Pantheon Report

Generated at 2018-06-30 03:38:10 (UTC).

Data path: GCE Iowa Ethernet (*remote*) →GCE Sydney Ethernet (*local*).

Repeated the test of 17 congestion control schemes 10 times.

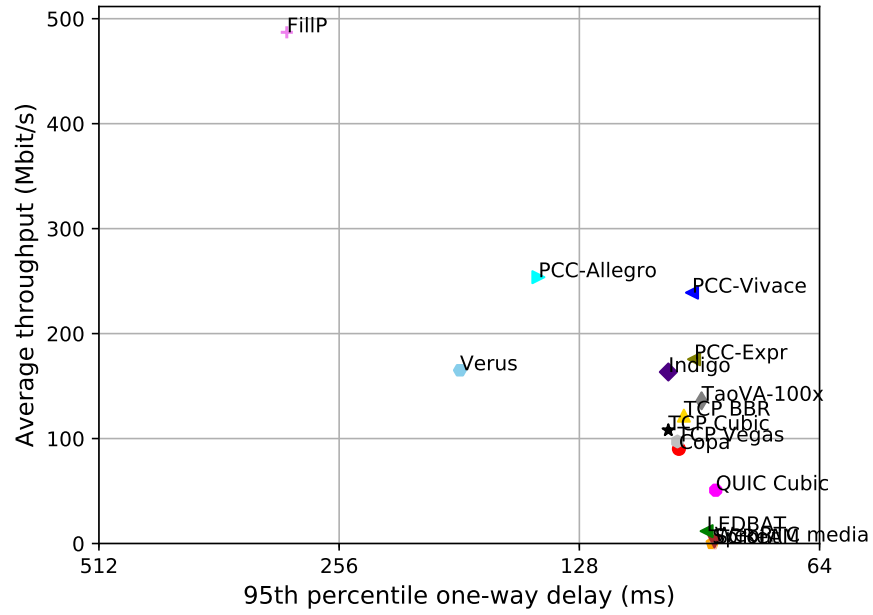Each test lasted for 30 seconds running 1 flow.

Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

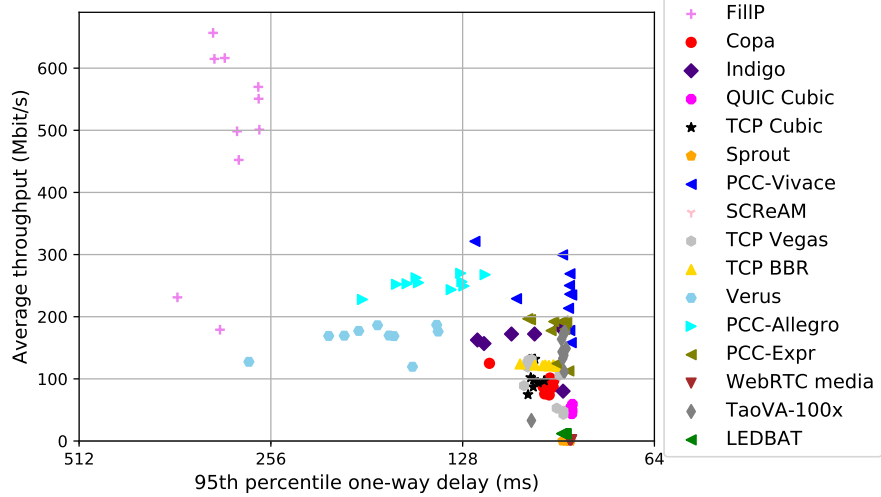NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 715dc5f09d172e419699f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3db86198eac35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from GCE Iowa to GCE Sydney, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Iowa to GCE Sydney, 10 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	10	121.83	94.67	0.61
Copa	10	90.14	96.04	0.60
TCP Cubic	10	107.91	99.02	0.67
FillP	10	487.04	297.74	2.74
FillP-Sheep	0	N/A	N/A	N/A
Indigo	9	163.41	99.02	0.60
LEDBAT	10	11.80	88.66	1.16
PCC-Allegro	10	253.74	144.06	1.05
PCC-Expr	10	175.54	91.94	0.69
QUIC Cubic	9	50.79	86.36	0.83
SCReAM	10	0.22	86.51	0.58
Sprout	10	0.28	87.21	0.55
TaoVA-100x	10	135.97	89.96	0.76
TCP Vegas	10	97.23	96.45	0.47
Verus	10	165.06	180.67	1.04
PCC-Vivace	10	239.00	92.48	0.75
WebRTC media	9	1.91	86.69	0.61

```
Run 1: Statistics of TCP BBR

Start at: 2018-06-29 23:22:14
End at: 2018-06-29 23:22:44
Local clock offset: 0.356 ms
Remote clock offset: -0.023 ms

# Below is generated by plot.py at 2018-06-30 02:41:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.46 Mbit/s
95th percentile per-packet one-way delay: 92.161 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 122.46 Mbit/s
95th percentile per-packet one-way delay: 92.161 ms
Loss rate: 0.60%
```
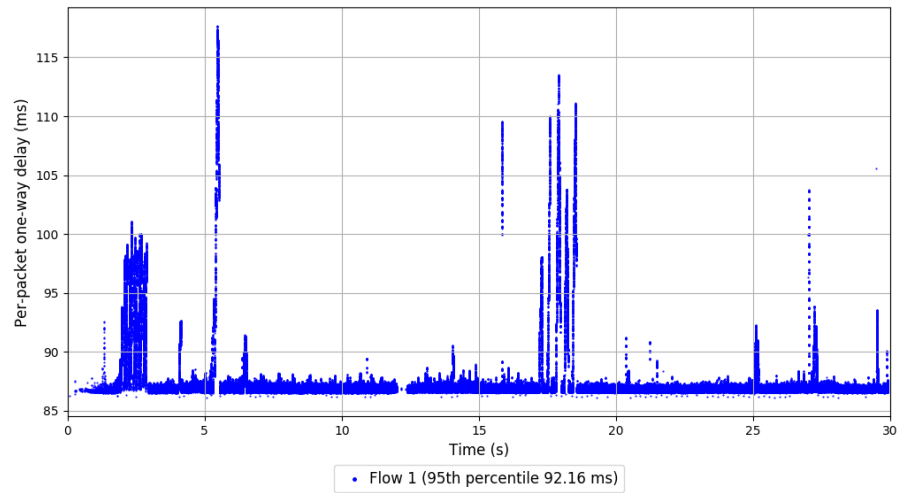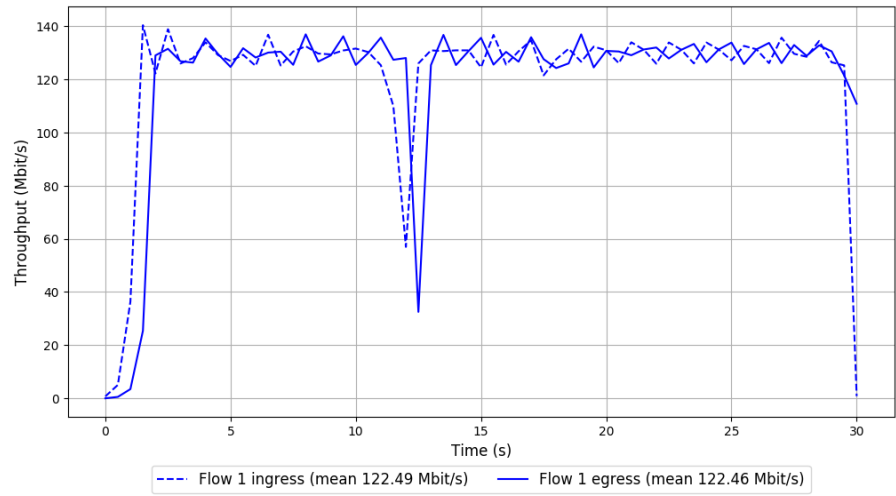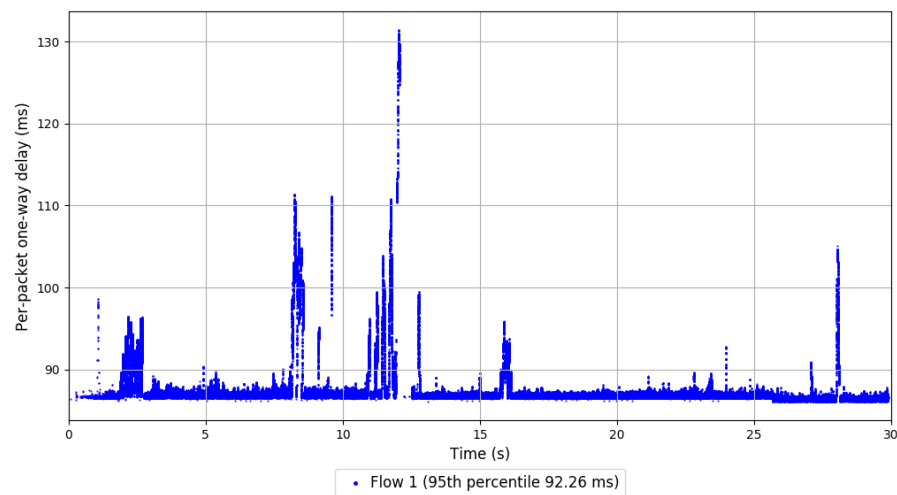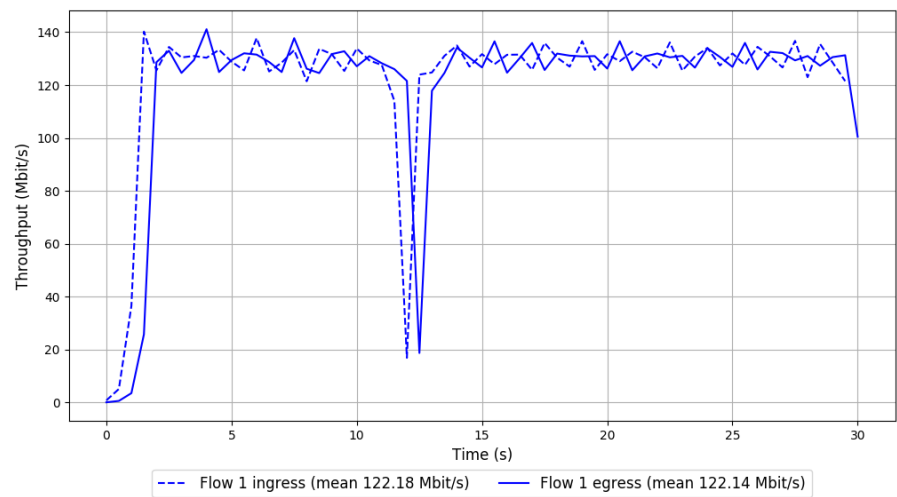
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-06-29 23:43:20
End at: 2018-06-29 23:43:50
Local clock offset: 0.222 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-06-30 02:41:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.14 Mbit/s
95th percentile per-packet one-way delay: 92.263 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 122.14 Mbit/s
95th percentile per-packet one-way delay: 92.263 ms
Loss rate: 0.61%
```
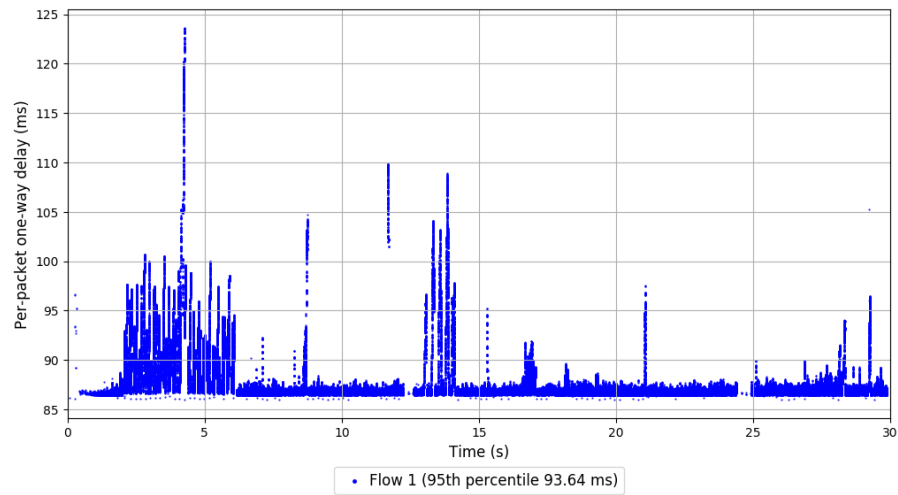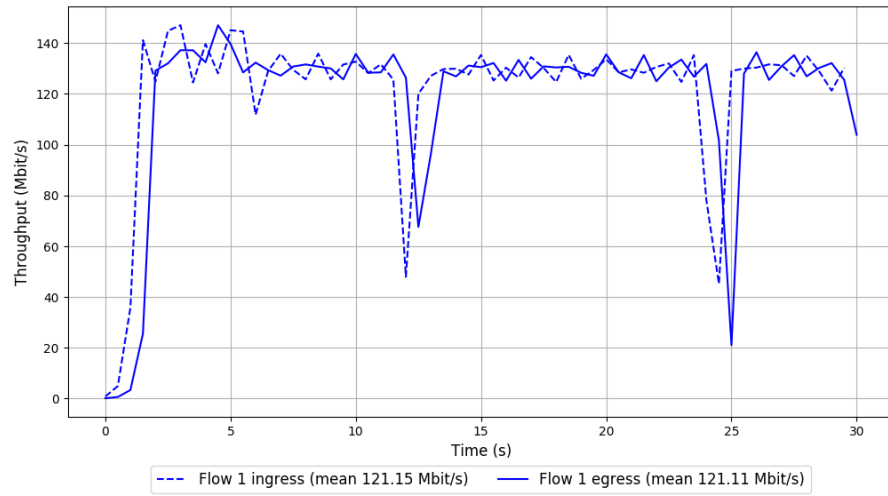
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-06-30 00:04:18
End at: 2018-06-30 00:04:48
Local clock offset: 0.183 ms
Remote clock offset: 0.059 ms


# Below is generated by plot.py at 2018-06-30 02:41:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.11 Mbit/s
95th percentile per-packet one-way delay: 93.641 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 121.11 Mbit/s
95th percentile per-packet one-way delay: 93.641 ms
Loss rate: 0.61%
```
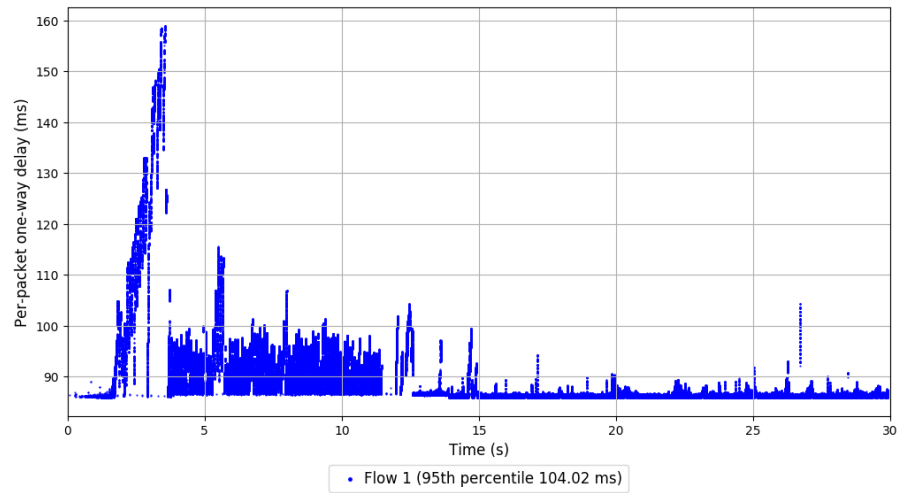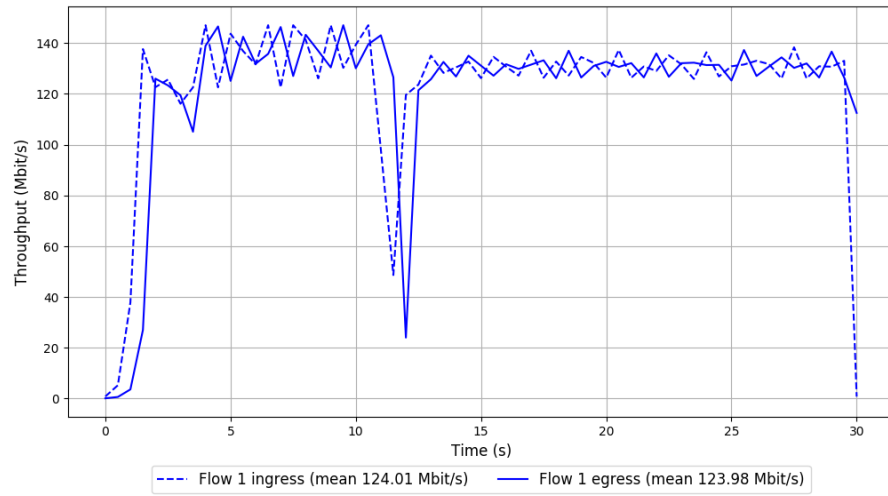
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 121.15 Mbit/s) --- Flow 1 egress (mean 121.11 Mbit/s)

Flow 1 (95th percentile 93.64 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-06-30 00:25:32
End at: 2018-06-30 00:26:02
Local clock offset: 0.13 ms
Remote clock offset: 0.163 ms


# Below is generated by plot.py at 2018-06-30 02:41:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.98 Mbit/s
95th percentile per-packet one-way delay: 104.022 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 123.98 Mbit/s
95th percentile per-packet one-way delay: 104.022 ms
Loss rate: 0.60%
```
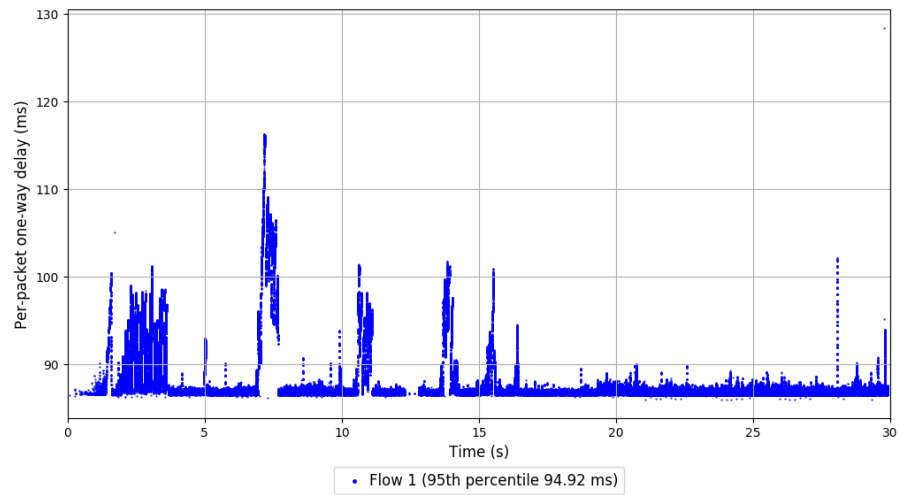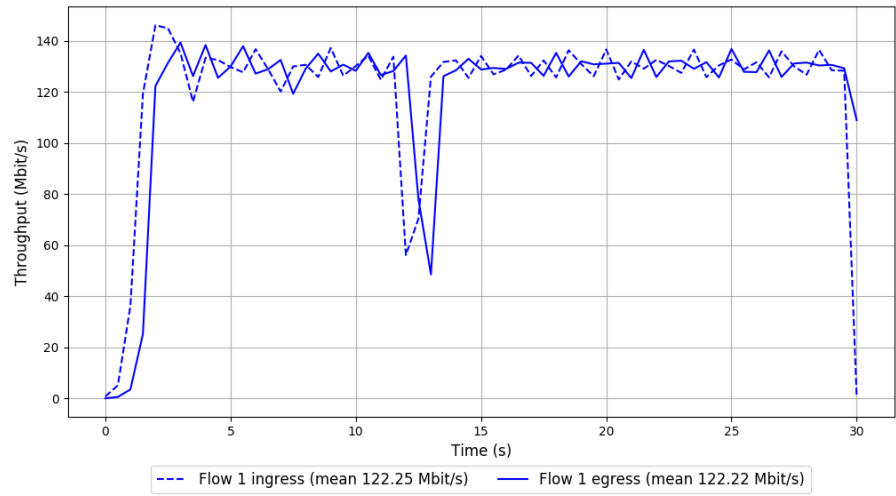
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.01 Mbit/s) ----   Flow 1 egress (mean 123.98 Mbit/s) ——

• Flow 1 (95th percentile 104.02 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-06-30 00:46:35
End at: 2018-06-30 00:47:05
Local clock offset: 0.123 ms
Remote clock offset: 0.216 ms


# Below is generated by plot.py at 2018-06-30 02:41:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.22 Mbit/s
95th percentile per-packet one-way delay: 94.920 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 122.22 Mbit/s
95th percentile per-packet one-way delay: 94.920 ms
Loss rate: 0.60%
```
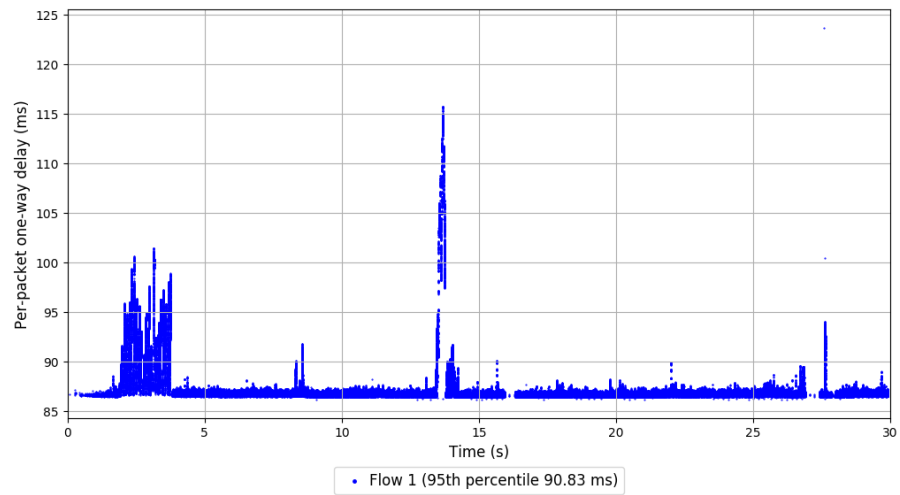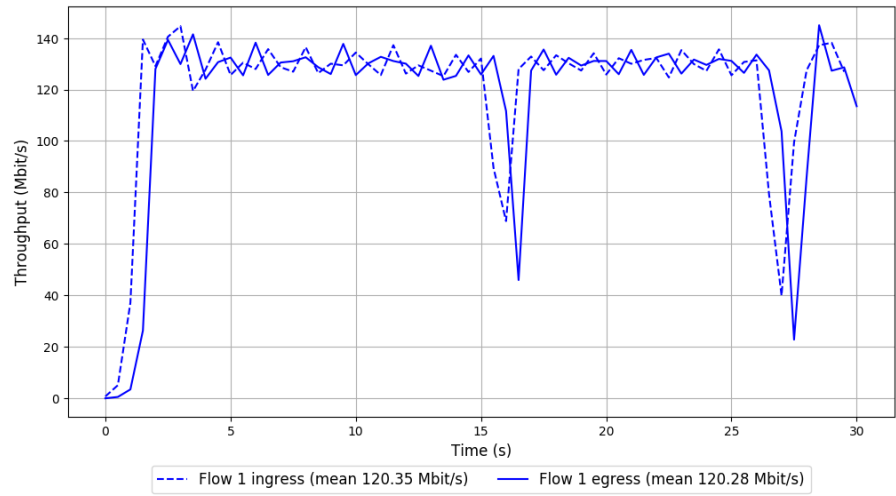
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 122.25 Mbit/s)   Flow 1 egress (mean 122.22 Mbit/s)

Flow 1 (95th percentile 94.92 ms)

13

```
Run 6: Statistics of TCP BBR

Start at: 2018-06-30 01:07:37
End at: 2018-06-30 01:08:07
Local clock offset: 0.188 ms
Remote clock offset: 0.329 ms


# Below is generated by plot.py at 2018-06-30 02:41:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 120.28 Mbit/s
95th percentile per-packet one-way delay: 90.834 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 120.28 Mbit/s
95th percentile per-packet one-way delay: 90.834 ms
Loss rate: 0.64%
```
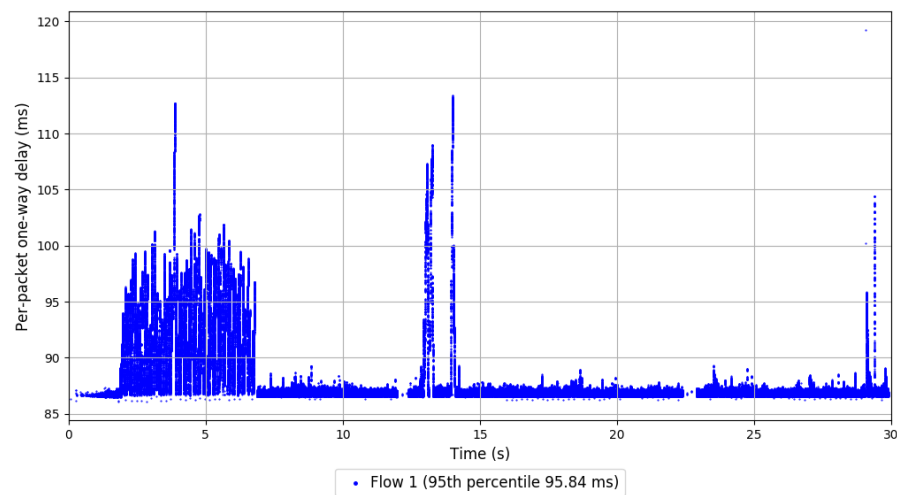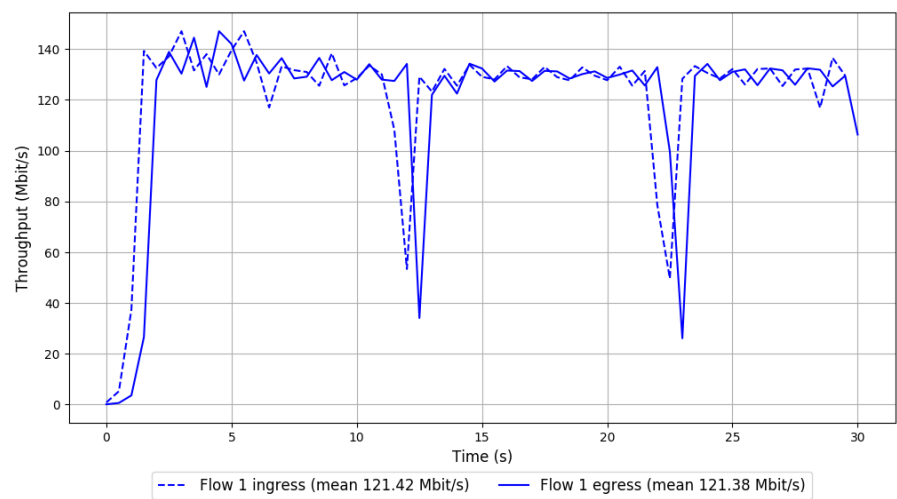
Run 6: Report of TCP BBR — Data Link

```
Run 7: Statistics of TCP BBR

Start at: 2018-06-30 01:28:42
End at: 2018-06-30 01:29:12
Local clock offset: 0.314 ms
Remote clock offset: 0.115 ms


# Below is generated by plot.py at 2018-06-30 02:41:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.38 Mbit/s
95th percentile per-packet one-way delay: 95.838 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 121.38 Mbit/s
95th percentile per-packet one-way delay: 95.838 ms
Loss rate: 0.61%
```
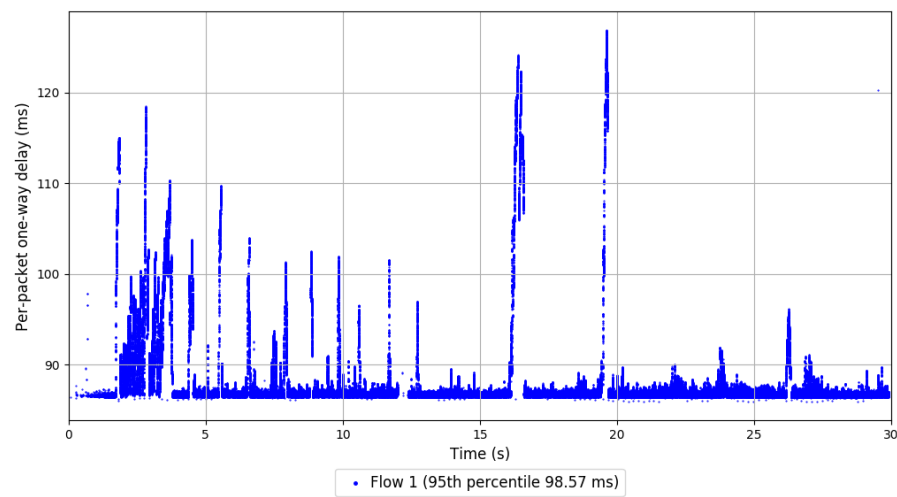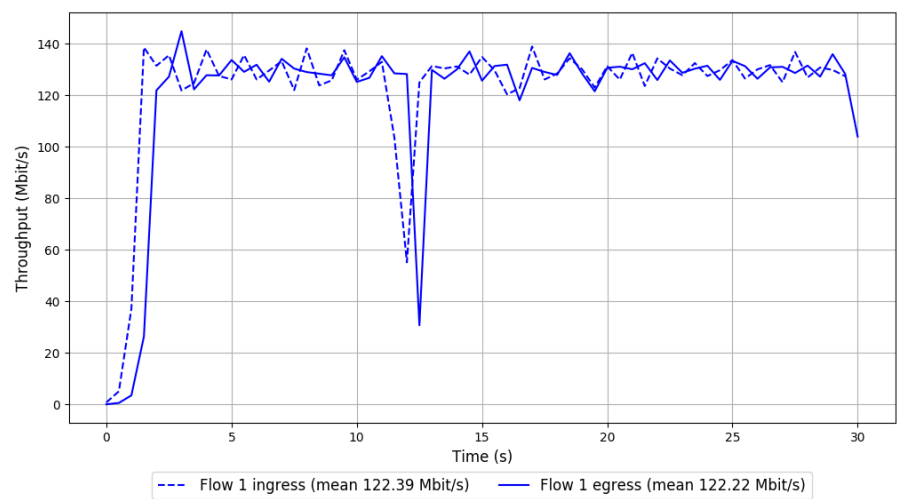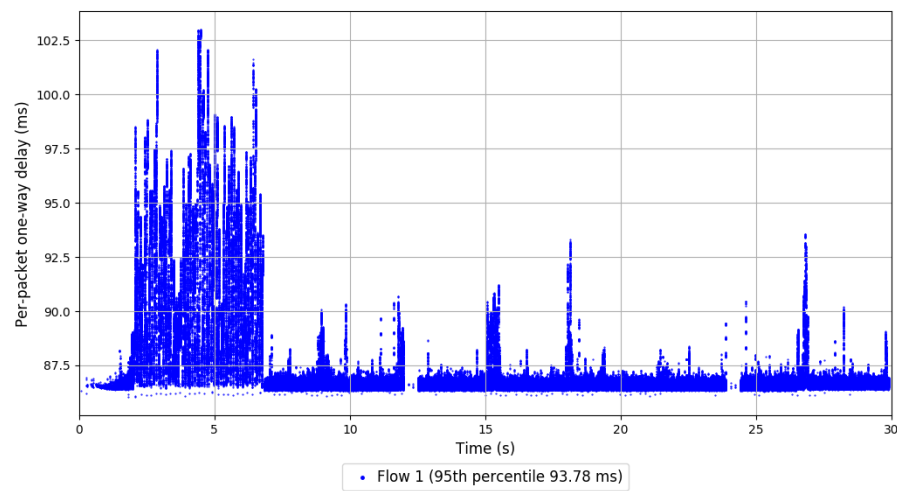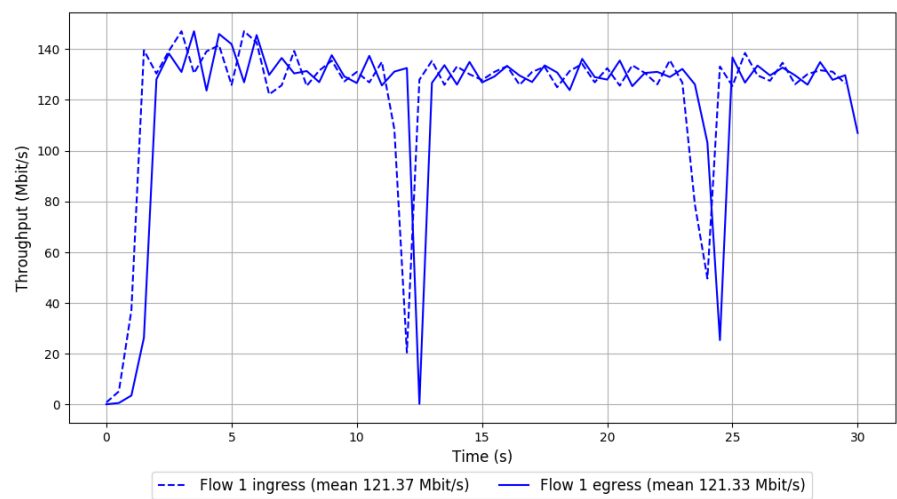
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-06-30 01:49:56
End at: 2018-06-30 01:50:26
Local clock offset: 0.191 ms
Remote clock offset: -0.002 ms


# Below is generated by plot.py at 2018-06-30 02:41:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.22 Mbit/s
95th percentile per-packet one-way delay: 98.573 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 122.22 Mbit/s
95th percentile per-packet one-way delay: 98.573 ms
Loss rate: 0.61%
```

Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-06-30 02:10:49
End at: 2018-06-30 02:11:19
Local clock offset: 0.172 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-06-30 02:43:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.33 Mbit/s
95th percentile per-packet one-way delay: 93.784 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 121.33 Mbit/s
95th percentile per-packet one-way delay: 93.784 ms
Loss rate: 0.61%
```
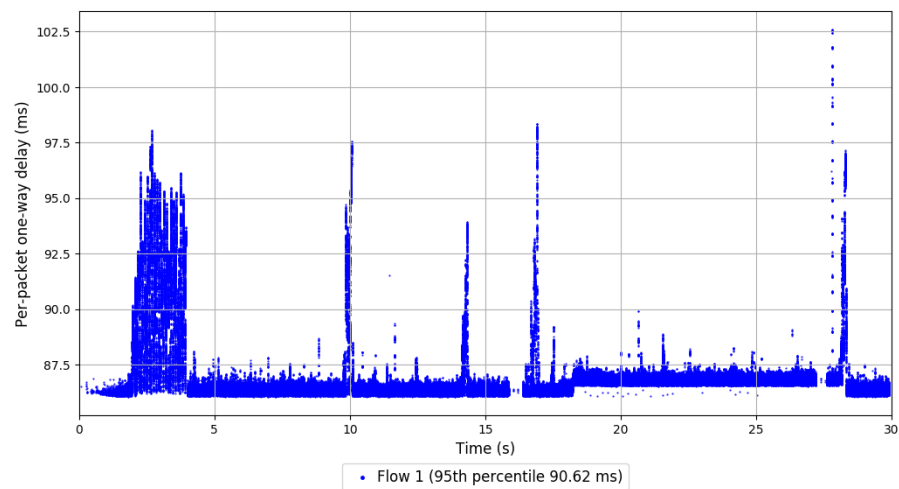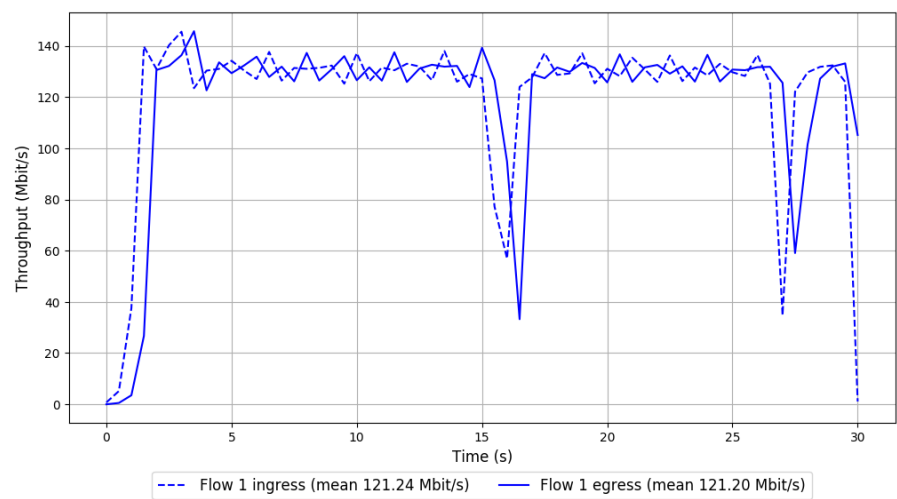
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 121.37 Mbit/s)   Flow 1 egress (mean 121.33 Mbit/s)

Flow 1 (95th percentile 93.78 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-06-30 02:31:38
End at: 2018-06-30 02:32:08
Local clock offset: 0.39 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-06-30 02:43:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.20 Mbit/s
95th percentile per-packet one-way delay: 90.623 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 121.20 Mbit/s
95th percentile per-packet one-way delay: 90.623 ms
Loss rate: 0.61%
```
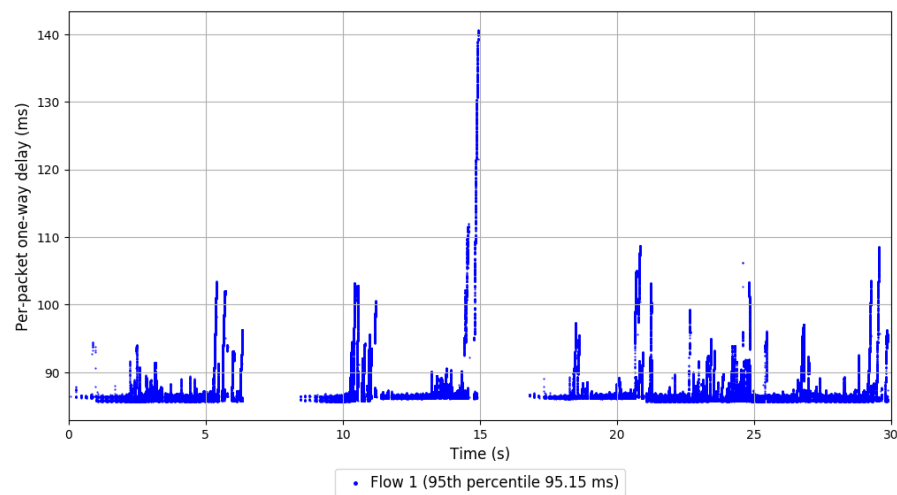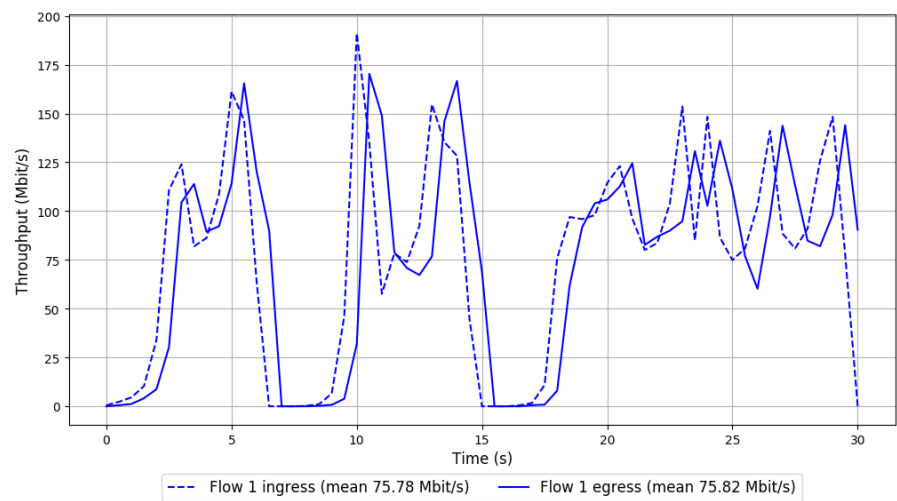
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 121.24 Mbit/s) Flow 1 egress (mean 121.20 Mbit/s)

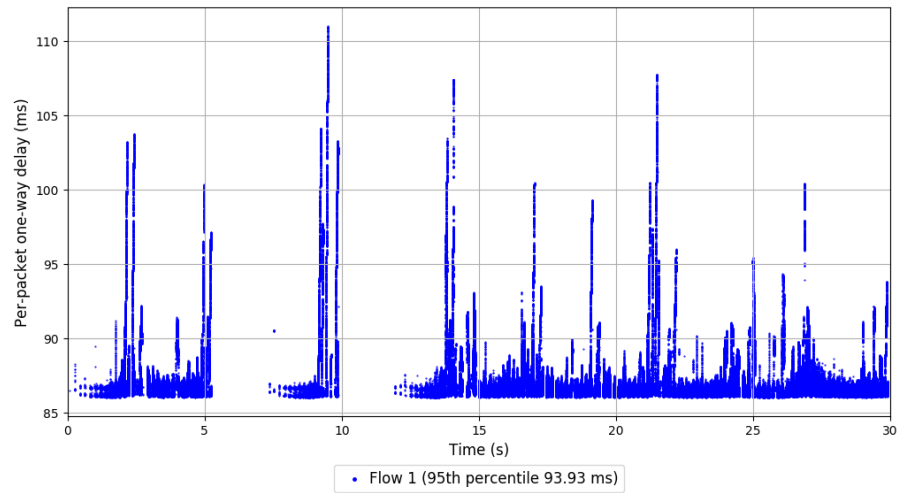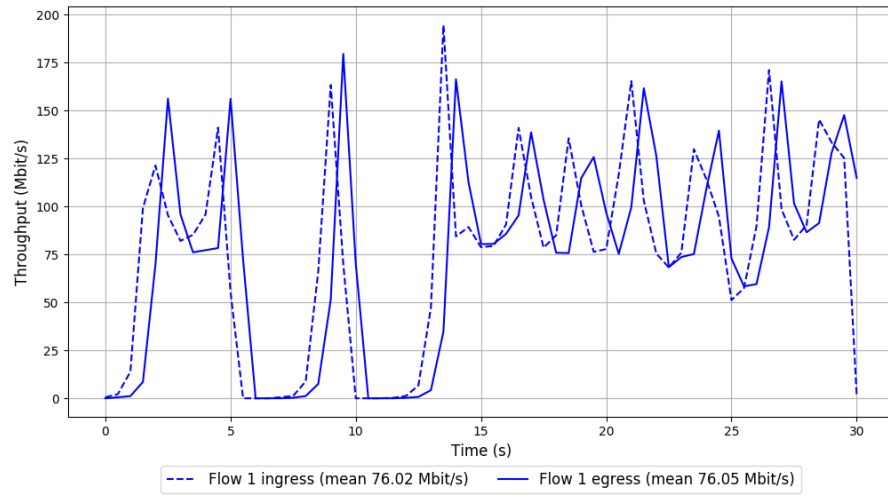• Flow 1 (95th percentile 90.62 ms)

```
Run 1: Statistics of Copa

Start at: 2018-06-29 23:11:05
End at: 2018-06-29 23:11:35
Local clock offset: 0.047 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-30 02:44:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.82 Mbit/s
95th percentile per-packet one-way delay: 95.153 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 75.82 Mbit/s
95th percentile per-packet one-way delay: 95.153 ms
Loss rate: 0.65%
```

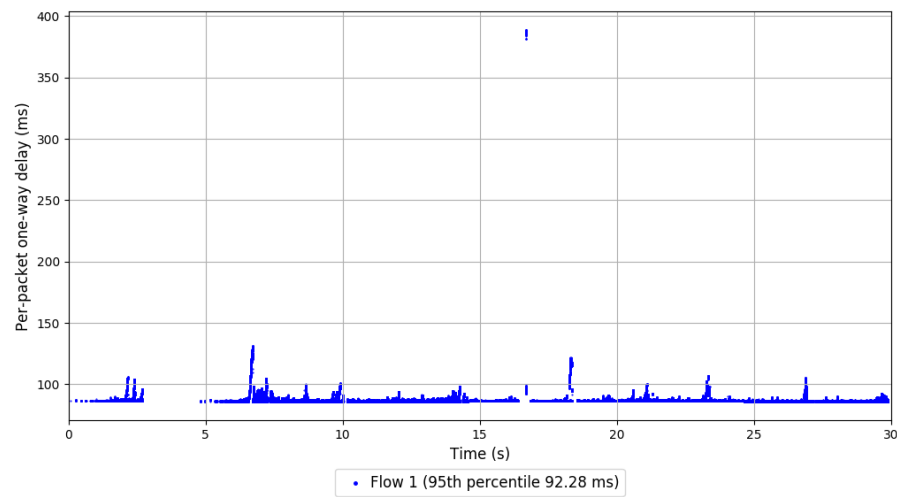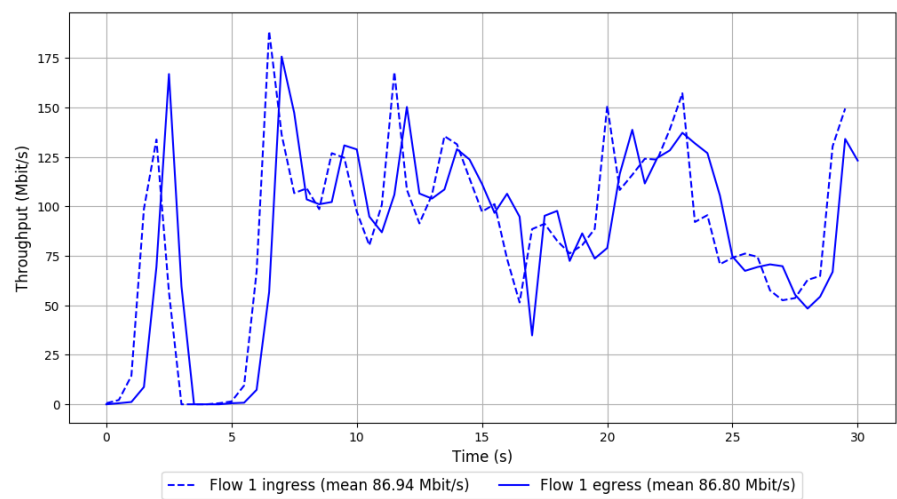Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-06-29 23:32:05
End at: 2018-06-29 23:32:35
Local clock offset: 0.298 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2018-06-30 02:44:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.05 Mbit/s
95th percentile per-packet one-way delay: 93.928 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 76.05 Mbit/s
95th percentile per-packet one-way delay: 93.928 ms
Loss rate: 0.57%
```

Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-06-29 23:53:21
End at: 2018-06-29 23:53:51
Local clock offset: 0.012 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2018-06-30 02:44:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.80 Mbit/s
95th percentile per-packet one-way delay: 92.279 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 86.80 Mbit/s
95th percentile per-packet one-way delay: 92.279 ms
Loss rate: 0.74%
```
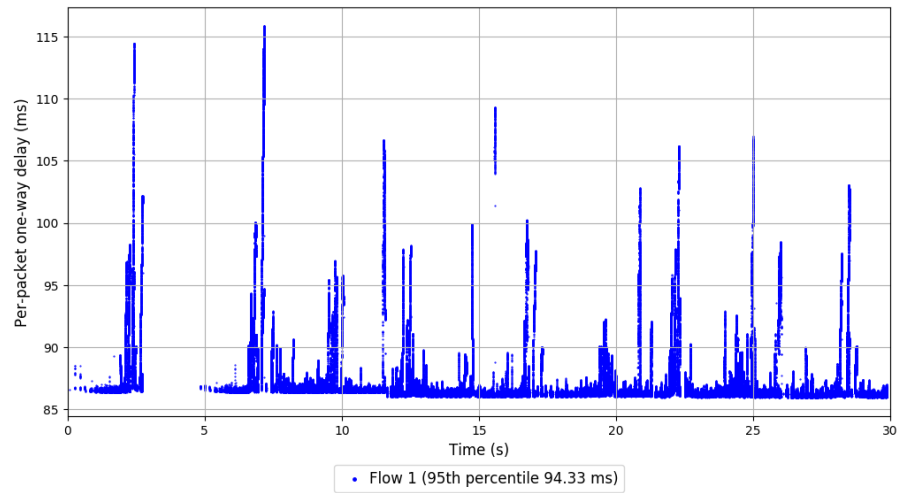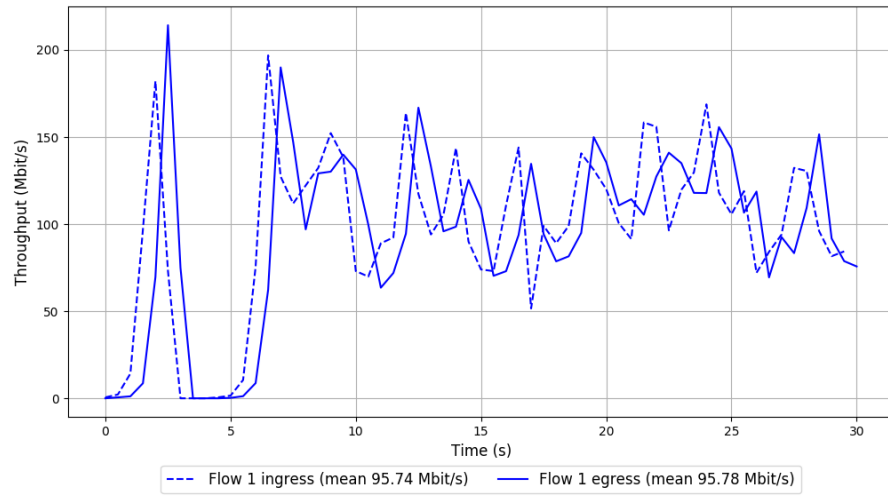
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 86.94 Mbit/s)   Flow 1 egress (mean 86.80 Mbit/s)

Flow 1 (95th percentile 92.28 ms)

```
Run 4: Statistics of Copa

Start at: 2018-06-30 00:14:14
End at: 2018-06-30 00:14:44
Local clock offset: 0.231 ms
Remote clock offset: 0.154 ms


# Below is generated by plot.py at 2018-06-30 02:44:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 94.329 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 95.78 Mbit/s
95th percentile per-packet one-way delay: 94.329 ms
Loss rate: 0.53%
```
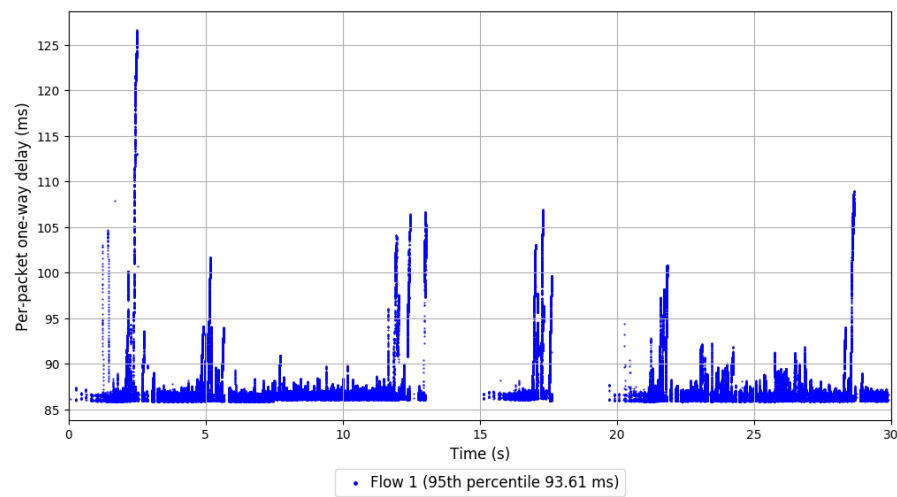
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-06-30 00:35:28
End at: 2018-06-30 00:35:58
Local clock offset: 0.169 ms
Remote clock offset: 0.199 ms


# Below is generated by plot.py at 2018-06-30 02:44:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 93.612 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 74.14 Mbit/s
95th percentile per-packet one-way delay: 93.612 ms
Loss rate: 0.70%
```
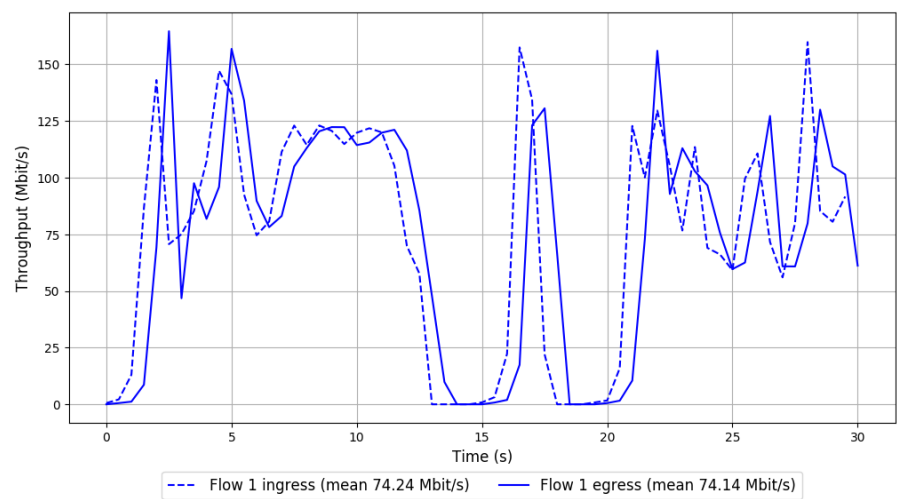
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-06-30 00:56:30
End at: 2018-06-30 00:57:00
Local clock offset: 0.067 ms
Remote clock offset: 0.192 ms


# Below is generated by plot.py at 2018-06-30 02:44:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 92.084 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 97.22 Mbit/s
95th percentile per-packet one-way delay: 92.084 ms
Loss rate: 0.84%
```
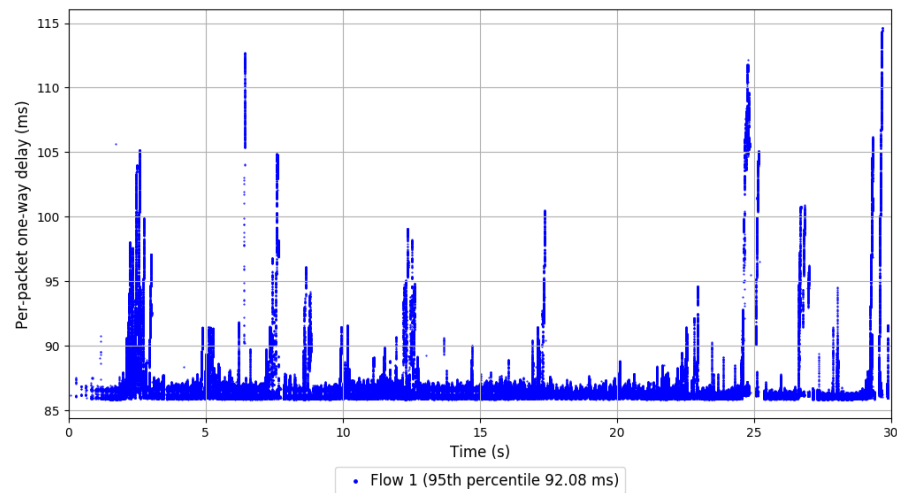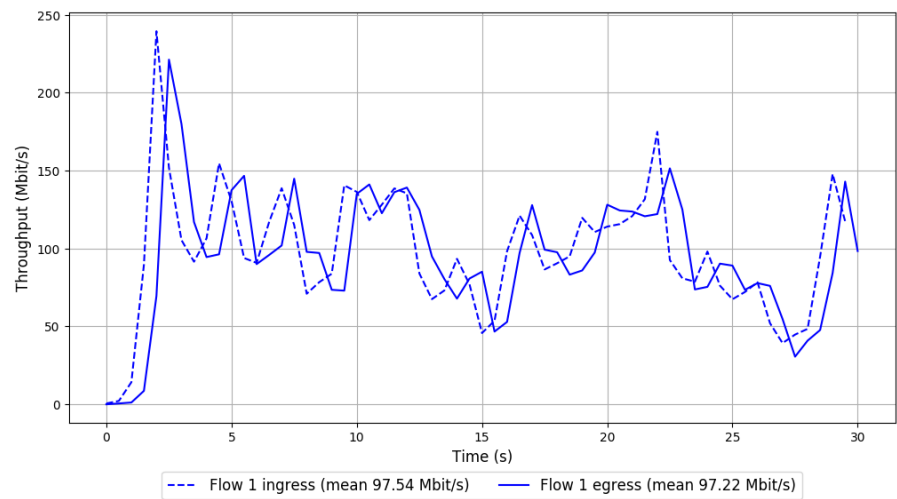
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-06-30 01:17:25
End at: 2018-06-30 01:17:55
Local clock offset: 0.207 ms
Remote clock offset: 0.149 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.98 Mbit/s
95th percentile per-packet one-way delay: 116.177 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 124.98 Mbit/s
95th percentile per-packet one-way delay: 116.177 ms
Loss rate: 0.49%
```
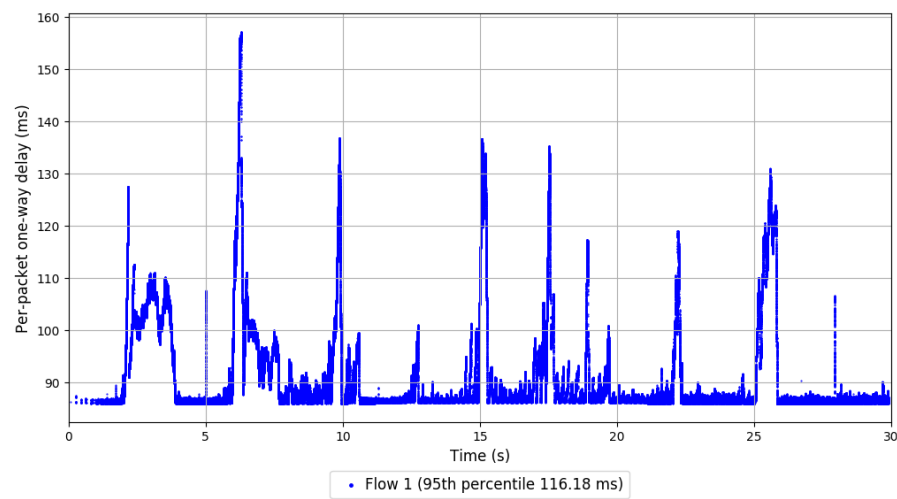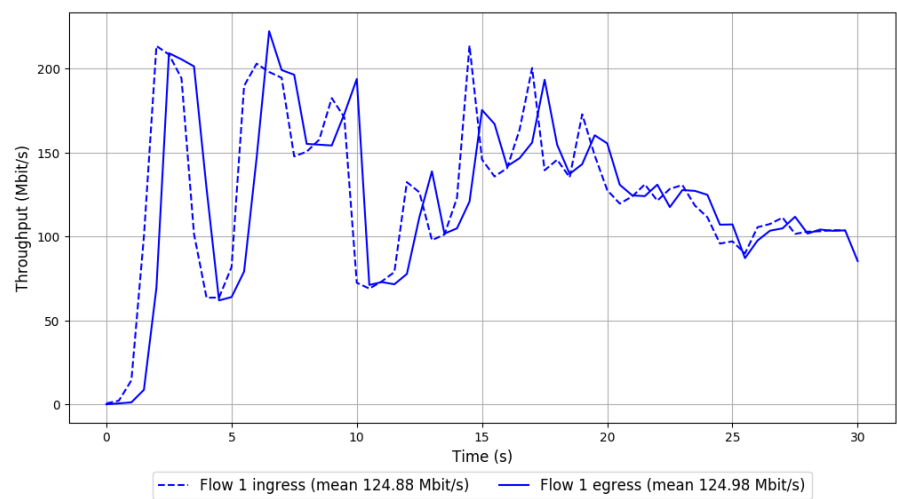
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-06-30 01:38:37
End at: 2018-06-30 01:39:07
Local clock offset: 0.2 ms
Remote clock offset: 0.052 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 101.34 Mbit/s
95th percentile per-packet one-way delay: 93.340 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 101.34 Mbit/s
95th percentile per-packet one-way delay: 93.340 ms
Loss rate: 0.75%
```
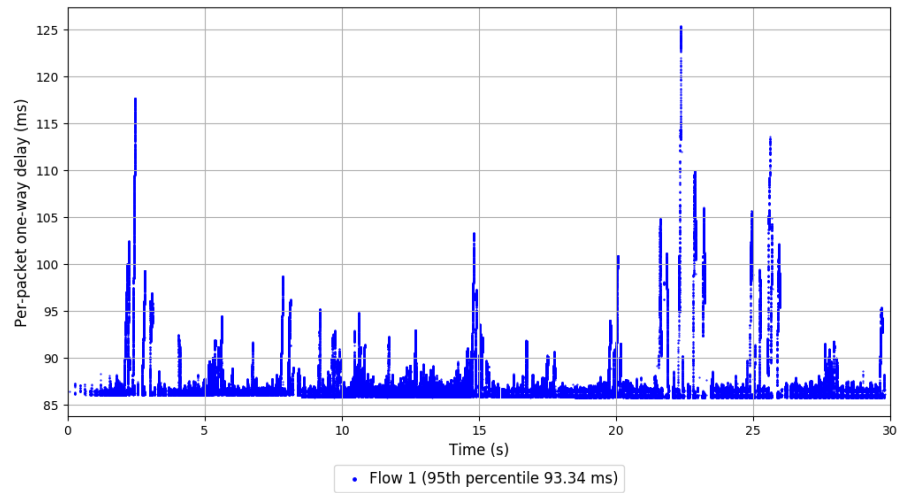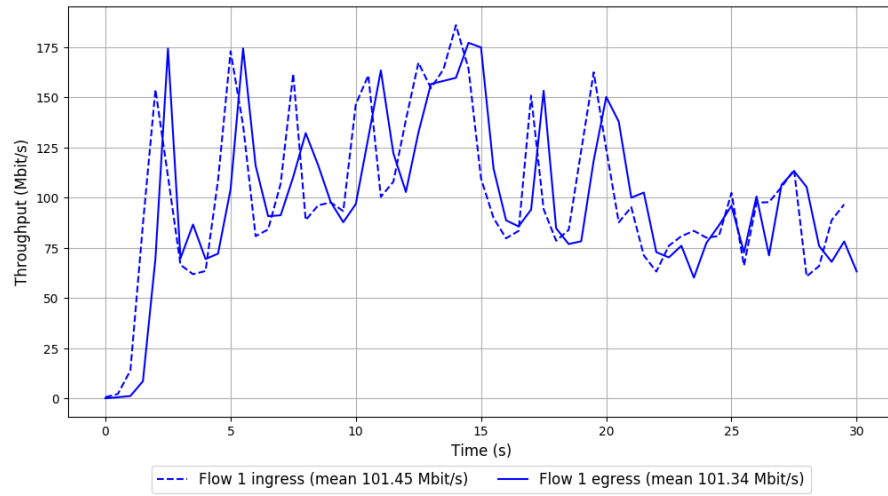
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2018-06-30 01:59:34
End at: 2018-06-30 02:00:04
Local clock offset: 0.403 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 95.764 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 95.764 ms
Loss rate: 0.70%
```
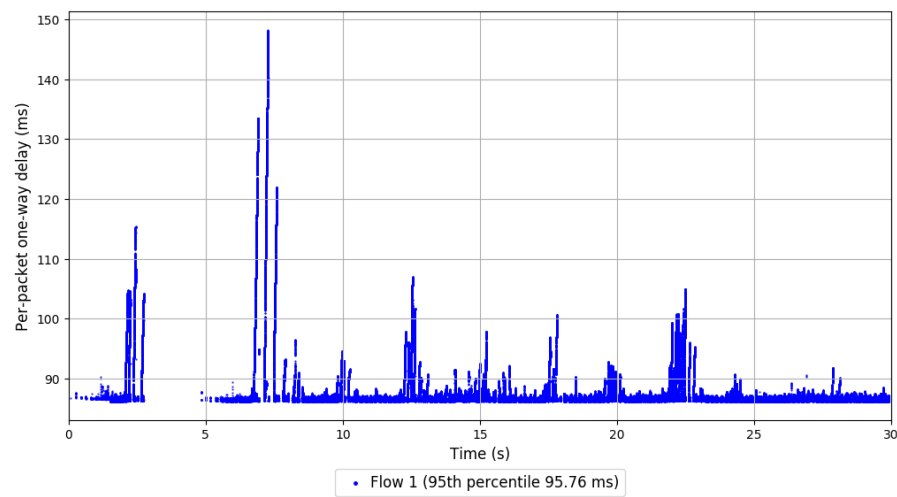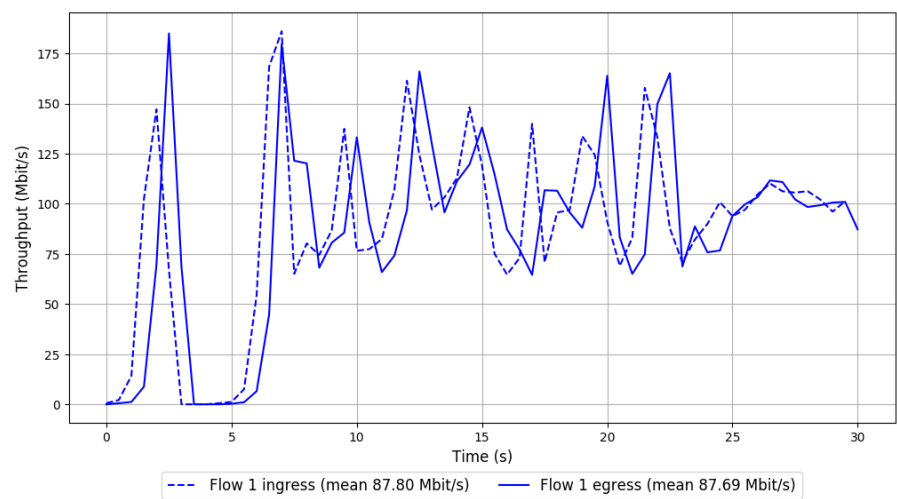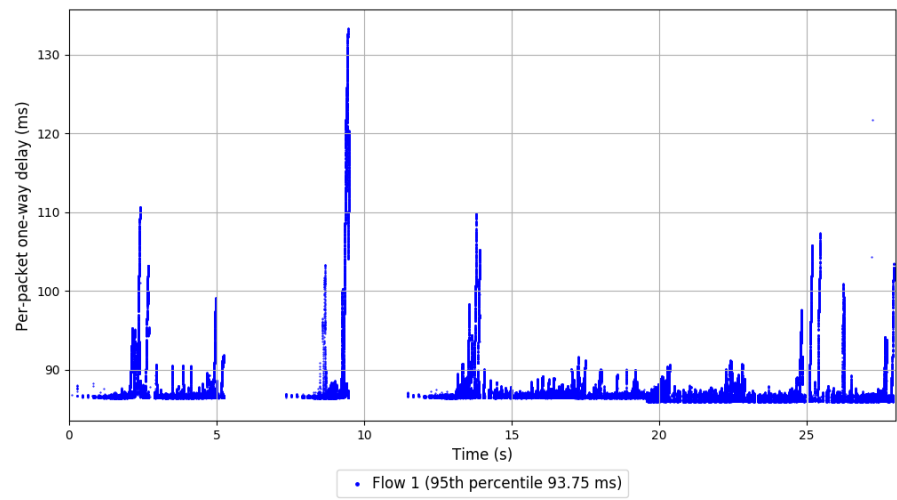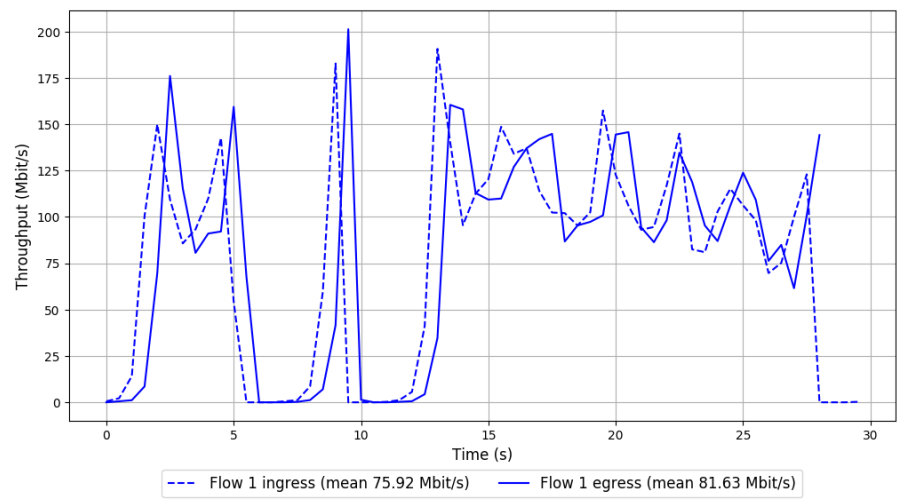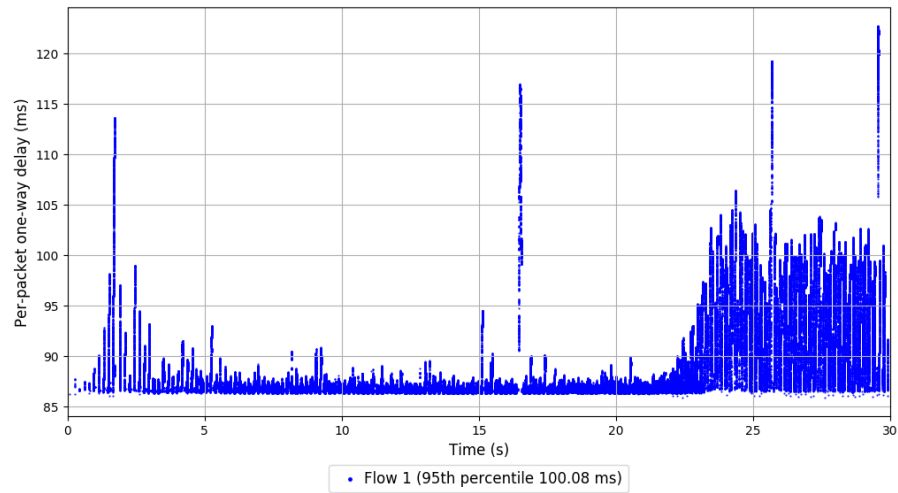
Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 87.80 Mbit/s) ---- Flow 1 egress (mean 87.69 Mbit/s)

