Pantheon Report

Generated at 2019-06-28 08:51:00 (UTC).

Data path: GCE Tokyo on `ens4` (*remote*) →GCE Iowa on `ens4` (*local*).

Repeated the test of 22 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.
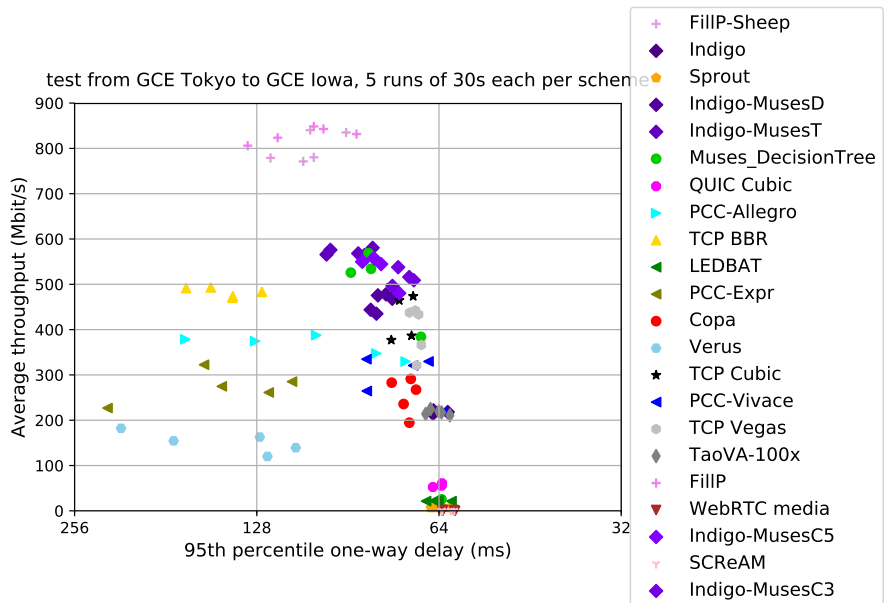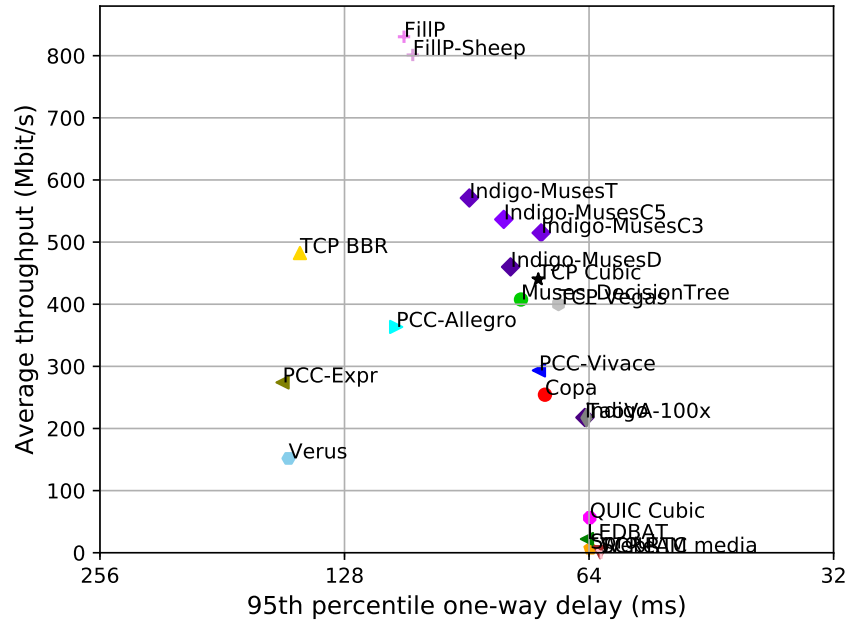
```
System info:
Linux 4.15.0-1032-gcp
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ c3953d08f32ec7ebbdede2d2f0cbdeed262571ef
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 @ 11c9498ecb1596b02ccd896791a02d03172af7ed
 M helpers/__init__.pyc
 M helpers/context.pyc
 M helpers/utils.pyc
third_party/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
```

```
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

test from GCE Tokyo to GCE Iowa, 5 runs of 30s each per scheme

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	482.41	145.23	0.77
Copa	5	254.36	72.52	0.38
TCP Cubic	5	440.03	73.90	0.43
FillP	5	830.48	108.13	0.96
FillP-Sheep	5	801.19	105.48	0.59
Indigo	5	217.70	64.76	0.45
Indigo-MusesC3	4	514.83	73.31	0.48
Indigo-MusesC5	5	536.52	81.50	0.53
Indigo-MusesD	5	460.07	79.95	0.59
Indigo-MusesT	5	570.98	89.85	0.51
LEDBAT	5	22.08	64.38	0.81
Muses_DecisionTree	5	407.60	77.61	0.47
PCC-Allegro	5	363.47	110.57	0.70
PCC-Expr	5	274.10	152.57	1.36
QUIC Cubic	4	56.43	63.88	0.76
SCReAM	5	0.22	61.85	0.41
Sprout	5	6.75	63.79	0.41
TaoVA-100x	5	217.13	64.46	0.44
TCP Vegas	5	400.13	69.79	0.43
Verus	5	151.83	150.00	0.91
PCC-Vivace	5	293.47	73.77	0.51
WebRTC media	5	0.81	62.03	0.21

```
Run 1: Statistics of TCP BBR

Start at: 2019-06-28 04:42:53
End at: 2019-06-28 04:43:23
Local clock offset: -0.07 ms
Remote clock offset: 0.157 ms


# Below is generated by plot.py at 2019-06-28 07:18:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 470.33 Mbit/s
95th percentile per-packet one-way delay: 140.481 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 470.33 Mbit/s
95th percentile per-packet one-way delay: 140.481 ms
Loss rate: 0.58%
```
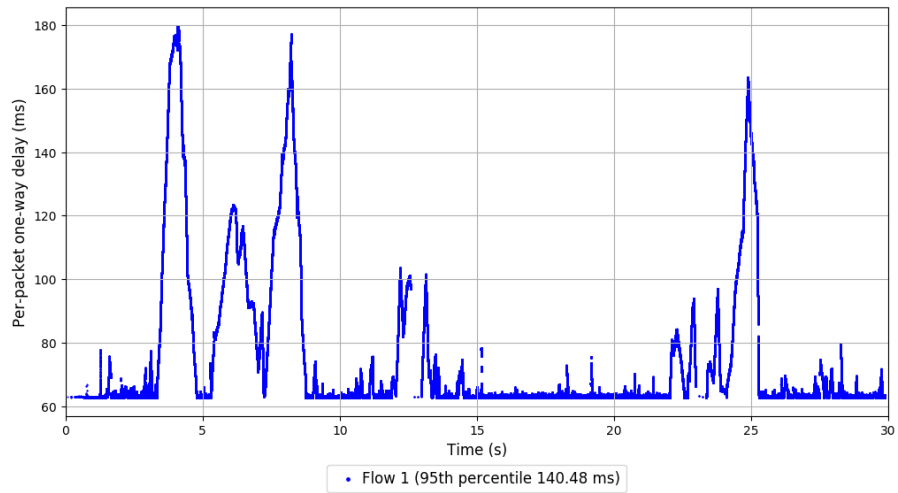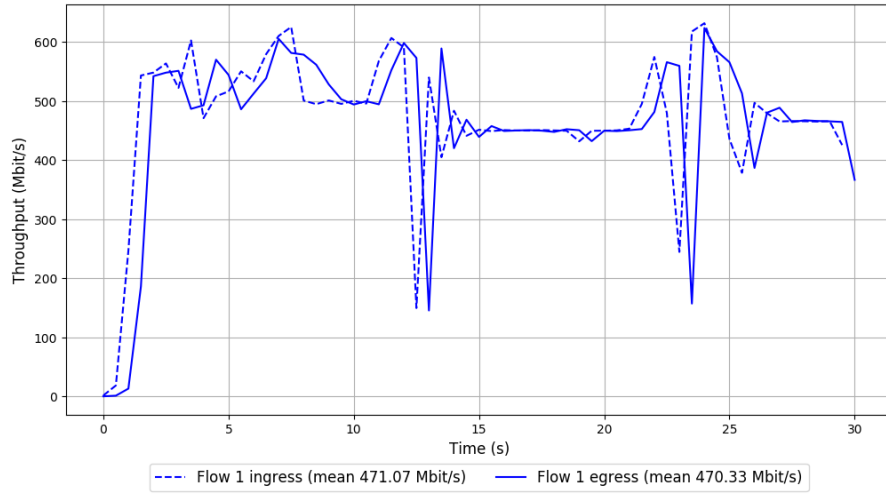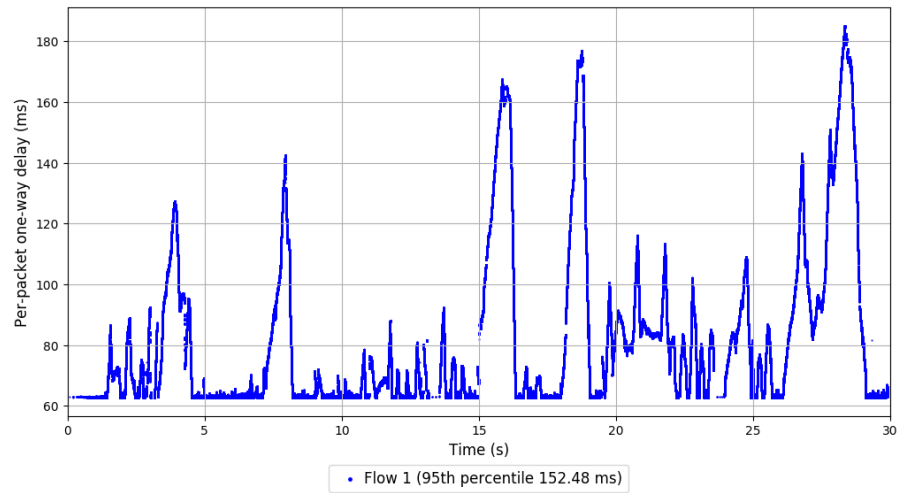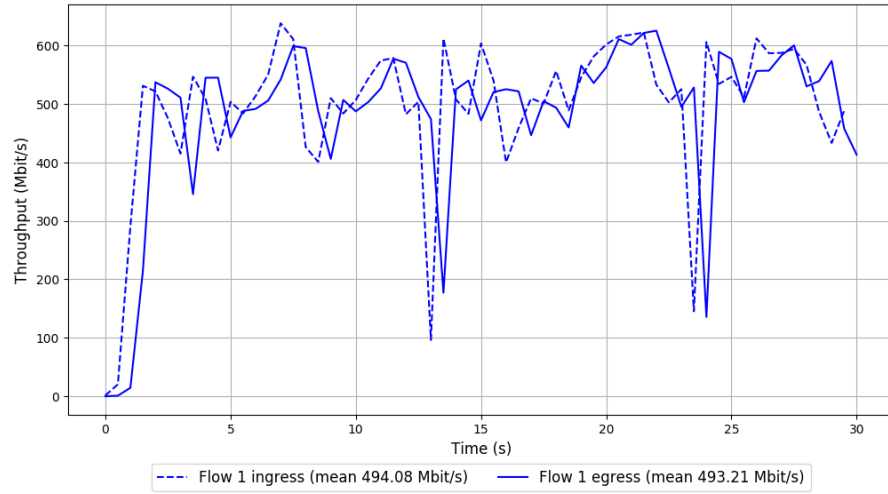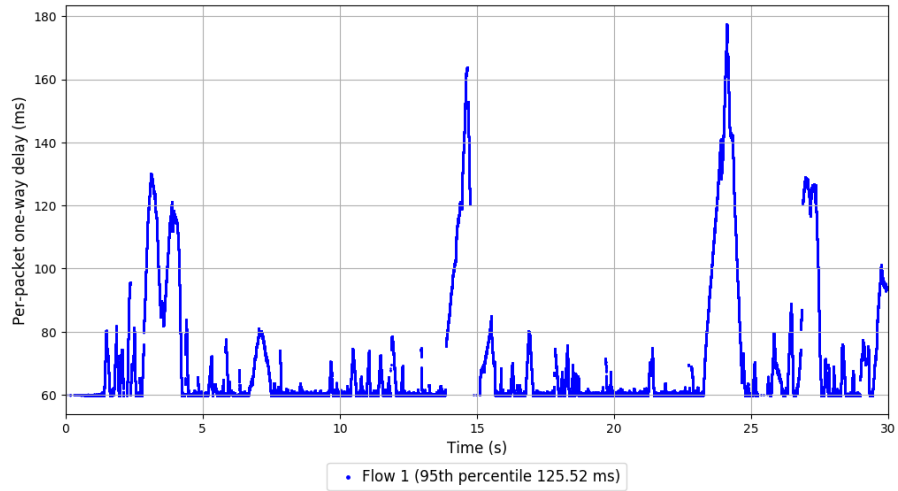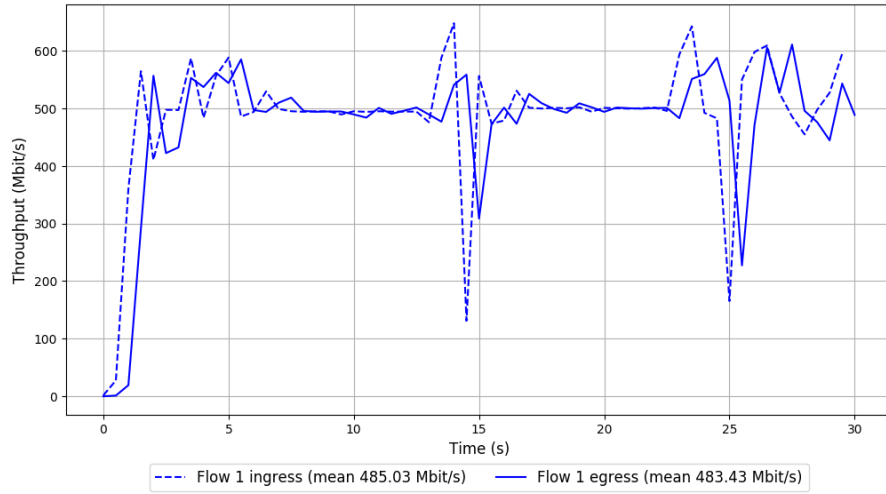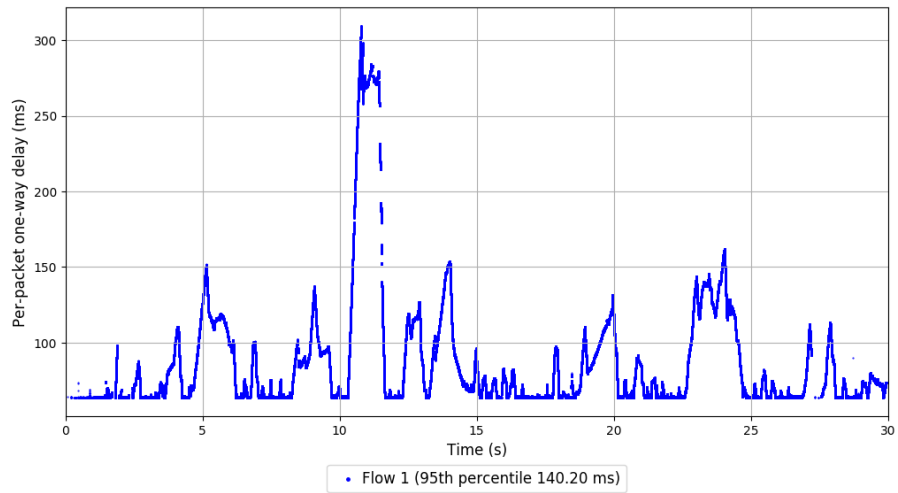
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 471.07 Mbit/s) Flow 1 egress (mean 470.33 Mbit/s)

Flow 1 (95th percentile 140.48 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2019-06-28 05:14:44
End at: 2019-06-28 05:15:14
Local clock offset: 0.036 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2019-06-28 07:18:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 493.21 Mbit/s
95th percentile per-packet one-way delay: 152.476 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 493.21 Mbit/s
95th percentile per-packet one-way delay: 152.476 ms
Loss rate: 0.60%
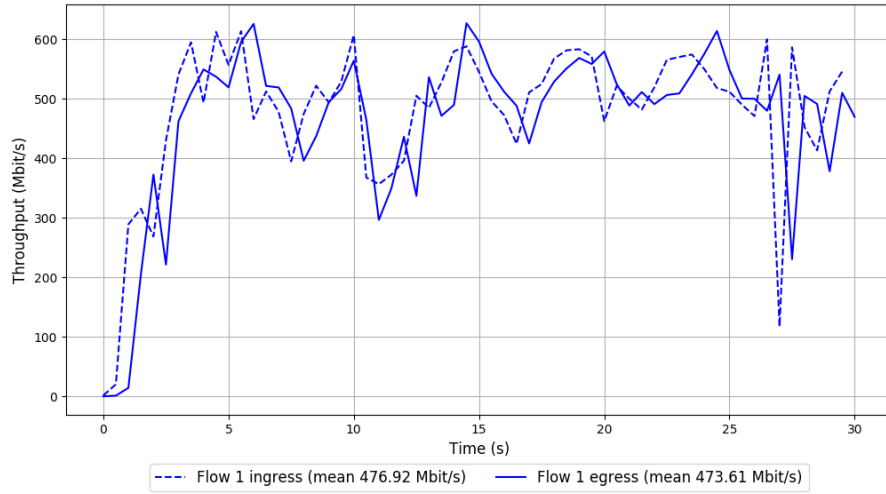```

Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2019-06-28 05:46:44
End at: 2019-06-28 05:47:14
Local clock offset: -0.163 ms
Remote clock offset: -0.098 ms

Below is generated by plot.py at 2019-06-28 07:18:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 483.43 Mbit/s
95th percentile per-packet one-way delay: 125.519 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 483.43 Mbit/s
95th percentile per-packet one-way delay: 125.519 ms
Loss rate: 0.73%
```
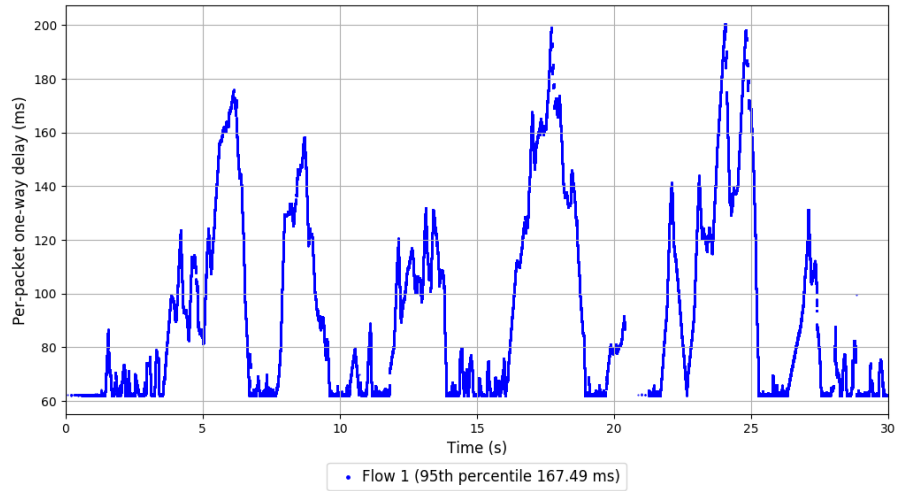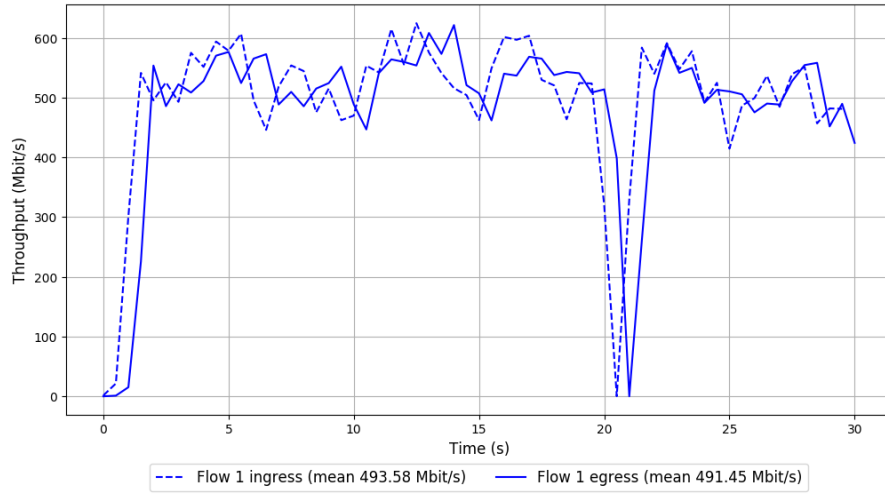
Run 3: Report of TCP BBR — Data Link



Flow 1 ingress (mean 485.03 Mbit/s)      Flow 1 egress (mean 483.43 Mbit/s)



Flow 1 (95th percentile 125.52 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-06-28 06:18:35
End at: 2019-06-28 06:19:05
Local clock offset: -0.264 ms
Remote clock offset: -0.577 ms

Below is generated by plot.py at 2019-06-28 07:18:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 473.61 Mbit/s
95th percentile per-packet one-way delay: 140.203 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 473.61 Mbit/s
95th percentile per-packet one-way delay: 140.203 ms
Loss rate: 1.11%
```
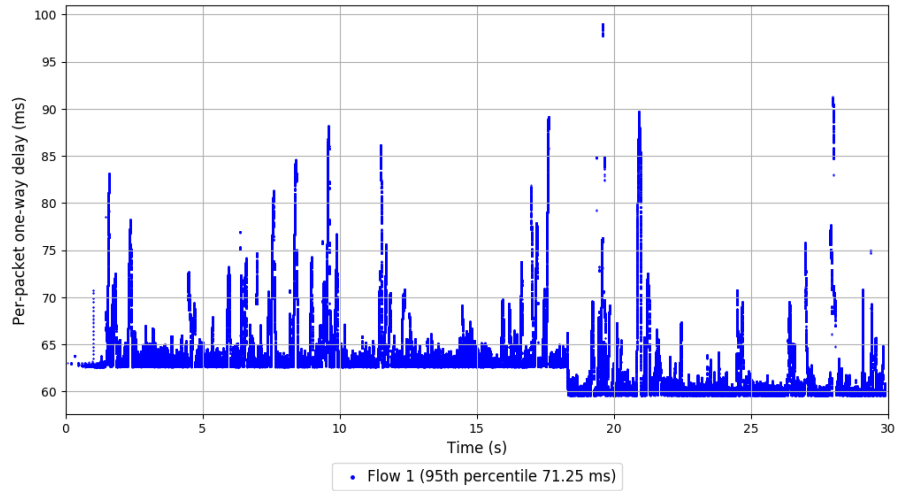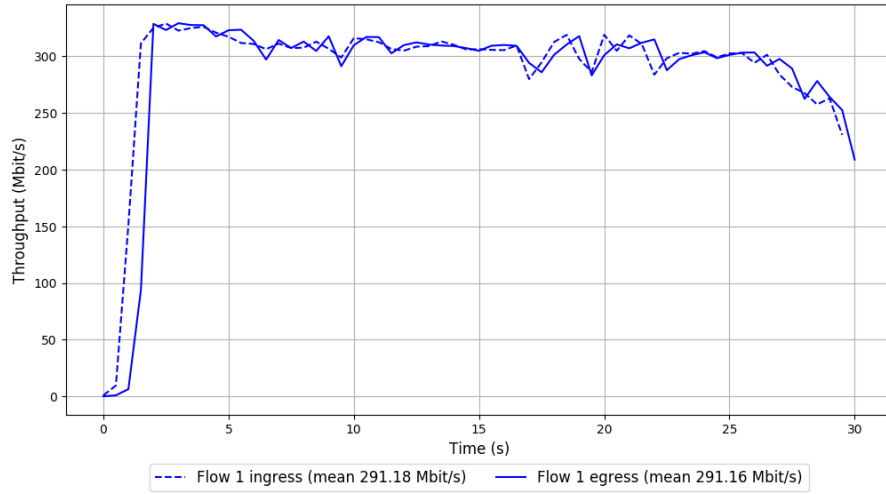
Run 4: Report of TCP BBR — Data Link



Flow 1 ingress (mean 476.92 Mbit/s)    Flow 1 egress (mean 473.61 Mbit/s)



Flow 1 (95th percentile 140.20 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-06-28 06:49:47
End at: 2019-06-28 06:50:17
Local clock offset: 0.01 ms
Remote clock offset: 0.368 ms

Below is generated by plot.py at 2019-06-28 07:18:49
Datalink statistics
-- Total of 1 flow:
Average throughput: 491.45 Mbit/s
95th percentile per-packet one-way delay: 167.489 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 491.45 Mbit/s
95th percentile per-packet one-way delay: 167.489 ms
Loss rate: 0.85%
```
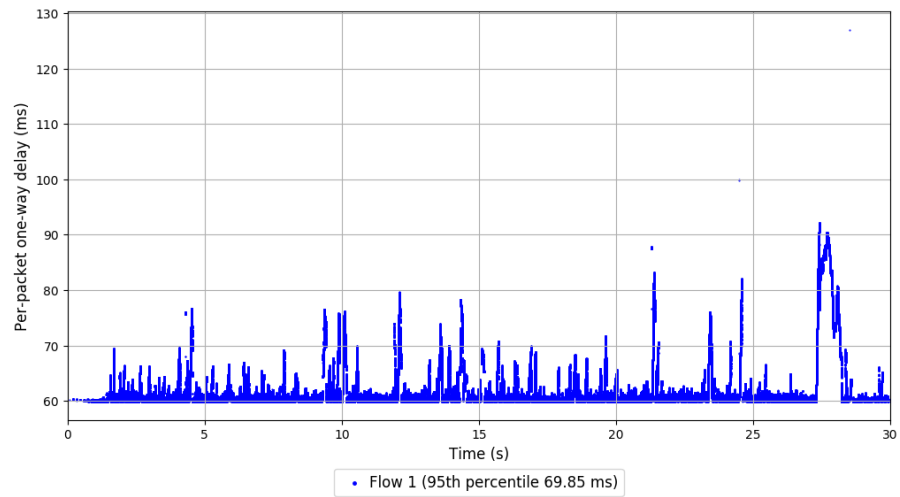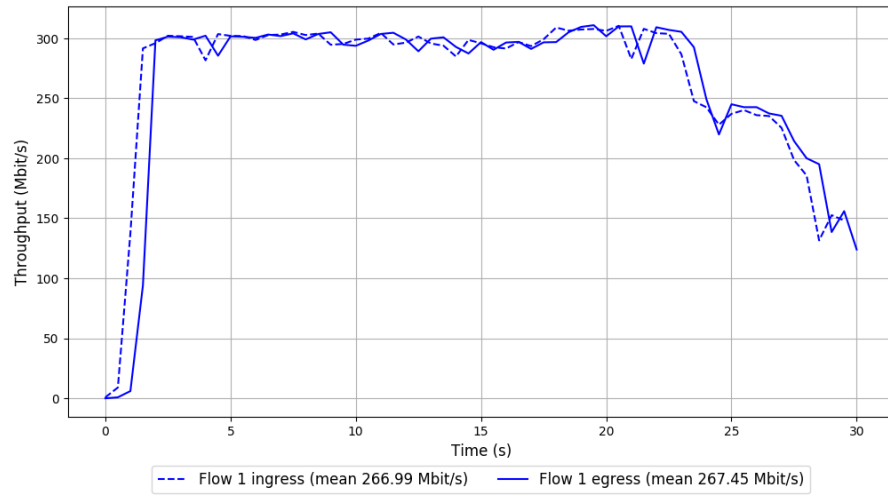
Run 5: Report of TCP BBR — Data Link



Flow 1 ingress (mean 493.58 Mbit/s)    Flow 1 egress (mean 491.45 Mbit/s)



Flow 1 (95th percentile 167.49 ms)

```
Run 1: Statistics of Copa

Start at: 2019-06-28 04:50:07
End at: 2019-06-28 04:50:37
Local clock offset: -0.021 ms
Remote clock offset: 0.172 ms

Below is generated by plot.py at 2019-06-28 07:19:34
Datalink statistics
-- Total of 1 flow:
Average throughput: 291.16 Mbit/s
95th percentile per-packet one-way delay: 71.249 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 291.16 Mbit/s
95th percentile per-packet one-way delay: 71.249 ms
Loss rate: 0.42%
```
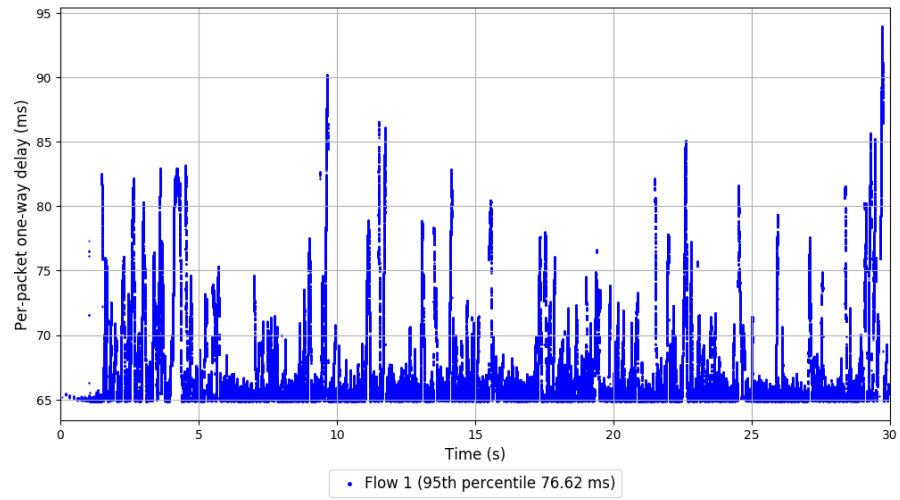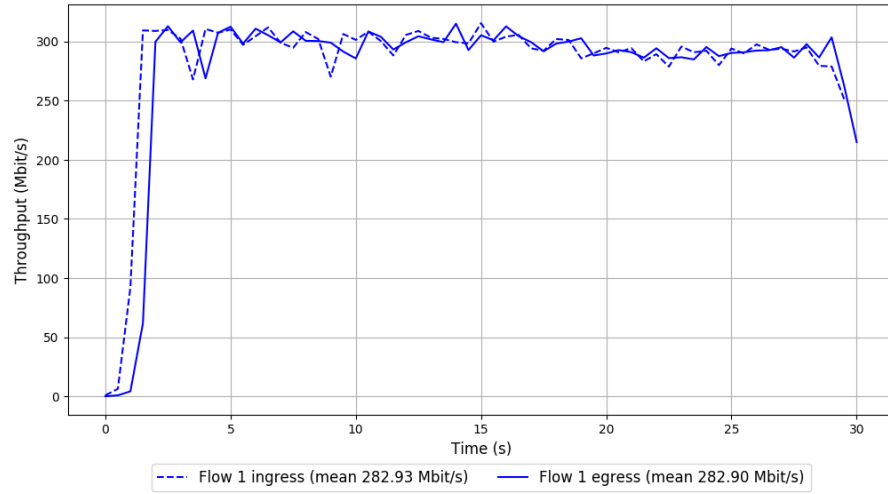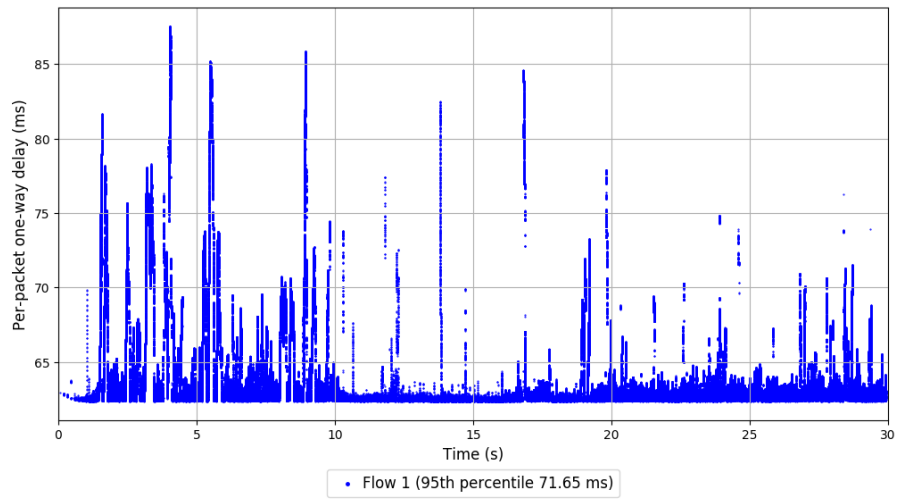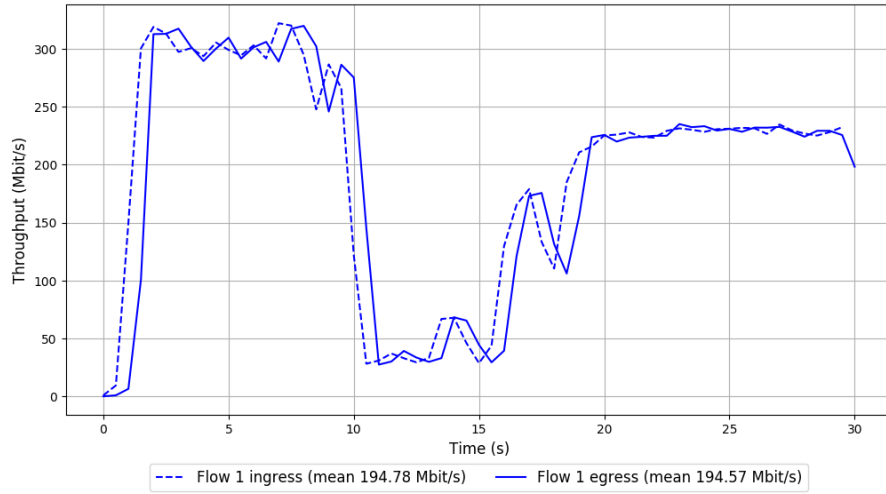
# Run 1: Report of Copa — Data Link



Flow 1 ingress (mean 291.18 Mbit/s)  Flow 1 egress (mean 291.16 Mbit/s)



Flow 1 (95th percentile 71.25 ms)

```
Run 2: Statistics of Copa

Start at: 2019-06-28 05:22:02
End at: 2019-06-28 05:22:32
Local clock offset: -0.002 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2019-06-28 07:19:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 267.45 Mbit/s
95th percentile per-packet one-way delay: 69.847 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 267.45 Mbit/s
95th percentile per-packet one-way delay: 69.847 ms
Loss rate: 0.23%
```

Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2019-06-28 05:53:57
End at: 2019-06-28 05:54:27
Local clock offset: -0.236 ms
Remote clock offset: 0.049 ms

# Below is generated by plot.py at 2019-06-28 07:19:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.90 Mbit/s
95th percentile per-packet one-way delay: 76.624 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 282.90 Mbit/s
95th percentile per-packet one-way delay: 76.624 ms
Loss rate: 0.44%
```
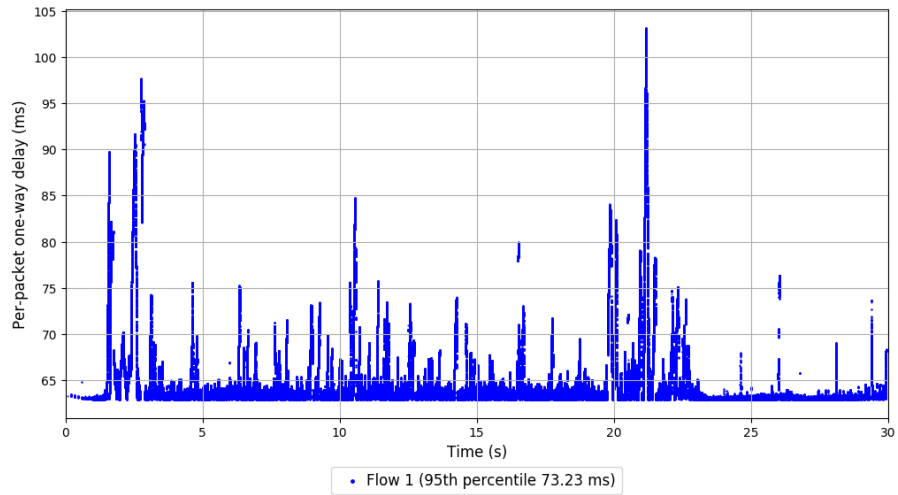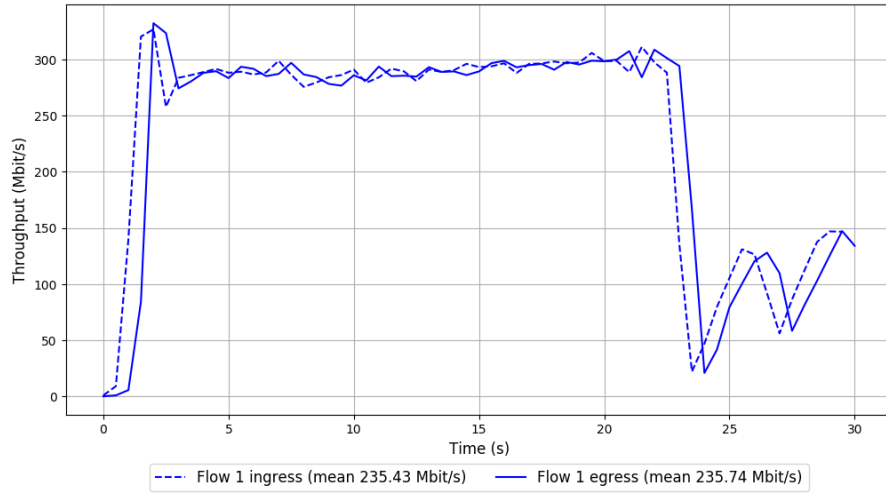
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 282.93 Mbit/s) --- Flow 1 egress (mean 282.90 Mbit/s)

• Flow 1 (95th percentile 76.62 ms)

```
Run 4: Statistics of Copa

Start at: 2019-06-28 06:25:42
End at: 2019-06-28 06:26:12
Local clock offset: -0.315 ms
Remote clock offset: -0.147 ms


# Below is generated by plot.py at 2019-06-28 07:25:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 194.57 Mbit/s
95th percentile per-packet one-way delay: 71.651 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 194.57 Mbit/s
95th percentile per-packet one-way delay: 71.651 ms
Loss rate: 0.53%
```
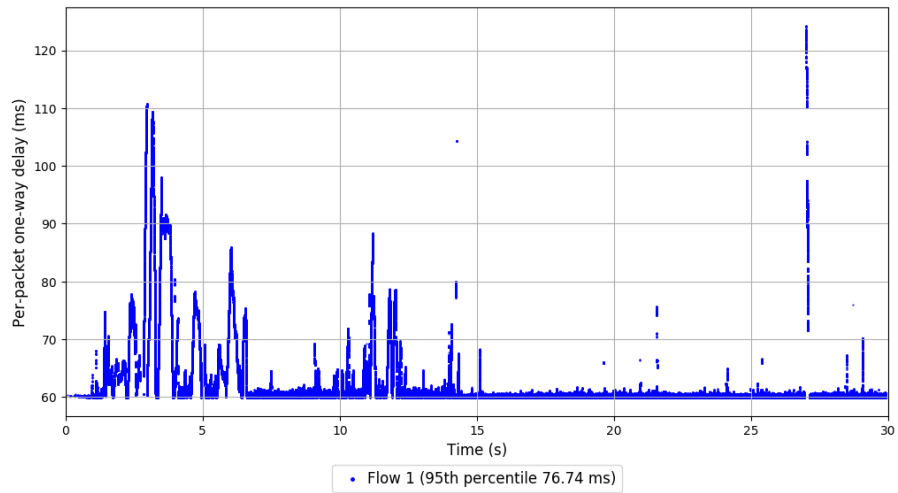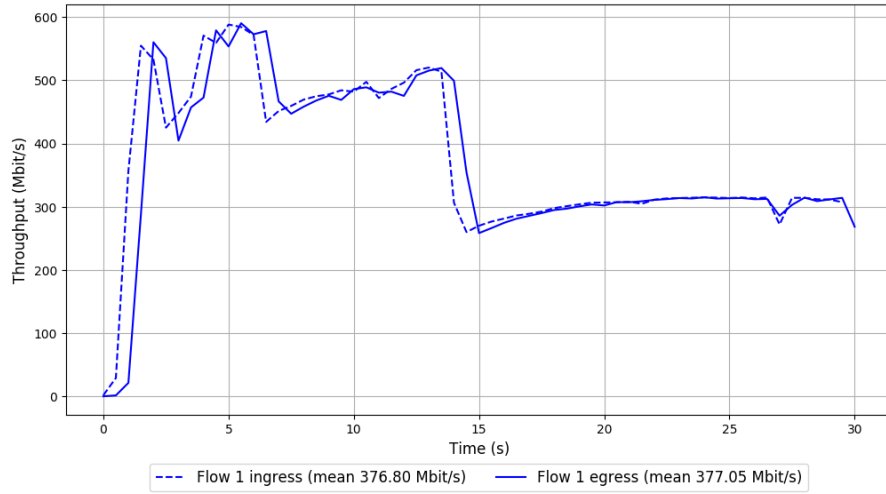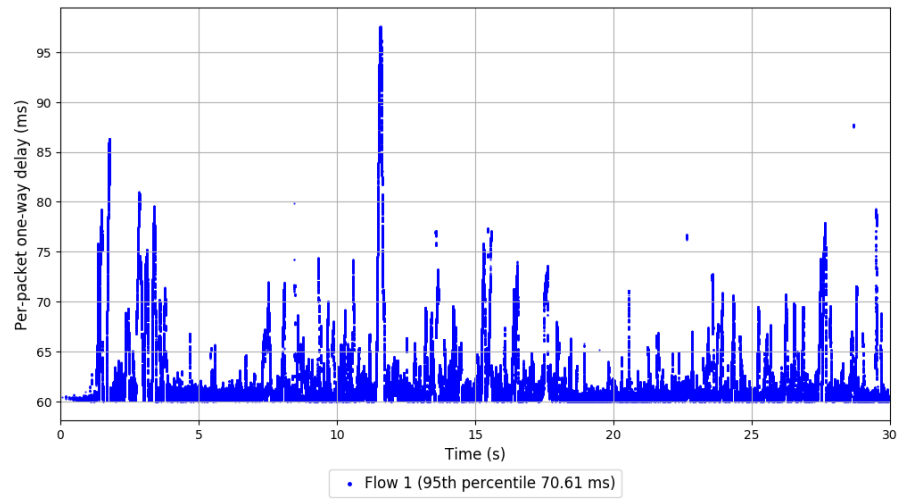
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 194.78 Mbit/s)   Flow 1 egress (mean 194.57 Mbit/s)

Flow 1 (95th percentile 71.65 ms)

