Pantheon Report

Generated at 2018-07-09 23:33:23 (UTC).

Data path: AWS India 1 Ethernet (*local*) →India Ethernet (*remote*).

Repeated the test of 17 congestion control schemes 10 times.
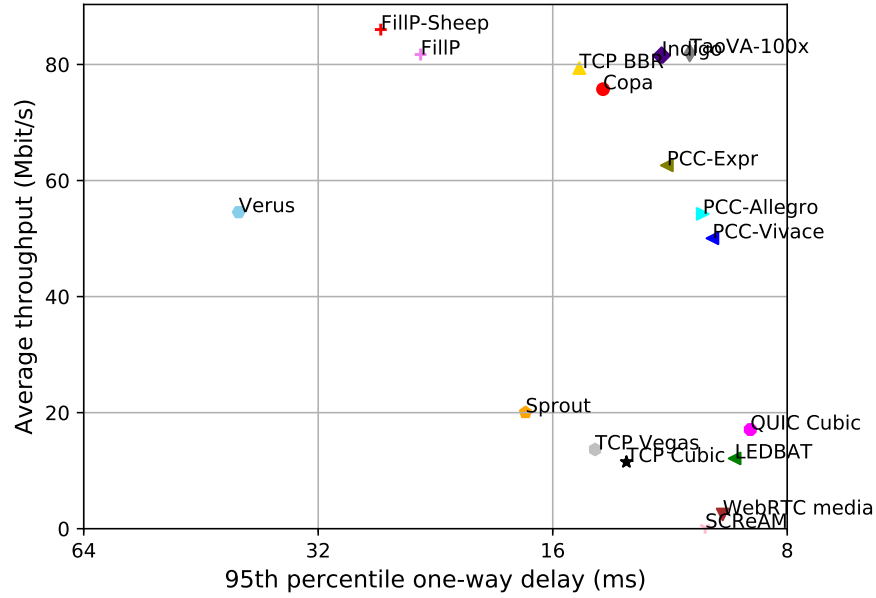
Each test lasted for 30 seconds running 1 flow.

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

NTP offsets were measured against `nets.org.sg` and have been applied to correct the timestamps in logs.
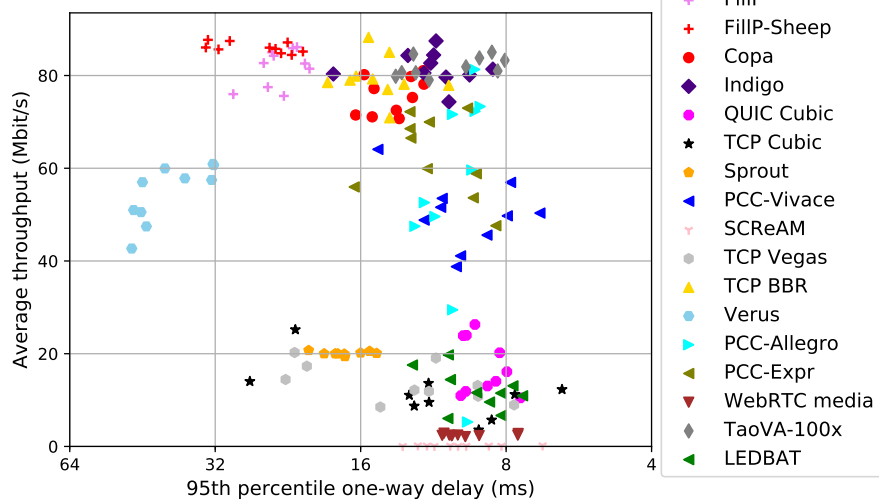
```
Git summary:
branch: master @ 9250dbeec7fb57193cdff1ba8c440b4e16ab30f0
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 37162fe9af85249aeccac061c93e75640ef710b5
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

test from AWS India 1 to India, 10 runs of 30s each per scheme
(mean of all runs by scheme)

test from AWS India 1 to India, 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	79.38	14.79	11.28
Copa	10	75.74	13.79	11.15
TCP Cubic	10	11.49	12.87	1.22
FillP	10	81.71	23.64	13.92
FillP-Sheep	10	86.01	26.60	12.45
Indigo	10	81.52	11.60	9.61
LEDBAT	10	12.11	9.35	1.39
PCC-Allegro	10	54.26	10.27	7.63
PCC-Expr	10	62.61	11.42	8.92
QUIC Cubic	10	17.09	8.92	1.79
SCReAM	10	0.14	10.20	0.88
Sprout	10	20.05	17.34	2.29
TaoVA-100x	10	81.97	10.67	10.41
TCP Vegas	10	13.65	14.12	1.12
Verus	10	54.55	40.48	32.91
PCC-Vivace	10	50.05	9.98	6.67
WebRTC media	10	2.45	9.68	1.01

```
Run 1: Statistics of TCP BBR

Start at: 2018-07-09 20:09:09
End at: 2018-07-09 20:09:39
Local clock offset: 3.598 ms
Remote clock offset: -2.222 ms


# Below is generated by plot.py at 2018-07-09 23:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 13.010 ms
Loss rate: 11.66%
-- Flow 1:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 13.010 ms
Loss rate: 11.66%
```
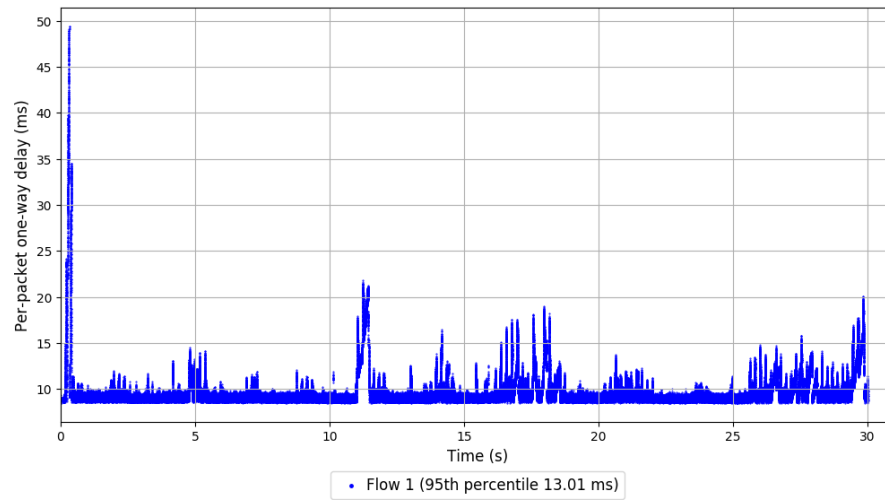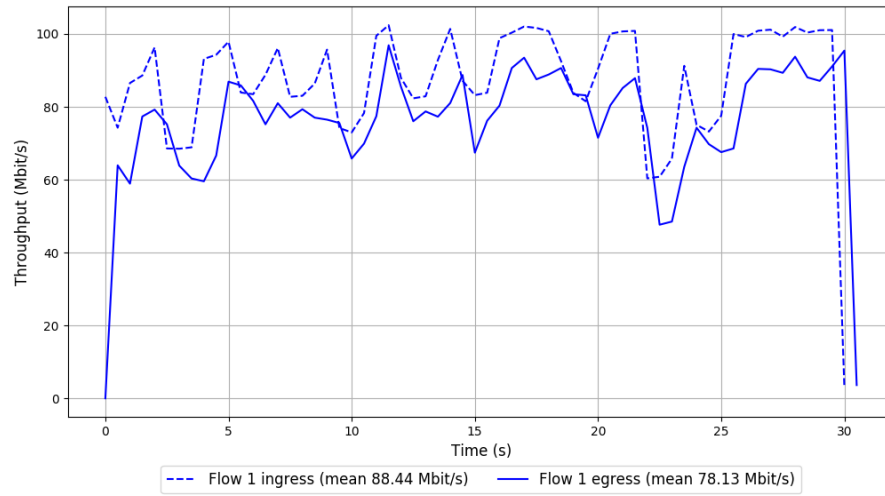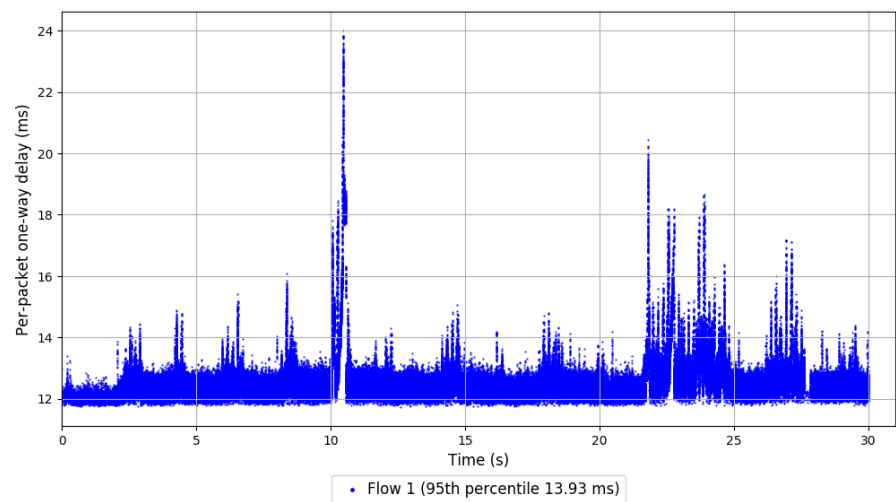
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 88.44 Mbit/s)   Flow 1 egress (mean 78.13 Mbit/s)
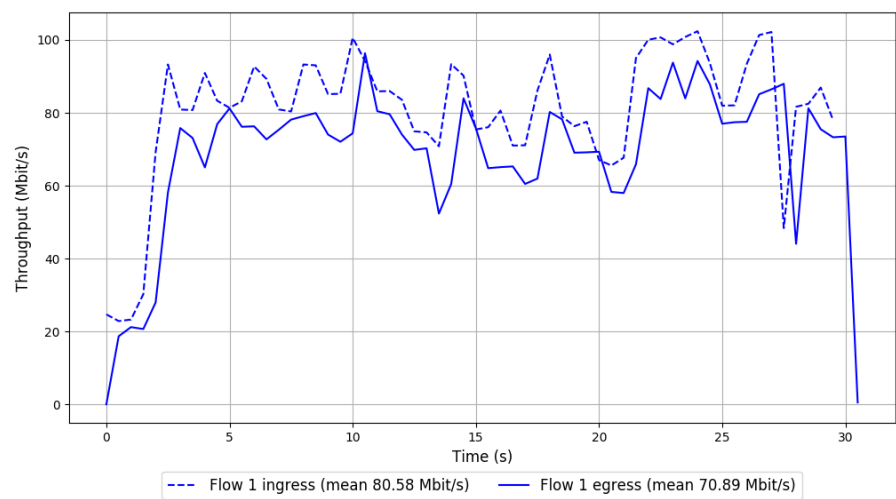

Flow 1 (95th percentile 13.01 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-07-09 20:29:12
End at: 2018-07-09 20:29:42
Local clock offset: -1.113 ms
Remote clock offset: -7.129 ms

# Below is generated by plot.py at 2018-07-09 23:16:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.89 Mbit/s
95th percentile per-packet one-way delay: 13.932 ms
Loss rate: 12.03%
-- Flow 1:
Average throughput: 70.89 Mbit/s
95th percentile per-packet one-way delay: 13.932 ms
Loss rate: 12.03%
```
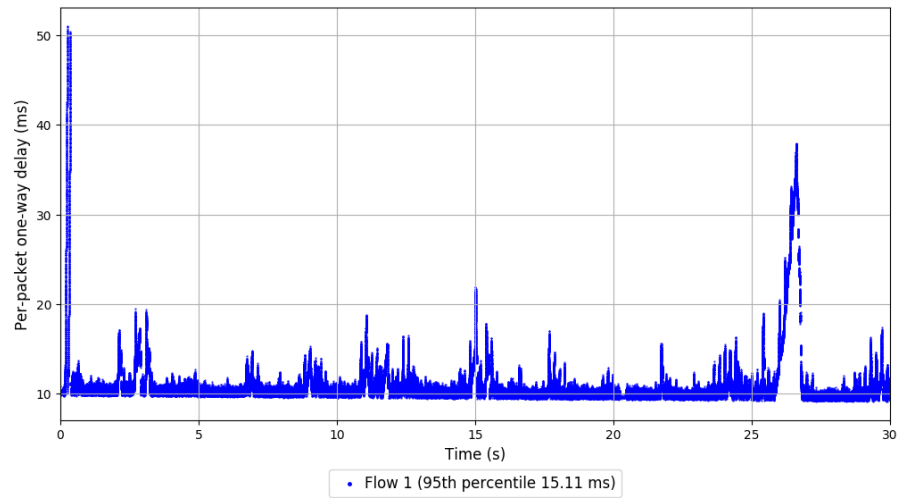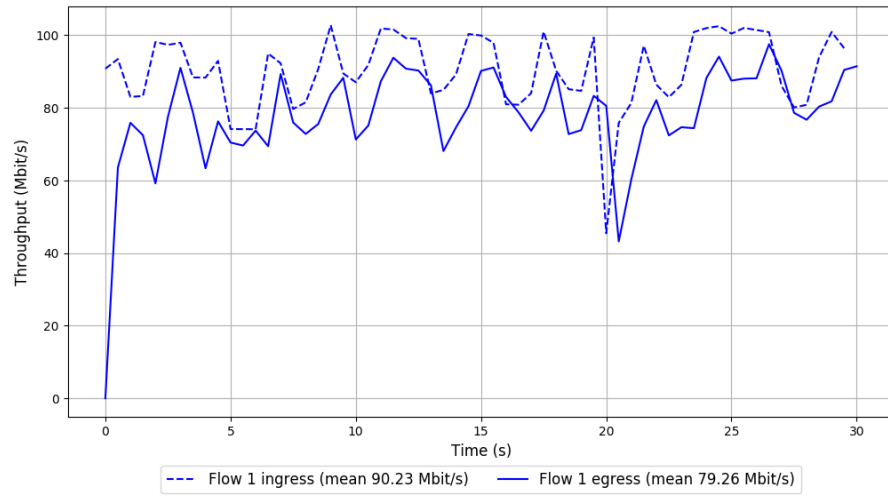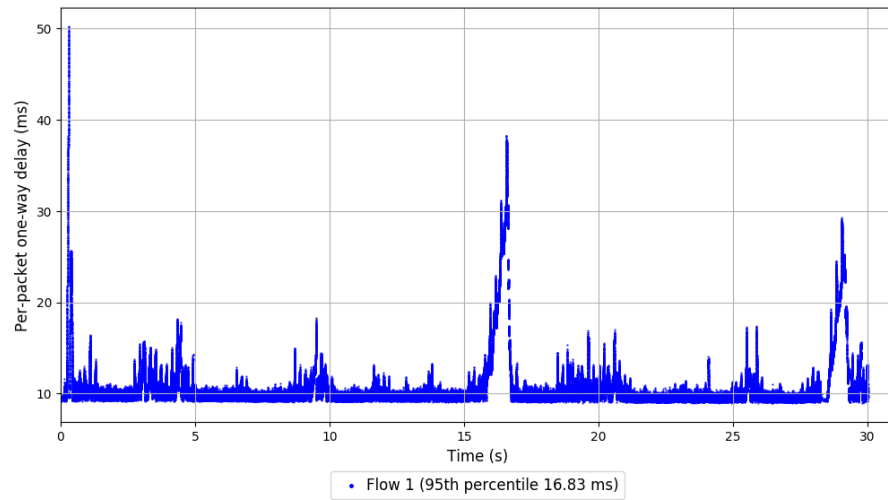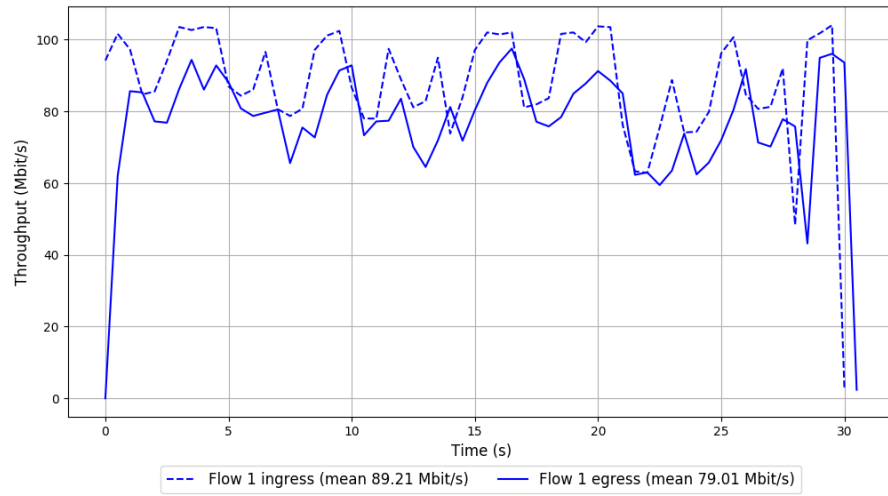
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 80.58 Mbit/s) — Flow 1 egress (mean 70.89 Mbit/s)

Flow 1 (95th percentile 13.93 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-07-09 20:49:02
End at: 2018-07-09 20:49:32
Local clock offset: 1.844 ms
Remote clock offset: 2.464 ms


# Below is generated by plot.py at 2018-07-09 23:16:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.26 Mbit/s
95th percentile per-packet one-way delay: 15.113 ms
Loss rate: 12.16%
-- Flow 1:
Average throughput: 79.26 Mbit/s
95th percentile per-packet one-way delay: 15.113 ms
Loss rate: 12.16%
```

Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-07-09 21:08:32
End at: 2018-07-09 21:09:02
Local clock offset: 3.027 ms
Remote clock offset: 17.554 ms

# Below is generated by plot.py at 2018-07-09 23:16:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.01 Mbit/s
95th percentile per-packet one-way delay: 16.833 ms
Loss rate: 11.43%
-- Flow 1:
Average throughput: 79.01 Mbit/s
95th percentile per-packet one-way delay: 16.833 ms
Loss rate: 11.43%
```
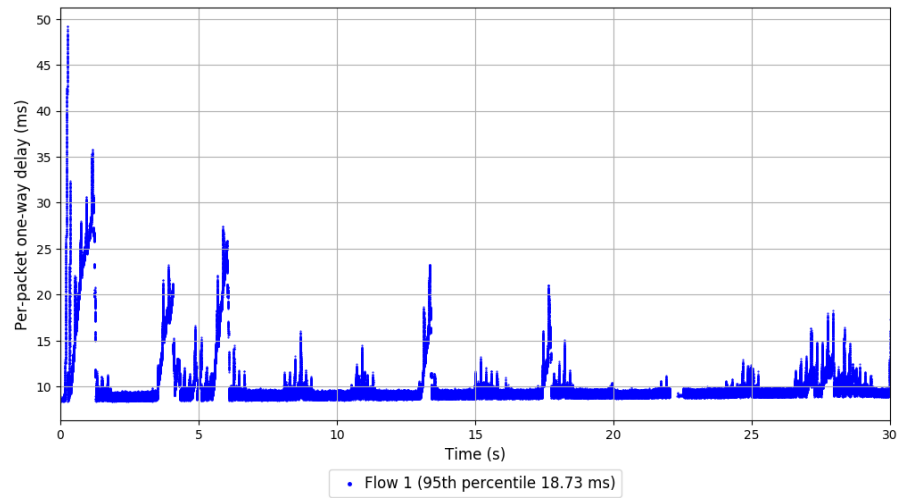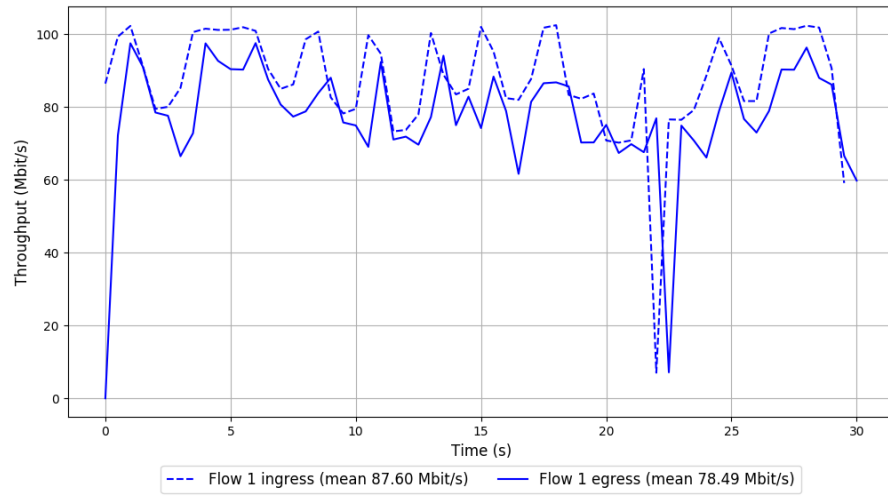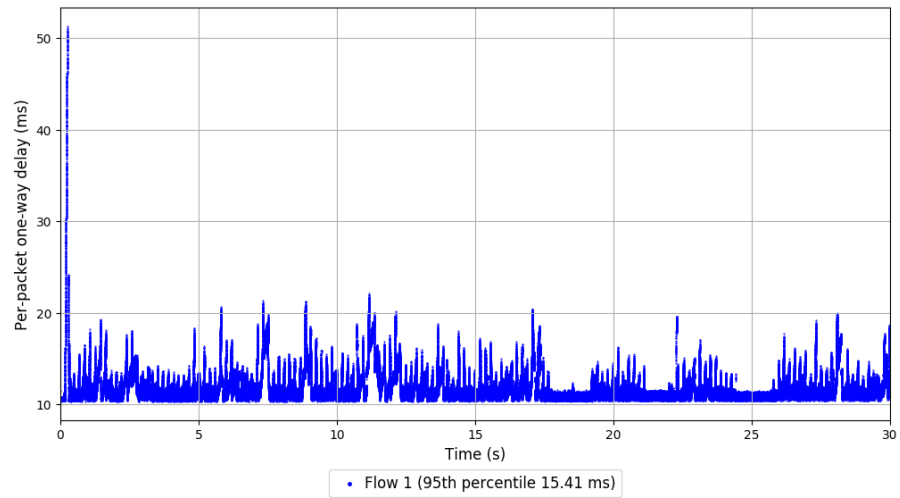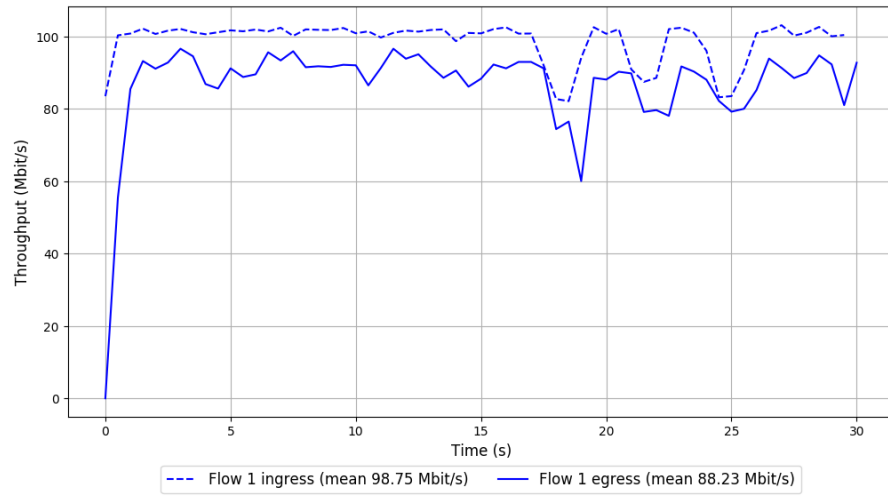
Run 4: Report of TCP BBR — Data Link

Flow 1 ingress (mean 89.21 Mbit/s) — — —   Flow 1 egress (mean 79.01 Mbit/s) ———

Flow 1 (95th percentile 16.83 ms)

```
Run 5: Statistics of TCP BBR

Start at: 2018-07-09 21:28:15
End at: 2018-07-09 21:28:45
Local clock offset: 2.269 ms
Remote clock offset: -1.714 ms


# Below is generated by plot.py at 2018-07-09 23:16:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.49 Mbit/s
95th percentile per-packet one-way delay: 18.726 ms
Loss rate: 10.37%
-- Flow 1:
Average throughput: 78.49 Mbit/s
95th percentile per-packet one-way delay: 18.726 ms
Loss rate: 10.37%
```
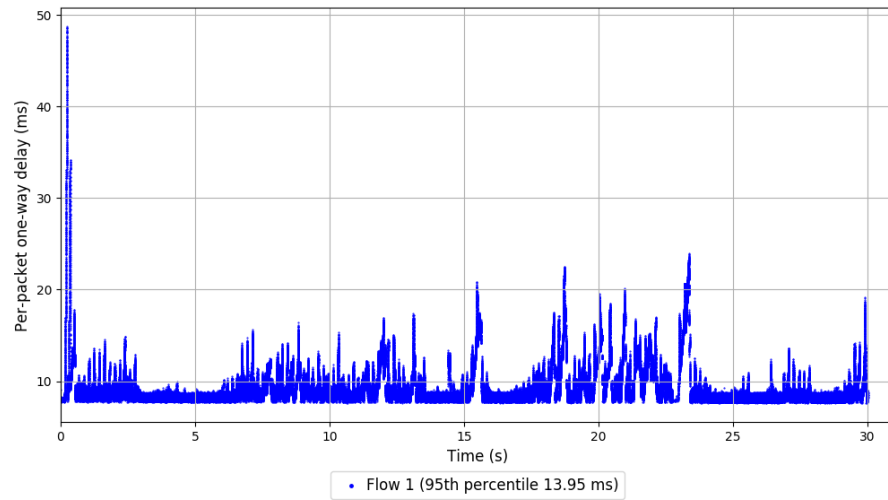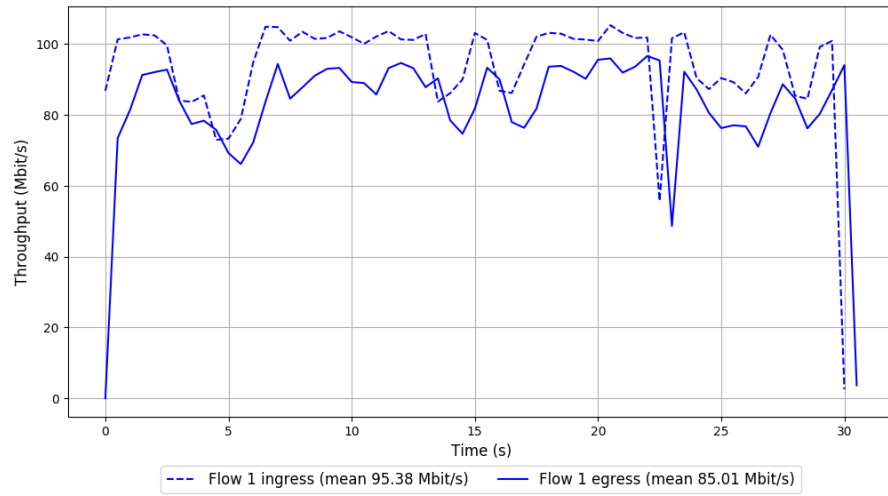
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 87.60 Mbit/s)   Flow 1 egress (mean 78.49 Mbit/s)

Flow 1 (95th percentile 18.73 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-07-09 21:47:31
End at: 2018-07-09 21:48:01
Local clock offset: -0.452 ms
Remote clock offset: -10.895 ms

# Below is generated by plot.py at 2018-07-09 23:16:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 15.411 ms
Loss rate: 10.64%
-- Flow 1:
Average throughput: 88.23 Mbit/s
95th percentile per-packet one-way delay: 15.411 ms
Loss rate: 10.64%
```

Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 98.75 Mbit/s) --- Flow 1 egress (mean 88.23 Mbit/s)

• Flow 1 (95th percentile 15.41 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-07-09 22:07:09
End at: 2018-07-09 22:07:39
Local clock offset: 1.225 ms
Remote clock offset: -3.758 ms


# Below is generated by plot.py at 2018-07-09 23:16:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 13.951 ms
Loss rate: 10.87%
-- Flow 1:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 13.951 ms
Loss rate: 10.87%
```
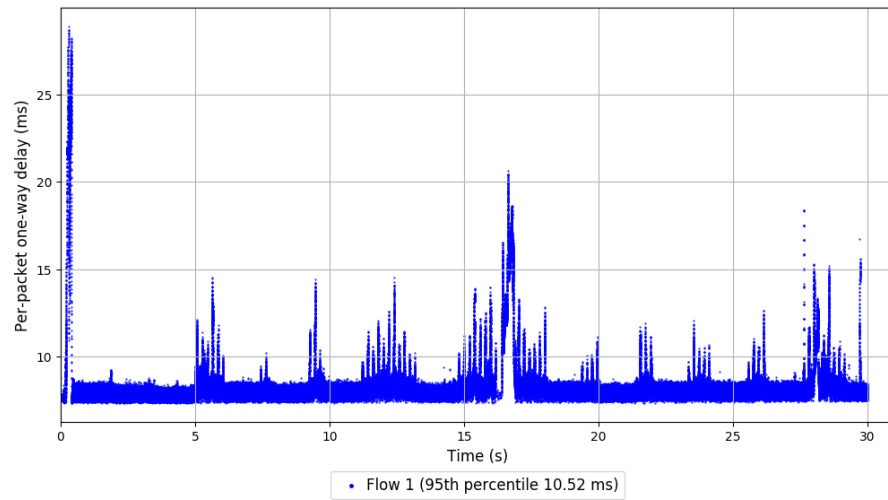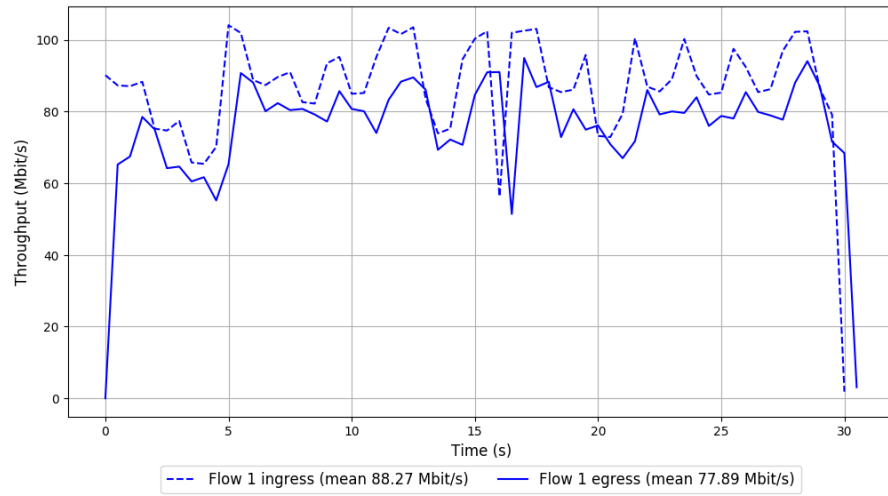
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 95.38 Mbit/s)   Flow 1 egress (mean 85.01 Mbit/s)

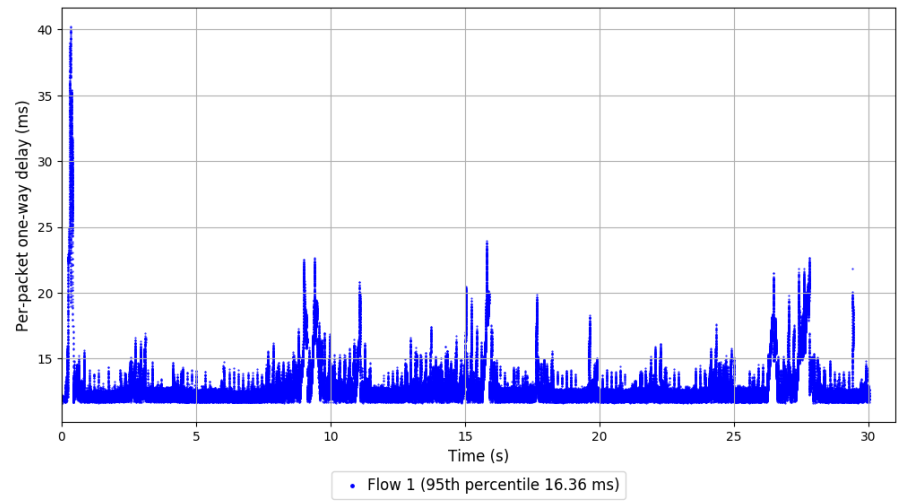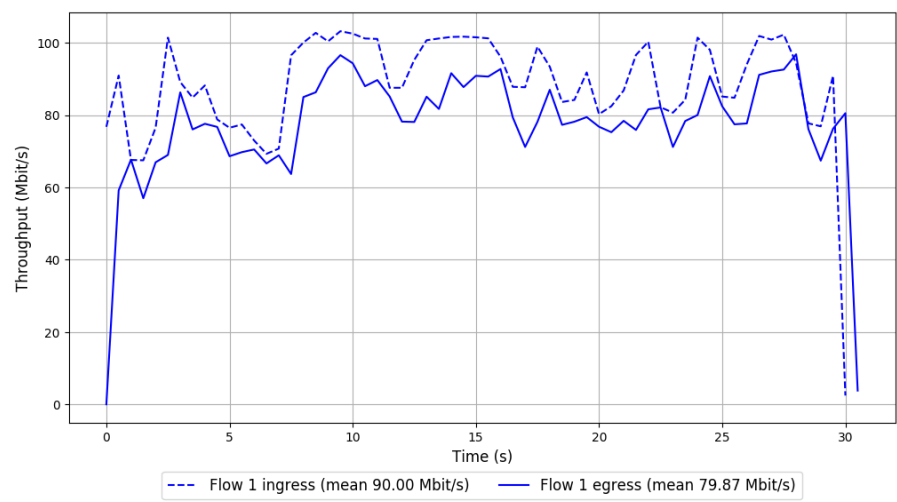· Flow 1 (95th percentile 13.95 ms)

17

```
Run 8: Statistics of TCP BBR

Start at: 2018-07-09 22:26:48
End at: 2018-07-09 22:27:18
Local clock offset: 2.588 ms
Remote clock offset: -1.453 ms


# Below is generated by plot.py at 2018-07-09 23:16:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.89 Mbit/s
95th percentile per-packet one-way delay: 10.517 ms
Loss rate: 11.76%
-- Flow 1:
Average throughput: 77.89 Mbit/s
95th percentile per-packet one-way delay: 10.517 ms
Loss rate: 11.76%
```

Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 88.27 Mbit/s) Flow 1 egress (mean 77.89 Mbit/s)

Flow 1 (95th percentile 10.52 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-07-09 22:46:21
End at: 2018-07-09 22:46:51
Local clock offset: -1.668 ms
Remote clock offset: -1.369 ms


# Below is generated by plot.py at 2018-07-09 23:17:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.87 Mbit/s
95th percentile per-packet one-way delay: 16.356 ms
Loss rate: 11.26%
-- Flow 1:
Average throughput: 79.87 Mbit/s
95th percentile per-packet one-way delay: 16.356 ms
Loss rate: 11.26%
```
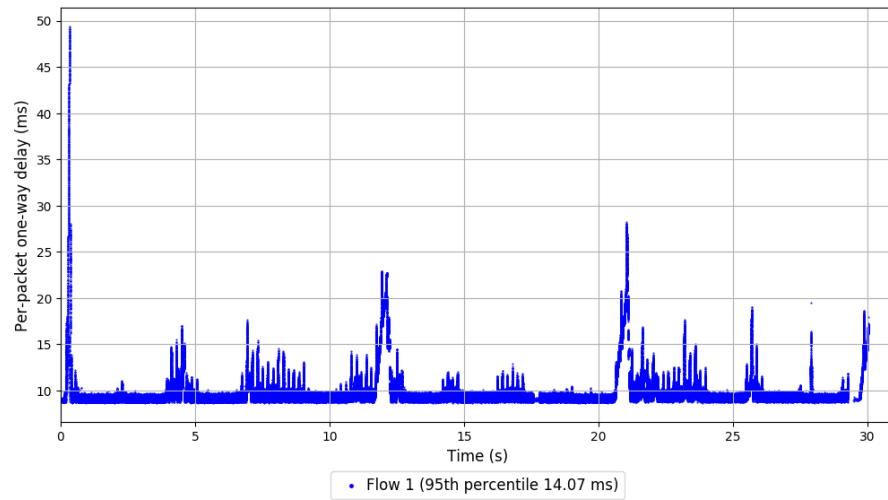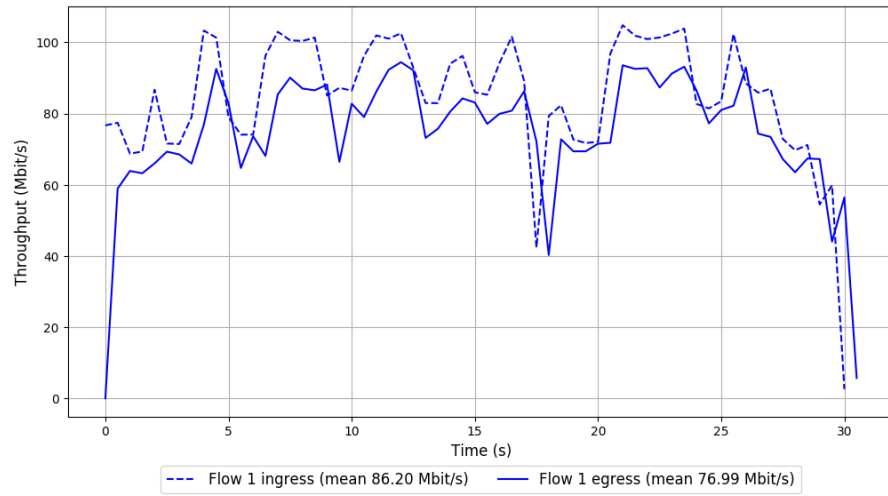
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 90.00 Mbit/s)   Flow 1 egress (mean 79.87 Mbit/s)

Flow 1 (95th percentile 16.36 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-07-09 23:05:56
End at: 2018-07-09 23:06:26
Local clock offset: 0.176 ms
Remote clock offset: -3.473 ms


# Below is generated by plot.py at 2018-07-09 23:17:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.99 Mbit/s
95th percentile per-packet one-way delay: 14.067 ms
Loss rate: 10.66%
-- Flow 1:
Average throughput: 76.99 Mbit/s
95th percentile per-packet one-way delay: 14.067 ms
Loss rate: 10.66%
```
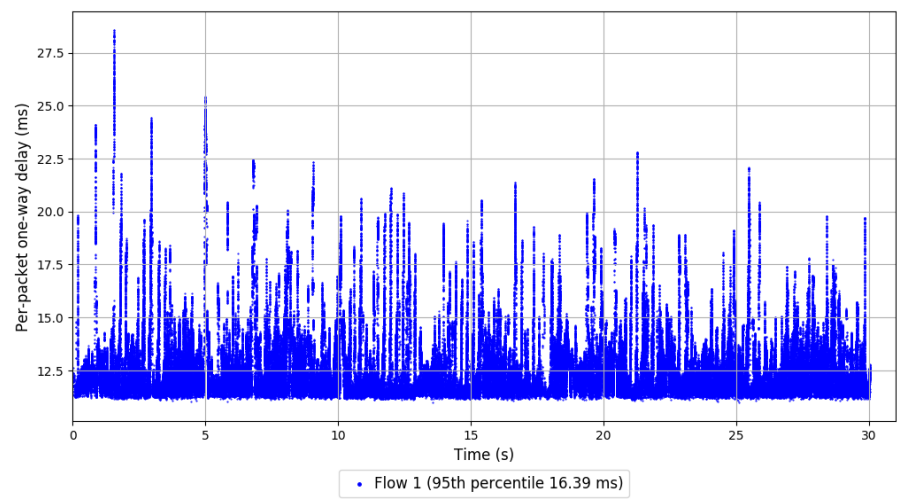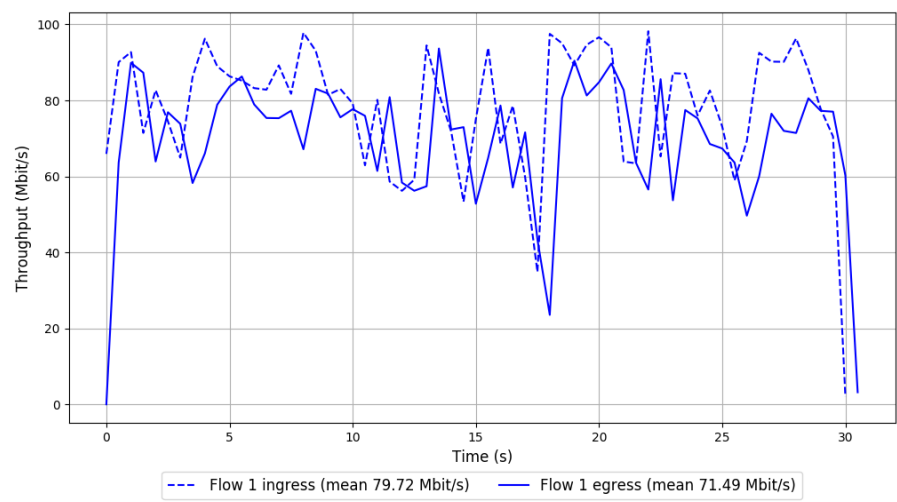
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 86.20 Mbit/s) --- Flow 1 egress (mean 76.99 Mbit/s)

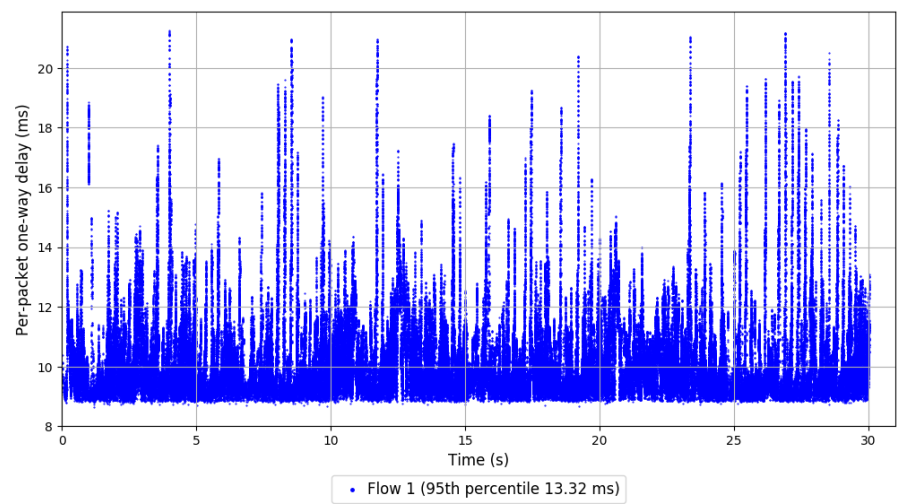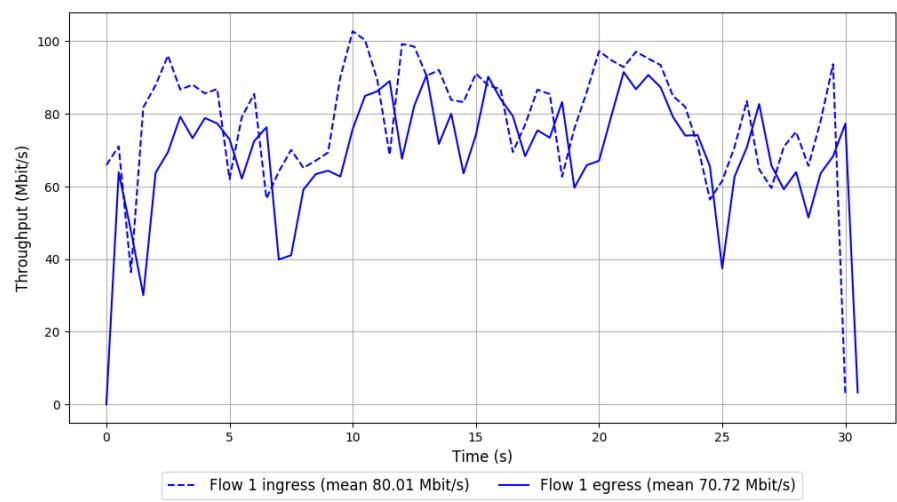

• Flow 1 (95th percentile 14.07 ms)

23

```
Run 1: Statistics of Copa

Start at: 2018-07-09 20:02:03
End at: 2018-07-09 20:02:33
Local clock offset: 0.035 ms
Remote clock offset: -2.454 ms


# Below is generated by plot.py at 2018-07-09 23:18:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.49 Mbit/s
95th percentile per-packet one-way delay: 16.385 ms
Loss rate: 10.33%
-- Flow 1:
Average throughput: 71.49 Mbit/s
95th percentile per-packet one-way delay: 16.385 ms
Loss rate: 10.33%
```
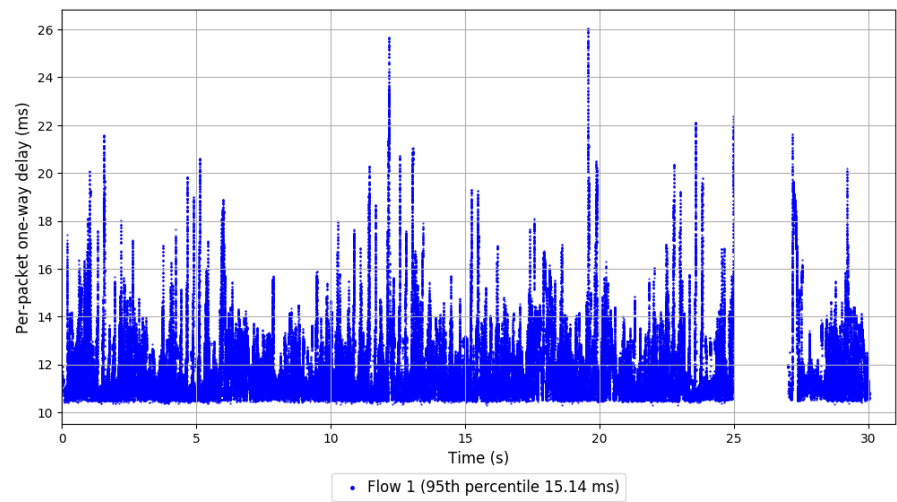
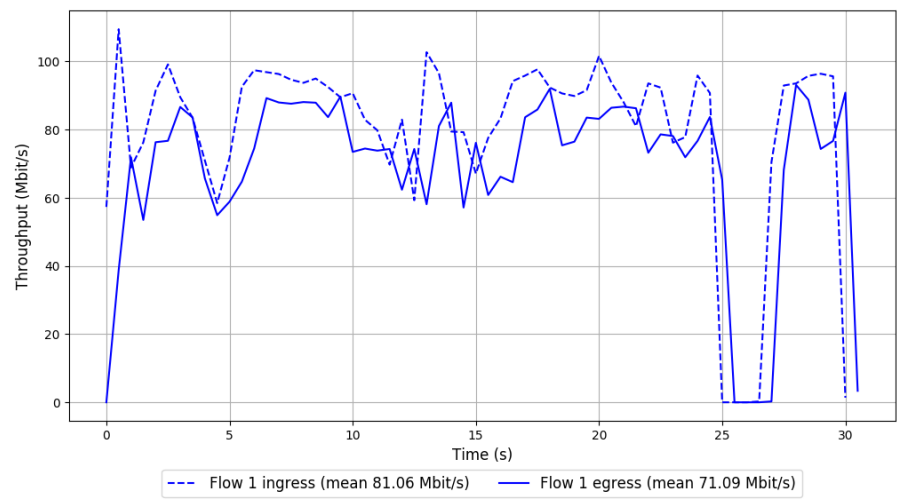Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-07-09 20:22:25
End at: 2018-07-09 20:22:55
Local clock offset: 1.063 ms
Remote clock offset: -6.483 ms


# Below is generated by plot.py at 2018-07-09 23:18:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.72 Mbit/s
95th percentile per-packet one-way delay: 13.317 ms
Loss rate: 11.62%
-- Flow 1:
Average throughput: 70.72 Mbit/s
95th percentile per-packet one-way delay: 13.317 ms
Loss rate: 11.62%
```
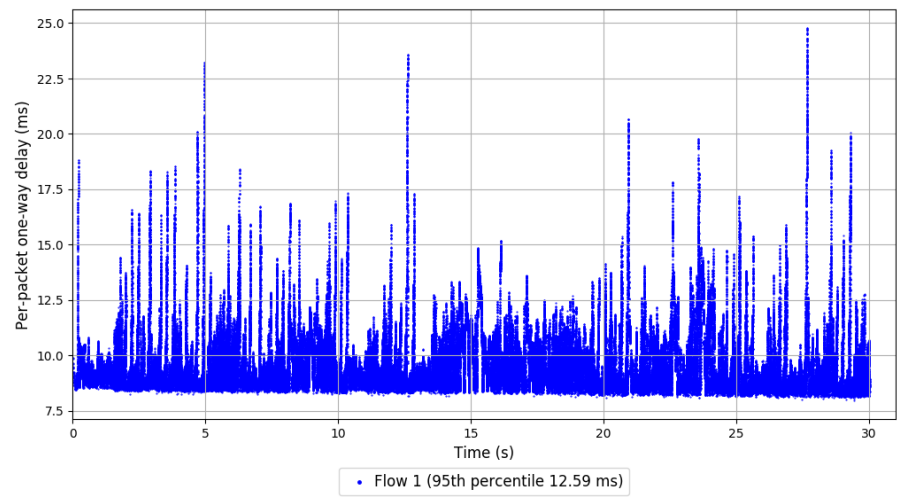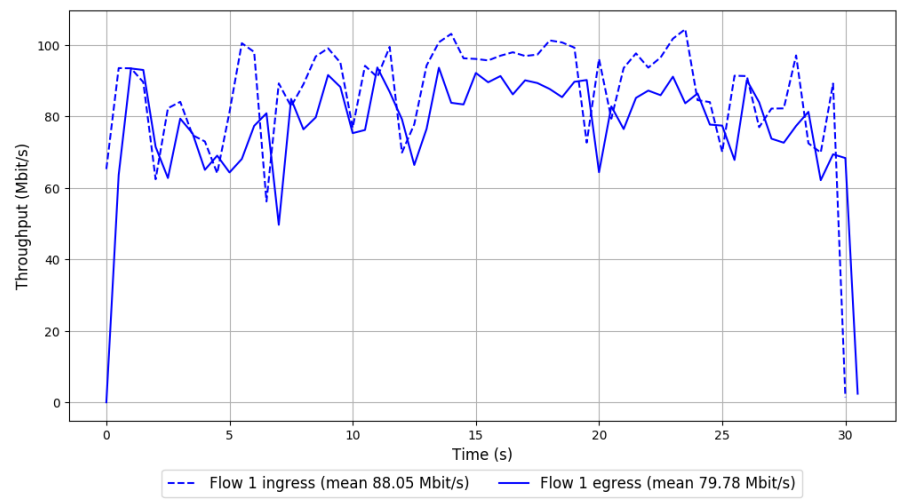
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-07-09 20:42:15
End at: 2018-07-09 20:42:45
Local clock offset: 0.465 ms
Remote clock offset: -6.488 ms


# Below is generated by plot.py at 2018-07-09 23:18:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.09 Mbit/s
95th percentile per-packet one-way delay: 15.142 ms
Loss rate: 12.30%
-- Flow 1:
Average throughput: 71.09 Mbit/s
95th percentile per-packet one-way delay: 15.142 ms
Loss rate: 12.30%
```
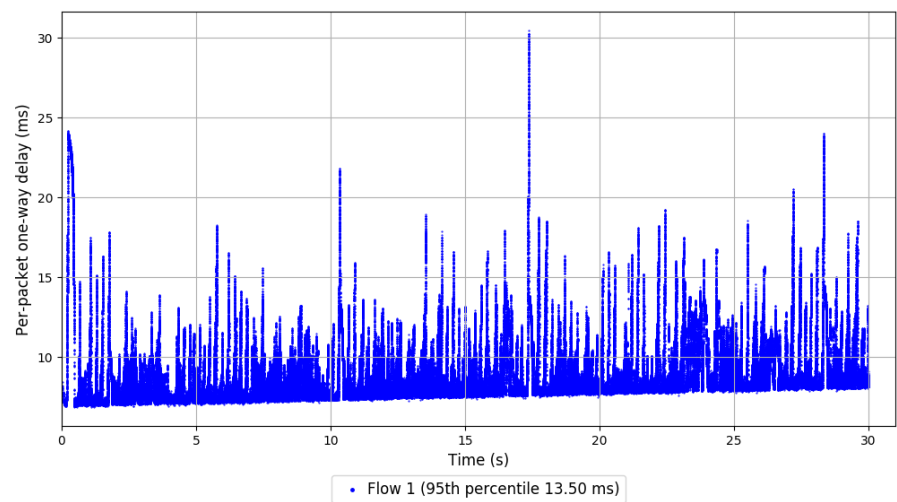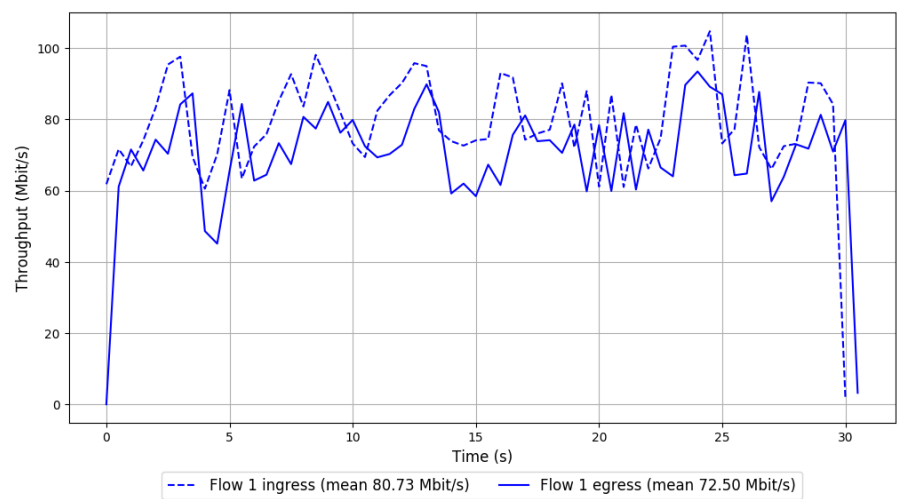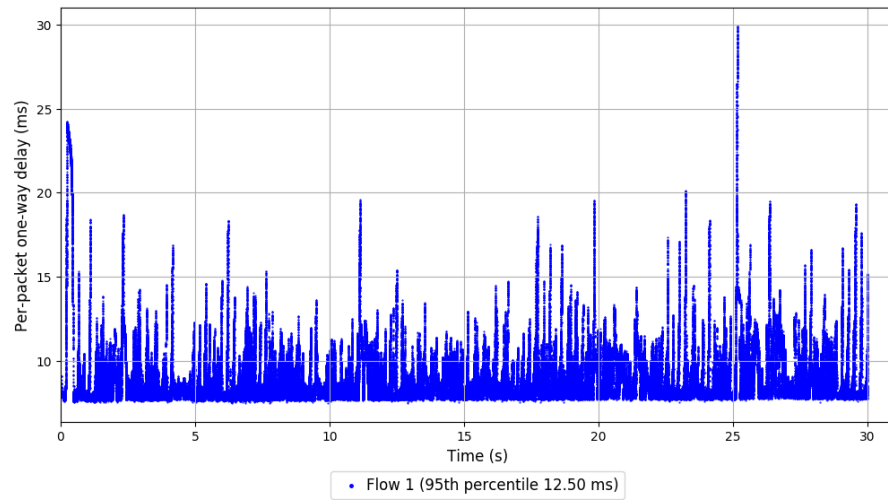
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-07-09 21:01:47
End at: 2018-07-09 21:02:17
Local clock offset: 2.82 ms
Remote clock offset: 13.134 ms


# Below is generated by plot.py at 2018-07-09 23:18:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.78 Mbit/s
95th percentile per-packet one-way delay: 12.585 ms
Loss rate: 9.39%
-- Flow 1:
Average throughput: 79.78 Mbit/s
95th percentile per-packet one-way delay: 12.585 ms
Loss rate: 9.39%
```
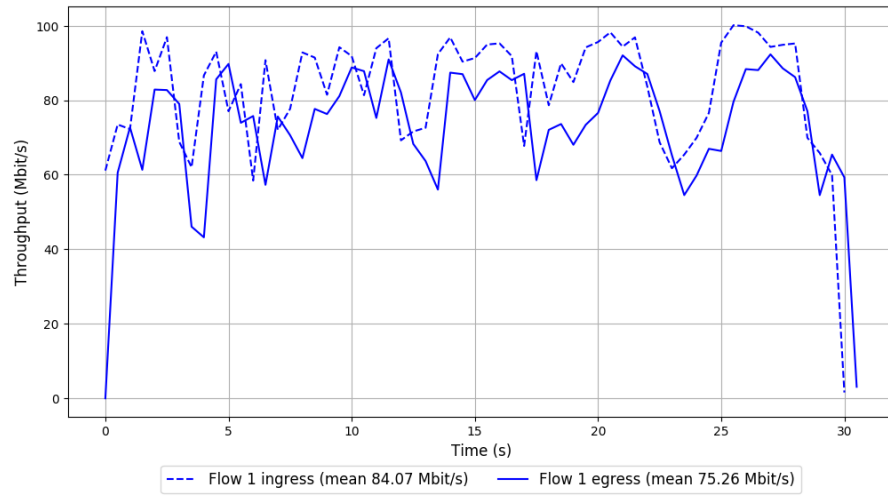
Run 4: Report of Copa — Data Link

Flow 1 ingress (mean 88.05 Mbit/s) --- Flow 1 egress (mean 79.78 Mbit/s)

• Flow 1 (95th percentile 12.59 ms)

```
Run 5: Statistics of Copa

Start at: 2018-07-09 21:21:26
End at: 2018-07-09 21:21:56
Local clock offset: 4.304 ms
Remote clock offset: 10.975 ms

# Below is generated by plot.py at 2018-07-09 23:18:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.50 Mbit/s
95th percentile per-packet one-way delay: 13.501 ms
Loss rate: 10.18%
-- Flow 1:
Average throughput: 72.50 Mbit/s
95th percentile per-packet one-way delay: 13.501 ms
Loss rate: 10.18%
```
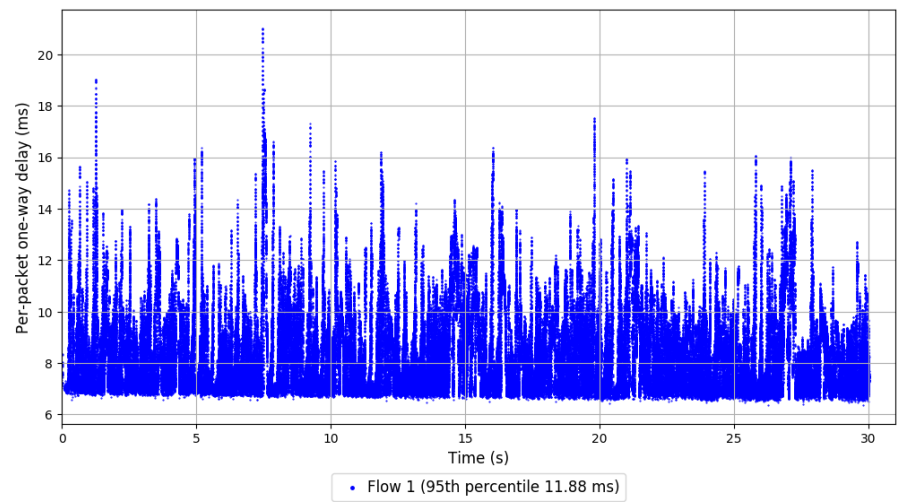
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-07-09 21:40:47
End at: 2018-07-09 21:41:17
Local clock offset: 2.196 ms
Remote clock offset: -9.327 ms


# Below is generated by plot.py at 2018-07-09 23:18:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.26 Mbit/s
95th percentile per-packet one-way delay: 12.500 ms
Loss rate: 10.47%
-- Flow 1:
Average throughput: 75.26 Mbit/s
95th percentile per-packet one-way delay: 12.500 ms
Loss rate: 10.47%
```

Run 6: Report of Copa — Data Link

Flow 1 ingress (mean 84.07 Mbit/s)   Flow 1 egress (mean 75.26 Mbit/s)

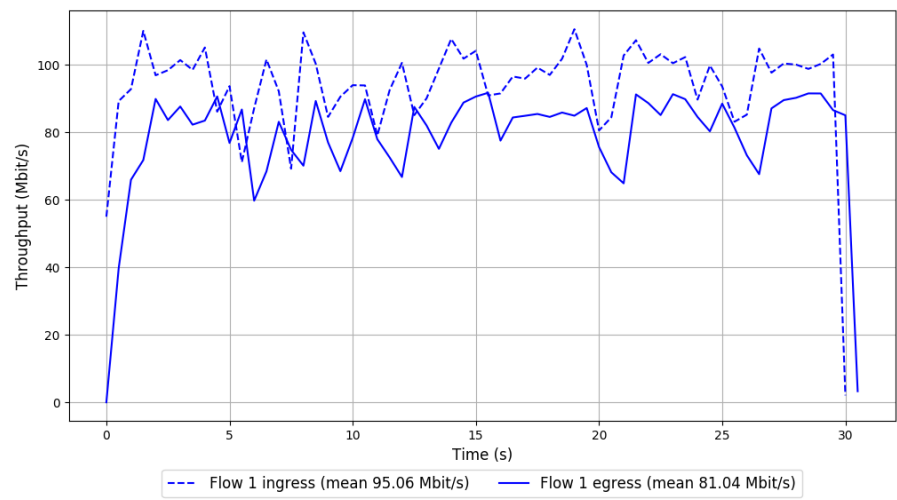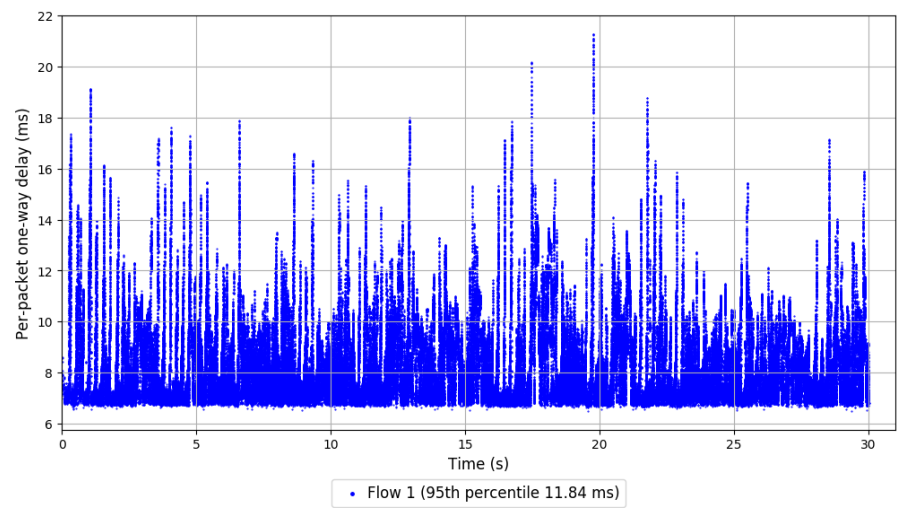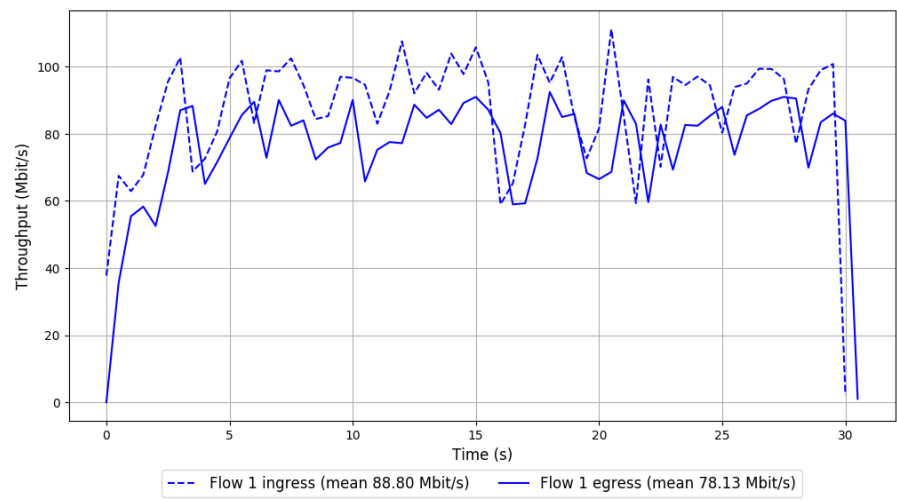Flow 1 (95th percentile 12.50 ms)

```
Run 7: Statistics of Copa

Start at: 2018-07-09 22:00:20
End at: 2018-07-09 22:00:50
Local clock offset: 2.459 ms
Remote clock offset: -5.782 ms


# Below is generated by plot.py at 2018-07-09 23:19:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.04 Mbit/s
95th percentile per-packet one-way delay: 11.876 ms
Loss rate: 14.75%
-- Flow 1:
Average throughput: 81.04 Mbit/s
95th percentile per-packet one-way delay: 11.876 ms
Loss rate: 14.75%
```
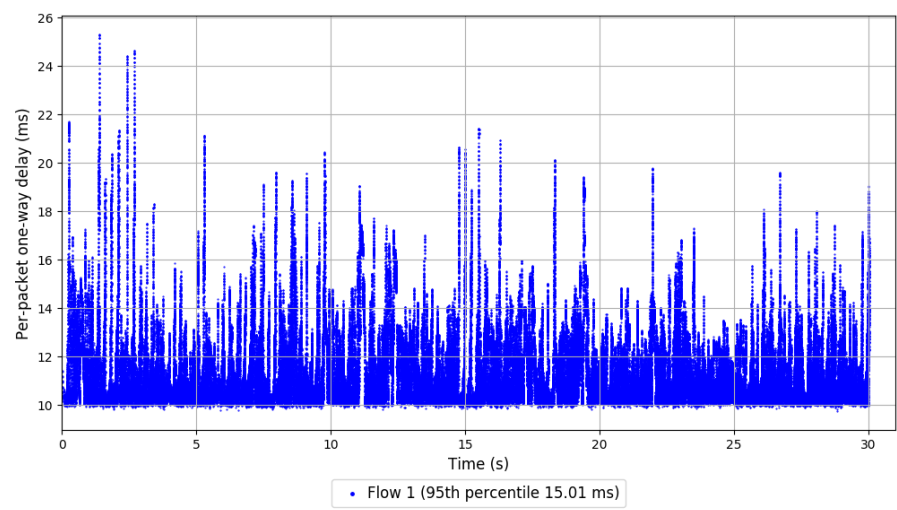
Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-07-09 22:19:53
End at: 2018-07-09 22:20:23
Local clock offset: 2.928 ms
Remote clock offset: -1.357 ms


# Below is generated by plot.py at 2018-07-09 23:19:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 11.836 ms
Loss rate: 12.02%
-- Flow 1:
Average throughput: 78.13 Mbit/s
95th percentile per-packet one-way delay: 11.836 ms
Loss rate: 12.02%
```

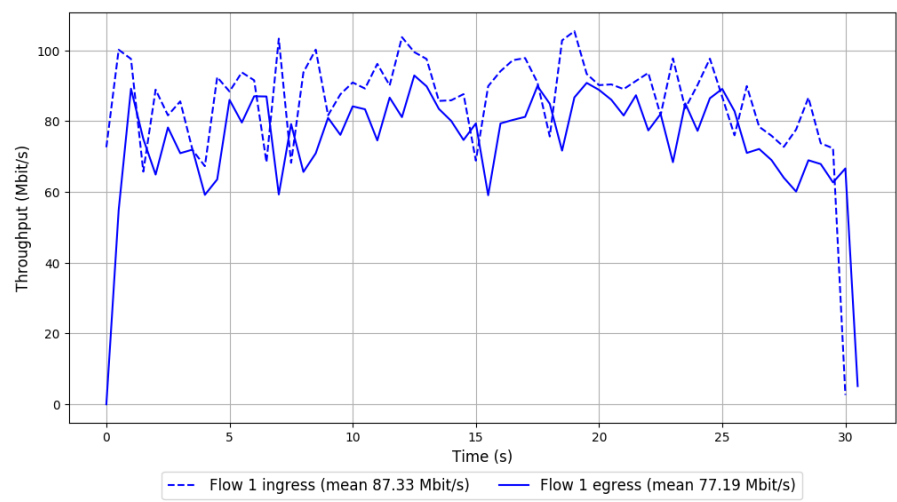Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2018-07-09 22:39:38
End at: 2018-07-09 22:40:08
Local clock offset: -0.334 ms
Remote clock offset: -1.615 ms


# Below is generated by plot.py at 2018-07-09 23:20:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.19 Mbit/s
95th percentile per-packet one-way delay: 15.012 ms
Loss rate: 11.60%
-- Flow 1:
Average throughput: 77.19 Mbit/s
95th percentile per-packet one-way delay: 15.012 ms
Loss rate: 11.60%
```
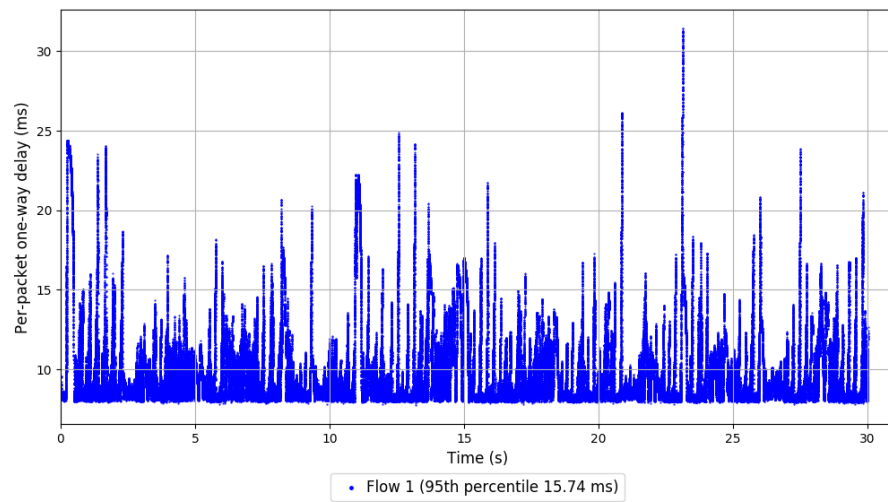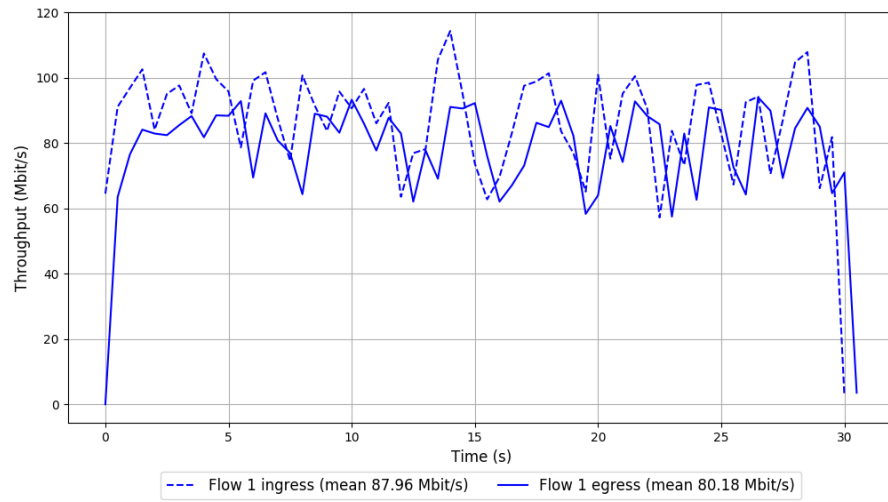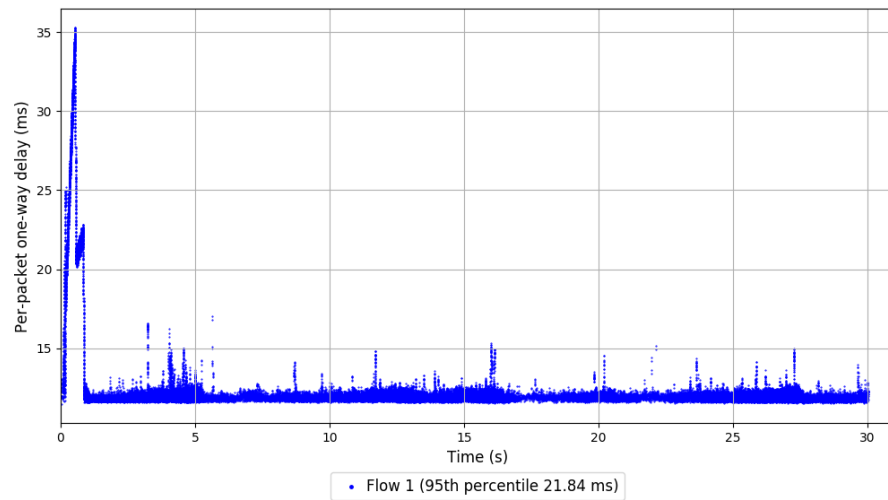
Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 87.33 Mbit/s) --- Flow 1 egress (mean 77.19 Mbit/s)

