Pantheon Report
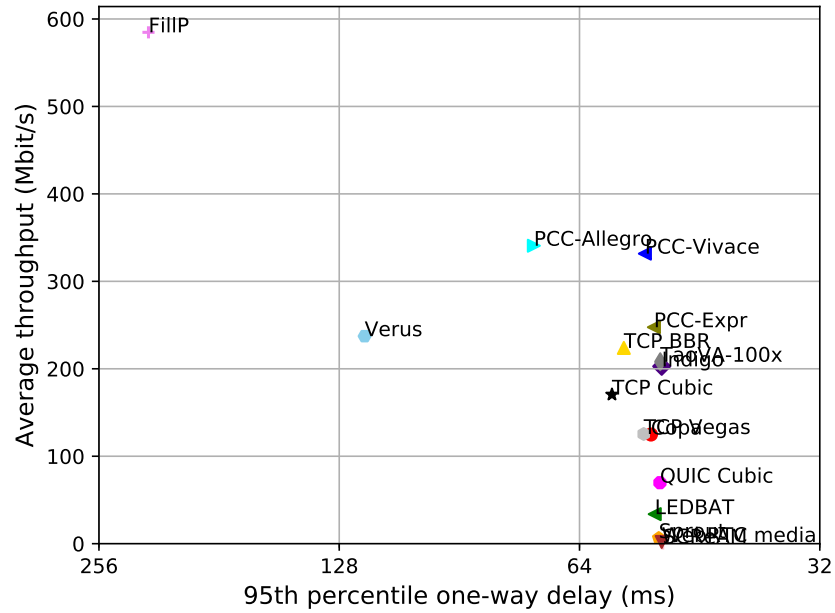
Generated at 2018-06-07 16:11:31 (UTC).

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

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).

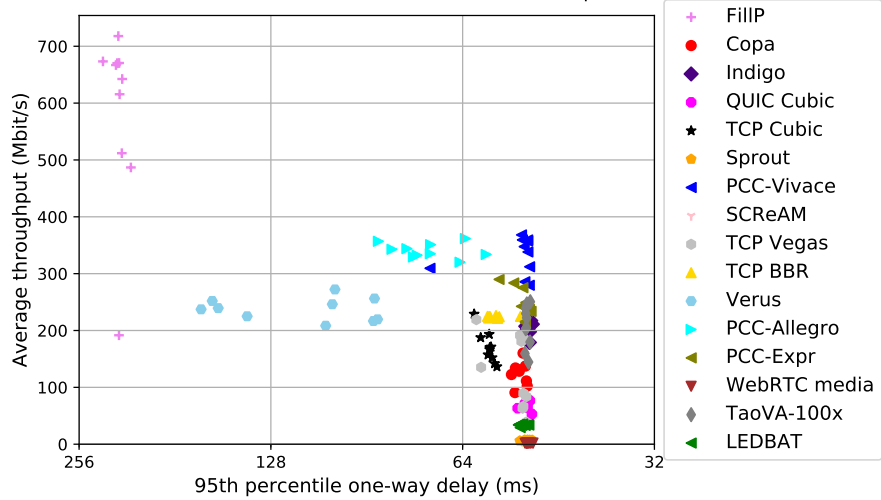NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

```
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 GCE Iowa to GCE London, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from GCE Iowa to GCE London, 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	223.85	56.32	0.35
Copa	10	124.83	52.08	0.38
TCP Cubic	10	170.53	58.28	0.35
FillP	10	584.73	221.91	0.71
Indigo	9	202.79	50.49	0.35
LEDBAT	10	33.80	51.52	0.68
PCC-Allegro	10	340.70	73.01	0.40
PCC-Expr	10	247.52	51.64	0.37
QUIC Cubic	9	69.76	50.75	0.43
SCReAM	10	0.22	50.34	0.28
Sprout	10	6.43	50.92	0.39
TaoVA-100x	10	208.05	50.71	0.38
TCP Vegas	10	125.44	53.18	0.29
Verus	10	237.31	118.96	0.50
PCC-Vivace	10	331.67	53.00	0.39
WebRTC media	9	1.96	50.49	0.39

```
Run 1: Statistics of TCP BBR

Start at: 2018-06-07 11:28:09
End at: 2018-06-07 11:28:39
Local clock offset: -0.064 ms
Remote clock offset: 0.198 ms


# Below is generated by plot.py at 2018-06-07 15:01:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.77 Mbit/s
95th percentile per-packet one-way delay: 57.937 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 223.77 Mbit/s
95th percentile per-packet one-way delay: 57.937 ms
Loss rate: 0.35%
```
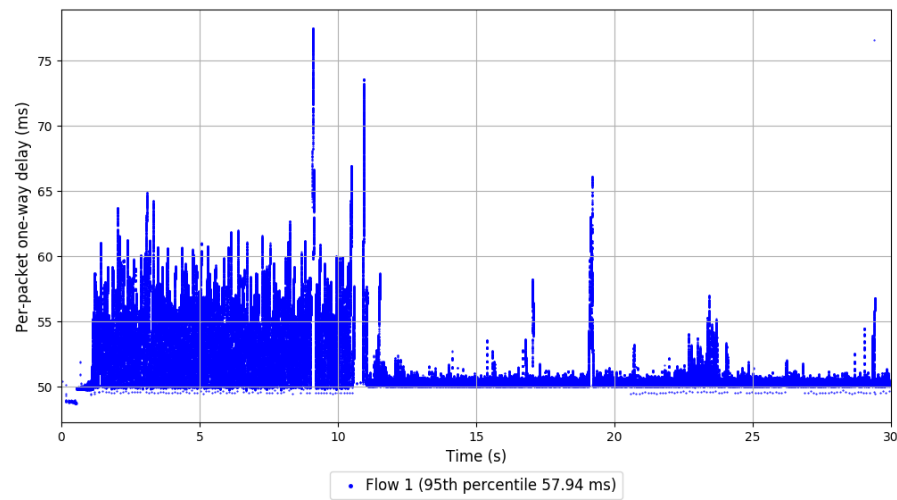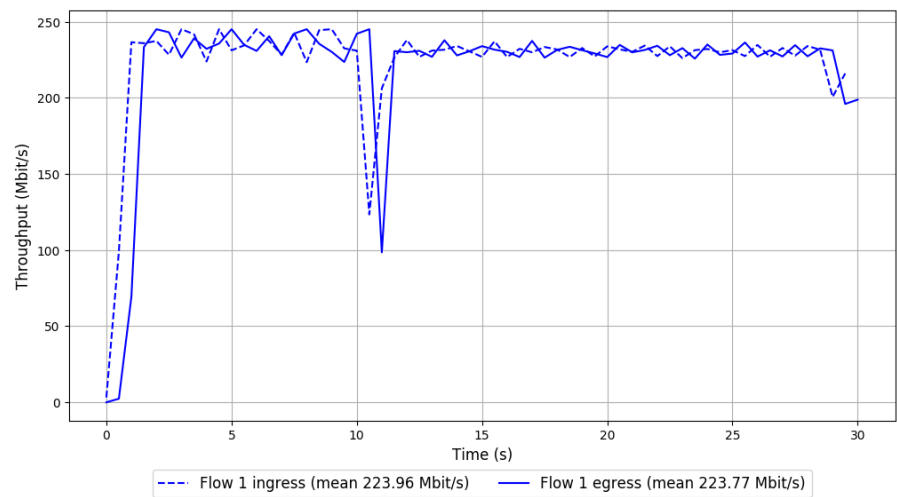
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-06-07 11:48:12
End at: 2018-06-07 11:48:42
Local clock offset: 0.011 ms
Remote clock offset: 0.09 ms


# Below is generated by plot.py at 2018-06-07 15:01:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.25 Mbit/s
95th percentile per-packet one-way delay: 56.071 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 224.25 Mbit/s
95th percentile per-packet one-way delay: 56.071 ms
Loss rate: 0.35%
```
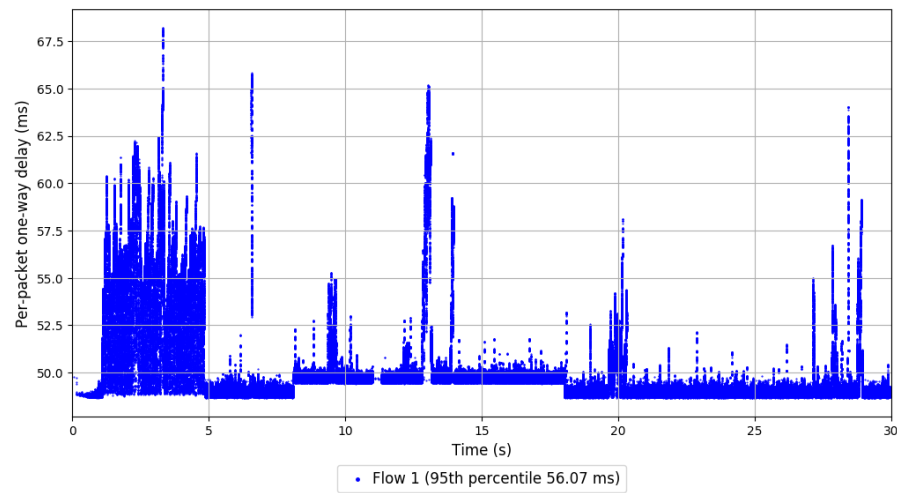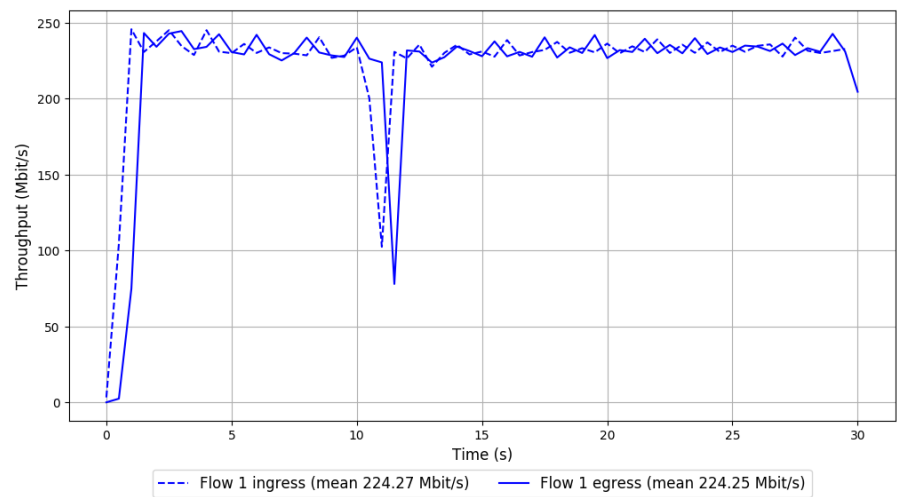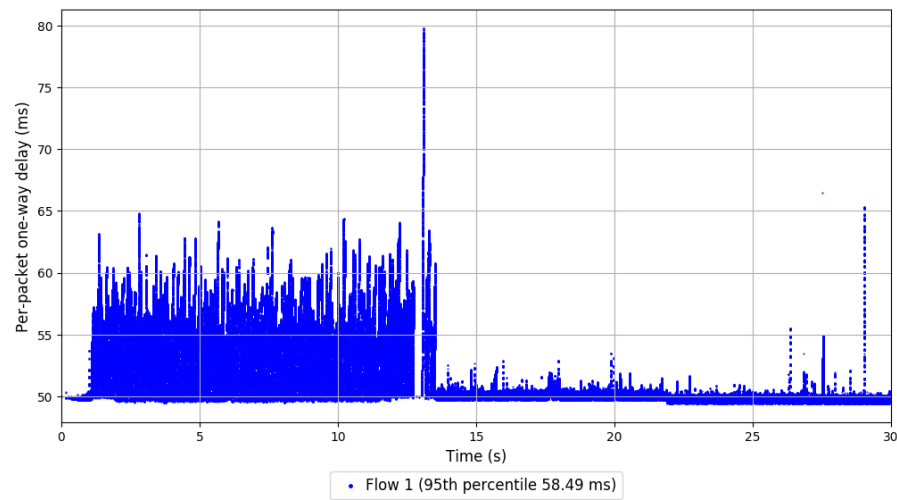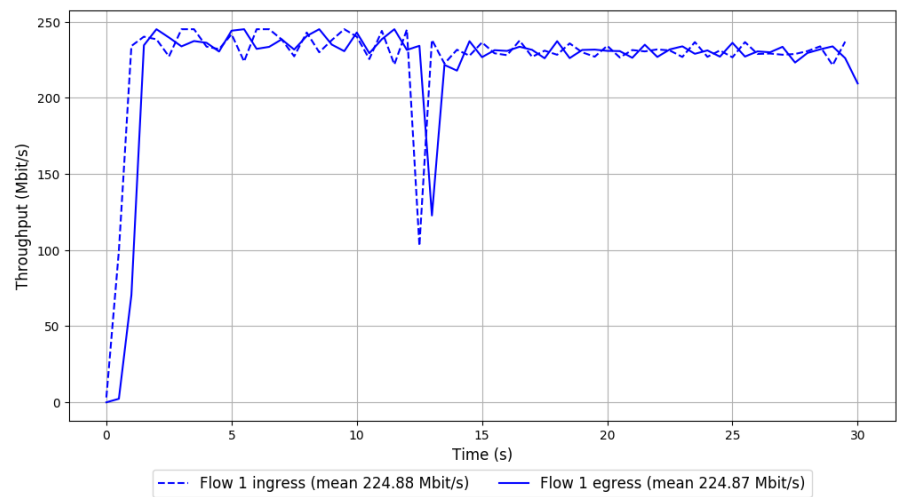
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-06-07 12:08:08
End at: 2018-06-07 12:08:38
Local clock offset: -0.365 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2018-06-07 15:01:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.87 Mbit/s
95th percentile per-packet one-way delay: 58.488 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 224.87 Mbit/s
95th percentile per-packet one-way delay: 58.488 ms
Loss rate: 0.34%
```

Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.88 Mbit/s)   Flow 1 egress (mean 224.87 Mbit/s)
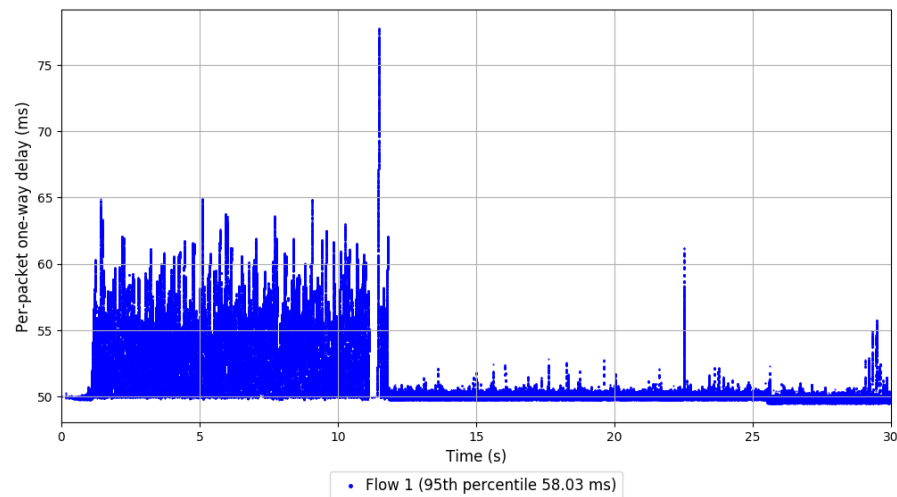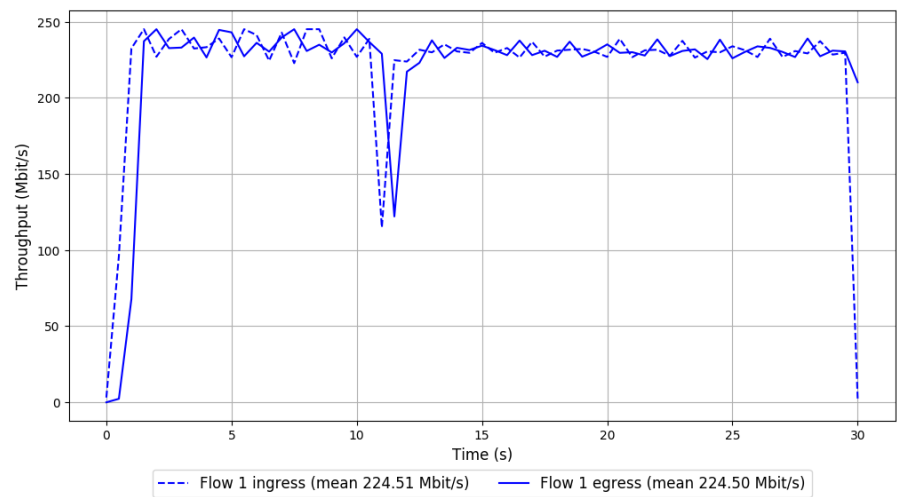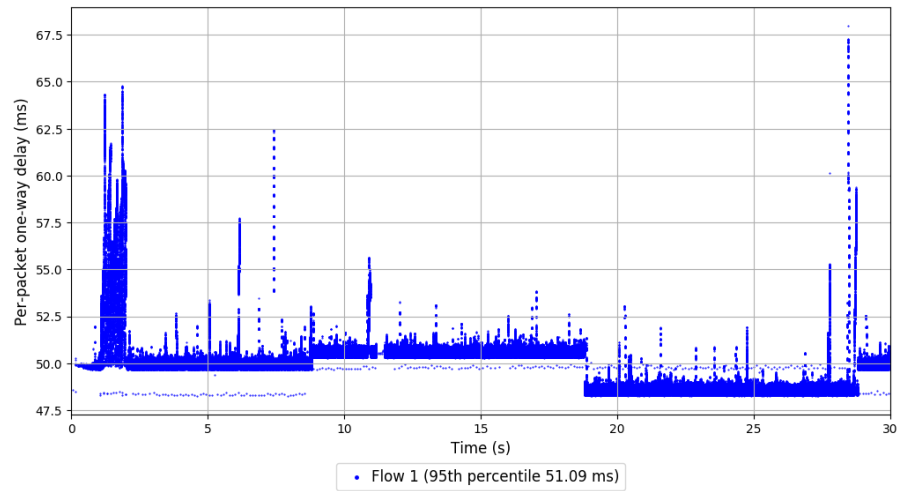

• Flow 1 (95th percentile 58.49 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-06-07 12:28:34
End at: 2018-06-07 12:29:04
Local clock offset: -0.359 ms
Remote clock offset: -0.075 ms

# Below is generated by plot.py at 2018-06-07 15:01:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.50 Mbit/s
95th percentile per-packet one-way delay: 58.031 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 224.50 Mbit/s
95th percentile per-packet one-way delay: 58.031 ms
Loss rate: 0.34%
```

Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.51 Mbit/s)   Flow 1 egress (mean 224.50 Mbit/s)
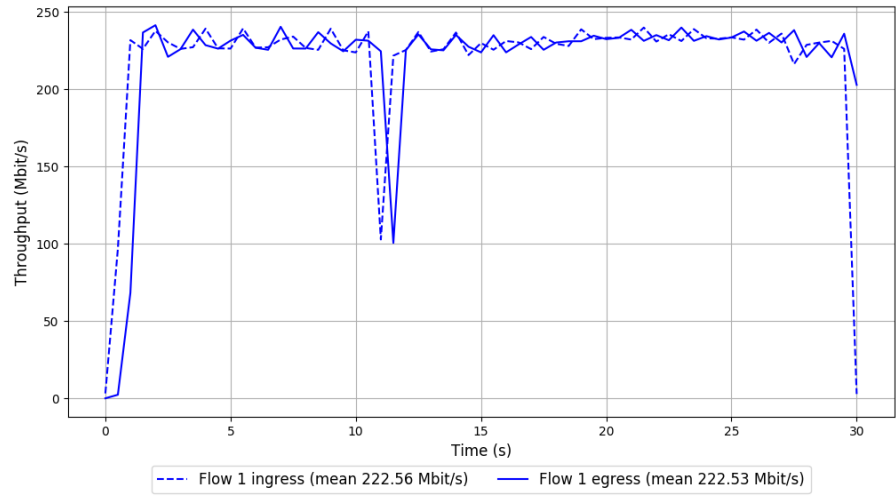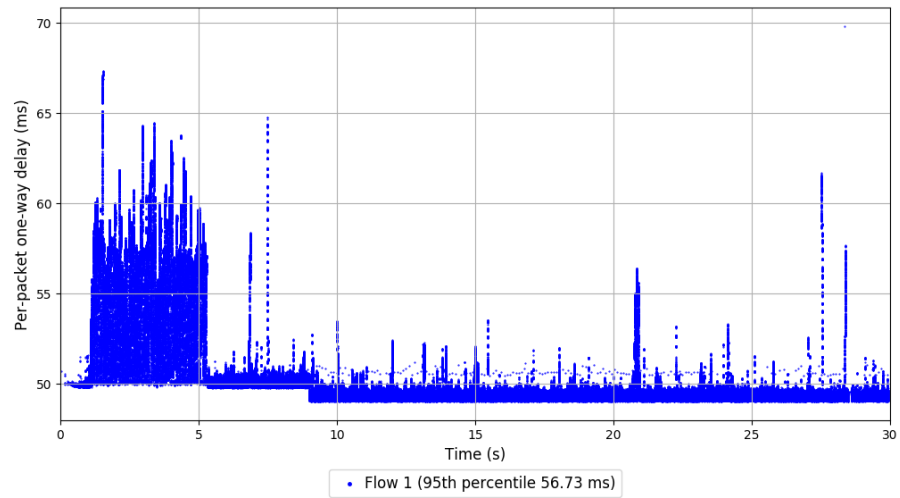

Flow 1 (95th percentile 58.03 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-06-07 12:48:31
End at: 2018-06-07 12:49:01
Local clock offset: -0.386 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-06-07 15:01:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.53 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 222.53 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.35%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 222.56 Mbit/s) --- Flow 1 egress (mean 222.53 Mbit/s) ——
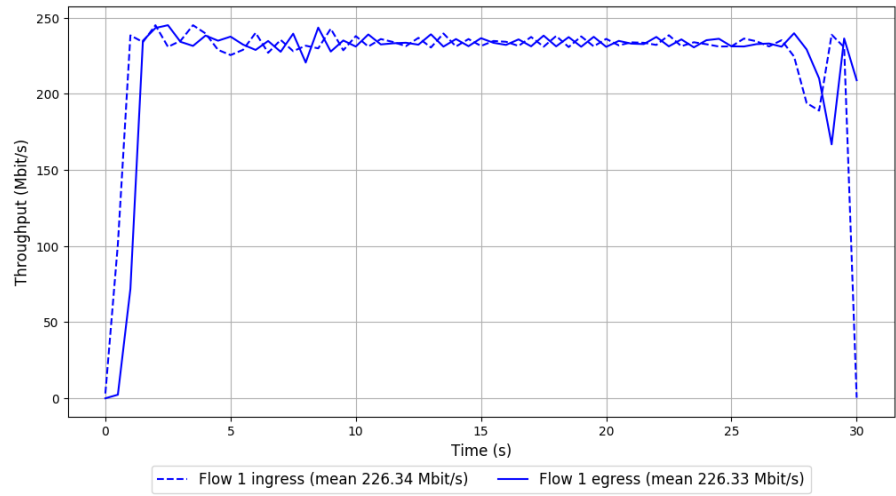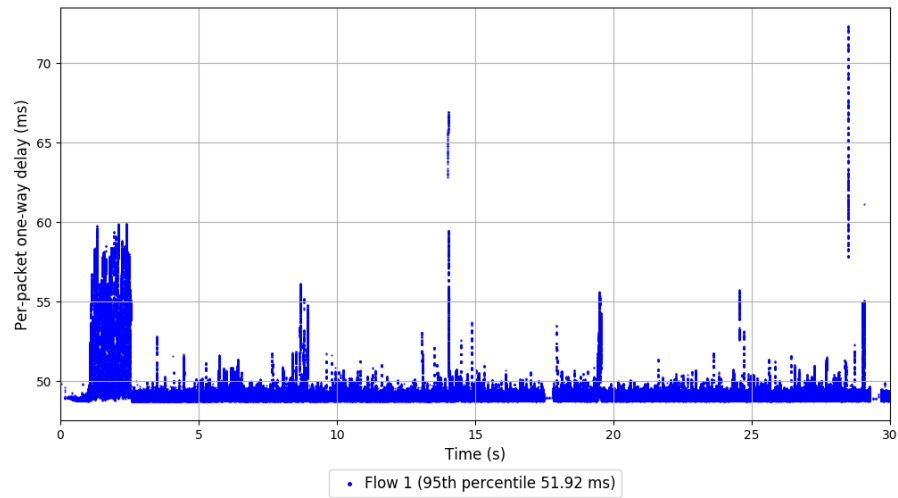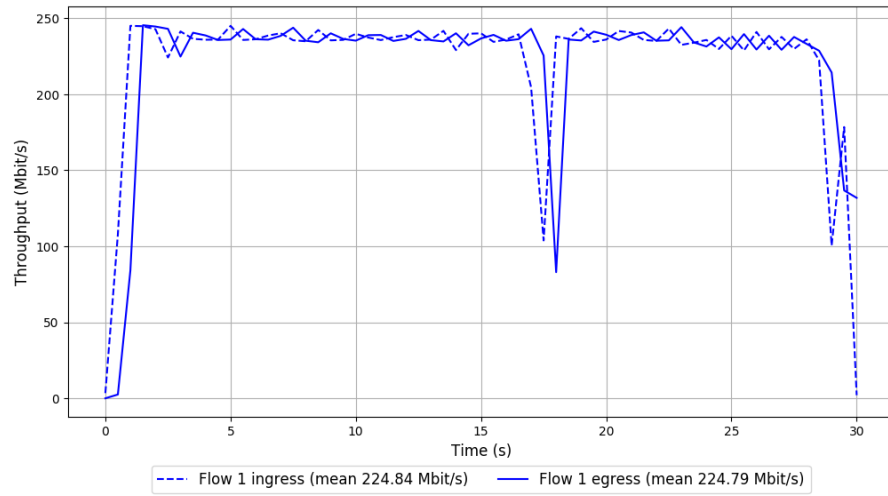

Flow 1 (95th percentile 51.09 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-06-07 13:08:51
End at: 2018-06-07 13:09:21
Local clock offset: 0.385 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2018-06-07 15:01:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.33 Mbit/s
95th percentile per-packet one-way delay: 56.735 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 226.33 Mbit/s
95th percentile per-packet one-way delay: 56.735 ms
Loss rate: 0.34%
```

Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 226.34 Mbit/s)   Flow 1 egress (mean 226.33 Mbit/s)
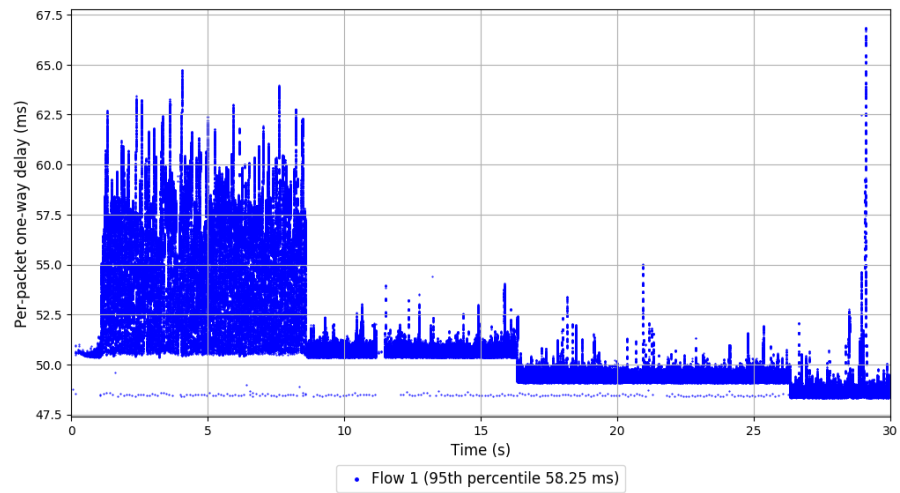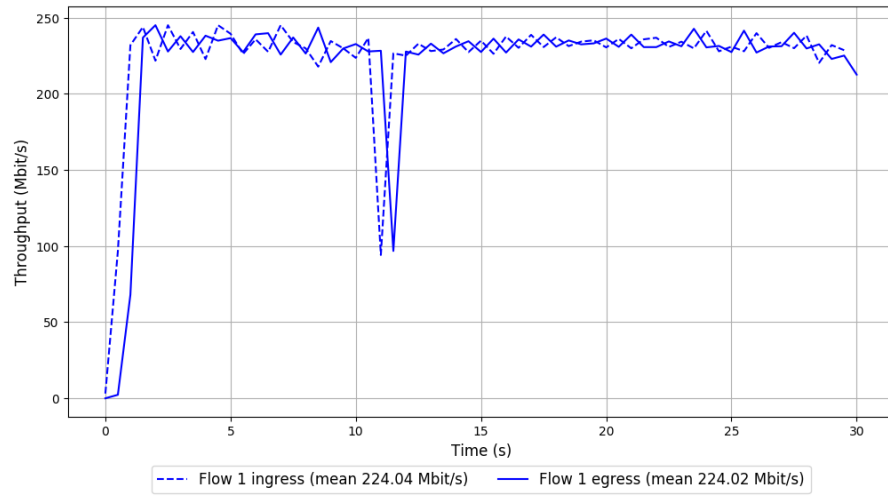

Flow 1 (95th percentile 56.73 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-06-07 13:29:04
End at: 2018-06-07 13:29:34
Local clock offset: -0.028 ms
Remote clock offset: -0.146 ms


# Below is generated by plot.py at 2018-06-07 15:01:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.79 Mbit/s
95th percentile per-packet one-way delay: 51.920 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 224.79 Mbit/s
95th percentile per-packet one-way delay: 51.920 ms
Loss rate: 0.36%
```

Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.84 Mbit/s)   Flow 1 egress (mean 224.79 Mbit/s)

Flow 1 (95th percentile 51.92 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2018-06-07 13:49:03
End at: 2018-06-07 13:49:33
Local clock offset: -0.447 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2018-06-07 15:01:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.02 Mbit/s
95th percentile per-packet one-way delay: 58.246 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 224.02 Mbit/s
95th percentile per-packet one-way delay: 58.246 ms
Loss rate: 0.34%
```
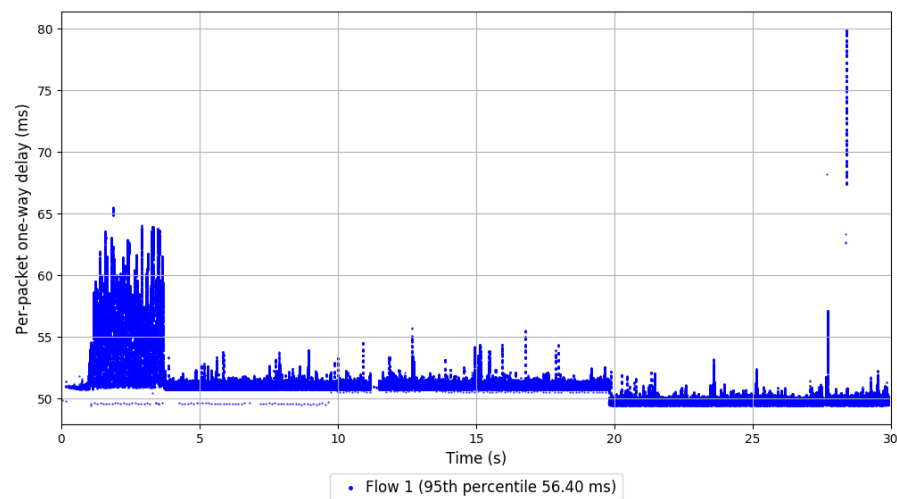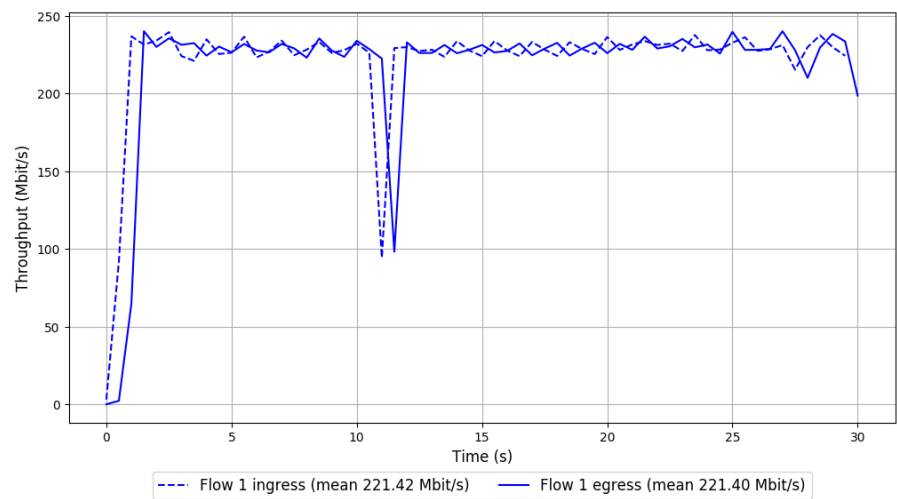
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.04 Mbit/s) — — — Flow 1 egress (mean 224.02 Mbit/s)

Flow 1 (95th percentile 58.25 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-06-07 14:09:10
End at: 2018-06-07 14:09:40
Local clock offset: -0.05 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-06-07 15:05:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.40 Mbit/s
95th percentile per-packet one-way delay: 56.403 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 221.40 Mbit/s
95th percentile per-packet one-way delay: 56.403 ms
Loss rate: 0.35%
```
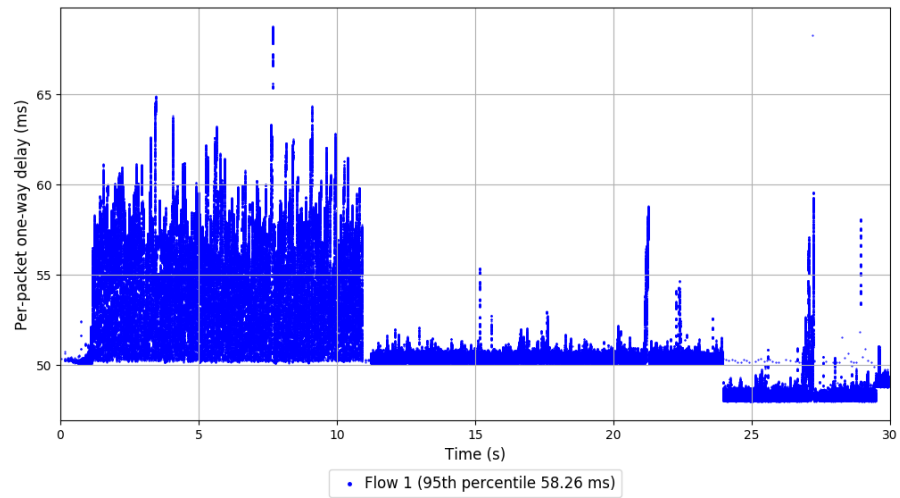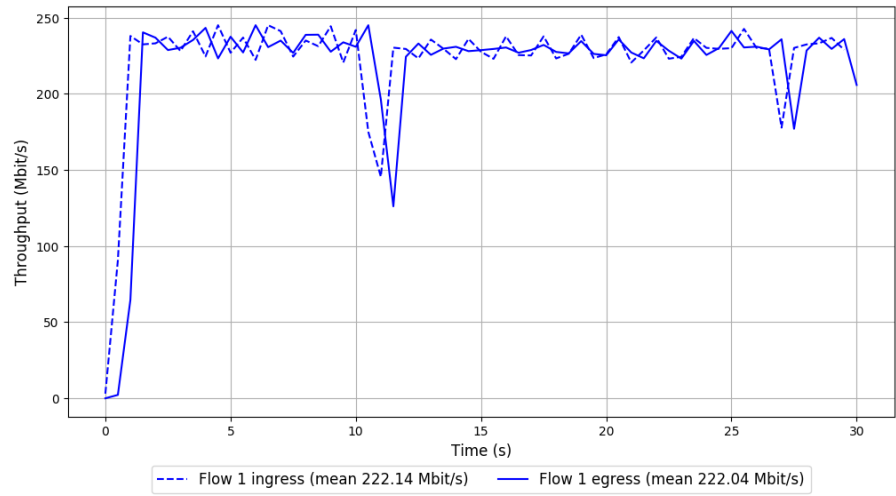
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 221.42 Mbit/s) — Flow 1 egress (mean 221.40 Mbit/s)

Flow 1 (95th percentile 56.40 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-06-07 14:29:20
End at: 2018-06-07 14:29:50
Local clock offset: -0.667 ms
Remote clock offset: 0.038 ms


# Below is generated by plot.py at 2018-06-07 15:05:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.04 Mbit/s
95th percentile per-packet one-way delay: 58.263 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 222.04 Mbit/s
95th percentile per-packet one-way delay: 58.263 ms
Loss rate: 0.36%
```
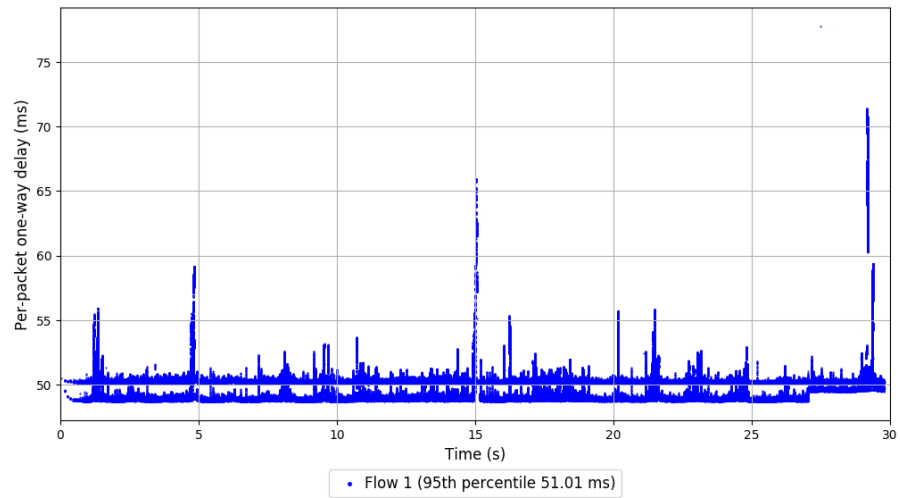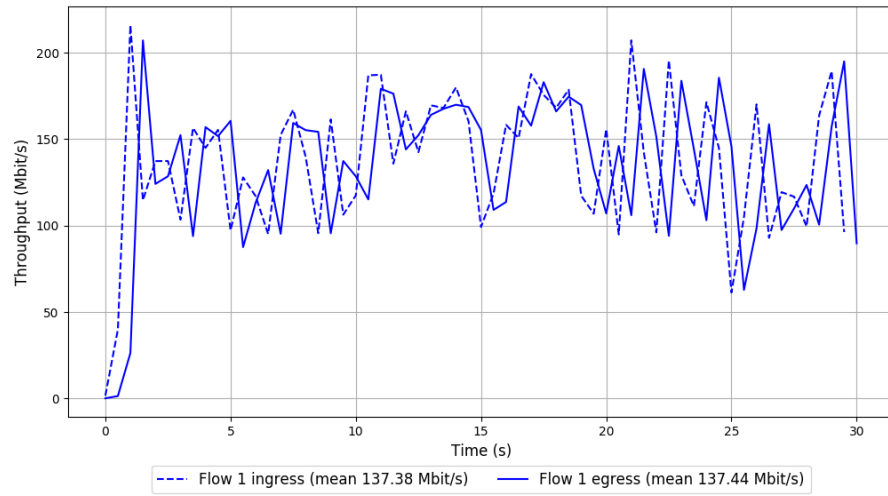
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 222.14 Mbit/s)   Flow 1 egress (mean 222.04 Mbit/s)

Flow 1 (95th percentile 58.26 ms)

```
Run 1: Statistics of Copa

Start at: 2018-06-07 11:32:42
End at: 2018-06-07 11:33:12
Local clock offset: -0.017 ms
Remote clock offset: 0.17 ms


# Below is generated by plot.py at 2018-06-07 15:05:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 137.44 Mbit/s
95th percentile per-packet one-way delay: 51.010 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 137.44 Mbit/s
95th percentile per-packet one-way delay: 51.010 ms
Loss rate: 0.29%
```
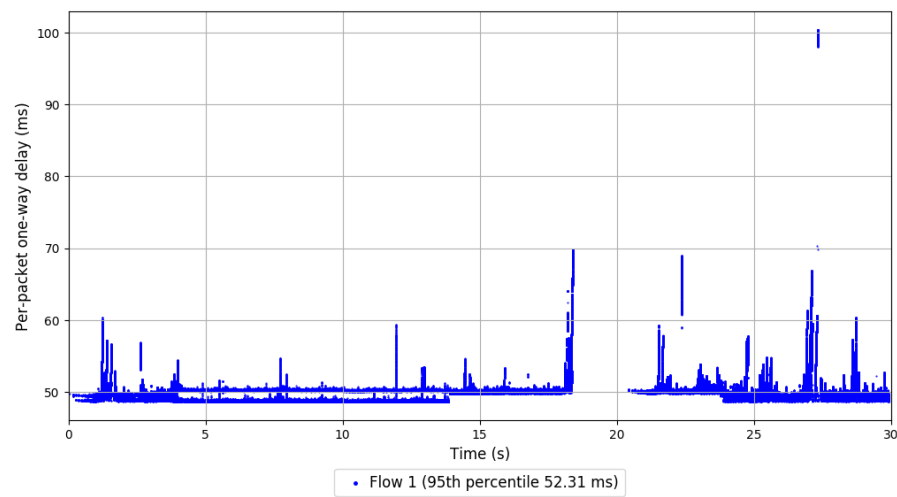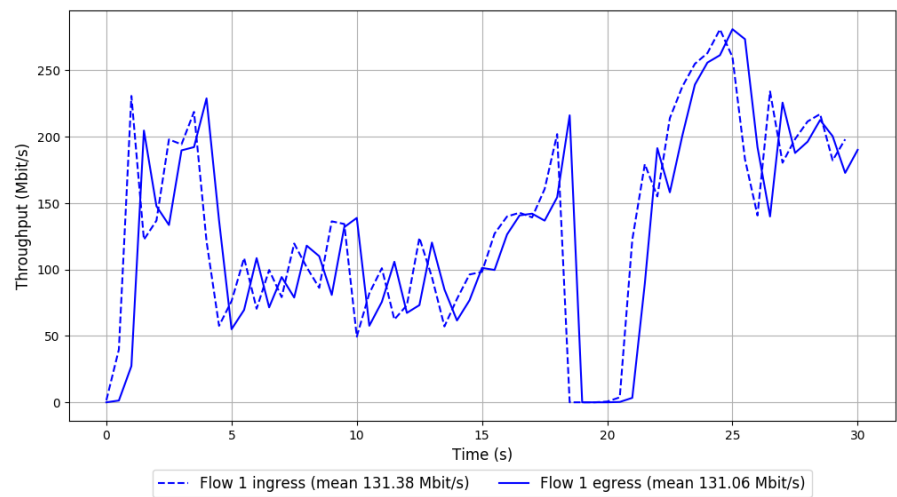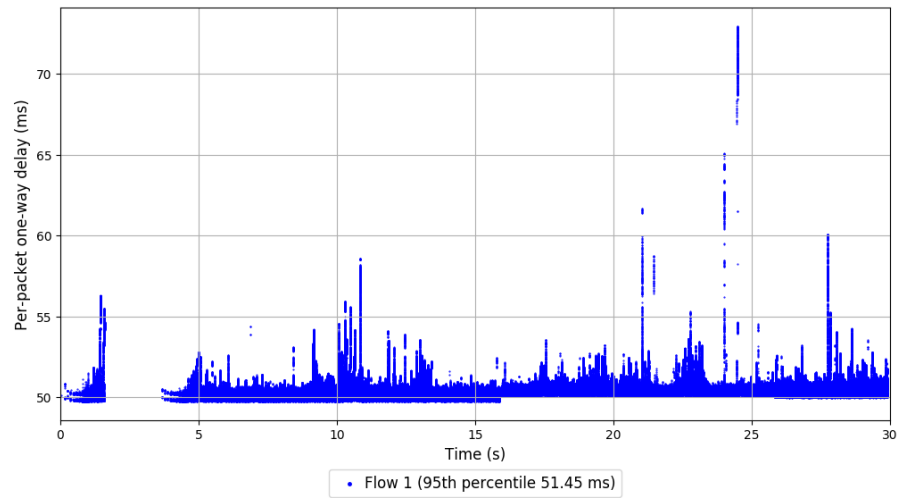
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 137.38 Mbit/s)   Flow 1 egress (mean 137.44 Mbit/s)

Flow 1 (95th percentile 51.01 ms)

```
Run 2: Statistics of Copa

Start at: 2018-06-07 11:52:56
End at: 2018-06-07 11:53:26
Local clock offset: 0.017 ms
Remote clock offset: 0.038 ms


# Below is generated by plot.py at 2018-06-07 15:05:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.06 Mbit/s
95th percentile per-packet one-way delay: 52.314 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 131.06 Mbit/s
95th percentile per-packet one-way delay: 52.314 ms
Loss rate: 0.57%
```
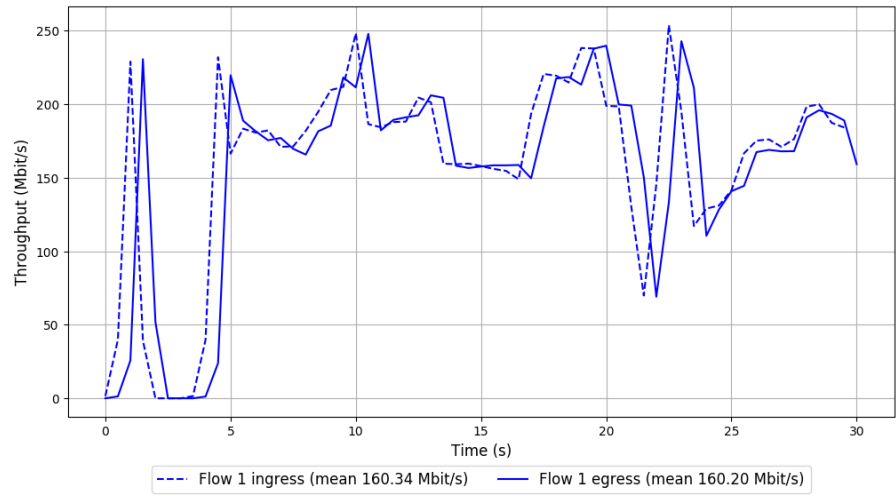
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-06-07 12:12:54
End at: 2018-06-07 12:13:24
Local clock offset: 0.37 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-07 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 160.20 Mbit/s
95th percentile per-packet one-way delay: 51.449 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 160.20 Mbit/s
95th percentile per-packet one-way delay: 51.449 ms
Loss rate: 0.41%
```
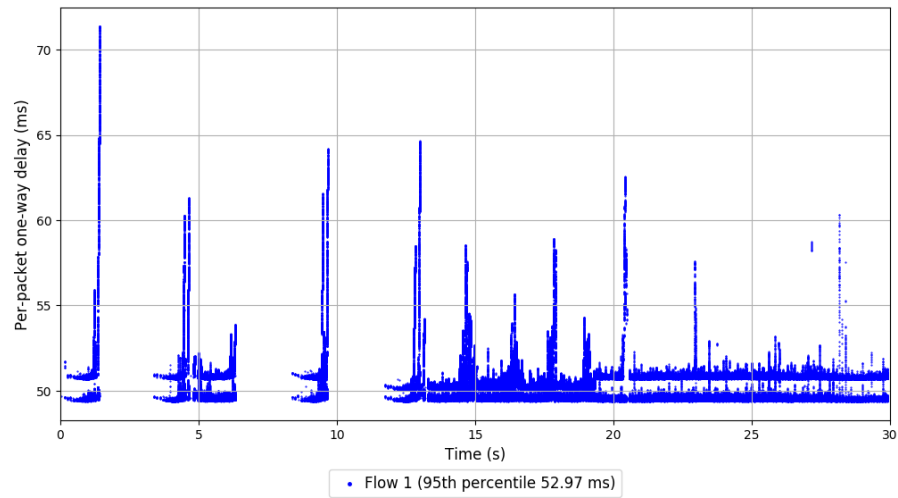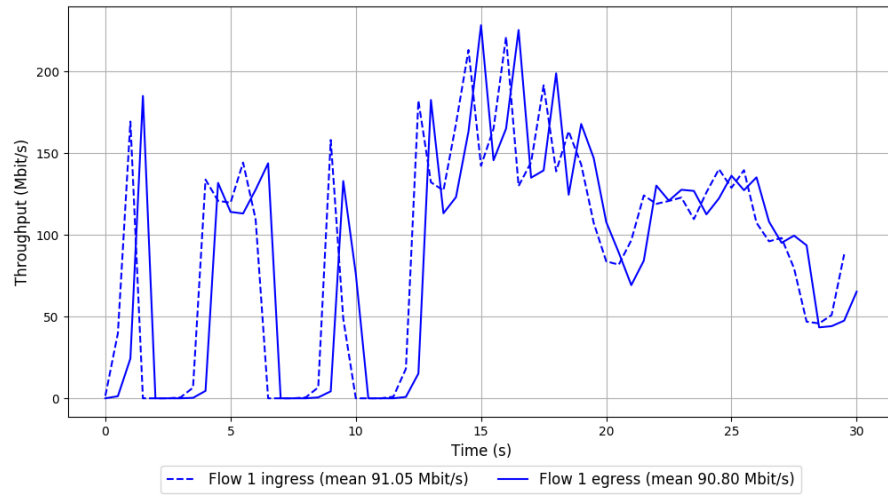
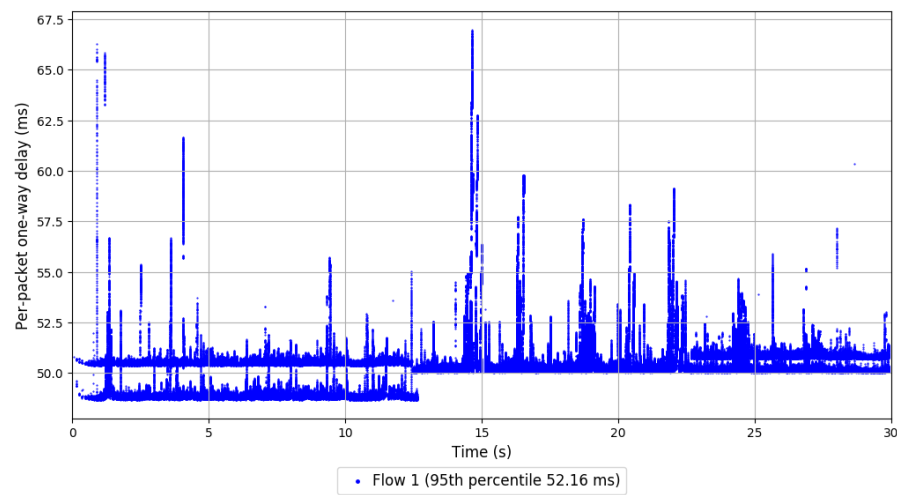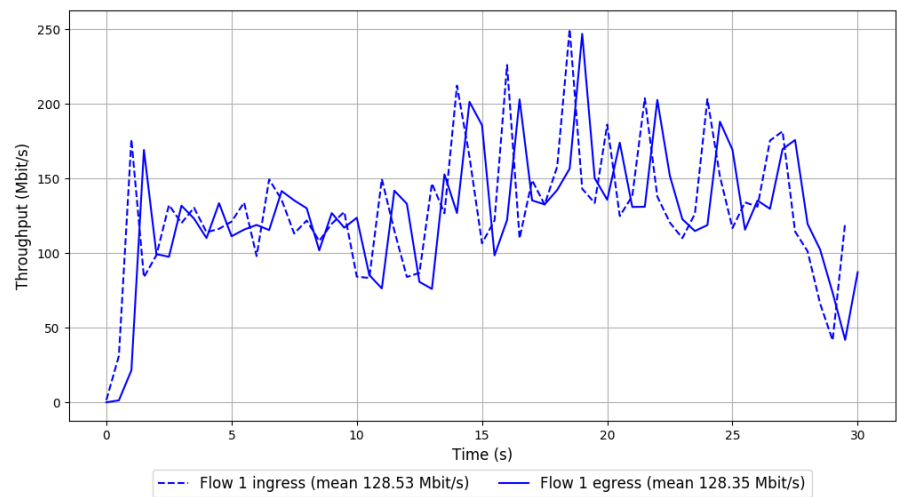Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-06-07 12:33:20
End at: 2018-06-07 12:33:50
Local clock offset: -0.002 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-07 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 90.80 Mbit/s
95th percentile per-packet one-way delay: 52.974 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 90.80 Mbit/s
95th percentile per-packet one-way delay: 52.974 ms
Loss rate: 0.60%
```
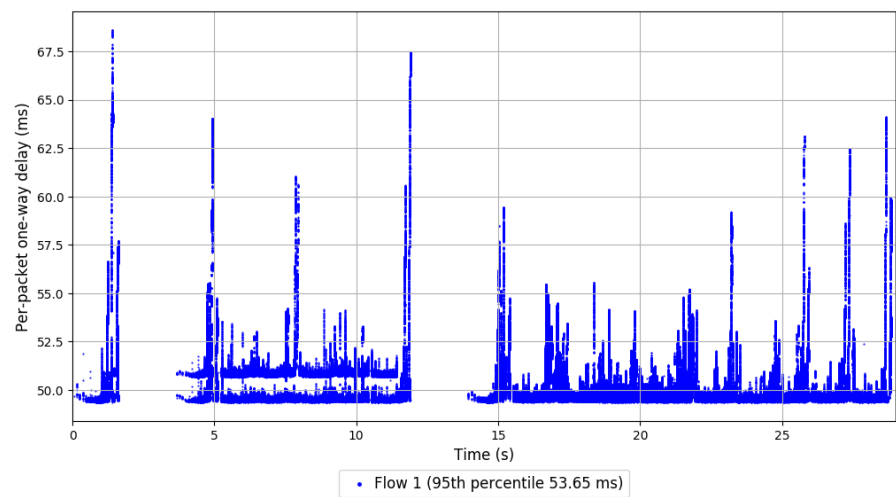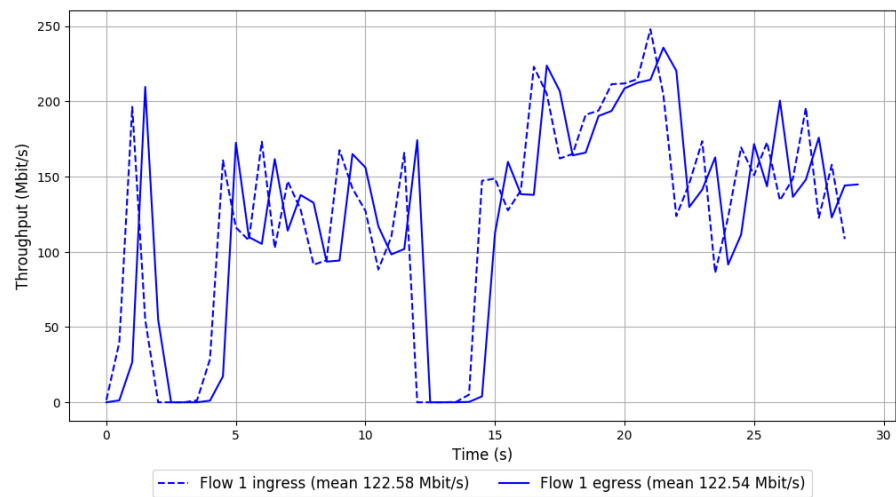
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-06-07 12:53:17
End at: 2018-06-07 12:53:47
Local clock offset: -0.006 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-07 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 128.35 Mbit/s
95th percentile per-packet one-way delay: 52.159 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 128.35 Mbit/s
95th percentile per-packet one-way delay: 52.159 ms
Loss rate: 0.50%
```

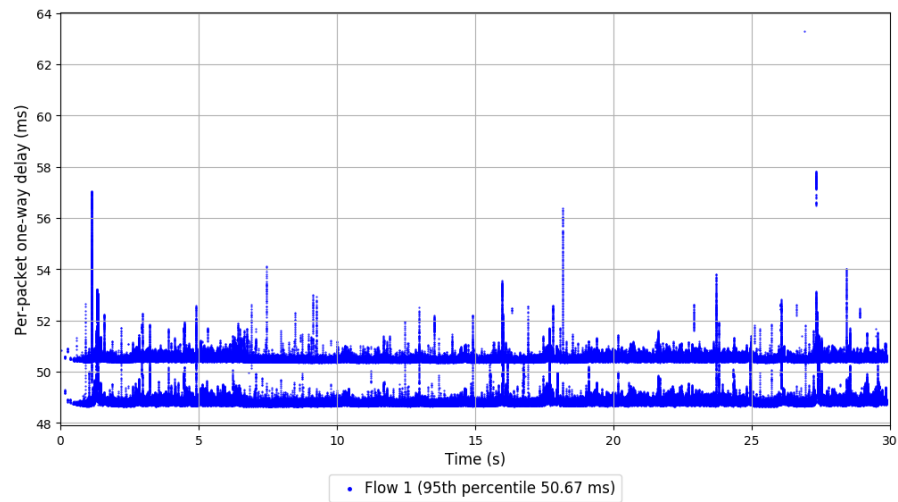Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-06-07 13:13:38
End at: 2018-06-07 13:14:08
Local clock offset: -0.002 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-06-07 15:06:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 122.54 Mbit/s
95th percentile per-packet one-way delay: 53.650 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 122.54 Mbit/s
95th percentile per-packet one-way delay: 53.650 ms
Loss rate: 0.00%
```

Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 122.58 Mbit/s) --- Flow 1 egress (mean 122.54 Mbit/s)

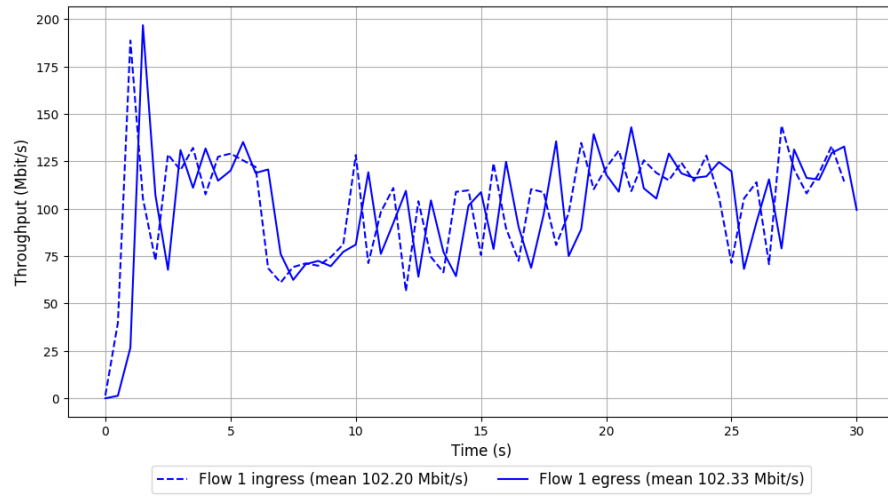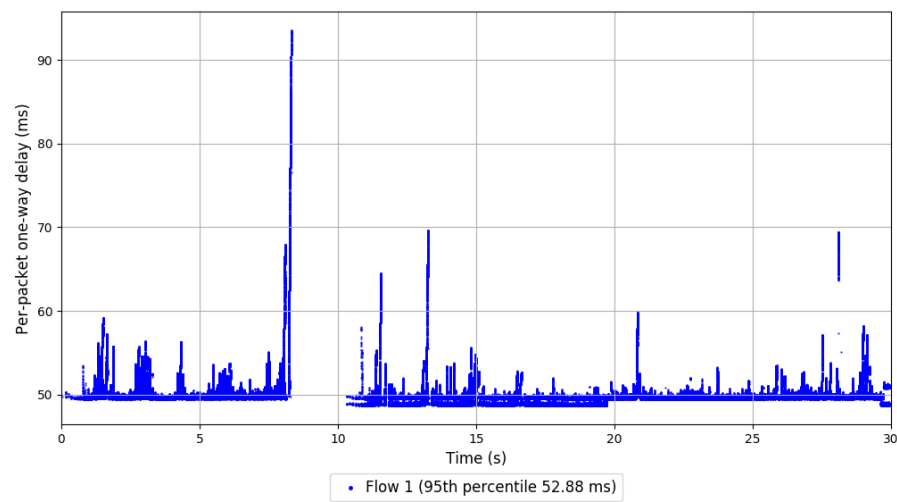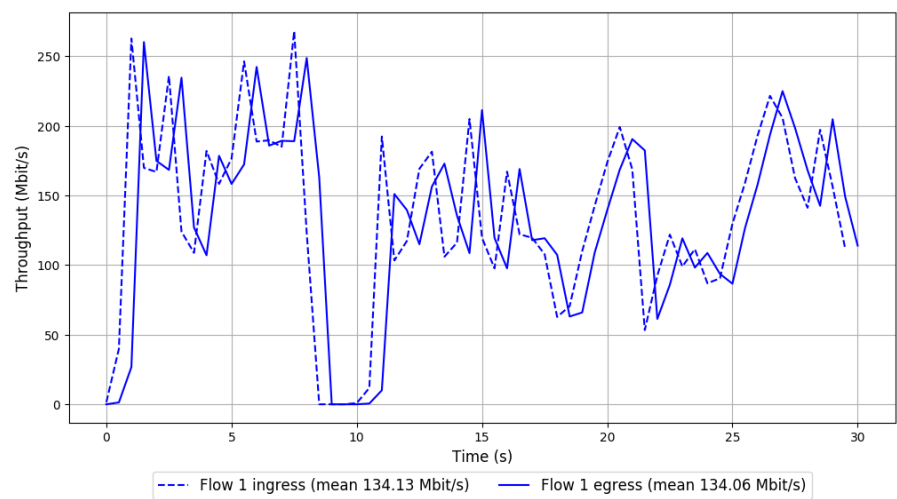• Flow 1 (95th percentile 53.65 ms)

```
Run 7: Statistics of Copa

Start at: 2018-06-07 13:33:51
End at: 2018-06-07 13:34:21
Local clock offset: -0.035 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-07 15:07:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 102.33 Mbit/s
95th percentile per-packet one-way delay: 50.674 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 102.33 Mbit/s
95th percentile per-packet one-way delay: 50.674 ms
Loss rate: 0.38%
```

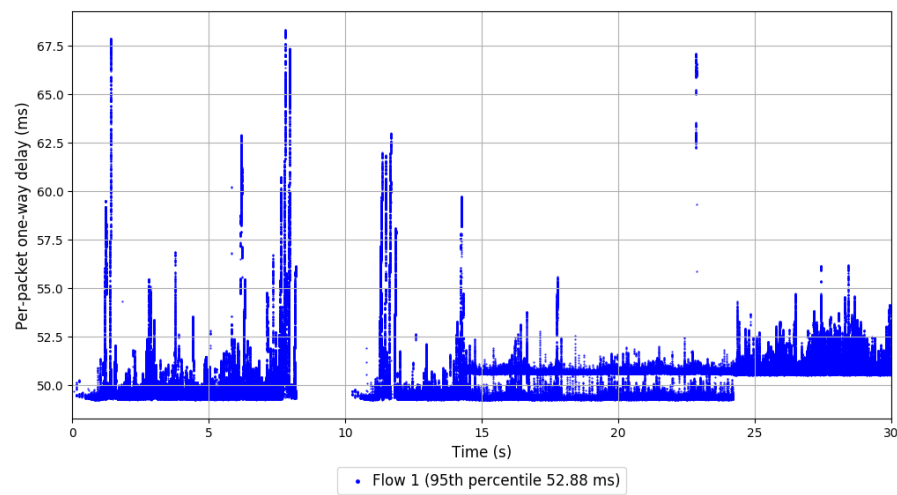Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-06-07 13:53:50
End at: 2018-06-07 13:54:20
Local clock offset: -0.091 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2018-06-07 15:09:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 134.06 Mbit/s
95th percentile per-packet one-way delay: 52.880 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 134.06 Mbit/s
95th percentile per-packet one-way delay: 52.880 ms
Loss rate: 0.18%
```

Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 134.13 Mbit/s) --- Flow 1 egress (mean 134.06 Mbit/s) ——

