Pantheon Report

Generated at 2019-03-18 21:29:49 (UTC).

Data path: AWS India 1 on `ens5` (*local*) →India on `em1` (*remote*).

Repeated the test of 21 congestion control schemes 5 times.

Each test lasted for 30 seconds running 1 flow.

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.
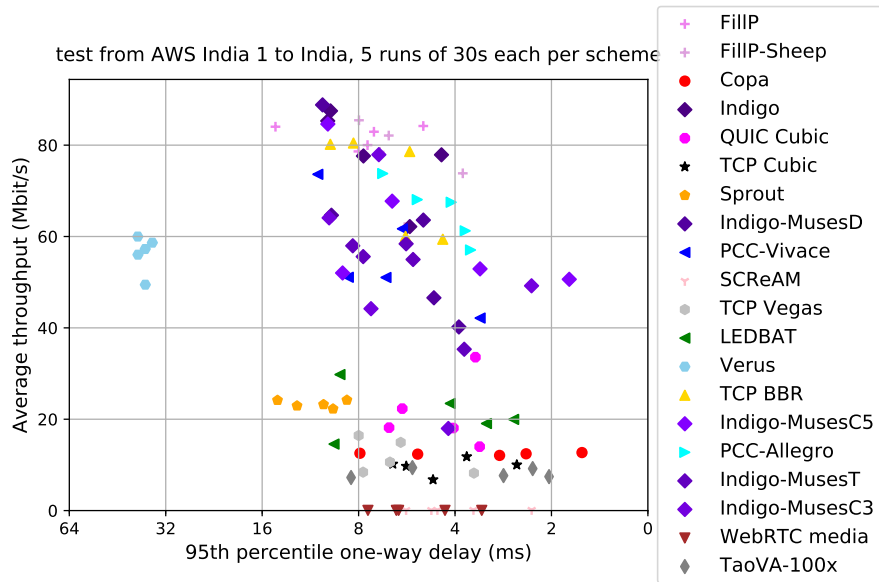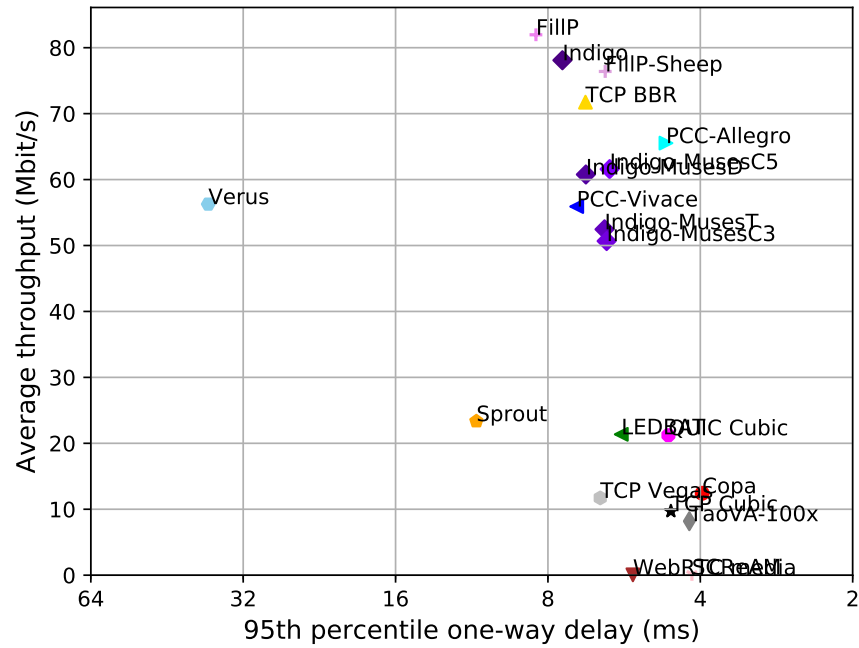
```
System info:
Linux 4.15.0-1033-aws
net.core.default_qdisc = fq
net.core.rmem_default = 16777216
net.core.rmem_max = 536870912
net.core.wmem_default = 16777216
net.core.wmem_max = 536870912
net.ipv4.tcp_rmem = 4096 16777216 536870912
net.ipv4.tcp_wmem = 4096 16777216 536870912

Git summary:
branch: muses @ 7a686f7c2ed0a333082c0bab1fa5c921ab47e6ee
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/pantheon-tunnel @ f866d3f58d27afd942717625ee3a354cc2e802bd
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
```

third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851

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

test from AWS India 1 to India, 5 runs of 30s each per scheme

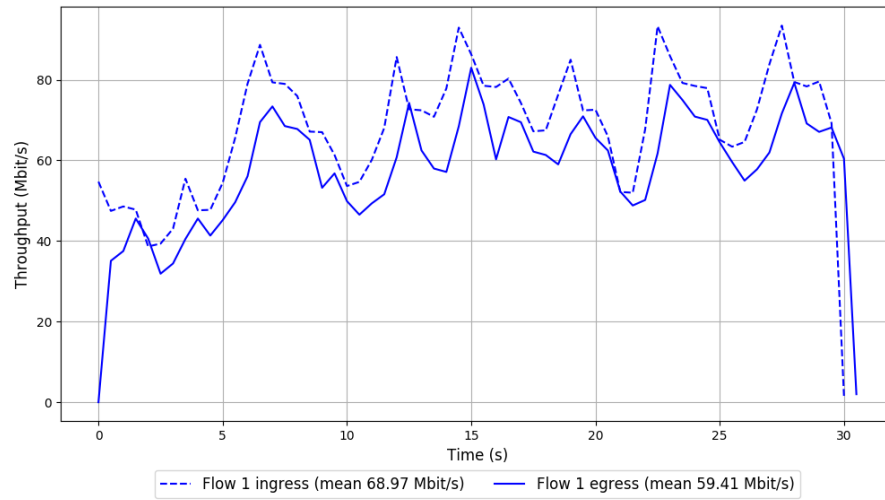| scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	5	71.74	6.74	10.78
Copa	5	12.42	3.97	69.32
TCP Cubic	5	9.70	4.57	0.88
FillP	5	81.96	8.45	11.33
FillP-Sheep	5	76.40	6.17	9.53
Indigo	5	78.09	7.49	10.28
Indigo-MusesC3	5	50.68	6.13	5.83
Indigo-MusesC5	5	61.58	6.04	8.28
Indigo-MusesD	5	60.77	6.73	7.91
Indigo-MusesT	5	52.45	6.18	7.09
LEDBAT	5	21.36	5.73	0.51
PCC-Allegro	5	65.53	4.68	9.67
PCC-Expr	0	N/A	N/A	N/A
QUIC Cubic	5	21.22	4.62	1.17
SCReAM	5	0.12	4.16	1.19
Sprout	5	23.36	11.08	2.35
TaoVA-100x	5	8.19	4.21	77.49
TCP Vegas	5	11.72	6.31	0.84
Verus	5	56.27	37.51	31.28
PCC-Vivace	5	55.91	7.02	7.48
WebRTC media	5	0.05	5.44	0.21

```
Run 1: Statistics of TCP BBR

Start at: 2019-03-18 19:30:46
End at: 2019-03-18 19:31:16
Local clock offset: -10.234 ms
Remote clock offset: -7.358 ms

# Below is generated by plot.py at 2019-03-18 21:23:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 4.369 ms
Loss rate: 13.86%
-- Flow 1:
Average throughput: 59.41 Mbit/s
95th percentile per-packet one-way delay: 4.369 ms
Loss rate: 13.86%
```
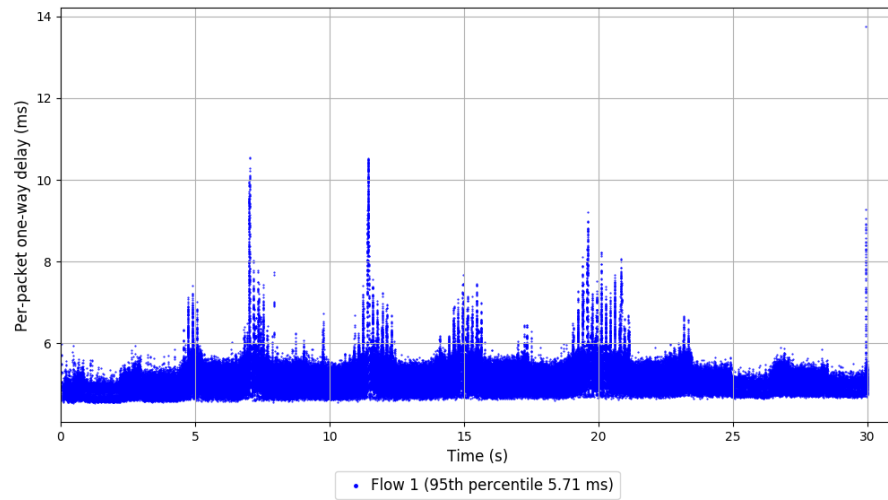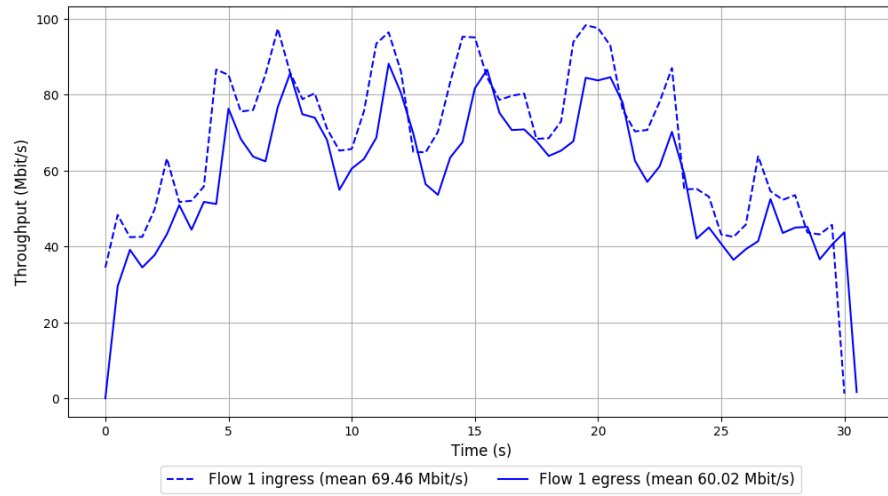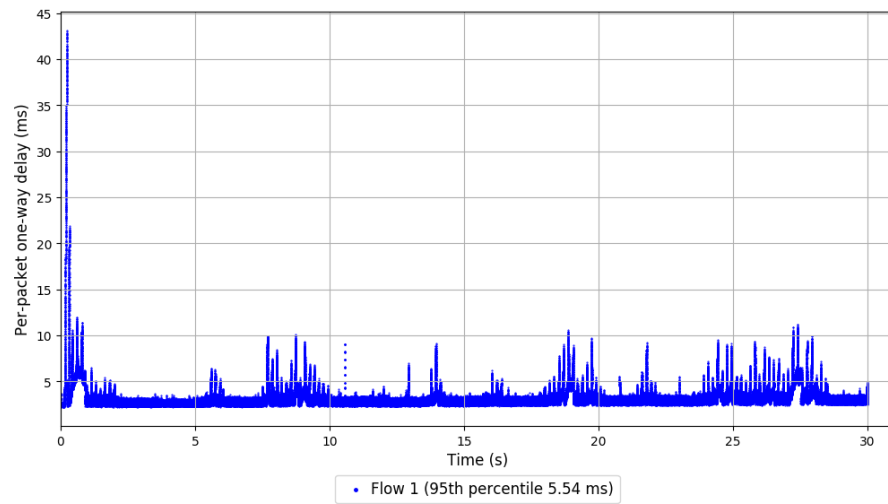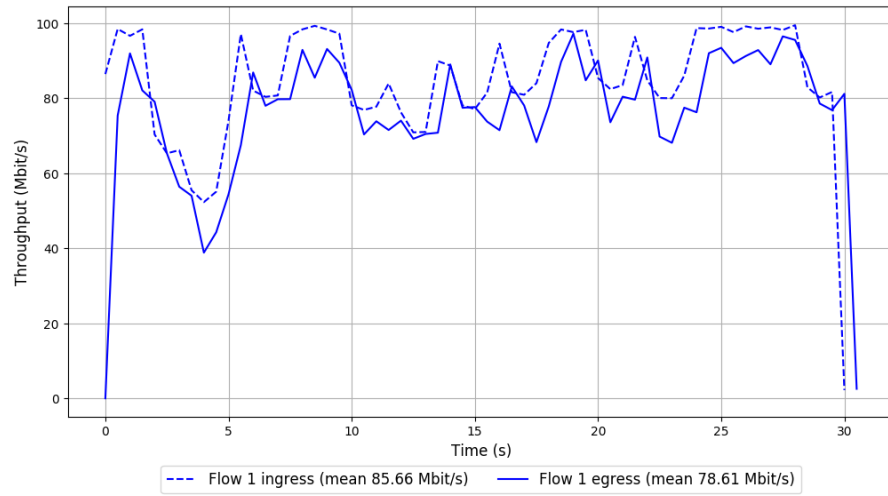
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2019-03-18 19:54:37
End at: 2019-03-18 19:55:07
Local clock offset: -8.08 ms
Remote clock offset: -7.981 ms


# Below is generated by plot.py at 2019-03-18 21:23:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 5.708 ms
Loss rate: 13.59%
-- Flow 1:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 5.708 ms
Loss rate: 13.59%
```

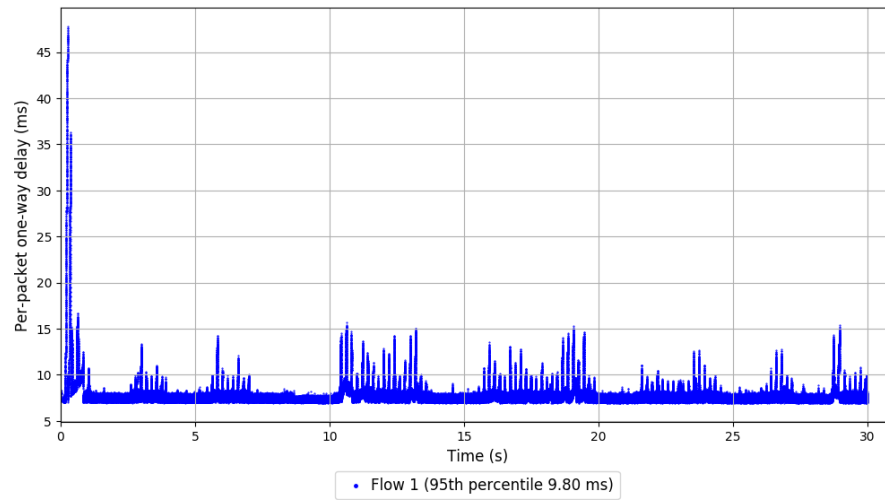Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 69.46 Mbit/s) — Flow 1 egress (mean 60.02 Mbit/s)

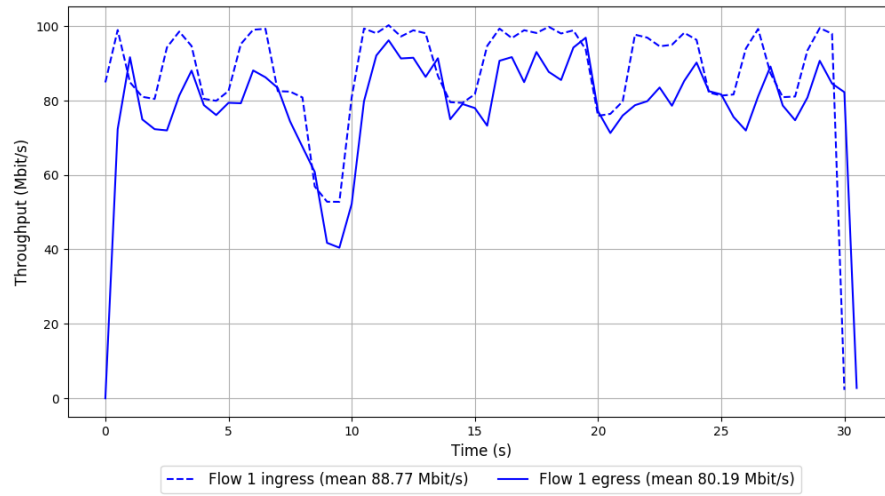Flow 1 (95th percentile 5.71 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2019-03-18 20:18:19
End at: 2019-03-18 20:18:49
Local clock offset: -6.714 ms
Remote clock offset: -9.563 ms


# Below is generated by plot.py at 2019-03-18 21:23:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.61 Mbit/s
95th percentile per-packet one-way delay: 5.541 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 78.61 Mbit/s
95th percentile per-packet one-way delay: 5.541 ms
Loss rate: 8.23%
```
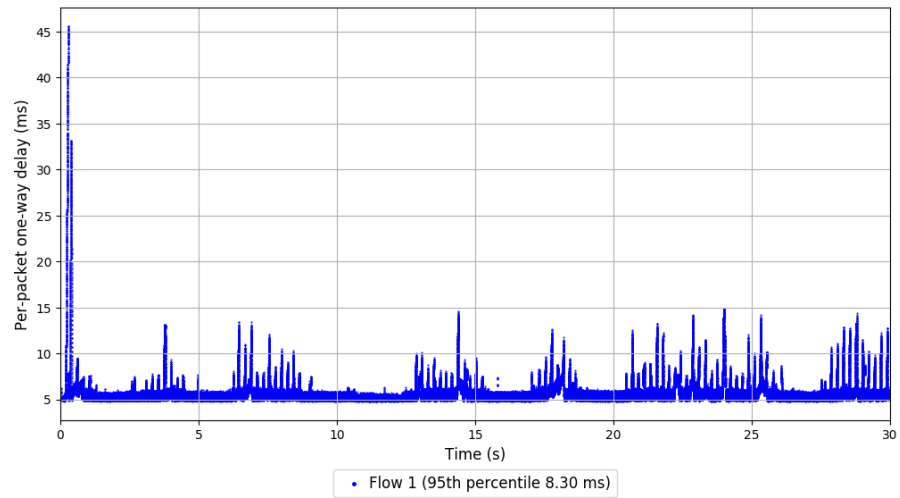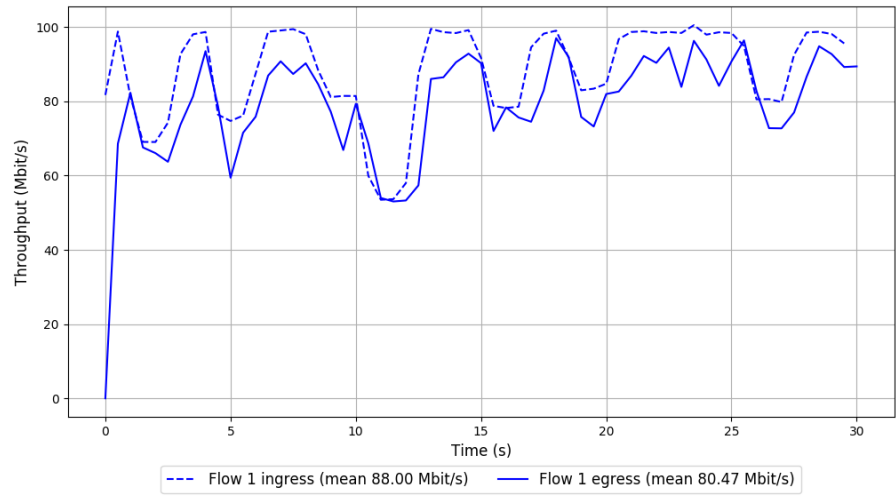
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.66 Mbit/s) --- Flow 1 egress (mean 78.61 Mbit/s)

• Flow 1 (95th percentile 5.54 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2019-03-18 20:41:54
End at: 2019-03-18 20:42:24
Local clock offset: -5.735 ms
Remote clock offset: -7.078 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.19 Mbit/s
95th percentile per-packet one-way delay: 9.802 ms
Loss rate: 9.67%
-- Flow 1:
Average throughput: 80.19 Mbit/s
95th percentile per-packet one-way delay: 9.802 ms
Loss rate: 9.67%
```

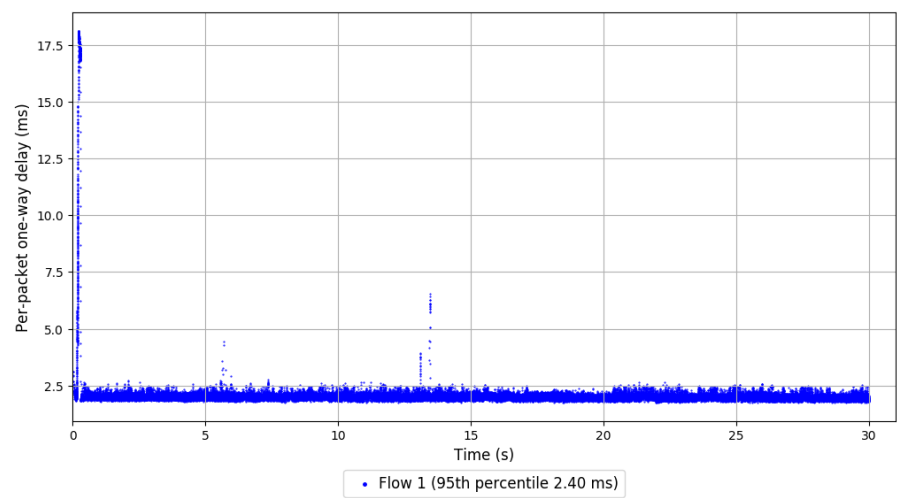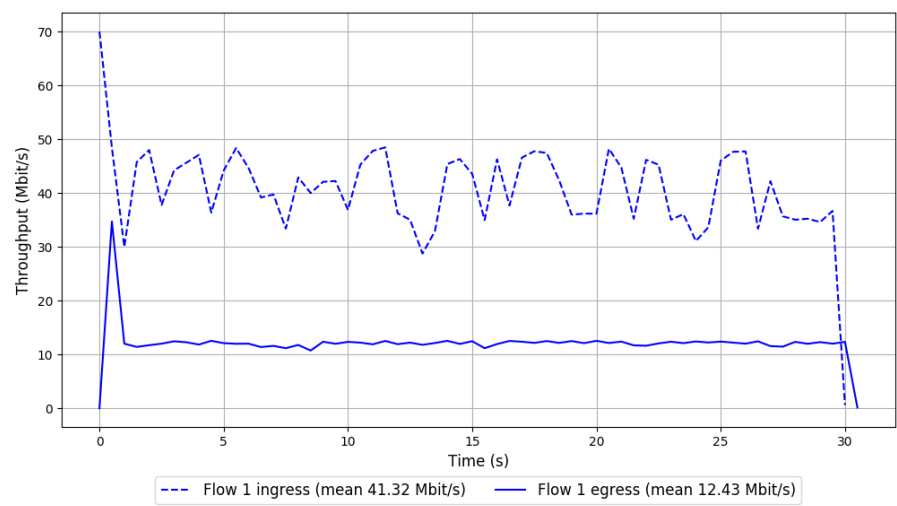Run 4: Report of TCP BBR — Data Link

Throughput (Mbit/s) vs Time (s)

- - - Flow 1 ingress (mean 88.77 Mbit/s) —— Flow 1 egress (mean 80.19 Mbit/s)

Per-packet one-way delay (ms) vs Time (s)

• Flow 1 (95th percentile 9.80 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2019-03-18 21:05:20
End at: 2019-03-18 21:05:50
Local clock offset: -0.922 ms
Remote clock offset: -7.17 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.47 Mbit/s
95th percentile per-packet one-way delay: 8.301 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 80.47 Mbit/s
95th percentile per-packet one-way delay: 8.301 ms
Loss rate: 8.56%
```
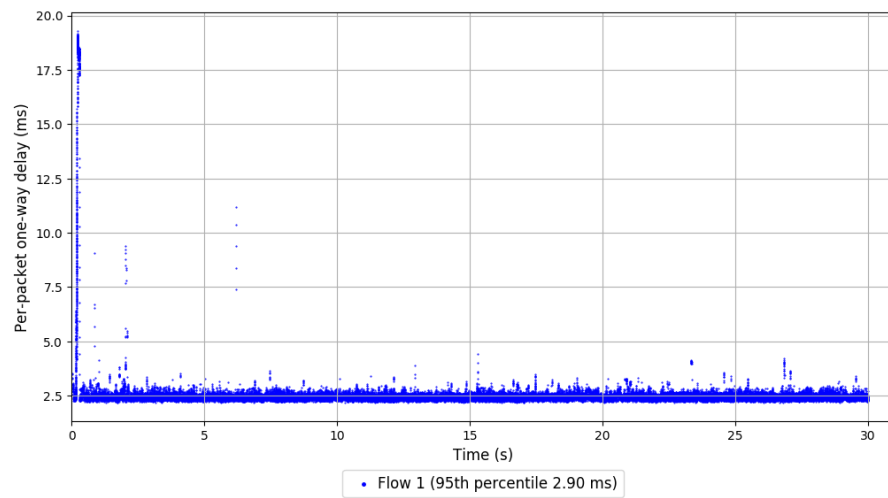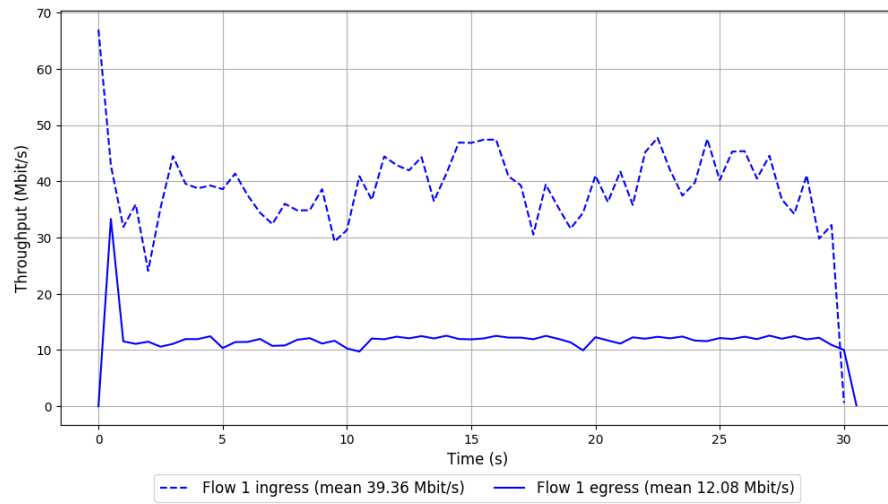
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 88.00 Mbit/s)   Flow 1 egress (mean 80.47 Mbit/s)
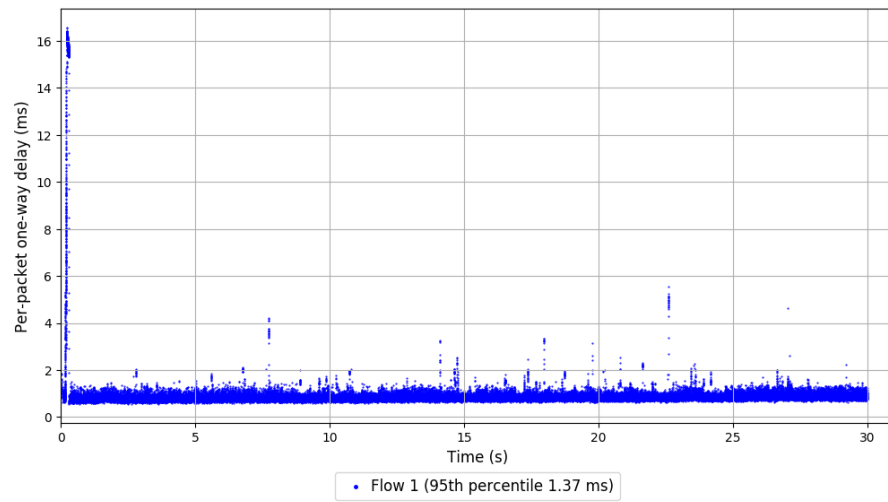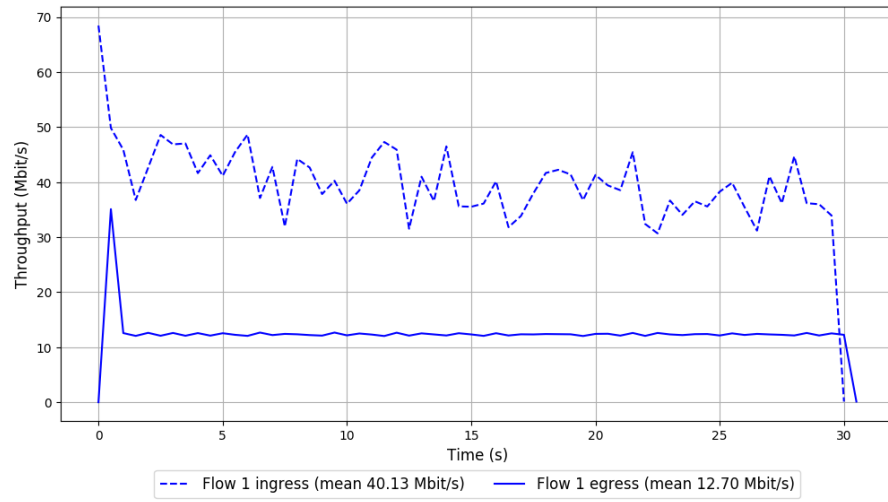

Flow 1 (95th percentile 8.30 ms)

```
Run 1: Statistics of Copa

Start at: 2019-03-18 19:36:19
End at: 2019-03-18 19:36:49
Local clock offset: -9.59 ms
Remote clock offset: -8.423 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 2.400 ms
Loss rate: 69.91%
-- Flow 1:
Average throughput: 12.43 Mbit/s
95th percentile per-packet one-way delay: 2.400 ms
Loss rate: 69.91%
```

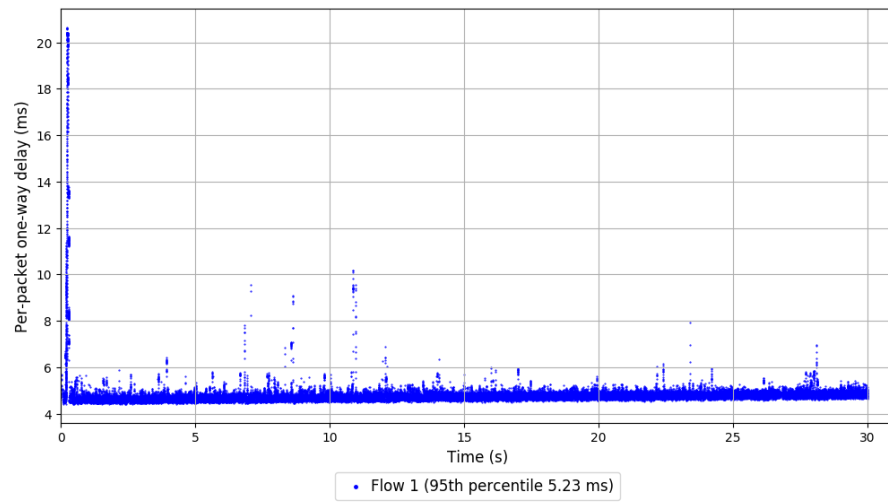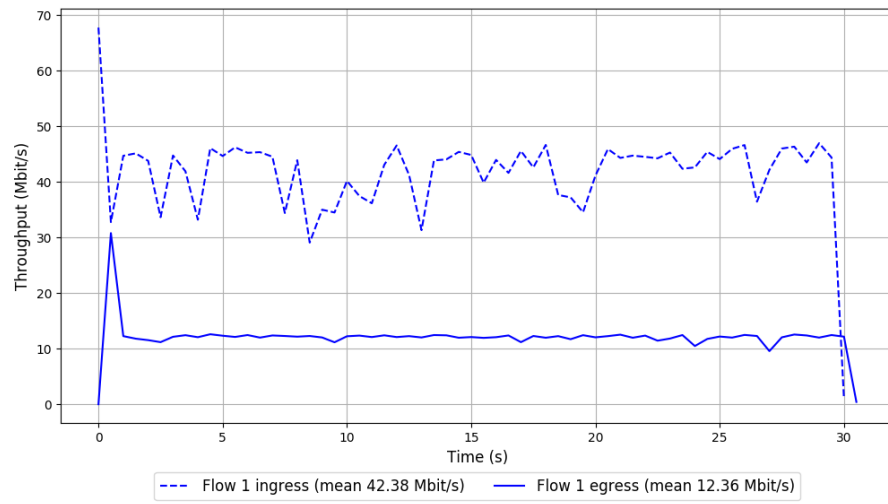Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2019-03-18 20:00:13
End at: 2019-03-18 20:00:43
Local clock offset: -5.896 ms
Remote clock offset: -9.02 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 2.904 ms
Loss rate: 69.31%
-- Flow 1:
Average throughput: 12.08 Mbit/s
95th percentile per-packet one-way delay: 2.904 ms
Loss rate: 69.31%
```
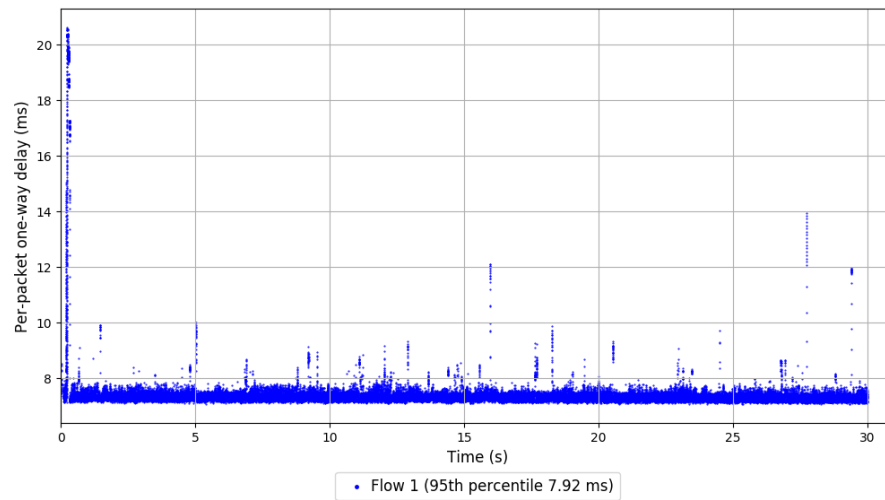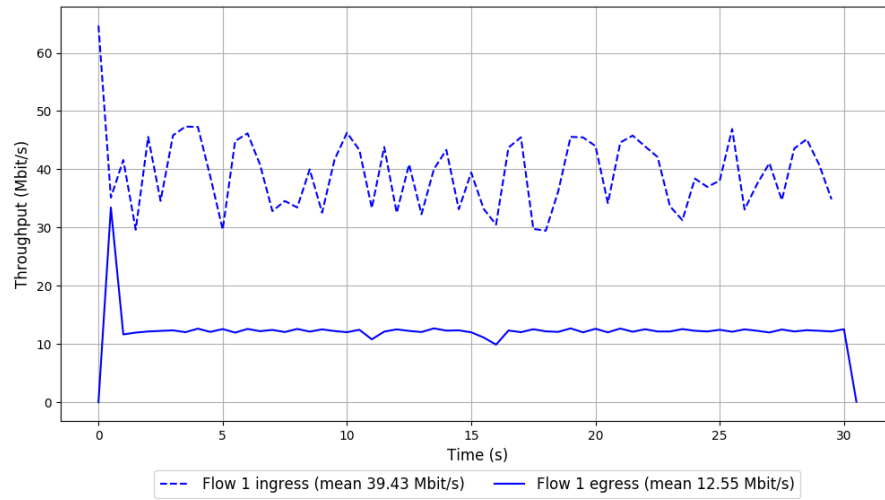
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 39.36 Mbit/s)   Flow 1 egress (mean 12.08 Mbit/s)

Flow 1 (95th percentile 2.90 ms)

```
Run 3: Statistics of Copa

Start at: 2019-03-18 20:23:56
End at: 2019-03-18 20:24:26
Local clock offset: -4.069 ms
Remote clock offset: -10.508 ms

# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 68.35%
-- Flow 1:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 1.367 ms
Loss rate: 68.35%
```

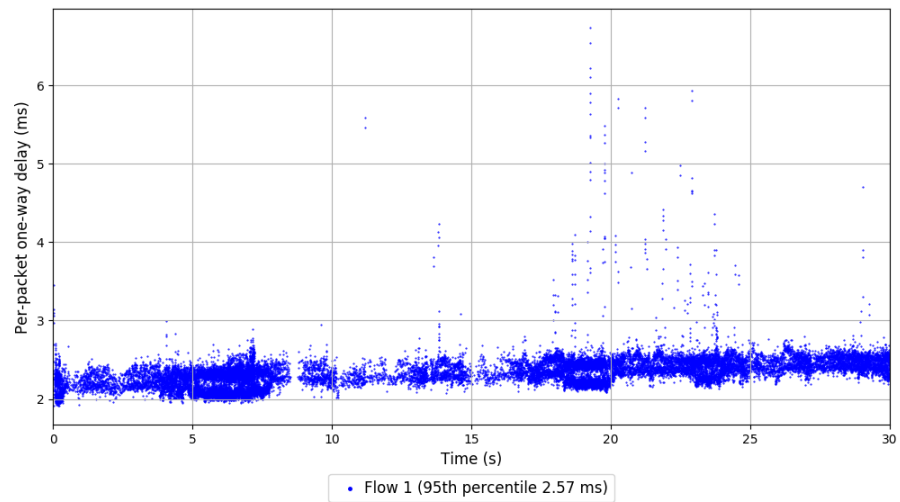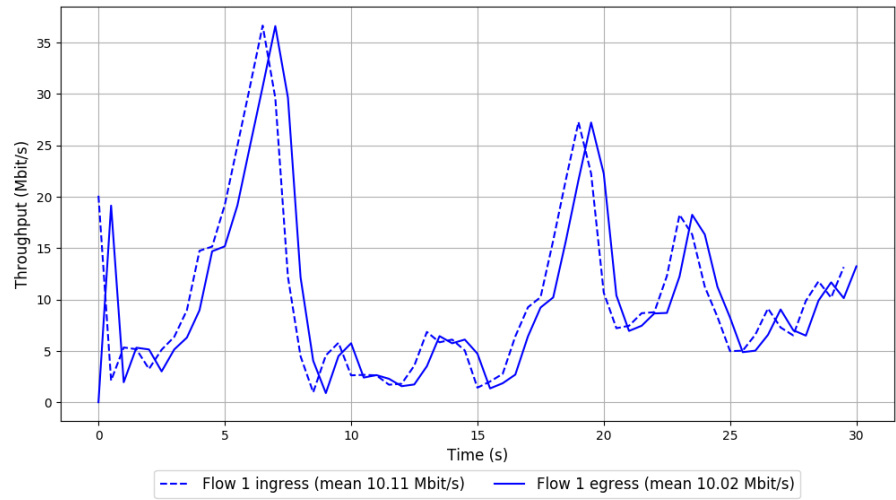Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 40.13 Mbit/s) --- Flow 1 egress (mean 12.70 Mbit/s)

Flow 1 (95th percentile 1.37 ms)

```
Run 4: Statistics of Copa

Start at: 2019-03-18 20:47:27
End at: 2019-03-18 20:47:57
Local clock offset: -4.38 ms
Remote clock offset: -8.605 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.36 Mbit/s
95th percentile per-packet one-way delay: 5.232 ms
Loss rate: 70.85%
-- Flow 1:
Average throughput: 12.36 Mbit/s
95th percentile per-packet one-way delay: 5.232 ms
Loss rate: 70.85%
```
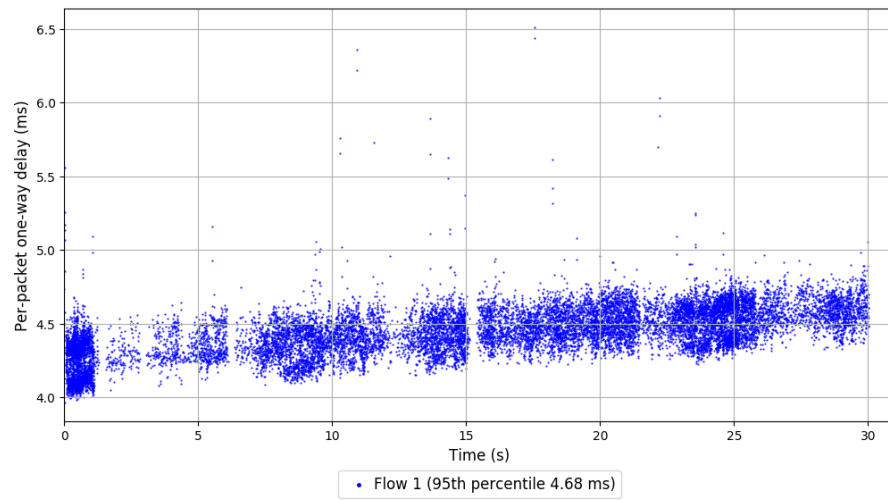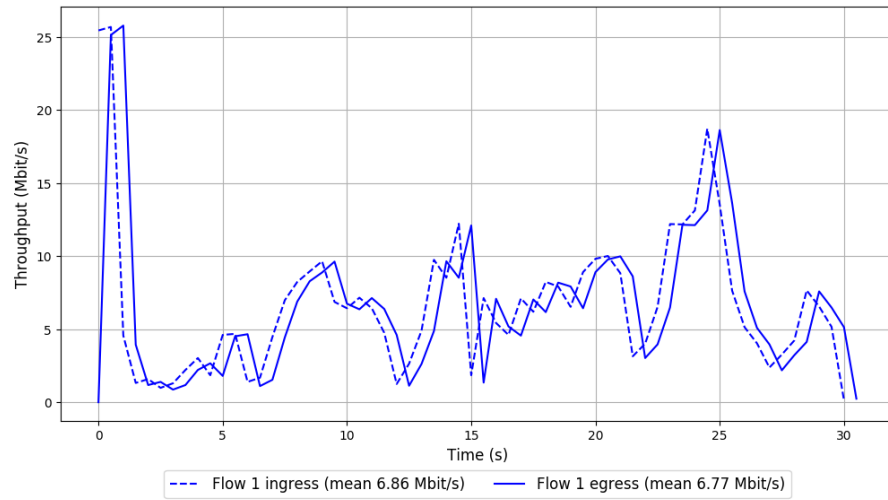
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 42.38 Mbit/s)   Flow 1 egress (mean 12.36 Mbit/s)

Flow 1 (95th percentile 5.23 ms)