Flow 1 (95th percentile 15.01 ms)

```
Run 10: Statistics of Copa

Start at: 2018-07-09 22:59:07
End at: 2018-07-09 22:59:37
Local clock offset: 1.268 ms
Remote clock offset: -3.046 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.18 Mbit/s
95th percentile per-packet one-way delay: 15.739 ms
Loss rate: 8.84%
-- Flow 1:
Average throughput: 80.18 Mbit/s
95th percentile per-packet one-way delay: 15.739 ms
Loss rate: 8.84%
```

Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 87.96 Mbit/s)   Flow 1 egress (mean 80.18 Mbit/s)

Flow 1 (95th percentile 15.74 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-07-09 19:57:05
End at: 2018-07-09 19:57:35
Local clock offset: -1.57 ms
Remote clock offset: -3.837 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 21.841 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 21.841 ms
Loss rate: 0.10%
```
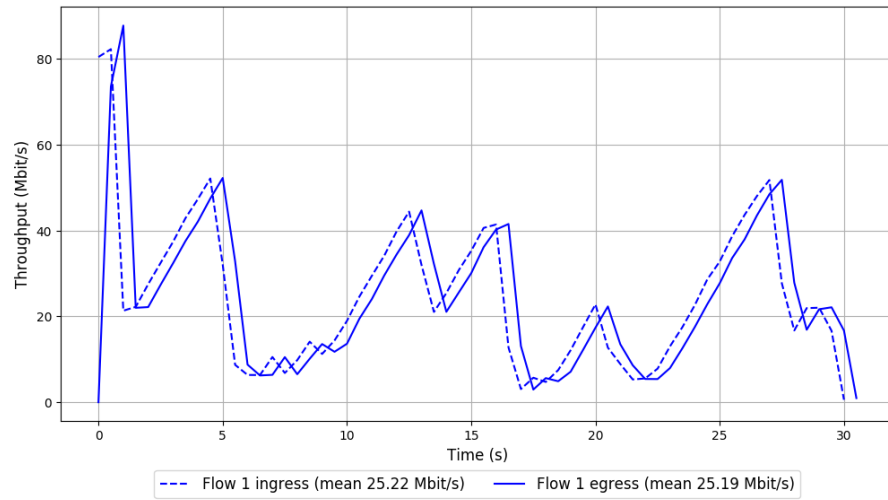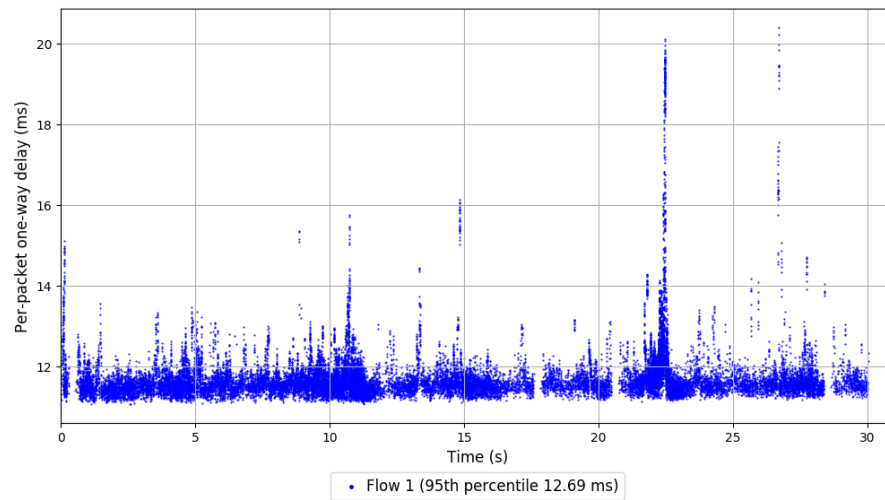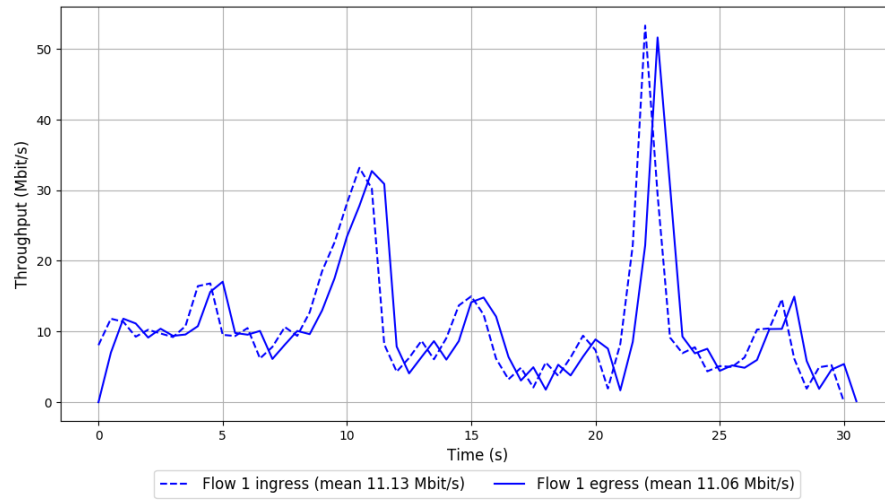
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-07-09 20:17:32
End at: 2018-07-09 20:18:02
Local clock offset: -0.664 ms
Remote clock offset: -5.203 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 12.691 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 11.06 Mbit/s
95th percentile per-packet one-way delay: 12.691 ms
Loss rate: 0.66%
```
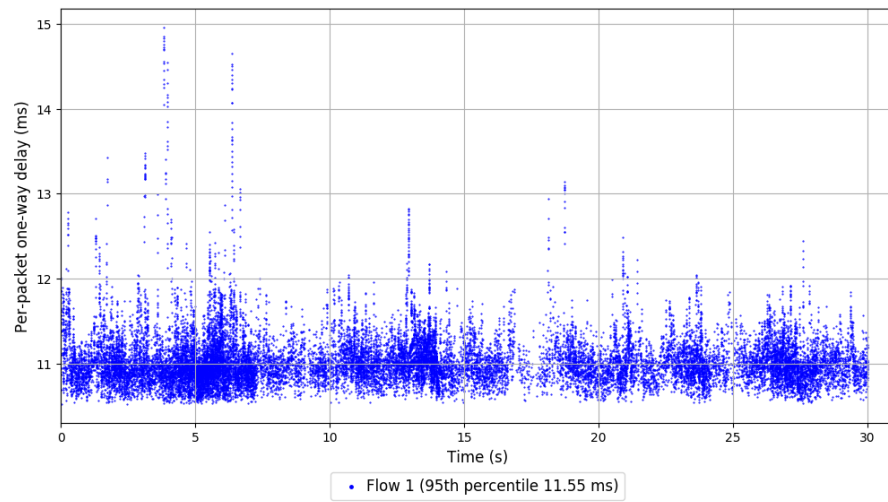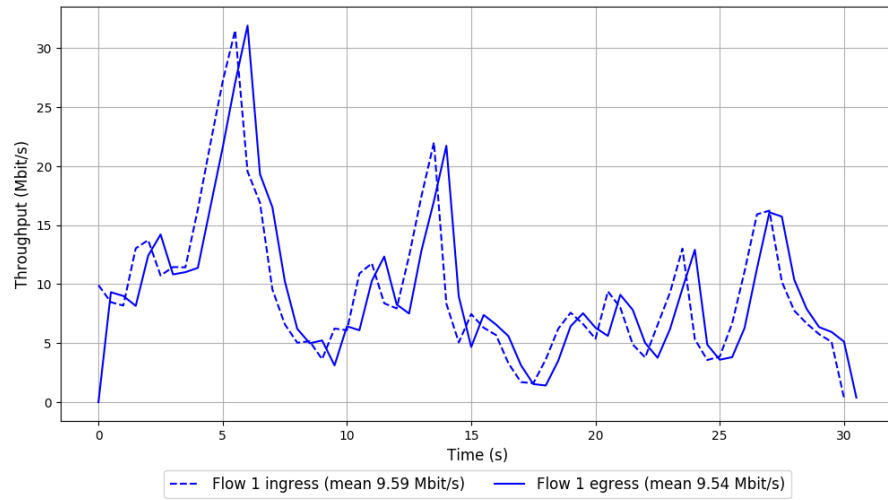
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-07-09 20:37:15
End at: 2018-07-09 20:37:45
Local clock offset: 0.021 ms
Remote clock offset: -6.662 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 11.550 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 11.550 ms
Loss rate: 0.58%
```
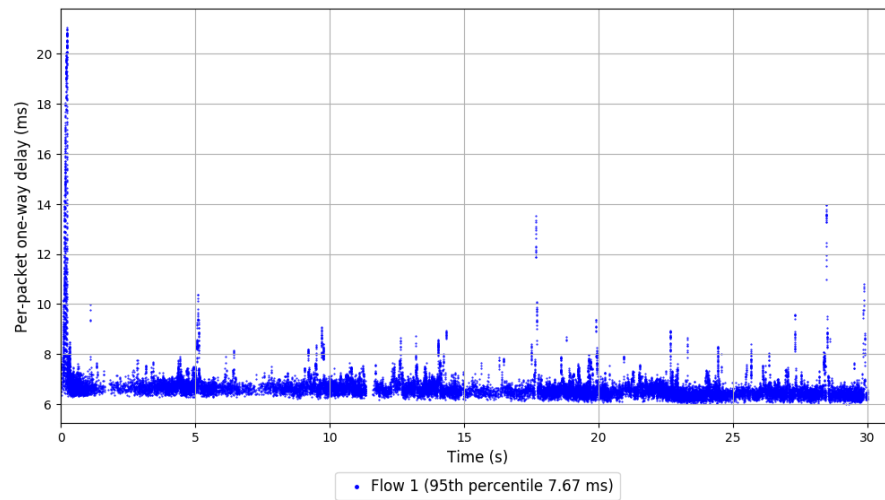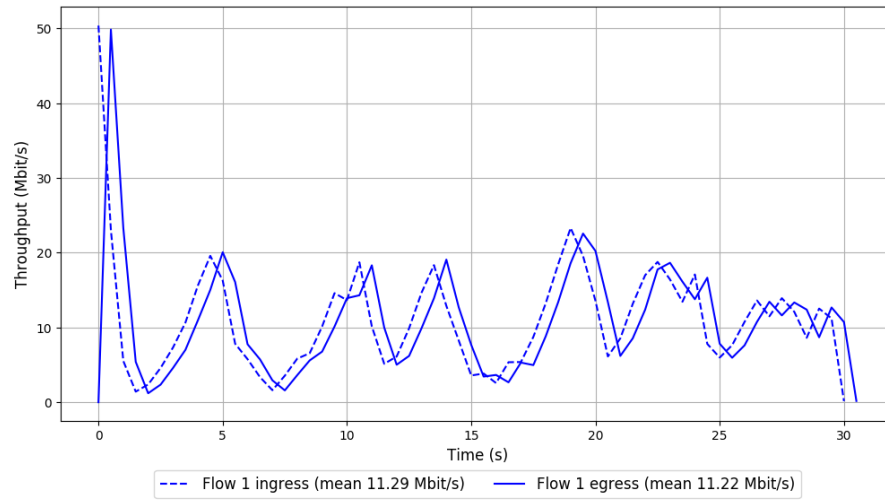
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 9.59 Mbit/s) — — —   Flow 1 egress (mean 9.54 Mbit/s) ———

Flow 1 (95th percentile 11.55 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-07-09 20:57:05
End at: 2018-07-09 20:57:35
Local clock offset: 1.949 ms
Remote clock offset: 7.161 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 7.674 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 7.674 ms
Loss rate: 0.66%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 11.29 Mbit/s)   Flow 1 egress (mean 11.22 Mbit/s)

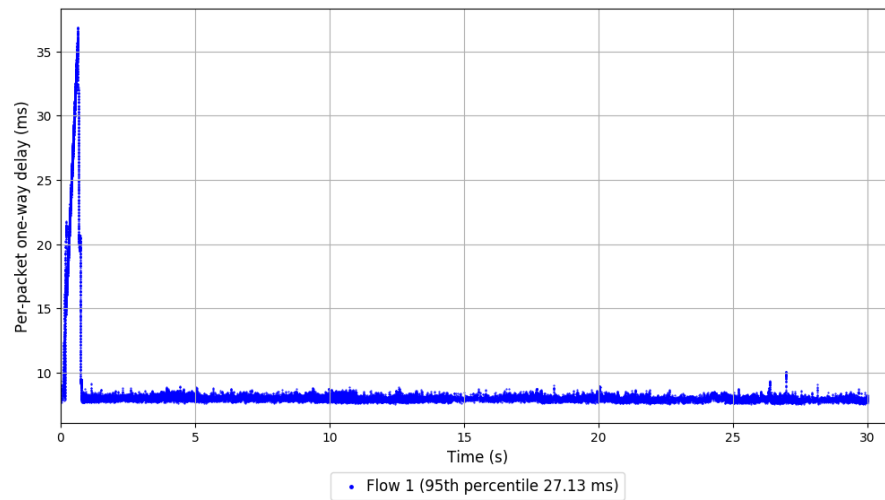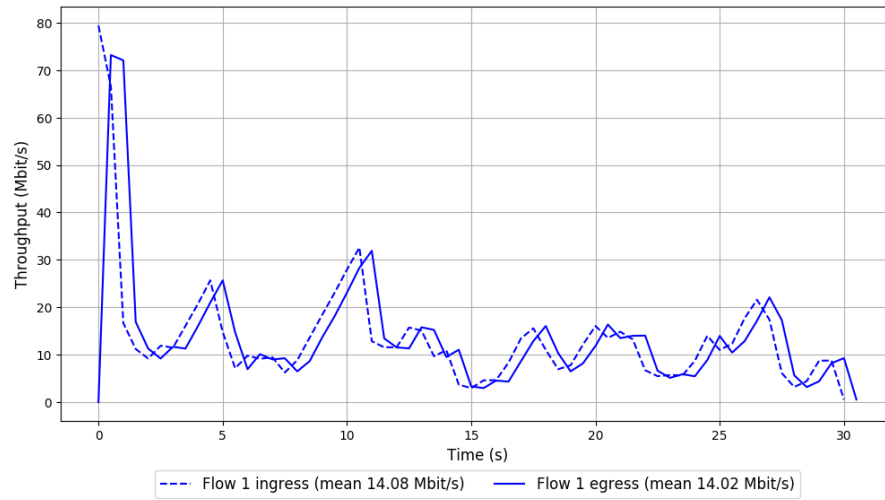Flow 1 (95th percentile 7.67 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-07-09 21:16:43
End at: 2018-07-09 21:17:13
Local clock offset: 3.786 ms
Remote clock offset: 20.155 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.02 Mbit/s
95th percentile per-packet one-way delay: 27.131 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 14.02 Mbit/s
95th percentile per-packet one-way delay: 27.131 ms
Loss rate: 0.39%
```
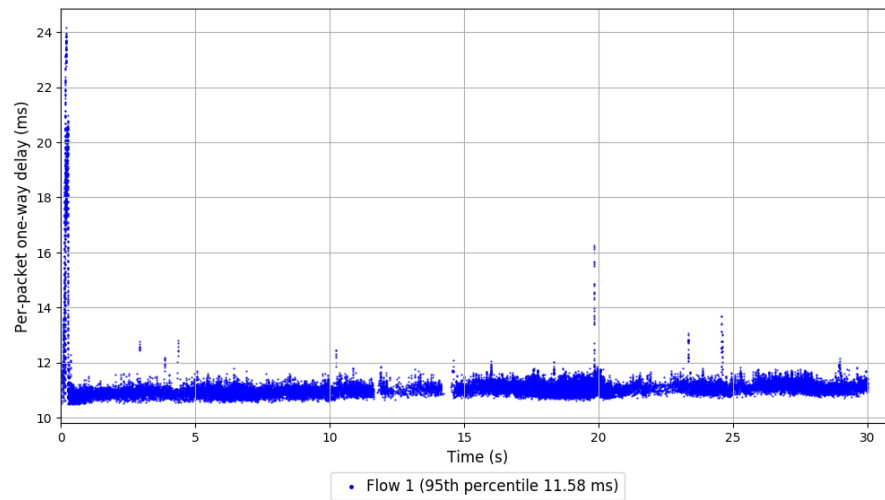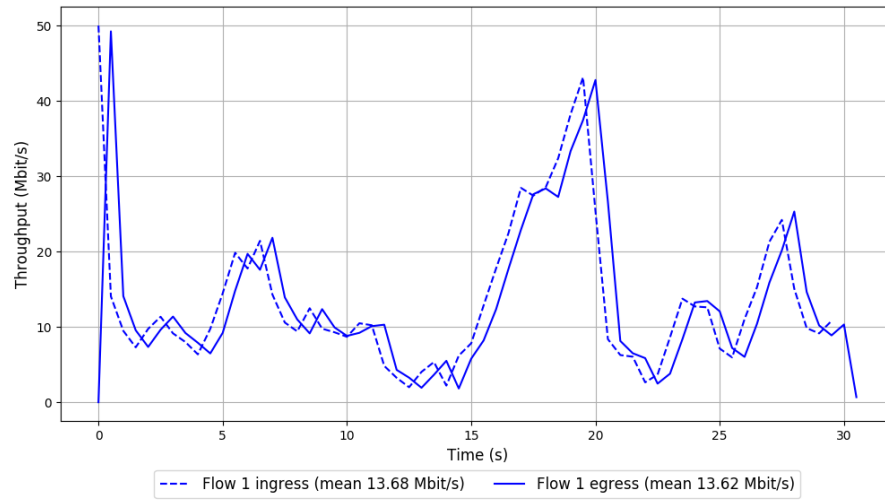
Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2018-07-09 21:36:09
End at: 2018-07-09 21:36:39
Local clock offset: -0.608 ms
Remote clock offset: -7.371 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 11.578 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 13.62 Mbit/s
95th percentile per-packet one-way delay: 11.578 ms
Loss rate: 0.42%
```
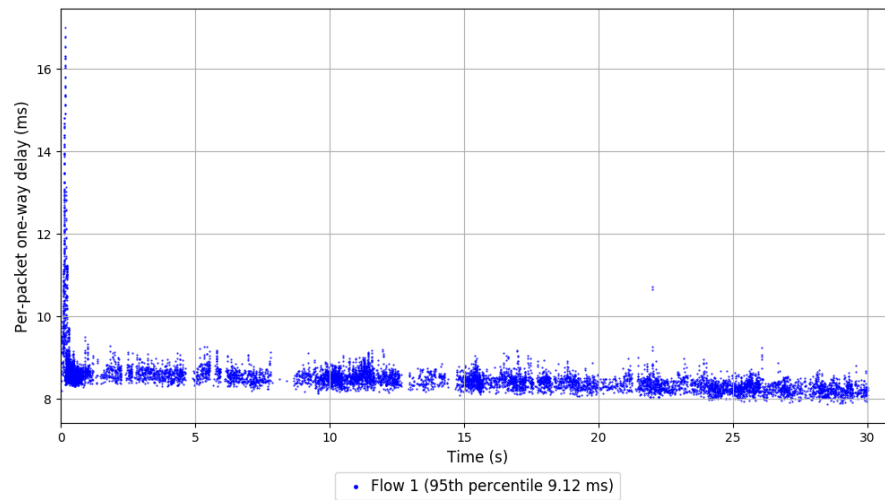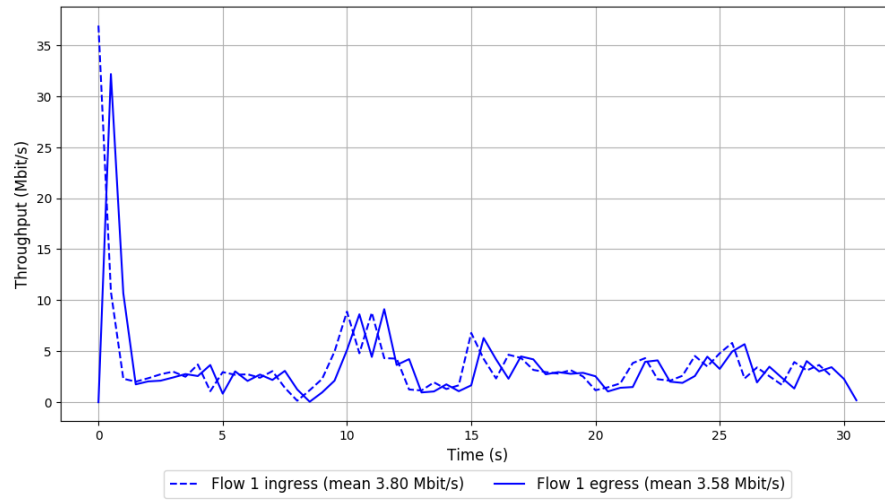
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-07-09 21:55:30
End at: 2018-07-09 21:56:00
Local clock offset: 1.088 ms
Remote clock offset: -9.721 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 9.117 ms
Loss rate: 5.95%
-- Flow 1:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 9.117 ms
Loss rate: 5.95%
```

Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.80 Mbit/s)   Flow 1 egress (mean 3.58 Mbit/s)

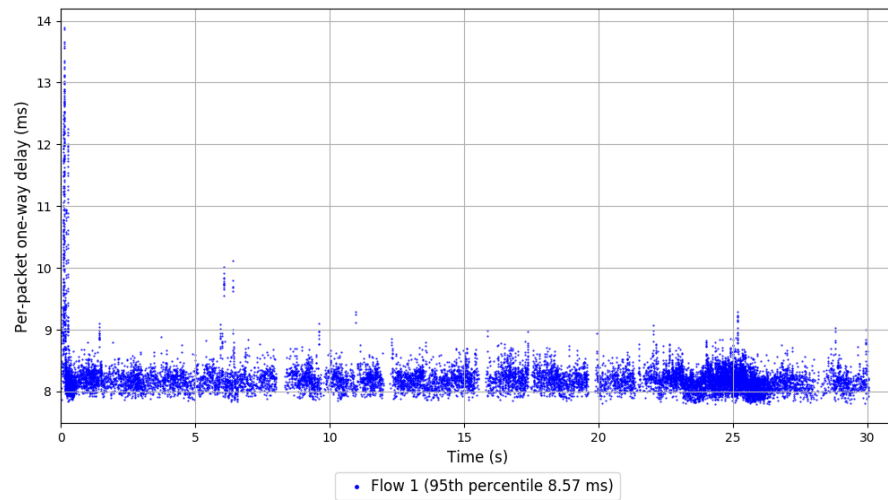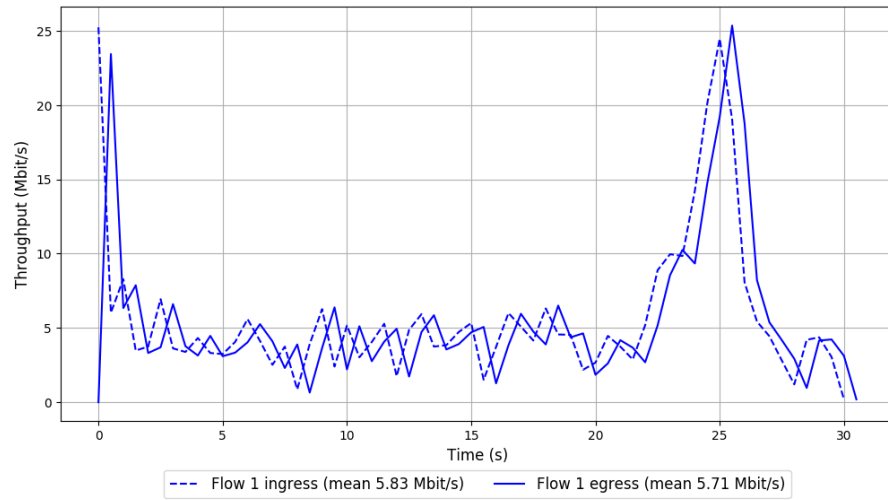Flow 1 (95th percentile 9.12 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-07-09 22:15:12
End at: 2018-07-09 22:15:43
Local clock offset: 1.716 ms
Remote clock offset: -1.865 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 8.572 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 8.572 ms
Loss rate: 2.05%
```
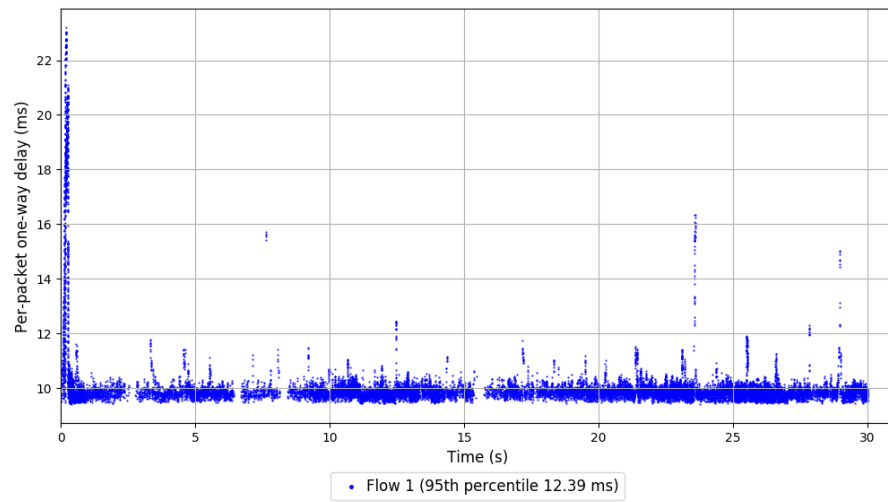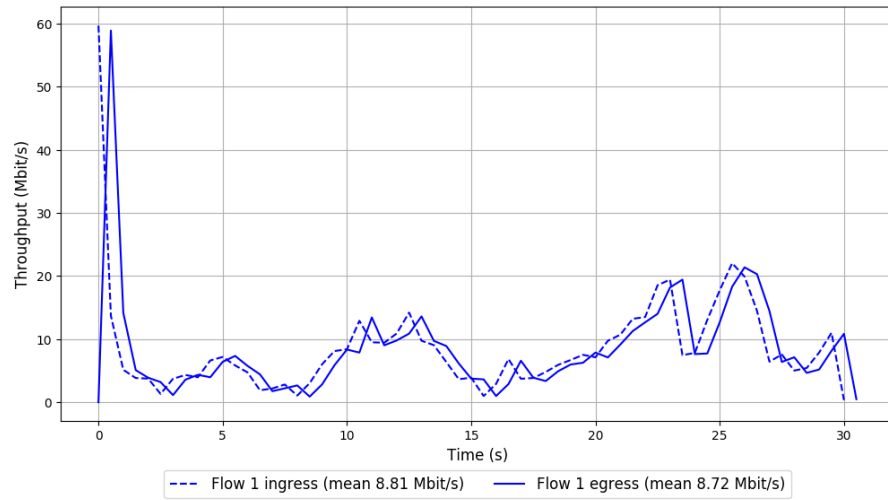
Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2018-07-09 22:34:53
End at: 2018-07-09 22:35:24
Local clock offset: 0.55 ms
Remote clock offset: -1.084 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 12.395 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 8.72 Mbit/s
95th percentile per-packet one-way delay: 12.395 ms
Loss rate: 0.99%
```
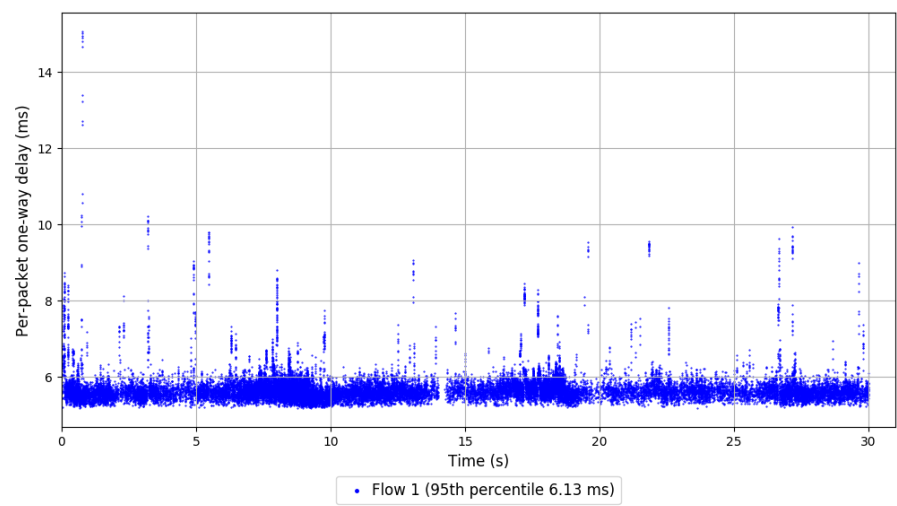
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 8.81 Mbit/s) --- Flow 1 egress (mean 8.72 Mbit/s)

Flow 1 (95th percentile 12.39 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-07-09 22:54:21
End at: 2018-07-09 22:54:51
Local clock offset: 2.623 ms
Remote clock offset: -3.537 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.28 Mbit/s
95th percentile per-packet one-way delay: 6.129 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 12.28 Mbit/s
95th percentile per-packet one-way delay: 6.129 ms
Loss rate: 0.38%
```
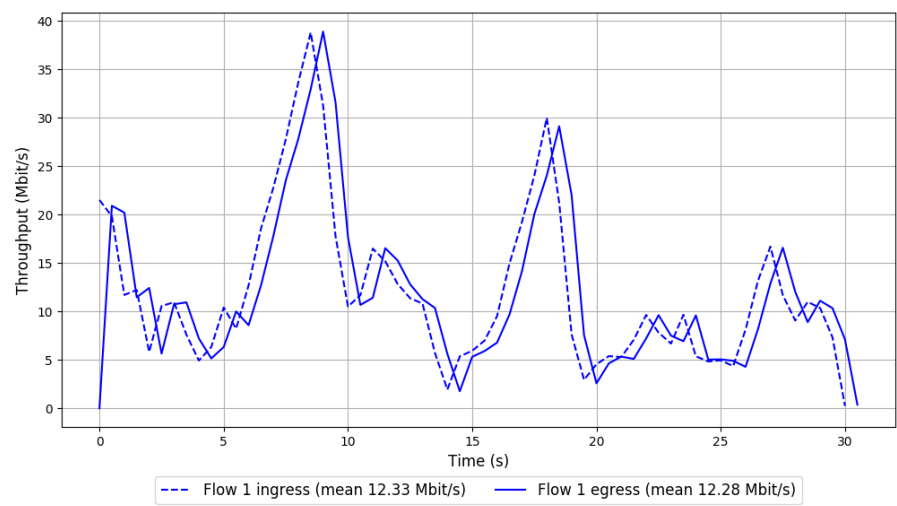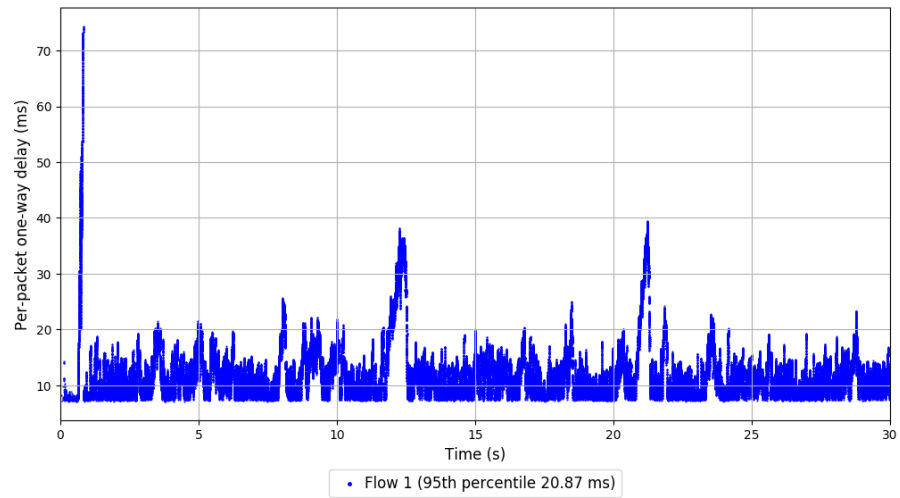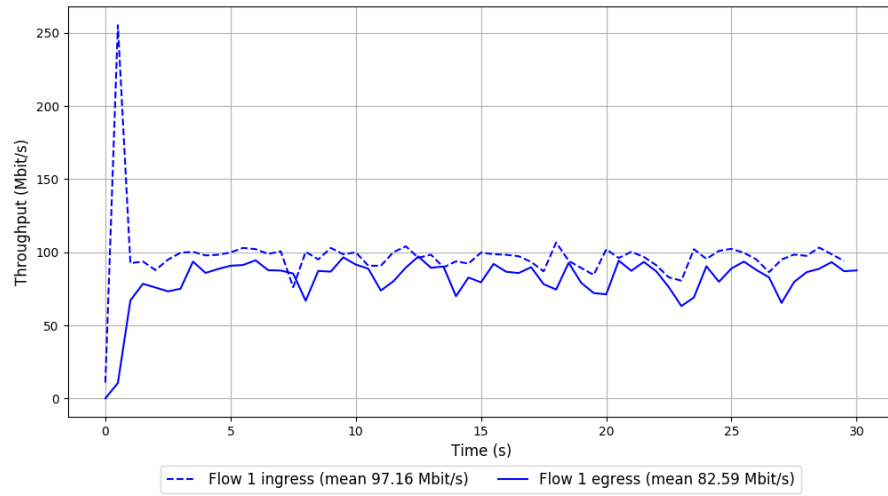
Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-07-09 20:16:17
End at: 2018-07-09 20:16:47
Local clock offset: 2.386 ms
Remote clock offset: -5.626 ms

# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.59 Mbit/s
95th percentile per-packet one-way delay: 20.867 ms
Loss rate: 14.98%
-- Flow 1:
Average throughput: 82.59 Mbit/s
95th percentile per-packet one-way delay: 20.867 ms
Loss rate: 14.98%
```

Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 97.16 Mbit/s)   Flow 1 egress (mean 82.59 Mbit/s)

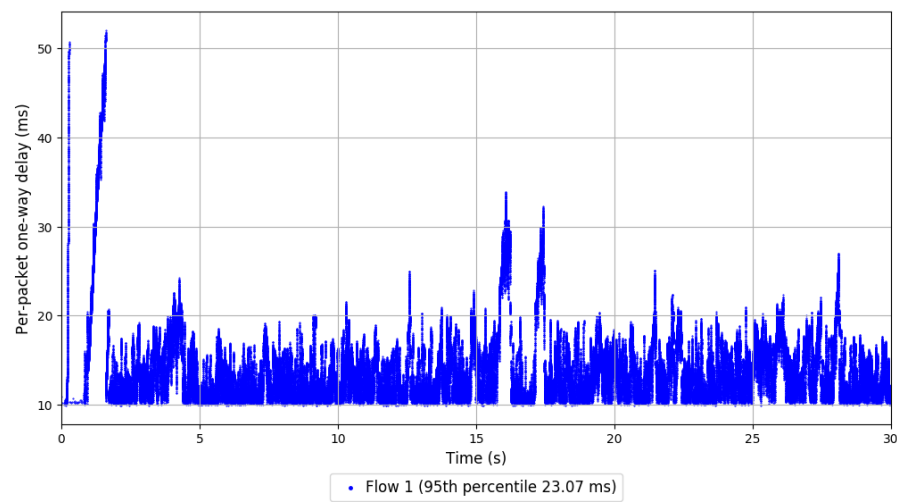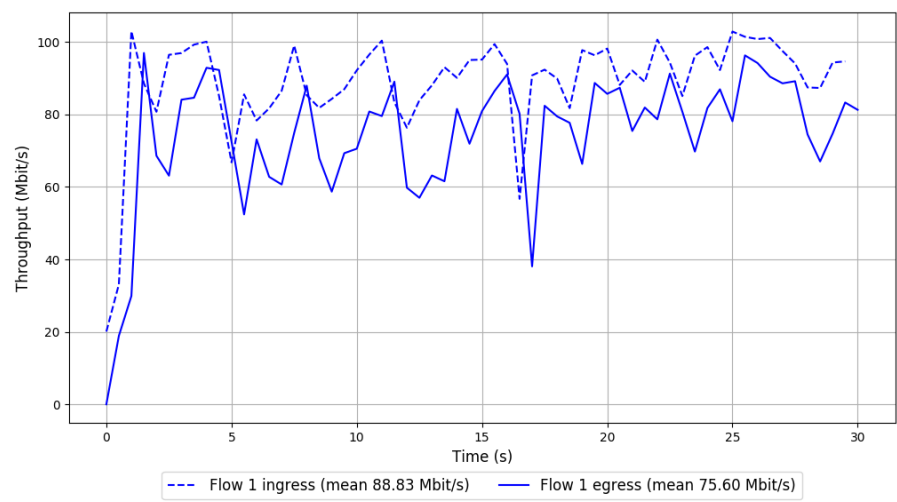Flow 1 (95th percentile 20.87 ms)

```
Run 2: Statistics of FillP

Start at: 2018-07-09 20:36:06
End at: 2018-07-09 20:36:36
Local clock offset: 0.06 ms
Remote clock offset: -6.948 ms

# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.60 Mbit/s
95th percentile per-packet one-way delay: 23.070 ms
Loss rate: 14.90%
-- Flow 1:
Average throughput: 75.60 Mbit/s
95th percentile per-packet one-way delay: 23.070 ms
Loss rate: 14.90%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 88.83 Mbit/s)   Flow 1 egress (mean 75.60 Mbit/s)

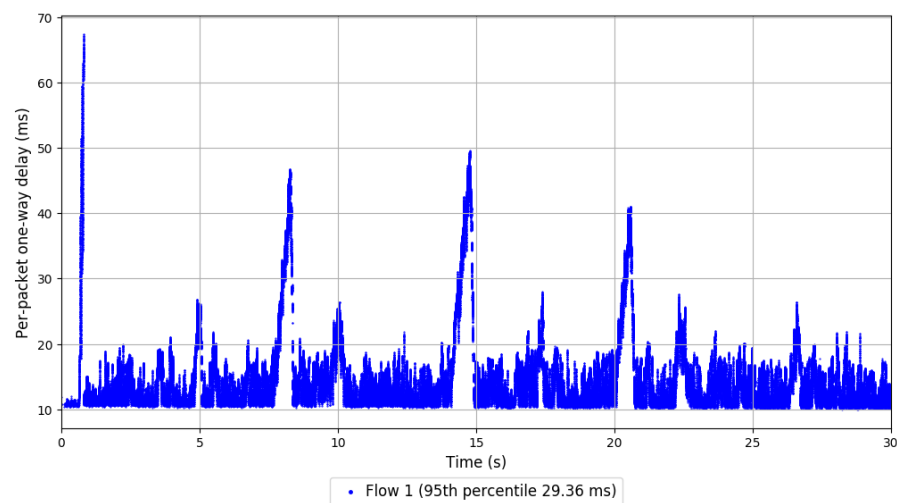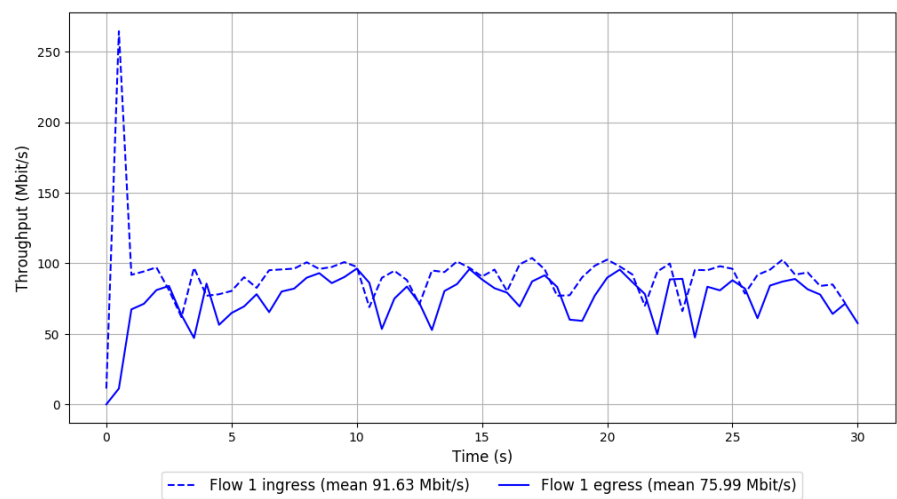Flow 1 (95th percentile 23.07 ms)

```
Run 3: Statistics of FillP

Start at: 2018-07-09 20:55:56
End at: 2018-07-09 20:56:26
Local clock offset: 1.773 ms
Remote clock offset: 10.349 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 29.358 ms
Loss rate: 17.07%
-- Flow 1:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 29.358 ms
Loss rate: 17.07%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 91.63 Mbit/s)   Flow 1 egress (mean 75.99 Mbit/s)

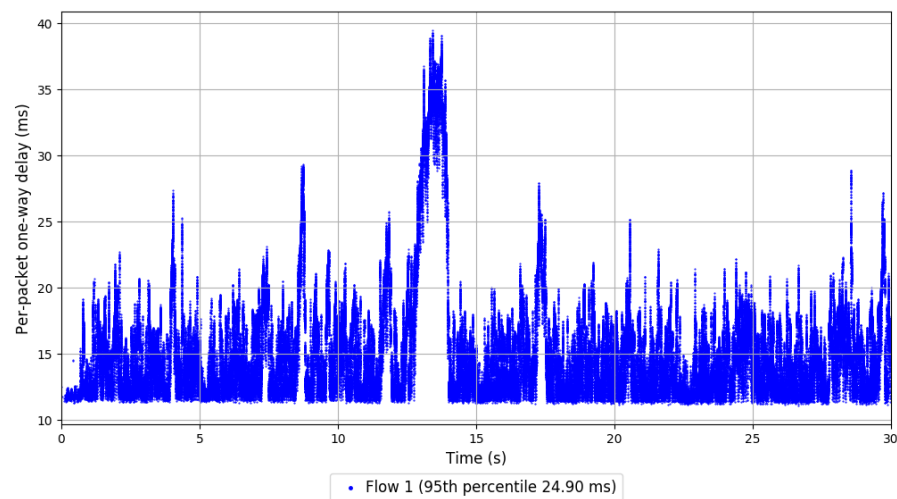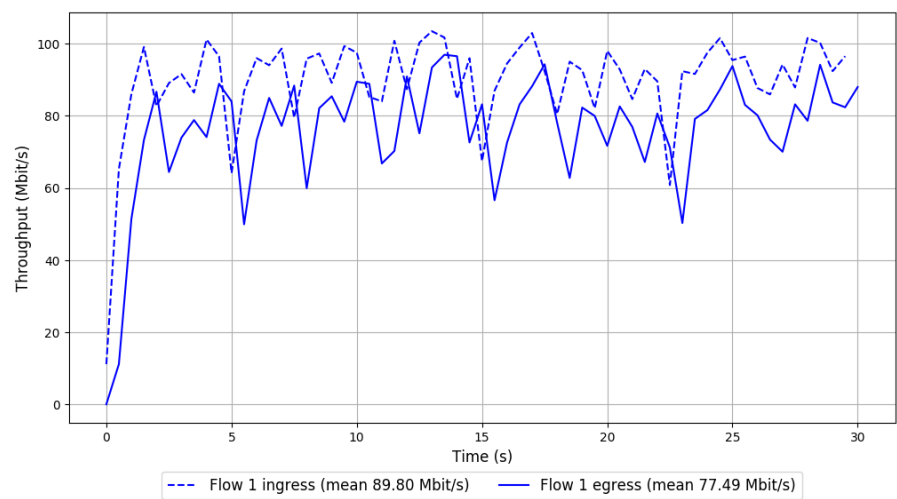Flow 1 (95th percentile 29.36 ms)

```
Run 4: Statistics of FillP

Start at: 2018-07-09 21:15:34
End at: 2018-07-09 21:16:04
Local clock offset: 0.243 ms
Remote clock offset: 20.012 ms


# Below is generated by plot.py at 2018-07-09 23:20:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 24.900 ms
Loss rate: 13.69%
-- Flow 1:
Average throughput: 77.49 Mbit/s
95th percentile per-packet one-way delay: 24.900 ms
Loss rate: 13.69%
```

Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 89.80 Mbit/s)   Flow 1 egress (mean 77.49 Mbit/s)

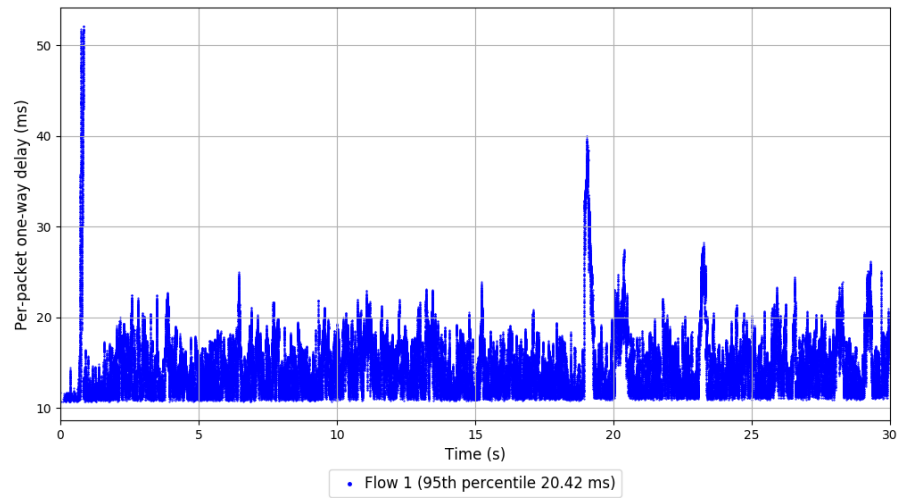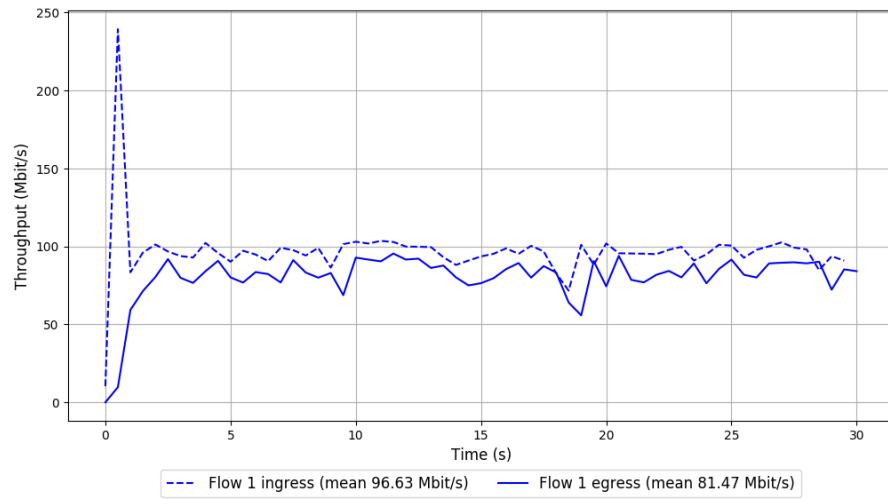• Flow 1 (95th percentile 24.90 ms)

```
Run 5: Statistics of FillP

Start at: 2018-07-09 21:35:00
End at: 2018-07-09 21:35:30
Local clock offset: -0.397 ms
Remote clock offset: -7.112 ms


# Below is generated by plot.py at 2018-07-09 23:20:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.47 Mbit/s
95th percentile per-packet one-way delay: 20.418 ms
Loss rate: 15.68%
-- Flow 1:
Average throughput: 81.47 Mbit/s
95th percentile per-packet one-way delay: 20.418 ms
Loss rate: 15.68%
```

Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 96.63 Mbit/s)   Flow 1 egress (mean 81.47 Mbit/s)

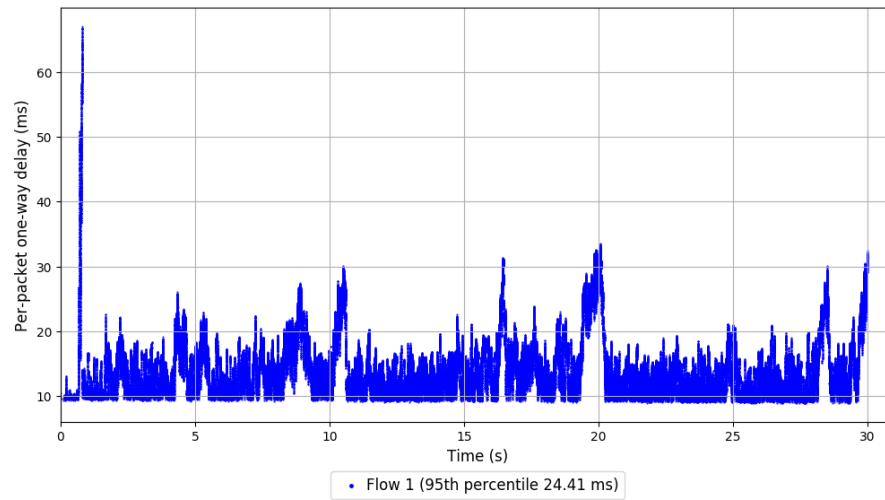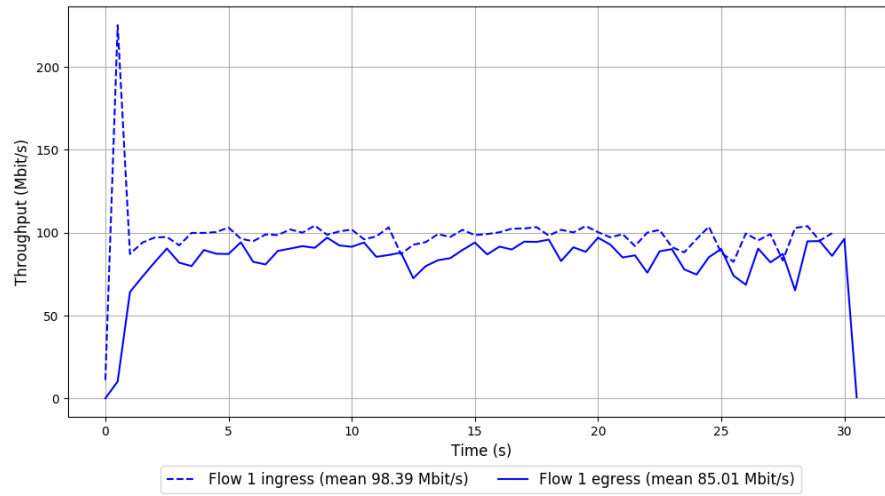Flow 1 (95th percentile 20.42 ms)

```
Run 6: Statistics of FillP

Start at: 2018-07-09 21:54:16
End at: 2018-07-09 21:54:46
Local clock offset: 0.543 ms
Remote clock offset: -9.167 ms

# Below is generated by plot.py at 2018-07-09 23:21:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 24.405 ms
Loss rate: 13.53%
-- Flow 1:
Average throughput: 85.01 Mbit/s
95th percentile per-packet one-way delay: 24.405 ms
Loss rate: 13.53%
```

Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 98.39 Mbit/s) ----- Flow 1 egress (mean 85.01 Mbit/s)

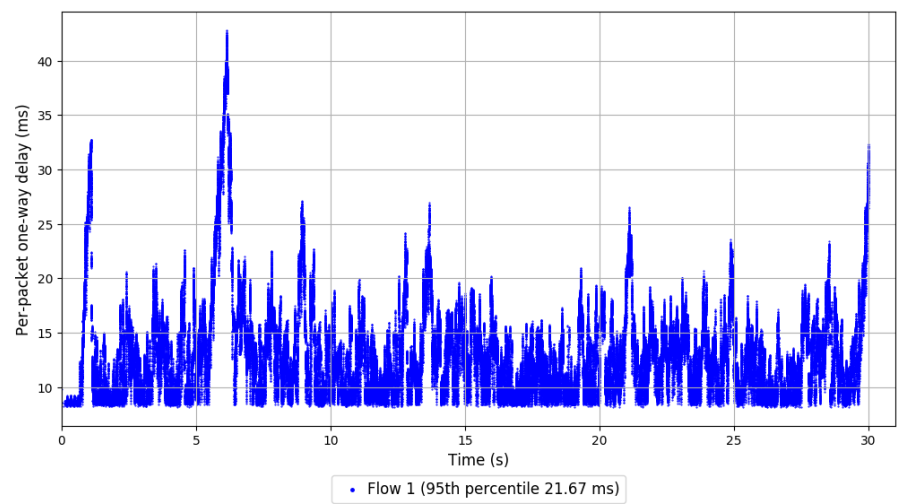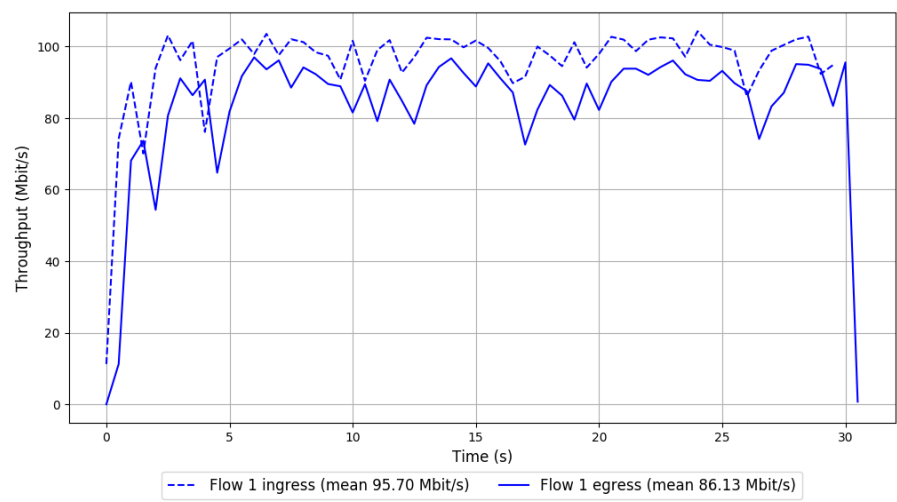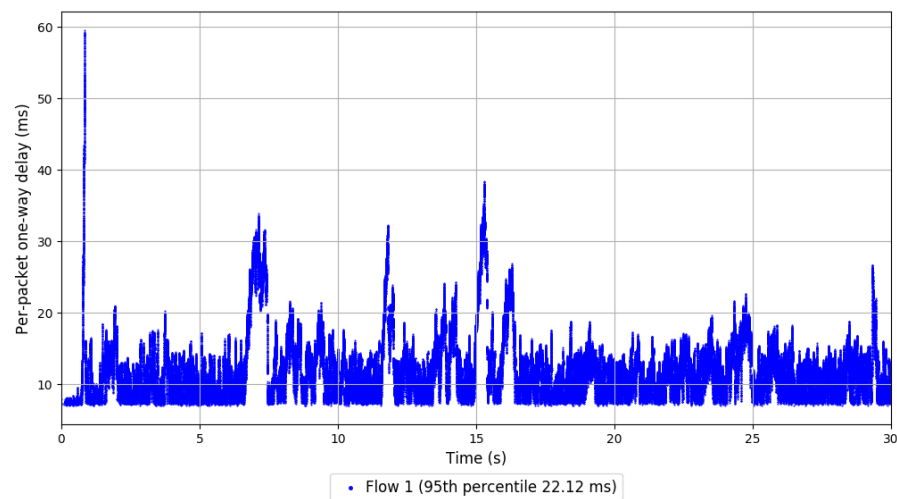Flow 1 (95th percentile 24.41 ms)

```
Run 7: Statistics of FillP

Start at: 2018-07-09 22:13:59
End at: 2018-07-09 22:14:29
Local clock offset: 1.566 ms
Remote clock offset: -2.448 ms


# Below is generated by plot.py at 2018-07-09 23:21:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.13 Mbit/s
95th percentile per-packet one-way delay: 21.674 ms
Loss rate: 9.94%
-- Flow 1:
Average throughput: 86.13 Mbit/s
95th percentile per-packet one-way delay: 21.674 ms
Loss rate: 9.94%
```

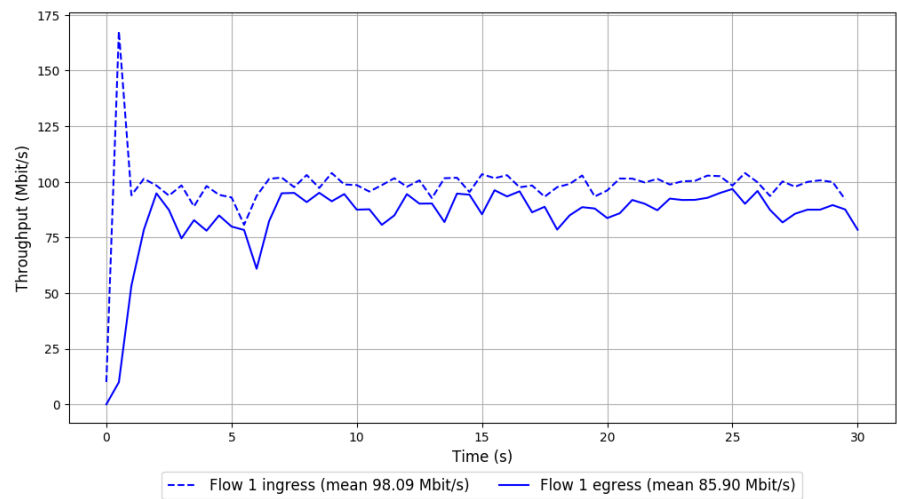Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-07-09 22:33:44
End at: 2018-07-09 22:34:14
Local clock offset: 2.126 ms
Remote clock offset: -1.571 ms


# Below is generated by plot.py at 2018-07-09 23:21:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 22.117 ms
Loss rate: 12.43%
-- Flow 1:
Average throughput: 85.90 Mbit/s
95th percentile per-packet one-way delay: 22.117 ms
Loss rate: 12.43%
```

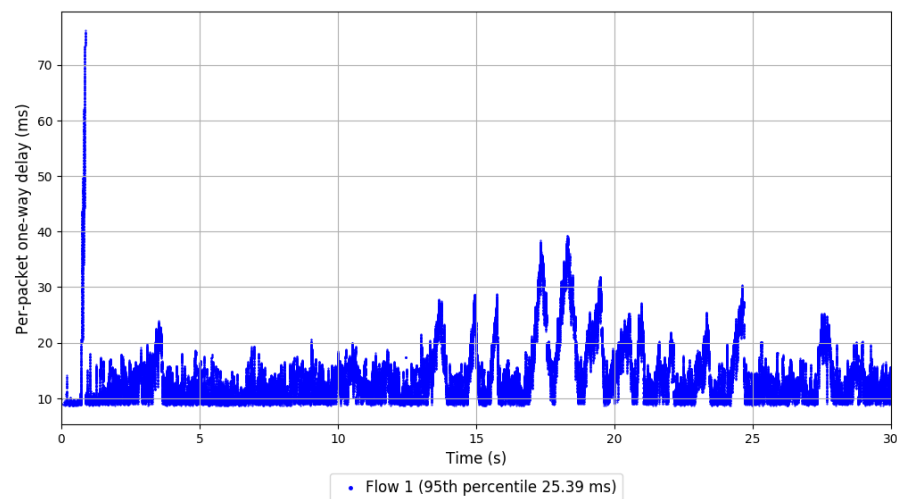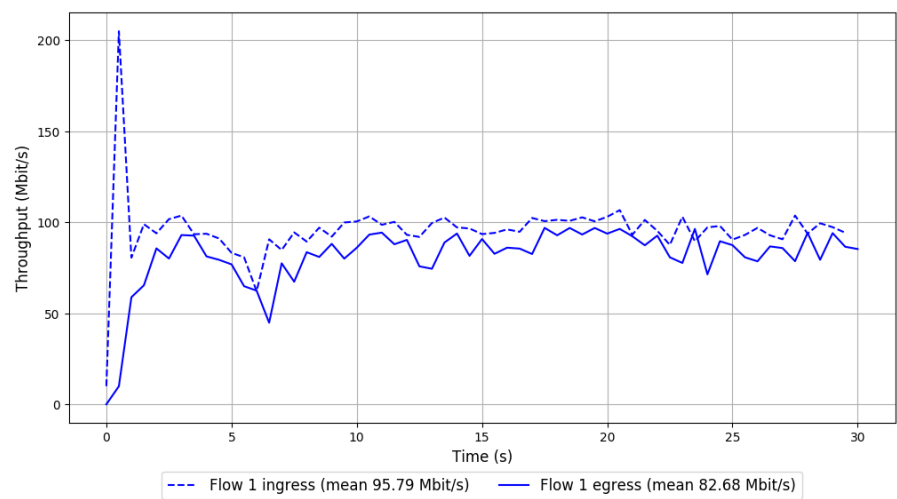Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-07-09 22:53:12
End at: 2018-07-09 22:53:43
Local clock offset: -1.605 ms
Remote clock offset: -4.034 ms


# Below is generated by plot.py at 2018-07-09 23:21:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.68 Mbit/s
95th percentile per-packet one-way delay: 25.395 ms
Loss rate: 13.67%
-- Flow 1:
Average throughput: 82.68 Mbit/s
95th percentile per-packet one-way delay: 25.395 ms
Loss rate: 13.67%
```

Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-07-09 23:12:43
End at: 2018-07-09 23:13:13
Local clock offset: 1.795 ms
Remote clock offset: -2.904 ms


# Below is generated by plot.py at 2018-07-09 23:21:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.25 Mbit/s
95th percentile per-packet one-way delay: 24.219 ms
Loss rate: 13.35%
-- Flow 1:
Average throughput: 84.25 Mbit/s
95th percentile per-packet one-way delay: 24.219 ms
Loss rate: 13.35%
```
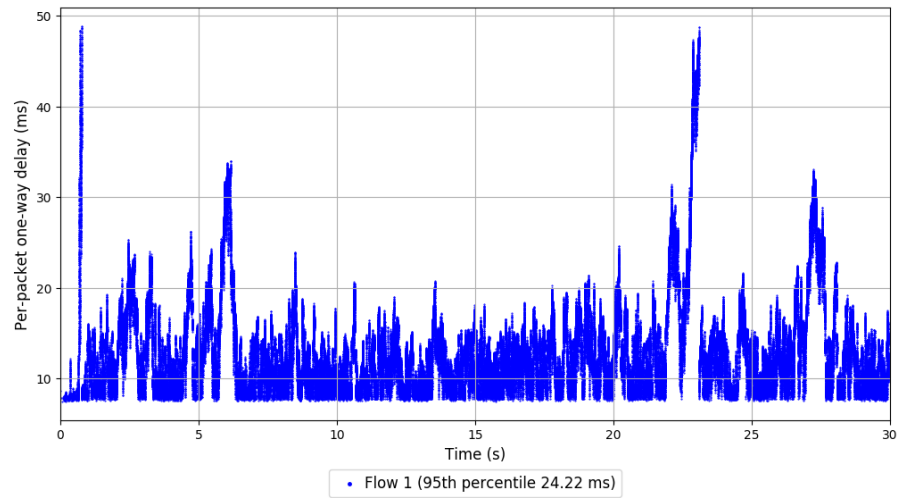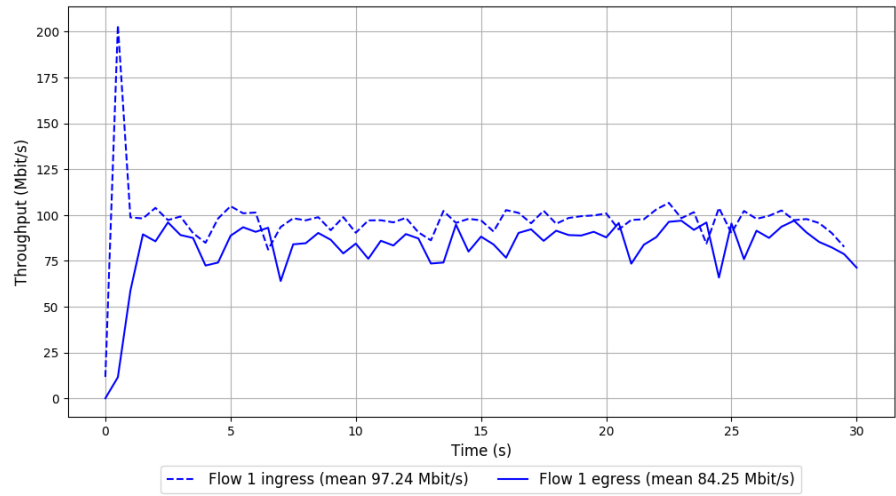
Run 10: Report of FillP — Data Link

```
Run 1: Statistics of FillP-Sheep

Start at: 2018-07-09 20:03:27
End at: 2018-07-09 20:03:57
Local clock offset: 3.026 ms
Remote clock offset: -3.951 ms


# Below is generated by plot.py at 2018-07-09 23:21:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 33.125 ms
Loss rate: 10.89%
-- Flow 1:
Average throughput: 87.69 Mbit/s
95th percentile per-packet one-way delay: 33.125 ms
Loss rate: 10.89%
```
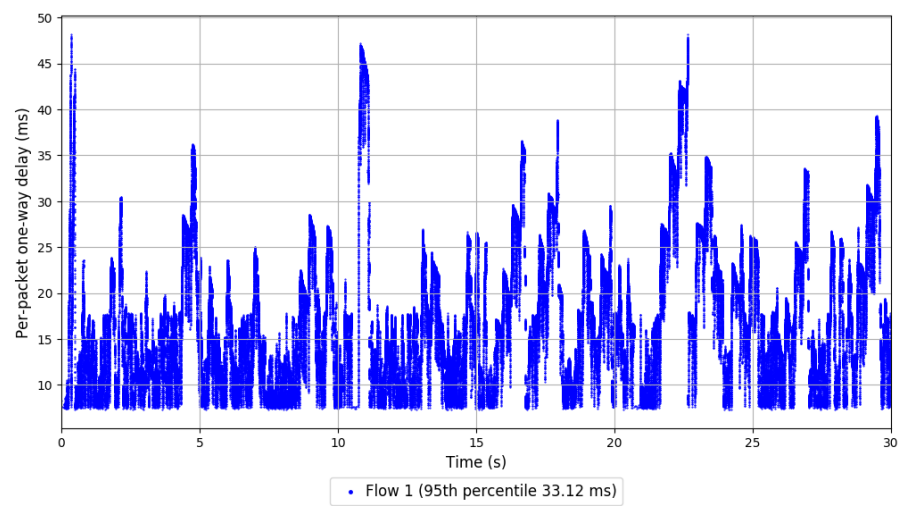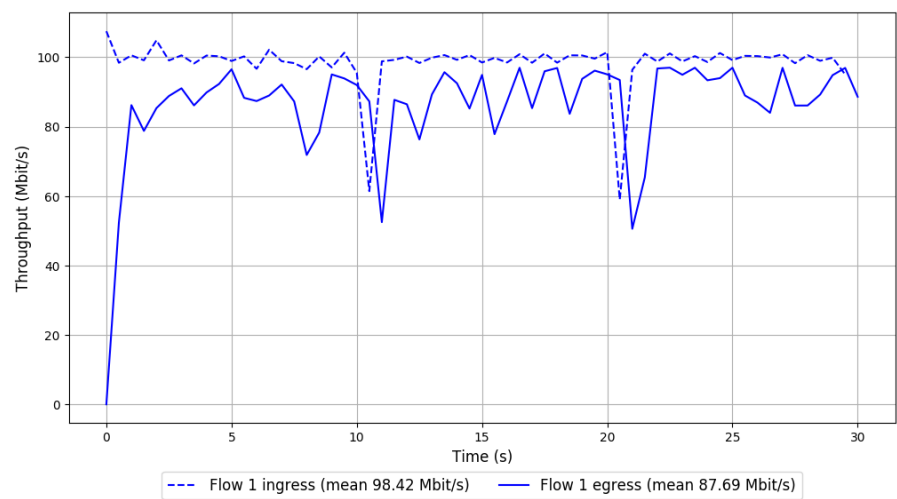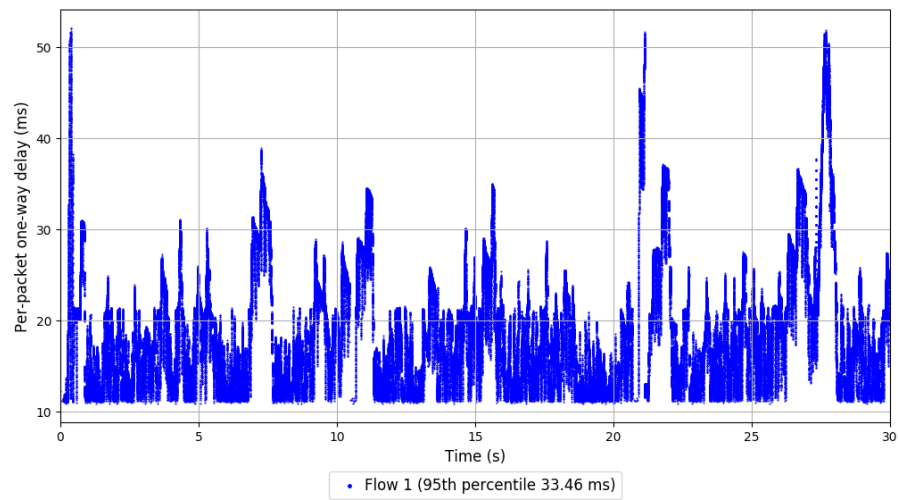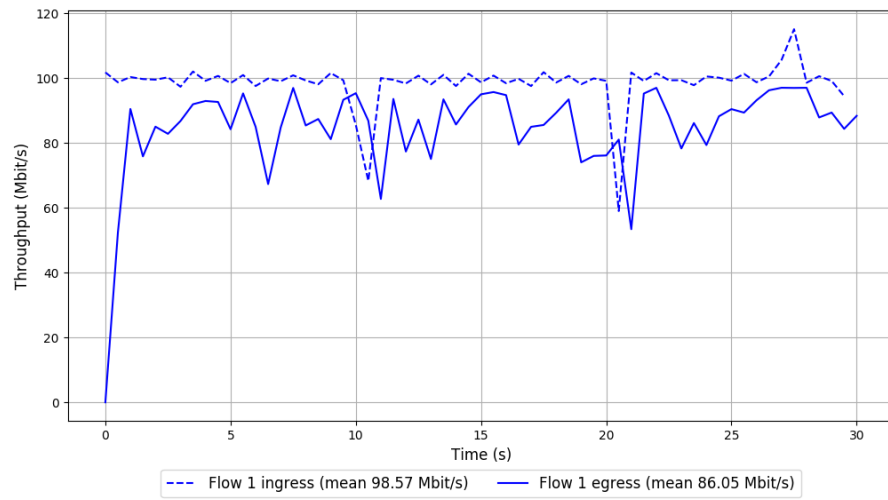
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2018-07-09 20:23:40
End at: 2018-07-09 20:24:10
Local clock offset: 0.288 ms
Remote clock offset: -5.976 ms


# Below is generated by plot.py at 2018-07-09 23:21:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.05 Mbit/s
95th percentile per-packet one-way delay: 33.459 ms
Loss rate: 12.67%
-- Flow 1:
Average throughput: 86.05 Mbit/s
95th percentile per-packet one-way delay: 33.459 ms
Loss rate: 12.67%
```

