Pantheon Report

Generated at 2018-06-05 07:45:33 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) →Colombia Ethernet (*remote*).

Repeated the test of 16 congestion control schemes 10 times.

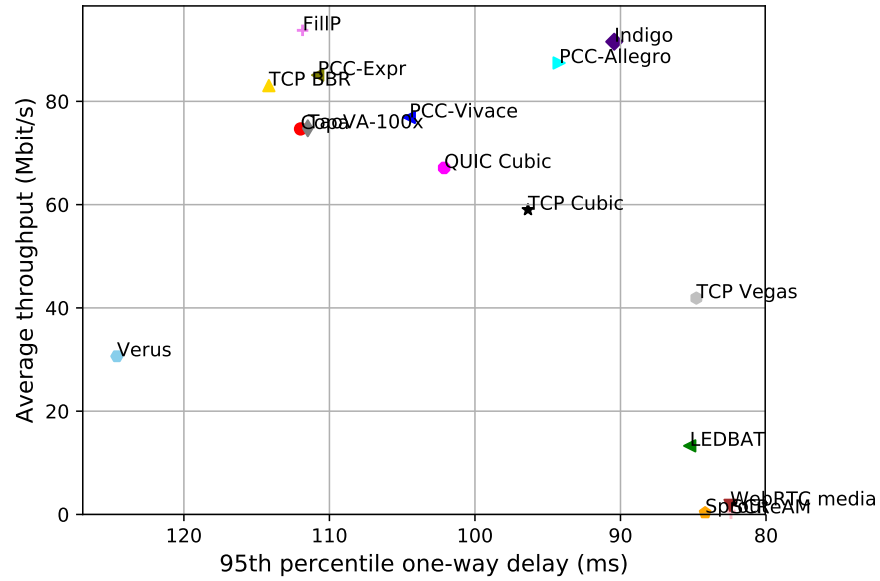Each test lasted for 30 seconds running 1 flow.

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

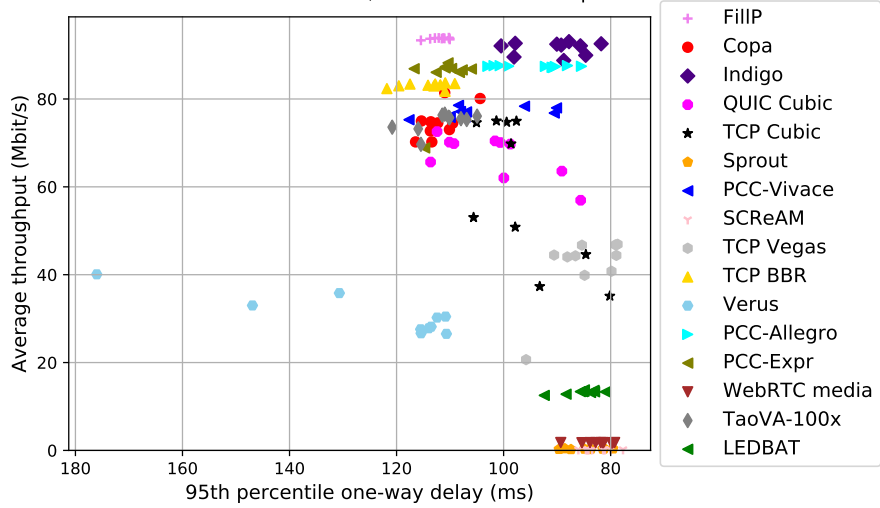NTP offsets were measured against `gps.ntp.br` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
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 @ c838669682f0c19f6baf92afc9a596a406d48c1f
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS Brazil 2 to Colombia, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from AWS Brazil 2 to Colombia, 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	83.05	114.16	3.99
Copa	10	74.66	111.98	4.22
TCP Cubic	10	59.01	96.36	0.39
FillP	10	93.76	111.84	7.73
Indigo	10	91.55	90.43	0.80
LEDBAT	10	13.29	85.24	0.00
PCC-Allegro	10	87.43	94.22	1.39
PCC-Expr	10	85.09	110.81	2.14
QUIC Cubic	10	67.11	102.12	0.39
SCReAM	10	0.22	82.41	0.01
Sprout	10	0.34	84.18	0.01
TaoVA-100x	10	74.78	111.49	0.75
TCP Vegas	10	41.89	84.79	0.31
Verus	10	30.64	124.60	26.21
PCC-Vivace	10	76.89	104.52	0.09
WebRTC media	10	1.76	82.47	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-06-05 04:24:06
End at: 2018-06-05 04:24:36
Local clock offset: -1.911 ms
Remote clock offset: 9.637 ms

# Below is generated by plot.py at 2018-06-05 07:28:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.42 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 3.93%
-- Flow 1:
Average throughput: 83.42 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 3.93%
```
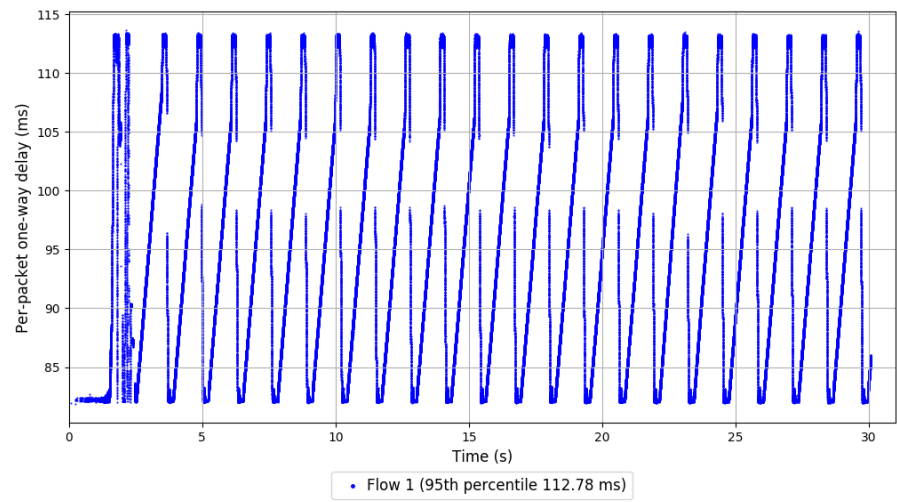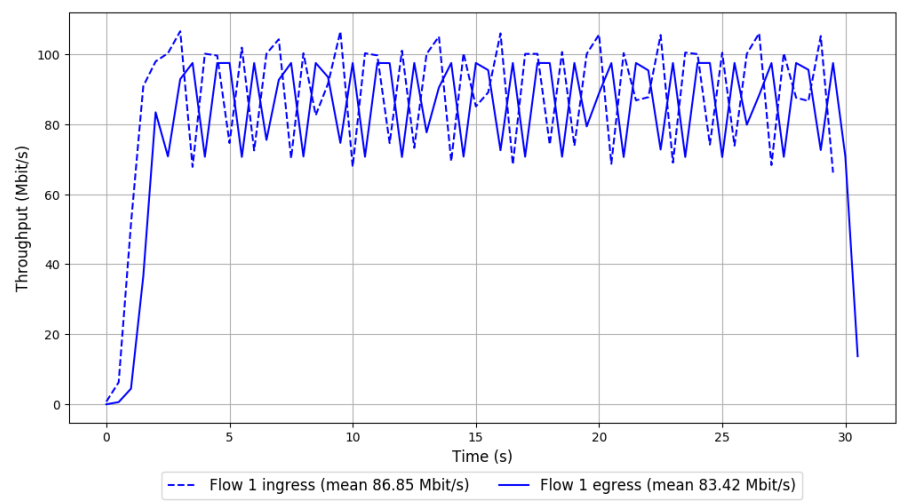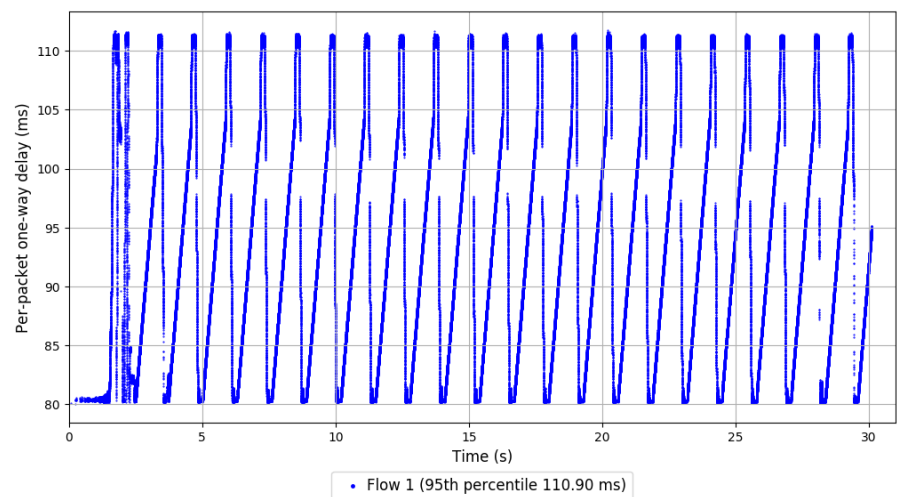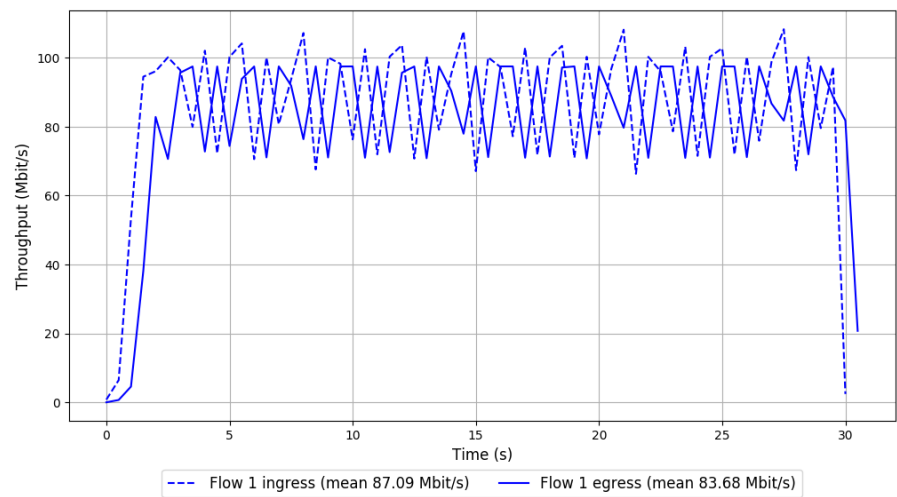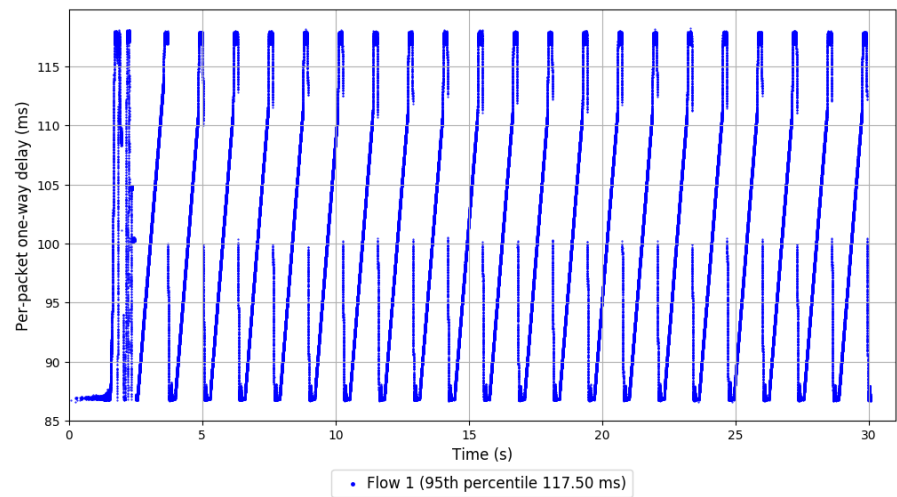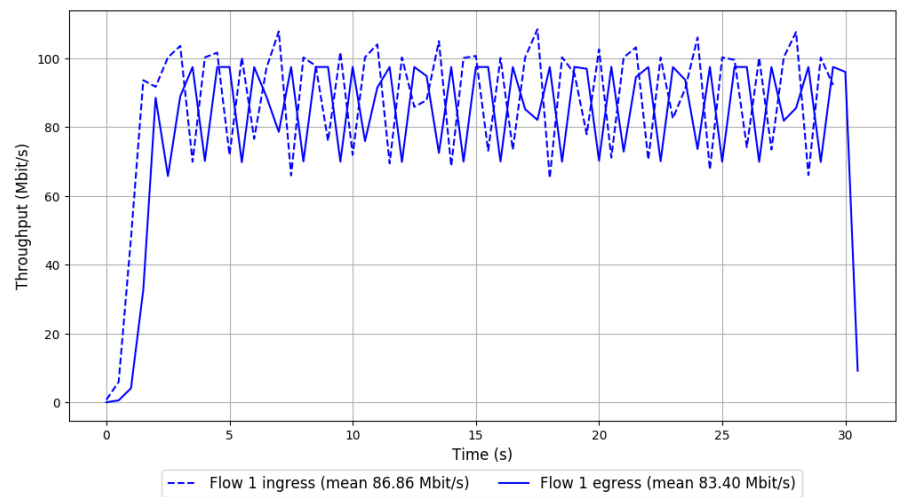
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-06-05 04:42:46
End at: 2018-06-05 04:43:16
Local clock offset: -1.163 ms
Remote clock offset: 11.715 ms

# Below is generated by plot.py at 2018-06-05 07:28:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.68 Mbit/s
95th percentile per-packet one-way delay: 110.904 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 83.68 Mbit/s
95th percentile per-packet one-way delay: 110.904 ms
Loss rate: 3.87%
```
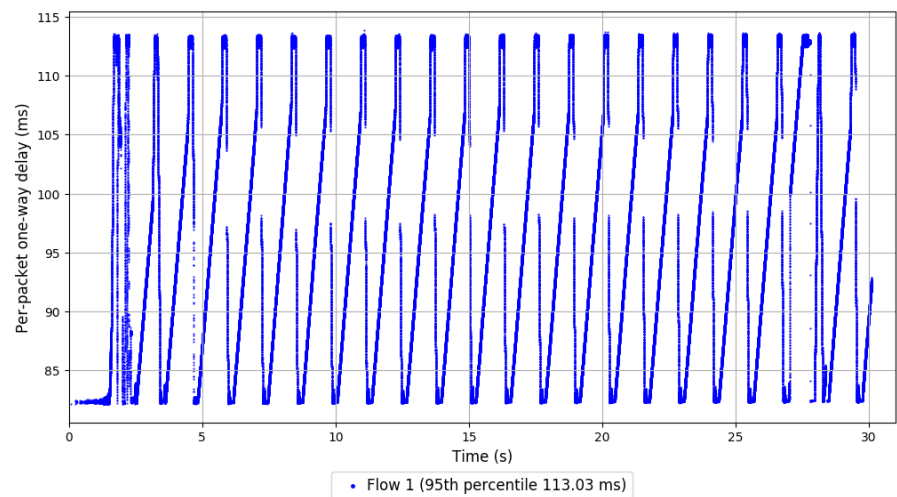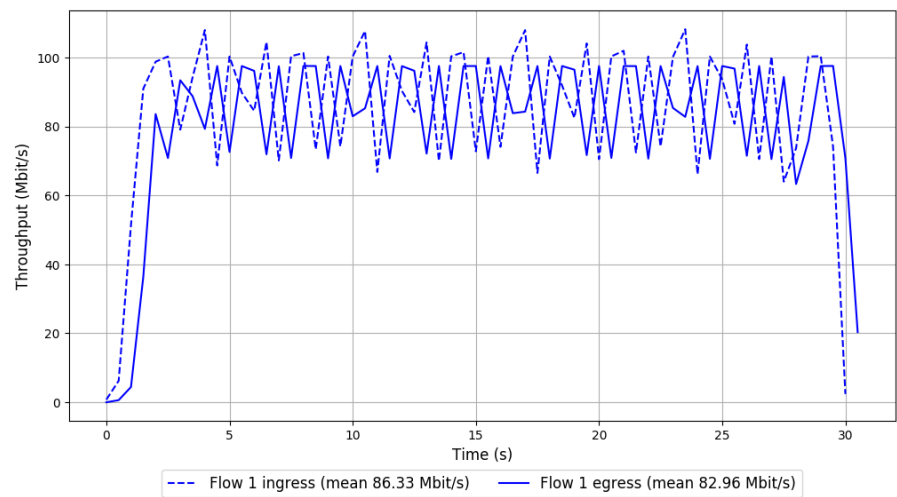
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 87.09 Mbit/s)   Flow 1 egress (mean 83.68 Mbit/s)

Flow 1 (95th percentile 110.90 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-06-05 05:01:30
End at: 2018-06-05 05:02:00
Local clock offset: -2.713 ms
Remote clock offset: 17.742 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.40 Mbit/s
95th percentile per-packet one-way delay: 117.496 ms
Loss rate: 3.99%
-- Flow 1:
Average throughput: 83.40 Mbit/s
95th percentile per-packet one-way delay: 117.496 ms
Loss rate: 3.99%
```

Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.86 Mbit/s) ----   Flow 1 egress (mean 83.40 Mbit/s) ——

Flow 1 (95th percentile 117.50 ms) ·

```
Run 4: Statistics of TCP BBR

Start at: 2018-06-05 05:20:12
End at: 2018-06-05 05:20:42
Local clock offset: -1.889 ms
Remote clock offset: 13.824 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.96 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 3.87%
-- Flow 1:
Average throughput: 82.96 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 3.87%
```
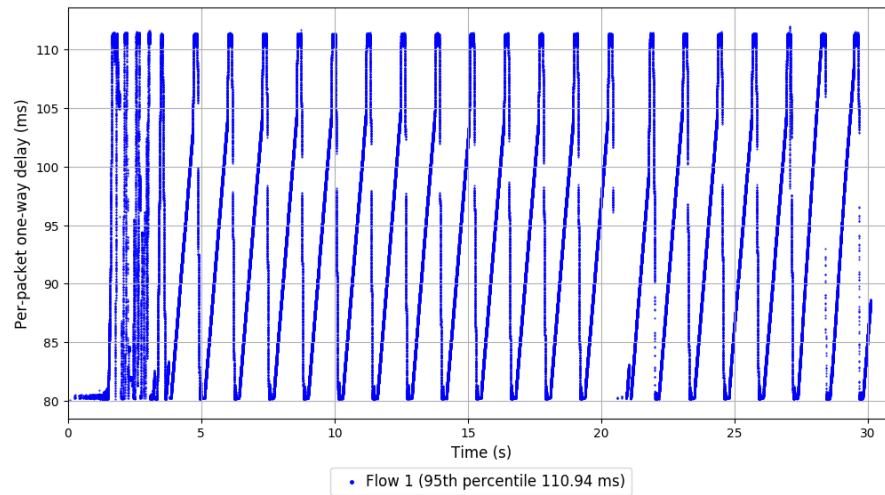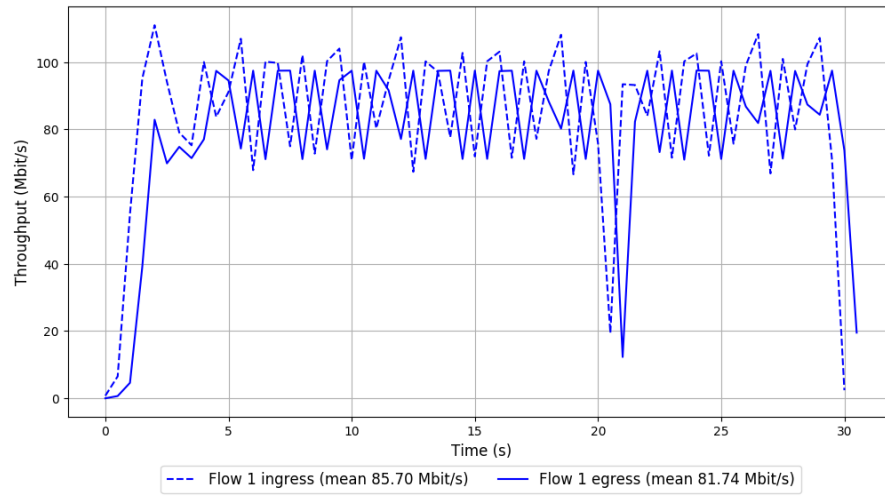
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.33 Mbit/s)   Flow 1 egress (mean 82.96 Mbit/s)

Flow 1 (95th percentile 113.03 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-06-05 05:38:53
End at: 2018-06-05 05:39:23
Local clock offset: -1.556 ms
Remote clock offset: 7.507 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.74 Mbit/s
95th percentile per-packet one-way delay: 110.940 ms
Loss rate: 4.59%
-- Flow 1:
Average throughput: 81.74 Mbit/s
95th percentile per-packet one-way delay: 110.940 ms
Loss rate: 4.59%
```
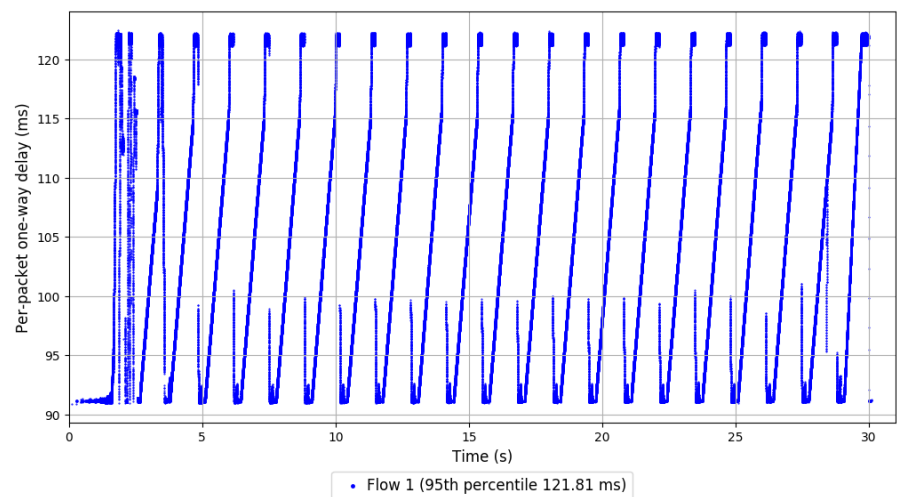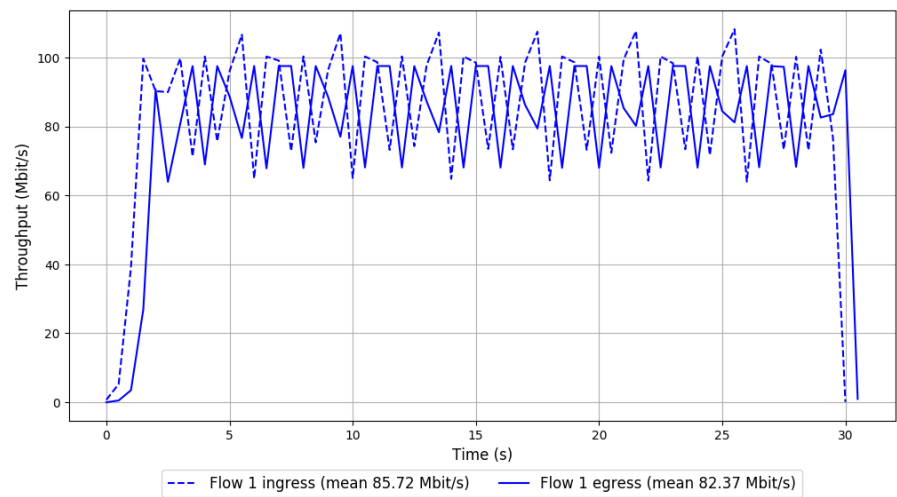
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.70 Mbit/s)   Flow 1 egress (mean 81.74 Mbit/s)

Flow 1 (95th percentile 110.94 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-06-05 05:57:40
End at: 2018-06-05 05:58:10
Local clock offset: -2.257 ms
Remote clock offset: 9.595 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.37 Mbit/s
95th percentile per-packet one-way delay: 121.808 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 82.37 Mbit/s
95th percentile per-packet one-way delay: 121.808 ms
Loss rate: 3.90%
```
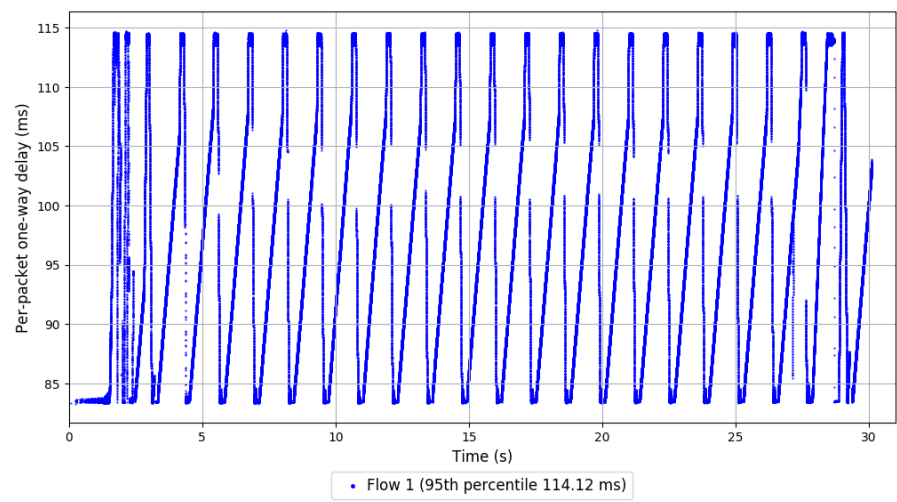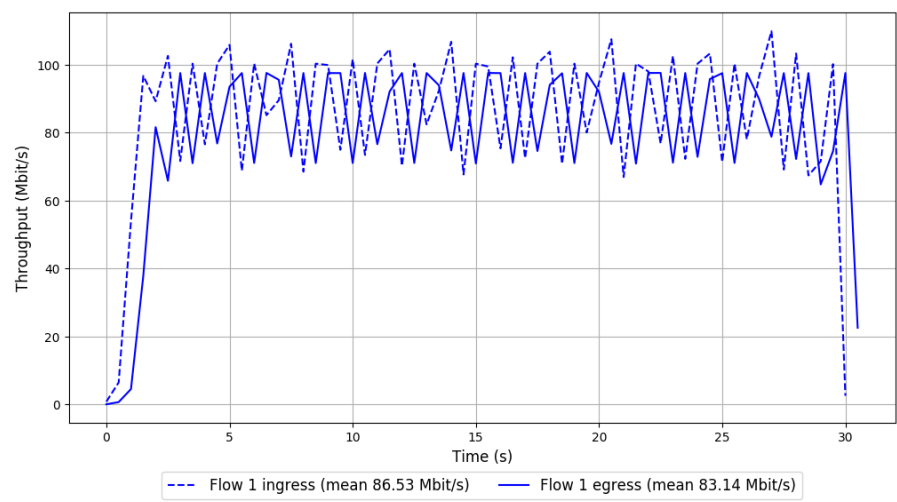
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 85.72 Mbit/s)   Flow 1 egress (mean 82.37 Mbit/s)

Flow 1 (95th percentile 121.81 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-06-05 06:16:24
End at: 2018-06-05 06:16:54
Local clock offset: -2.25 ms
Remote clock offset: 7.358 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.14 Mbit/s
95th percentile per-packet one-way delay: 114.125 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 83.14 Mbit/s
95th percentile per-packet one-way delay: 114.125 ms
Loss rate: 3.86%
```
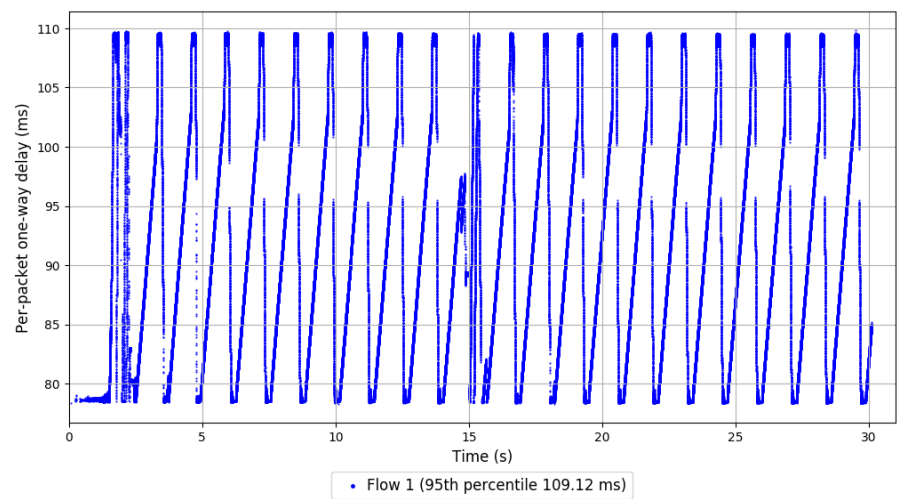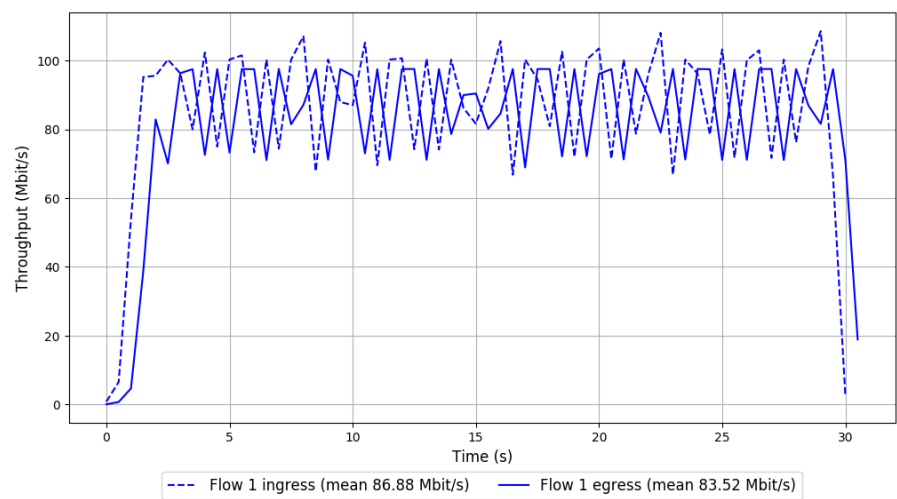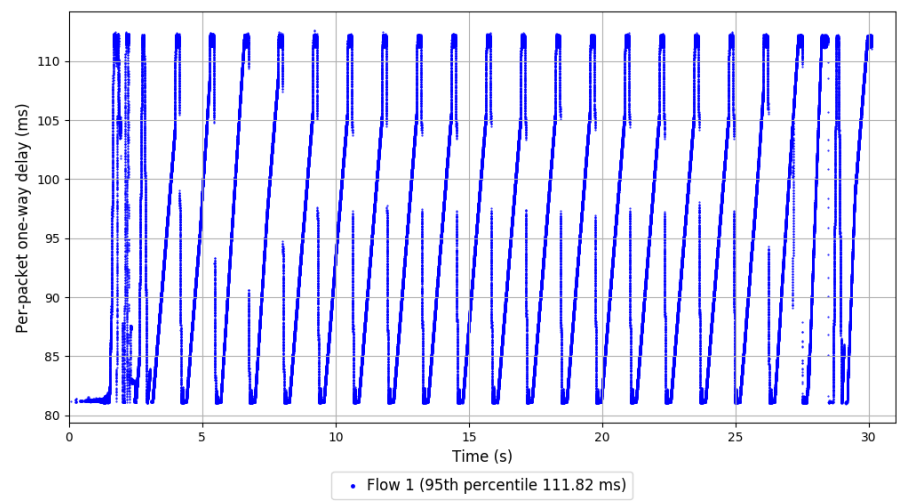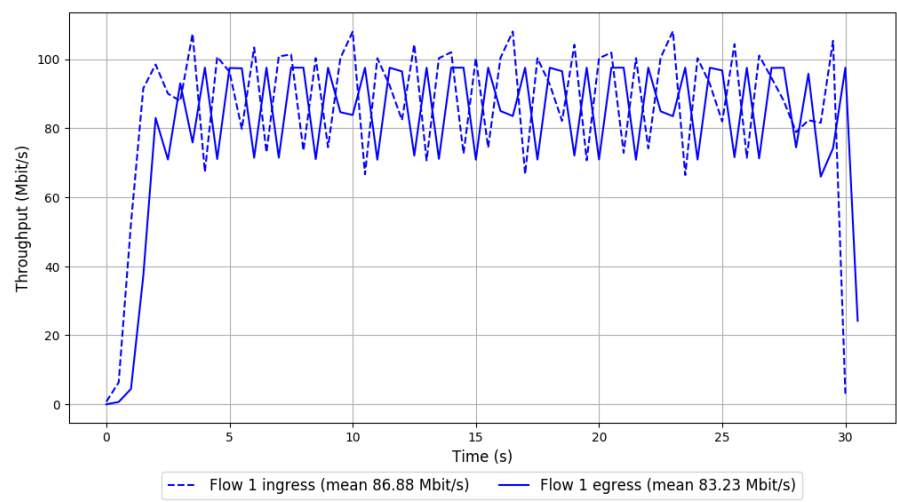
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.53 Mbit/s)   Flow 1 egress (mean 83.14 Mbit/s)

Flow 1 (95th percentile 114.12 ms)

17

```
Run 8: Statistics of TCP BBR

Start at: 2018-06-05 06:35:07
End at: 2018-06-05 06:35:37
Local clock offset: -2.353 ms
Remote clock offset: 8.672 ms


# Below is generated by plot.py at 2018-06-05 07:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.52 Mbit/s
95th percentile per-packet one-way delay: 109.118 ms
Loss rate: 3.85%
-- Flow 1:
Average throughput: 83.52 Mbit/s
95th percentile per-packet one-way delay: 109.118 ms
Loss rate: 3.85%
```
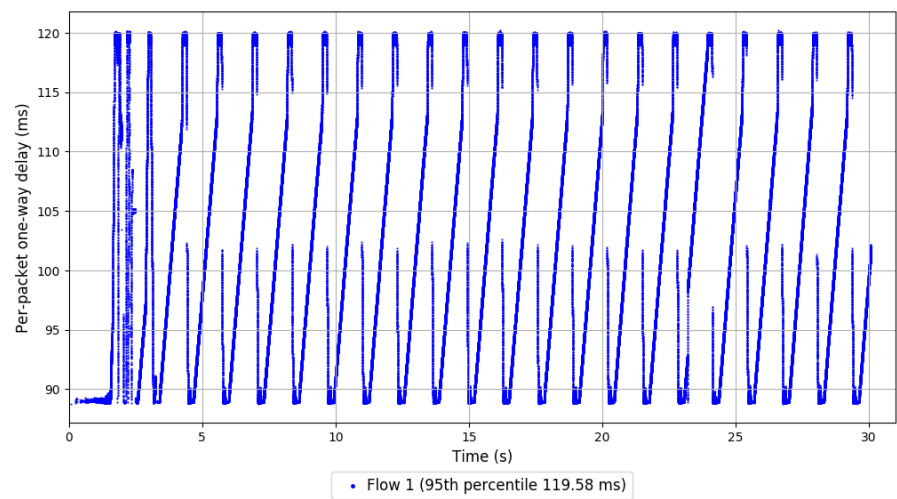
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.88 Mbit/s)   Flow 1 egress (mean 83.52 Mbit/s)

Flow 1 (95th percentile 109.12 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-06-05 06:53:49
End at: 2018-06-05 06:54:19
Local clock offset: -3.289 ms
Remote clock offset: 10.892 ms


# Below is generated by plot.py at 2018-06-05 07:29:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.23 Mbit/s
95th percentile per-packet one-way delay: 111.823 ms
Loss rate: 4.10%
-- Flow 1:
Average throughput: 83.23 Mbit/s
95th percentile per-packet one-way delay: 111.823 ms
Loss rate: 4.10%
```
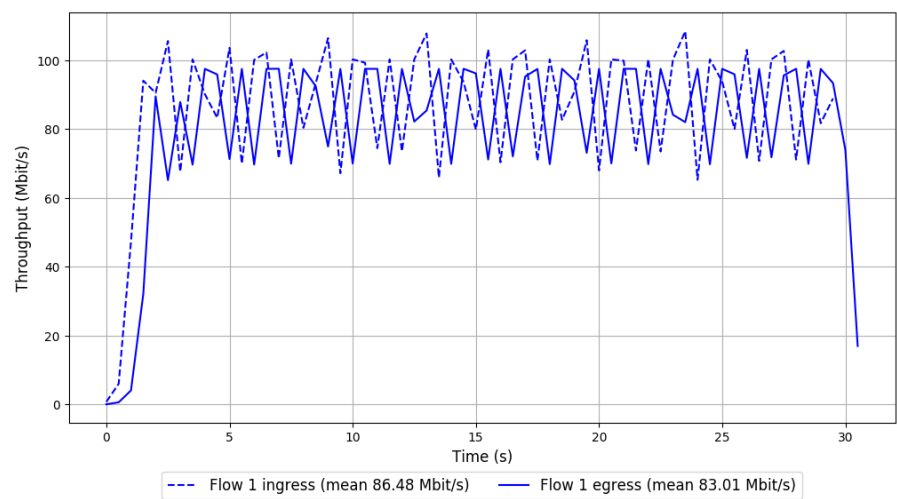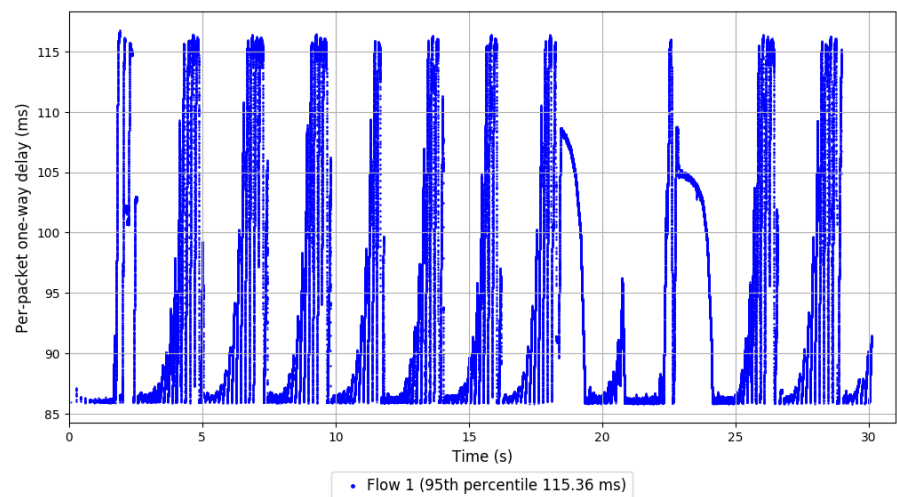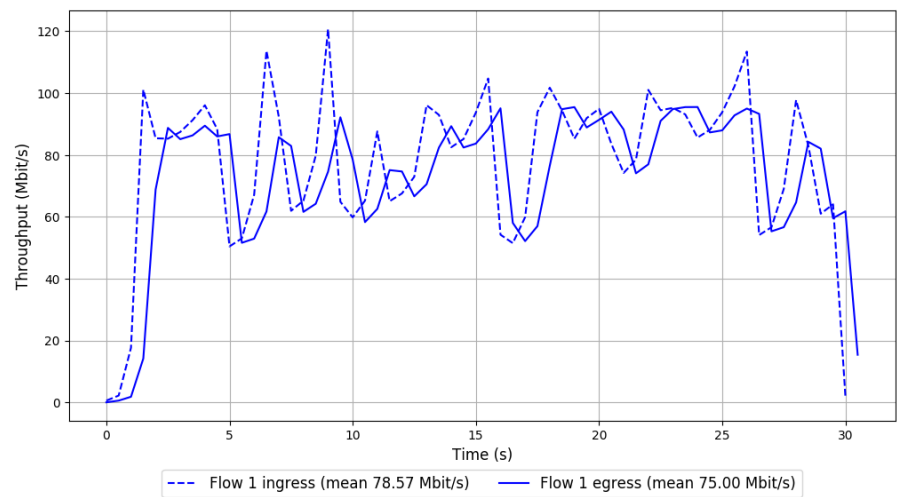
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.88 Mbit/s) ---- Flow 1 egress (mean 83.23 Mbit/s)

• Flow 1 (95th percentile 111.82 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-06-05 07:12:30
End at: 2018-06-05 07:13:00
Local clock offset: -5.716 ms
Remote clock offset: 9.115 ms

# Below is generated by plot.py at 2018-06-05 07:29:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.01 Mbit/s
95th percentile per-packet one-way delay: 119.581 ms
Loss rate: 3.97%
-- Flow 1:
Average throughput: 83.01 Mbit/s
95th percentile per-packet one-way delay: 119.581 ms
Loss rate: 3.97%
```
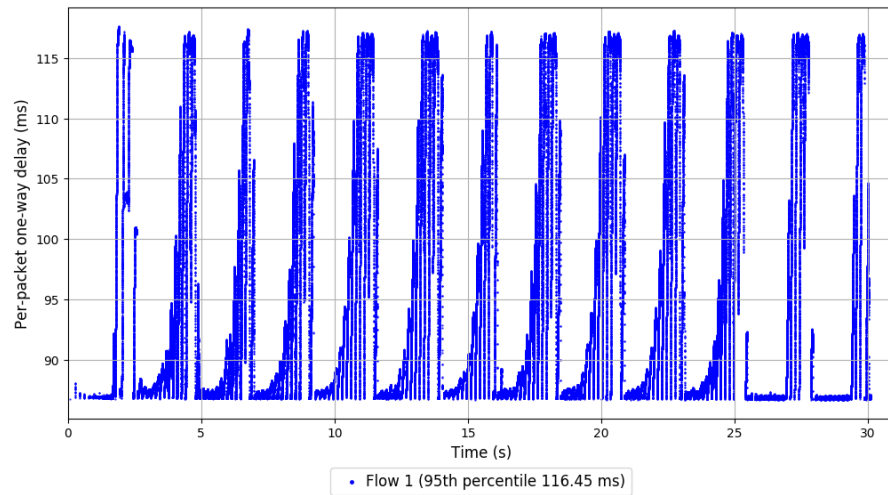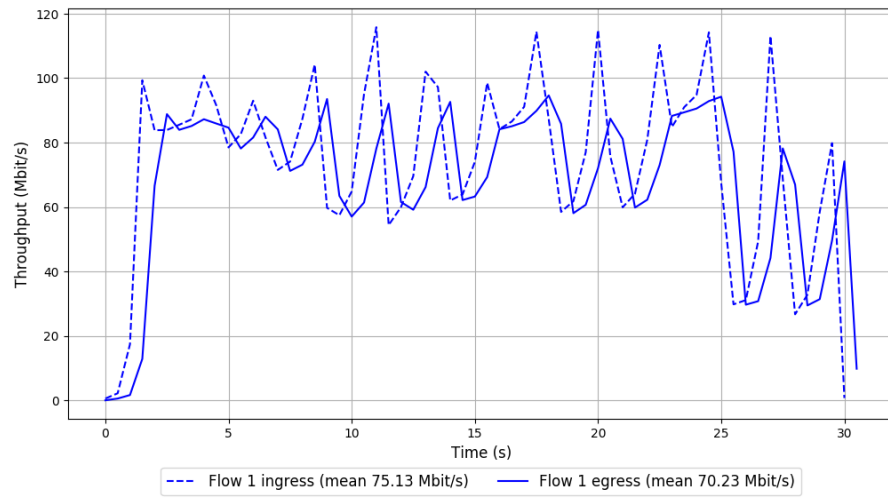
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.48 Mbit/s) —— Flow 1 egress (mean 83.01 Mbit/s)

Flow 1 (95th percentile 119.58 ms)

```
Run 1: Statistics of Copa

Start at: 2018-06-05 04:21:44
End at: 2018-06-05 04:22:14
Local clock offset: -1.91 ms
Remote clock offset: 14.352 ms

# Below is generated by plot.py at 2018-06-05 07:29:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.00 Mbit/s
95th percentile per-packet one-way delay: 115.356 ms
Loss rate: 4.53%
-- Flow 1:
Average throughput: 75.00 Mbit/s
95th percentile per-packet one-way delay: 115.356 ms
Loss rate: 4.53%
```

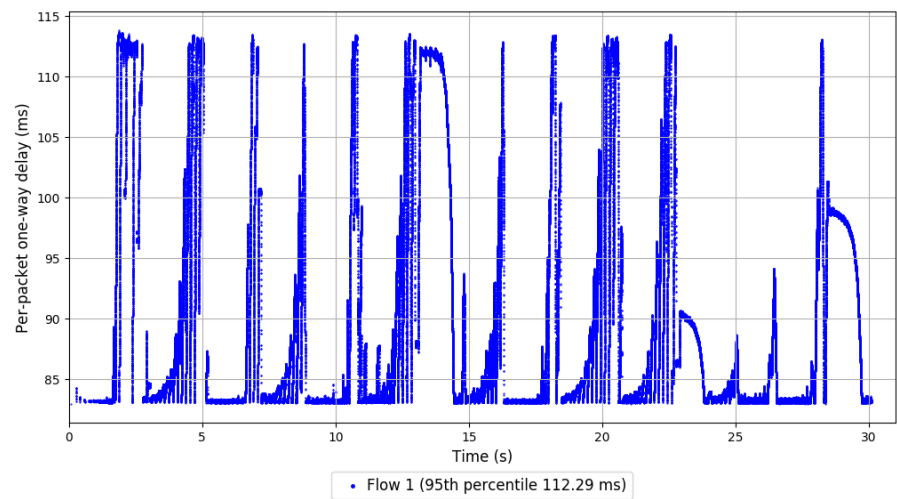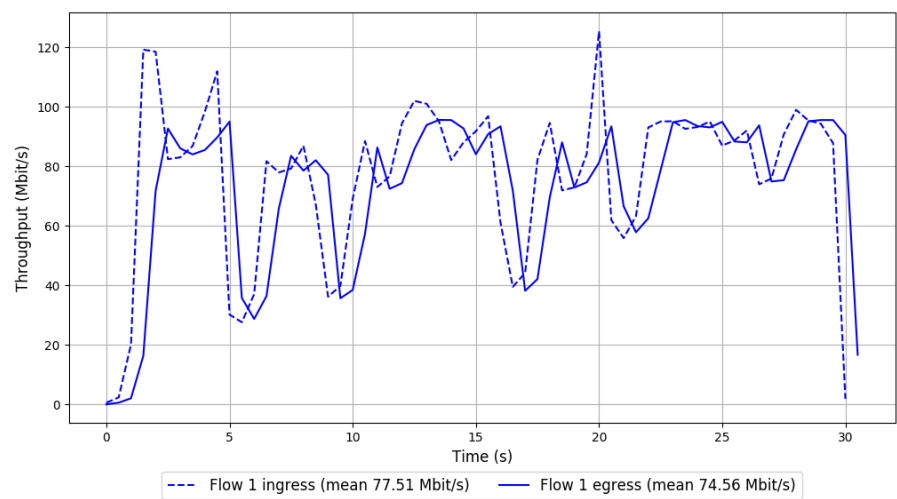Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-06-05 04:40:23
End at: 2018-06-05 04:40:53
Local clock offset: -2.707 ms
Remote clock offset: 16.28 ms


# Below is generated by plot.py at 2018-06-05 07:29:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 116.453 ms
Loss rate: 6.52%
-- Flow 1:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 116.453 ms
Loss rate: 6.52%
```
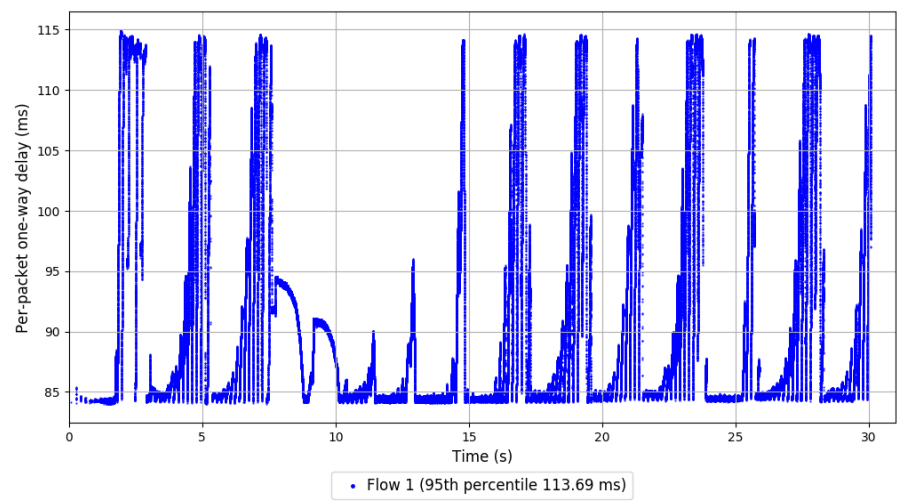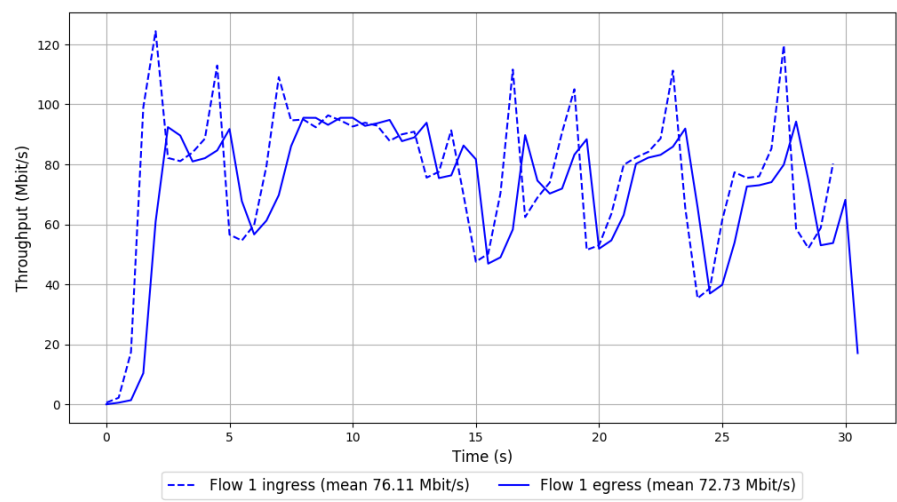
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-06-05 04:59:07
End at: 2018-06-05 04:59:37
Local clock offset: -1.945 ms
Remote clock offset: 17.441 ms


# Below is generated by plot.py at 2018-06-05 07:29:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 112.293 ms
Loss rate: 3.80%
-- Flow 1:
Average throughput: 74.56 Mbit/s
95th percentile per-packet one-way delay: 112.293 ms
Loss rate: 3.80%
```

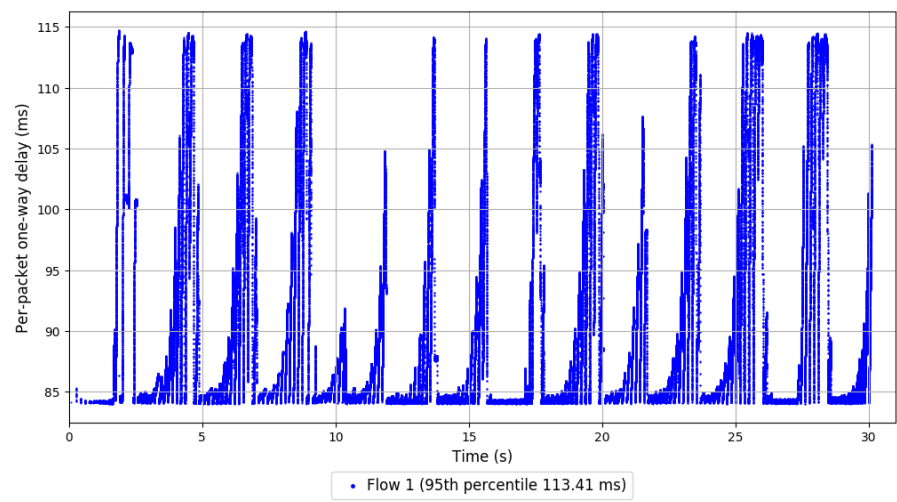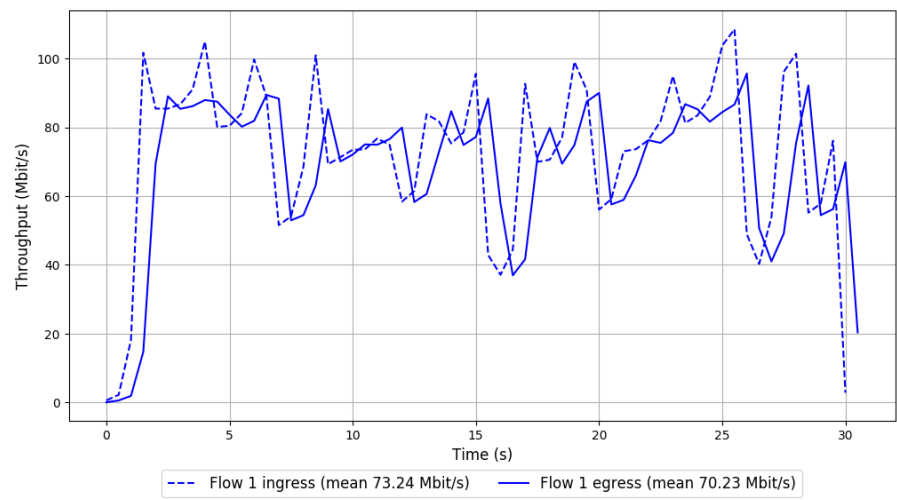Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-06-05 05:17:49
End at: 2018-06-05 05:18:19
Local clock offset: -1.12 ms
Remote clock offset: 12.147 ms


# Below is generated by plot.py at 2018-06-05 07:29:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 113.694 ms
Loss rate: 4.40%
-- Flow 1:
Average throughput: 72.73 Mbit/s
95th percentile per-packet one-way delay: 113.694 ms
Loss rate: 4.40%
```
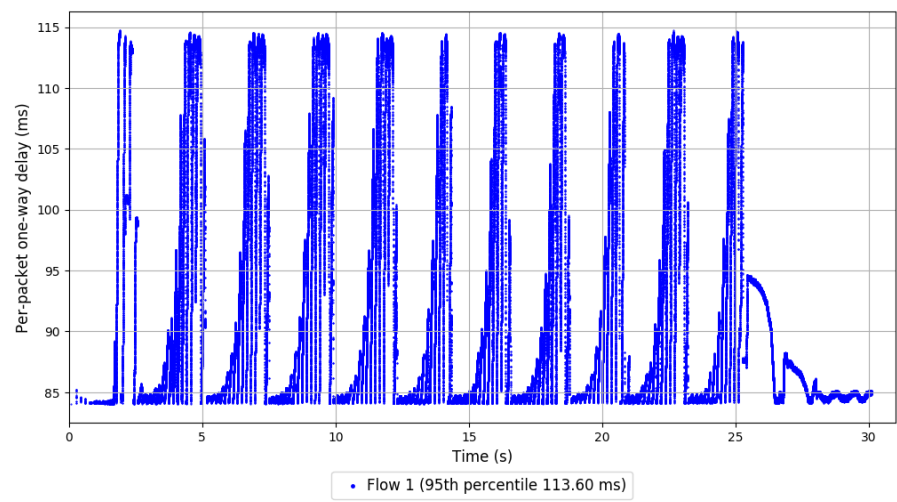
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 76.11 Mbit/s)　　Flow 1 egress (mean 72.73 Mbit/s)

Flow 1 (95th percentile 113.69 ms)

```
Run 5: Statistics of Copa

Start at: 2018-06-05 05:36:30
End at: 2018-06-05 05:37:00
Local clock offset: -1.416 ms
Remote clock offset: 11.626 ms


# Below is generated by plot.py at 2018-06-05 07:29:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 113.411 ms
Loss rate: 4.04%
-- Flow 1:
Average throughput: 70.23 Mbit/s
95th percentile per-packet one-way delay: 113.411 ms
Loss rate: 4.04%
```
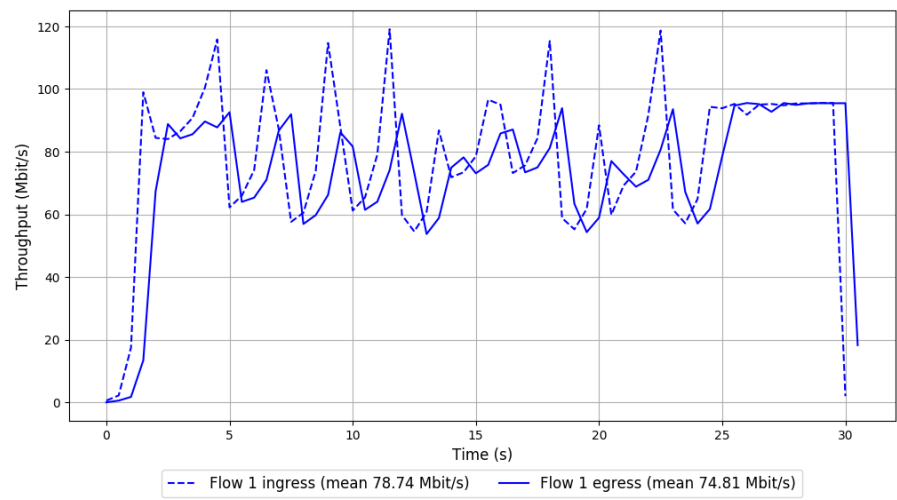
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-06-05 05:55:15
End at: 2018-06-05 05:55:45
Local clock offset: -2.215 ms
Remote clock offset: 8.876 ms


# Below is generated by plot.py at 2018-06-05 07:29:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.81 Mbit/s
95th percentile per-packet one-way delay: 113.597 ms
Loss rate: 4.99%
-- Flow 1:
Average throughput: 74.81 Mbit/s
95th percentile per-packet one-way delay: 113.597 ms
Loss rate: 4.99%
```
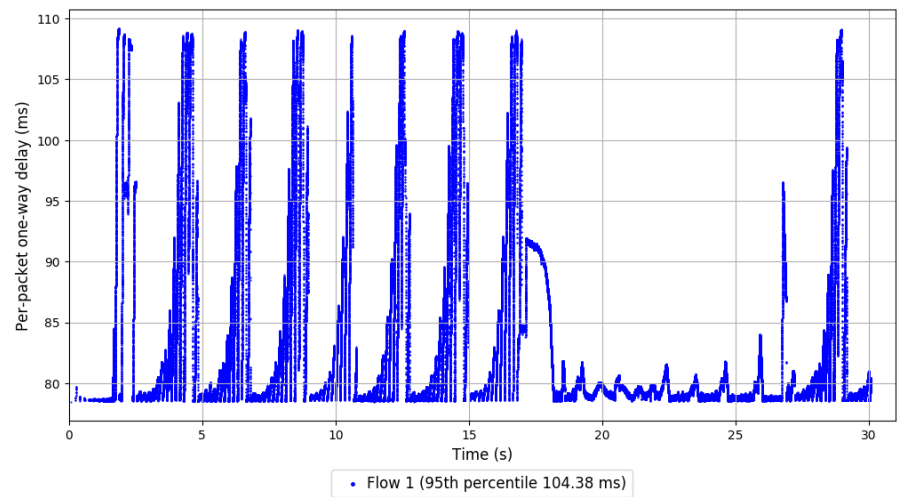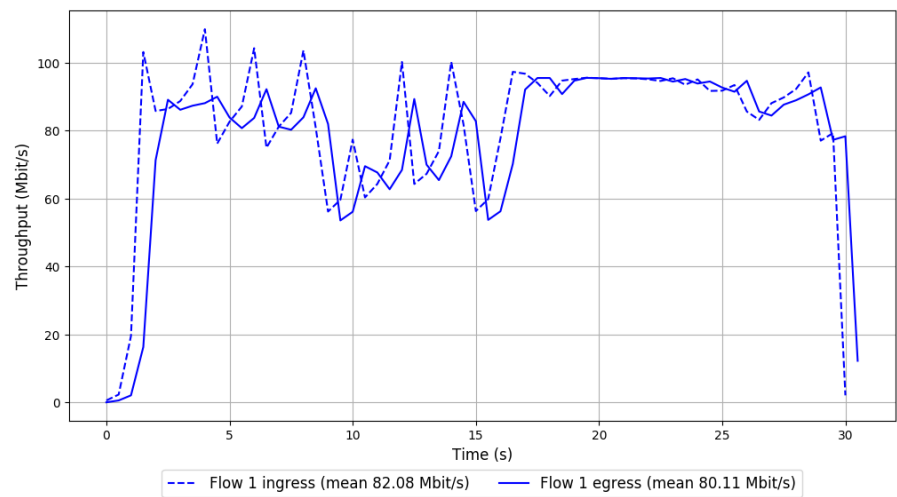
Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 78.74 Mbit/s) —— Flow 1 egress (mean 74.81 Mbit/s)

• Flow 1 (95th percentile 113.60 ms)

```
Run 7: Statistics of Copa

Start at: 2018-06-05 06:14:01
End at: 2018-06-05 06:14:31
Local clock offset: -2.257 ms
Remote clock offset: 2.583 ms


# Below is generated by plot.py at 2018-06-05 07:31:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 104.383 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 104.383 ms
Loss rate: 2.40%
```
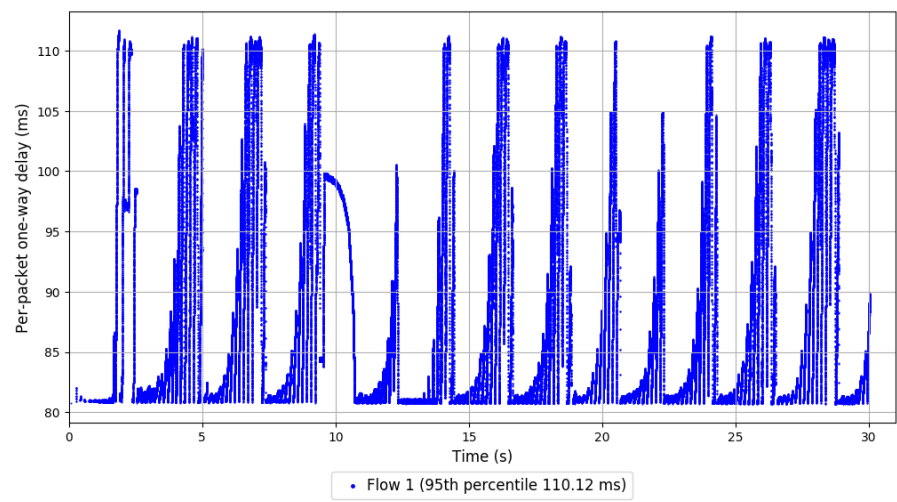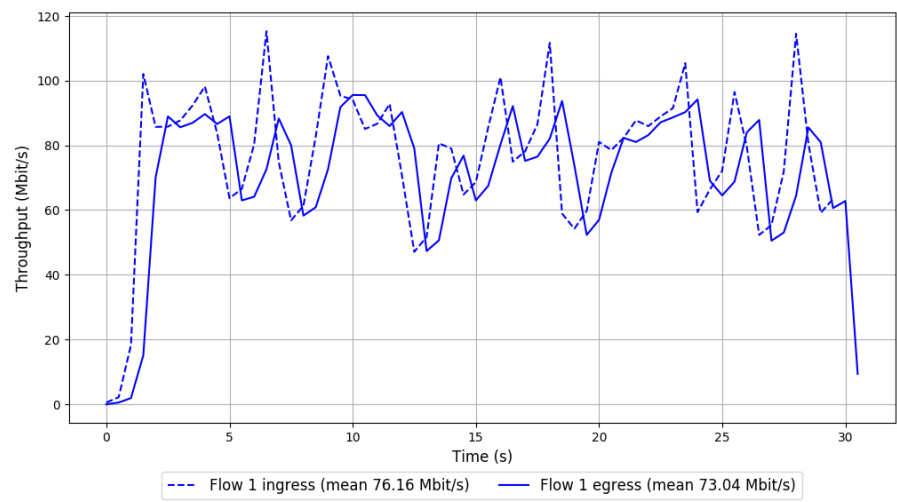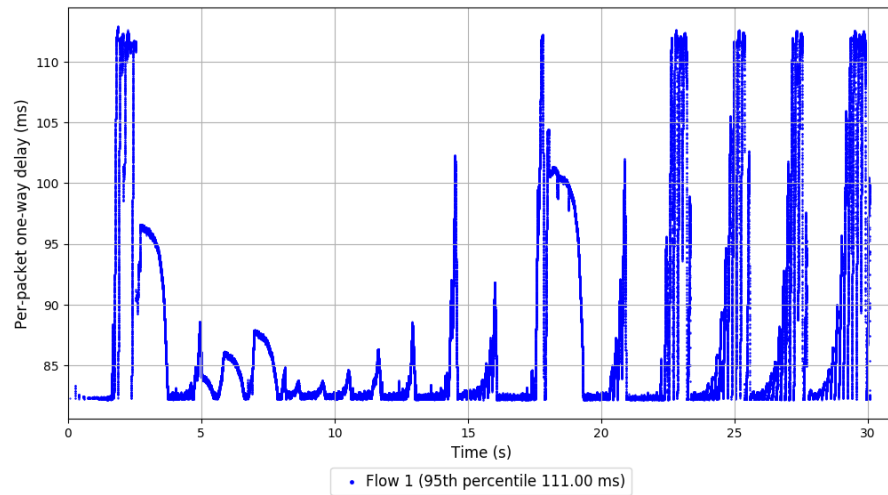
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 82.08 Mbit/s) --- Flow 1 egress (mean 80.11 Mbit/s)
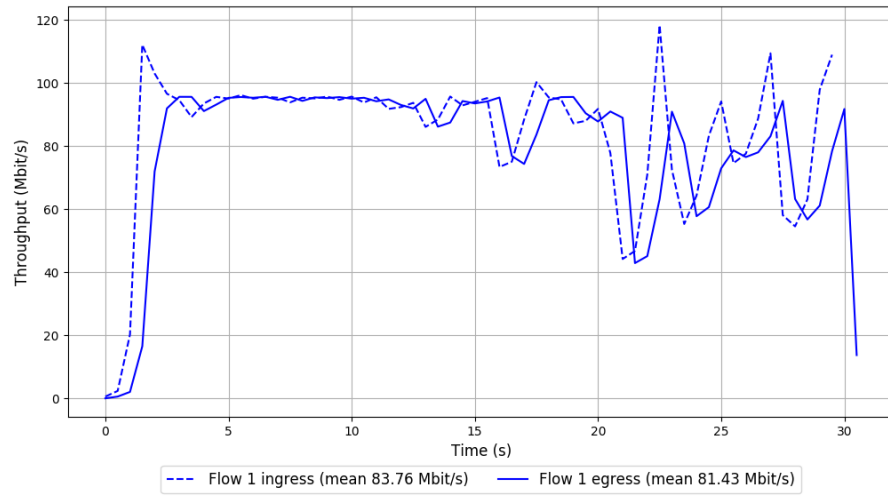

