Pantheon Report

Generated at 2018-08-04 00:27:48 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

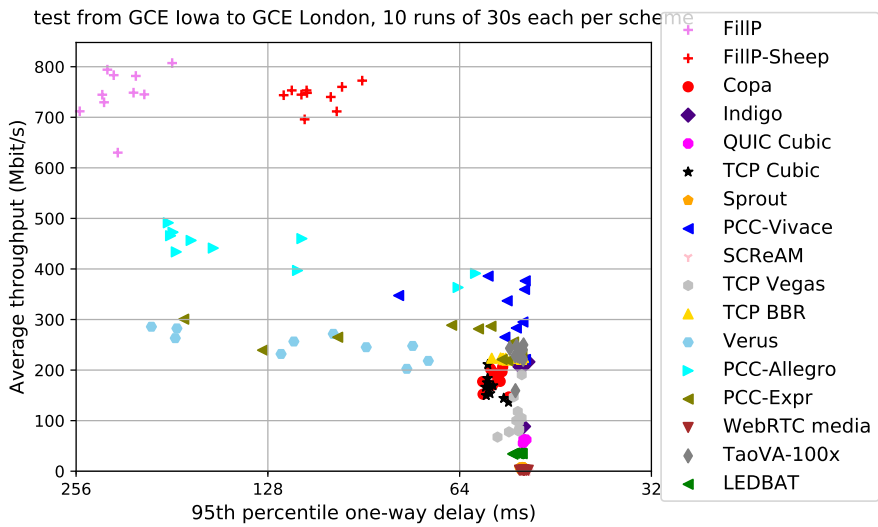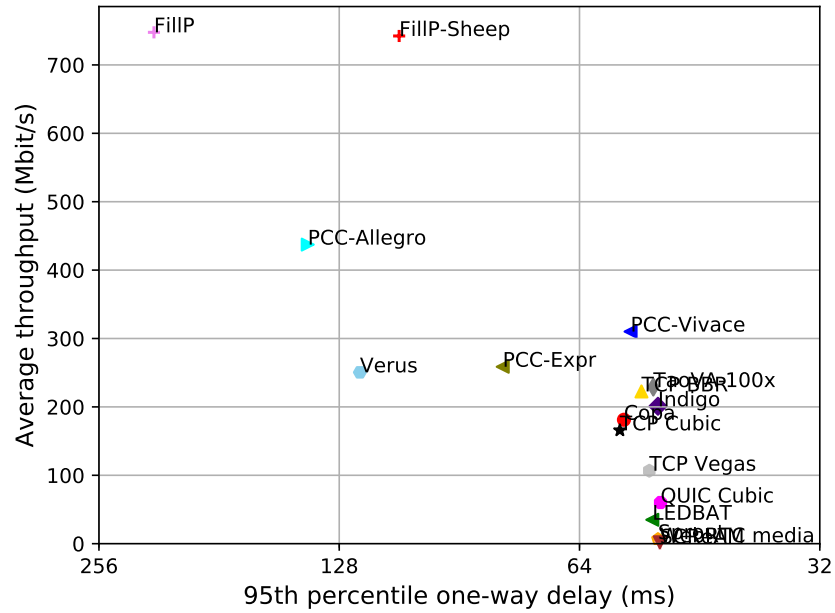Each test lasted for 30 seconds running 1 flow.

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

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

```
Git summary:
branch: master @ 640164b5b17c7c6561fff57729b3b5935d8596ce
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ daed0c84f98531712514b2231f43ec6901114ffe
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdfe58e562f4
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

test from GCE Iowa to GCE London, 10 runs of 30s each per scheme

2

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	222.62	53.53	0.35
Copa	10	181.19	56.30	0.30
TCP Cubic	10	165.73	56.97	0.31
FillP	10	747.64	218.44	2.45
FillP-Sheep	10	742.33	107.68	0.60
Indigo	9	200.94	51.04	0.34
LEDBAT	10	34.96	51.88	0.67
PCC-Allegro	10	437.29	140.16	0.83
PCC-Expr	10	258.67	79.88	0.78
QUIC Cubic	3	60.19	50.67	0.53
SCReAM	10	0.22	50.75	0.32
Sprout	10	6.69	51.04	0.40
TaoVA-100x	10	228.99	51.73	0.31
TCP Vegas	10	106.65	52.33	0.32
Verus	10	250.52	120.60	0.58
PCC-Vivace	10	310.15	55.24	0.44
WebRTC media	9	1.98	50.76	0.38

```
Run 1: Statistics of TCP BBR

Start at: 2018-08-03 18:39:39
End at: 2018-08-03 18:40:10
Local clock offset: -0.314 ms
Remote clock offset: 0.032 ms

# Below is generated by plot.py at 2018-08-03 22:27:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.82 Mbit/s
95th percentile per-packet one-way delay: 53.940 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 219.82 Mbit/s
95th percentile per-packet one-way delay: 53.940 ms
Loss rate: 0.36%
```
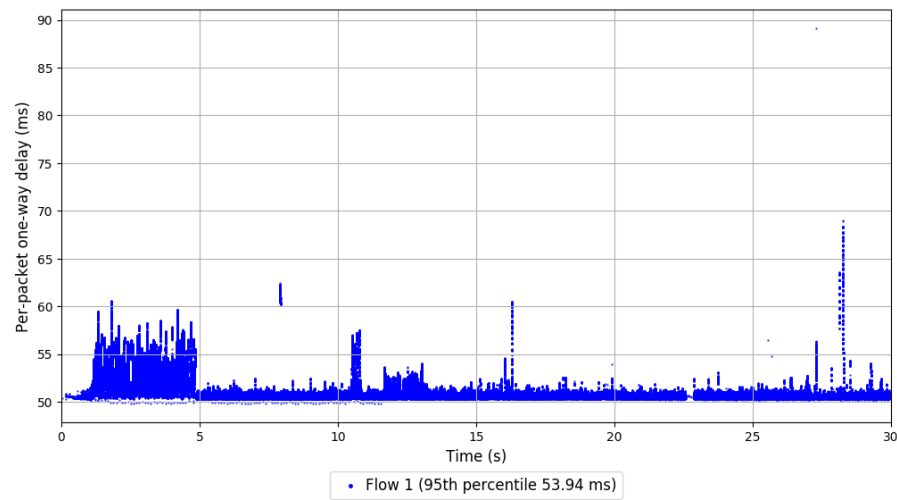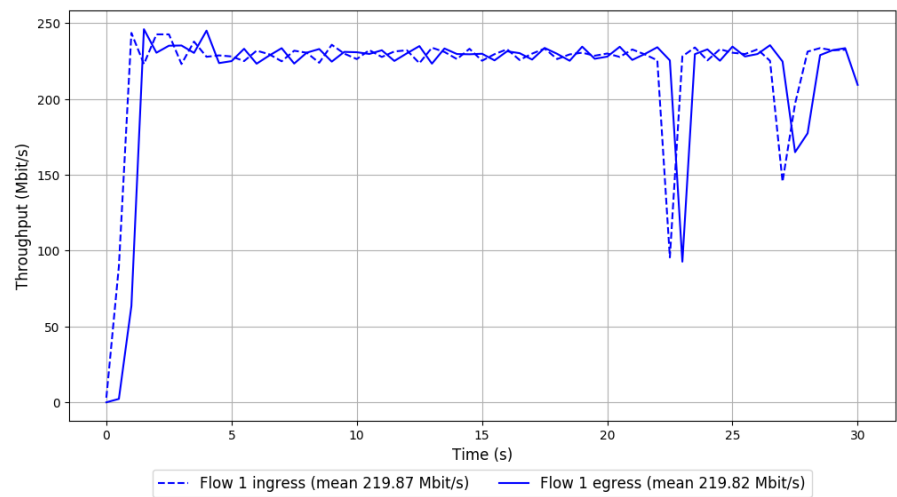
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-08-03 19:01:25
End at: 2018-08-03 19:01:55
Local clock offset: 0.036 ms
Remote clock offset: -0.027 ms


# Below is generated by plot.py at 2018-08-03 22:27:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.41 Mbit/s
95th percentile per-packet one-way delay: 54.199 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 223.41 Mbit/s
95th percentile per-packet one-way delay: 54.199 ms
Loss rate: 0.33%
```
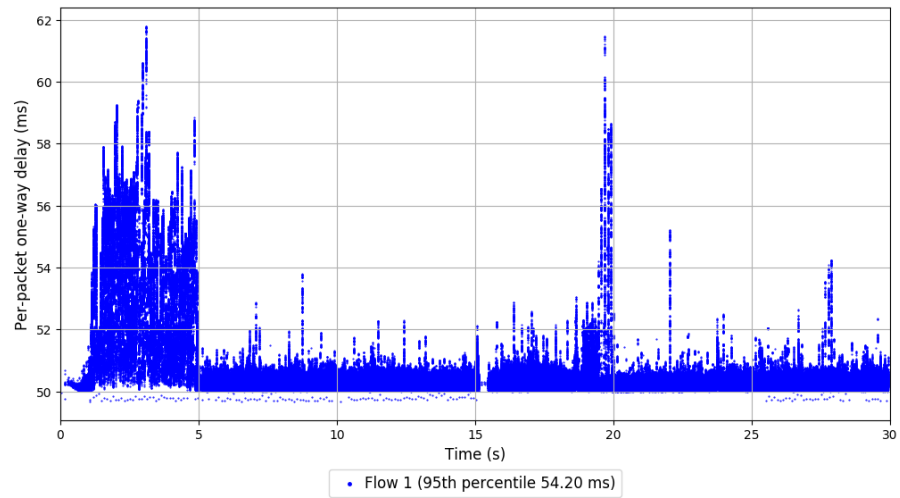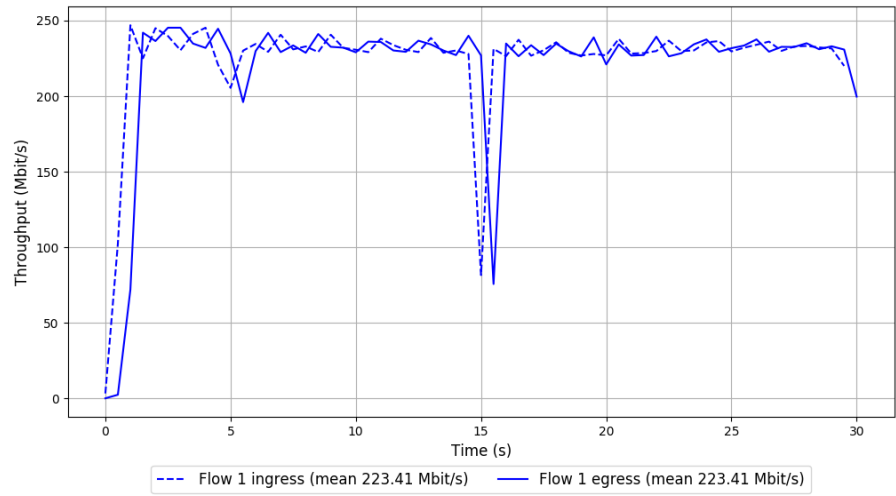
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: 2018-08-03 19:23:22
End at: 2018-08-03 19:23:52
Local clock offset: 0.034 ms
Remote clock offset: -0.175 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.77 Mbit/s
95th percentile per-packet one-way delay: 50.798 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 224.77 Mbit/s
95th percentile per-packet one-way delay: 50.798 ms
Loss rate: 0.35%
```
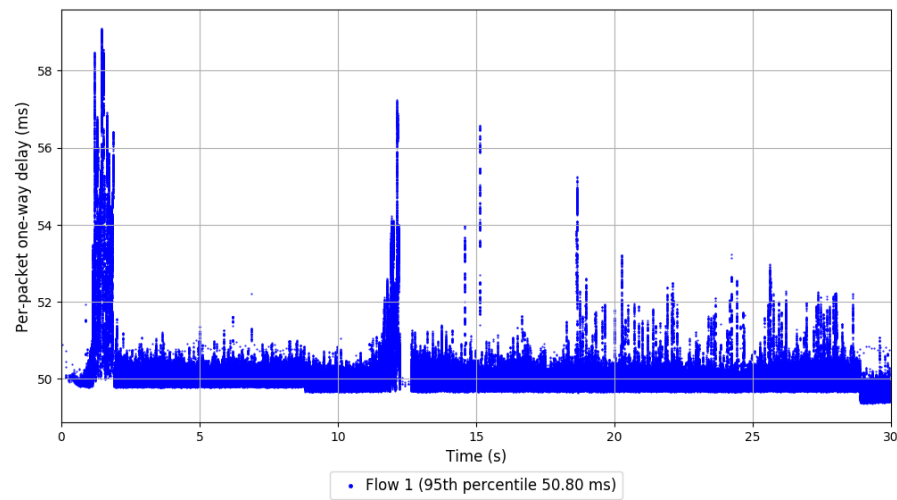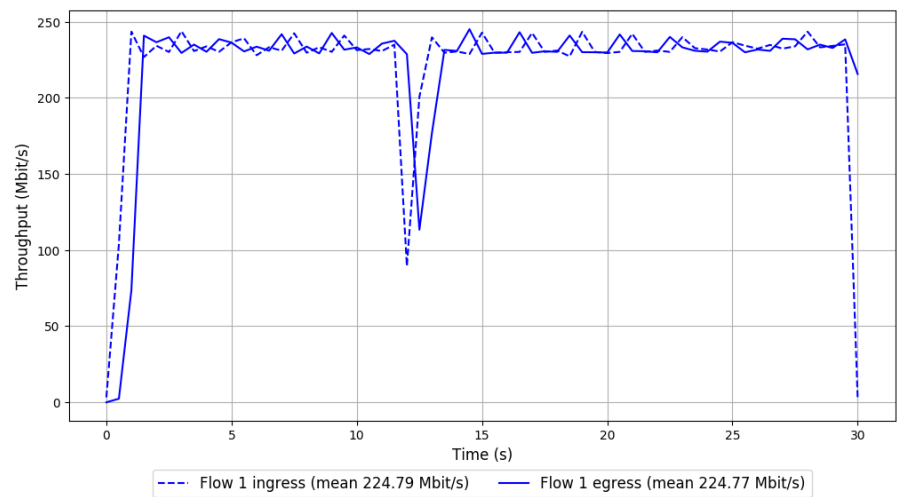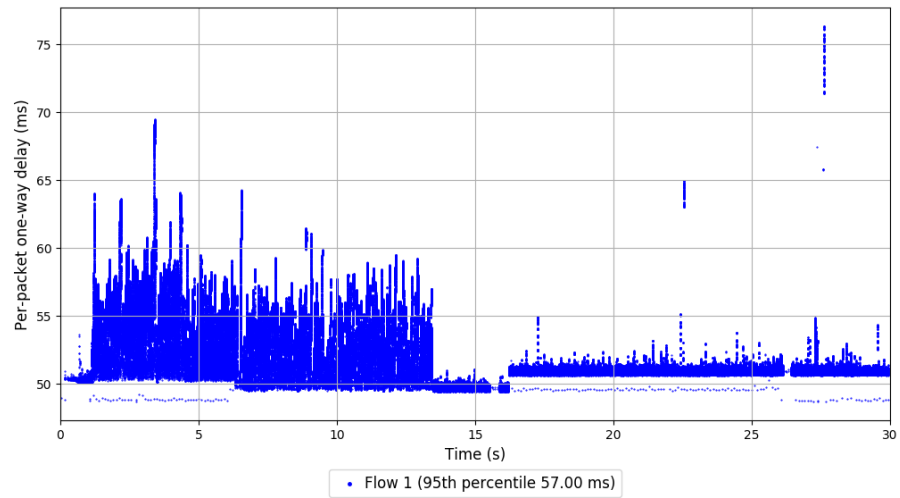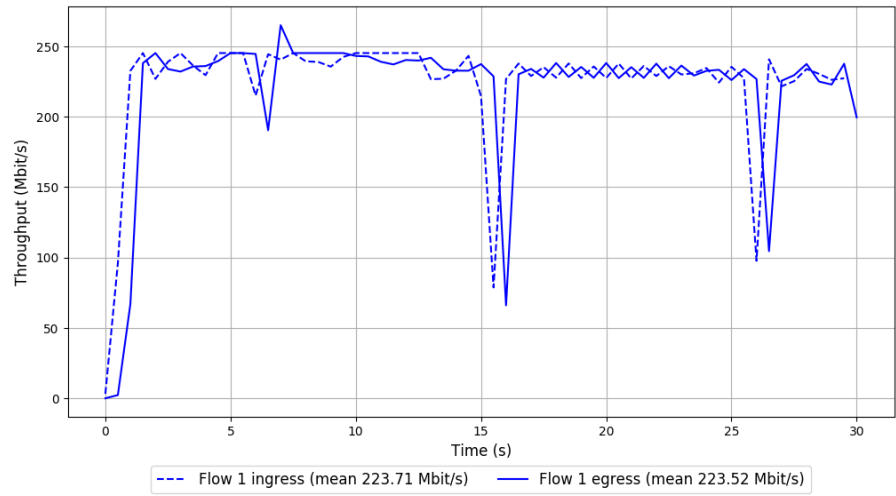
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.79 Mbit/s)   Flow 1 egress (mean 224.77 Mbit/s)

Flow 1 (95th percentile 50.80 ms)

```
Run 4: Statistics of TCP BBR

Start at: 2018-08-03 19:45:25
End at: 2018-08-03 19:45:55
Local clock offset: 0.136 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.52 Mbit/s
95th percentile per-packet one-way delay: 56.997 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 223.52 Mbit/s
95th percentile per-packet one-way delay: 56.997 ms
Loss rate: 0.34%
```
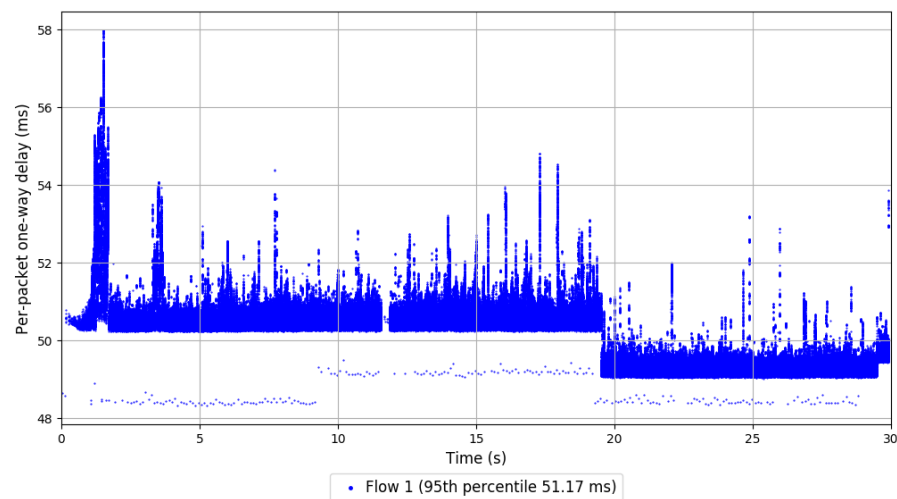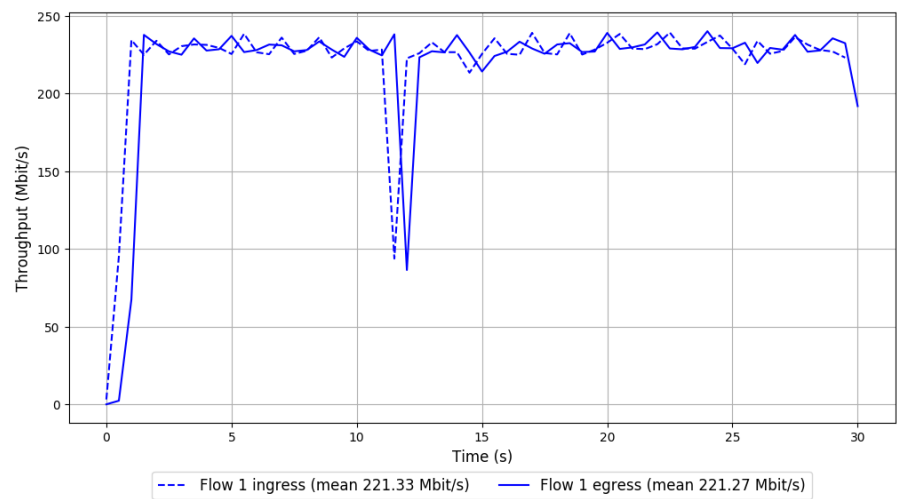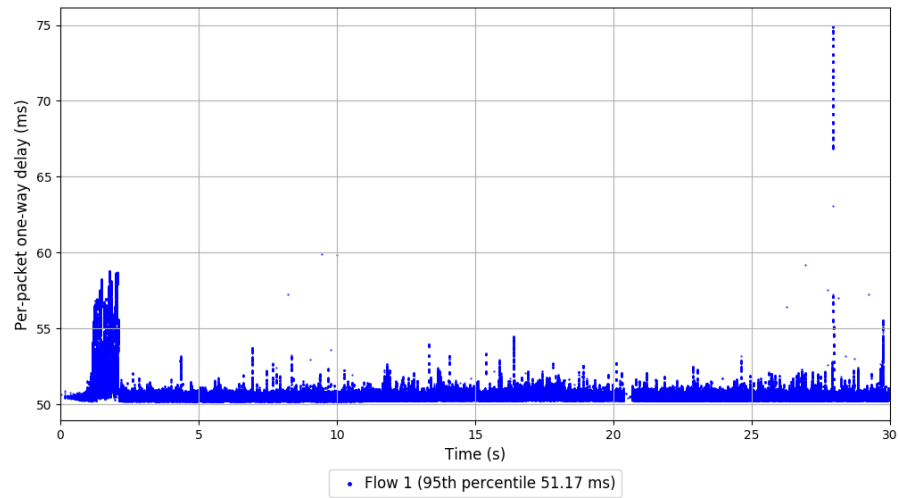
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-08-03 20:07:12
End at: 2018-08-03 20:07:42
Local clock offset: -0.21 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.27 Mbit/s
95th percentile per-packet one-way delay: 51.172 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 221.27 Mbit/s
95th percentile per-packet one-way delay: 51.172 ms
Loss rate: 0.36%
```

Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 221.33 Mbit/s) ----   Flow 1 egress (mean 221.27 Mbit/s) ——
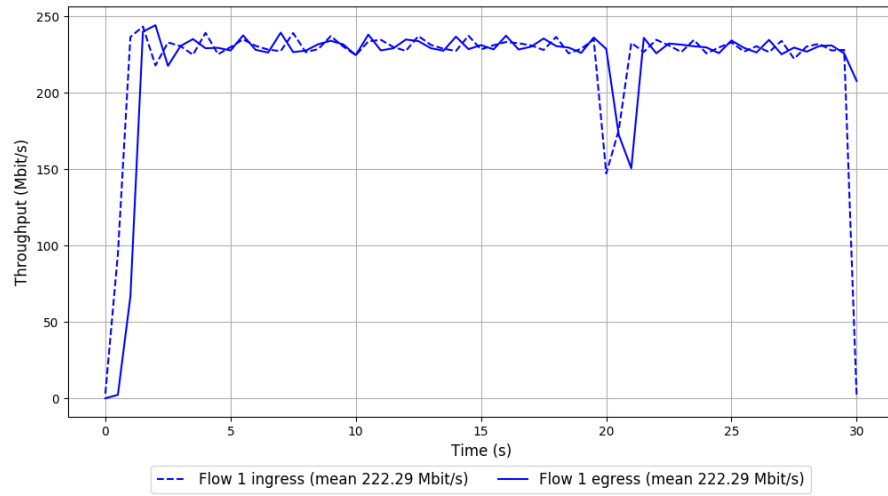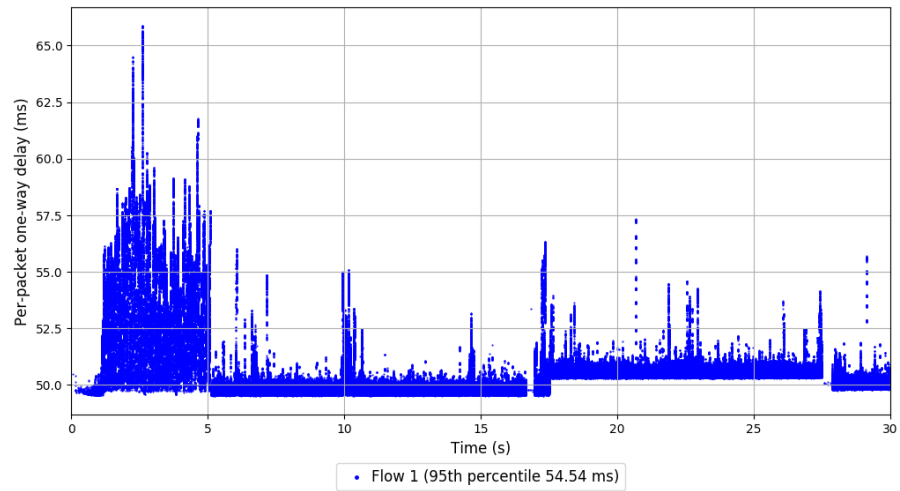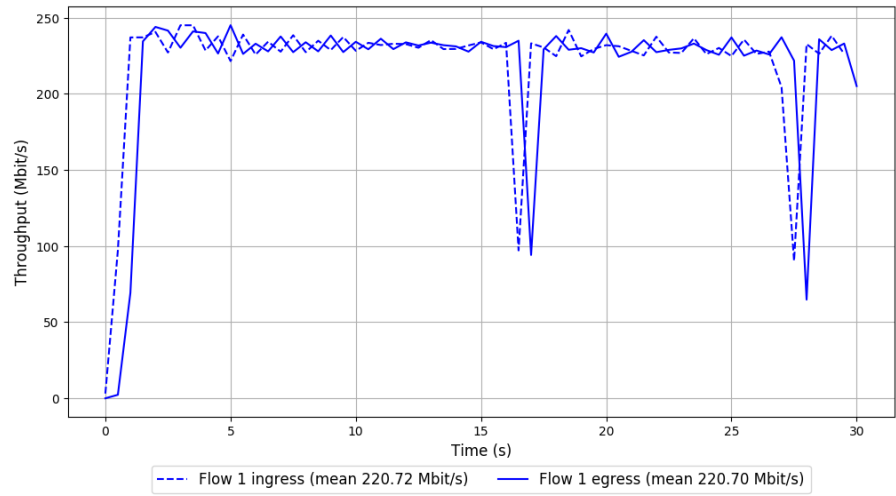

• Flow 1 (95th percentile 51.17 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-08-03 20:29:10
End at: 2018-08-03 20:29:40
Local clock offset: -0.199 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.29 Mbit/s
95th percentile per-packet one-way delay: 51.169 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 222.29 Mbit/s
95th percentile per-packet one-way delay: 51.169 ms
Loss rate: 0.34%
```
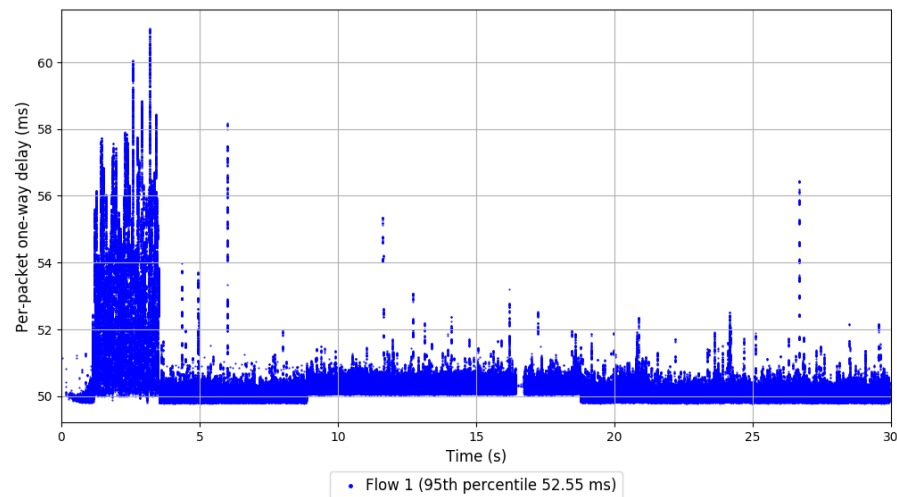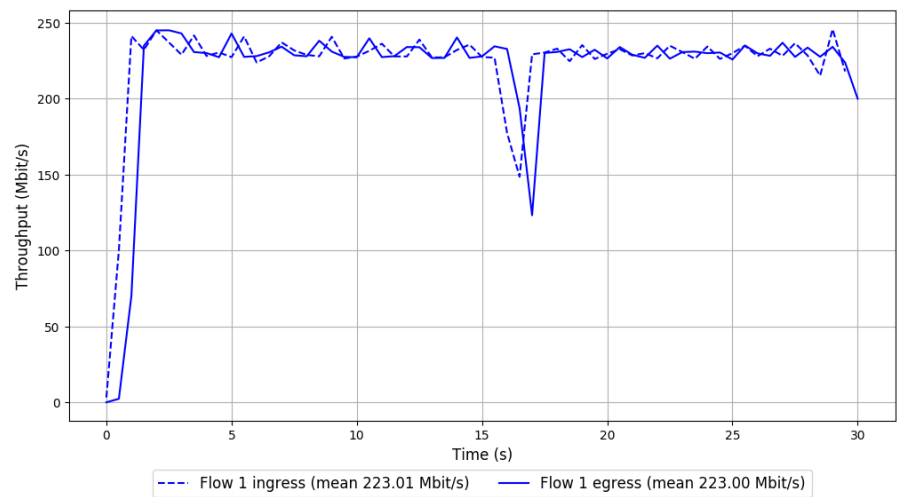
Run 6: Report of TCP BBR — Data Link

```
Run 7: Statistics of TCP BBR

Start at: 2018-08-03 20:51:14
End at: 2018-08-03 20:51:44
Local clock offset: -0.22 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.70 Mbit/s
95th percentile per-packet one-way delay: 54.539 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 220.70 Mbit/s
95th percentile per-packet one-way delay: 54.539 ms
Loss rate: 0.35%
```

Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-08-03 21:13:12
End at: 2018-08-03 21:13:42
Local clock offset: 0.098 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-08-03 22:27:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.00 Mbit/s
95th percentile per-packet one-way delay: 52.546 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 223.00 Mbit/s
95th percentile per-packet one-way delay: 52.546 ms
Loss rate: 0.35%
```
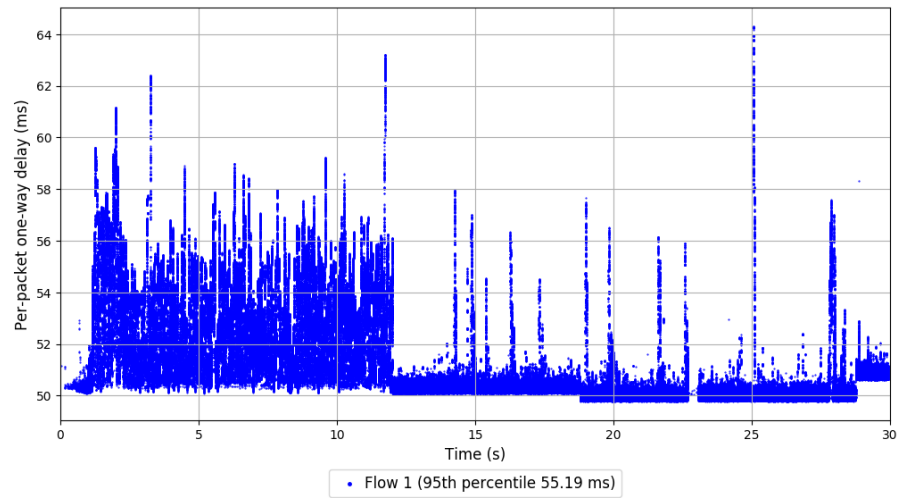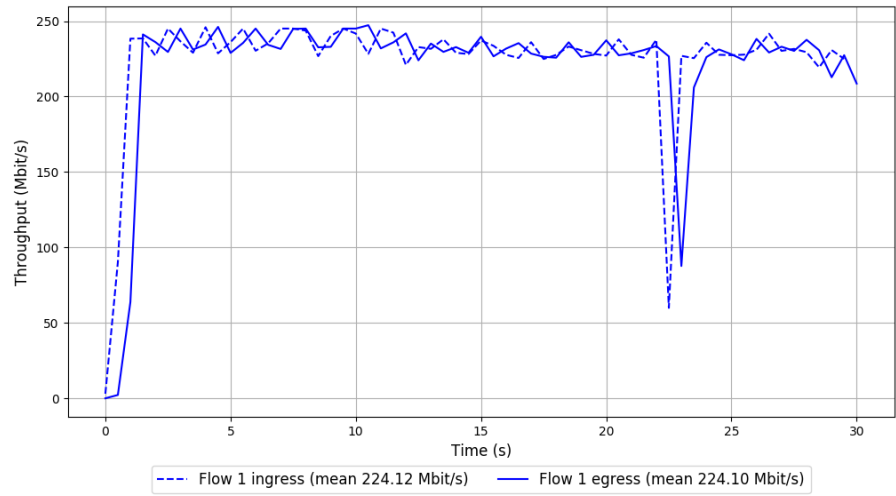
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 223.01 Mbit/s)   Flow 1 egress (mean 223.00 Mbit/s)
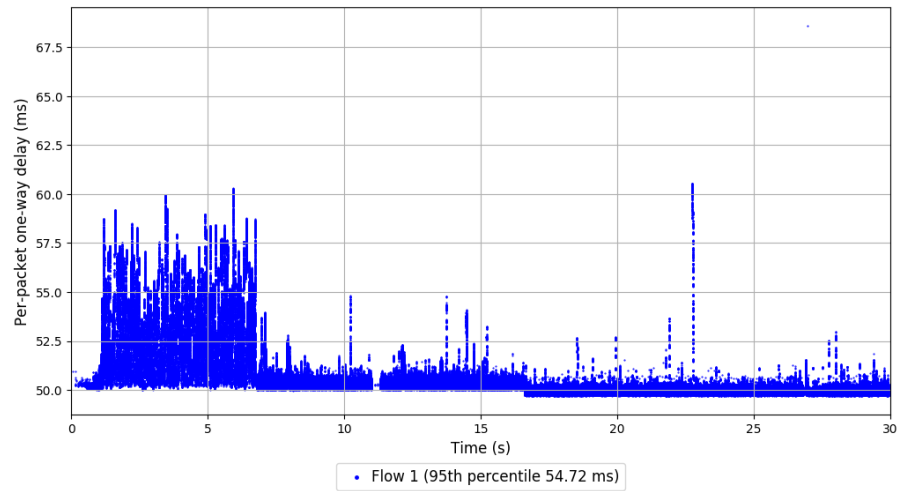

Flow 1 (95th percentile 52.55 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-08-03 21:35:22
End at: 2018-08-03 21:35:52
Local clock offset: 0.146 ms
Remote clock offset: -0.079 ms


# Below is generated by plot.py at 2018-08-03 22:31:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.10 Mbit/s
95th percentile per-packet one-way delay: 55.187 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 224.10 Mbit/s
95th percentile per-packet one-way delay: 55.187 ms
Loss rate: 0.35%
```

Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 224.12 Mbit/s) ---- Flow 1 egress (mean 224.10 Mbit/s)
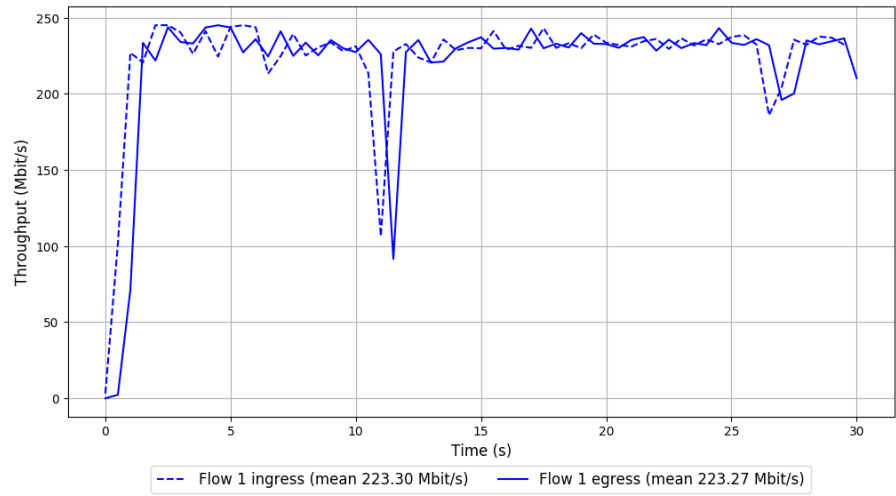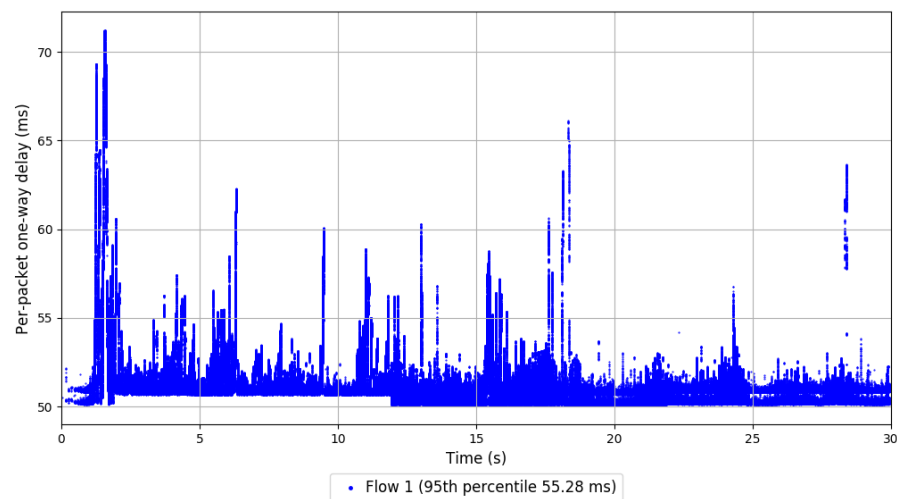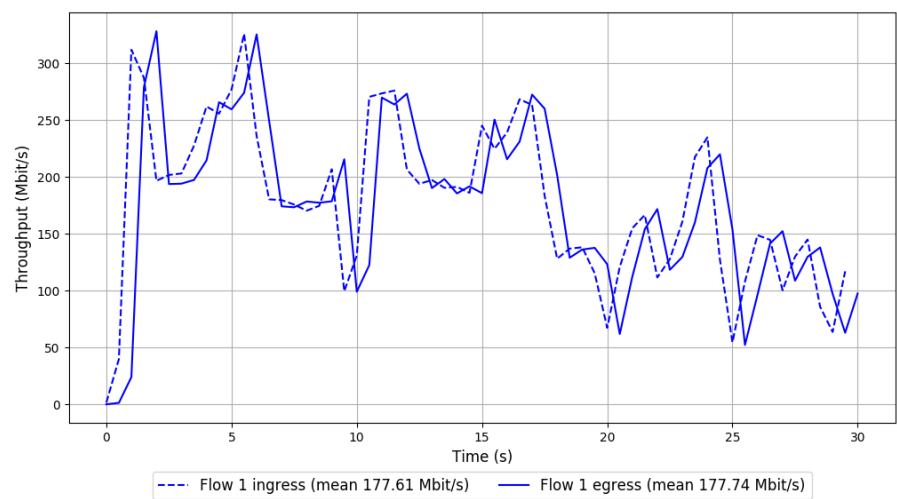

Flow 1 (95th percentile 55.19 ms)

21

```
Run 10: Statistics of TCP BBR

Start at: 2018-08-03 21:57:25
End at: 2018-08-03 21:57:55
Local clock offset: 0.085 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-08-03 22:31:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.27 Mbit/s
95th percentile per-packet one-way delay: 54.720 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 223.27 Mbit/s
95th percentile per-packet one-way delay: 54.720 ms
Loss rate: 0.35%
```

Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 223.30 Mbit/s) --- Flow 1 egress (mean 223.27 Mbit/s)

Flow 1 (95th percentile 54.72 ms)

```
Run 1: Statistics of Copa

Start at: 2018-08-03 18:38:19
End at: 2018-08-03 18:38:49
Local clock offset: 0.016 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-08-03 22:33:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.74 Mbit/s
95th percentile per-packet one-way delay: 55.285 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 177.74 Mbit/s
95th percentile per-packet one-way delay: 55.285 ms
Loss rate: 0.26%
```
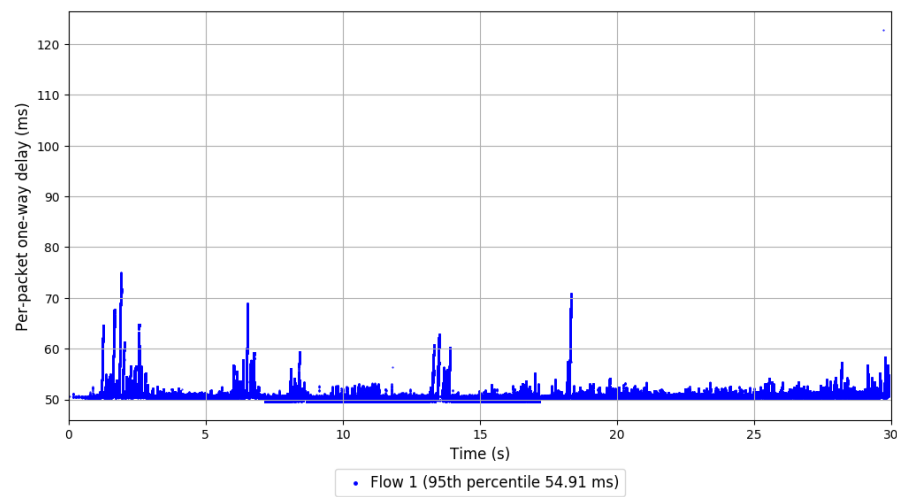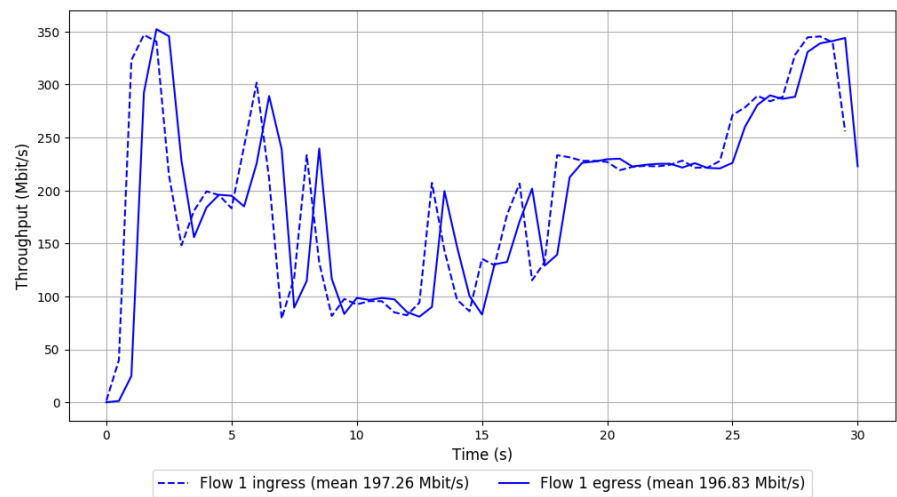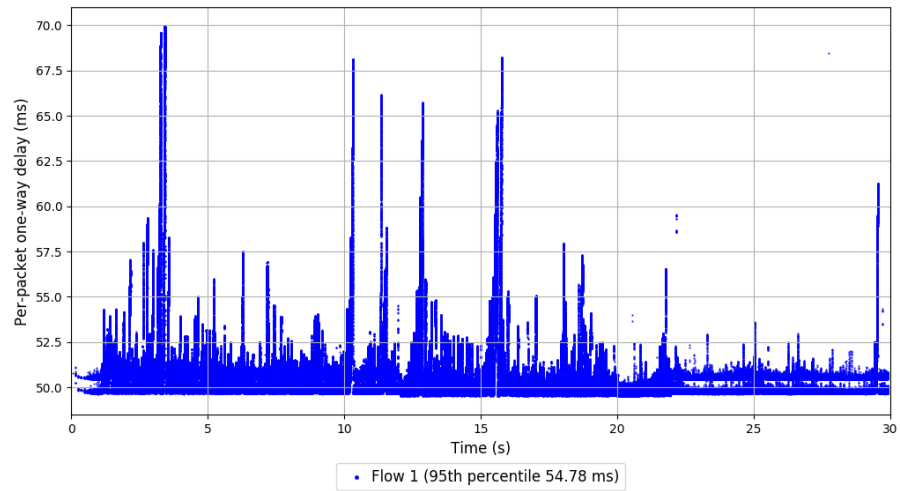
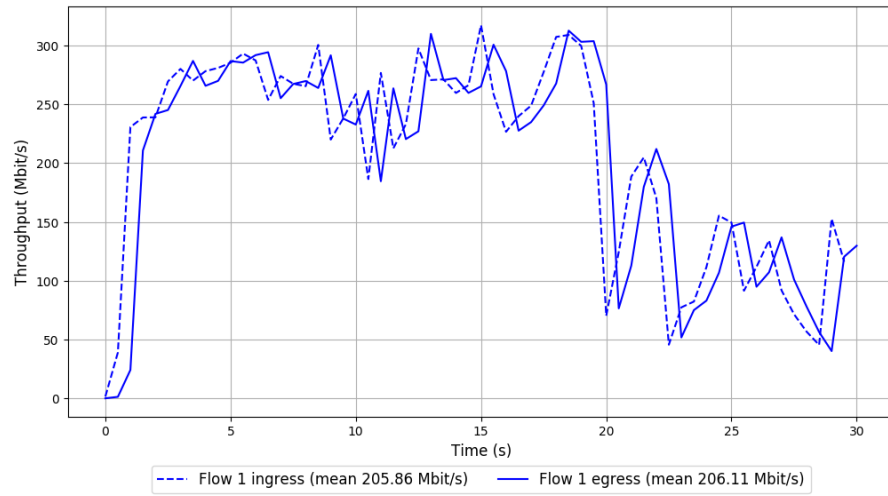Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 177.61 Mbit/s) -------- Flow 1 egress (mean 177.74 Mbit/s) ——————

Flow 1 (95th percentile 55.28 ms)

```
Run 2: Statistics of Copa

Start at: 2018-08-03 19:00:04
End at: 2018-08-03 19:00:34
Local clock offset: 0.394 ms
Remote clock offset: 0.032 ms


# Below is generated by plot.py at 2018-08-03 22:34:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 196.83 Mbit/s
95th percentile per-packet one-way delay: 54.912 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 196.83 Mbit/s
95th percentile per-packet one-way delay: 54.912 ms
Loss rate: 0.56%
```
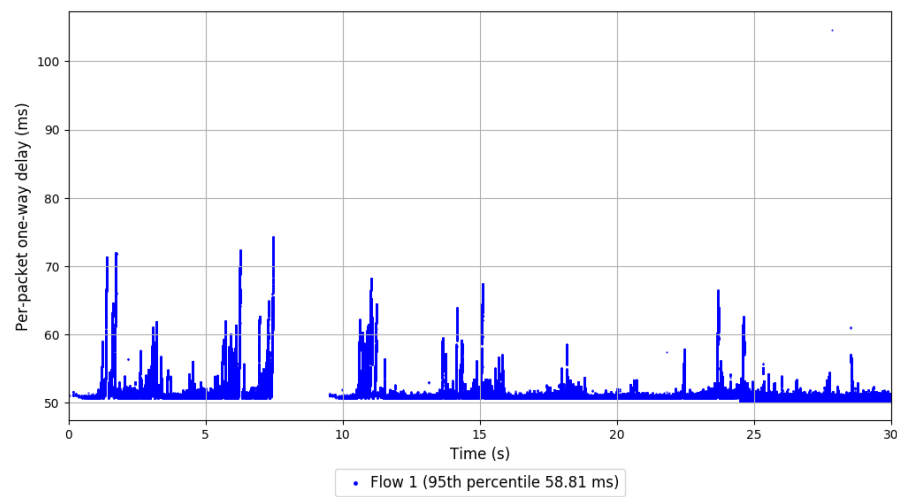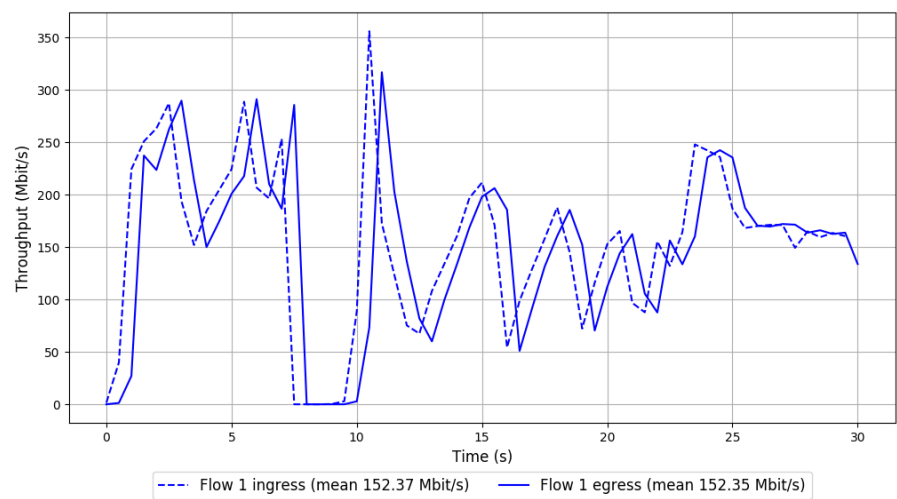
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-08-03 19:21:59
End at: 2018-08-03 19:22:29
Local clock offset: 0.021 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2018-08-03 22:34:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.11 Mbit/s
95th percentile per-packet one-way delay: 54.785 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 206.11 Mbit/s
95th percentile per-packet one-way delay: 54.785 ms
Loss rate: 0.21%
```
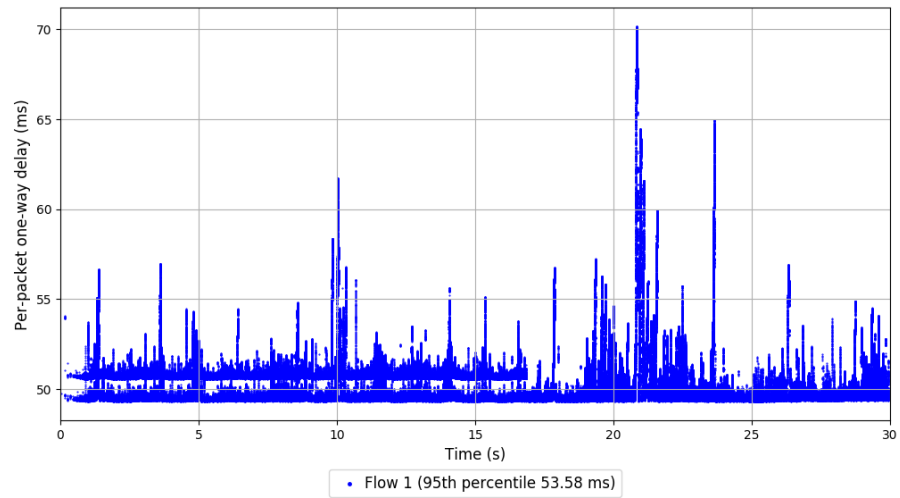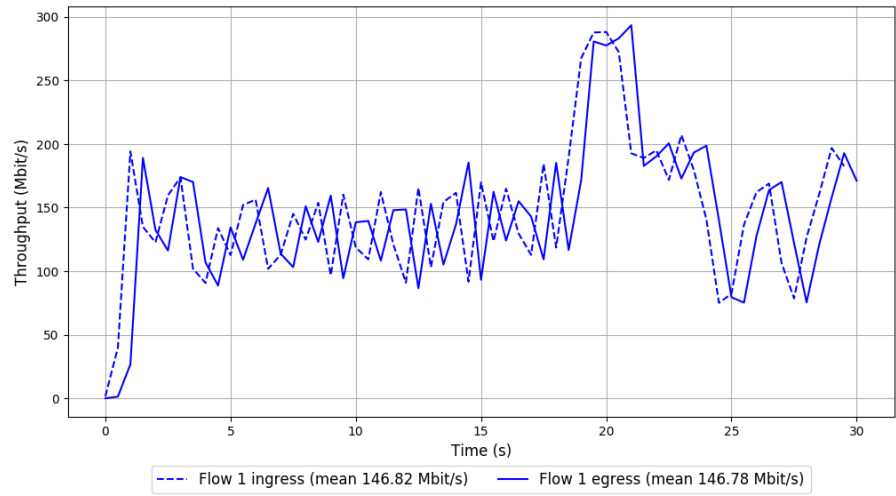
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-08-03 19:44:07
End at: 2018-08-03 19:44:37
Local clock offset: 0.171 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2018-08-03 22:34:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 152.35 Mbit/s
95th percentile per-packet one-way delay: 58.808 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 152.35 Mbit/s
95th percentile per-packet one-way delay: 58.808 ms
Loss rate: 0.35%
```
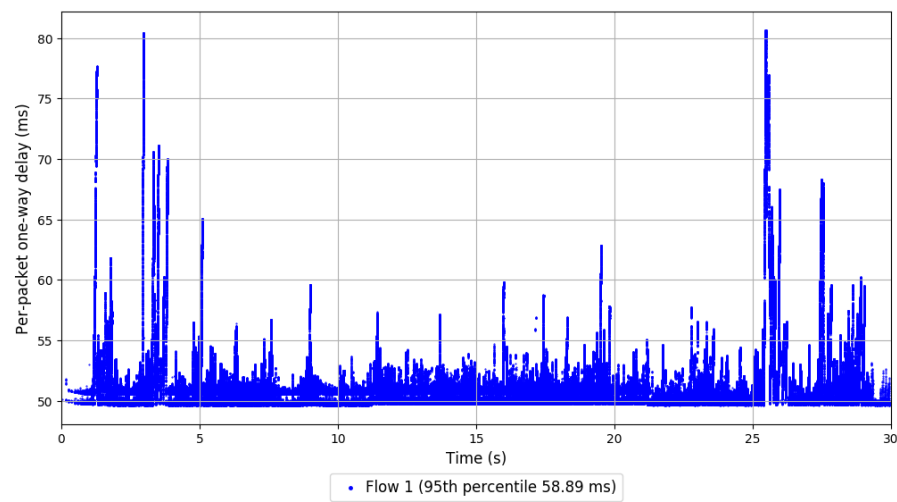
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-08-03 20:05:54
End at: 2018-08-03 20:06:24
Local clock offset: 0.118 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-08-03 22:34:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 146.78 Mbit/s
95th percentile per-packet one-way delay: 53.576 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 146.78 Mbit/s
95th percentile per-packet one-way delay: 53.576 ms
Loss rate: 0.36%
```

Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-08-03 20:27:50
End at: 2018-08-03 20:28:20
Local clock offset: 0.213 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2018-08-03 22:34:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.20 Mbit/s
95th percentile per-packet one-way delay: 58.888 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 177.20 Mbit/s
95th percentile per-packet one-way delay: 58.888 ms
Loss rate: 0.11%
```
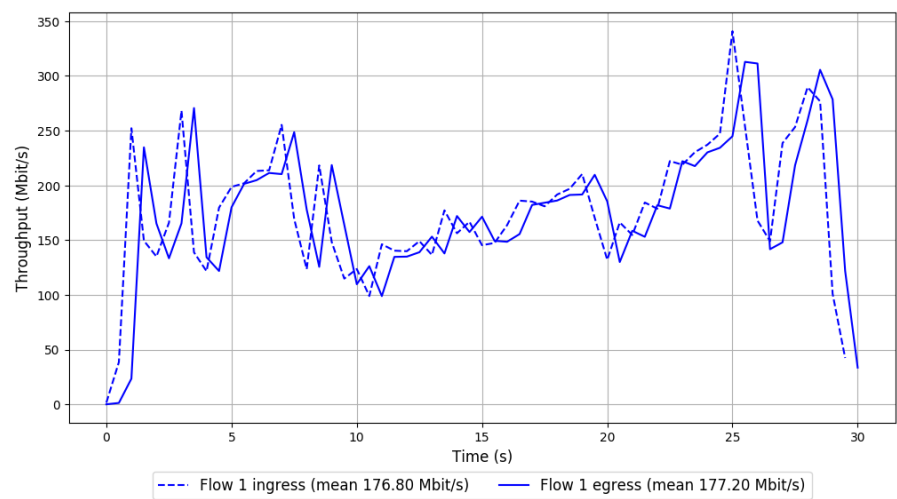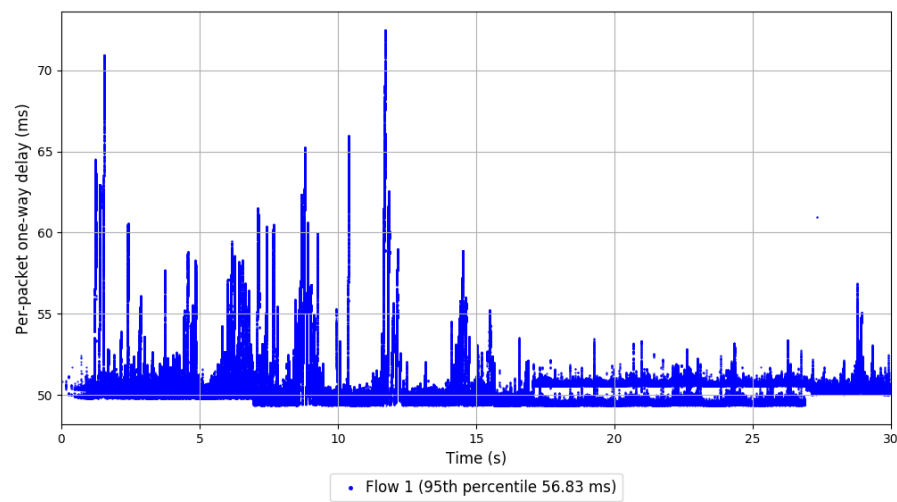
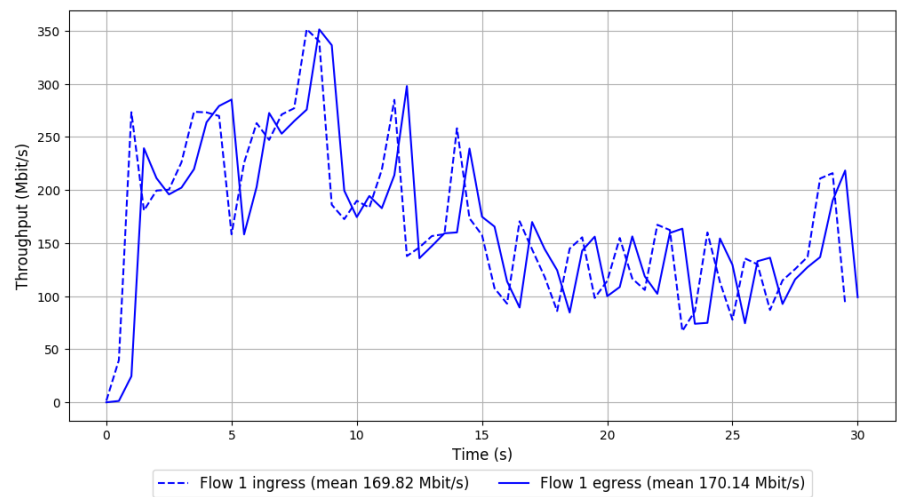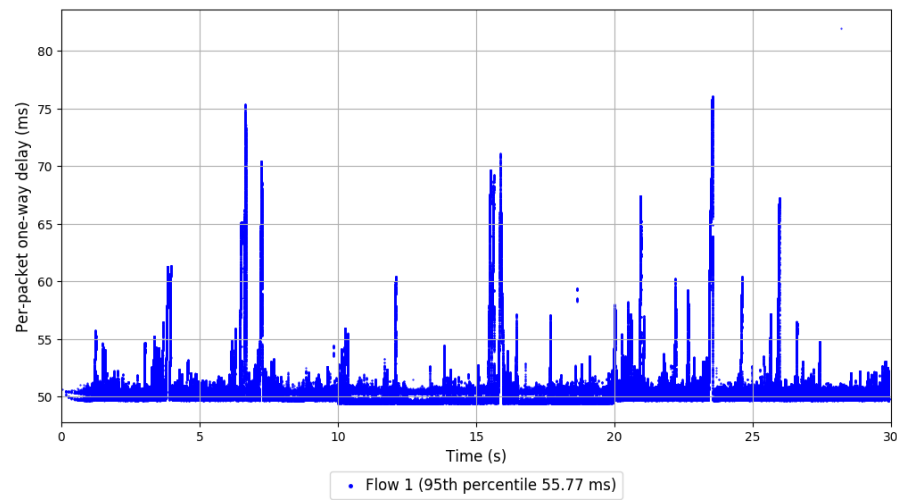Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-08-03 20:49:54
End at: 2018-08-03 20:50:24
Local clock offset: 0.116 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-08-03 22:37:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 170.14 Mbit/s
95th percentile per-packet one-way delay: 56.831 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 170.14 Mbit/s
95th percentile per-packet one-way delay: 56.831 ms
Loss rate: 0.15%
```

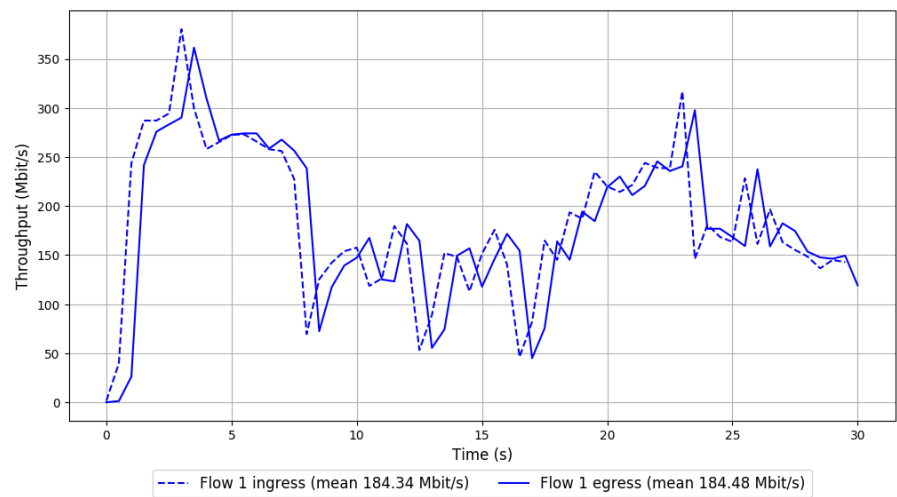Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-08-03 21:11:51
End at: 2018-08-03 21:12:21
Local clock offset: -0.26 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2018-08-03 22:38:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.48 Mbit/s
95th percentile per-packet one-way delay: 55.766 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 184.48 Mbit/s
95th percentile per-packet one-way delay: 55.766 ms
Loss rate: 0.27%
```

Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 184.34 Mbit/s)   Flow 1 egress (mean 184.48 Mbit/s)

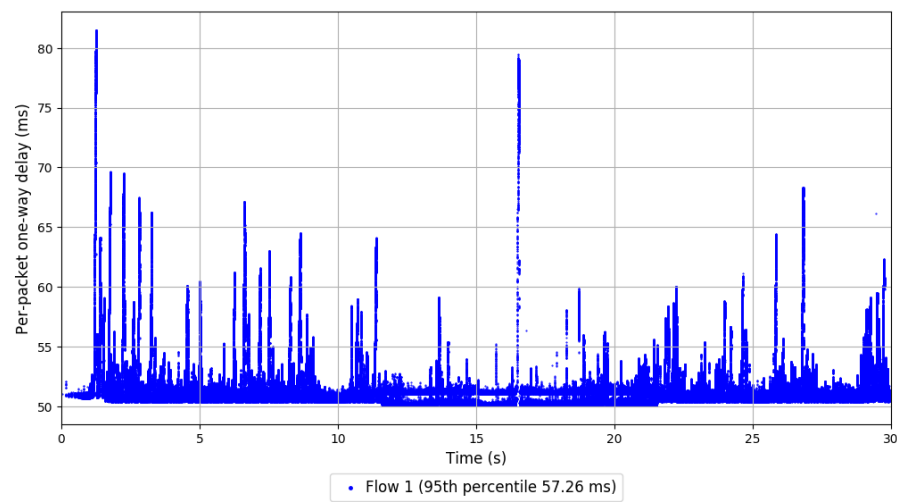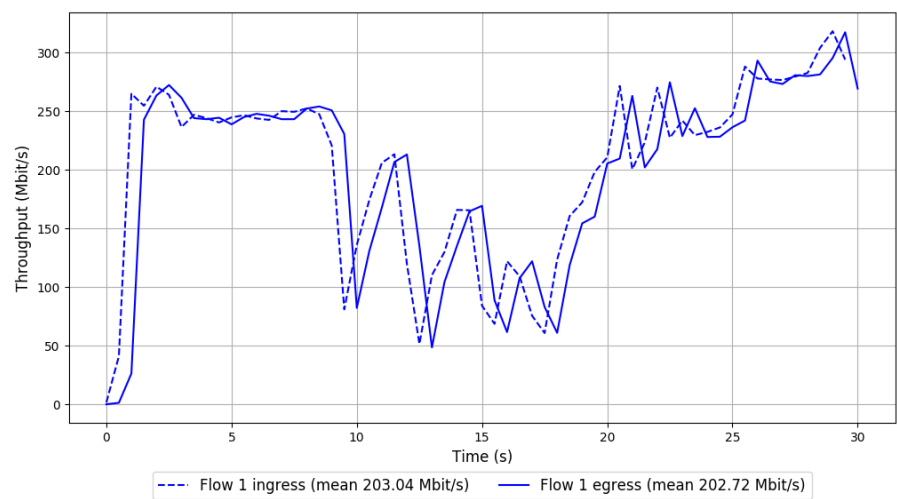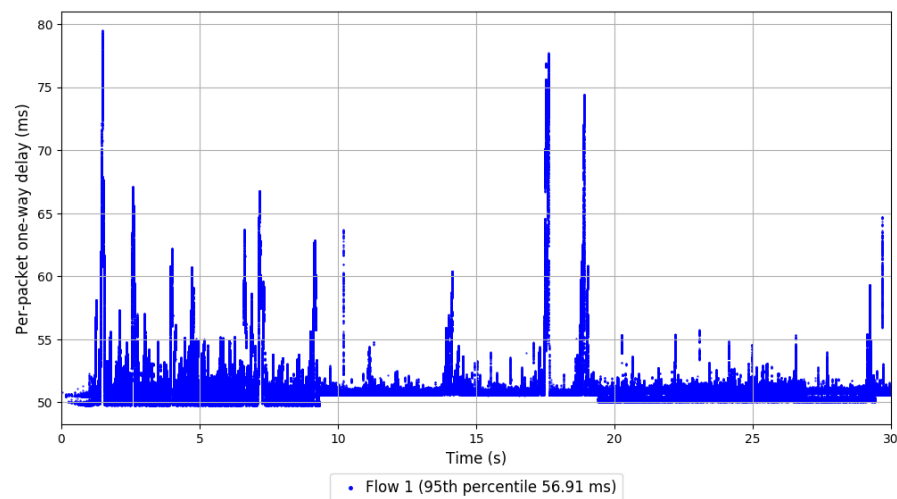Flow 1 (95th percentile 55.77 ms)

```
Run 9: Statistics of Copa

Start at: 2018-08-03 21:34:00
End at: 2018-08-03 21:34:30
Local clock offset: 0.505 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-08-03 22:40:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.72 Mbit/s
95th percentile per-packet one-way delay: 57.262 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 202.72 Mbit/s
95th percentile per-packet one-way delay: 57.262 ms
Loss rate: 0.49%
```

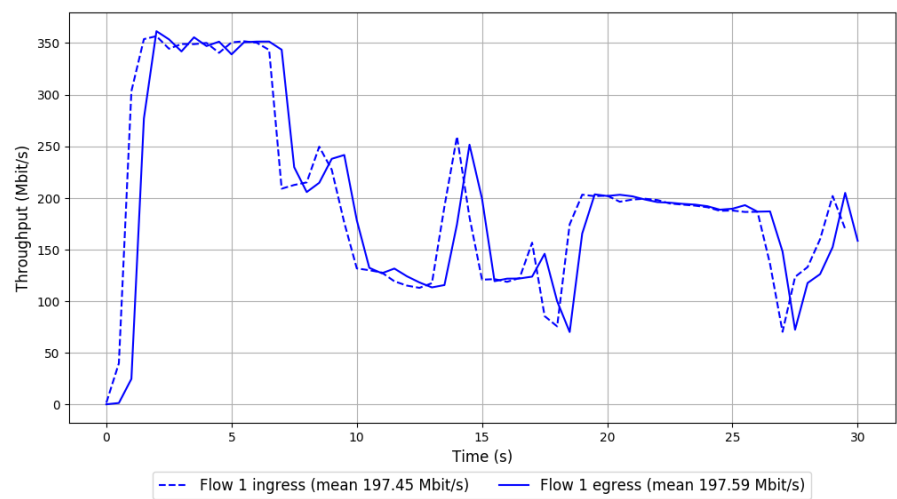Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-08-03 21:56:02
End at: 2018-08-03 21:56:32
Local clock offset: 0.102 ms
Remote clock offset: -0.061 ms


# Below is generated by plot.py at 2018-08-03 22:40:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.59 Mbit/s
95th percentile per-packet one-way delay: 56.908 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 197.59 Mbit/s
95th percentile per-packet one-way delay: 56.908 ms
Loss rate: 0.27%
```

Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 197.45 Mbit/s) —— Flow 1 egress (mean 197.59 Mbit/s)

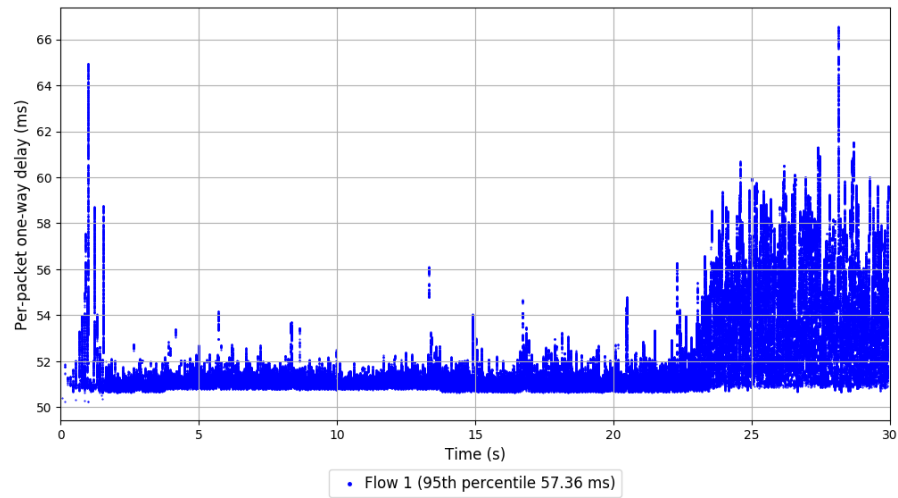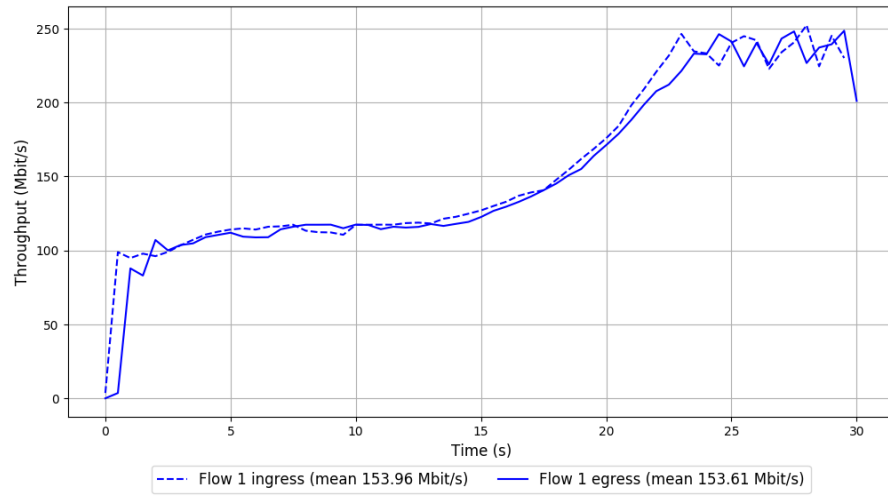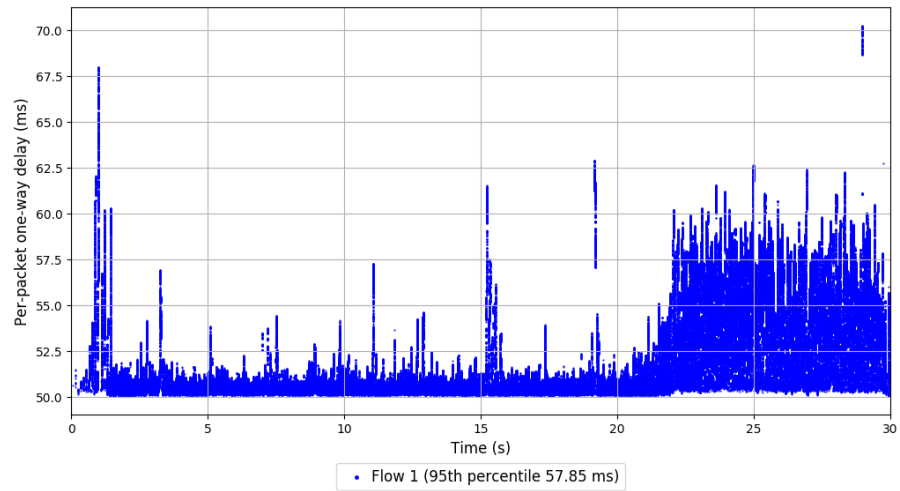• Flow 1 (95th percentile 56.91 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-08-03 18:31:47
End at: 2018-08-03 18:32:17
Local clock offset: 0.025 ms
Remote clock offset: -0.022 ms


# Below is generated by plot.py at 2018-08-03 22:40:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.61 Mbit/s
95th percentile per-packet one-way delay: 57.356 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 153.61 Mbit/s
95th percentile per-packet one-way delay: 57.356 ms
Loss rate: 0.55%
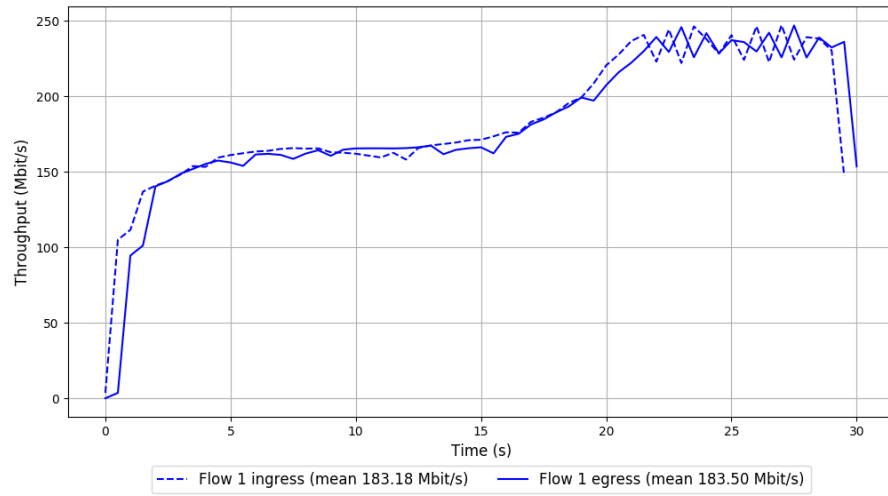```

Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-08-03 18:53:28
End at: 2018-08-03 18:53:58
Local clock offset: -0.001 ms
Remote clock offset: -0.033 ms

Below is generated by plot.py at 2018-08-03 22:40:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 183.50 Mbit/s
95th percentile per-packet one-way delay: 57.855 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 183.50 Mbit/s
95th percentile per-packet one-way delay: 57.855 ms
Loss rate: 0.16%
```
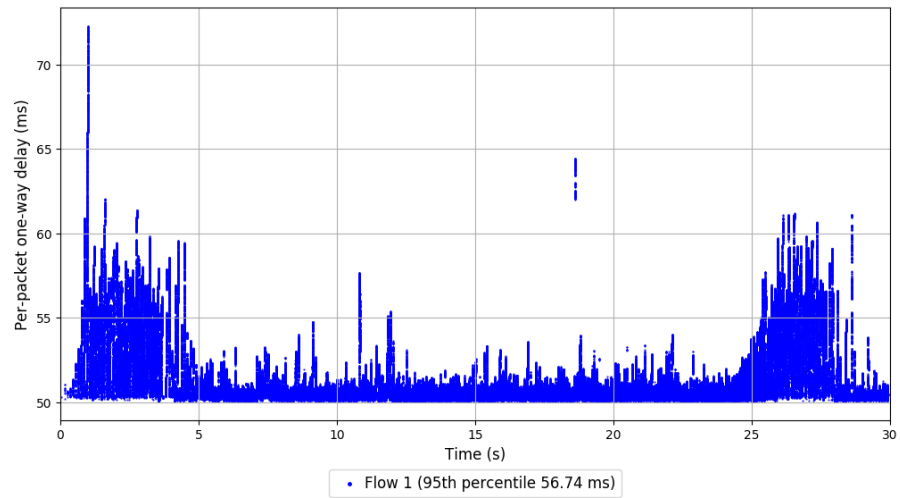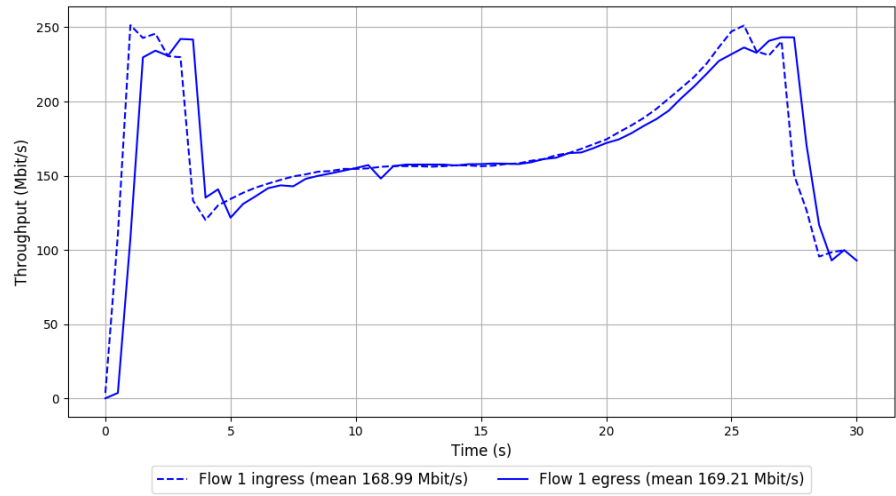
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-08-03 19:15:29
End at: 2018-08-03 19:15:59
Local clock offset: 0.035 ms
Remote clock offset: -0.142 ms

Below is generated by plot.py at 2018-08-03 22:40:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 169.21 Mbit/s
95th percentile per-packet one-way delay: 56.736 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 169.21 Mbit/s
95th percentile per-packet one-way delay: 56.736 ms
Loss rate: 0.20%
```
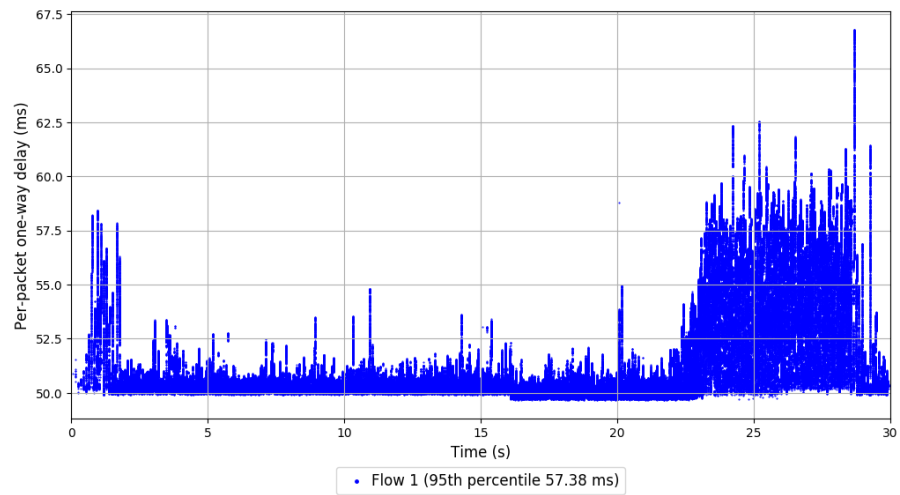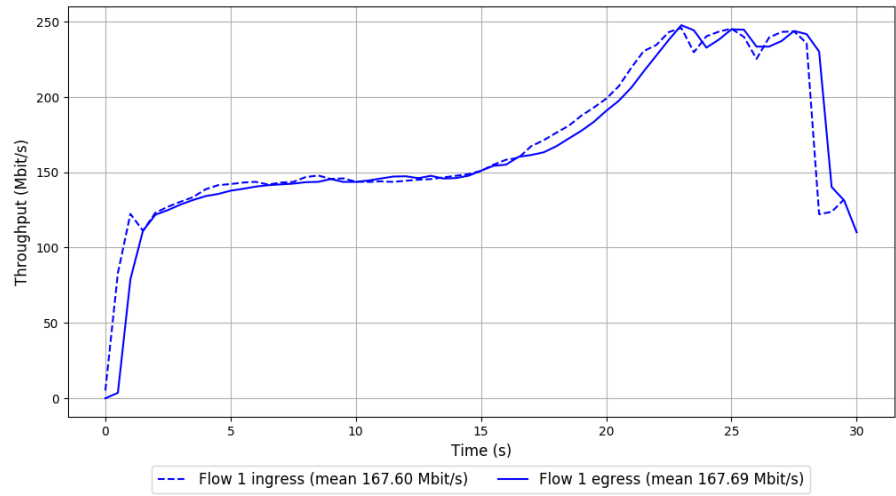
# Run 3: Report of TCP Cubic — Data Link



Flow 1 ingress (mean 168.99 Mbit/s)     Flow 1 egress (mean 169.21 Mbit/s)



Flow 1 (95th percentile 56.74 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-08-03 19:37:35
End at: 2018-08-03 19:38:05
Local clock offset: 0.461 ms
Remote clock offset: 0.006 ms

Below is generated by plot.py at 2018-08-03 22:40:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 167.69 Mbit/s
95th percentile per-packet one-way delay: 57.378 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 167.69 Mbit/s
95th percentile per-packet one-way delay: 57.378 ms
Loss rate: 0.28%
```
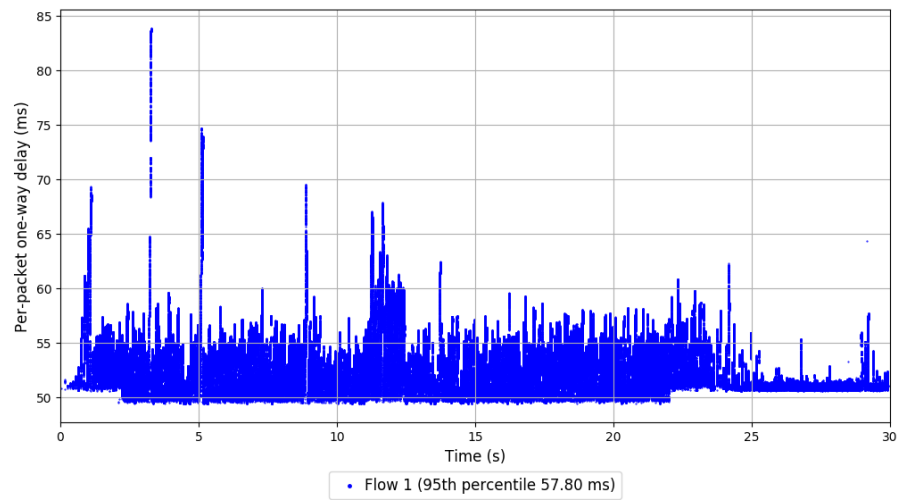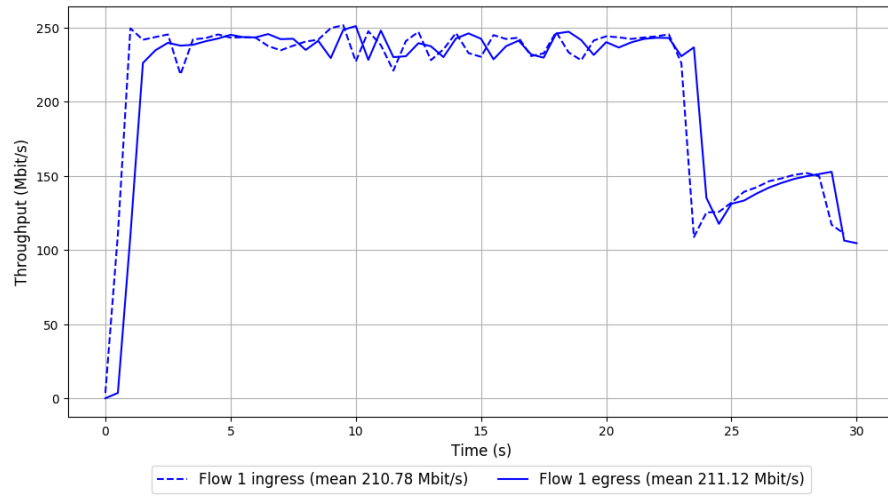
Run 4: Report of TCP Cubic — Data Link

```
Run 5: Statistics of TCP Cubic

Start at: 2018-08-03 19:59:29
End at: 2018-08-03 19:59:59
Local clock offset: 0.193 ms
Remote clock offset: -0.033 ms

Below is generated by plot.py at 2018-08-03 22:41:02
Datalink statistics
-- Total of 1 flow:
Average throughput: 211.12 Mbit/s
95th percentile per-packet one-way delay: 57.802 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 211.12 Mbit/s
95th percentile per-packet one-way delay: 57.802 ms
Loss rate: 0.18%
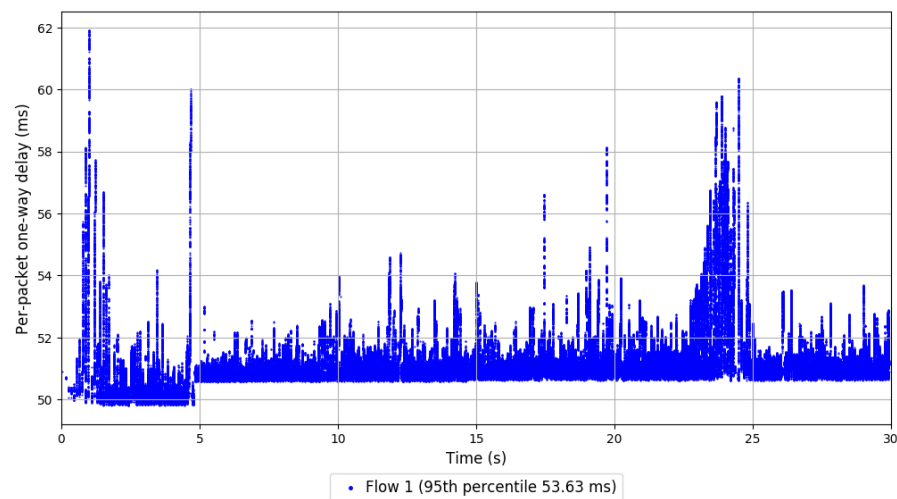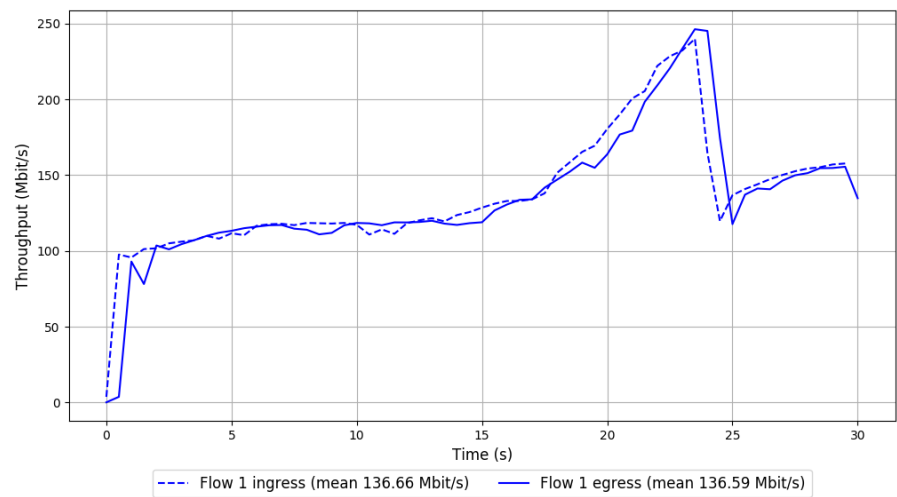```

Run 5: Report of TCP Cubic — Data Link

```
Run 6: Statistics of TCP Cubic

Start at: 2018-08-03 20:21:16
End at: 2018-08-03 20:21:46
Local clock offset: 0.157 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-08-03 22:41:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 136.59 Mbit/s
95th percentile per-packet one-way delay: 53.631 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 136.59 Mbit/s
95th percentile per-packet one-way delay: 53.631 ms
Loss rate: 0.39%
```
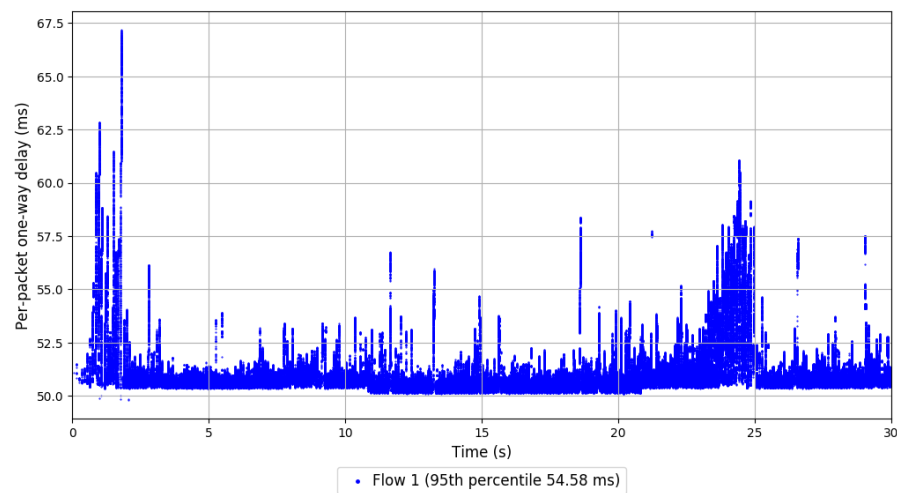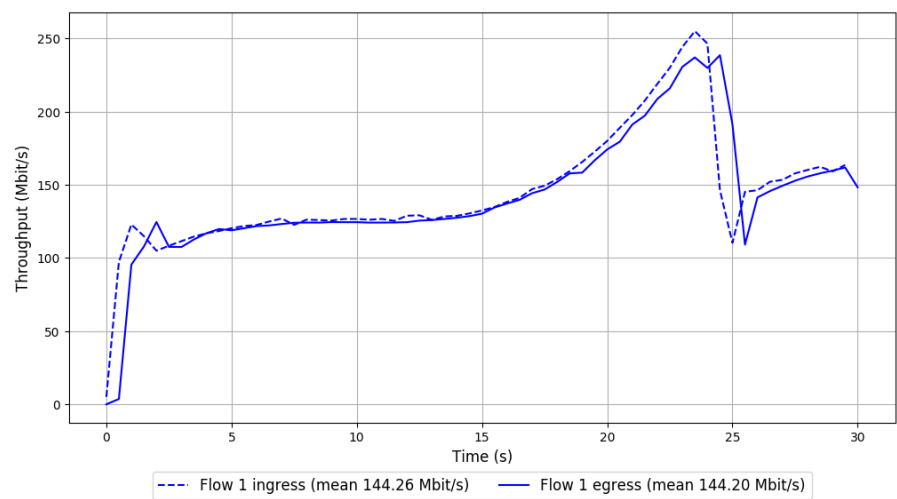
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-08-03 20:43:20
End at: 2018-08-03 20:43:50
Local clock offset: 0.45 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2018-08-03 22:41:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 144.20 Mbit/s
95th percentile per-packet one-way delay: 54.580 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 144.20 Mbit/s
95th percentile per-packet one-way delay: 54.580 ms
Loss rate: 0.38%
```

Run 7: Report of TCP Cubic — Data Link

```
Run 8: Statistics of TCP Cubic

Start at: 2018-08-03 21:05:19
End at: 2018-08-03 21:05:50
Local clock offset: 0.467 ms
Remote clock offset: 0.046 ms


# Below is generated by plot.py at 2018-08-03 22:41:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 175.10 Mbit/s
95th percentile per-packet one-way delay: 57.937 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 175.10 Mbit/s
95th percentile per-packet one-way delay: 57.937 ms
Loss rate: 0.20%
```
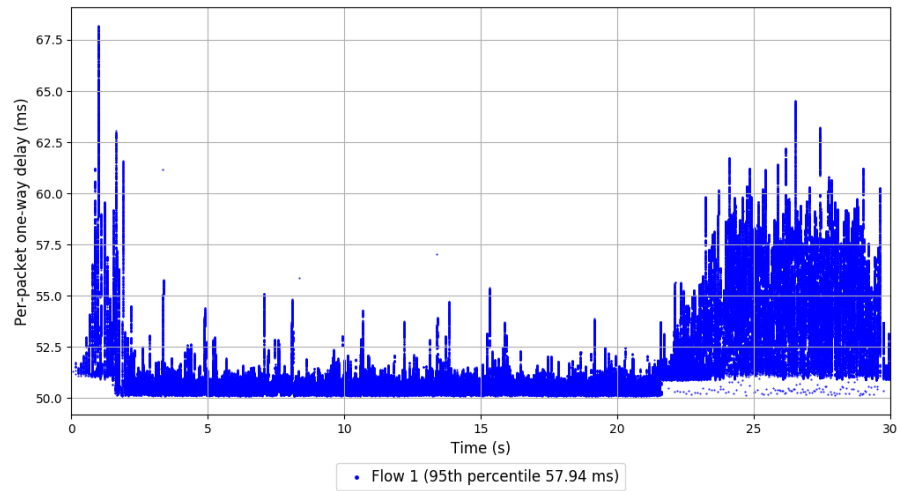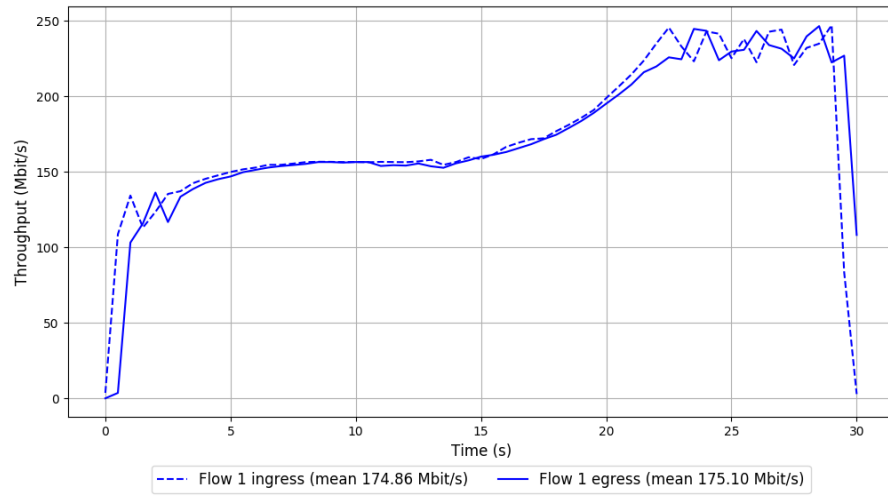
Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 174.86 Mbit/s) — — — Flow 1 egress (mean 175.10 Mbit/s)
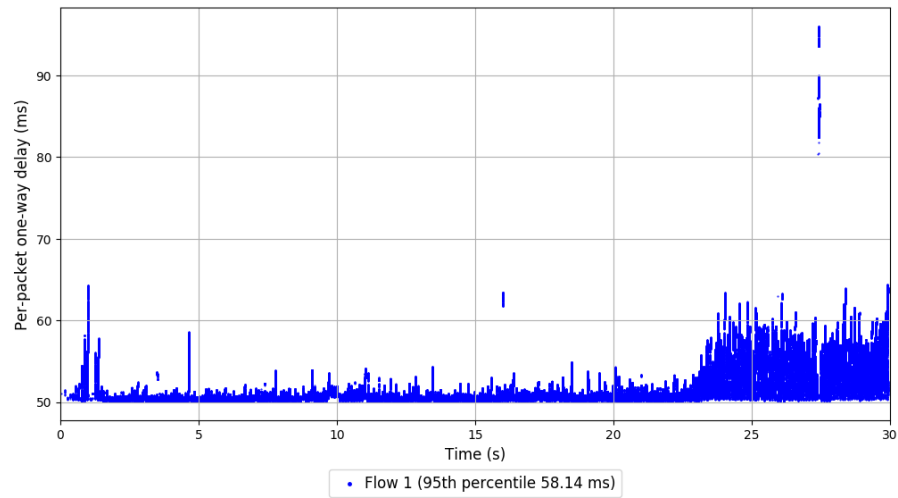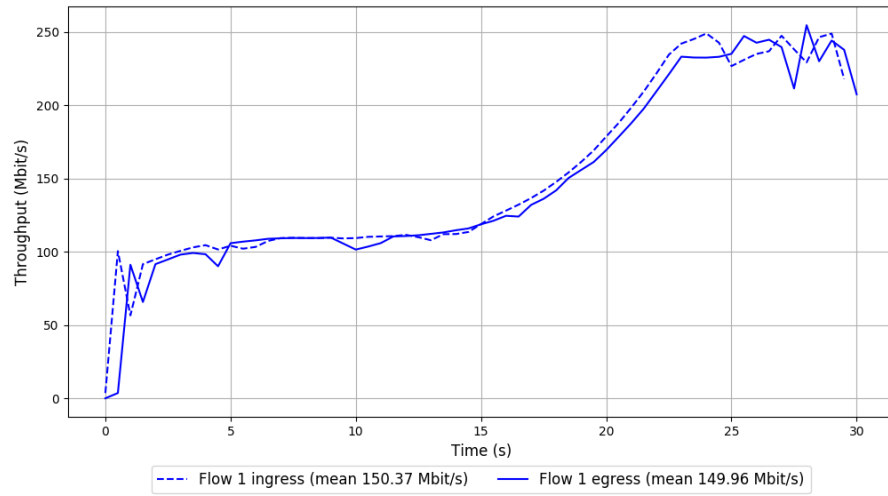

Flow 1 (95th percentile 57.94 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-08-03 21:27:21
End at: 2018-08-03 21:27:51
Local clock offset: 0.148 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-08-03 22:41:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 149.96 Mbit/s
95th percentile per-packet one-way delay: 58.138 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 149.96 Mbit/s
95th percentile per-packet one-way delay: 58.138 ms
Loss rate: 0.52%
```
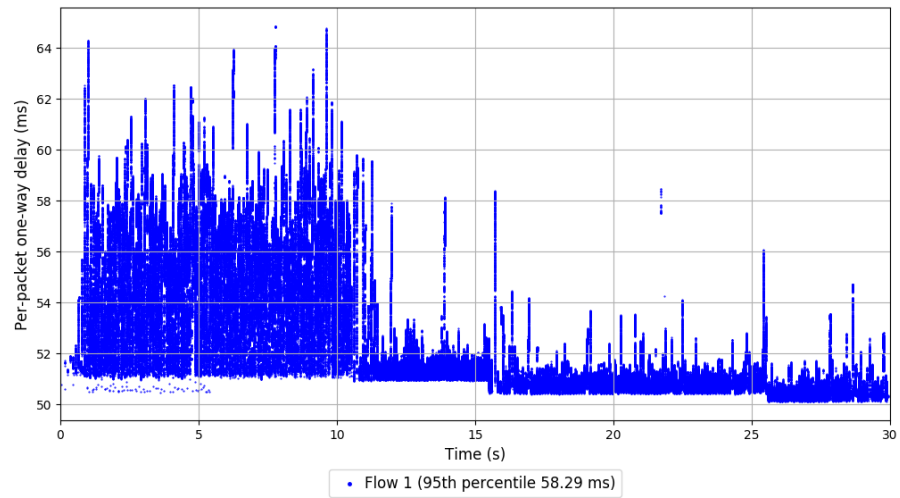
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 150.37 Mbit/s) --- Flow 1 egress (mean 149.96 Mbit/s)

