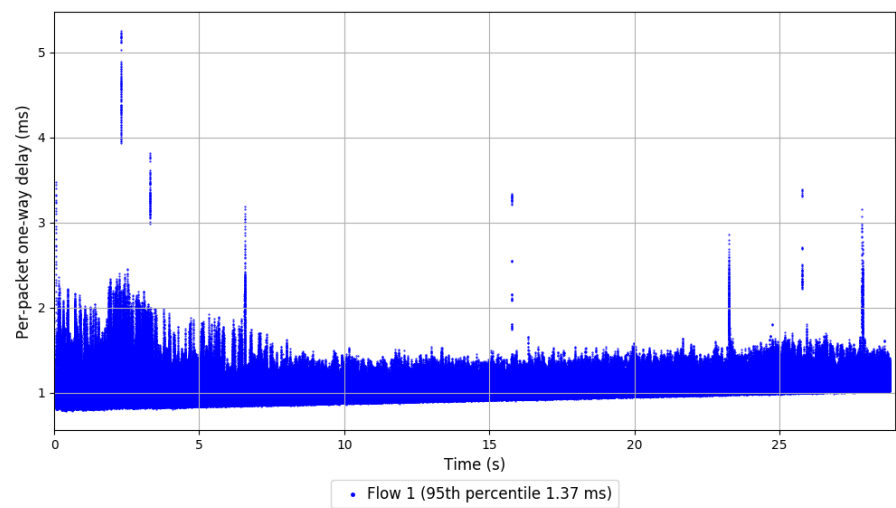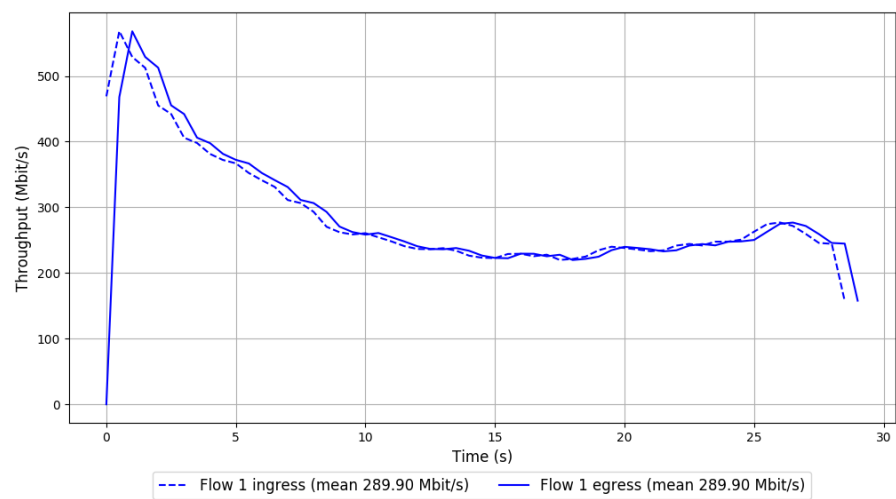
Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 464.70 Mbit/s) — Flow 1 egress (mean 464.58 Mbit/s)

Flow 1 (95th percentile 1.50 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-12-11 05:03:23
End at: 2019-12-11 05:03:53
Local clock offset: 3.008 ms
Remote clock offset: 3.721 ms


# Below is generated by plot.py at 2019-12-11 06:11:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 289.90 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 289.90 Mbit/s
95th percentile per-packet one-way delay: 1.372 ms
Loss rate: 0.00%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-12-11 03:09:50
End at: 2019-12-11 03:10:20
Local clock offset: 1.57 ms
Remote clock offset: 4.849 ms


# Below is generated by plot.py at 2019-12-11 06:14:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 583.49 Mbit/s
95th percentile per-packet one-way delay: 18.118 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 583.49 Mbit/s
95th percentile per-packet one-way delay: 18.118 ms
Loss rate: 0.06%
```
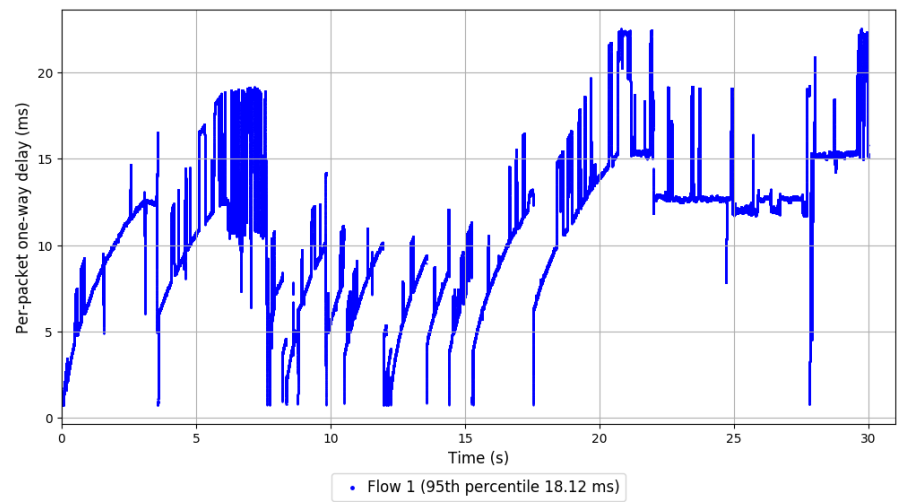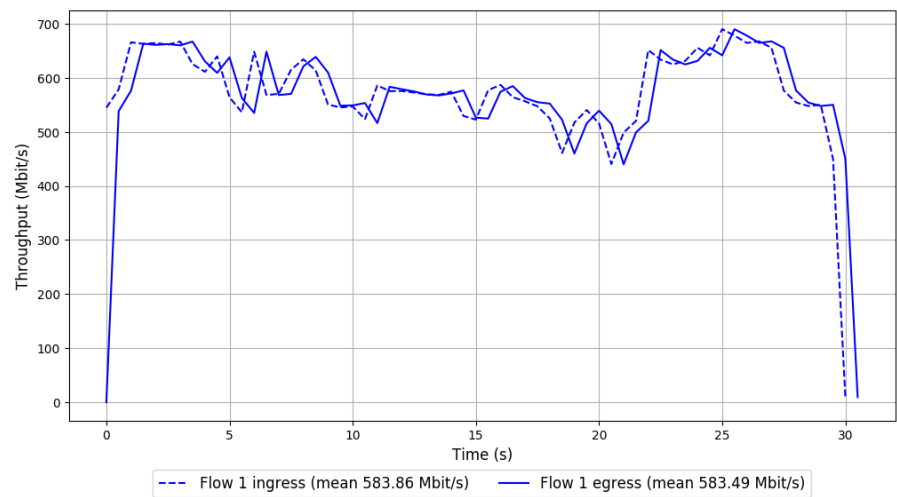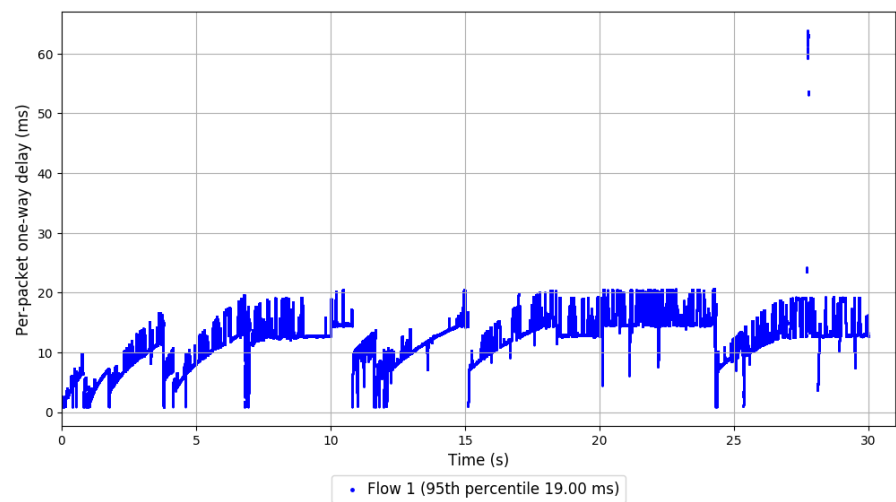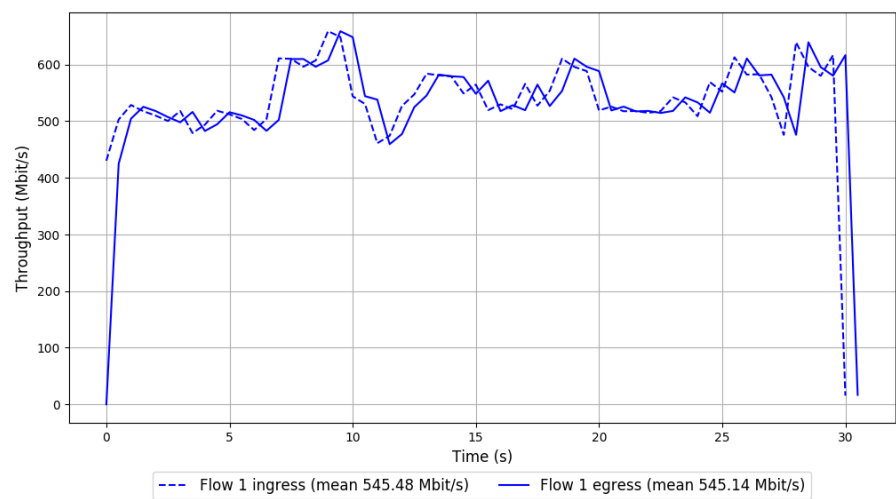
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 583.86 Mbit/s)   Flow 1 egress (mean 583.49 Mbit/s)

Flow 1 (95th percentile 18.12 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-12-11 03:43:16
End at: 2019-12-11 03:43:46
Local clock offset: 1.84 ms
Remote clock offset: 0.803 ms


# Below is generated by plot.py at 2019-12-11 06:14:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 545.14 Mbit/s
95th percentile per-packet one-way delay: 19.000 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 545.14 Mbit/s
95th percentile per-packet one-way delay: 19.000 ms
Loss rate: 0.06%
```
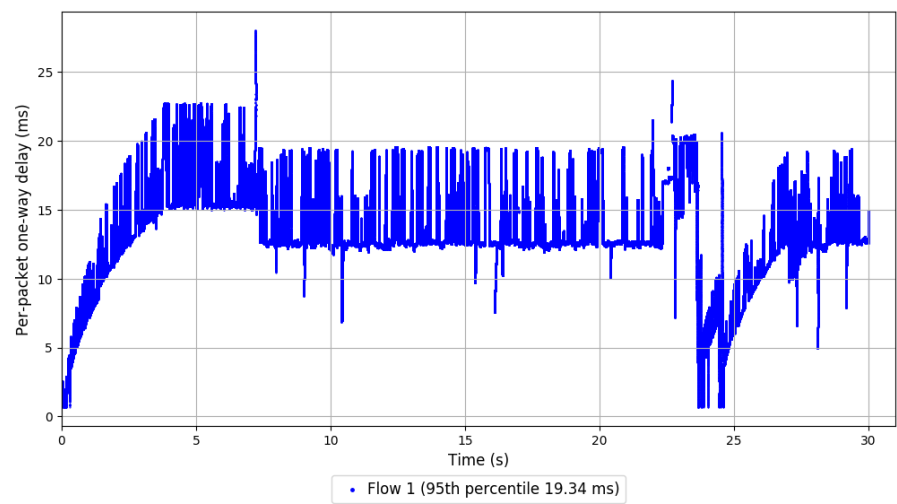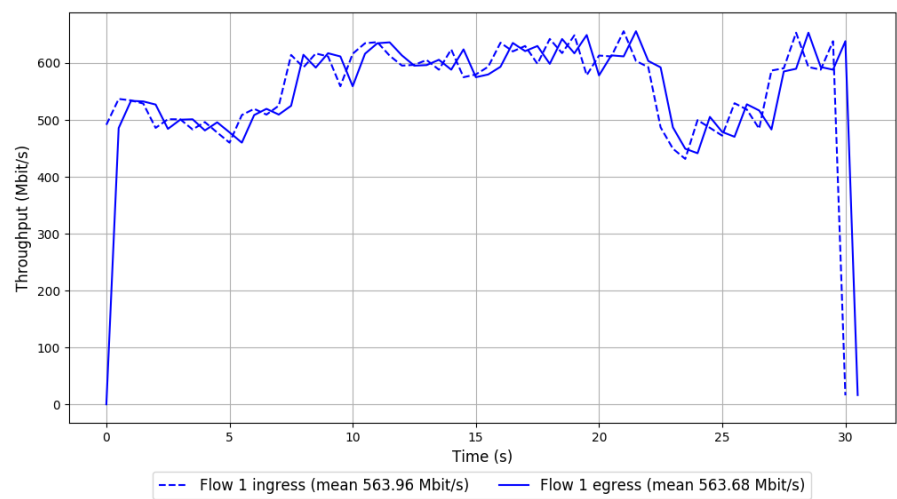
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 545.48 Mbit/s) Flow 1 egress (mean 545.14 Mbit/s)

• Flow 1 (95th percentile 19.00 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2019-12-11 04:16:34
End at: 2019-12-11 04:17:04
Local clock offset: 2.54 ms
Remote clock offset: 0.239 ms


# Below is generated by plot.py at 2019-12-11 06:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 563.68 Mbit/s
95th percentile per-packet one-way delay: 19.345 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 563.68 Mbit/s
95th percentile per-packet one-way delay: 19.345 ms
Loss rate: 0.05%
```
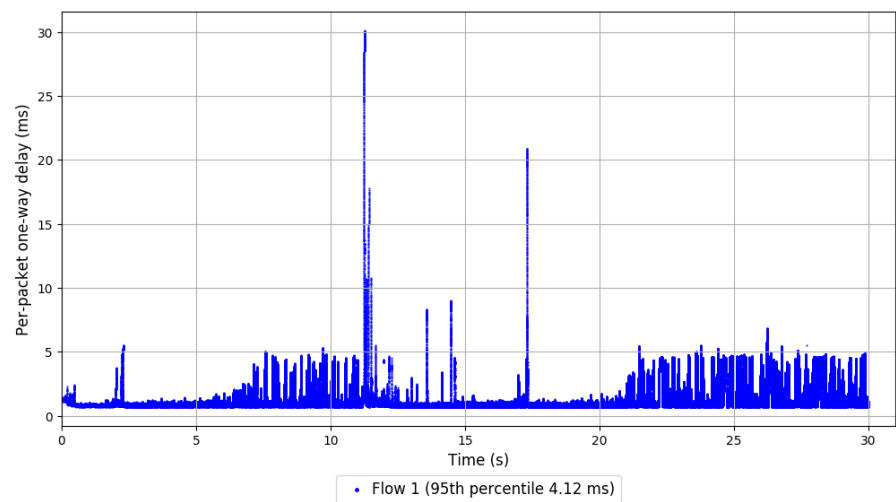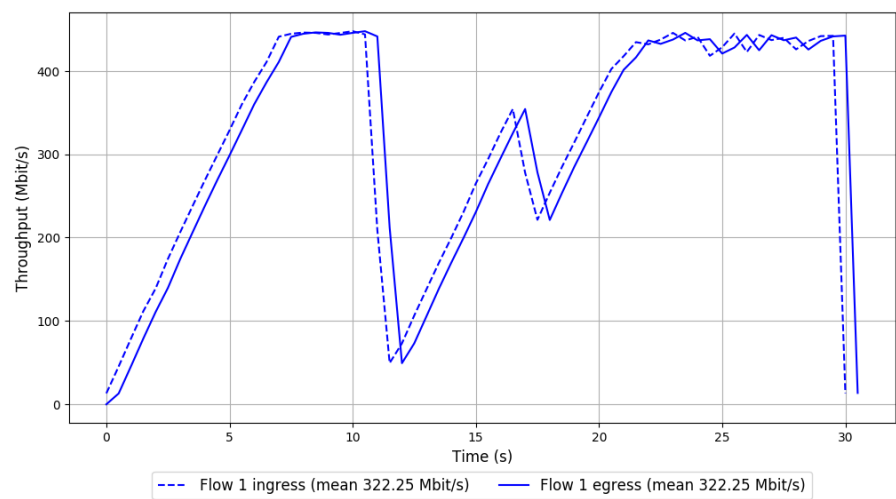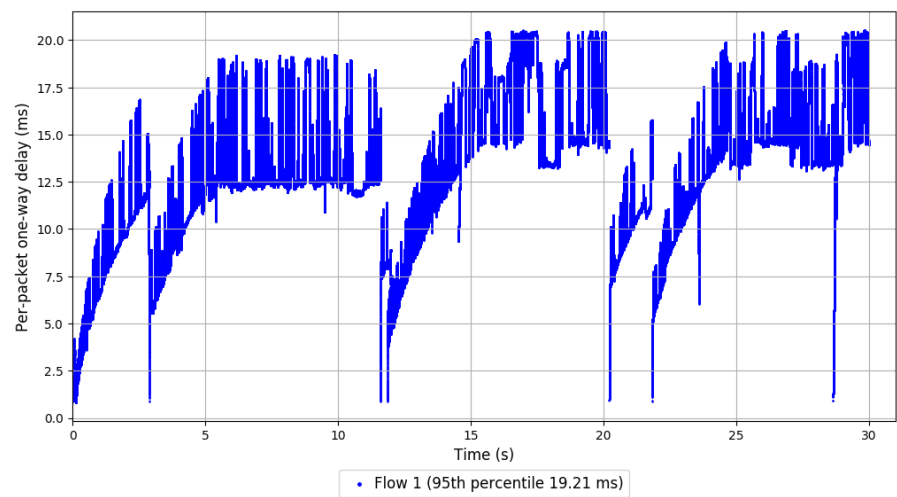
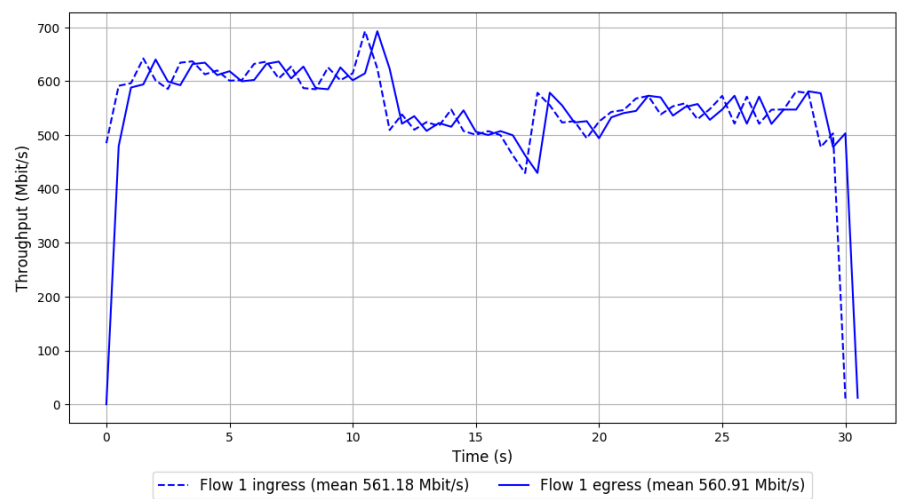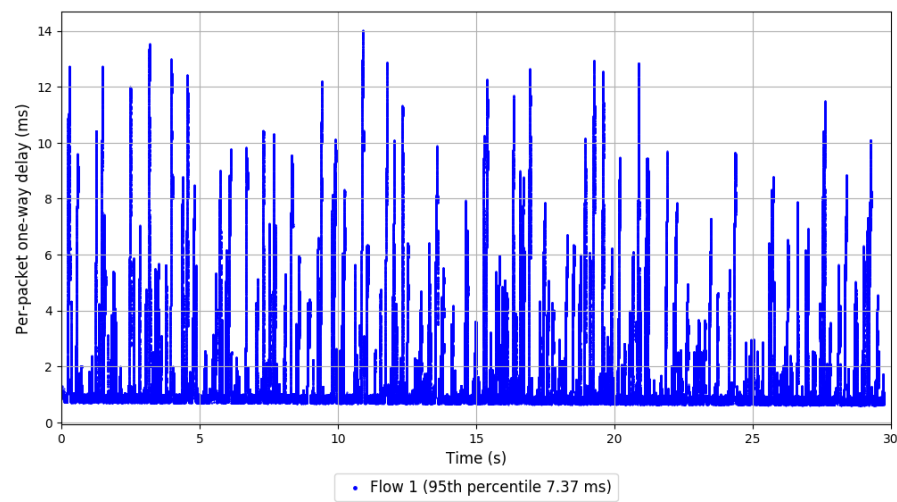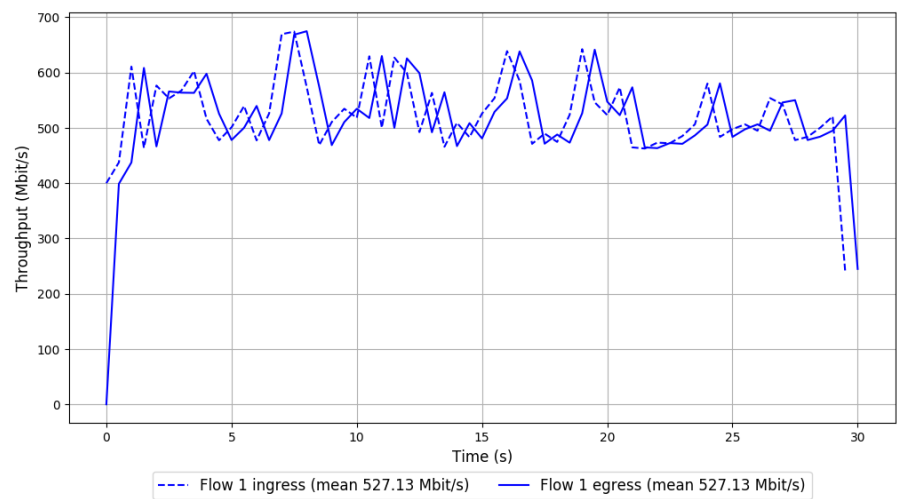Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 563.96 Mbit/s) ----- Flow 1 egress (mean 563.68 Mbit/s)

• Flow 1 (95th percentile 19.34 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2019-12-11 04:49:56
End at: 2019-12-11 04:50:26
Local clock offset: 2.911 ms
Remote clock offset: 3.591 ms


# Below is generated by plot.py at 2019-12-11 06:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.25 Mbit/s
95th percentile per-packet one-way delay: 4.115 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 322.25 Mbit/s
95th percentile per-packet one-way delay: 4.115 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2019-12-11 05:22:10
End at: 2019-12-11 05:22:40
Local clock offset: 2.83 ms
Remote clock offset: -0.589 ms


# Below is generated by plot.py at 2019-12-11 06:15:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 560.91 Mbit/s
95th percentile per-packet one-way delay: 19.207 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 560.91 Mbit/s
95th percentile per-packet one-way delay: 19.207 ms
Loss rate: 0.05%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 561.18 Mbit/s)   Flow 1 egress (mean 560.91 Mbit/s)

· Flow 1 (95th percentile 19.21 ms)

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```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 03:04:35
End at: 2019-12-11 03:05:05
Local clock offset: 1.714 ms
Remote clock offset: 4.305 ms


# Below is generated by plot.py at 2019-12-11 06:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 527.13 Mbit/s
95th percentile per-packet one-way delay: 7.369 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 527.13 Mbit/s
95th percentile per-packet one-way delay: 7.369 ms
Loss rate: 0.00%
```
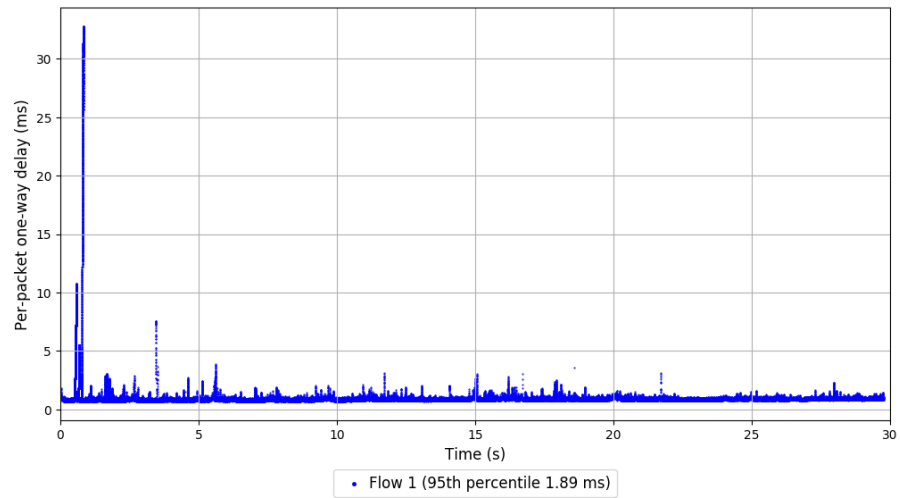
Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 03:38:04
End at: 2019-12-11 03:38:34
Local clock offset: 1.127 ms
Remote clock offset: 1.0 ms