Flow 1 (95th percentile 104.38 ms)

```
Run 8: Statistics of Copa

Start at: 2018-06-05 06:32:44
End at: 2018-06-05 06:33:14
Local clock offset: -3.086 ms
Remote clock offset: 8.11 ms


# Below is generated by plot.py at 2018-06-05 07:31:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.04 Mbit/s
95th percentile per-packet one-way delay: 110.124 ms
Loss rate: 4.07%
-- Flow 1:
Average throughput: 73.04 Mbit/s
95th percentile per-packet one-way delay: 110.124 ms
Loss rate: 4.07%
```
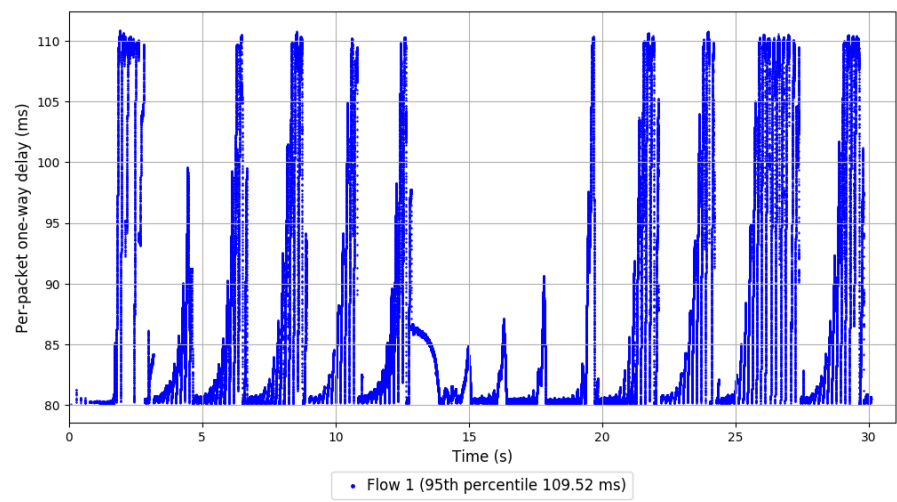
Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 76.16 Mbit/s)   Flow 1 egress (mean 73.04 Mbit/s)

Flow 1 (95th percentile 110.12 ms)

```
Run 9: Statistics of Copa

Start at: 2018-06-05 06:51:25
End at: 2018-06-05 06:51:55
Local clock offset: -2.493 ms
Remote clock offset: 14.641 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 111.002 ms
Loss rate: 2.78%
-- Flow 1:
Average throughput: 81.43 Mbit/s
95th percentile per-packet one-way delay: 111.002 ms
Loss rate: 2.78%
```
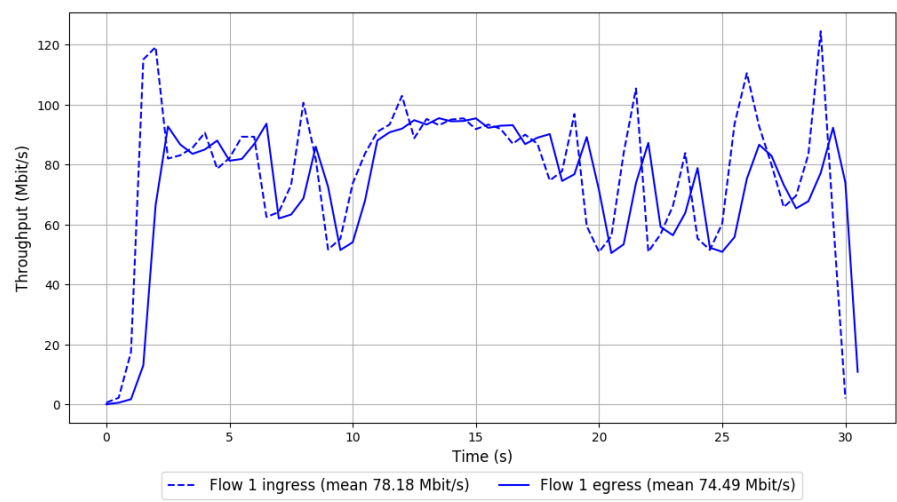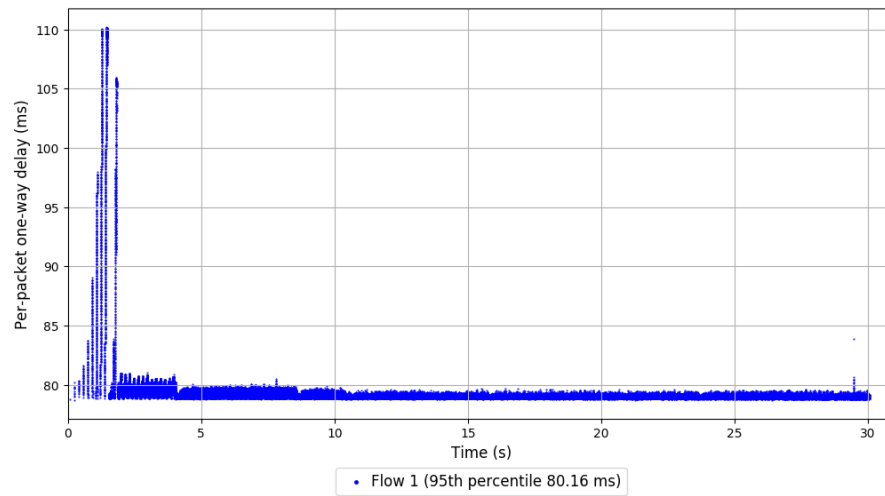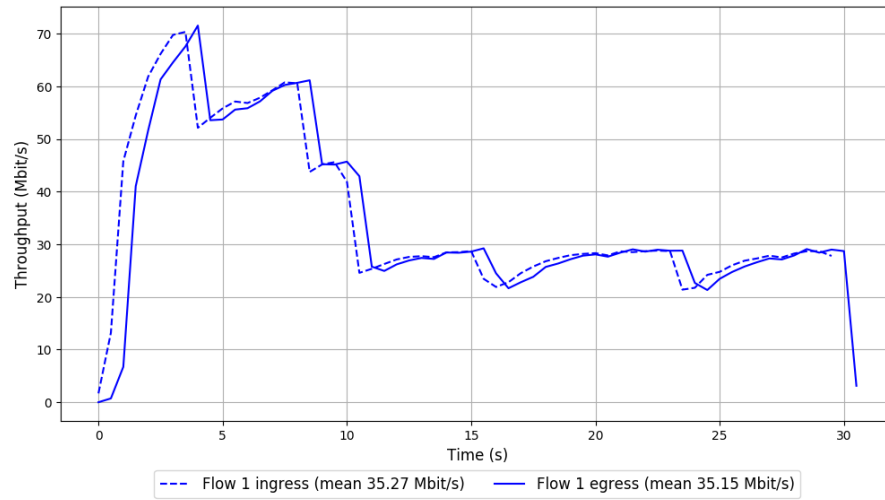
Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 83.76 Mbit/s) --- Flow 1 egress (mean 81.43 Mbit/s)

Flow 1 (95th percentile 111.00 ms)

```
Run 10: Statistics of Copa

Start at: 2018-06-05 07:10:05
End at: 2018-06-05 07:10:36
Local clock offset: -4.421 ms
Remote clock offset: 5.562 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.49 Mbit/s
95th percentile per-packet one-way delay: 109.515 ms
Loss rate: 4.72%
-- Flow 1:
Average throughput: 74.49 Mbit/s
95th percentile per-packet one-way delay: 109.515 ms
Loss rate: 4.72%
```
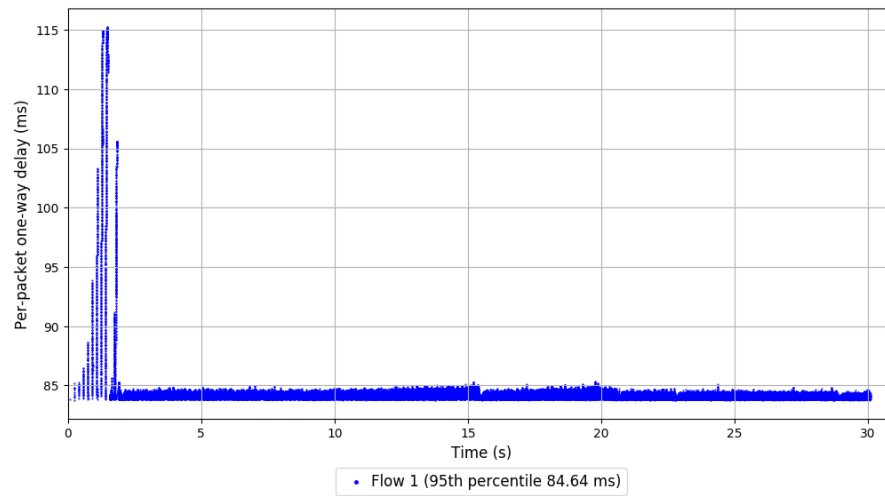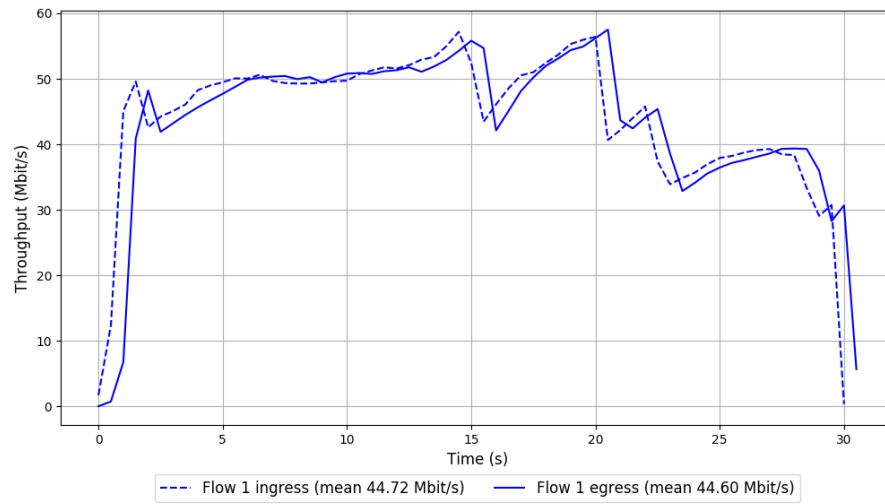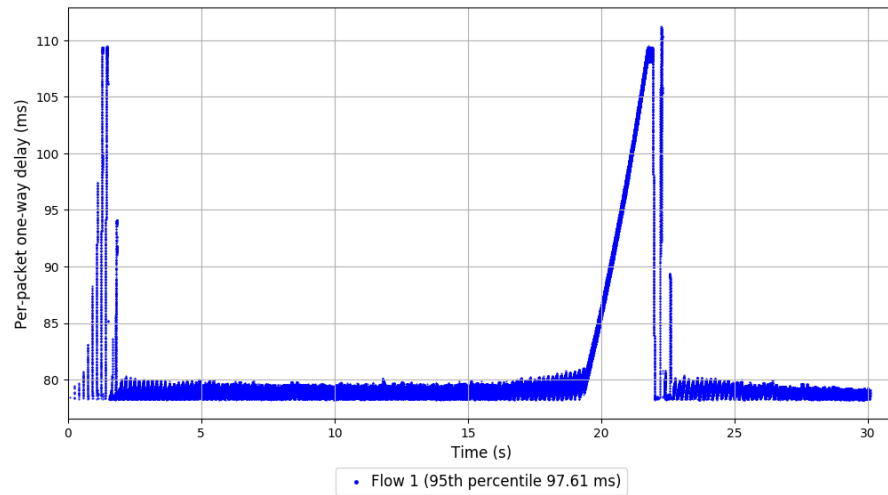
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of TCP Cubic

Start at: 2018-06-05 04:19:21
End at: 2018-06-05 04:19:51
Local clock offset: -1.168 ms
Remote clock offset: 8.835 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 80.158 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 35.15 Mbit/s
95th percentile per-packet one-way delay: 80.158 ms
Loss rate: 0.36%
```
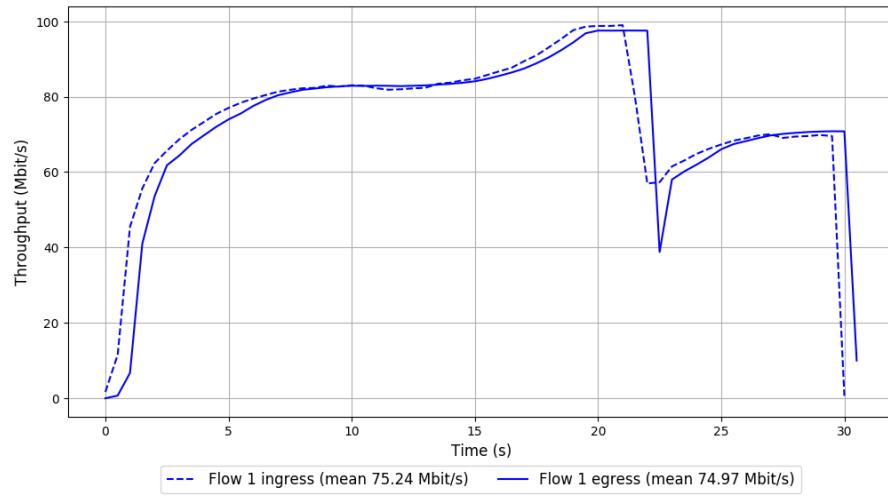
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-06-05 04:38:01
End at: 2018-06-05 04:38:31
Local clock offset: -2.702 ms
Remote clock offset: 14.874 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.60 Mbit/s
95th percentile per-packet one-way delay: 84.636 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 44.60 Mbit/s
95th percentile per-packet one-way delay: 84.636 ms
Loss rate: 0.28%
```
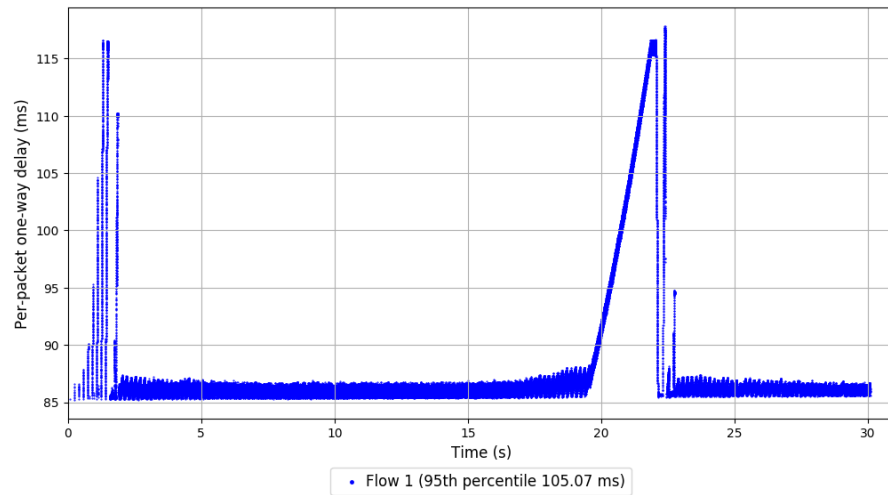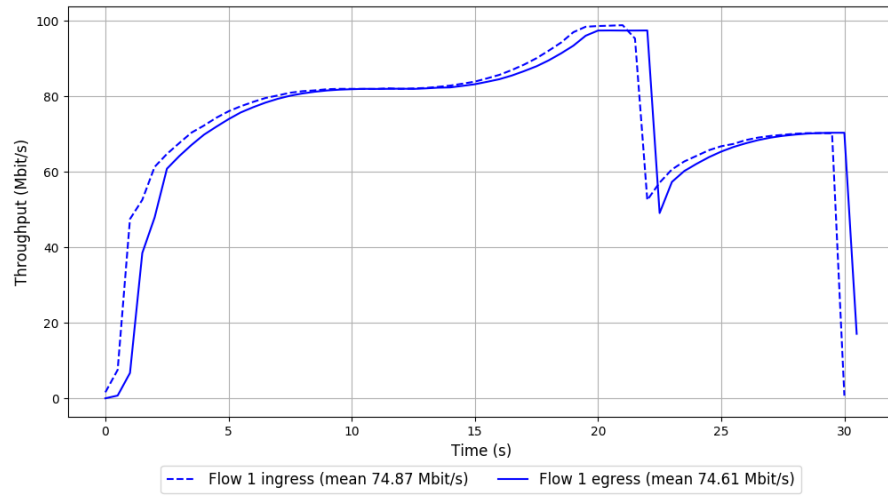
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 44.72 Mbit/s) ----   Flow 1 egress (mean 44.60 Mbit/s) ——

• Flow 1 (95th percentile 84.64 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-06-05 04:56:43
End at: 2018-06-05 04:57:13
Local clock offset: -1.177 ms
Remote clock offset: 13.213 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.97 Mbit/s
95th percentile per-packet one-way delay: 97.605 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 74.97 Mbit/s
95th percentile per-packet one-way delay: 97.605 ms
Loss rate: 0.35%
```
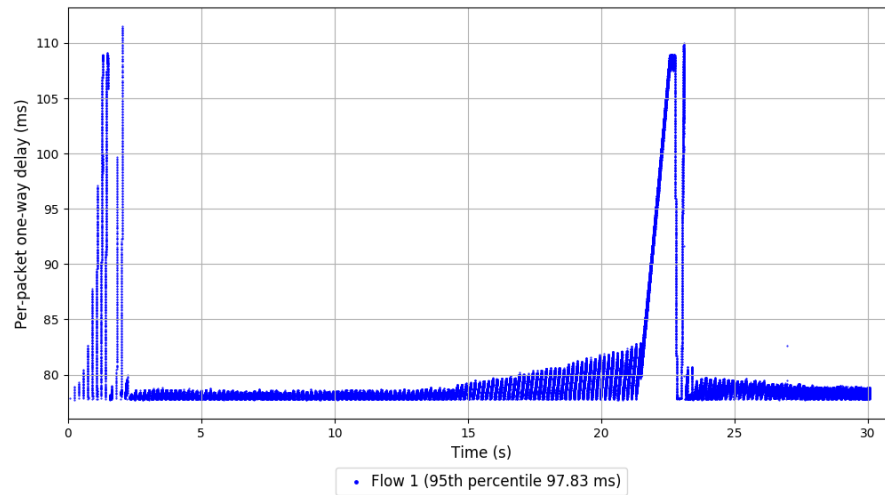
Run 3: Report of TCP Cubic — Data Link

```
Run 4: Statistics of TCP Cubic

Start at: 2018-06-05 05:15:25
End at: 2018-06-05 05:15:55
Local clock offset: -1.133 ms
Remote clock offset: 18.546 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.61 Mbit/s
95th percentile per-packet one-way delay: 105.068 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 74.61 Mbit/s
95th percentile per-packet one-way delay: 105.068 ms
Loss rate: 0.34%
```
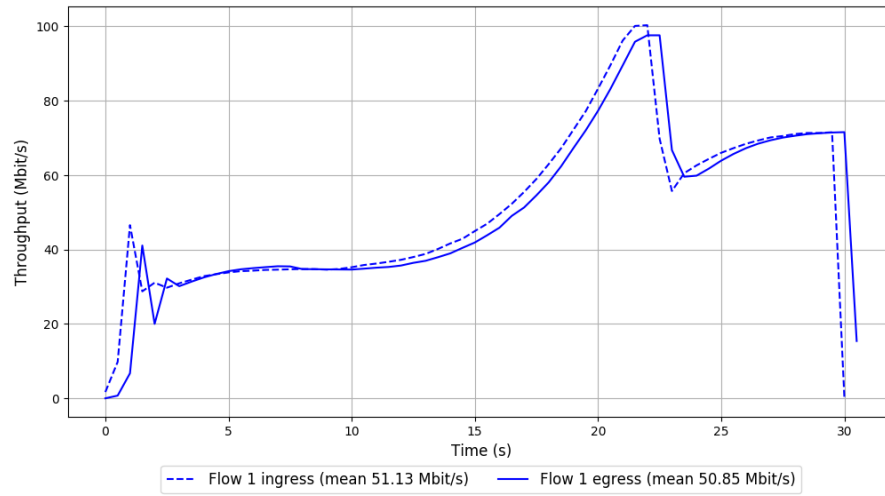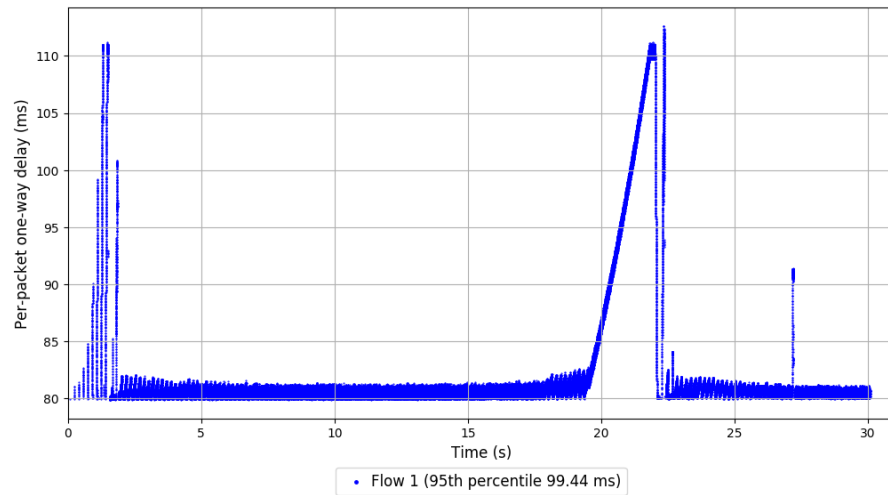
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 74.87 Mbit/s)   Flow 1 egress (mean 74.61 Mbit/s)

Flow 1 (95th percentile 105.07 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-06-05 05:34:06
End at: 2018-06-05 05:34:36
Local clock offset: -1.177 ms
Remote clock offset: 7.011 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.85 Mbit/s
95th percentile per-packet one-way delay: 97.830 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 50.85 Mbit/s
95th percentile per-packet one-way delay: 97.830 ms
Loss rate: 0.56%
```
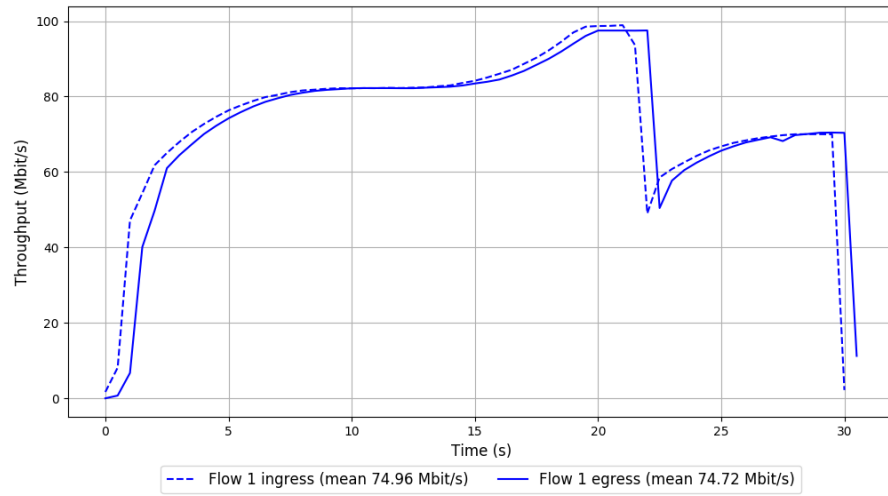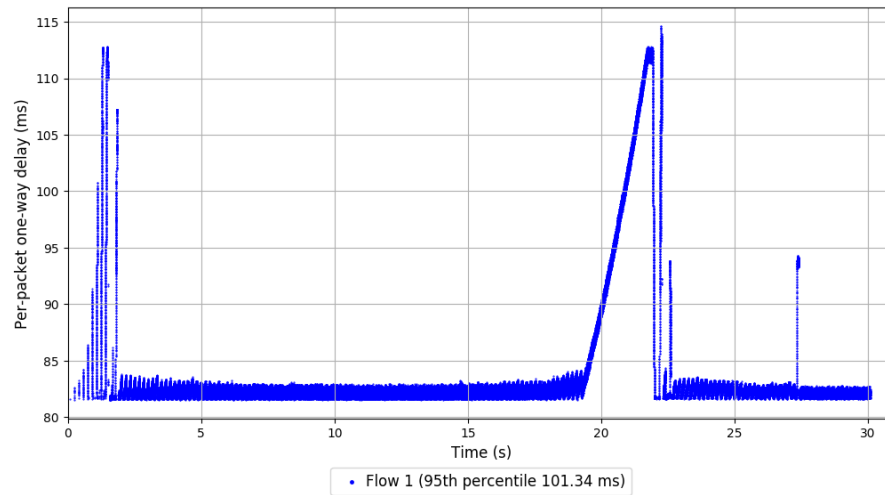
Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2018-06-05 05:52:51
End at: 2018-06-05 05:53:21
Local clock offset: -2.979 ms
Remote clock offset: 4.378 ms


# Below is generated by plot.py at 2018-06-05 07:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 99.443 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 74.72 Mbit/s
95th percentile per-packet one-way delay: 99.443 ms
Loss rate: 0.32%
```

Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-06-05 06:11:37
End at: 2018-06-05 06:12:07
Local clock offset: -3.103 ms
Remote clock offset: 2.778 ms


# Below is generated by plot.py at 2018-06-05 07:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.02 Mbit/s
95th percentile per-packet one-way delay: 101.343 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 75.02 Mbit/s
95th percentile per-packet one-way delay: 101.343 ms
Loss rate: 0.36%
```
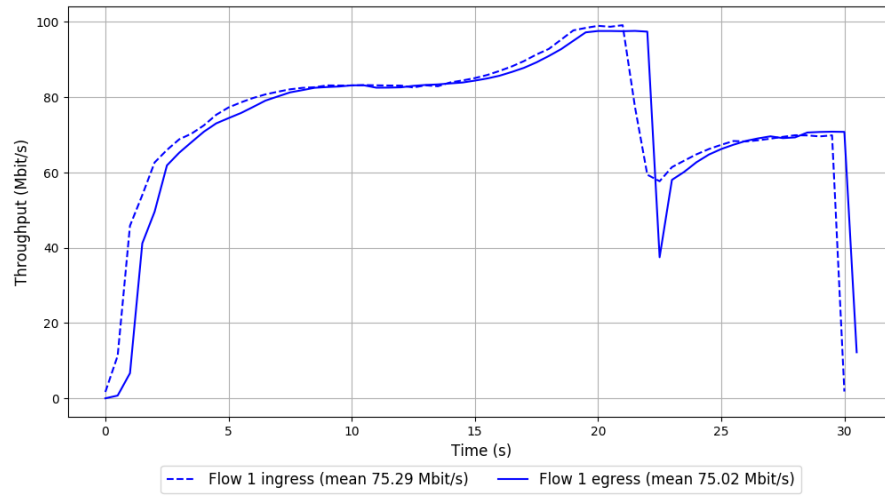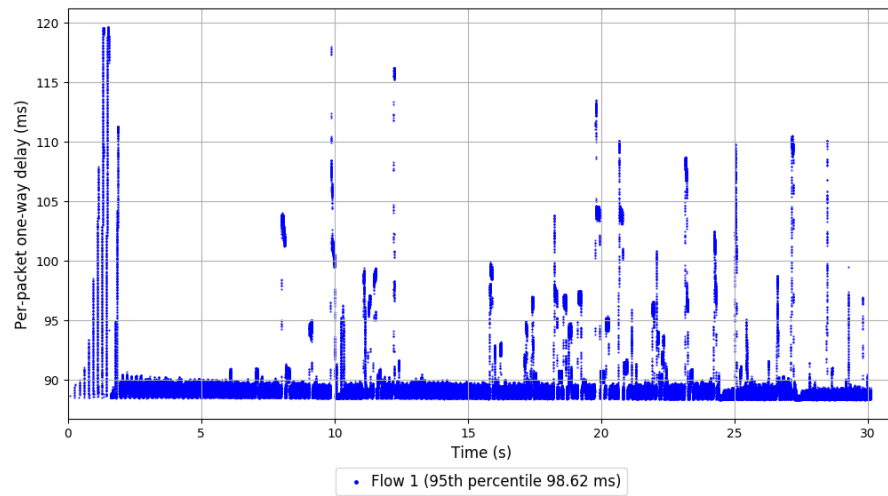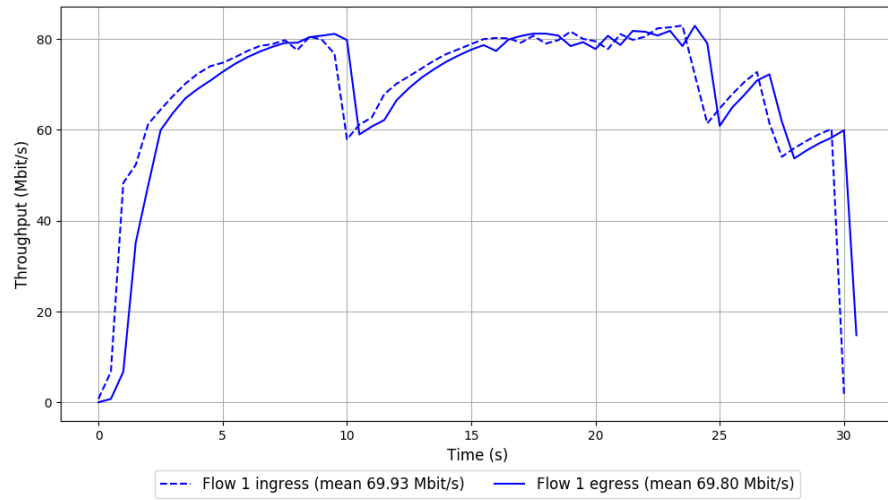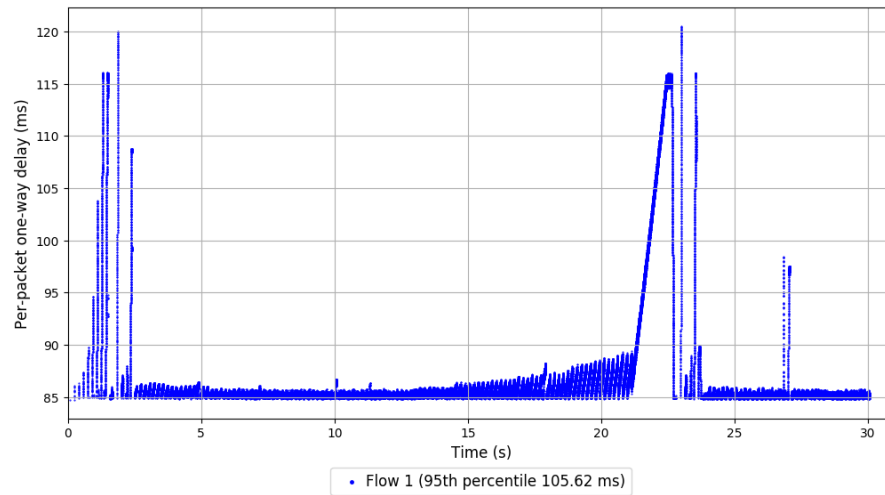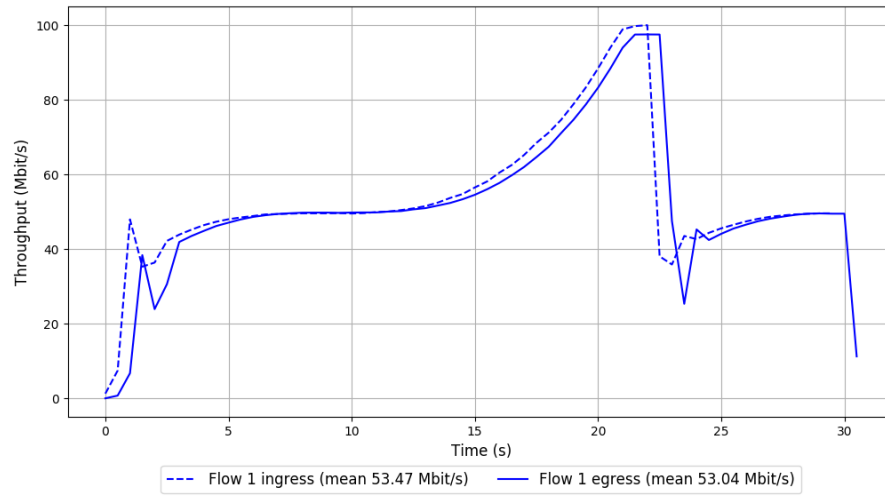
Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-06-05 06:30:22
End at: 2018-06-05 06:30:52
Local clock offset: -3.926 ms
Remote clock offset: 10.131 ms


# Below is generated by plot.py at 2018-06-05 07:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.80 Mbit/s
95th percentile per-packet one-way delay: 98.618 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 69.80 Mbit/s
95th percentile per-packet one-way delay: 98.618 ms
Loss rate: 0.19%
```

Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 69.93 Mbit/s) --- Flow 1 egress (mean 69.80 Mbit/s)

Flow 1 (95th percentile 98.62 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-06-05 06:49:02
End at: 2018-06-05 06:49:32
Local clock offset: -3.241 ms
Remote clock offset: 14.495 ms


# Below is generated by plot.py at 2018-06-05 07:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 105.617 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 105.617 ms
Loss rate: 0.80%
```
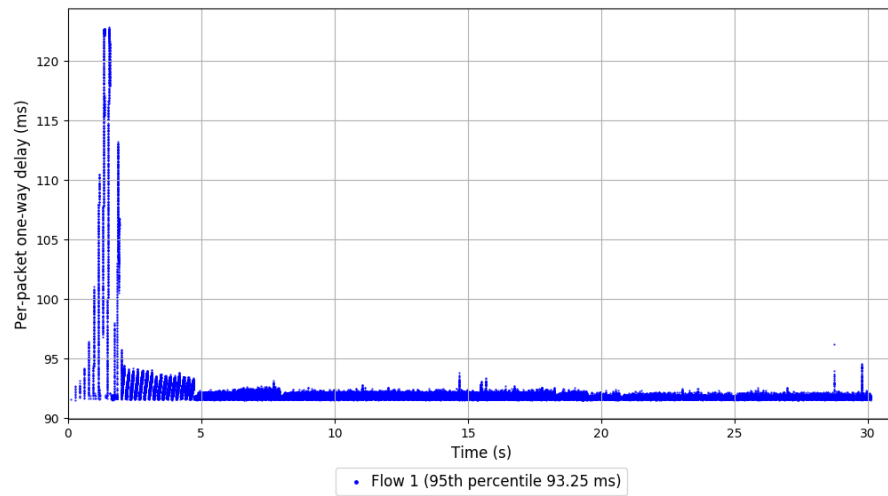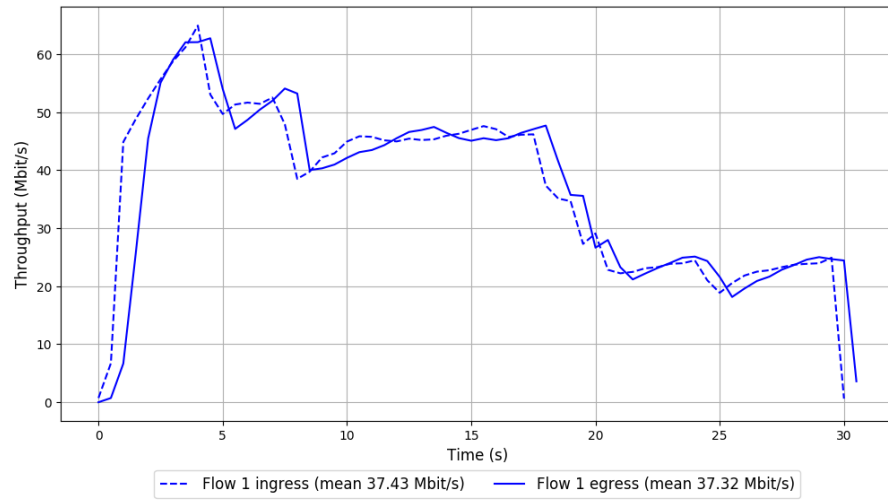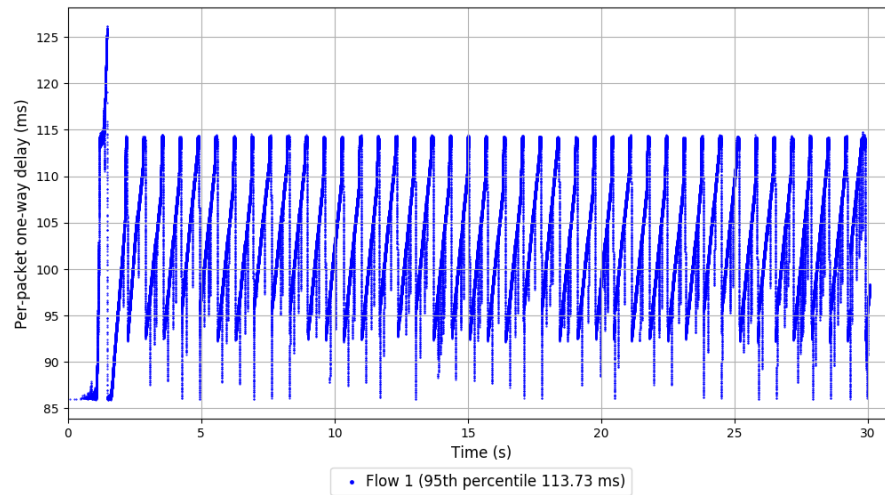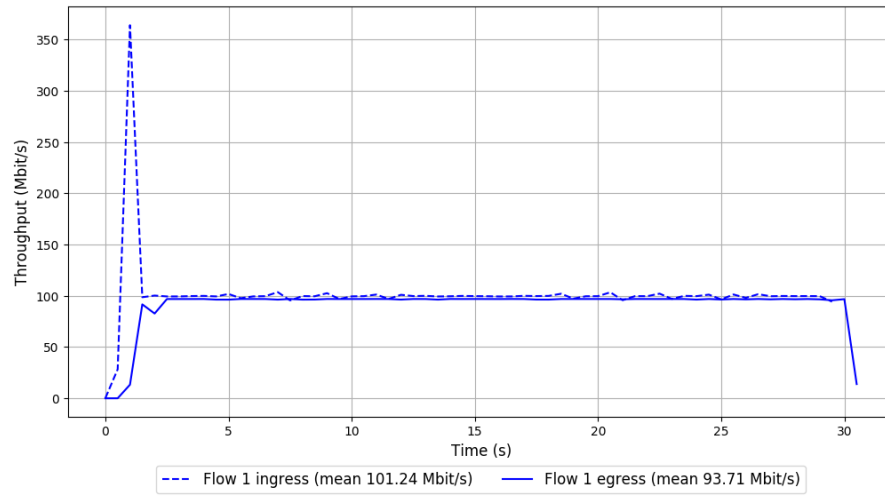
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 53.47 Mbit/s) —— Flow 1 egress (mean 53.04 Mbit/s)

• Flow 1 (95th percentile 105.62 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-06-05 07:07:42
End at: 2018-06-05 07:08:12
Local clock offset: -4.557 ms
Remote clock offset: 11.006 ms


# Below is generated by plot.py at 2018-06-05 07:31:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 93.255 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 37.32 Mbit/s
95th percentile per-packet one-way delay: 93.255 ms
Loss rate: 0.29%
```

Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 37.43 Mbit/s) --- Flow 1 egress (mean 37.32 Mbit/s)
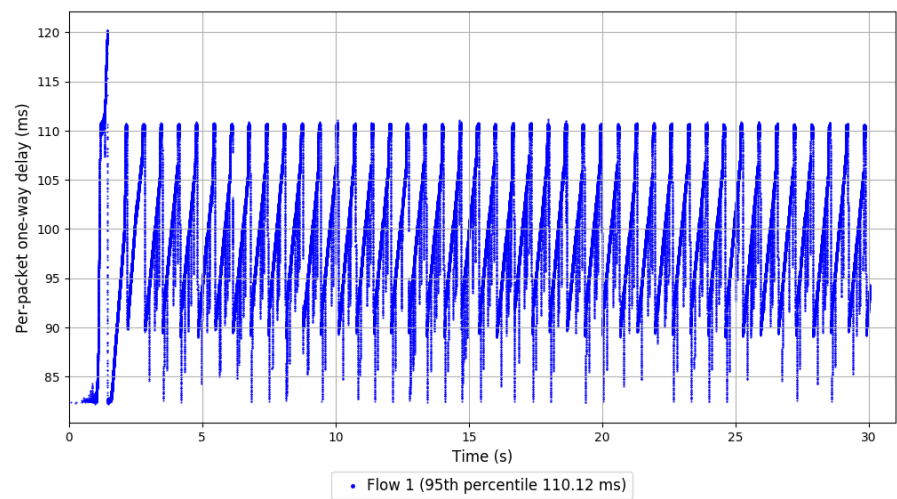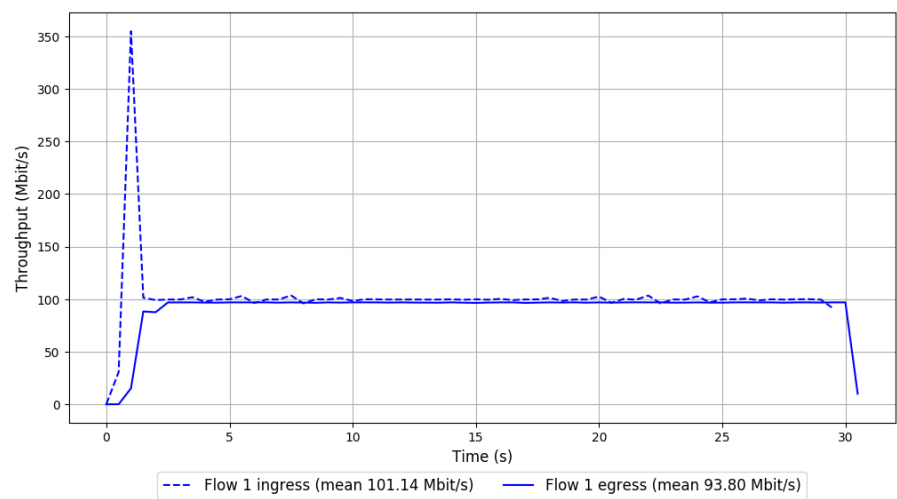

Flow 1 (95th percentile 93.25 ms)

```
Run 1: Statistics of FillP

Start at: 2018-06-05 04:31:08
End at: 2018-06-05 04:31:38
Local clock offset: -1.9 ms
Remote clock offset: 11.401 ms


# Below is generated by plot.py at 2018-06-05 07:32:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.71 Mbit/s
95th percentile per-packet one-way delay: 113.727 ms
Loss rate: 7.40%
-- Flow 1:
Average throughput: 93.71 Mbit/s
95th percentile per-packet one-way delay: 113.727 ms
Loss rate: 7.40%
```

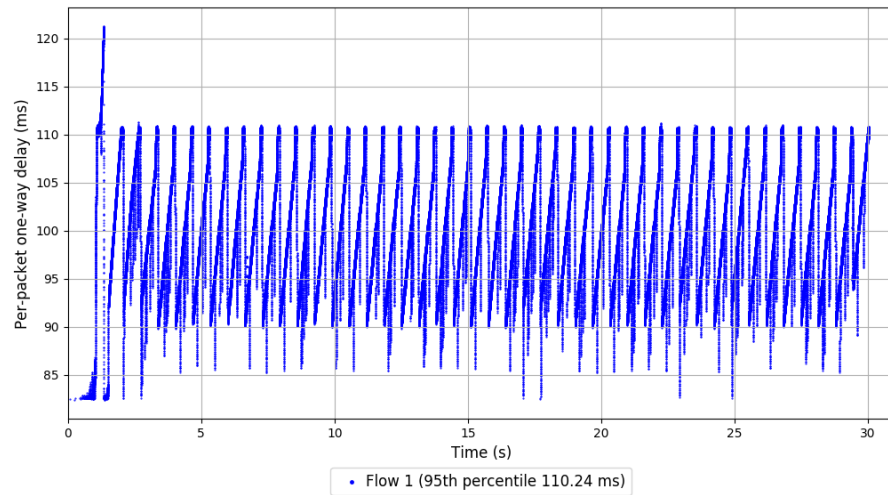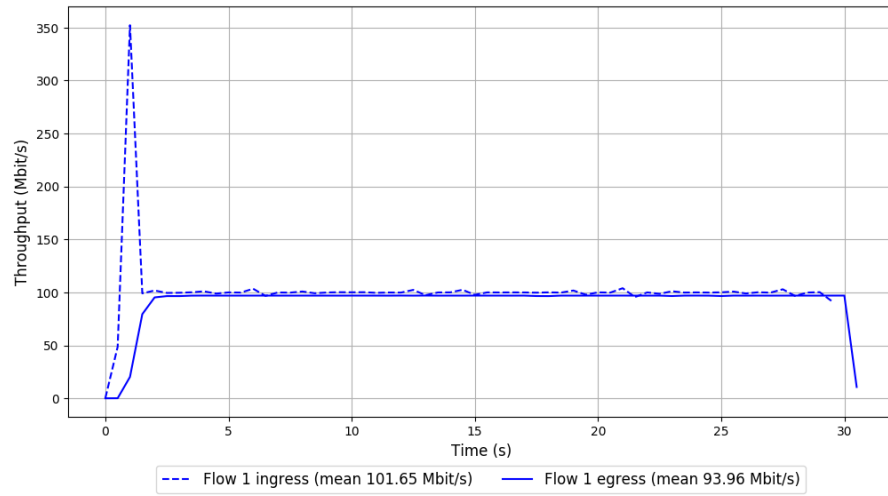Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-06-05 04:49:49
End at: 2018-06-05 04:50:19
Local clock offset: -1.185 ms
Remote clock offset: 16.512 ms


# Below is generated by plot.py at 2018-06-05 07:33:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 110.121 ms
Loss rate: 7.22%
-- Flow 1:
Average throughput: 93.80 Mbit/s
95th percentile per-packet one-way delay: 110.121 ms
Loss rate: 7.22%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 101.14 Mbit/s) --- Flow 1 egress (mean 93.80 Mbit/s)

• Flow 1 (95th percentile 110.12 ms)

```
Run 3: Statistics of FillP

Start at: 2018-06-05 05:08:32
End at: 2018-06-05 05:09:02
Local clock offset: -1.159 ms
Remote clock offset: 18.275 ms


# Below is generated by plot.py at 2018-06-05 07:33:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 110.242 ms
Loss rate: 7.48%
-- Flow 1:
Average throughput: 93.96 Mbit/s
95th percentile per-packet one-way delay: 110.242 ms
Loss rate: 7.48%
```
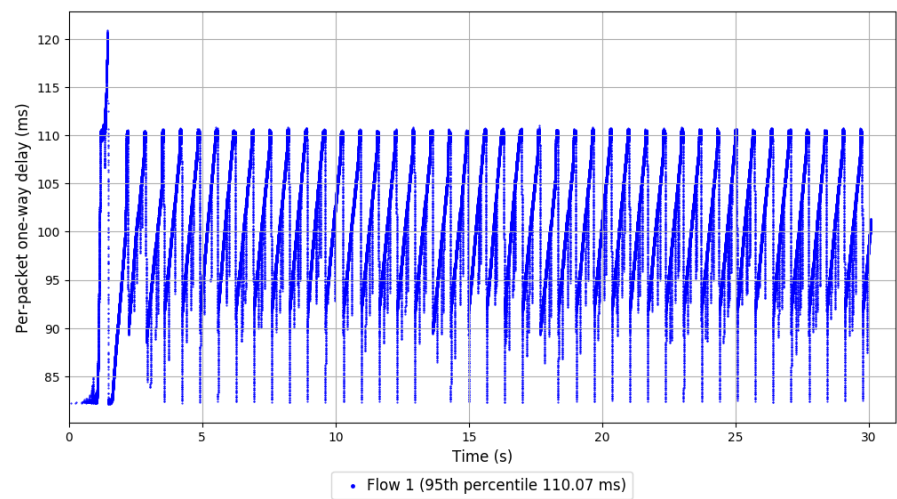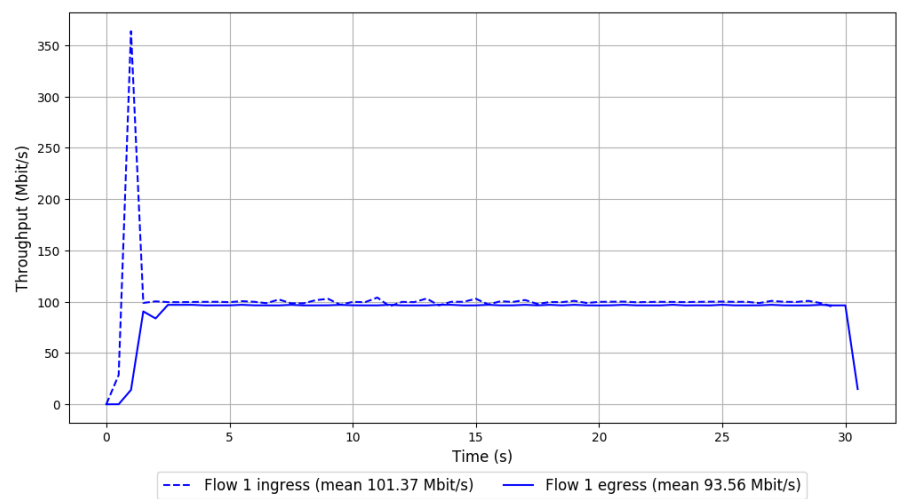
Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 101.65 Mbit/s)   Flow 1 egress (mean 93.96 Mbit/s)

Flow 1 (95th percentile 110.24 ms)

69

```
Run 4: Statistics of FillP

Start at: 2018-06-05 05:27:14
End at: 2018-06-05 05:27:44
Local clock offset: -1.957 ms
Remote clock offset: 9.111 ms


# Below is generated by plot.py at 2018-06-05 07:33:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 110.074 ms
Loss rate: 7.64%
-- Flow 1:
Average throughput: 93.56 Mbit/s
95th percentile per-packet one-way delay: 110.074 ms
Loss rate: 7.64%
```
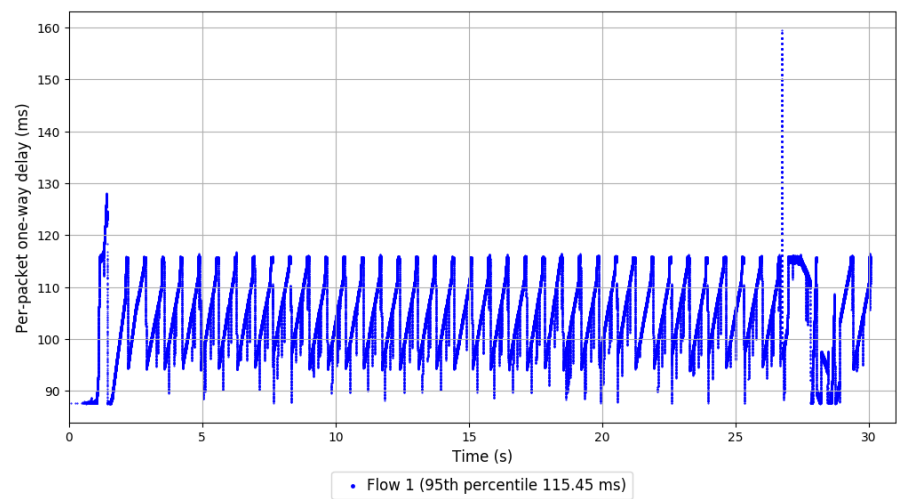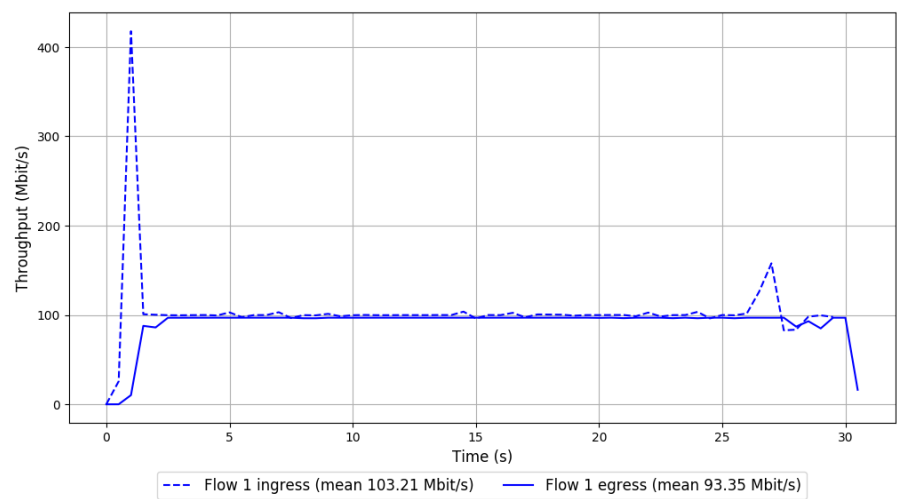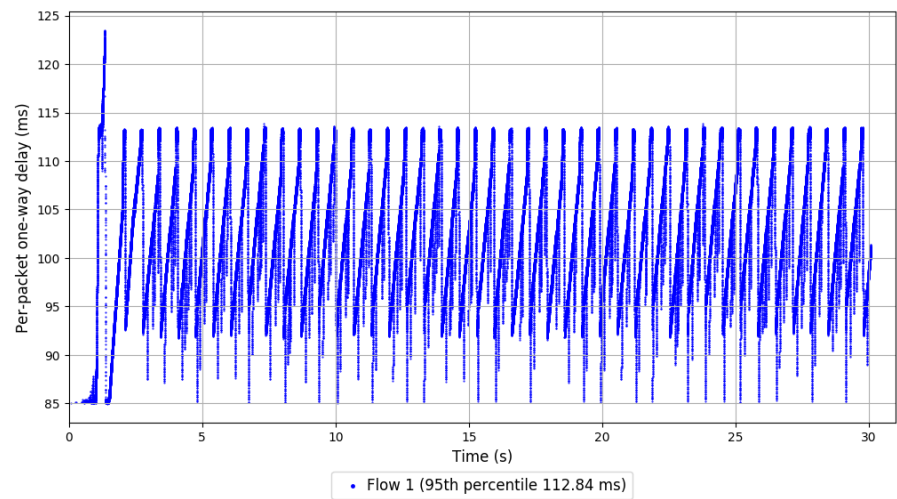
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 101.37 Mbit/s)   Flow 1 egress (mean 93.56 Mbit/s)

Flow 1 (95th percentile 110.07 ms)

71

```
Run 5: Statistics of FillP

Start at: 2018-06-05 05:45:56
End at: 2018-06-05 05:46:26
Local clock offset: -3.537 ms
Remote clock offset: 6.892 ms


# Below is generated by plot.py at 2018-06-05 07:33:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.35 Mbit/s
95th percentile per-packet one-way delay: 115.454 ms
Loss rate: 9.49%
-- Flow 1:
Average throughput: 93.35 Mbit/s
95th percentile per-packet one-way delay: 115.454 ms
Loss rate: 9.49%
```
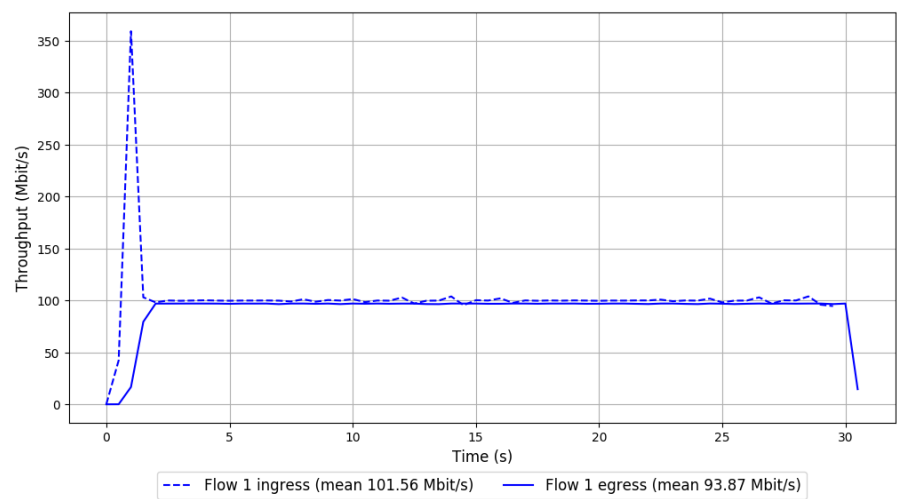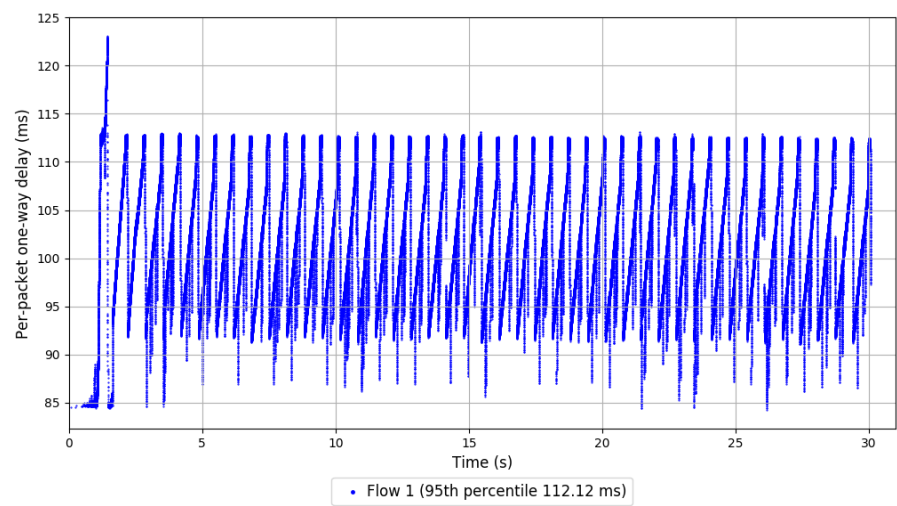
Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-06-05 06:04:43
End at: 2018-06-05 06:05:13
Local clock offset: -3.979 ms
Remote clock offset: 8.684 ms


# Below is generated by plot.py at 2018-06-05 07:33:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 112.845 ms
Loss rate: 7.53%
-- Flow 1:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 112.845 ms
Loss rate: 7.53%
```
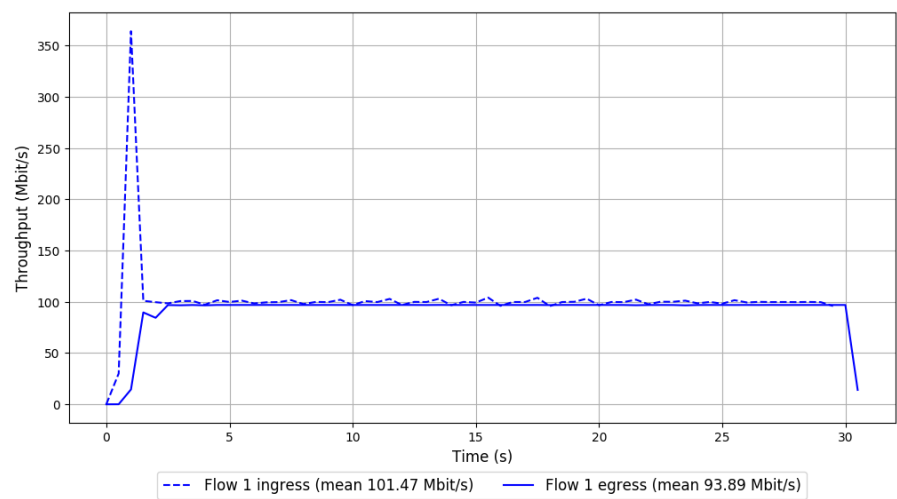
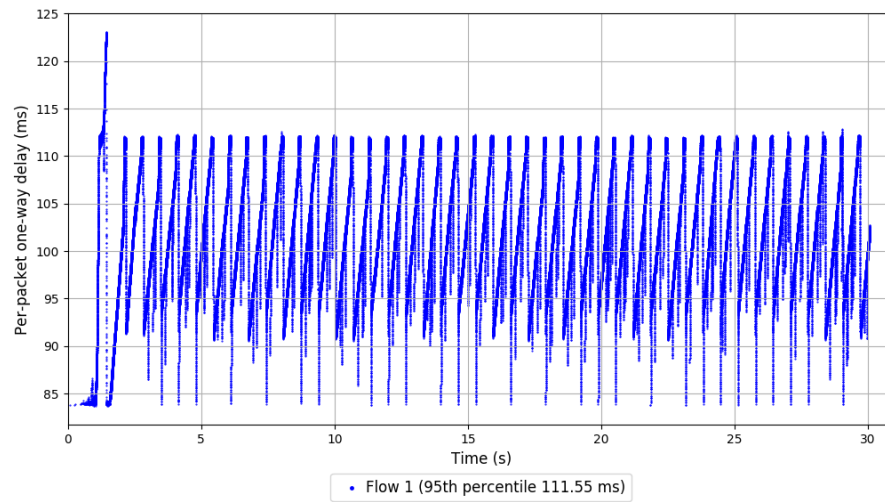Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 101.56 Mbit/s) --- Flow 1 egress (mean 93.87 Mbit/s)
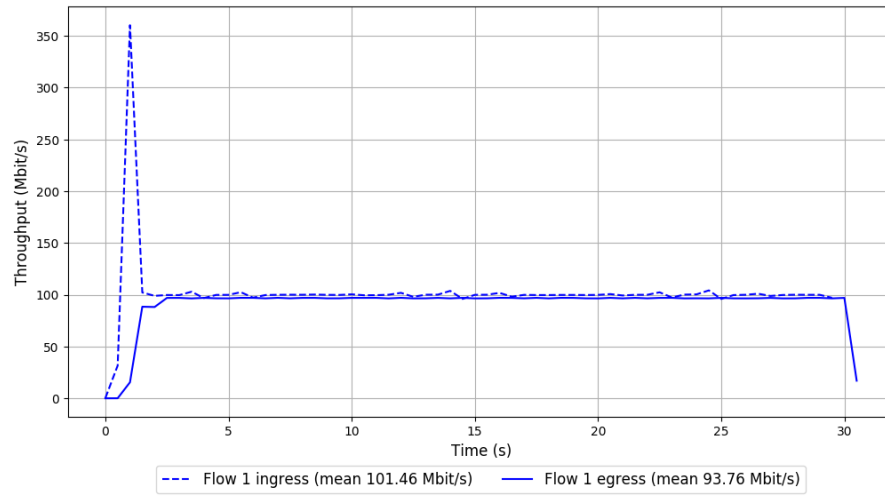

Flow 1 (95th percentile 112.84 ms)

```
Run 7: Statistics of FillP

Start at: 2018-06-05 06:23:28
End at: 2018-06-05 06:23:58
Local clock offset: -3.019 ms
Remote clock offset: 7.143 ms


# Below is generated by plot.py at 2018-06-05 07:33:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 112.125 ms
Loss rate: 7.43%
-- Flow 1:
Average throughput: 93.89 Mbit/s
95th percentile per-packet one-way delay: 112.125 ms
Loss rate: 7.43%
```