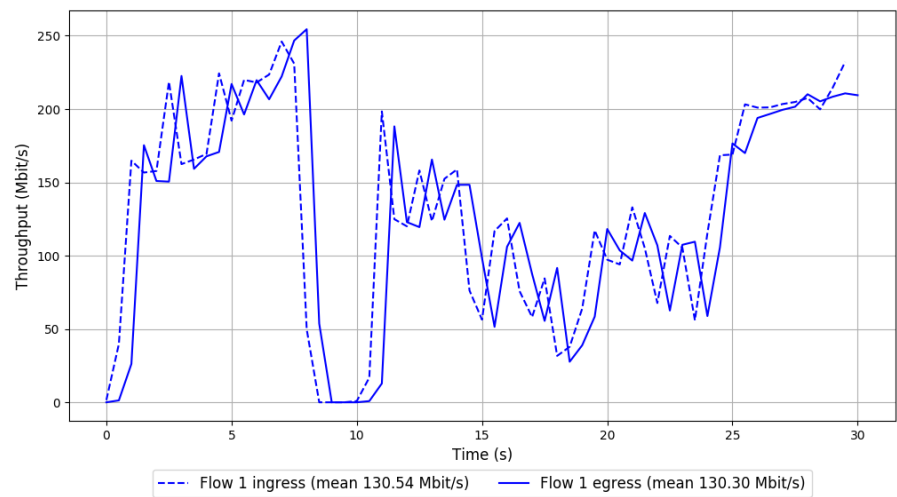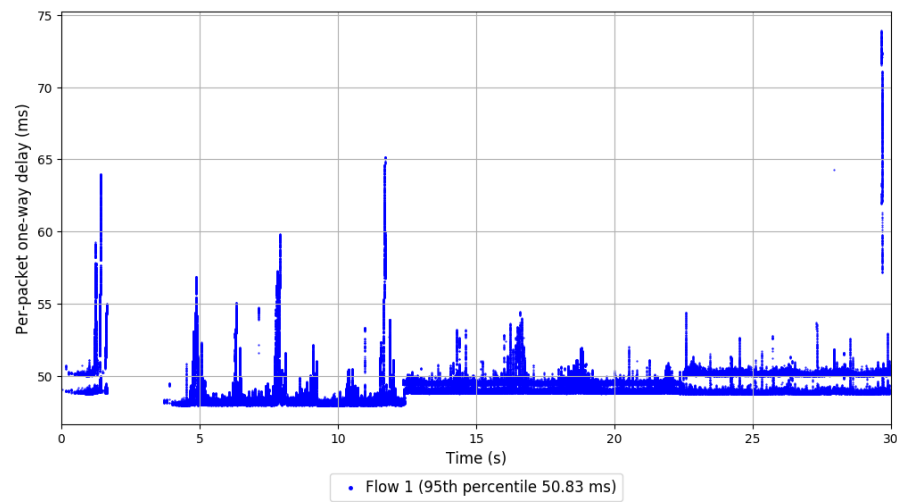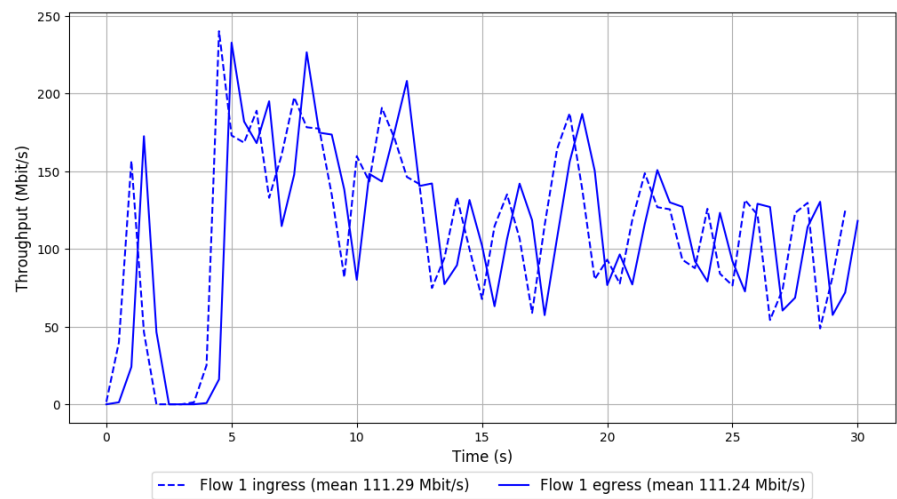
Flow 1 (95th percentile 52.88 ms) •

```
Run 9: Statistics of Copa

Start at: 2018-06-07 14:13:55
End at: 2018-06-07 14:14:25
Local clock offset: -0.222 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2018-06-07 15:09:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.30 Mbit/s
95th percentile per-packet one-way delay: 52.875 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 130.30 Mbit/s
95th percentile per-packet one-way delay: 52.875 ms
Loss rate: 0.52%
```

Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-06-07 14:34:07
End at: 2018-06-07 14:34:37
Local clock offset: -0.697 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-06-07 15:09:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 111.24 Mbit/s
95th percentile per-packet one-way delay: 50.827 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 111.24 Mbit/s
95th percentile per-packet one-way delay: 50.827 ms
Loss rate: 0.38%
```
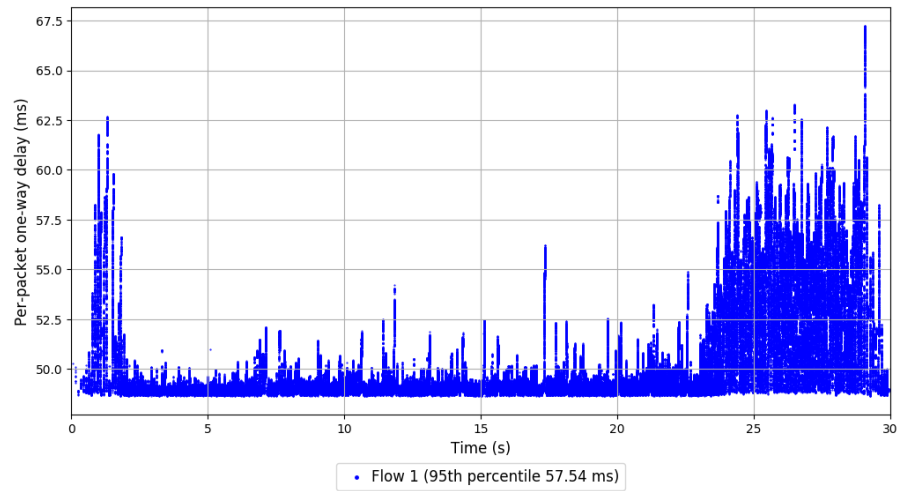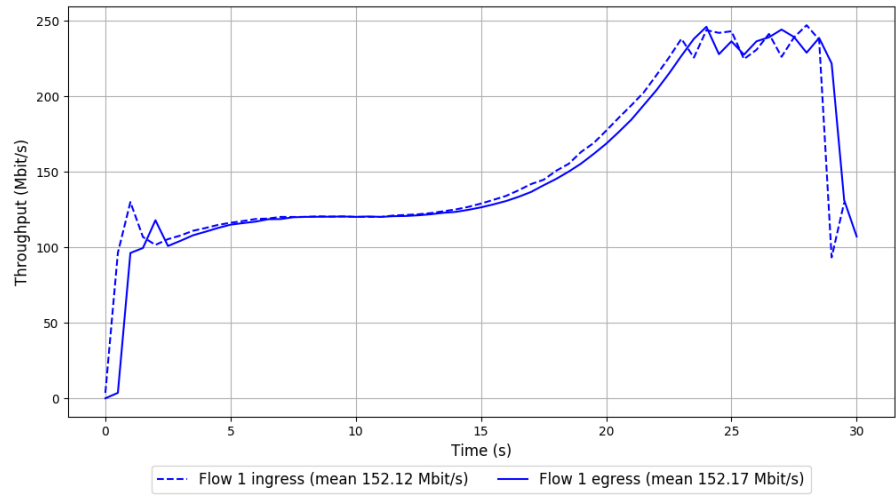
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 111.29 Mbit/s)   Flow 1 egress (mean 111.24 Mbit/s)
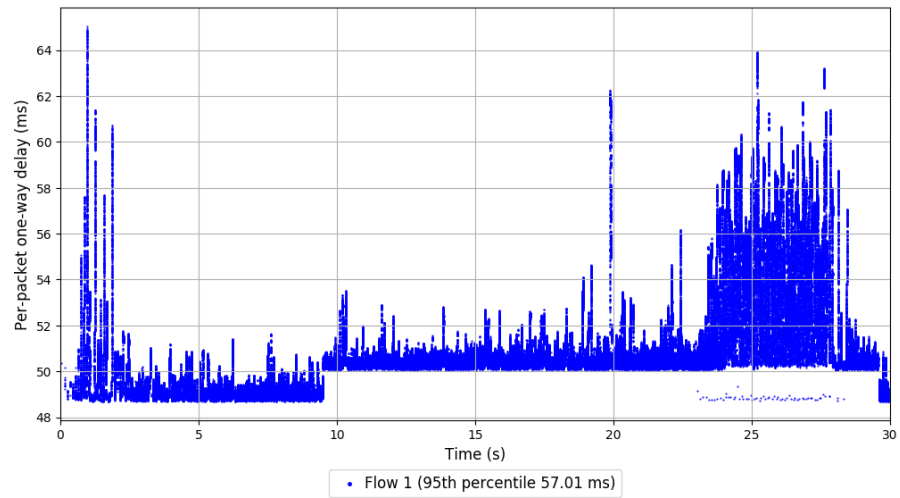

• Flow 1 (95th percentile 50.83 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-06-07 11:36:11
End at: 2018-06-07 11:36:41
Local clock offset: -0.035 ms
Remote clock offset: 0.222 ms


# Below is generated by plot.py at 2018-06-07 15:09:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 152.17 Mbit/s
95th percentile per-packet one-way delay: 57.540 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 152.17 Mbit/s
95th percentile per-packet one-way delay: 57.540 ms
Loss rate: 0.30%
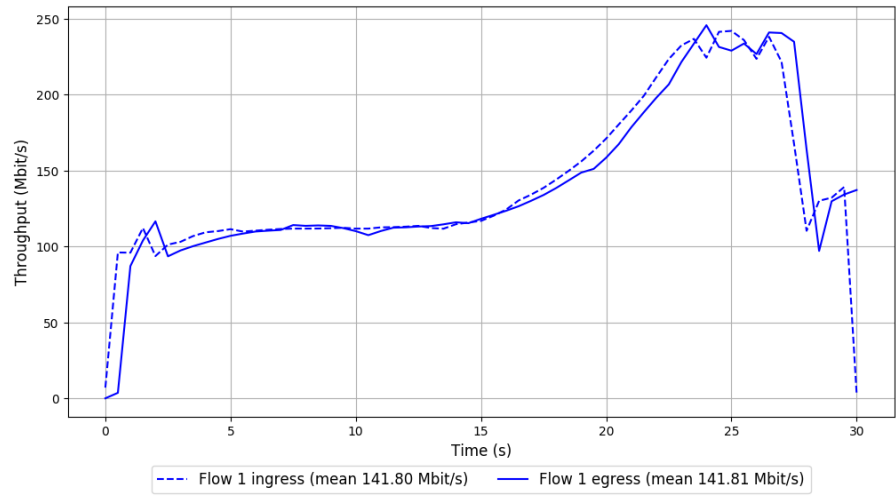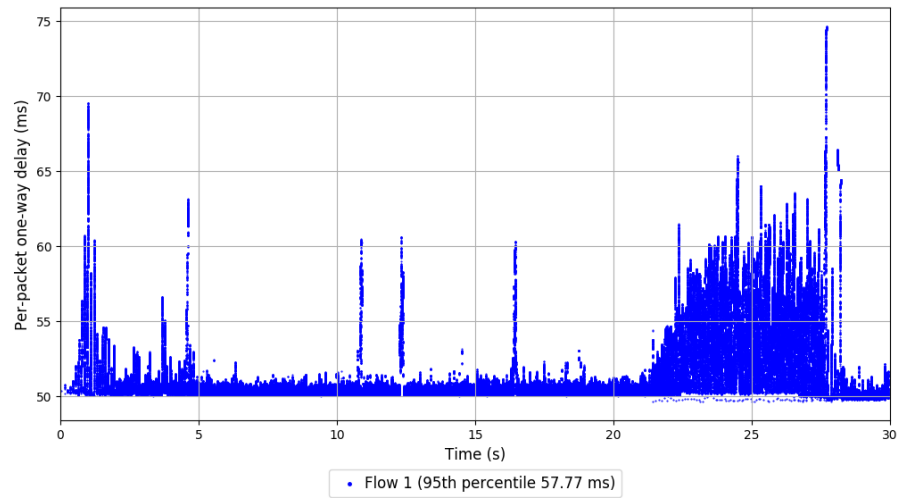```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-06-07 11:56:30
End at: 2018-06-07 11:57:00
Local clock offset: -0.01 ms
Remote clock offset: -0.014 ms

Below is generated by plot.py at 2018-06-07 15:09:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 141.81 Mbit/s
95th percentile per-packet one-way delay: 57.009 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 141.81 Mbit/s
95th percentile per-packet one-way delay: 57.009 ms
Loss rate: 0.33%
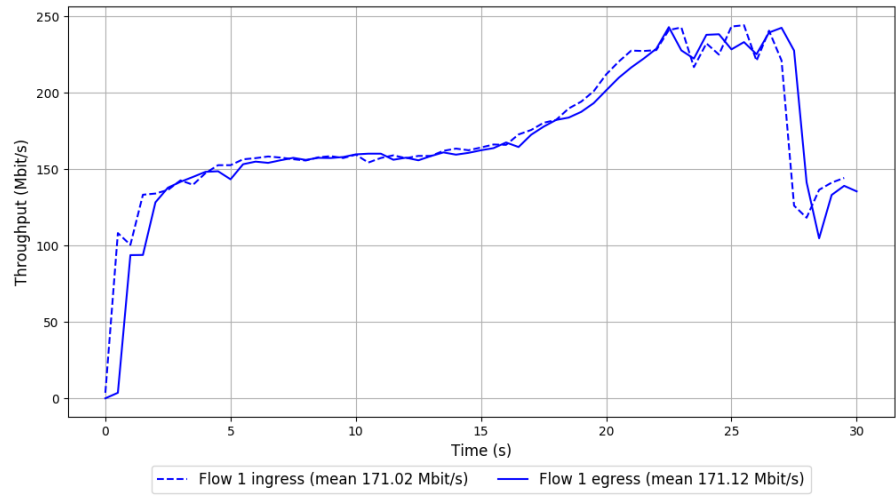```

Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-06-07 12:16:33
End at: 2018-06-07 12:17:03
Local clock offset: 0.007 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2018-06-07 15:09:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.12 Mbit/s
95th percentile per-packet one-way delay: 57.768 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 171.12 Mbit/s
95th percentile per-packet one-way delay: 57.768 ms
Loss rate: 0.28%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 171.02 Mbit/s)   Flow 1 egress (mean 171.12 Mbit/s)
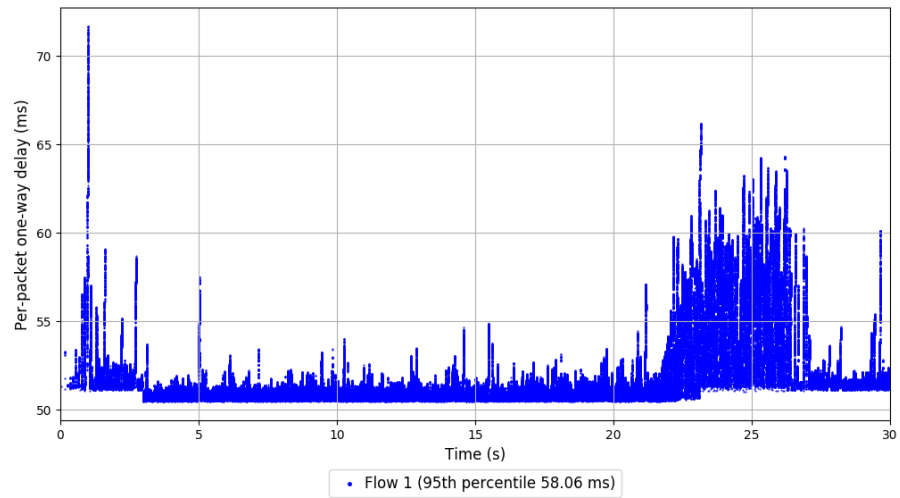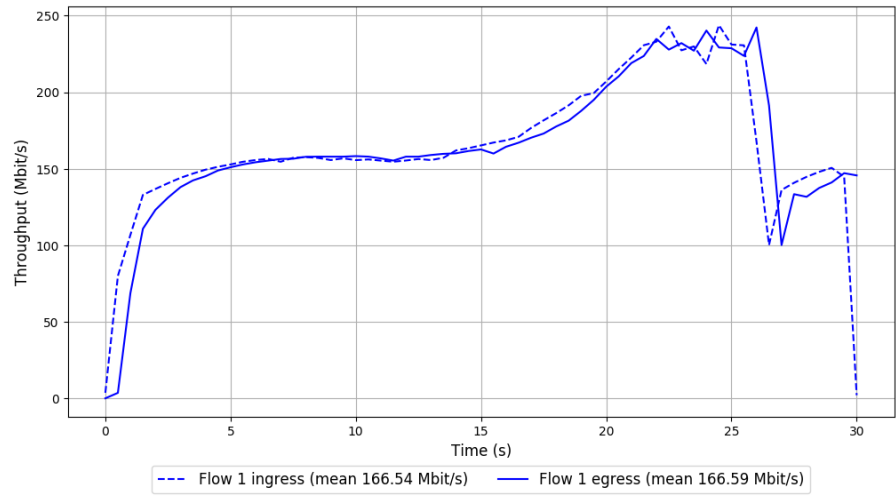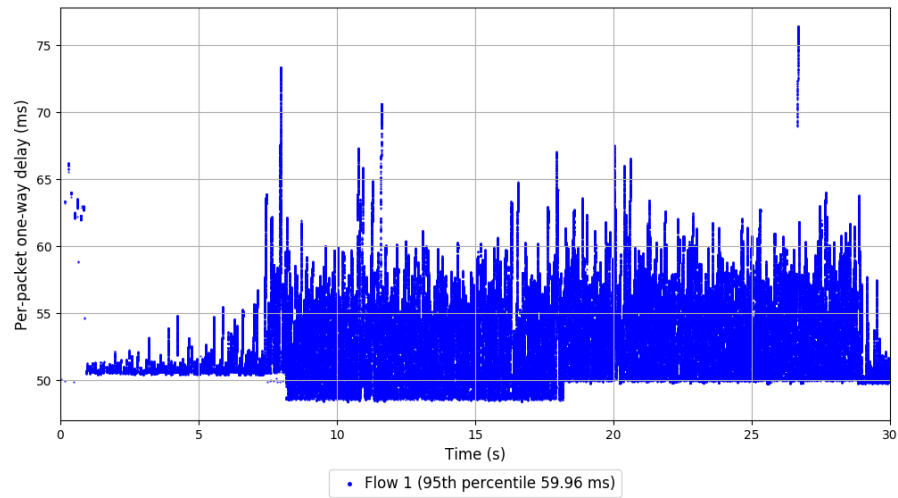

Flow 1 (95th percentile 57.77 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-06-07 12:36:47
End at: 2018-06-07 12:37:17
Local clock offset: 0.386 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-06-07 15:09:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.59 Mbit/s
95th percentile per-packet one-way delay: 58.057 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 166.59 Mbit/s
95th percentile per-packet one-way delay: 58.057 ms
Loss rate: 0.31%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 166.54 Mbit/s)   Flow 1 egress (mean 166.59 Mbit/s)
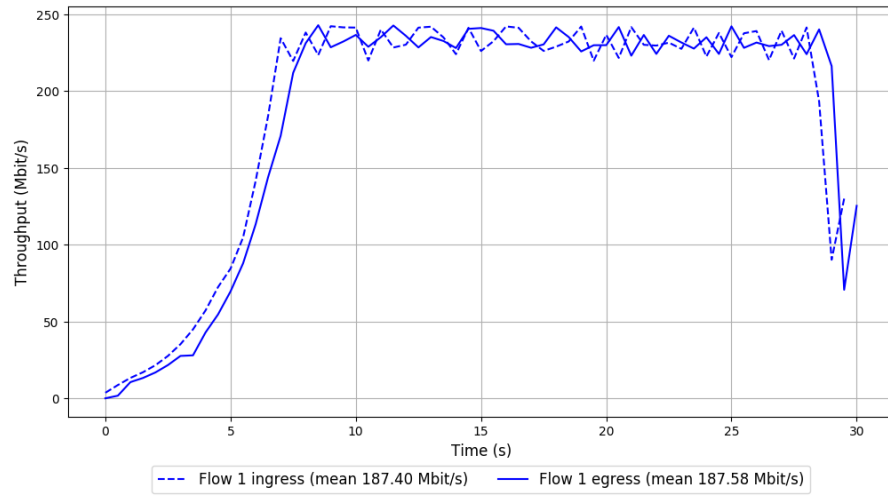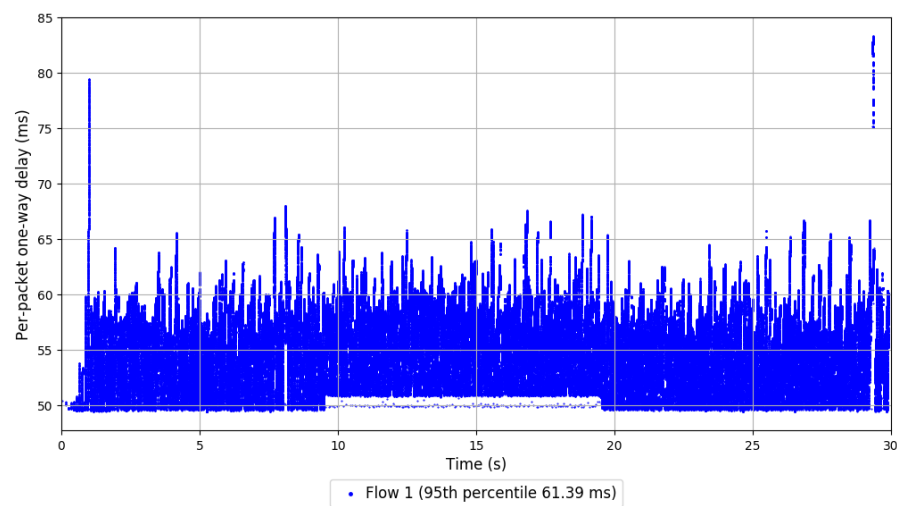

• Flow 1 (95th percentile 58.06 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-06-07 12:56:51
End at: 2018-06-07 12:57:22
Local clock offset: -0.335 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2018-06-07 15:11:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.58 Mbit/s
95th percentile per-packet one-way delay: 59.963 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 187.58 Mbit/s
95th percentile per-packet one-way delay: 59.963 ms
Loss rate: 0.24%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 187.40 Mbit/s) —— Flow 1 egress (mean 187.58 Mbit/s)
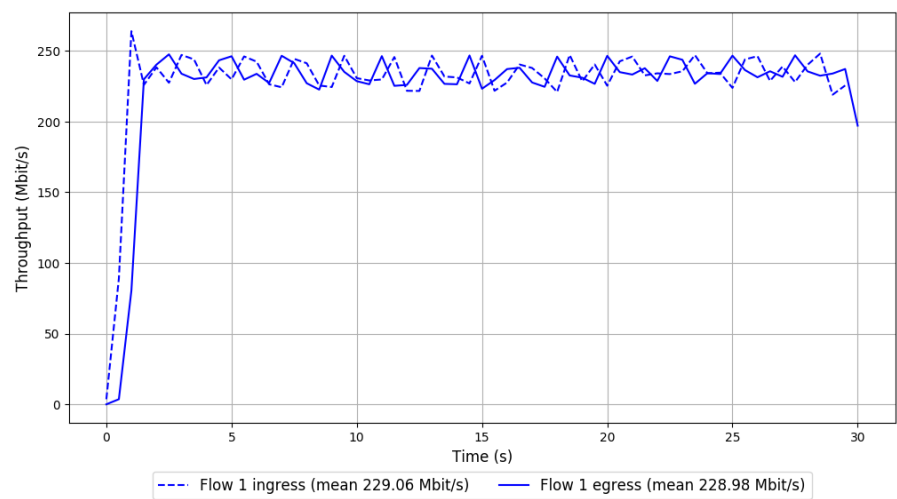

• Flow 1 (95th percentile 59.96 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-06-07 13:17:10
End at: 2018-06-07 13:17:40
Local clock offset: 0.039 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-06-07 15:11:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.98 Mbit/s
95th percentile per-packet one-way delay: 61.388 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 228.98 Mbit/s
95th percentile per-packet one-way delay: 61.388 ms
Loss rate: 0.36%
```
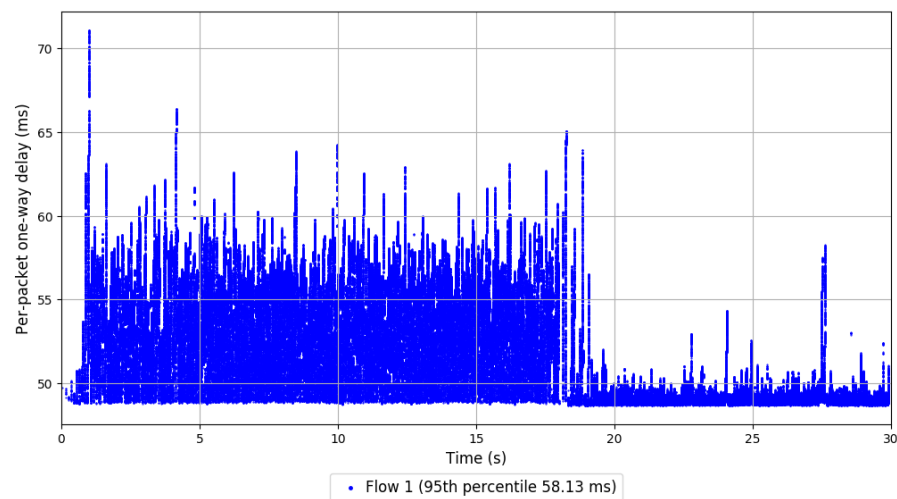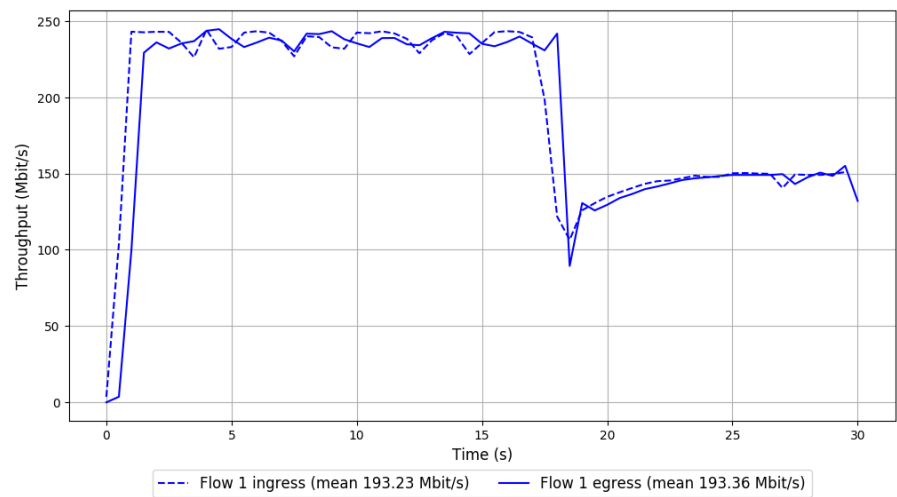
Run 6: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 229.06 Mbit/s)   Flow 1 egress (mean 228.98 Mbit/s)
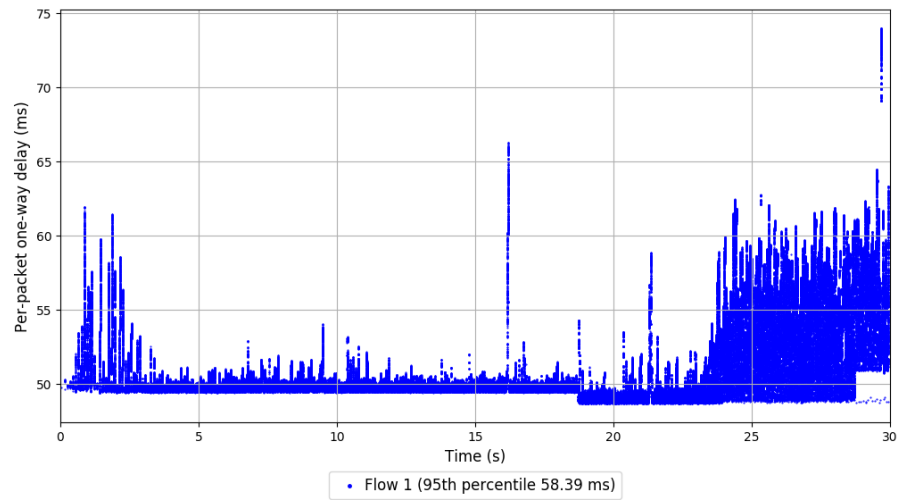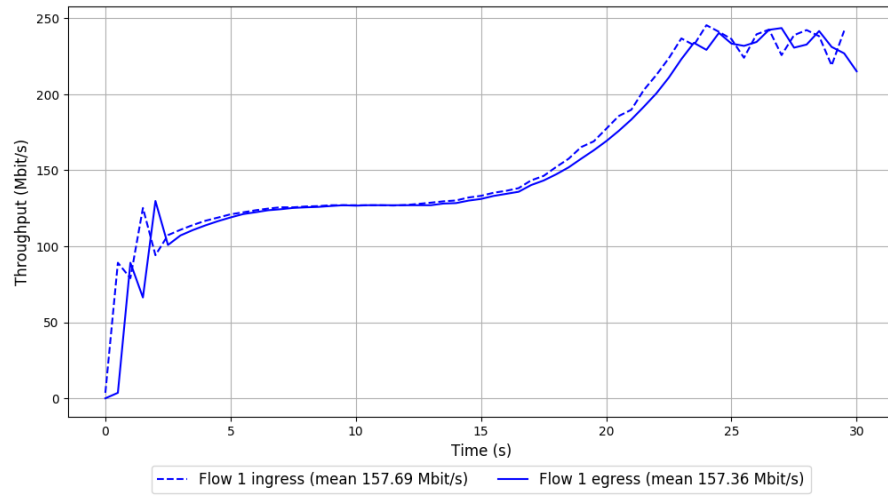

• Flow 1 (95th percentile 61.39 ms)

```
Run 7: Statistics of TCP Cubic

Start at: 2018-06-07 13:37:18
End at: 2018-06-07 13:37:48
Local clock offset: -0.058 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-06-07 15:11:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.36 Mbit/s
95th percentile per-packet one-way delay: 58.133 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 193.36 Mbit/s
95th percentile per-packet one-way delay: 58.133 ms
Loss rate: 0.26%
```
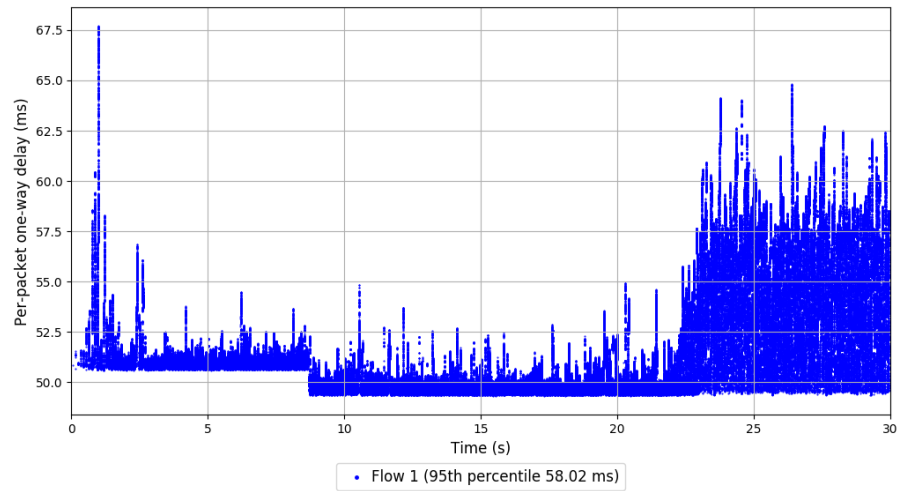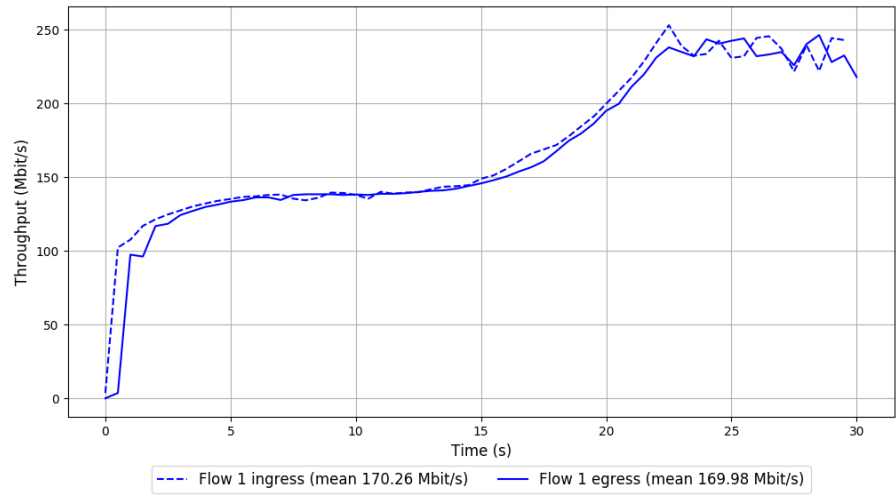
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 193.23 Mbit/s) —— Flow 1 egress (mean 193.36 Mbit/s)

• Flow 1 (95th percentile 58.13 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-06-07 13:57:21
End at: 2018-06-07 13:57:51
Local clock offset: -0.108 ms
Remote clock offset: -0.125 ms


# Below is generated by plot.py at 2018-06-07 15:11:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.36 Mbit/s
95th percentile per-packet one-way delay: 58.388 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 157.36 Mbit/s
95th percentile per-packet one-way delay: 58.388 ms
Loss rate: 0.53%
```

Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 157.69 Mbit/s)   Flow 1 egress (mean 157.36 Mbit/s)

Flow 1 (95th percentile 58.39 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-06-07 14:17:31
End at: 2018-06-07 14:18:01
Local clock offset: -0.207 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-06-07 15:11:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.98 Mbit/s
95th percentile per-packet one-way delay: 58.025 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 169.98 Mbit/s
95th percentile per-packet one-way delay: 58.025 ms
Loss rate: 0.48%
```
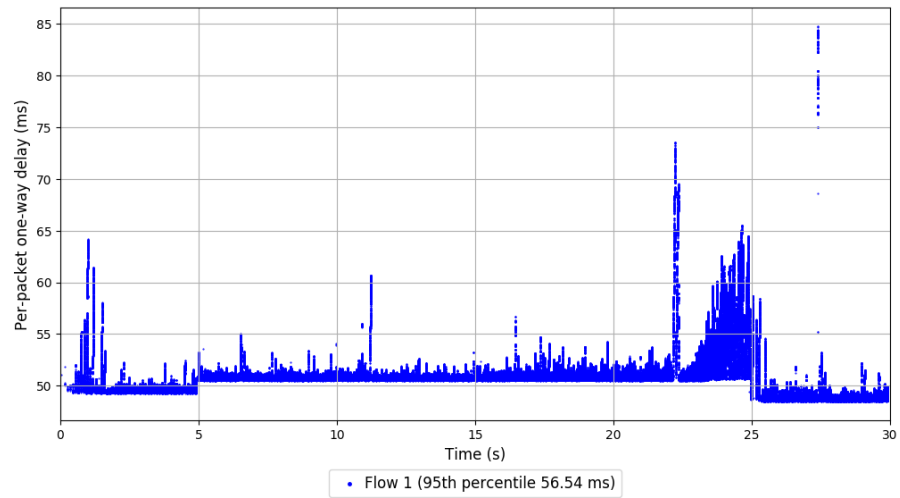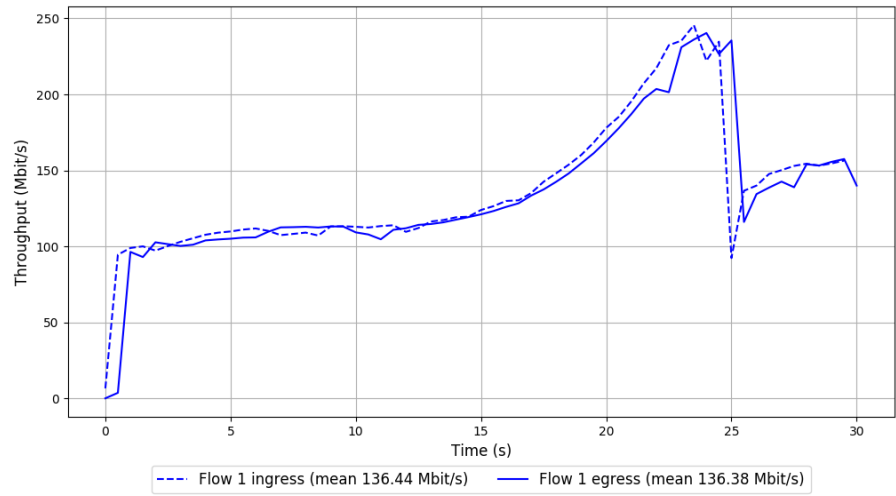
Run 9: Report of TCP Cubic — Data Link

```
Run 10: Statistics of TCP Cubic

Start at: 2018-06-07 14:37:35
End at: 2018-06-07 14:38:05
Local clock offset: -0.225 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-06-07 15:11:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 136.38 Mbit/s
95th percentile per-packet one-way delay: 56.543 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 136.38 Mbit/s
95th percentile per-packet one-way delay: 56.543 ms
Loss rate: 0.38%
```
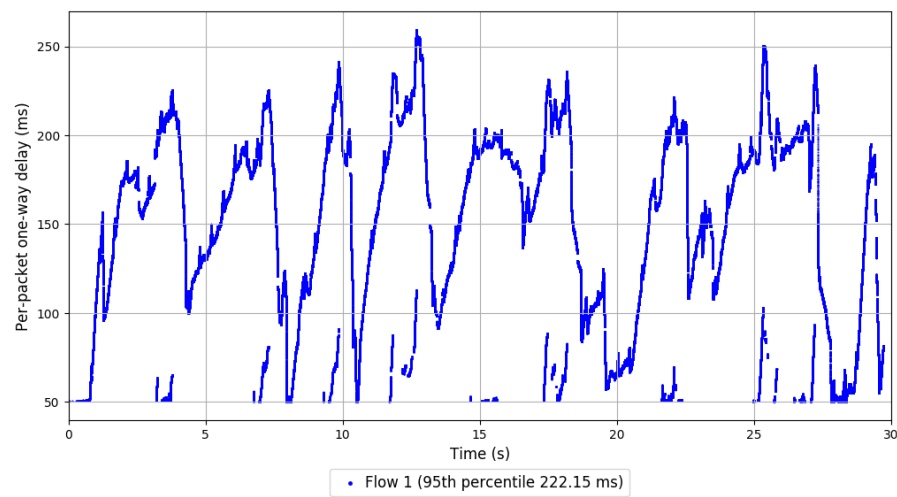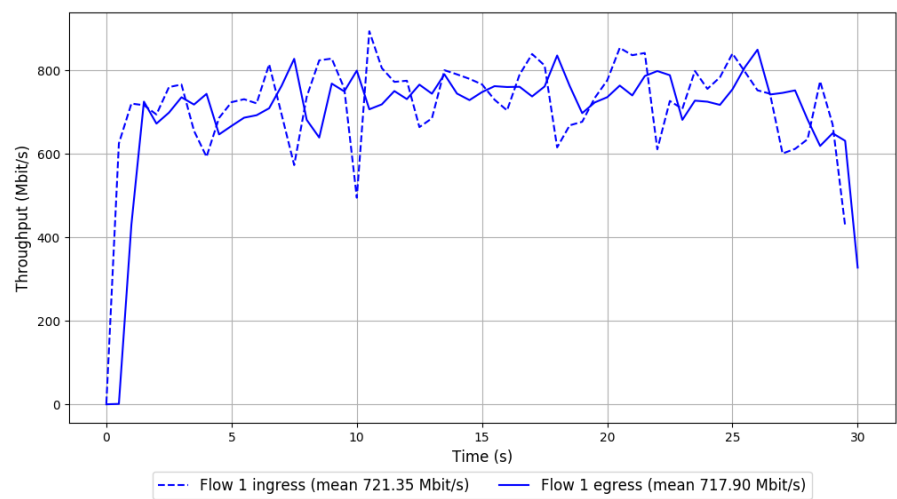
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 136.44 Mbit/s)　　Flow 1 egress (mean 136.38 Mbit/s)

• Flow 1 (95th percentile 56.54 ms)

```
Run 1: Statistics of FillP

Start at: 2018-06-07 11:44:15
End at: 2018-06-07 11:44:45
Local clock offset: -0.028 ms
Remote clock offset: 0.119 ms


# Below is generated by plot.py at 2018-06-07 15:23:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 717.90 Mbit/s
95th percentile per-packet one-way delay: 222.151 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 717.90 Mbit/s
95th percentile per-packet one-way delay: 222.151 ms
Loss rate: 0.82%
```
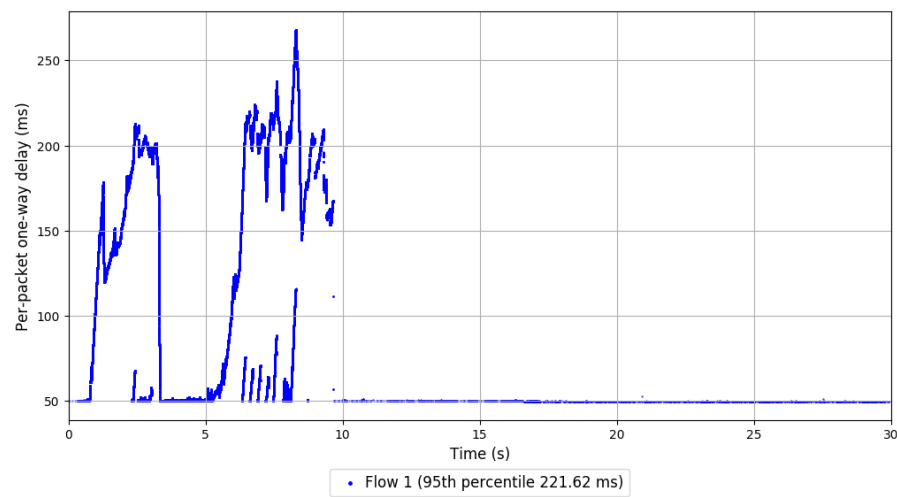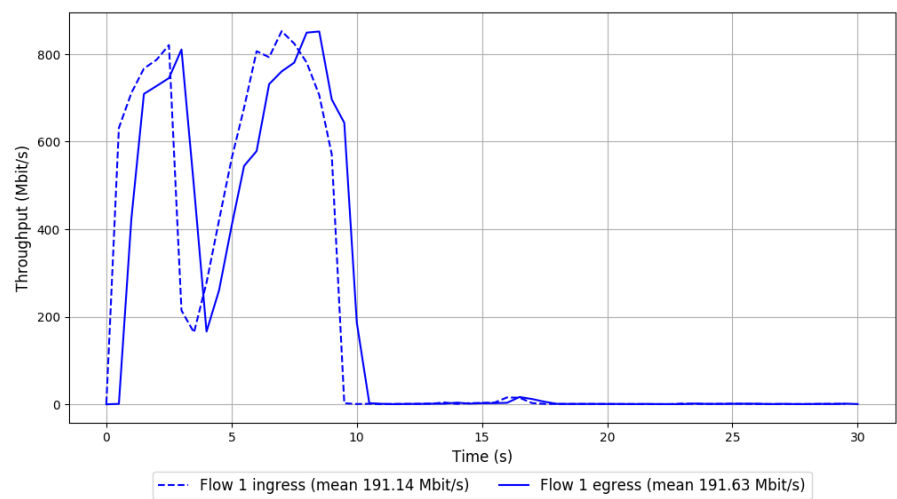
Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 721.35 Mbit/s)   Flow 1 egress (mean 717.90 Mbit/s)

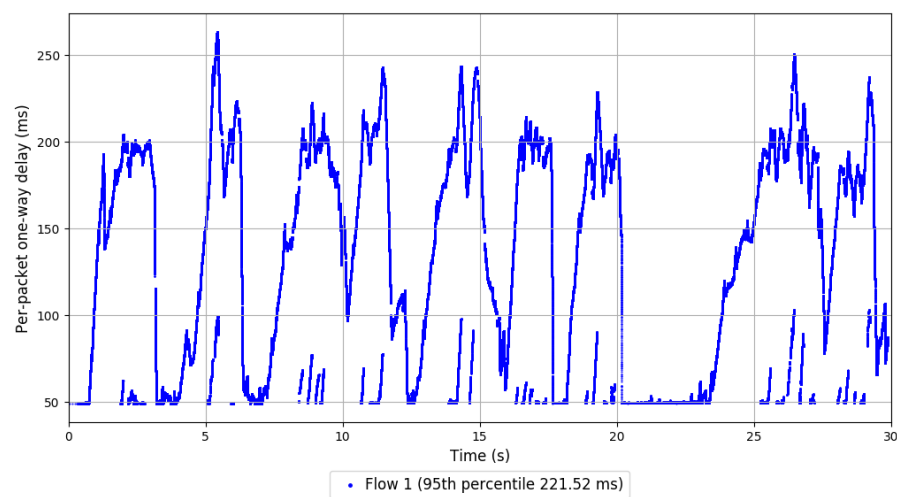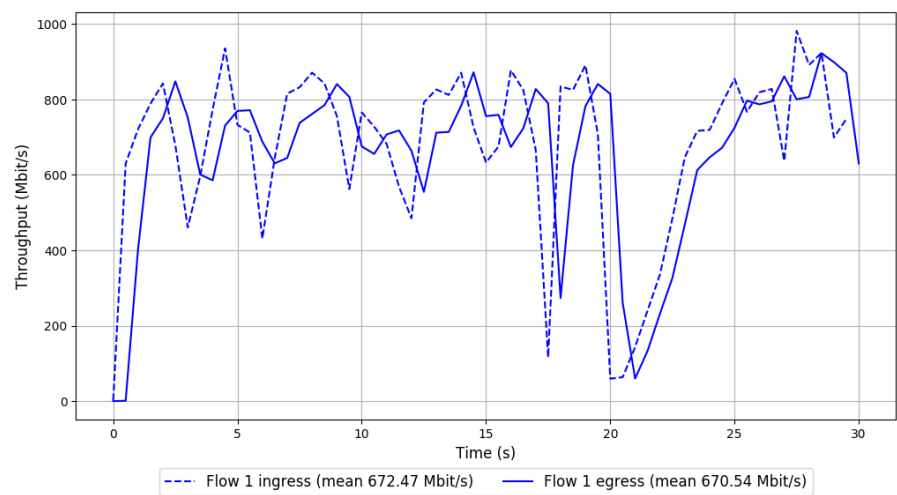Flow 1 (95th percentile 222.15 ms)

```
Run 2: Statistics of FillP

Start at: 2018-06-07 12:04:23
End at: 2018-06-07 12:04:53
Local clock offset: -0.019 ms
Remote clock offset: 0.012 ms


# Below is generated by plot.py at 2018-06-07 15:23:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.63 Mbit/s
95th percentile per-packet one-way delay: 221.623 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.63 Mbit/s
95th percentile per-packet one-way delay: 221.623 ms
Loss rate: 0.00%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 191.14 Mbit/s) ——— Flow 1 egress (mean 191.63 Mbit/s)

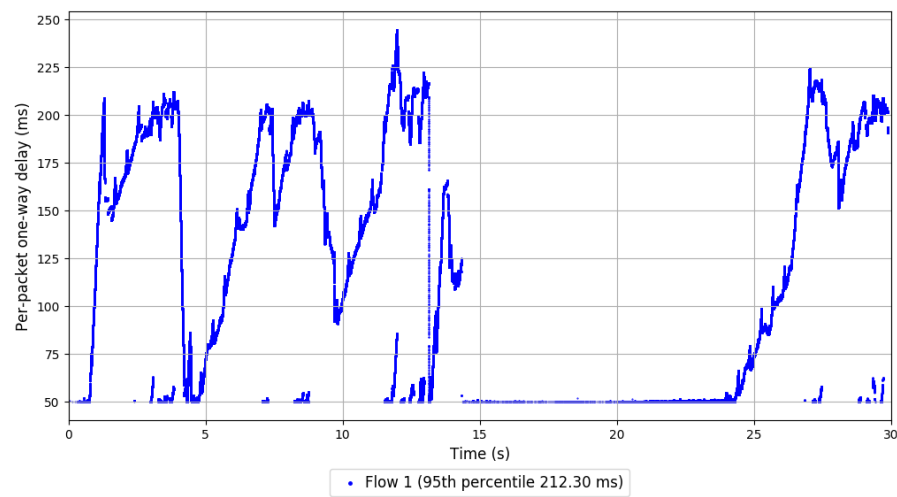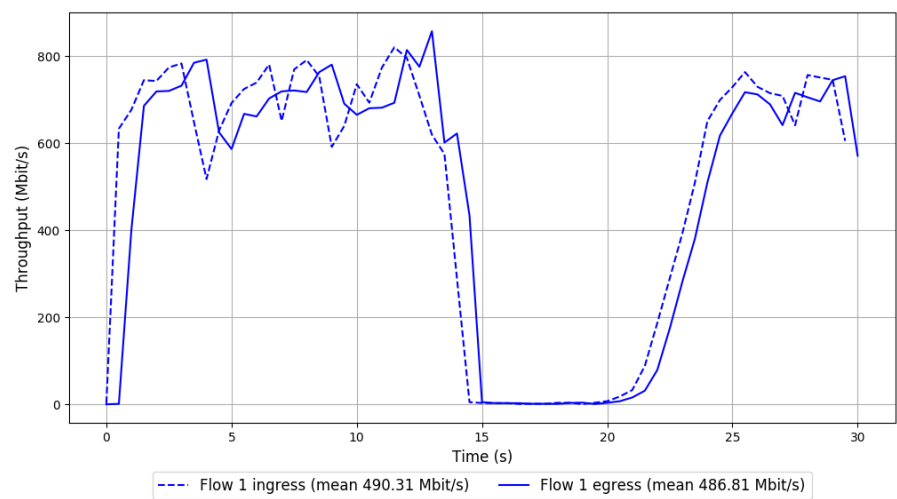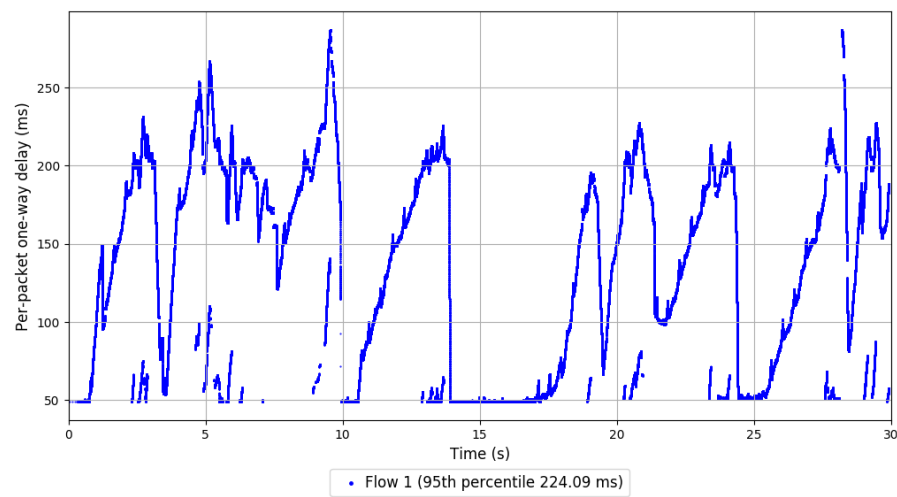• Flow 1 (95th percentile 221.62 ms)

```
Run 3: Statistics of FillP

Start at: 2018-06-07 12:24:32
End at: 2018-06-07 12:25:02
Local clock offset: -0.365 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-06-07 15:24:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 670.54 Mbit/s
95th percentile per-packet one-way delay: 221.517 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 670.54 Mbit/s
95th percentile per-packet one-way delay: 221.517 ms
Loss rate: 0.62%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 672.47 Mbit/s)   Flow 1 egress (mean 670.54 Mbit/s)

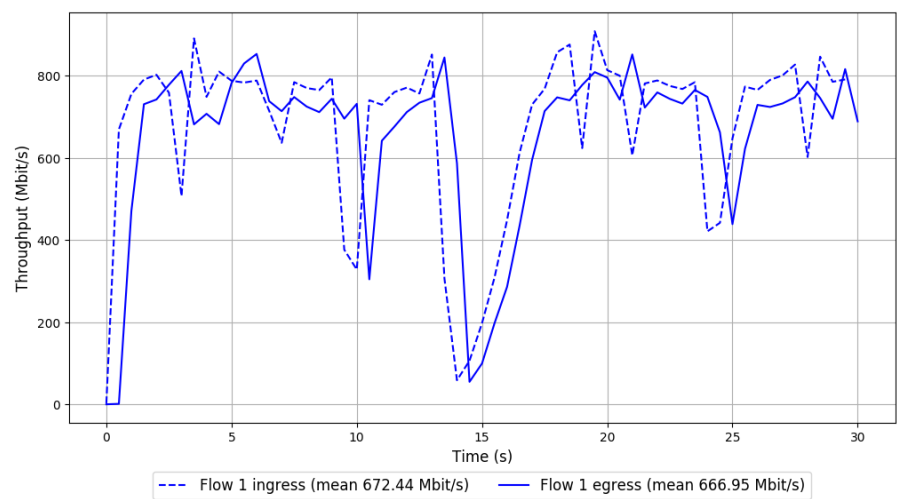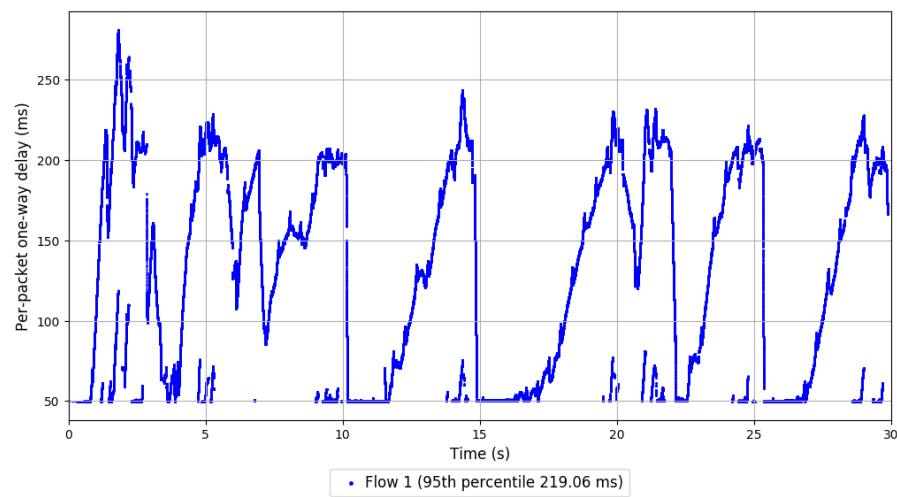
Flow 1 (95th percentile 221.52 ms)

```
Run 4: Statistics of FillP

Start at: 2018-06-07 12:44:37
End at: 2018-06-07 12:45:07
Local clock offset: 0.013 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2018-06-07 15:24:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 486.81 Mbit/s
95th percentile per-packet one-way delay: 212.298 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 486.81 Mbit/s
95th percentile per-packet one-way delay: 212.298 ms
Loss rate: 1.05%
```
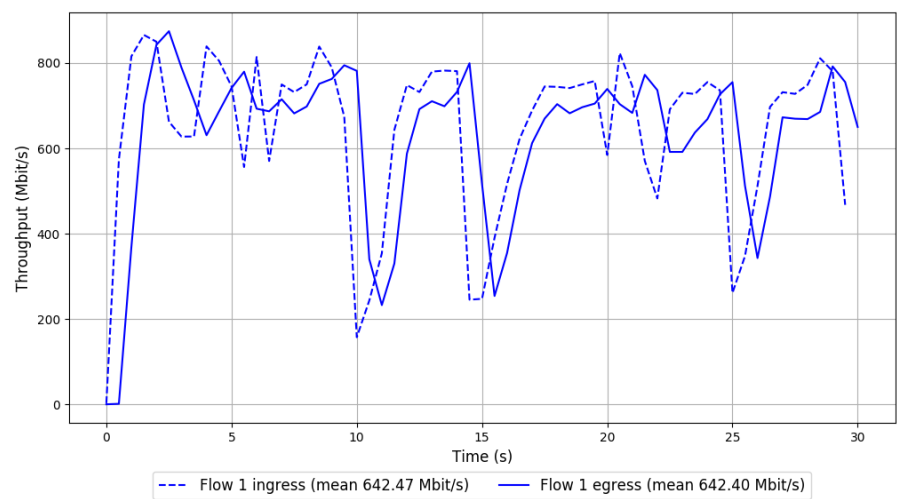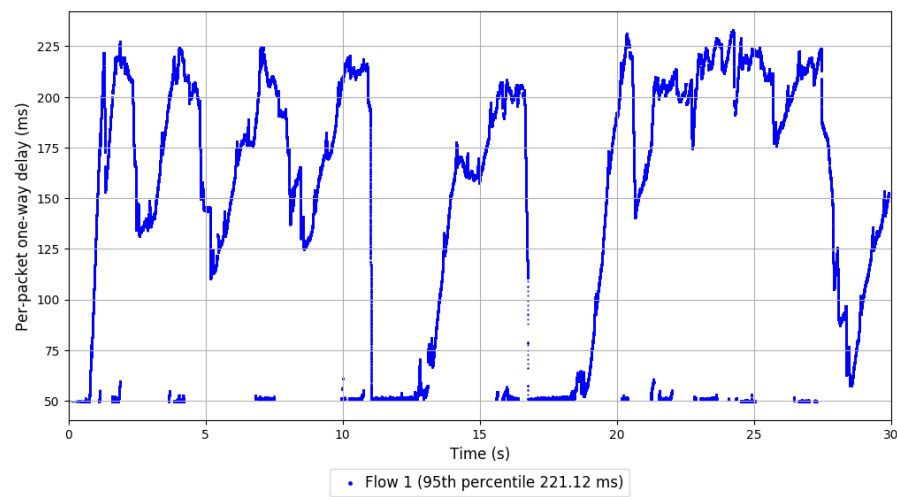
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-06-07 13:04:51
End at: 2018-06-07 13:05:21
Local clock offset: 0.021 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-06-07 15:24:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 666.95 Mbit/s
95th percentile per-packet one-way delay: 224.092 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 666.95 Mbit/s
95th percentile per-packet one-way delay: 224.092 ms
Loss rate: 1.14%
```

Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 672.44 Mbit/s) --- Flow 1 egress (mean 666.95 Mbit/s)

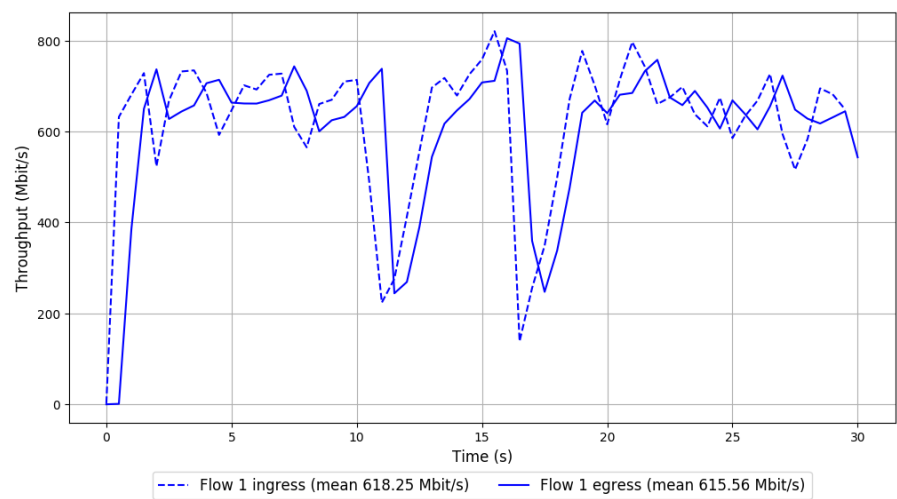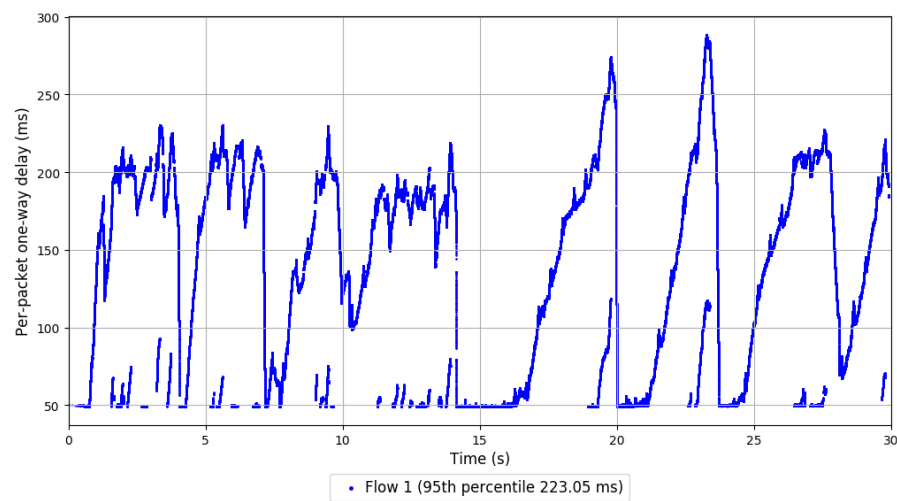• Flow 1 (95th percentile 224.09 ms)

```
Run 6: Statistics of FillP

Start at: 2018-06-07 13:25:07
End at: 2018-06-07 13:25:37
Local clock offset: 0.007 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2018-06-07 15:24:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 642.40 Mbit/s
95th percentile per-packet one-way delay: 219.064 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 642.40 Mbit/s
95th percentile per-packet one-way delay: 219.064 ms
Loss rate: 0.35%
```

Run 6: Report of FillP — Data Link

- - - - Flow 1 ingress (mean 642.47 Mbit/s) ——— Flow 1 egress (mean 642.40 Mbit/s)
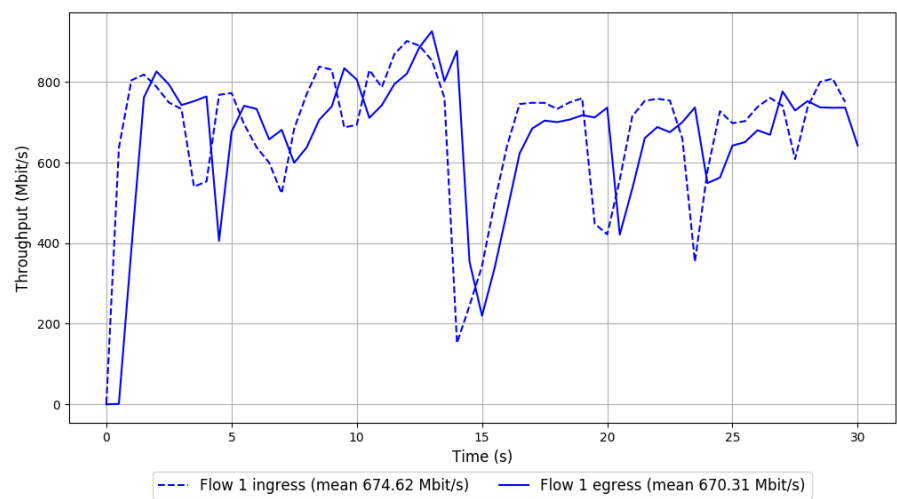

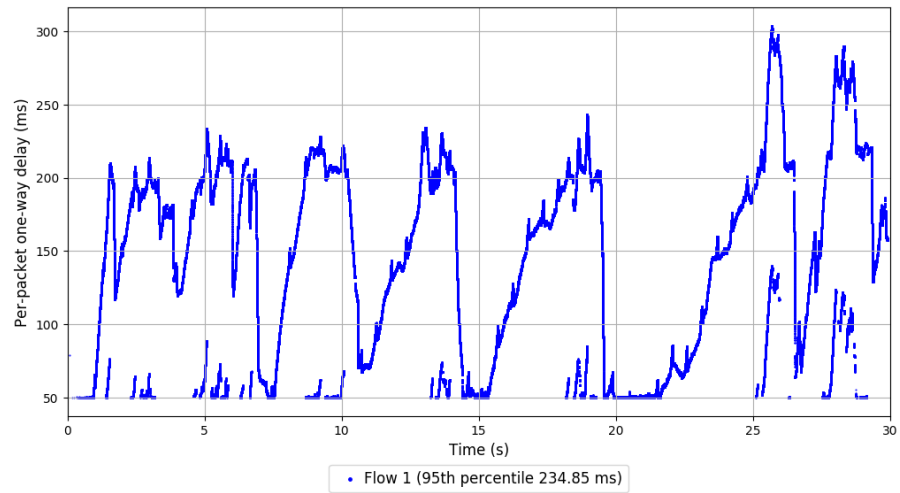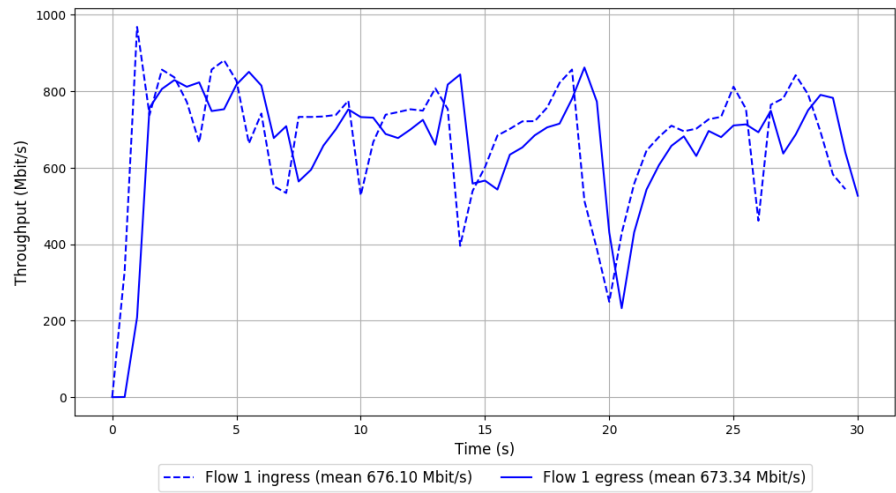
• Flow 1 (95th percentile 219.06 ms)