# Below is generated by plot.py at 2019-12-11 06:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.94 Mbit/s
95th percentile per-packet one-way delay: 1.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 63.94 Mbit/s
95th percentile per-packet one-way delay: 1.894 ms
Loss rate: 0.00%
```
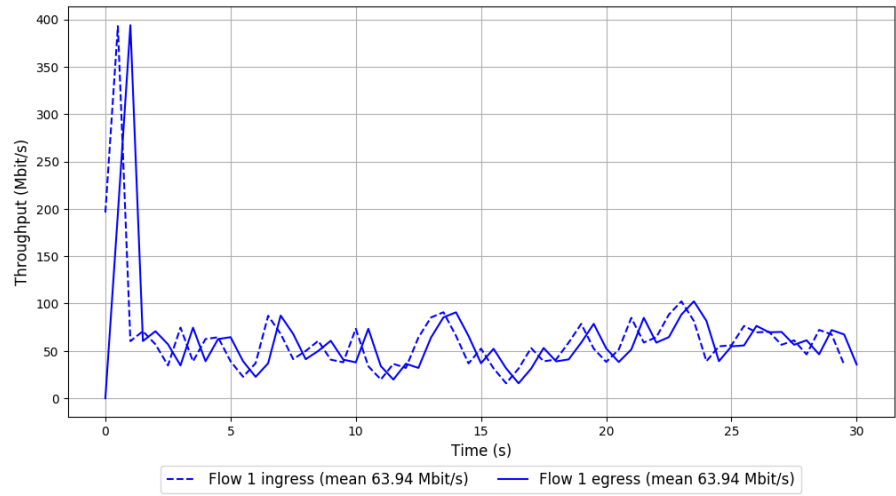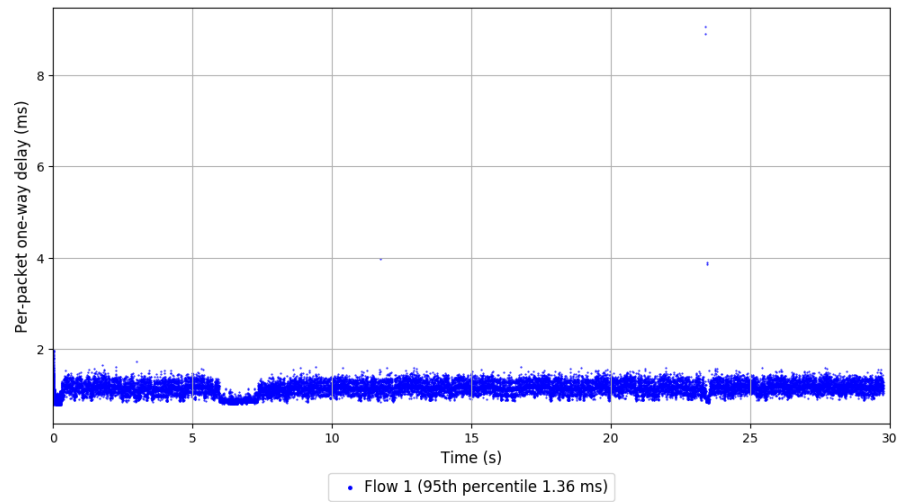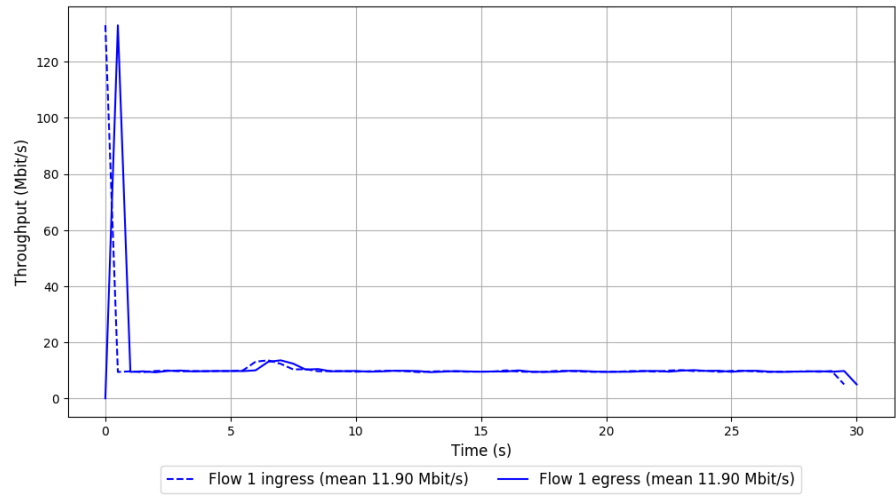
Run 2: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 63.94 Mbit/s)   Flow 1 egress (mean 63.94 Mbit/s)

Flow 1 (95th percentile 1.89 ms)

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 04:11:20
End at: 2019-12-11 04:11:50
Local clock offset: 2.309 ms
Remote clock offset: 0.326 ms


# Below is generated by plot.py at 2019-12-11 06:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 1.365 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 1.365 ms
Loss rate: 0.00%
```
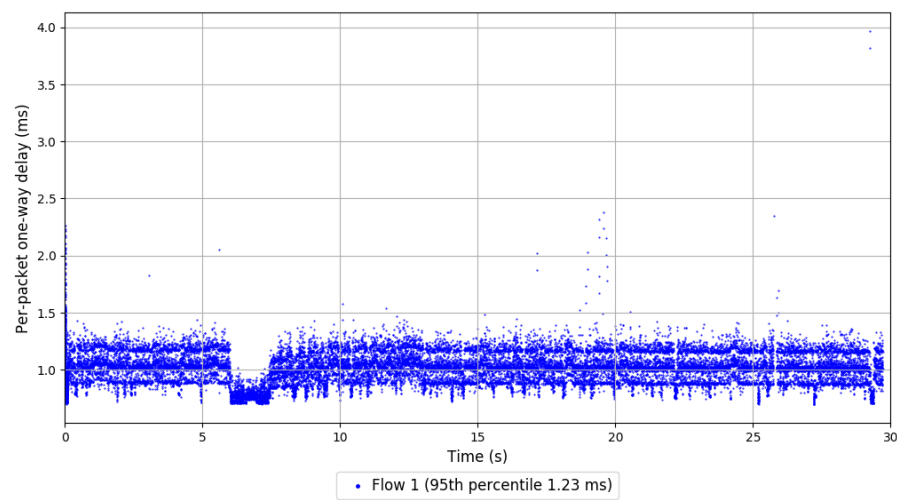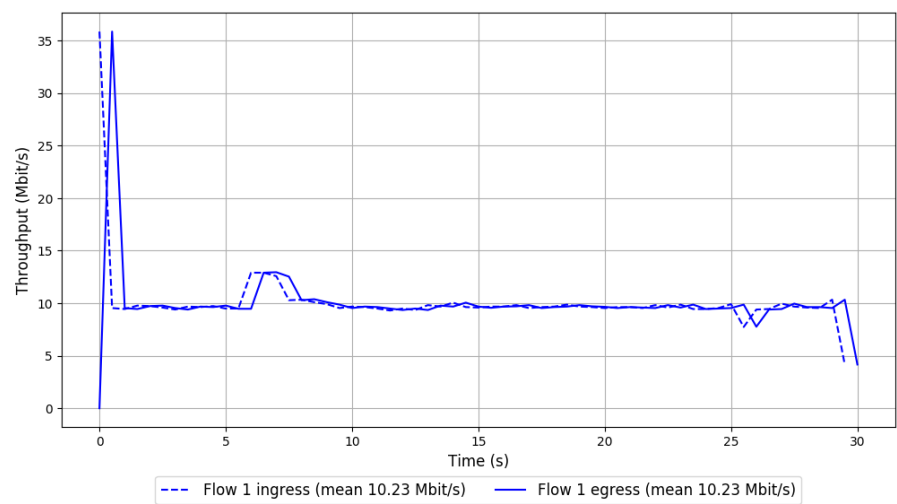
Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 04:44:50
End at: 2019-12-11 04:45:20
Local clock offset: 2.807 ms
Remote clock offset: 3.25 ms


# Below is generated by plot.py at 2019-12-11 06:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.23 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.23 Mbit/s
95th percentile per-packet one-way delay: 1.226 ms
Loss rate: 0.00%
```
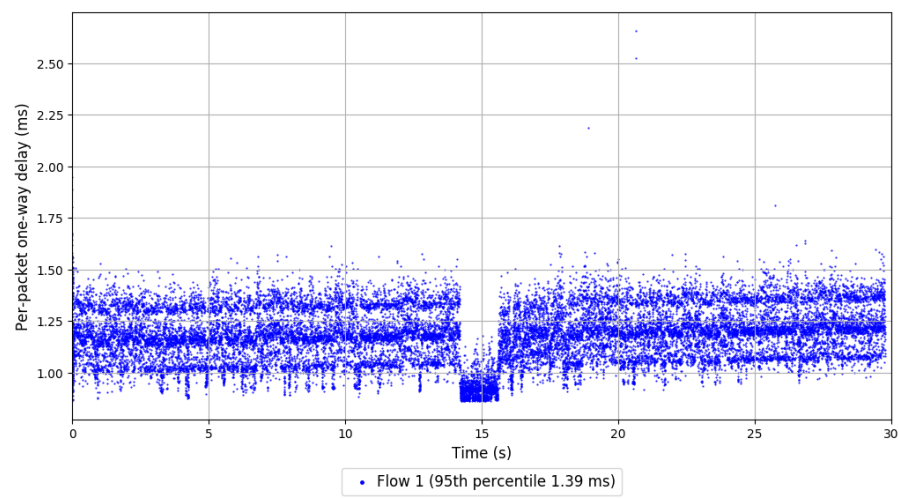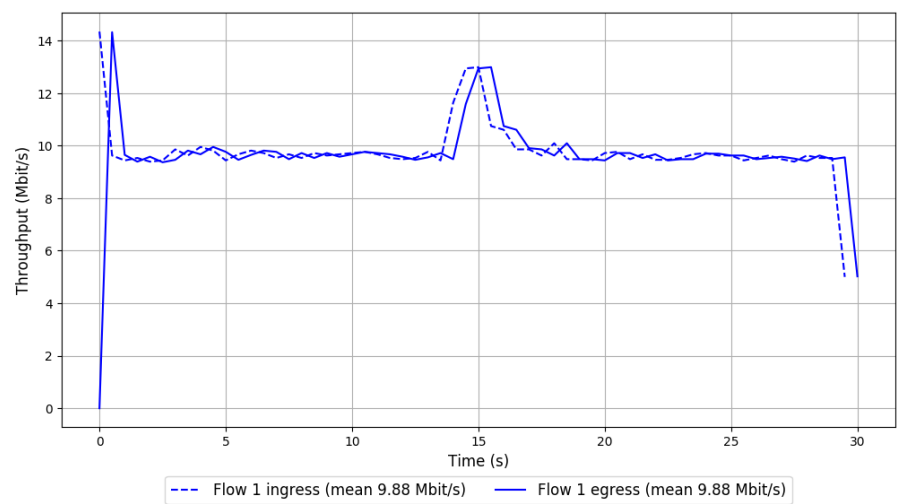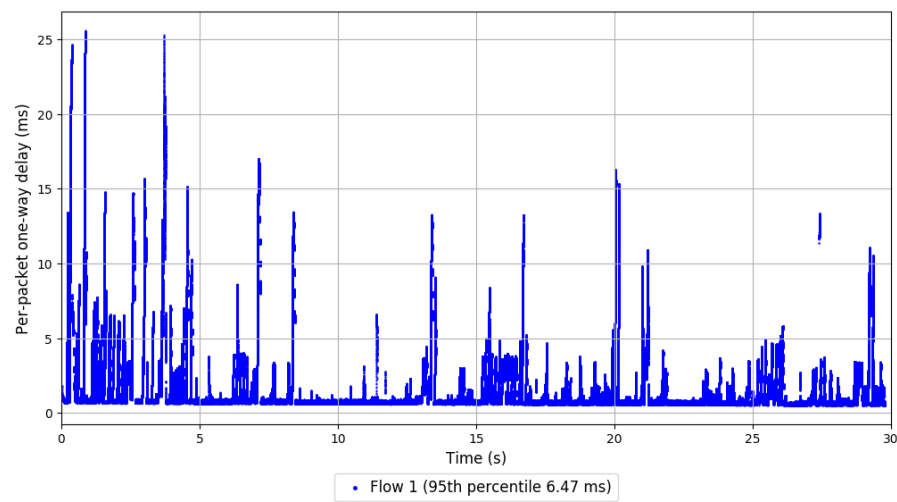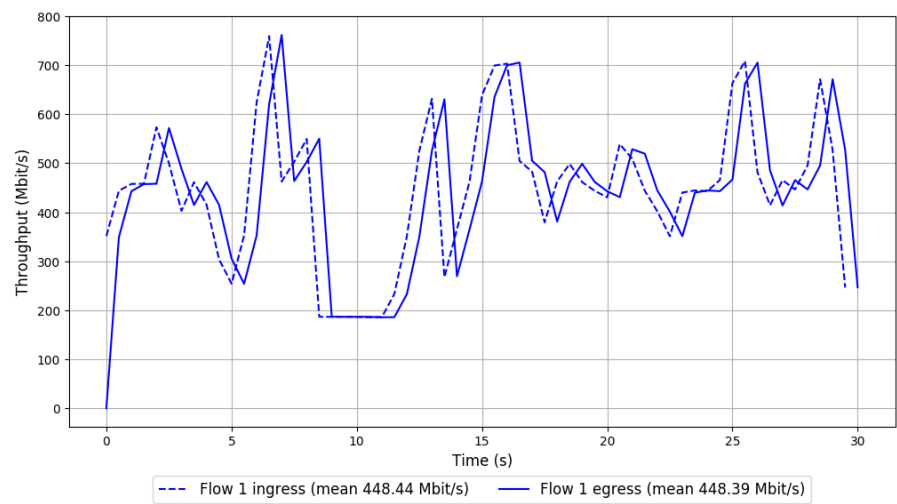
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-12-11 05:17:12
End at: 2019-12-11 05:17:42
Local clock offset: 2.877 ms
Remote clock offset: 0.043 ms


# Below is generated by plot.py at 2019-12-11 06:16:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.88 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.88 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.00%
```

Run 5: Report of Muses_DecisionTree — Data Link

Flow 1 ingress (mean 9.88 Mbit/s) --- Flow 1 egress (mean 9.88 Mbit/s)

Flow 1 (95th percentile 1.39 ms)

```
Run 1: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 02:47:40
End at: 2019-12-11 02:48:10
Local clock offset: 2.213 ms
Remote clock offset: 0.494 ms


# Below is generated by plot.py at 2019-12-11 06:17:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 448.39 Mbit/s
95th percentile per-packet one-way delay: 6.470 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 448.39 Mbit/s
95th percentile per-packet one-way delay: 6.470 ms
Loss rate: 0.01%
```
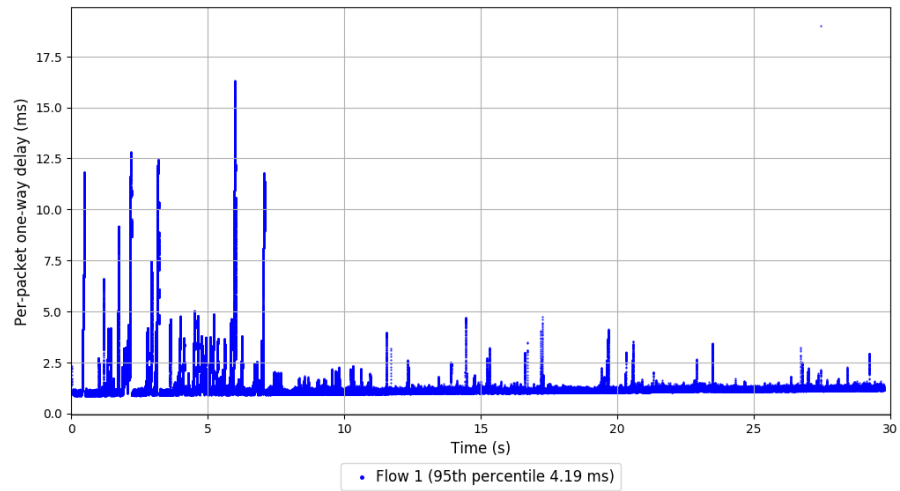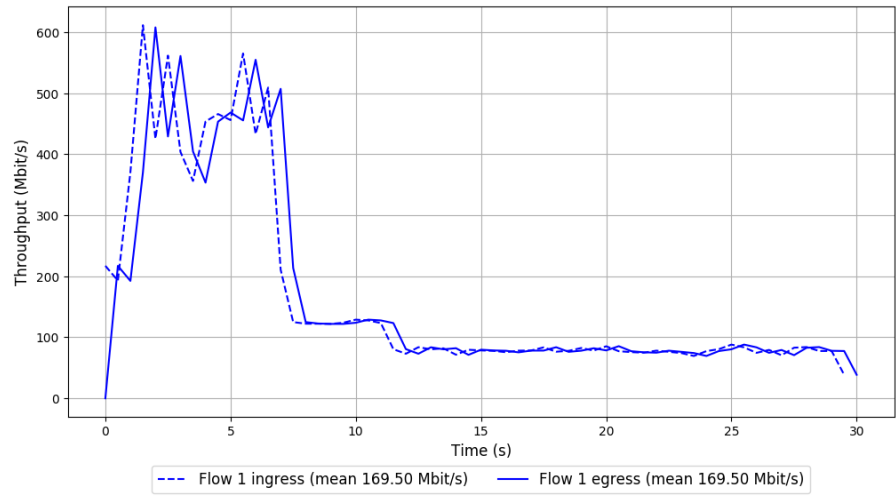
Run 1: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 448.44 Mbit/s) --- Flow 1 egress (mean 448.39 Mbit/s)

Flow 1 (95th percentile 6.47 ms)

```
Run 2: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 03:21:02
End at: 2019-12-11 03:21:32
Local clock offset: 1.961 ms
Remote clock offset: 5.25 ms


# Below is generated by plot.py at 2019-12-11 06:17:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.50 Mbit/s
95th percentile per-packet one-way delay: 4.187 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 169.50 Mbit/s
95th percentile per-packet one-way delay: 4.187 ms
Loss rate: 0.00%
```
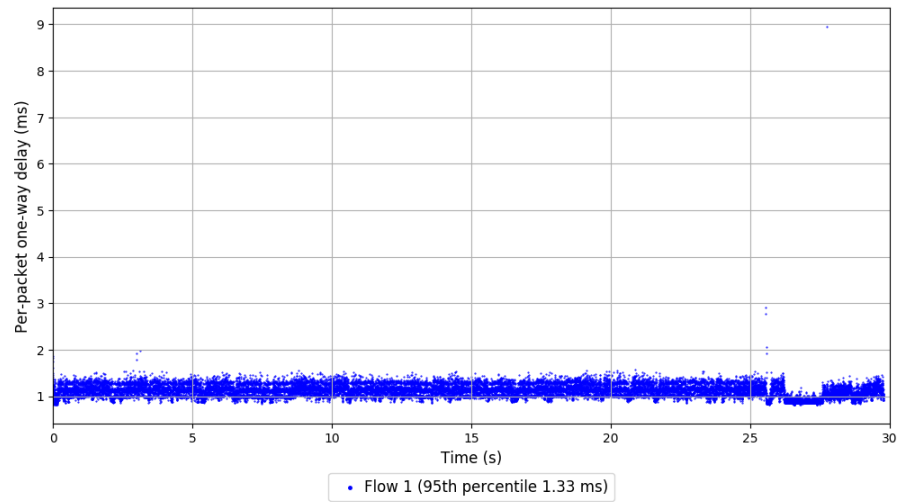
Run 2: Report of Muses_DecisionTreeH0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 03:54:30
End at: 2019-12-11 03:55:00
Local clock offset: 2.388 ms
Remote clock offset: 0.578 ms


# Below is generated by plot.py at 2019-12-11 06:17:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 1.333 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 9.99 Mbit/s
95th percentile per-packet one-way delay: 1.333 ms
Loss rate: 0.00%
```
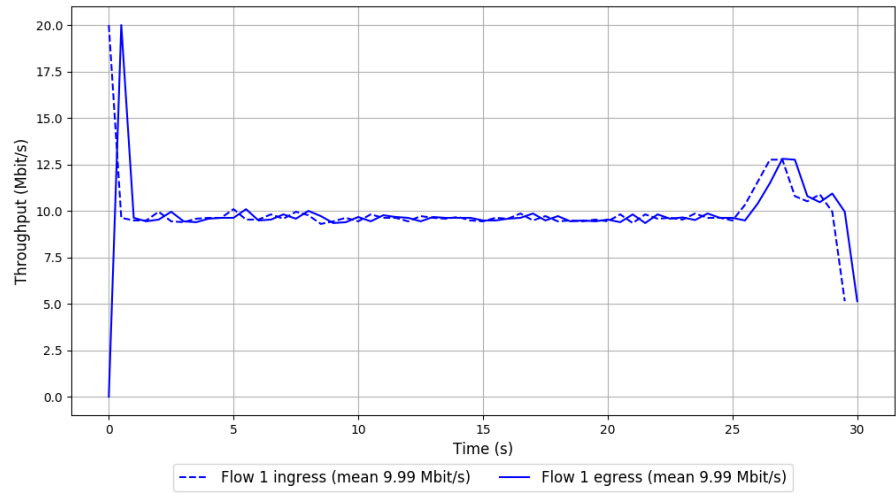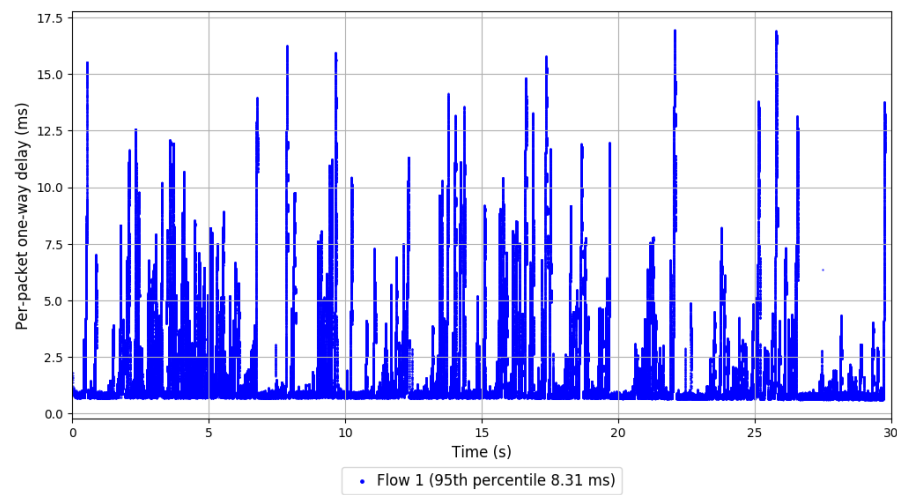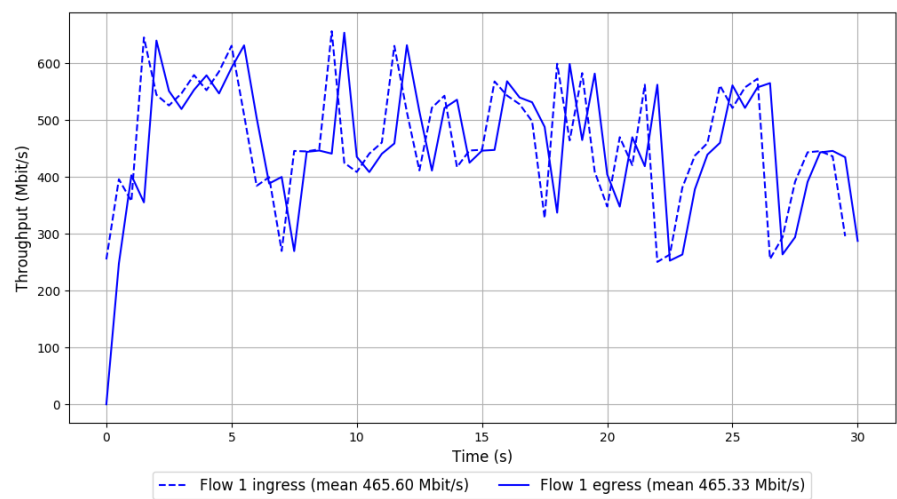
Run 3: Report of Muses_DecisionTreeH0 — Data Link

Flow 1 ingress (mean 9.99 Mbit/s) — Flow 1 egress (mean 9.99 Mbit/s)

• Flow 1 (95th percentile 1.33 ms)

```
Run 4: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 04:27:50
End at: 2019-12-11 04:28:20
Local clock offset: 2.56 ms
Remote clock offset: 0.231 ms


# Below is generated by plot.py at 2019-12-11 06:17:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.33 Mbit/s
95th percentile per-packet one-way delay: 8.312 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 465.33 Mbit/s
95th percentile per-packet one-way delay: 8.312 ms
Loss rate: 0.06%
```
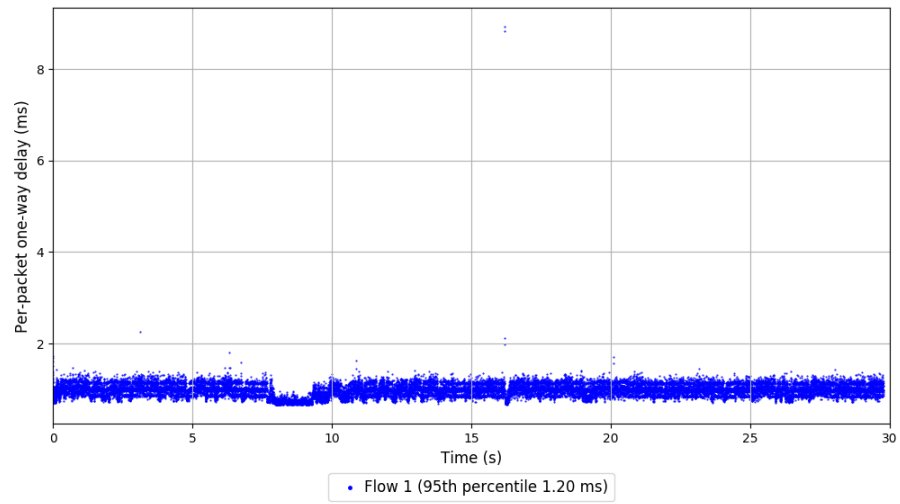
Run 4: Report of Muses_DecisionTreeH0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeH0

Start at: 2019-12-11 05:00:48
End at: 2019-12-11 05:01:18
Local clock offset: 2.989 ms
Remote clock offset: 4.104 ms


# Below is generated by plot.py at 2019-12-11 06:17:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1.198 ms
Loss rate: 0.00%
```
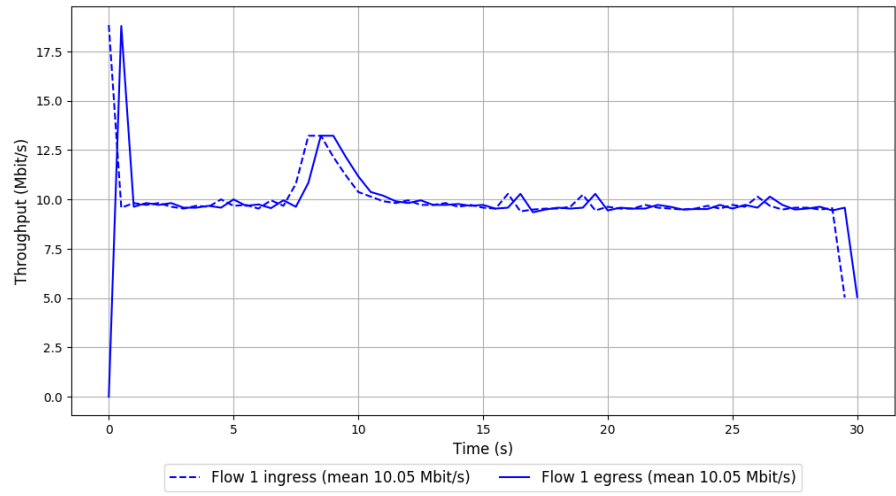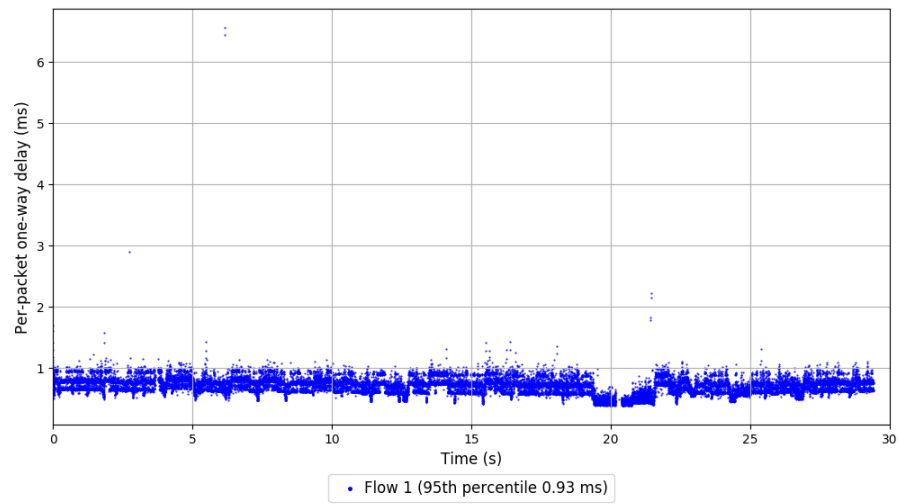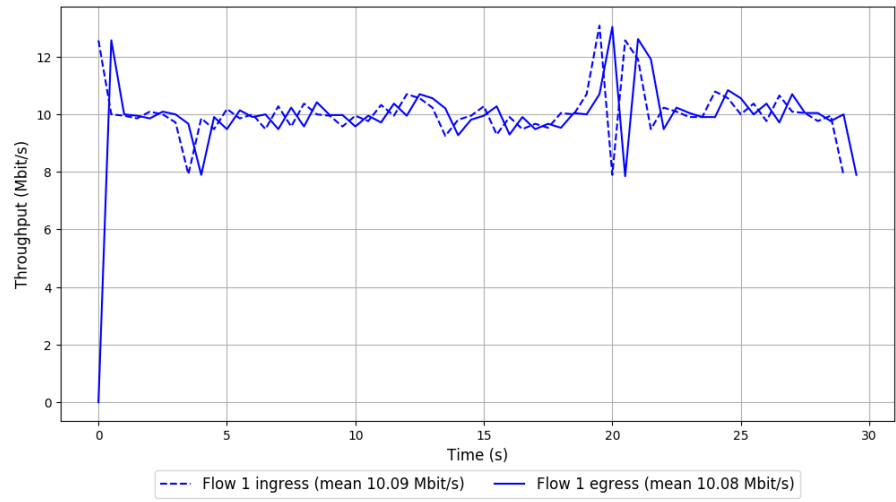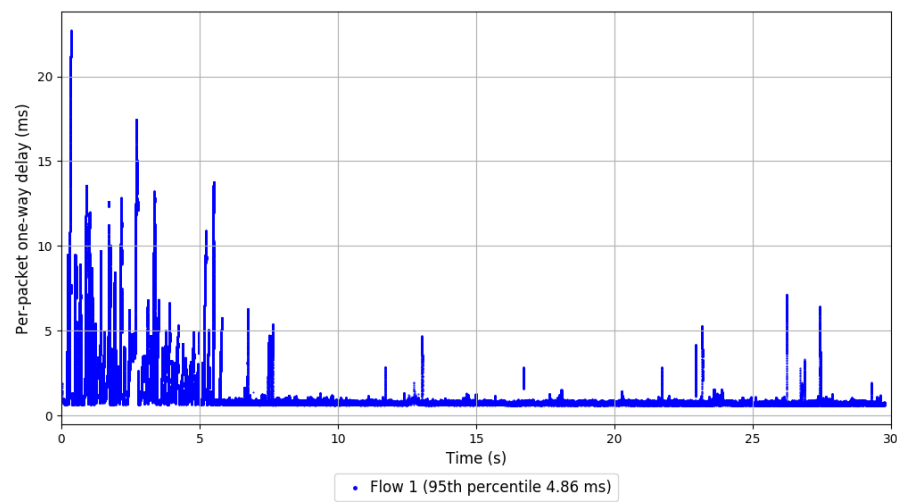
Run 5: Report of Muses_DecisionTreeH0 — Data Link

```
Run 1: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 02:42:06
End at: 2019-12-11 02:42:36
Local clock offset: 2.469 ms
Remote clock offset: -0.315 ms


# Below is generated by plot.py at 2019-12-11 06:17:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 0.931 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 0.931 ms
Loss rate: 0.01%
```
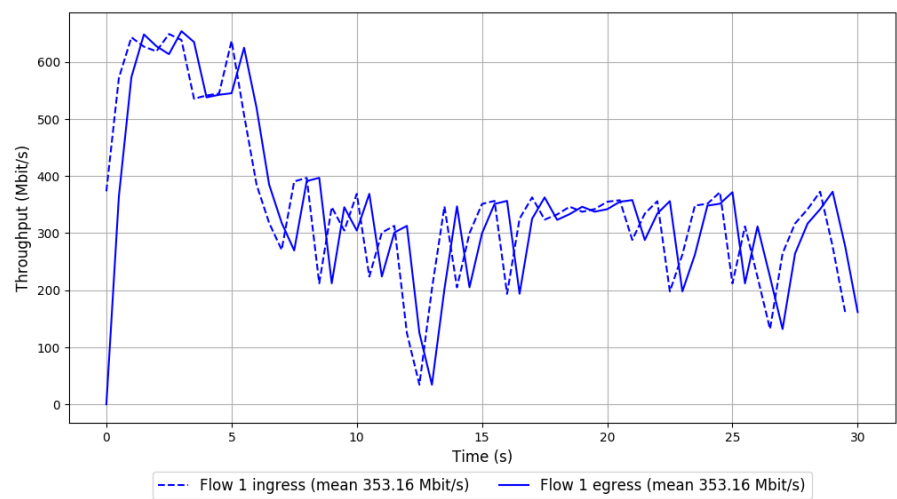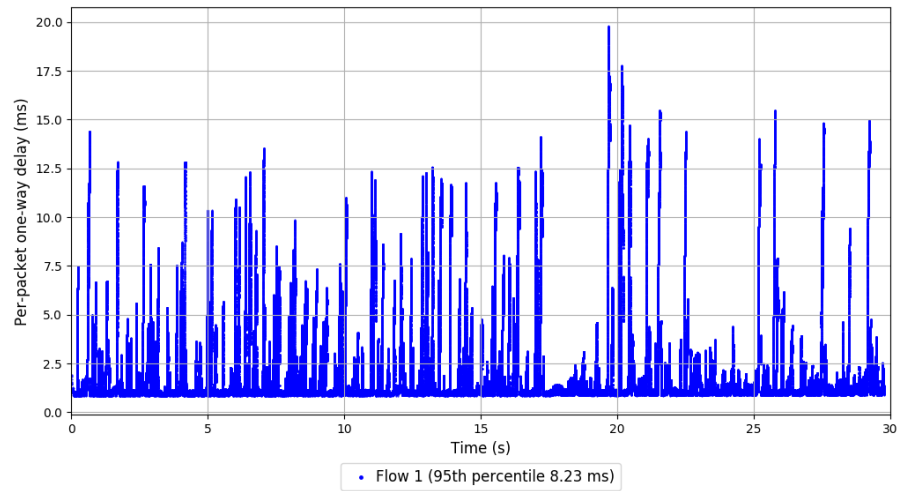
Run 1: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 10.09 Mbit/s)   Flow 1 egress (mean 10.08 Mbit/s)