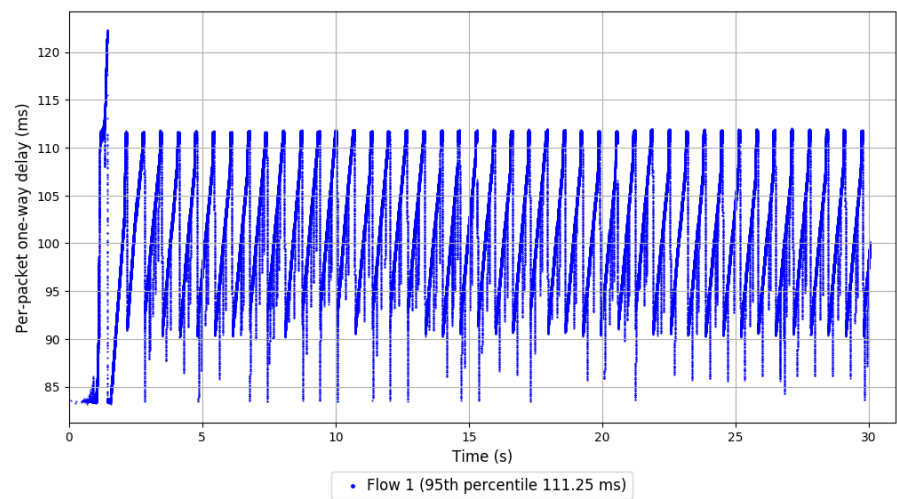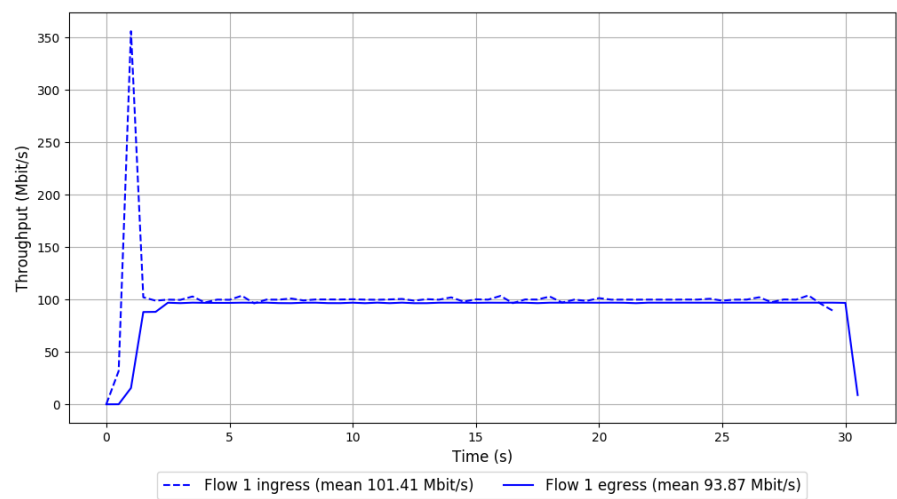# Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 101.47 Mbit/s) --- Flow 1 egress (mean 93.89 Mbit/s)

Flow 1 (95th percentile 112.12 ms)

```
Run 8: Statistics of FillP

Start at: 2018-06-05 06:42:09
End at: 2018-06-05 06:42:39
Local clock offset: -3.192 ms
Remote clock offset: 12.814 ms


# Below is generated by plot.py at 2018-06-05 07:33:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 111.554 ms
Loss rate: 7.53%
-- Flow 1:
Average throughput: 93.76 Mbit/s
95th percentile per-packet one-way delay: 111.554 ms
Loss rate: 7.53%
```
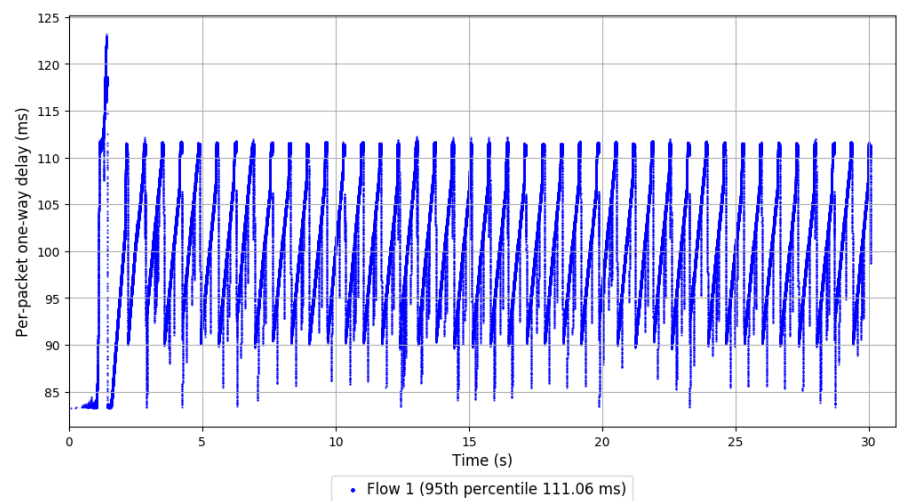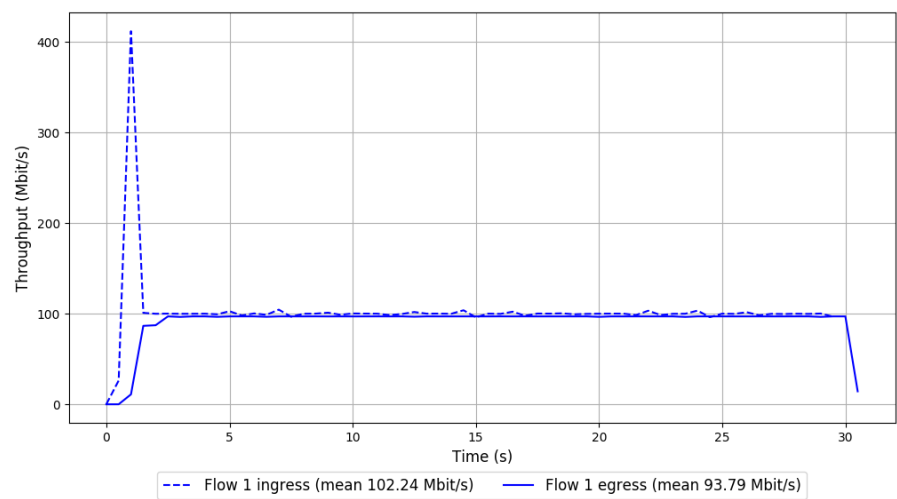
Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 101.46 Mbit/s)   Flow 1 egress (mean 93.76 Mbit/s)

Flow 1 (95th percentile 111.55 ms)

```
Run 9: Statistics of FillP

Start at: 2018-06-05 07:00:49
End at: 2018-06-05 07:01:19
Local clock offset: -3.347 ms
Remote clock offset: 11.174 ms


# Below is generated by plot.py at 2018-06-05 07:34:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 111.246 ms
Loss rate: 7.39%
-- Flow 1:
Average throughput: 93.87 Mbit/s
95th percentile per-packet one-way delay: 111.246 ms
Loss rate: 7.39%
```
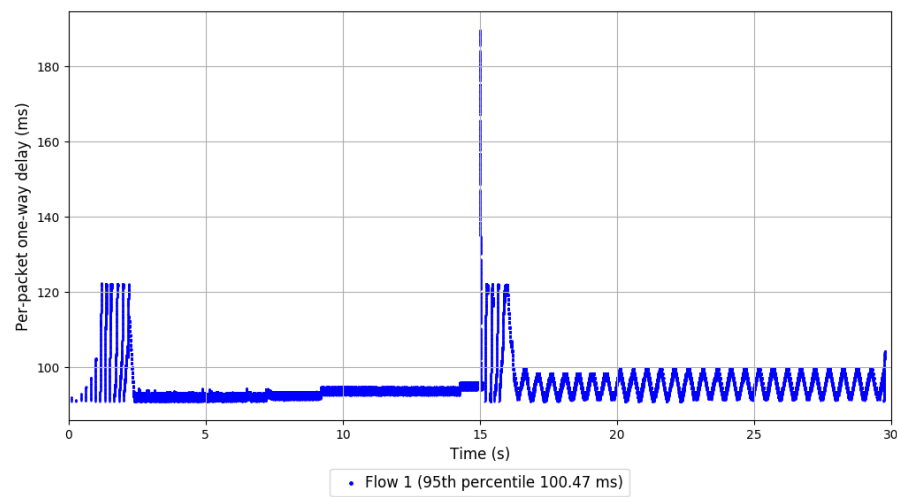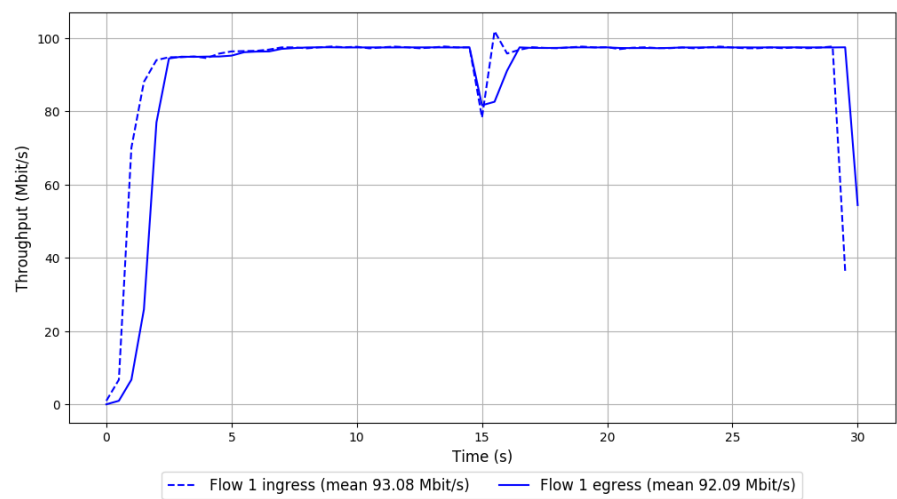
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-06-05 07:19:33
End at: 2018-06-05 07:20:03
Local clock offset: -6.046 ms
Remote clock offset: 3.27 ms


# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 111.056 ms
Loss rate: 8.22%
-- Flow 1:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 111.056 ms
Loss rate: 8.22%
```

Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 102.24 Mbit/s)   Flow 1 egress (mean 93.79 Mbit/s)
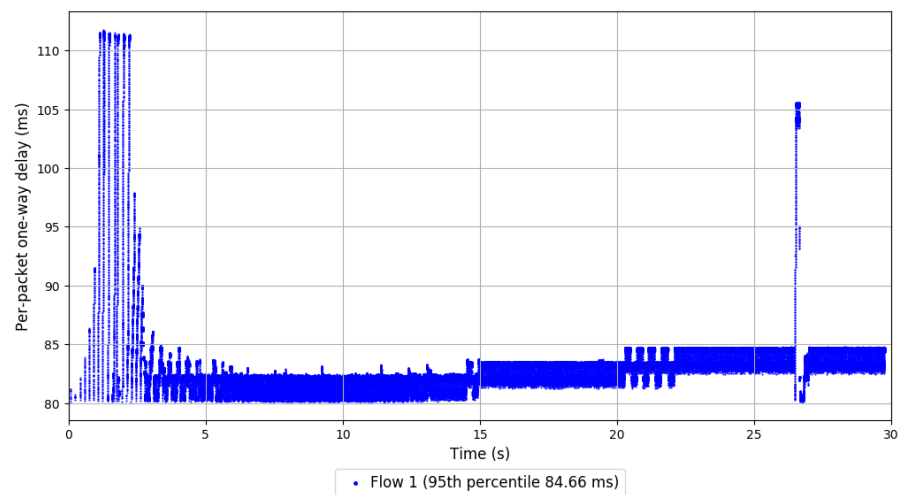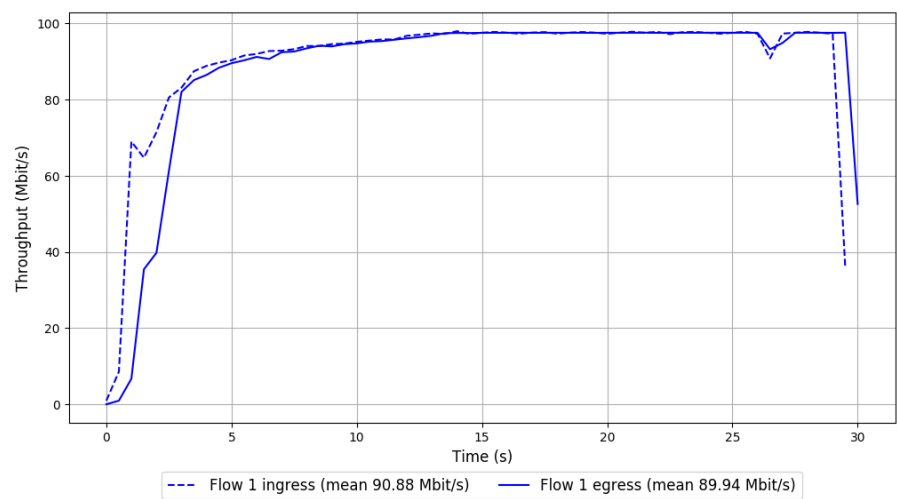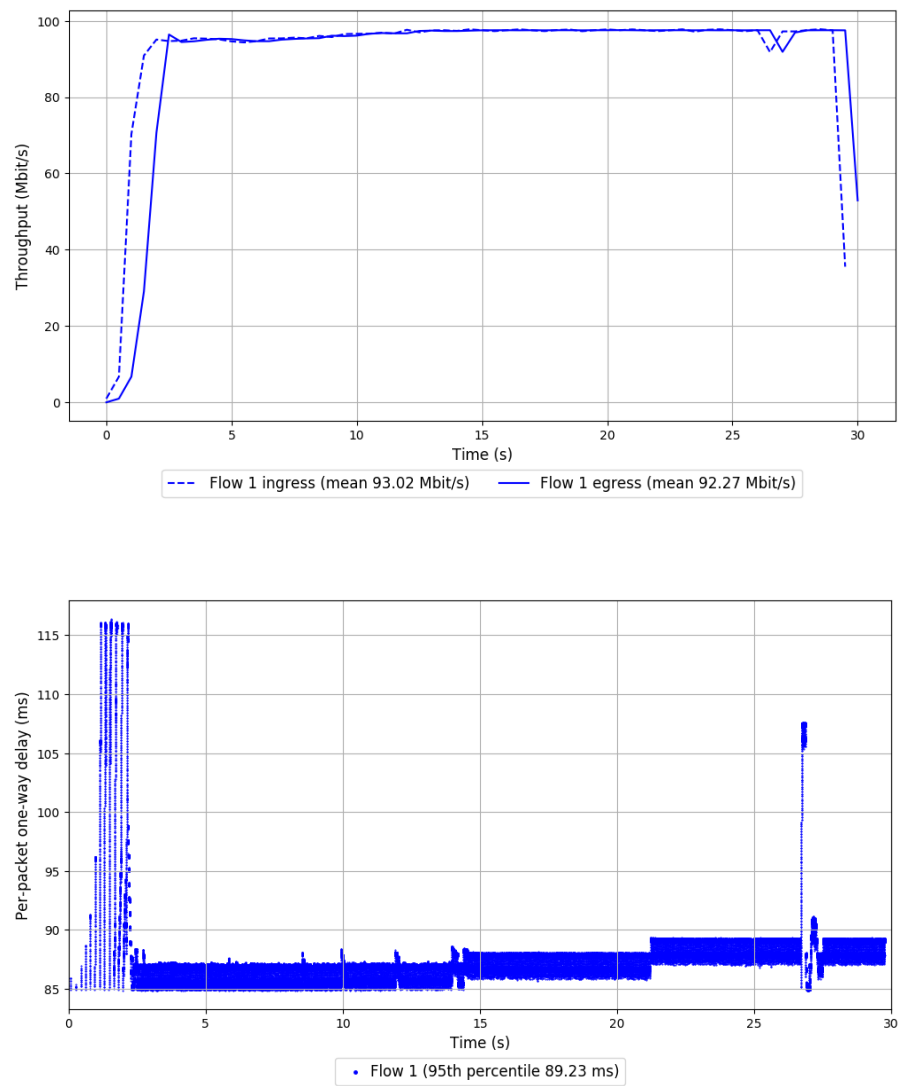

Flow 1 (95th percentile 111.06 ms)

```
Run 1: Statistics of Indigo

Start at: 2018-06-05 04:18:09
End at: 2018-06-05 04:18:39
Local clock offset: -1.224 ms
Remote clock offset: 13.56 ms


# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.09 Mbit/s
95th percentile per-packet one-way delay: 100.471 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 92.09 Mbit/s
95th percentile per-packet one-way delay: 100.471 ms
Loss rate: 1.03%
```

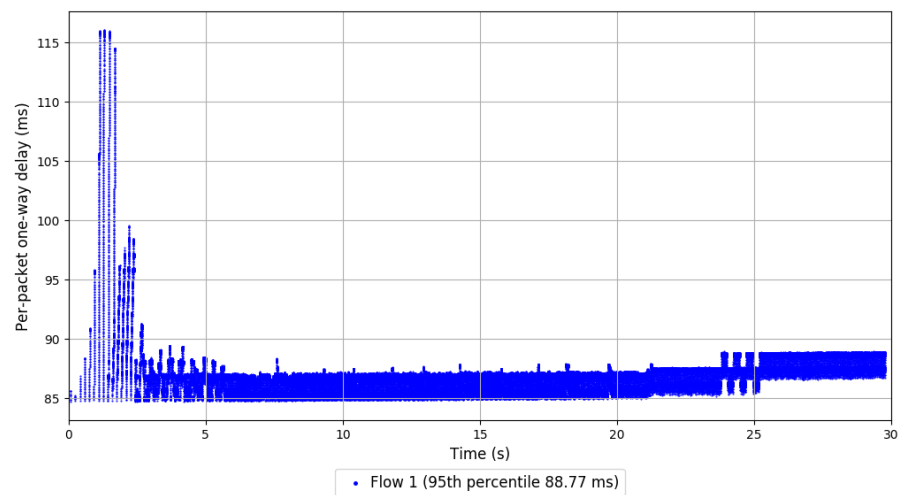## Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-06-05 04:36:49
End at: 2018-06-05 04:37:19
Local clock offset: -1.909 ms
Remote clock offset: 11.908 ms

# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.94 Mbit/s
95th percentile per-packet one-way delay: 84.664 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 89.94 Mbit/s
95th percentile per-packet one-way delay: 84.664 ms
Loss rate: 1.02%
```

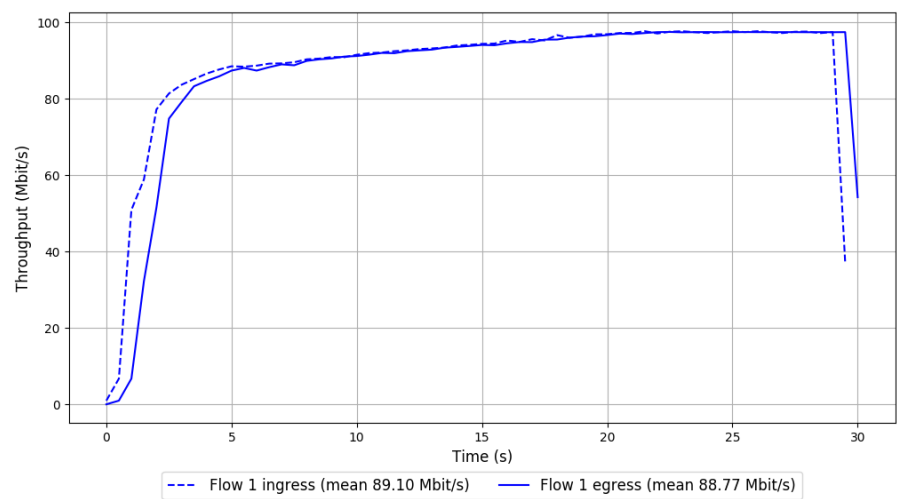Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-06-05 04:55:31
End at: 2018-06-05 04:56:01
Local clock offset: -1.943 ms
Remote clock offset: 13.144 ms


# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 89.235 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 89.235 ms
Loss rate: 0.80%
```
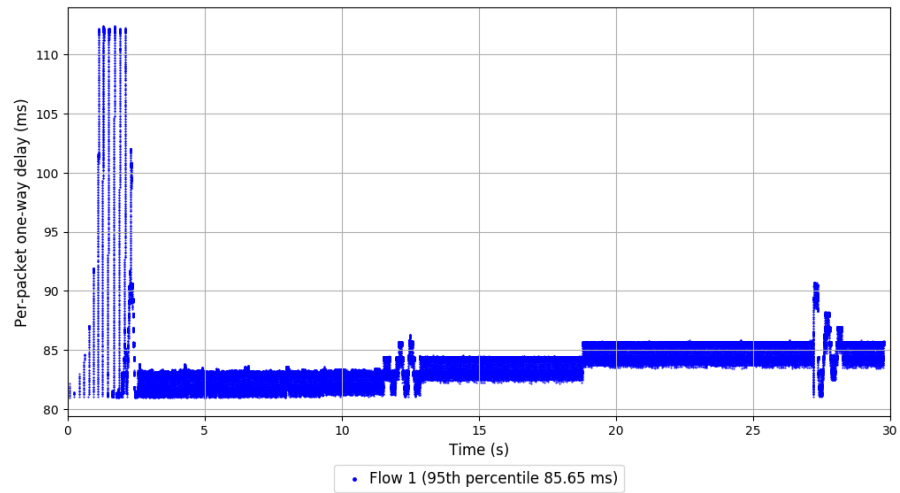
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-06-05 05:14:13
End at: 2018-06-05 05:14:43
Local clock offset: -1.978 ms
Remote clock offset: 19.421 ms


# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 88.765 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 88.77 Mbit/s
95th percentile per-packet one-way delay: 88.765 ms
Loss rate: 0.35%
```
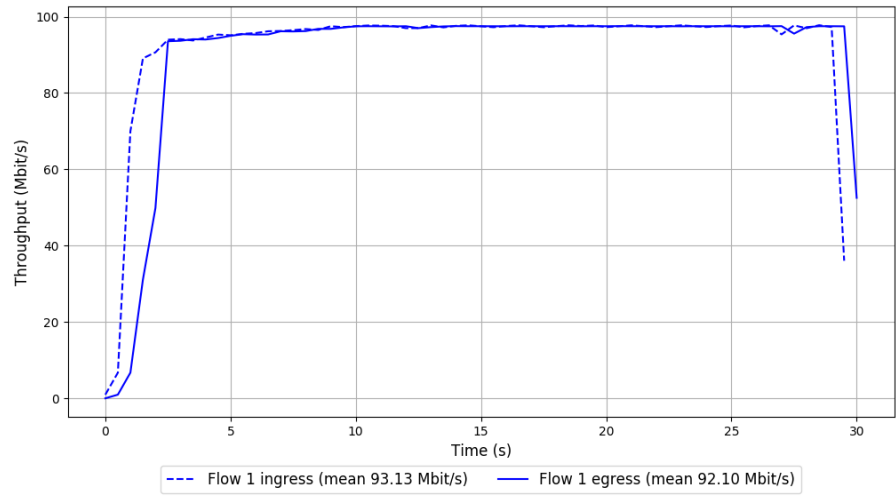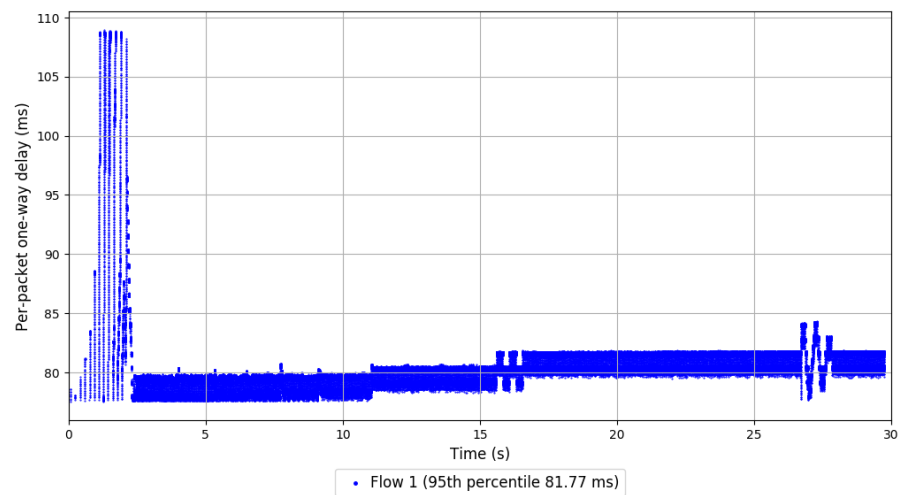
Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-06-05 05:32:54
End at: 2018-06-05 05:33:24
Local clock offset: -1.891 ms
Remote clock offset: 8.085 ms


# Below is generated by plot.py at 2018-06-05 07:34:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.10 Mbit/s
95th percentile per-packet one-way delay: 85.652 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 92.10 Mbit/s
95th percentile per-packet one-way delay: 85.652 ms
Loss rate: 1.09%
```

Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-06-05 05:51:38
End at: 2018-06-05 05:52:08
Local clock offset: -2.133 ms
Remote clock offset: 4.686 ms


# Below is generated by plot.py at 2018-06-05 07:34:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 81.774 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 92.57 Mbit/s
95th percentile per-packet one-way delay: 81.774 ms
Loss rate: 0.77%
```
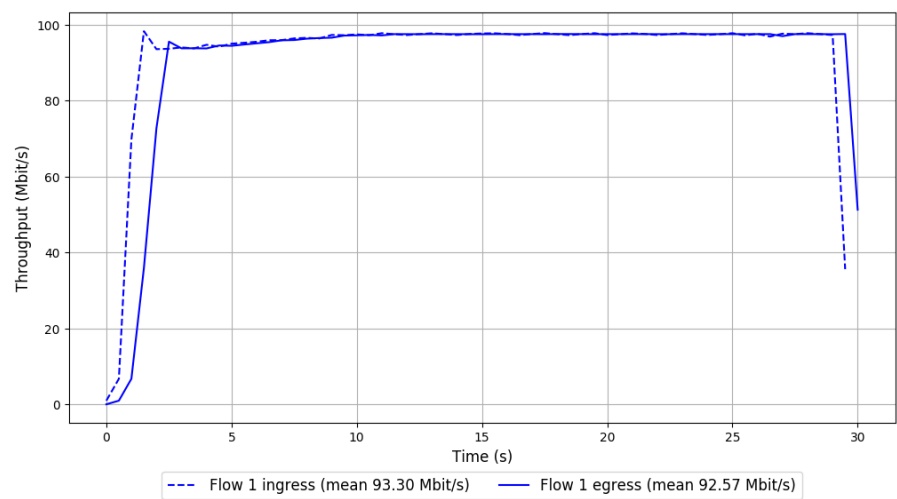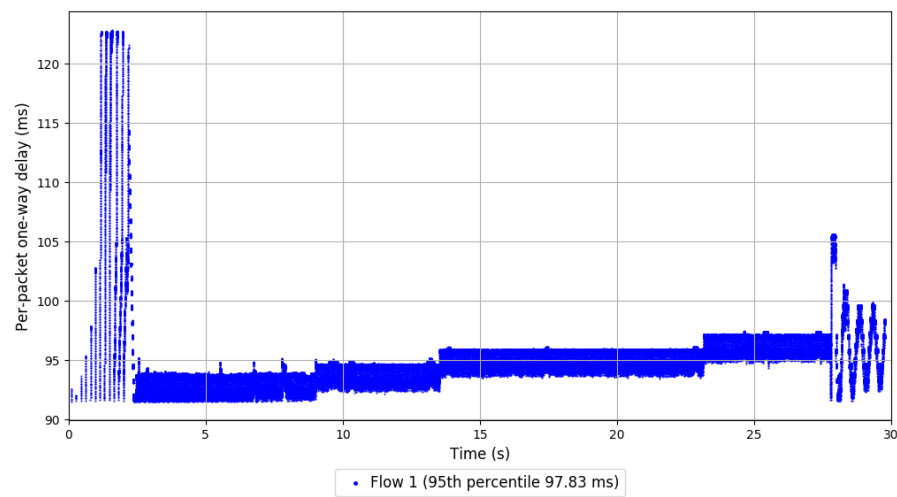
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-06-05 06:10:24
End at: 2018-06-05 06:10:54
Local clock offset: -3.889 ms
Remote clock offset: 6.956 ms

# Below is generated by plot.py at 2018-06-05 07:35:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 97.830 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 92.68 Mbit/s
95th percentile per-packet one-way delay: 97.830 ms
Loss rate: 0.66%
```
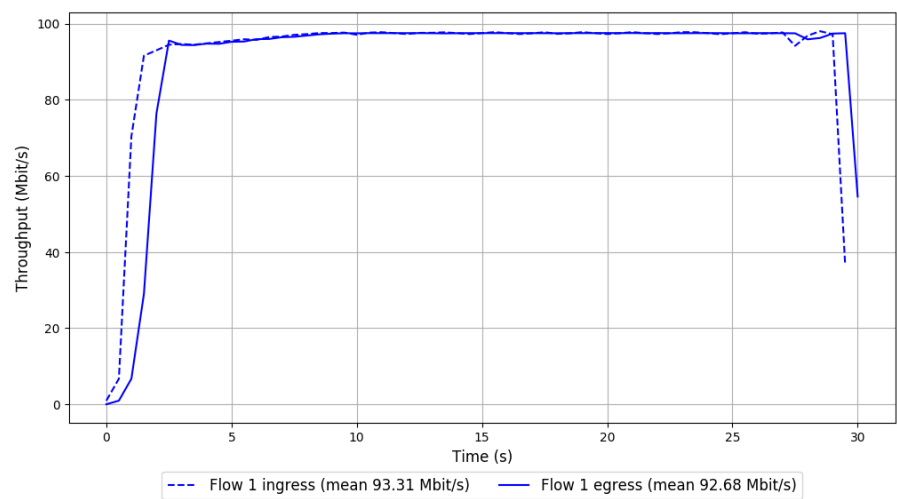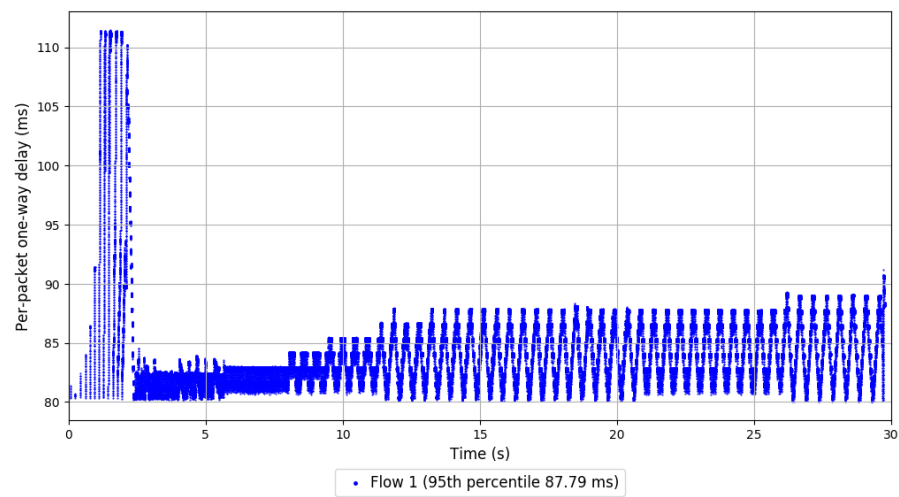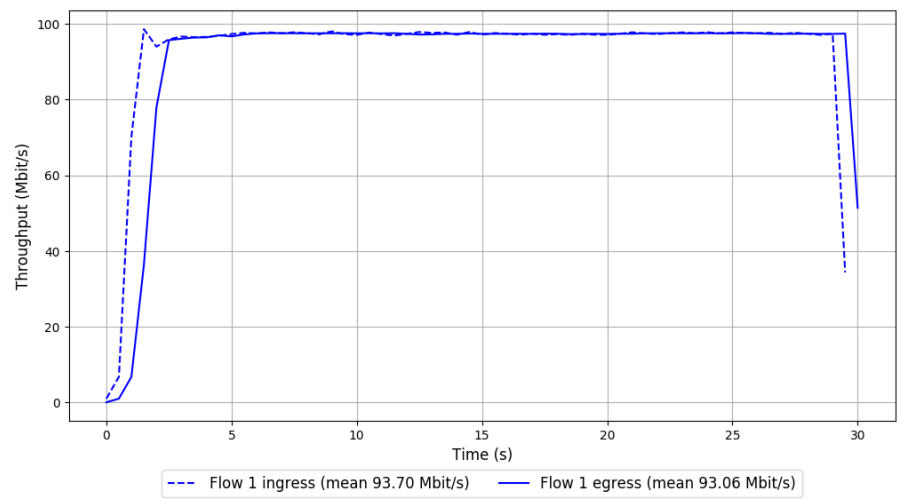
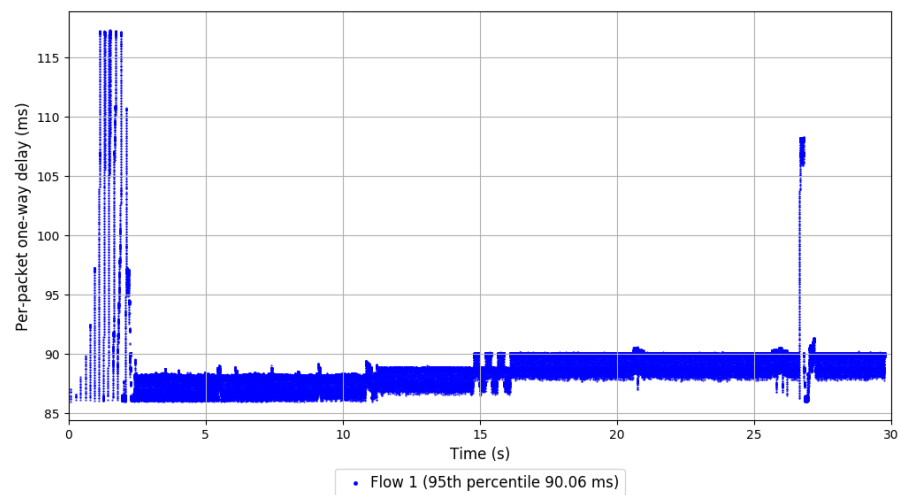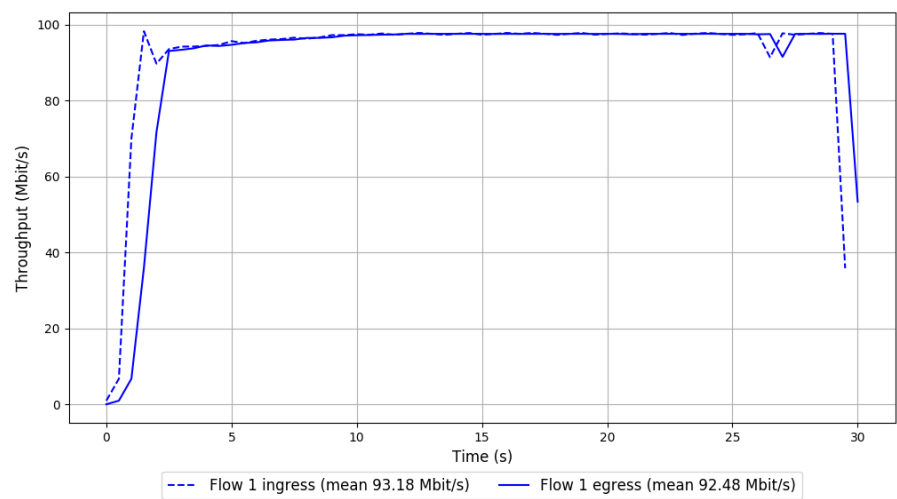Run 7: Report of Indigo — Data Link

Flow 1 ingress (mean 93.31 Mbit/s) ----- Flow 1 egress (mean 92.68 Mbit/s)

Flow 1 (95th percentile 97.83 ms)

```
Run 8: Statistics of Indigo

Start at: 2018-06-05 06:29:09
End at: 2018-06-05 06:29:39
Local clock offset: -2.294 ms
Remote clock offset: 6.81 ms


# Below is generated by plot.py at 2018-06-05 07:35:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 87.787 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 87.787 ms
Loss rate: 0.66%
```

Run 8: Report of Indigo — Data Link

Flow 1 ingress (mean 93.70 Mbit/s) ---- Flow 1 egress (mean 93.06 Mbit/s) ——

Flow 1 (95th percentile 87.79 ms)

```
Run 9: Statistics of Indigo

Start at: 2018-06-05 06:47:50
End at: 2018-06-05 06:48:20
Local clock offset: -3.237 ms
Remote clock offset: 15.638 ms

# Below is generated by plot.py at 2018-06-05 07:35:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 90.065 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 92.48 Mbit/s
95th percentile per-packet one-way delay: 90.065 ms
Loss rate: 0.75%
```
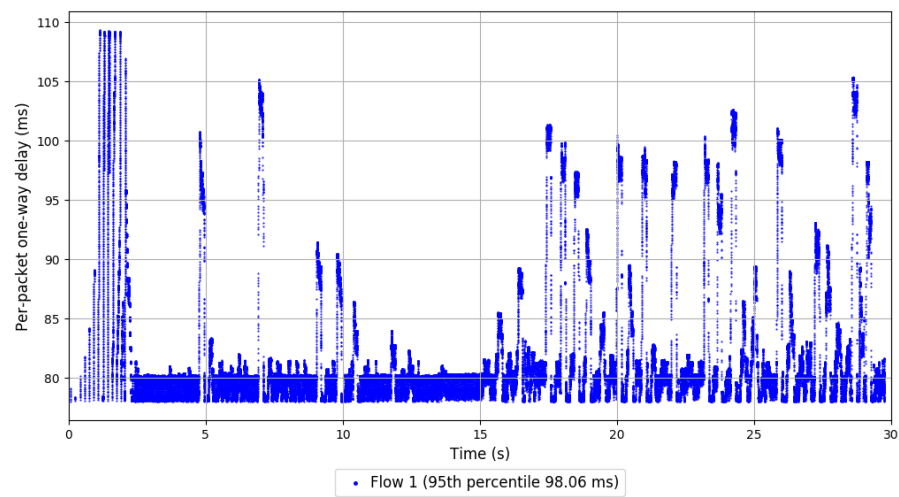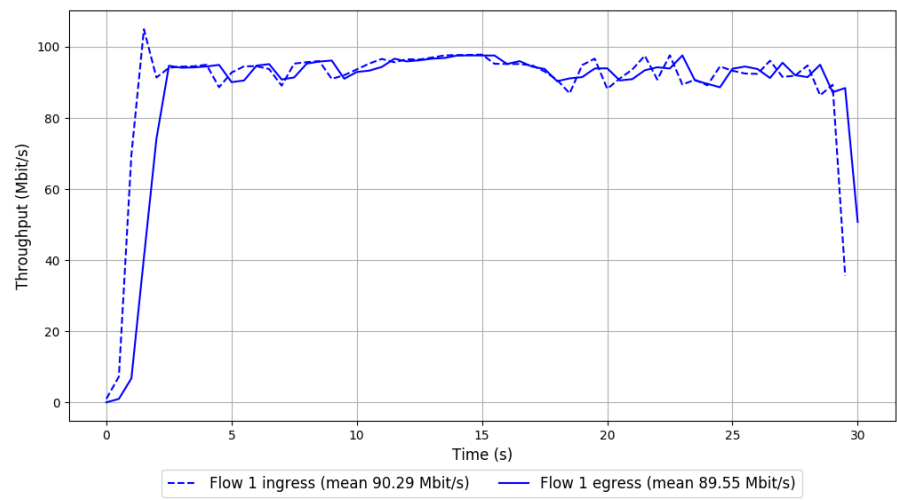
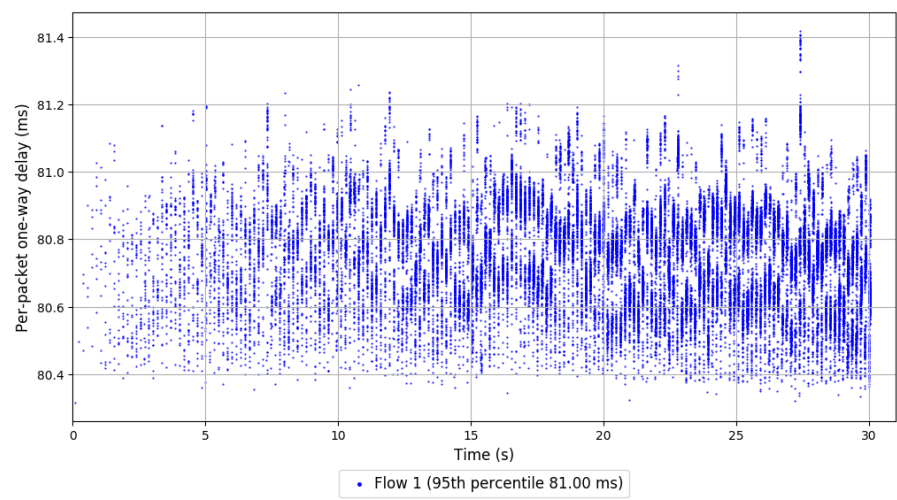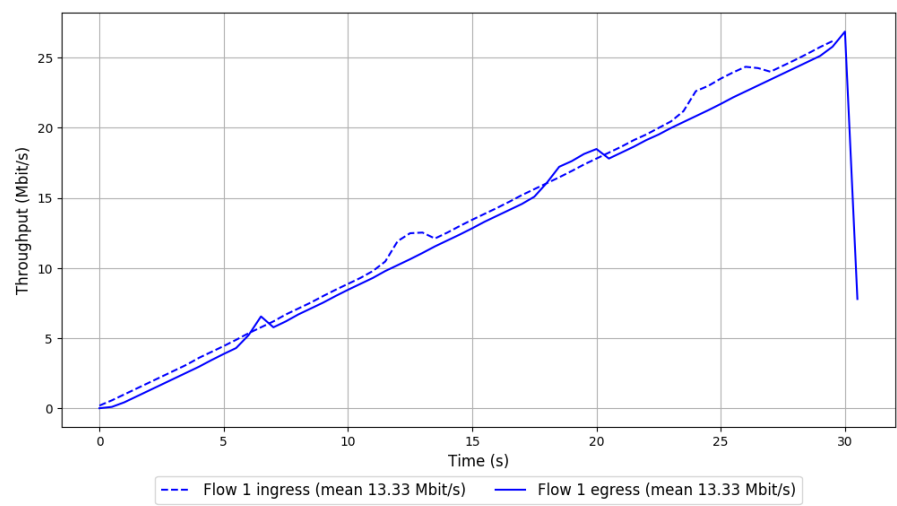## Run 9: Report of Indigo — Data Link

Flow 1 ingress (mean 93.18 Mbit/s)   Flow 1 egress (mean 92.48 Mbit/s)

Flow 1 (95th percentile 90.06 ms)

```
Run 10: Statistics of Indigo

Start at: 2018-06-05 07:06:29
End at: 2018-06-05 07:07:00
Local clock offset: -4.19 ms
Remote clock offset: 5.287 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.55 Mbit/s
95th percentile per-packet one-way delay: 98.058 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 89.55 Mbit/s
95th percentile per-packet one-way delay: 98.058 ms
Loss rate: 0.82%
```

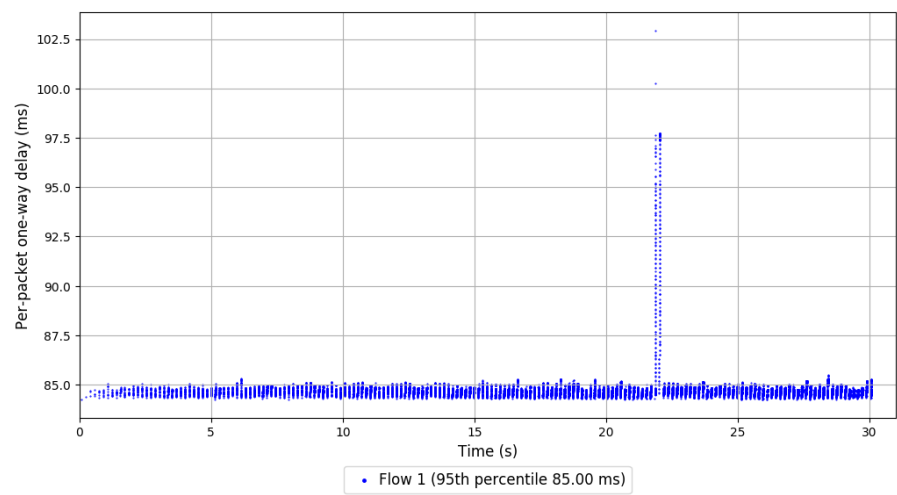Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 90.29 Mbit/s)   Flow 1 egress (mean 89.55 Mbit/s)

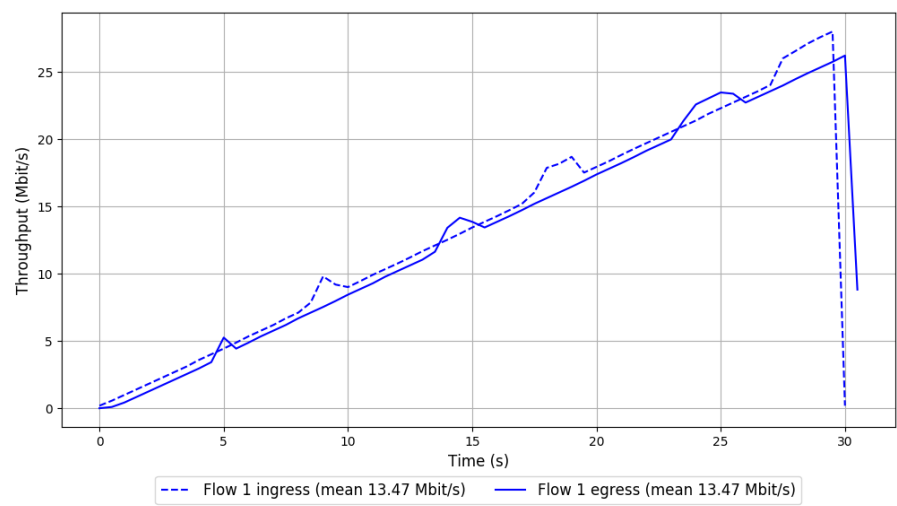Flow 1 (95th percentile 98.06 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-06-05 04:33:27
End at: 2018-06-05 04:33:57
Local clock offset: -1.904 ms
Remote clock offset: 11.594 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 80.998 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.33 Mbit/s
95th percentile per-packet one-way delay: 80.998 ms
Loss rate: 0.00%
```

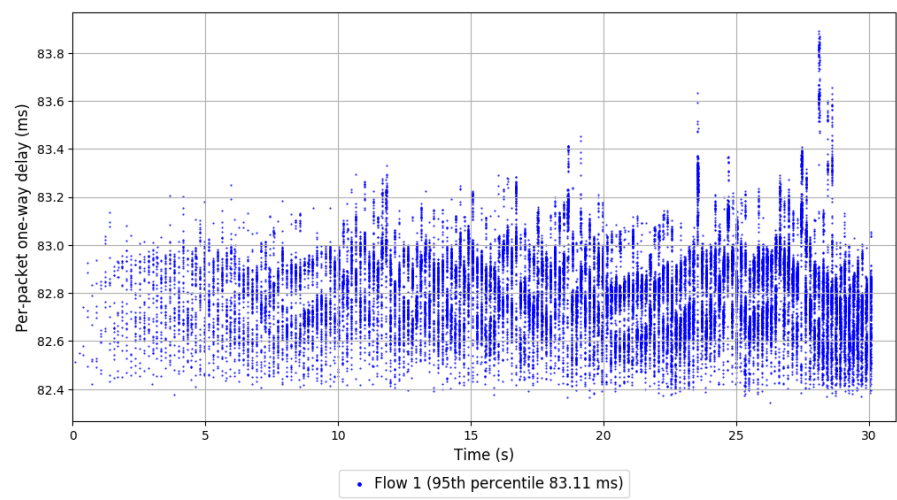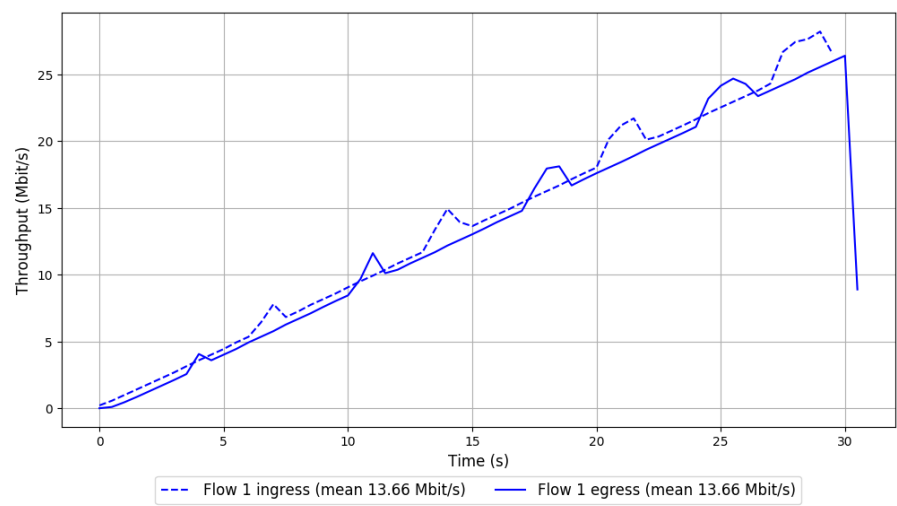Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-06-05 04:52:09
End at: 2018-06-05 04:52:39
Local clock offset: -1.168 ms
Remote clock offset: 16.874 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.47 Mbit/s
95th percentile per-packet one-way delay: 85.000 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.47 Mbit/s
95th percentile per-packet one-way delay: 85.000 ms
Loss rate: 0.00%
```

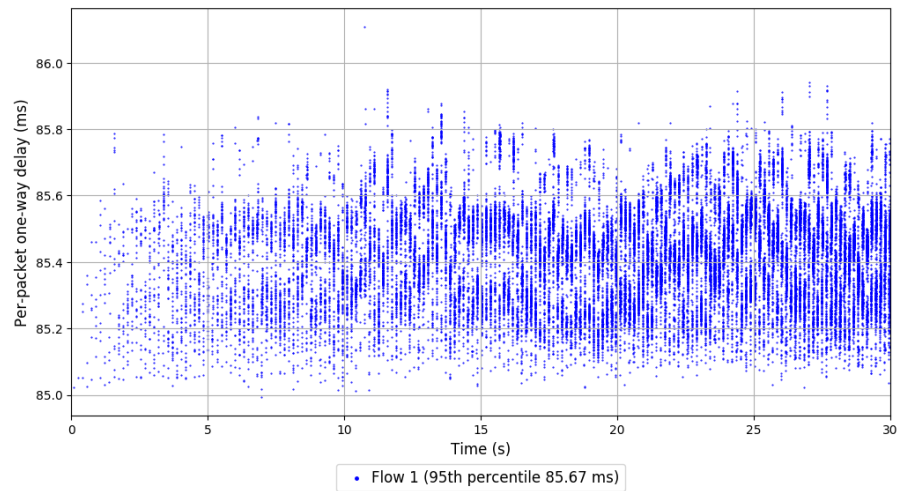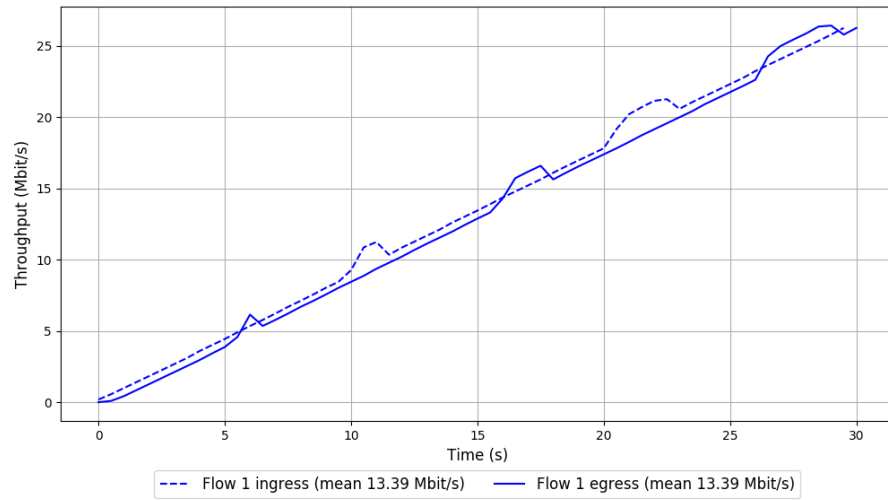## Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-06-05 05:10:52
End at: 2018-06-05 05:11:22
Local clock offset: -1.147 ms
Remote clock offset: 18.476 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.66 Mbit/s
95th percentile per-packet one-way delay: 83.107 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.66 Mbit/s
95th percentile per-packet one-way delay: 83.107 ms
Loss rate: 0.00%
```

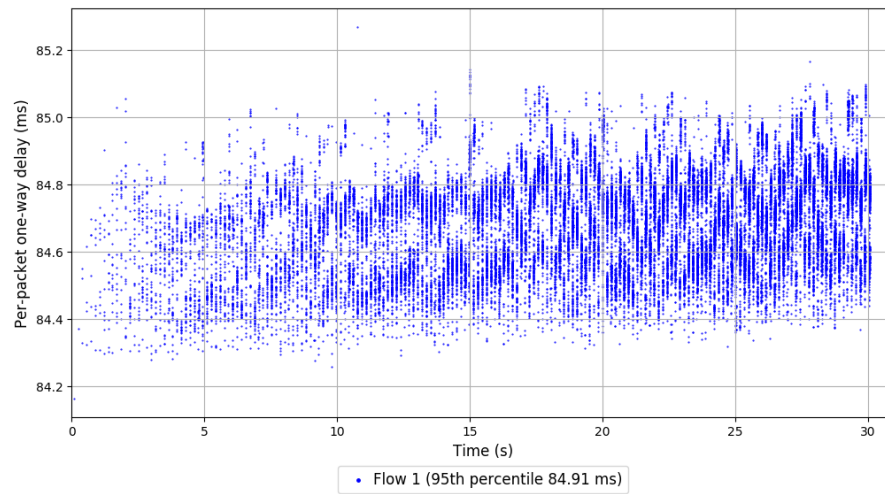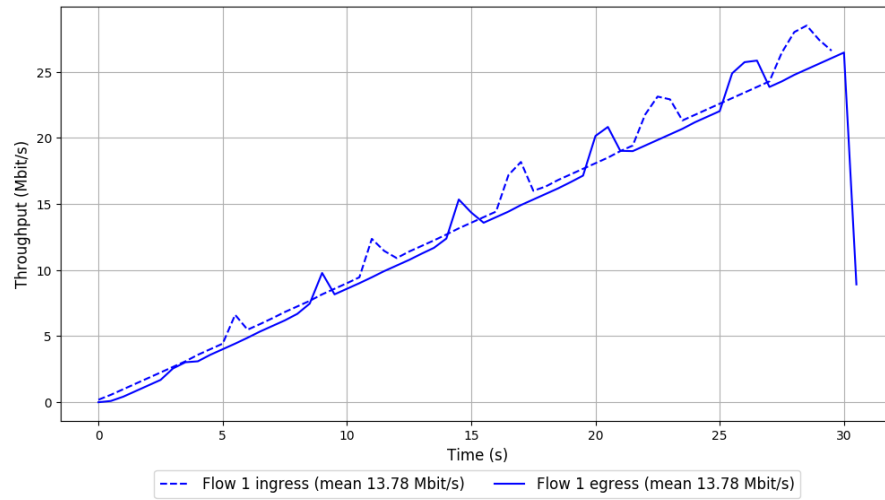# Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 13.66 Mbit/s) --- Flow 1 egress (mean 13.66 Mbit/s)

Flow 1 (95th percentile 83.11 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-06-05 05:29:33
End at: 2018-06-05 05:30:03
Local clock offset: -1.952 ms
Remote clock offset: 12.545 ms

# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 85.670 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.39 Mbit/s
95th percentile per-packet one-way delay: 85.670 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-06-05 05:48:17
End at: 2018-06-05 05:48:47
Local clock offset: -2.797 ms
Remote clock offset: 11.618 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.78 Mbit/s
95th percentile per-packet one-way delay: 84.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.78 Mbit/s
95th percentile per-packet one-way delay: 84.913 ms
Loss rate: 0.00%
```
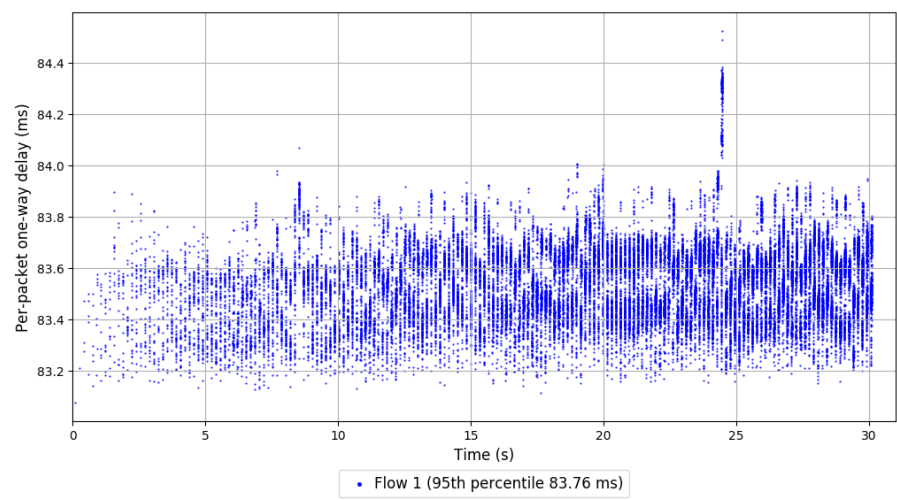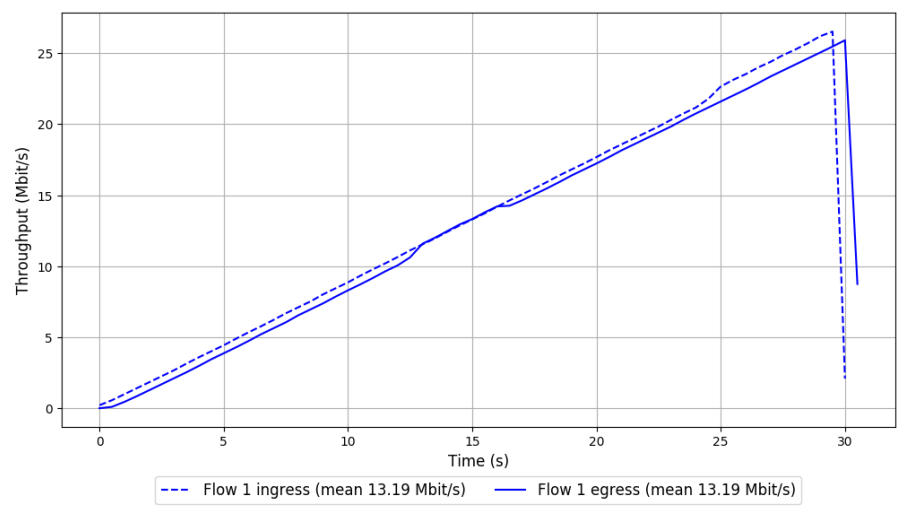
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 13.78 Mbit/s)   Flow 1 egress (mean 13.78 Mbit/s)

Flow 1 (95th percentile 84.91 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-06-05 06:07:03
End at: 2018-06-05 06:07:33
Local clock offset: -2.322 ms
Remote clock offset: 6.194 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 83.757 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.19 Mbit/s
95th percentile per-packet one-way delay: 83.757 ms
Loss rate: 0.00%
```
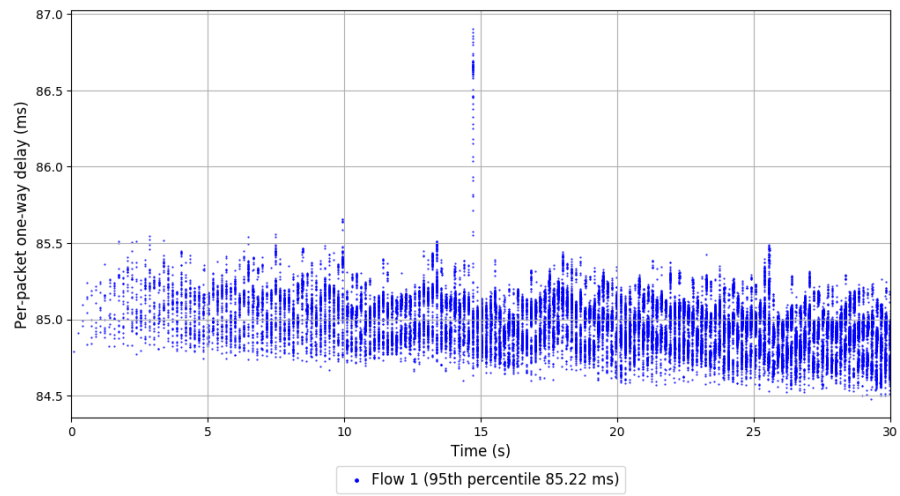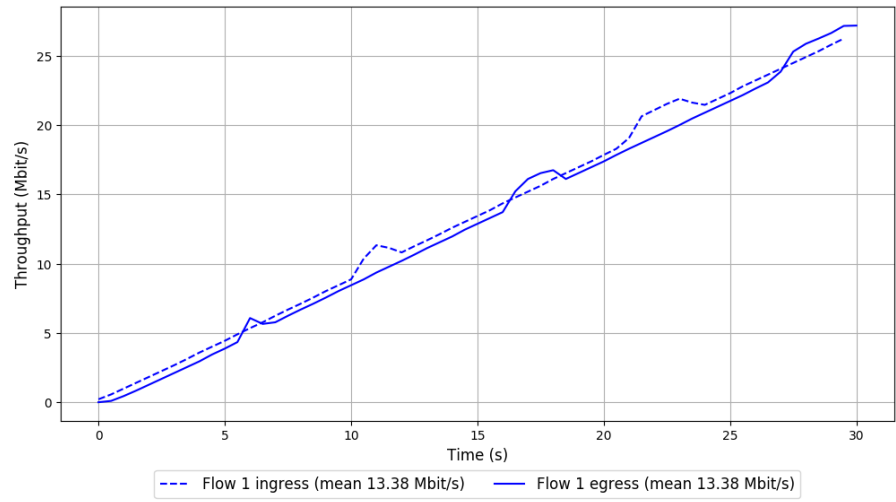
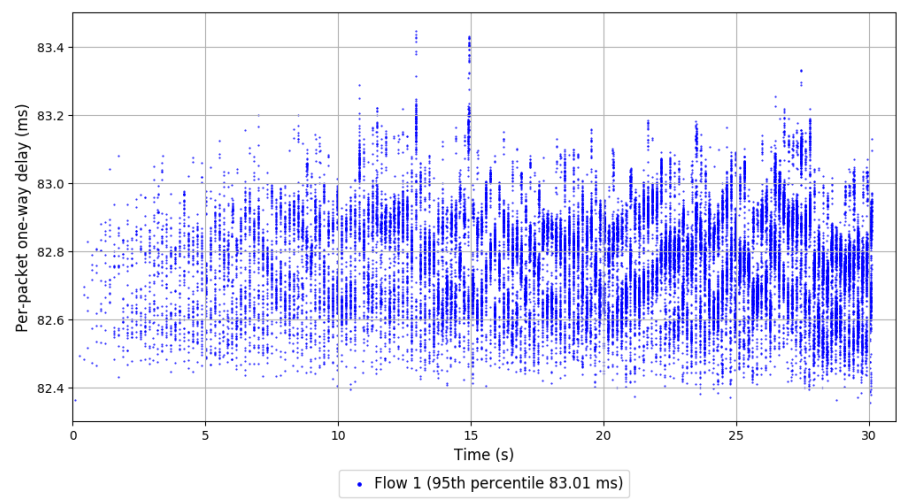Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 13.19 Mbit/s) — Flow 1 egress (mean 13.19 Mbit/s)
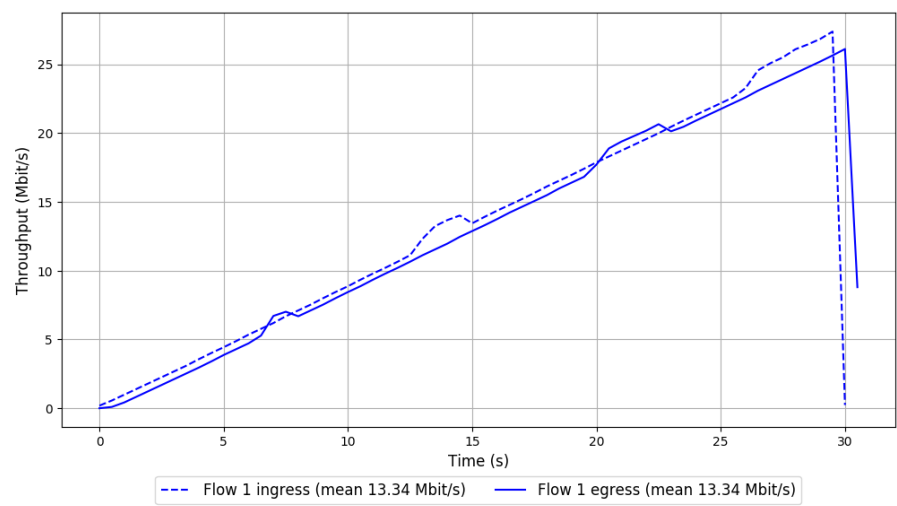