Run 2: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 98.57 Mbit/s)   Flow 1 egress (mean 86.05 Mbit/s)
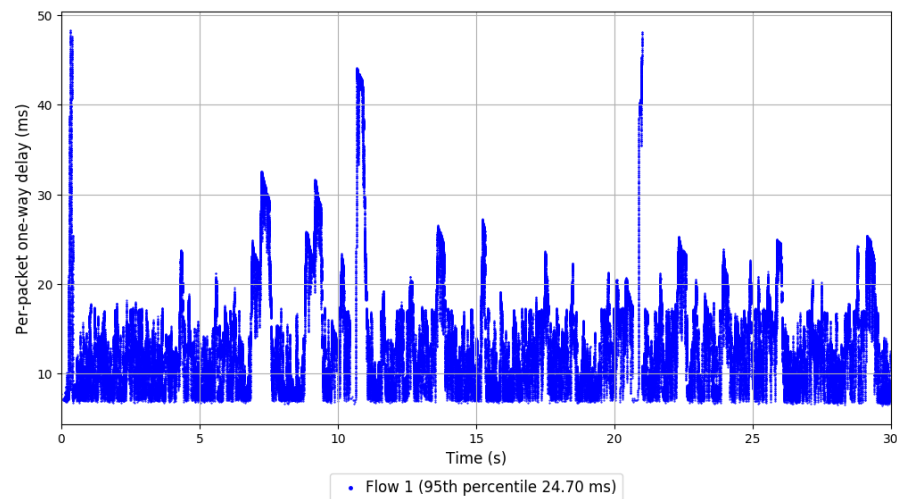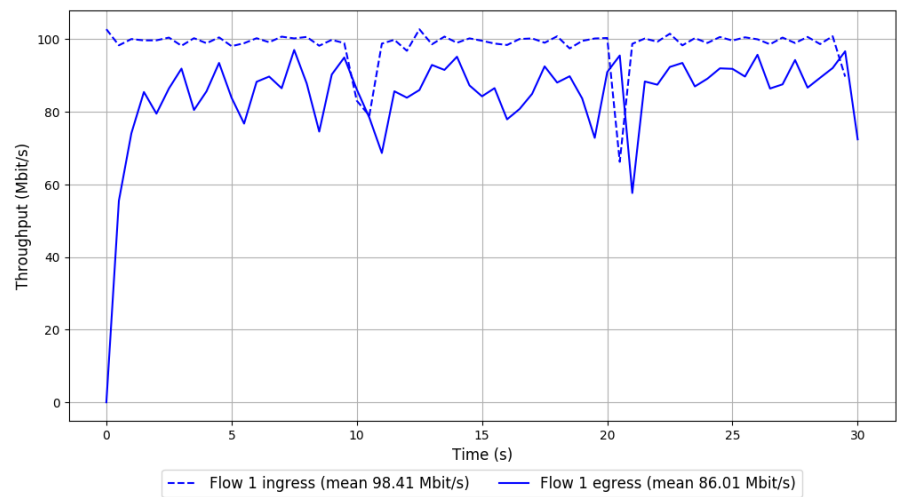

Flow 1 (95th percentile 33.46 ms)

```
Run 3: Statistics of FillP-Sheep

Start at: 2018-07-09 20:43:29
End at: 2018-07-09 20:43:59
Local clock offset: 3.609 ms
Remote clock offset: -6.813 ms


# Below is generated by plot.py at 2018-07-09 23:22:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 86.01 Mbit/s
95th percentile per-packet one-way delay: 24.700 ms
Loss rate: 12.60%
-- Flow 1:
Average throughput: 86.01 Mbit/s
95th percentile per-packet one-way delay: 24.700 ms
Loss rate: 12.60%
```
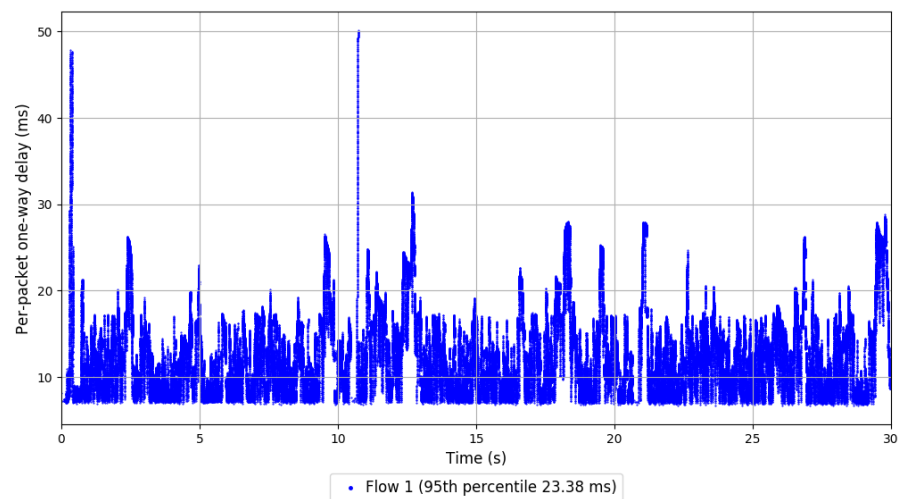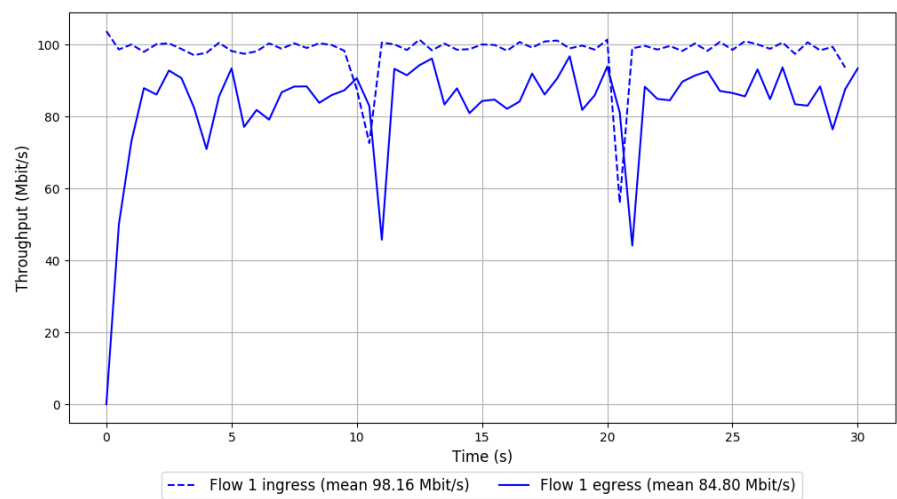
Run 3: Report of FillP-Sheep — Data Link

```
Run 4: Statistics of FillP-Sheep

Start at: 2018-07-09 21:03:01
End at: 2018-07-09 21:03:31
Local clock offset: 3.203 ms
Remote clock offset: 13.851 ms


# Below is generated by plot.py at 2018-07-09 23:22:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.80 Mbit/s
95th percentile per-packet one-way delay: 23.378 ms
Loss rate: 13.60%
-- Flow 1:
Average throughput: 84.80 Mbit/s
95th percentile per-packet one-way delay: 23.378 ms
Loss rate: 13.60%
```

Run 4: Report of FillP-Sheep — Data Link

```
Run 5: Statistics of FillP-Sheep

Start at: 2018-07-09 21:22:43
End at: 2018-07-09 21:23:13
Local clock offset: 3.403 ms
Remote clock offset: 7.574 ms


# Below is generated by plot.py at 2018-07-09 23:22:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.64 Mbit/s
95th percentile per-packet one-way delay: 31.501 ms
Loss rate: 12.54%
-- Flow 1:
Average throughput: 85.64 Mbit/s
95th percentile per-packet one-way delay: 31.501 ms
Loss rate: 12.54%
```
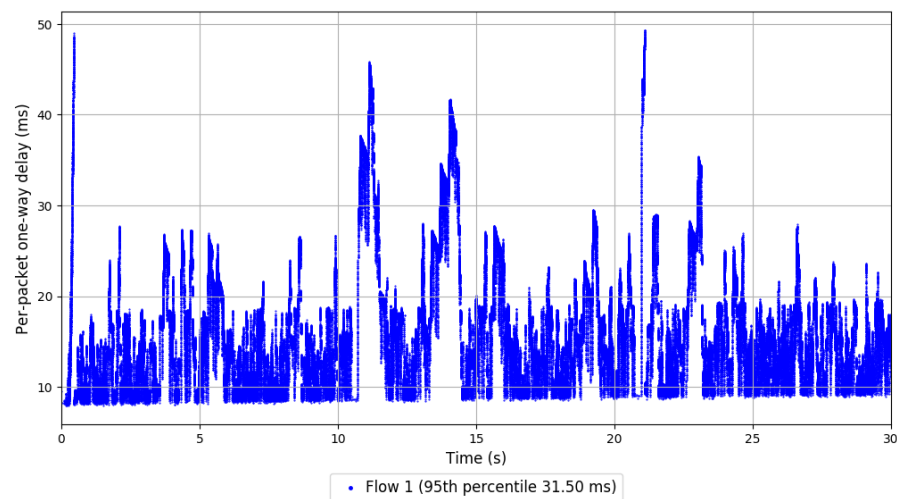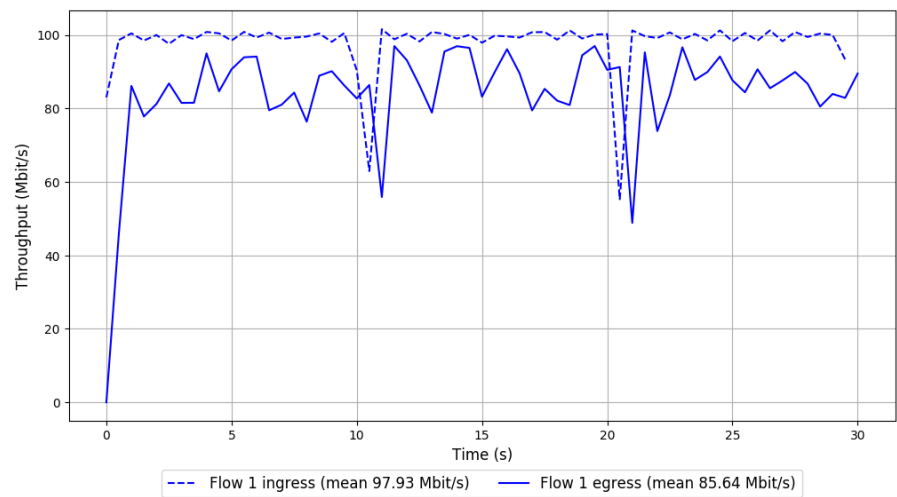
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 97.93 Mbit/s)   Flow 1 egress (mean 85.64 Mbit/s)
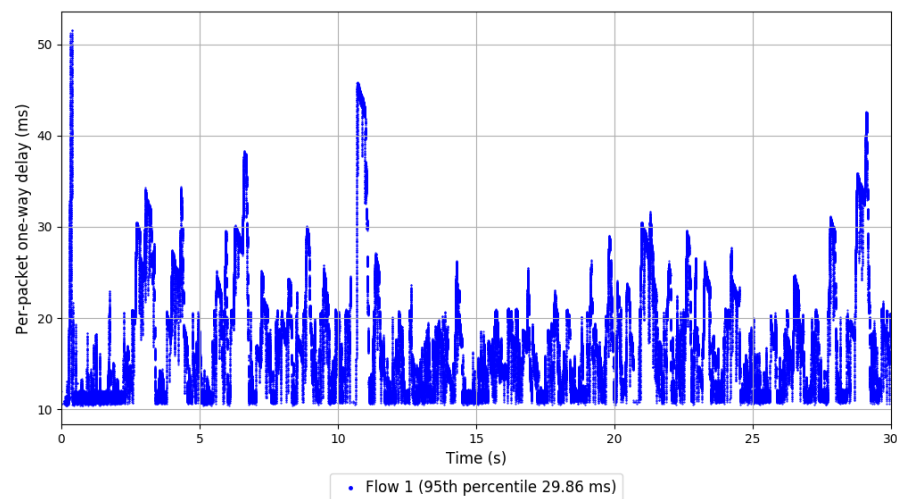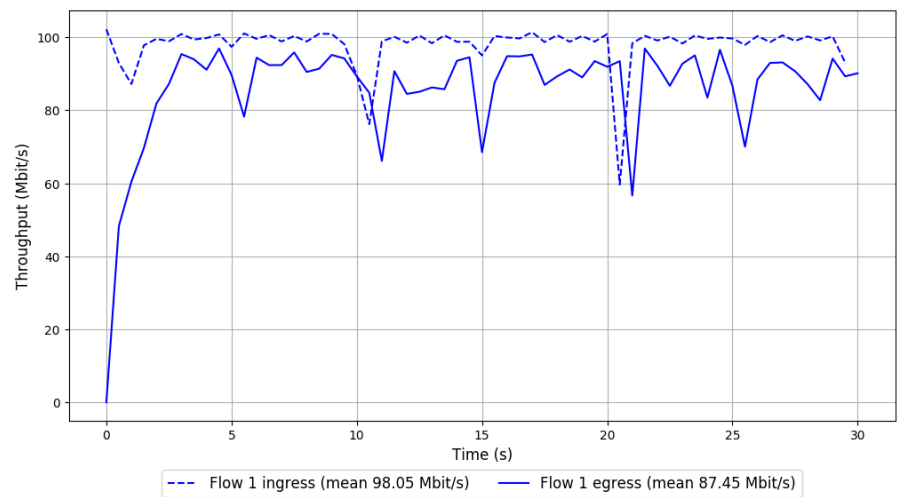

Flow 1 (95th percentile 31.50 ms)

```
Run 6: Statistics of FillP-Sheep

Start at: 2018-07-09 21:42:01
End at: 2018-07-09 21:42:31
Local clock offset: 0.132 ms
Remote clock offset: -9.658 ms


# Below is generated by plot.py at 2018-07-09 23:23:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 29.856 ms
Loss rate: 10.79%
-- Flow 1:
Average throughput: 87.45 Mbit/s
95th percentile per-packet one-way delay: 29.856 ms
Loss rate: 10.79%
```
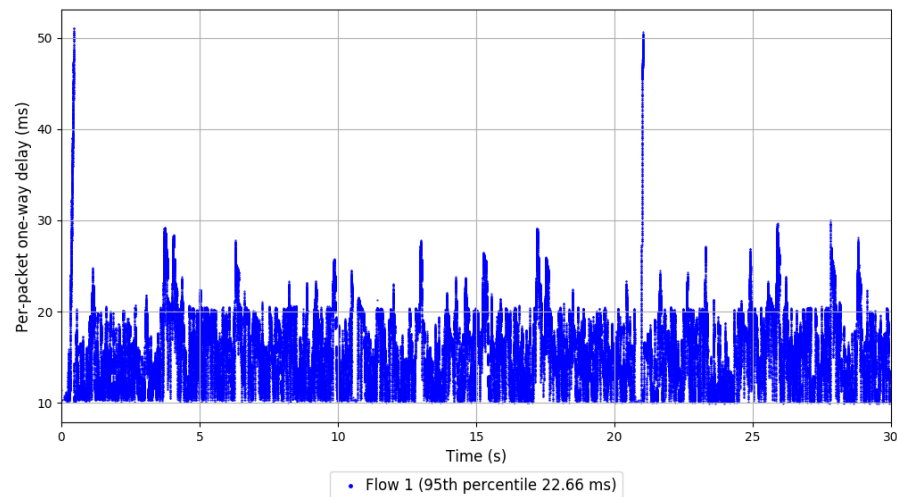
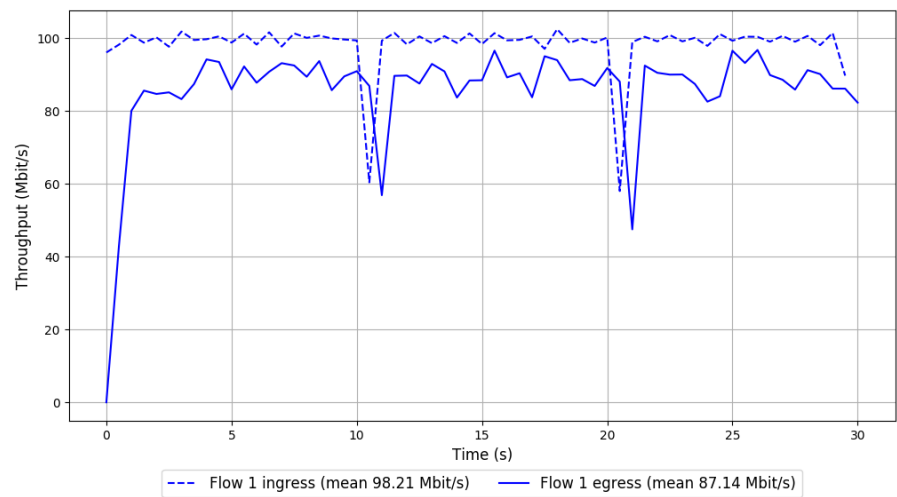Run 6: Report of FillP-Sheep — Data Link

```
Run 7: Statistics of FillP-Sheep

Start at: 2018-07-09 22:01:40
End at: 2018-07-09 22:02:10
Local clock offset: 0.145 ms
Remote clock offset: -4.927 ms


# Below is generated by plot.py at 2018-07-09 23:23:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 22.662 ms
Loss rate: 11.27%
-- Flow 1:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 22.662 ms
Loss rate: 11.27%
```

Run 7: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 98.21 Mbit/s) —— Flow 1 egress (mean 87.14 Mbit/s)

• Flow 1 (95th percentile 22.66 ms)

```
Run 8: Statistics of FillP-Sheep

Start at: 2018-07-09 22:21:08
End at: 2018-07-09 22:21:38
Local clock offset: 3.236 ms
Remote clock offset: -0.452 ms


# Below is generated by plot.py at 2018-07-09 23:23:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 22.225 ms
Loss rate: 14.13%
-- Flow 1:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 22.225 ms
Loss rate: 14.13%
```
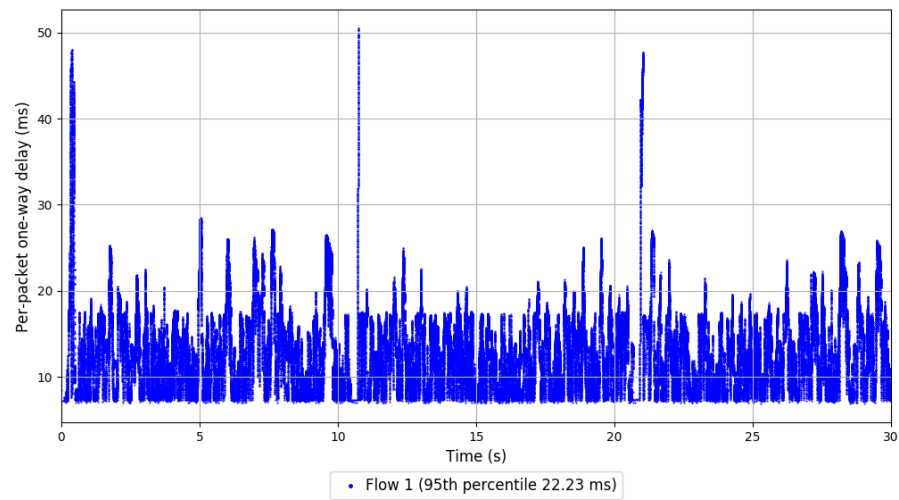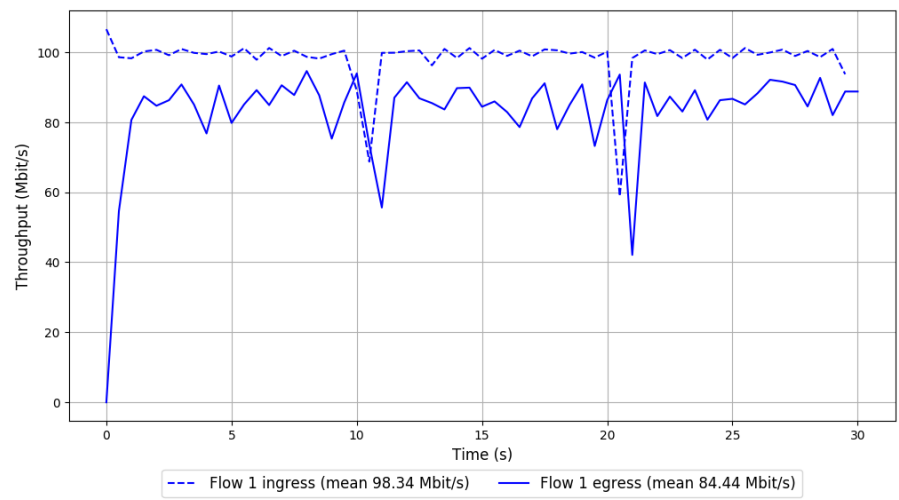
Run 8: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 98.34 Mbit/s) ---- Flow 1 egress (mean 84.44 Mbit/s)

• Flow 1 (95th percentile 22.23 ms)

```
Run 9: Statistics of FillP-Sheep

Start at: 2018-07-09 22:40:50
End at: 2018-07-09 22:41:20
Local clock offset: 0.301 ms
Remote clock offset: -2.002 ms


# Below is generated by plot.py at 2018-07-09 23:23:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.17 Mbit/s
95th percentile per-packet one-way delay: 21.067 ms
Loss rate: 13.35%
-- Flow 1:
Average throughput: 85.17 Mbit/s
95th percentile per-packet one-way delay: 21.067 ms
Loss rate: 13.35%
```
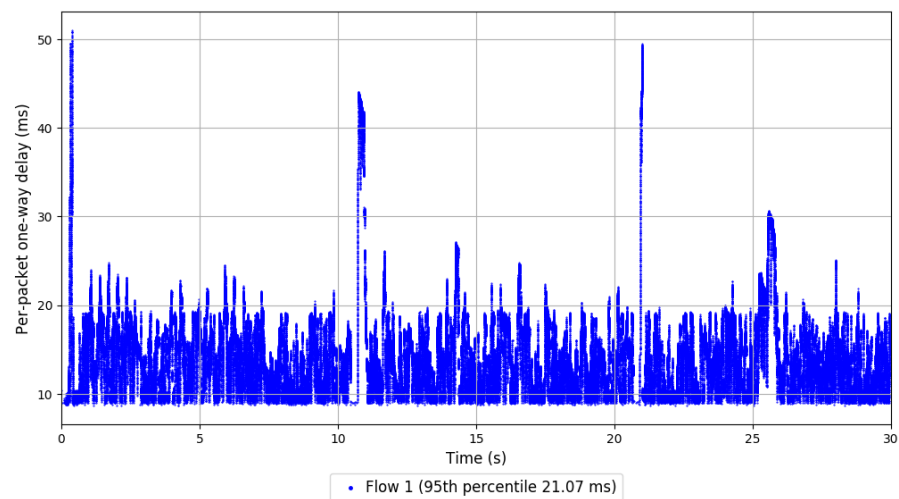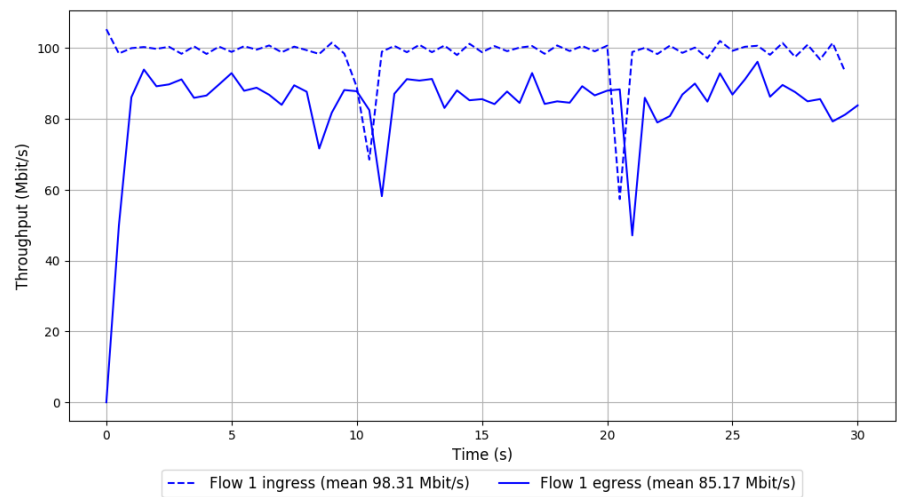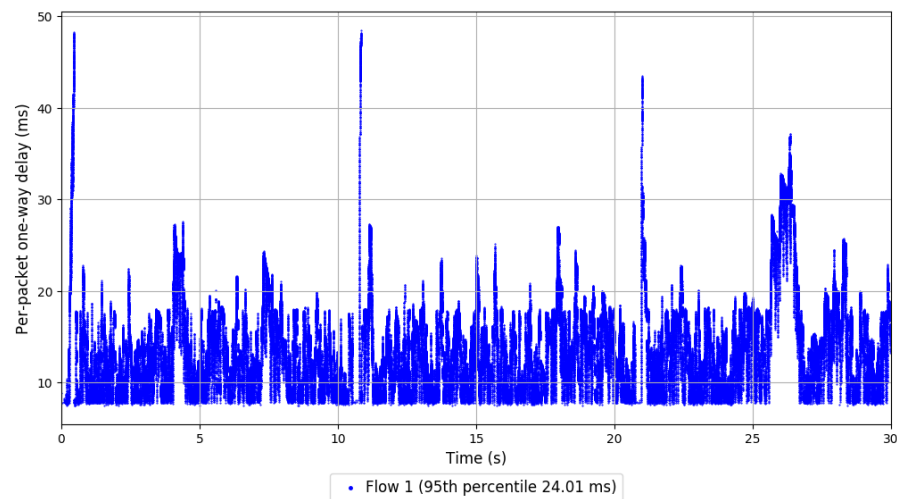
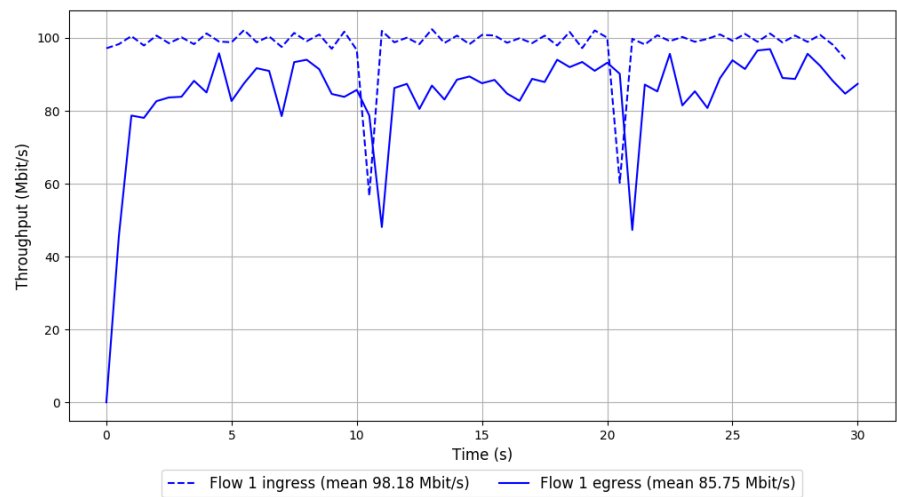# Run 9: Report of FillP-Sheep — Data Link

```
Run 10: Statistics of FillP-Sheep

Start at: 2018-07-09 23:00:24
End at: 2018-07-09 23:00:54
Local clock offset: 0.892 ms
Remote clock offset: -3.624 ms


# Below is generated by plot.py at 2018-07-09 23:23:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 24.007 ms
Loss rate: 12.64%
-- Flow 1:
Average throughput: 85.75 Mbit/s
95th percentile per-packet one-way delay: 24.007 ms
Loss rate: 12.64%
```

Run 10: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 98.18 Mbit/s)   Flow 1 egress (mean 85.75 Mbit/s)

Flow 1 (95th percentile 24.01 ms)

```
Run 1: Statistics of Indigo

Start at: 2018-07-09 19:58:14
End at: 2018-07-09 19:58:44
Local clock offset: 2.108 ms
Remote clock offset: -3.413 ms


# Below is generated by plot.py at 2018-07-09 23:23:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.42 Mbit/s
95th percentile per-packet one-way delay: 11.302 ms
Loss rate: 8.47%
-- Flow 1:
Average throughput: 84.42 Mbit/s
95th percentile per-packet one-way delay: 11.302 ms
Loss rate: 8.47%
```
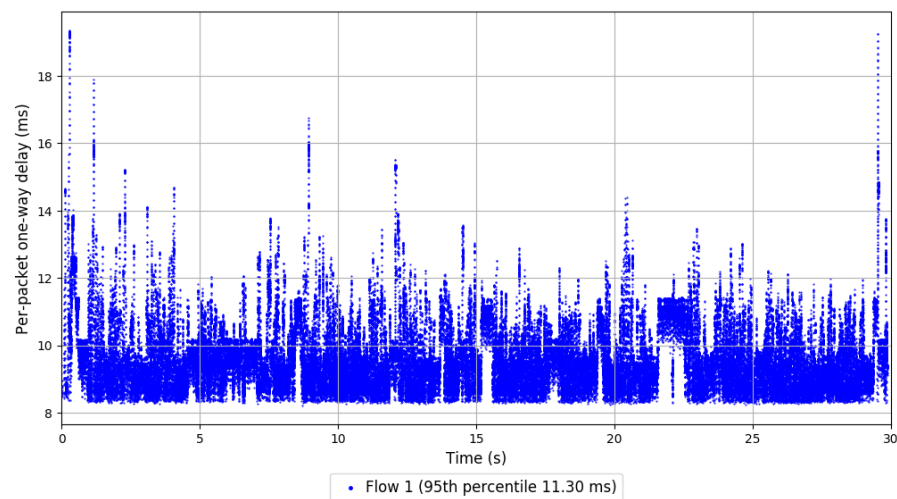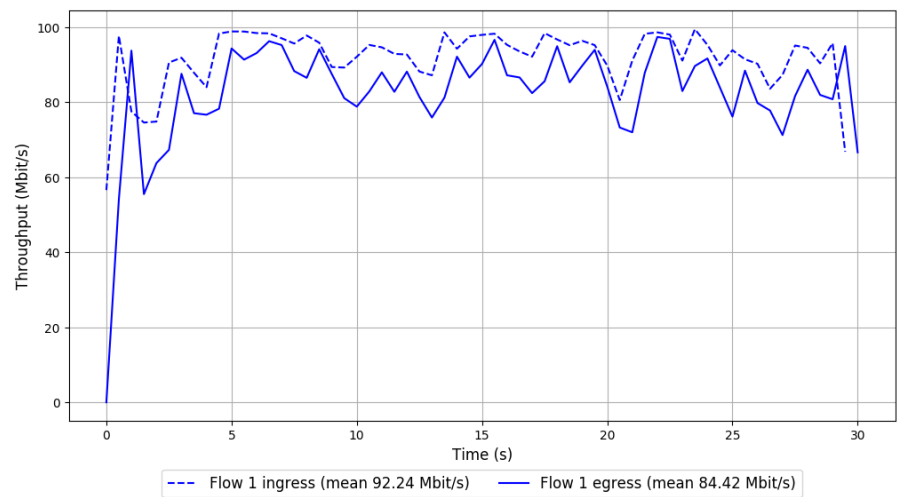
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 92.24 Mbit/s)   Flow 1 egress (mean 84.42 Mbit/s)

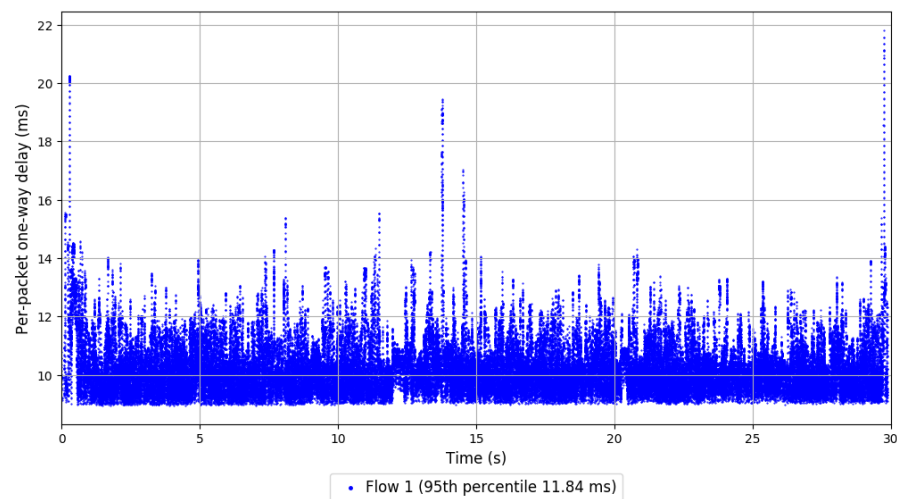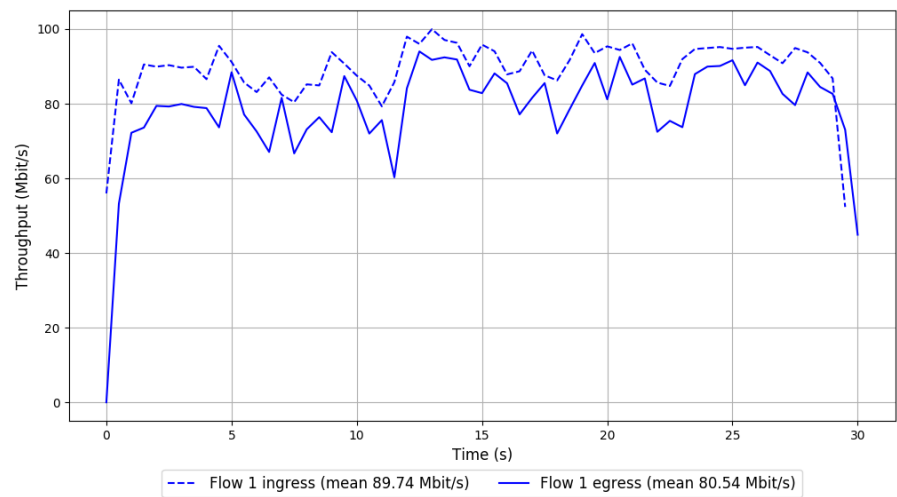Flow 1 (95th percentile 11.30 ms)

```
Run 2: Statistics of Indigo

Start at: 2018-07-09 20:18:38
End at: 2018-07-09 20:19:08
Local clock offset: 1.593 ms
Remote clock offset: -5.244 ms


# Below is generated by plot.py at 2018-07-09 23:23:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.54 Mbit/s
95th percentile per-packet one-way delay: 11.836 ms
Loss rate: 10.25%
-- Flow 1:
Average throughput: 80.54 Mbit/s
95th percentile per-packet one-way delay: 11.836 ms
Loss rate: 10.25%
```
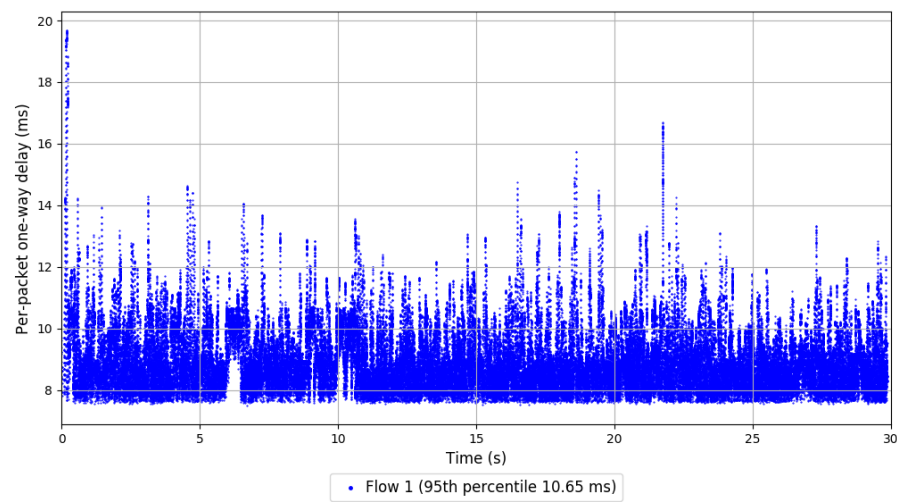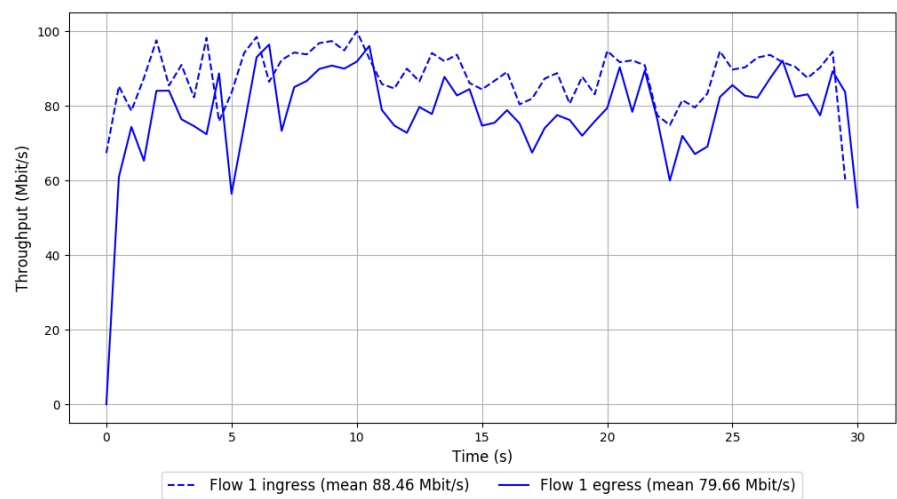
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-07-09 20:38:20
End at: 2018-07-09 20:38:50
Local clock offset: 2.343 ms
Remote clock offset: -7.362 ms


# Below is generated by plot.py at 2018-07-09 23:24:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.66 Mbit/s
95th percentile per-packet one-way delay: 10.654 ms
Loss rate: 9.94%
-- Flow 1:
Average throughput: 79.66 Mbit/s
95th percentile per-packet one-way delay: 10.654 ms
Loss rate: 9.94%
```
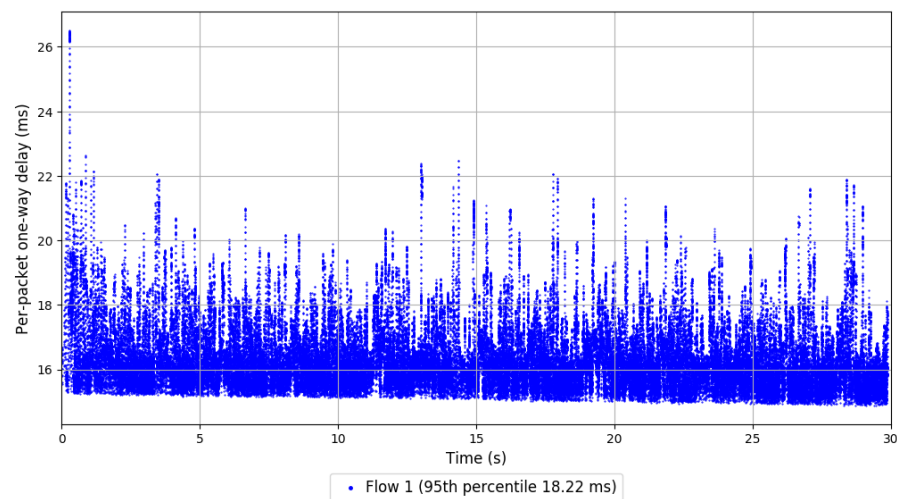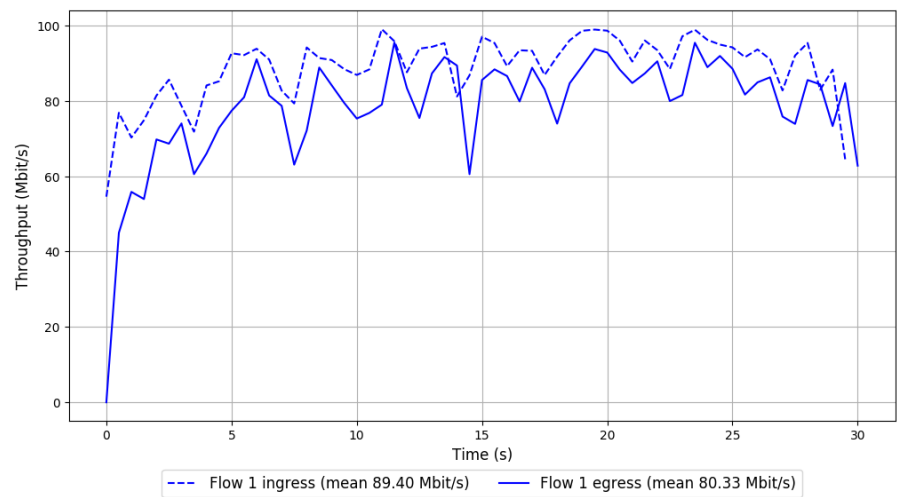
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-07-09 20:58:10
End at: 2018-07-09 20:58:40
Local clock offset: -3.375 ms
Remote clock offset: 11.514 ms


# Below is generated by plot.py at 2018-07-09 23:24:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.33 Mbit/s
95th percentile per-packet one-way delay: 18.223 ms
Loss rate: 10.14%
-- Flow 1:
Average throughput: 80.33 Mbit/s
95th percentile per-packet one-way delay: 18.223 ms
Loss rate: 10.14%
```

Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 89.40 Mbit/s) —— Flow 1 egress (mean 80.33 Mbit/s)

· Flow 1 (95th percentile 18.22 ms)

```
Run 5: Statistics of Indigo

Start at: 2018-07-09 21:17:48
End at: 2018-07-09 21:18:18
Local clock offset: 1.977 ms
Remote clock offset: 21.26 ms


# Below is generated by plot.py at 2018-07-09 23:24:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.32 Mbit/s
95th percentile per-packet one-way delay: 12.775 ms
Loss rate: 8.53%
-- Flow 1:
Average throughput: 84.32 Mbit/s
95th percentile per-packet one-way delay: 12.775 ms
Loss rate: 8.53%
```
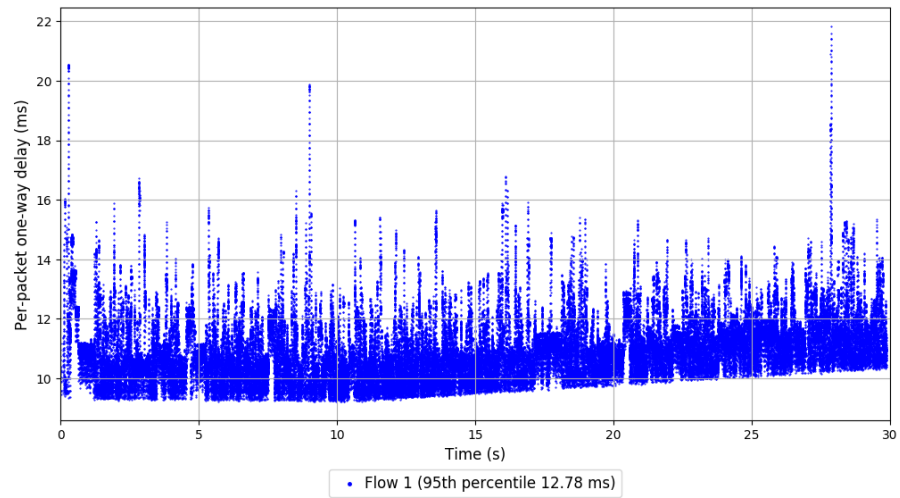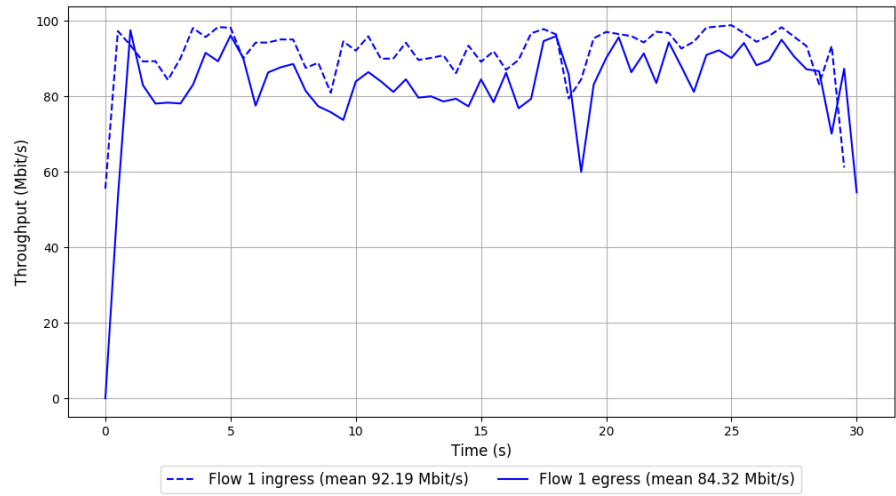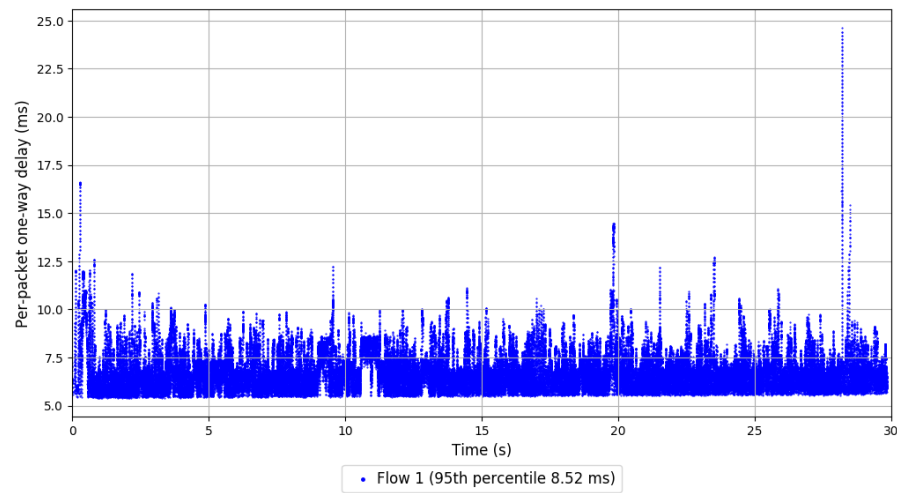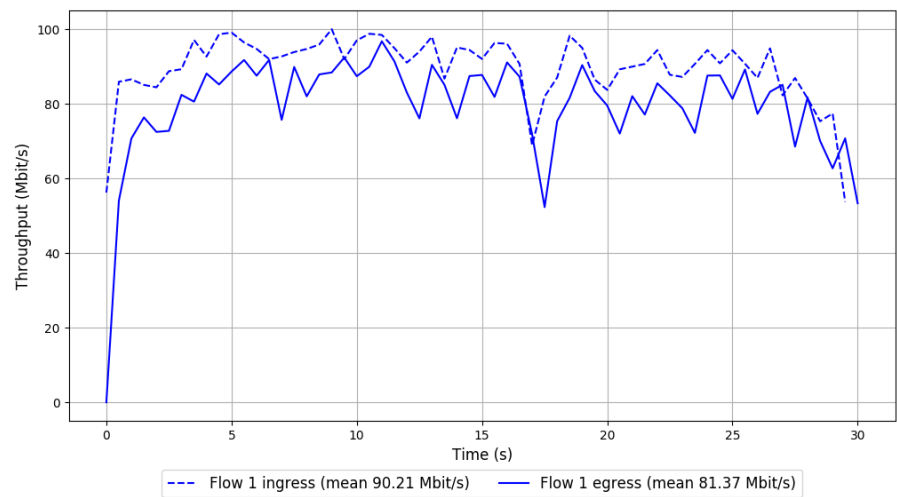
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-07-09 21:37:15
End at: 2018-07-09 21:37:45
Local clock offset: 2.979 ms
Remote clock offset: -9.393 ms


# Below is generated by plot.py at 2018-07-09 23:24:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 8.522 ms
Loss rate: 9.80%
-- Flow 1:
Average throughput: 81.37 Mbit/s
95th percentile per-packet one-way delay: 8.522 ms
Loss rate: 9.80%
```

Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-07-09 21:56:39
End at: 2018-07-09 21:57:09
Local clock offset: 1.979 ms
Remote clock offset: -7.59 ms


# Below is generated by plot.py at 2018-07-09 23:24:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 10.506 ms
Loss rate: 11.90%
-- Flow 1:
Average throughput: 74.32 Mbit/s
95th percentile per-packet one-way delay: 10.506 ms
Loss rate: 11.90%
```
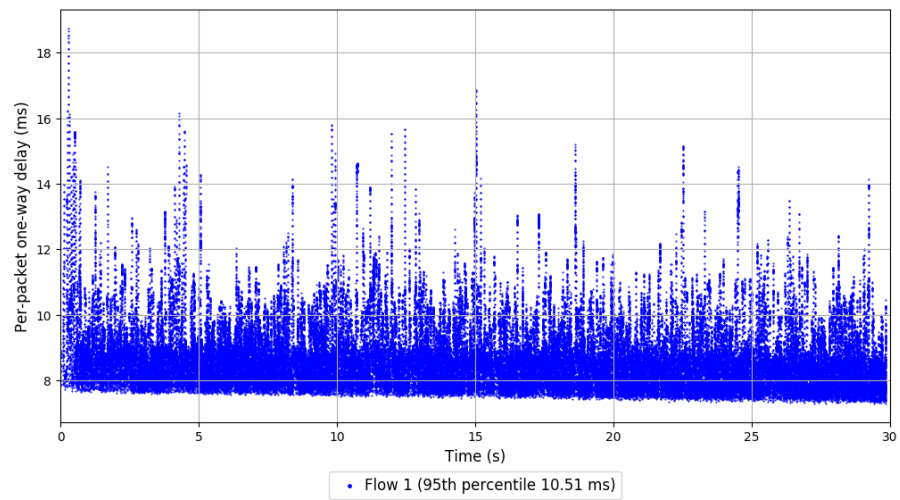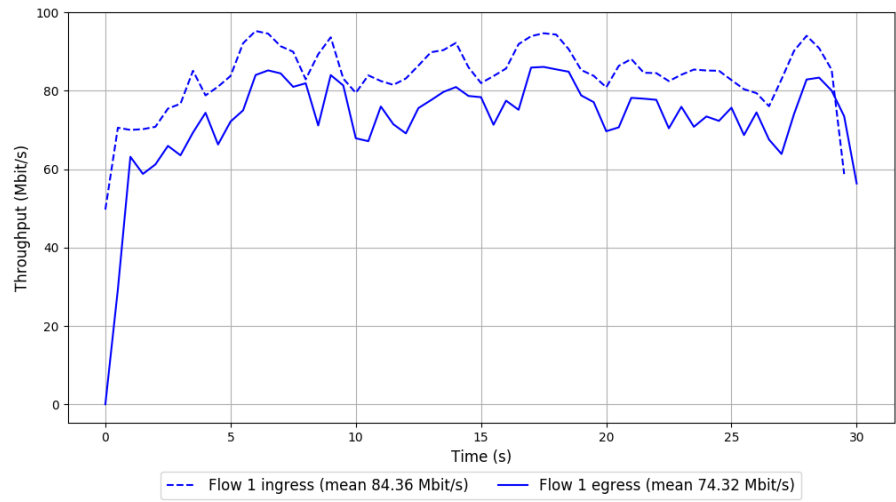
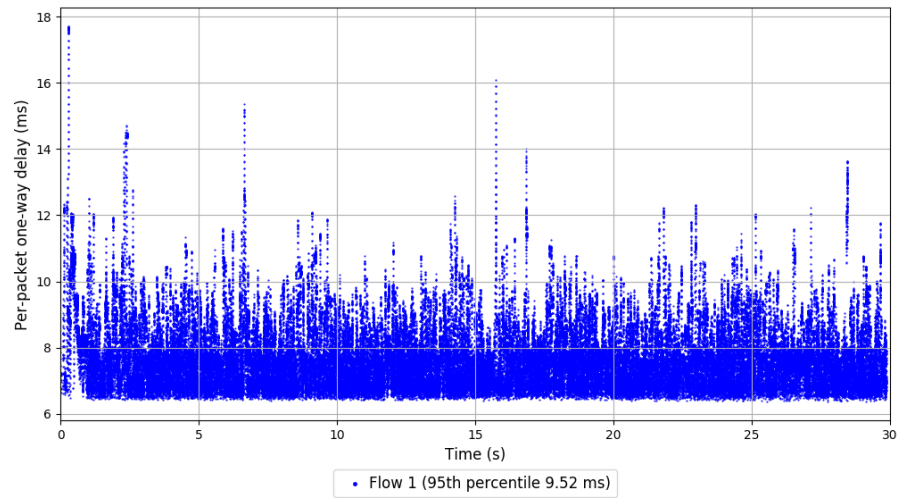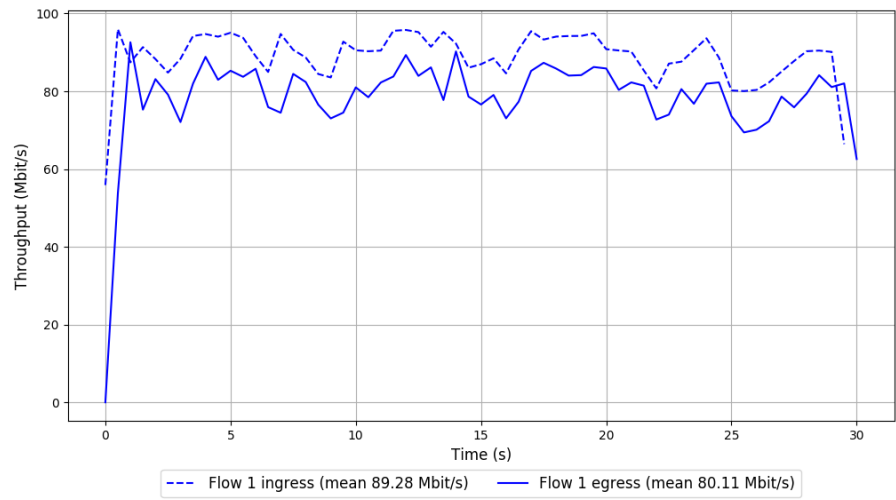## Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-07-09 22:16:17
End at: 2018-07-09 22:16:47
Local clock offset: 2.583 ms
Remote clock offset: -2.232 ms


# Below is generated by plot.py at 2018-07-09 23:24:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 9.523 ms
Loss rate: 10.27%
-- Flow 1:
Average throughput: 80.11 Mbit/s
95th percentile per-packet one-way delay: 9.523 ms
Loss rate: 10.27%
```

Run 8: Report of Indigo — Data Link

Flow 1 ingress (mean 89.28 Mbit/s)   Flow 1 egress (mean 80.11 Mbit/s)

Flow 1 (95th percentile 9.52 ms)

```
Run 9: Statistics of Indigo

Start at: 2018-07-09 22:35:58
End at: 2018-07-09 22:36:28
Local clock offset: 1.514 ms
Remote clock offset: -1.353 ms


# Below is generated by plot.py at 2018-07-09 23:24:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.67 Mbit/s
95th percentile per-packet one-way delay: 11.459 ms
Loss rate: 8.85%
-- Flow 1:
Average throughput: 82.67 Mbit/s
95th percentile per-packet one-way delay: 11.459 ms
Loss rate: 8.85%
```
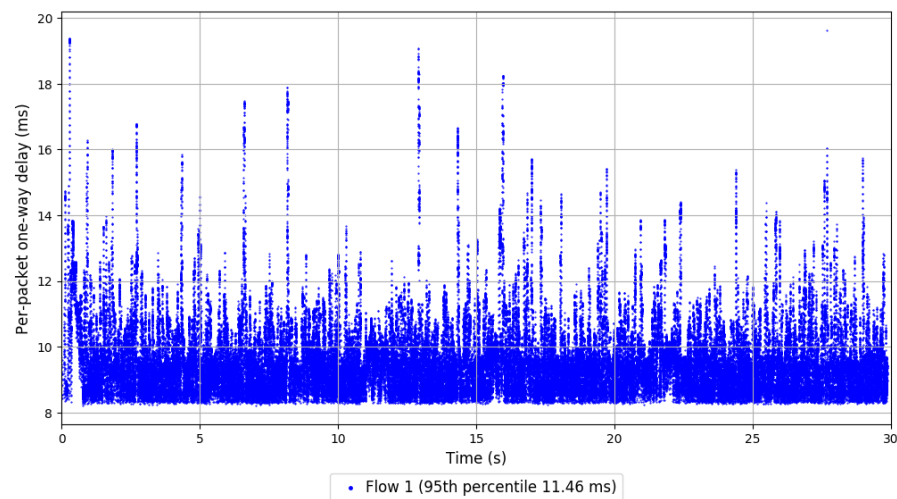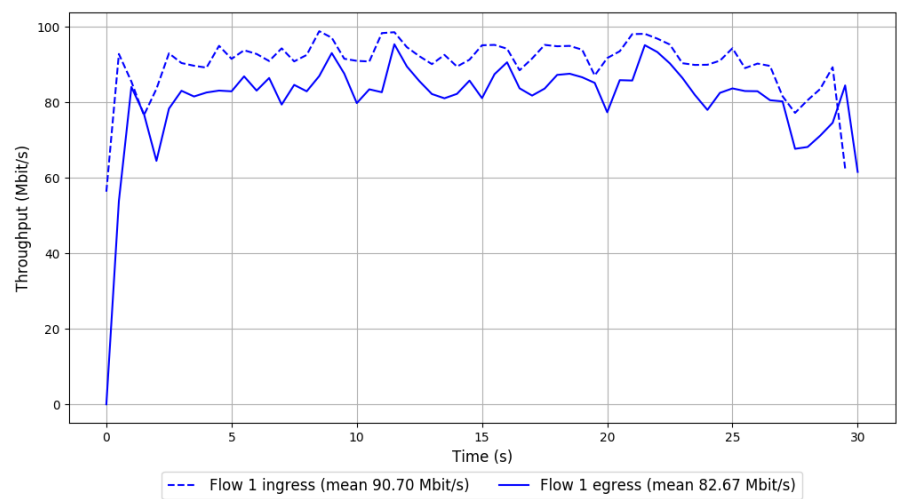
Run 9: Report of Indigo — Data Link

Flow 1 ingress (mean 90.70 Mbit/s)   Flow 1 egress (mean 82.67 Mbit/s)

Flow 1 (95th percentile 11.46 ms)

```
Run 10: Statistics of Indigo

Start at: 2018-07-09 22:55:26
End at: 2018-07-09 22:55:56
Local clock offset: 0.938 ms
Remote clock offset: -3.312 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.46 Mbit/s
95th percentile per-packet one-way delay: 11.171 ms
Loss rate: 7.96%
-- Flow 1:
Average throughput: 87.46 Mbit/s
95th percentile per-packet one-way delay: 11.171 ms
Loss rate: 7.96%
```
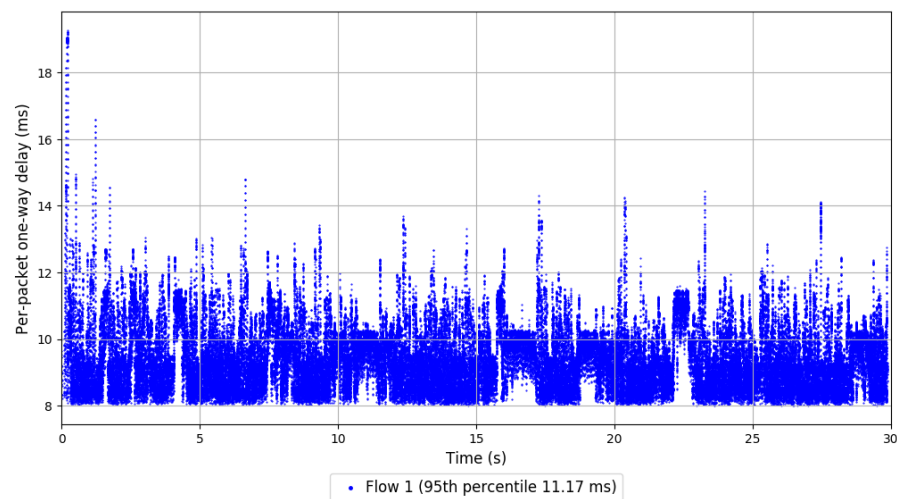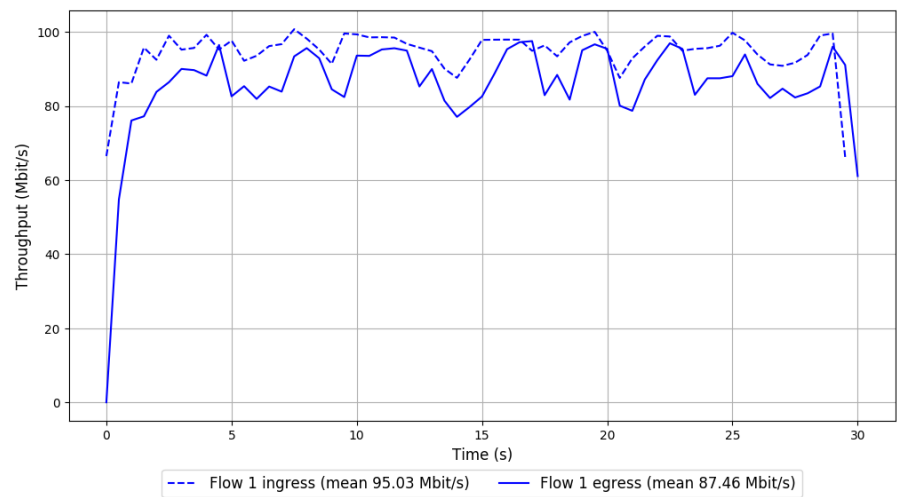
Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 95.03 Mbit/s)   Flow 1 egress (mean 87.46 Mbit/s)
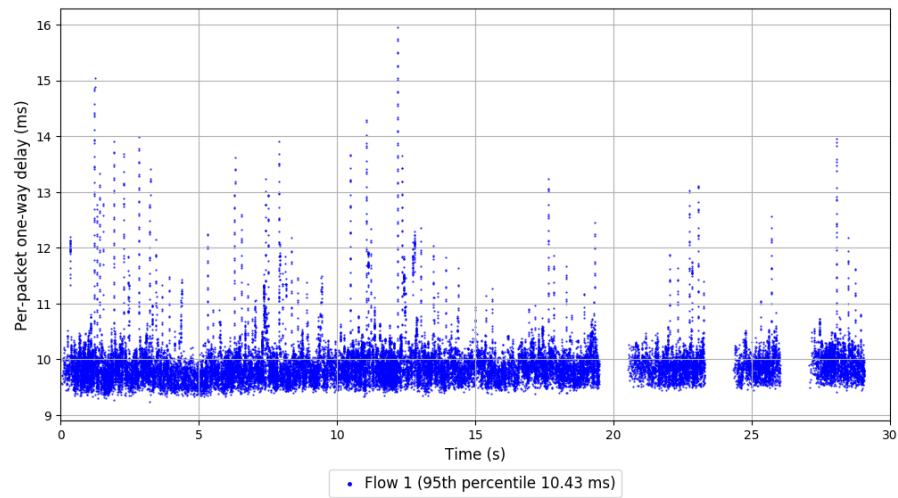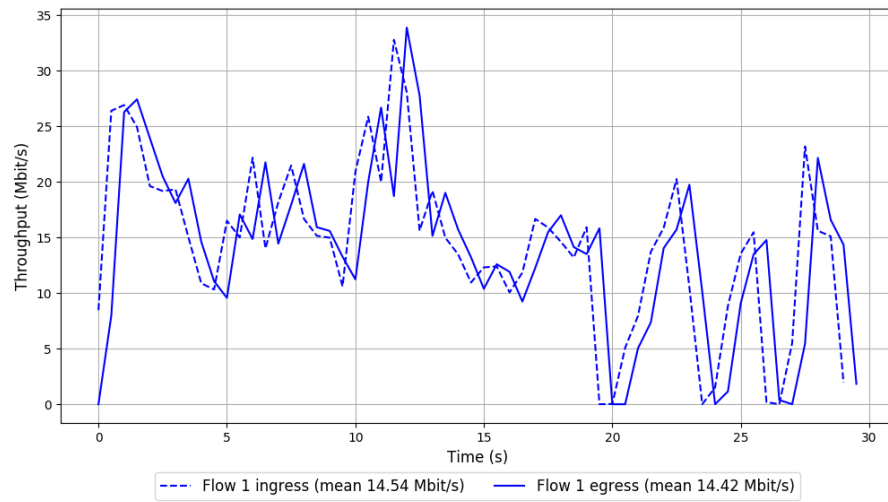

Flow 1 (95th percentile 11.17 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-07-09 20:12:47
End at: 2018-07-09 20:13:17
Local clock offset: 1.857 ms
Remote clock offset: -4.223 ms

# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.42 Mbit/s
95th percentile per-packet one-way delay: 10.434 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 14.42 Mbit/s
95th percentile per-packet one-way delay: 10.434 ms
Loss rate: 0.90%
```
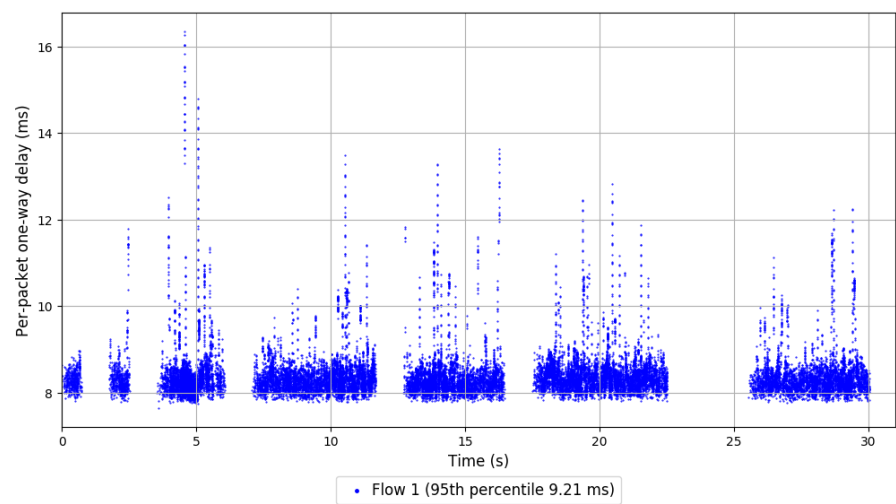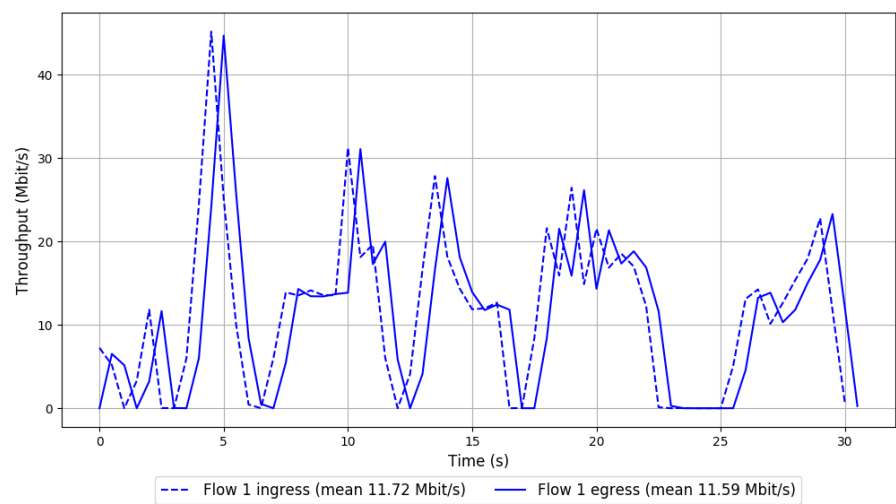
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-07-09 20:32:41
End at: 2018-07-09 20:33:11
Local clock offset: 2.657 ms
Remote clock offset: -6.629 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 9.209 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 9.209 ms
Loss rate: 1.08%
```

Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-07-09 20:52:28
End at: 2018-07-09 20:52:59
Local clock offset: 0.729 ms
Remote clock offset: 6.582 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.56 Mbit/s
95th percentile per-packet one-way delay: 12.504 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 17.56 Mbit/s
95th percentile per-packet one-way delay: 12.504 ms
Loss rate: 0.41%
```
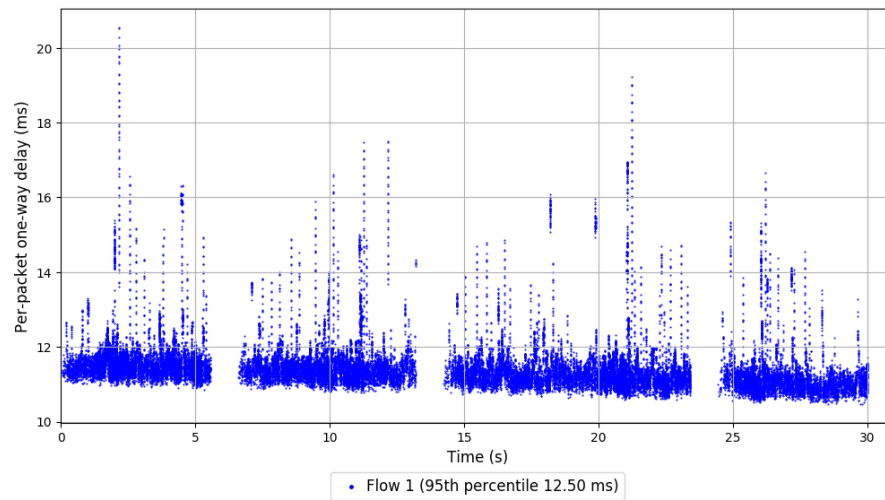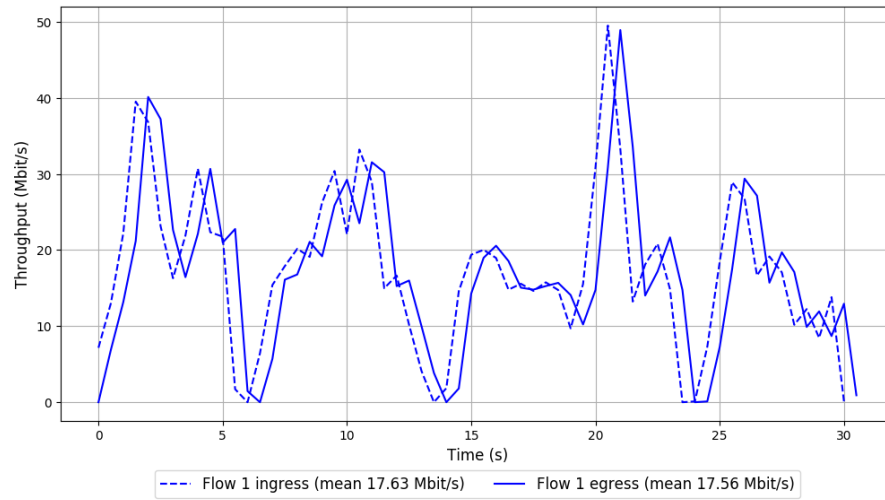
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 17.63 Mbit/s) ——— Flow 1 egress (mean 17.56 Mbit/s)