```
Run 7: Statistics of FillP

Start at: 2018-06-07 13:45:05
End at: 2018-06-07 13:45:35
Local clock offset: -0.012 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-06-07 15:24:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 615.56 Mbit/s
95th percentile per-packet one-way delay: 221.121 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 615.56 Mbit/s
95th percentile per-packet one-way delay: 221.121 ms
Loss rate: 0.77%
```

Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 618.25 Mbit/s)   Flow 1 egress (mean 615.56 Mbit/s)
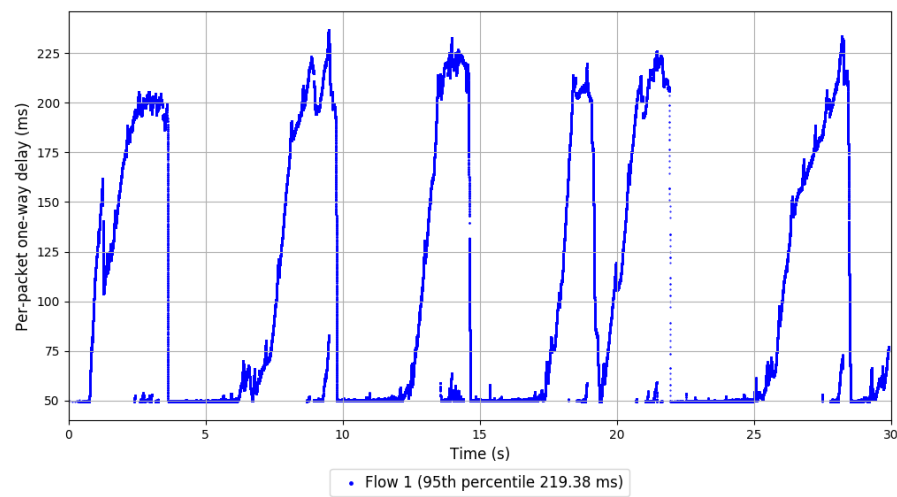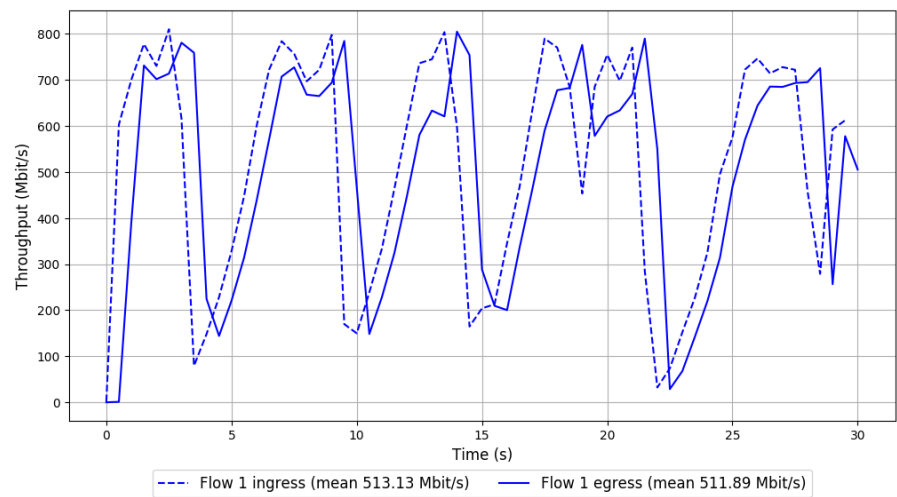

Flow 1 (95th percentile 221.12 ms)

```
Run 8: Statistics of FillP

Start at: 2018-06-07 14:05:09
End at: 2018-06-07 14:05:39
Local clock offset: -0.418 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2018-06-07 15:24:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 670.31 Mbit/s
95th percentile per-packet one-way delay: 223.053 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 670.31 Mbit/s
95th percentile per-packet one-way delay: 223.053 ms
Loss rate: 0.97%
```

Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 674.62 Mbit/s)   Flow 1 egress (mean 670.31 Mbit/s)

Flow 1 (95th percentile 223.05 ms)

```
Run 9: Statistics of FillP

Start at: 2018-06-07 14:25:18
End at: 2018-06-07 14:25:48
Local clock offset: -0.777 ms
Remote clock offset: -0.025 ms


# Below is generated by plot.py at 2018-06-07 15:27:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 673.34 Mbit/s
95th percentile per-packet one-way delay: 234.848 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 673.34 Mbit/s
95th percentile per-packet one-way delay: 234.848 ms
Loss rate: 0.84%
```

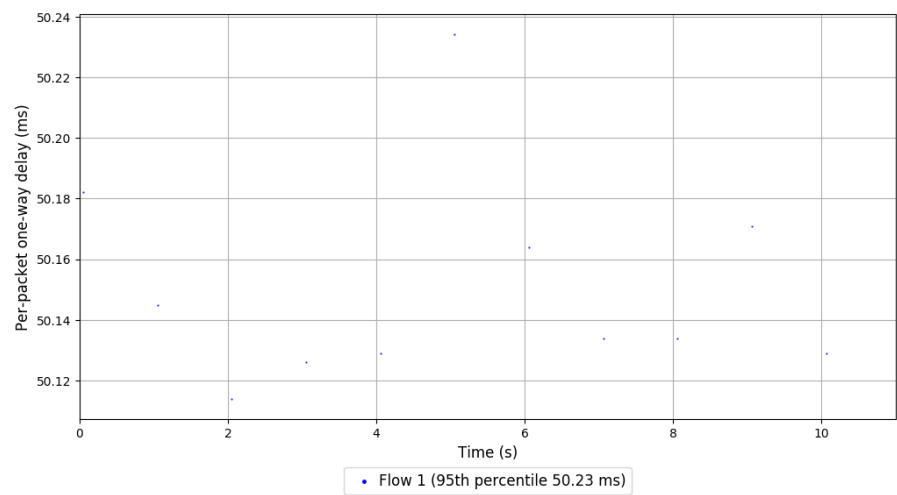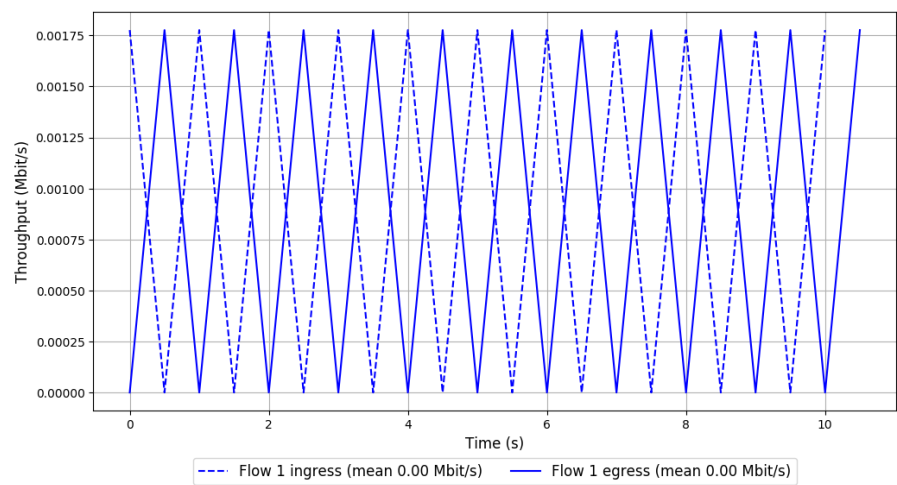Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-06-07 14:45:21
End at: 2018-06-07 14:45:51
Local clock offset: -0.465 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 511.89 Mbit/s
95th percentile per-packet one-way delay: 219.377 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 511.89 Mbit/s
95th percentile per-packet one-way delay: 219.377 ms
Loss rate: 0.58%
```
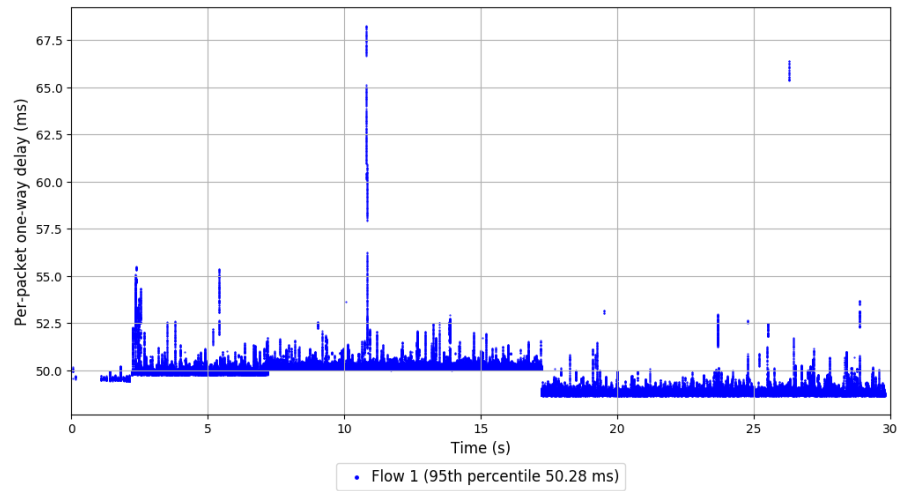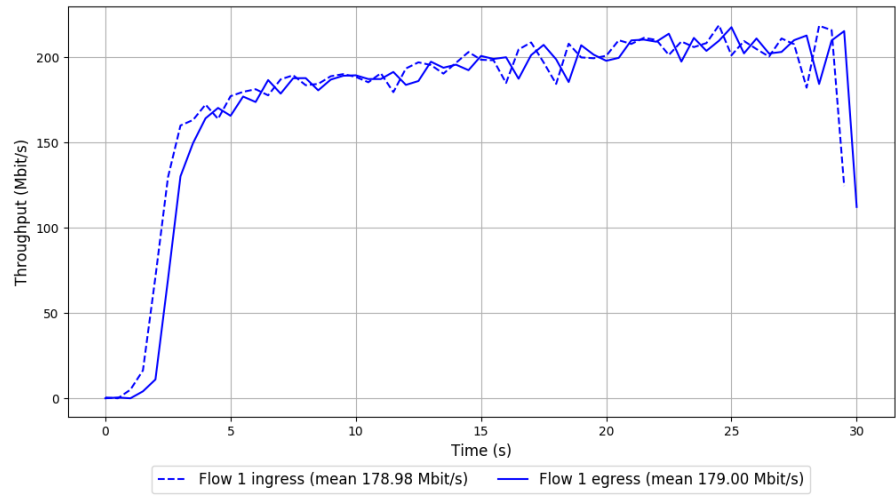
Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 513.13 Mbit/s) --- Flow 1 egress (mean 511.89 Mbit/s)

• Flow 1 (95th percentile 219.38 ms)

```
Run 1: Statistics of Indigo

Start at: 2018-06-07 11:30:30
End at: 2018-06-07 11:31:00
Local clock offset: -0.027 ms
Remote clock offset: 0.245 ms
```

Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-06-07 11:50:32
End at: 2018-06-07 11:51:02
Local clock offset: -0.013 ms
Remote clock offset: 0.062 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.00 Mbit/s
95th percentile per-packet one-way delay: 50.282 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 179.00 Mbit/s
95th percentile per-packet one-way delay: 50.282 ms
Loss rate: 0.32%
```
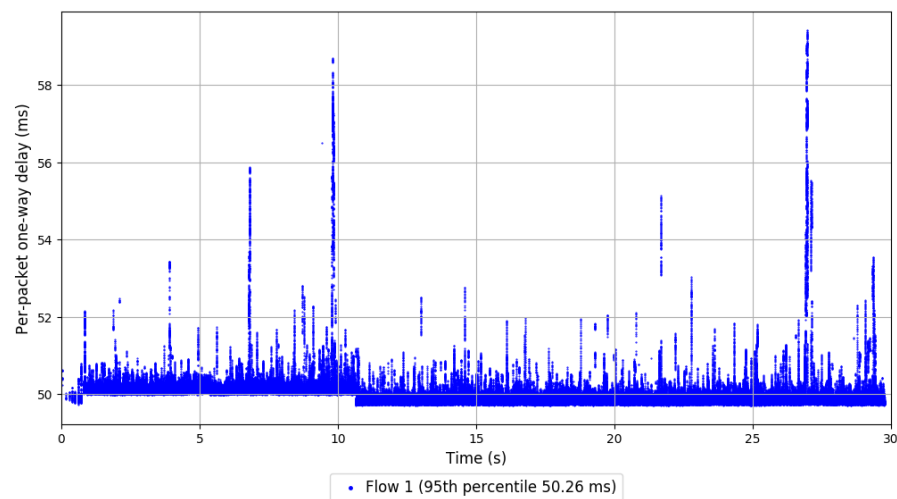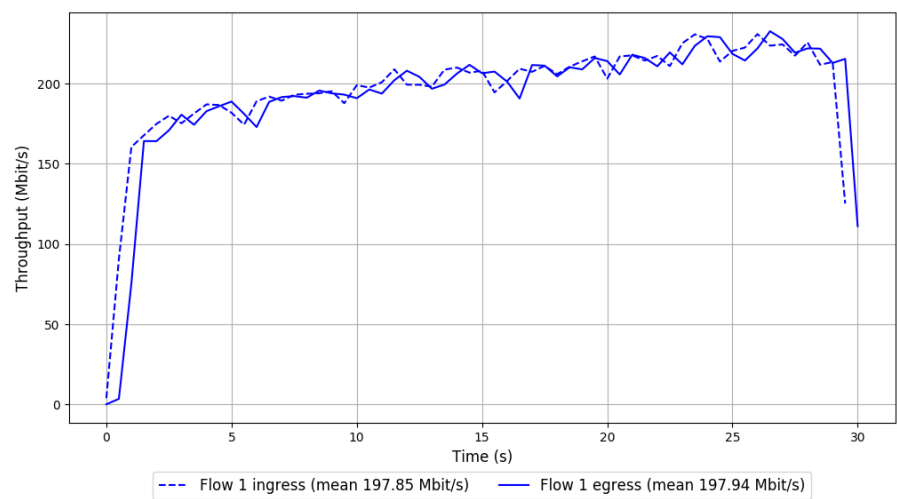
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-06-07 12:10:29
End at: 2018-06-07 12:10:59
Local clock offset: 0.011 ms
Remote clock offset: 0.023 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.94 Mbit/s
95th percentile per-packet one-way delay: 50.260 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 197.94 Mbit/s
95th percentile per-packet one-way delay: 50.260 ms
Loss rate: 0.29%
```
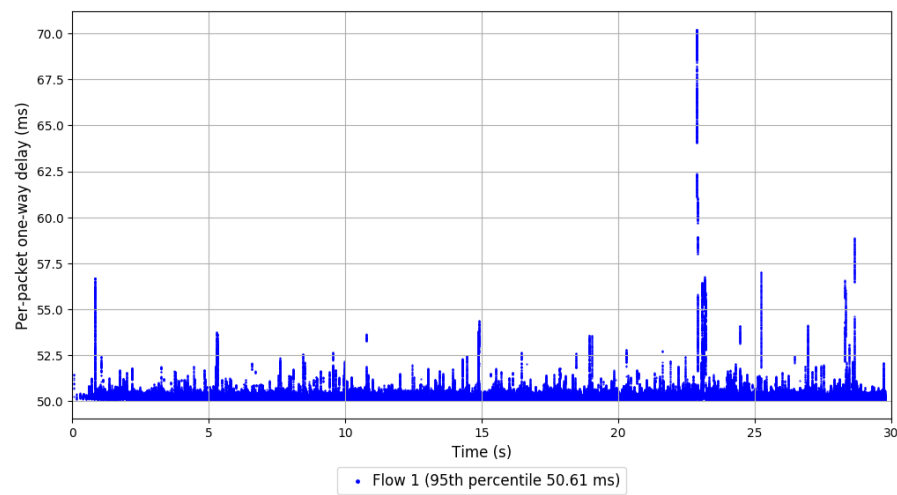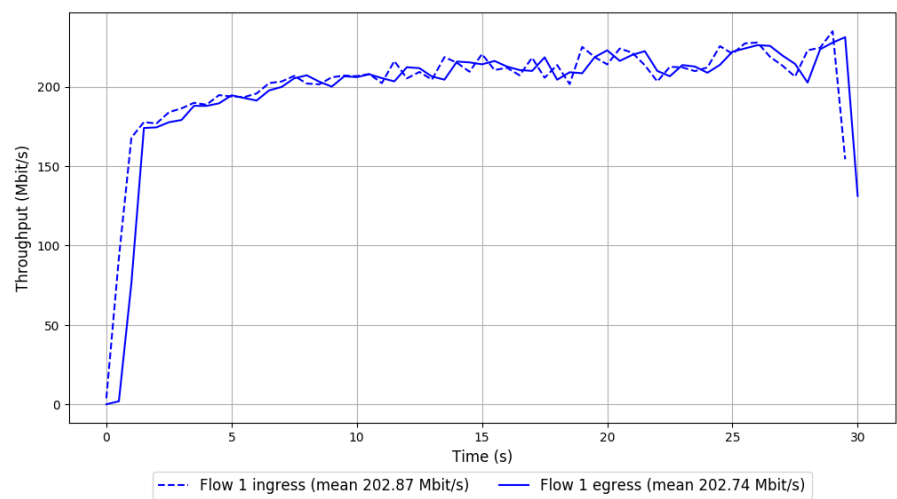
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-06-07 12:30:55
End at: 2018-06-07 12:31:25
Local clock offset: 0.01 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.74 Mbit/s
95th percentile per-packet one-way delay: 50.610 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 202.74 Mbit/s
95th percentile per-packet one-way delay: 50.610 ms
Loss rate: 0.40%
```

Run 4: Report of Indigo — Data Link

```
Run 5: Statistics of Indigo

Start at: 2018-06-07 12:50:52
End at: 2018-06-07 12:51:22
Local clock offset: 0.011 ms
Remote clock offset: -0.02 ms

# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.32 Mbit/s
95th percentile per-packet one-way delay: 50.893 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 198.32 Mbit/s
95th percentile per-packet one-way delay: 50.893 ms
Loss rate: 0.31%
```
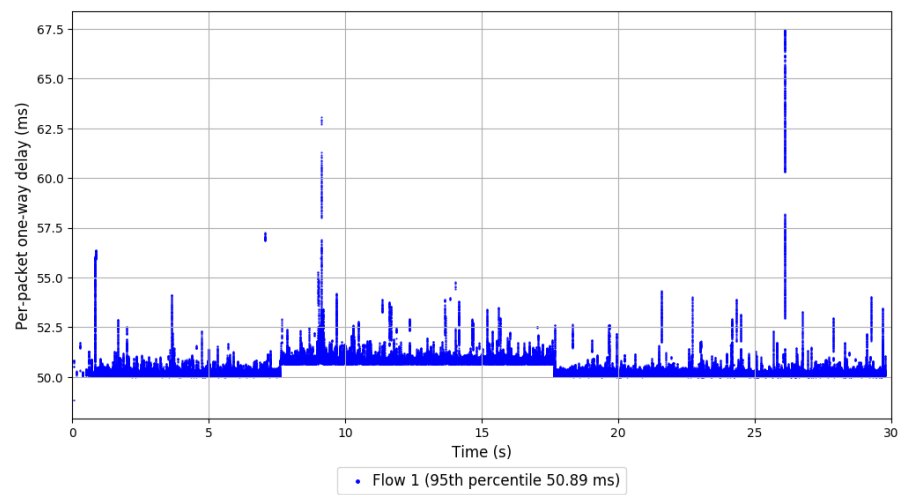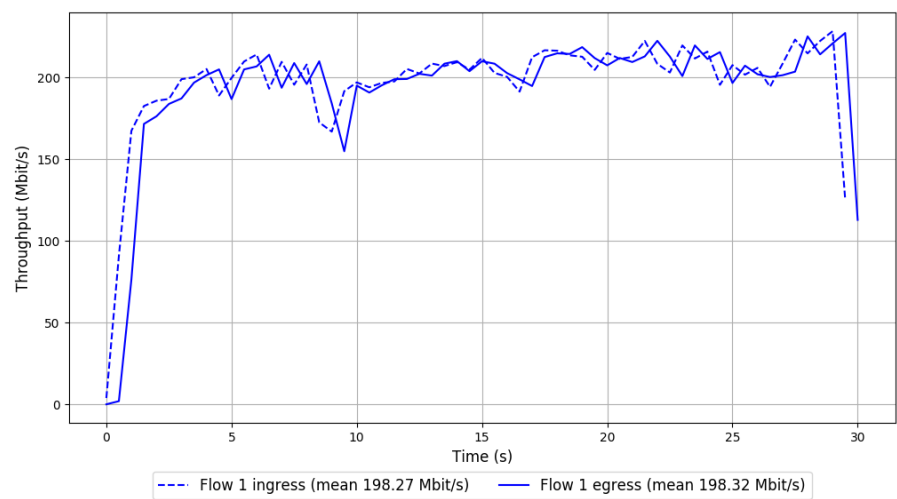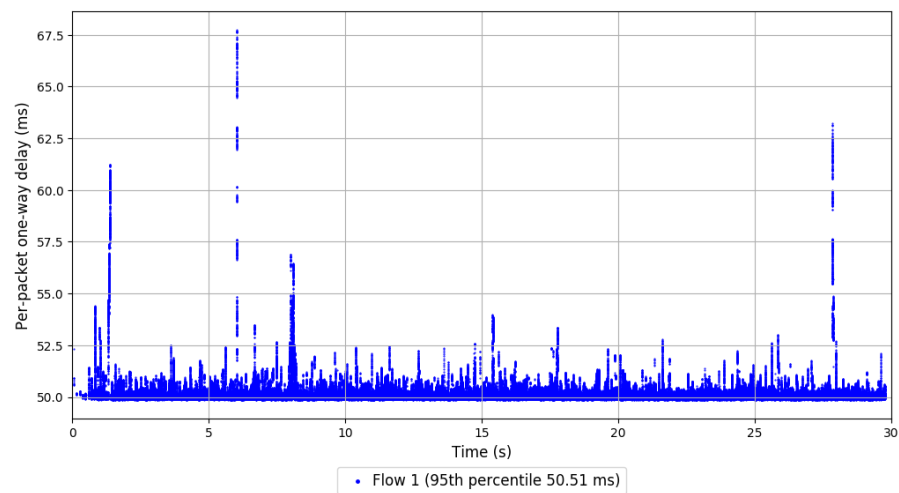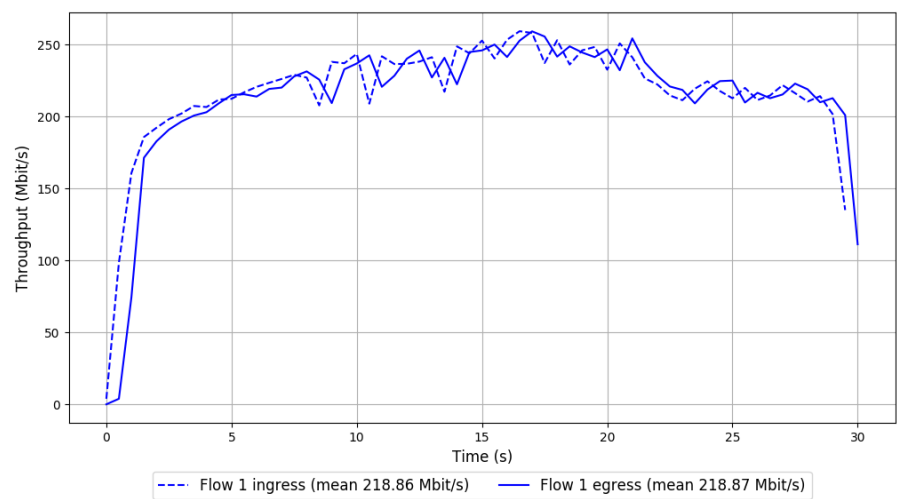
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-06-07 13:11:12
End at: 2018-06-07 13:11:42
Local clock offset: 0.452 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.87 Mbit/s
95th percentile per-packet one-way delay: 50.505 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 218.87 Mbit/s
95th percentile per-packet one-way delay: 50.505 ms
Loss rate: 0.34%
```
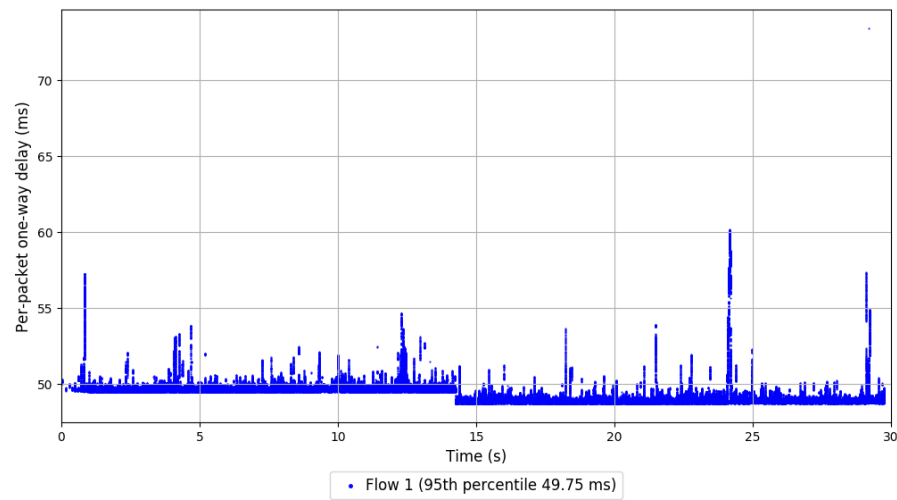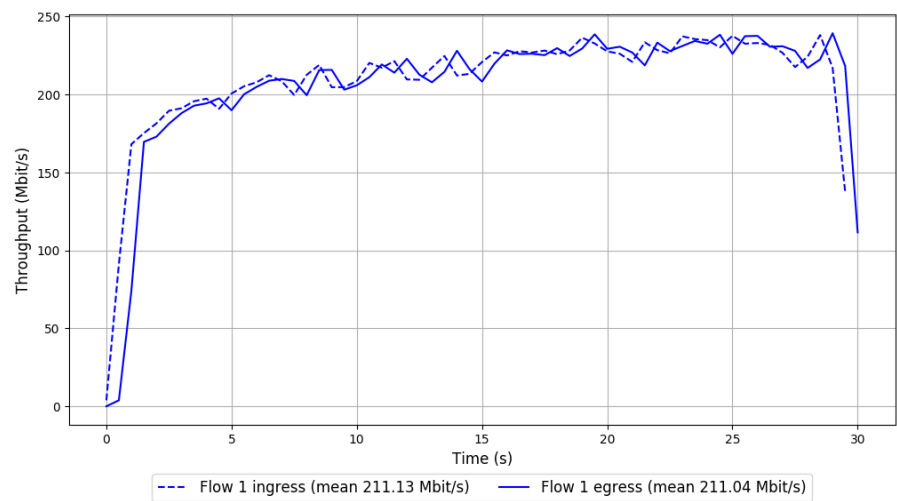
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-06-07 13:31:25
End at: 2018-06-07 13:31:55
Local clock offset: -0.019 ms
Remote clock offset: -0.11 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 211.04 Mbit/s
95th percentile per-packet one-way delay: 49.750 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 211.04 Mbit/s
95th percentile per-packet one-way delay: 49.750 ms
Loss rate: 0.38%
```
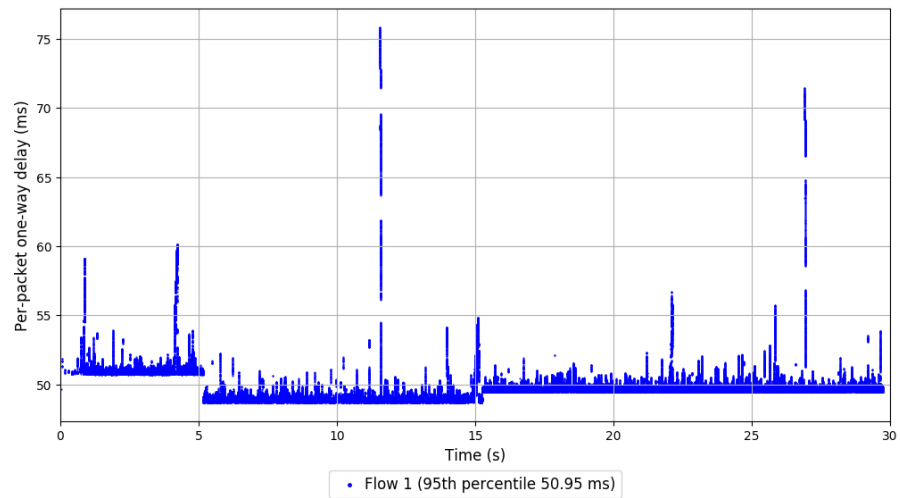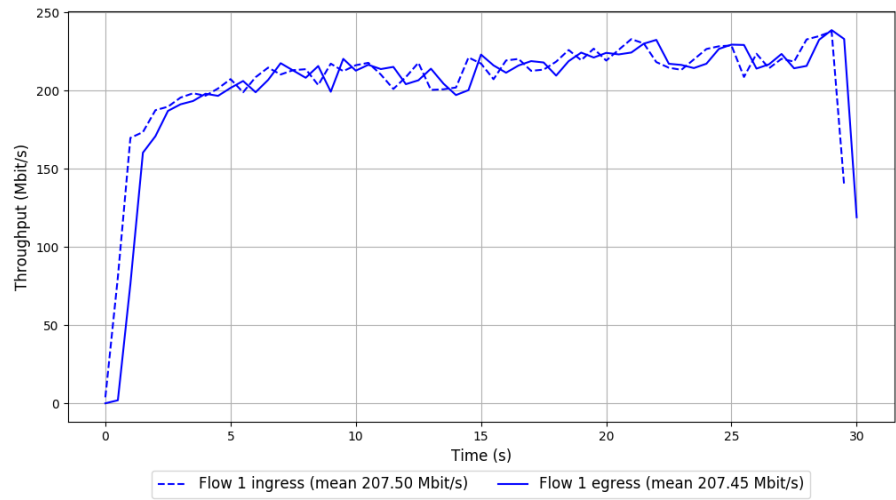
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-06-07 13:51:24
End at: 2018-06-07 13:51:54
Local clock offset: -0.071 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 207.45 Mbit/s
95th percentile per-packet one-way delay: 50.947 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 207.45 Mbit/s
95th percentile per-packet one-way delay: 50.947 ms
Loss rate: 0.36%
```

Run 8: Report of Indigo — Data Link

Flow 1 ingress (mean 207.50 Mbit/s) --- Flow 1 egress (mean 207.45 Mbit/s)

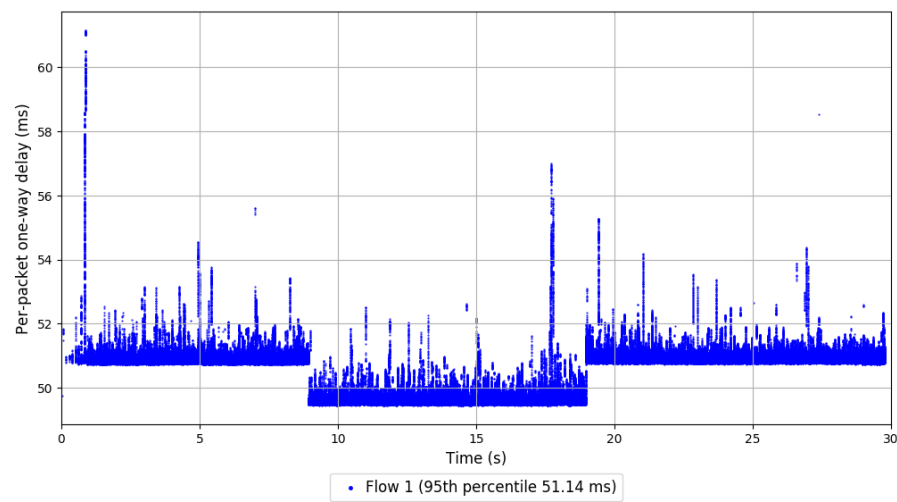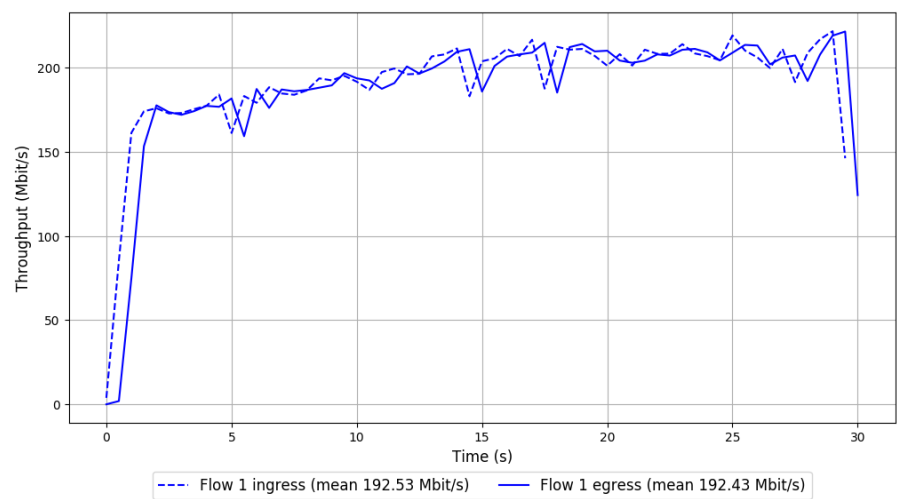

· Flow 1 (95th percentile 50.95 ms)

99

```
Run 9: Statistics of Indigo

Start at: 2018-06-07 14:11:31
End at: 2018-06-07 14:12:01
Local clock offset: -0.059 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.43 Mbit/s
95th percentile per-packet one-way delay: 51.136 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 192.43 Mbit/s
95th percentile per-packet one-way delay: 51.136 ms
Loss rate: 0.39%
```
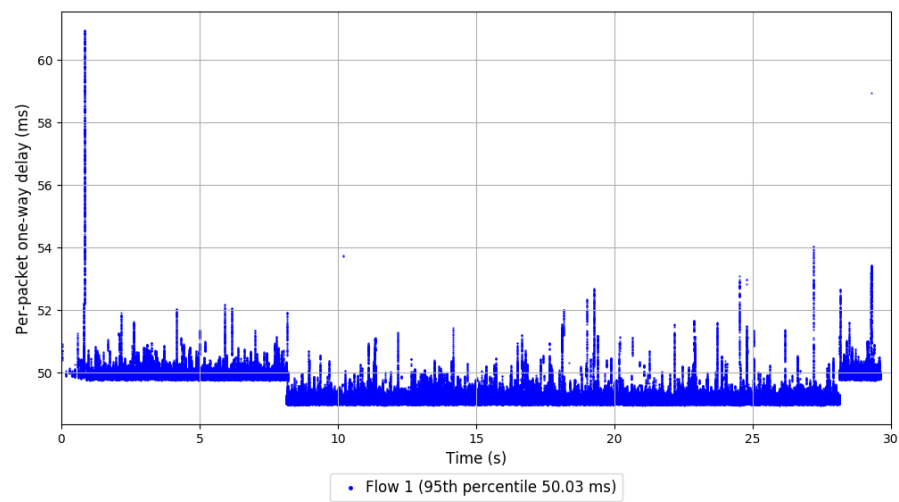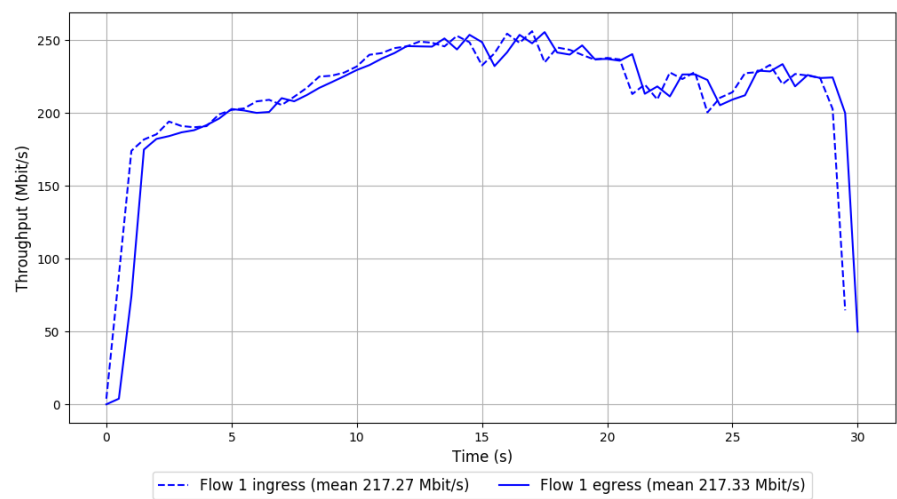
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-06-07 14:31:41
End at: 2018-06-07 14:32:11
Local clock offset: 0.286 ms
Remote clock offset: 0.027 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.33 Mbit/s
95th percentile per-packet one-way delay: 50.035 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 217.33 Mbit/s
95th percentile per-packet one-way delay: 50.035 ms
Loss rate: 0.32%
```

Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 217.27 Mbit/s) --- Flow 1 egress (mean 217.33 Mbit/s)

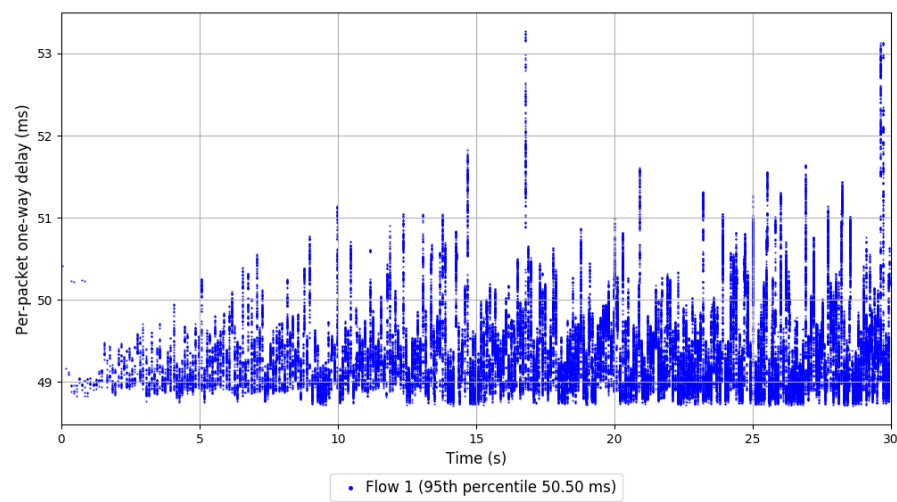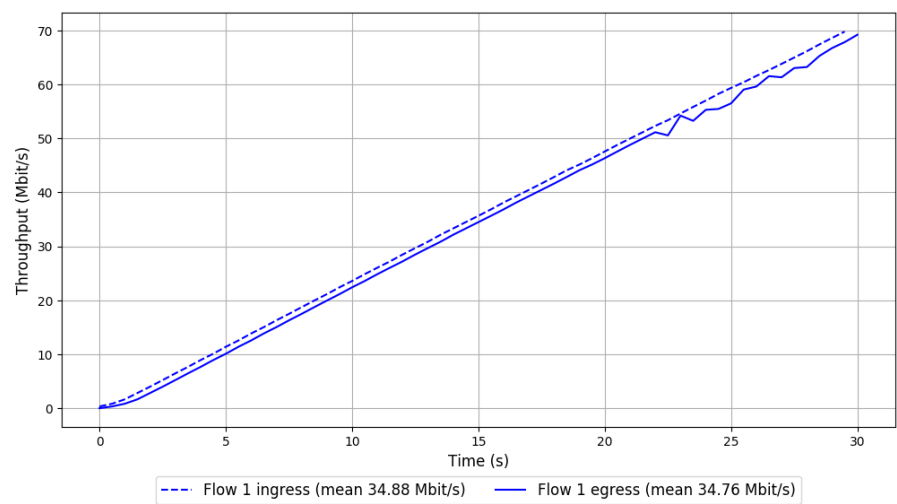• Flow 1 (95th percentile 50.03 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-06-07 11:31:35
End at: 2018-06-07 11:32:05
Local clock offset: -0.019 ms
Remote clock offset: 0.159 ms

# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.76 Mbit/s
95th percentile per-packet one-way delay: 50.501 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 34.76 Mbit/s
95th percentile per-packet one-way delay: 50.501 ms
Loss rate: 0.67%
```
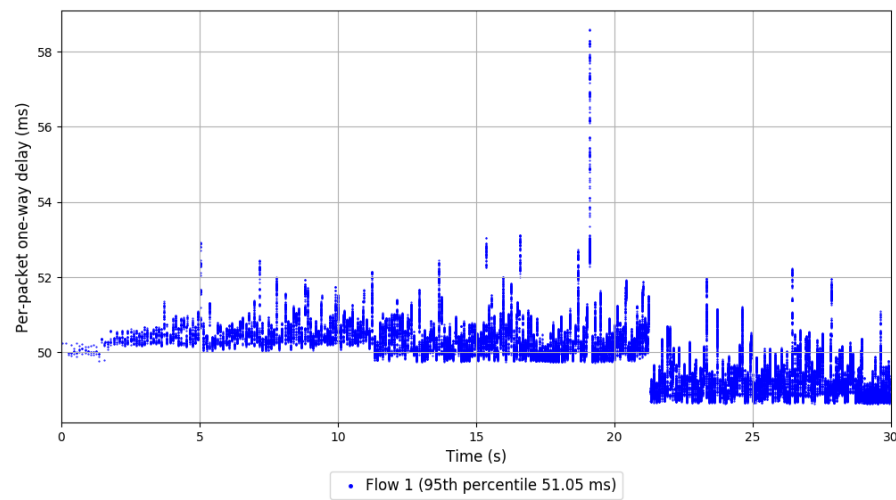
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-06-07 11:51:48
End at: 2018-06-07 11:52:18
Local clock offset: -0.036 ms
Remote clock offset: 0.049 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 33.09 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.69%
```
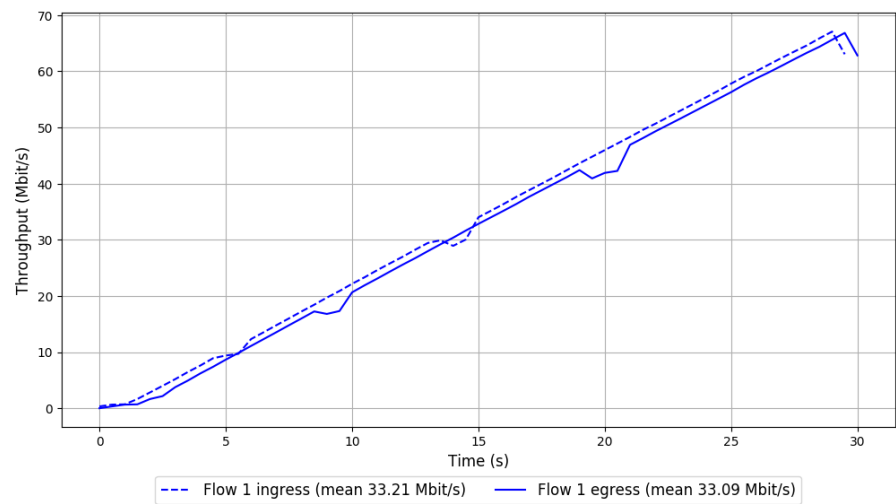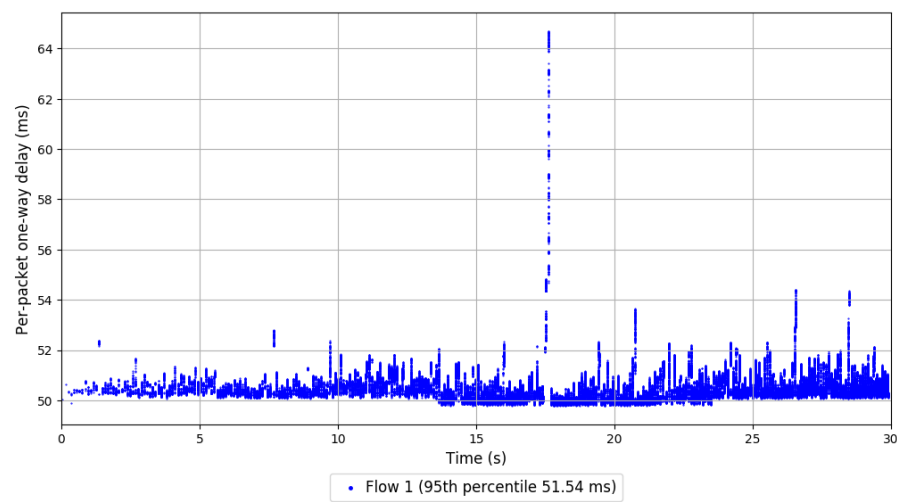
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-06-07 12:11:46
End at: 2018-06-07 12:12:16
Local clock offset: 0.021 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 51.538 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 34.95 Mbit/s
95th percentile per-packet one-way delay: 51.538 ms
Loss rate: 0.67%
```
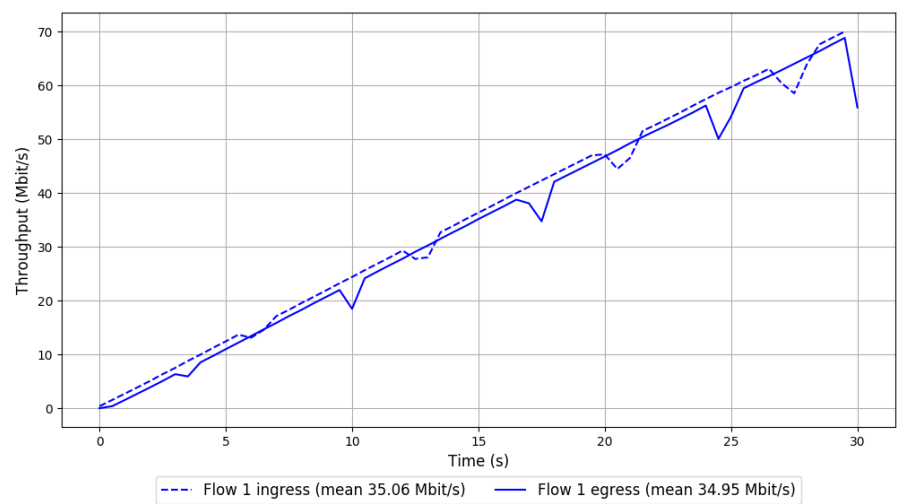
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.06 Mbit/s) — — — Flow 1 egress (mean 34.95 Mbit/s)

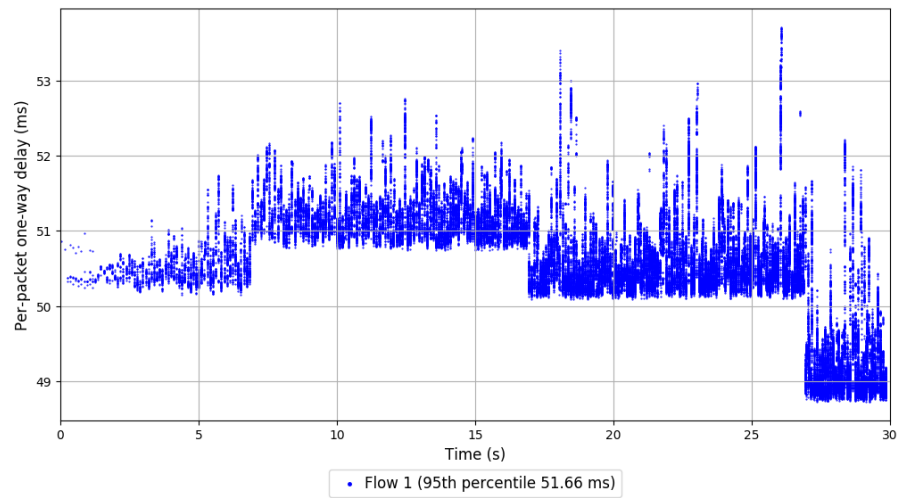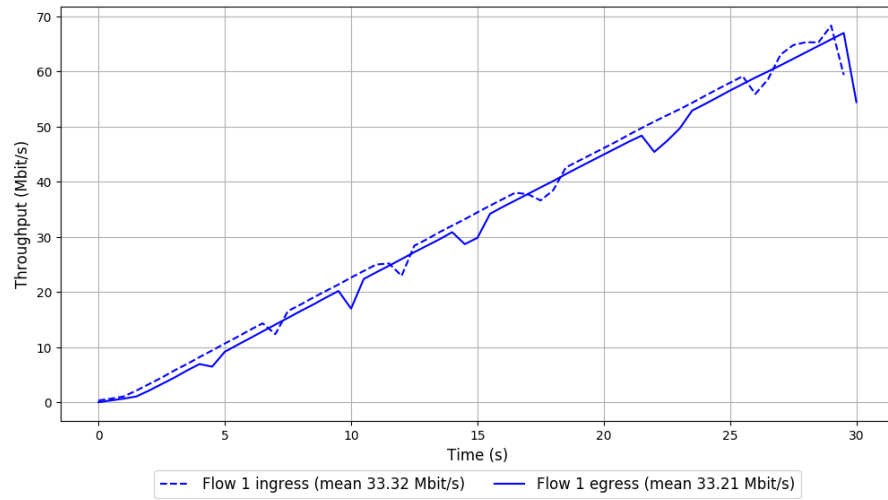Flow 1 (95th percentile 51.54 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-06-07 12:32:13
End at: 2018-06-07 12:32:43
Local clock offset: 0.006 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 51.660 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 33.21 Mbit/s
95th percentile per-packet one-way delay: 51.660 ms
Loss rate: 0.69%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 33.32 Mbit/s) --- Flow 1 egress (mean 33.21 Mbit/s)

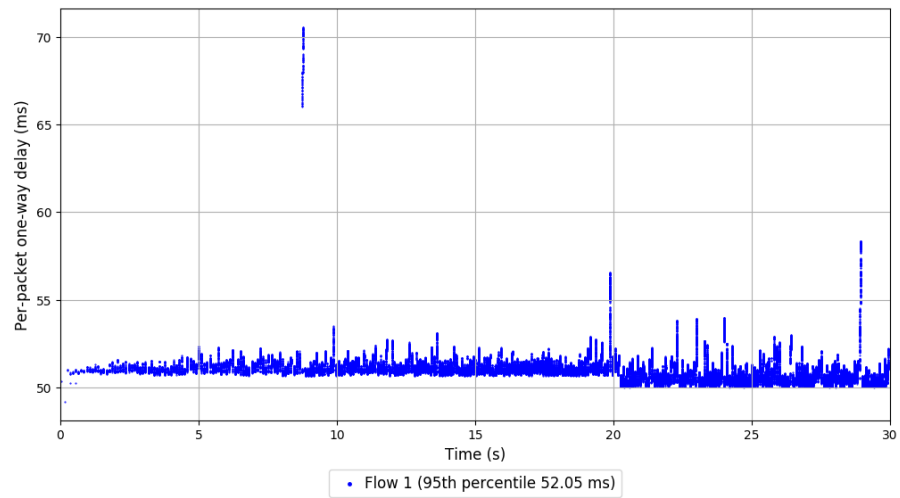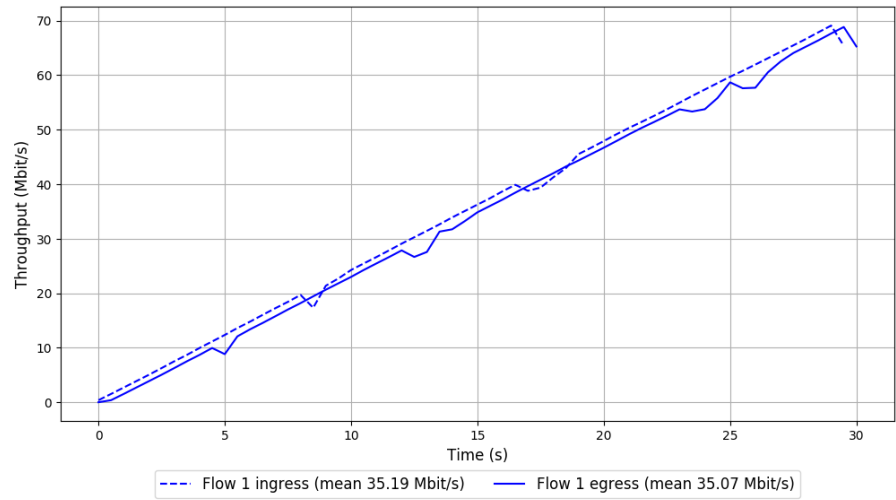Flow 1 (95th percentile 51.66 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-06-07 12:52:09
End at: 2018-06-07 12:52:39
Local clock offset: 0.004 ms
Remote clock offset: -0.047 ms

# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.07 Mbit/s
95th percentile per-packet one-way delay: 52.053 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 35.07 Mbit/s
95th percentile per-packet one-way delay: 52.053 ms
Loss rate: 0.66%
```

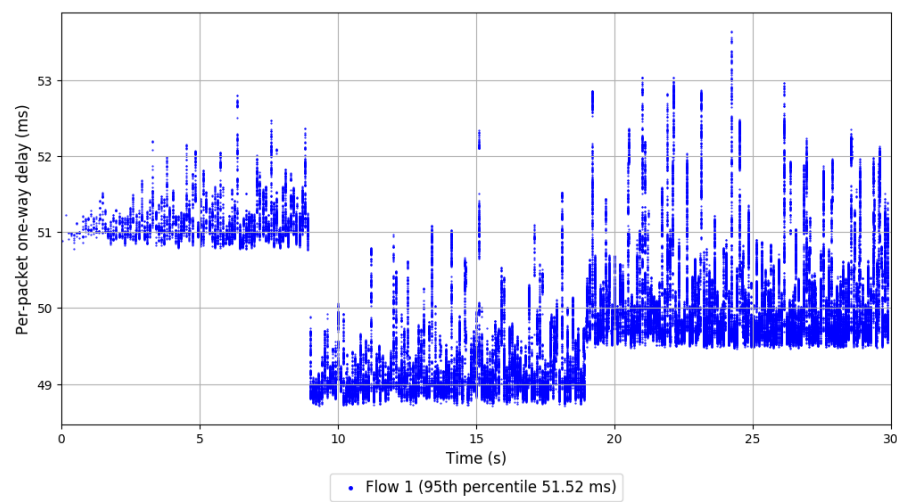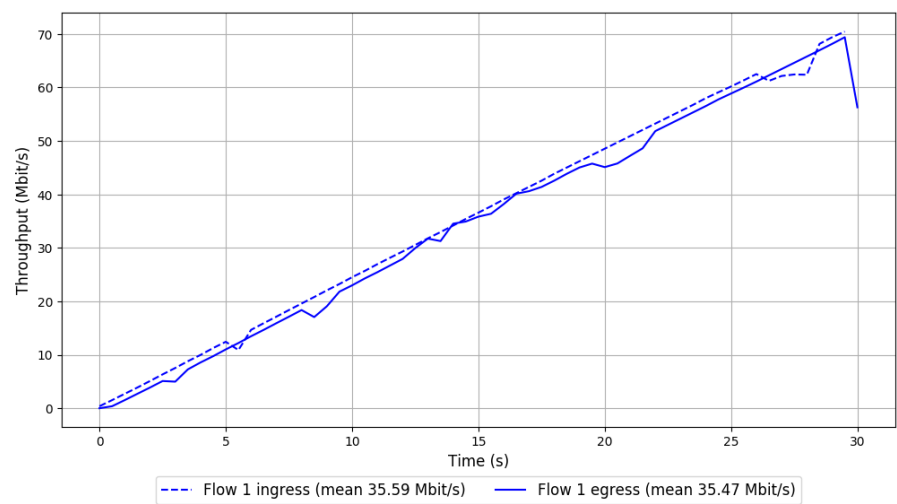Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2018-06-07 13:12:31
End at: 2018-06-07 13:13:01
Local clock offset: 0.047 ms
Remote clock offset: -0.081 ms

# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.47 Mbit/s
95th percentile per-packet one-way delay: 51.521 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 35.47 Mbit/s
95th percentile per-packet one-way delay: 51.521 ms
Loss rate: 0.66%
```

Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.59 Mbit/s) --- Flow 1 egress (mean 35.47 Mbit/s)

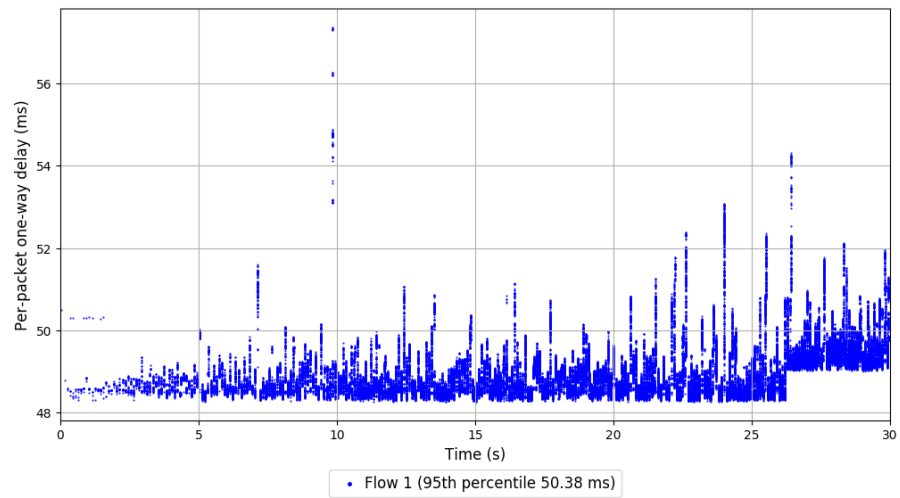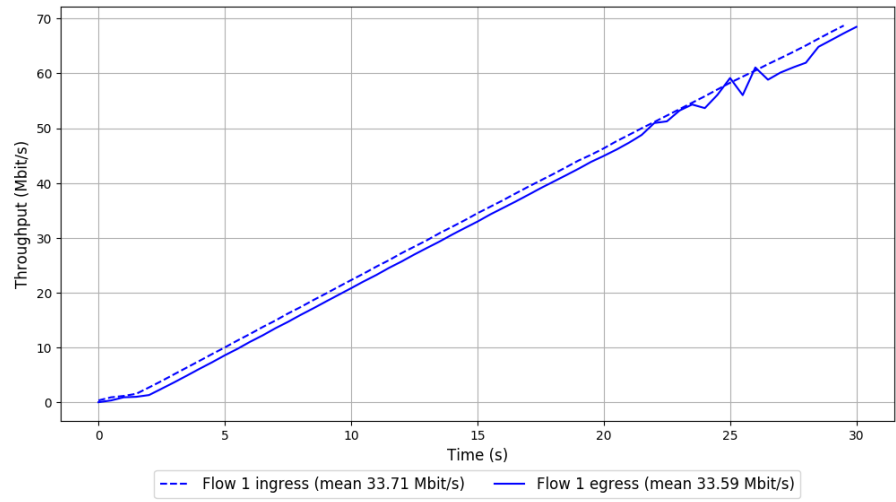Flow 1 (95th percentile 51.52 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-06-07 13:32:43
End at: 2018-06-07 13:33:13
Local clock offset: -0.426 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.59 Mbit/s
95th percentile per-packet one-way delay: 50.377 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 33.59 Mbit/s
95th percentile per-packet one-way delay: 50.377 ms
Loss rate: 0.68%
```

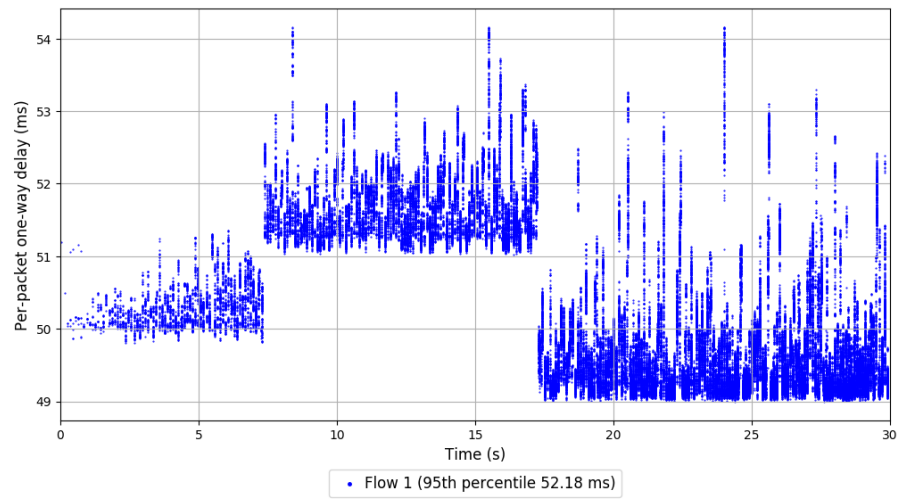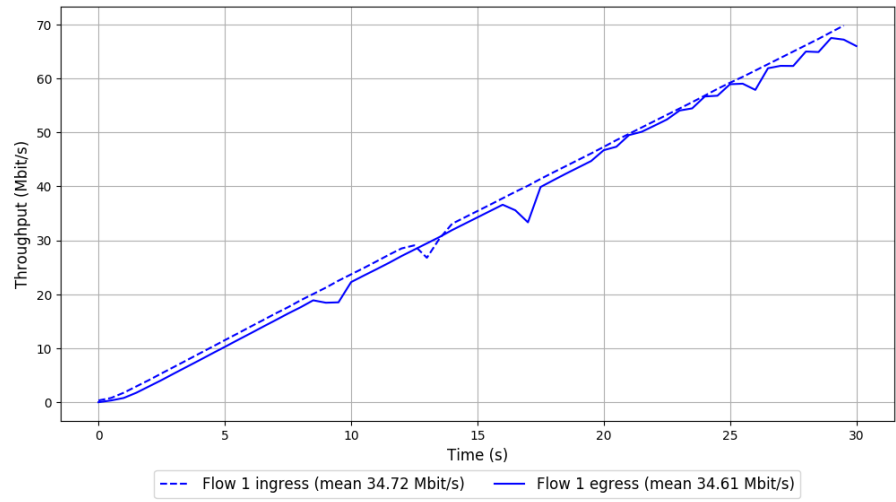Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-06-07 13:52:42
End at: 2018-06-07 13:53:12
Local clock offset: 0.28 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 52.177 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 34.61 Mbit/s
95th percentile per-packet one-way delay: 52.177 ms
Loss rate: 0.68%
```

Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.72 Mbit/s) ----- Flow 1 egress (mean 34.61 Mbit/s)