• Flow 1 (95th percentile 58.14 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-08-03 21:49:26
End at: 2018-08-03 21:49:56
Local clock offset: 0.474 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2018-08-03 22:41:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 166.36 Mbit/s
95th percentile per-packet one-way delay: 58.288 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 166.36 Mbit/s
95th percentile per-packet one-way delay: 58.288 ms
Loss rate: 0.21%
```
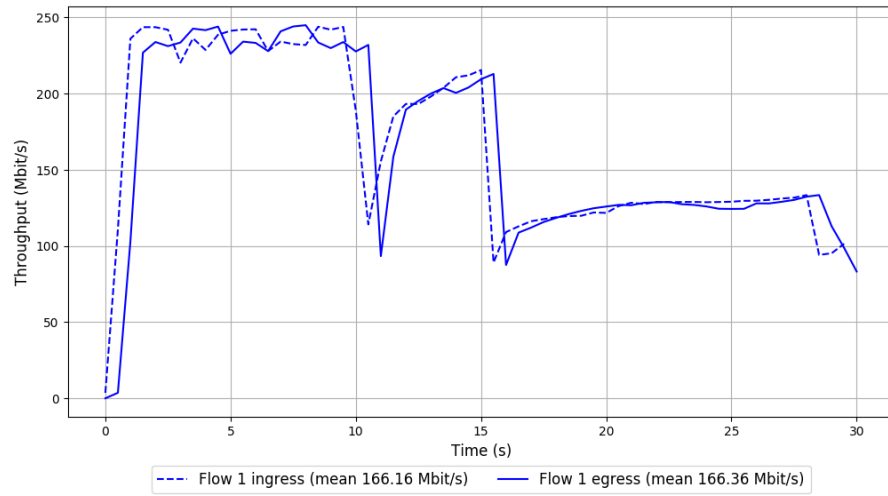
Run 10: Report of TCP Cubic — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-08-03 18:43:28
End at: 2018-08-03 18:43:58
Local clock offset: 0.061 ms
Remote clock offset: 0.073 ms


# Below is generated by plot.py at 2018-08-03 22:57:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 745.23 Mbit/s
95th percentile per-packet one-way delay: 200.057 ms
Loss rate: 3.09%
-- Flow 1:
Average throughput: 745.23 Mbit/s
95th percentile per-packet one-way delay: 200.057 ms
Loss rate: 3.09%
```
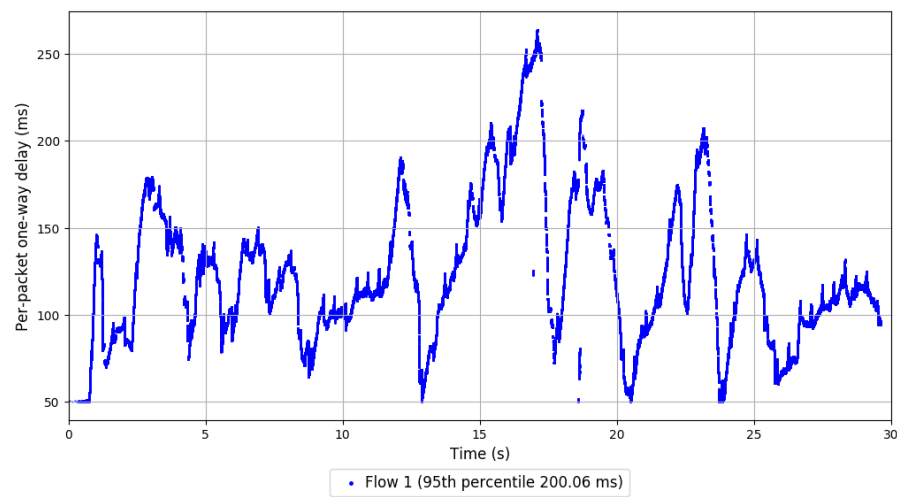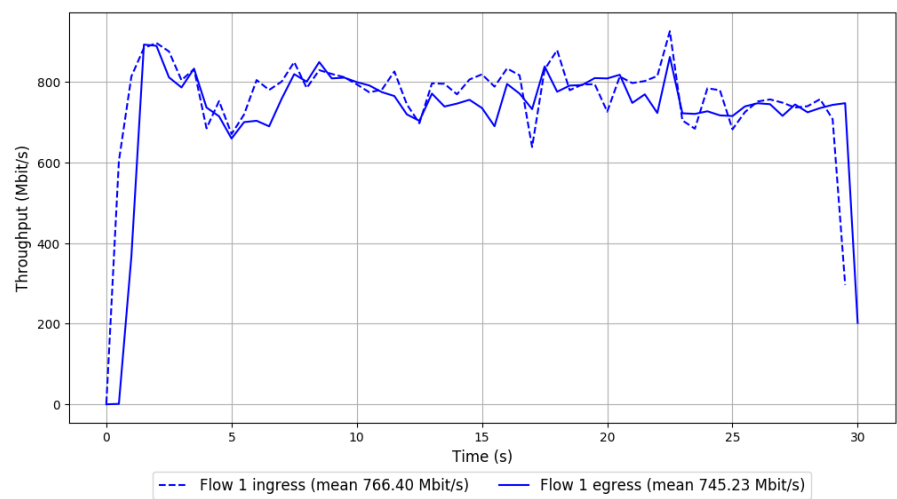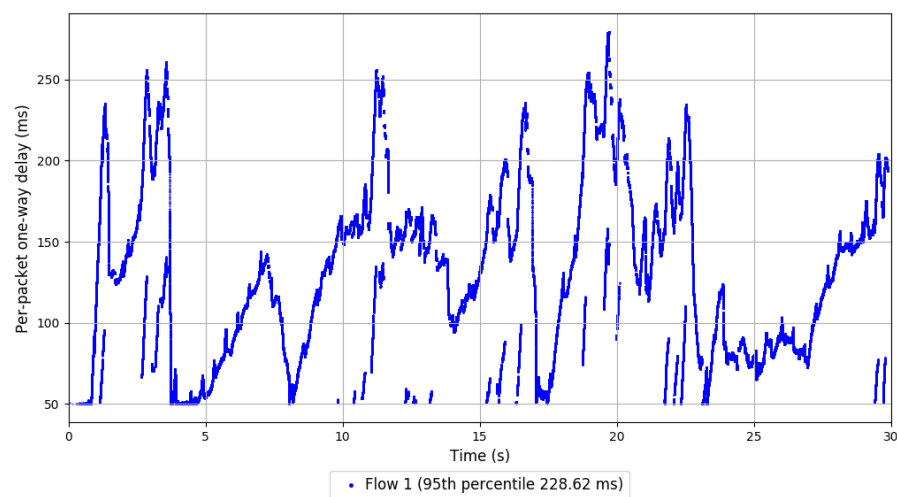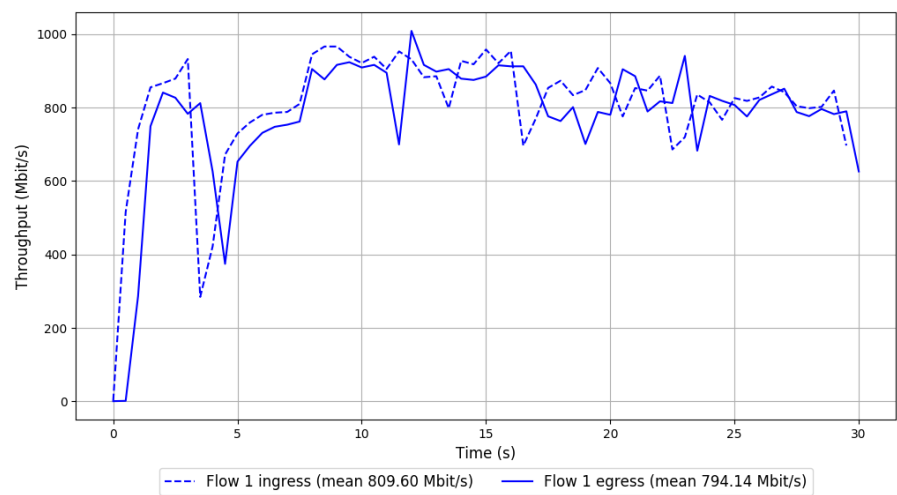
Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-08-03 19:05:23
End at: 2018-08-03 19:05:53
Local clock offset: 0.073 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-08-03 22:58:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 794.14 Mbit/s
95th percentile per-packet one-way delay: 228.624 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 794.14 Mbit/s
95th percentile per-packet one-way delay: 228.624 ms
Loss rate: 2.24%
```

Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 809.60 Mbit/s)   Flow 1 egress (mean 794.14 Mbit/s)

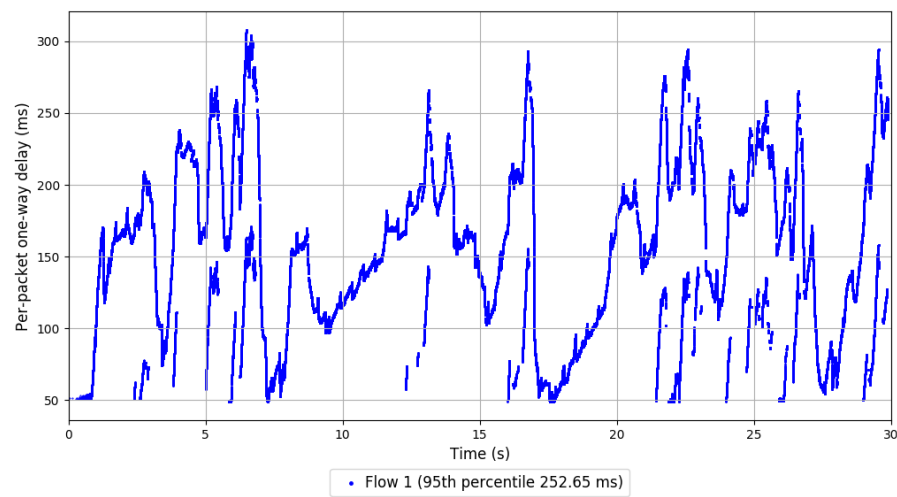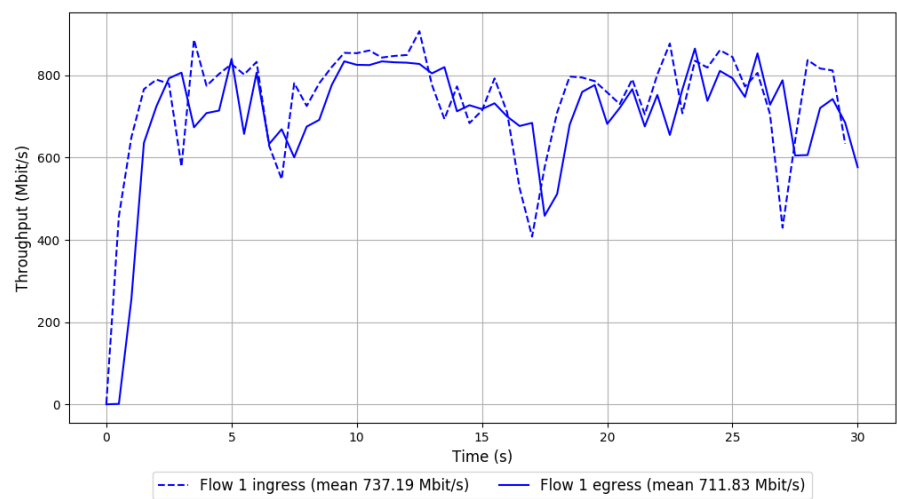· Flow 1 (95th percentile 228.62 ms)

```
Run 3: Statistics of FillP

Start at: 2018-08-03 19:27:26
End at: 2018-08-03 19:27:56
Local clock offset: 0.092 ms
Remote clock offset: -0.149 ms


# Below is generated by plot.py at 2018-08-03 22:58:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.83 Mbit/s
95th percentile per-packet one-way delay: 252.648 ms
Loss rate: 3.77%
-- Flow 1:
Average throughput: 711.83 Mbit/s
95th percentile per-packet one-way delay: 252.648 ms
Loss rate: 3.77%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 737.19 Mbit/s)   Flow 1 egress (mean 711.83 Mbit/s)

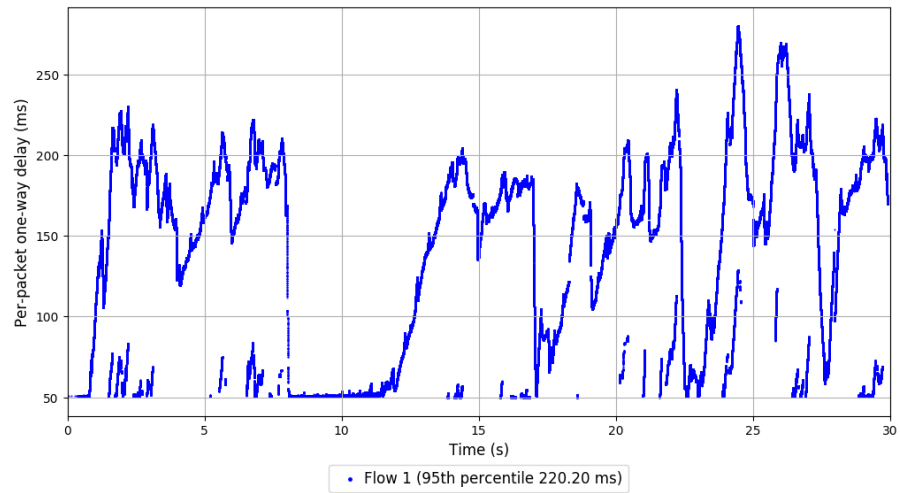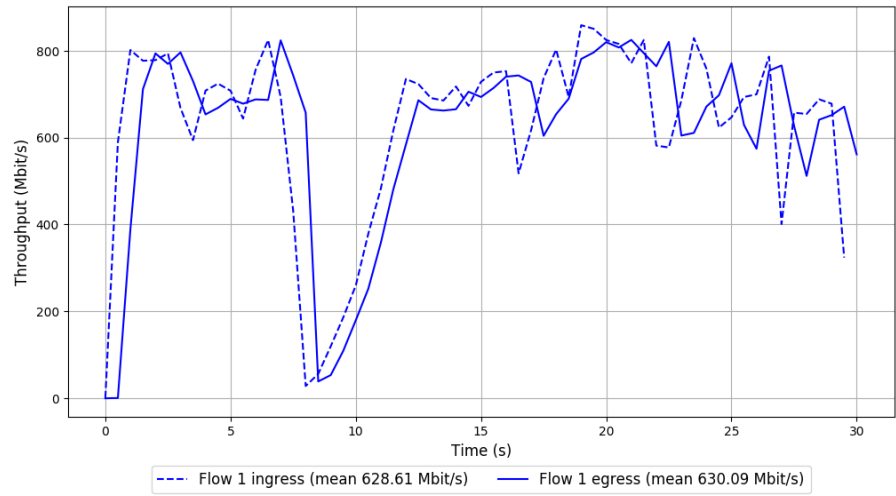Flow 1 (95th percentile 252.65 ms)

```
Run 4: Statistics of FillP

Start at: 2018-08-03 19:49:29
End at: 2018-08-03 19:49:59
Local clock offset: 0.159 ms
Remote clock offset: -0.057 ms


# Below is generated by plot.py at 2018-08-03 22:58:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 630.09 Mbit/s
95th percentile per-packet one-way delay: 220.198 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 630.09 Mbit/s
95th percentile per-packet one-way delay: 220.198 ms
Loss rate: 0.10%
```
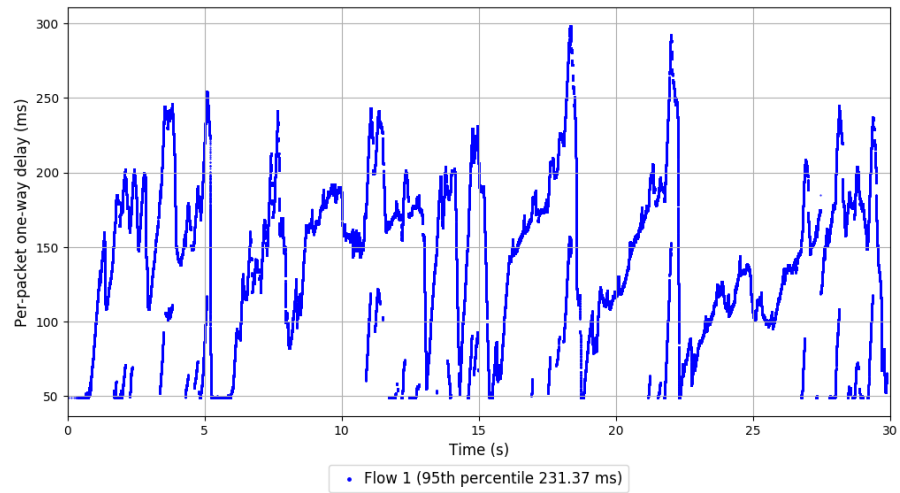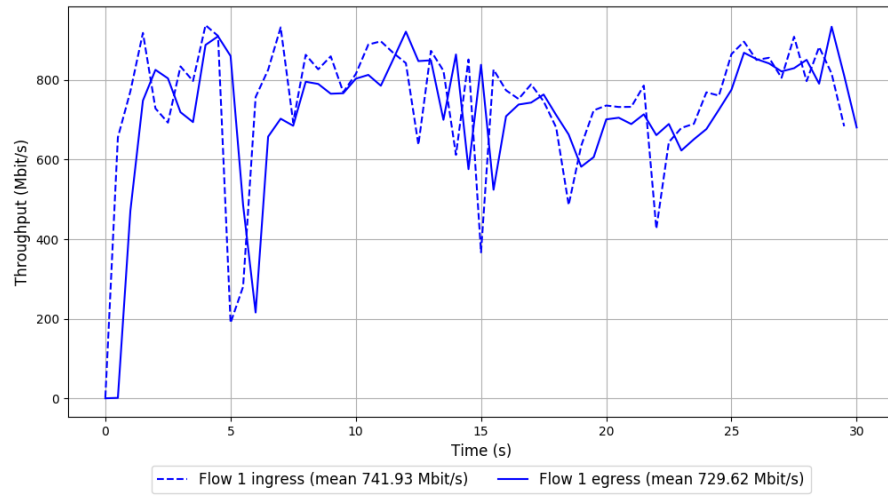
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-08-03 20:11:07
End at: 2018-08-03 20:11:37
Local clock offset: 0.183 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-08-03 22:58:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 729.62 Mbit/s
95th percentile per-packet one-way delay: 231.374 ms
Loss rate: 1.98%
-- Flow 1:
Average throughput: 729.62 Mbit/s
95th percentile per-packet one-way delay: 231.374 ms
Loss rate: 1.98%
```
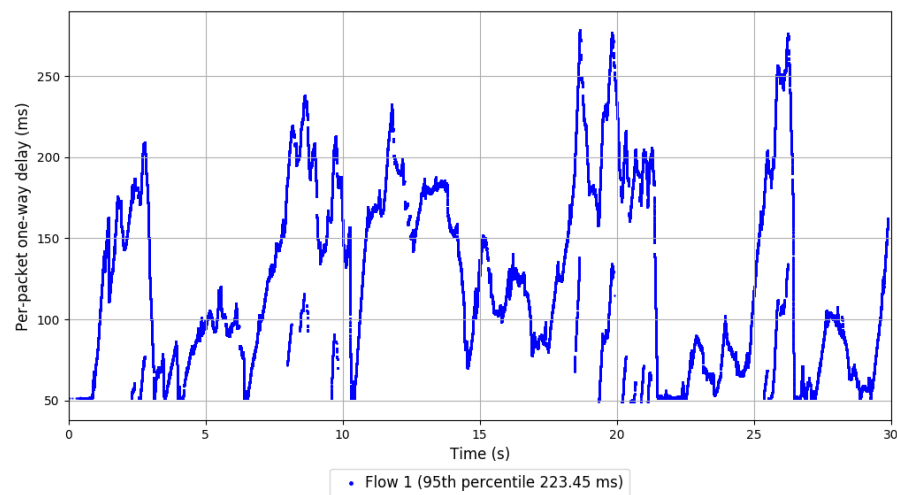
Run 5: Report of FillP — Data Link

Flow 1 ingress (mean 741.93 Mbit/s)   Flow 1 egress (mean 729.62 Mbit/s)

• Flow 1 (95th percentile 231.37 ms)

```
Run 6: Statistics of FillP

Start at: 2018-08-03 20:33:10
End at: 2018-08-03 20:33:40
Local clock offset: 0.569 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-08-03 22:59:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 783.30 Mbit/s
95th percentile per-packet one-way delay: 223.447 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 783.30 Mbit/s
95th percentile per-packet one-way delay: 223.447 ms
Loss rate: 1.91%
```
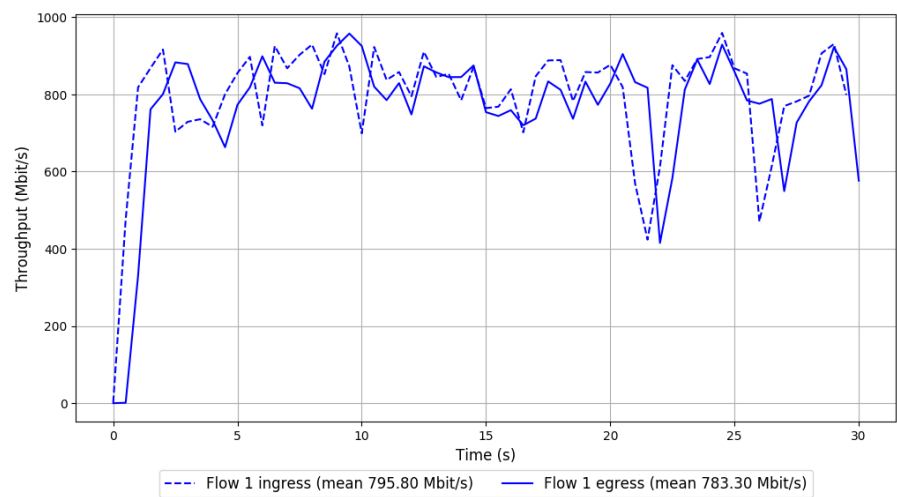
Run 6: Report of FillP — Data Link

```
Run 7: Statistics of FillP

Start at: 2018-08-03 20:55:13
End at: 2018-08-03 20:55:43
Local clock offset: 0.067 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2018-08-03 22:59:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 748.68 Mbit/s
95th percentile per-packet one-way delay: 208.008 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 748.68 Mbit/s
95th percentile per-packet one-way delay: 208.008 ms
Loss rate: 2.44%
```
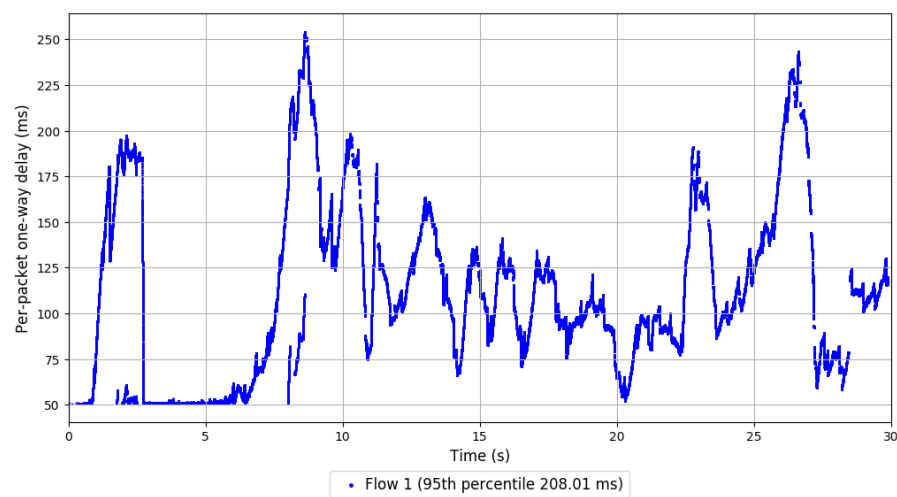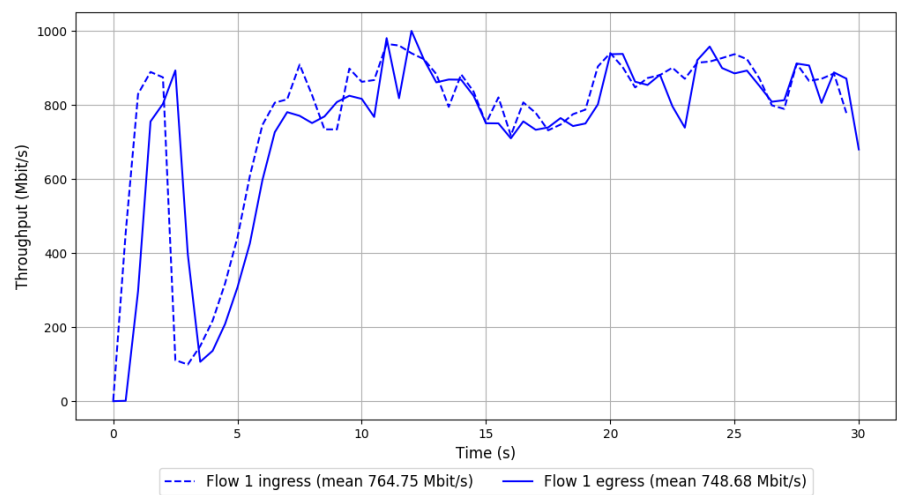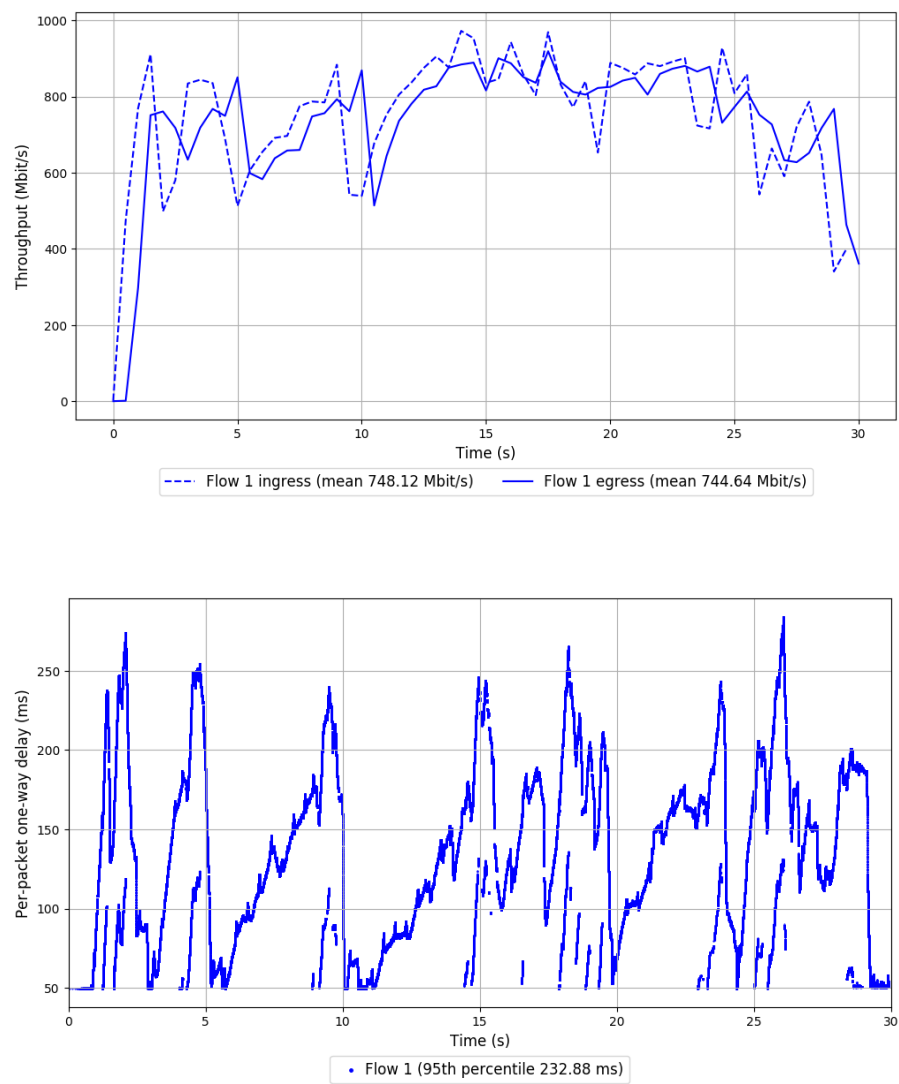
Run 7: Report of FillP — Data Link

```
Run 8: Statistics of FillP

Start at: 2018-08-03 21:17:15
End at: 2018-08-03 21:17:45
Local clock offset: -0.251 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-08-03 22:59:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 744.64 Mbit/s
95th percentile per-packet one-way delay: 232.878 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 744.64 Mbit/s
95th percentile per-packet one-way delay: 232.878 ms
Loss rate: 0.80%
```
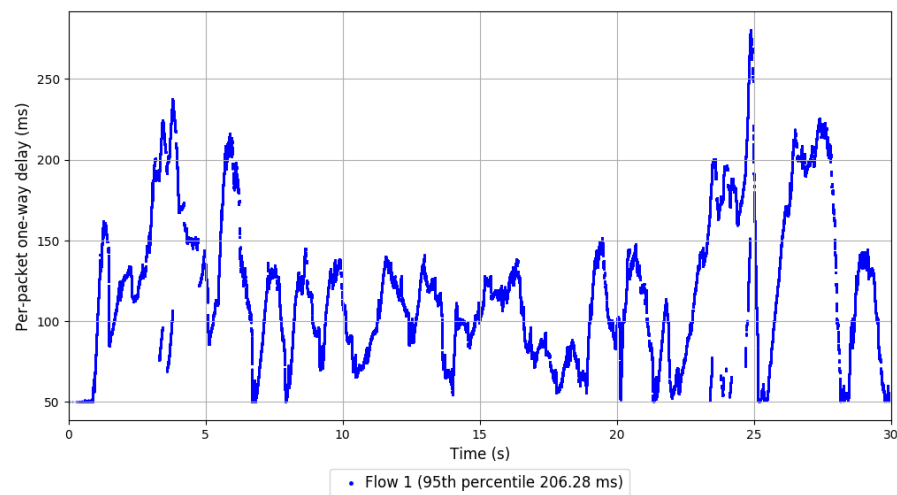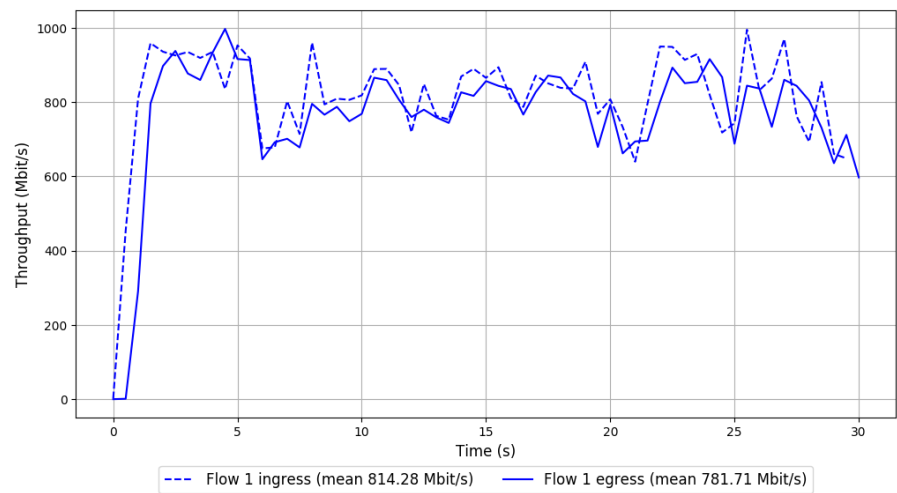
Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-08-03 21:39:21
End at: 2018-08-03 21:39:51
Local clock offset: 0.219 ms
Remote clock offset: -0.085 ms

# Below is generated by plot.py at 2018-08-03 23:14:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 781.71 Mbit/s
95th percentile per-packet one-way delay: 206.281 ms
Loss rate: 4.32%
-- Flow 1:
Average throughput: 781.71 Mbit/s
95th percentile per-packet one-way delay: 206.281 ms
Loss rate: 4.32%
```
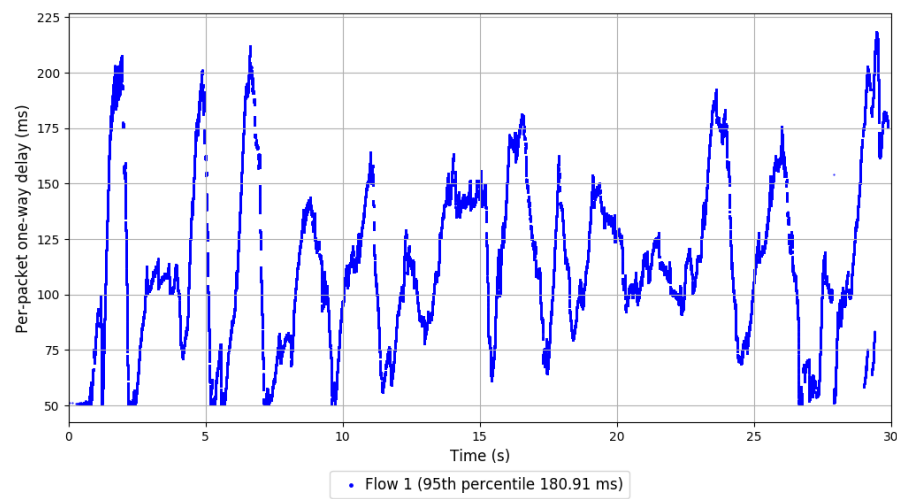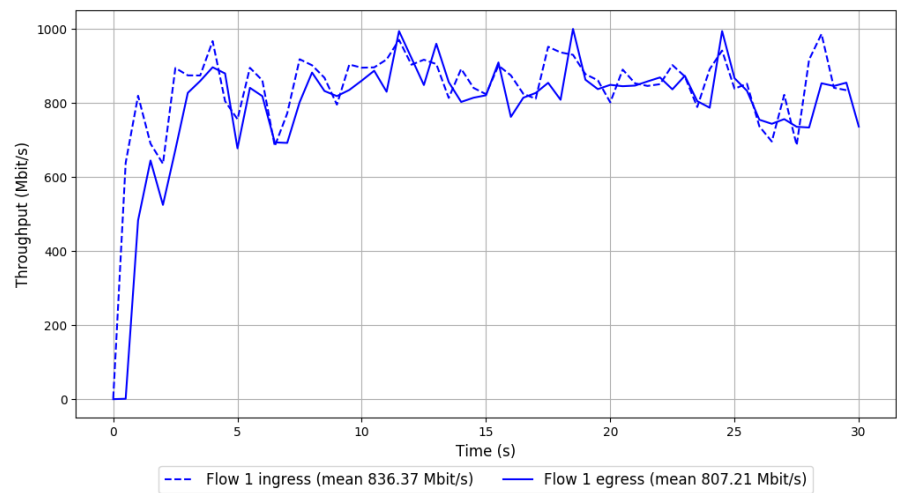
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-08-03 22:01:20
End at: 2018-08-03 22:01:50
Local clock offset: 0.477 ms
Remote clock offset: -0.043 ms


# Below is generated by plot.py at 2018-08-03 23:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 807.21 Mbit/s
95th percentile per-packet one-way delay: 180.906 ms
Loss rate: 3.82%
-- Flow 1:
Average throughput: 807.21 Mbit/s
95th percentile per-packet one-way delay: 180.906 ms
Loss rate: 3.82%
```

Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 836.37 Mbit/s)   Flow 1 egress (mean 807.21 Mbit/s)

Flow 1 (95th percentile 180.91 ms)

```
Run 1: Statistics of FillP-Sheep

Start at: 2018-08-03 18:49:44
End at: 2018-08-03 18:50:14
Local clock offset: -0.359 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2018-08-03 23:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 740.19 Mbit/s
95th percentile per-packet one-way delay: 101.966 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 740.19 Mbit/s
95th percentile per-packet one-way delay: 101.966 ms
Loss rate: 0.39%
```
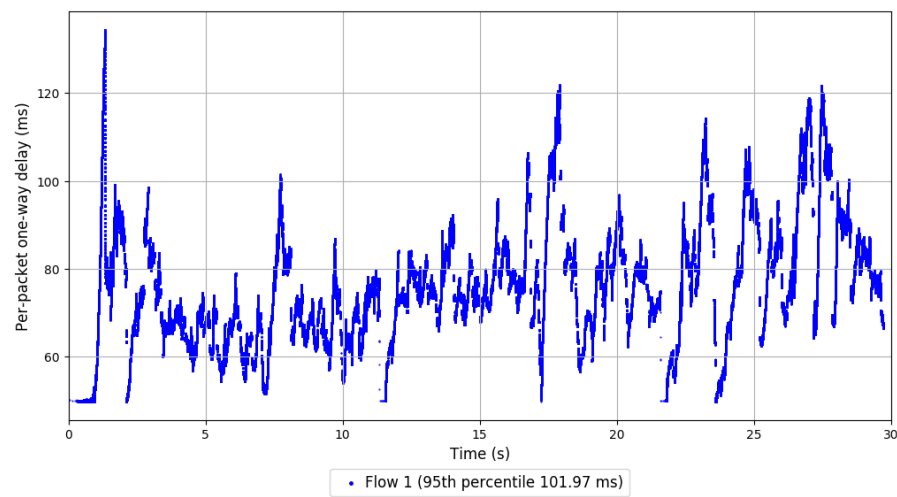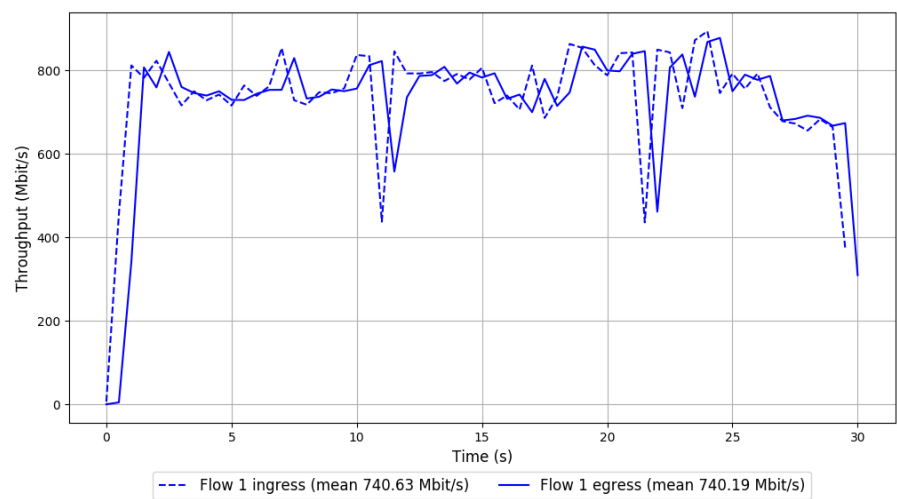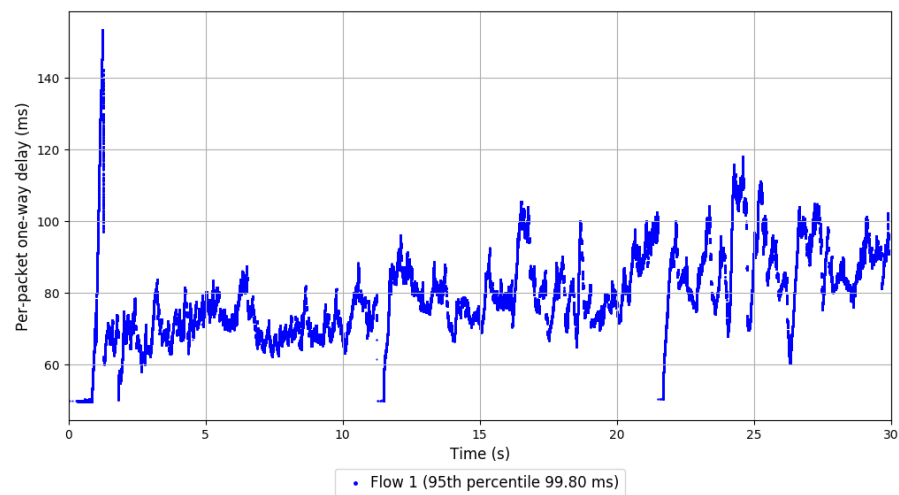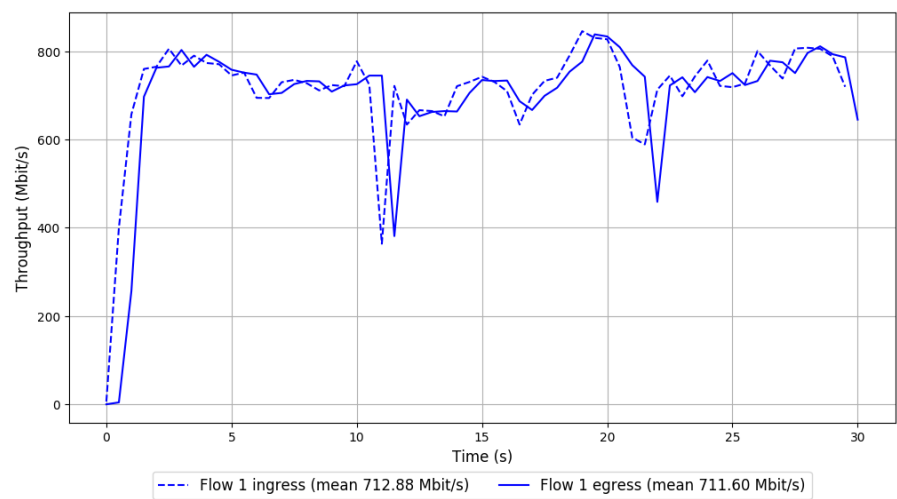
Run 1: Report of FillP-Sheep — Data Link

```
Run 2: Statistics of FillP-Sheep

Start at: 2018-08-03 19:11:44
End at: 2018-08-03 19:12:14
Local clock offset: -0.348 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-08-03 23:15:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 711.60 Mbit/s
95th percentile per-packet one-way delay: 99.798 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 711.60 Mbit/s
95th percentile per-packet one-way delay: 99.798 ms
Loss rate: 0.52%
```
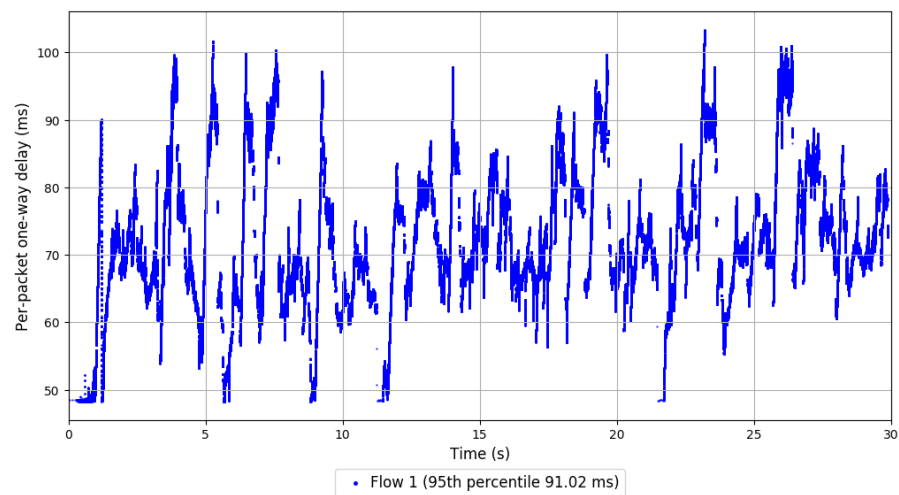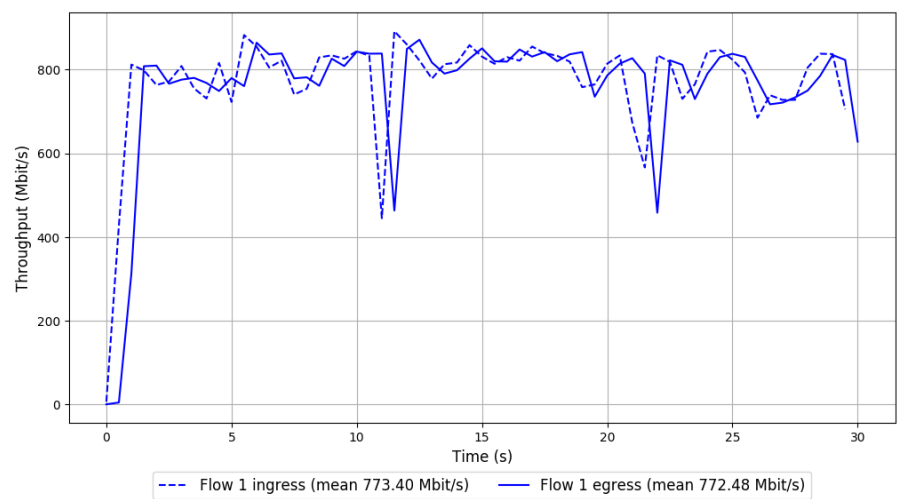
Run 2: Report of FillP-Sheep — Data Link

```
Run 3: Statistics of FillP-Sheep

Start at: 2018-08-03 19:33:48
End at: 2018-08-03 19:34:18
Local clock offset: -0.28 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-08-03 23:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 772.48 Mbit/s
95th percentile per-packet one-way delay: 91.019 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 772.48 Mbit/s
95th percentile per-packet one-way delay: 91.019 ms
Loss rate: 0.45%
```

Run 3: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 773.40 Mbit/s)   Flow 1 egress (mean 772.48 Mbit/s)
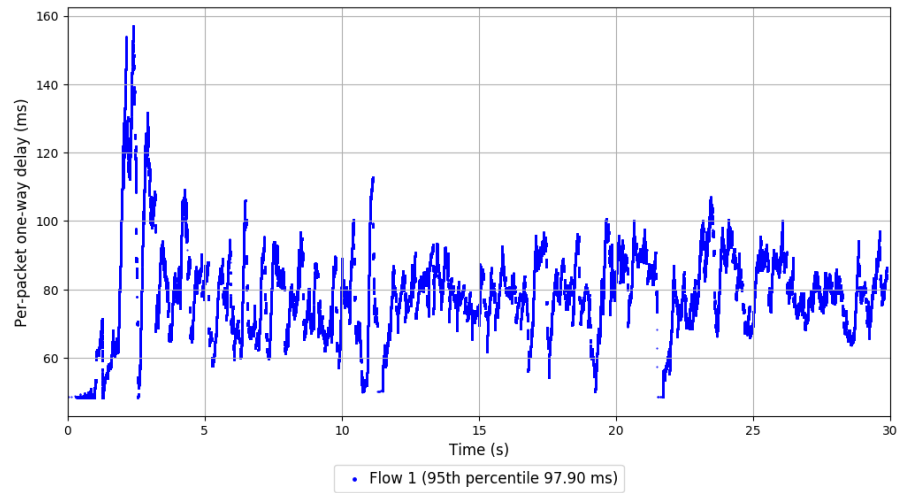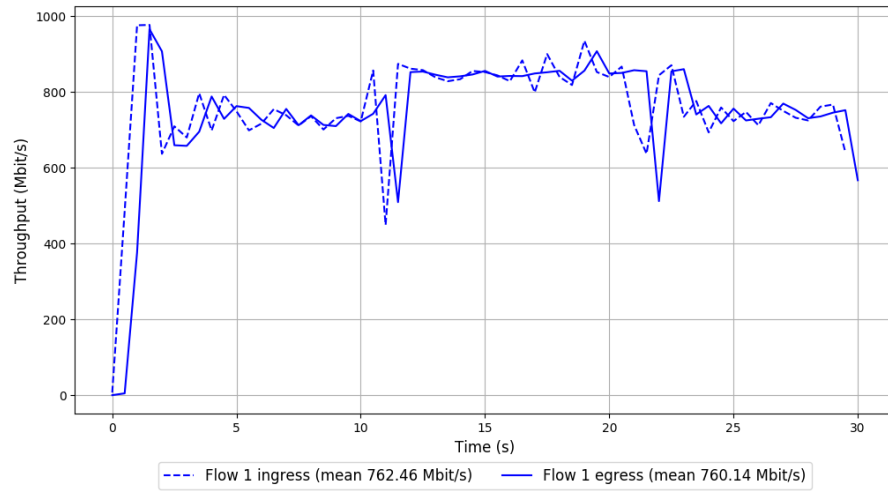

Flow 1 (95th percentile 91.02 ms)

```
Run 4: Statistics of FillP-Sheep

Start at: 2018-08-03 19:55:42
End at: 2018-08-03 19:56:12
Local clock offset: -0.237 ms
Remote clock offset: -0.101 ms


# Below is generated by plot.py at 2018-08-03 23:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 760.14 Mbit/s
95th percentile per-packet one-way delay: 97.901 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 760.14 Mbit/s
95th percentile per-packet one-way delay: 97.901 ms
Loss rate: 0.64%
```

Run 4: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 762.46 Mbit/s)   Flow 1 egress (mean 760.14 Mbit/s)
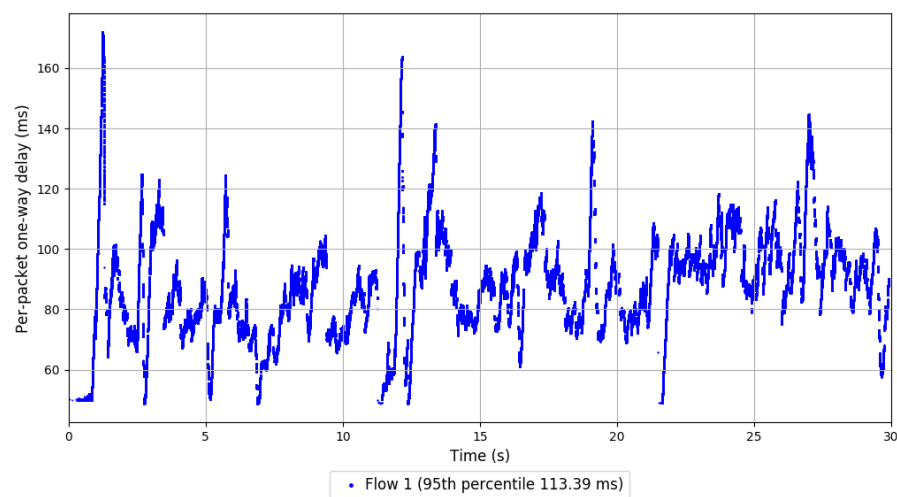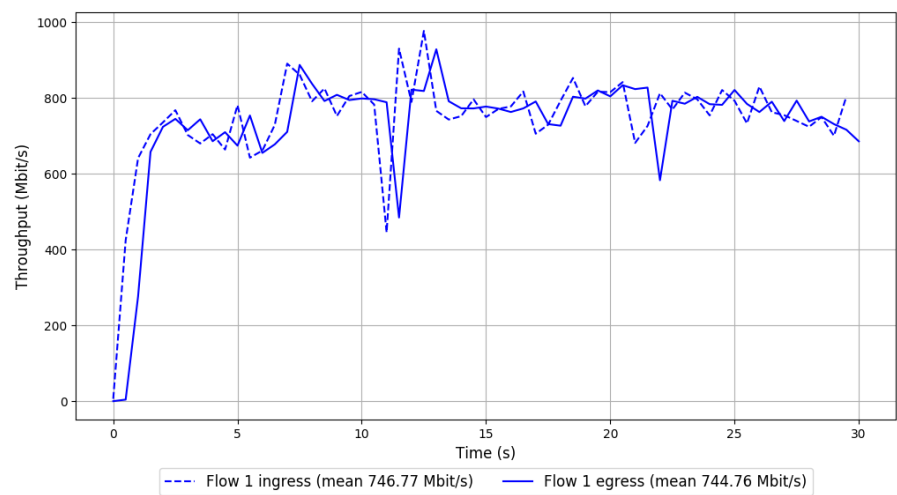

Flow 1 (95th percentile 97.90 ms)