• Flow 1 (95th percentile 83.76 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-06-05 06:25:48
End at: 2018-06-05 06:26:18
Local clock offset: -3.042 ms
Remote clock offset: 9.048 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 85.224 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.38 Mbit/s
95th percentile per-packet one-way delay: 85.224 ms
Loss rate: 0.00%
```

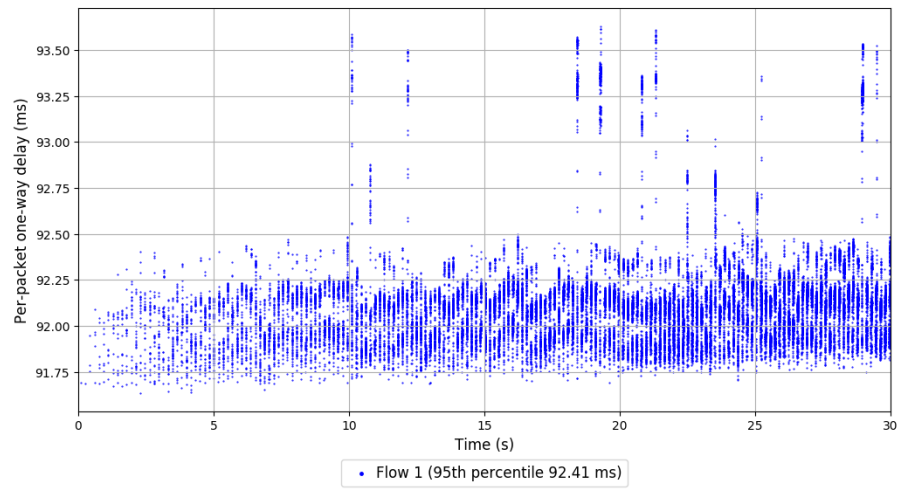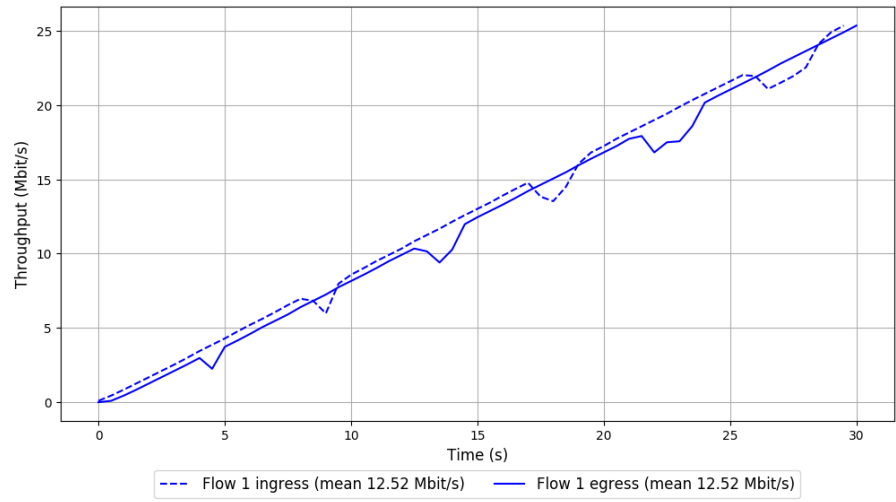# Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-06-05 06:44:28
End at: 2018-06-05 06:44:58
Local clock offset: -2.433 ms
Remote clock offset: 14.102 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.34 Mbit/s
95th percentile per-packet one-way delay: 83.010 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.34 Mbit/s
95th percentile per-packet one-way delay: 83.010 ms
Loss rate: 0.00%
```

Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-06-05 07:03:08
End at: 2018-06-05 07:03:38
Local clock offset: -4.153 ms
Remote clock offset: 11.327 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 92.411 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.52 Mbit/s
95th percentile per-packet one-way delay: 92.411 ms
Loss rate: 0.00%
```
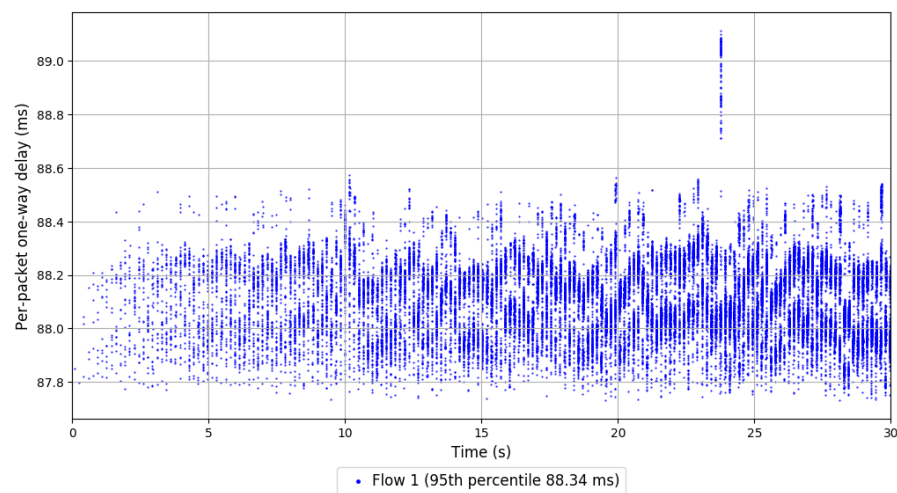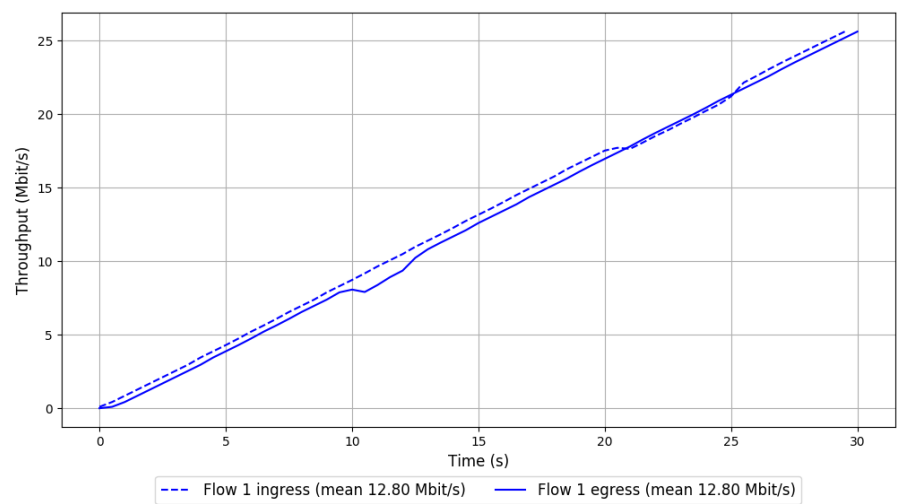
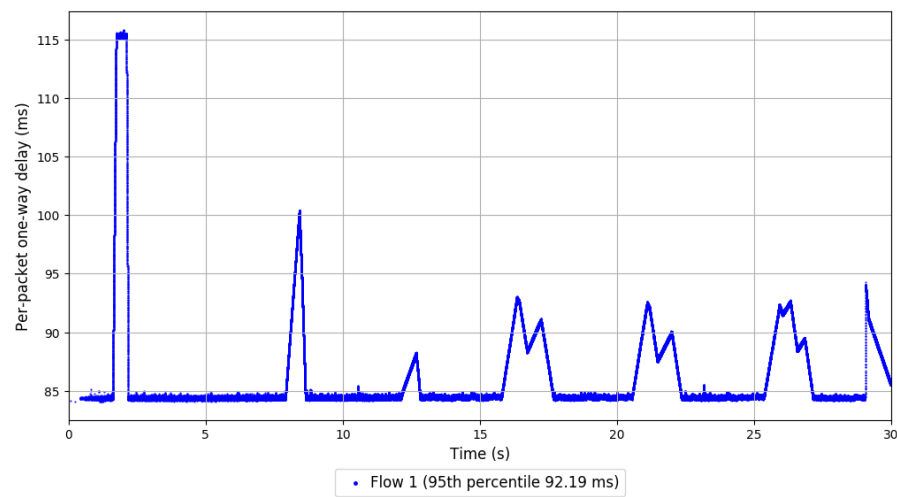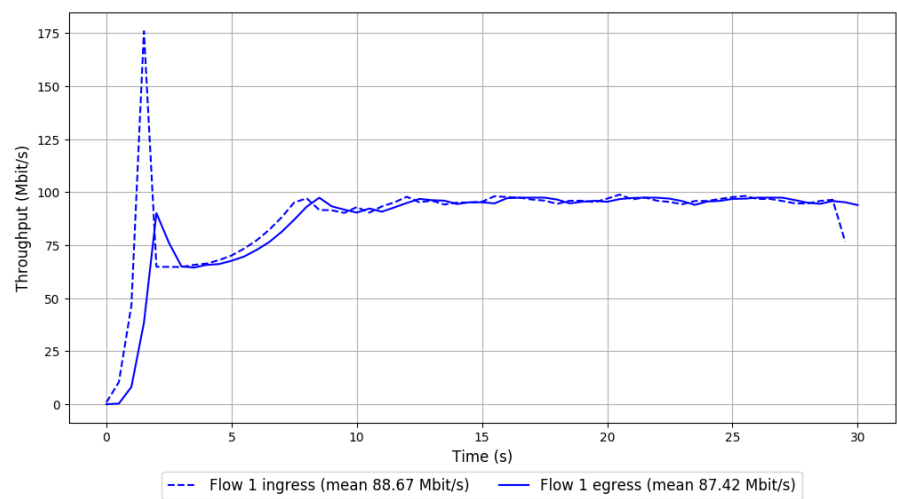# Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 12.52 Mbit/s)   Flow 1 egress (mean 12.52 Mbit/s)

Flow 1 (95th percentile 92.41 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-06-05 07:21:56
End at: 2018-06-05 07:22:26
Local clock offset: -7.082 ms
Remote clock offset: 6.956 ms


# Below is generated by plot.py at 2018-06-05 07:35:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 88.338 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.80 Mbit/s
95th percentile per-packet one-way delay: 88.338 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-05 04:22:56
End at: 2018-06-05 04:23:27
Local clock offset: -1.912 ms
Remote clock offset: 14.383 ms

# Below is generated by plot.py at 2018-06-05 07:36:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 92.194 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 87.42 Mbit/s
95th percentile per-packet one-way delay: 92.194 ms
Loss rate: 1.41%
```
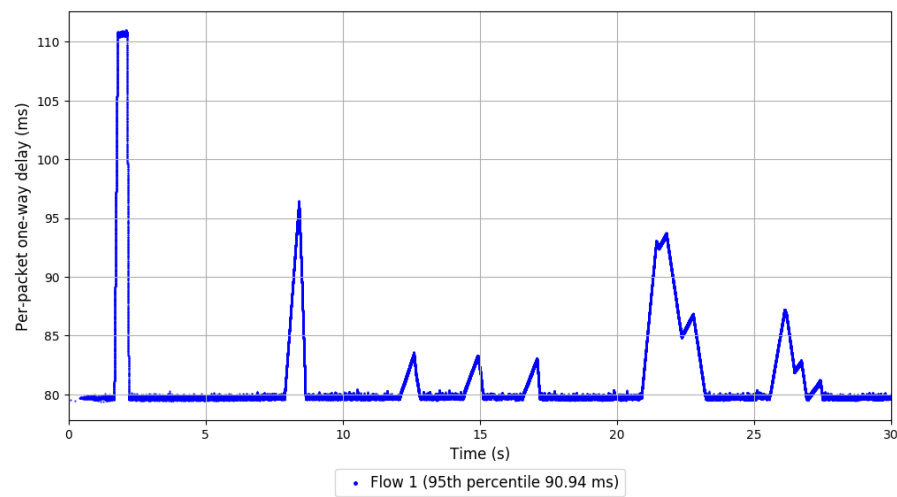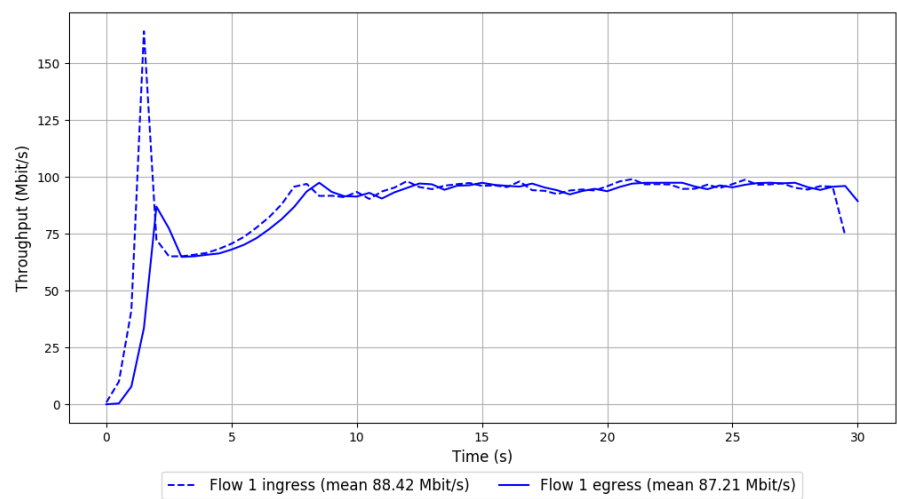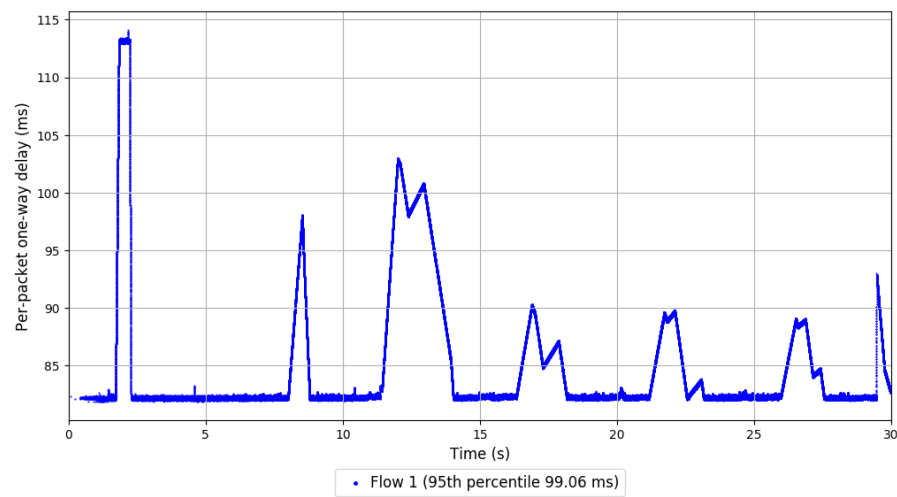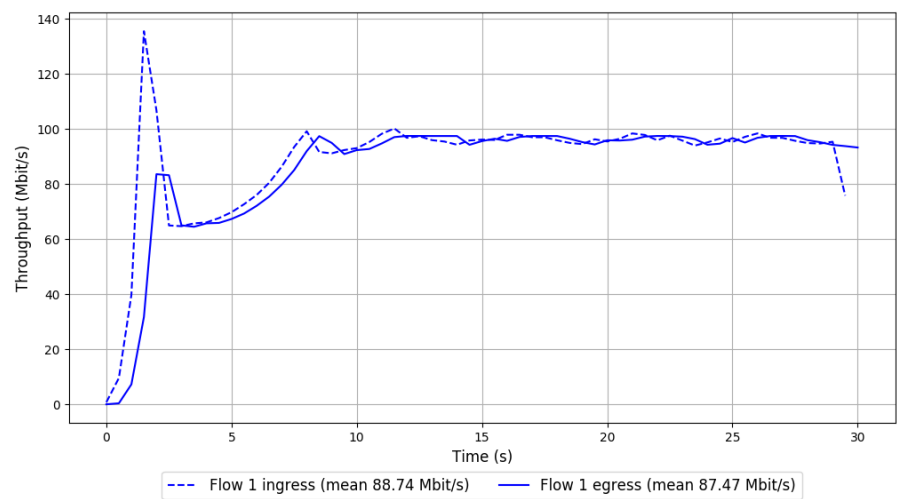
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-05 04:41:36
End at: 2018-06-05 04:42:06
Local clock offset: -1.15 ms
Remote clock offset: 12.49 ms


# Below is generated by plot.py at 2018-06-05 07:36:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.21 Mbit/s
95th percentile per-packet one-way delay: 90.940 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 87.21 Mbit/s
95th percentile per-packet one-way delay: 90.940 ms
Loss rate: 1.37%
```
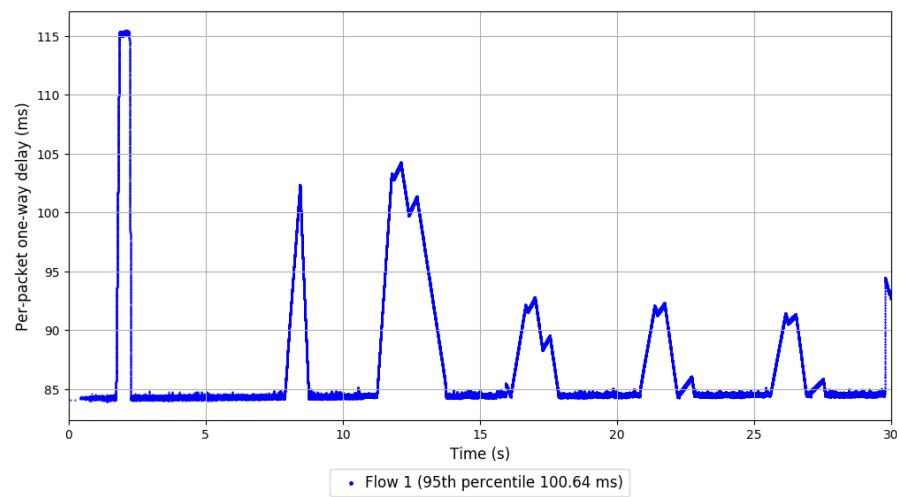
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-05 05:00:20
End at: 2018-06-05 05:00:50
Local clock offset: -1.965 ms
Remote clock offset: 16.427 ms


# Below is generated by plot.py at 2018-06-05 07:36:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 99.064 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 87.47 Mbit/s
95th percentile per-packet one-way delay: 99.064 ms
Loss rate: 1.42%
```
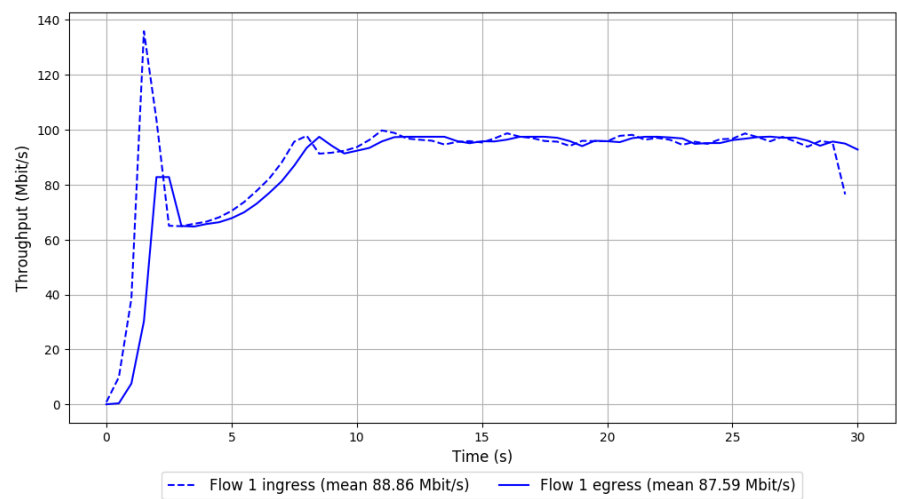
Run 3: Report of PCC-Allegro — Data Link

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-05 05:19:02
End at: 2018-06-05 05:19:32
Local clock offset: -1.122 ms
Remote clock offset: 15.533 ms


# Below is generated by plot.py at 2018-06-05 07:36:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 100.642 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 100.642 ms
Loss rate: 1.40%
```

Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-05 05:37:43
End at: 2018-06-05 05:38:13
Local clock offset: -2.293 ms
Remote clock offset: 7.482 ms


# Below is generated by plot.py at 2018-06-05 07:36:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 90.740 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 87.16 Mbit/s
95th percentile per-packet one-way delay: 90.740 ms
Loss rate: 1.37%
```
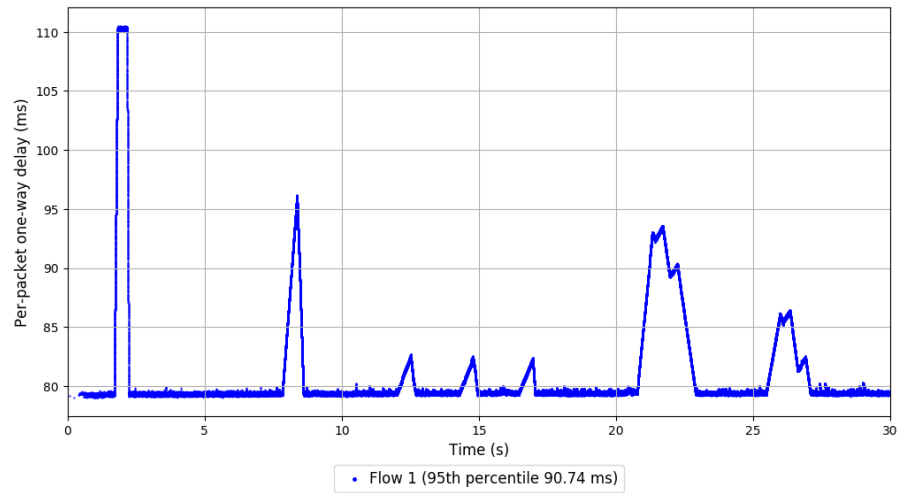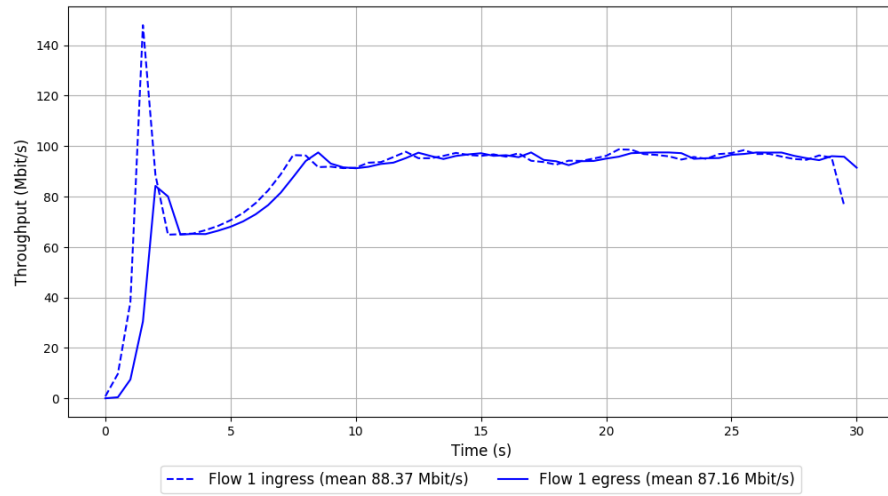
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-05 05:56:29
End at: 2018-06-05 05:56:59
Local clock offset: -2.306 ms
Remote clock offset: 3.594 ms


# Below is generated by plot.py at 2018-06-05 07:36:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 85.454 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 85.454 ms
Loss rate: 1.37%
```
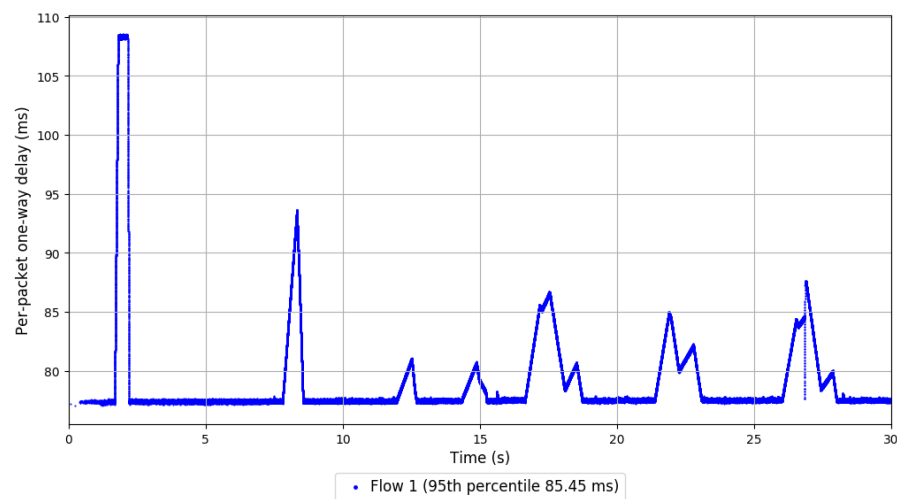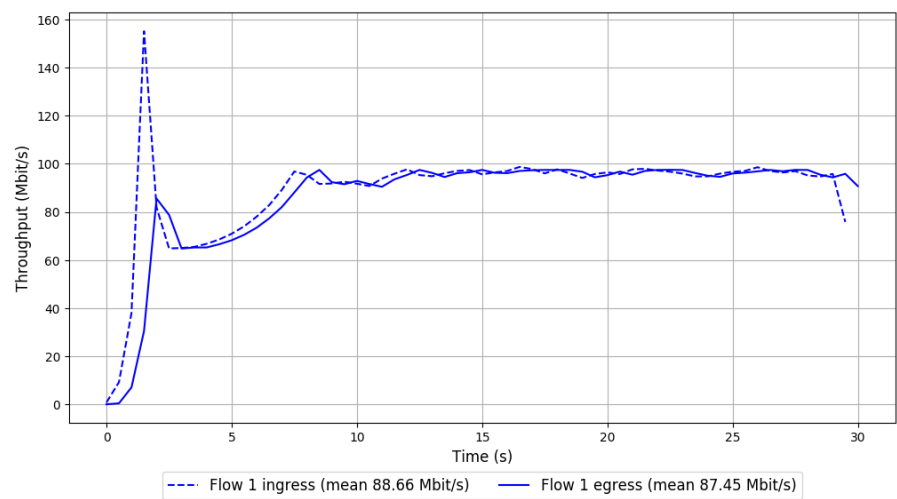
Run 6: Report of PCC-Allegro — Data Link

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-05 06:15:14
End at: 2018-06-05 06:15:44
Local clock offset: -3.073 ms
Remote clock offset: 7.487 ms


# Below is generated by plot.py at 2018-06-05 07:36:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.44 Mbit/s
95th percentile per-packet one-way delay: 102.933 ms
Loss rate: 1.39%
-- Flow 1:
Average throughput: 87.44 Mbit/s
95th percentile per-packet one-way delay: 102.933 ms
Loss rate: 1.39%
```
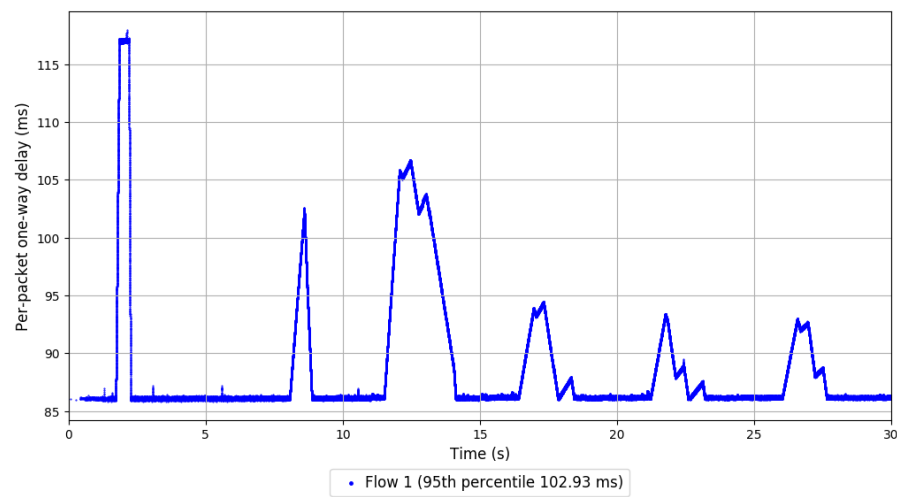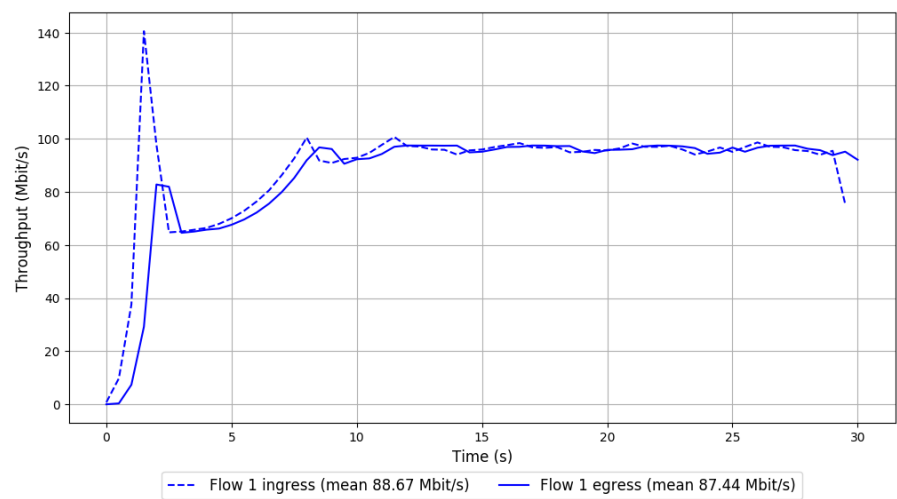
Run 7: Report of PCC-Allegro — Data Link

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-05 06:33:57
End at: 2018-06-05 06:34:27
Local clock offset: -3.104 ms
Remote clock offset: 8.489 ms


# Below is generated by plot.py at 2018-06-05 07:36:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.60 Mbit/s
95th percentile per-packet one-way delay: 88.071 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 87.60 Mbit/s
95th percentile per-packet one-way delay: 88.071 ms
Loss rate: 1.37%
```
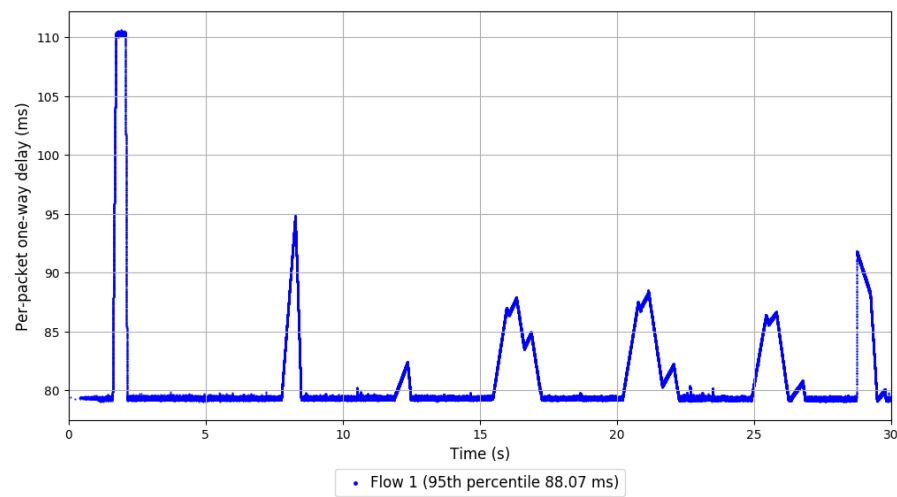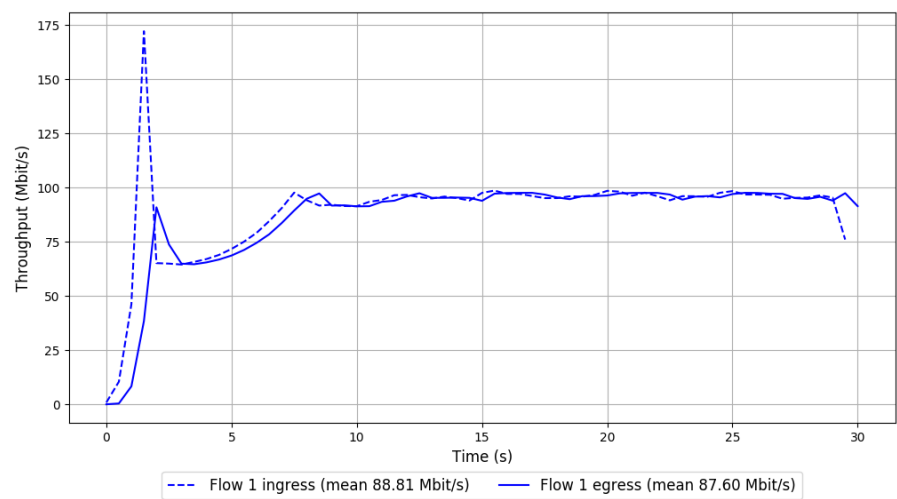
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 88.81 Mbit/s) —— Flow 1 egress (mean 87.60 Mbit/s)

• Flow 1 (95th percentile 88.07 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-05 06:52:39
End at: 2018-06-05 06:53:09
Local clock offset: -4.114 ms
Remote clock offset: 13.67 ms


# Below is generated by plot.py at 2018-06-05 07:37:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 101.783 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 87.59 Mbit/s
95th percentile per-packet one-way delay: 101.783 ms
Loss rate: 1.41%
```
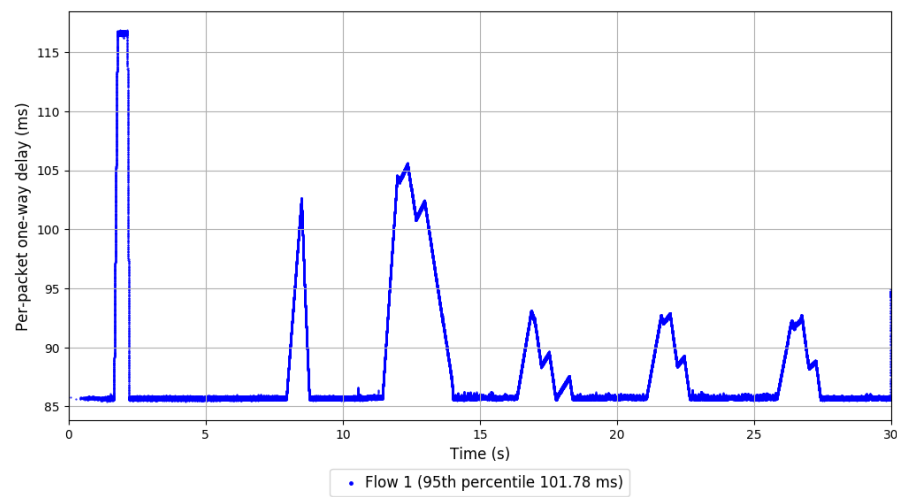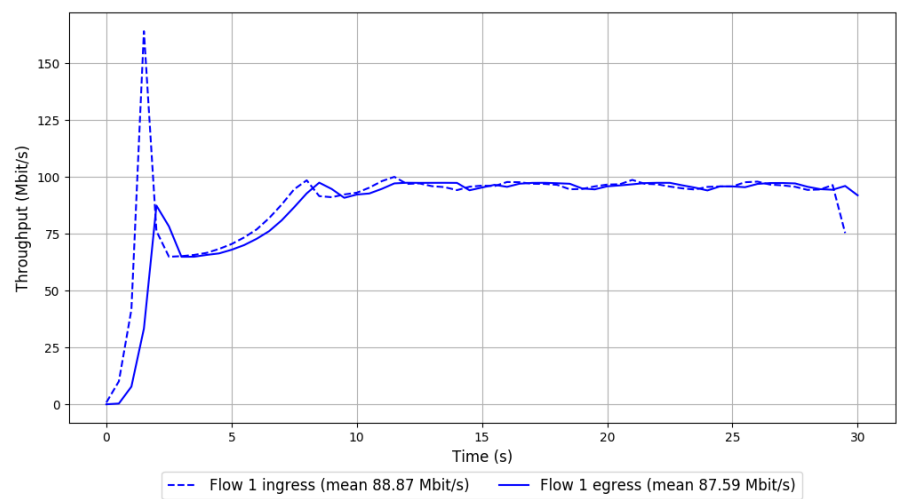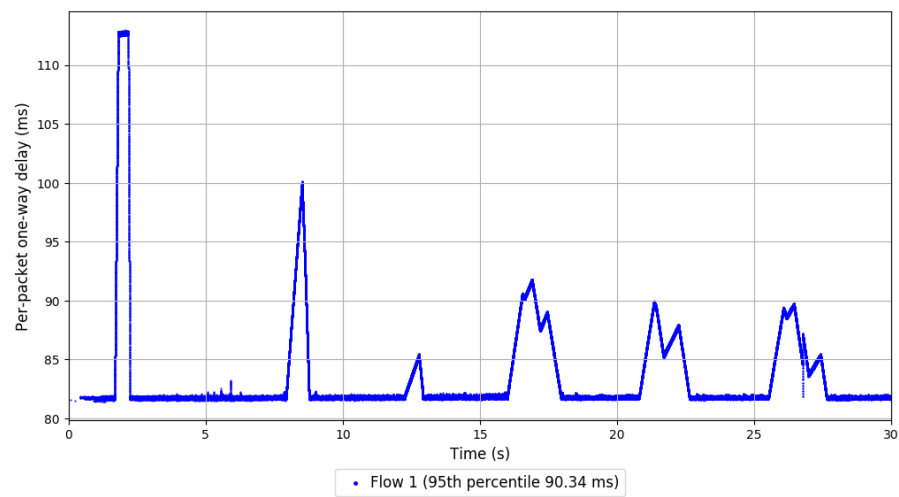
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 88.87 Mbit/s) —— Flow 1 egress (mean 87.59 Mbit/s)

• Flow 1 (95th percentile 101.78 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-05 07:11:19
End at: 2018-06-05 07:11:49
Local clock offset: -4.733 ms
Remote clock offset: 8.151 ms


# Below is generated by plot.py at 2018-06-05 07:37:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 90.345 ms
Loss rate: 1.41%
-- Flow 1:
Average throughput: 87.39 Mbit/s
95th percentile per-packet one-way delay: 90.345 ms
Loss rate: 1.41%
```
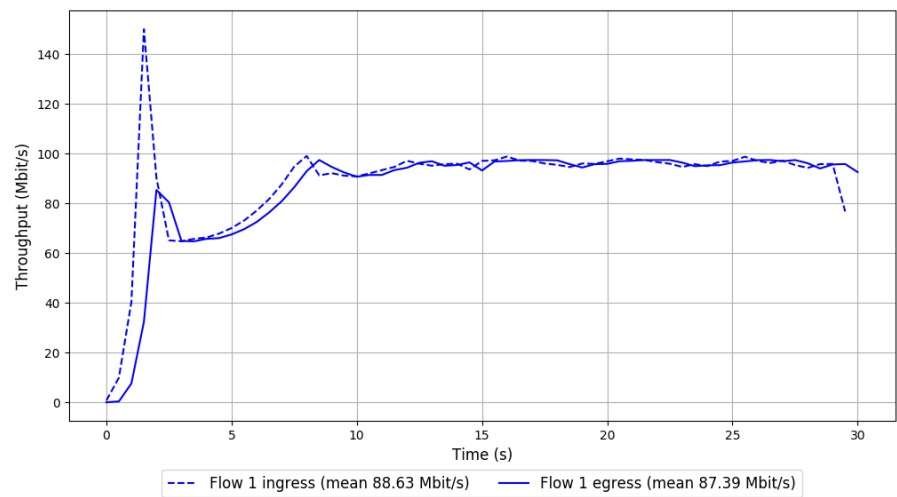
Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 88.63 Mbit/s)   Flow 1 egress (mean 87.39 Mbit/s)
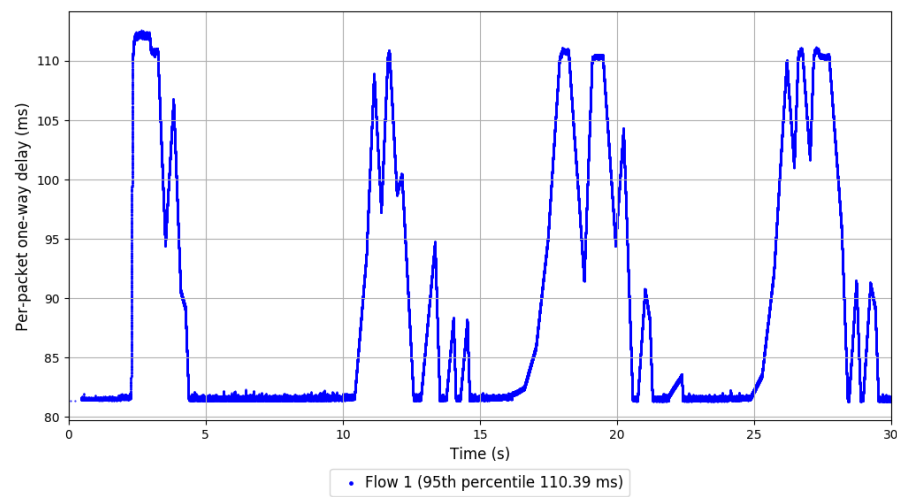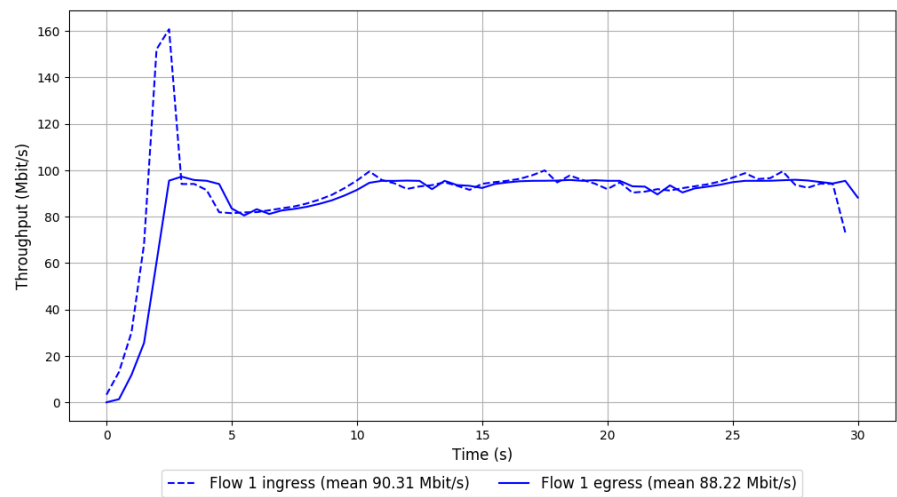

Flow 1 (95th percentile 90.34 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-05 04:20:30
End at: 2018-06-05 04:21:00
Local clock offset: -1.92 ms
Remote clock offset: 8.985 ms

# Below is generated by plot.py at 2018-06-05 07:38:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.22 Mbit/s
95th percentile per-packet one-way delay: 110.390 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 88.22 Mbit/s
95th percentile per-packet one-way delay: 110.390 ms
Loss rate: 2.32%
```
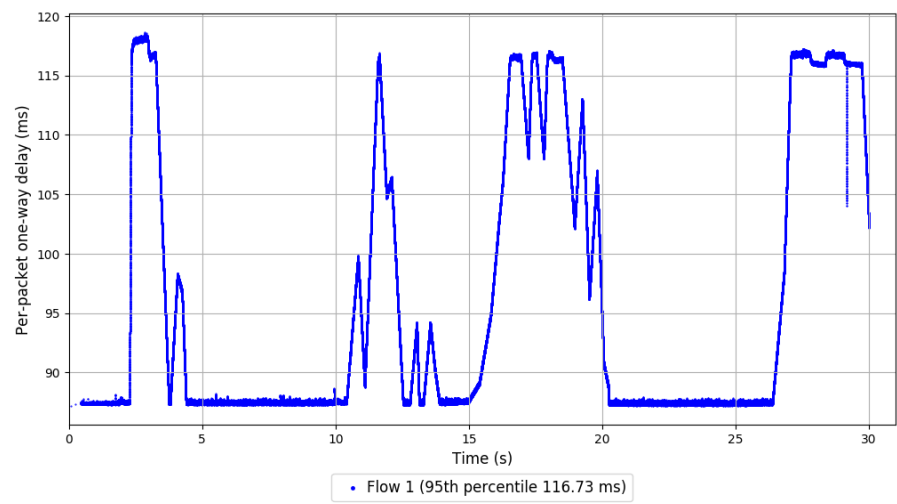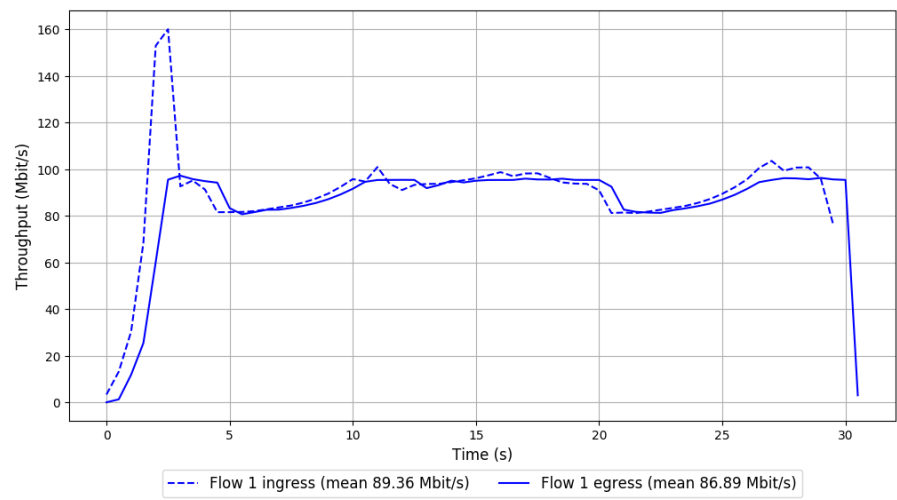
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-05 04:39:10
End at: 2018-06-05 04:39:40
Local clock offset: -1.983 ms
Remote clock offset: 17.264 ms


# Below is generated by plot.py at 2018-06-05 07:38:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 116.726 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 86.89 Mbit/s
95th percentile per-packet one-way delay: 116.726 ms
Loss rate: 2.71%
```
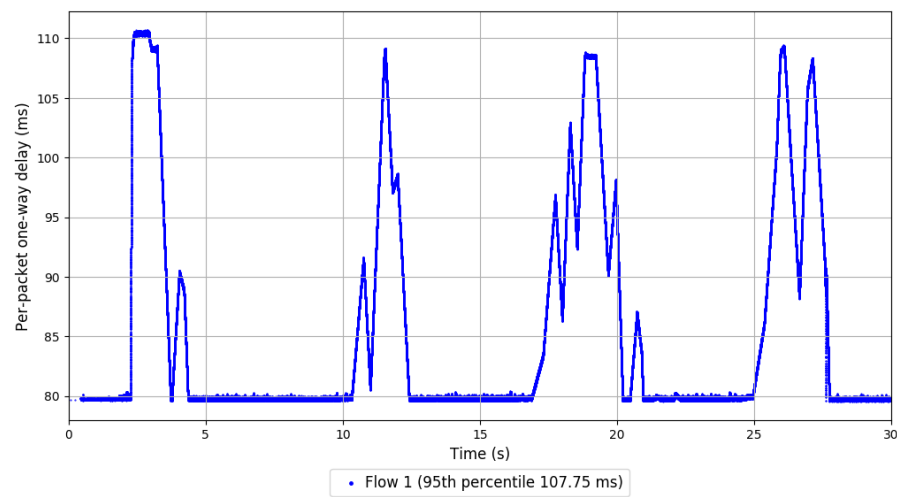
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 89.36 Mbit/s)   Flow 1 egress (mean 86.89 Mbit/s)

Flow 1 (95th percentile 116.73 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-06-05 04:57:54
End at: 2018-06-05 04:58:24
Local clock offset: -2.02 ms
Remote clock offset: 13.436 ms


# Below is generated by plot.py at 2018-06-05 07:38:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.62 Mbit/s
95th percentile per-packet one-way delay: 107.746 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 86.62 Mbit/s
95th percentile per-packet one-way delay: 107.746 ms
Loss rate: 2.22%
```
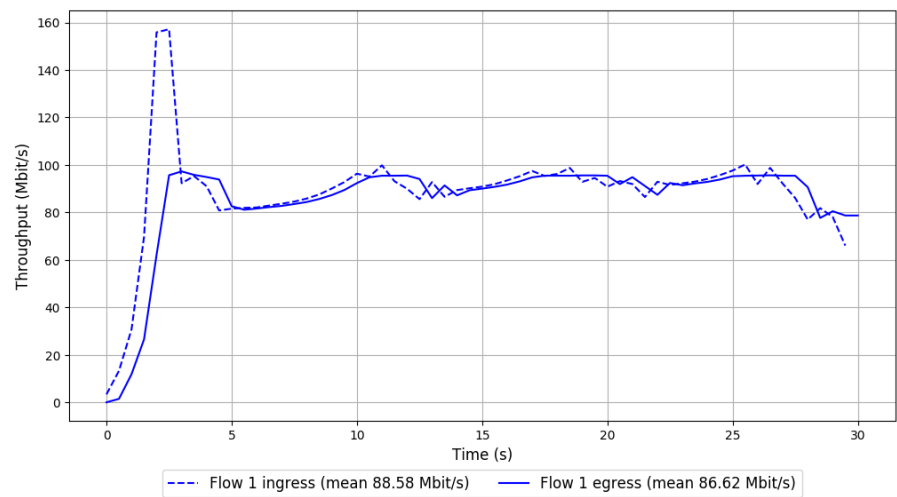
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 88.58 Mbit/s)   Flow 1 egress (mean 86.62 Mbit/s)

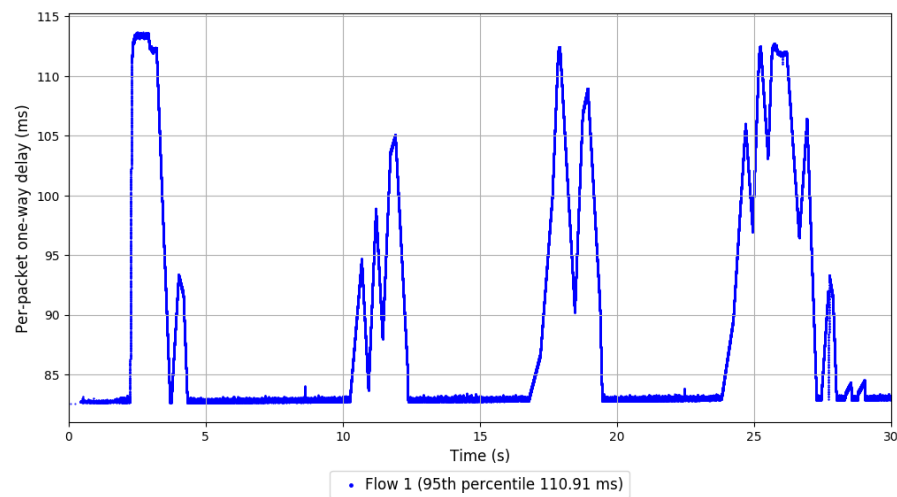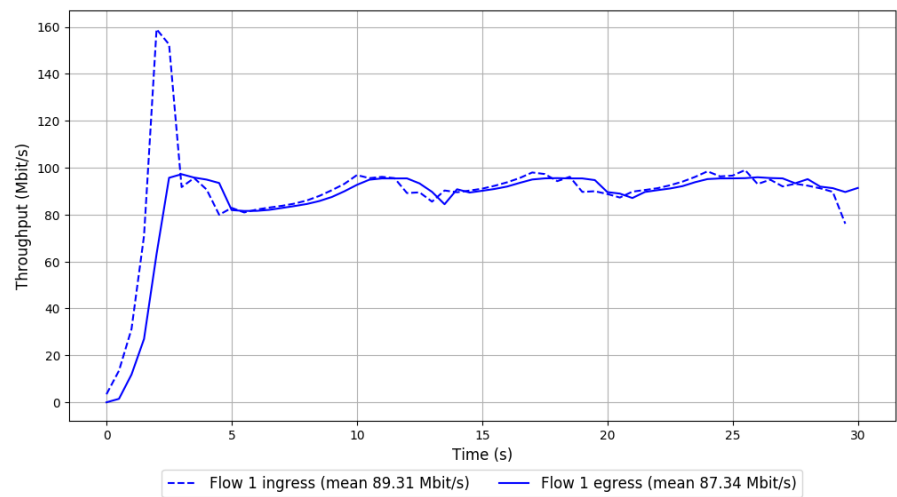• Flow 1 (95th percentile 107.75 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-06-05 05:16:35
End at: 2018-06-05 05:17:05
Local clock offset: -1.149 ms
Remote clock offset: 16.789 ms


# Below is generated by plot.py at 2018-06-05 07:38:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.34 Mbit/s
95th percentile per-packet one-way delay: 110.909 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 87.34 Mbit/s
95th percentile per-packet one-way delay: 110.909 ms
Loss rate: 2.20%
```
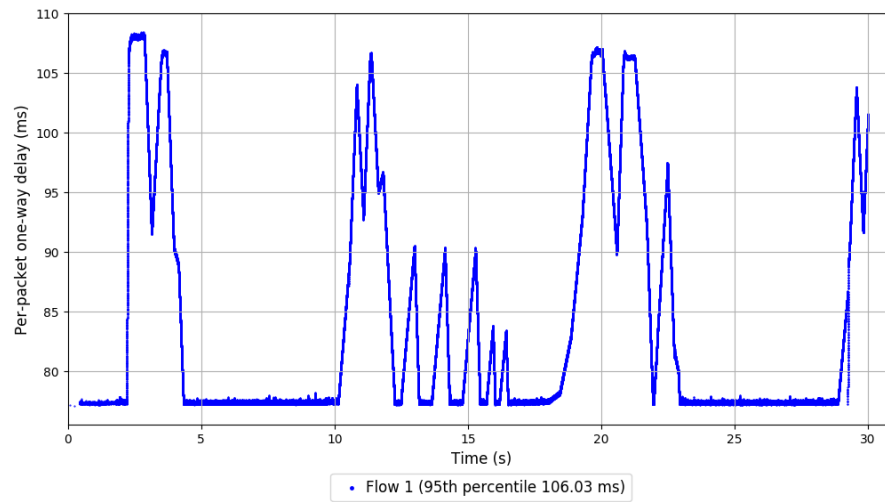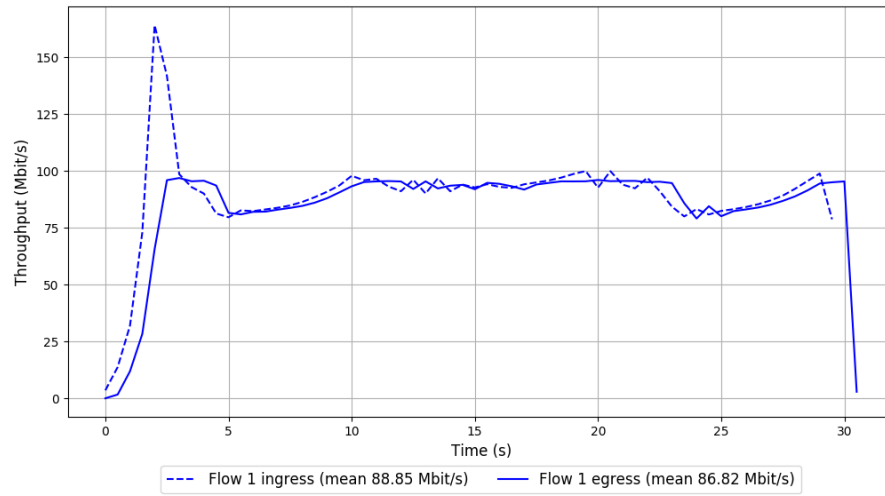
Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 89.31 Mbit/s)   Flow 1 egress (mean 87.34 Mbit/s)

• Flow 1 (95th percentile 110.91 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-06-05 05:35:16
End at: 2018-06-05 05:35:46
Local clock offset: -1.23 ms
Remote clock offset: 6.723 ms


# Below is generated by plot.py at 2018-06-05 07:38:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 106.028 ms
Loss rate: 2.20%
-- Flow 1:
Average throughput: 86.82 Mbit/s
95th percentile per-packet one-way delay: 106.028 ms
Loss rate: 2.20%
```
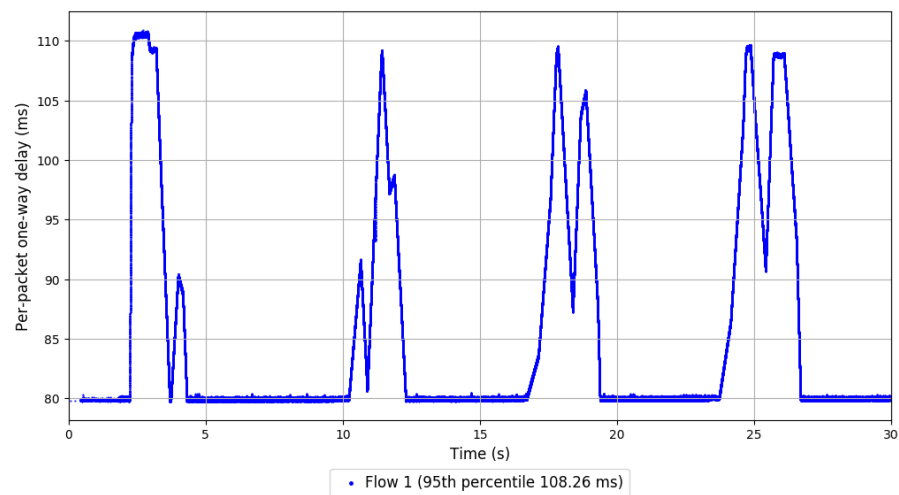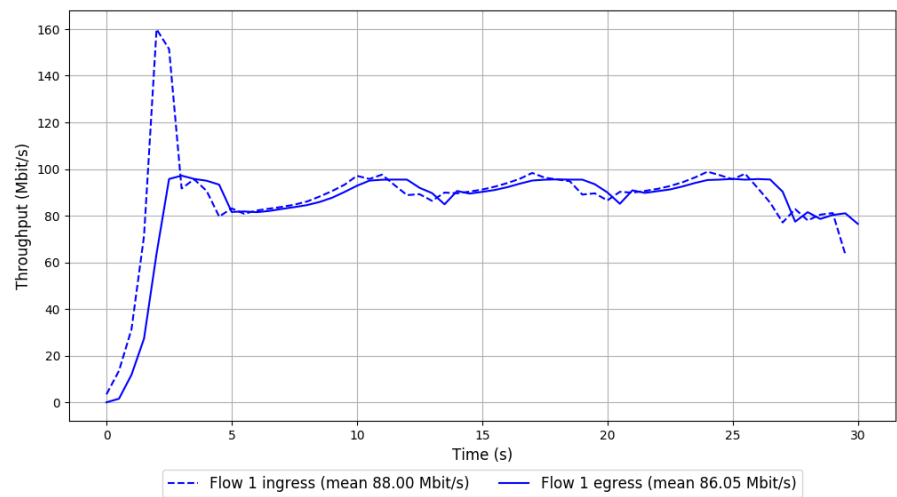
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 88.85 Mbit/s)   Flow 1 egress (mean 86.82 Mbit/s)

Flow 1 (95th percentile 106.03 ms)

```
Run 6: Statistics of PCC-Expr

Start at: 2018-06-05 05:54:01
End at: 2018-06-05 05:54:31
Local clock offset: -2.962 ms
Remote clock offset: 4.053 ms


# Below is generated by plot.py at 2018-06-05 07:38:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.05 Mbit/s
95th percentile per-packet one-way delay: 108.262 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 86.05 Mbit/s
95th percentile per-packet one-way delay: 108.262 ms
Loss rate: 2.22%
```
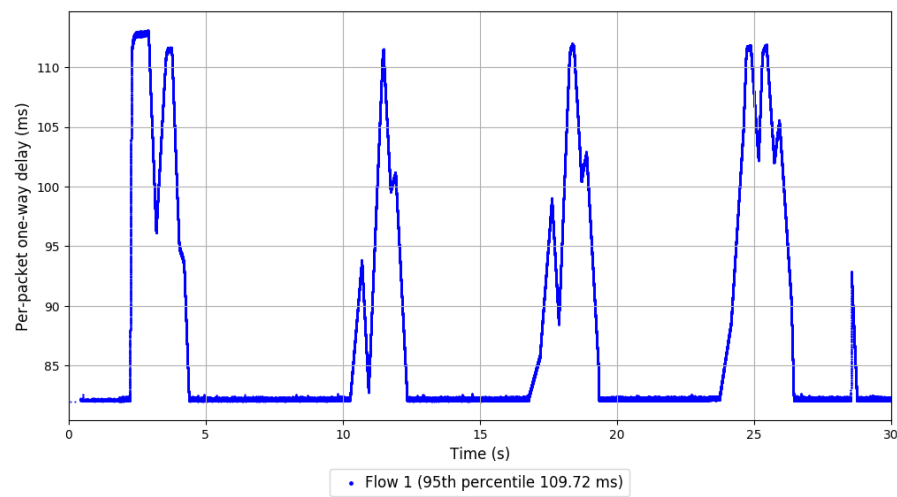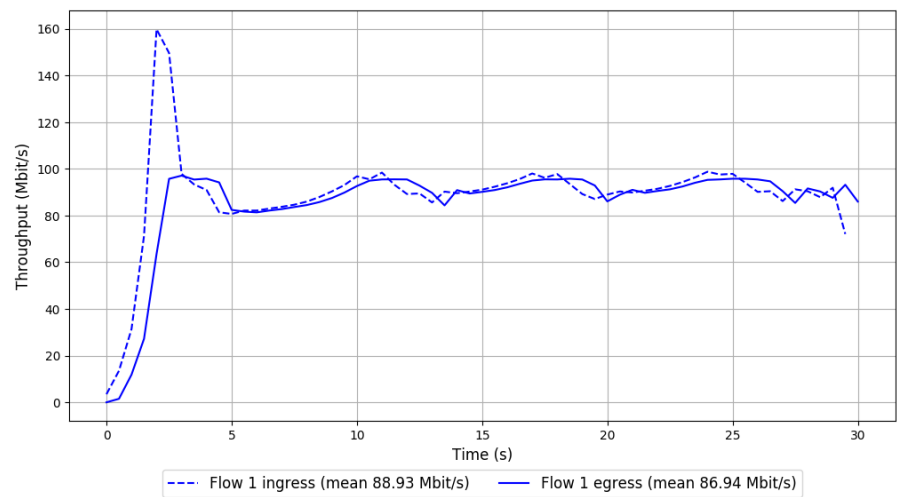
Run 6: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 88.00 Mbit/s)   Flow 1 egress (mean 86.05 Mbit/s)

Flow 1 (95th percentile 108.26 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-06-05 06:12:47
End at: 2018-06-05 06:13:17
Local clock offset: -3.083 ms
Remote clock offset: 5.535 ms

# Below is generated by plot.py at 2018-06-05 07:39:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.94 Mbit/s
95th percentile per-packet one-way delay: 109.724 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 86.94 Mbit/s
95th percentile per-packet one-way delay: 109.724 ms
Loss rate: 2.24%
```
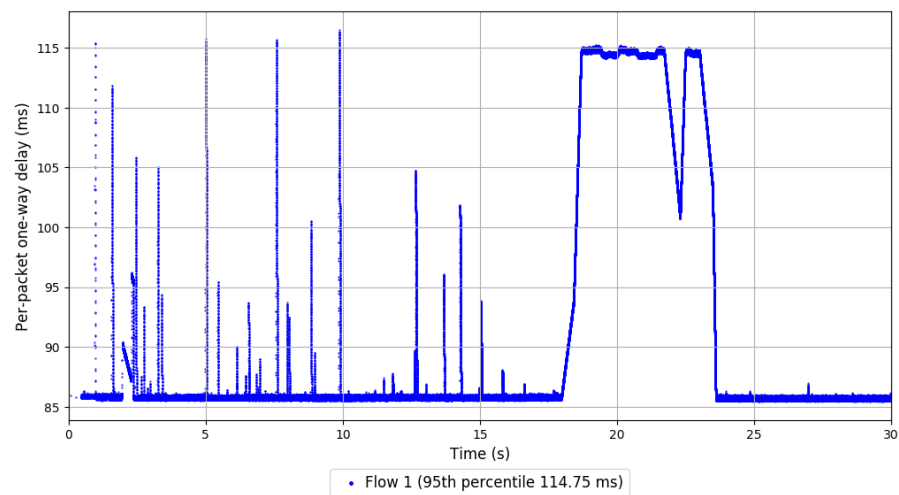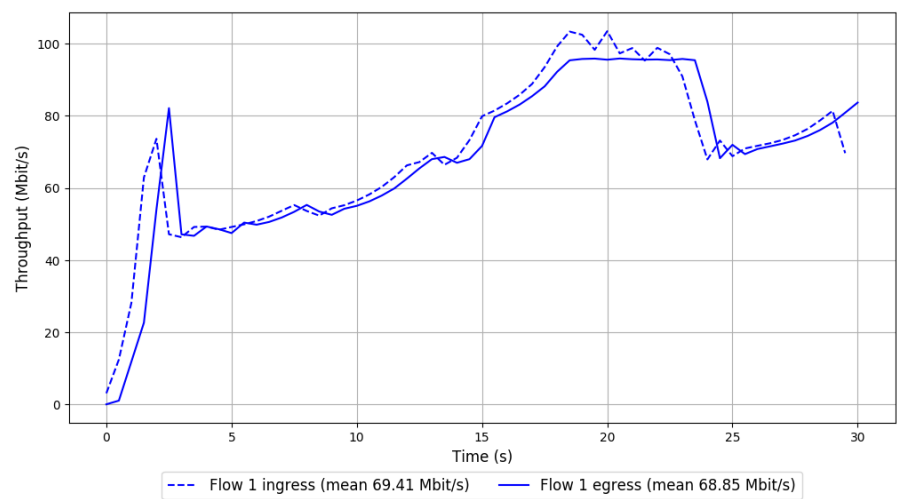
Run 7: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 88.93 Mbit/s)   Flow 1 egress (mean 86.94 Mbit/s)
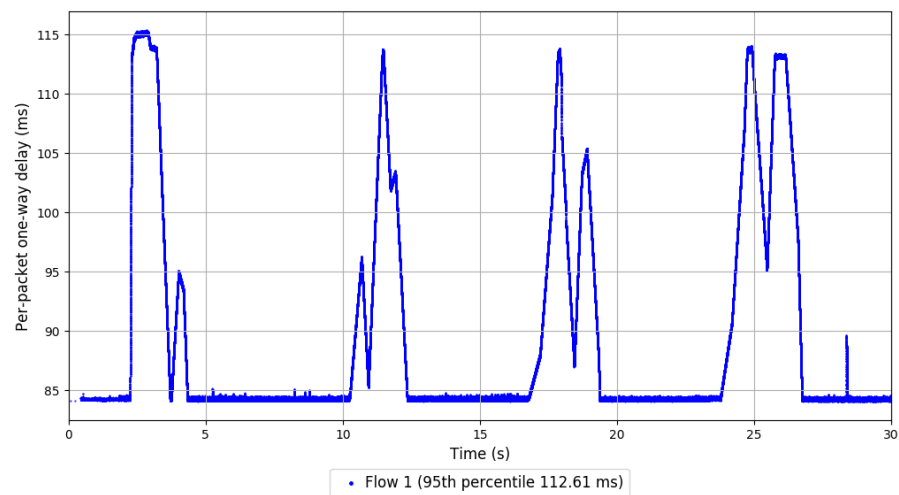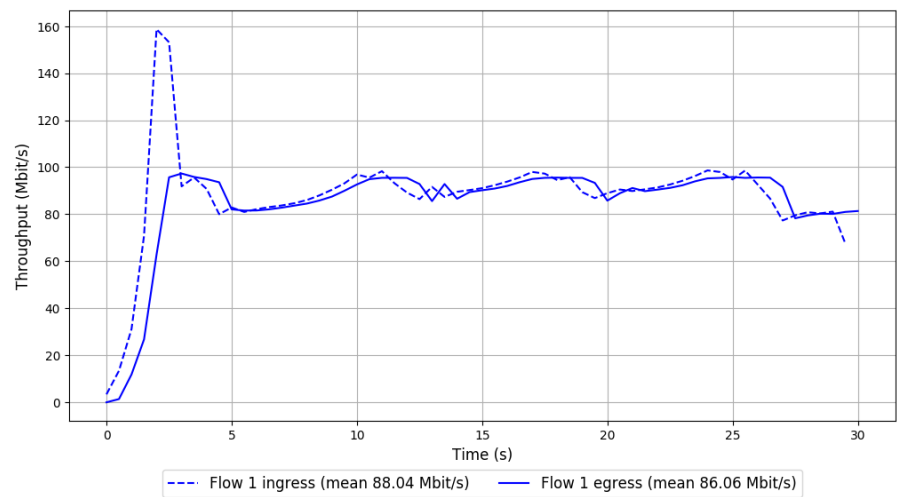

Flow 1 (95th percentile 109.72 ms)