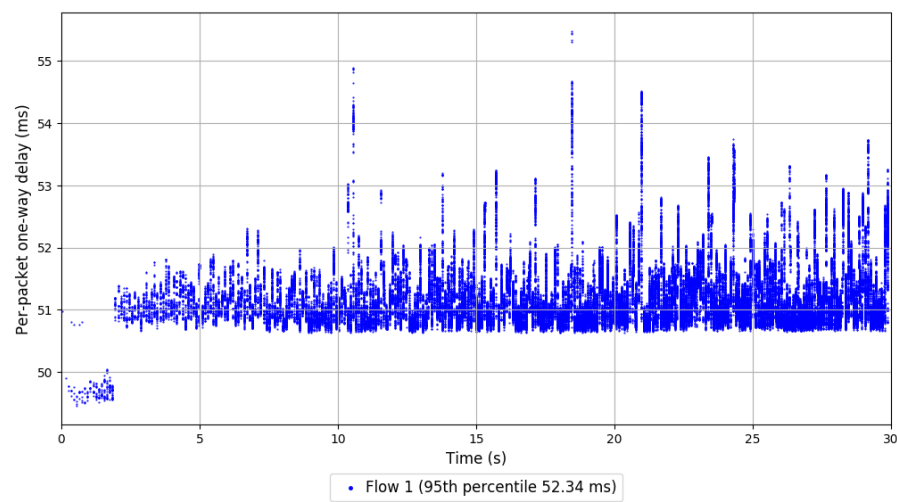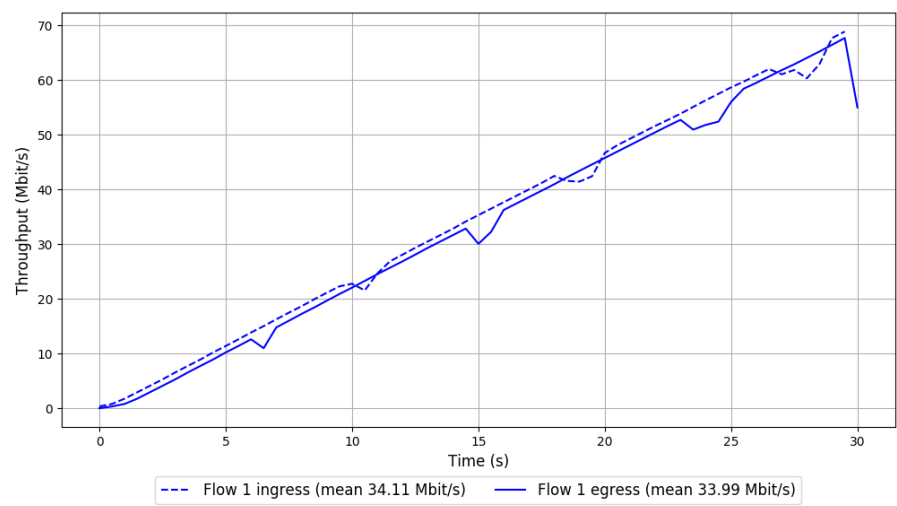Flow 1 (95th percentile 52.18 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-06-07 14:12:48
End at: 2018-06-07 14:13:18
Local clock offset: -0.162 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 52.341 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 33.99 Mbit/s
95th percentile per-packet one-way delay: 52.341 ms
Loss rate: 0.68%
```

Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.11 Mbit/s) --- Flow 1 egress (mean 33.99 Mbit/s)

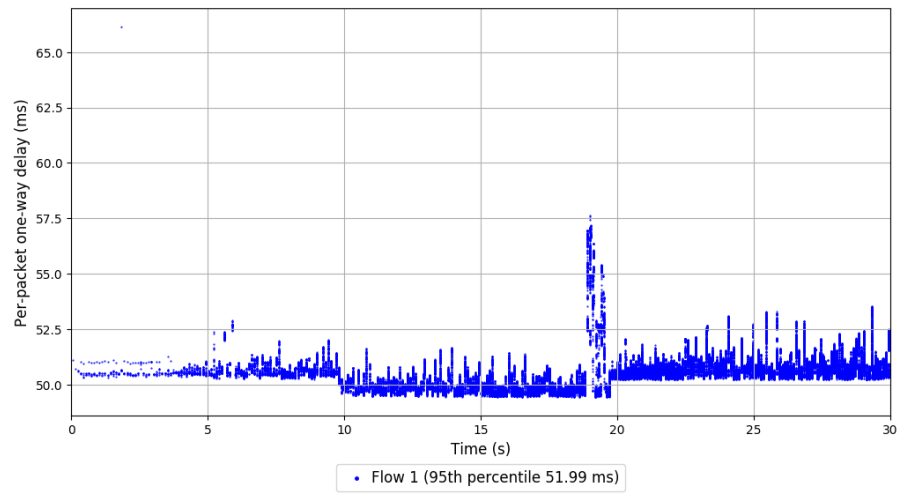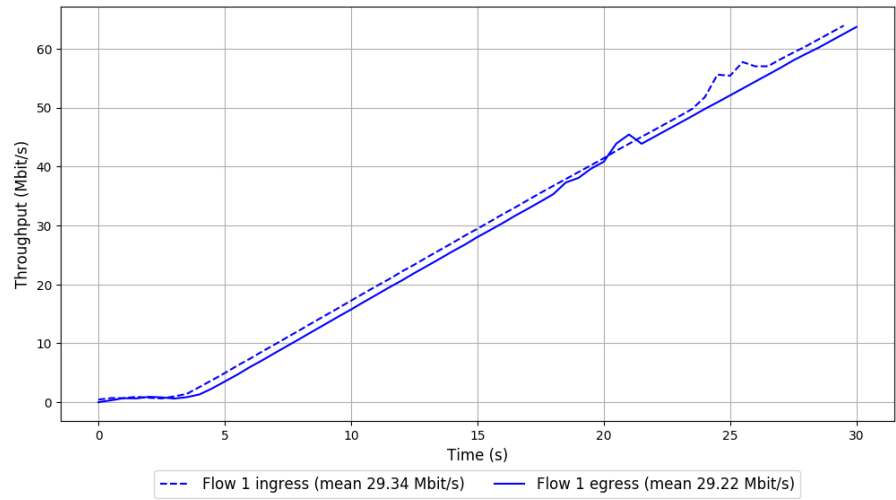Flow 1 (95th percentile 52.34 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-06-07 14:33:00
End at: 2018-06-07 14:33:30
Local clock offset: 0.735 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2018-06-07 15:31:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.22 Mbit/s
95th percentile per-packet one-way delay: 51.989 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 29.22 Mbit/s
95th percentile per-packet one-way delay: 51.989 ms
Loss rate: 0.73%
```

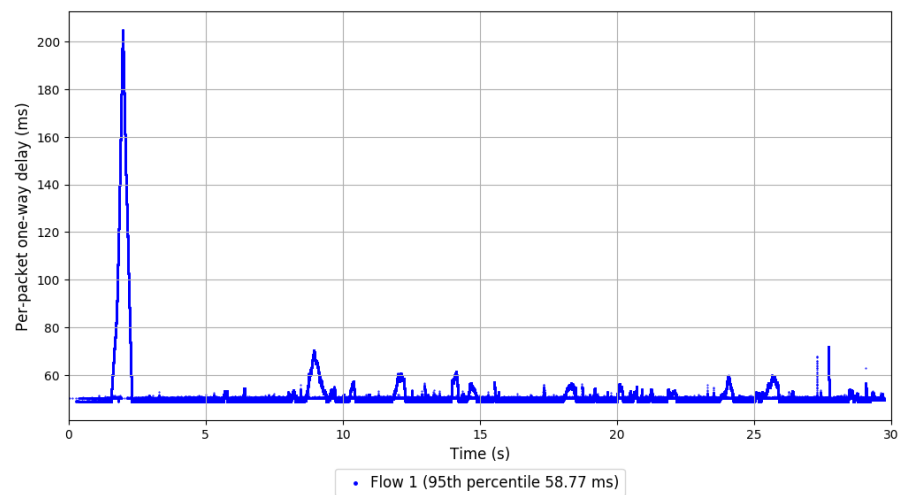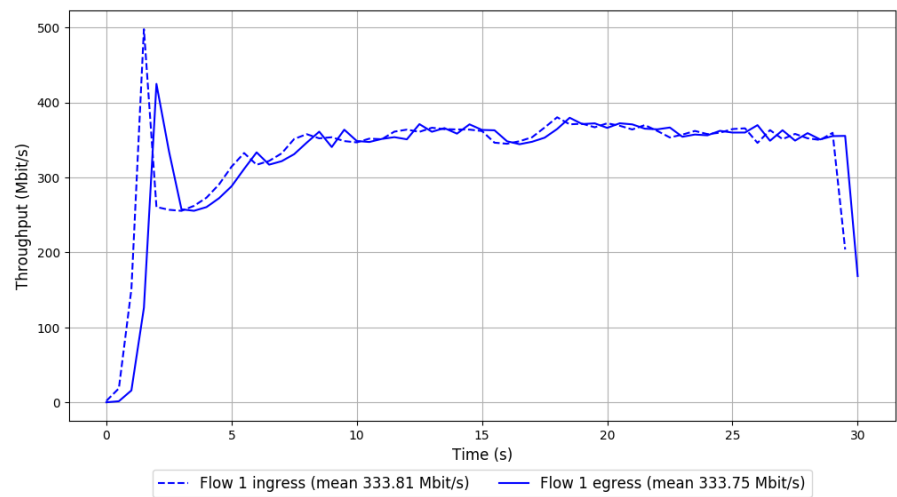Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-07 11:38:50
End at: 2018-06-07 11:39:20
Local clock offset: -0.047 ms
Remote clock offset: 0.191 ms


# Below is generated by plot.py at 2018-06-07 15:34:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 333.75 Mbit/s
95th percentile per-packet one-way delay: 58.770 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 333.75 Mbit/s
95th percentile per-packet one-way delay: 58.770 ms
Loss rate: 0.36%
```
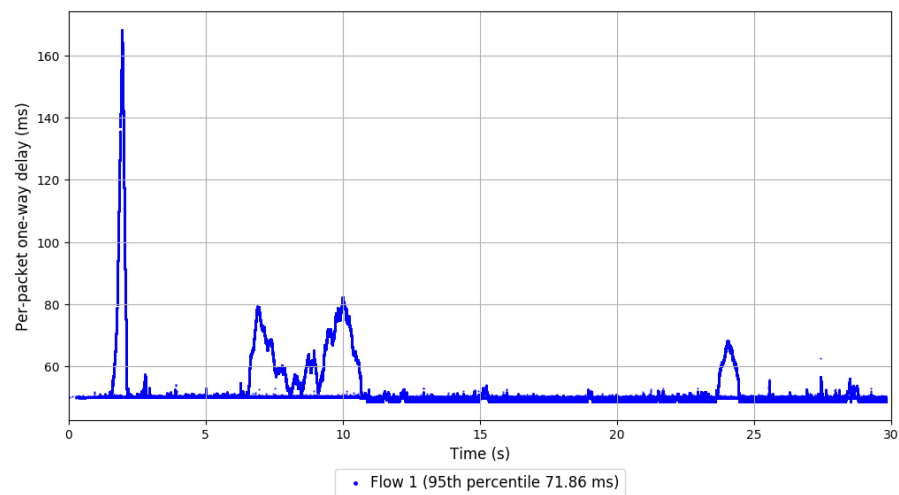
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 333.81 Mbit/s) ---   Flow 1 egress (mean 333.75 Mbit/s) ——

Flow 1 (95th percentile 58.77 ms)

125

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-07 11:59:09
End at: 2018-06-07 11:59:39
Local clock offset: -0.008 ms
Remote clock offset: 0.004 ms


# Below is generated by plot.py at 2018-06-07 15:35:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 351.01 Mbit/s
95th percentile per-packet one-way delay: 71.861 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 351.01 Mbit/s
95th percentile per-packet one-way delay: 71.861 ms
Loss rate: 0.37%
```
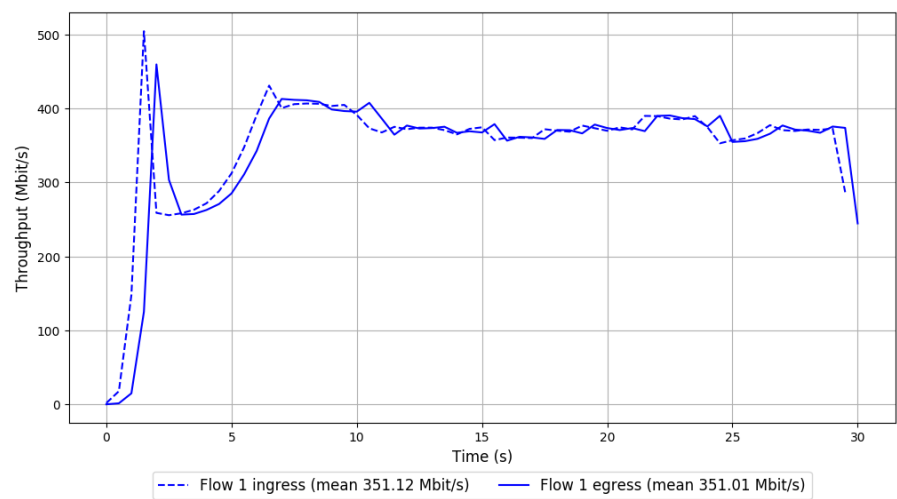
Run 2: Report of PCC-Allegro — Data Link

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-07 12:19:12
End at: 2018-06-07 12:19:42
Local clock offset: 0.001 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2018-06-07 15:35:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 361.70 Mbit/s
95th percentile per-packet one-way delay: 63.369 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 361.70 Mbit/s
95th percentile per-packet one-way delay: 63.369 ms
Loss rate: 0.41%
```
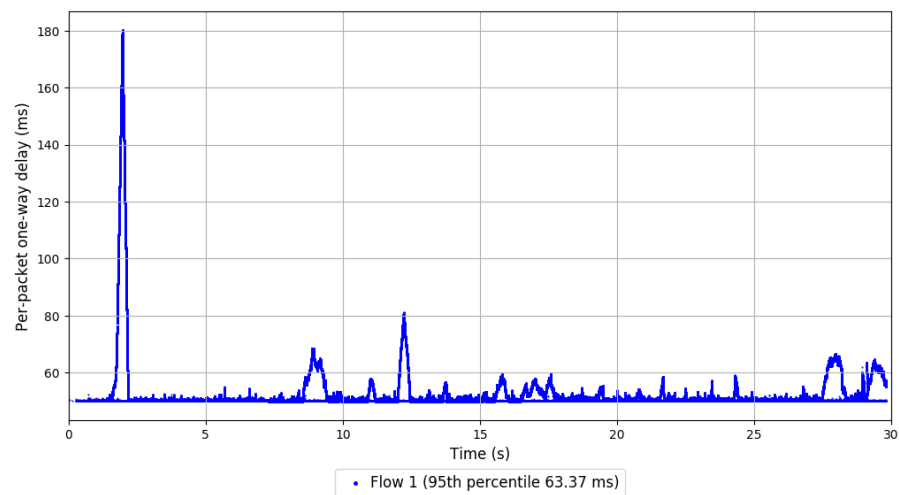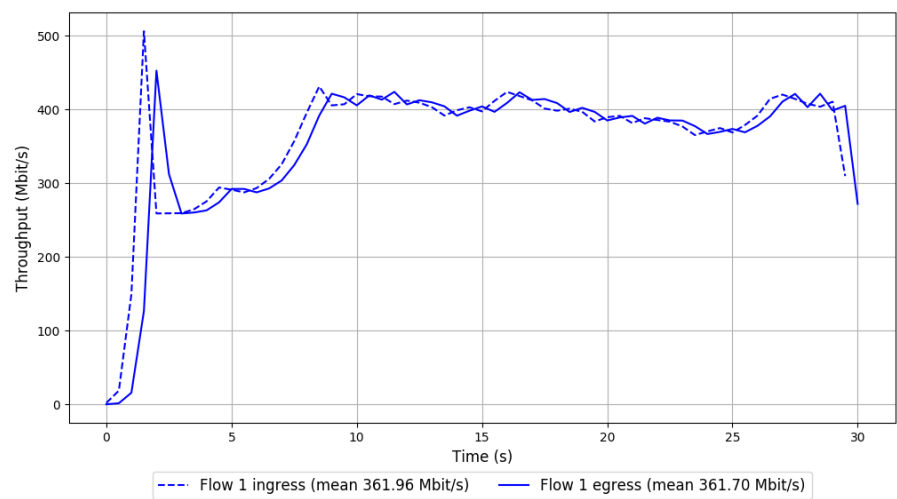
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 361.96 Mbit/s) --- Flow 1 egress (mean 361.70 Mbit/s)

• Flow 1 (95th percentile 63.37 ms)

129

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-07 12:39:22
End at: 2018-06-07 12:39:52
Local clock offset: 0.004 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-06-07 15:35:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 332.34 Mbit/s
95th percentile per-packet one-way delay: 75.453 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 332.34 Mbit/s
95th percentile per-packet one-way delay: 75.453 ms
Loss rate: 0.46%
```
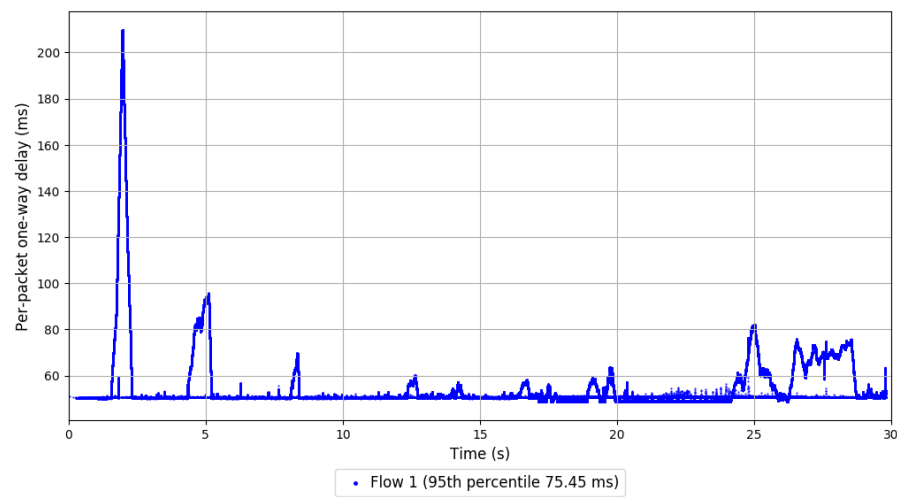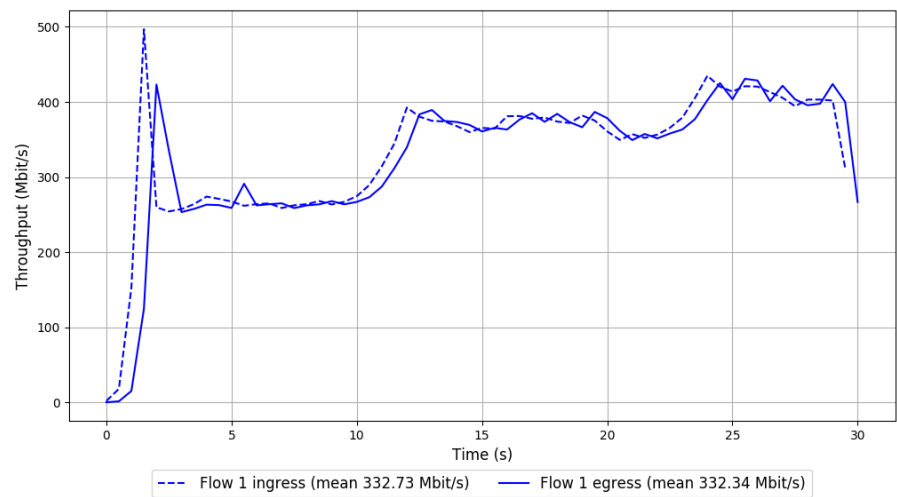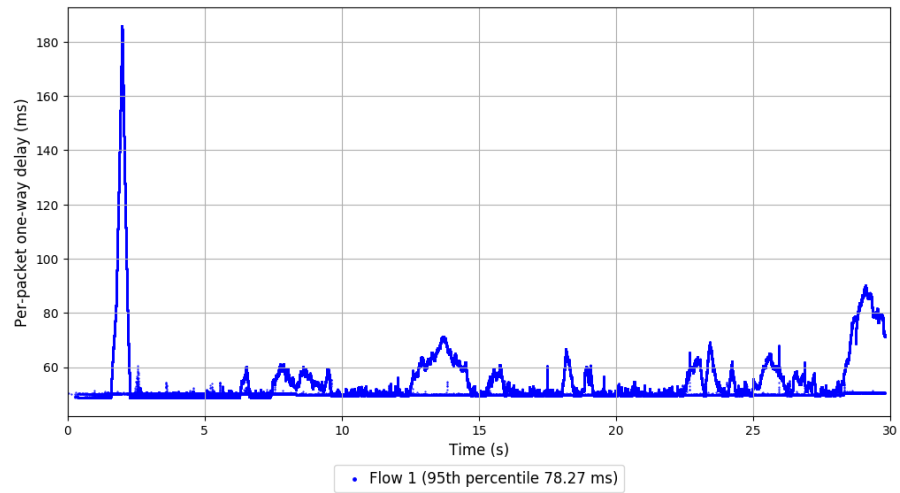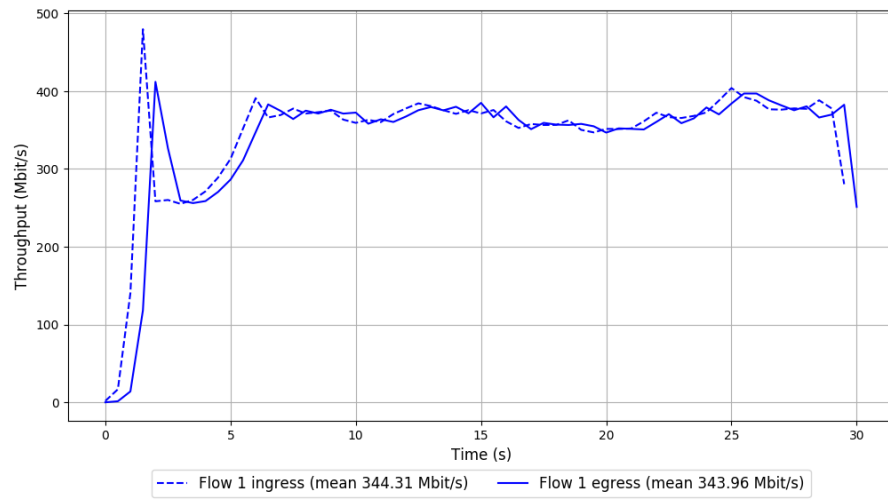
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-07 12:59:31
End at: 2018-06-07 13:00:01
Local clock offset: 0.029 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-06-07 15:35:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 343.96 Mbit/s
95th percentile per-packet one-way delay: 78.272 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 343.96 Mbit/s
95th percentile per-packet one-way delay: 78.272 ms
Loss rate: 0.44%
```

Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 344.31 Mbit/s)   Flow 1 egress (mean 343.96 Mbit/s)

Flow 1 (95th percentile 78.27 ms)

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-07 13:19:52
End at: 2018-06-07 13:20:22
Local clock offset: 0.012 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2018-06-07 15:35:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 329.35 Mbit/s
95th percentile per-packet one-way delay: 76.452 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 329.35 Mbit/s
95th percentile per-packet one-way delay: 76.452 ms
Loss rate: 0.48%
```
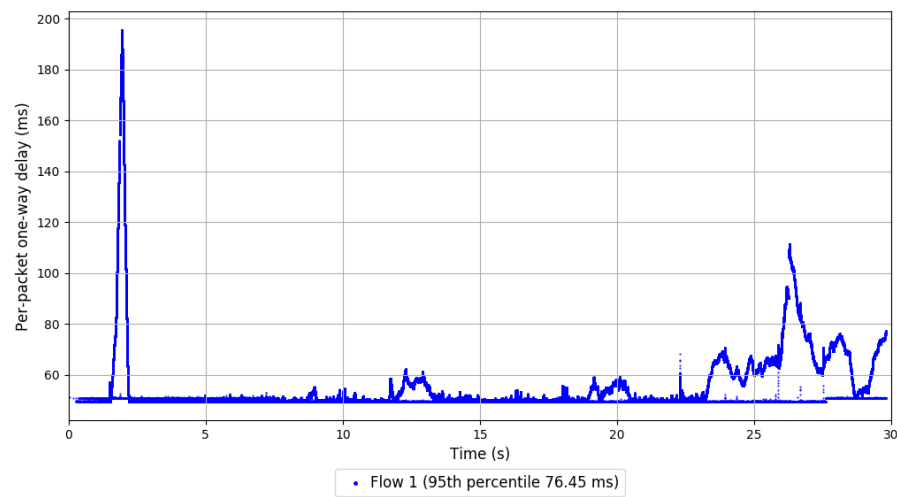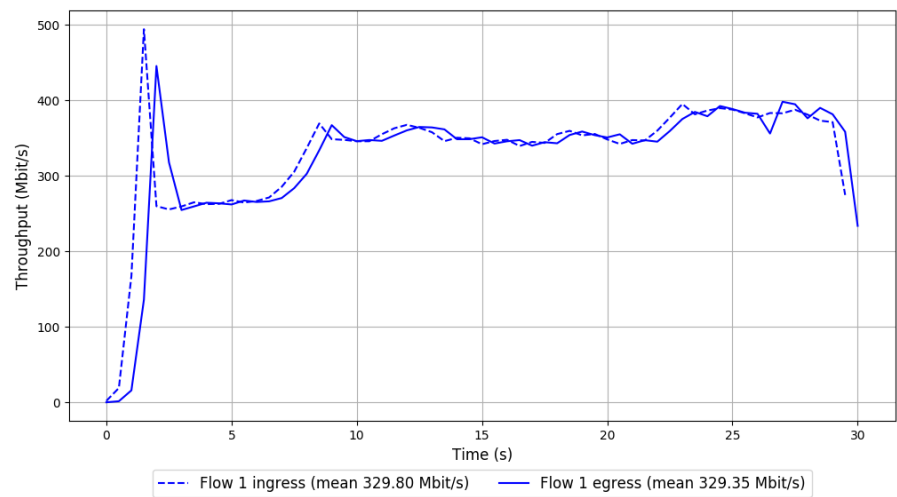
Run 6: Report of PCC-Allegro — Data Link

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-07 13:39:50
End at: 2018-06-07 13:40:20
Local clock offset: -0.07 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2018-06-07 15:36:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 335.02 Mbit/s
95th percentile per-packet one-way delay: 71.933 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 335.02 Mbit/s
95th percentile per-packet one-way delay: 71.933 ms
Loss rate: 0.39%
```
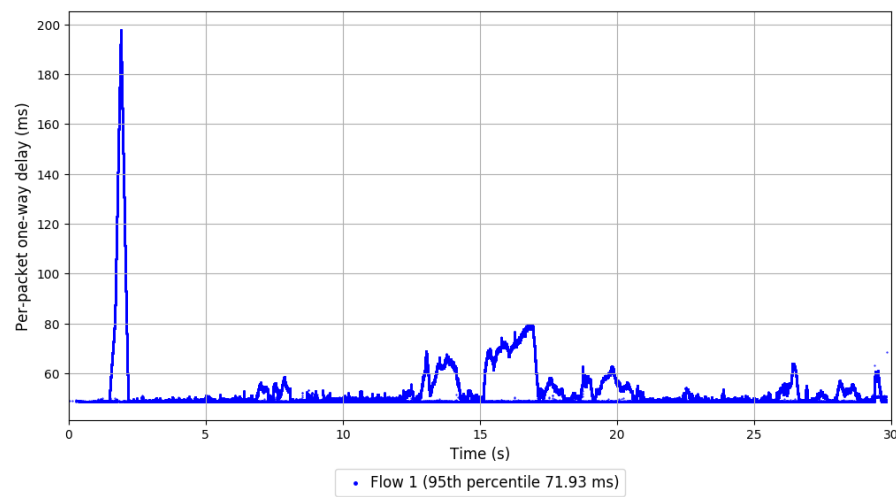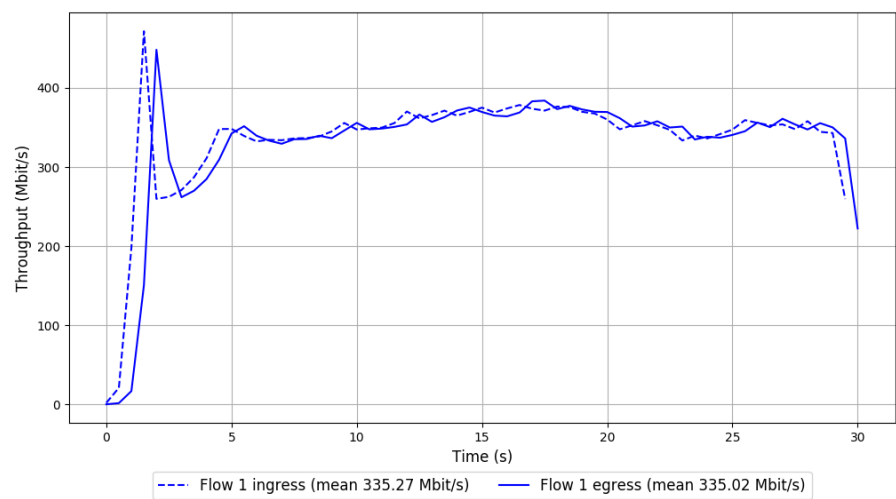
Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 335.27 Mbit/s)   Flow 1 egress (mean 335.02 Mbit/s)

Flow 1 (95th percentile 71.93 ms)

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-07 13:59:56
End at: 2018-06-07 14:00:26
Local clock offset: -0.091 ms
Remote clock offset: -0.076 ms


# Below is generated by plot.py at 2018-06-07 15:37:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 342.84 Mbit/s
95th percentile per-packet one-way delay: 82.610 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 342.84 Mbit/s
95th percentile per-packet one-way delay: 82.610 ms
Loss rate: 0.40%
```
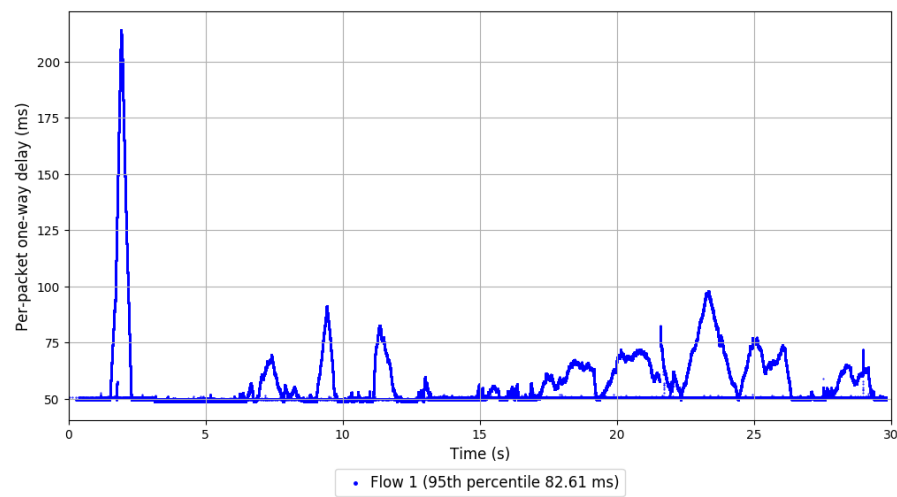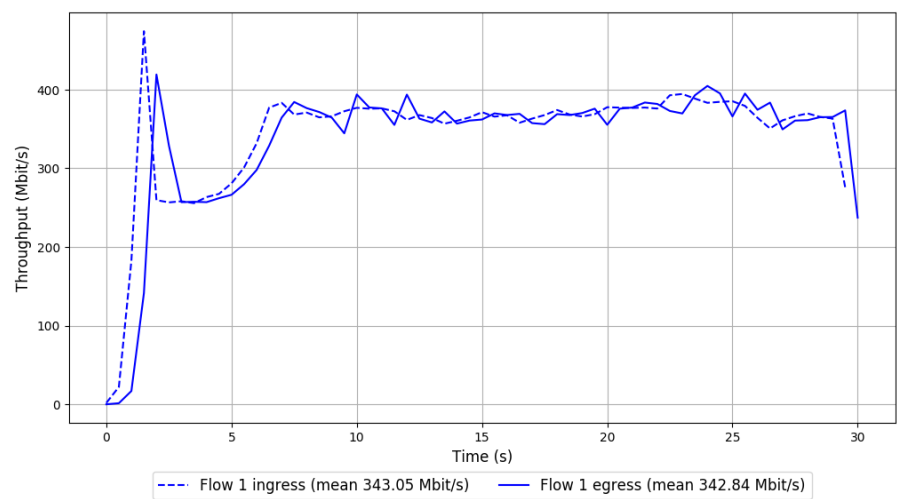
Run 8: Report of PCC-Allegro — Data Link

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-07 14:20:04
End at: 2018-06-07 14:20:34
Local clock offset: -0.123 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2018-06-07 15:39:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 320.12 Mbit/s
95th percentile per-packet one-way delay: 64.600 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 320.12 Mbit/s
95th percentile per-packet one-way delay: 64.600 ms
Loss rate: 0.38%
```
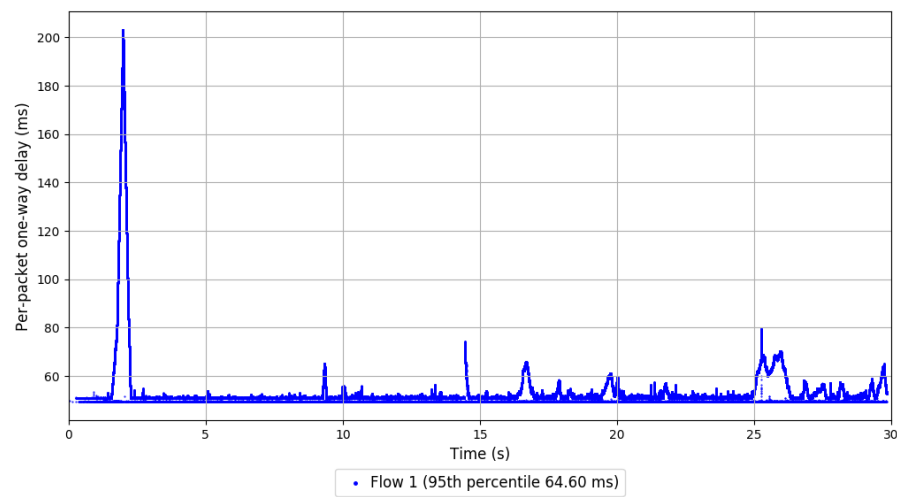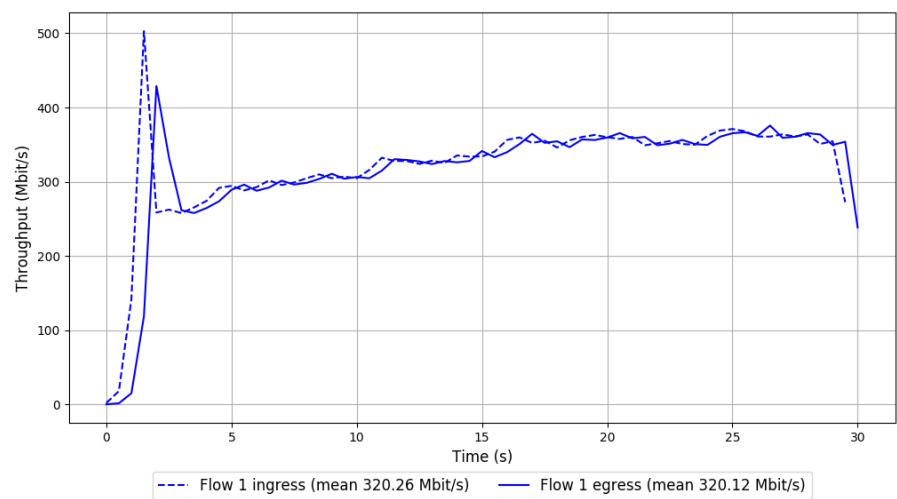
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 320.26 Mbit/s) ——— Flow 1 egress (mean 320.12 Mbit/s)

• Flow 1 (95th percentile 64.60 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-07 14:40:07
End at: 2018-06-07 14:40:37
Local clock offset: 0.623 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2018-06-07 15:40:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.91 Mbit/s
95th percentile per-packet one-way delay: 86.781 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 356.91 Mbit/s
95th percentile per-packet one-way delay: 86.781 ms
Loss rate: 0.36%
```
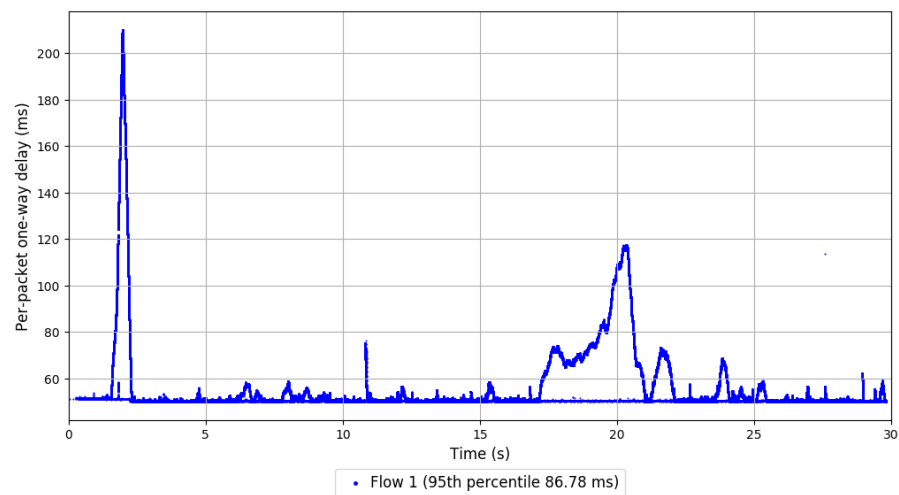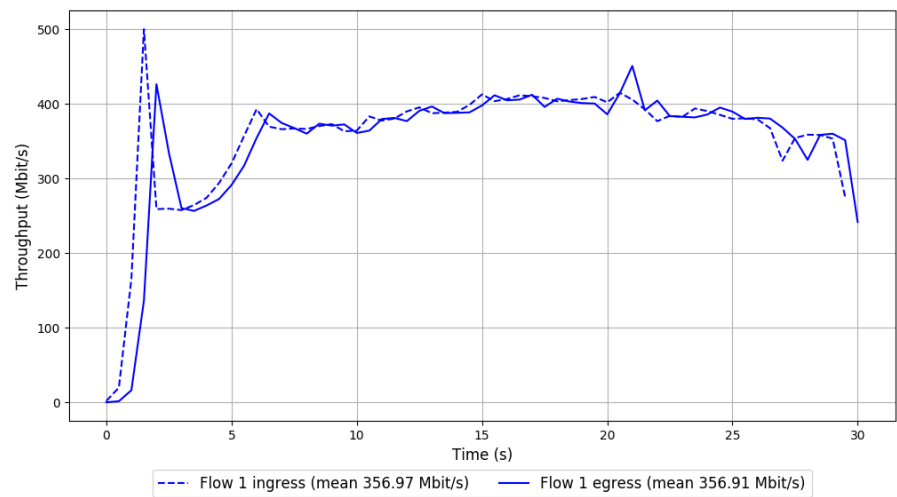
Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 356.97 Mbit/s) — Flow 1 egress (mean 356.91 Mbit/s)
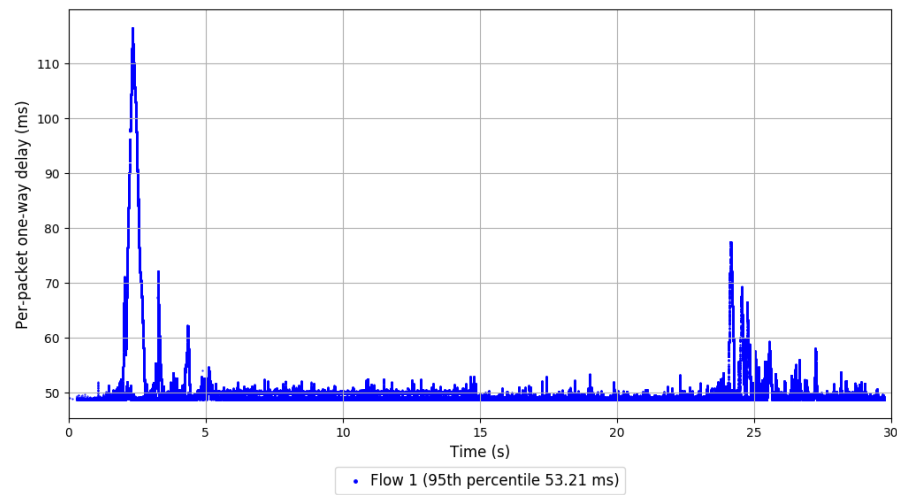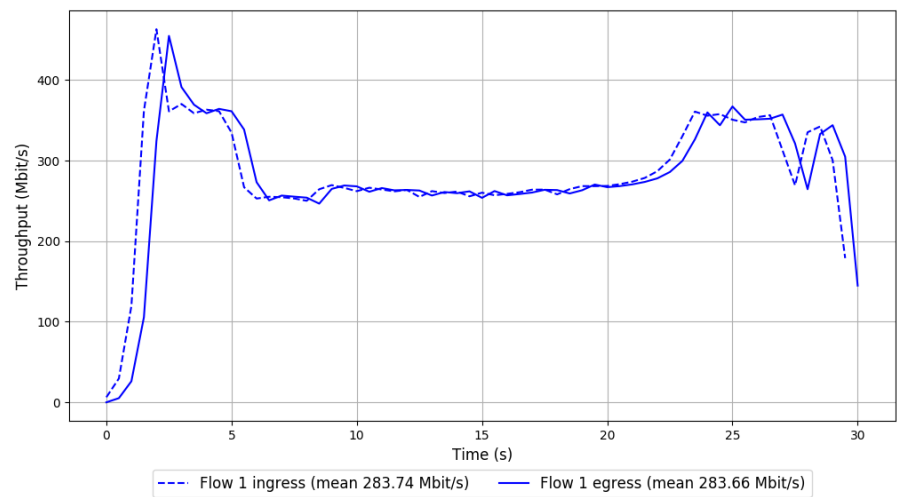

Flow 1 (95th percentile 86.78 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-07 11:41:15
End at: 2018-06-07 11:41:45
Local clock offset: -0.013 ms
Remote clock offset: 0.216 ms


# Below is generated by plot.py at 2018-06-07 15:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.66 Mbit/s
95th percentile per-packet one-way delay: 53.210 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 283.66 Mbit/s
95th percentile per-packet one-way delay: 53.210 ms
Loss rate: 0.36%
```

Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 283.74 Mbit/s)   Flow 1 egress (mean 283.66 Mbit/s)
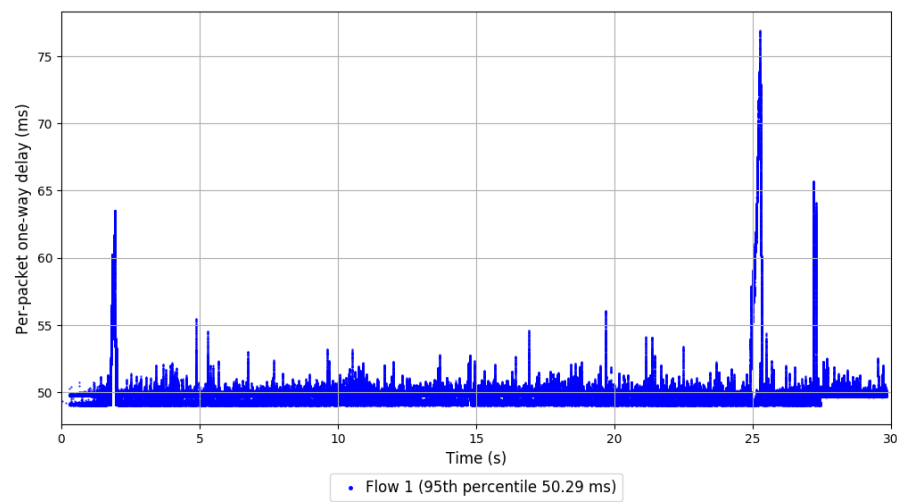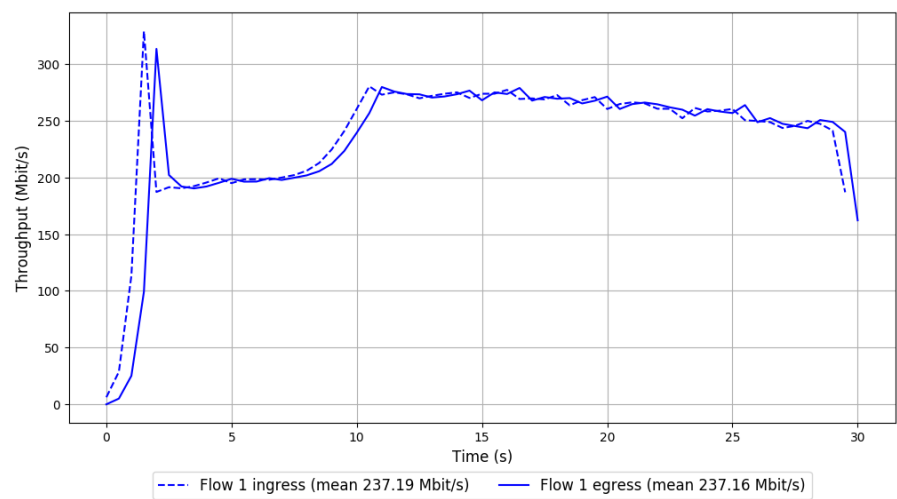

Flow 1 (95th percentile 53.21 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-07 12:01:32
End at: 2018-06-07 12:02:02
Local clock offset: -0.368 ms
Remote clock offset: -0.014 ms

# Below is generated by plot.py at 2018-06-07 15:43:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.16 Mbit/s
95th percentile per-packet one-way delay: 50.290 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 237.16 Mbit/s
95th percentile per-packet one-way delay: 50.290 ms
Loss rate: 0.35%
```

Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 237.19 Mbit/s)   Flow 1 egress (mean 237.16 Mbit/s)
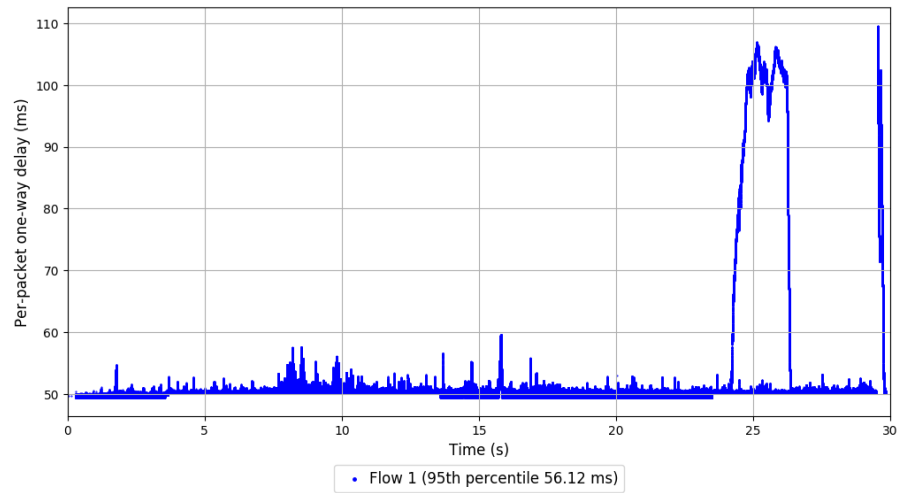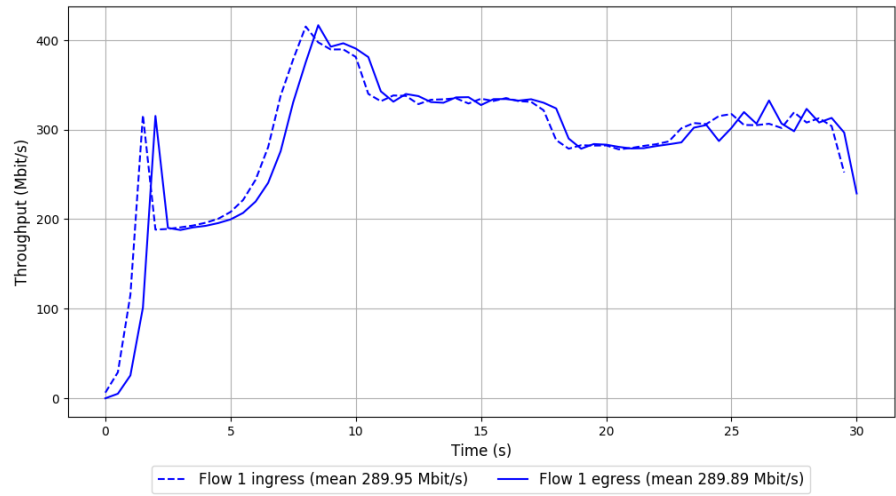

Flow 1 (95th percentile 50.29 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-06-07 12:21:36
End at: 2018-06-07 12:22:06
Local clock offset: 0.033 ms
Remote clock offset: -0.056 ms


# Below is generated by plot.py at 2018-06-07 15:44:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 289.89 Mbit/s
95th percentile per-packet one-way delay: 56.117 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 289.89 Mbit/s
95th percentile per-packet one-way delay: 56.117 ms
Loss rate: 0.36%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 289.95 Mbit/s) --- Flow 1 egress (mean 289.89 Mbit/s)
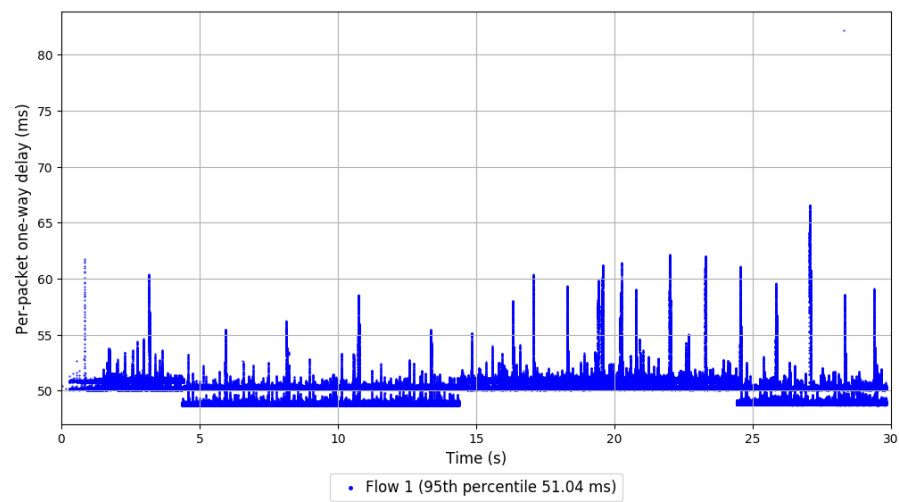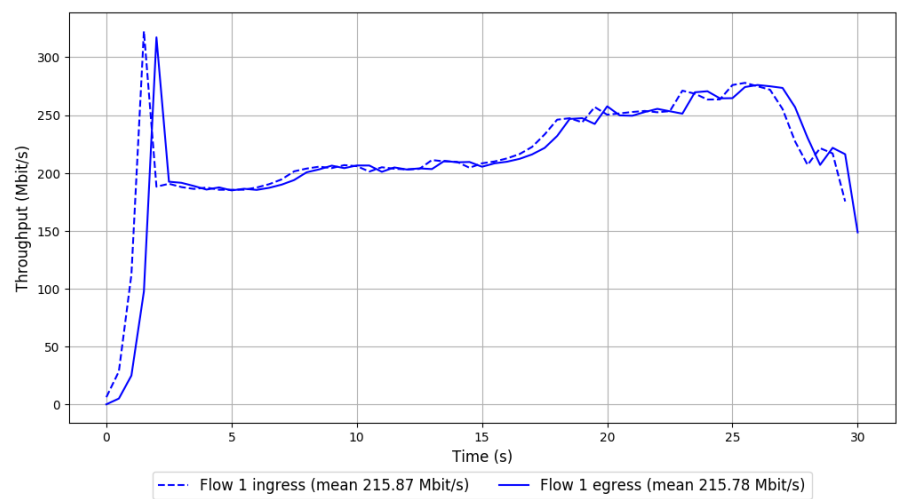

Flow 1 (95th percentile 56.12 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-06-07 12:41:45
End at: 2018-06-07 12:42:15
Local clock offset: 0.009 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-06-07 15:44:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.78 Mbit/s
95th percentile per-packet one-way delay: 51.038 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 215.78 Mbit/s
95th percentile per-packet one-way delay: 51.038 ms
Loss rate: 0.37%
```

Run 4: Report of PCC-Expr — Data Link

```
Run 5: Statistics of PCC-Expr

Start at: 2018-06-07 13:01:54
End at: 2018-06-07 13:02:24
Local clock offset: -0.007 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-06-07 15:45:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 275.31 Mbit/s
95th percentile per-packet one-way delay: 51.475 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 275.31 Mbit/s
95th percentile per-packet one-way delay: 51.475 ms
Loss rate: 0.37%
```
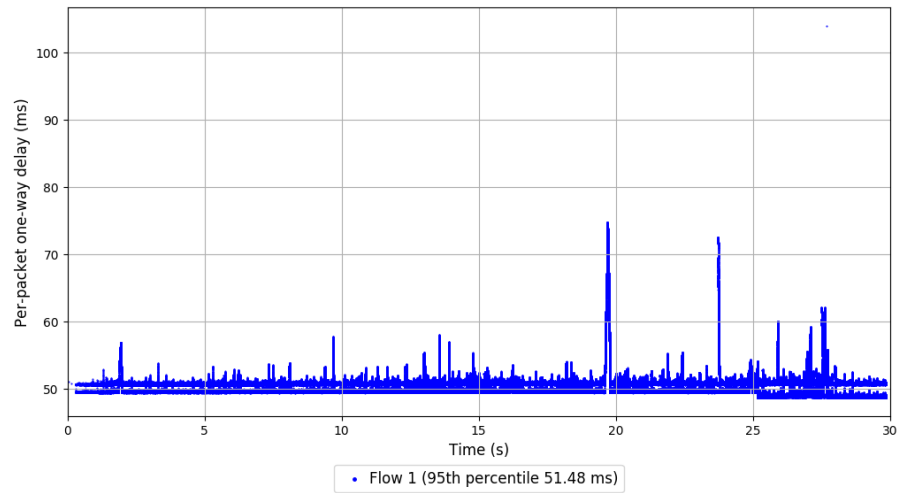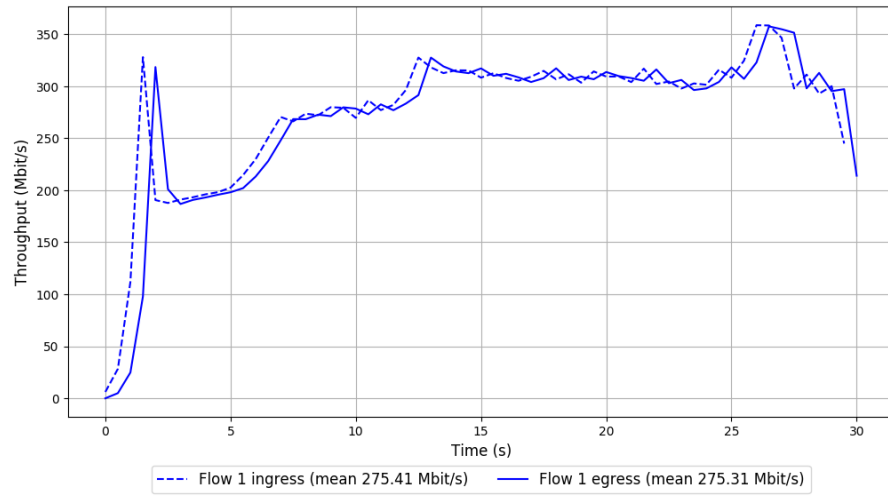
Run 5: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 275.41 Mbit/s)   Flow 1 egress (mean 275.31 Mbit/s)
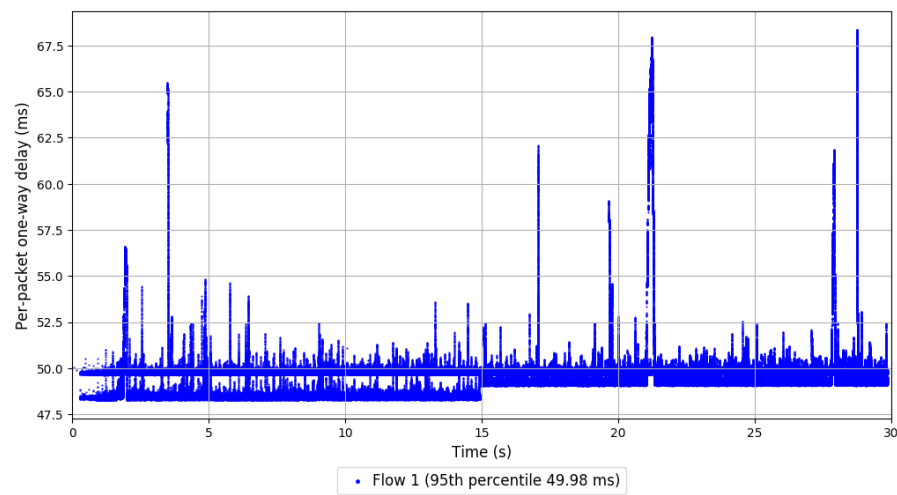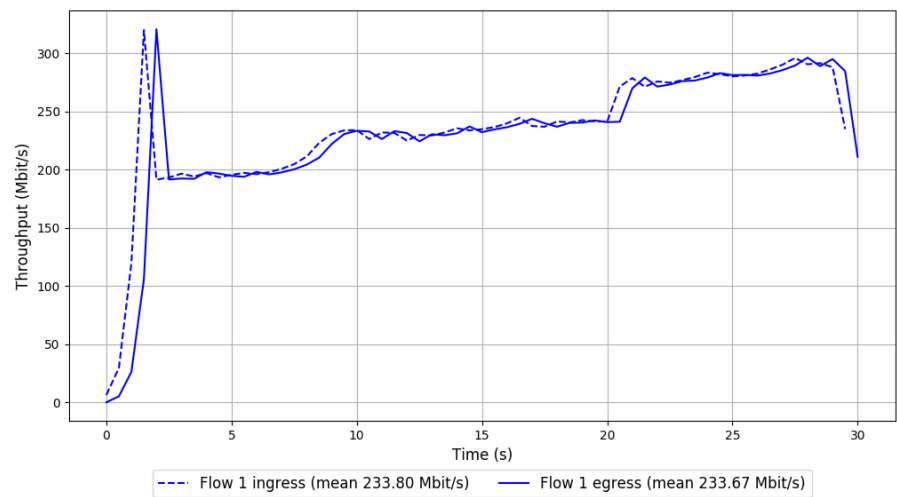

Flow 1 (95th percentile 51.48 ms)

```
Run 6: Statistics of PCC-Expr

Start at: 2018-06-07 13:22:15
End at: 2018-06-07 13:22:45
Local clock offset: -0.372 ms
Remote clock offset: -0.079 ms


# Below is generated by plot.py at 2018-06-07 15:45:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.67 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 233.67 Mbit/s
95th percentile per-packet one-way delay: 49.985 ms
Loss rate: 0.39%
```
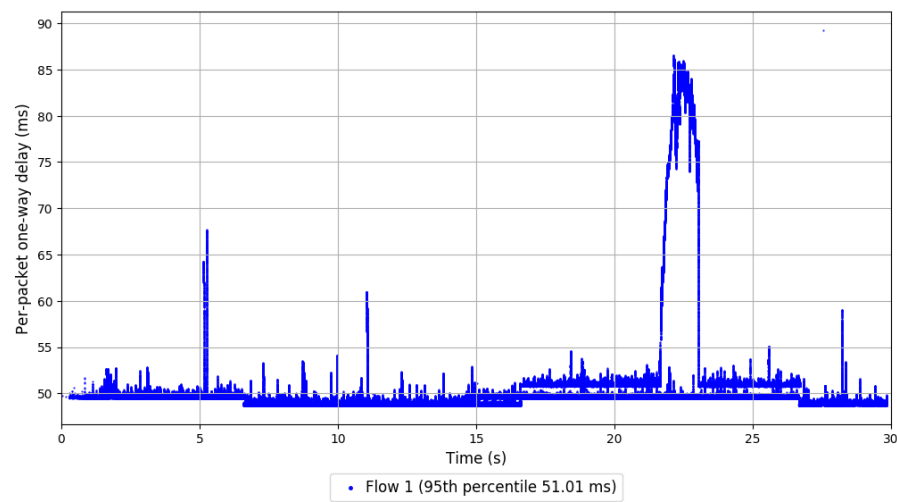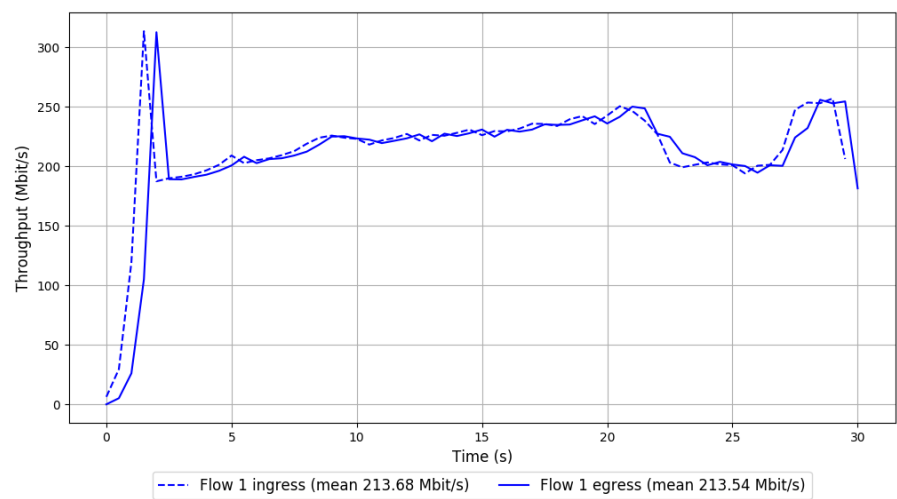
Run 6: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 233.80 Mbit/s)   Flow 1 egress (mean 233.67 Mbit/s)

Flow 1 (95th percentile 49.98 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-06-07 13:42:13
End at: 2018-06-07 13:42:43
Local clock offset: -0.059 ms
Remote clock offset: -0.14 ms


# Below is generated by plot.py at 2018-06-07 15:46:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 213.54 Mbit/s
95th percentile per-packet one-way delay: 51.009 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 213.54 Mbit/s
95th percentile per-packet one-way delay: 51.009 ms
Loss rate: 0.40%
```

Run 7: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 213.68 Mbit/s)   Flow 1 egress (mean 213.54 Mbit/s)
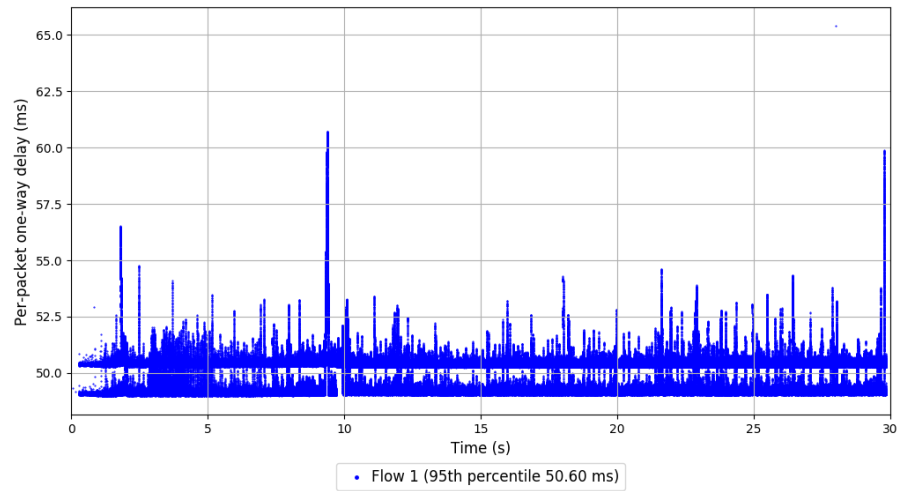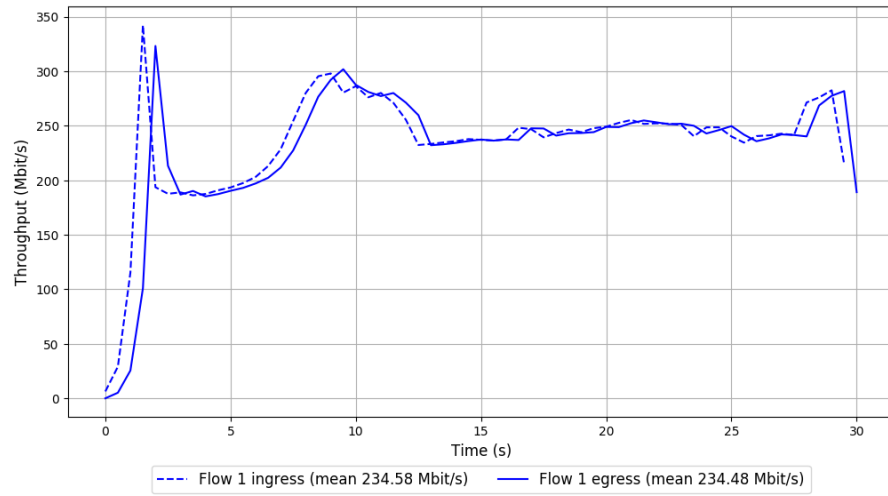