```
Run 5: Statistics of Copa

Start at: 2019-06-28 06:56:54
End at: 2019-06-28 06:57:24
Local clock offset: 0.081 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2019-06-28 07:26:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.74 Mbit/s
95th percentile per-packet one-way delay: 73.229 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 235.74 Mbit/s
95th percentile per-packet one-way delay: 73.229 ms
Loss rate: 0.29%
```
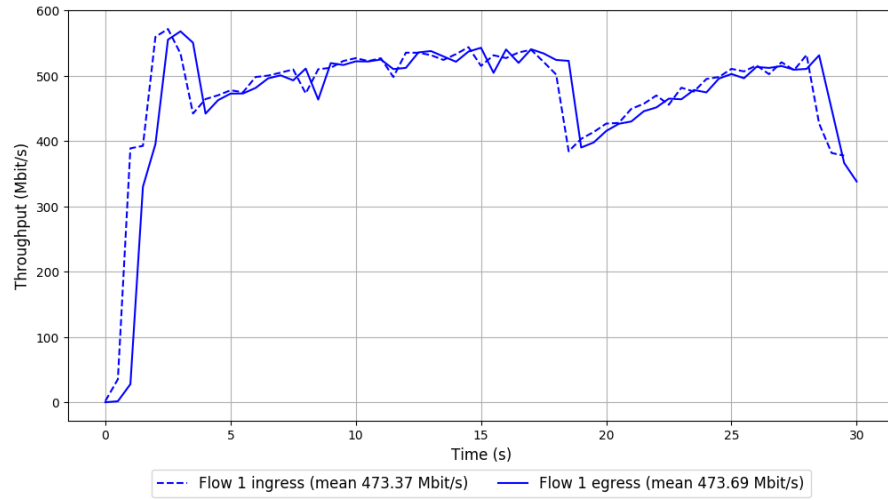
Run 5: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2019-06-28 04:24:43
End at: 2019-06-28 04:25:13
Local clock offset: -0.034 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2019-06-28 07:26:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.05 Mbit/s
95th percentile per-packet one-way delay: 76.738 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 377.05 Mbit/s
95th percentile per-packet one-way delay: 76.738 ms
Loss rate: 0.34%
```
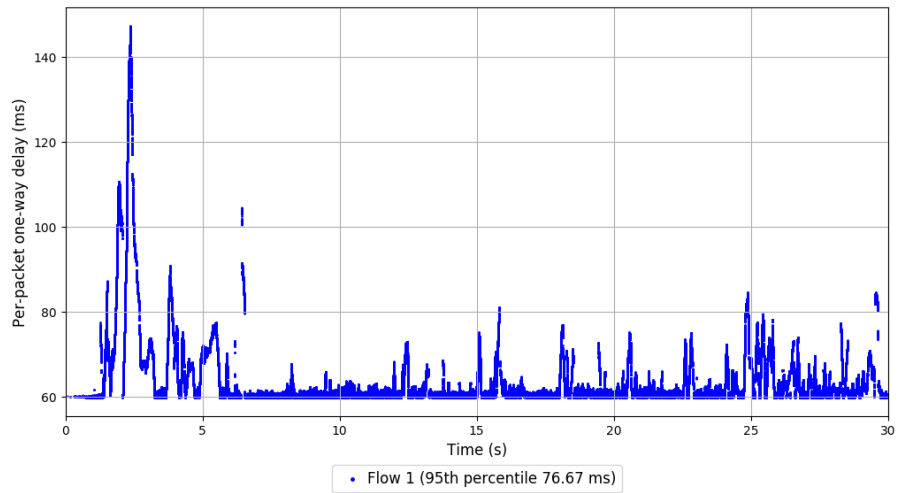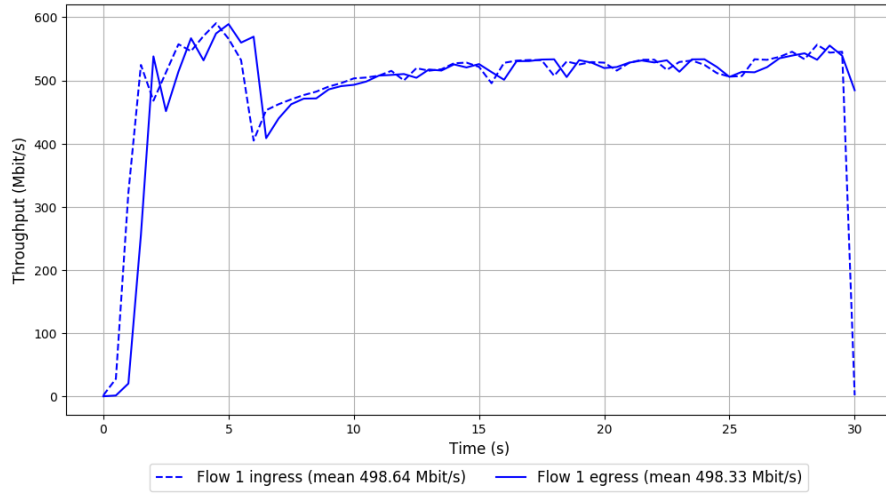
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-06-28 04:56:28
End at: 2019-06-28 04:56:58
Local clock offset: -0.034 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2019-06-28 07:26:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 473.69 Mbit/s
95th percentile per-packet one-way delay: 70.607 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 473.69 Mbit/s
95th percentile per-packet one-way delay: 70.607 ms
Loss rate: 0.34%
```
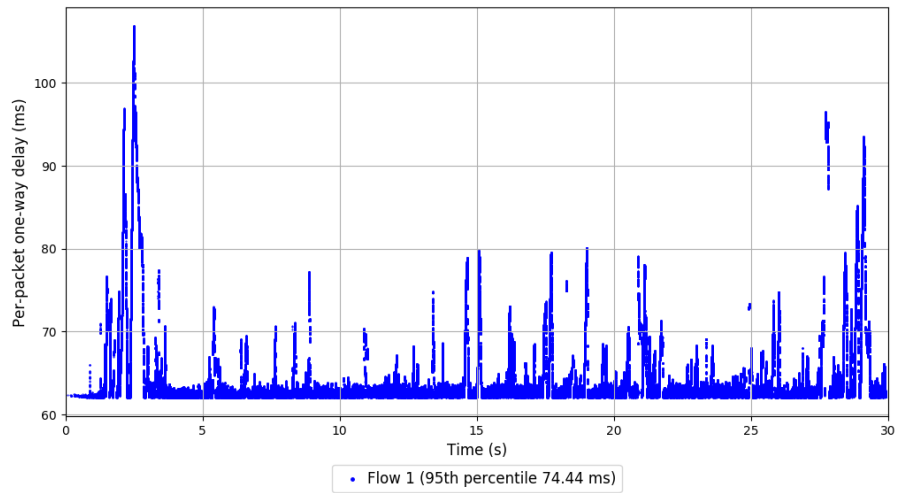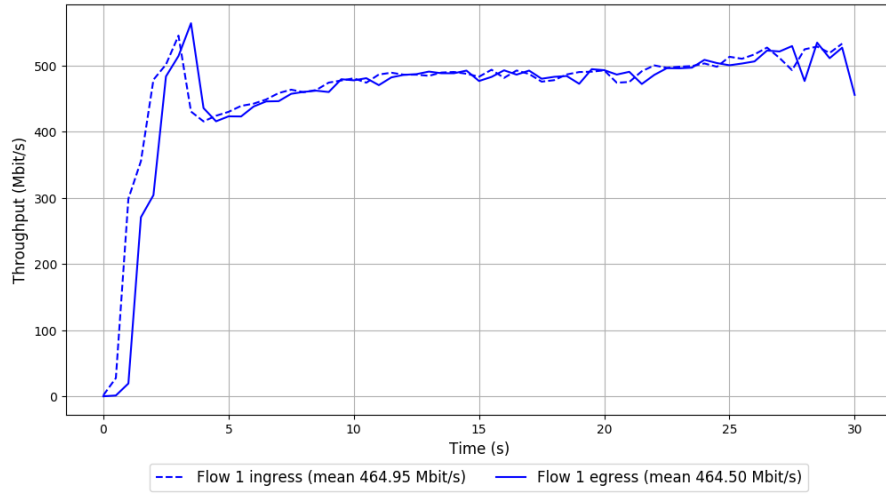
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 473.37 Mbit/s)   Flow 1 egress (mean 473.69 Mbit/s)
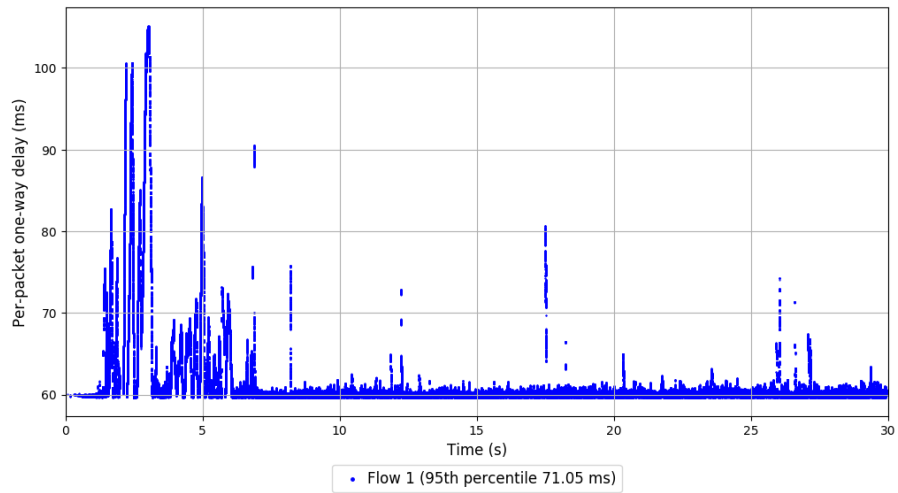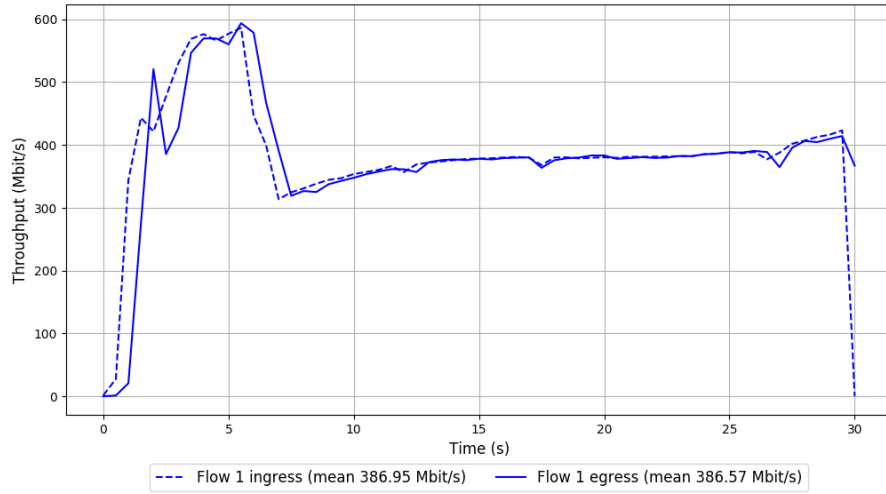

• Flow 1 (95th percentile 70.61 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-06-28 05:28:20
End at: 2019-06-28 05:28:50
Local clock offset: -0.086 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2019-06-28 07:27:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 498.33 Mbit/s
95th percentile per-packet one-way delay: 76.666 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 498.33 Mbit/s
95th percentile per-packet one-way delay: 76.666 ms
Loss rate: 0.46%
```
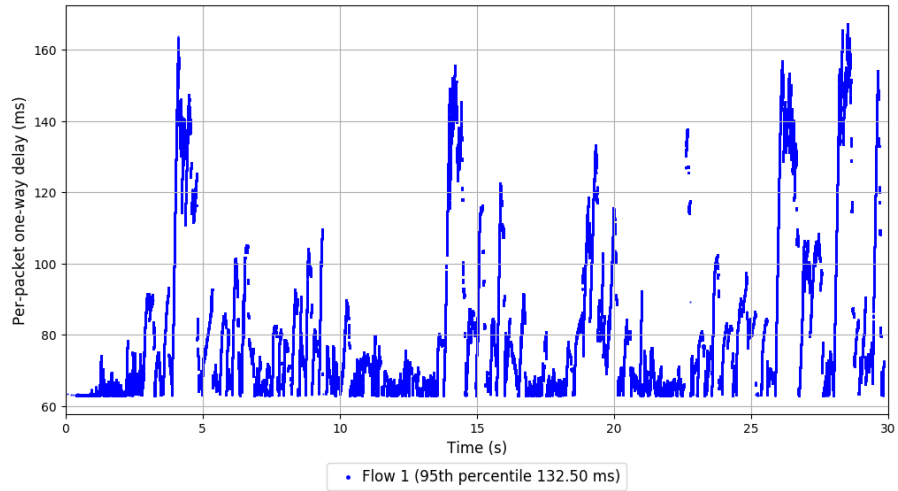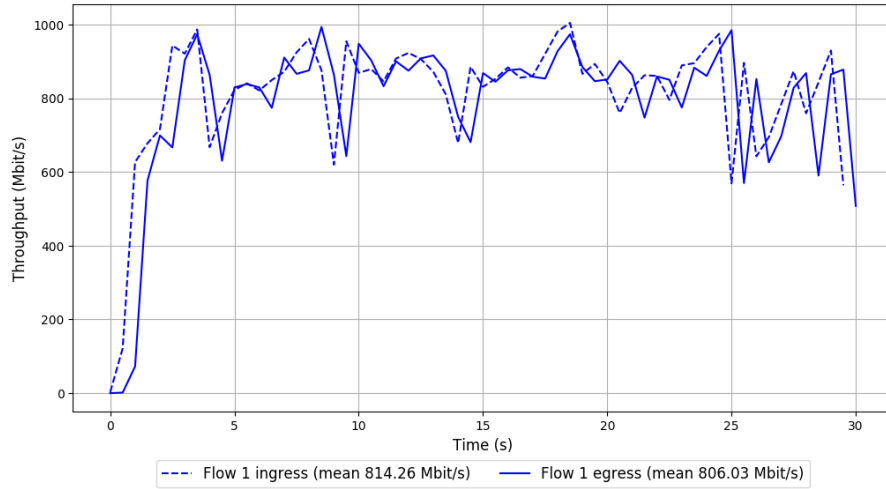
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 498.64 Mbit/s) — — — Flow 1 egress (mean 498.33 Mbit/s)

• Flow 1 (95th percentile 76.67 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-06-28 06:00:25
End at: 2019-06-28 06:00:55
Local clock offset: -0.245 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2019-06-28 07:27:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 464.50 Mbit/s
95th percentile per-packet one-way delay: 74.445 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 464.50 Mbit/s
95th percentile per-packet one-way delay: 74.445 ms
Loss rate: 0.52%
```
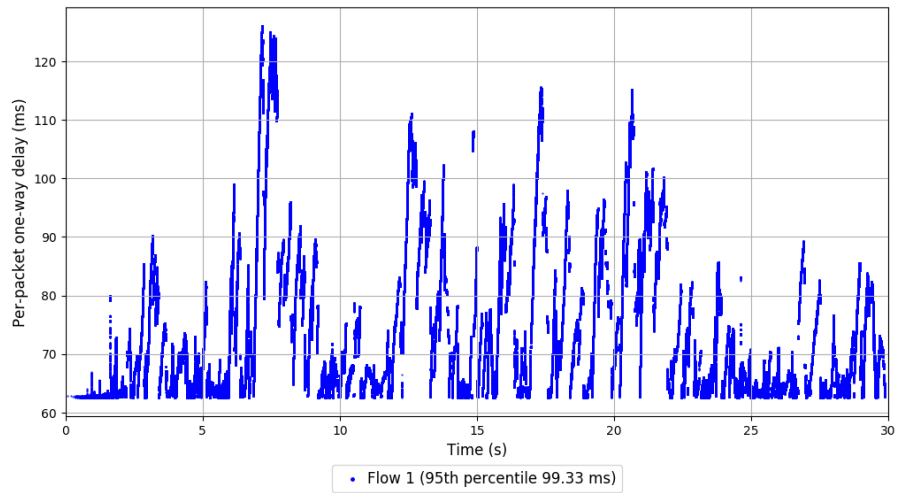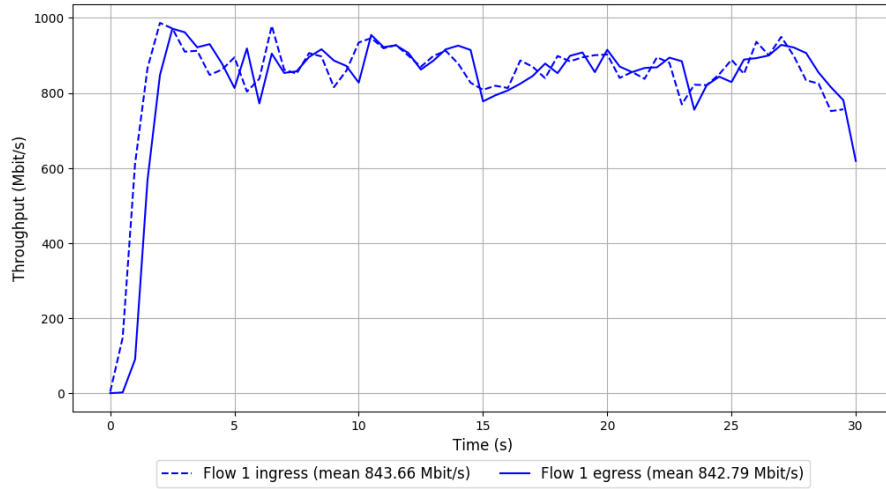
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-06-28 06:31:50
End at: 2019-06-28 06:32:20
Local clock offset: -0.243 ms
Remote clock offset: -0.113 ms


# Below is generated by plot.py at 2019-06-28 07:27:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 386.57 Mbit/s
95th percentile per-packet one-way delay: 71.051 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 386.57 Mbit/s
95th percentile per-packet one-way delay: 71.051 ms
Loss rate: 0.51%
```

Run 5: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2019-06-28 04:20:04
End at: 2019-06-28 04:20:34
Local clock offset: -0.038 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2019-06-28 07:34:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 806.03 Mbit/s
95th percentile per-packet one-way delay: 132.498 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 806.03 Mbit/s
95th percentile per-packet one-way delay: 132.498 ms
Loss rate: 1.43%
```
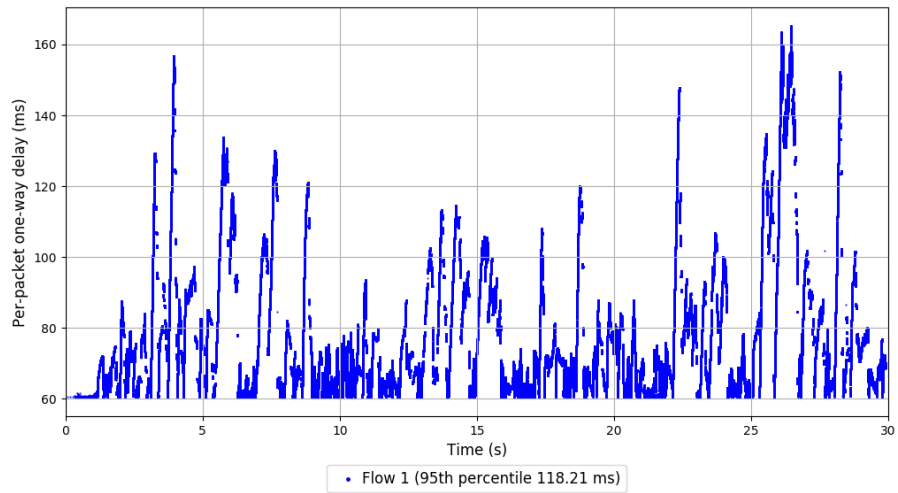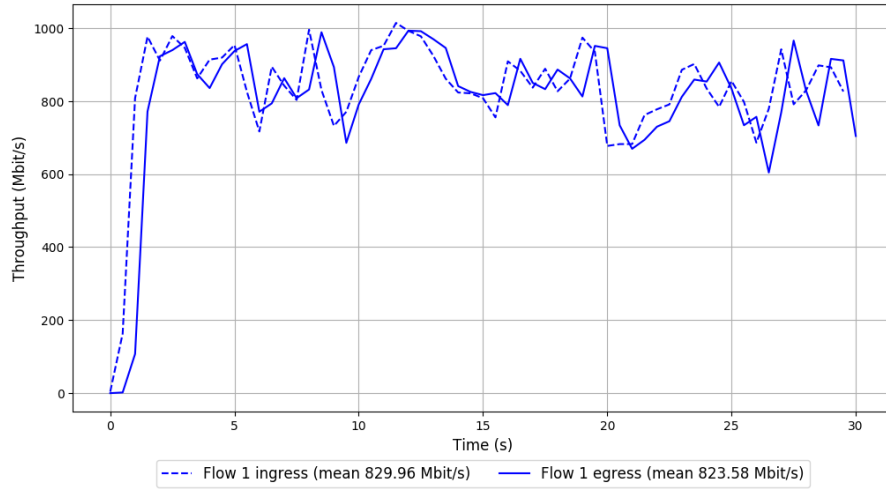
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 814.26 Mbit/s)   Flow 1 egress (mean 806.03 Mbit/s)

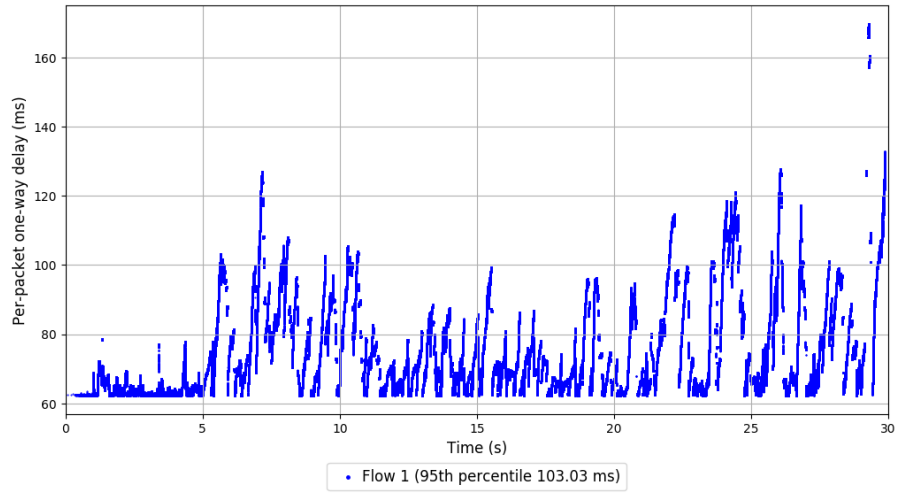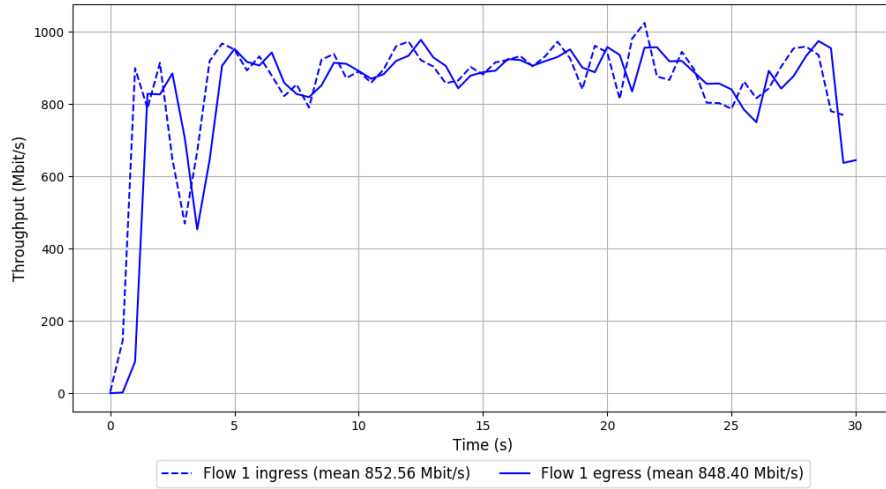
• Flow 1 (95th percentile 132.50 ms)

```
Run 2: Statistics of FillP

Start at: 2019-06-28 04:51:42
End at: 2019-06-28 04:52:12
Local clock offset: 0.009 ms
Remote clock offset: -0.212 ms


# Below is generated by plot.py at 2019-06-28 07:43:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 842.79 Mbit/s
95th percentile per-packet one-way delay: 99.326 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 842.79 Mbit/s
95th percentile per-packet one-way delay: 99.326 ms
Loss rate: 0.53%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 843.66 Mbit/s)   Flow 1 egress (mean 842.79 Mbit/s)

Flow 1 (95th percentile 99.33 ms)

```
Run 3: Statistics of FillP

Start at: 2019-06-28 05:23:35
End at: 2019-06-28 05:24:05
Local clock offset: 0.0 ms
Remote clock offset: -0.406 ms


# Below is generated by plot.py at 2019-06-28 07:43:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 823.58 Mbit/s
95th percentile per-packet one-way delay: 118.214 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 823.58 Mbit/s
95th percentile per-packet one-way delay: 118.214 ms
Loss rate: 1.17%
```
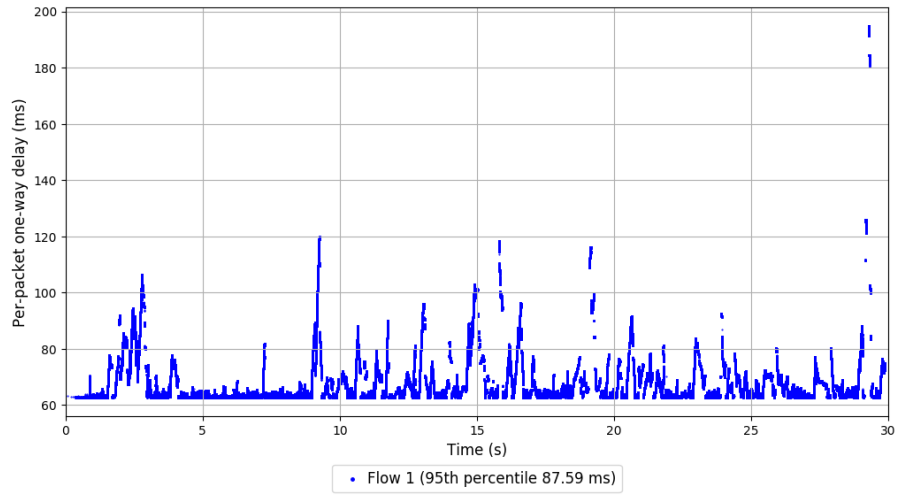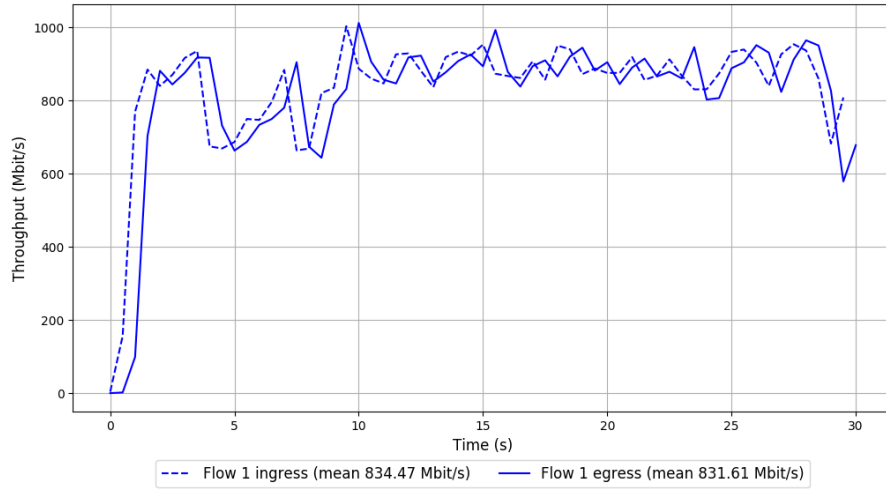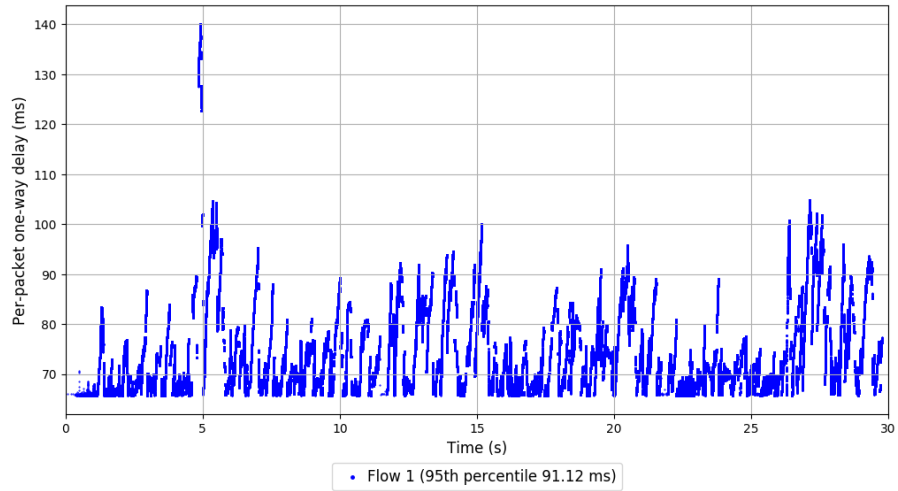
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 829.96 Mbit/s)   Flow 1 egress (mean 823.58 Mbit/s)

• Flow 1 (95th percentile 118.21 ms)

```
Run 4: Statistics of FillP

Start at: 2019-06-28 05:55:33
End at: 2019-06-28 05:56:03
Local clock offset: -0.207 ms
Remote clock offset: -0.106 ms


# Below is generated by plot.py at 2019-06-28 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 848.40 Mbit/s
95th percentile per-packet one-way delay: 103.031 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 848.40 Mbit/s
95th percentile per-packet one-way delay: 103.031 ms
Loss rate: 0.89%
```
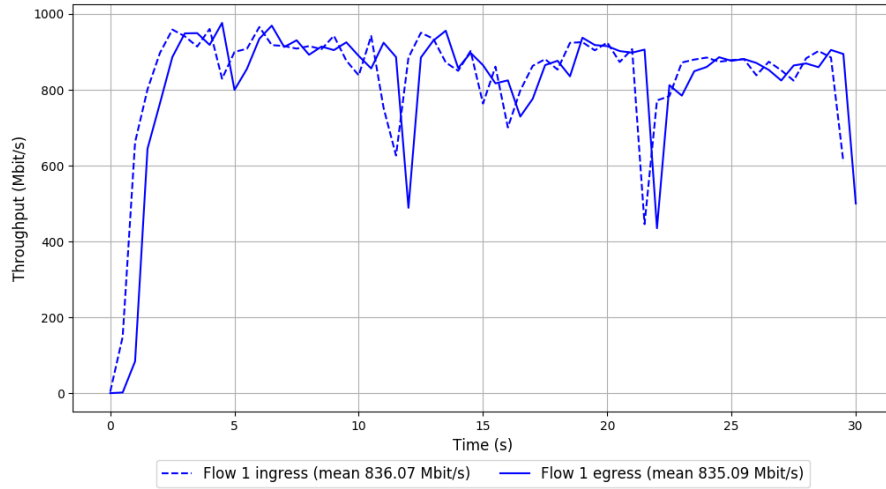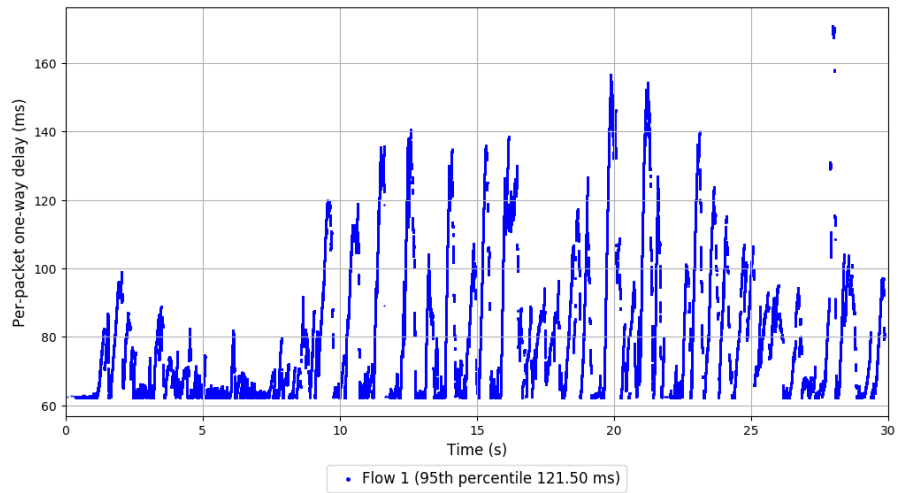
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 852.56 Mbit/s)   Flow 1 egress (mean 848.40 Mbit/s)

• Flow 1 (95th percentile 103.03 ms)

```
Run 5: Statistics of FillP

Start at: 2019-06-28 06:27:08
End at: 2019-06-28 06:27:38
Local clock offset: -0.309 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2019-06-28 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 831.61 Mbit/s
95th percentile per-packet one-way delay: 87.595 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 831.61 Mbit/s
95th percentile per-packet one-way delay: 87.595 ms
Loss rate: 0.77%
```
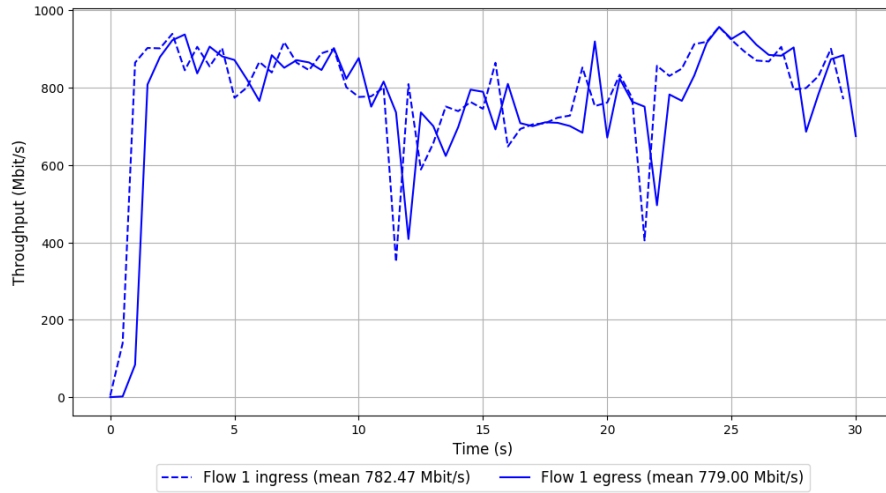
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 834.47 Mbit/s)　　Flow 1 egress (mean 831.61 Mbit/s)
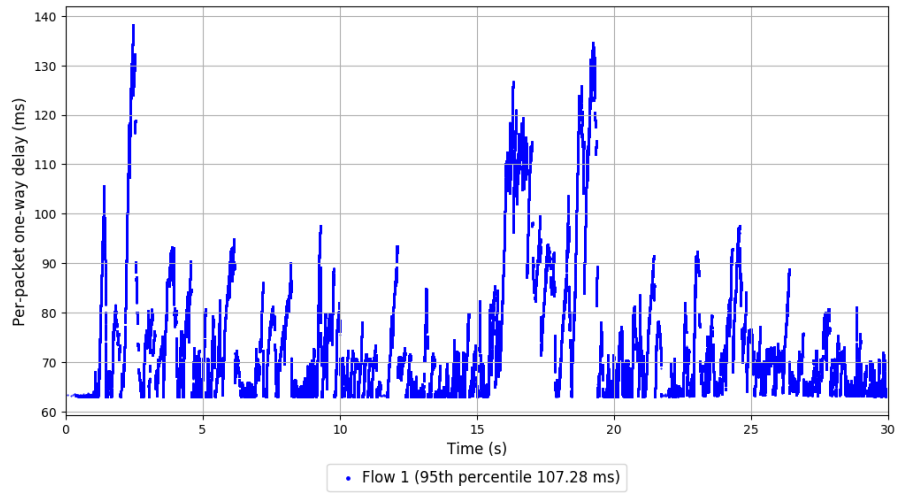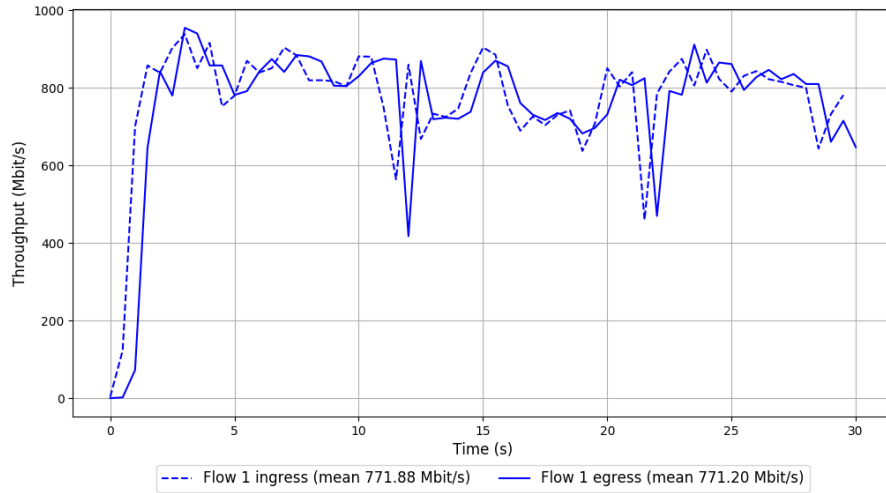

Flow 1 (95th percentile 87.59 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-06-28 04:31:52
End at: 2019-06-28 04:32:22
Local clock offset: -0.045 ms
Remote clock offset: 0.037 ms


# Below is generated by plot.py at 2019-06-28 07:44:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 835.09 Mbit/s
95th percentile per-packet one-way delay: 91.120 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 835.09 Mbit/s
95th percentile per-packet one-way delay: 91.120 ms
Loss rate: 0.54%
```
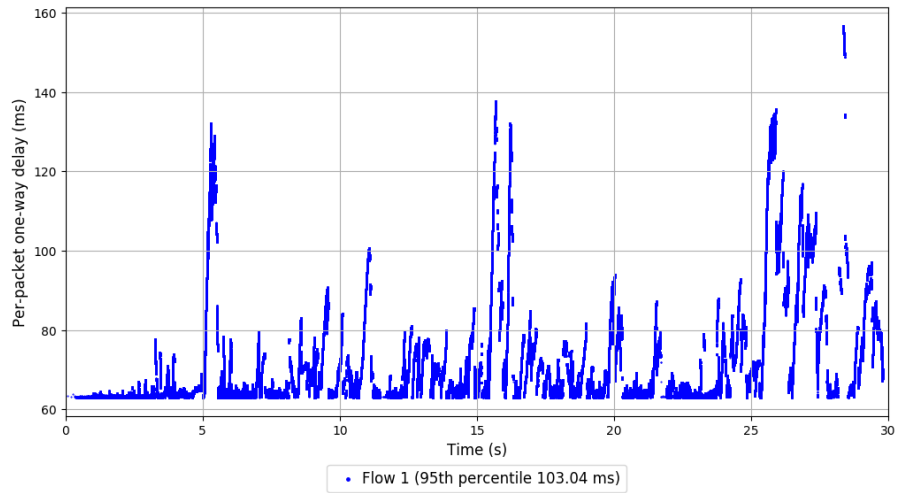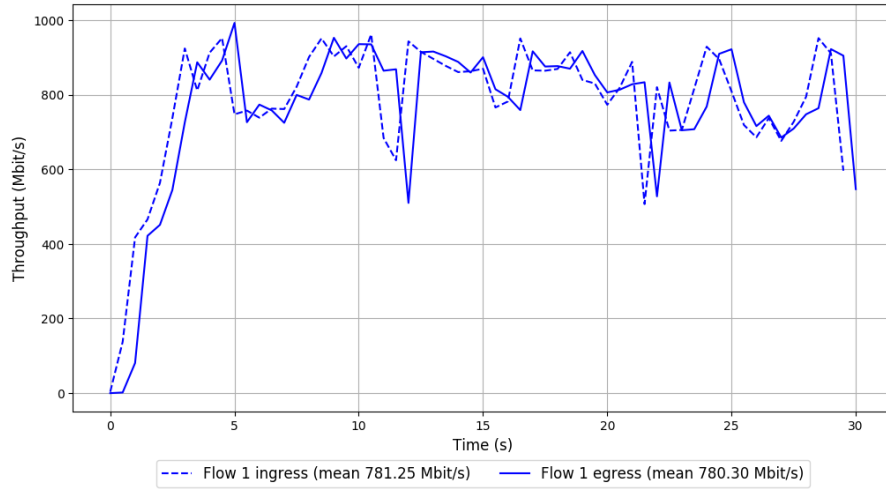
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-06-28 05:03:40
End at: 2019-06-28 05:04:10
Local clock offset: 0.002 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2019-06-28 07:44:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 779.00 Mbit/s
95th percentile per-packet one-way delay: 121.495 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 779.00 Mbit/s
95th percentile per-packet one-way delay: 121.495 ms
Loss rate: 0.86%
```
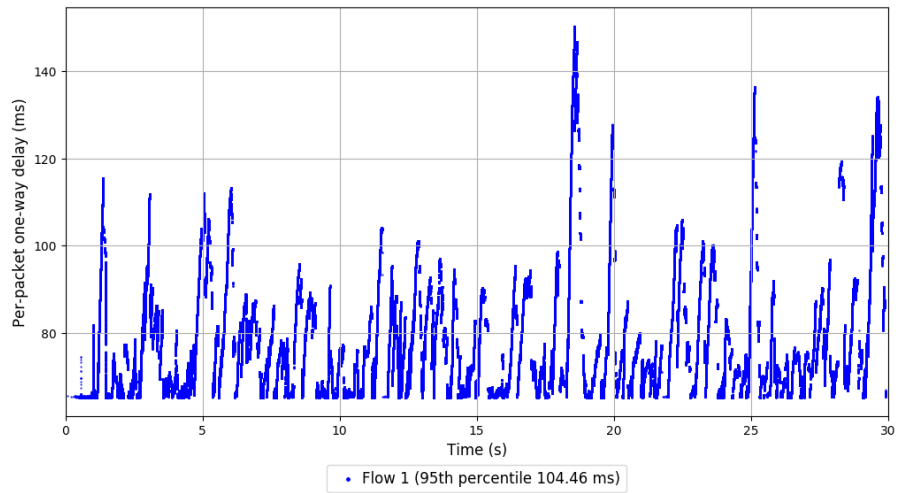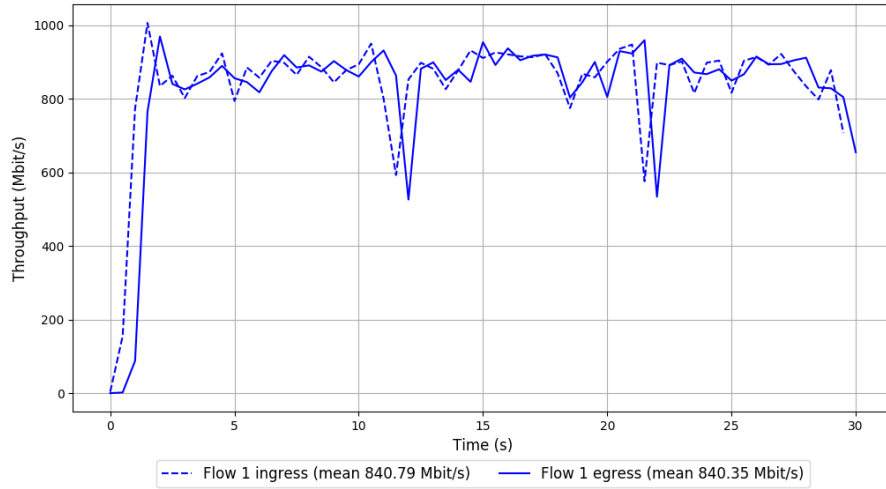
Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 782.47 Mbit/s)   Flow 1 egress (mean 779.00 Mbit/s)