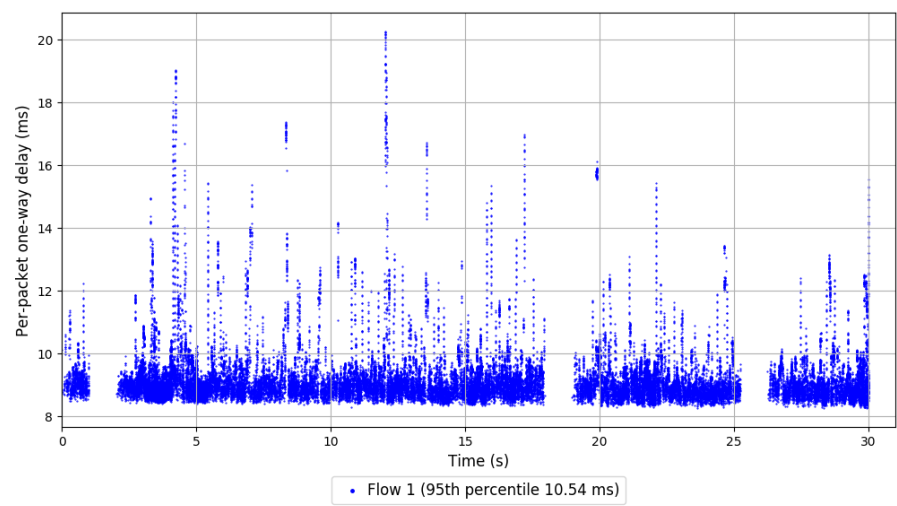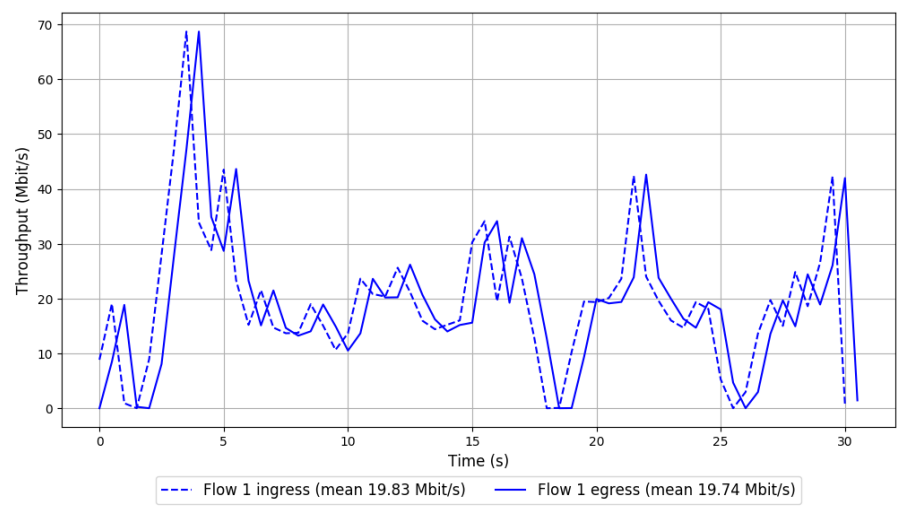

• Flow 1 (95th percentile 12.50 ms)

```
Run 4: Statistics of LEDBAT

Start at: 2018-07-09 21:12:01
End at: 2018-07-09 21:12:31
Local clock offset: 2.549 ms
Remote clock offset: 18.725 ms

# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.74 Mbit/s
95th percentile per-packet one-way delay: 10.539 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 19.74 Mbit/s
95th percentile per-packet one-way delay: 10.539 ms
Loss rate: 0.42%
```
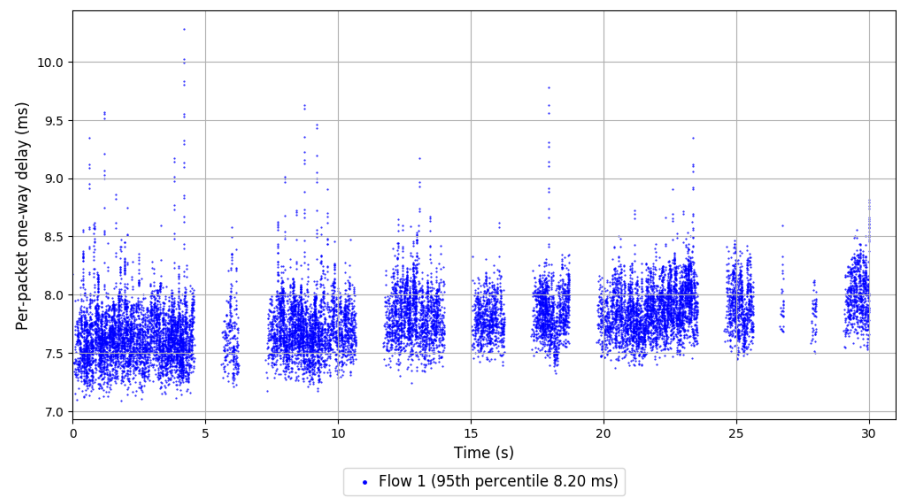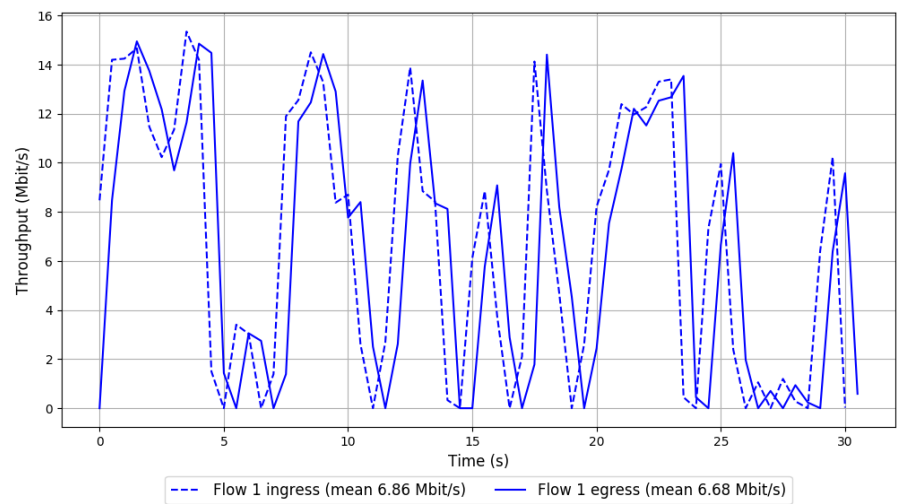
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-07-09 21:31:38
End at: 2018-07-09 21:32:08
Local clock offset: 3.411 ms
Remote clock offset: -4.944 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 8.198 ms
Loss rate: 2.61%
-- Flow 1:
Average throughput: 6.68 Mbit/s
95th percentile per-packet one-way delay: 8.198 ms
Loss rate: 2.61%
```

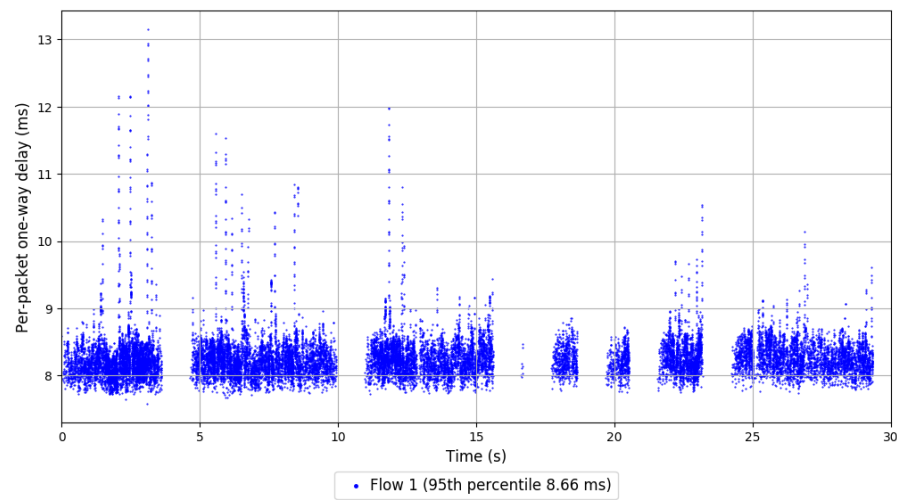## Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2018-07-09 21:50:58
End at: 2018-07-09 21:51:28
Local clock offset: 2.723 ms
Remote clock offset: -11.999 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 8.659 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 9.57 Mbit/s
95th percentile per-packet one-way delay: 8.659 ms
Loss rate: 1.88%
```
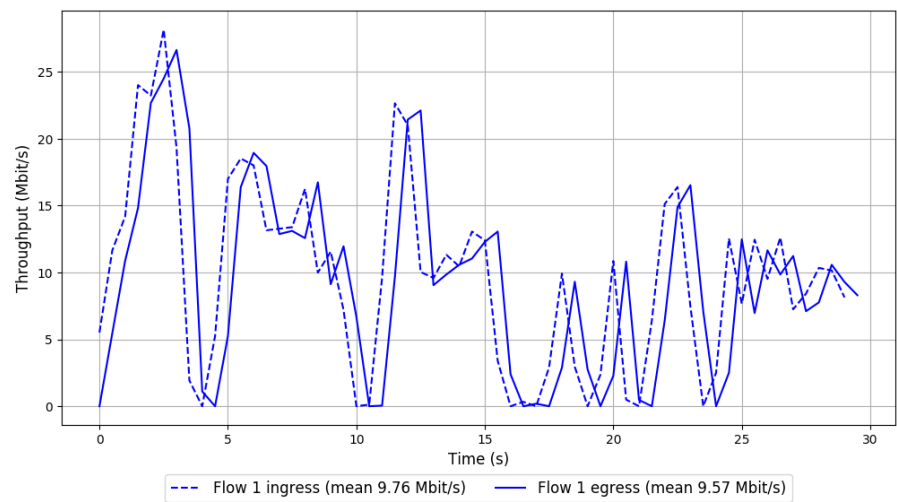
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 9.76 Mbit/s) --- Flow 1 egress (mean 9.57 Mbit/s)

• Flow 1 (95th percentile 8.66 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-07-09 22:10:35
End at: 2018-07-09 22:11:05
Local clock offset: 3.385 ms
Remote clock offset: -2.7 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.07 Mbit/s
95th percentile per-packet one-way delay: 7.745 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 13.07 Mbit/s
95th percentile per-packet one-way delay: 7.745 ms
Loss rate: 0.88%
```
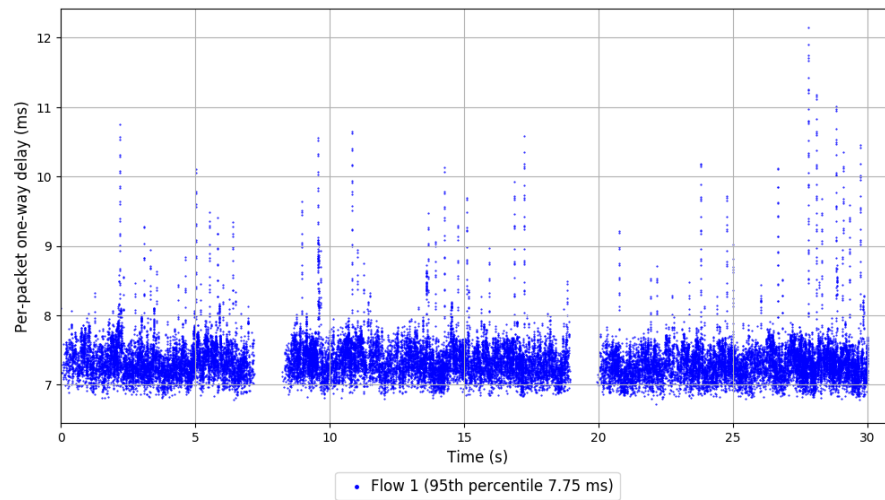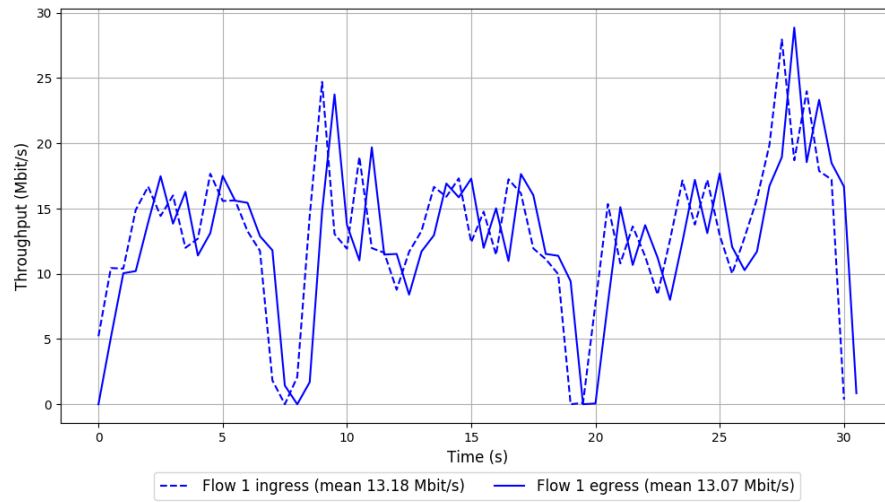
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 13.18 Mbit/s)   Flow 1 egress (mean 13.07 Mbit/s)
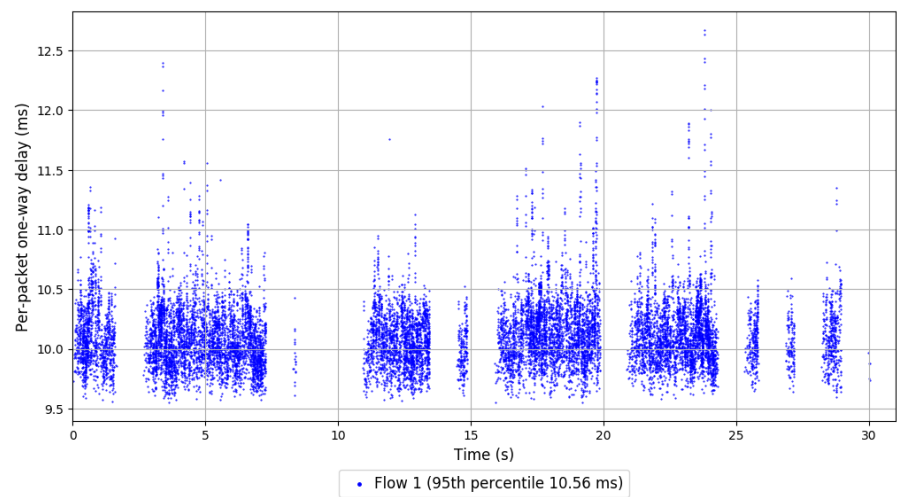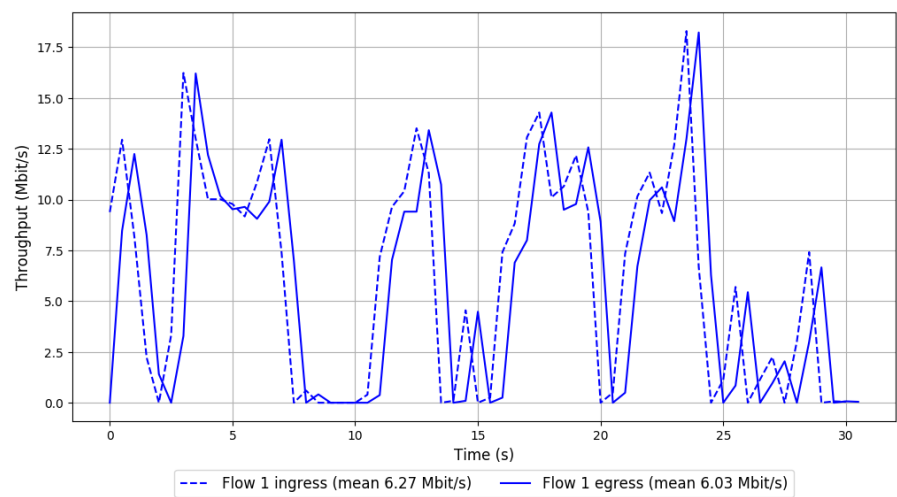

Flow 1 (95th percentile 7.75 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-07-09 22:30:20
End at: 2018-07-09 22:30:50
Local clock offset: -0.26 ms
Remote clock offset: -1.493 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 10.561 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 10.561 ms
Loss rate: 3.86%
```
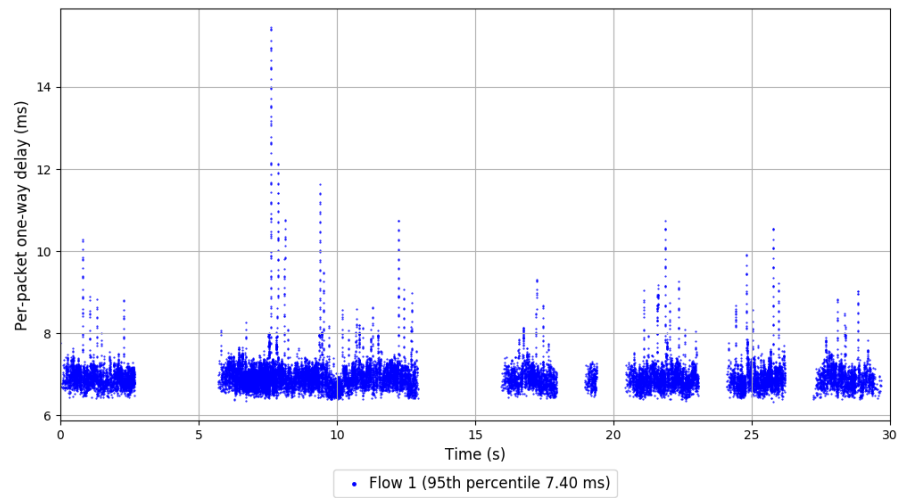
Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-07-09 22:49:48
End at: 2018-07-09 22:50:18
Local clock offset: 2.254 ms
Remote clock offset: -3.645 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 7.397 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 10.93 Mbit/s
95th percentile per-packet one-way delay: 7.397 ms
Loss rate: 0.84%
```
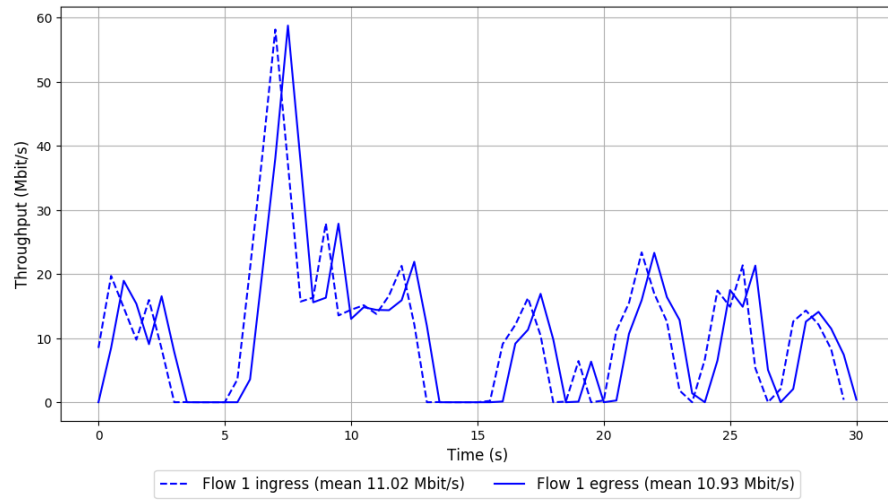
Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.02 Mbit/s) --- Flow 1 egress (mean 10.93 Mbit/s)

Flow 1 (95th percentile 7.40 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-07-09 23:09:20
End at: 2018-07-09 23:09:50
Local clock offset: 1.864 ms
Remote clock offset: -2.706 ms


# Below is generated by plot.py at 2018-07-09 23:25:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 8.211 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 11.49 Mbit/s
95th percentile per-packet one-way delay: 8.211 ms
Loss rate: 1.03%
```
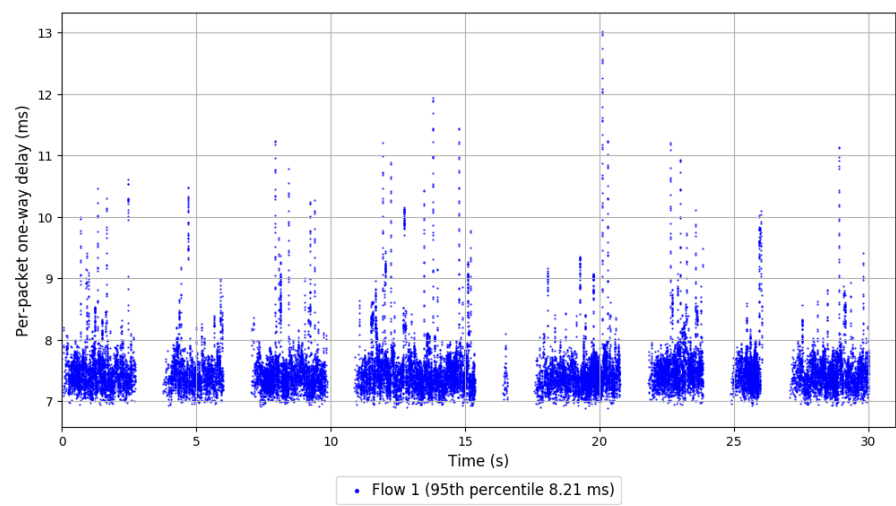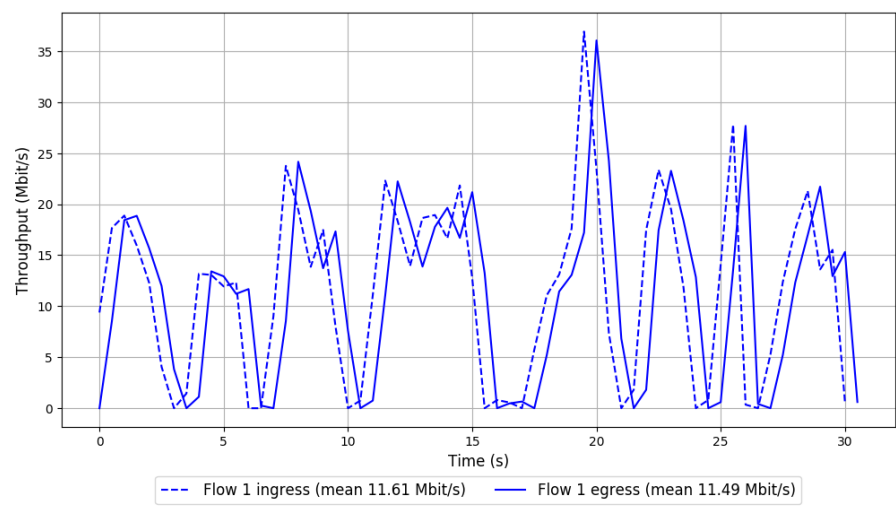
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 11.61 Mbit/s) --- Flow 1 egress (mean 11.49 Mbit/s)

Flow 1 (95th percentile 8.21 ms)

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-07-09 20:06:54
End at: 2018-07-09 20:07:24
Local clock offset: 3.019 ms
Remote clock offset: -2.518 ms


# Below is generated by plot.py at 2018-07-09 23:25:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 9.420 ms
Loss rate: 9.60%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 9.420 ms
Loss rate: 9.60%
```
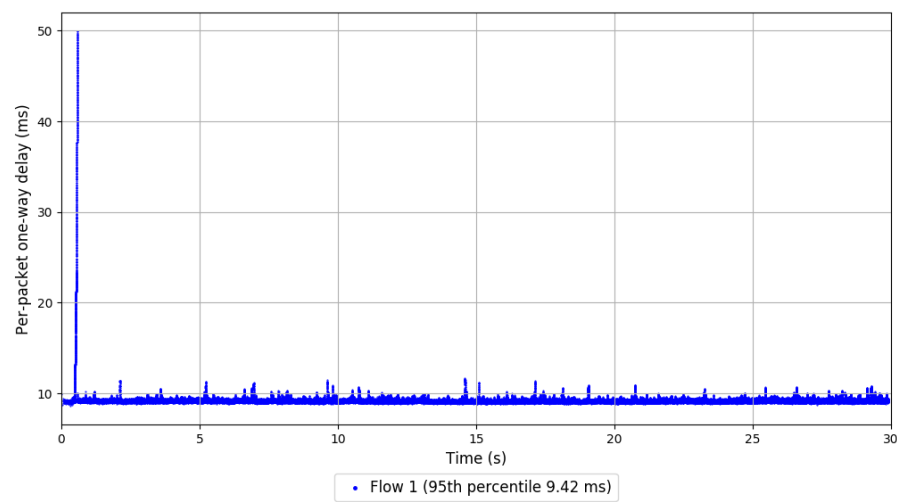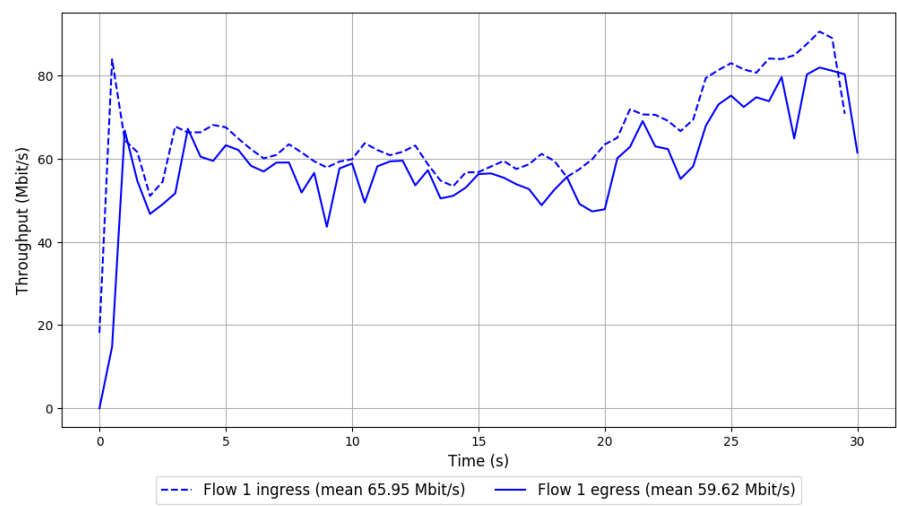
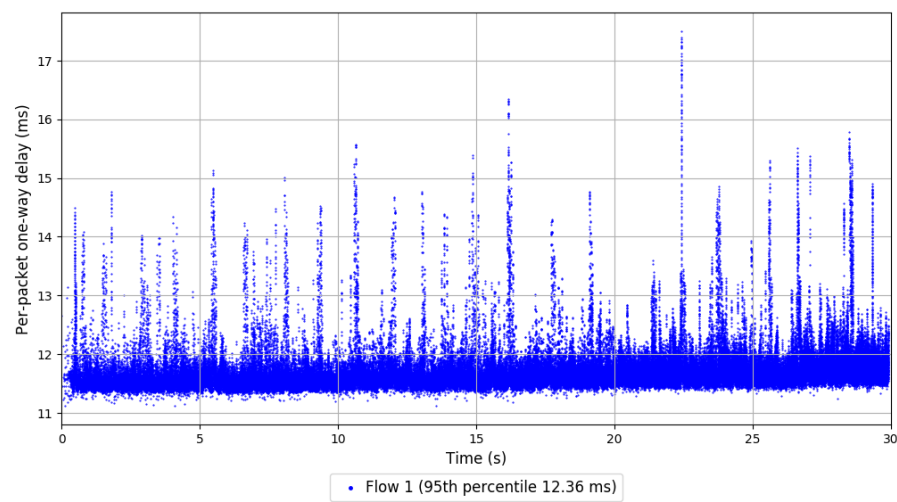Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-07-09 20:27:00
End at: 2018-07-09 20:27:30
Local clock offset: -0.917 ms
Remote clock offset: -6.299 ms


# Below is generated by plot.py at 2018-07-09 23:25:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 12.355 ms
Loss rate: 5.32%
-- Flow 1:
Average throughput: 47.48 Mbit/s
95th percentile per-packet one-way delay: 12.355 ms
Loss rate: 5.32%
```

Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 50.15 Mbit/s)   Flow 1 egress (mean 47.48 Mbit/s)
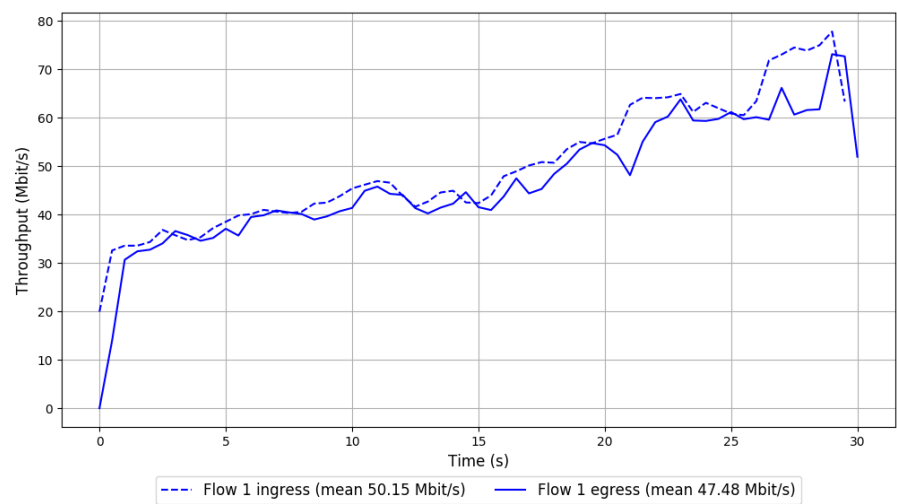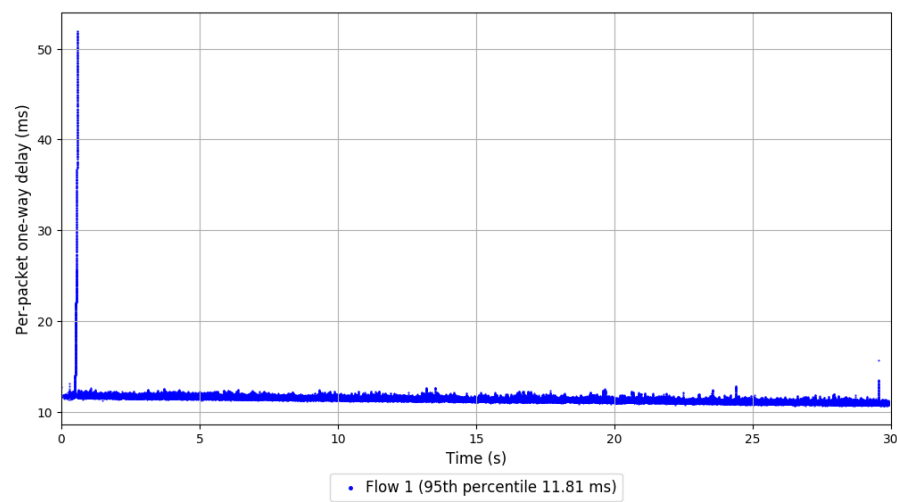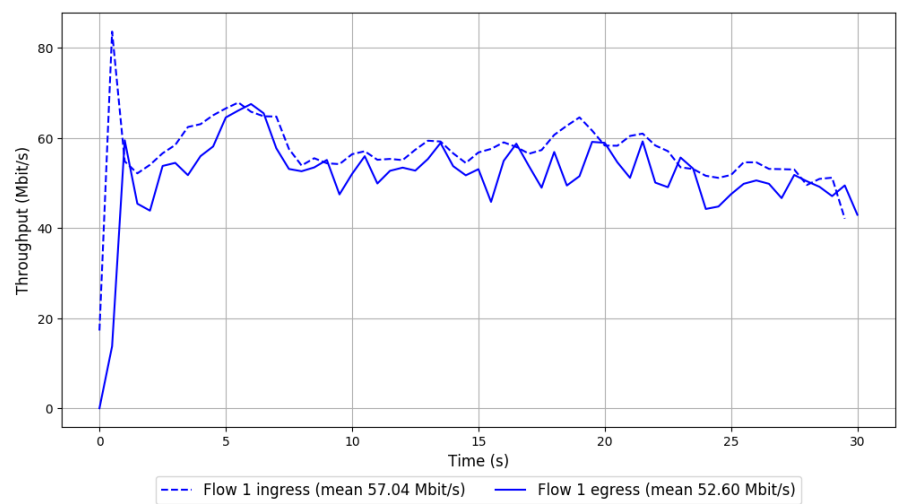

Flow 1 (95th percentile 12.36 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-07-09 20:46:49
End at: 2018-07-09 20:47:19
Local clock offset: -0.104 ms
Remote clock offset: -1.132 ms


# Below is generated by plot.py at 2018-07-09 23:25:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.60 Mbit/s
95th percentile per-packet one-way delay: 11.809 ms
Loss rate: 7.79%
-- Flow 1:
Average throughput: 52.60 Mbit/s
95th percentile per-packet one-way delay: 11.809 ms
Loss rate: 7.79%
```

Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 57.04 Mbit/s) --- Flow 1 egress (mean 52.60 Mbit/s)

· Flow 1 (95th percentile 11.81 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-07-09 21:06:18
End at: 2018-07-09 21:06:48
Local clock offset: 2.34 ms
Remote clock offset: 16.208 ms


# Below is generated by plot.py at 2018-07-09 23:25:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.62 Mbit/s
95th percentile per-packet one-way delay: 10.327 ms
Loss rate: 12.18%
-- Flow 1:
Average throughput: 71.62 Mbit/s
95th percentile per-packet one-way delay: 10.327 ms
Loss rate: 12.18%
```
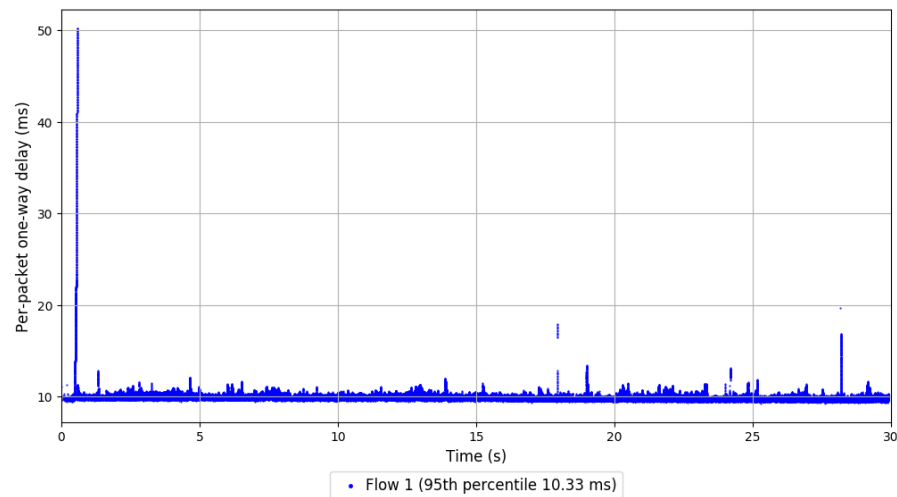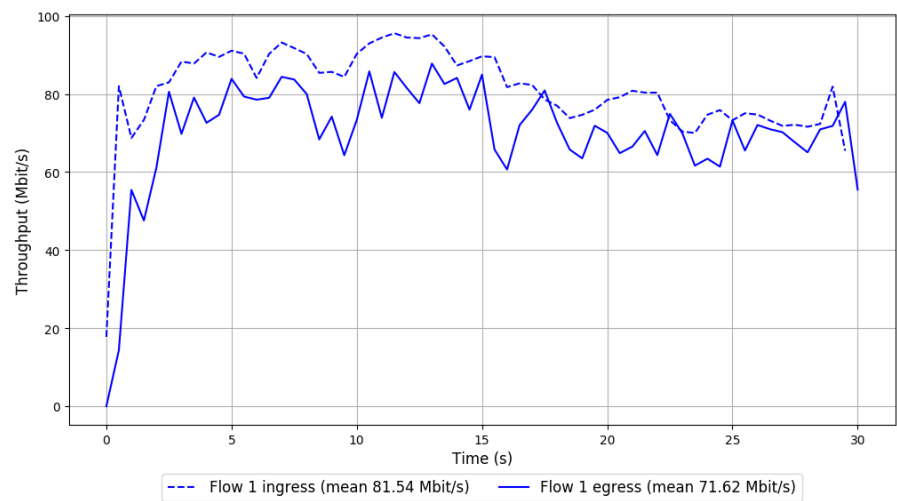
Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 81.54 Mbit/s) ----   Flow 1 egress (mean 71.62 Mbit/s) ——

• Flow 1 (95th percentile 10.33 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-07-09 21:26:02
End at: 2018-07-09 21:26:32
Local clock offset: 2.78 ms
Remote clock offset: 1.433 ms


# Below is generated by plot.py at 2018-07-09 23:25:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 9.290 ms
Loss rate: 9.33%
-- Flow 1:
Average throughput: 81.31 Mbit/s
95th percentile per-packet one-way delay: 9.290 ms
Loss rate: 9.33%
```
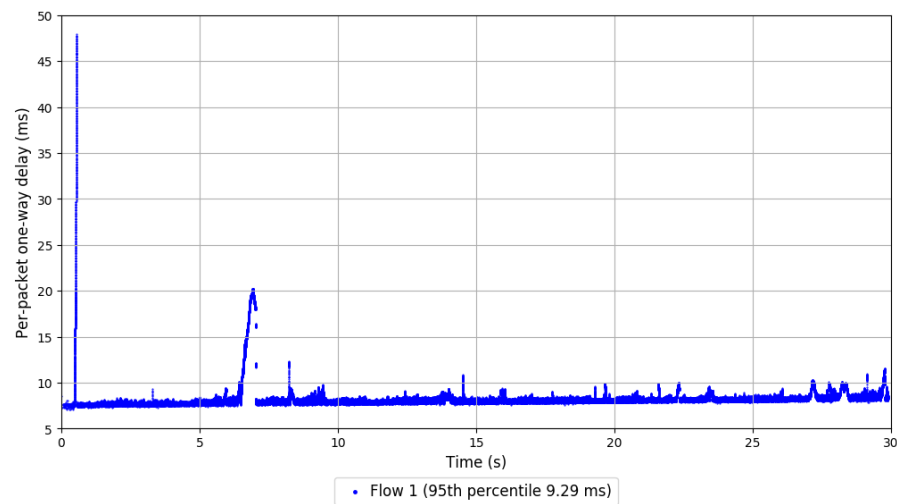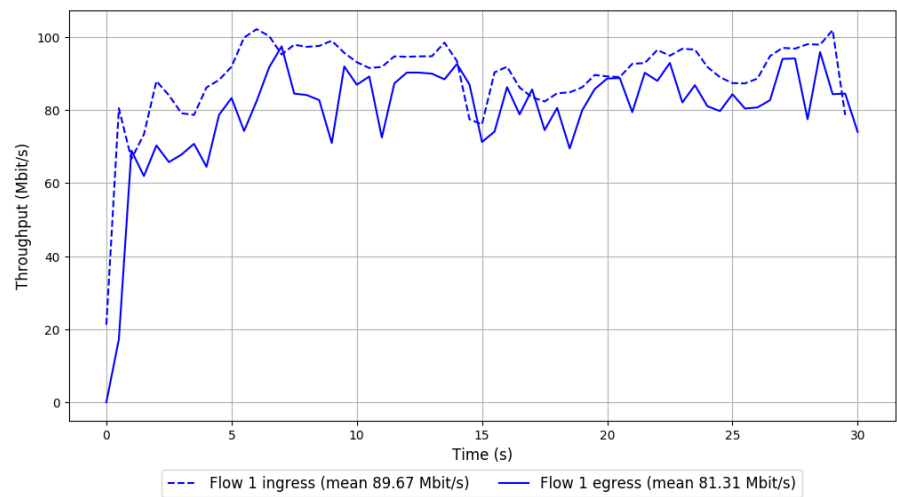
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 89.67 Mbit/s)   Flow 1 egress (mean 81.31 Mbit/s)

• Flow 1 (95th percentile 9.29 ms)

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-07-09 21:45:20
End at: 2018-07-09 21:45:50
Local clock offset: -0.203 ms
Remote clock offset: -10.656 ms


# Below is generated by plot.py at 2018-07-09 23:25:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 10.320 ms
Loss rate: 5.20%
-- Flow 1:
Average throughput: 29.46 Mbit/s
95th percentile per-packet one-way delay: 10.320 ms
Loss rate: 5.20%
```
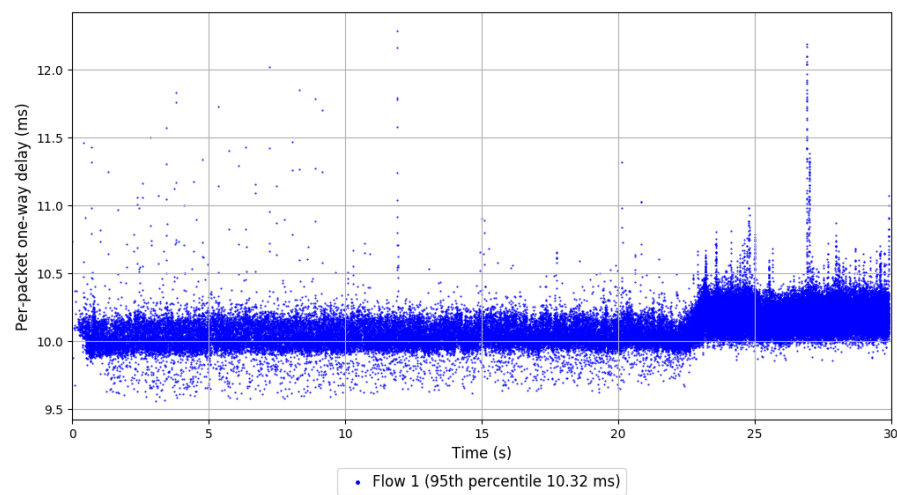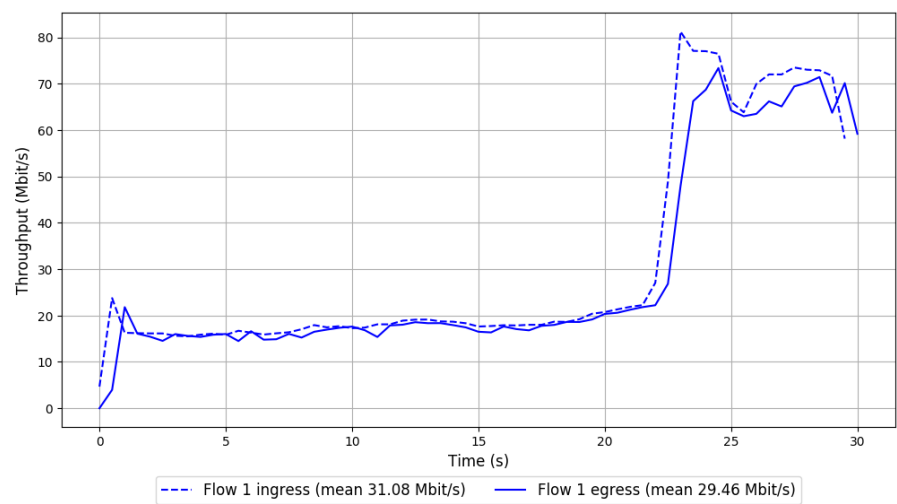
Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 31.08 Mbit/s) — — — — Flow 1 egress (mean 29.46 Mbit/s)

Flow 1 (95th percentile 10.32 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-07-09 22:04:58
End at: 2018-07-09 22:05:28
Local clock offset: 1.094 ms
Remote clock offset: -3.742 ms


# Below is generated by plot.py at 2018-07-09 23:25:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 9.613 ms
Loss rate: 2.15%
-- Flow 1:
Average throughput: 5.27 Mbit/s
95th percentile per-packet one-way delay: 9.613 ms
Loss rate: 2.15%
```
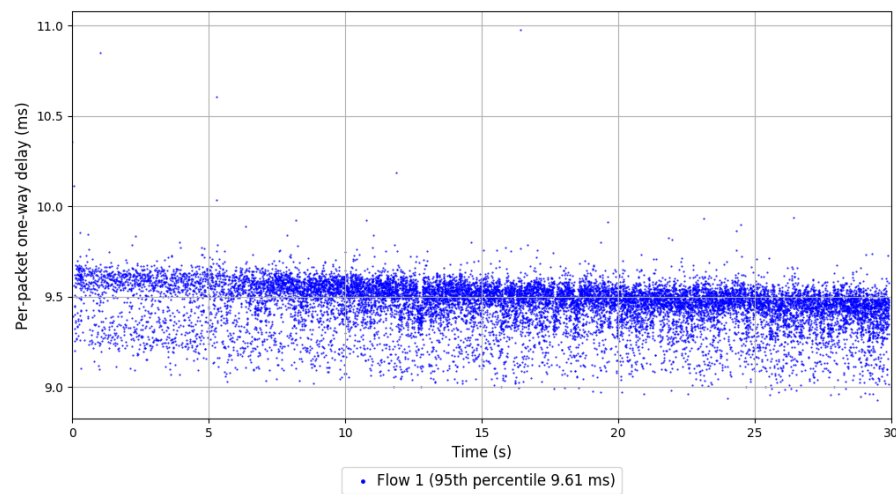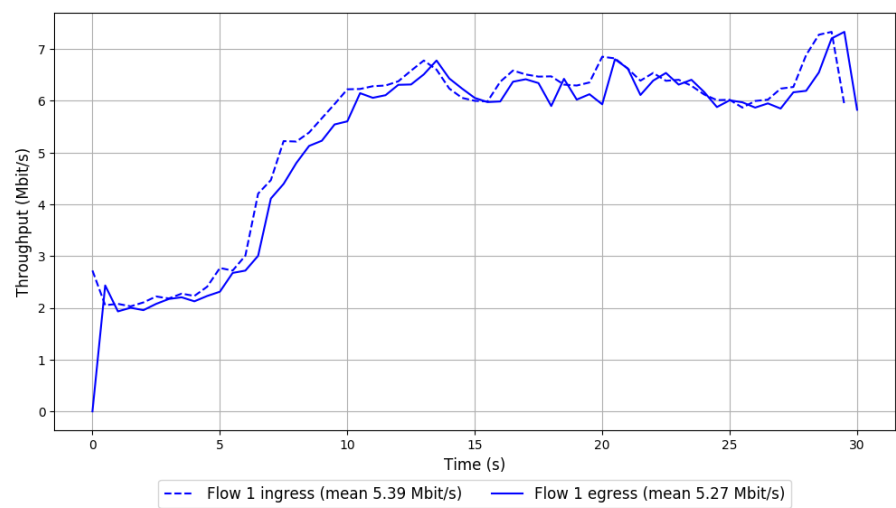
Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 5.39 Mbit/s) --- Flow 1 egress (mean 5.27 Mbit/s)

Flow 1 (95th percentile 9.61 ms)

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-07-09 22:24:26
End at: 2018-07-09 22:24:56
Local clock offset: 1.426 ms
Remote clock offset: -1.377 ms


# Below is generated by plot.py at 2018-07-09 23:25:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.28 Mbit/s
95th percentile per-packet one-way delay: 9.273 ms
Loss rate: 9.46%
-- Flow 1:
Average throughput: 72.28 Mbit/s
95th percentile per-packet one-way delay: 9.273 ms
Loss rate: 9.46%
```
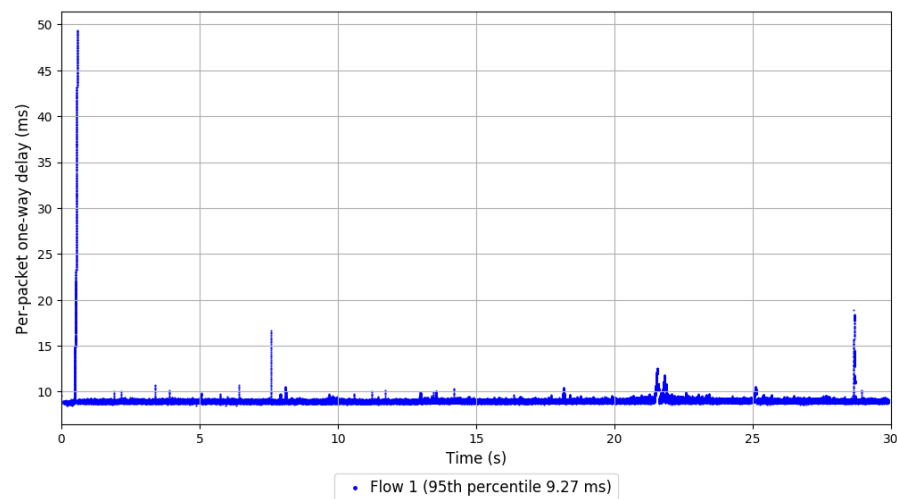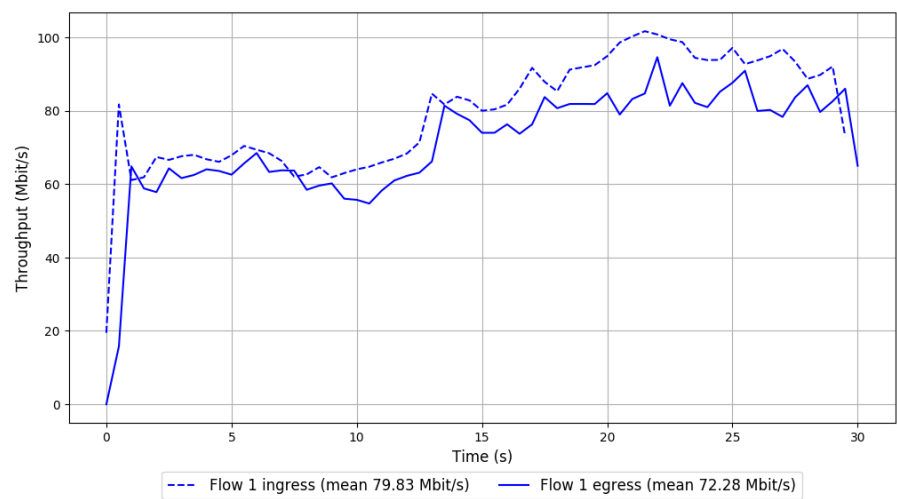
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 79.83 Mbit/s)   Flow 1 egress (mean 72.28 Mbit/s)

Flow 1 (95th percentile 9.27 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-07-09 22:44:09
End at: 2018-07-09 22:44:39
Local clock offset: -1.181 ms
Remote clock offset: -1.704 ms


# Below is generated by plot.py at 2018-07-09 23:25:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 11.230 ms
Loss rate: 7.25%
-- Flow 1:
Average throughput: 49.60 Mbit/s
95th percentile per-packet one-way delay: 11.230 ms
Loss rate: 7.25%
```
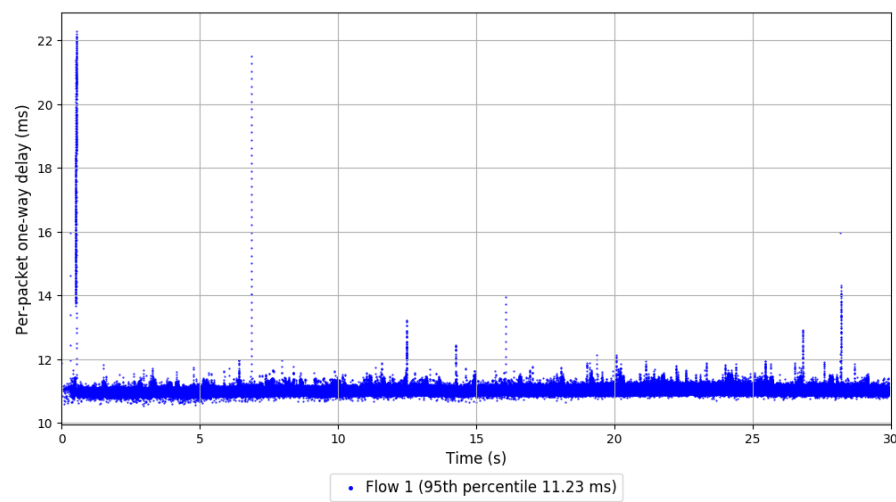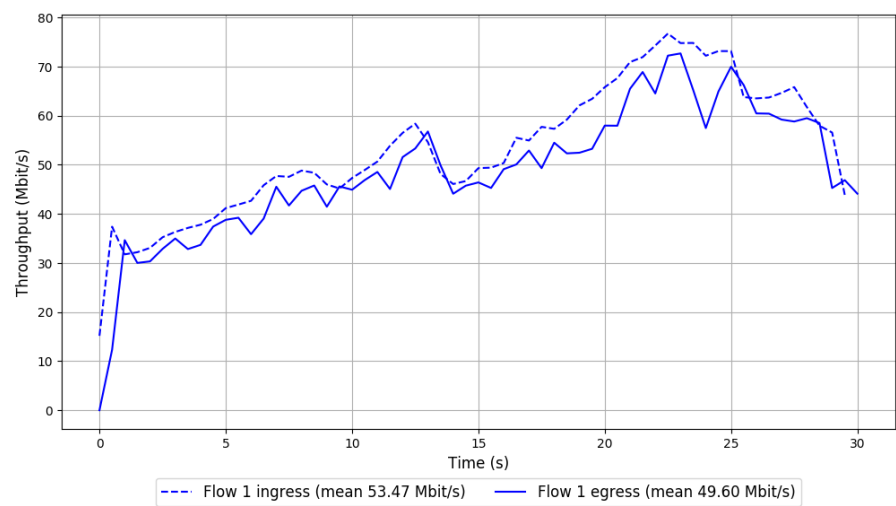
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 53.47 Mbit/s) --- Flow 1 egress (mean 49.60 Mbit/s)

Flow 1 (95th percentile 11.23 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-07-09 23:03:43
End at: 2018-07-09 23:04:13
Local clock offset: 0.445 ms
Remote clock offset: -3.387 ms


# Below is generated by plot.py at 2018-07-09 23:25:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.33 Mbit/s
95th percentile per-packet one-way delay: 9.054 ms
Loss rate: 8.06%
-- Flow 1:
Average throughput: 73.33 Mbit/s
95th percentile per-packet one-way delay: 9.054 ms
Loss rate: 8.06%
```
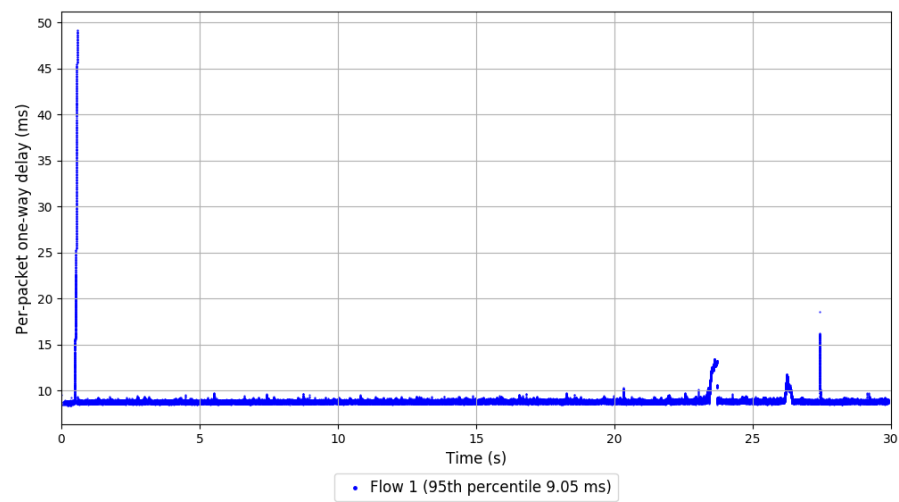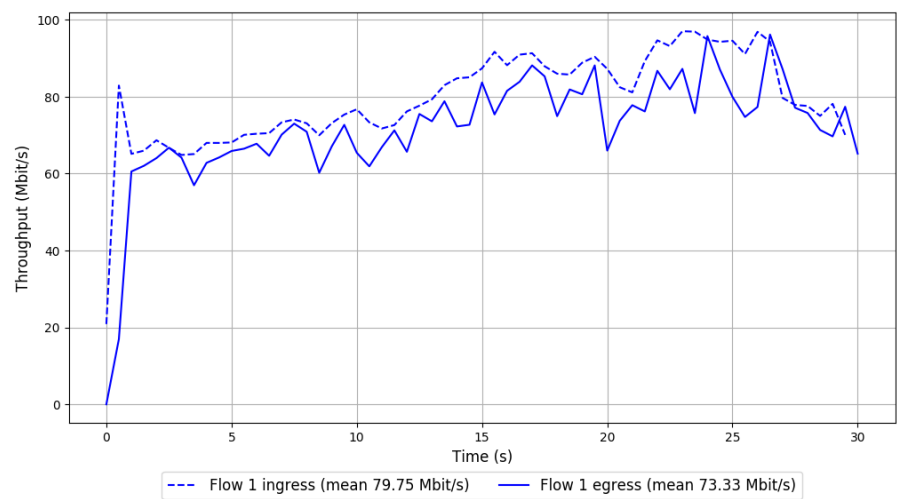
Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 79.75 Mbit/s) Flow 1 egress (mean 73.33 Mbit/s)
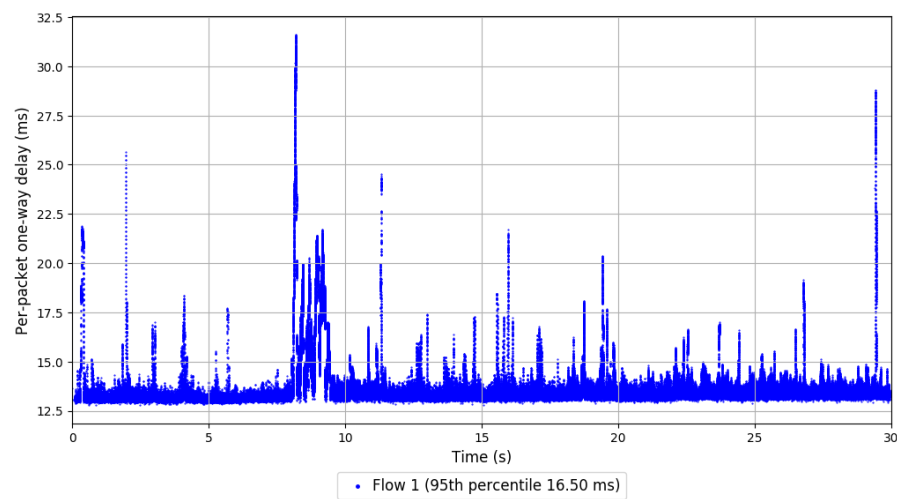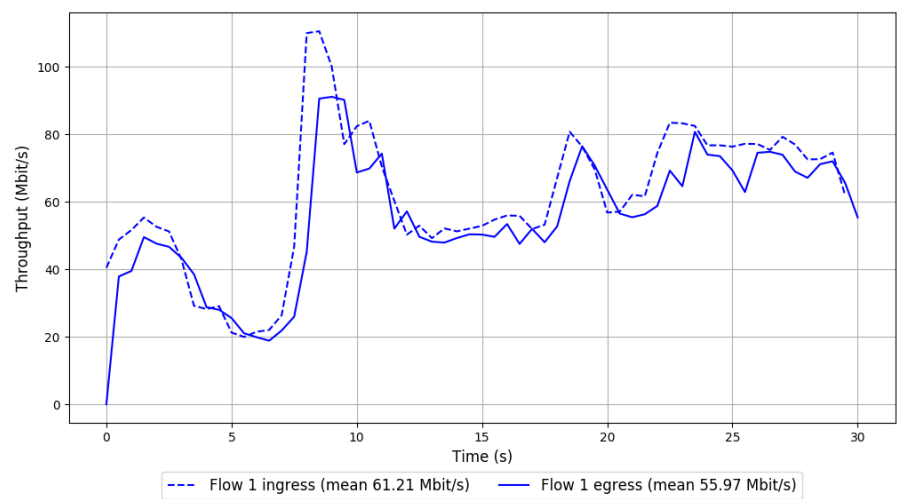

Flow 1 (95th percentile 9.05 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-07-09 20:14:58
End at: 2018-07-09 20:15:28
Local clock offset: -1.664 ms
Remote clock offset: -3.842 ms

# Below is generated by plot.py at 2018-07-09 23:26:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 16.504 ms
Loss rate: 8.57%
-- Flow 1:
Average throughput: 55.97 Mbit/s
95th percentile per-packet one-way delay: 16.504 ms
Loss rate: 8.57%
```

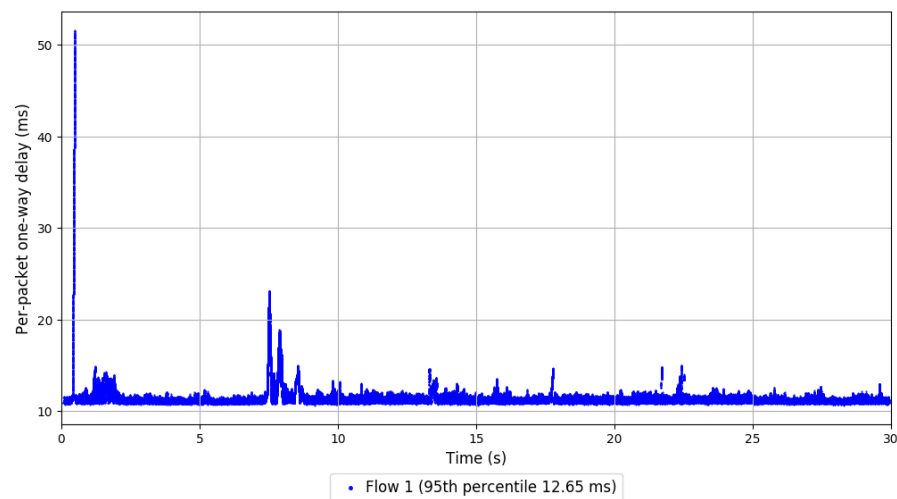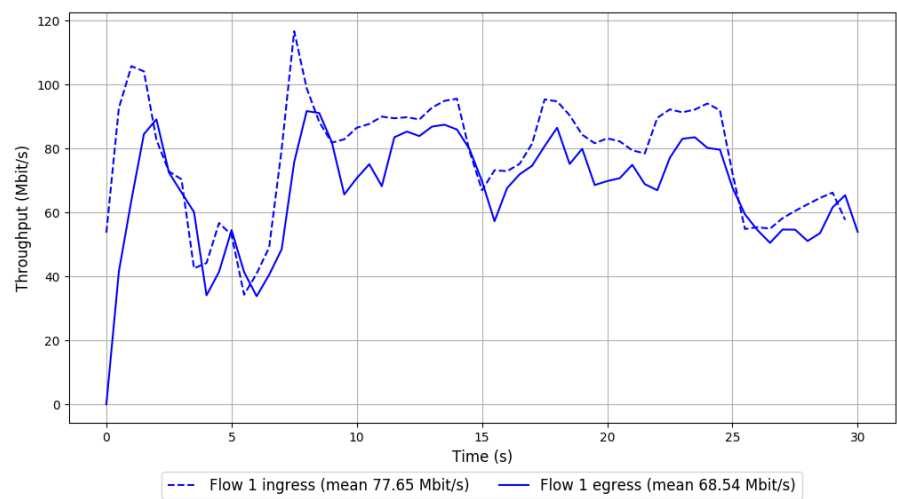Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-07-09 20:34:51
End at: 2018-07-09 20:35:21
Local clock offset: -0.179 ms
Remote clock offset: -6.501 ms


# Below is generated by plot.py at 2018-07-09 23:26:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 68.54 Mbit/s
95th percentile per-packet one-way delay: 12.649 ms
Loss rate: 11.74%
-- Flow 1:
Average throughput: 68.54 Mbit/s
95th percentile per-packet one-way delay: 12.649 ms
Loss rate: 11.74%
```

Run 2: Report of PCC-Expr — Data Link

```
Run 3: Statistics of PCC-Expr

Start at: 2018-07-09 20:54:39
End at: 2018-07-09 20:55:09
Local clock offset: 0.966 ms
Remote clock offset: 7.719 ms


# Below is generated by plot.py at 2018-07-09 23:26:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.97 Mbit/s
95th percentile per-packet one-way delay: 11.537 ms
Loss rate: 9.10%
-- Flow 1:
Average throughput: 69.97 Mbit/s
95th percentile per-packet one-way delay: 11.537 ms
Loss rate: 9.10%
```
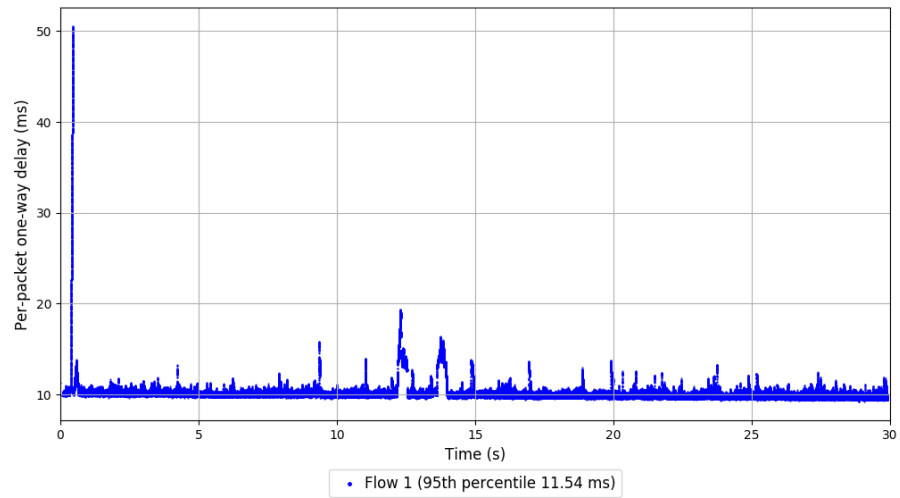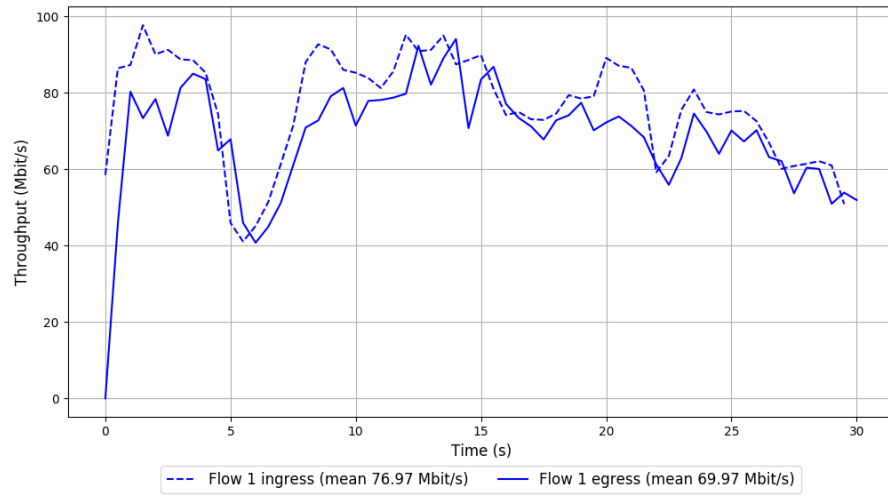
Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 76.97 Mbit/s)   Flow 1 egress (mean 69.97 Mbit/s)
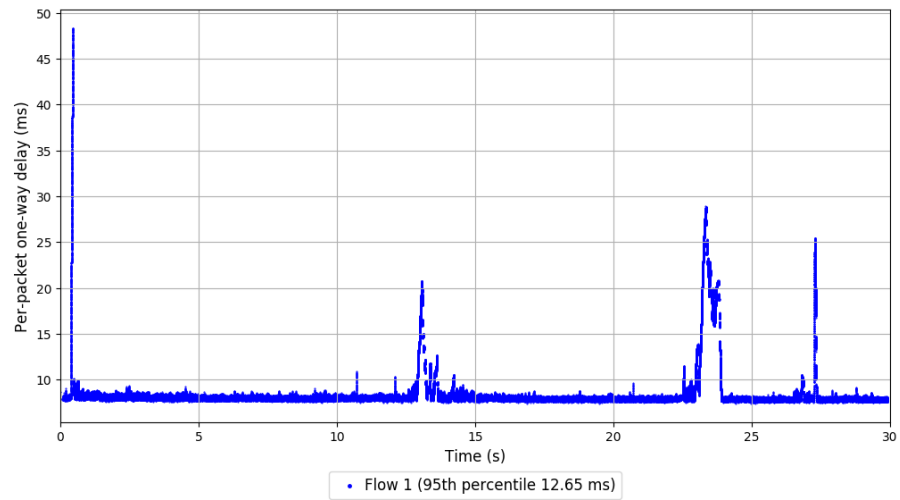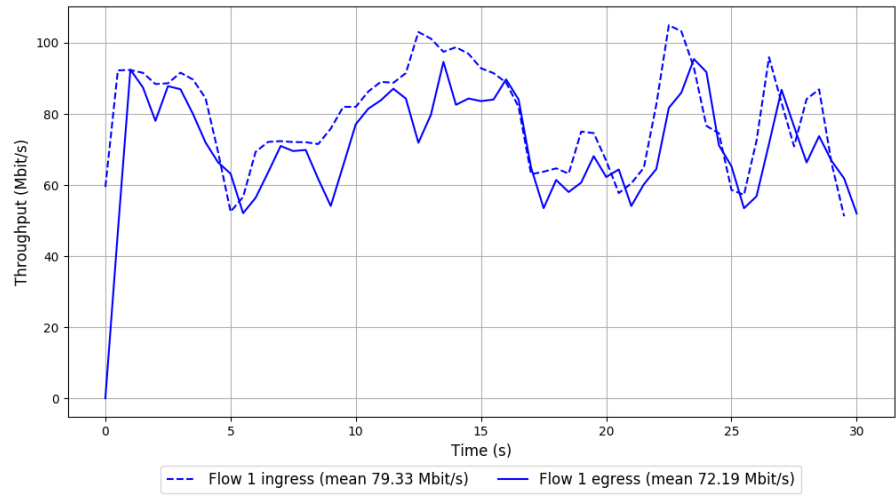