Flow 1 (95th percentile 0.93 ms)

Run 2: Statistics of Muses_DecisionTreeR0

Start at: 2019-12-11 03:15:23
End at: 2019-12-11 03:15:53
Local clock offset: 1.965 ms
Remote clock offset: 5.344 ms

Below is generated by plot.py at 2019-12-11 06:17:50
Datalink statistics
-- Total of 1 flow:
Average throughput: 353.16 Mbit/s
95th percentile per-packet one-way delay: 4.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 353.16 Mbit/s
95th percentile per-packet one-way delay: 4.864 ms
Loss rate: 0.00%

Run 2: Report of Muses_DecisionTreeR0 — Data Link

```
Run 3: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 03:48:48
End at: 2019-12-11 03:49:18
Local clock offset: 2.268 ms
Remote clock offset: 0.654 ms


# Below is generated by plot.py at 2019-12-11 06:20:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 574.72 Mbit/s
95th percentile per-packet one-way delay: 8.231 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 574.72 Mbit/s
95th percentile per-packet one-way delay: 8.231 ms
Loss rate: 0.04%
```
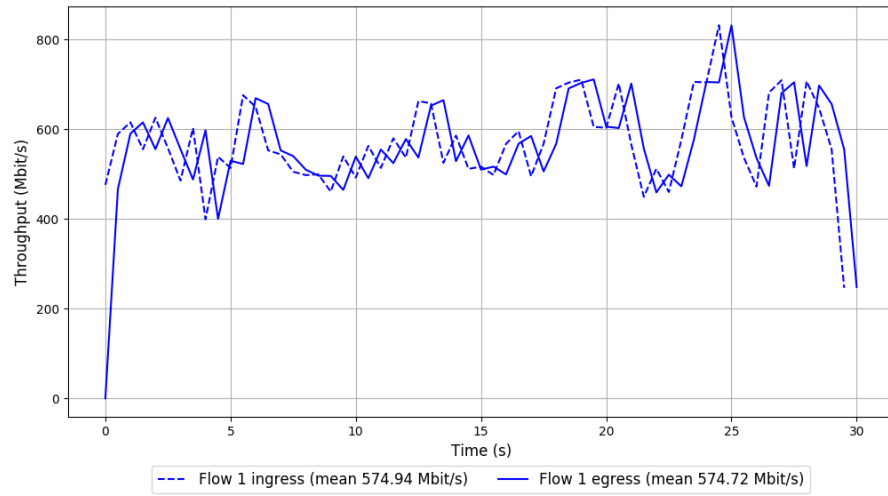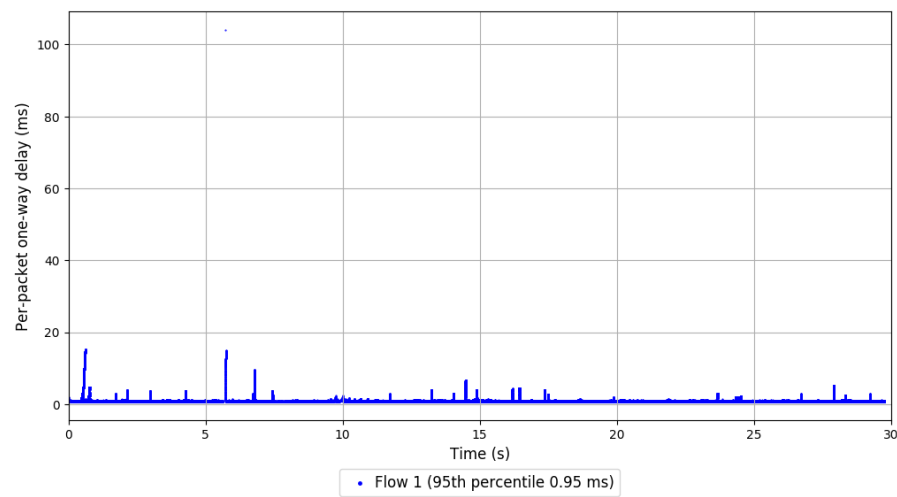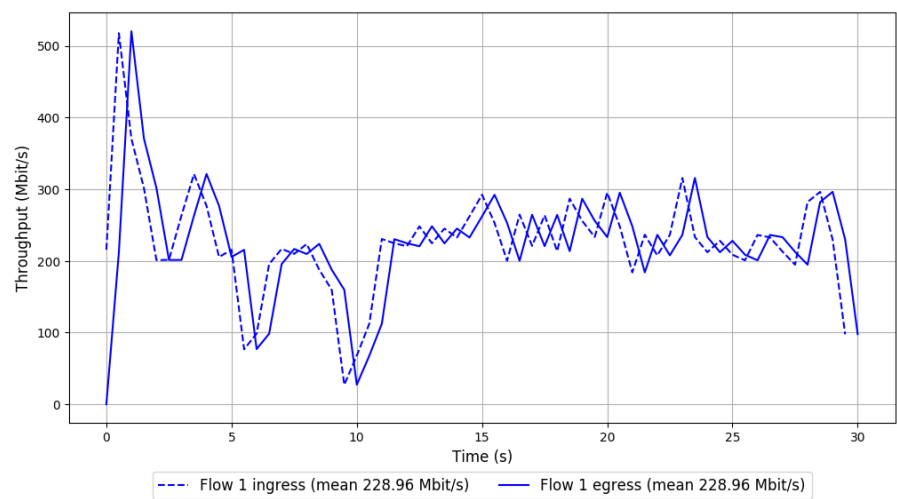
Run 3: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 574.94 Mbit/s)   Flow 1 egress (mean 574.72 Mbit/s)

Flow 1 (95th percentile 8.23 ms)

```
Run 4: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 04:22:07
End at: 2019-12-11 04:22:37
Local clock offset: 2.591 ms
Remote clock offset: 0.228 ms


# Below is generated by plot.py at 2019-12-11 06:20:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.96 Mbit/s
95th percentile per-packet one-way delay: 0.955 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.96 Mbit/s
95th percentile per-packet one-way delay: 0.955 ms
Loss rate: 0.00%
```
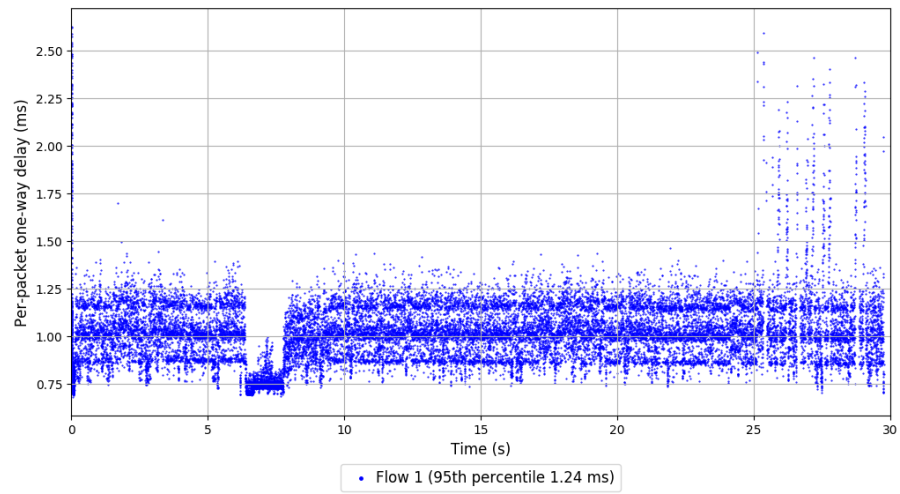
Run 4: Report of Muses_DecisionTreeR0 — Data Link

```
Run 5: Statistics of Muses\_DecisionTreeR0

Start at: 2019-12-11 04:55:20
End at: 2019-12-11 04:55:50
Local clock offset: 2.988 ms
Remote clock offset: 3.862 ms


# Below is generated by plot.py at 2019-12-11 06:20:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.95 Mbit/s
95th percentile per-packet one-way delay: 1.239 ms
Loss rate: 0.01%
```
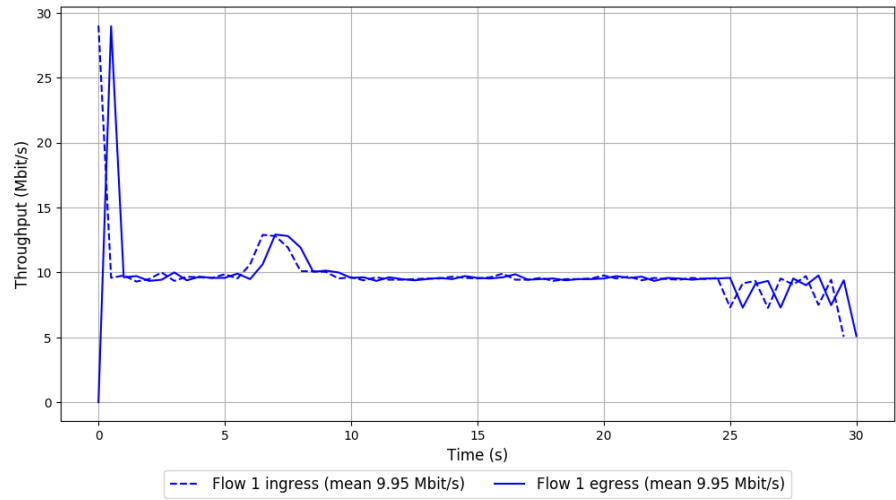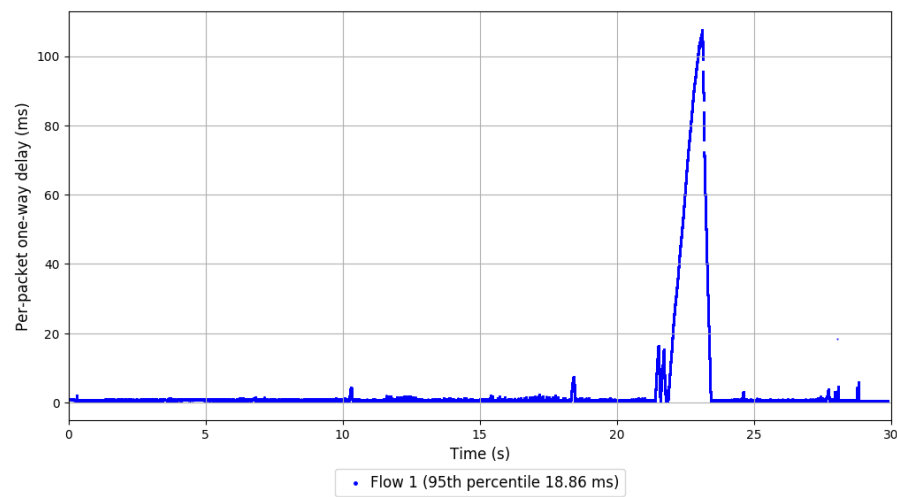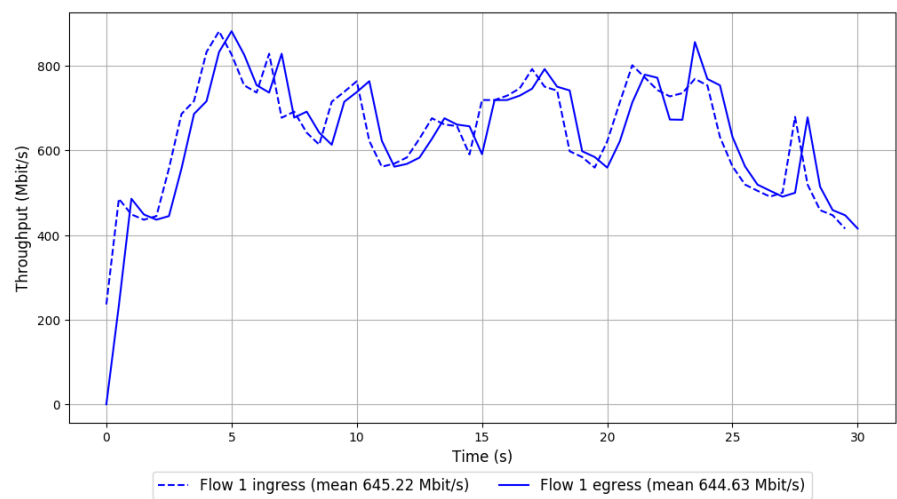
Run 5: Report of Muses_DecisionTreeR0 — Data Link

Flow 1 ingress (mean 9.95 Mbit/s)   Flow 1 egress (mean 9.95 Mbit/s)

Flow 1 (95th percentile 1.24 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-12-11 02:46:12
End at: 2019-12-11 02:46:42
Local clock offset: 2.282 ms
Remote clock offset: -0.138 ms


# Below is generated by plot.py at 2019-12-11 06:22:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 644.63 Mbit/s
95th percentile per-packet one-way delay: 18.858 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 644.63 Mbit/s
95th percentile per-packet one-way delay: 18.858 ms
Loss rate: 0.10%
```
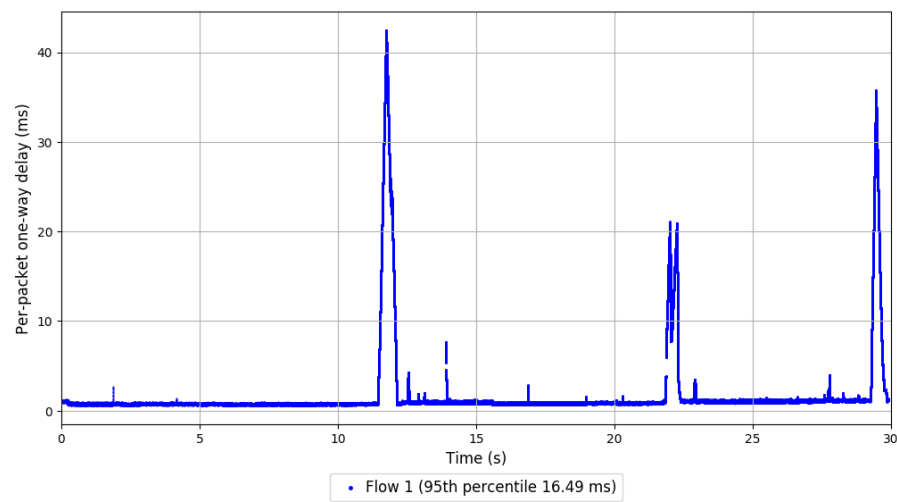
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-12-11 03:19:38
End at: 2019-12-11 03:20:08
Local clock offset: 1.989 ms
Remote clock offset: 5.758 ms


# Below is generated by plot.py at 2019-12-11 06:22:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 491.98 Mbit/s
95th percentile per-packet one-way delay: 16.491 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 491.98 Mbit/s
95th percentile per-packet one-way delay: 16.491 ms
Loss rate: 0.02%
```
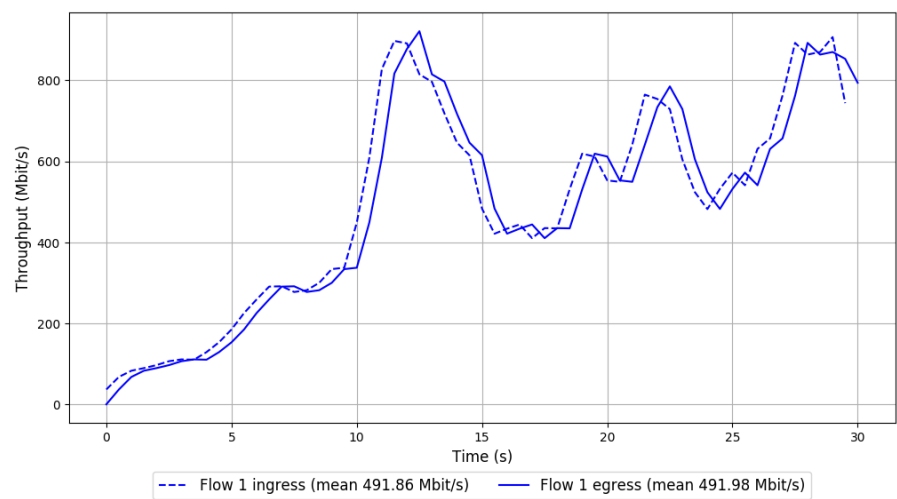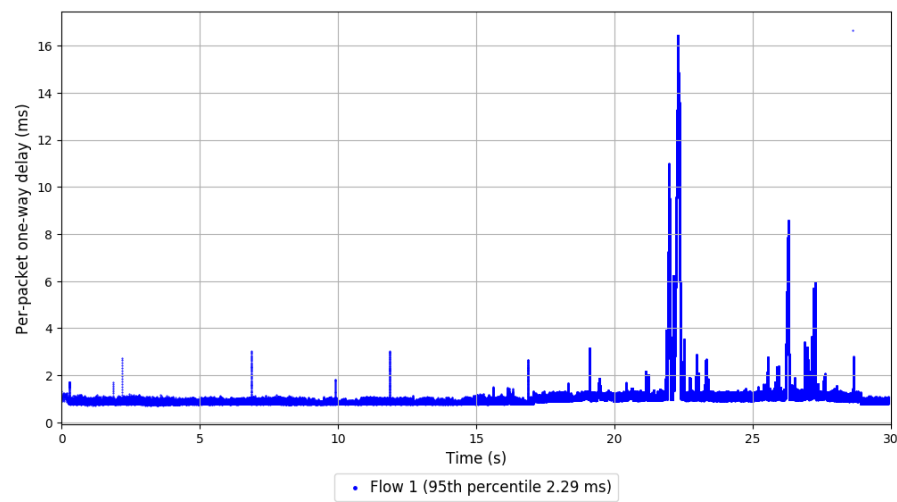
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-12-11 03:53:08
End at: 2019-12-11 03:53:38
Local clock offset: 2.395 ms
Remote clock offset: 0.582 ms


# Below is generated by plot.py at 2019-12-11 06:22:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 398.66 Mbit/s
95th percentile per-packet one-way delay: 2.288 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 398.66 Mbit/s
95th percentile per-packet one-way delay: 2.288 ms
Loss rate: 0.02%
```
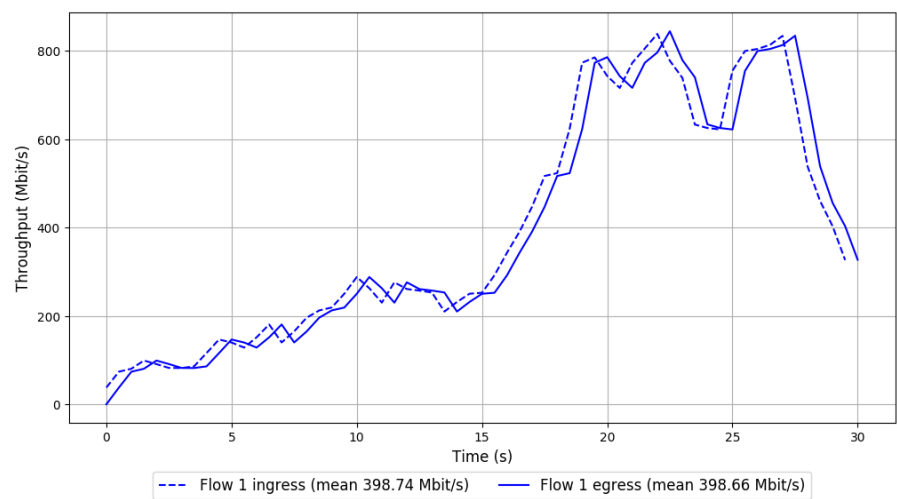
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-12-11 04:26:17
End at: 2019-12-11 04:26:47
Local clock offset: 2.56 ms
Remote clock offset: 0.262 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 900.87 Mbit/s
95th percentile per-packet one-way delay: 73.656 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 900.87 Mbit/s
95th percentile per-packet one-way delay: 73.656 ms
Loss rate: 1.20%
```
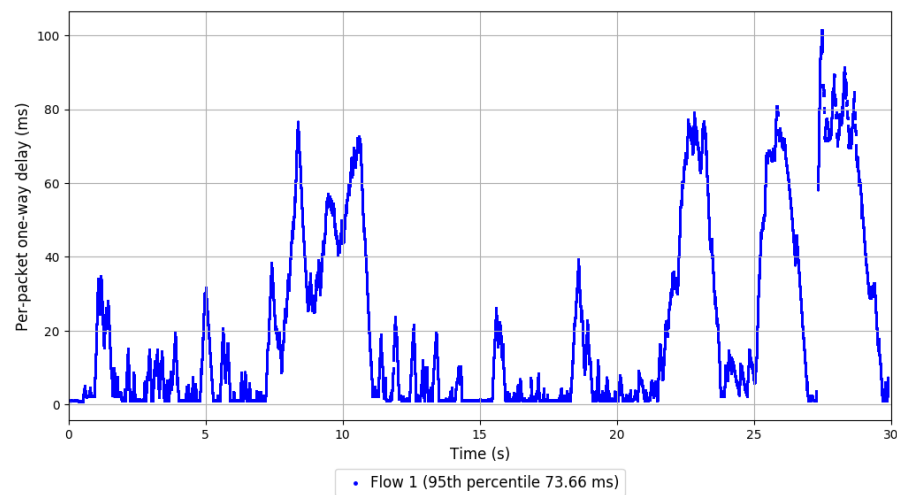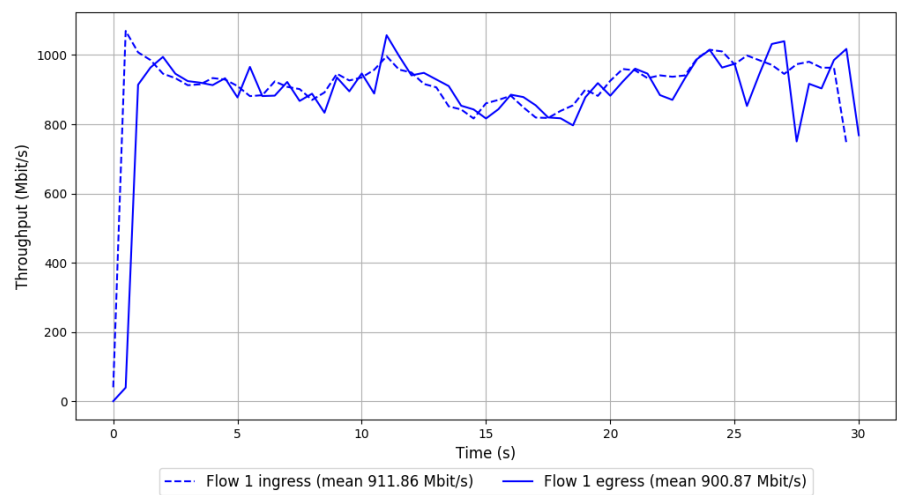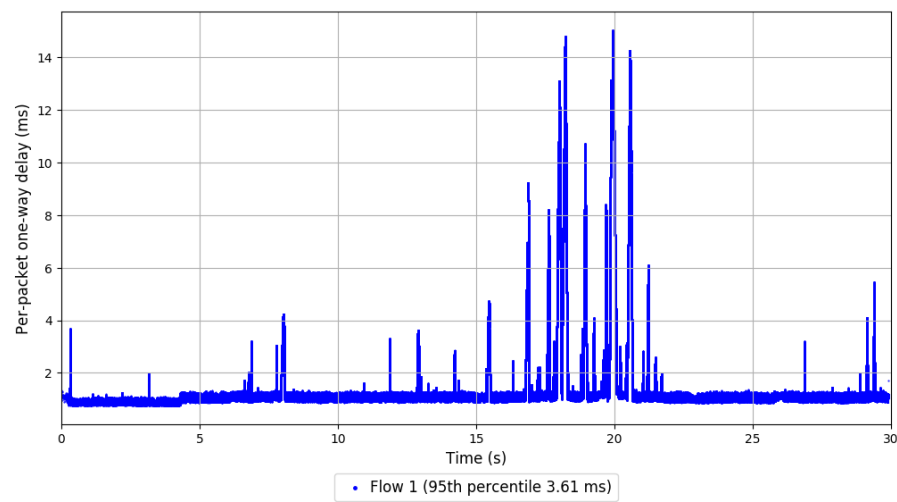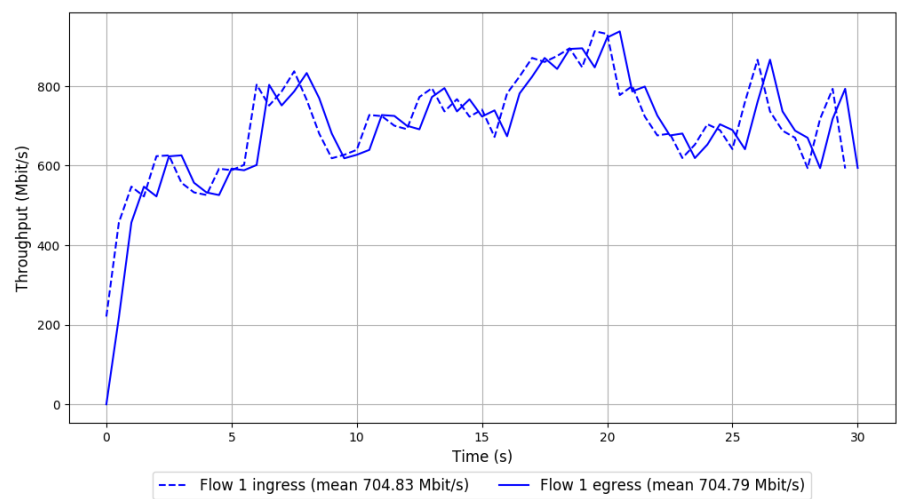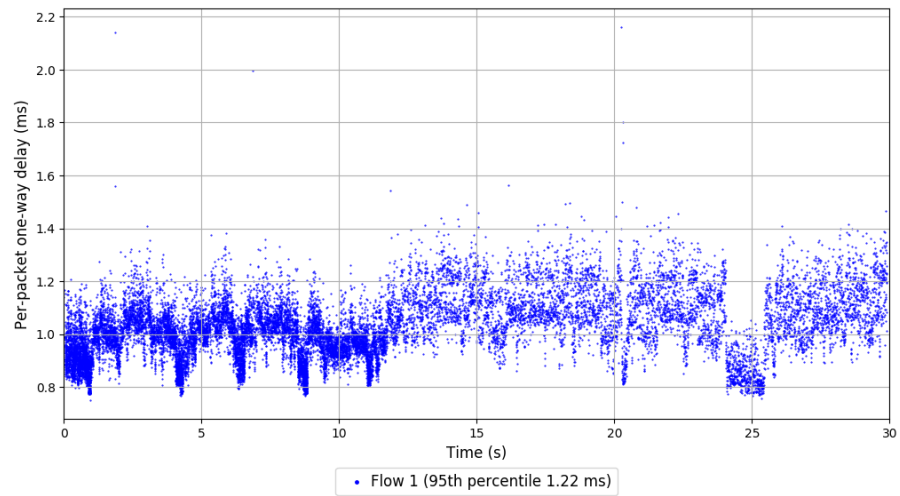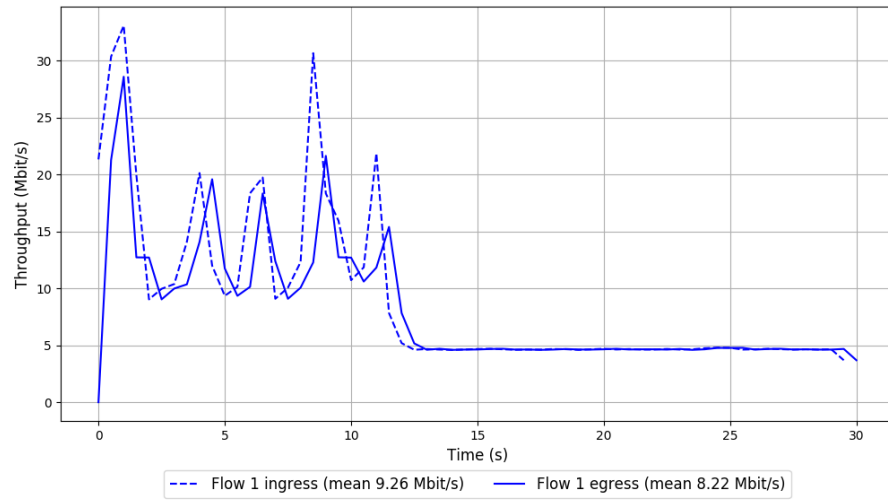
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 911.86 Mbit/s)   Flow 1 egress (mean 900.87 Mbit/s)