Flow 1 (95th percentile 51.01 ms)

```
Run 8: Statistics of PCC-Expr

Start at: 2018-06-07 14:02:20
End at: 2018-06-07 14:02:50
Local clock offset: -0.478 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-06-07 15:48:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 234.48 Mbit/s
95th percentile per-packet one-way delay: 50.603 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 234.48 Mbit/s
95th percentile per-packet one-way delay: 50.603 ms
Loss rate: 0.38%
```
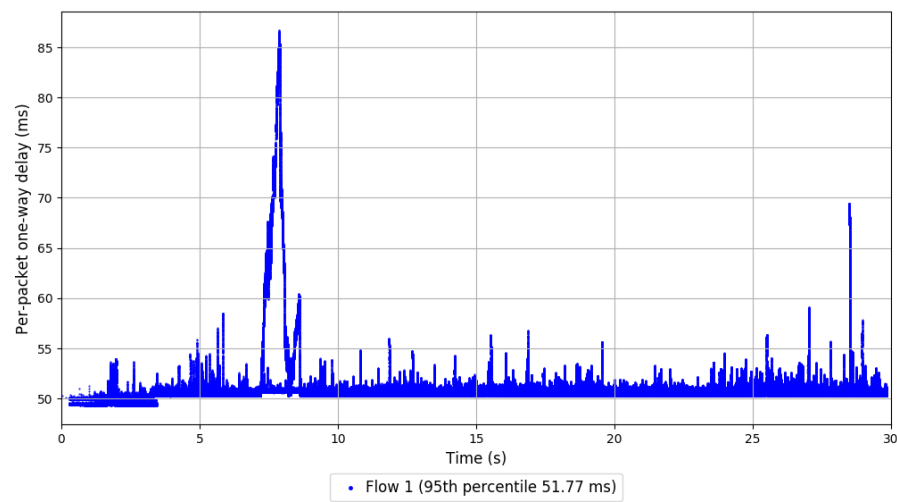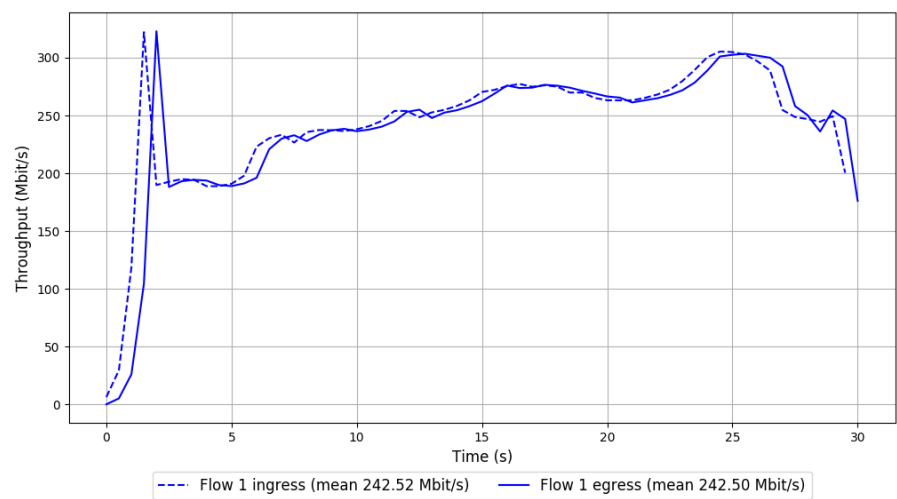
Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 234.58 Mbit/s) —— Flow 1 egress (mean 234.48 Mbit/s)
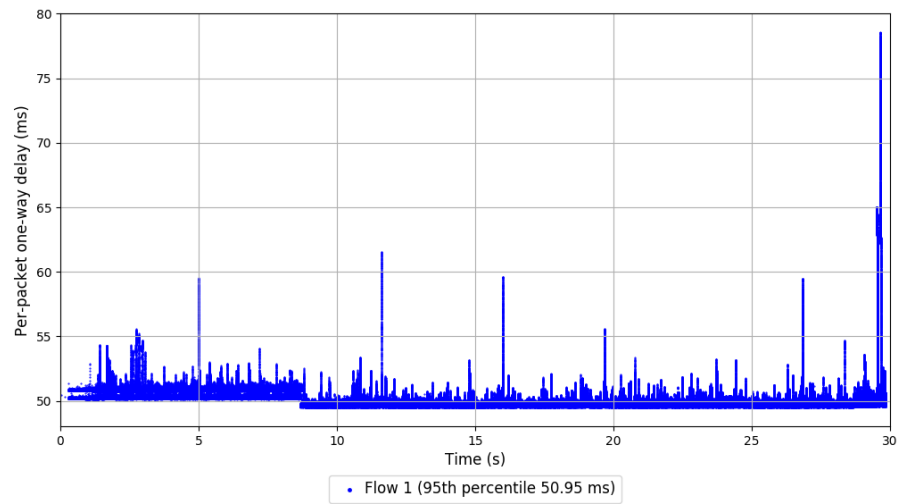

• Flow 1 (95th percentile 50.60 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-06-07 14:22:26
End at: 2018-06-07 14:22:56
Local clock offset: -0.23 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2018-06-07 15:49:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 242.50 Mbit/s
95th percentile per-packet one-way delay: 51.765 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 242.50 Mbit/s
95th percentile per-packet one-way delay: 51.765 ms
Loss rate: 0.35%
```
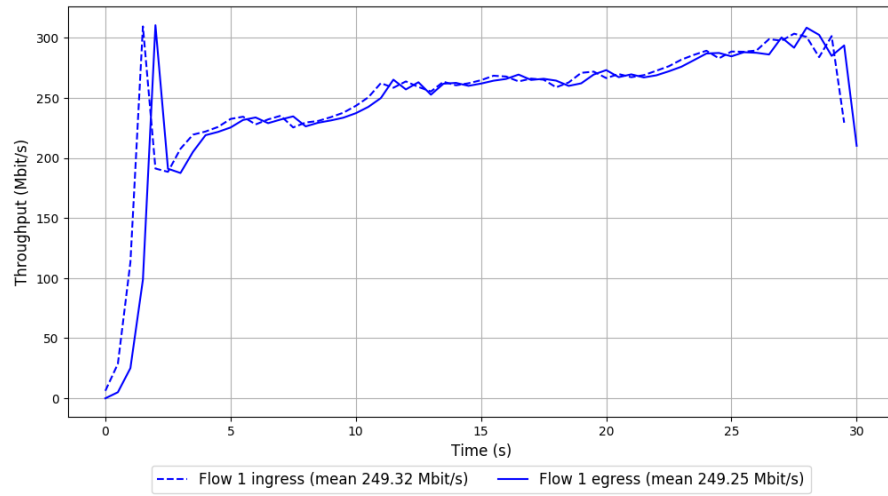
Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-06-07 14:42:31
End at: 2018-06-07 14:43:01
Local clock offset: 0.086 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.25 Mbit/s
95th percentile per-packet one-way delay: 50.949 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 249.25 Mbit/s
95th percentile per-packet one-way delay: 50.949 ms
Loss rate: 0.37%
```

Run 10: Report of PCC-Expr — Data Link
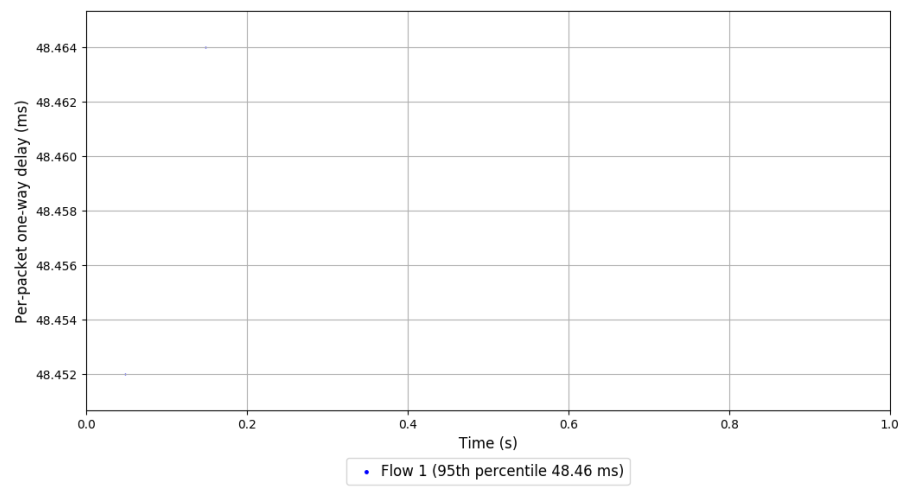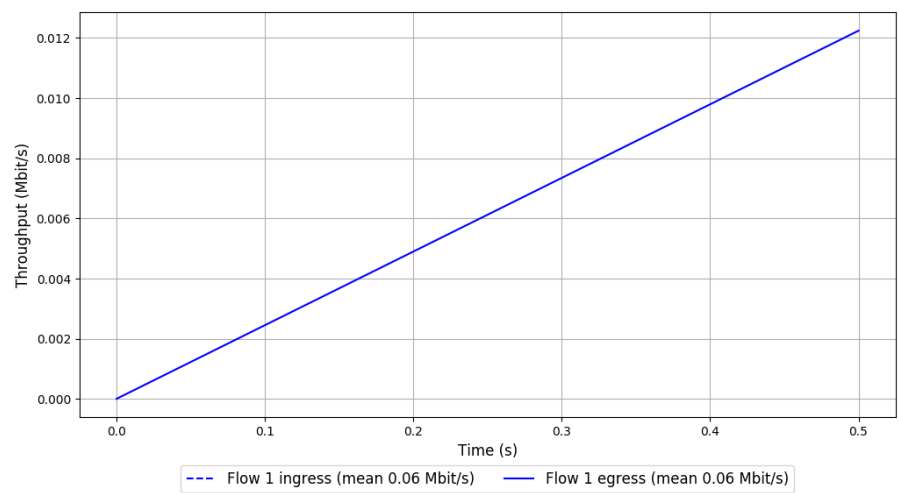
```
Run 1: Statistics of QUIC Cubic

Start at: 2018-06-07 11:47:06
End at: 2018-06-07 11:47:37
Local clock offset: -0.422 ms
Remote clock offset: 0.105 ms
```

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-07 12:06:58
End at: 2018-06-07 12:07:29
Local clock offset: 0.001 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.56 Mbit/s
95th percentile per-packet one-way delay: 50.229 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 76.56 Mbit/s
95th percentile per-packet one-way delay: 50.229 ms
Loss rate: 0.41%
```
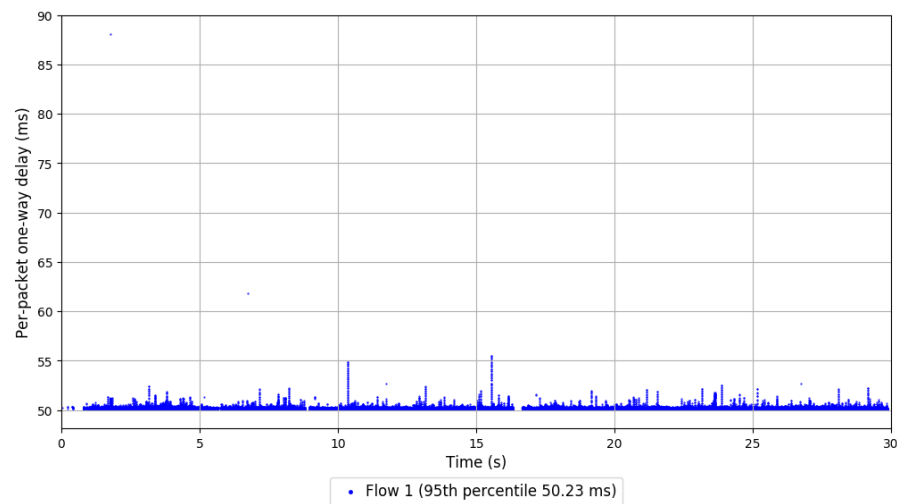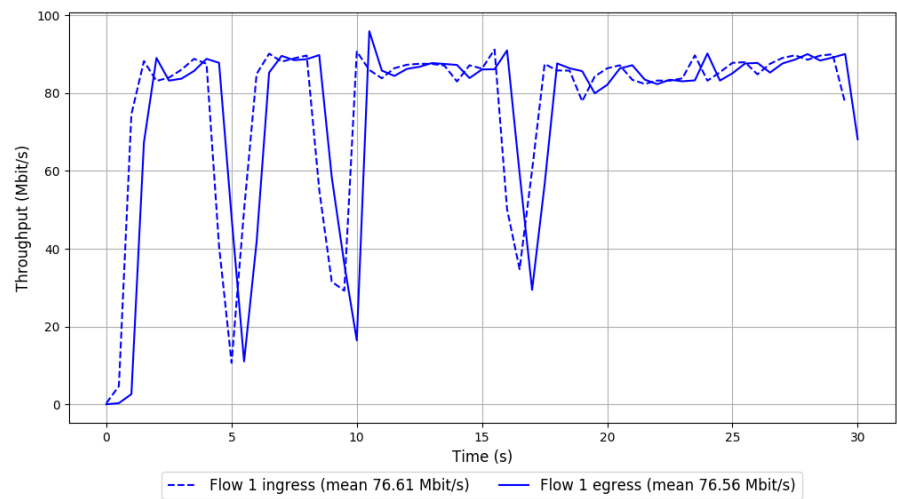
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-07 12:27:25
End at: 2018-06-07 12:27:55
Local clock offset: 0.382 ms
Remote clock offset: -0.045 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.47 Mbit/s
95th percentile per-packet one-way delay: 50.606 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 64.47 Mbit/s
95th percentile per-packet one-way delay: 50.606 ms
Loss rate: 0.44%
```
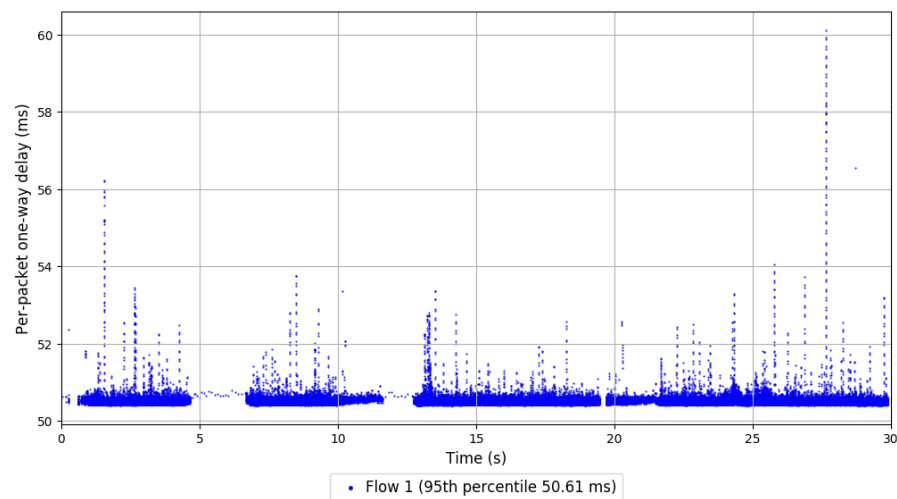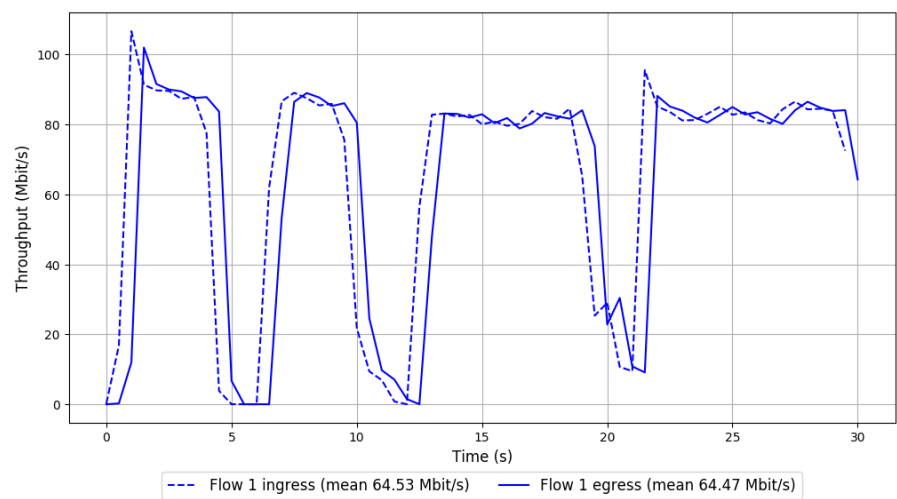
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-07 12:47:22
End at: 2018-06-07 12:47:52
Local clock offset: 0.368 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.49 Mbit/s
95th percentile per-packet one-way delay: 51.023 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 69.49 Mbit/s
95th percentile per-packet one-way delay: 51.023 ms
Loss rate: 0.44%
```
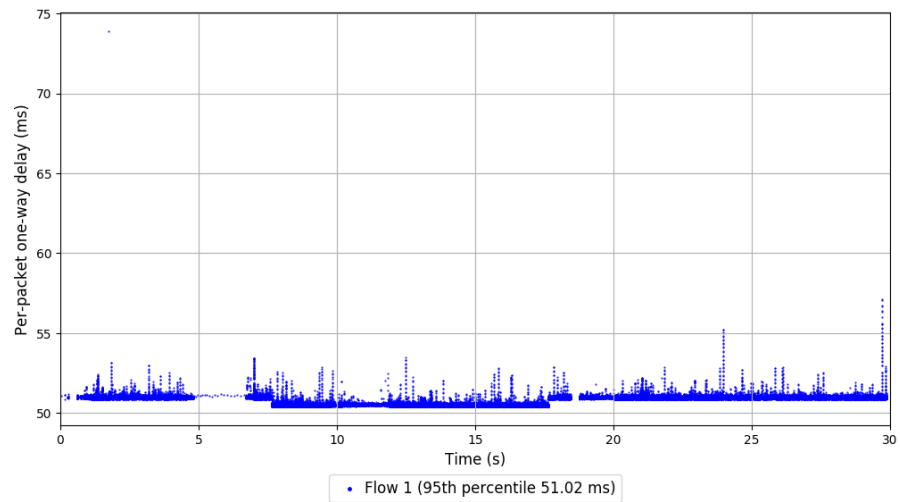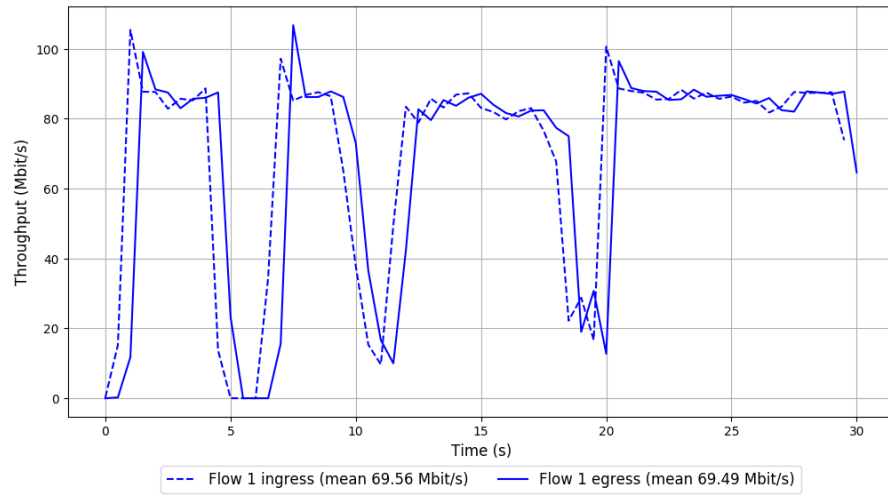
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 69.56 Mbit/s)   Flow 1 egress (mean 69.49 Mbit/s)

• Flow 1 (95th percentile 51.02 ms)

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-07 13:07:41
End at: 2018-06-07 13:08:11
Local clock offset: 0.076 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.08 Mbit/s
95th percentile per-packet one-way delay: 50.664 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 76.08 Mbit/s
95th percentile per-packet one-way delay: 50.664 ms
Loss rate: 0.39%
```
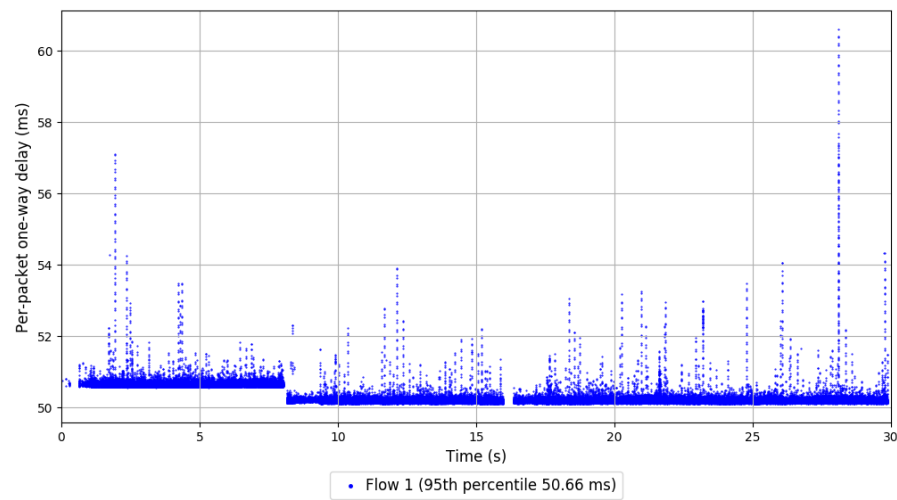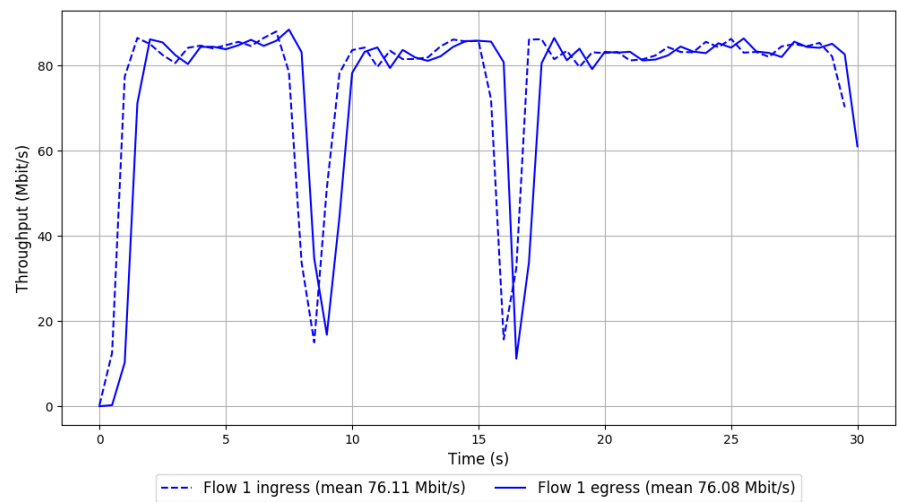
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.11 Mbit/s) ----- Flow 1 egress (mean 76.08 Mbit/s)

Flow 1 (95th percentile 50.66 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-07 13:27:55
End at: 2018-06-07 13:28:25
Local clock offset: 0.383 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 51.088 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 72.14 Mbit/s
95th percentile per-packet one-way delay: 51.088 ms
Loss rate: 0.41%
```
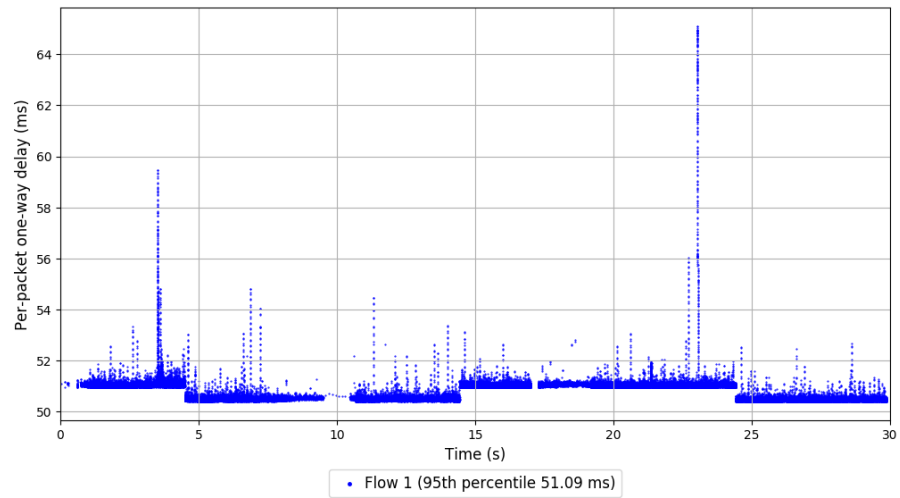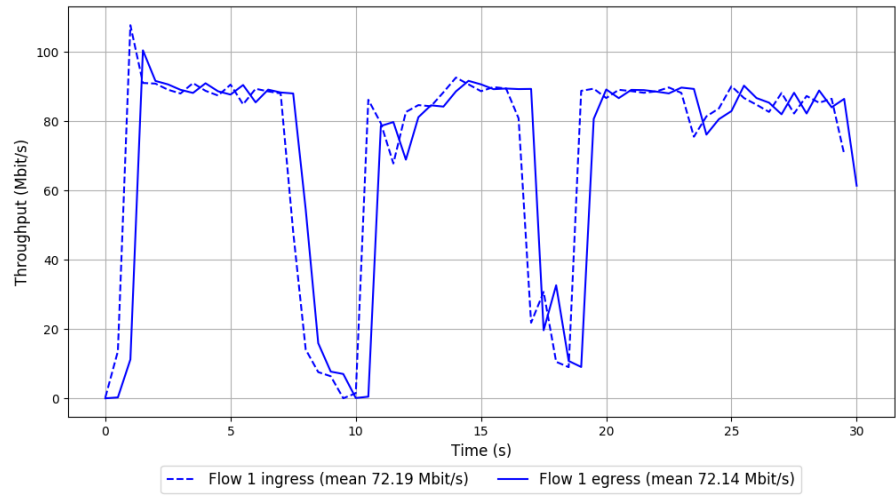
Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 72.19 Mbit/s) --- Flow 1 egress (mean 72.14 Mbit/s)

Flow 1 (95th percentile 51.09 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-07 13:47:54
End at: 2018-06-07 13:48:24
Local clock offset: -0.031 ms
Remote clock offset: -0.102 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.12 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 76.12 Mbit/s
95th percentile per-packet one-way delay: 50.648 ms
Loss rate: 0.37%
```
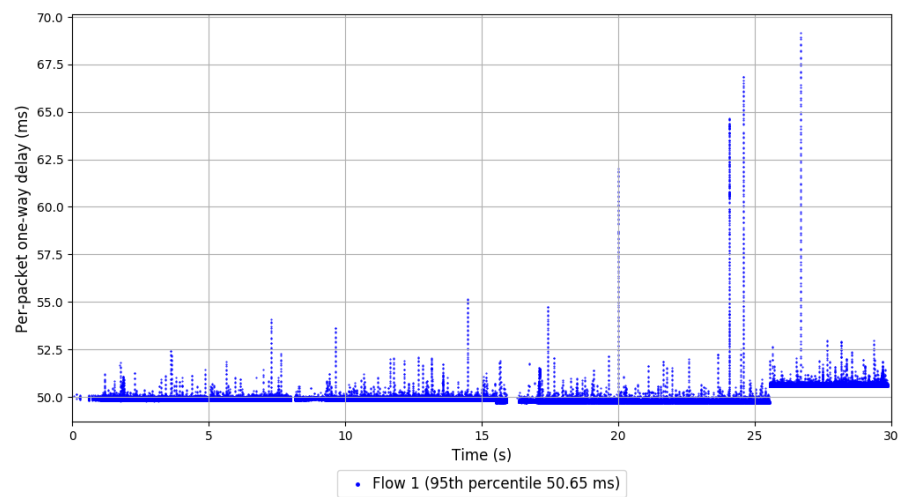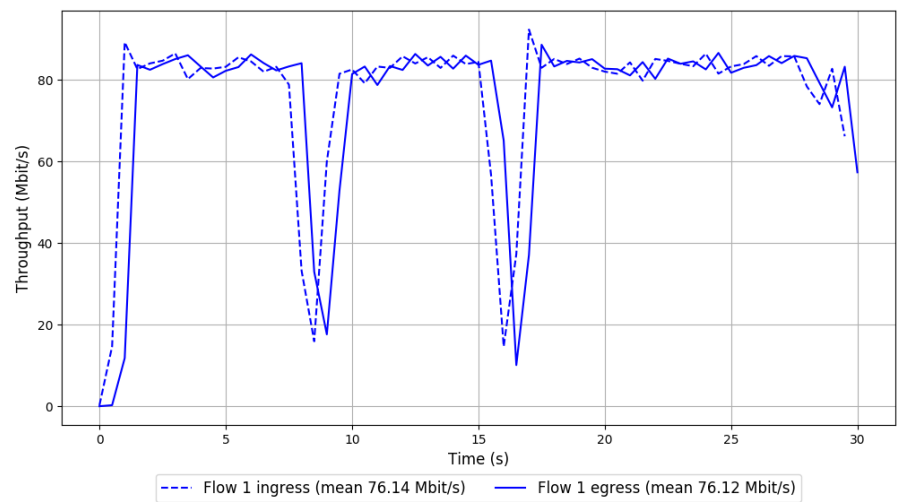
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.14 Mbit/s) --- Flow 1 egress (mean 76.12 Mbit/s)

Flow 1 (95th percentile 50.65 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-07 14:08:02
End at: 2018-06-07 14:08:32
Local clock offset: -0.076 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 49.826 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 53.04 Mbit/s
95th percentile per-packet one-way delay: 49.826 ms
Loss rate: 0.51%
```
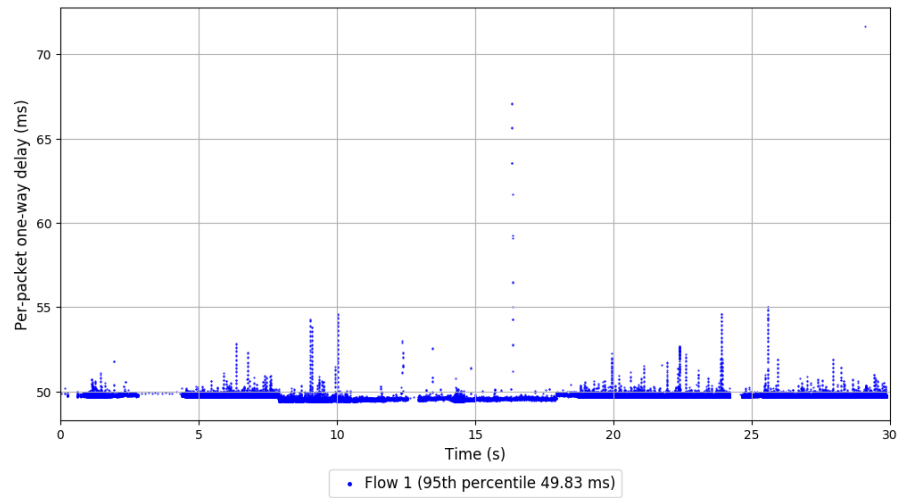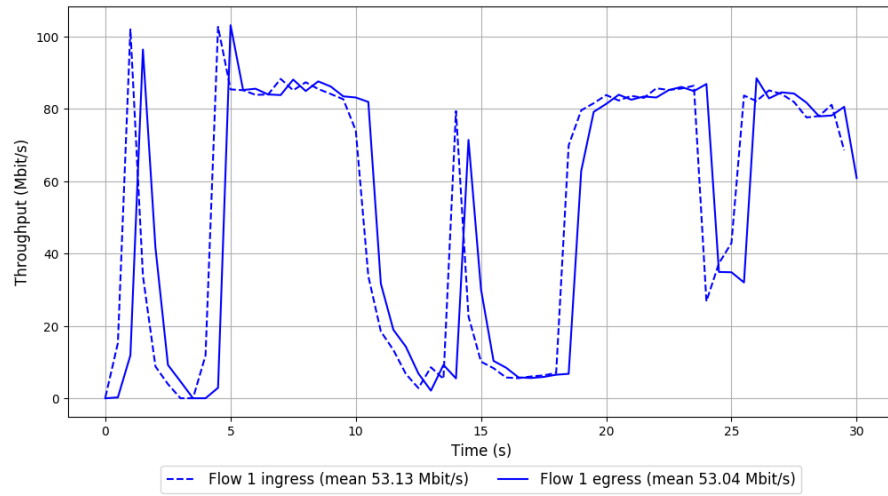
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 53.13 Mbit/s) — Flow 1 egress (mean 53.04 Mbit/s)
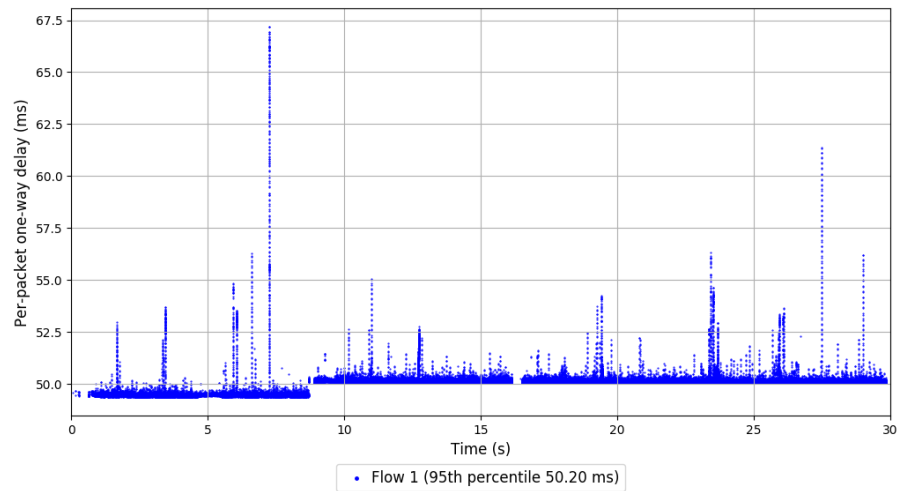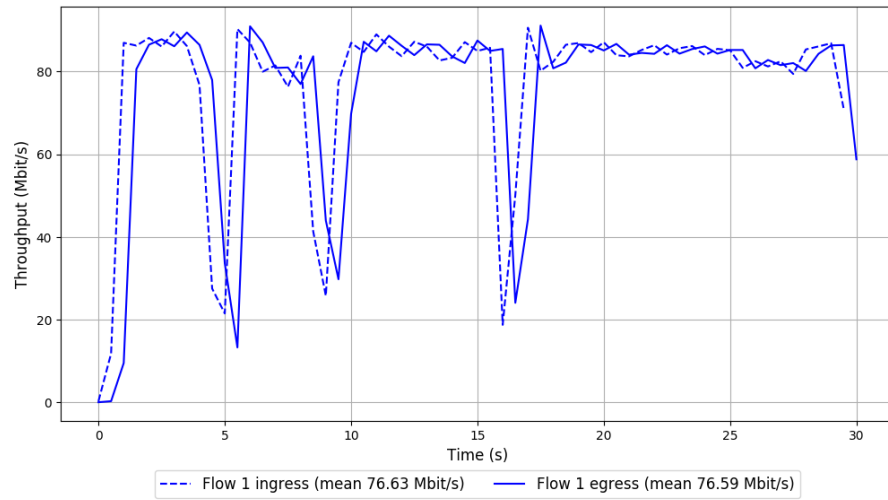

Flow 1 (95th percentile 49.83 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-07 14:28:11
End at: 2018-06-07 14:28:41
Local clock offset: -0.438 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.59 Mbit/s
95th percentile per-packet one-way delay: 50.199 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 76.59 Mbit/s
95th percentile per-packet one-way delay: 50.199 ms
Loss rate: 0.46%
```
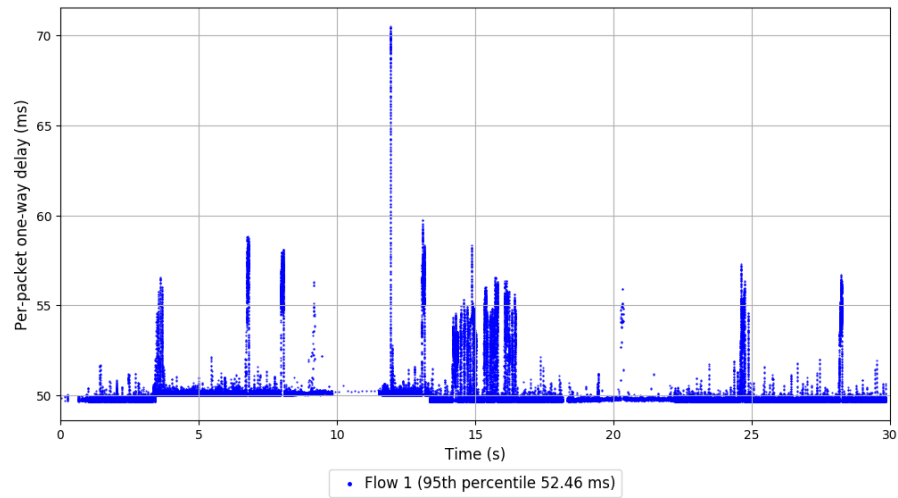
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.63 Mbit/s) — — — Flow 1 egress (mean 76.59 Mbit/s)

Flow 1 (95th percentile 50.20 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-07 14:48:06
End at: 2018-06-07 14:48:36
Local clock offset: -0.379 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.32 Mbit/s
95th percentile per-packet one-way delay: 52.460 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 63.32 Mbit/s
95th percentile per-packet one-way delay: 52.460 ms
Loss rate: 0.45%
```
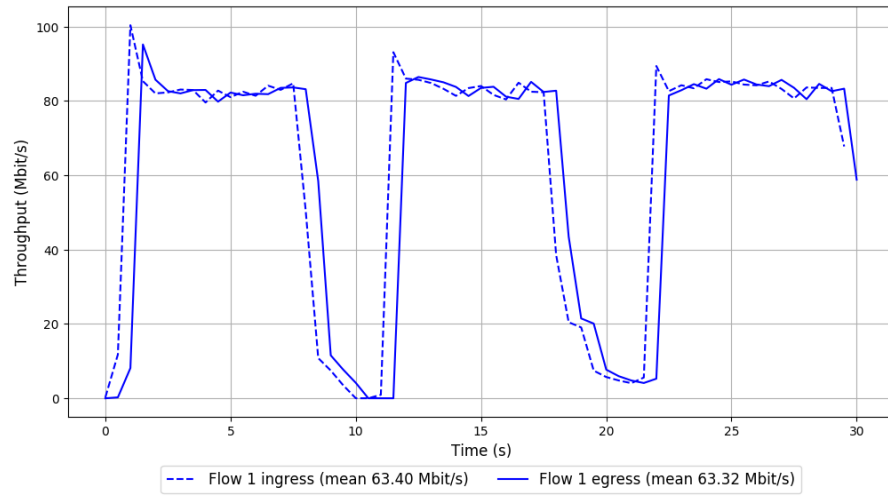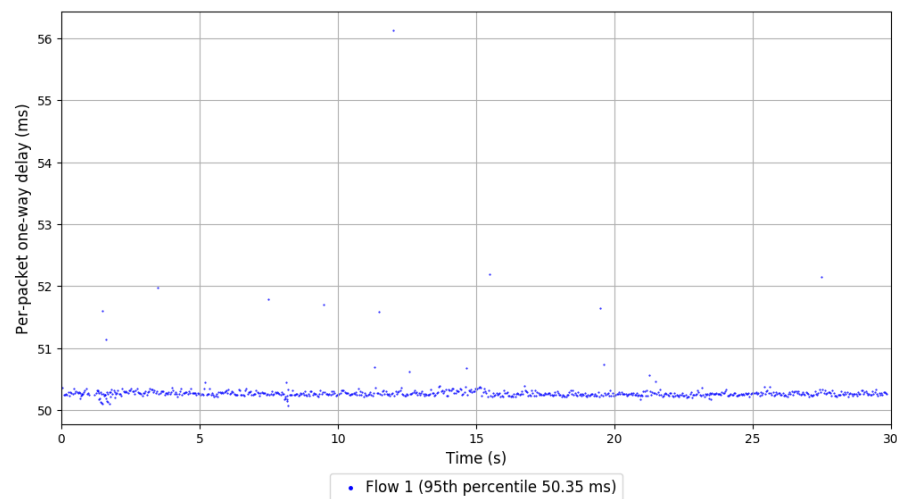
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 63.40 Mbit/s)　　Flow 1 egress (mean 63.32 Mbit/s)

Flow 1 (95th percentile 52.46 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-06-07 11:35:06
End at: 2018-06-07 11:35:36
Local clock offset: -0.039 ms
Remote clock offset: 0.217 ms

# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.350 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.350 ms
Loss rate: 0.25%
```
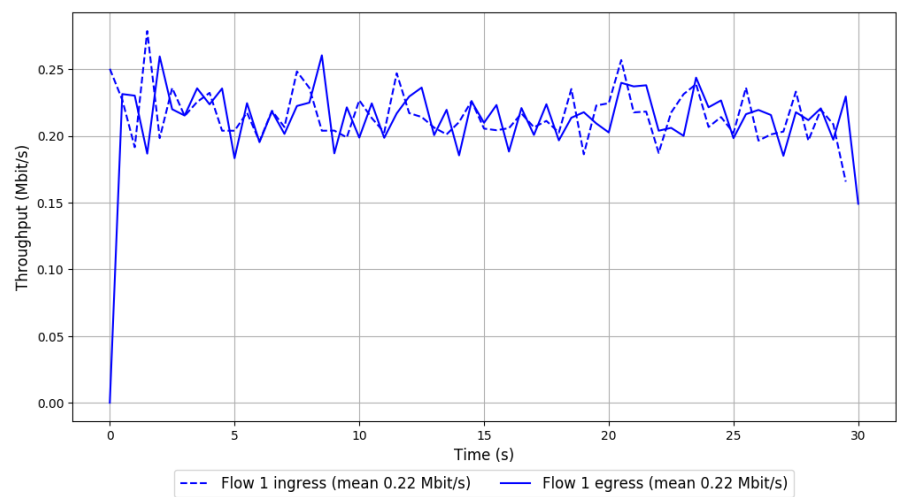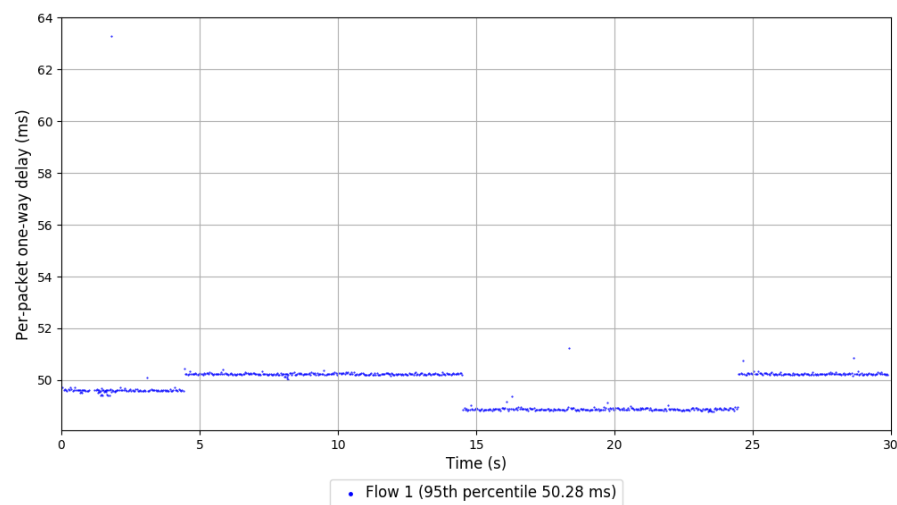
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-06-07 11:55:25
End at: 2018-06-07 11:55:55
Local clock offset: 0.003 ms
Remote clock offset: 0.071 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.279 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.279 ms
Loss rate: 0.26%
```
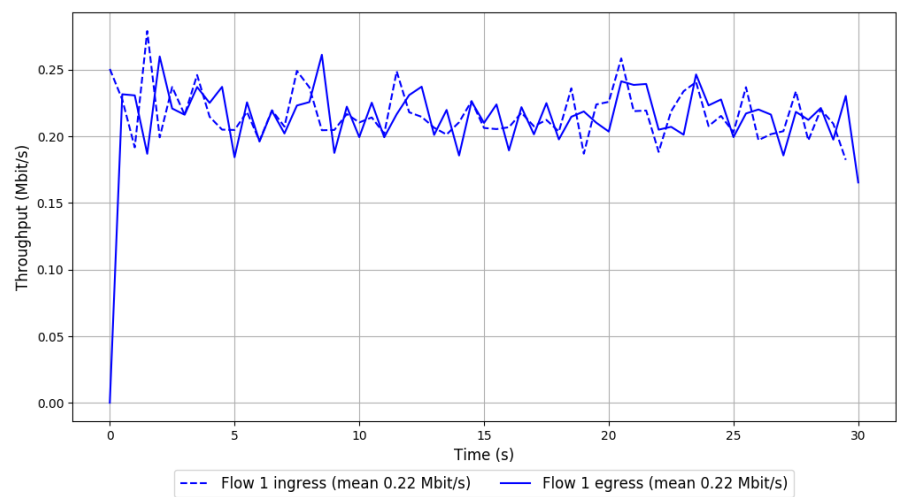
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 50.28 ms)

```
Run 3: Statistics of SCReAM

Start at: 2018-06-07 12:15:28
End at: 2018-06-07 12:15:58
Local clock offset: -0.348 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.684 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.684 ms
Loss rate: 0.26%
```
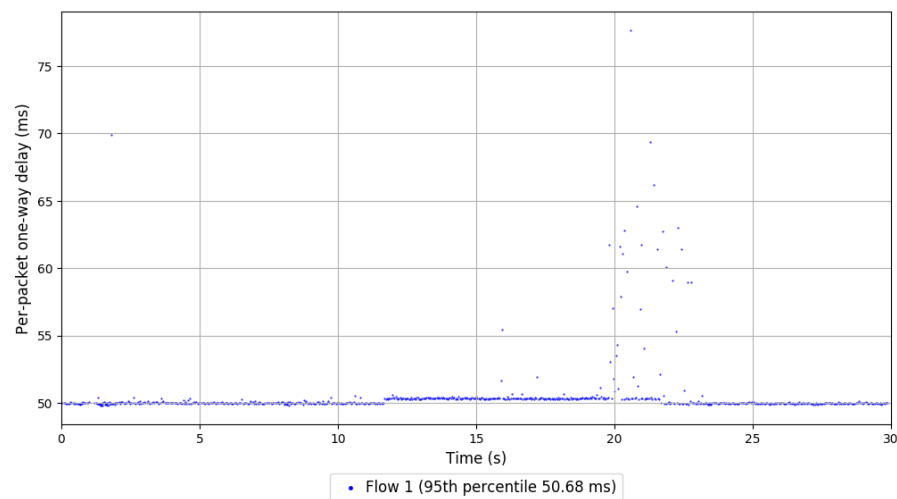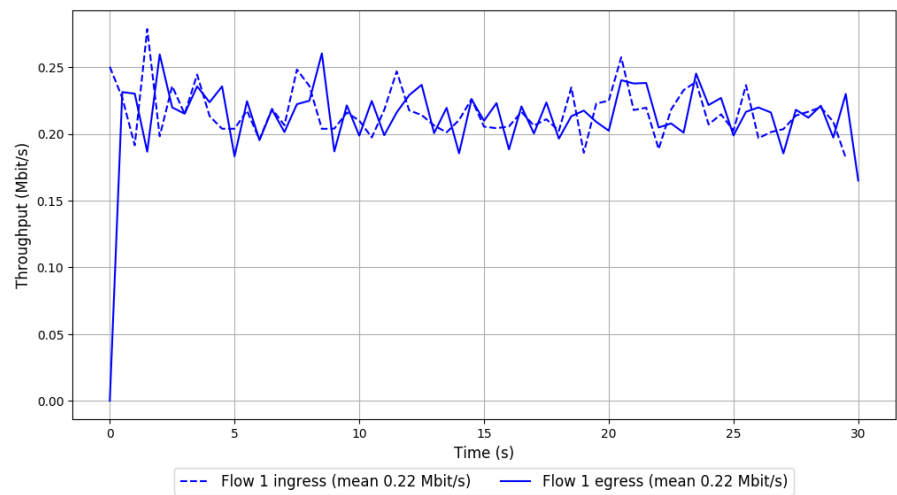
Run 3: Report of SCReAM — Data Link

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

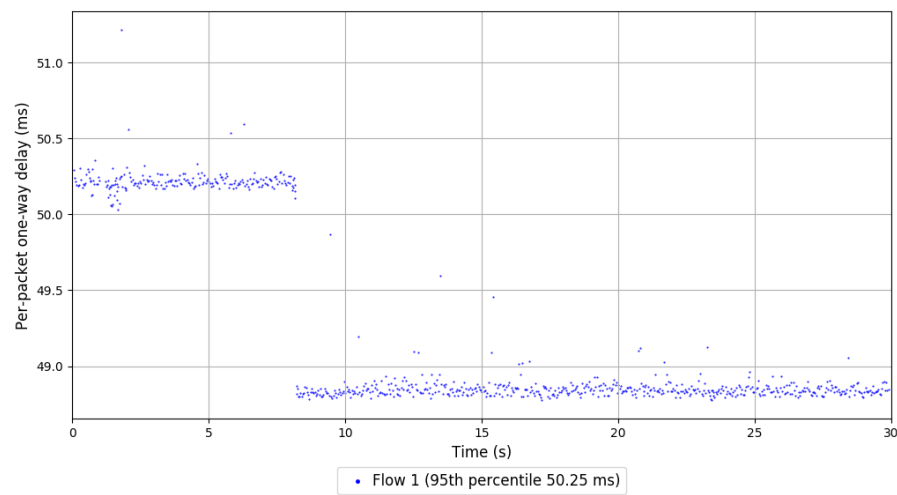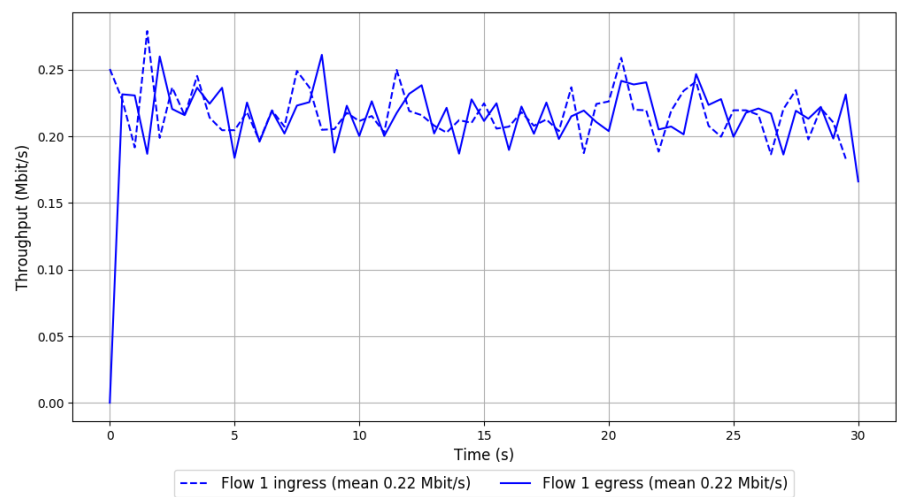Flow 1 (95th percentile 50.68 ms)

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```
Run 4: Statistics of SCReAM

Start at: 2018-06-07 12:35:41
End at: 2018-06-07 12:36:11
Local clock offset: -0.019 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.250 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.250 ms
Loss rate: 0.26%
```

Run 4: Report of SCReAM — Data Link

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

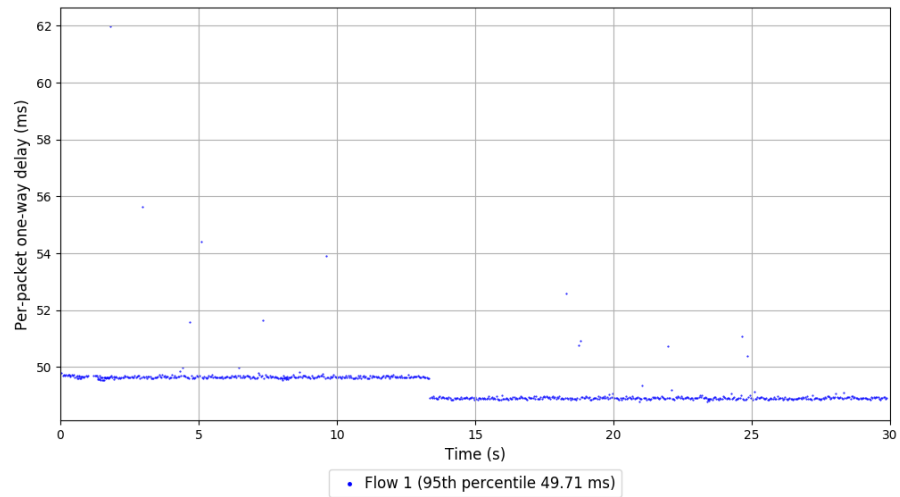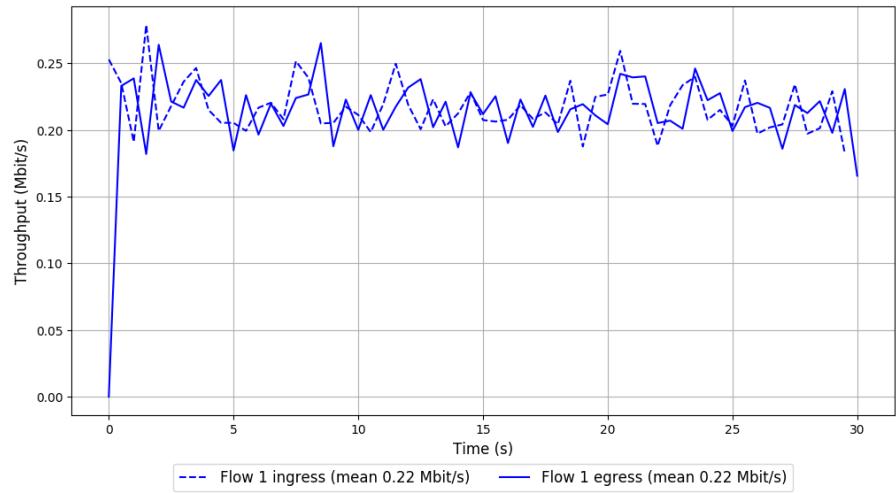Flow 1 (95th percentile 50.25 ms)

```
Run 5: Statistics of SCReAM

Start at: 2018-06-07 12:55:46
End at: 2018-06-07 12:56:16
Local clock offset: 0.007 ms
Remote clock offset: -0.053 ms

# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.706 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.706 ms
Loss rate: 0.26%
```

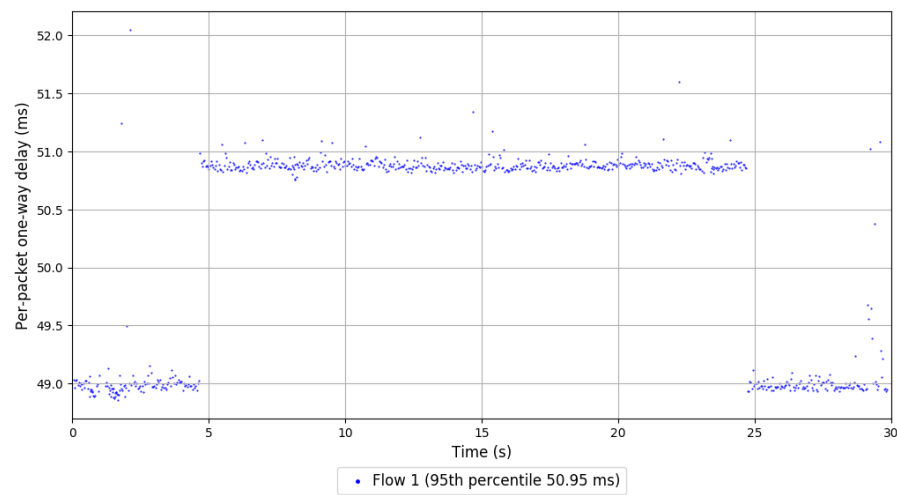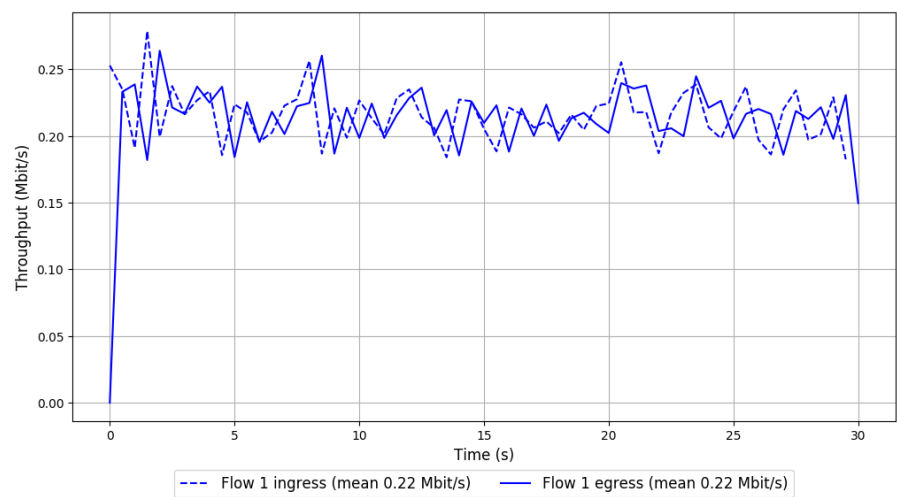# Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-06-07 13:16:05
End at: 2018-06-07 13:16:35
Local clock offset: 0.059 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.950 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.950 ms
Loss rate: 0.38%
```

Run 6: Report of SCReAM — Data Link

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

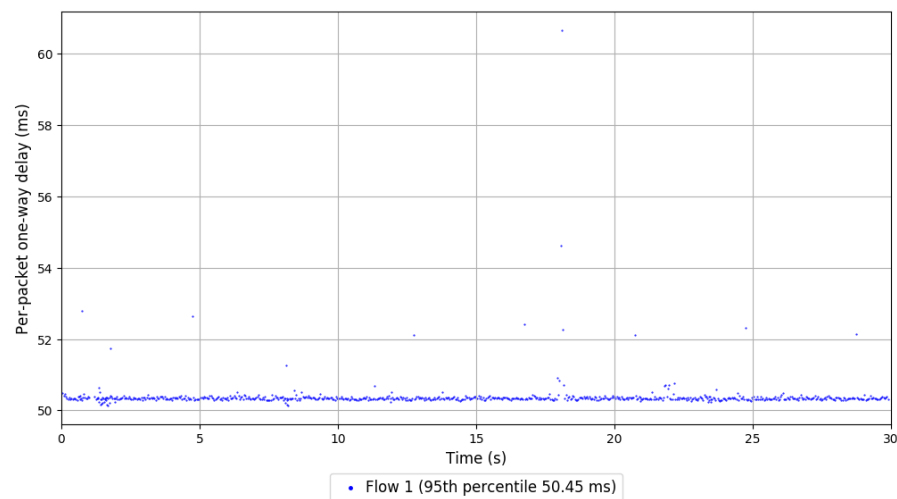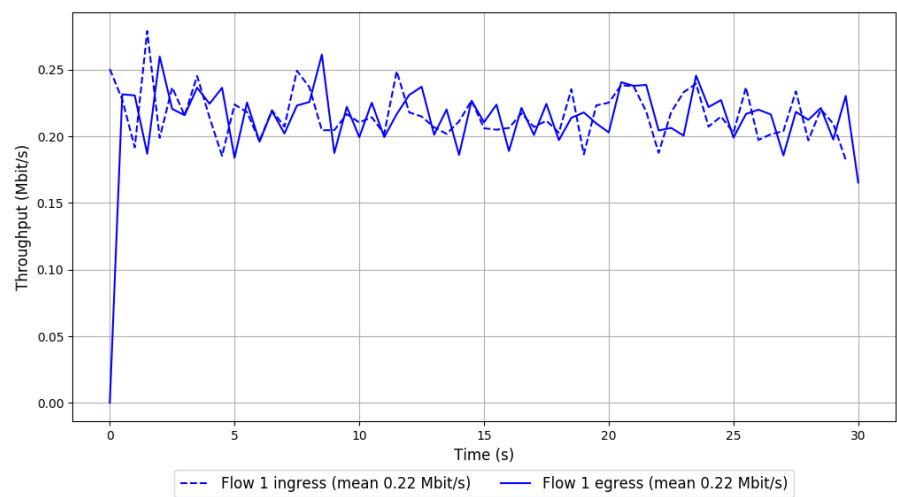Flow 1 (95th percentile 50.95 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-06-07 13:36:13
End at: 2018-06-07 13:36:43
Local clock offset: -0.033 ms
Remote clock offset: -0.125 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 0.26%
```

Run 7: Report of SCReAM — Data Link

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

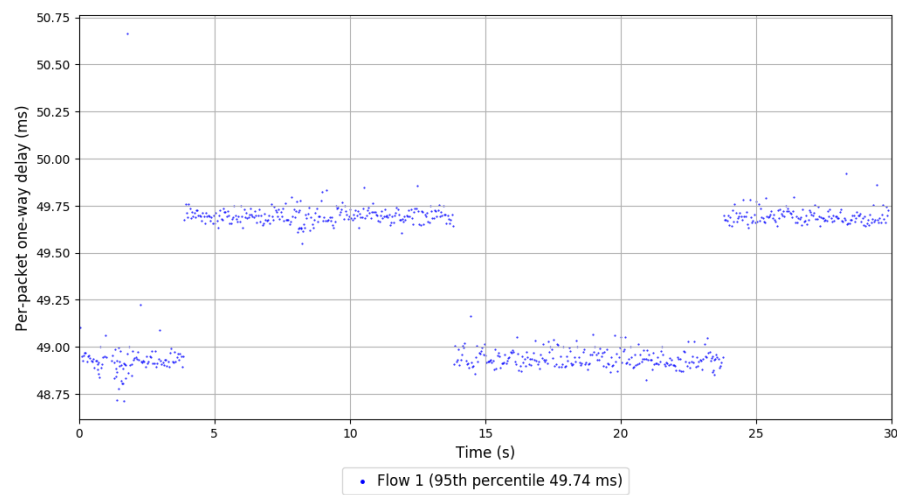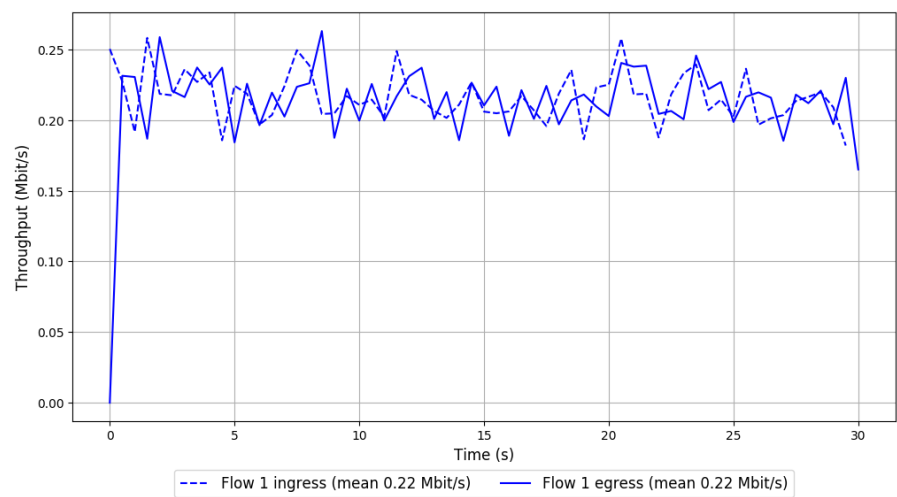• Flow 1 (95th percentile 50.45 ms)

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```
Run 8: Statistics of SCReAM