• Flow 1 (95th percentile 95.76 ms)

```
Run 10: Statistics of Copa

Start at: 2018-06-30 02:20:46
End at: 2018-06-30 02:21:16
Local clock offset: 0.283 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.63 Mbit/s
95th percentile per-packet one-way delay: 93.746 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 81.63 Mbit/s
95th percentile per-packet one-way delay: 93.746 ms
Loss rate: 0.01%
```

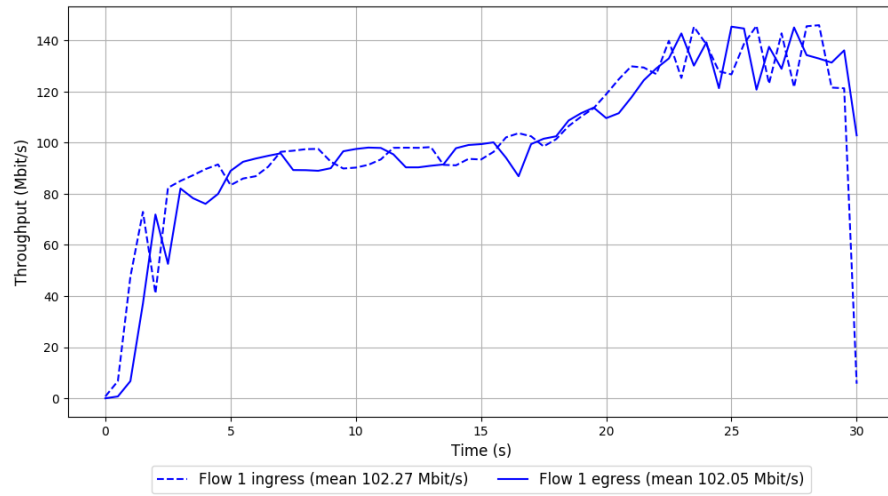Run 10: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 23:17:00
End at: 2018-06-29 23:17:30
Local clock offset: 0.174 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 102.05 Mbit/s
95th percentile per-packet one-way delay: 100.084 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 102.05 Mbit/s
95th percentile per-packet one-way delay: 100.084 ms
Loss rate: 0.79%
```
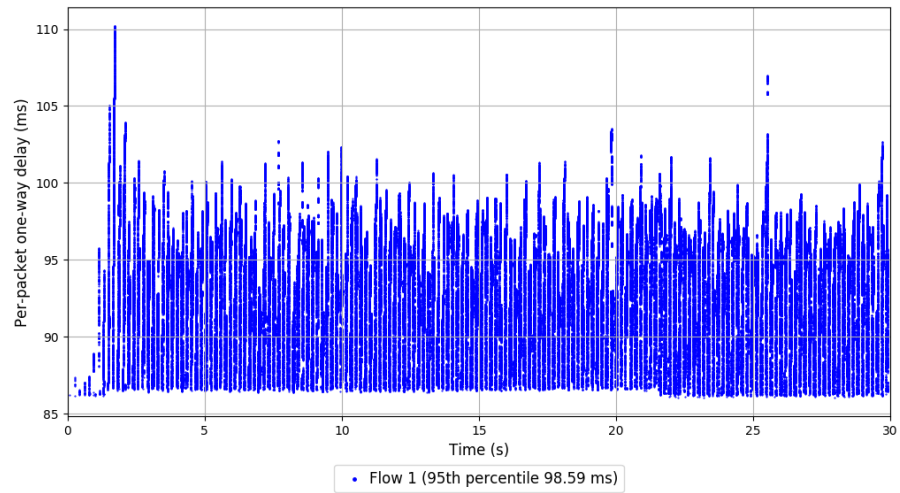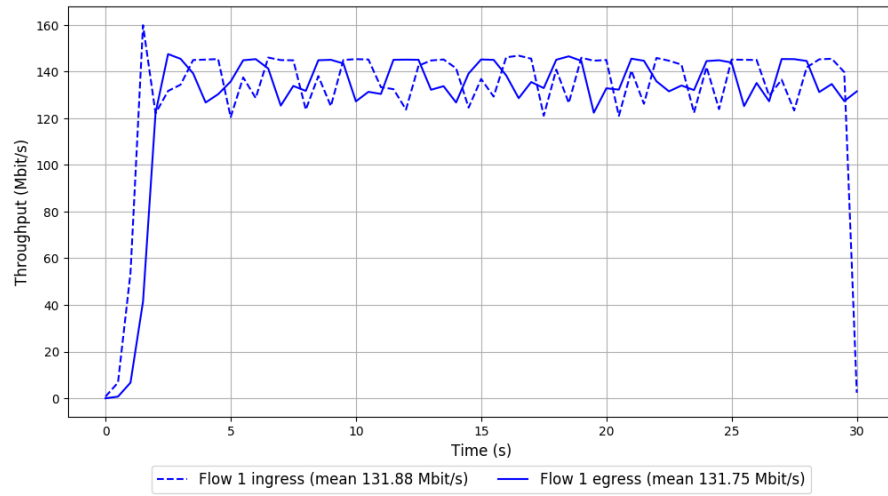
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 102.27 Mbit/s) — — — Flow 1 egress (mean 102.05 Mbit/s) ———

Flow 1 (95th percentile 100.08 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-06-29 23:38:04
End at: 2018-06-29 23:38:34
Local clock offset: 0.177 ms
Remote clock offset: 0.0 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.75 Mbit/s
95th percentile per-packet one-way delay: 98.594 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 131.75 Mbit/s
95th percentile per-packet one-way delay: 98.594 ms
Loss rate: 0.67%
```
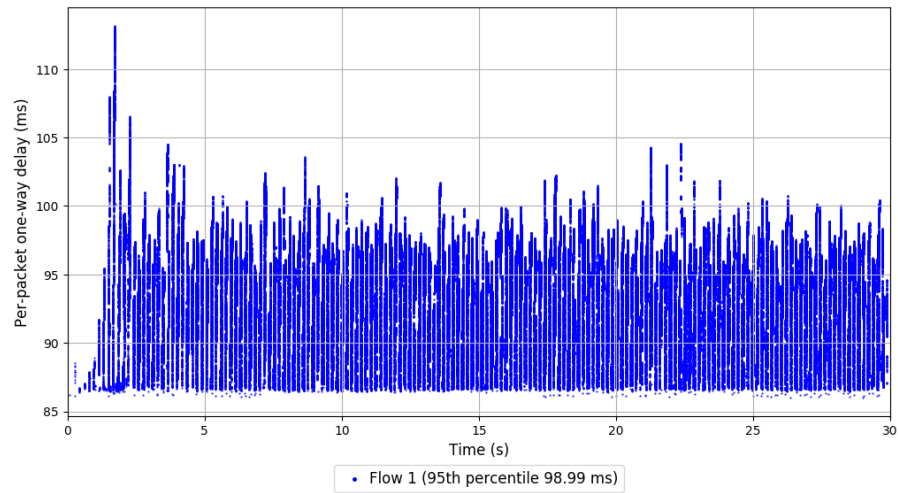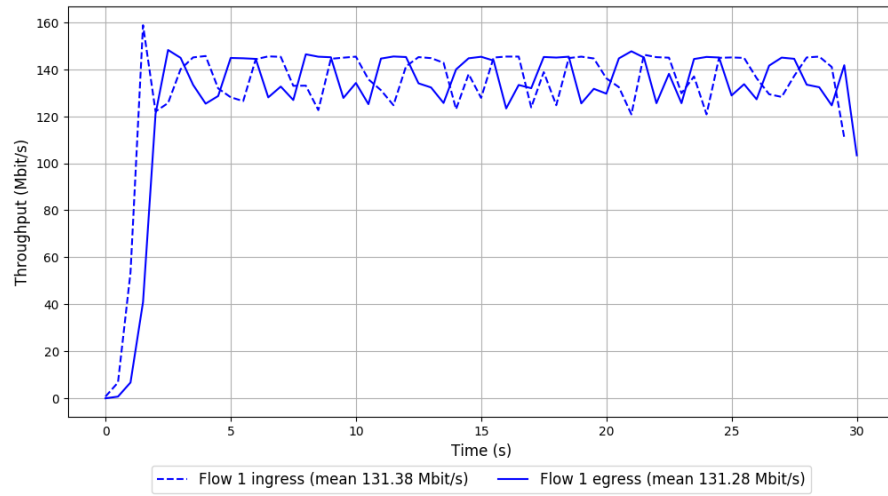
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 131.88 Mbit/s)   Flow 1 egress (mean 131.75 Mbit/s)

Flow 1 (95th percentile 98.59 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-06-29 23:59:19
End at: 2018-06-29 23:59:49
Local clock offset: 0.237 ms
Remote clock offset: 0.053 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.28 Mbit/s
95th percentile per-packet one-way delay: 98.992 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 131.28 Mbit/s
95th percentile per-packet one-way delay: 98.992 ms
Loss rate: 0.66%
```

Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2018-06-30 00:20:13
End at: 2018-06-30 00:20:43
Local clock offset: 0.233 ms
Remote clock offset: 0.143 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 98.56 Mbit/s
95th percentile per-packet one-way delay: 99.041 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 98.56 Mbit/s
95th percentile per-packet one-way delay: 99.041 ms
Loss rate: 0.82%
```
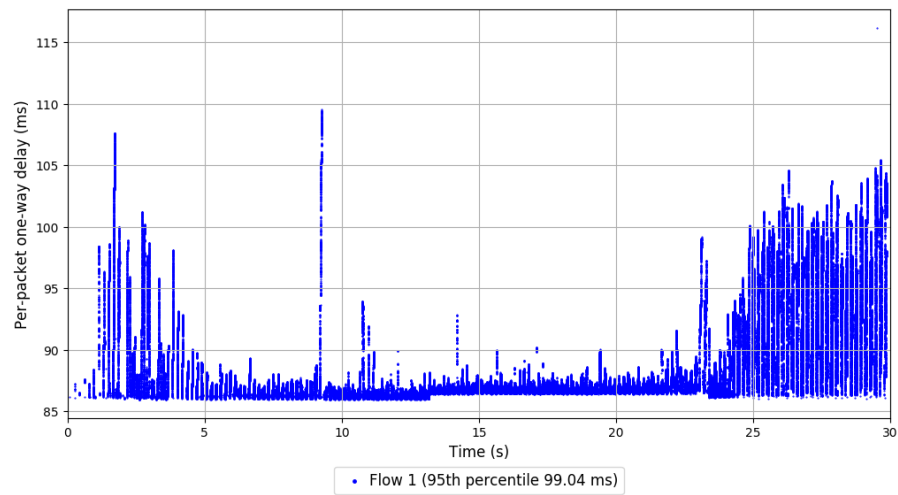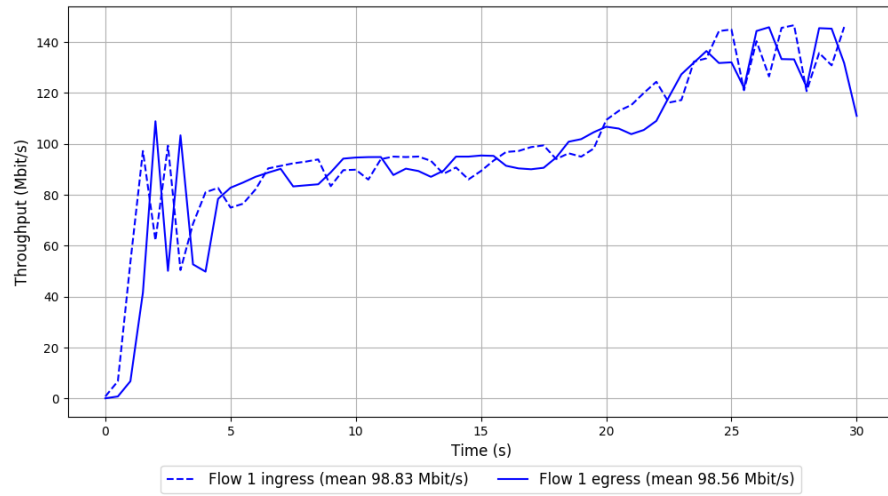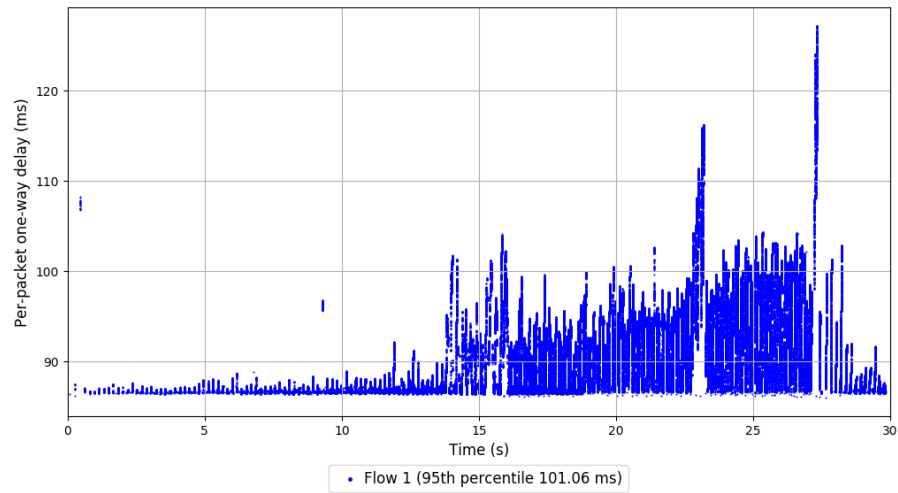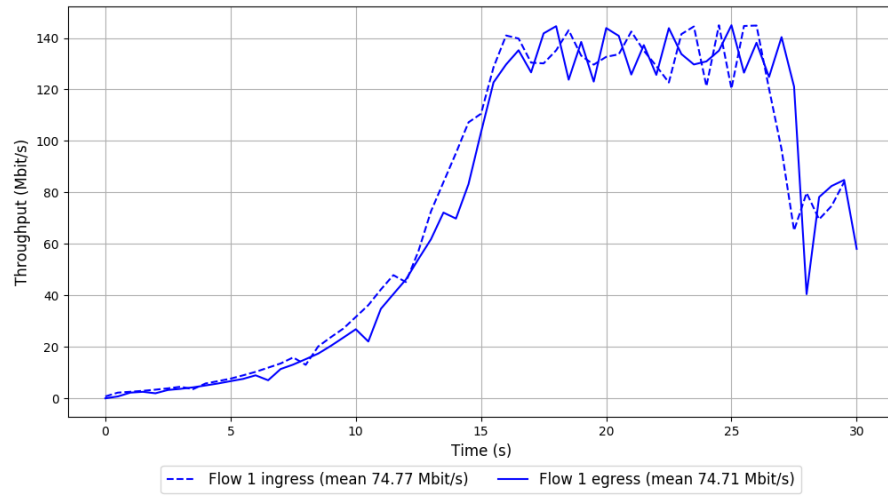
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 98.83 Mbit/s)   Flow 1 egress (mean 98.56 Mbit/s)

Flow 1 (95th percentile 99.04 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-06-30 00:41:29
End at: 2018-06-30 00:41:59
Local clock offset: 0.149 ms
Remote clock offset: 0.27 ms


# Below is generated by plot.py at 2018-06-30 02:48:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 101.063 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 74.71 Mbit/s
95th percentile per-packet one-way delay: 101.063 ms
Loss rate: 0.66%
```
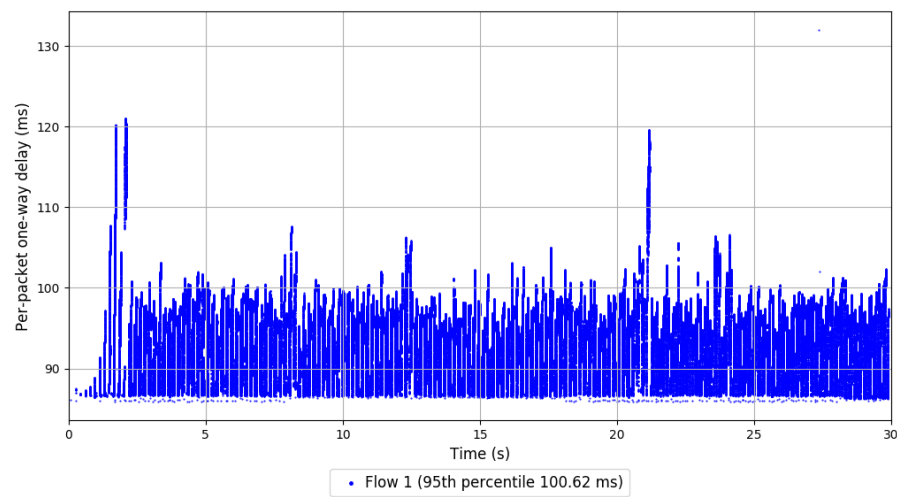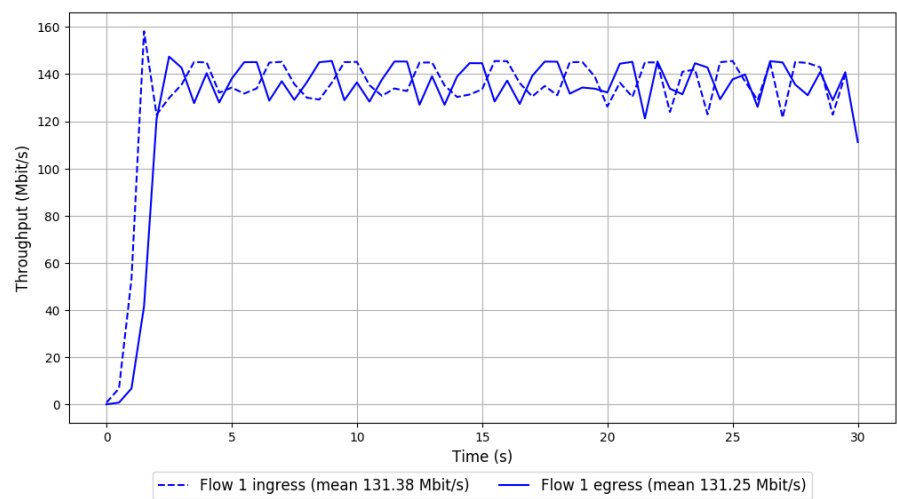
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 74.77 Mbit/s) — — — — Flow 1 egress (mean 74.71 Mbit/s)

• Flow 1 (95th percentile 101.06 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-06-30 01:02:28
End at: 2018-06-30 01:02:58
Local clock offset: 0.112 ms
Remote clock offset: 0.273 ms


# Below is generated by plot.py at 2018-06-30 02:48:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.25 Mbit/s
95th percentile per-packet one-way delay: 100.617 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 131.25 Mbit/s
95th percentile per-packet one-way delay: 100.617 ms
Loss rate: 0.67%
```
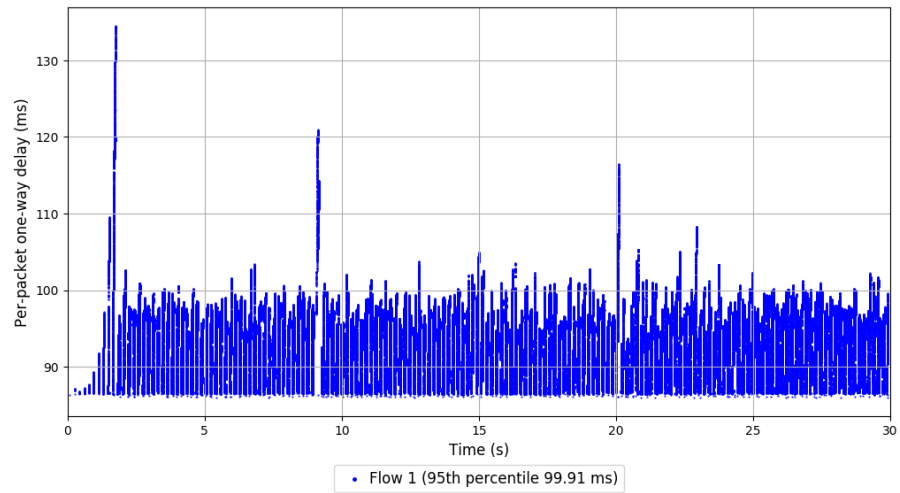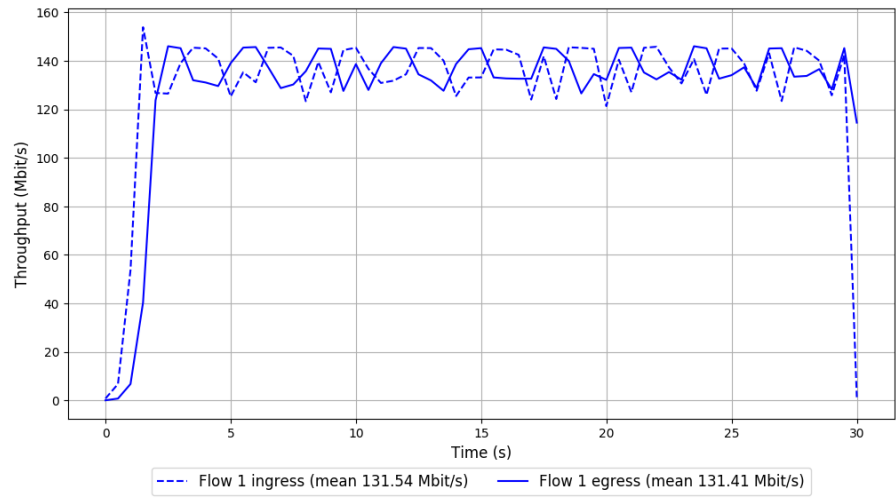
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 131.38 Mbit/s)   Flow 1 egress (mean 131.25 Mbit/s)

Flow 1 (95th percentile 100.62 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-06-30 01:23:27
End at: 2018-06-30 01:23:57
Local clock offset: 0.093 ms
Remote clock offset: 0.139 ms


# Below is generated by plot.py at 2018-06-30 02:49:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.41 Mbit/s
95th percentile per-packet one-way delay: 99.911 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 131.41 Mbit/s
95th percentile per-packet one-way delay: 99.911 ms
Loss rate: 0.68%
```
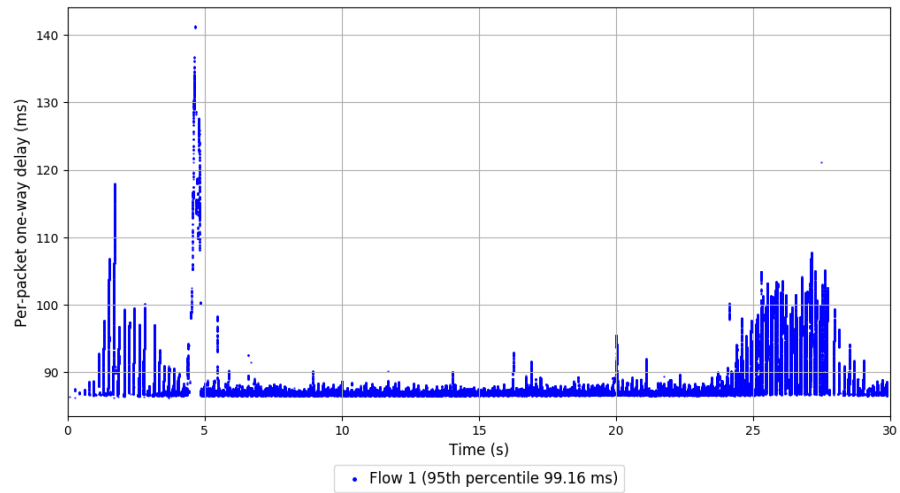
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-06-30 01:44:41
End at: 2018-06-30 01:45:11
Local clock offset: 0.315 ms
Remote clock offset: 0.086 ms


# Below is generated by plot.py at 2018-06-30 02:49:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.06 Mbit/s
95th percentile per-packet one-way delay: 99.158 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 87.06 Mbit/s
95th percentile per-packet one-way delay: 99.158 ms
Loss rate: 0.55%
```
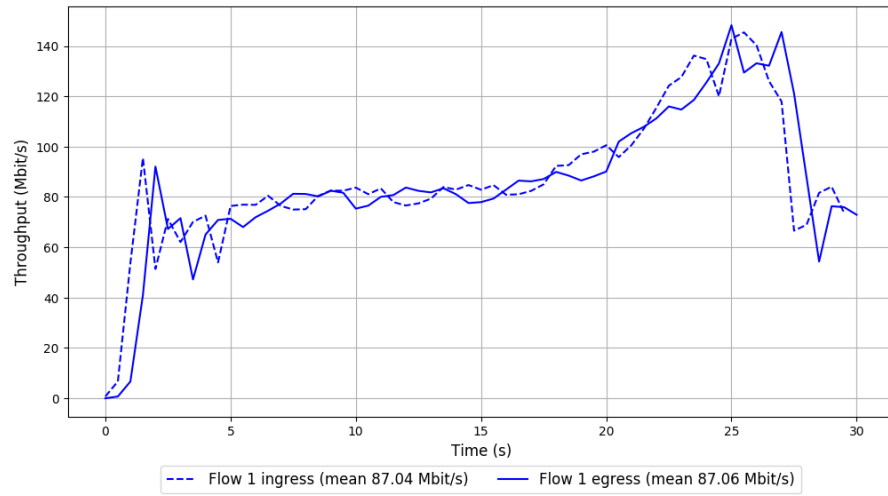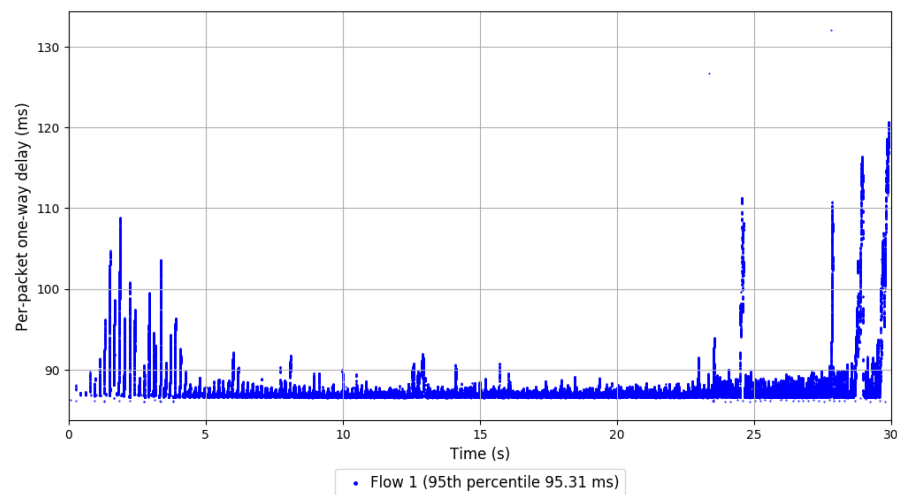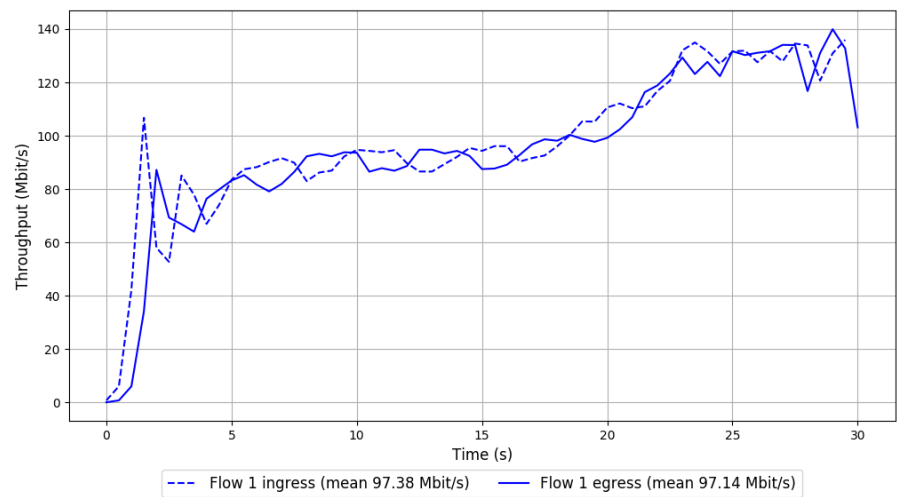
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 87.04 Mbit/s)   Flow 1 egress (mean 87.06 Mbit/s)

Flow 1 (95th percentile 99.16 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-06-30 02:05:28
End at: 2018-06-30 02:05:58
Local clock offset: 0.298 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2018-06-30 02:49:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 95.306 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 97.14 Mbit/s
95th percentile per-packet one-way delay: 95.306 ms
Loss rate: 0.82%
```
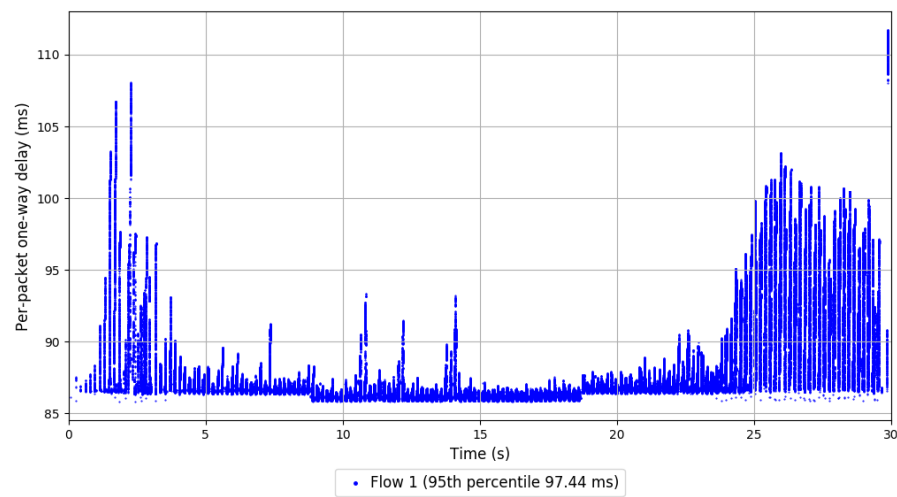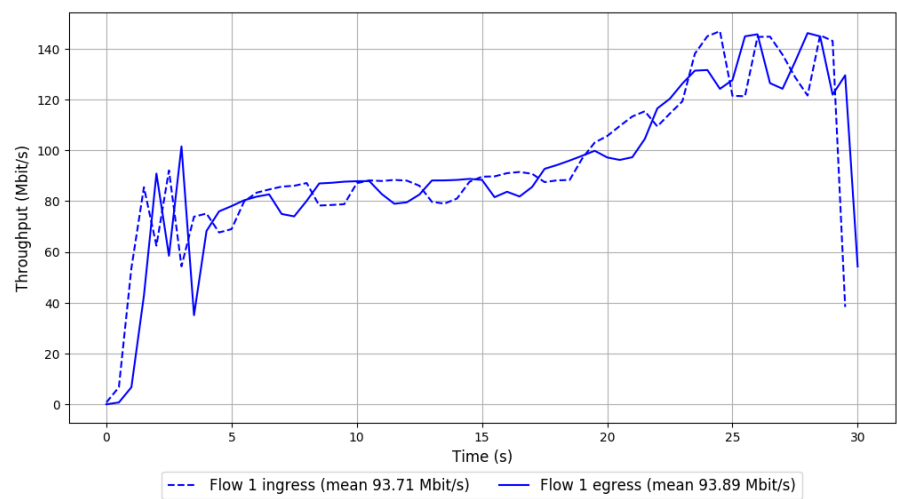
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 97.38 Mbit/s)   Flow 1 egress (mean 97.14 Mbit/s)

Flow 1 (95th percentile 95.31 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-06-30 02:26:37
End at: 2018-06-30 02:27:07
Local clock offset: 0.129 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2018-06-30 02:49:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 97.436 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 97.436 ms
Loss rate: 0.39%
```
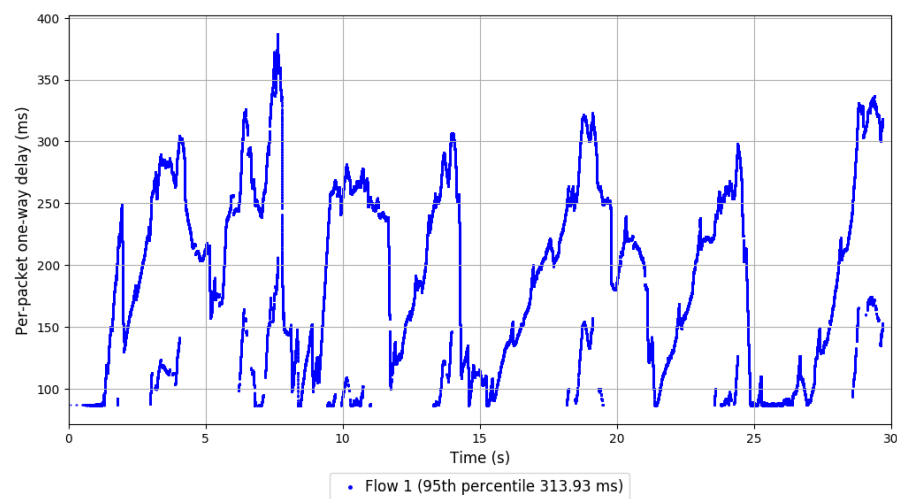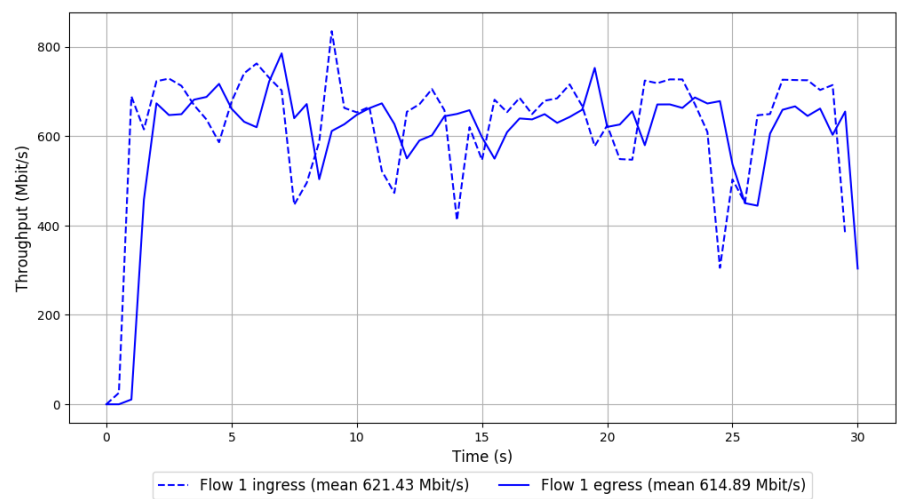
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 93.71 Mbit/s) — — —   Flow 1 egress (mean 93.89 Mbit/s)
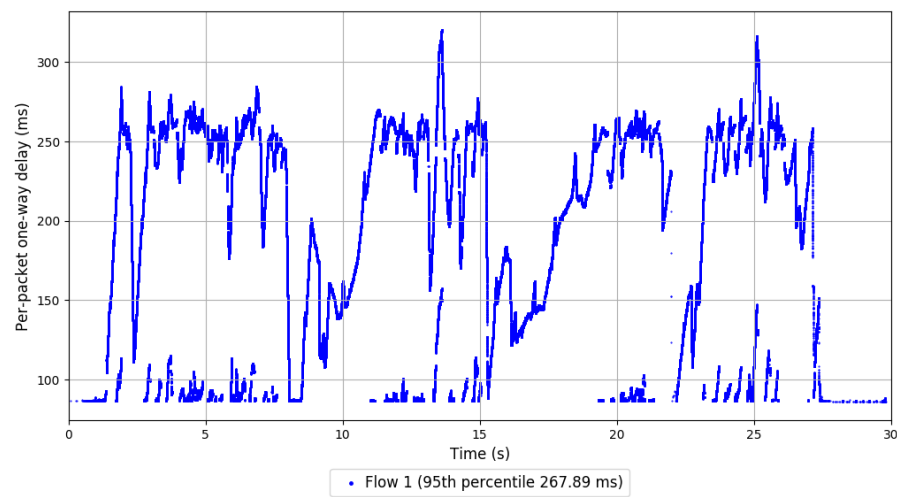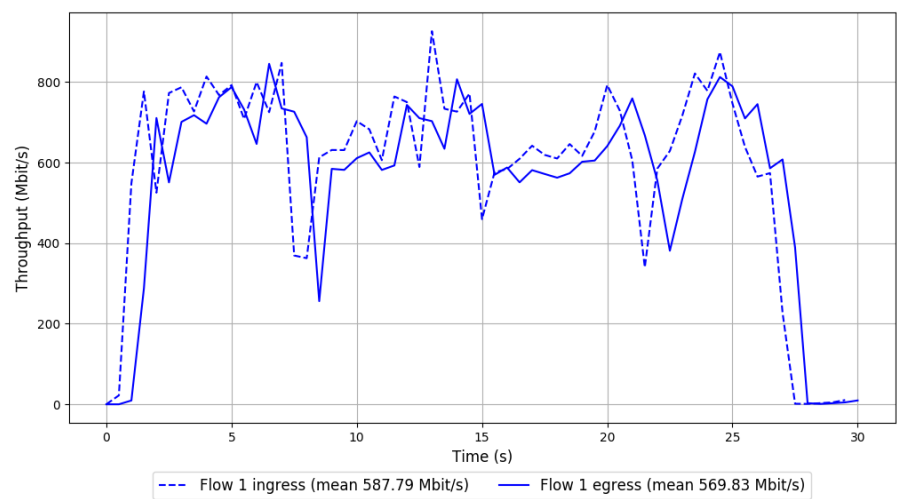

Flow 1 (95th percentile 97.44 ms)

```
Run 1: Statistics of FillP

Start at: 2018-06-29 23:19:22
End at: 2018-06-29 23:19:52
Local clock offset: 0.364 ms
Remote clock offset: -0.015 ms


# Below is generated by plot.py at 2018-06-30 03:00:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 614.89 Mbit/s
95th percentile per-packet one-way delay: 313.926 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 614.89 Mbit/s
95th percentile per-packet one-way delay: 313.926 ms
Loss rate: 1.63%
```
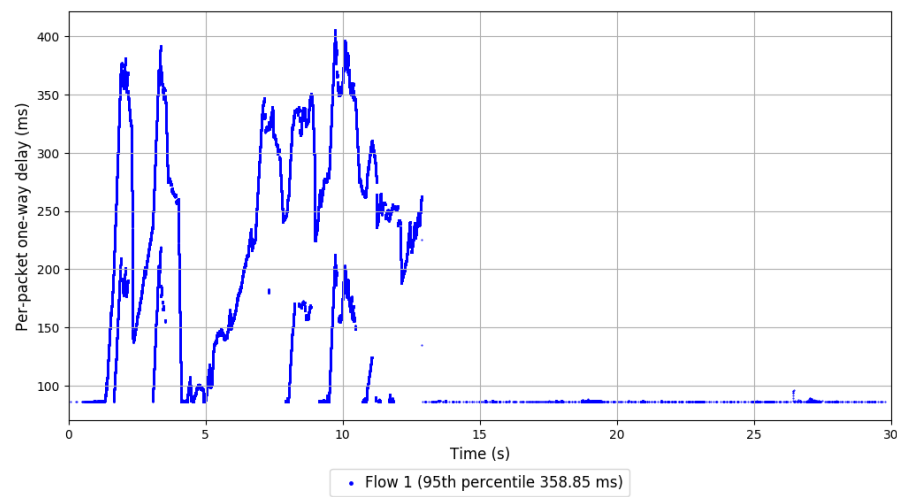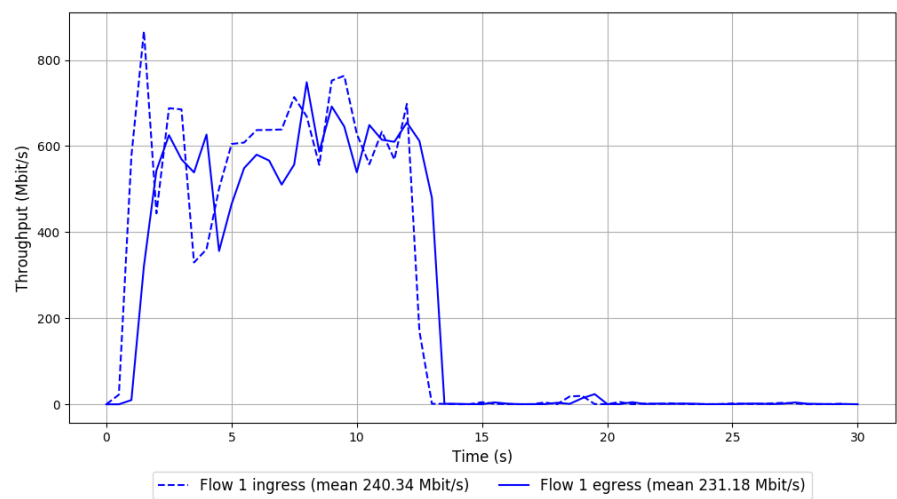
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-06-29 23:40:28
End at: 2018-06-29 23:40:58
Local clock offset: 0.194 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-06-30 03:00:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 569.83 Mbit/s
95th percentile per-packet one-way delay: 267.886 ms
Loss rate: 3.52%
-- Flow 1:
Average throughput: 569.83 Mbit/s
95th percentile per-packet one-way delay: 267.886 ms
Loss rate: 3.52%
```
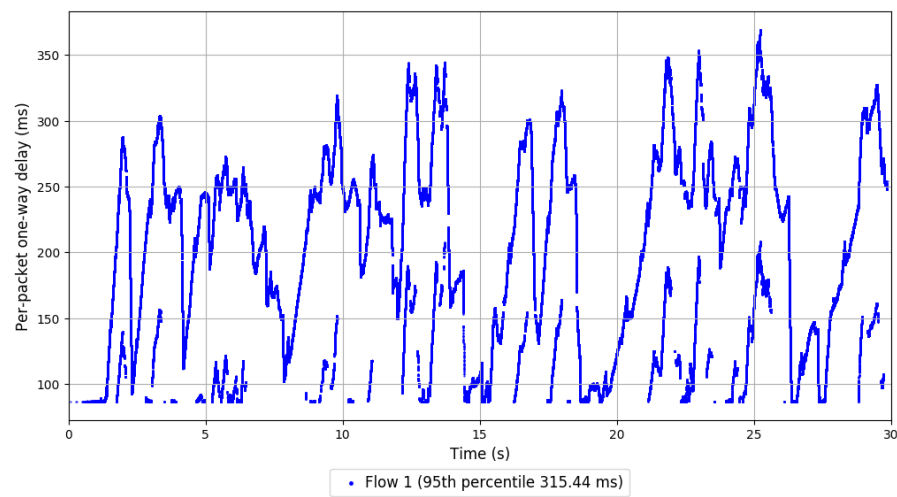
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-06-30 00:01:42
End at: 2018-06-30 00:02:12
Local clock offset: 0.104 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-06-30 03:00:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.18 Mbit/s
95th percentile per-packet one-way delay: 358.849 ms
Loss rate: 4.61%
-- Flow 1:
Average throughput: 231.18 Mbit/s
95th percentile per-packet one-way delay: 358.849 ms
Loss rate: 4.61%
```
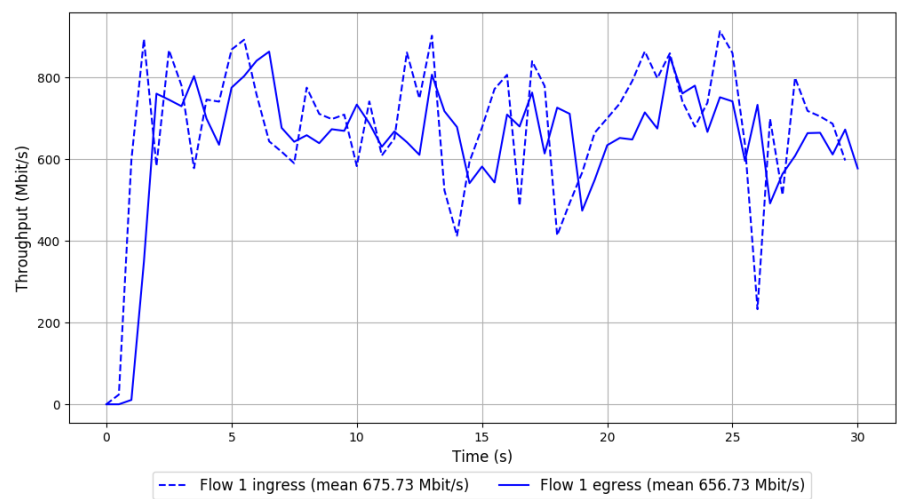
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-06-30 00:22:37
End at: 2018-06-30 00:23:07
Local clock offset: 0.191 ms
Remote clock offset: 0.144 ms


# Below is generated by plot.py at 2018-06-30 03:02:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 656.73 Mbit/s
95th percentile per-packet one-way delay: 315.440 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 656.73 Mbit/s
95th percentile per-packet one-way delay: 315.440 ms
Loss rate: 3.37%
```
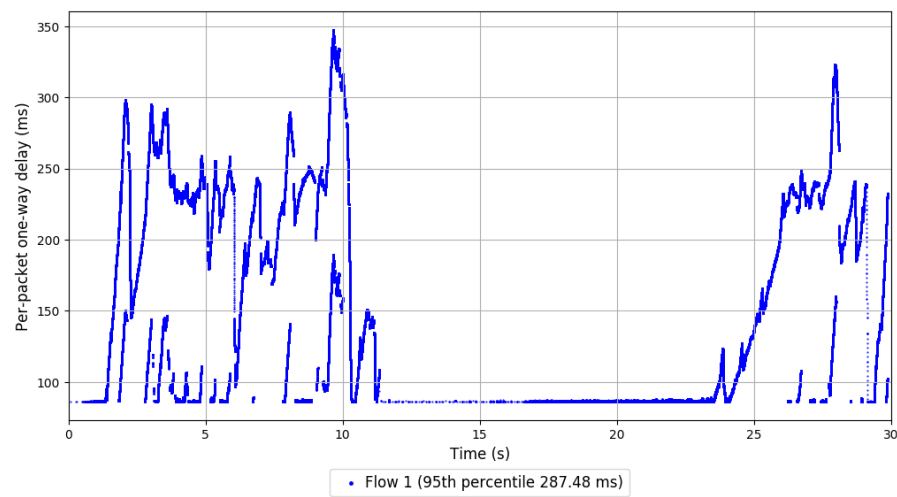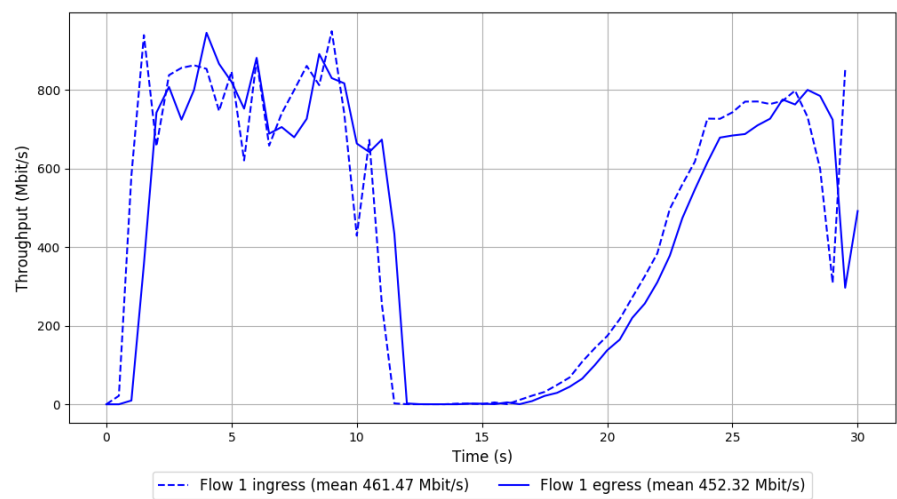
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 675.73 Mbit/s)   Flow 1 egress (mean 656.73 Mbit/s)

Flow 1 (95th percentile 315.44 ms)

```
Run 5: Statistics of FillP

Start at: 2018-06-30 00:43:54
End at: 2018-06-30 00:44:24
Local clock offset: 0.117 ms
Remote clock offset: 0.246 ms


# Below is generated by plot.py at 2018-06-30 03:02:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 452.32 Mbit/s
95th percentile per-packet one-way delay: 287.482 ms
Loss rate: 2.55%
-- Flow 1:
Average throughput: 452.32 Mbit/s
95th percentile per-packet one-way delay: 287.482 ms
Loss rate: 2.55%
```
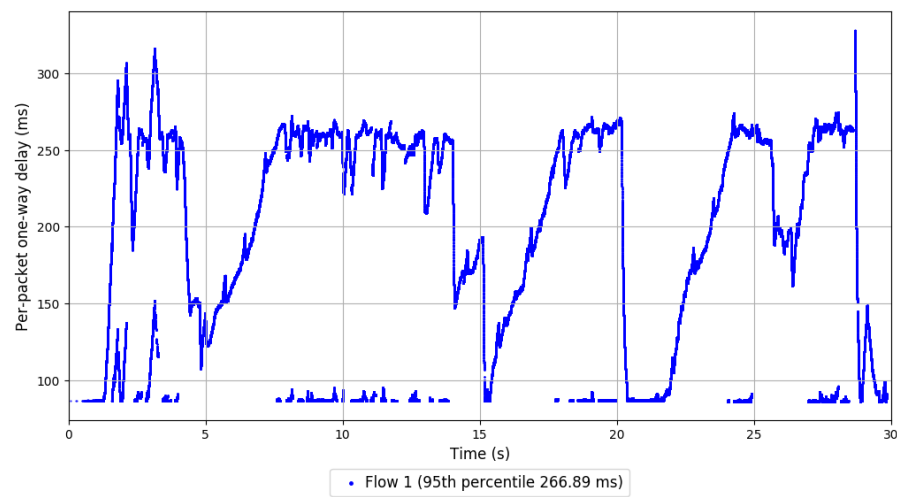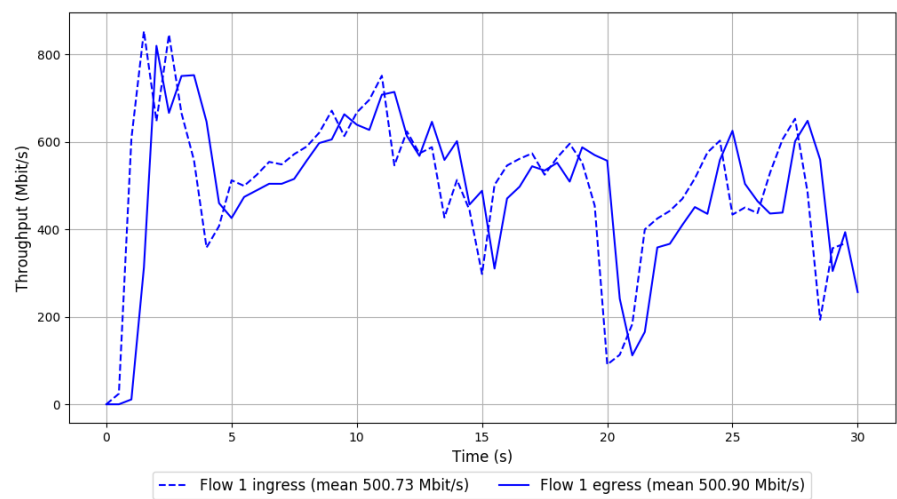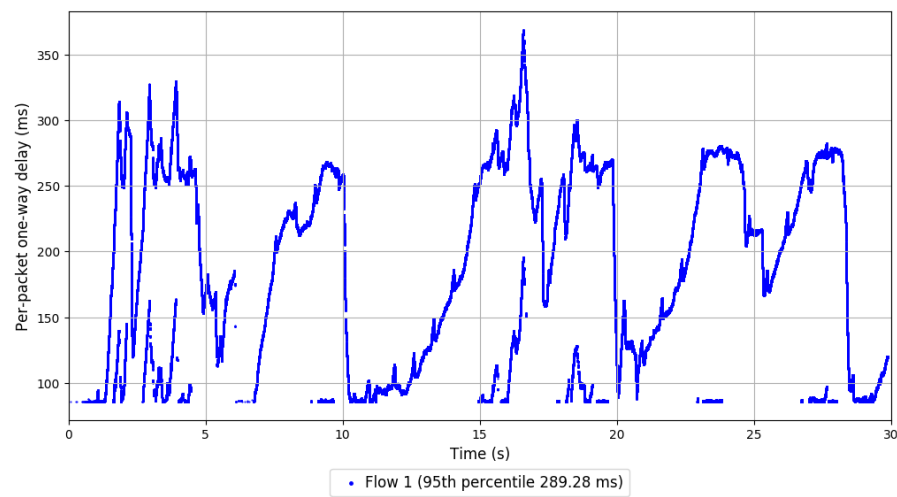
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 461.47 Mbit/s)   Flow 1 egress (mean 452.32 Mbit/s)

Flow 1 (95th percentile 287.48 ms)

```
Run 6: Statistics of FillP

Start at: 2018-06-30 01:04:53
End at: 2018-06-30 01:05:23
Local clock offset: 0.144 ms
Remote clock offset: 0.299 ms


# Below is generated by plot.py at 2018-06-30 03:02:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.90 Mbit/s
95th percentile per-packet one-way delay: 266.893 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 500.90 Mbit/s
95th percentile per-packet one-way delay: 266.893 ms
Loss rate: 0.55%
```
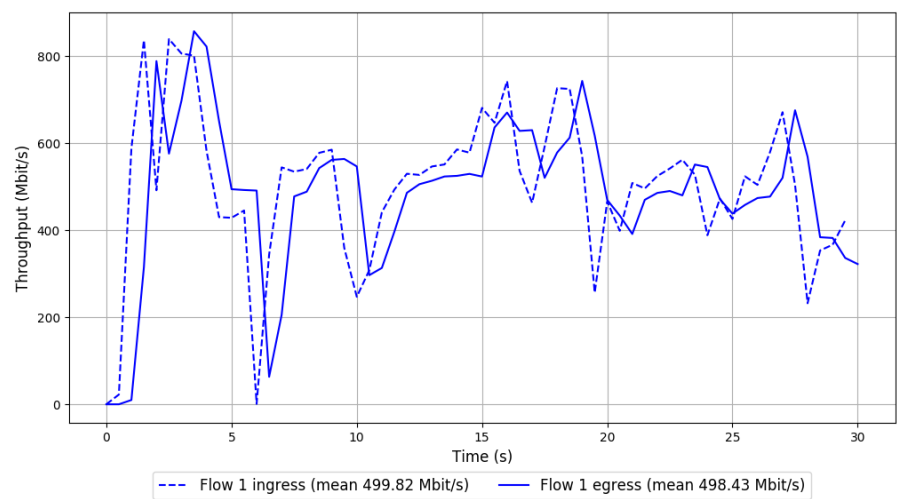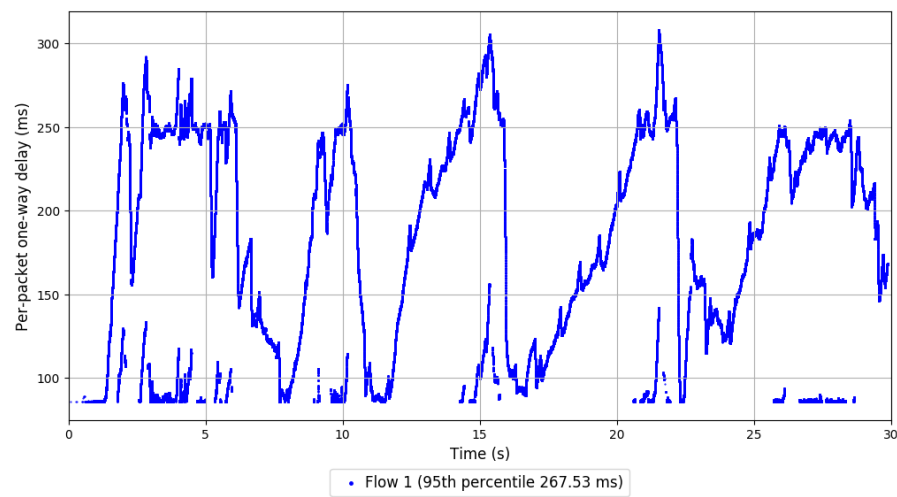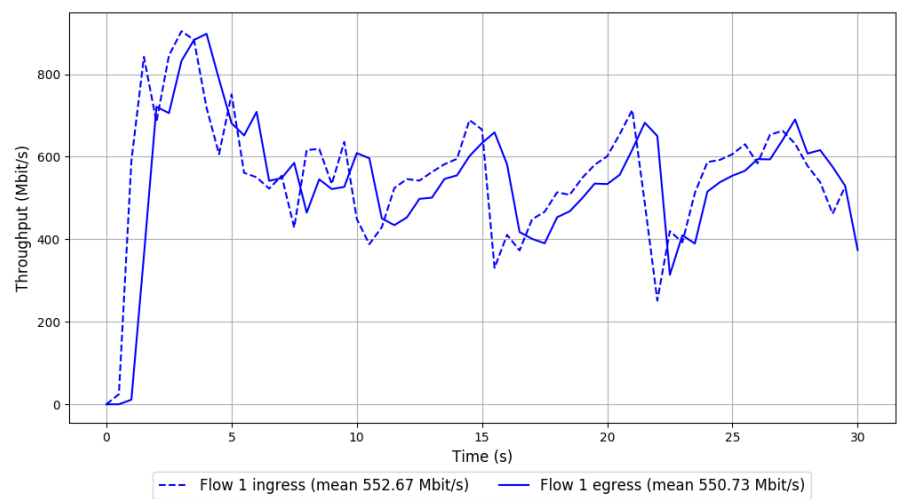
Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 500.73 Mbit/s)   Flow 1 egress (mean 500.90 Mbit/s)

• Flow 1 (95th percentile 266.89 ms)

```
Run 7: Statistics of FillP

Start at: 2018-06-30 01:25:55
End at: 2018-06-30 01:26:25
Local clock offset: 0.159 ms
Remote clock offset: 0.115 ms


# Below is generated by plot.py at 2018-06-30 03:02:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 498.43 Mbit/s
95th percentile per-packet one-way delay: 289.276 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 498.43 Mbit/s
95th percentile per-packet one-way delay: 289.276 ms
Loss rate: 0.85%
```
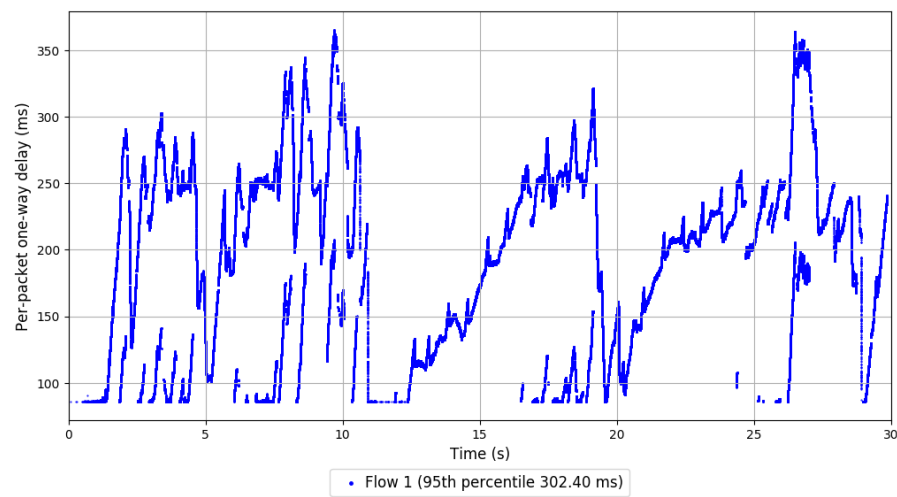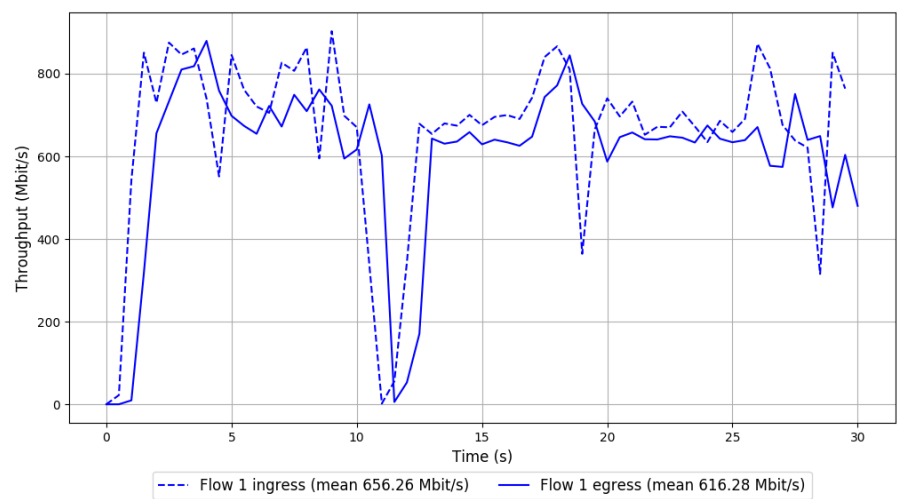
Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-06-30 01:47:07
End at: 2018-06-30 01:47:37
Local clock offset: 0.228 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2018-06-30 03:02:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 550.73 Mbit/s
95th percentile per-packet one-way delay: 267.532 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 550.73 Mbit/s
95th percentile per-packet one-way delay: 267.532 ms
Loss rate: 0.93%
```
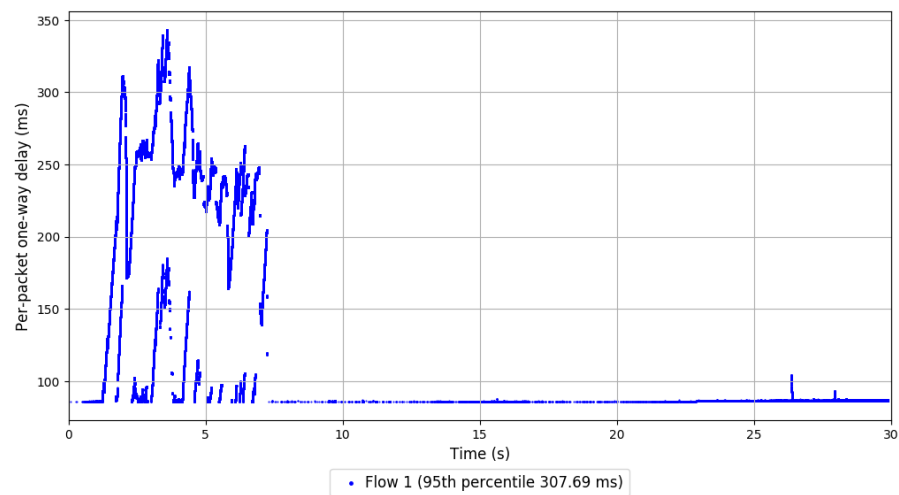
Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-06-30 02:07:54
End at: 2018-06-30 02:08:24
Local clock offset: 0.153 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 616.28 Mbit/s
95th percentile per-packet one-way delay: 302.400 ms
Loss rate: 6.64%
-- Flow 1:
Average throughput: 616.28 Mbit/s
95th percentile per-packet one-way delay: 302.400 ms
Loss rate: 6.64%
```
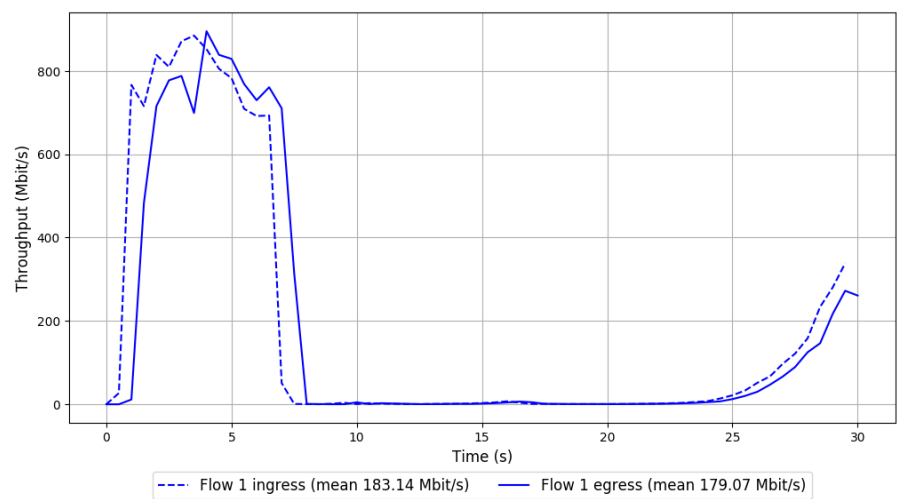
Run 9: Report of FillP — Data Link
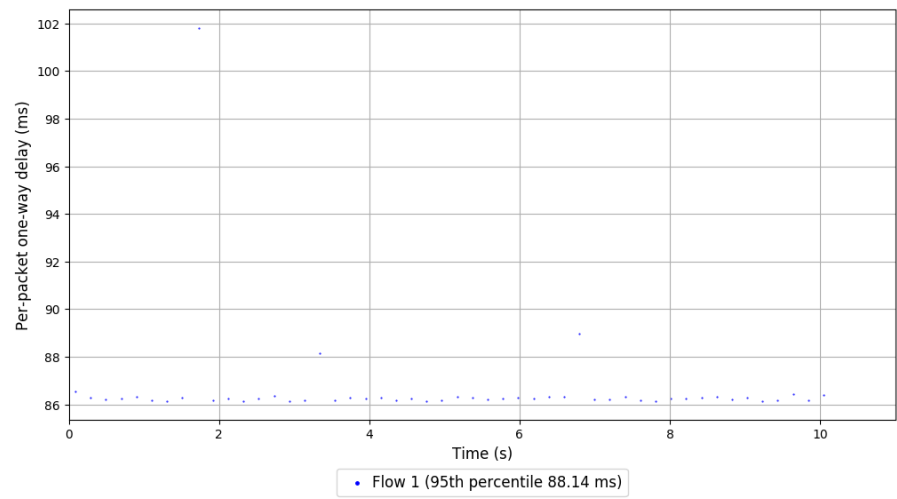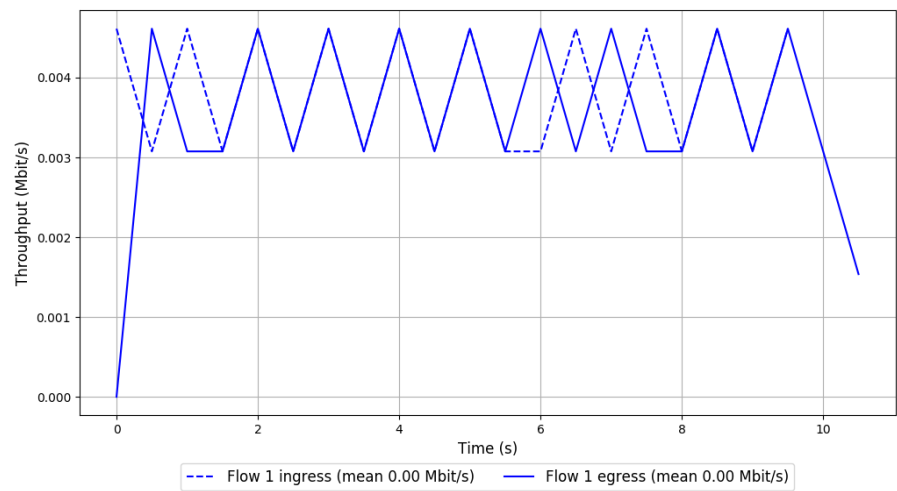
```
Run 10: Statistics of FillP