· Flow 1 (95th percentile 121.50 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-06-28 05:35:37
End at: 2019-06-28 05:36:07
Local clock offset: -0.125 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2019-06-28 07:44:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 771.20 Mbit/s
95th percentile per-packet one-way delay: 107.283 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 771.20 Mbit/s
95th percentile per-packet one-way delay: 107.283 ms
Loss rate: 0.50%
```
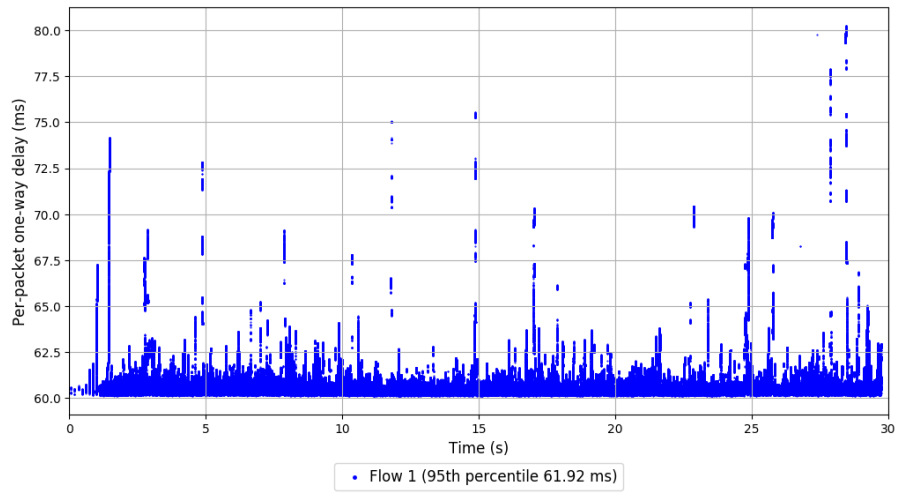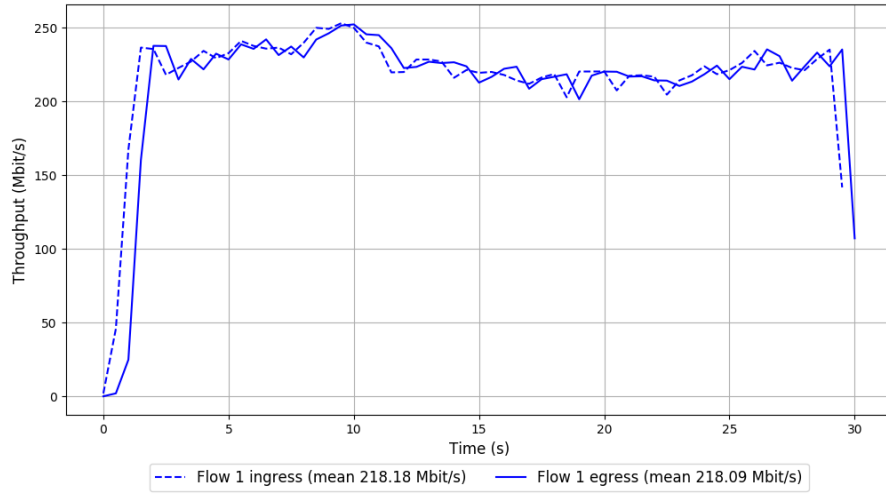
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-06-28 06:07:38
End at: 2019-06-28 06:08:08
Local clock offset: -0.242 ms
Remote clock offset: -0.165 ms


# Below is generated by plot.py at 2019-06-28 07:53:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 780.30 Mbit/s
95th percentile per-packet one-way delay: 103.044 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 780.30 Mbit/s
95th percentile per-packet one-way delay: 103.044 ms
Loss rate: 0.55%
```
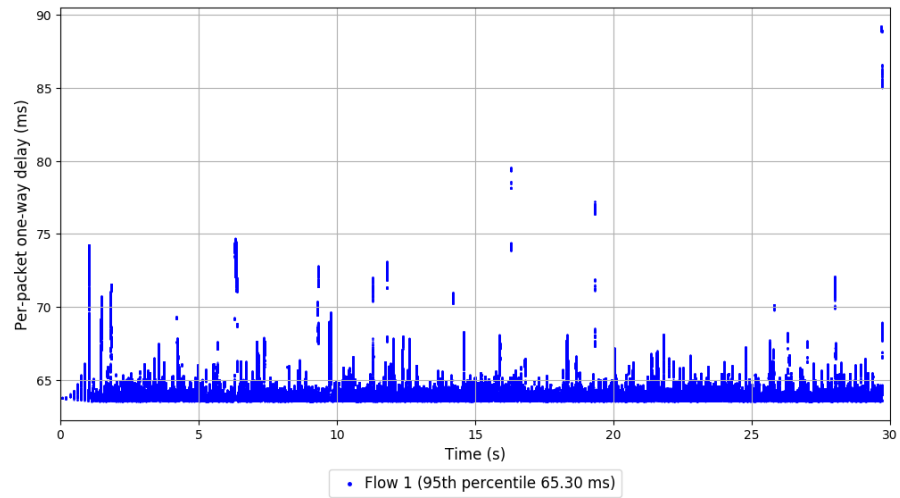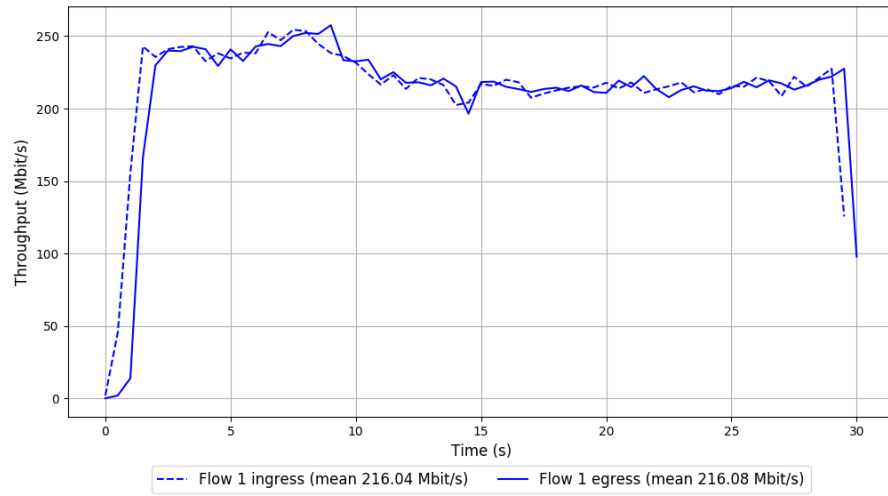
Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 781.25 Mbit/s)   Flow 1 egress (mean 780.30 Mbit/s)

• Flow 1 (95th percentile 103.04 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-06-28 06:38:58
End at: 2019-06-28 06:39:28
Local clock offset: -0.076 ms
Remote clock offset: -0.156 ms


# Below is generated by plot.py at 2019-06-28 08:01:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 840.35 Mbit/s
95th percentile per-packet one-way delay: 104.457 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 840.35 Mbit/s
95th percentile per-packet one-way delay: 104.457 ms
Loss rate: 0.48%
```
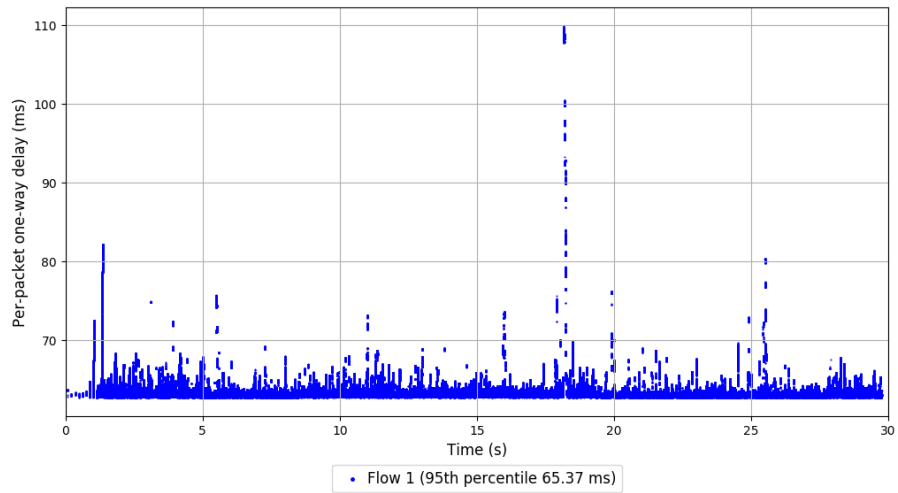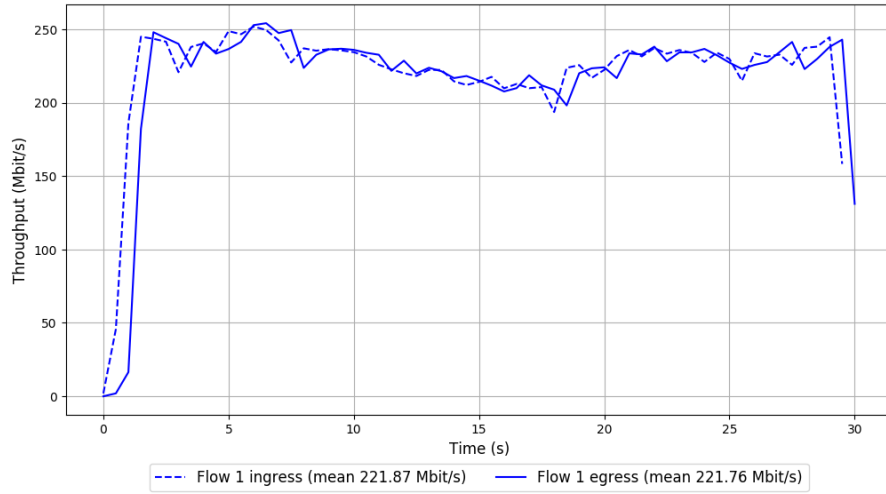
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-06-28 04:28:54
End at: 2019-06-28 04:29:24
Local clock offset: -0.016 ms
Remote clock offset: 0.097 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.09 Mbit/s
95th percentile per-packet one-way delay: 61.916 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 218.09 Mbit/s
95th percentile per-packet one-way delay: 61.916 ms
Loss rate: 0.46%
```
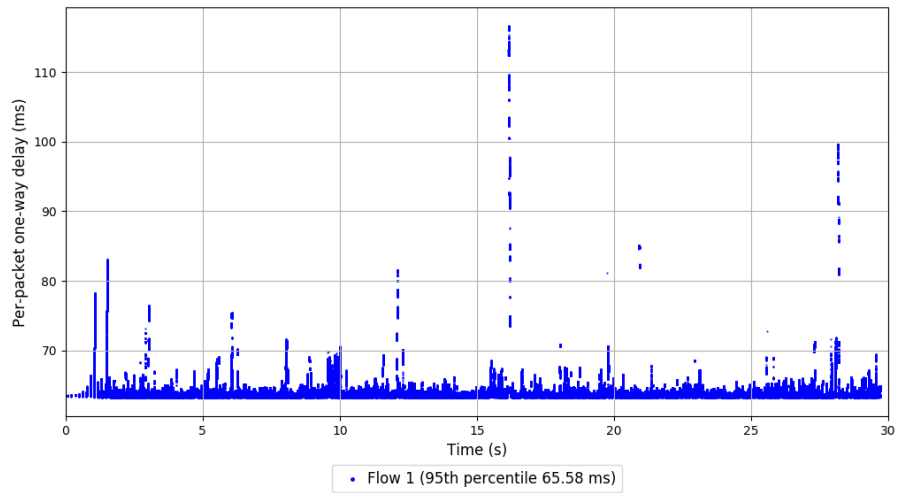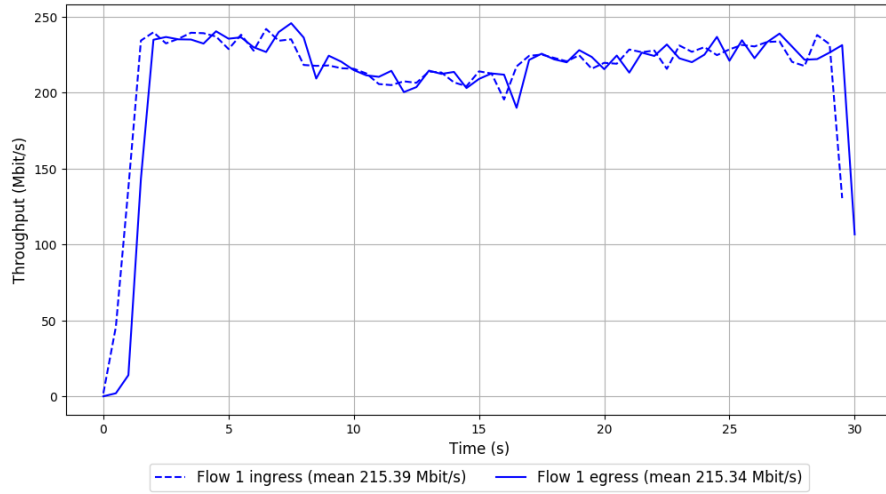
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-06-28 05:00:42
End at: 2019-06-28 05:01:12
Local clock offset: -0.039 ms
Remote clock offset: -0.64 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.08 Mbit/s
95th percentile per-packet one-way delay: 65.297 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 216.08 Mbit/s
95th percentile per-packet one-way delay: 65.297 ms
Loss rate: 0.42%
```
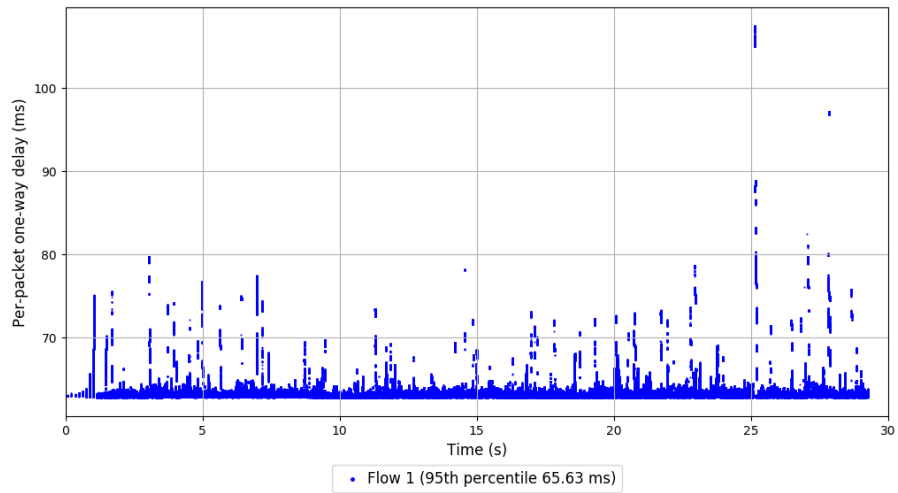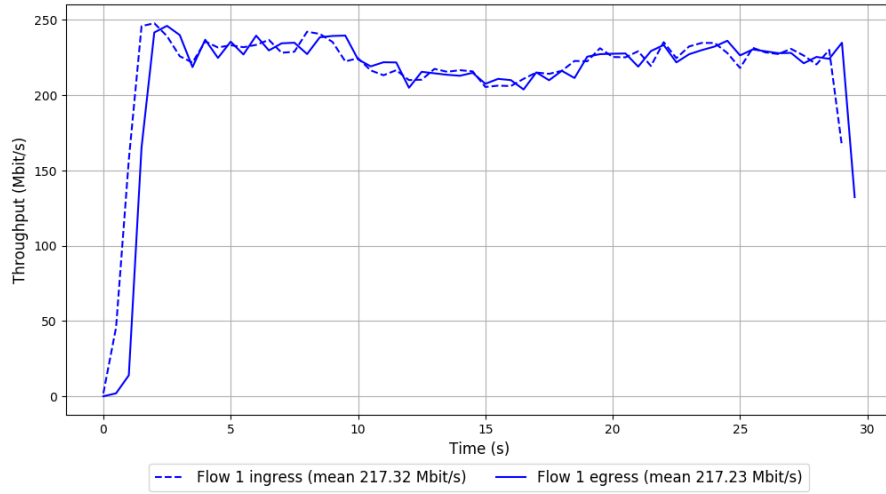
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-06-28 05:32:39
End at: 2019-06-28 05:33:09
Local clock offset: -0.115 ms
Remote clock offset: -0.132 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.76 Mbit/s
95th percentile per-packet one-way delay: 65.370 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 221.76 Mbit/s
95th percentile per-packet one-way delay: 65.370 ms
Loss rate: 0.46%
```

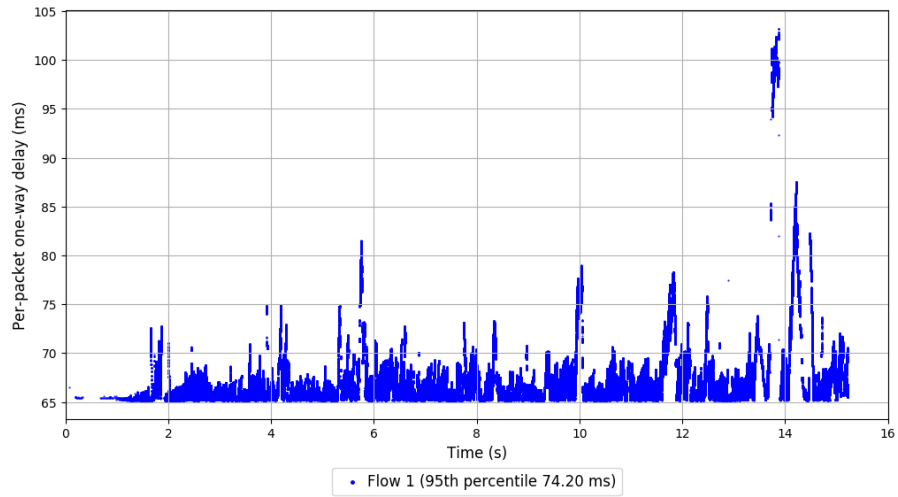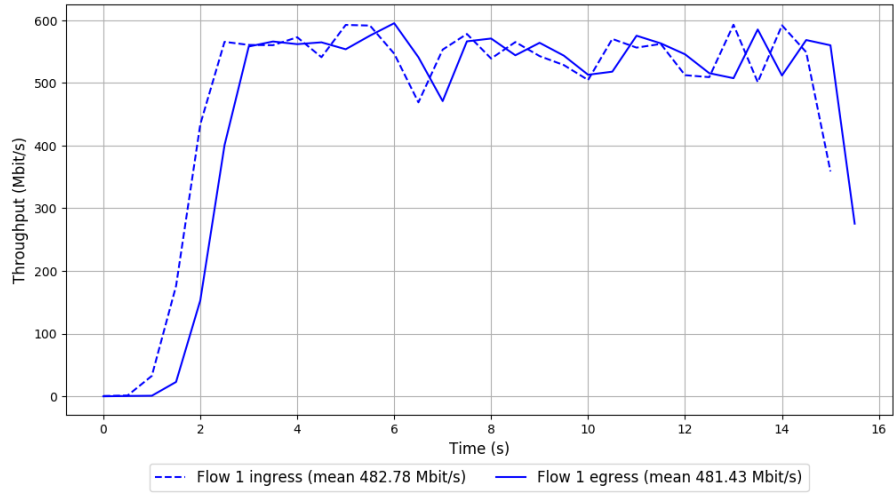Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-06-28 06:04:40
End at: 2019-06-28 06:05:11
Local clock offset: -0.246 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.34 Mbit/s
95th percentile per-packet one-way delay: 65.580 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 215.34 Mbit/s
95th percentile per-packet one-way delay: 65.580 ms
Loss rate: 0.45%
```
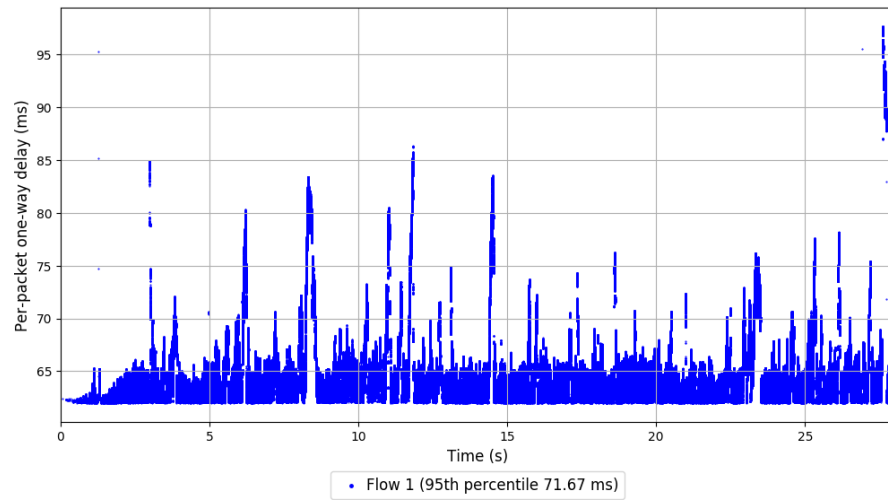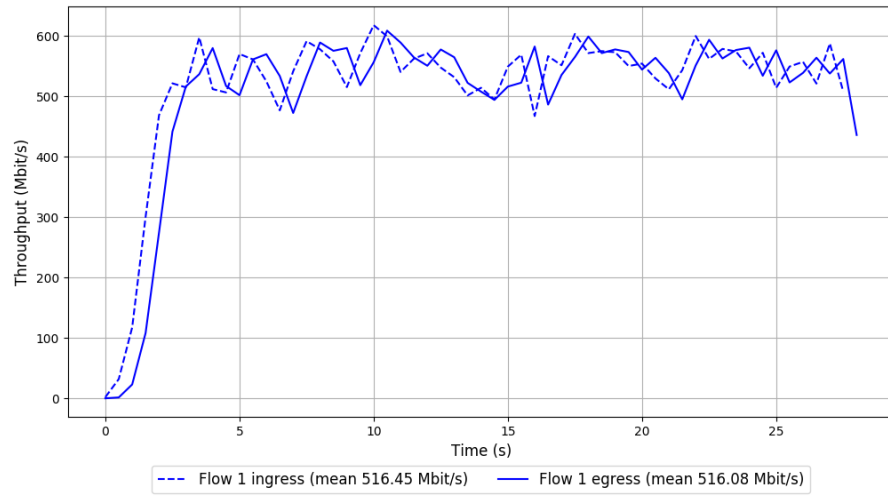
Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 215.39 Mbit/s) ——— Flow 1 egress (mean 215.34 Mbit/s)

Flow 1 (95th percentile 65.58 ms)

```
Run 5: Statistics of Indigo

Start at: 2019-06-28 06:36:01
End at: 2019-06-28 06:36:31
Local clock offset: -0.153 ms
Remote clock offset: -0.141 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.23 Mbit/s
95th percentile per-packet one-way delay: 65.626 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 217.23 Mbit/s
95th percentile per-packet one-way delay: 65.626 ms
Loss rate: 0.48%
```
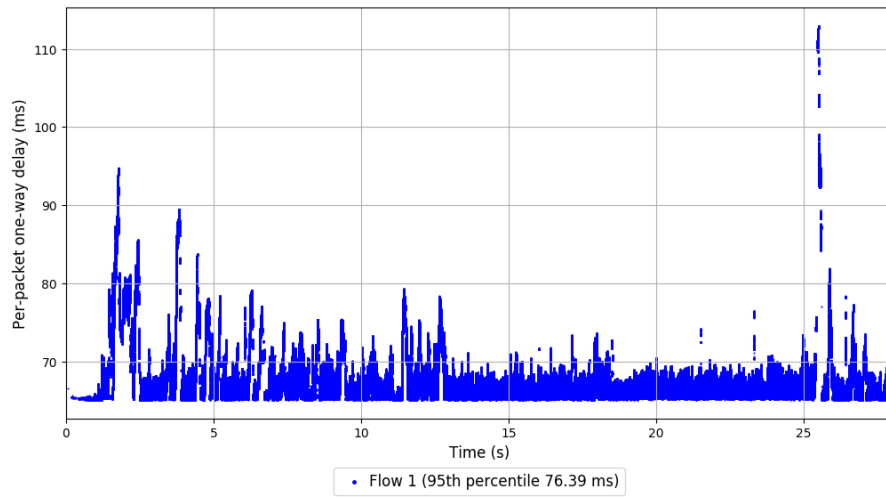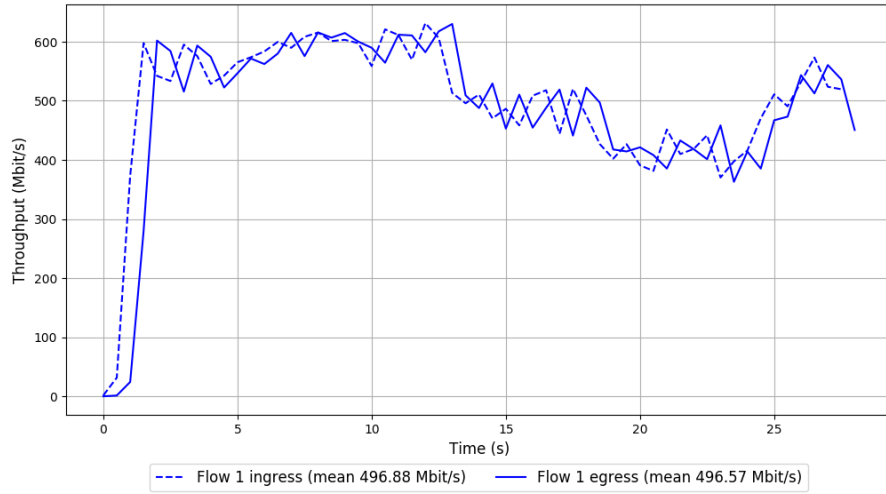
Run 5: Report of Indigo — Data Link

Run 1: Statistics of Indigo-MusesC3

Start at: 2019-06-28 04:21:45
End at: 2019-06-28 04:22:15
Local clock offset: -0.065 ms
Remote clock offset: -0.004 ms
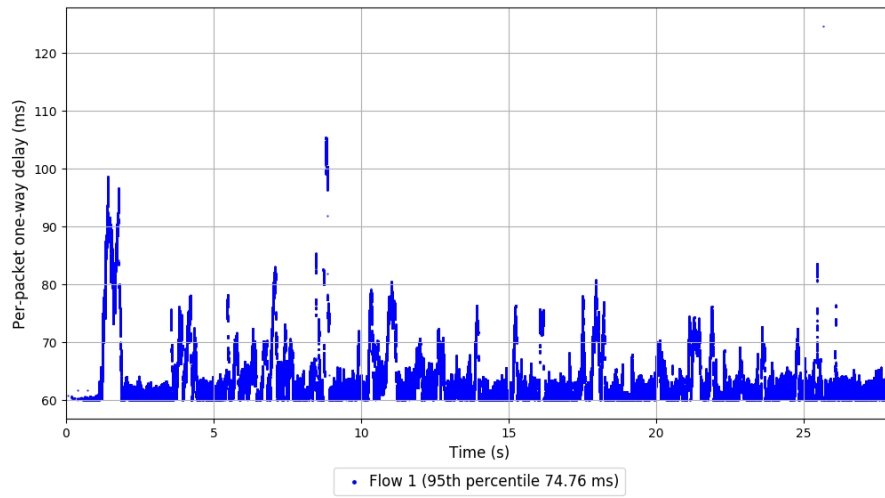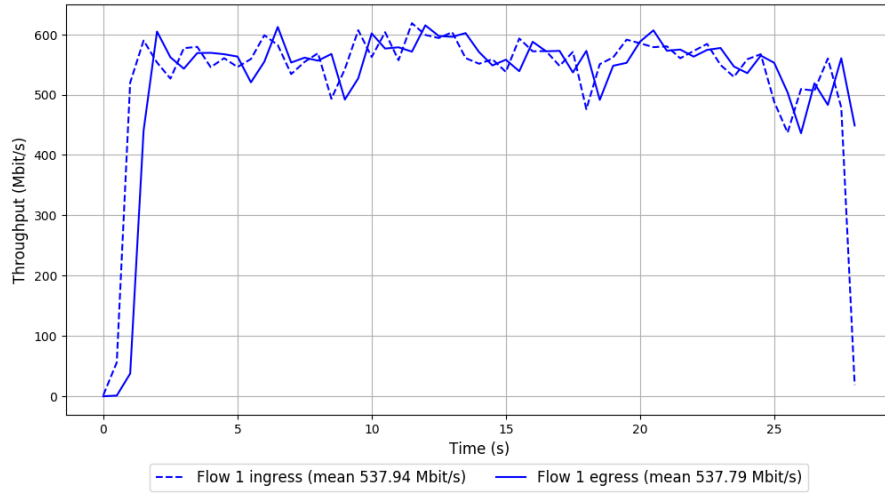
Run 1: Report of Indigo-MusesC3 — Data Link

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-06-28 04:53:24
End at: 2019-06-28 04:53:54
Local clock offset: 0.008 ms
Remote clock offset: 0.073 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 516.08 Mbit/s
95th percentile per-packet one-way delay: 71.668 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 516.08 Mbit/s
95th percentile per-packet one-way delay: 71.668 ms
Loss rate: 0.52%
```

Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-06-28 05:25:18
End at: 2019-06-28 05:25:48
Local clock offset: -0.024 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 496.57 Mbit/s
95th percentile per-packet one-way delay: 76.395 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 496.57 Mbit/s
95th percentile per-packet one-way delay: 76.395 ms
Loss rate: 0.52%
```
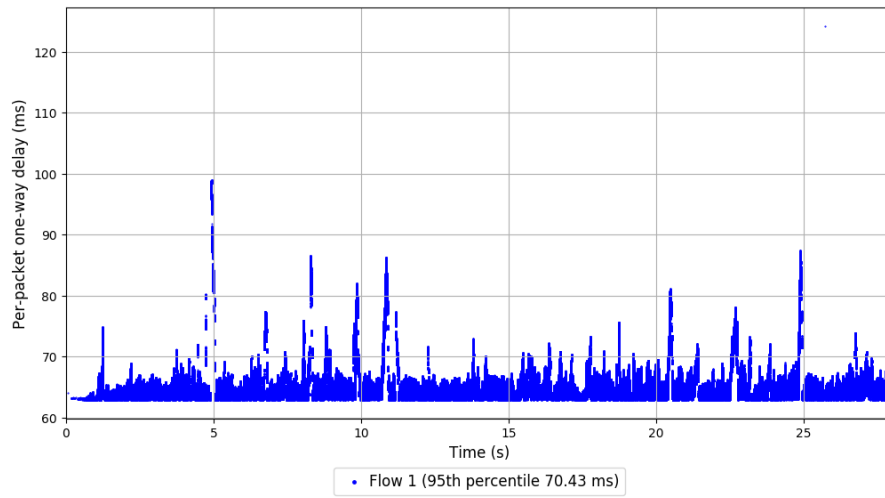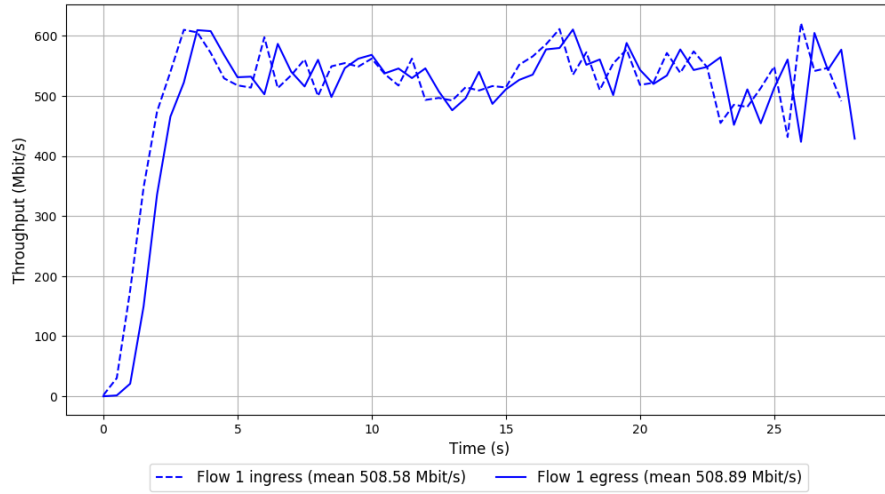
Run 3: Report of Indigo-MusesC3 — Data Link

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-06-28 05:57:16
End at: 2019-06-28 05:57:46
Local clock offset: -0.237 ms
Remote clock offset: -0.193 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 537.79 Mbit/s
95th percentile per-packet one-way delay: 74.759 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 537.79 Mbit/s
95th percentile per-packet one-way delay: 74.759 ms
Loss rate: 0.48%
```
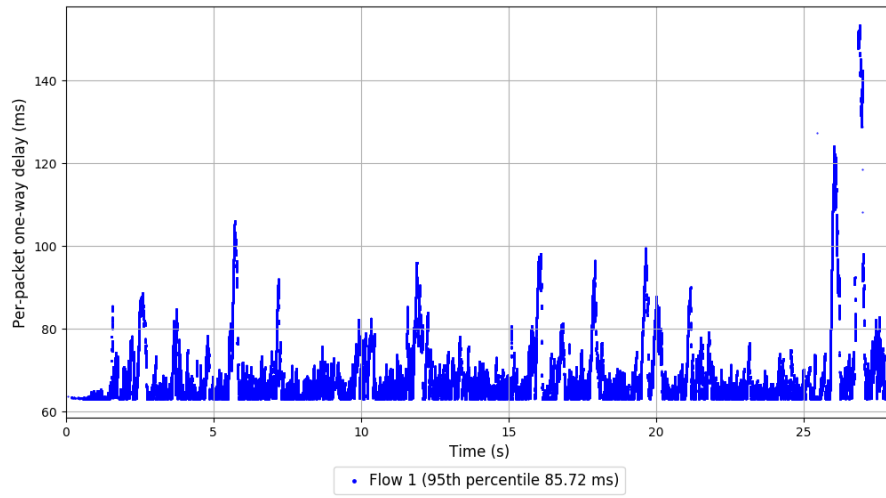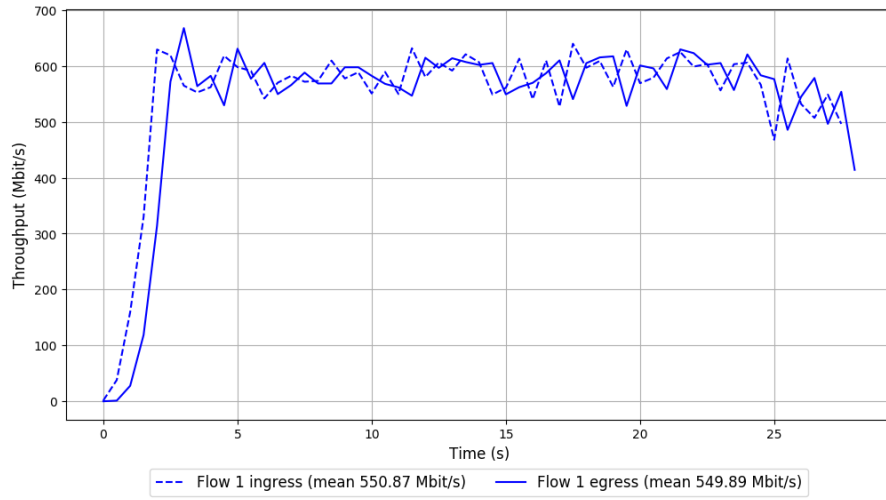
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-06-28 06:28:50
End at: 2019-06-28 06:29:20
Local clock offset: -0.308 ms
Remote clock offset: -0.307 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 508.89 Mbit/s
95th percentile per-packet one-way delay: 70.428 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 508.89 Mbit/s
95th percentile per-packet one-way delay: 70.428 ms
Loss rate: 0.39%
```
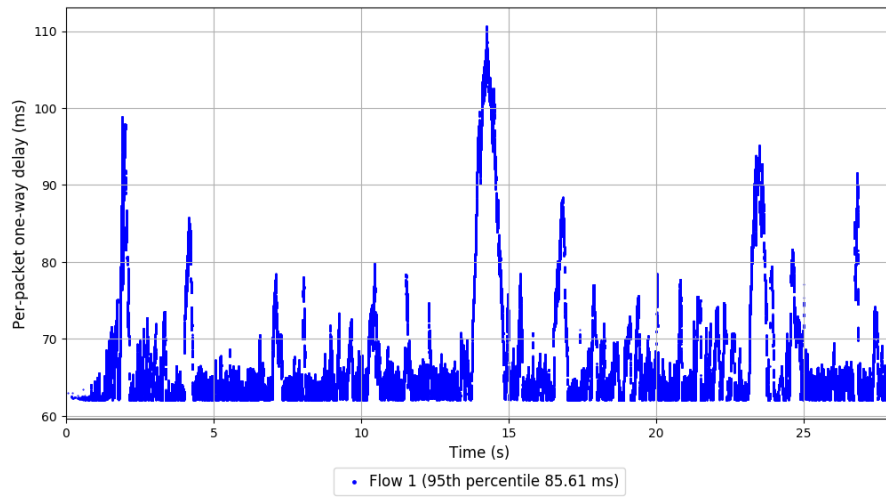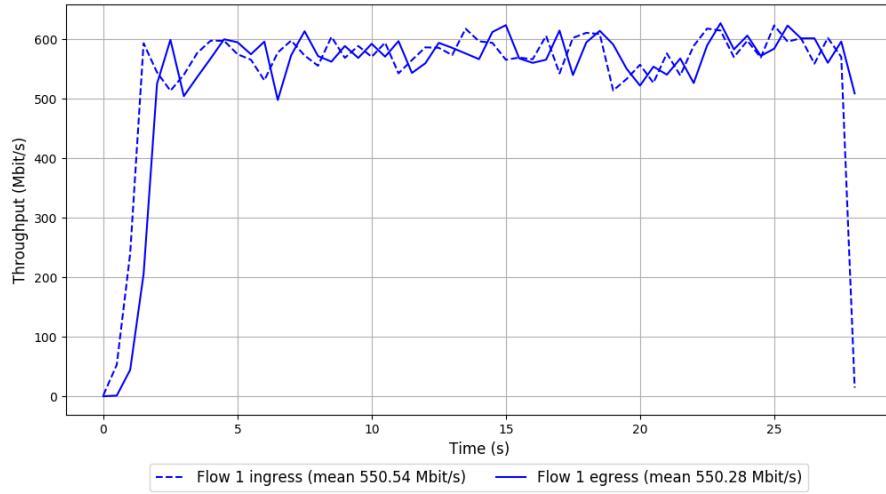
Run 5: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 508.58 Mbit/s)   Flow 1 egress (mean 508.89 Mbit/s)
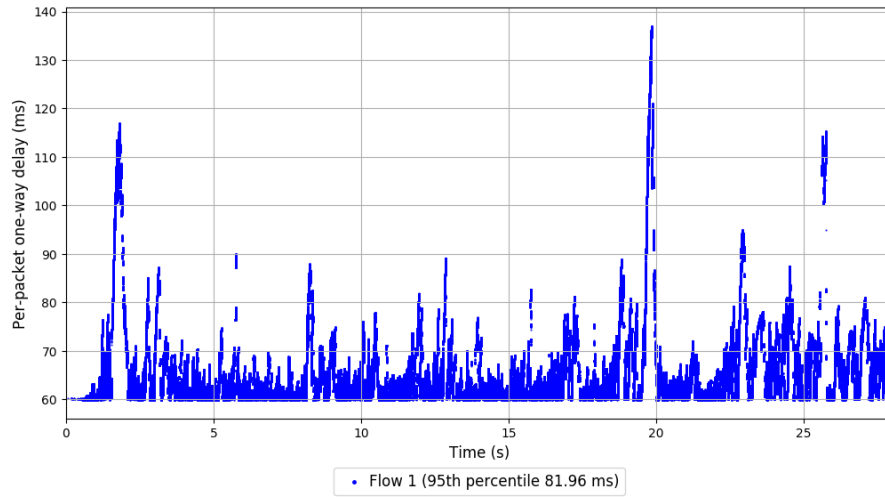

Flow 1 (95th percentile 70.43 ms)

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-06-28 04:47:05
End at: 2019-06-28 04:47:35
Local clock offset: -0.074 ms
Remote clock offset: 0.067 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 549.89 Mbit/s
95th percentile per-packet one-way delay: 85.718 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 549.89 Mbit/s
95th percentile per-packet one-way delay: 85.718 ms
Loss rate: 0.64%
```
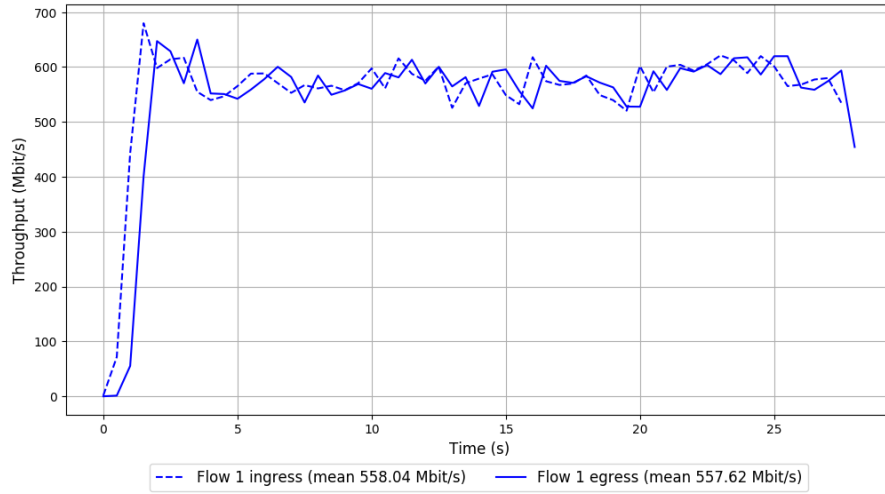
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-06-28 05:18:58
End at: 2019-06-28 05:19:28
Local clock offset: 0.026 ms
Remote clock offset: 0.121 ms


# Below is generated by plot.py at 2019-06-28 08:01:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 550.28 Mbit/s
95th percentile per-packet one-way delay: 85.613 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 550.28 Mbit/s
95th percentile per-packet one-way delay: 85.613 ms
Loss rate: 0.50%
```
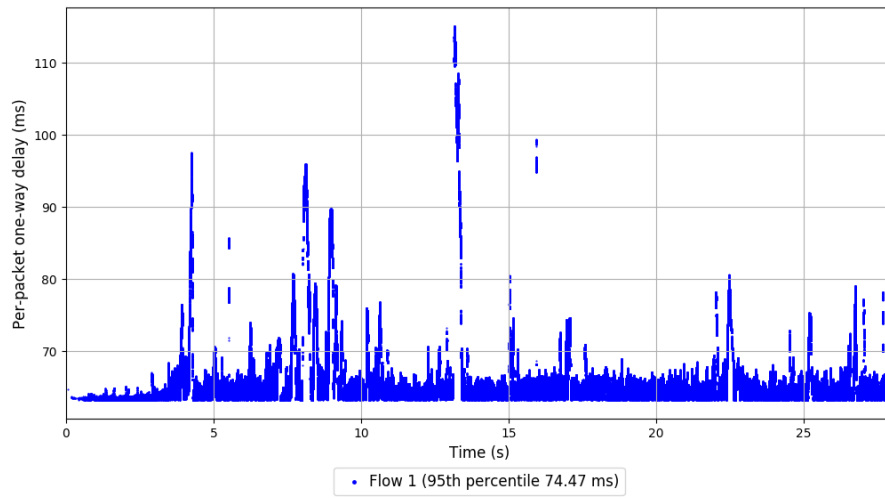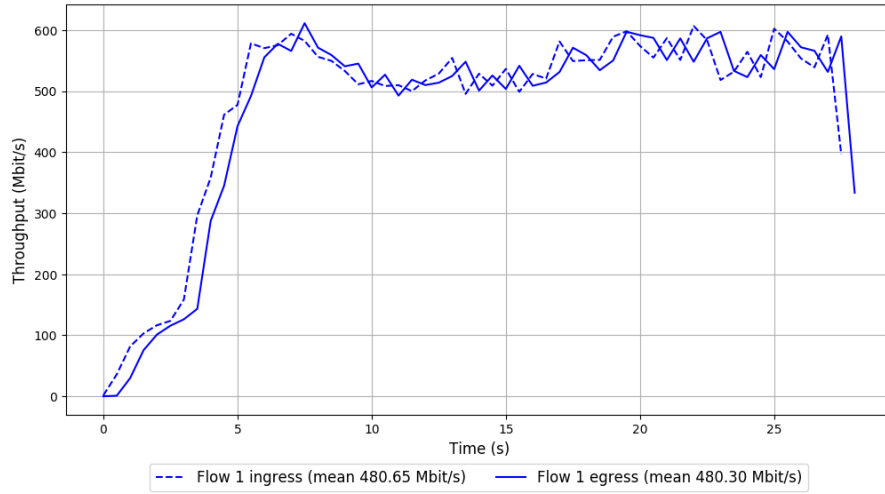
Run 2: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 550.54 Mbit/s)   Flow 1 egress (mean 550.28 Mbit/s)
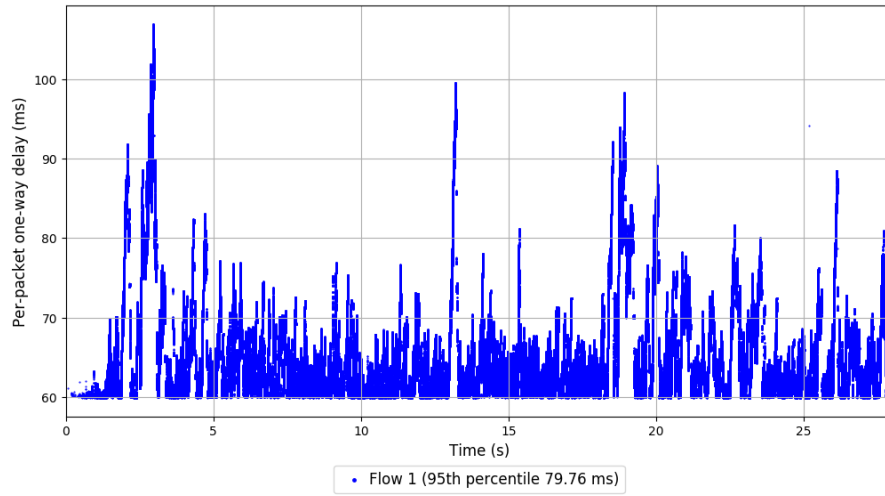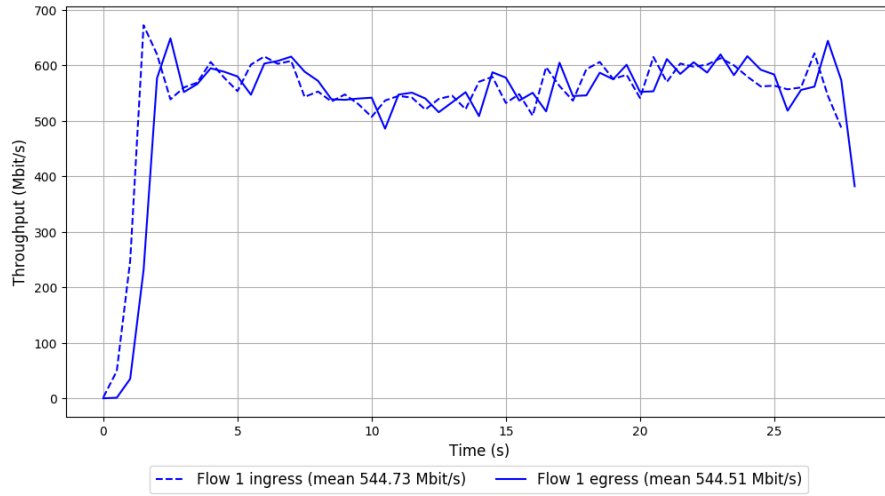

Flow 1 (95th percentile 85.61 ms)

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-06-28 05:50:56
End at: 2019-06-28 05:51:26
Local clock offset: -0.186 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-06-28 08:04:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 557.62 Mbit/s
95th percentile per-packet one-way delay: 81.957 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 557.62 Mbit/s
95th percentile per-packet one-way delay: 81.957 ms
Loss rate: 0.51%
```

Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-06-28 06:22:42
End at: 2019-06-28 06:23:12
Local clock offset: -0.286 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-06-28 08:06:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 480.30 Mbit/s
95th percentile per-packet one-way delay: 74.472 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 480.30 Mbit/s
95th percentile per-packet one-way delay: 74.472 ms
Loss rate: 0.53%
```
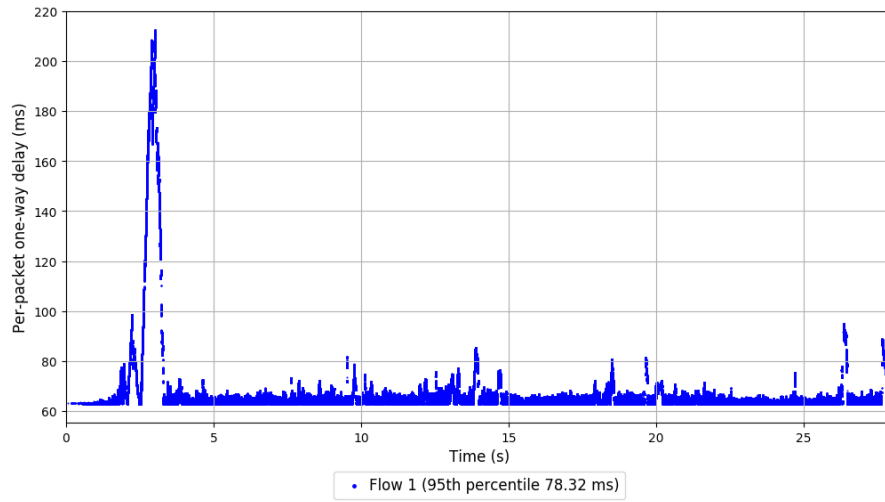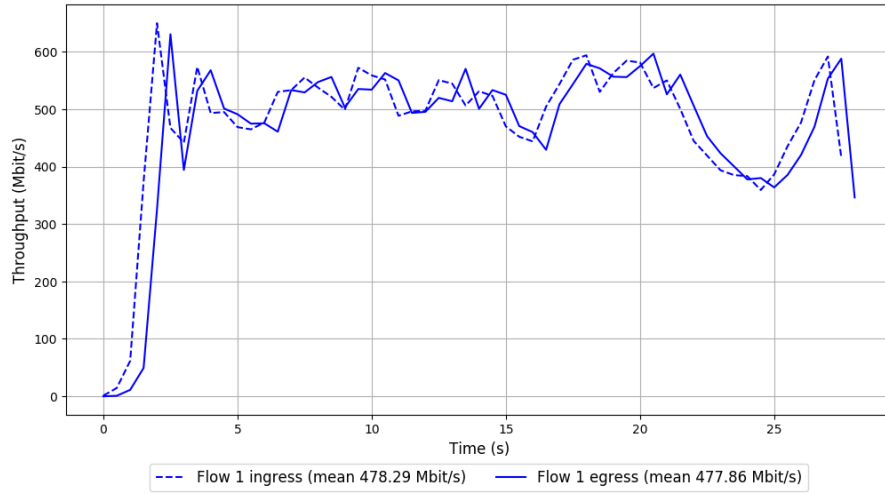
Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-06-28 06:53:56
End at: 2019-06-28 06:54:26
Local clock offset: 0.026 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2019-06-28 08:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.51 Mbit/s
95th percentile per-packet one-way delay: 79.762 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 544.51 Mbit/s
95th percentile per-packet one-way delay: 79.762 ms
Loss rate: 0.49%
```
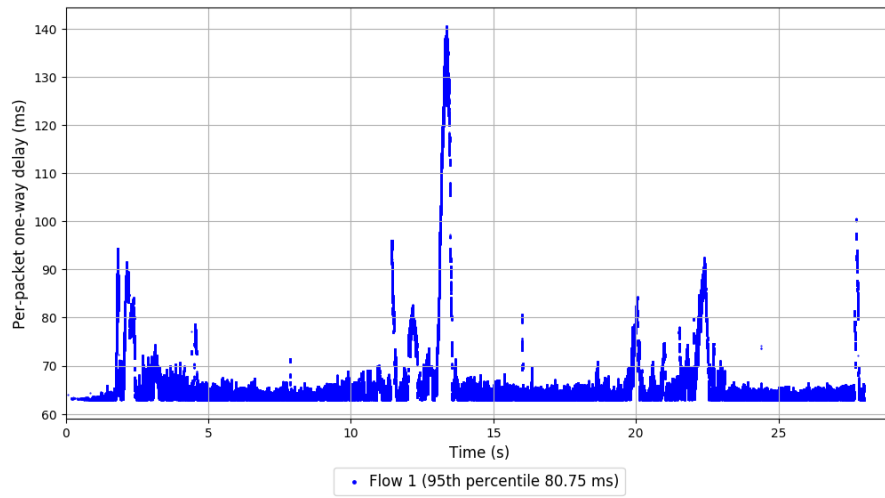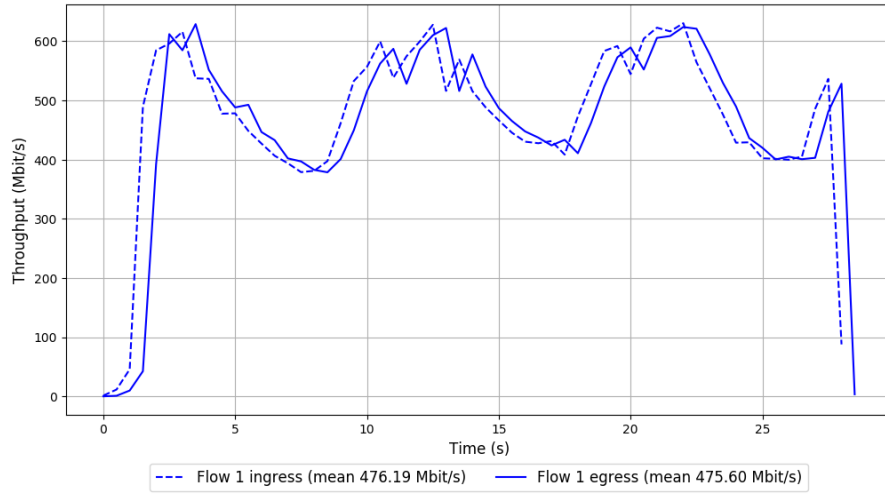
Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 544.73 Mbit/s) — — — Flow 1 egress (mean 544.51 Mbit/s)

• Flow 1 (95th percentile 79.76 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-06-28 04:30:22
End at: 2019-06-28 04:30:52
Local clock offset: -0.064 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2019-06-28 08:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 477.86 Mbit/s
95th percentile per-packet one-way delay: 78.323 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 477.86 Mbit/s
95th percentile per-packet one-way delay: 78.323 ms
Loss rate: 0.54%
```
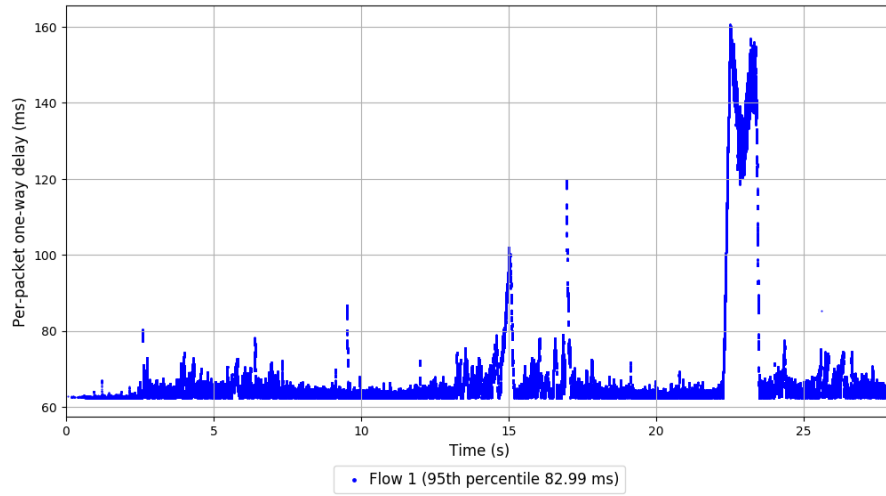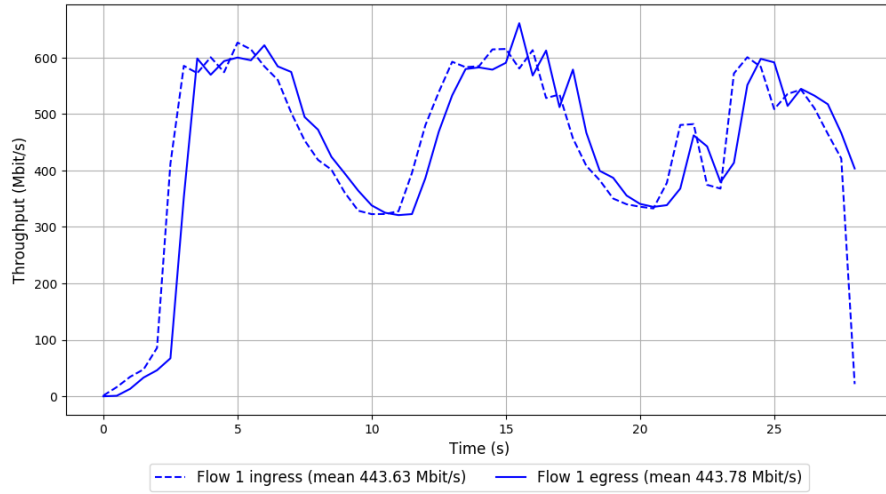
Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-06-28 05:02:10
End at: 2019-06-28 05:02:40
Local clock offset: -0.066 ms
Remote clock offset: -0.264 ms


# Below is generated by plot.py at 2019-06-28 08:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 475.60 Mbit/s
95th percentile per-packet one-way delay: 80.754 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 475.60 Mbit/s
95th percentile per-packet one-way delay: 80.754 ms
Loss rate: 0.57%
```
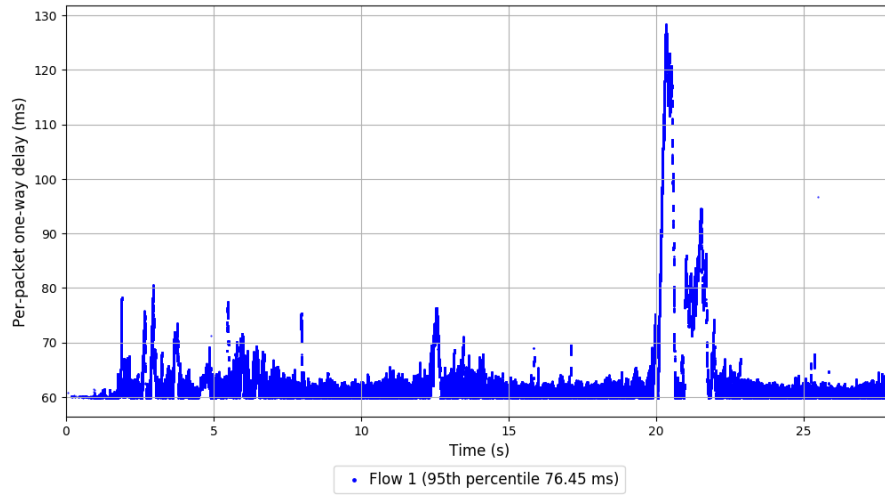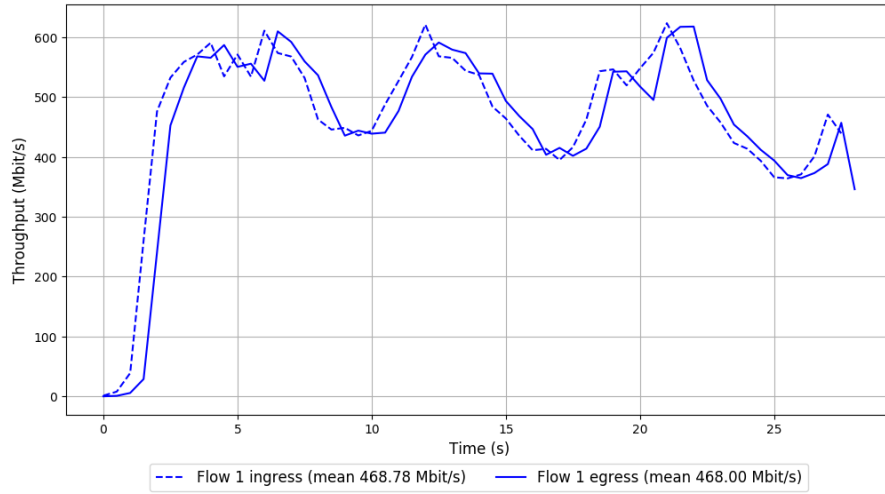
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-06-28 05:34:08
End at: 2019-06-28 05:34:38
Local clock offset: -0.136 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2019-06-28 08:08:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 443.78 Mbit/s
95th percentile per-packet one-way delay: 82.994 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 443.78 Mbit/s
95th percentile per-packet one-way delay: 82.994 ms
Loss rate: 0.40%
```
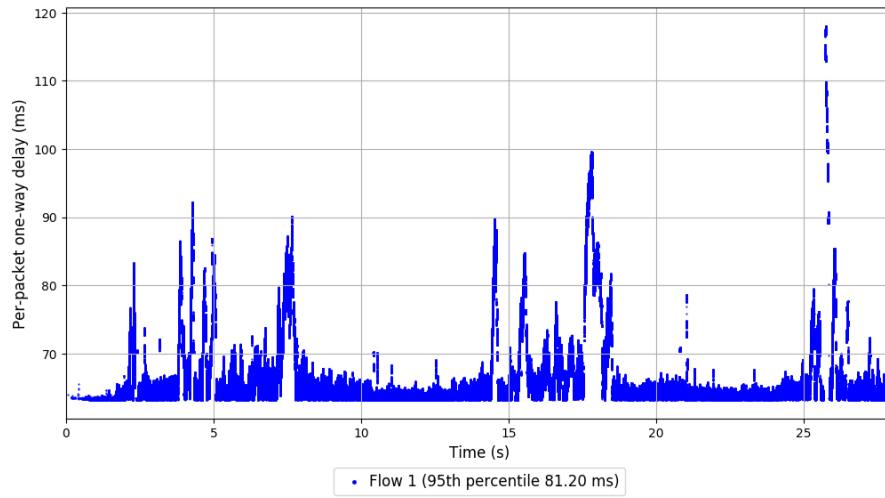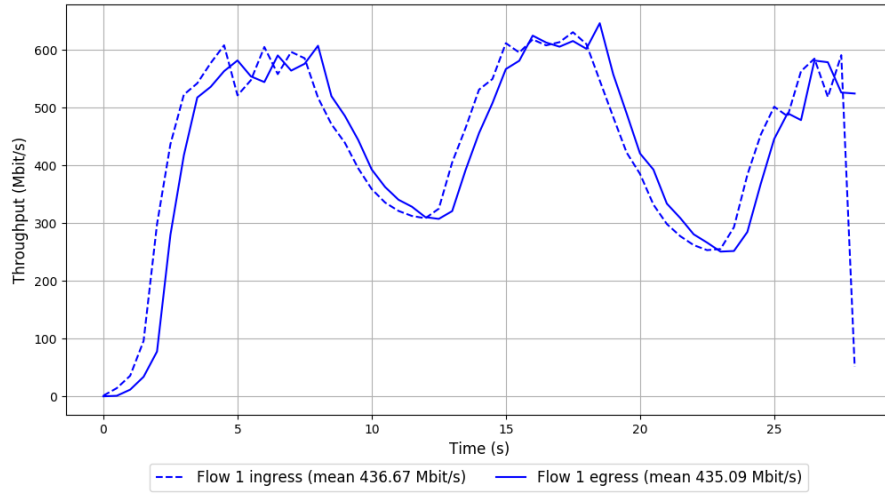
Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-06-28 06:06:09
End at: 2019-06-28 06:06:39
Local clock offset: -0.249 ms
Remote clock offset: -0.12 ms


# Below is generated by plot.py at 2019-06-28 08:09:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 468.00 Mbit/s
95th percentile per-packet one-way delay: 76.454 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 468.00 Mbit/s
95th percentile per-packet one-way delay: 76.454 ms
Loss rate: 0.61%
```
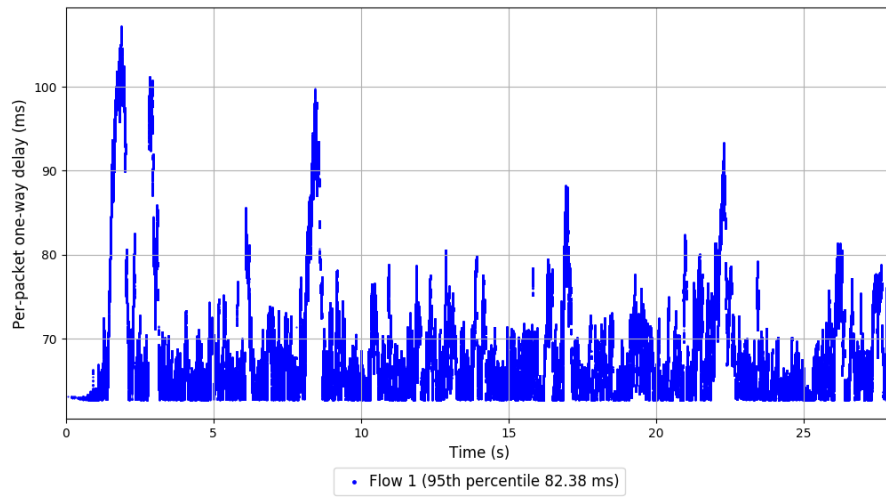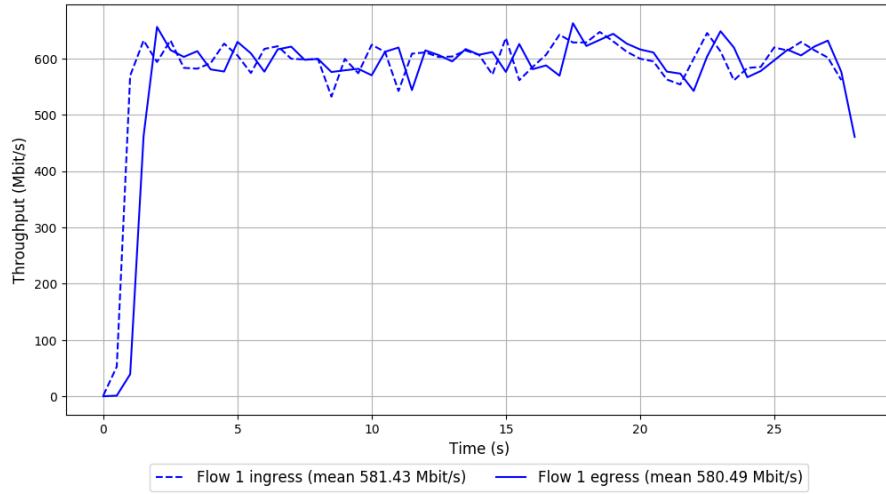
Run 4: Report of Indigo-MusesD — Data Link

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```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-06-28 06:37:29
End at: 2019-06-28 06:37:59
Local clock offset: -0.137 ms
Remote clock offset: -0.15 ms


# Below is generated by plot.py at 2019-06-28 08:09:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 435.09 Mbit/s
95th percentile per-packet one-way delay: 81.205 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 435.09 Mbit/s
95th percentile per-packet one-way delay: 81.205 ms
Loss rate: 0.81%
```
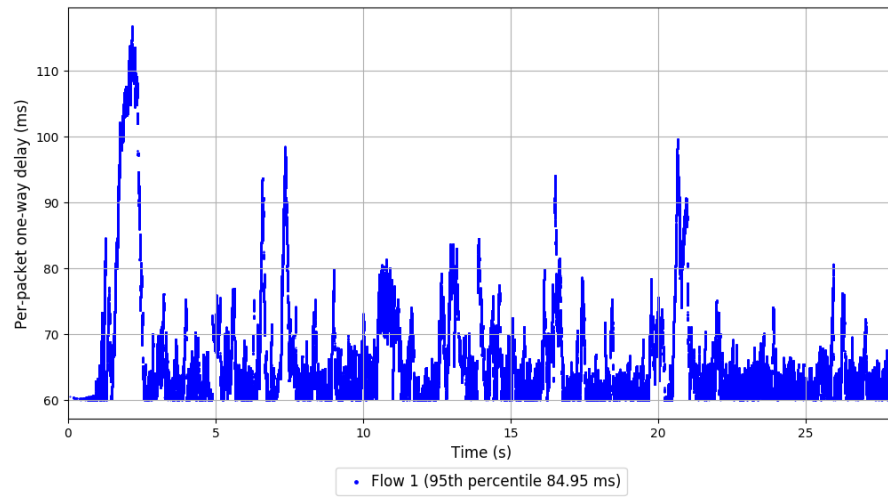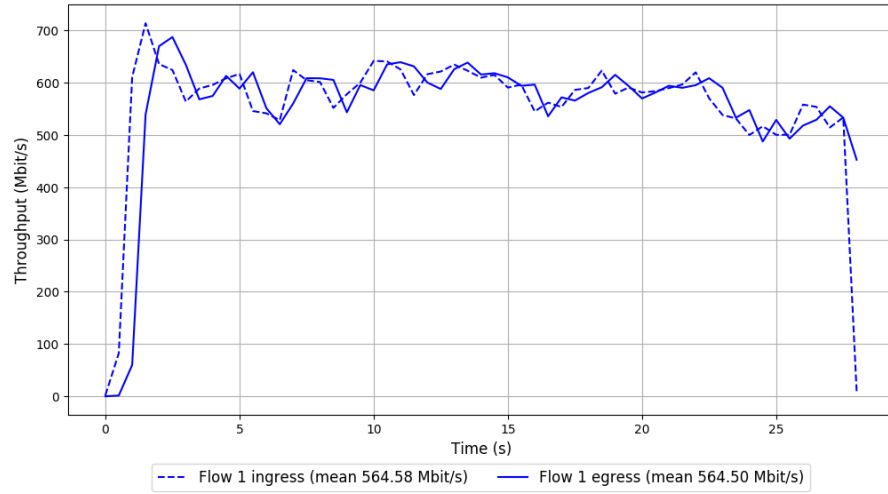
Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 436.67 Mbit/s)   Flow 1 egress (mean 435.09 Mbit/s)

Flow 1 (95th percentile 81.20 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-06-28 04:27:19
End at: 2019-06-28 04:27:49
Local clock offset: -0.068 ms
Remote clock offset: 0.053 ms


# Below is generated by plot.py at 2019-06-28 08:14:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 580.49 Mbit/s
95th percentile per-packet one-way delay: 82.379 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 580.49 Mbit/s
95th percentile per-packet one-way delay: 82.379 ms
Loss rate: 0.61%
```
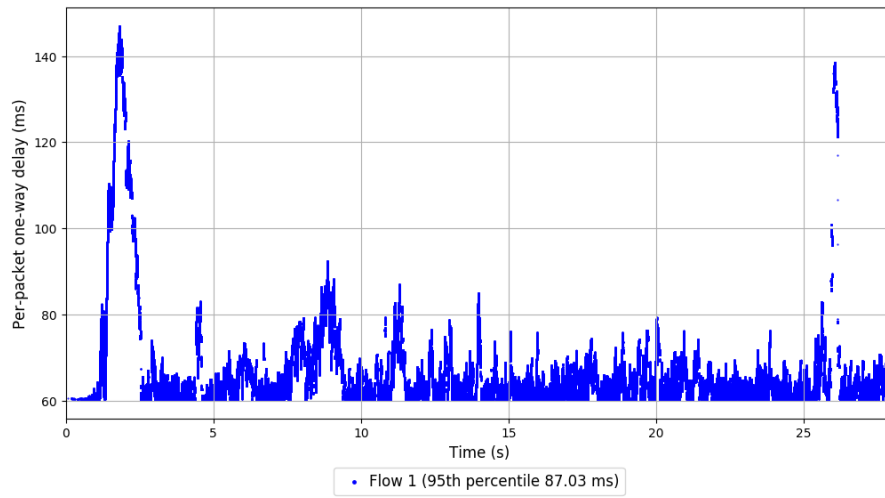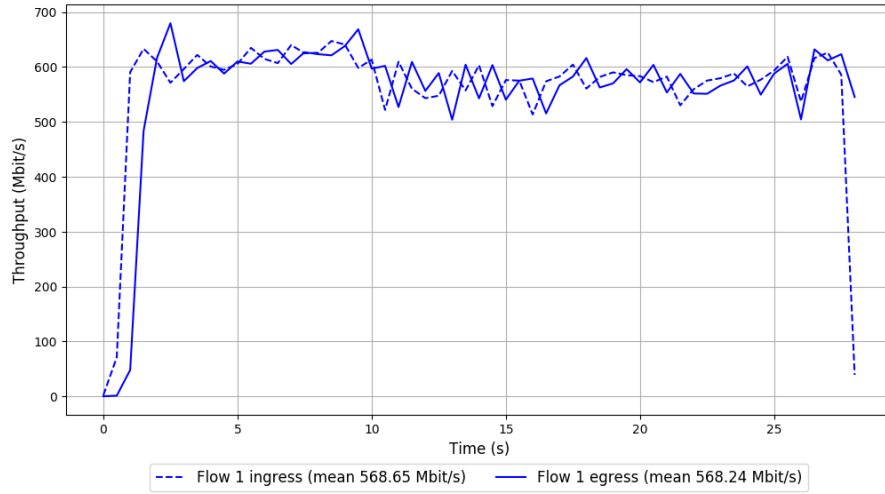
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-06-28 04:59:08
End at: 2019-06-28 04:59:38
Local clock offset: -0.004 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2019-06-28 08:16:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 564.50 Mbit/s
95th percentile per-packet one-way delay: 84.946 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 564.50 Mbit/s
95th percentile per-packet one-way delay: 84.946 ms
Loss rate: 0.46%
```
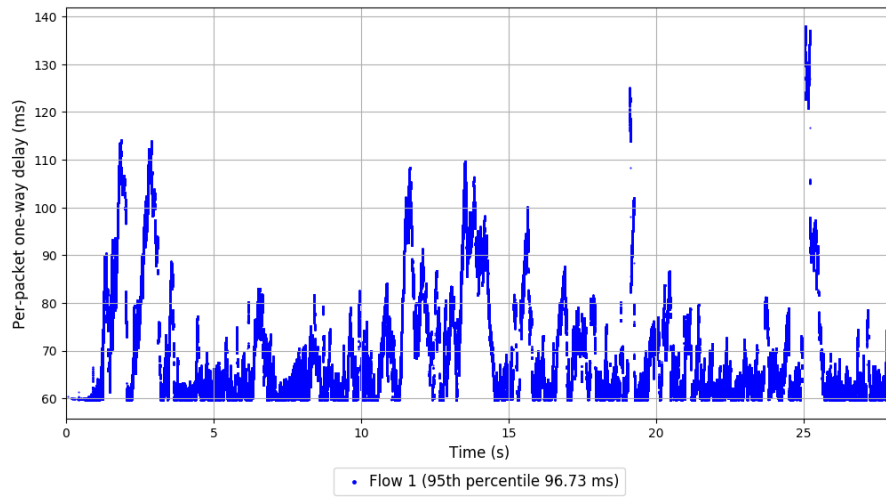
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-06-28 05:31:04
End at: 2019-06-28 05:31:34
Local clock offset: -0.117 ms
Remote clock offset: -0.361 ms


# Below is generated by plot.py at 2019-06-28 08:18:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 568.24 Mbit/s
95th percentile per-packet one-way delay: 87.027 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 568.24 Mbit/s
95th percentile per-packet one-way delay: 87.027 ms
Loss rate: 0.50%
```
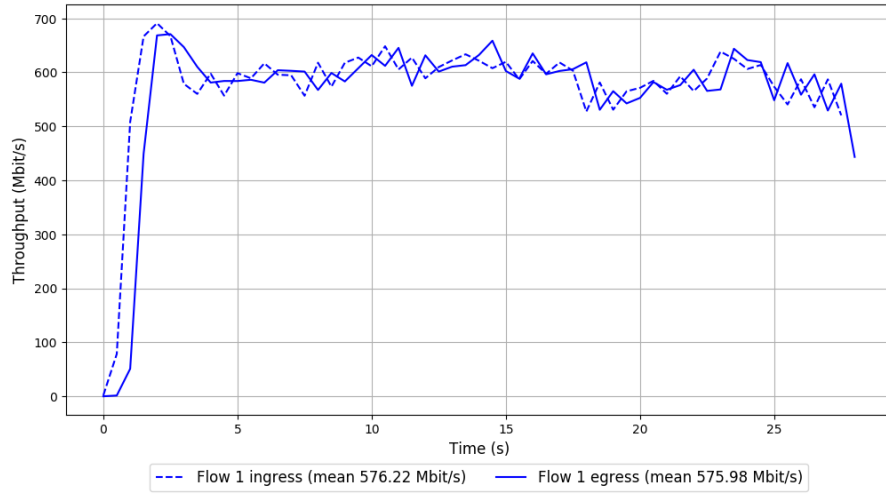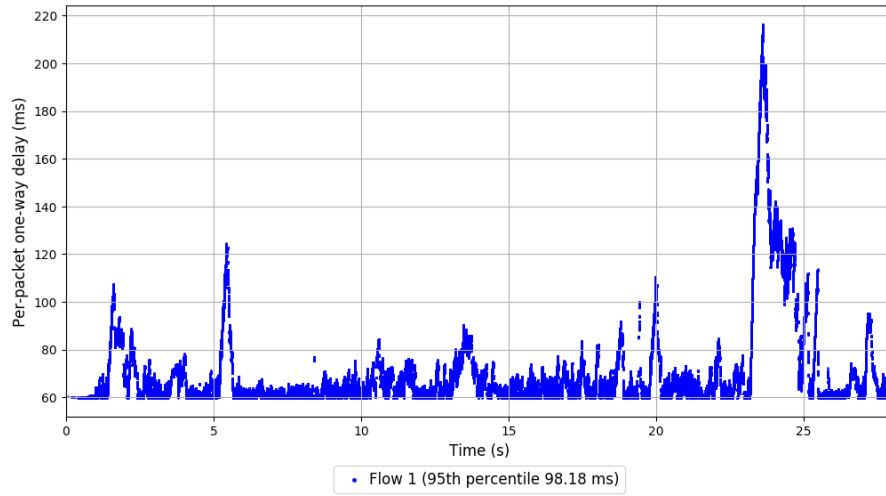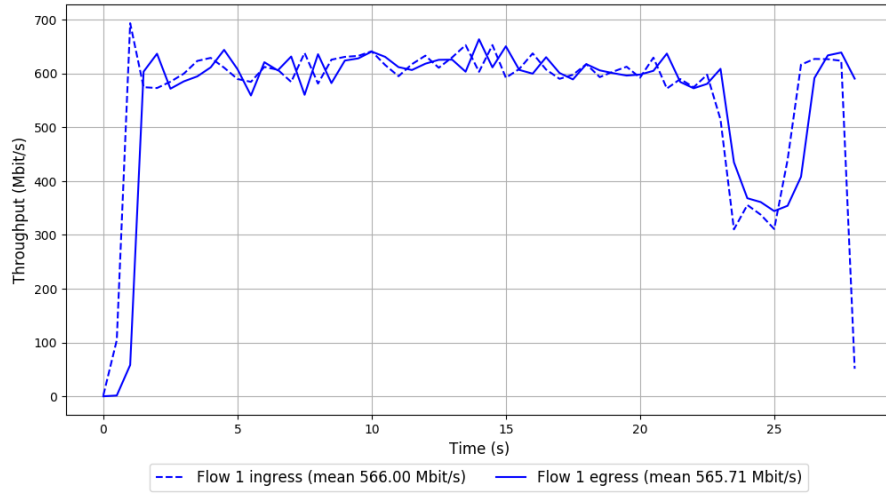
Run 3: Report of Indigo-MusesT — Data Link

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-06-28 06:03:06
End at: 2019-06-28 06:03:36
Local clock offset: -0.221 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 575.98 Mbit/s
95th percentile per-packet one-way delay: 96.733 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 575.98 Mbit/s
95th percentile per-packet one-way delay: 96.733 ms
Loss rate: 0.49%
```
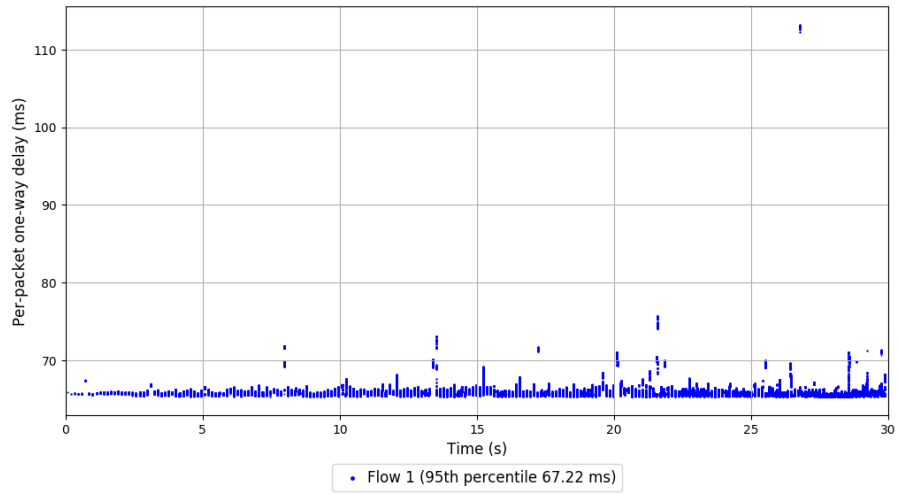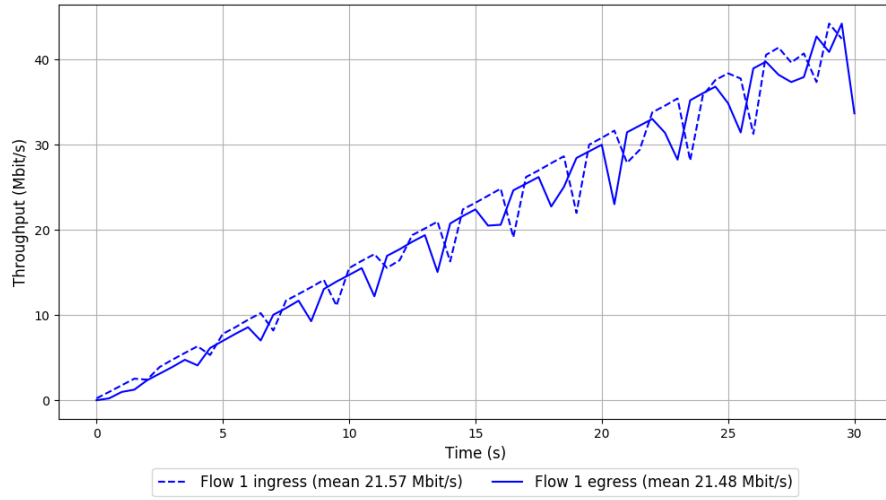
Run 4: Report of Indigo-MusesT — Data Link

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-06-28 06:34:26
End at: 2019-06-28 06:34:56
Local clock offset: -0.181 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 565.71 Mbit/s
95th percentile per-packet one-way delay: 98.184 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 565.71 Mbit/s
95th percentile per-packet one-way delay: 98.184 ms
Loss rate: 0.48%
```

Run 5: Report of Indigo-MusesT — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2019-06-28 04:35:00
End at: 2019-06-28 04:35:30
Local clock offset: -0.049 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.48 Mbit/s
95th percentile per-packet one-way delay: 67.222 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 21.48 Mbit/s
95th percentile per-packet one-way delay: 67.222 ms
Loss rate: 0.88%
```
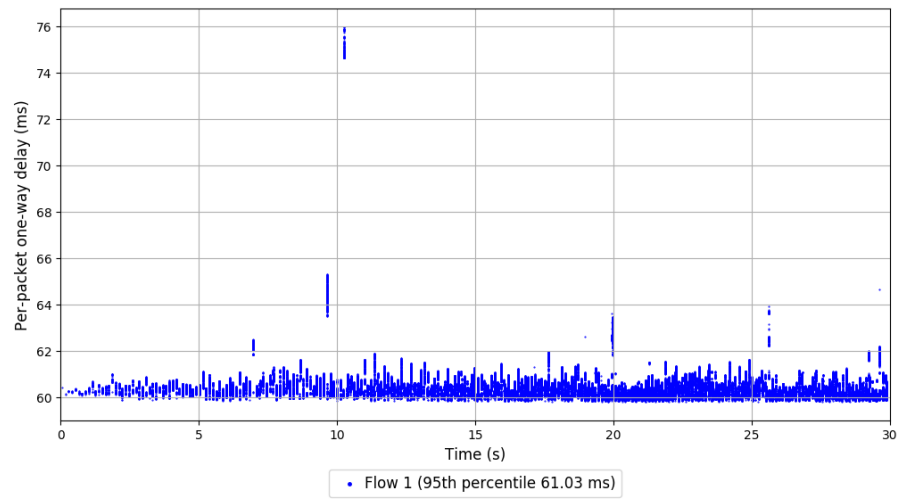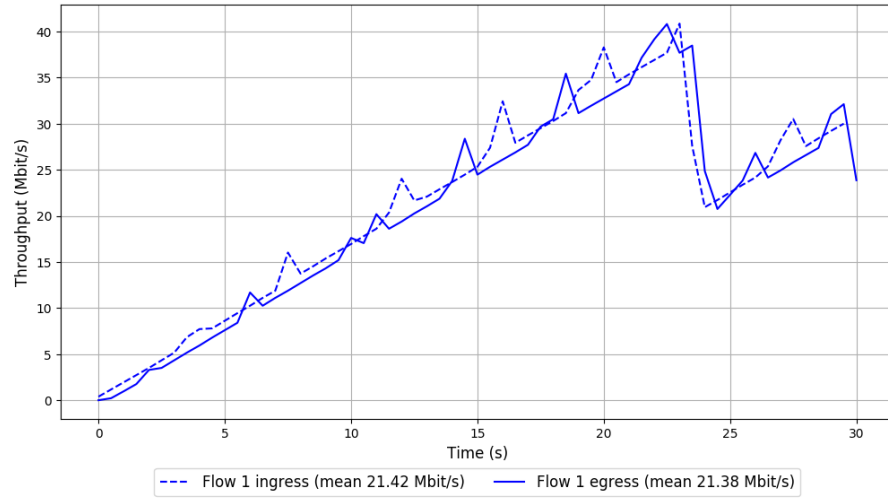
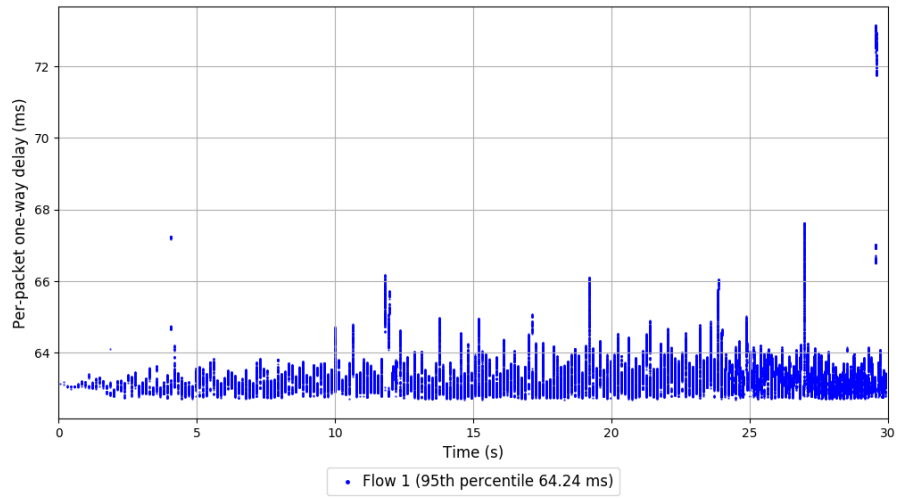# Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 21.57 Mbit/s) ——— Flow 1 egress (mean 21.48 Mbit/s)

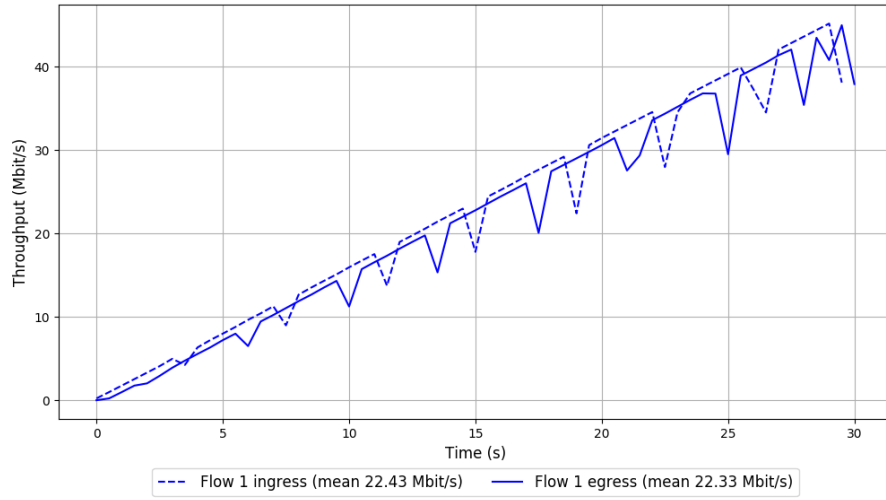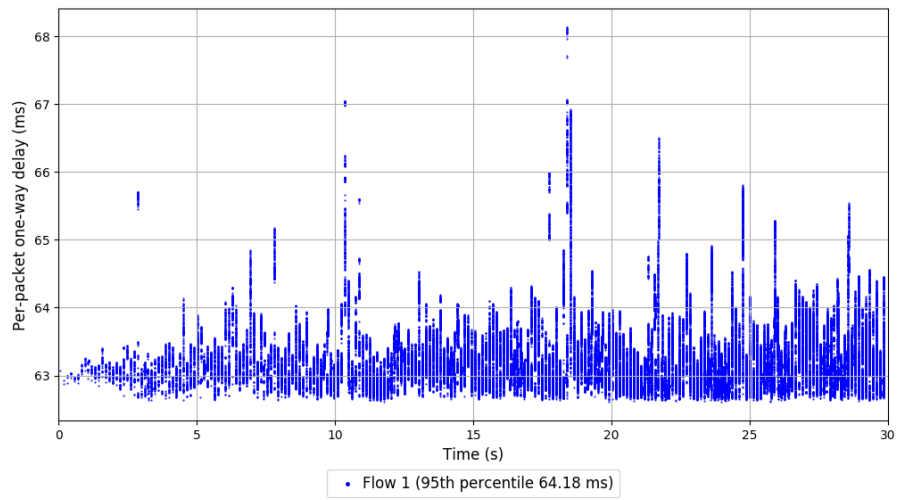• Flow 1 (95th percentile 67.22 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2019-06-28 05:06:47
End at: 2019-06-28 05:07:17
Local clock offset: 0.004 ms
Remote clock offset: 0.081 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 61.030 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 21.38 Mbit/s
95th percentile per-packet one-way delay: 61.030 ms
Loss rate: 0.59%
```
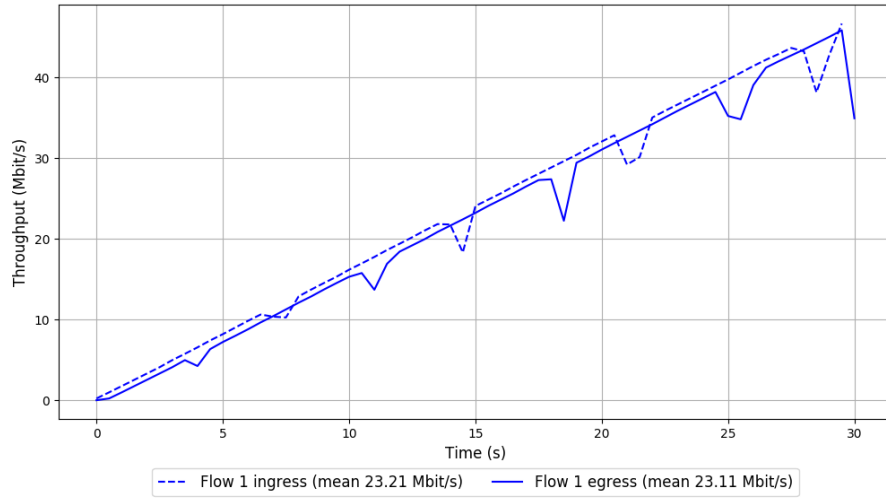
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-06-28 05:38:45
End at: 2019-06-28 05:39:15
Local clock offset: -0.166 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.33 Mbit/s
95th percentile per-packet one-way delay: 64.242 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 22.33 Mbit/s
95th percentile per-packet one-way delay: 64.242 ms
Loss rate: 0.86%
```

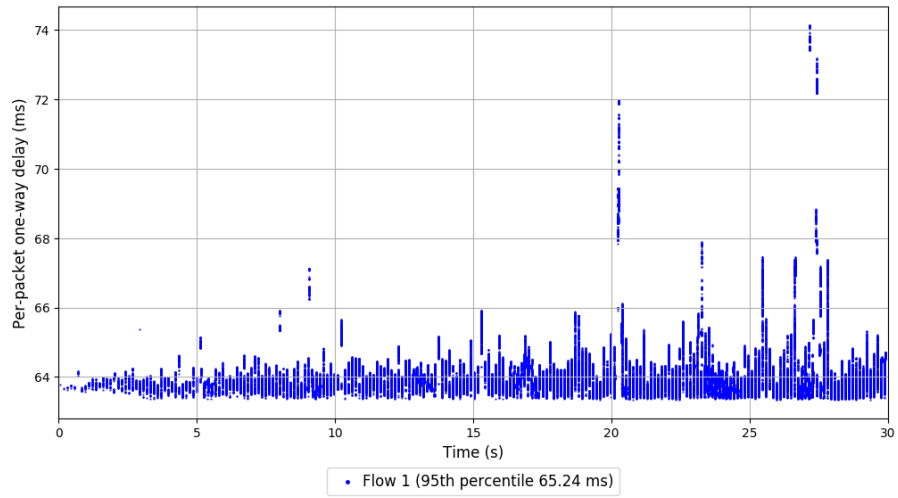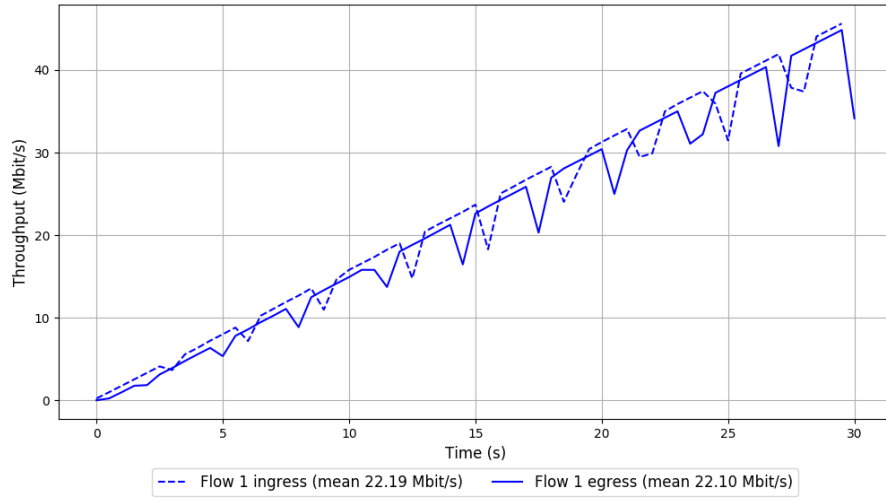Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-06-28 06:10:46
End at: 2019-06-28 06:11:16
Local clock offset: -0.254 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 64.181 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 64.181 ms
Loss rate: 0.85%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 23.21 Mbit/s)   Flow 1 egress (mean 23.11 Mbit/s)

Flow 1 (95th percentile 64.18 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-06-28 06:42:08
End at: 2019-06-28 06:42:38
Local clock offset: -0.028 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2019-06-28 08:18:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 65.243 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 65.243 ms
Loss rate: 0.86%
```
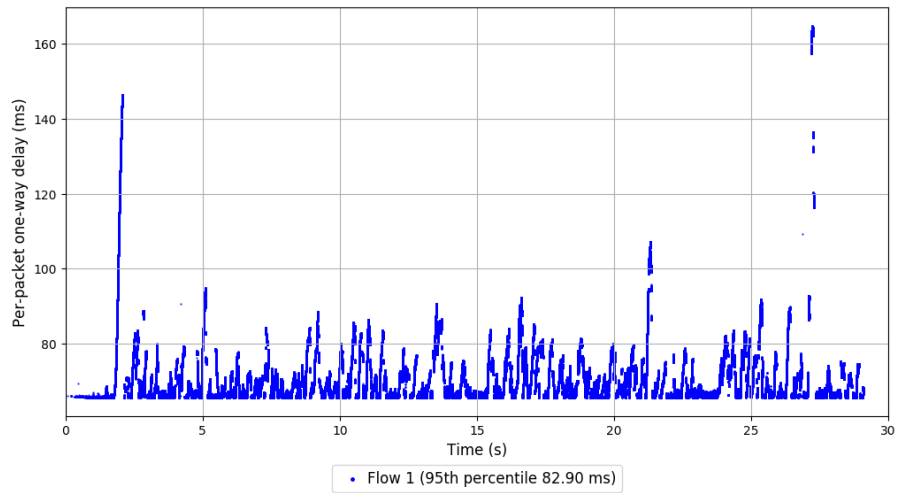
Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 04:38:51
End at: 2019-06-28 04:39:21
Local clock offset: -0.048 ms
Remote clock offset: 0.021 ms