```
Run 5: Statistics of Copa

Start at: 2019-03-18 21:10:54
End at: 2019-03-18 21:11:24
Local clock offset: -3.267 ms
Remote clock offset: -6.816 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 7.925 ms
Loss rate: 68.18%
-- Flow 1:
Average throughput: 12.55 Mbit/s
95th percentile per-packet one-way delay: 7.925 ms
Loss rate: 68.18%
```
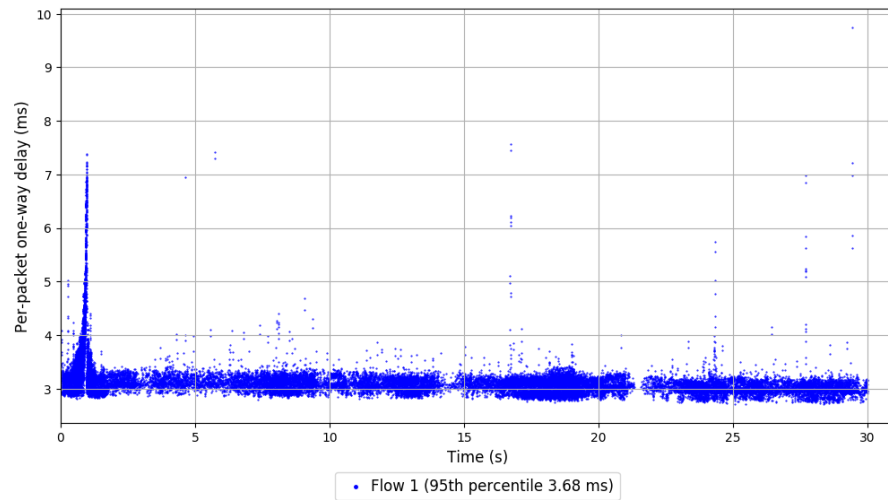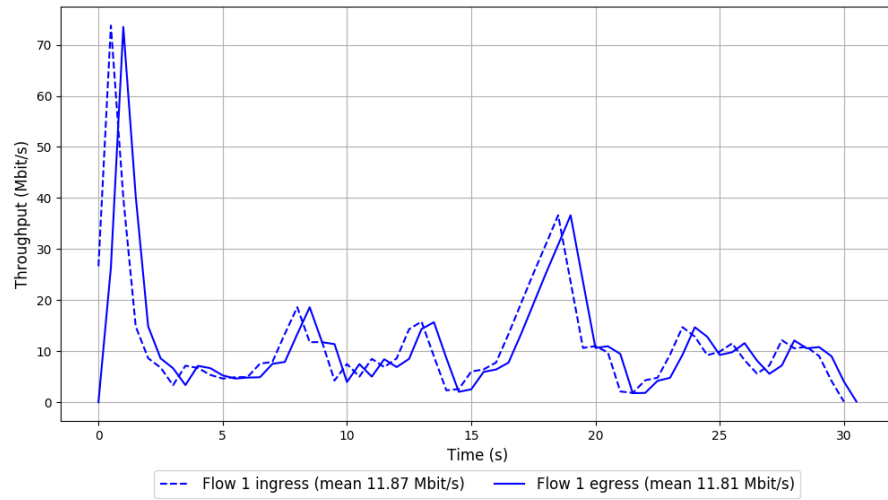
Run 5: Report of Copa — Data Link

Flow 1 ingress (mean 39.43 Mbit/s) —— Flow 1 egress (mean 12.55 Mbit/s)

• Flow 1 (95th percentile 7.92 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2019-03-18 19:26:14
End at: 2019-03-18 19:26:44
Local clock offset: -11.744 ms
Remote clock offset: -8.566 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 2.566 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 10.02 Mbit/s
95th percentile per-packet one-way delay: 2.566 ms
Loss rate: 0.94%
```
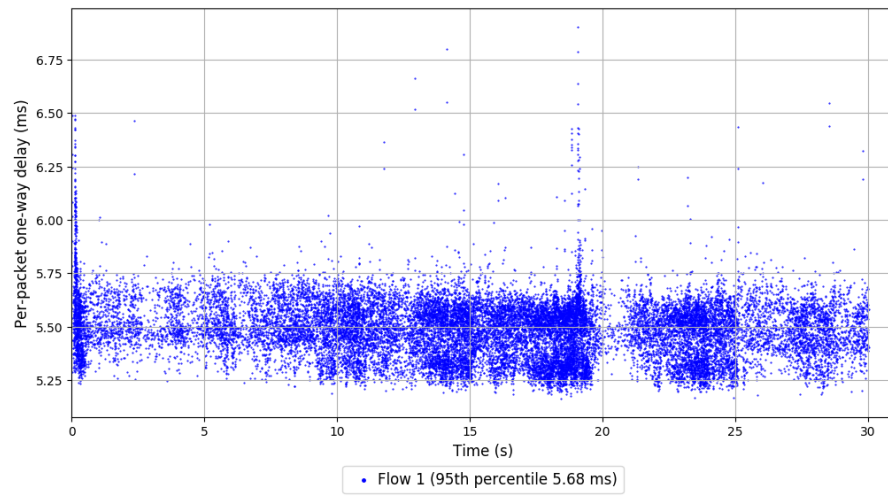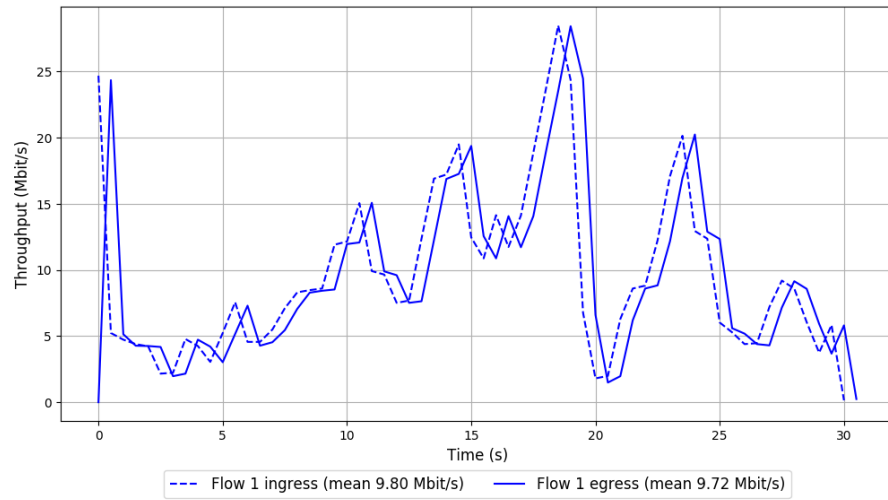
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2019-03-18 19:49:59
End at: 2019-03-18 19:50:29
Local clock offset: -10.139 ms
Remote clock offset: -8.406 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 4.685 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 4.685 ms
Loss rate: 1.36%
```
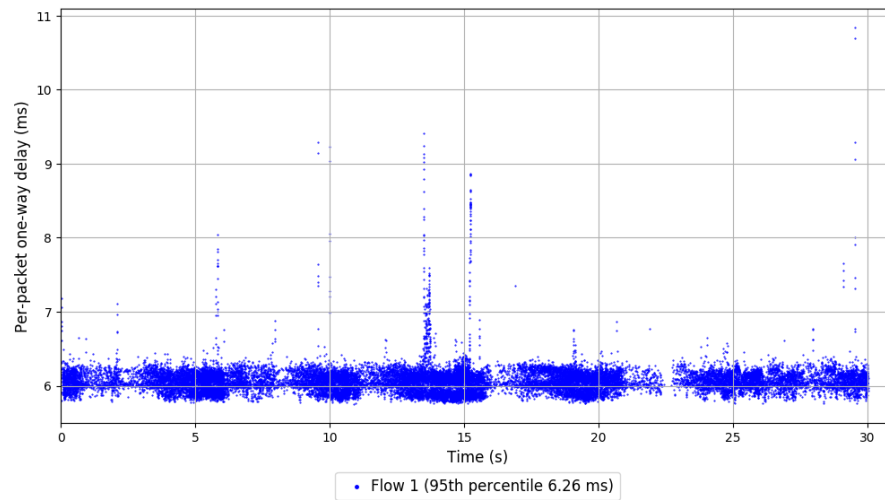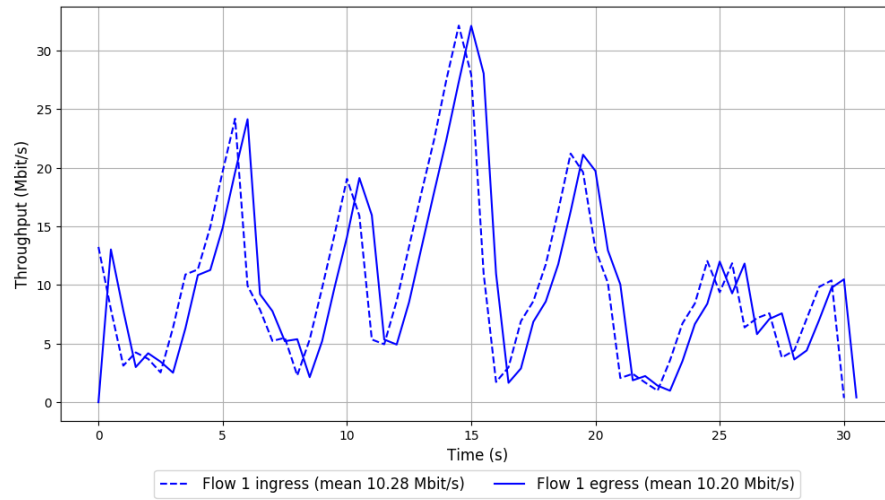
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 6.86 Mbit/s) --- Flow 1 egress (mean 6.77 Mbit/s)

Flow 1 (95th percentile 4.68 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2019-03-18 20:13:50
End at: 2019-03-18 20:14:20
Local clock offset: -7.8 ms
Remote clock offset: -8.882 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 3.678 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 3.678 ms
Loss rate: 0.55%
```

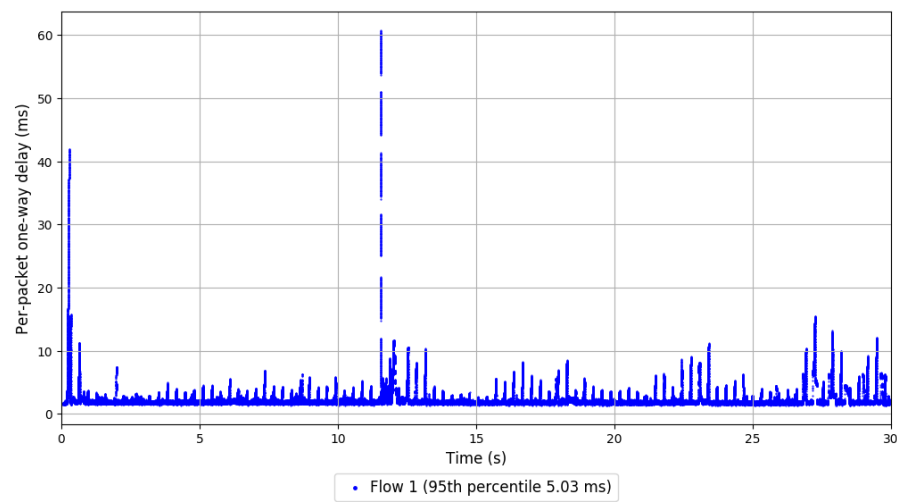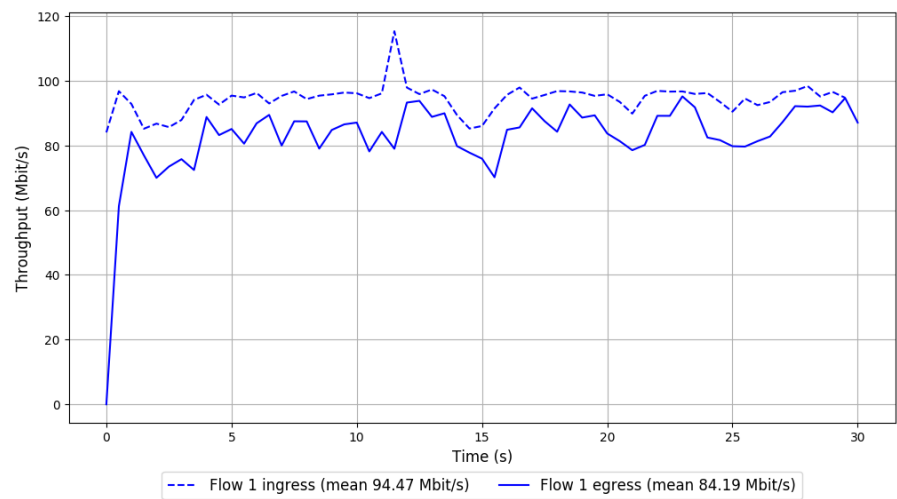## Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 11.87 Mbit/s)   Flow 1 egress (mean 11.81 Mbit/s)

Flow 1 (95th percentile 3.68 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2019-03-18 20:37:25
End at: 2019-03-18 20:37:55
Local clock offset: -3.719 ms
Remote clock offset: -7.279 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 5.678 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 5.678 ms
Loss rate: 0.76%
```

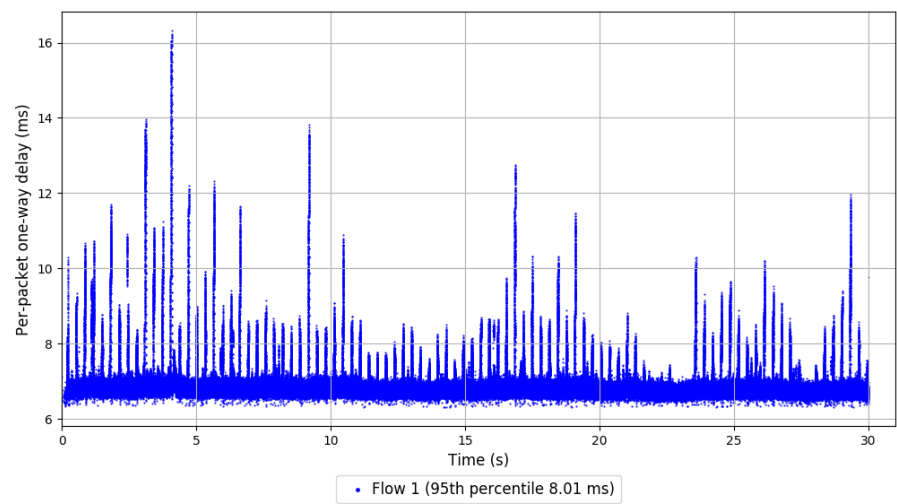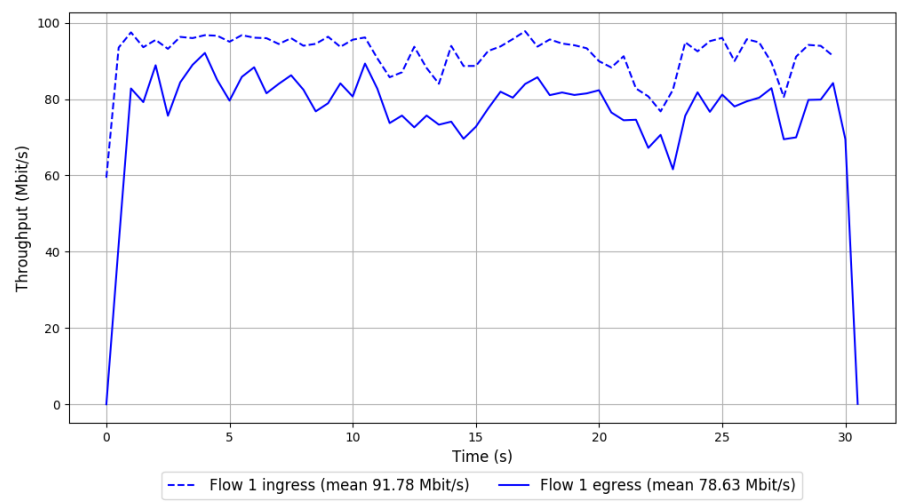Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2019-03-18 21:00:51
End at: 2019-03-18 21:01:21
Local clock offset: -1.243 ms
Remote clock offset: -6.621 ms


# Below is generated by plot.py at 2019-03-18 21:23:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 6.257 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 6.257 ms
Loss rate: 0.81%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 10.28 Mbit/s) --- Flow 1 egress (mean 10.20 Mbit/s)

Flow 1 (95th percentile 6.26 ms)

```
Run 1: Statistics of FillP

Start at: 2019-03-18 19:41:02
End at: 2019-03-18 19:41:32
Local clock offset: -10.196 ms
Remote clock offset: -8.371 ms


# Below is generated by plot.py at 2019-03-18 21:24:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.19 Mbit/s
95th percentile per-packet one-way delay: 5.025 ms
Loss rate: 10.87%
-- Flow 1:
Average throughput: 84.19 Mbit/s
95th percentile per-packet one-way delay: 5.025 ms
Loss rate: 10.87%
```
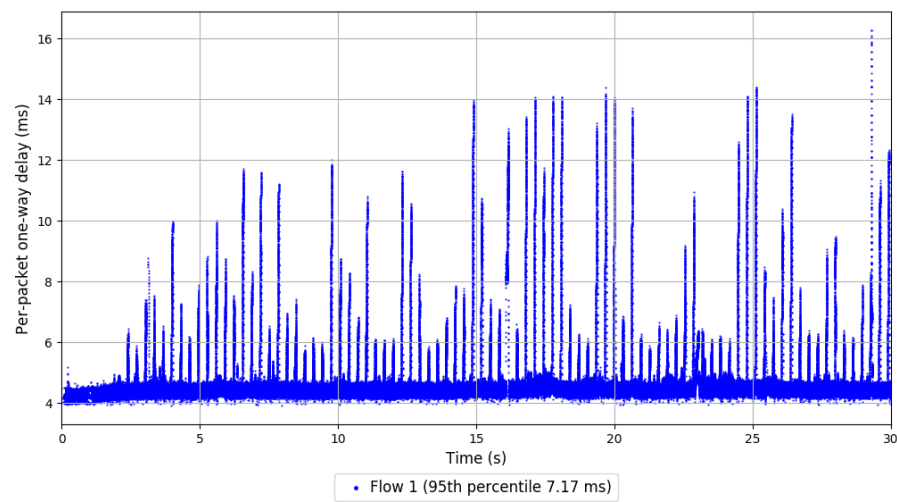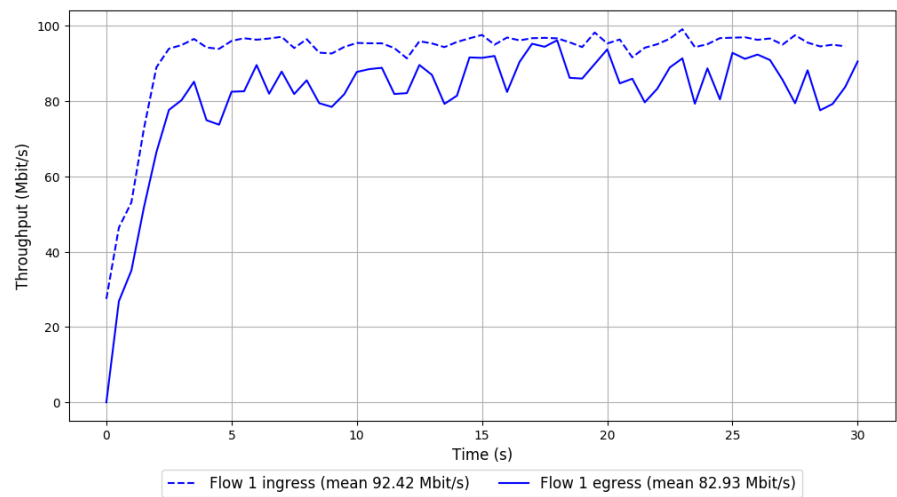
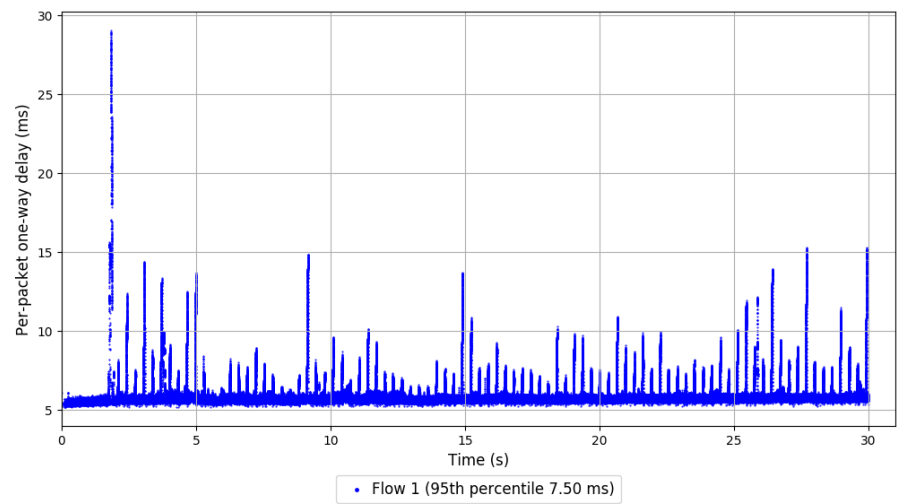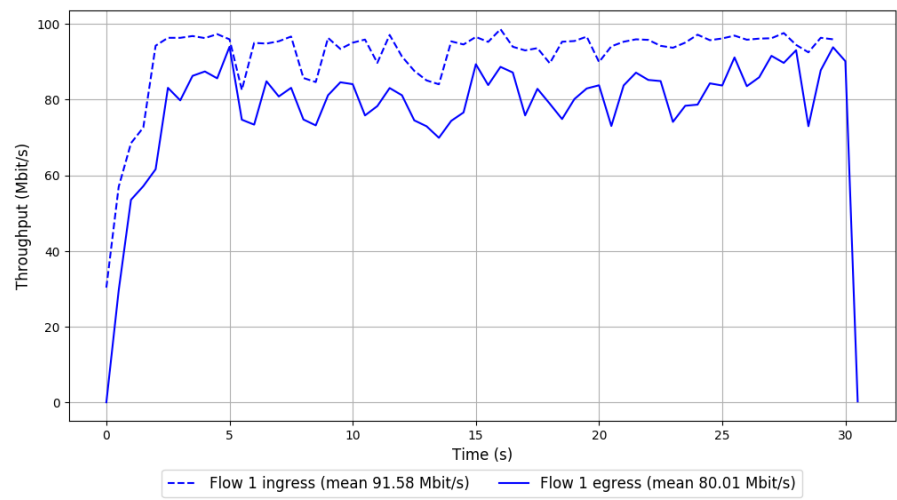Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 94.47 Mbit/s)   Flow 1 egress (mean 84.19 Mbit/s)
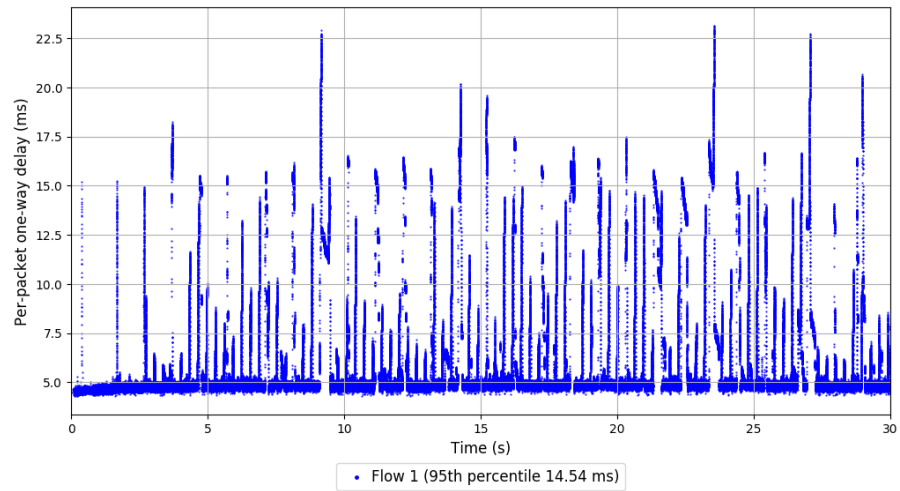

Flow 1 (95th percentile 5.03 ms)

```
Run 2: Statistics of FillP

Start at: 2019-03-18 20:04:49
End at: 2019-03-18 20:05:19
Local clock offset: -10.66 ms
Remote clock offset: -9.292 ms


# Below is generated by plot.py at 2019-03-18 21:24:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.63 Mbit/s
95th percentile per-packet one-way delay: 8.011 ms
Loss rate: 14.33%
-- Flow 1:
Average throughput: 78.63 Mbit/s
95th percentile per-packet one-way delay: 8.011 ms
Loss rate: 14.33%
```
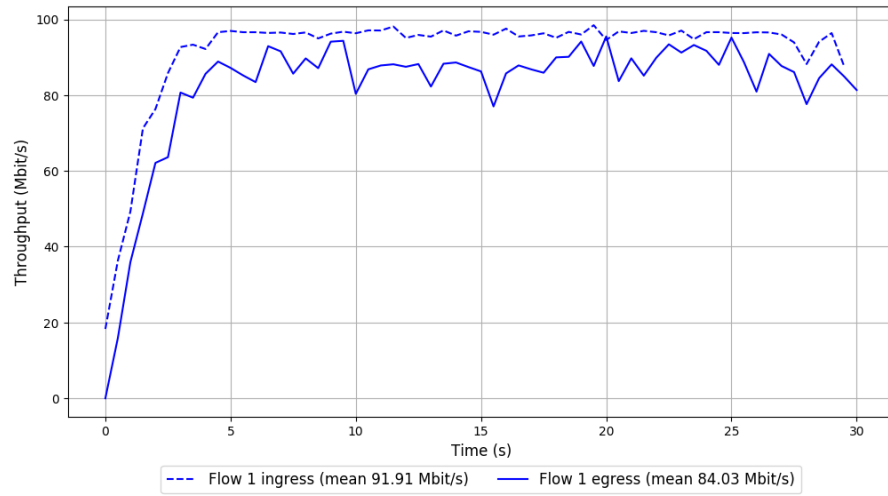
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 91.78 Mbit/s) Flow 1 egress (mean 78.63 Mbit/s)

Flow 1 (95th percentile 8.01 ms)

```
Run 3: Statistics of FillP

Start at: 2019-03-18 20:28:30
End at: 2019-03-18 20:29:00
Local clock offset: -6.045 ms
Remote clock offset: -9.44 ms


# Below is generated by plot.py at 2019-03-18 21:24:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 7.165 ms
Loss rate: 10.26%
-- Flow 1:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 7.165 ms
Loss rate: 10.26%
```

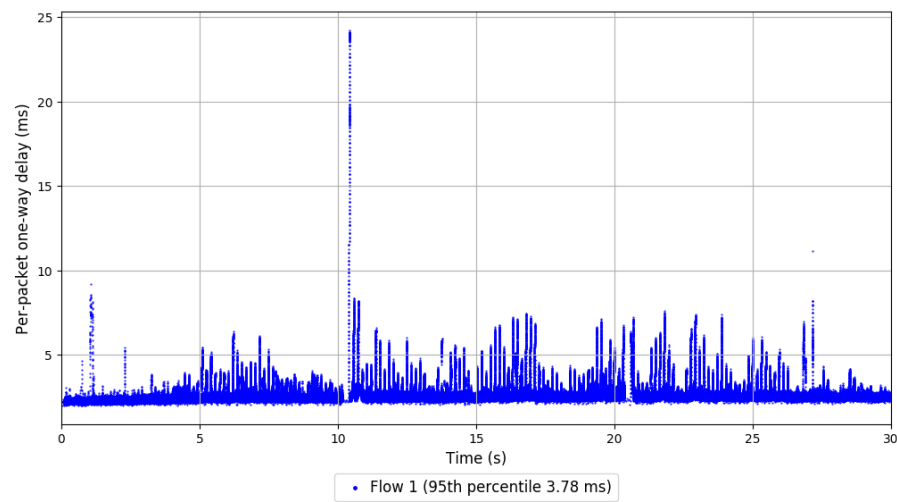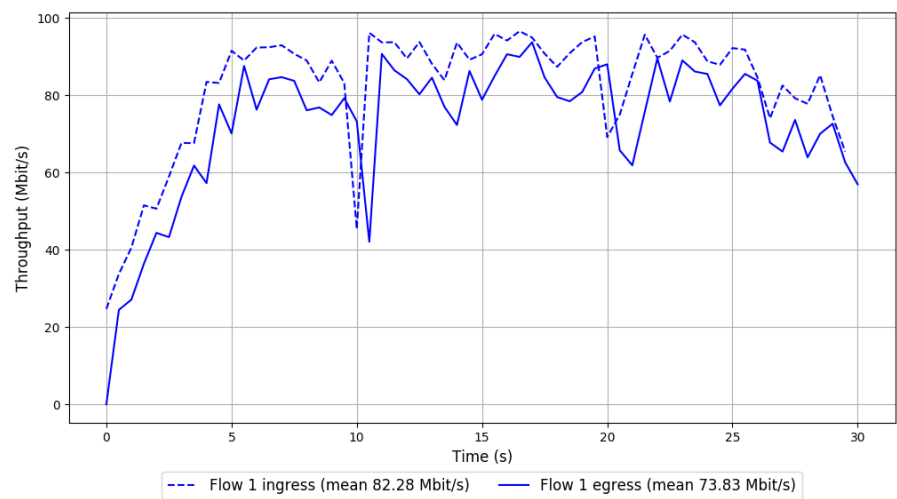Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 92.42 Mbit/s)   Flow 1 egress (mean 82.93 Mbit/s)

Flow 1 (95th percentile 7.17 ms)

```
Run 4: Statistics of FillP

Start at: 2019-03-18 20:51:58
End at: 2019-03-18 20:52:29
Local clock offset: -2.176 ms
Remote clock offset: -6.961 ms


# Below is generated by plot.py at 2019-03-18 21:24:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.01 Mbit/s
95th percentile per-packet one-way delay: 7.502 ms
Loss rate: 12.63%
-- Flow 1:
Average throughput: 80.01 Mbit/s
95th percentile per-packet one-way delay: 7.502 ms
Loss rate: 12.63%
```
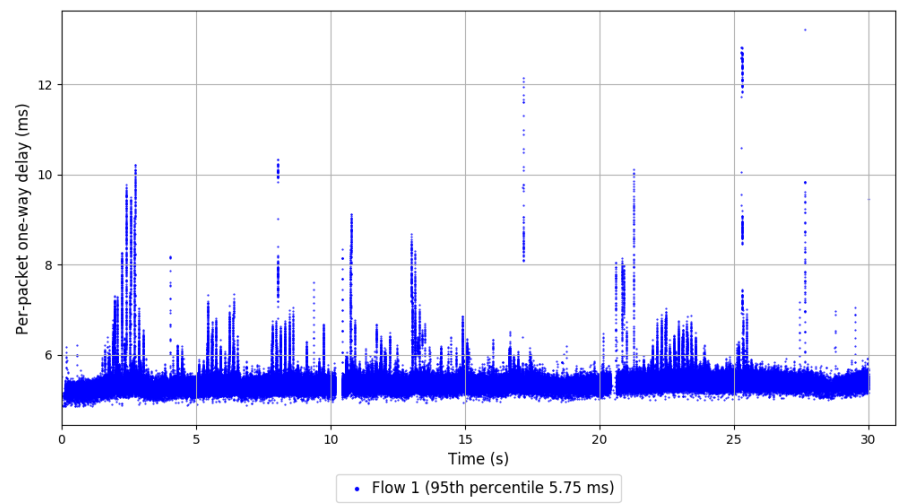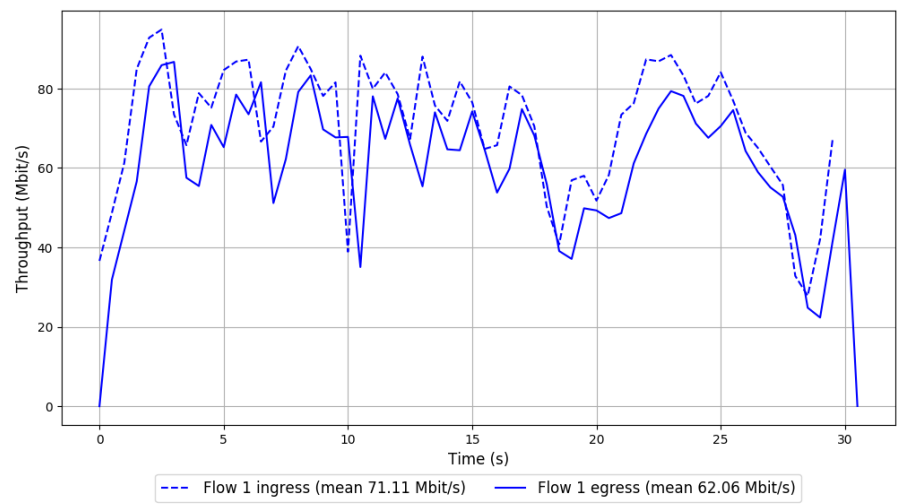
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2019-03-18 21:15:26
End at: 2019-03-18 21:15:56
Local clock offset: -0.688 ms
Remote clock offset: -6.335 ms


# Below is generated by plot.py at 2019-03-18 21:24:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.03 Mbit/s
95th percentile per-packet one-way delay: 14.541 ms
Loss rate: 8.57%
-- Flow 1:
Average throughput: 84.03 Mbit/s
95th percentile per-packet one-way delay: 14.541 ms
Loss rate: 8.57%
```
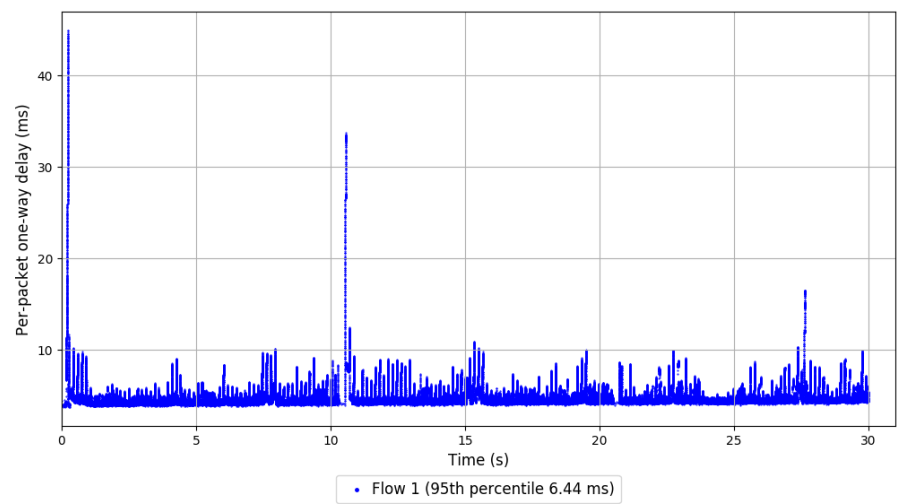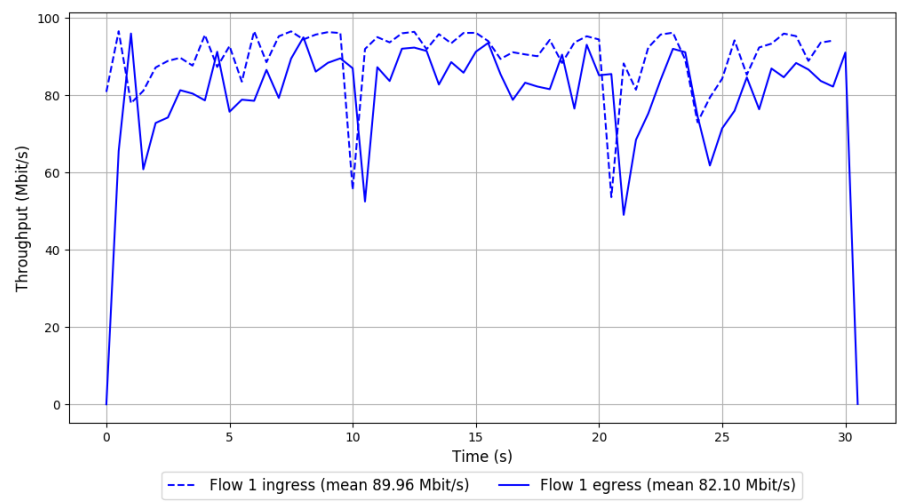
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 91.91 Mbit/s)   Flow 1 egress (mean 84.03 Mbit/s)

• Flow 1 (95th percentile 14.54 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2019-03-18 19:29:33
End at: 2019-03-18 19:30:03
Local clock offset: -10.713 ms
Remote clock offset: -8.66 ms


# Below is generated by plot.py at 2019-03-18 21:24:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.83 Mbit/s
95th percentile per-packet one-way delay: 3.783 ms
Loss rate: 10.27%
-- Flow 1:
Average throughput: 73.83 Mbit/s
95th percentile per-packet one-way delay: 3.783 ms
Loss rate: 10.27%
```
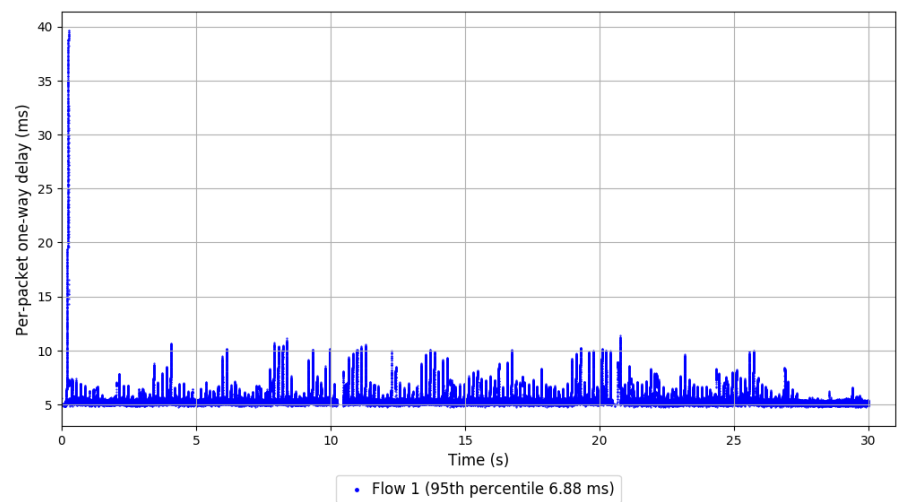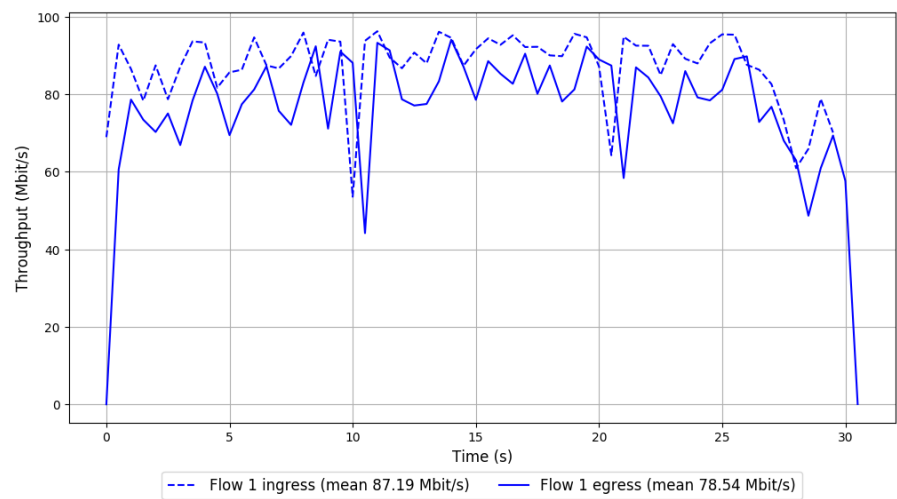
Run 1: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 82.28 Mbit/s) --- Flow 1 egress (mean 73.83 Mbit/s)
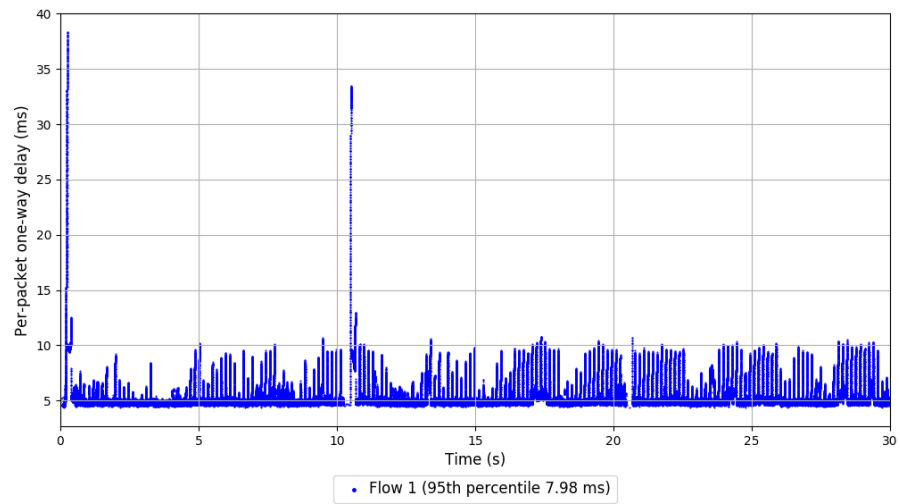

• Flow 1 (95th percentile 3.78 ms)

```
Run 2: Statistics of FillP-Sheep

Start at: 2019-03-18 19:53:27
End at: 2019-03-18 19:53:57
Local clock offset: -9.044 ms
Remote clock offset: -8.054 ms