Start at: 2018-06-30 02:29:03
End at: 2018-06-30 02:29:33
Local clock offset: 0.024 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.07 Mbit/s
95th percentile per-packet one-way delay: 307.689 ms
Loss rate: 2.79%
-- Flow 1:
Average throughput: 179.07 Mbit/s
95th percentile per-packet one-way delay: 307.689 ms
Loss rate: 2.79%
```

Run 10: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2018-06-29 23:13:40
End at: 2018-06-29 23:14:10
Local clock offset: 0.167 ms
Remote clock offset: -0.087 ms
```

Run 1: Report of FillP-Sheep — Data Link
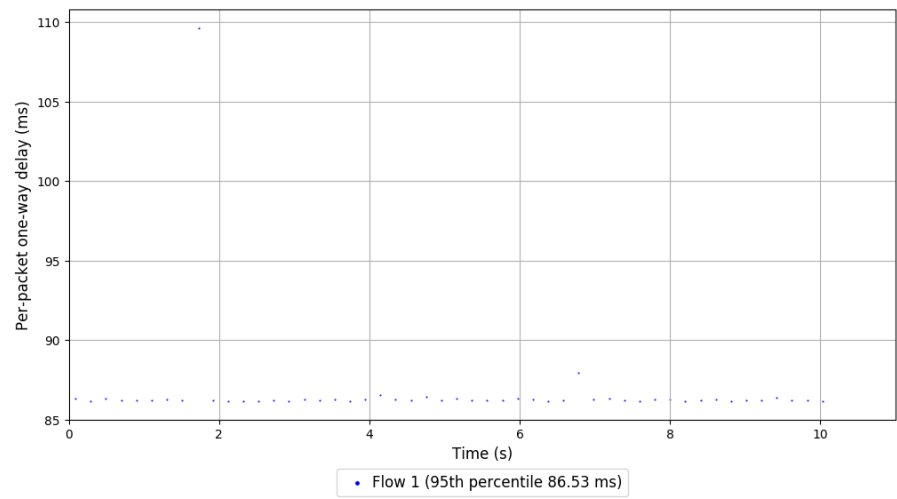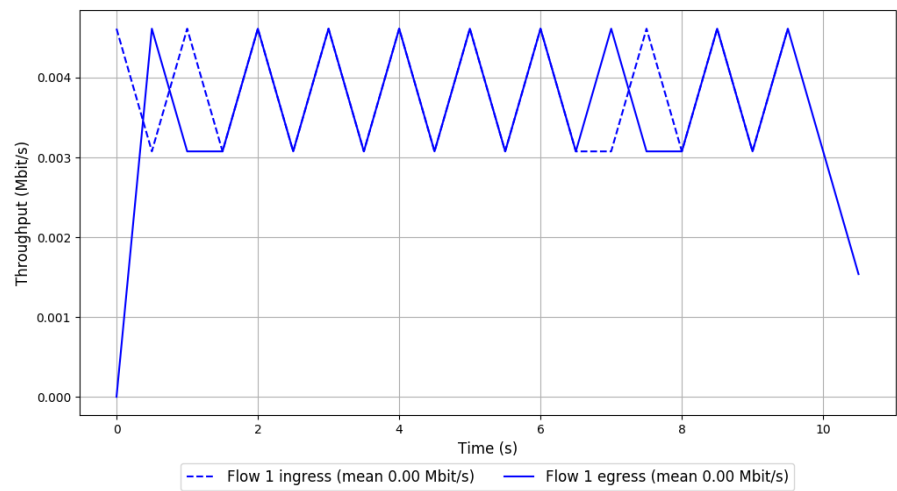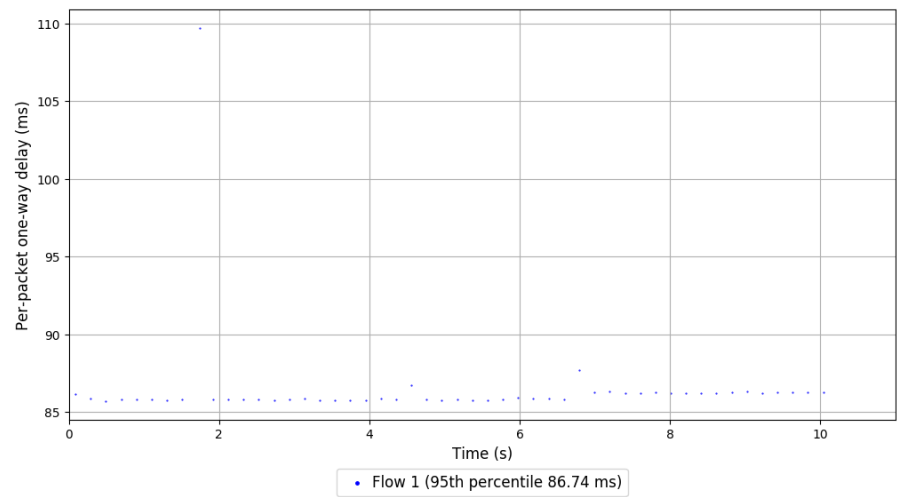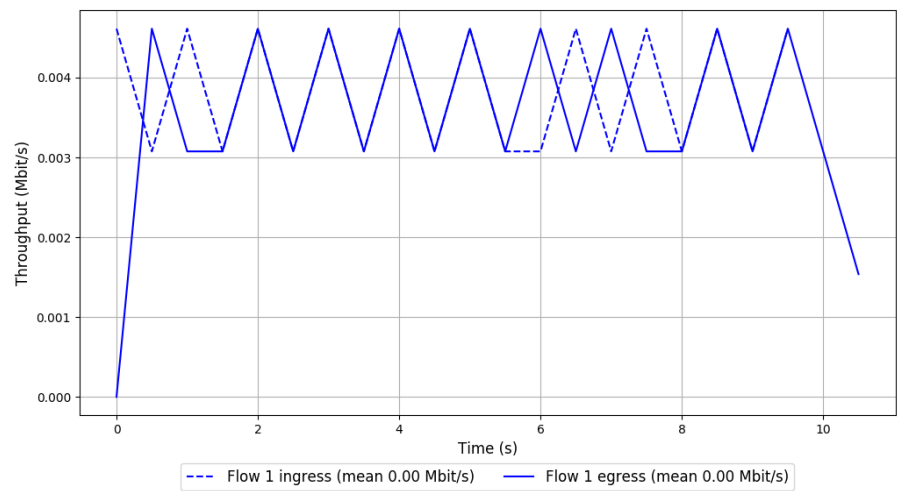
```
Run 2: Statistics of FillP-Sheep

Start at: 2018-06-29 23:34:44
End at: 2018-06-29 23:35:14
Local clock offset: 0.333 ms
Remote clock offset: -0.011 ms
```

Run 2: Report of FillP-Sheep — Data Link

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

• Flow 1 (95th percentile 86.53 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 23:55:59
End at: 2018-06-29 23:56:29
Local clock offset: -0.148 ms
Remote clock offset: -0.002 ms
```

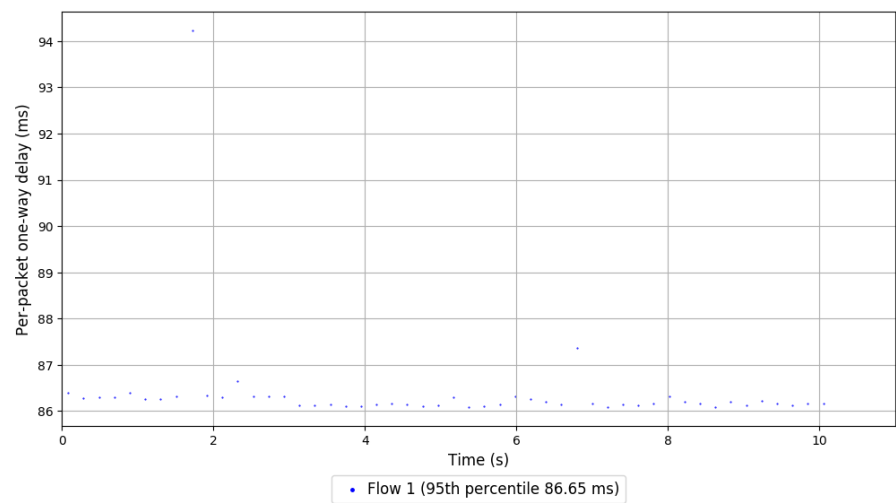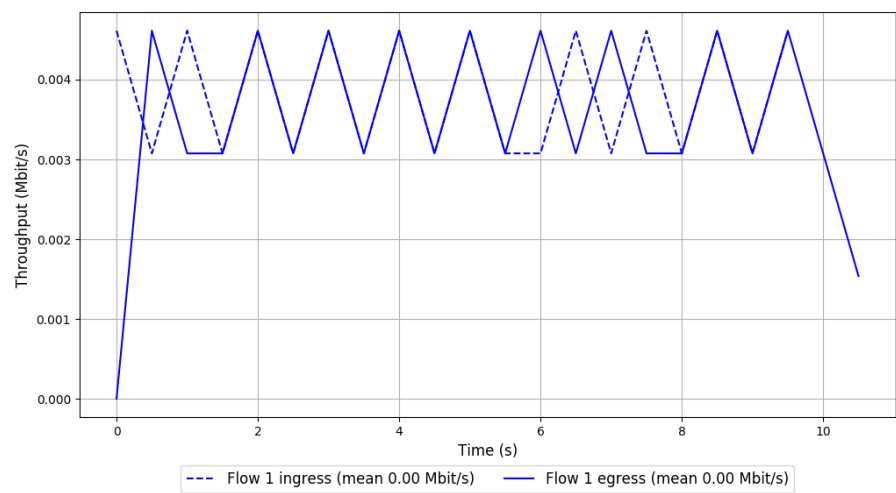## Run 3: Report of FillP-Sheep — Data Link

Run 4: Statistics of FillP-Sheep

Start at: 2018-06-30 00:16:53
End at: 2018-06-30 00:17:23
Local clock offset: 0.185 ms
Remote clock offset: 0.112 ms

Run 4: Report of FillP-Sheep — Data Link
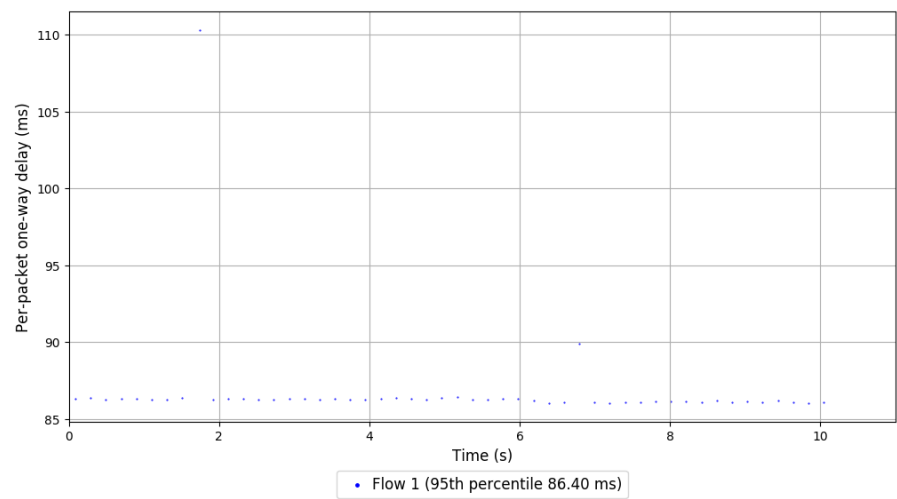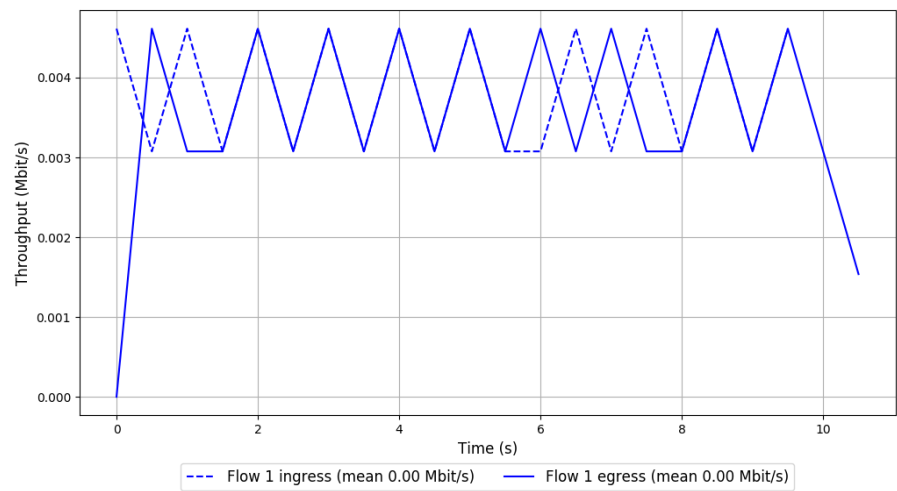
```
Run 5: Statistics of FillP-Sheep

Start at: 2018-06-30 00:38:10
End at: 2018-06-30 00:38:40
Local clock offset: 0.133 ms
Remote clock offset: 0.175 ms
```

Run 5: Report of FillP-Sheep — Data Link
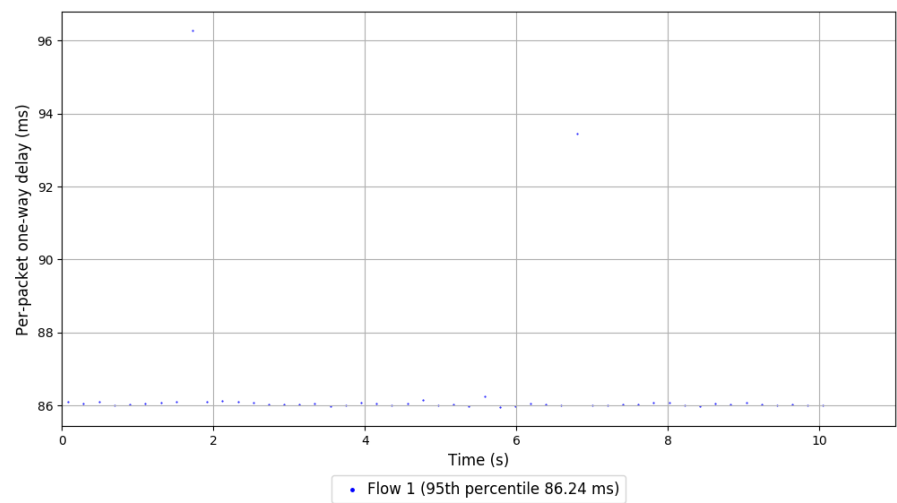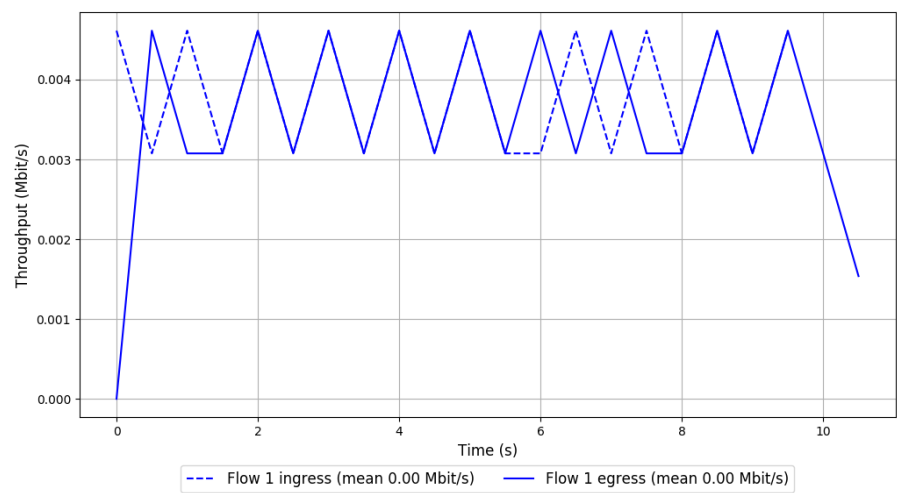
Run 6: Statistics of FillP-Sheep

Start at: 2018-06-30 00:59:08
End at: 2018-06-30 00:59:38
Local clock offset: 0.12 ms
Remote clock offset: 0.29 ms

Run 6: Report of FillP-Sheep — Data Link
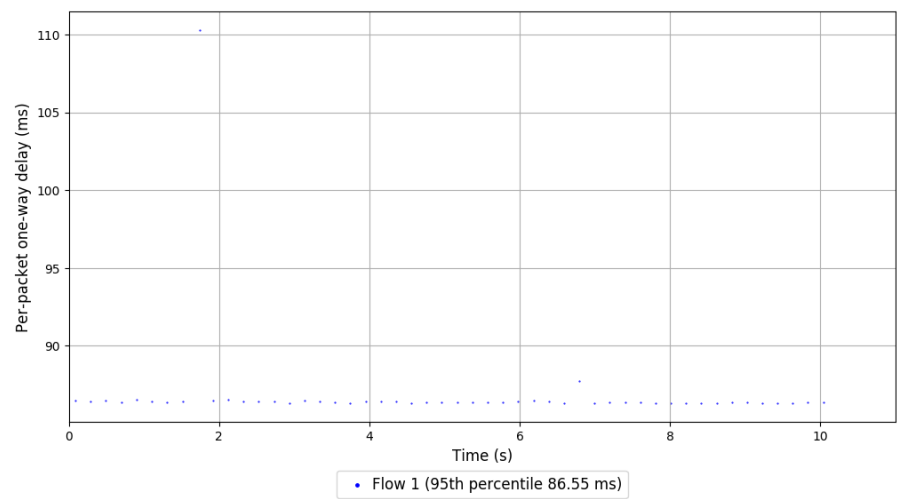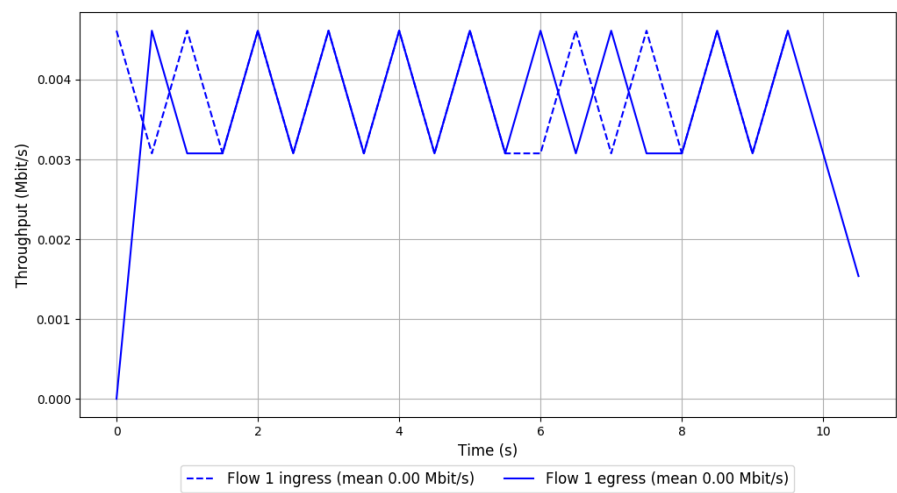
Run 7: Statistics of FillP-Sheep

Start at: 2018-06-30 01:20:07
End at: 2018-06-30 01:20:37
Local clock offset: 0.25 ms
Remote clock offset: 0.149 ms

Run 7: Report of FillP-Sheep — Data Link

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

Flow 1 (95th percentile 86.55 ms)
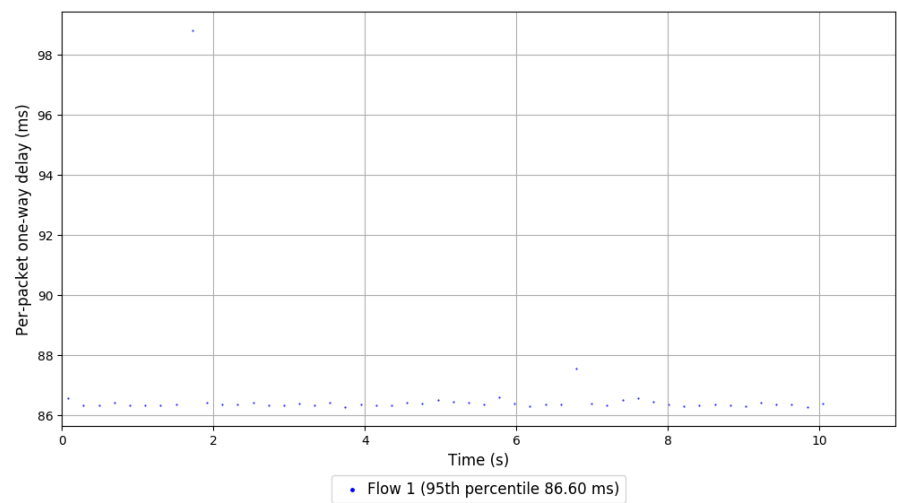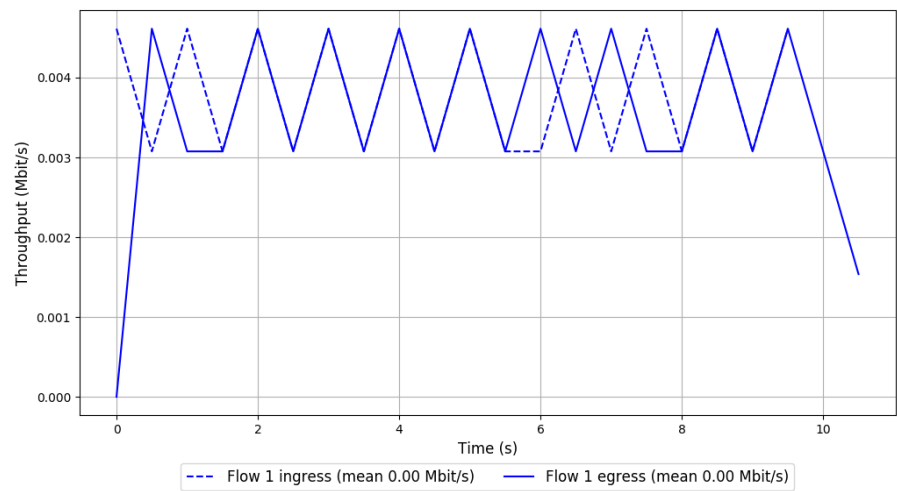
```
Run 8: Statistics of FillP-Sheep

Start at: 2018-06-30 01:41:22
End at: 2018-06-30 01:41:52
Local clock offset: 0.258 ms
Remote clock offset: 0.042 ms
```

Run 8: Report of FillP-Sheep — Data Link

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

Flow 1 (95th percentile 86.60 ms)
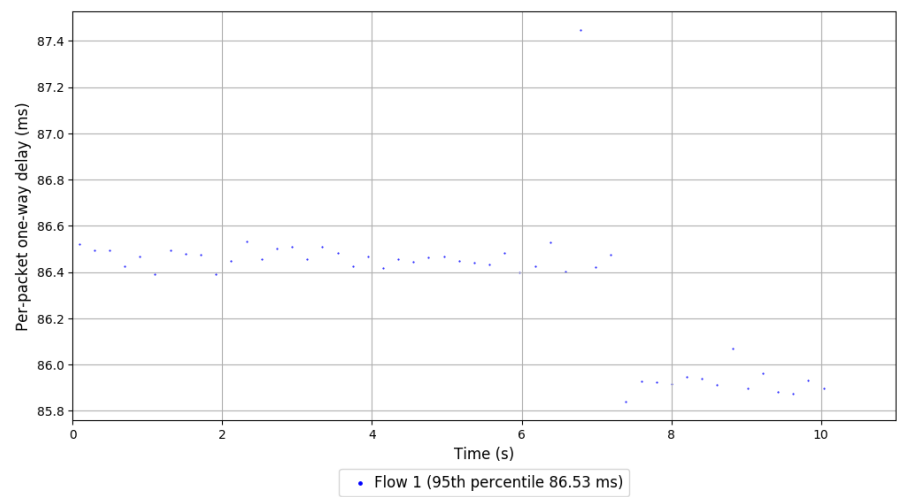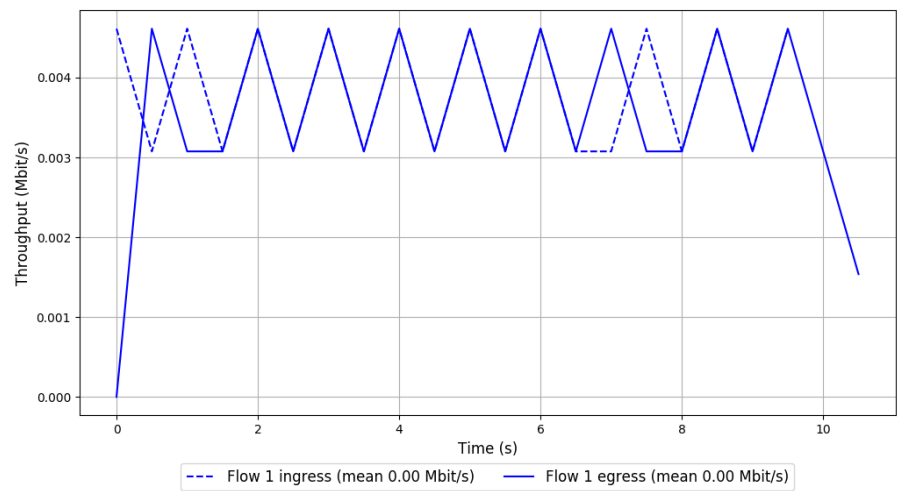
Run 9: Statistics of FillP-Sheep

Start at: 2018-06-30 02:02:08
End at: 2018-06-30 02:02:38
Local clock offset: 0.16 ms
Remote clock offset: -0.031 ms

Run 9: Report of FillP-Sheep — Data Link

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

• Flow 1 (95th percentile 86.53 ms)
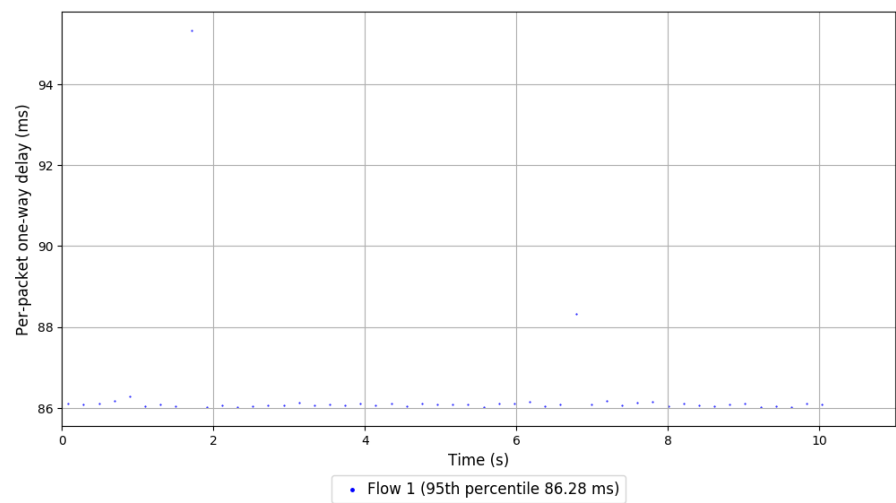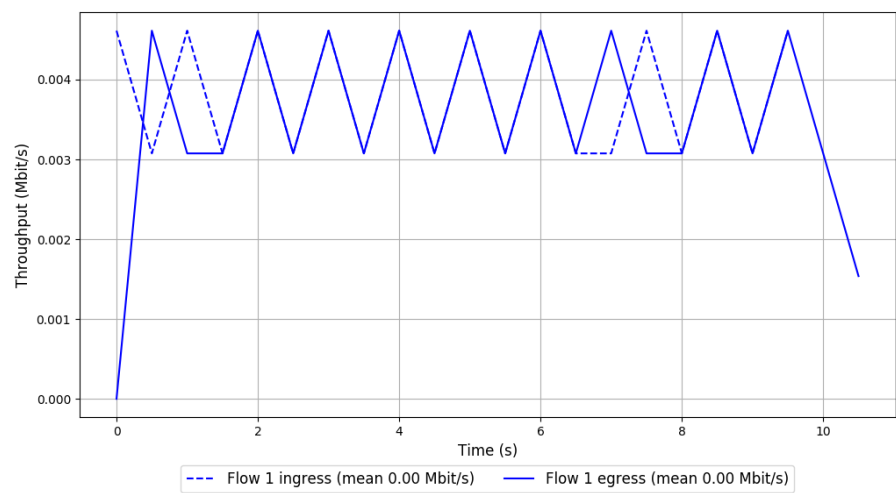
Run 10: Statistics of FillP-Sheep

Start at: 2018-06-30 02:23:17
End at: 2018-06-30 02:23:47
Local clock offset: 0.259 ms
Remote clock offset: -0.055 ms

Run 10: Report of FillP-Sheep — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-06-29 23:08:35
End at: 2018-06-29 23:09:05
Local clock offset: 0.044 ms
Remote clock offset: -0.029 ms
```
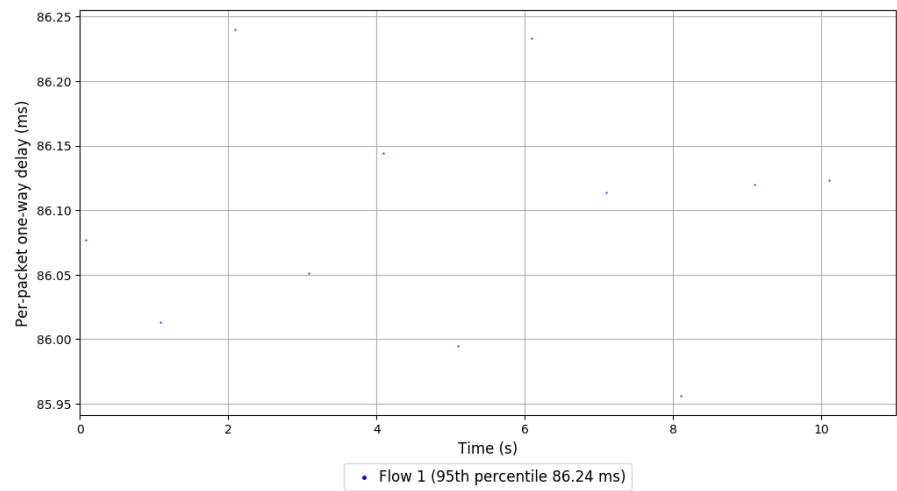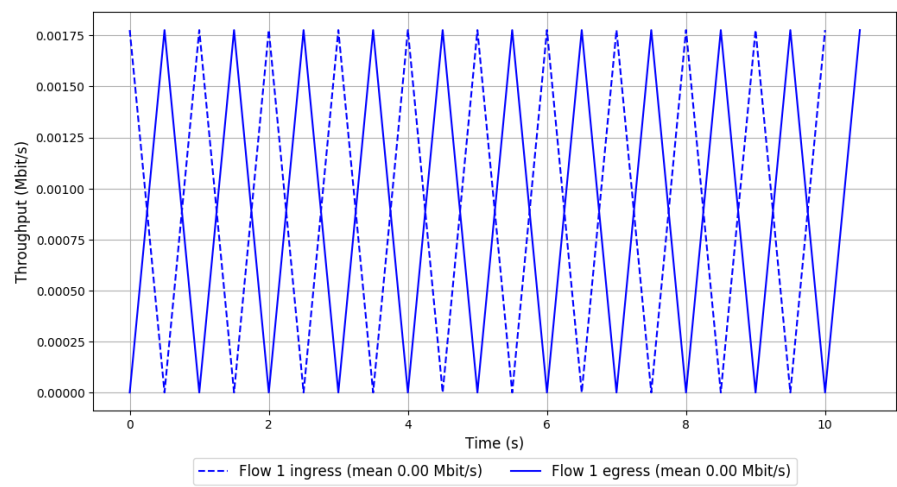
Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-06-29 23:29:30
End at: 2018-06-29 23:30:00
Local clock offset: 0.17 ms
Remote clock offset: -0.001 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.20 Mbit/s
95th percentile per-packet one-way delay: 89.032 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 80.20 Mbit/s
95th percentile per-packet one-way delay: 89.032 ms
Loss rate: 0.66%
```
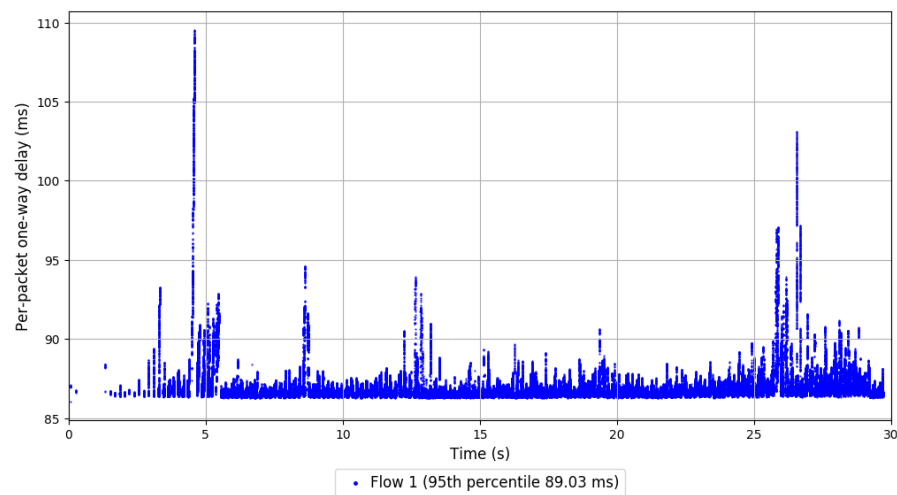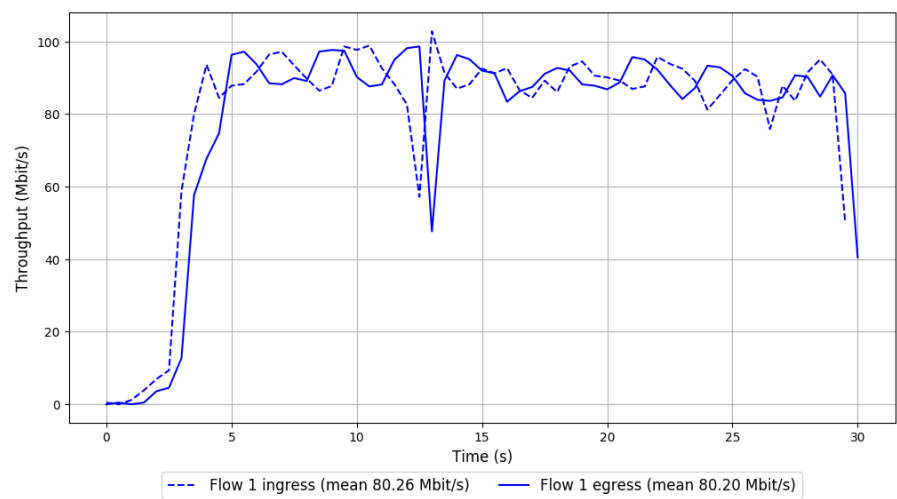
Run 2: Report of Indigo — Data Link

Flow 1 ingress (mean 80.26 Mbit/s)   Flow 1 egress (mean 80.20 Mbit/s)
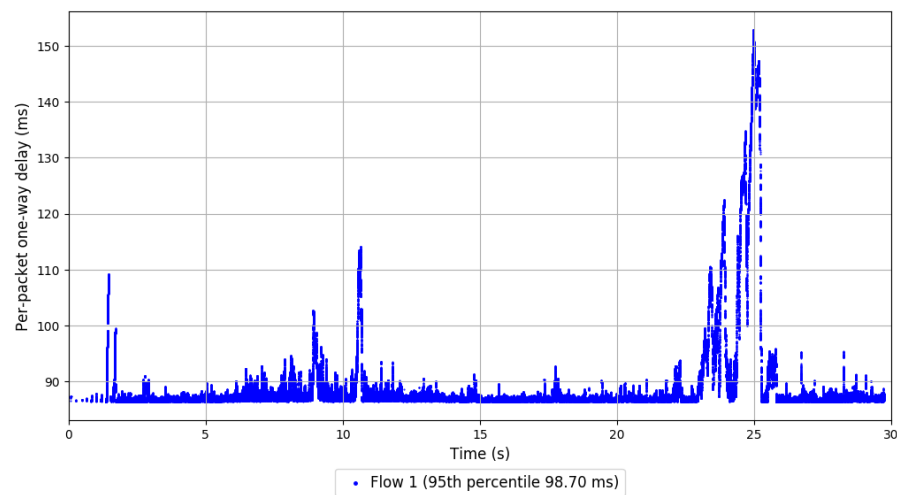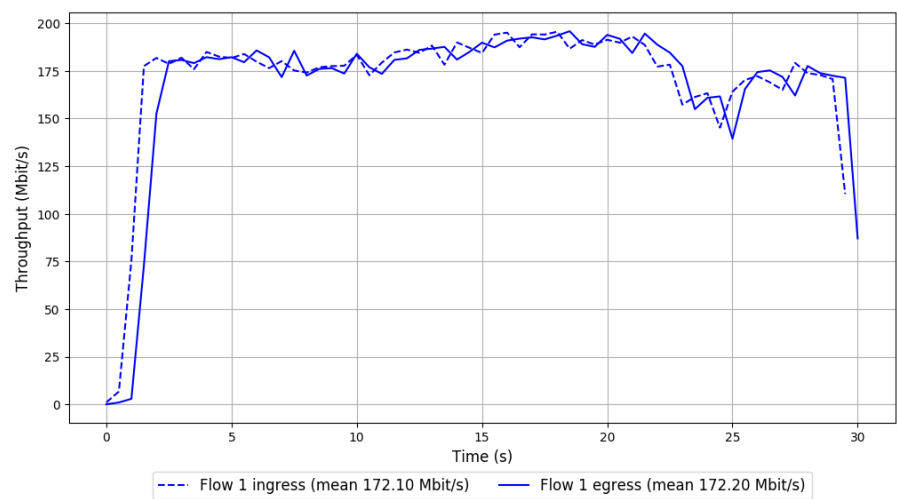

Flow 1 (95th percentile 89.03 ms)

```
Run 3: Statistics of Indigo

Start at: 2018-06-29 23:50:38
End at: 2018-06-29 23:51:08
Local clock offset: 0.197 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.20 Mbit/s
95th percentile per-packet one-way delay: 98.698 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 172.20 Mbit/s
95th percentile per-packet one-way delay: 98.698 ms
Loss rate: 0.52%
```

Run 3: Report of Indigo — Data Link

Run 4: Statistics of Indigo

Start at: 2018-06-30 00:11:30
End at: 2018-06-30 00:12:00
Local clock offset: -0.042 ms
Remote clock offset: 0.097 ms

Below is generated by plot.py at 2018-06-30 03:07:22
Datalink statistics
-- Total of 1 flow:
Average throughput: 183.21 Mbit/s
95th percentile per-packet one-way delay: 89.919 ms
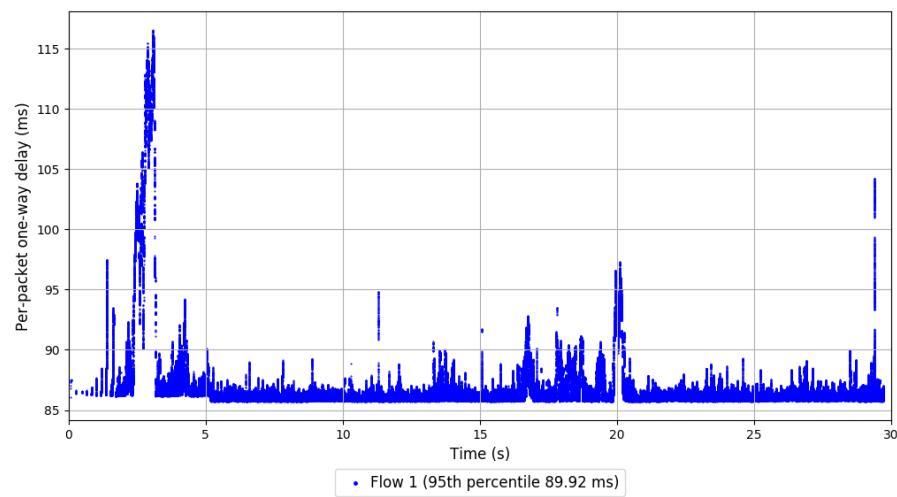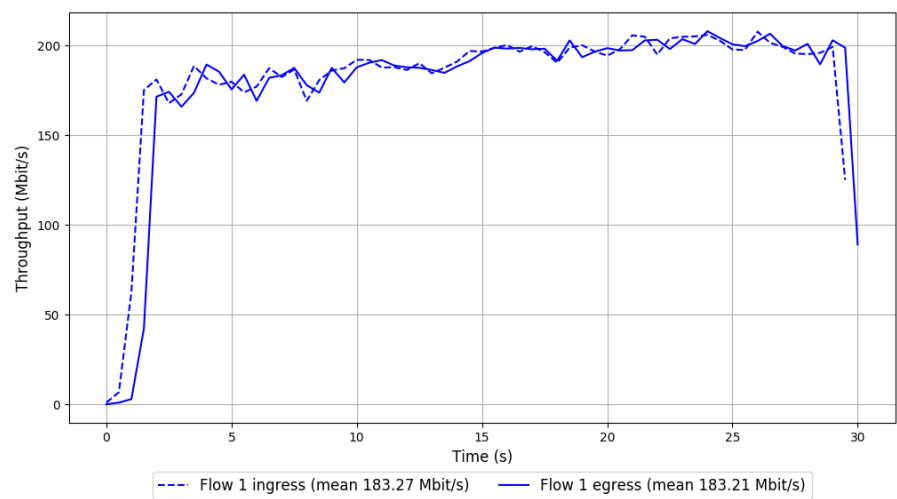Loss rate: 0.61%
-- Flow 1:
Average throughput: 183.21 Mbit/s
95th percentile per-packet one-way delay: 89.919 ms
Loss rate: 0.61%

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-06-30 00:32:45
End at: 2018-06-30 00:33:15
Local clock offset: 0.053 ms
Remote clock offset: 0.2 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.43 Mbit/s
95th percentile per-packet one-way delay: 88.884 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 185.43 Mbit/s
95th percentile per-packet one-way delay: 88.884 ms
Loss rate: 0.60%
```
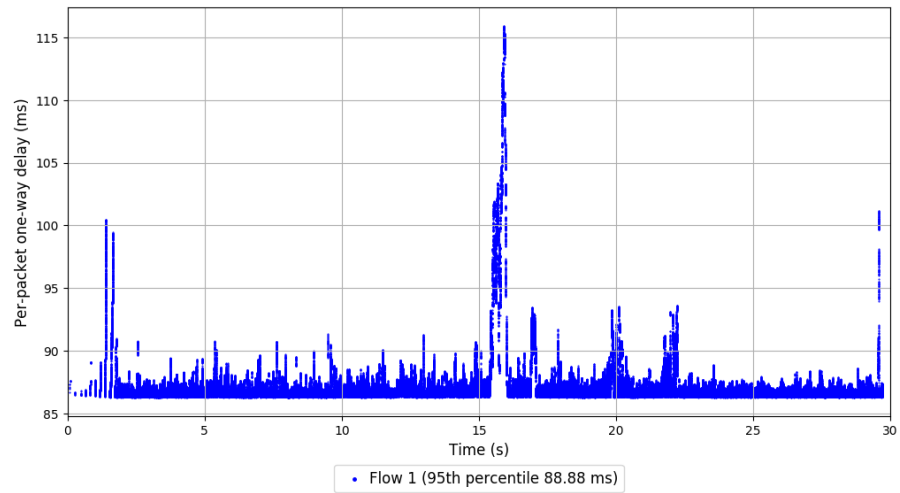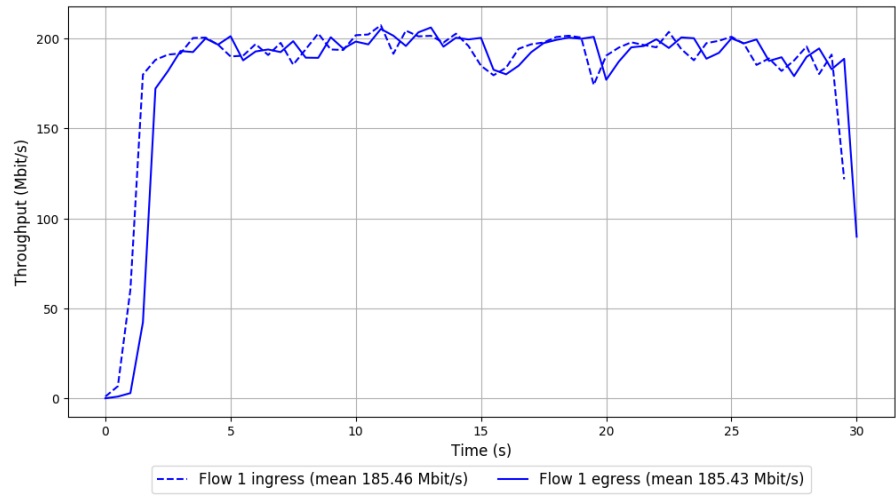
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-06-30 00:53:47
End at: 2018-06-30 00:54:17
Local clock offset: 0.197 ms
Remote clock offset: 0.274 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.59 Mbit/s
95th percentile per-packet one-way delay: 88.663 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 179.59 Mbit/s
95th percentile per-packet one-way delay: 88.663 ms
Loss rate: 0.62%
```
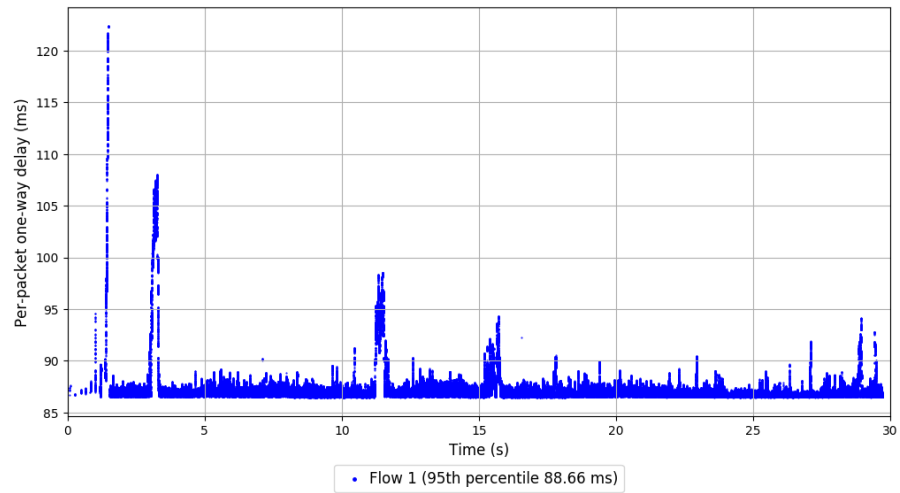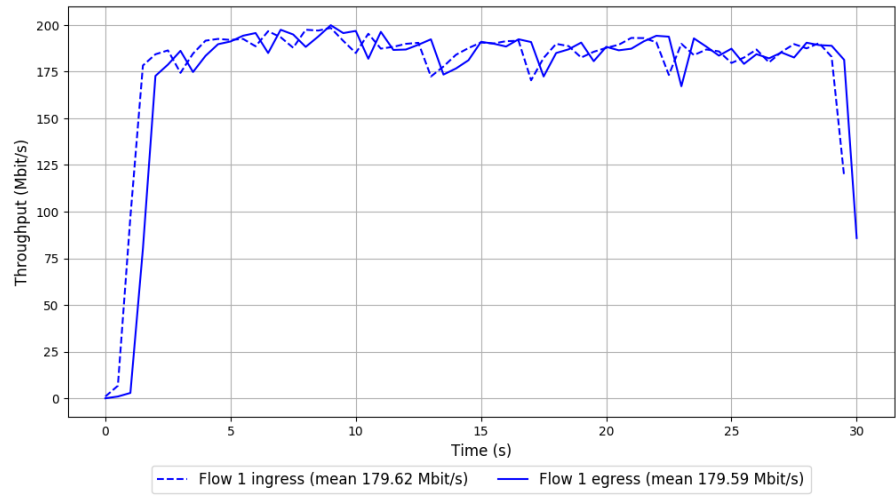
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-06-30 01:14:49
End at: 2018-06-30 01:15:19
Local clock offset: 0.179 ms
Remote clock offset: 0.243 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.47 Mbit/s
95th percentile per-packet one-way delay: 88.819 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 178.47 Mbit/s
95th percentile per-packet one-way delay: 88.819 ms
Loss rate: 0.61%
```
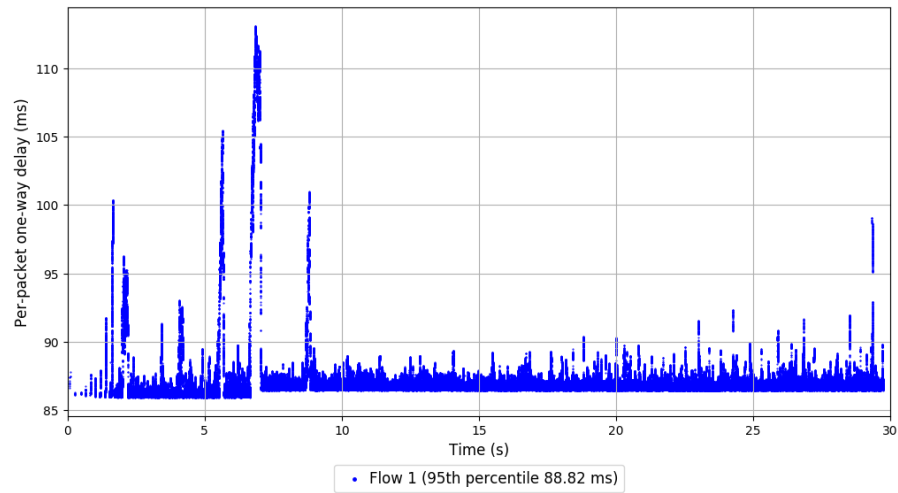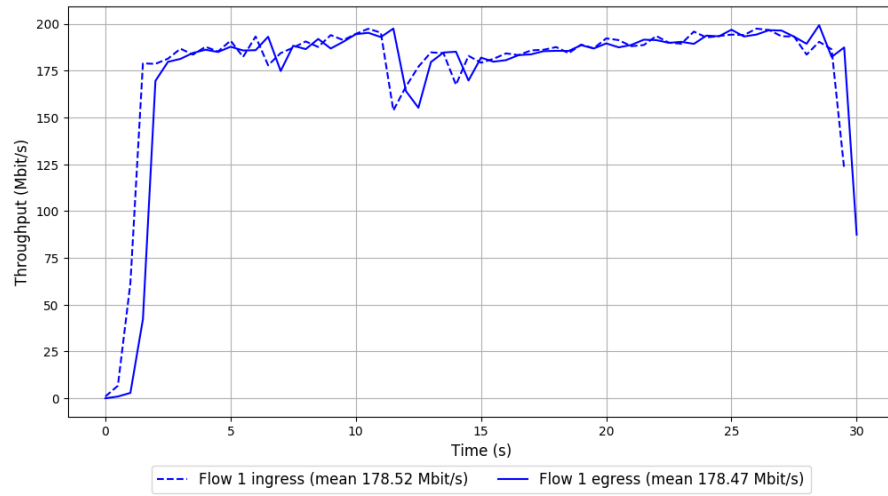
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-06-30 01:35:55
End at: 2018-06-30 01:36:26
Local clock offset: 0.215 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 162.57 Mbit/s
95th percentile per-packet one-way delay: 121.340 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 162.57 Mbit/s
95th percentile per-packet one-way delay: 121.340 ms
Loss rate: 0.61%
```

Run 8: Report of Indigo — Data Link

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```
Run 9: Statistics of Indigo

Start at: 2018-06-30 01:56:59
End at: 2018-06-30 01:57:29
Local clock offset: 0.224 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 156.83 Mbit/s
95th percentile per-packet one-way delay: 118.493 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 156.83 Mbit/s
95th percentile per-packet one-way delay: 118.493 ms
Loss rate: 0.60%
```
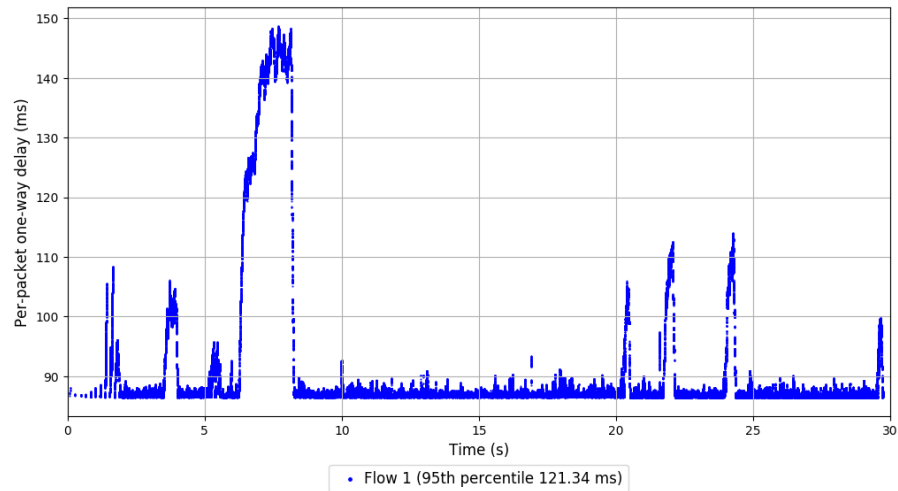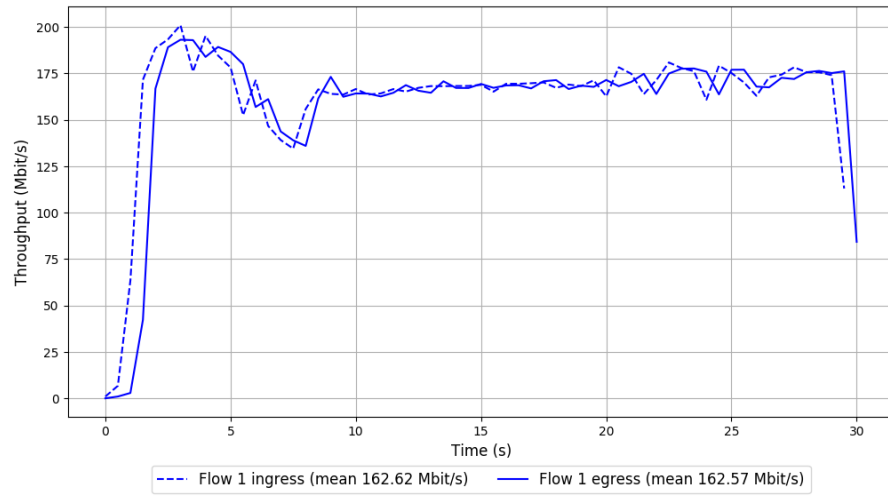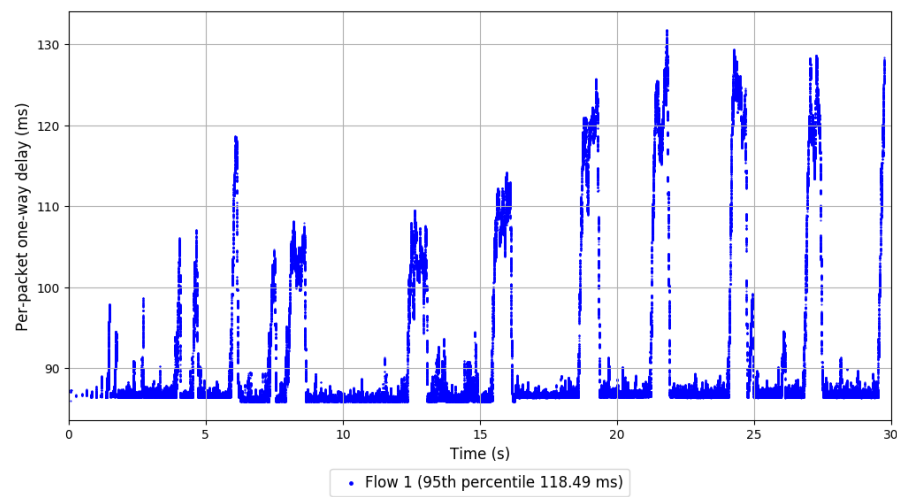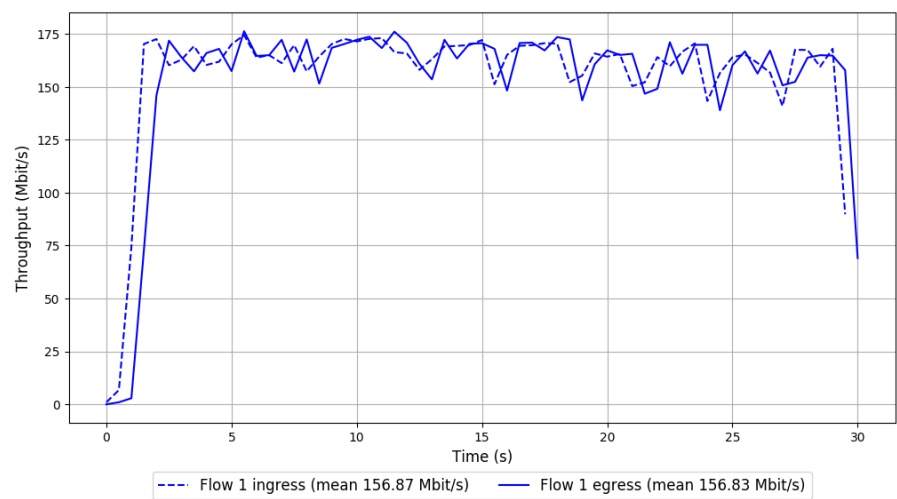
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-06-30 02:18:04
End at: 2018-06-30 02:18:34
Local clock offset: 0.477 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 172.19 Mbit/s
95th percentile per-packet one-way delay: 107.289 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 172.19 Mbit/s
95th percentile per-packet one-way delay: 107.289 ms
Loss rate: 0.57%
```
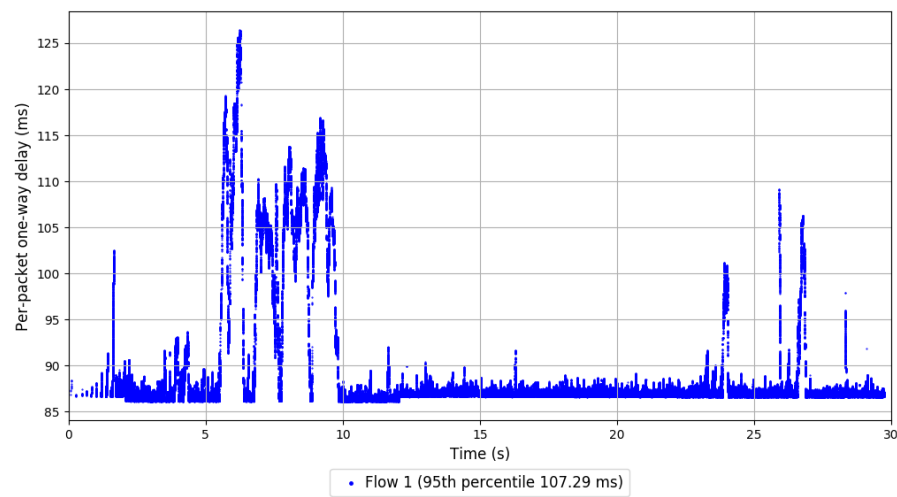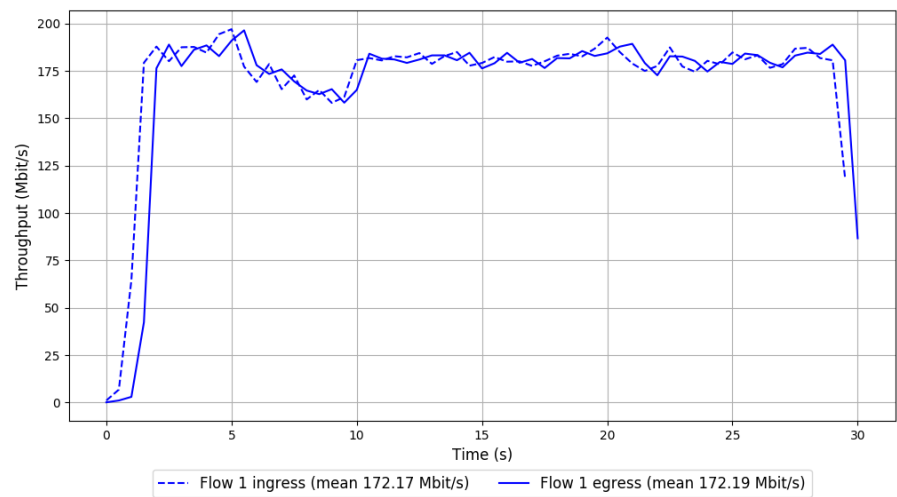
Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 172.17 Mbit/s)   Flow 1 egress (mean 172.19 Mbit/s)

Flow 1 (95th percentile 107.29 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-06-29 23:07:27
End at: 2018-06-29 23:07:57
Local clock offset: 0.16 ms
Remote clock offset: -0.025 ms

# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 88.548 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 88.548 ms
Loss rate: 1.19%
```
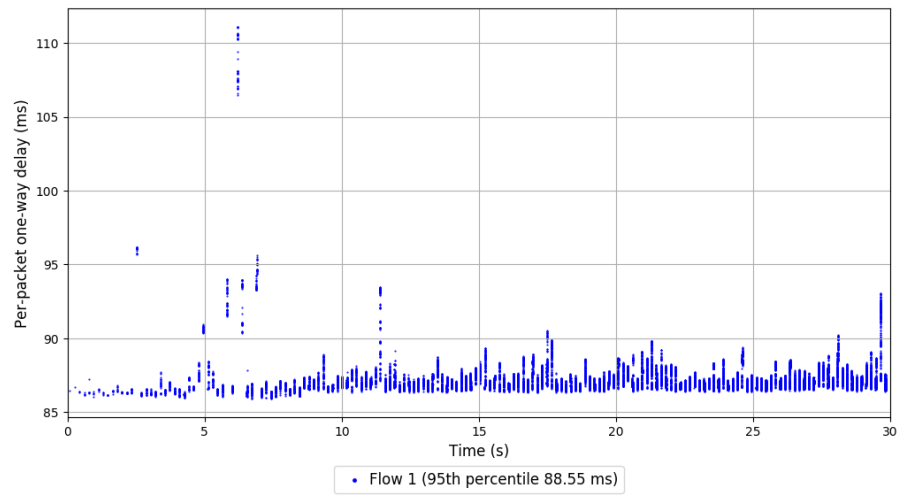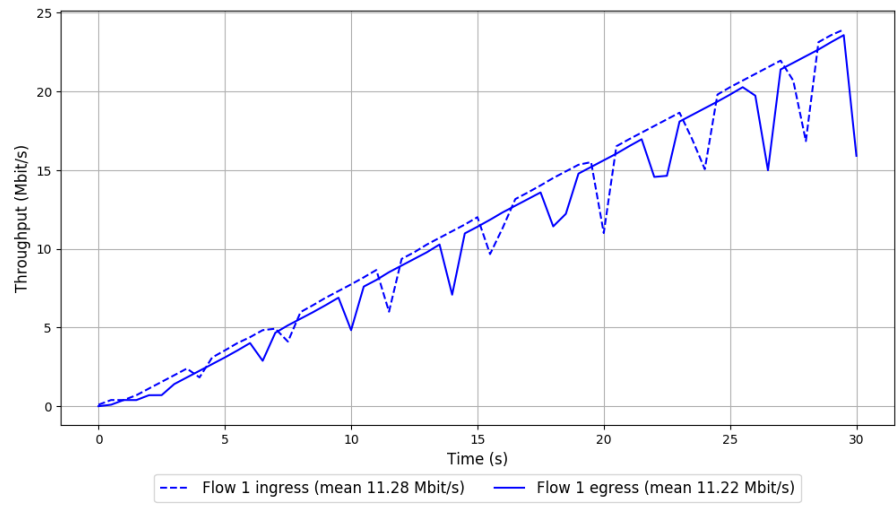
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-06-29 23:28:22
End at: 2018-06-29 23:28:53
Local clock offset: 0.467 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 89.265 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 89.265 ms
Loss rate: 1.16%
```
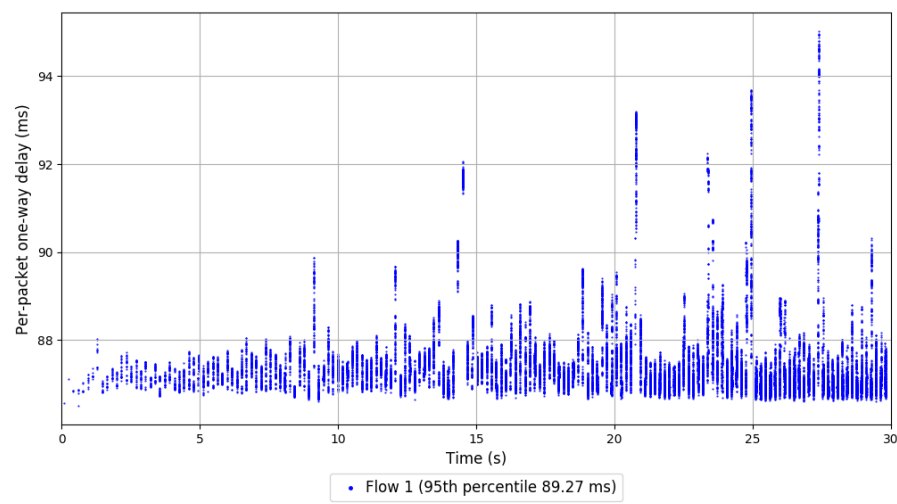
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.98 Mbit/s) --- Flow 1 egress (mean 11.91 Mbit/s)

• Flow 1 (95th percentile 89.27 ms)

127