Start at: 2018-06-07 13:56:16
End at: 2018-06-07 13:56:46
Local clock offset: -0.04 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.740 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.740 ms
Loss rate: 0.26%
```
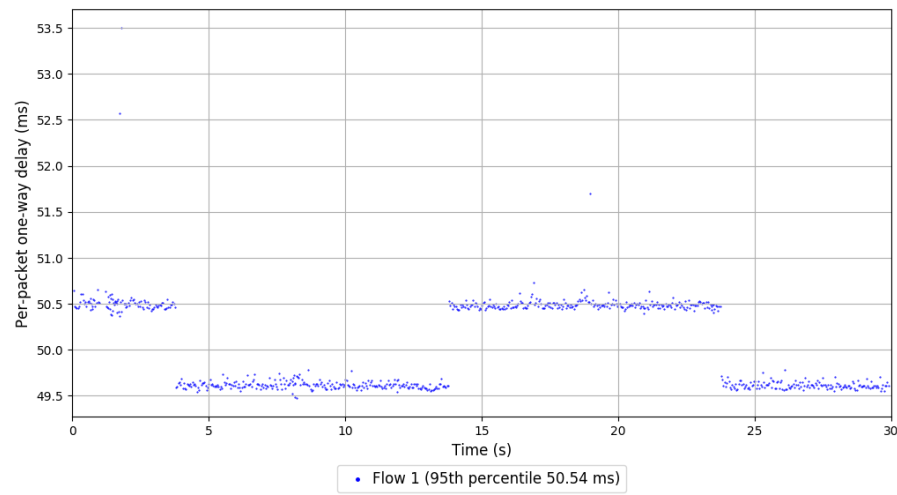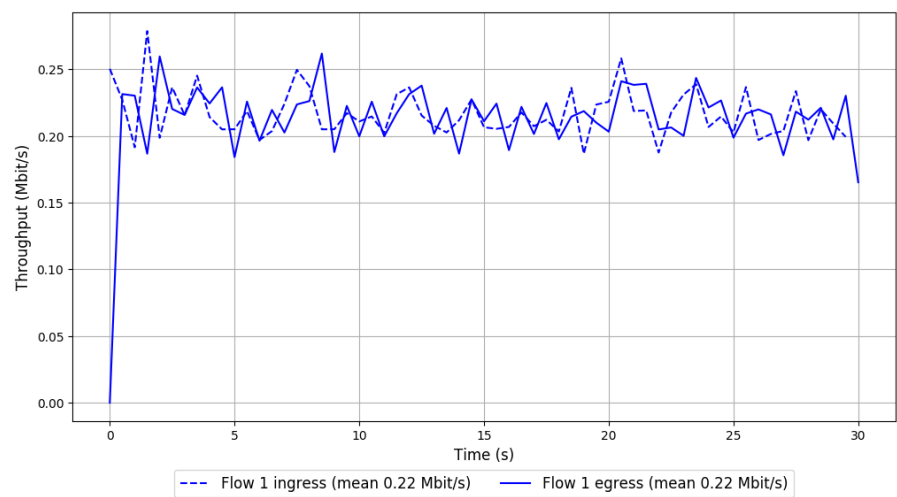
Run 8: Report of SCReAM — Data Link

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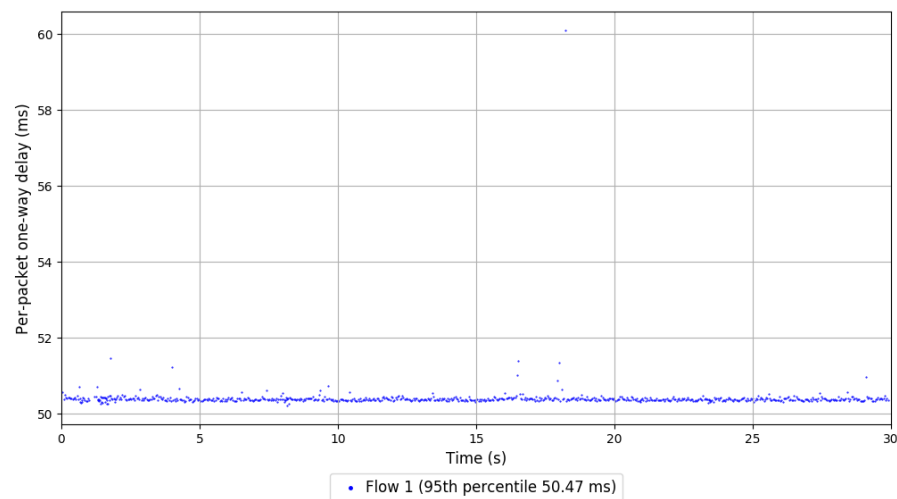

Flow 1 (95th percentile 49.74 ms)

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```
Run 9: Statistics of SCReAM

Start at: 2018-06-07 14:16:26
End at: 2018-06-07 14:16:56
Local clock offset: -0.318 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.539 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.539 ms
Loss rate: 0.39%
```

Run 9: 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 50.54 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-06-07 14:36:29
End at: 2018-06-07 14:36:59
Local clock offset: 0.024 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.472 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.472 ms
Loss rate: 0.26%
```
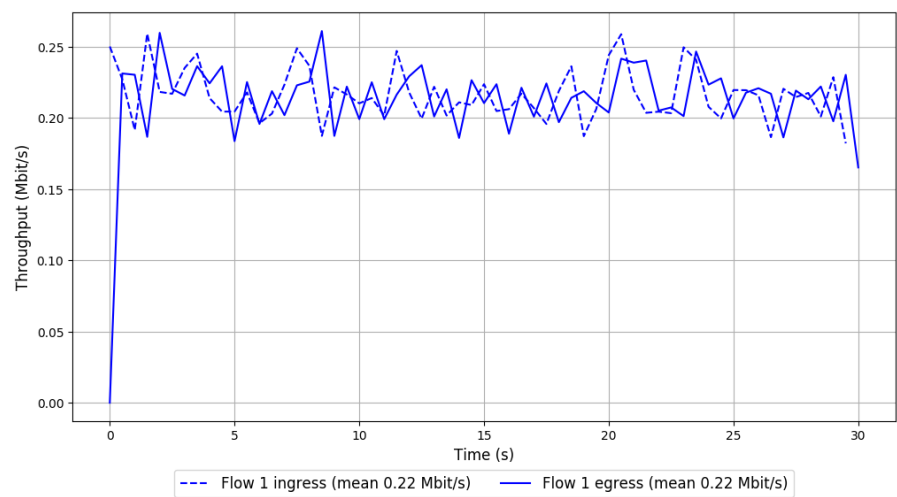
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-06-07 11:40:09
End at: 2018-06-07 11:40:39
Local clock offset: -0.02 ms
Remote clock offset: 0.232 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 49.775 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 49.775 ms
Loss rate: 0.36%
```
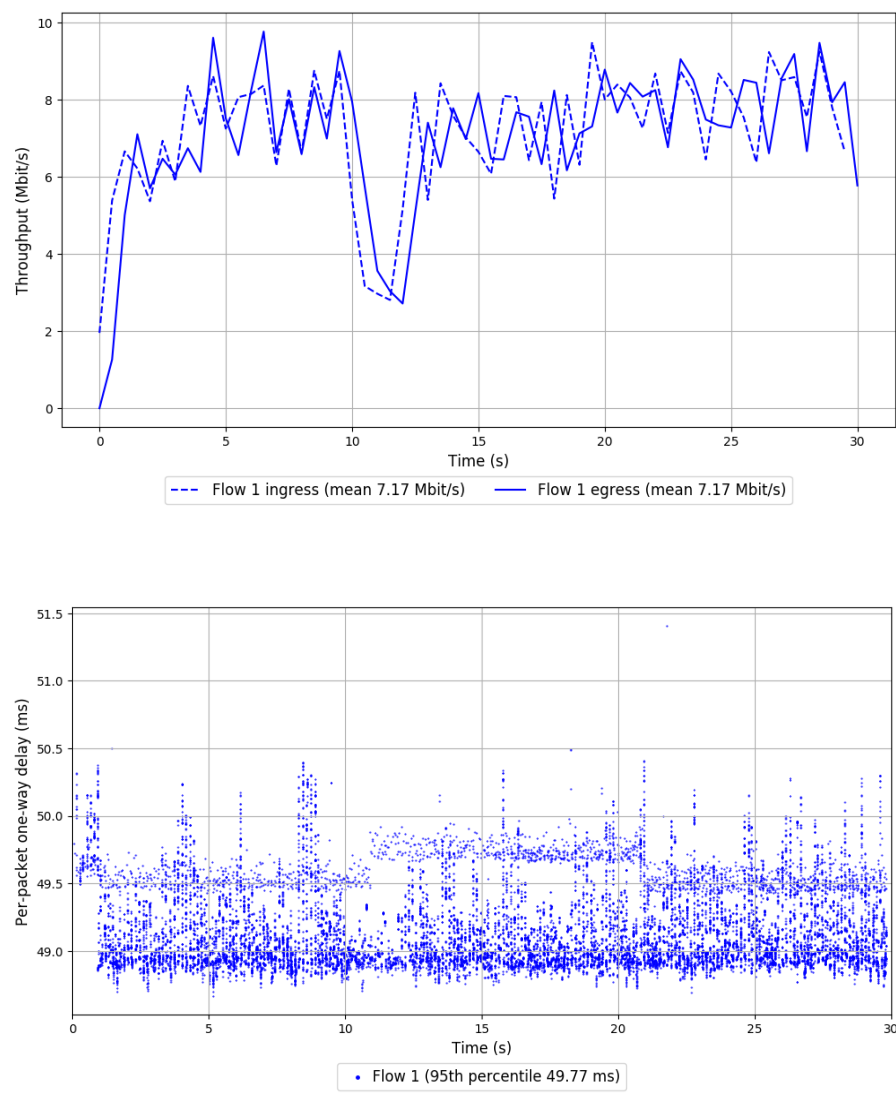
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-06-07 12:00:26
End at: 2018-06-07 12:00:56
Local clock offset: 0.023 ms
Remote clock offset: 0.006 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 50.869 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 6.10 Mbit/s
95th percentile per-packet one-way delay: 50.869 ms
Loss rate: 0.43%
```
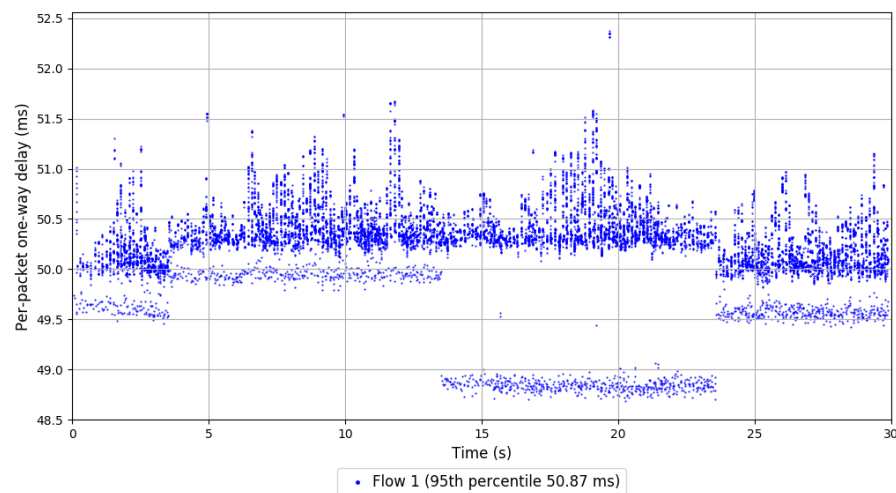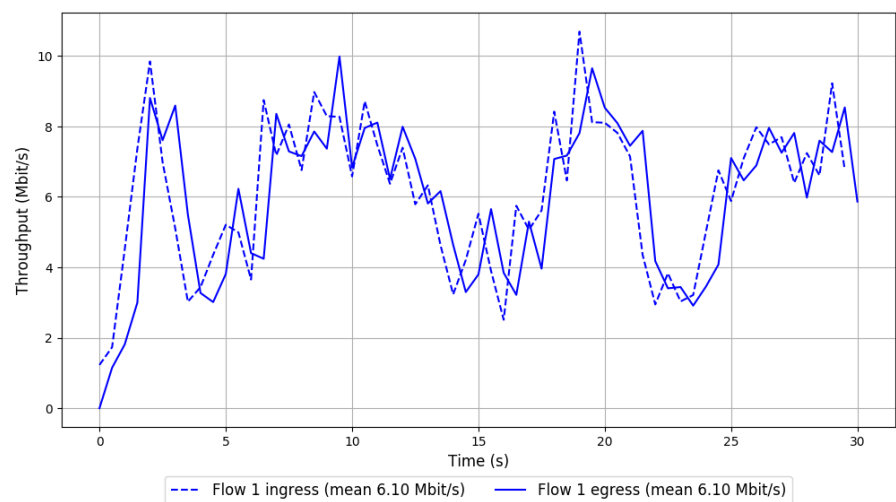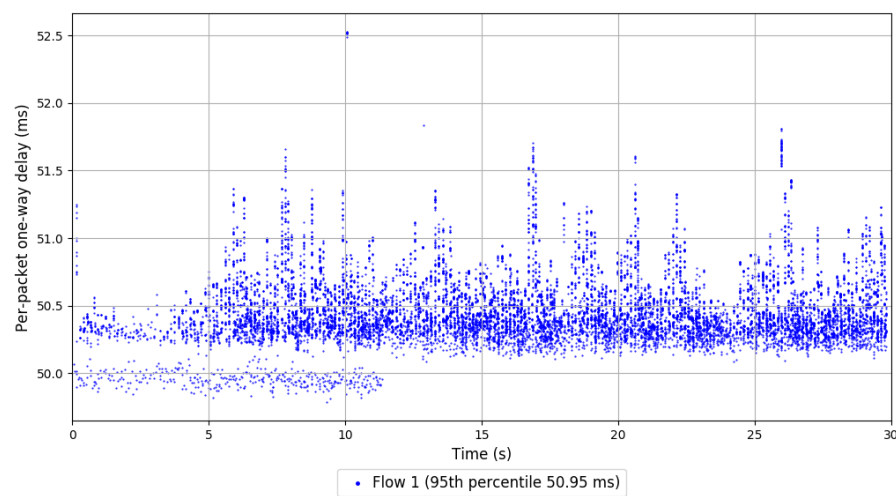
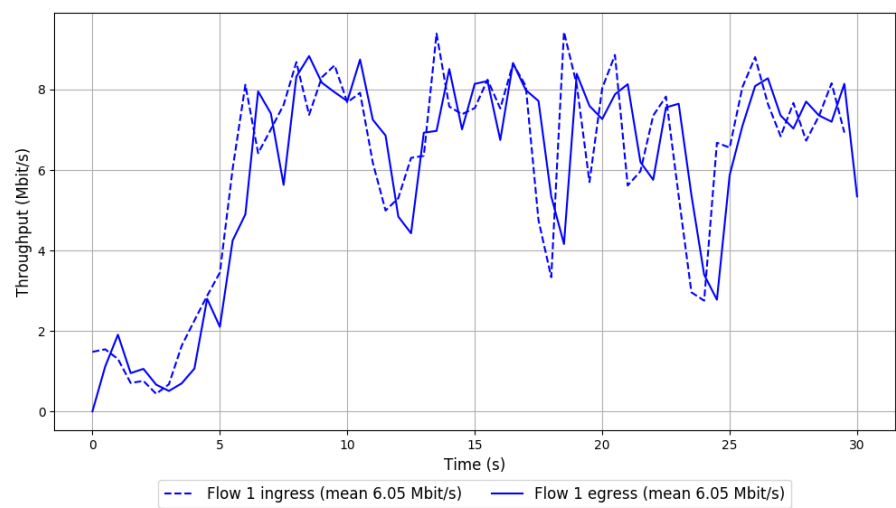Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-06-07 12:20:30
End at: 2018-06-07 12:21:00
Local clock offset: 0.02 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 50.955 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 50.955 ms
Loss rate: 0.54%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-06-07 12:40:39
End at: 2018-06-07 12:41:09
Local clock offset: -0.381 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 51.145 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 7.34 Mbit/s
95th percentile per-packet one-way delay: 51.145 ms
Loss rate: 0.37%
```
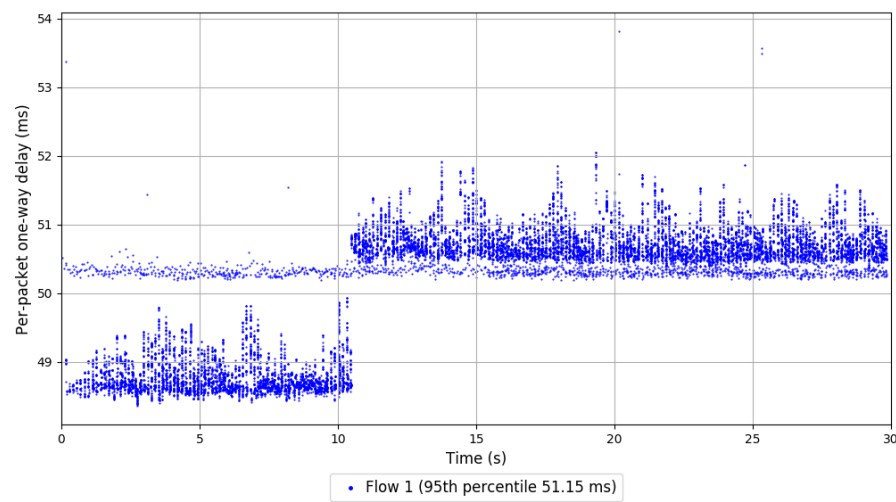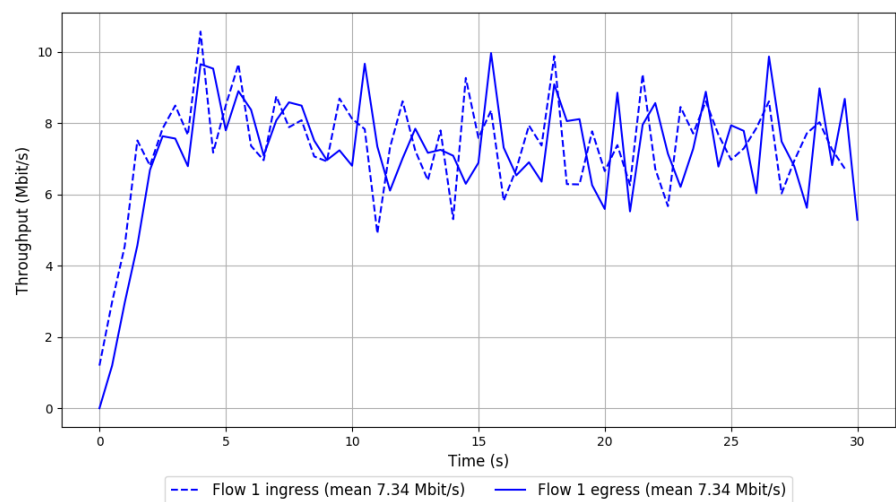
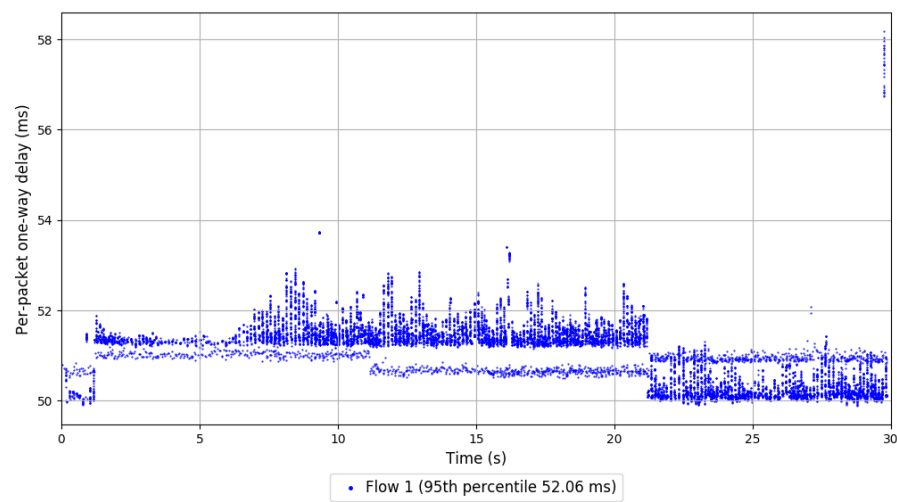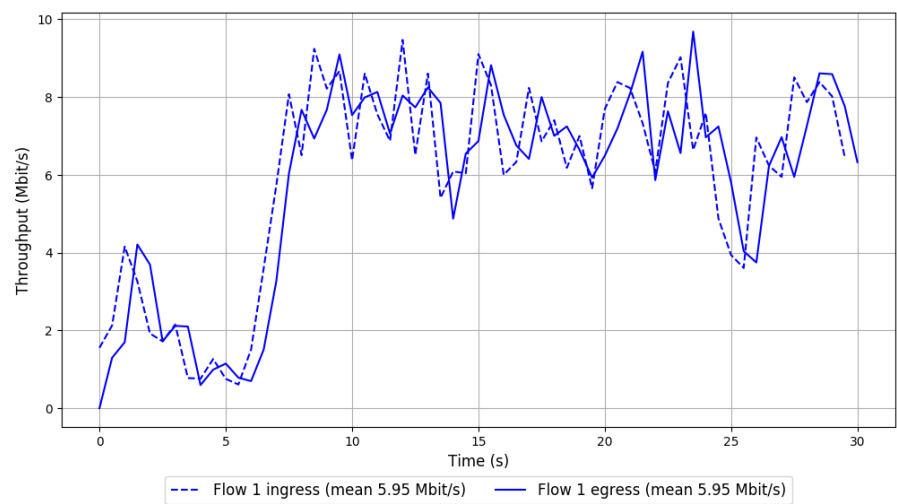## Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-06-07 13:00:48
End at: 2018-06-07 13:01:18
Local clock offset: 0.396 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 52.056 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 5.95 Mbit/s
95th percentile per-packet one-way delay: 52.056 ms
Loss rate: 0.19%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 5.95 Mbit/s) --- Flow 1 egress (mean 5.95 Mbit/s)

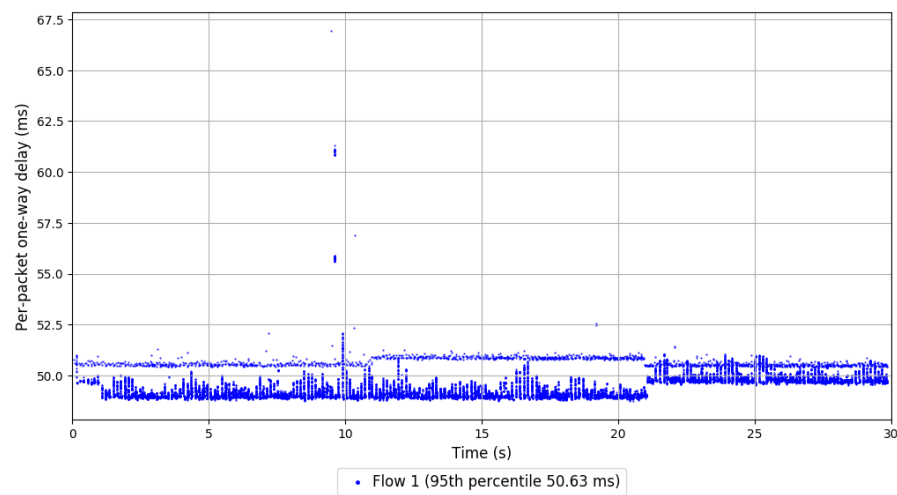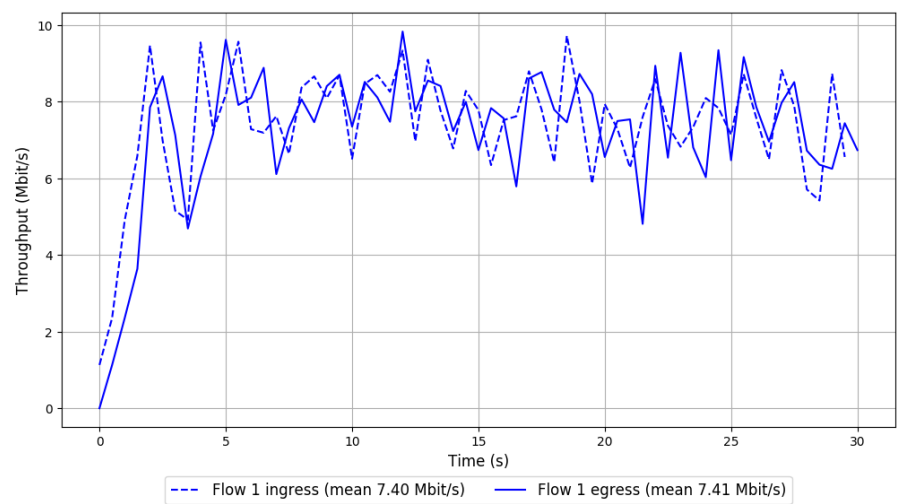Flow 1 (95th percentile 52.06 ms)

```
Run 6: Statistics of Sprout

Start at: 2018-06-07 13:21:08
End at: 2018-06-07 13:21:39
Local clock offset: 0.054 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 50.633 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 50.633 ms
Loss rate: 0.25%
```
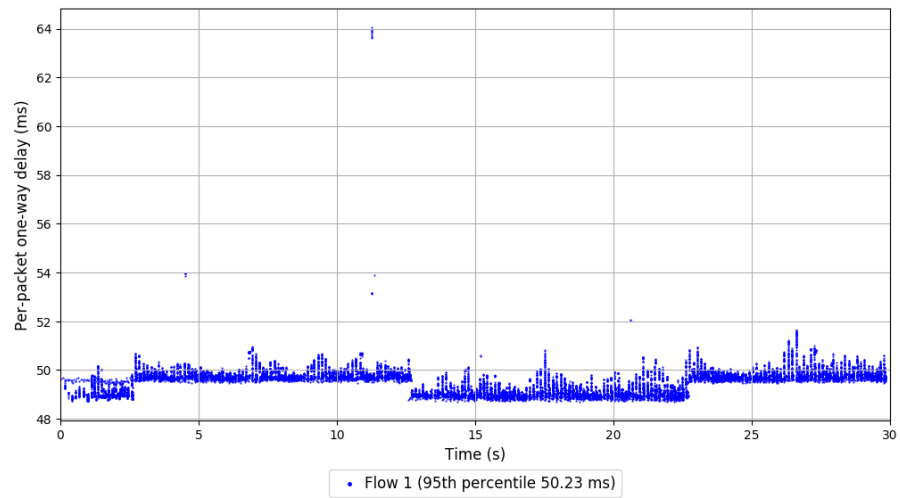
Run 6: Report of Sprout — Data Link

Flow 1 ingress (mean 7.40 Mbit/s) --- Flow 1 egress (mean 7.41 Mbit/s)

Flow 1 (95th percentile 50.63 ms)

```
Run 7: Statistics of Sprout

Start at: 2018-06-07 13:41:07
End at: 2018-06-07 13:41:37
Local clock offset: -0.074 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 50.232 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 50.232 ms
Loss rate: 0.42%
```
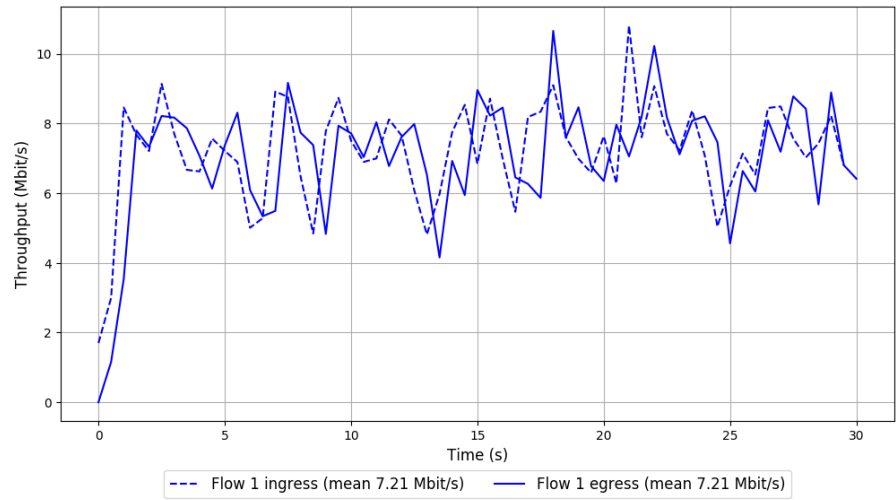
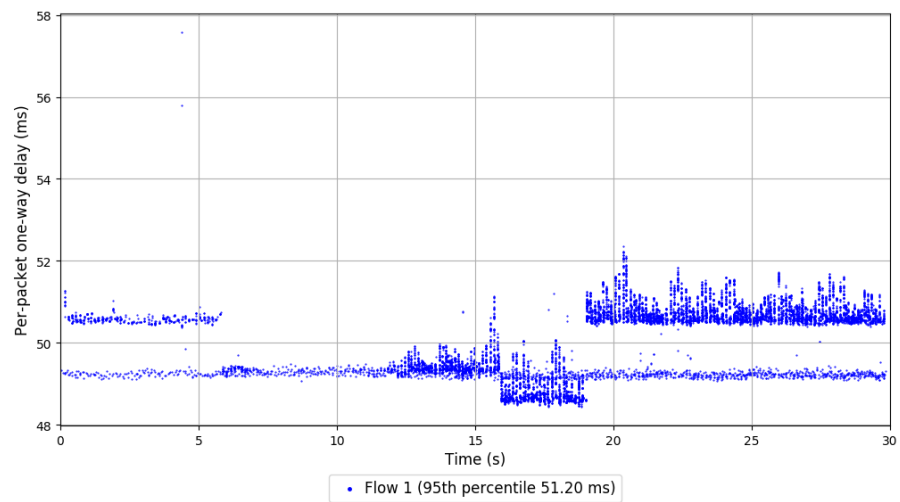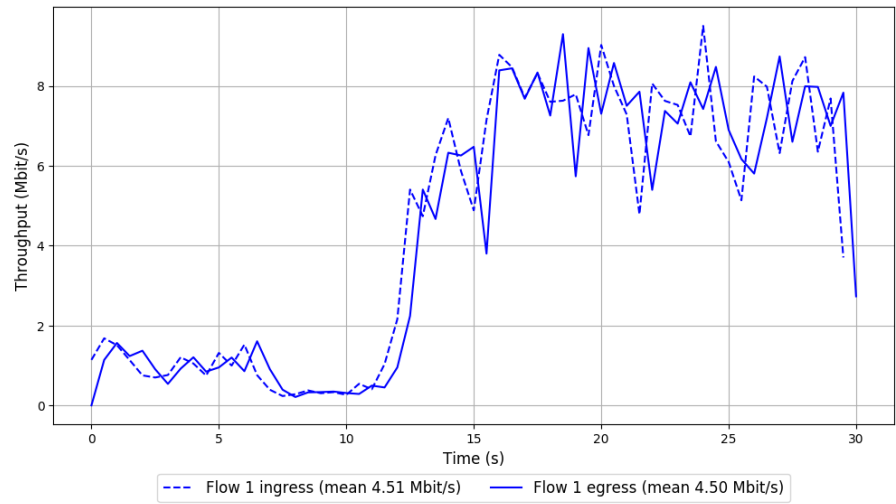## Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-06-07 14:01:14
End at: 2018-06-07 14:01:44
Local clock offset: -0.456 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 51.201 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 4.50 Mbit/s
95th percentile per-packet one-way delay: 51.201 ms
Loss rate: 0.39%
```

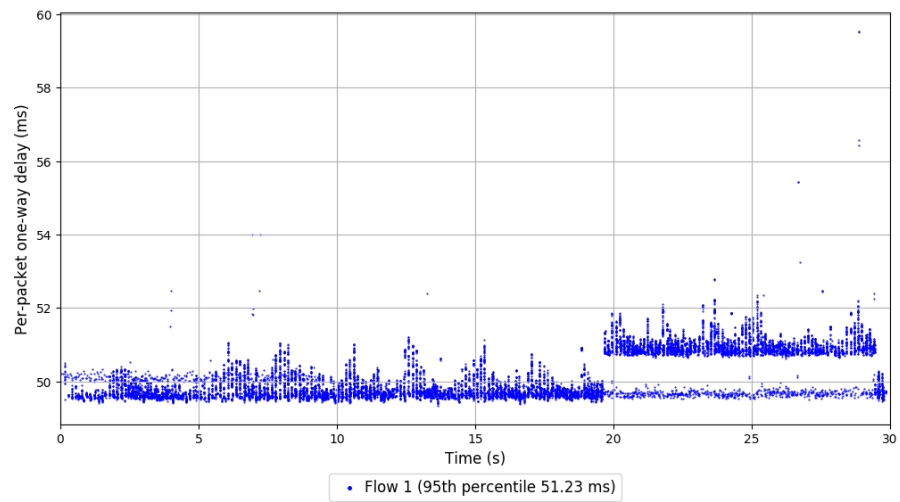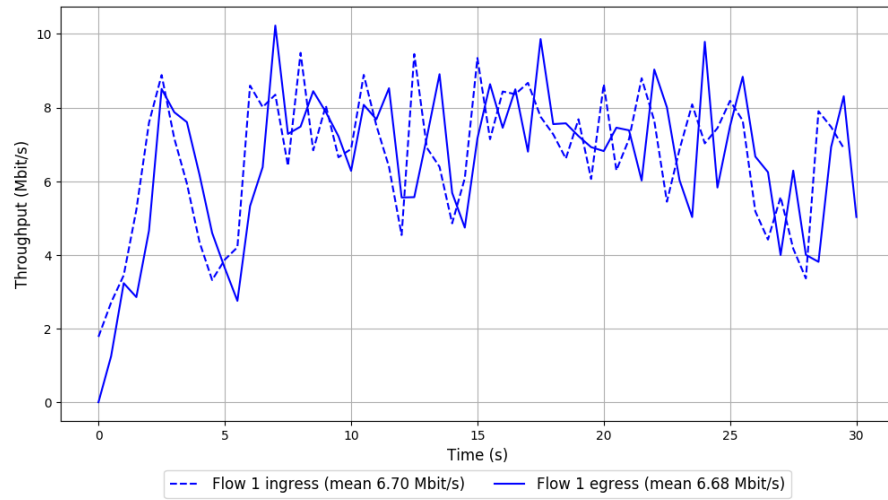## Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-06-07 14:21:20
End at: 2018-06-07 14:21:50
Local clock offset: -0.173 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 51.231 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 51.231 ms
Loss rate: 0.50%
```
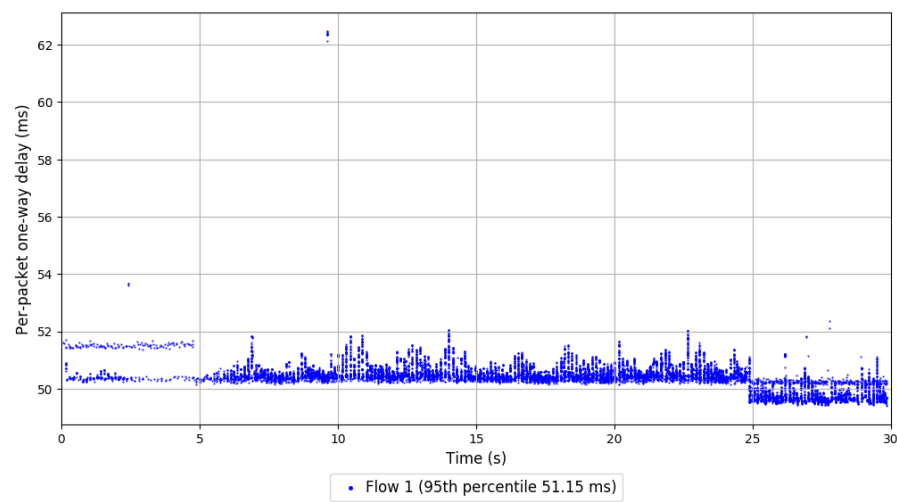
Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 6.70 Mbit/s) —— Flow 1 egress (mean 6.68 Mbit/s)

• Flow 1 (95th percentile 51.23 ms)

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```
Run 10: Statistics of Sprout

Start at: 2018-06-07 14:41:25
End at: 2018-06-07 14:41:55
Local clock offset: 0.69 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-06-07 15:50:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 51.147 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 5.93 Mbit/s
95th percentile per-packet one-way delay: 51.147 ms
Loss rate: 0.41%
```
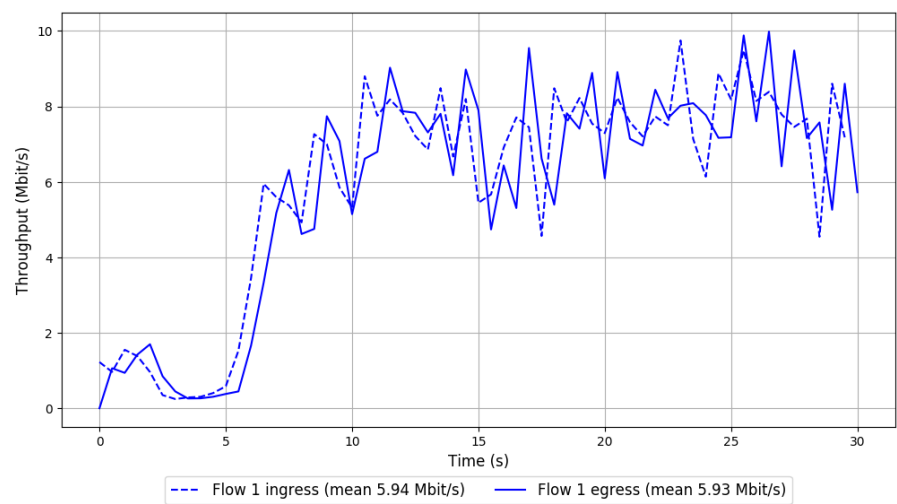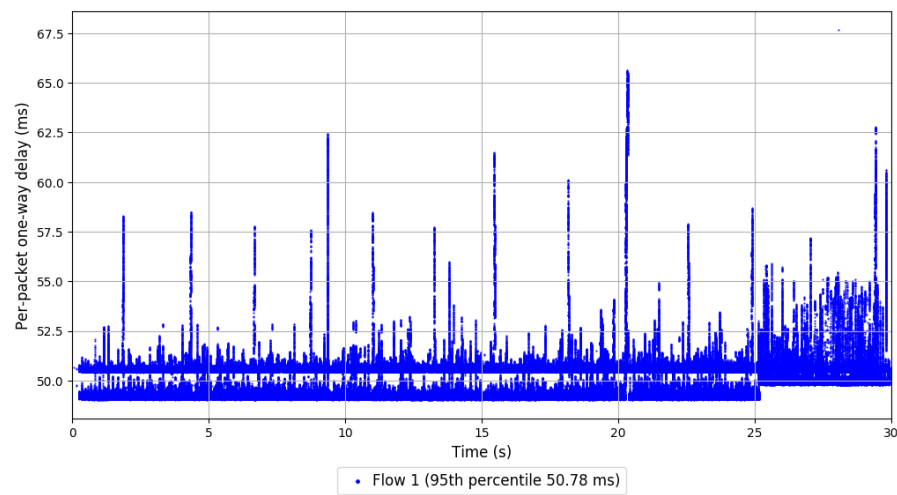
Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 5.94 Mbit/s)　　Flow 1 egress (mean 5.93 Mbit/s)

Flow 1 (95th percentile 51.15 ms)

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

Start at: 2018-06-07 11:37:24
End at: 2018-06-07 11:37:54
Local clock offset: 0.343 ms
Remote clock offset: 0.236 ms

# Below is generated by plot.py at 2018-06-07 15:54:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.42 Mbit/s
95th percentile per-packet one-way delay: 50.780 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 222.42 Mbit/s
95th percentile per-packet one-way delay: 50.780 ms
Loss rate: 0.37%
```
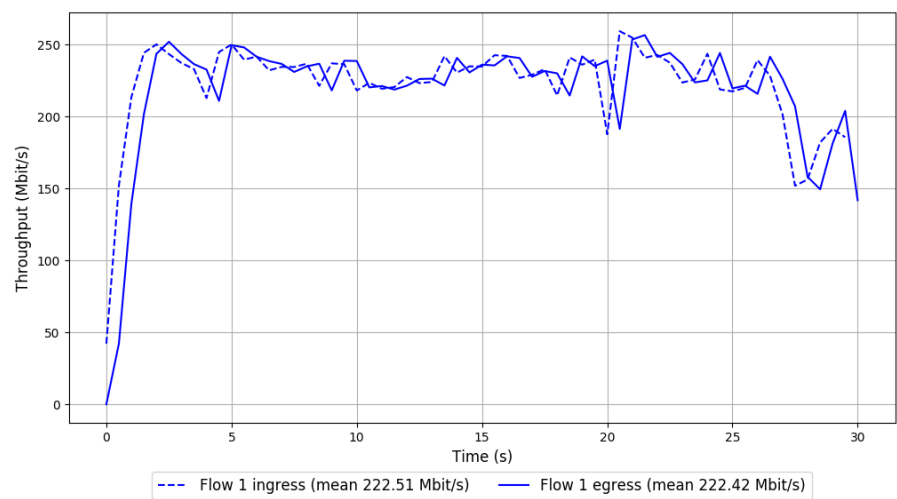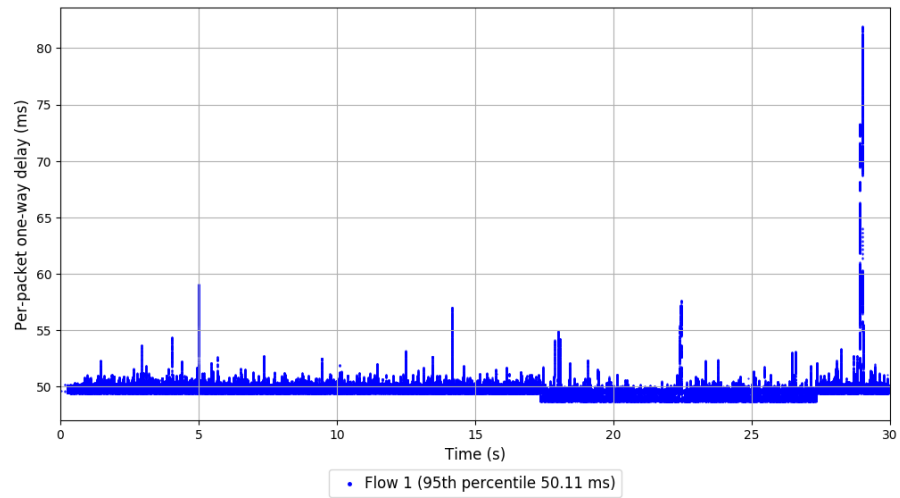
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 222.51 Mbit/s) — Flow 1 egress (mean 222.42 Mbit/s)

Flow 1 (95th percentile 50.78 ms)

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

Start at: 2018-06-07 11:57:42
End at: 2018-06-07 11:58:12
Local clock offset: 0.01 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2018-06-07 15:55:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.62 Mbit/s
95th percentile per-packet one-way delay: 50.112 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 250.62 Mbit/s
95th percentile per-packet one-way delay: 50.112 ms
Loss rate: 0.33%
```
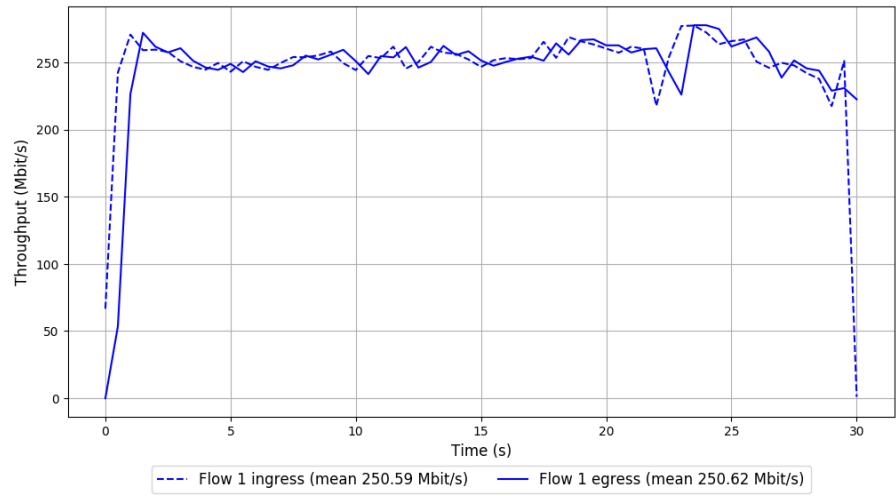
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-07 12:17:46
End at: 2018-06-07 12:18:16
Local clock offset: 0.013 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2018-06-07 15:55:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.78 Mbit/s
95th percentile per-packet one-way delay: 50.745 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 246.78 Mbit/s
95th percentile per-packet one-way delay: 50.745 ms
Loss rate: 0.35%
```
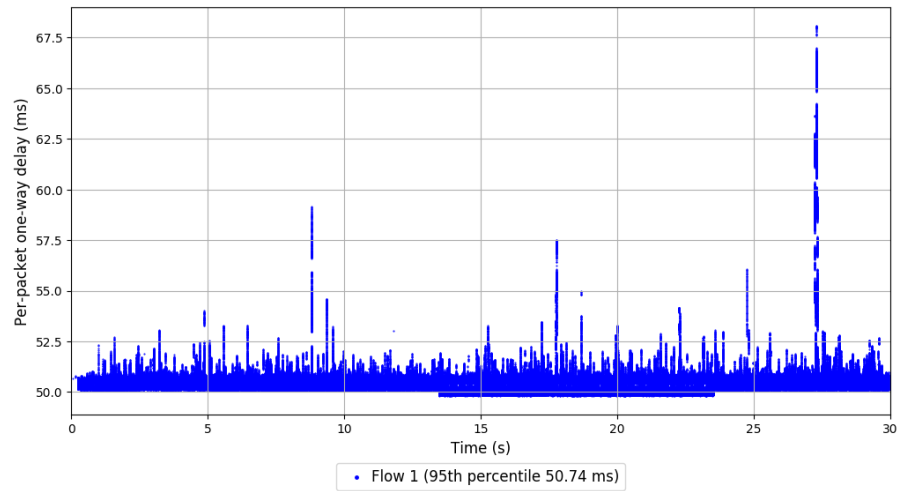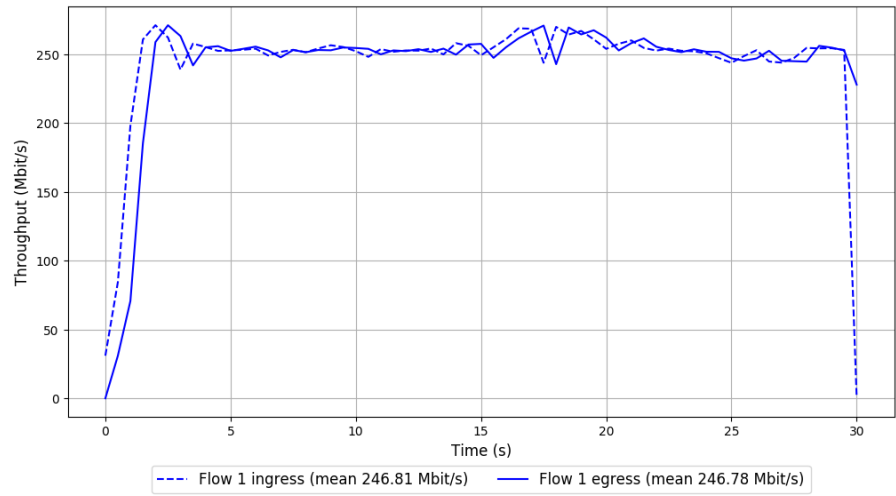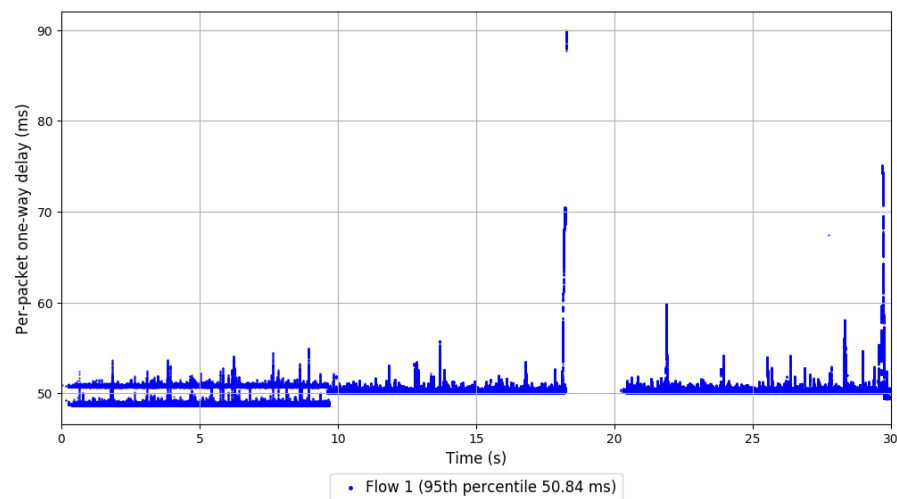
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 246.81 Mbit/s)   Flow 1 egress (mean 246.78 Mbit/s)

Flow 1 (95th percentile 50.74 ms)

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

Start at: 2018-06-07 12:38:00
End at: 2018-06-07 12:38:30
Local clock offset: 0.002 ms
Remote clock offset: -0.052 ms