```
Run 5: Statistics of FillP-Sheep

Start at: 2018-08-03 20:17:29
End at: 2018-08-03 20:18:00
Local clock offset: 0.177 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2018-08-03 23:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 744.76 Mbit/s
95th percentile per-packet one-way delay: 113.385 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 744.76 Mbit/s
95th percentile per-packet one-way delay: 113.385 ms
Loss rate: 0.60%
```
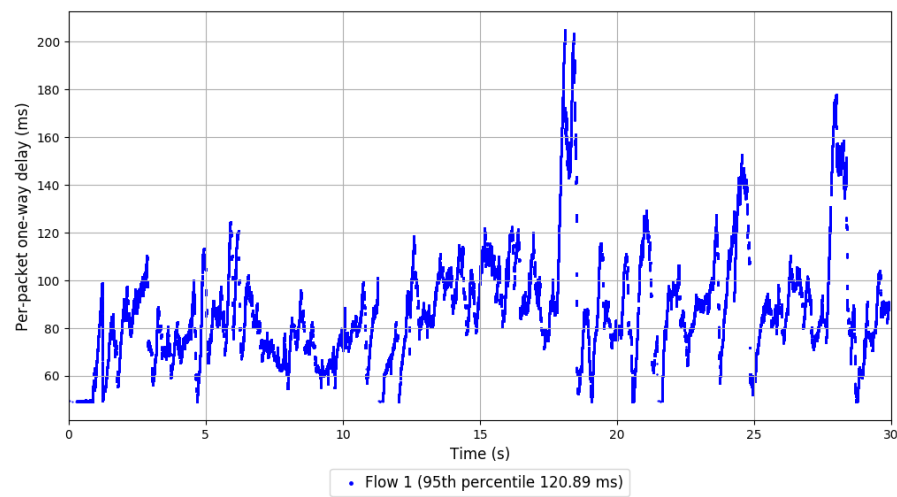
Run 5: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 746.77 Mbit/s)   Flow 1 egress (mean 744.76 Mbit/s)

Flow 1 (95th percentile 113.39 ms)

```
Run 6: Statistics of FillP-Sheep

Start at: 2018-08-03 20:39:34
End at: 2018-08-03 20:40:05
Local clock offset: -0.214 ms
Remote clock offset: 0.036 ms


# Below is generated by plot.py at 2018-08-03 23:16:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 743.69 Mbit/s
95th percentile per-packet one-way delay: 120.888 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 743.69 Mbit/s
95th percentile per-packet one-way delay: 120.888 ms
Loss rate: 0.81%
```
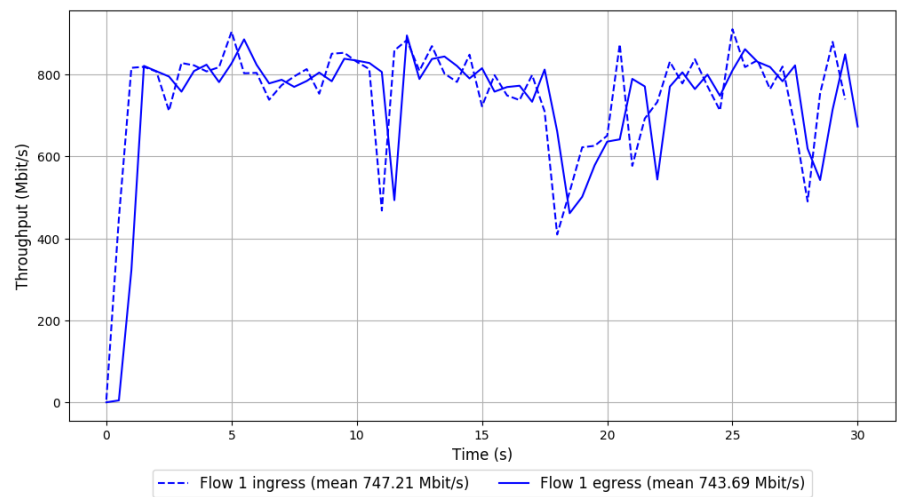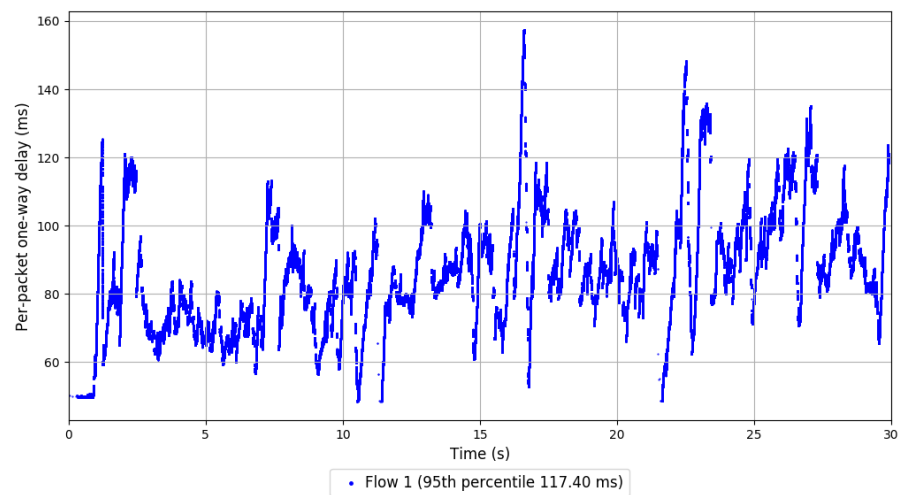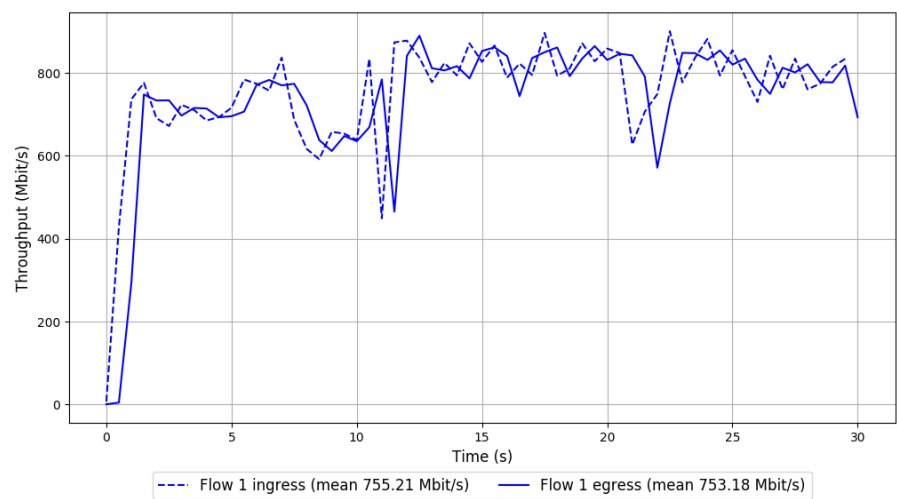
Run 6: Report of FillP-Sheep — Data Link

```
Run 7: Statistics of FillP-Sheep

Start at: 2018-08-03 21:01:33
End at: 2018-08-03 21:02:03
Local clock offset: -0.27 ms
Remote clock offset: 0.002 ms


# Below is generated by plot.py at 2018-08-03 23:32:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 753.18 Mbit/s
95th percentile per-packet one-way delay: 117.399 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 753.18 Mbit/s
95th percentile per-packet one-way delay: 117.399 ms
Loss rate: 0.61%
```
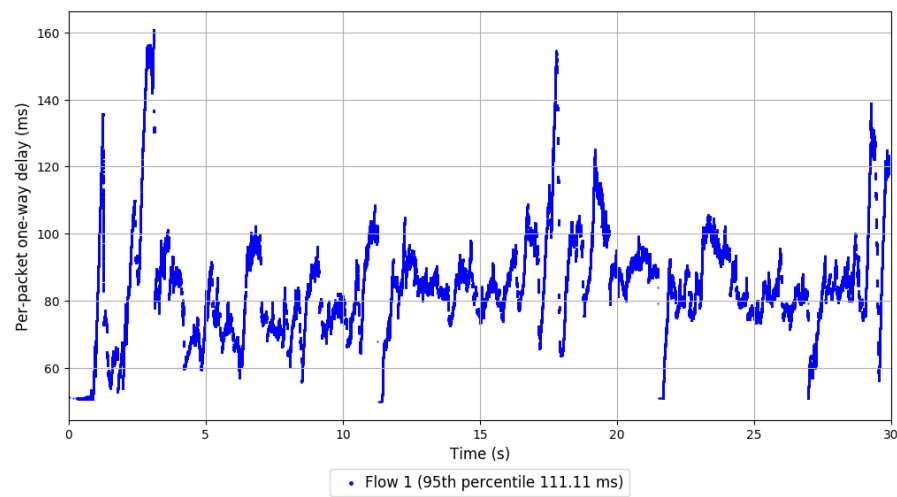
Run 7: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 755.21 Mbit/s)   Flow 1 egress (mean 753.18 Mbit/s)

Flow 1 (95th percentile 117.40 ms)

```
Run 8: Statistics of FillP-Sheep

Start at: 2018-08-03 21:23:34
End at: 2018-08-03 21:24:04
Local clock offset: 0.171 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-08-03 23:32:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 748.28 Mbit/s
95th percentile per-packet one-way delay: 111.115 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 748.28 Mbit/s
95th percentile per-packet one-way delay: 111.115 ms
Loss rate: 0.59%
```
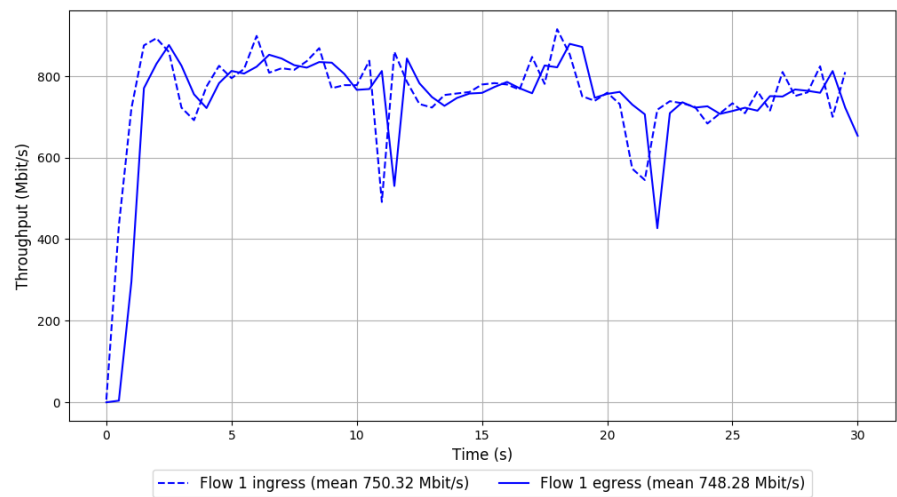
Run 8: Report of FillP-Sheep — Data Link

```
Run 9: Statistics of FillP-Sheep

Start at: 2018-08-03 21:45:42
End at: 2018-08-03 21:46:12
Local clock offset: 0.085 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-08-03 23:32:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 695.86 Mbit/s
95th percentile per-packet one-way delay: 112.062 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 695.86 Mbit/s
95th percentile per-packet one-way delay: 112.062 ms
Loss rate: 0.61%
```
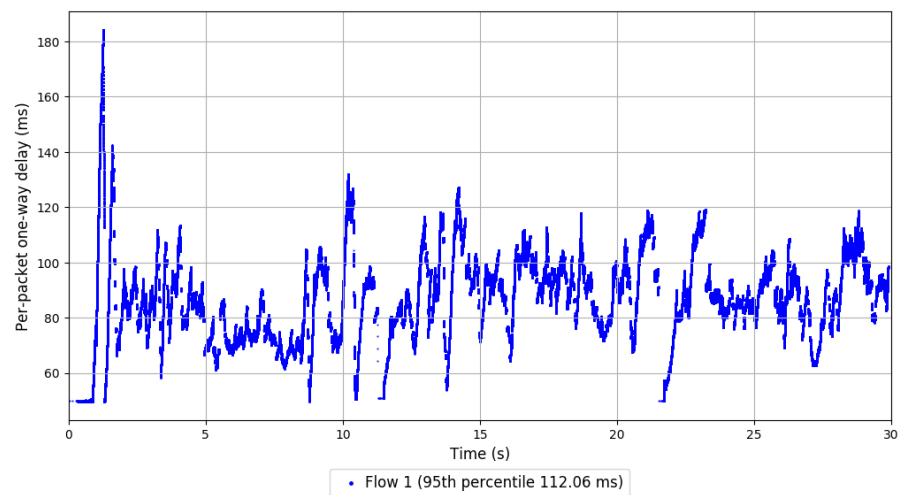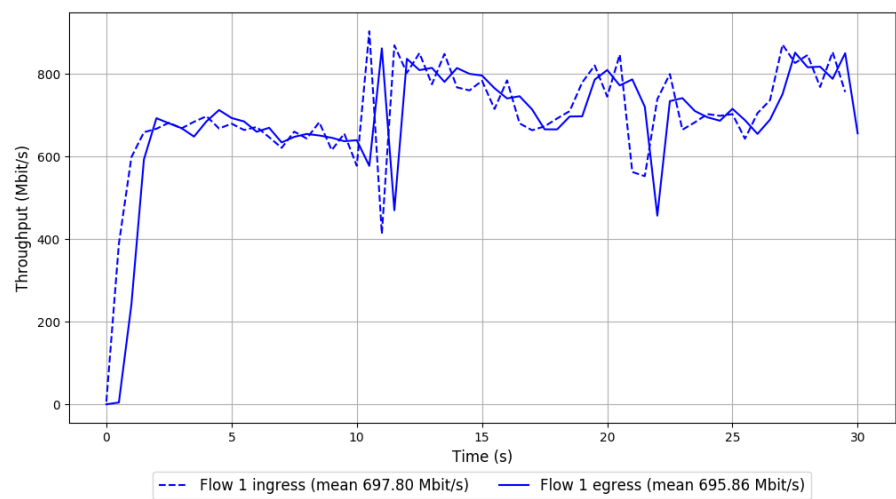
Run 9: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 697.80 Mbit/s) — Flow 1 egress (mean 695.86 Mbit/s)
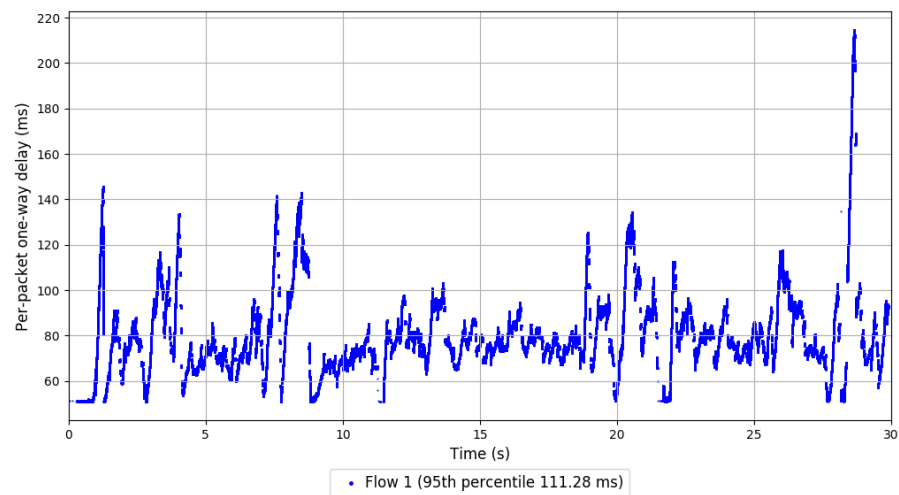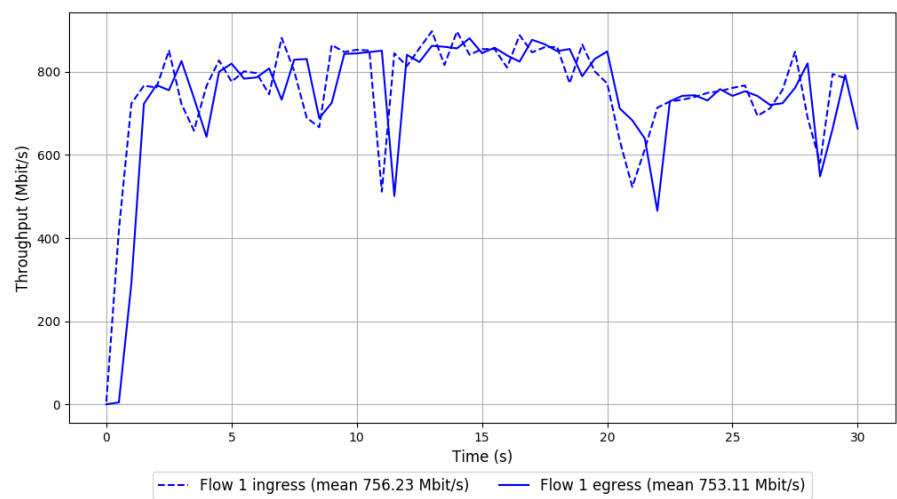

· Flow 1 (95th percentile 112.06 ms)

```
Run 10: Statistics of FillP-Sheep

Start at: 2018-08-03 22:07:42
End at: 2018-08-03 22:08:12
Local clock offset: 0.423 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 753.11 Mbit/s
95th percentile per-packet one-way delay: 111.276 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 753.11 Mbit/s
95th percentile per-packet one-way delay: 111.276 ms
Loss rate: 0.75%
```

Run 10: Report of FillP-Sheep — Data Link

Flow 1 ingress (mean 756.23 Mbit/s)   Flow 1 egress (mean 753.11 Mbit/s)

• Flow 1 (95th percentile 111.28 ms)
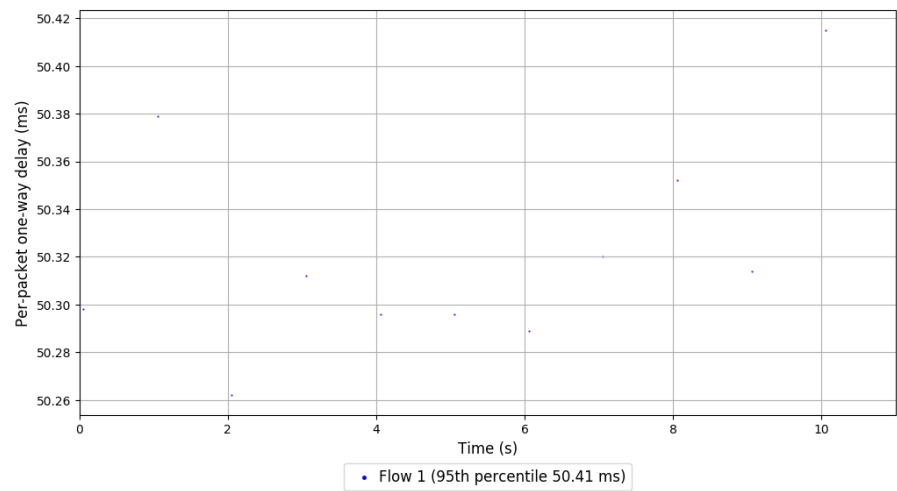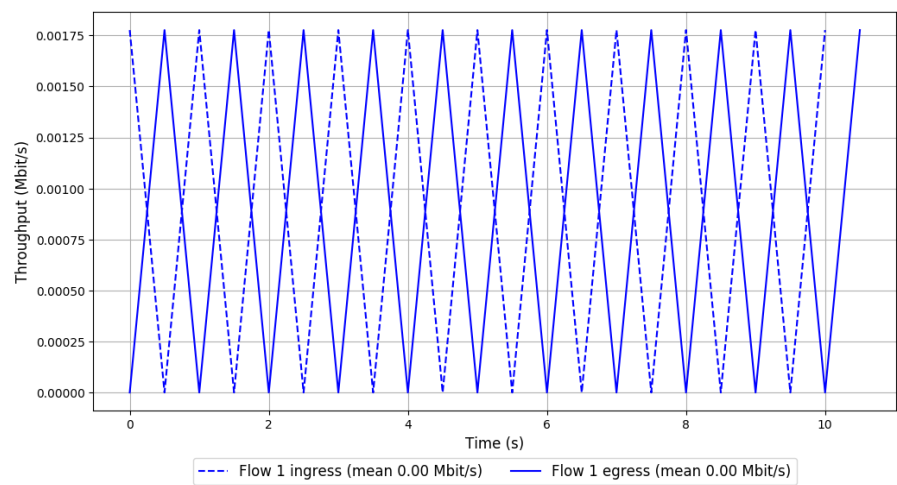
```
Run 1: Statistics of Indigo

Start at: 2018-08-03 18:42:23
End at: 2018-08-03 18:42:53
Local clock offset: 0.027 ms
Remote clock offset: 0.002 ms
```
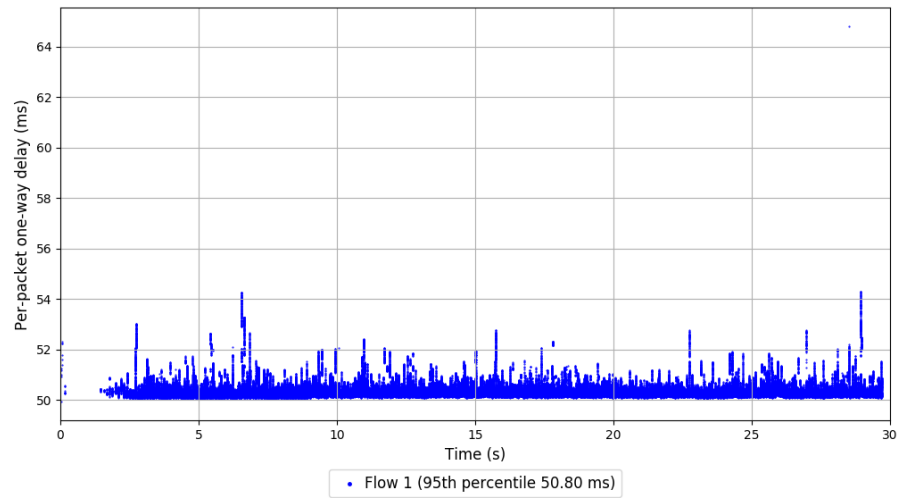
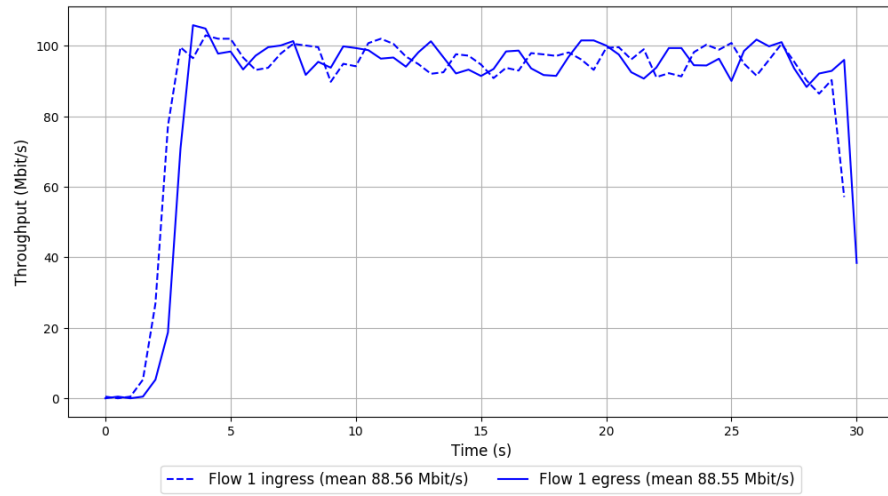Run 1: Report of Indigo — Data Link

```
Run 2: Statistics of Indigo

Start at: 2018-08-03 19:04:12
End at: 2018-08-03 19:04:42
Local clock offset: 0.024 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 50.796 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 88.55 Mbit/s
95th percentile per-packet one-way delay: 50.796 ms
Loss rate: 0.36%
```

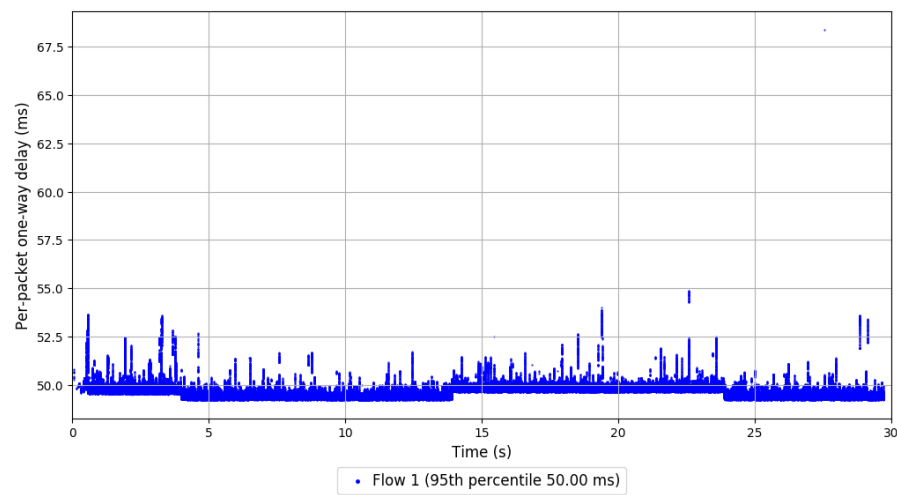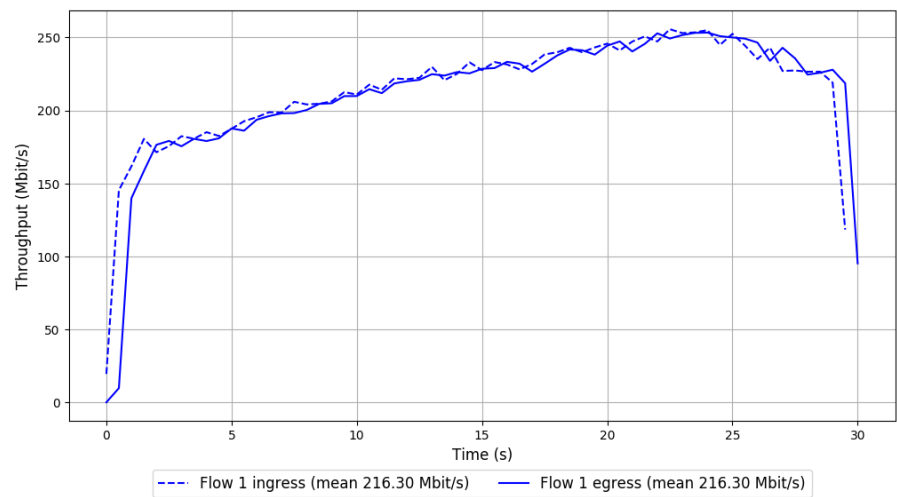Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-08-03 19:26:07
End at: 2018-08-03 19:26:37
Local clock offset: 0.02 ms
Remote clock offset: -0.053 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 50.002 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 50.002 ms
Loss rate: 0.34%
```

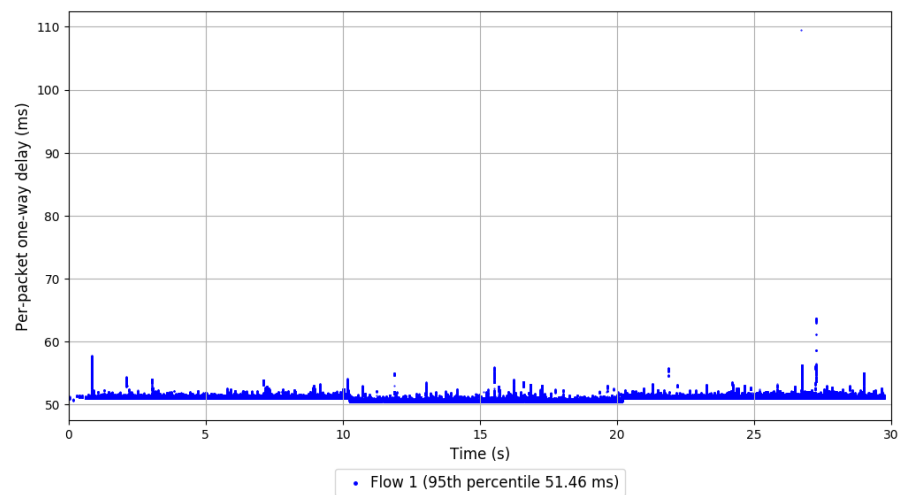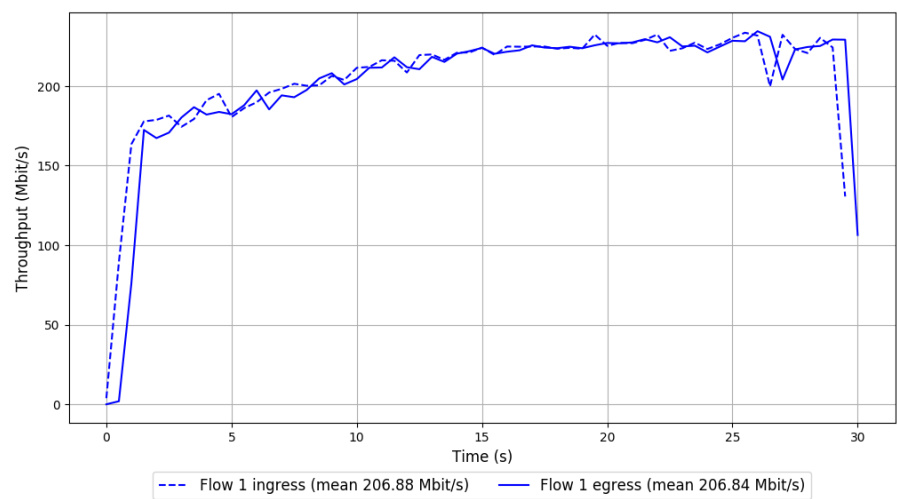Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-08-03 19:48:11
End at: 2018-08-03 19:48:41
Local clock offset: 0.512 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.84 Mbit/s
95th percentile per-packet one-way delay: 51.460 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 206.84 Mbit/s
95th percentile per-packet one-way delay: 51.460 ms
Loss rate: 0.36%
```

Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 206.88 Mbit/s) ----   Flow 1 egress (mean 206.84 Mbit/s) ——
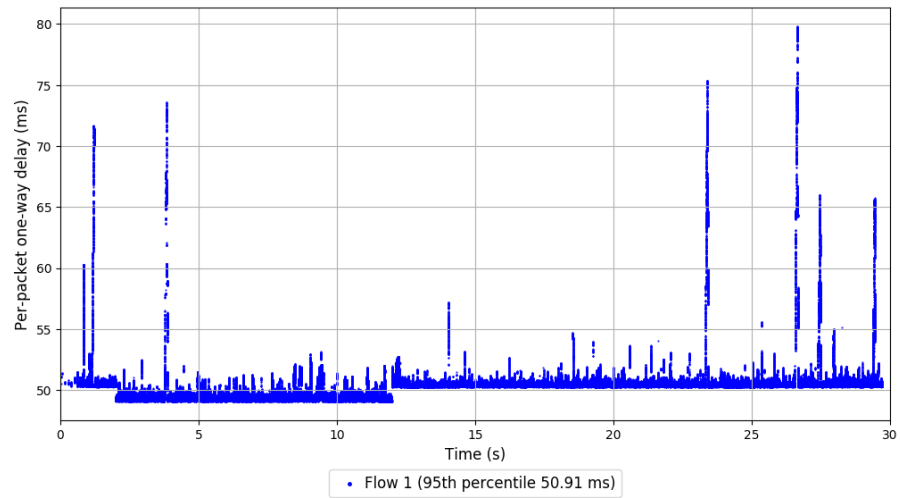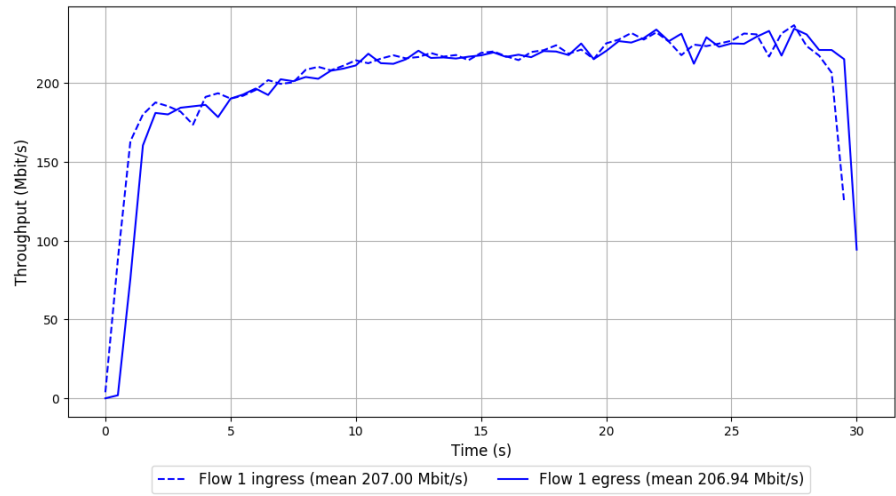

• Flow 1 (95th percentile 51.46 ms)

```
Run 5: Statistics of Indigo

Start at: 2018-08-03 20:09:49
End at: 2018-08-03 20:10:19
Local clock offset: -0.191 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.94 Mbit/s
95th percentile per-packet one-way delay: 50.907 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 206.94 Mbit/s
95th percentile per-packet one-way delay: 50.907 ms
Loss rate: 0.37%
```
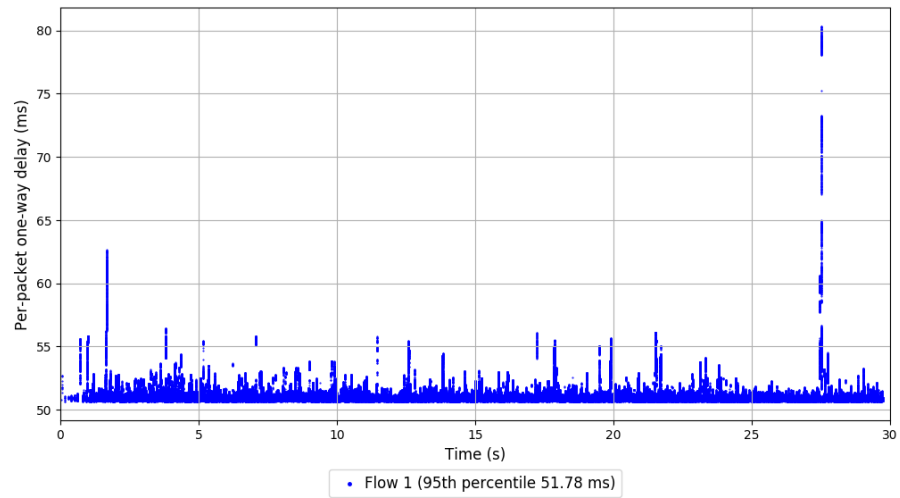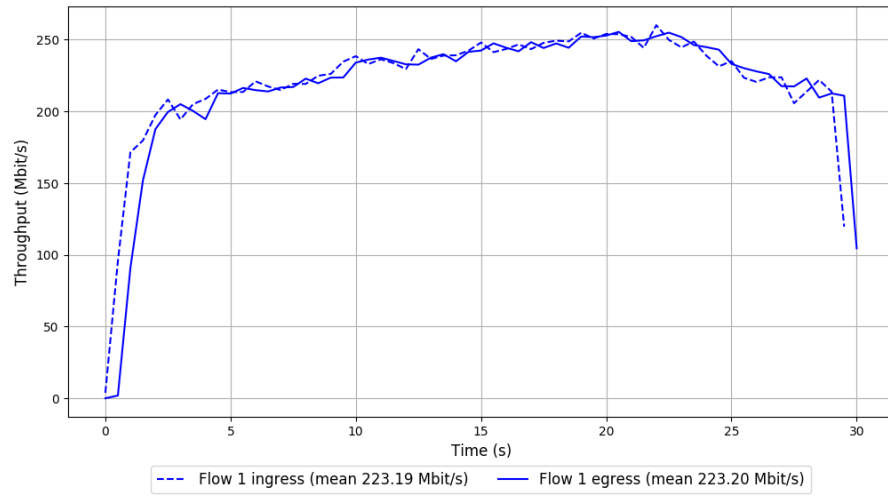
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-08-03 20:31:50
End at: 2018-08-03 20:32:20
Local clock offset: 0.213 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.20 Mbit/s
95th percentile per-packet one-way delay: 51.784 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 223.20 Mbit/s
95th percentile per-packet one-way delay: 51.784 ms
Loss rate: 0.33%
```

Run 6: Report of Indigo — Data Link

Flow 1 ingress (mean 223.19 Mbit/s) — Flow 1 egress (mean 223.20 Mbit/s)

• Flow 1 (95th percentile 51.78 ms)

```
Run 7: Statistics of Indigo

Start at: 2018-08-03 20:53:54
End at: 2018-08-03 20:54:24
Local clock offset: 0.121 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.47 Mbit/s
95th percentile per-packet one-way delay: 51.664 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 215.47 Mbit/s
95th percentile per-packet one-way delay: 51.664 ms
Loss rate: 0.35%
```
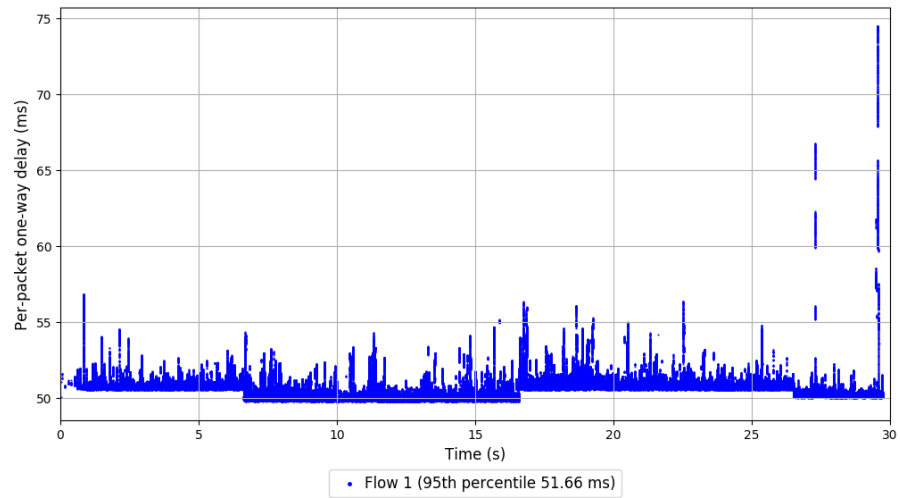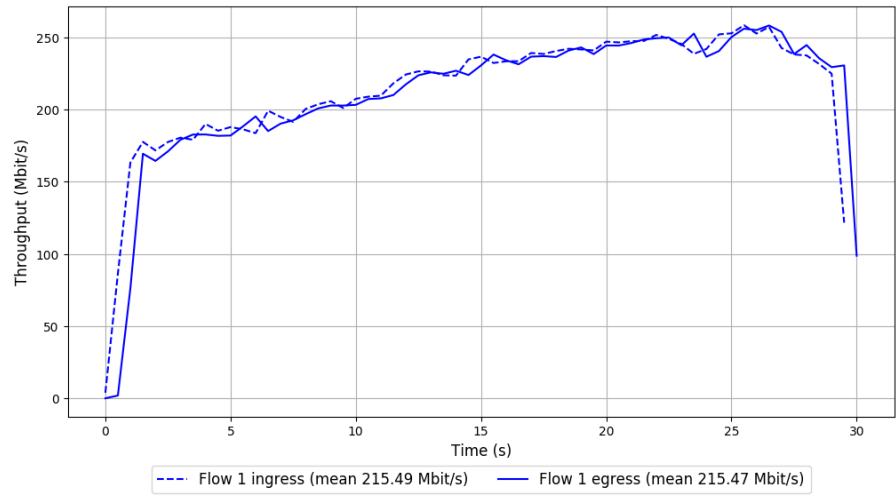
Run 7: Report of Indigo — Data Link

```
Run 8: Statistics of Indigo

Start at: 2018-08-03 21:15:56
End at: 2018-08-03 21:16:26
Local clock offset: 0.46 ms
Remote clock offset: 0.019 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.00 Mbit/s
95th percentile per-packet one-way delay: 50.799 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 215.00 Mbit/s
95th percentile per-packet one-way delay: 50.799 ms
Loss rate: 0.40%
```
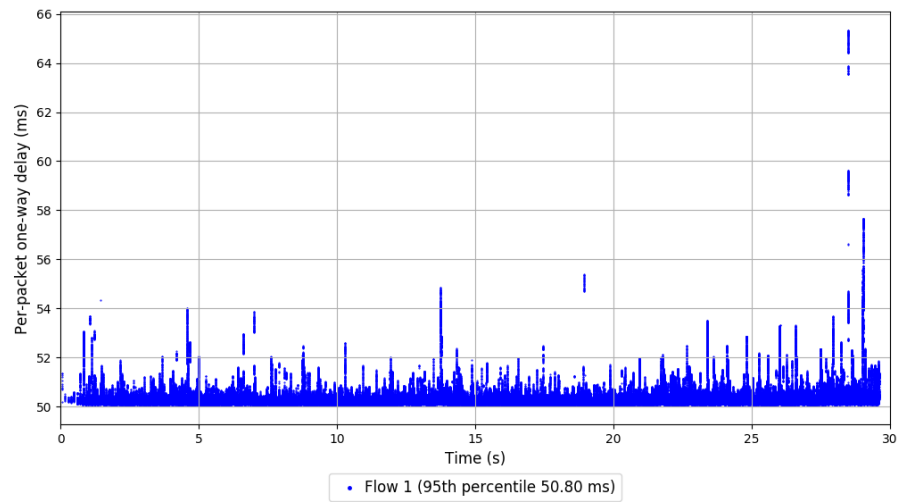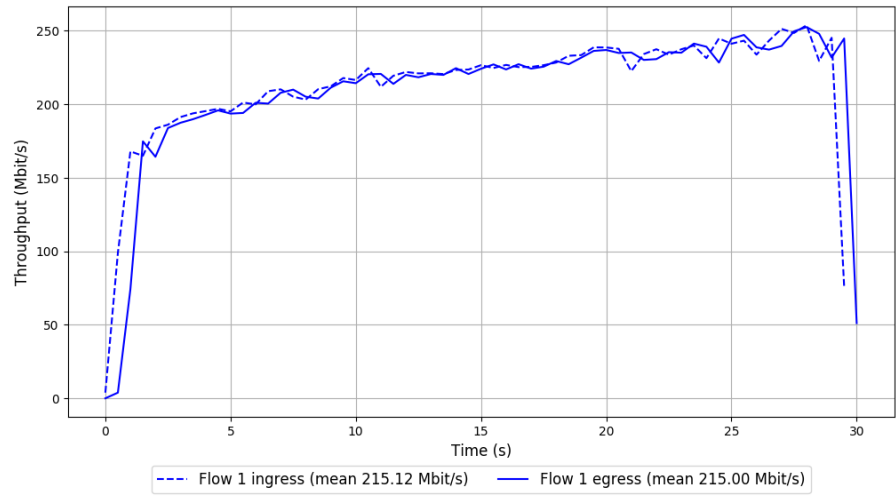
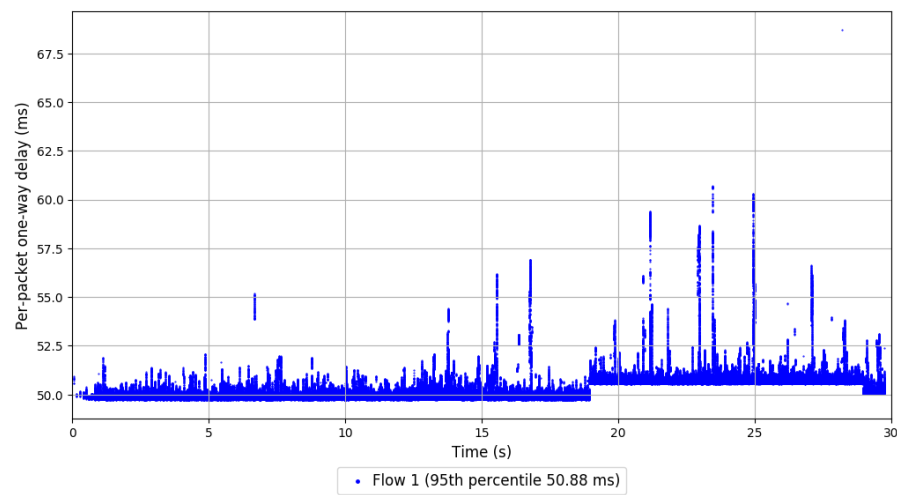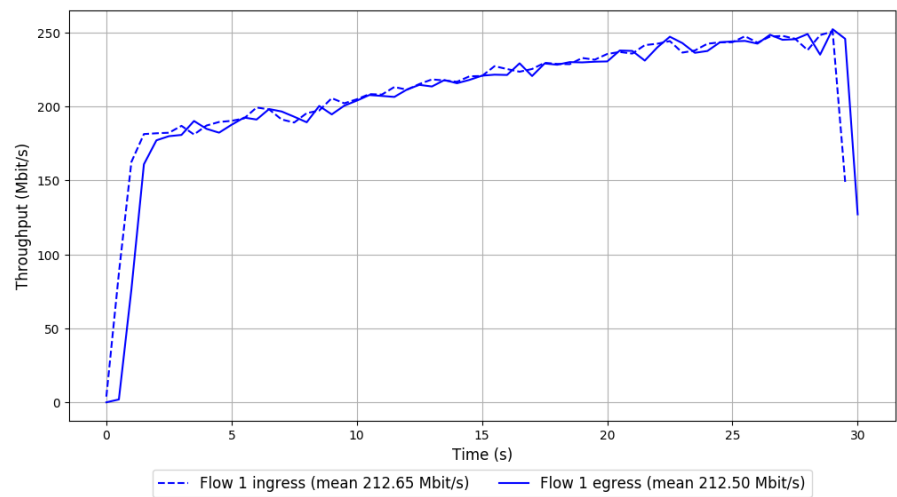Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2018-08-03 21:38:02
End at: 2018-08-03 21:38:32
Local clock offset: 0.133 ms
Remote clock offset: -0.066 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 212.50 Mbit/s
95th percentile per-packet one-way delay: 50.879 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 212.50 Mbit/s
95th percentile per-packet one-way delay: 50.879 ms
Loss rate: 0.39%
```
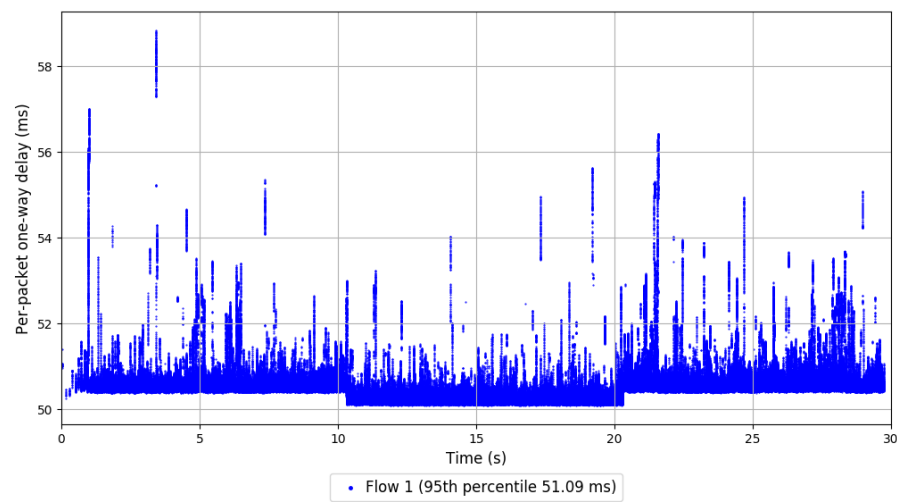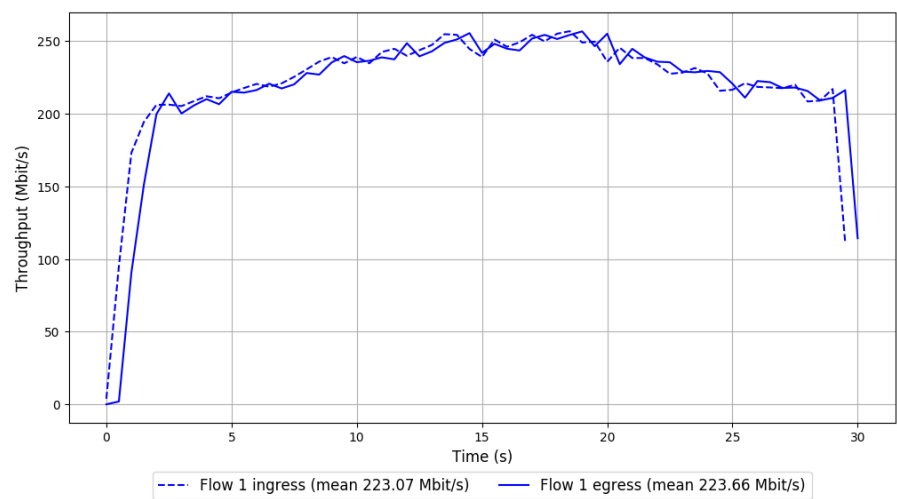
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-08-03 22:00:01
End at: 2018-08-03 22:00:31
Local clock offset: 0.45 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.66 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 223.66 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.15%
```

Run 10: Report of Indigo — Data Link

Flow 1 ingress (mean 223.07 Mbit/s)   Flow 1 egress (mean 223.66 Mbit/s)