```
Run 3: Statistics of LEDBAT

Start at: 2018-06-29 23:49:30
End at: 2018-06-29 23:50:00
Local clock offset: 0.358 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 88.426 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 88.426 ms
Loss rate: 1.16%
```

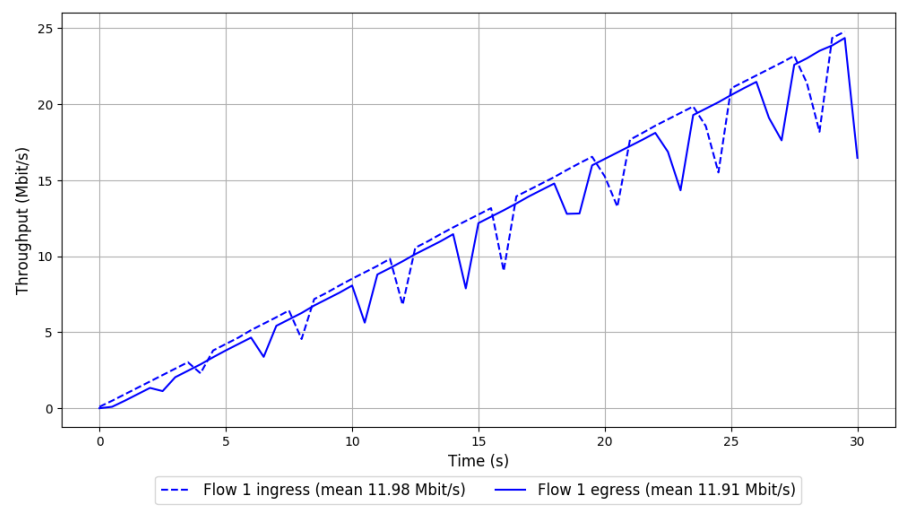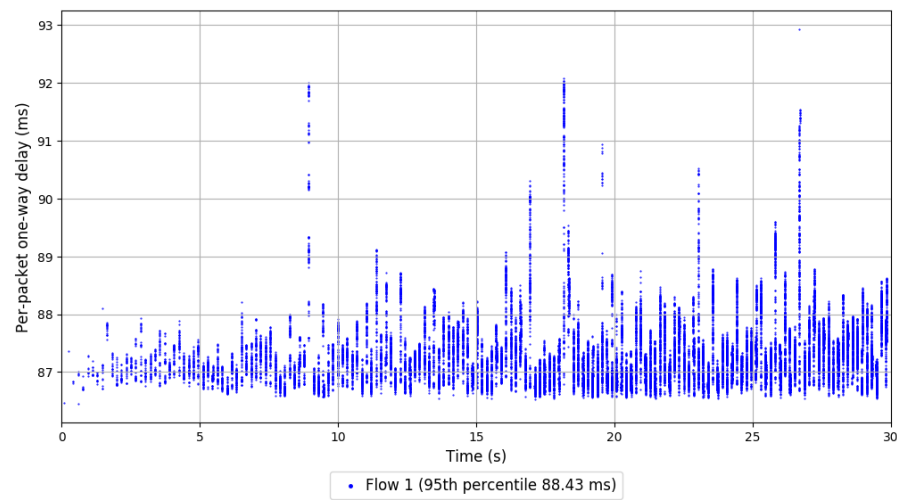Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-06-30 00:10:23
End at: 2018-06-30 00:10:53
Local clock offset: 0.234 ms
Remote clock offset: 0.074 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 89.529 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.86 Mbit/s
95th percentile per-packet one-way delay: 89.529 ms
Loss rate: 1.16%
```
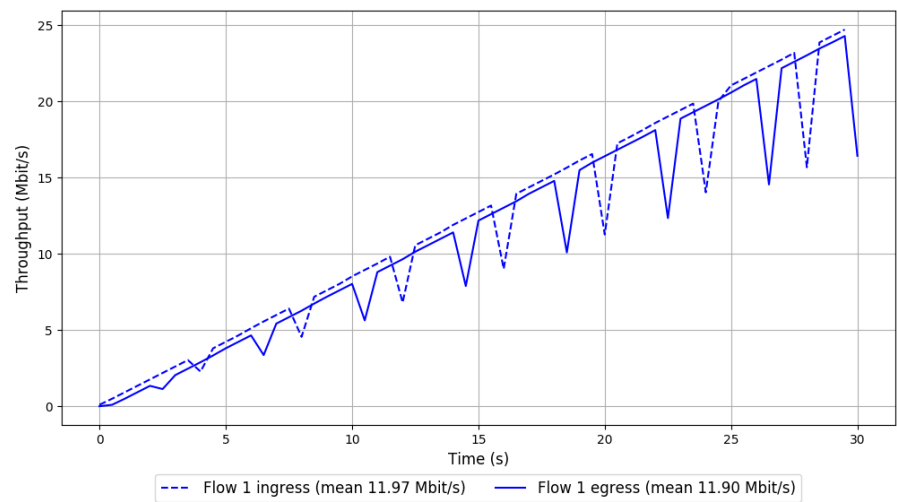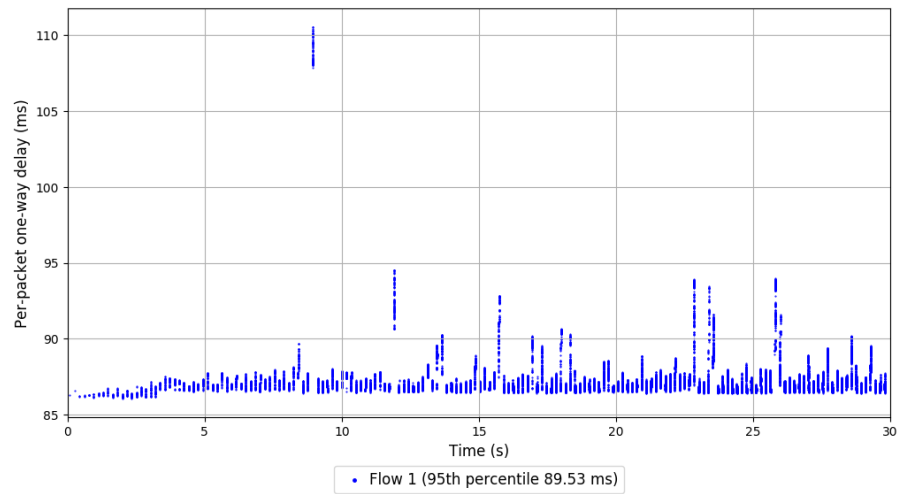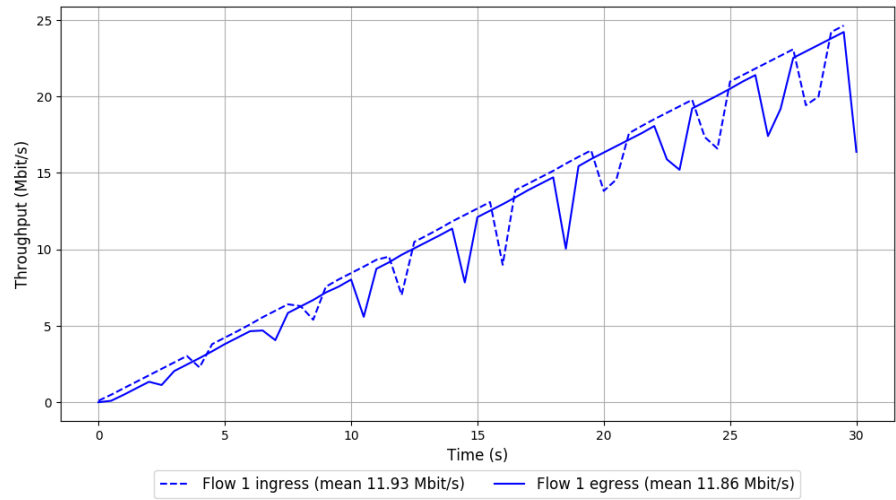
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-06-30 00:31:38
End at: 2018-06-30 00:32:08
Local clock offset: 0.275 ms
Remote clock offset: 0.186 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 88.681 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 88.681 ms
Loss rate: 1.16%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.97 Mbit/s) --- Flow 1 egress (mean 11.90 Mbit/s)

Flow 1 (95th percentile 88.68 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-06-30 00:52:39
End at: 2018-06-30 00:53:09
Local clock offset: 0.153 ms
Remote clock offset: 0.299 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 88.513 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.85 Mbit/s
95th percentile per-packet one-way delay: 88.513 ms
Loss rate: 1.16%
```
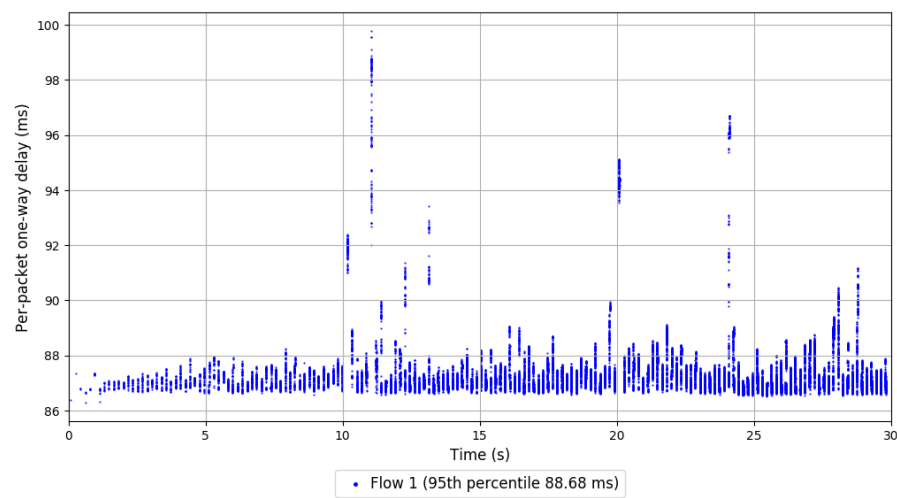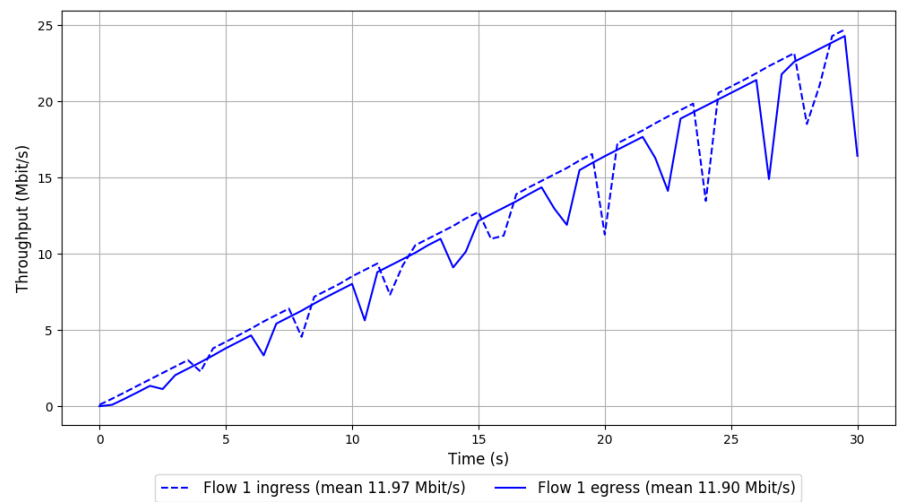
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.92 Mbit/s)   Flow 1 egress (mean 11.85 Mbit/s)

Flow 1 (95th percentile 88.51 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-06-30 01:13:41
End at: 2018-06-30 01:14:11
Local clock offset: 0.127 ms
Remote clock offset: 0.217 ms

# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 88.166 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 88.166 ms
Loss rate: 1.16%
```
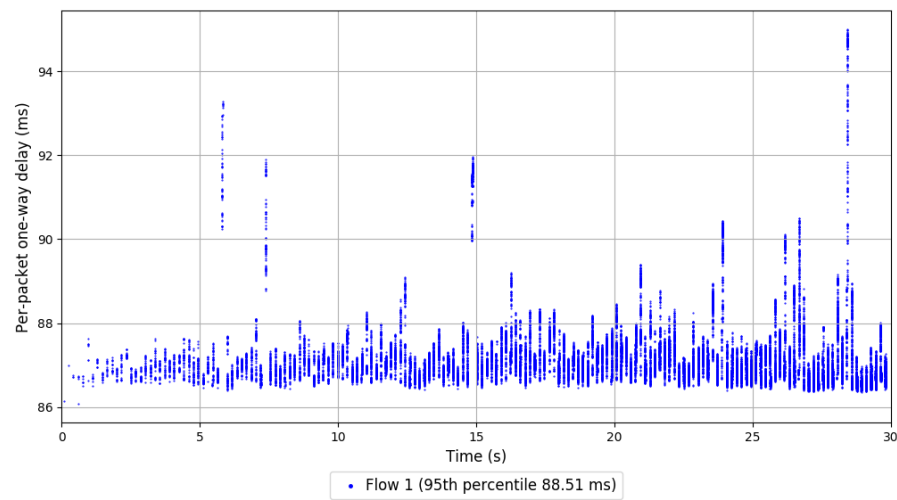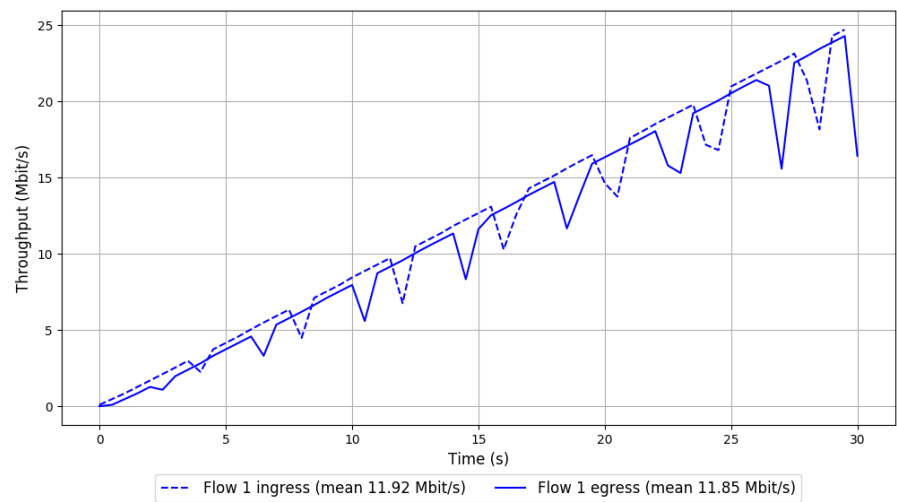
Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-06-30 01:34:48
End at: 2018-06-30 01:35:18
Local clock offset: 0.239 ms
Remote clock offset: 0.045 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 88.910 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 88.910 ms
Loss rate: 1.16%
```
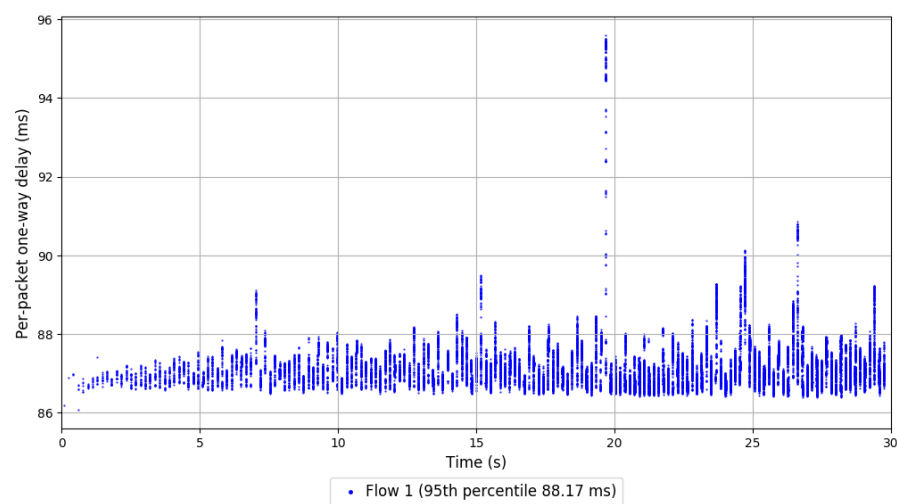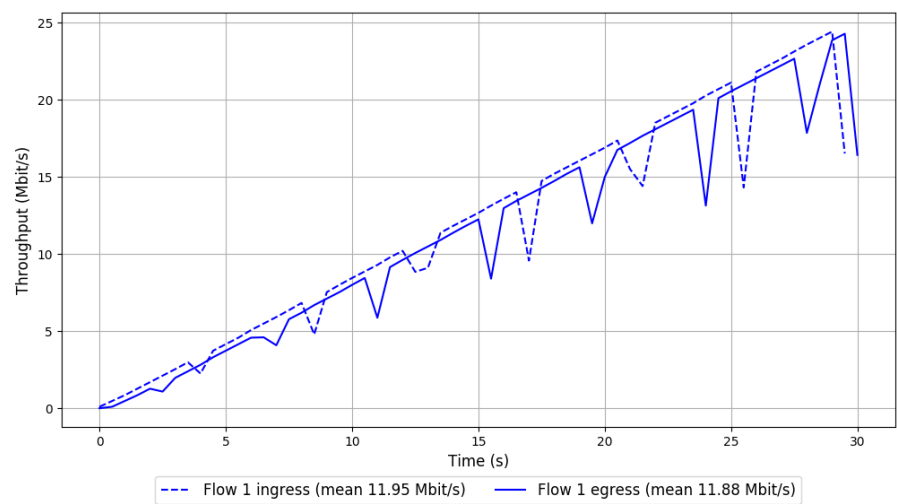
Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.98 Mbit/s) --- Flow 1 egress (mean 11.91 Mbit/s)

• Flow 1 (95th percentile 88.91 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-06-30 01:55:51
End at: 2018-06-30 01:56:21
Local clock offset: 0.069 ms
Remote clock offset: 0.012 ms

# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 88.045 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 88.045 ms
Loss rate: 1.17%
```
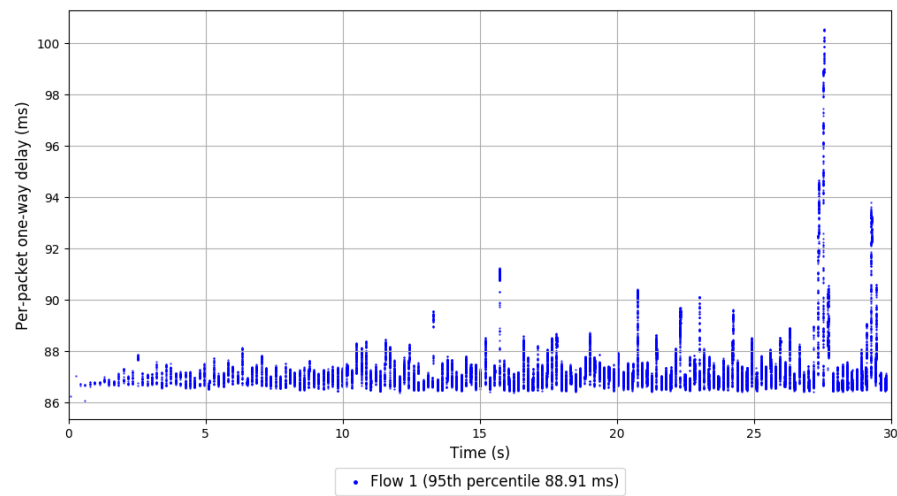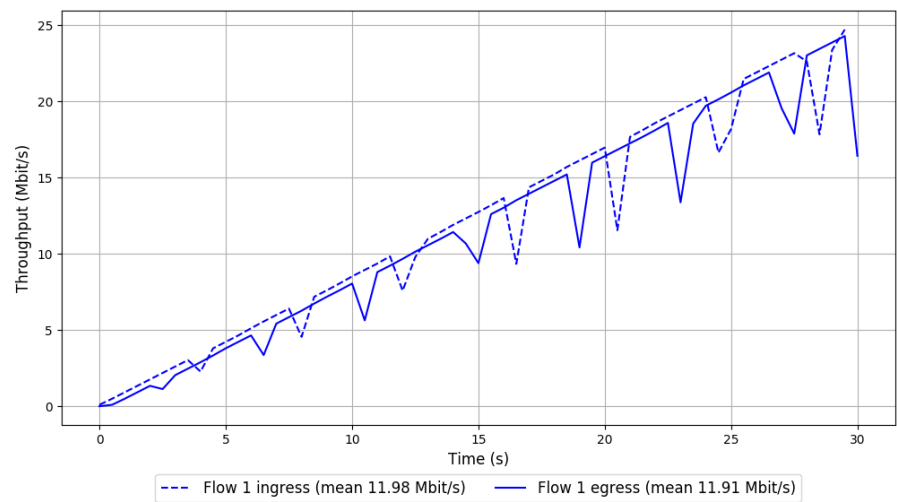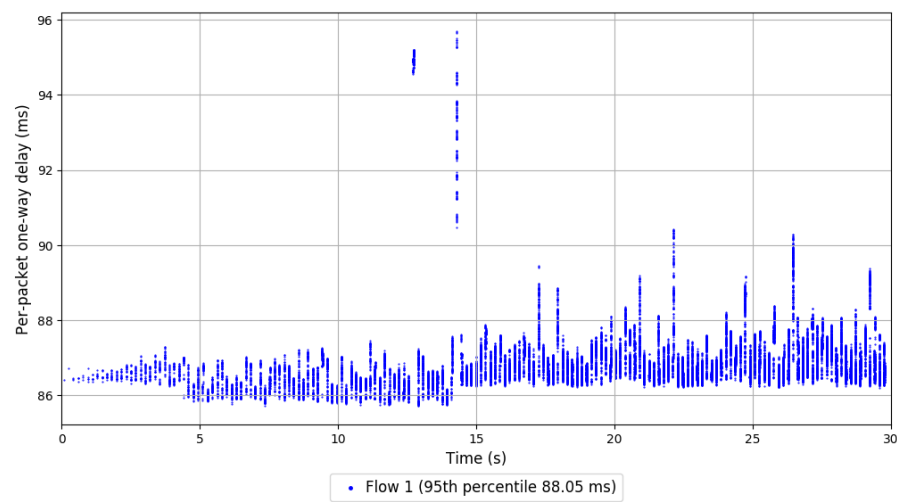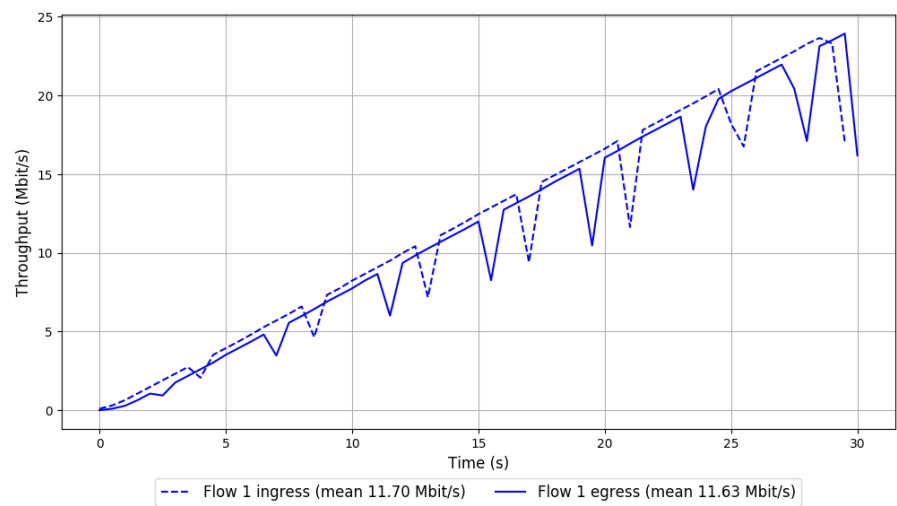
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.70 Mbit/s)   Flow 1 egress (mean 11.63 Mbit/s)

Flow 1 (95th percentile 88.05 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-06-30 02:16:56
End at: 2018-06-30 02:17:26
Local clock offset: 0.379 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-06-30 03:07:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 88.558 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 11.91 Mbit/s
95th percentile per-packet one-way delay: 88.558 ms
Loss rate: 1.16%
```
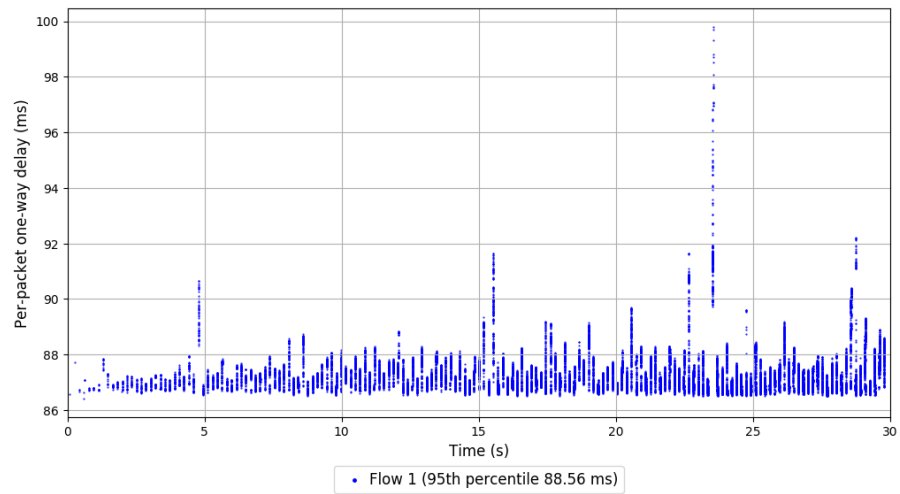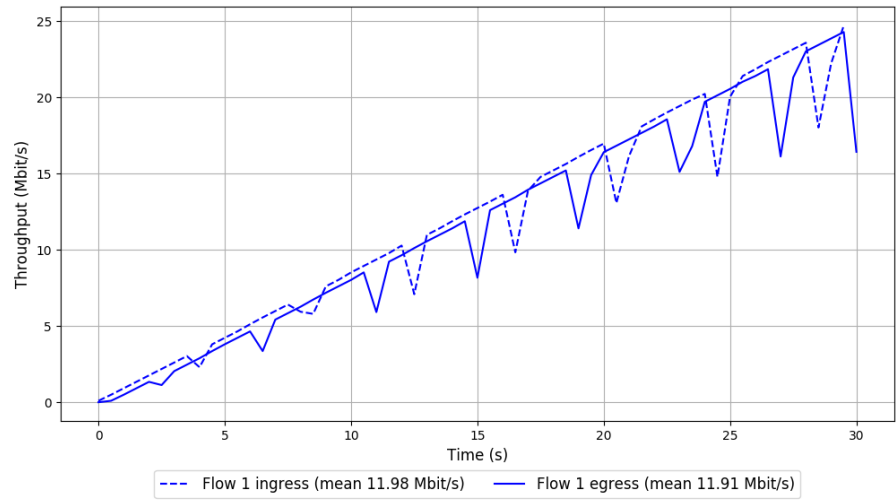
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-29 23:23:27
End at: 2018-06-29 23:23:57
Local clock offset: 0.16 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2018-06-30 03:08:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 253.11 Mbit/s
95th percentile per-packet one-way delay: 156.483 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 253.11 Mbit/s
95th percentile per-packet one-way delay: 156.483 ms
Loss rate: 1.21%
```
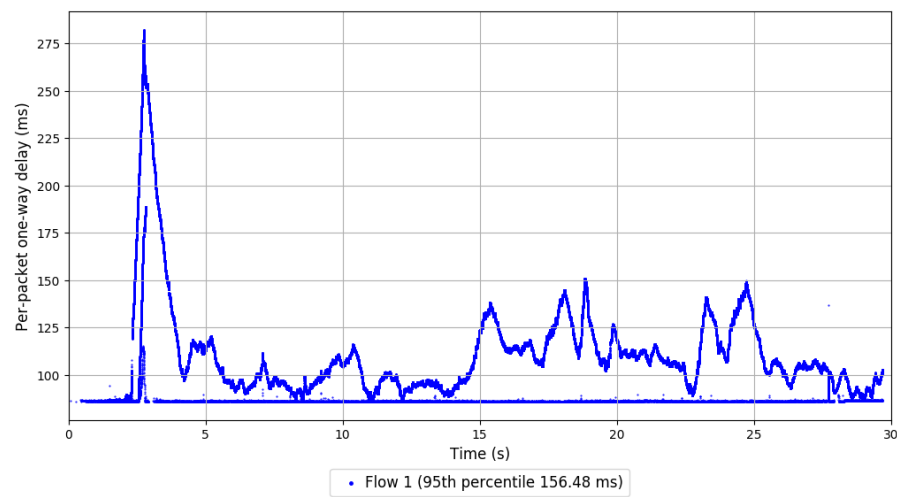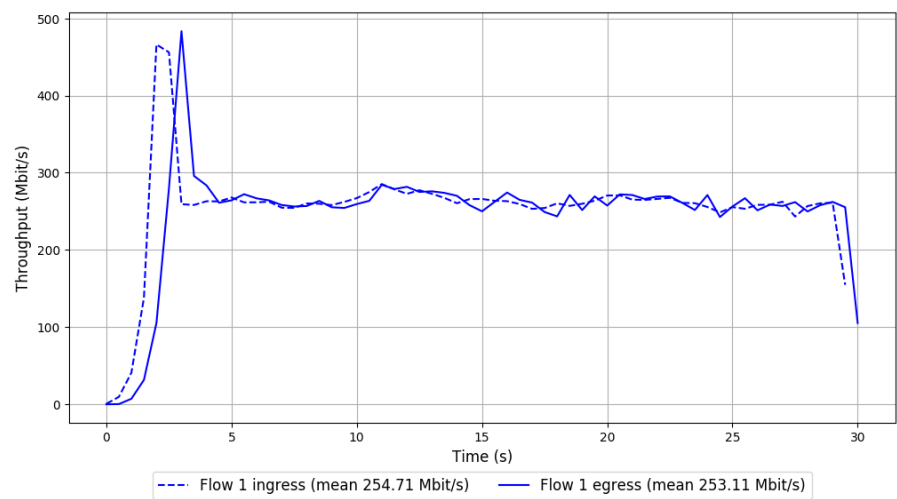
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 254.71 Mbit/s) ----   Flow 1 egress (mean 253.11 Mbit/s) ——

Flow 1 (95th percentile 156.48 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 23:44:34
End at: 2018-06-29 23:45:04
Local clock offset: -0.038 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2018-06-30 03:09:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.39 Mbit/s
95th percentile per-packet one-way delay: 128.338 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 256.39 Mbit/s
95th percentile per-packet one-way delay: 128.338 ms
Loss rate: 1.05%
```
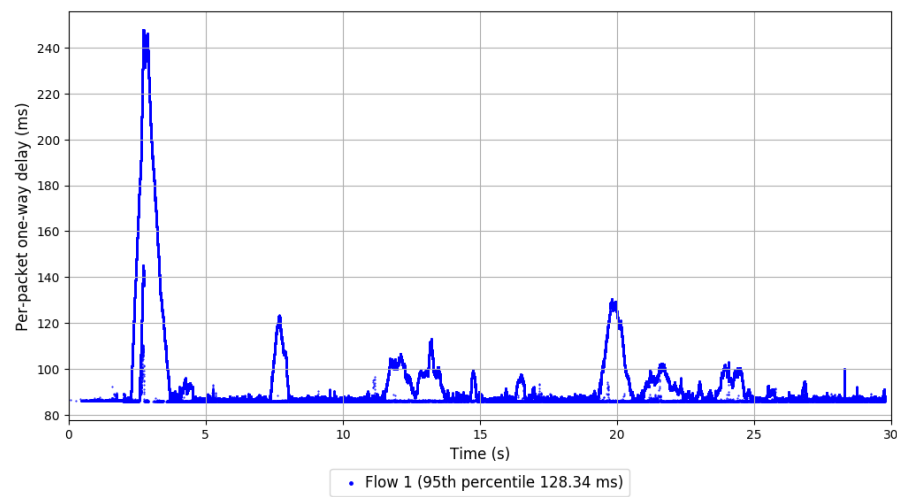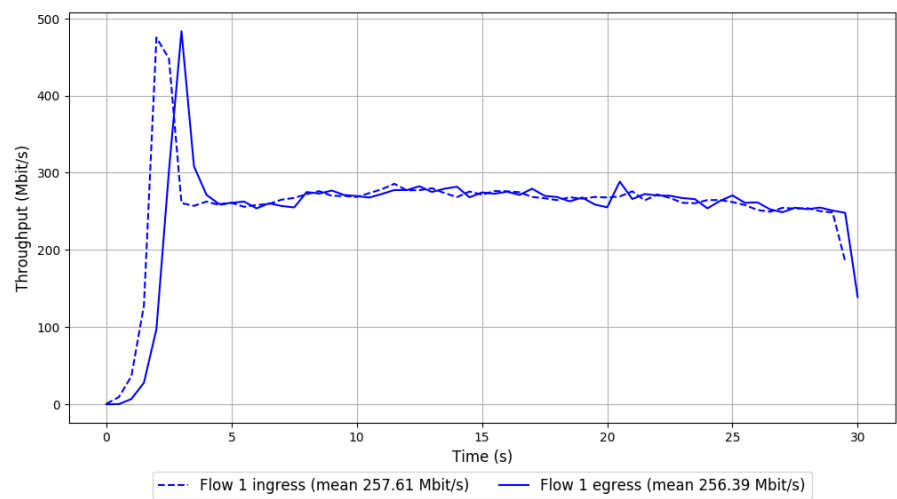
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 257.61 Mbit/s)   Flow 1 egress (mean 256.39 Mbit/s)

Flow 1 (95th percentile 128.34 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-30 00:05:31
End at: 2018-06-30 00:06:01
Local clock offset: 0.107 ms
Remote clock offset: 0.03 ms


# Below is generated by plot.py at 2018-06-30 03:09:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 267.65 Mbit/s
95th percentile per-packet one-way delay: 118.020 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 267.65 Mbit/s
95th percentile per-packet one-way delay: 118.020 ms
Loss rate: 0.95%
```
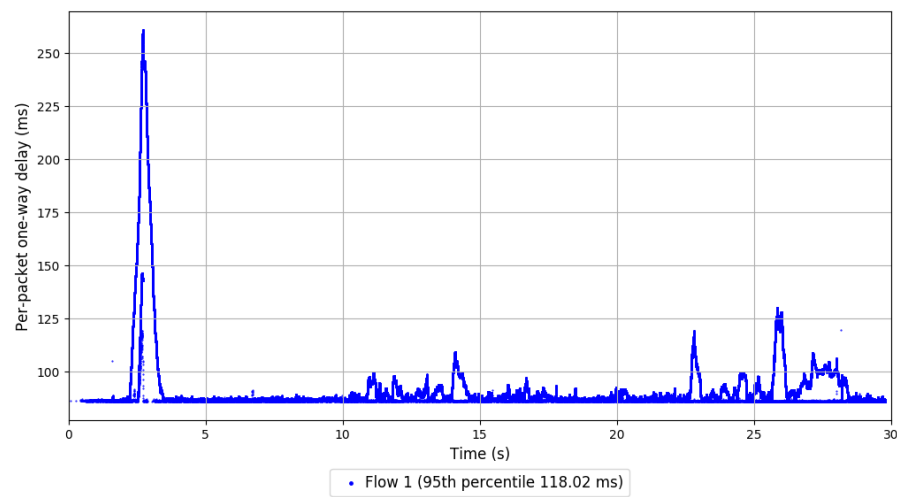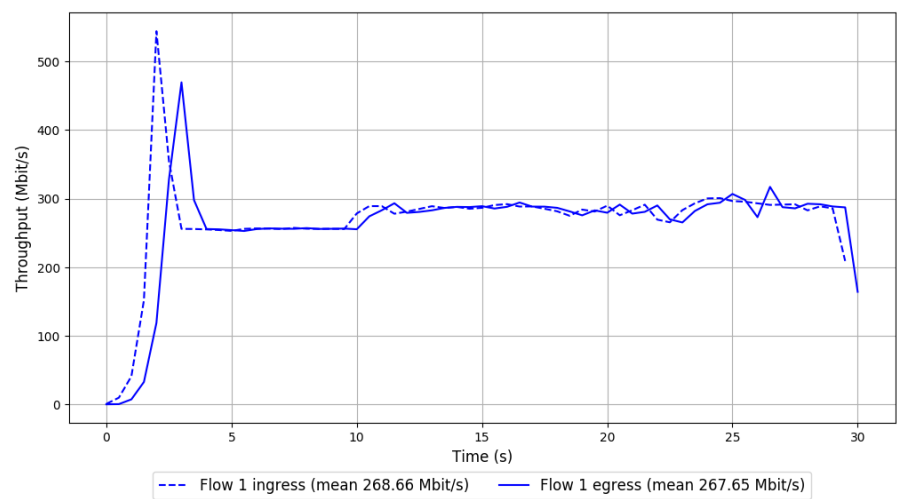
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-30 00:26:45
End at: 2018-06-30 00:27:15
Local clock offset: -0.129 ms
Remote clock offset: 0.149 ms


# Below is generated by plot.py at 2018-06-30 03:09:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 252.17 Mbit/s
95th percentile per-packet one-way delay: 162.541 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 252.17 Mbit/s
95th percentile per-packet one-way delay: 162.541 ms
Loss rate: 1.07%
```
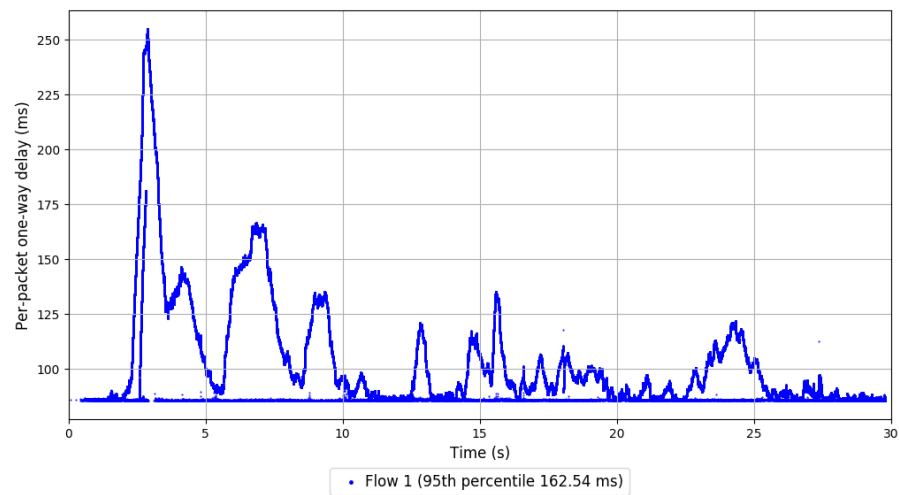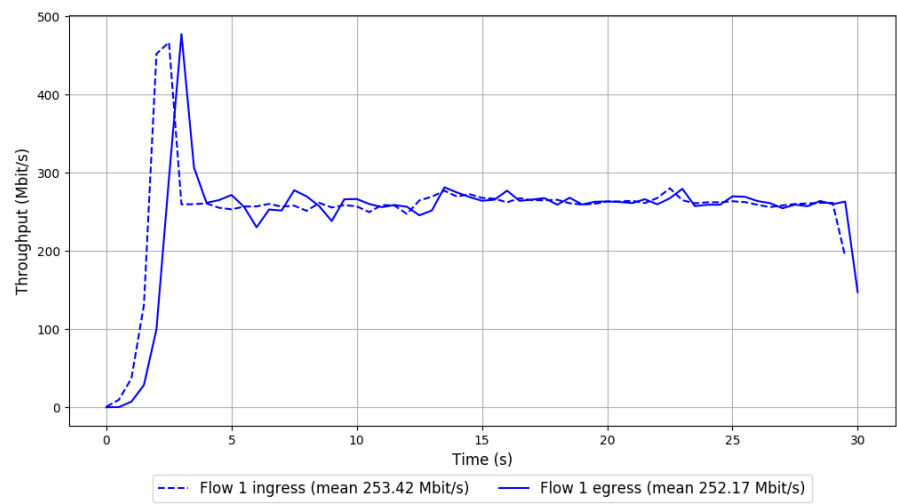
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 253.42 Mbit/s) ──── Flow 1 egress (mean 252.17 Mbit/s)

Flow 1 (95th percentile 162.54 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-30 00:47:49
End at: 2018-06-30 00:48:19
Local clock offset: -0.06 ms
Remote clock offset: 0.267 ms


# Below is generated by plot.py at 2018-06-30 03:10:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.71 Mbit/s
95th percentile per-packet one-way delay: 150.152 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 254.71 Mbit/s
95th percentile per-packet one-way delay: 150.152 ms
Loss rate: 1.05%
```
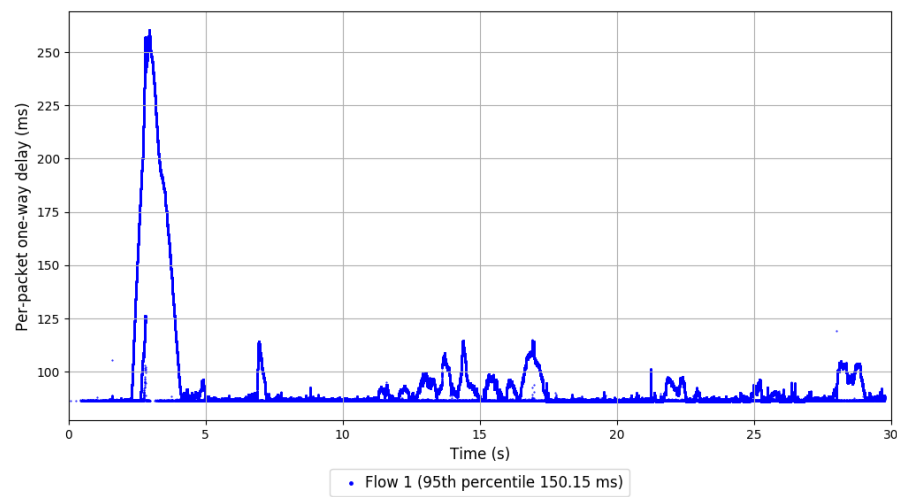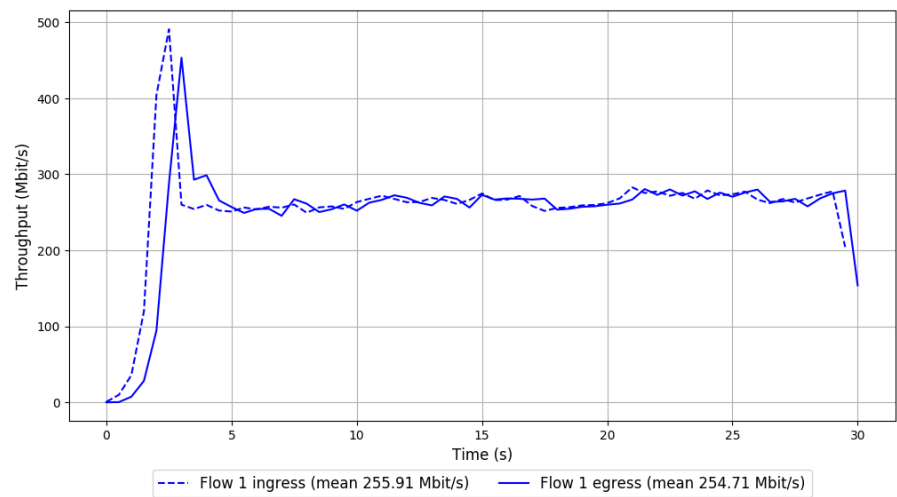
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-30 01:08:50
End at: 2018-06-30 01:09:20
Local clock offset: 0.125 ms
Remote clock offset: 0.286 ms


# Below is generated by plot.py at 2018-06-30 03:10:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.44 Mbit/s
95th percentile per-packet one-way delay: 127.422 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 249.44 Mbit/s
95th percentile per-packet one-way delay: 127.422 ms
Loss rate: 1.23%
```
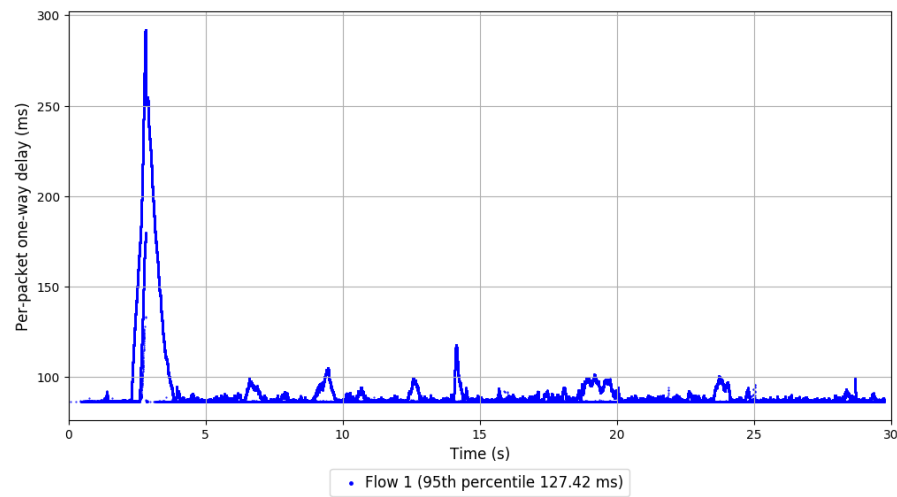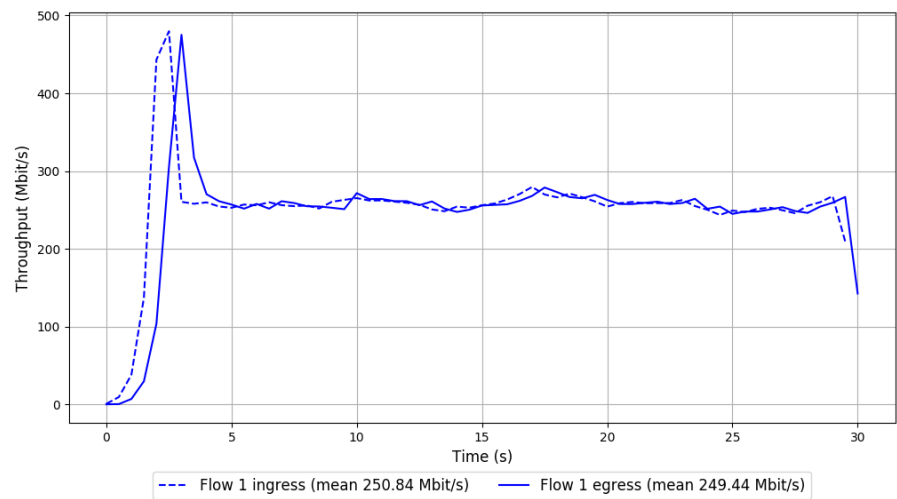
Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 250.84 Mbit/s)   Flow 1 egress (mean 249.44 Mbit/s)

Flow 1 (95th percentile 127.42 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-30 01:29:55
End at: 2018-06-30 01:30:25
Local clock offset: 0.323 ms
Remote clock offset: 0.057 ms


# Below is generated by plot.py at 2018-06-30 03:11:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.89 Mbit/s
95th percentile per-packet one-way delay: 128.886 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 269.89 Mbit/s
95th percentile per-packet one-way delay: 128.886 ms
Loss rate: 0.98%
```
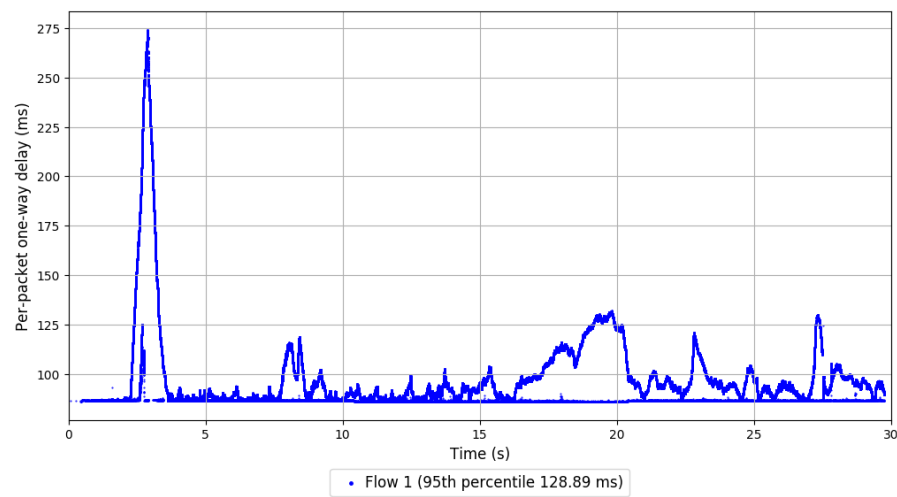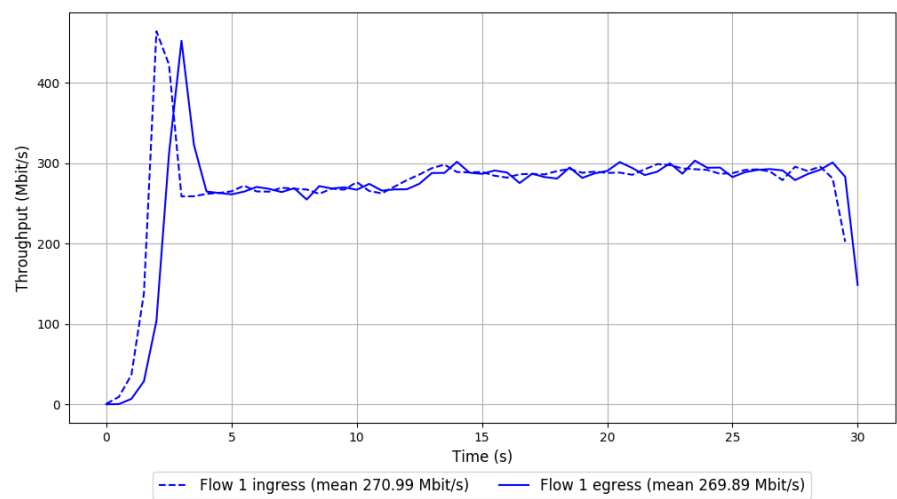
Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 270.99 Mbit/s)   Flow 1 egress (mean 269.89 Mbit/s)

Flow 1 (95th percentile 128.89 ms)

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-30 01:51:10
End at: 2018-06-30 01:51:40
Local clock offset: 0.325 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2018-06-30 03:11:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.77 Mbit/s
95th percentile per-packet one-way delay: 183.873 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 227.77 Mbit/s
95th percentile per-packet one-way delay: 183.873 ms
Loss rate: 0.72%
```
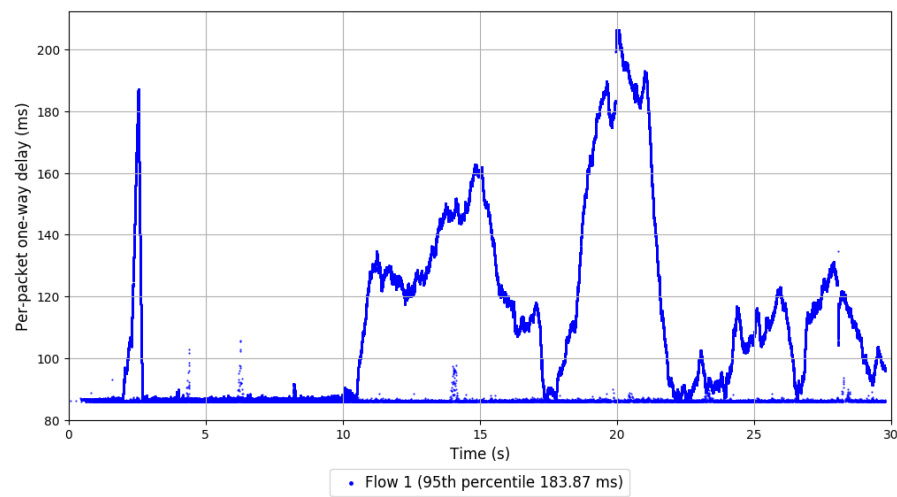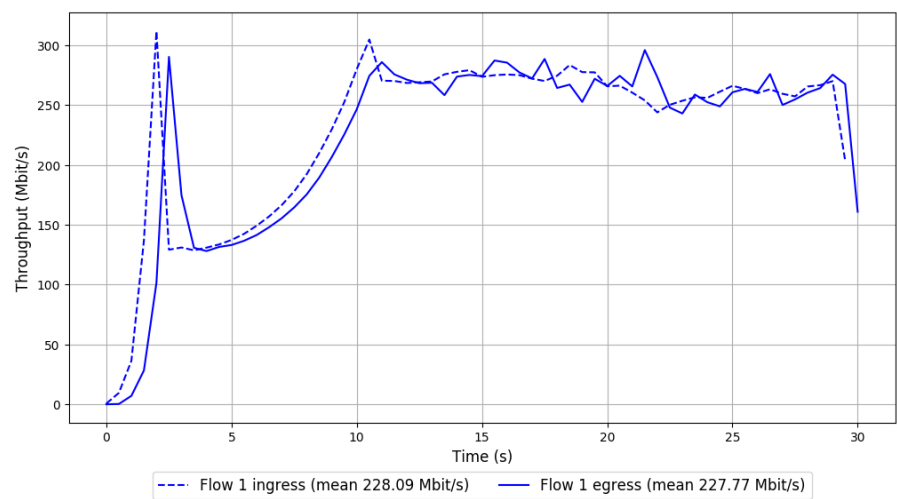
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 228.09 Mbit/s) ——— Flow 1 egress (mean 227.77 Mbit/s)

• Flow 1 (95th percentile 183.87 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-30 02:12:02
End at: 2018-06-30 02:12:32
Local clock offset: 0.274 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2018-06-30 03:13:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 262.68 Mbit/s
95th percentile per-packet one-way delay: 151.458 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 262.68 Mbit/s
95th percentile per-packet one-way delay: 151.458 ms
Loss rate: 1.16%
```
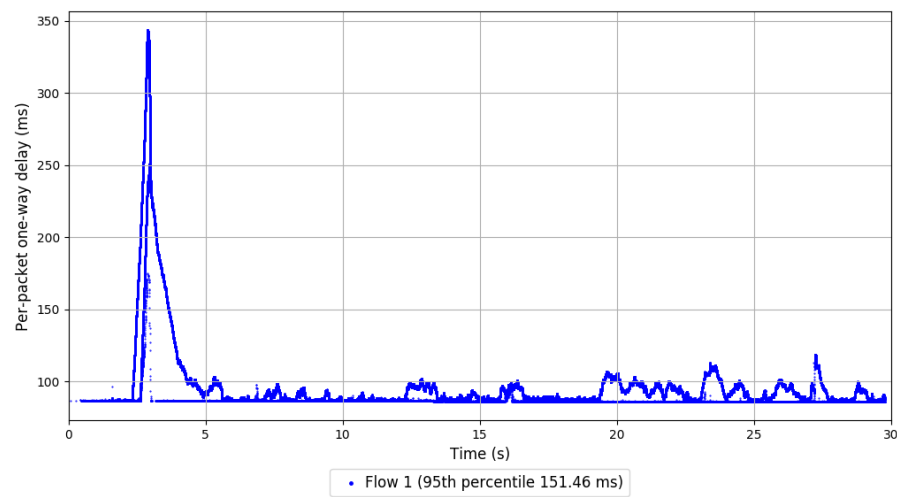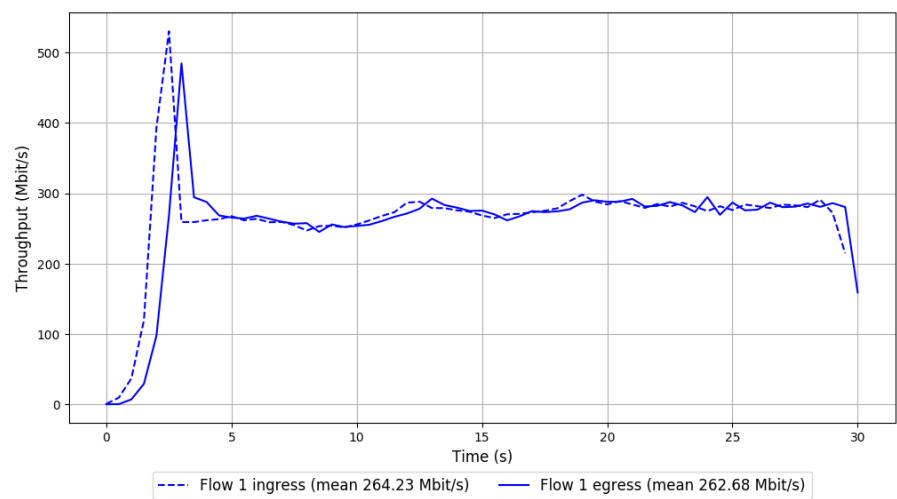
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 264.23 Mbit/s)   Flow 1 egress (mean 262.68 Mbit/s)
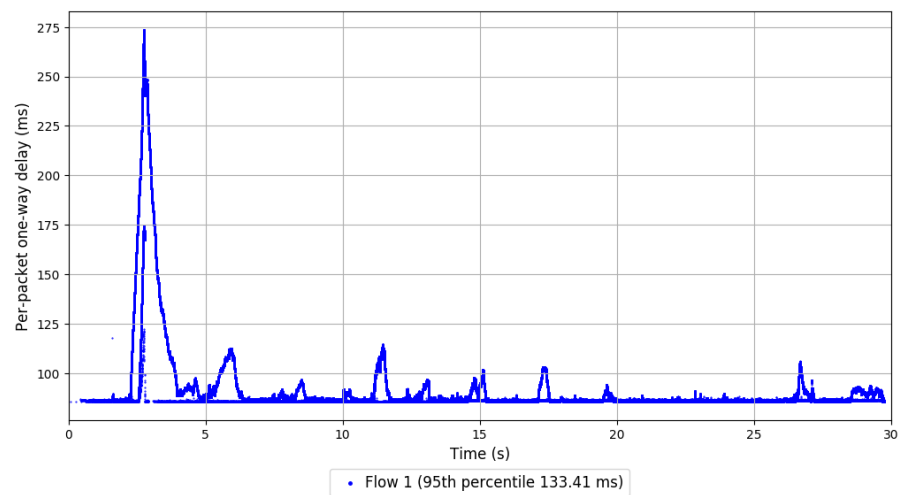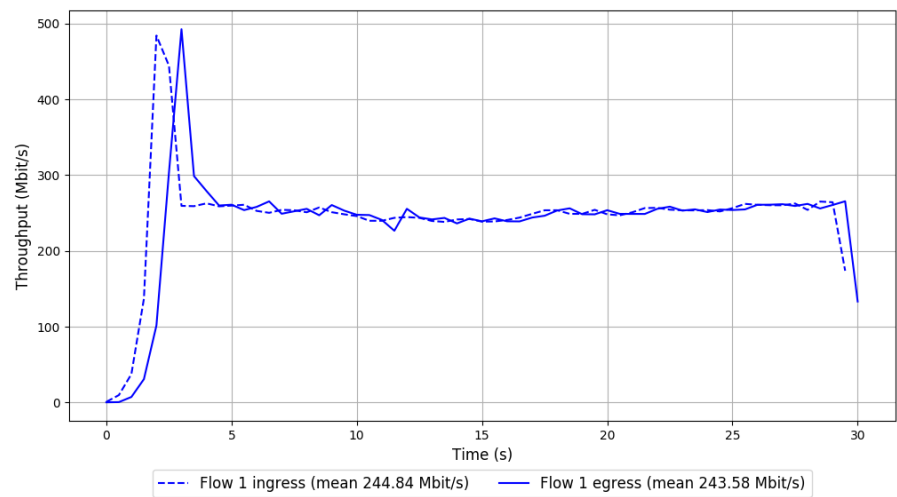

Flow 1 (95th percentile 151.46 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-30 02:32:51
End at: 2018-06-30 02:33:21
Local clock offset: -0.022 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-06-30 03:13:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.58 Mbit/s
95th percentile per-packet one-way delay: 133.414 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 243.58 Mbit/s
95th percentile per-packet one-way delay: 133.414 ms
Loss rate: 1.09%
```

Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 244.84 Mbit/s) --- Flow 1 egress (mean 243.58 Mbit/s)

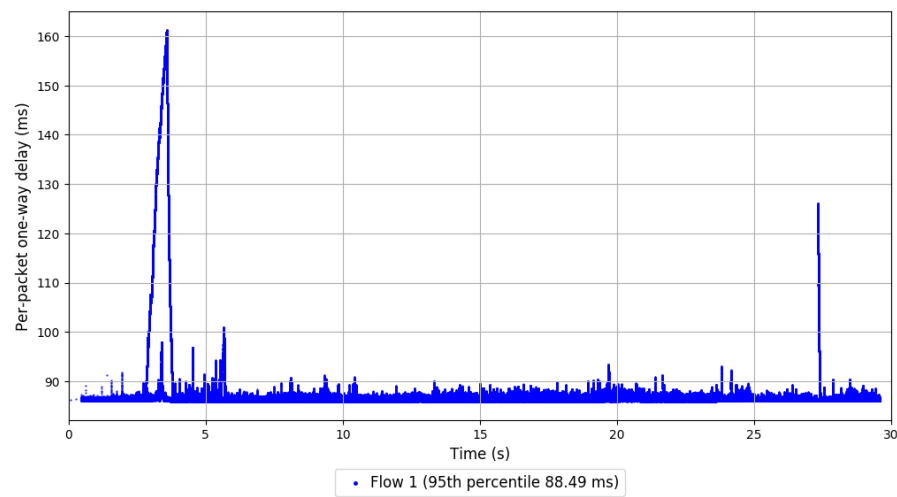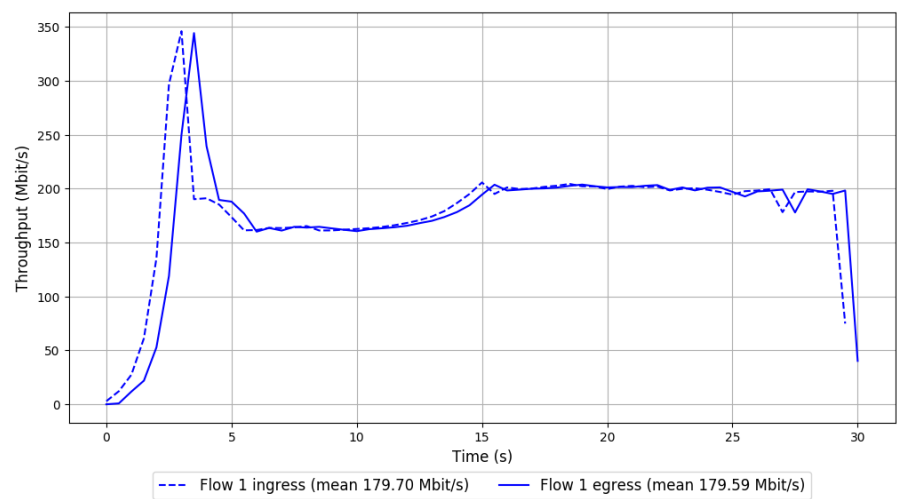
• Flow 1 (95th percentile 133.41 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 23:09:42
End at: 2018-06-29 23:10:12
Local clock offset: 0.254 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2018-06-30 03:15:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.59 Mbit/s
95th percentile per-packet one-way delay: 88.487 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 179.59 Mbit/s
95th percentile per-packet one-way delay: 88.487 ms
Loss rate: 0.65%
```
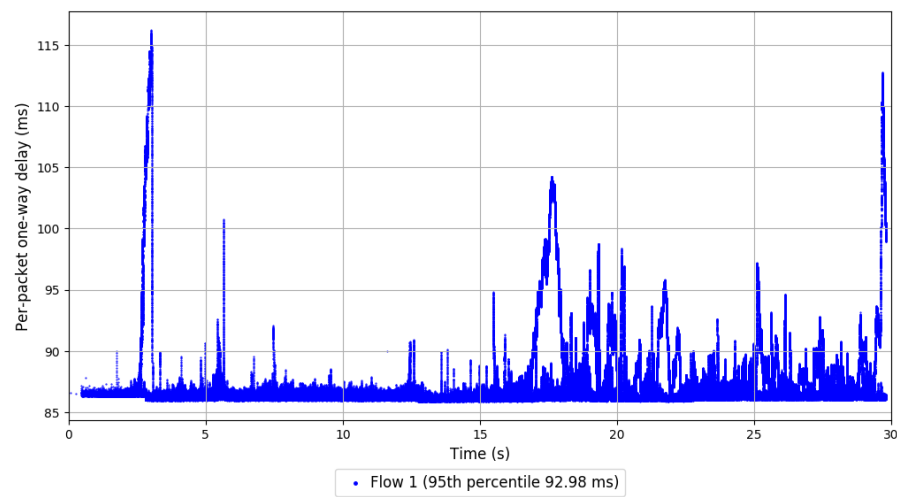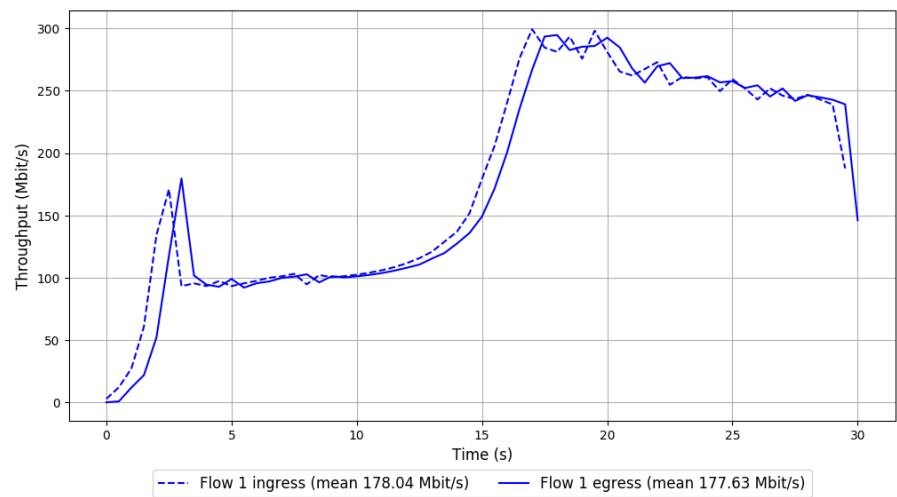
Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 179.70 Mbit/s) — Flow 1 egress (mean 179.59 Mbit/s)

• Flow 1 (95th percentile 88.49 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-29 23:30:43
End at: 2018-06-29 23:31:13
Local clock offset: 0.202 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2018-06-30 03:15:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.63 Mbit/s
95th percentile per-packet one-way delay: 92.983 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 177.63 Mbit/s
95th percentile per-packet one-way delay: 92.983 ms
Loss rate: 0.81%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 23:51:56
End at: 2018-06-29 23:52:26
Local clock offset: 0.186 ms
Remote clock offset: 0.052 ms


# Below is generated by plot.py at 2018-06-30 03:17:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.05 Mbit/s
95th percentile per-packet one-way delay: 89.061 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 193.05 Mbit/s
95th percentile per-packet one-way delay: 89.061 ms
Loss rate: 0.70%
```
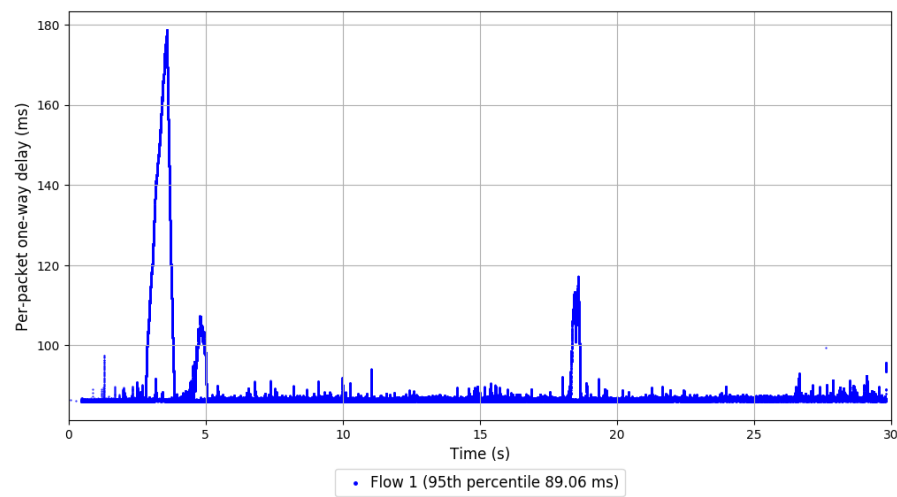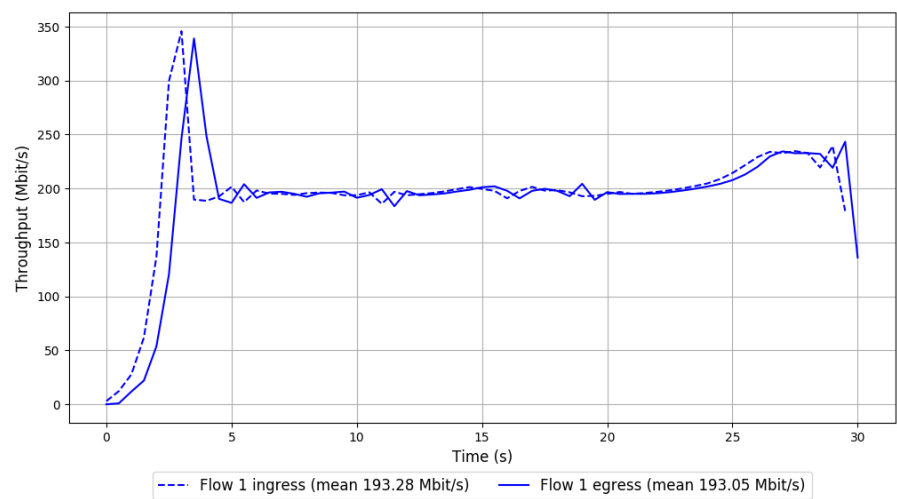
Run 3: Report of PCC-Expr — Data Link

```
Run 4: Statistics of PCC-Expr

Start at: 2018-06-30 00:12:50
End at: 2018-06-30 00:13:20
Local clock offset: 0.108 ms
Remote clock offset: 0.091 ms