# Below is generated by plot.py at 2019-03-18 21:24:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.06 Mbit/s
95th percentile per-packet one-way delay: 5.745 ms
Loss rate: 12.72%
-- Flow 1:
Average throughput: 62.06 Mbit/s
95th percentile per-packet one-way delay: 5.745 ms
Loss rate: 12.72%
```
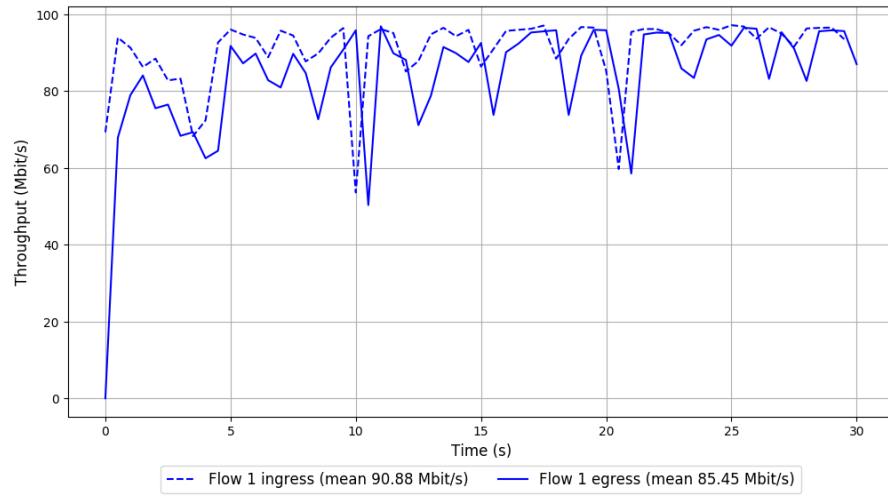
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2019-03-18 20:17:11
End at: 2019-03-18 20:17:41
Local clock offset: -9.124 ms
Remote clock offset: -9.565 ms


# Below is generated by plot.py at 2019-03-18 21:24:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.10 Mbit/s
95th percentile per-packet one-way delay: 6.441 ms
Loss rate: 8.73%
-- Flow 1:
Average throughput: 82.10 Mbit/s
95th percentile per-packet one-way delay: 6.441 ms
Loss rate: 8.73%
```
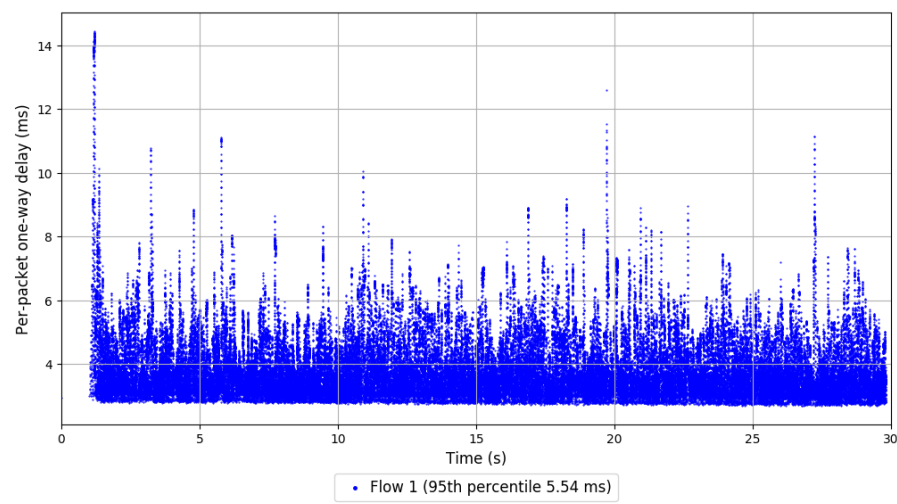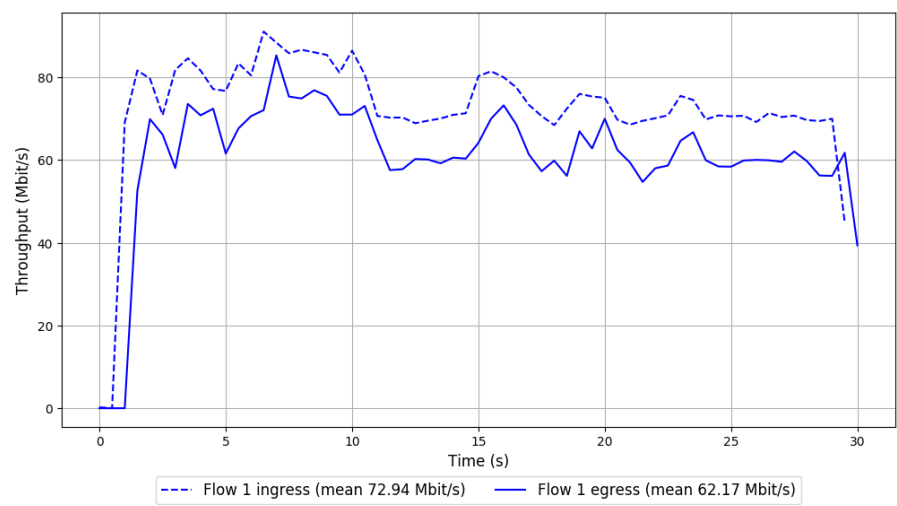
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2019-03-18 20:40:46
End at: 2019-03-18 20:41:16
Local clock offset: -3.496 ms
Remote clock offset: -6.939 ms


# Below is generated by plot.py at 2019-03-18 21:25:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.54 Mbit/s
95th percentile per-packet one-way delay: 6.877 ms
Loss rate: 9.93%
-- Flow 1:
Average throughput: 78.54 Mbit/s
95th percentile per-packet one-way delay: 6.877 ms
Loss rate: 9.93%
```

Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2019-03-18 21:04:12
End at: 2019-03-18 21:04:42
Local clock offset: -1.584 ms
Remote clock offset: -8.053 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.45 Mbit/s
95th percentile per-packet one-way delay: 7.979 ms
Loss rate: 5.98%
-- Flow 1:
Average throughput: 85.45 Mbit/s
95th percentile per-packet one-way delay: 7.979 ms
Loss rate: 5.98%
```
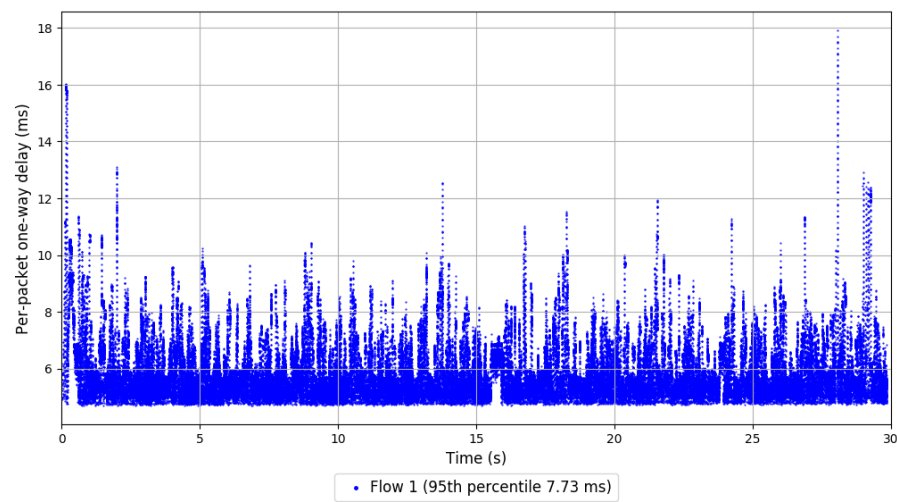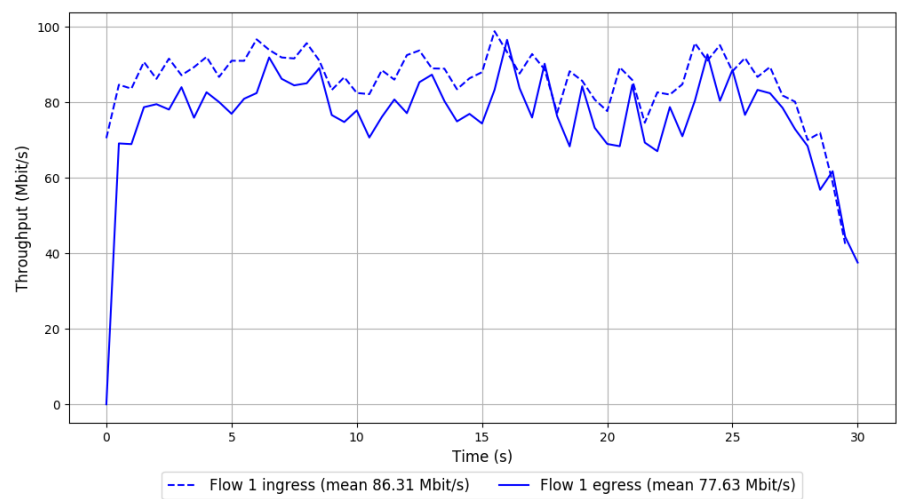
Run 5: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2019-03-18 19:39:49
End at: 2019-03-18 19:40:19
Local clock offset: -10.925 ms
Remote clock offset: -8.138 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 5.538 ms
Loss rate: 14.76%
-- Flow 1:
Average throughput: 62.17 Mbit/s
95th percentile per-packet one-way delay: 5.538 ms
Loss rate: 14.76%
```
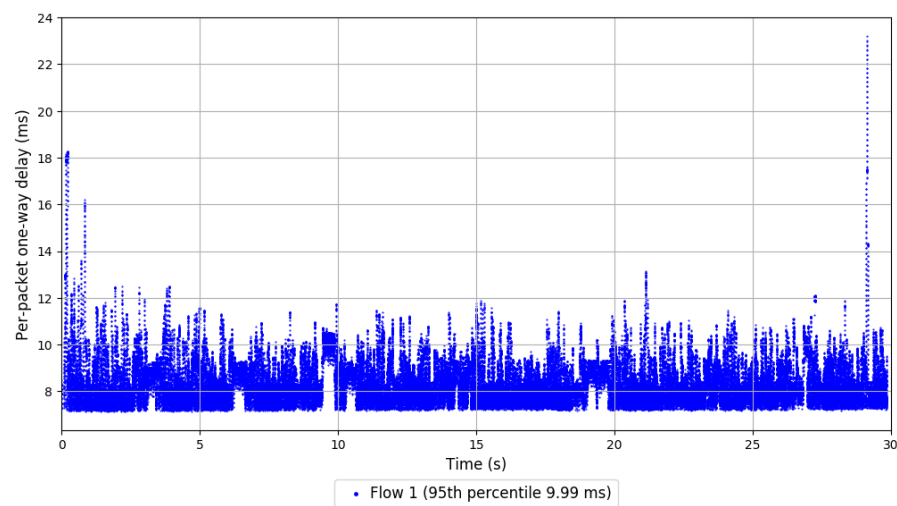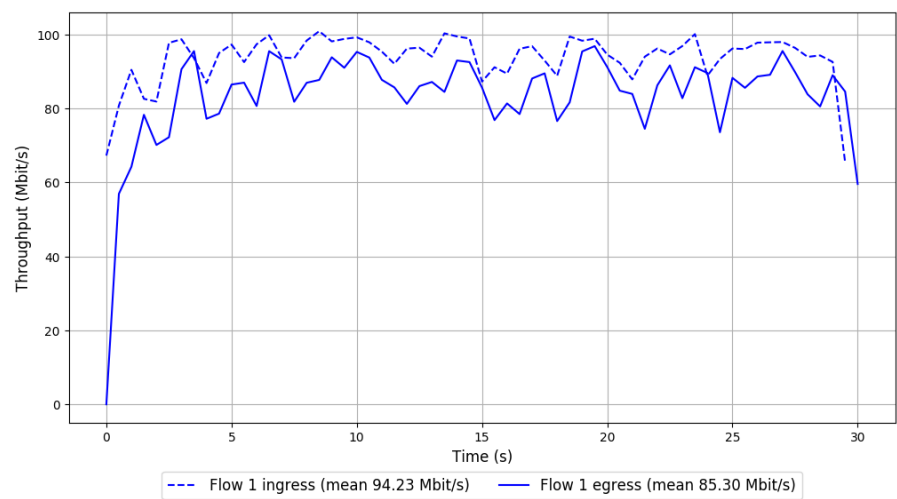
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2019-03-18 20:03:37
End at: 2019-03-18 20:04:07
Local clock offset: -7.192 ms
Remote clock offset: -10.772 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.88 Mbit/s
95th percentile per-packet one-way delay: 4.409 ms
Loss rate: 9.19%
-- Flow 1:
Average throughput: 77.88 Mbit/s
95th percentile per-packet one-way delay: 4.409 ms
Loss rate: 9.19%
```

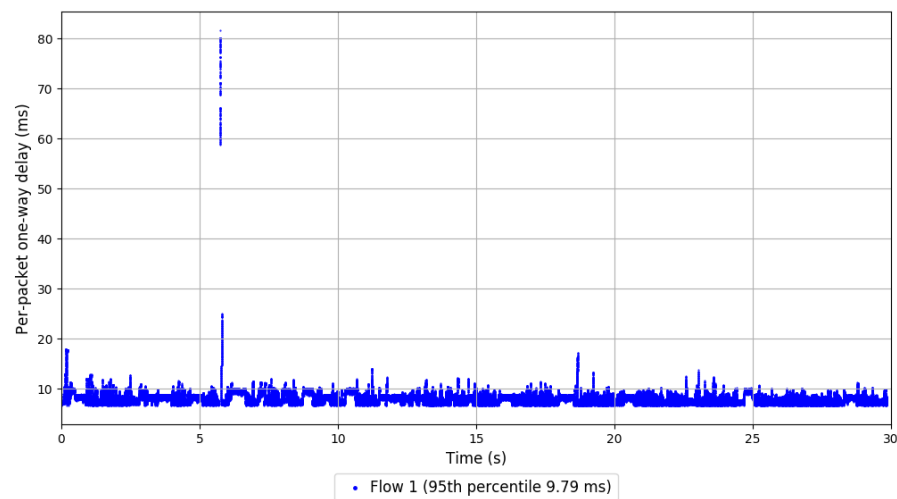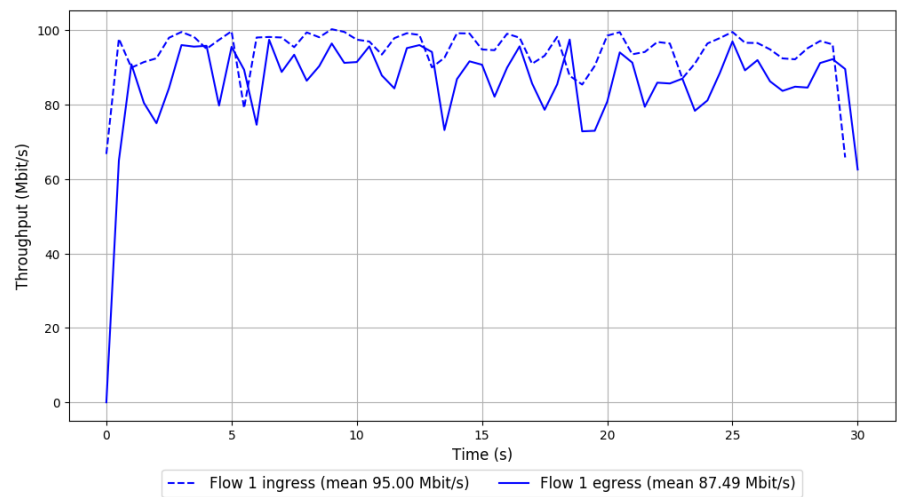Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2019-03-18 20:27:19
End at: 2019-03-18 20:27:49
Local clock offset: -6.423 ms
Remote clock offset: -9.133 ms

# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 7.727 ms
Loss rate: 10.05%
-- Flow 1:
Average throughput: 77.63 Mbit/s
95th percentile per-packet one-way delay: 7.727 ms
Loss rate: 10.05%
```

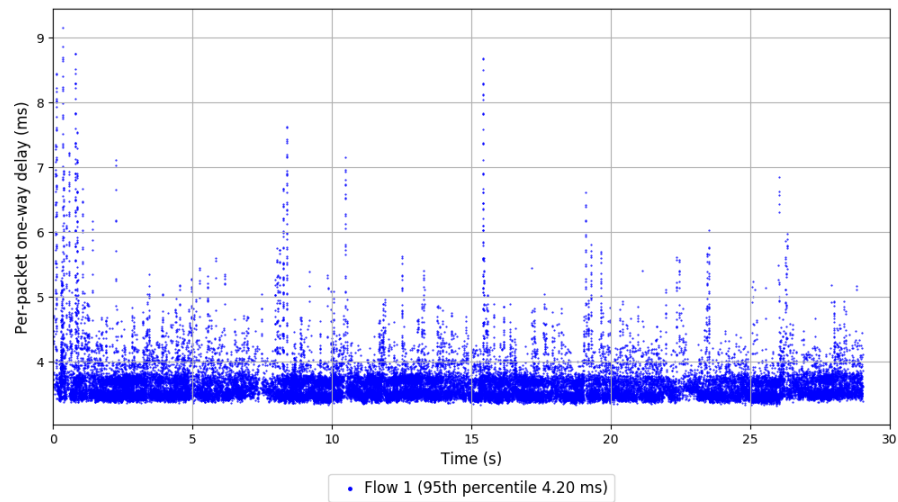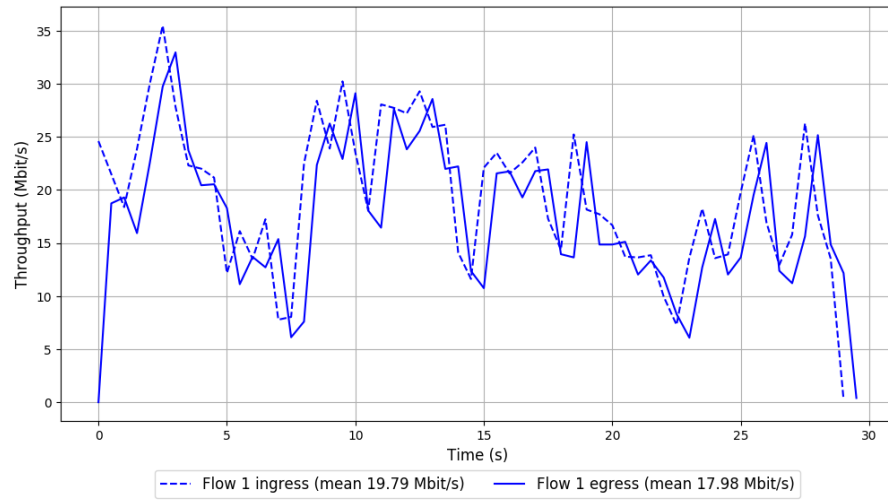# Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2019-03-18 20:50:49
End at: 2019-03-18 20:51:19
Local clock offset: -4.464 ms
Remote clock offset: -7.225 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 9.988 ms
Loss rate: 9.48%
-- Flow 1:
Average throughput: 85.30 Mbit/s
95th percentile per-packet one-way delay: 9.988 ms
Loss rate: 9.48%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2019-03-18 21:14:17
End at: 2019-03-18 21:14:47
Local clock offset: -3.002 ms
Remote clock offset: -6.586 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.49 Mbit/s
95th percentile per-packet one-way delay: 9.790 ms
Loss rate: 7.90%
-- Flow 1:
Average throughput: 87.49 Mbit/s
95th percentile per-packet one-way delay: 9.790 ms
Loss rate: 7.90%
```
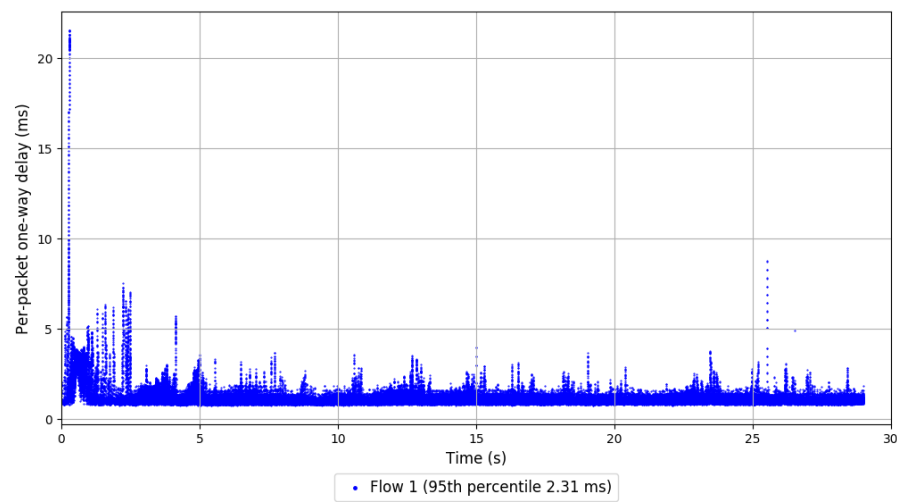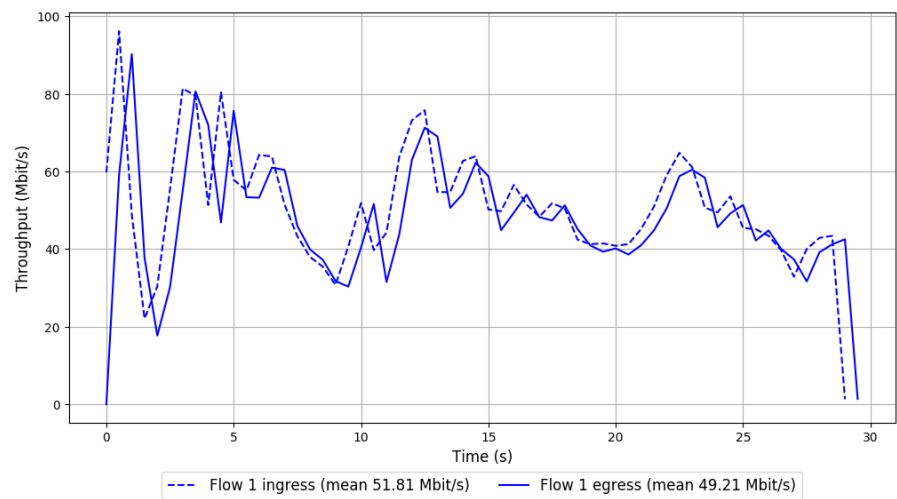
Run 5: Report of Indigo — Data Link

```
Run 1: Statistics of Indigo-MusesC3

Start at: 2019-03-18 19:35:11
End at: 2019-03-18 19:35:41
Local clock offset: -11.014 ms
Remote clock offset: -8.316 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.98 Mbit/s
95th percentile per-packet one-way delay: 4.197 ms
Loss rate: 9.14%
-- Flow 1:
Average throughput: 17.98 Mbit/s
95th percentile per-packet one-way delay: 4.197 ms
Loss rate: 9.14%
```
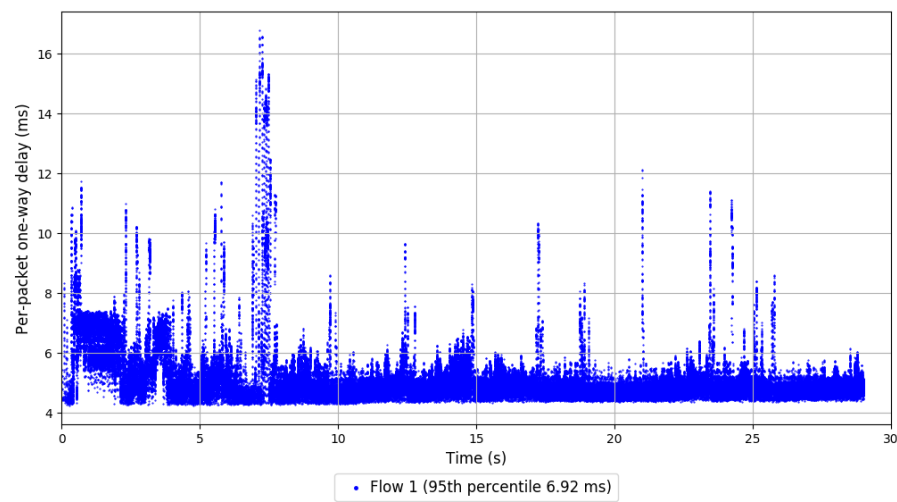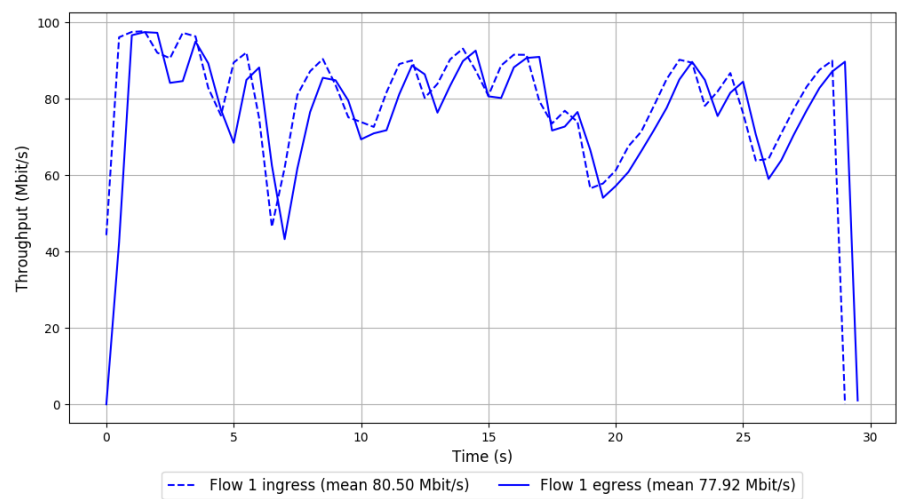
Run 1: Report of Indigo-MusesC3 — Data Link

Flow 1 ingress (mean 19.79 Mbit/s) ---- Flow 1 egress (mean 17.98 Mbit/s)

• Flow 1 (95th percentile 4.20 ms)

```
Run 2: Statistics of Indigo-MusesC3

Start at: 2019-03-18 19:59:05
End at: 2019-03-18 19:59:35
Local clock offset: -5.014 ms
Remote clock offset: -9.479 ms


# Below is generated by plot.py at 2019-03-18 21:25:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 5.01%
-- Flow 1:
Average throughput: 49.21 Mbit/s
95th percentile per-packet one-way delay: 2.308 ms
Loss rate: 5.01%
```
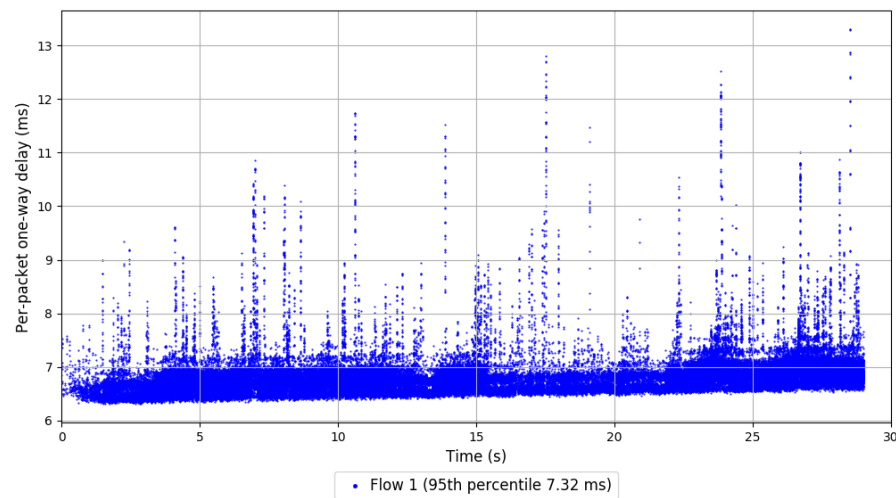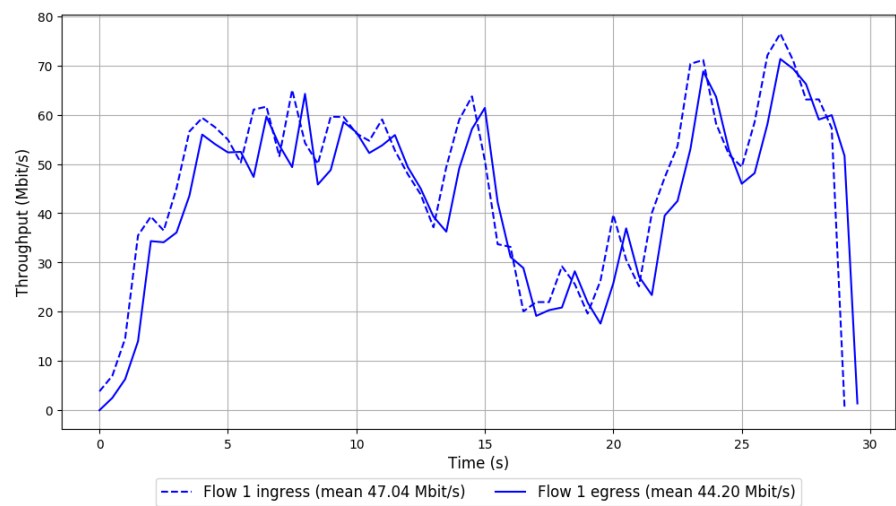
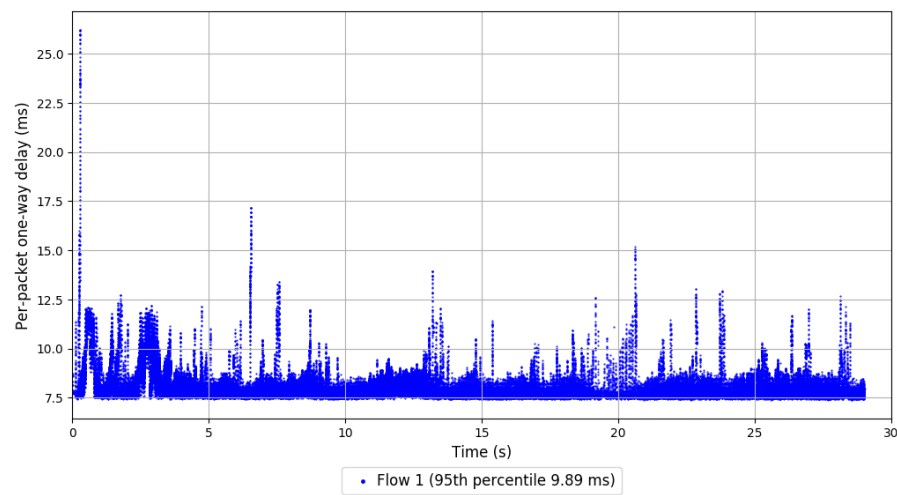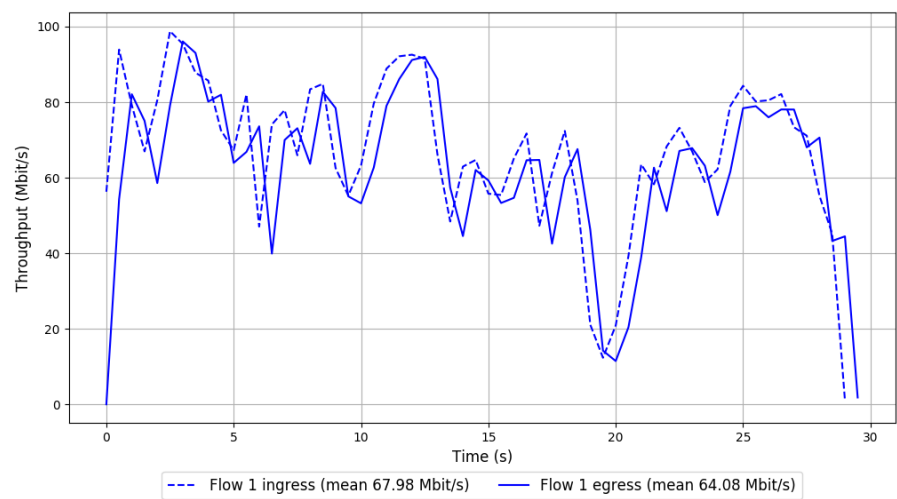Run 2: Report of Indigo-MusesC3 — Data Link

```
Run 3: Statistics of Indigo-MusesC3

Start at: 2019-03-18 20:22:46
End at: 2019-03-18 20:23:16
Local clock offset: -6.787 ms
Remote clock offset: -9.21 ms


# Below is generated by plot.py at 2019-03-18 21:26:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.92 Mbit/s
95th percentile per-packet one-way delay: 6.917 ms
Loss rate: 3.21%
-- Flow 1:
Average throughput: 77.92 Mbit/s
95th percentile per-packet one-way delay: 6.917 ms
Loss rate: 3.21%
```

Run 3: Report of Indigo-MusesC3 — Data Link

70

```
Run 4: Statistics of Indigo-MusesC3

Start at: 2019-03-18 20:46:20
End at: 2019-03-18 20:46:50
Local clock offset: -5.159 ms
Remote clock offset: -6.901 ms


# Below is generated by plot.py at 2019-03-18 21:26:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.20 Mbit/s
95th percentile per-packet one-way delay: 7.318 ms
Loss rate: 6.04%
-- Flow 1:
Average throughput: 44.20 Mbit/s
95th percentile per-packet one-way delay: 7.318 ms
Loss rate: 6.04%
```
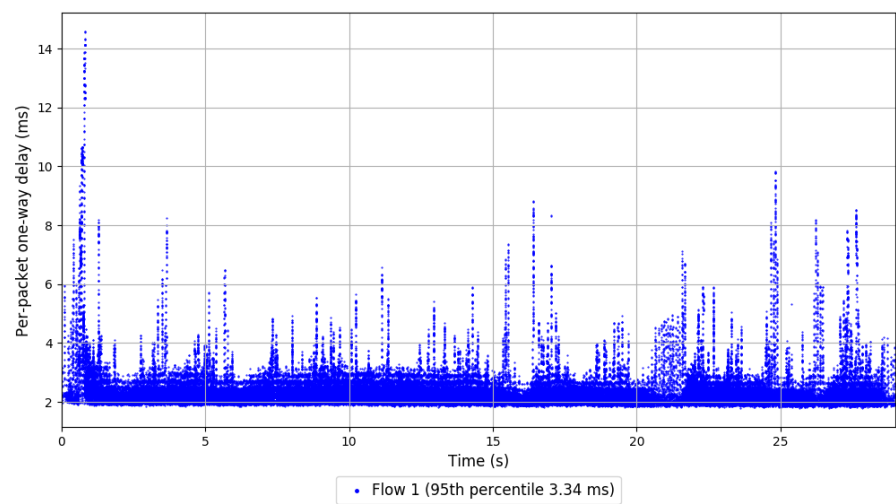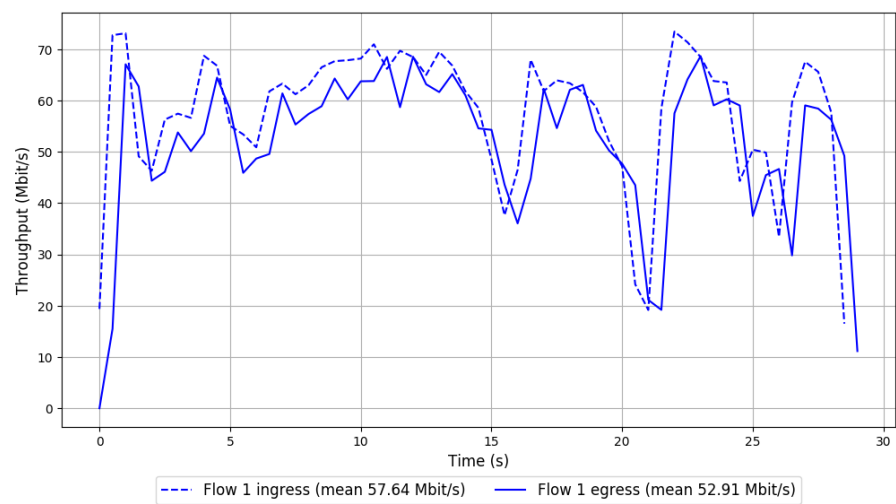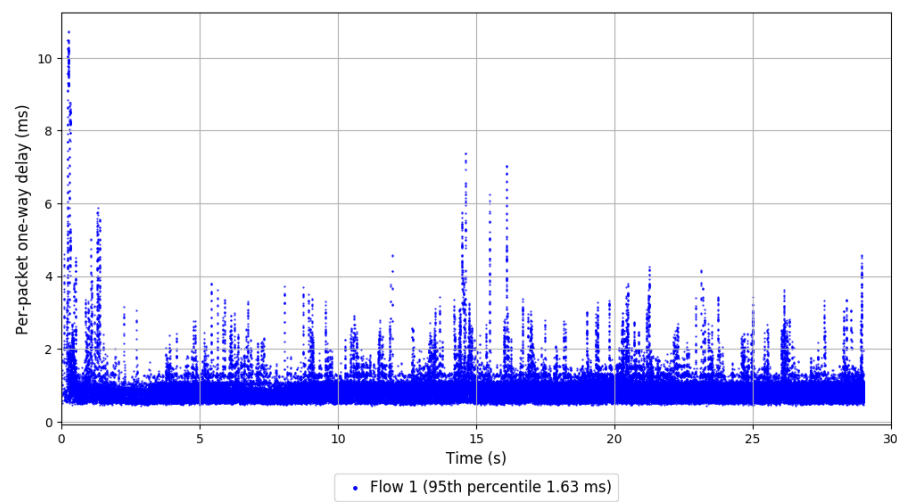
Run 4: Report of Indigo-MusesC3 — Data Link

```
Run 5: Statistics of Indigo-MusesC3

Start at: 2019-03-18 21:09:46
End at: 2019-03-18 21:10:16
Local clock offset: -2.923 ms
Remote clock offset: -6.181 ms


# Below is generated by plot.py at 2019-03-18 21:26:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.08 Mbit/s
95th percentile per-packet one-way delay: 9.887 ms
Loss rate: 5.73%
-- Flow 1:
Average throughput: 64.08 Mbit/s
95th percentile per-packet one-way delay: 9.887 ms
Loss rate: 5.73%
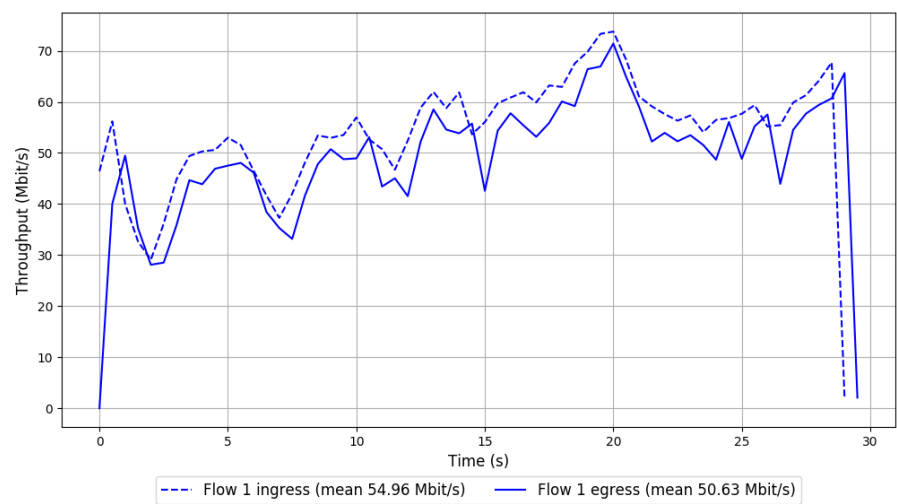```

Run 5: Report of Indigo-MusesC3 — Data Link



74

```
Run 1: Statistics of Indigo-MusesC5

Start at: 2019-03-18 19:37:25
End at: 2019-03-18 19:37:55
Local clock offset: -10.479 ms
Remote clock offset: -9.027 ms

Below is generated by plot.py at 2019-03-18 21:26:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.91 Mbit/s
95th percentile per-packet one-way delay: 3.342 ms
Loss rate: 8.20%
-- Flow 1:
Average throughput: 52.91 Mbit/s
95th percentile per-packet one-way delay: 3.342 ms
Loss rate: 8.20%
```
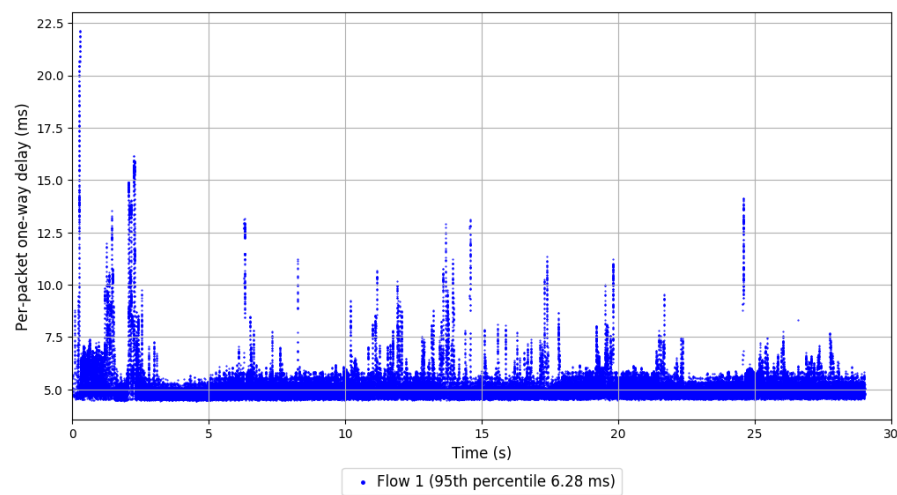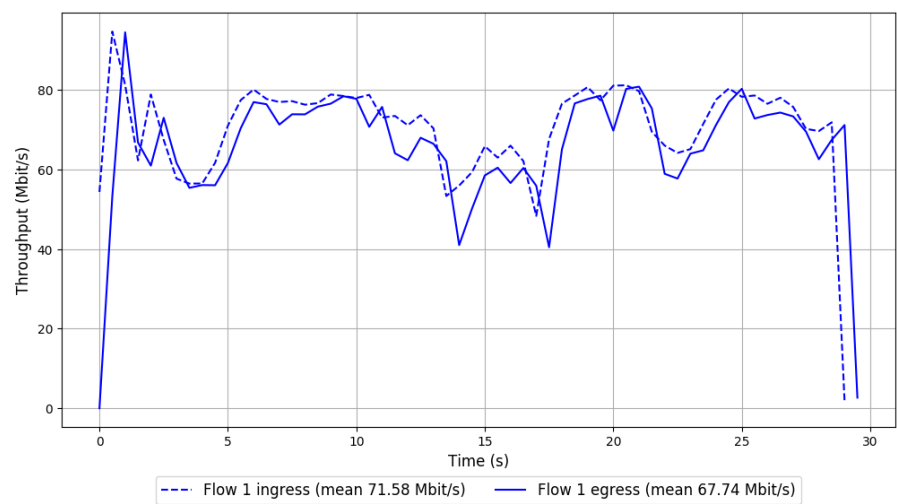
Run 1: Report of Indigo-MusesC5 — Data Link

```
Run 2: Statistics of Indigo-MusesC5

Start at: 2019-03-18 20:01:20
End at: 2019-03-18 20:01:50
Local clock offset: -5.129 ms
Remote clock offset: -9.968 ms