# Below is generated by plot.py at 2018-06-07 15:55:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.40 Mbit/s
95th percentile per-packet one-way delay: 50.840 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 204.40 Mbit/s
95th percentile per-packet one-way delay: 50.840 ms
Loss rate: 0.43%
```
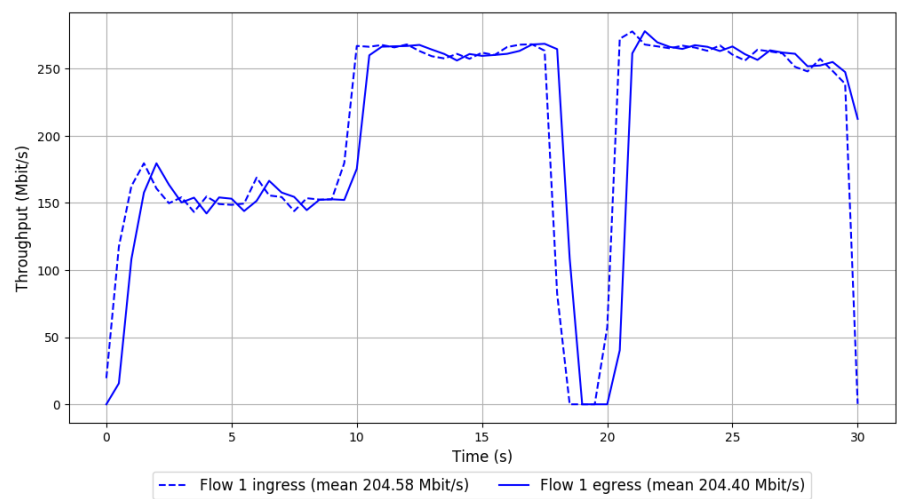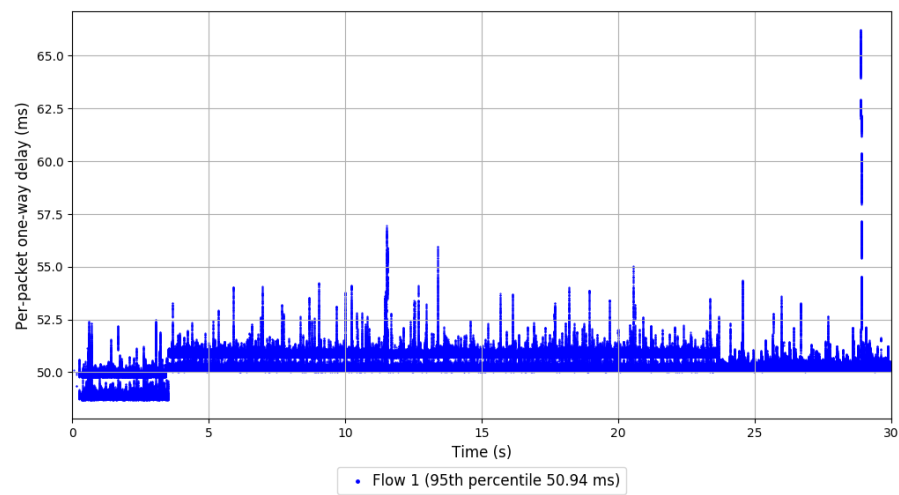
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 204.58 Mbit/s)   Flow 1 egress (mean 204.40 Mbit/s)

Flow 1 (95th percentile 50.84 ms)

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

Start at: 2018-06-07 12:58:06
End at: 2018-06-07 12:58:36
Local clock offset: 0.019 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2018-06-07 15:55:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.96 Mbit/s
95th percentile per-packet one-way delay: 50.943 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 229.96 Mbit/s
95th percentile per-packet one-way delay: 50.943 ms
Loss rate: 0.37%
```
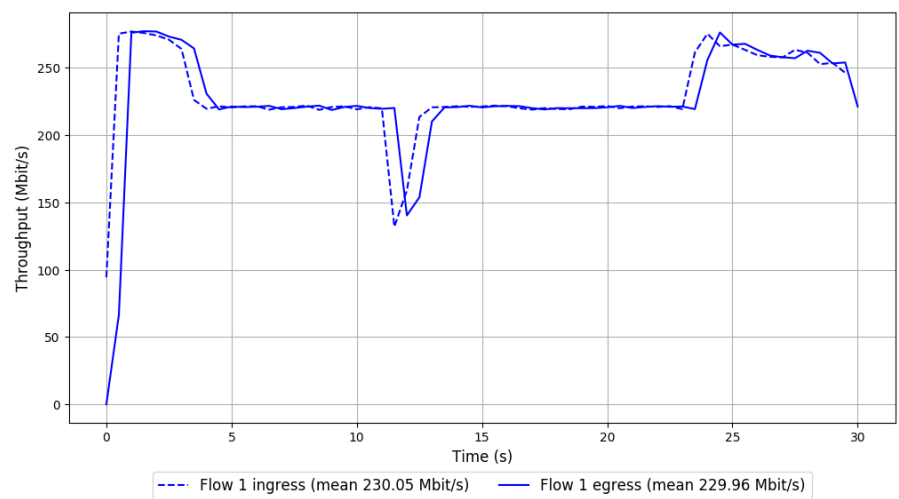
Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-07 13:18:26
End at: 2018-06-07 13:18:56
Local clock offset: 0.05 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-06-07 15:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.32 Mbit/s
95th percentile per-packet one-way delay: 50.978 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 239.32 Mbit/s
95th percentile per-packet one-way delay: 50.978 ms
Loss rate: 0.37%
```
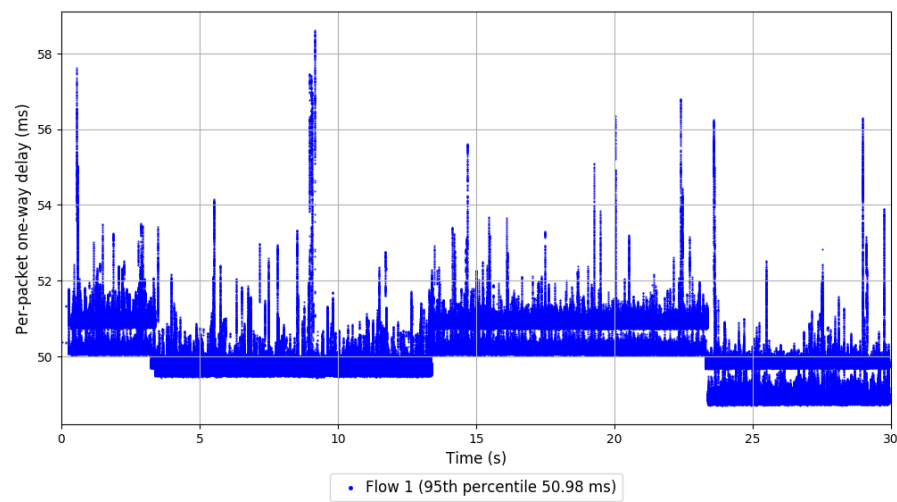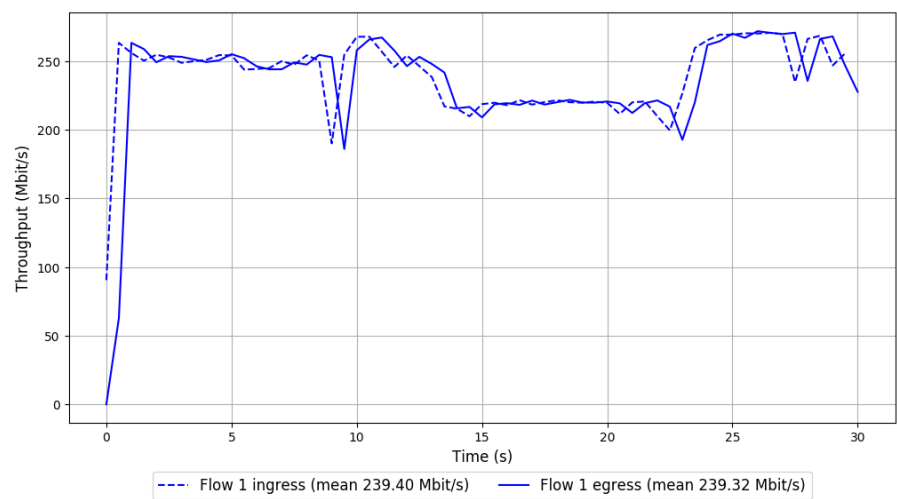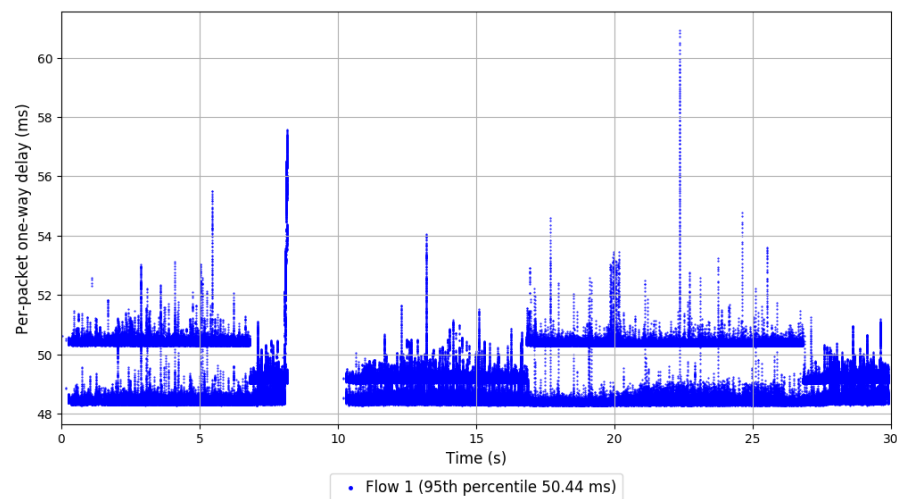
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 239.40 Mbit/s) --- Flow 1 egress (mean 239.32 Mbit/s)

Flow 1 (95th percentile 50.98 ms)

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

Start at: 2018-06-07 13:38:33
End at: 2018-06-07 13:39:03
Local clock offset: -0.42 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-06-07 15:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.53 Mbit/s
95th percentile per-packet one-way delay: 50.437 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 144.53 Mbit/s
95th percentile per-packet one-way delay: 50.437 ms
Loss rate: 0.28%
```
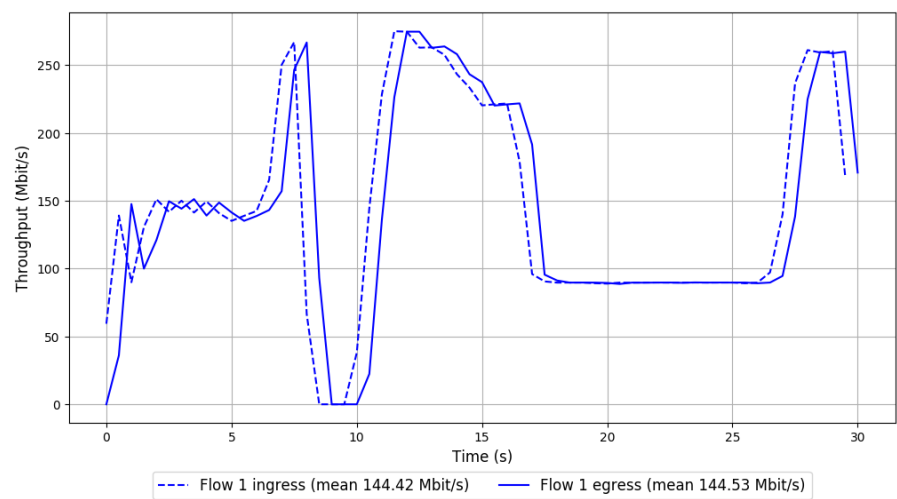
Run 7: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-07 13:58:34
End at: 2018-06-07 13:59:04
Local clock offset: -0.067 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2018-06-07 15:57:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 203.26 Mbit/s
95th percentile per-packet one-way delay: 50.954 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 203.26 Mbit/s
95th percentile per-packet one-way delay: 50.954 ms
Loss rate: 0.43%
```
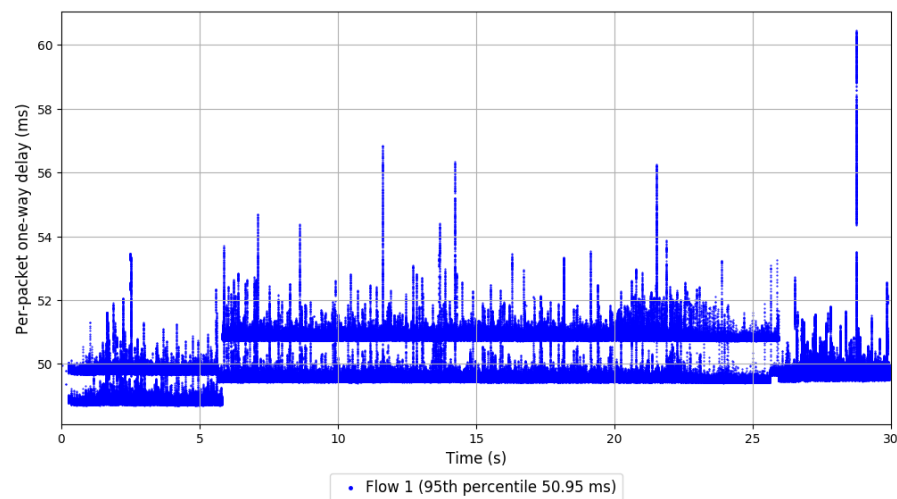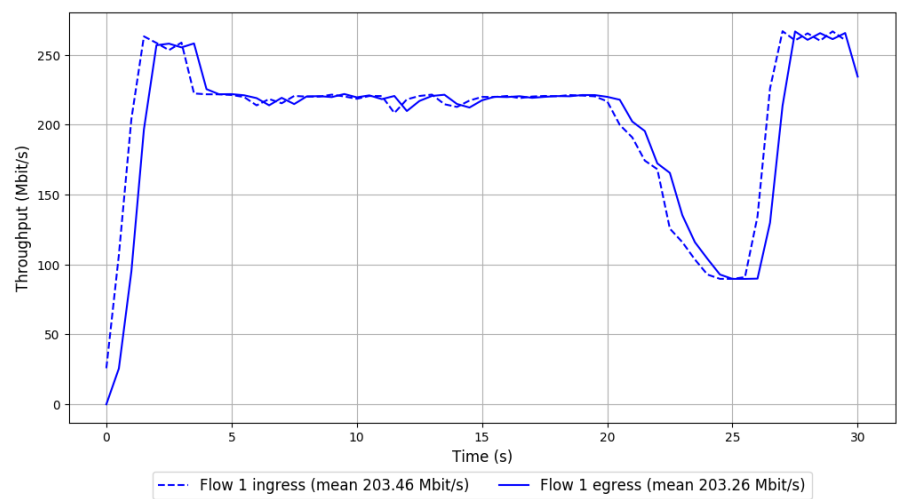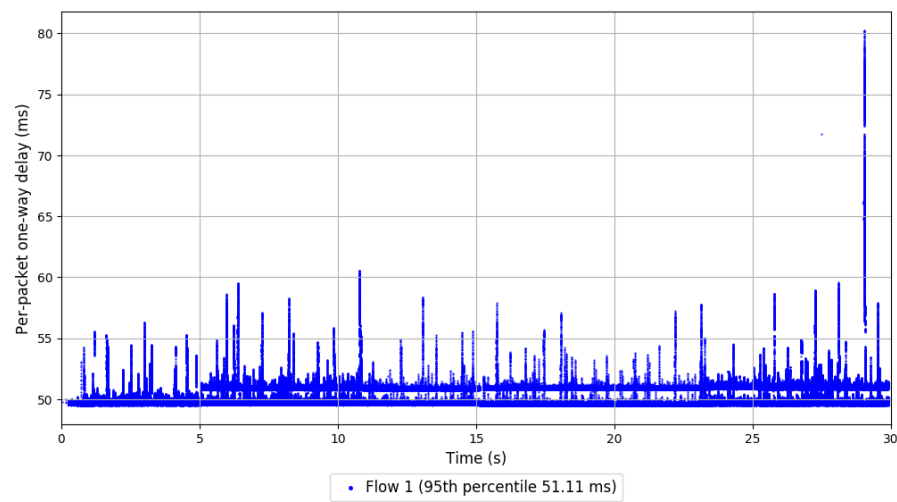
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 203.46 Mbit/s)   Flow 1 egress (mean 203.26 Mbit/s)

Flow 1 (95th percentile 50.95 ms)

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

Start at: 2018-06-07 14:18:44
End at: 2018-06-07 14:19:14
Local clock offset: 0.025 ms
Remote clock offset: -0.004 ms


# Below is generated by plot.py at 2018-06-07 15:59:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 159.52 Mbit/s
95th percentile per-packet one-way delay: 51.107 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 159.52 Mbit/s
95th percentile per-packet one-way delay: 51.107 ms
Loss rate: 0.51%
```
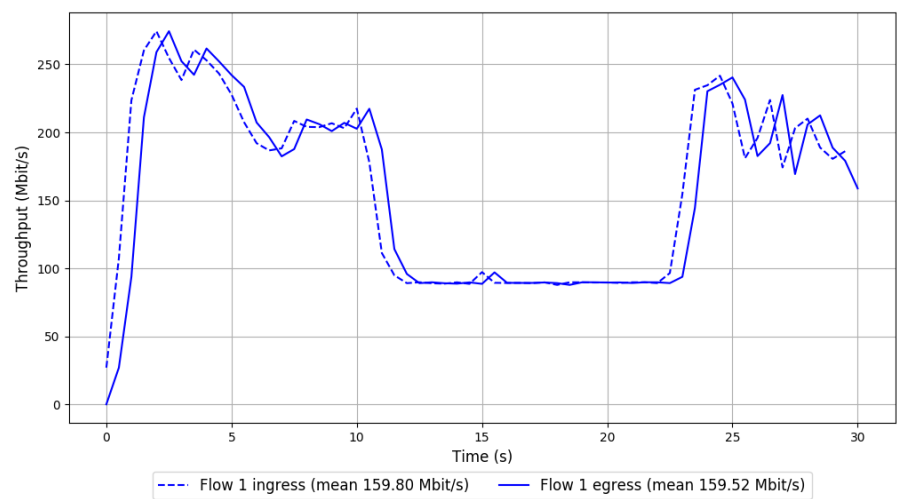
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-07 14:38:46
End at: 2018-06-07 14:39:16
Local clock offset: -0.771 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.69 Mbit/s
95th percentile per-packet one-way delay: 50.158 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 179.69 Mbit/s
95th percentile per-packet one-way delay: 50.158 ms
Loss rate: 0.41%
```
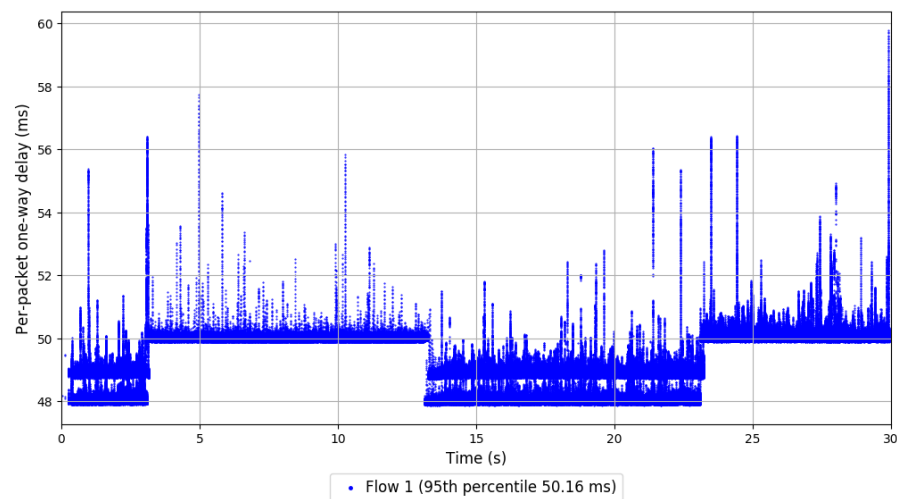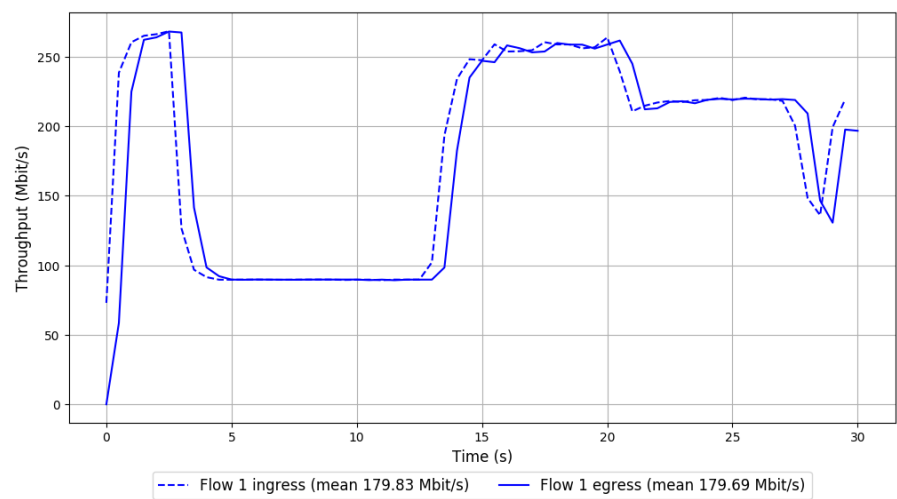
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 179.83 Mbit/s) —— Flow 1 egress (mean 179.69 Mbit/s)

• Flow 1 (95th percentile 50.16 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-06-07 11:33:58
End at: 2018-06-07 11:34:28
Local clock offset: 0.38 ms
Remote clock offset: 0.191 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 51.535 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 63.29 Mbit/s
95th percentile per-packet one-way delay: 51.535 ms
Loss rate: 0.36%
```
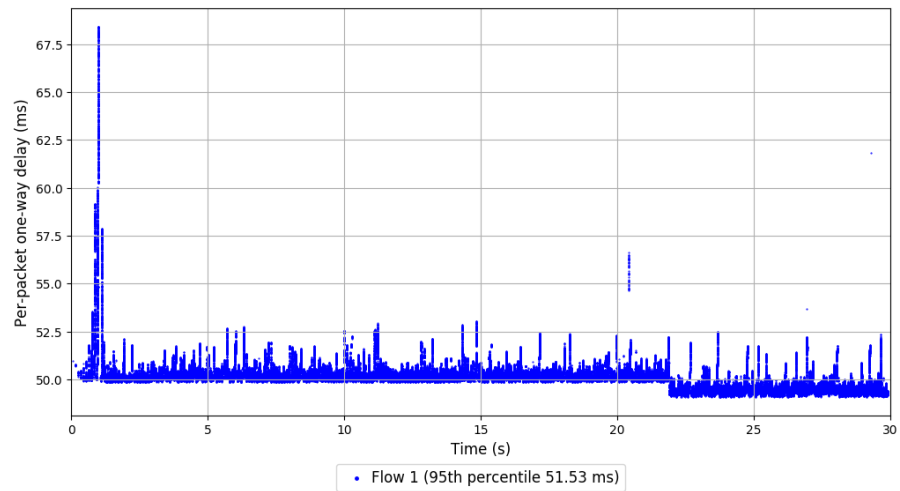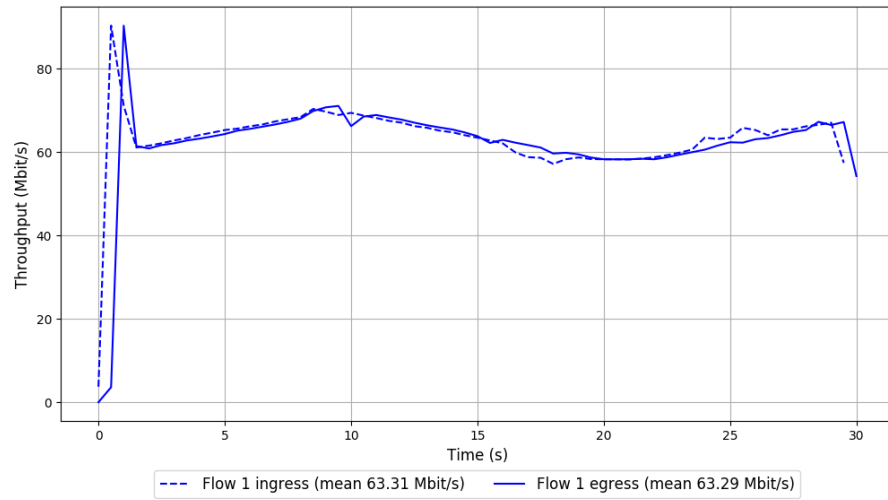
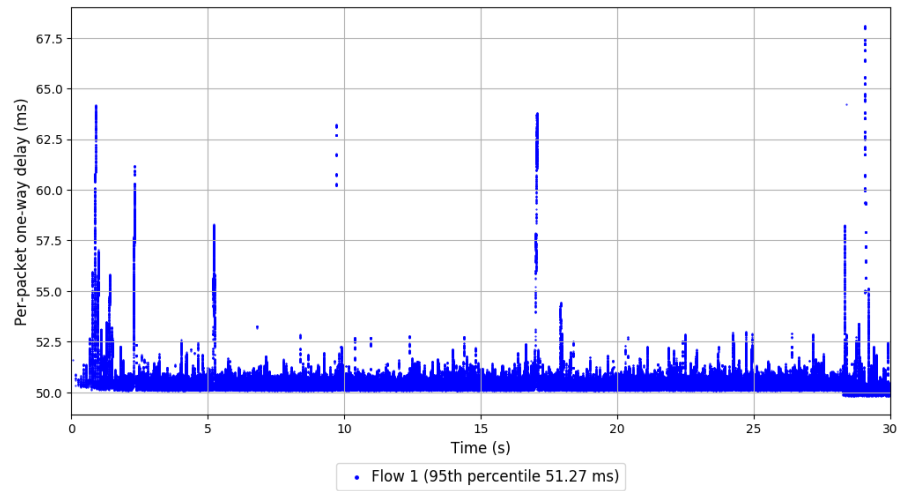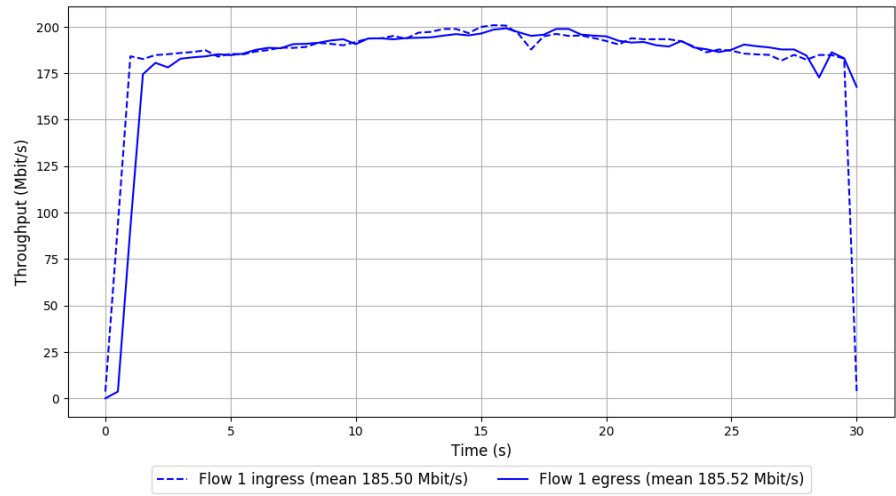Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-06-07 11:54:11
End at: 2018-06-07 11:54:41
Local clock offset: 0.008 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.52 Mbit/s
95th percentile per-packet one-way delay: 51.271 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 185.52 Mbit/s
95th percentile per-packet one-way delay: 51.271 ms
Loss rate: 0.33%
```

Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 185.50 Mbit/s)   Flow 1 egress (mean 185.52 Mbit/s)
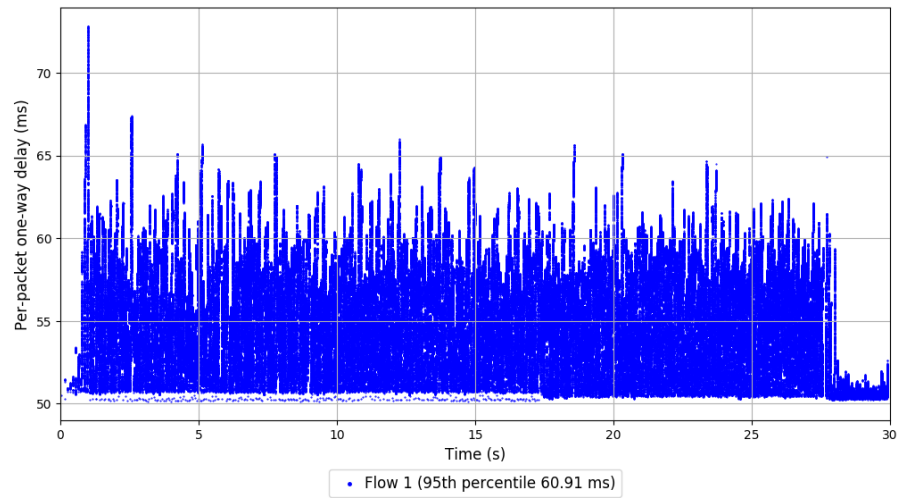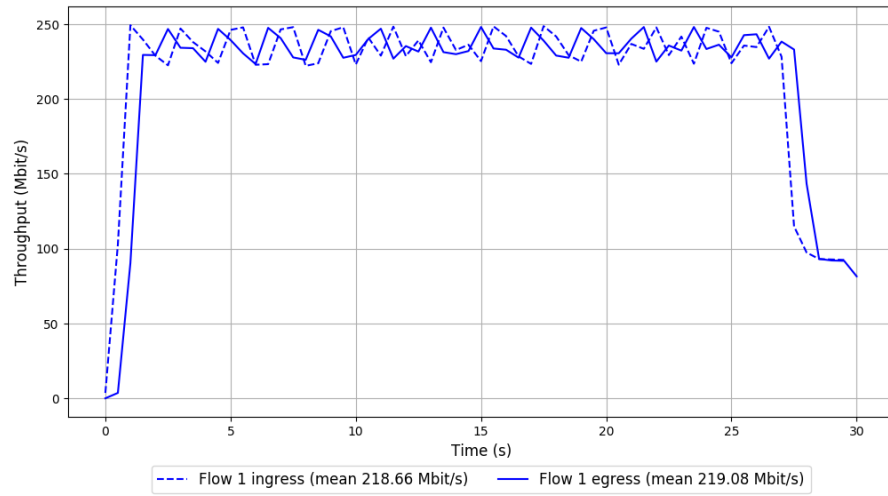

Flow 1 (95th percentile 51.27 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2018-06-07 12:14:12
End at: 2018-06-07 12:14:42
Local clock offset: 0.418 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.08 Mbit/s
95th percentile per-packet one-way delay: 60.911 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 219.08 Mbit/s
95th percentile per-packet one-way delay: 60.911 ms
Loss rate: 0.14%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 218.66 Mbit/s)   Flow 1 egress (mean 219.08 Mbit/s)
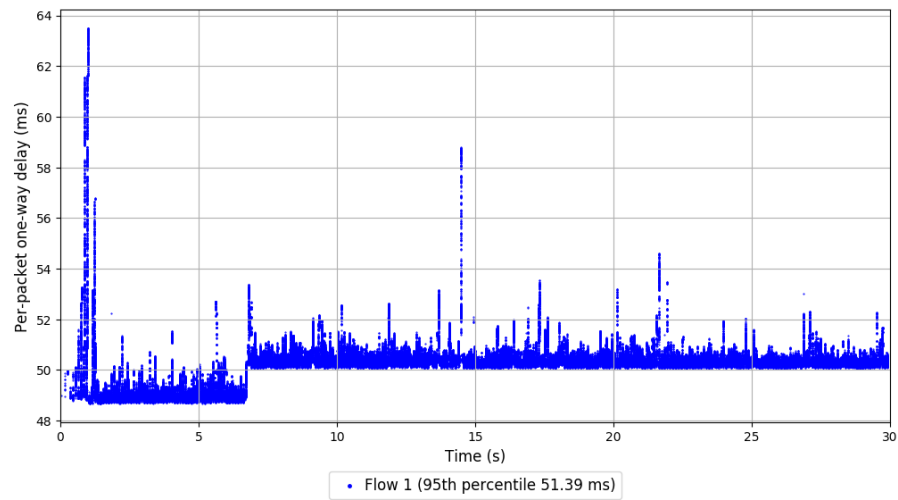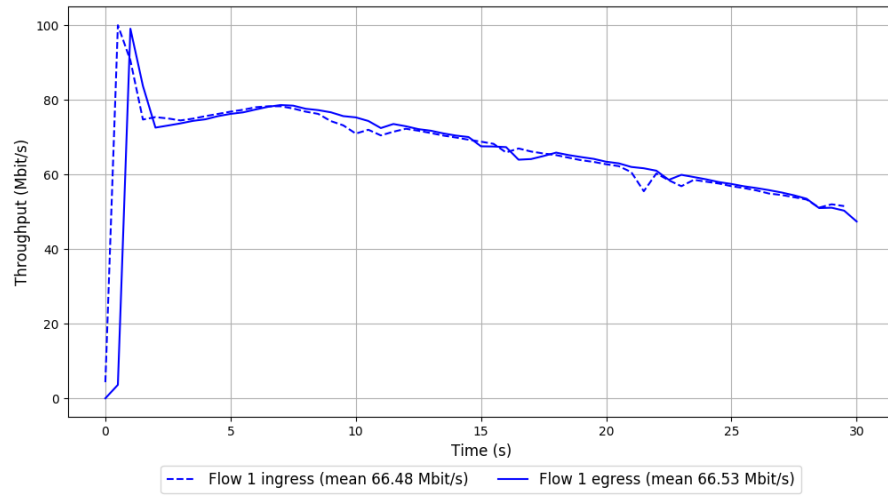

Flow 1 (95th percentile 60.91 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-06-07 12:34:33
End at: 2018-06-07 12:35:03
Local clock offset: 0.027 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 51.390 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 66.53 Mbit/s
95th percentile per-packet one-way delay: 51.390 ms
Loss rate: 0.26%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 66.48 Mbit/s) — — —   Flow 1 egress (mean 66.53 Mbit/s) ———
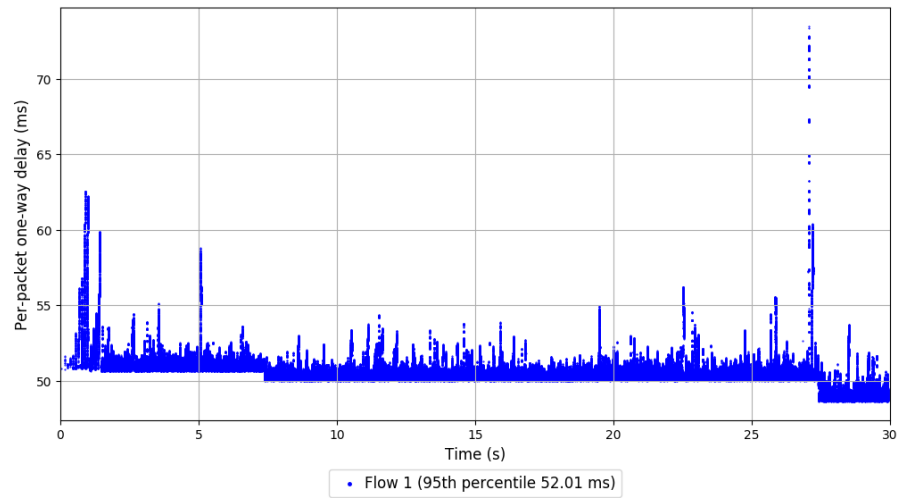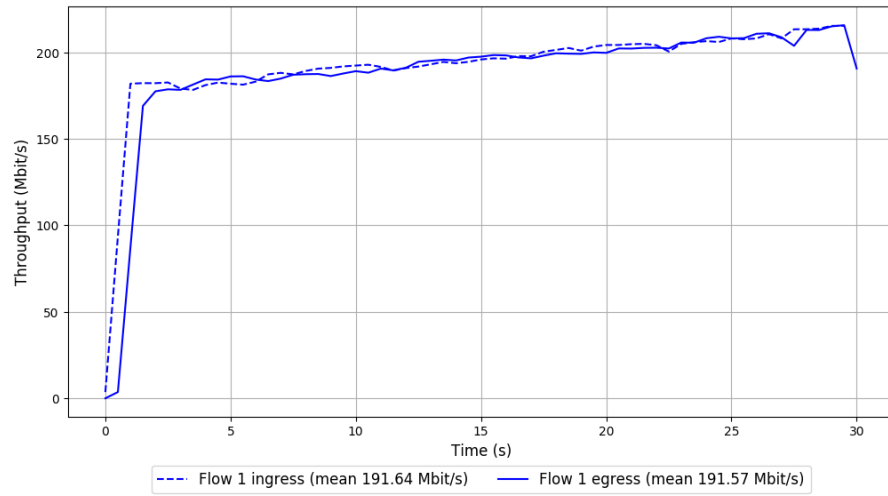

Flow 1 (95th percentile 51.39 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-06-07 12:54:32
End at: 2018-06-07 12:55:02
Local clock offset: 0.008 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.57 Mbit/s
95th percentile per-packet one-way delay: 52.006 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 191.57 Mbit/s
95th percentile per-packet one-way delay: 52.006 ms
Loss rate: 0.37%
```

Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 191.64 Mbit/s)   Flow 1 egress (mean 191.57 Mbit/s)
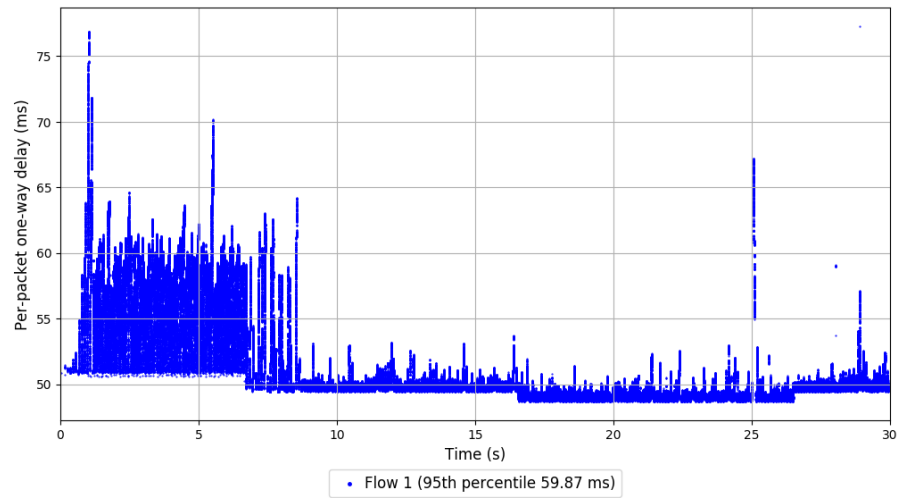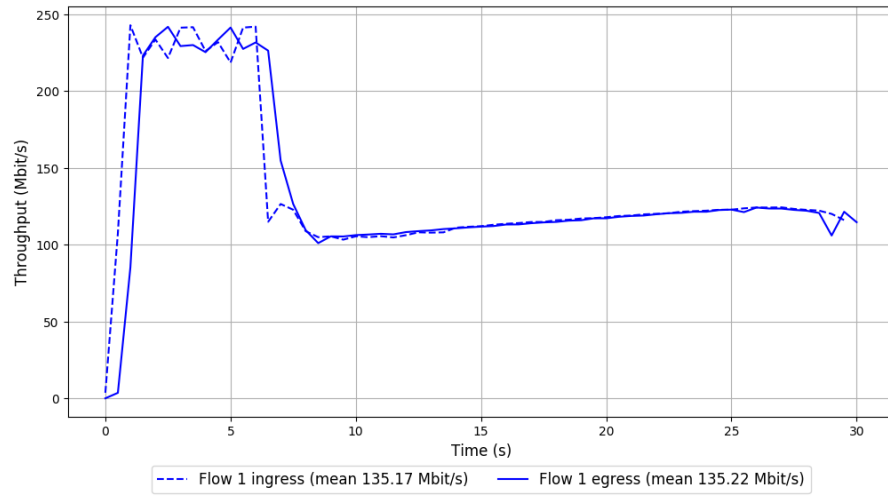

Flow 1 (95th percentile 52.01 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2018-06-07 13:14:53
End at: 2018-06-07 13:15:23
Local clock offset: 0.041 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 135.22 Mbit/s
95th percentile per-packet one-way delay: 59.867 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 135.22 Mbit/s
95th percentile per-packet one-way delay: 59.867 ms
Loss rate: 0.30%
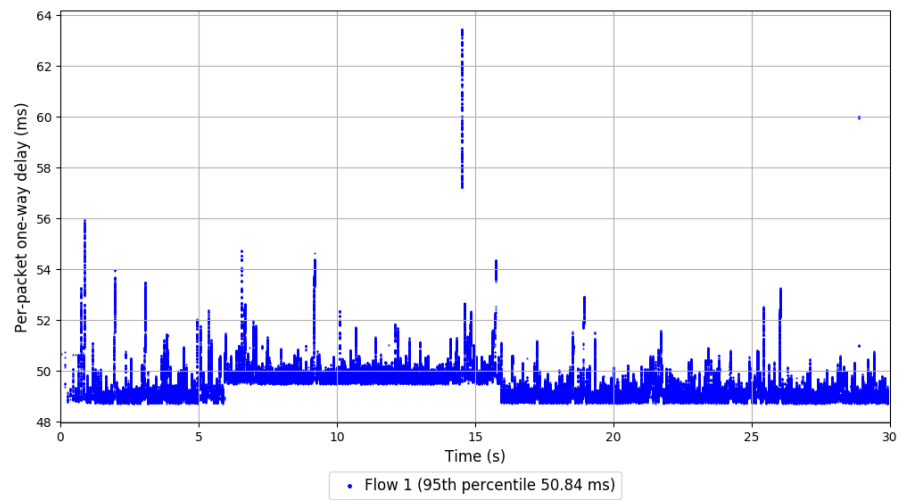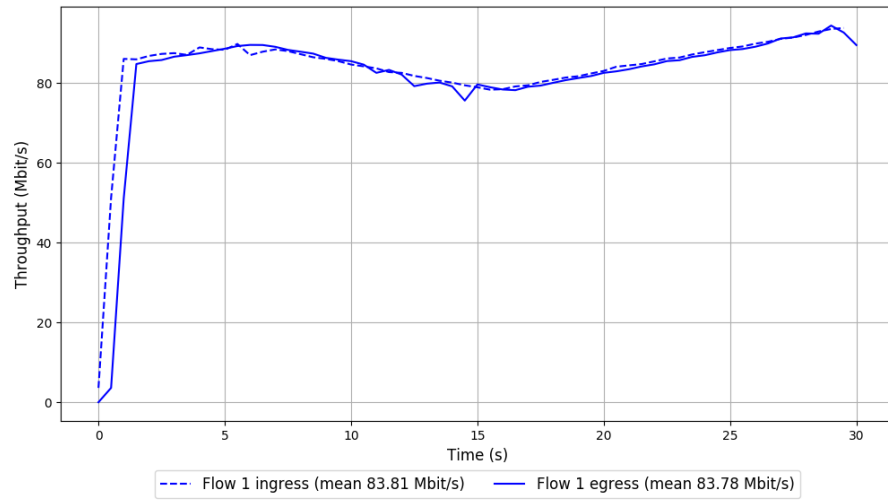```

# Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-06-07 13:35:04
End at: 2018-06-07 13:35:34
Local clock offset: 0.025 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.78 Mbit/s
95th percentile per-packet one-way delay: 50.842 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 83.78 Mbit/s
95th percentile per-packet one-way delay: 50.842 ms
Loss rate: 0.37%
```

Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 83.81 Mbit/s)   Flow 1 egress (mean 83.78 Mbit/s)

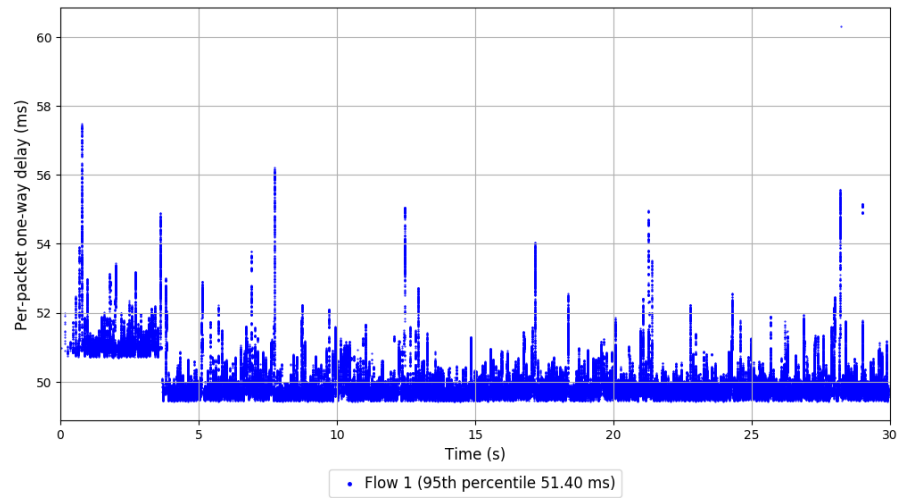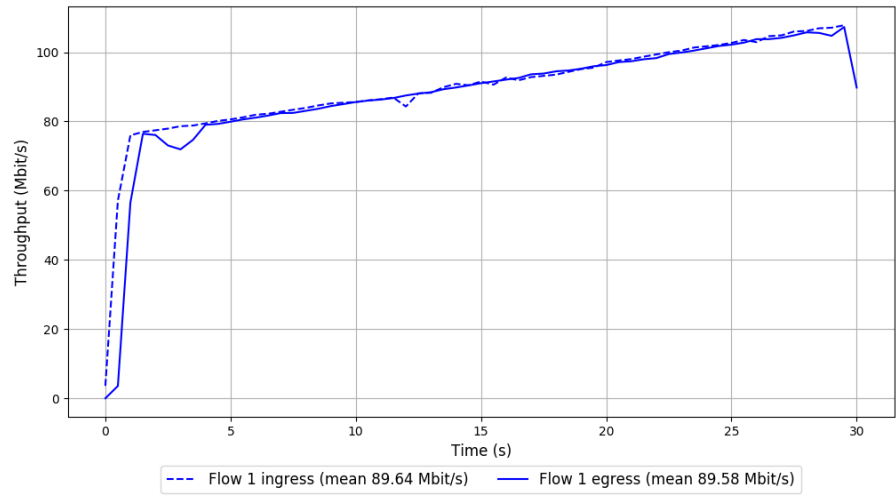
Flow 1 (95th percentile 50.84 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2018-06-07 13:55:06
End at: 2018-06-07 13:55:36
Local clock offset: -0.088 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2018-06-07 16:00:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.58 Mbit/s
95th percentile per-packet one-way delay: 51.395 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 89.58 Mbit/s
95th percentile per-packet one-way delay: 51.395 ms
Loss rate: 0.40%
```
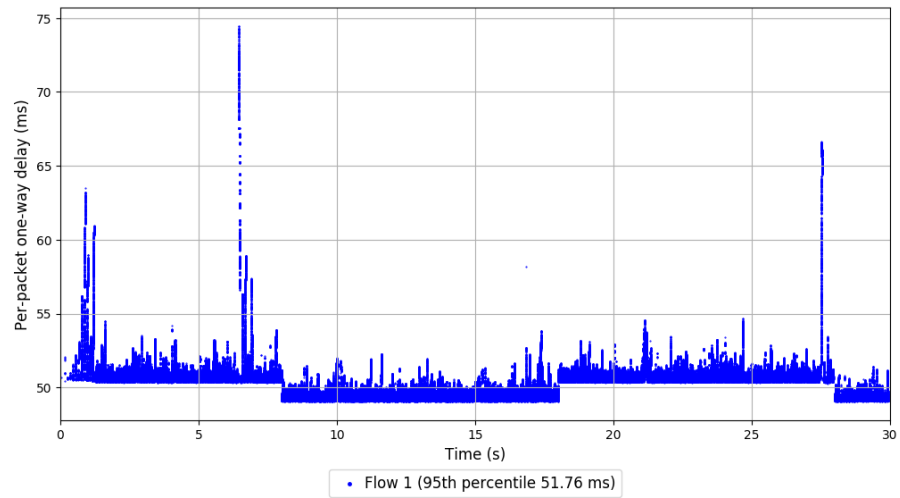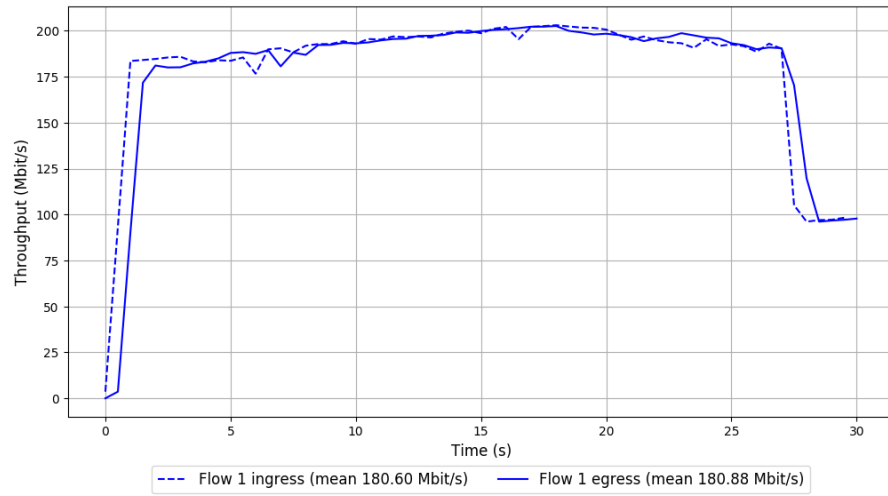
Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-06-07 14:15:12
End at: 2018-06-07 14:15:42
Local clock offset: -0.464 ms
Remote clock offset: -0.033 ms


# Below is generated by plot.py at 2018-06-07 16:00:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.88 Mbit/s
95th percentile per-packet one-way delay: 51.757 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 180.88 Mbit/s
95th percentile per-packet one-way delay: 51.757 ms
Loss rate: 0.18%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-06-07 14:35:22
End at: 2018-06-07 14:35:52
Local clock offset: -0.149 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-07 16:00:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 50.839 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 38.91 Mbit/s
95th percentile per-packet one-way delay: 50.839 ms
Loss rate: 0.23%
```
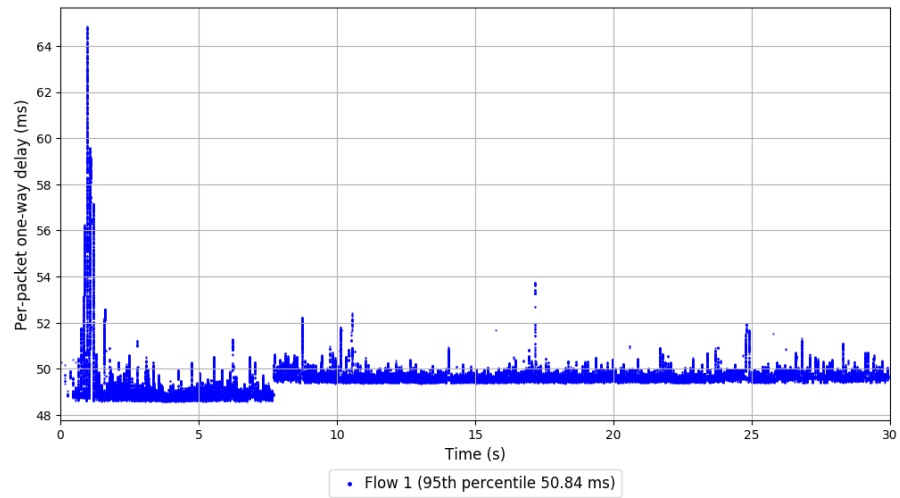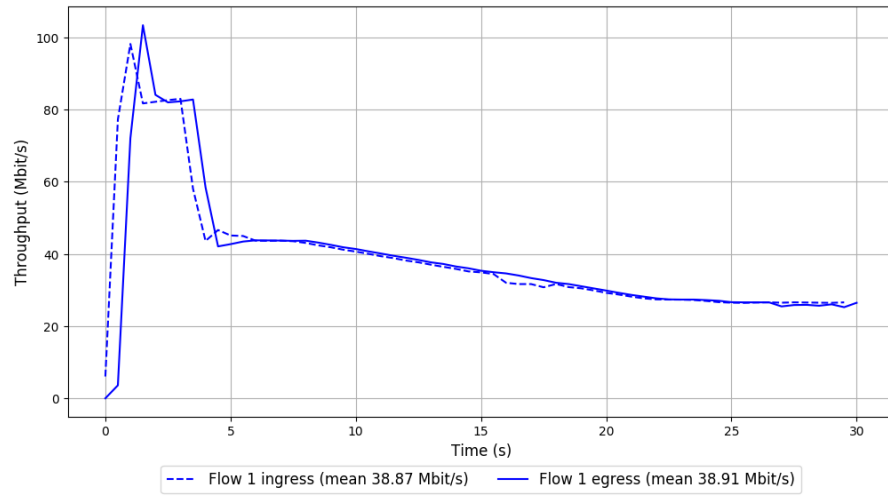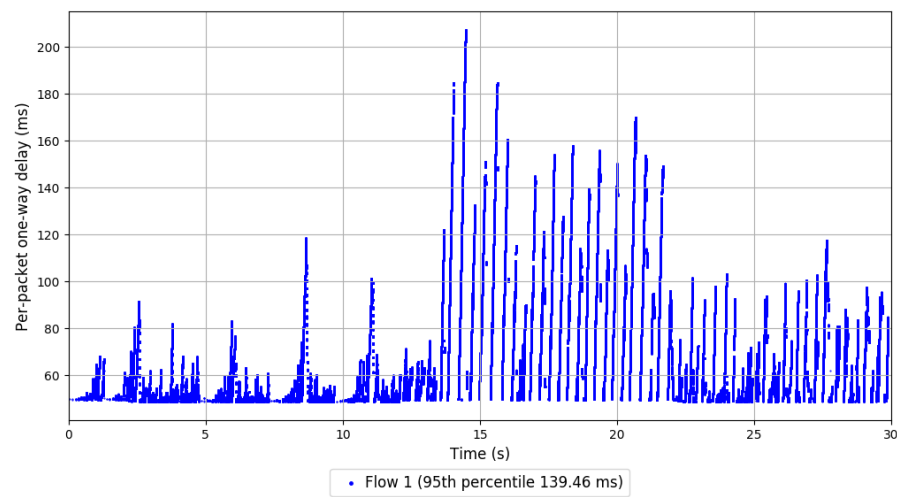
Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 38.87 Mbit/s)   Flow 1 egress (mean 38.91 Mbit/s)

Flow 1 (95th percentile 50.84 ms)

```
Run 1: Statistics of Verus

Start at: 2018-06-07 11:45:47
End at: 2018-06-07 11:46:17
Local clock offset: -0.021 ms
Remote clock offset: 0.106 ms

# Below is generated by plot.py at 2018-06-07 16:02:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.02 Mbit/s
95th percentile per-packet one-way delay: 139.456 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 225.02 Mbit/s
95th percentile per-packet one-way delay: 139.456 ms
Loss rate: 0.38%
```
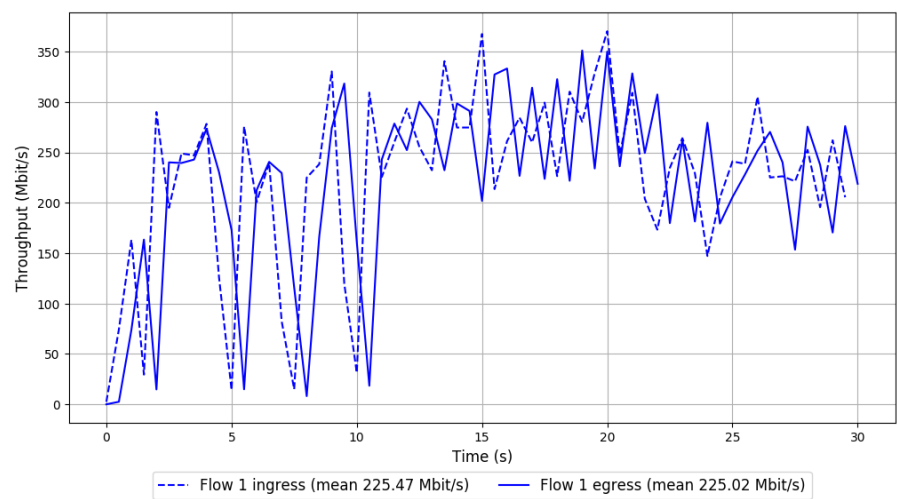
Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 225.47 Mbit/s)   Flow 1 egress (mean 225.02 Mbit/s)

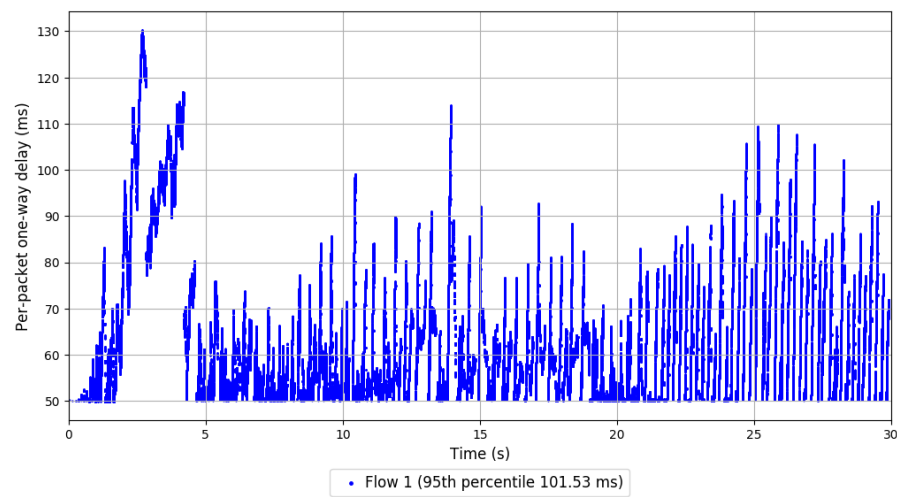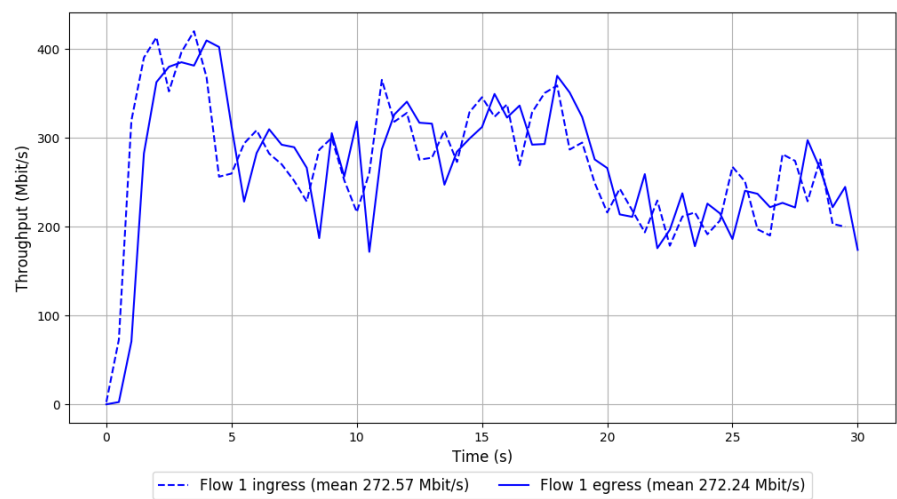Flow 1 (95th percentile 139.46 ms)

```
Run 2: Statistics of Verus

Start at: 2018-06-07 12:05:36
End at: 2018-06-07 12:06:06
Local clock offset: 0.021 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2018-06-07 16:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.24 Mbit/s
95th percentile per-packet one-way delay: 101.533 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 272.24 Mbit/s
95th percentile per-packet one-way delay: 101.533 ms
Loss rate: 0.24%
```
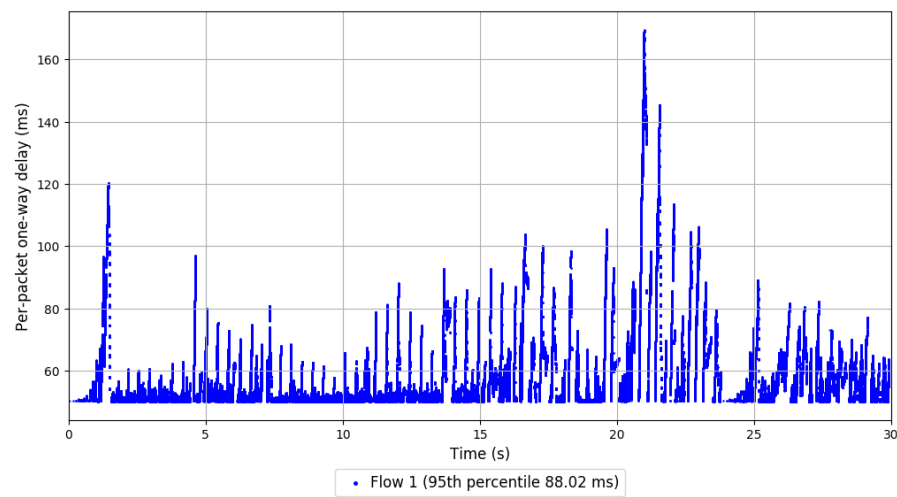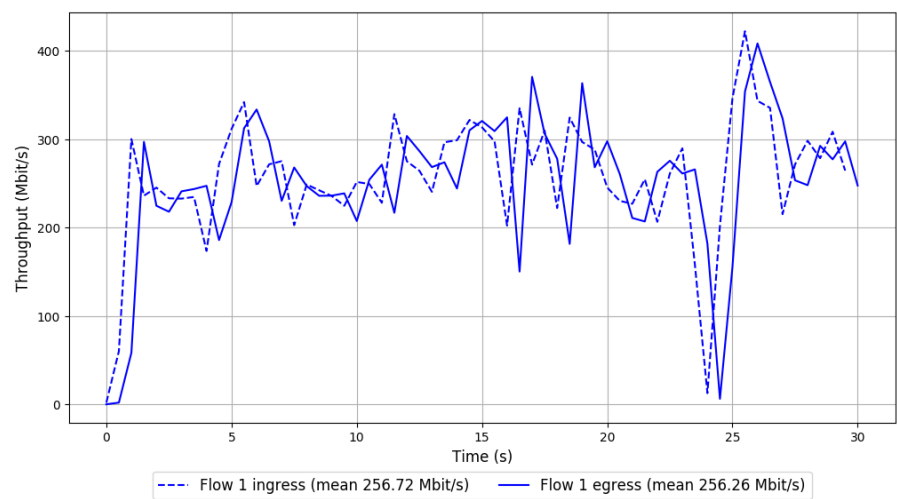
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-06-07 12:26:04
End at: 2018-06-07 12:26:34
Local clock offset: -0.013 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2018-06-07 16:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.26 Mbit/s
95th percentile per-packet one-way delay: 88.018 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 256.26 Mbit/s
95th percentile per-packet one-way delay: 88.018 ms
Loss rate: 0.46%
```
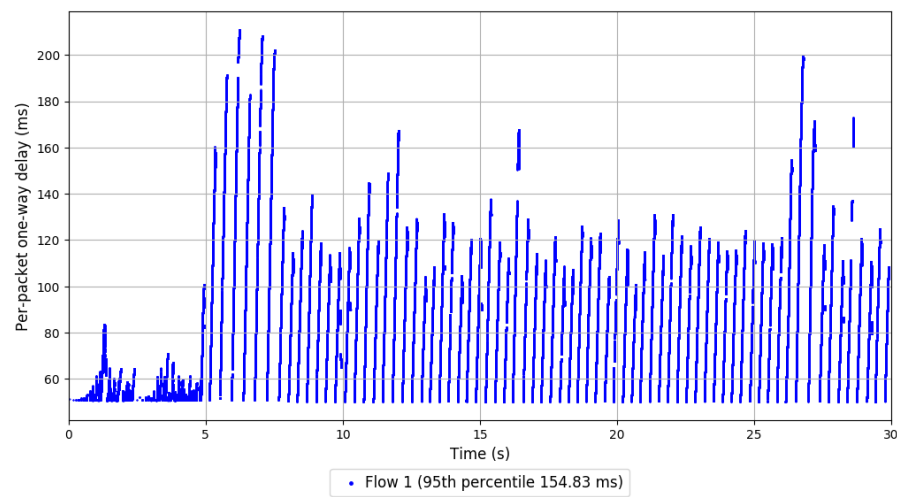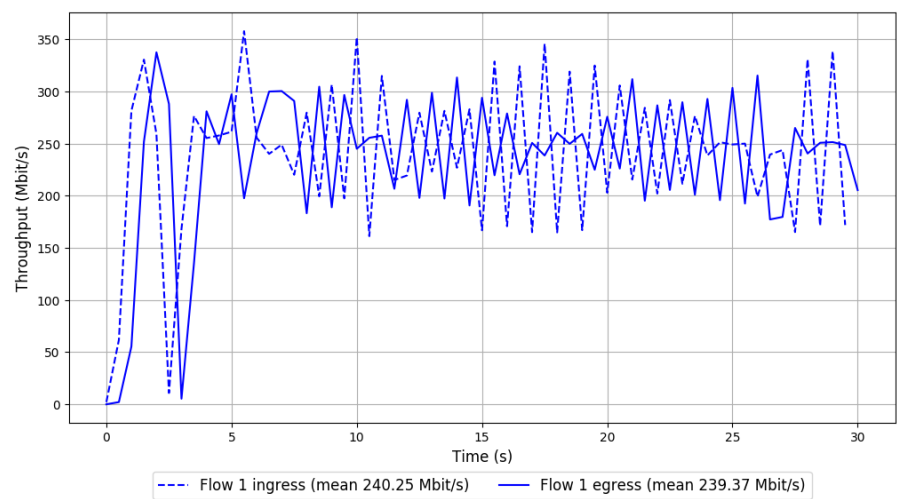
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-06-07 12:46:02
End at: 2018-06-07 12:46:32
Local clock offset: -0.017 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2018-06-07 16:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.37 Mbit/s
95th percentile per-packet one-way delay: 154.832 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 239.37 Mbit/s
95th percentile per-packet one-way delay: 154.832 ms
Loss rate: 0.39%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-06-07 13:06:22
End at: 2018-06-07 13:06:53
Local clock offset: 0.038 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-06-07 16:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.63 Mbit/s
95th percentile per-packet one-way delay: 87.039 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 219.63 Mbit/s
95th percentile per-packet one-way delay: 87.039 ms
Loss rate: 0.64%
```
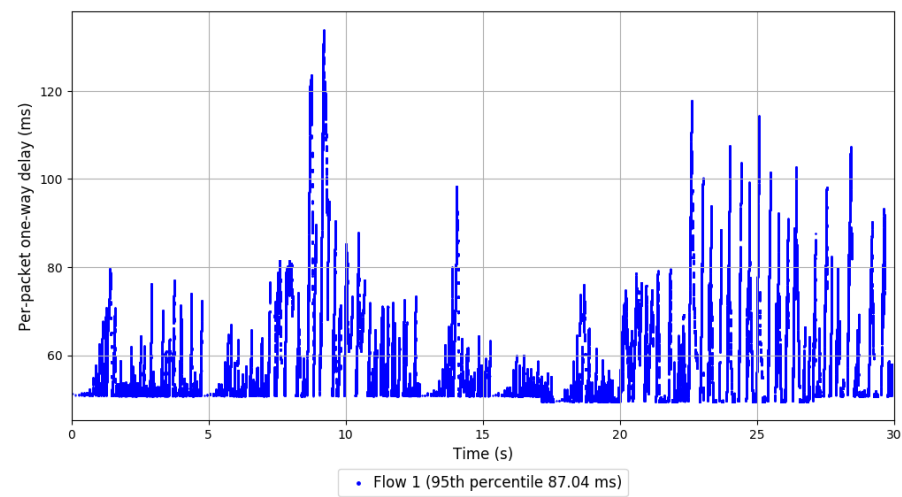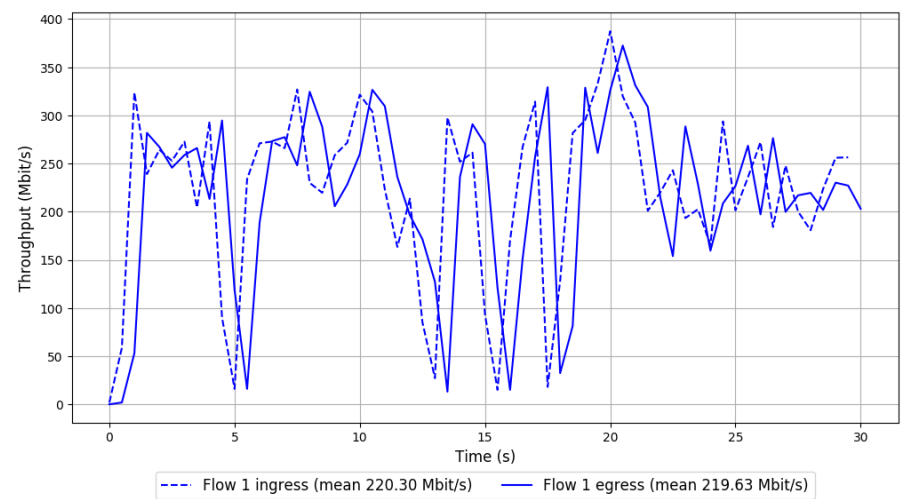
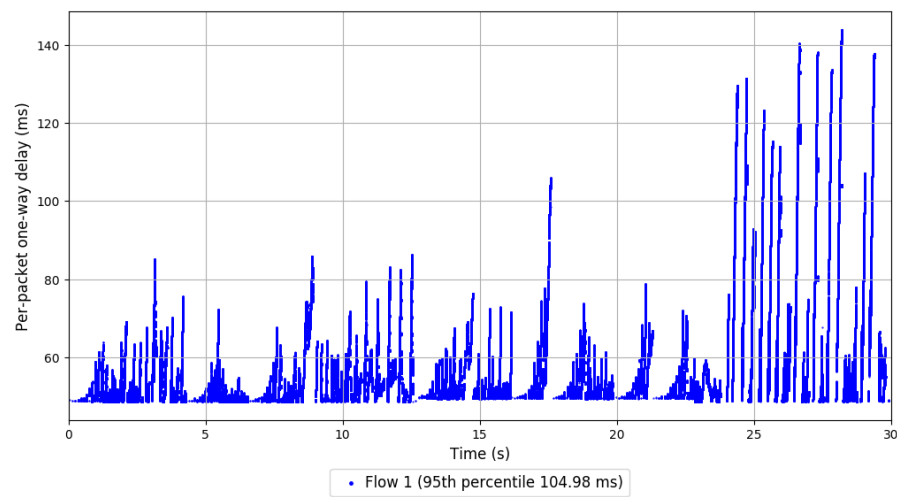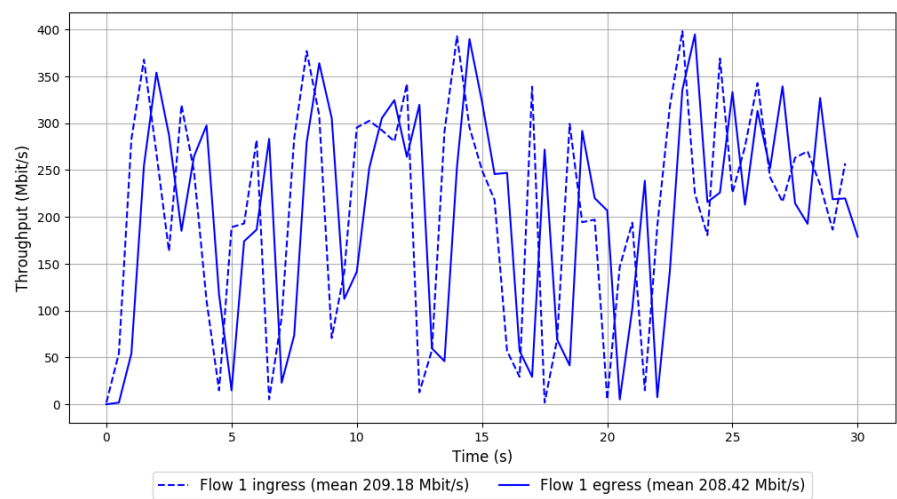Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-06-07 13:26:37
End at: 2018-06-07 13:27:07
Local clock offset: -0.023 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2018-06-07 16:03:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 208.42 Mbit/s
95th percentile per-packet one-way delay: 104.981 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 208.42 Mbit/s
95th percentile per-packet one-way delay: 104.981 ms
Loss rate: 0.68%
```

Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 209.18 Mbit/s) —— Flow 1 egress (mean 208.42 Mbit/s)

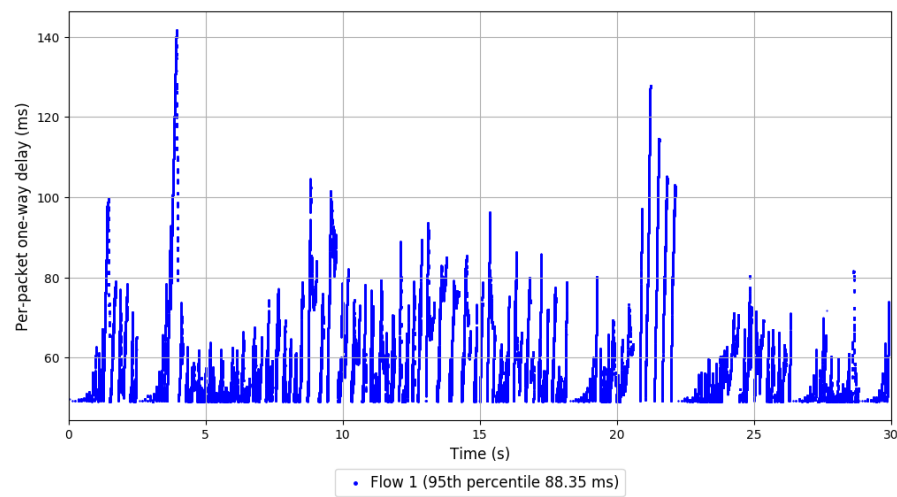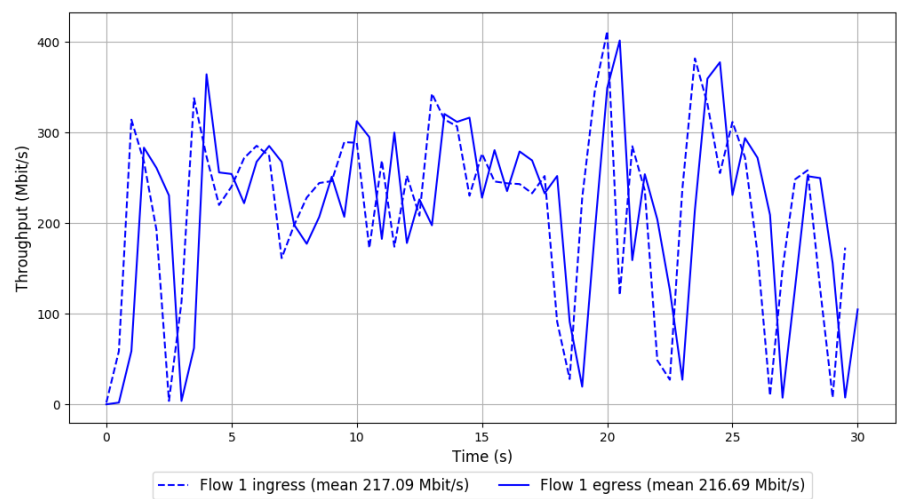• Flow 1 (95th percentile 104.98 ms)

```
Run 7: Statistics of Verus

Start at: 2018-06-07 13:46:35
End at: 2018-06-07 13:47:05
Local clock offset: -0.51 ms
Remote clock offset: -0.113 ms


# Below is generated by plot.py at 2018-06-07 16:03:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.69 Mbit/s
95th percentile per-packet one-way delay: 88.348 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 216.69 Mbit/s
95th percentile per-packet one-way delay: 88.348 ms
Loss rate: 0.52%
```

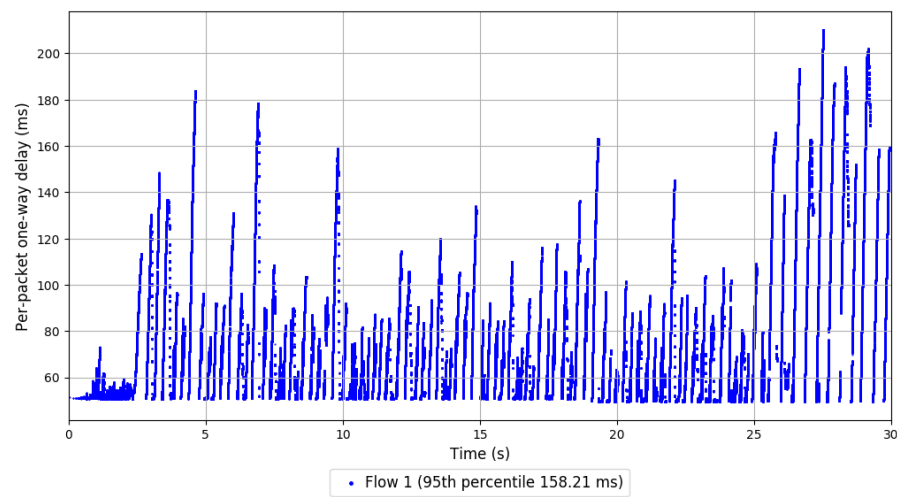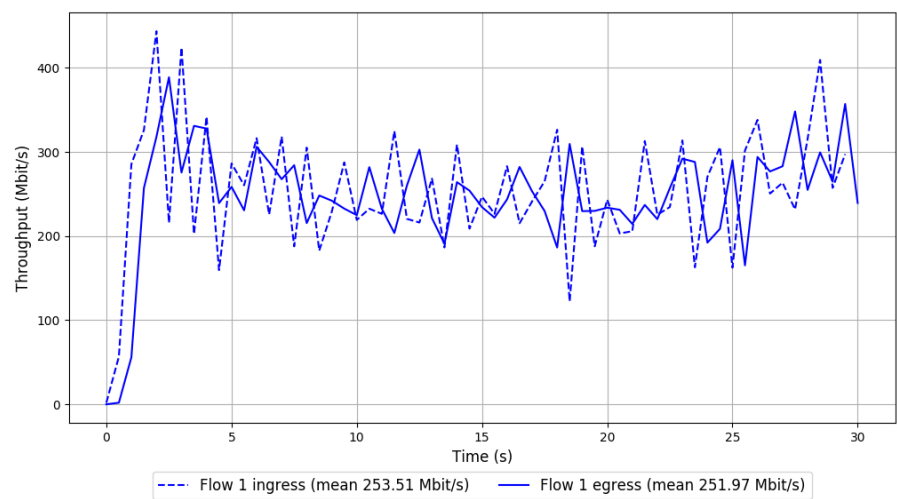Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-06-07 14:06:41
End at: 2018-06-07 14:07:11
Local clock offset: -0.052 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2018-06-07 16:05:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.97 Mbit/s
95th percentile per-packet one-way delay: 158.213 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 251.97 Mbit/s
95th percentile per-packet one-way delay: 158.213 ms
Loss rate: 0.80%
```

Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 253.51 Mbit/s)   Flow 1 egress (mean 251.97 Mbit/s)

Flow 1 (95th percentile 158.21 ms)

```
Run 9: Statistics of Verus

Start at: 2018-06-07 14:26:50
End at: 2018-06-07 14:27:20
Local clock offset: -0.102 ms
Remote clock offset: 0.008 ms