# Below is generated by plot.py at 2019-06-28 08:19:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 534.21 Mbit/s
95th percentile per-packet one-way delay: 82.896 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 534.21 Mbit/s
95th percentile per-packet one-way delay: 82.896 ms
Loss rate: 0.39%
```
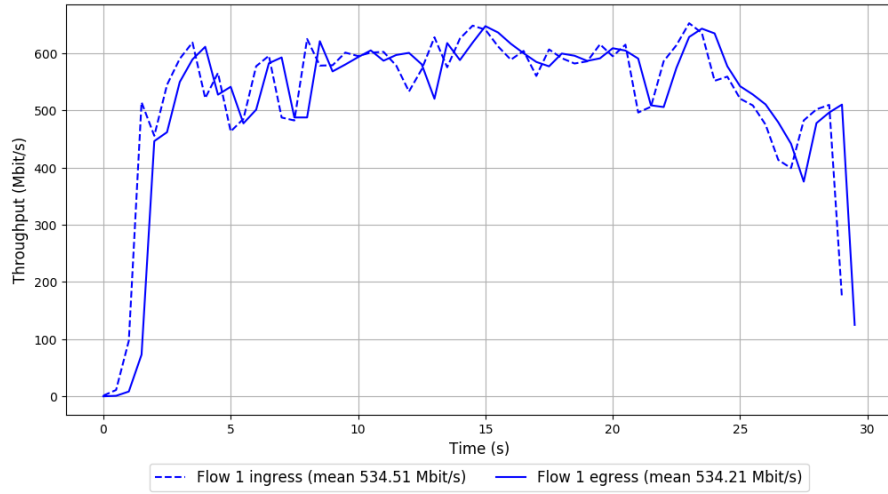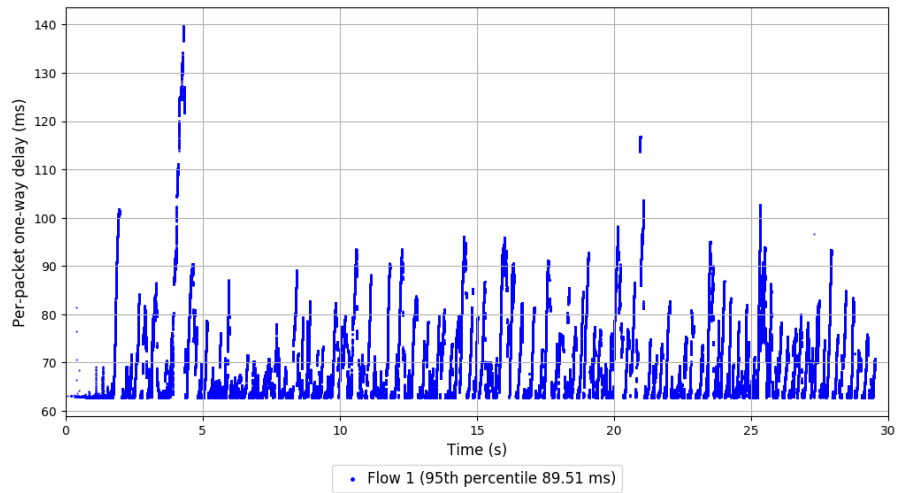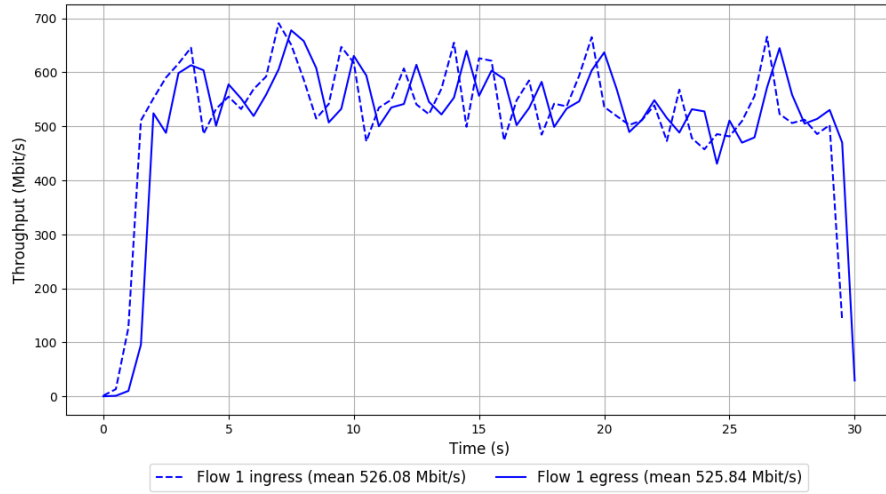
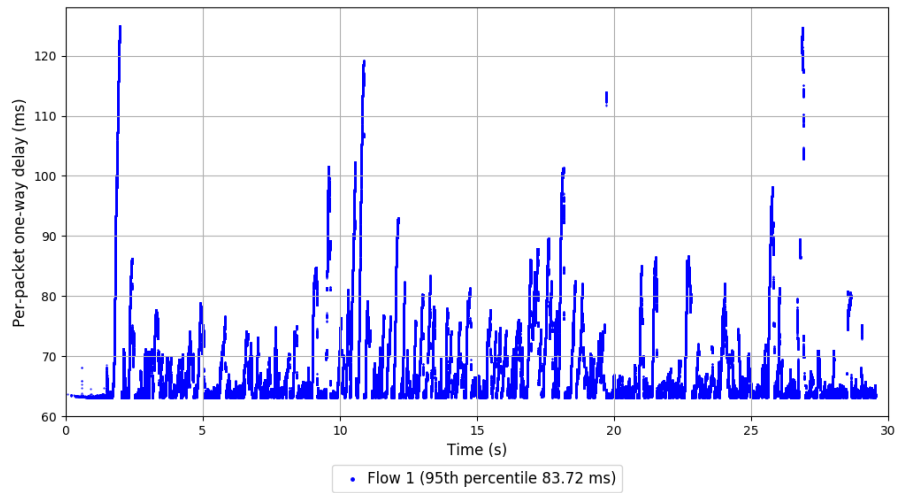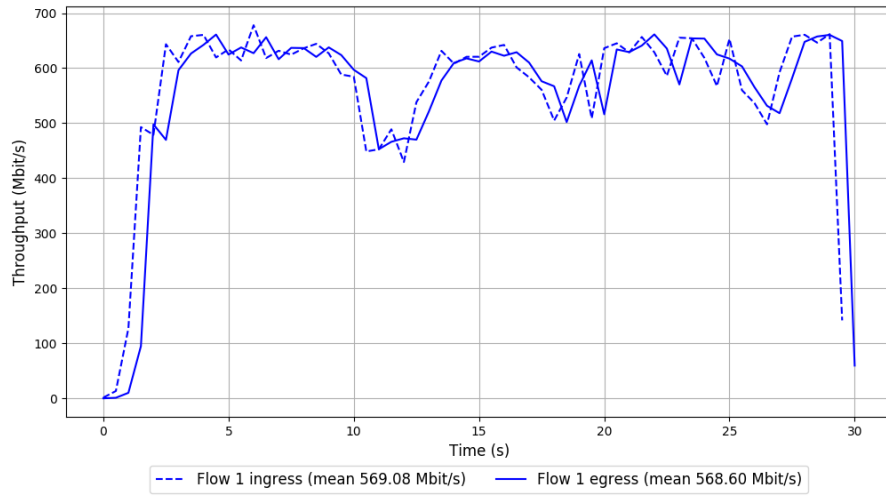Run 1: Report of Muses_DecisionTree — Data Link

```
Run 2: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 05:10:36
End at: 2019-06-28 05:11:06
Local clock offset: -0.017 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2019-06-28 08:20:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 525.84 Mbit/s
95th percentile per-packet one-way delay: 89.508 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 525.84 Mbit/s
95th percentile per-packet one-way delay: 89.508 ms
Loss rate: 0.53%
```

Run 2: Report of Muses_DecisionTree — Data Link

```
Run 3: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 05:42:37
End at: 2019-06-28 05:43:07
Local clock offset: -0.164 ms
Remote clock offset: -0.246 ms


# Below is generated by plot.py at 2019-06-28 08:21:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 568.60 Mbit/s
95th percentile per-packet one-way delay: 83.720 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 568.60 Mbit/s
95th percentile per-packet one-way delay: 83.720 ms
Loss rate: 0.50%
```

Run 3: Report of Muses_DecisionTree — Data Link

```
Run 4: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 06:14:34
End at: 2019-06-28 06:15:04
Local clock offset: -0.235 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2019-06-28 08:22:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 384.08 Mbit/s
95th percentile per-packet one-way delay: 68.557 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 384.08 Mbit/s
95th percentile per-packet one-way delay: 68.557 ms
Loss rate: 0.47%
```
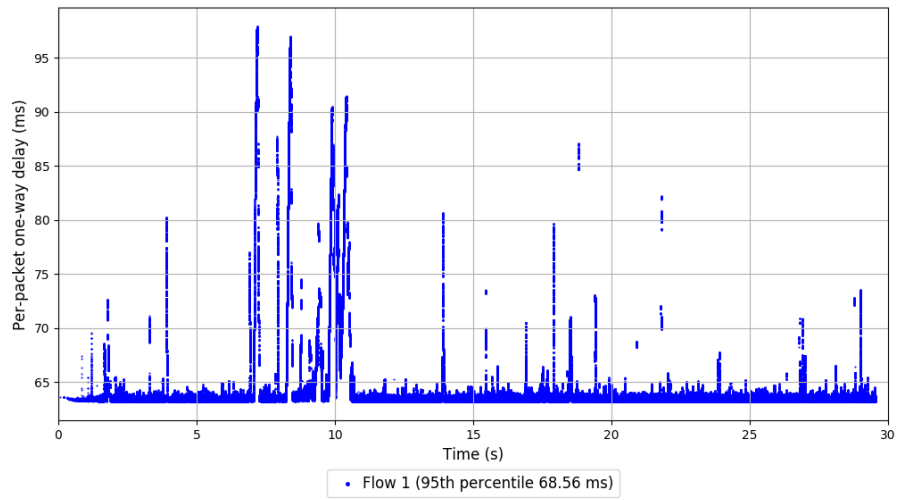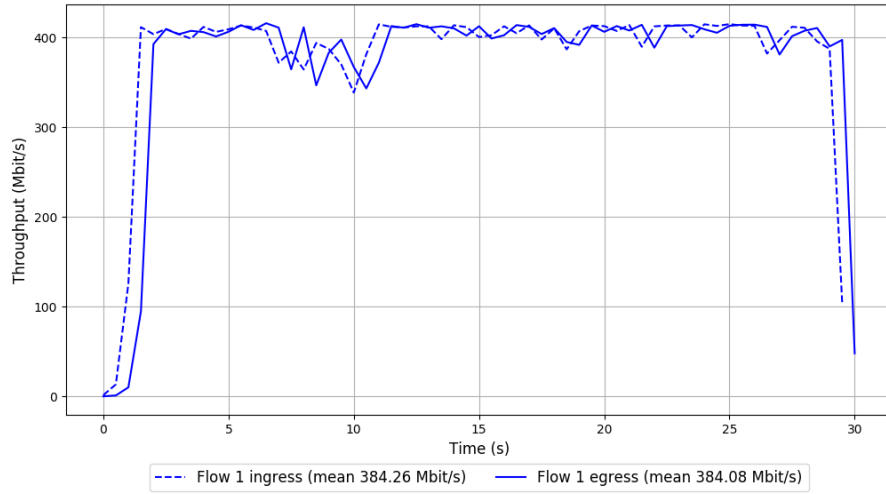
Run 4: Report of Muses_DecisionTree — Data Link

```
Run 5: Statistics of Muses\_DecisionTree

Start at: 2019-06-28 06:46:00
End at: 2019-06-28 06:46:30
Local clock offset: -0.009 ms
Remote clock offset: 0.357 ms


# Below is generated by plot.py at 2019-06-28 08:22:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 63.388 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 25.27 Mbit/s
95th percentile per-packet one-way delay: 63.388 ms
Loss rate: 0.44%
```
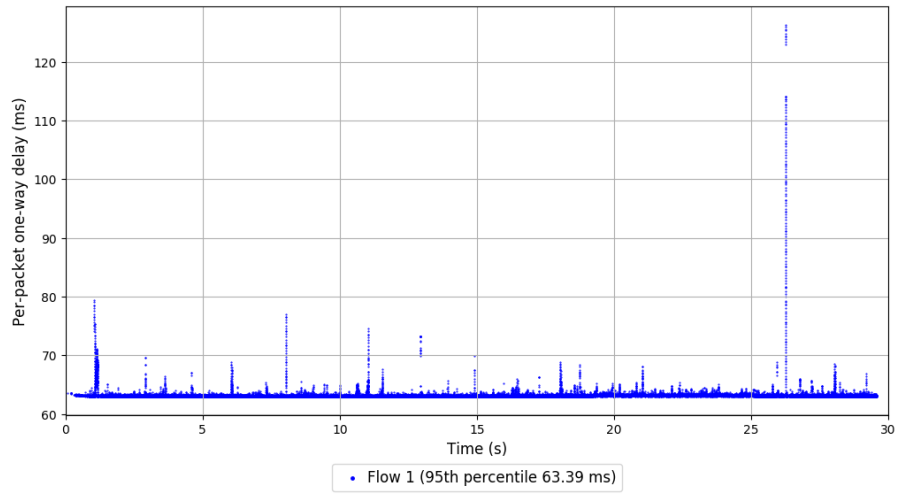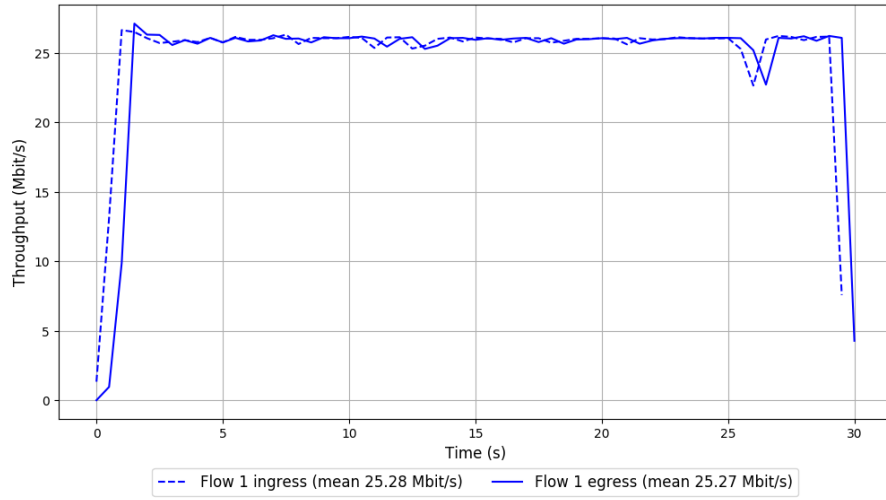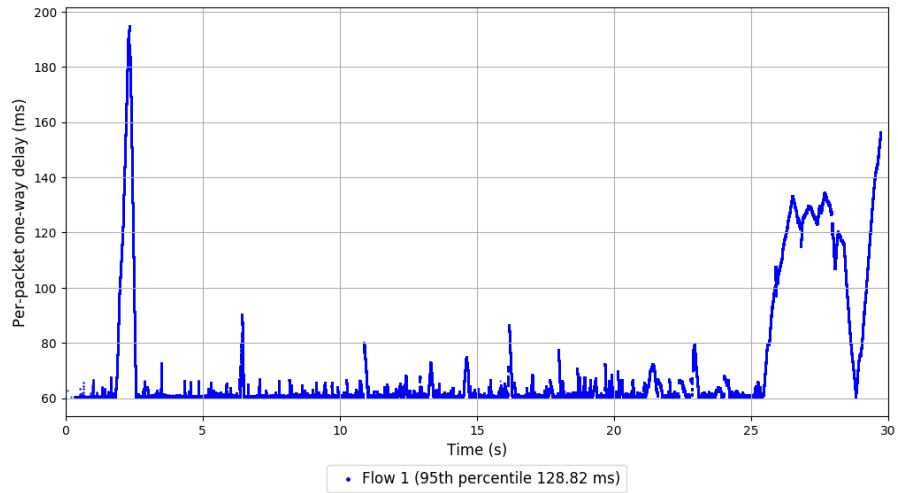
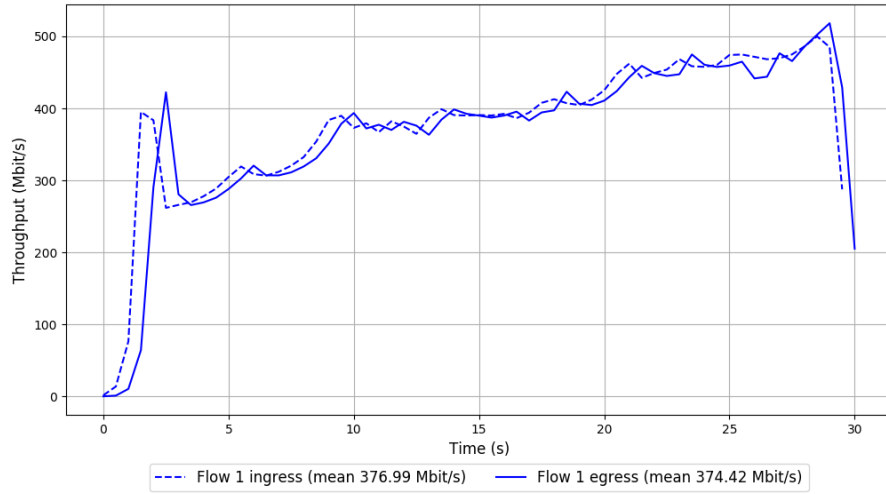Run 5: Report of Muses_DecisionTree — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-06-28 04:36:11
End at: 2019-06-28 04:36:41
Local clock offset: -0.027 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2019-06-28 08:30:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 374.42 Mbit/s
95th percentile per-packet one-way delay: 128.817 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 374.42 Mbit/s
95th percentile per-packet one-way delay: 128.817 ms
Loss rate: 1.10%
```

Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-06-28 05:07:57
End at: 2019-06-28 05:08:27
Local clock offset: 0.015 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2019-06-28 08:31:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.37 Mbit/s
95th percentile per-packet one-way delay: 81.258 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 347.37 Mbit/s
95th percentile per-packet one-way delay: 81.258 ms
Loss rate: 0.58%
```
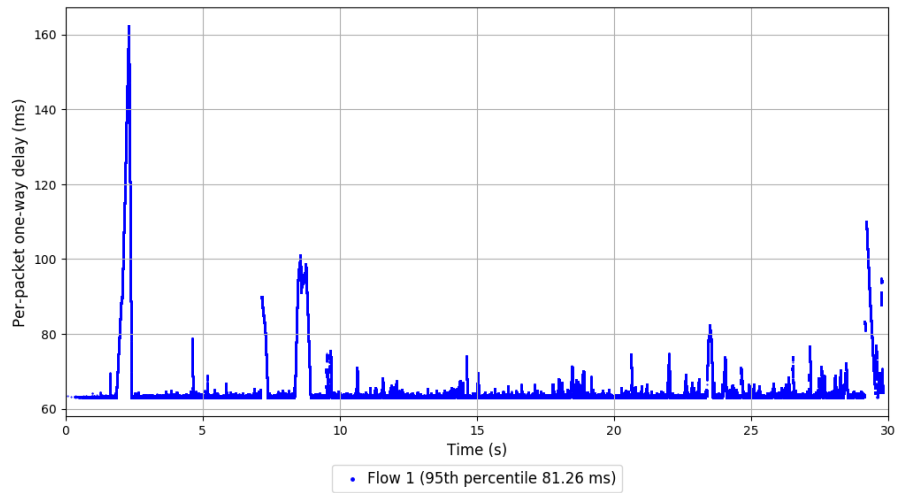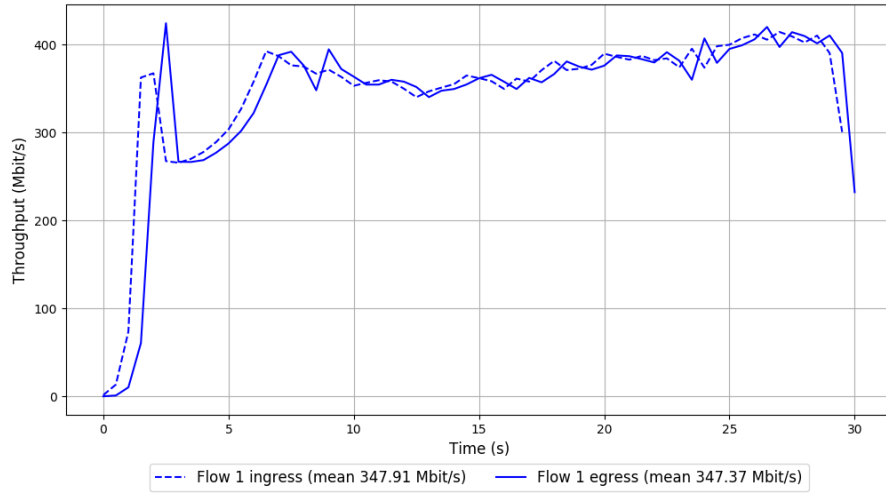
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-06-28 05:39:55
End at: 2019-06-28 05:40:25
Local clock offset: -0.162 ms
Remote clock offset: -0.117 ms


# Below is generated by plot.py at 2019-06-28 08:32:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 378.43 Mbit/s
95th percentile per-packet one-way delay: 167.974 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 378.43 Mbit/s
95th percentile per-packet one-way delay: 167.974 ms
Loss rate: 0.59%
```
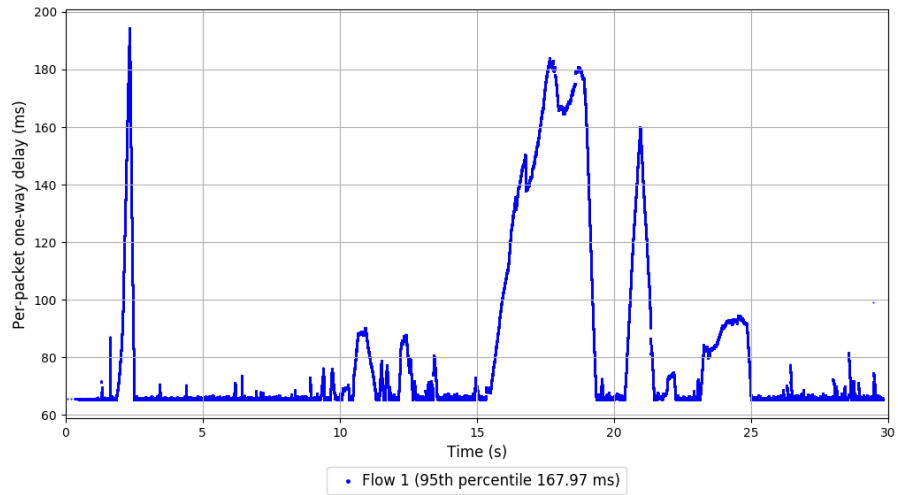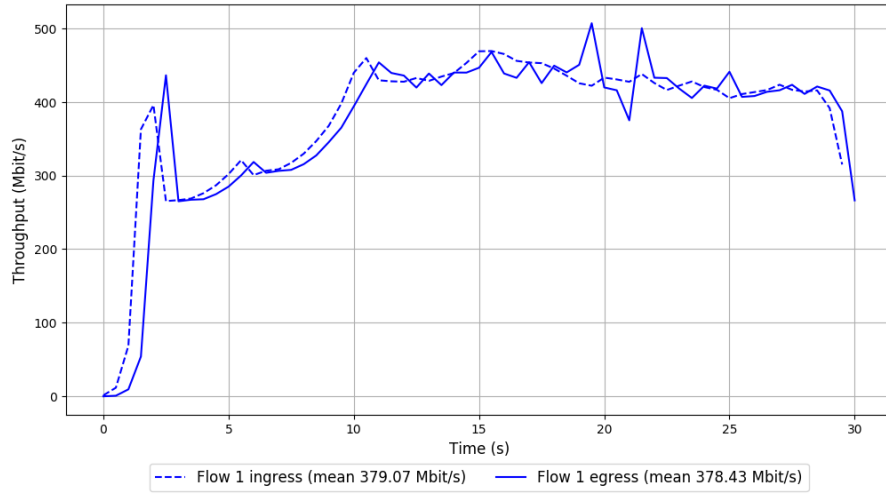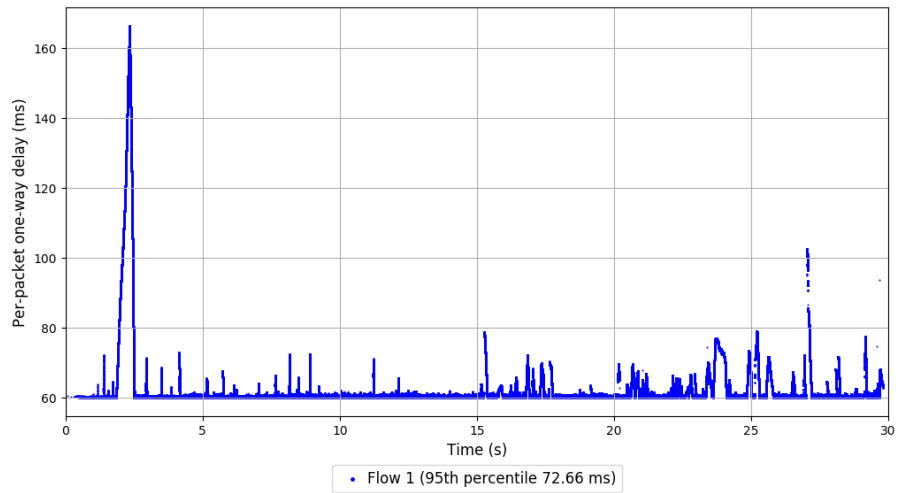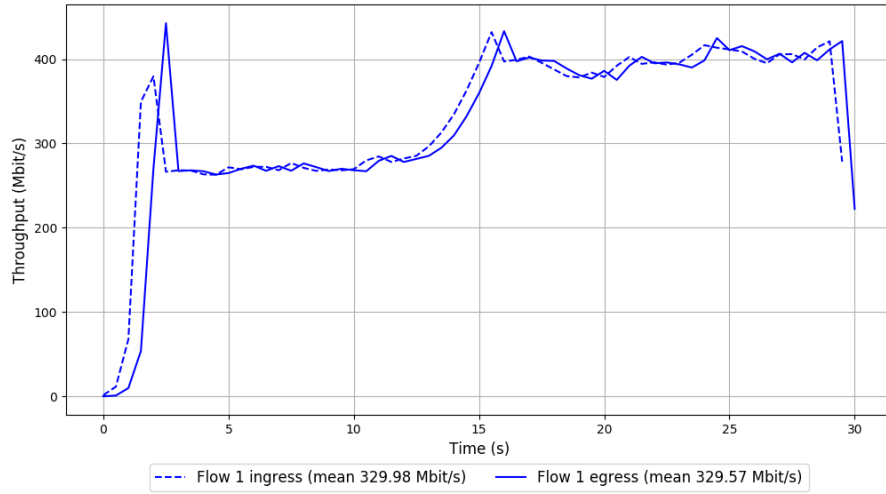
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 379.07 Mbit/s)   Flow 1 egress (mean 378.43 Mbit/s)

Flow 1 (95th percentile 167.97 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-06-28 06:11:56
End at: 2019-06-28 06:12:26
Local clock offset: -0.245 ms
Remote clock offset: -0.127 ms


# Below is generated by plot.py at 2019-06-28 08:32:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 329.57 Mbit/s
95th percentile per-packet one-way delay: 72.660 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 329.57 Mbit/s
95th percentile per-packet one-way delay: 72.660 ms
Loss rate: 0.54%
```
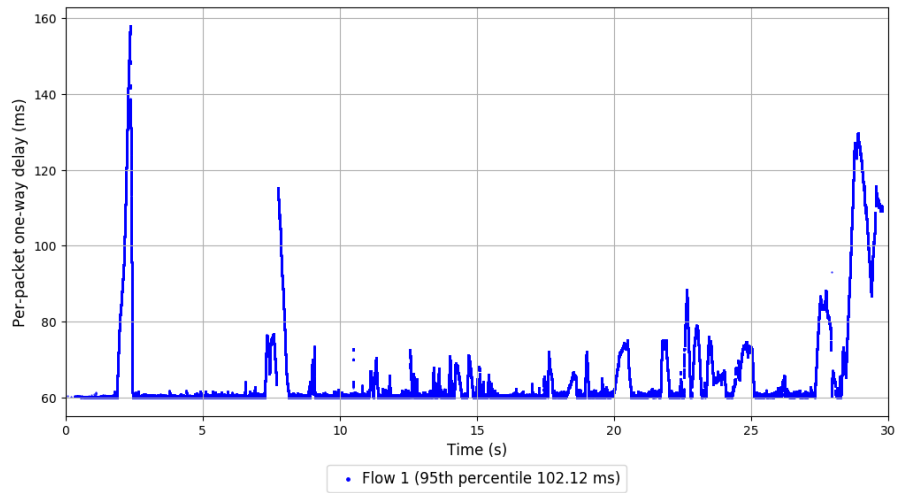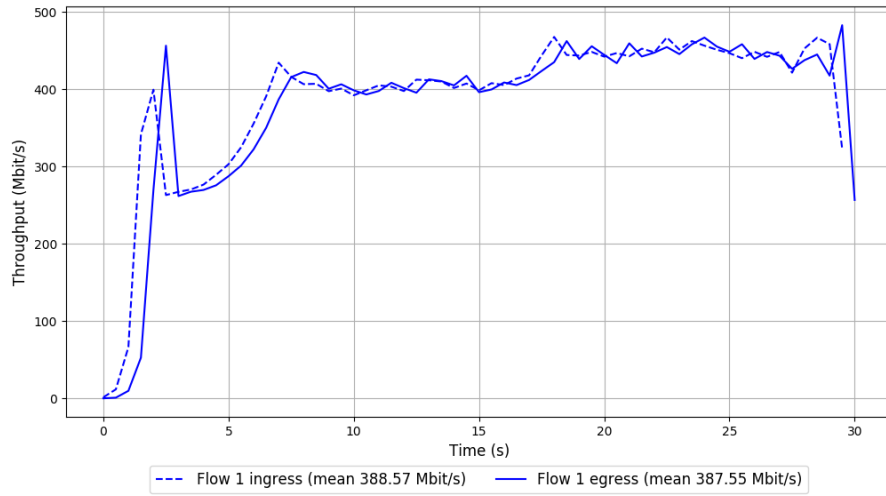
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-06-28 06:43:19
End at: 2019-06-28 06:43:49
Local clock offset: -0.045 ms
Remote clock offset: -0.214 ms


# Below is generated by plot.py at 2019-06-28 08:33:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 387.55 Mbit/s
95th percentile per-packet one-way delay: 102.117 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 387.55 Mbit/s
95th percentile per-packet one-way delay: 102.117 ms
Loss rate: 0.68%
```

Run 5: Report of PCC-Allegro — Data Link

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```
Run 1: Statistics of PCC-Expr

Start at: 2019-06-28 04:23:06
End at: 2019-06-28 04:23:36
Local clock offset: -0.001 ms
Remote clock offset: 0.558 ms


# Below is generated by plot.py at 2019-06-28 08:33:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 322.53 Mbit/s
95th percentile per-packet one-way delay: 156.462 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 322.53 Mbit/s
95th percentile per-packet one-way delay: 156.462 ms
Loss rate: 0.95%
```
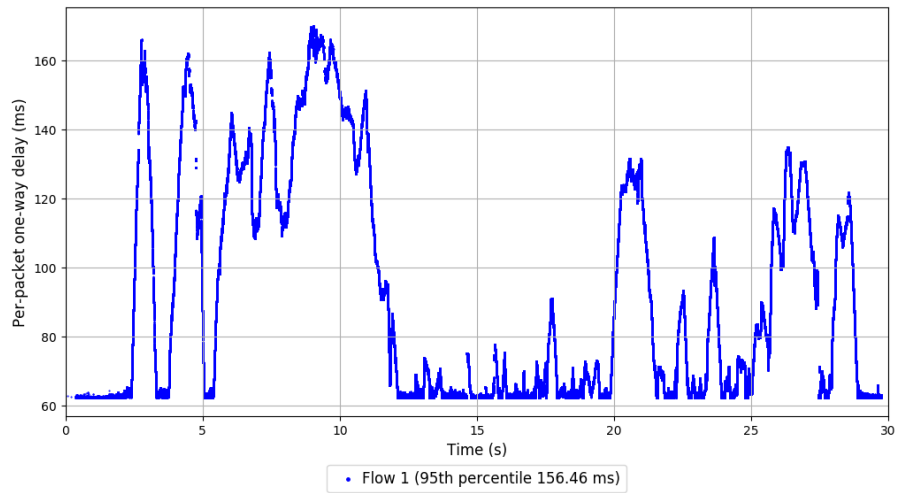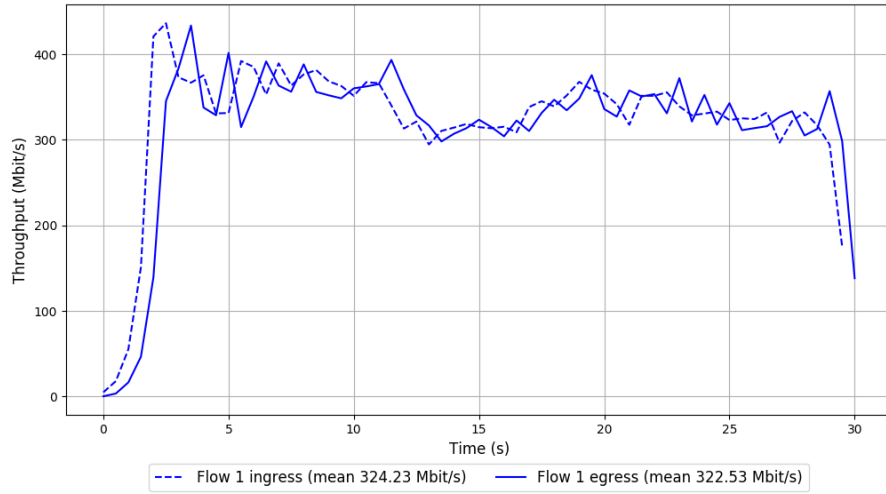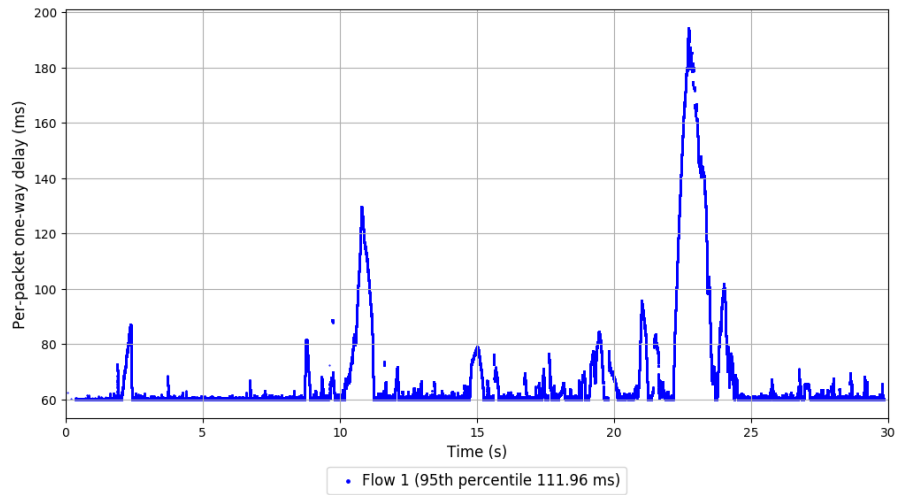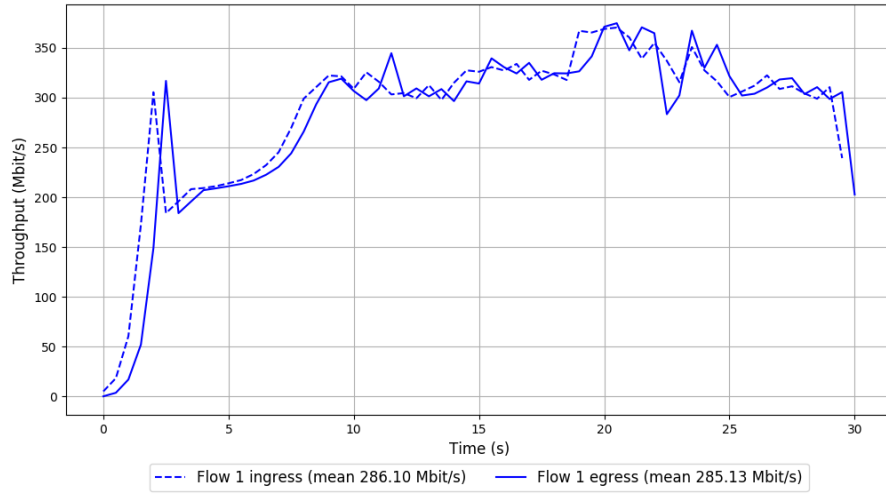
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 324.23 Mbit/s) —— Flow 1 egress (mean 322.53 Mbit/s)

• Flow 1 (95th percentile 156.46 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2019-06-28 04:54:55
End at: 2019-06-28 04:55:25
Local clock offset: 0.011 ms
Remote clock offset: 0.075 ms


# Below is generated by plot.py at 2019-06-28 08:33:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.13 Mbit/s
95th percentile per-packet one-way delay: 111.961 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 285.13 Mbit/s
95th percentile per-packet one-way delay: 111.961 ms
Loss rate: 0.76%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-06-28 05:26:49
End at: 2019-06-28 05:27:19
Local clock offset: -0.047 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2019-06-28 08:33:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.21 Mbit/s
95th percentile per-packet one-way delay: 122.317 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 261.21 Mbit/s
95th percentile per-packet one-way delay: 122.317 ms
Loss rate: 0.51%
```
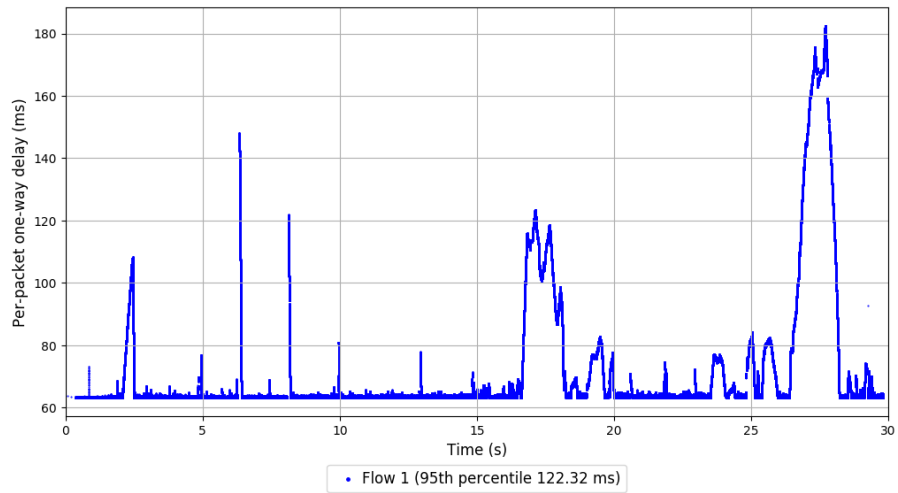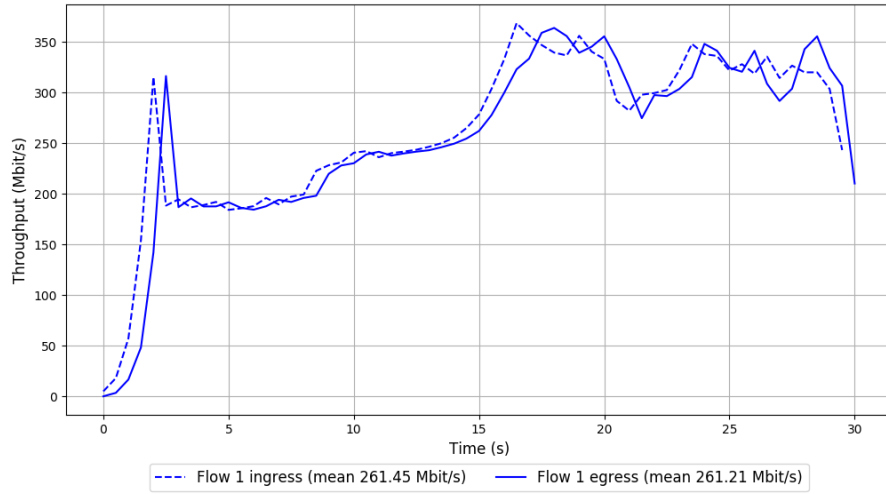
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 261.45 Mbit/s) --- Flow 1 egress (mean 261.21 Mbit/s)