• Flow 1 (95th percentile 11.54 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-07-09 21:14:13
End at: 2018-07-09 21:14:43
Local clock offset: 3.734 ms
Remote clock offset: 19.169 ms


# Below is generated by plot.py at 2018-07-09 23:27:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.19 Mbit/s
95th percentile per-packet one-way delay: 12.652 ms
Loss rate: 9.00%
-- Flow 1:
Average throughput: 72.19 Mbit/s
95th percentile per-packet one-way delay: 12.652 ms
Loss rate: 9.00%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 79.33 Mbit/s)   Flow 1 egress (mean 72.19 Mbit/s)

Flow 1 (95th percentile 12.65 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-07-09 21:33:48
End at: 2018-07-09 21:34:18
Local clock offset: 1.241 ms
Remote clock offset: -5.997 ms


# Below is generated by plot.py at 2018-07-09 23:27:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.51 Mbit/s
95th percentile per-packet one-way delay: 12.597 ms
Loss rate: 10.37%
-- Flow 1:
Average throughput: 66.51 Mbit/s
95th percentile per-packet one-way delay: 12.597 ms
Loss rate: 10.37%
```
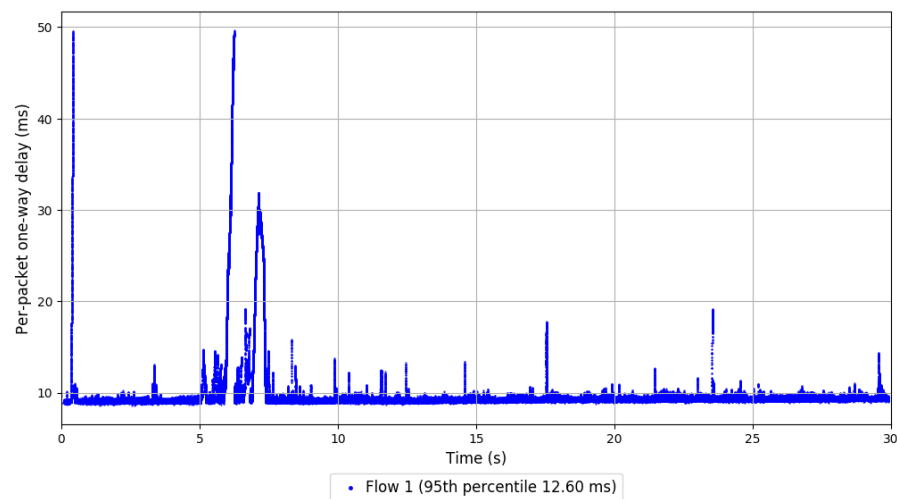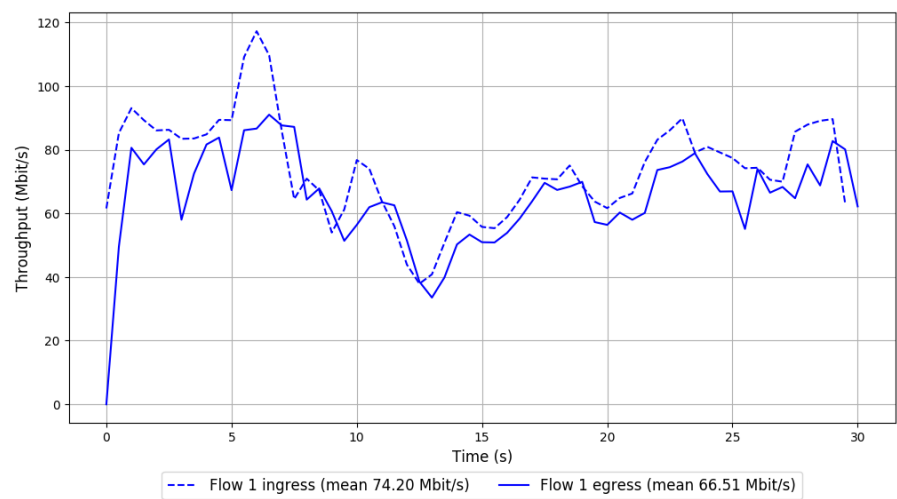
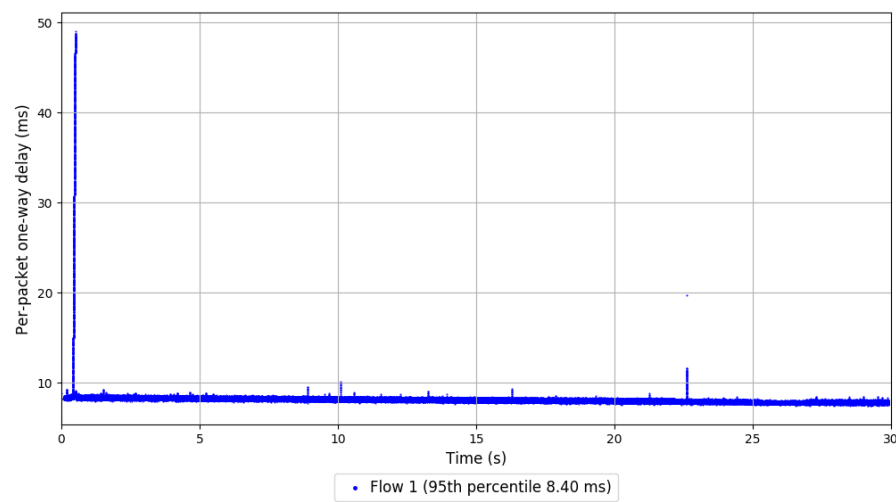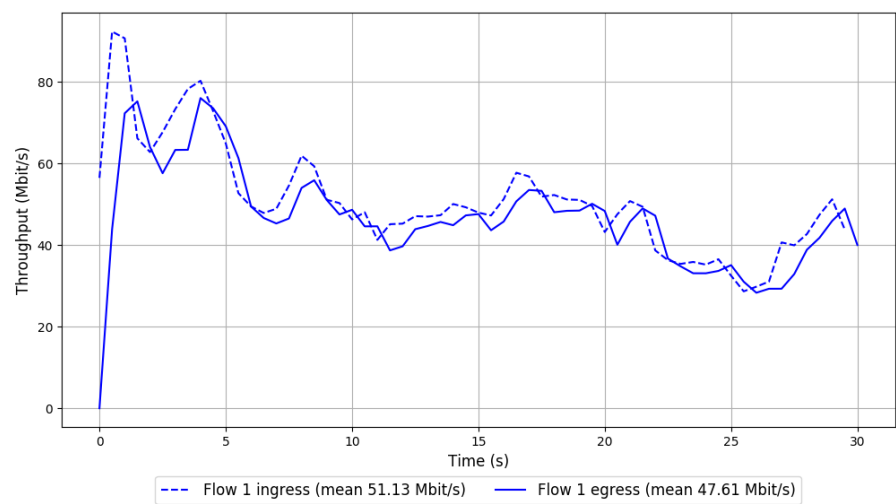# Run 5: Report of PCC-Expr — Data Link

```
Run 6: Statistics of PCC-Expr

Start at: 2018-07-09 21:53:07
End at: 2018-07-09 21:53:37
Local clock offset: 2.316 ms
Remote clock offset: -11.001 ms


# Below is generated by plot.py at 2018-07-09 23:27:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.61 Mbit/s
95th percentile per-packet one-way delay: 8.402 ms
Loss rate: 6.89%
-- Flow 1:
Average throughput: 47.61 Mbit/s
95th percentile per-packet one-way delay: 8.402 ms
Loss rate: 6.89%
```

Run 6: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 51.13 Mbit/s)   Flow 1 egress (mean 47.61 Mbit/s)
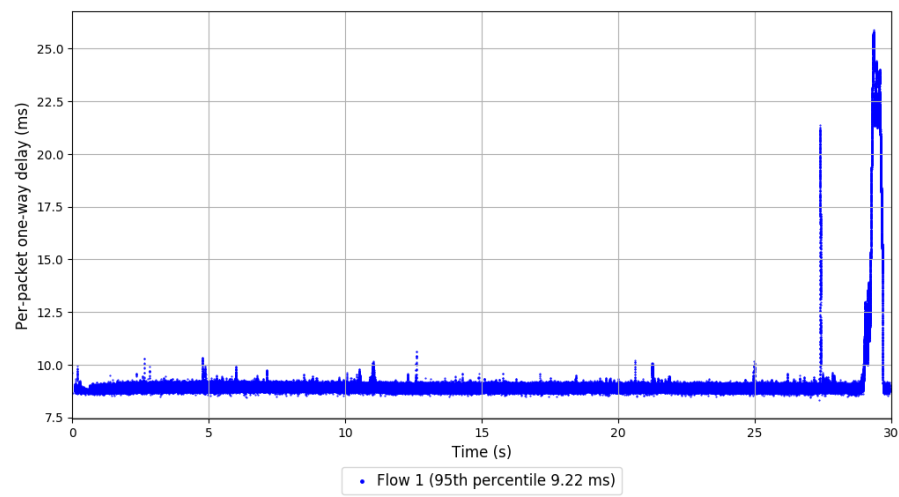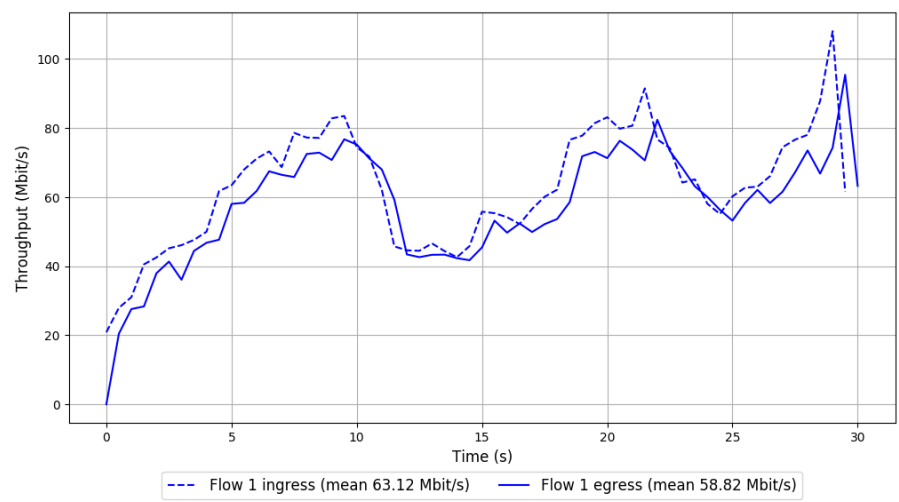

Flow 1 (95th percentile 8.40 ms)

```
Run 7: Statistics of PCC-Expr

Start at: 2018-07-09 22:12:46
End at: 2018-07-09 22:13:16
Local clock offset: 2.066 ms
Remote clock offset: -0.991 ms


# Below is generated by plot.py at 2018-07-09 23:27:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 58.82 Mbit/s
95th percentile per-packet one-way delay: 9.223 ms
Loss rate: 6.82%
-- Flow 1:
Average throughput: 58.82 Mbit/s
95th percentile per-packet one-way delay: 9.223 ms
Loss rate: 6.82%
```

Run 7: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 63.12 Mbit/s) Flow 1 egress (mean 58.82 Mbit/s)
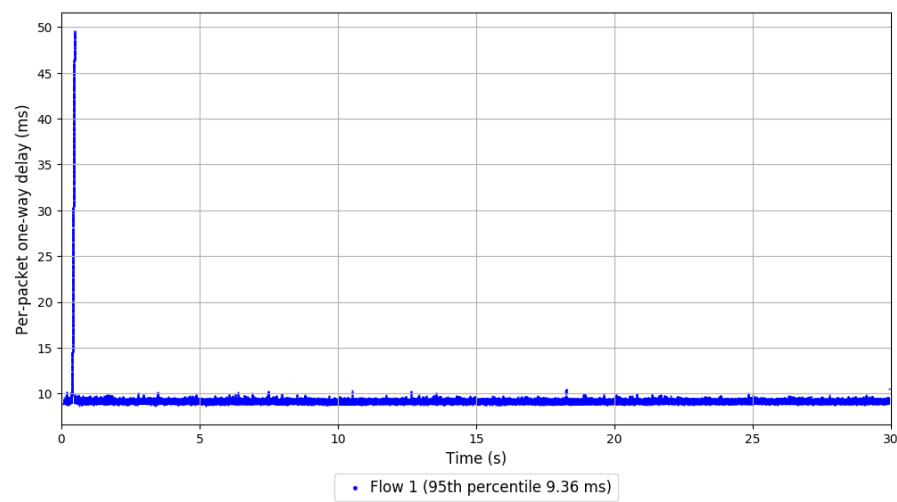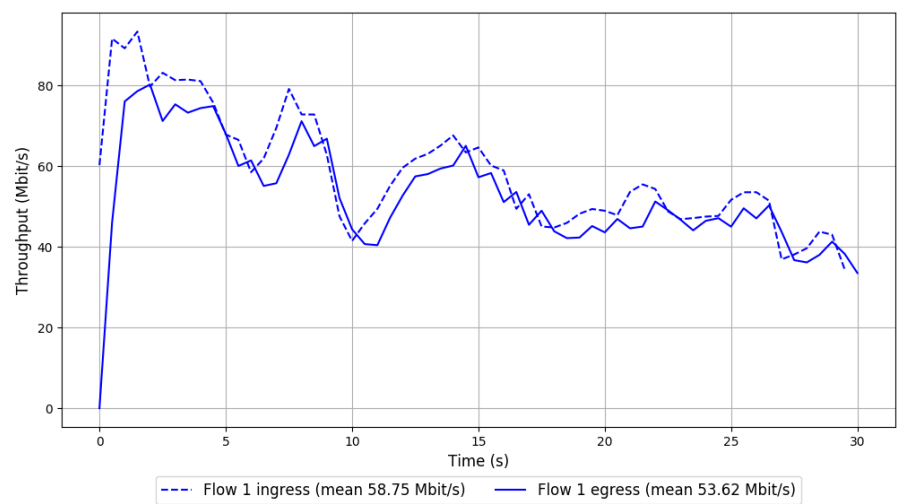

Flow 1 (95th percentile 9.22 ms)

```
Run 8: Statistics of PCC-Expr

Start at: 2018-07-09 22:32:29
End at: 2018-07-09 22:32:59
Local clock offset: 1.876 ms
Remote clock offset: -1.103 ms


# Below is generated by plot.py at 2018-07-09 23:27:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.62 Mbit/s
95th percentile per-packet one-way delay: 9.358 ms
Loss rate: 8.72%
-- Flow 1:
Average throughput: 53.62 Mbit/s
95th percentile per-packet one-way delay: 9.358 ms
Loss rate: 8.72%
```

Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 58.75 Mbit/s) ----- Flow 1 egress (mean 53.62 Mbit/s)
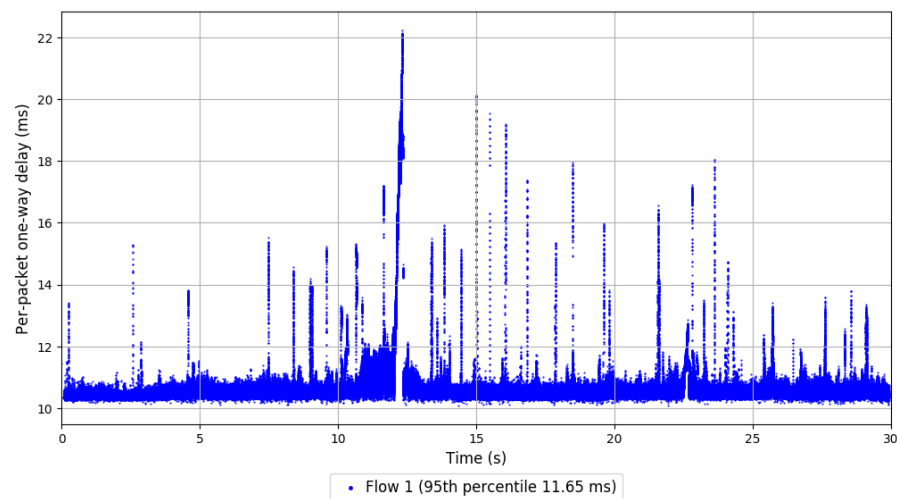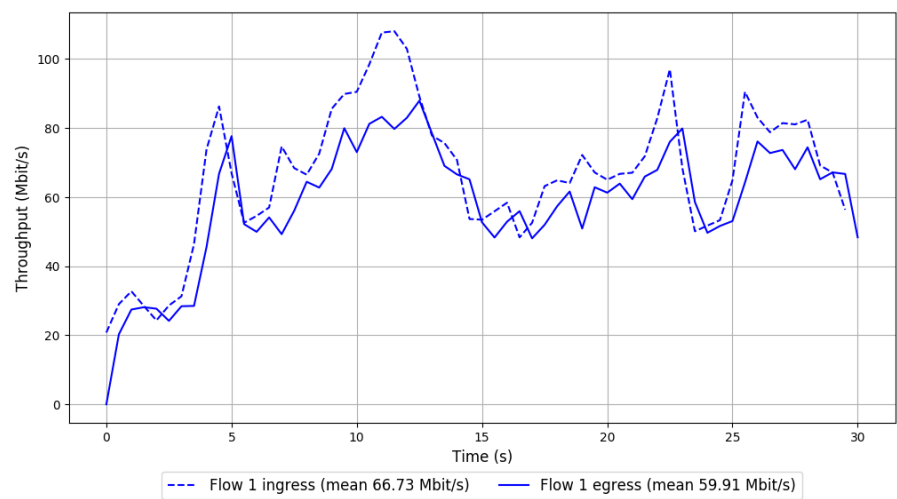

Flow 1 (95th percentile 9.36 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-07-09 22:51:57
End at: 2018-07-09 22:52:27
Local clock offset: -1.477 ms
Remote clock offset: -2.602 ms


# Below is generated by plot.py at 2018-07-09 23:28:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 11.650 ms
Loss rate: 10.23%
-- Flow 1:
Average throughput: 59.91 Mbit/s
95th percentile per-packet one-way delay: 11.650 ms
Loss rate: 10.23%
```

Run 9: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 66.73 Mbit/s)   Flow 1 egress (mean 59.91 Mbit/s)

Flow 1 (95th percentile 11.65 ms)

```
Run 10: Statistics of PCC-Expr

Start at: 2018-07-09 23:11:30
End at: 2018-07-09 23:12:00
Local clock offset: -0.073 ms
Remote clock offset: -3.37 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.97 Mbit/s
95th percentile per-packet one-way delay: 9.616 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 72.97 Mbit/s
95th percentile per-packet one-way delay: 9.616 ms
Loss rate: 7.74%
```
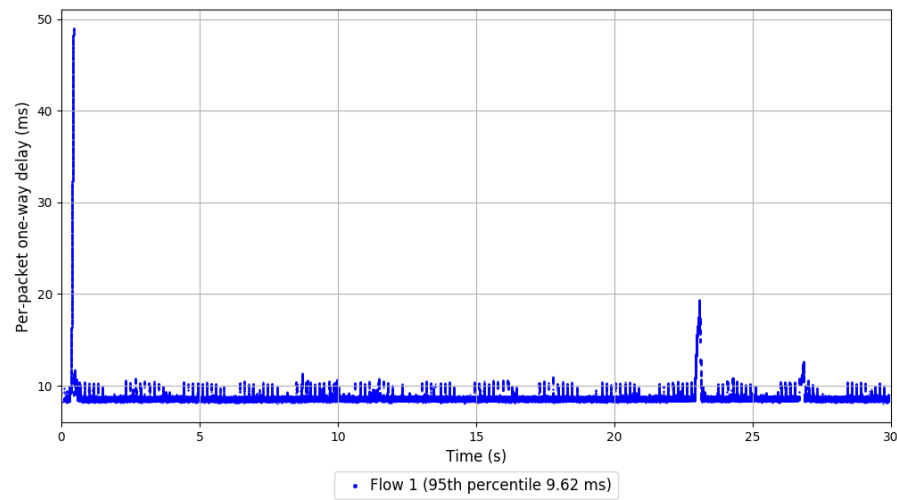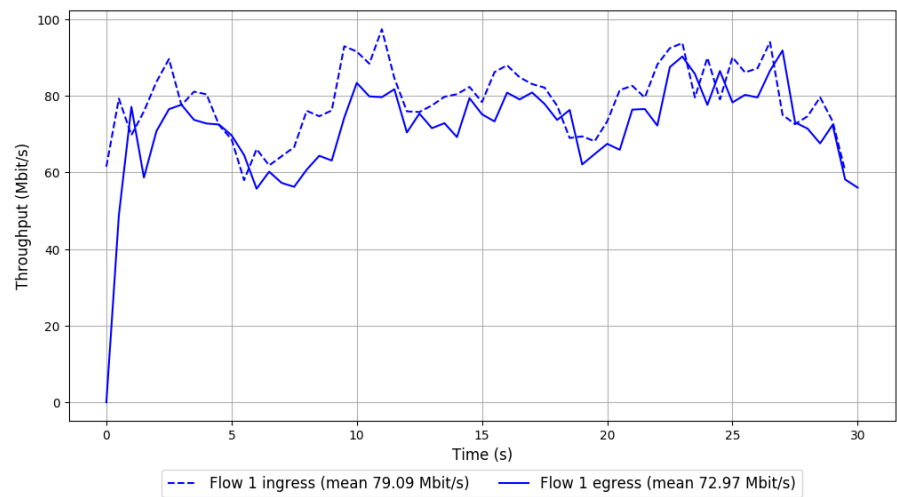
Run 10: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 79.09 Mbit/s) --- Flow 1 egress (mean 72.97 Mbit/s)

Flow 1 (95th percentile 9.62 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-07-09 20:08:03
End at: 2018-07-09 20:08:33
Local clock offset: 2.563 ms
Remote clock offset: -3.074 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 9.283 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 26.30 Mbit/s
95th percentile per-packet one-way delay: 9.283 ms
Loss rate: 1.27%
```
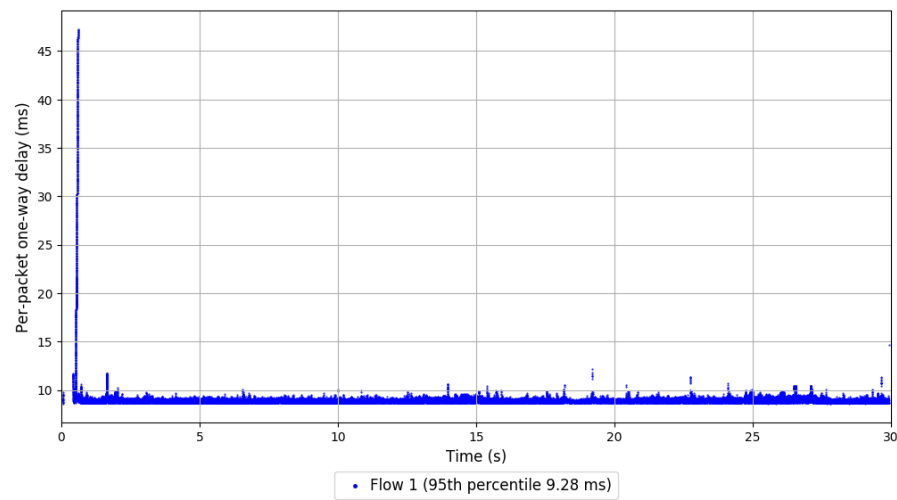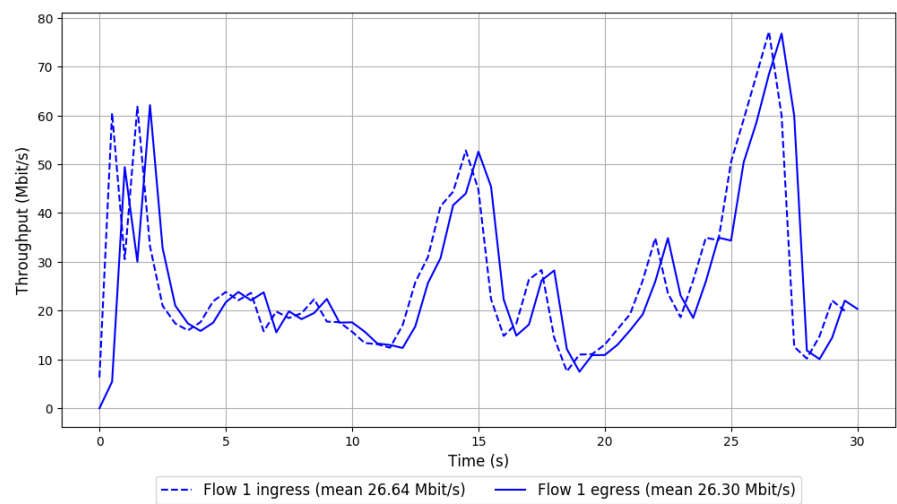
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-07-09 20:28:07
End at: 2018-07-09 20:28:37
Local clock offset: 3.217 ms
Remote clock offset: -6.54 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 16.12 Mbit/s
95th percentile per-packet one-way delay: 7.972 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 16.12 Mbit/s
95th percentile per-packet one-way delay: 7.972 ms
Loss rate: 1.16%
```
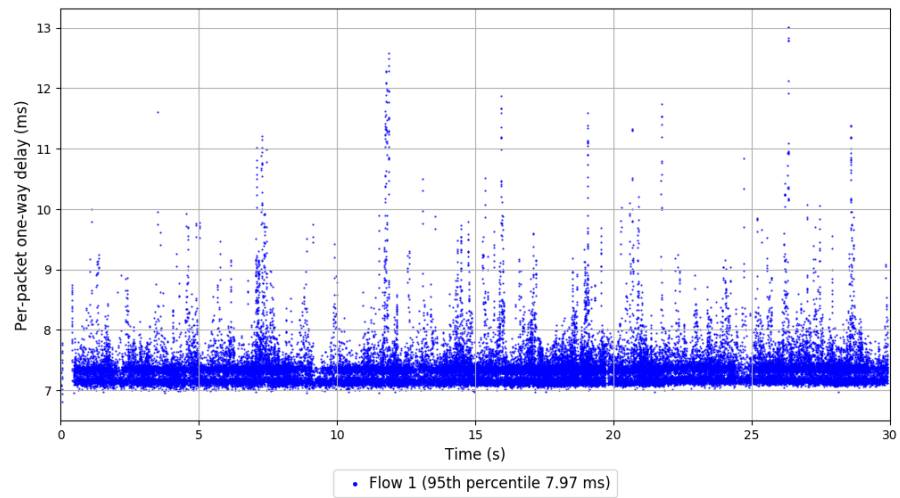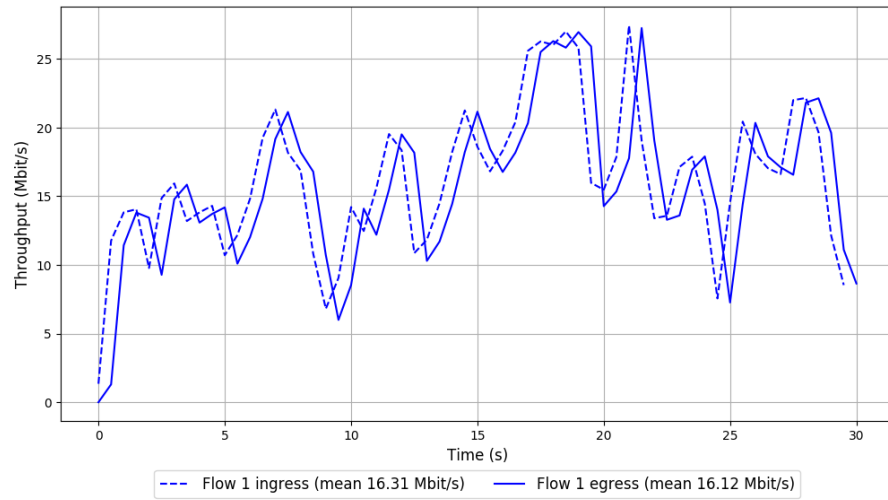
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 16.31 Mbit/s) --- Flow 1 egress (mean 16.12 Mbit/s)

• Flow 1 (95th percentile 7.97 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-07-09 20:47:57
End at: 2018-07-09 20:48:27
Local clock offset: 1.744 ms
Remote clock offset: -0.195 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 8.399 ms
Loss rate: 1.79%
-- Flow 1:
Average throughput: 14.05 Mbit/s
95th percentile per-packet one-way delay: 8.399 ms
Loss rate: 1.79%
```
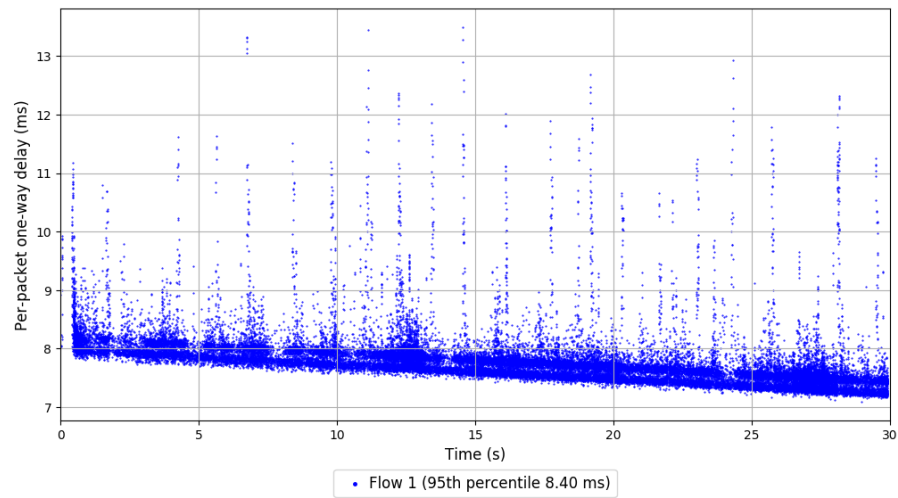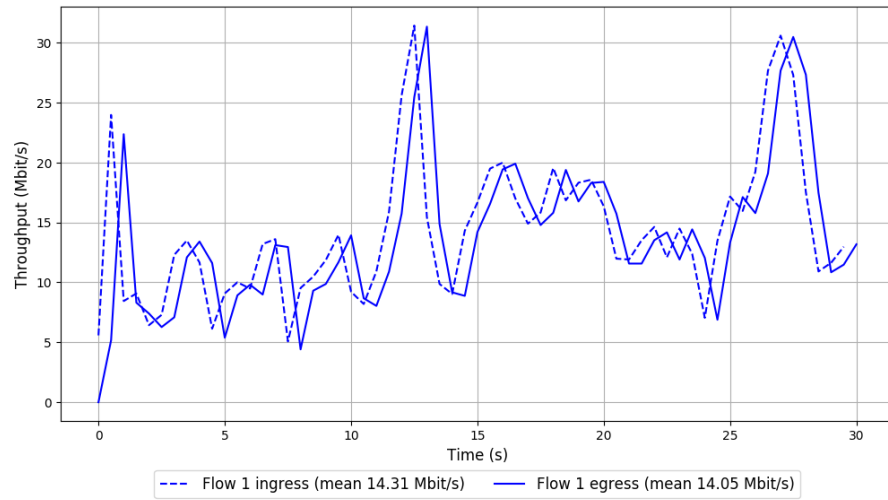
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 14.31 Mbit/s) --- Flow 1 egress (mean 14.05 Mbit/s)

Flow 1 (95th percentile 8.40 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-07-09 21:07:25
End at: 2018-07-09 21:07:55
Local clock offset: 4.133 ms
Remote clock offset: 16.84 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.20 Mbit/s
95th percentile per-packet one-way delay: 8.248 ms
Loss rate: 1.70%
-- Flow 1:
Average throughput: 20.20 Mbit/s
95th percentile per-packet one-way delay: 8.248 ms
Loss rate: 1.70%
```
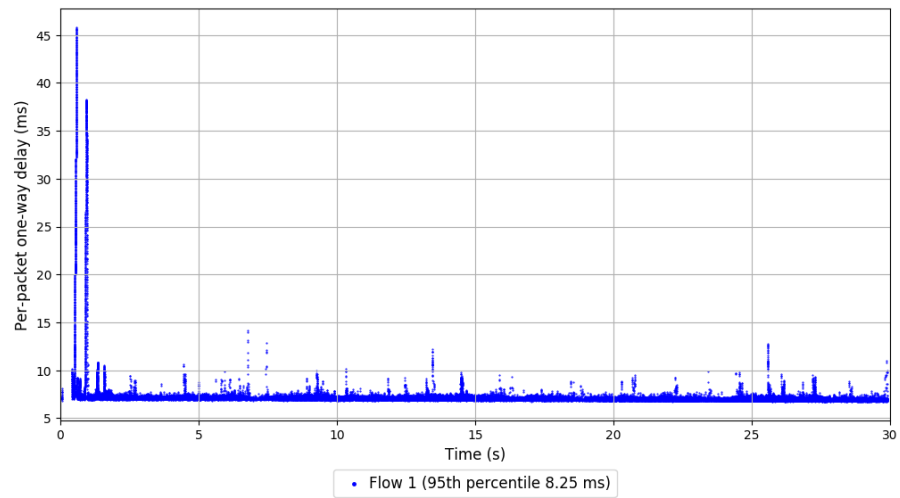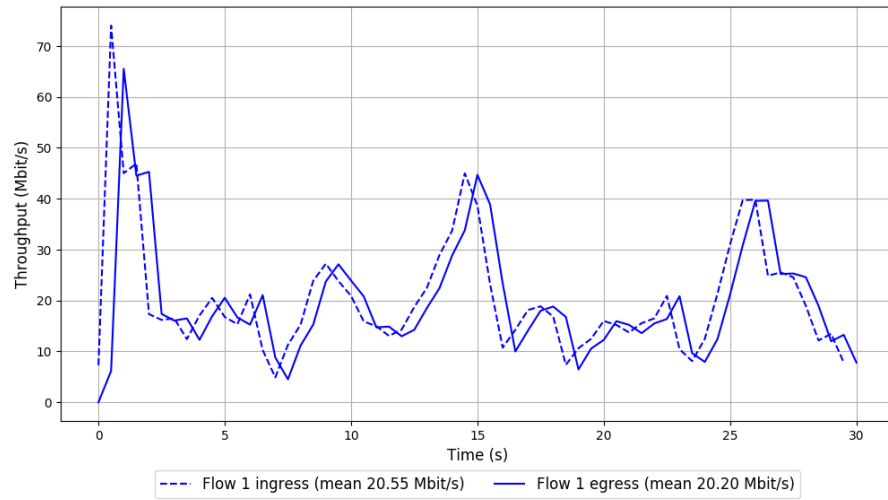
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-07-09 21:27:10
End at: 2018-07-09 21:27:40
Local clock offset: 1.797 ms
Remote clock offset: -0.48 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 9.669 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 23.97 Mbit/s
95th percentile per-packet one-way delay: 9.669 ms
Loss rate: 1.24%
```
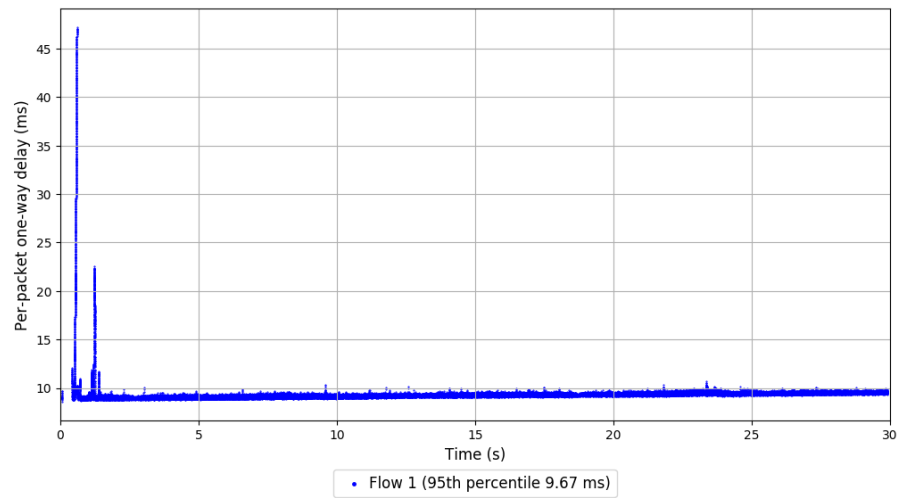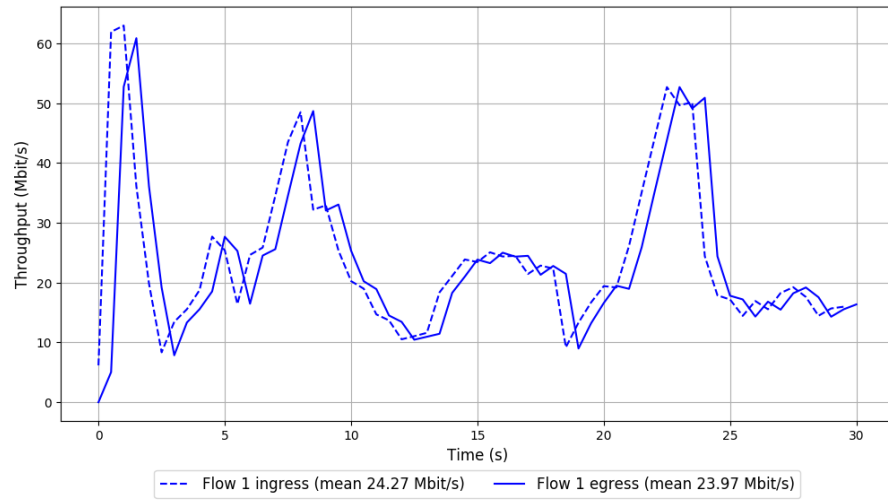
Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 24.27 Mbit/s) --- Flow 1 egress (mean 23.97 Mbit/s)
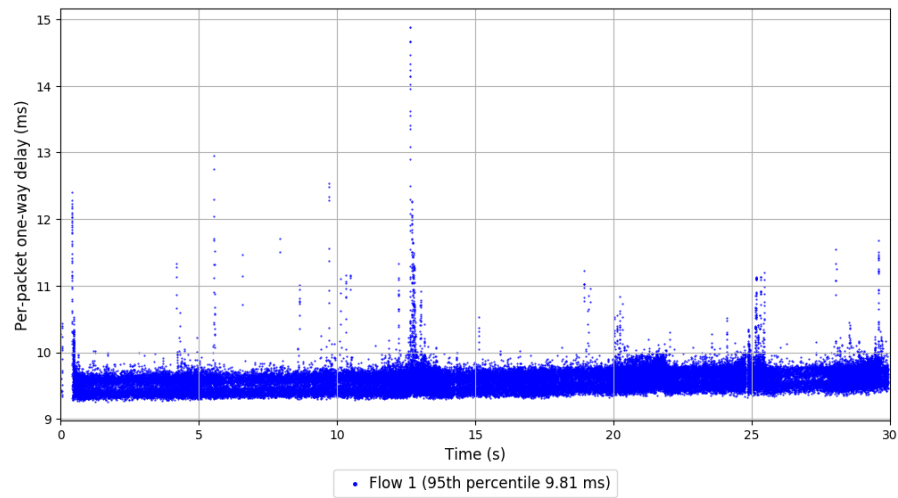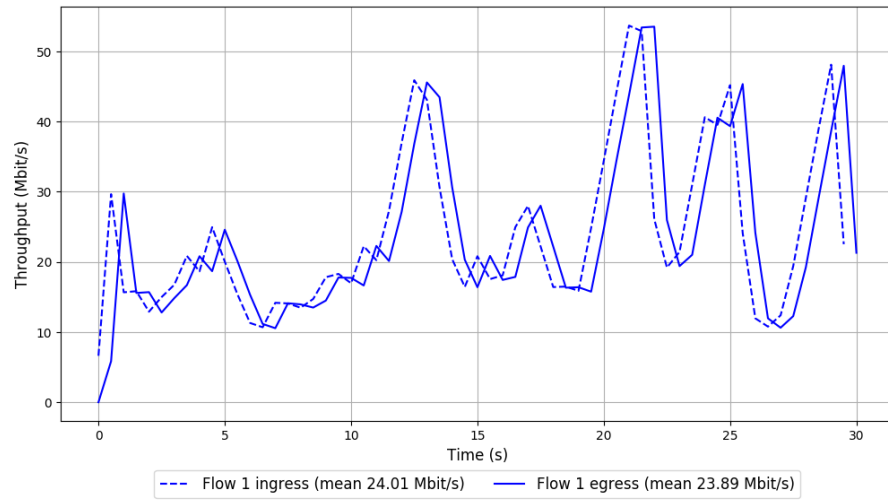

Flow 1 (95th percentile 9.67 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-07-09 21:46:25
End at: 2018-07-09 21:46:55
Local clock offset: -0.388 ms
Remote clock offset: -11.56 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 23.89 Mbit/s
95th percentile per-packet one-way delay: 9.812 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 23.89 Mbit/s
95th percentile per-packet one-way delay: 9.812 ms
Loss rate: 0.48%
```

Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 24.01 Mbit/s) --- Flow 1 egress (mean 23.89 Mbit/s)
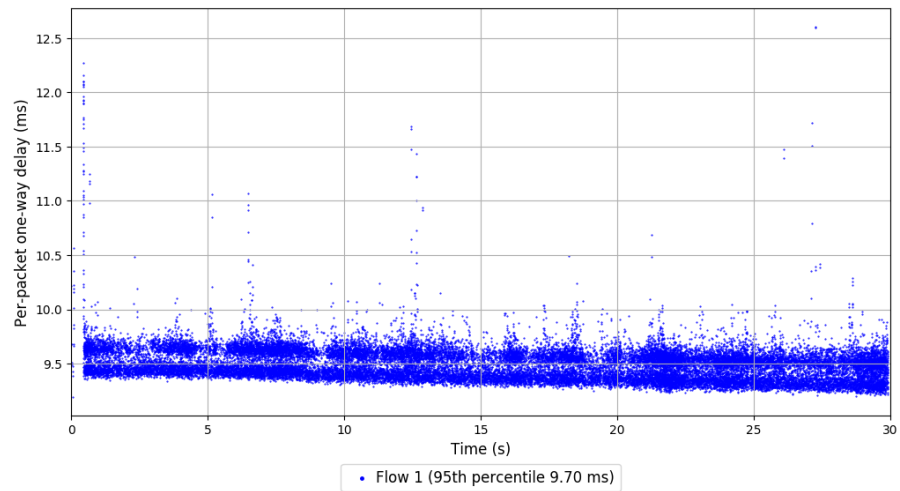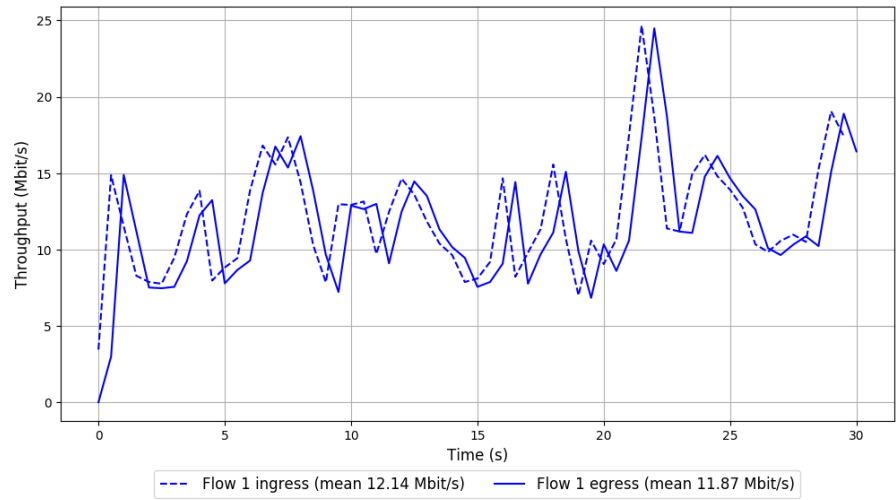

Flow 1 (95th percentile 9.81 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-07-09 22:06:03
End at: 2018-07-09 22:06:33
Local clock offset: -0.444 ms
Remote clock offset: -3.989 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 9.697 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 11.87 Mbit/s
95th percentile per-packet one-way delay: 9.697 ms
Loss rate: 2.18%
```

Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 12.14 Mbit/s) --- Flow 1 egress (mean 11.87 Mbit/s)

Flow 1 (95th percentile 9.70 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-07-09 22:25:38
End at: 2018-07-09 22:26:08
Local clock offset: 2.936 ms
Remote clock offset: -1.315 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.47 Mbit/s
95th percentile per-packet one-way delay: 7.470 ms
Loss rate: 2.41%
-- Flow 1:
Average throughput: 10.47 Mbit/s
95th percentile per-packet one-way delay: 7.470 ms
Loss rate: 2.41%
```
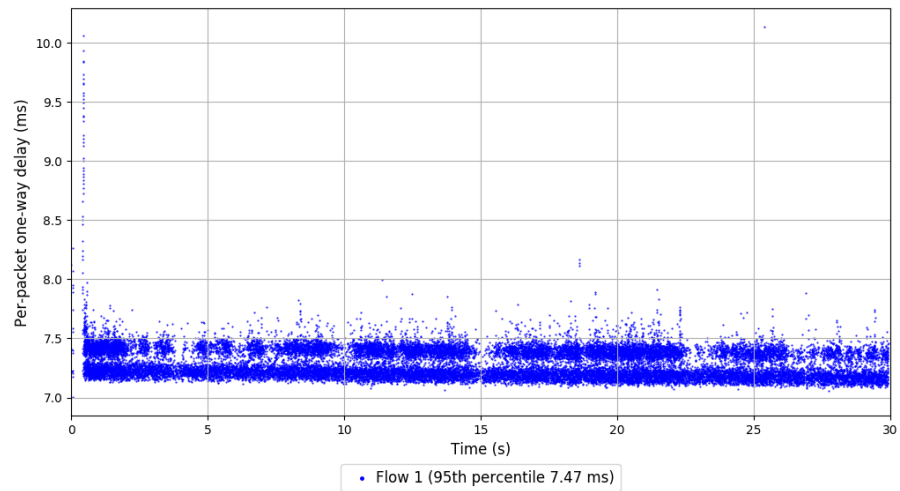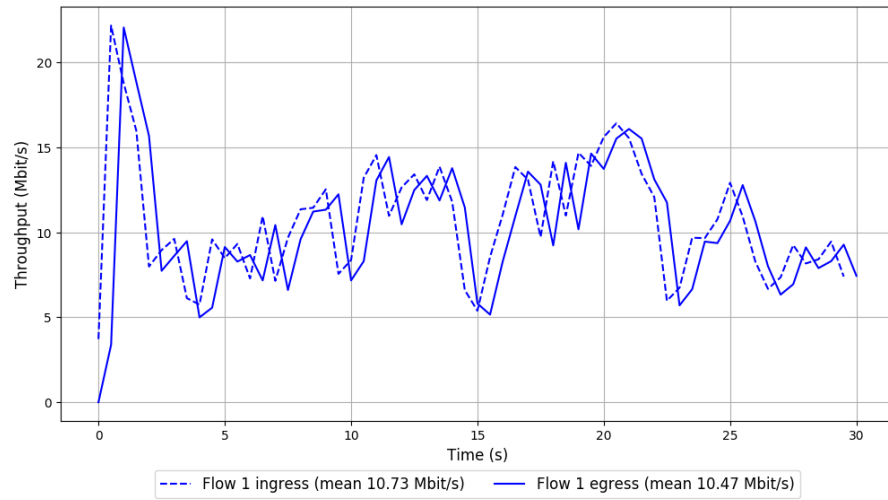
Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 10.73 Mbit/s)   —— Flow 1 egress (mean 10.47 Mbit/s)

• Flow 1 (95th percentile 7.47 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-07-09 22:45:16
End at: 2018-07-09 22:45:46
Local clock offset: 1.792 ms
Remote clock offset: -0.978 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 9.928 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 9.928 ms
Loss rate: 3.46%
```
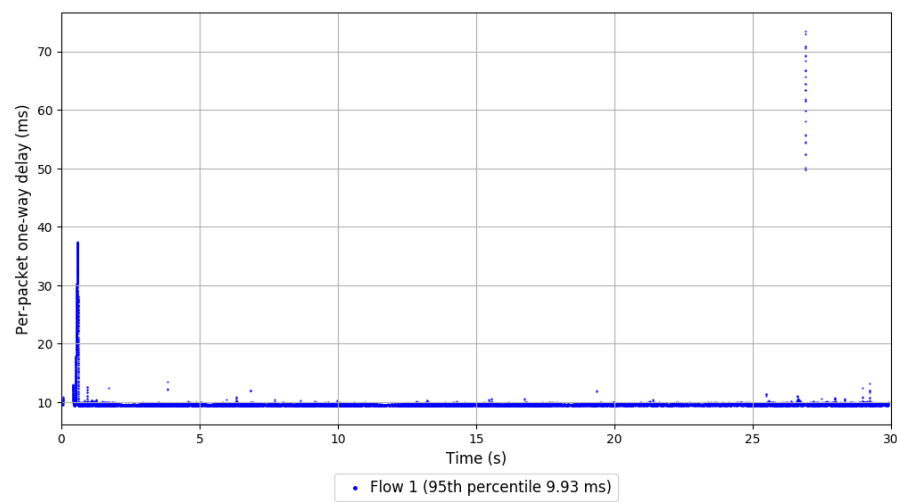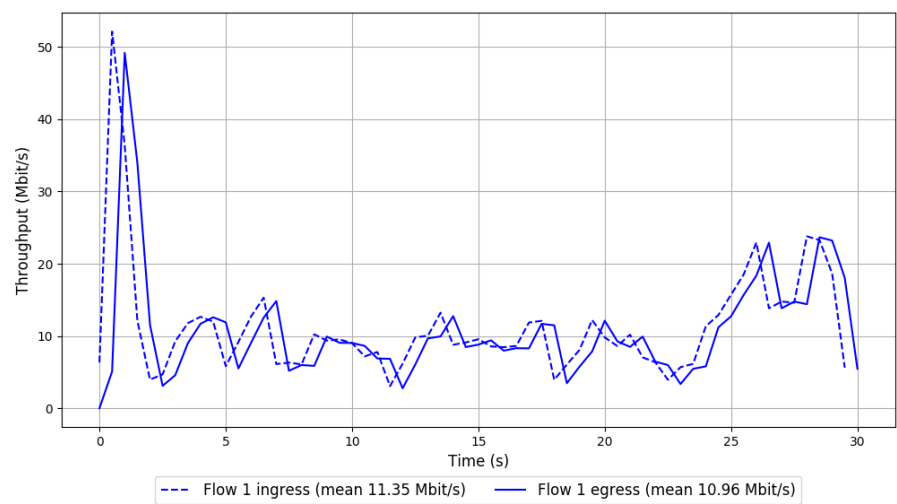
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 11.35 Mbit/s) --- Flow 1 egress (mean 10.96 Mbit/s)

Flow 1 (95th percentile 9.93 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-07-09 23:04:51
End at: 2018-07-09 23:05:21
Local clock offset: 0.682 ms
Remote clock offset: -3.273 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.04 Mbit/s
95th percentile per-packet one-way delay: 8.747 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 13.04 Mbit/s
95th percentile per-packet one-way delay: 8.747 ms
Loss rate: 2.16%
```
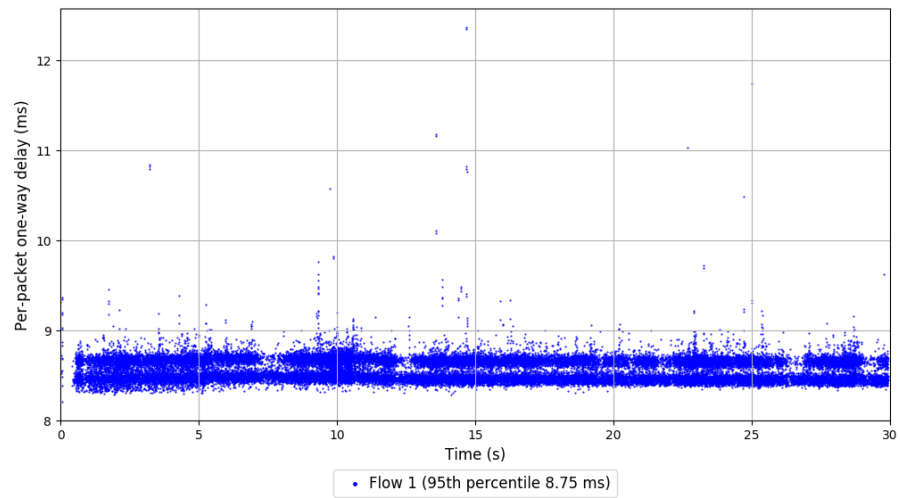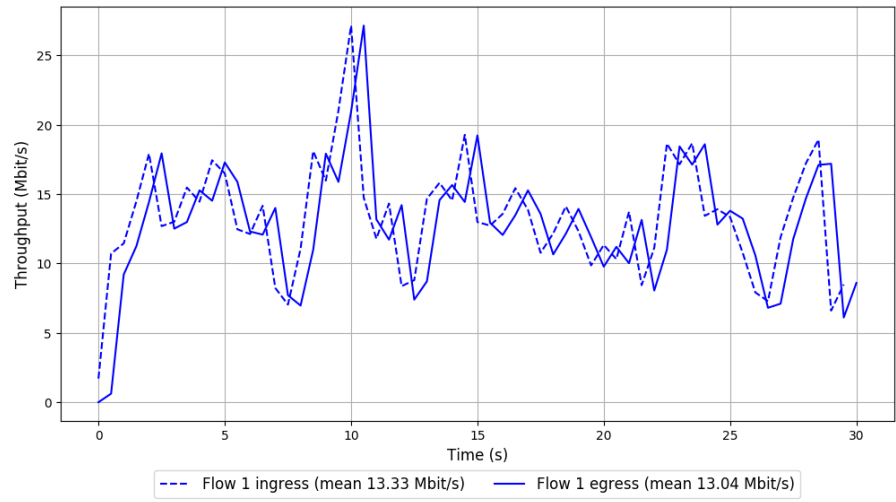
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 13.33 Mbit/s) --- Flow 1 egress (mean 13.04 Mbit/s)
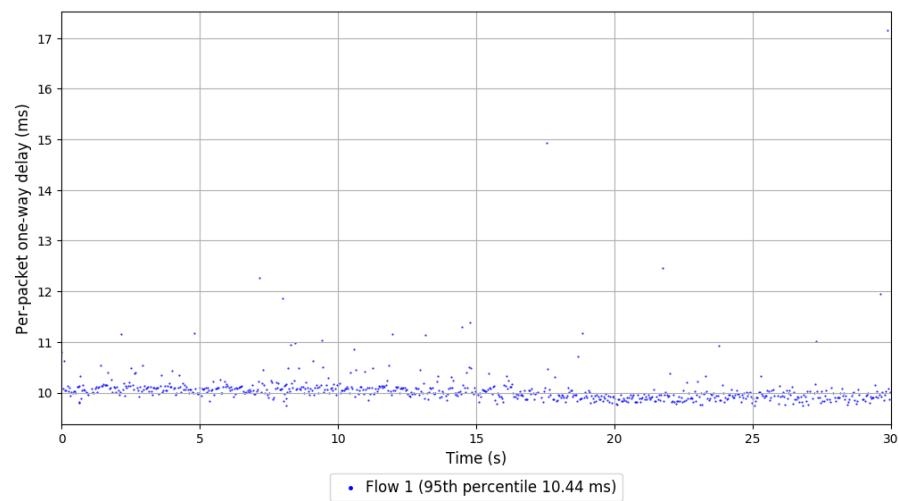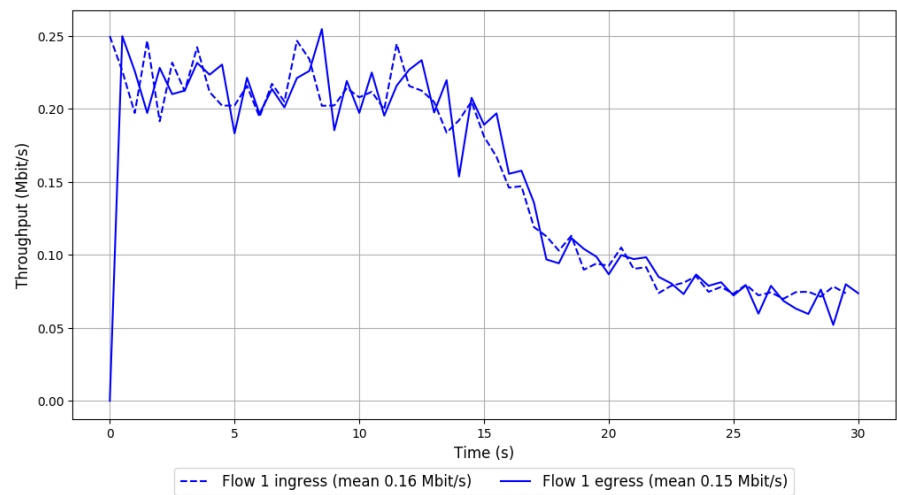

Flow 1 (95th percentile 8.75 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-07-09 20:04:45
End at: 2018-07-09 20:05:15
Local clock offset: 0.734 ms
Remote clock offset: -2.953 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 10.439 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 10.439 ms
Loss rate: 1.24%
```

Run 1: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.16 Mbit/s) --- Flow 1 egress (mean 0.15 Mbit/s)

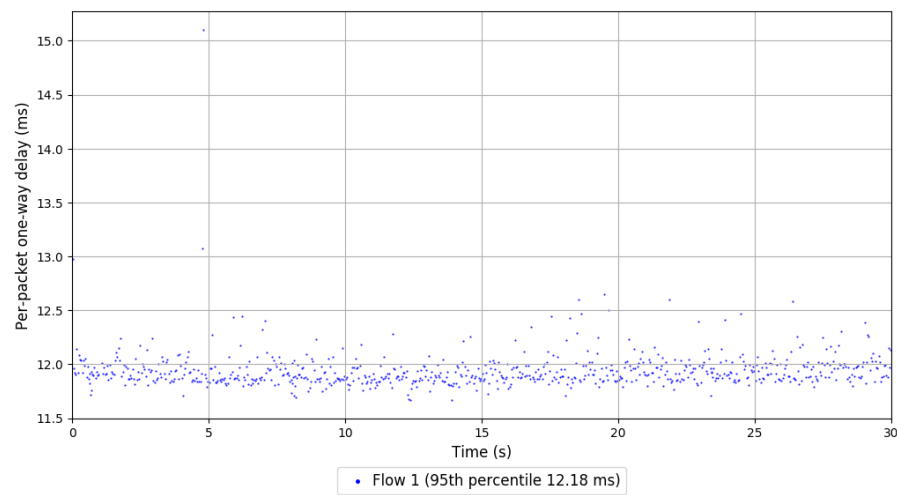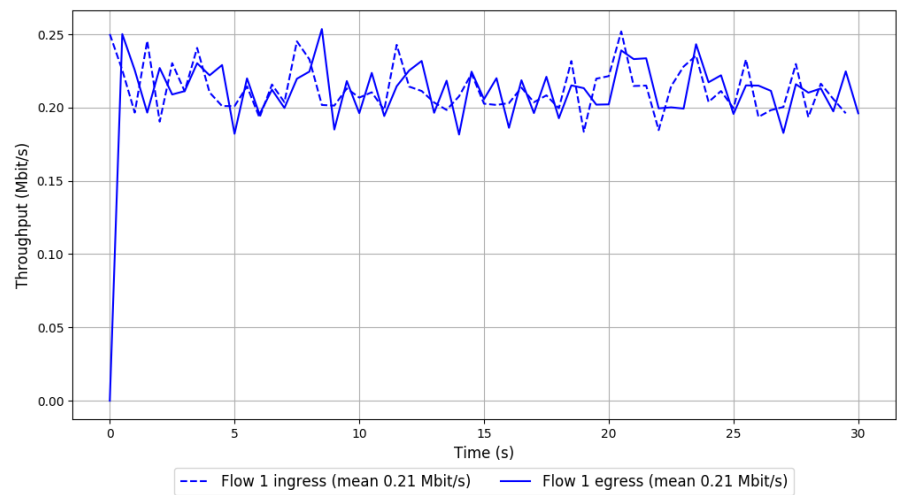Flow 1 (95th percentile 10.44 ms)

```
Run 2: Statistics of SCReAM

Start at: 2018-07-09 20:24:49
End at: 2018-07-09 20:25:19
Local clock offset: -0.548 ms
Remote clock offset: -6.328 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.181 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 12.181 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.21 Mbit/s) --- Flow 1 egress (mean 0.21 Mbit/s)

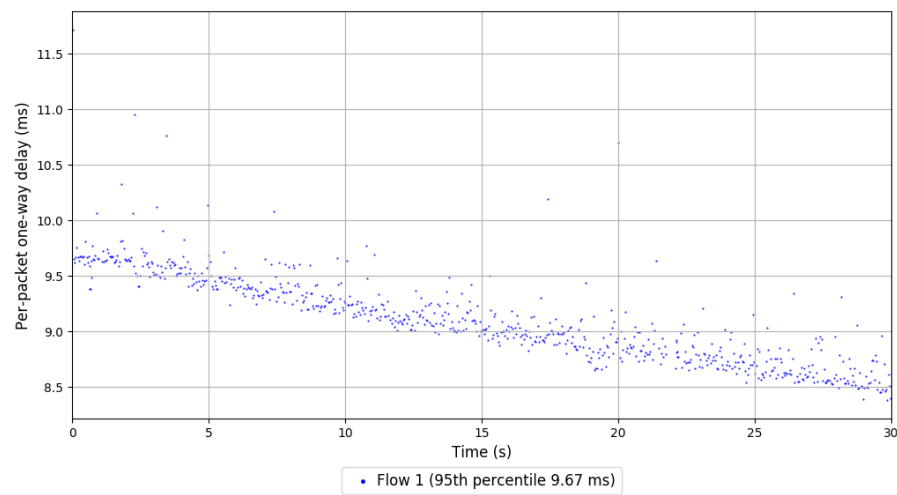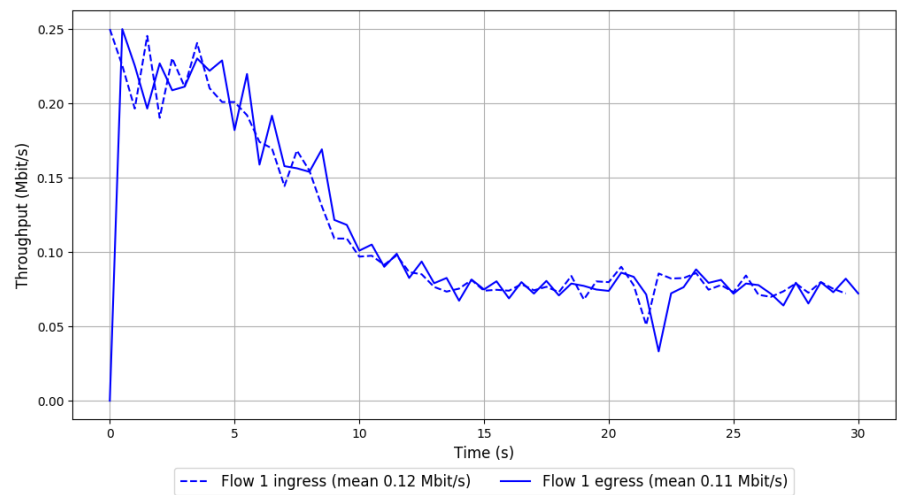Flow 1 (95th percentile 12.18 ms)

```
Run 3: Statistics of SCReAM

Start at: 2018-07-09 20:44:40
End at: 2018-07-09 20:45:10
Local clock offset: 2.378 ms
Remote clock offset: -4.738 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 9.674 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 9.674 ms
Loss rate: 1.16%
```

Run 3: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.12 Mbit/s)   Flow 1 egress (mean 0.11 Mbit/s)

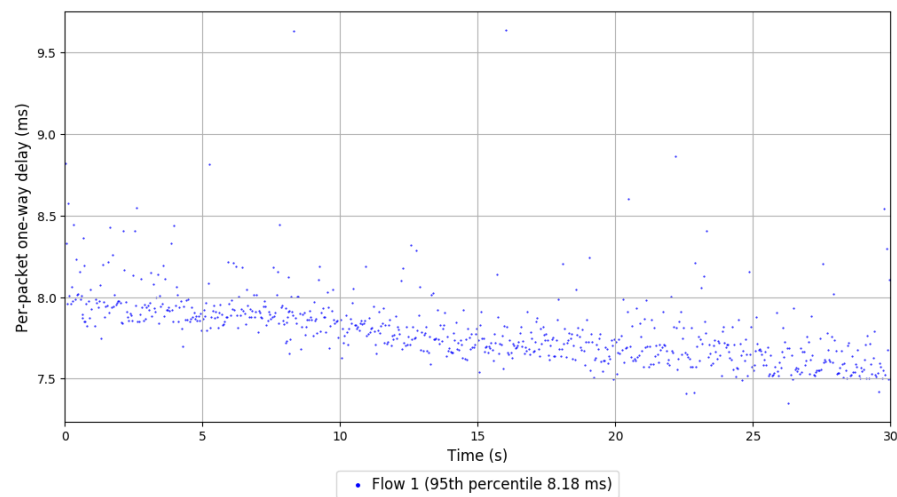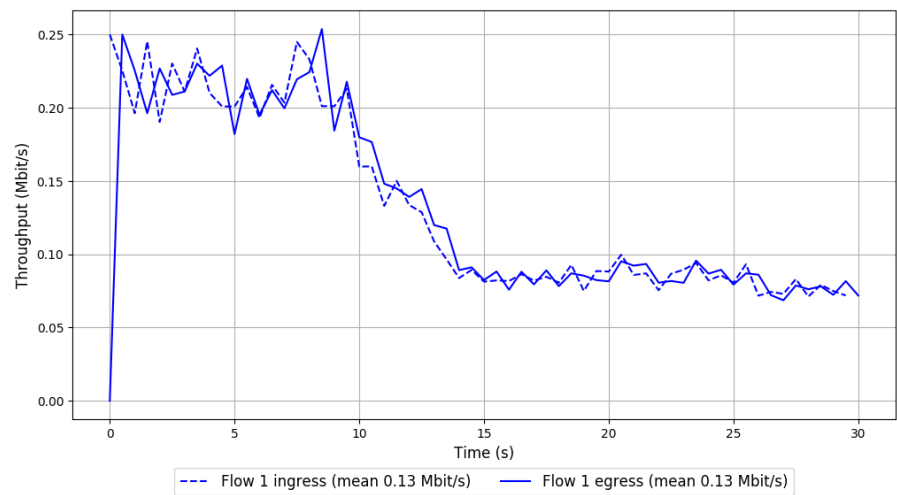Flow 1 (95th percentile 9.67 ms)

```
Run 4: Statistics of SCReAM

Start at: 2018-07-09 21:04:09
End at: 2018-07-09 21:04:39
Local clock offset: 3.582 ms
Remote clock offset: 14.556 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 8.181 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 8.181 ms
Loss rate: 0.28%
```

Run 4: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 8.18 ms)

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```
Run 5: Statistics of SCReAM