Flow 1 (95th percentile 73.66 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-12-11 04:59:20
End at: 2019-12-11 04:59:50
Local clock offset: 2.986 ms
Remote clock offset: 4.125 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 704.79 Mbit/s
95th percentile per-packet one-way delay: 3.607 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 704.79 Mbit/s
95th percentile per-packet one-way delay: 3.607 ms
Loss rate: 0.00%
```

Run 5: Report of PCC-Allegro — Data Link

```
Run 1: Statistics of PCC-Expr

Start at: 2019-12-11 03:11:32
End at: 2019-12-11 03:12:02
Local clock offset: 1.729 ms
Remote clock offset: 5.048 ms

# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 1.224 ms
Loss rate: 11.22%
-- Flow 1:
Average throughput: 8.22 Mbit/s
95th percentile per-packet one-way delay: 1.224 ms
Loss rate: 11.22%
```
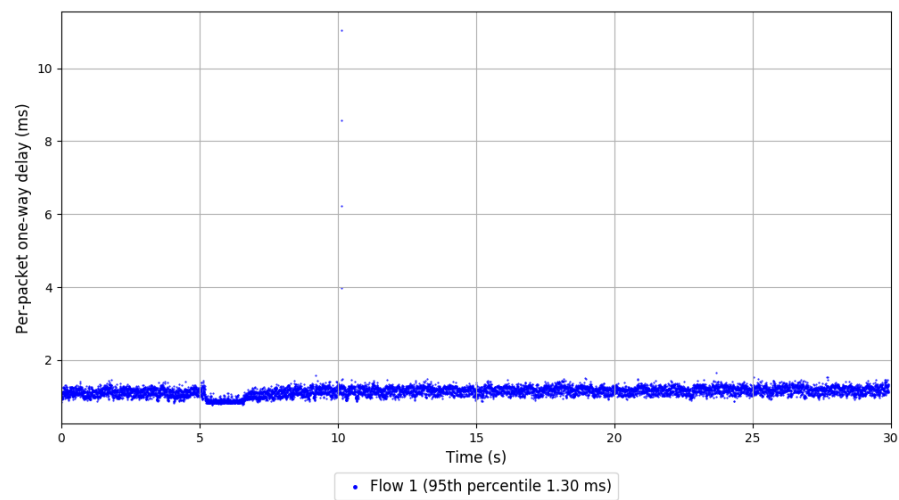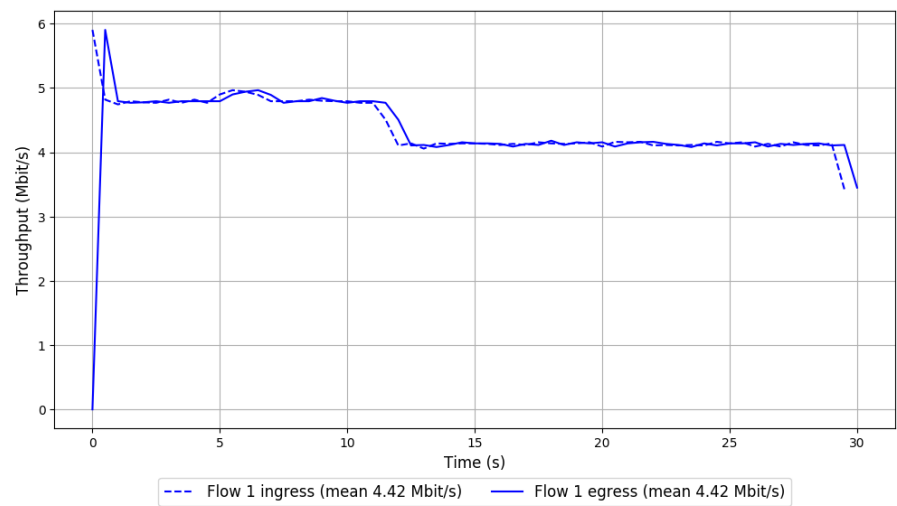
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-12-11 03:44:51
End at: 2019-12-11 03:45:21
Local clock offset: 2.009 ms
Remote clock offset: 0.661 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.42 Mbit/s
95th percentile per-packet one-way delay: 1.304 ms
Loss rate: 0.00%
```
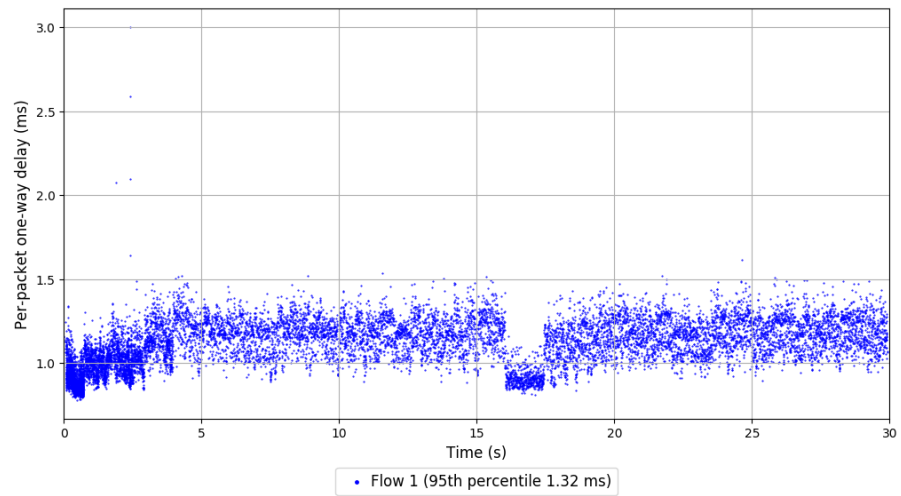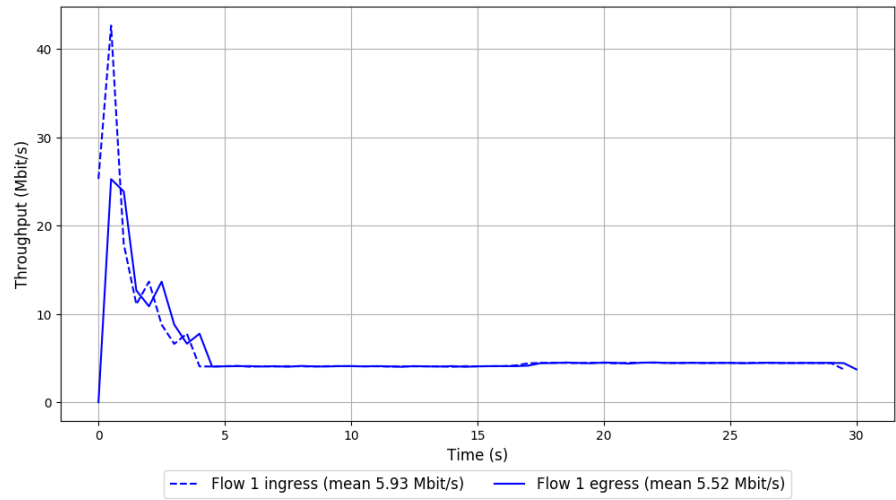
Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-12-11 04:18:10
End at: 2019-12-11 04:18:40
Local clock offset: 2.567 ms
Remote clock offset: 0.332 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 6.85%
-- Flow 1:
Average throughput: 5.52 Mbit/s
95th percentile per-packet one-way delay: 1.316 ms
Loss rate: 6.85%
```

Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2019-12-11 04:51:22
End at: 2019-12-11 04:51:52
Local clock offset: 2.95 ms
Remote clock offset: 3.673 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 50.18%
-- Flow 1:
Average throughput: 13.10 Mbit/s
95th percentile per-packet one-way delay: 1.061 ms
Loss rate: 50.18%
```
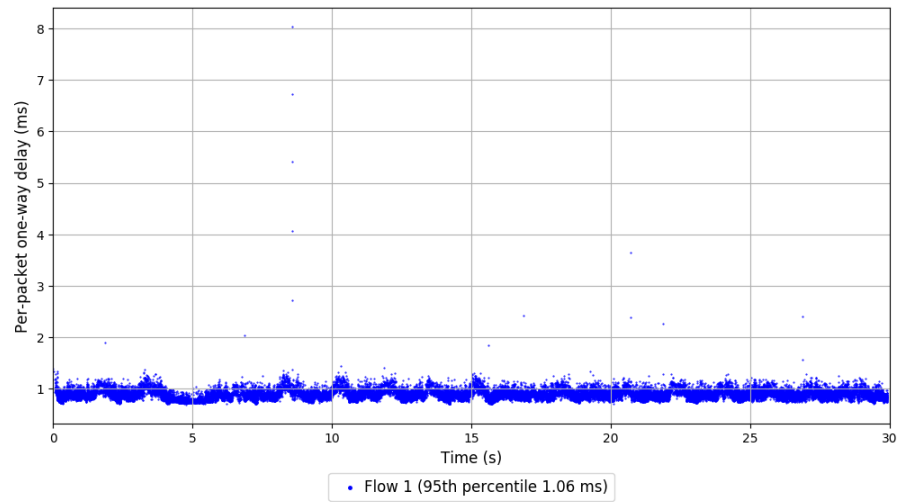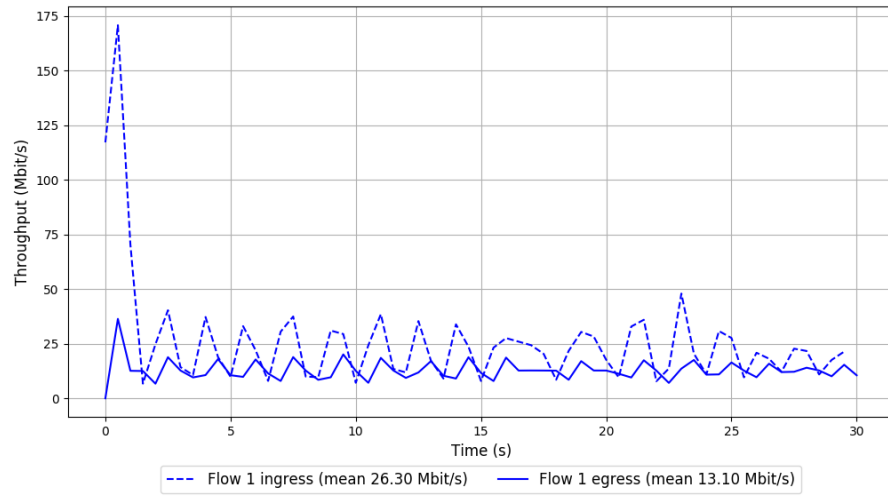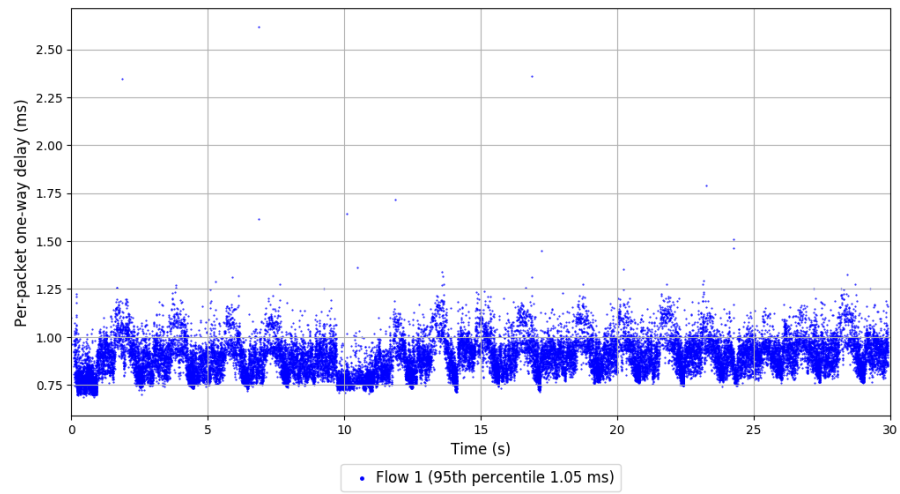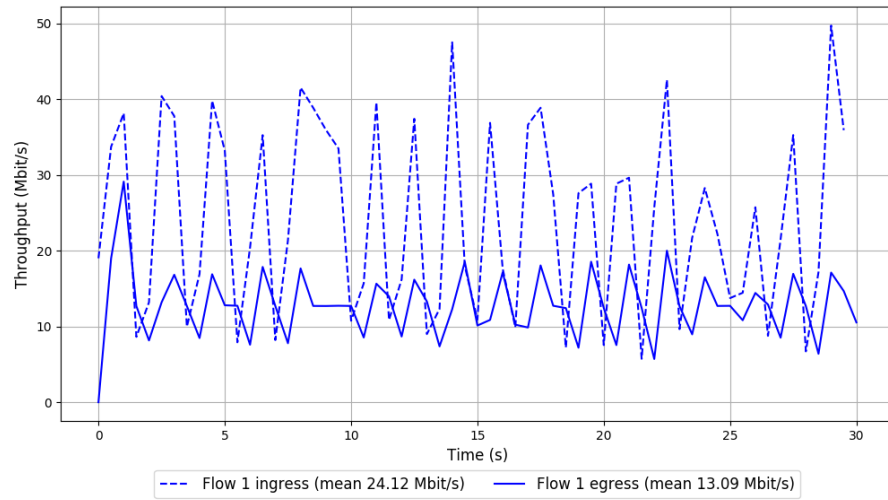
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-12-11 05:23:46
End at: 2019-12-11 05:24:16
Local clock offset: 2.801 ms
Remote clock offset: -0.857 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 45.72%
-- Flow 1:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 1.055 ms
Loss rate: 45.72%
```
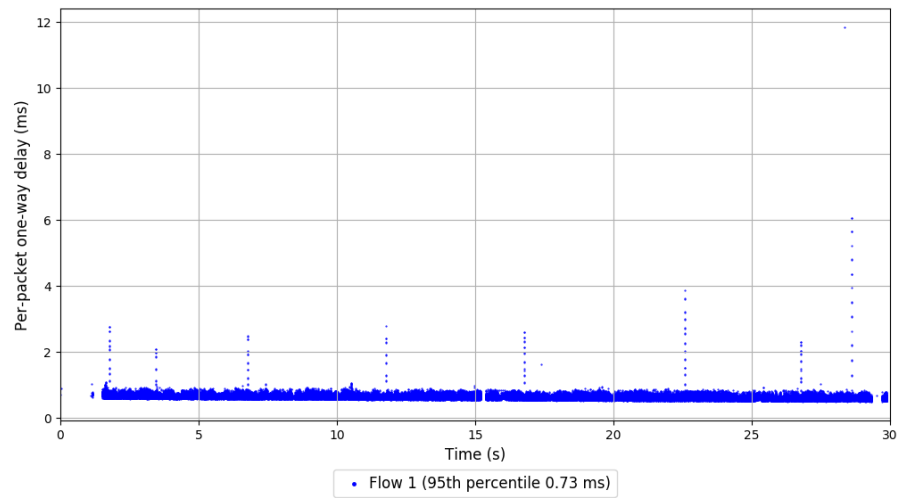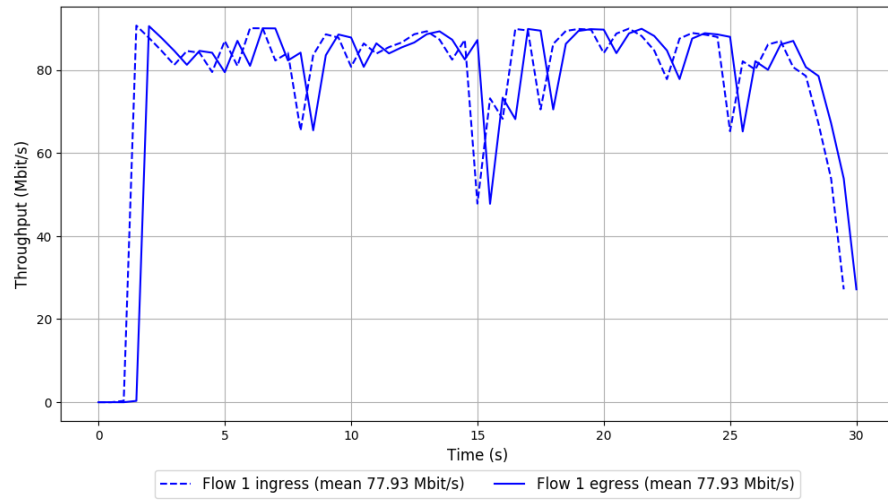
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 24.12 Mbit/s) --- Flow 1 egress (mean 13.09 Mbit/s)

Flow 1 (95th percentile 1.05 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-12-11 03:06:04
End at: 2019-12-11 03:06:34
Local clock offset: 1.625 ms
Remote clock offset: 4.385 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 0.731 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 77.93 Mbit/s
95th percentile per-packet one-way delay: 0.731 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-12-11 03:39:19
End at: 2019-12-11 03:39:49
Local clock offset: 1.175 ms
Remote clock offset: 0.93 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.03 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.03 Mbit/s
95th percentile per-packet one-way delay: 1.137 ms
Loss rate: 0.00%
```
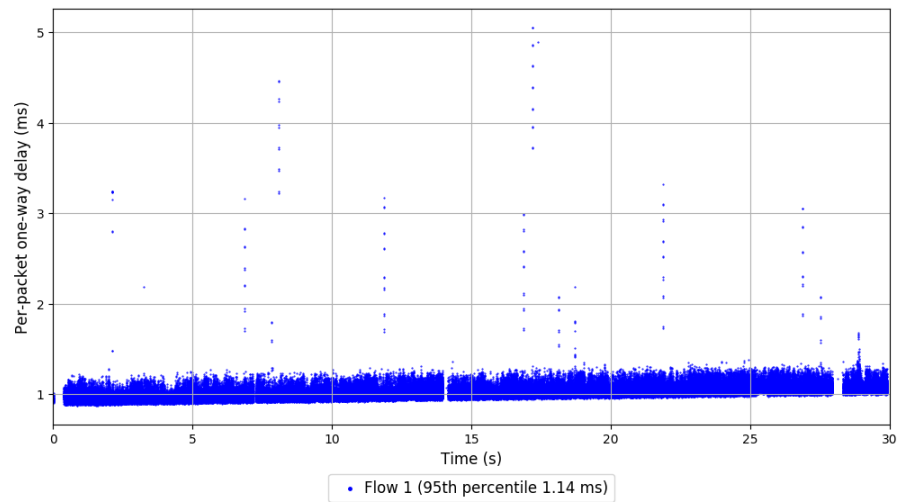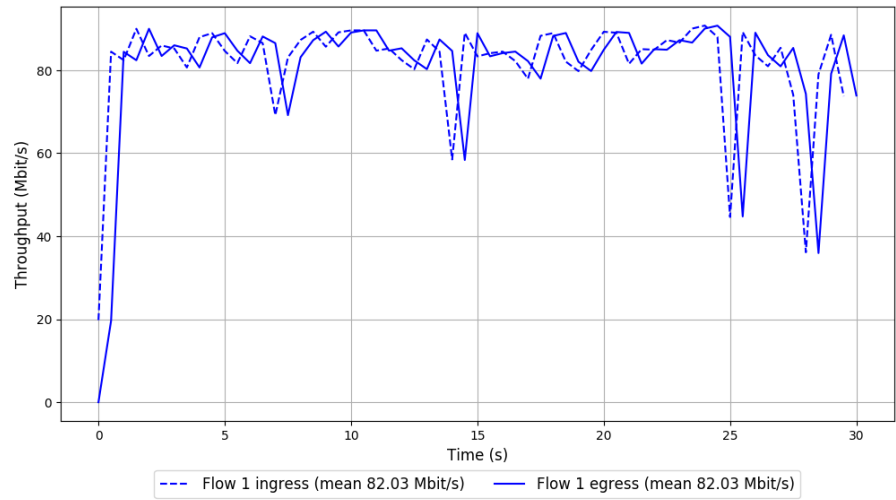
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-12-11 04:12:34
End at: 2019-12-11 04:13:04
Local clock offset: 2.415 ms
Remote clock offset: 0.34 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.28 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 80.28 Mbit/s
95th percentile per-packet one-way delay: 0.943 ms
Loss rate: 0.00%
```
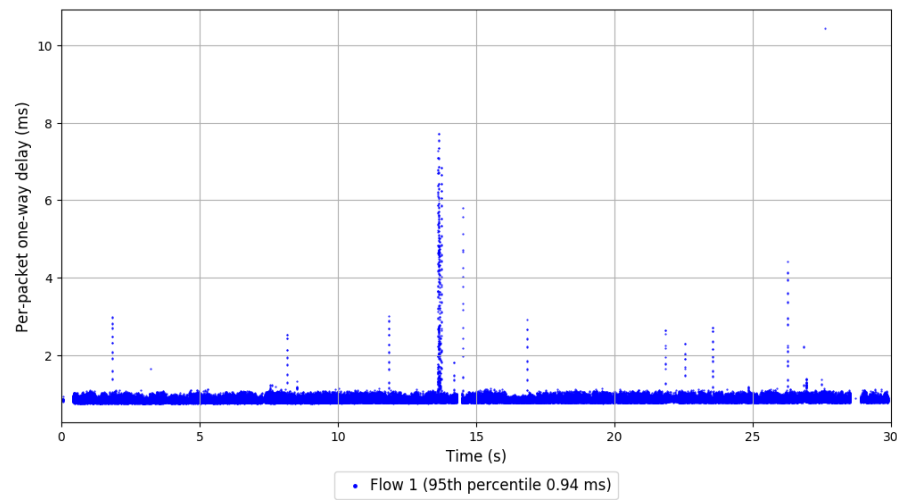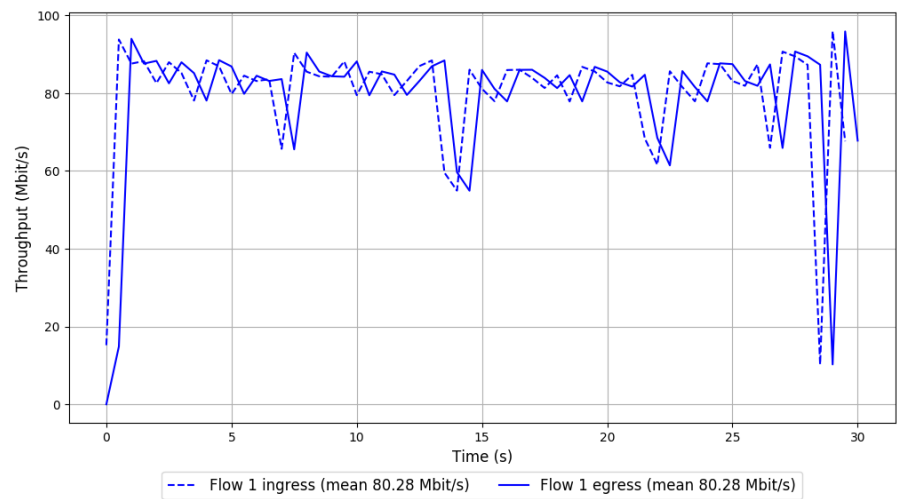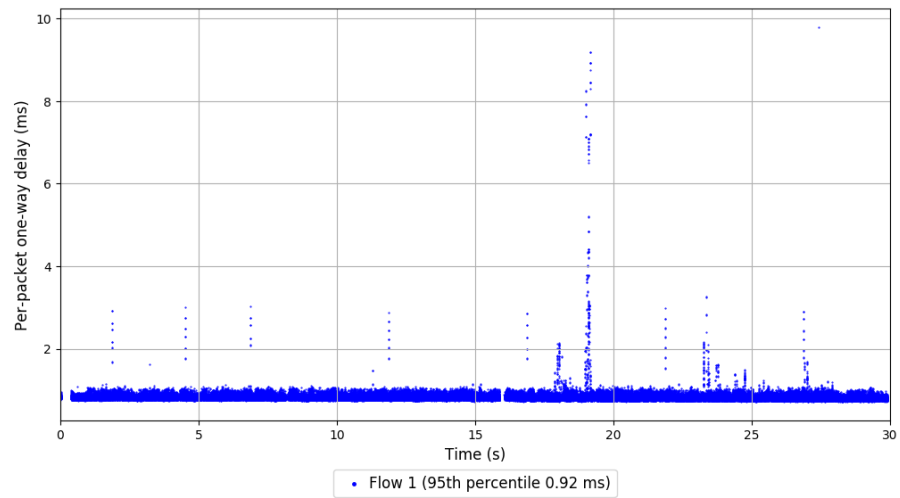
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 80.28 Mbit/s)   Flow 1 egress (mean 80.28 Mbit/s)

Flow 1 (95th percentile 0.94 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-12-11 04:46:03
End at: 2019-12-11 04:46:34
Local clock offset: 2.816 ms
Remote clock offset: 3.382 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.42 Mbit/s
95th percentile per-packet one-way delay: 0.917 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.42 Mbit/s
95th percentile per-packet one-way delay: 0.917 ms
Loss rate: 0.00%
```
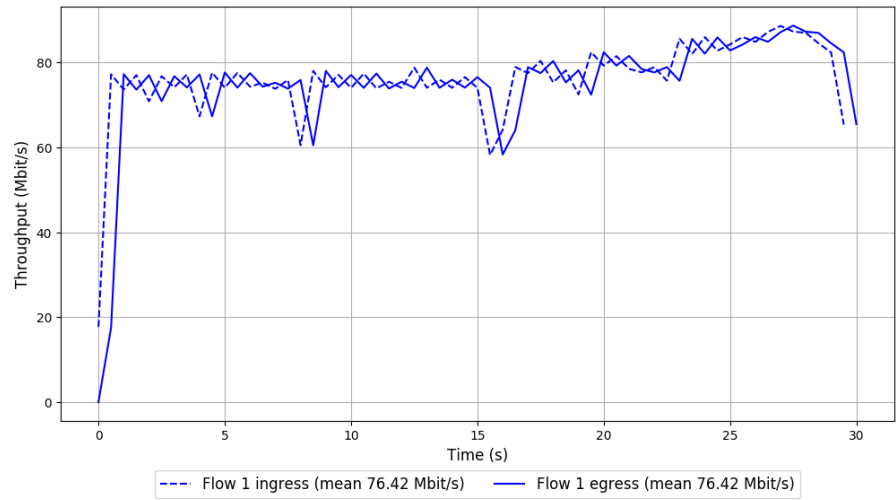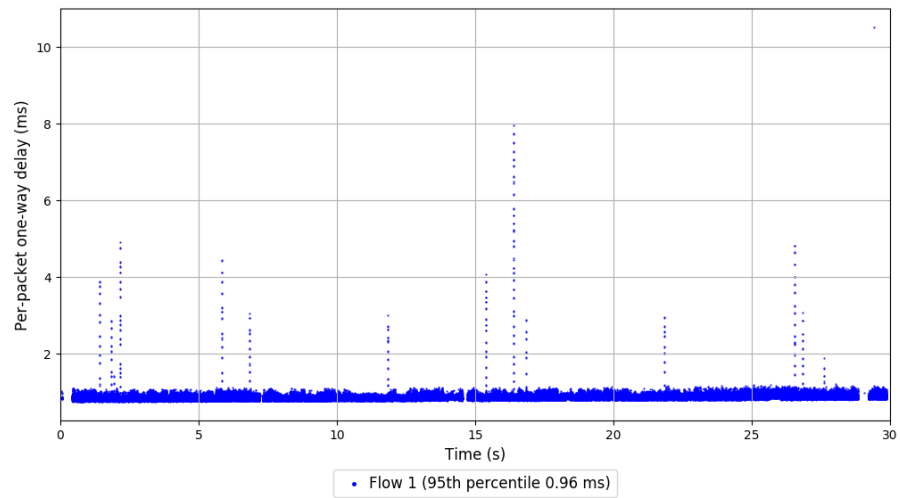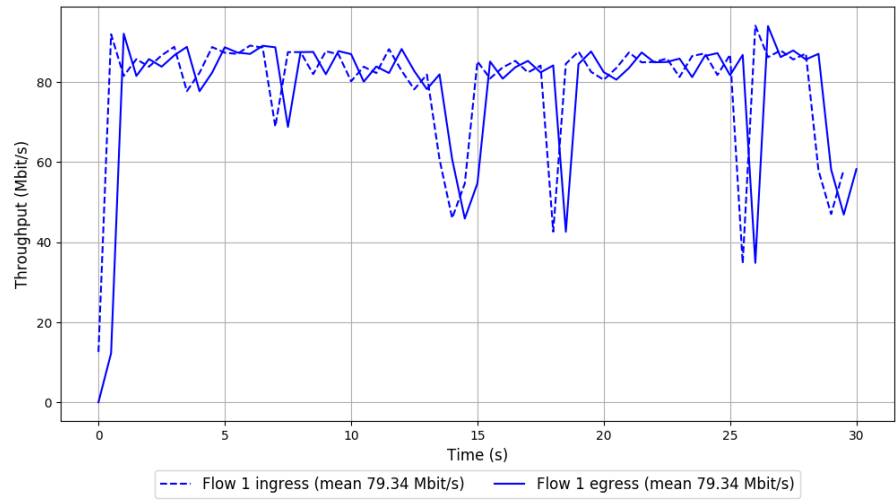
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.42 Mbit/s) --- Flow 1 egress (mean 76.42 Mbit/s)