Flow 1 (95th percentile 122.32 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-06-28 05:58:49
End at: 2019-06-28 05:59:19
Local clock offset: -0.209 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.76 Mbit/s
95th percentile per-packet one-way delay: 146.242 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 274.76 Mbit/s
95th percentile per-packet one-way delay: 146.242 ms
Loss rate: 1.32%
```
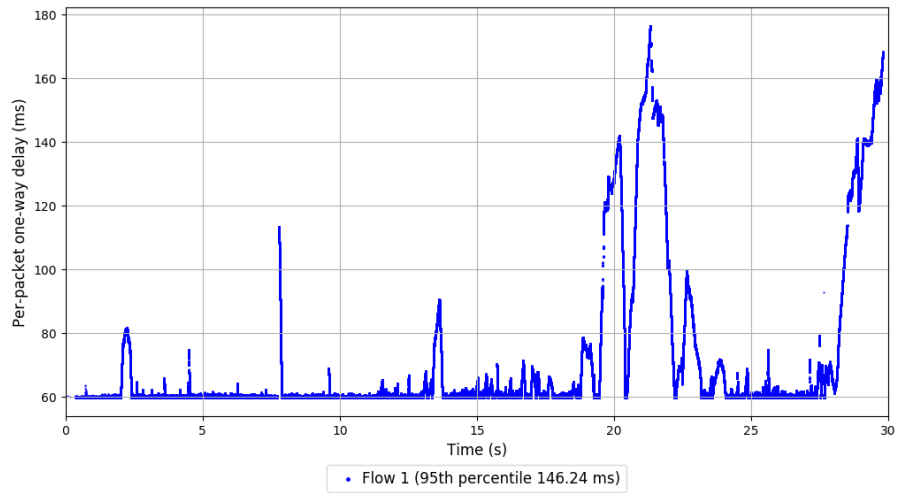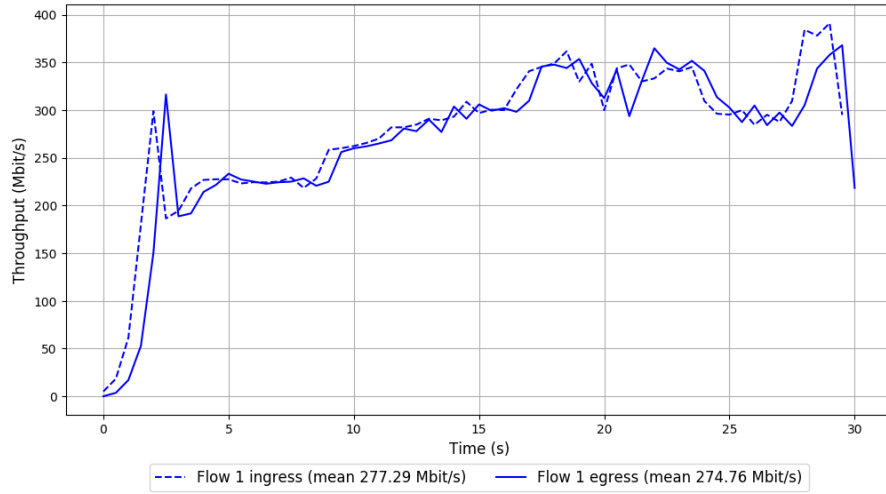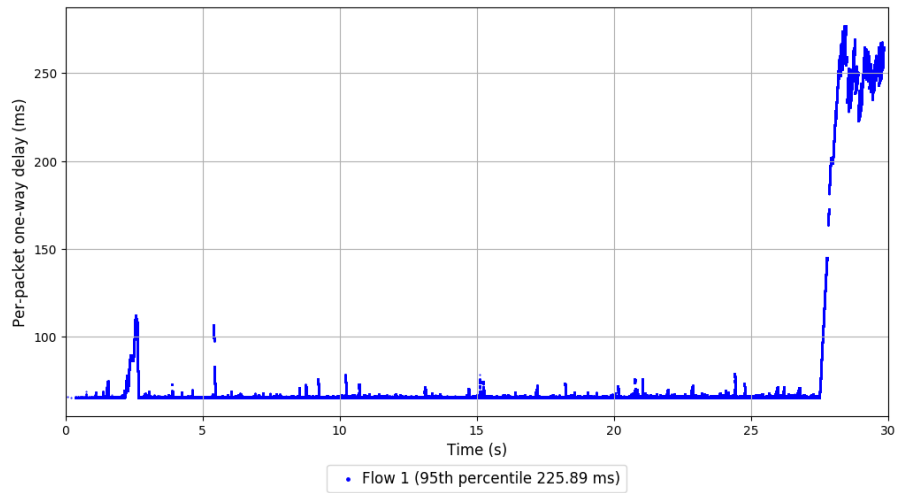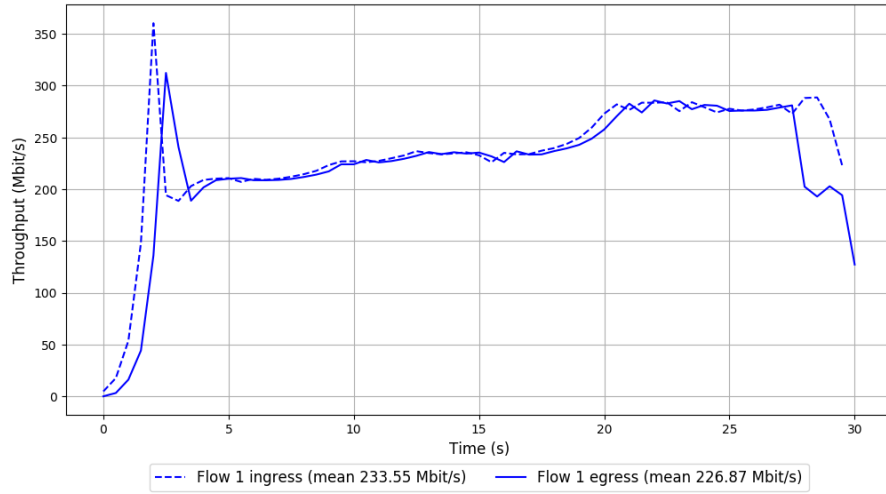
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-06-28 06:30:21
End at: 2019-06-28 06:30:51
Local clock offset: -0.284 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.87 Mbit/s
95th percentile per-packet one-way delay: 225.887 ms
Loss rate: 3.28%
-- Flow 1:
Average throughput: 226.87 Mbit/s
95th percentile per-packet one-way delay: 225.887 ms
Loss rate: 3.28%
```

Run 5: Report of PCC-Expr — Data Link
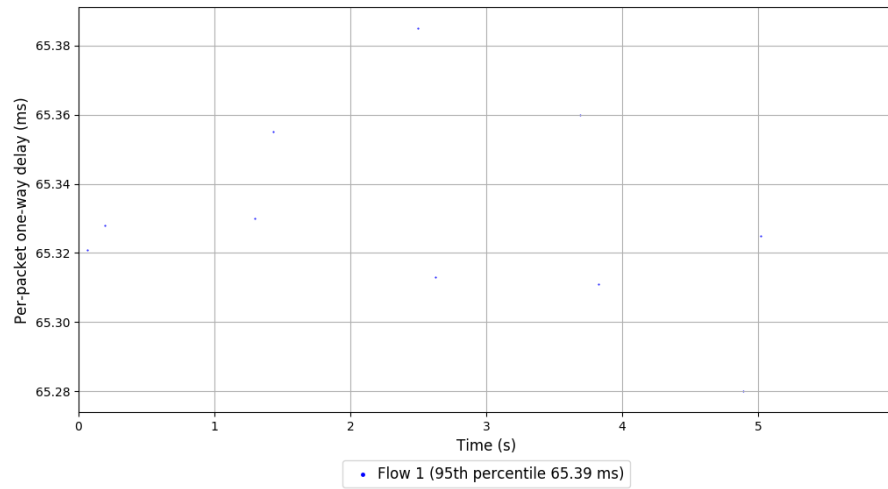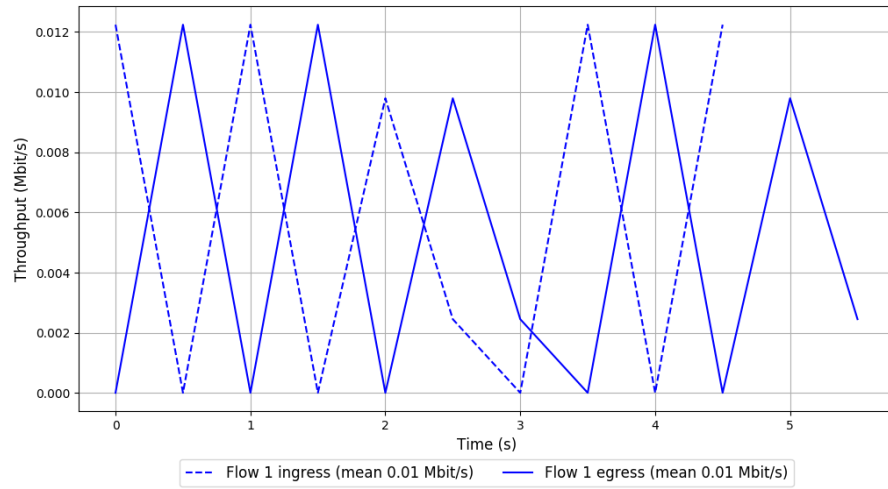
Run 1: Statistics of QUIC Cubic

Start at: 2019-06-28 04:41:45
End at: 2019-06-28 04:42:15
Local clock offset: -0.059 ms
Remote clock offset: 0.044 ms

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-06-28 05:13:32
End at: 2019-06-28 05:14:02
Local clock offset: 0.036 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.89 Mbit/s
95th percentile per-packet one-way delay: 63.267 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 60.89 Mbit/s
95th percentile per-packet one-way delay: 63.267 ms
Loss rate: 0.72%
```
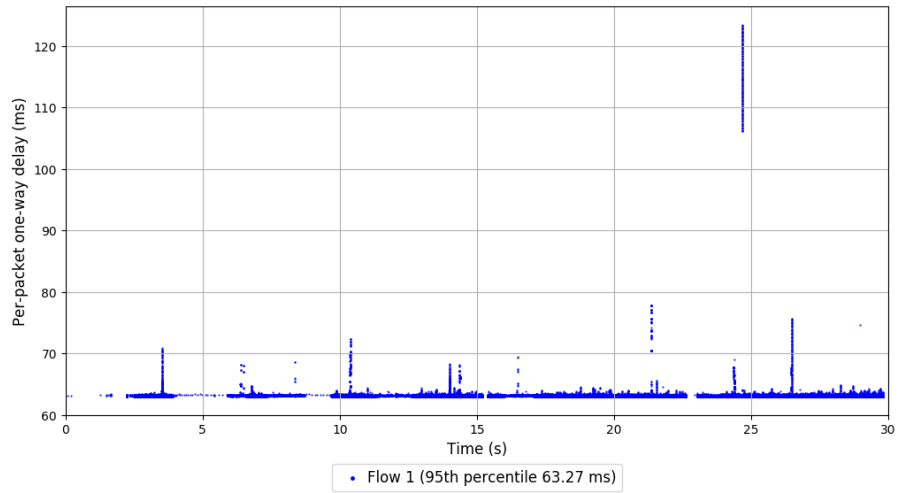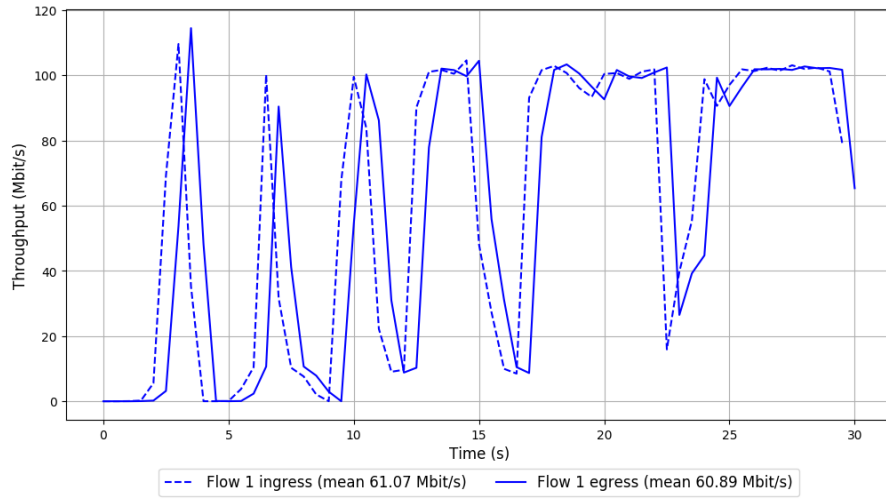
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-06-28 05:45:33
End at: 2019-06-28 05:46:03
Local clock offset: -0.187 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.56 Mbit/s
95th percentile per-packet one-way delay: 65.512 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 52.56 Mbit/s
95th percentile per-packet one-way delay: 65.512 ms
Loss rate: 0.72%
```
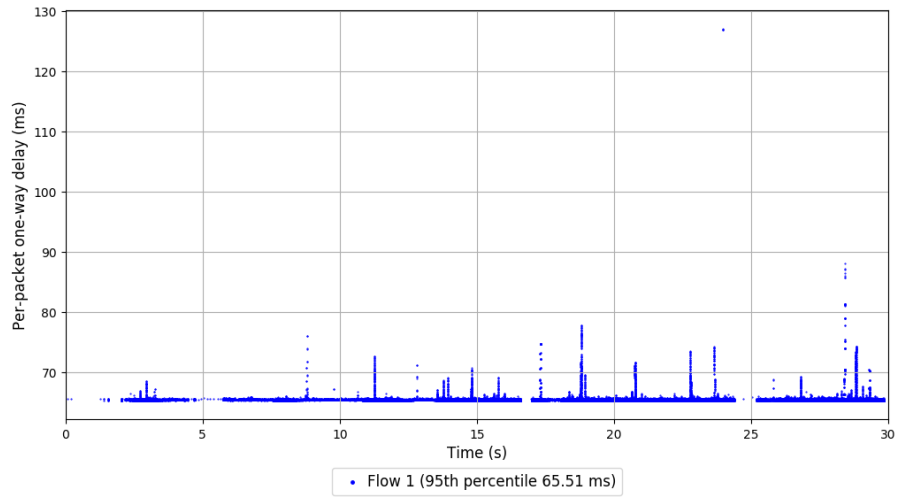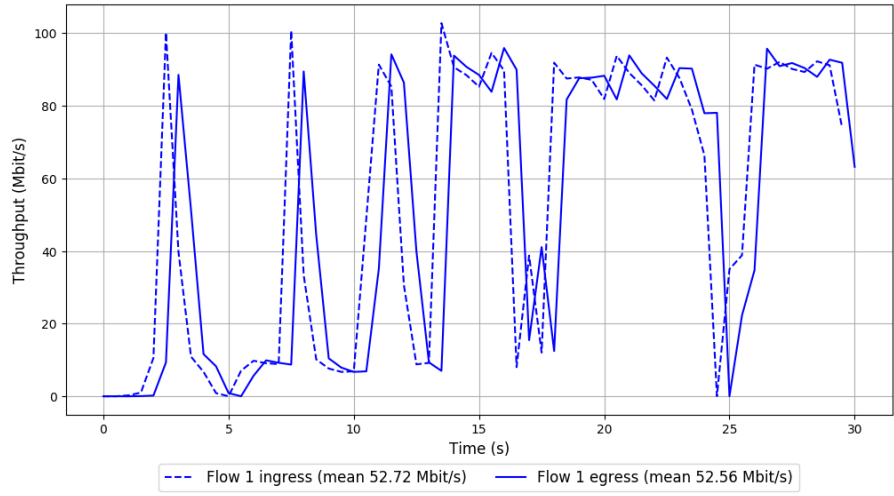
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 52.72 Mbit/s)   Flow 1 egress (mean 52.56 Mbit/s)

Flow 1 (95th percentile 65.51 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-06-28 06:17:24
End at: 2019-06-28 06:17:54
Local clock offset: -0.256 ms
Remote clock offset: -0.493 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 63.418 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 55.63 Mbit/s
95th percentile per-packet one-way delay: 63.418 ms
Loss rate: 0.90%
```
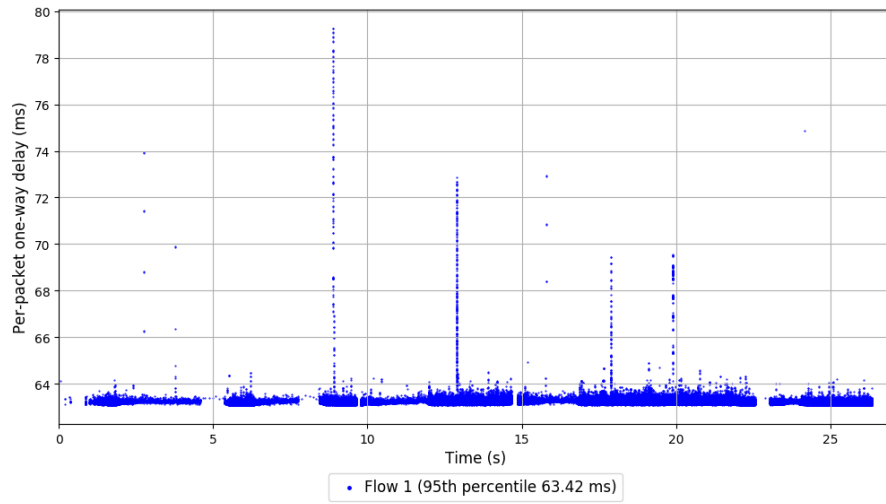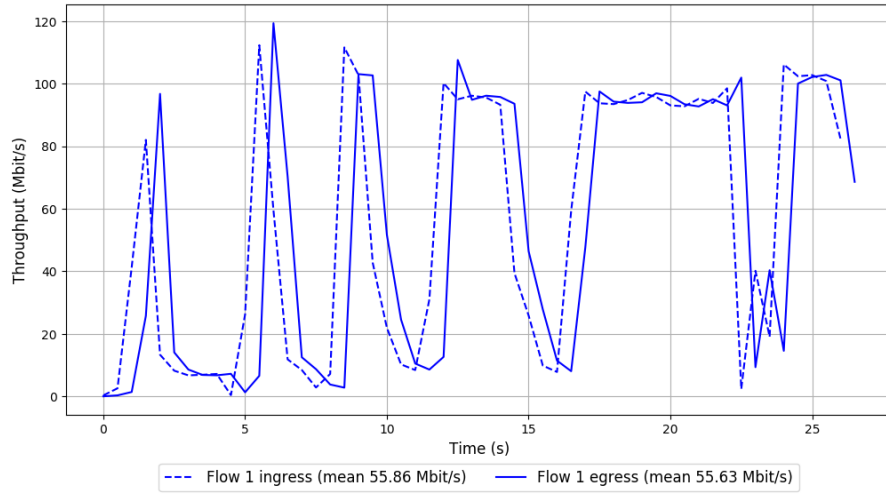
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-06-28 06:48:35
End at: 2019-06-28 06:49:06
Local clock offset: 0.005 ms
Remote clock offset: -0.16 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 63.303 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 56.65 Mbit/s
95th percentile per-packet one-way delay: 63.303 ms
Loss rate: 0.69%
```
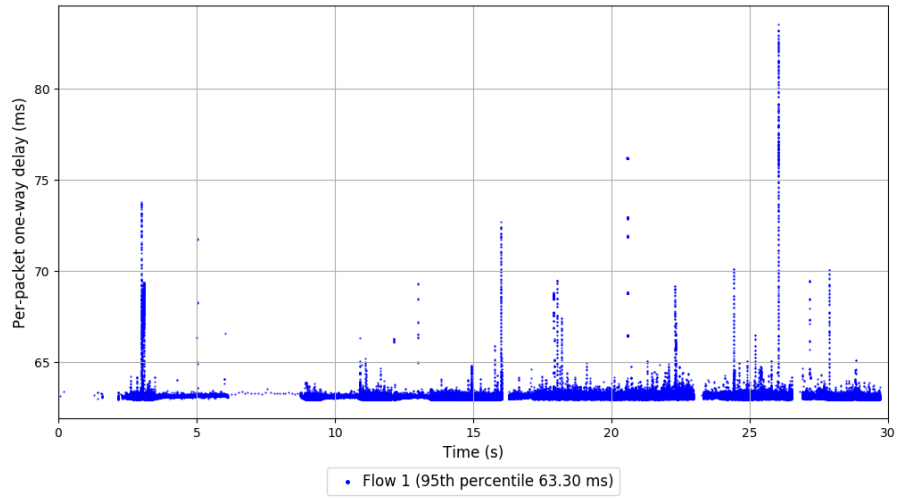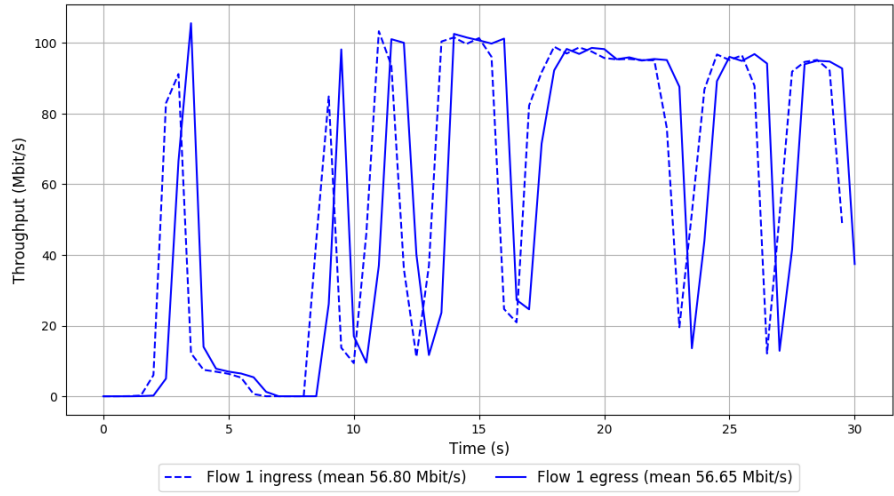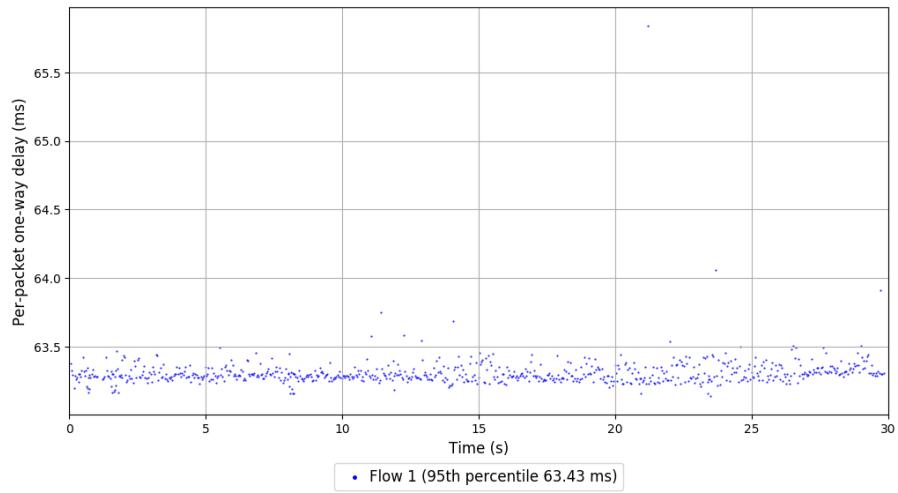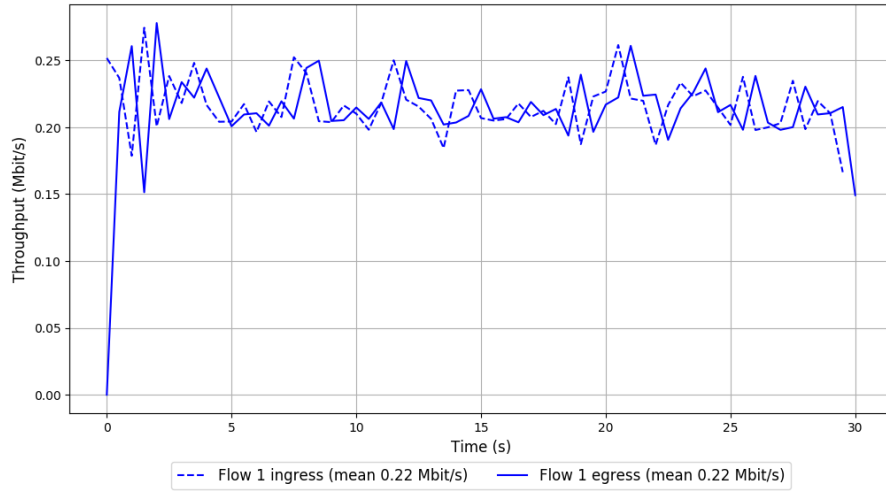
Run 5: Report of QUIC Cubic — Data Link

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```
Run 1: Statistics of SCReAM

Start at: 2019-06-28 04:37:42
End at: 2019-06-28 04:38:12
Local clock offset: -0.034 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.427 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.427 ms
Loss rate: 0.38%
```

Run 1: Report of SCReAM — Data Link

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

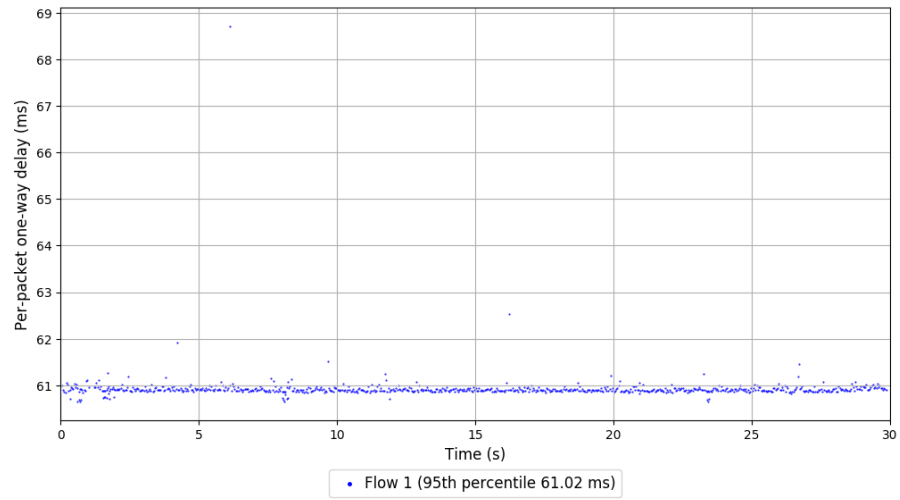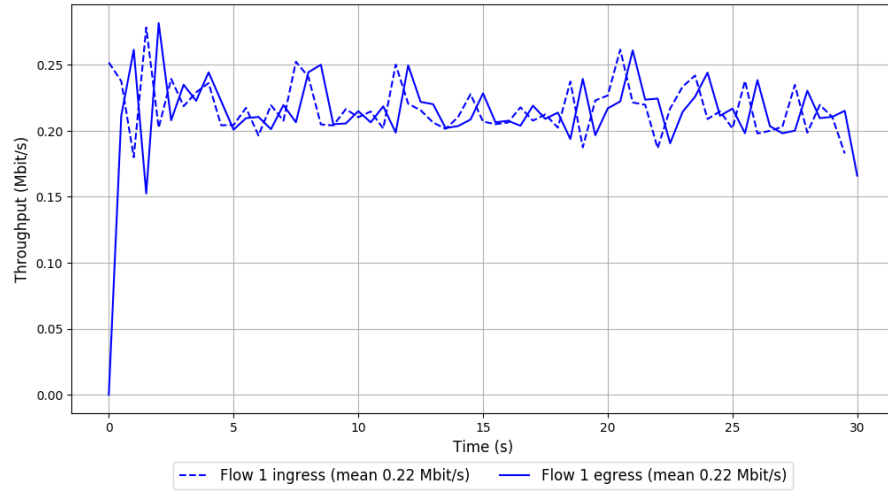Flow 1 (95th percentile 63.43 ms)

```
Run 2: Statistics of SCReAM

Start at: 2019-06-28 05:09:27
End at: 2019-06-28 05:09:57
Local clock offset: 0.042 ms
Remote clock offset: -0.443 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.019 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.019 ms
Loss rate: 0.38%
```

Run 2: Report of SCReAM — Data Link

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

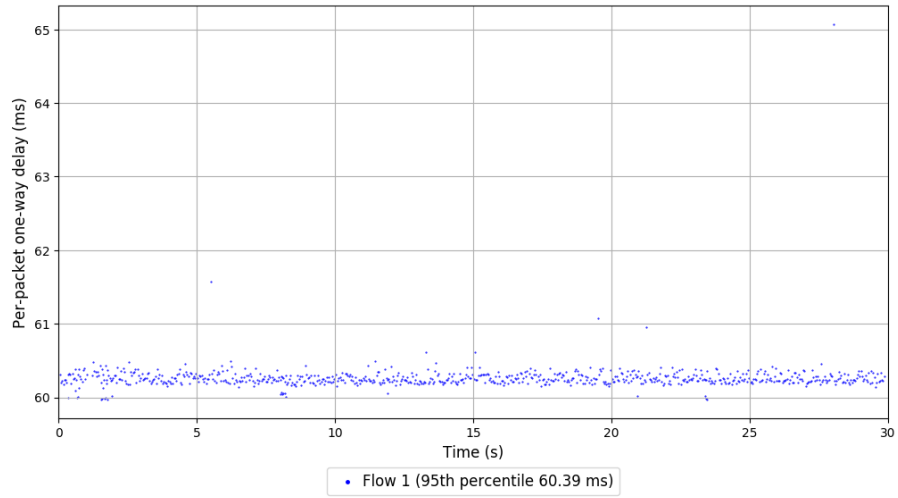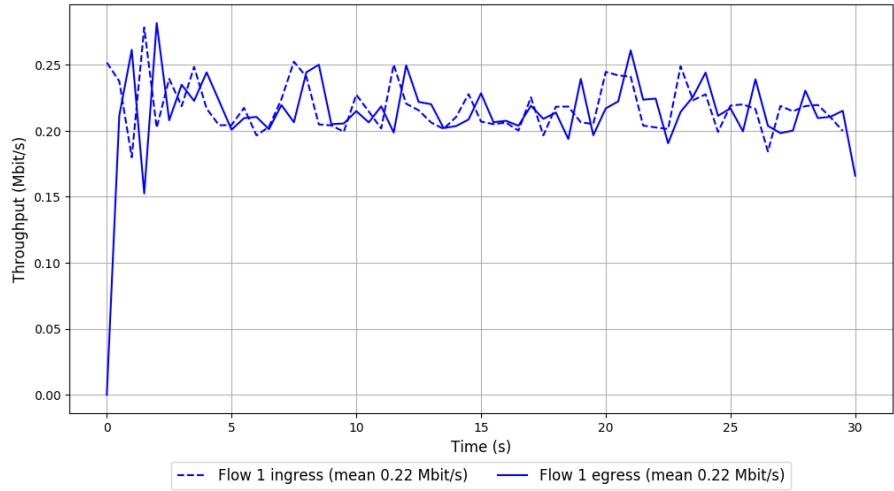Flow 1 (95th percentile 61.02 ms)

```
Run 3: Statistics of SCReAM

Start at: 2019-06-28 05:41:29
End at: 2019-06-28 05:41:59
Local clock offset: -0.175 ms
Remote clock offset: -0.159 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.388 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 60.388 ms
Loss rate: 0.51%
```

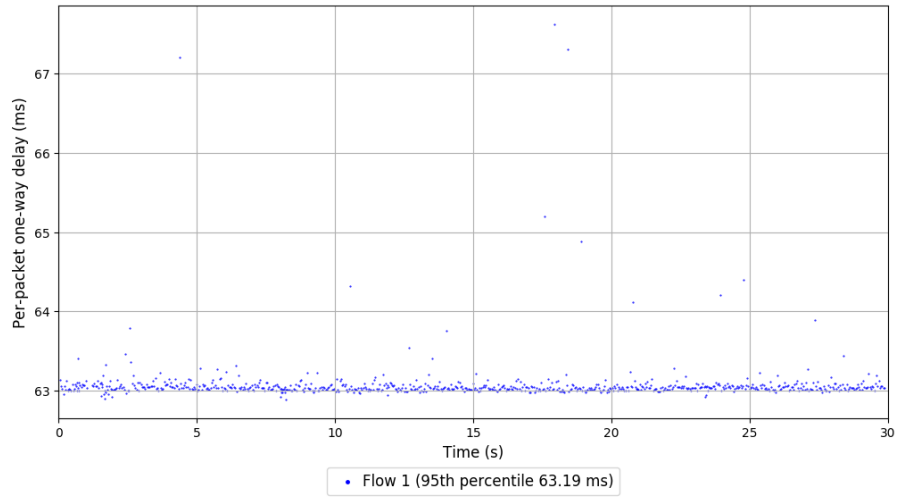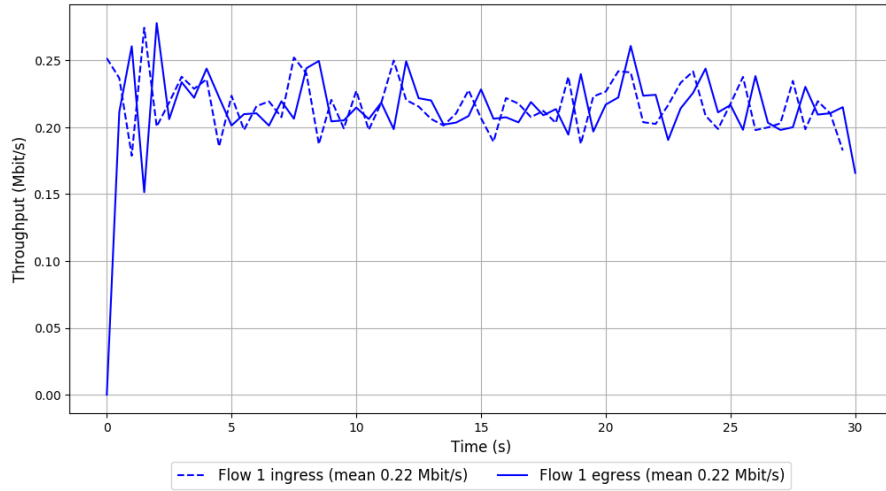Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2019-06-28 06:13:26
End at: 2019-06-28 06:13:56
Local clock offset: -0.251 ms
Remote clock offset: -0.155 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.189 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.189 ms
Loss rate: 0.38%
```

Run 4: 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 63.19 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-06-28 06:44:52
End at: 2019-06-28 06:45:22
Local clock offset: -0.018 ms
Remote clock offset: 1.331 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.235 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.235 ms
Loss rate: 0.38%
```
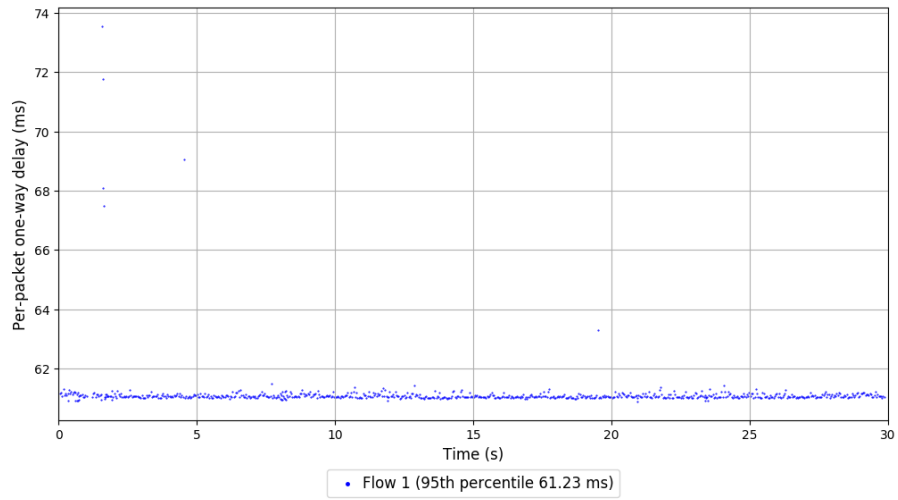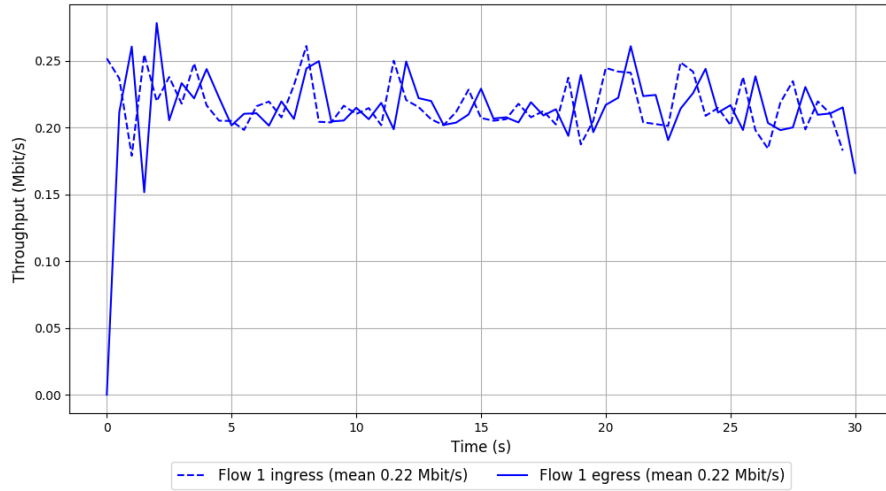
Run 5: Report of SCReAM — Data Link

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

• Flow 1 (95th percentile 61.23 ms)