# Below is generated by plot.py at 2018-06-30 03:17:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.30 Mbit/s
95th percentile per-packet one-way delay: 87.884 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 191.30 Mbit/s
95th percentile per-packet one-way delay: 87.884 ms
Loss rate: 0.55%
```
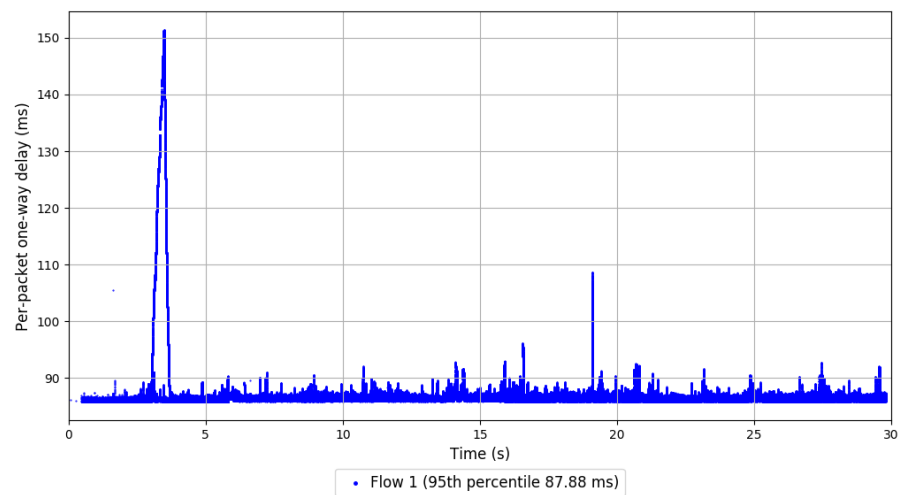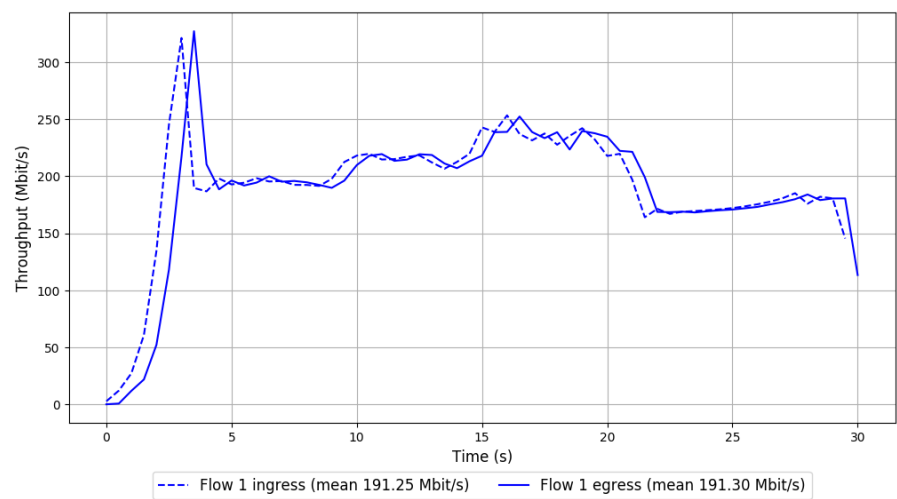
Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-06-30 00:34:04
End at: 2018-06-30 00:34:34
Local clock offset: -0.001 ms
Remote clock offset: 0.212 ms

# Below is generated by plot.py at 2018-06-30 03:18:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.93 Mbit/s
95th percentile per-packet one-way delay: 89.312 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 191.93 Mbit/s
95th percentile per-packet one-way delay: 89.312 ms
Loss rate: 0.62%
```
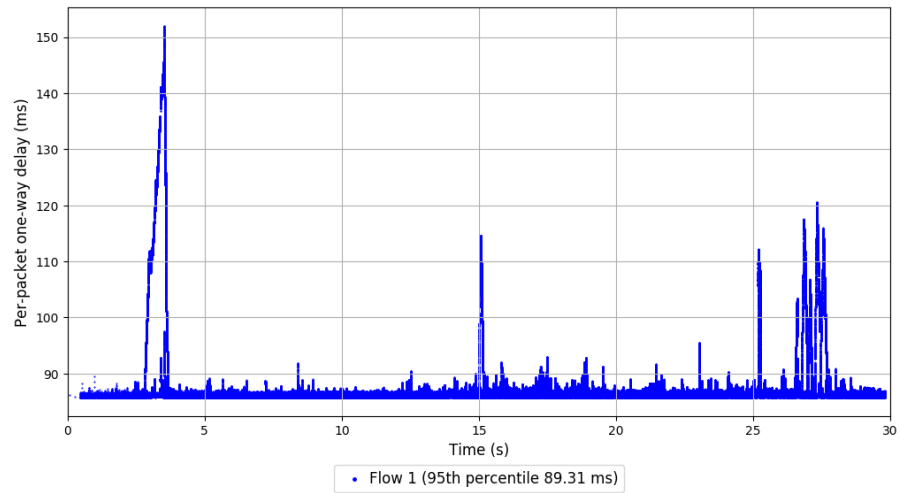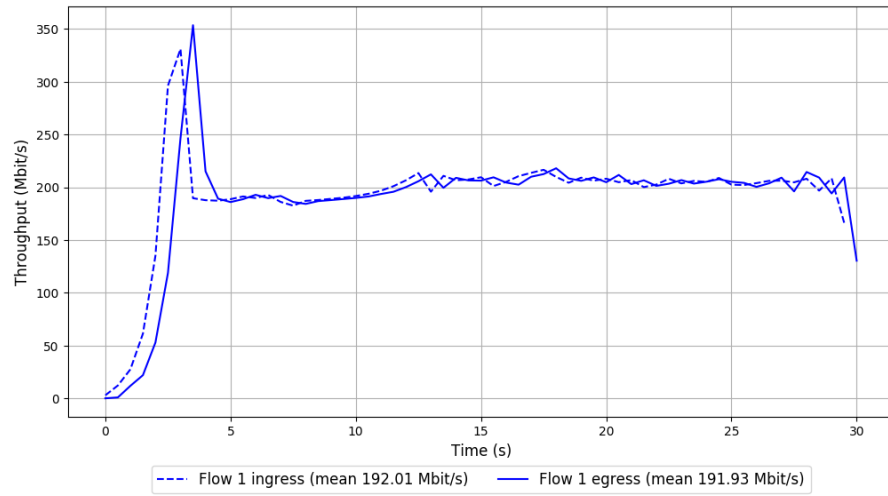
Run 5: Report of PCC-Expr — Data Link

```
Run 6: Statistics of PCC-Expr

Start at: 2018-06-30 00:55:06
End at: 2018-06-30 00:55:36
Local clock offset: 0.097 ms
Remote clock offset: 0.25 ms


# Below is generated by plot.py at 2018-06-30 03:19:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.86 Mbit/s
95th percentile per-packet one-way delay: 101.145 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 196.86 Mbit/s
95th percentile per-packet one-way delay: 101.145 ms
Loss rate: 0.71%
```
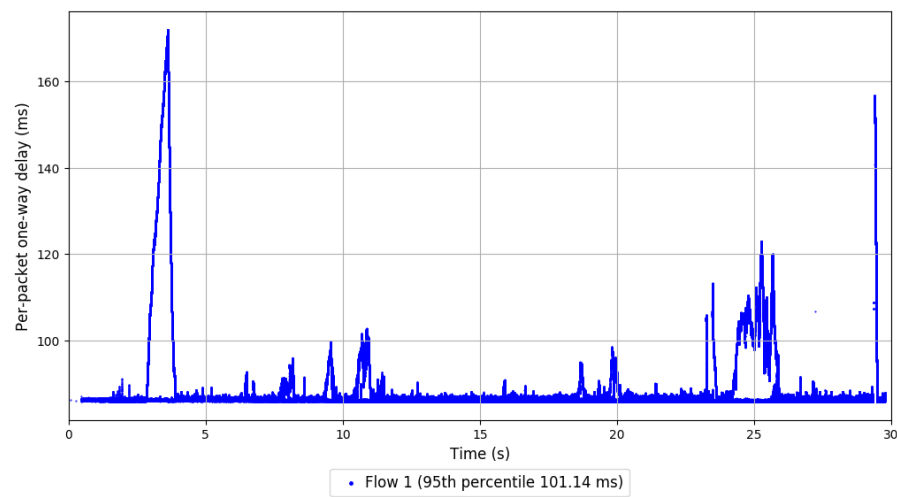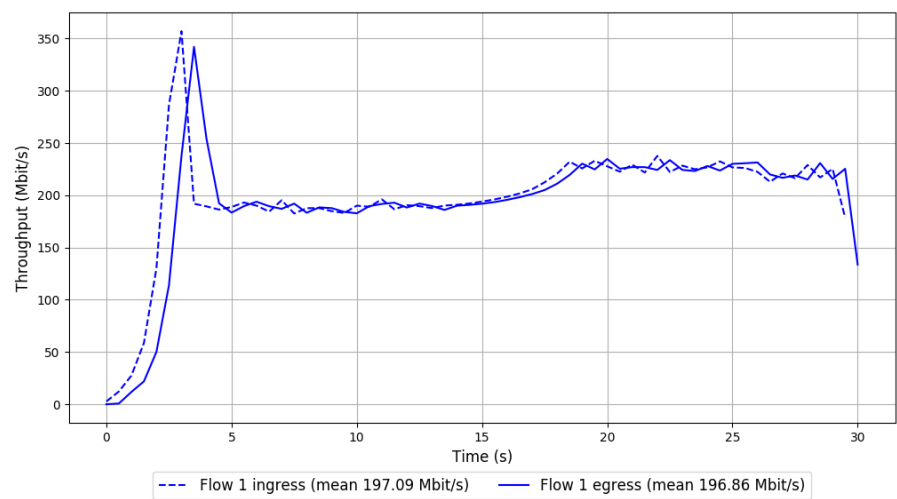
Run 6: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 197.09 Mbit/s) — — — Flow 1 egress (mean 196.86 Mbit/s)

• Flow 1 (95th percentile 101.14 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-06-30 01:16:08
End at: 2018-06-30 01:16:38
Local clock offset: 0.247 ms
Remote clock offset: 0.269 ms


# Below is generated by plot.py at 2018-06-30 03:19:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 112.75 Mbit/s
95th percentile per-packet one-way delay: 87.204 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 112.75 Mbit/s
95th percentile per-packet one-way delay: 87.204 ms
Loss rate: 0.78%
```
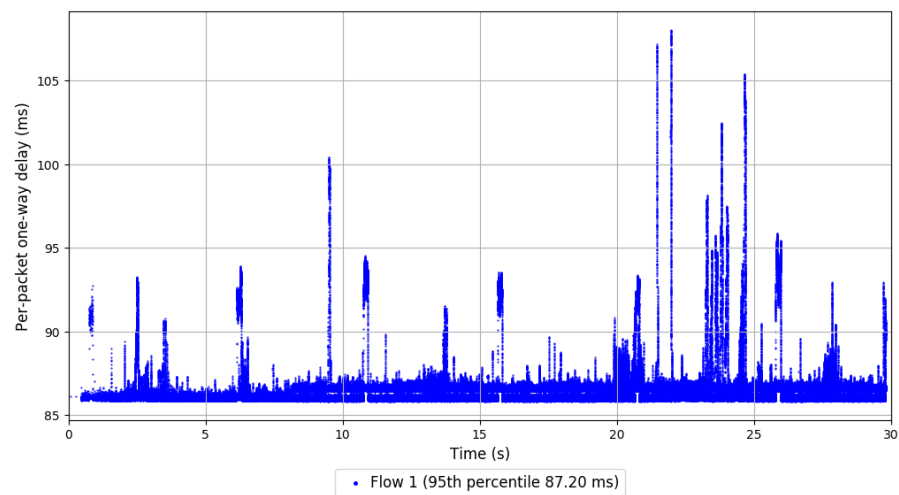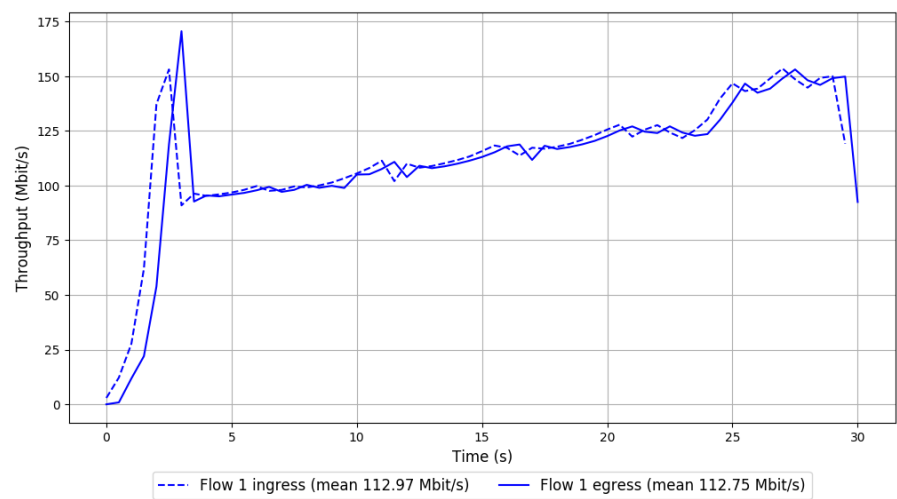
Run 7: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 112.97 Mbit/s) ---- Flow 1 egress (mean 112.75 Mbit/s)

Flow 1 (95th percentile 87.20 ms)

```
Run 8: Statistics of PCC-Expr

Start at: 2018-06-30 01:37:13
End at: 2018-06-30 01:37:43
Local clock offset: 0.097 ms
Remote clock offset: 0.071 ms


# Below is generated by plot.py at 2018-06-30 03:21:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.29 Mbit/s
95th percentile per-packet one-way delay: 100.172 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 195.29 Mbit/s
95th percentile per-packet one-way delay: 100.172 ms
Loss rate: 0.69%
```
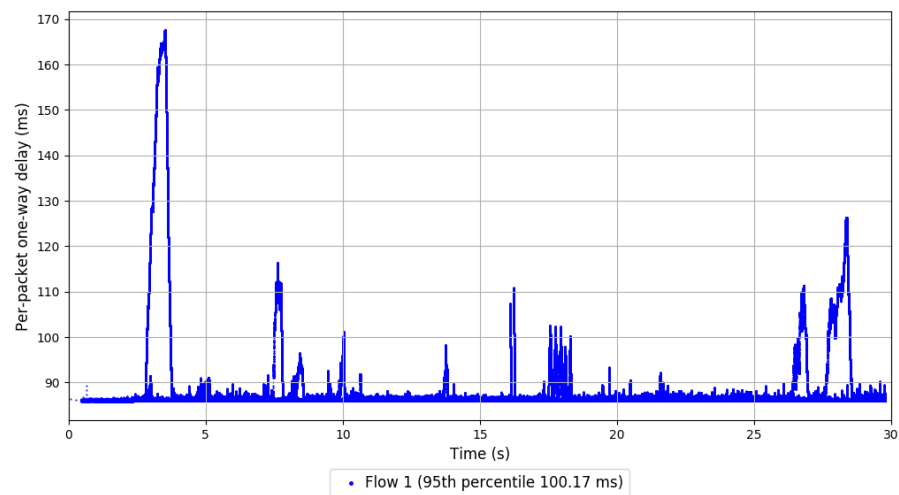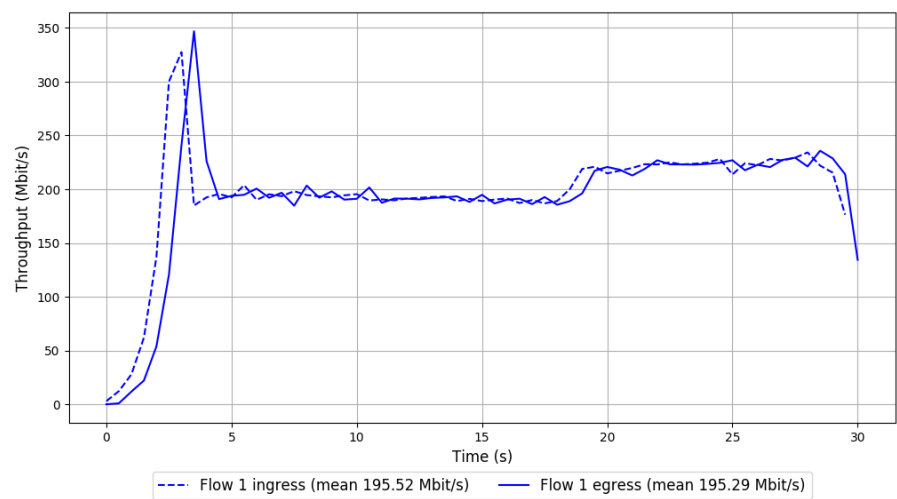
Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 195.52 Mbit/s) — Flow 1 egress (mean 195.29 Mbit/s)

Flow 1 (95th percentile 100.17 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-06-30 01:58:16
End at: 2018-06-30 01:58:46
Local clock offset: 0.261 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-06-30 03:21:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.74 Mbit/s
95th percentile per-packet one-way delay: 91.003 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 124.74 Mbit/s
95th percentile per-packet one-way delay: 91.003 ms
Loss rate: 0.72%
```
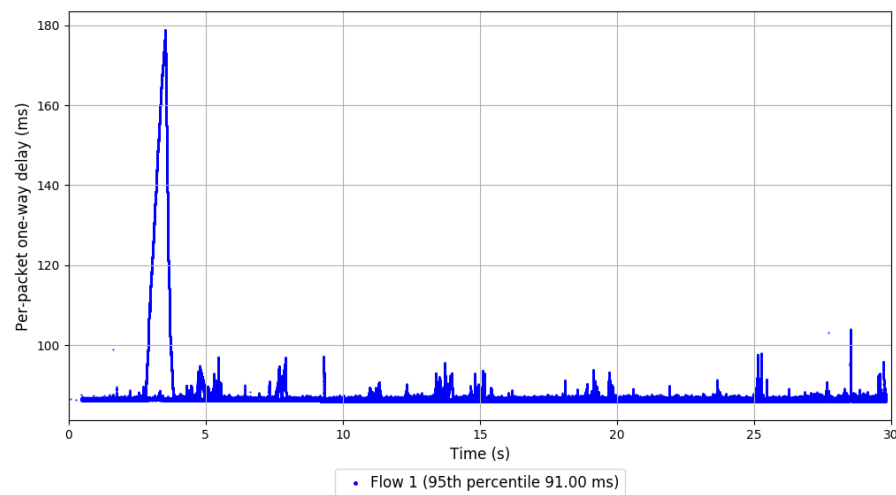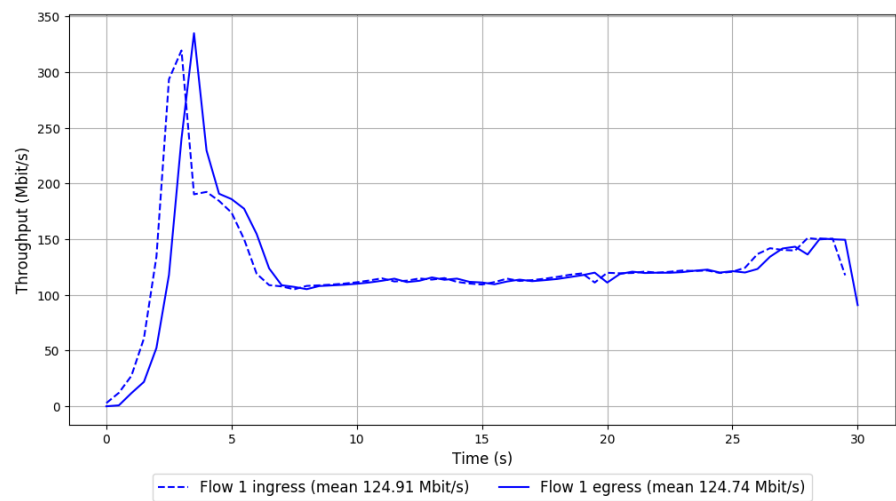
Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-06-30 02:19:22
End at: 2018-06-30 02:19:52
Local clock offset: 0.37 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.23 Mbit/s
95th percentile per-packet one-way delay: 92.101 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 192.23 Mbit/s
95th percentile per-packet one-way delay: 92.101 ms
Loss rate: 0.64%
```
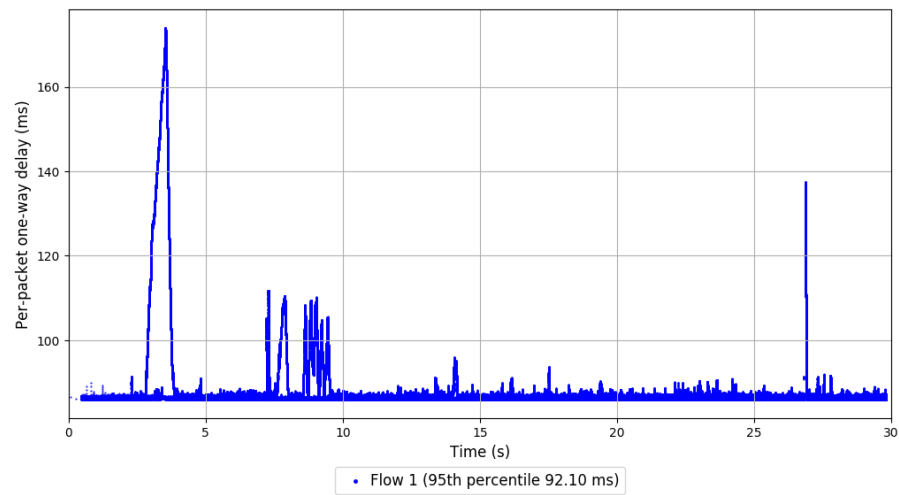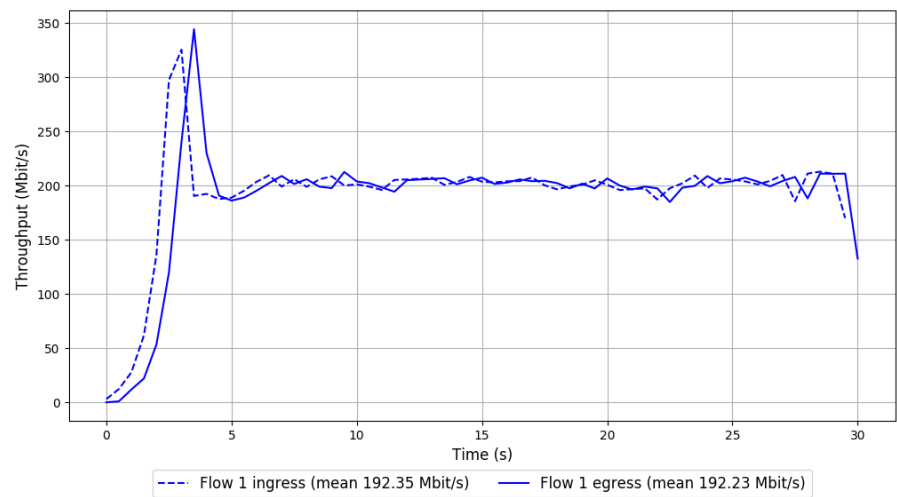
Run 10: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 192.35 Mbit/s)   Flow 1 egress (mean 192.23 Mbit/s)

Flow 1 (95th percentile 92.10 ms)
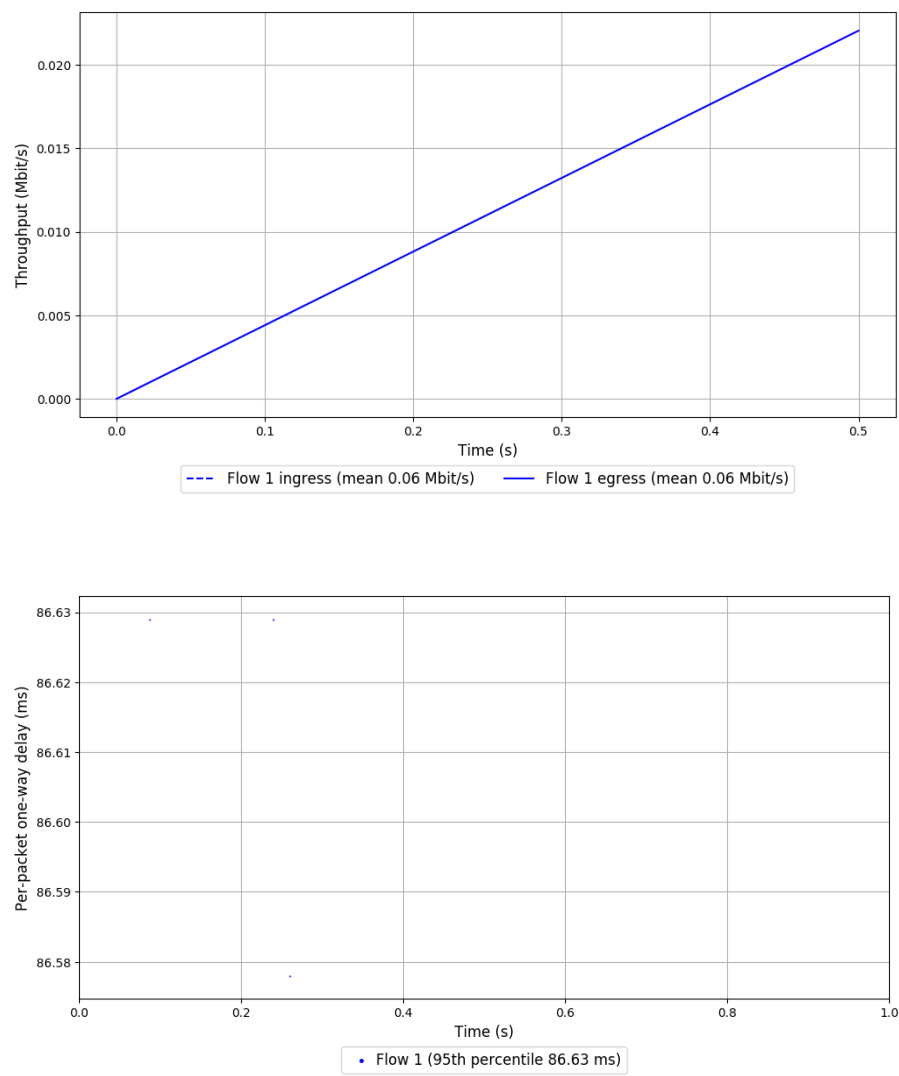
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-29 23:03:52
End at: 2018-06-29 23:04:22
Local clock offset: 0.3 ms
Remote clock offset: -0.054 ms

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-29 23:24:44
End at: 2018-06-29 23:25:14
Local clock offset: 0.19 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 86.559 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 54.07 Mbit/s
95th percentile per-packet one-way delay: 86.559 ms
Loss rate: 0.93%
```
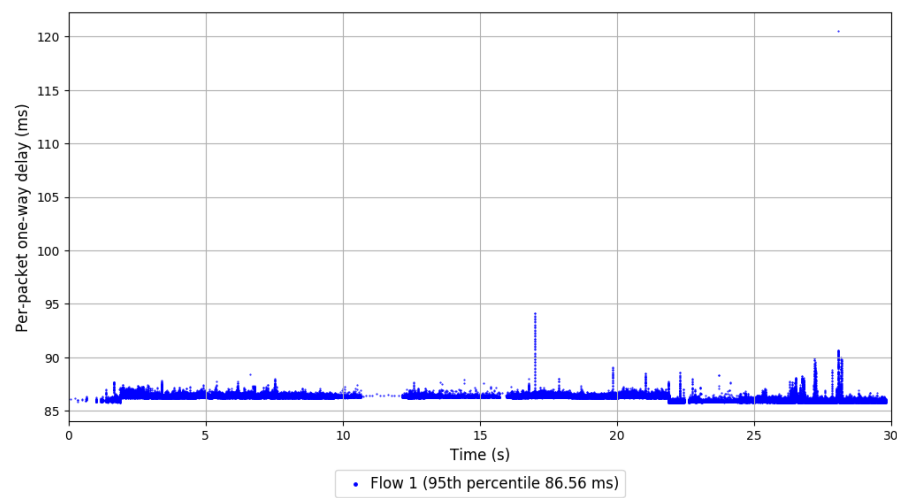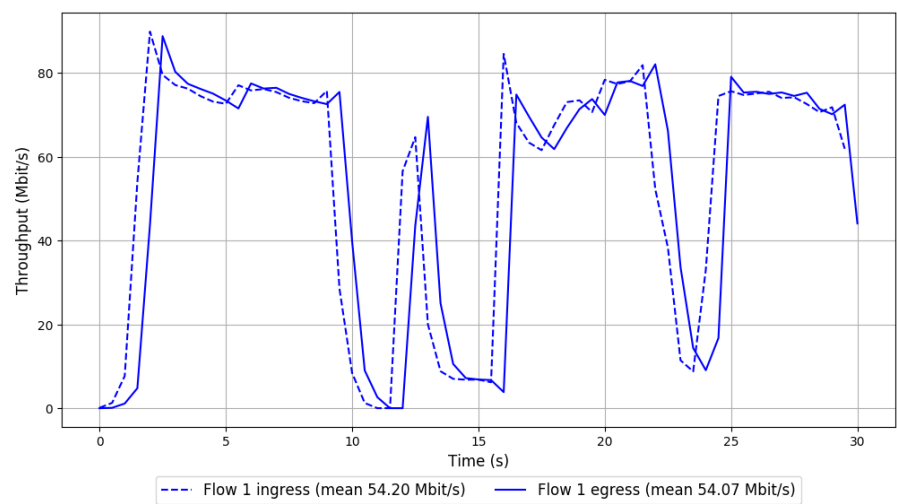
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-29 23:45:50
End at: 2018-06-29 23:46:20
Local clock offset: -0.108 ms
Remote clock offset: 0.013 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 86.066 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 59.32 Mbit/s
95th percentile per-packet one-way delay: 86.066 ms
Loss rate: 0.72%
```
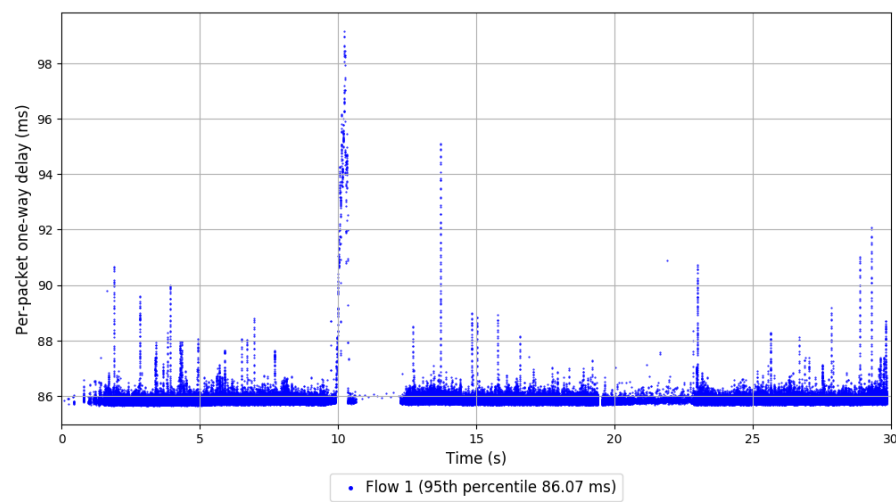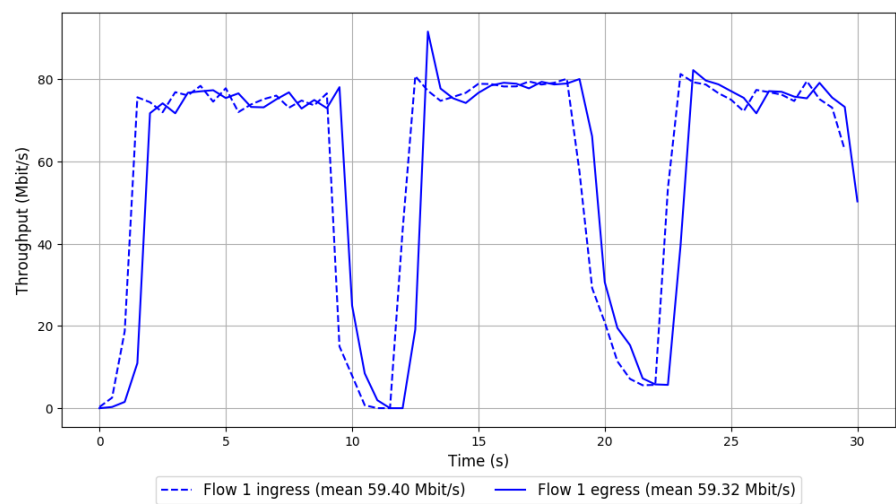
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 59.40 Mbit/s) --- Flow 1 egress (mean 59.32 Mbit/s)

• Flow 1 (95th percentile 86.07 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-30 00:06:48
End at: 2018-06-30 00:07:18
Local clock offset: 0.283 ms
Remote clock offset: 0.068 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.74 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 43.74 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.71%
```
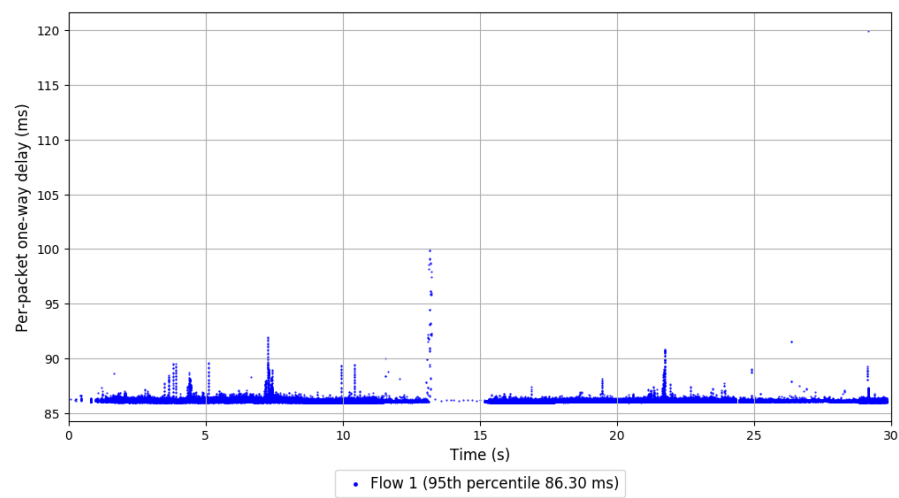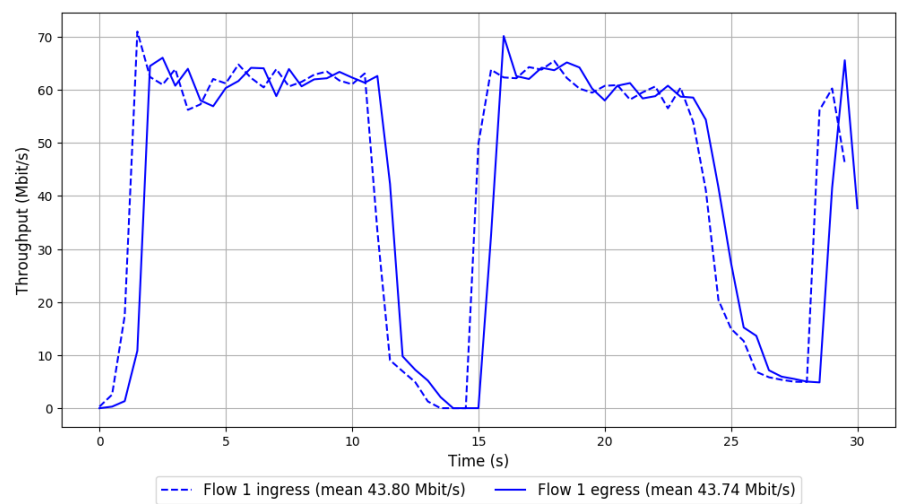
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-30 00:28:01
End at: 2018-06-30 00:28:31
Local clock offset: 0.055 ms
Remote clock offset: 0.183 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 86.137 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 49.04 Mbit/s
95th percentile per-packet one-way delay: 86.137 ms
Loss rate: 0.91%
```
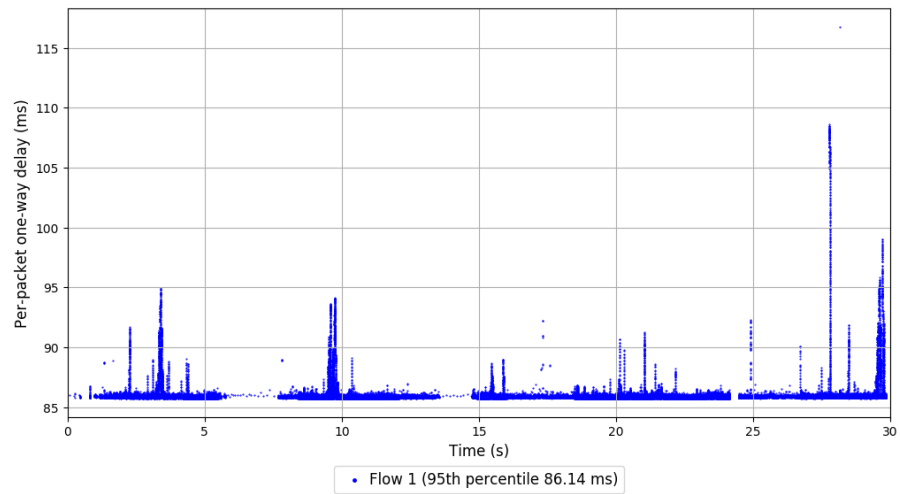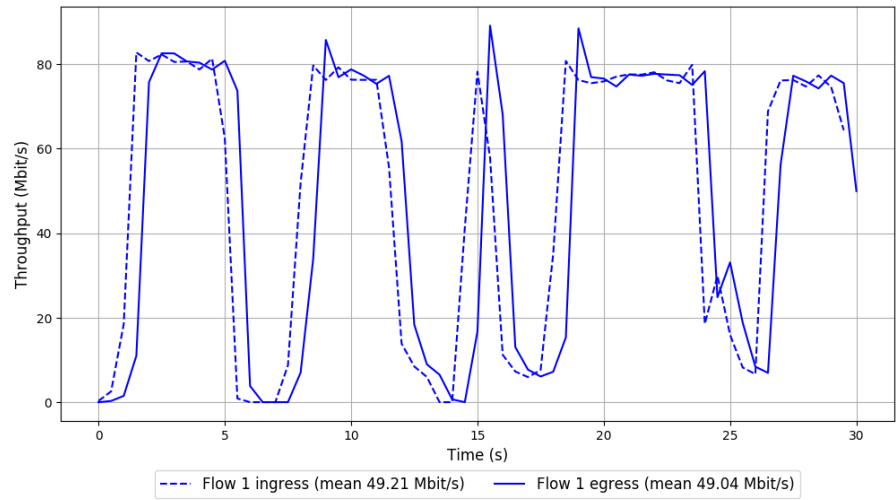
Run 5: Report of QUIC Cubic — Data Link

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-30 00:49:06
End at: 2018-06-30 00:49:36
Local clock offset: 0.143 ms
Remote clock offset: 0.269 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.26 Mbit/s
95th percentile per-packet one-way delay: 86.301 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 55.26 Mbit/s
95th percentile per-packet one-way delay: 86.301 ms
Loss rate: 0.77%
```
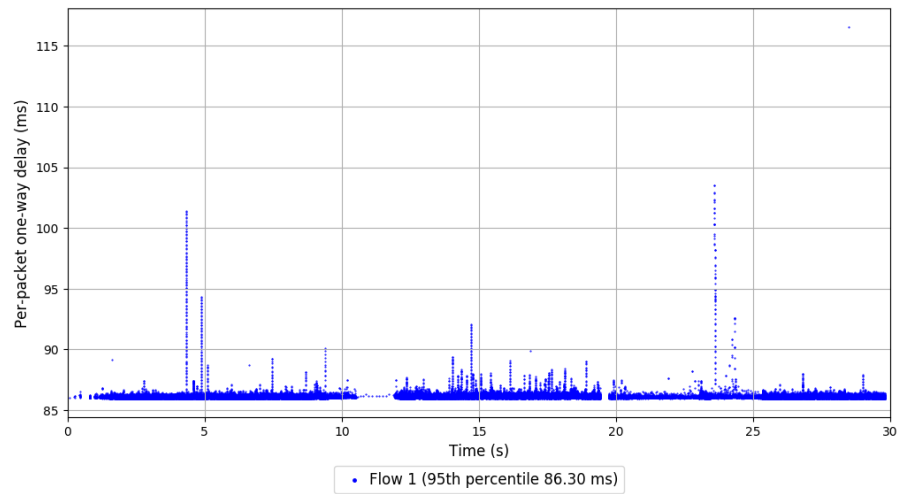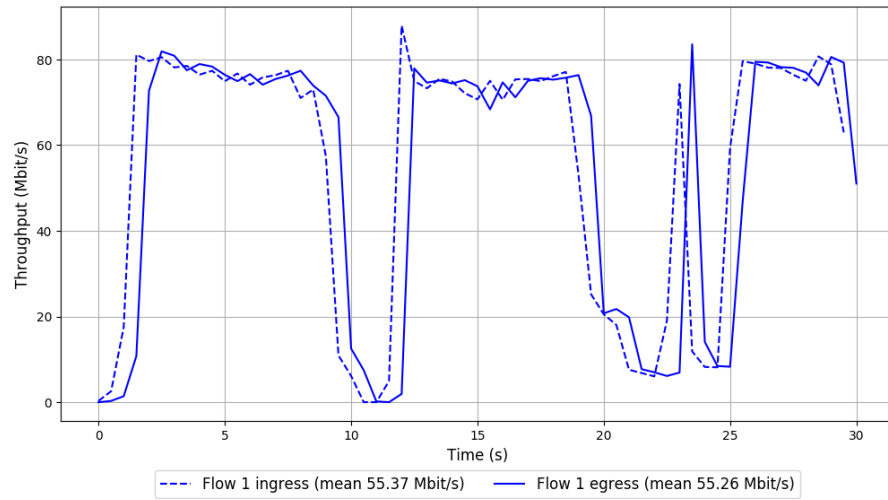
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-30 01:10:06
End at: 2018-06-30 01:10:36
Local clock offset: 0.059 ms
Remote clock offset: 0.242 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.27 Mbit/s
95th percentile per-packet one-way delay: 86.244 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 44.27 Mbit/s
95th percentile per-packet one-way delay: 86.244 ms
Loss rate: 1.02%
```
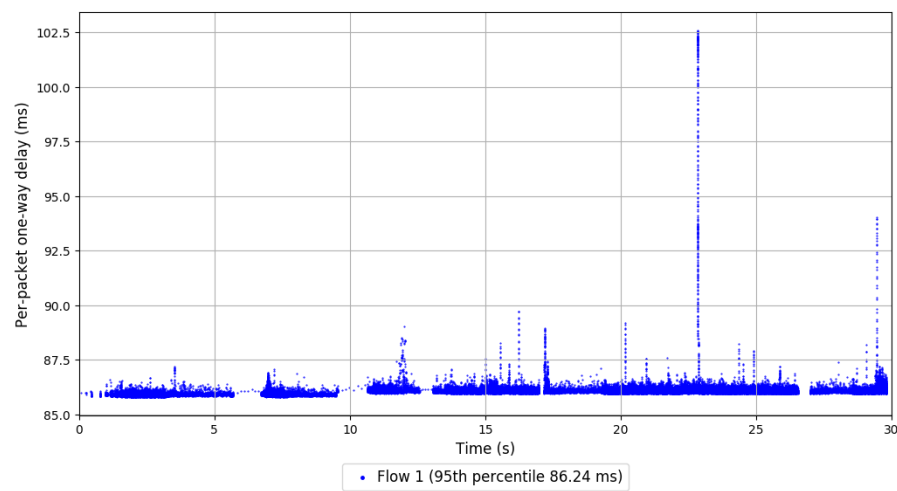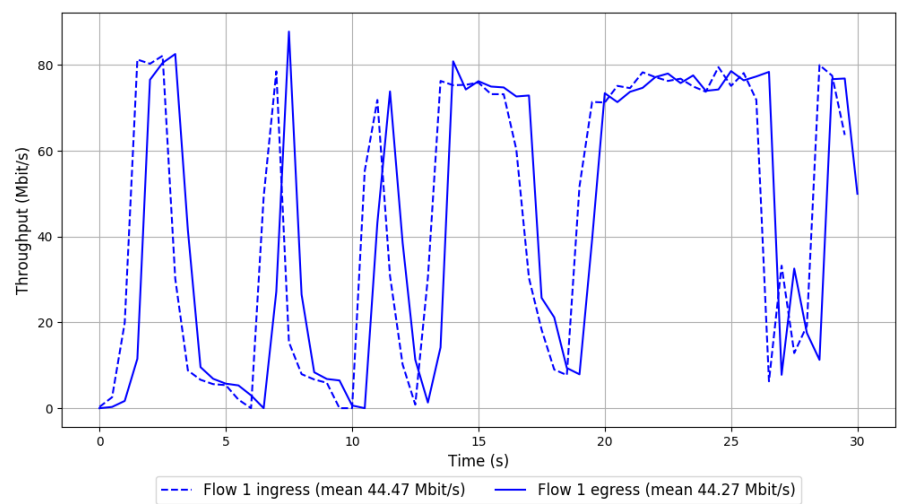
Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-30 01:31:12
End at: 2018-06-30 01:31:42
Local clock offset: 0.168 ms
Remote clock offset: 0.105 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.88 Mbit/s
95th percentile per-packet one-way delay: 86.548 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 50.88 Mbit/s
95th percentile per-packet one-way delay: 86.548 ms
Loss rate: 0.88%
```
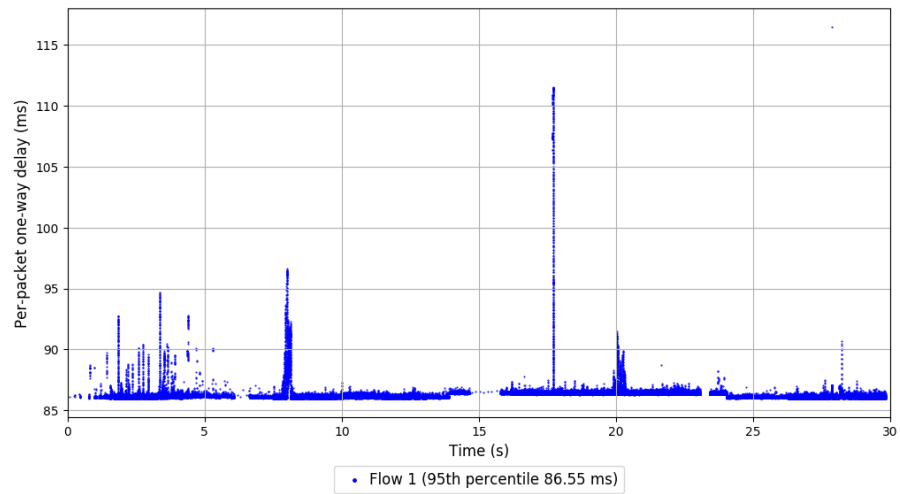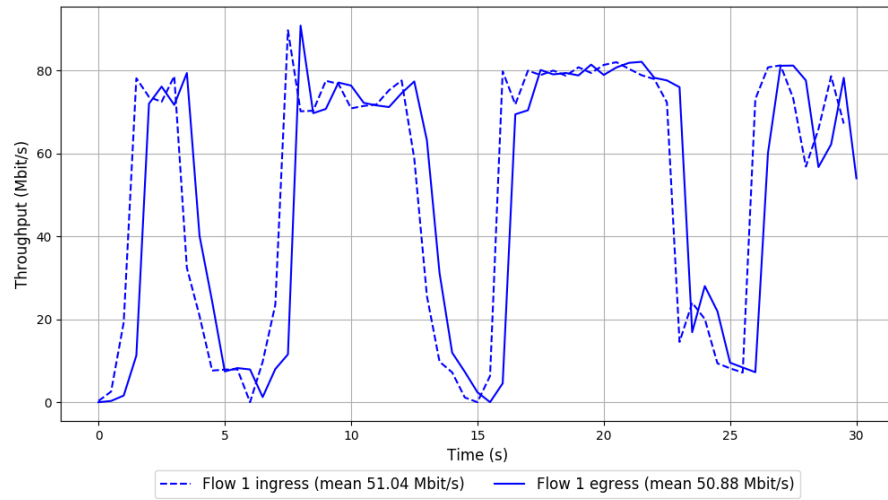
Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-30 01:52:25
End at: 2018-06-30 01:52:55
Local clock offset: 0.211 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 86.587 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 46.99 Mbit/s
95th percentile per-packet one-way delay: 86.587 ms
Loss rate: 0.71%
```
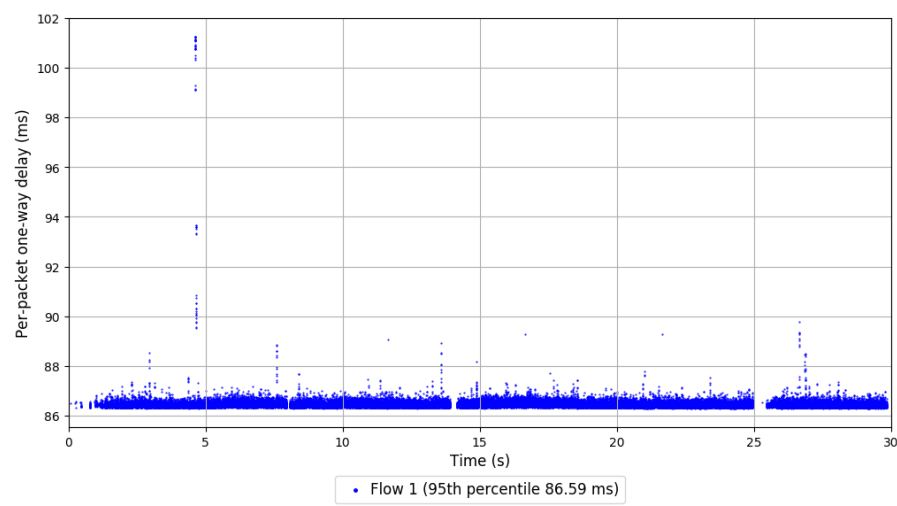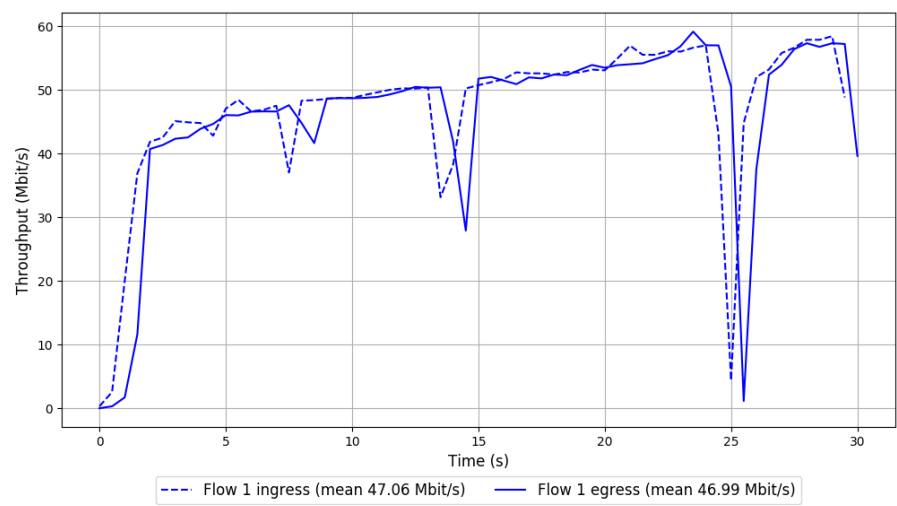
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 47.06 Mbit/s)   Flow 1 egress (mean 46.99 Mbit/s)

Flow 1 (95th percentile 86.59 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-30 02:13:19
End at: 2018-06-30 02:13:49
Local clock offset: 0.118 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 86.542 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 53.56 Mbit/s
95th percentile per-packet one-way delay: 86.542 ms
Loss rate: 0.82%
```
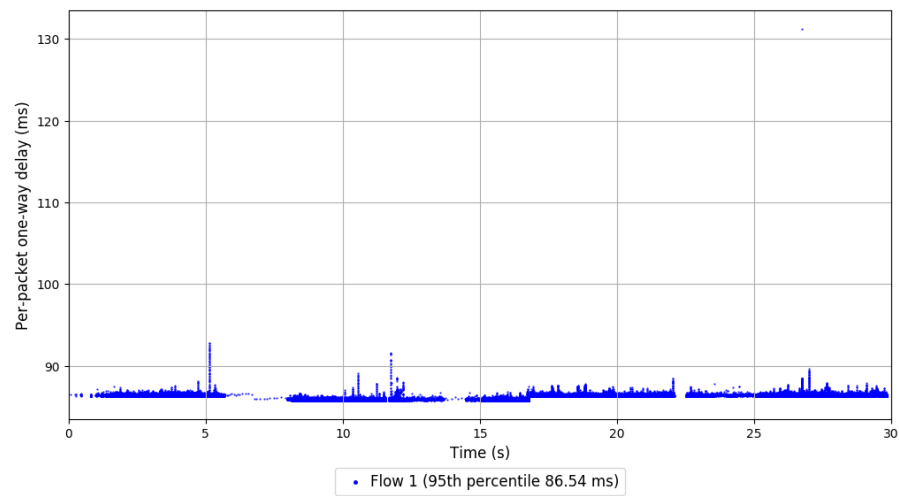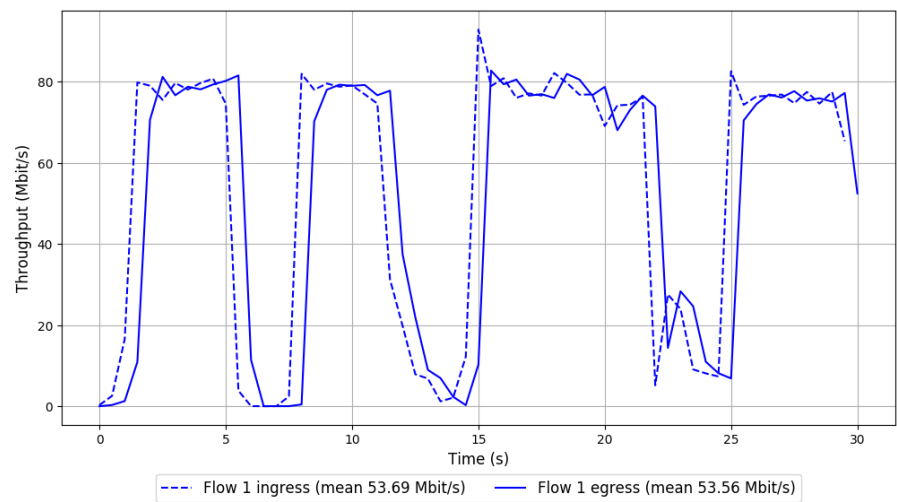
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.69 Mbit/s) ----- Flow 1 egress (mean 53.56 Mbit/s) ——
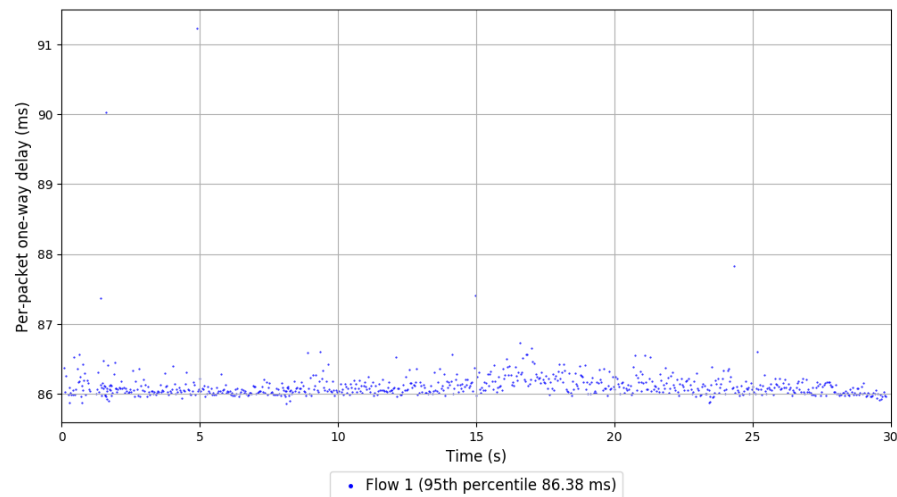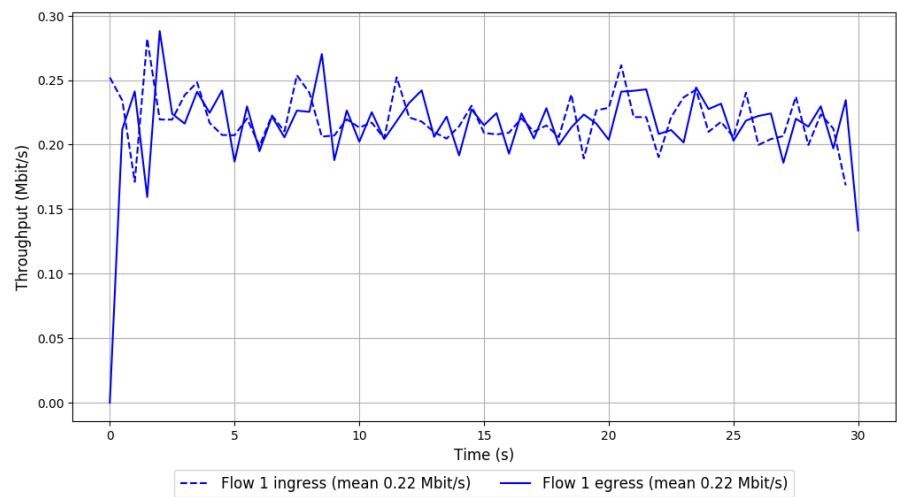

Flow 1 (95th percentile 86.54 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-06-29 23:14:47
End at: 2018-06-29 23:15:17
Local clock offset: 0.113 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.380 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.380 ms
Loss rate: 0.52%
```

Run 1: Report of SCReAM — Data Link

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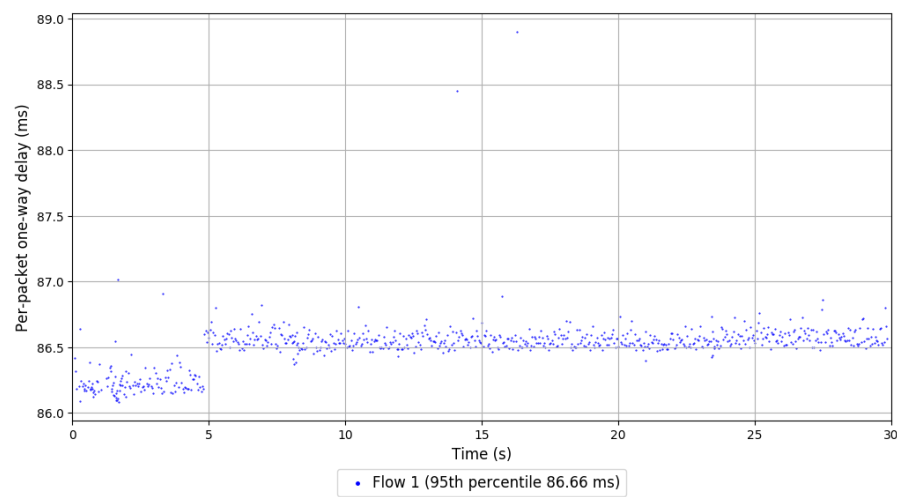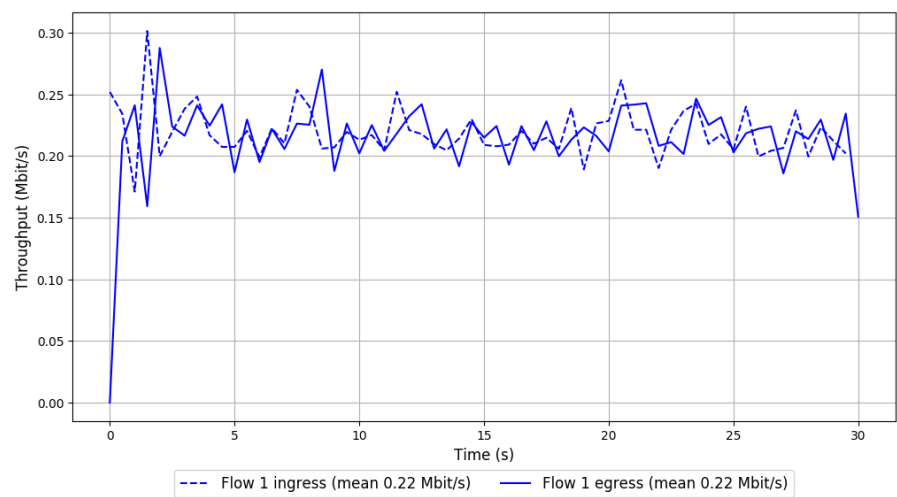

Flow 1 (95th percentile 86.38 ms)

```
Run 2: Statistics of SCReAM

Start at: 2018-06-29 23:35:51
End at: 2018-06-29 23:36:21
Local clock offset: 0.191 ms
Remote clock offset: 0.009 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.659 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.659 ms
Loss rate: 0.64%
```

Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.66 ms)

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```
Run 3: Statistics of SCReAM

Start at: 2018-06-29 23:57:05
End at: 2018-06-29 23:57:36
Local clock offset: 0.086 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.250 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.250 ms
Loss rate: 0.64%
```
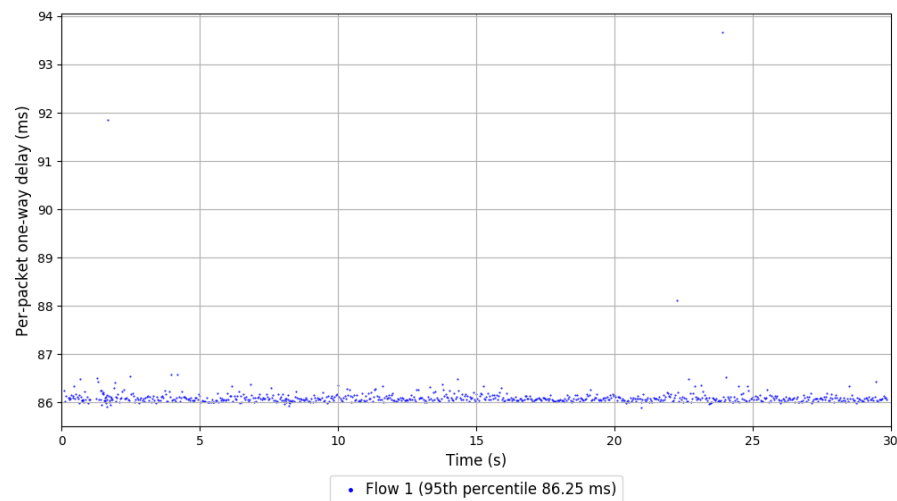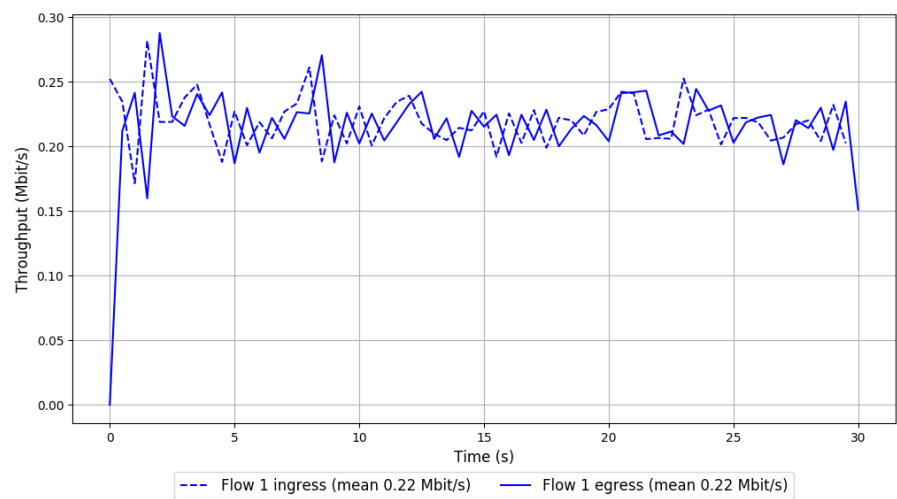
Run 3: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.25 ms)

```
Run 4: Statistics of SCReAM

Start at: 2018-06-30 00:17:59
End at: 2018-06-30 00:18:29
Local clock offset: 0.043 ms
Remote clock offset: 0.095 ms

# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.707 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.707 ms
Loss rate: 0.64%
```
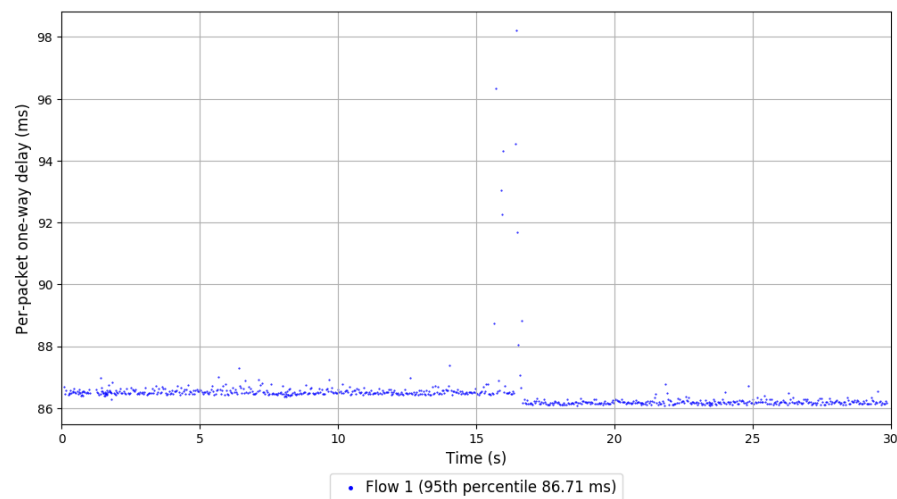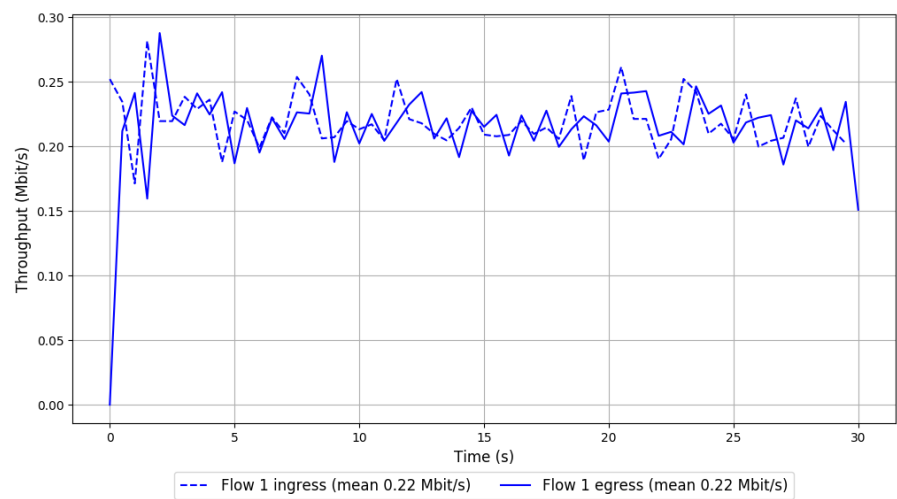
Run 4: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.71 ms)

```
Run 5: Statistics of SCReAM

Start at: 2018-06-30 00:39:16
End at: 2018-06-30 00:39:46
Local clock offset: 0.196 ms
Remote clock offset: 0.215 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.909 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.909 ms
Loss rate: 0.64%
```
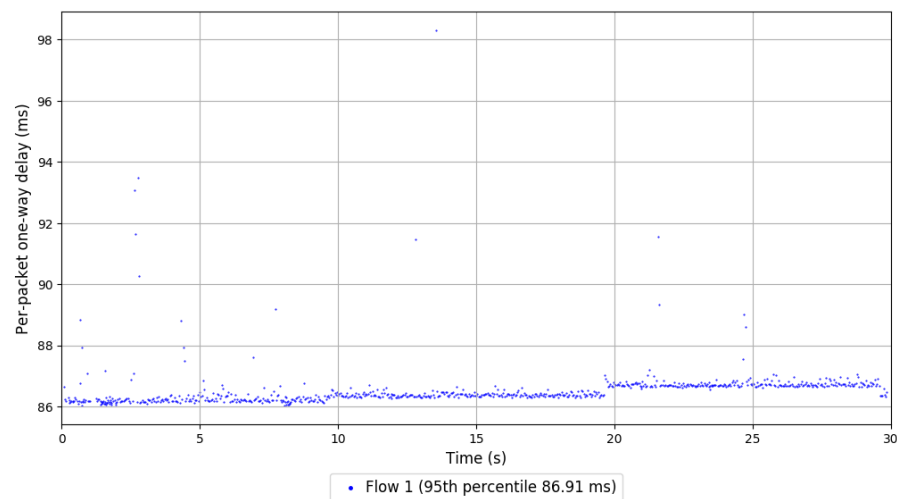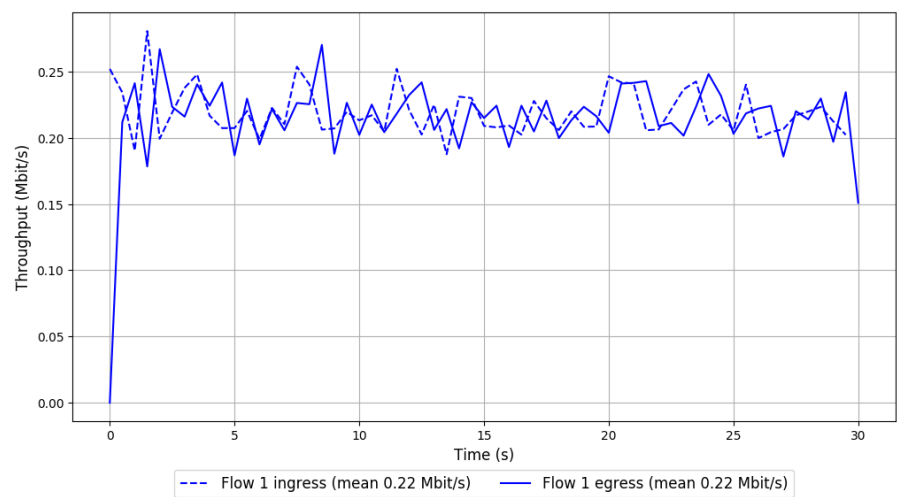
Run 5: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.91 ms)

```
Run 6: Statistics of SCReAM

Start at: 2018-06-30 01:00:14
End at: 2018-06-30 01:00:44
Local clock offset: 0.16 ms
Remote clock offset: 0.246 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.305 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.305 ms
Loss rate: 0.51%
```
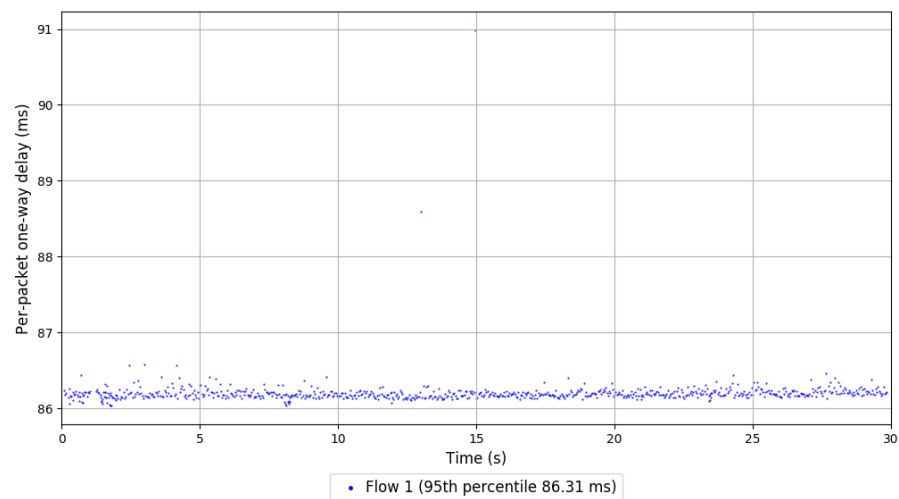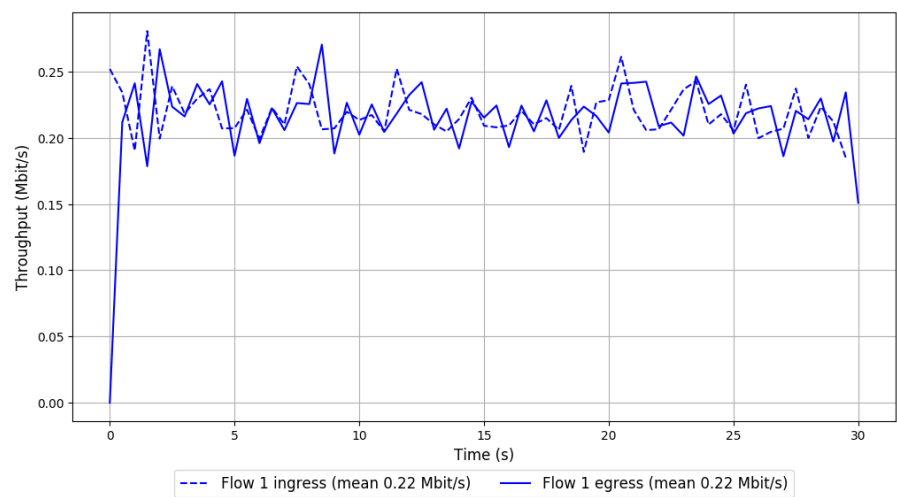
Run 6: Report of SCReAM — Data Link