```
Run 8: Statistics of PCC-Expr

Start at: 2018-06-05 06:31:32
End at: 2018-06-05 06:32:02
Local clock offset: -2.325 ms
Remote clock offset: 7.714 ms


# Below is generated by plot.py at 2018-06-05 07:39:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.85 Mbit/s
95th percentile per-packet one-way delay: 114.747 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 68.85 Mbit/s
95th percentile per-packet one-way delay: 114.747 ms
Loss rate: 0.80%
```

Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 69.41 Mbit/s)   Flow 1 egress (mean 68.85 Mbit/s)

Flow 1 (95th percentile 114.75 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-06-05 06:50:11
End at: 2018-06-05 06:50:42
Local clock offset: -2.475 ms
Remote clock offset: 14.676 ms


# Below is generated by plot.py at 2018-06-05 07:40:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 112.610 ms
Loss rate: 2.25%
-- Flow 1:
Average throughput: 86.06 Mbit/s
95th percentile per-packet one-way delay: 112.610 ms
Loss rate: 2.25%
```

Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-06-05 07:08:51
End at: 2018-06-05 07:09:21
Local clock offset: -4.17 ms
Remote clock offset: 9.719 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 110.945 ms
Loss rate: 2.21%
-- Flow 1:
Average throughput: 87.07 Mbit/s
95th percentile per-packet one-way delay: 110.945 ms
Loss rate: 2.21%
```
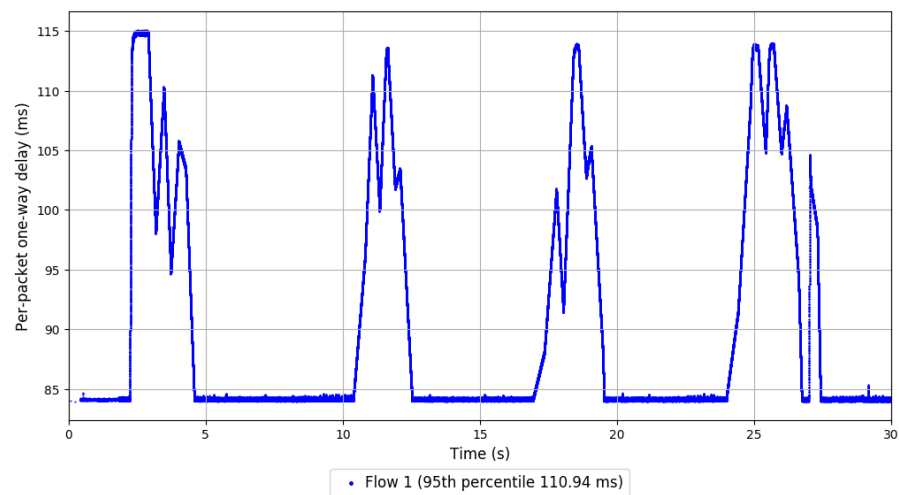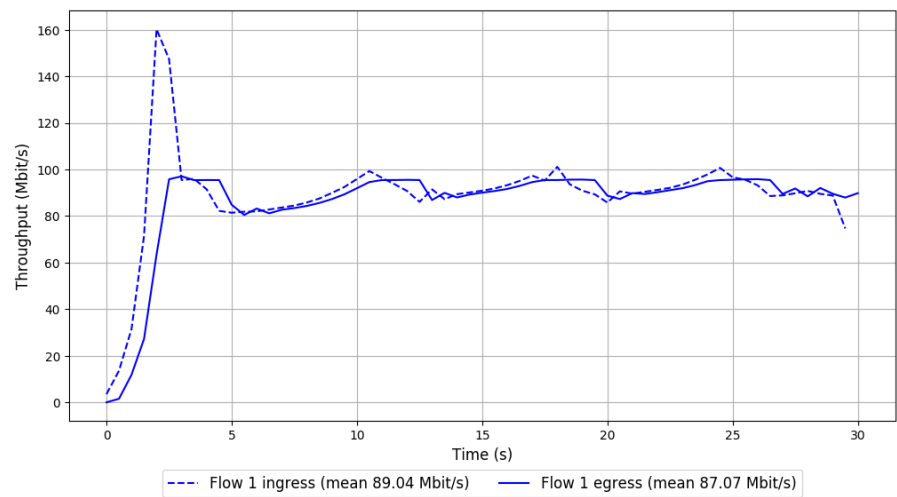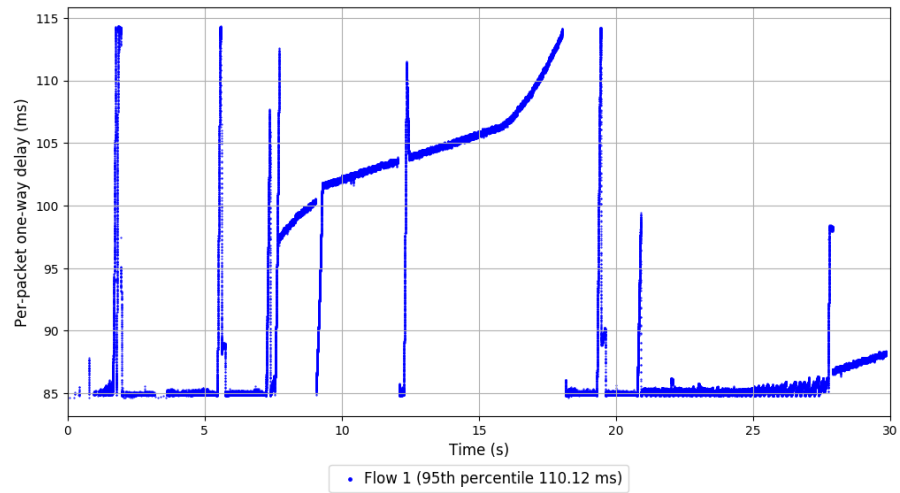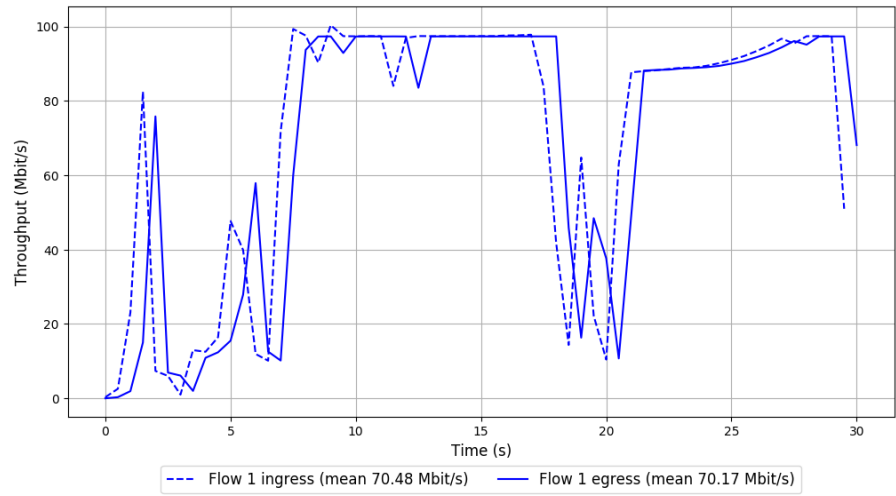
Run 10: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 89.04 Mbit/s)   Flow 1 egress (mean 87.07 Mbit/s)

Flow 1 (95th percentile 110.94 ms)

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```
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-05 04:29:58
End at: 2018-06-05 04:30:28
Local clock offset: -1.141 ms
Remote clock offset: 16.421 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 110.124 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 70.17 Mbit/s
95th percentile per-packet one-way delay: 110.124 ms
Loss rate: 0.44%
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-05 04:48:38
End at: 2018-06-05 04:49:08
Local clock offset: -1.18 ms
Remote clock offset: 11.369 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 101.600 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 70.46 Mbit/s
95th percentile per-packet one-way delay: 101.600 ms
Loss rate: 0.41%
```
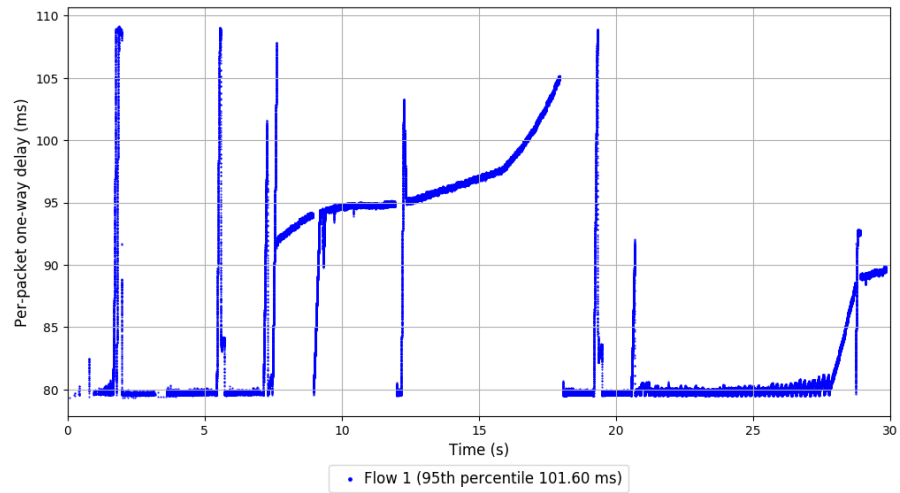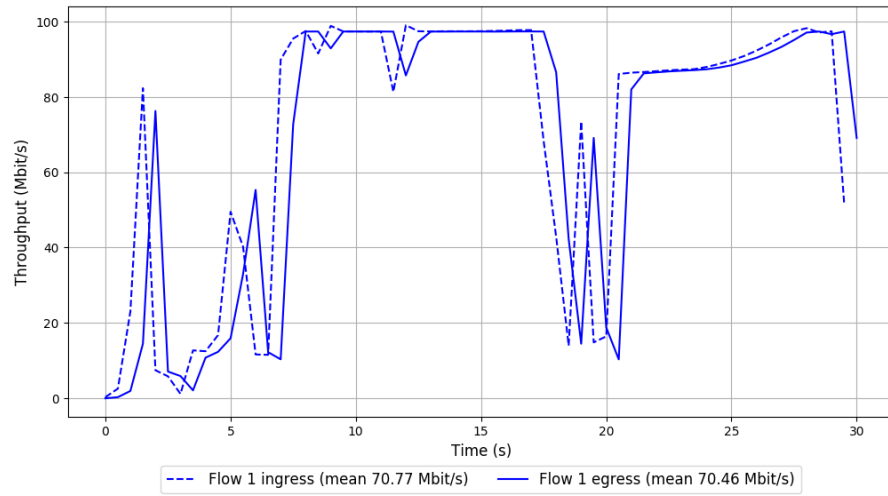
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-05 05:07:22
End at: 2018-06-05 05:07:52
Local clock offset: -1.929 ms
Remote clock offset: 13.171 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.58 Mbit/s
95th percentile per-packet one-way delay: 89.118 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 63.58 Mbit/s
95th percentile per-packet one-way delay: 89.118 ms
Loss rate: 0.45%
```
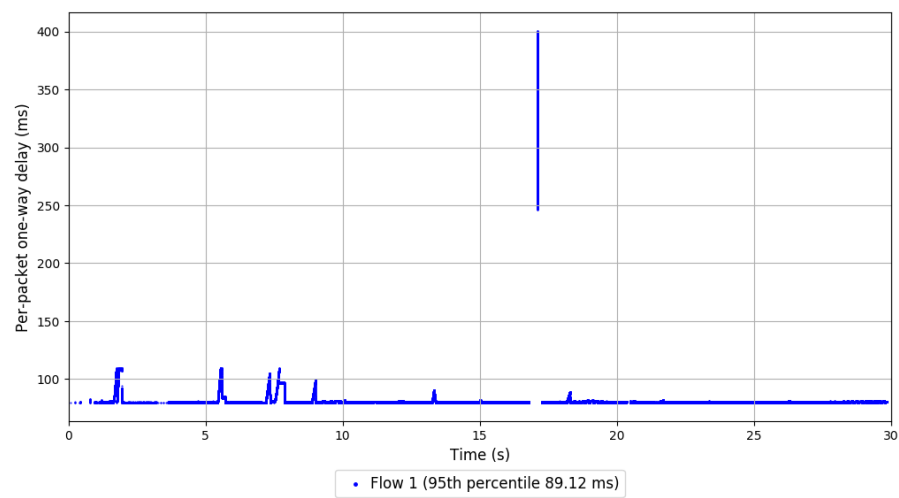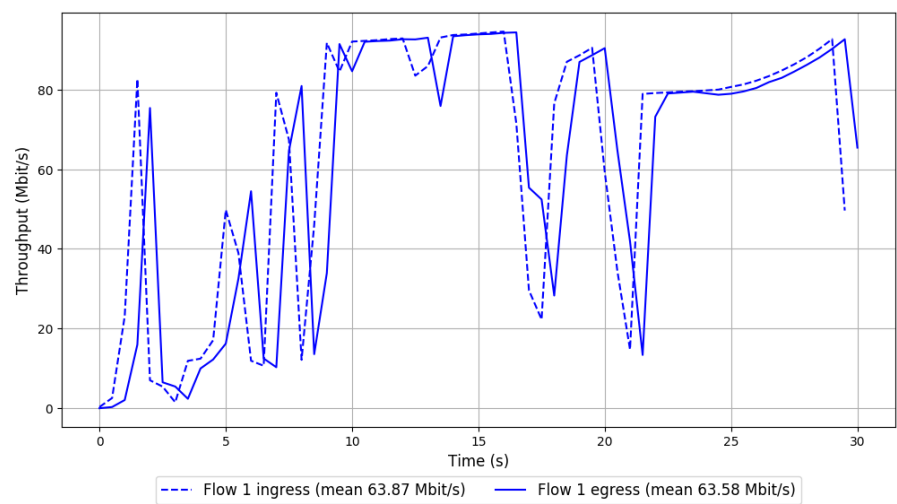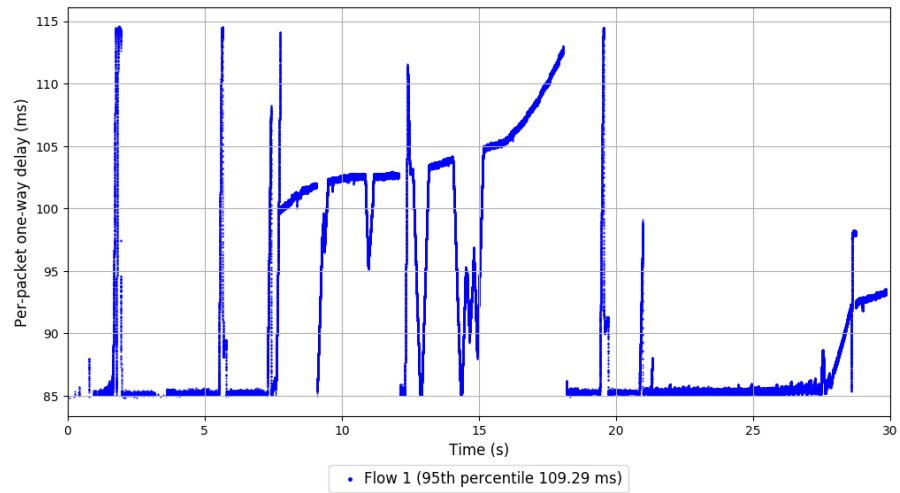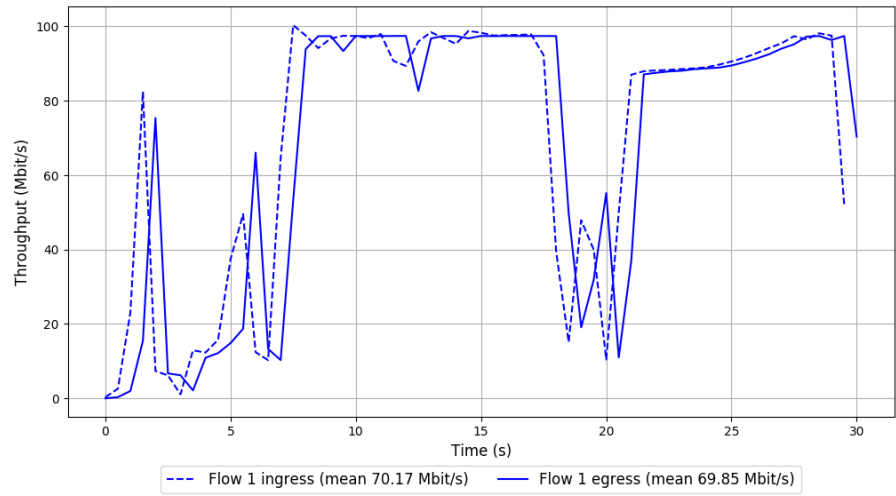
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 63.87 Mbit/s)   Flow 1 egress (mean 63.58 Mbit/s)

Flow 1 (95th percentile 89.12 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-05 05:26:03
End at: 2018-06-05 05:26:33
Local clock offset: -1.879 ms
Remote clock offset: 13.339 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.85 Mbit/s
95th percentile per-packet one-way delay: 109.292 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 69.85 Mbit/s
95th percentile per-packet one-way delay: 109.292 ms
Loss rate: 0.44%
```

Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-05 05:44:46
End at: 2018-06-05 05:45:16
Local clock offset: -3.496 ms
Remote clock offset: 12.133 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 65.65 Mbit/s
95th percentile per-packet one-way delay: 113.646 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 65.65 Mbit/s
95th percentile per-packet one-way delay: 113.646 ms
Loss rate: 0.48%
```
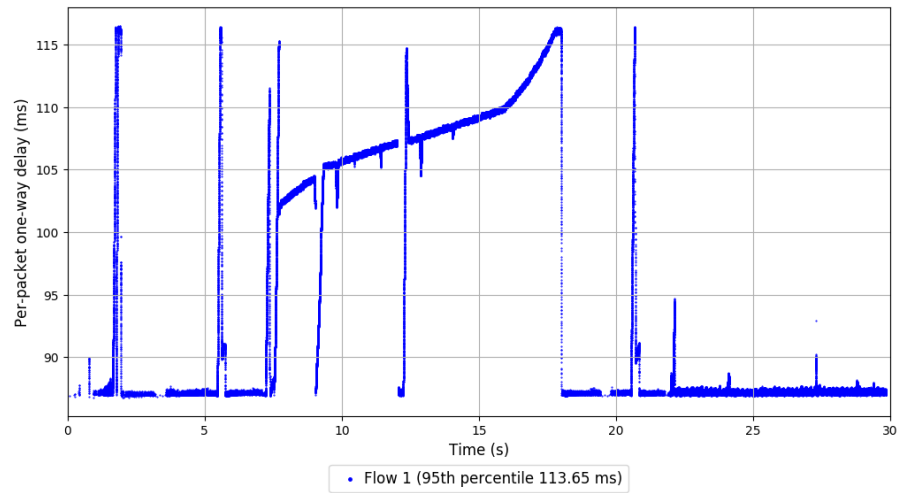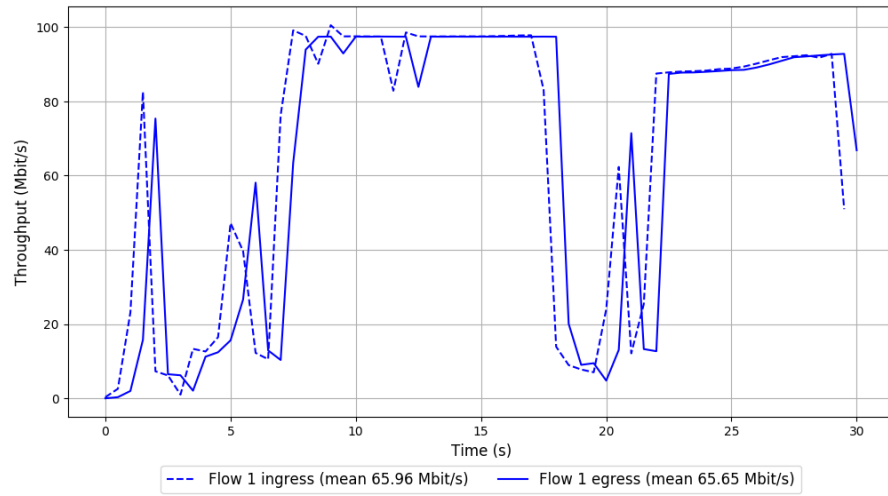
Run 5: Report of QUIC Cubic — Data Link

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-05 06:03:32
End at: 2018-06-05 06:04:02
Local clock offset: -3.886 ms
Remote clock offset: 3.76 ms


# Below is generated by plot.py at 2018-06-05 07:40:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.73 Mbit/s
95th percentile per-packet one-way delay: 98.761 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 69.73 Mbit/s
95th percentile per-packet one-way delay: 98.761 ms
Loss rate: 0.41%
```
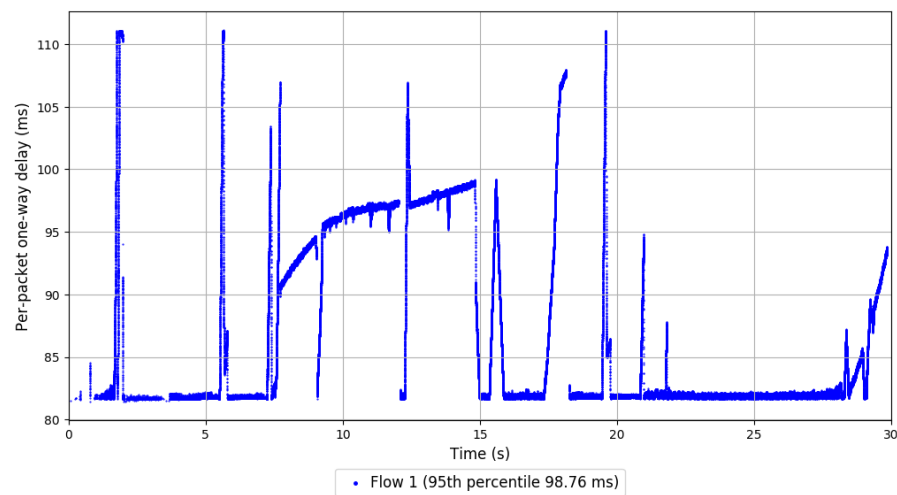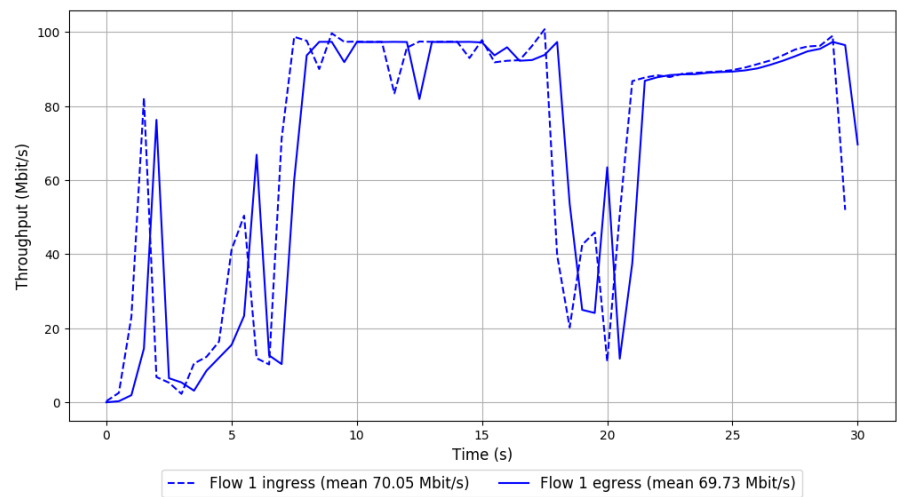
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-05 06:22:17
End at: 2018-06-05 06:22:47
Local clock offset: -2.256 ms
Remote clock offset: 2.247 ms


# Below is generated by plot.py at 2018-06-05 07:40:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.09 Mbit/s
95th percentile per-packet one-way delay: 100.637 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 70.09 Mbit/s
95th percentile per-packet one-way delay: 100.637 ms
Loss rate: 0.44%
```
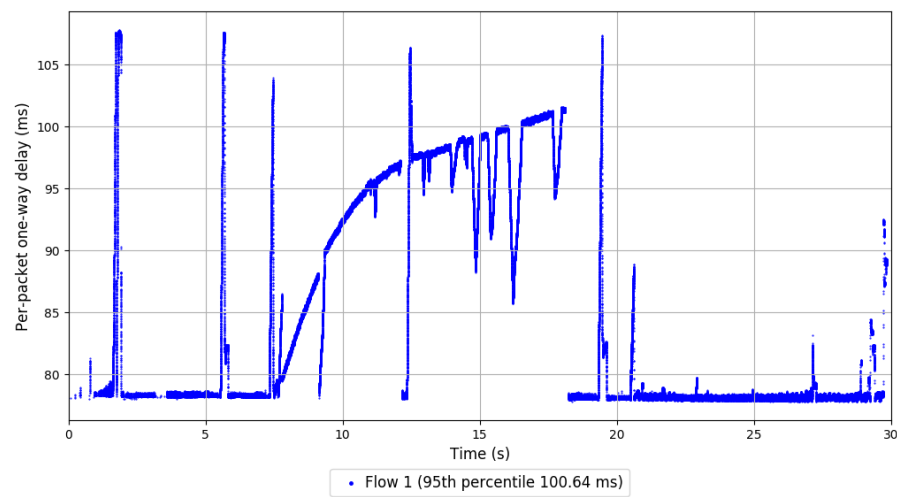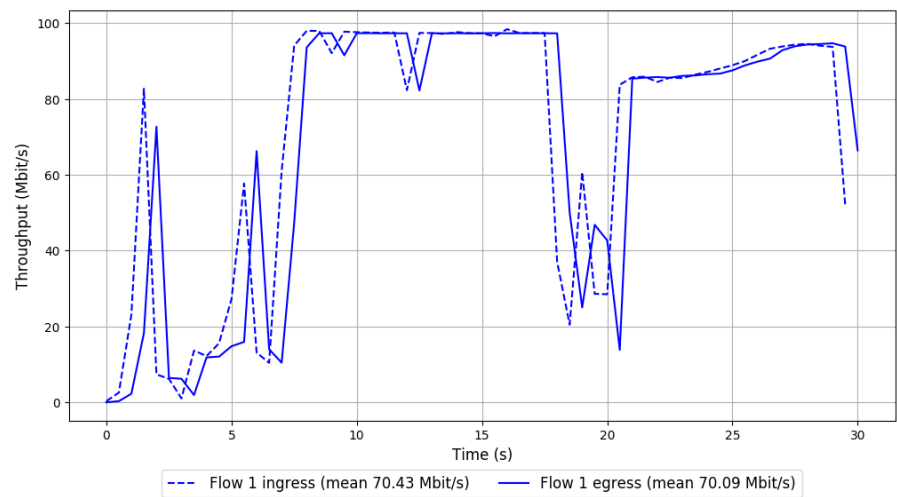
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 70.43 Mbit/s)   ——— Flow 1 egress (mean 70.09 Mbit/s)
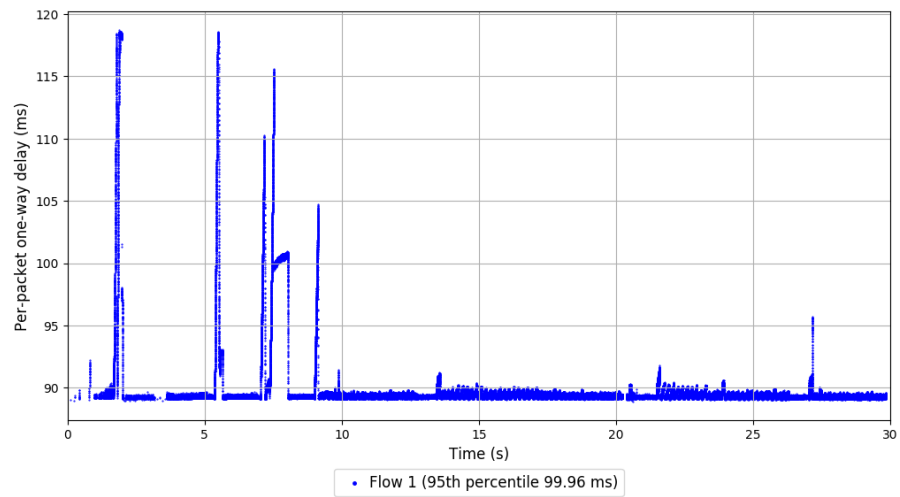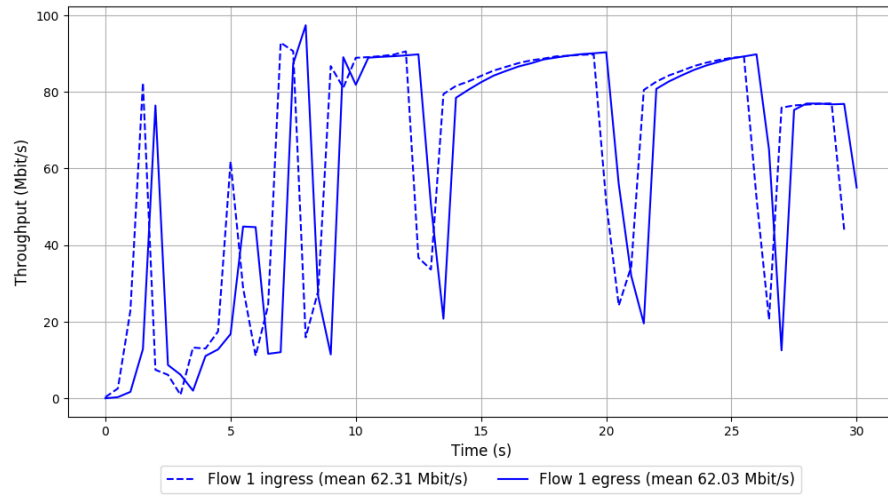

• Flow 1 (95th percentile 100.64 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-05 06:40:59
End at: 2018-06-05 06:41:29
Local clock offset: -2.422 ms
Remote clock offset: 14.901 ms


# Below is generated by plot.py at 2018-06-05 07:40:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.03 Mbit/s
95th percentile per-packet one-way delay: 99.956 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 62.03 Mbit/s
95th percentile per-packet one-way delay: 99.956 ms
Loss rate: 0.44%
```
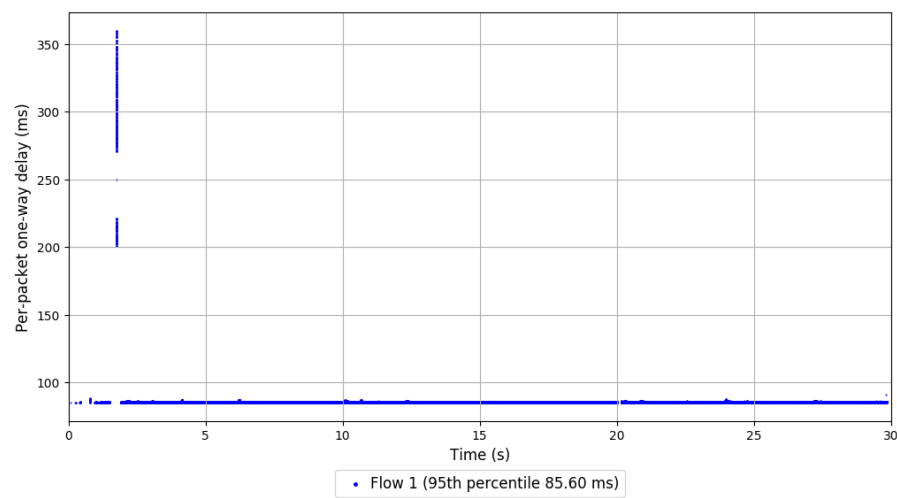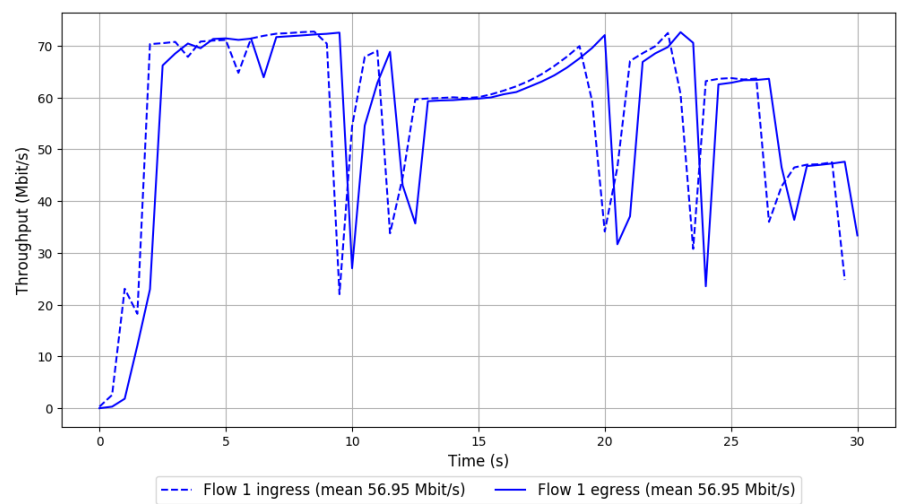
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 62.31 Mbit/s) Flow 1 egress (mean 62.03 Mbit/s)

Flow 1 (95th percentile 99.96 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-05 06:59:39
End at: 2018-06-05 07:00:09
Local clock offset: -3.336 ms
Remote clock offset: 8.722 ms


# Below is generated by plot.py at 2018-06-05 07:40:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 85.602 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 85.602 ms
Loss rate: 0.01%
```
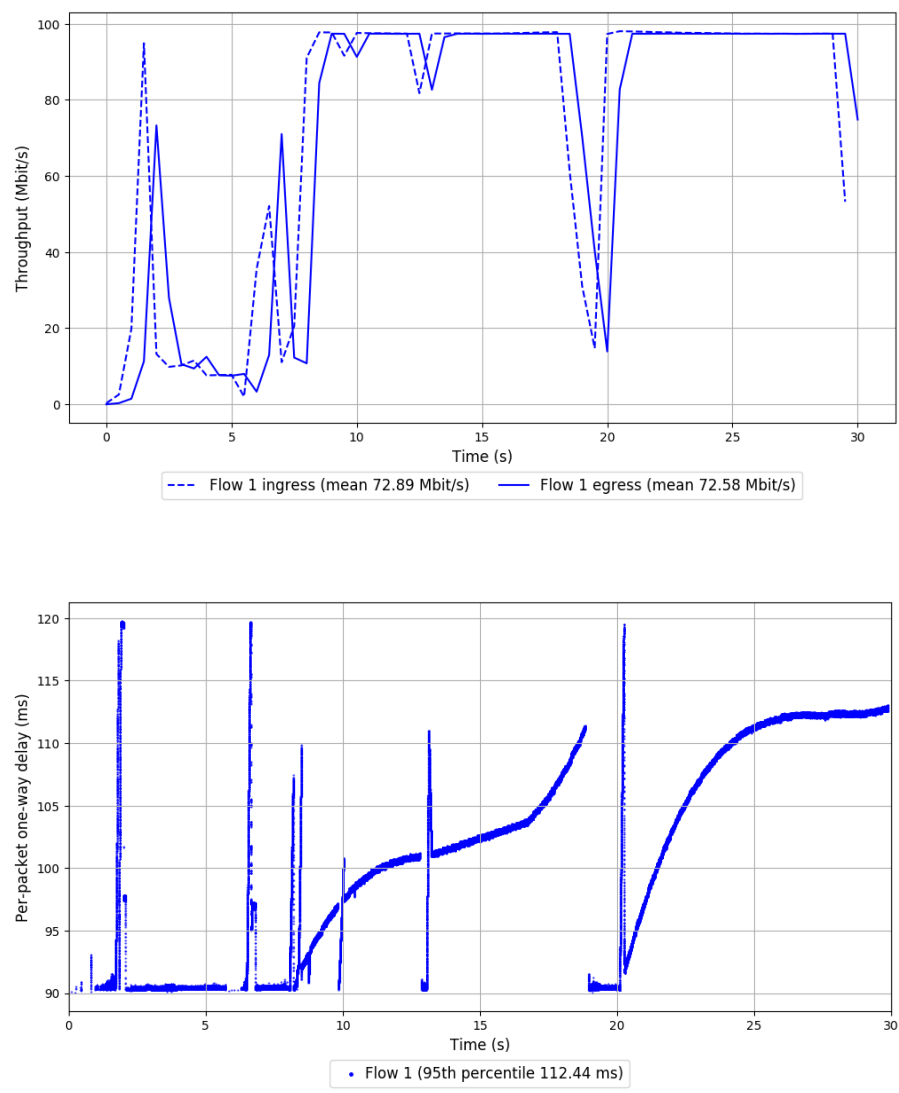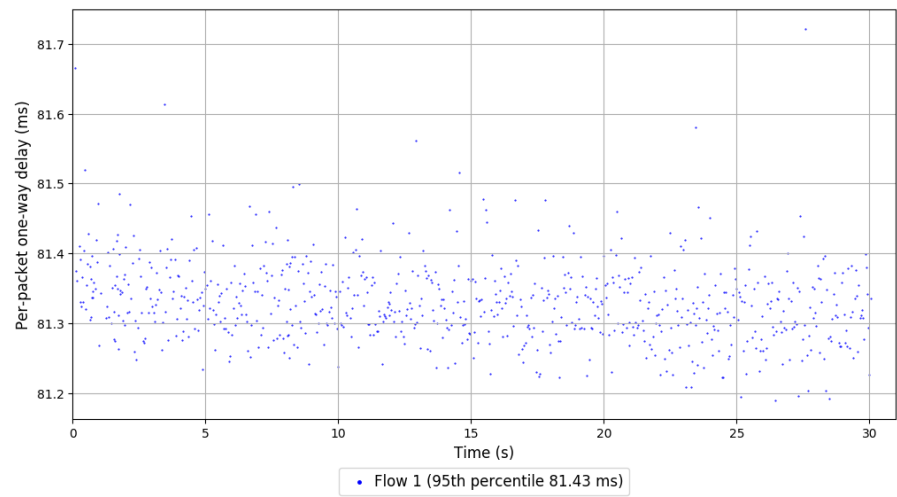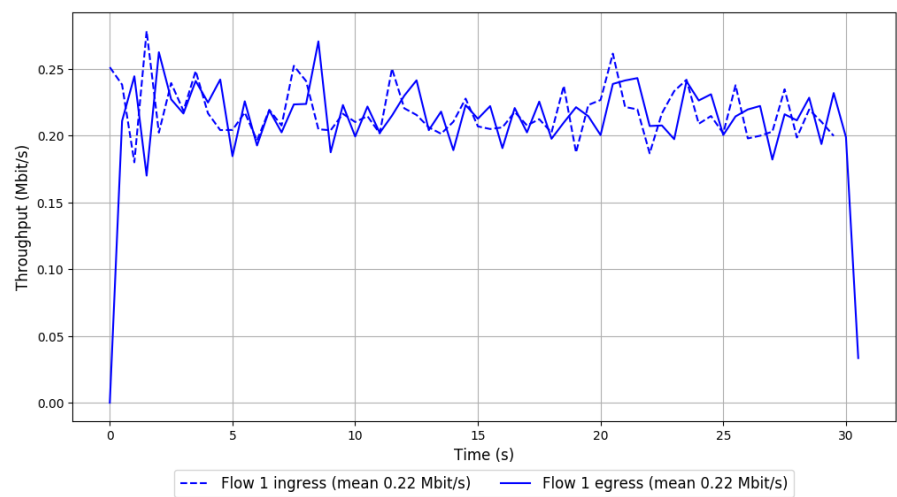
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 56.95 Mbit/s)   Flow 1 egress (mean 56.95 Mbit/s)

Flow 1 (95th percentile 85.60 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-05 07:18:23
End at: 2018-06-05 07:18:53
Local clock offset: -7.42 ms
Remote clock offset: 7.293 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.58 Mbit/s
95th percentile per-packet one-way delay: 112.435 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 72.58 Mbit/s
95th percentile per-packet one-way delay: 112.435 ms
Loss rate: 0.35%
```
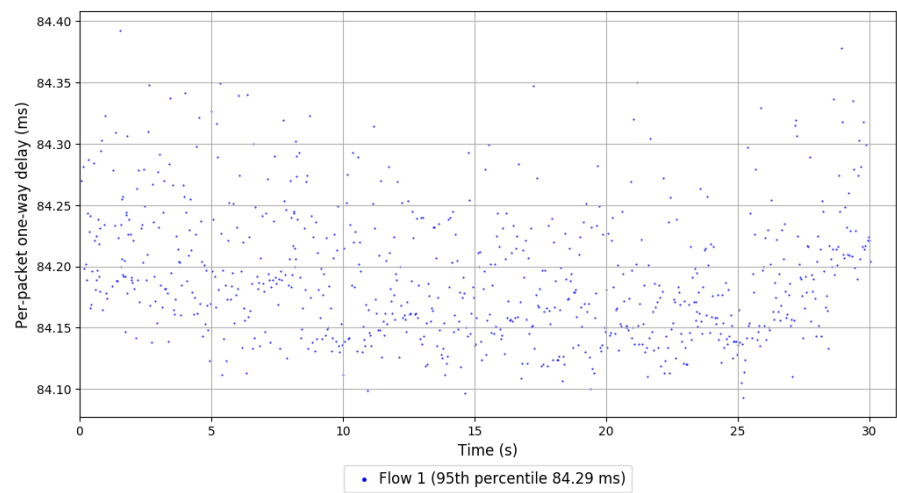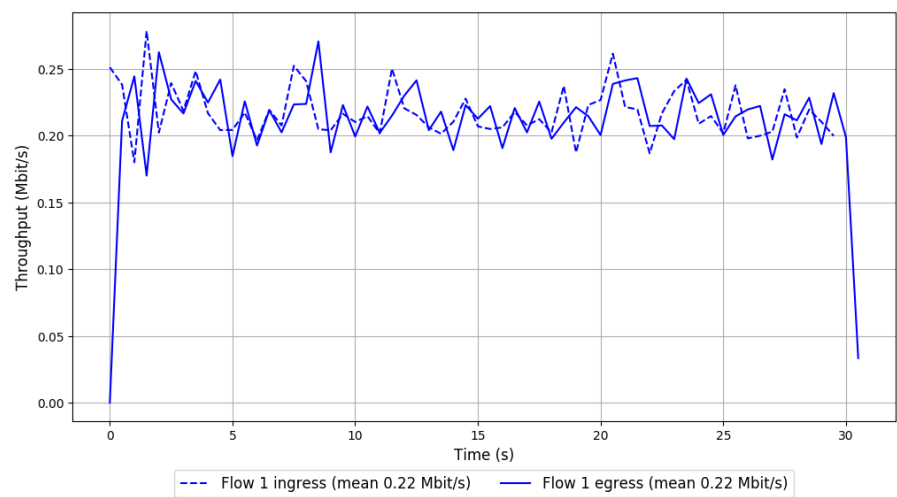
Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-06-05 04:35:42
End at: 2018-06-05 04:36:12
Local clock offset: -1.144 ms
Remote clock offset: 11.905 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.427 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.427 ms
Loss rate: 0.00%
```
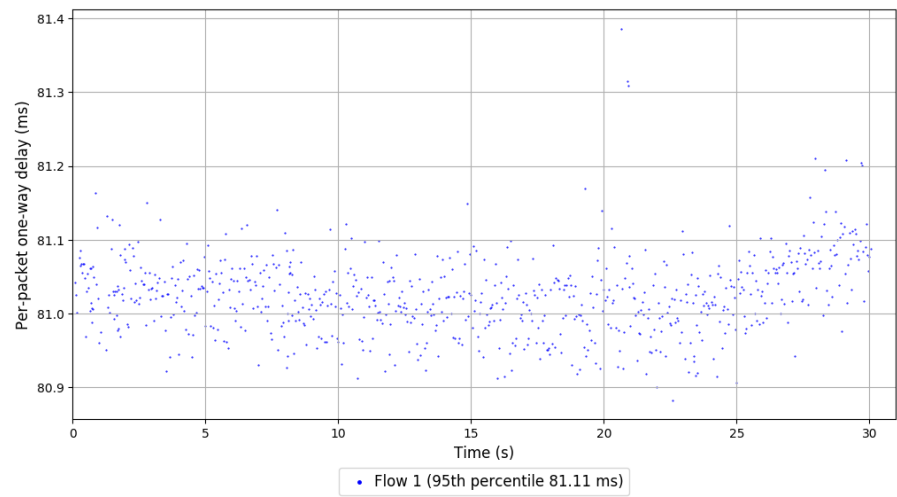
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-06-05 04:54:24
End at: 2018-06-05 04:54:54
Local clock offset: -2.785 ms
Remote clock offset: 16.996 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.294 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.294 ms
Loss rate: 0.00%
```

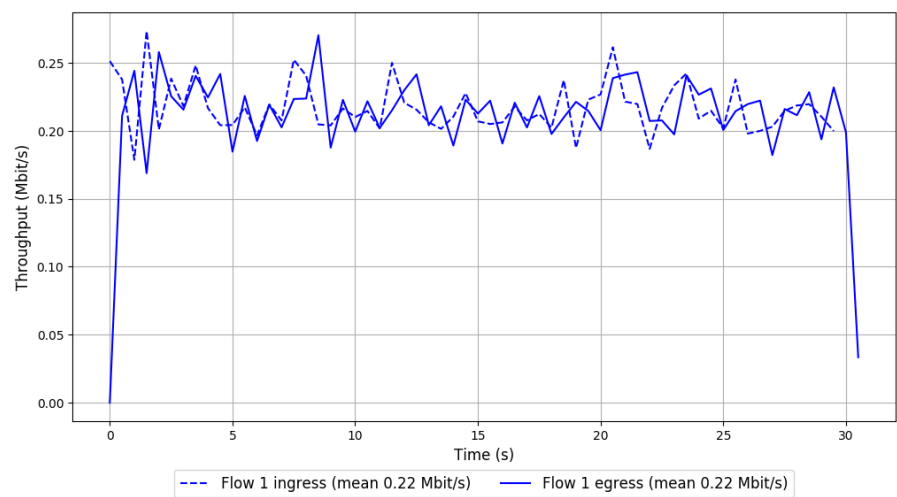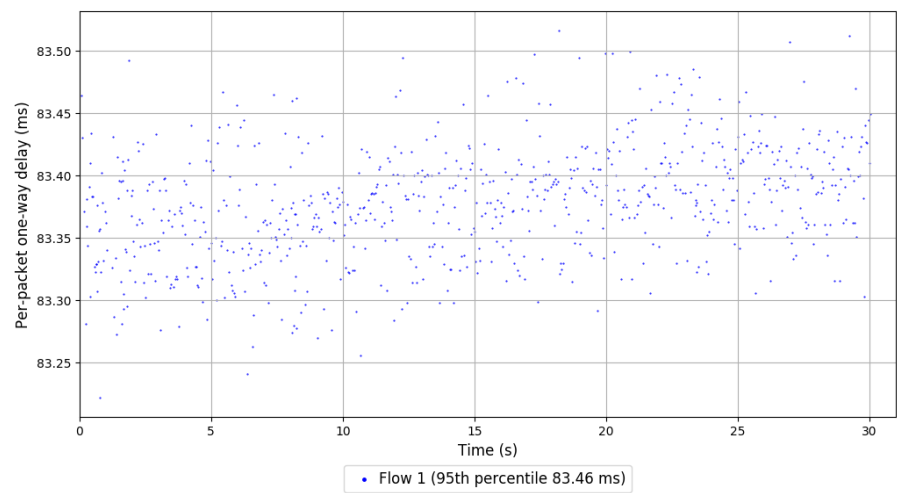Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-06-05 05:13:06
End at: 2018-06-05 05:13:36
Local clock offset: -1.913 ms
Remote clock offset: 14.778 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.108 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.108 ms
Loss rate: 0.00%
```

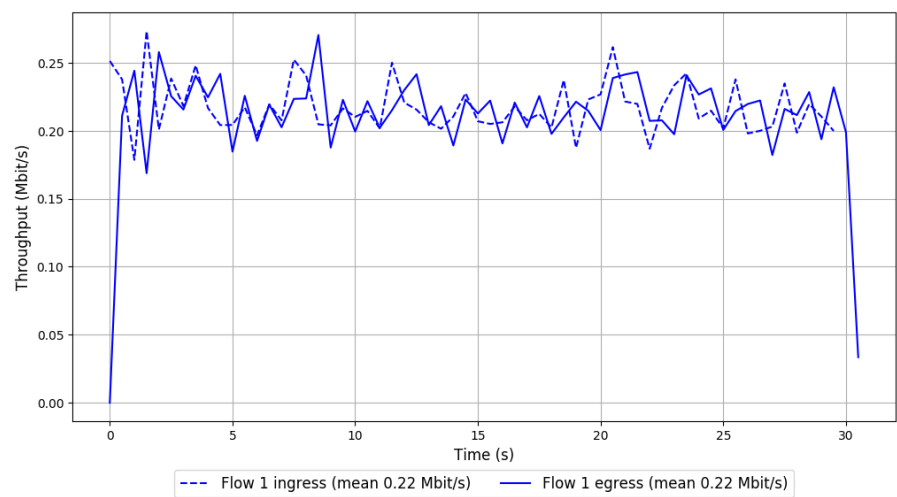Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-06-05 05:31:48
End at: 2018-06-05 05:32:18
Local clock offset: -1.108 ms
Remote clock offset: 11.144 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.457 ms
Loss rate: 0.00%
```
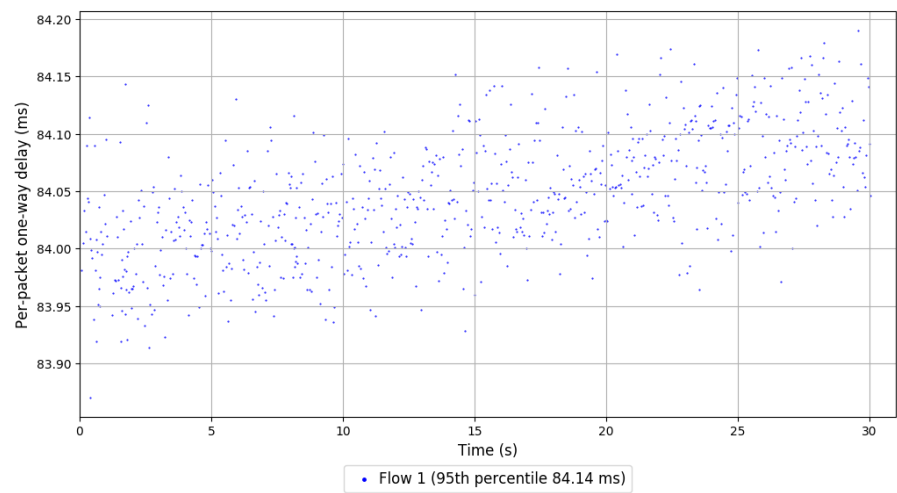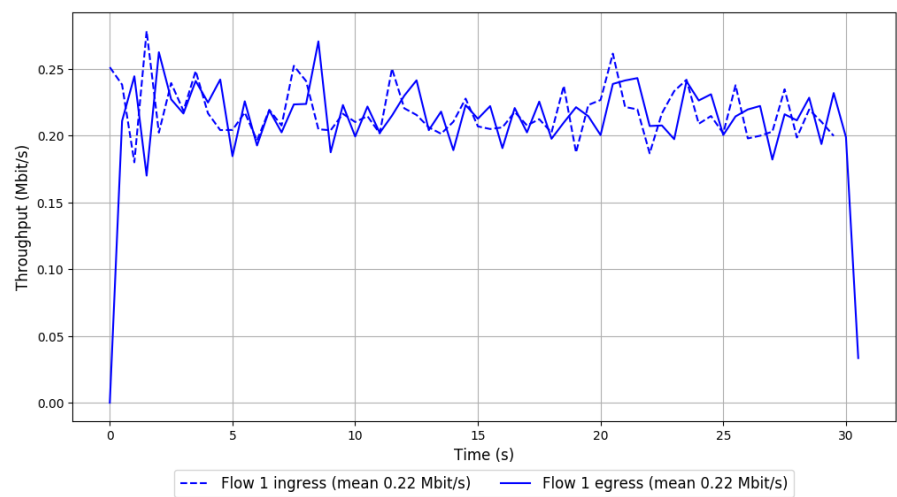
Run 4: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 83.46 ms)

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```
Run 5: Statistics of SCReAM

Start at: 2018-06-05 05:50:32
End at: 2018-06-05 05:51:02
Local clock offset: -2.935 ms
Remote clock offset: 8.816 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.138 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.138 ms
Loss rate: 0.00%
```
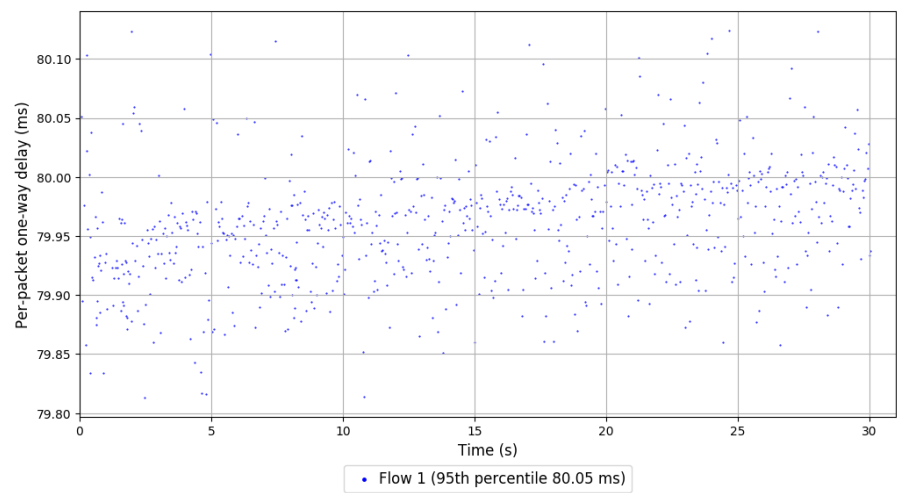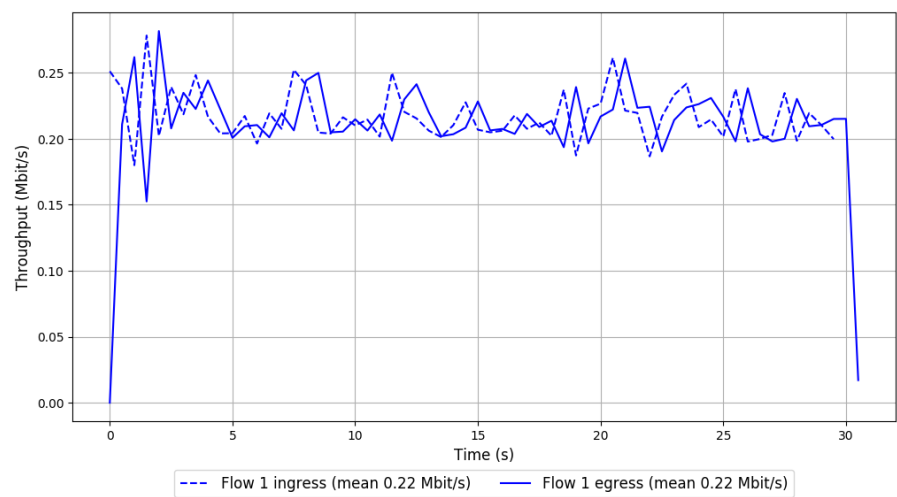
Run 5: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 84.14 ms)

```
Run 6: Statistics of SCReAM

Start at: 2018-06-05 06:09:18
End at: 2018-06-05 06:09:48
Local clock offset: -3.048 ms
Remote clock offset: 2.066 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.048 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.048 ms
Loss rate: 0.00%
```
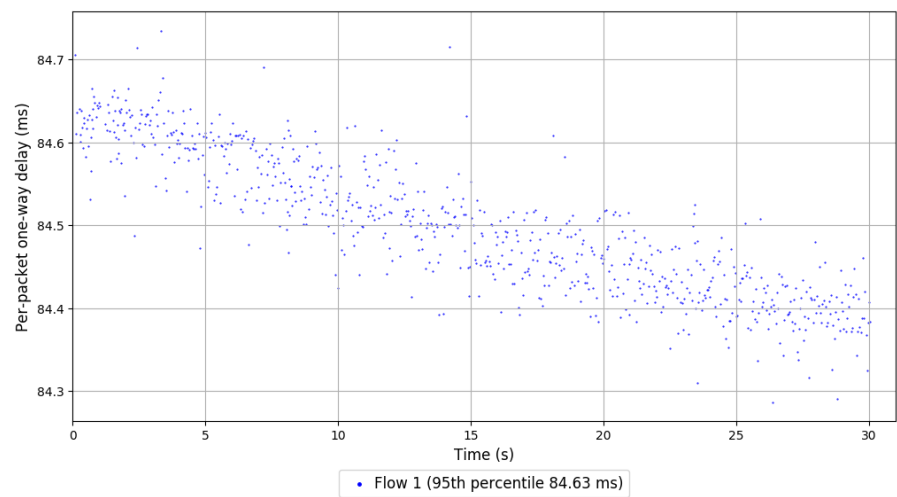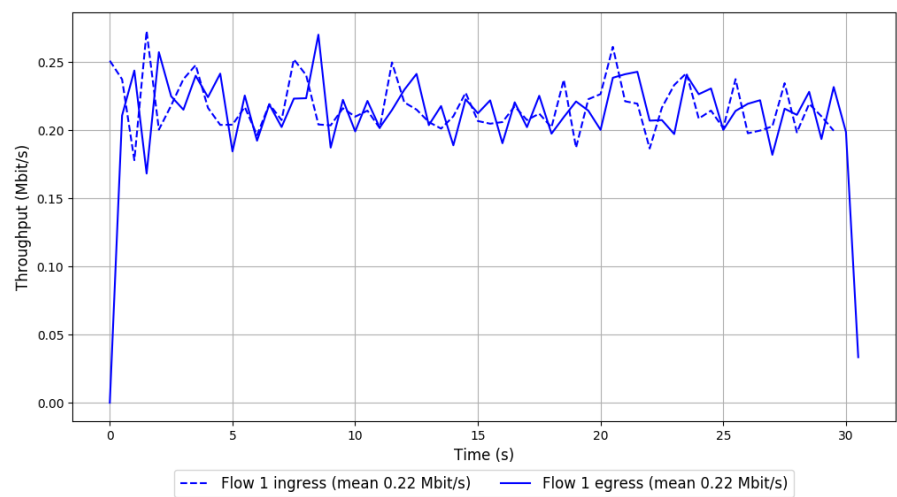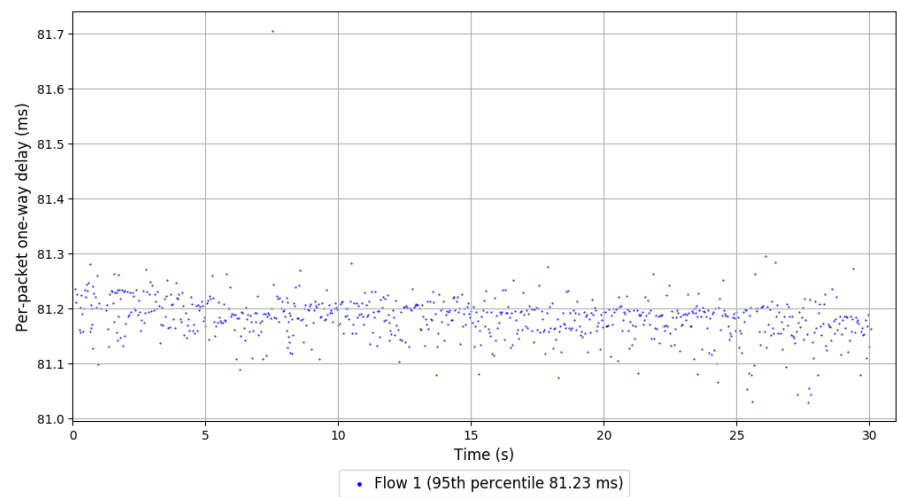
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 80.05 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-06-05 06:28:03
End at: 2018-06-05 06:28:33
Local clock offset: -3.84 ms
Remote clock offset: 5.271 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.634 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.634 ms
Loss rate: 0.00%
```

Run 7: Report of SCReAM — Data Link

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

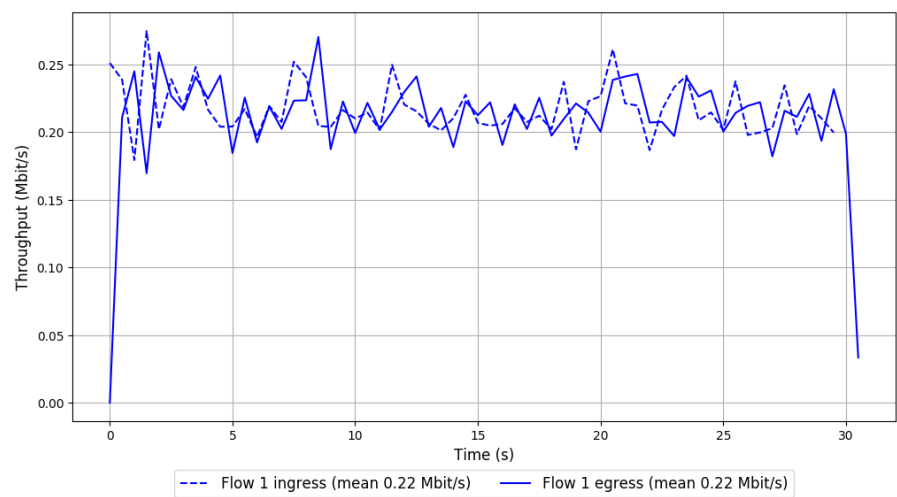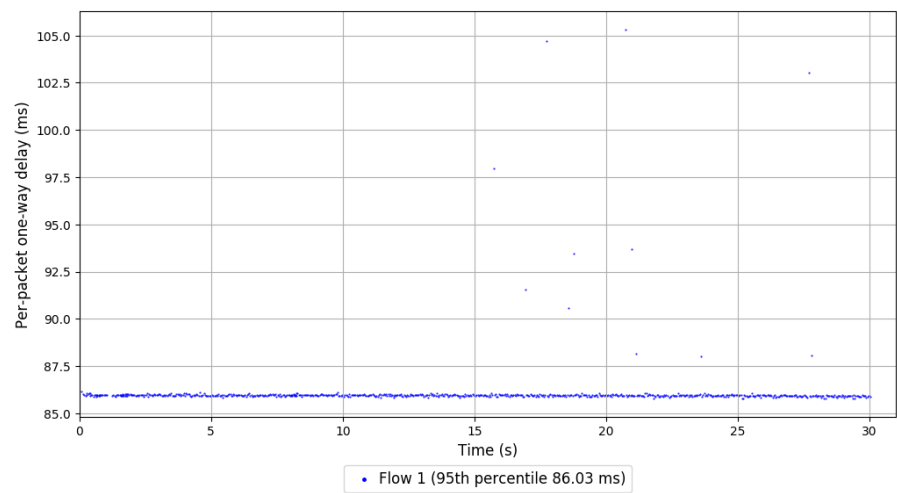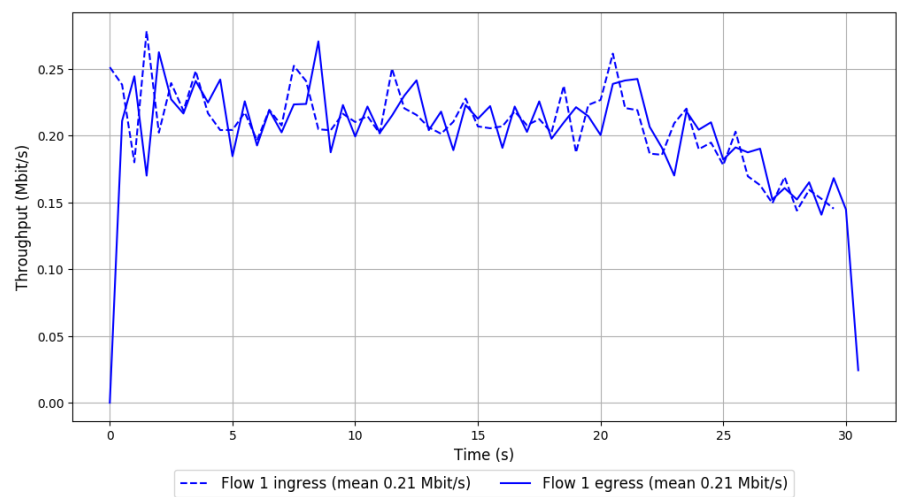Flow 1 (95th percentile 84.63 ms)

```
Run 8: Statistics of SCReAM

Start at: 2018-06-05 06:46:43
End at: 2018-06-05 06:47:13
Local clock offset: -2.457 ms
Remote clock offset: 13.234 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.233 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.233 ms
Loss rate: 0.00%
```