```
Run 1: Statistics of Sprout

Start at: 2019-06-28 04:26:10
End at: 2019-06-28 04:26:40
Local clock offset: -0.034 ms
Remote clock offset: 0.237 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 66.027 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 66.027 ms
Loss rate: 0.51%
```
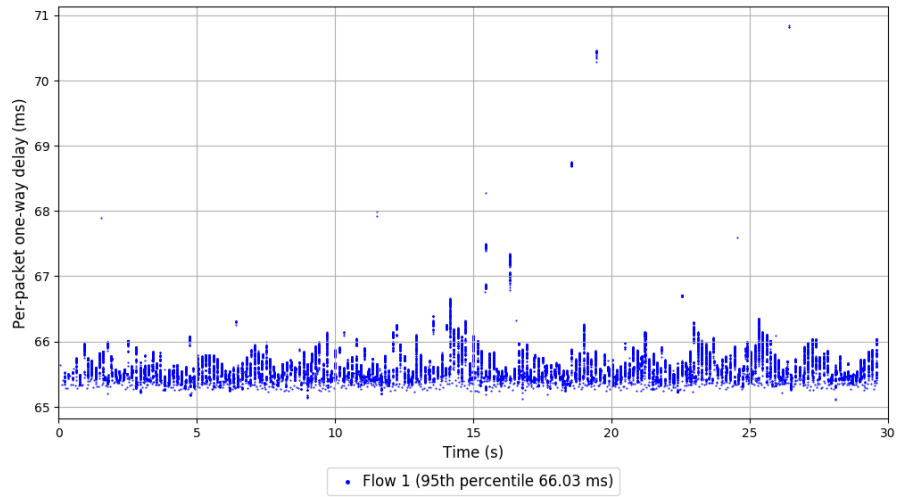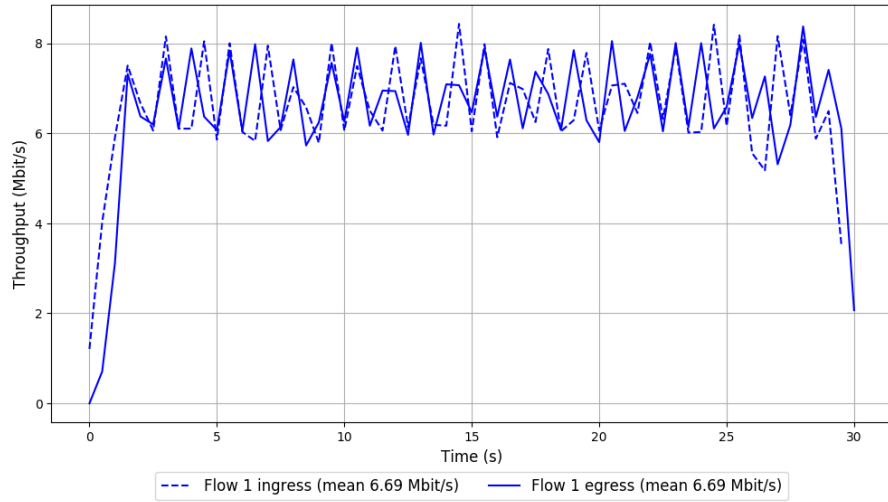
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-06-28 04:57:59
End at: 2019-06-28 04:58:29
Local clock offset: -0.02 ms
Remote clock offset: 0.151 ms


# Below is generated by plot.py at 2019-06-28 08:39:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 62.986 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 62.986 ms
Loss rate: 0.56%
```
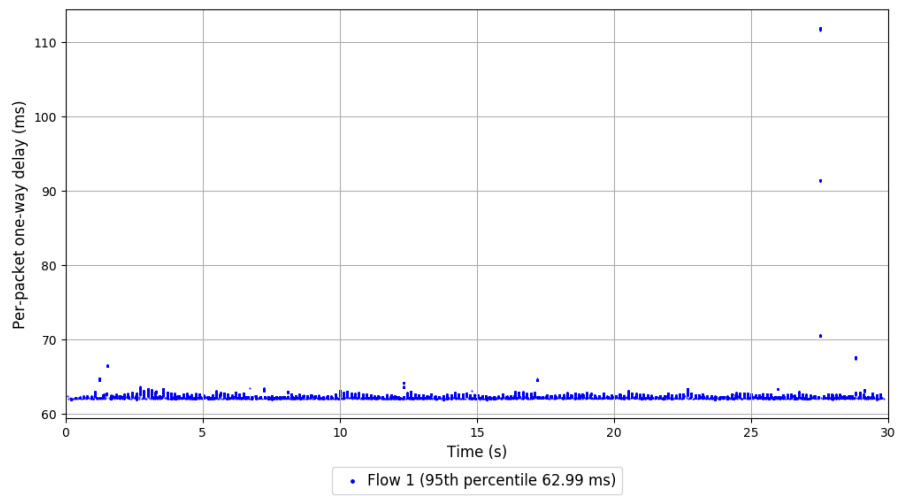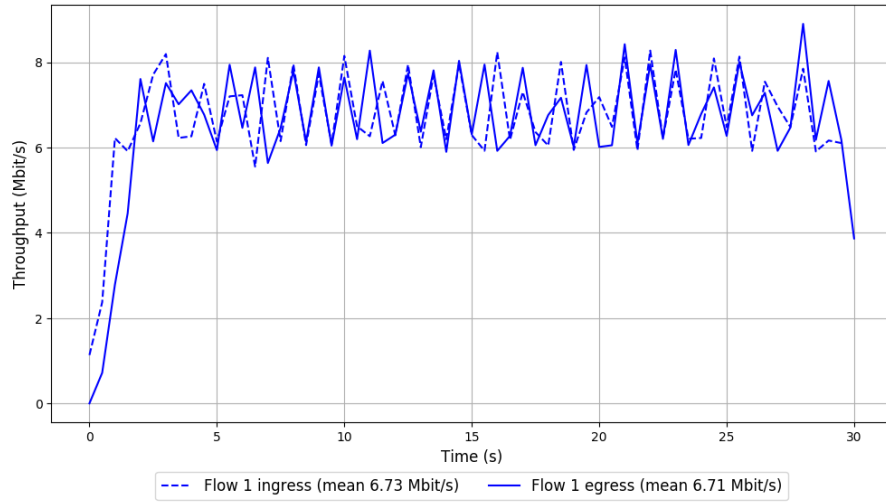
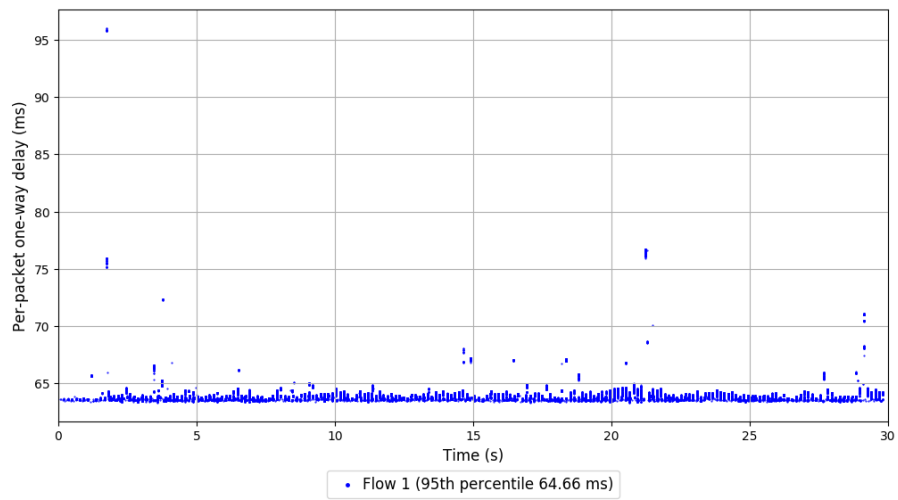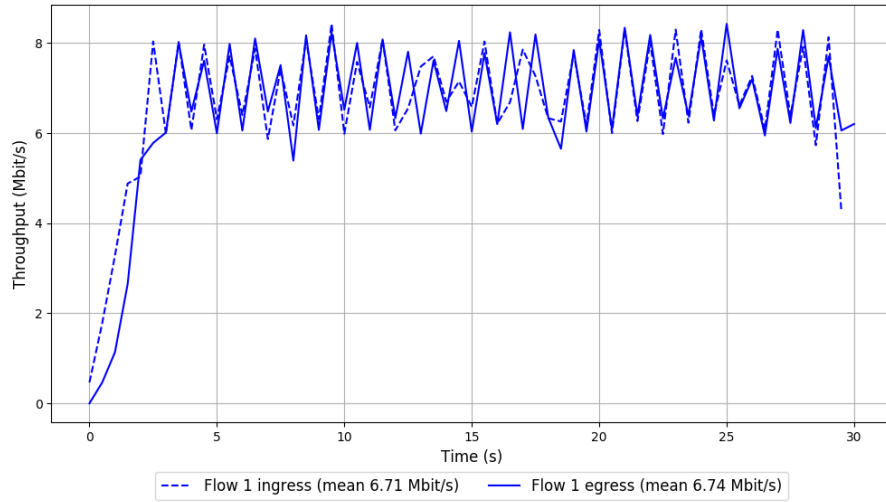Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2019-06-28 05:29:55
End at: 2019-06-28 05:30:25
Local clock offset: -0.085 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2019-06-28 08:39:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 64.657 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 64.657 ms
Loss rate: 0.03%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 6.71 Mbit/s)   Flow 1 egress (mean 6.74 Mbit/s)

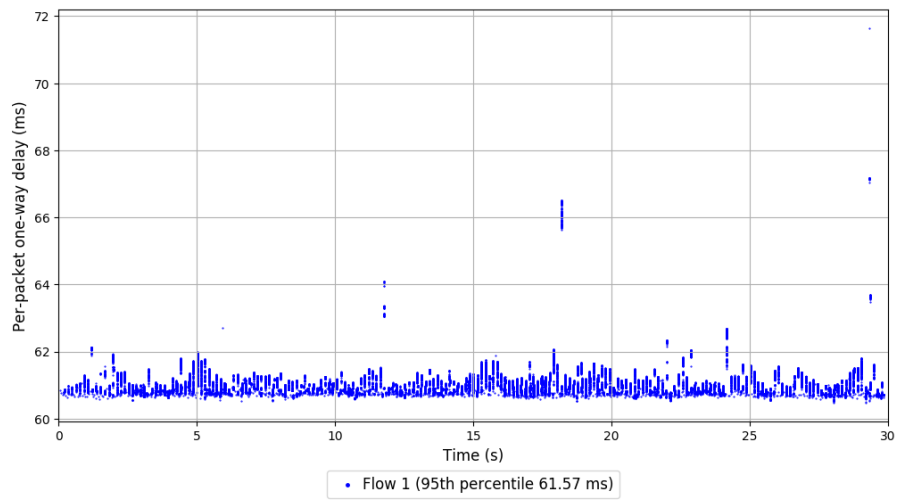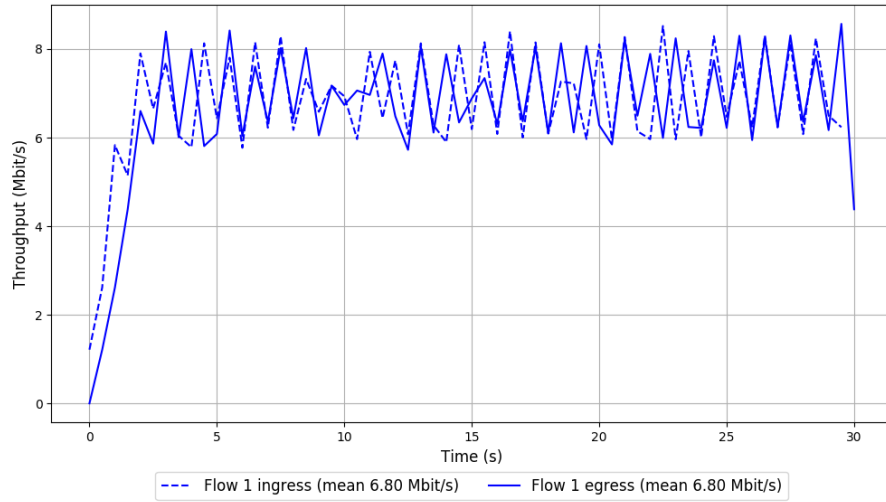• Flow 1 (95th percentile 64.66 ms)

```
Run 4: Statistics of Sprout

Start at: 2019-06-28 06:01:57
End at: 2019-06-28 06:02:27
Local clock offset: -0.249 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2019-06-28 08:39:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 61.569 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 6.80 Mbit/s
95th percentile per-packet one-way delay: 61.569 ms
Loss rate: 0.46%
```

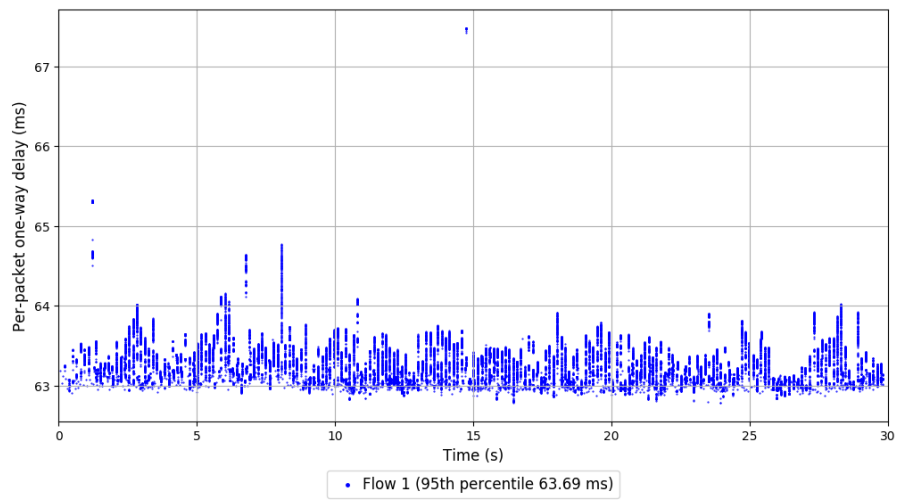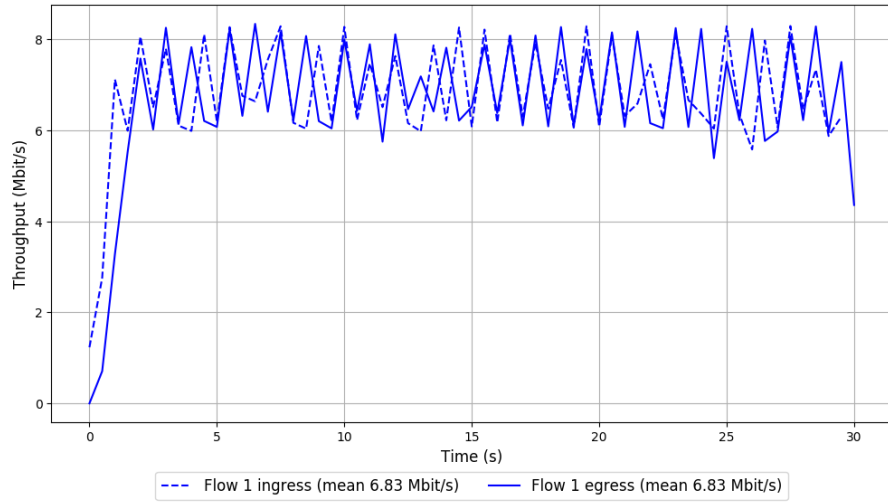## Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2019-06-28 06:33:17
End at: 2019-06-28 06:33:47
Local clock offset: -0.213 ms
Remote clock offset: -0.181 ms


# Below is generated by plot.py at 2019-06-28 08:39:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.691 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 6.83 Mbit/s
95th percentile per-packet one-way delay: 63.691 ms
Loss rate: 0.48%
```

Run 5: Report of Sprout — Data Link

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

Start at: 2019-06-28 04:33:33
End at: 2019-06-28 04:34:03
Local clock offset: -0.053 ms
Remote clock offset: 0.089 ms


# Below is generated by plot.py at 2019-06-28 08:39:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 61.413 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 210.71 Mbit/s
95th percentile per-packet one-way delay: 61.413 ms
Loss rate: 0.46%
```
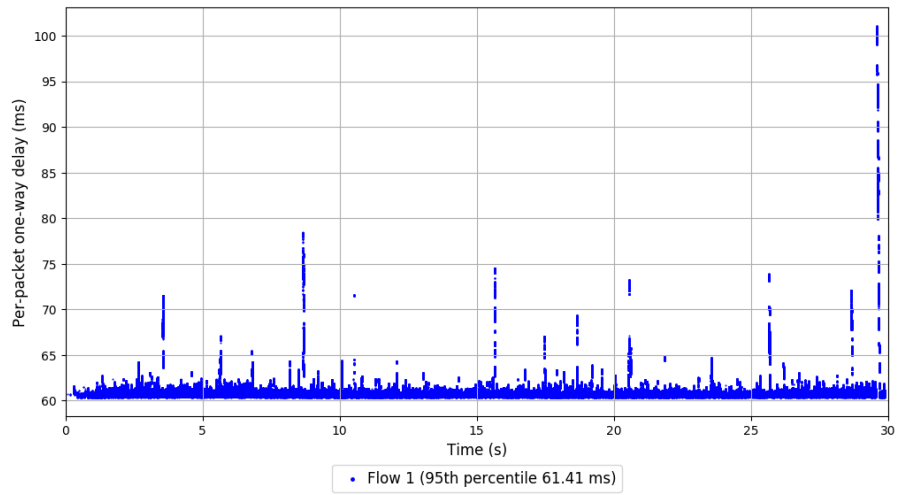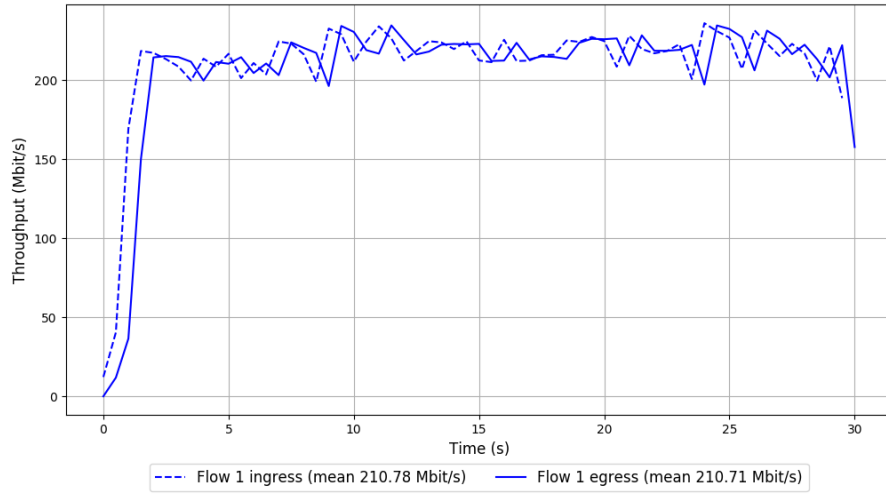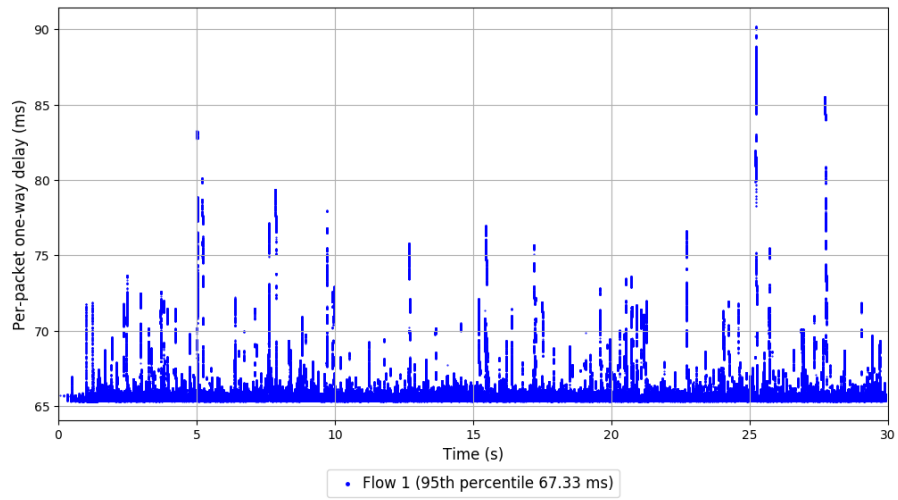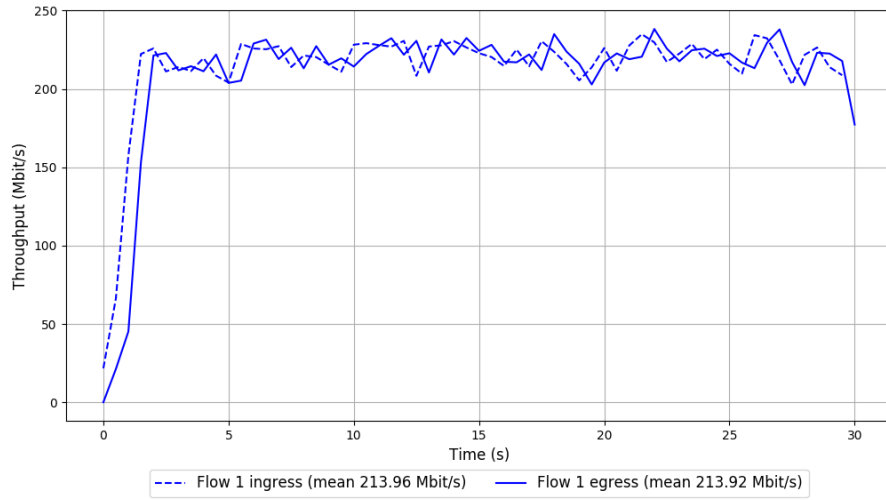
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2019-06-28 05:05:19
End at: 2019-06-28 05:05:49
Local clock offset: -0.014 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2019-06-28 08:40:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.92 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 213.92 Mbit/s
95th percentile per-packet one-way delay: 67.327 ms
Loss rate: 0.45%
```

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

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

Start at: 2019-06-28 05:37:16
End at: 2019-06-28 05:37:46
Local clock offset: -0.189 ms
Remote clock offset: -0.218 ms


# Below is generated by plot.py at 2019-06-28 08:40:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.58 Mbit/s
95th percentile per-packet one-way delay: 66.109 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 224.58 Mbit/s
95th percentile per-packet one-way delay: 66.109 ms
Loss rate: 0.42%
```
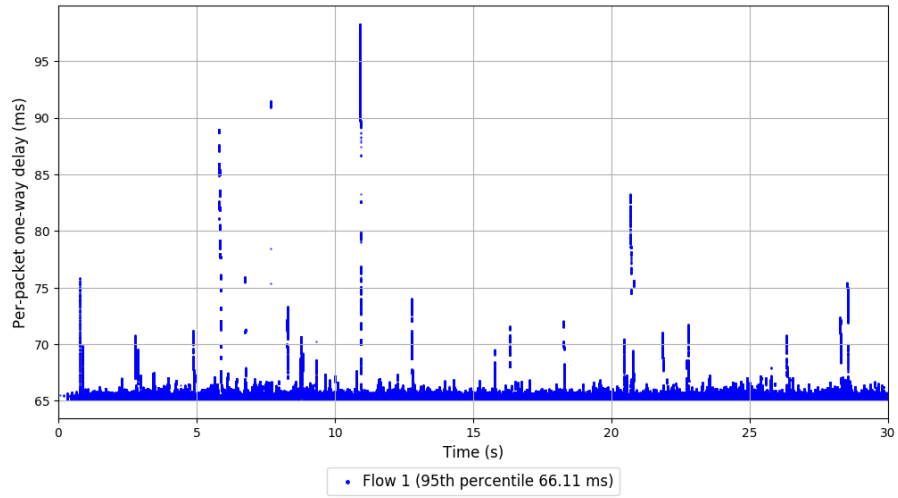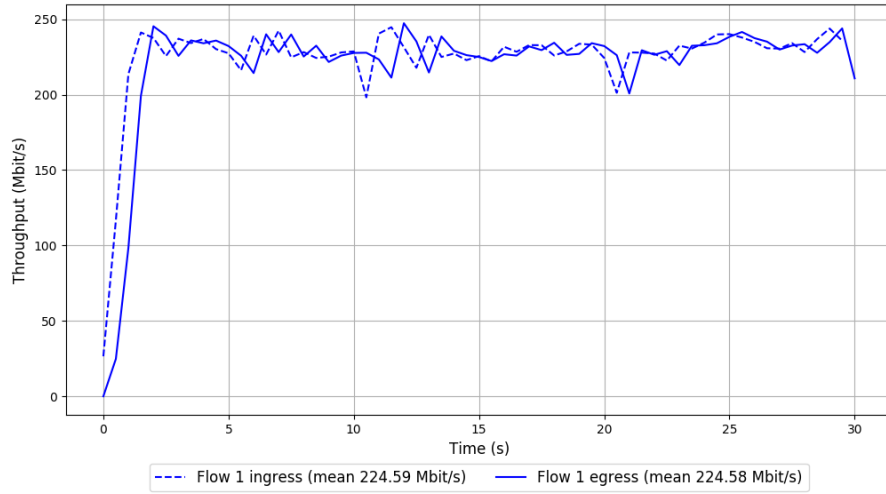
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 224.59 Mbit/s)   Flow 1 egress (mean 224.58 Mbit/s)

Flow 1 (95th percentile 66.11 ms)

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

Start at: 2019-06-28 06:09:18
End at: 2019-06-28 06:09:48
Local clock offset: -0.276 ms
Remote clock offset: -0.262 ms


# Below is generated by plot.py at 2019-06-28 08:40:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.20 Mbit/s
95th percentile per-packet one-way delay: 63.389 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 217.20 Mbit/s
95th percentile per-packet one-way delay: 63.389 ms
Loss rate: 0.45%
```
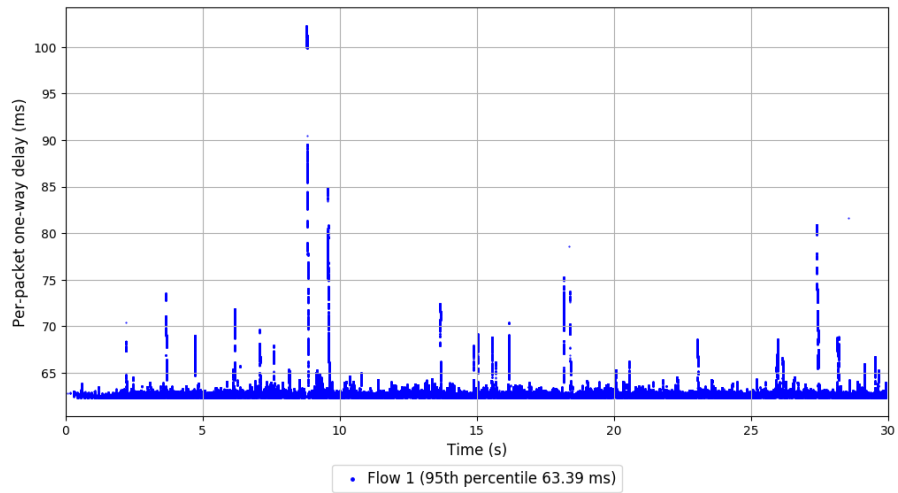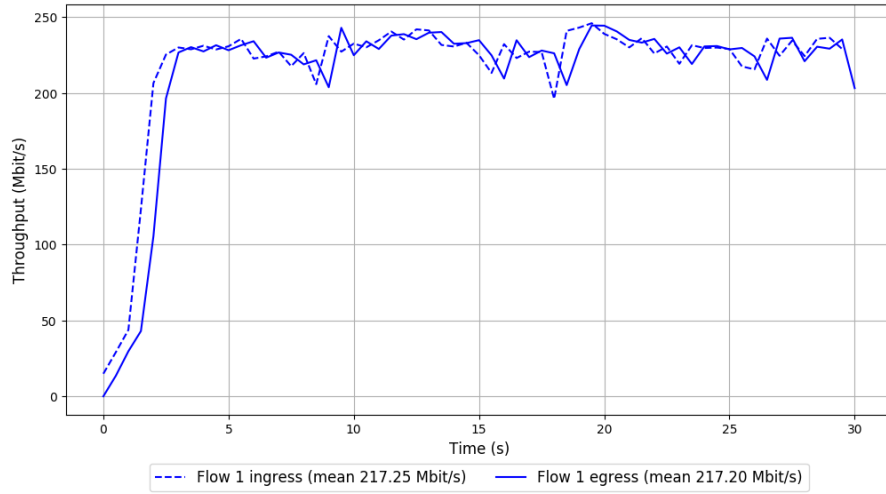
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 217.25 Mbit/s) — — — Flow 1 egress (mean 217.20 Mbit/s)
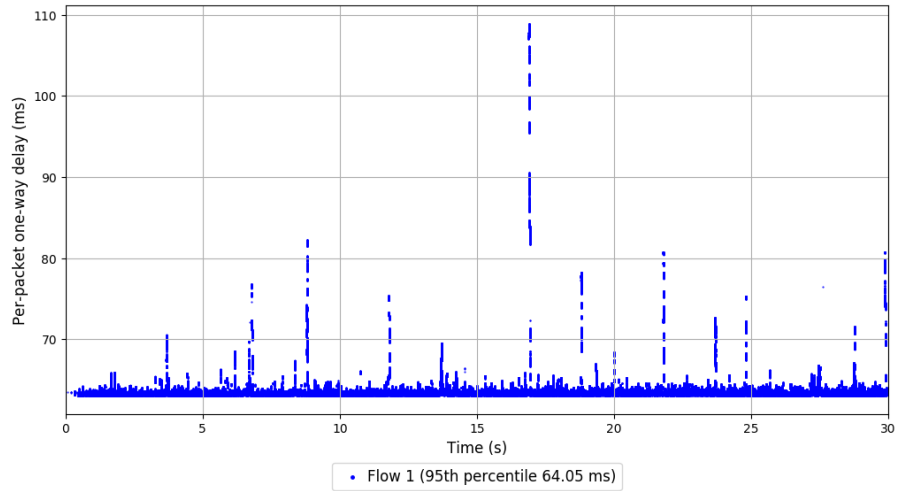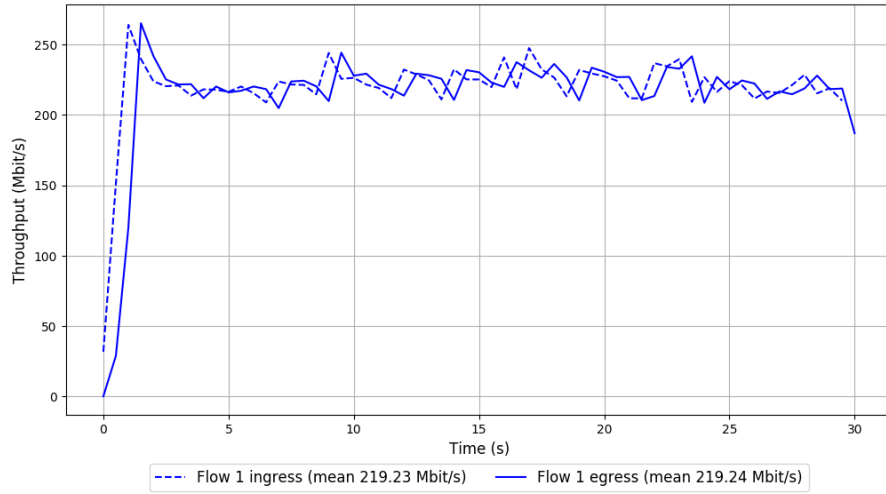

Flow 1 (95th percentile 63.39 ms)

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

Start at: 2019-06-28 06:40:40
End at: 2019-06-28 06:41:10
Local clock offset: -0.069 ms
Remote clock offset: -0.304 ms


# Below is generated by plot.py at 2019-06-28 08:40:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.24 Mbit/s
95th percentile per-packet one-way delay: 64.051 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 219.24 Mbit/s
95th percentile per-packet one-way delay: 64.051 ms
Loss rate: 0.42%
```

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

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```
Run 1: Statistics of TCP Vegas

Start at: 2019-06-28 04:48:38
End at: 2019-06-28 04:49:08
Local clock offset: -0.072 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2019-06-28 08:42:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 433.45 Mbit/s
95th percentile per-packet one-way delay: 69.182 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 433.45 Mbit/s
95th percentile per-packet one-way delay: 69.182 ms
Loss rate: 0.45%
```
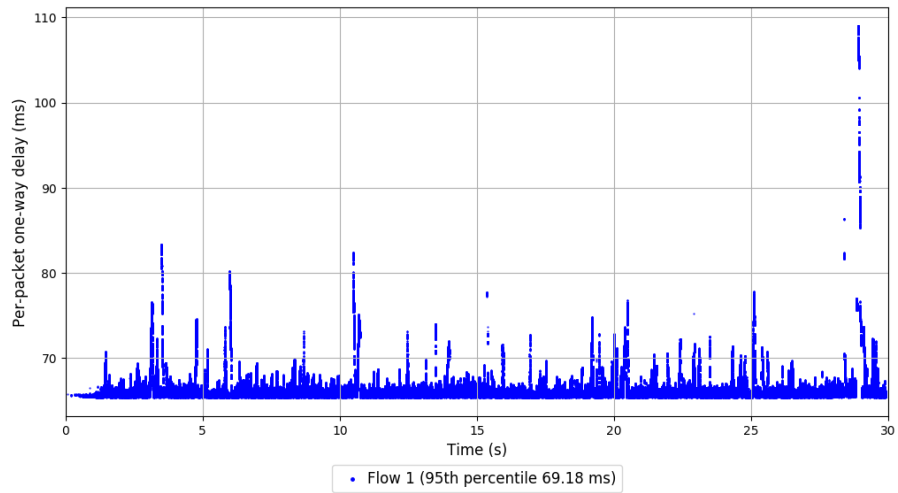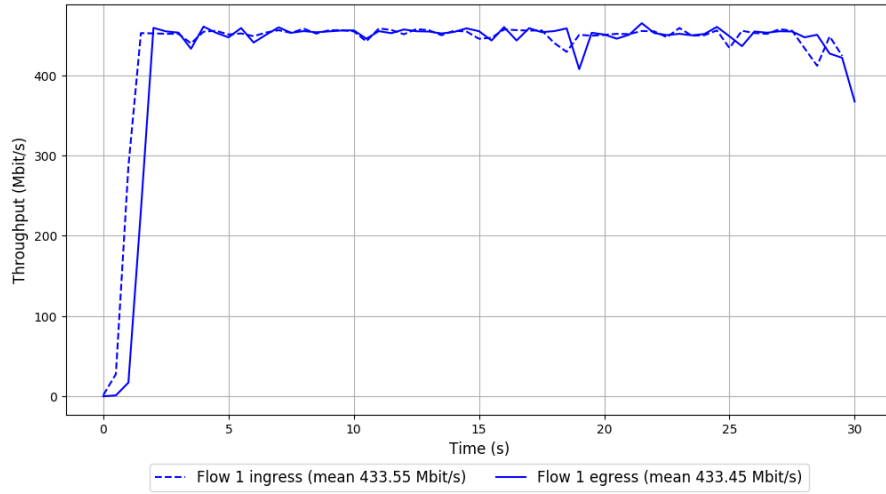
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-06-28 05:20:32
End at: 2019-06-28 05:21:02
Local clock offset: 0.049 ms
Remote clock offset: -0.276 ms


# Below is generated by plot.py at 2019-06-28 08:46:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 437.47 Mbit/s
95th percentile per-packet one-way delay: 71.591 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 437.47 Mbit/s
95th percentile per-packet one-way delay: 71.591 ms
Loss rate: 0.43%
```
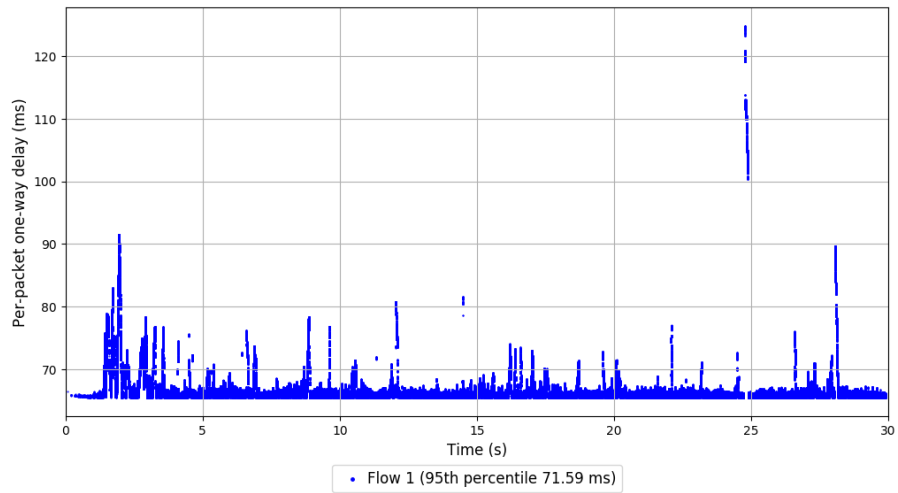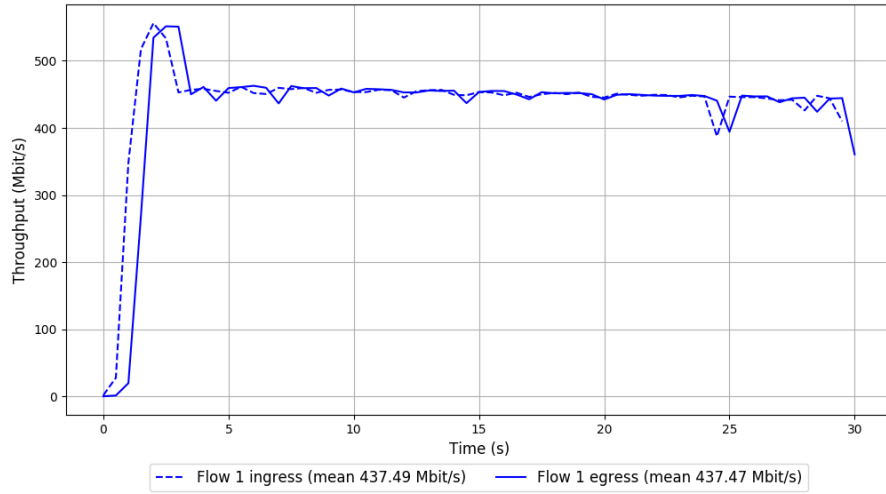
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-06-28 05:52:30
End at: 2019-06-28 05:53:00
Local clock offset: -0.205 ms
Remote clock offset: -0.144 ms


# Below is generated by plot.py at 2019-06-28 08:46:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 366.10 Mbit/s
95th percentile per-packet one-way delay: 68.445 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 366.10 Mbit/s
95th percentile per-packet one-way delay: 68.445 ms
Loss rate: 0.40%
```
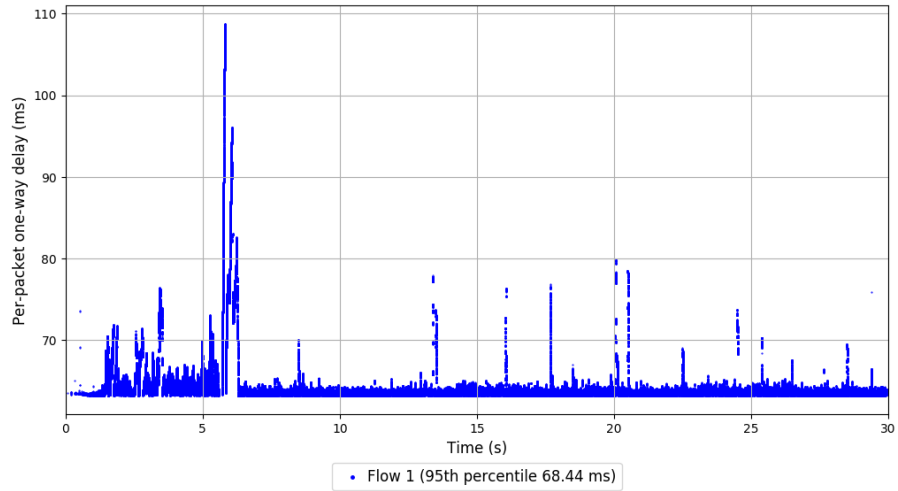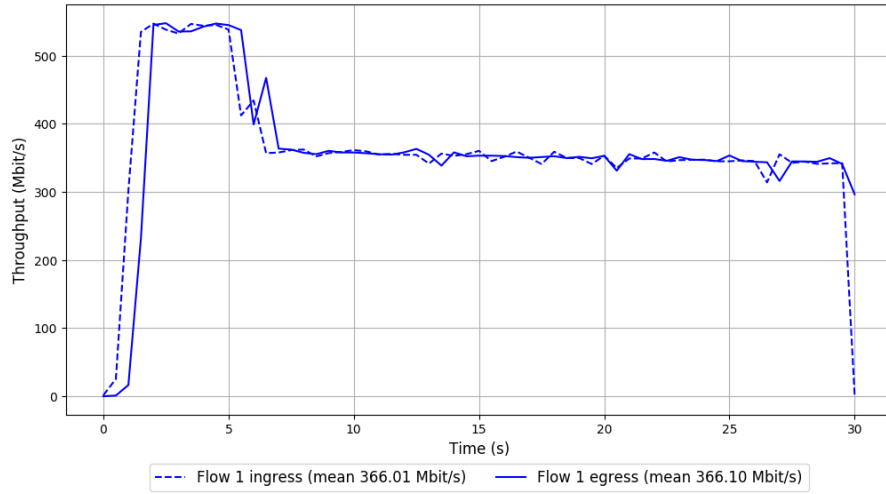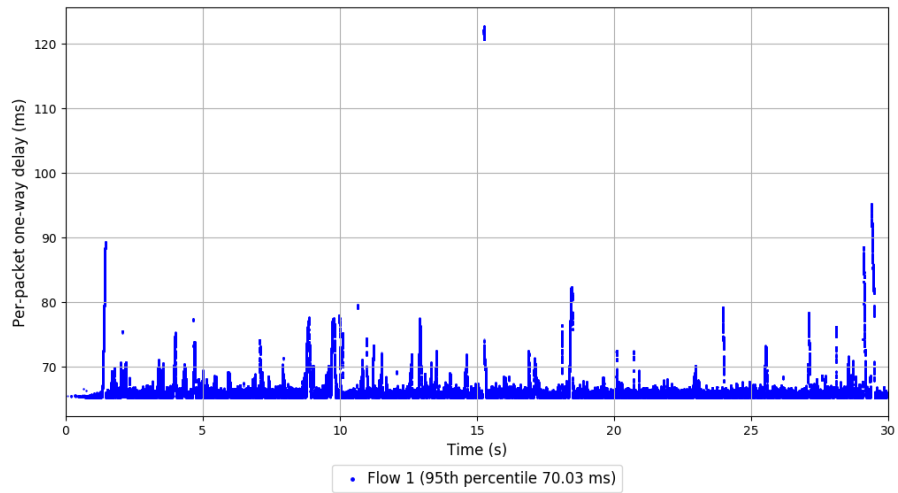
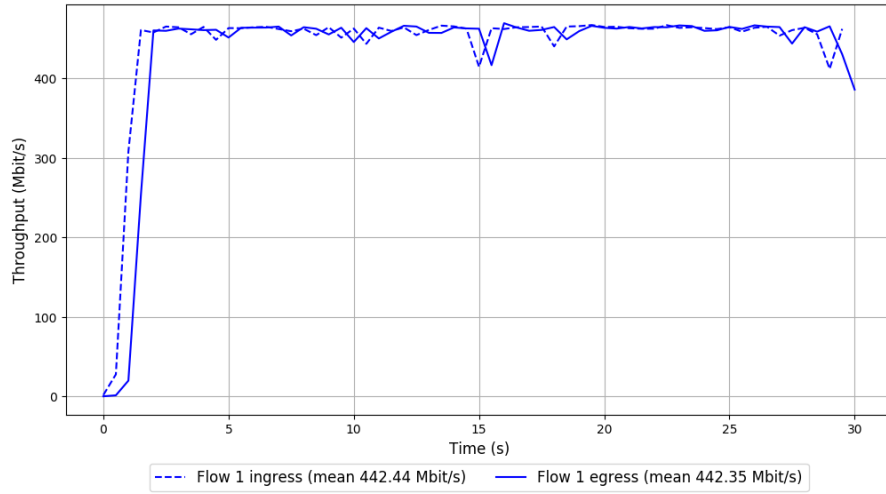Run 3: Report of TCP Vegas — Data Link