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```
Run 7: Statistics of SCReAM

Start at: 2018-06-30 01:21:14
End at: 2018-06-30 01:21:44
Local clock offset: 0.205 ms
Remote clock offset: 0.137 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.735 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.735 ms
Loss rate: 0.51%
```
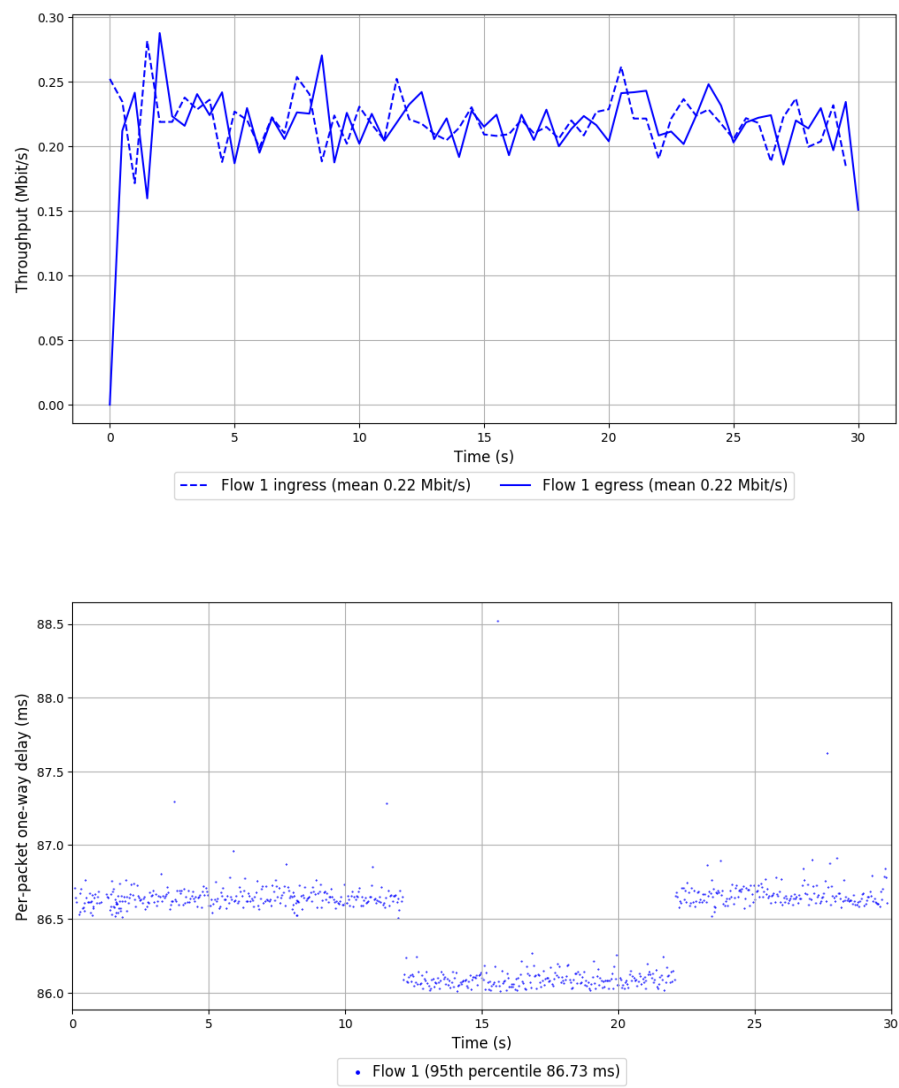
Run 7: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 86.73 ms)

```
Run 8: Statistics of SCReAM

Start at: 2018-06-30 01:42:28
End at: 2018-06-30 01:42:58
Local clock offset: 0.083 ms
Remote clock offset: 0.022 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.615 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.615 ms
Loss rate: 0.64%
```
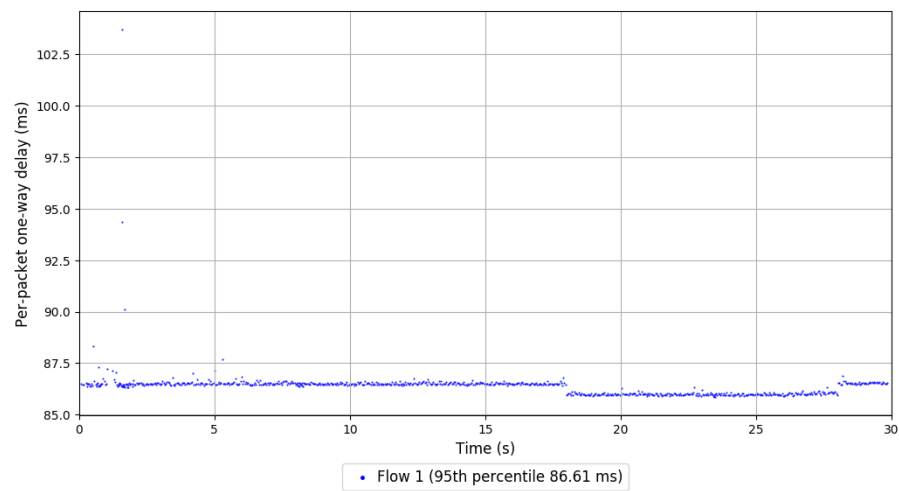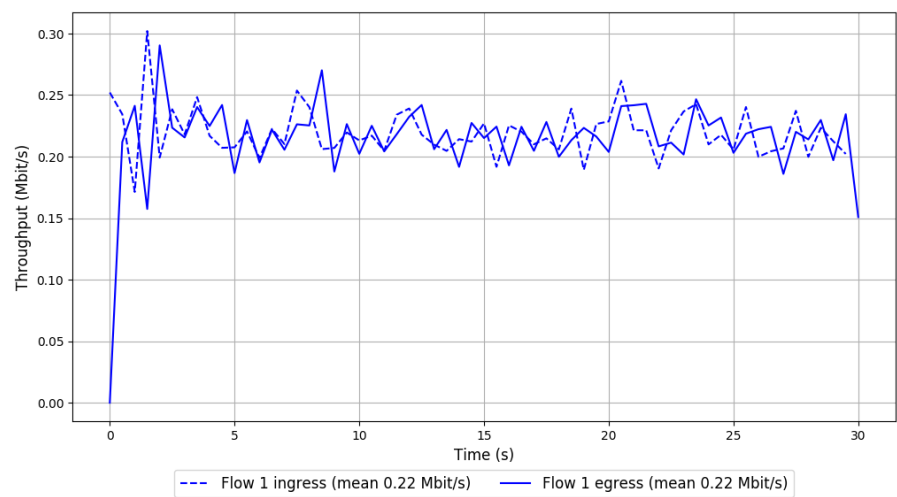
Run 8: Report of SCReAM — Data Link

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

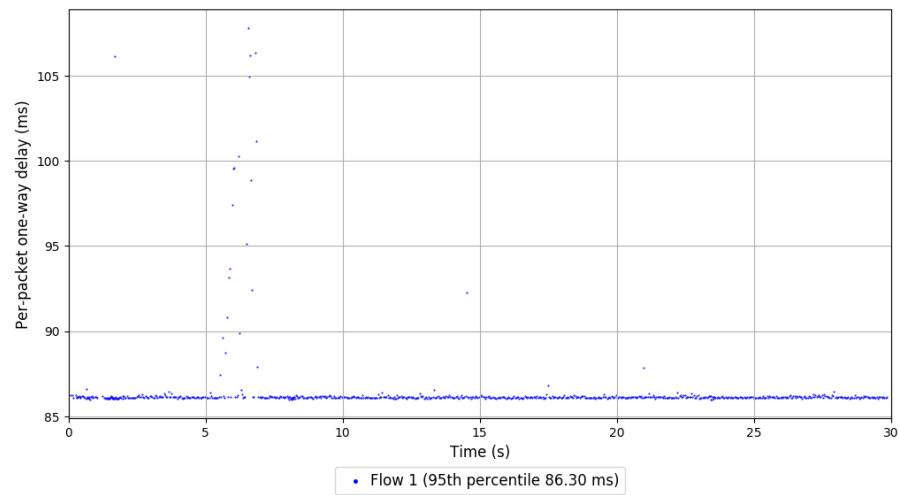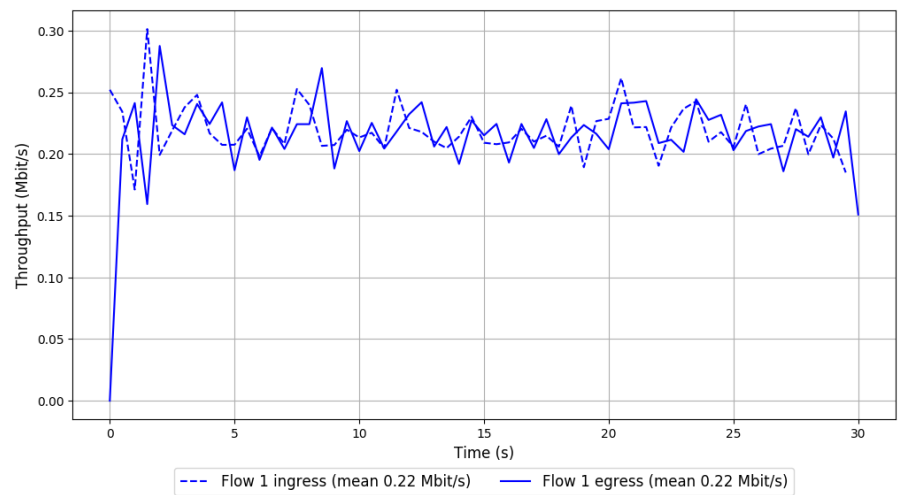Flow 1 (95th percentile 86.61 ms)

219

```
Run 9: Statistics of SCReAM

Start at: 2018-06-30 02:03:15
End at: 2018-06-30 02:03:45
Local clock offset: 0.265 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.295 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.295 ms
Loss rate: 0.51%
```
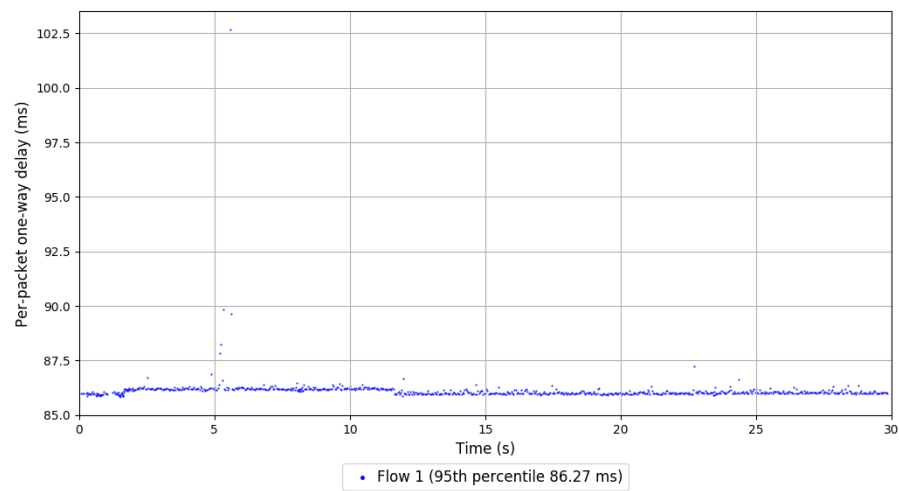
Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-06-30 02:24:24
End at: 2018-06-30 02:24:54
Local clock offset: 0.127 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.272 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.272 ms
Loss rate: 0.51%
```
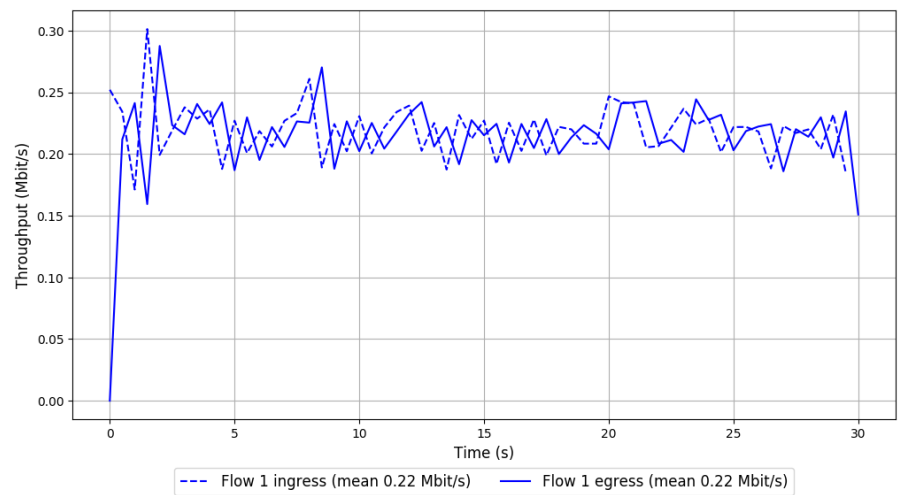
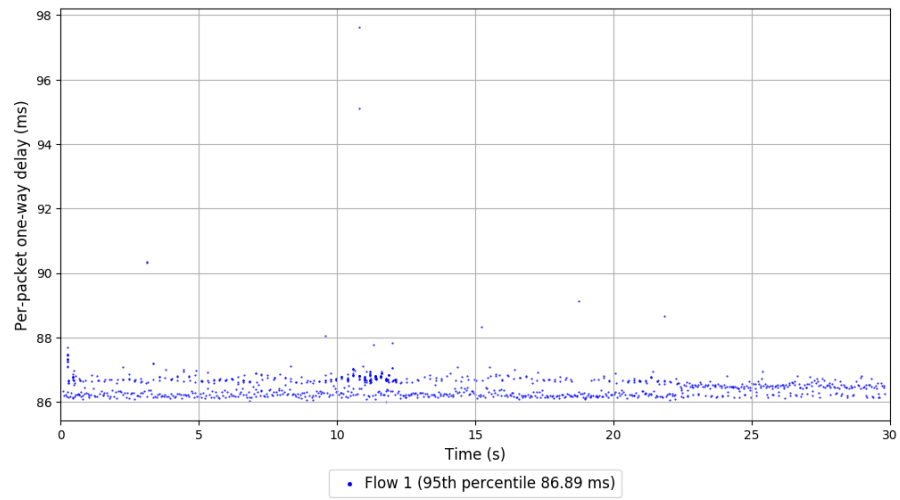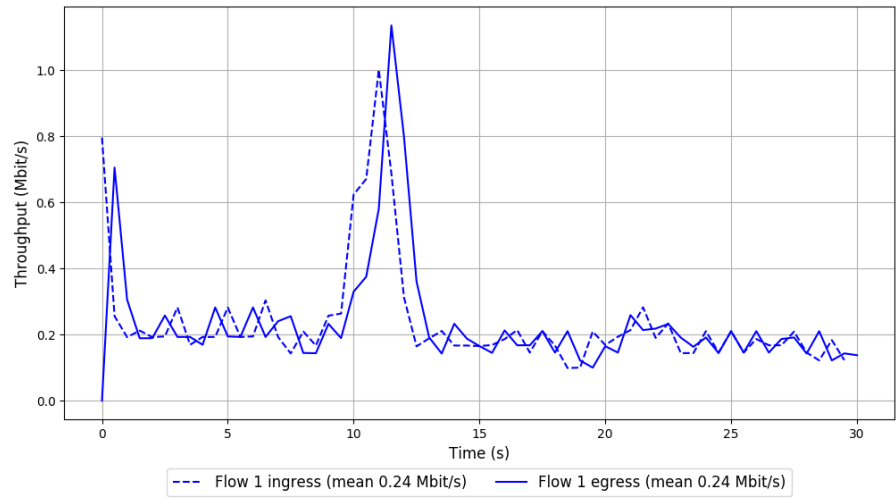## Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-06-29 23:15:53
End at: 2018-06-29 23:16:23
Local clock offset: 0.211 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 86.895 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 86.895 ms
Loss rate: 0.20%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-06-29 23:36:57
End at: 2018-06-29 23:37:28
Local clock offset: 0.082 ms
Remote clock offset: 0.017 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 86.747 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 86.747 ms
Loss rate: 0.79%
```
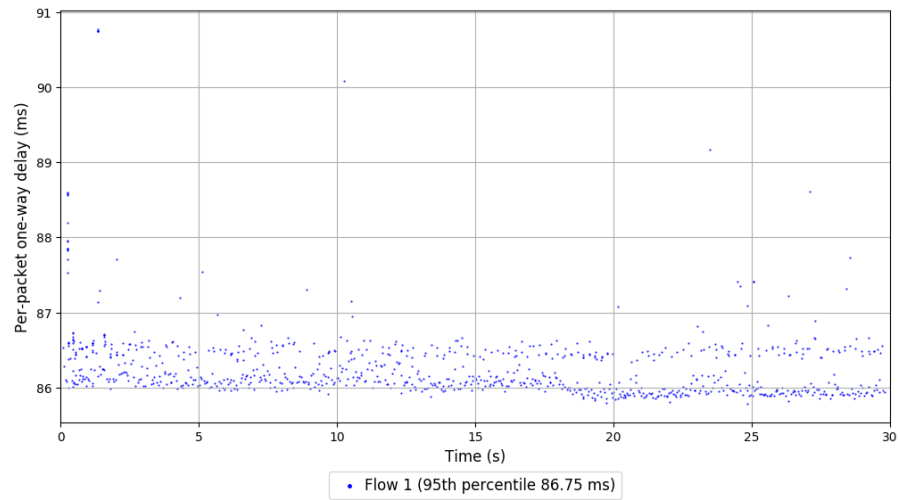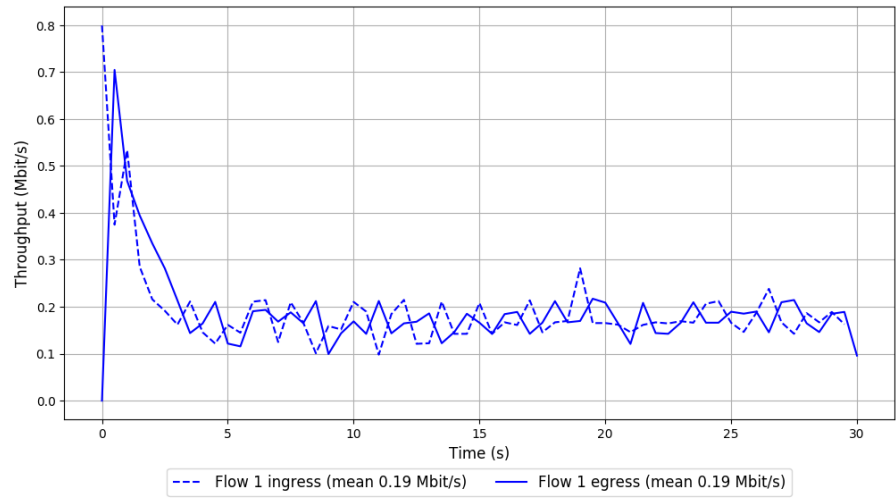
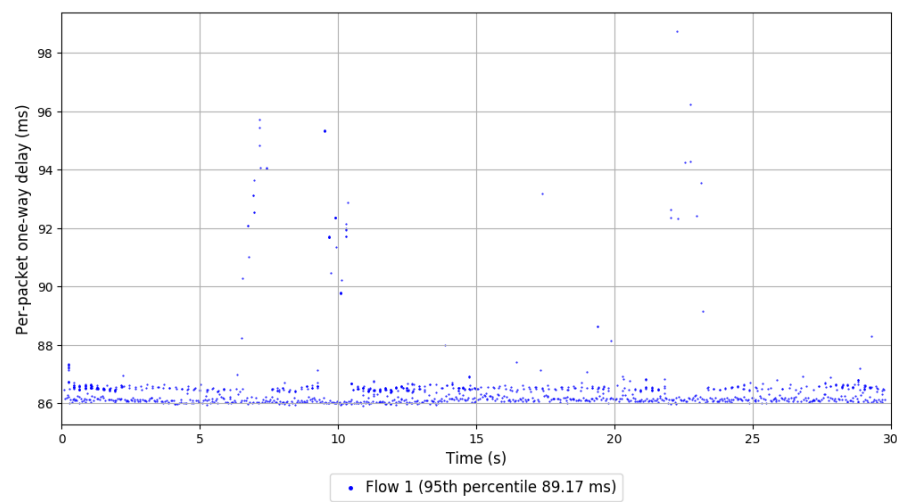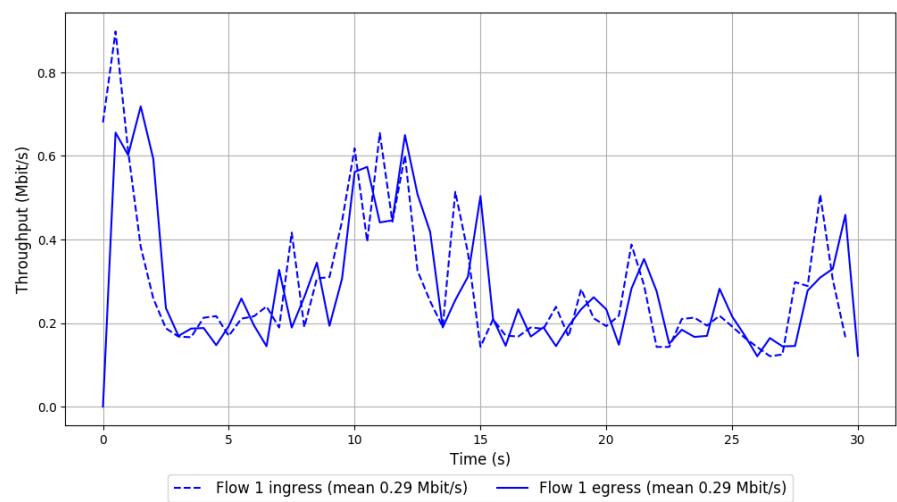Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-06-29 23:58:12
End at: 2018-06-29 23:58:42
Local clock offset: 0.097 ms
Remote clock offset: -0.015 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 89.167 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 89.167 ms
Loss rate: 0.40%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-06-30 00:19:06
End at: 2018-06-30 00:19:36
Local clock offset: 0.173 ms
Remote clock offset: 0.147 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.766 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.766 ms
Loss rate: 0.59%
```
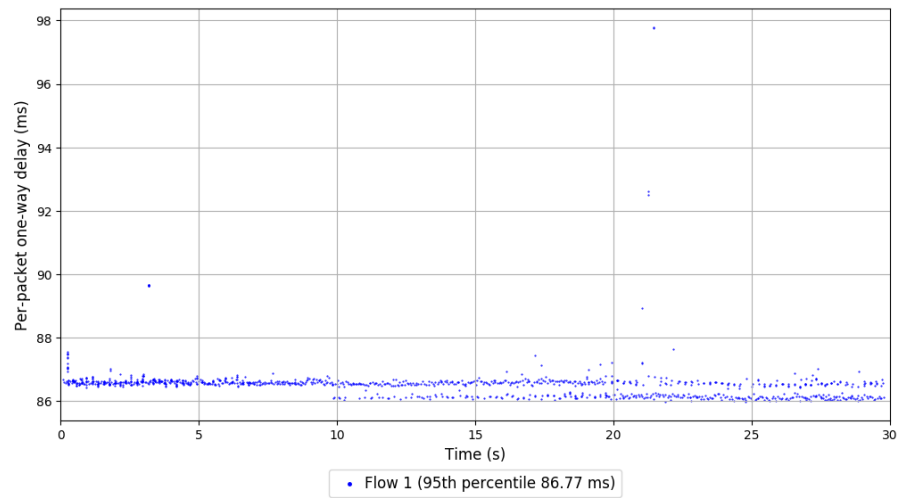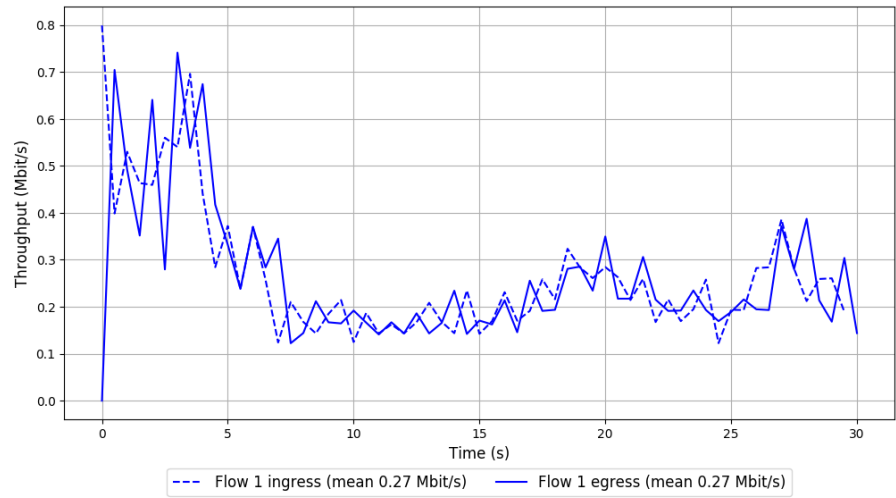
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-06-30 00:40:23
End at: 2018-06-30 00:40:53
Local clock offset: 0.012 ms
Remote clock offset: 0.144 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 86.867 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 86.867 ms
Loss rate: 0.57%
```
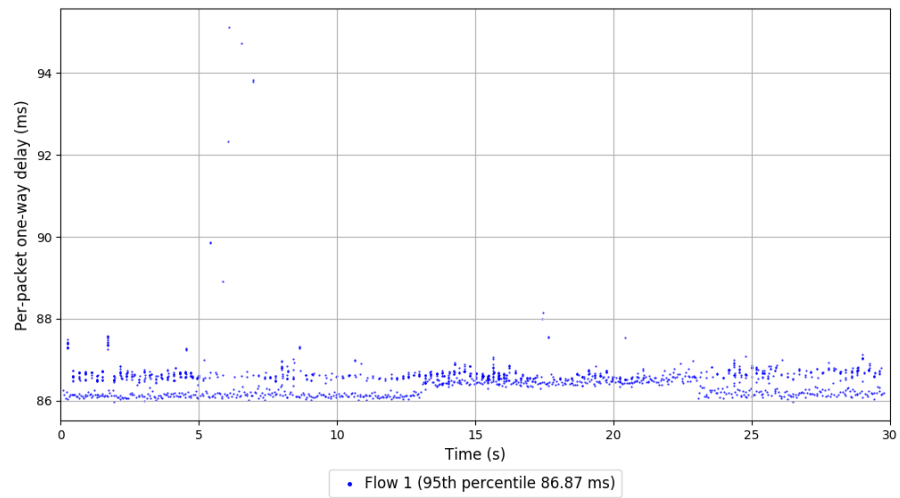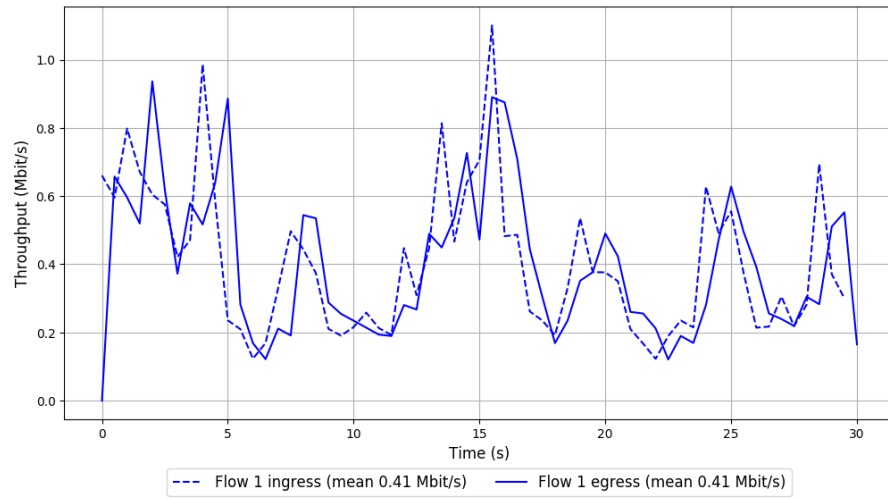
Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 0.41 Mbit/s)   Flow 1 egress (mean 0.41 Mbit/s)

Flow 1 (95th percentile 86.87 ms)

```
Run 6: Statistics of Sprout

Start at: 2018-06-30 01:01:21
End at: 2018-06-30 01:01:51
Local clock offset: 0.295 ms
Remote clock offset: 0.222 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 87.105 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 87.105 ms
Loss rate: 0.45%
```
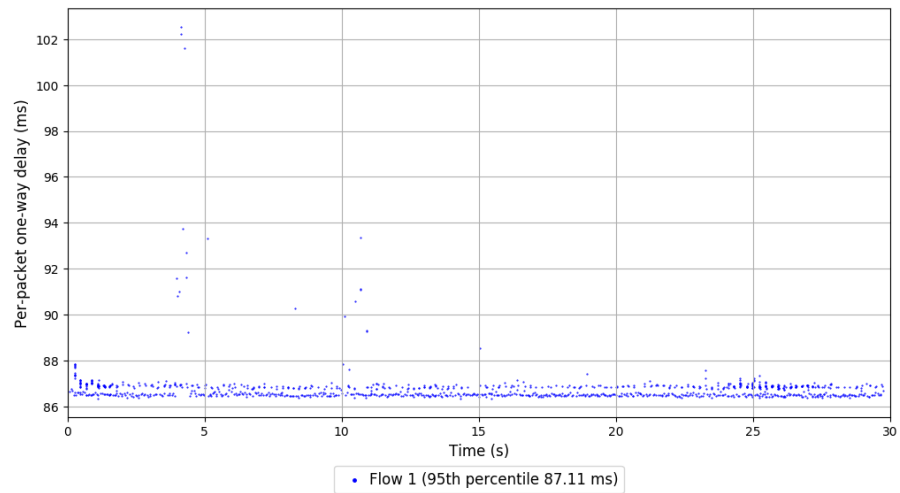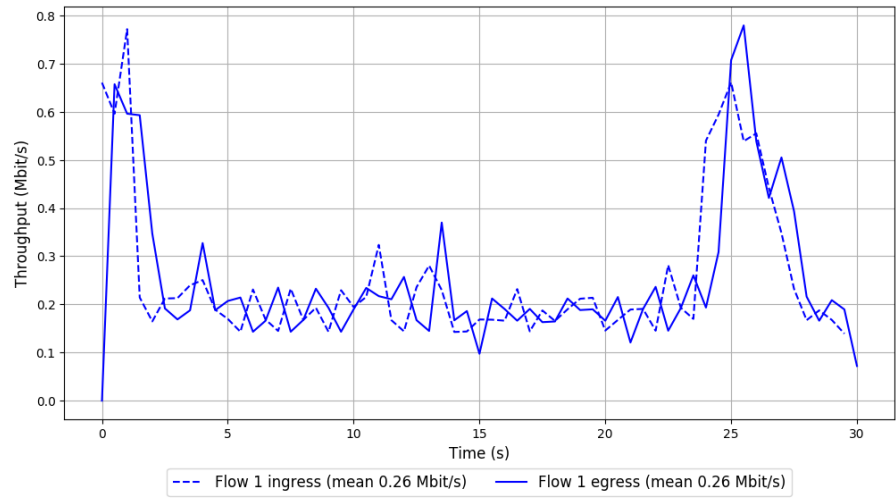
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-06-30 01:22:20
End at: 2018-06-30 01:22:50
Local clock offset: 0.108 ms
Remote clock offset: 0.157 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 88.125 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 88.125 ms
Loss rate: 0.03%
```
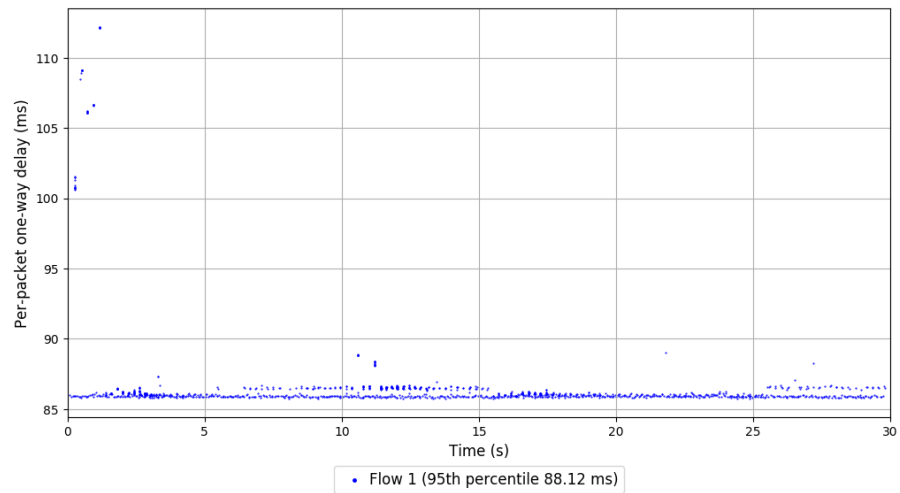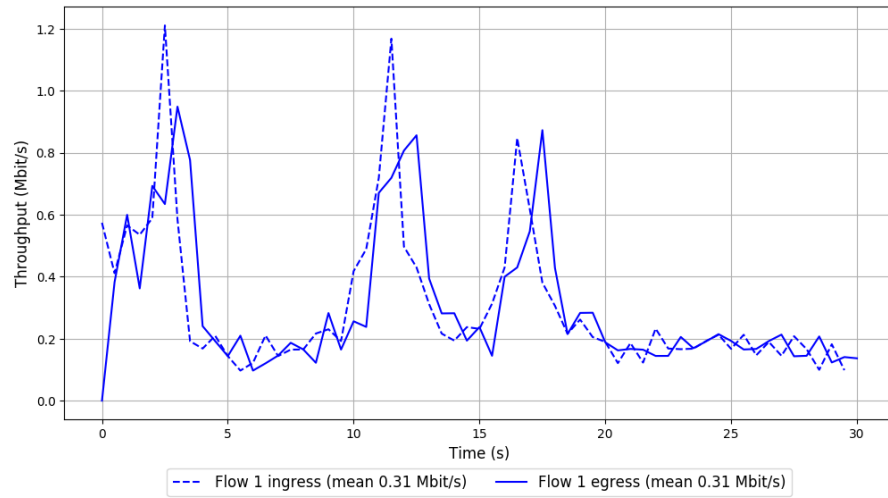
Run 7: Report of Sprout — Data Link

Flow 1 ingress (mean 0.31 Mbit/s)   Flow 1 egress (mean 0.31 Mbit/s)

Flow 1 (95th percentile 88.12 ms)

```
Run 8: Statistics of Sprout

Start at: 2018-06-30 01:43:35
End at: 2018-06-30 01:44:05
Local clock offset: 0.29 ms
Remote clock offset: 0.082 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.888 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.888 ms
Loss rate: 1.72%
```
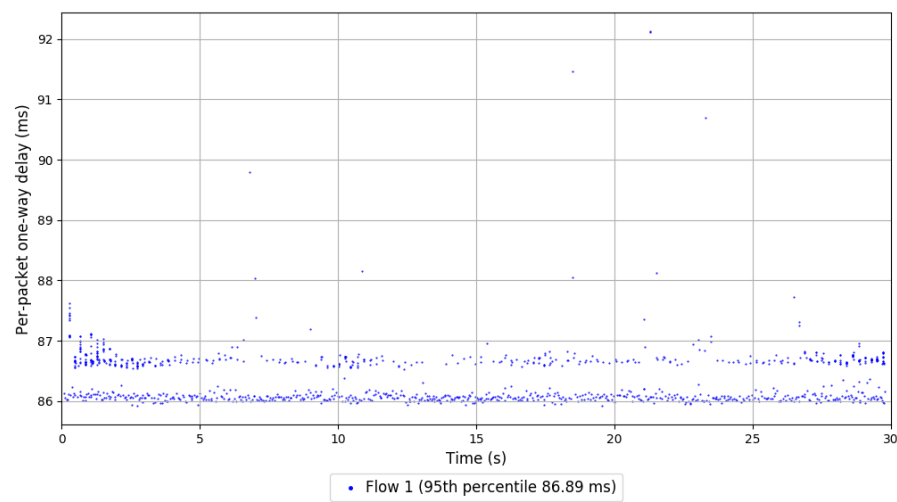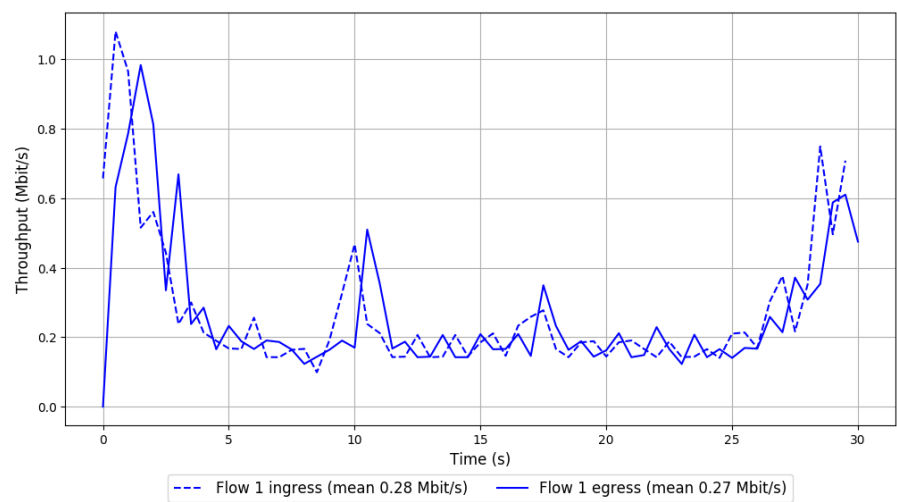
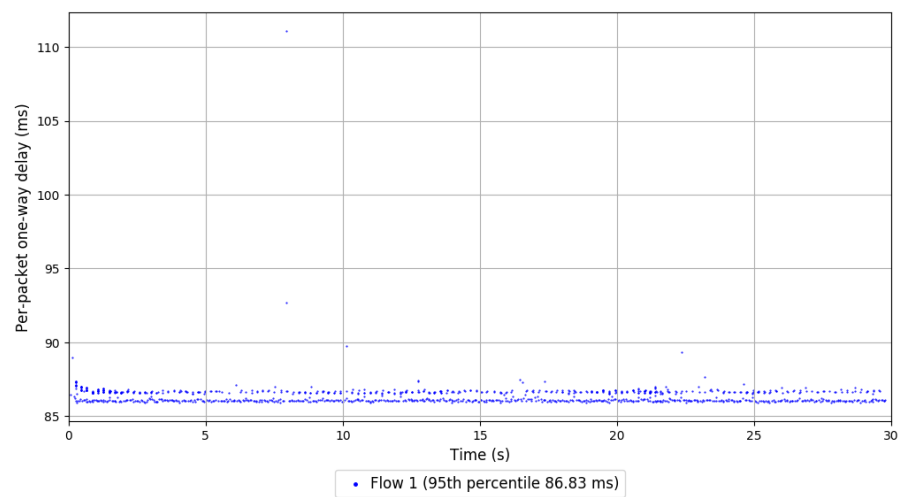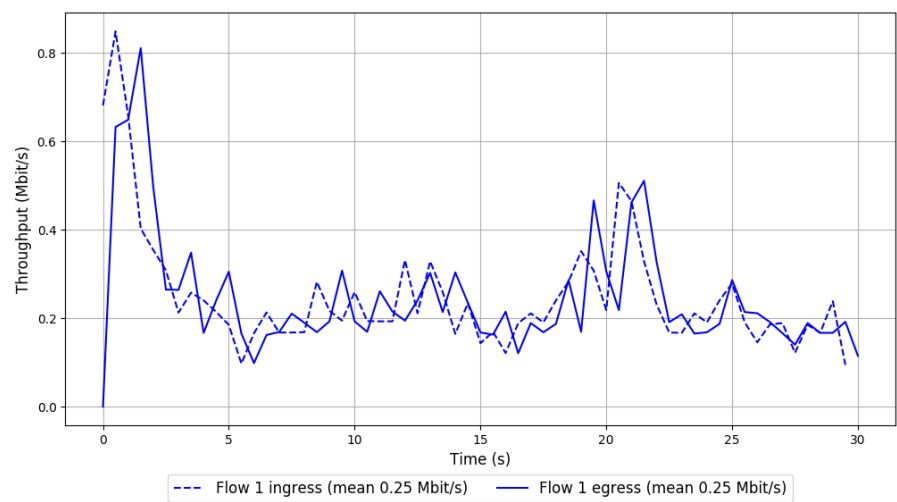## Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-06-30 02:04:21
End at: 2018-06-30 02:04:51
Local clock offset: 0.244 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 86.828 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 86.828 ms
Loss rate: 0.31%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-06-30 02:25:31
End at: 2018-06-30 02:26:01
Local clock offset: 0.177 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-06-30 03:22:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.739 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 86.739 ms
Loss rate: 0.45%
```
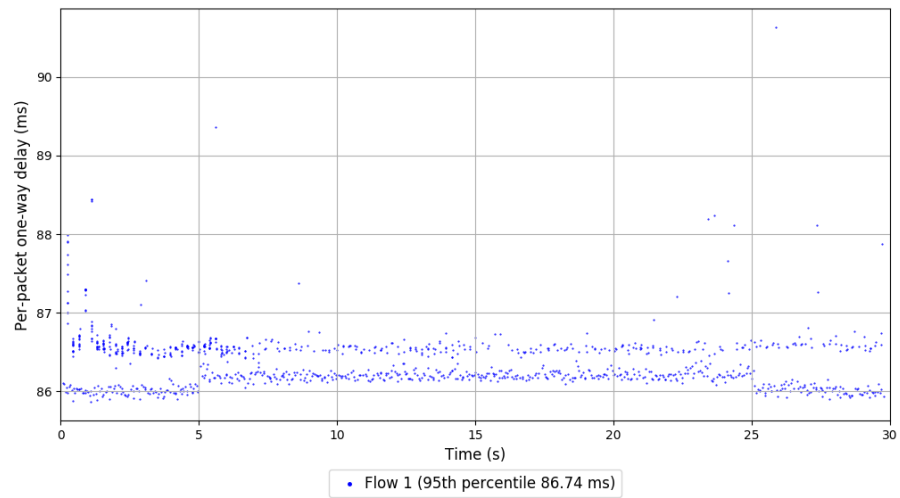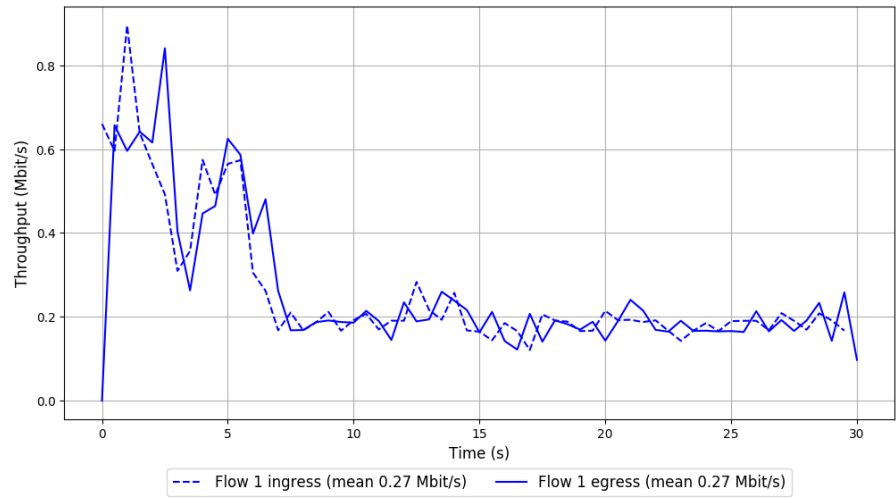
Run 10: Report of Sprout — Data Link

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

Start at: 2018-06-29 23:04:58
End at: 2018-06-29 23:05:28
Local clock offset: 0.065 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.99 Mbit/s
95th percentile per-packet one-way delay: 88.403 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 174.99 Mbit/s
95th percentile per-packet one-way delay: 88.403 ms
Loss rate: 0.61%
```
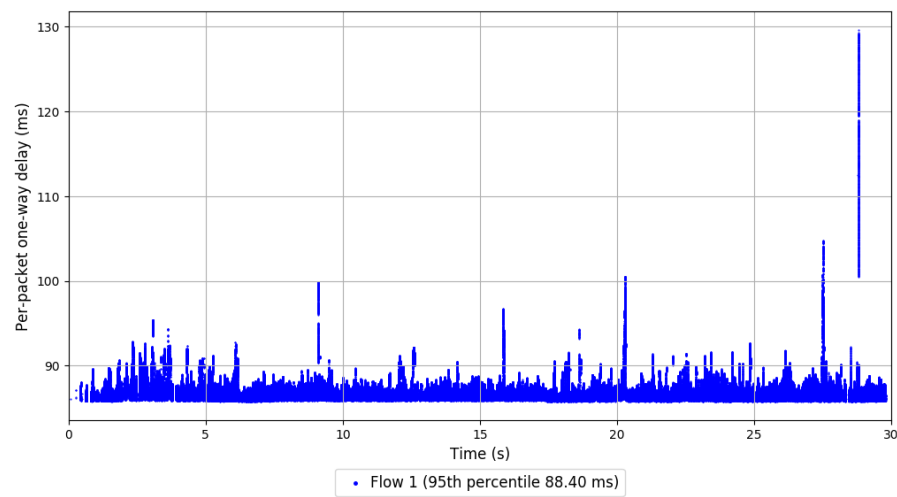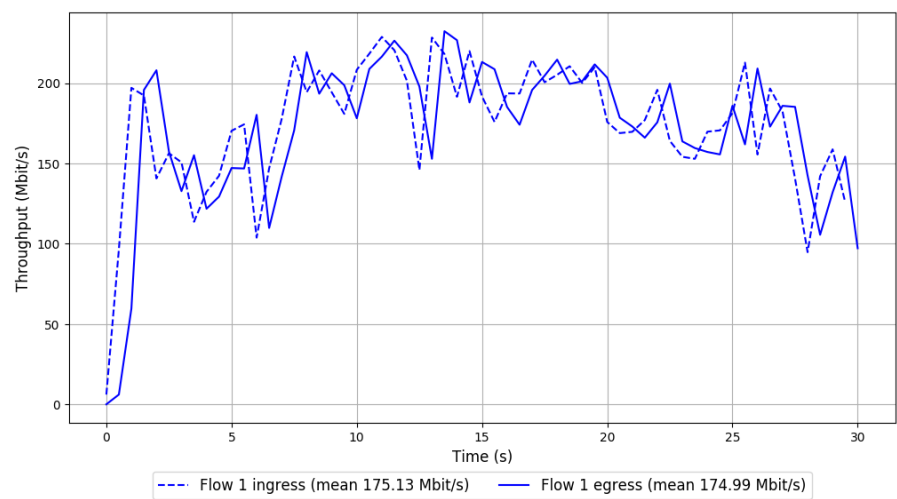
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 175.13 Mbit/s)   Flow 1 egress (mean 174.99 Mbit/s)

Flow 1 (95th percentile 88.40 ms)

245

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

Start at: 2018-06-29 23:25:54
End at: 2018-06-29 23:26:24
Local clock offset: 0.321 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 163.89 Mbit/s
95th percentile per-packet one-way delay: 89.521 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 163.89 Mbit/s
95th percentile per-packet one-way delay: 89.521 ms
Loss rate: 0.50%
```
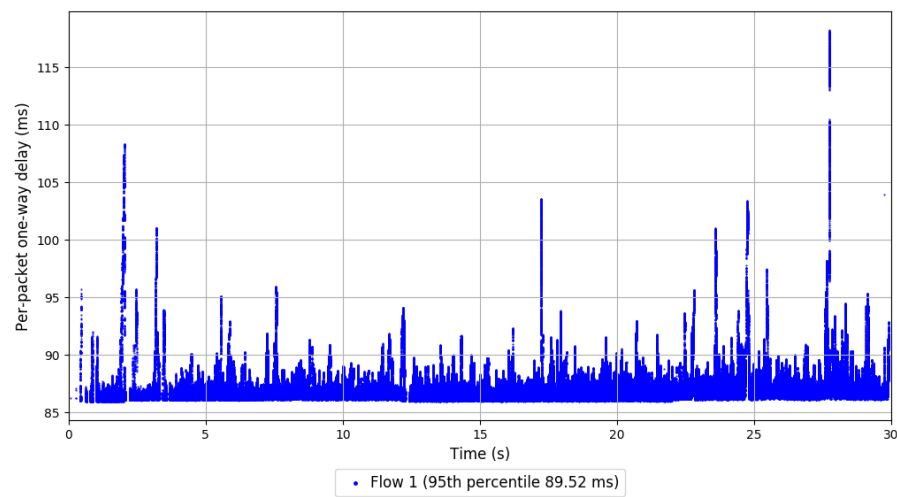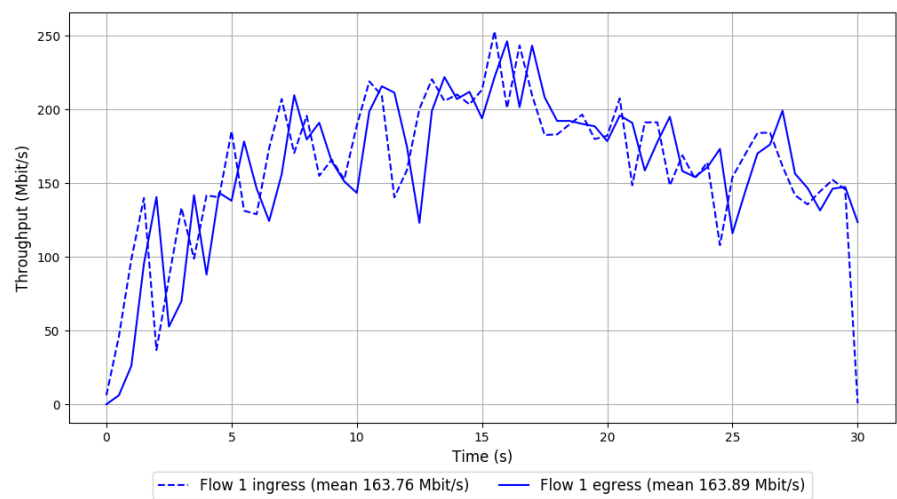
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 163.76 Mbit/s) ——— Flow 1 egress (mean 163.89 Mbit/s)

Flow 1 (95th percentile 89.52 ms)

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

Start at: 2018-06-29 23:47:00
End at: 2018-06-29 23:47:30
Local clock offset: 0.076 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 173.02 Mbit/s
95th percentile per-packet one-way delay: 88.924 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 173.02 Mbit/s
95th percentile per-packet one-way delay: 88.924 ms
Loss rate: 0.46%
```
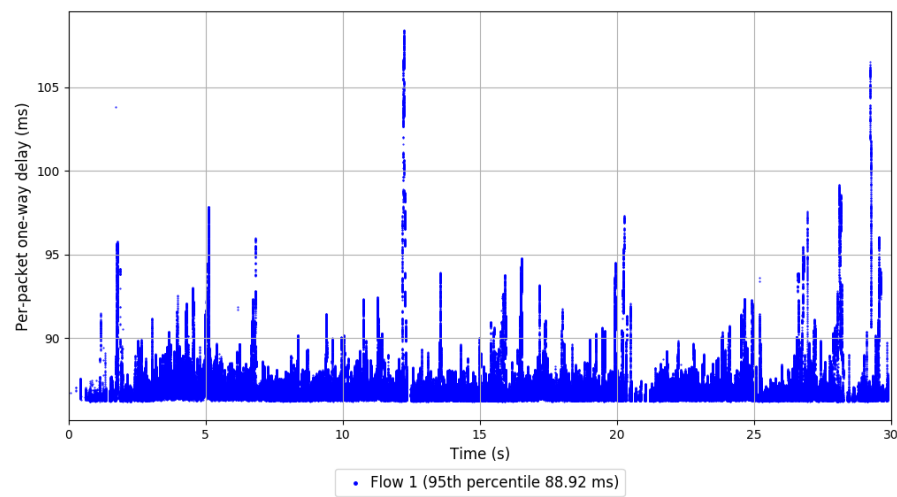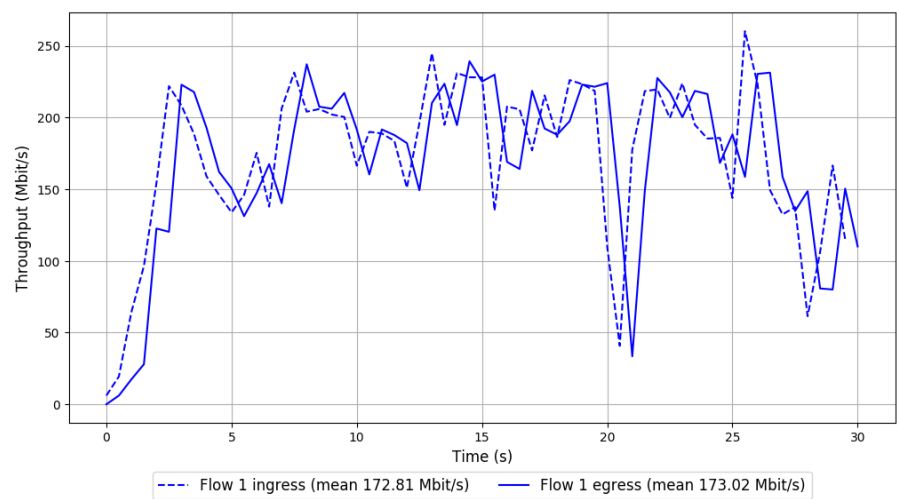
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 172.81 Mbit/s) —— Flow 1 egress (mean 173.02 Mbit/s)

· Flow 1 (95th percentile 88.92 ms)

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

Start at: 2018-06-30 00:07:57
End at: 2018-06-30 00:08:27
Local clock offset: 0.217 ms
Remote clock offset: 0.025 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.89 Mbit/s
95th percentile per-packet one-way delay: 89.135 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 132.89 Mbit/s
95th percentile per-packet one-way delay: 89.135 ms
Loss rate: 0.91%
```
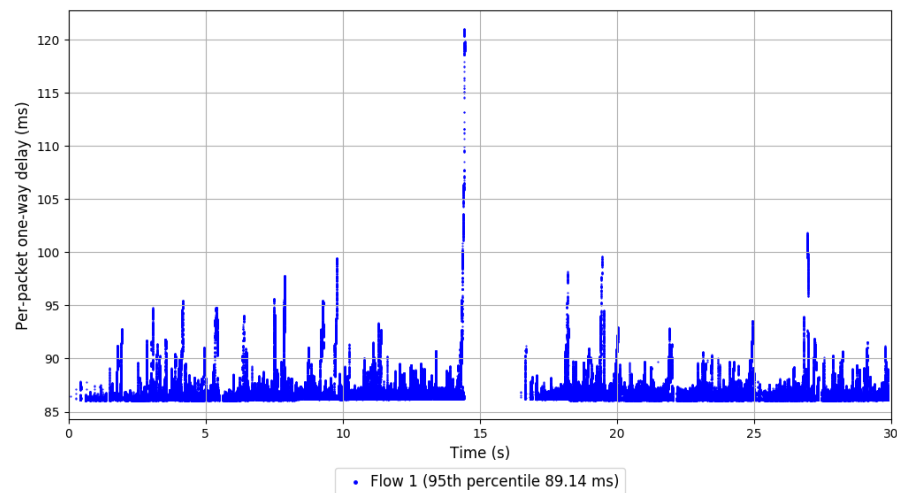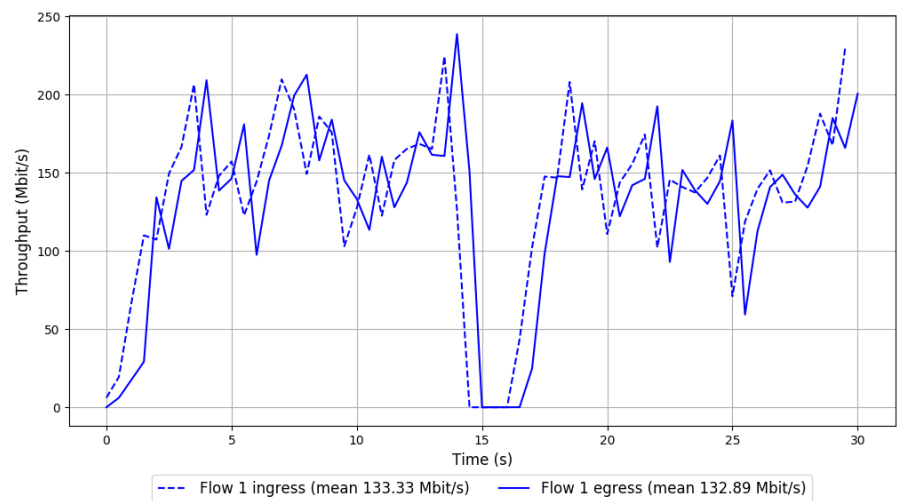
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 133.33 Mbit/s) --- Flow 1 egress (mean 132.89 Mbit/s)

• Flow 1 (95th percentile 89.14 ms)

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

Start at: 2018-06-30 00:29:11
End at: 2018-06-30 00:29:41
Local clock offset: 0.051 ms
Remote clock offset: 0.119 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 143.48 Mbit/s
95th percentile per-packet one-way delay: 89.356 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 143.48 Mbit/s
95th percentile per-packet one-way delay: 89.356 ms
Loss rate: 0.04%
```
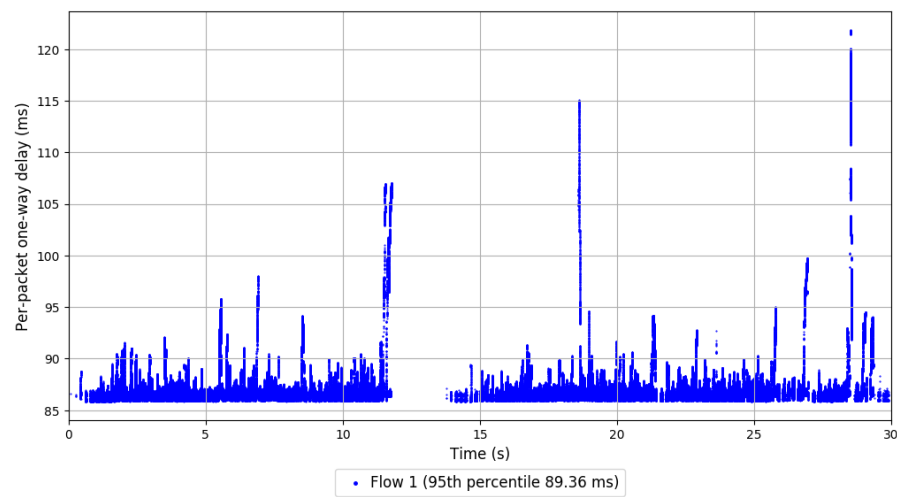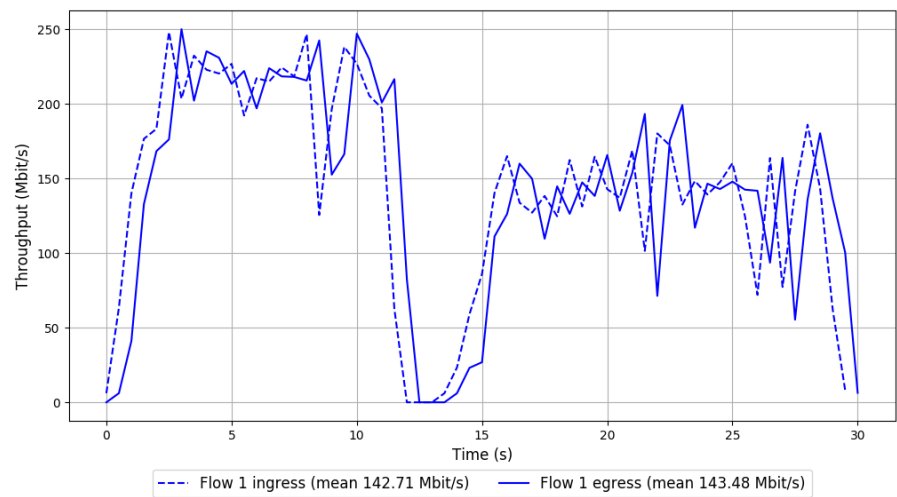
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 142.71 Mbit/s)   Flow 1 egress (mean 143.48 Mbit/s)

Flow 1 (95th percentile 89.36 ms)

253

```
Run 6: Statistics of TaoVA-100x

Start at: 2018-06-30 00:50:16
End at: 2018-06-30 00:50:46
Local clock offset: -0.006 ms
Remote clock offset: 0.238 ms


# Below is generated by plot.py at 2018-06-30 03:25:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.35 Mbit/s
95th percentile per-packet one-way delay: 88.646 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 111.35 Mbit/s
95th percentile per-packet one-way delay: 88.646 ms
Loss rate: 0.90%
```
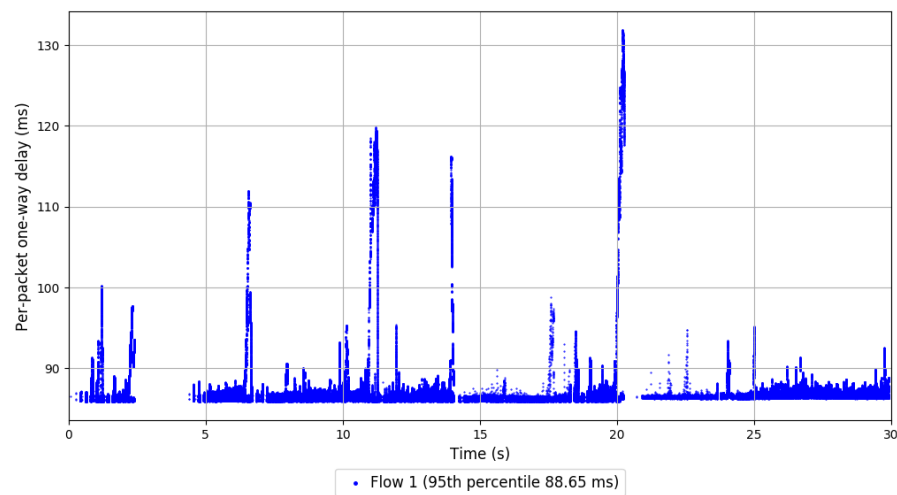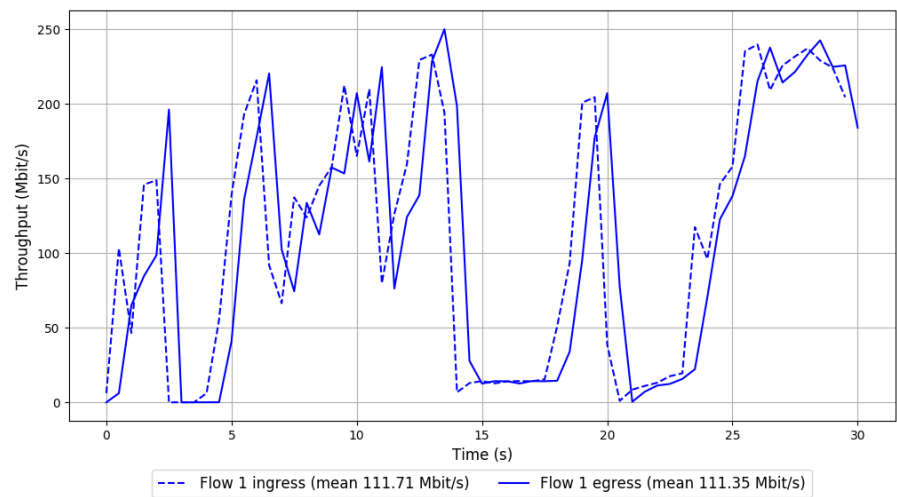
Run 6: Report of TaoVA-100x — Data Link

```
Run 7: Statistics of TaoVA-100x

Start at: 2018-06-30 01:11:16
End at: 2018-06-30 01:11:46
Local clock offset: 0.144 ms
Remote clock offset: 0.29 ms


# Below is generated by plot.py at 2018-06-30 03:25:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.74 Mbit/s
95th percentile per-packet one-way delay: 88.798 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 137.74 Mbit/s
95th percentile per-packet one-way delay: 88.798 ms
Loss rate: 0.27%
```
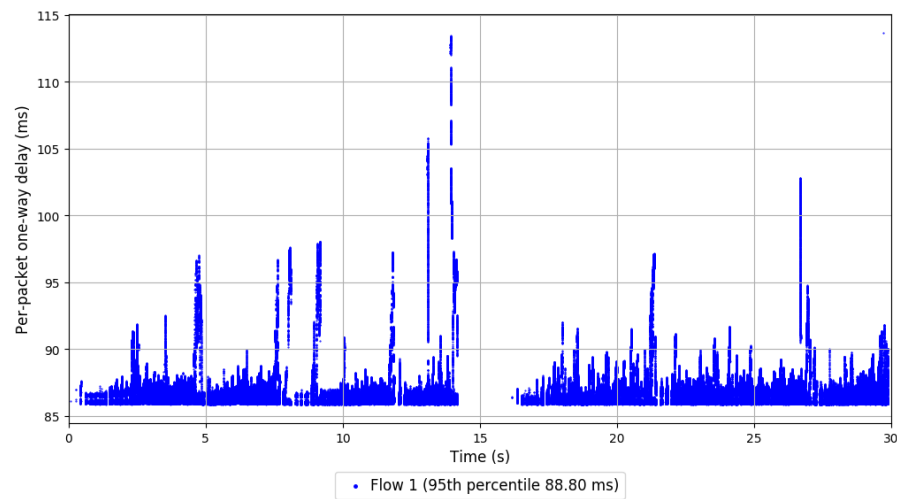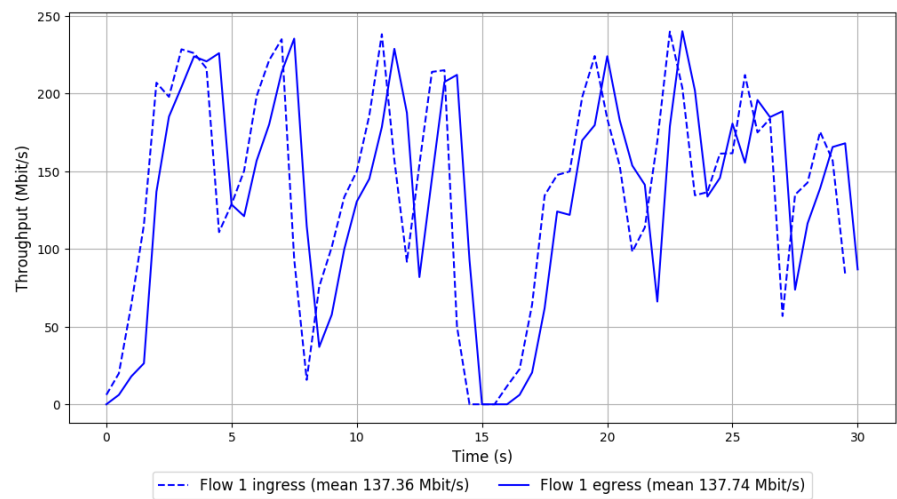
Run 7: Report of TaoVA-100x — Data Link