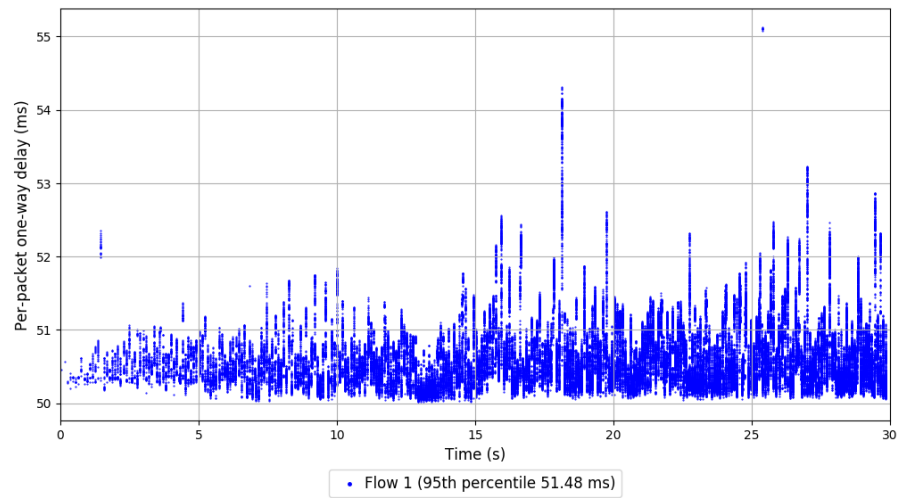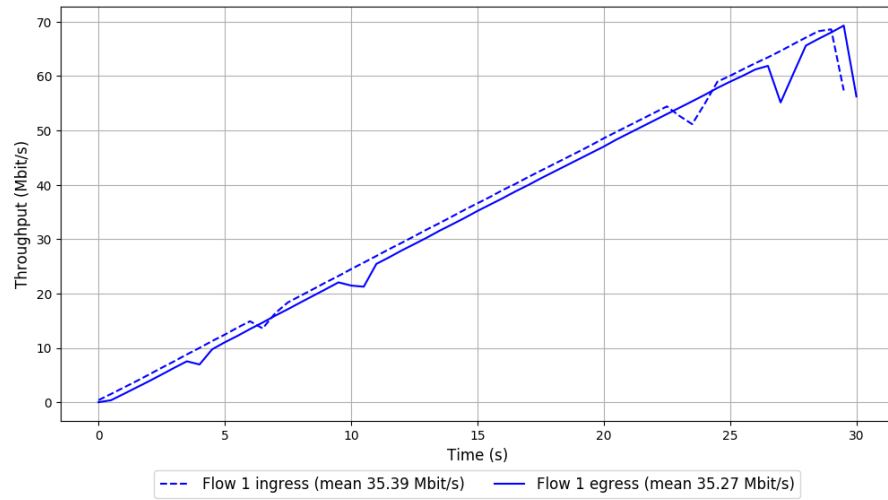
Flow 1 (95th percentile 51.09 ms)

123

```
Run 1: Statistics of LEDBAT

Start at: 2018-08-03 18:48:36
End at: 2018-08-03 18:49:06
Local clock offset: 0.021 ms
Remote clock offset: 0.07 ms

# Below is generated by plot.py at 2018-08-03 23:35:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 51.479 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 35.27 Mbit/s
95th percentile per-packet one-way delay: 51.479 ms
Loss rate: 0.67%
```

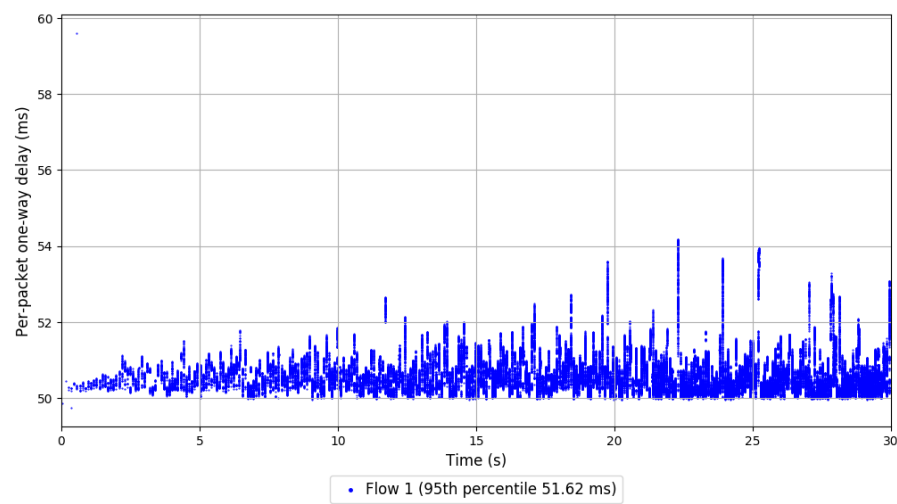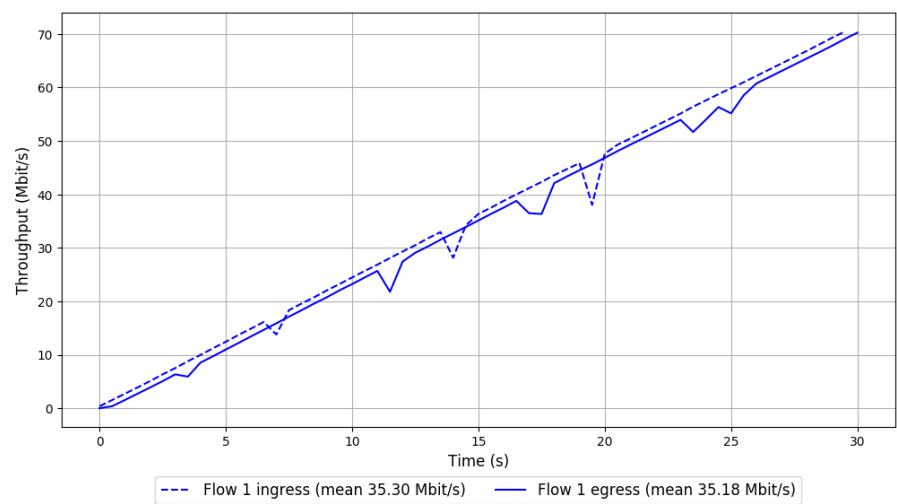Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.39 Mbit/s)   Flow 1 egress (mean 35.27 Mbit/s)

Flow 1 (95th percentile 51.48 ms)

```
Run 2: Statistics of LEDBAT

Start at: 2018-08-03 19:10:37
End at: 2018-08-03 19:11:07
Local clock offset: 0.045 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.18 Mbit/s
95th percentile per-packet one-way delay: 51.620 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 35.18 Mbit/s
95th percentile per-packet one-way delay: 51.620 ms
Loss rate: 0.67%
```

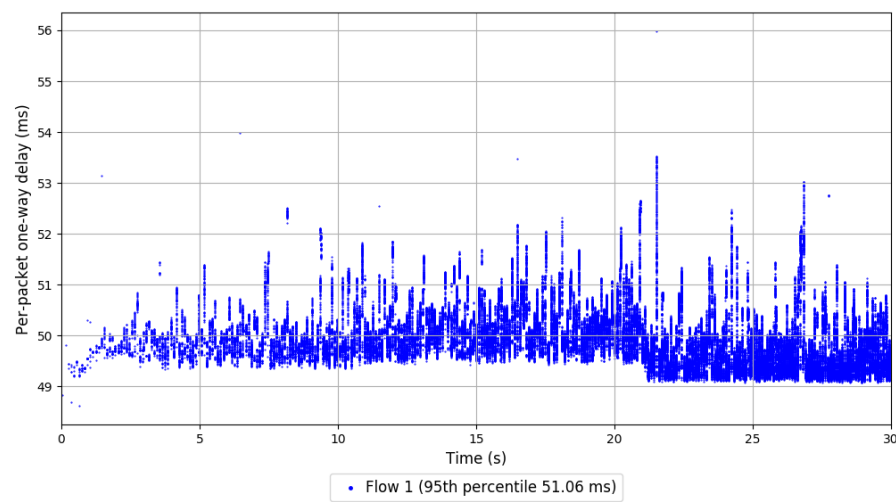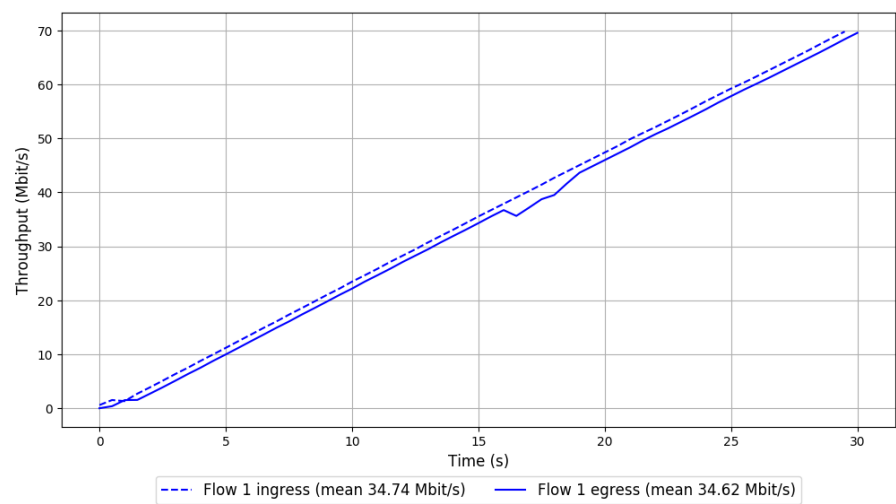# Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-08-03 19:32:40
End at: 2018-08-03 19:33:10
Local clock offset: -0.233 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 34.62 Mbit/s
95th percentile per-packet one-way delay: 51.058 ms
Loss rate: 0.67%
```

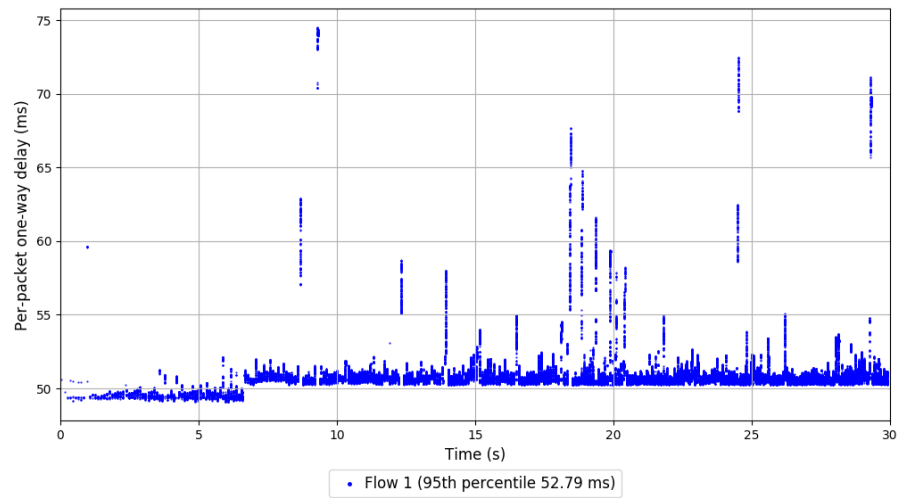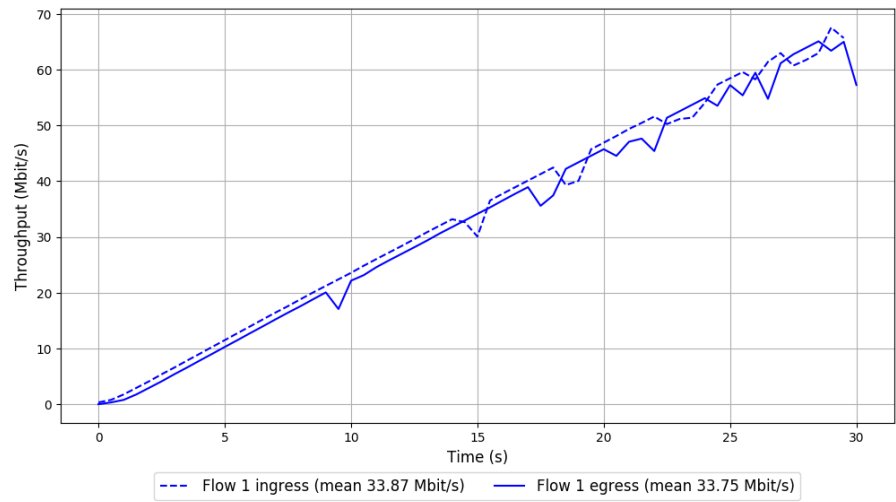# Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-08-03 19:54:34
End at: 2018-08-03 19:55:04
Local clock offset: -0.226 ms
Remote clock offset: -0.055 ms

# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 52.791 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 33.75 Mbit/s
95th percentile per-packet one-way delay: 52.791 ms
Loss rate: 0.68%
```

Run 4: Report of LEDBAT — Data Link

Flow 1 ingress (mean 33.87 Mbit/s)   Flow 1 egress (mean 33.75 Mbit/s)

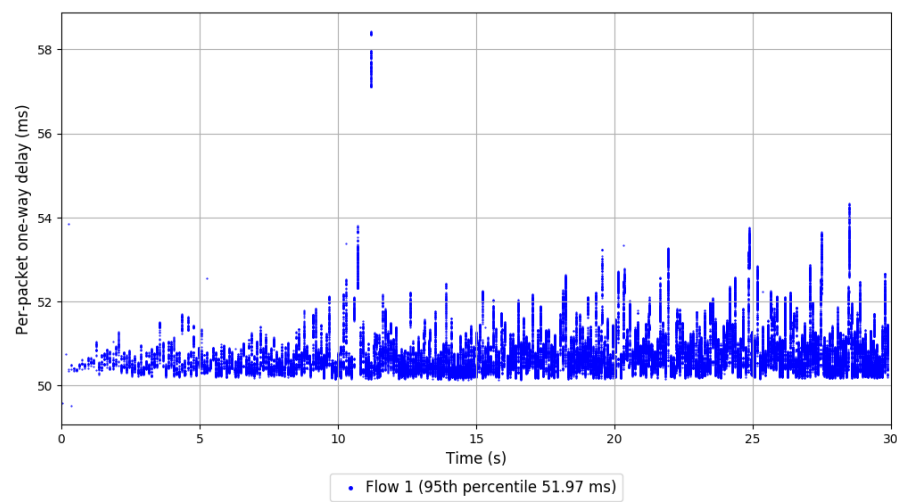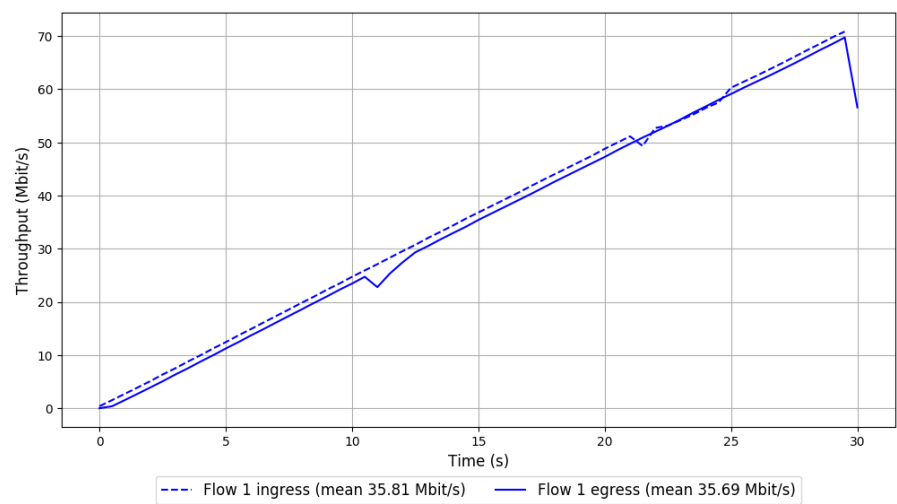Flow 1 (95th percentile 52.79 ms)

```
Run 5: Statistics of LEDBAT

Start at: 2018-08-03 20:16:22
End at: 2018-08-03 20:16:52
Local clock offset: -0.217 ms
Remote clock offset: -0.012 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 51.969 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 35.69 Mbit/s
95th percentile per-packet one-way delay: 51.969 ms
Loss rate: 0.67%
```

Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.81 Mbit/s) --- Flow 1 egress (mean 35.69 Mbit/s)

• Flow 1 (95th percentile 51.97 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-08-03 20:38:27
End at: 2018-08-03 20:38:57
Local clock offset: 0.155 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.48 Mbit/s
95th percentile per-packet one-way delay: 52.813 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 34.48 Mbit/s
95th percentile per-packet one-way delay: 52.813 ms
Loss rate: 0.68%
```
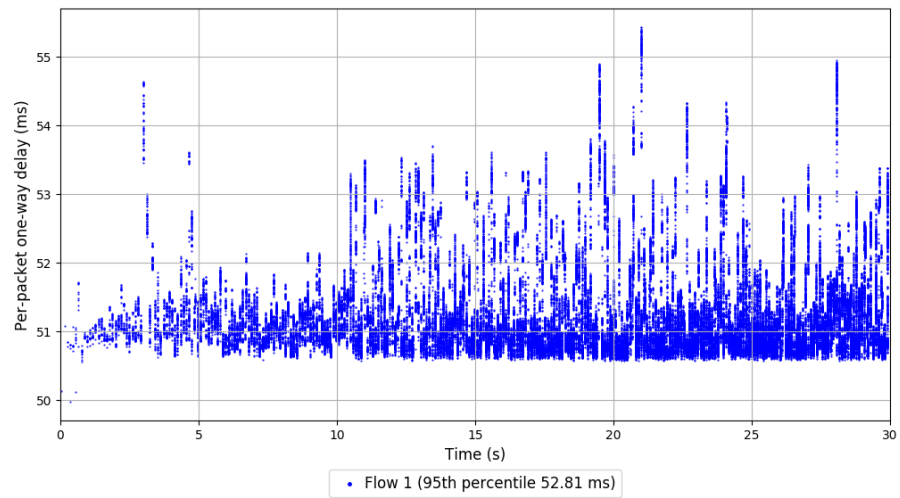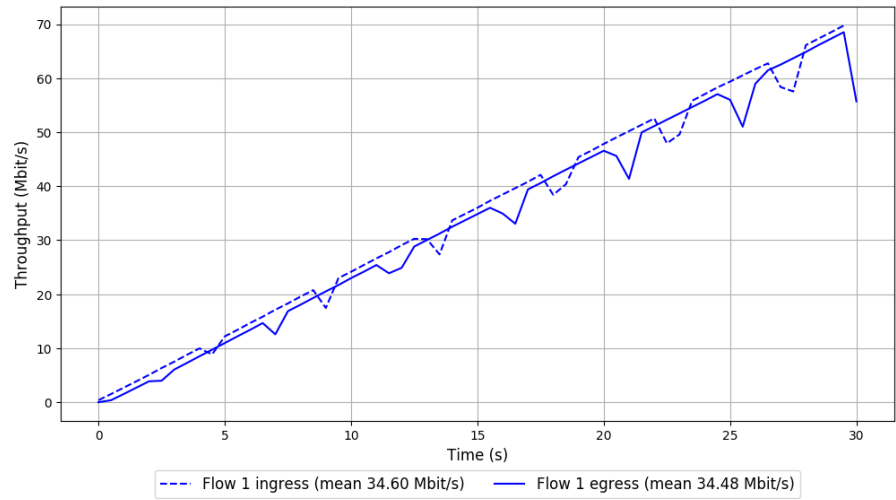
Run 6: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.60 Mbit/s)   Flow 1 egress (mean 34.48 Mbit/s)

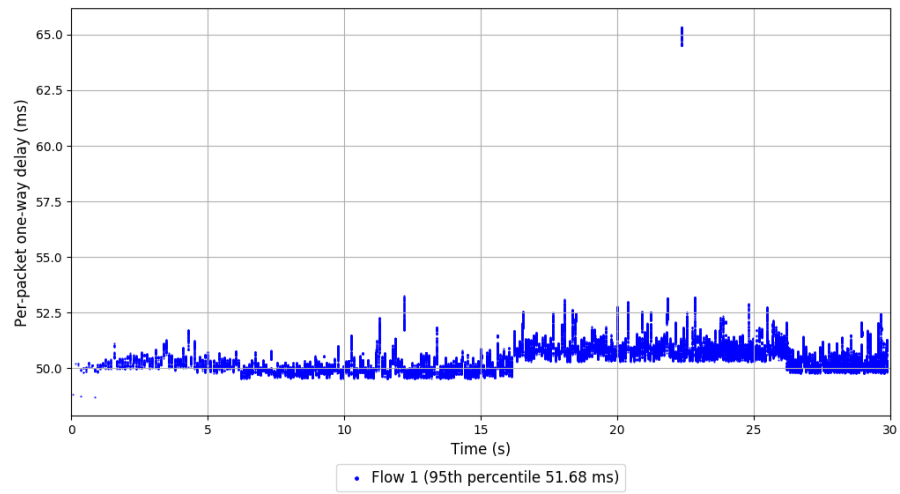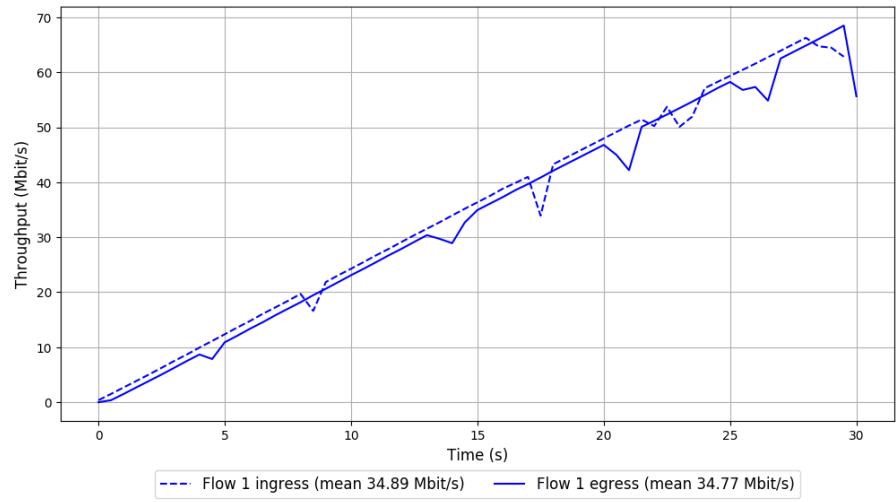Flow 1 (95th percentile 52.81 ms)

```
Run 7: Statistics of LEDBAT

Start at: 2018-08-03 21:00:25
End at: 2018-08-03 21:00:55
Local clock offset: -0.238 ms
Remote clock offset: -0.058 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.77 Mbit/s
95th percentile per-packet one-way delay: 51.682 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 34.77 Mbit/s
95th percentile per-packet one-way delay: 51.682 ms
Loss rate: 0.67%
```

Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.89 Mbit/s)   Flow 1 egress (mean 34.77 Mbit/s)

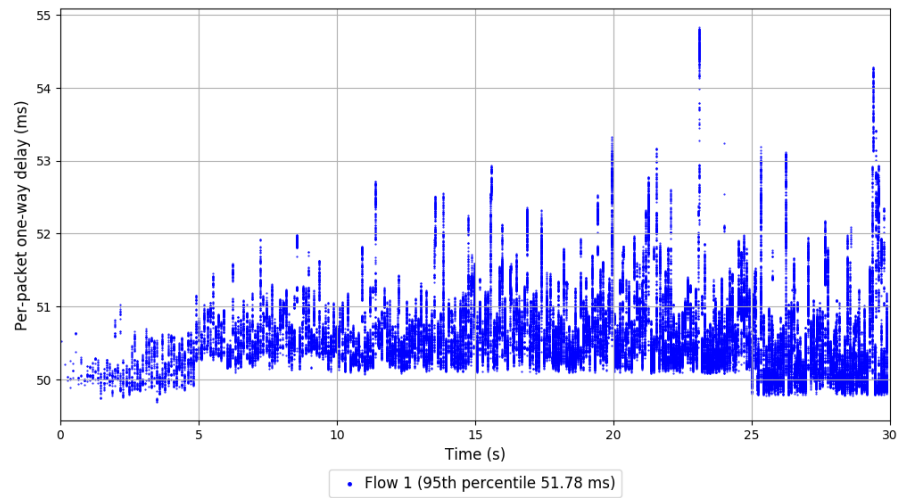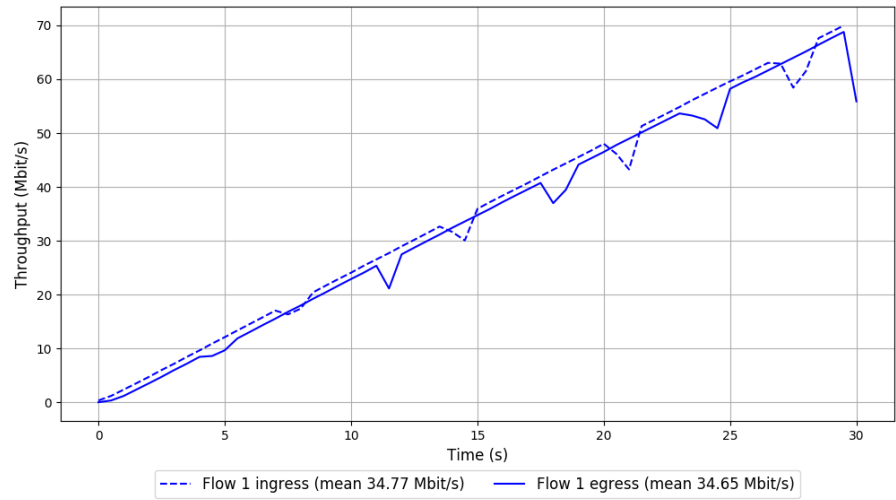Flow 1 (95th percentile 51.68 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-08-03 21:22:26
End at: 2018-08-03 21:22:56
Local clock offset: 0.159 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.65 Mbit/s
95th percentile per-packet one-way delay: 51.778 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 34.65 Mbit/s
95th percentile per-packet one-way delay: 51.778 ms
Loss rate: 0.68%
```

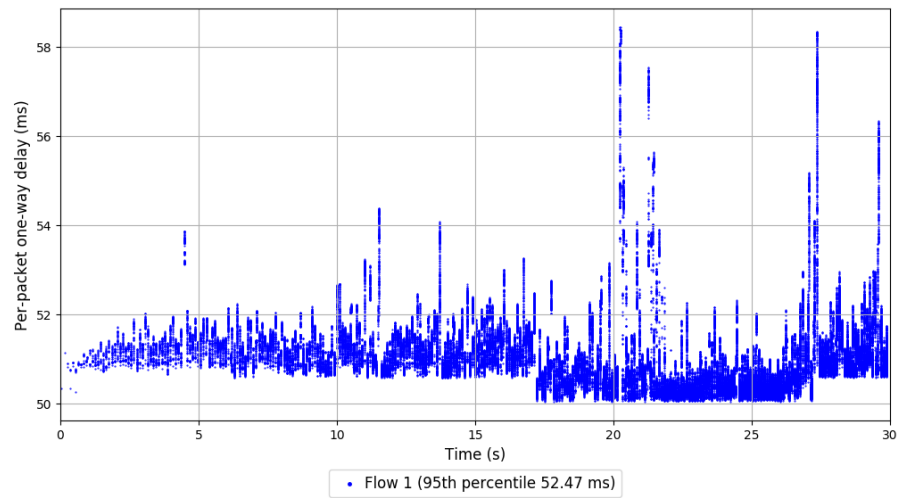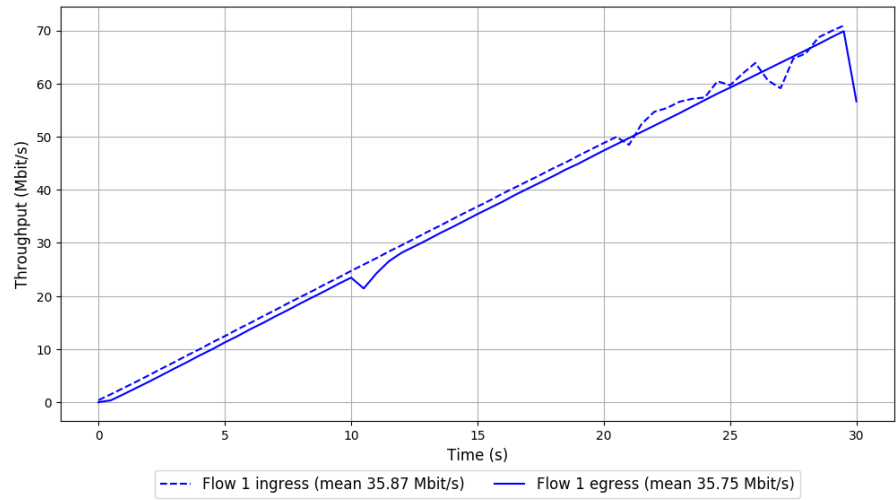## Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-08-03 21:44:34
End at: 2018-08-03 21:45:04
Local clock offset: 0.129 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 52.466 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 35.75 Mbit/s
95th percentile per-packet one-way delay: 52.466 ms
Loss rate: 0.66%
```

Run 9: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.87 Mbit/s)   Flow 1 egress (mean 35.75 Mbit/s)
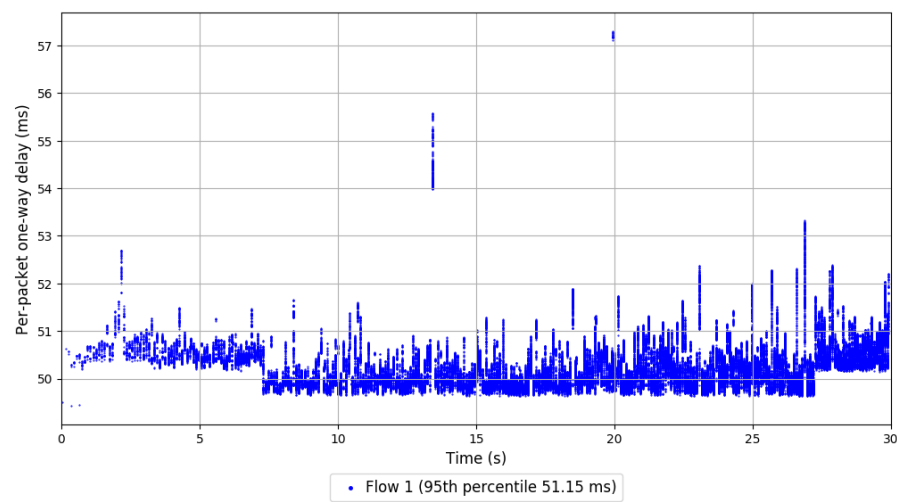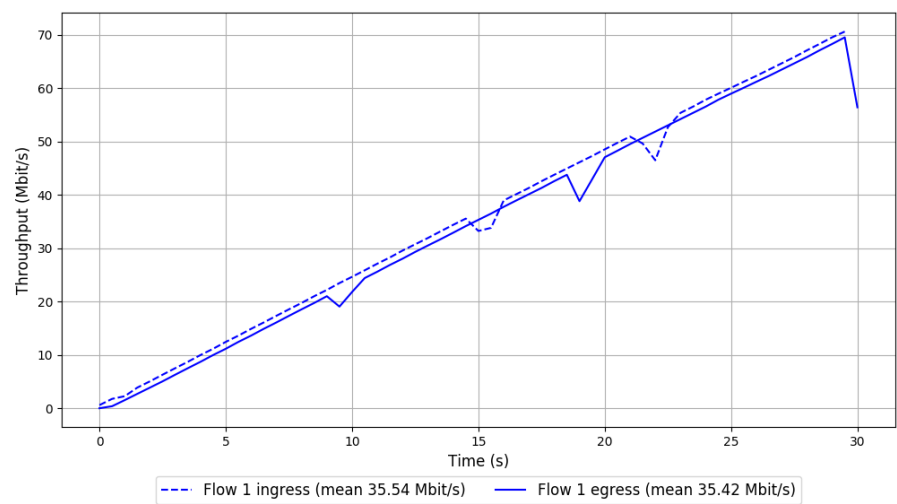

Flow 1 (95th percentile 52.47 ms)

```
Run 10: Statistics of LEDBAT

Start at: 2018-08-03 22:06:34
End at: 2018-08-03 22:07:04
Local clock offset: -0.337 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-08-03 23:35:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.42 Mbit/s
95th percentile per-packet one-way delay: 51.148 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 35.42 Mbit/s
95th percentile per-packet one-way delay: 51.148 ms
Loss rate: 0.67%
```
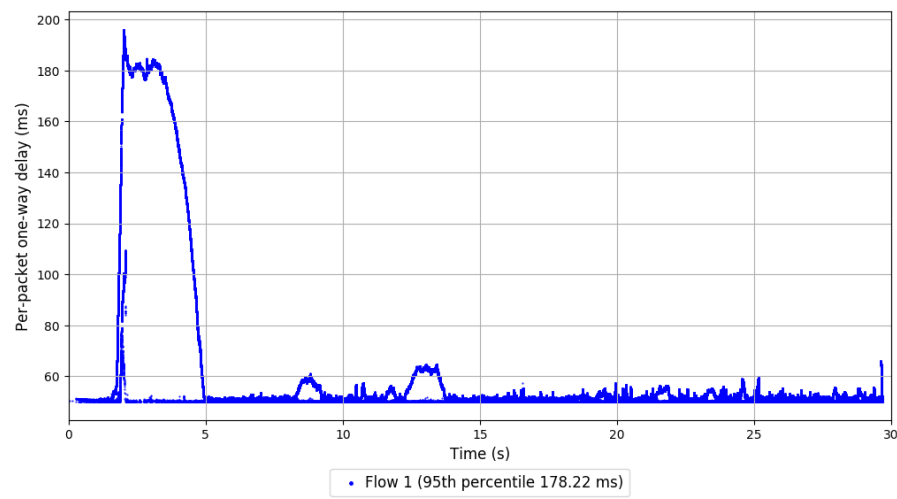
Run 10: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.54 Mbit/s)   Flow 1 egress (mean 35.42 Mbit/s)

Flow 1 (95th percentile 51.15 ms)

143

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-08-03 18:33:00
End at: 2018-08-03 18:33:30
Local clock offset: 0.038 ms
Remote clock offset: 0.005 ms


# Below is generated by plot.py at 2018-08-03 23:36:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 433.77 Mbit/s
95th percentile per-packet one-way delay: 178.224 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 433.77 Mbit/s
95th percentile per-packet one-way delay: 178.224 ms
Loss rate: 0.77%
```
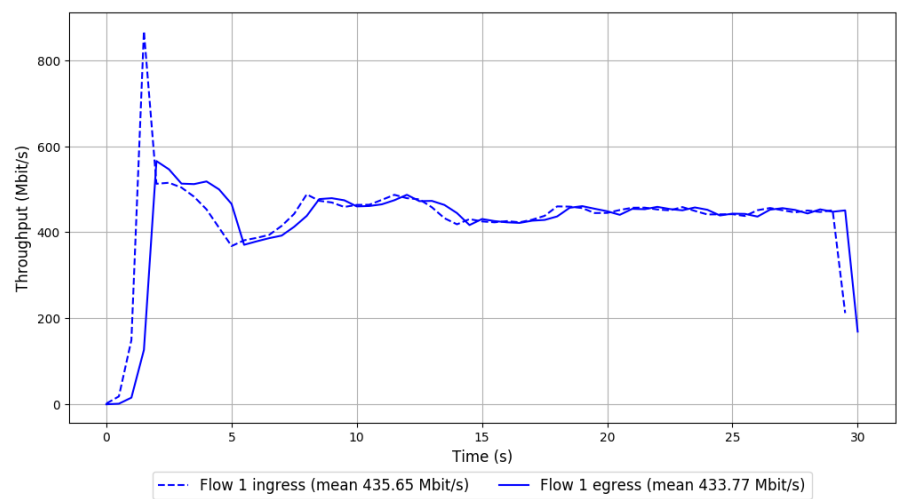
Run 1: Report of PCC-Allegro — Data Link

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-08-03 18:54:42
End at: 2018-08-03 18:55:12
Local clock offset: 0.009 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-08-03 23:36:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 397.08 Mbit/s
95th percentile per-packet one-way delay: 114.981 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 397.08 Mbit/s
95th percentile per-packet one-way delay: 114.981 ms
Loss rate: 0.38%
```
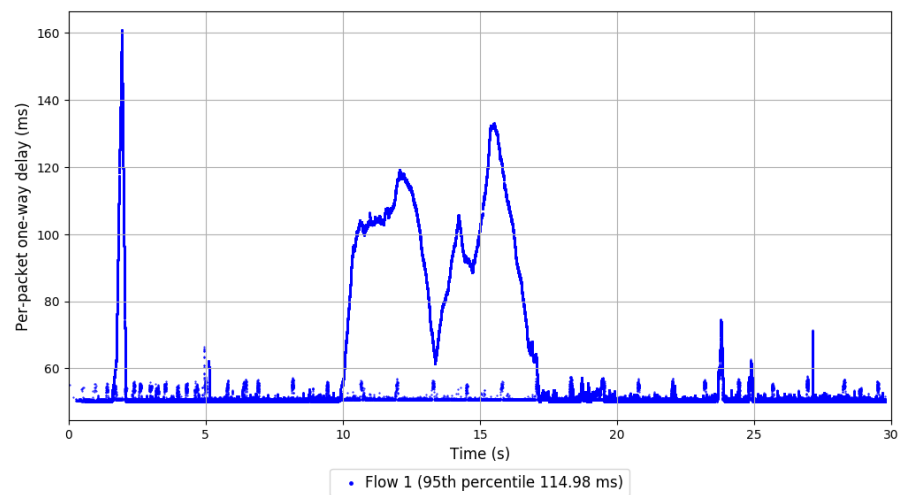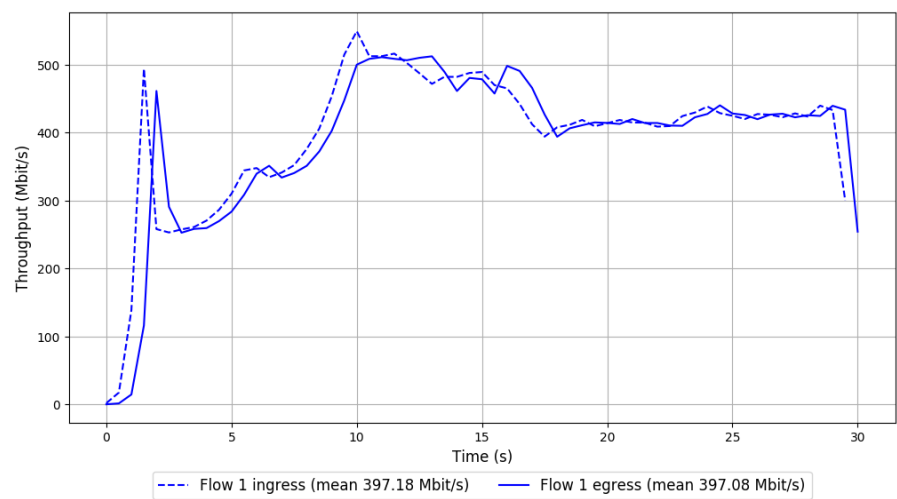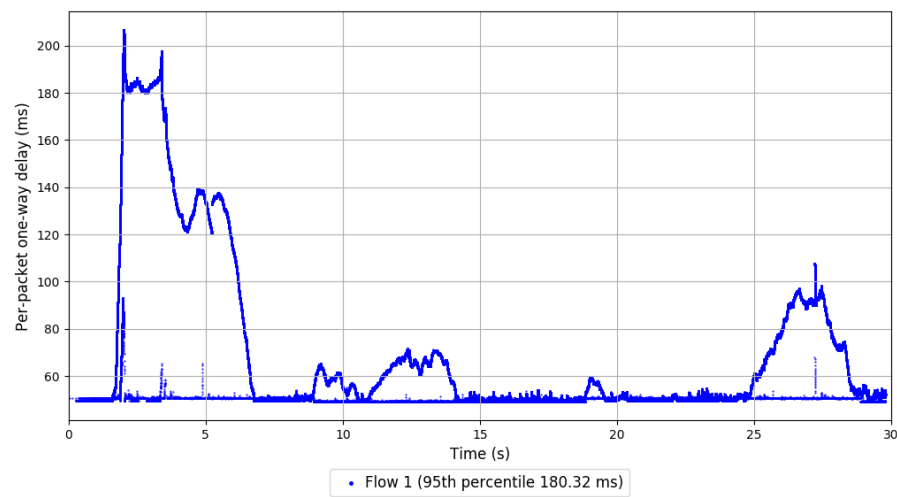
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 397.18 Mbit/s) —— Flow 1 egress (mean 397.08 Mbit/s)

• Flow 1 (95th percentile 114.98 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-08-03 19:16:42
End at: 2018-08-03 19:17:12
Local clock offset: -0.319 ms
Remote clock offset: -0.151 ms


# Below is generated by plot.py at 2018-08-03 23:37:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 472.66 Mbit/s
95th percentile per-packet one-way delay: 180.324 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 472.66 Mbit/s
95th percentile per-packet one-way delay: 180.324 ms
Loss rate: 0.63%
```
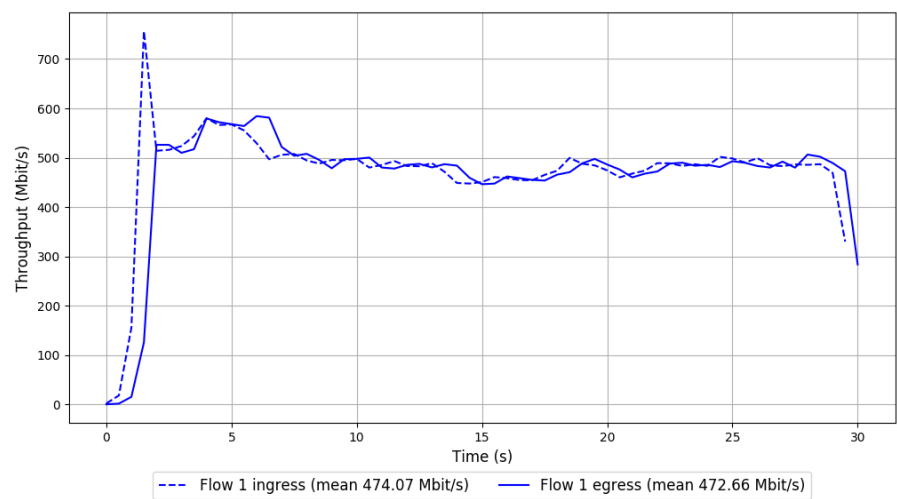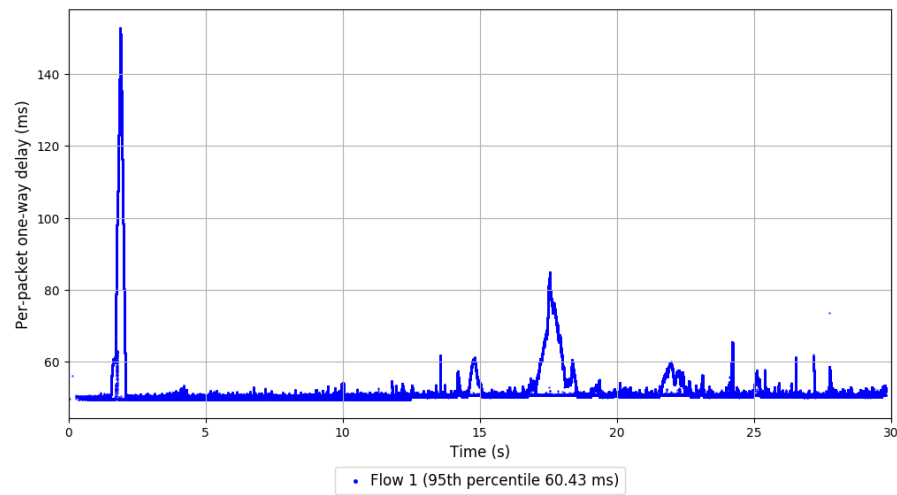
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 474.07 Mbit/s)   Flow 1 egress (mean 472.66 Mbit/s)

Flow 1 (95th percentile 180.32 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-08-03 19:38:48
End at: 2018-08-03 19:39:18
Local clock offset: 0.175 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-08-03 23:37:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 391.22 Mbit/s
95th percentile per-packet one-way delay: 60.426 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 391.22 Mbit/s
95th percentile per-packet one-way delay: 60.426 ms
Loss rate: 0.45%
```
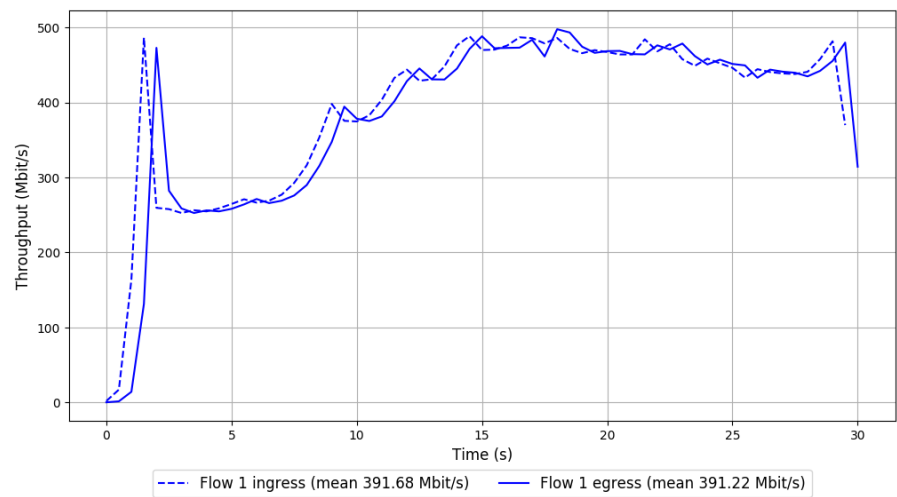
Run 4: Report of PCC-Allegro — Data Link

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-08-03 20:00:44
End at: 2018-08-03 20:01:14
Local clock offset: 0.153 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2018-08-03 23:41:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 460.05 Mbit/s
95th percentile per-packet one-way delay: 113.174 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 460.05 Mbit/s
95th percentile per-packet one-way delay: 113.174 ms
Loss rate: 0.44%
```
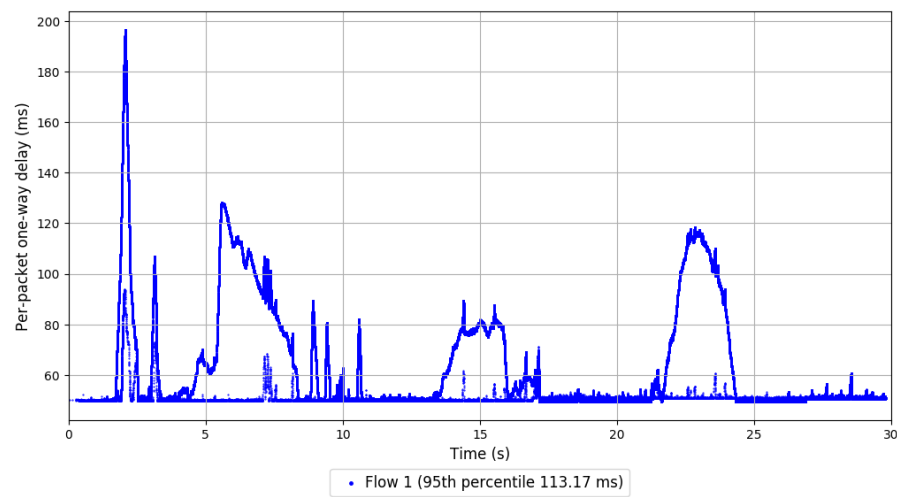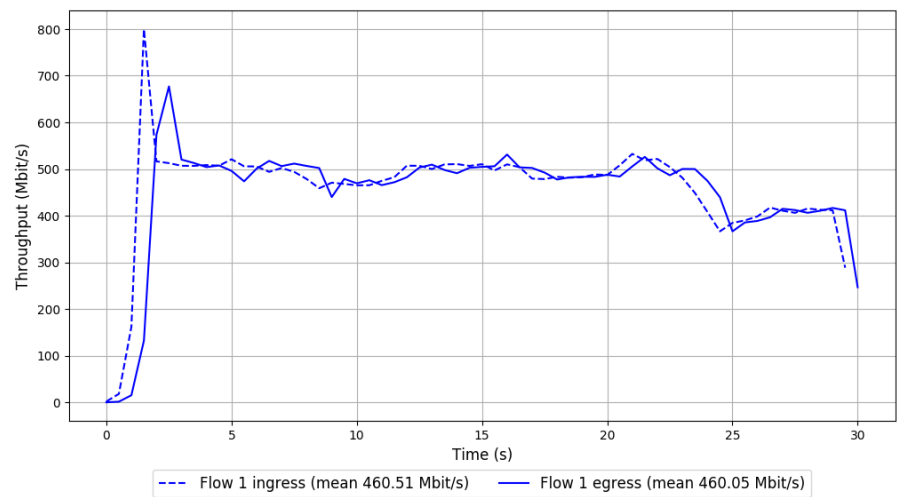
Run 5: Report of PCC-Allegro — Data Link