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 81.23 ms)

```
Run 9: Statistics of SCReAM

Start at: 2018-06-05 07:05:23
End at: 2018-06-05 07:05:53
Local clock offset: -3.828 ms
Remote clock offset: 11.694 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 86.034 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 86.034 ms
Loss rate: 0.13%
```

Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-06-05 07:24:11
End at: 2018-06-05 07:24:41
Local clock offset: -6.541 ms
Remote clock offset: 2.833 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.690 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.690 ms
Loss rate: 0.00%
```
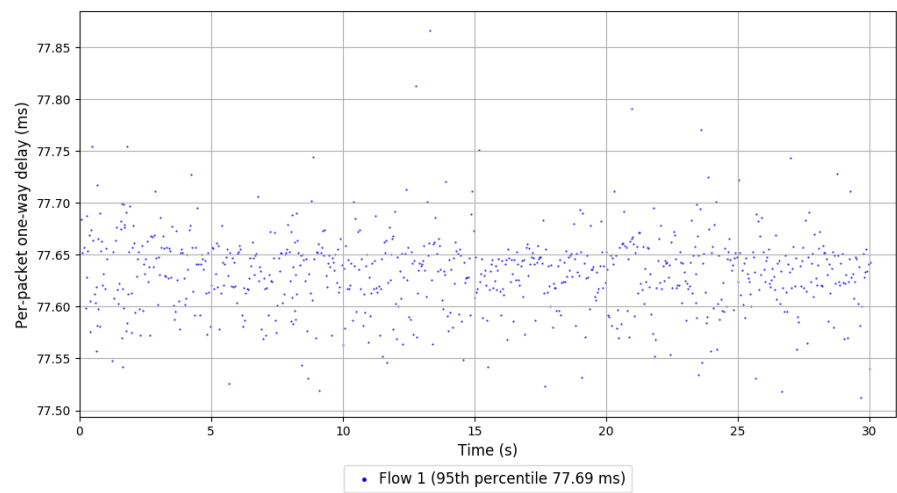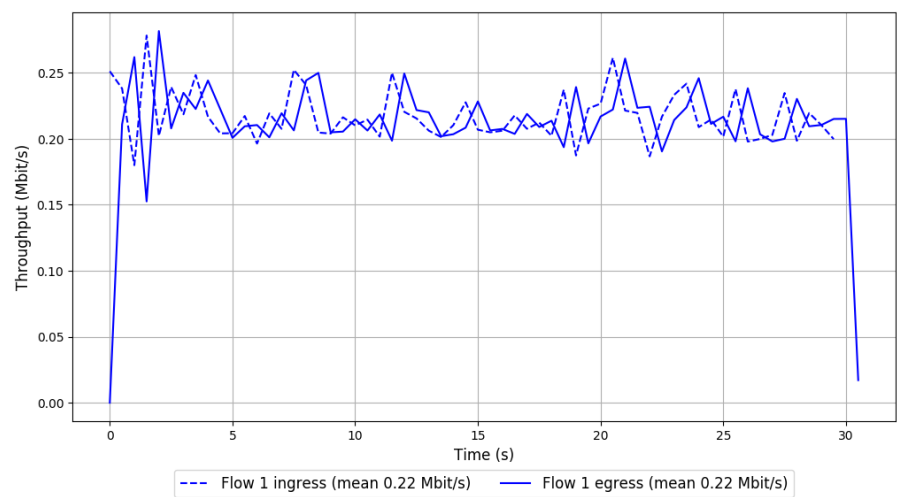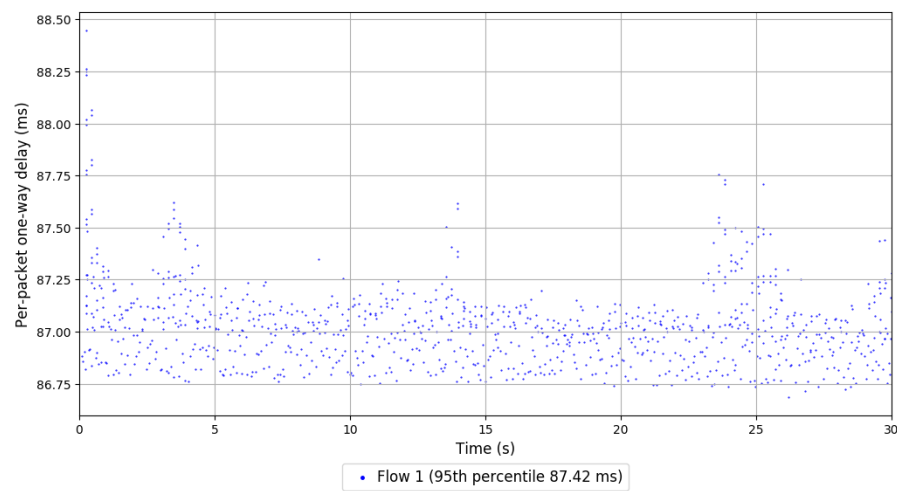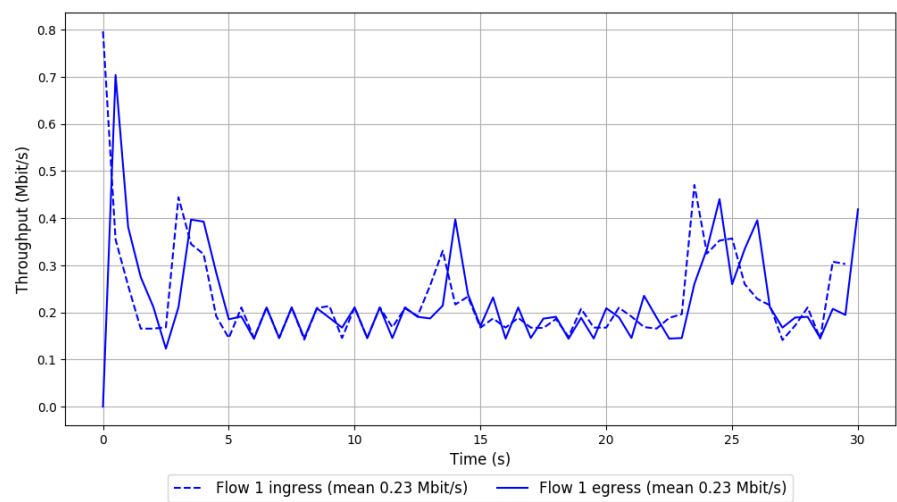
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-06-05 04:28:51
End at: 2018-06-05 04:29:21
Local clock offset: -1.963 ms
Remote clock offset: 10.212 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 87.415 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 87.415 ms
Loss rate: 0.00%
```
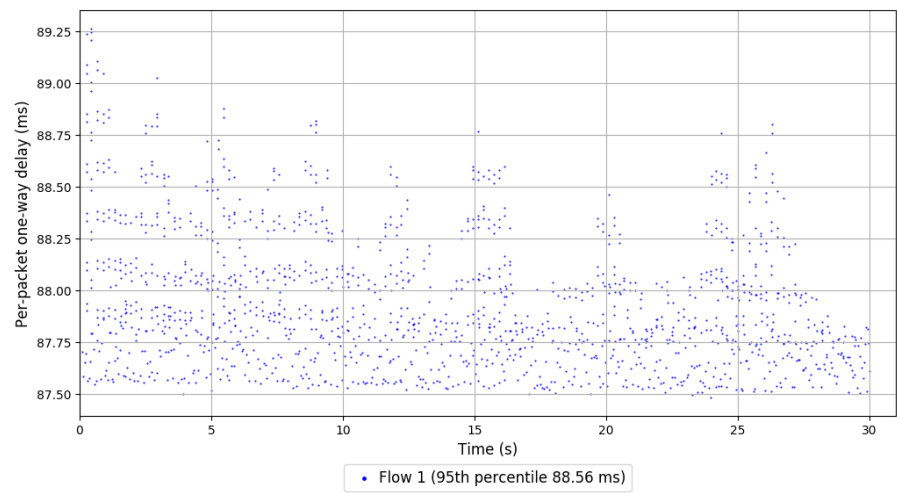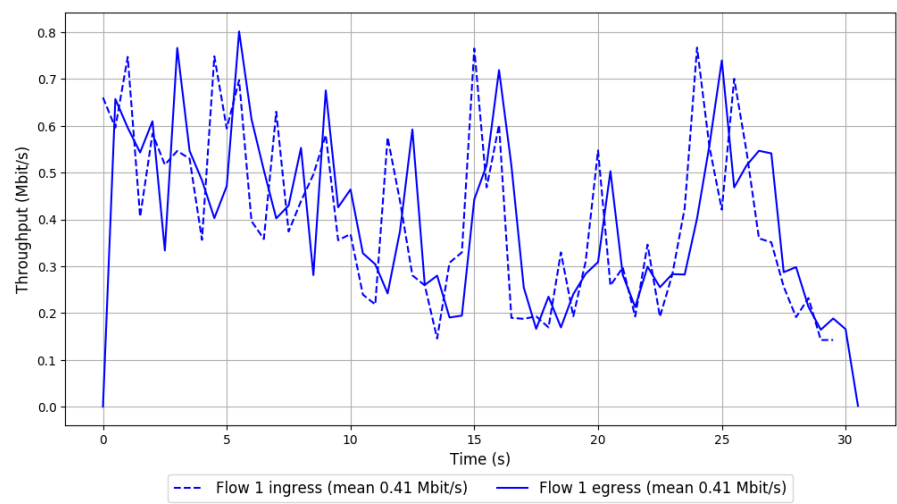
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-06-05 04:47:32
End at: 2018-06-05 04:48:02
Local clock offset: -1.939 ms
Remote clock offset: 15.21 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 88.563 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 88.563 ms
Loss rate: 0.00%
```
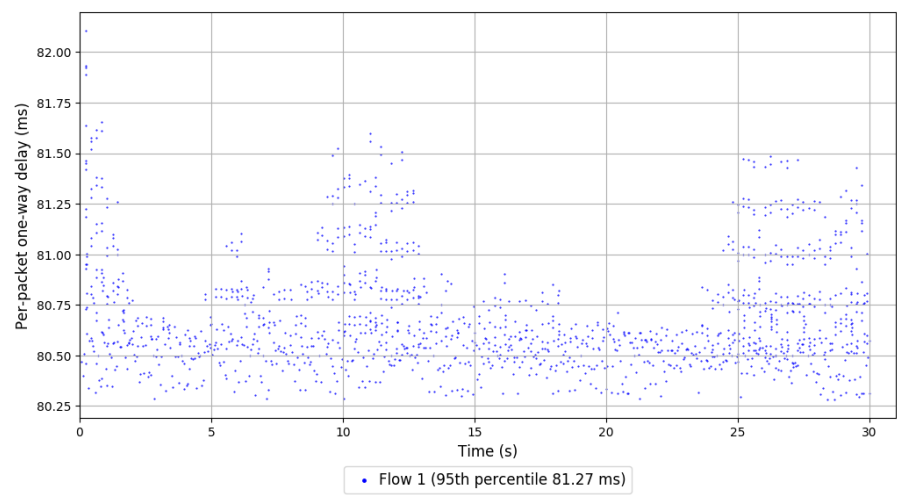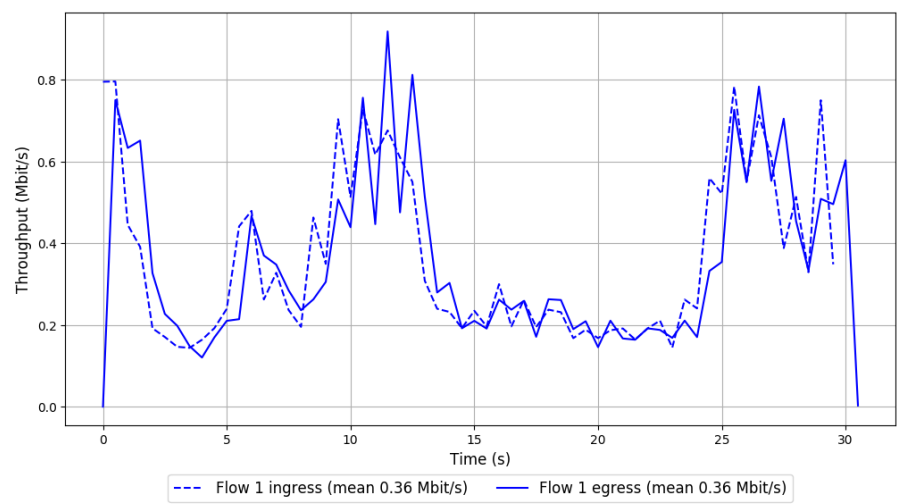
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-06-05 05:06:15
End at: 2018-06-05 05:06:45
Local clock offset: -1.975 ms
Remote clock offset: 13.08 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 81.268 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 81.268 ms
Loss rate: 0.00%
```
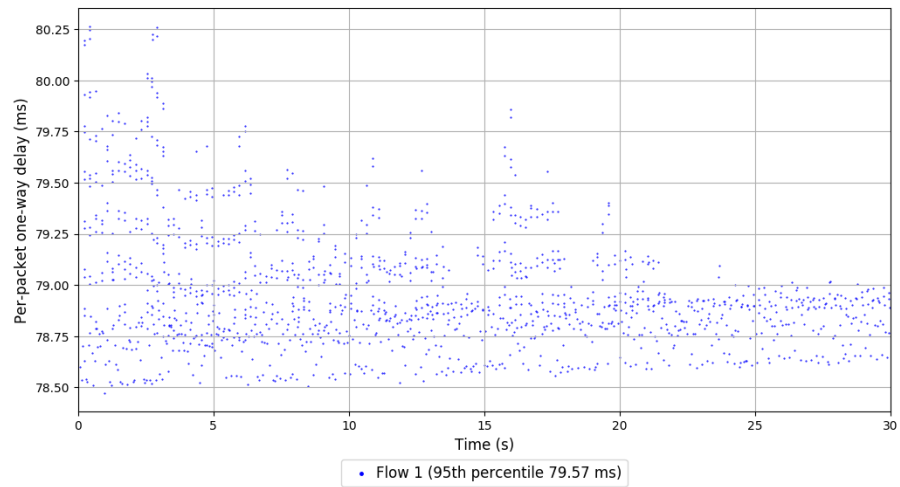
Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-06-05 05:24:57
End at: 2018-06-05 05:25:27
Local clock offset: -1.111 ms
Remote clock offset: 9.652 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 79.566 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 79.566 ms
Loss rate: 0.00%
```
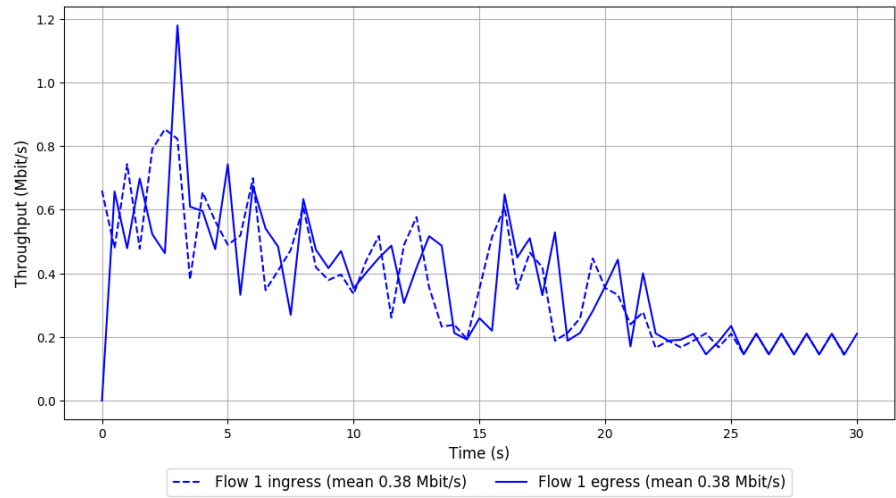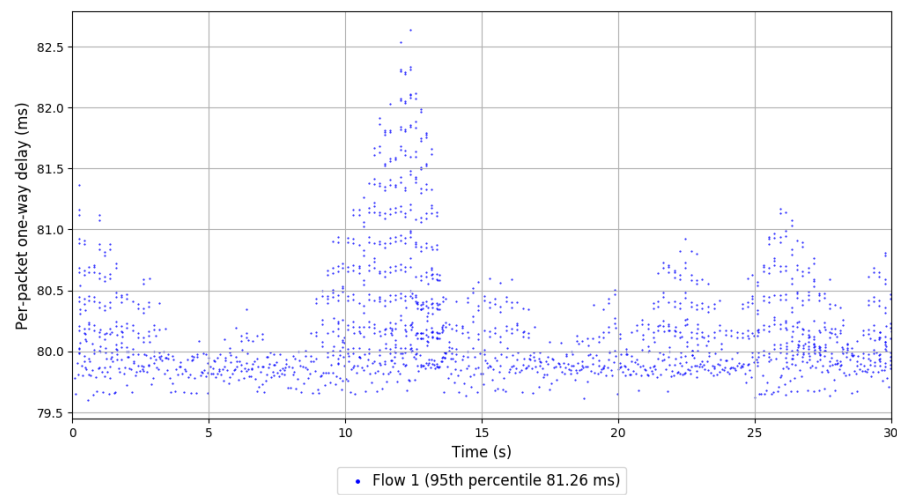
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-06-05 05:43:40
End at: 2018-06-05 05:44:10
Local clock offset: -2.613 ms
Remote clock offset: 6.038 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 81.263 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 81.263 ms
Loss rate: 0.00%
```
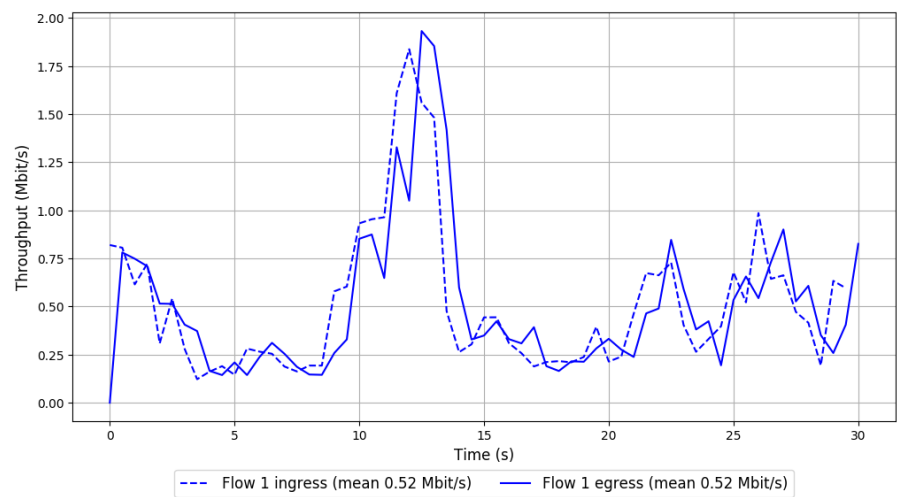
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-06-05 06:02:26
End at: 2018-06-05 06:02:56
Local clock offset: -2.35 ms
Remote clock offset: 7.914 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 84.874 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 84.874 ms
Loss rate: 0.00%
```
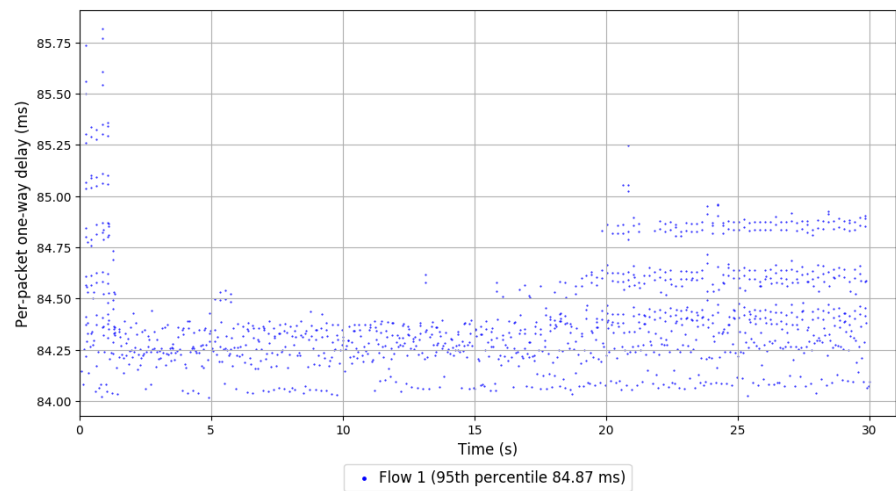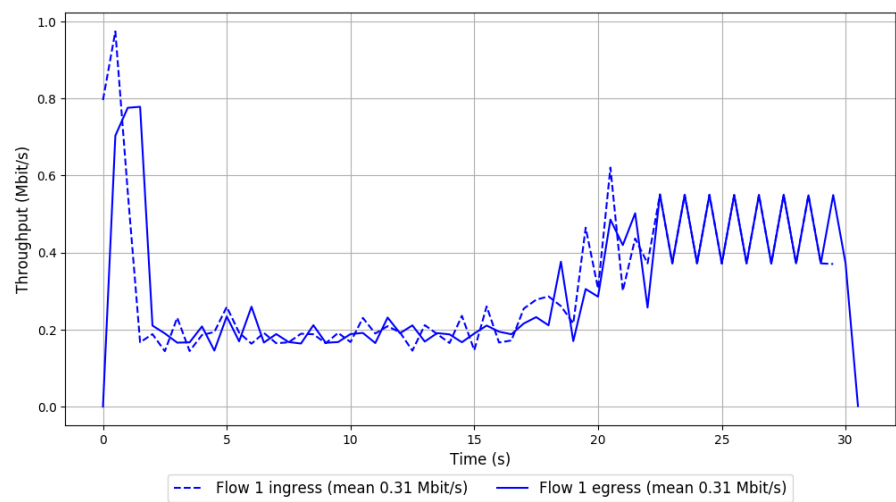
Run 6: Report of Sprout — Data Link

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

Flow 1 (95th percentile 84.87 ms)

```
Run 7: Statistics of Sprout

Start at: 2018-06-05 06:21:11
End at: 2018-06-05 06:21:41
Local clock offset: -3.086 ms
Remote clock offset: 5.951 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 89.648 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 89.648 ms
Loss rate: 0.00%
```
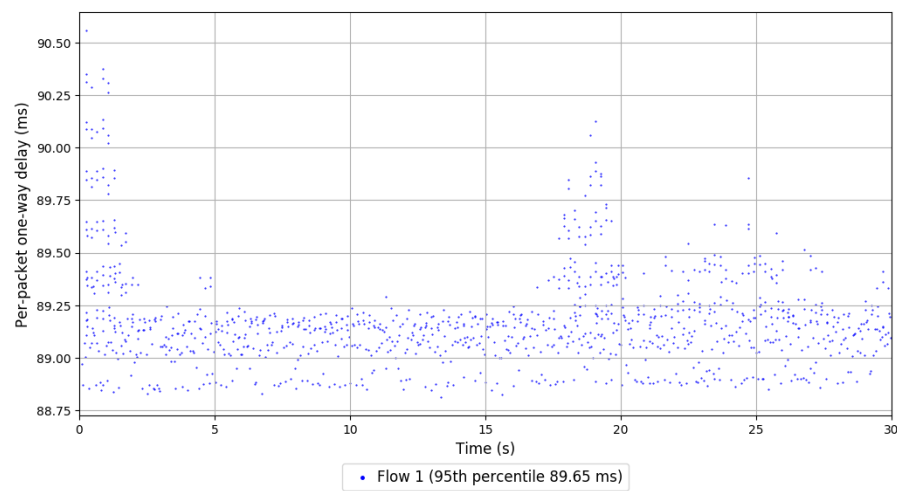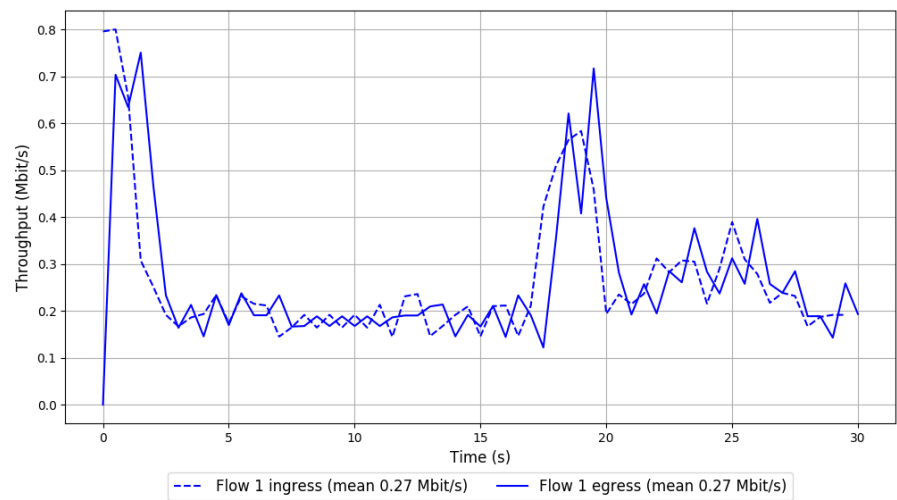
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-06-05 06:39:52
End at: 2018-06-05 06:40:22
Local clock offset: -2.392 ms
Remote clock offset: 9.64 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 81.481 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 81.481 ms
Loss rate: 0.12%
```
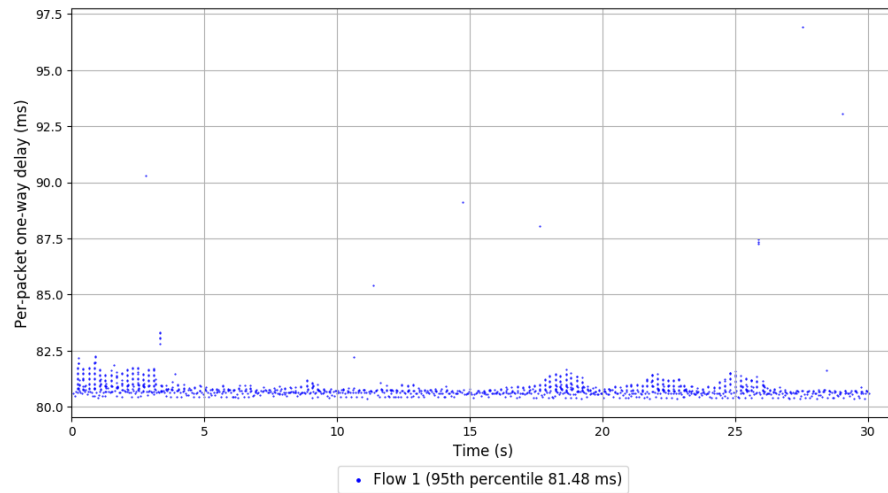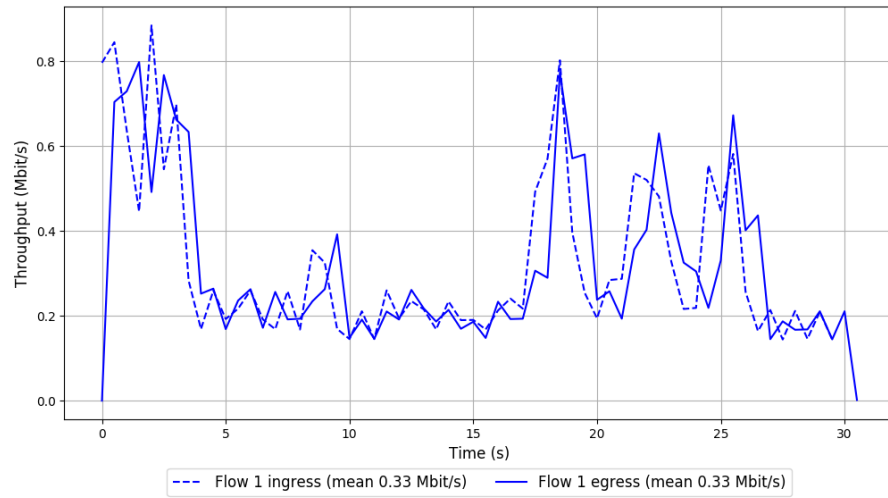
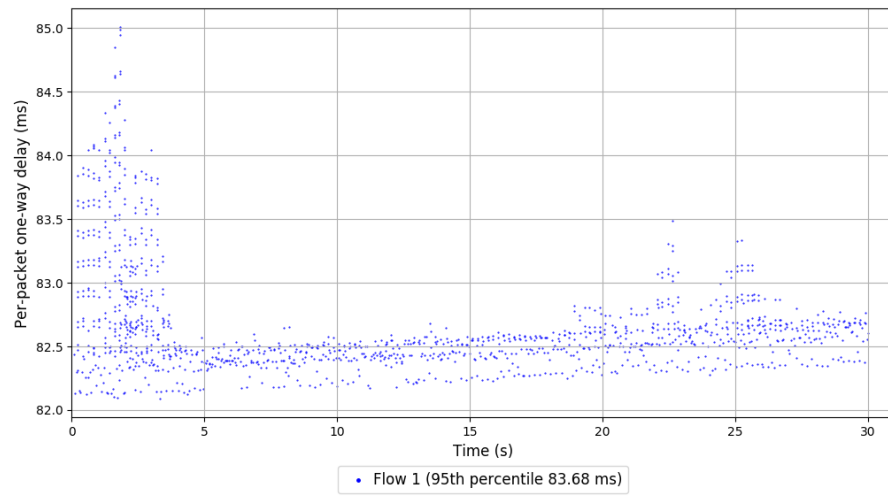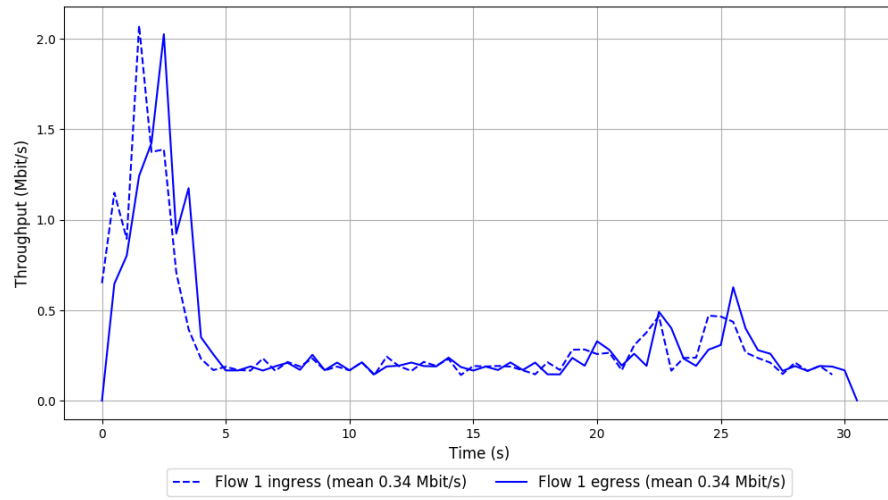Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-06-05 06:58:32
End at: 2018-06-05 06:59:02
Local clock offset: -3.325 ms
Remote clock offset: 12.257 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 83.677 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 83.677 ms
Loss rate: 0.00%
```

Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-06-05 07:17:16
End at: 2018-06-05 07:17:46
Local clock offset: -5.742 ms
Remote clock offset: 9.513 ms


# Below is generated by plot.py at 2018-06-05 07:40:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 84.073 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 84.073 ms
Loss rate: 0.00%
```
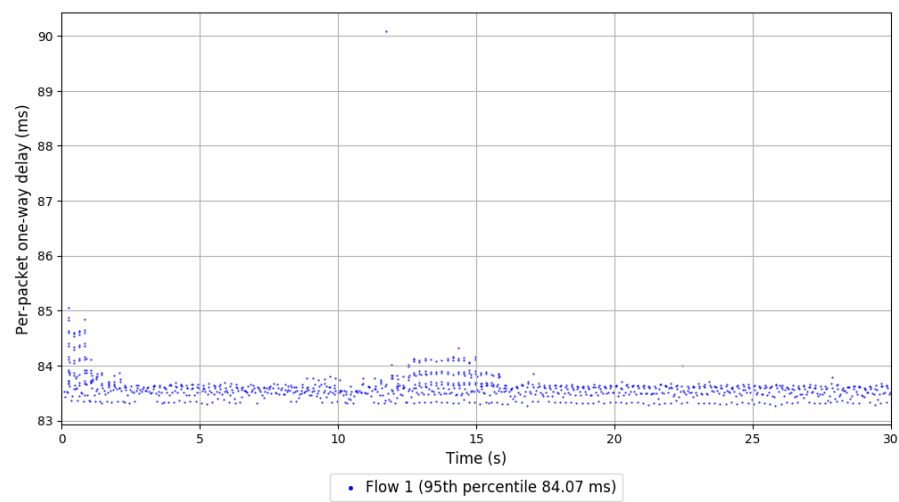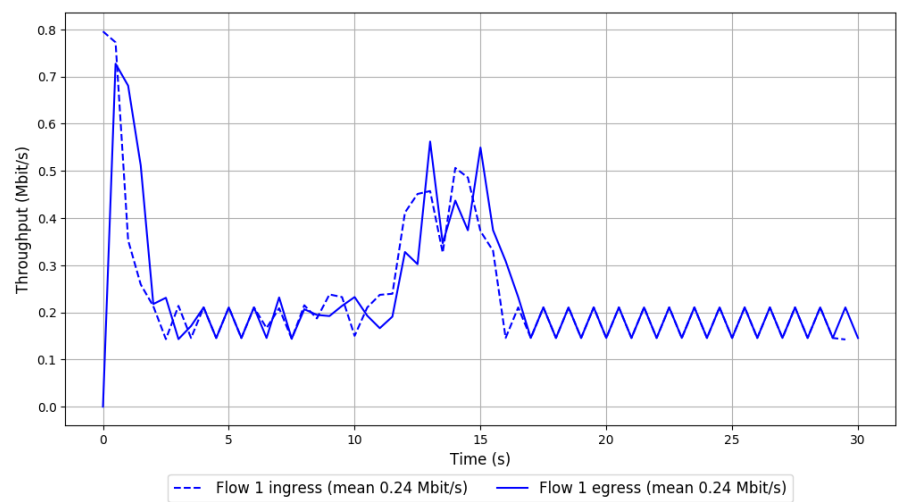
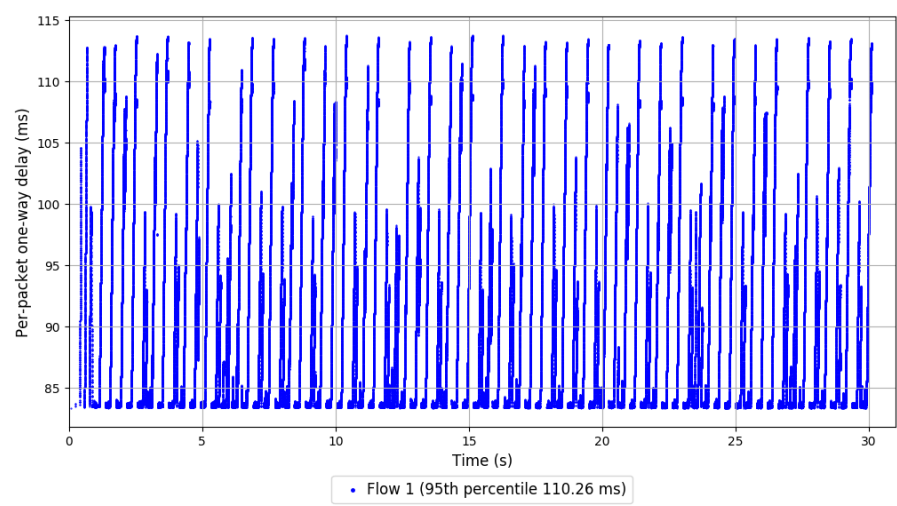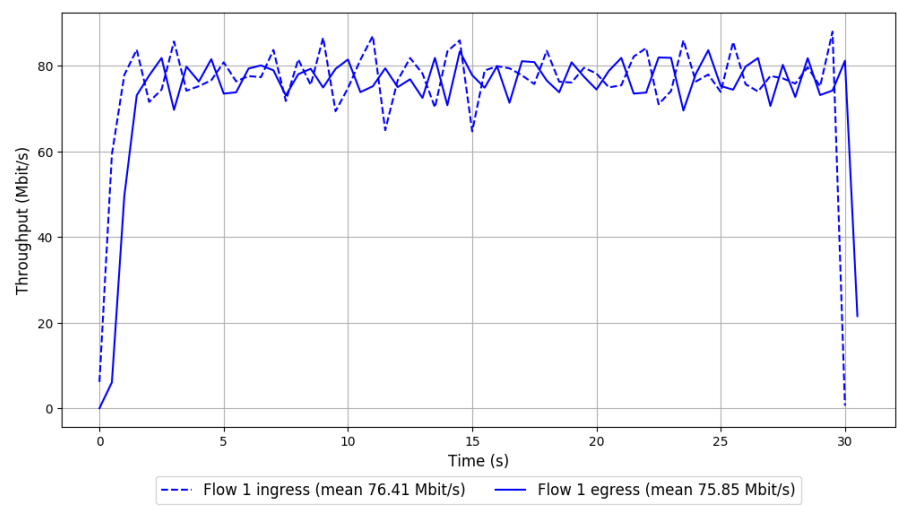## Run 10: Report of Sprout — Data Link

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

Start at: 2018-06-05 04:27:38
End at: 2018-06-05 04:28:08
Local clock offset: -1.189 ms
Remote clock offset: 13.99 ms

# Below is generated by plot.py at 2018-06-05 07:42:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 110.260 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 75.85 Mbit/s
95th percentile per-packet one-way delay: 110.260 ms
Loss rate: 0.65%
```

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

Flow 1 ingress (mean 76.41 Mbit/s) — — — Flow 1 egress (mean 75.85 Mbit/s)
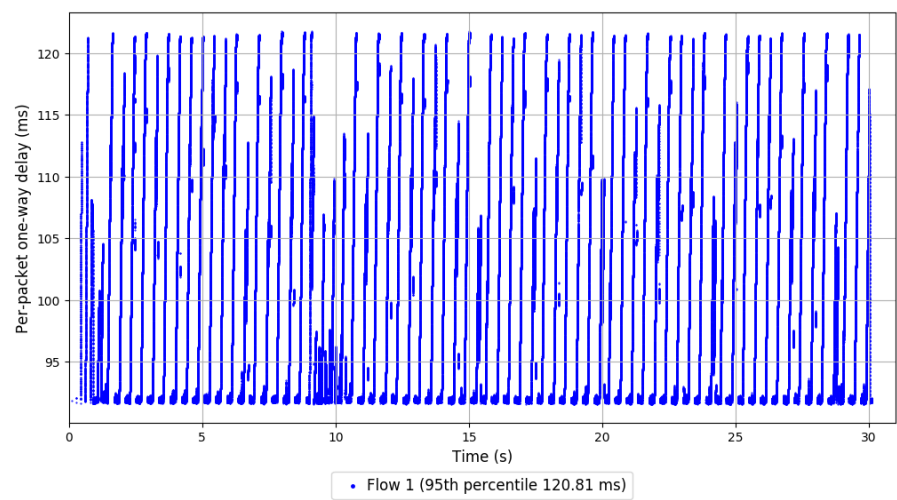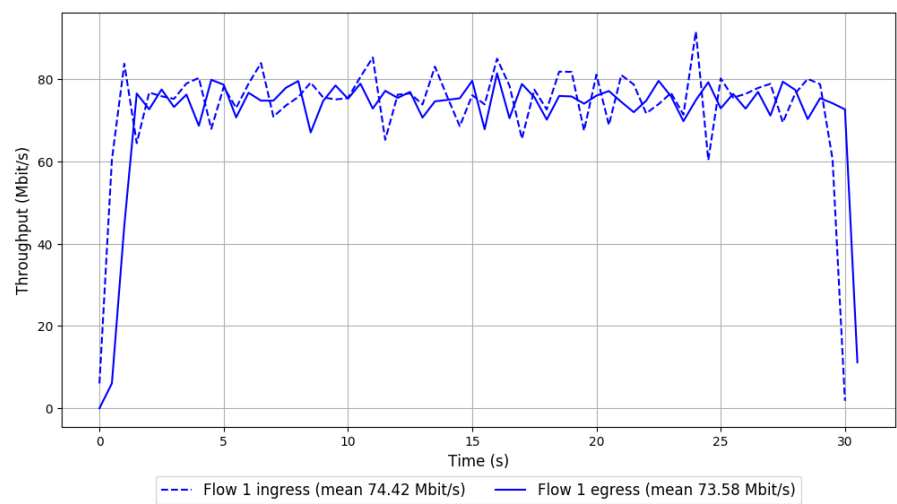

• Flow 1 (95th percentile 110.26 ms)

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

Start at: 2018-06-05 04:46:19
End at: 2018-06-05 04:46:49
Local clock offset: -1.999 ms
Remote clock offset: 17.117 ms


# Below is generated by plot.py at 2018-06-05 07:42:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.58 Mbit/s
95th percentile per-packet one-way delay: 120.814 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 73.58 Mbit/s
95th percentile per-packet one-way delay: 120.814 ms
Loss rate: 1.14%
```

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

Flow 1 ingress (mean 74.42 Mbit/s) — Flow 1 egress (mean 73.58 Mbit/s)

• Flow 1 (95th percentile 120.81 ms)

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

Start at: 2018-06-05 05:05:02
End at: 2018-06-05 05:05:32
Local clock offset: -2.005 ms
Remote clock offset: 13.013 ms


# Below is generated by plot.py at 2018-06-05 07:42:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.32 Mbit/s
95th percentile per-packet one-way delay: 106.896 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 75.32 Mbit/s
95th percentile per-packet one-way delay: 106.896 ms
Loss rate: 0.69%
```
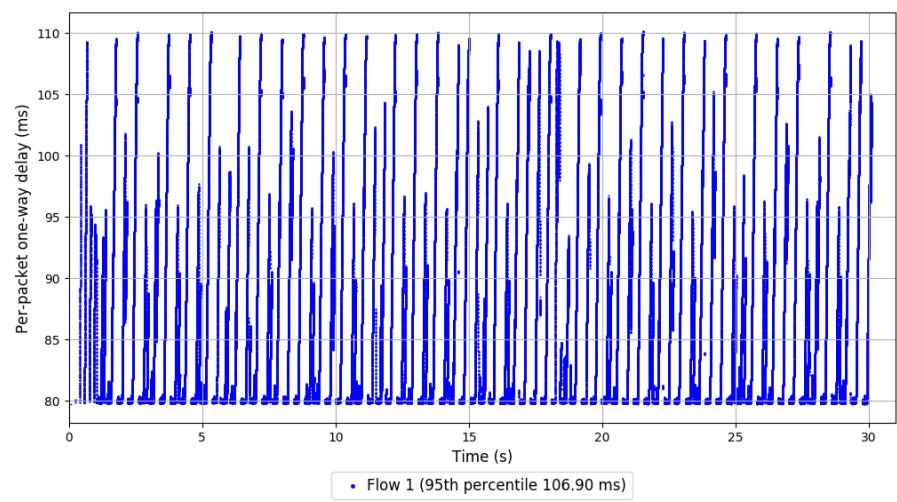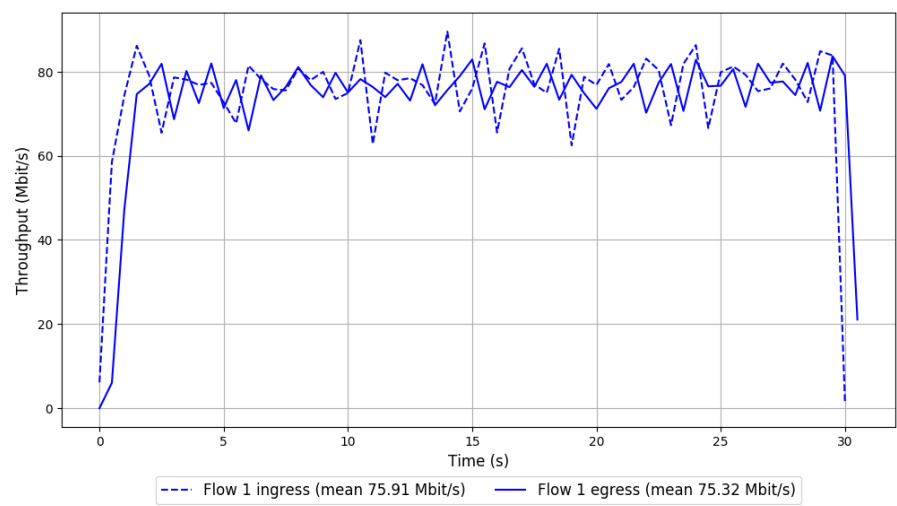
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 75.91 Mbit/s)   Flow 1 egress (mean 75.32 Mbit/s)

• Flow 1 (95th percentile 106.90 ms)

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

Start at: 2018-06-05 05:23:44
End at: 2018-06-05 05:24:14
Local clock offset: -1.955 ms
Remote clock offset: 13.852 ms

# Below is generated by plot.py at 2018-06-05 07:42:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.32 Mbit/s
95th percentile per-packet one-way delay: 111.463 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 76.32 Mbit/s
95th percentile per-packet one-way delay: 111.463 ms
Loss rate: 0.64%
```
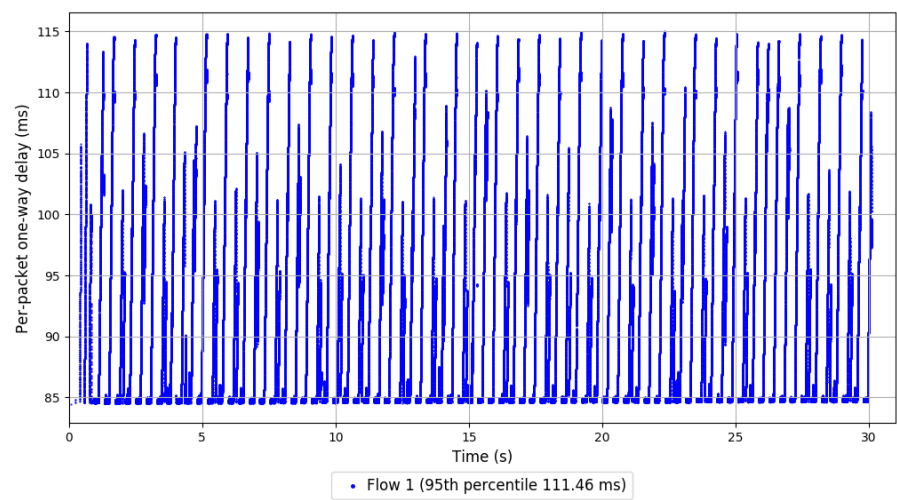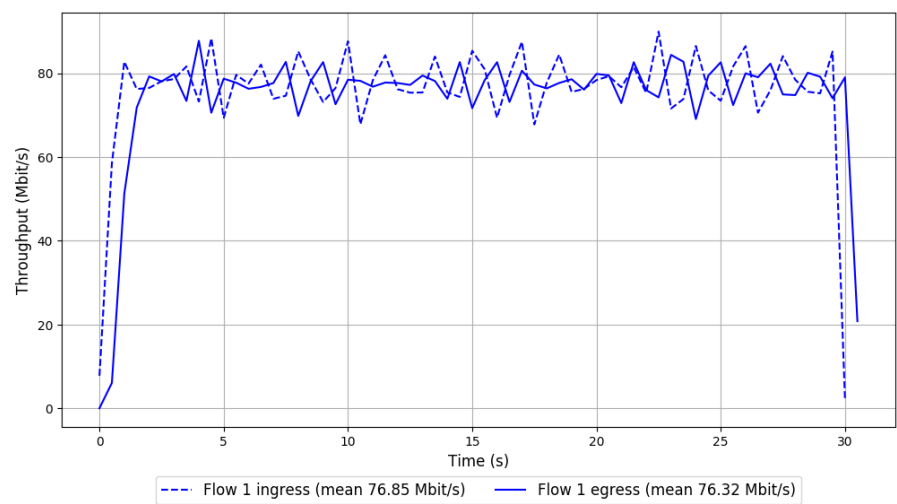
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 76.85 Mbit/s)   Flow 1 egress (mean 76.32 Mbit/s)

• Flow 1 (95th percentile 111.46 ms)

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

Start at: 2018-06-05 05:42:26
End at: 2018-06-05 05:42:56
Local clock offset: -2.606 ms
Remote clock offset: 6.094 ms


# Below is generated by plot.py at 2018-06-05 07:42:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.09 Mbit/s
95th percentile per-packet one-way delay: 104.952 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 76.09 Mbit/s
95th percentile per-packet one-way delay: 104.952 ms
Loss rate: 0.62%
```
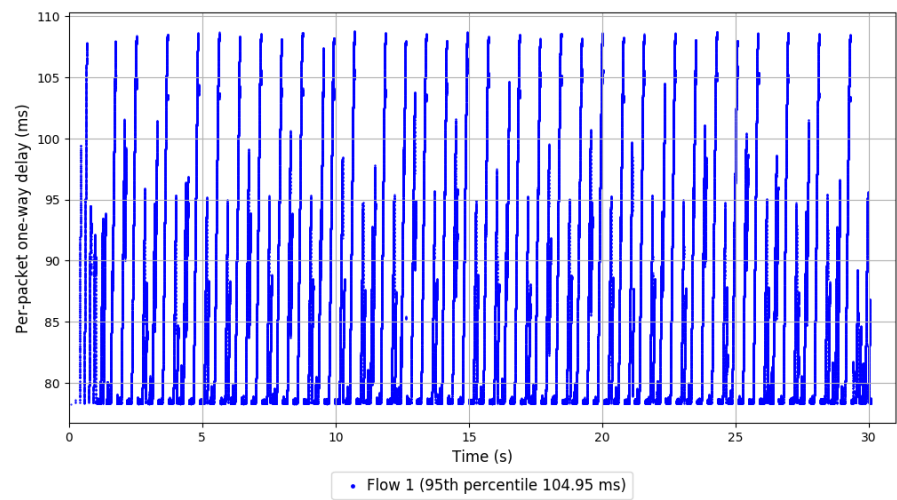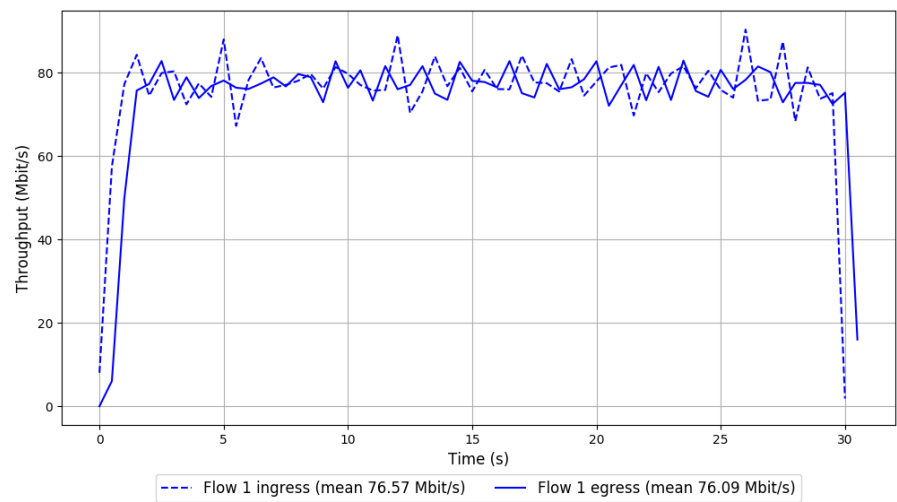
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 76.57 Mbit/s)   Flow 1 egress (mean 76.09 Mbit/s)

• Flow 1 (95th percentile 104.95 ms)

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

Start at: 2018-06-05 06:01:12
End at: 2018-06-05 06:01:42
Local clock offset: -3.151 ms
Remote clock offset: 8.006 ms

# Below is generated by plot.py at 2018-06-05 07:42:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 110.116 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 110.116 ms
Loss rate: 0.58%
```
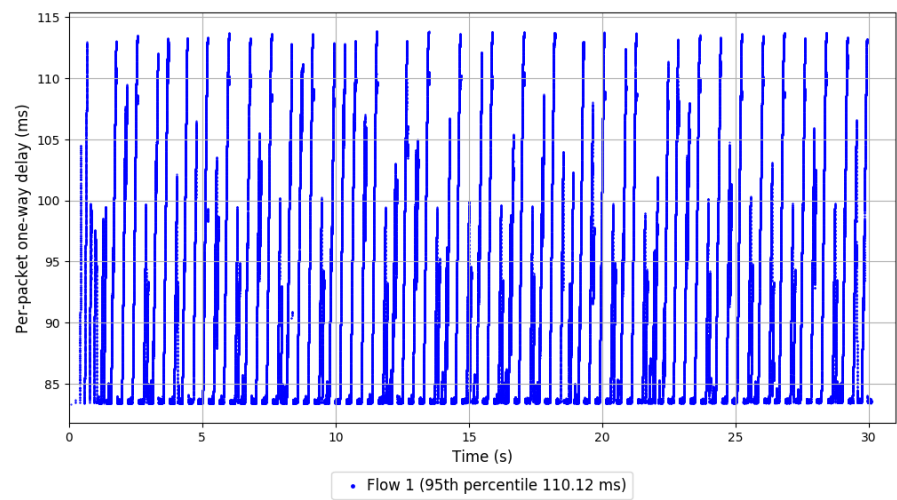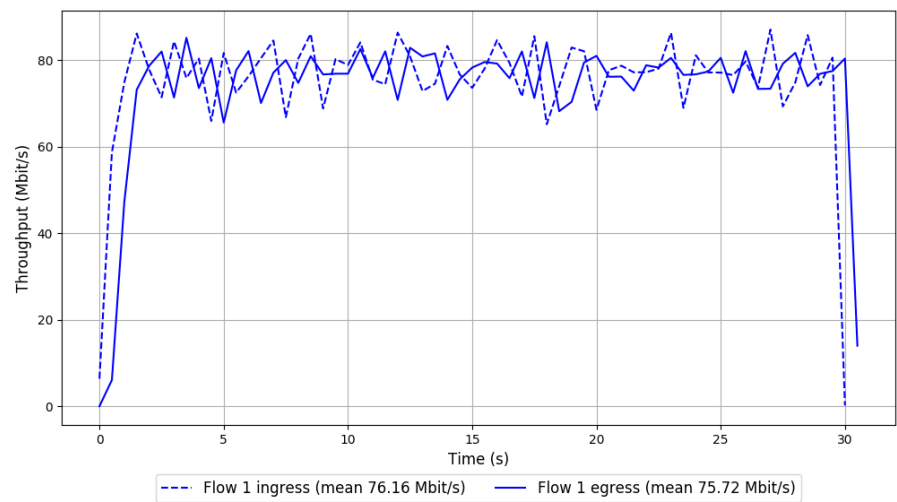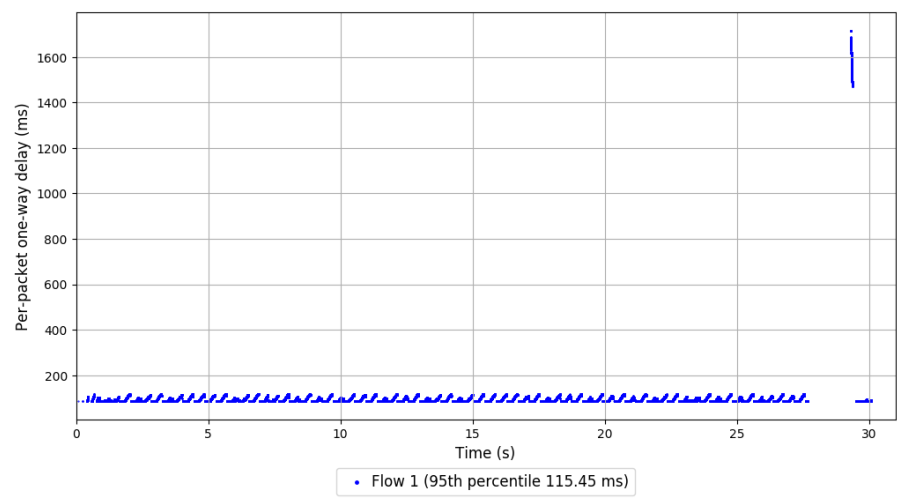
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 76.16 Mbit/s) ----- Flow 1 egress (mean 75.72 Mbit/s) ———

• Flow 1 (95th percentile 110.12 ms)

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

Start at: 2018-06-05 06:19:57
End at: 2018-06-05 06:20:27
Local clock offset: -3.771 ms
Remote clock offset: 0.965 ms


# Below is generated by plot.py at 2018-06-05 07:42:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 115.450 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 69.68 Mbit/s
95th percentile per-packet one-way delay: 115.450 ms
Loss rate: 0.90%
```
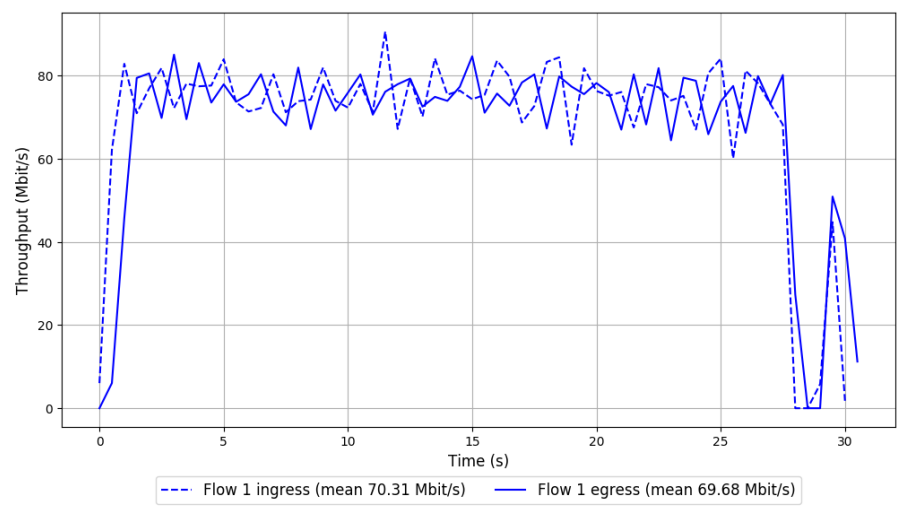
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 70.31 Mbit/s) —— Flow 1 egress (mean 69.68 Mbit/s)
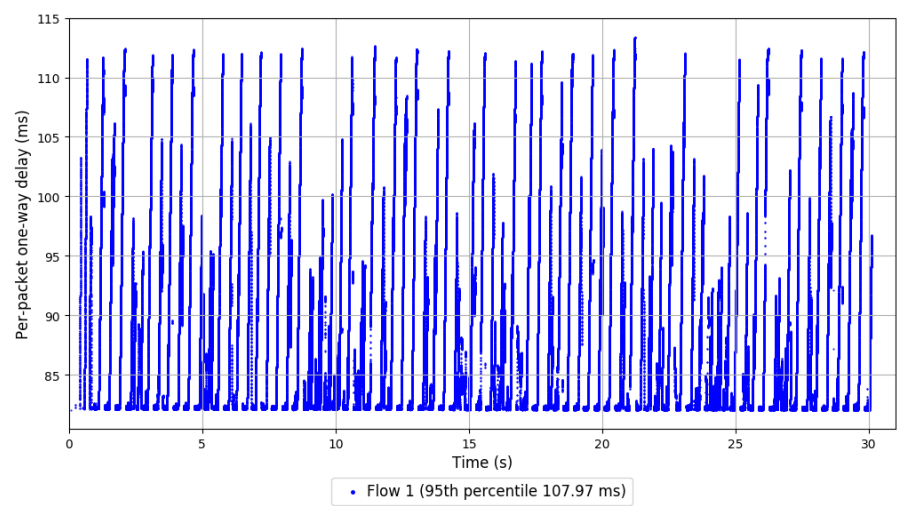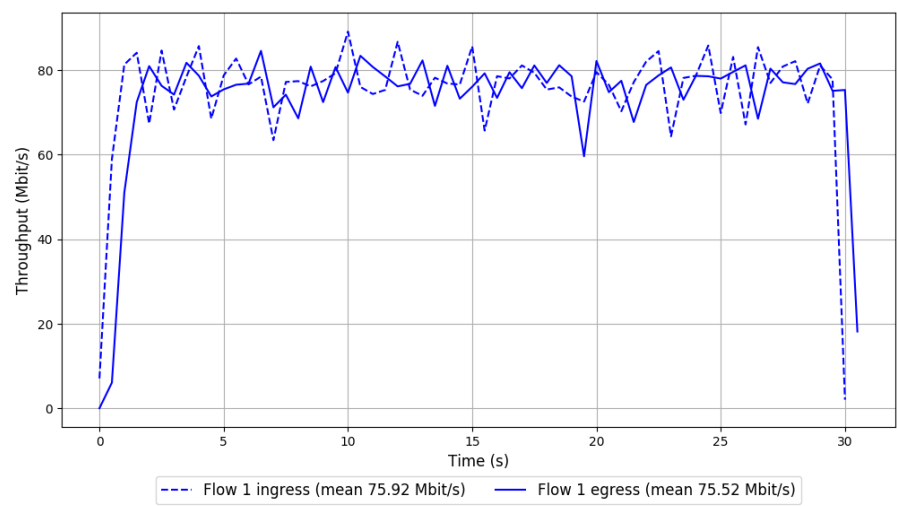

• Flow 1 (95th percentile 115.45 ms)

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

Start at: 2018-06-05 06:38:39
End at: 2018-06-05 06:39:09
Local clock offset: -3.155 ms
Remote clock offset: 12.263 ms


# Below is generated by plot.py at 2018-06-05 07:42:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.52 Mbit/s
95th percentile per-packet one-way delay: 107.971 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 75.52 Mbit/s
95th percentile per-packet one-way delay: 107.971 ms
Loss rate: 0.48%
```
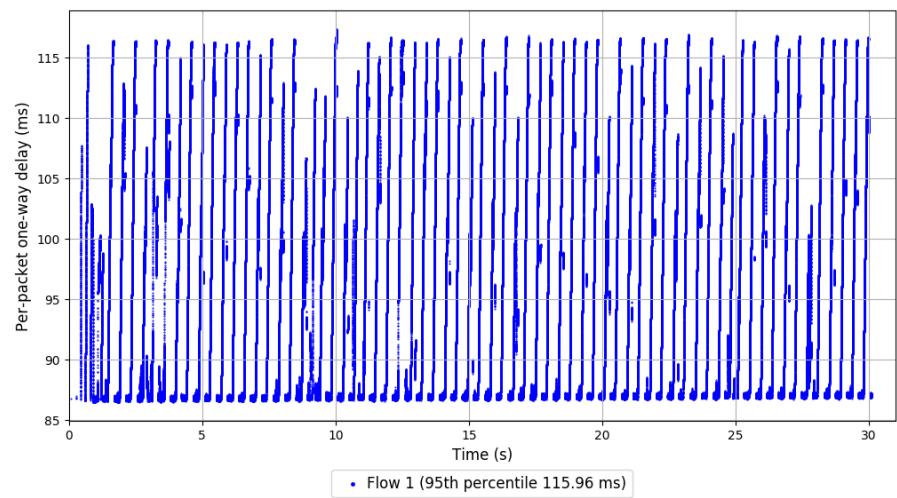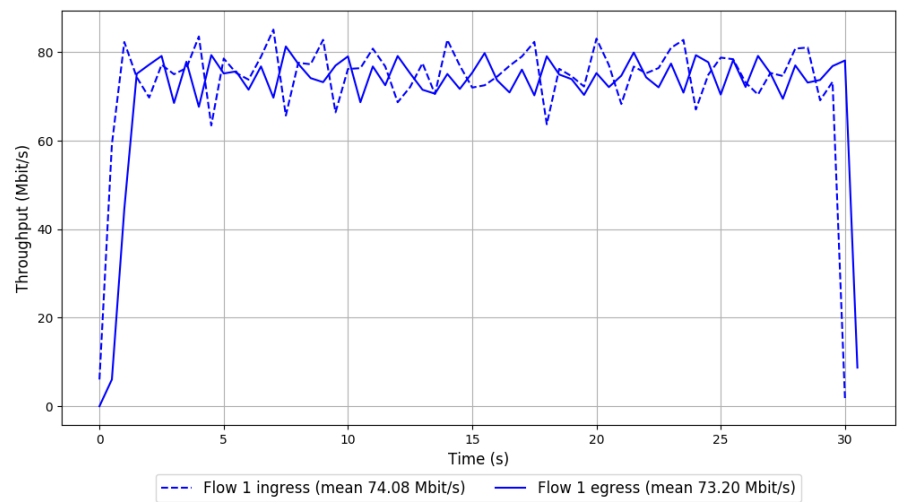
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 75.92 Mbit/s)   Flow 1 egress (mean 75.52 Mbit/s)