```
Run 4: Statistics of TCP Vegas

Start at: 2019-06-28 06:24:12
End at: 2019-06-28 06:24:42
Local clock offset: -0.319 ms
Remote clock offset: -0.124 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 442.35 Mbit/s
95th percentile per-packet one-way delay: 70.026 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 442.35 Mbit/s
95th percentile per-packet one-way delay: 70.026 ms
Loss rate: 0.44%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-06-28 06:55:30
End at: 2019-06-28 06:56:00
Local clock offset: 0.044 ms
Remote clock offset: -0.838 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.27 Mbit/s
95th percentile per-packet one-way delay: 69.690 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 321.27 Mbit/s
95th percentile per-packet one-way delay: 69.690 ms
Loss rate: 0.43%
```
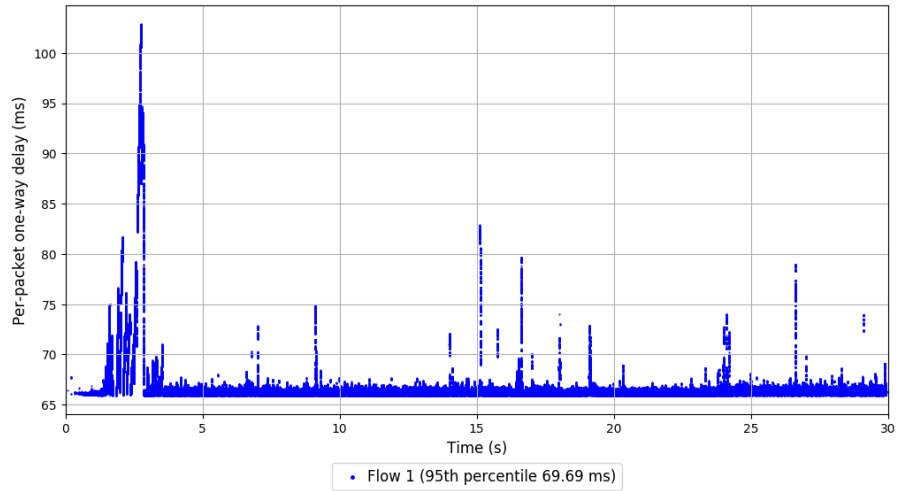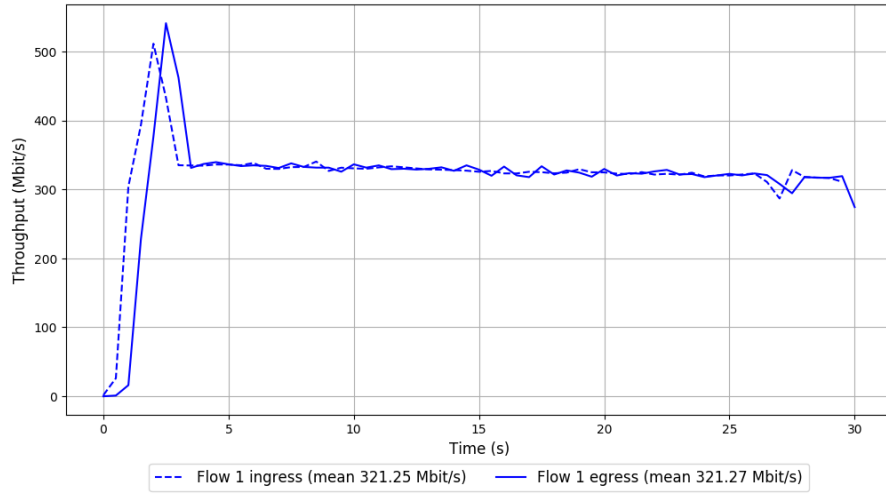
Run 5: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2019-06-28 04:40:24
End at: 2019-06-28 04:40:54
Local clock offset: -0.041 ms
Remote clock offset: 0.15 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.35 Mbit/s
95th percentile per-packet one-way delay: 110.365 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 139.35 Mbit/s
95th percentile per-packet one-way delay: 110.365 ms
Loss rate: 0.12%
```
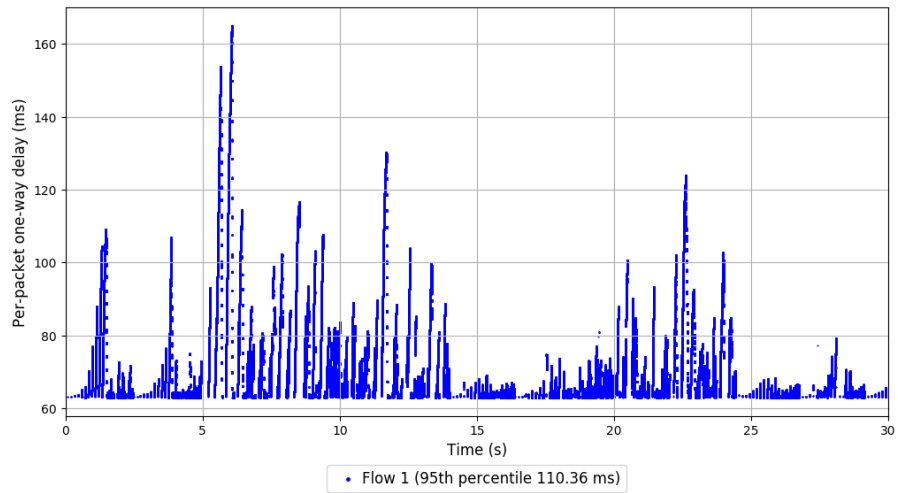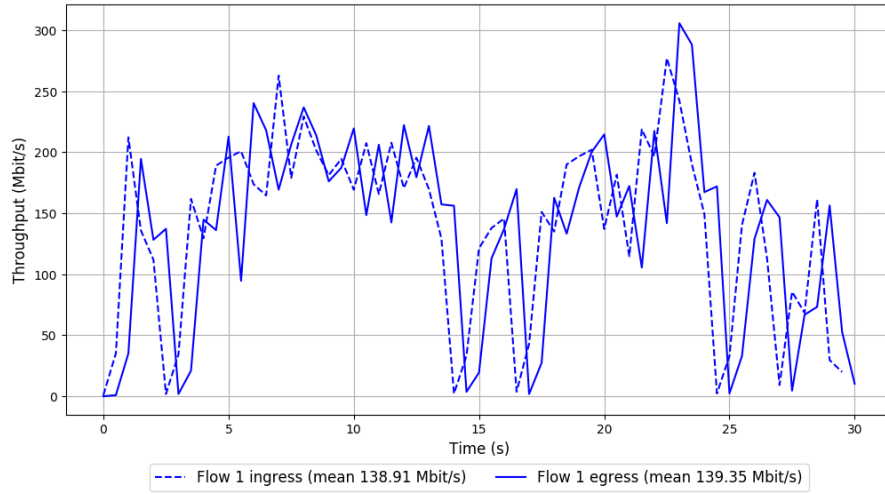
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-06-28 05:12:09
End at: 2019-06-28 05:12:39
Local clock offset: -0.005 ms
Remote clock offset: 0.164 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 162.93 Mbit/s
95th percentile per-packet one-way delay: 126.571 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 162.93 Mbit/s
95th percentile per-packet one-way delay: 126.571 ms
Loss rate: 0.51%
```
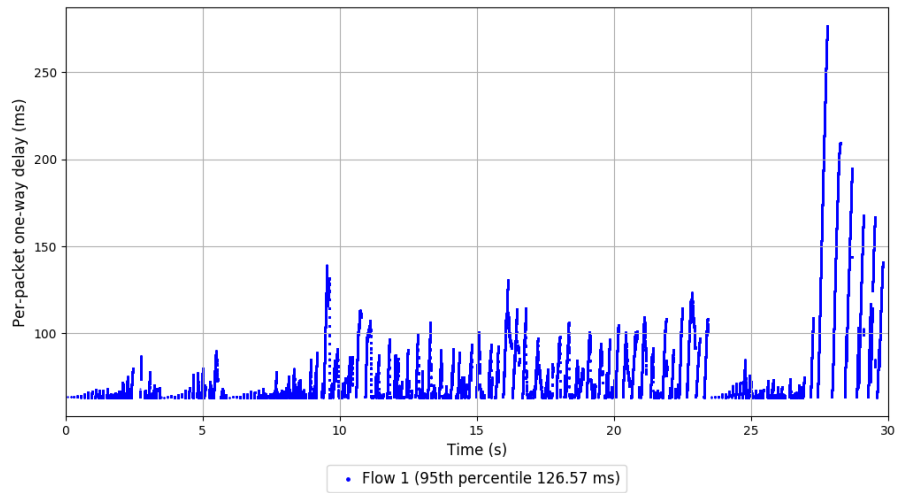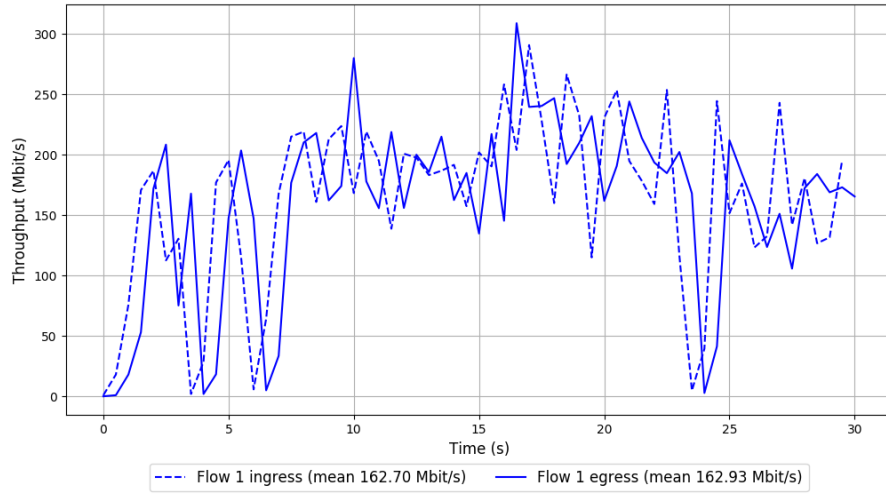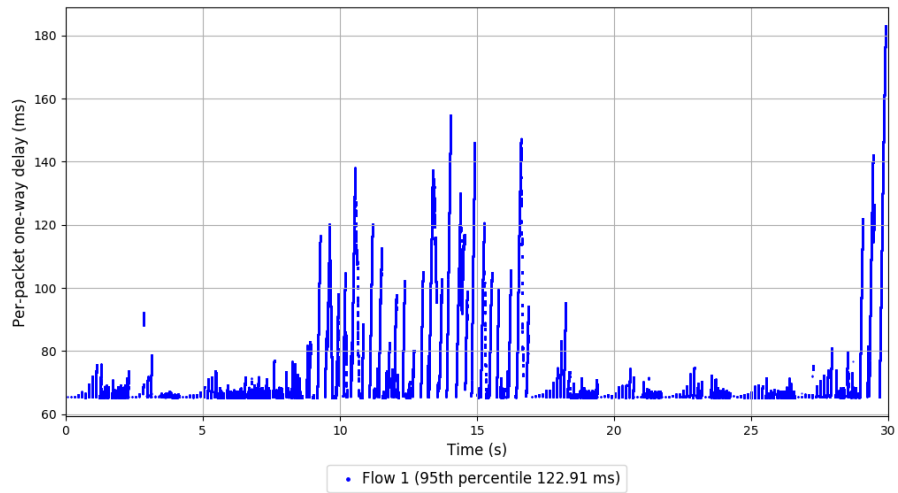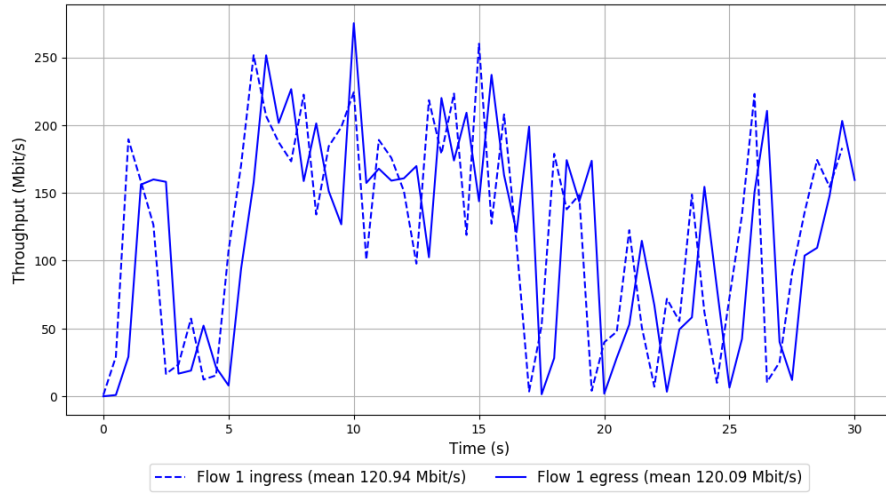
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-06-28 05:44:13
End at: 2019-06-28 05:44:43
Local clock offset: -0.174 ms
Remote clock offset: -0.157 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 120.09 Mbit/s
95th percentile per-packet one-way delay: 122.912 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 120.09 Mbit/s
95th percentile per-packet one-way delay: 122.912 ms
Loss rate: 0.40%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-06-28 06:16:01
End at: 2019-06-28 06:16:31
Local clock offset: -0.298 ms
Remote clock offset: 0.684 ms


# Below is generated by plot.py at 2019-06-28 08:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 154.50 Mbit/s
95th percentile per-packet one-way delay: 175.641 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 154.50 Mbit/s
95th percentile per-packet one-way delay: 175.641 ms
Loss rate: 1.18%
```
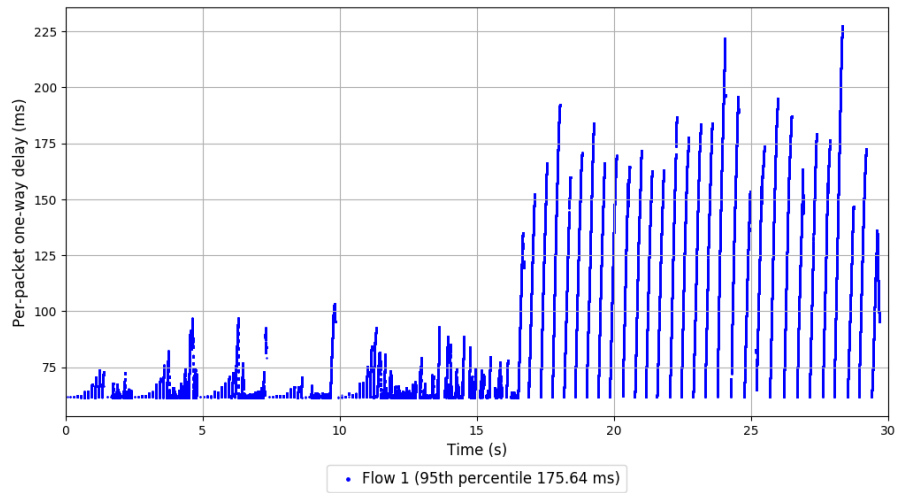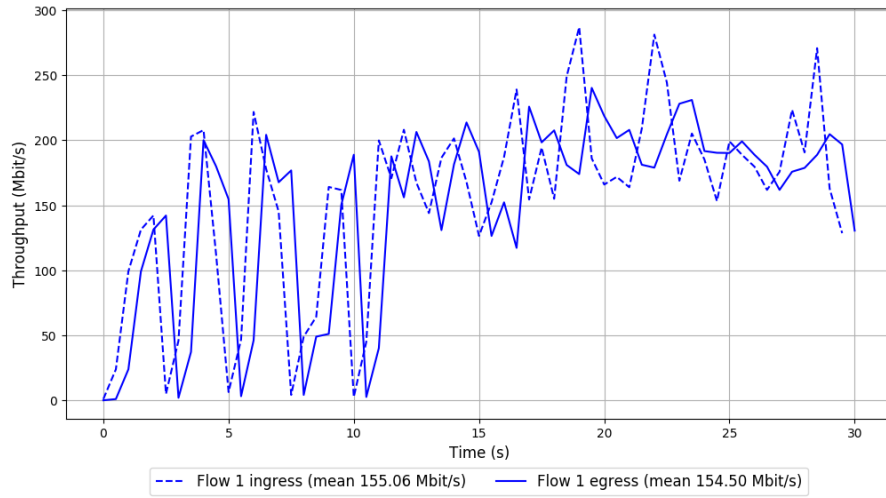
Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 155.06 Mbit/s)   Flow 1 egress (mean 154.50 Mbit/s)

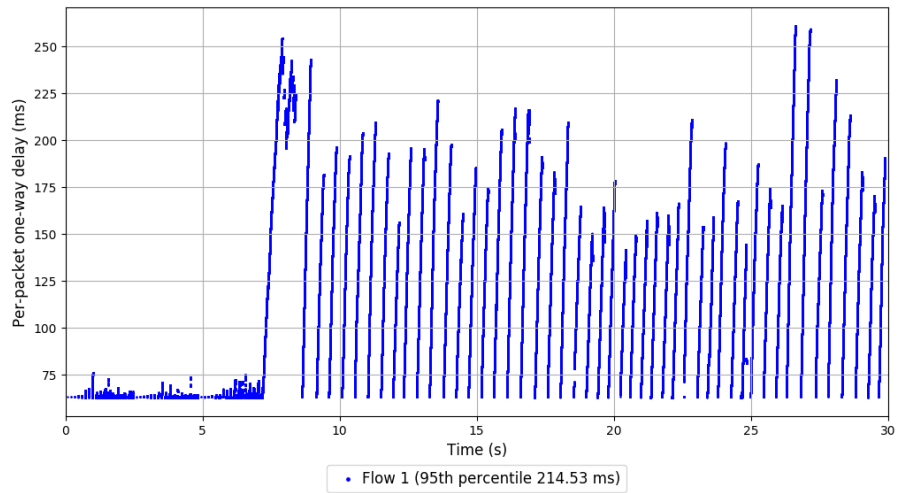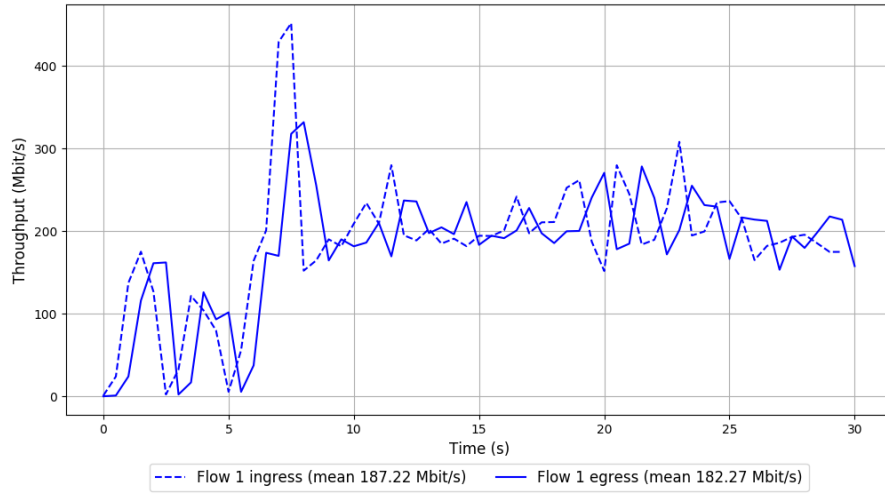
• Flow 1 (95th percentile 175.64 ms)

```
Run 5: Statistics of Verus

Start at: 2019-06-28 06:47:10
End at: 2019-06-28 06:47:40
Local clock offset: 0.034 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2019-06-28 08:50:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 182.27 Mbit/s
95th percentile per-packet one-way delay: 214.528 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 182.27 Mbit/s
95th percentile per-packet one-way delay: 214.528 ms
Loss rate: 2.32%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 187.22 Mbit/s)   Flow 1 egress (mean 182.27 Mbit/s)

• Flow 1 (95th percentile 214.53 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-06-28 04:45:35
End at: 2019-06-28 04:46:05
Local clock offset: -0.056 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2019-06-28 08:50:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.76 Mbit/s
95th percentile per-packet one-way delay: 70.624 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 320.76 Mbit/s
95th percentile per-packet one-way delay: 70.624 ms
Loss rate: 0.56%
```
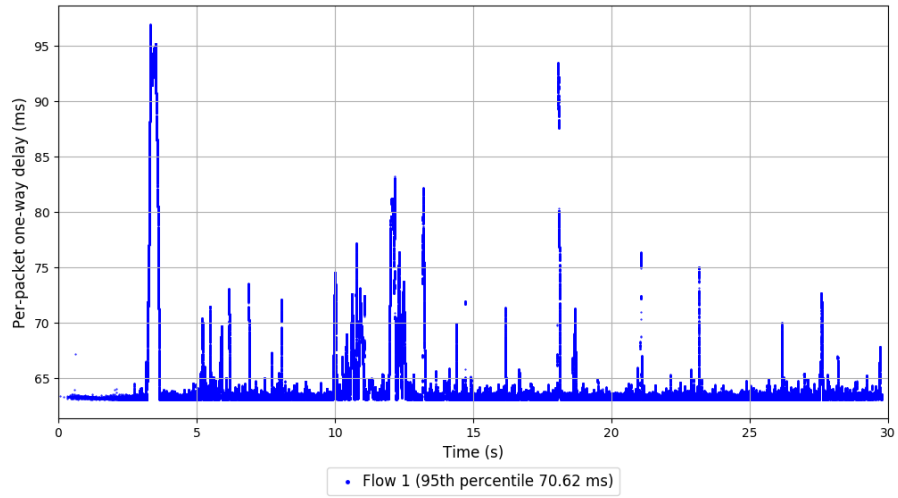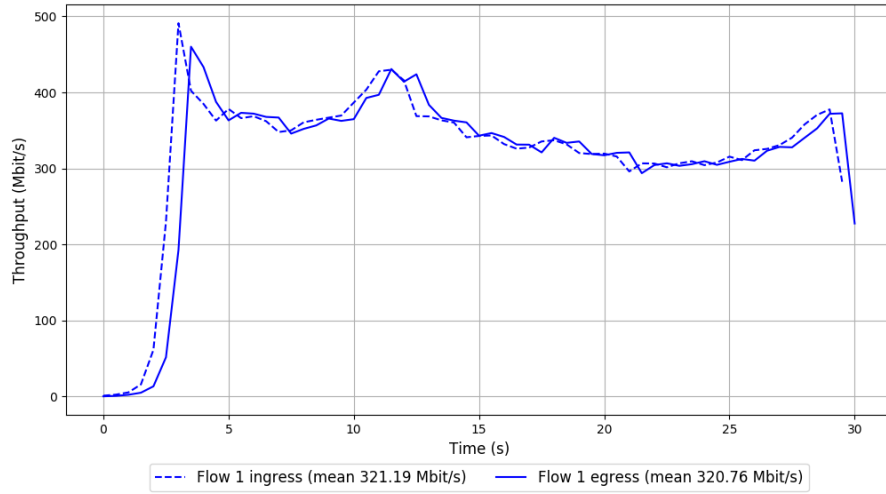
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 321.19 Mbit/s) — — — — Flow 1 egress (mean 320.76 Mbit/s)

· Flow 1 (95th percentile 70.62 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-06-28 05:17:27
End at: 2019-06-28 05:17:57
Local clock offset: 0.019 ms
Remote clock offset: -0.23 ms


# Below is generated by plot.py at 2019-06-28 08:50:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 334.73 Mbit/s
95th percentile per-packet one-way delay: 84.349 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 334.73 Mbit/s
95th percentile per-packet one-way delay: 84.349 ms
Loss rate: 0.41%
```
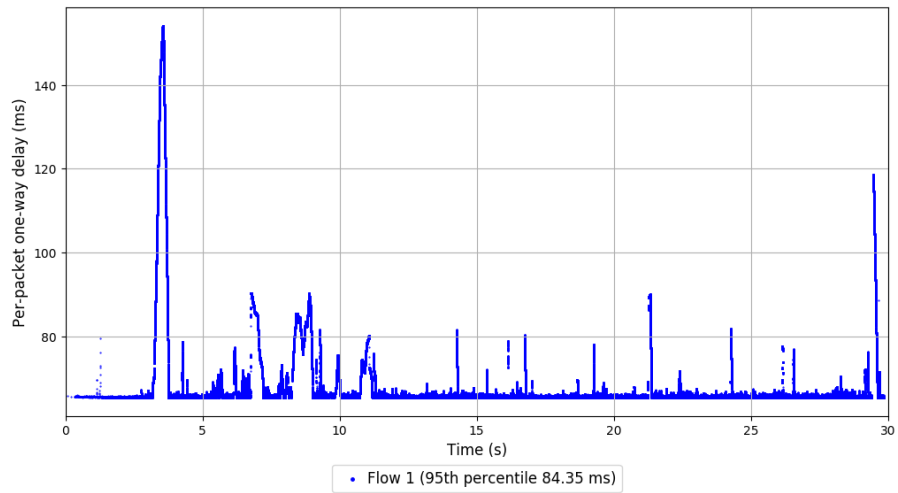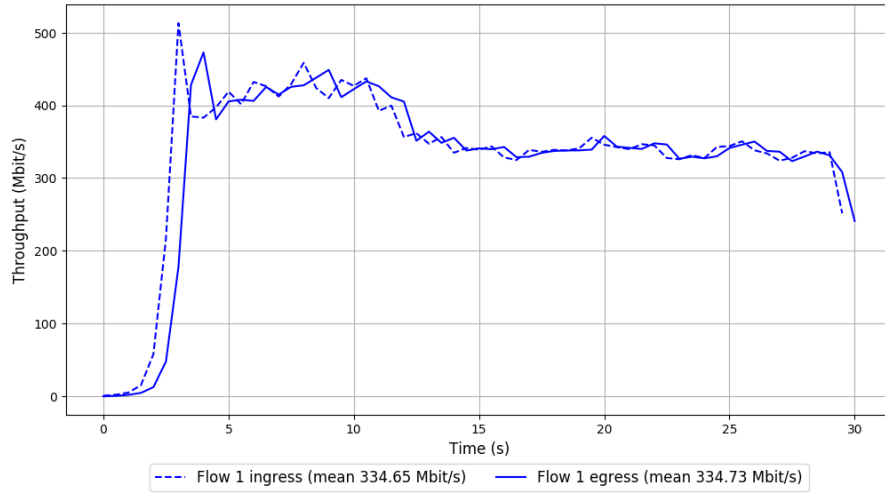
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-06-28 05:49:25
End at: 2019-06-28 05:49:55
Local clock offset: -0.174 ms
Remote clock offset: -0.114 ms

# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 329.75 Mbit/s
95th percentile per-packet one-way delay: 66.611 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 329.75 Mbit/s
95th percentile per-packet one-way delay: 66.611 ms
Loss rate: 0.31%
```
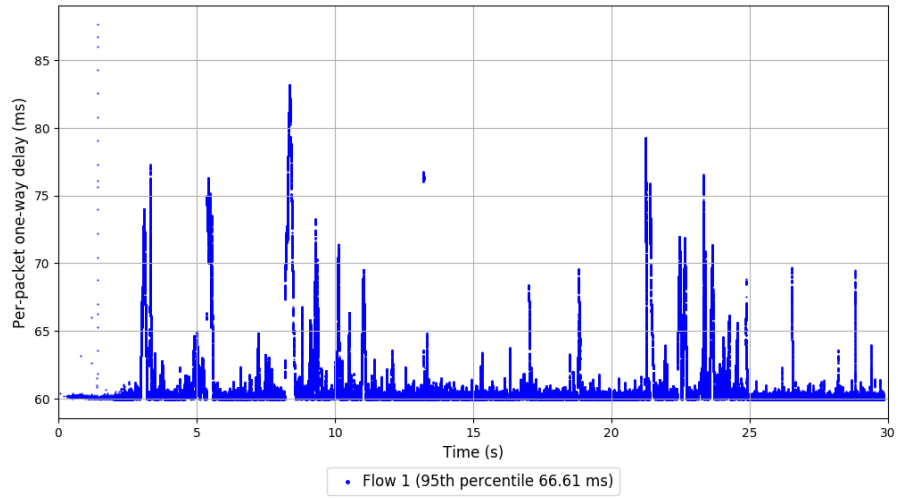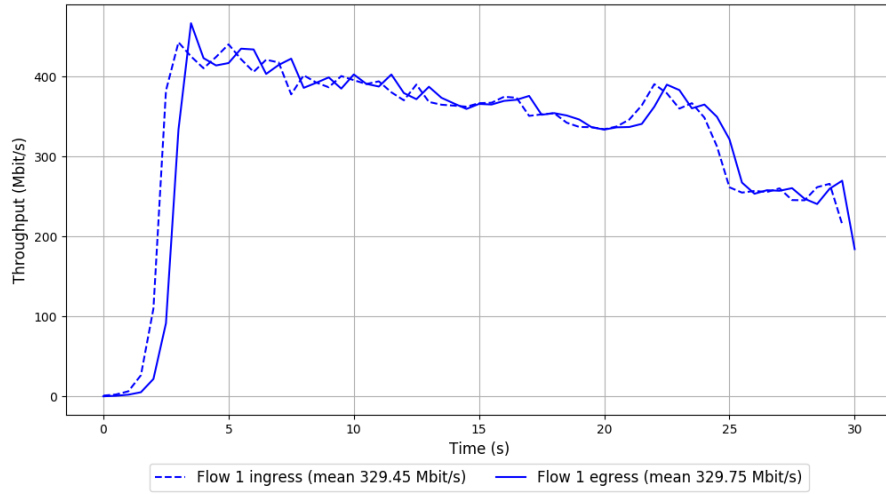
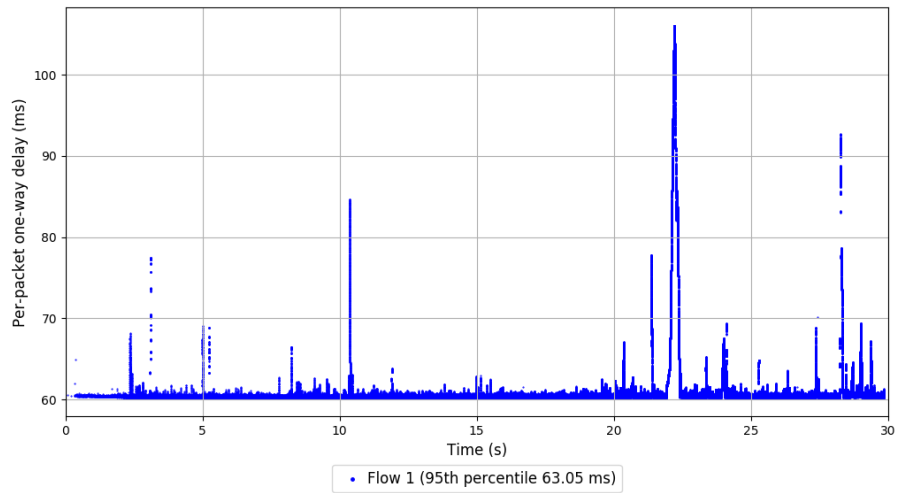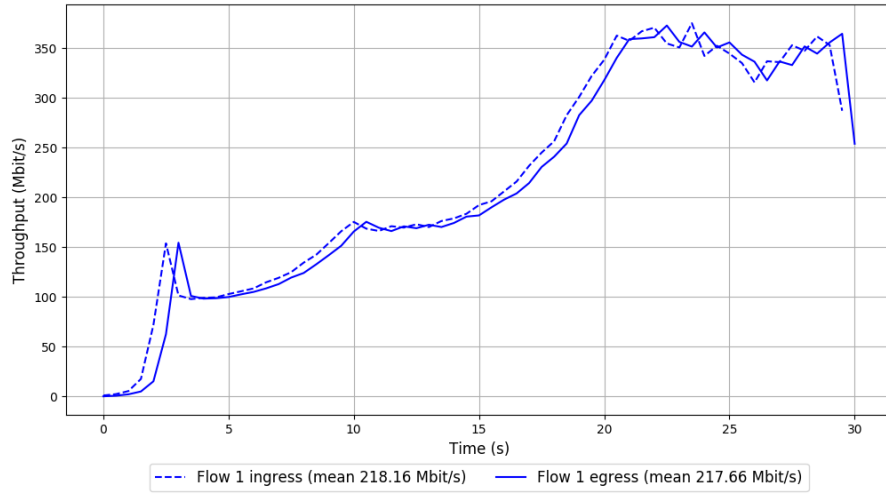Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2019-06-28 06:21:18
End at: 2019-06-28 06:21:48
Local clock offset: -0.301 ms
Remote clock offset: -0.744 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.66 Mbit/s
95th percentile per-packet one-way delay: 63.045 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 217.66 Mbit/s
95th percentile per-packet one-way delay: 63.045 ms
Loss rate: 0.56%
```

Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 218.16 Mbit/s) ---- Flow 1 egress (mean 217.66 Mbit/s) ——

Flow 1 (95th percentile 63.05 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-06-28 06:52:30
End at: 2019-06-28 06:53:00
Local clock offset: 0.018 ms
Remote clock offset: -0.752 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 264.46 Mbit/s
95th percentile per-packet one-way delay: 84.244 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 264.46 Mbit/s
95th percentile per-packet one-way delay: 84.244 ms
Loss rate: 0.73%
```
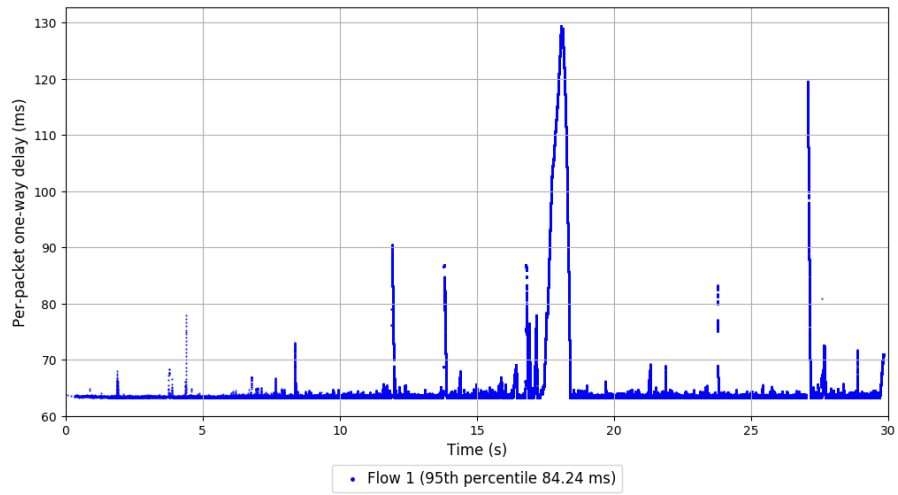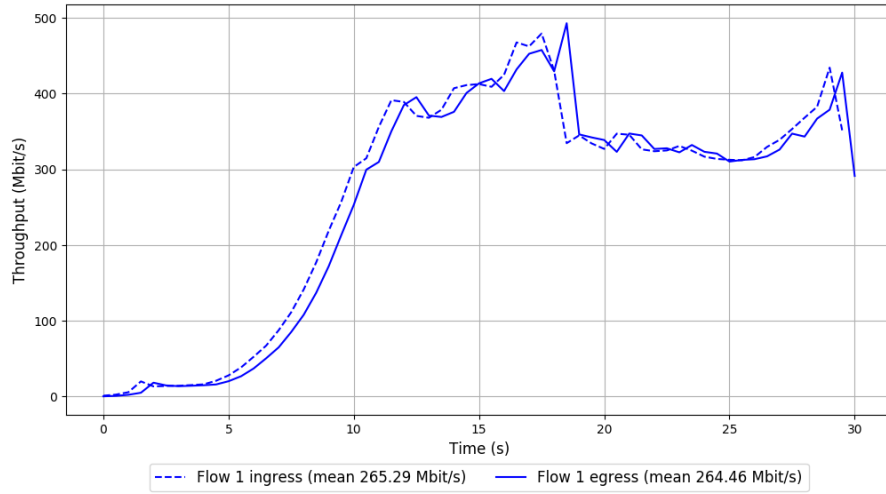
Run 5: Report of PCC-Vivace — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2019-06-28 04:44:27
End at: 2019-06-28 04:44:57
Local clock offset: -0.059 ms
Remote clock offset: 0.319 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 63.181 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 63.181 ms
Loss rate: 0.54%
```
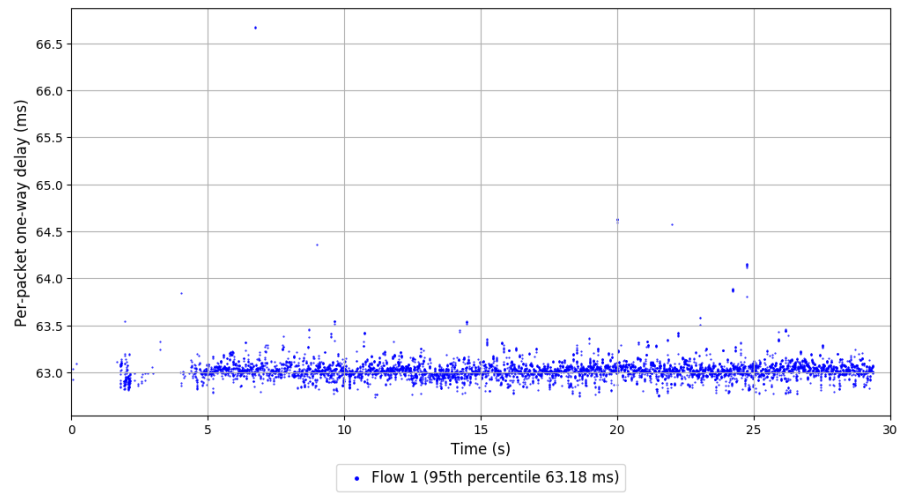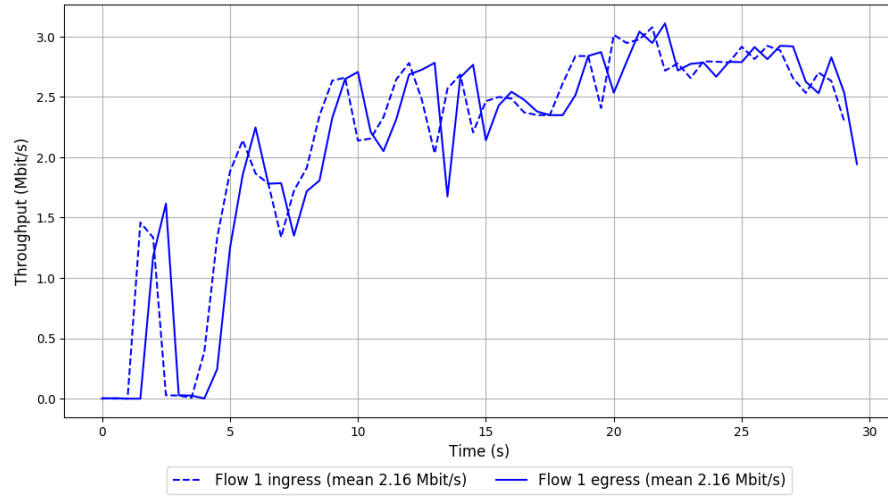
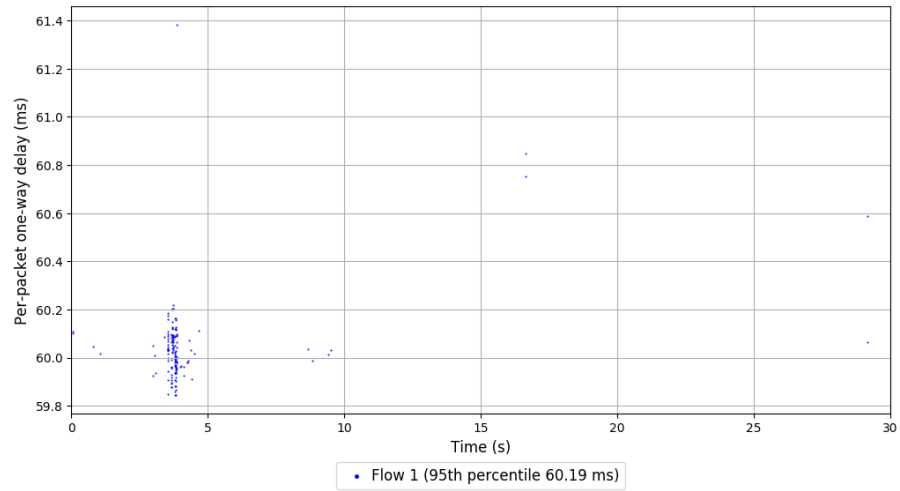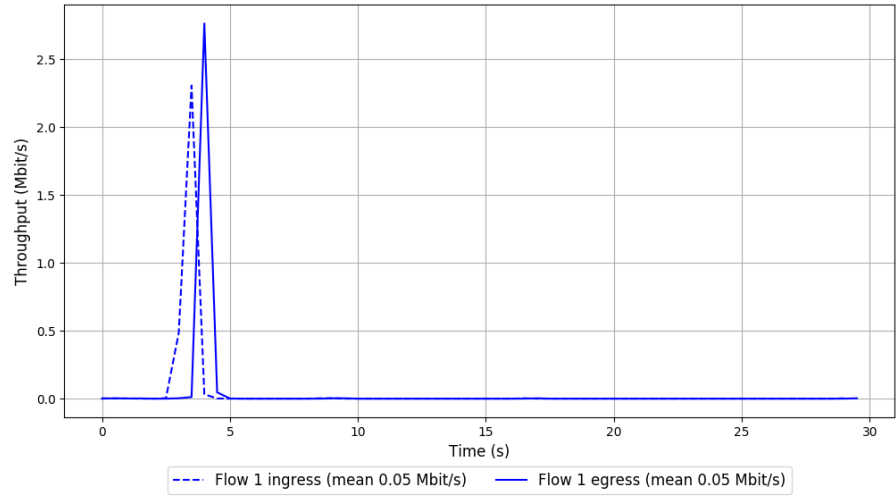Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-06-28 05:16:19
End at: 2019-06-28 05:16:49
Local clock offset: 0.061 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.186 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 60.186 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-06-28 05:48:17
End at: 2019-06-28 05:48:47
Local clock offset: -0.179 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.102 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.102 ms
Loss rate: 0.00%
```
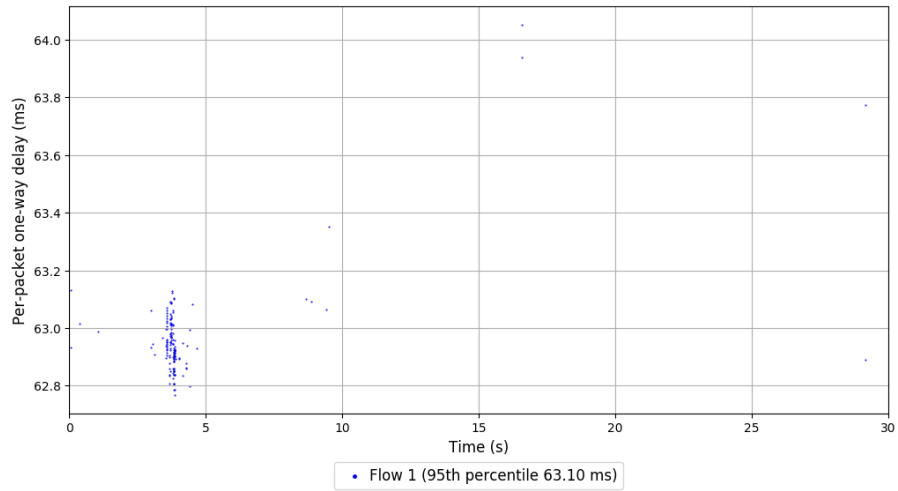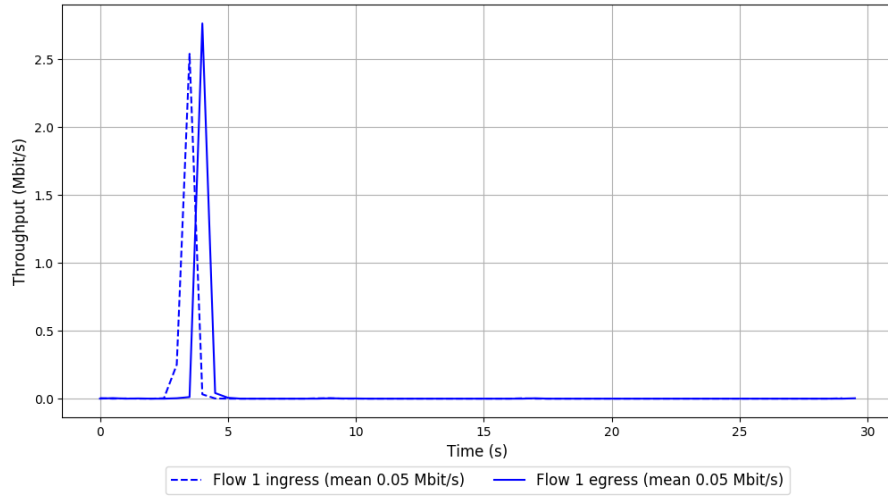
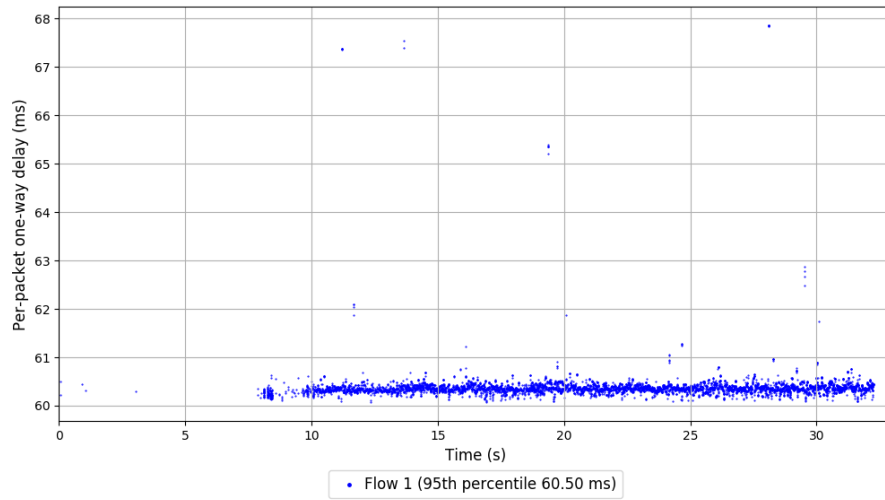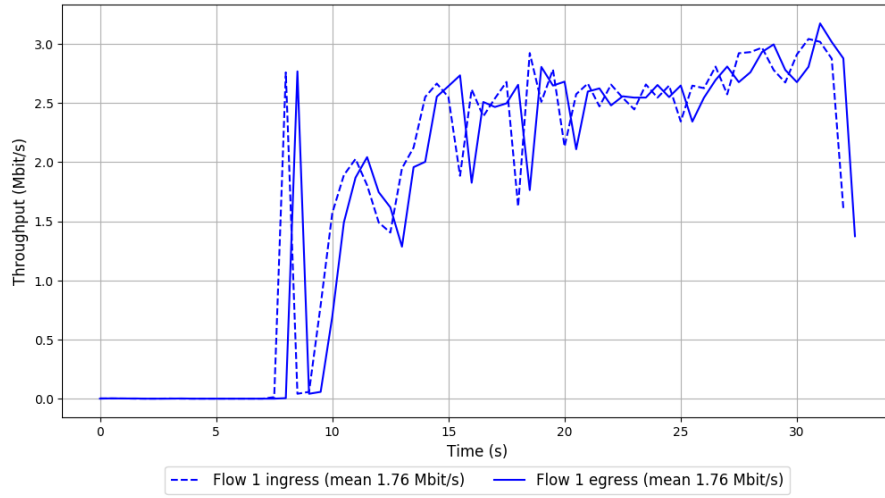Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-06-28 06:20:10
End at: 2019-06-28 06:20:40
Local clock offset: -0.284 ms
Remote clock offset: -0.365 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 60.501 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 60.501 ms
Loss rate: 0.50%
```

Run 4: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.76 Mbit/s)   Flow 1 egress (mean 1.76 Mbit/s)

Flow 1 (95th percentile 60.50 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2019-06-28 06:51:22
End at: 2019-06-28 06:51:52
Local clock offset: 0.045 ms
Remote clock offset: -0.138 ms


# Below is generated by plot.py at 2019-06-28 08:50:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.167 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 63.167 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link