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-08-03 20:22:28
End at: 2018-08-03 20:22:58
Local clock offset: 0.198 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2018-08-03 23:42:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 441.30 Mbit/s
95th percentile per-packet one-way delay: 155.909 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 441.30 Mbit/s
95th percentile per-packet one-way delay: 155.909 ms
Loss rate: 0.71%
```
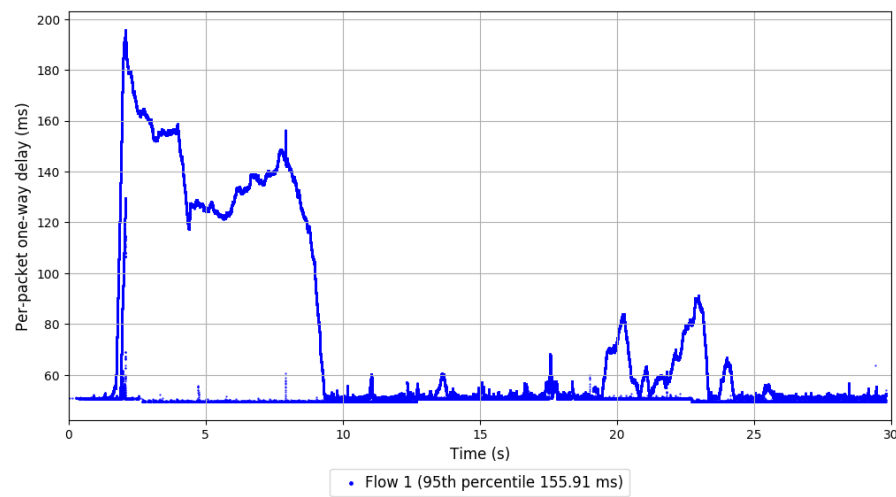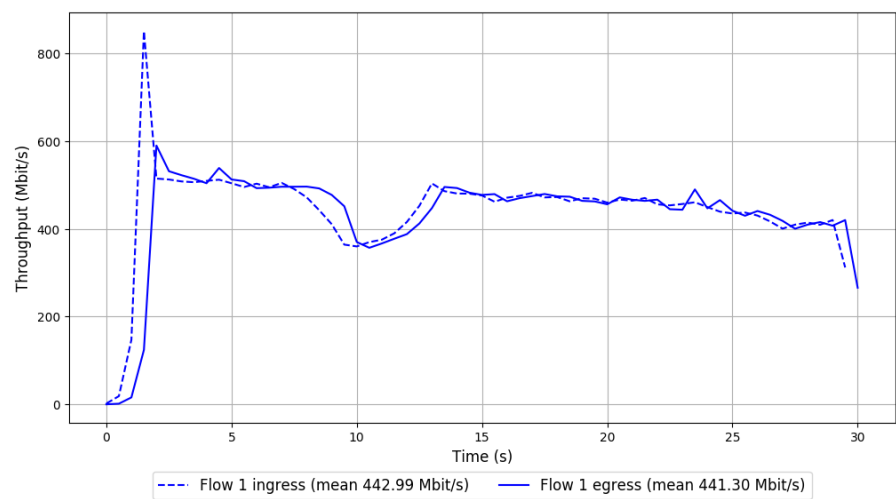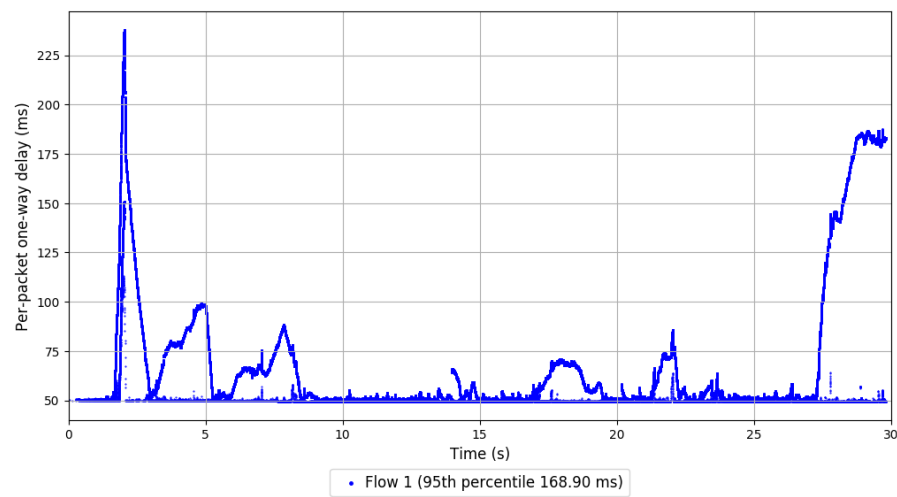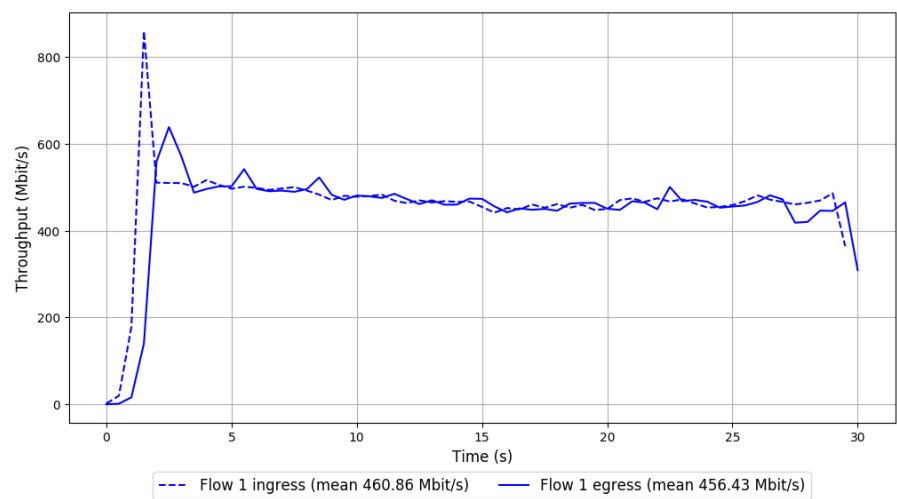
Run 6: Report of PCC-Allegro — Data Link

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-08-03 20:44:33
End at: 2018-08-03 20:45:03
Local clock offset: -0.254 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2018-08-03 23:43:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 456.43 Mbit/s
95th percentile per-packet one-way delay: 168.895 ms
Loss rate: 1.29%
-- Flow 1:
Average throughput: 456.43 Mbit/s
95th percentile per-packet one-way delay: 168.895 ms
Loss rate: 1.29%
```

Run 7: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 460.86 Mbit/s) — — —   Flow 1 egress (mean 456.43 Mbit/s) ———

• Flow 1 (95th percentile 168.90 ms)

157

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-08-03 21:06:33
End at: 2018-08-03 21:07:03
Local clock offset: 0.458 ms
Remote clock offset: -0.023 ms


# Below is generated by plot.py at 2018-08-03 23:45:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 491.31 Mbit/s
95th percentile per-packet one-way delay: 183.432 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 491.31 Mbit/s
95th percentile per-packet one-way delay: 183.432 ms
Loss rate: 2.27%
```
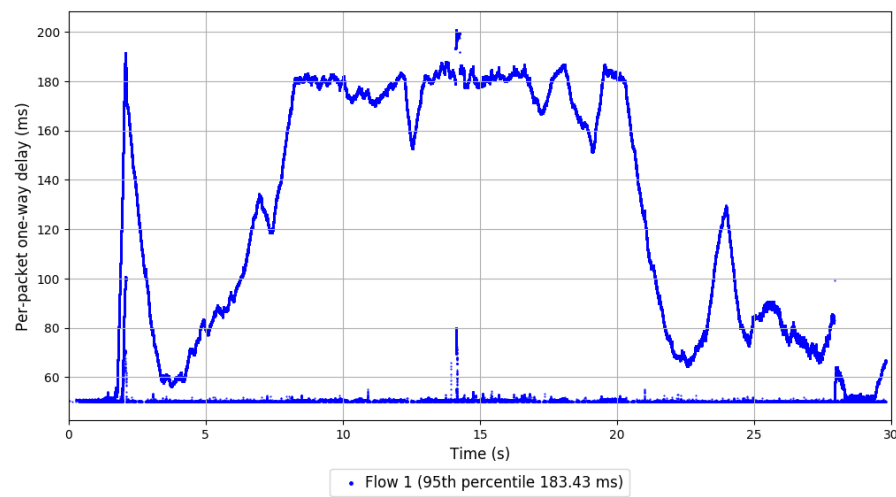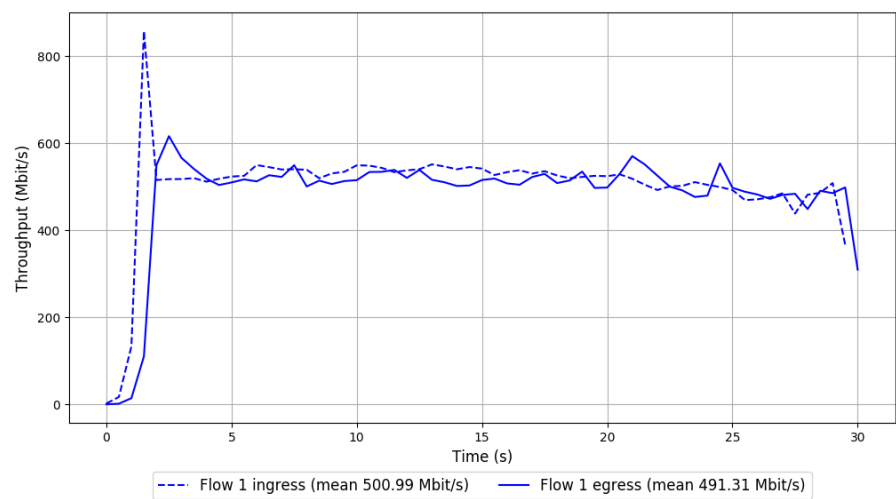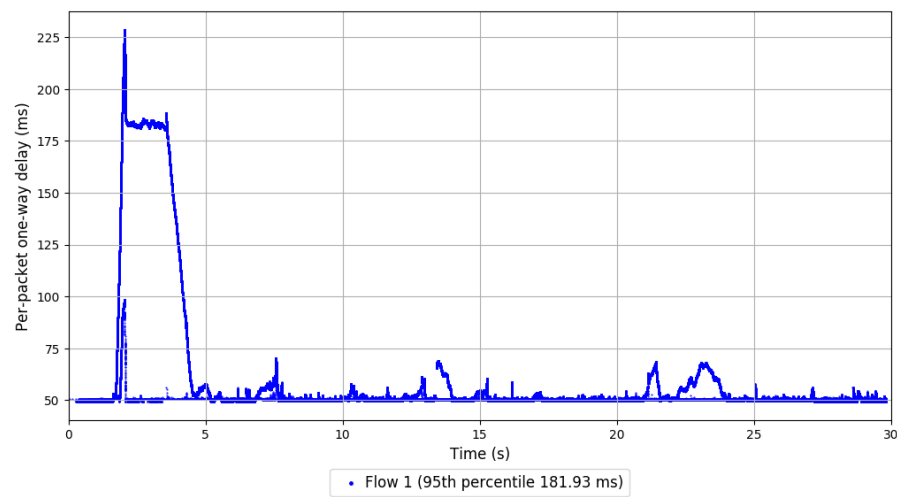
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 500.99 Mbit/s) — — — Flow 1 egress (mean 491.31 Mbit/s)

Flow 1 (95th percentile 183.43 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-08-03 21:28:34
End at: 2018-08-03 21:29:04
Local clock offset: -0.196 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-08-03 23:46:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.77 Mbit/s
95th percentile per-packet one-way delay: 181.931 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 465.77 Mbit/s
95th percentile per-packet one-way delay: 181.931 ms
Loss rate: 0.75%
```
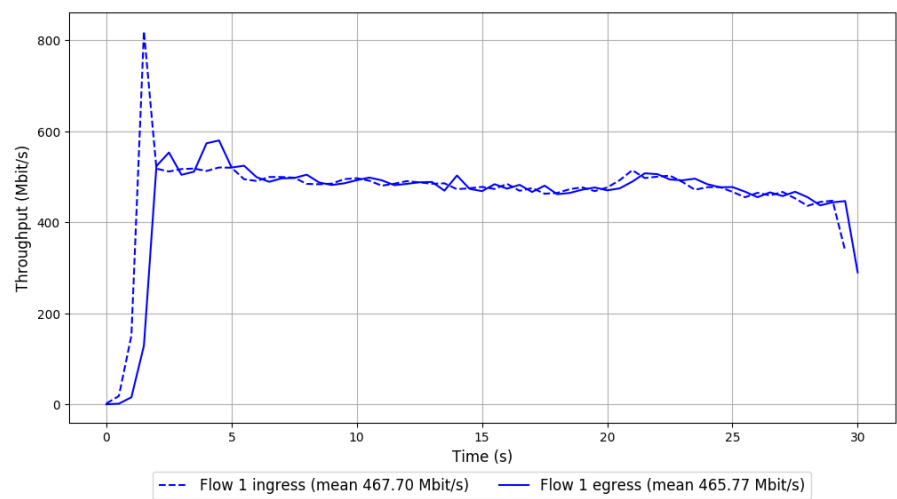
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 467.70 Mbit/s)   Flow 1 egress (mean 465.77 Mbit/s)
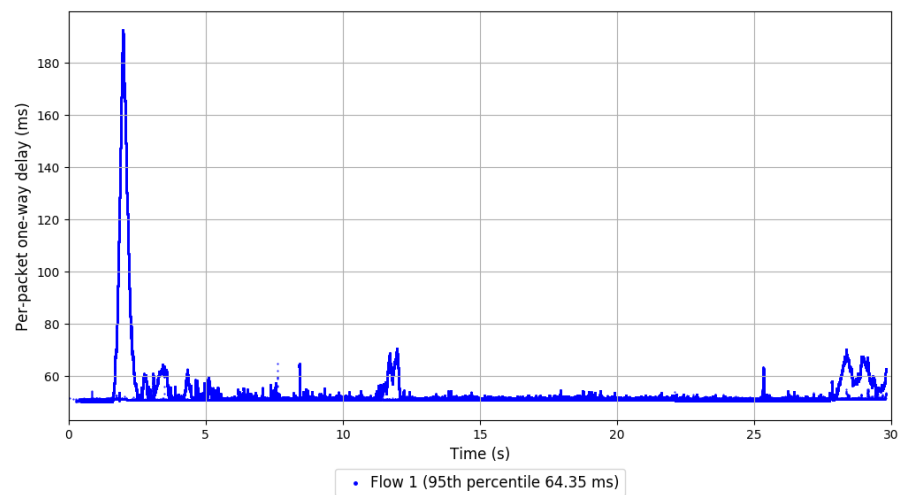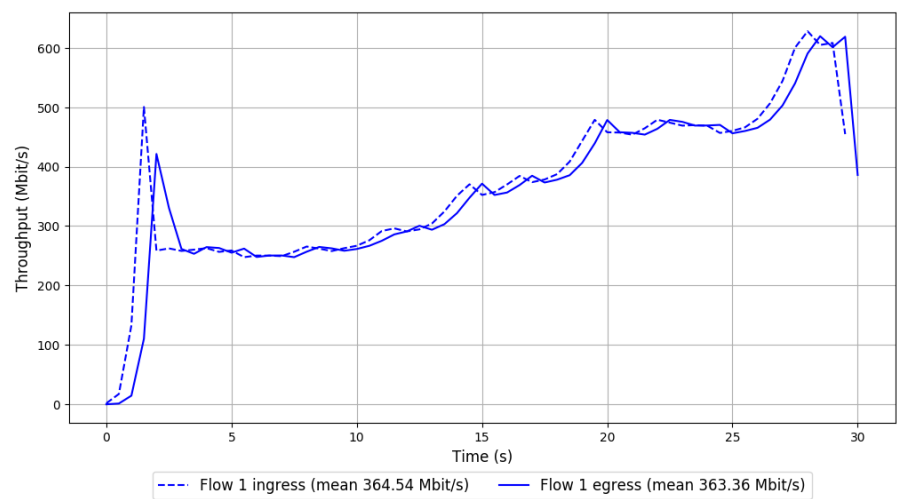

Flow 1 (95th percentile 181.93 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-08-03 21:50:39
End at: 2018-08-03 21:51:09
Local clock offset: 0.458 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-08-03 23:46:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 363.36 Mbit/s
95th percentile per-packet one-way delay: 64.352 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 363.36 Mbit/s
95th percentile per-packet one-way delay: 64.352 ms
Loss rate: 0.66%
```

Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 364.54 Mbit/s) ----- Flow 1 egress (mean 363.36 Mbit/s)
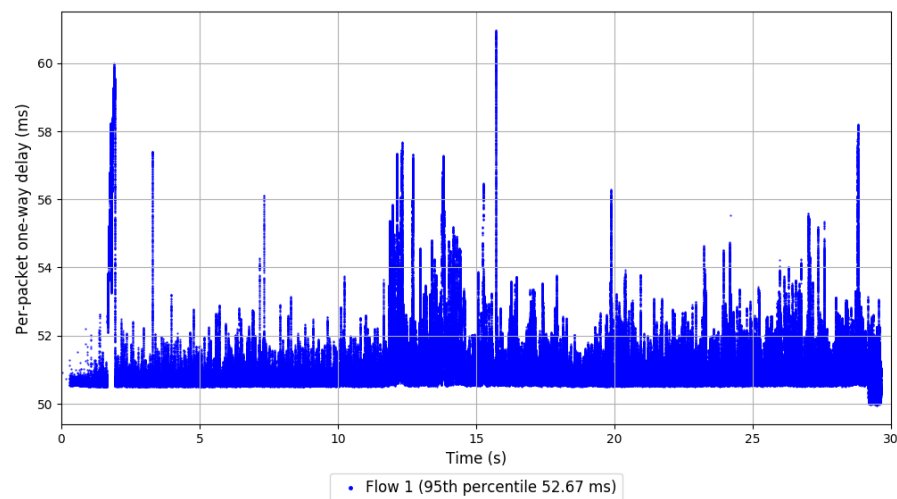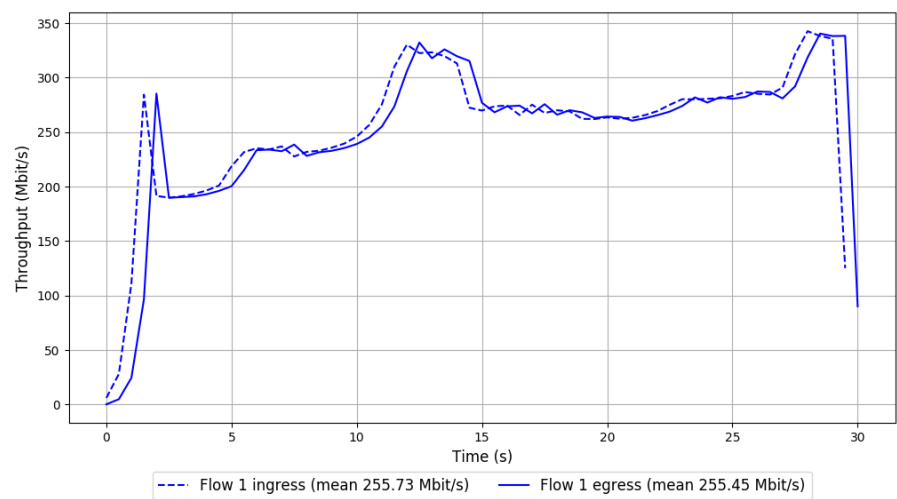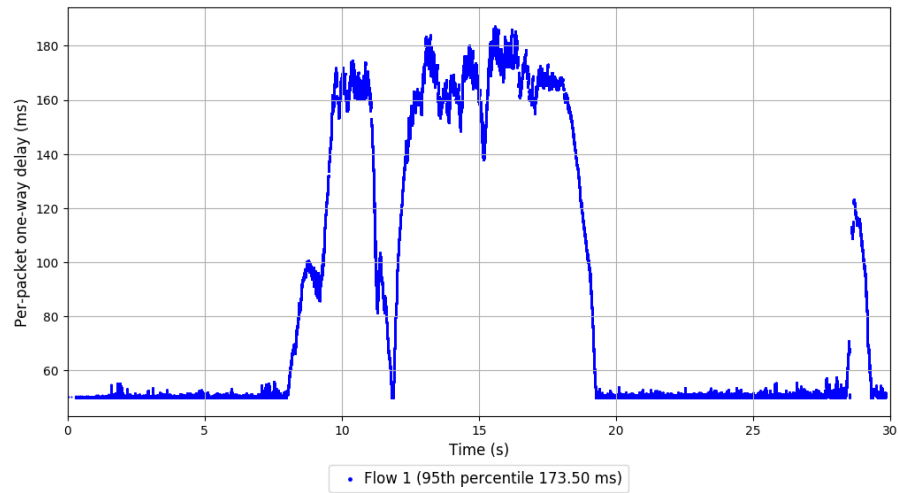

• Flow 1 (95th percentile 64.35 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-08-03 18:36:52
End at: 2018-08-03 18:37:22
Local clock offset: -0.018 ms
Remote clock offset: 0.063 ms

# Below is generated by plot.py at 2018-08-03 23:47:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 255.45 Mbit/s
95th percentile per-packet one-way delay: 52.669 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 255.45 Mbit/s
95th percentile per-packet one-way delay: 52.669 ms
Loss rate: 0.45%
```
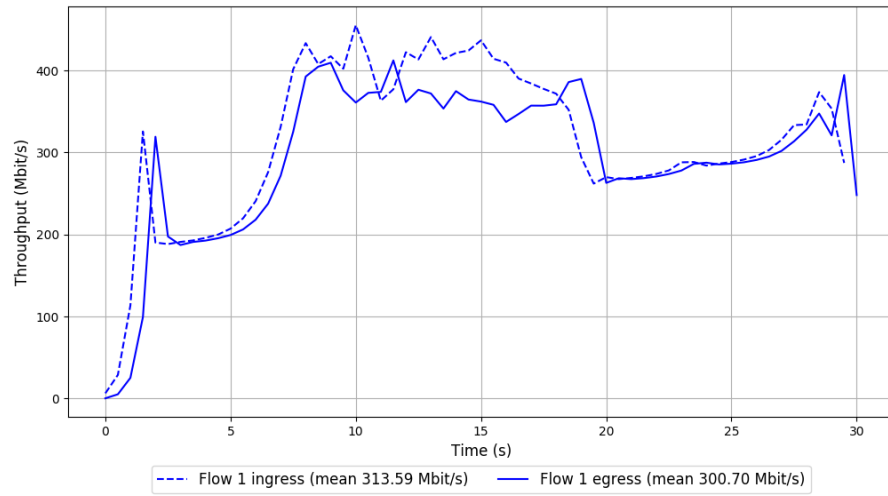
Run 1: Report of PCC-Expr — Data Link

```
Run 2: Statistics of PCC-Expr

Start at: 2018-08-03 18:58:32
End at: 2018-08-03 18:59:02
Local clock offset: 0.041 ms
Remote clock offset: -0.039 ms


# Below is generated by plot.py at 2018-08-03 23:50:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.70 Mbit/s
95th percentile per-packet one-way delay: 173.505 ms
Loss rate: 4.44%
-- Flow 1:
Average throughput: 300.70 Mbit/s
95th percentile per-packet one-way delay: 173.505 ms
Loss rate: 4.44%
```

Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 313.59 Mbit/s) — Flow 1 egress (mean 300.70 Mbit/s)
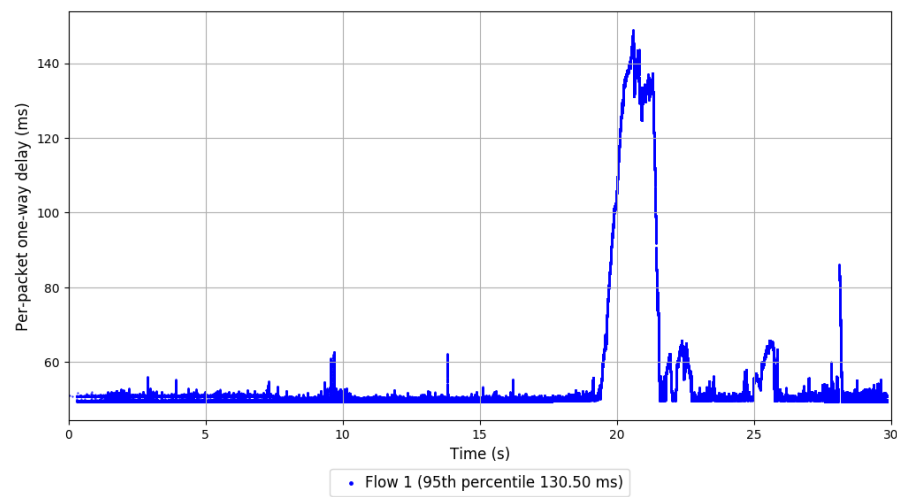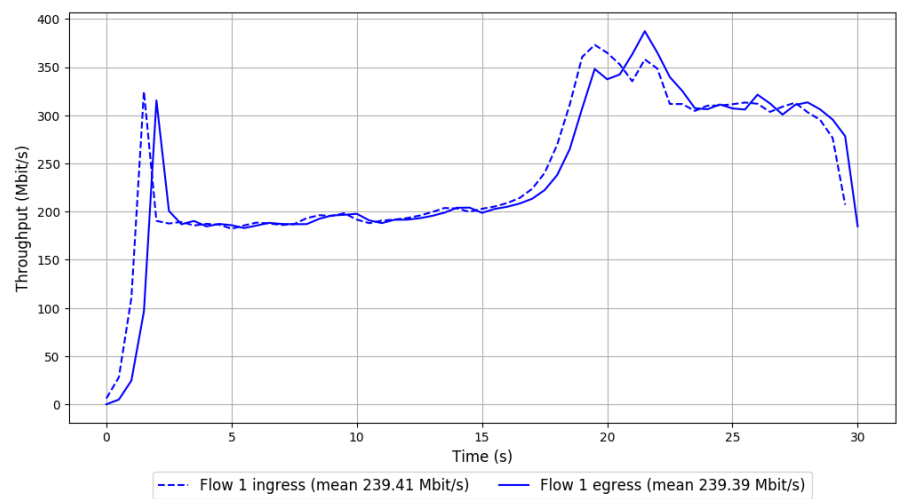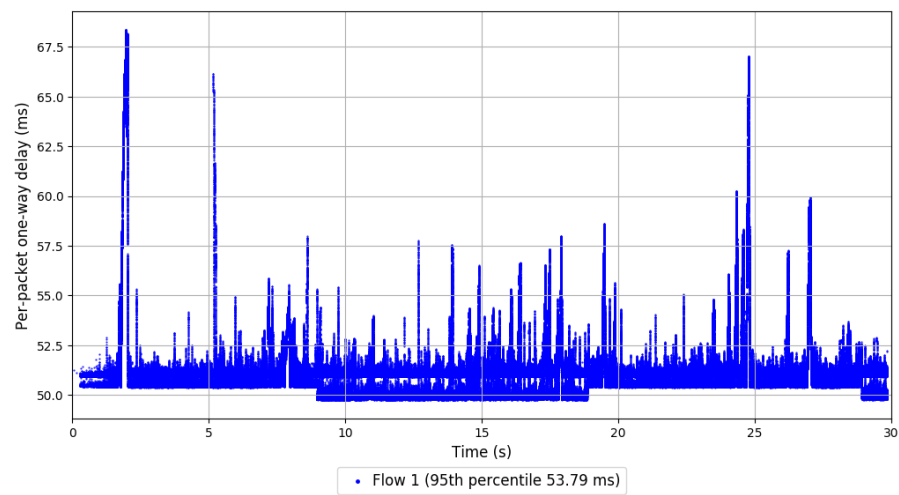

Flow 1 (95th percentile 173.50 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-08-03 19:20:33
End at: 2018-08-03 19:21:03
Local clock offset: 0.034 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2018-08-03 23:51:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 239.39 Mbit/s
95th percentile per-packet one-way delay: 130.503 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 239.39 Mbit/s
95th percentile per-packet one-way delay: 130.503 ms
Loss rate: 0.34%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 239.41 Mbit/s)   Flow 1 egress (mean 239.39 Mbit/s)
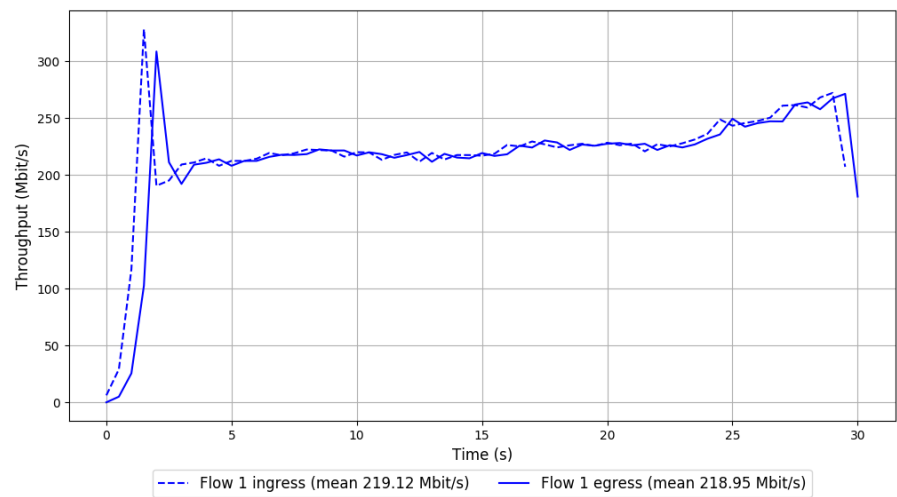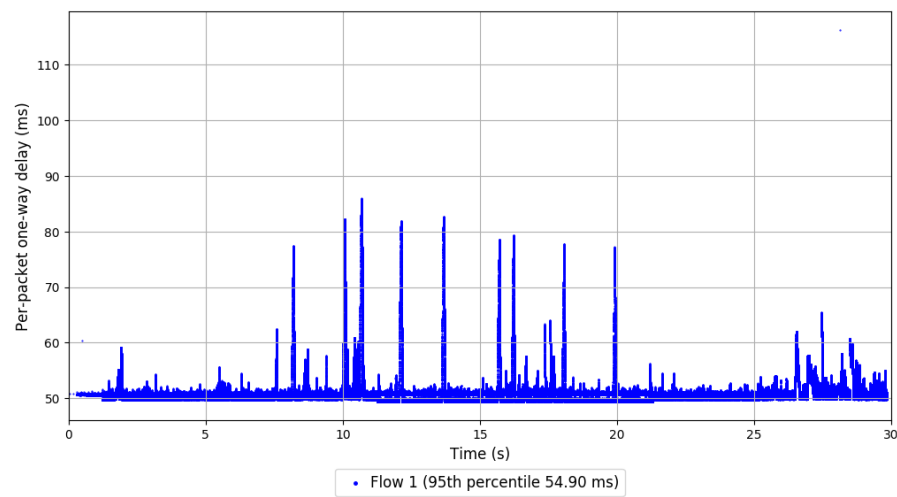

Flow 1 (95th percentile 130.50 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-08-03 19:42:42
End at: 2018-08-03 19:43:12
Local clock offset: 0.431 ms
Remote clock offset: -0.094 ms


# Below is generated by plot.py at 2018-08-03 23:51:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.95 Mbit/s
95th percentile per-packet one-way delay: 53.793 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 218.95 Mbit/s
95th percentile per-packet one-way delay: 53.793 ms
Loss rate: 0.41%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 219.12 Mbit/s)   Flow 1 egress (mean 218.95 Mbit/s)
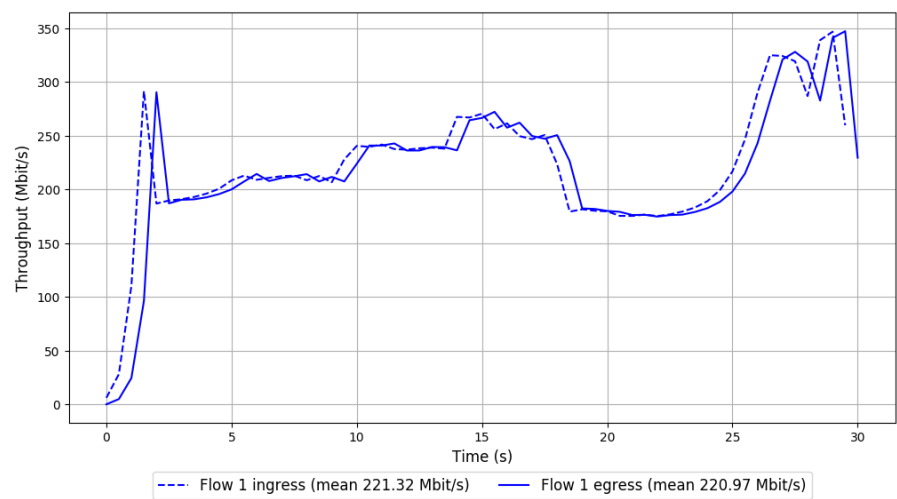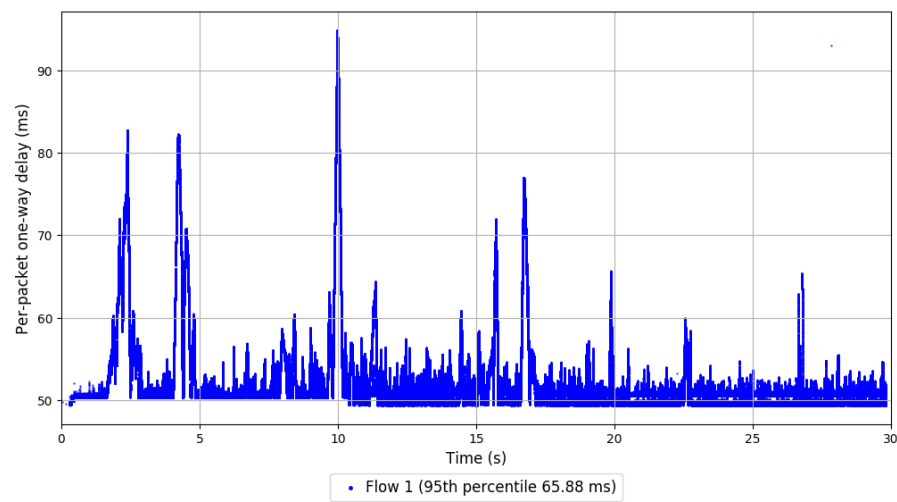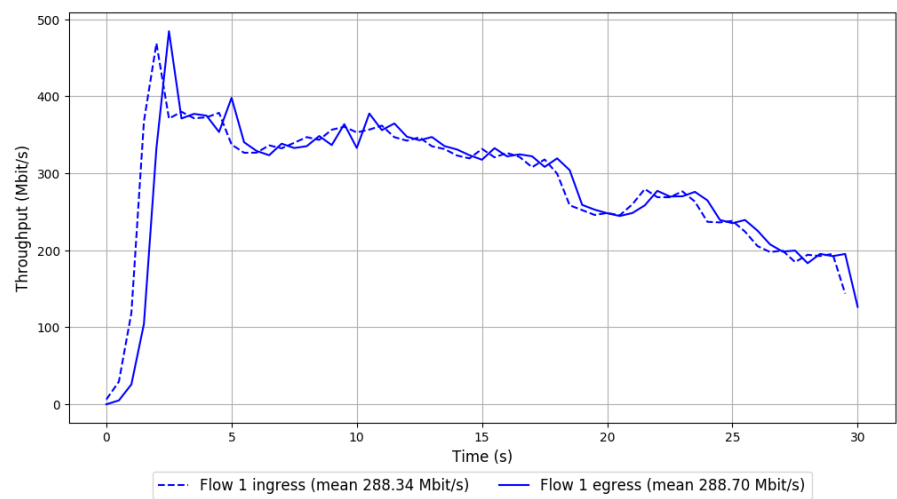

Flow 1 (95th percentile 53.79 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-08-03 20:04:30
End at: 2018-08-03 20:05:00
Local clock offset: 0.105 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-08-03 23:51:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.97 Mbit/s
95th percentile per-packet one-way delay: 54.899 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 220.97 Mbit/s
95th percentile per-packet one-way delay: 54.899 ms
Loss rate: 0.50%
```
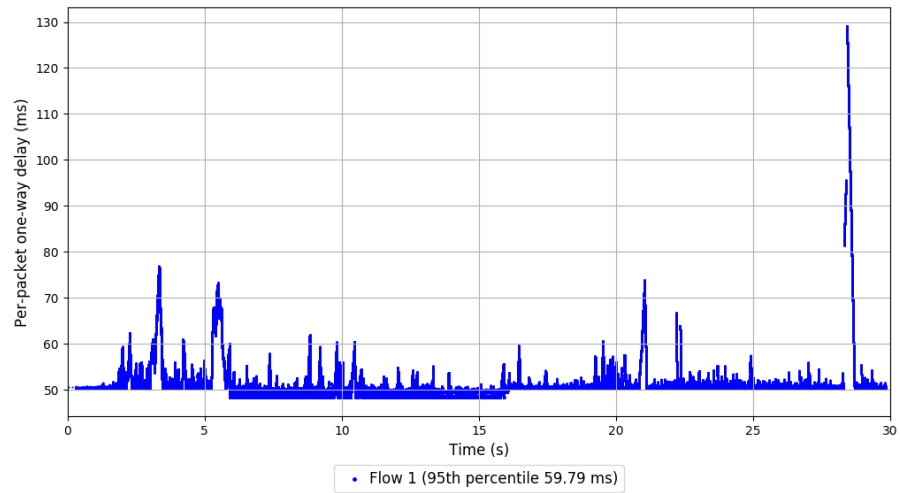
Run 5: Report of PCC-Expr — Data Link

```
Run 6: Statistics of PCC-Expr

Start at: 2018-08-03 20:26:21
End at: 2018-08-03 20:26:51
Local clock offset: 0.172 ms
Remote clock offset: -0.078 ms


# Below is generated by plot.py at 2018-08-03 23:57:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 288.70 Mbit/s
95th percentile per-packet one-way delay: 65.878 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 288.70 Mbit/s
95th percentile per-packet one-way delay: 65.878 ms
Loss rate: 0.22%
```
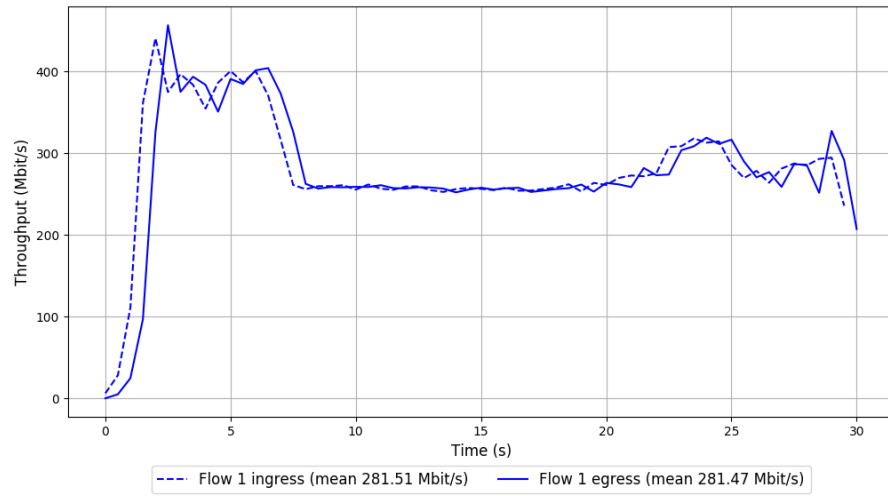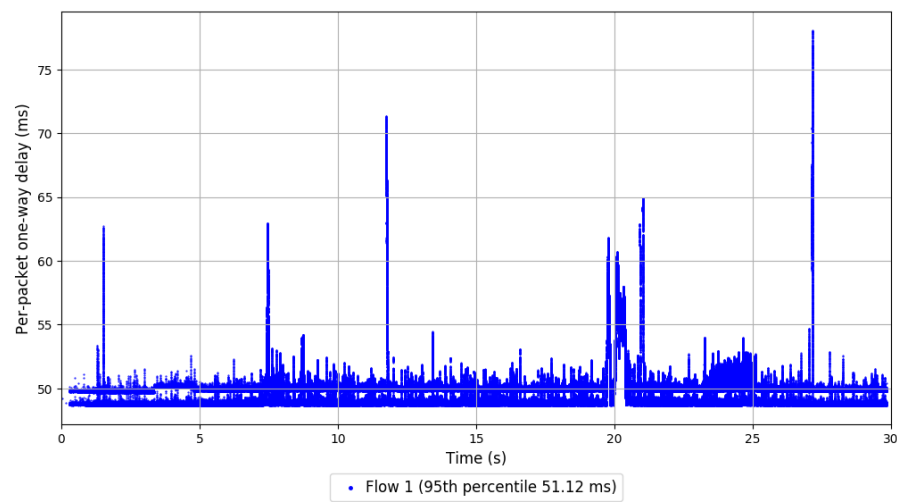
Run 6: Report of PCC-Expr — Data Link

```
Run 7: Statistics of PCC-Expr

Start at: 2018-08-03 20:48:25
End at: 2018-08-03 20:48:55
Local clock offset: -0.27 ms
Remote clock offset: -0.018 ms


# Below is generated by plot.py at 2018-08-03 23:57:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 281.47 Mbit/s
95th percentile per-packet one-way delay: 59.794 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 281.47 Mbit/s
95th percentile per-packet one-way delay: 59.794 ms
Loss rate: 0.35%
```

Run 7: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 281.51 Mbit/s)   Flow 1 egress (mean 281.47 Mbit/s)
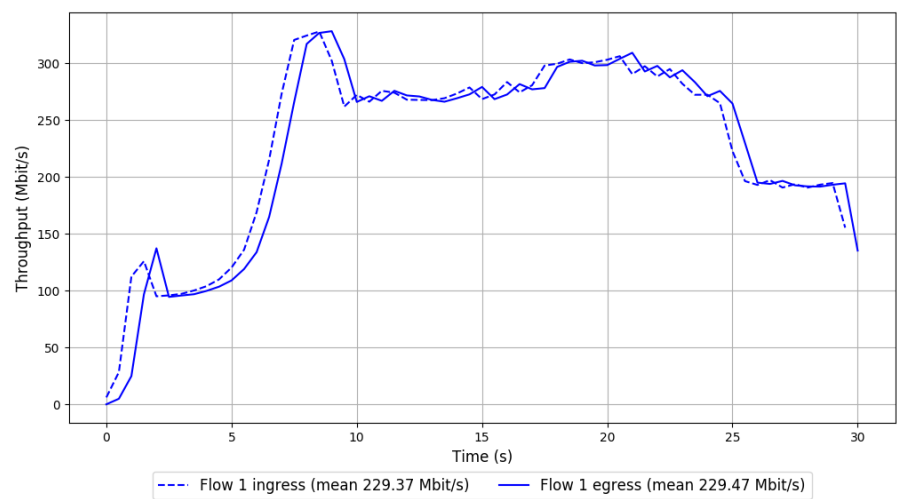

Flow 1 (95th percentile 59.79 ms)

```
Run 8: Statistics of PCC-Expr

Start at: 2018-08-03 21:10:26
End at: 2018-08-03 21:10:56
Local clock offset: 0.102 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2018-08-03 23:57:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.47 Mbit/s
95th percentile per-packet one-way delay: 51.118 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 229.47 Mbit/s
95th percentile per-packet one-way delay: 51.118 ms
Loss rate: 0.29%
```

Run 8: Report of PCC-Expr — Data Link

```
Run 9: Statistics of PCC-Expr

Start at: 2018-08-03 21:32:30
End at: 2018-08-03 21:33:00
Local clock offset: 0.475 ms
Remote clock offset: -0.14 ms


# Below is generated by plot.py at 2018-08-03 23:59:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.68 Mbit/s
95th percentile per-packet one-way delay: 57.155 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 286.68 Mbit/s
95th percentile per-packet one-way delay: 57.155 ms
Loss rate: 0.33%
```
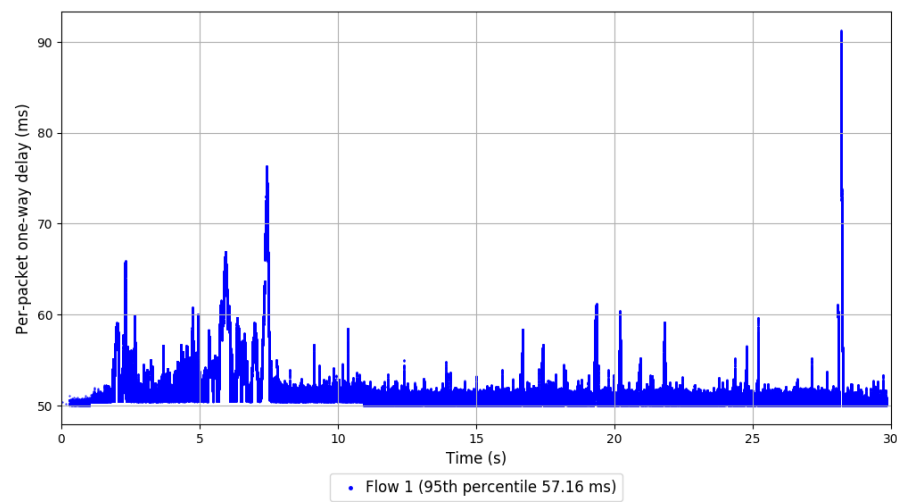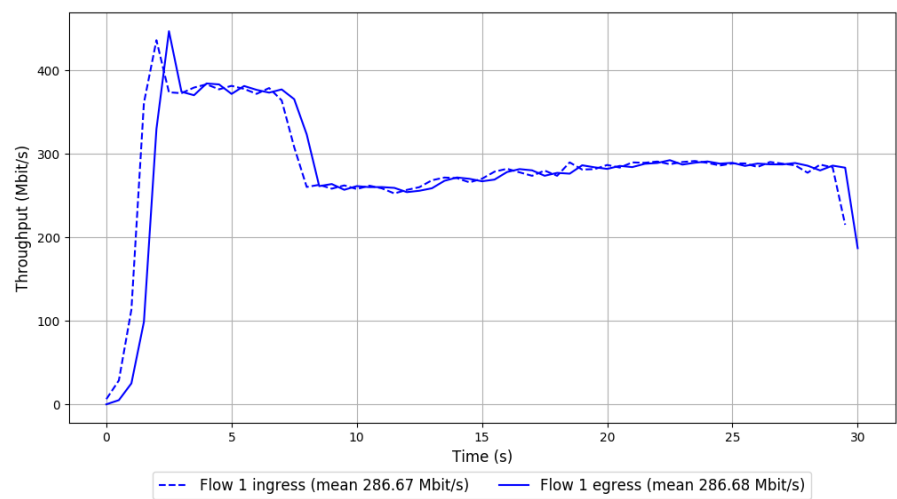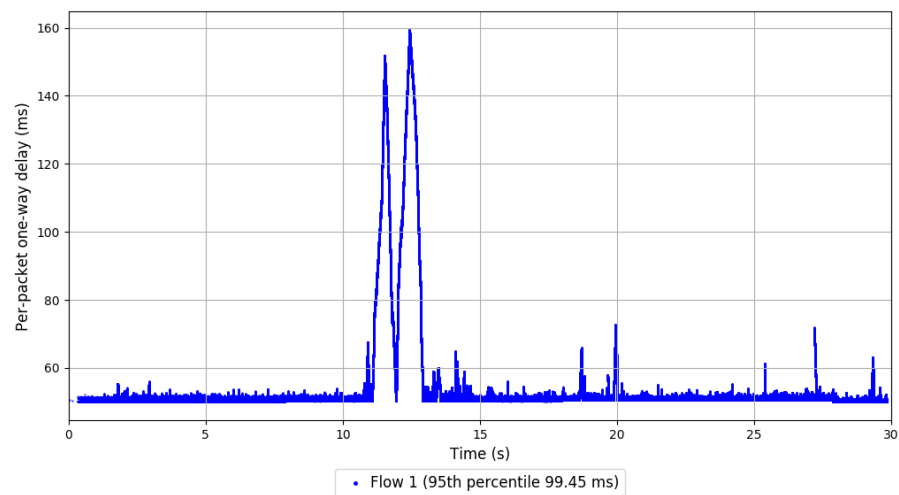
Run 9: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 286.67 Mbit/s)   Flow 1 egress (mean 286.68 Mbit/s)
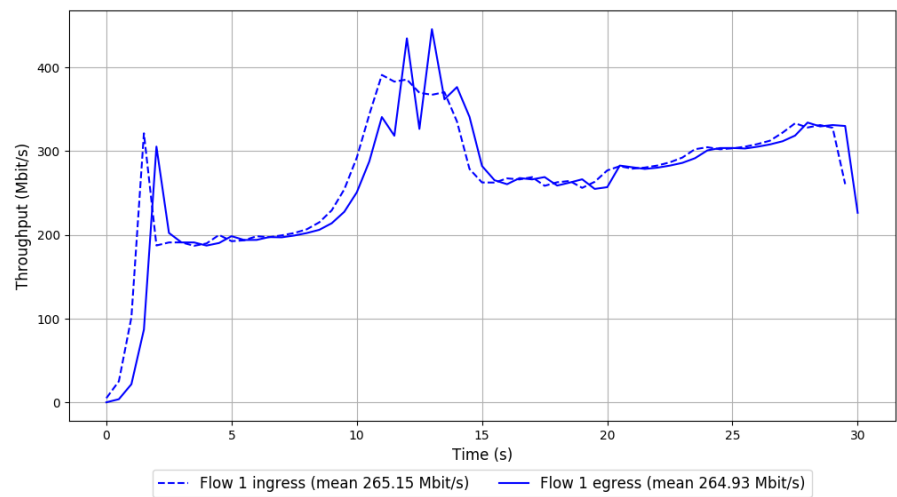

Flow 1 (95th percentile 57.16 ms)