Flow 1 (95th percentile 107.97 ms)

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

Start at: 2018-06-05 06:57:20
End at: 2018-06-05 06:57:50
Local clock offset: -4.087 ms
Remote clock offset: 9.133 ms


# Below is generated by plot.py at 2018-06-05 07:43:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.20 Mbit/s
95th percentile per-packet one-way delay: 115.958 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 73.20 Mbit/s
95th percentile per-packet one-way delay: 115.958 ms
Loss rate: 1.19%
```
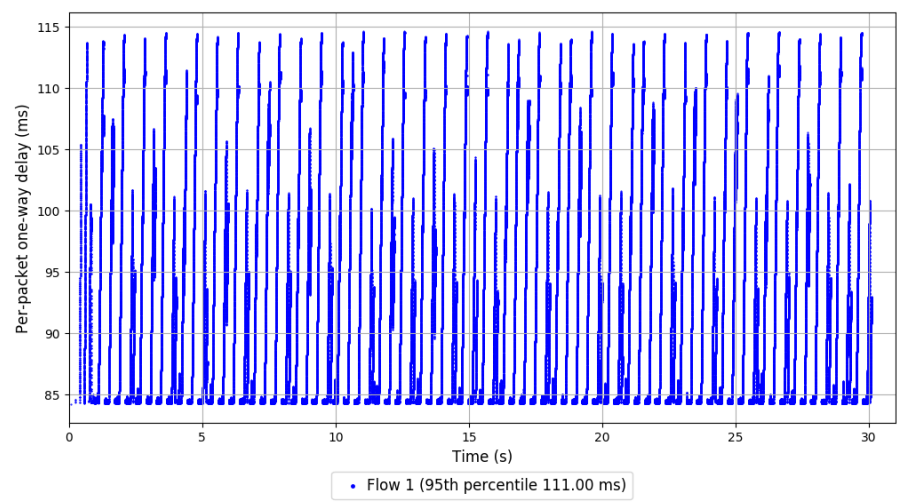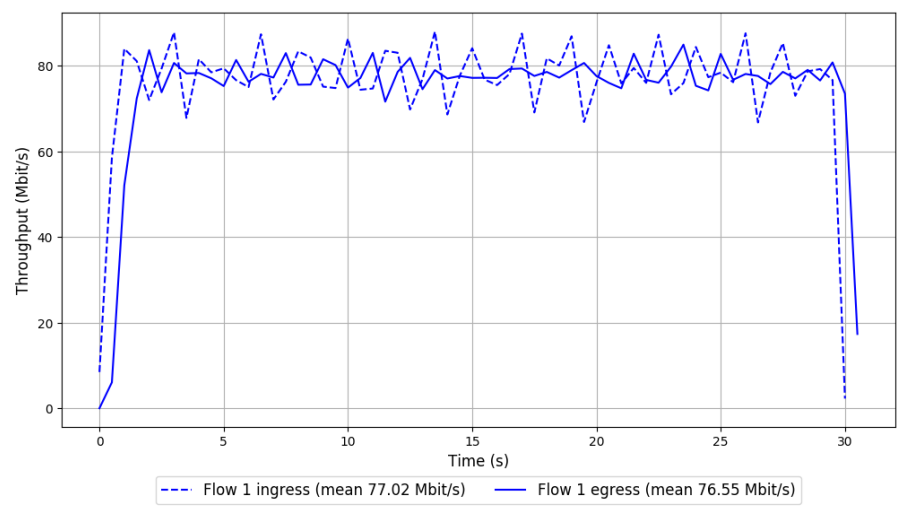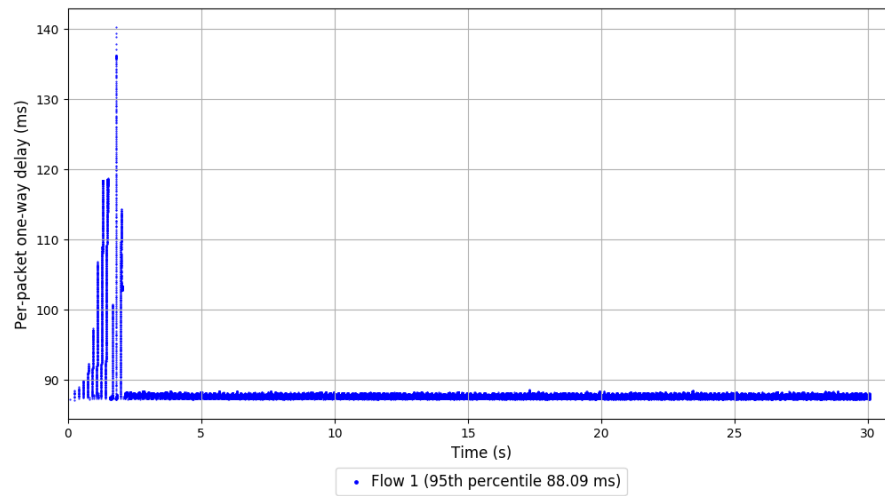
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 74.08 Mbit/s)   Flow 1 egress (mean 73.20 Mbit/s)

• Flow 1 (95th percentile 115.96 ms)

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

Start at: 2018-06-05 07:16:03
End at: 2018-06-05 07:16:33
Local clock offset: -6.323 ms
Remote clock offset: 9.671 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 110.996 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 76.55 Mbit/s
95th percentile per-packet one-way delay: 110.996 ms
Loss rate: 0.58%
```

Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 77.02 Mbit/s) ----- Flow 1 egress (mean 76.55 Mbit/s) ——
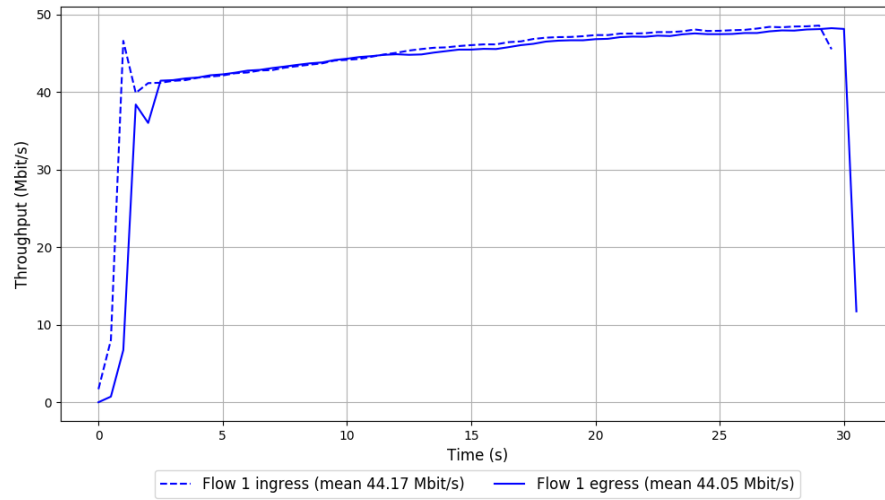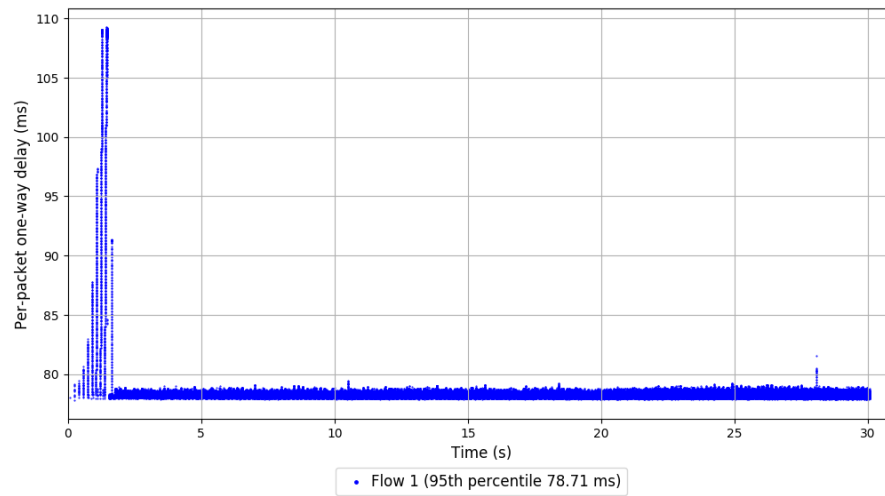

• Flow 1 (95th percentile 111.00 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-06-05 04:26:29
End at: 2018-06-05 04:26:59
Local clock offset: -1.979 ms
Remote clock offset: 16.062 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 88.092 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 44.05 Mbit/s
95th percentile per-packet one-way delay: 88.092 ms
Loss rate: 0.28%
```
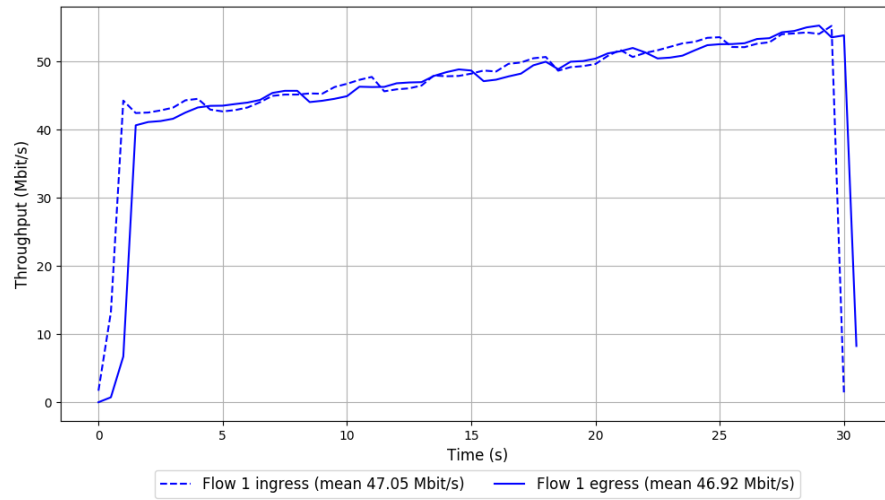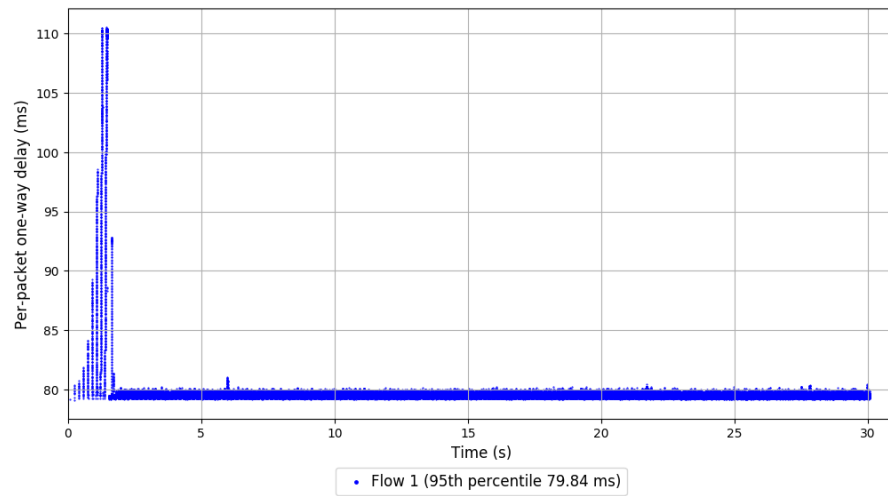
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-06-05 04:45:09
End at: 2018-06-05 04:45:39
Local clock offset: -1.936 ms
Remote clock offset: 10.838 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 78.706 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 46.92 Mbit/s
95th percentile per-packet one-way delay: 78.706 ms
Loss rate: 0.26%
```
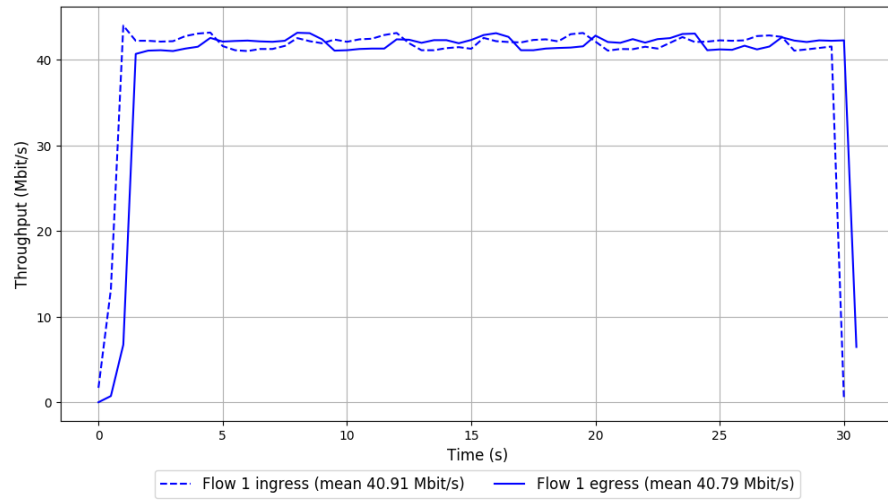
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-06-05 05:03:53
End at: 2018-06-05 05:04:23
Local clock offset: -2.01 ms
Remote clock offset: 12.896 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.79 Mbit/s
95th percentile per-packet one-way delay: 79.844 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 40.79 Mbit/s
95th percentile per-packet one-way delay: 79.844 ms
Loss rate: 0.30%
```
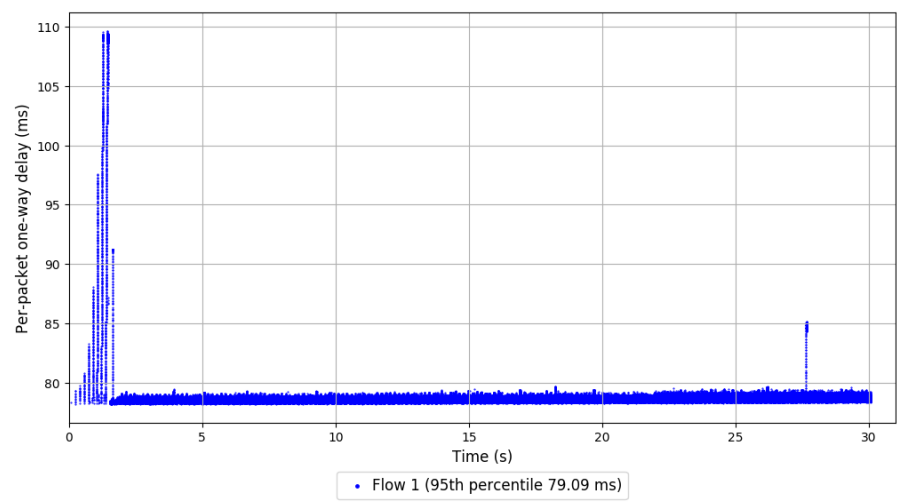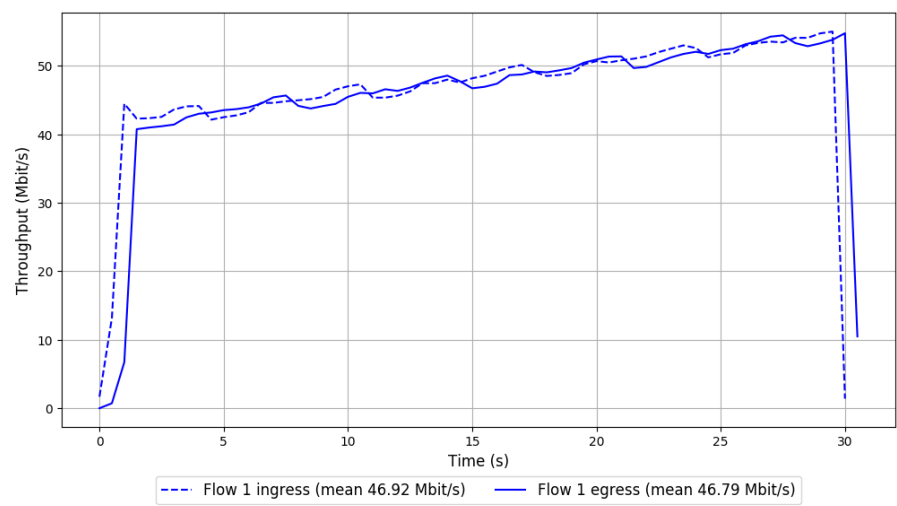
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 40.91 Mbit/s)   Flow 1 egress (mean 40.79 Mbit/s)

Flow 1 (95th percentile 79.84 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-06-05 05:22:35
End at: 2018-06-05 05:23:05
Local clock offset: -1.981 ms
Remote clock offset: 9.18 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 79.095 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 46.79 Mbit/s
95th percentile per-packet one-way delay: 79.095 ms
Loss rate: 0.26%
```
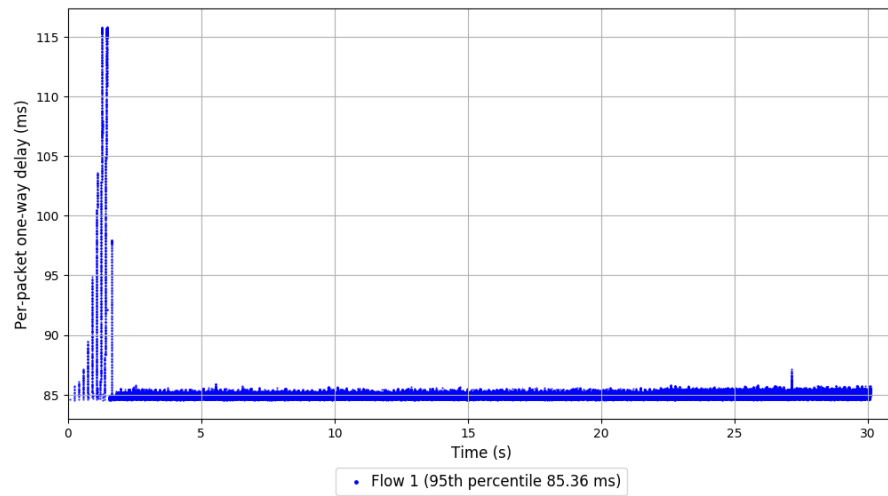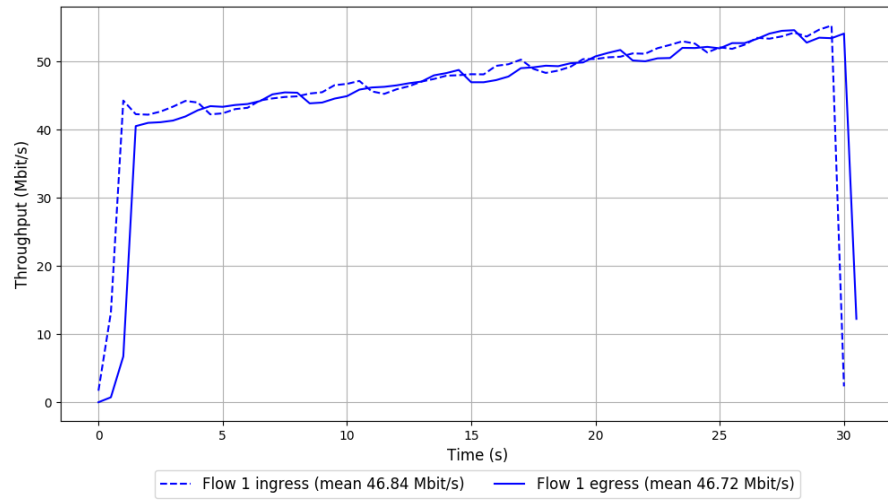
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 46.92 Mbit/s)   Flow 1 egress (mean 46.79 Mbit/s)

Flow 1 (95th percentile 79.09 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-06-05 05:41:17
End at: 2018-06-05 05:41:47
Local clock offset: -2.48 ms
Remote clock offset: 12.31 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.72 Mbit/s
95th percentile per-packet one-way delay: 85.364 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 46.72 Mbit/s
95th percentile per-packet one-way delay: 85.364 ms
Loss rate: 0.26%
```
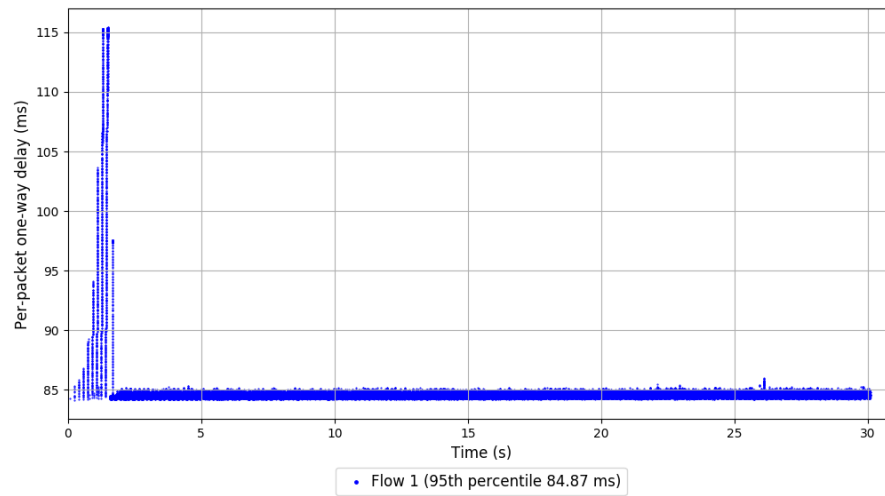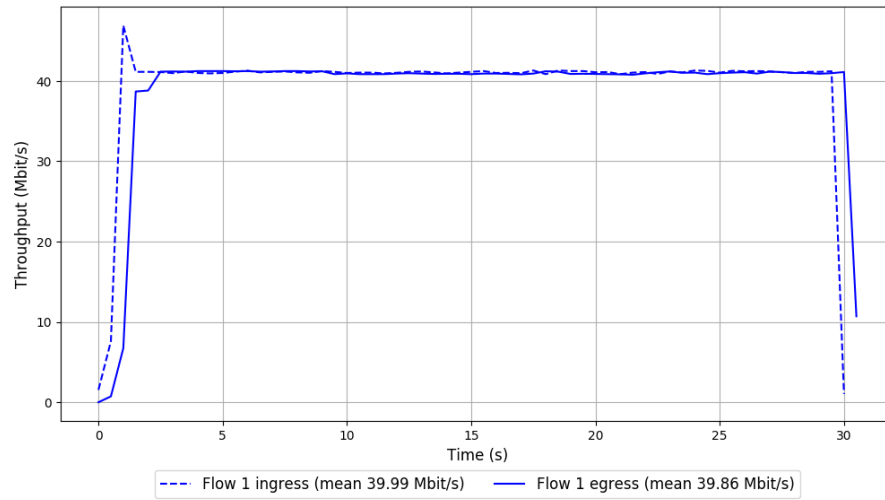
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 46.84 Mbit/s) ----- Flow 1 egress (mean 46.72 Mbit/s) ———

Flow 1 (95th percentile 85.36 ms) •

```
Run 6: Statistics of TCP Vegas

Start at: 2018-06-05 06:00:03
End at: 2018-06-05 06:00:33
Local clock offset: -2.302 ms
Remote clock offset: 8.106 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 84.871 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 39.86 Mbit/s
95th percentile per-packet one-way delay: 84.871 ms
Loss rate: 0.31%
```

Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-06-05 06:18:48
End at: 2018-06-05 06:19:18
Local clock offset: -3.78 ms
Remote clock offset: 2.173 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.29 Mbit/s
95th percentile per-packet one-way delay: 86.581 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 44.29 Mbit/s
95th percentile per-packet one-way delay: 86.581 ms
Loss rate: 0.28%
```
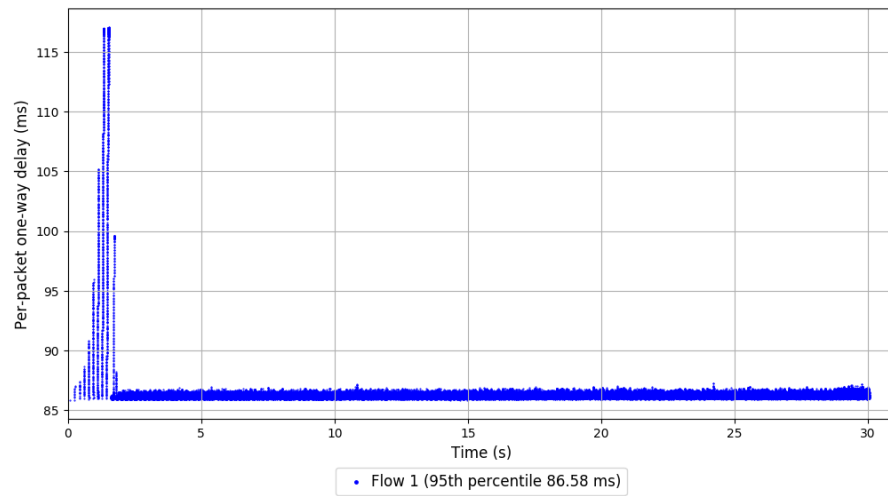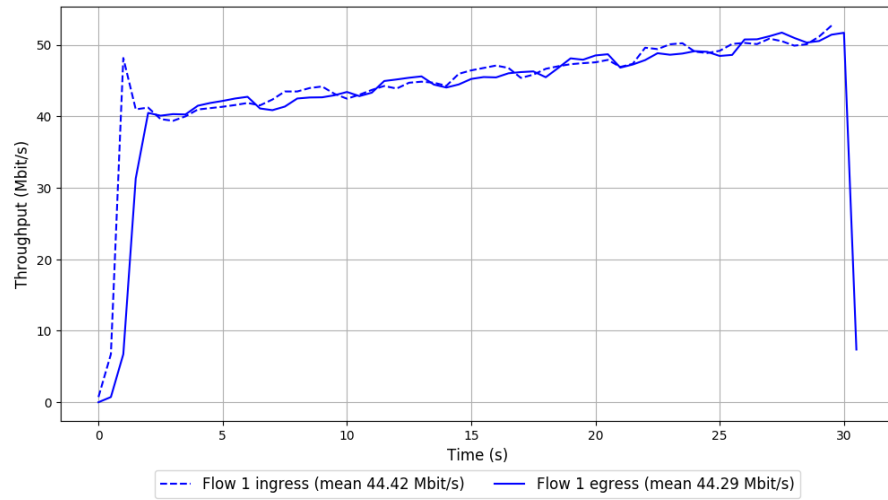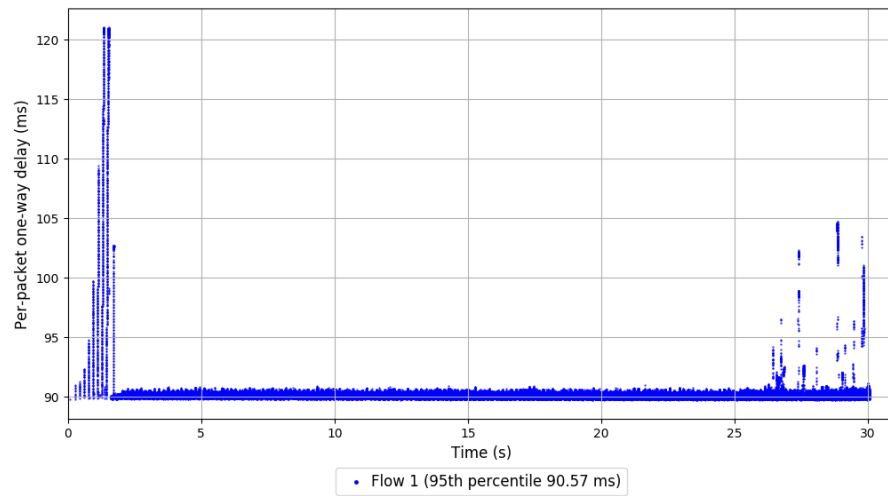
Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 44.42 Mbit/s)   Flow 1 egress (mean 44.29 Mbit/s)

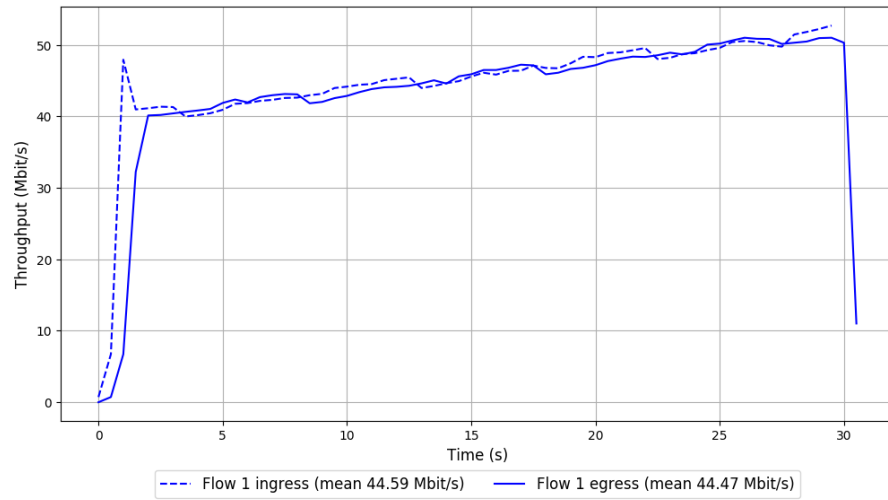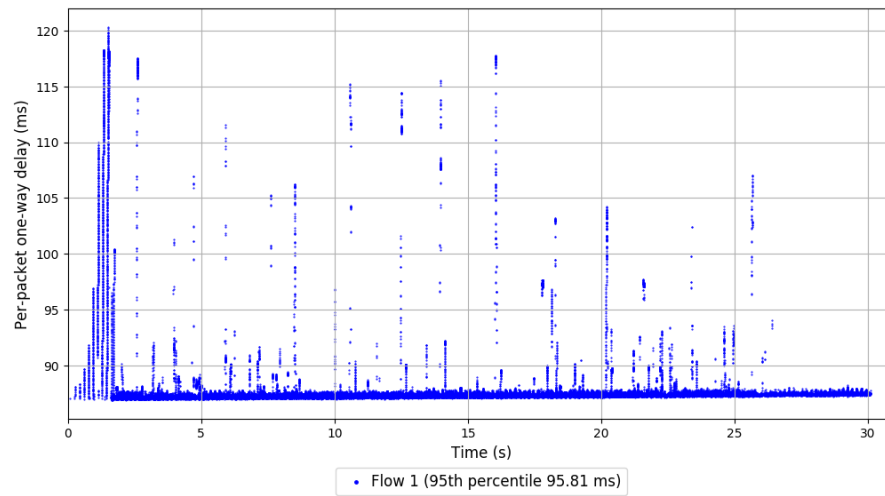
Flow 1 (95th percentile 86.58 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2018-06-05 06:37:30
End at: 2018-06-05 06:38:00
Local clock offset: -3.145 ms
Remote clock offset: 14.247 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 90.566 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 44.47 Mbit/s
95th percentile per-packet one-way delay: 90.566 ms
Loss rate: 0.28%
```

Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 44.59 Mbit/s)   Flow 1 egress (mean 44.47 Mbit/s)
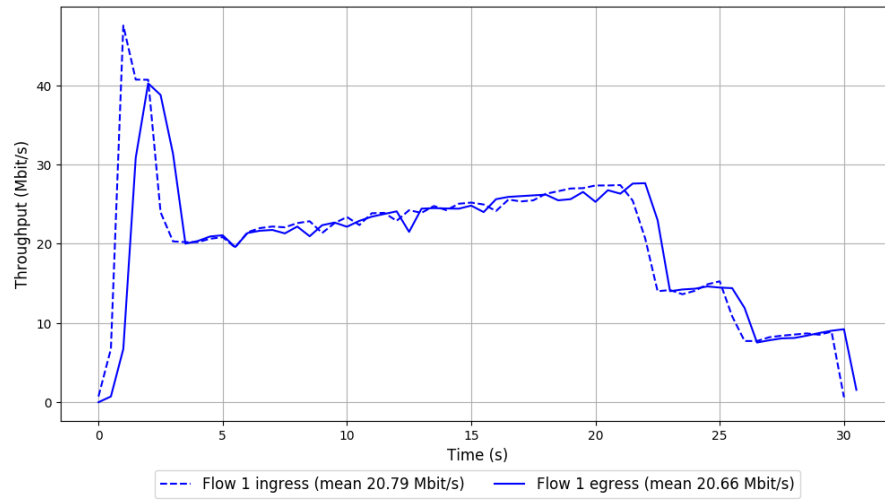

Flow 1 (95th percentile 90.57 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-06-05 06:56:12
End at: 2018-06-05 06:56:42
Local clock offset: -3.308 ms
Remote clock offset: 10.943 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 95.806 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 20.66 Mbit/s
95th percentile per-packet one-way delay: 95.806 ms
Loss rate: 0.64%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-06-05 07:14:53
End at: 2018-06-05 07:15:24
Local clock offset: -6.175 ms
Remote clock offset: 3.804 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 78.937 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 44.39 Mbit/s
95th percentile per-packet one-way delay: 78.937 ms
Loss rate: 0.27%
```
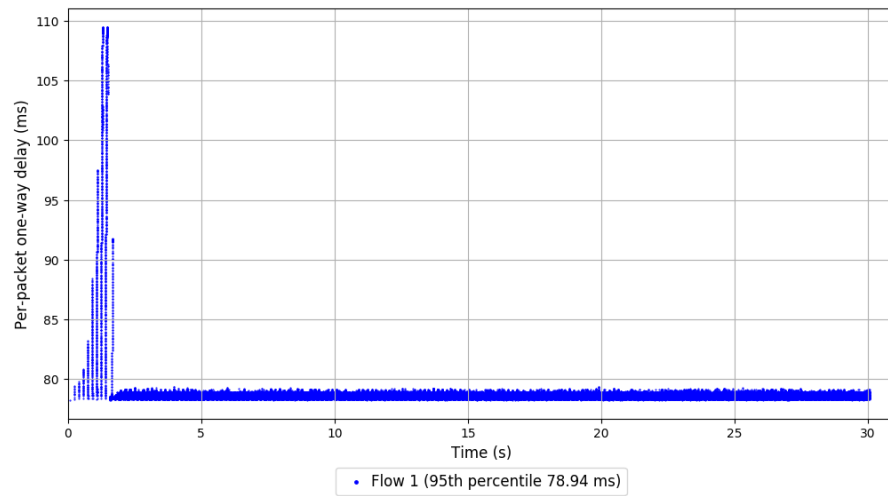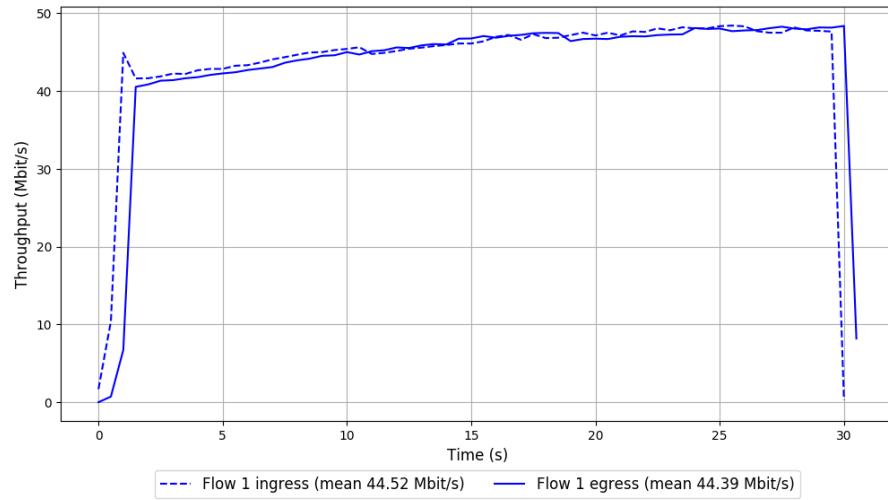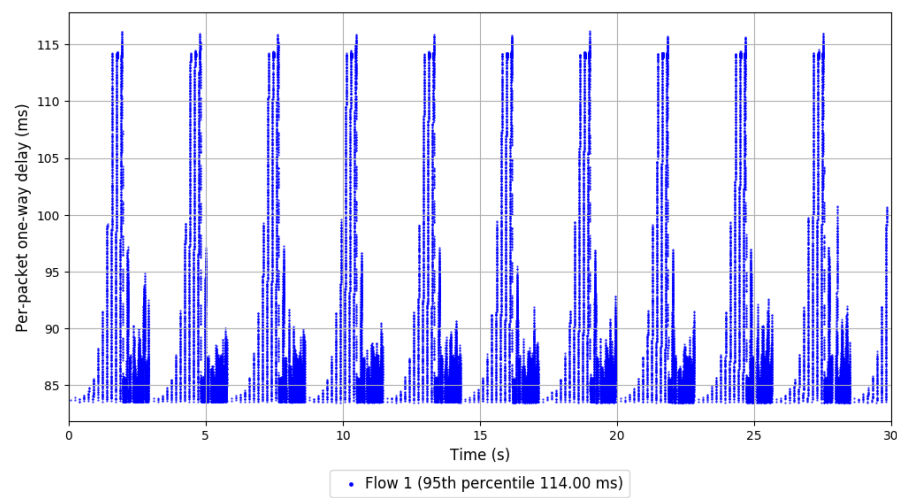
Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 44.52 Mbit/s) ----- Flow 1 egress (mean 44.39 Mbit/s)
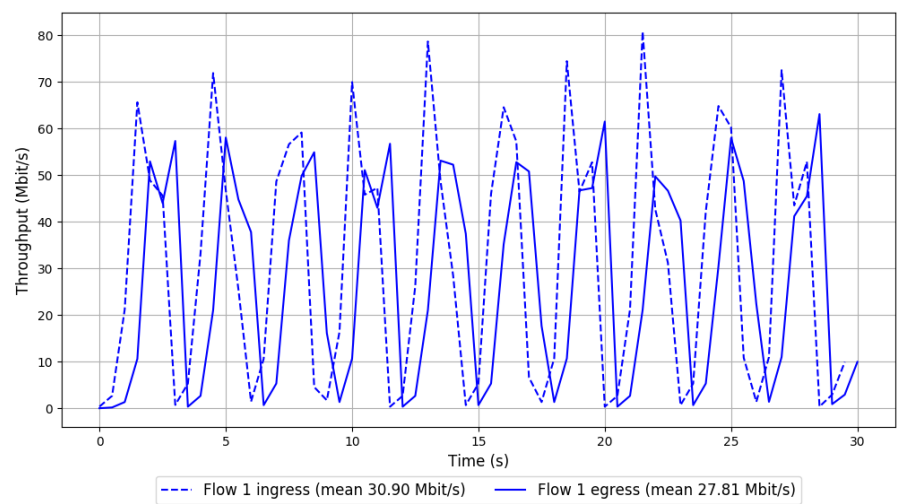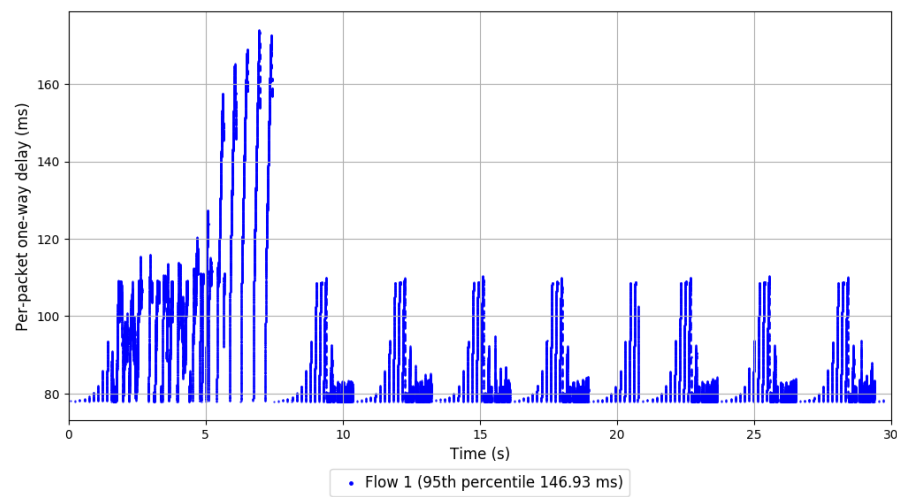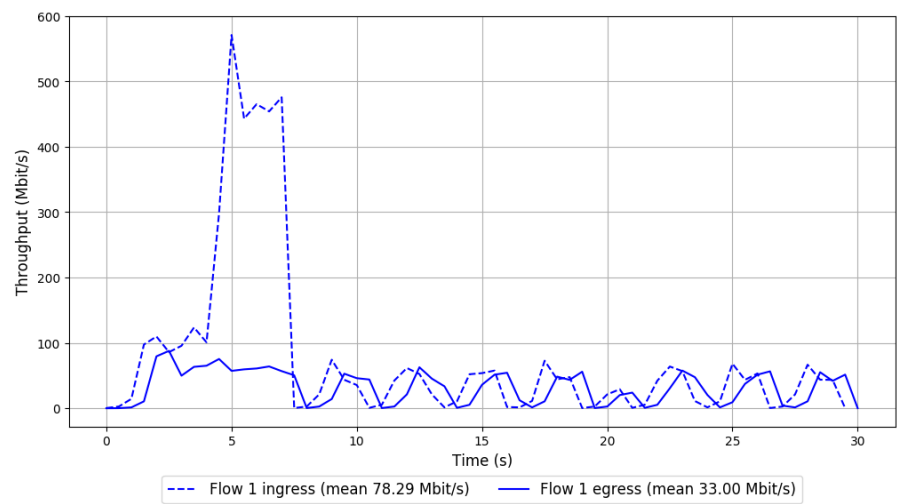

Flow 1 (95th percentile 78.94 ms)

```
Run 1: Statistics of Verus

Start at: 2018-06-05 04:32:19
End at: 2018-06-05 04:32:49
Local clock offset: -1.906 ms
Remote clock offset: 14.416 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.81 Mbit/s
95th percentile per-packet one-way delay: 114.001 ms
Loss rate: 9.95%
-- Flow 1:
Average throughput: 27.81 Mbit/s
95th percentile per-packet one-way delay: 114.001 ms
Loss rate: 9.95%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 30.90 Mbit/s) —— Flow 1 egress (mean 27.81 Mbit/s)

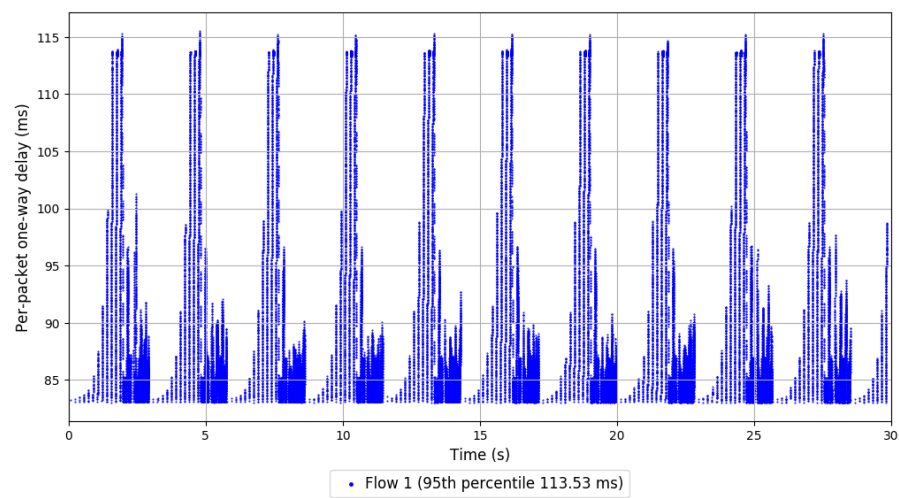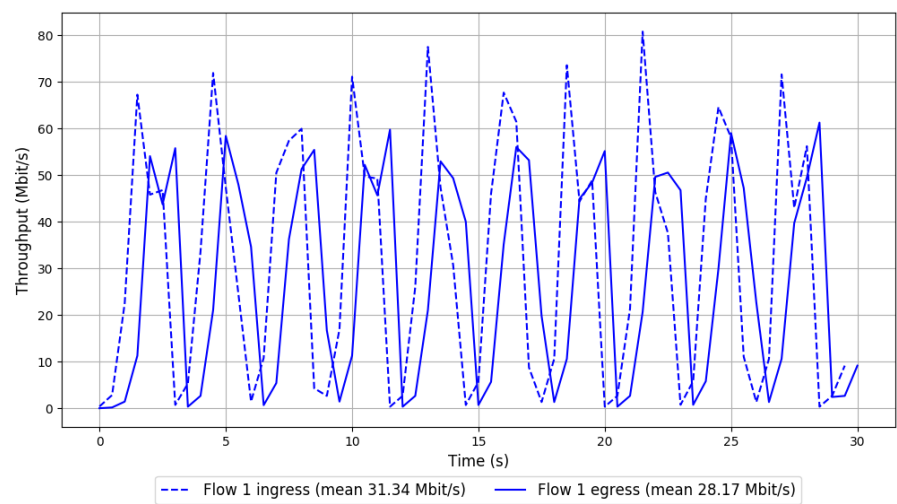• Flow 1 (95th percentile 114.00 ms)

```
Run 2: Statistics of Verus

Start at: 2018-06-05 04:51:00
End at: 2018-06-05 04:51:30
Local clock offset: -1.947 ms
Remote clock offset: 11.588 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 146.925 ms
Loss rate: 57.85%
-- Flow 1:
Average throughput: 33.00 Mbit/s
95th percentile per-packet one-way delay: 146.925 ms
Loss rate: 57.85%
```

Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 78.29 Mbit/s)   Flow 1 egress (mean 33.00 Mbit/s)

• Flow 1 (95th percentile 146.93 ms)

```
Run 3: Statistics of Verus

Start at: 2018-06-05 05:09:43
End at: 2018-06-05 05:10:13
Local clock offset: -1.937 ms
Remote clock offset: 18.382 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 28.17 Mbit/s
95th percentile per-packet one-way delay: 113.528 ms
Loss rate: 10.09%
-- Flow 1:
Average throughput: 28.17 Mbit/s
95th percentile per-packet one-way delay: 113.528 ms
Loss rate: 10.09%
```

Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-06-05 05:28:24
End at: 2018-06-05 05:28:54
Local clock offset: -1.109 ms
Remote clock offset: 7.797 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.66 Mbit/s
95th percentile per-packet one-way delay: 115.423 ms
Loss rate: 9.37%
-- Flow 1:
Average throughput: 26.66 Mbit/s
95th percentile per-packet one-way delay: 115.423 ms
Loss rate: 9.37%
```
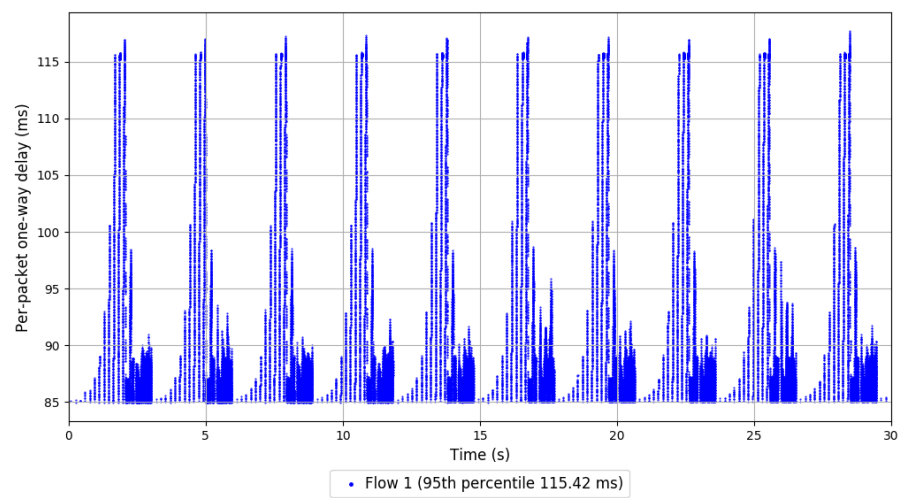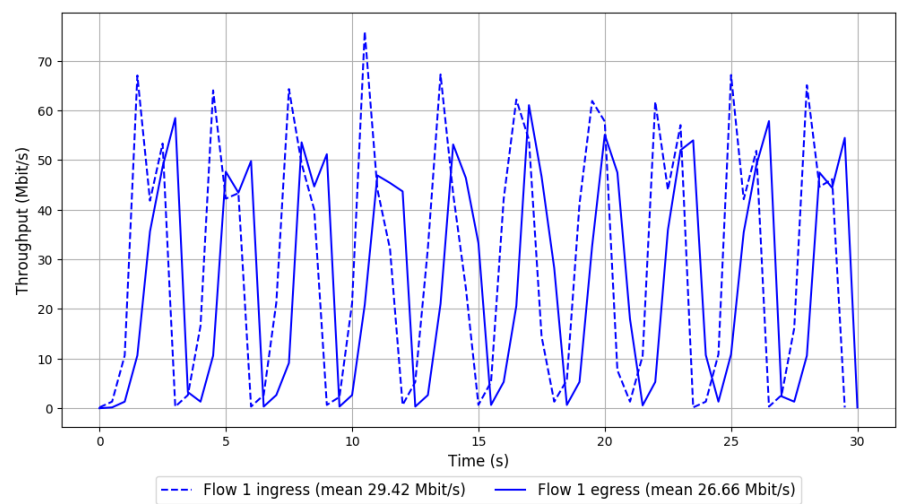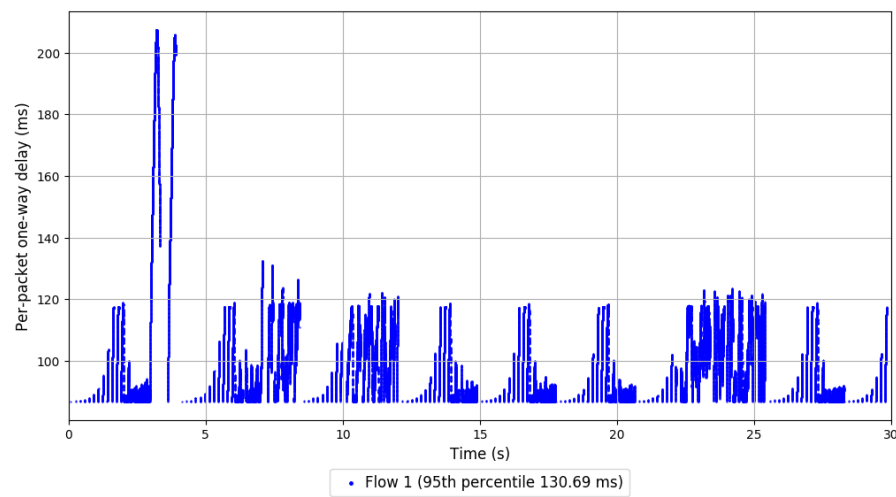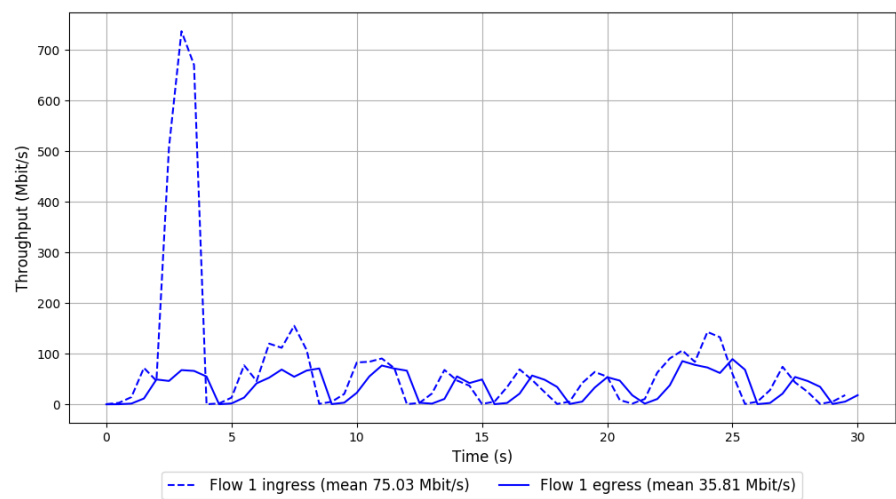
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-06-05 05:47:07
End at: 2018-06-05 05:47:37
Local clock offset: -3.528 ms
Remote clock offset: 11.865 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.81 Mbit/s
95th percentile per-packet one-way delay: 130.688 ms
Loss rate: 52.22%
-- Flow 1:
Average throughput: 35.81 Mbit/s
95th percentile per-packet one-way delay: 130.688 ms
Loss rate: 52.22%
```

Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-06-05 06:05:54
End at: 2018-06-05 06:06:24
Local clock offset: -3.104 ms
Remote clock offset: 2.338 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 110.842 ms
Loss rate: 10.29%
-- Flow 1:
Average throughput: 30.47 Mbit/s
95th percentile per-packet one-way delay: 110.842 ms
Loss rate: 10.29%
```
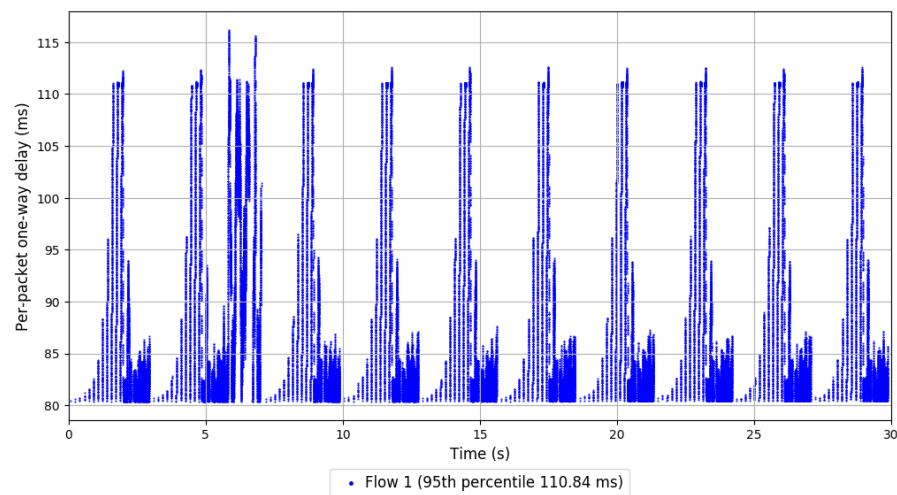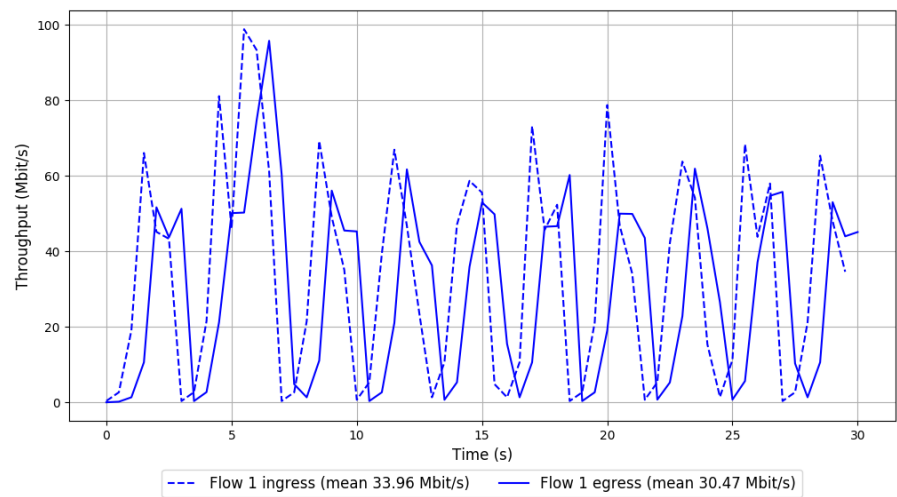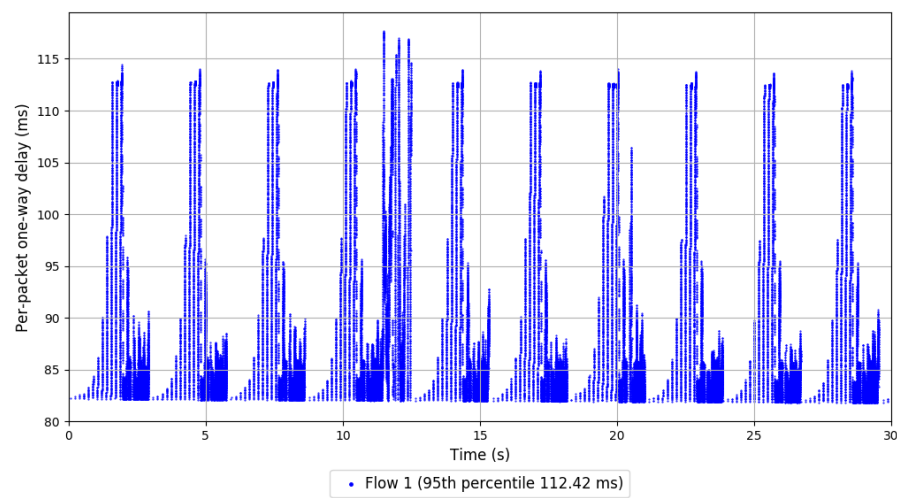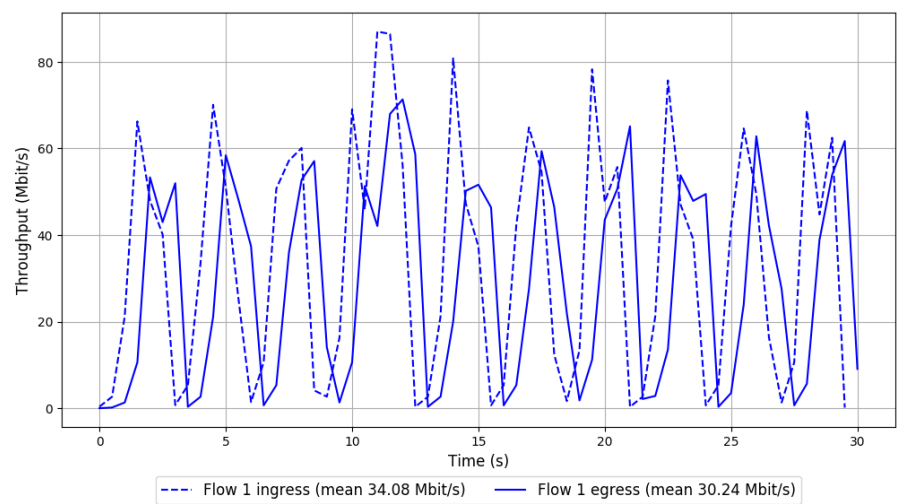
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-06-05 06:24:39
End at: 2018-06-05 06:25:09
Local clock offset: -2.264 ms
Remote clock offset: 8.162 ms


# Below is generated by plot.py at 2018-06-05 07:44:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.24 Mbit/s
95th percentile per-packet one-way delay: 112.424 ms
Loss rate: 11.27%
-- Flow 1:
Average throughput: 30.24 Mbit/s
95th percentile per-packet one-way delay: 112.424 ms
Loss rate: 11.27%
```

Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-06-05 06:43:20
End at: 2018-06-05 06:43:50
Local clock offset: -3.201 ms
Remote clock offset: 10.19 ms


# Below is generated by plot.py at 2018-06-05 07:44:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.54 Mbit/s
95th percentile per-packet one-way delay: 110.687 ms
Loss rate: 9.56%
-- Flow 1:
Average throughput: 26.54 Mbit/s
95th percentile per-packet one-way delay: 110.687 ms
Loss rate: 9.56%
```
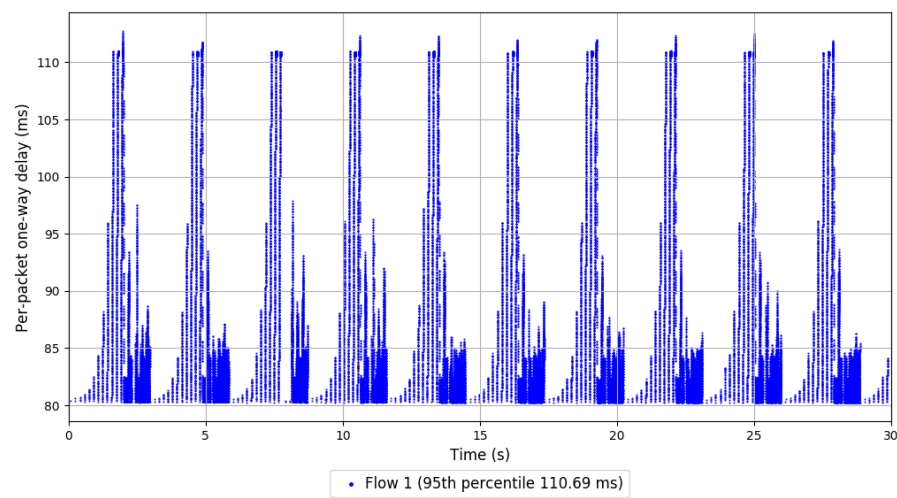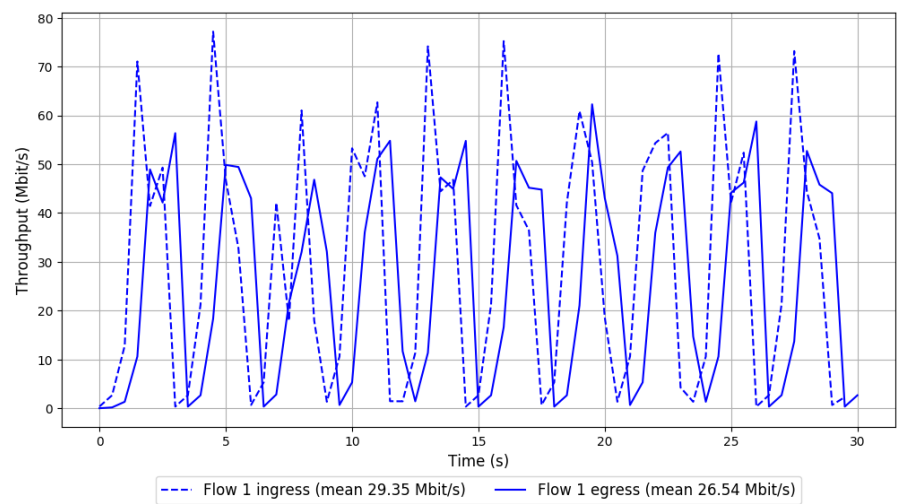
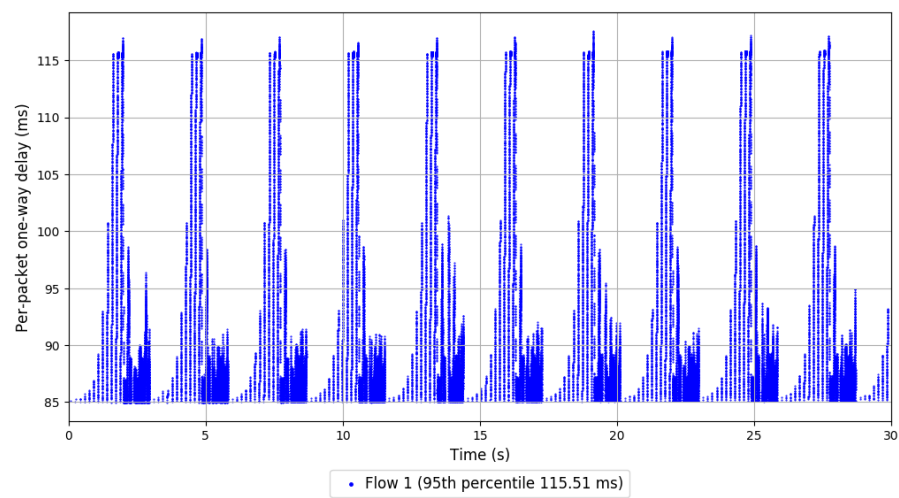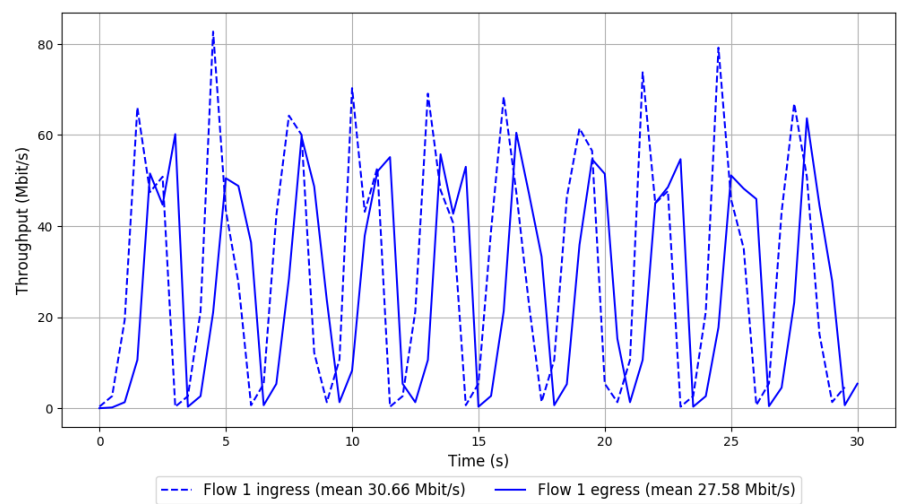Run 8: Report of Verus — Data Link