• Flow 1 (95th percentile 0.92 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-12-11 05:18:25
End at: 2019-12-11 05:18:55
Local clock offset: 2.88 ms
Remote clock offset: -0.162 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.34 Mbit/s
95th percentile per-packet one-way delay: 0.964 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 79.34 Mbit/s
95th percentile per-packet one-way delay: 0.964 ms
Loss rate: 0.00%
```
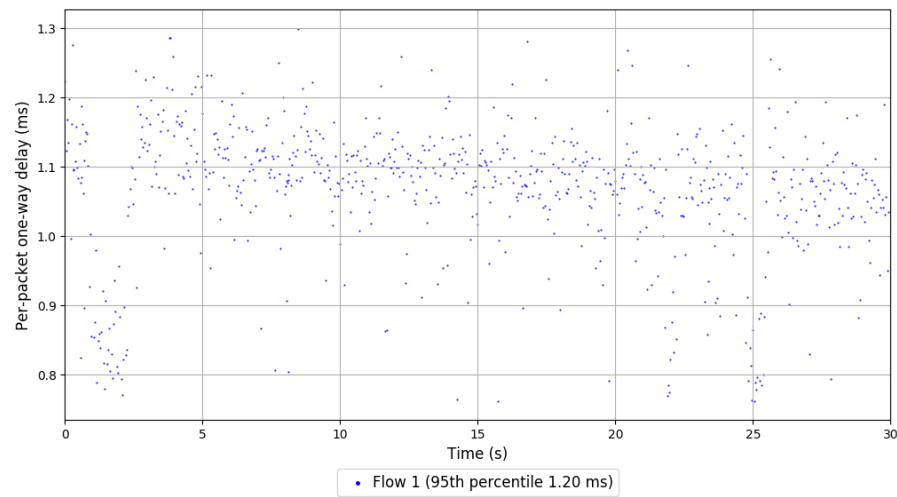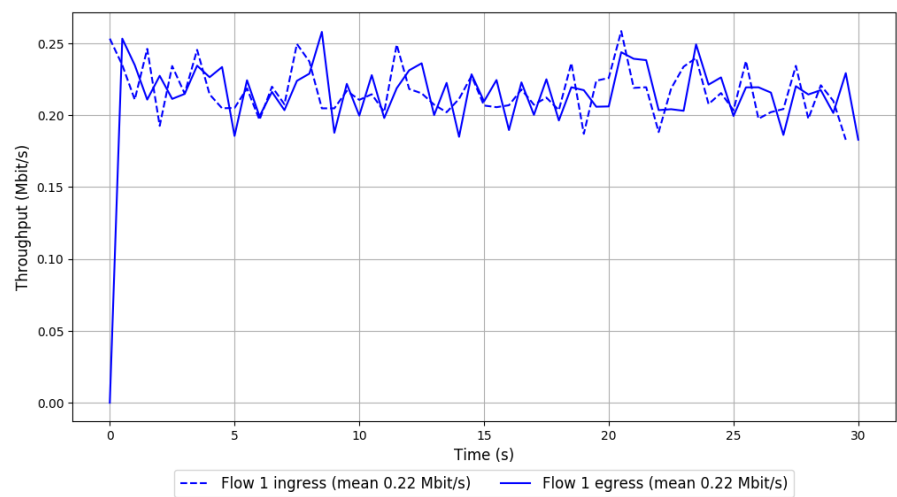
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 79.34 Mbit/s) —— Flow 1 egress (mean 79.34 Mbit/s)

• Flow 1 (95th percentile 0.96 ms)

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```
Run 1: Statistics of SCReAM

Start at: 2019-12-11 02:58:55
End at: 2019-12-11 02:59:25
Local clock offset: 1.896 ms
Remote clock offset: 3.473 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.195 ms
Loss rate: 0.00%
```
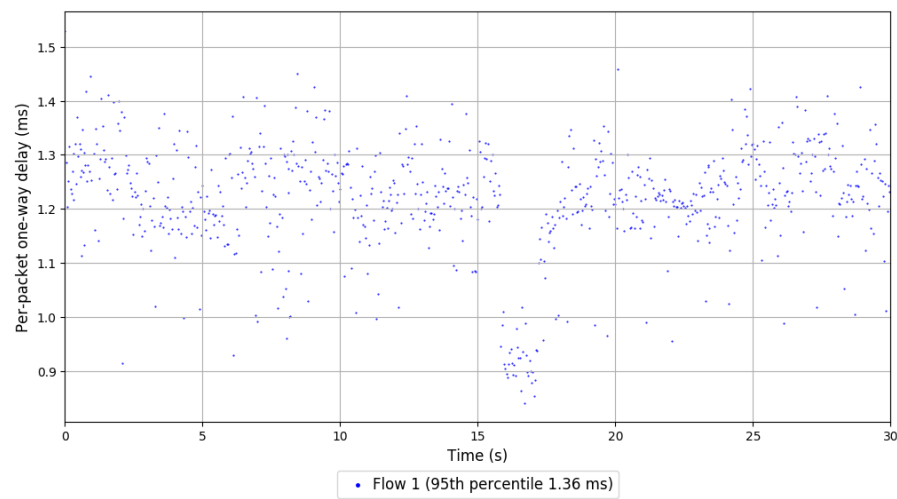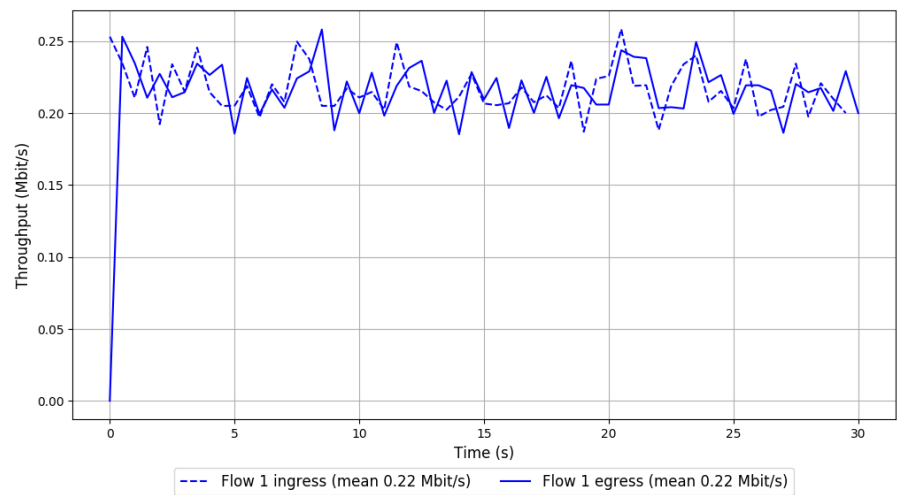
Run 1: Report of SCReAM — Data Link

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

• Flow 1 (95th percentile 1.20 ms)

```
Run 2: Statistics of SCReAM

Start at: 2019-12-11 03:32:11
End at: 2019-12-11 03:32:41
Local clock offset: 1.493 ms
Remote clock offset: 1.771 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.359 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.359 ms
Loss rate: 0.00%
```
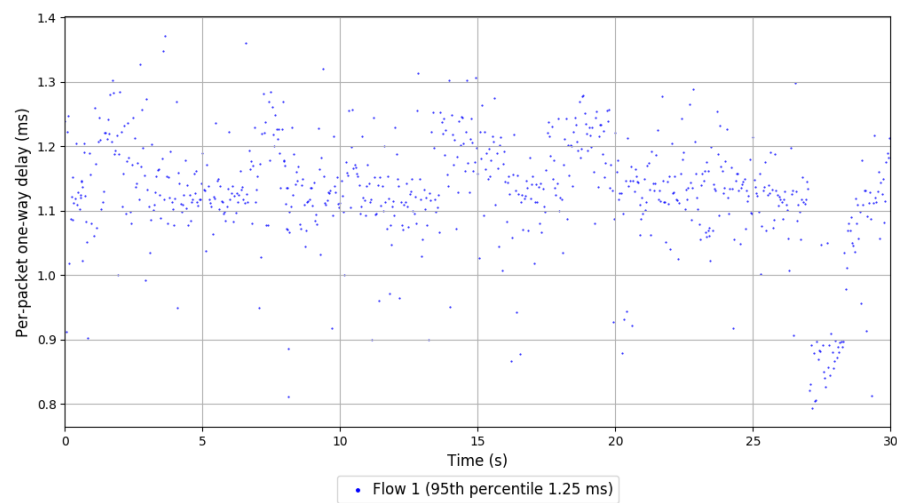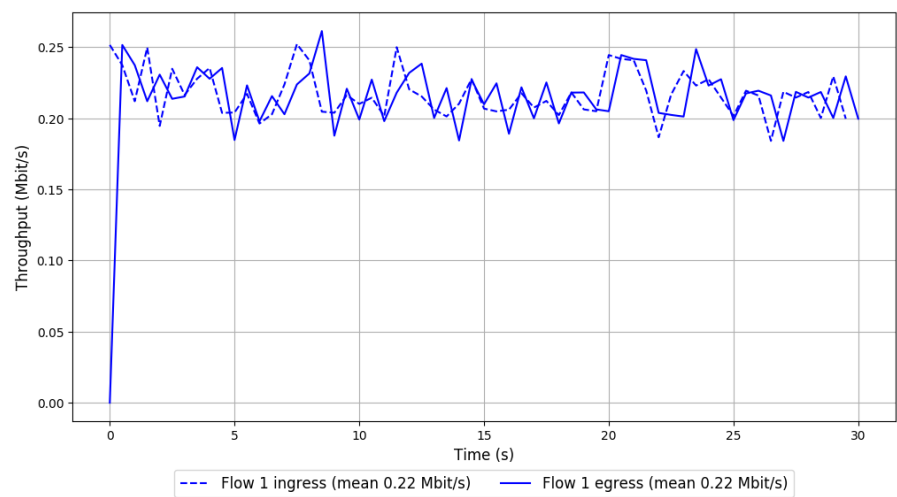
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 1.36 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-12-11 04:05:29
End at: 2019-12-11 04:05:59
Local clock offset: 2.211 ms
Remote clock offset: 0.38 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.253 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.253 ms
Loss rate: 0.00%
```
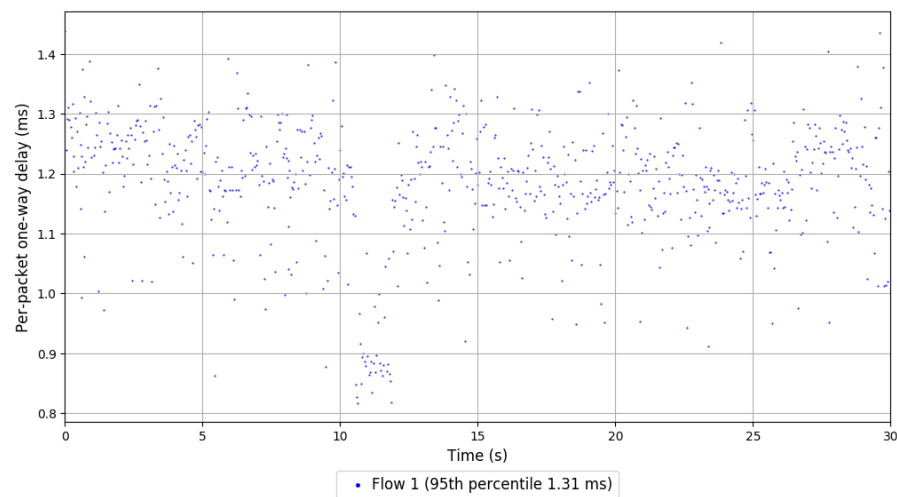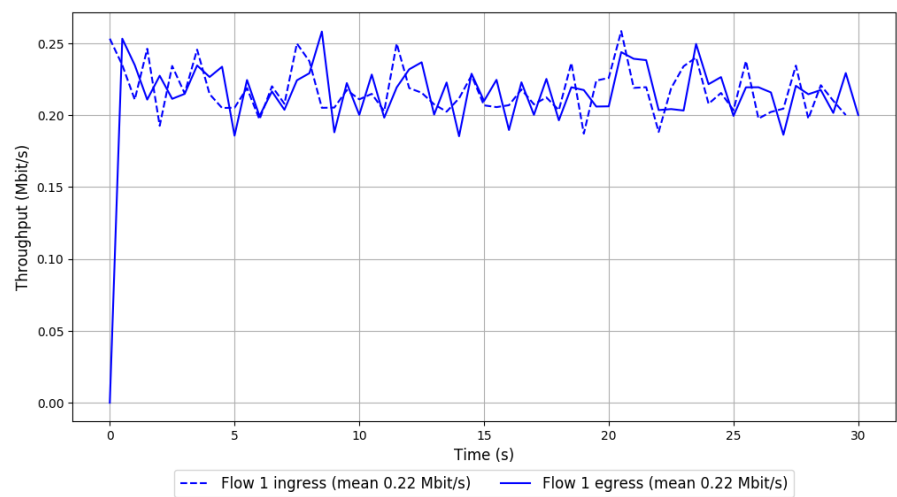
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-12-11 04:39:16
End at: 2019-12-11 04:39:46
Local clock offset: 2.422 ms
Remote clock offset: 2.744 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.314 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.314 ms
Loss rate: 0.00%
```
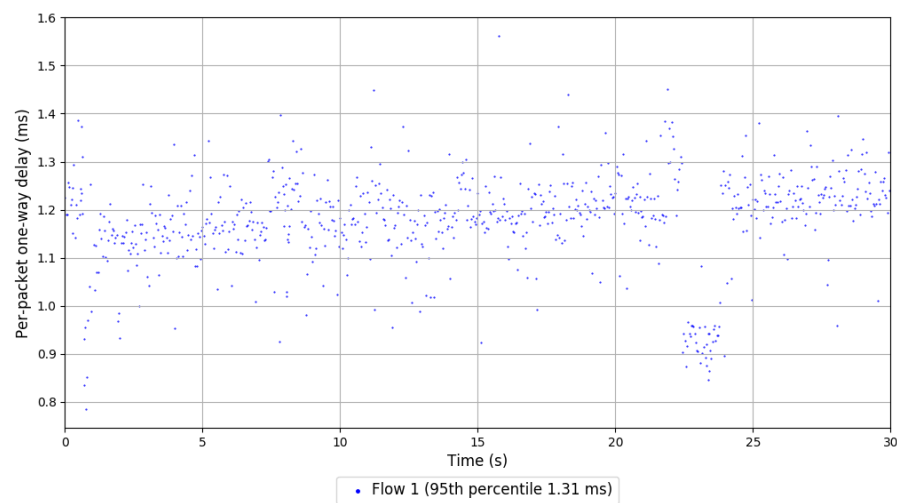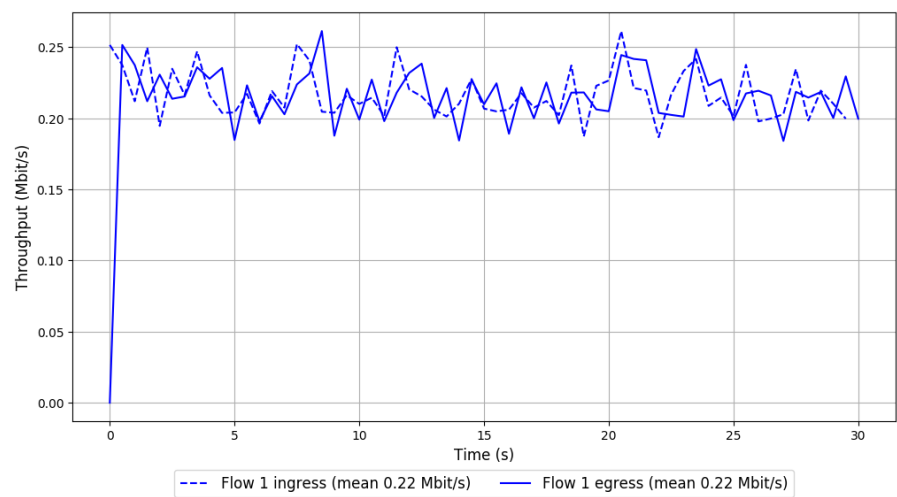
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2019-12-11 05:11:34
End at: 2019-12-11 05:12:04
Local clock offset: 2.941 ms
Remote clock offset: 0.972 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.314 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 1.314 ms
Loss rate: 0.00%
```

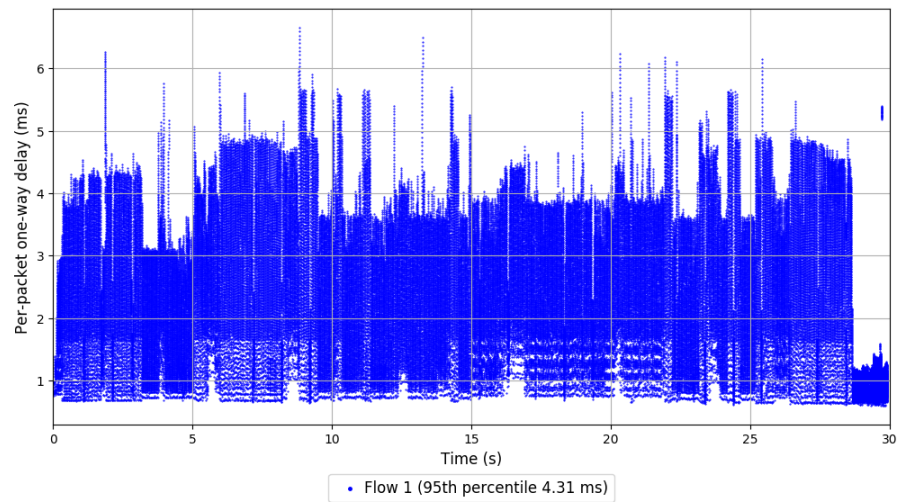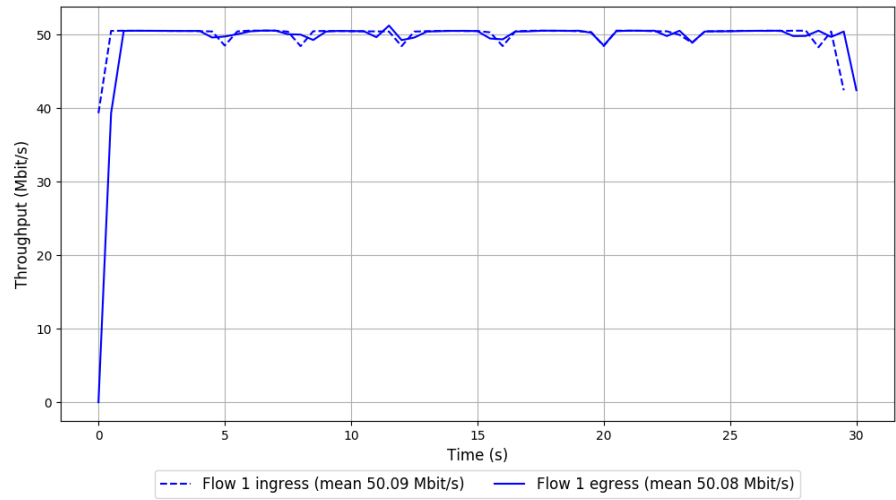# Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-12-11 02:44:58
End at: 2019-12-11 02:45:28
Local clock offset: 2.375 ms
Remote clock offset: -0.311 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.08 Mbit/s
95th percentile per-packet one-way delay: 4.308 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 50.08 Mbit/s
95th percentile per-packet one-way delay: 4.308 ms
Loss rate: 0.01%
```
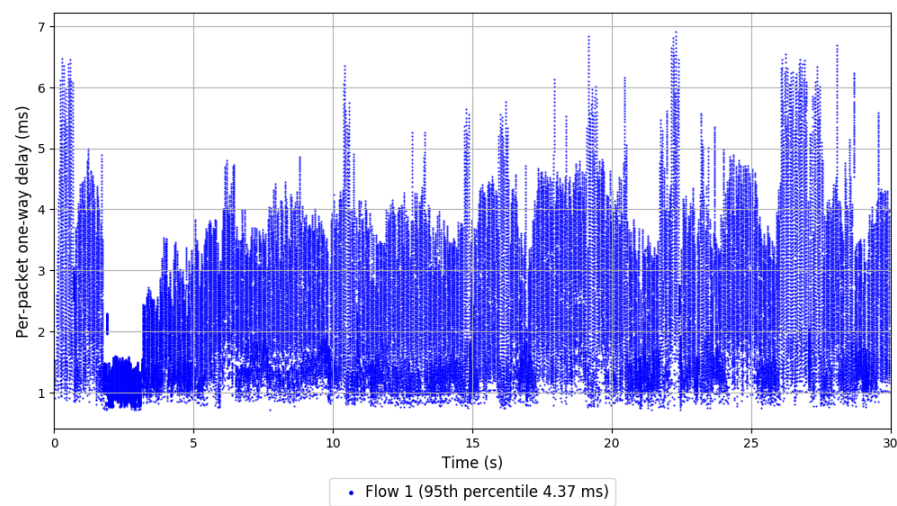
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-12-11 03:18:25
End at: 2019-12-11 03:18:55
Local clock offset: 2.006 ms
Remote clock offset: 5.725 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 4.374 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.78 Mbit/s
95th percentile per-packet one-way delay: 4.374 ms
Loss rate: 0.00%
```
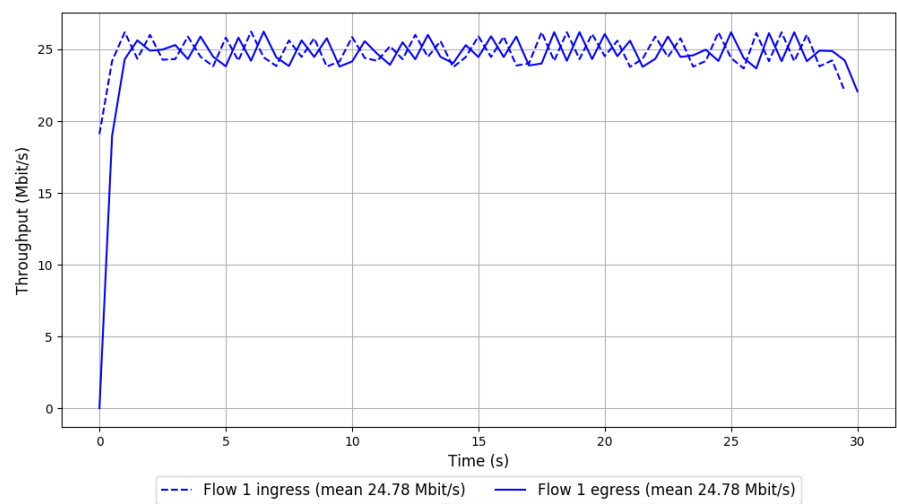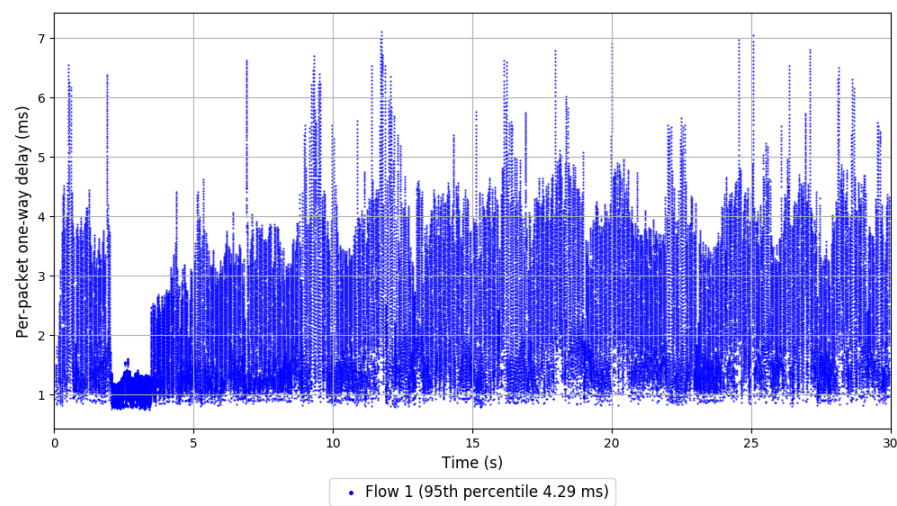
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-12-11 03:51:54
End at: 2019-12-11 03:52:24
Local clock offset: 2.39 ms
Remote clock offset: 0.582 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 4.292 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 4.292 ms
Loss rate: 0.01%
```
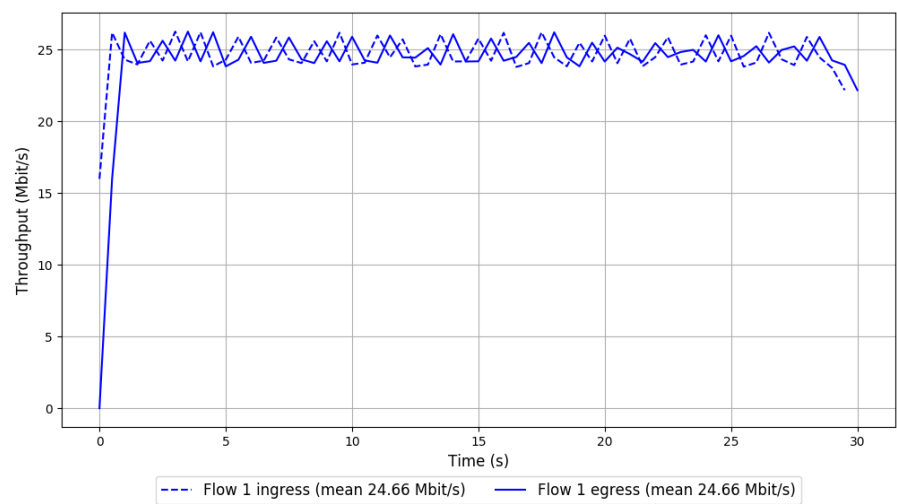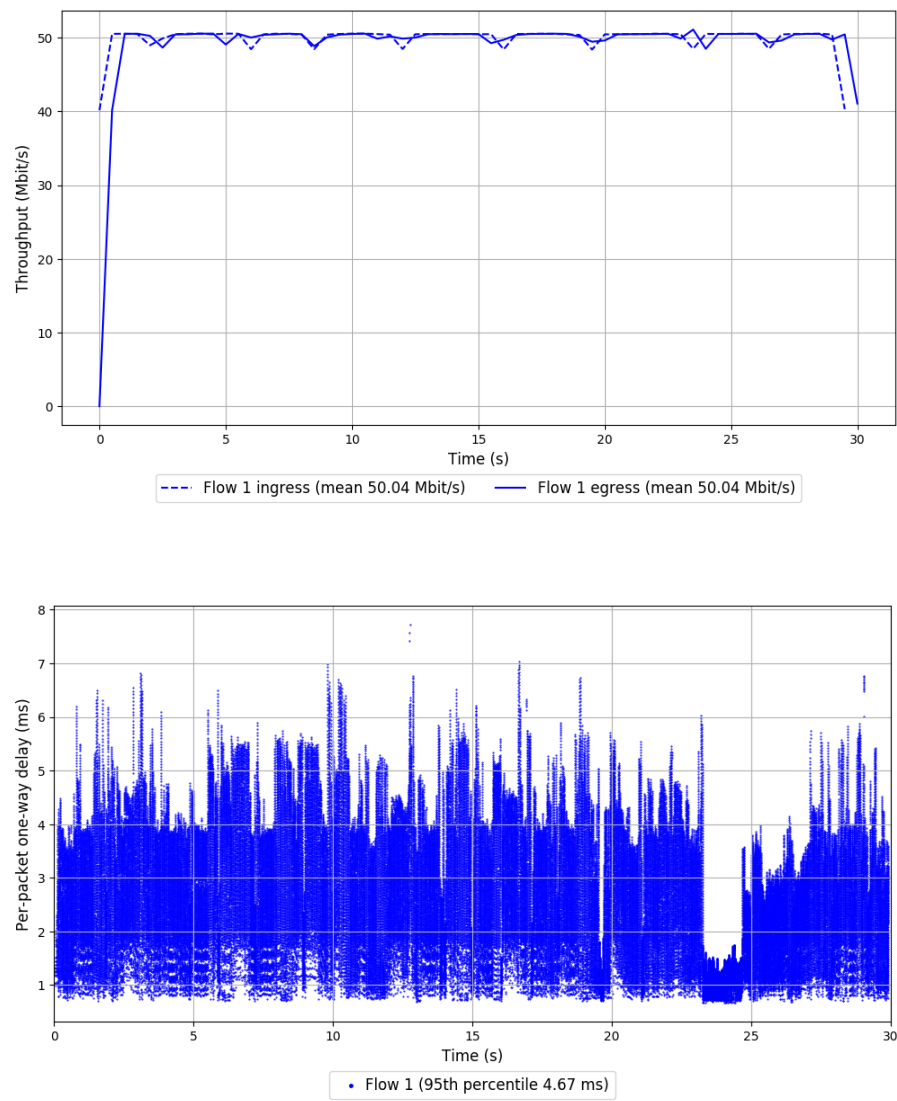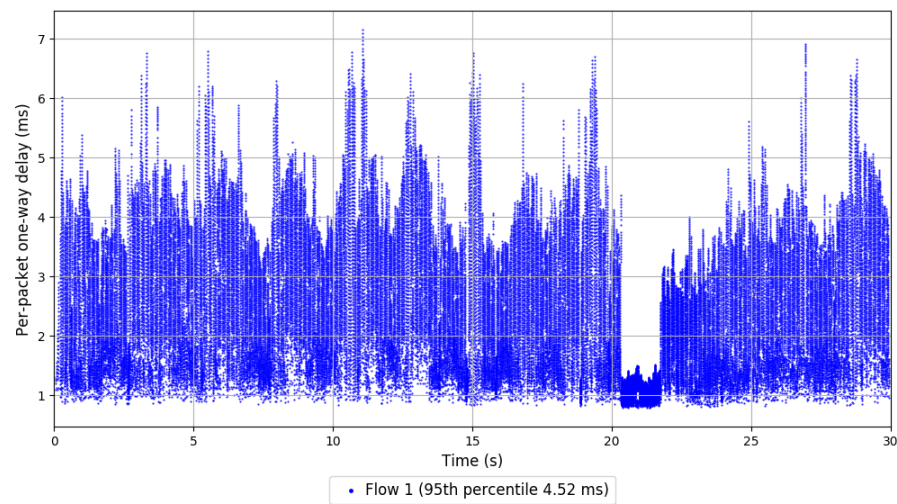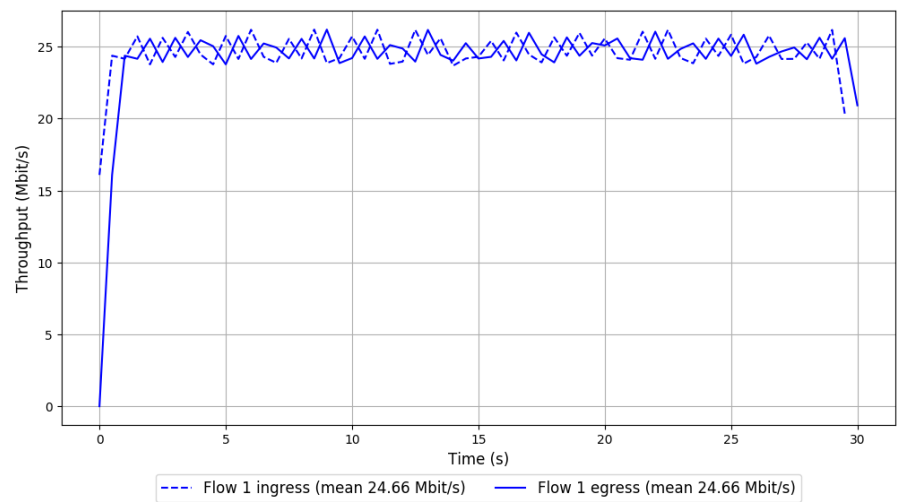
Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 24.66 Mbit/s)   Flow 1 egress (mean 24.66 Mbit/s)