```
Run 10: Statistics of PCC-Expr

Start at: 2018-08-03 21:54:33
End at: 2018-08-03 21:55:03
Local clock offset: 0.45 ms
Remote clock offset: -0.083 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 264.93 Mbit/s
95th percentile per-packet one-way delay: 99.455 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 264.93 Mbit/s
95th percentile per-packet one-way delay: 99.455 ms
Loss rate: 0.42%
```

Run 10: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 265.15 Mbit/s) — Flow 1 egress (mean 264.93 Mbit/s)

Flow 1 (95th percentile 99.45 ms)

Run 1: Statistics of QUIC Cubic

Start at: 2018-08-03 18:35:46
End at: 2018-08-03 18:36:16
Local clock offset: 0.024 ms
Remote clock offset: 0.002 ms

Run 1: Report of QUIC Cubic — Data Link
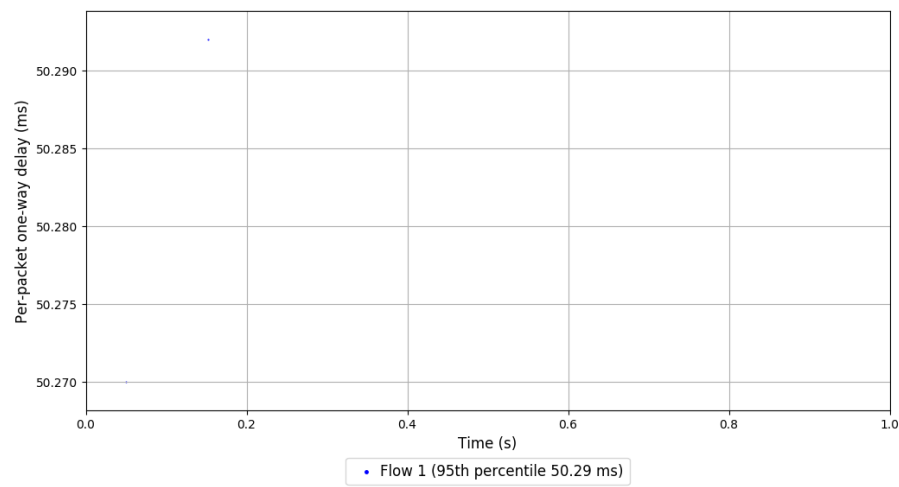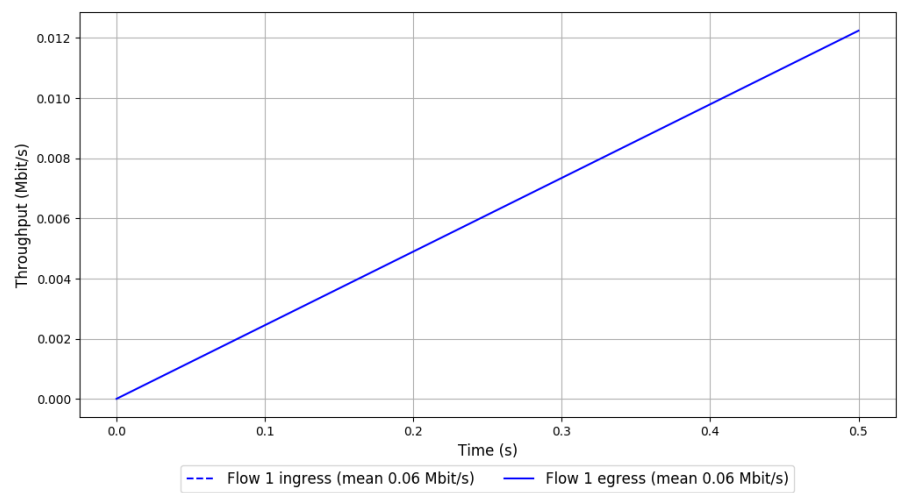
Run 2: Statistics of QUIC Cubic

Start at: 2018-08-03 18:57:27
End at: 2018-08-03 18:57:57
Local clock offset: 0.045 ms
Remote clock offset: -0.076 ms

Run 2: Report of QUIC Cubic — Data Link
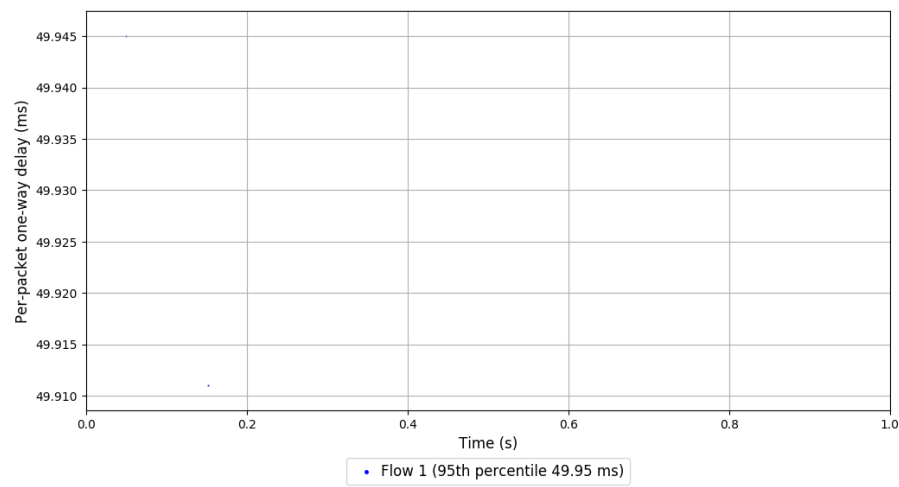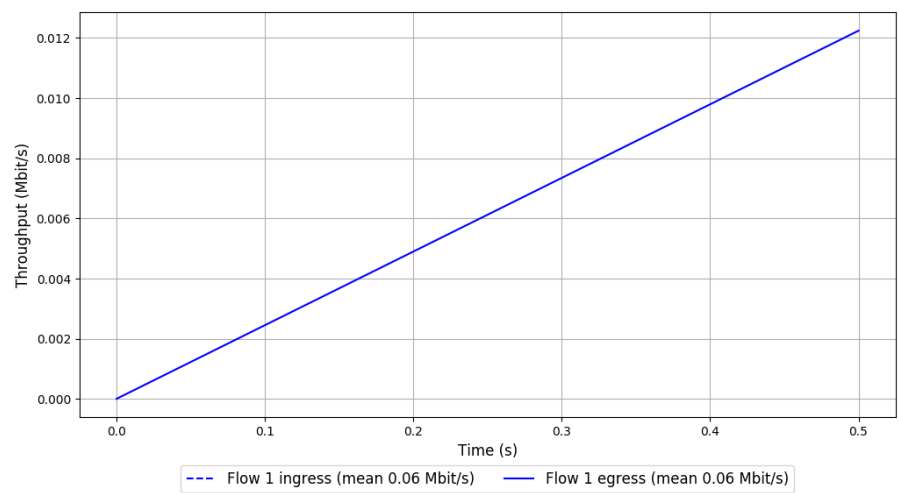
Run 3: Statistics of QUIC Cubic

Start at: 2018-08-03 19:19:28
End at: 2018-08-03 19:19:58
Local clock offset: -0.312 ms
Remote clock offset: -0.155 ms

Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.06 Mbit/s)   Flow 1 egress (mean 0.06 Mbit/s)

Flow 1 (95th percentile 49.95 ms)

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-08-03 19:41:34
End at: 2018-08-03 19:42:04
Local clock offset: 0.509 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 55.25 Mbit/s
95th percentile per-packet one-way delay: 50.899 ms
Loss rate: 0.53%
```
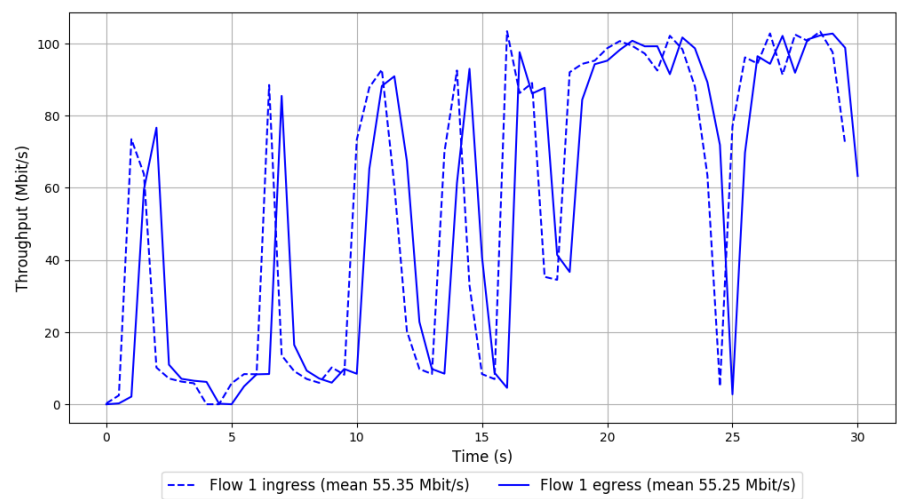
Run 4: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 55.35 Mbit/s) --- Flow 1 egress (mean 55.25 Mbit/s)

• Flow 1 (95th percentile 50.90 ms)
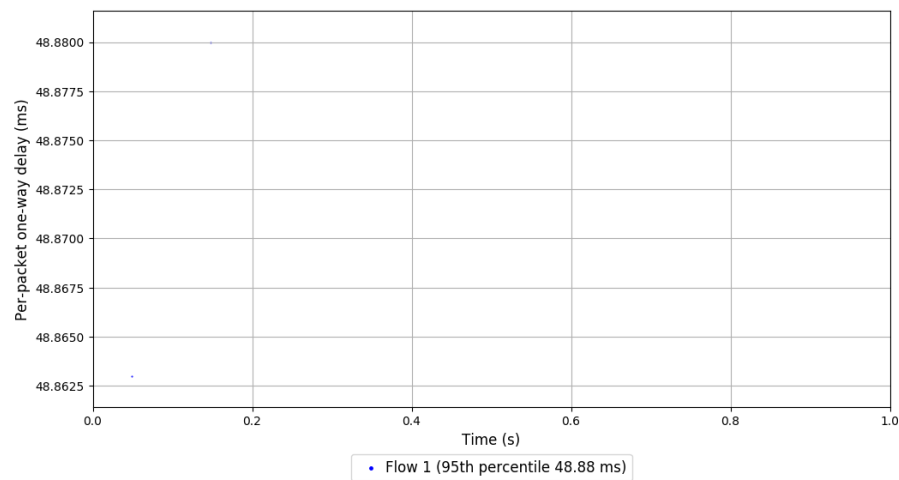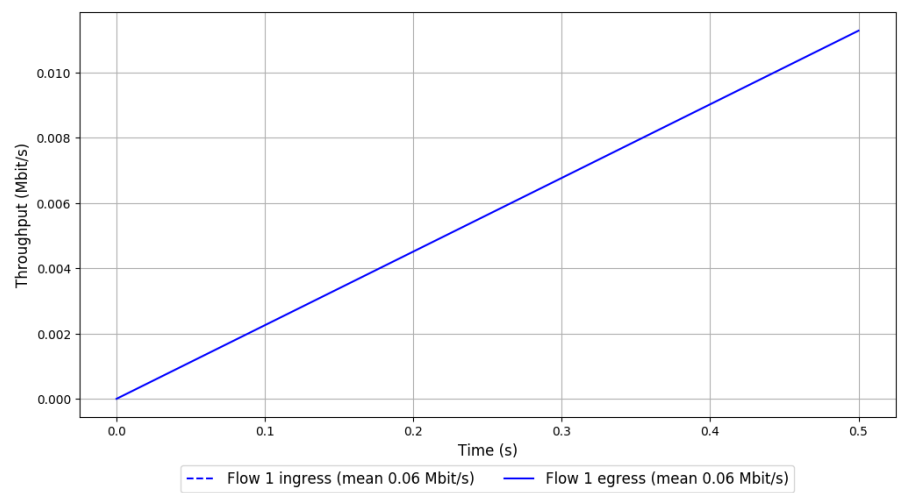
Run 5: Statistics of QUIC Cubic

Start at: 2018-08-03 20:03:25
End at: 2018-08-03 20:03:55
Local clock offset: 0.131 ms
Remote clock offset: -0.067 ms

Run 5: Report of QUIC Cubic — Data Link
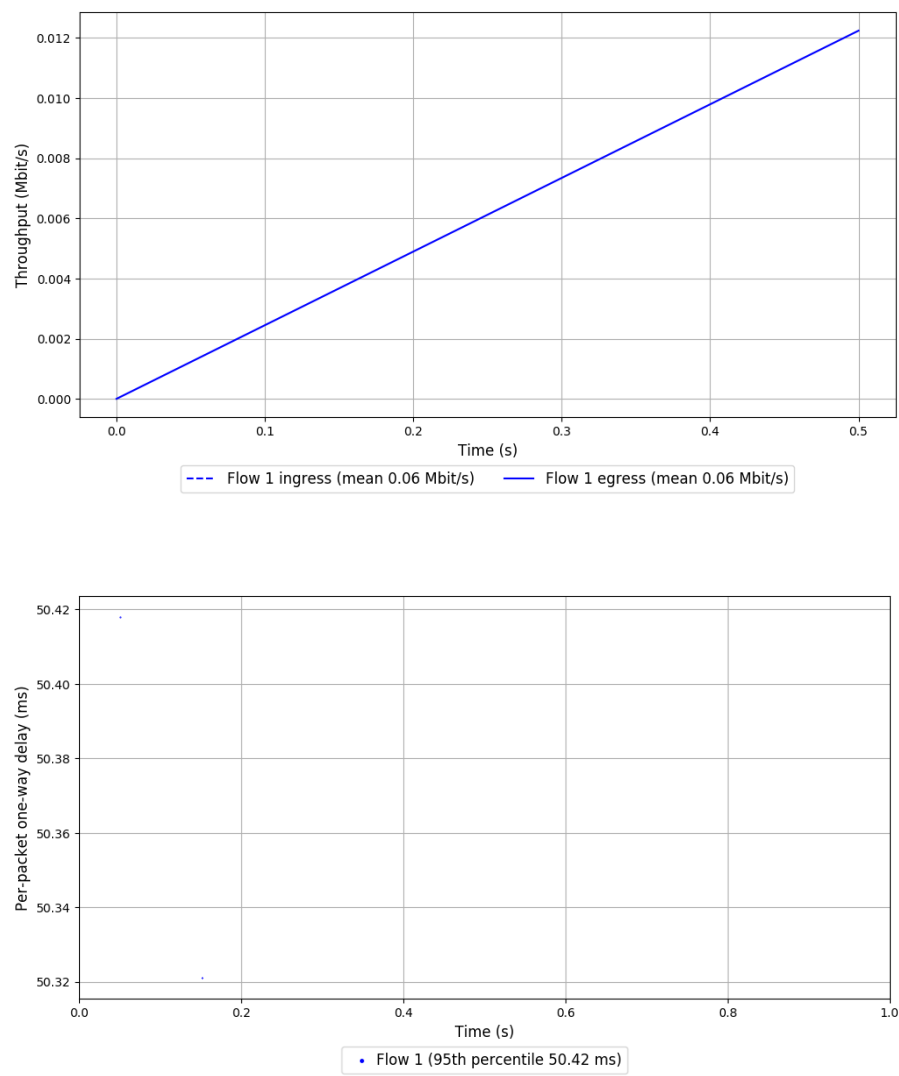
```
Run 6: Statistics of QUIC Cubic

Start at: 2018-08-03 20:25:15
End at: 2018-08-03 20:25:45
Local clock offset: 0.539 ms
Remote clock offset: -0.091 ms
```

Run 6: Report of QUIC Cubic — Data Link
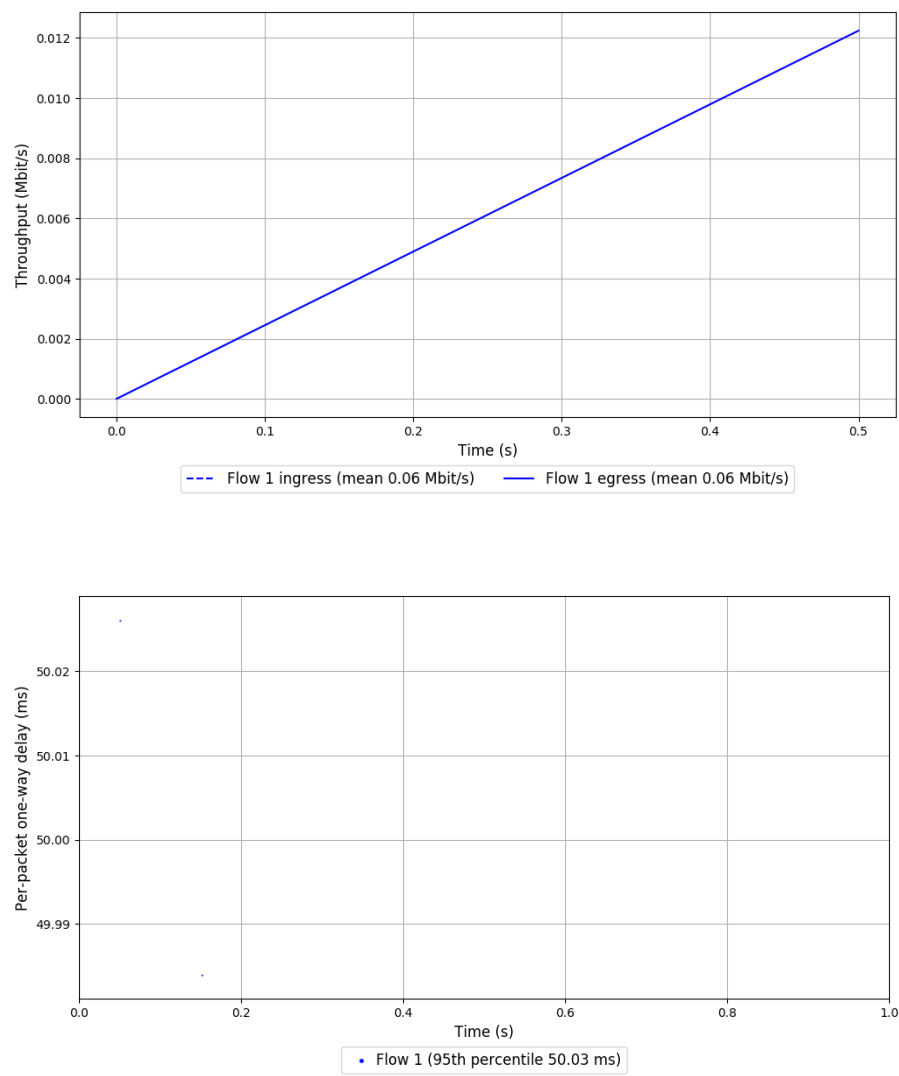
Run 7: Statistics of QUIC Cubic

Start at: 2018-08-03 20:47:20
End at: 2018-08-03 20:47:50
Local clock offset: -0.229 ms
Remote clock offset: -0.099 ms

Run 7: Report of QUIC Cubic — Data Link
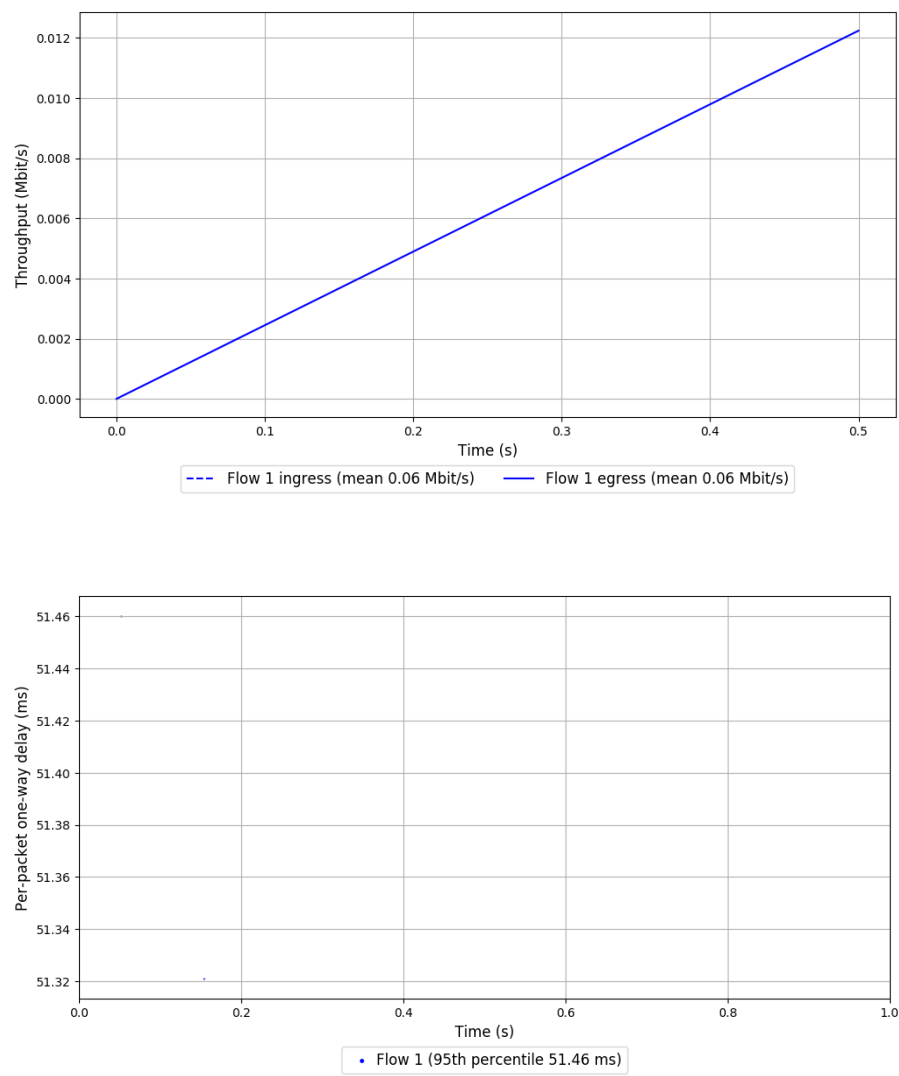
```
Run 8: Statistics of QUIC Cubic

Start at: 2018-08-03 21:09:21
End at: 2018-08-03 21:09:51
Local clock offset: 0.498 ms
Remote clock offset: -0.042 ms
```

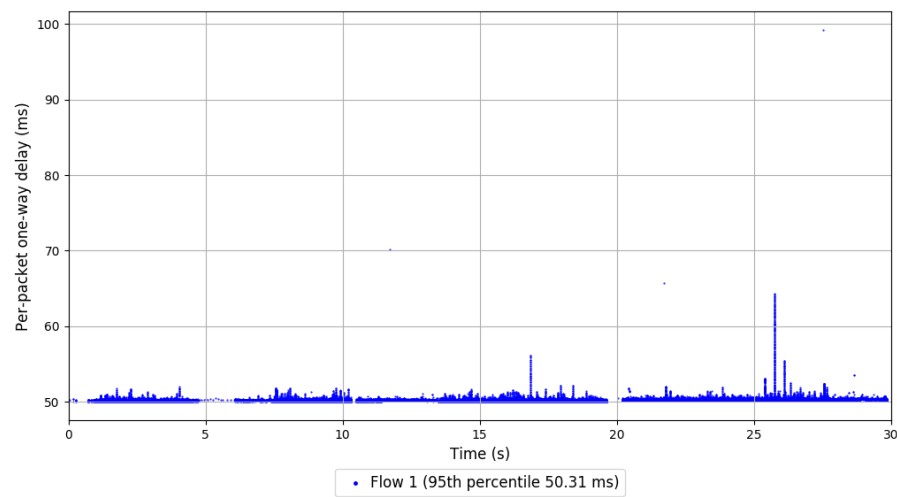## Run 8: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 0.06 Mbit/s) --- Flow 1 egress (mean 0.06 Mbit/s)
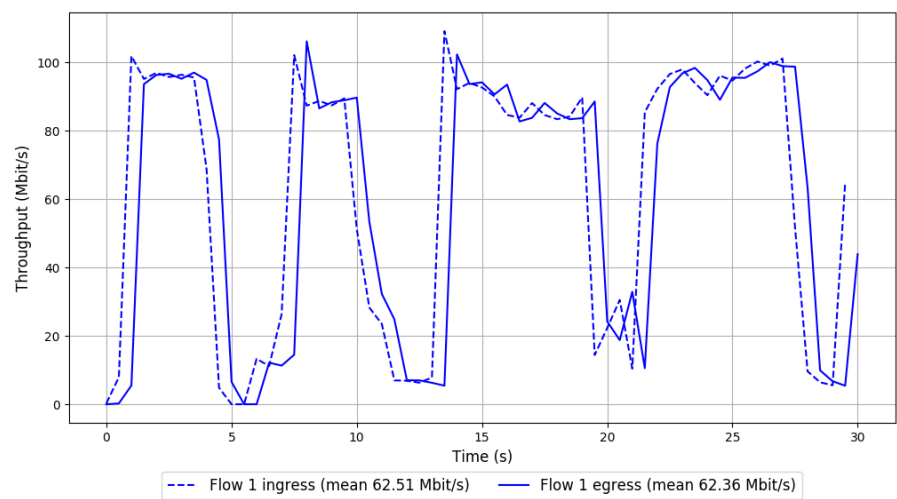

Flow 1 (95th percentile 51.46 ms)

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-08-03 21:31:21
End at: 2018-08-03 21:31:51
Local clock offset: 0.517 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 50.310 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 62.36 Mbit/s
95th percentile per-packet one-way delay: 50.310 ms
Loss rate: 0.58%
```

Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 62.51 Mbit/s)　　Flow 1 egress (mean 62.36 Mbit/s)

Flow 1 (95th percentile 50.31 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-08-03 21:53:24
End at: 2018-08-03 21:53:54
Local clock offset: 0.086 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 50.790 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 62.97 Mbit/s
95th percentile per-packet one-way delay: 50.790 ms
Loss rate: 0.49%
```
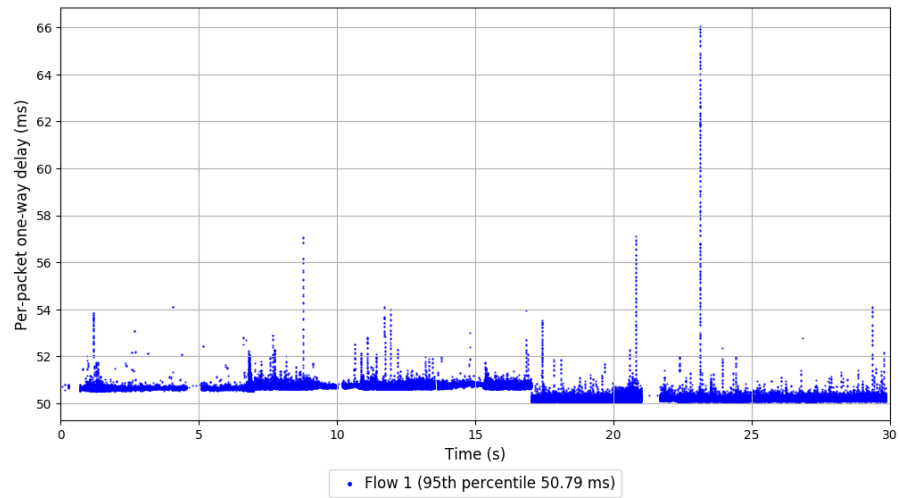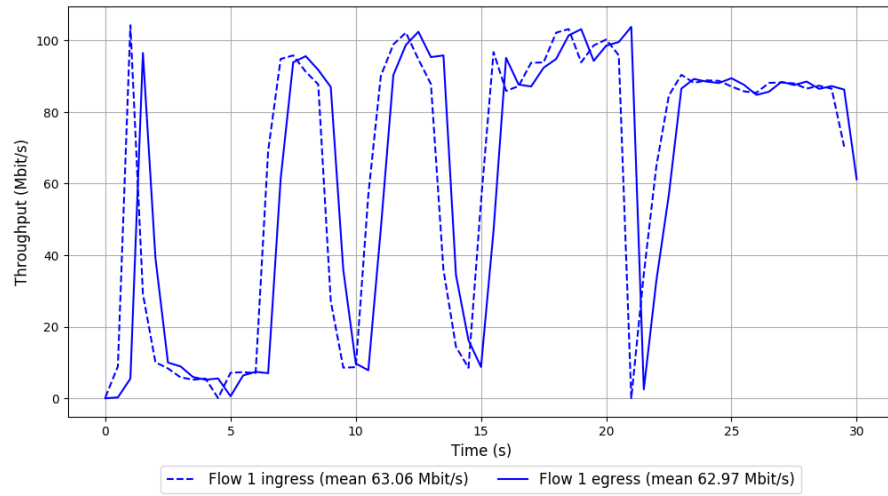
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 63.06 Mbit/s)   Flow 1 egress (mean 62.97 Mbit/s)
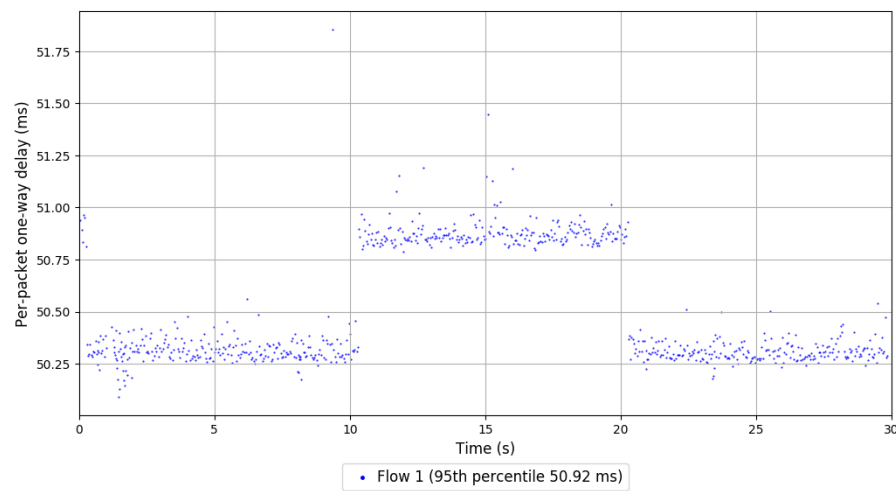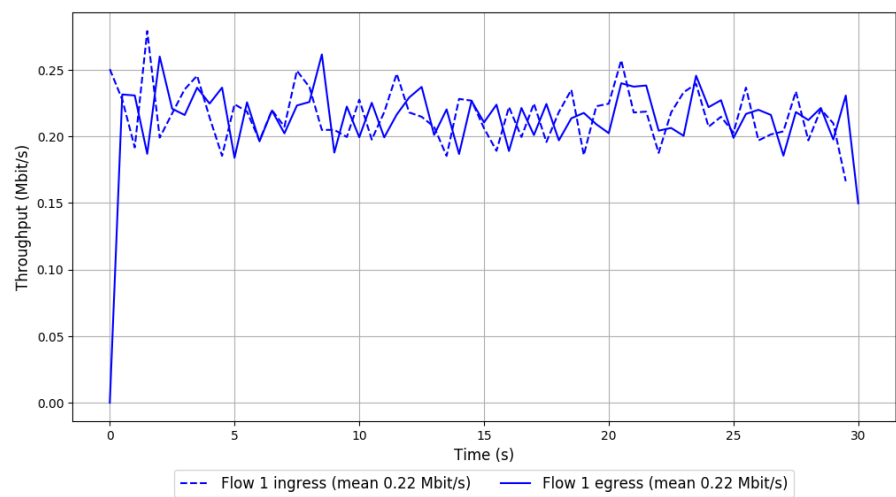

Flow 1 (95th percentile 50.79 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-08-03 18:47:31
End at: 2018-08-03 18:48:01
Local clock offset: 0.028 ms
Remote clock offset: 0.085 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.916 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.916 ms
Loss rate: 0.25%
```

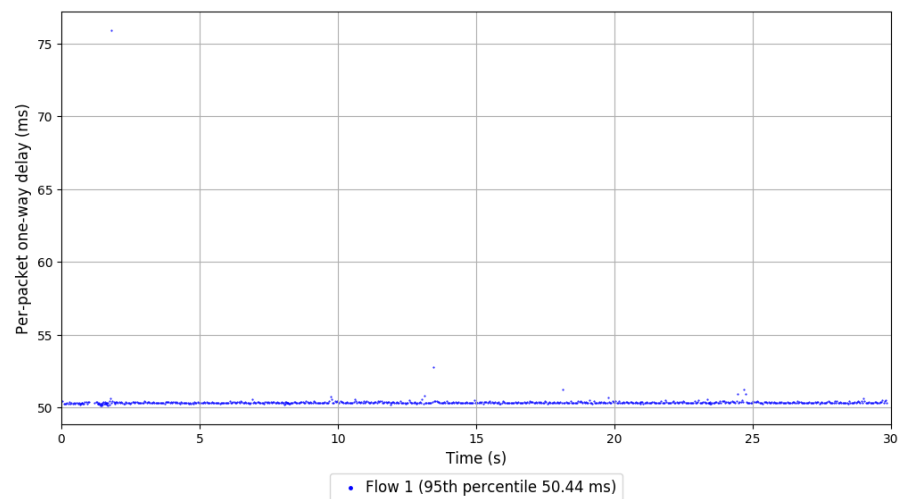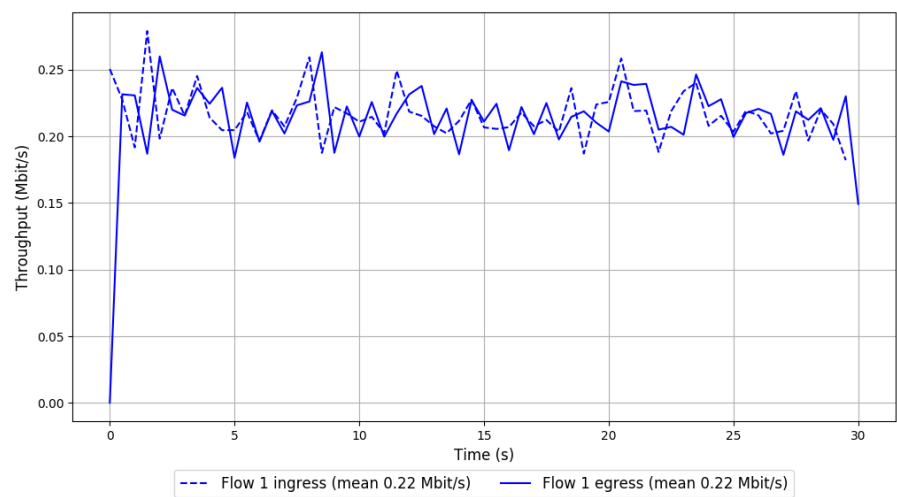Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-08-03 19:09:31
End at: 2018-08-03 19:10:01
Local clock offset: 0.046 ms
Remote clock offset: -0.118 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.444 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.444 ms
Loss rate: 0.38%
```

Run 2: Report of SCReAM — Data Link

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

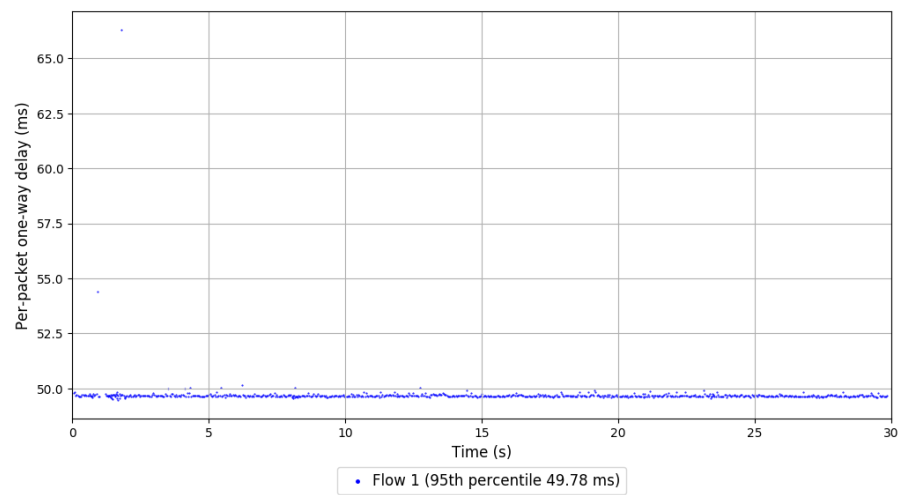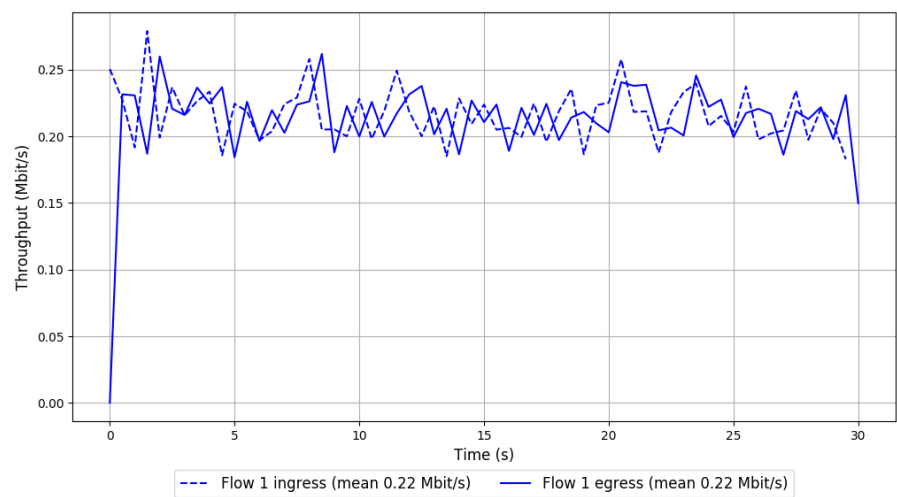Flow 1 (95th percentile 50.44 ms)

```
Run 3: Statistics of SCReAM

Start at: 2018-08-03 19:31:35
End at: 2018-08-03 19:32:05
Local clock offset: 0.062 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.785 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.785 ms
Loss rate: 0.38%
```

Run 3: Report of SCReAM — Data Link

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

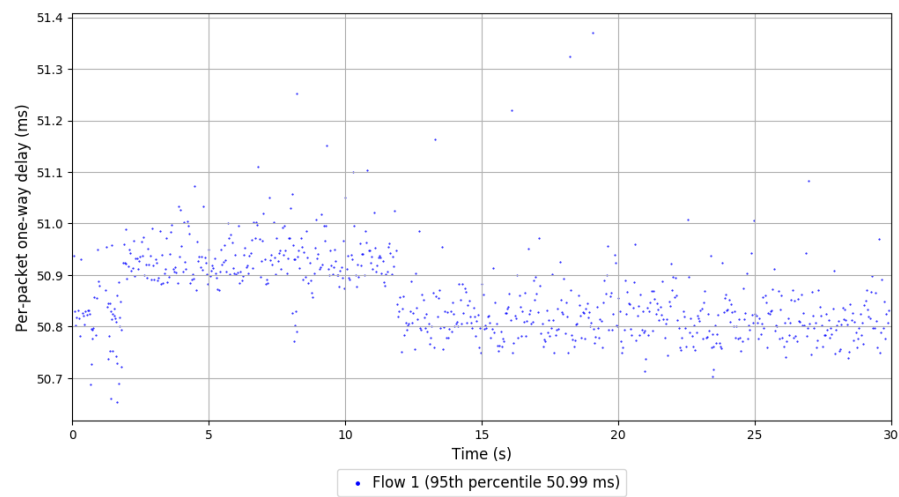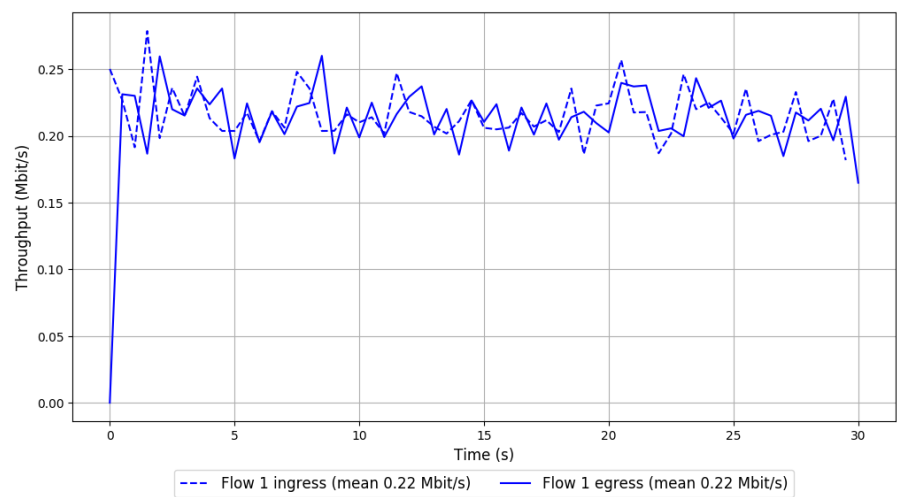• Flow 1 (95th percentile 49.78 ms)

```
Run 4: Statistics of SCReAM

Start at: 2018-08-03 19:53:29
End at: 2018-08-03 19:53:59
Local clock offset: 0.094 ms
Remote clock offset: -0.036 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.995 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.995 ms
Loss rate: 0.26%
```

Run 4: Report of SCReAM — Data Link

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

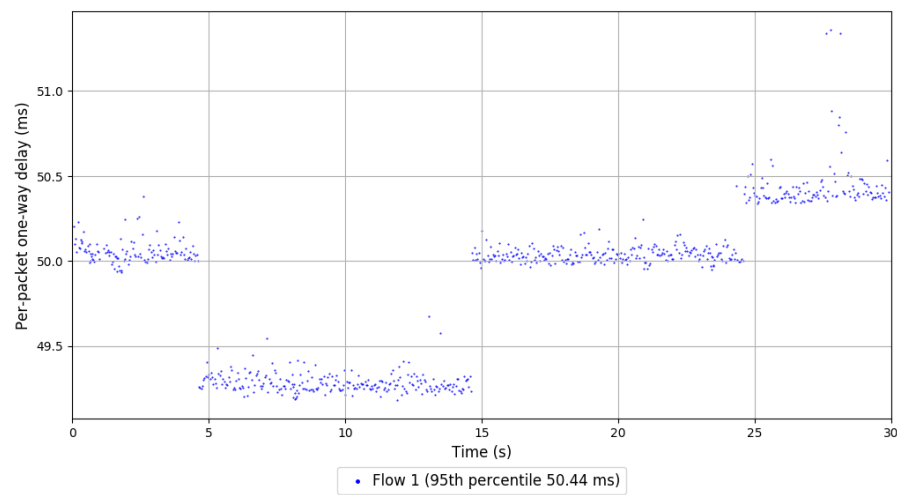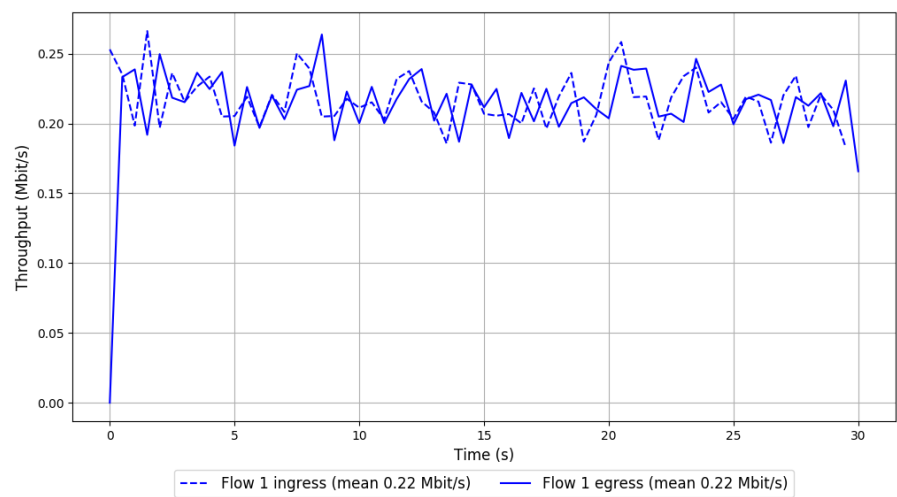

Flow 1 (95th percentile 50.99 ms)

```
Run 5: Statistics of SCReAM

Start at: 2018-08-03 20:15:16
End at: 2018-08-03 20:15:46
Local clock offset: 0.491 ms
Remote clock offset: -0.128 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.435 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.435 ms
Loss rate: 0.26%
```

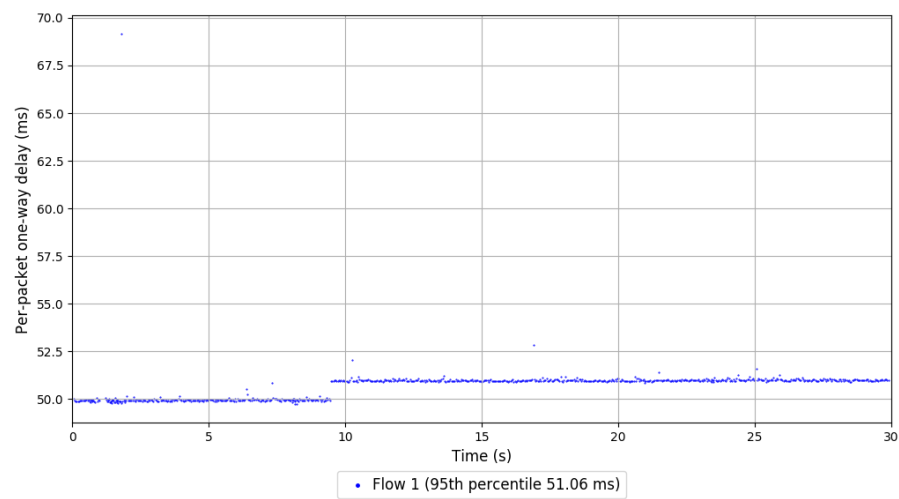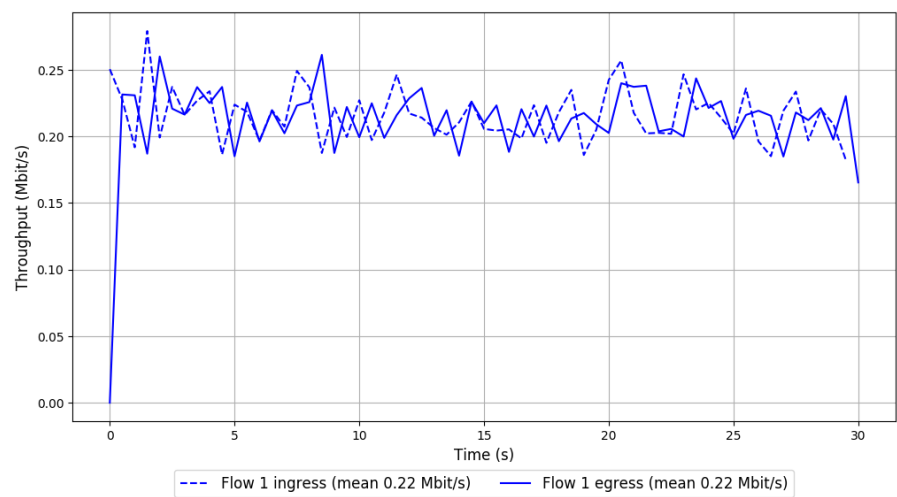# Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-08-03 20:37:22
End at: 2018-08-03 20:37:52
Local clock offset: 0.162 ms
Remote clock offset: -0.019 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.056 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.056 ms
Loss rate: 0.26%
```

Run 6: Report of SCReAM — Data Link

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

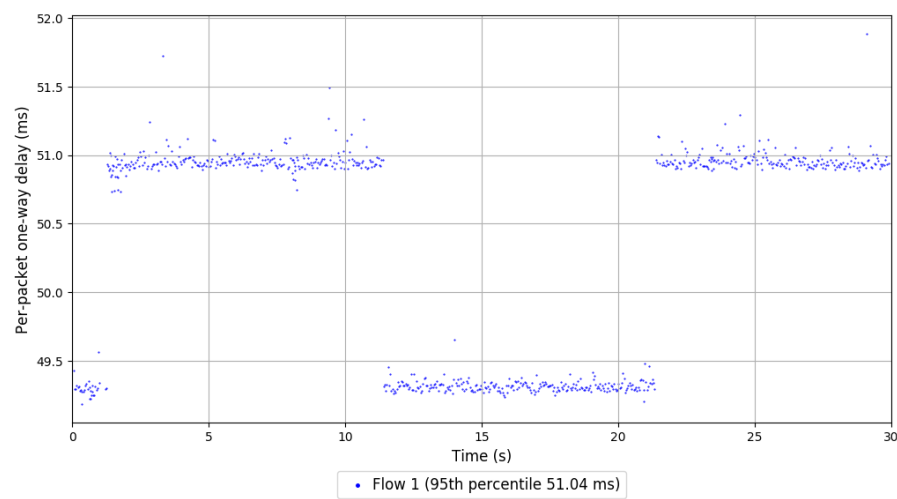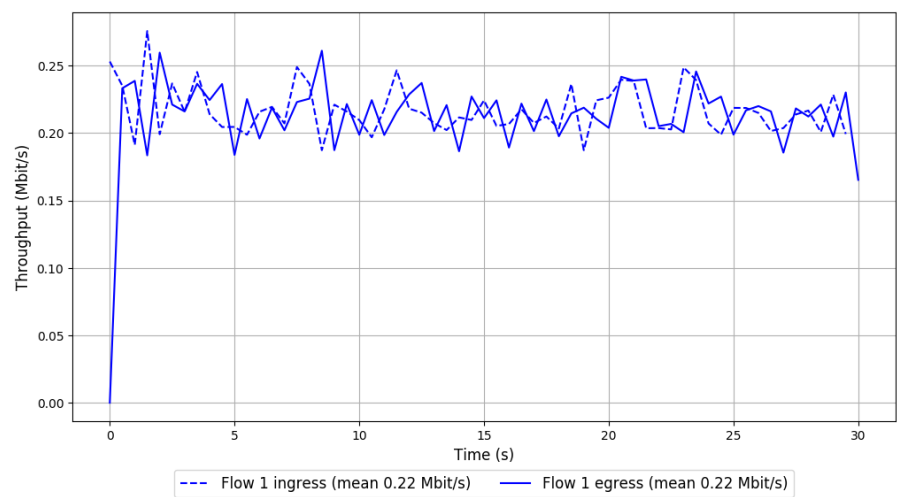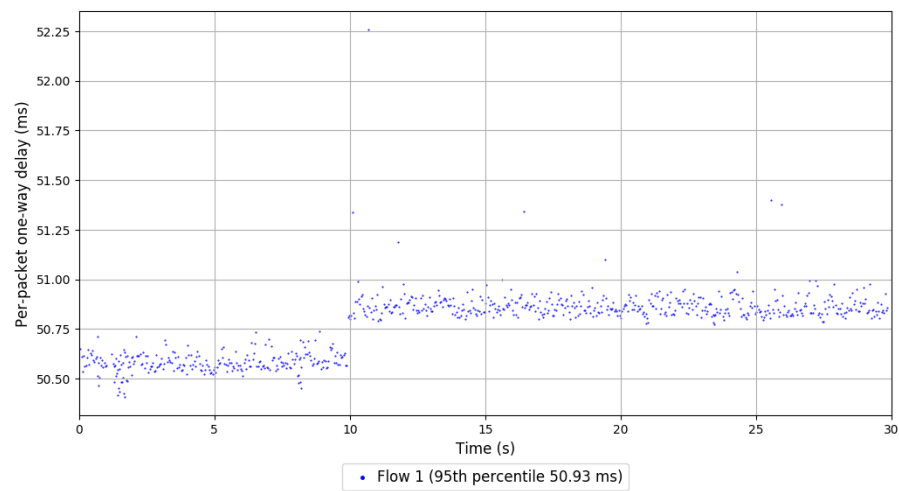Flow 1 (95th percentile 51.06 ms)

215