Below is generated by plot.py at 2019-03-18 21:26:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 1.631 ms
Loss rate: 7.87%
-- Flow 1:
Average throughput: 50.63 Mbit/s
95th percentile per-packet one-way delay: 1.631 ms
Loss rate: 7.87%
```
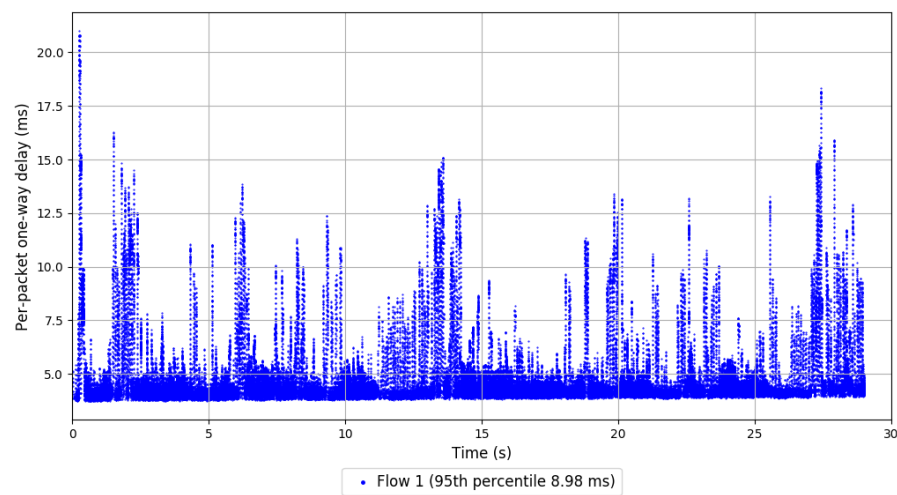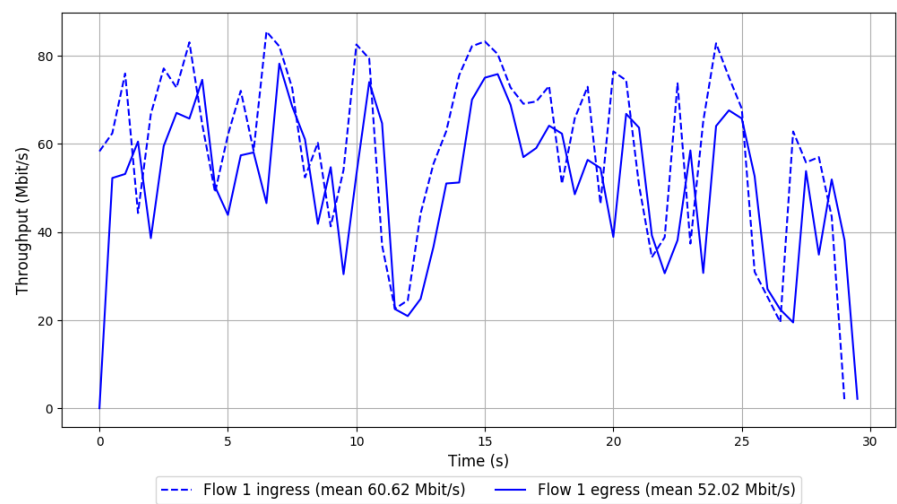
Run 2: Report of Indigo-MusesC5 — Data Link

```
Run 3: Statistics of Indigo-MusesC5

Start at: 2019-03-18 20:25:02
End at: 2019-03-18 20:25:32
Local clock offset: -6.452 ms
Remote clock offset: -9.112 ms

Below is generated by plot.py at 2019-03-18 21:26:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 6.284 ms
Loss rate: 5.37%
-- Flow 1:
Average throughput: 67.74 Mbit/s
95th percentile per-packet one-way delay: 6.284 ms
Loss rate: 5.37%
```
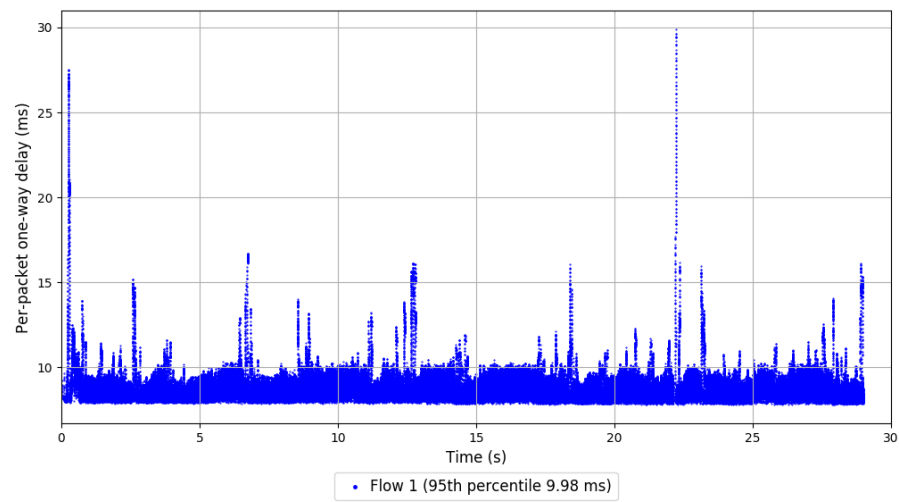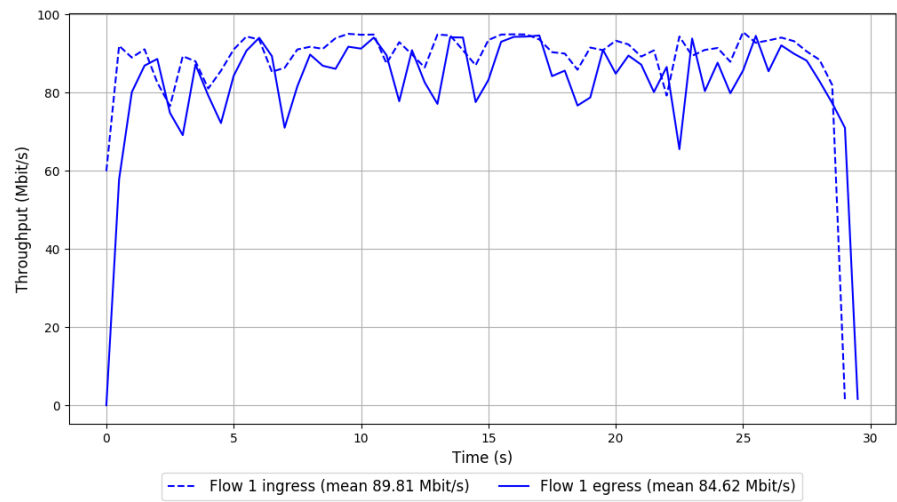
Run 3: Report of Indigo-MusesC5 — Data Link

```
Run 4: Statistics of Indigo-MusesC5

Start at: 2019-03-18 20:48:33
End at: 2019-03-18 20:49:03
Local clock offset: -3.544 ms
Remote clock offset: -8.876 ms

Below is generated by plot.py at 2019-03-18 21:26:35
Datalink statistics
-- Total of 1 flow:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 8.976 ms
Loss rate: 14.19%
-- Flow 1:
Average throughput: 52.02 Mbit/s
95th percentile per-packet one-way delay: 8.976 ms
Loss rate: 14.19%
```
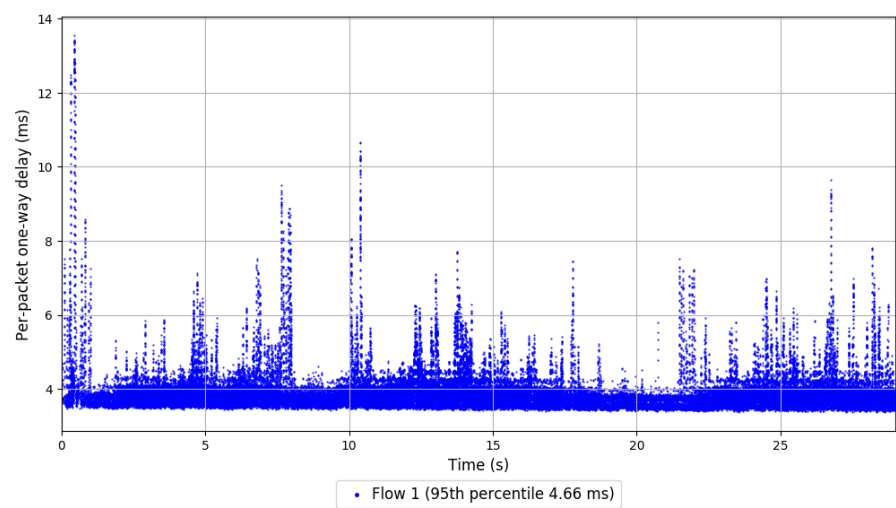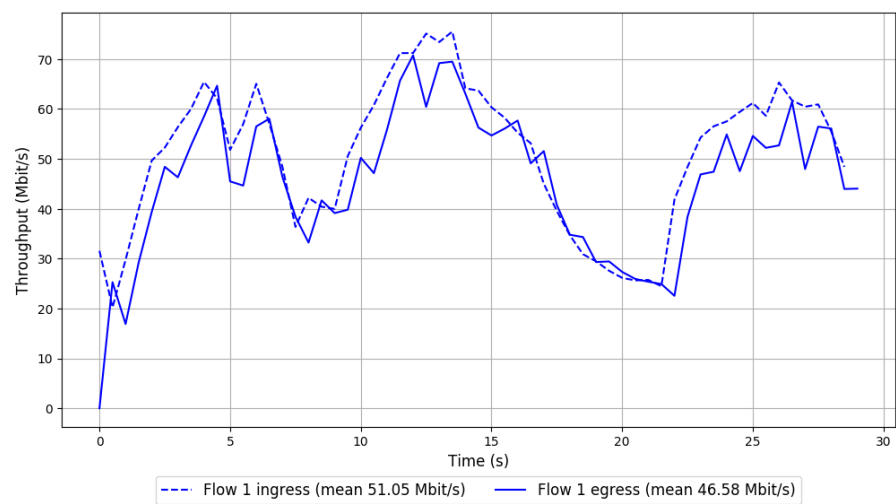
Run 4: Report of Indigo-MusesC5 — Data Link

```
Run 5: Statistics of Indigo-MusesC5

Start at: 2019-03-18 21:11:59
End at: 2019-03-18 21:12:29
Local clock offset: -3.468 ms
Remote clock offset: -6.131 ms


# Below is generated by plot.py at 2019-03-18 21:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.62 Mbit/s
95th percentile per-packet one-way delay: 9.979 ms
Loss rate: 5.79%
-- Flow 1:
Average throughput: 84.62 Mbit/s
95th percentile per-packet one-way delay: 9.979 ms
Loss rate: 5.79%
```

Run 5: Report of Indigo-MusesC5 — Data Link

Flow 1 ingress (mean 89.81 Mbit/s)   Flow 1 egress (mean 84.62 Mbit/s)

Flow 1 (95th percentile 9.98 ms)

```
Run 1: Statistics of Indigo-MusesD

Start at: 2019-03-18 19:38:40
End at: 2019-03-18 19:39:10
Local clock offset: -11.738 ms
Remote clock offset: -8.499 ms


# Below is generated by plot.py at 2019-03-18 21:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 4.656 ms
Loss rate: 8.75%
-- Flow 1:
Average throughput: 46.58 Mbit/s
95th percentile per-packet one-way delay: 4.656 ms
Loss rate: 8.75%
```

Run 1: Report of Indigo-MusesD — Data Link

```
Run 2: Statistics of Indigo-MusesD

Start at: 2019-03-18 20:02:30
End at: 2019-03-18 20:03:00
Local clock offset: -6.862 ms
Remote clock offset: -9.371 ms


# Below is generated by plot.py at 2019-03-18 21:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 3.891 ms
Loss rate: 6.32%
-- Flow 1:
Average throughput: 40.20 Mbit/s
95th percentile per-packet one-way delay: 3.891 ms
Loss rate: 6.32%
```
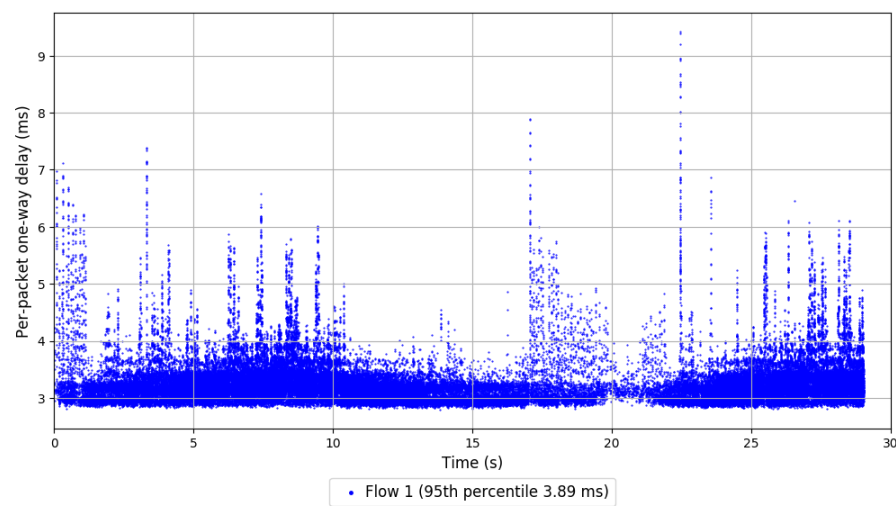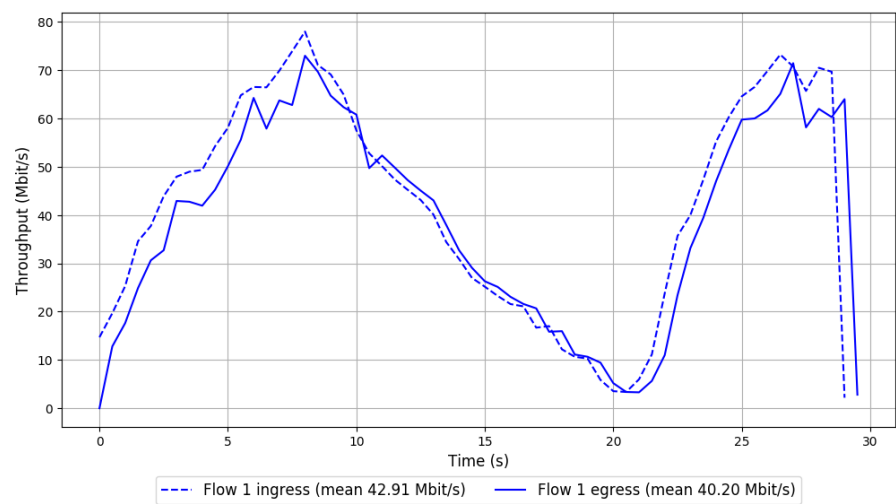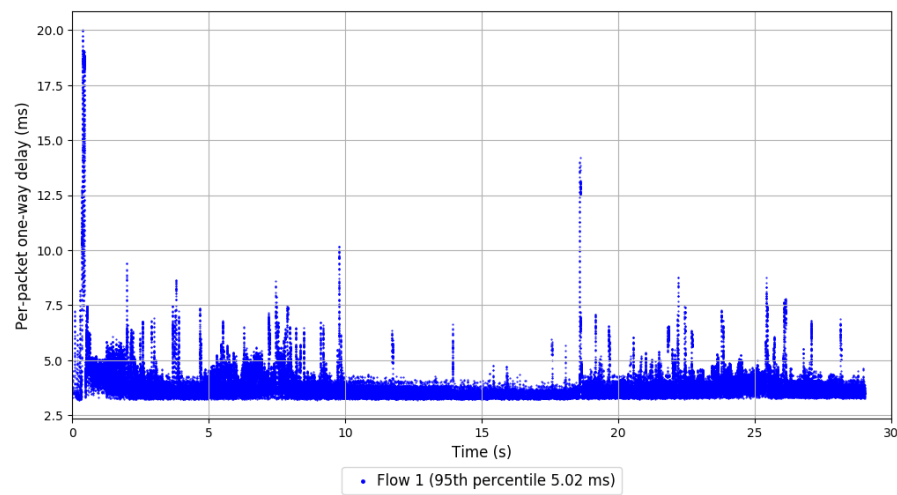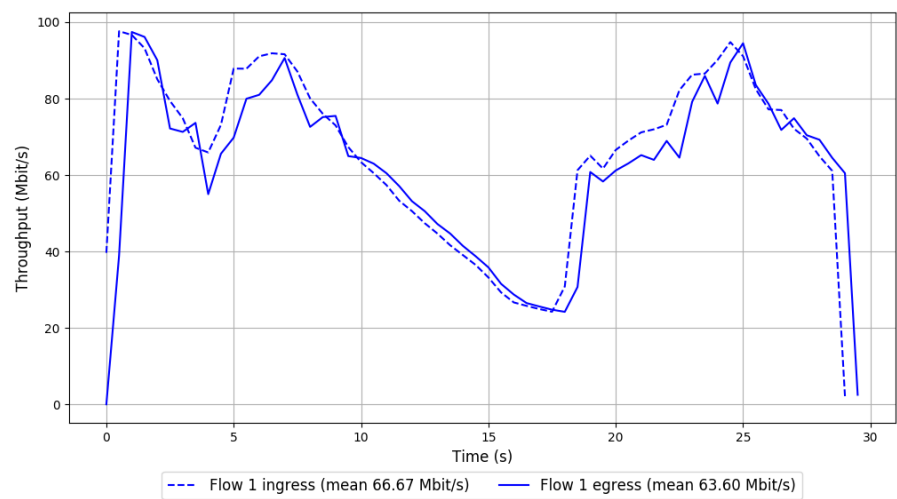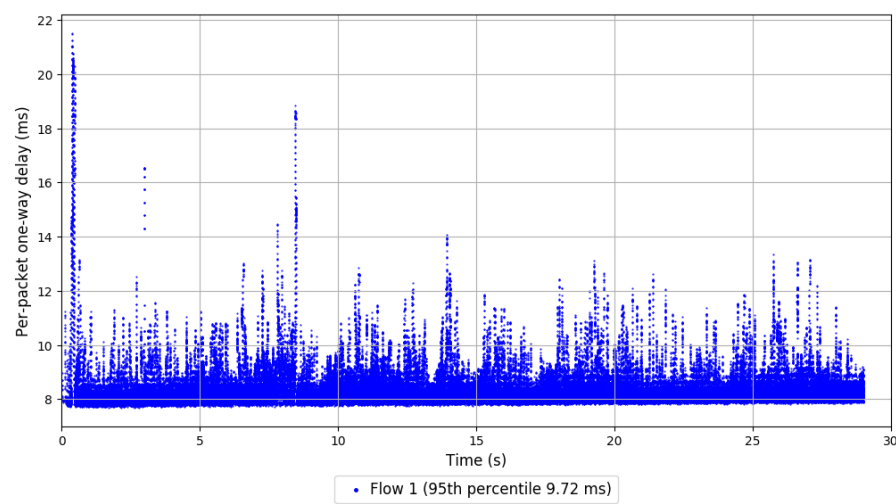
Run 2: Report of Indigo-MusesD — Data Link

```
Run 3: Statistics of Indigo-MusesD

Start at: 2019-03-18 20:26:11
End at: 2019-03-18 20:26:41
Local clock offset: -5.83 ms
Remote clock offset: -9.895 ms


# Below is generated by plot.py at 2019-03-18 21:27:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.60 Mbit/s
95th percentile per-packet one-way delay: 5.023 ms
Loss rate: 4.61%
-- Flow 1:
Average throughput: 63.60 Mbit/s
95th percentile per-packet one-way delay: 5.023 ms
Loss rate: 4.61%
```

Run 3: Report of Indigo-MusesD — Data Link

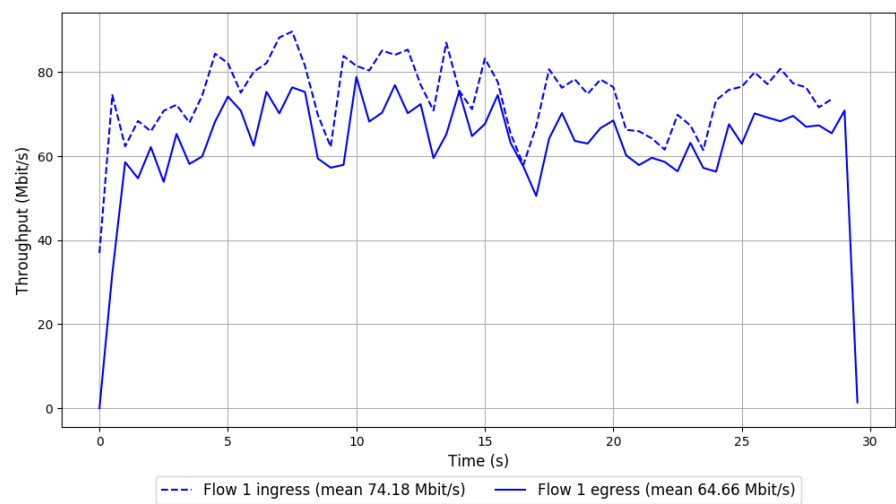Run 3: Report of Indigo-MusesD — Data Link

```
Run 4: Statistics of Indigo-MusesD

Start at: 2019-03-18 20:49:41
End at: 2019-03-18 20:50:11
Local clock offset: -5.256 ms
Remote clock offset: -7.081 ms


# Below is generated by plot.py at 2019-03-18 21:27:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 9.725 ms
Loss rate: 12.84%
-- Flow 1:
Average throughput: 64.66 Mbit/s
95th percentile per-packet one-way delay: 9.725 ms
Loss rate: 12.84%
```
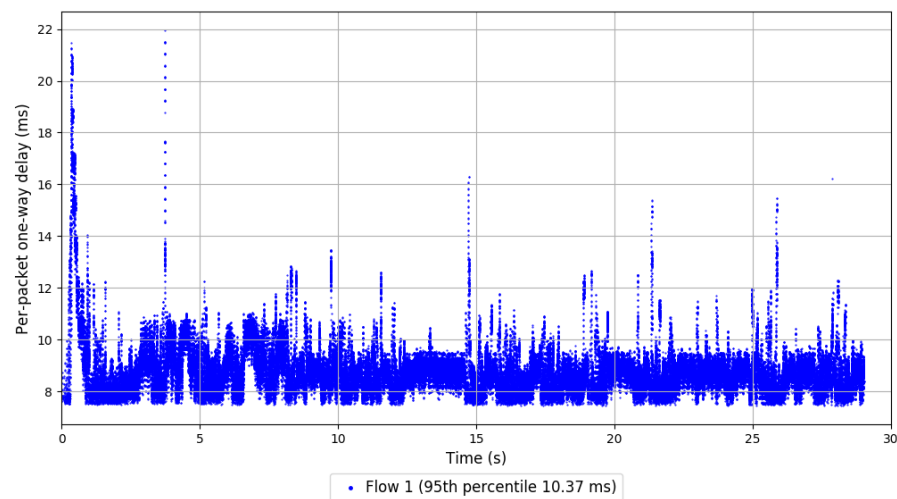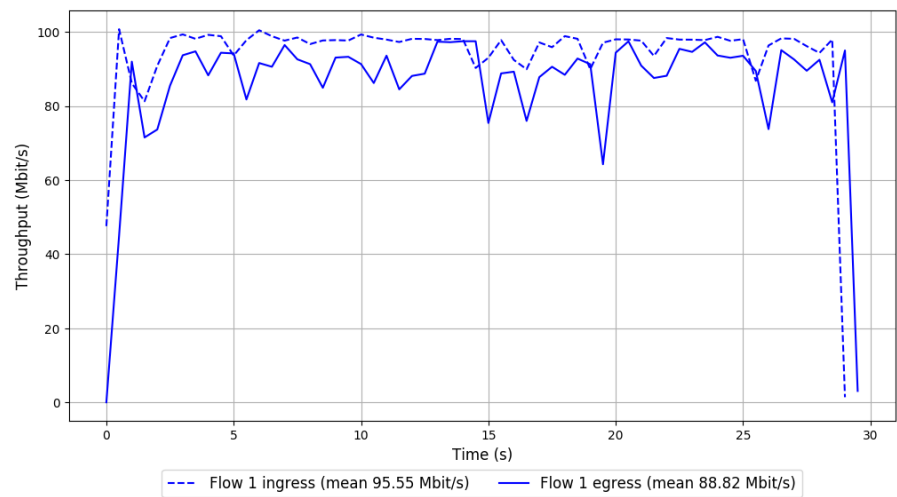
Run 4: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 74.18 Mbit/s)   Flow 1 egress (mean 64.66 Mbit/s)
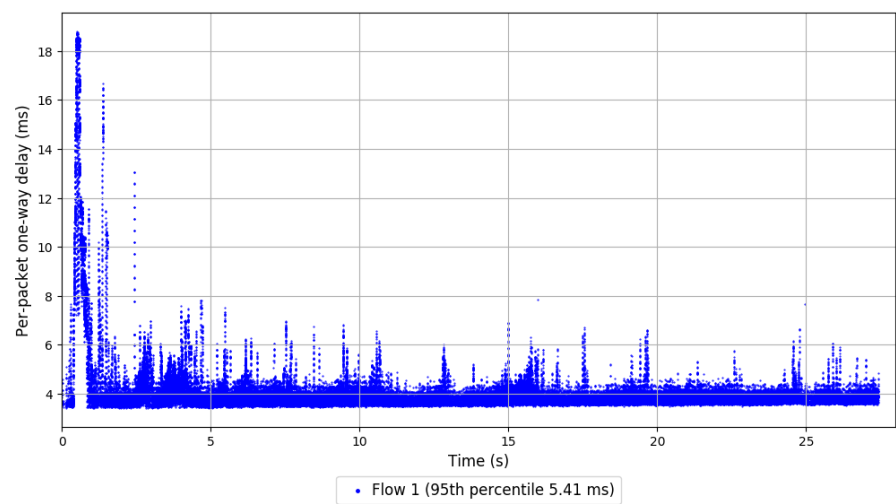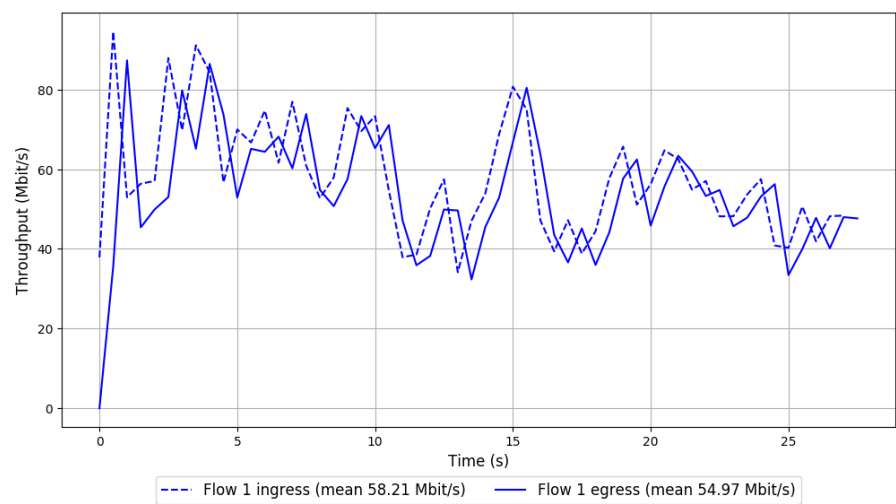

Flow 1 (95th percentile 9.72 ms)

```
Run 5: Statistics of Indigo-MusesD

Start at: 2019-03-18 21:13:08
End at: 2019-03-18 21:13:38
Local clock offset: -3.066 ms
Remote clock offset: -5.994 ms


# Below is generated by plot.py at 2019-03-18 21:27:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 10.366 ms
Loss rate: 7.05%
-- Flow 1:
Average throughput: 88.82 Mbit/s
95th percentile per-packet one-way delay: 10.366 ms
Loss rate: 7.05%
```

Run 5: Report of Indigo-MusesD — Data Link

Flow 1 ingress (mean 95.55 Mbit/s) --- Flow 1 egress (mean 88.82 Mbit/s)
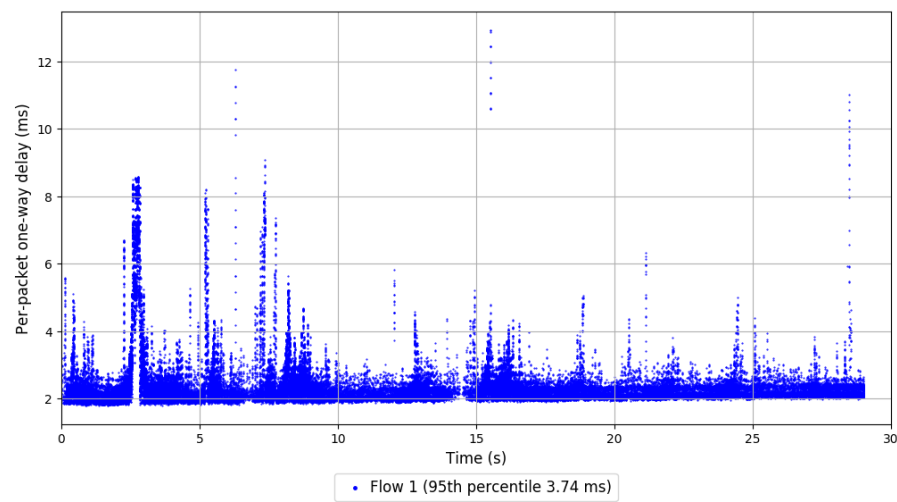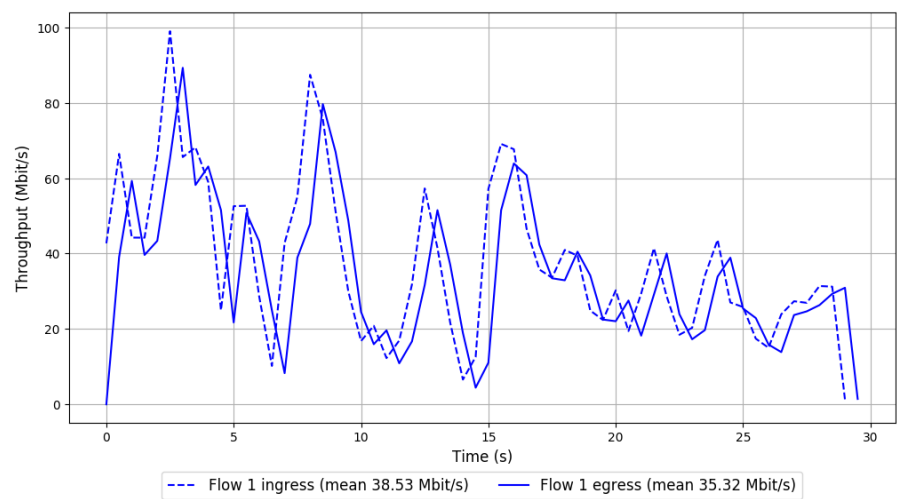

Flow 1 (95th percentile 10.37 ms)

```
Run 1: Statistics of Indigo-MusesT

Start at: 2019-03-18 19:28:26
End at: 2019-03-18 19:28:56
Local clock offset: -10.97 ms
Remote clock offset: -7.332 ms


# Below is generated by plot.py at 2019-03-18 21:27:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.97 Mbit/s
95th percentile per-packet one-way delay: 5.408 ms
Loss rate: 5.57%
-- Flow 1:
Average throughput: 54.97 Mbit/s
95th percentile per-packet one-way delay: 5.408 ms
Loss rate: 5.57%
```
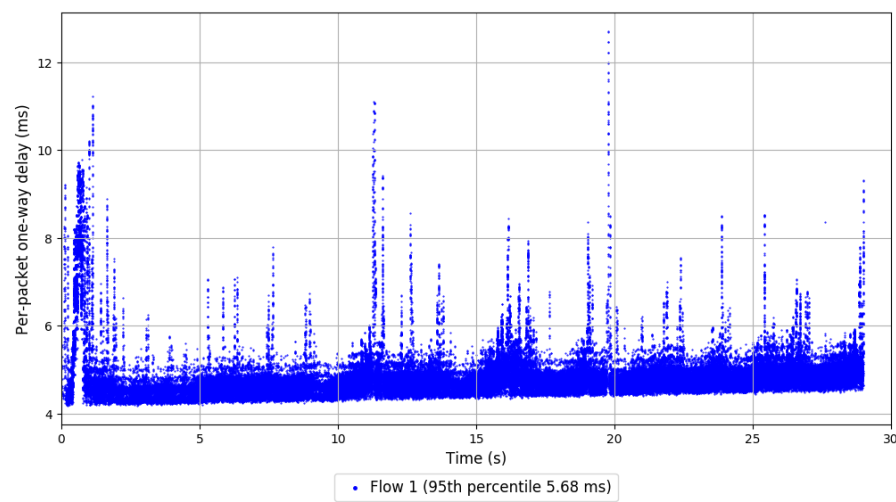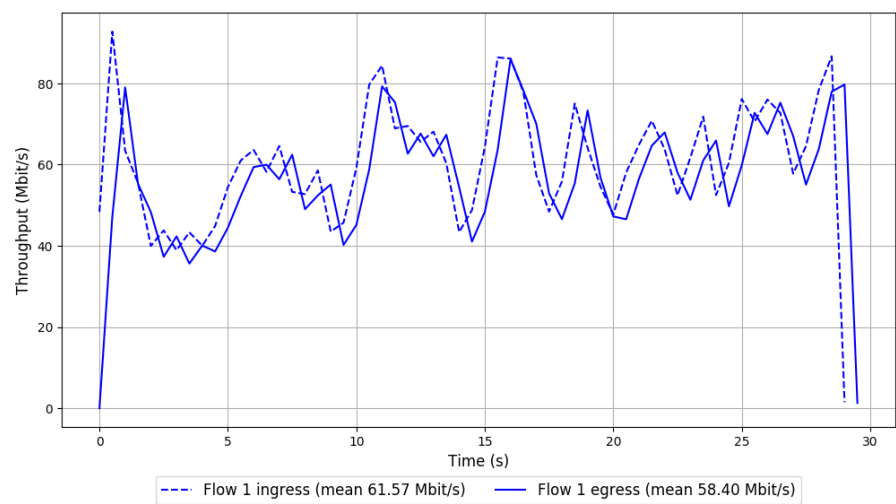
Run 1: Report of Indigo-MusesT — Data Link

```
Run 2: Statistics of Indigo-MusesT

Start at: 2019-03-18 19:52:19
End at: 2019-03-18 19:52:49
Local clock offset: -7.679 ms
Remote clock offset: -9.504 ms


# Below is generated by plot.py at 2019-03-18 21:27:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 3.744 ms
Loss rate: 8.33%
-- Flow 1:
Average throughput: 35.32 Mbit/s
95th percentile per-packet one-way delay: 3.744 ms
Loss rate: 8.33%
```
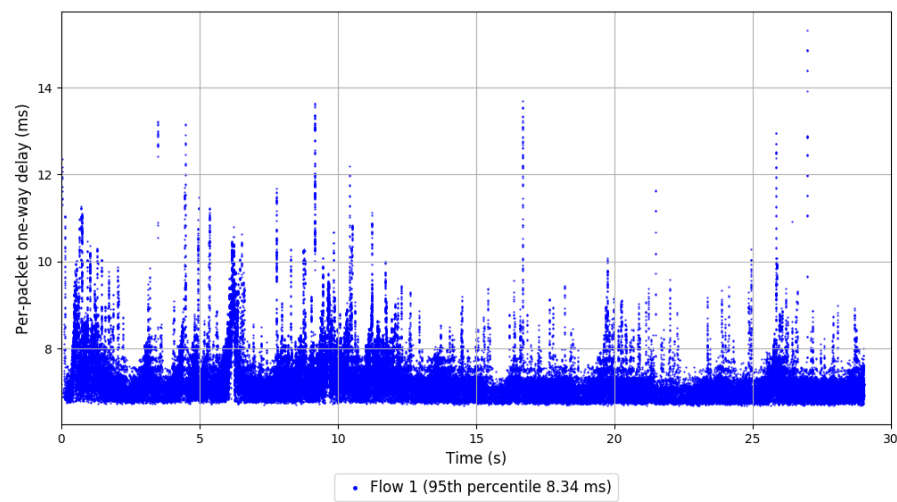
Run 2: Report of Indigo-MusesT — Data Link

```
Run 3: Statistics of Indigo-MusesT

Start at: 2019-03-18 20:16:03
End at: 2019-03-18 20:16:33
Local clock offset: -9.314 ms
Remote clock offset: -8.688 ms


# Below is generated by plot.py at 2019-03-18 21:27:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 5.685 ms
Loss rate: 5.14%
-- Flow 1:
Average throughput: 58.40 Mbit/s
95th percentile per-packet one-way delay: 5.685 ms
Loss rate: 5.14%
```

Run 3: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 61.57 Mbit/s) ----- Flow 1 egress (mean 58.40 Mbit/s)
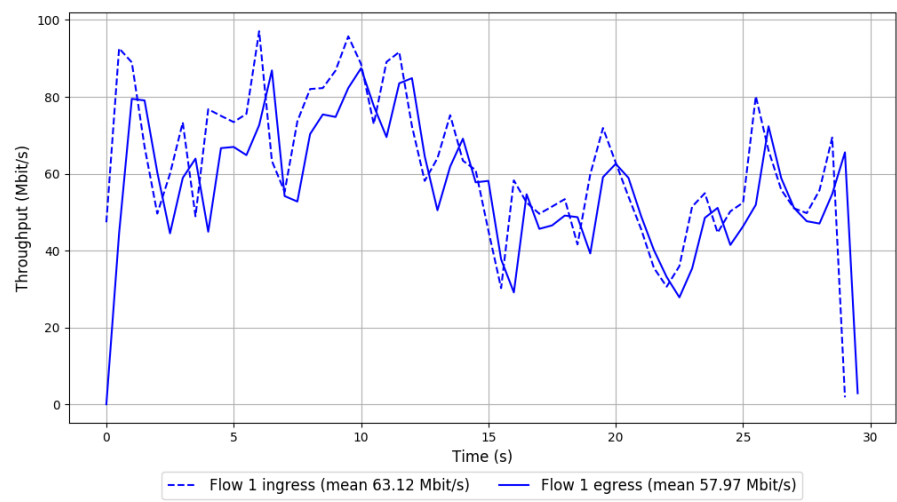

Flow 1 (95th percentile 5.68 ms)

```
Run 4: Statistics of Indigo-MusesT

Start at: 2019-03-18 20:39:38
End at: 2019-03-18 20:40:08
Local clock offset: -5.357 ms
Remote clock offset: -7.198 ms


# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.97 Mbit/s
95th percentile per-packet one-way delay: 8.344 ms
Loss rate: 8.16%
-- Flow 1:
Average throughput: 57.97 Mbit/s
95th percentile per-packet one-way delay: 8.344 ms
Loss rate: 8.16%
```
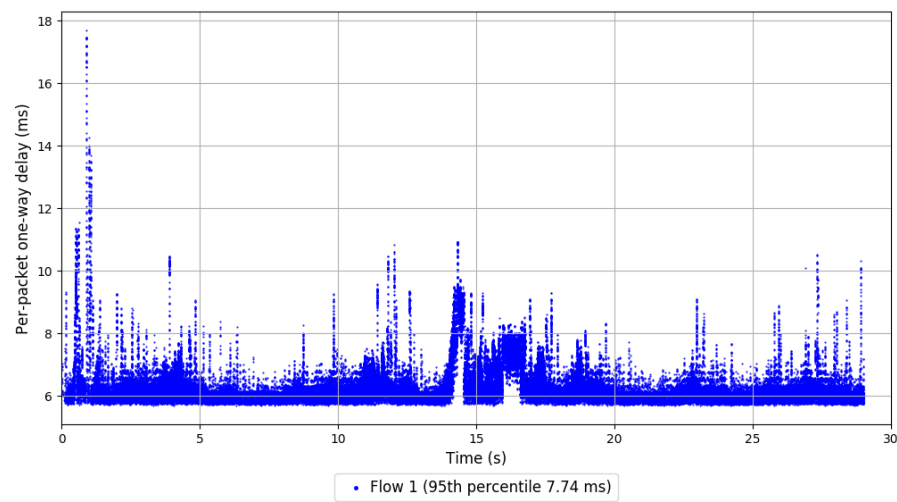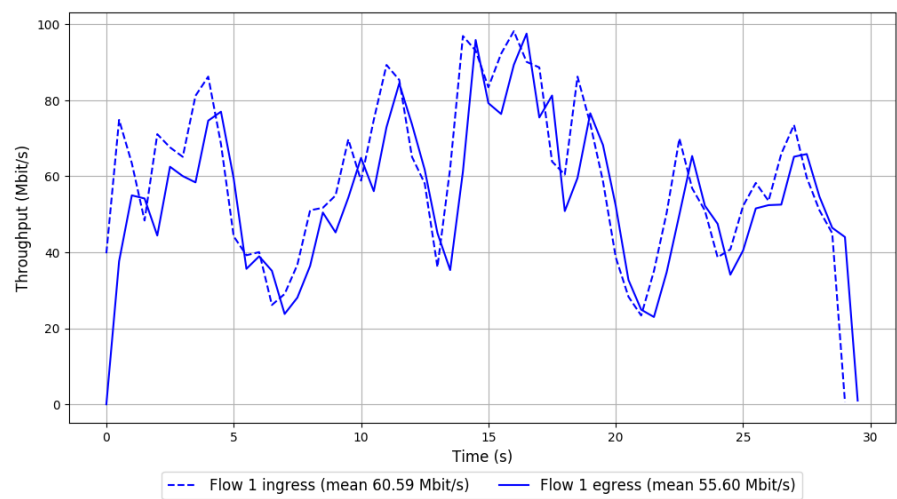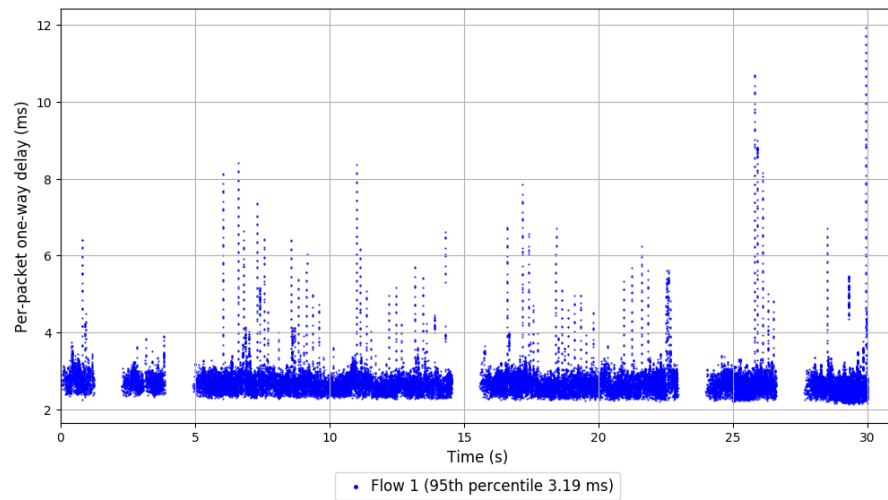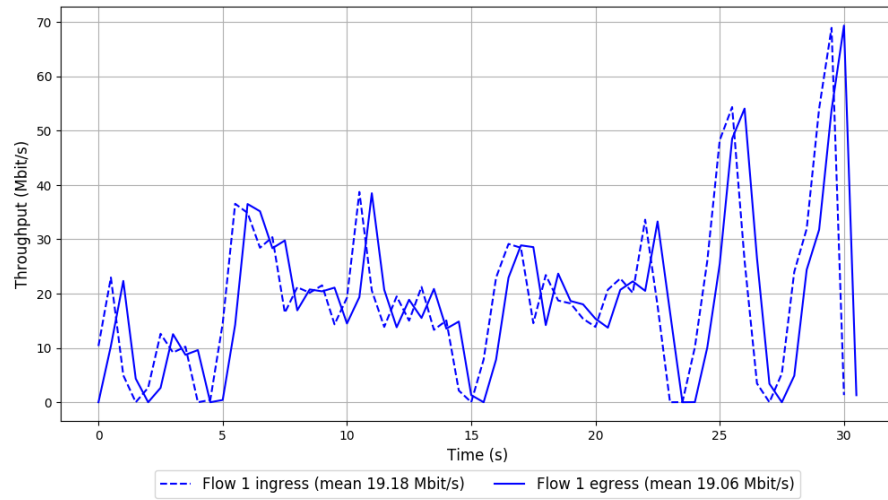
Run 4: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 63.12 Mbit/s)   Flow 1 egress (mean 57.97 Mbit/s)

Flow 1 (95th percentile 8.34 ms)