Start at: 2018-07-09 21:23:52
End at: 2018-07-09 21:24:22
Local clock offset: 0.818 ms
Remote clock offset: 5.381 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 11.666 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 11.666 ms
Loss rate: 1.01%
```
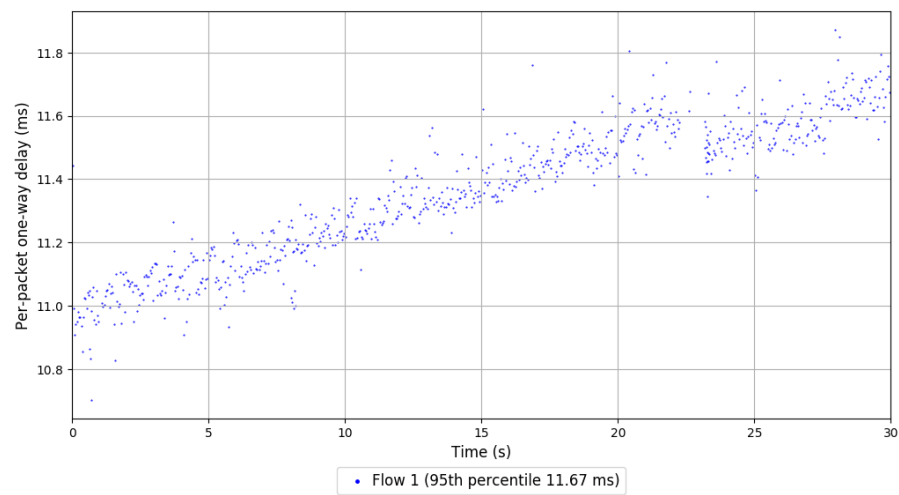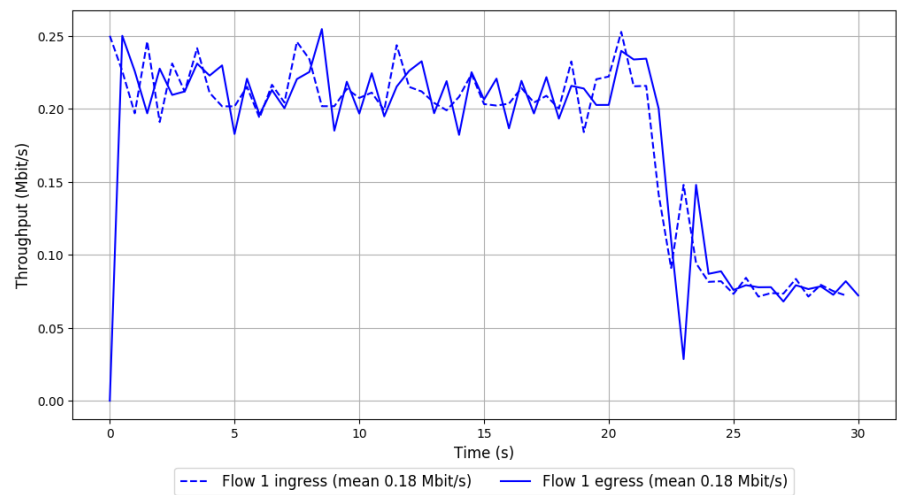
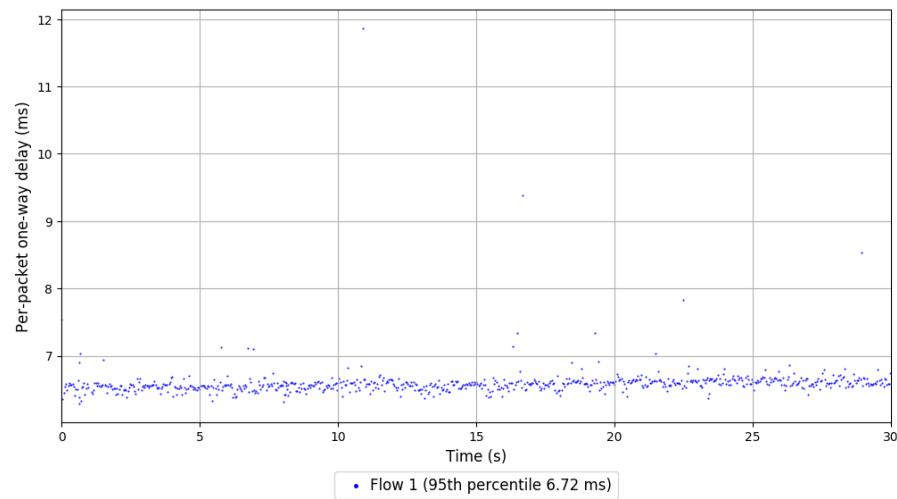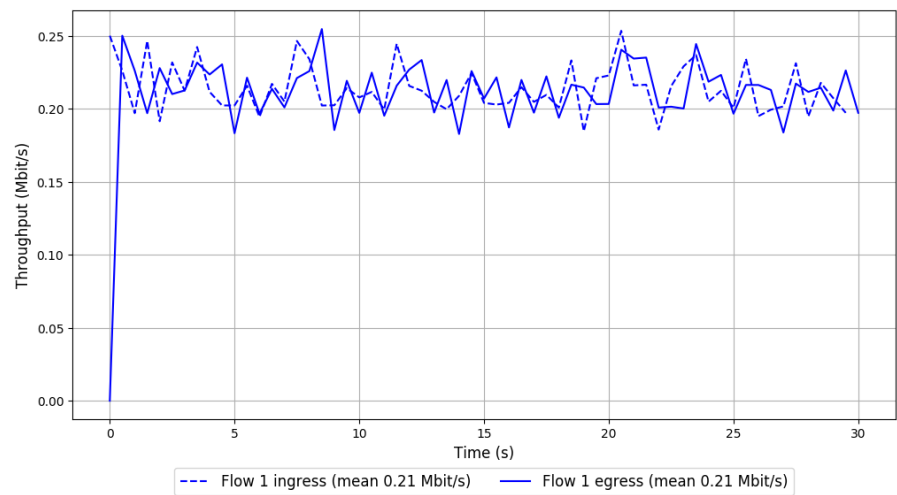## Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-07-09 21:43:10
End at: 2018-07-09 21:43:40
Local clock offset: 3.031 ms
Remote clock offset: -10.415 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.723 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 6.723 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.21 Mbit/s) --- Flow 1 egress (mean 0.21 Mbit/s)

Flow 1 (95th percentile 6.72 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-07-09 22:02:49
End at: 2018-07-09 22:03:19
Local clock offset: -0.645 ms
Remote clock offset: -3.562 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 11.259 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 11.259 ms
Loss rate: 1.15%
```
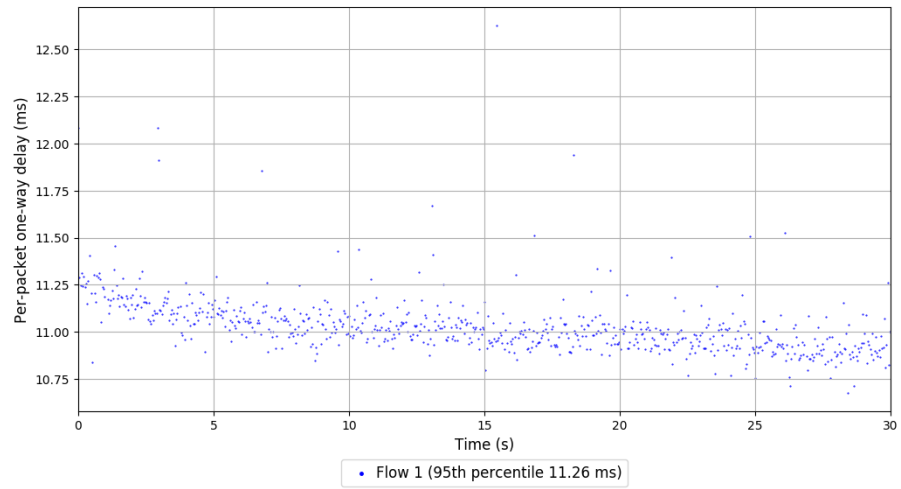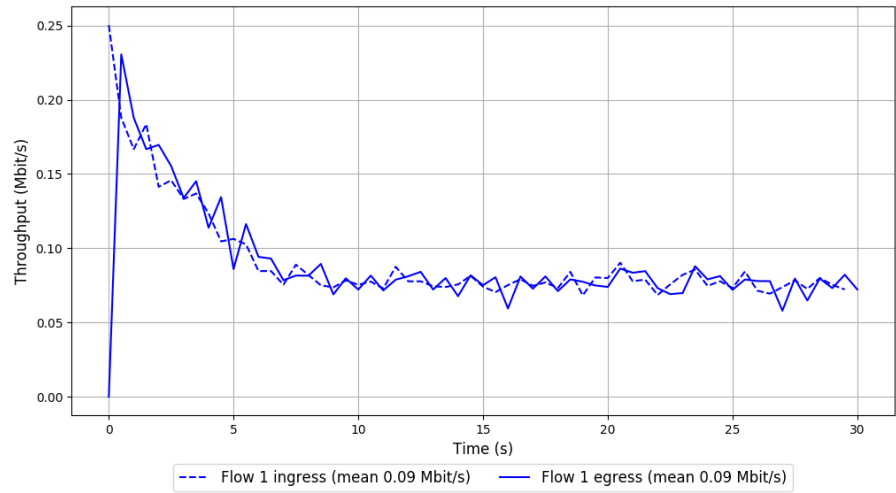
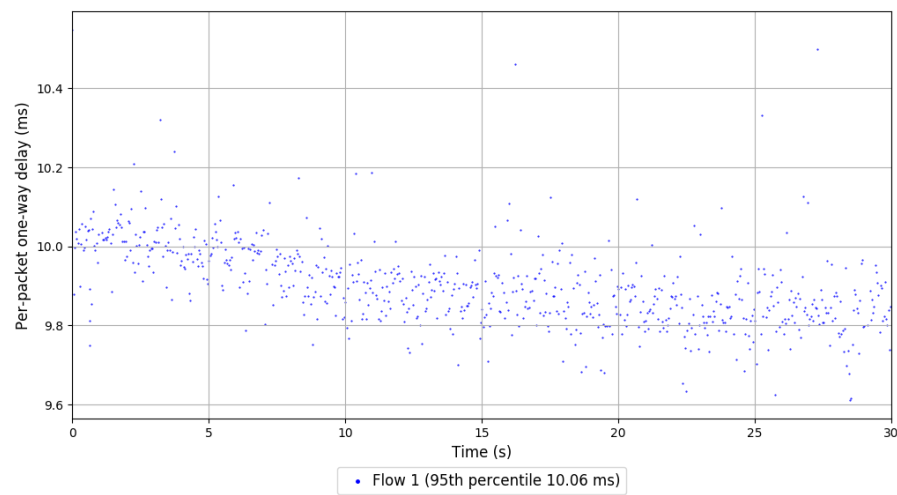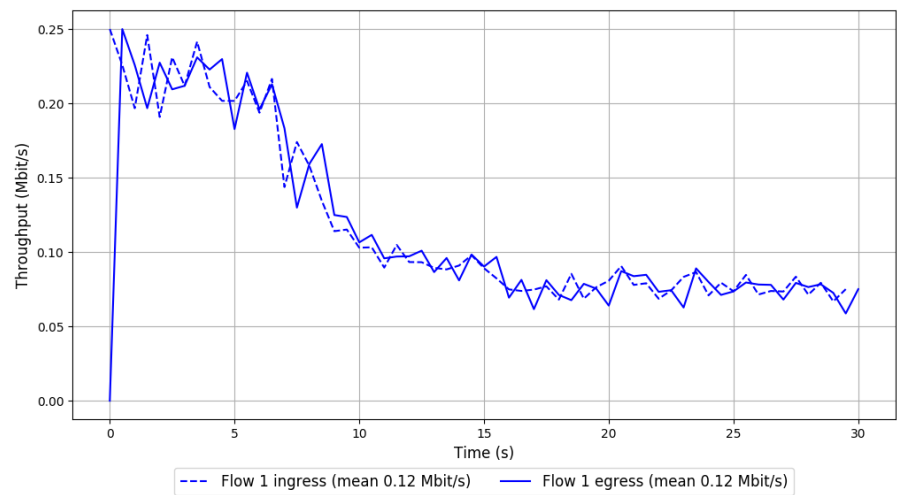## Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-07-09 22:22:17
End at: 2018-07-09 22:22:47
Local clock offset: 0.452 ms
Remote clock offset: -0.511 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 10.058 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 10.058 ms
Loss rate: 1.38%
```

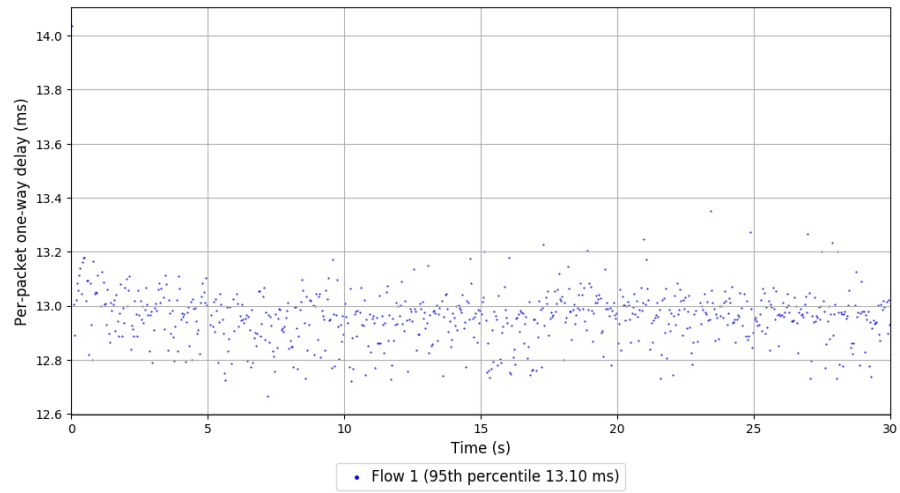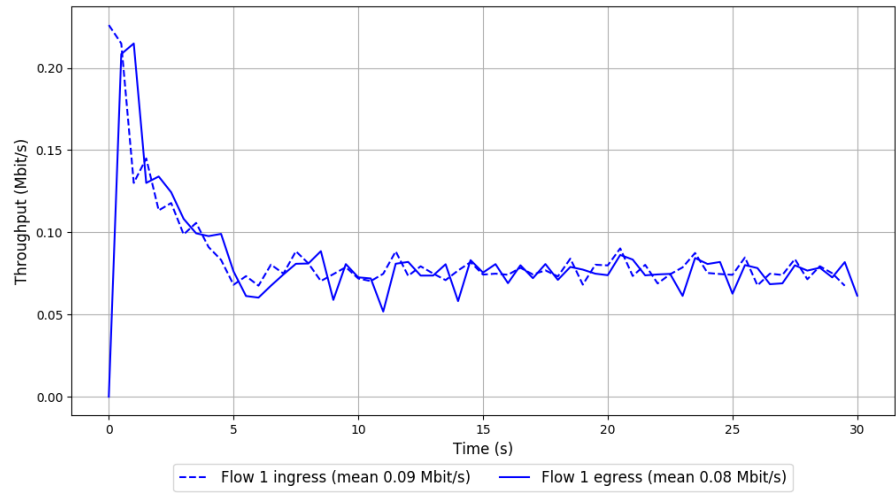# Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-07-09 22:42:00
End at: 2018-07-09 22:42:30
Local clock offset: -1.733 ms
Remote clock offset: -1.031 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 13.096 ms
Loss rate: 2.37%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 13.096 ms
Loss rate: 2.37%
```

Run 9: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.09 Mbit/s)   Flow 1 egress (mean 0.08 Mbit/s)

Flow 1 (95th percentile 13.10 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-07-09 23:01:34
End at: 2018-07-09 23:02:04
Local clock offset: 0.065 ms
Remote clock offset: -3.887 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 8.688 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 8.688 ms
Loss rate: 0.17%
```
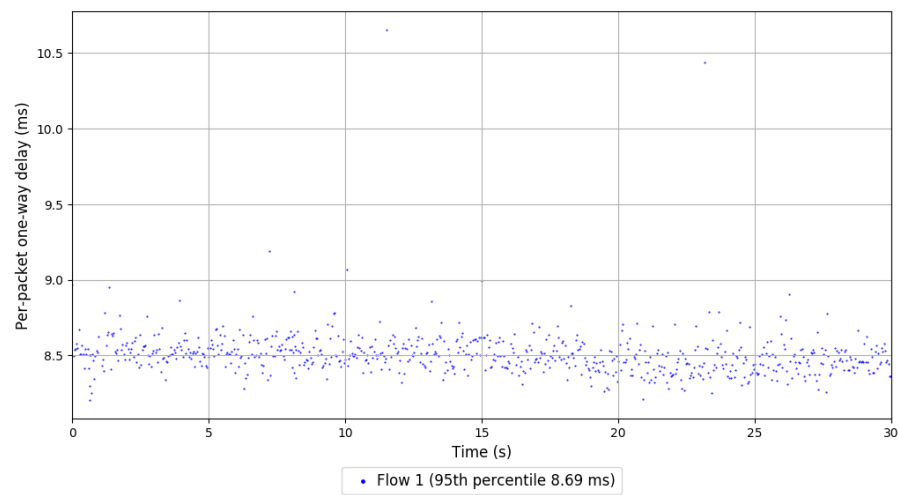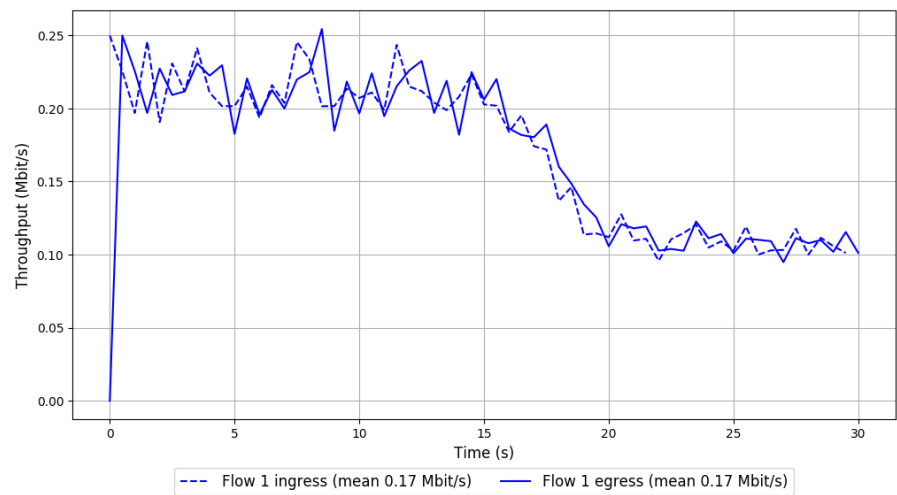
Run 10: Report of SCReAM — Data Link

Flow 1 ingress (mean 0.17 Mbit/s) --- Flow 1 egress (mean 0.17 Mbit/s)

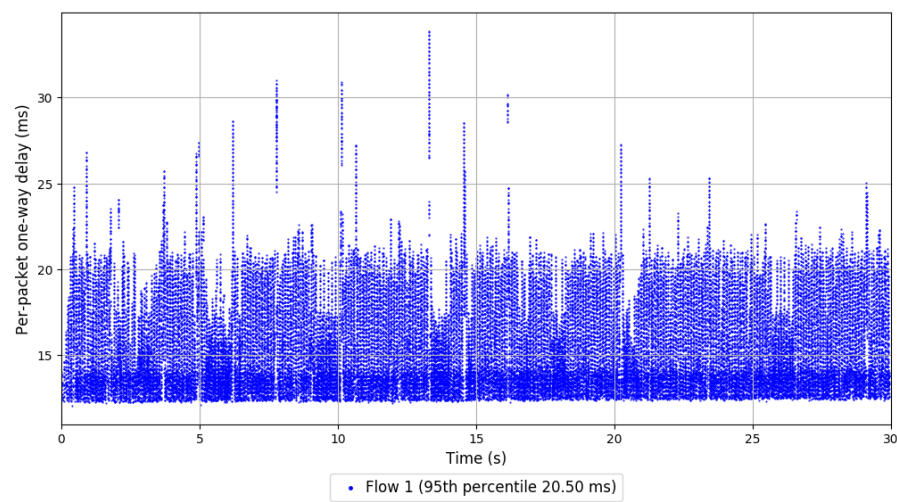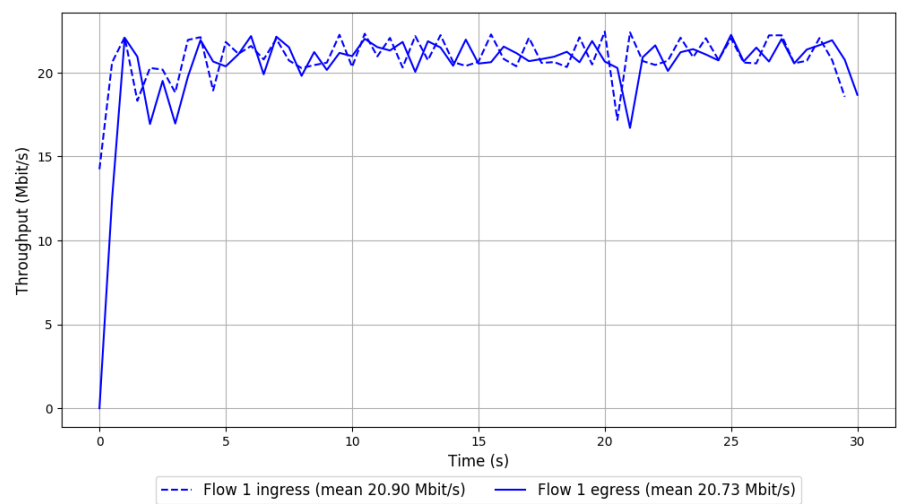• Flow 1 (95th percentile 8.69 ms)

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```
Run 1: Statistics of Sprout

Start at: 2018-07-09 20:10:21
End at: 2018-07-09 20:10:51
Local clock offset: -1.347 ms
Remote clock offset: -2.778 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.73 Mbit/s
95th percentile per-packet one-way delay: 20.498 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 20.73 Mbit/s
95th percentile per-packet one-way delay: 20.498 ms
Loss rate: 0.84%
```

Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 20.90 Mbit/s)   Flow 1 egress (mean 20.73 Mbit/s)

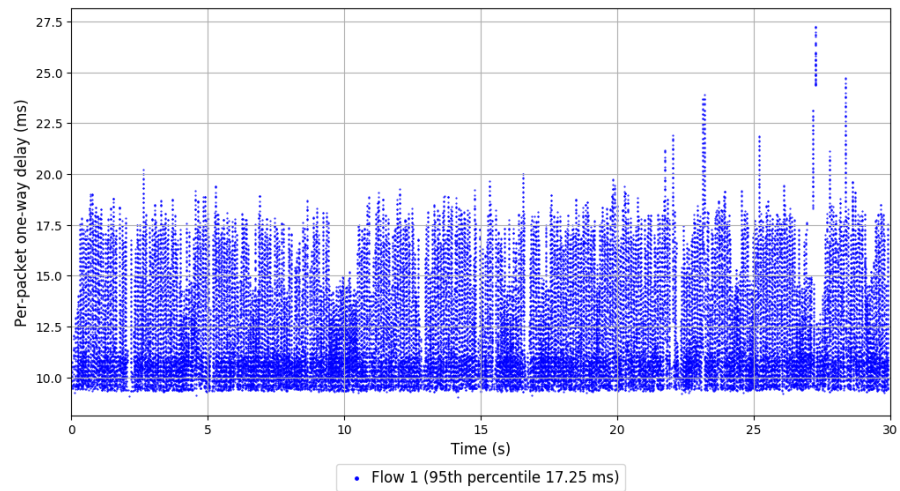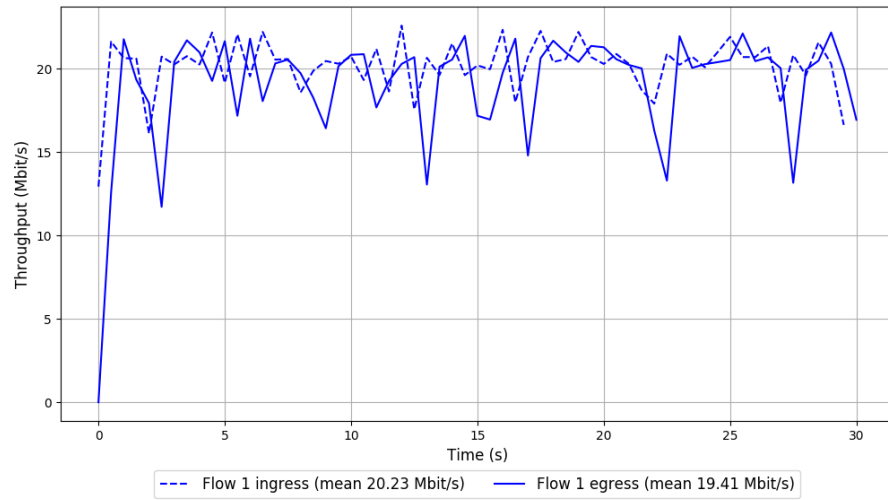• Flow 1 (95th percentile 20.50 ms)

```
Run 2: Statistics of Sprout

Start at: 2018-07-09 20:30:22
End at: 2018-07-09 20:30:52
Local clock offset: 1.299 ms
Remote clock offset: -6.396 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.41 Mbit/s
95th percentile per-packet one-way delay: 17.251 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 19.41 Mbit/s
95th percentile per-packet one-way delay: 17.251 ms
Loss rate: 4.06%
```

Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 20.23 Mbit/s)   ——— Flow 1 egress (mean 19.41 Mbit/s)

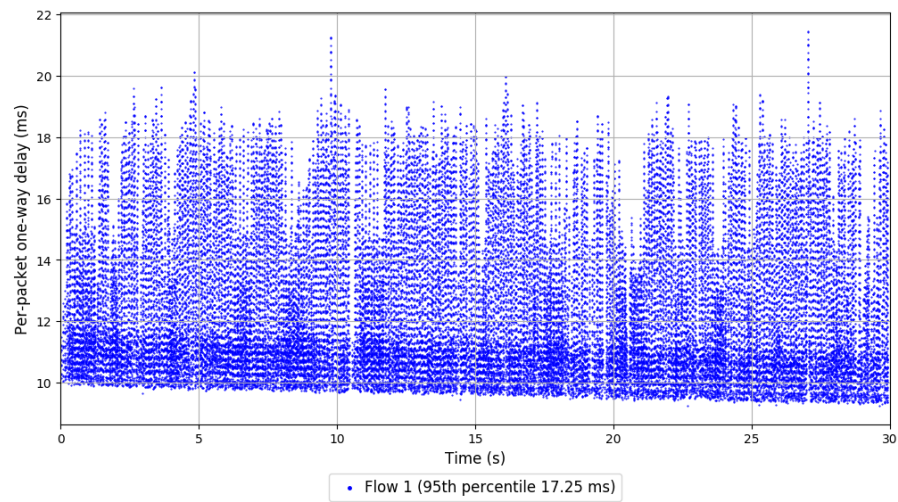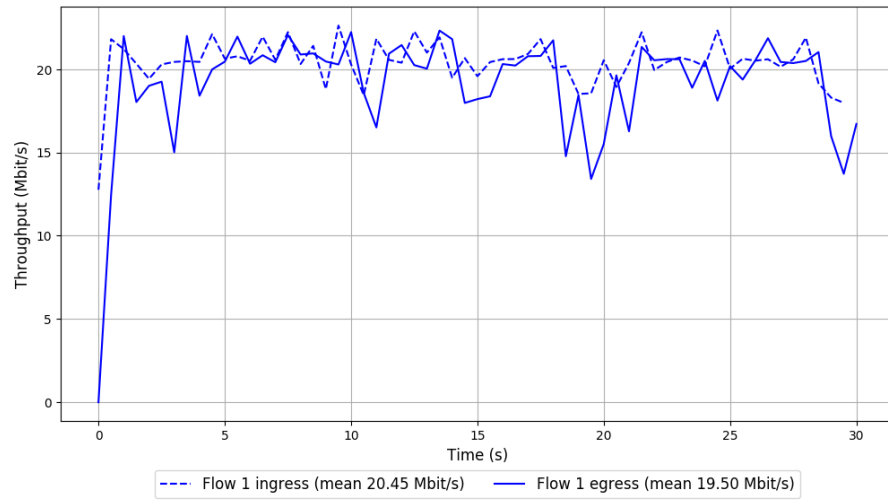• Flow 1 (95th percentile 17.25 ms)

```
Run 3: Statistics of Sprout

Start at: 2018-07-09 20:50:13
End at: 2018-07-09 20:50:43
Local clock offset: 0.484 ms
Remote clock offset: 3.58 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 17.246 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 19.50 Mbit/s
95th percentile per-packet one-way delay: 17.246 ms
Loss rate: 4.63%
```

Run 3: Report of Sprout — Data Link

Flow 1 ingress (mean 20.45 Mbit/s)   Flow 1 egress (mean 19.50 Mbit/s)

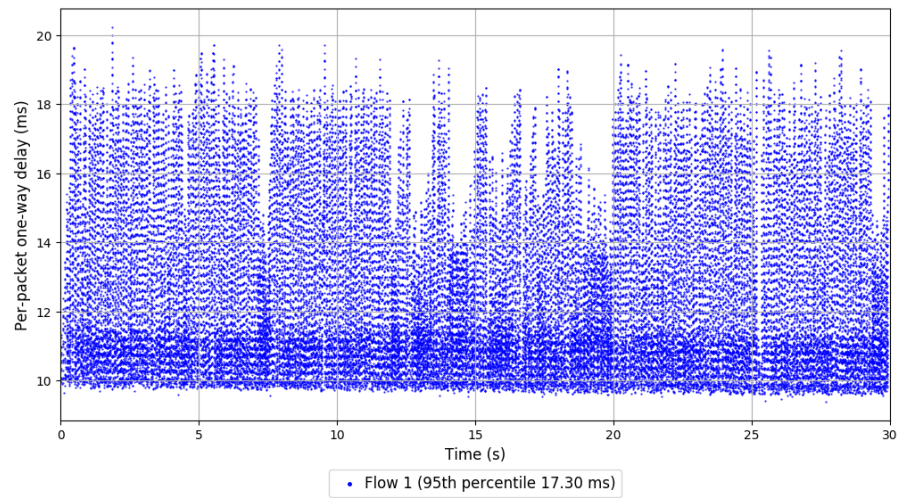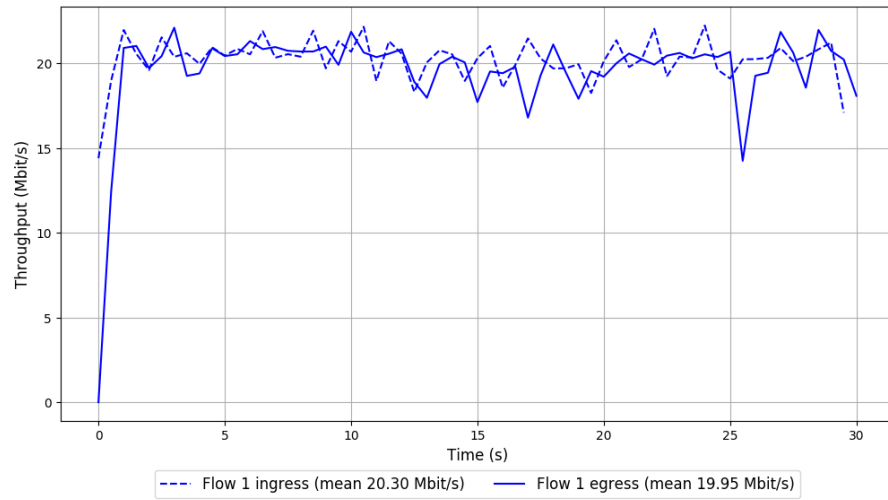• Flow 1 (95th percentile 17.25 ms)

```
Run 4: Statistics of Sprout

Start at: 2018-07-09 21:09:43
End at: 2018-07-09 21:10:13
Local clock offset: 1.038 ms
Remote clock offset: 16.616 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.95 Mbit/s
95th percentile per-packet one-way delay: 17.300 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 19.95 Mbit/s
95th percentile per-packet one-way delay: 17.300 ms
Loss rate: 1.72%
```

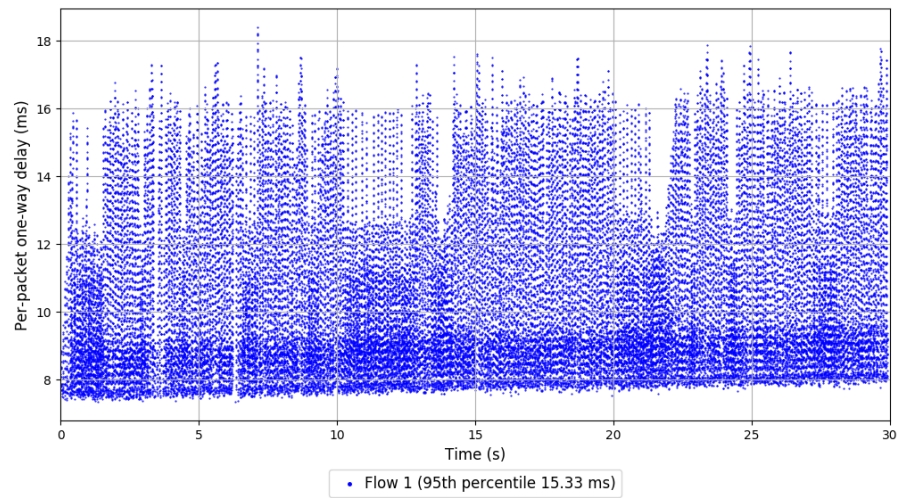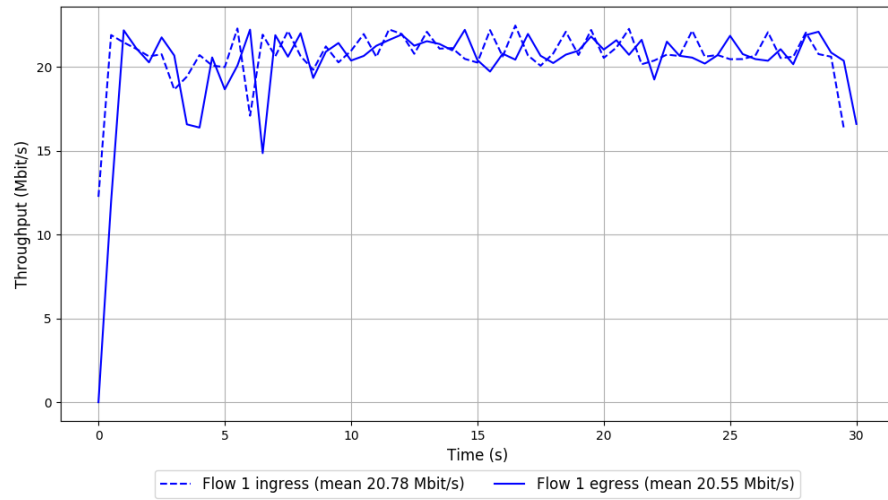## Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-07-09 21:29:25
End at: 2018-07-09 21:29:55
Local clock offset: 3.411 ms
Remote clock offset: -1.855 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 15.331 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 15.331 ms
Loss rate: 1.09%
```

Run 5: Report of Sprout — Data Link

Flow 1 ingress (mean 20.78 Mbit/s)   Flow 1 egress (mean 20.55 Mbit/s)
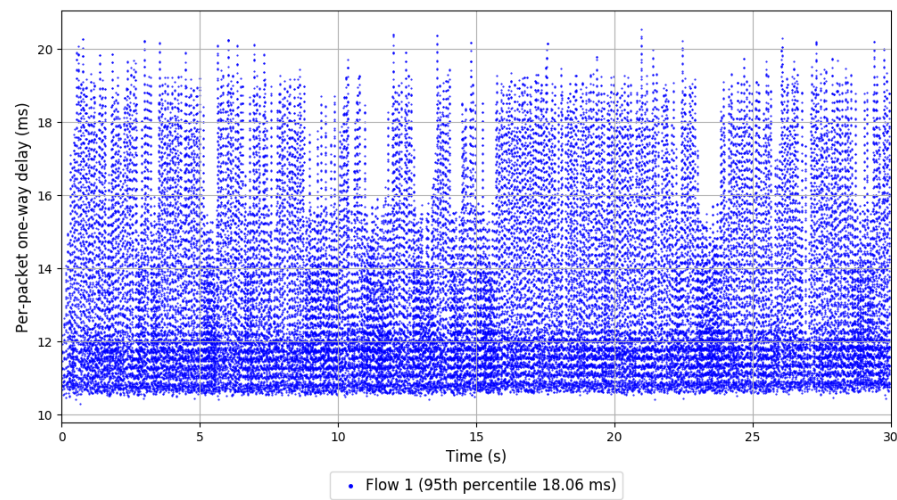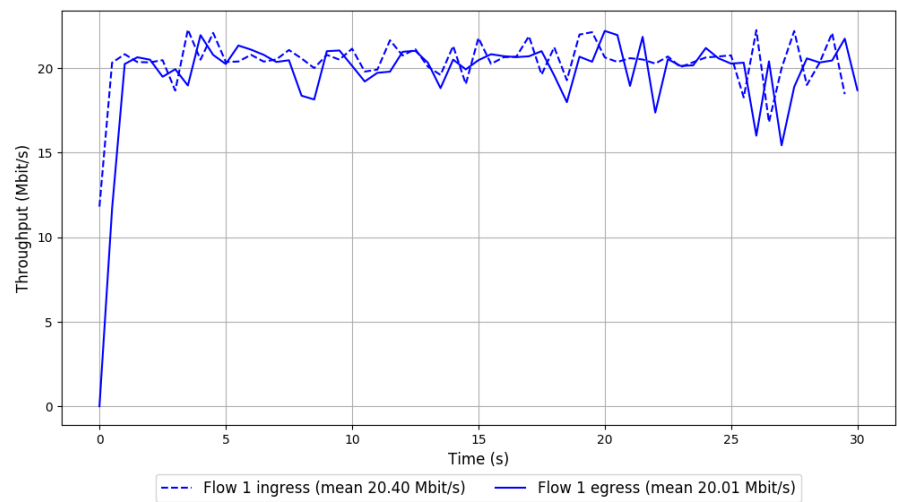

Flow 1 (95th percentile 15.33 ms)

```
Run 6: Statistics of Sprout

Start at: 2018-07-09 21:48:44
End at: 2018-07-09 21:49:14
Local clock offset: -0.122 ms
Remote clock offset: -11.632 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 18.060 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 20.01 Mbit/s
95th percentile per-packet one-way delay: 18.060 ms
Loss rate: 1.91%
```
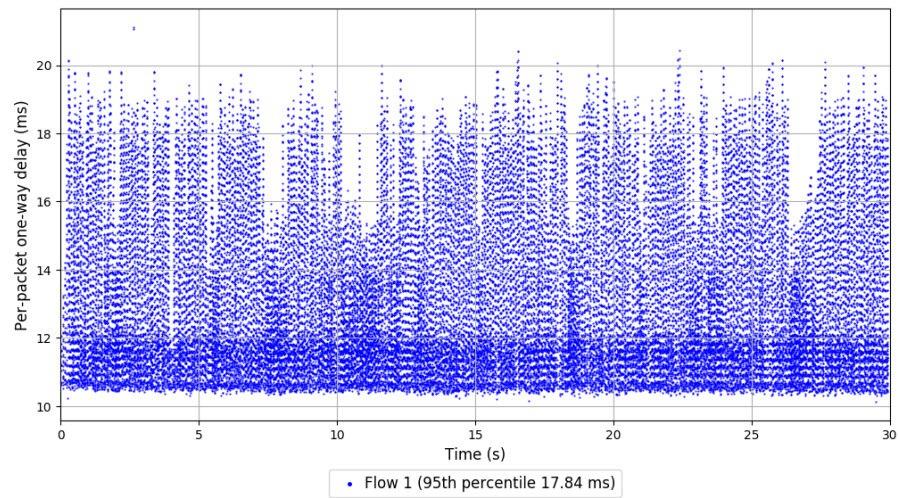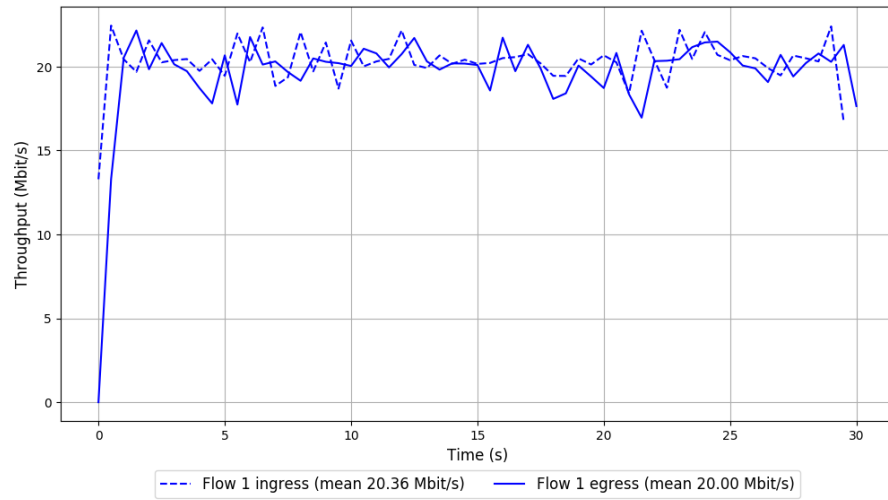
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-07-09 22:08:20
End at: 2018-07-09 22:08:50
Local clock offset: -0.442 ms
Remote clock offset: -3.388 ms

# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 17.841 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 20.00 Mbit/s
95th percentile per-packet one-way delay: 17.841 ms
Loss rate: 1.77%
```

Run 7: Report of Sprout — Data Link

Flow 1 ingress (mean 20.36 Mbit/s)   —— Flow 1 egress (mean 20.00 Mbit/s)

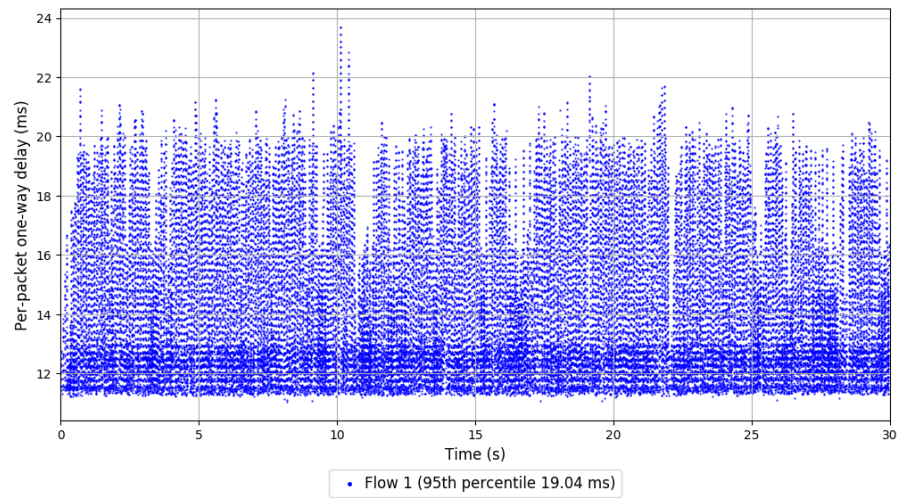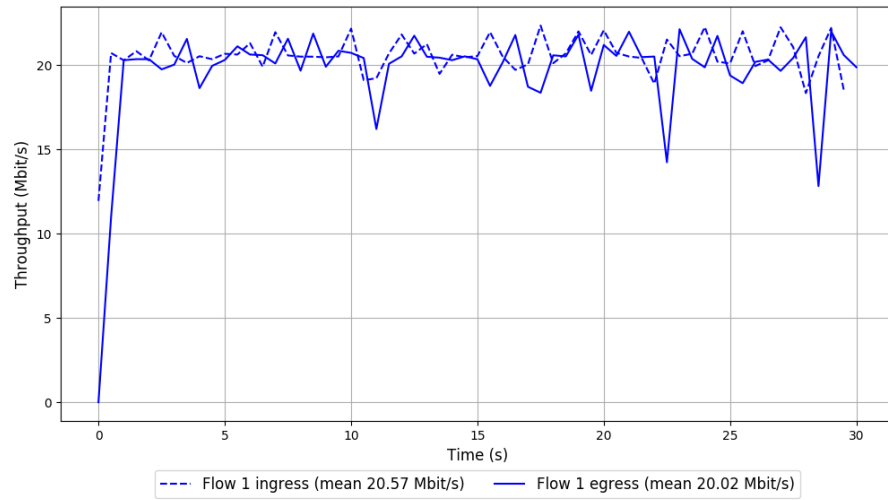• Flow 1 (95th percentile 17.84 ms)

```
Run 8: Statistics of Sprout

Start at: 2018-07-09 22:28:03
End at: 2018-07-09 22:28:33
Local clock offset: -1.846 ms
Remote clock offset: -1.278 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 19.040 ms
Loss rate: 2.70%
-- Flow 1:
Average throughput: 20.02 Mbit/s
95th percentile per-packet one-way delay: 19.040 ms
Loss rate: 2.70%
```

Run 8: Report of Sprout — Data Link

Flow 1 ingress (mean 20.57 Mbit/s)   Flow 1 egress (mean 20.02 Mbit/s)

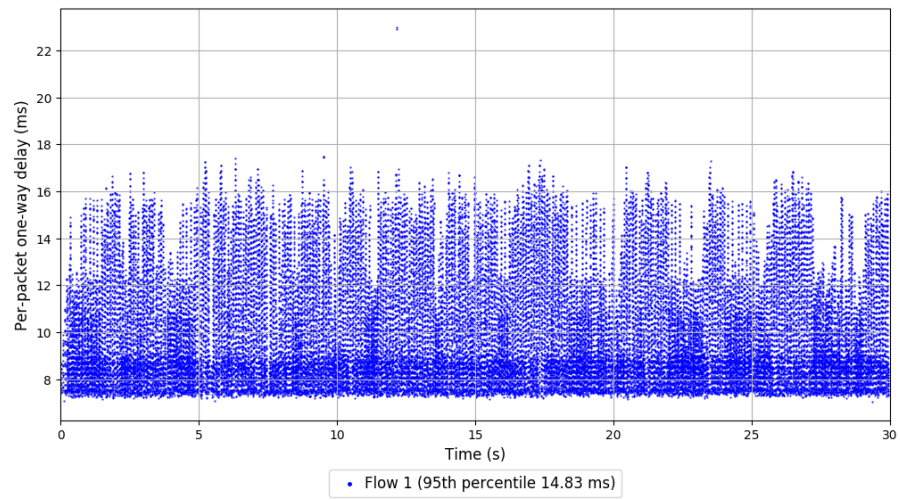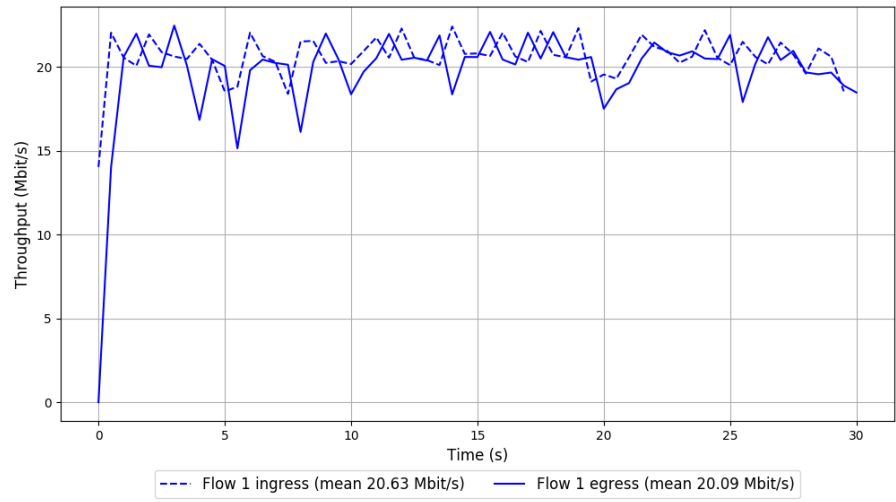Flow 1 (95th percentile 19.04 ms)

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```
Run 9: Statistics of Sprout

Start at: 2018-07-09 22:47:33
End at: 2018-07-09 22:48:03
Local clock offset: 1.891 ms
Remote clock offset: -2.241 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.09 Mbit/s
95th percentile per-packet one-way delay: 14.827 ms
Loss rate: 2.60%
-- Flow 1:
Average throughput: 20.09 Mbit/s
95th percentile per-packet one-way delay: 14.827 ms
Loss rate: 2.60%
```

Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 20.63 Mbit/s)   Flow 1 egress (mean 20.09 Mbit/s)

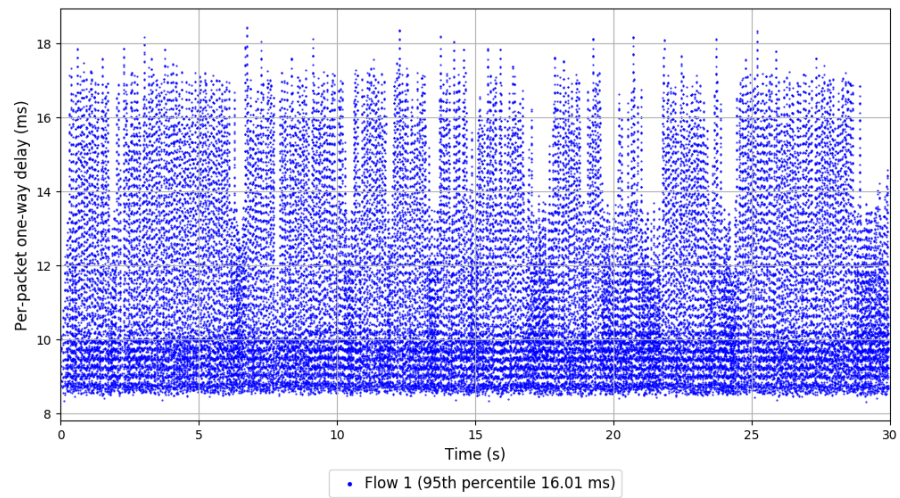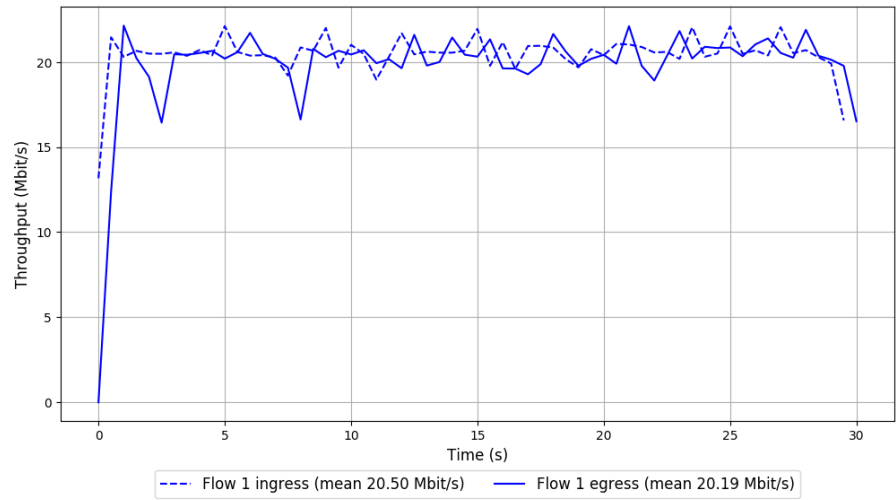

Flow 1 (95th percentile 14.83 ms)

```
Run 10: Statistics of Sprout

Start at: 2018-07-09 23:07:05
End at: 2018-07-09 23:07:35
Local clock offset: 1.091 ms
Remote clock offset: -2.839 ms


# Below is generated by plot.py at 2018-07-09 23:28:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.19 Mbit/s
95th percentile per-packet one-way delay: 16.006 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 20.19 Mbit/s
95th percentile per-packet one-way delay: 16.006 ms
Loss rate: 1.54%
```

Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 20.50 Mbit/s)   Flow 1 egress (mean 20.19 Mbit/s)

• Flow 1 (95th percentile 16.01 ms)

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

Start at: 2018-07-09 20:00:44
End at: 2018-07-09 20:01:14
Local clock offset: 0.572 ms
Remote clock offset: -2.414 ms


# Below is generated by plot.py at 2018-07-09 23:30:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.85 Mbit/s
95th percentile per-packet one-way delay: 13.540 ms
Loss rate: 11.81%
-- Flow 1:
Average throughput: 79.85 Mbit/s
95th percentile per-packet one-way delay: 13.540 ms
Loss rate: 11.81%
```
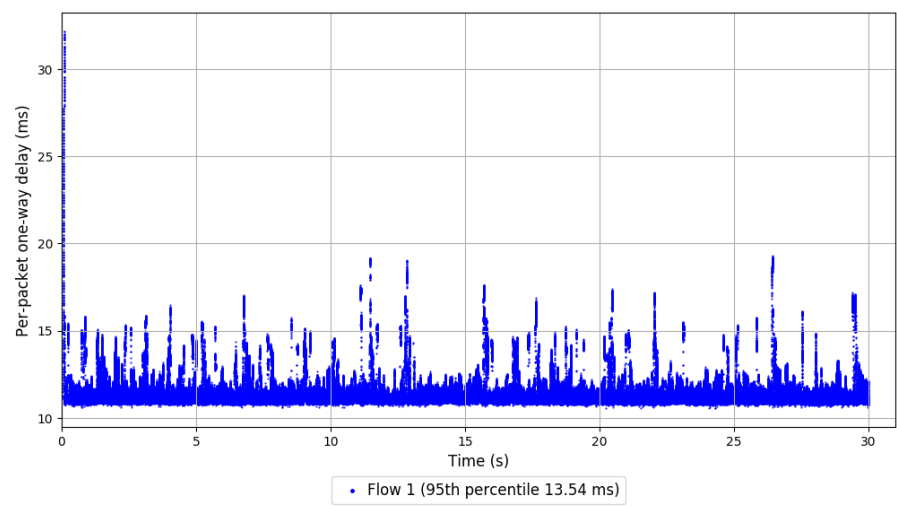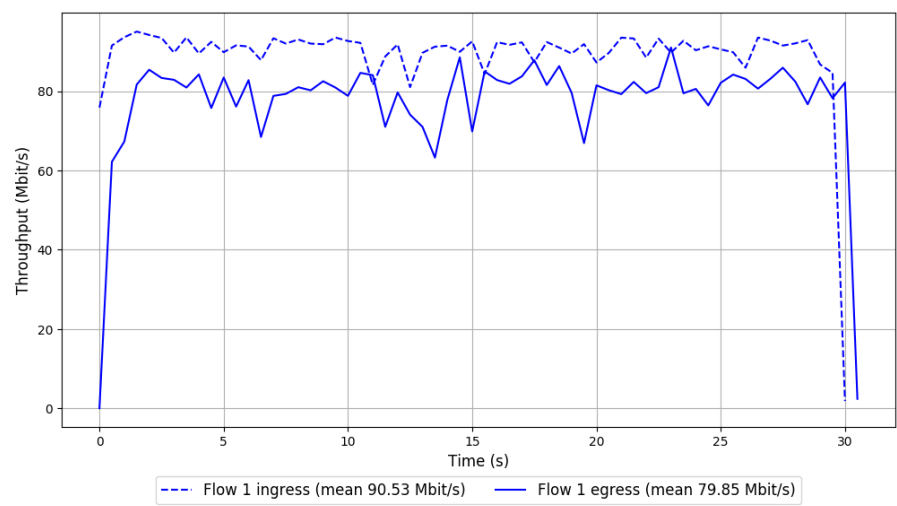
Run 1: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 90.53 Mbit/s) ----- Flow 1 egress (mean 79.85 Mbit/s)

• Flow 1 (95th percentile 13.54 ms)

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

Start at: 2018-07-09 20:21:07
End at: 2018-07-09 20:21:37
Local clock offset: 1.82 ms
Remote clock offset: -6.446 ms


# Below is generated by plot.py at 2018-07-09 23:30:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.87 Mbit/s
95th percentile per-packet one-way delay: 9.686 ms
Loss rate: 10.13%
-- Flow 1:
Average throughput: 81.87 Mbit/s
95th percentile per-packet one-way delay: 9.686 ms
Loss rate: 10.13%
```
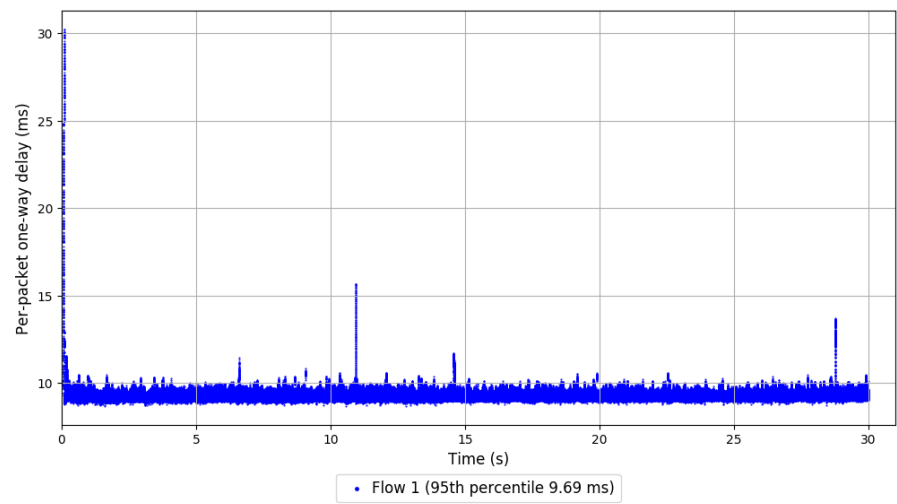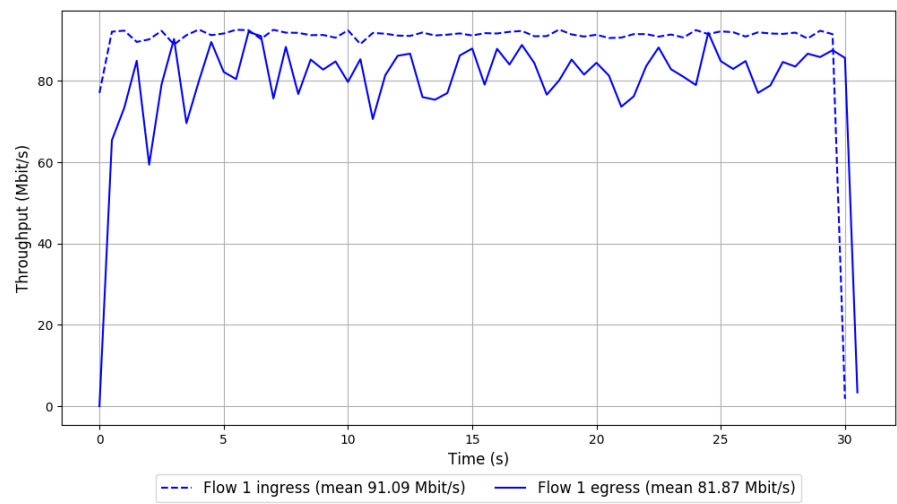
Run 2: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-09 20:40:52
End at: 2018-07-09 20:41:22
Local clock offset: 0.883 ms
Remote clock offset: -6.774 ms


# Below is generated by plot.py at 2018-07-09 23:30:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.05 Mbit/s
95th percentile per-packet one-way delay: 11.553 ms
Loss rate: 11.66%
-- Flow 1:
Average throughput: 79.05 Mbit/s
95th percentile per-packet one-way delay: 11.553 ms
Loss rate: 11.66%
```
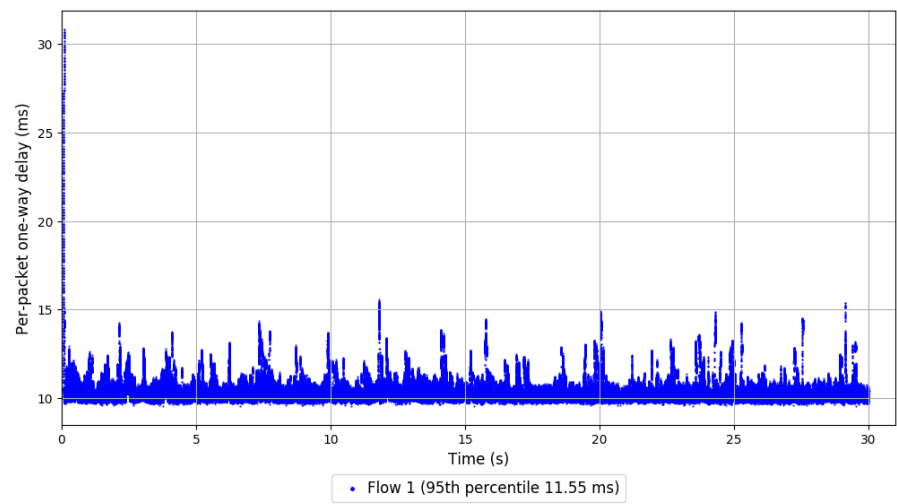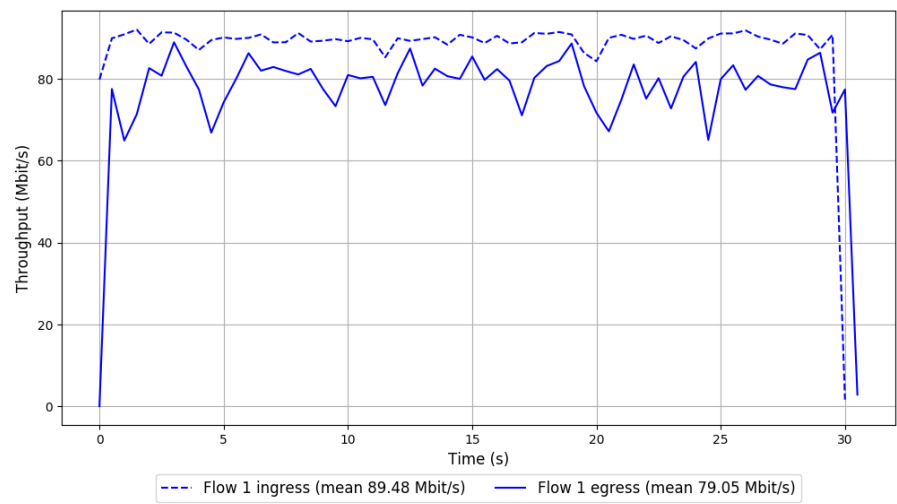
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-07-09 21:00:34
End at: 2018-07-09 21:01:04
Local clock offset: 3.275 ms
Remote clock offset: 11.973 ms


# Below is generated by plot.py at 2018-07-09 23:30:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.98 Mbit/s
95th percentile per-packet one-way delay: 8.328 ms
Loss rate: 10.90%
-- Flow 1:
Average throughput: 80.98 Mbit/s
95th percentile per-packet one-way delay: 8.328 ms
Loss rate: 10.90%
```
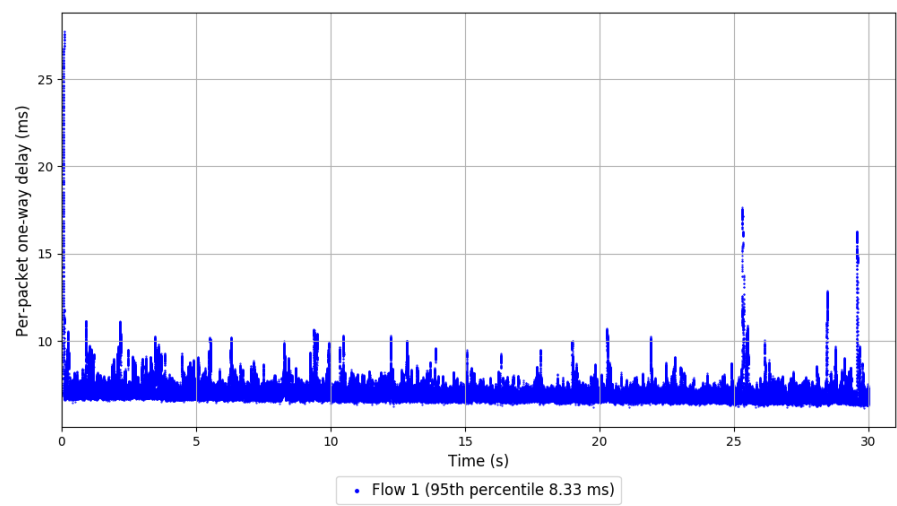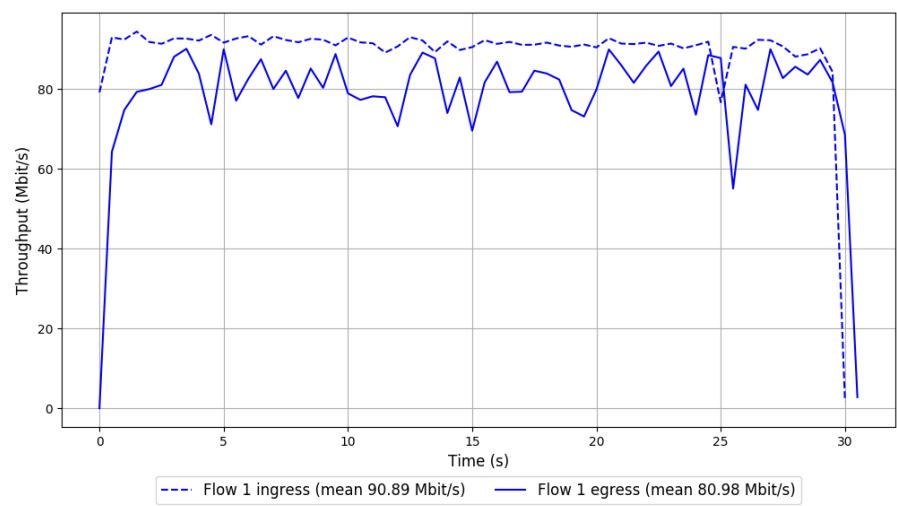
Run 4: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 90.89 Mbit/s) --- Flow 1 egress (mean 80.98 Mbit/s)

Flow 1 (95th percentile 8.33 ms)

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

Start at: 2018-07-09 21:20:09
End at: 2018-07-09 21:20:39
Local clock offset: 0.65 ms
Remote clock offset: 13.561 ms

# Below is generated by plot.py at 2018-07-09 23:30:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 12.307 ms
Loss rate: 12.02%
-- Flow 1:
Average throughput: 80.60 Mbit/s
95th percentile per-packet one-way delay: 12.307 ms
Loss rate: 12.02%
```
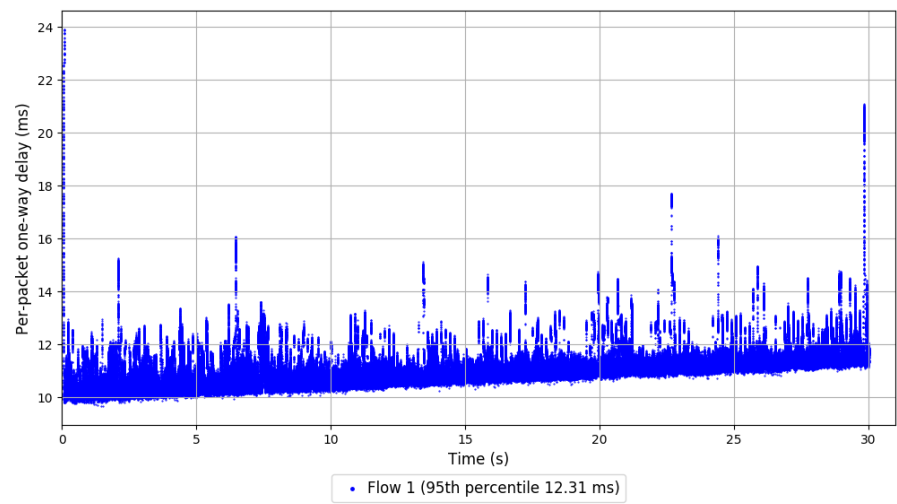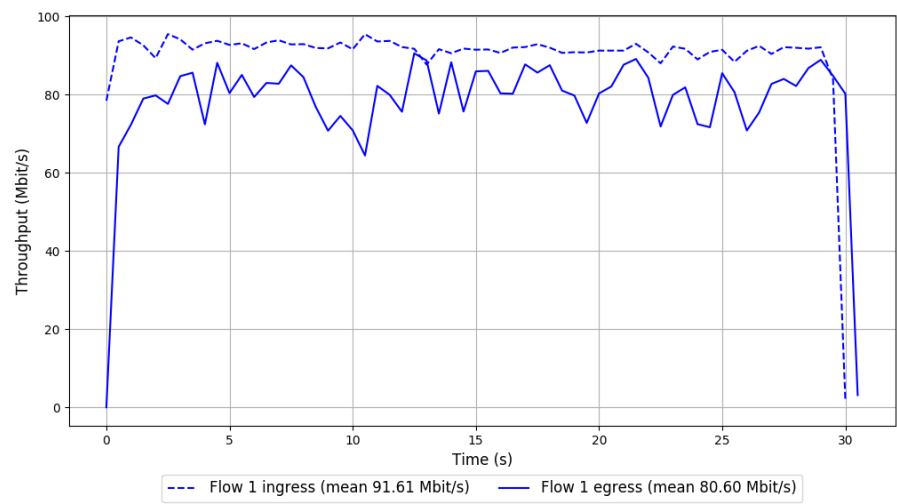
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.61 Mbit/s) --- Flow 1 egress (mean 80.60 Mbit/s)

• Flow 1 (95th percentile 12.31 ms)

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

Start at: 2018-07-09 21:39:34
End at: 2018-07-09 21:40:04
Local clock offset: 0.194 ms
Remote clock offset: -9.044 ms


# Below is generated by plot.py at 2018-07-09 23:30:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.62 Mbit/s
95th percentile per-packet one-way delay: 12.444 ms
Loss rate: 9.96%
-- Flow 1:
Average throughput: 84.62 Mbit/s
95th percentile per-packet one-way delay: 12.444 ms
Loss rate: 9.96%
```
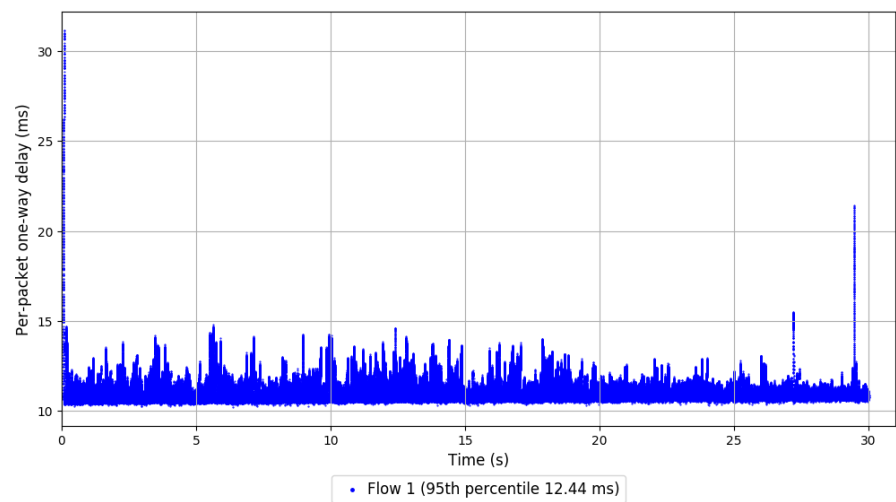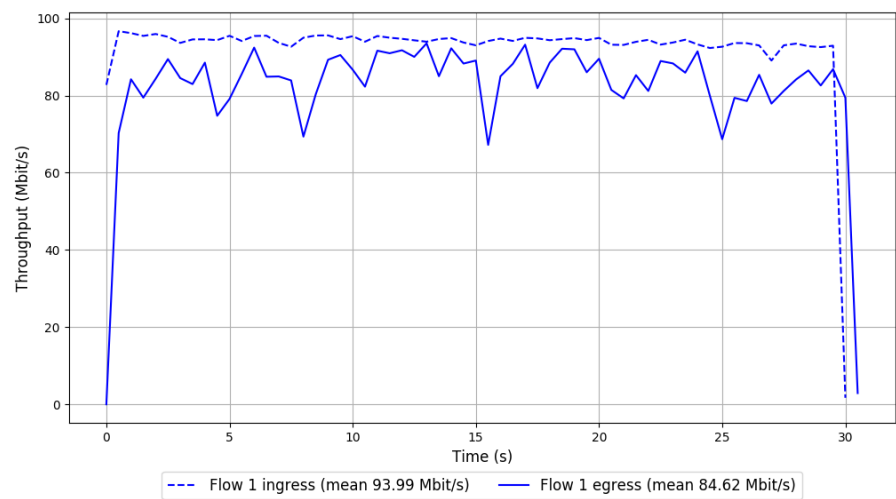
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 93.99 Mbit/s)   Flow 1 egress (mean 84.62 Mbit/s)

• Flow 1 (95th percentile 12.44 ms)

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

Start at: 2018-07-09 21:59:02
End at: 2018-07-09 21:59:32
Local clock offset: 0.947 ms
Remote clock offset: -6.724 ms


# Below is generated by plot.py at 2018-07-09 23:30:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.79 Mbit/s
95th percentile per-packet one-way delay: 9.085 ms
Loss rate: 9.70%
-- Flow 1:
Average throughput: 83.79 Mbit/s
95th percentile per-packet one-way delay: 9.085 ms
Loss rate: 9.70%
```
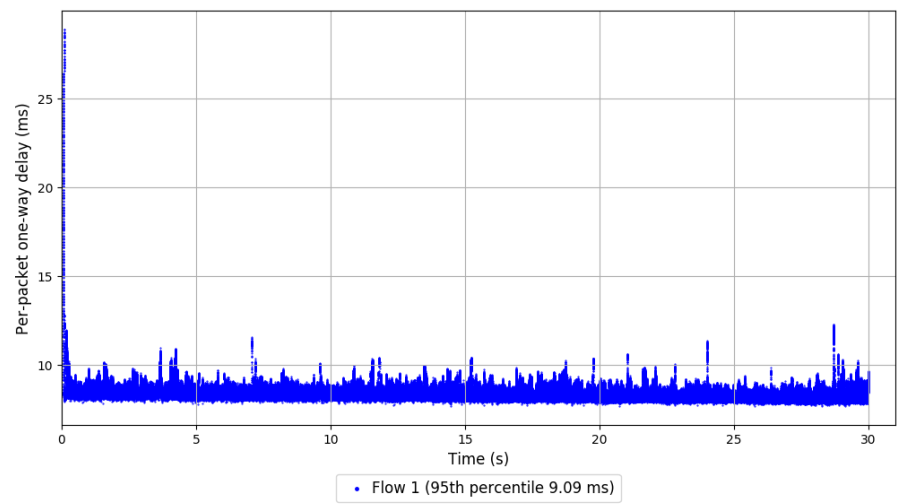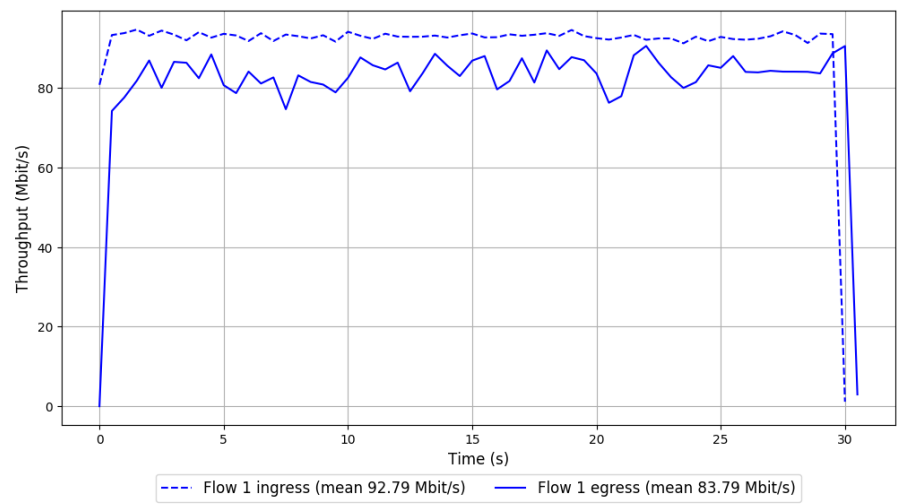
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 92.79 Mbit/s)   Flow 1 egress (mean 83.79 Mbit/s)