• Flow 1 (95th percentile 4.29 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-12-11 04:25:03
End at: 2019-12-11 04:25:33
Local clock offset: 2.597 ms
Remote clock offset: 0.228 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 4.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.04 Mbit/s
95th percentile per-packet one-way delay: 4.668 ms
Loss rate: 0.00%
```

Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 50.04 Mbit/s)   Flow 1 egress (mean 50.04 Mbit/s)

Flow 1 (95th percentile 4.67 ms)

```
Run 5: Statistics of Sprout

Start at: 2019-12-11 04:58:06
End at: 2019-12-11 04:58:36
Local clock offset: 2.986 ms
Remote clock offset: 4.087 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 4.524 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 24.66 Mbit/s
95th percentile per-packet one-way delay: 4.524 ms
Loss rate: 0.00%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 24.66 Mbit/s) ----- Flow 1 egress (mean 24.66 Mbit/s) ——

• Flow 1 (95th percentile 4.52 ms)
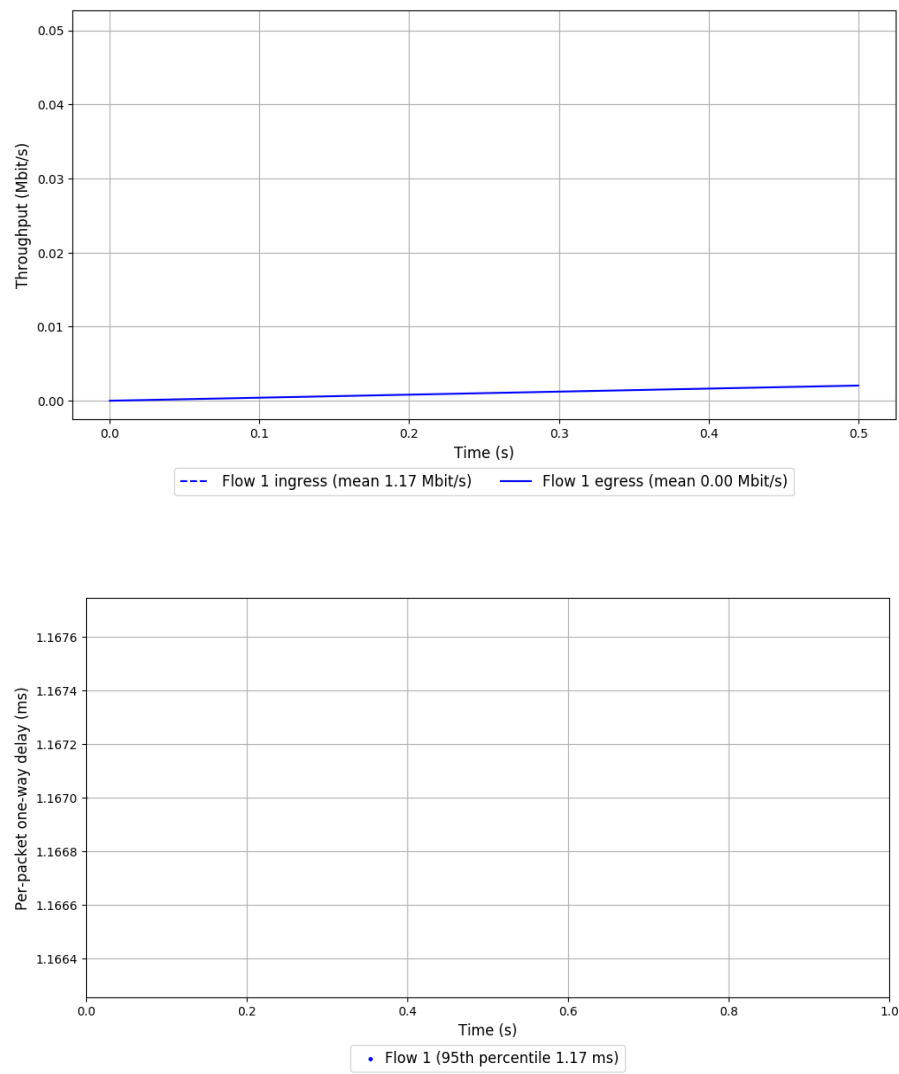
194

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

Start at: 2019-12-11 03:08:37
End at: 2019-12-11 03:09:07
Local clock offset: 1.449 ms
Remote clock offset: 4.716 ms
```

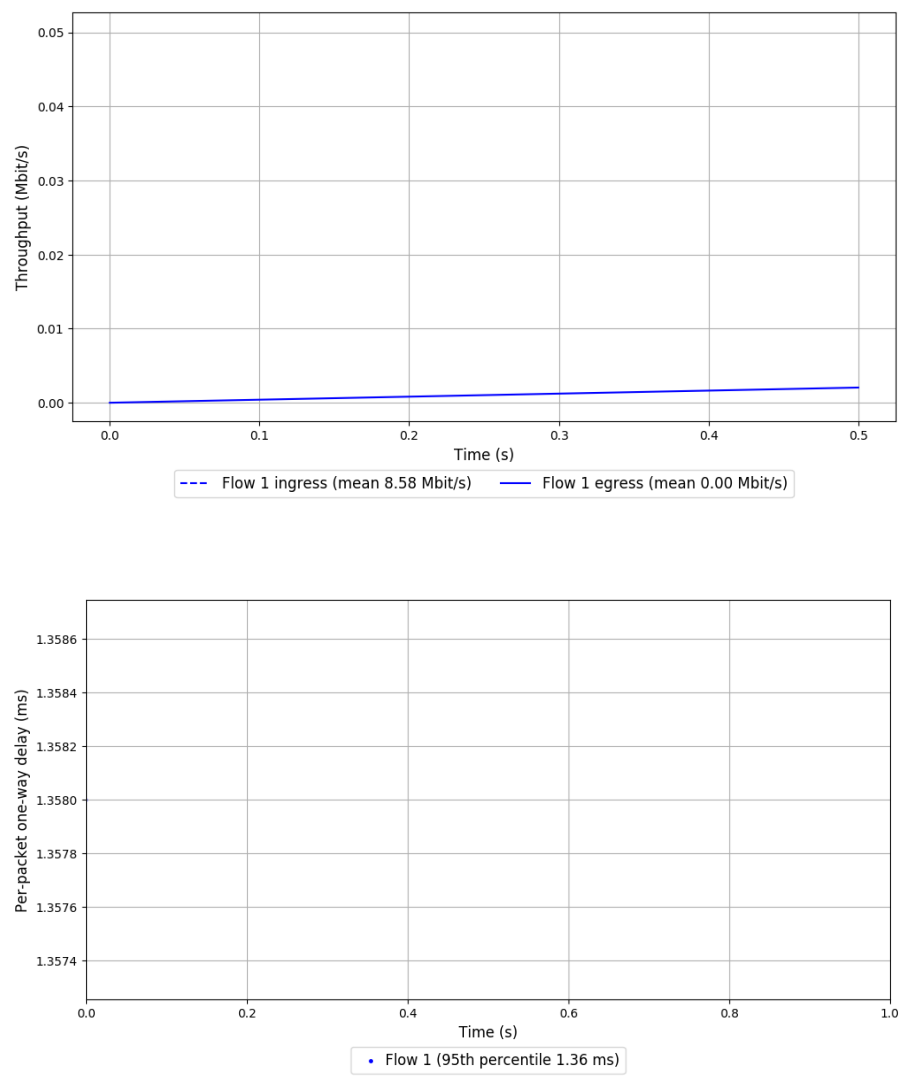# Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-12-11 03:42:03
End at: 2019-12-11 03:42:33
Local clock offset: 1.712 ms
Remote clock offset: 0.835 ms
```
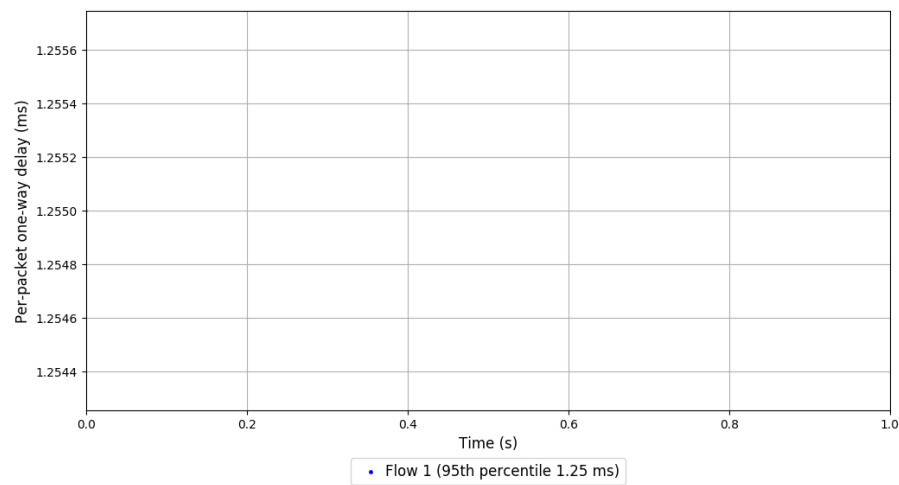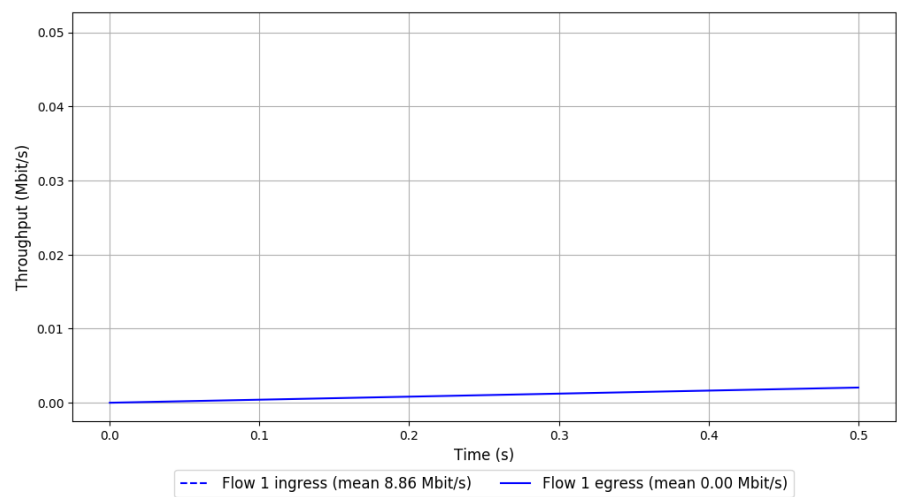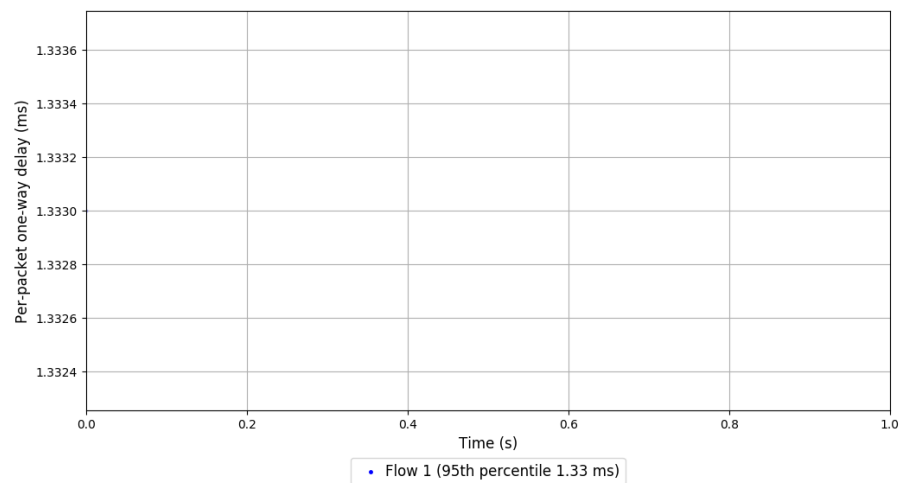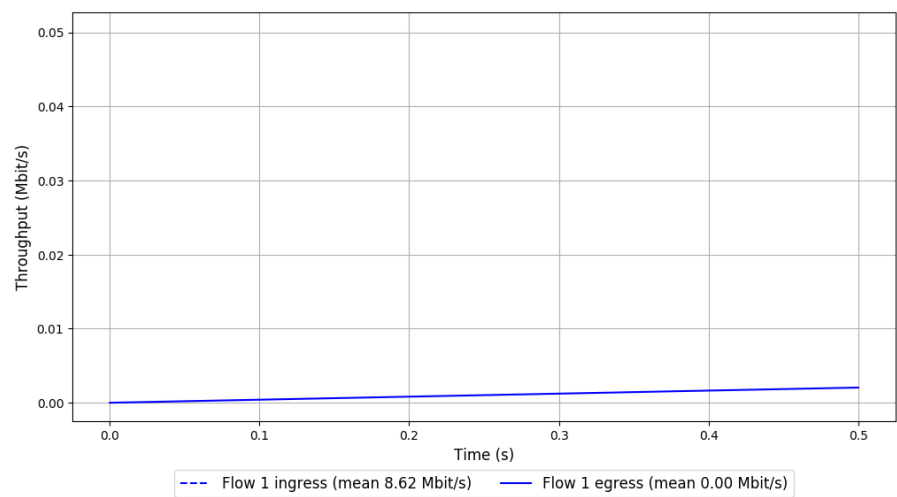
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 8.58 Mbit/s)   Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 1.36 ms)

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

Start at: 2019-12-11 04:15:21
End at: 2019-12-11 04:15:51
Local clock offset: 2.494 ms
Remote clock offset: 0.297 ms
```

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

Flow 1 ingress (mean 8.86 Mbit/s) ——— Flow 1 egress (mean 0.00 Mbit/s)

• Flow 1 (95th percentile 1.25 ms)

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

Start at: 2019-12-11 04:48:43
End at: 2019-12-11 04:49:13
Local clock offset: 2.916 ms
Remote clock offset: 3.542 ms
```
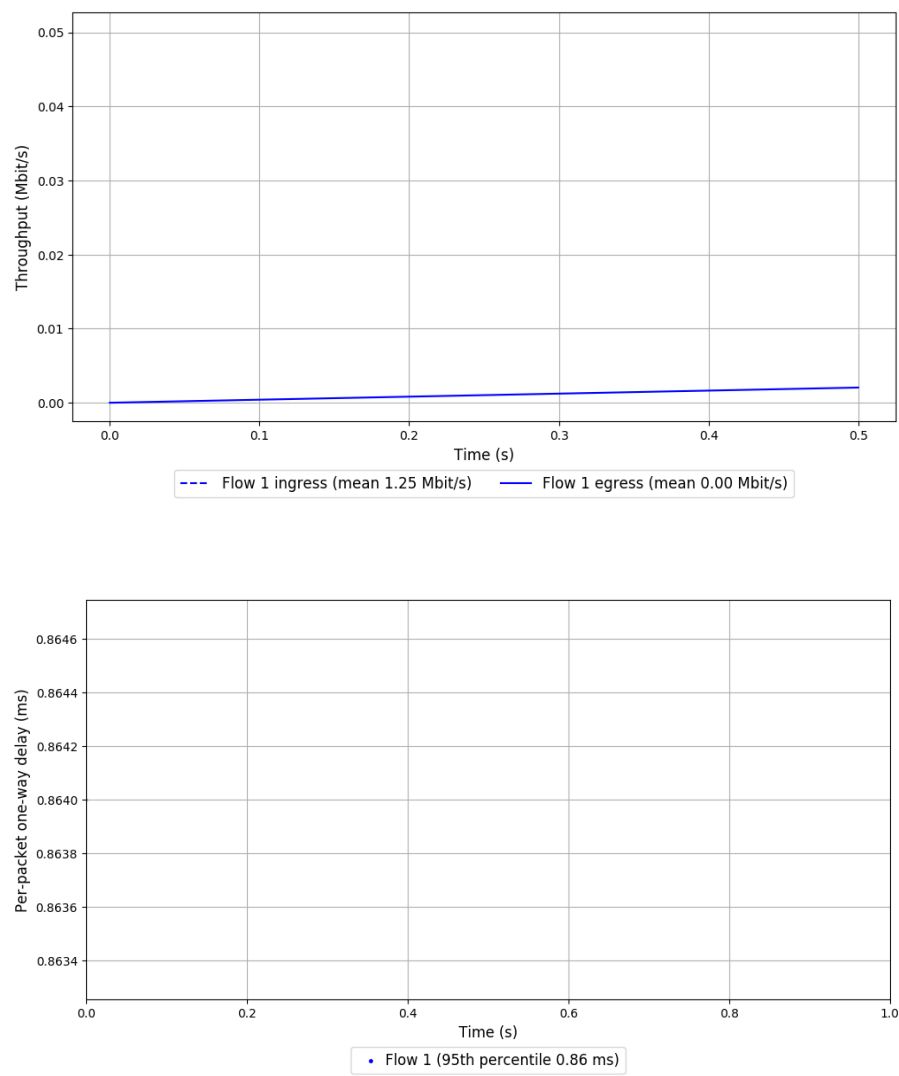
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 8.62 Mbit/s) —— Flow 1 egress (mean 0.00 Mbit/s)

Flow 1 (95th percentile 1.33 ms)

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

Start at: 2019-12-11 05:20:57
End at: 2019-12-11 05:21:27
Local clock offset: 2.845 ms
Remote clock offset: -0.464 ms
```

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

```
Run 1: Statistics of TCP Vegas

Start at: 2019-12-11 02:55:03
End at: 2019-12-11 02:55:33
Local clock offset: 1.786 ms
Remote clock offset: 2.689 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.44 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 82.44 Mbit/s
95th percentile per-packet one-way delay: 1.033 ms
Loss rate: 0.00%
```
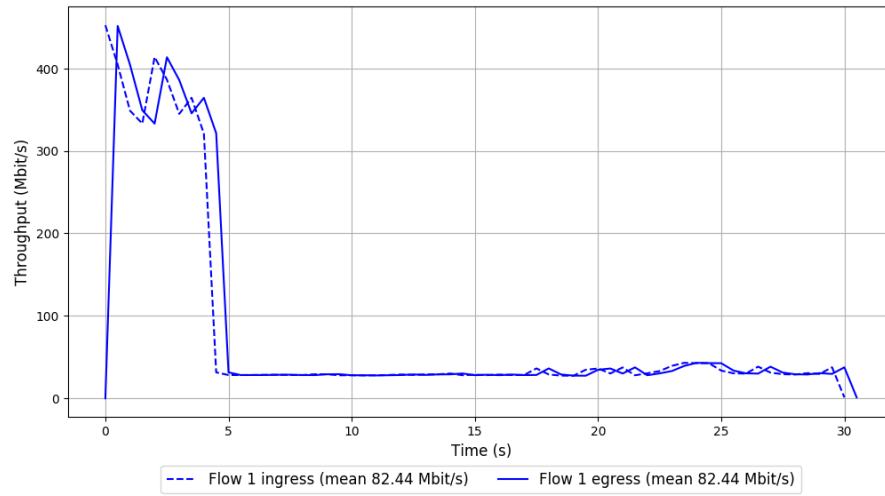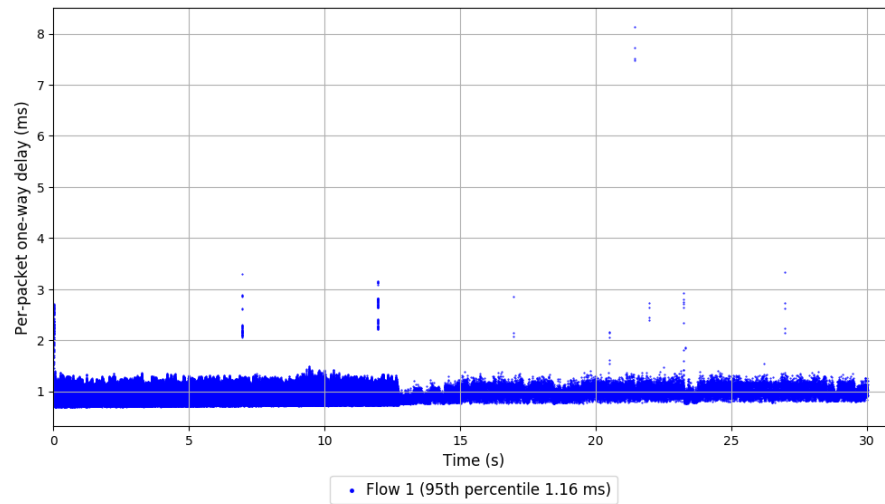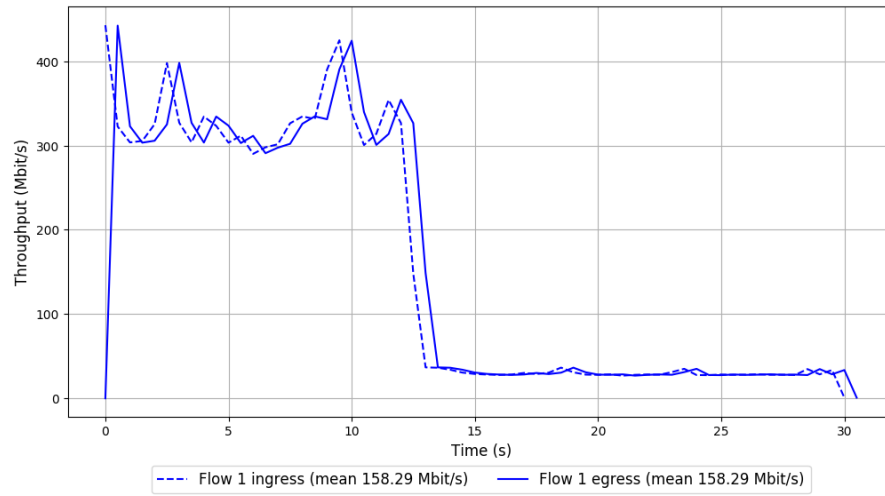
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-12-11 03:28:17
End at: 2019-12-11 03:28:47
Local clock offset: 1.715 ms
Remote clock offset: 2.41 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.29 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.29 Mbit/s
95th percentile per-packet one-way delay: 1.156 ms
Loss rate: 0.00%
```

Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-12-11 04:01:35
End at: 2019-12-11 04:02:05
Local clock offset: 2.294 ms
Remote clock offset: 0.431 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.86 Mbit/s
95th percentile per-packet one-way delay: 2.649 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 137.86 Mbit/s
95th percentile per-packet one-way delay: 2.649 ms
Loss rate: 0.09%
```
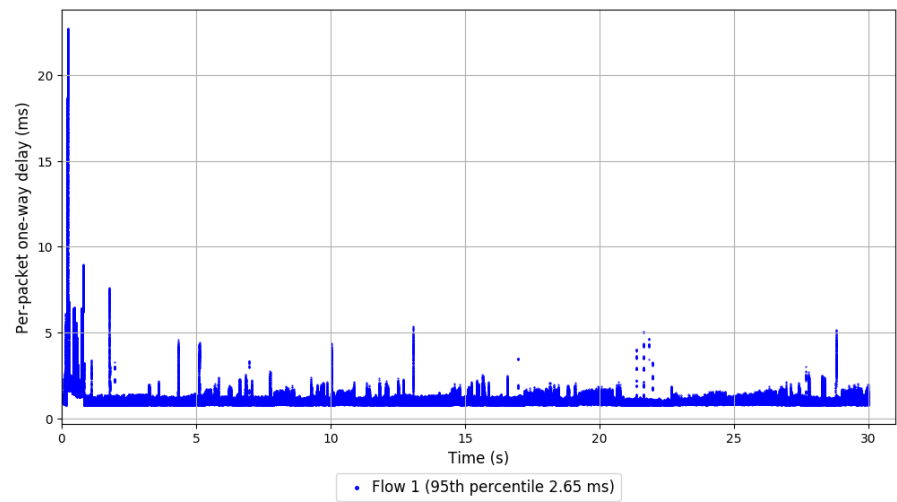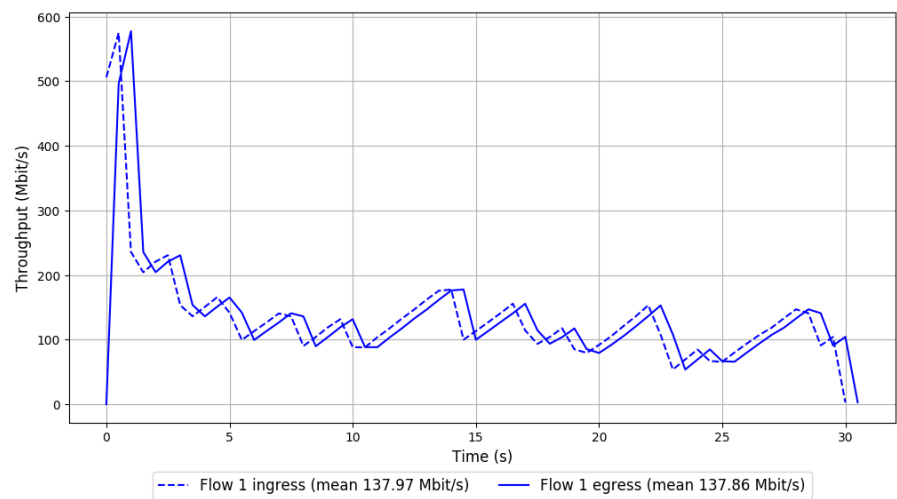
Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-12-11 04:35:12
End at: 2019-12-11 04:35:42
Local clock offset: 2.469 ms
Remote clock offset: 2.111 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 503.13 Mbit/s
95th percentile per-packet one-way delay: 14.415 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 503.13 Mbit/s
95th percentile per-packet one-way delay: 14.415 ms
Loss rate: 0.03%
```
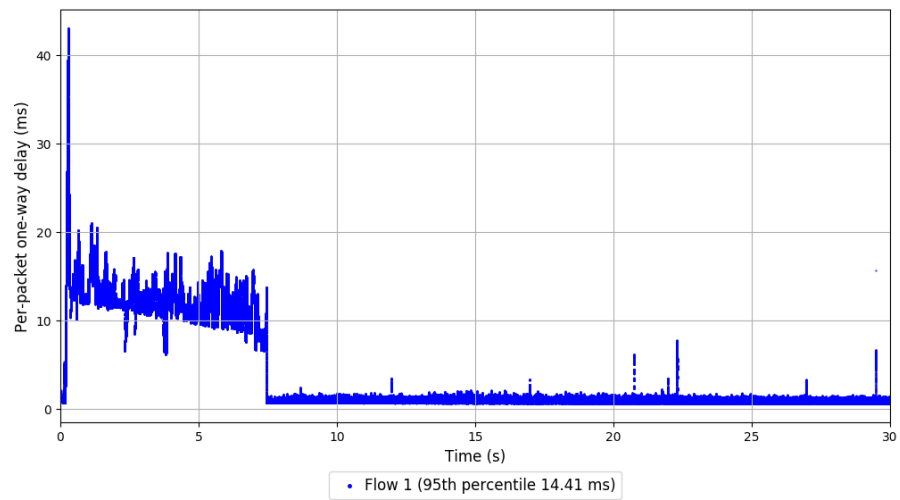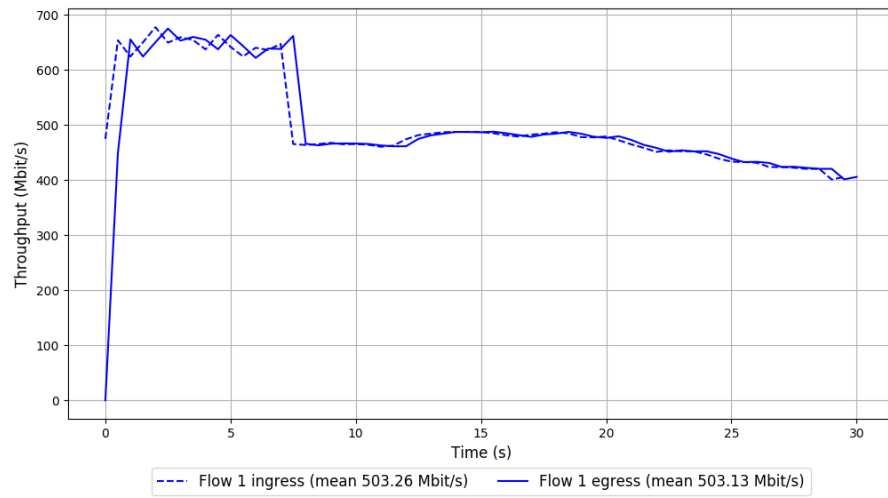
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-12-11 05:07:35
End at: 2019-12-11 05:08:06
Local clock offset: 2.943 ms
Remote clock offset: 2.079 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.80 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 320.80 Mbit/s
95th percentile per-packet one-way delay: 1.388 ms
Loss rate: 0.00%
```
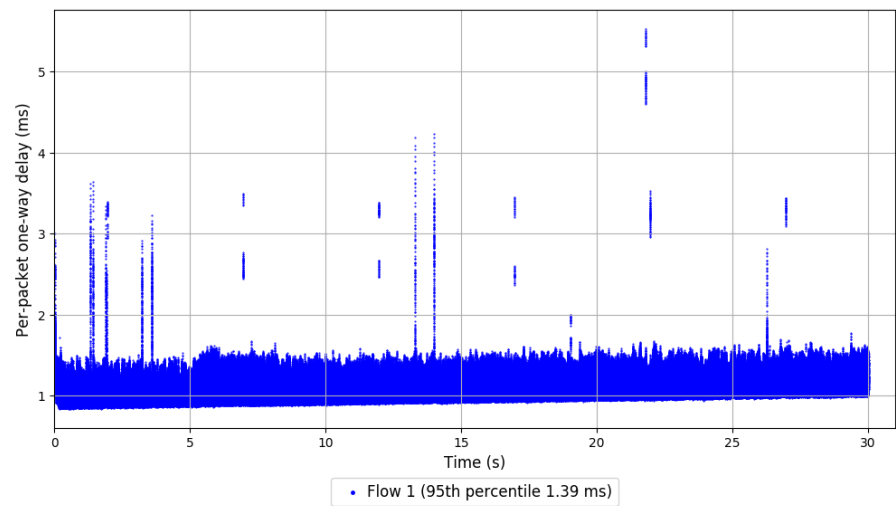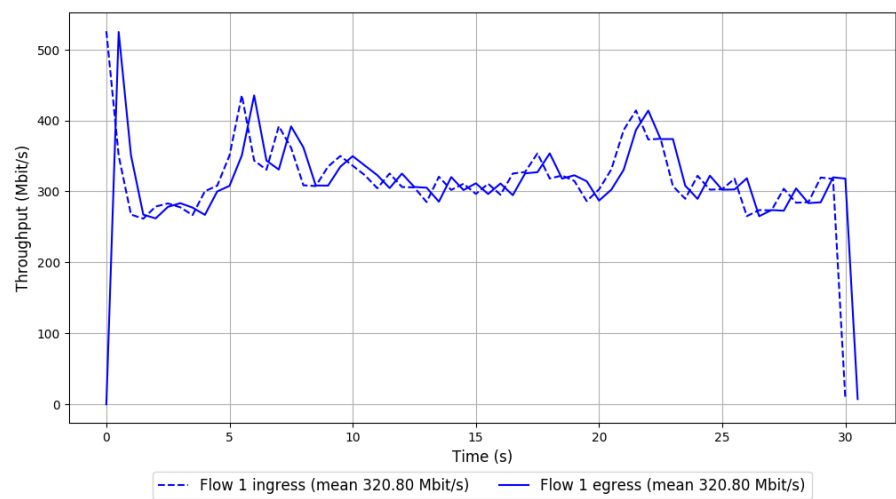
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-12-11 02:56:19
End at: 2019-12-11 02:56:49
Local clock offset: 1.741 ms
Remote clock offset: 2.982 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.74 Mbit/s
95th percentile per-packet one-way delay: 23.556 ms
Loss rate: 9.55%
-- Flow 1:
Average throughput: 249.74 Mbit/s
95th percentile per-packet one-way delay: 23.556 ms
Loss rate: 9.55%
```
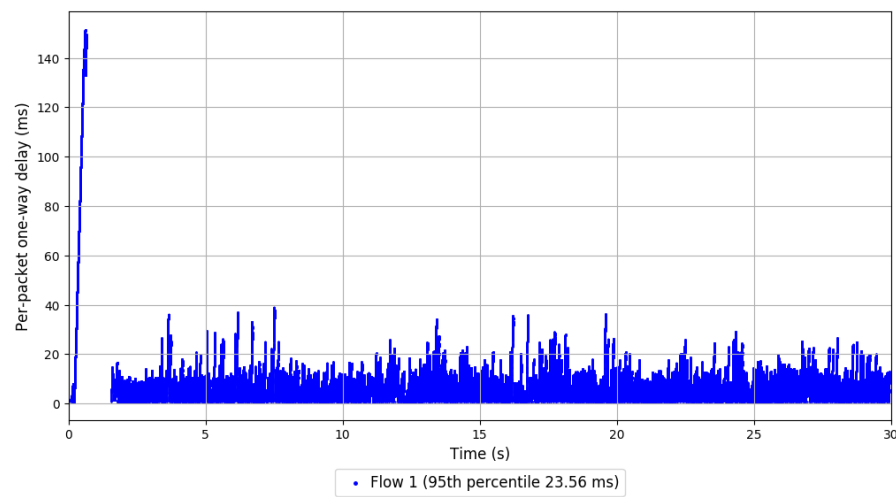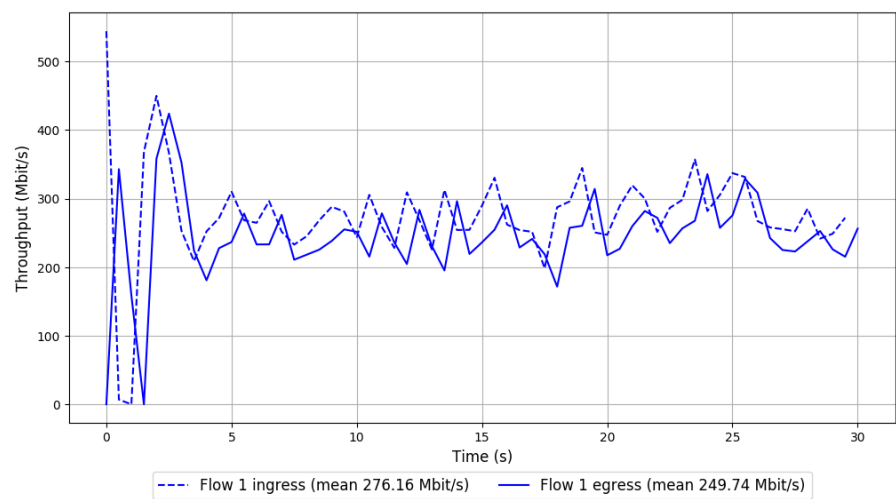
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-12-11 03:29:35
End at: 2019-12-11 03:30:05
Local clock offset: 1.624 ms
Remote clock offset: 2.175 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.54 Mbit/s
95th percentile per-packet one-way delay: 5.940 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 219.54 Mbit/s
95th percentile per-packet one-way delay: 5.940 ms
Loss rate: 0.21%
```
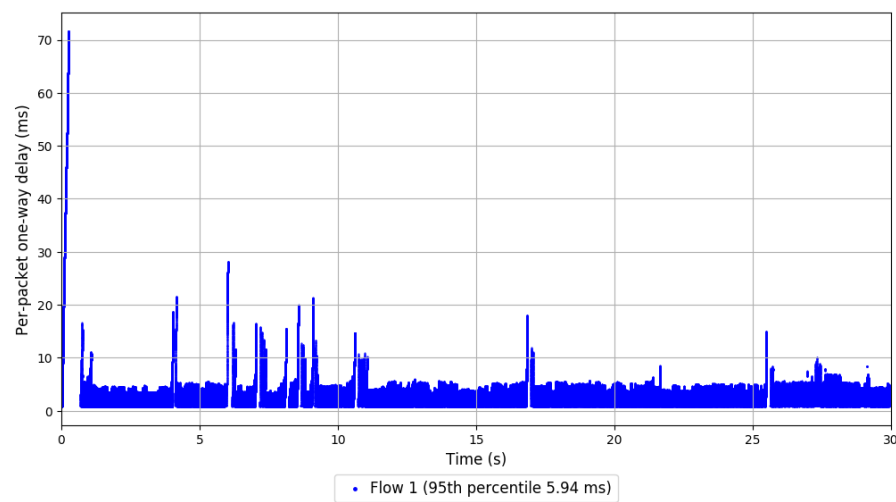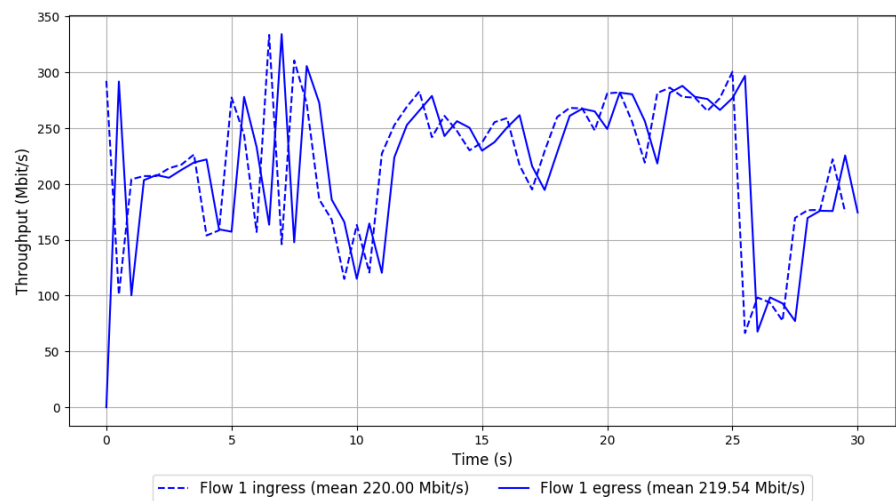
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 220.00 Mbit/s)   Flow 1 egress (mean 219.54 Mbit/s)

Flow 1 (95th percentile 5.94 ms)

218

```
Run 3: Statistics of Verus

Start at: 2019-12-11 04:02:53
End at: 2019-12-11 04:03:23
Local clock offset: 2.286 ms
Remote clock offset: 0.311 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.49 Mbit/s
95th percentile per-packet one-way delay: 5.604 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 251.49 Mbit/s
95th percentile per-packet one-way delay: 5.604 ms
Loss rate: 0.15%
```
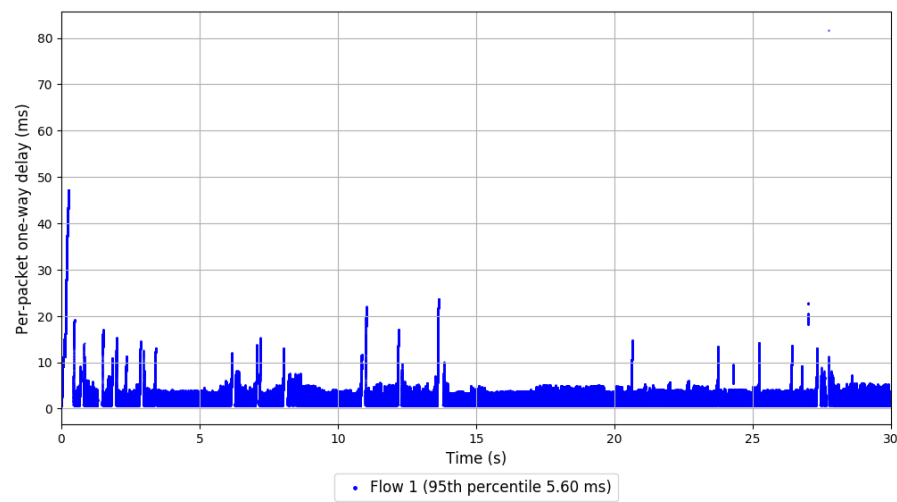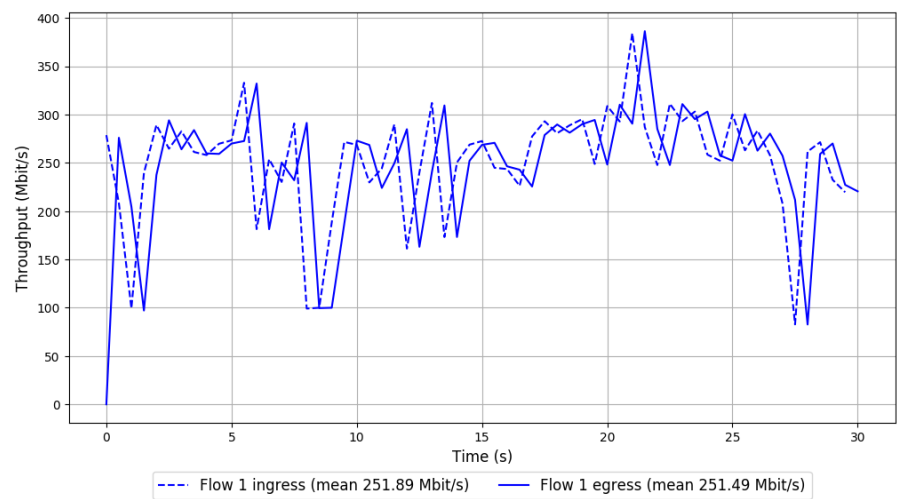
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 251.89 Mbit/s) Flow 1 egress (mean 251.49 Mbit/s)

• Flow 1 (95th percentile 5.60 ms)

```
Run 4: Statistics of Verus

Start at: 2019-12-11 04:36:41
End at: 2019-12-11 04:37:11
Local clock offset: 2.433 ms
Remote clock offset: 2.361 ms


# Below is generated by plot.py at 2019-12-11 06:27:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.78 Mbit/s
95th percentile per-packet one-way delay: 6.599 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 208.78 Mbit/s
95th percentile per-packet one-way delay: 6.599 ms
Loss rate: 0.36%
```
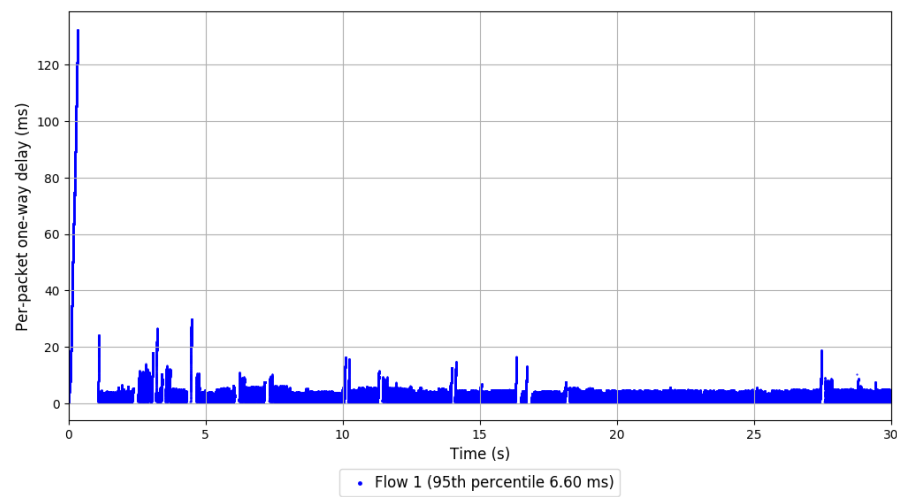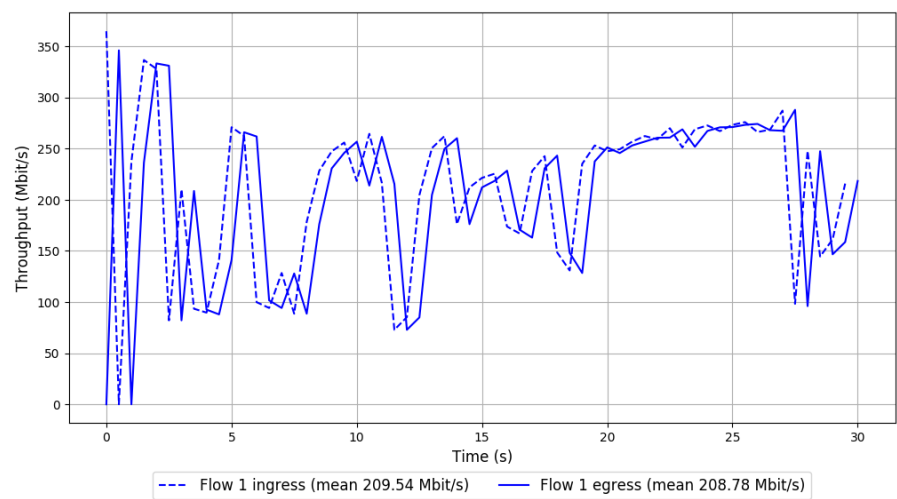
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-12-11 05:08:58
End at: 2019-12-11 05:09:28
Local clock offset: 2.975 ms
Remote clock offset: 1.616 ms


# Below is generated by plot.py at 2019-12-11 06:27:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 214.64 Mbit/s
95th percentile per-packet one-way delay: 90.050 ms
Loss rate: 14.30%
-- Flow 1:
Average throughput: 214.64 Mbit/s
95th percentile per-packet one-way delay: 90.050 ms
Loss rate: 14.30%
```
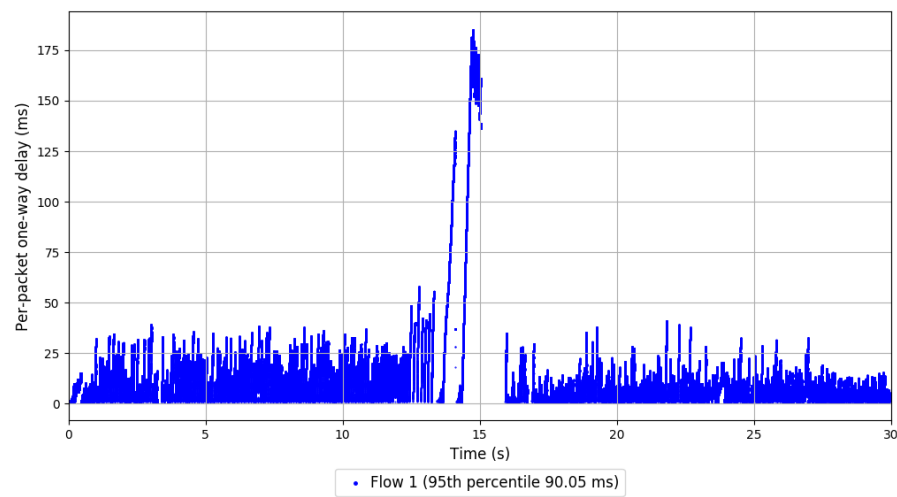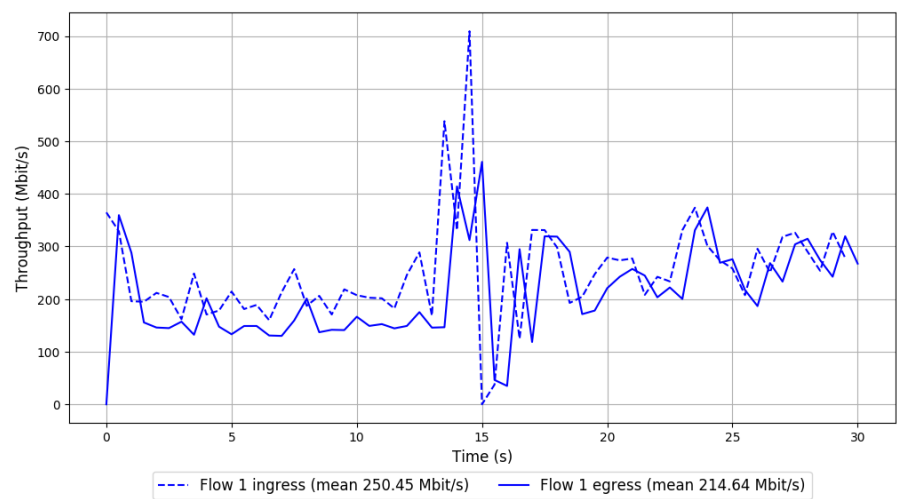
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-12-11 02:40:36
End at: 2019-12-11 02:41:06
Local clock offset: 3.194 ms
Remote clock offset: -0.186 ms