```
Run 5: Statistics of Indigo-MusesT

Start at: 2019-03-18 21:03:04
End at: 2019-03-18 21:03:34
Local clock offset: -1.425 ms
Remote clock offset: -6.781 ms


# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 7.740 ms
Loss rate: 8.23%
-- Flow 1:
Average throughput: 55.60 Mbit/s
95th percentile per-packet one-way delay: 7.740 ms
Loss rate: 8.23%
```

Run 5: Report of Indigo-MusesT — Data Link

Flow 1 ingress (mean 60.59 Mbit/s) ----   Flow 1 egress (mean 55.60 Mbit/s) ——
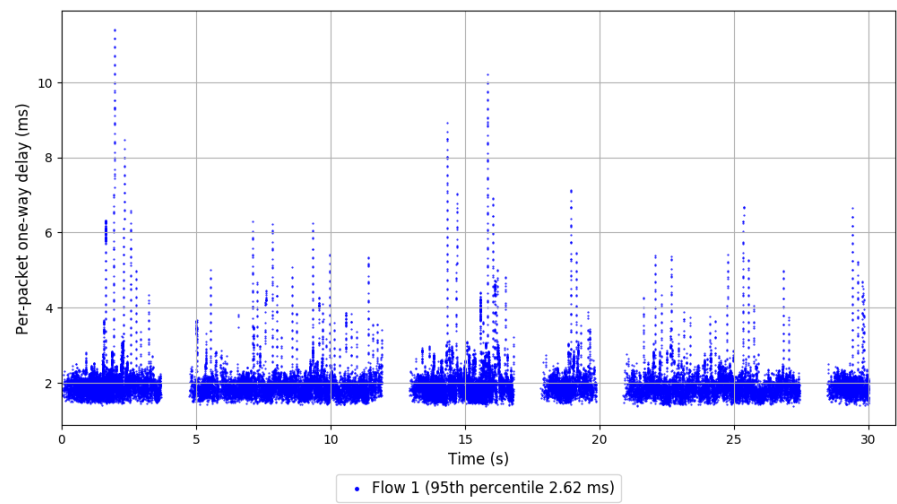

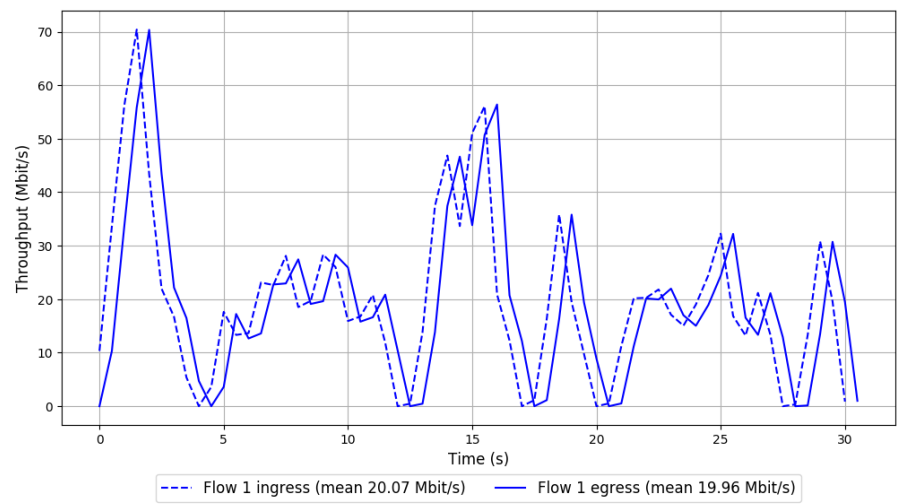• Flow 1 (95th percentile 7.74 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2019-03-18 19:42:13
End at: 2019-03-18 19:42:43
Local clock offset: -11.039 ms
Remote clock offset: -8.212 ms


# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.06 Mbit/s
95th percentile per-packet one-way delay: 3.192 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 19.06 Mbit/s
95th percentile per-packet one-way delay: 3.192 ms
Loss rate: 0.61%
```

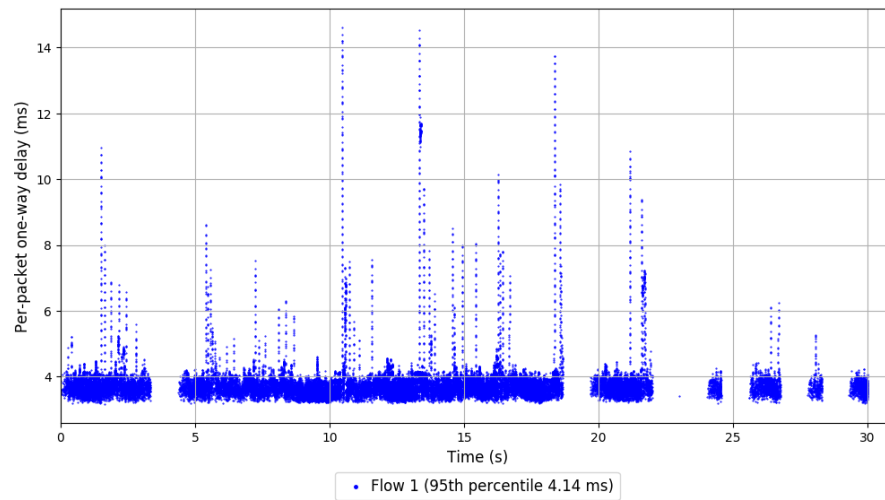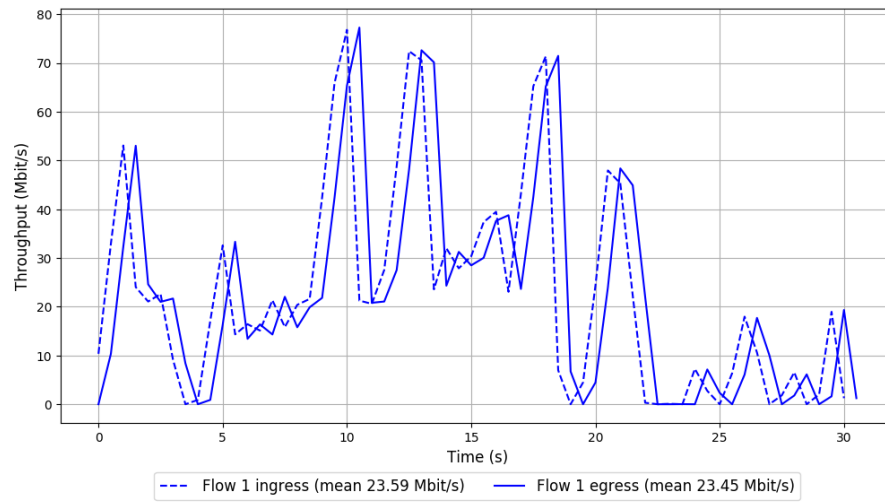# Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2019-03-18 20:05:58
End at: 2019-03-18 20:06:28
Local clock offset: -6.267 ms
Remote clock offset: -9.898 ms


# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 2.625 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 19.96 Mbit/s
95th percentile per-packet one-way delay: 2.625 ms
Loss rate: 0.55%
```

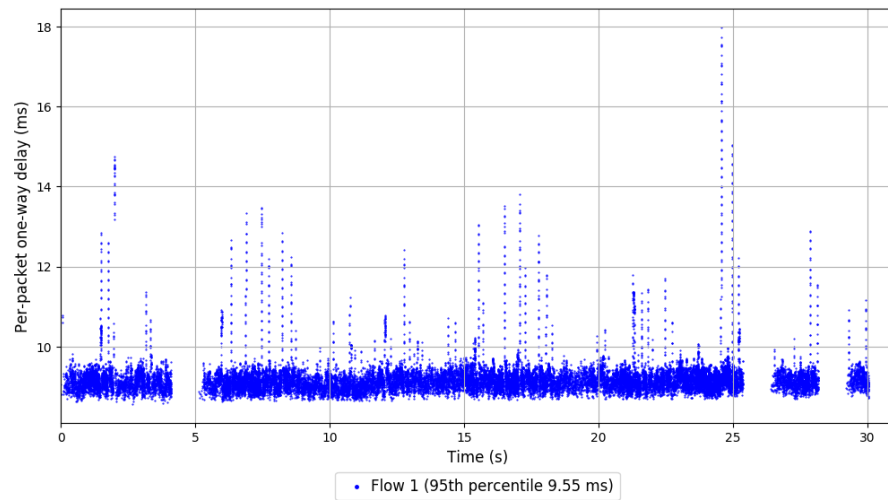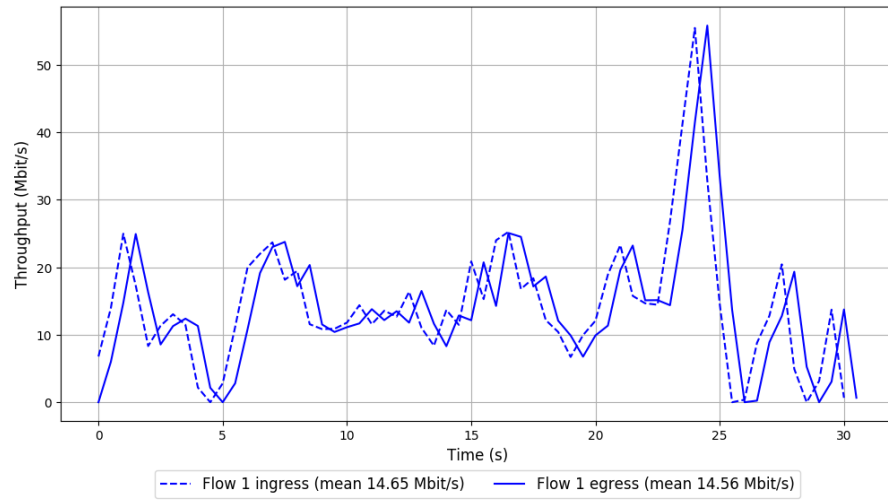Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2019-03-18 20:29:39
End at: 2019-03-18 20:30:09
Local clock offset: -5.328 ms
Remote clock offset: -9.743 ms

# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 4.139 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 23.45 Mbit/s
95th percentile per-packet one-way delay: 4.139 ms
Loss rate: 0.56%
```
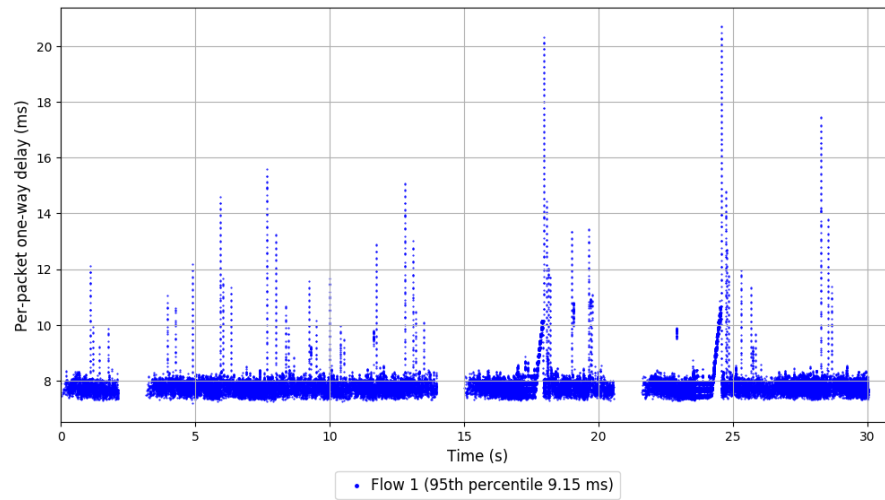
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2019-03-18 20:53:07
End at: 2019-03-18 20:53:37
Local clock offset: -5.088 ms
Remote clock offset: -6.929 ms

# Below is generated by plot.py at 2019-03-18 21:27:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.56 Mbit/s
95th percentile per-packet one-way delay: 9.548 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 14.56 Mbit/s
95th percentile per-packet one-way delay: 9.548 ms
Loss rate: 0.66%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 14.65 Mbit/s) ----   Flow 1 egress (mean 14.56 Mbit/s) ——

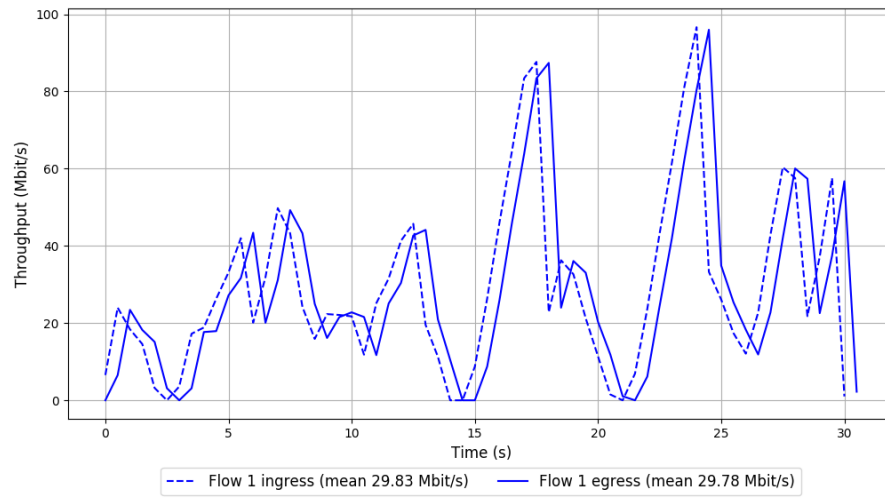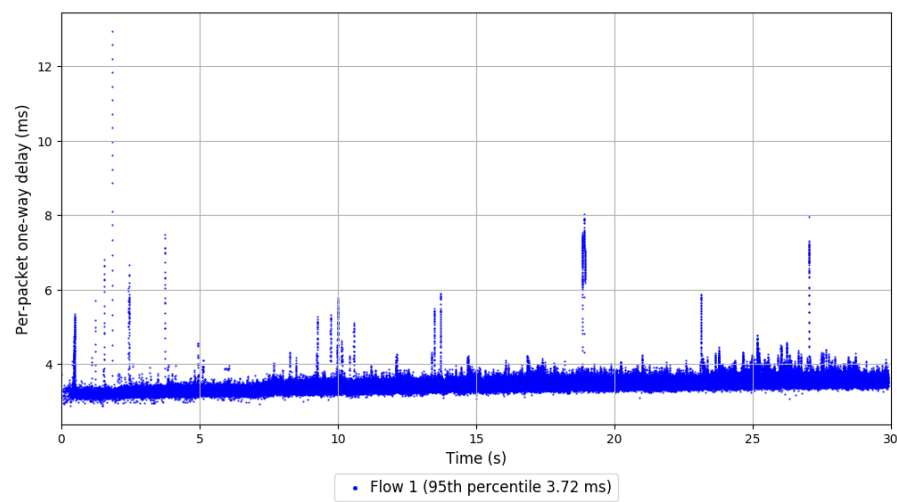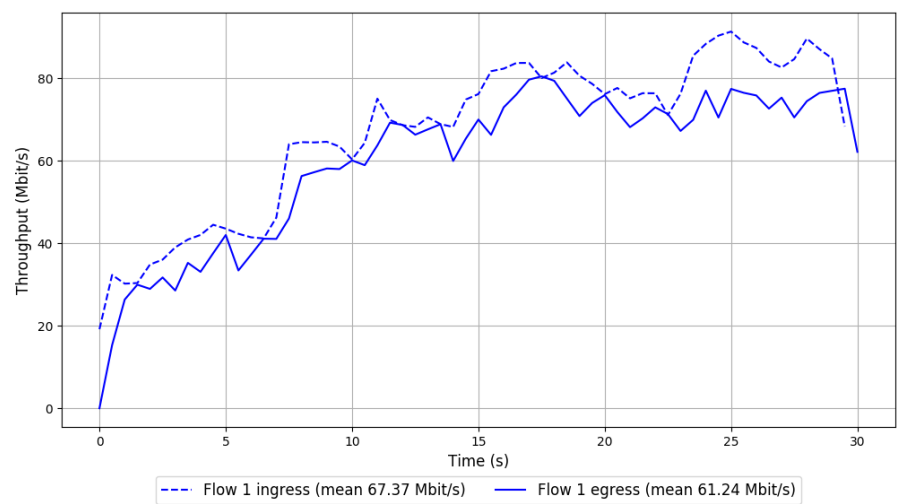Flow 1 (95th percentile 9.55 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2019-03-18 21:16:34
End at: 2019-03-18 21:17:04
Local clock offset: -3.089 ms
Remote clock offset: -6.024 ms


# Below is generated by plot.py at 2019-03-18 21:27:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 9.149 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 29.78 Mbit/s
95th percentile per-packet one-way delay: 9.149 ms
Loss rate: 0.18%
```

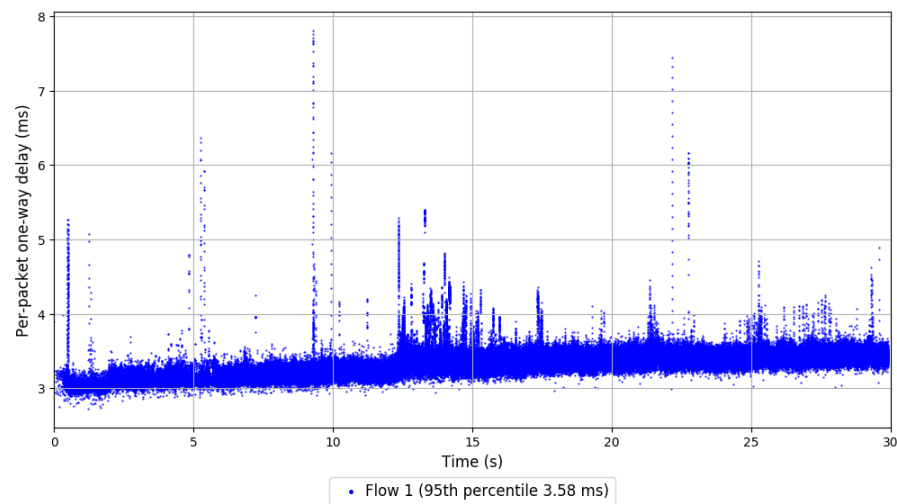Run 5: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2019-03-18 19:27:20
End at: 2019-03-18 19:27:50
Local clock offset: -11.055 ms
Remote clock offset: -7.264 ms


# Below is generated by plot.py at 2019-03-18 21:28:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.24 Mbit/s
95th percentile per-packet one-way delay: 3.717 ms
Loss rate: 9.10%
-- Flow 1:
Average throughput: 61.24 Mbit/s
95th percentile per-packet one-way delay: 3.717 ms
Loss rate: 9.10%
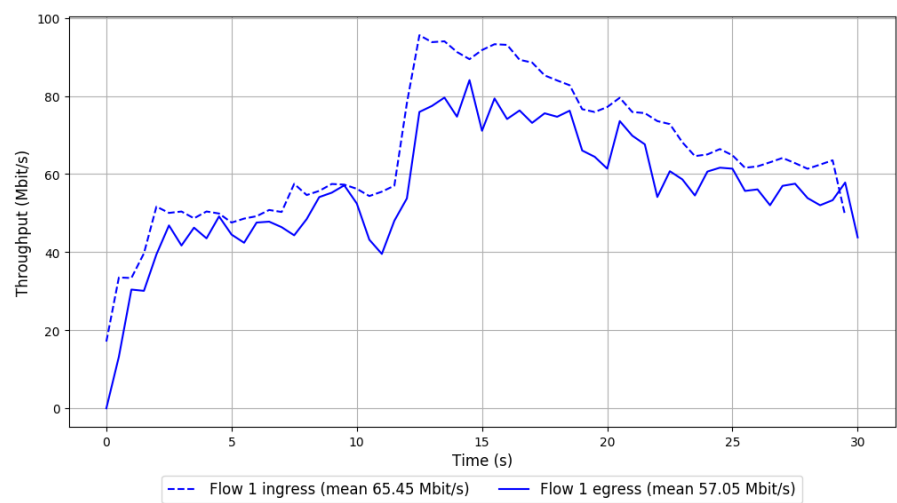```

Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2019-03-18 19:51:05
End at: 2019-03-18 19:51:35
Local clock offset: -8.629 ms
Remote clock offset: -8.666 ms


# Below is generated by plot.py at 2019-03-18 21:28:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 3.578 ms
Loss rate: 12.83%
-- Flow 1:
Average throughput: 57.05 Mbit/s
95th percentile per-packet one-way delay: 3.578 ms
Loss rate: 12.83%
```

Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2019-03-18 20:14:56
End at: 2019-03-18 20:15:26
Local clock offset: -9.542 ms
Remote clock offset: -9.479 ms


# Below is generated by plot.py at 2019-03-18 21:28:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.50 Mbit/s
95th percentile per-packet one-way delay: 4.112 ms
Loss rate: 11.02%
-- Flow 1:
Average throughput: 67.50 Mbit/s
95th percentile per-packet one-way delay: 4.112 ms
Loss rate: 11.02%
```
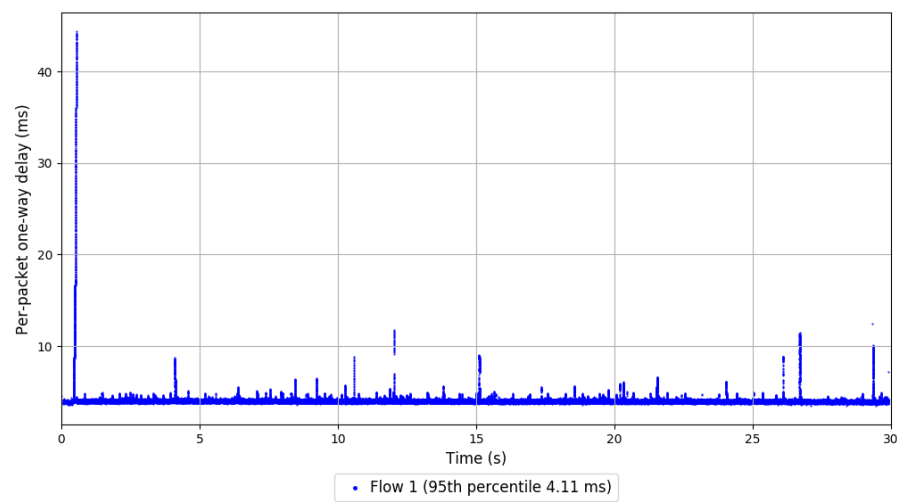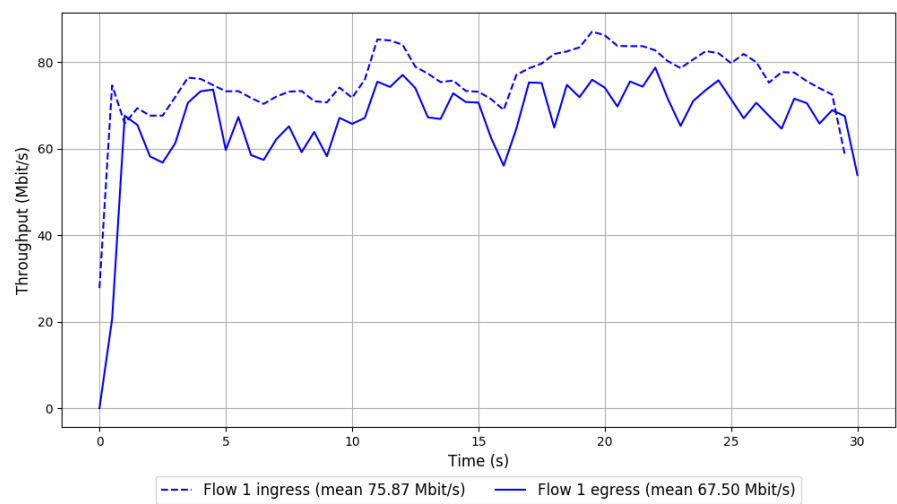
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 75.87 Mbit/s)   Flow 1 egress (mean 67.50 Mbit/s)
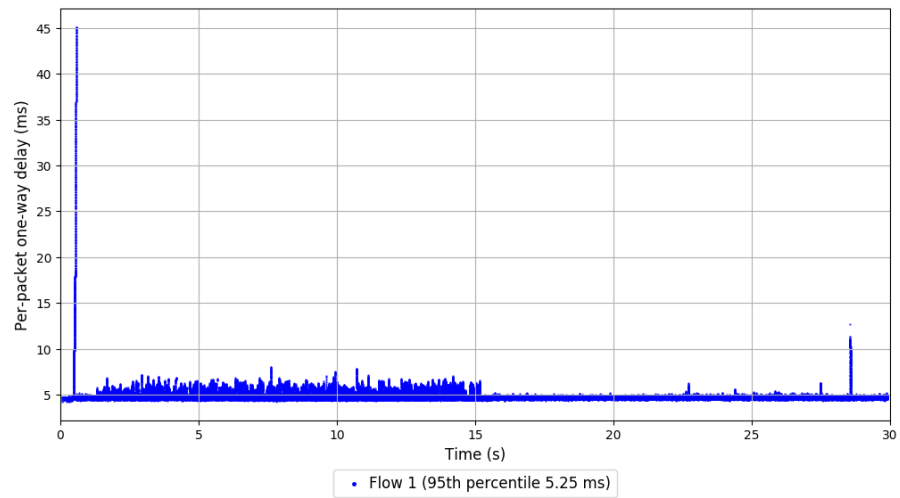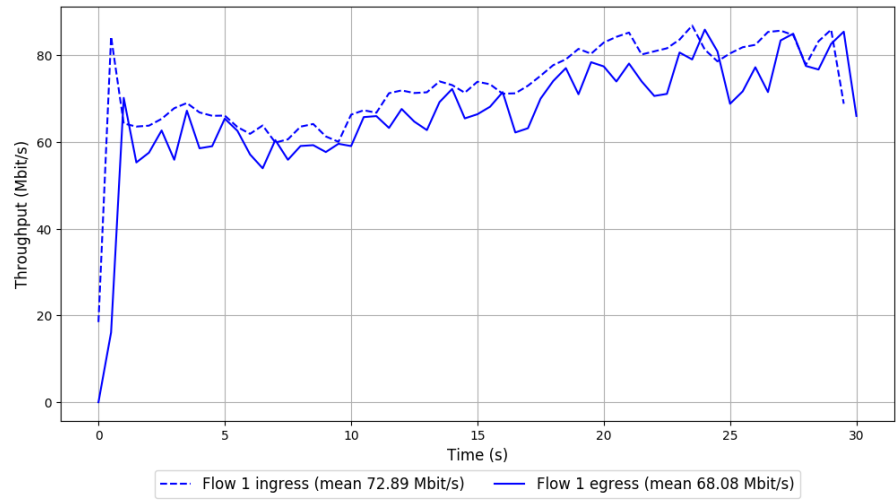

Flow 1 (95th percentile 4.11 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2019-03-18 20:38:31
End at: 2019-03-18 20:39:01
Local clock offset: -3.743 ms
Remote clock offset: -8.019 ms


# Below is generated by plot.py at 2019-03-18 21:28:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.08 Mbit/s
95th percentile per-packet one-way delay: 5.247 ms
Loss rate: 6.61%
-- Flow 1:
Average throughput: 68.08 Mbit/s
95th percentile per-packet one-way delay: 5.247 ms
Loss rate: 6.61%
```

Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 72.89 Mbit/s) --- Flow 1 egress (mean 68.08 Mbit/s)
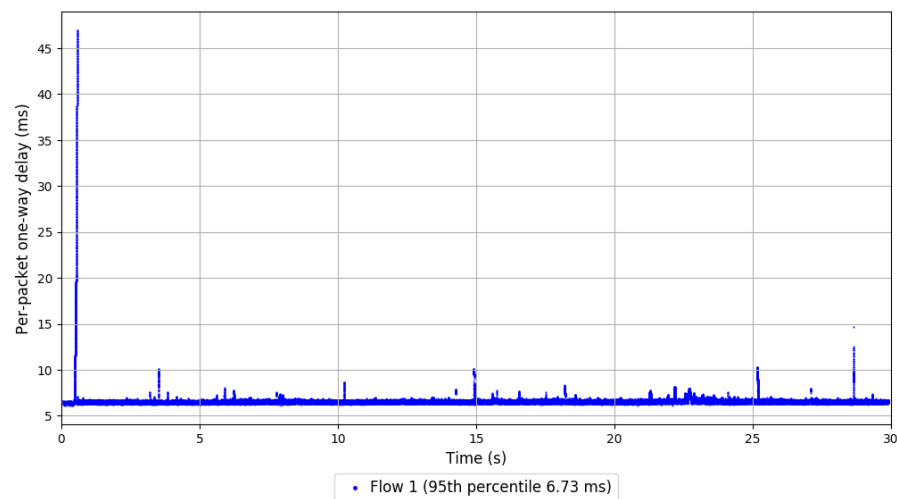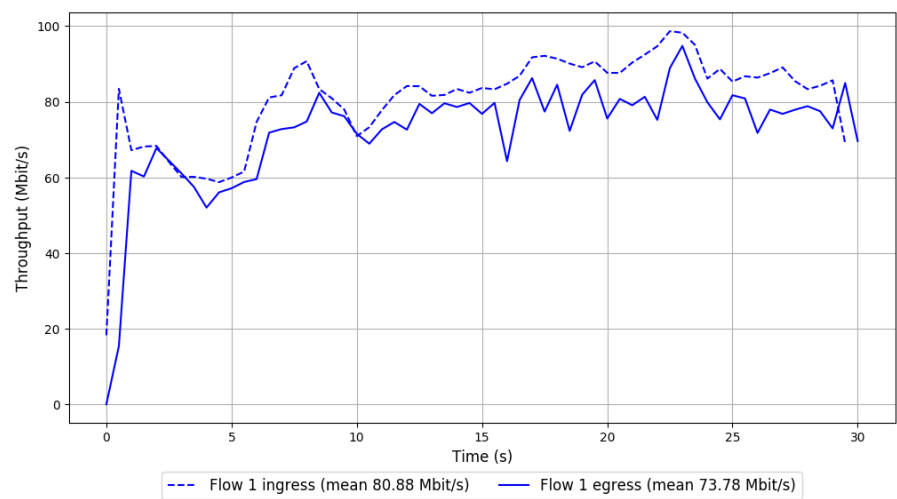

Flow 1 (95th percentile 5.25 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2019-03-18 21:01:57
End at: 2019-03-18 21:02:27
Local clock offset: -2.691 ms
Remote clock offset: -7.542 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.78 Mbit/s
95th percentile per-packet one-way delay: 6.726 ms
Loss rate: 8.78%
-- Flow 1:
Average throughput: 73.78 Mbit/s
95th percentile per-packet one-way delay: 6.726 ms
Loss rate: 8.78%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 80.88 Mbit/s) --- Flow 1 egress (mean 73.78 Mbit/s)

Flow 1 (95th percentile 6.73 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2019-03-18 19:33:00
End at: 2019-03-18 19:33:30
Local clock offset: -10.8 ms
Remote clock offset: -7.321 ms
```

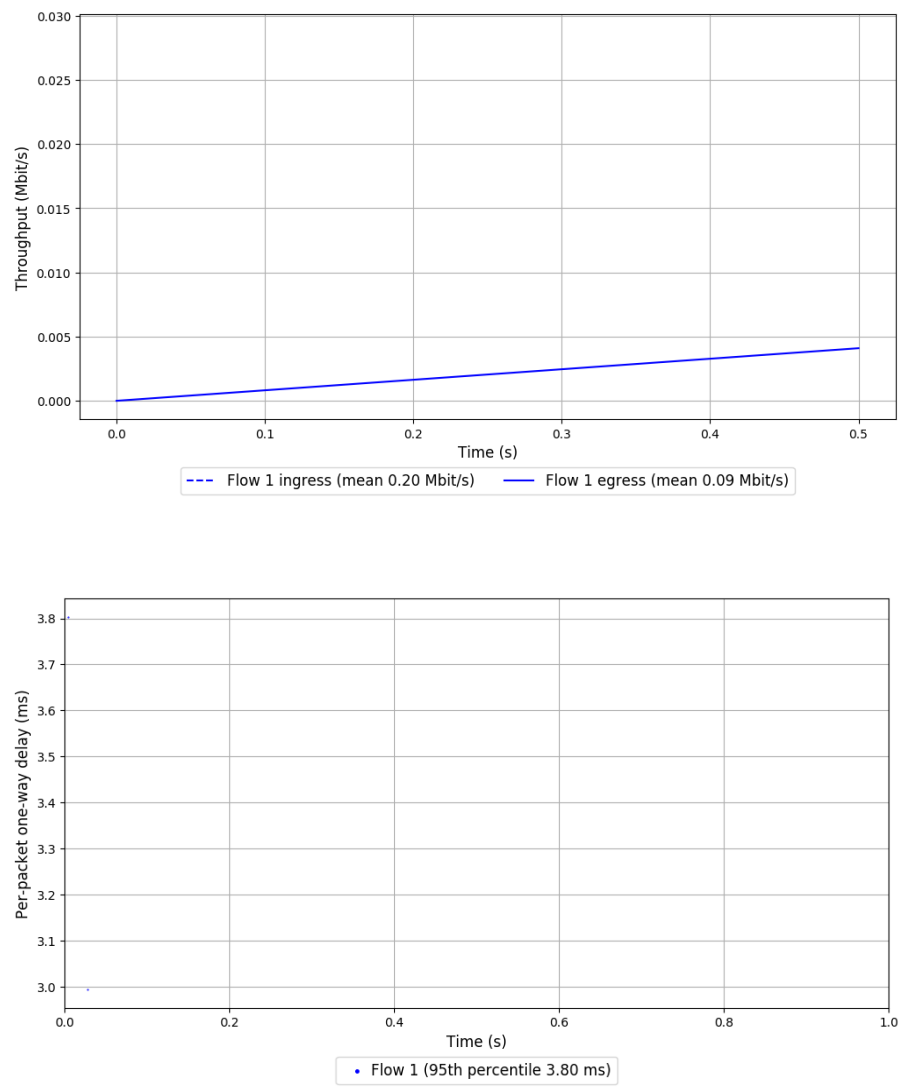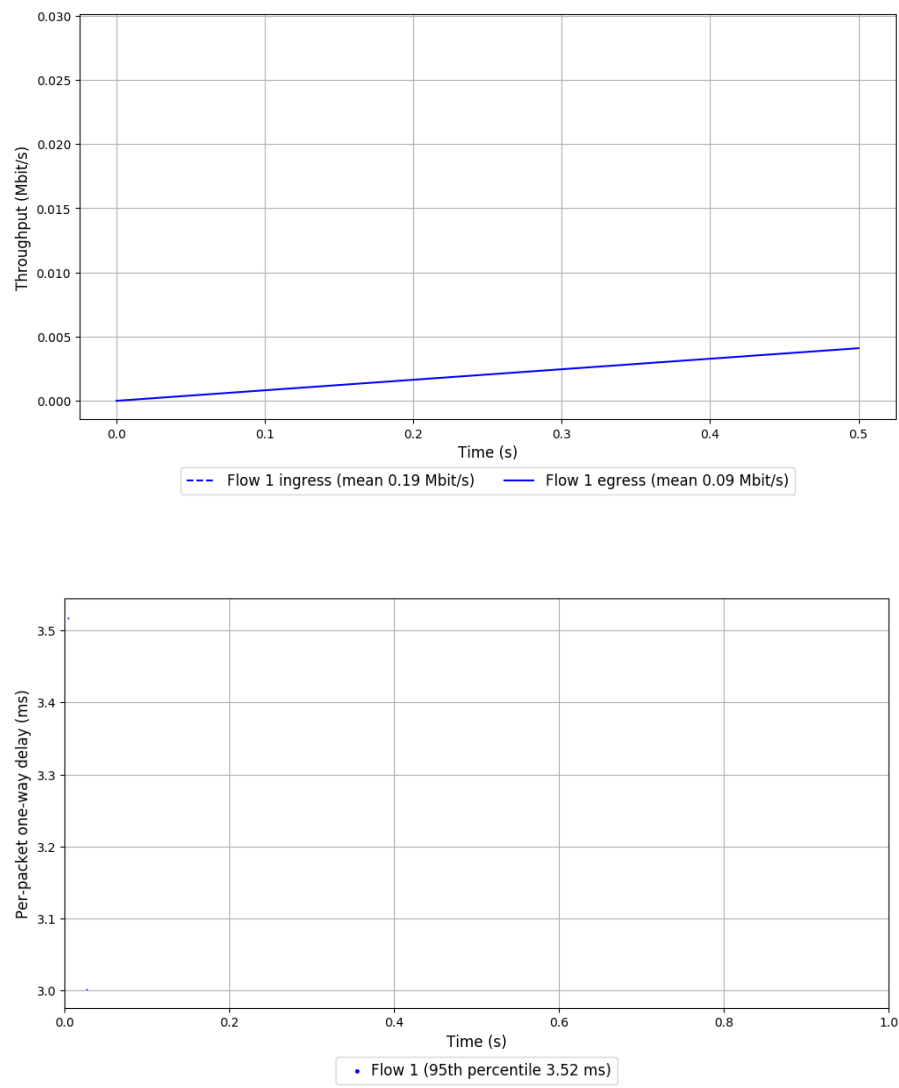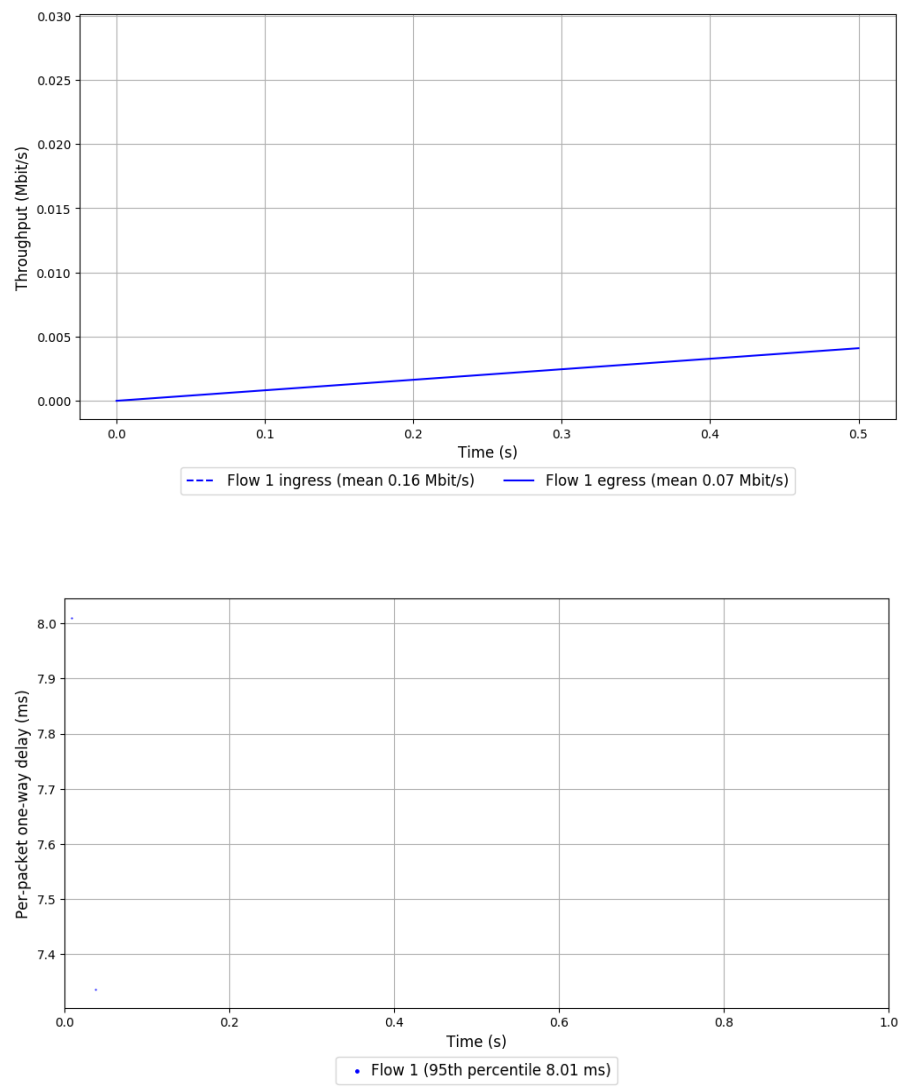# Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2019-03-18 19:56:55
End at: 2019-03-18 19:57:25
Local clock offset: -6.342 ms
Remote clock offset: -8.39 ms
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2019-03-18 20:20:36
End at: 2019-03-18 20:21:06
Local clock offset: -6.876 ms
Remote clock offset: -9.962 ms
```
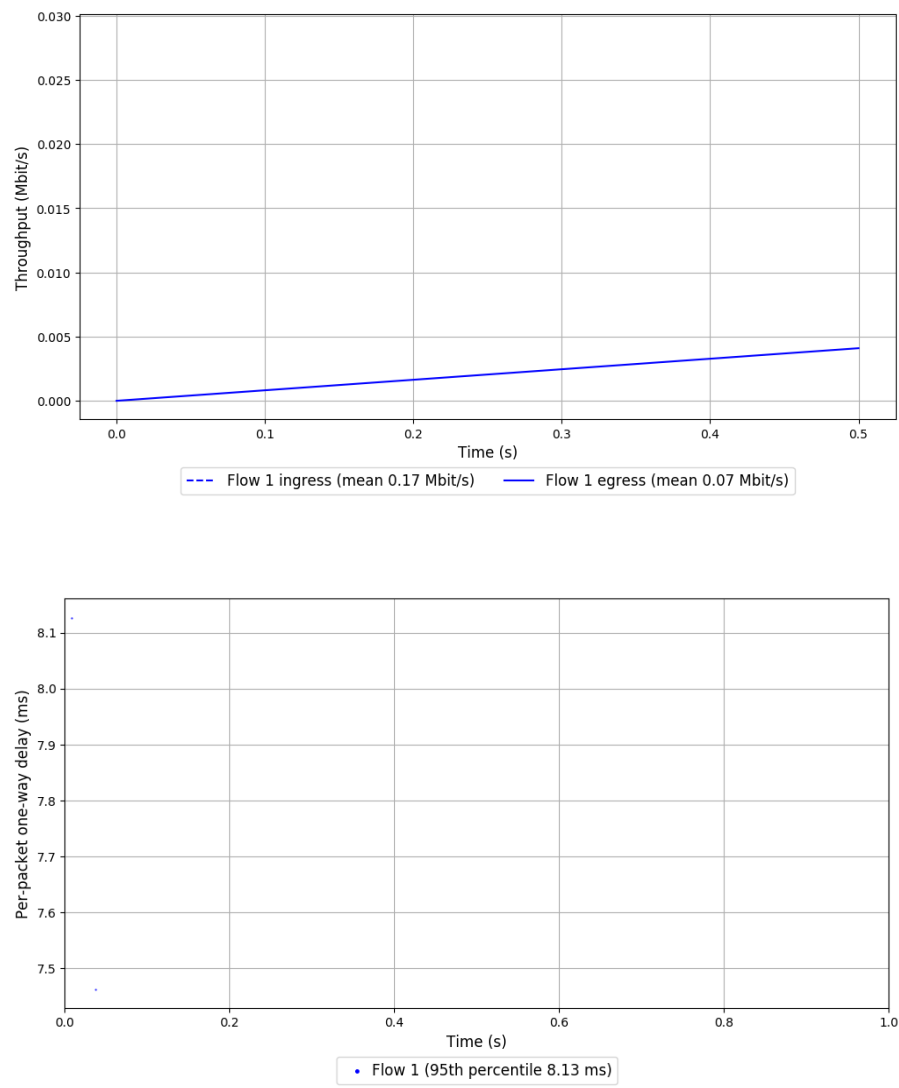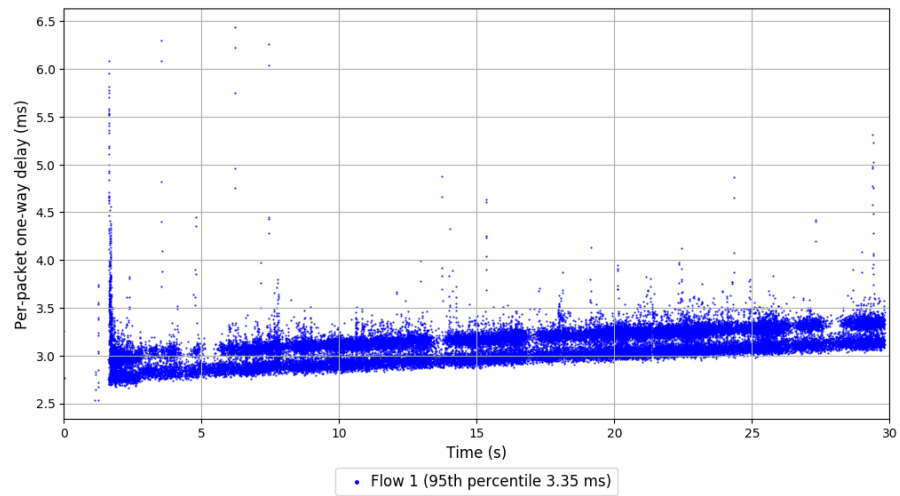
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 0.19 Mbit/s) --- Flow 1 egress (mean 0.09 Mbit/s)