Flow 1 (95th percentile 9.09 ms)

257

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

Start at: 2018-07-09 22:18:39
End at: 2018-07-09 22:19:09
Local clock offset: 2.185 ms
Remote clock offset: -1.829 ms


# Below is generated by plot.py at 2018-07-09 23:31:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 83.28 Mbit/s
95th percentile per-packet one-way delay: 8.051 ms
Loss rate: 8.56%
-- Flow 1:
Average throughput: 83.28 Mbit/s
95th percentile per-packet one-way delay: 8.051 ms
Loss rate: 8.56%
```
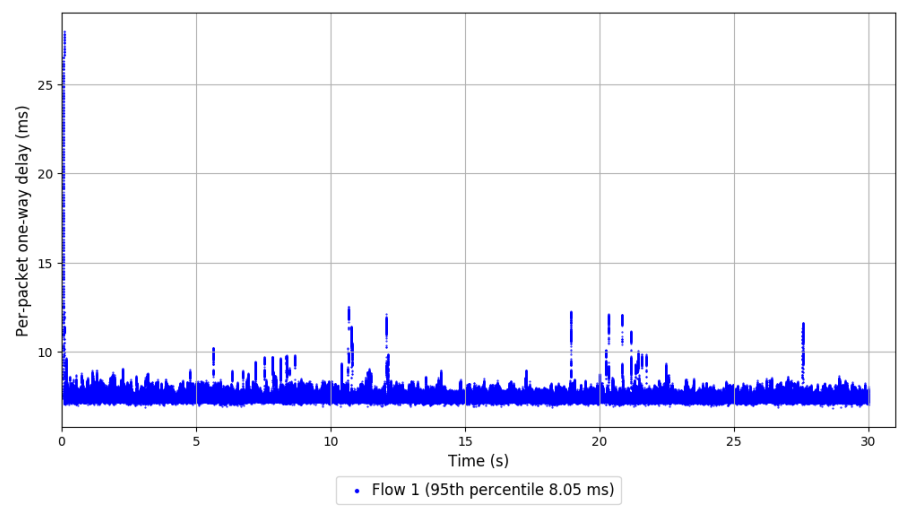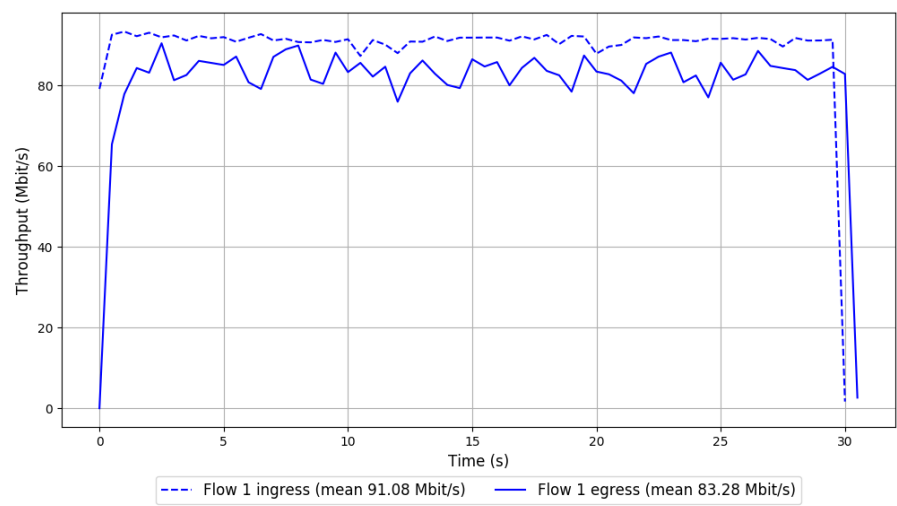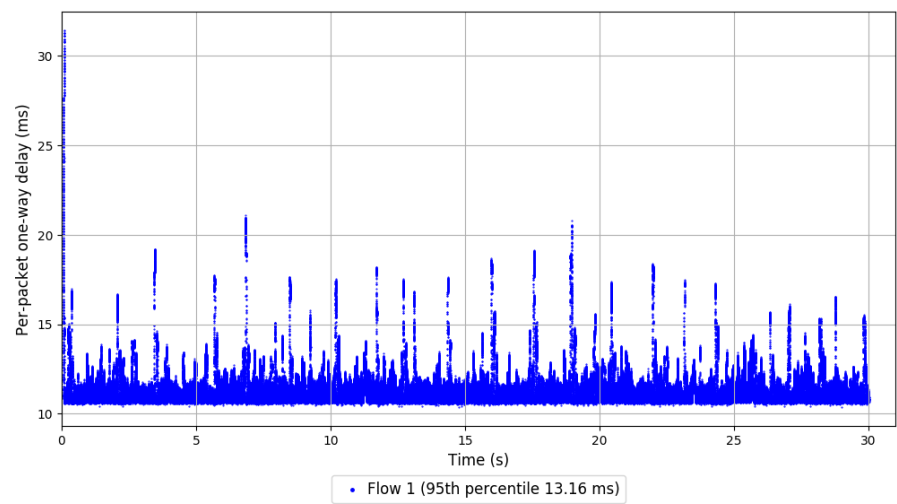
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.08 Mbit/s) ----- Flow 1 egress (mean 83.28 Mbit/s) ———

· Flow 1 (95th percentile 8.05 ms)

259

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

Start at: 2018-07-09 22:38:19
End at: 2018-07-09 22:38:49
Local clock offset: -1.227 ms
Remote clock offset: -1.9 ms


# Below is generated by plot.py at 2018-07-09 23:32:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.62 Mbit/s
95th percentile per-packet one-way delay: 13.156 ms
Loss rate: 12.19%
-- Flow 1:
Average throughput: 80.62 Mbit/s
95th percentile per-packet one-way delay: 13.156 ms
Loss rate: 12.19%
```
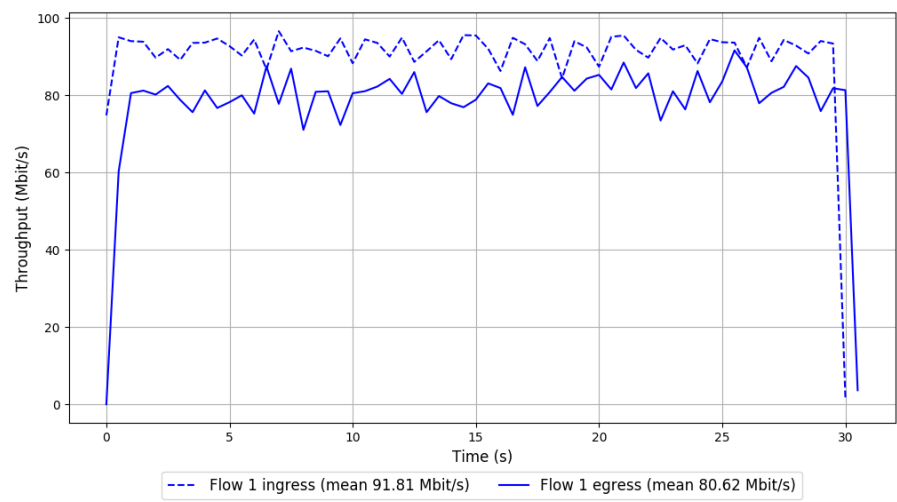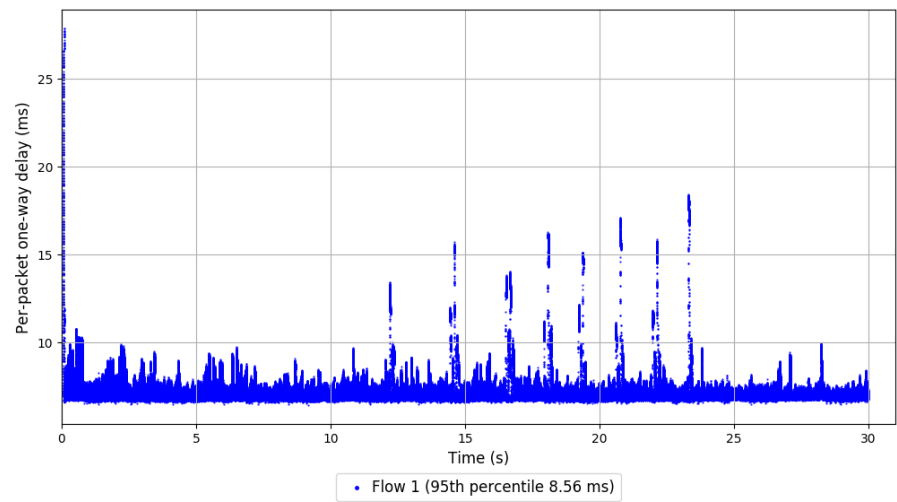
Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.81 Mbit/s)   Flow 1 egress (mean 80.62 Mbit/s)

Flow 1 (95th percentile 13.16 ms)

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

Start at: 2018-07-09 22:57:51
End at: 2018-07-09 22:58:21
Local clock offset: 1.866 ms
Remote clock offset: -2.904 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 8.561 ms
Loss rate: 7.17%
-- Flow 1:
Average throughput: 85.03 Mbit/s
95th percentile per-packet one-way delay: 8.561 ms
Loss rate: 7.17%
```
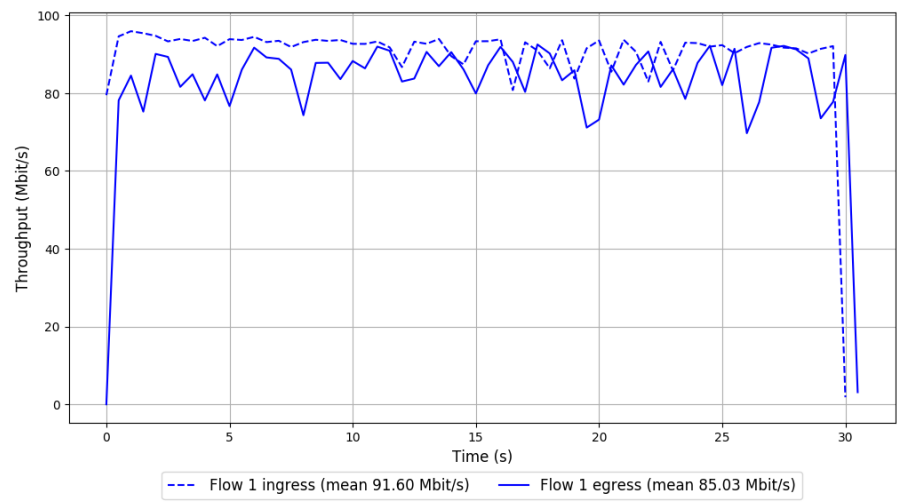
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 91.60 Mbit/s) --- Flow 1 egress (mean 85.03 Mbit/s)
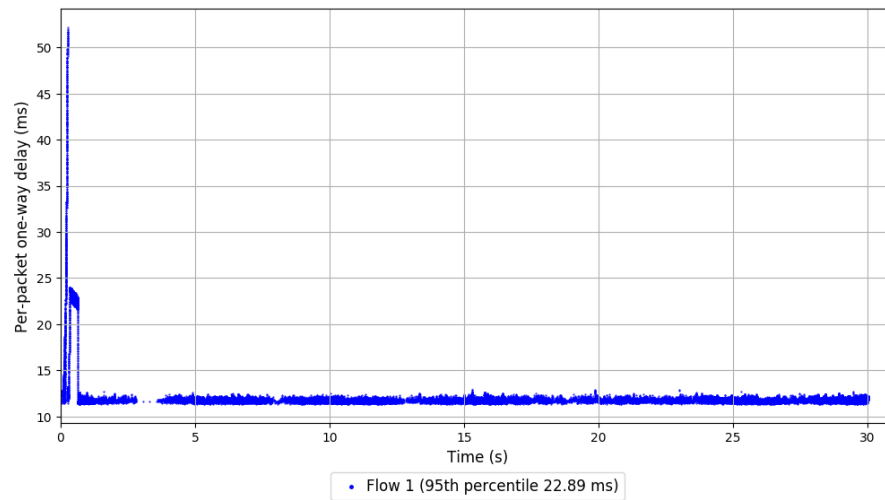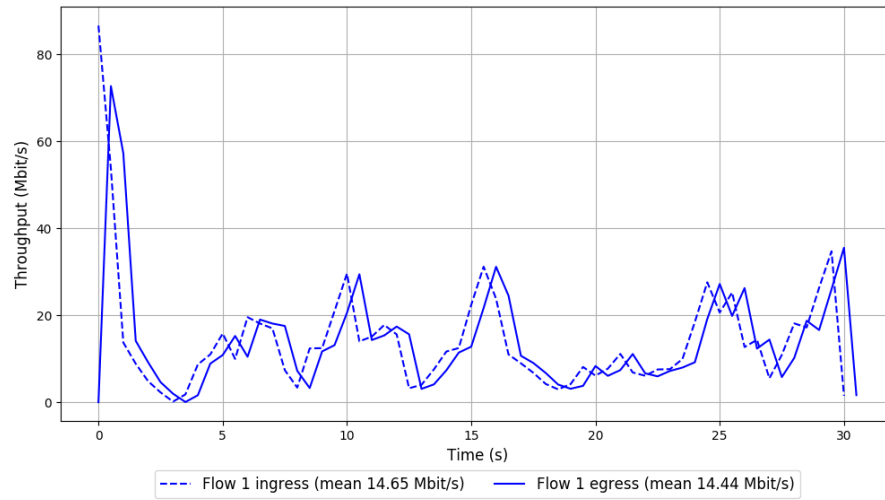

Flow 1 (95th percentile 8.56 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-07-09 20:05:49
End at: 2018-07-09 20:06:19
Local clock offset: -0.22 ms
Remote clock offset: -3.293 ms

# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.44 Mbit/s
95th percentile per-packet one-way delay: 22.885 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 14.44 Mbit/s
95th percentile per-packet one-way delay: 22.885 ms
Loss rate: 1.45%
```
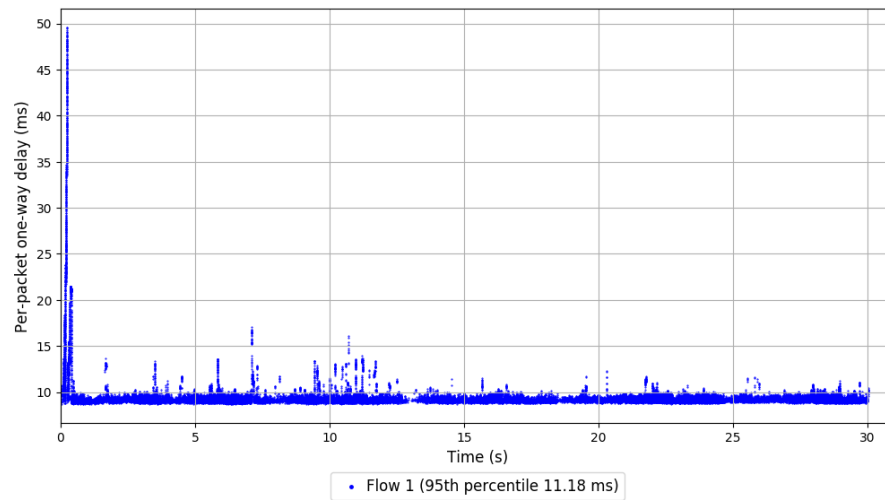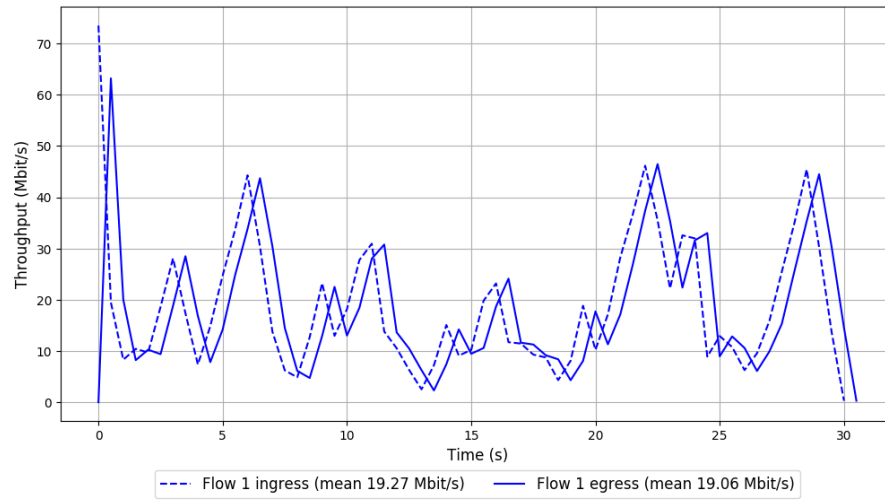
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-07-09 20:25:53
End at: 2018-07-09 20:26:23
Local clock offset: 1.191 ms
Remote clock offset: -6.736 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.06 Mbit/s
95th percentile per-packet one-way delay: 11.181 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 19.06 Mbit/s
95th percentile per-packet one-way delay: 11.181 ms
Loss rate: 1.07%
```
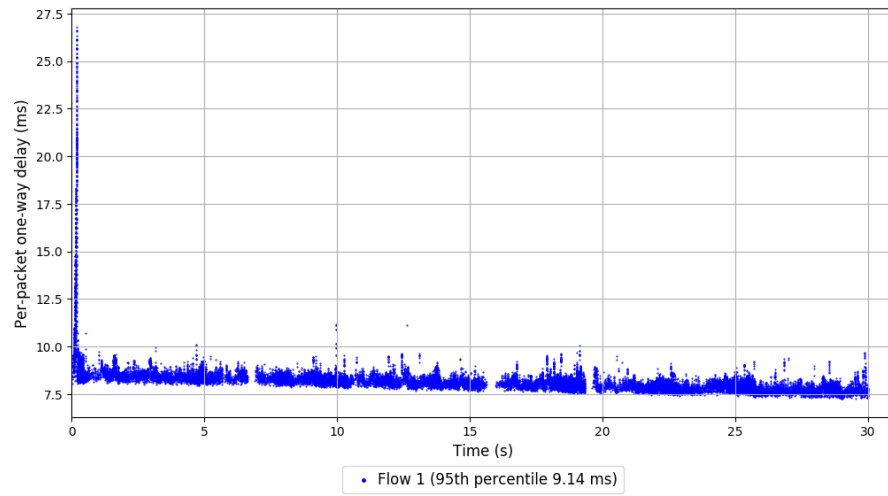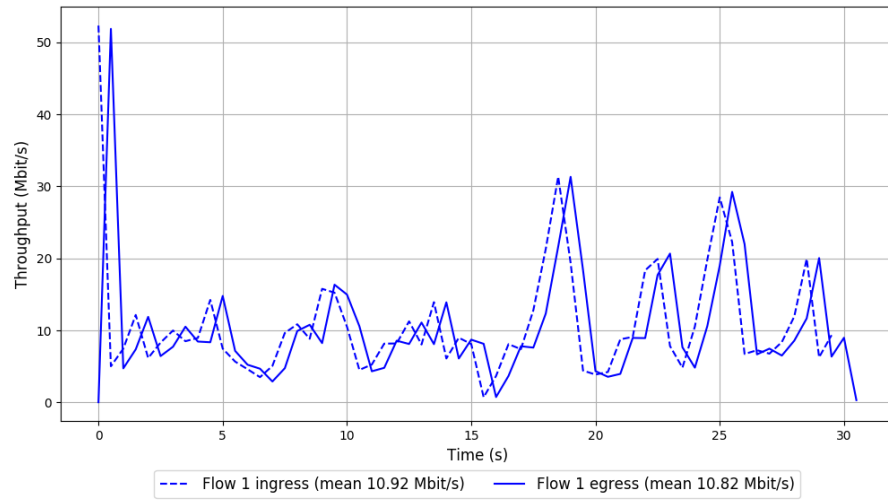
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-07-09 20:45:44
End at: 2018-07-09 20:46:14
Local clock offset: 2.946 ms
Remote clock offset: -3.407 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 9.142 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 9.142 ms
Loss rate: 0.85%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 10.92 Mbit/s)   Flow 1 egress (mean 10.82 Mbit/s)

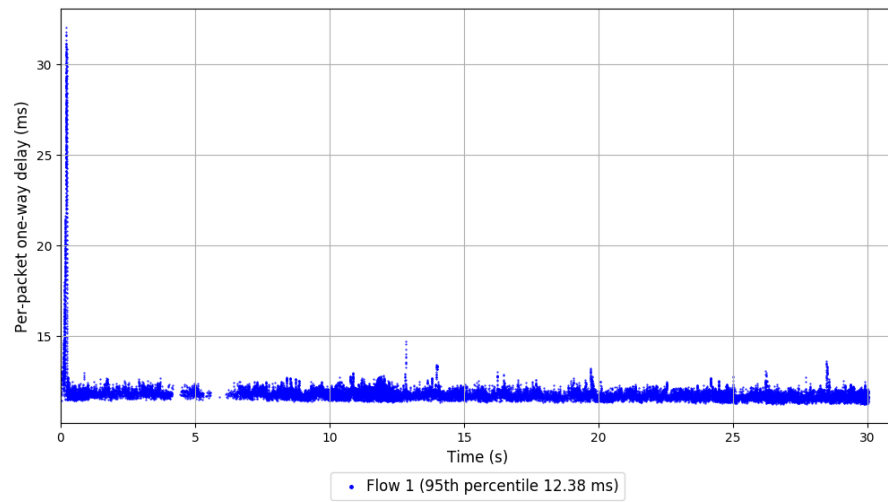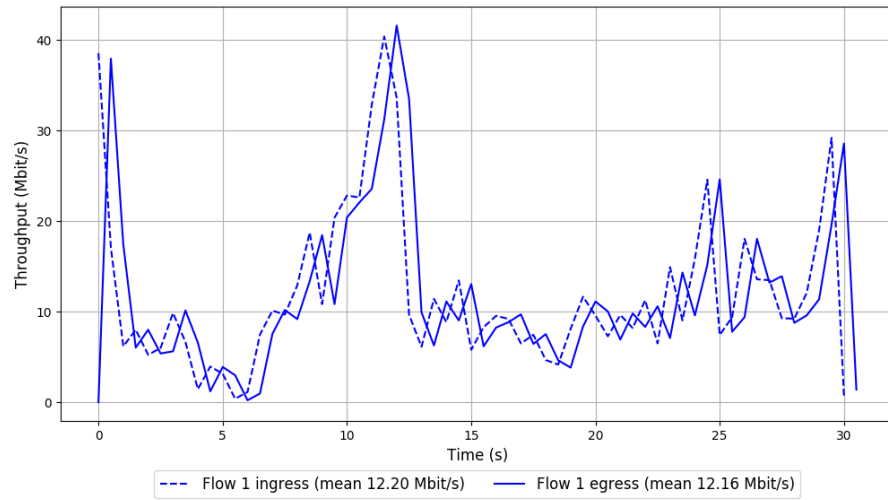Flow 1 (95th percentile 9.14 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-07-09 21:05:13
End at: 2018-07-09 21:05:43
Local clock offset: 0.598 ms
Remote clock offset: 15.804 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 12.385 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 12.16 Mbit/s
95th percentile per-packet one-way delay: 12.385 ms
Loss rate: 0.33%
```
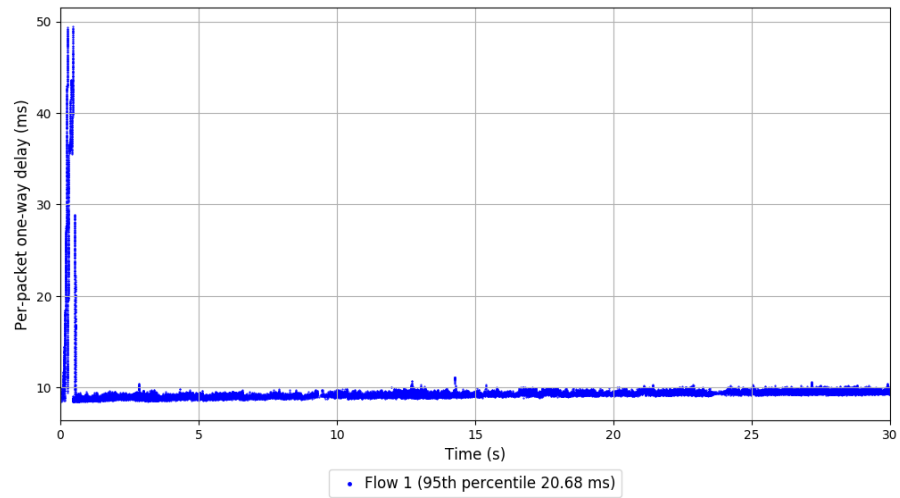
Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 12.20 Mbit/s) ----   Flow 1 egress (mean 12.16 Mbit/s) ——

Flow 1 (95th percentile 12.38 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-07-09 21:24:56
End at: 2018-07-09 21:25:26
Local clock offset: 3.576 ms
Remote clock offset: 4.046 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 17.31 Mbit/s
95th percentile per-packet one-way delay: 20.677 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 17.31 Mbit/s
95th percentile per-packet one-way delay: 20.677 ms
Loss rate: 2.26%
```
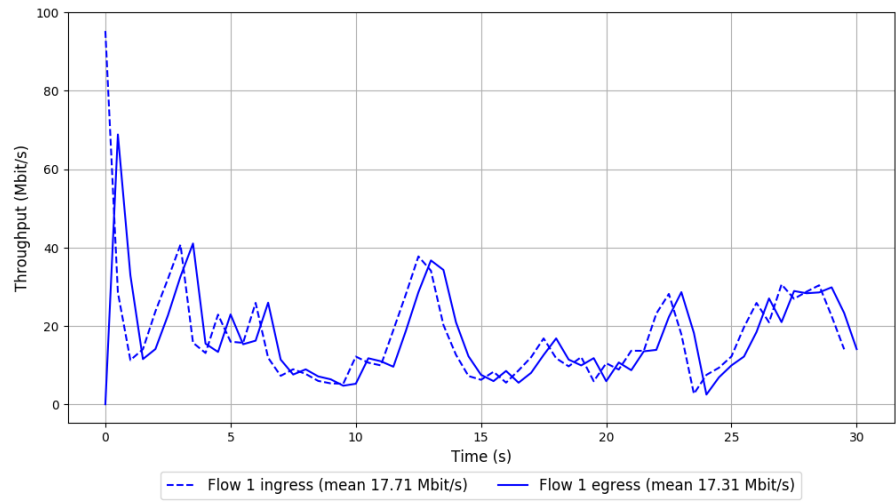
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 17.71 Mbit/s)   Flow 1 egress (mean 17.31 Mbit/s)

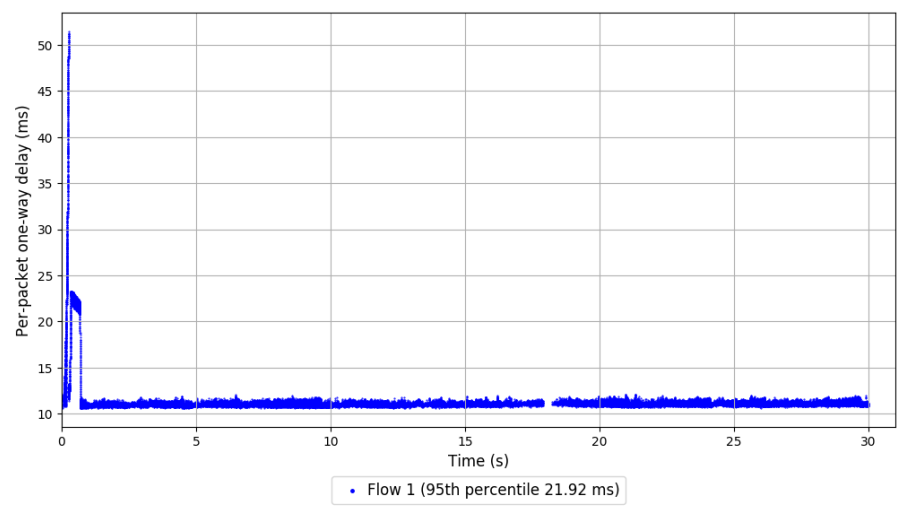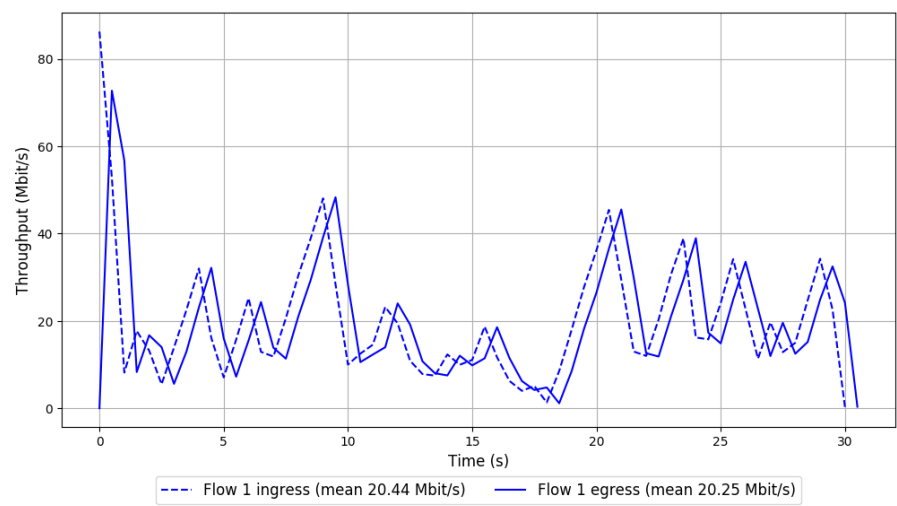Flow 1 (95th percentile 20.68 ms)

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```
Run 6: Statistics of TCP Vegas

Start at: 2018-07-09 21:44:14
End at: 2018-07-09 21:44:44
Local clock offset: 0.439 ms
Remote clock offset: -9.882 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 21.916 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 21.916 ms
Loss rate: 0.90%
```

Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 20.44 Mbit/s) — — — Flow 1 egress (mean 20.25 Mbit/s)
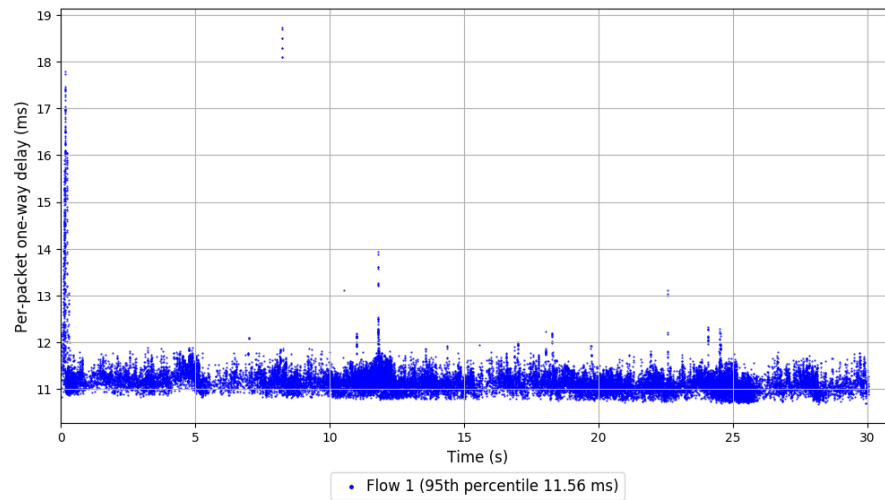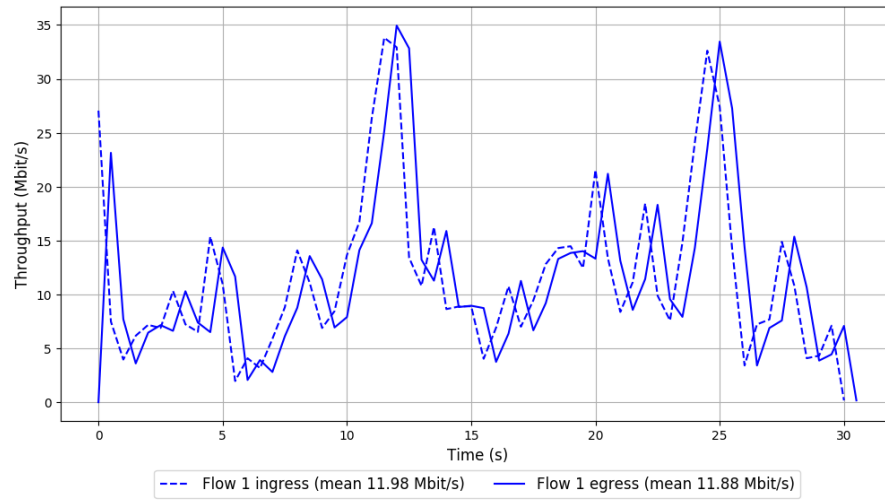

· Flow 1 (95th percentile 21.92 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2018-07-09 22:03:53
End at: 2018-07-09 22:04:23
Local clock offset: -0.223 ms
Remote clock offset: -3.854 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 11.557 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 11.88 Mbit/s
95th percentile per-packet one-way delay: 11.557 ms
Loss rate: 0.87%
```
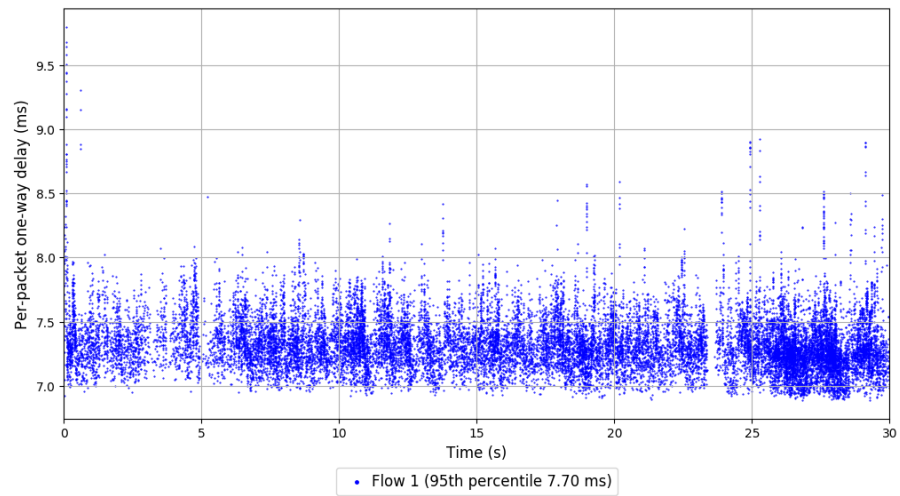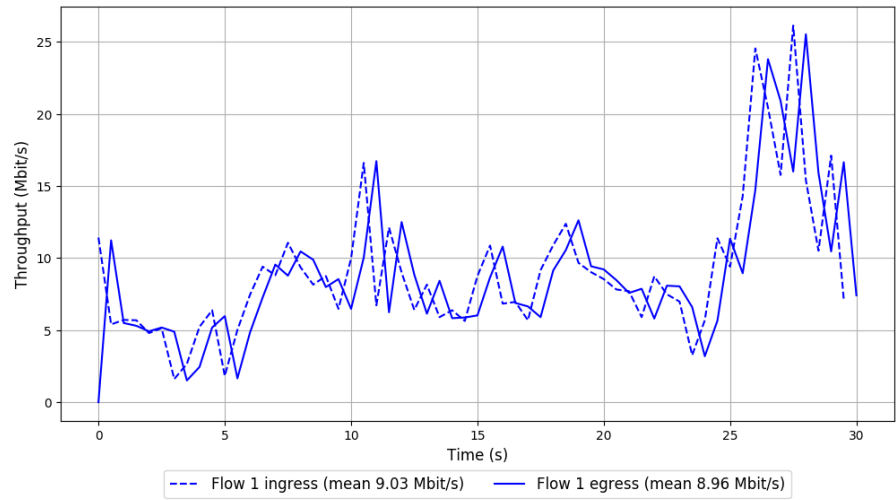
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-07-09 22:23:21
End at: 2018-07-09 22:23:51
Local clock offset: 2.855 ms
Remote clock offset: -0.926 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 7.702 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 8.96 Mbit/s
95th percentile per-packet one-way delay: 7.702 ms
Loss rate: 0.85%
```

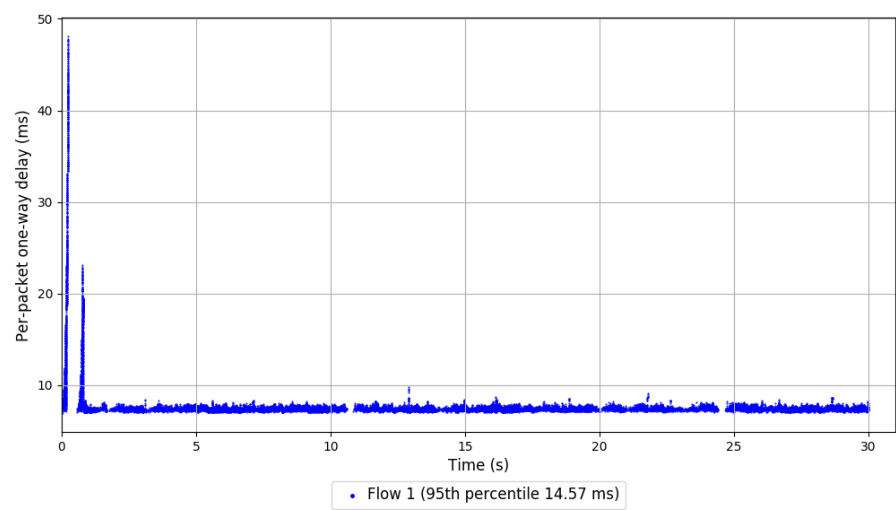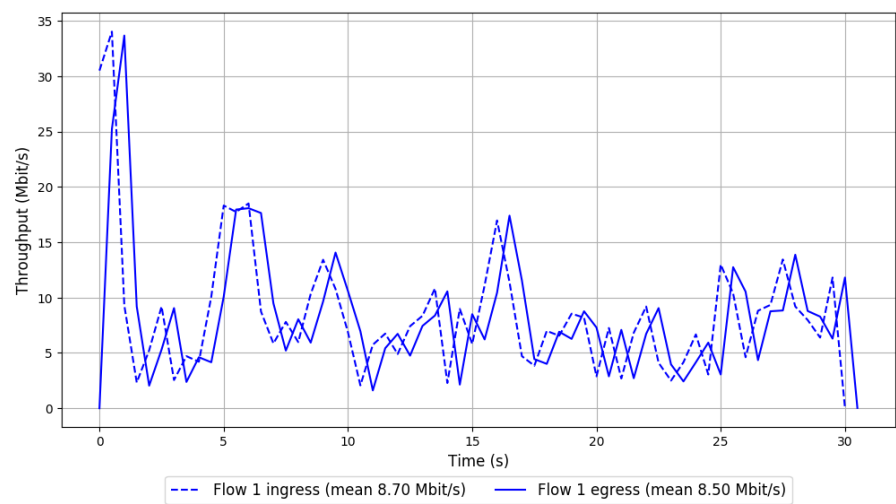Run 8: Report of TCP Vegas — Data Link

```
Run 9: Statistics of TCP Vegas

Start at: 2018-07-09 22:43:04
End at: 2018-07-09 22:43:34
Local clock offset: 2.383 ms
Remote clock offset: -1.889 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 14.569 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 14.569 ms
Loss rate: 2.24%
```
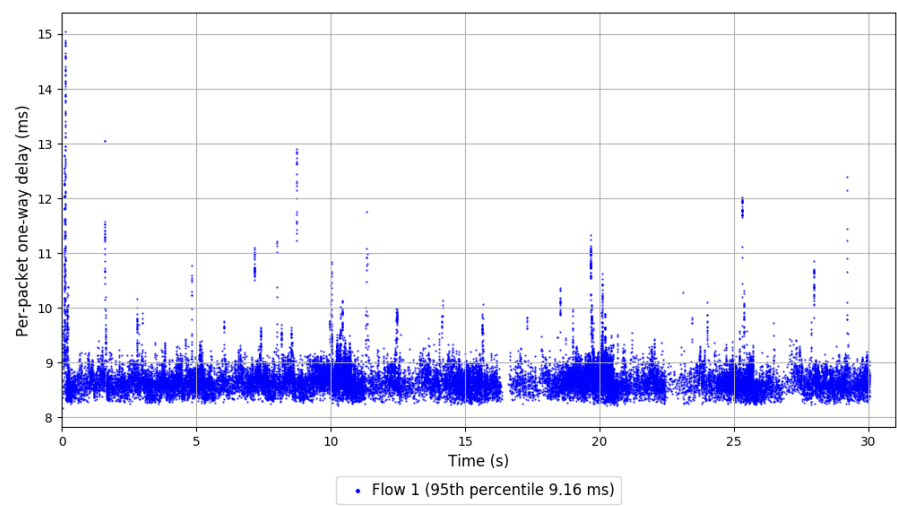
Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 8.70 Mbit/s)   Flow 1 egress (mean 8.50 Mbit/s)

Flow 1 (95th percentile 14.57 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2018-07-09 23:02:38
End at: 2018-07-09 23:03:08
Local clock offset: 0.773 ms
Remote clock offset: -2.383 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 9.164 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 13.14 Mbit/s
95th percentile per-packet one-way delay: 9.164 ms
Loss rate: 0.34%
```
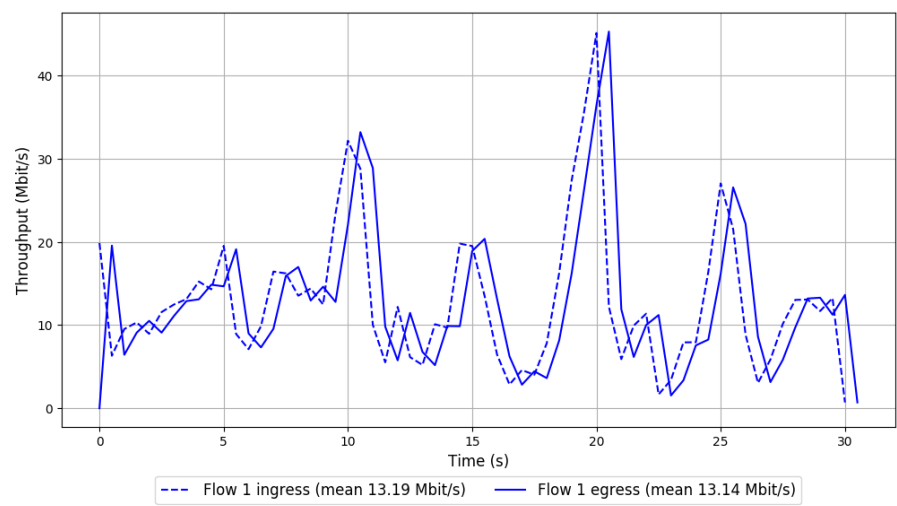
Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 13.19 Mbit/s)   Flow 1 egress (mean 13.14 Mbit/s)

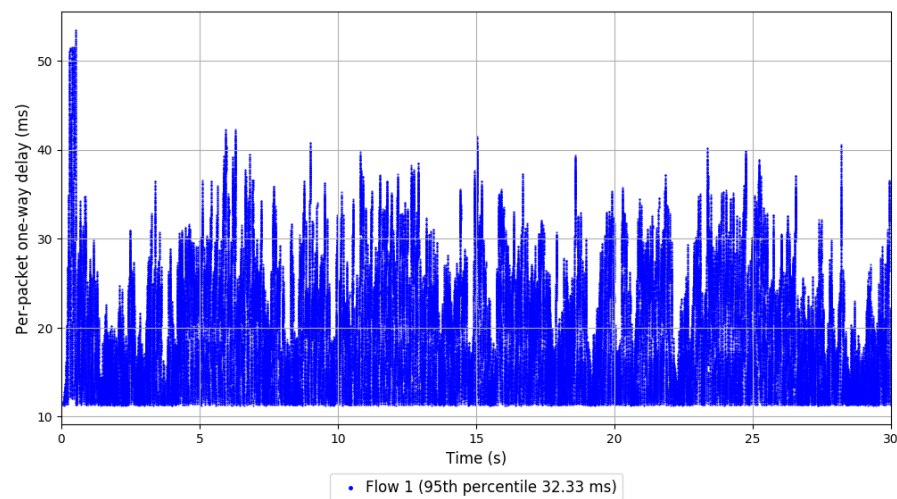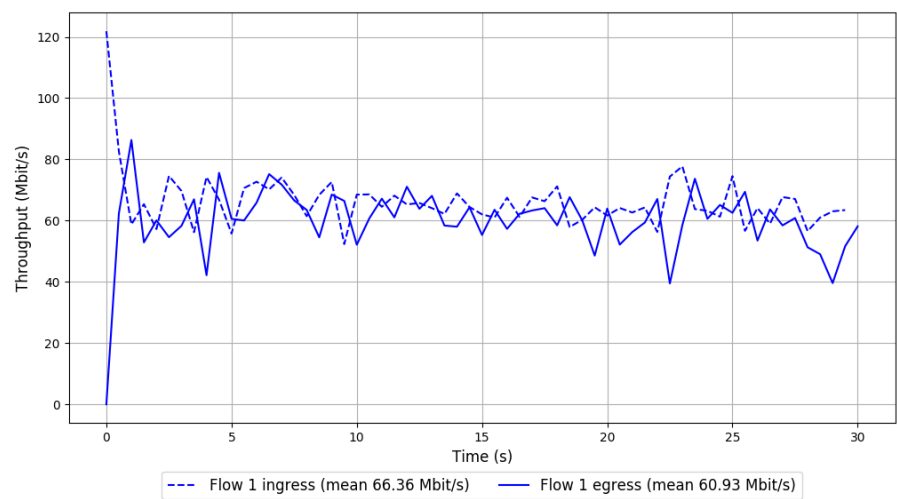

Flow 1 (95th percentile 9.16 ms)

```
Run 1: Statistics of Verus

Start at: 2018-07-09 19:59:33
End at: 2018-07-09 20:00:03
Local clock offset: 0.185 ms
Remote clock offset: -3.163 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.93 Mbit/s
95th percentile per-packet one-way delay: 32.333 ms
Loss rate: 8.15%
-- Flow 1:
Average throughput: 60.93 Mbit/s
95th percentile per-packet one-way delay: 32.333 ms
Loss rate: 8.15%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 66.36 Mbit/s)   Flow 1 egress (mean 60.93 Mbit/s)

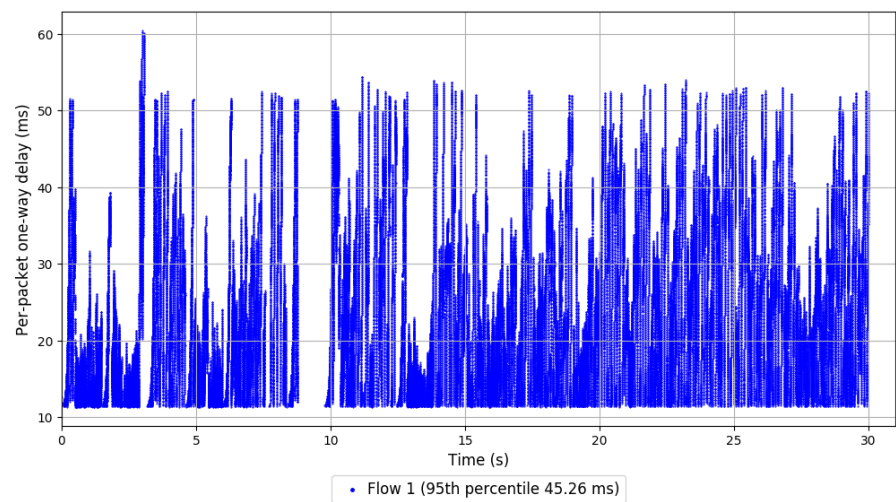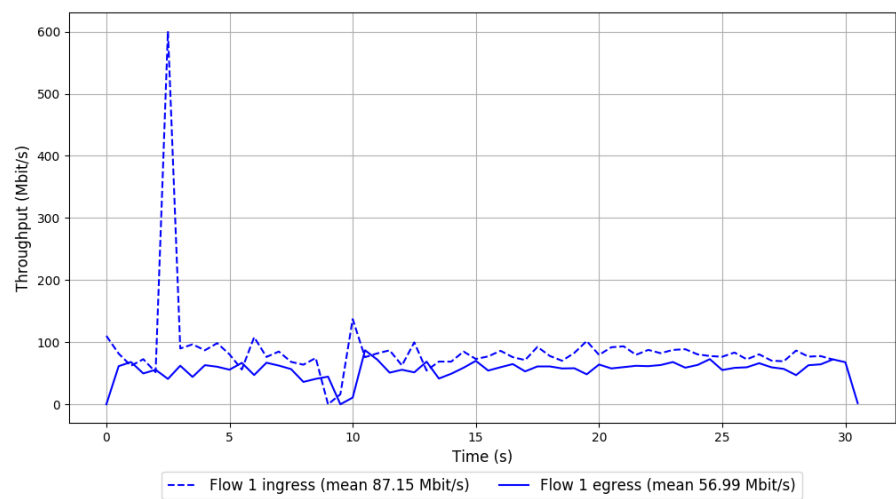• Flow 1 (95th percentile 32.33 ms)

```
Run 2: Statistics of Verus

Start at: 2018-07-09 20:19:57
End at: 2018-07-09 20:20:27
Local clock offset: -0.19 ms
Remote clock offset: -5.798 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 45.257 ms
Loss rate: 34.53%
-- Flow 1:
Average throughput: 56.99 Mbit/s
95th percentile per-packet one-way delay: 45.257 ms
Loss rate: 34.53%
```

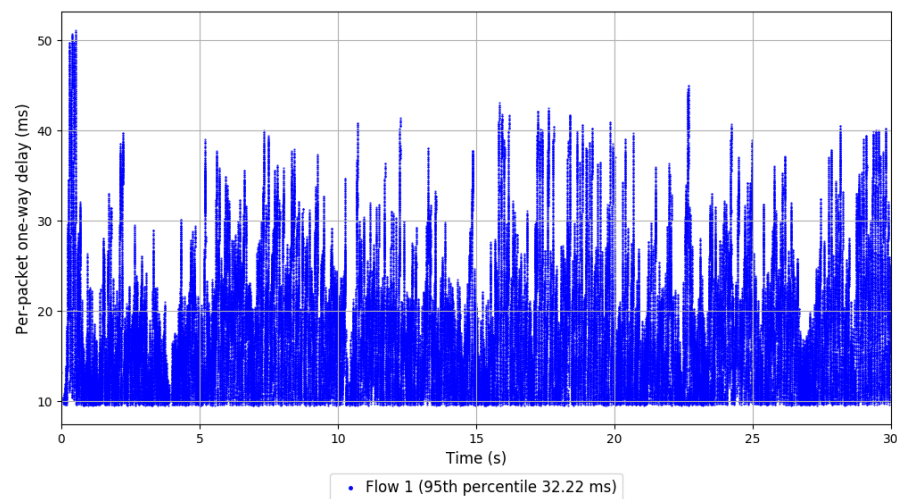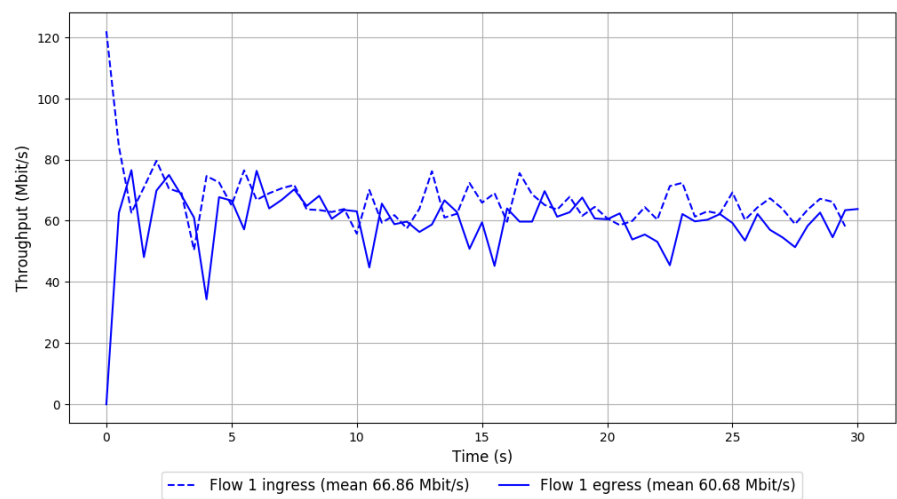## Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-07-09 20:39:39
End at: 2018-07-09 20:40:09
Local clock offset: 0.856 ms
Remote clock offset: -6.837 ms

# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 60.68 Mbit/s
95th percentile per-packet one-way delay: 32.223 ms
Loss rate: 9.24%
-- Flow 1:
Average throughput: 60.68 Mbit/s
95th percentile per-packet one-way delay: 32.223 ms
Loss rate: 9.24%
```

Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 66.86 Mbit/s)   Flow 1 egress (mean 60.68 Mbit/s)

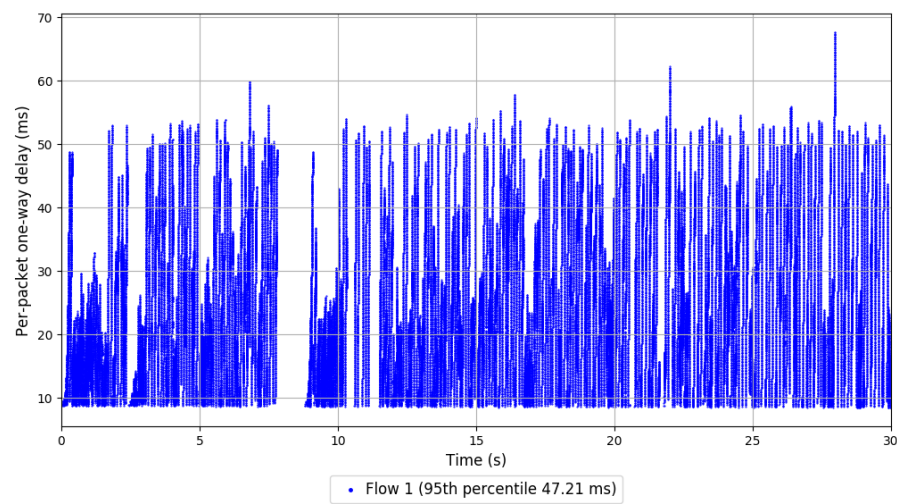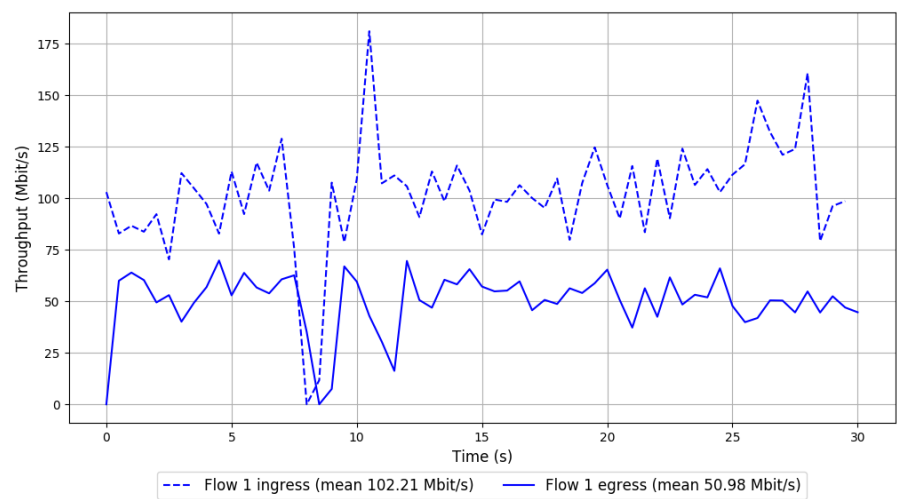Flow 1 (95th percentile 32.22 ms)

```
Run 4: Statistics of Verus

Start at: 2018-07-09 20:59:22
End at: 2018-07-09 20:59:52
Local clock offset: 1.945 ms
Remote clock offset: 11.995 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.98 Mbit/s
95th percentile per-packet one-way delay: 47.209 ms
Loss rate: 50.12%
-- Flow 1:
Average throughput: 50.98 Mbit/s
95th percentile per-packet one-way delay: 47.209 ms
Loss rate: 50.12%
```

Run 4: Report of Verus — Data Link

Flow 1 ingress (mean 102.21 Mbit/s) ---- Flow 1 egress (mean 50.98 Mbit/s)

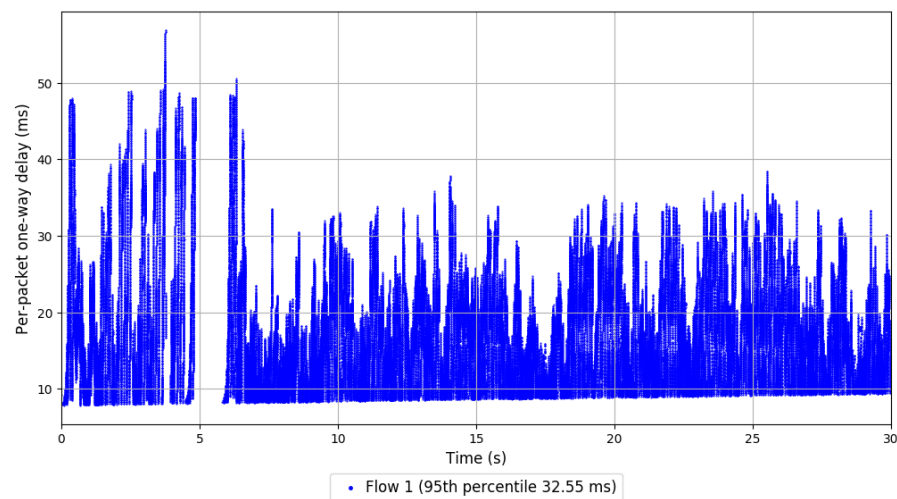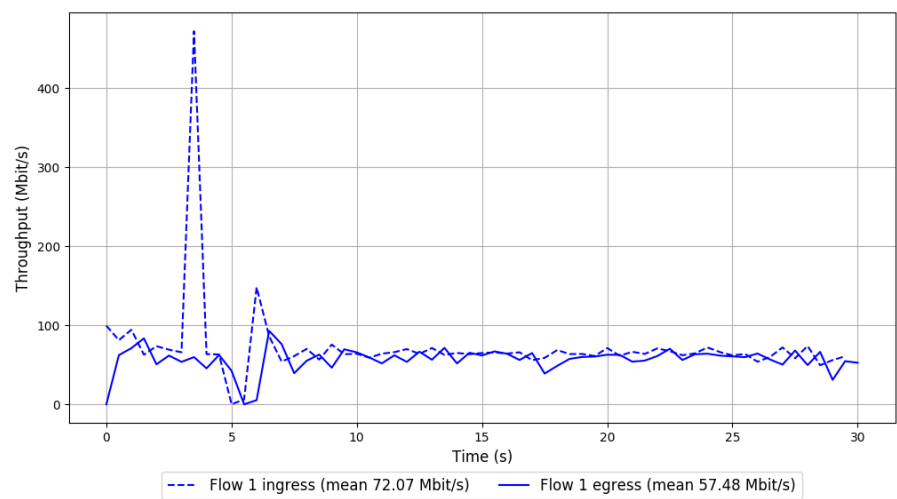• Flow 1 (95th percentile 47.21 ms)

```
Run 5: Statistics of Verus

Start at: 2018-07-09 21:18:59
End at: 2018-07-09 21:19:29
Local clock offset: 3.72 ms
Remote clock offset: 17.273 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.48 Mbit/s
95th percentile per-packet one-way delay: 32.550 ms
Loss rate: 20.22%
-- Flow 1:
Average throughput: 57.48 Mbit/s
95th percentile per-packet one-way delay: 32.550 ms
Loss rate: 20.22%
```

Run 5: Report of Verus — Data Link

Flow 1 ingress (mean 72.07 Mbit/s)   Flow 1 egress (mean 57.48 Mbit/s)

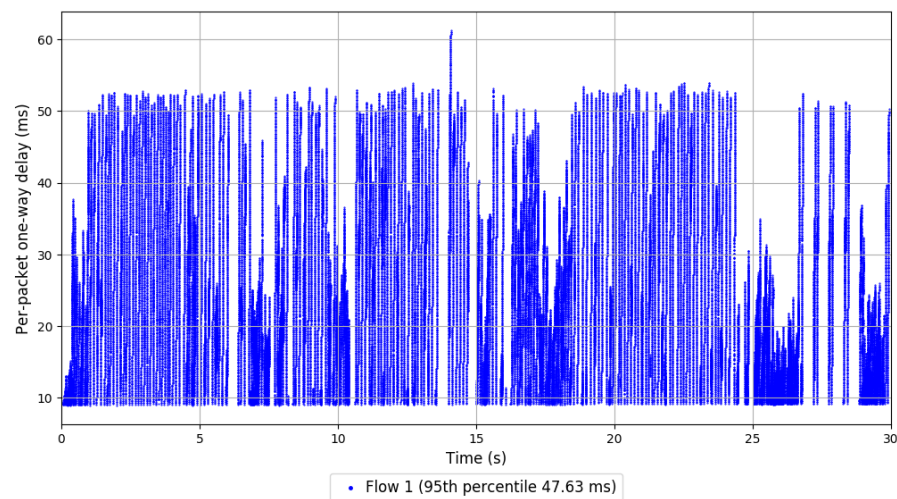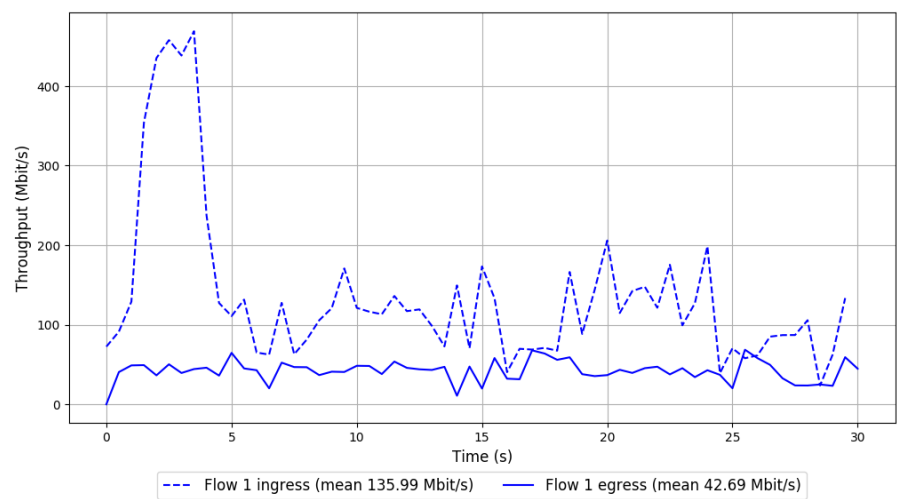• Flow 1 (95th percentile 32.55 ms)

```
Run 6: Statistics of Verus

Start at: 2018-07-09 21:38:26
End at: 2018-07-09 21:38:56
Local clock offset: 2.122 ms
Remote clock offset: -8.137 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 42.69 Mbit/s
95th percentile per-packet one-way delay: 47.632 ms
Loss rate: 68.60%
-- Flow 1:
Average throughput: 42.69 Mbit/s
95th percentile per-packet one-way delay: 47.632 ms
Loss rate: 68.60%
```

Run 6: Report of Verus — Data Link

Flow 1 ingress (mean 135.99 Mbit/s) --- Flow 1 egress (mean 42.69 Mbit/s)

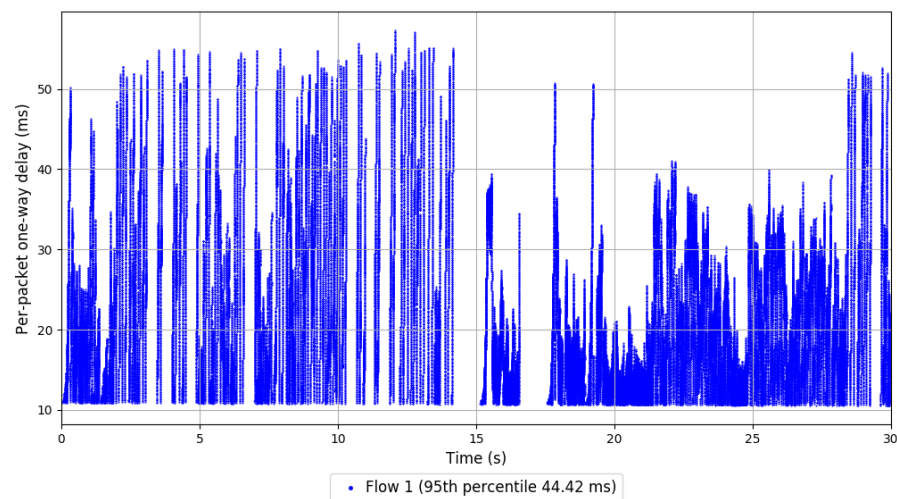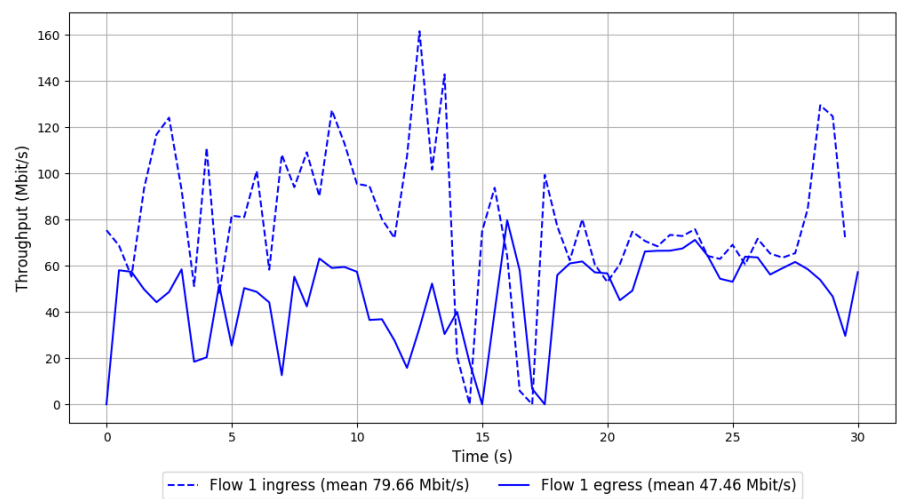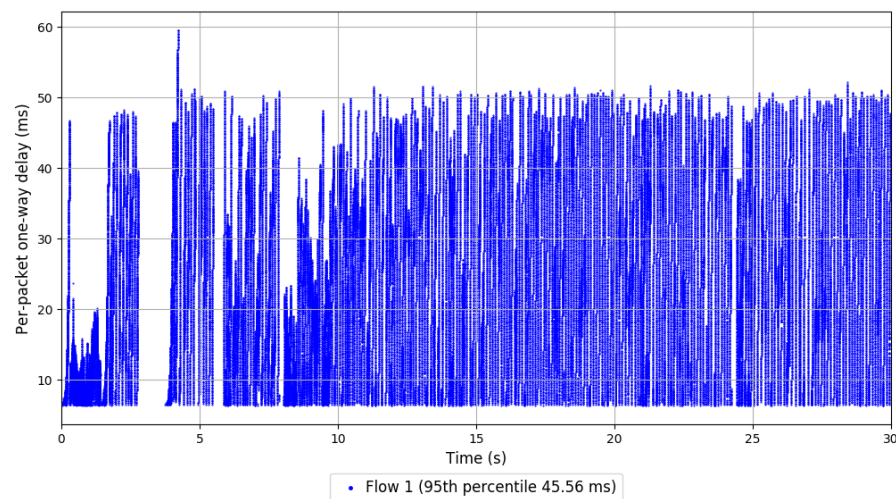• Flow 1 (95th percentile 47.63 ms)

```
Run 7: Statistics of Verus

Start at: 2018-07-09 21:57:52
End at: 2018-07-09 21:58:22
Local clock offset: -1.21 ms
Remote clock offset: -6.788 ms