# Below is generated by plot.py at 2018-06-07 16:05:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 246.21 Mbit/s
95th percentile per-packet one-way delay: 102.505 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 246.21 Mbit/s
95th percentile per-packet one-way delay: 102.505 ms
Loss rate: 0.50%
```
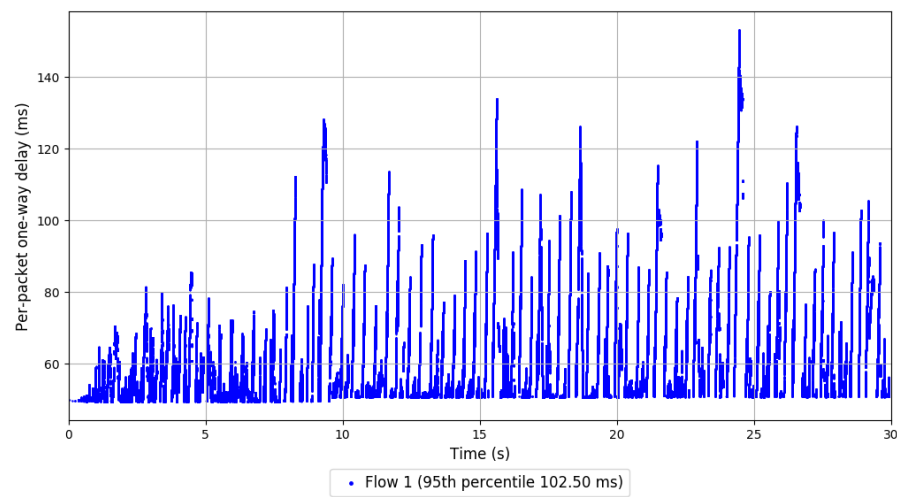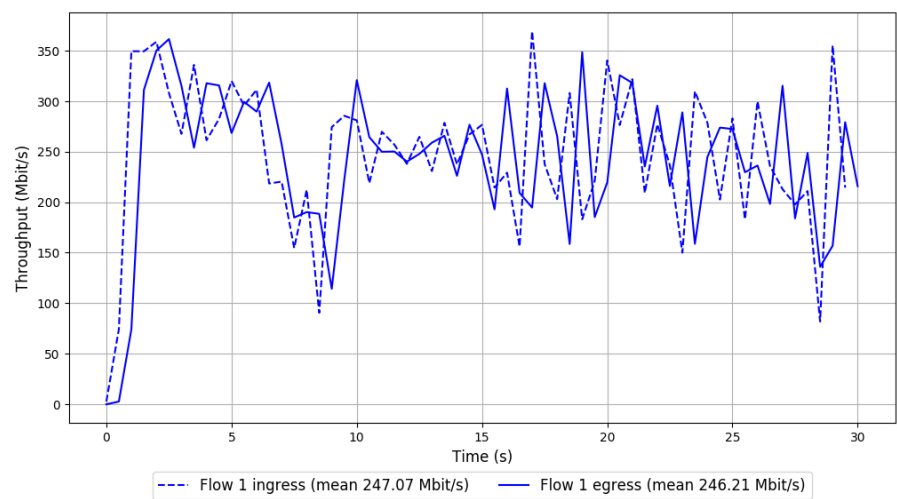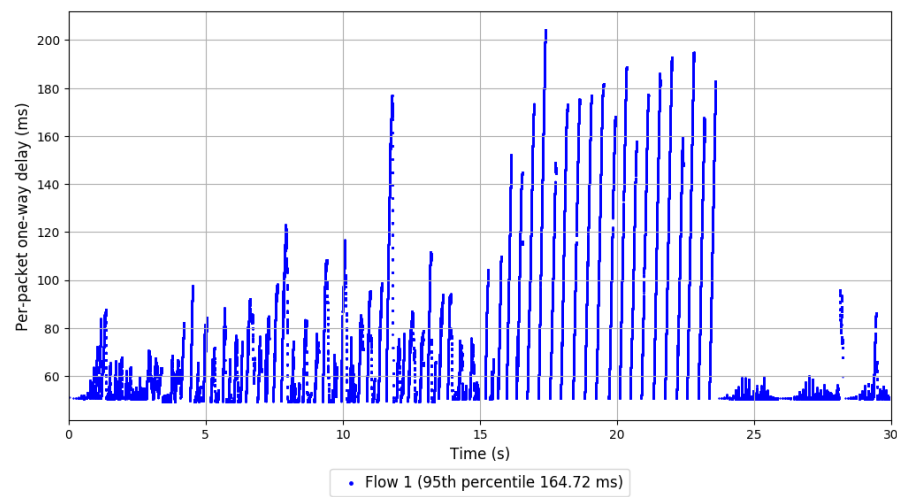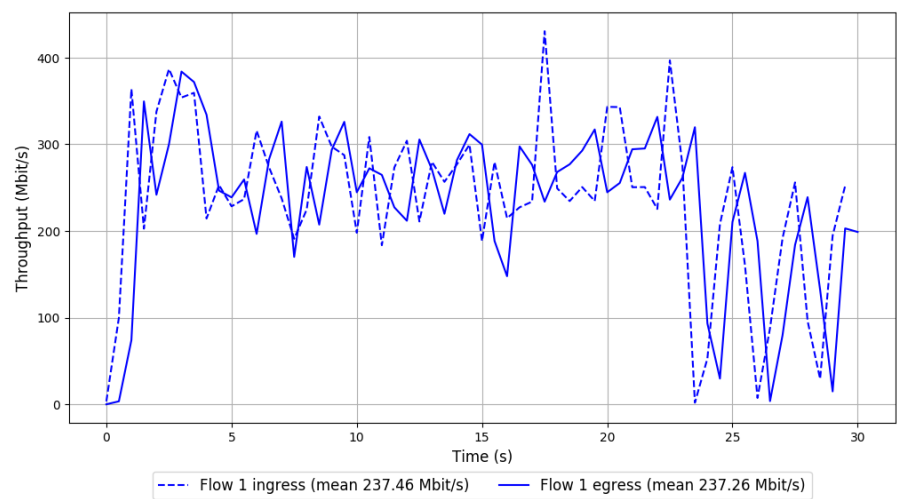
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-06-07 14:46:46
End at: 2018-06-07 14:47:16
Local clock offset: -0.197 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-06-07 16:06:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 237.26 Mbit/s
95th percentile per-packet one-way delay: 164.715 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 237.26 Mbit/s
95th percentile per-packet one-way delay: 164.715 ms
Loss rate: 0.42%
```

Run 10: Report of Verus — Data Link

Flow 1 ingress (mean 237.46 Mbit/s)   Flow 1 egress (mean 237.26 Mbit/s)

Flow 1 (95th percentile 164.72 ms)

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-07 11:42:45
End at: 2018-06-07 11:43:16
Local clock offset: -0.048 ms
Remote clock offset: 0.155 ms


# Below is generated by plot.py at 2018-06-07 16:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 359.29 Mbit/s
95th percentile per-packet one-way delay: 50.598 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 359.29 Mbit/s
95th percentile per-packet one-way delay: 50.598 ms
Loss rate: 0.26%
```
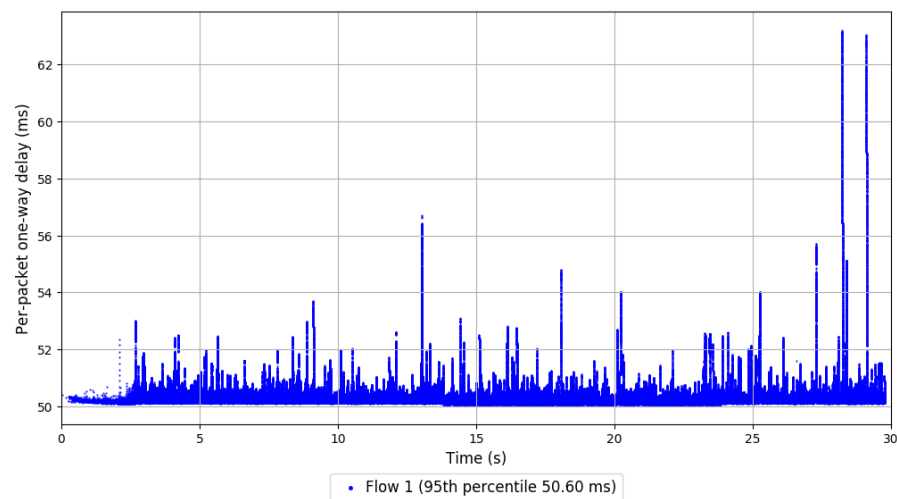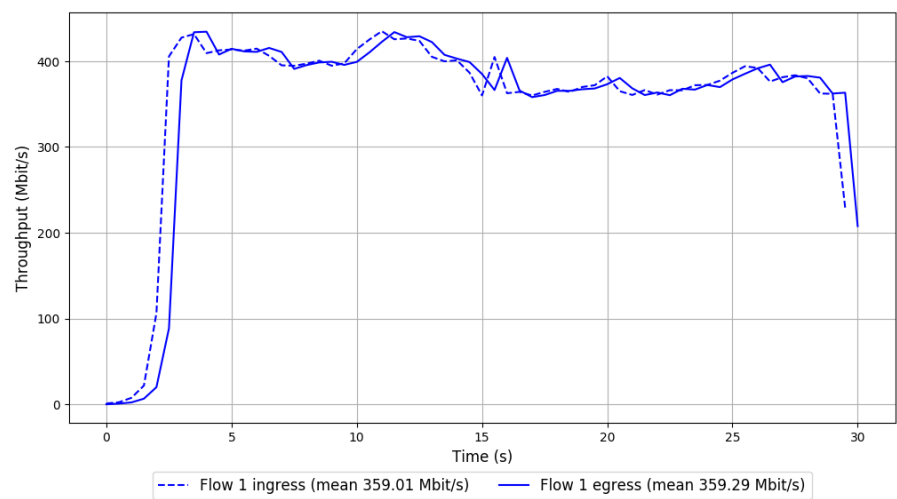
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-07 12:02:57
End at: 2018-06-07 12:03:27
Local clock offset: 0.392 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-07 16:08:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 309.40 Mbit/s
95th percentile per-packet one-way delay: 72.030 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 309.40 Mbit/s
95th percentile per-packet one-way delay: 72.030 ms
Loss rate: 0.44%
```
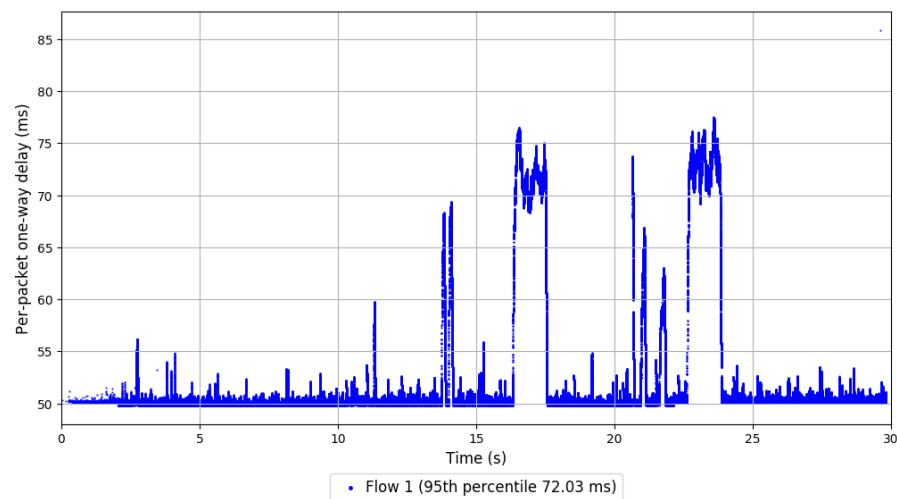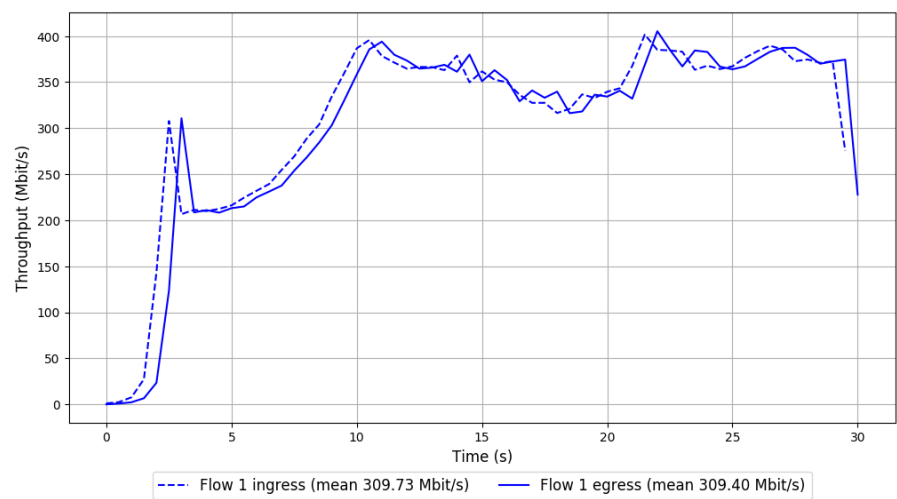
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 309.73 Mbit/s)   Flow 1 egress (mean 309.40 Mbit/s)
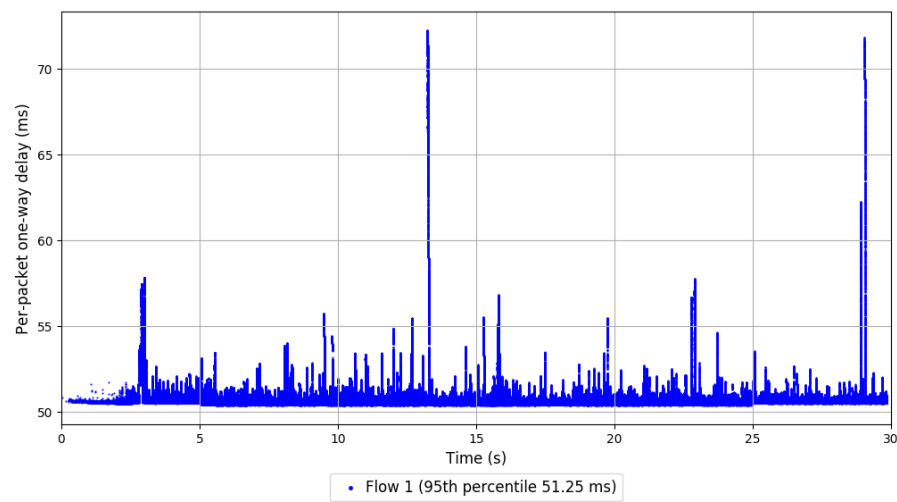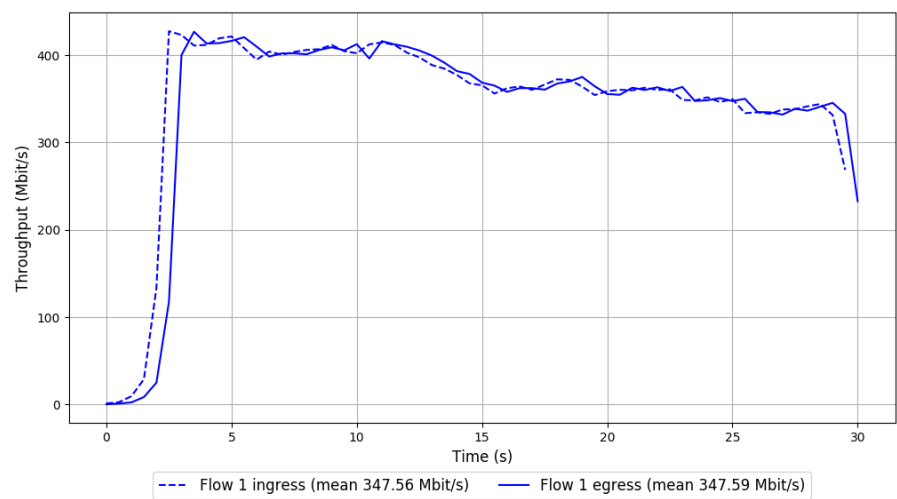

Flow 1 (95th percentile 72.03 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-07 12:23:05
End at: 2018-06-07 12:23:35
Local clock offset: -0.006 ms
Remote clock offset: -0.028 ms


# Below is generated by plot.py at 2018-06-07 16:08:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.59 Mbit/s
95th percentile per-packet one-way delay: 51.250 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 347.59 Mbit/s
95th percentile per-packet one-way delay: 51.250 ms
Loss rate: 0.33%
```
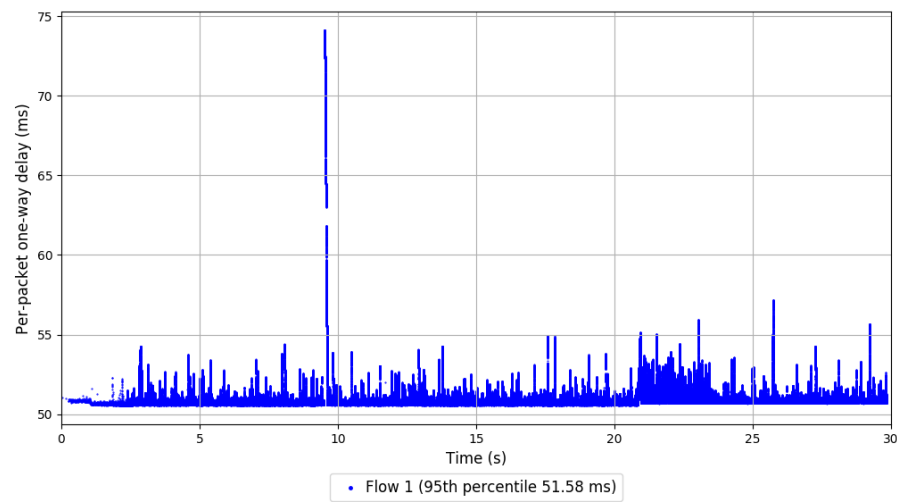
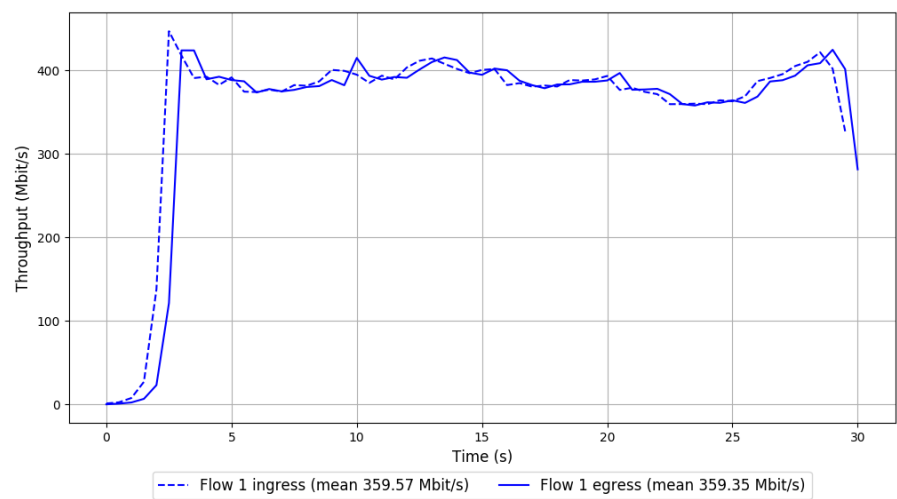## Run 3: Report of PCC-Vivace — Data Link

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-07 12:43:09
End at: 2018-06-07 12:43:39
Local clock offset: -0.006 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-06-07 16:09:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 359.35 Mbit/s
95th percentile per-packet one-way delay: 51.580 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 359.35 Mbit/s
95th percentile per-packet one-way delay: 51.580 ms
Loss rate: 0.40%
```

Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 359.57 Mbit/s)   Flow 1 egress (mean 359.35 Mbit/s)
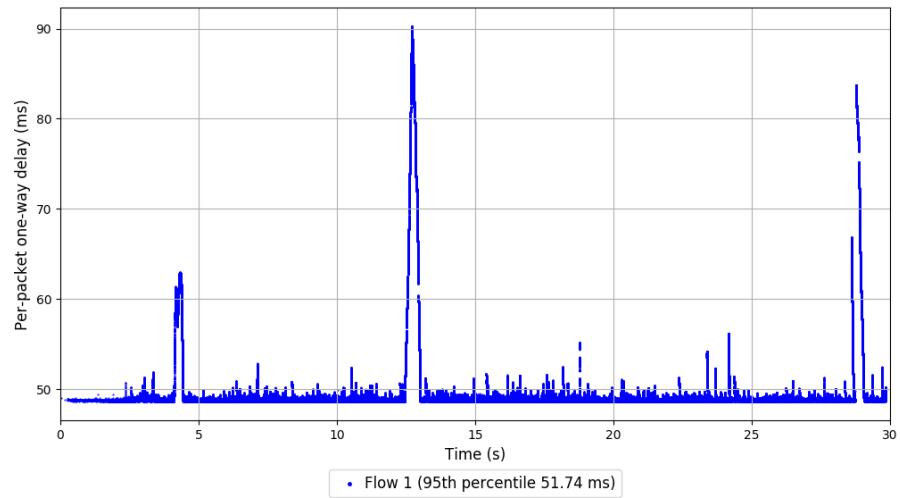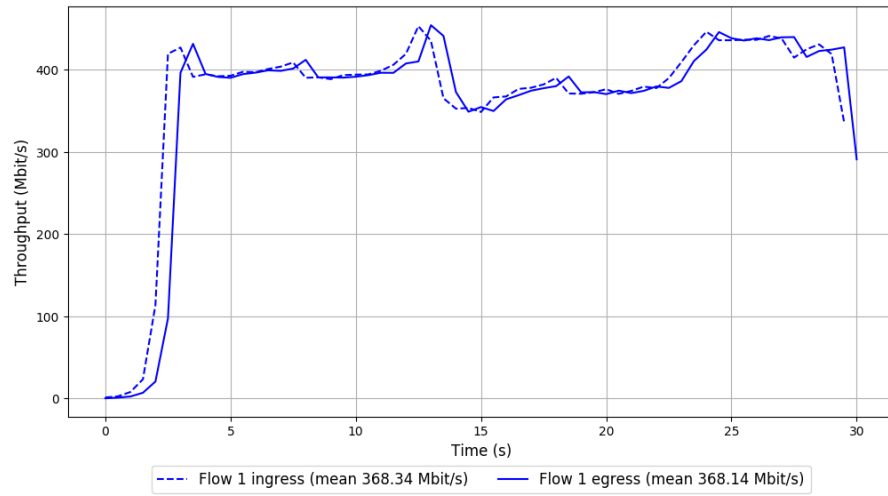

Flow 1 (95th percentile 51.58 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-07 13:03:21
End at: 2018-06-07 13:03:51
Local clock offset: 0.015 ms
Remote clock offset: -0.038 ms

# Below is generated by plot.py at 2018-06-07 16:10:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 368.14 Mbit/s
95th percentile per-packet one-way delay: 51.743 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 368.14 Mbit/s
95th percentile per-packet one-way delay: 51.743 ms
Loss rate: 0.39%
```

Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 368.34 Mbit/s)   Flow 1 egress (mean 368.14 Mbit/s)

Flow 1 (95th percentile 51.74 ms)

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-07 13:23:40
End at: 2018-06-07 13:24:10
Local clock offset: 0.007 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-06-07 16:10:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 338.18 Mbit/s
95th percentile per-packet one-way delay: 50.558 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 338.18 Mbit/s
95th percentile per-packet one-way delay: 50.558 ms
Loss rate: 0.47%
```
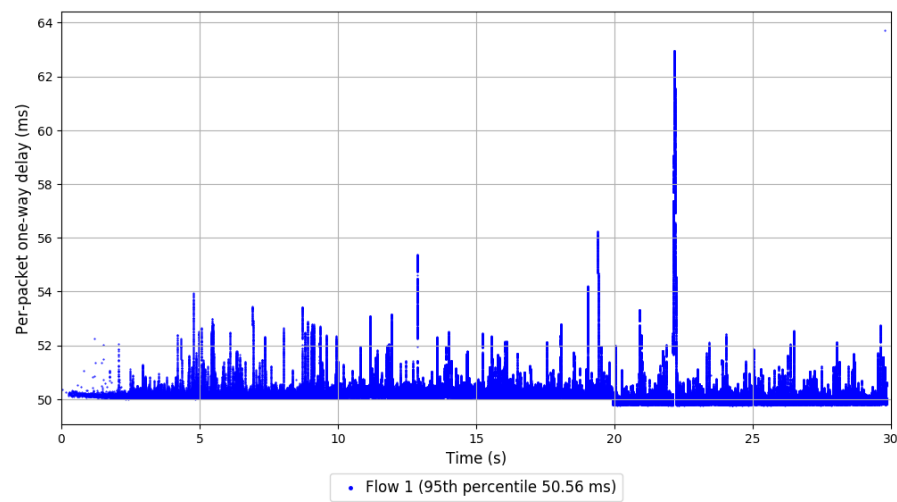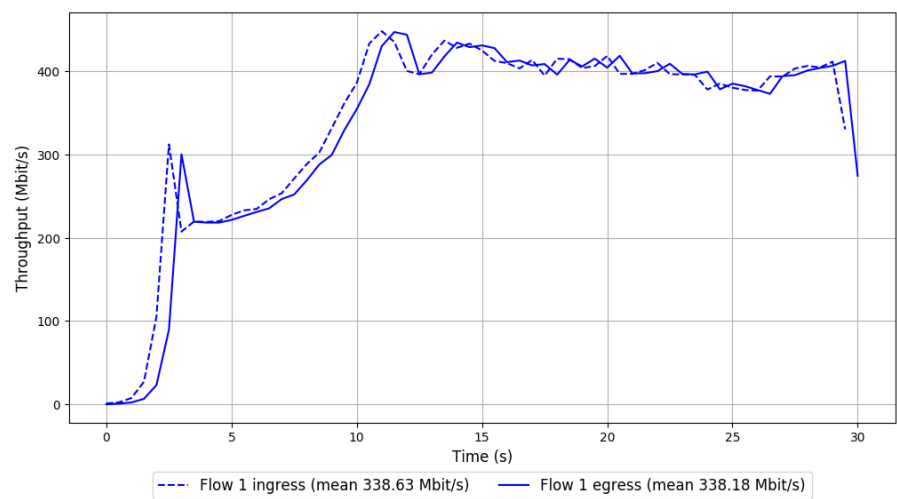
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 338.63 Mbit/s)   Flow 1 egress (mean 338.18 Mbit/s)

Flow 1 (95th percentile 50.56 ms)

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-07 13:43:37
End at: 2018-06-07 13:44:07
Local clock offset: -0.06 ms
Remote clock offset: -0.06 ms

# Below is generated by plot.py at 2018-06-07 16:11:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 357.35 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 357.35 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.41%
```
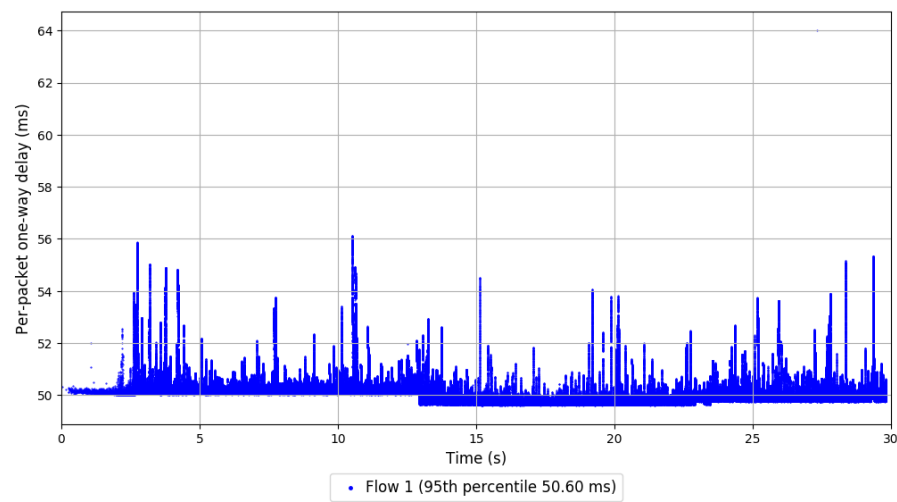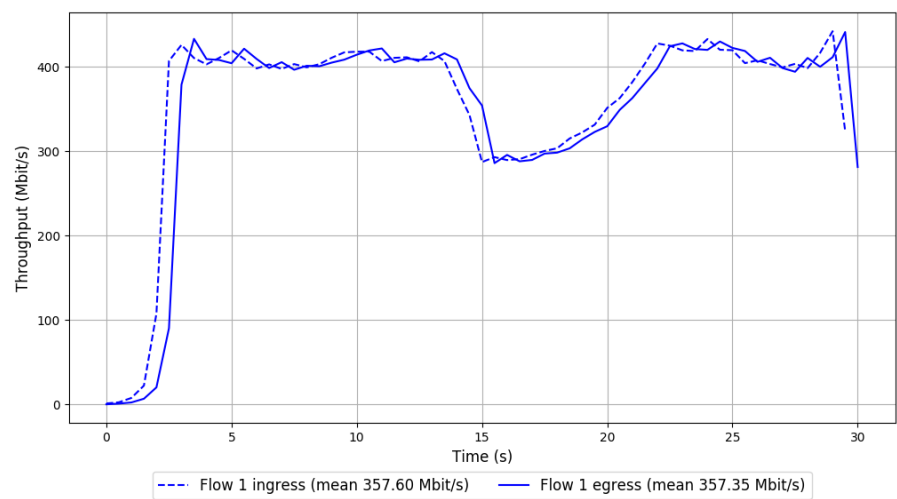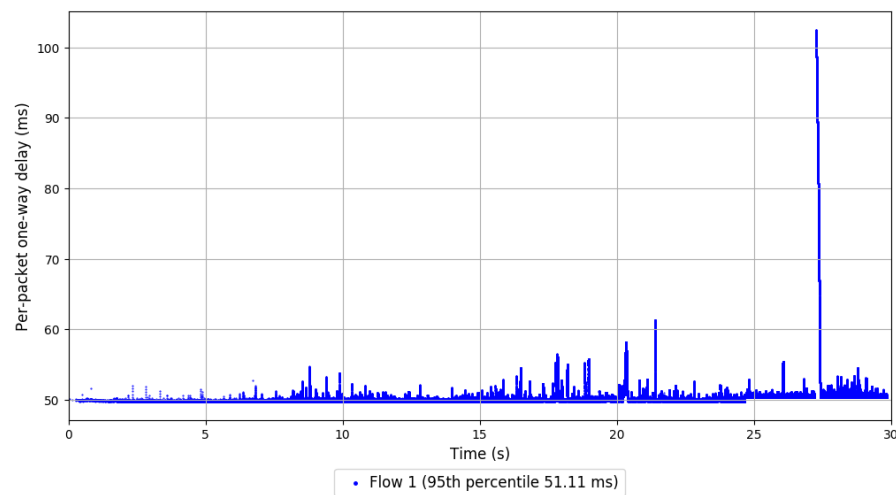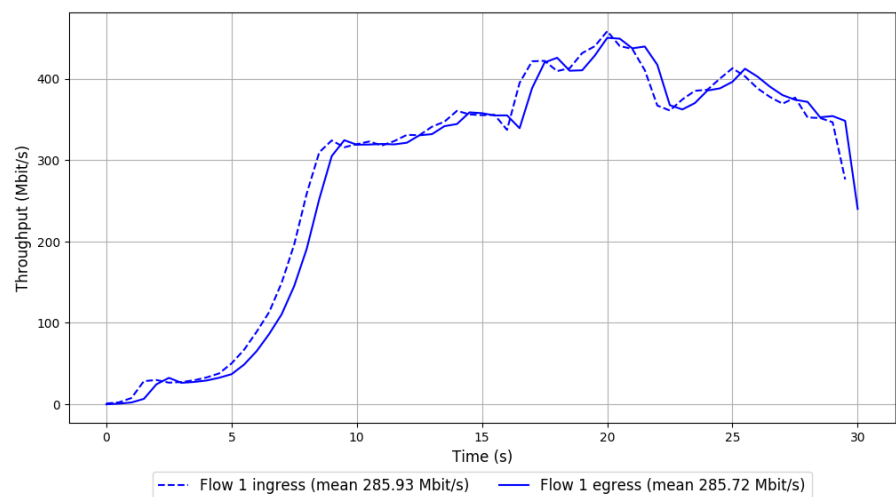
Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-07 14:03:45
End at: 2018-06-07 14:04:15
Local clock offset: -0.101 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2018-06-07 16:11:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.72 Mbit/s
95th percentile per-packet one-way delay: 51.114 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 285.72 Mbit/s
95th percentile per-packet one-way delay: 51.114 ms
Loss rate: 0.41%
```

Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-07 14:23:52
End at: 2018-06-07 14:24:22
Local clock offset: -0.755 ms
Remote clock offset: 0.031 ms


# Below is generated by plot.py at 2018-06-07 16:11:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 312.07 Mbit/s
95th percentile per-packet one-way delay: 50.247 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 312.07 Mbit/s
95th percentile per-packet one-way delay: 50.247 ms
Loss rate: 0.37%
```
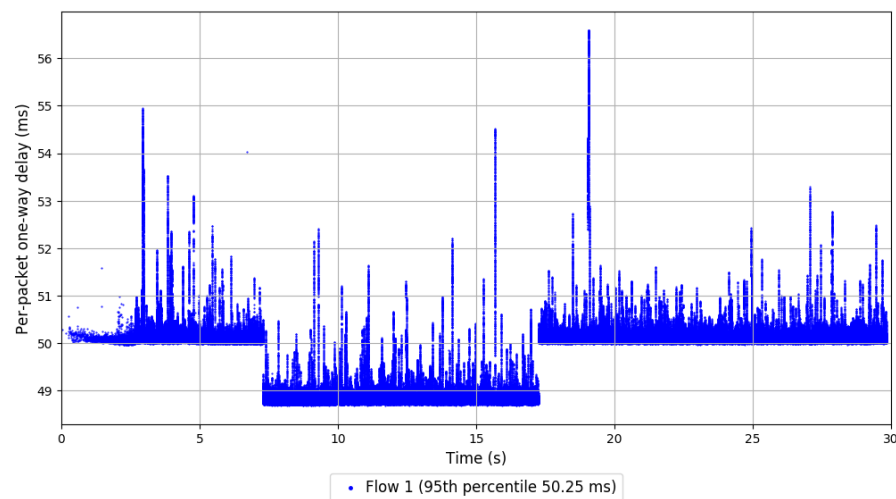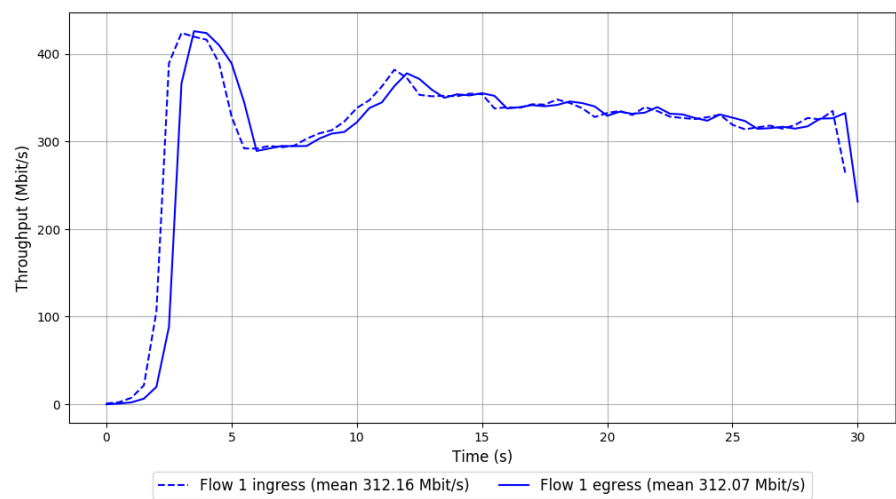
Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 312.16 Mbit/s) ——— Flow 1 egress (mean 312.07 Mbit/s)

• Flow 1 (95th percentile 50.25 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-07 14:43:57
End at: 2018-06-07 14:44:27
Local clock offset: 0.029 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 279.58 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 279.58 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.42%
```
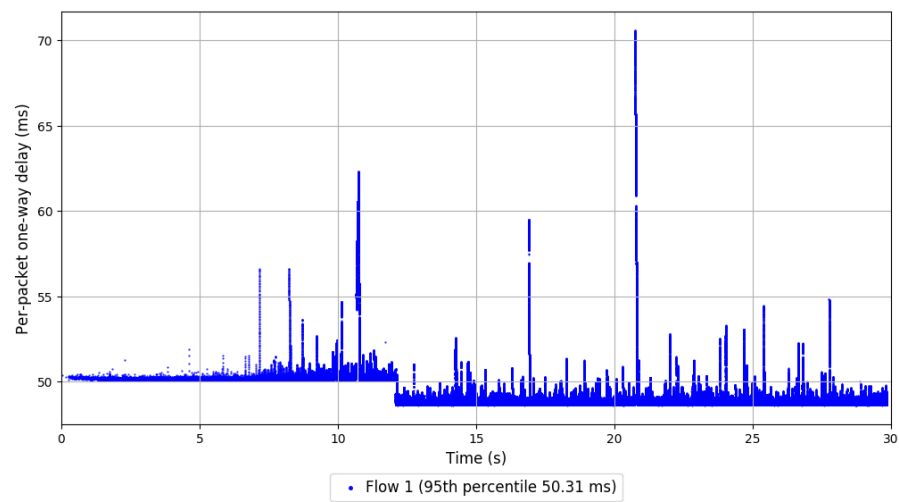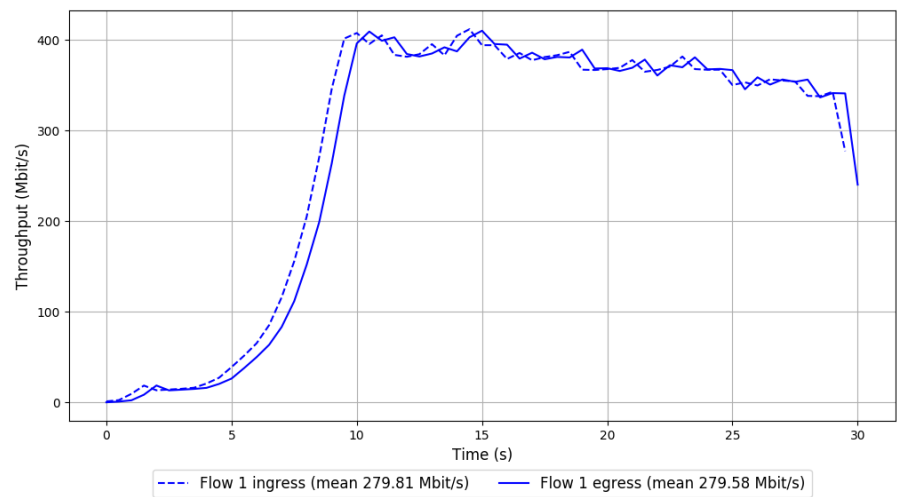
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 279.81 Mbit/s)   Flow 1 egress (mean 279.58 Mbit/s)

Flow 1 (95th percentile 50.31 ms)
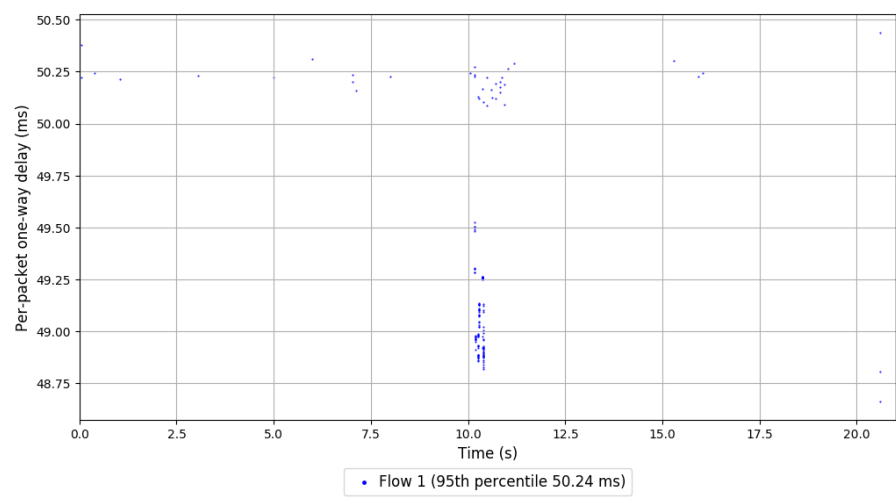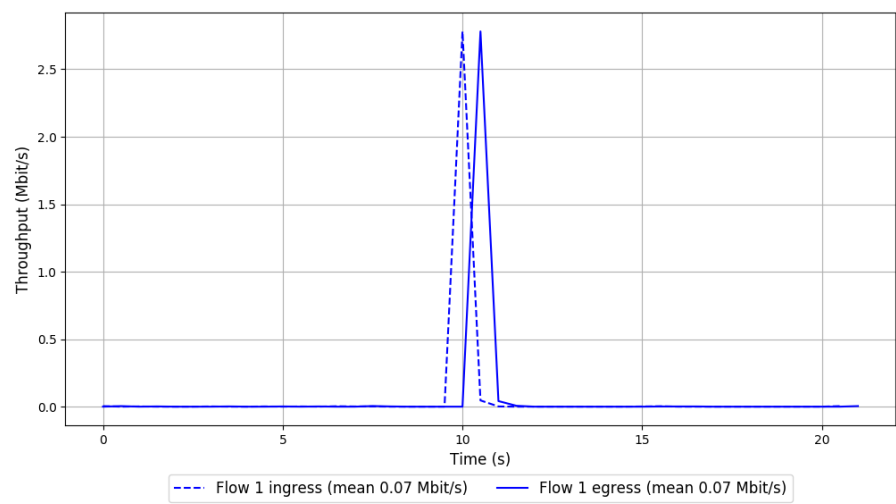
Run 1: Statistics of WebRTC media

Start at: 2018-06-07 11:29:25
End at: 2018-06-07 11:29:55
Local clock offset: -0.035 ms
Remote clock offset: 0.195 ms

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-06-07 11:49:27
End at: 2018-06-07 11:49:57
Local clock offset: -0.038 ms
Remote clock offset: 0.041 ms

# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.344 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.344 ms
Loss rate: 0.44%
```
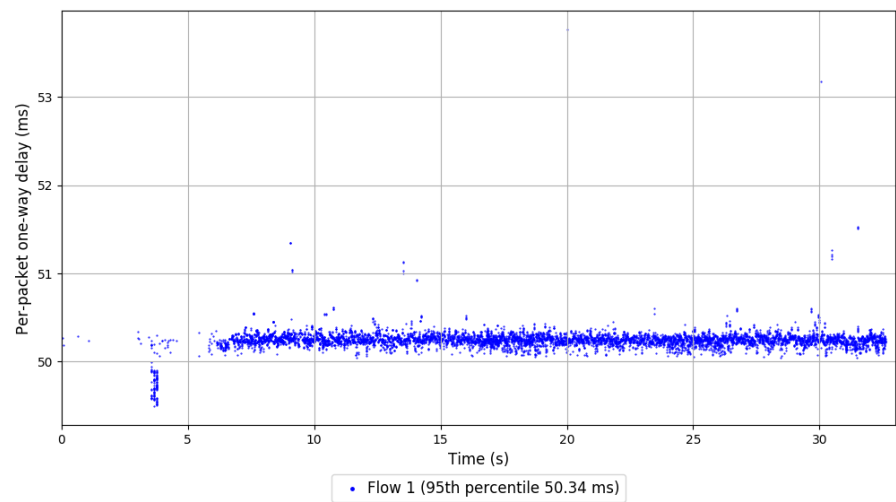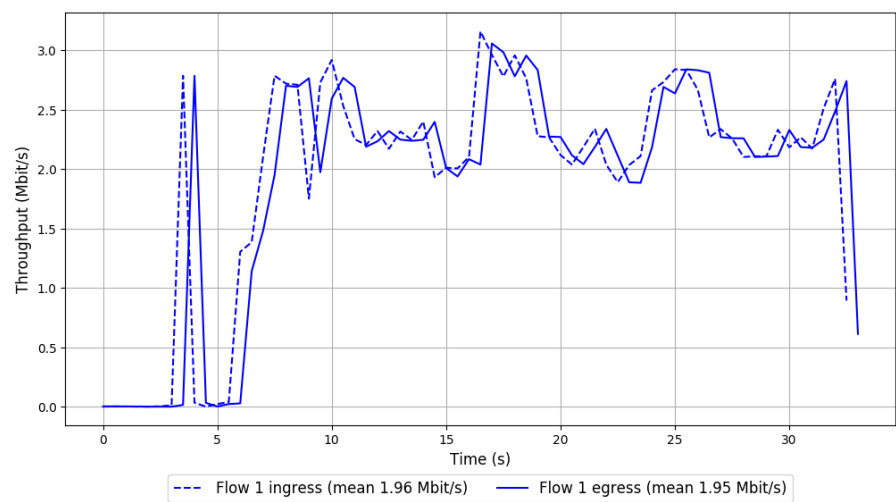
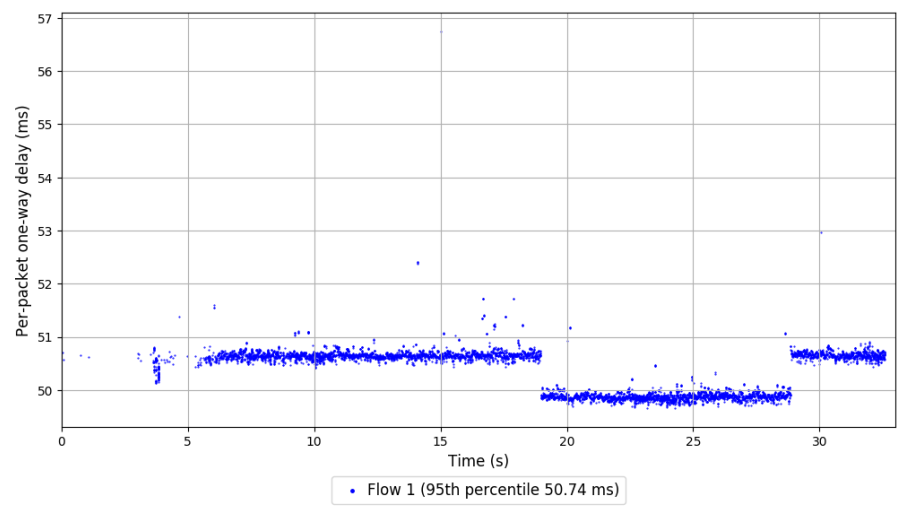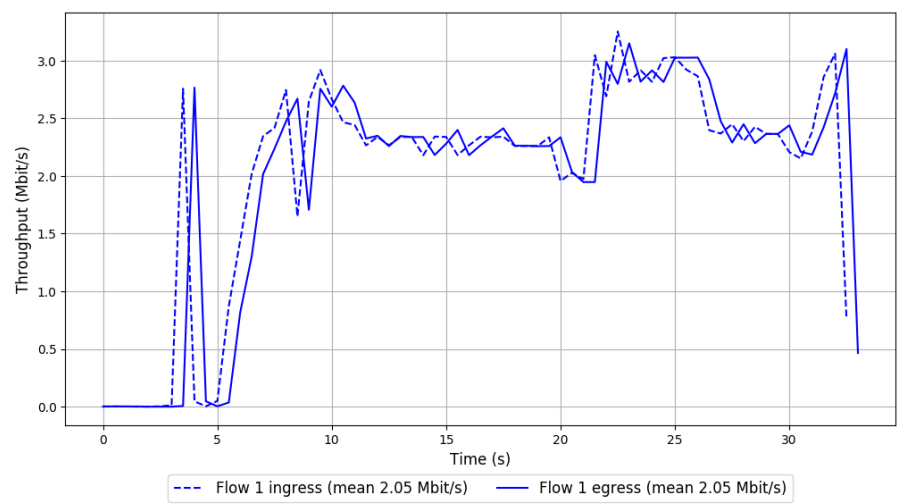Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-06-07 12:09:23
End at: 2018-06-07 12:09:53
Local clock offset: 0.017 ms
Remote clock offset: -0.014 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 50.744 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 50.744 ms
Loss rate: 0.42%
```

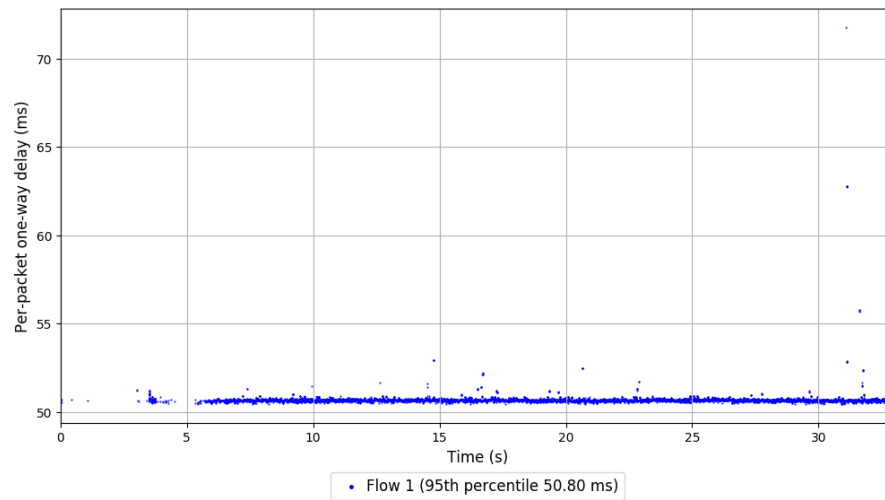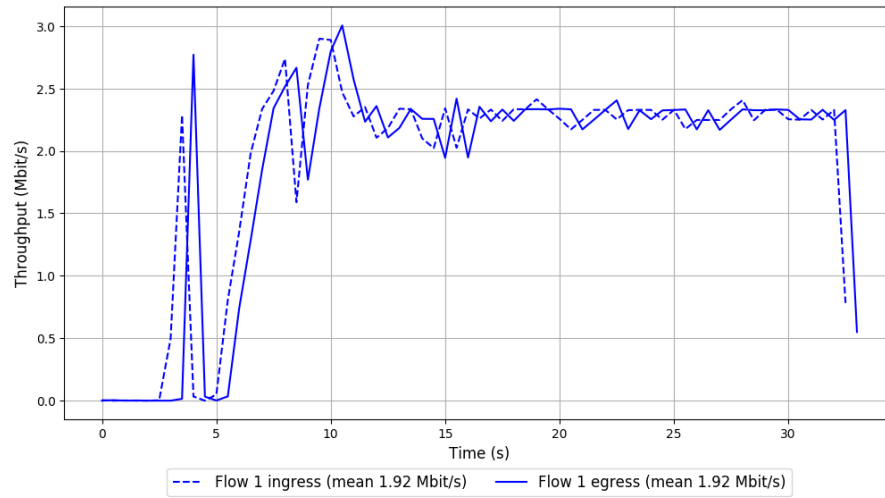Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-06-07 12:29:50
End at: 2018-06-07 12:30:20
Local clock offset: 0.352 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 50.795 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 50.795 ms
Loss rate: 0.37%
```

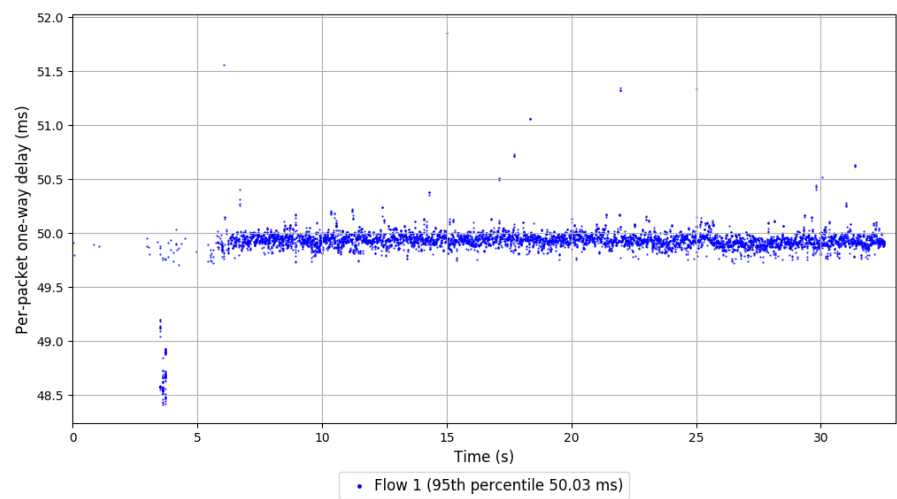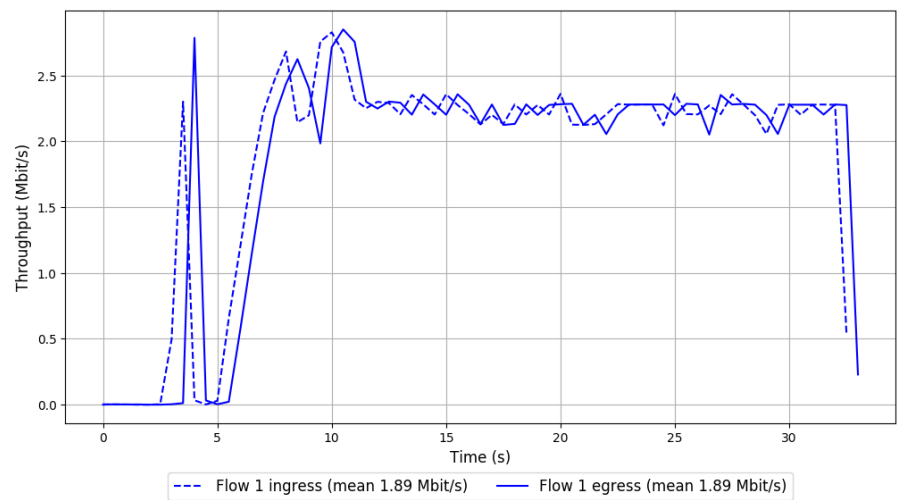# Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-06-07 12:49:46
End at: 2018-06-07 12:50:16
Local clock offset: -0.392 ms
Remote clock offset: -0.082 ms

# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 50.035 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 50.035 ms
Loss rate: 0.43%
```

Run 5: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.89 Mbit/s)   Flow 1 egress (mean 1.89 Mbit/s)
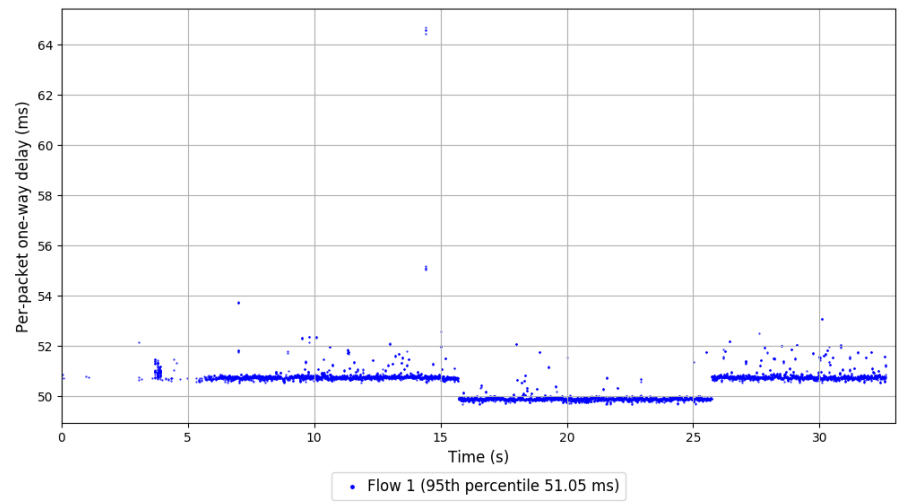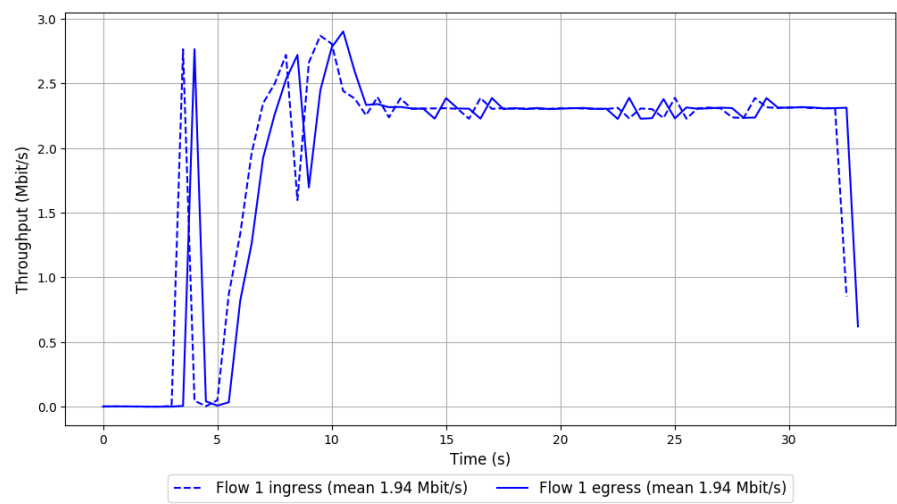

Flow 1 (95th percentile 50.03 ms)

```
Run 6: Statistics of WebRTC media

Start at: 2018-06-07 13:10:06
End at: 2018-06-07 13:10:36
Local clock offset: 0.018 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 51.055 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 51.055 ms
Loss rate: 0.36%
```

Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-06-07 13:30:20
End at: 2018-06-07 13:30:50
Local clock offset: -0.382 ms
Remote clock offset: -0.07 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.736 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 50.736 ms
Loss rate: 0.37%
```
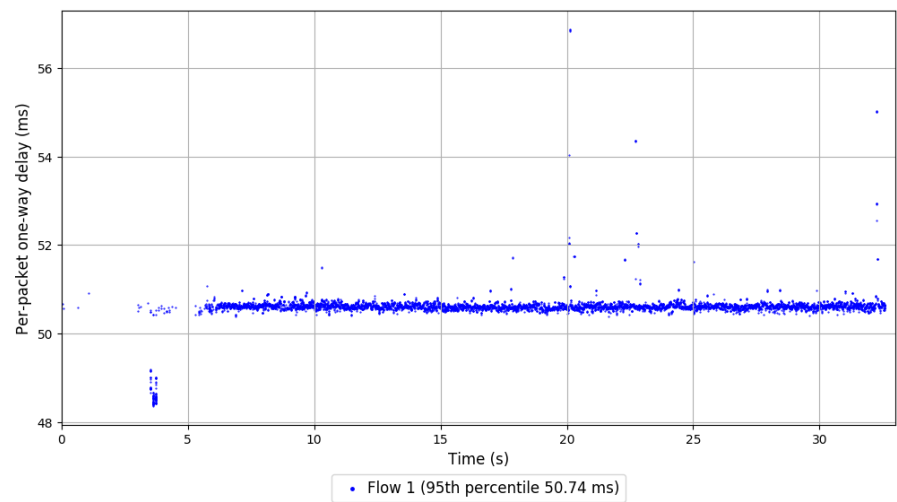
Run 7: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.95 Mbit/s)   Flow 1 egress (mean 1.94 Mbit/s)

Flow 1 (95th percentile 50.74 ms)

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```
Run 8: Statistics of WebRTC media

Start at: 2018-06-07 13:50:19
End at: 2018-06-07 13:50:49
Local clock offset: -0.078 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 50.661 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 50.661 ms
Loss rate: 0.37%
```
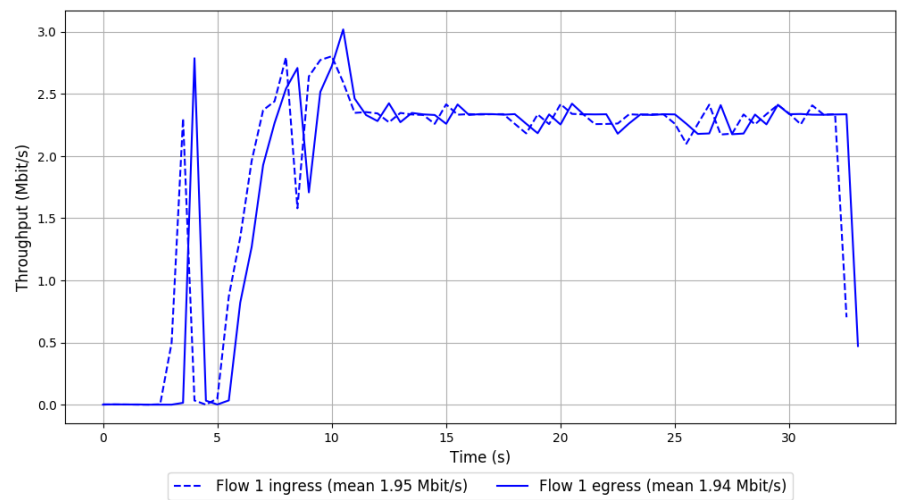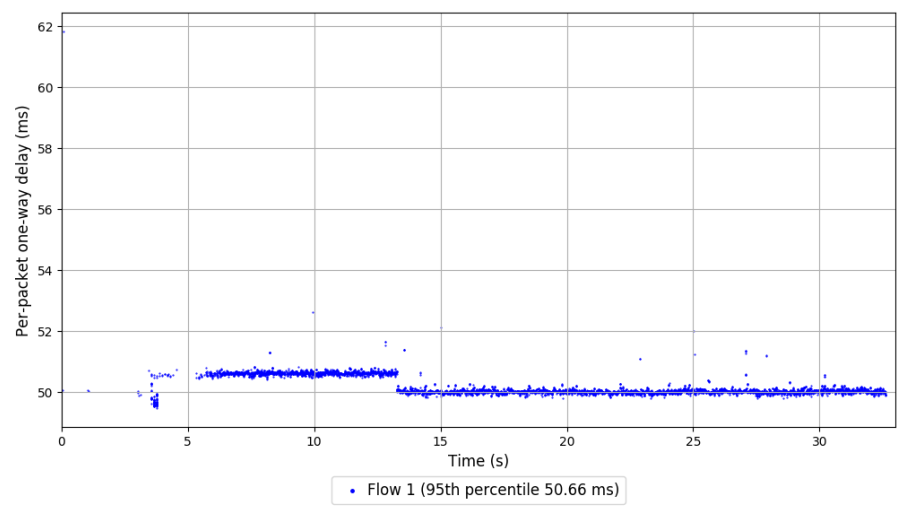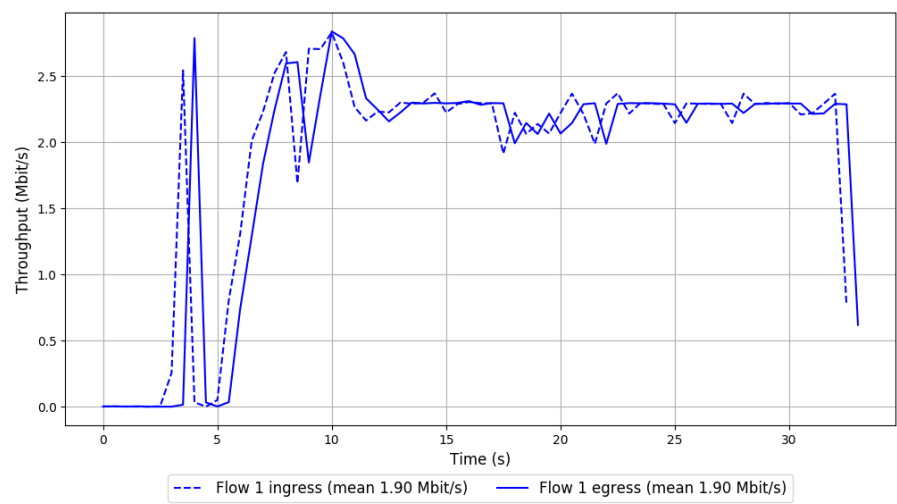
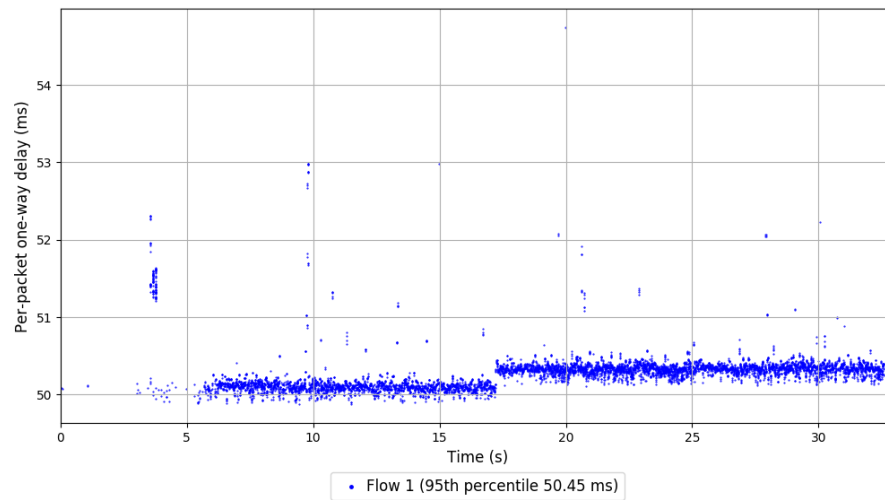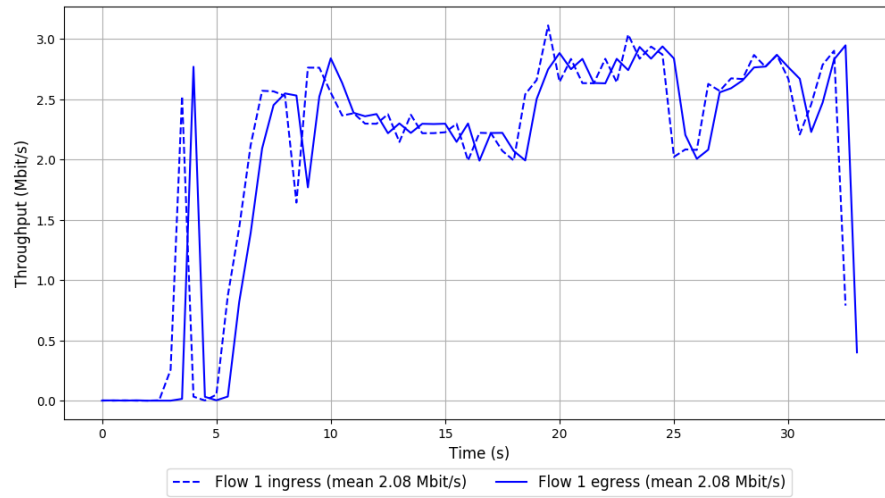## Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-06-07 14:10:25
End at: 2018-06-07 14:10:55
Local clock offset: 0.373 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 50.452 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 50.452 ms
Loss rate: 0.41%
```

Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-06-07 14:30:36
End at: 2018-06-07 14:31:06
Local clock offset: -0.185 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2018-06-07 16:11:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 49.632 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 49.632 ms
Loss rate: 0.32%
```

Run 10: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.99 Mbit/s) — — — Flow 1 egress (mean 1.99 Mbit/s)

• Flow 1 (95th percentile 49.63 ms)