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```
Run 9: Statistics of Verus

Start at: 2018-06-05 07:02:00
End at: 2018-06-05 07:02:30
Local clock offset: -3.369 ms
Remote clock offset: 11.809 ms


# Below is generated by plot.py at 2018-06-05 07:44:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 27.58 Mbit/s
95th percentile per-packet one-way delay: 115.508 ms
Loss rate: 10.04%
-- Flow 1:
Average throughput: 27.58 Mbit/s
95th percentile per-packet one-way delay: 115.508 ms
Loss rate: 10.04%
```

Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-06-05 07:20:44
End at: 2018-06-05 07:21:14
Local clock offset: -6.184 ms
Remote clock offset: 8.085 ms


# Below is generated by plot.py at 2018-06-05 07:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.09 Mbit/s
95th percentile per-packet one-way delay: 176.010 ms
Loss rate: 81.49%
-- Flow 1:
Average throughput: 40.09 Mbit/s
95th percentile per-packet one-way delay: 176.010 ms
Loss rate: 81.49%
```
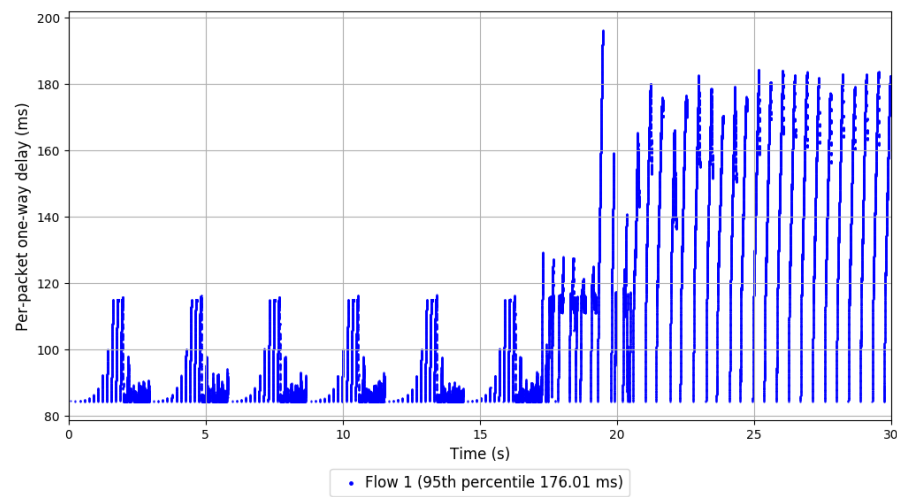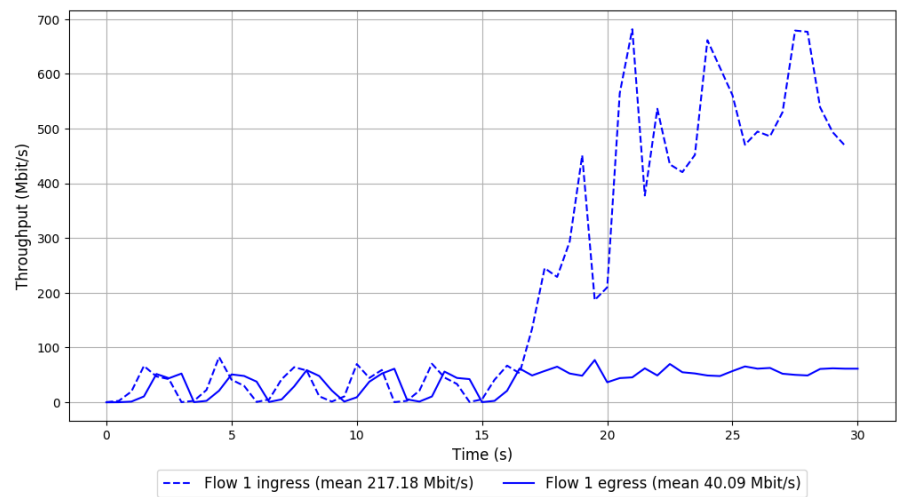
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-05 04:25:17
End at: 2018-06-05 04:25:47
Local clock offset: -1.21 ms
Remote clock offset: 10.814 ms

# Below is generated by plot.py at 2018-06-05 07:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 107.200 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 75.89 Mbit/s
95th percentile per-packet one-way delay: 107.200 ms
Loss rate: 0.11%
```
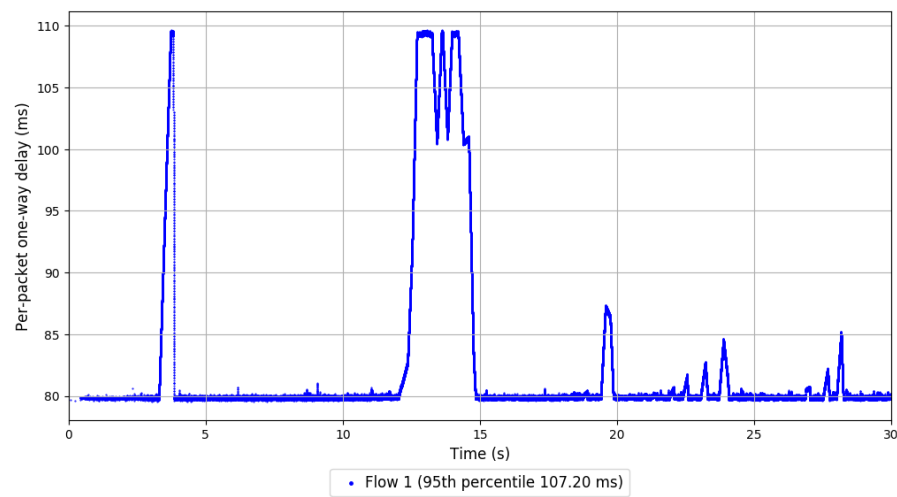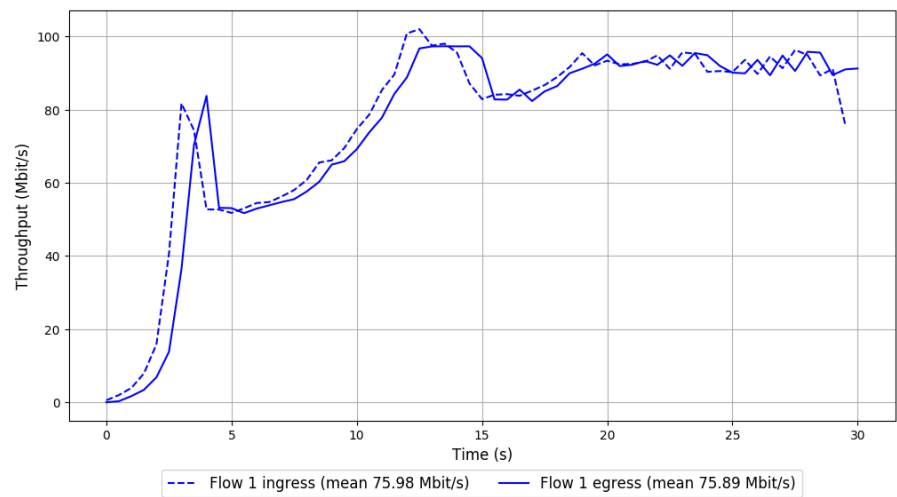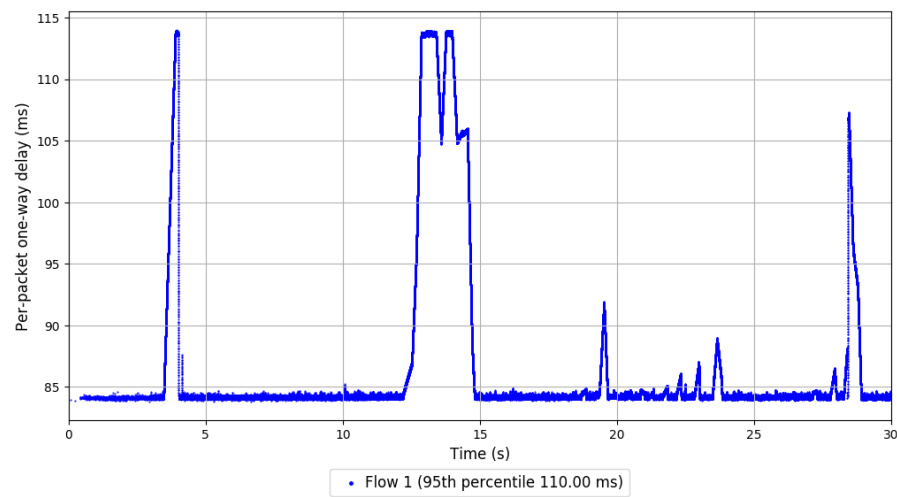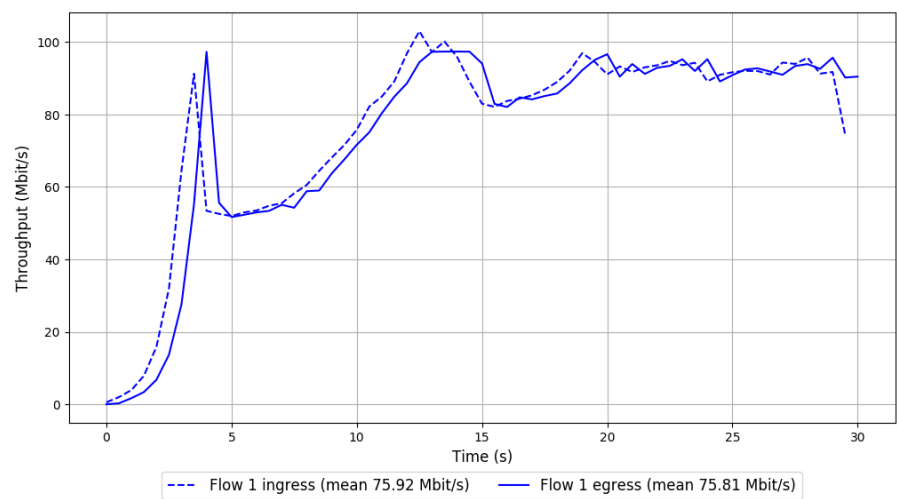
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-05 04:43:57
End at: 2018-06-05 04:44:27
Local clock offset: -2.765 ms
Remote clock offset: 15.705 ms


# Below is generated by plot.py at 2018-06-05 07:44:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.81 Mbit/s
95th percentile per-packet one-way delay: 109.997 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 75.81 Mbit/s
95th percentile per-packet one-way delay: 109.997 ms
Loss rate: 0.14%
```
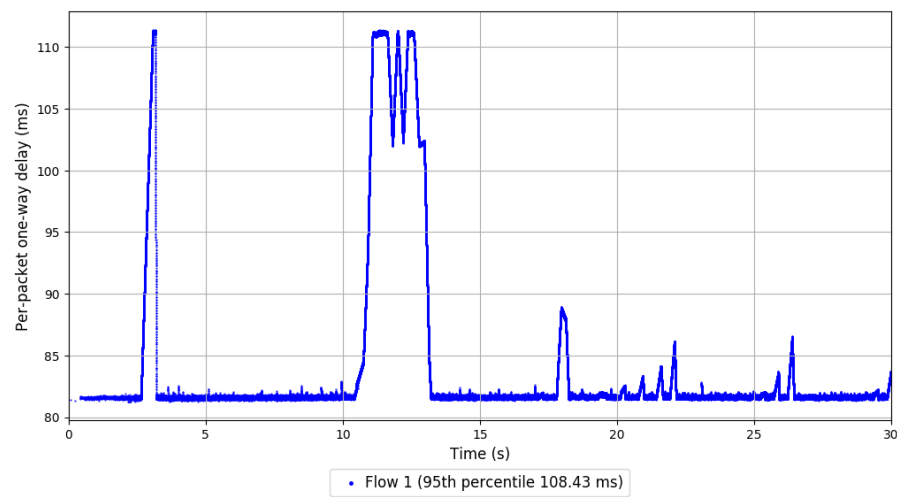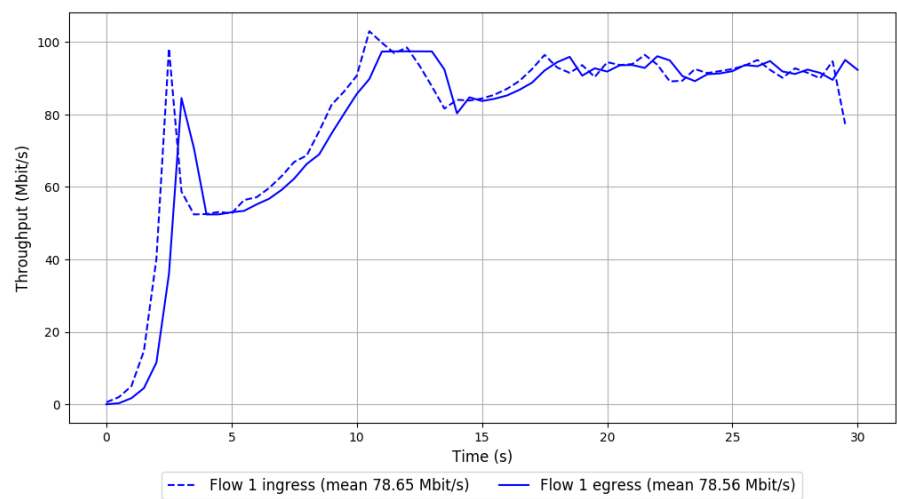
Run 2: Report of PCC-Vivace — Data Link

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-05 05:02:42
End at: 2018-06-05 05:03:12
Local clock offset: -1.179 ms
Remote clock offset: 16.728 ms


# Below is generated by plot.py at 2018-06-05 07:45:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 108.433 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 78.56 Mbit/s
95th percentile per-packet one-way delay: 108.433 ms
Loss rate: 0.10%
```
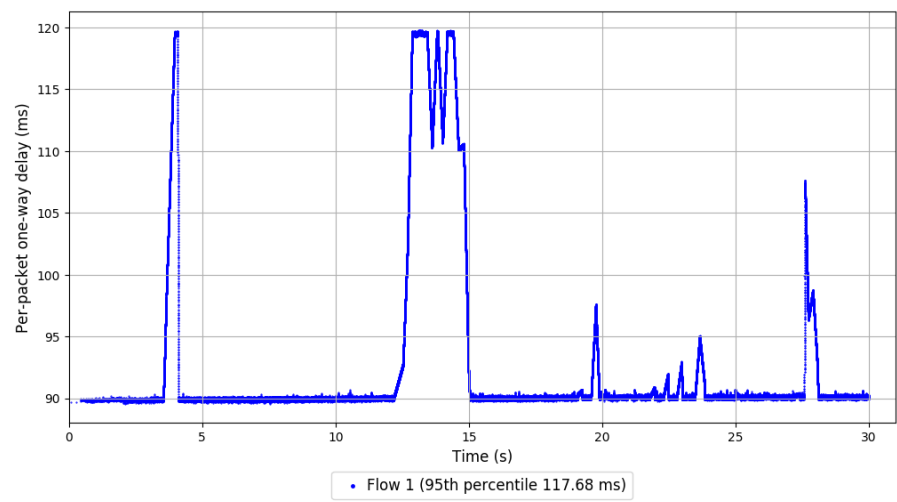
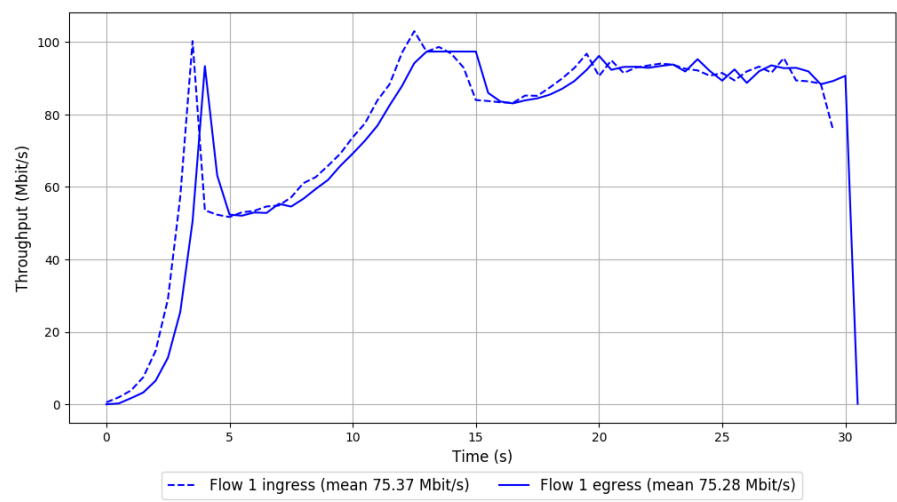Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-05 05:21:23
End at: 2018-06-05 05:21:53
Local clock offset: -1.893 ms
Remote clock offset: 13.524 ms

# Below is generated by plot.py at 2018-06-05 07:45:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.28 Mbit/s
95th percentile per-packet one-way delay: 117.682 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 75.28 Mbit/s
95th percentile per-packet one-way delay: 117.682 ms
Loss rate: 0.12%
```

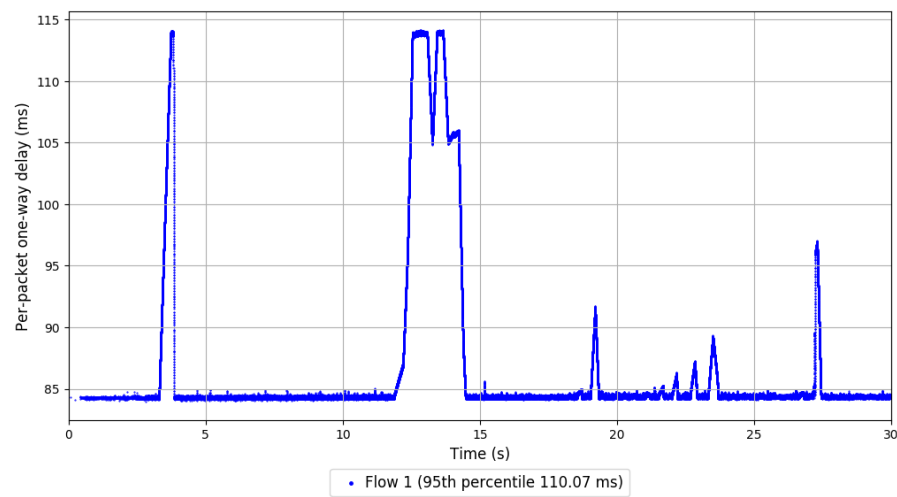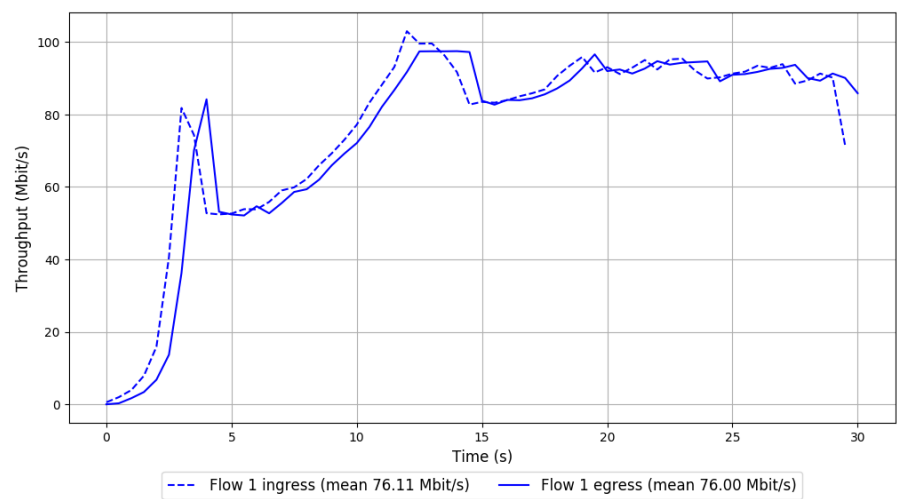Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-05 05:40:05
End at: 2018-06-05 05:40:35
Local clock offset: -2.402 ms
Remote clock offset: 12.455 ms


# Below is generated by plot.py at 2018-06-05 07:45:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.00 Mbit/s
95th percentile per-packet one-way delay: 110.066 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 76.00 Mbit/s
95th percentile per-packet one-way delay: 110.066 ms
Loss rate: 0.14%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 76.11 Mbit/s)   Flow 1 egress (mean 76.00 Mbit/s)

Flow 1 (95th percentile 110.07 ms)

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-05 05:58:51
End at: 2018-06-05 05:59:21
Local clock offset: -3.139 ms
Remote clock offset: 8.359 ms


# Below is generated by plot.py at 2018-06-05 07:45:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 108.066 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 77.15 Mbit/s
95th percentile per-packet one-way delay: 108.066 ms
Loss rate: 0.13%
```
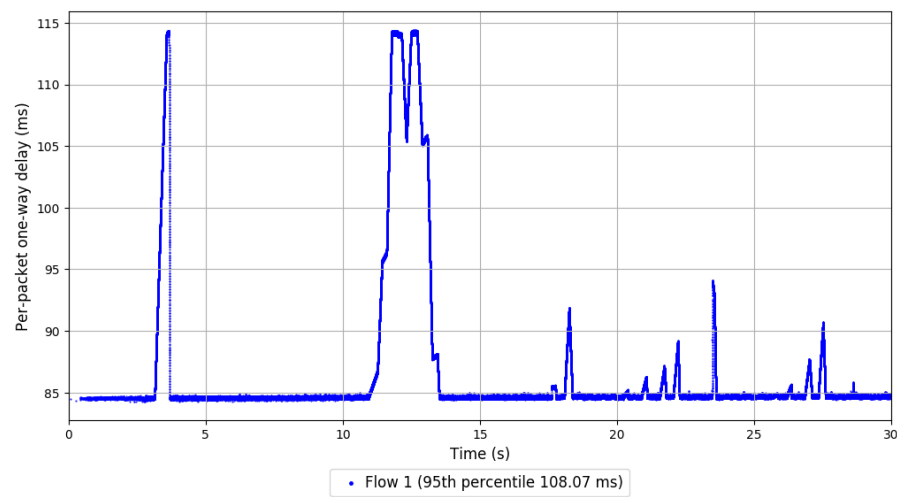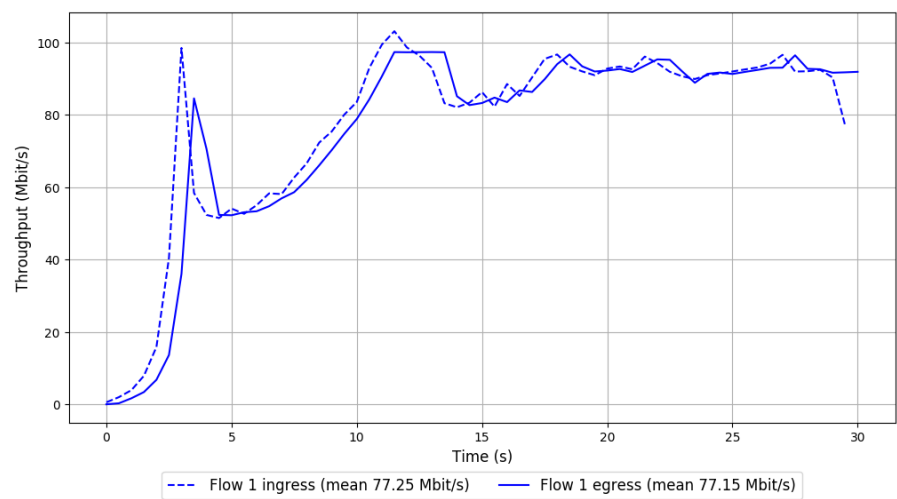
Run 6: Report of PCC-Vivace — Data Link

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-05 06:17:36
End at: 2018-06-05 06:18:06
Local clock offset: -3.074 ms
Remote clock offset: 1.054 ms


# Below is generated by plot.py at 2018-06-05 07:45:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.97 Mbit/s
95th percentile per-packet one-way delay: 90.124 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 77.97 Mbit/s
95th percentile per-packet one-way delay: 90.124 ms
Loss rate: 0.03%
```
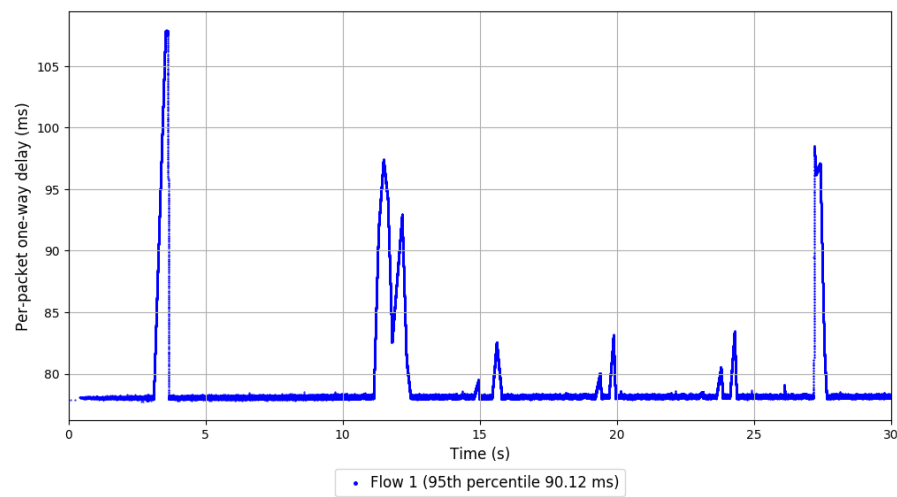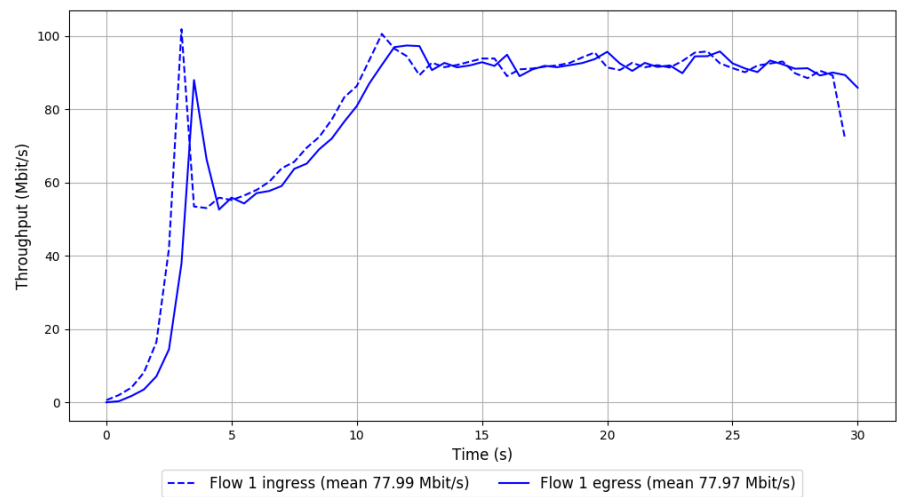
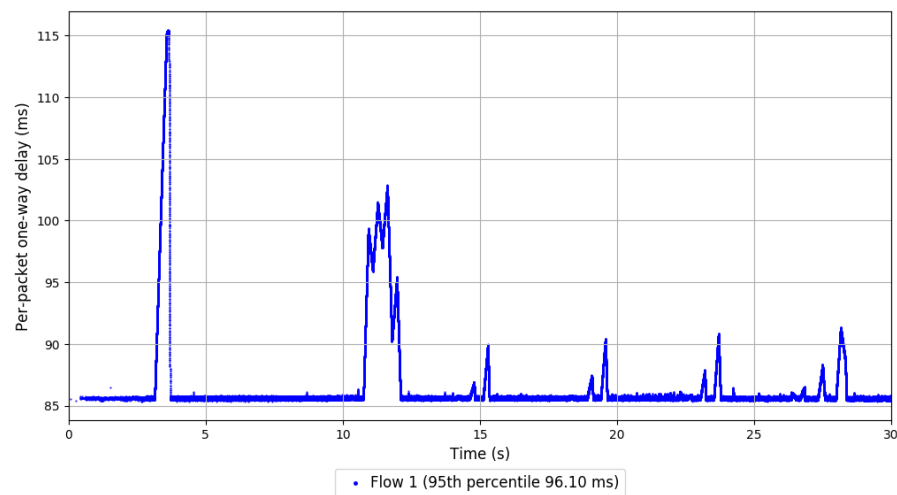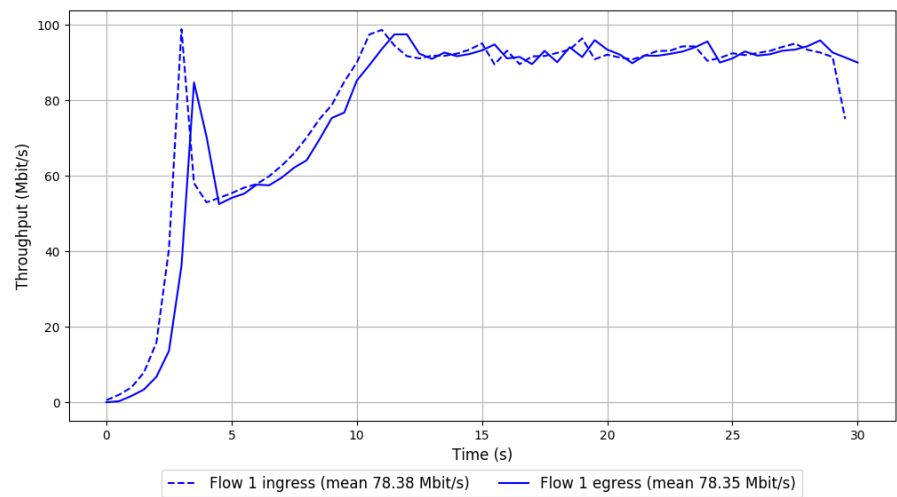# Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-05 06:36:18
End at: 2018-06-05 06:36:48
Local clock offset: -3.131 ms
Remote clock offset: 13.054 ms


# Below is generated by plot.py at 2018-06-05 07:45:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.35 Mbit/s
95th percentile per-packet one-way delay: 96.104 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 78.35 Mbit/s
95th percentile per-packet one-way delay: 96.104 ms
Loss rate: 0.03%
```

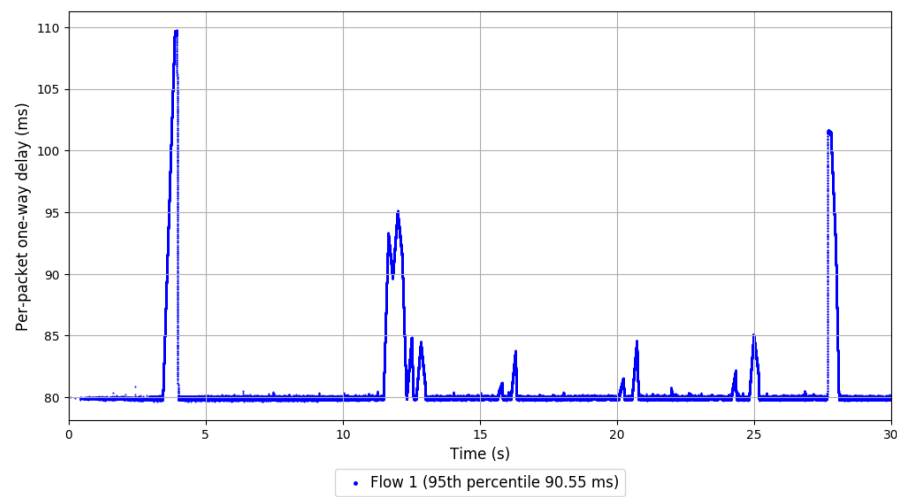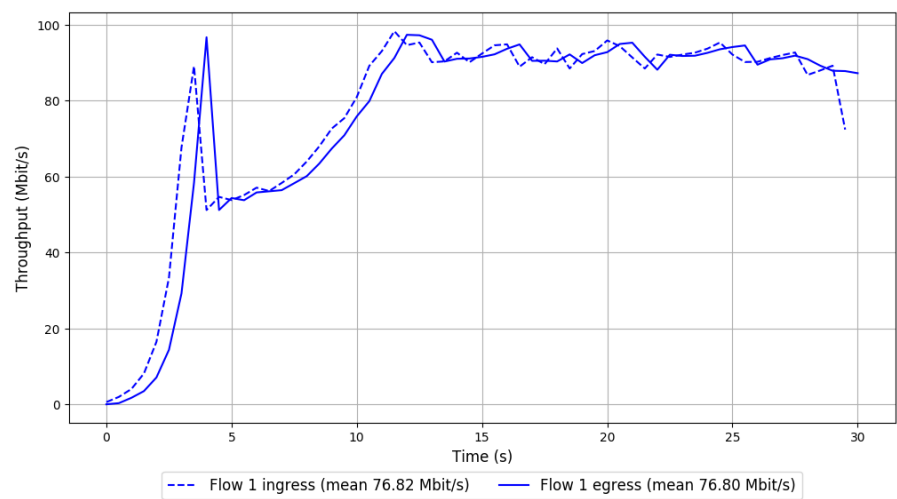# Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-05 06:55:00
End at: 2018-06-05 06:55:30
Local clock offset: -4.113 ms
Remote clock offset: 10.991 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.80 Mbit/s
95th percentile per-packet one-way delay: 90.547 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 76.80 Mbit/s
95th percentile per-packet one-way delay: 90.547 ms
Loss rate: 0.03%
```

Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 76.82 Mbit/s)   Flow 1 egress (mean 76.80 Mbit/s)

Flow 1 (95th percentile 90.55 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-05 07:13:41
End at: 2018-06-05 07:14:11
Local clock offset: -6.788 ms
Remote clock offset: 5.051 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.06 Mbit/s
95th percentile per-packet one-way delay: 106.931 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 77.06 Mbit/s
95th percentile per-packet one-way delay: 106.931 ms
Loss rate: 0.09%
```
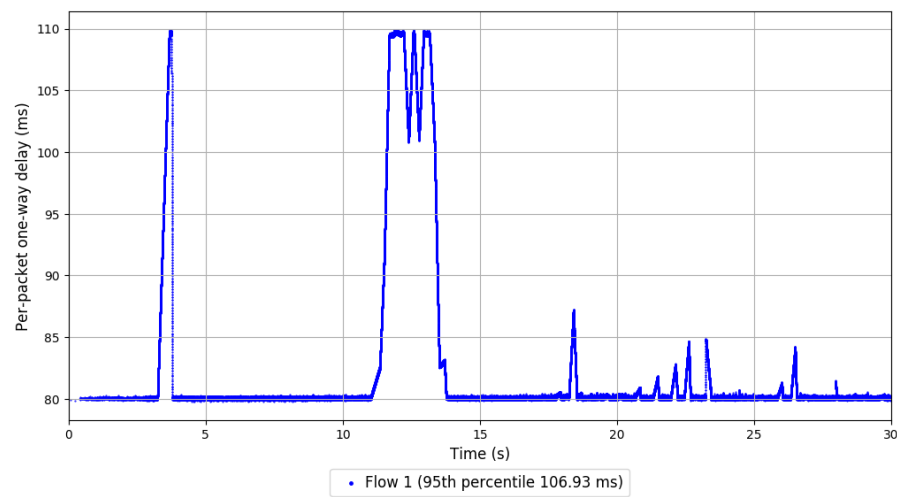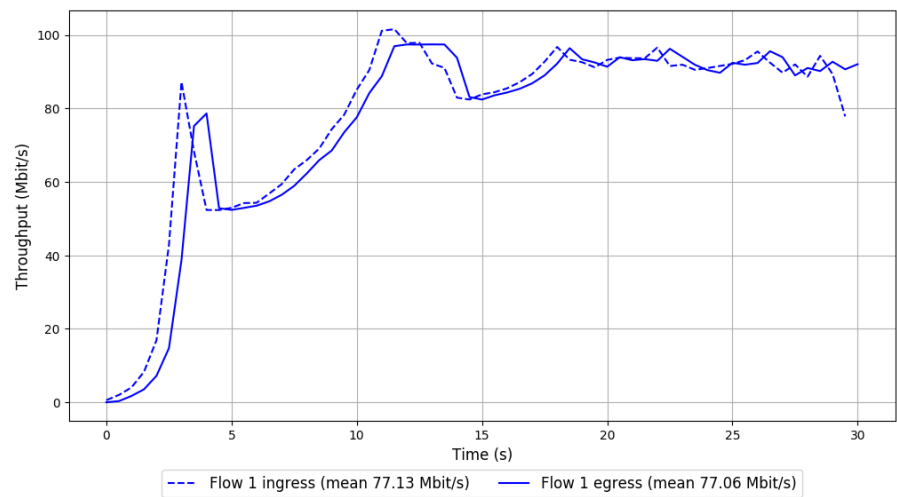
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 77.13 Mbit/s) — Flow 1 egress (mean 77.06 Mbit/s)
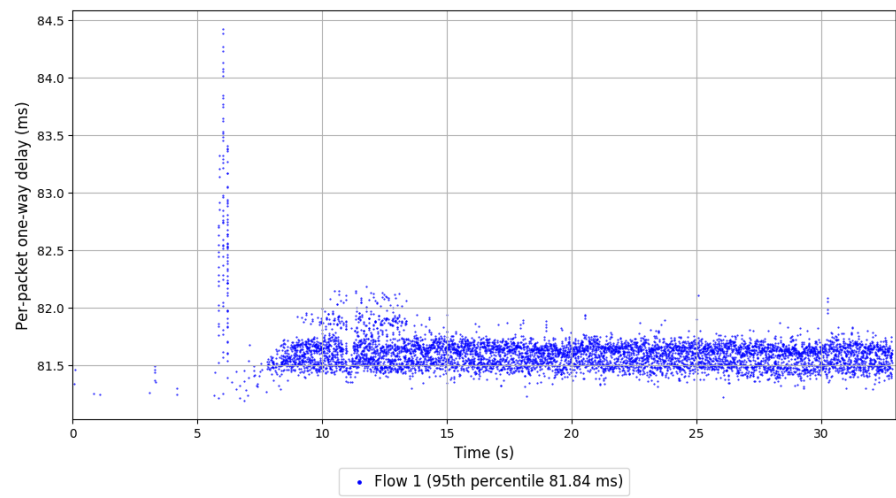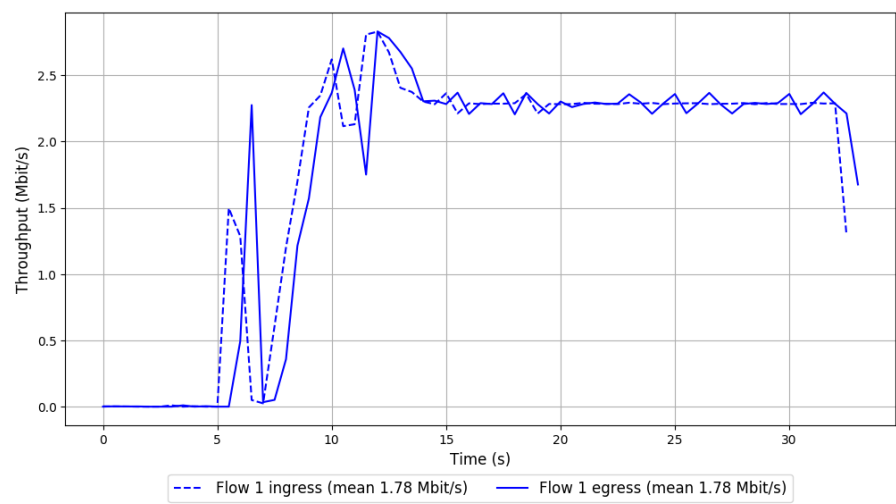

Flow 1 (95th percentile 106.93 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2018-06-05 04:34:35
End at: 2018-06-05 04:35:05
Local clock offset: -1.128 ms
Remote clock offset: 11.836 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 81.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 81.837 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.78 Mbit/s) --- Flow 1 egress (mean 1.78 Mbit/s)
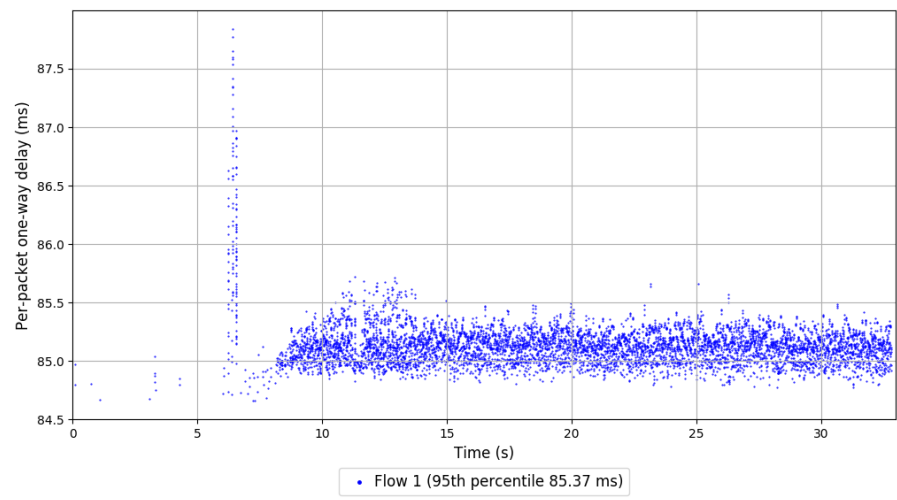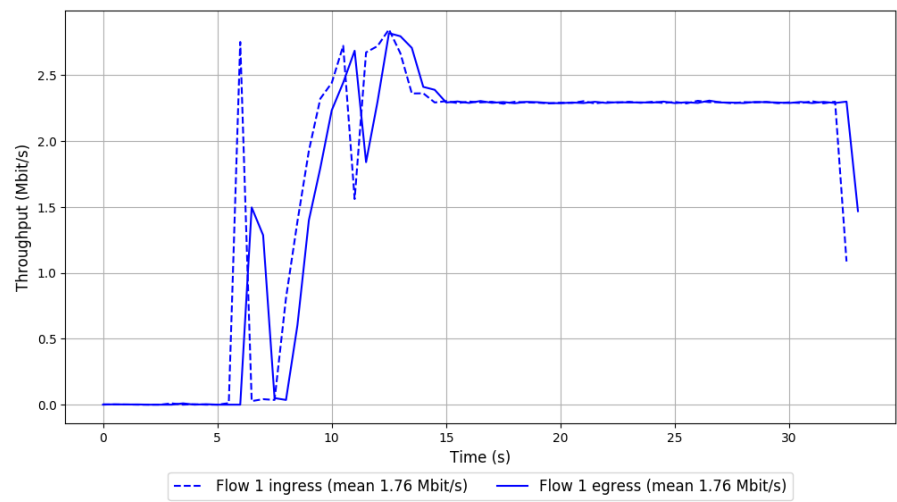

Flow 1 (95th percentile 81.84 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2018-06-05 04:53:17
End at: 2018-06-05 04:53:47
Local clock offset: -1.946 ms
Remote clock offset: 16.968 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 85.369 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 85.369 ms
Loss rate: 0.00%
```

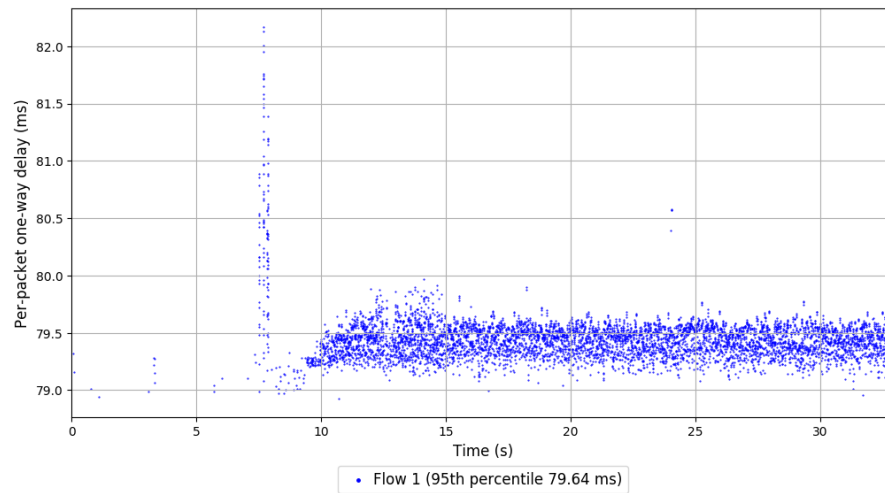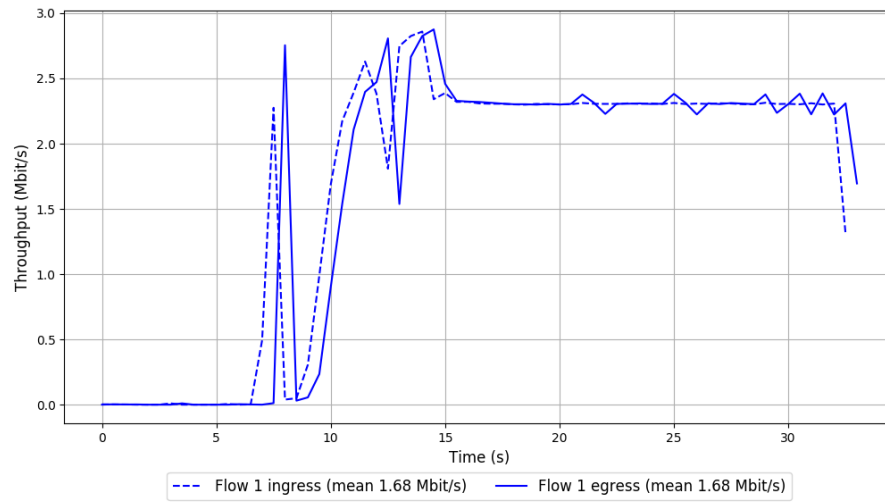Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-06-05 05:11:59
End at: 2018-06-05 05:12:30
Local clock offset: -2.75 ms
Remote clock offset: 13.501 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 79.640 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 79.640 ms
Loss rate: 0.00%
```

Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.68 Mbit/s)   Flow 1 egress (mean 1.68 Mbit/s)

Flow 1 (95th percentile 79.64 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2018-06-05 05:30:41
End at: 2018-06-05 05:31:11
Local clock offset: -1.122 ms
Remote clock offset: 11.31 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 89.321 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 89.321 ms
Loss rate: 0.02%
```
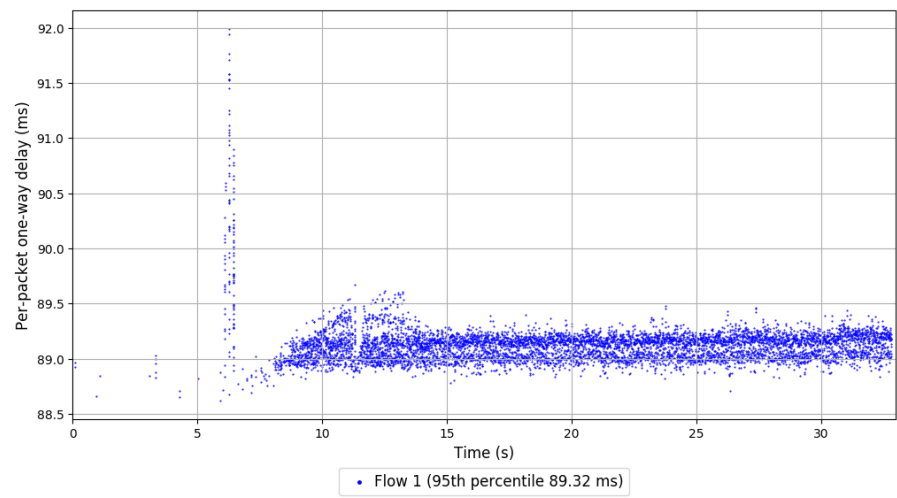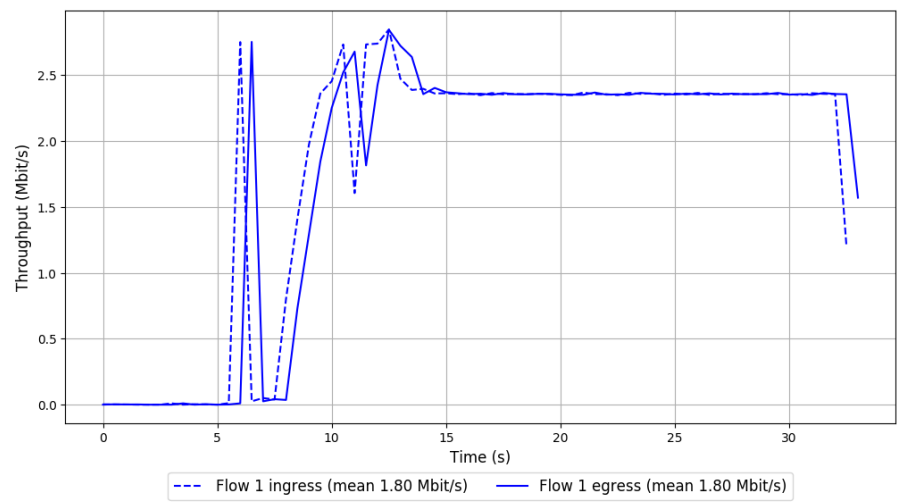
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-06-05 05:49:25
End at: 2018-06-05 05:49:55
Local clock offset: -2.064 ms
Remote clock offset: 5.237 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 79.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.80 Mbit/s
95th percentile per-packet one-way delay: 79.262 ms
Loss rate: 0.00%
```
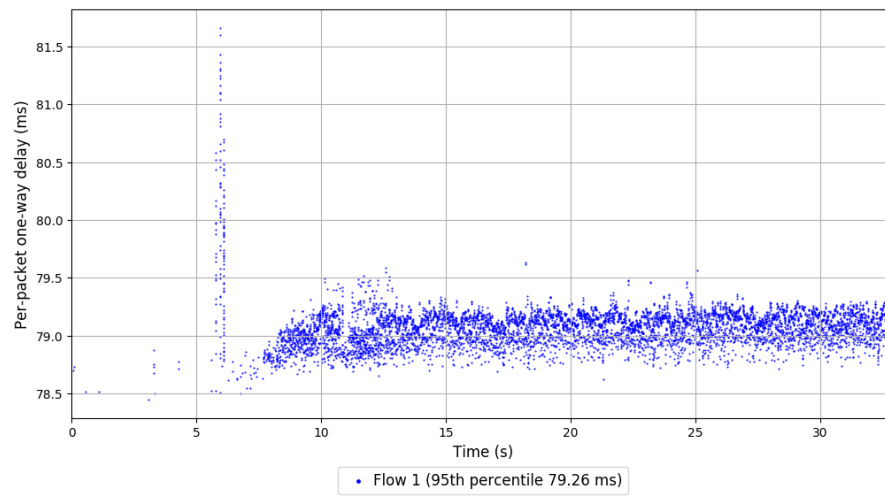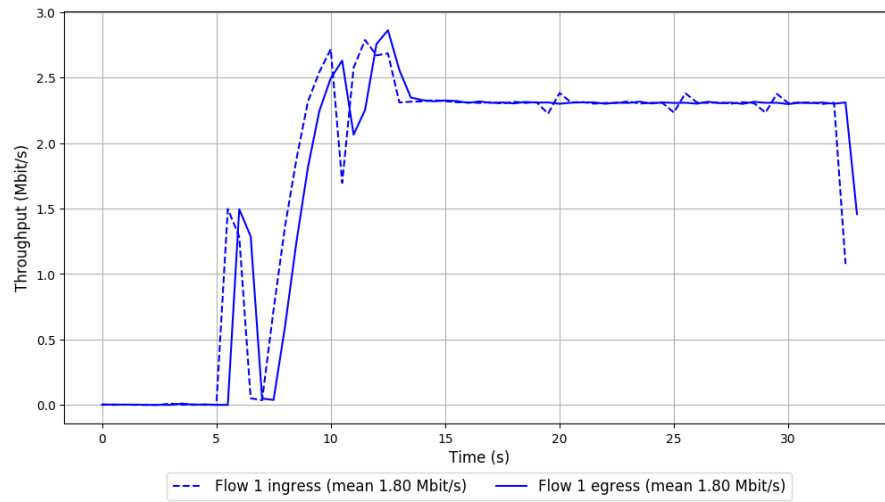
Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.80 Mbit/s)   Flow 1 egress (mean 1.80 Mbit/s)

Flow 1 (95th percentile 79.26 ms)

```
Run 6: Statistics of WebRTC media

Start at: 2018-06-05 06:08:11
End at: 2018-06-05 06:08:41
Local clock offset: -3.058 ms
Remote clock offset: 3.218 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 79.840 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 79.840 ms
Loss rate: 0.00%
```
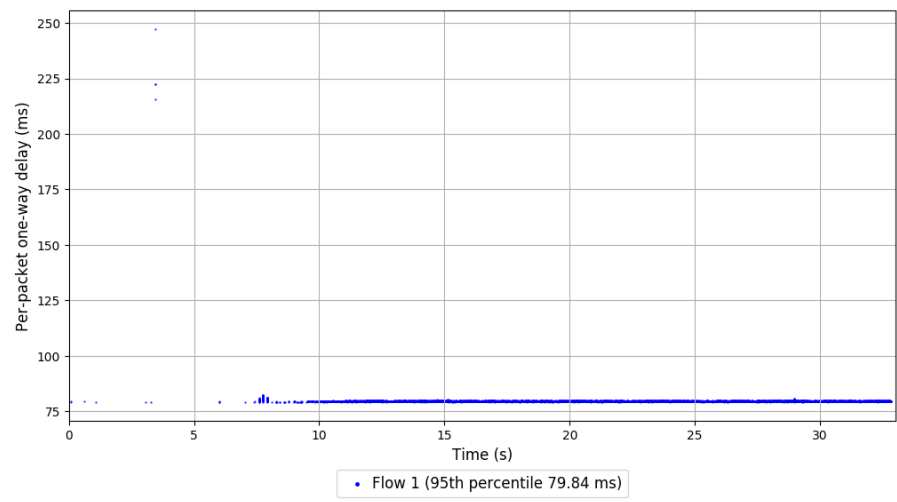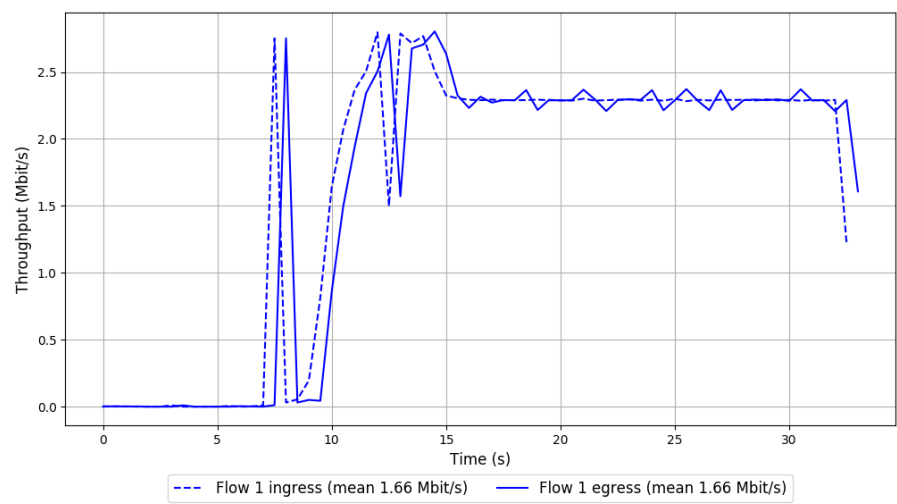
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-06-05 06:26:56
End at: 2018-06-05 06:27:26
Local clock offset: -3.054 ms
Remote clock offset: 5.825 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 81.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 81.445 ms
Loss rate: 0.00%
```
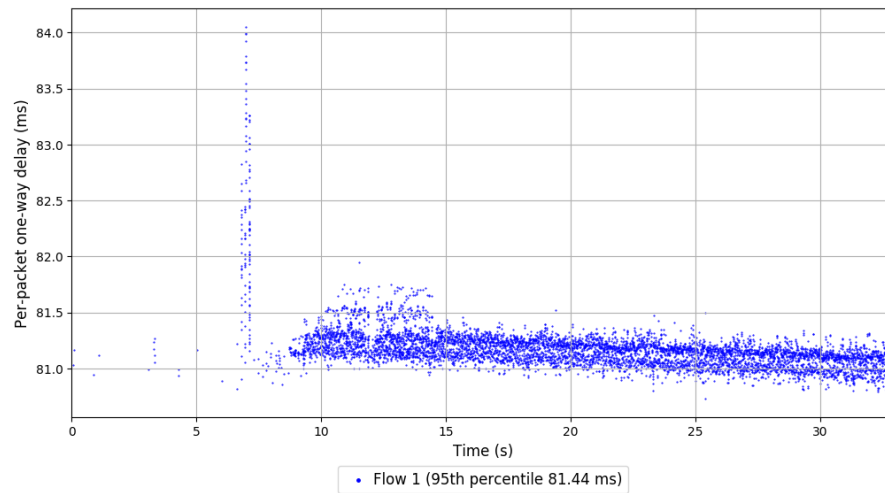
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-06-05 06:45:36
End at: 2018-06-05 06:46:06
Local clock offset: -3.263 ms
Remote clock offset: 14.296 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 83.856 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 83.856 ms
Loss rate: 0.00%
```
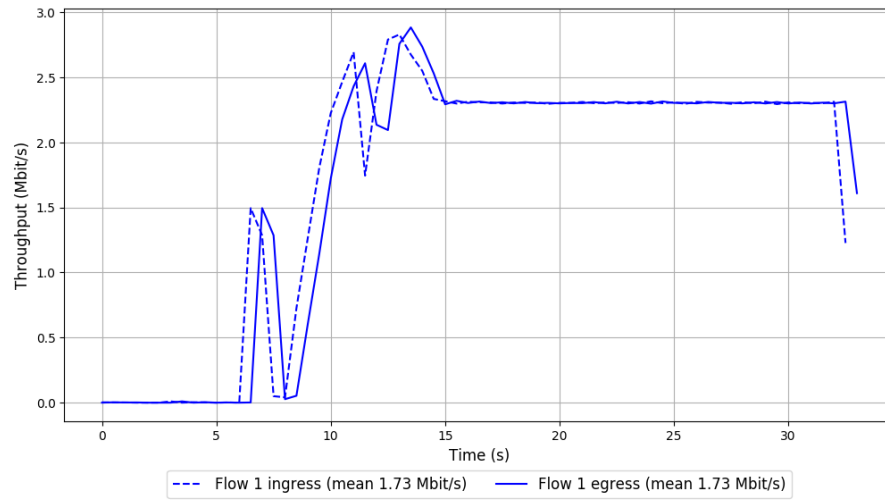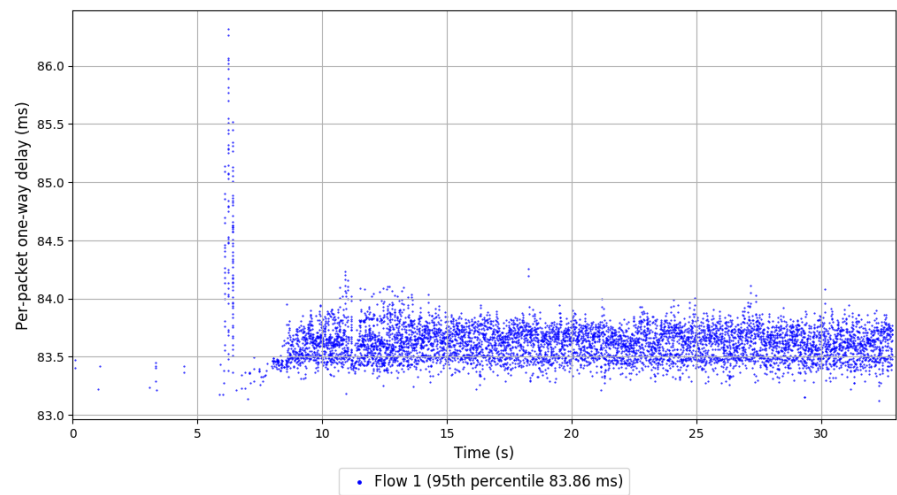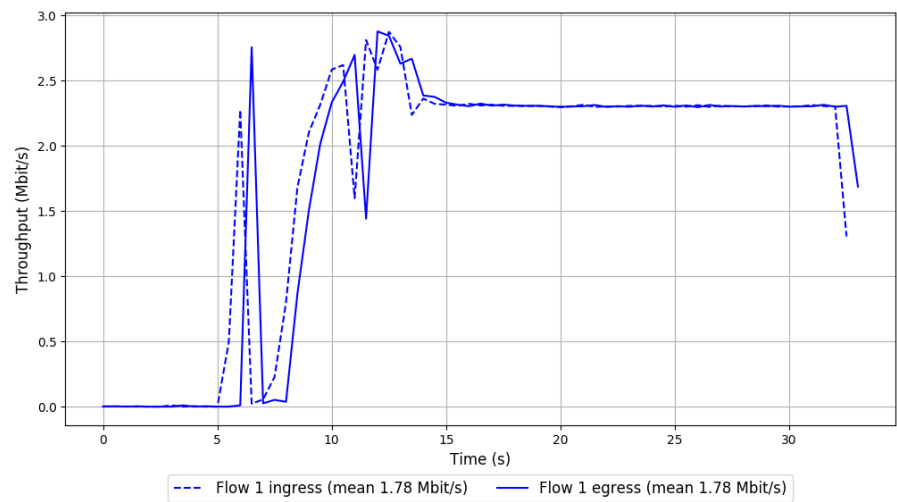
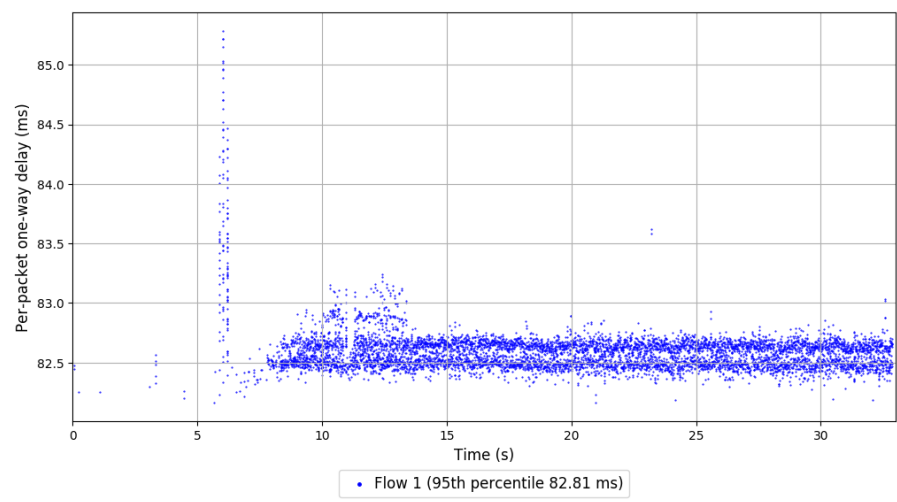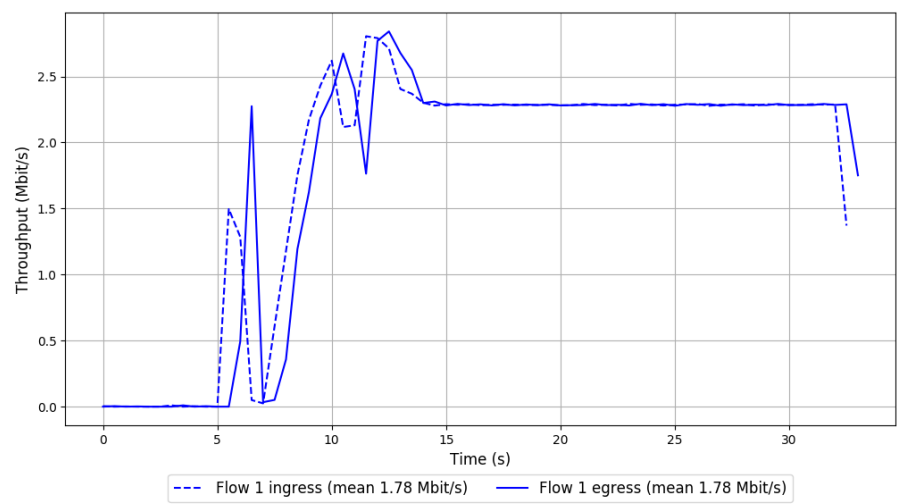# Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-06-05 07:04:16
End at: 2018-06-05 07:04:46
Local clock offset: -2.684 ms
Remote clock offset: 10.915 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 82.807 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 82.807 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-06-05 07:23:04
End at: 2018-06-05 07:23:34
Local clock offset: -7.201 ms
Remote clock offset: 3.981 ms


# Below is generated by plot.py at 2018-06-05 07:45:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 81.331 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 81.331 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.79 Mbit/s) --- Flow 1 egress (mean 1.79 Mbit/s)

Flow 1 (95th percentile 81.33 ms)