# Below is generated by plot.py at 2018-07-09 23:32:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 47.46 Mbit/s
95th percentile per-packet one-way delay: 44.423 ms
Loss rate: 40.41%
-- Flow 1:
Average throughput: 47.46 Mbit/s
95th percentile per-packet one-way delay: 44.423 ms
Loss rate: 40.41%
```

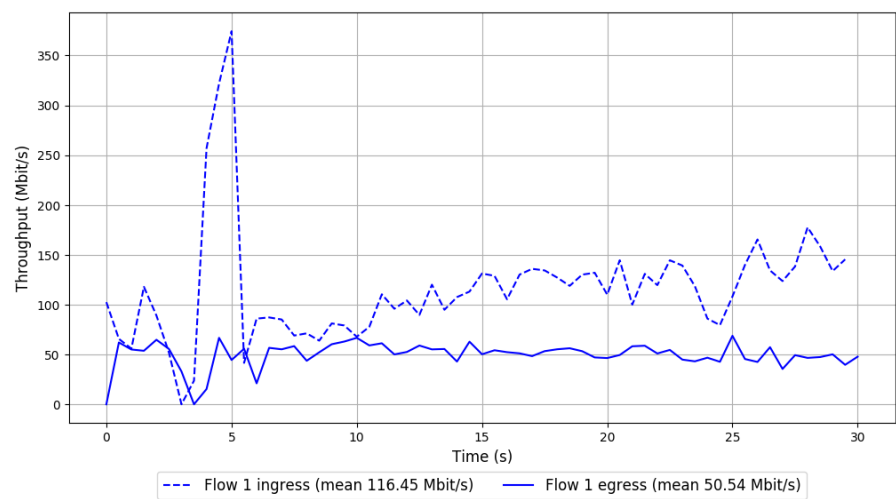Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-07-09 22:17:29
End at: 2018-07-09 22:17:59
Local clock offset: 3.603 ms
Remote clock offset: -1.176 ms


# Below is generated by plot.py at 2018-07-09 23:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.54 Mbit/s
95th percentile per-packet one-way delay: 45.565 ms
Loss rate: 56.58%
-- Flow 1:
Average throughput: 50.54 Mbit/s
95th percentile per-packet one-way delay: 45.565 ms
Loss rate: 56.58%
```

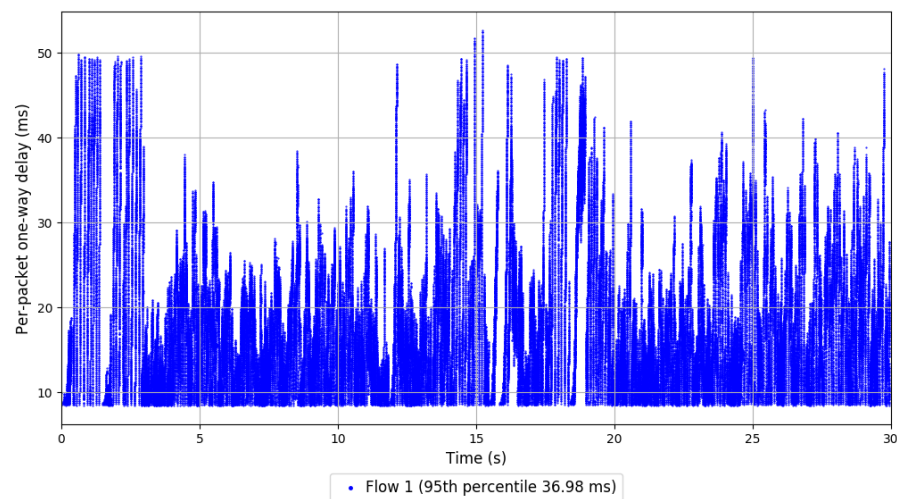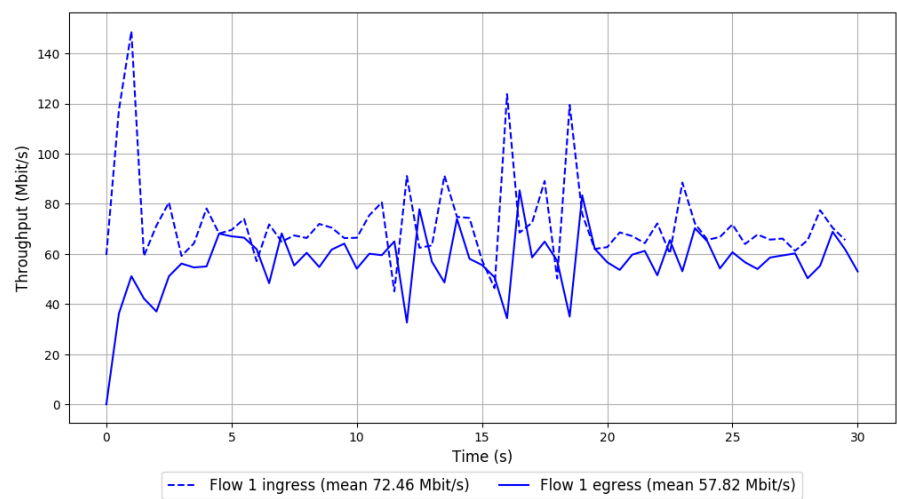# Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-07-09 22:37:09
End at: 2018-07-09 22:37:39
Local clock offset: 2.316 ms
Remote clock offset: -1.281 ms


# Below is generated by plot.py at 2018-07-09 23:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.82 Mbit/s
95th percentile per-packet one-way delay: 36.978 ms
Loss rate: 20.20%
-- Flow 1:
Average throughput: 57.82 Mbit/s
95th percentile per-packet one-way delay: 36.978 ms
Loss rate: 20.20%
```

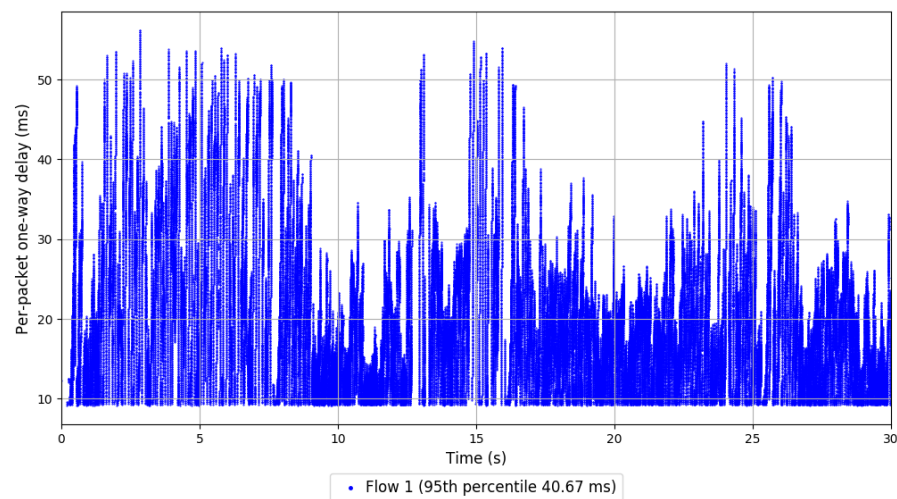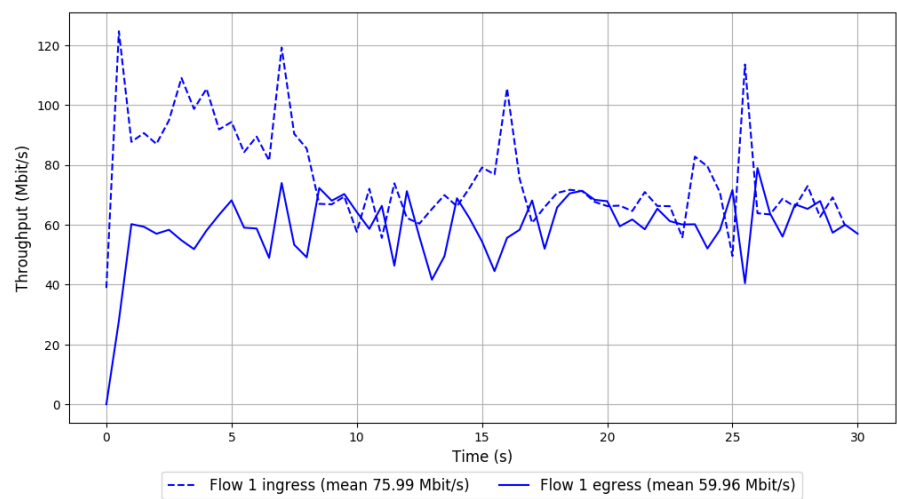Run 9: Report of Verus — Data Link

301

```
Run 10: Statistics of Verus

Start at: 2018-07-09 22:56:39
End at: 2018-07-09 22:57:09
Local clock offset: -1.184 ms
Remote clock offset: -3.378 ms


# Below is generated by plot.py at 2018-07-09 23:32:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.96 Mbit/s
95th percentile per-packet one-way delay: 40.666 ms
Loss rate: 21.05%
-- Flow 1:
Average throughput: 59.96 Mbit/s
95th percentile per-packet one-way delay: 40.666 ms
Loss rate: 21.05%
```
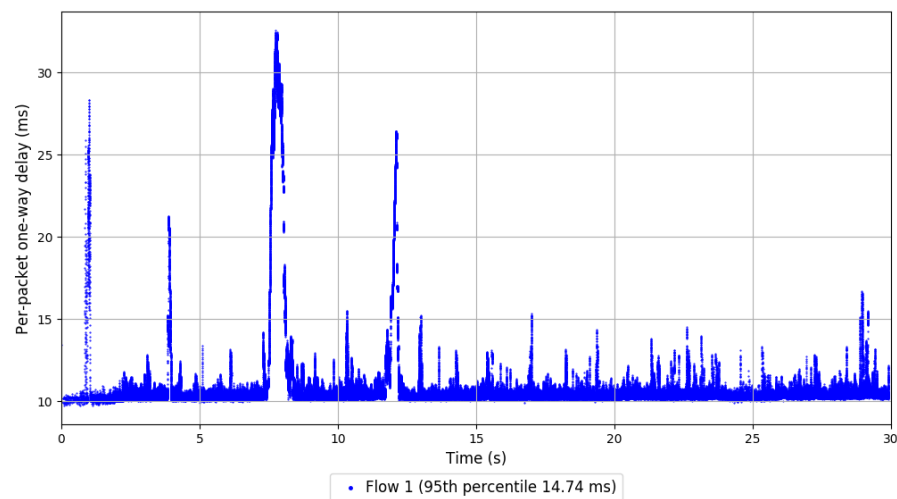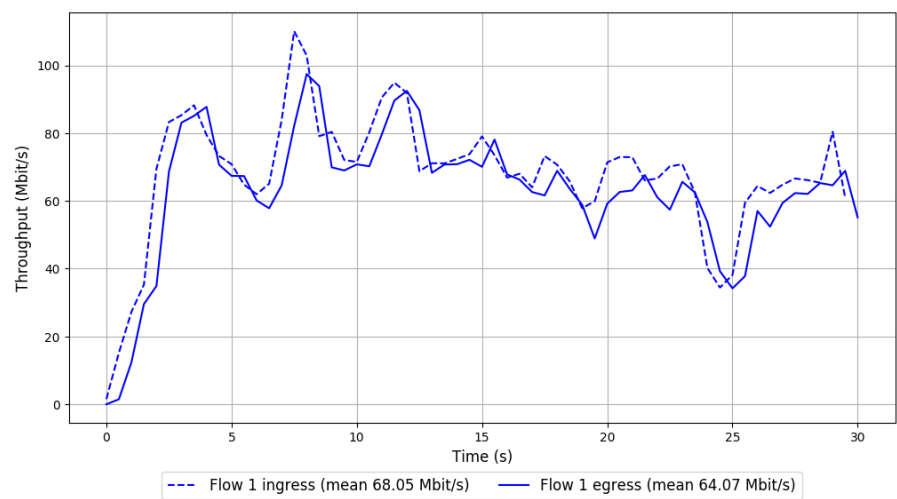
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-07-09 20:11:28
End at: 2018-07-09 20:11:58
Local clock offset: -0.059 ms
Remote clock offset: -4.197 ms

# Below is generated by plot.py at 2018-07-09 23:32:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 64.07 Mbit/s
95th percentile per-packet one-way delay: 14.741 ms
Loss rate: 5.85%
-- Flow 1:
Average throughput: 64.07 Mbit/s
95th percentile per-packet one-way delay: 14.741 ms
Loss rate: 5.85%
```
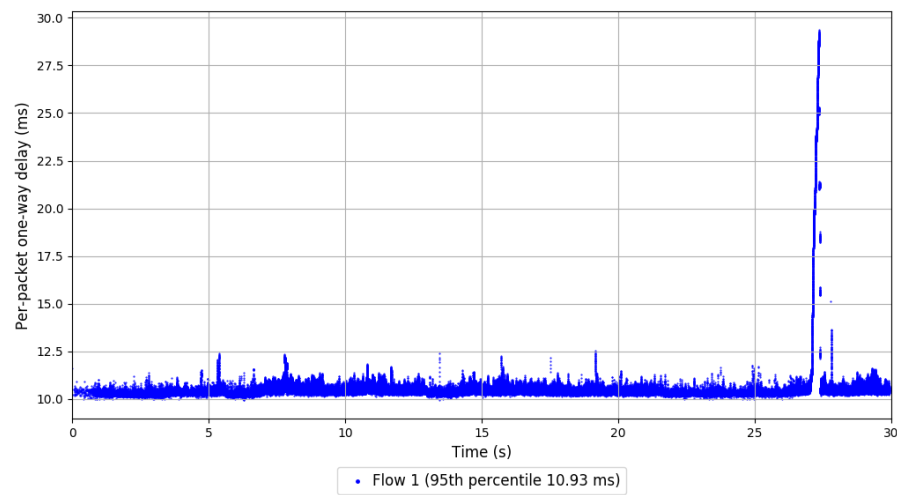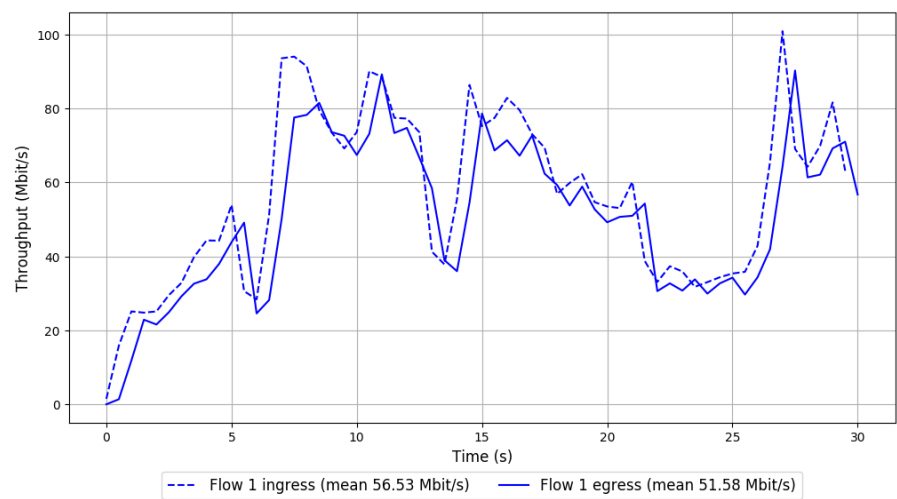
Run 1: Report of PCC-Vivace — Data Link

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-07-09 20:31:28
End at: 2018-07-09 20:31:58
Local clock offset: 1.213 ms
Remote clock offset: -6.553 ms


# Below is generated by plot.py at 2018-07-09 23:32:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.58 Mbit/s
95th percentile per-packet one-way delay: 10.929 ms
Loss rate: 8.75%
-- Flow 1:
Average throughput: 51.58 Mbit/s
95th percentile per-packet one-way delay: 10.929 ms
Loss rate: 8.75%
```

Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 56.53 Mbit/s) ----   Flow 1 egress (mean 51.58 Mbit/s) ——

• Flow 1 (95th percentile 10.93 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-07-09 20:51:20
End at: 2018-07-09 20:51:50
Local clock offset: 0.623 ms
Remote clock offset: 5.003 ms


# Below is generated by plot.py at 2018-07-09 23:32:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 38.78 Mbit/s
95th percentile per-packet one-way delay: 10.143 ms
Loss rate: 7.63%
-- Flow 1:
Average throughput: 38.78 Mbit/s
95th percentile per-packet one-way delay: 10.143 ms
Loss rate: 7.63%
```
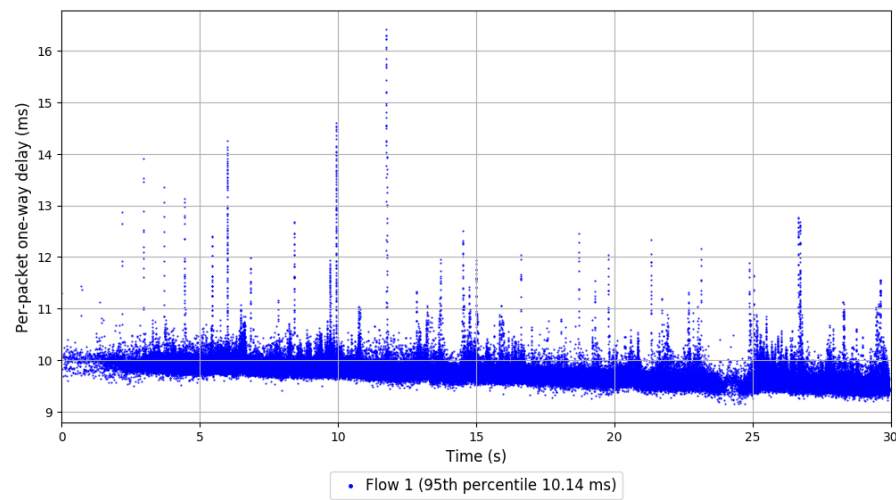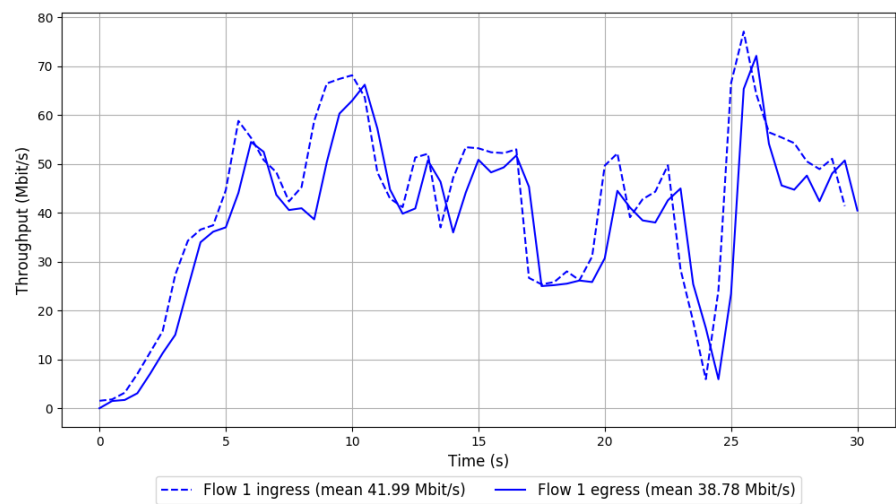
```
Run 4: Statistics of PCC-Vivace

Start at: 2018-07-09 21:10:51
End at: 2018-07-09 21:11:21
Local clock offset: 1.992 ms
Remote clock offset: 18.33 ms


# Below is generated by plot.py at 2018-07-09 23:33:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 53.50 Mbit/s
95th percentile per-packet one-way delay: 10.852 ms
Loss rate: 5.81%
-- Flow 1:
Average throughput: 53.50 Mbit/s
95th percentile per-packet one-way delay: 10.852 ms
Loss rate: 5.81%
```
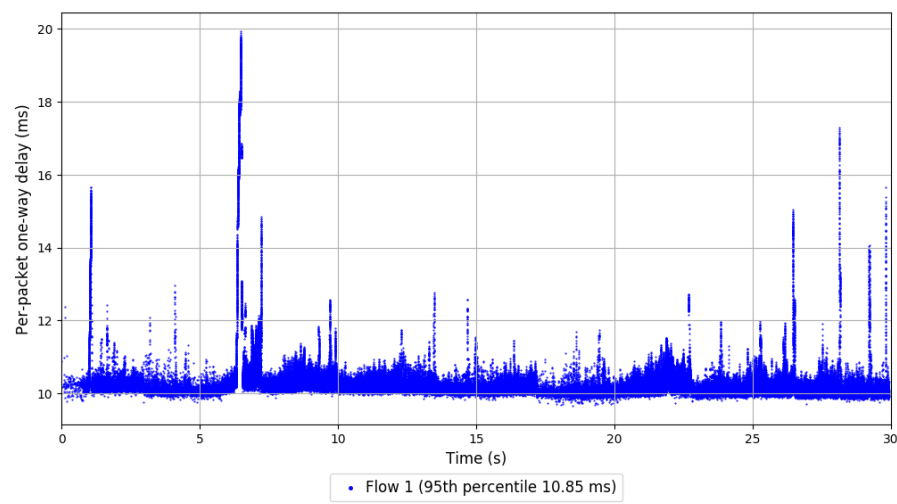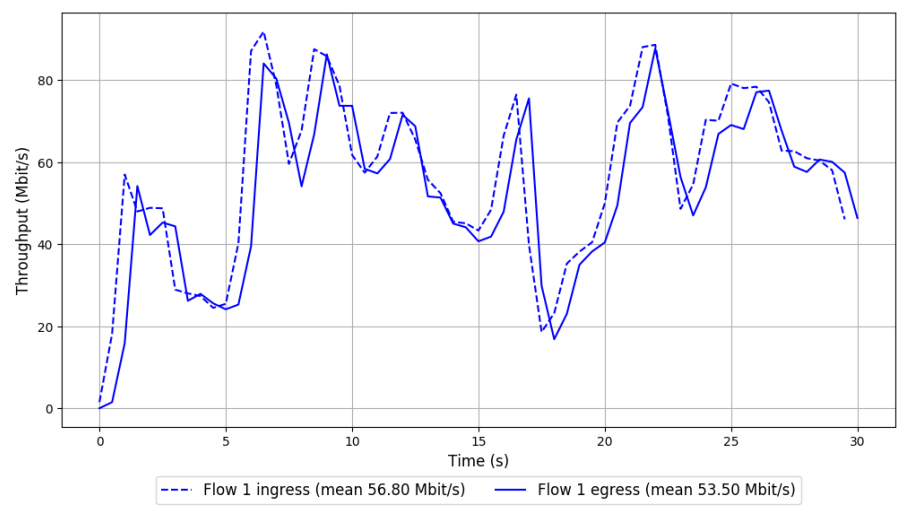
Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 56.80 Mbit/s) — Flow 1 egress (mean 53.50 Mbit/s)

Flow 1 (95th percentile 10.85 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-07-09 21:30:30
End at: 2018-07-09 21:31:01
Local clock offset: 2.834 ms
Remote clock offset: -3.567 ms


# Below is generated by plot.py at 2018-07-09 23:33:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.58 Mbit/s
95th percentile per-packet one-way delay: 8.766 ms
Loss rate: 7.49%
-- Flow 1:
Average throughput: 45.58 Mbit/s
95th percentile per-packet one-way delay: 8.766 ms
Loss rate: 7.49%
```
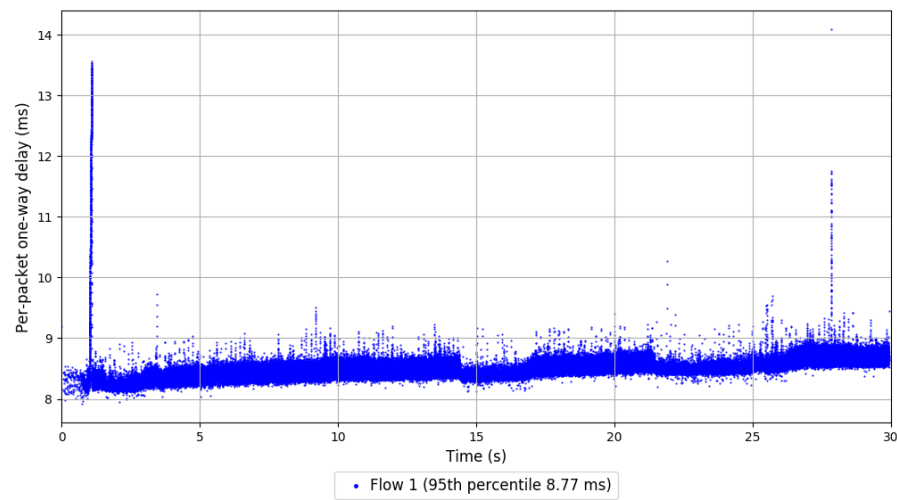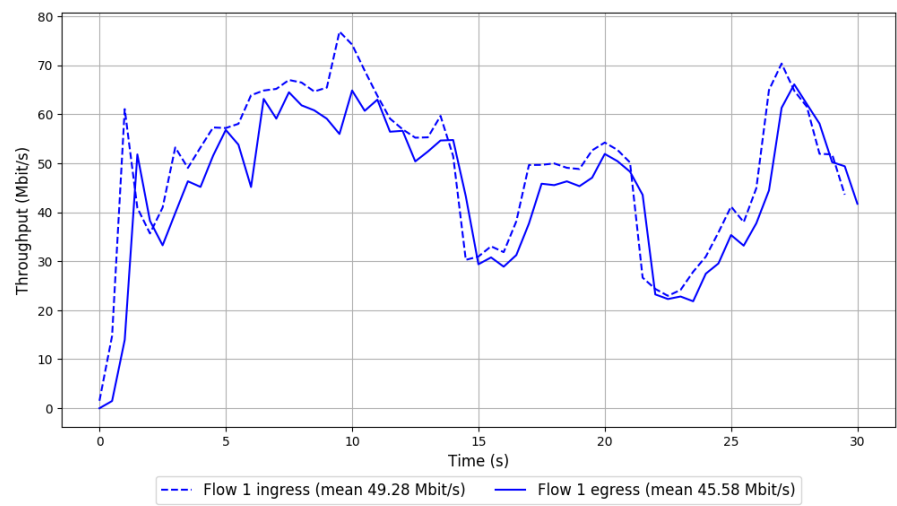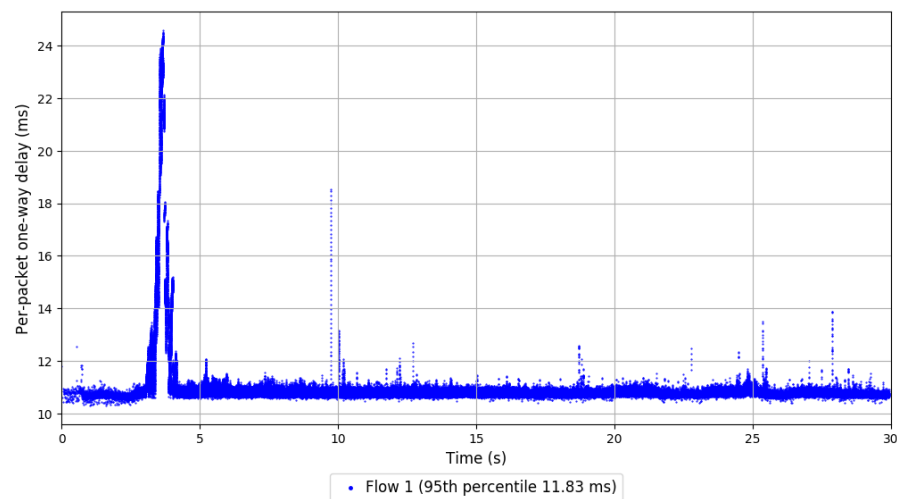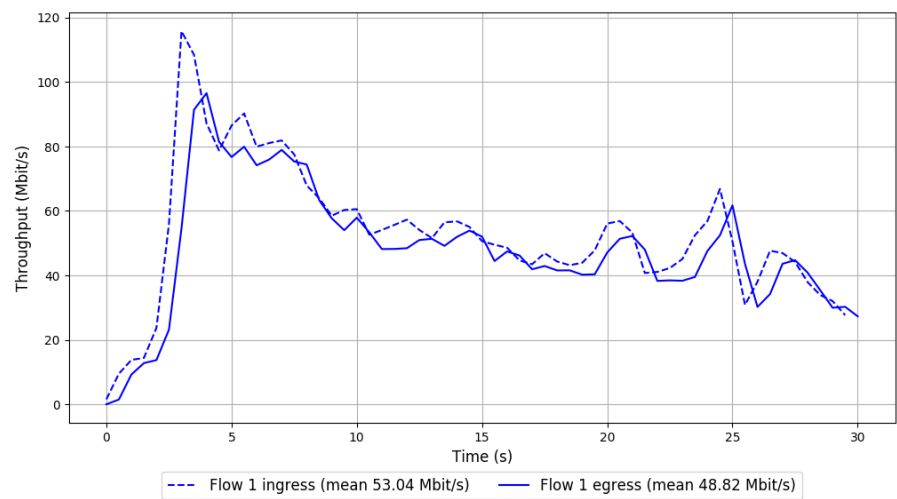
Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-07-09 21:49:50
End at: 2018-07-09 21:50:20
Local clock offset: -0.234 ms
Remote clock offset: -10.927 ms


# Below is generated by plot.py at 2018-07-09 23:33:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 11.826 ms
Loss rate: 7.97%
-- Flow 1:
Average throughput: 48.82 Mbit/s
95th percentile per-packet one-way delay: 11.826 ms
Loss rate: 7.97%
```

Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 53.04 Mbit/s) ——— Flow 1 egress (mean 48.82 Mbit/s)

• Flow 1 (95th percentile 11.83 ms)

315

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-07-09 22:09:26
End at: 2018-07-09 22:09:56
Local clock offset: 2.435 ms
Remote clock offset: -2.397 ms


# Below is generated by plot.py at 2018-07-09 23:33:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 7.834 ms
Loss rate: 5.70%
-- Flow 1:
Average throughput: 56.95 Mbit/s
95th percentile per-packet one-way delay: 7.834 ms
Loss rate: 5.70%
```
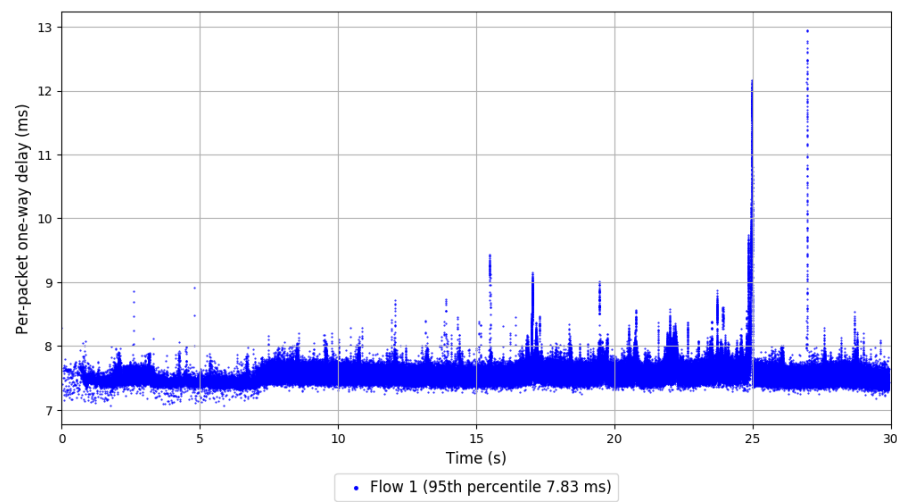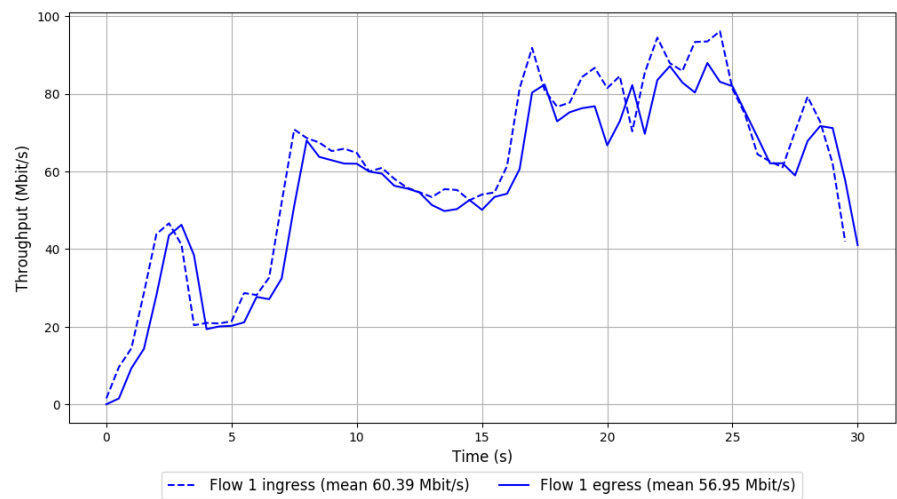
Run 7: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 60.39 Mbit/s)   Flow 1 egress (mean 56.95 Mbit/s)

Flow 1 (95th percentile 7.83 ms)

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-07-09 22:29:11
End at: 2018-07-09 22:29:41
Local clock offset: 2.092 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-07-09 23:33:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 9.942 ms
Loss rate: 6.26%
-- Flow 1:
Average throughput: 41.10 Mbit/s
95th percentile per-packet one-way delay: 9.942 ms
Loss rate: 6.26%
```
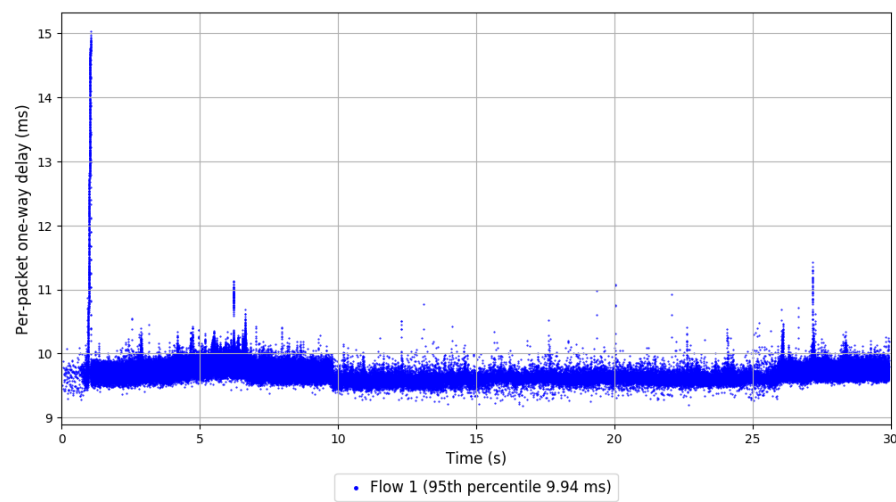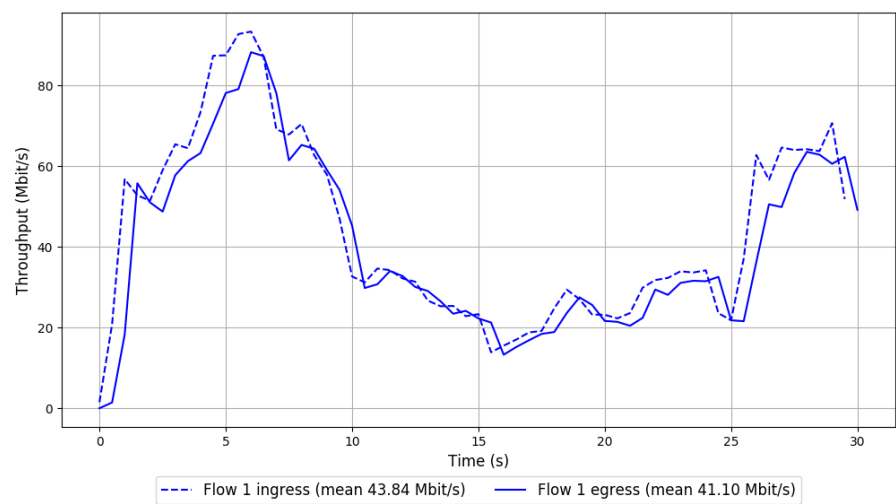
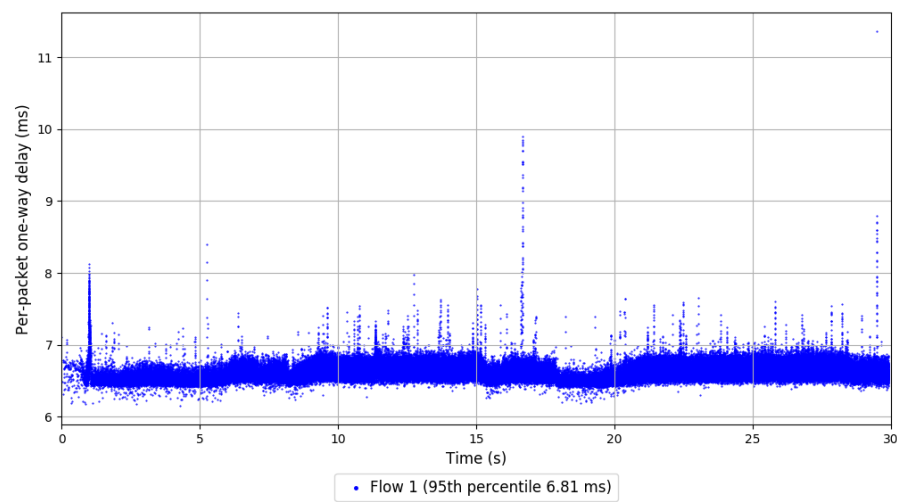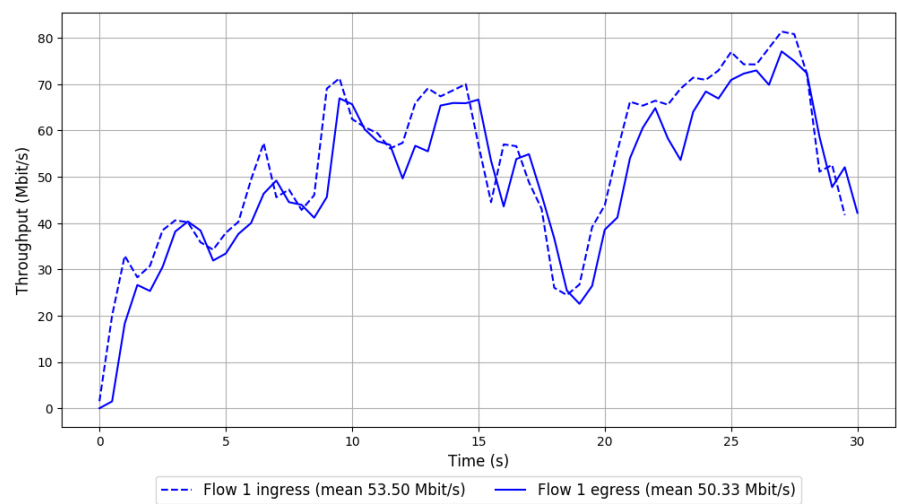## Run 8: Report of PCC-Vivace — Data Link

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-07-09 22:48:39
End at: 2018-07-09 22:49:09
Local clock offset: 2.311 ms
Remote clock offset: -2.597 ms


# Below is generated by plot.py at 2018-07-09 23:33:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 50.33 Mbit/s
95th percentile per-packet one-way delay: 6.811 ms
Loss rate: 5.93%
-- Flow 1:
Average throughput: 50.33 Mbit/s
95th percentile per-packet one-way delay: 6.811 ms
Loss rate: 5.93%
```

Run 9: Report of PCC-Vivace — Data Link

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-07-09 23:08:11
End at: 2018-07-09 23:08:41
Local clock offset: 1.988 ms
Remote clock offset: -2.813 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 7.957 ms
Loss rate: 5.28%
-- Flow 1:
Average throughput: 49.74 Mbit/s
95th percentile per-packet one-way delay: 7.957 ms
Loss rate: 5.28%
```
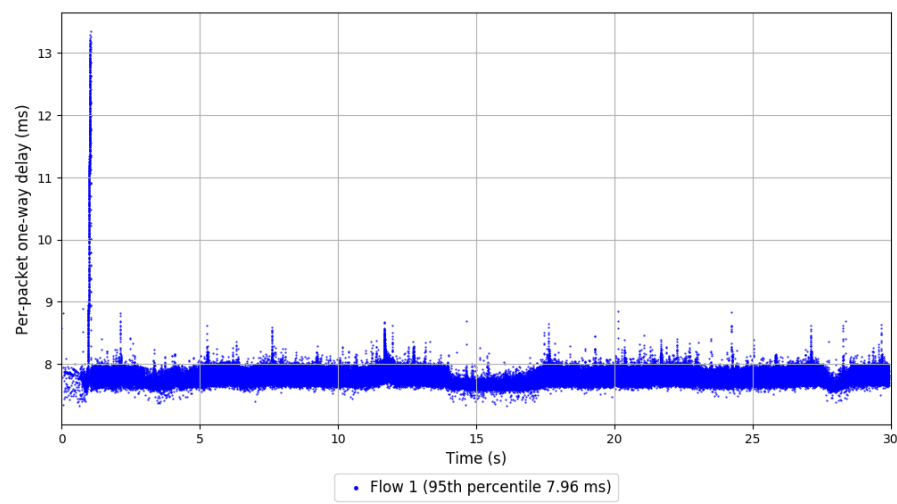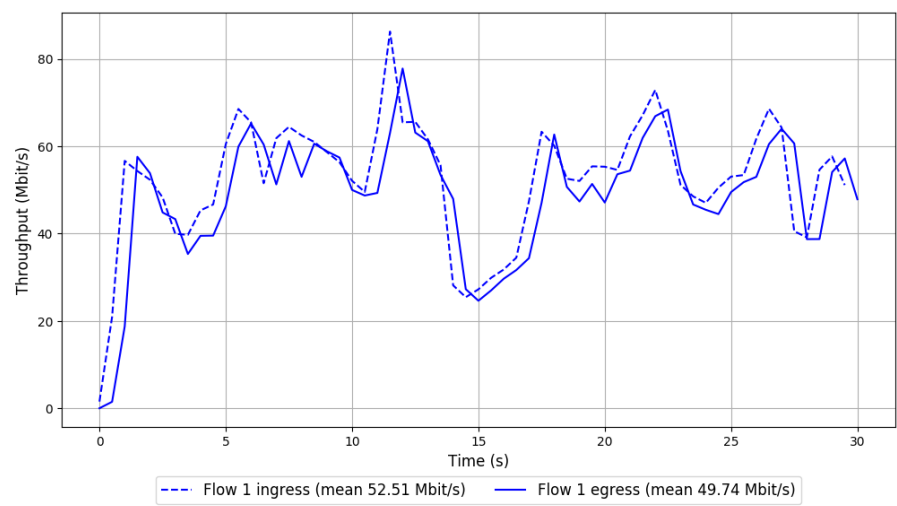
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 52.51 Mbit/s) ----- Flow 1 egress (mean 49.74 Mbit/s)

Flow 1 (95th percentile 7.96 ms)

323

```
Run 1: Statistics of WebRTC media

Start at: 2018-07-09 20:13:54
End at: 2018-07-09 20:14:24
Local clock offset: 1.456 ms
Remote clock offset: -4.779 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 10.374 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 10.374 ms
Loss rate: 0.60%
```
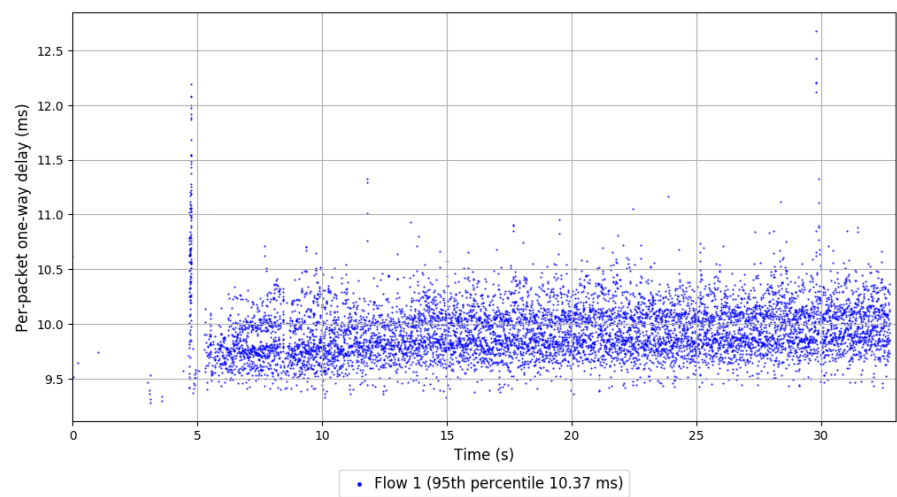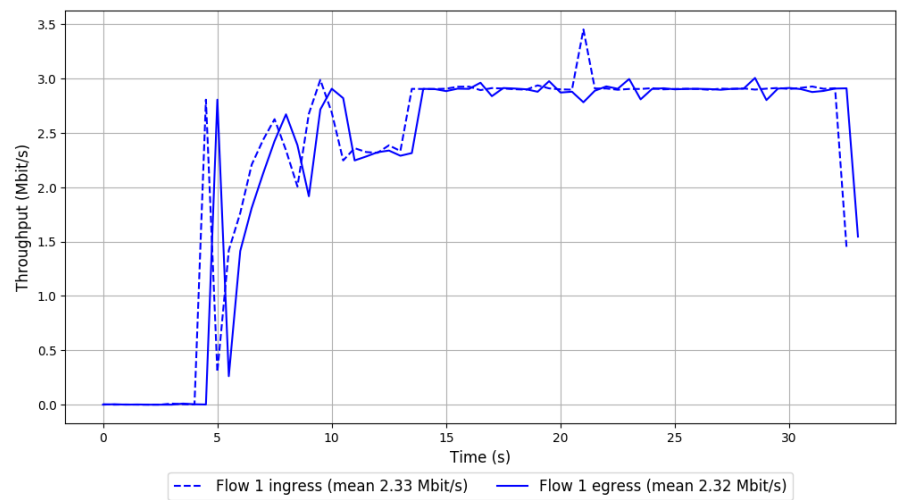
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.33 Mbit/s) — — —   Flow 1 egress (mean 2.32 Mbit/s) ———
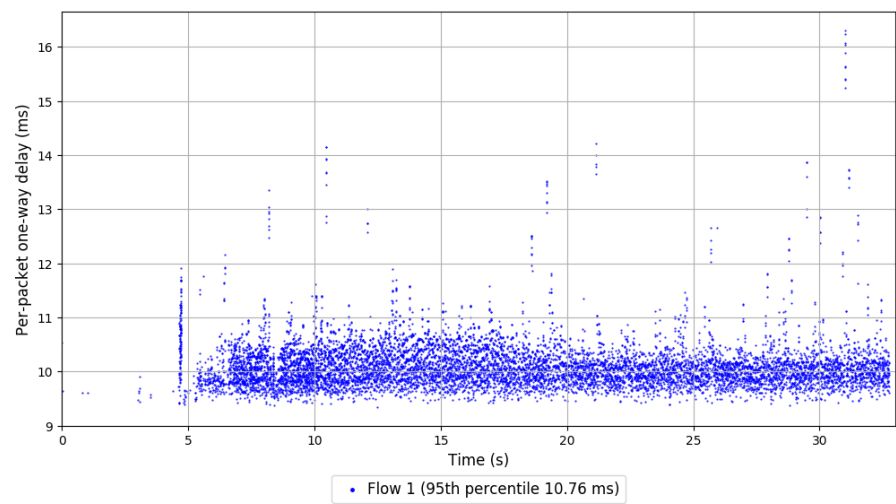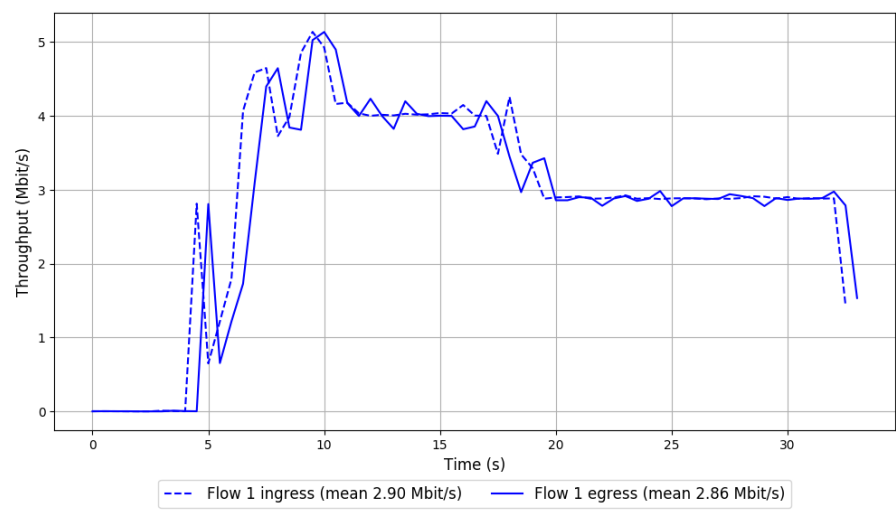

• Flow 1 (95th percentile 10.37 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2018-07-09 20:33:46
End at: 2018-07-09 20:34:16
Local clock offset: 0.016 ms
Remote clock offset: -7.455 ms

# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 10.755 ms
Loss rate: 1.60%
-- Flow 1:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 10.755 ms
Loss rate: 1.60%
```

Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-07-09 20:53:34
End at: 2018-07-09 20:54:04
Local clock offset: 0.925 ms
Remote clock offset: 7.695 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 10.849 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 10.849 ms
Loss rate: 0.78%
```
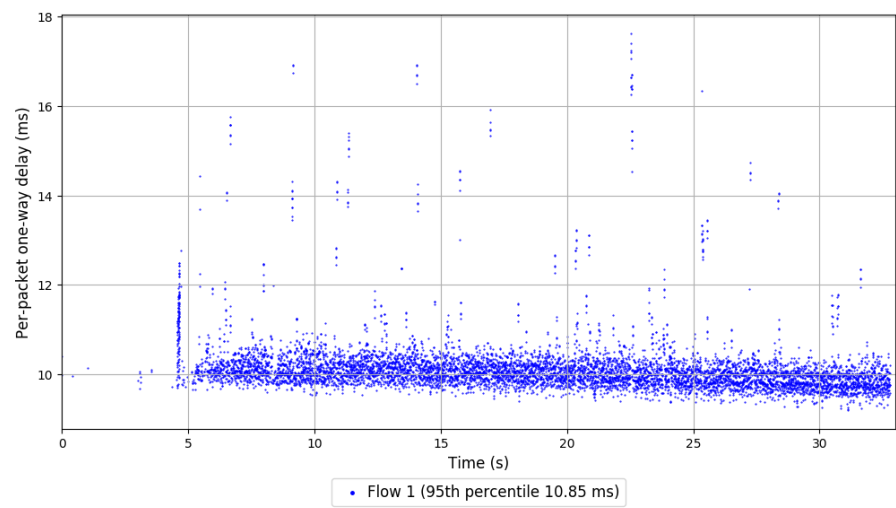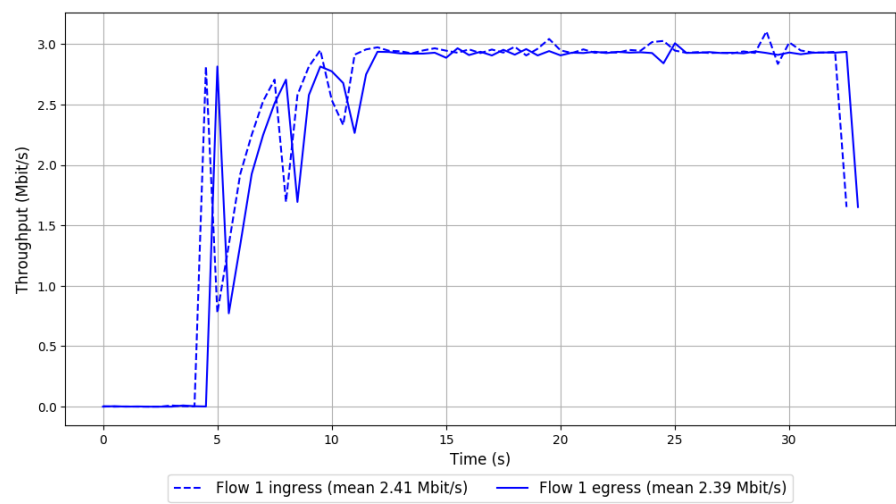
Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 2.41 Mbit/s)   Flow 1 egress (mean 2.39 Mbit/s)
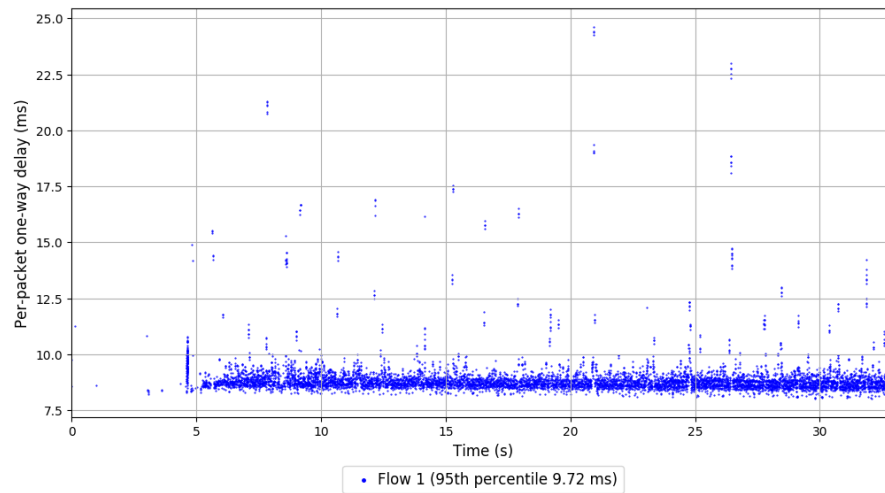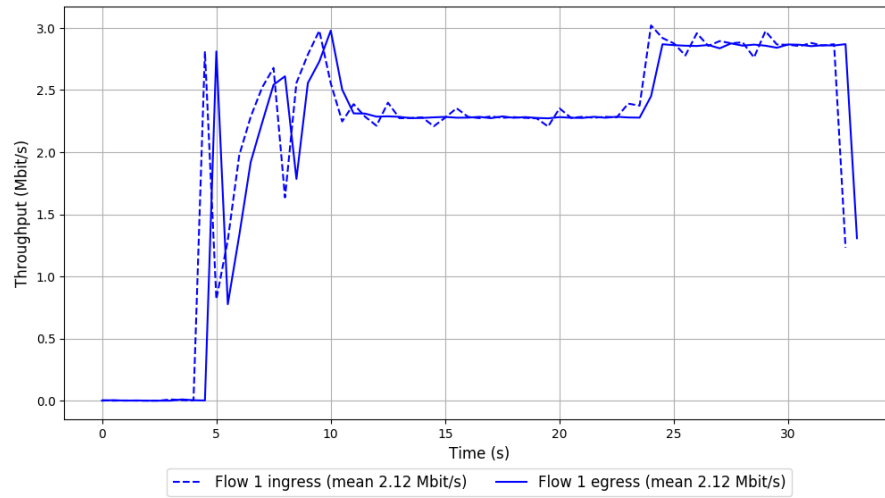

Flow 1 (95th percentile 10.85 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2018-07-09 21:13:09
End at: 2018-07-09 21:13:39
Local clock offset: 1.938 ms
Remote clock offset: 18.592 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 9.717 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 9.717 ms
Loss rate: 0.36%
```
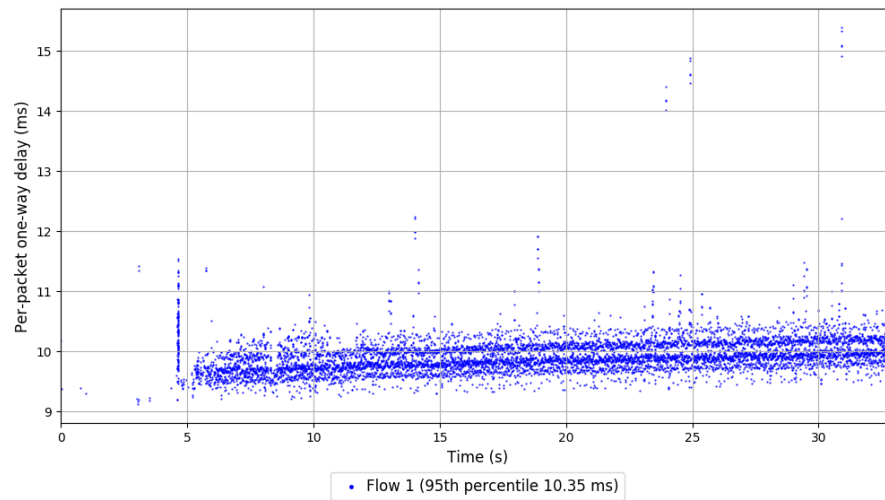
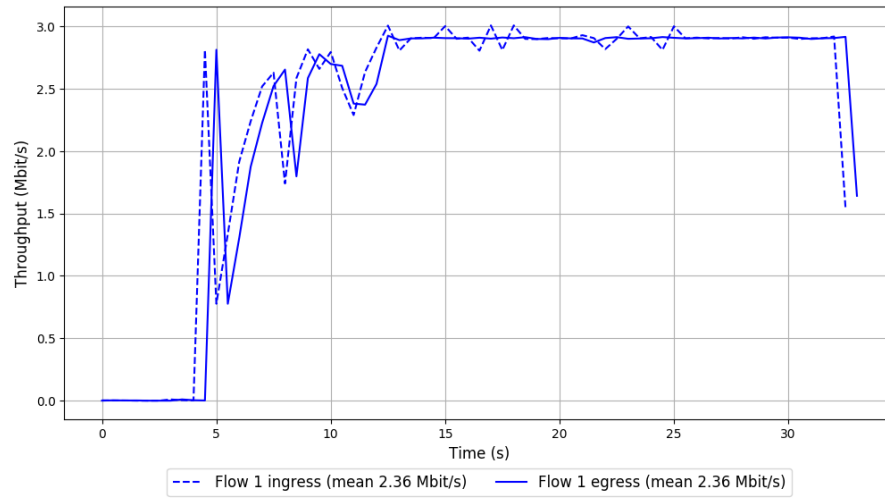Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-07-09 21:32:43
End at: 2018-07-09 21:33:13
Local clock offset: 0.296 ms
Remote clock offset: -5.612 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 10.354 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 10.354 ms
Loss rate: 0.15%
```

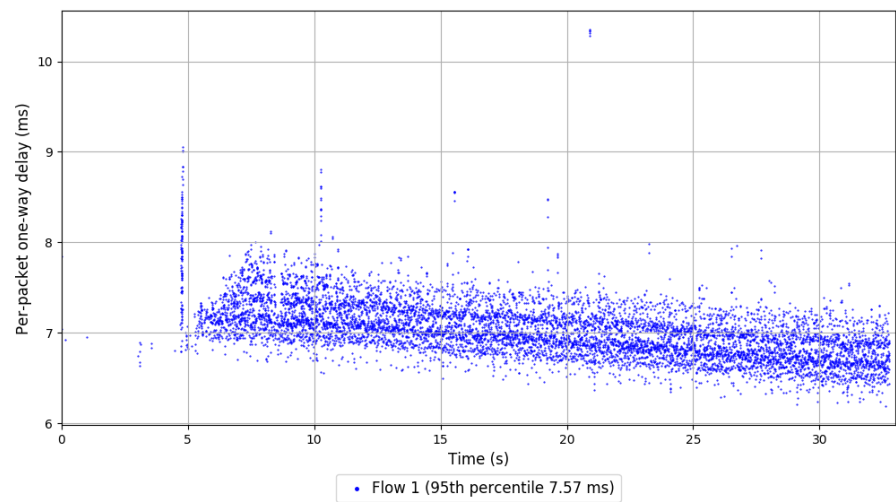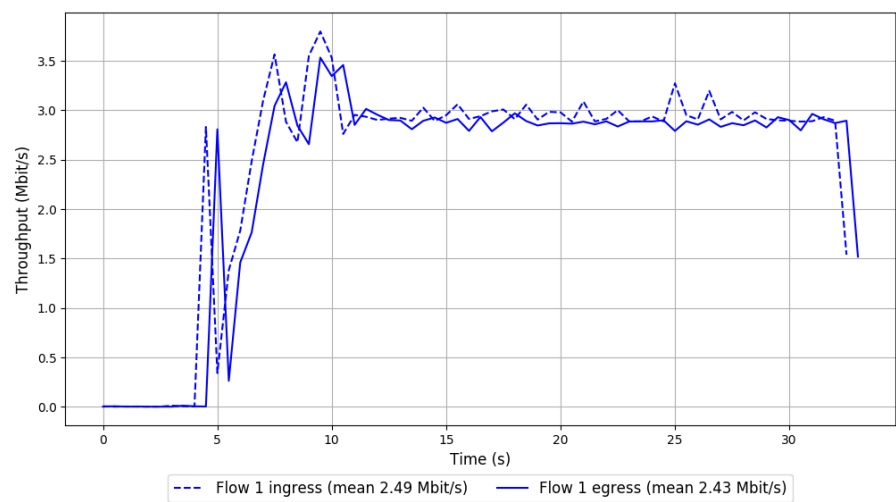Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-07-09 21:52:03
End at: 2018-07-09 21:52:33
Local clock offset: 2.481 ms
Remote clock offset: -12.27 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 7.567 ms
Loss rate: 2.43%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 7.567 ms
Loss rate: 2.43%
```

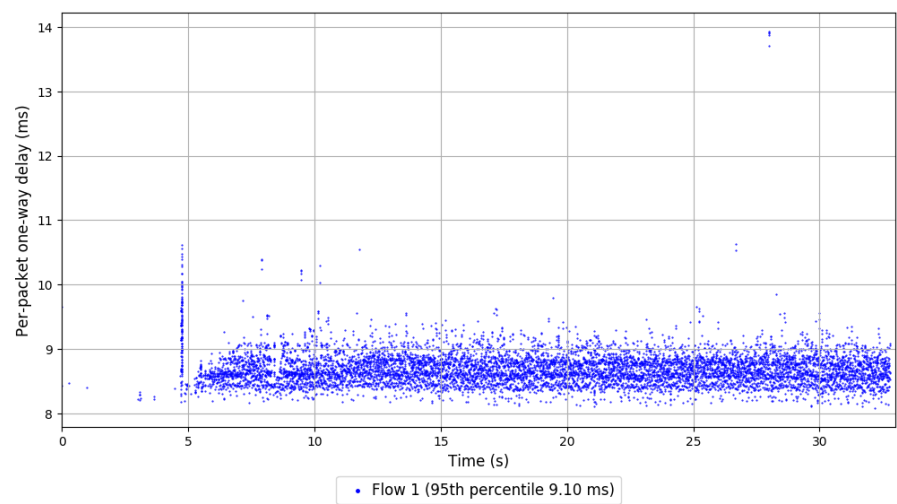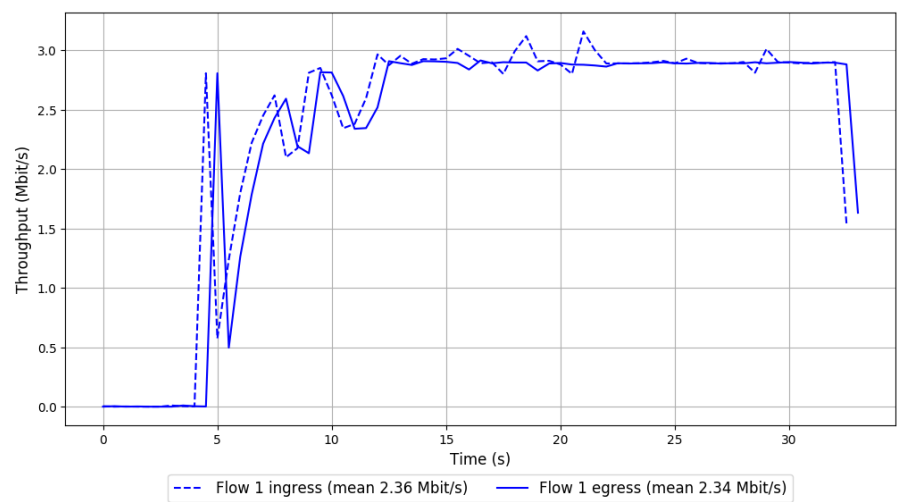Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-07-09 22:11:41
End at: 2018-07-09 22:12:11
Local clock offset: -3.116 ms
Remote clock offset: -7.498 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 9.096 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 9.096 ms
Loss rate: 0.85%
```

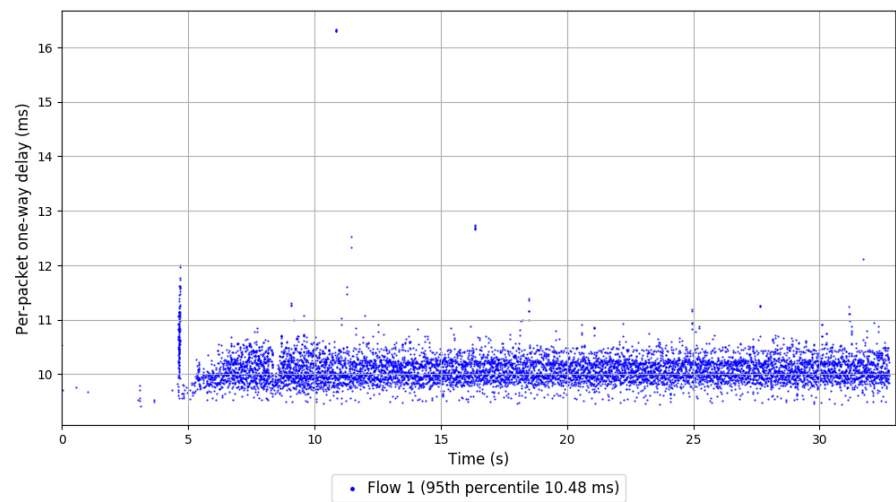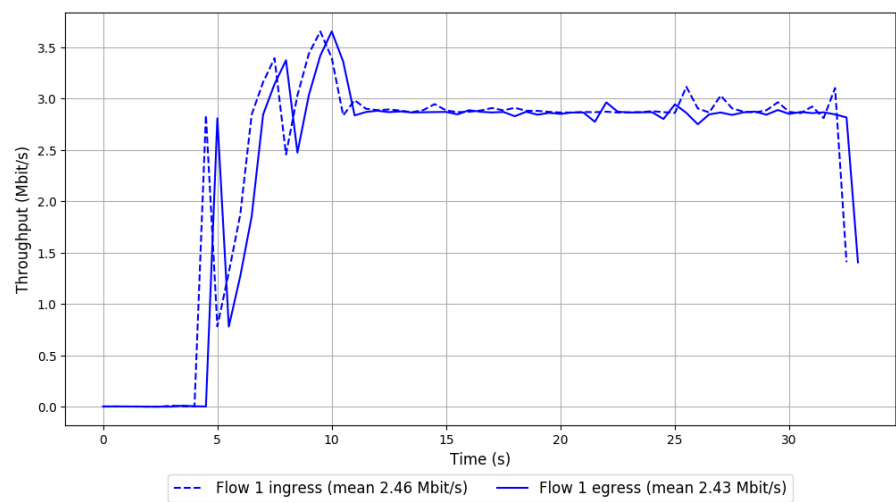Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-07-09 22:31:25
End at: 2018-07-09 22:31:55
Local clock offset: 0.9 ms
Remote clock offset: -1.195 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 10.483 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 2.43 Mbit/s
95th percentile per-packet one-way delay: 10.483 ms
Loss rate: 1.11%
```

Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-07-09 22:50:53
End at: 2018-07-09 22:51:23
Local clock offset: 2.901 ms
Remote clock offset: -2.69 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 7.552 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 7.552 ms
Loss rate: 1.27%
```
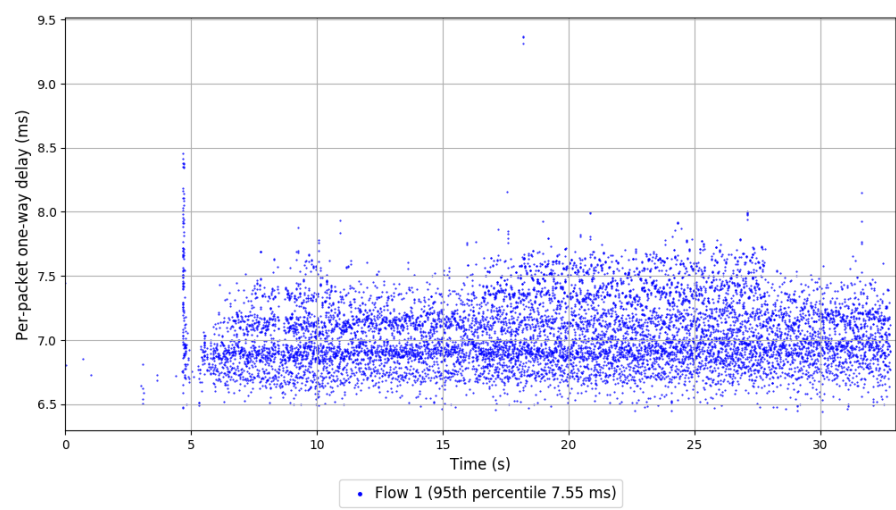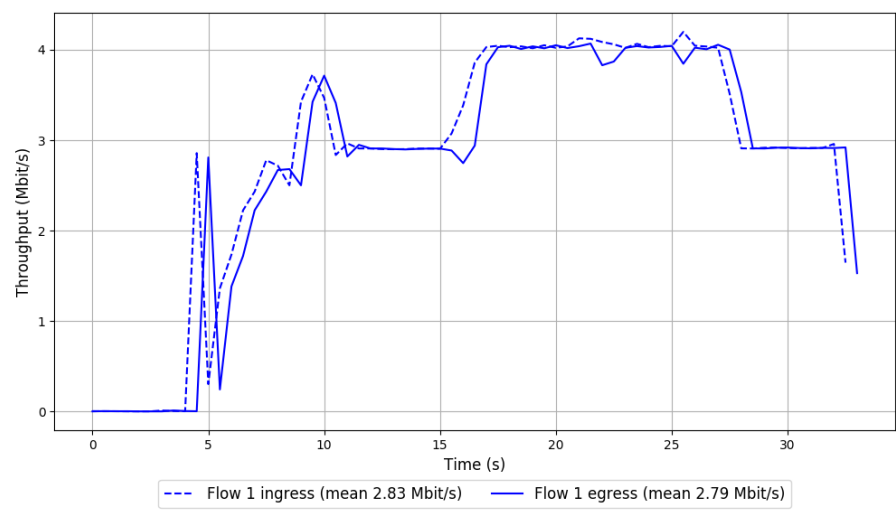
Run 9: Report of WebRTC media — Data Link

Throughput (Mbit/s) vs Time (s)

Flow 1 ingress (mean 2.83 Mbit/s)   Flow 1 egress (mean 2.79 Mbit/s)

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

• Flow 1 (95th percentile 7.55 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2018-07-09 23:10:25
End at: 2018-07-09 23:10:55
Local clock offset: 0.029 ms
Remote clock offset: -2.157 ms


# Below is generated by plot.py at 2018-07-09 23:33:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 10.073 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 10.073 ms
Loss rate: 0.94%
```

Run 10: Report of WebRTC media — Data Link