Flow 1 (95th percentile 3.52 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2019-03-18 20:44:10
End at: 2019-03-18 20:44:40
Local clock offset: -5.943 ms
Remote clock offset: -6.842 ms
```

Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2019-03-18 21:07:35
End at: 2019-03-18 21:08:05
Local clock offset: -2.994 ms
Remote clock offset: -6.427 ms
```
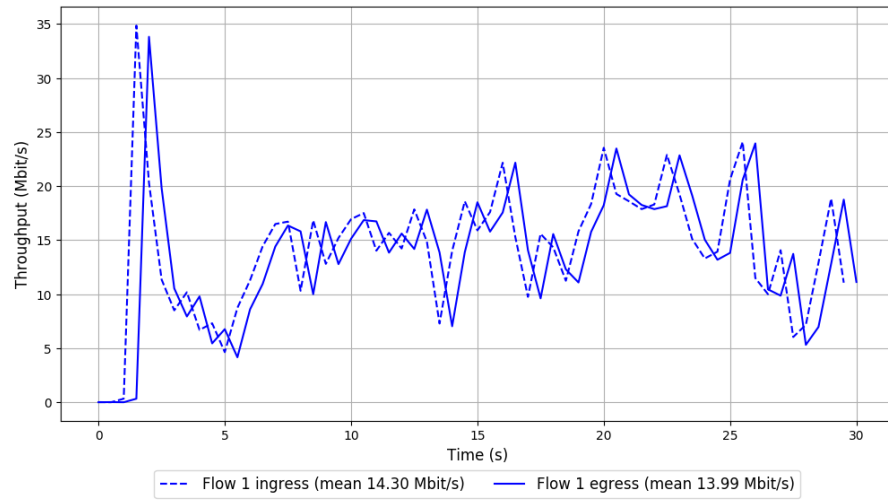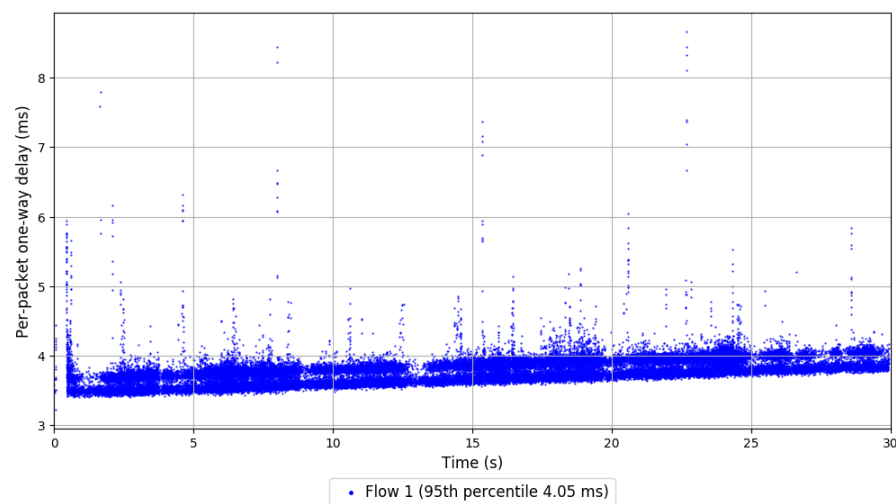
Run 5: Report of PCC-Expr — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: 2019-03-18 19:25:09
End at: 2019-03-18 19:25:39
Local clock offset: -12.554 ms
Remote clock offset: -7.792 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 3.351 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 13.99 Mbit/s
95th percentile per-packet one-way delay: 3.351 ms
Loss rate: 2.11%
```
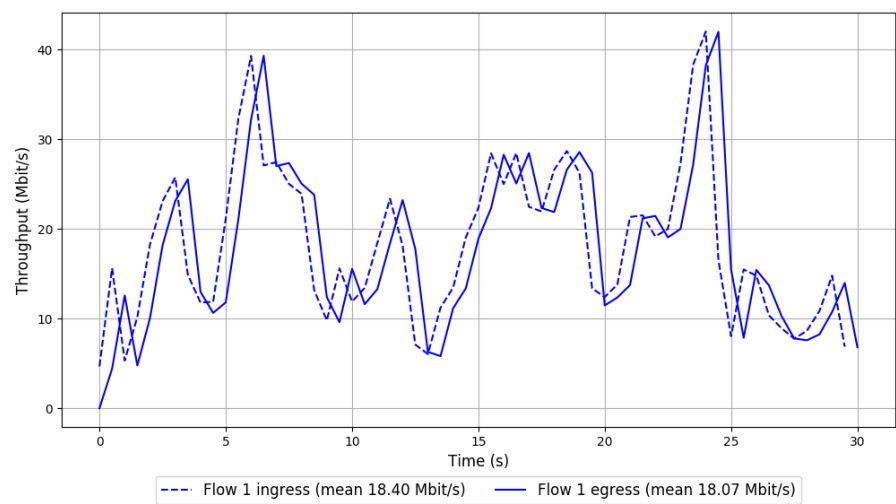
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2019-03-18 19:48:53
End at: 2019-03-18 19:49:23
Local clock offset: -10.122 ms
Remote clock offset: -8.147 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.07 Mbit/s
95th percentile per-packet one-way delay: 4.047 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 18.07 Mbit/s
95th percentile per-packet one-way delay: 4.047 ms
Loss rate: 1.75%
```

Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2019-03-18 20:12:44
End at: 2019-03-18 20:13:14
Local clock offset: -8.906 ms
Remote clock offset: -9.965 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 3.455 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 33.58 Mbit/s
95th percentile per-packet one-way delay: 3.455 ms
Loss rate: 0.46%
```
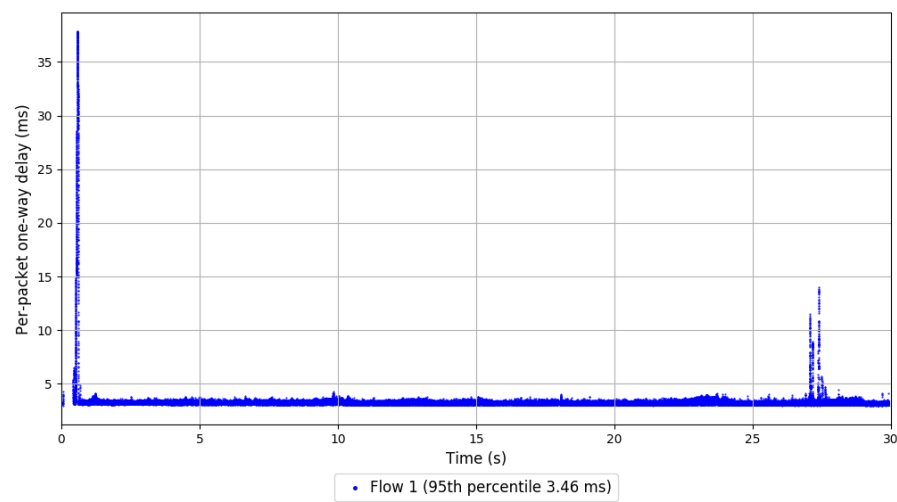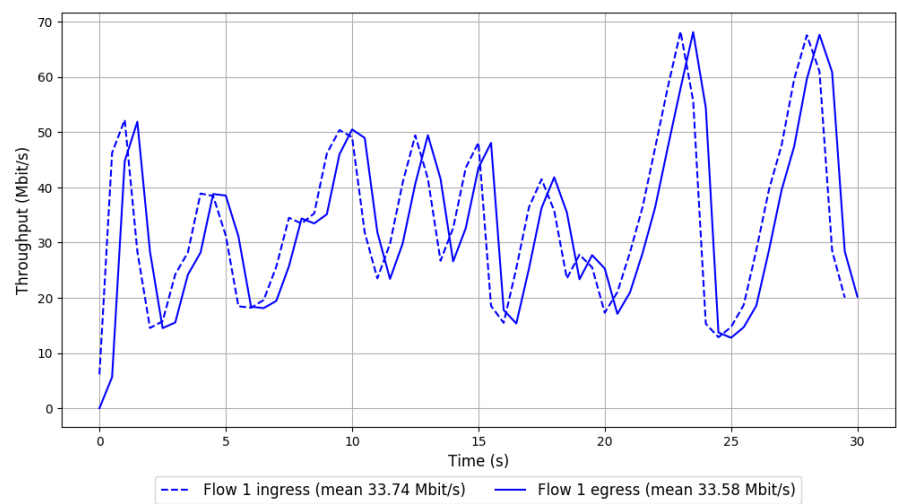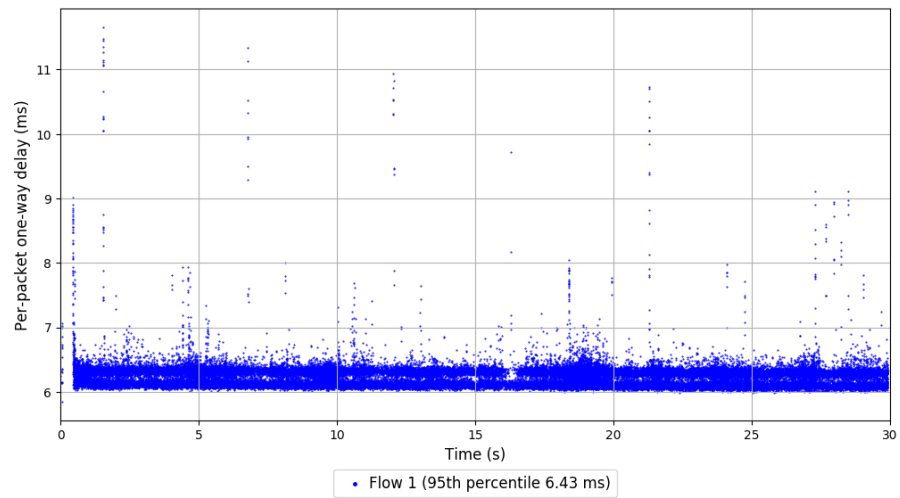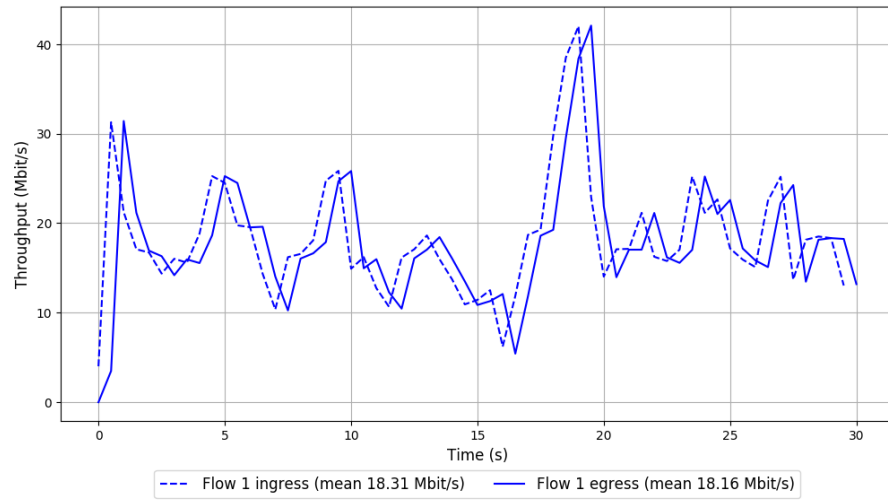
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2019-03-18 20:36:19
End at: 2019-03-18 20:36:49
Local clock offset: -4.175 ms
Remote clock offset: -6.973 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 18.16 Mbit/s
95th percentile per-packet one-way delay: 6.426 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 18.16 Mbit/s
95th percentile per-packet one-way delay: 6.426 ms
Loss rate: 0.83%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2019-03-18 20:59:45
End at: 2019-03-18 21:00:15
Local clock offset: -1.046 ms
Remote clock offset: -6.719 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 5.845 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 5.845 ms
Loss rate: 0.68%
```
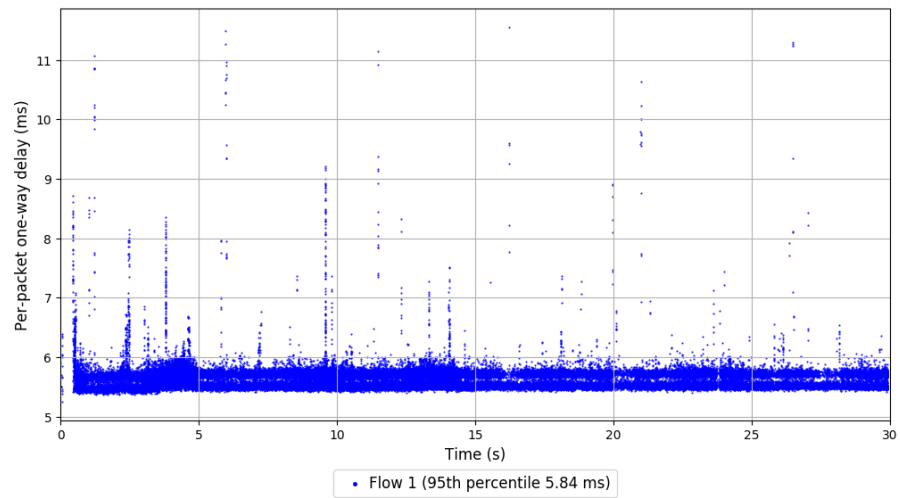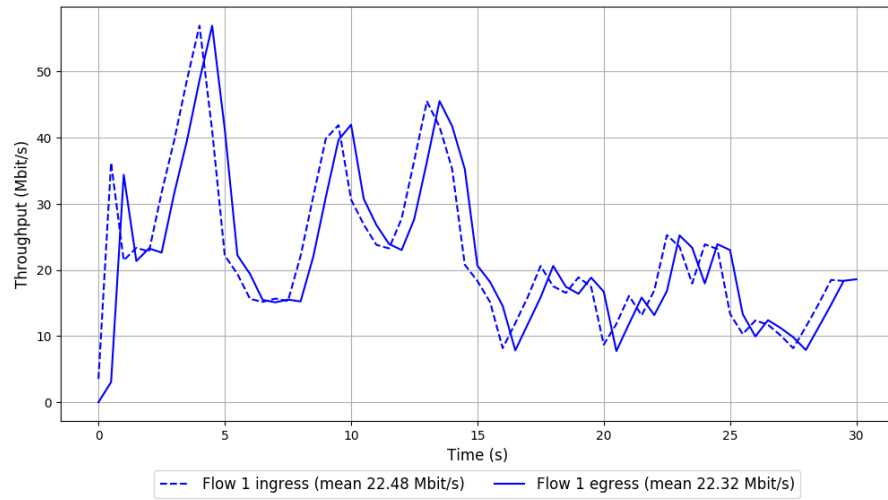
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 22.48 Mbit/s) — Flow 1 egress (mean 22.32 Mbit/s)

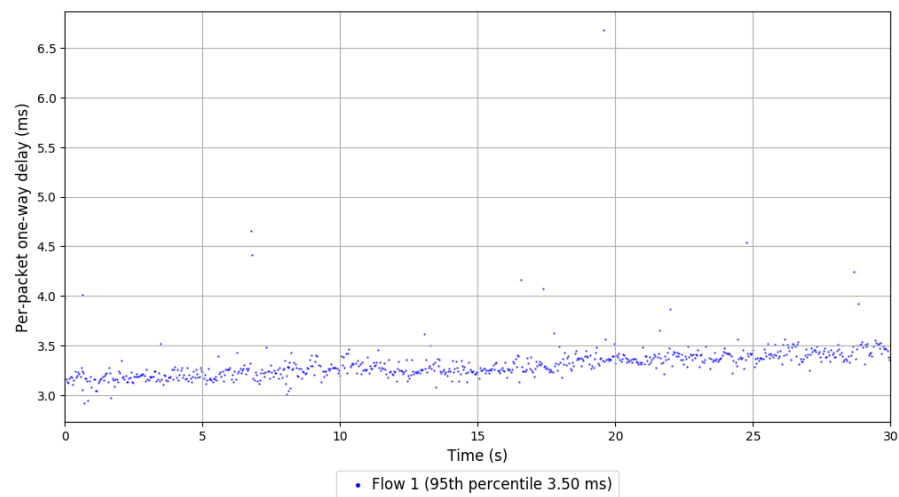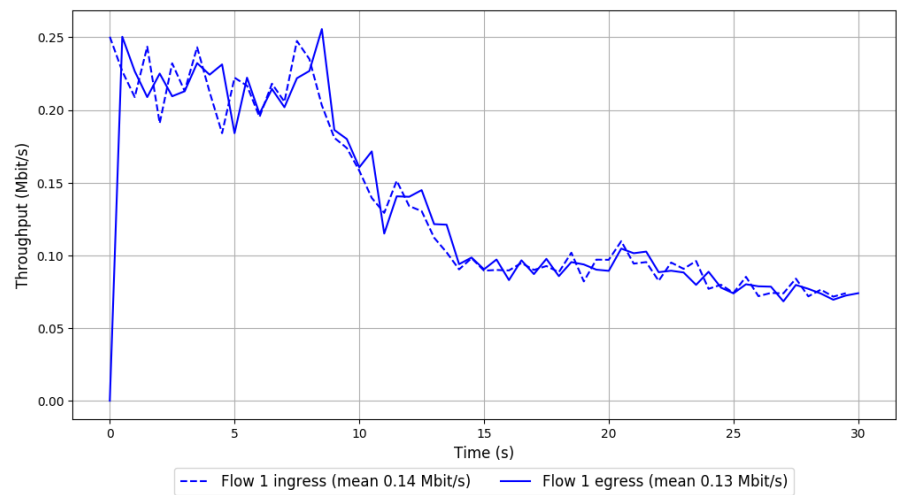Flow 1 (95th percentile 5.84 ms)

```
Run 1: Statistics of SCReAM

Start at: 2019-03-18 19:24:03
End at: 2019-03-18 19:24:33
Local clock offset: -13.364 ms
Remote clock offset: -7.404 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 3.504 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 3.504 ms
Loss rate: 0.82%
```

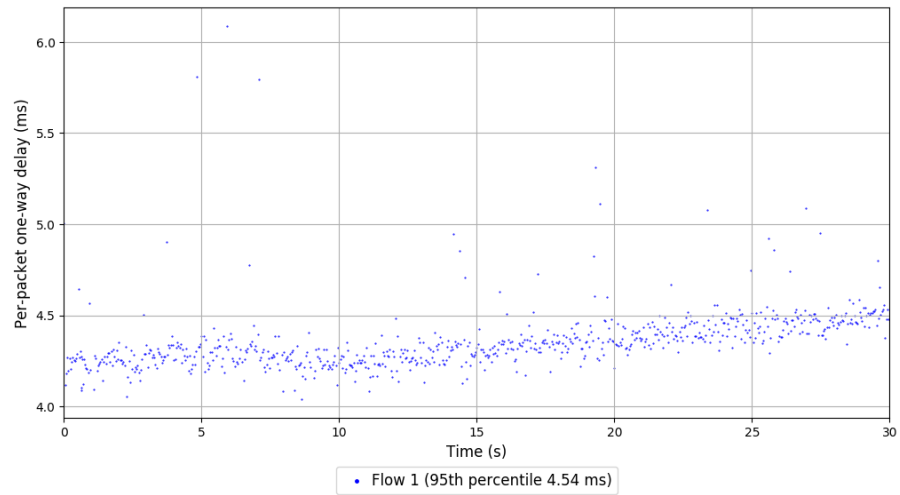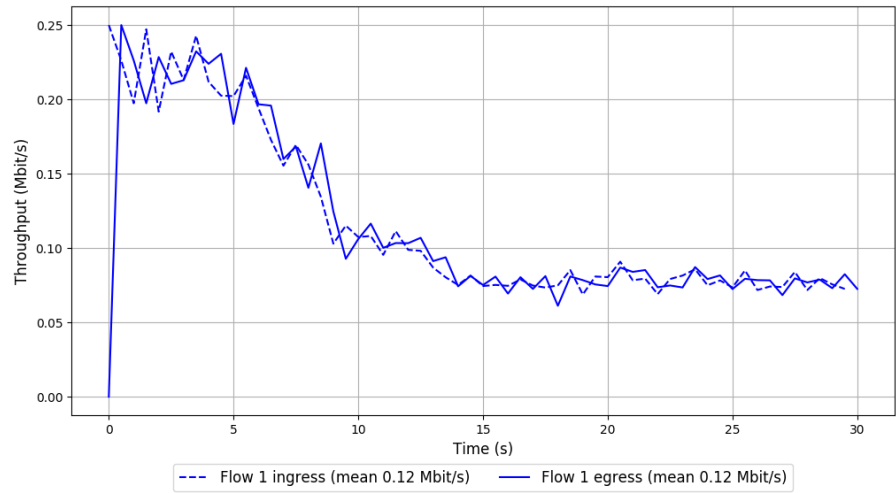Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2019-03-18 19:47:48
End at: 2019-03-18 19:48:18
Local clock offset: -11.395 ms
Remote clock offset: -7.887 ms

# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 4.541 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 4.541 ms
Loss rate: 0.82%
```

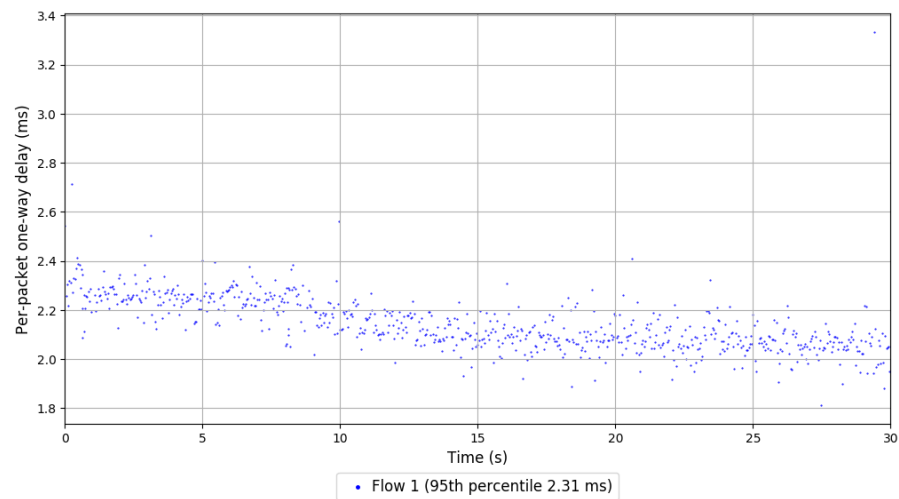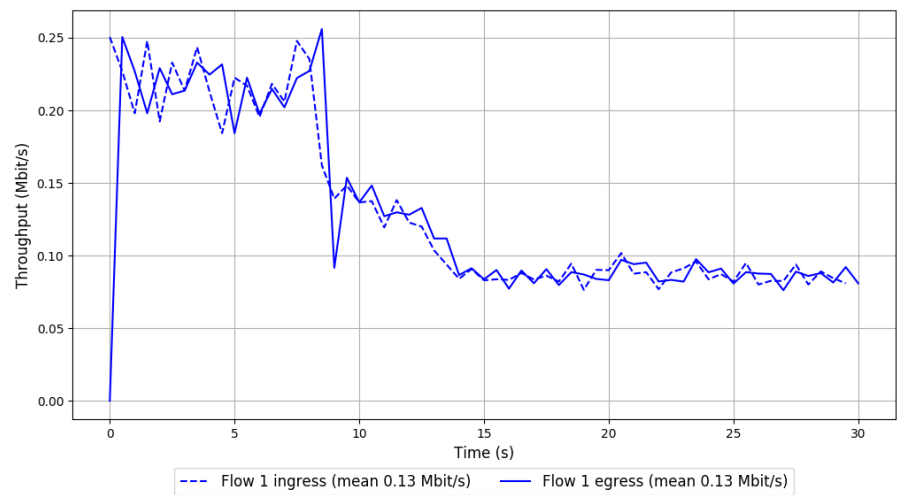Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2019-03-18 20:11:39
End at: 2019-03-18 20:12:09
Local clock offset: -7.116 ms
Remote clock offset: -9.308 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 2.306 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 2.306 ms
Loss rate: 0.71%
```

Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.13 Mbit/s) --- Flow 1 egress (mean 0.13 Mbit/s)

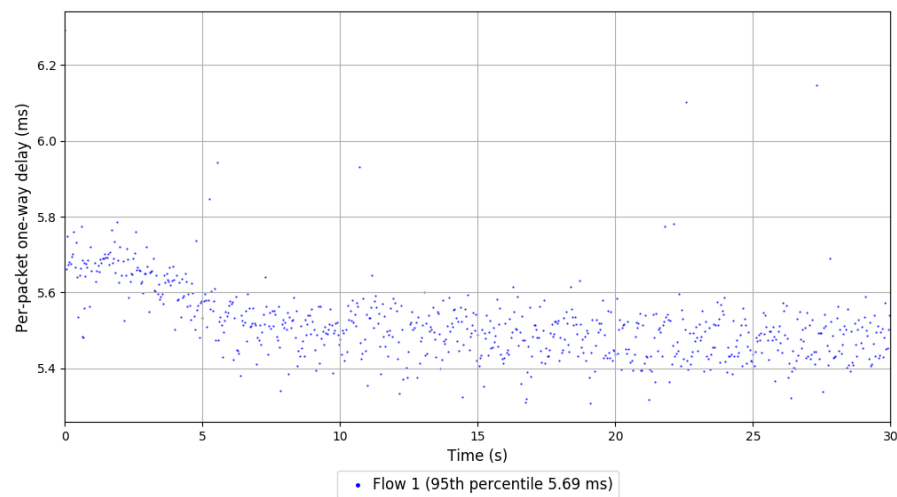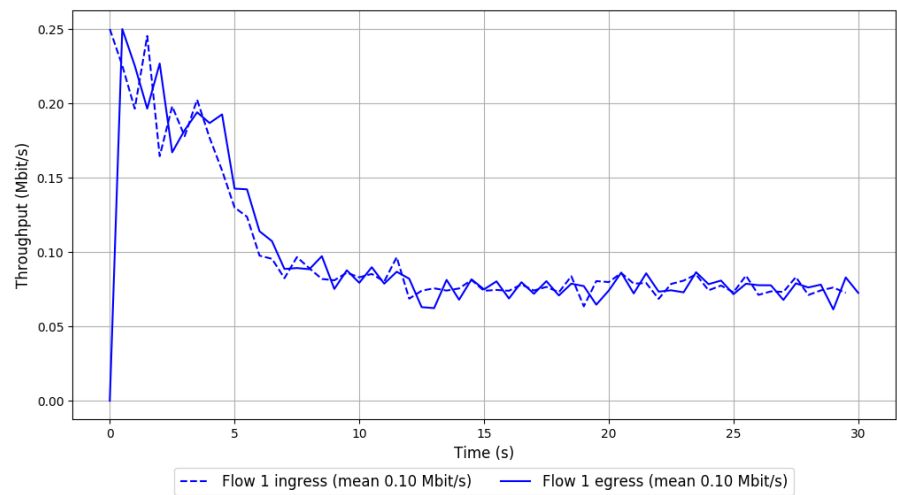• Flow 1 (95th percentile 2.31 ms)

```
Run 4: Statistics of SCReAM

Start at: 2019-03-18 20:35:14
End at: 2019-03-18 20:35:44
Local clock offset: -4.762 ms
Remote clock offset: -8.272 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 5.686 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 5.686 ms
Loss rate: 1.00%
```

Run 4: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.10 Mbit/s) --- Flow 1 egress (mean 0.10 Mbit/s)

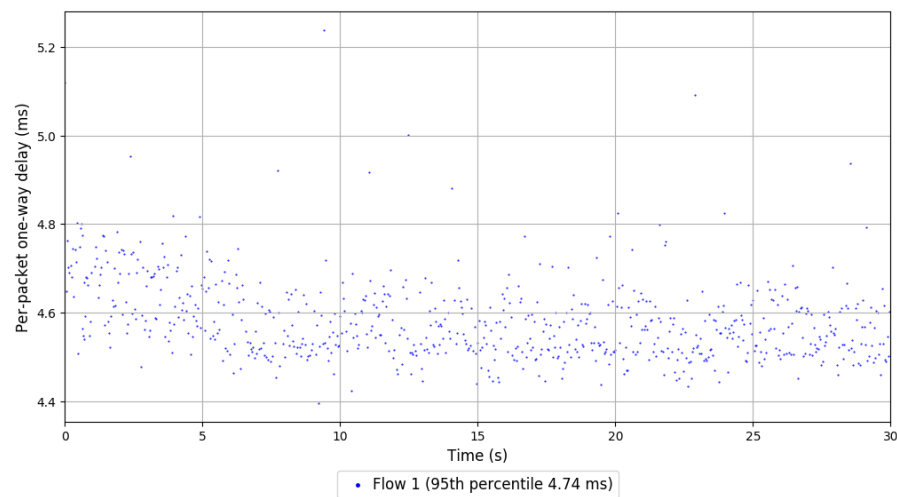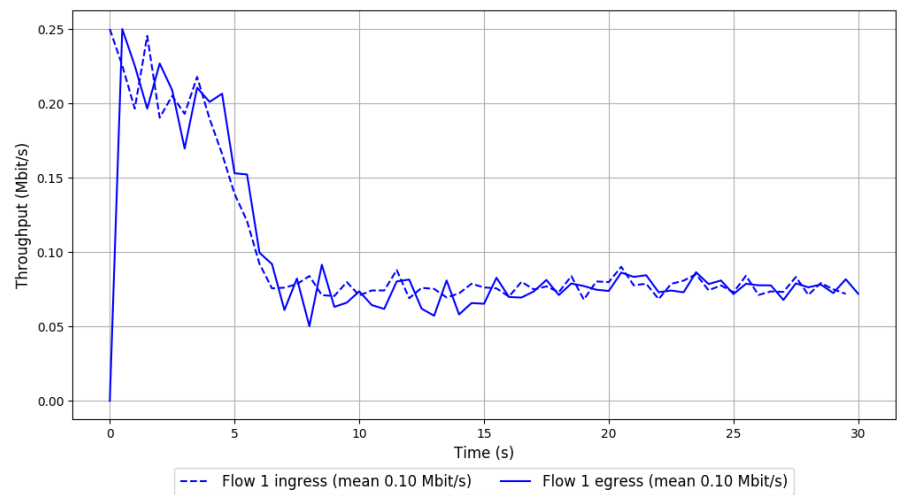Flow 1 (95th percentile 5.69 ms)

```
Run 5: Statistics of SCReAM

Start at: 2019-03-18 20:58:40
End at: 2019-03-18 20:59:11
Local clock offset: -1.63 ms
Remote clock offset: -8.174 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 4.742 ms
Loss rate: 2.62%
-- Flow 1:
Average throughput: 0.10 Mbit/s
95th percentile per-packet one-way delay: 4.742 ms
Loss rate: 2.62%
```

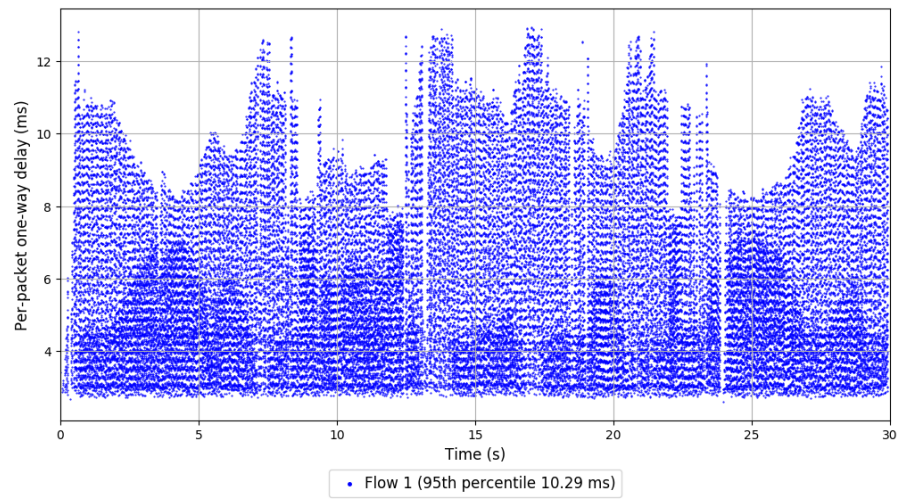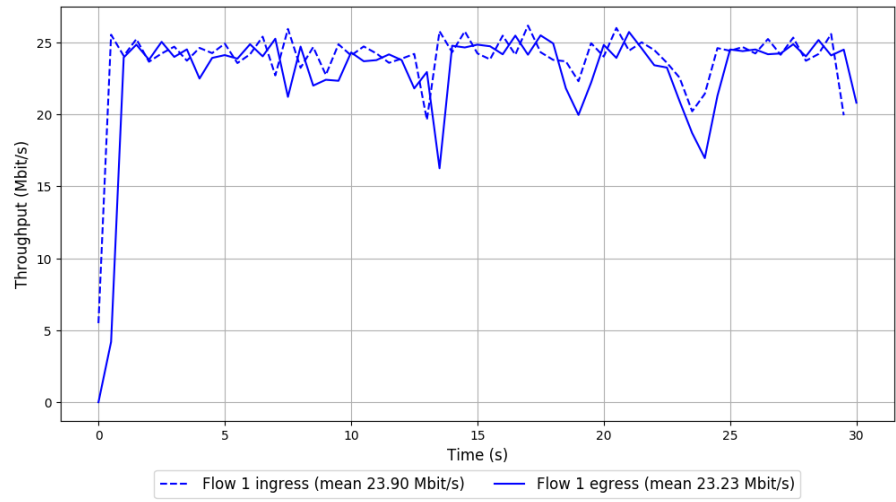Run 5: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2019-03-18 19:31:55
End at: 2019-03-18 19:32:25
Local clock offset: -10.399 ms
Remote clock offset: -8.378 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 10.293 ms
Loss rate: 2.82%
-- Flow 1:
Average throughput: 23.23 Mbit/s
95th percentile per-packet one-way delay: 10.293 ms
Loss rate: 2.82%
```
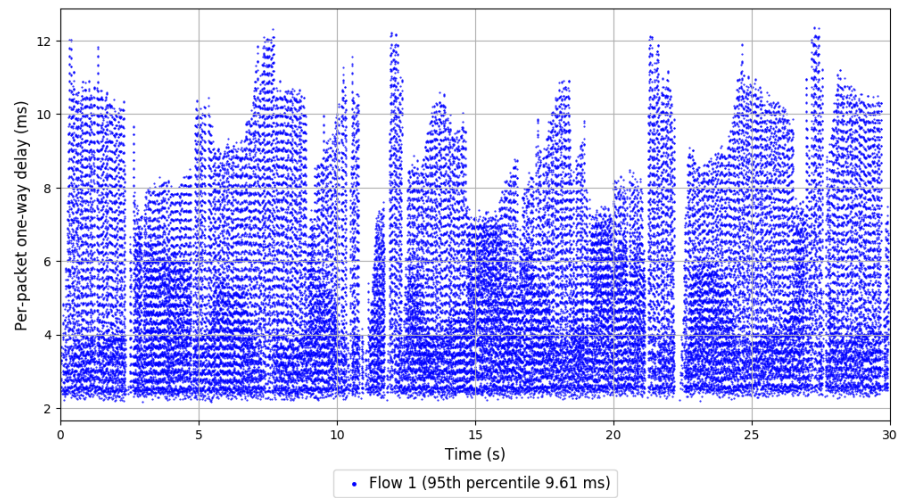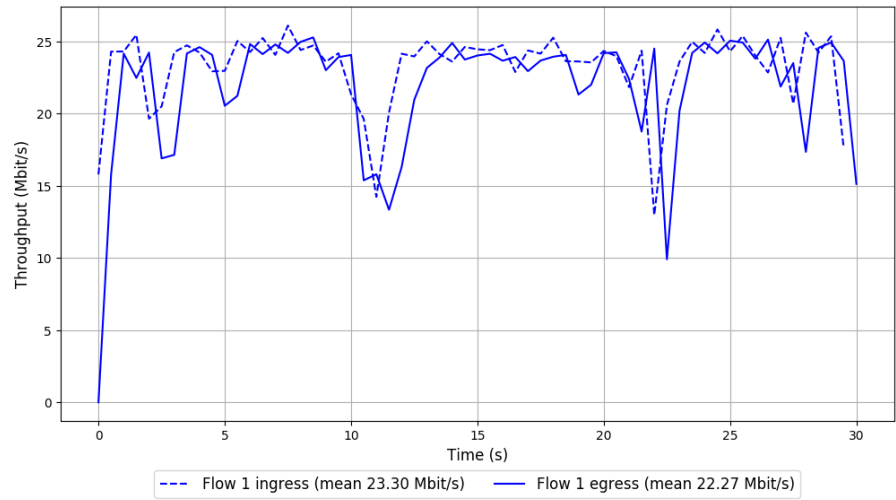
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2019-03-18 19:55:49
End at: 2019-03-18 19:56:19
Local clock offset: -5.725 ms
Remote clock offset: -8.356 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.27 Mbit/s
95th percentile per-packet one-way delay: 9.613 ms
Loss rate: 4.41%
-- Flow 1:
Average throughput: 22.27 Mbit/s
95th percentile per-packet one-way delay: 9.613 ms
Loss rate: 4.41%
```

Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 23.30 Mbit/s) --- Flow 1 egress (mean 22.27 Mbit/s)

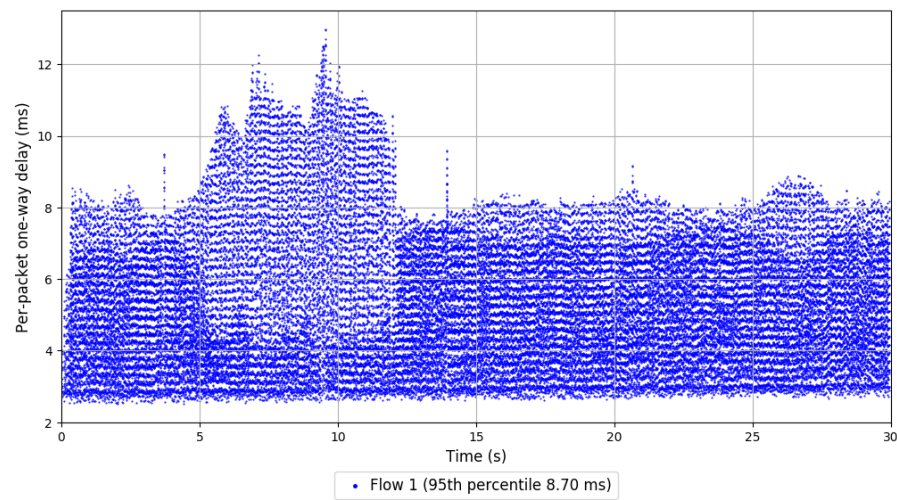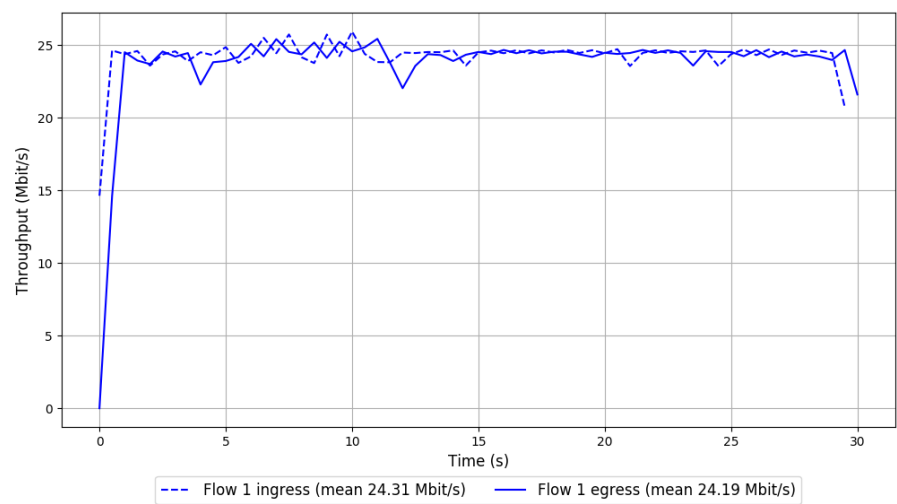• Flow 1 (95th percentile 9.61 ms)

```
Run 3: Statistics of Sprout

Start at: 2019-03-18 20:19:30
End at: 2019-03-18 20:20:00
Local clock offset: -6.889 ms
Remote clock offset: -9.984 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 8.702 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 24.19 Mbit/s
95th percentile per-packet one-way delay: 8.702 ms
Loss rate: 0.47%
```