257

```
Run 8: Statistics of TaoVA-100x

Start at: 2018-06-30 01:32:22
End at: 2018-06-30 01:32:52
Local clock offset: 0.164 ms
Remote clock offset: 0.069 ms


# Below is generated by plot.py at 2018-06-30 03:27:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.43 Mbit/s
95th percentile per-packet one-way delay: 88.955 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 140.43 Mbit/s
95th percentile per-packet one-way delay: 88.955 ms
Loss rate: 0.50%
```
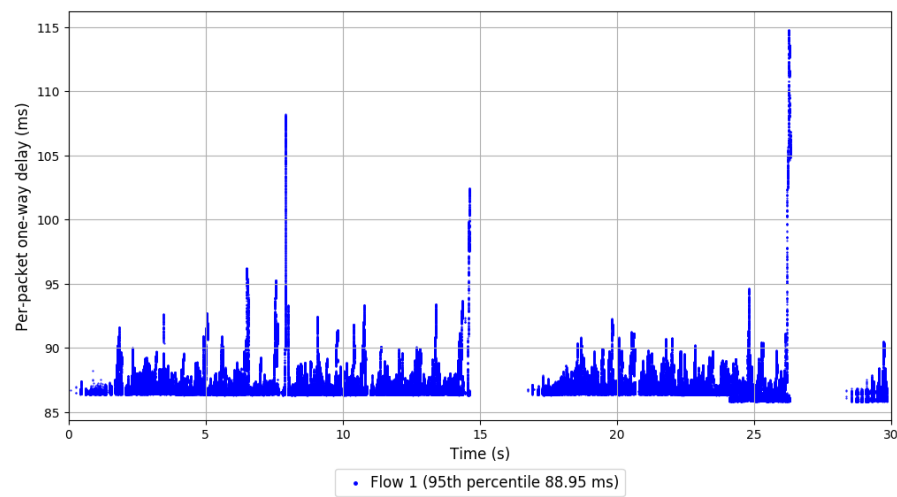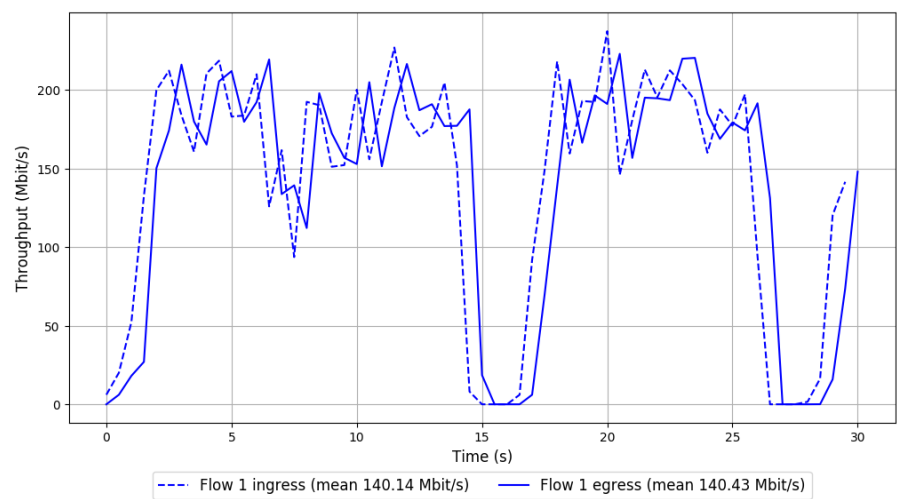
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 140.14 Mbit/s)   Flow 1 egress (mean 140.43 Mbit/s)

Flow 1 (95th percentile 88.95 ms)

259

```
Run 9: Statistics of TaoVA-100x

Start at: 2018-06-30 01:53:34
End at: 2018-06-30 01:54:04
Local clock offset: 0.211 ms
Remote clock offset: 0.003 ms


# Below is generated by plot.py at 2018-06-30 03:27:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.05 Mbit/s
95th percentile per-packet one-way delay: 99.836 ms
Loss rate: 2.69%
-- Flow 1:
Average throughput: 33.05 Mbit/s
95th percentile per-packet one-way delay: 99.836 ms
Loss rate: 2.69%
```
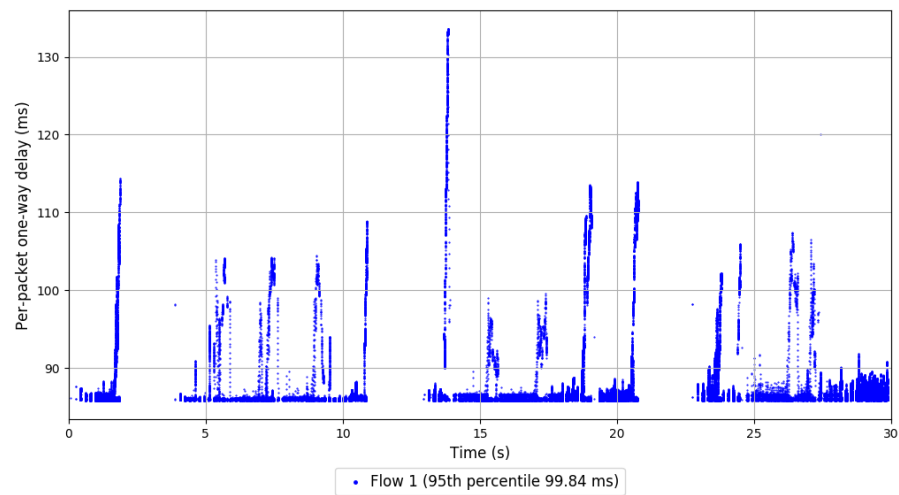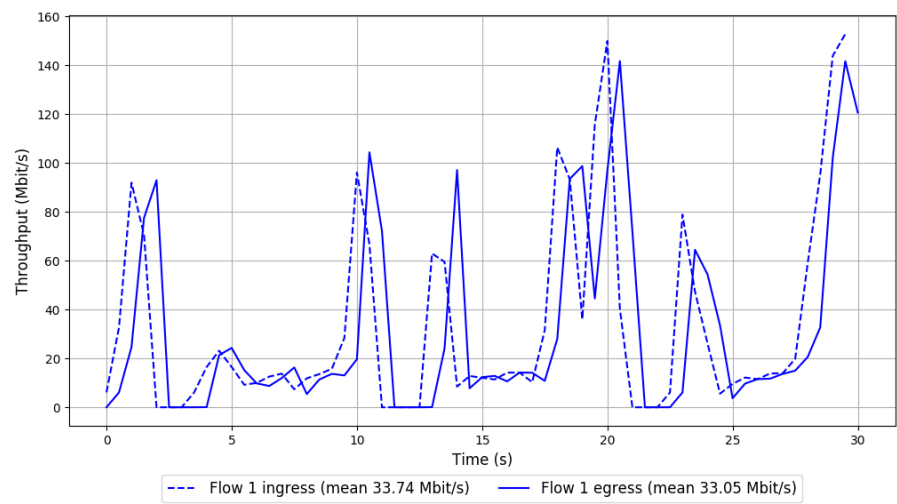
Run 9: Report of TaoVA-100x — Data Link

```
Run 10: Statistics of TaoVA-100x

Start at: 2018-06-30 02:14:29
End at: 2018-06-30 02:14:59
Local clock offset: 0.022 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 148.83 Mbit/s
95th percentile per-packet one-way delay: 88.063 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 148.83 Mbit/s
95th percentile per-packet one-way delay: 88.063 ms
Loss rate: 0.74%
```
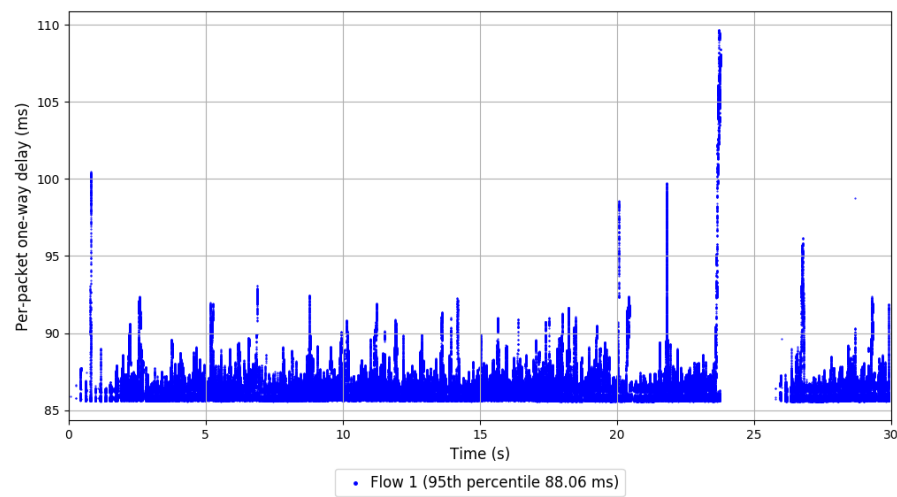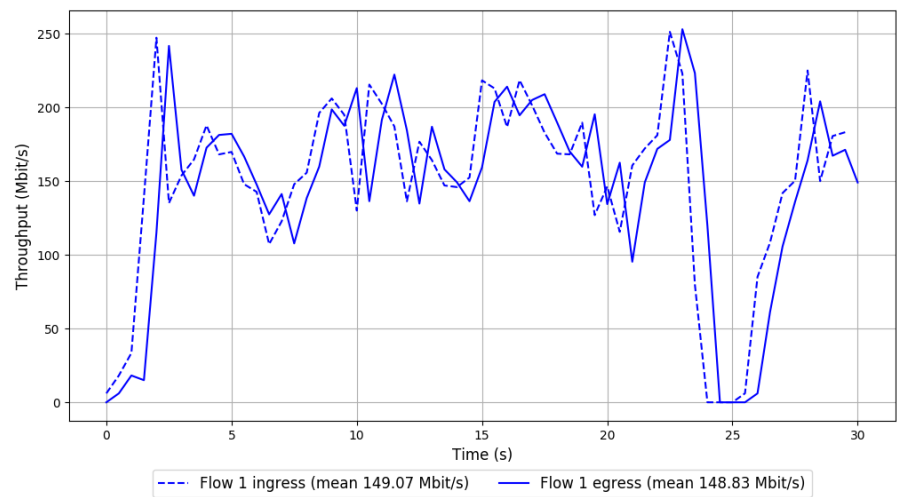
Run 10: Report of TaoVA-100x — Data Link

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```
Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 23:18:12
End at: 2018-06-29 23:18:42
Local clock offset: 0.371 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.87 Mbit/s
95th percentile per-packet one-way delay: 91.105 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 52.87 Mbit/s
95th percentile per-packet one-way delay: 91.105 ms
Loss rate: 0.61%
```
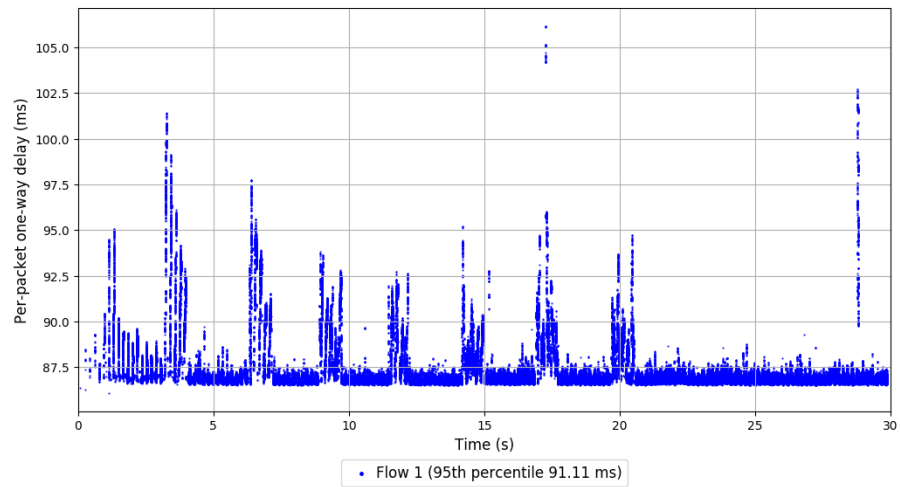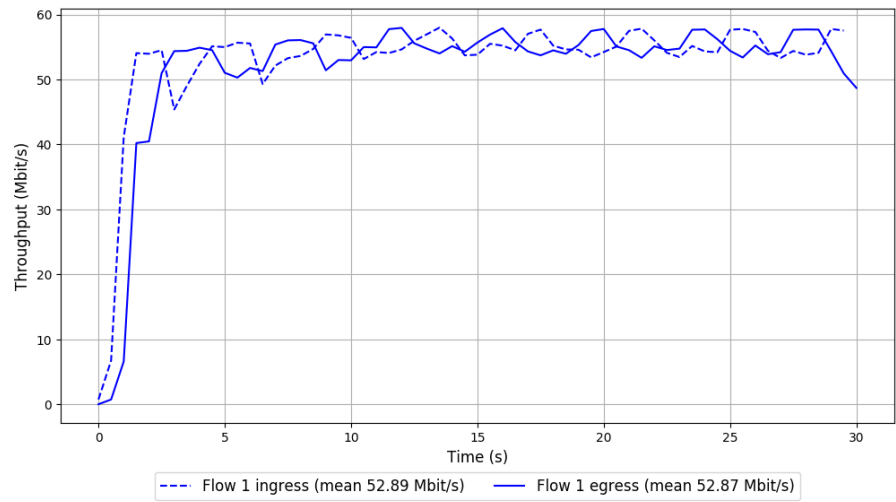
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-06-29 23:39:18
End at: 2018-06-29 23:39:48
Local clock offset: 0.042 ms
Remote clock offset: 0.002 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 88.923 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 48.03 Mbit/s
95th percentile per-packet one-way delay: 88.923 ms
Loss rate: 0.64%
```
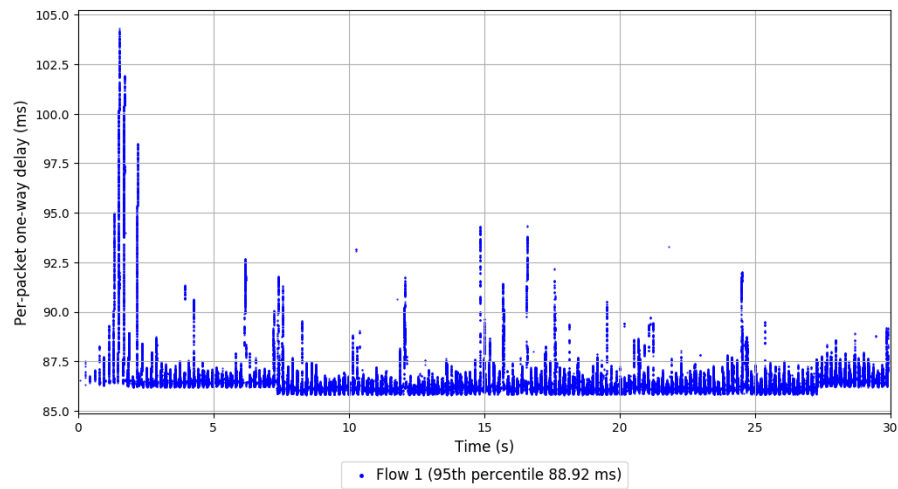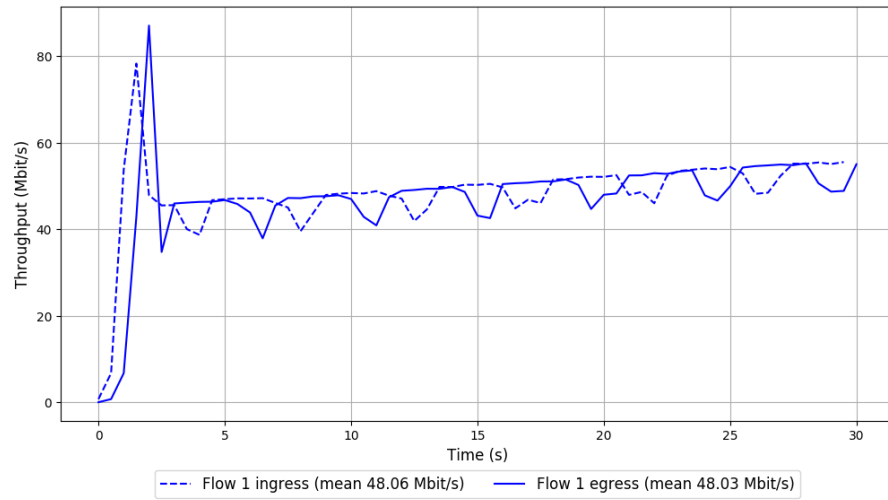
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-06-30 00:00:32
End at: 2018-06-30 00:01:03
Local clock offset: 0.02 ms
Remote clock offset: 0.028 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 88.928 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 43.00 Mbit/s
95th percentile per-packet one-way delay: 88.928 ms
Loss rate: 0.65%
```
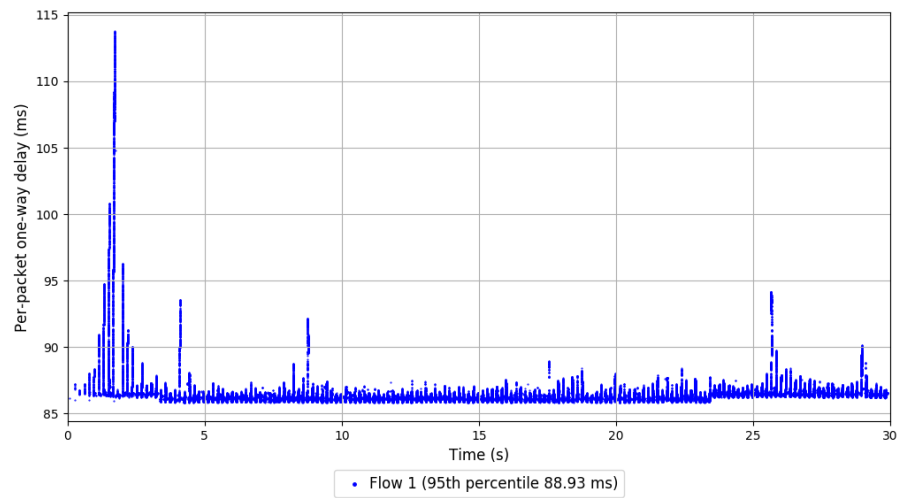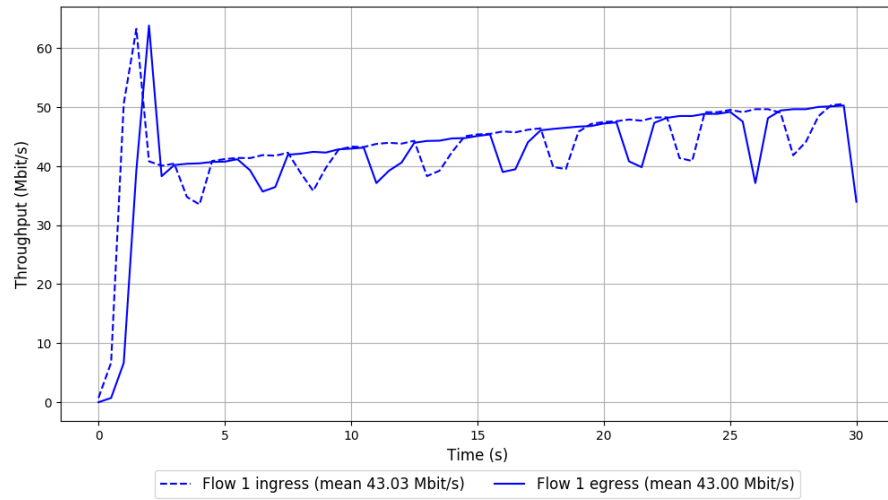
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 43.03 Mbit/s) ——— Flow 1 egress (mean 43.00 Mbit/s)

• Flow 1 (95th percentile 88.93 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-06-30 00:21:25
End at: 2018-06-30 00:21:55
Local clock offset: 0.139 ms
Remote clock offset: 0.124 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.84 Mbit/s
95th percentile per-packet one-way delay: 90.195 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 105.84 Mbit/s
95th percentile per-packet one-way delay: 90.195 ms
Loss rate: 0.61%
```
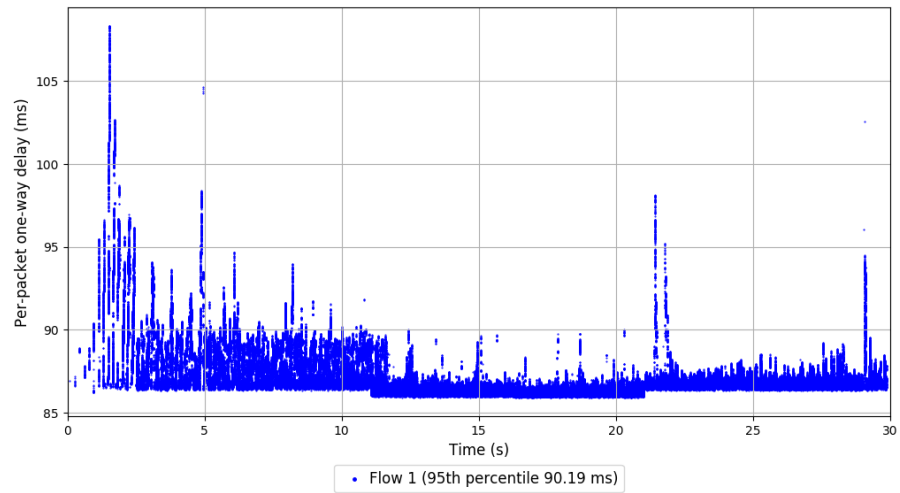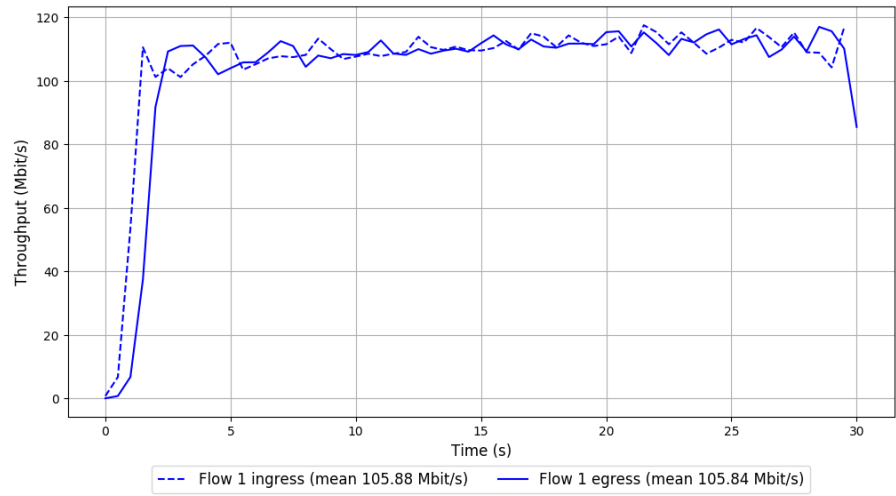
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-06-30 00:42:40
End at: 2018-06-30 00:43:10
Local clock offset: 0.187 ms
Remote clock offset: 0.219 ms

# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.04 Mbit/s
95th percentile per-packet one-way delay: 101.194 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 119.04 Mbit/s
95th percentile per-packet one-way delay: 101.194 ms
Loss rate: 0.22%
```
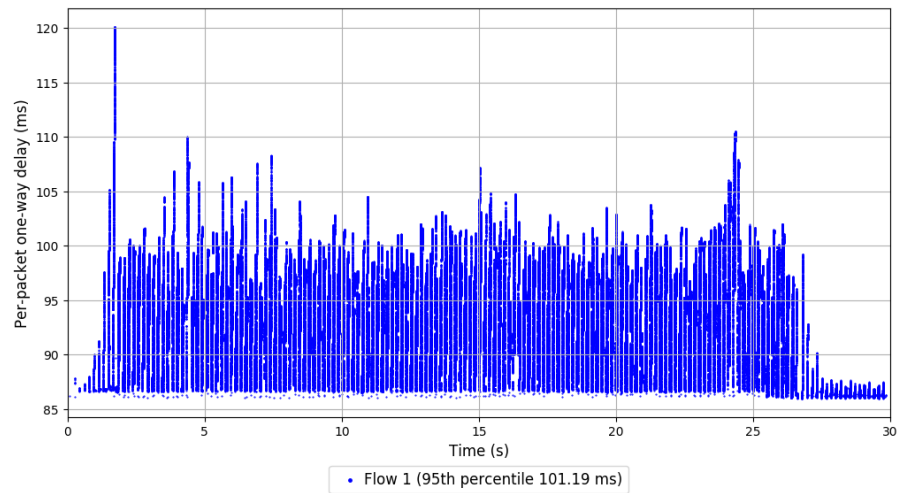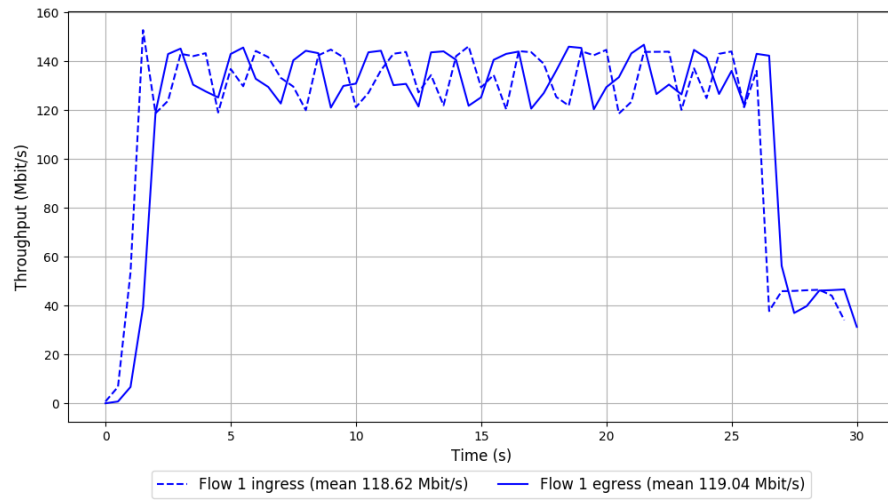
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 118.62 Mbit/s) ---   Flow 1 egress (mean 119.04 Mbit/s) ——

Flow 1 (95th percentile 101.19 ms) •

```
Run 6: Statistics of TCP Vegas

Start at: 2018-06-30 01:03:41
End at: 2018-06-30 01:04:11
Local clock offset: 0.112 ms
Remote clock offset: 0.268 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 102.547 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 89.03 Mbit/s
95th percentile per-packet one-way delay: 102.547 ms
Loss rate: 0.35%
```
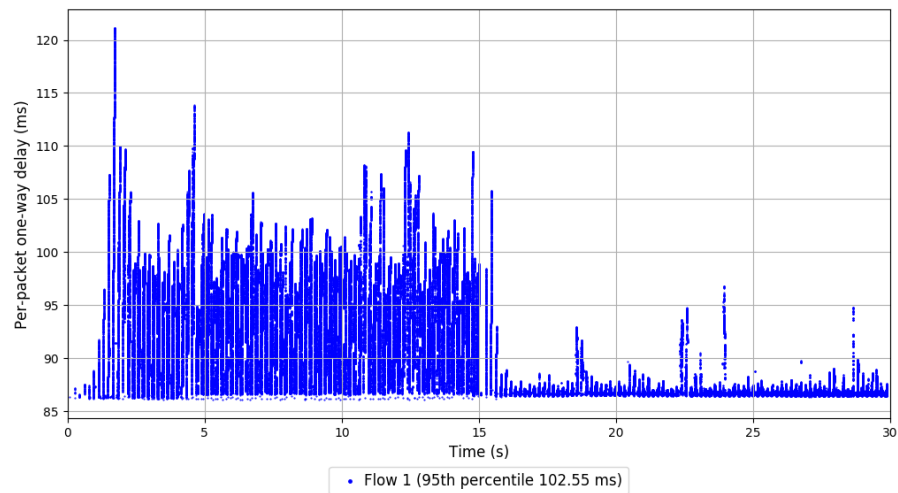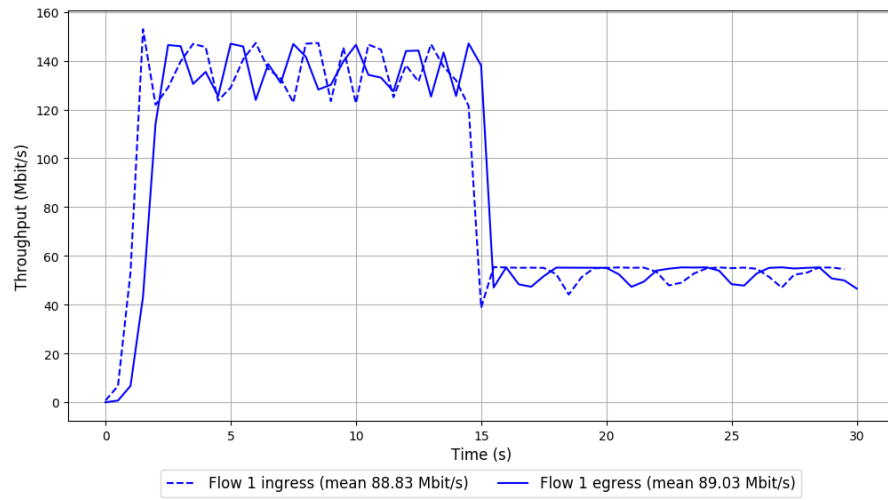
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-06-30 01:24:41
End at: 2018-06-30 01:25:11
Local clock offset: 0.1 ms
Remote clock offset: 0.107 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.34 Mbit/s
95th percentile per-packet one-way delay: 99.735 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 131.34 Mbit/s
95th percentile per-packet one-way delay: 99.735 ms
Loss rate: 0.67%
```
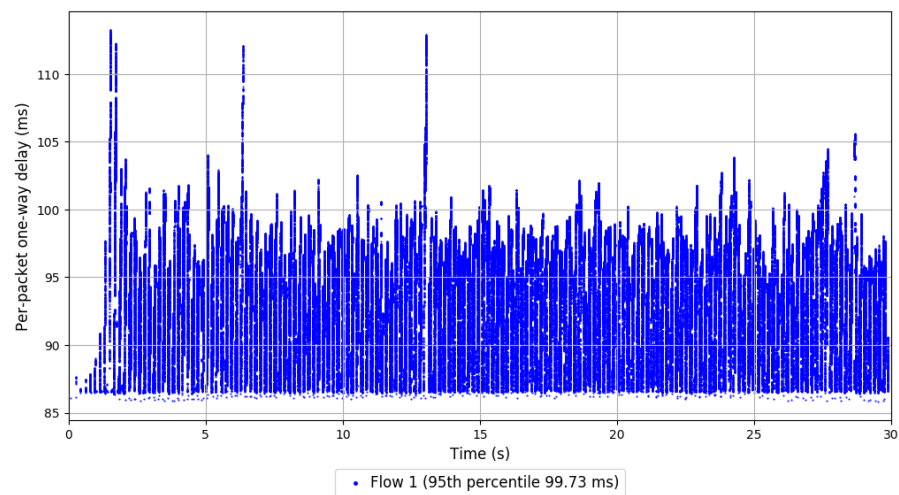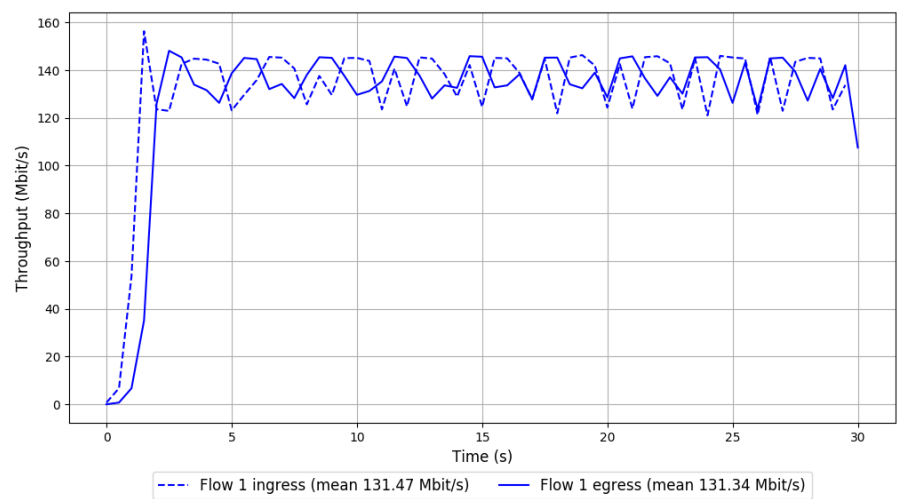
Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 131.47 Mbit/s)   Flow 1 egress (mean 131.34 Mbit/s)

Flow 1 (95th percentile 99.73 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2018-06-30 01:45:53
End at: 2018-06-30 01:46:23
Local clock offset: 0.37 ms
Remote clock offset: 0.071 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.33 Mbit/s
95th percentile per-packet one-way delay: 101.294 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 126.33 Mbit/s
95th percentile per-packet one-way delay: 101.294 ms
Loss rate: 0.50%
```
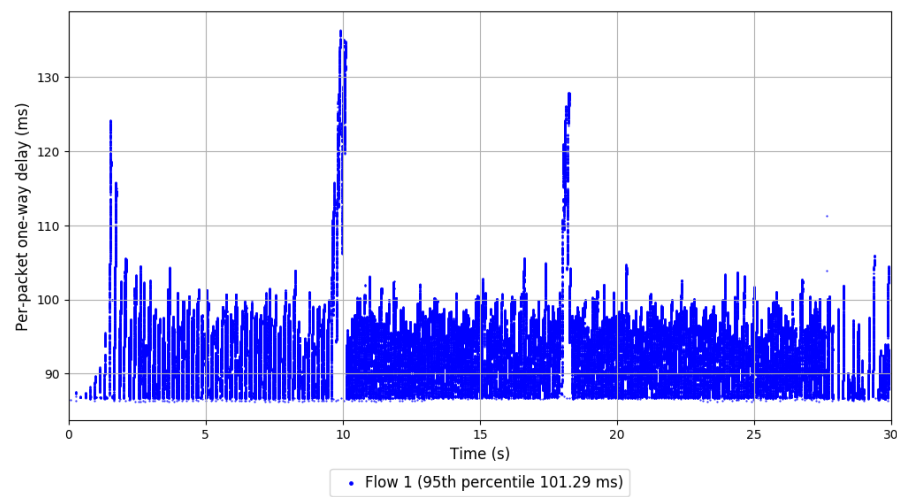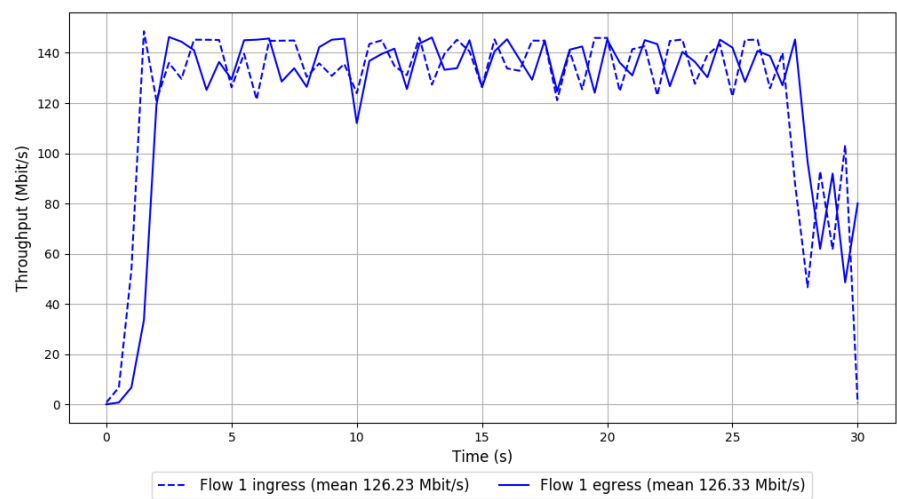
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 126.23 Mbit/s) —— Flow 1 egress (mean 126.33 Mbit/s)
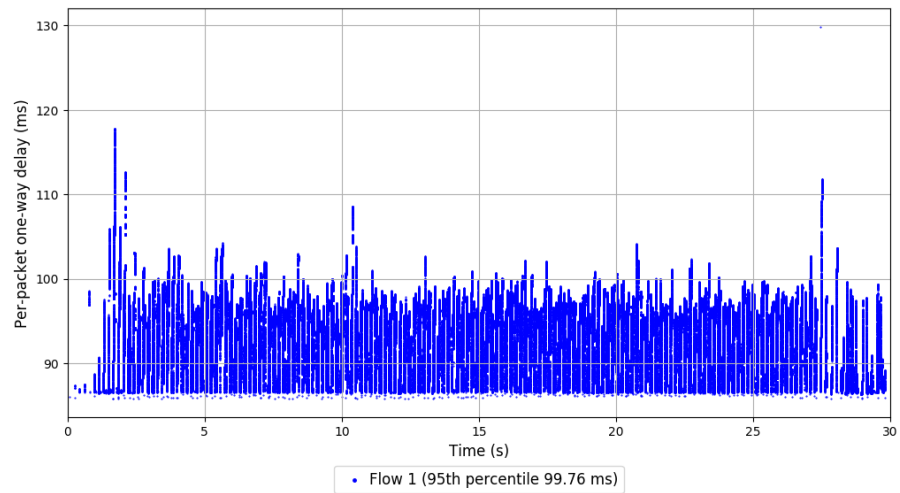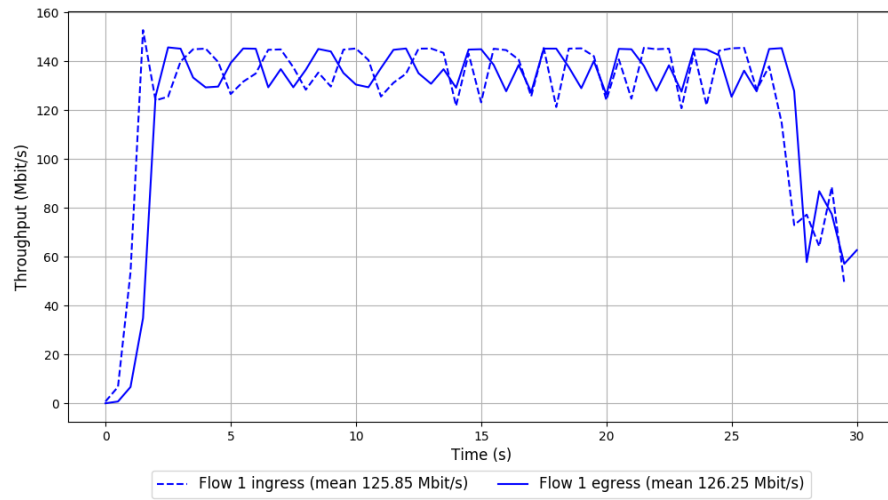

• Flow 1 (95th percentile 101.29 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-06-30 02:06:40
End at: 2018-06-30 02:07:10
Local clock offset: 0.217 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-06-30 03:29:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 126.25 Mbit/s
95th percentile per-packet one-way delay: 99.758 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 126.25 Mbit/s
95th percentile per-packet one-way delay: 99.758 ms
Loss rate: 0.29%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-06-30 02:27:49
End at: 2018-06-30 02:28:19
Local clock offset: 0.188 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2018-06-30 03:29:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.53 Mbit/s
95th percentile per-packet one-way delay: 100.806 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 130.53 Mbit/s
95th percentile per-packet one-way delay: 100.806 ms
Loss rate: 0.16%
```
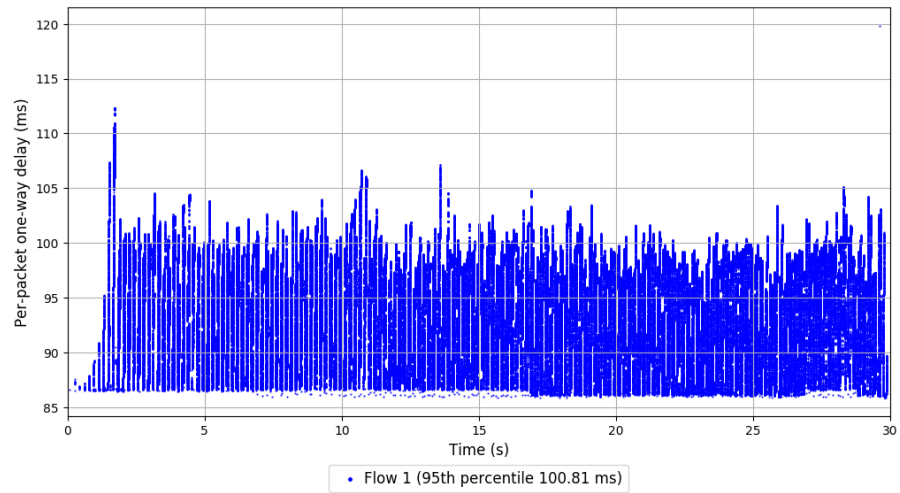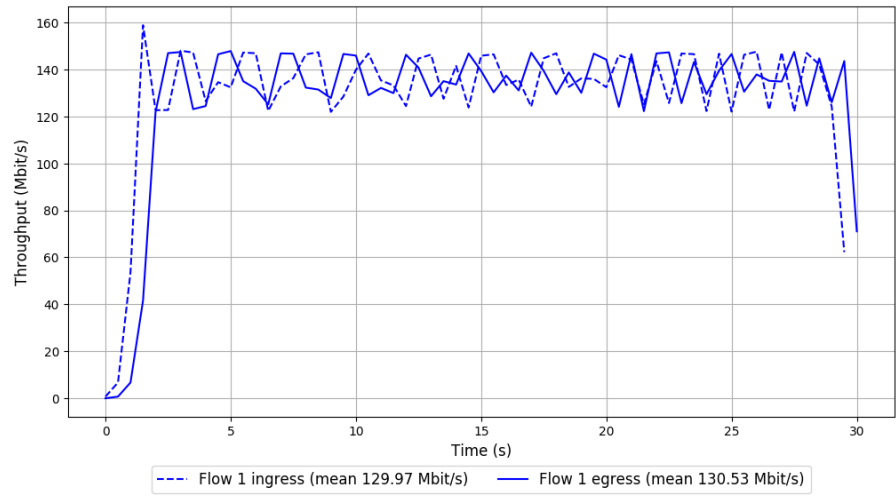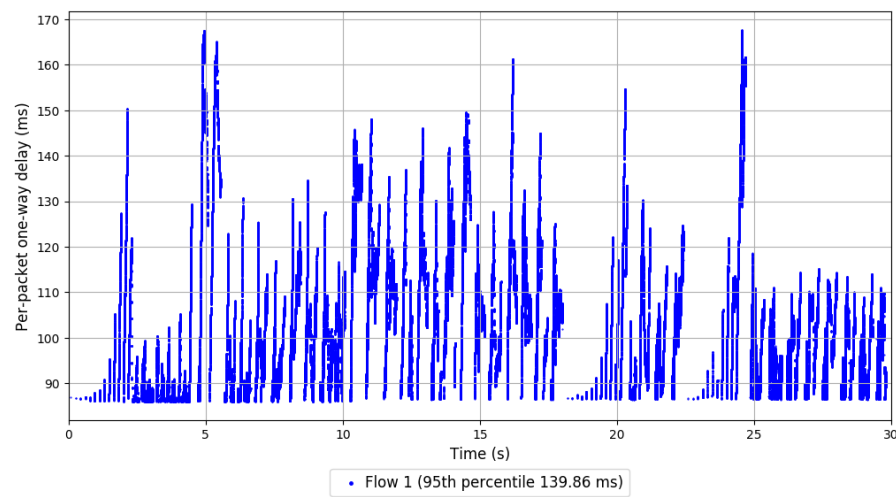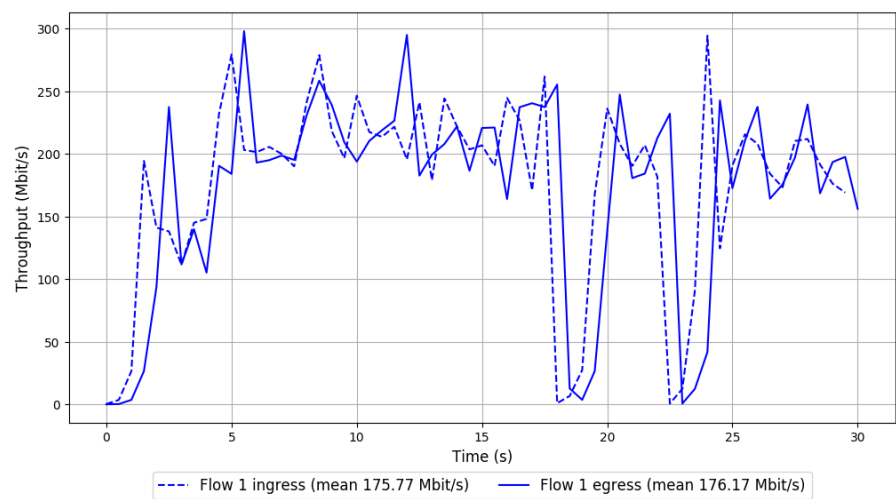
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-06-29 23:20:55
End at: 2018-06-29 23:21:25
Local clock offset: 0.177 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2018-06-30 03:30:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 176.17 Mbit/s
95th percentile per-packet one-way delay: 139.858 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 176.17 Mbit/s
95th percentile per-packet one-way delay: 139.858 ms
Loss rate: 0.41%
```

Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-06-29 23:42:02
End at: 2018-06-29 23:42:32
Local clock offset: 0.22 ms
Remote clock offset: 0.039 ms


# Below is generated by plot.py at 2018-06-30 03:31:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 168.83 Mbit/s
95th percentile per-packet one-way delay: 164.091 ms
Loss rate: 3.33%
-- Flow 1:
Average throughput: 168.83 Mbit/s
95th percentile per-packet one-way delay: 164.091 ms
Loss rate: 3.33%
```
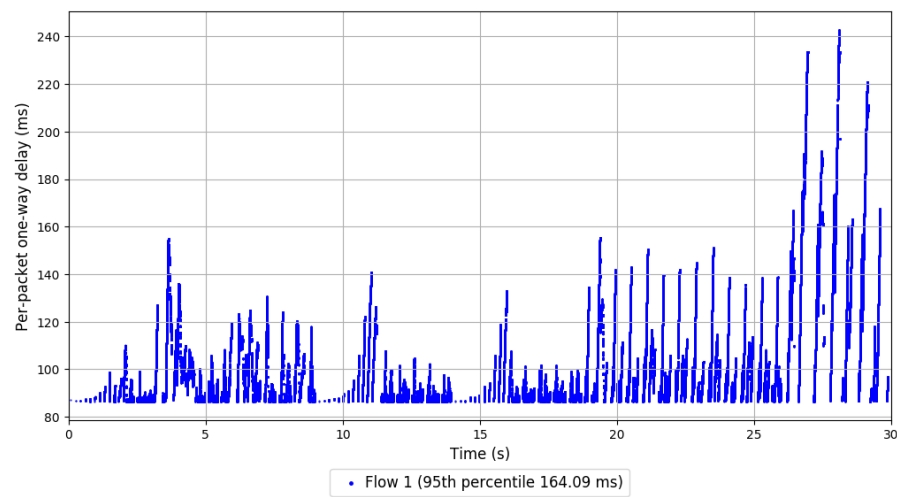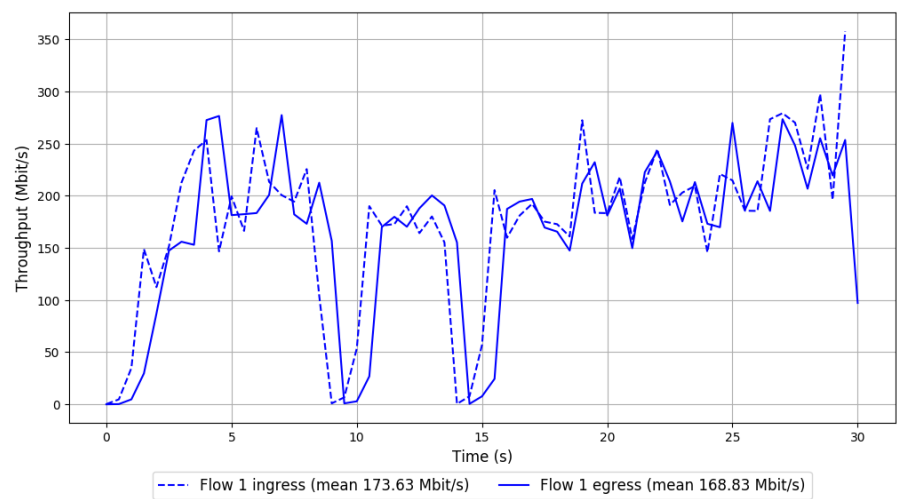
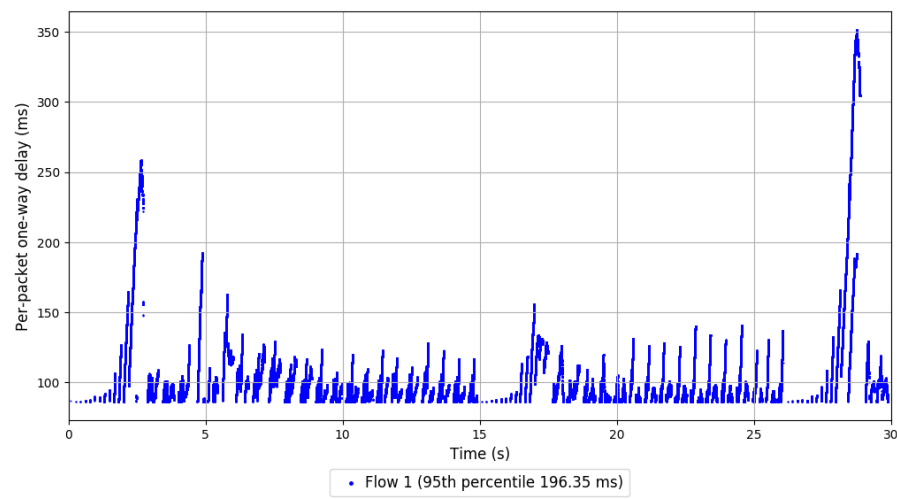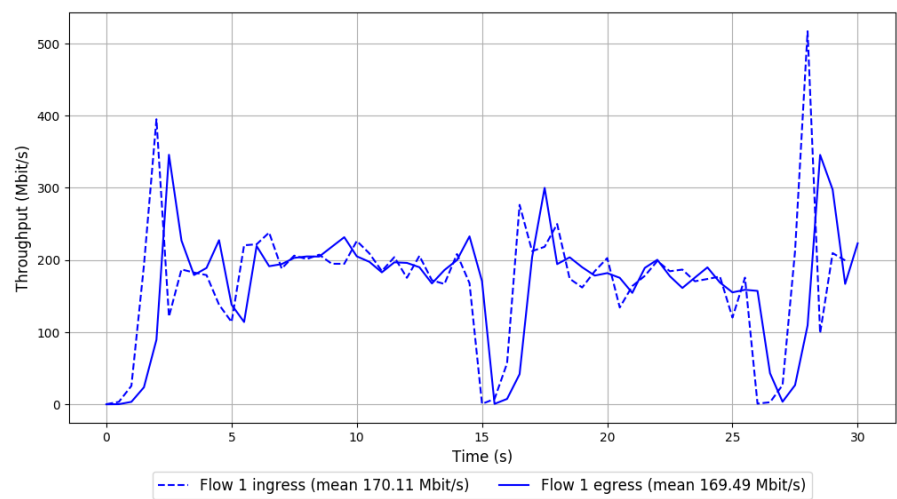Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-06-30 00:02:59
End at: 2018-06-30 00:03:30
Local clock offset: 0.008 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2018-06-30 03:31:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.49 Mbit/s
95th percentile per-packet one-way delay: 196.346 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 169.49 Mbit/s
95th percentile per-packet one-way delay: 196.346 ms
Loss rate: 0.95%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-06-30 00:24:13
End at: 2018-06-30 00:24:43
Local clock offset: 0.152 ms
Remote clock offset: 0.139 ms


# Below is generated by plot.py at 2018-06-30 03:31:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.74 Mbit/s
95th percentile per-packet one-way delay: 166.986 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 169.74 Mbit/s
95th percentile per-packet one-way delay: 166.986 ms
Loss rate: 0.22%
```
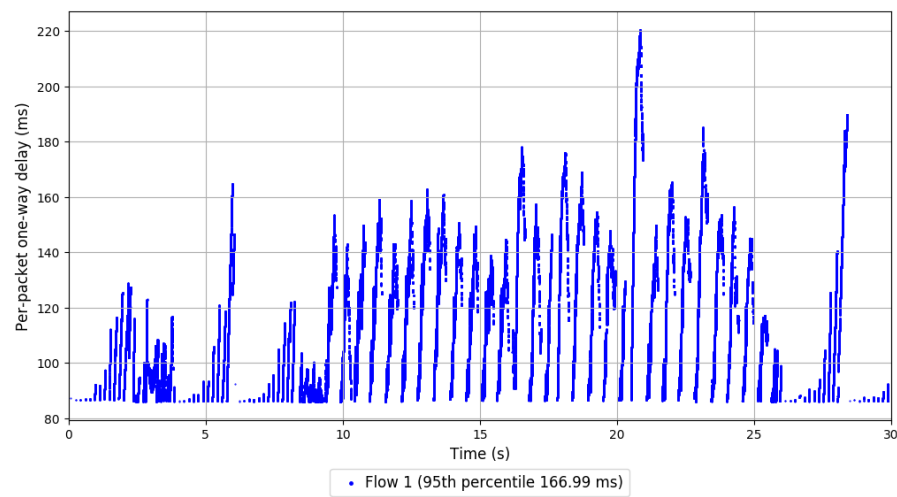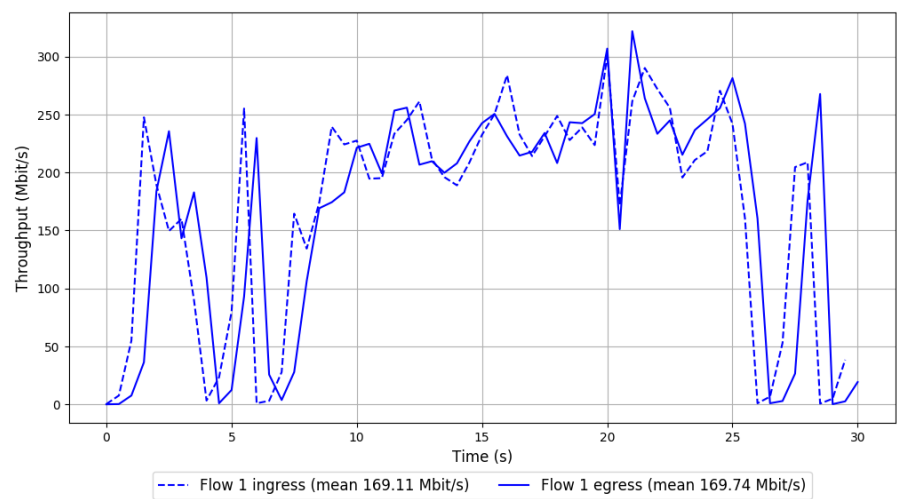
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-06-30 00:45:21
End at: 2018-06-30 00:45:51
Local clock offset: 0.223 ms
Remote clock offset: 0.226 ms


# Below is generated by plot.py at 2018-06-30 03:31:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 119.48 Mbit/s
95th percentile per-packet one-way delay: 153.442 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 119.48 Mbit/s
95th percentile per-packet one-way delay: 153.442 ms
Loss rate: 0.05%
```
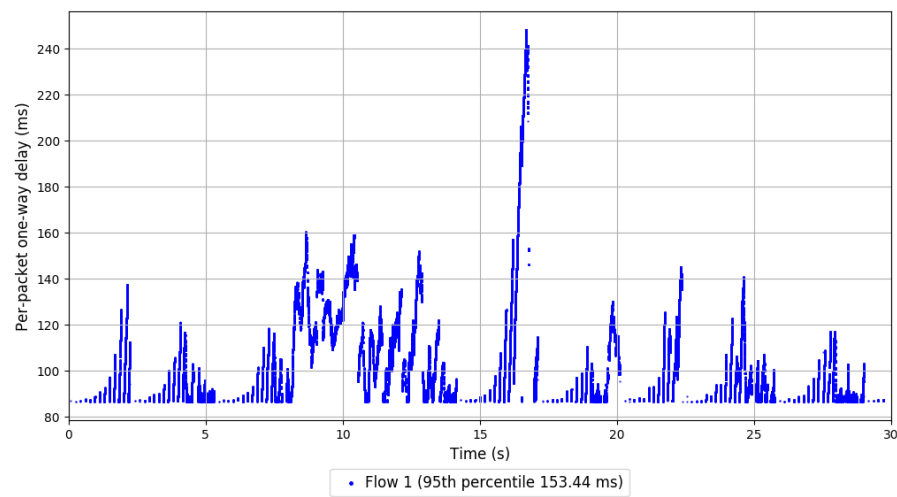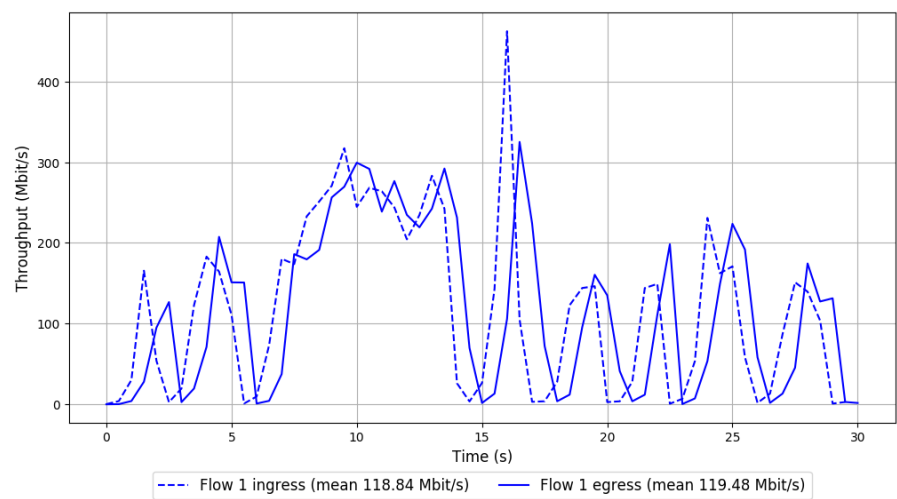
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-06-30 01:06:22
End at: 2018-06-30 01:06:52
Local clock offset: 0.28 ms
Remote clock offset: 0.29 ms


# Below is generated by plot.py at 2018-06-30 03:31:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.47 Mbit/s
95th percentile per-packet one-way delay: 277.169 ms
Loss rate: 2.51%
-- Flow 1:
Average throughput: 127.47 Mbit/s
95th percentile per-packet one-way delay: 277.169 ms
Loss rate: 2.51%
```
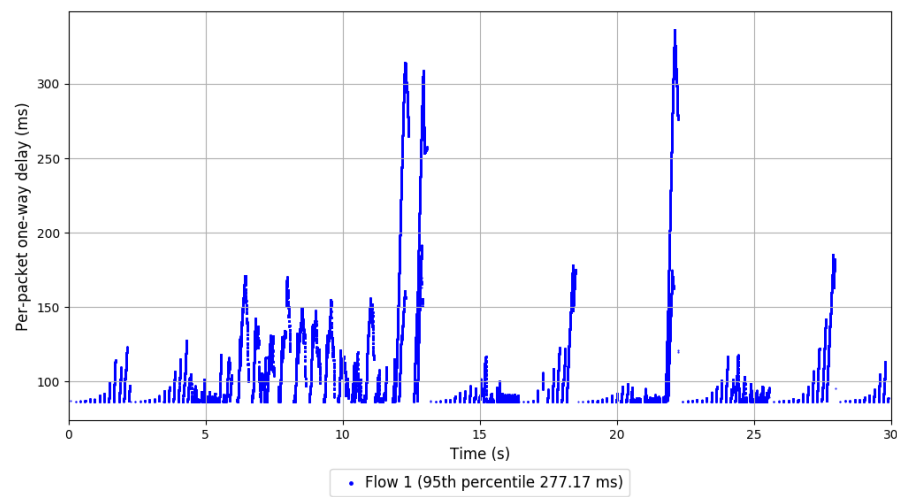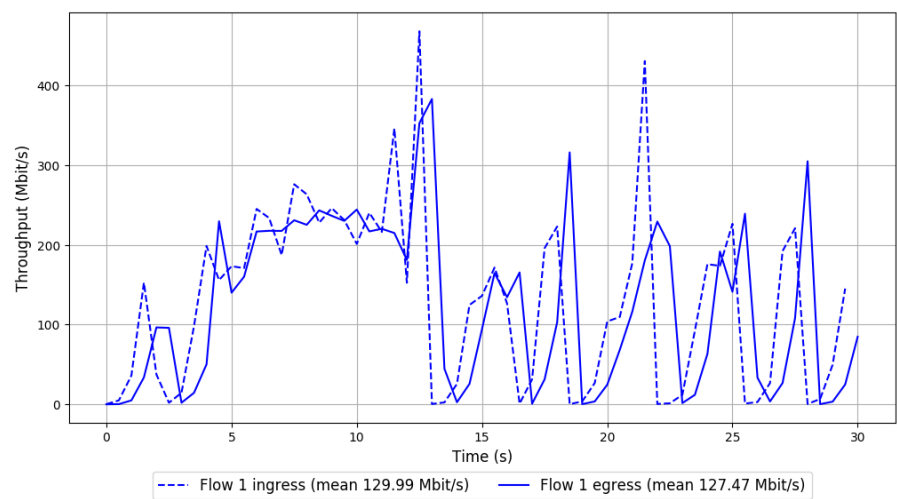
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-06-30 01:27:23
End at: 2018-06-30 01:27:53
Local clock offset: 0.232 ms
Remote clock offset: 0.048 ms


# Below is generated by plot.py at 2018-06-30 03:32:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.18 Mbit/s
95th percentile per-packet one-way delay: 186.338 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 177.18 Mbit/s
95th percentile per-packet one-way delay: 186.338 ms
Loss rate: 0.71%
```
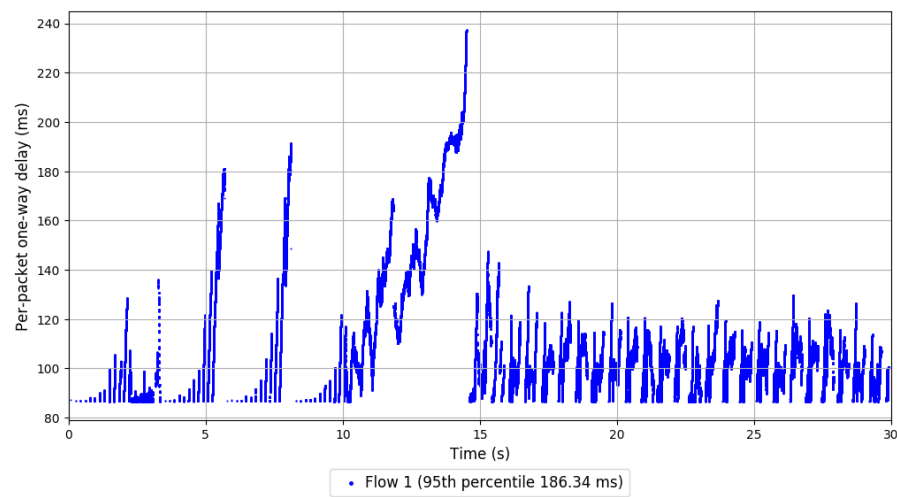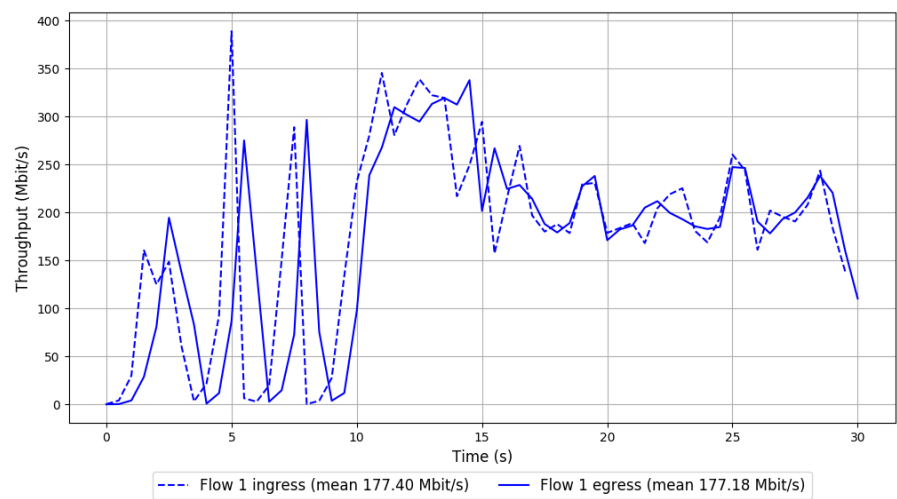
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-06-30 01:48:37
End at: 2018-06-30 01:49:07
Local clock offset: 0.174 ms
Remote clock offset: 0.038 ms