# Below is generated by plot.py at 2019-12-11 06:29:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 395.58 Mbit/s
95th percentile per-packet one-way delay: 19.514 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 395.58 Mbit/s
95th percentile per-packet one-way delay: 19.514 ms
Loss rate: 0.01%
```
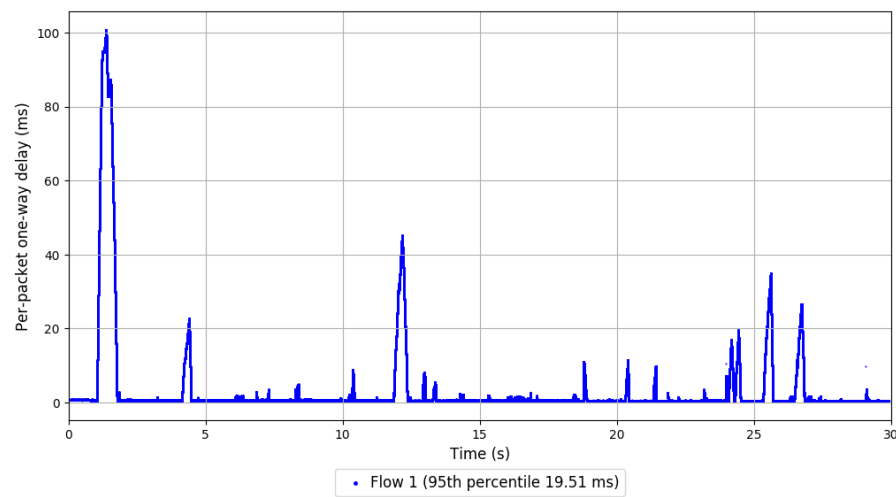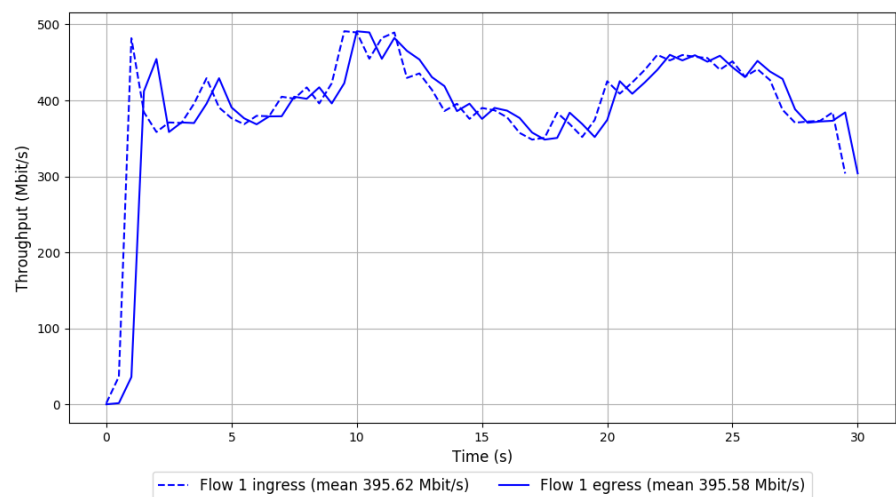
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-12-11 03:13:59
End at: 2019-12-11 03:14:29
Local clock offset: 1.897 ms
Remote clock offset: 5.283 ms


# Below is generated by plot.py at 2019-12-11 06:29:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.67 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 234.67 Mbit/s
95th percentile per-packet one-way delay: 0.997 ms
Loss rate: 0.00%
```
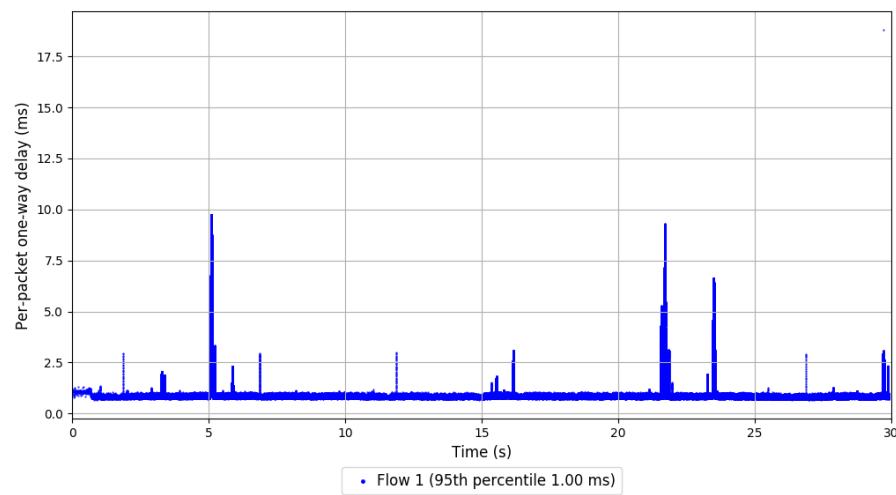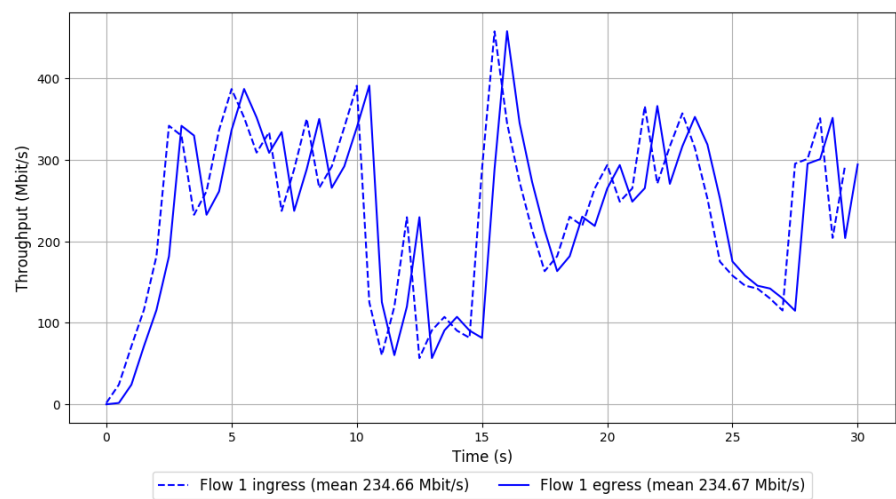
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-12-11 03:47:18
End at: 2019-12-11 03:47:48
Local clock offset: 2.196 ms
Remote clock offset: 0.624 ms


# Below is generated by plot.py at 2019-12-11 06:29:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 392.22 Mbit/s
95th percentile per-packet one-way delay: 73.959 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 392.22 Mbit/s
95th percentile per-packet one-way delay: 73.959 ms
Loss rate: 0.06%
```
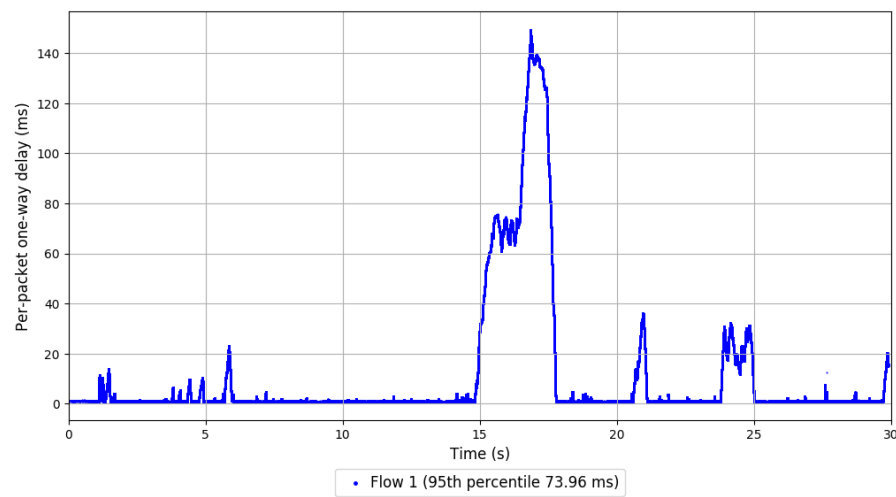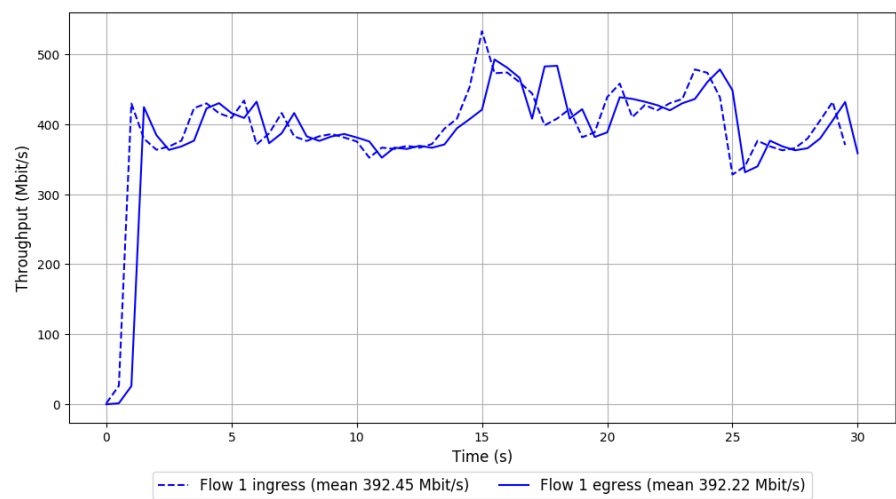
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-12-11 04:20:37
End at: 2019-12-11 04:21:07
Local clock offset: 2.602 ms
Remote clock offset: 0.248 ms


# Below is generated by plot.py at 2019-12-11 06:29:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.98 Mbit/s
95th percentile per-packet one-way delay: 4.712 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 380.98 Mbit/s
95th percentile per-packet one-way delay: 4.712 ms
Loss rate: 0.00%
```
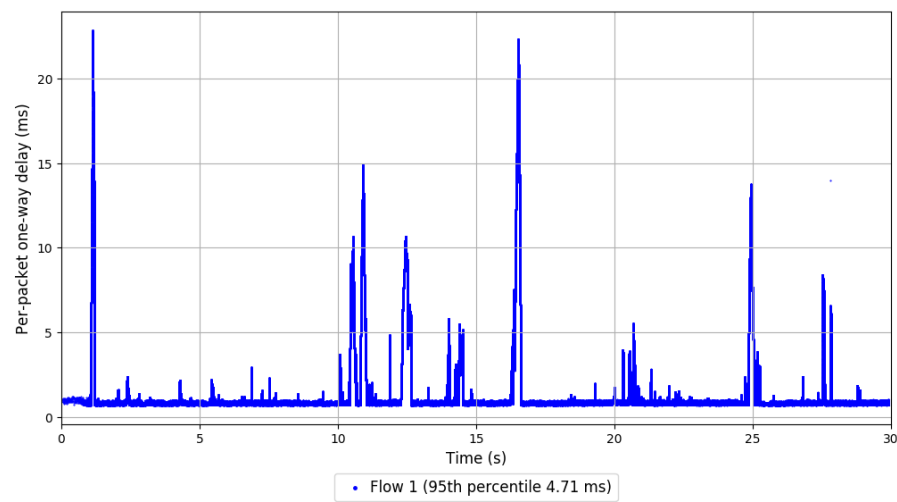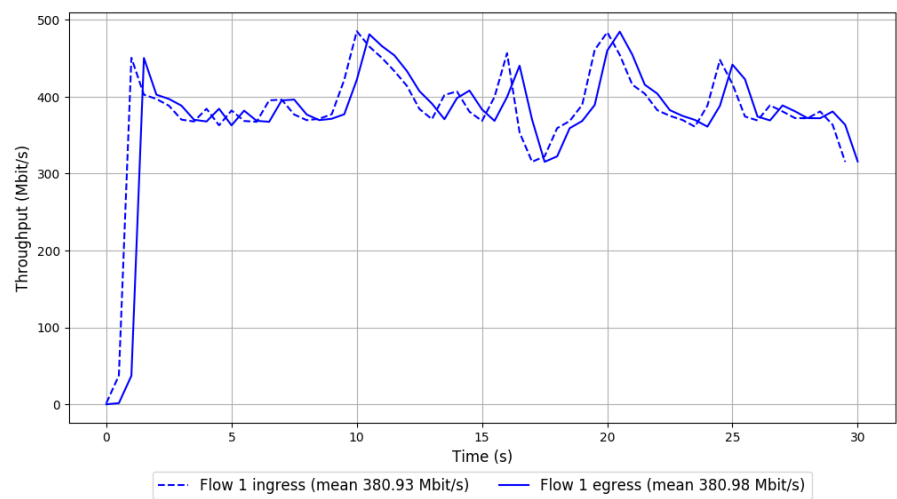
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 380.93 Mbit/s)   Flow 1 egress (mean 380.98 Mbit/s)

Flow 1 (95th percentile 4.71 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-12-11 04:53:50
End at: 2019-12-11 04:54:20
Local clock offset: 2.987 ms
Remote clock offset: 3.724 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 388.20 Mbit/s
95th percentile per-packet one-way delay: 4.973 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 388.20 Mbit/s
95th percentile per-packet one-way delay: 4.973 ms
Loss rate: 0.00%
```
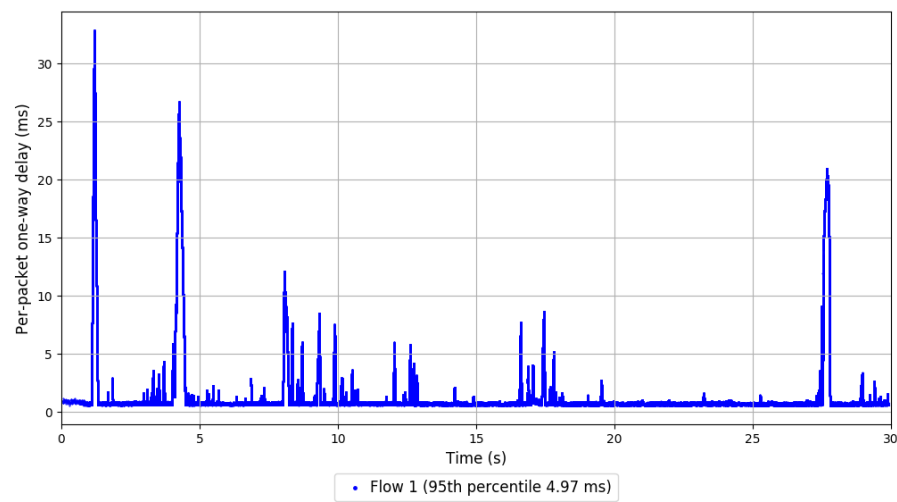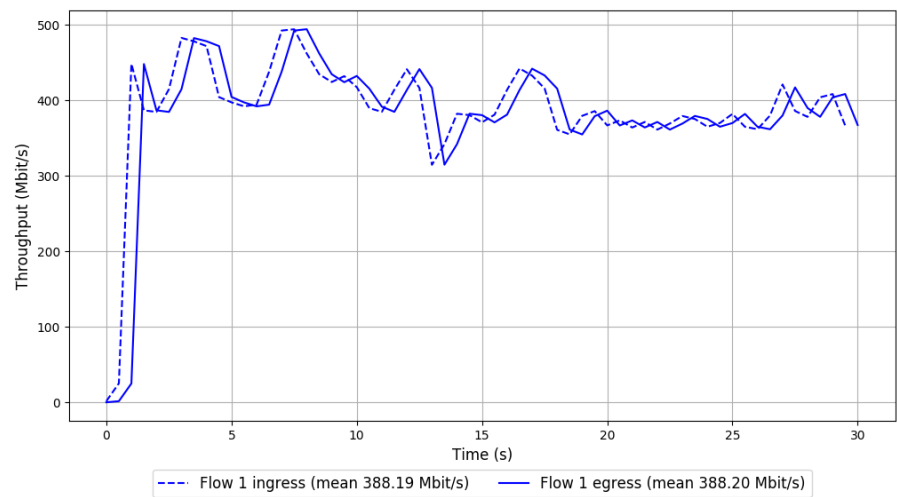
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 388.19 Mbit/s) — Flow 1 egress (mean 388.20 Mbit/s)

Flow 1 (95th percentile 4.97 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2019-12-11 02:57:42
End at: 2019-12-11 02:58:12
Local clock offset: 1.858 ms
Remote clock offset: 3.138 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 1.005 ms
Loss rate: 0.00%
```
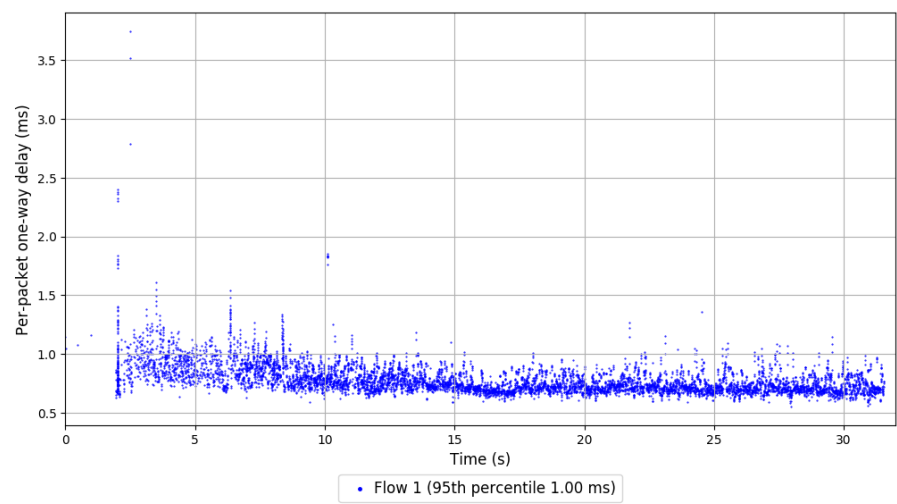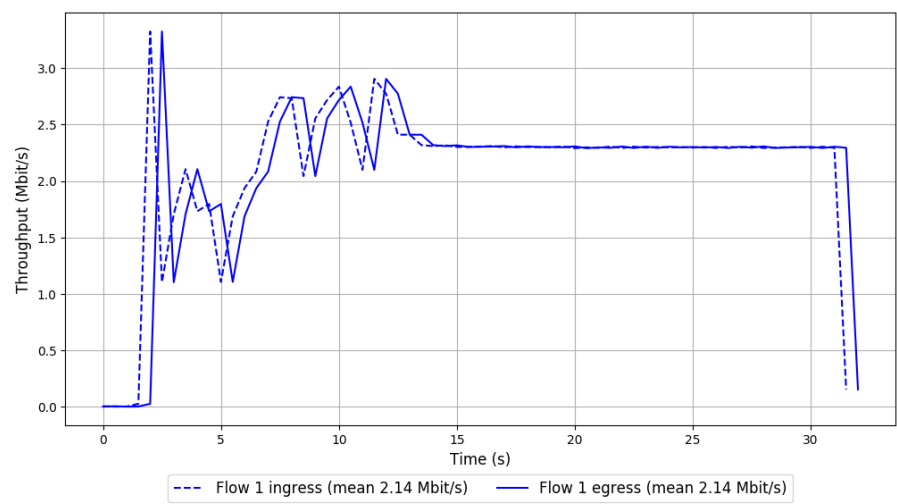
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-12-11 03:30:57
End at: 2019-12-11 03:31:27
Local clock offset: 1.554 ms
Remote clock offset: 1.985 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.725 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.725 ms
Loss rate: 0.00%
```
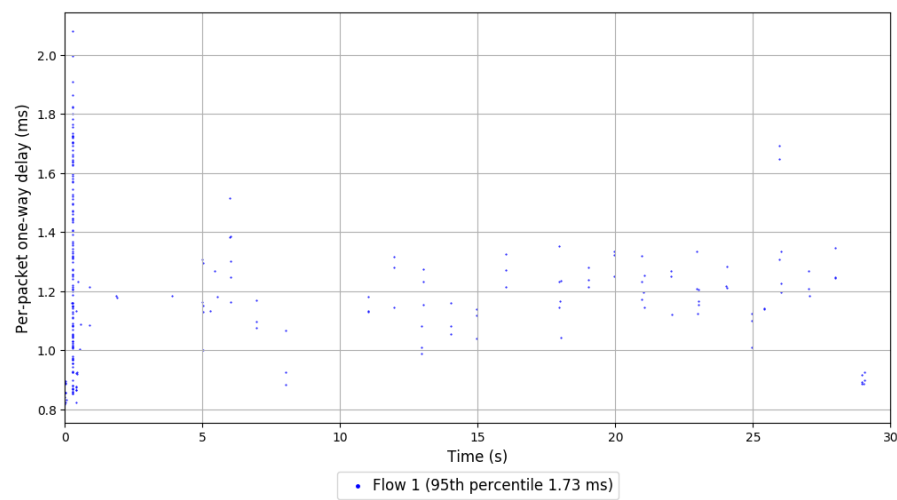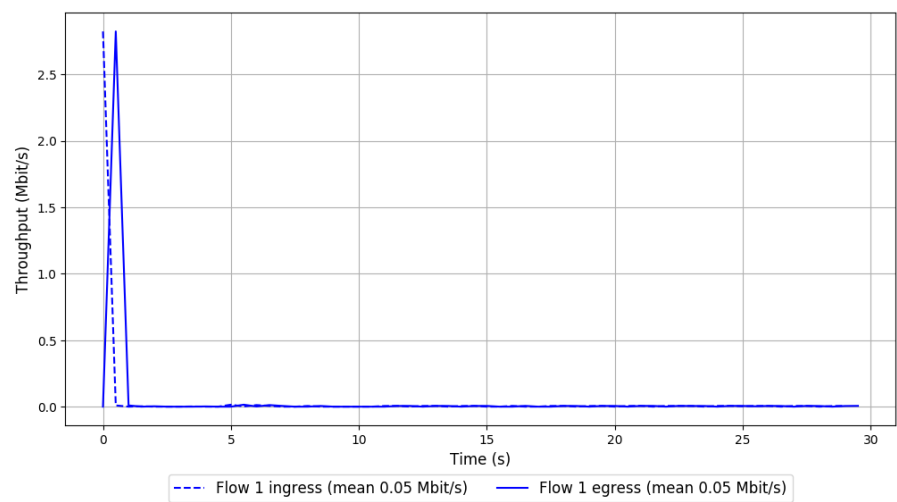
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-12-11 04:04:16
End at: 2019-12-11 04:04:46
Local clock offset: 2.236 ms
Remote clock offset: 0.417 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.459 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.459 ms
Loss rate: 0.00%
```
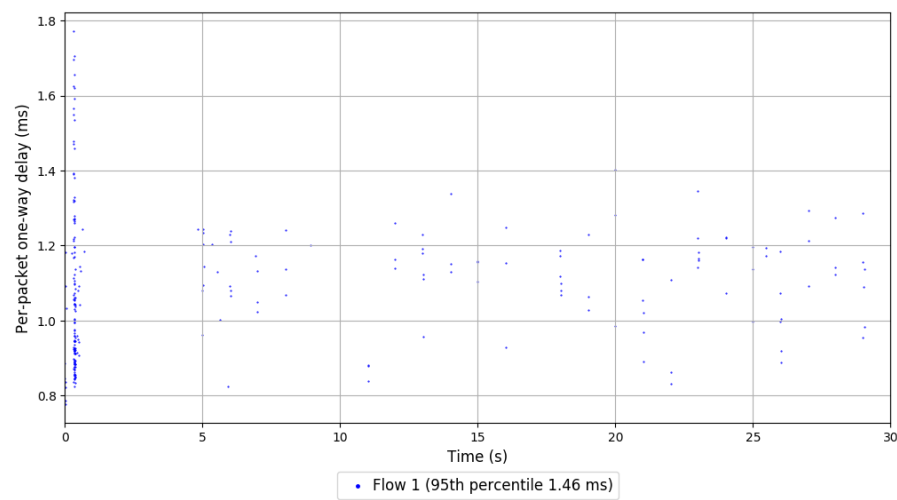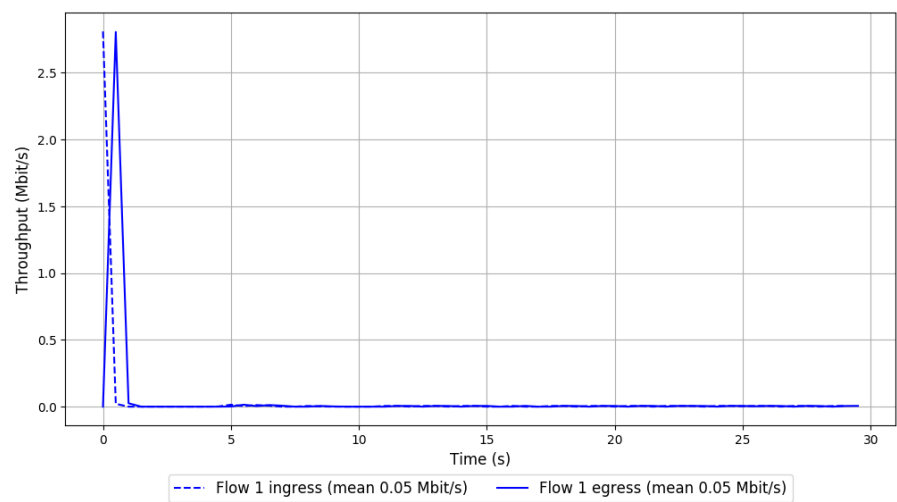
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-12-11 04:38:03
End at: 2019-12-11 04:38:33
Local clock offset: 2.411 ms
Remote clock offset: 2.54 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 1.037 ms
Loss rate: 0.00%
```
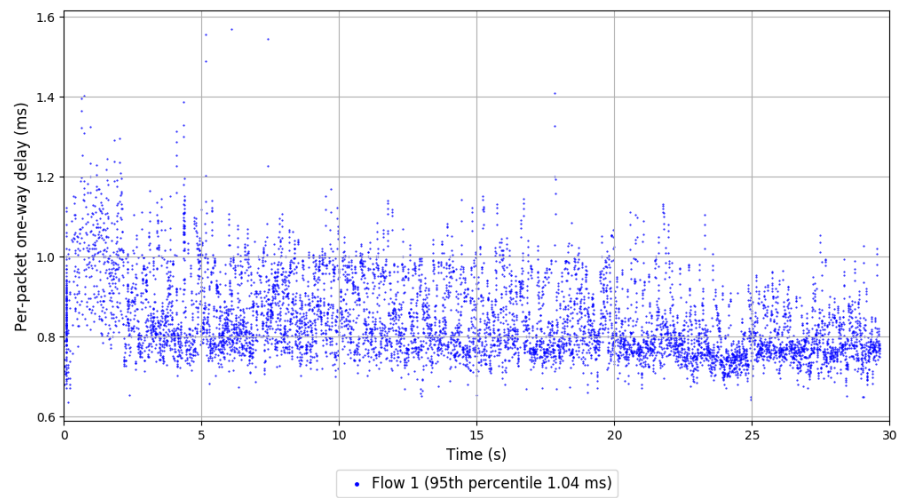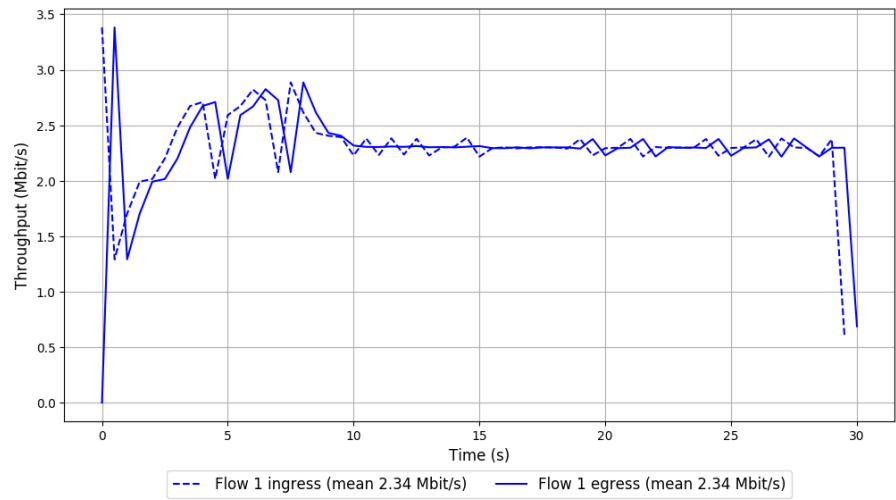
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-12-11 05:10:21
End at: 2019-12-11 05:10:51
Local clock offset: 2.945 ms
Remote clock offset: 1.243 ms


# Below is generated by plot.py at 2019-12-11 06:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 1.526 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link