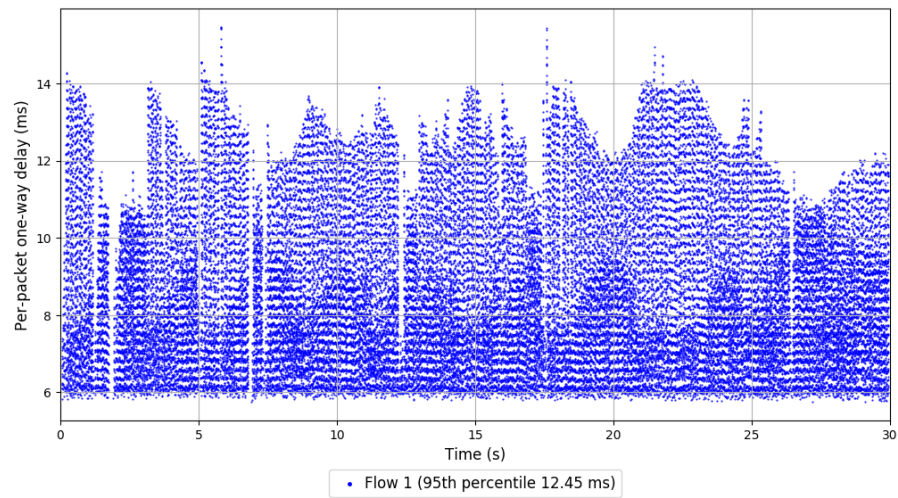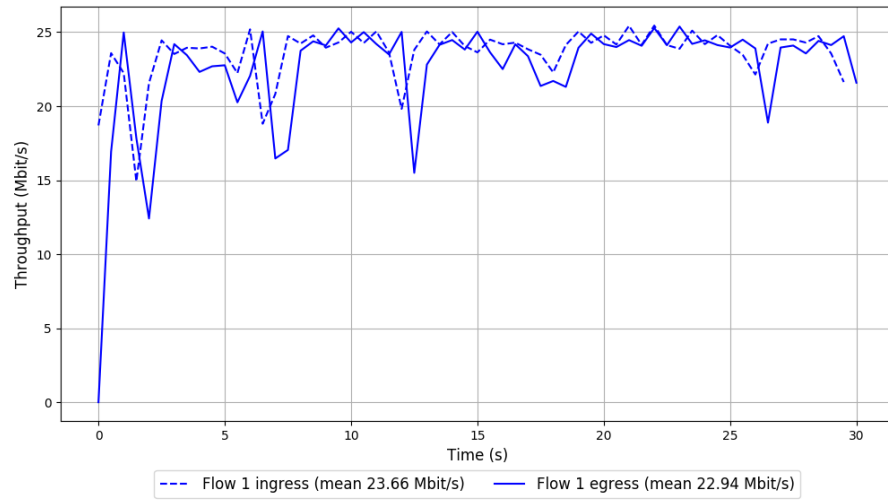## Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2019-03-18 20:43:04
End at: 2019-03-18 20:43:34
Local clock offset: -5.758 ms
Remote clock offset: -8.141 ms


# Below is generated by plot.py at 2019-03-18 21:28:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 12.453 ms
Loss rate: 3.05%
-- Flow 1:
Average throughput: 22.94 Mbit/s
95th percentile per-packet one-way delay: 12.453 ms
Loss rate: 3.05%
```

Run 4: Report of Sprout — Data Link

Flow 1 ingress (mean 23.66 Mbit/s) --- Flow 1 egress (mean 22.94 Mbit/s)

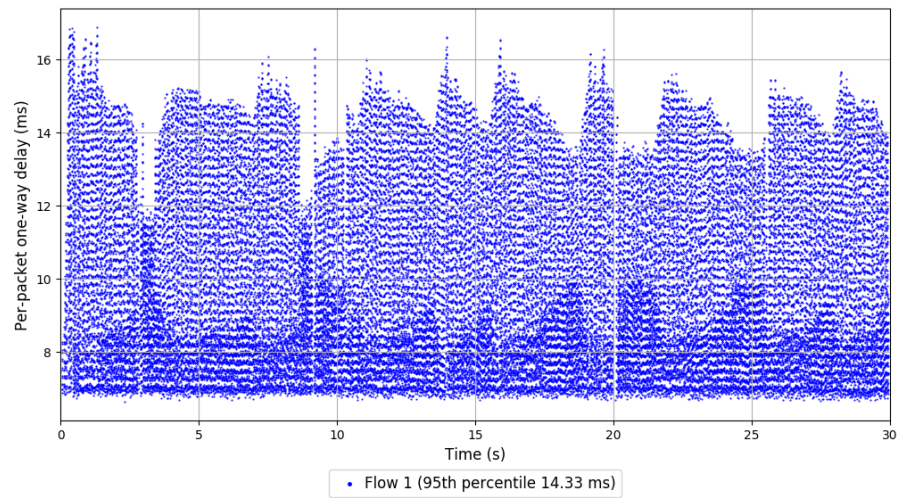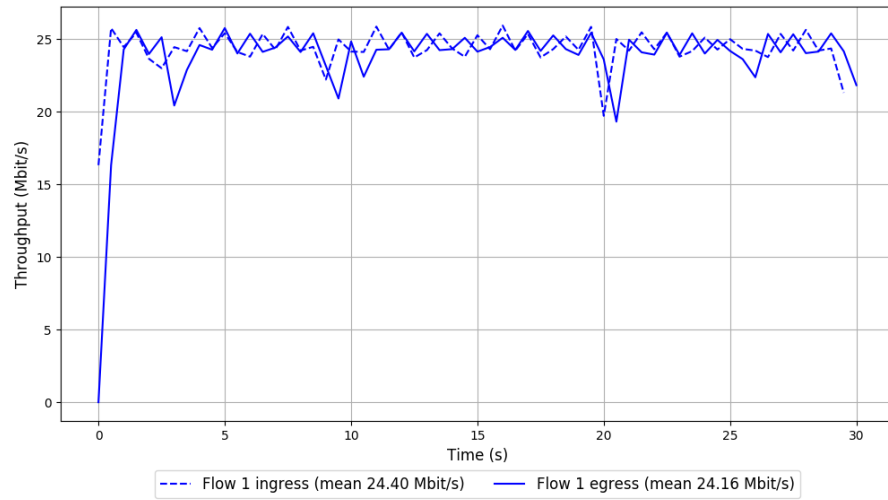Flow 1 (95th percentile 12.45 ms)

```
Run 5: Statistics of Sprout

Start at: 2019-03-18 21:06:30
End at: 2019-03-18 21:07:00
Local clock offset: -2.689 ms
Remote clock offset: -7.014 ms


# Below is generated by plot.py at 2019-03-18 21:28:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 14.329 ms
Loss rate: 1.00%
-- Flow 1:
Average throughput: 24.16 Mbit/s
95th percentile per-packet one-way delay: 14.329 ms
Loss rate: 1.00%
```

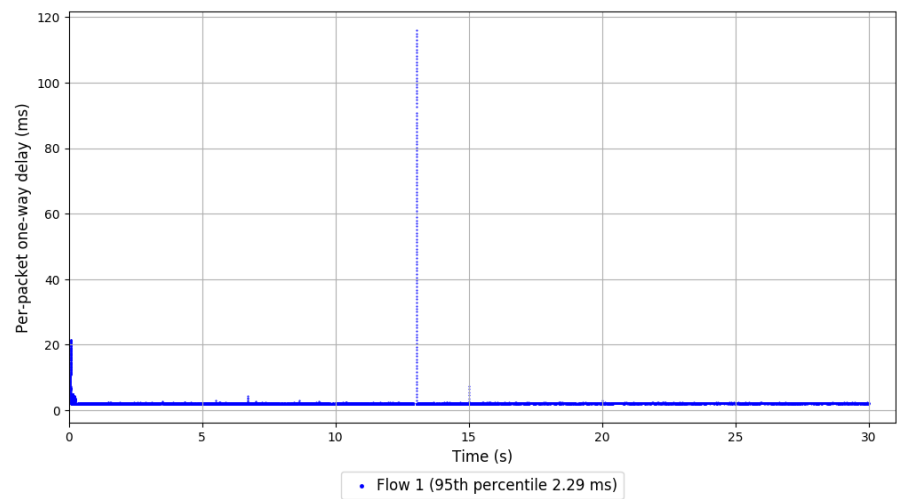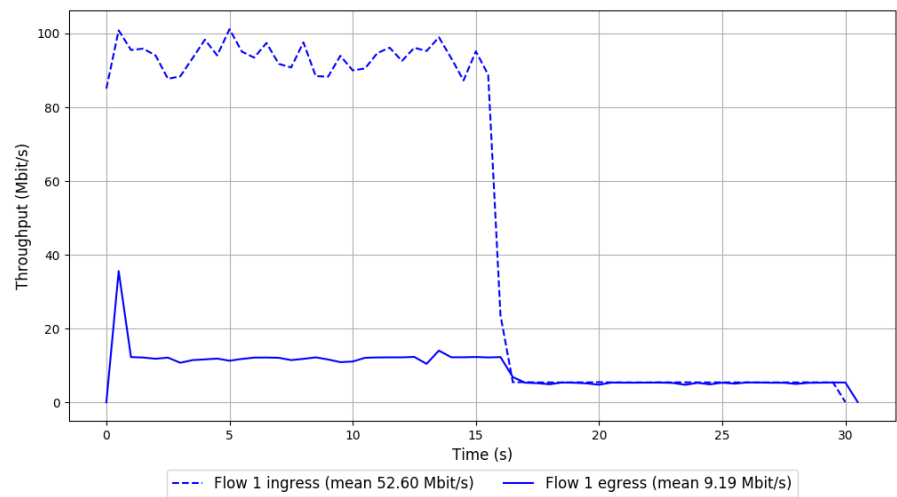Run 5: Report of Sprout — Data Link

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

Start at: 2019-03-18 19:34:05
End at: 2019-03-18 19:34:35
Local clock offset: -10.38 ms
Remote clock offset: -9.234 ms


# Below is generated by plot.py at 2019-03-18 21:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 2.289 ms
Loss rate: 82.53%
-- Flow 1:
Average throughput: 9.19 Mbit/s
95th percentile per-packet one-way delay: 2.289 ms
Loss rate: 82.53%
```

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

Flow 1 ingress (mean 52.60 Mbit/s)   Flow 1 egress (mean 9.19 Mbit/s)

Flow 1 (95th percentile 2.29 ms)

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

Start at: 2019-03-18 19:58:00
End at: 2019-03-18 19:58:30
Local clock offset: -5.48 ms
Remote clock offset: -9.171 ms


# Below is generated by plot.py at 2019-03-18 21:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 2.035 ms
Loss rate: 74.26%
-- Flow 1:
Average throughput: 7.44 Mbit/s
95th percentile per-packet one-way delay: 2.035 ms
Loss rate: 74.26%
```
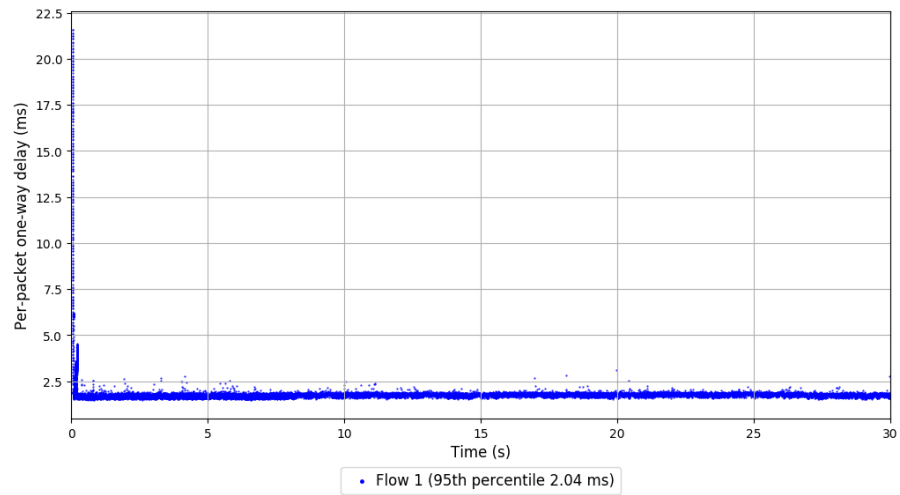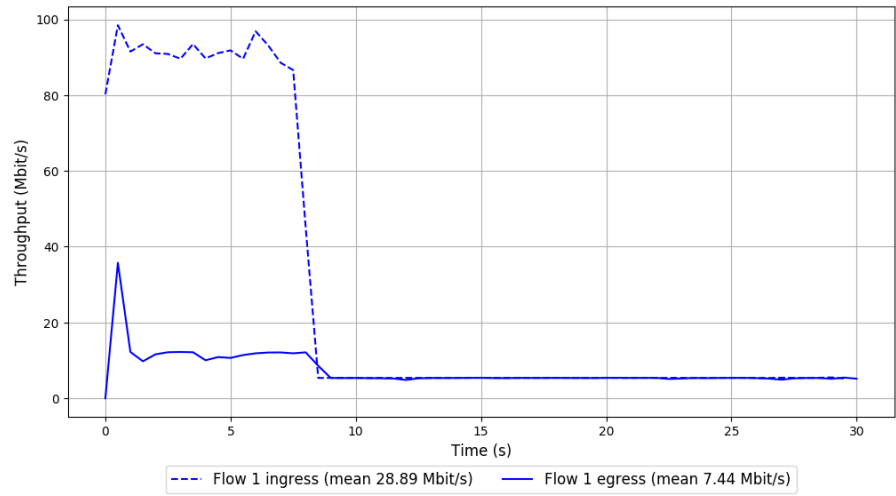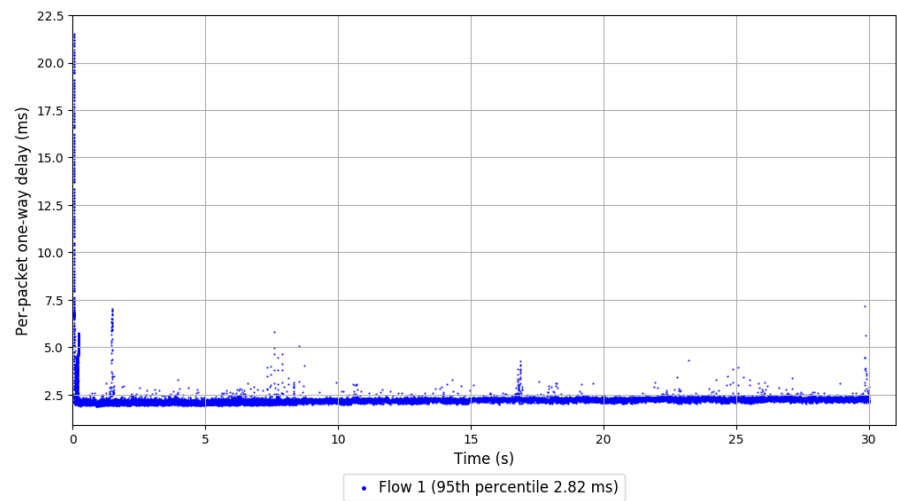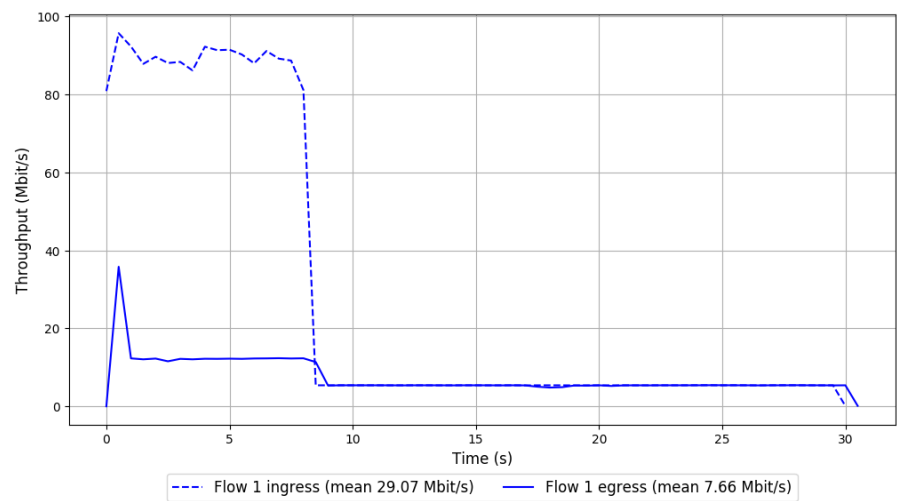
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2019-03-18 20:21:41
End at: 2019-03-18 20:22:11
Local clock offset: -5.078 ms
Remote clock offset: -9.559 ms


# Below is generated by plot.py at 2019-03-18 21:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 2.823 ms
Loss rate: 73.65%
-- Flow 1:
Average throughput: 7.66 Mbit/s
95th percentile per-packet one-way delay: 2.823 ms
Loss rate: 73.65%
```

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

Flow 1 ingress (mean 29.07 Mbit/s)   Flow 1 egress (mean 7.66 Mbit/s)

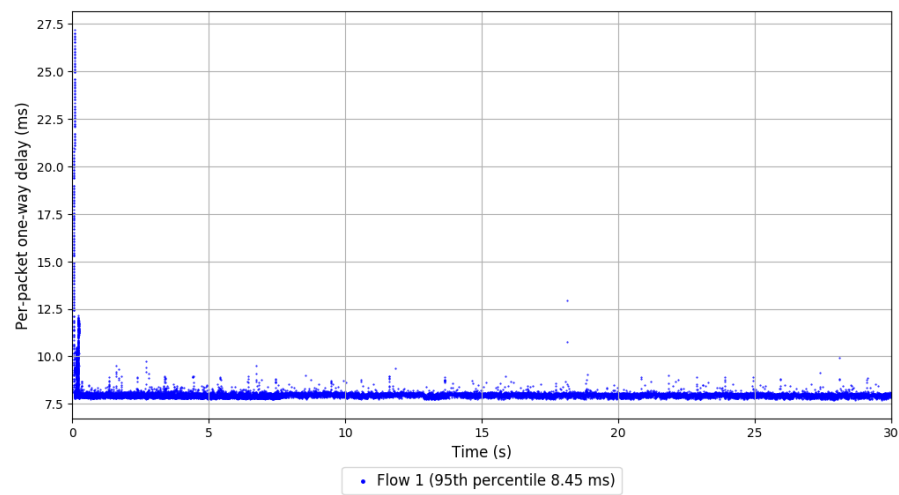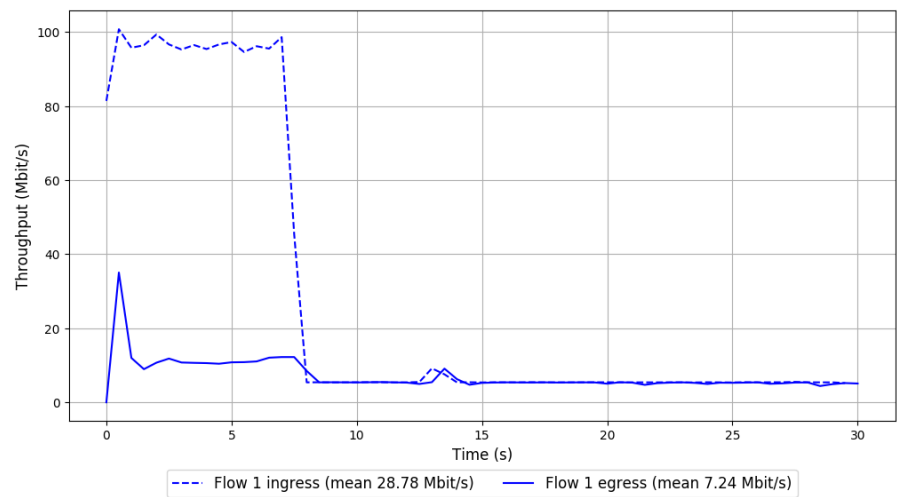Flow 1 (95th percentile 2.82 ms)

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

Start at: 2019-03-18 20:45:14
End at: 2019-03-18 20:45:44
Local clock offset: -6.644 ms
Remote clock offset: -6.829 ms


# Below is generated by plot.py at 2019-03-18 21:28:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 8.445 ms
Loss rate: 74.85%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 8.445 ms
Loss rate: 74.85%
```
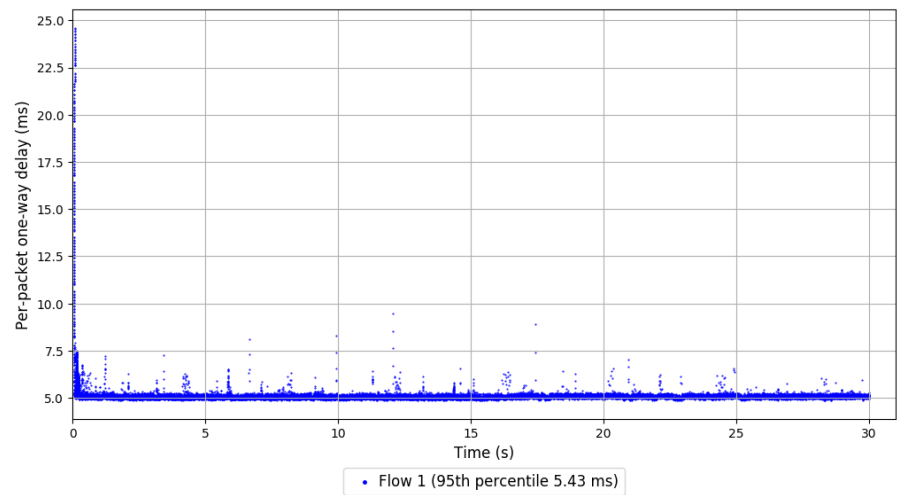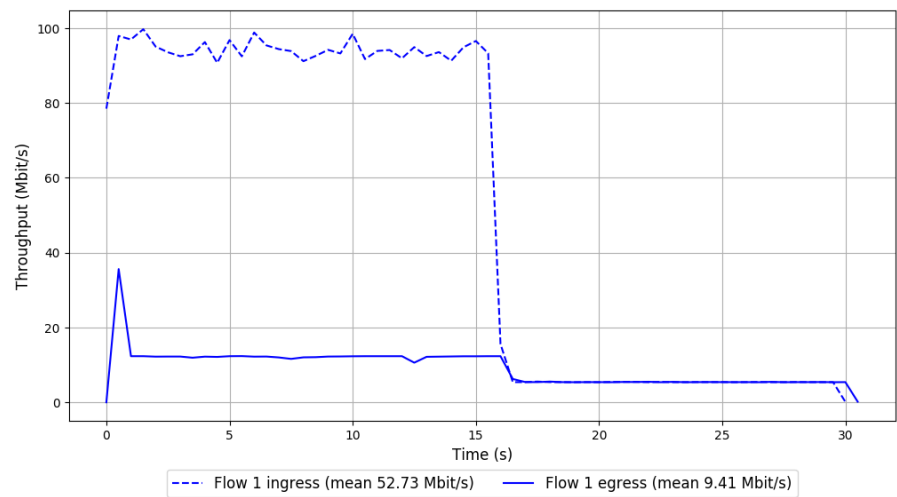
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2019-03-18 21:08:40
End at: 2019-03-18 21:09:10
Local clock offset: -1.587 ms
Remote clock offset: -7.511 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 5.433 ms
Loss rate: 82.16%
-- Flow 1:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 5.433 ms
Loss rate: 82.16%
```

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

Flow 1 ingress (mean 52.73 Mbit/s) ---- Flow 1 egress (mean 9.41 Mbit/s)
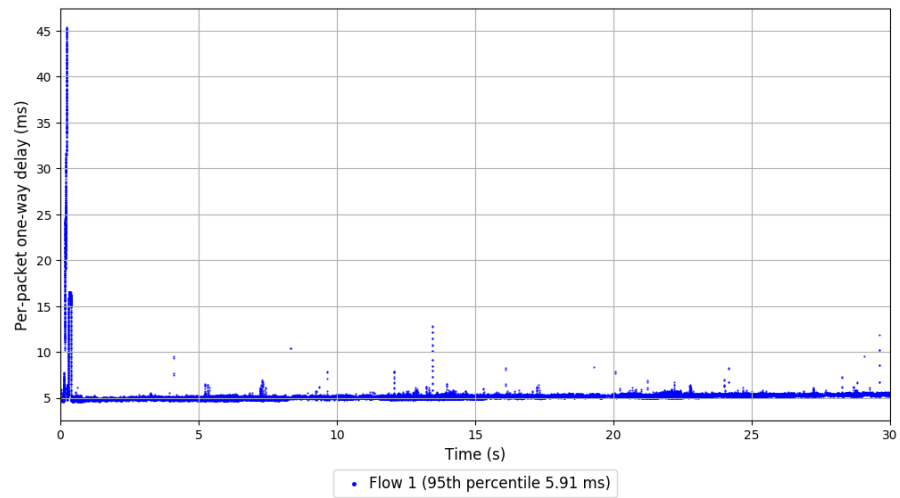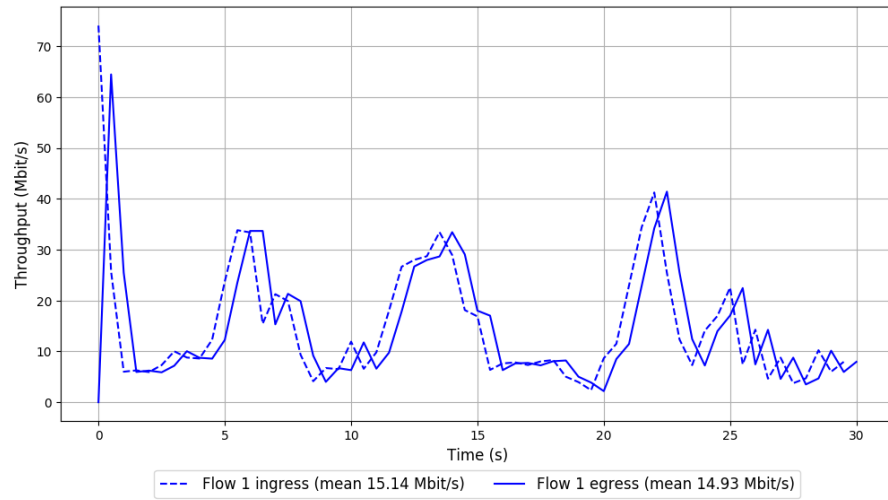

• Flow 1 (95th percentile 5.43 ms)

174

```
Run 1: Statistics of TCP Vegas

Start at: 2019-03-18 19:46:43
End at: 2019-03-18 19:47:13
Local clock offset: -13.278 ms
Remote clock offset: -8.11 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 5.910 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 14.93 Mbit/s
95th percentile per-packet one-way delay: 5.910 ms
Loss rate: 1.37%
```
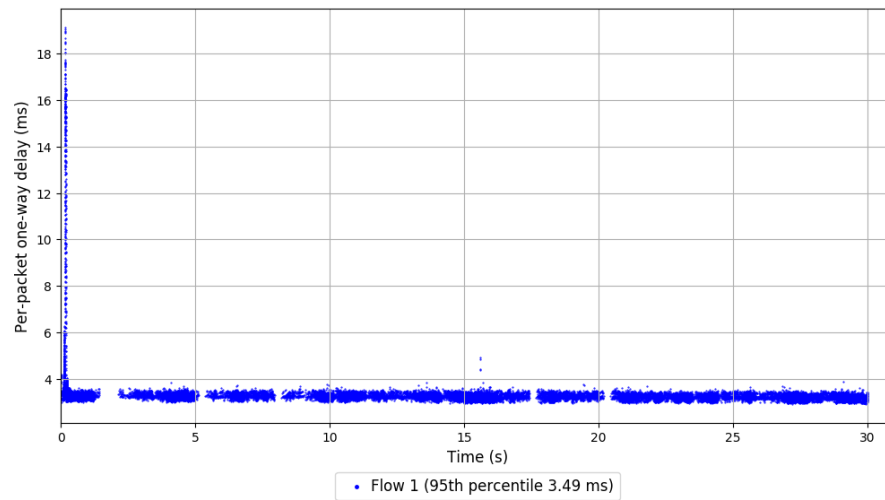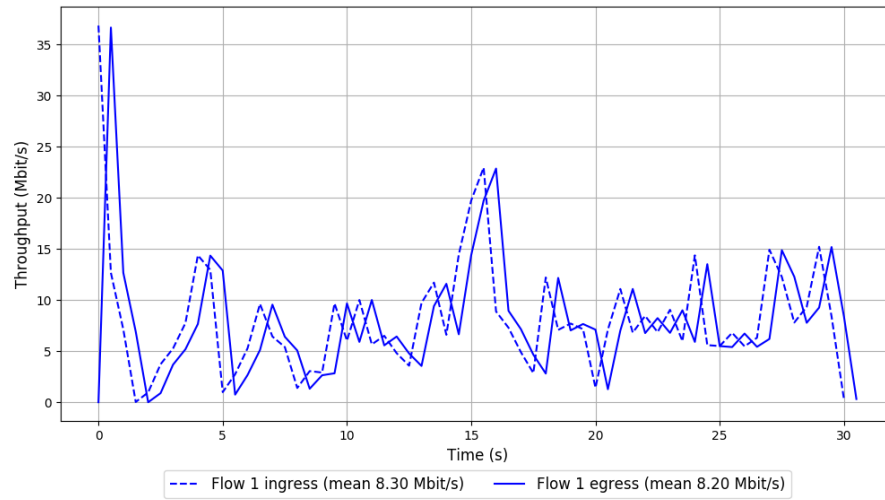
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2019-03-18 20:10:33
End at: 2019-03-18 20:11:03
Local clock offset: -8.198 ms
Remote clock offset: -9.635 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 3.492 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 8.20 Mbit/s
95th percentile per-packet one-way delay: 3.492 ms
Loss rate: 1.18%
```

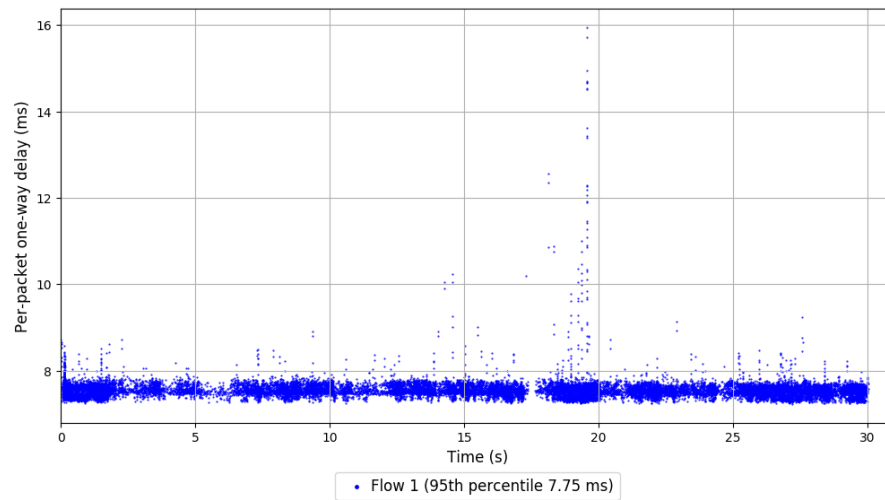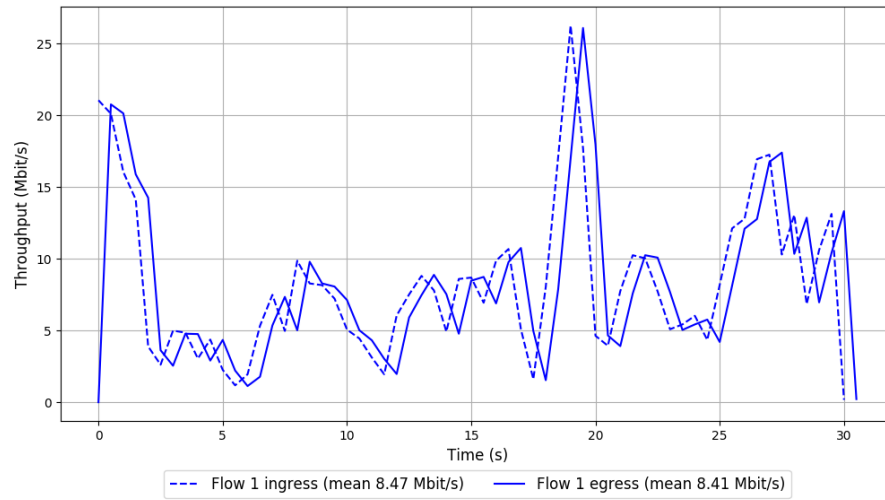Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2019-03-18 20:34:09
End at: 2019-03-18 20:34:39
Local clock offset: -5.422 ms
Remote clock offset: -7.222 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 7.747 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 7.747 ms
Loss rate: 0.74%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 8.47 Mbit/s) ---- Flow 1 egress (mean 8.41 Mbit/s)

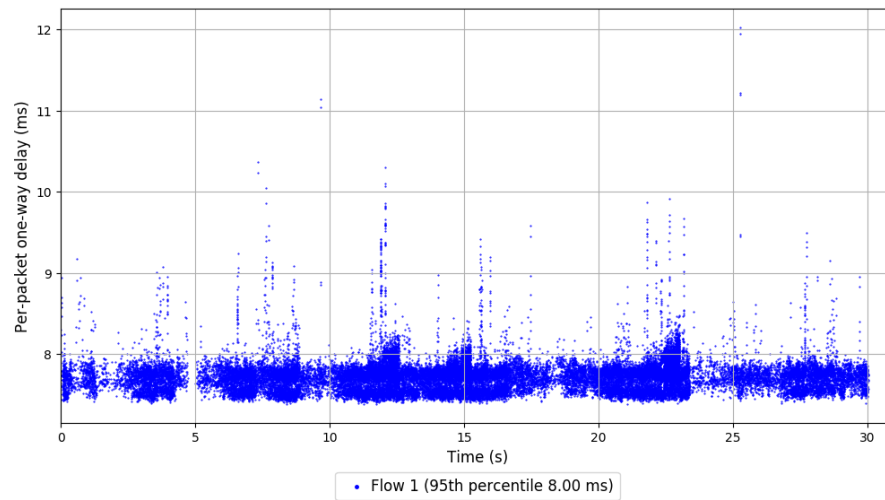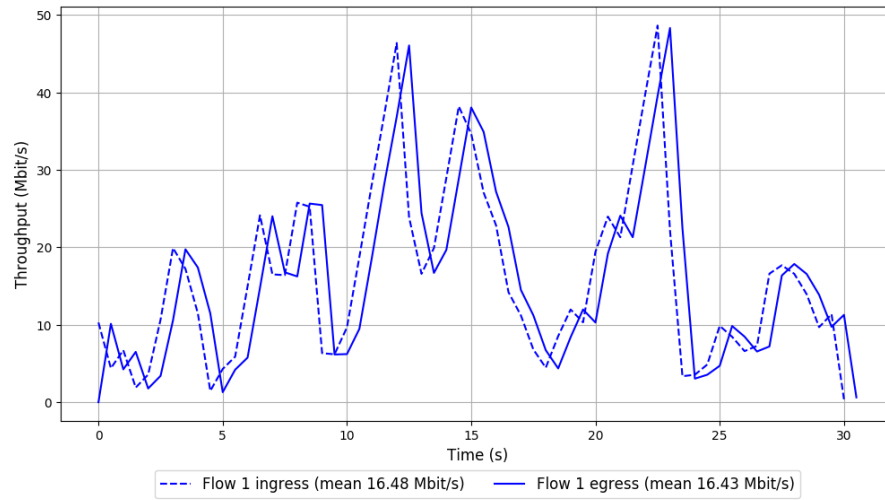
Flow 1 (95th percentile 7.75 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2019-03-18 20:57:35
End at: 2019-03-18 20:58:05
Local clock offset: -3.793 ms
Remote clock offset: -7.393 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.43 Mbit/s
95th percentile per-packet one-way delay: 7.996 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 16.43 Mbit/s
95th percentile per-packet one-way delay: 7.996 ms
Loss rate: 0.33%
```

Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2019-03-18 21:21:05
End at: 2019-03-18 21:21:35
Local clock offset: -2.978 ms
Remote clock offset: -7.38 ms


# Below is generated by plot.py at 2019-03-18 21:28:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.61 Mbit/s
95th percentile per-packet one-way delay: 6.385 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 10.61 Mbit/s
95th percentile per-packet one-way delay: 6.385 ms
Loss rate: 0.60%
```
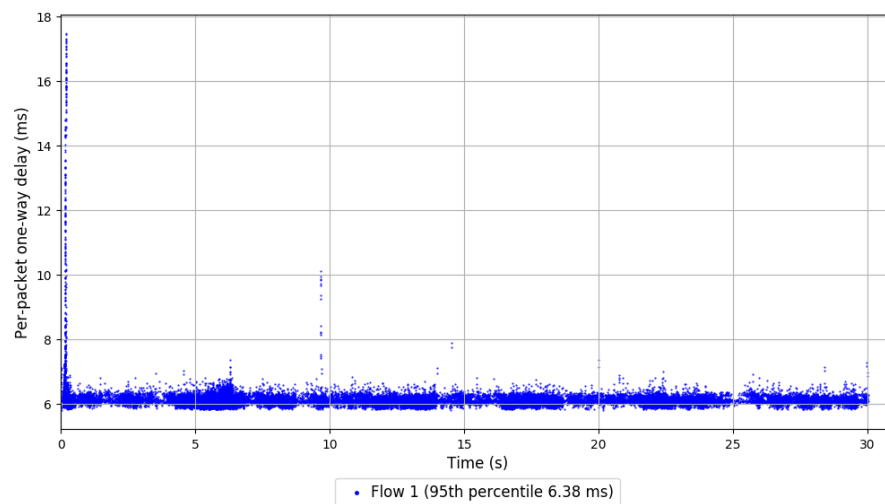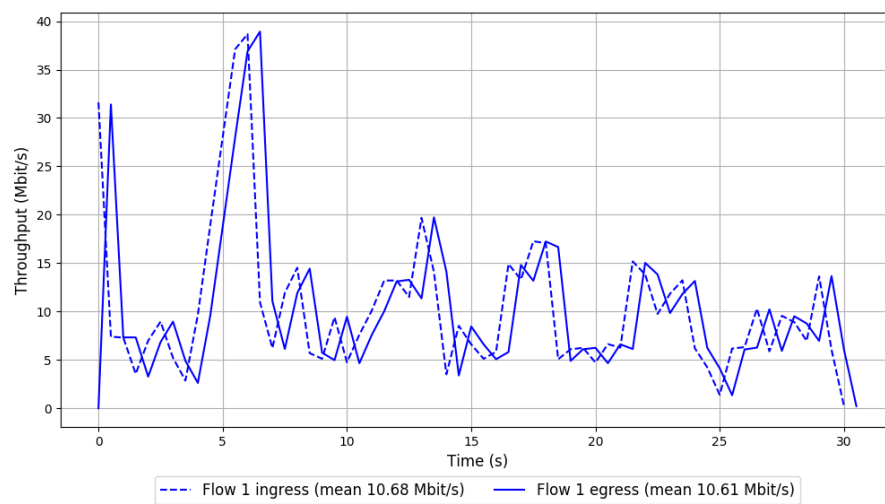
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 10.68 Mbit/s) ----- Flow 1 egress (mean 10.61 Mbit/s)

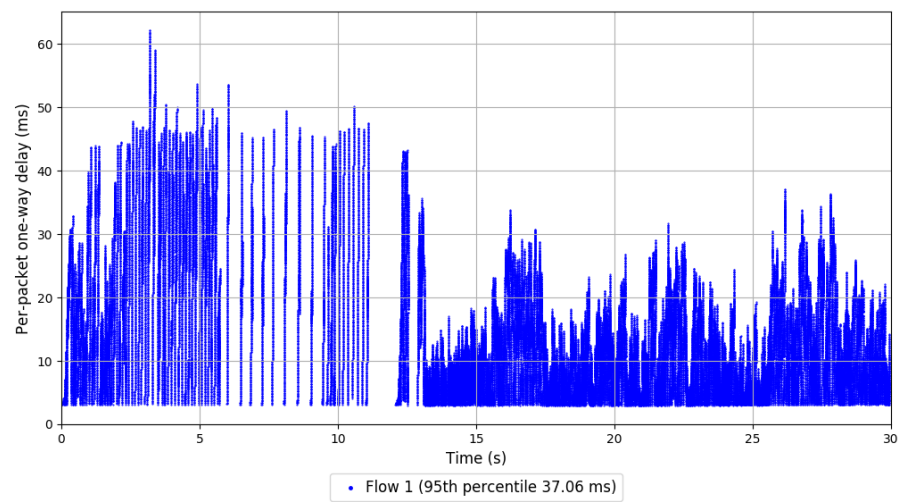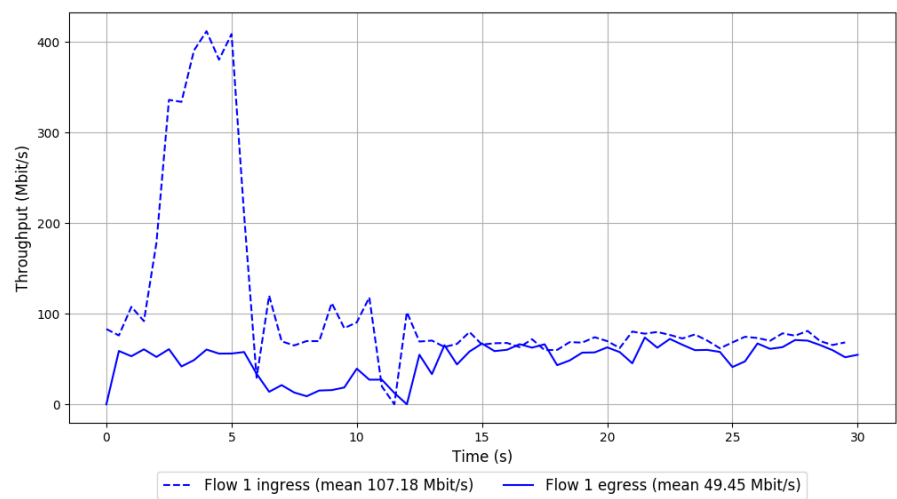Flow 1 (95th percentile 6.38 ms)

184

```
Run 1: Statistics of Verus

Start at: 2019-03-18 19:45:33
End at: 2019-03-18 19:46:03
Local clock offset: -12.943 ms
Remote clock offset: -8.437 ms