# Below is generated by plot.py at 2018-06-30 03:33:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.28 Mbit/s
95th percentile per-packet one-way delay: 174.118 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 186.28 Mbit/s
95th percentile per-packet one-way delay: 174.118 ms
Loss rate: 0.53%
```
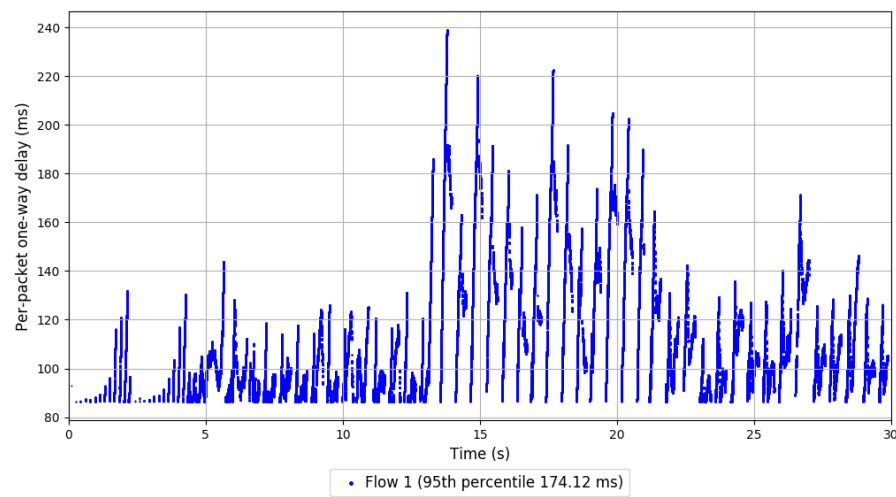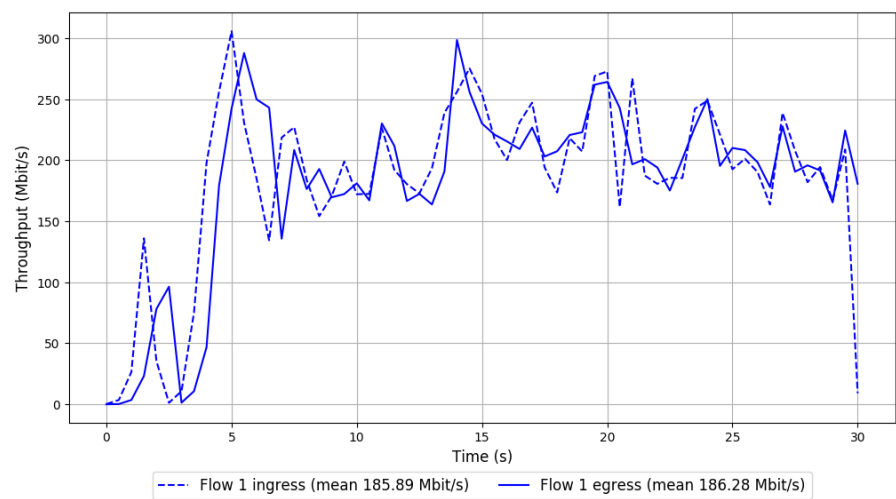
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 185.89 Mbit/s) ----- Flow 1 egress (mean 186.28 Mbit/s) ——

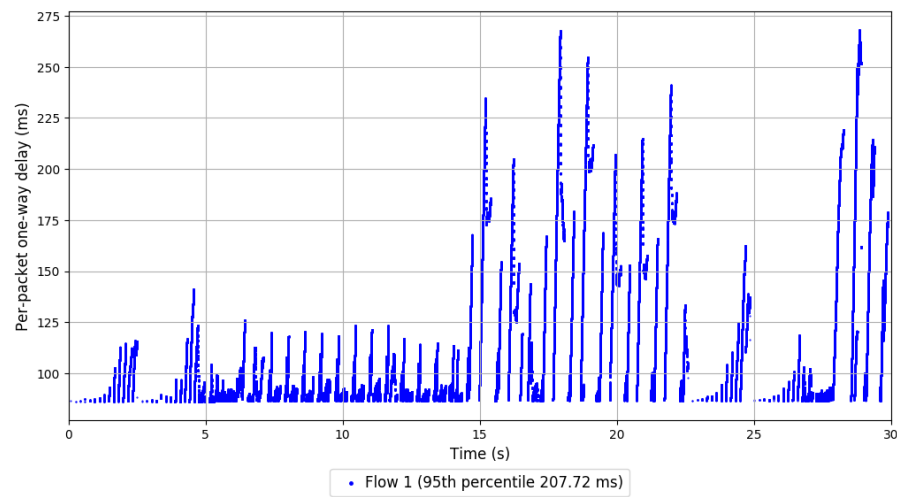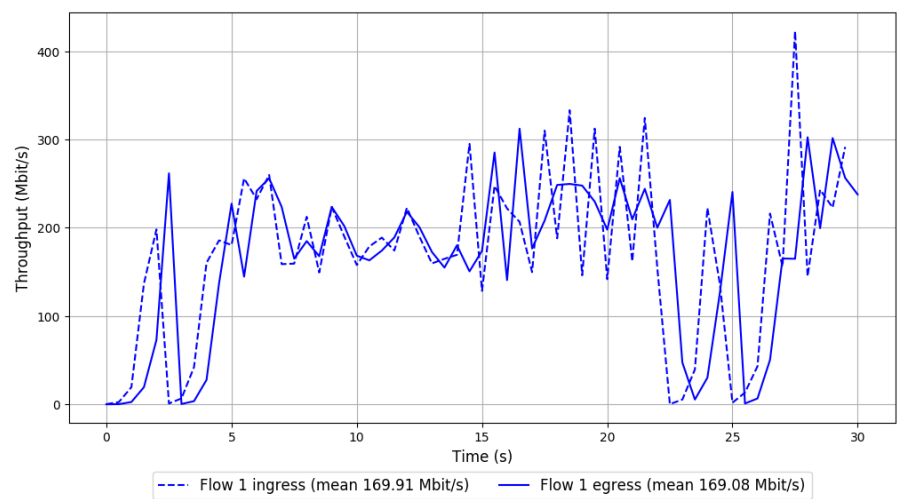Flow 1 (95th percentile 174.12 ms)

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```
Run 9: Statistics of Verus

Start at: 2018-06-30 02:09:30
End at: 2018-06-30 02:10:00
Local clock offset: 0.286 ms
Remote clock offset: -0.106 ms


# Below is generated by plot.py at 2018-06-30 03:33:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.08 Mbit/s
95th percentile per-packet one-way delay: 207.716 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 169.08 Mbit/s
95th percentile per-packet one-way delay: 207.716 ms
Loss rate: 0.71%
```

Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-06-30 02:30:18
End at: 2018-06-30 02:30:48
Local clock offset: 0.323 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-06-30 03:33:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.87 Mbit/s
95th percentile per-packet one-way delay: 140.587 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 186.87 Mbit/s
95th percentile per-packet one-way delay: 140.587 ms
Loss rate: 0.97%
```
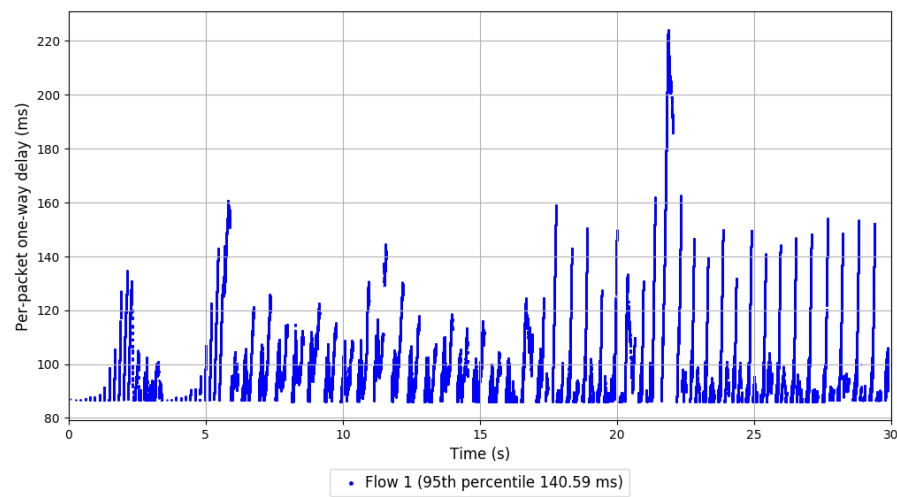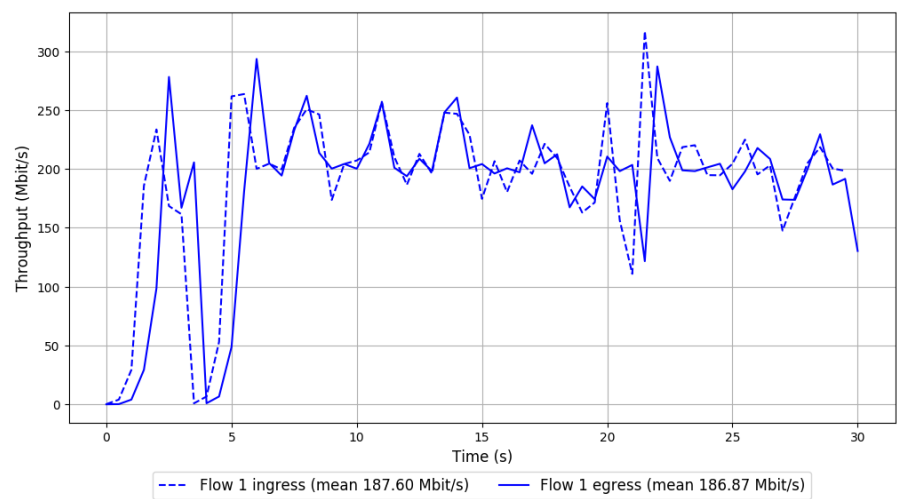
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-29 23:12:18
End at: 2018-06-29 23:12:48
Local clock offset: 0.04 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-06-30 03:35:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.54 Mbit/s
95th percentile per-packet one-way delay: 87.308 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 213.54 Mbit/s
95th percentile per-packet one-way delay: 87.308 ms
Loss rate: 0.74%
```
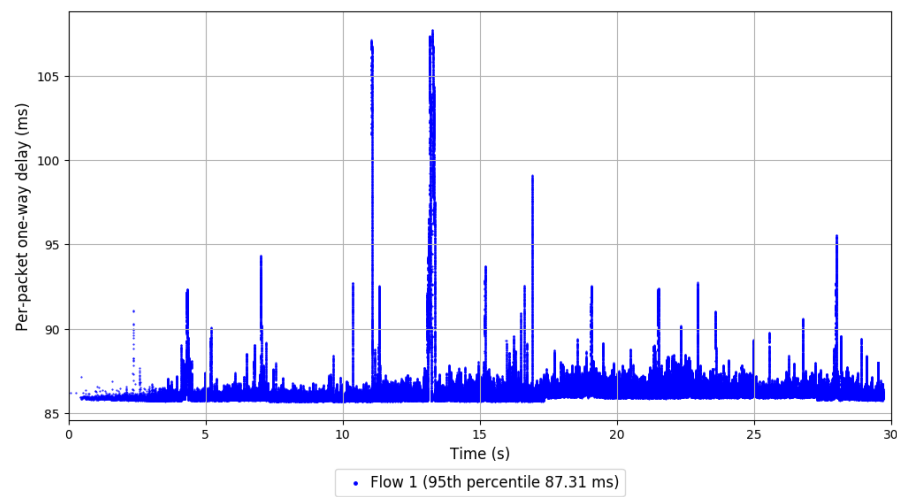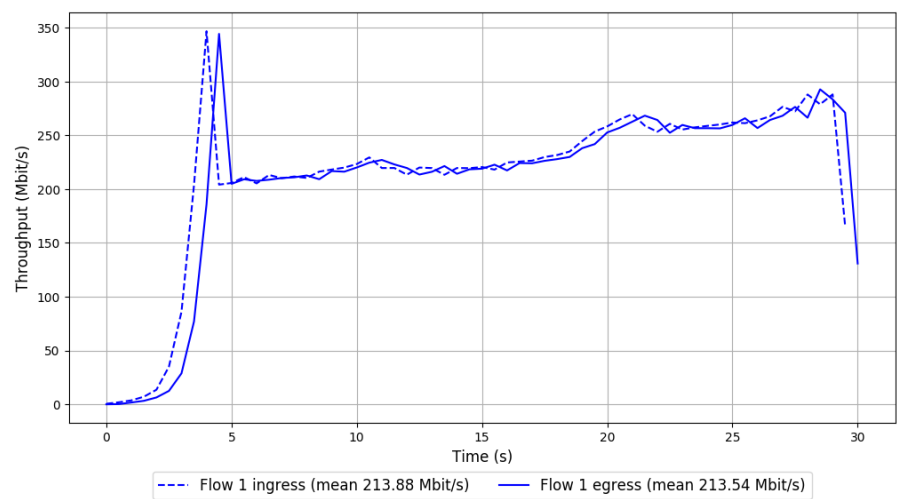
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 213.88 Mbit/s) — Flow 1 egress (mean 213.54 Mbit/s)
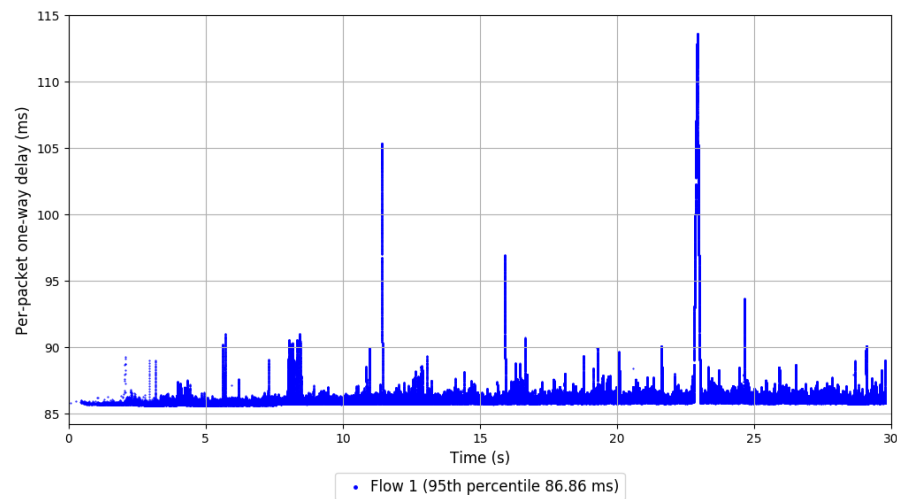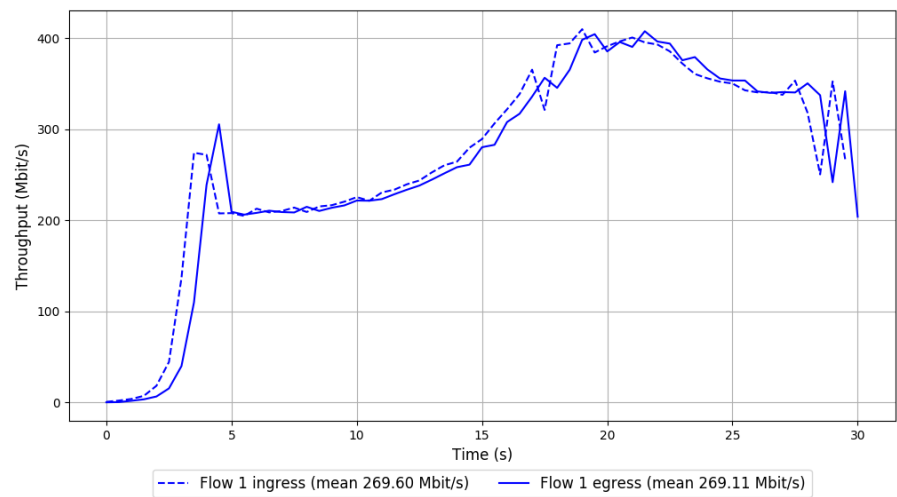

Flow 1 (95th percentile 87.31 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-29 23:33:18
End at: 2018-06-29 23:33:48
Local clock offset: -0.081 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2018-06-30 03:35:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 269.11 Mbit/s
95th percentile per-packet one-way delay: 86.855 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 269.11 Mbit/s
95th percentile per-packet one-way delay: 86.855 ms
Loss rate: 0.76%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 269.60 Mbit/s) --- Flow 1 egress (mean 269.11 Mbit/s)

Flow 1 (95th percentile 86.86 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 23:54:36
End at: 2018-06-29 23:55:06
Local clock offset: 0.185 ms
Remote clock offset: 0.013 ms


# Below is generated by plot.py at 2018-06-30 03:35:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.02 Mbit/s
95th percentile per-packet one-way delay: 105.366 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 229.02 Mbit/s
95th percentile per-packet one-way delay: 105.366 ms
Loss rate: 0.88%
```
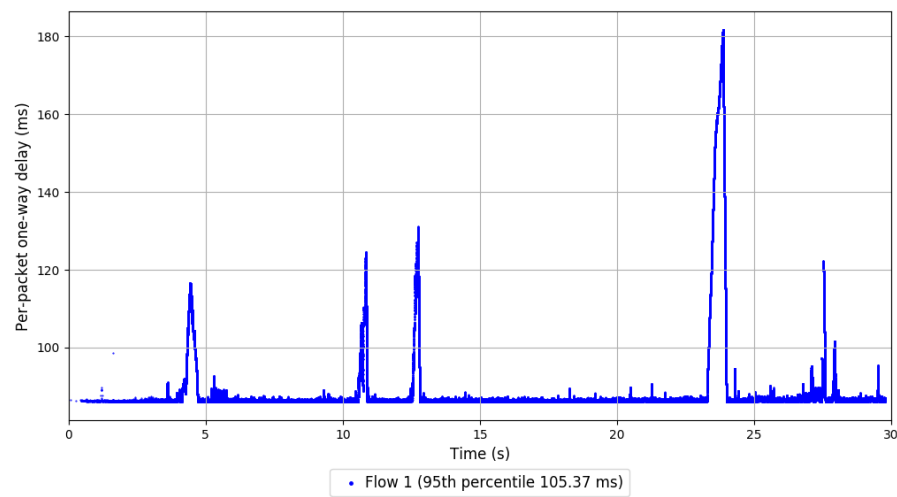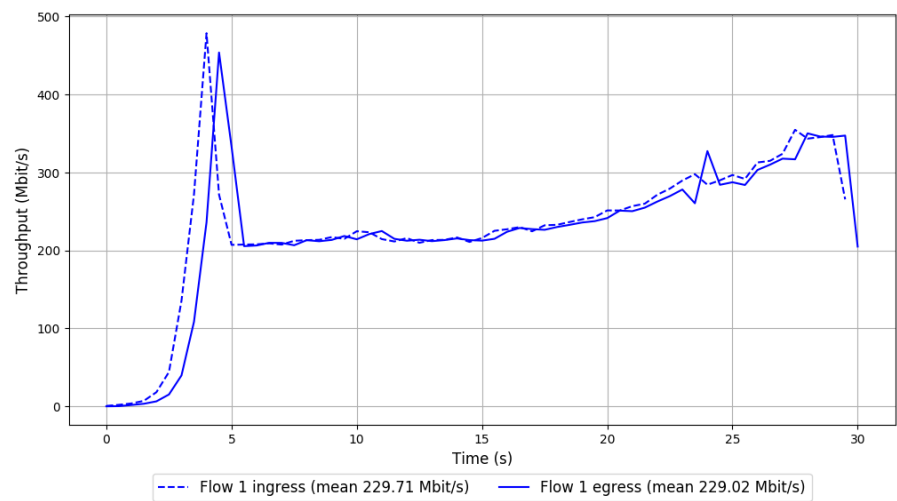
Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-30 00:15:29
End at: 2018-06-30 00:15:59
Local clock offset: 0.344 ms
Remote clock offset: 0.107 ms

# Below is generated by plot.py at 2018-06-30 03:35:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 236.30 Mbit/s
95th percentile per-packet one-way delay: 86.927 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 236.30 Mbit/s
95th percentile per-packet one-way delay: 86.927 ms
Loss rate: 0.69%
```
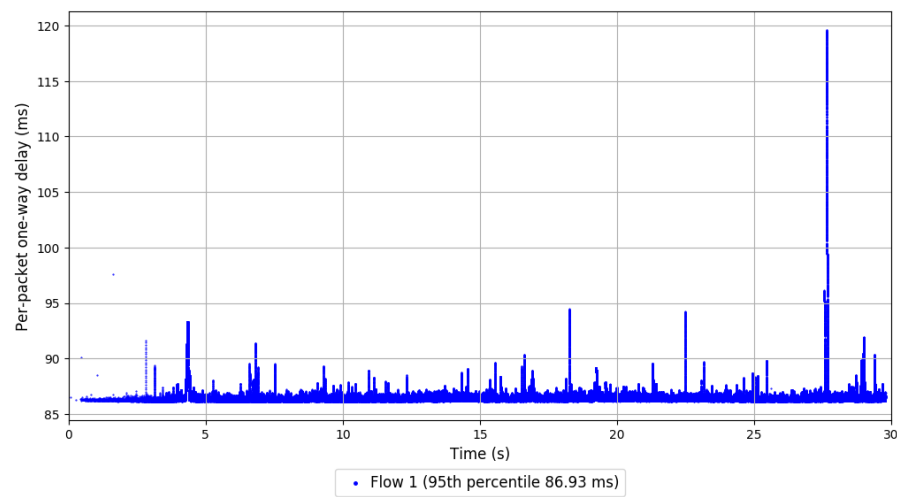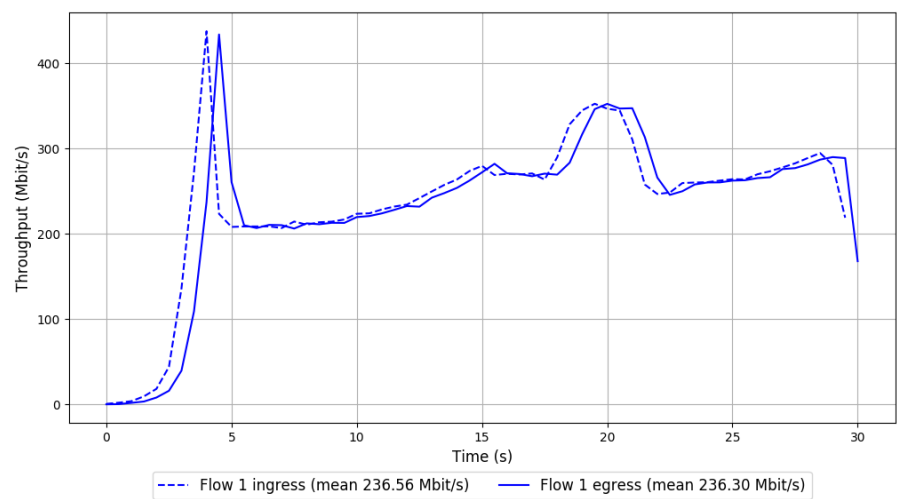
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 236.56 Mbit/s)   Flow 1 egress (mean 236.30 Mbit/s)

Flow 1 (95th percentile 86.93 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-30 00:36:42
End at: 2018-06-30 00:37:12
Local clock offset: -0.007 ms
Remote clock offset: 0.33 ms


# Below is generated by plot.py at 2018-06-30 03:37:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 299.52 Mbit/s
95th percentile per-packet one-way delay: 89.203 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 299.52 Mbit/s
95th percentile per-packet one-way delay: 89.203 ms
Loss rate: 0.59%
```
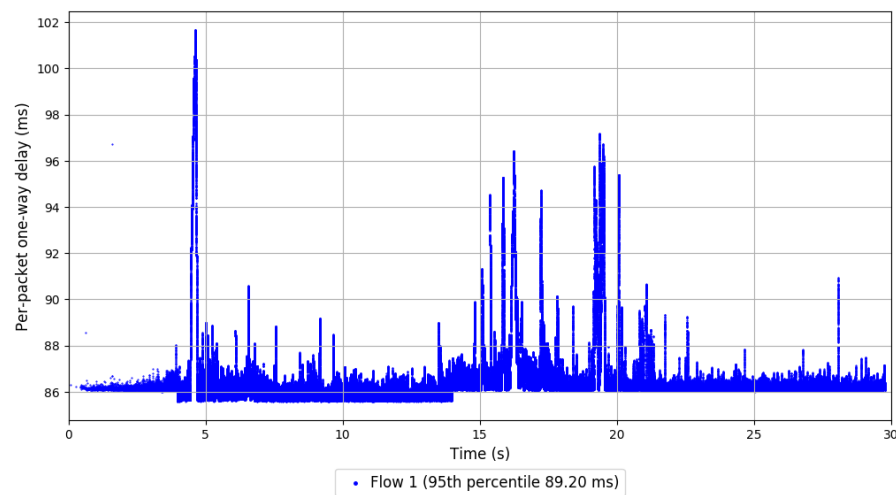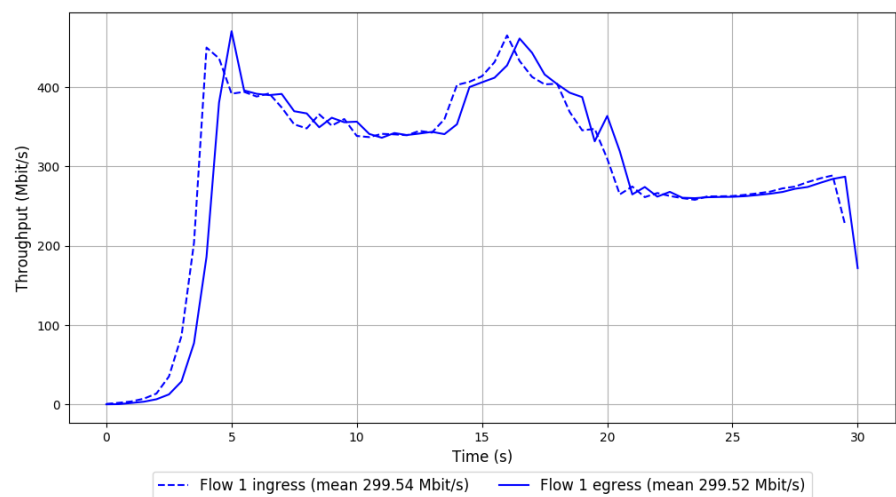
Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-30 00:57:45
End at: 2018-06-30 00:58:15
Local clock offset: 0.093 ms
Remote clock offset: 0.267 ms

# Below is generated by plot.py at 2018-06-30 03:37:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.93 Mbit/s
95th percentile per-packet one-way delay: 86.309 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 234.93 Mbit/s
95th percentile per-packet one-way delay: 86.309 ms
Loss rate: 0.44%
```
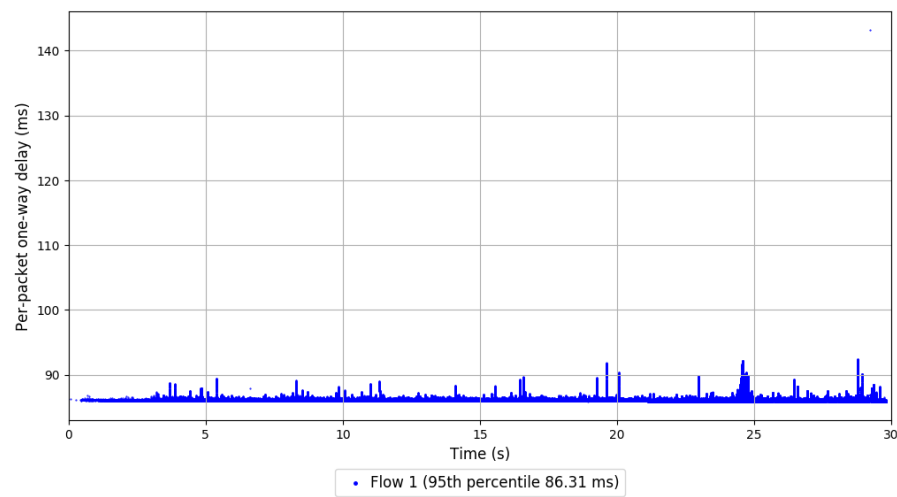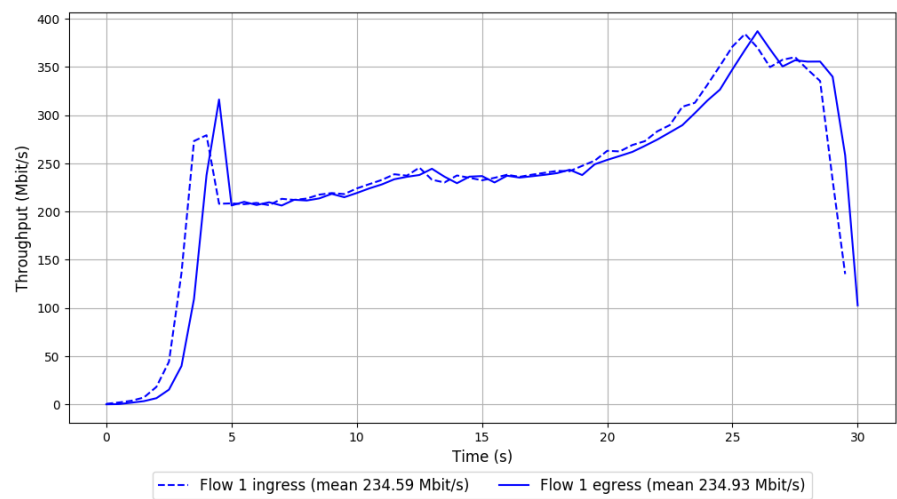
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 234.59 Mbit/s) — — — Flow 1 egress (mean 234.93 Mbit/s)

• Flow 1 (95th percentile 86.31 ms)

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-30 01:18:43
End at: 2018-06-30 01:19:13
Local clock offset: 0.169 ms
Remote clock offset: 0.152 ms


# Below is generated by plot.py at 2018-06-30 03:37:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.21 Mbit/s
95th percentile per-packet one-way delay: 87.008 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 250.21 Mbit/s
95th percentile per-packet one-way delay: 87.008 ms
Loss rate: 0.36%
```
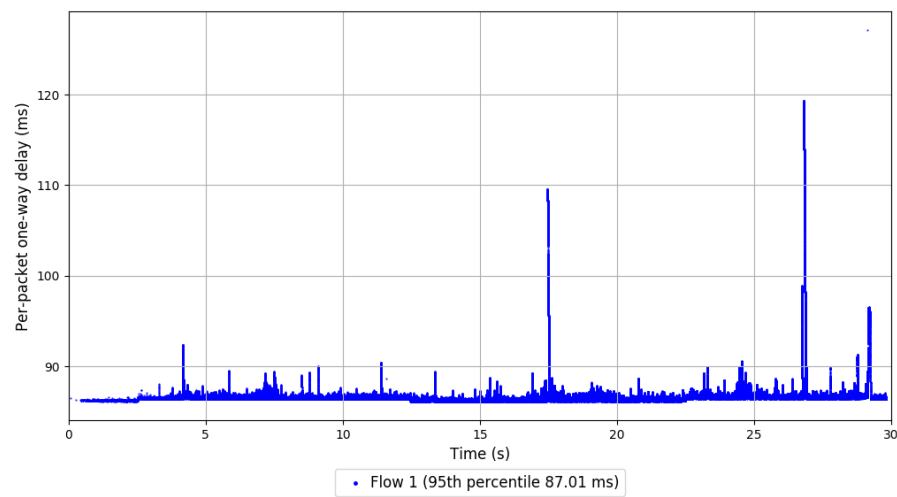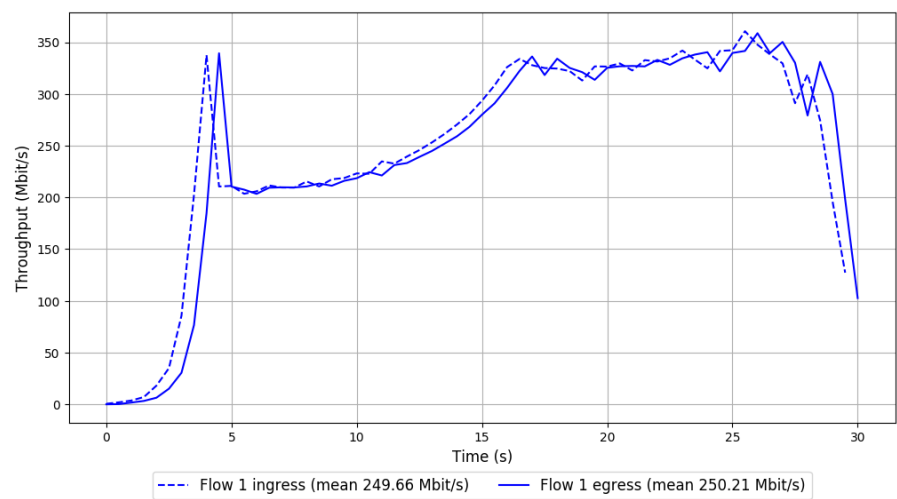
Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-30 01:39:53
End at: 2018-06-30 01:40:23
Local clock offset: 0.268 ms
Remote clock offset: 0.076 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 321.24 Mbit/s
95th percentile per-packet one-way delay: 122.452 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 321.24 Mbit/s
95th percentile per-packet one-way delay: 122.452 ms
Loss rate: 1.05%
```
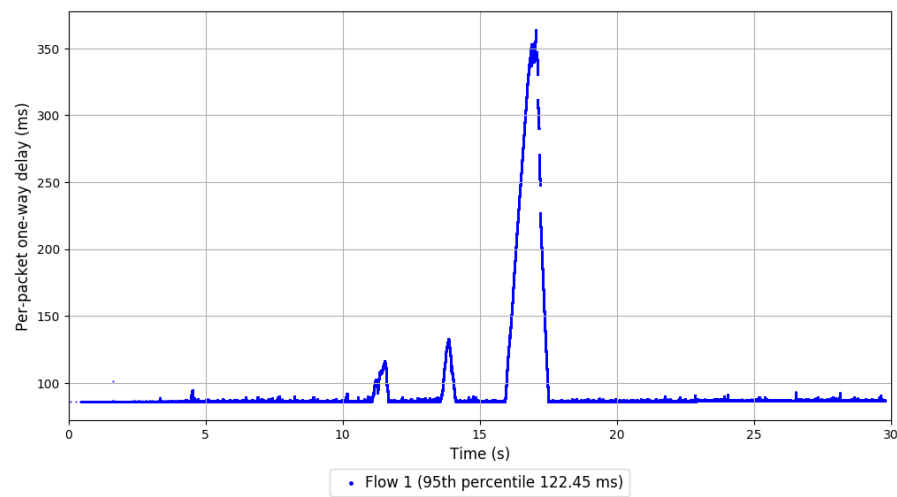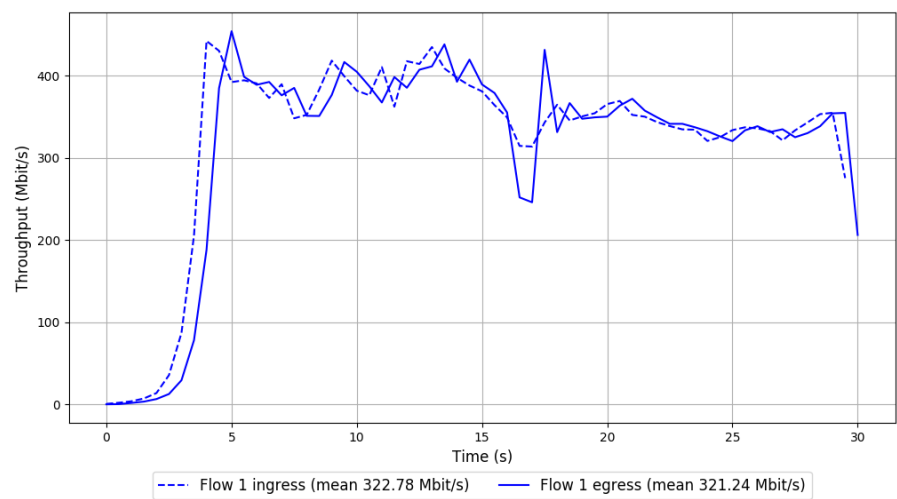
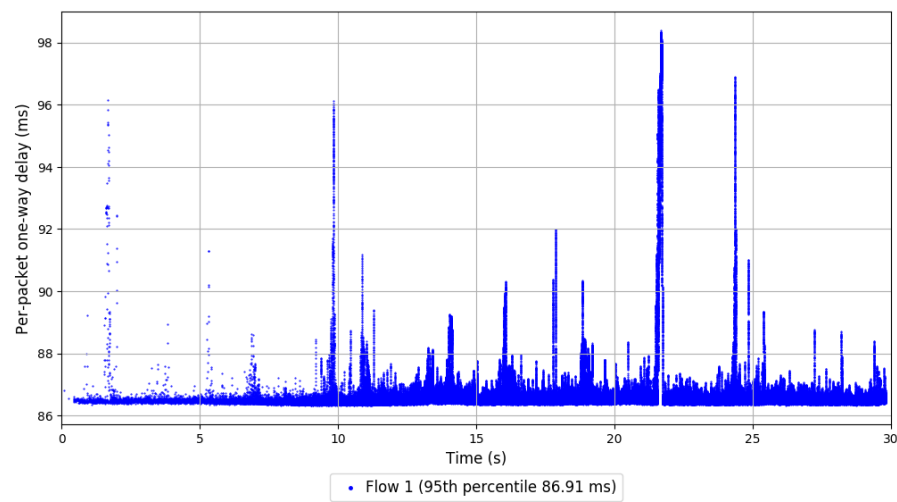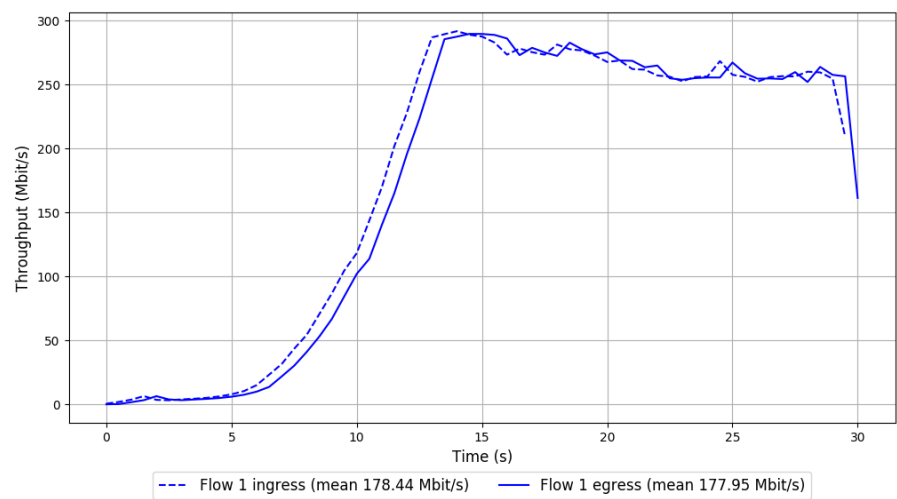Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-30 02:00:49
End at: 2018-06-30 02:01:19
Local clock offset: 0.178 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.95 Mbit/s
95th percentile per-packet one-way delay: 86.914 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 177.95 Mbit/s
95th percentile per-packet one-way delay: 86.914 ms
Loss rate: 0.85%
```

Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 178.44 Mbit/s)   Flow 1 egress (mean 177.95 Mbit/s)

Flow 1 (95th percentile 86.91 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-30 02:21:59
End at: 2018-06-30 02:22:29
Local clock offset: 0.079 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.23 Mbit/s
95th percentile per-packet one-way delay: 86.463 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 158.23 Mbit/s
95th percentile per-packet one-way delay: 86.463 ms
Loss rate: 1.16%
```
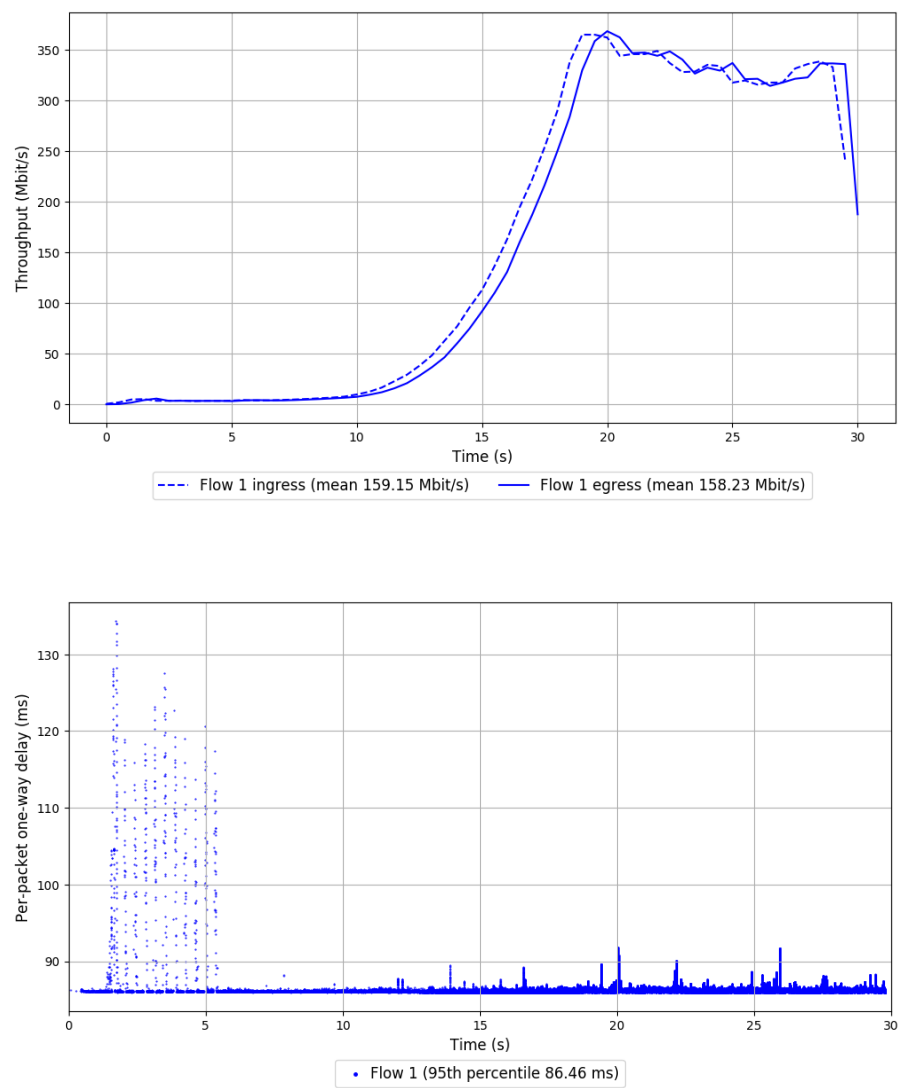
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 159.15 Mbit/s) — — Flow 1 egress (mean 158.23 Mbit/s)

• Flow 1 (95th percentile 86.46 ms)

323

```
Run 1: Statistics of WebRTC media

Start at: 2018-06-29 23:06:21
End at: 2018-06-29 23:06:51
Local clock offset: 0.104 ms
Remote clock offset: -0.083 ms
```
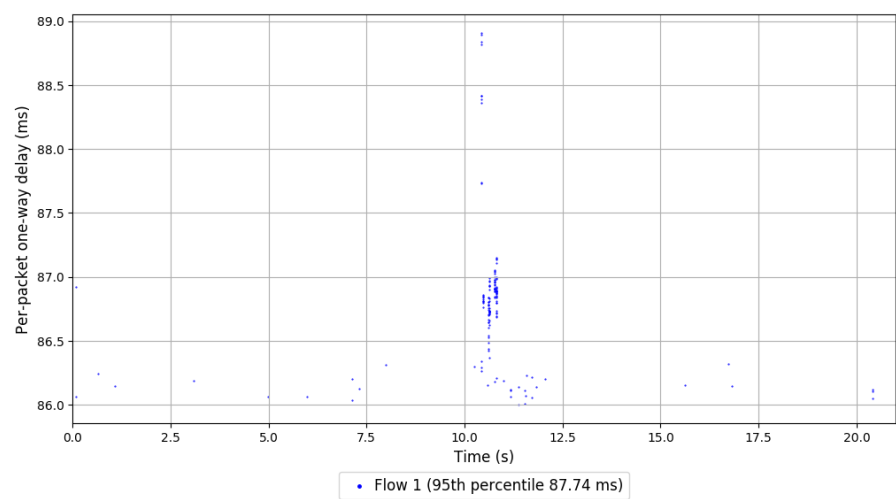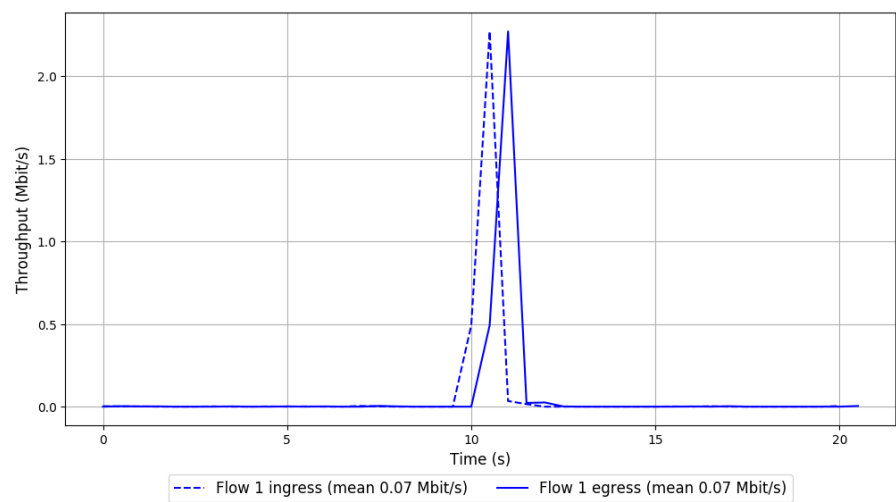
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-06-29 23:27:16
End at: 2018-06-29 23:27:46
Local clock offset: 0.368 ms
Remote clock offset: -0.08 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 87.074 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 87.074 ms
Loss rate: 0.62%
```
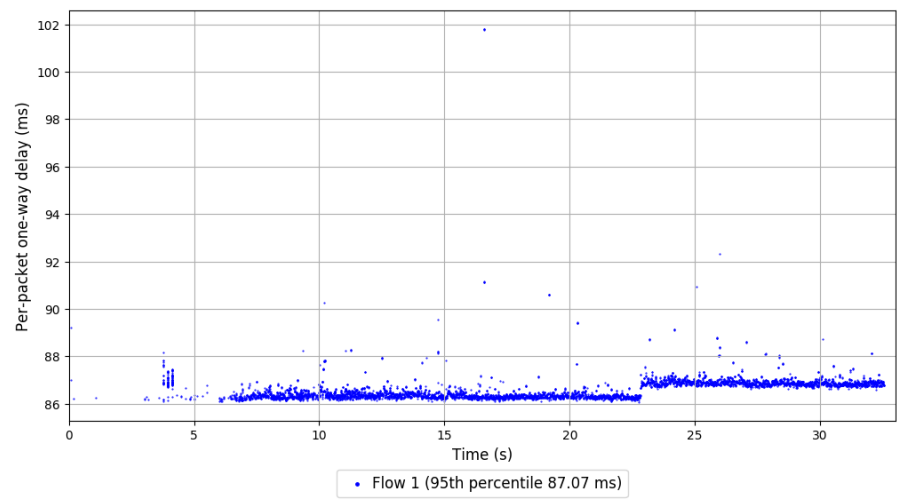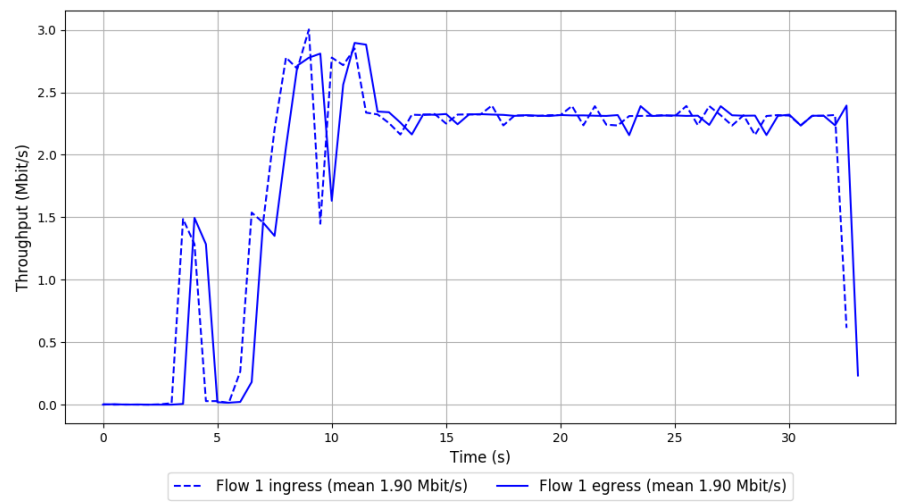
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-06-29 23:48:23
End at: 2018-06-29 23:48:53
Local clock offset: 0.017 ms
Remote clock offset: 0.026 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.404 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.404 ms
Loss rate: 0.56%
```
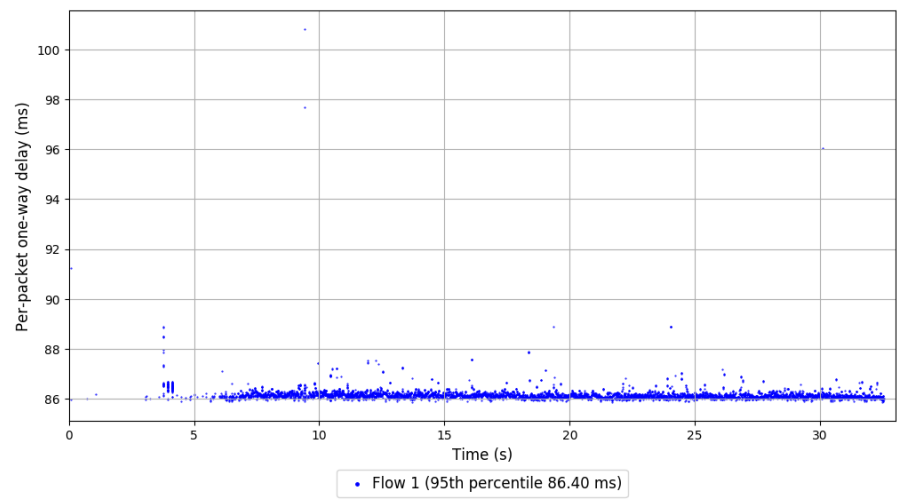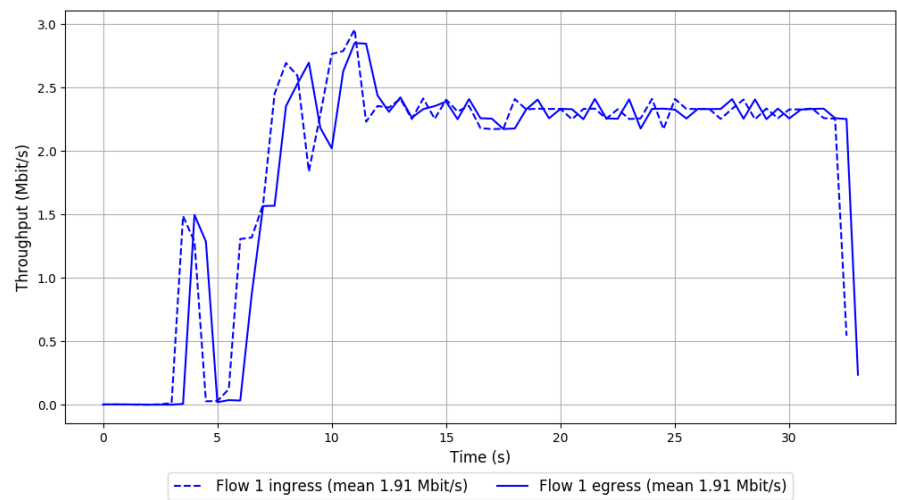
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-06-30 00:09:16
End at: 2018-06-30 00:09:46
Local clock offset: 0.06 ms
Remote clock offset: 0.082 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 86.734 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 86.734 ms
Loss rate: 0.68%
```
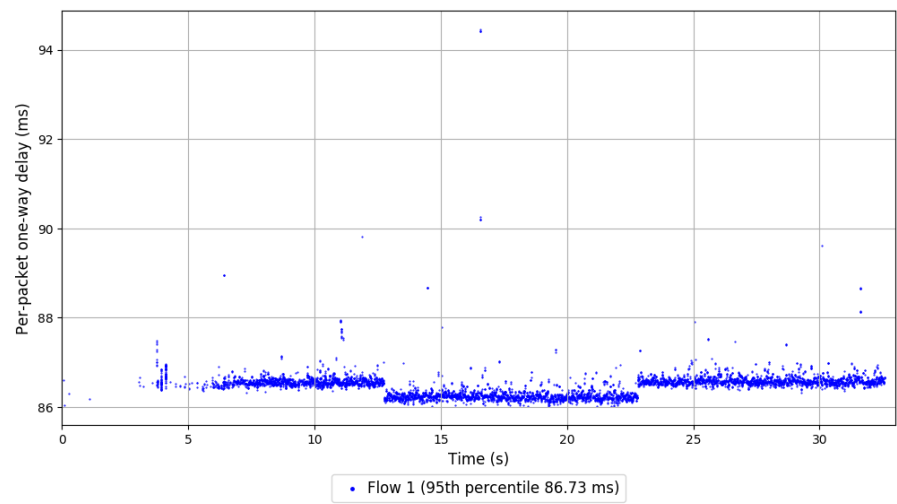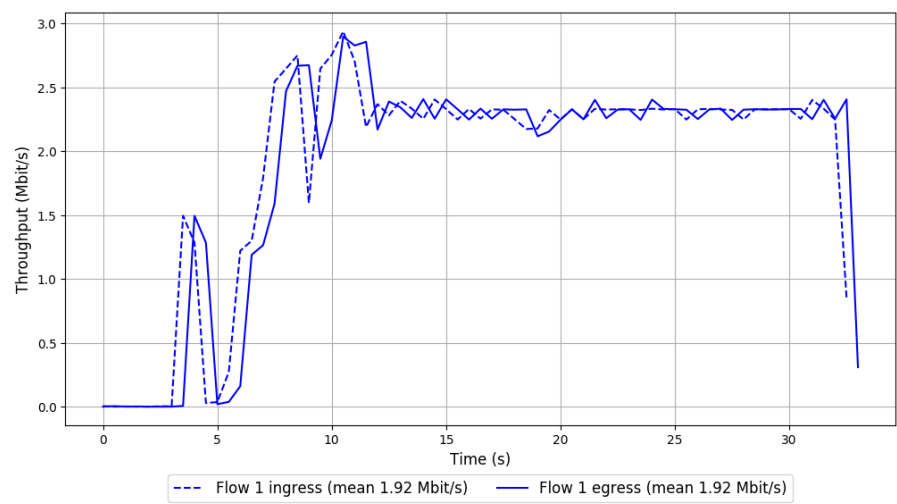
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-06-30 00:30:31
End at: 2018-06-30 00:31:01
Local clock offset: 0.304 ms
Remote clock offset: 0.193 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 86.571 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 86.571 ms
Loss rate: 0.61%
```
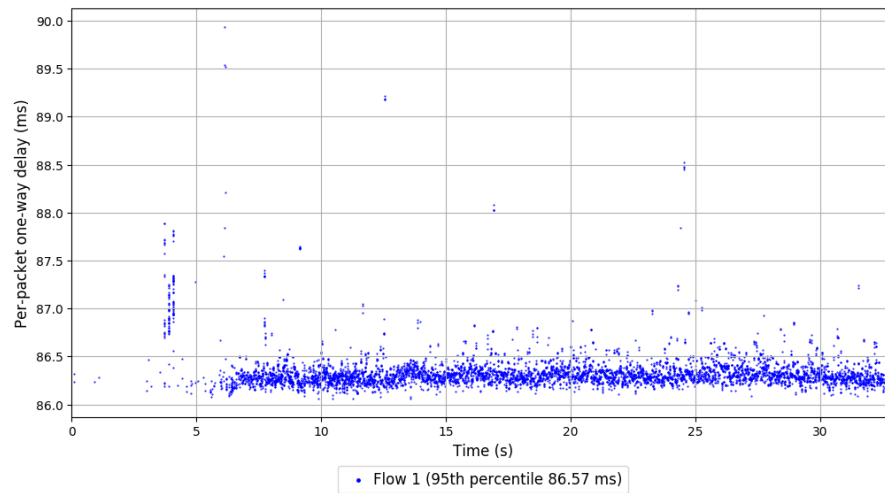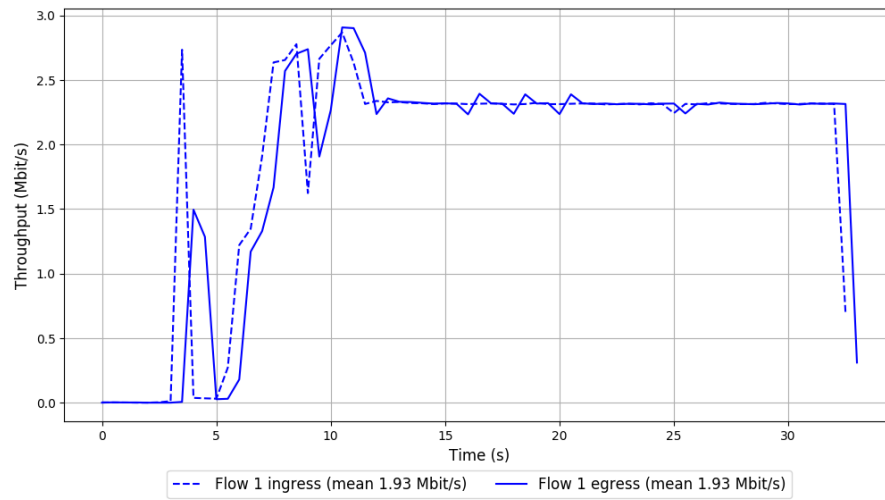
Run 5: Report of WebRTC media — Data Link

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```
Run 6: Statistics of WebRTC media

Start at: 2018-06-30 00:51:32
End at: 2018-06-30 00:52:03
Local clock offset: 0.092 ms
Remote clock offset: 0.235 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 86.917 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 86.917 ms
Loss rate: 0.62%
```
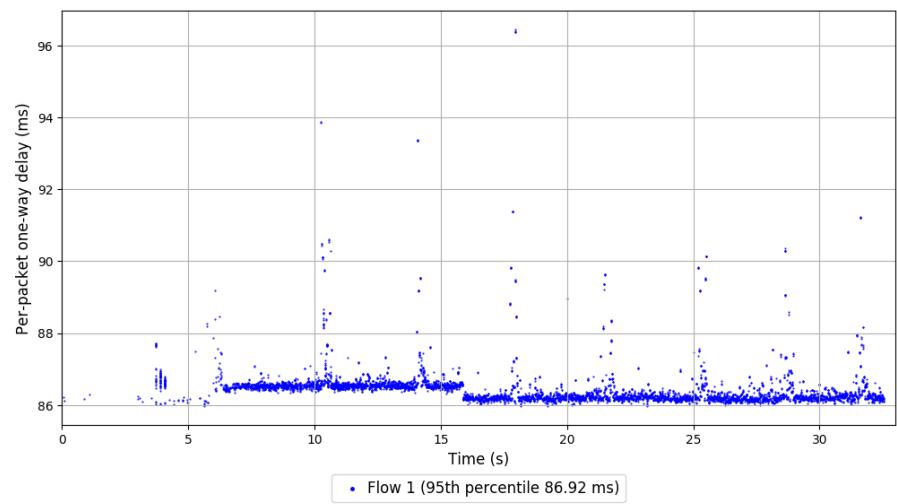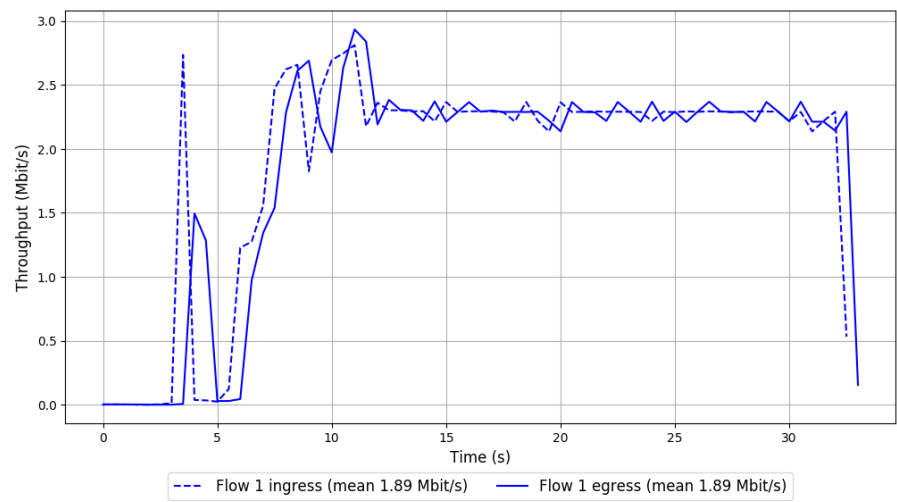
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-06-30 01:12:34
End at: 2018-06-30 01:13:04
Local clock offset: 0.092 ms
Remote clock offset: 0.227 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 86.808 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 86.808 ms
Loss rate: 0.61%
```
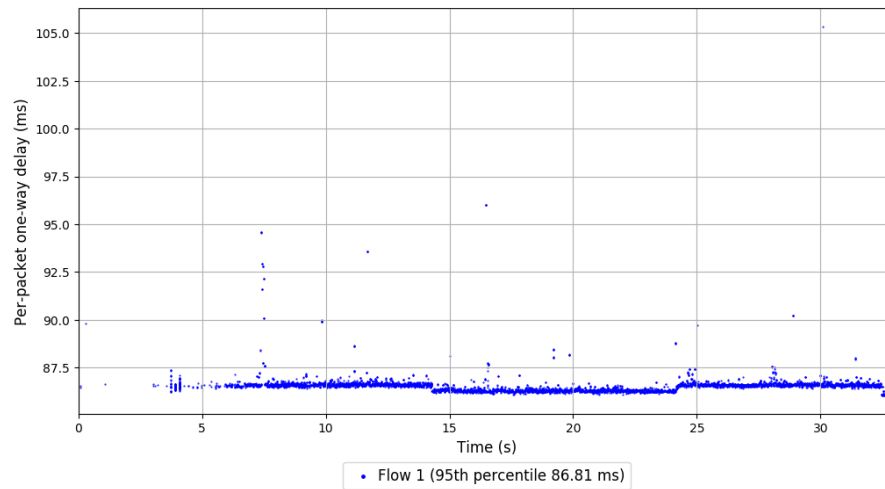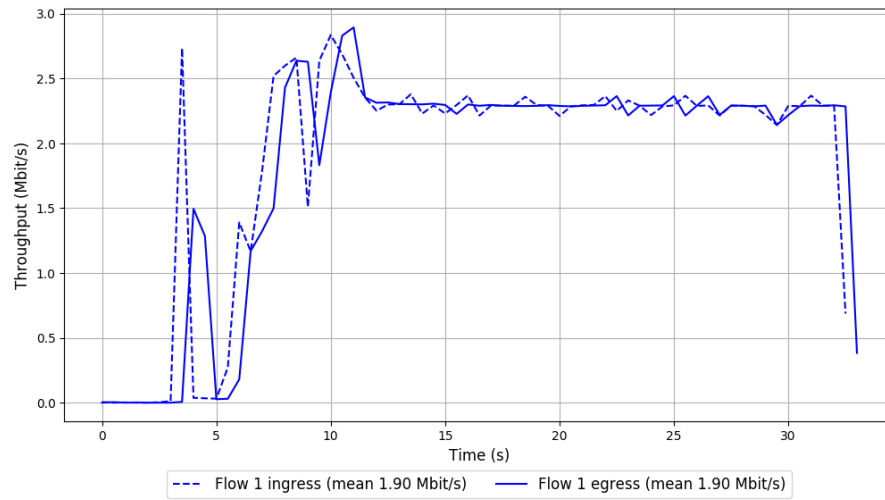
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-06-30 01:33:41
End at: 2018-06-30 01:34:11
Local clock offset: 0.3 ms
Remote clock offset: 0.045 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 86.624 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 86.624 ms
Loss rate: 0.62%
```

Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-06-30 01:54:44
End at: 2018-06-30 01:55:14
Local clock offset: 0.206 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 86.312 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 86.312 ms
Loss rate: 0.62%
```
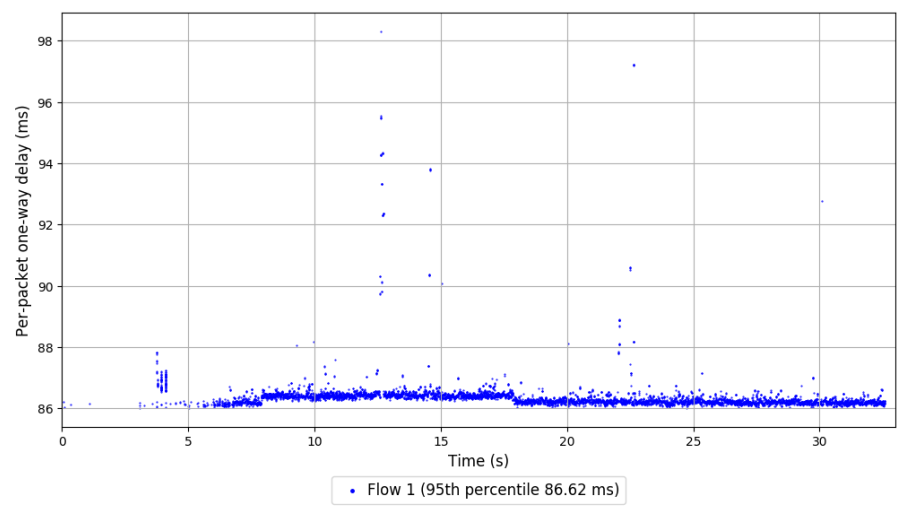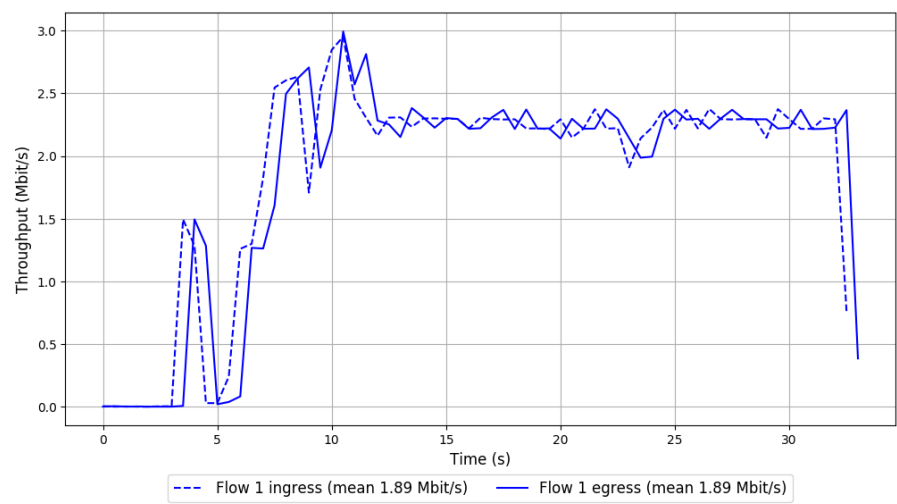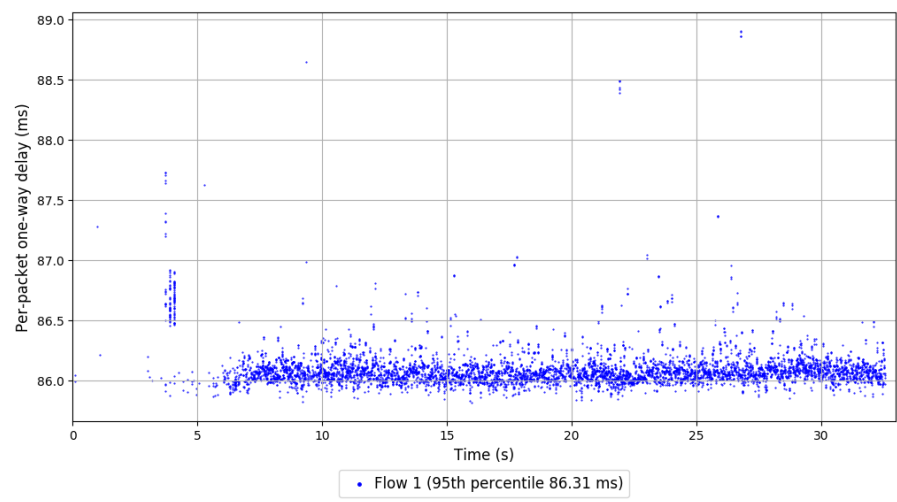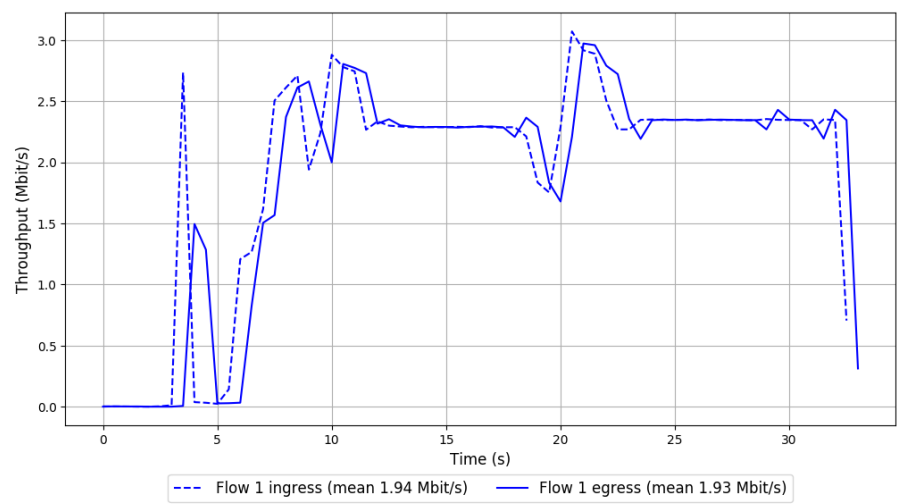
Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.94 Mbit/s) ---- Flow 1 egress (mean 1.93 Mbit/s)

Flow 1 (95th percentile 86.31 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2018-06-30 02:15:49
End at: 2018-06-30 02:16:19
Local clock offset: 0.288 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-06-30 03:38:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 86.782 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 86.782 ms
Loss rate: 0.56%
```

Run 10: Report of WebRTC media — Data Link