# Below is generated by plot.py at 2019-03-18 21:29:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.45 Mbit/s
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 53.85%
-- Flow 1:
Average throughput: 49.45 Mbit/s
95th percentile per-packet one-way delay: 37.060 ms
Loss rate: 53.85%
```
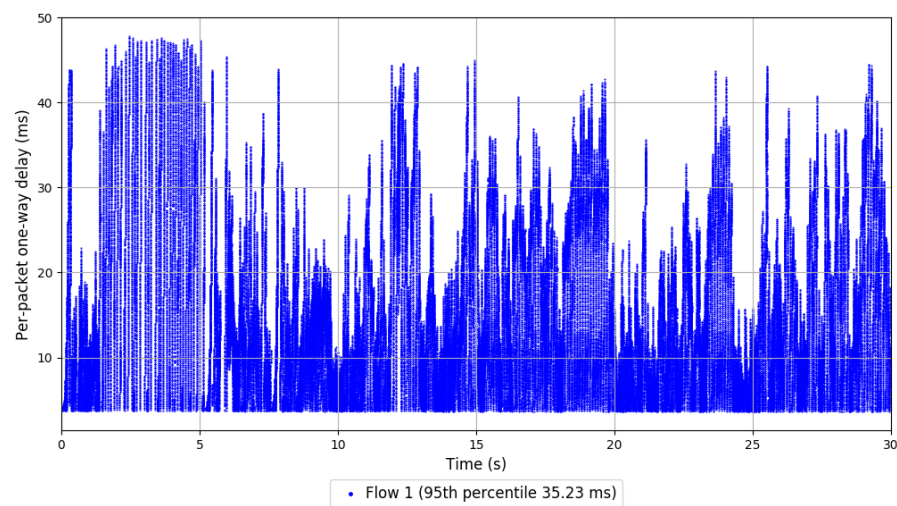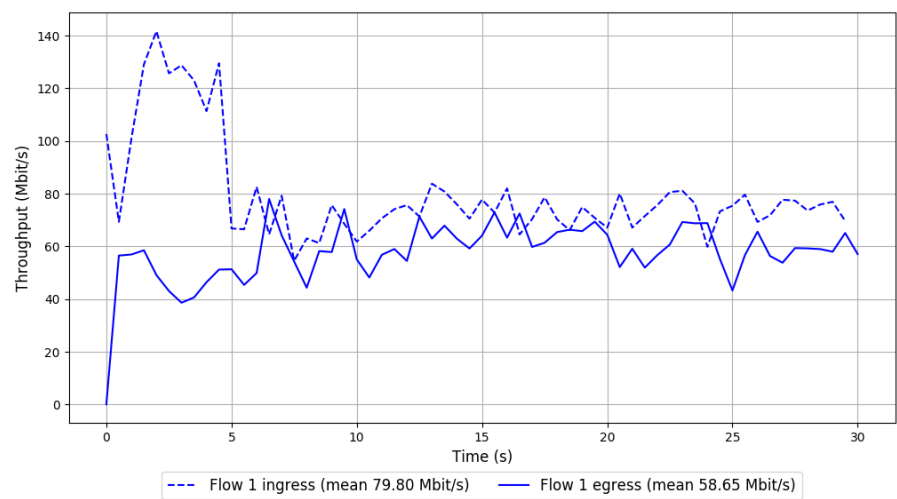
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2019-03-18 20:09:23
End at: 2019-03-18 20:09:53
Local clock offset: -8.301 ms
Remote clock offset: -9.213 ms


# Below is generated by plot.py at 2019-03-18 21:29:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 35.234 ms
Loss rate: 26.48%
-- Flow 1:
Average throughput: 58.65 Mbit/s
95th percentile per-packet one-way delay: 35.234 ms
Loss rate: 26.48%
```

Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2019-03-18 20:33:00
End at: 2019-03-18 20:33:30
Local clock offset: -5.919 ms
Remote clock offset: -7.99 ms


# Below is generated by plot.py at 2019-03-18 21:29:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.02 Mbit/s
95th percentile per-packet one-way delay: 39.073 ms
Loss rate: 30.38%
-- Flow 1:
Average throughput: 56.02 Mbit/s
95th percentile per-packet one-way delay: 39.073 ms
Loss rate: 30.38%
```
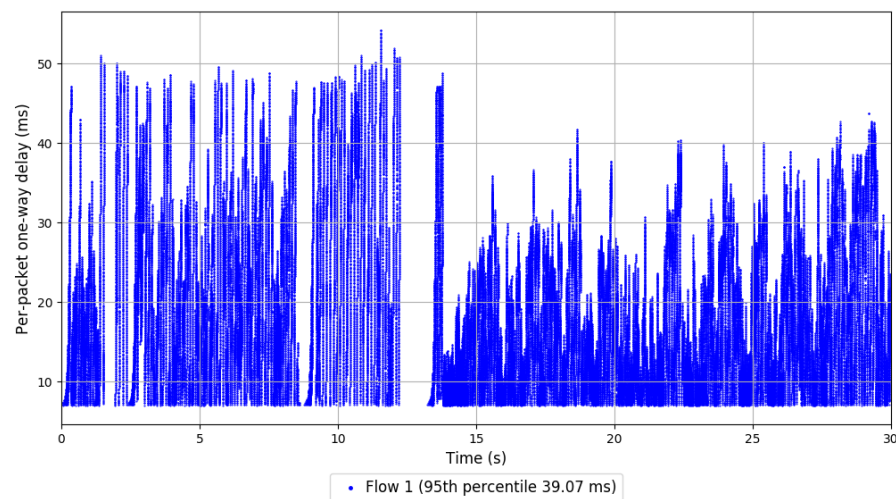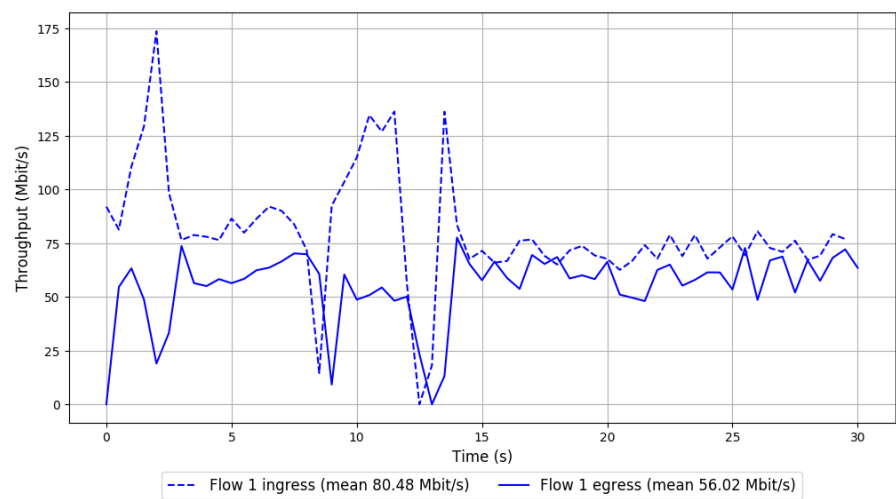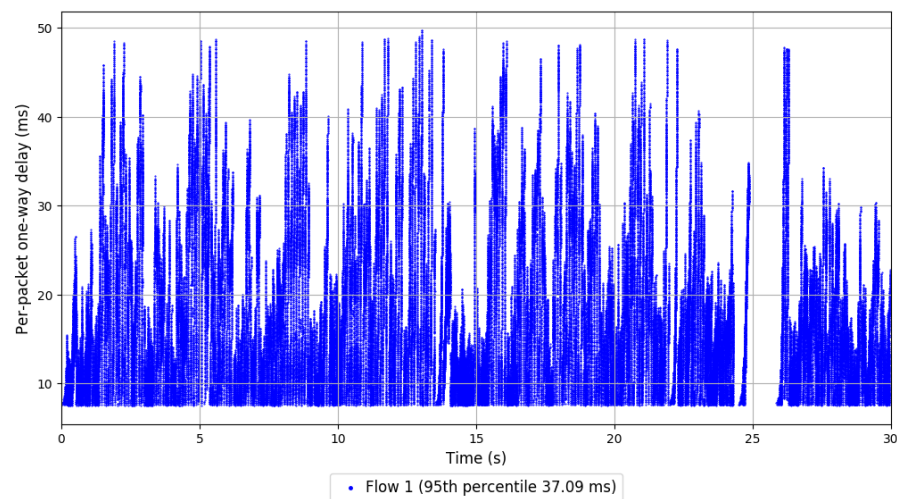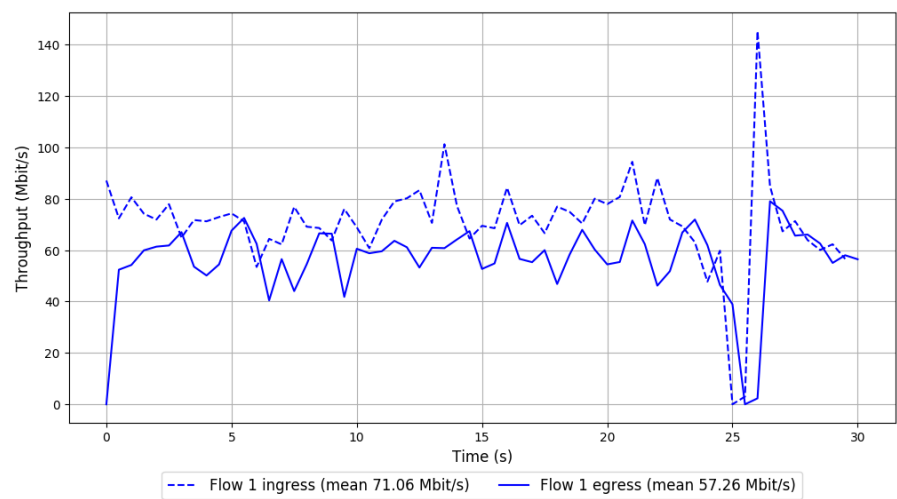
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2019-03-18 20:56:26
End at: 2019-03-18 20:56:56
Local clock offset: -3.624 ms
Remote clock offset: -7.004 ms


# Below is generated by plot.py at 2019-03-18 21:29:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.26 Mbit/s
95th percentile per-packet one-way delay: 37.085 ms
Loss rate: 19.38%
-- Flow 1:
Average throughput: 57.26 Mbit/s
95th percentile per-packet one-way delay: 37.085 ms
Loss rate: 19.38%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2019-03-18 21:19:55
End at: 2019-03-18 21:20:25
Local clock offset: -0.863 ms
Remote clock offset: -7.33 ms


# Below is generated by plot.py at 2019-03-18 21:29:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.99 Mbit/s
95th percentile per-packet one-way delay: 39.118 ms
Loss rate: 26.29%
-- Flow 1:
Average throughput: 59.99 Mbit/s
95th percentile per-packet one-way delay: 39.118 ms
Loss rate: 26.29%
```
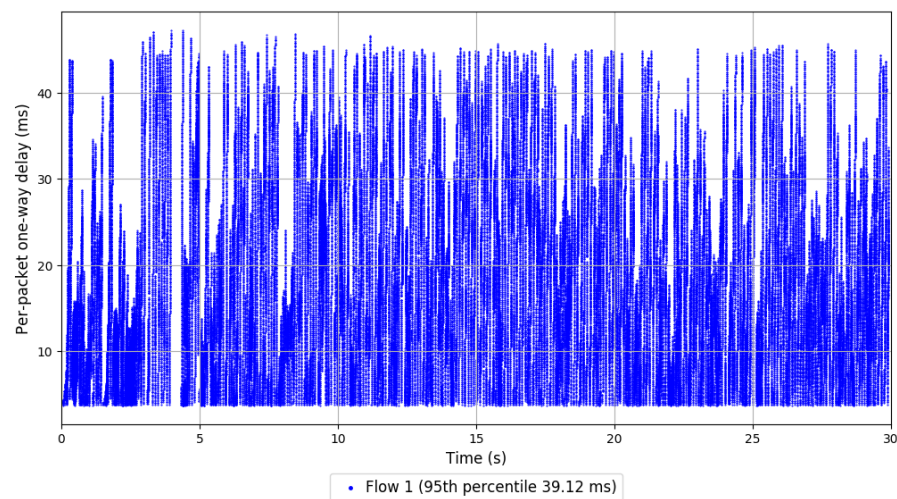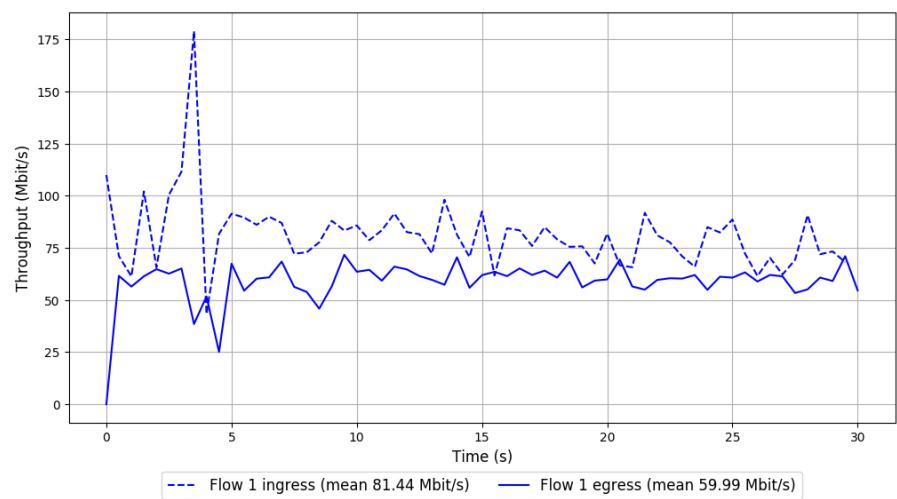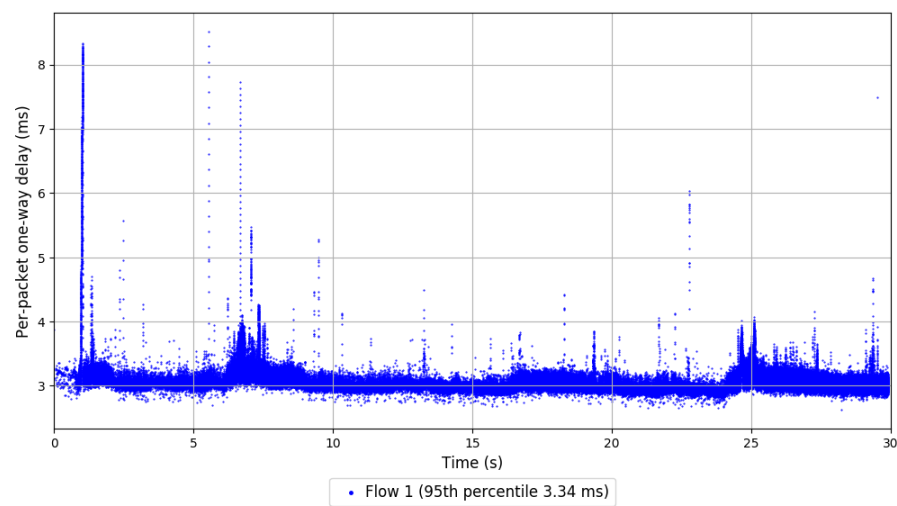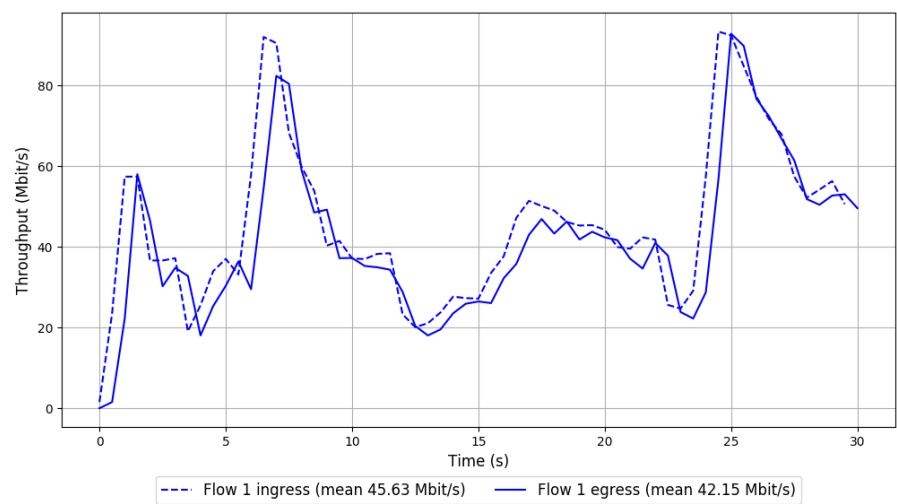
Run 5: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2019-03-18 19:44:24
End at: 2019-03-18 19:44:54
Local clock offset: -12.049 ms
Remote clock offset: -7.939 ms


# Below is generated by plot.py at 2019-03-18 21:29:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.15 Mbit/s
95th percentile per-packet one-way delay: 3.341 ms
Loss rate: 7.63%
-- Flow 1:
Average throughput: 42.15 Mbit/s
95th percentile per-packet one-way delay: 3.341 ms
Loss rate: 7.63%
```

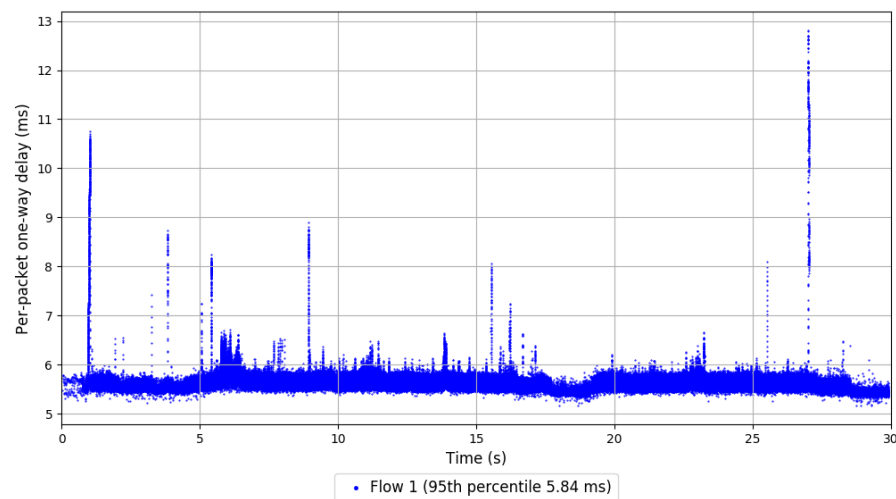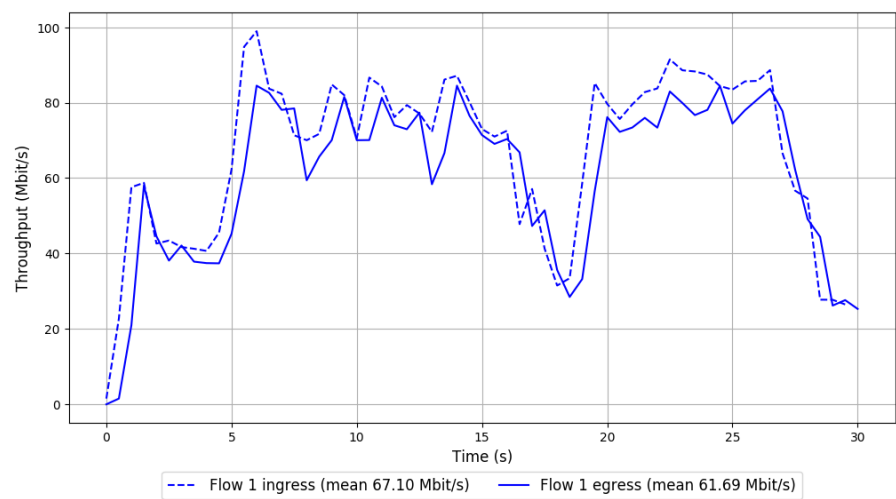Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2019-03-18 20:08:09
End at: 2019-03-18 20:08:39
Local clock offset: -9.415 ms
Remote clock offset: -8.839 ms


# Below is generated by plot.py at 2019-03-18 21:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 61.69 Mbit/s
95th percentile per-packet one-way delay: 5.840 ms
Loss rate: 8.07%
-- Flow 1:
Average throughput: 61.69 Mbit/s
95th percentile per-packet one-way delay: 5.840 ms
Loss rate: 8.07%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 67.10 Mbit/s)   Flow 1 egress (mean 61.69 Mbit/s)
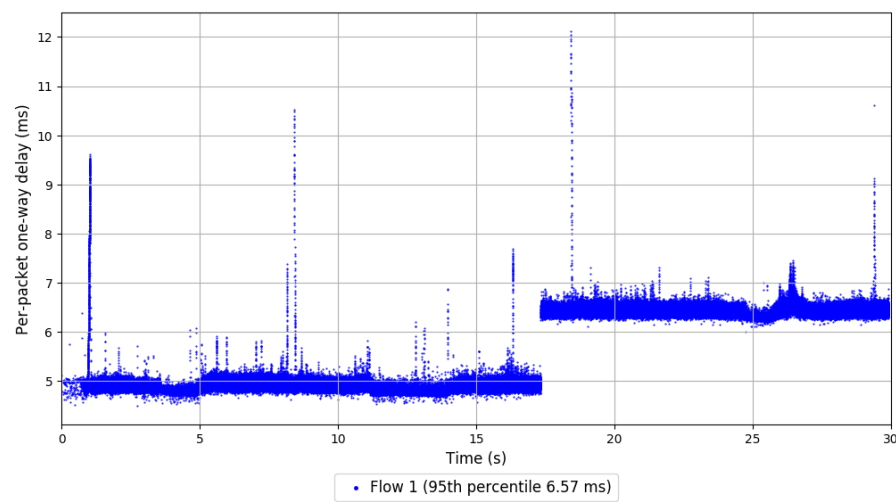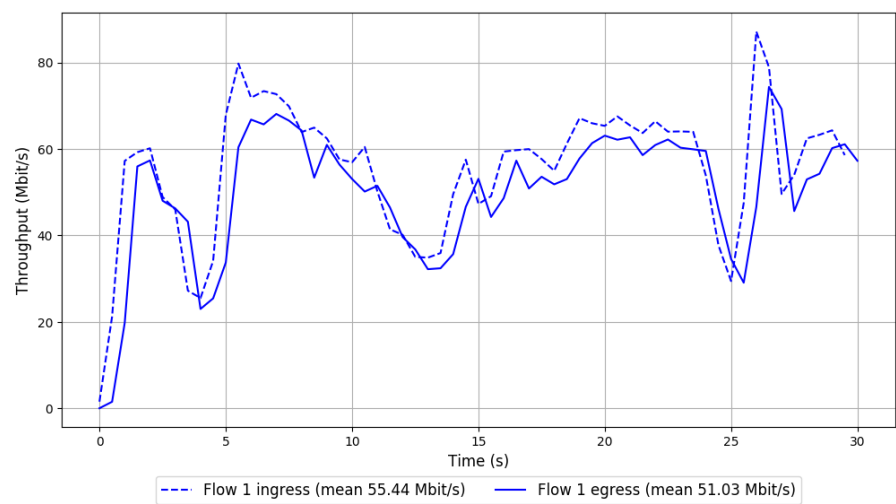

Flow 1 (95th percentile 5.84 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2019-03-18 20:31:50
End at: 2019-03-18 20:32:20
Local clock offset: -5.541 ms
Remote clock offset: -8.389 ms


# Below is generated by plot.py at 2019-03-18 21:29:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 6.573 ms
Loss rate: 7.95%
-- Flow 1:
Average throughput: 51.03 Mbit/s
95th percentile per-packet one-way delay: 6.573 ms
Loss rate: 7.95%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 55.44 Mbit/s) --- Flow 1 egress (mean 51.03 Mbit/s)
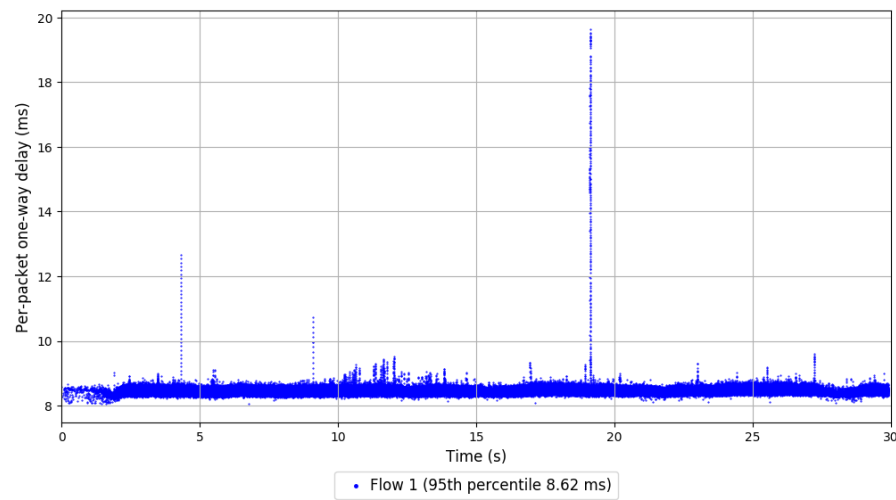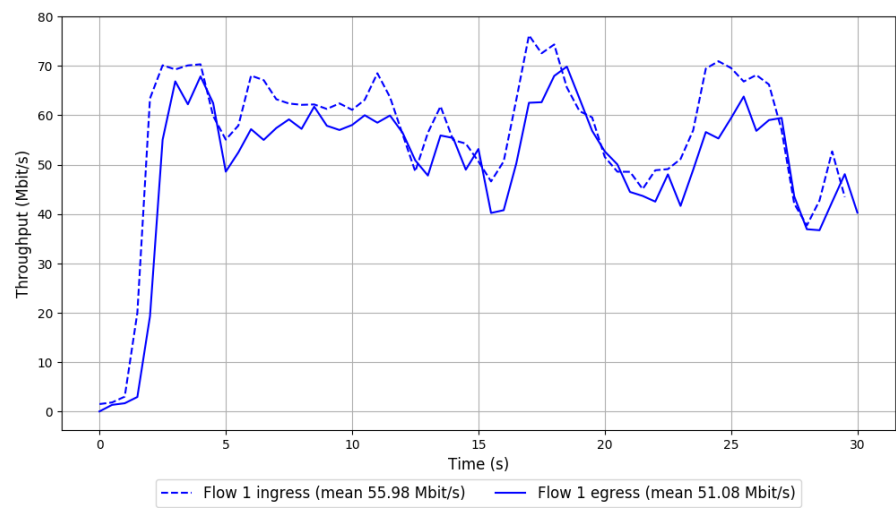

Flow 1 (95th percentile 6.57 ms)

Run 4: Statistics of PCC-Vivace

Start at: 2019-03-18 20:55:18
End at: 2019-03-18 20:55:48
Local clock offset: -4.327 ms
Remote clock offset: -6.898 ms

Below is generated by plot.py at 2019-03-18 21:29:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 51.08 Mbit/s
95th percentile per-packet one-way delay: 8.616 ms
Loss rate: 8.77%
-- Flow 1:
Average throughput: 51.08 Mbit/s
95th percentile per-packet one-way delay: 8.616 ms
Loss rate: 8.77%

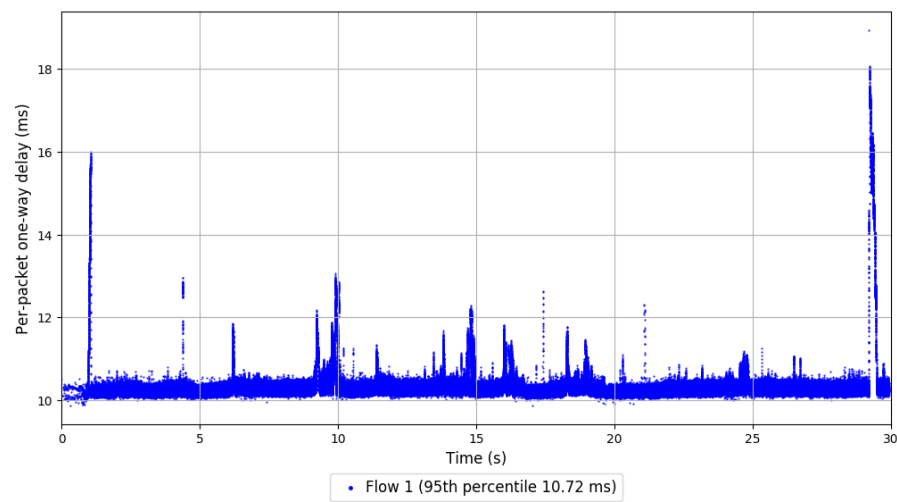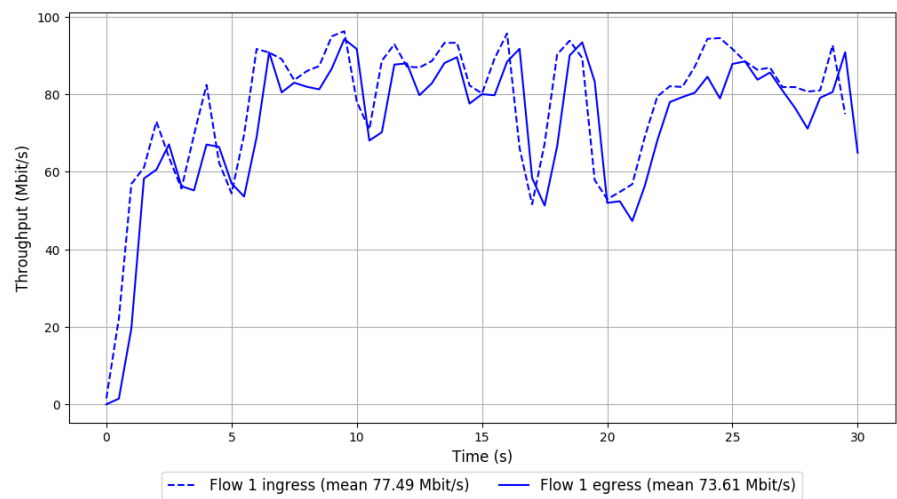Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2019-03-18 21:18:46
End at: 2019-03-18 21:19:16
Local clock offset: -10.267 ms
Remote clock offset: -10.436 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.61 Mbit/s
95th percentile per-packet one-way delay: 10.725 ms
Loss rate: 5.00%
-- Flow 1:
Average throughput: 73.61 Mbit/s
95th percentile per-packet one-way delay: 10.725 ms
Loss rate: 5.00%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 77.49 Mbit/s) --- Flow 1 egress (mean 73.61 Mbit/s)
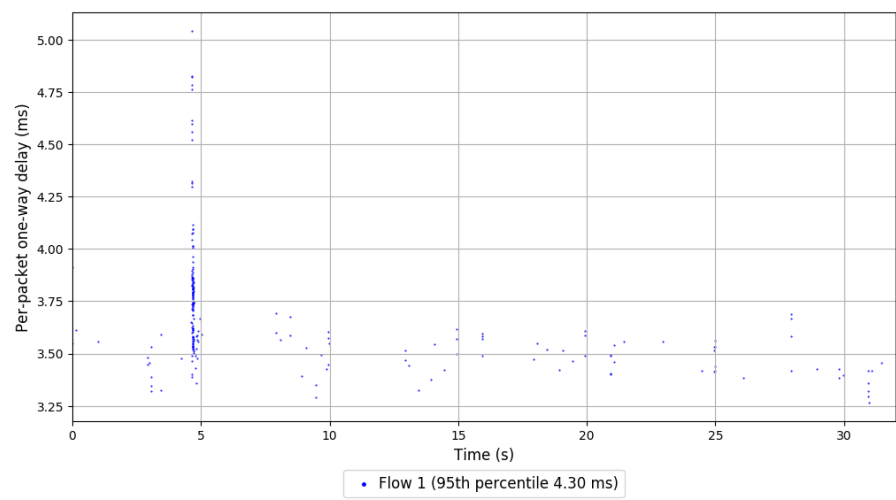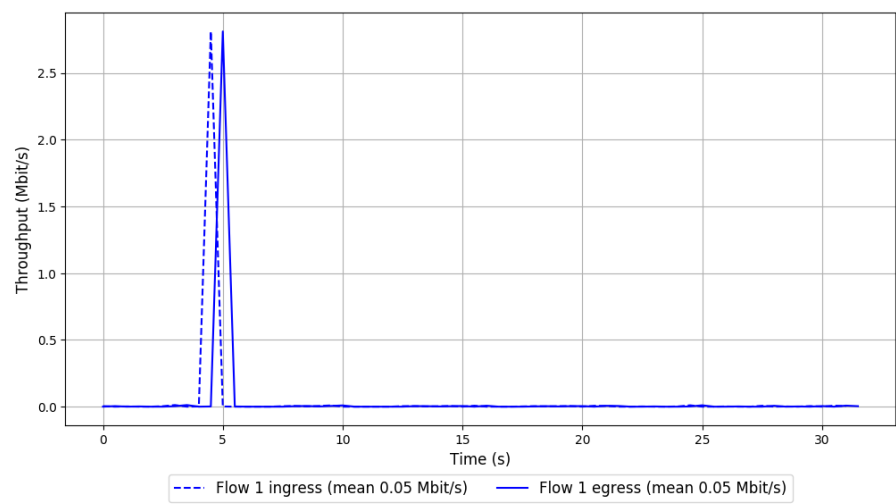

Flow 1 (95th percentile 10.72 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2019-03-18 19:43:20
End at: 2019-03-18 19:43:50
Local clock offset: -12.103 ms
Remote clock offset: -7.742 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.299 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4.299 ms
Loss rate: 0.00%
```

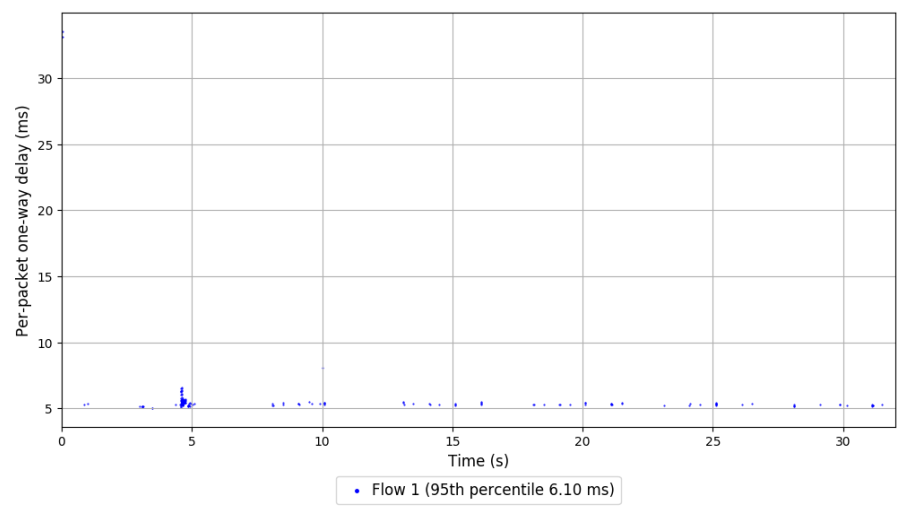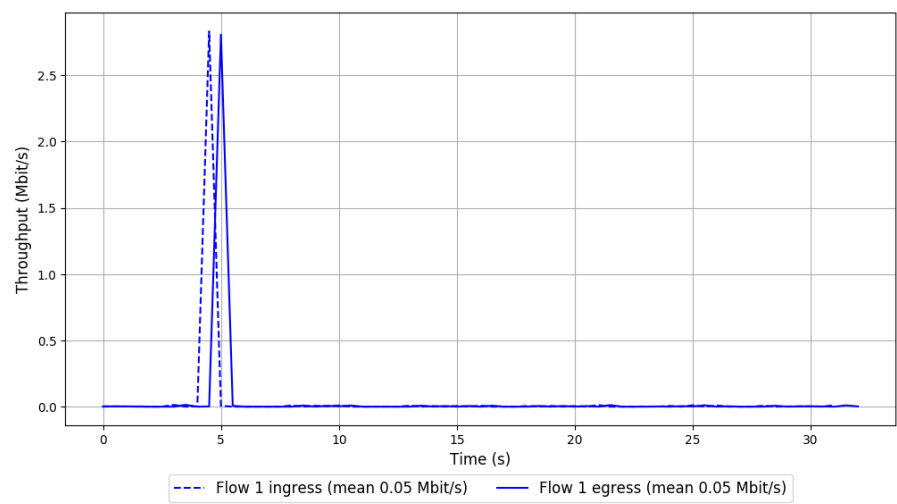Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2019-03-18 20:07:04
End at: 2019-03-18 20:07:34
Local clock offset: -8.643 ms
Remote clock offset: -8.342 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.097 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.097 ms
Loss rate: 1.01%
```

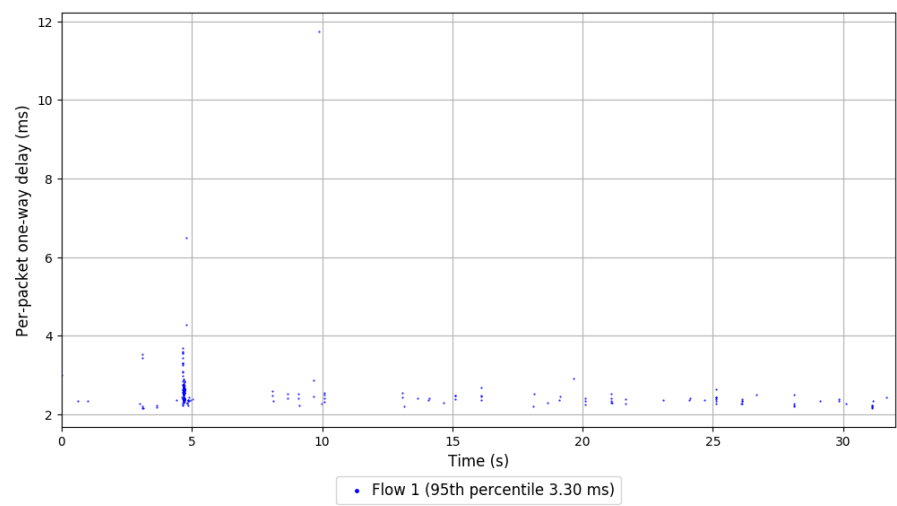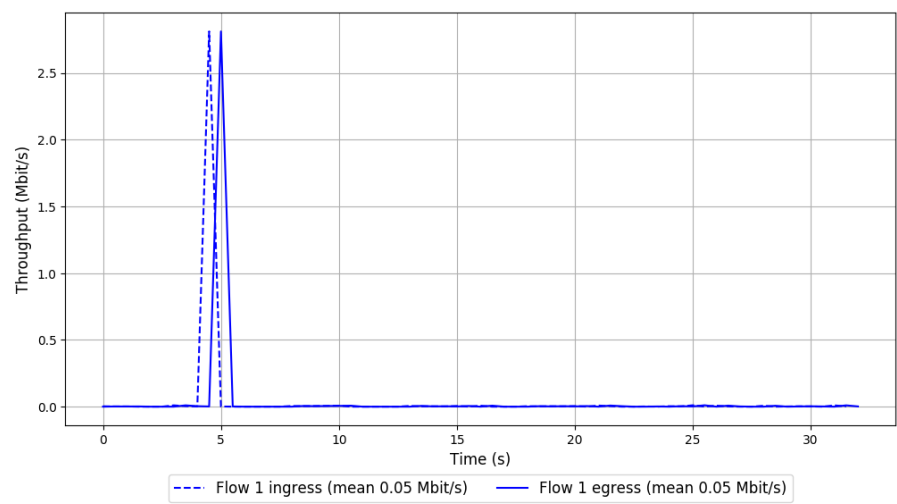Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2019-03-18 20:30:46
End at: 2019-03-18 20:31:16
Local clock offset: -3.696 ms
Remote clock offset: -8.972 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.301 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 3.301 ms
Loss rate: 0.04%
```

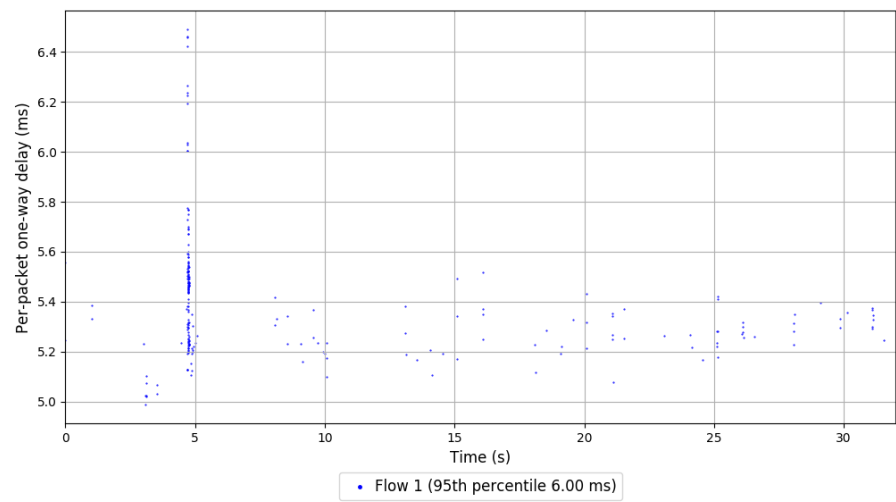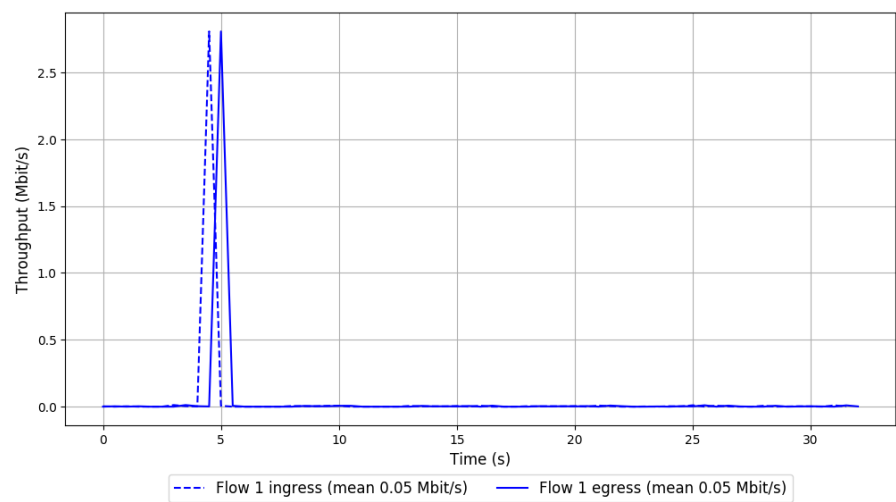Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2019-03-18 20:54:13
End at: 2019-03-18 20:54:43
Local clock offset: -1.829 ms
Remote clock offset: -7.257 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 6.002 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2019-03-18 21:17:41
End at: 2019-03-18 21:18:11
Local clock offset: -3.084 ms
Remote clock offset: -6.46 ms


# Below is generated by plot.py at 2019-03-18 21:29:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.480 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 7.480 ms
Loss rate: 0.00%
```

Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.05 Mbit/s)   Flow 1 egress (mean 0.05 Mbit/s)

Flow 1 (95th percentile 7.48 ms)