```
Run 7: Statistics of SCReAM

Start at: 2018-08-03 20:59:20
End at: 2018-08-03 20:59:50
Local clock offset: 0.453 ms
Remote clock offset: -0.011 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.044 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.044 ms
Loss rate: 0.39%
```

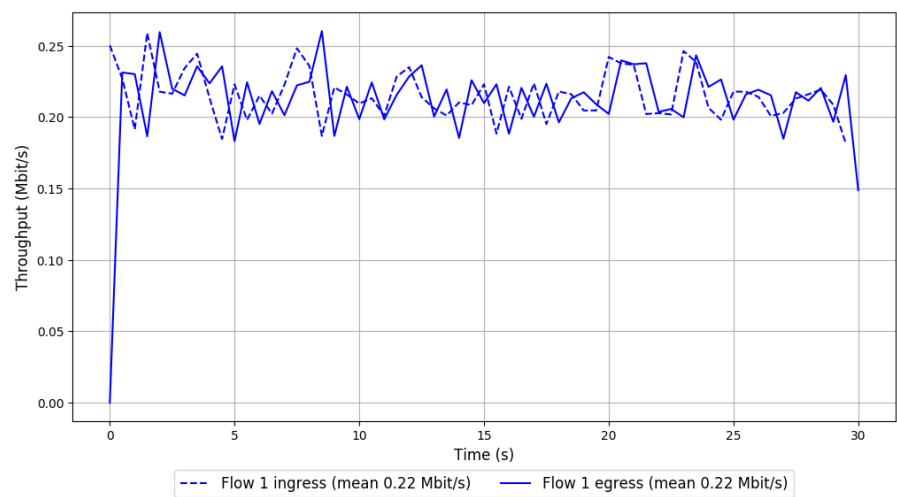# Run 7: Report of SCReAM — Data Link

217

```
Run 8: Statistics of SCReAM

Start at: 2018-08-03 21:21:21
End at: 2018-08-03 21:21:51
Local clock offset: 0.14 ms
Remote clock offset: -0.029 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.934 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.934 ms
Loss rate: 0.38%
```

Run 8: Report of SCReAM — Data Link

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

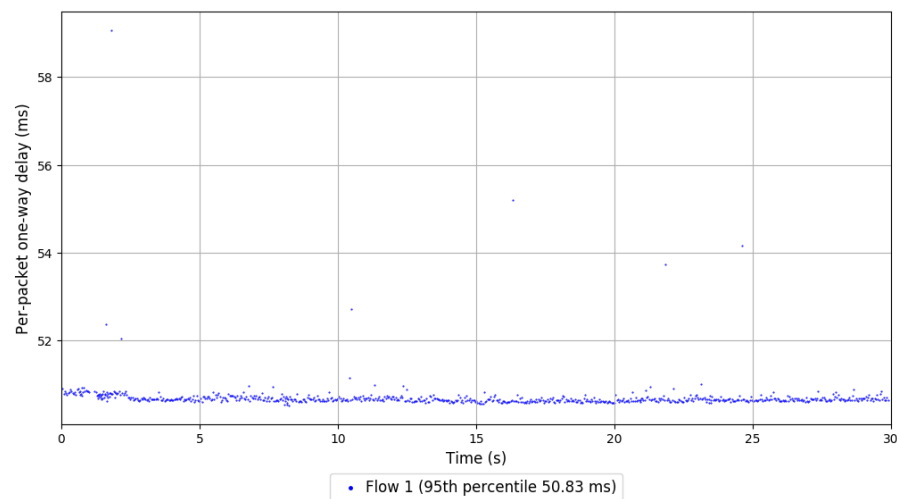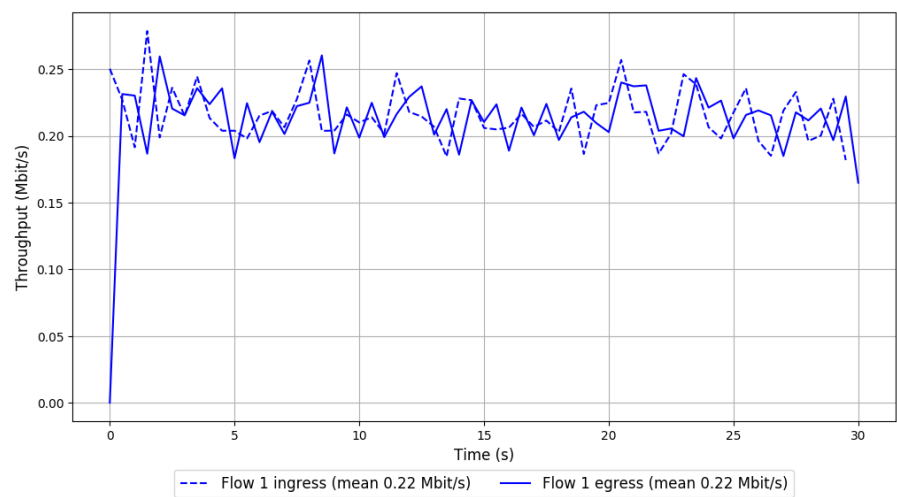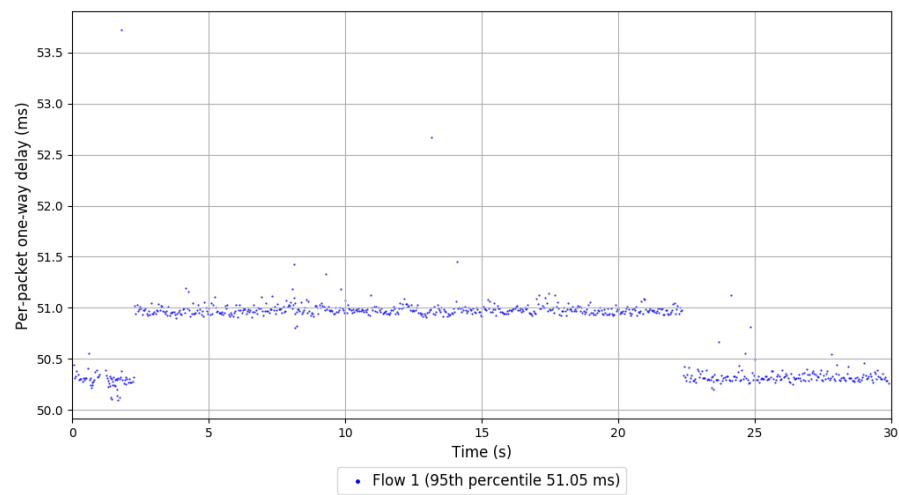Flow 1 (95th percentile 50.93 ms)

```
Run 9: Statistics of SCReAM

Start at: 2018-08-03 21:43:29
End at: 2018-08-03 21:43:59
Local clock offset: 0.15 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 0.26%
```

Run 9: Report of SCReAM — Data Link

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

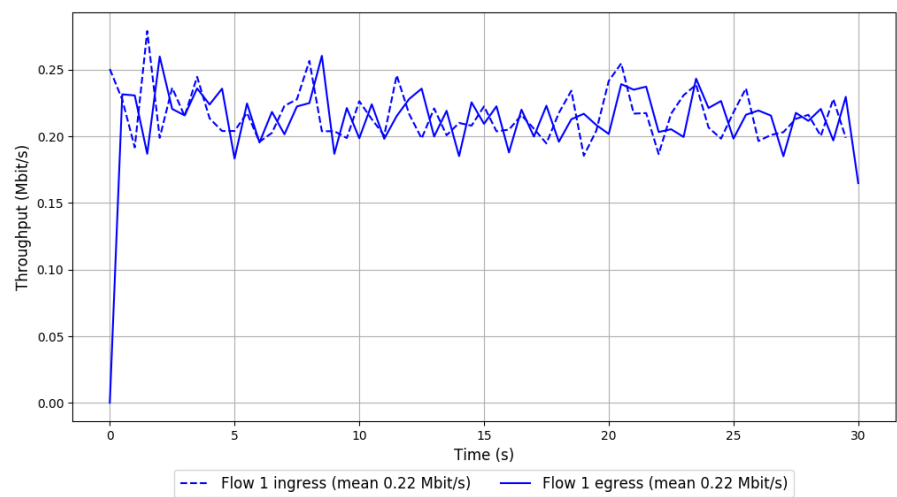Flow 1 (95th percentile 50.83 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-08-03 22:05:29
End at: 2018-08-03 22:05:59
Local clock offset: 0.052 ms
Remote clock offset: -0.139 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.39%
```

Run 10: Report of SCReAM — Data Link

223

```
Run 1: Statistics of Sprout

Start at: 2018-08-03 18:51:17
End at: 2018-08-03 18:51:47
Local clock offset: 0.384 ms
Remote clock offset: 0.011 ms

# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 51.289 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 51.289 ms
Loss rate: 0.64%
```
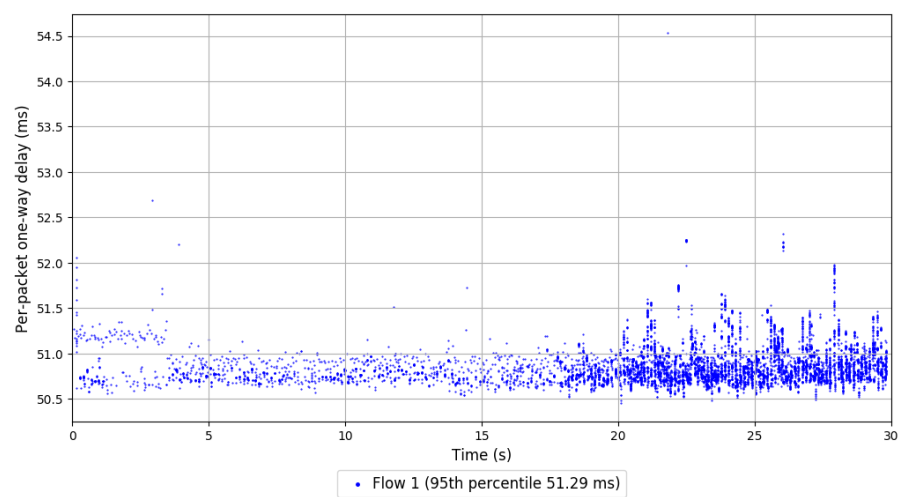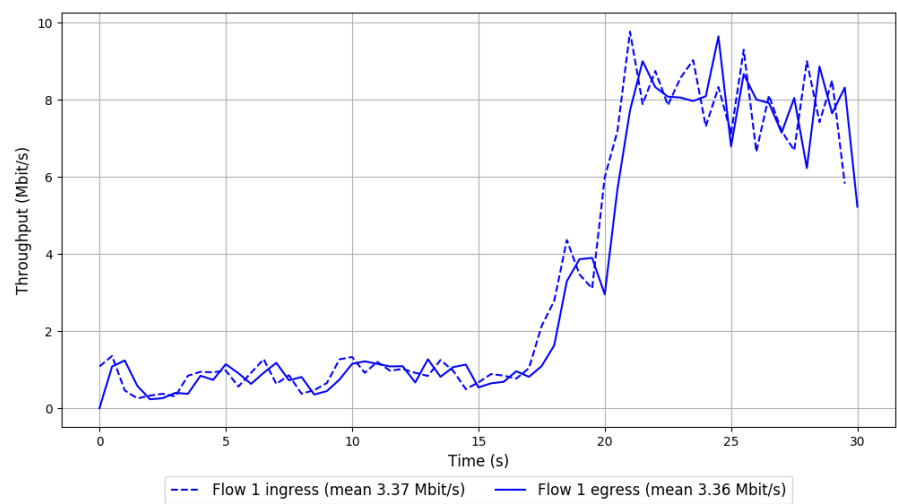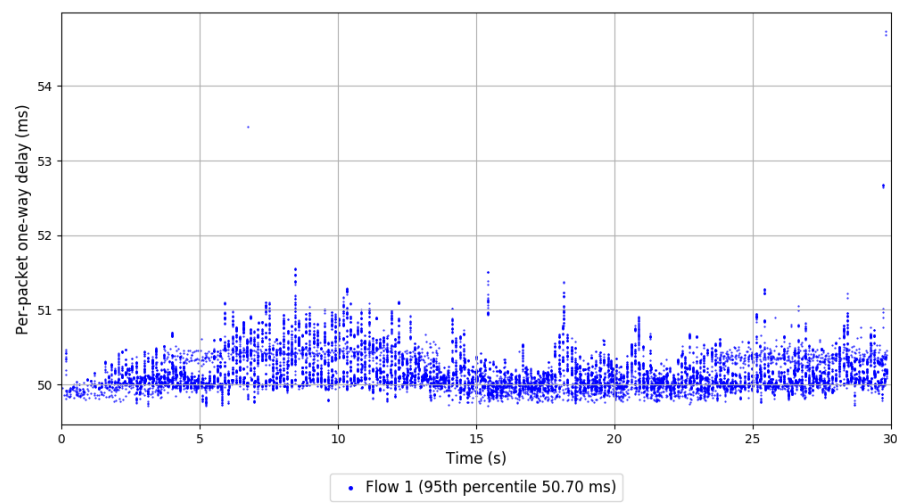
Run 1: Report of Sprout — Data Link

Flow 1 ingress (mean 3.37 Mbit/s)   Flow 1 egress (mean 3.36 Mbit/s)

Flow 1 (95th percentile 51.29 ms)

```
Run 2: Statistics of Sprout

Start at: 2018-08-03 19:13:17
End at: 2018-08-03 19:13:47
Local clock offset: -0.306 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 50.699 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 7.38 Mbit/s
95th percentile per-packet one-way delay: 50.699 ms
Loss rate: 0.27%
```
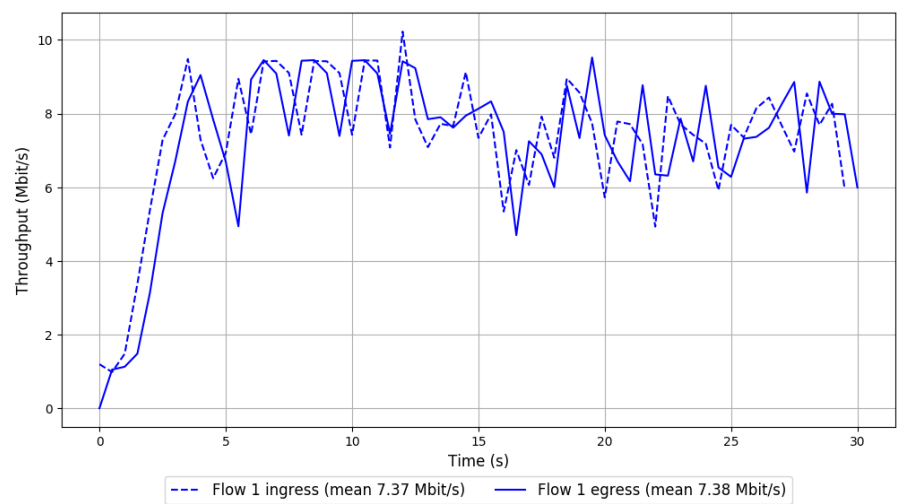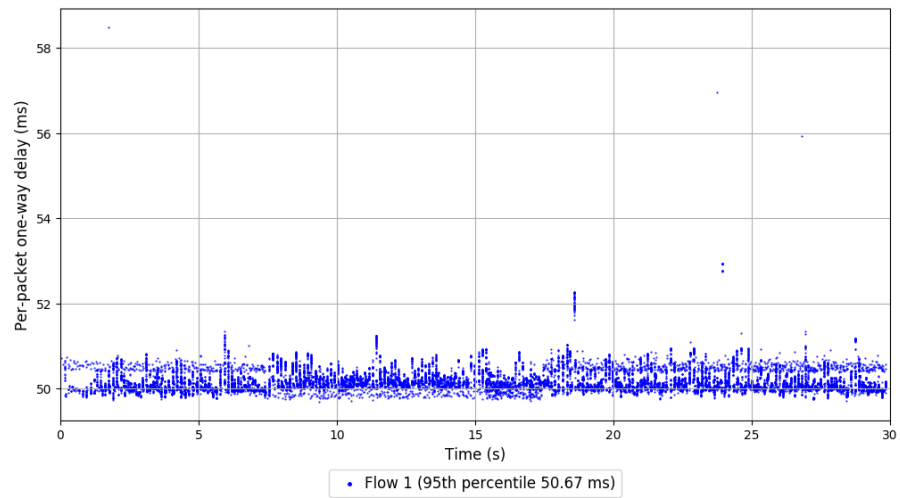
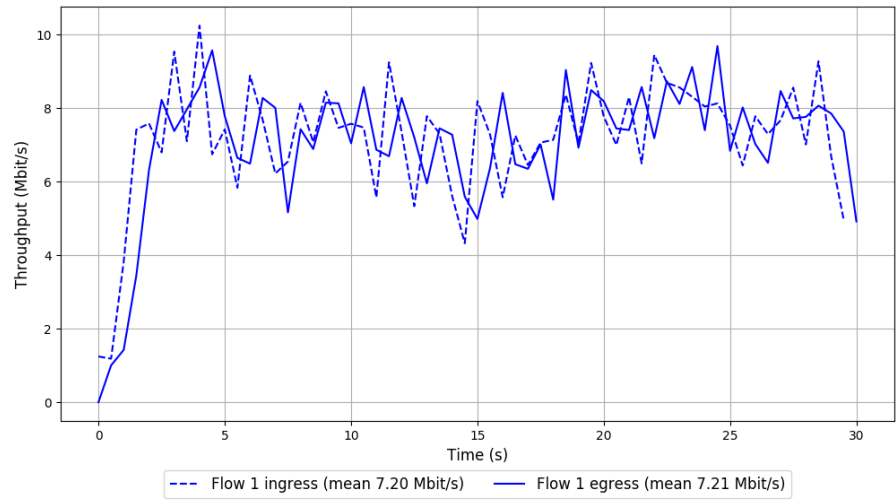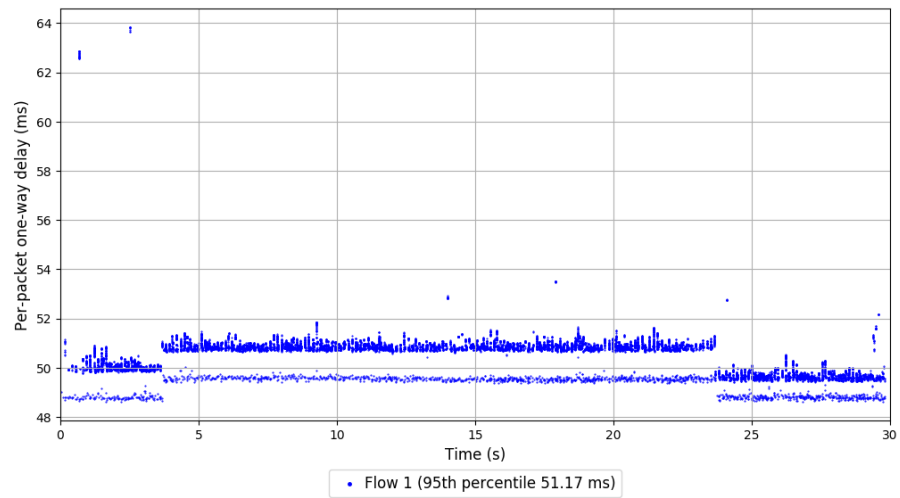## Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-08-03 19:35:23
End at: 2018-08-03 19:35:53
Local clock offset: 0.14 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 50.666 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 50.666 ms
Loss rate: 0.18%
```

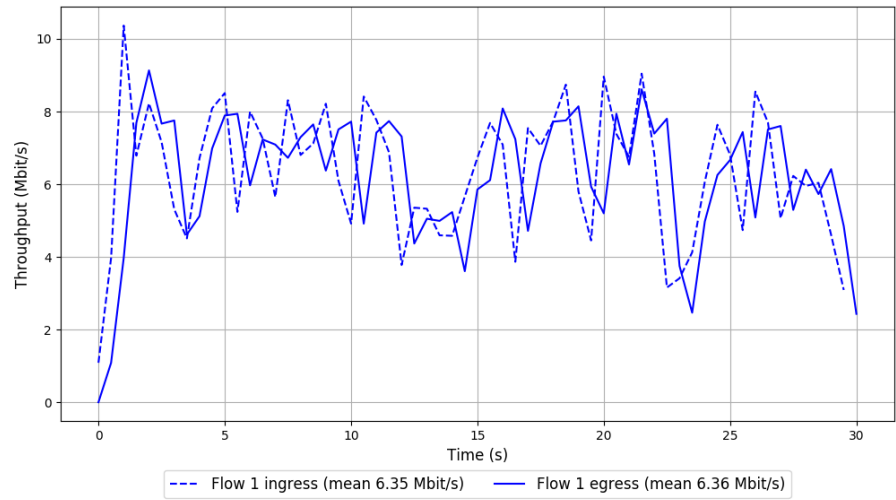Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-08-03 19:57:17
End at: 2018-08-03 19:57:47
Local clock offset: 0.136 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 51.172 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 6.36 Mbit/s
95th percentile per-packet one-way delay: 51.172 ms
Loss rate: 0.26%
```

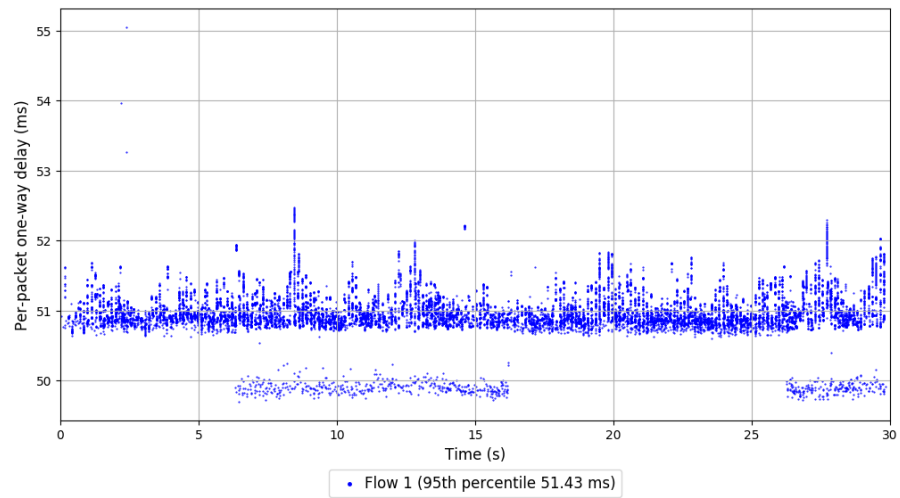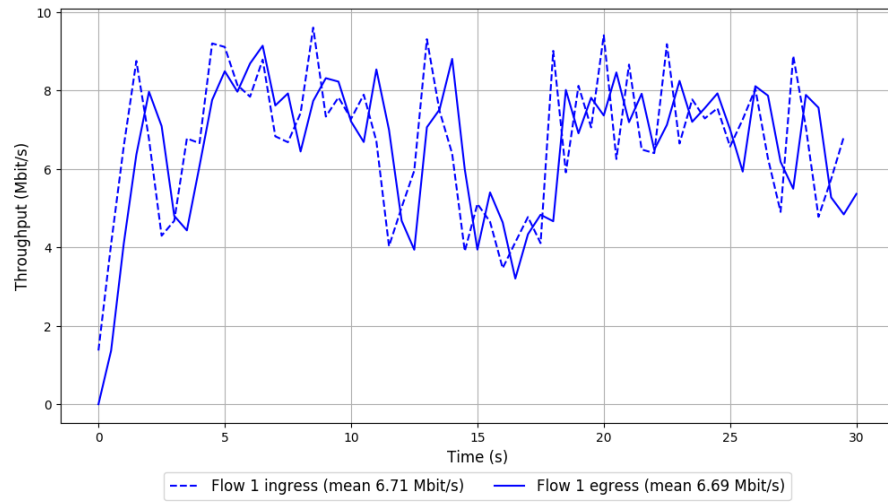Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-08-03 20:19:05
End at: 2018-08-03 20:19:35
Local clock offset: 0.17 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 51.433 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 6.69 Mbit/s
95th percentile per-packet one-way delay: 51.433 ms
Loss rate: 0.59%
```

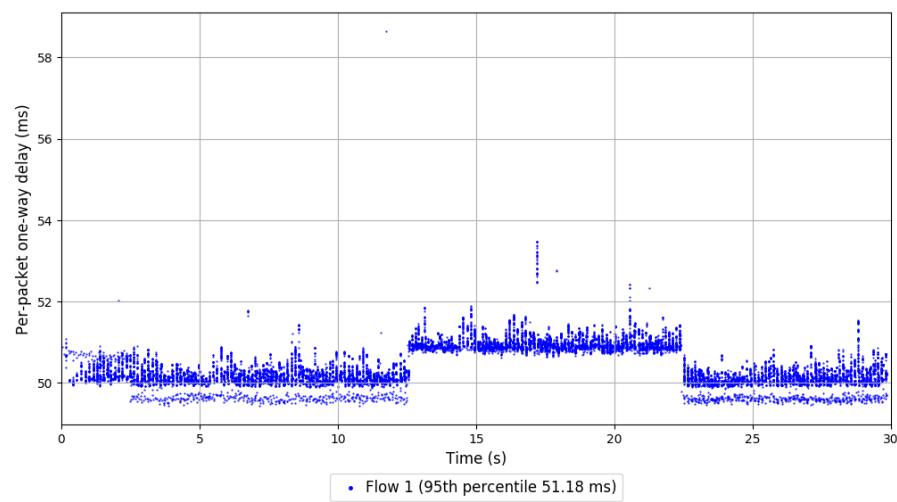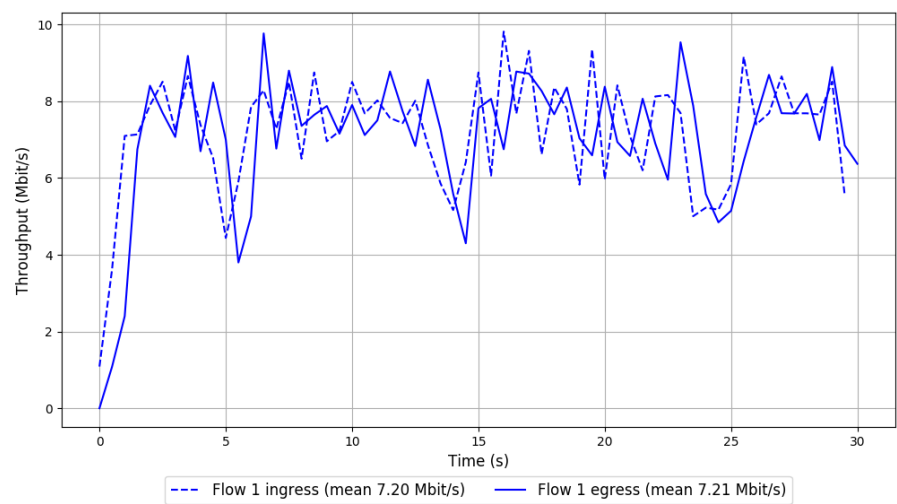Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-08-03 20:41:09
End at: 2018-08-03 20:41:39
Local clock offset: 0.122 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 51.178 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 51.178 ms
Loss rate: 0.24%
```

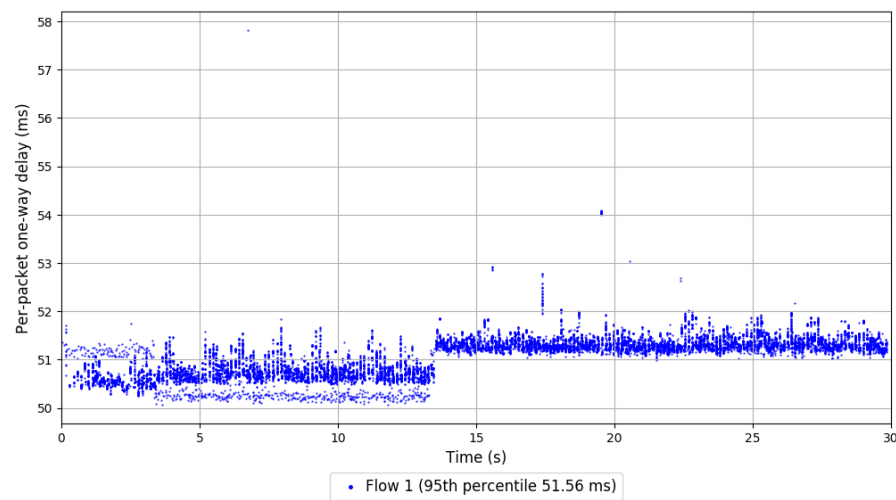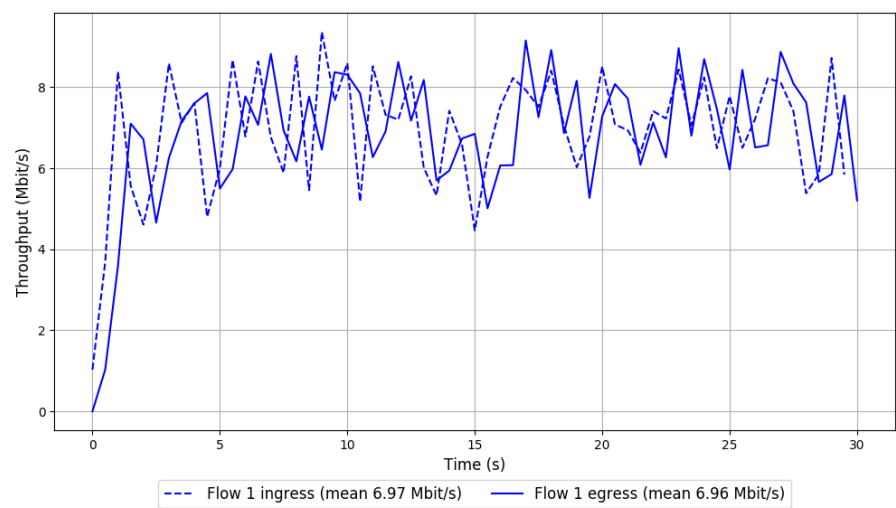Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-08-03 21:03:08
End at: 2018-08-03 21:03:38
Local clock offset: 0.466 ms
Remote clock offset: -0.013 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 51.564 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 51.564 ms
Loss rate: 0.42%
```

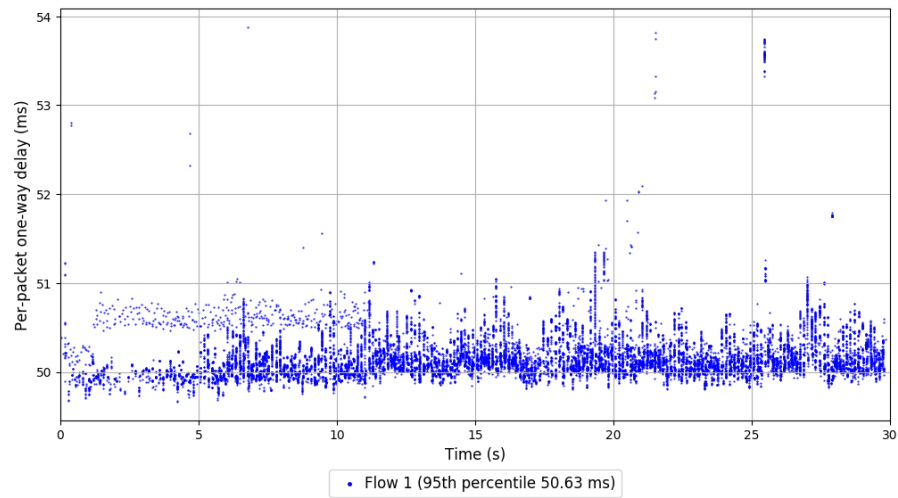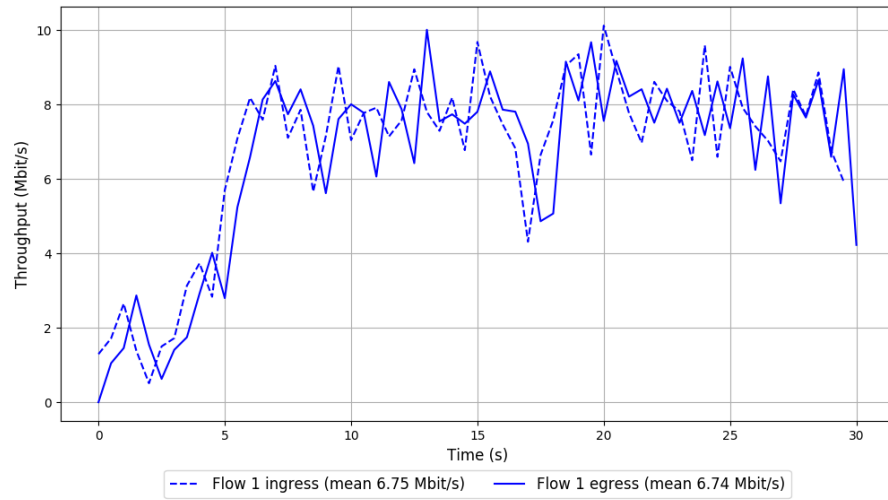Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-08-03 21:25:10
End at: 2018-08-03 21:25:40
Local clock offset: 0.125 ms
Remote clock offset: -0.034 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 50.628 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 50.628 ms
Loss rate: 0.44%
```

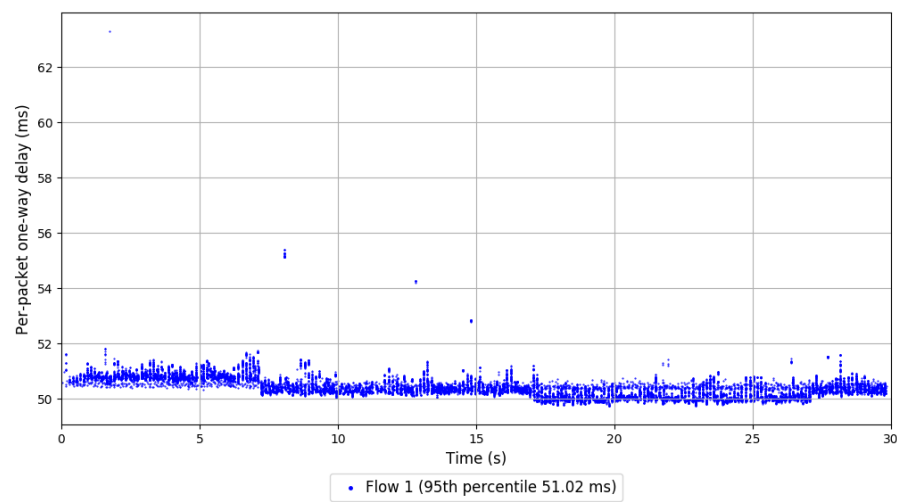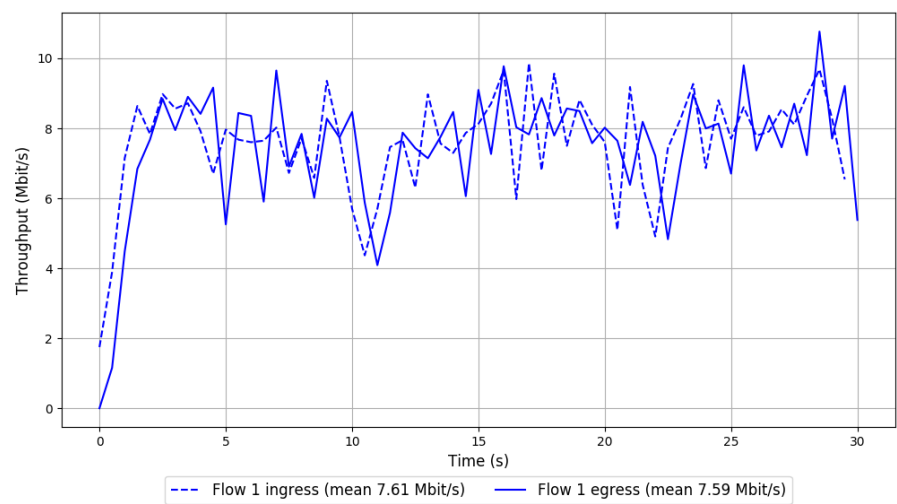Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-08-03 21:47:14
End at: 2018-08-03 21:47:44
Local clock offset: 0.097 ms
Remote clock offset: -0.008 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 51.022 ms
Loss rate: 0.48%
```

Run 9: Report of Sprout — Data Link

Flow 1 ingress (mean 7.61 Mbit/s)   Flow 1 egress (mean 7.59 Mbit/s)
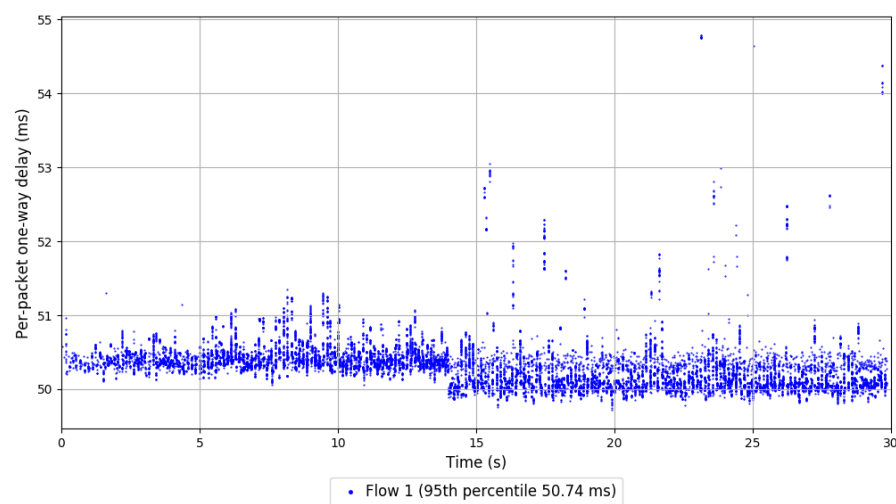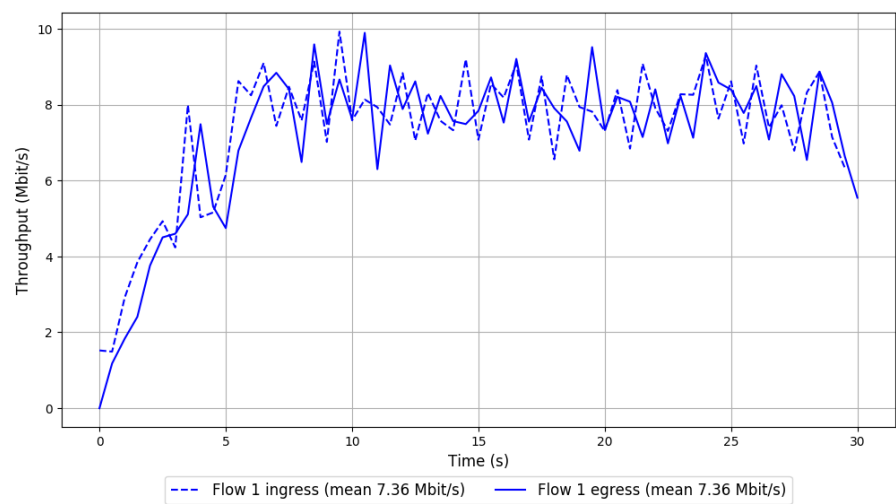

Flow 1 (95th percentile 51.02 ms)

```
Run 10: Statistics of Sprout

Start at: 2018-08-03 22:09:17
End at: 2018-08-03 22:09:47
Local clock offset: -0.291 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2018-08-04 00:02:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 50.737 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 7.36 Mbit/s
95th percentile per-packet one-way delay: 50.737 ms
Loss rate: 0.48%
```

Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 7.36 Mbit/s) --- Flow 1 egress (mean 7.36 Mbit/s)

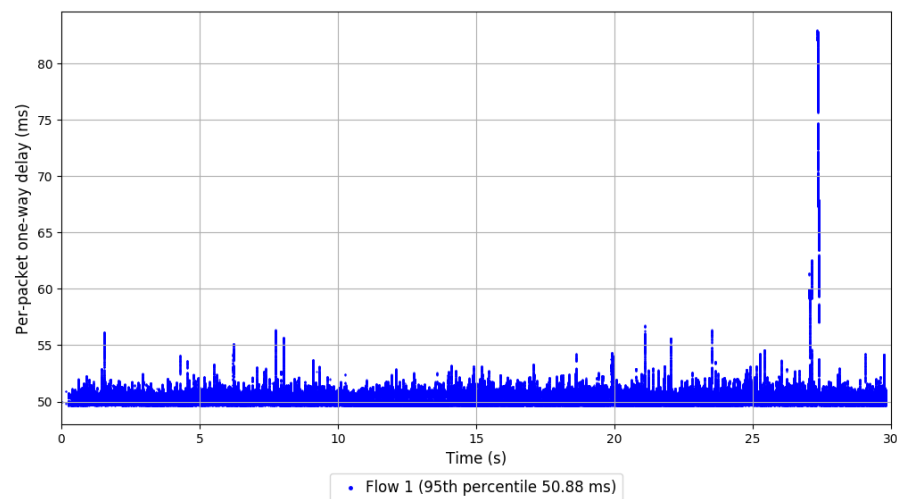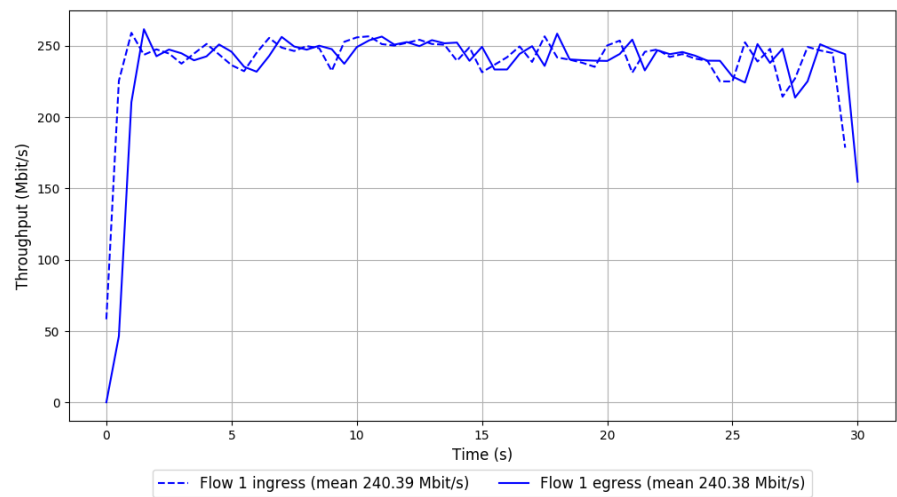• Flow 1 (95th percentile 50.74 ms)

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

Start at: 2018-08-03 18:34:20
End at: 2018-08-03 18:34:50
Local clock offset: -0.319 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2018-08-04 00:04:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 240.38 Mbit/s
95th percentile per-packet one-way delay: 50.877 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 240.38 Mbit/s
95th percentile per-packet one-way delay: 50.877 ms
Loss rate: 0.34%
```

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

Flow 1 ingress (mean 240.39 Mbit/s) --- Flow 1 egress (mean 240.38 Mbit/s)
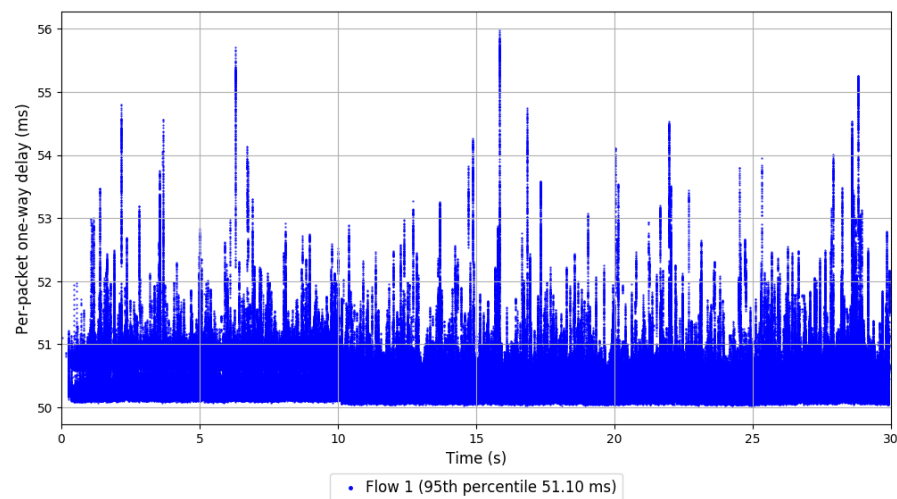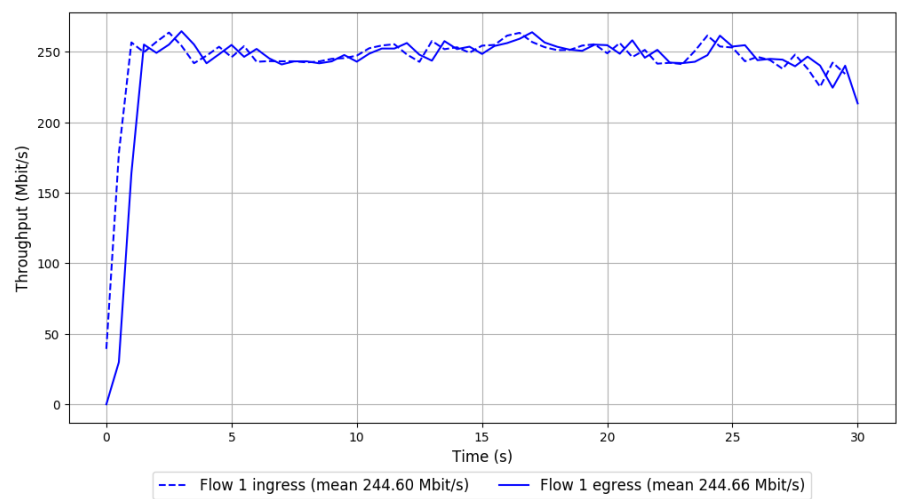

Flow 1 (95th percentile 50.88 ms)

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

Start at: 2018-08-03 18:56:01
End at: 2018-08-03 18:56:31
Local clock offset: 0.056 ms
Remote clock offset: -0.017 ms


# Below is generated by plot.py at 2018-08-04 00:04:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.66 Mbit/s
95th percentile per-packet one-way delay: 51.099 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 244.66 Mbit/s
95th percentile per-packet one-way delay: 51.099 ms
Loss rate: 0.32%
```

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

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

Start at: 2018-08-03 19:18:04
End at: 2018-08-03 19:18:34
Local clock offset: 0.054 ms
Remote clock offset: -0.115 ms


# Below is generated by plot.py at 2018-08-04 00:04:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.30 Mbit/s
95th percentile per-packet one-way delay: 50.865 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 221.30 Mbit/s
95th percentile per-packet one-way delay: 50.865 ms
Loss rate: 0.33%
```
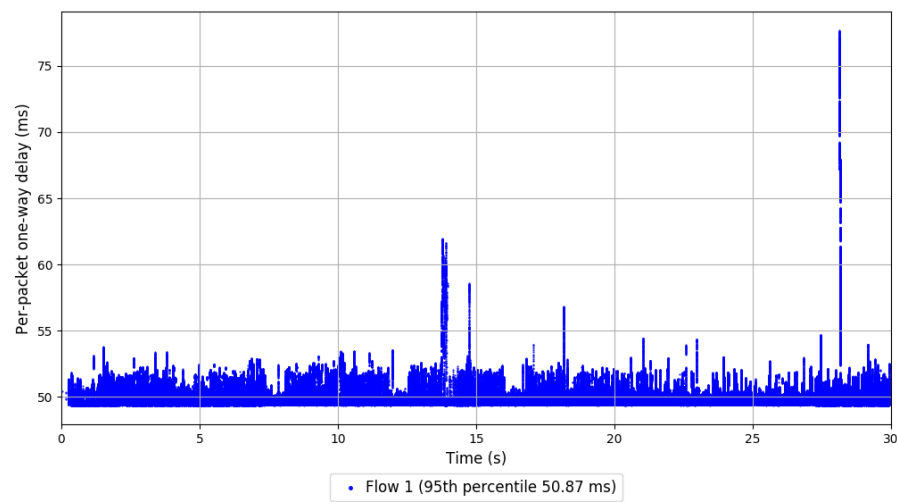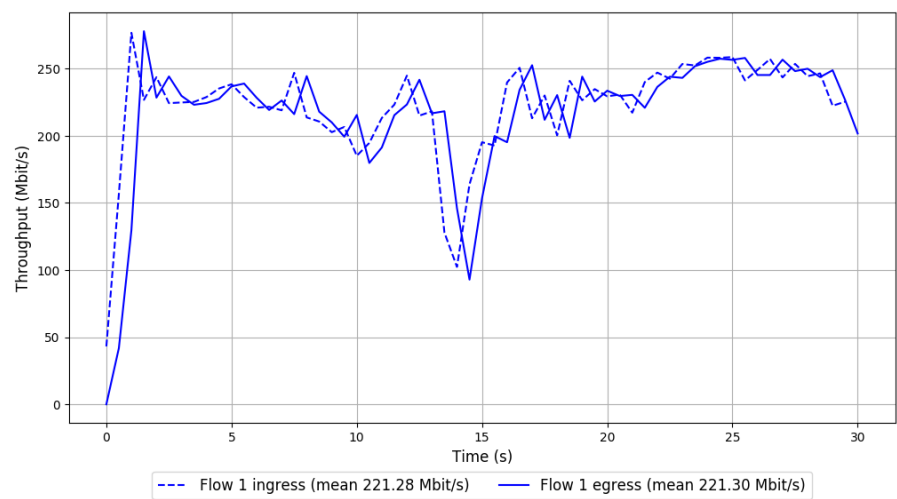
Run 3: Report of TaoVA-100x — Data Link

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

Start at: 2018-08-03 19:40:07
End at: 2018-08-03 19:40:37
Local clock offset: 0.134 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2018-08-04 00:07:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.84 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 249.84 Mbit/s
95th percentile per-packet one-way delay: 50.797 ms
Loss rate: 0.34%
```
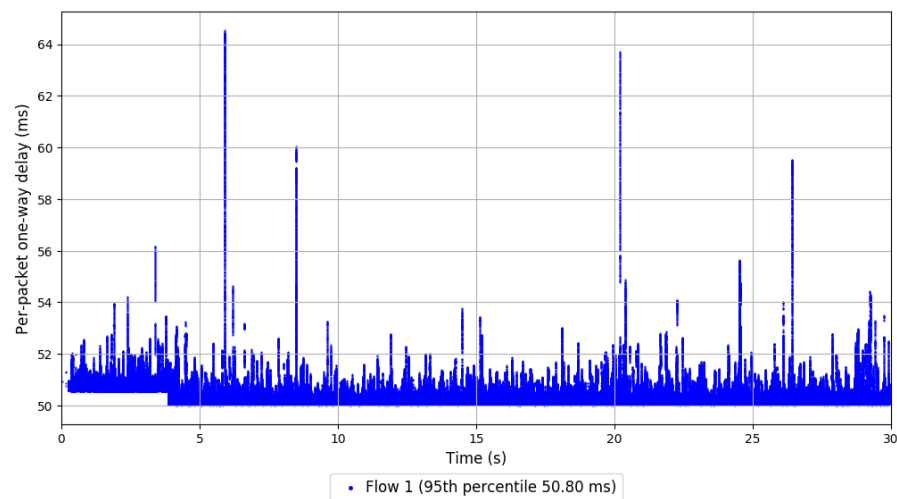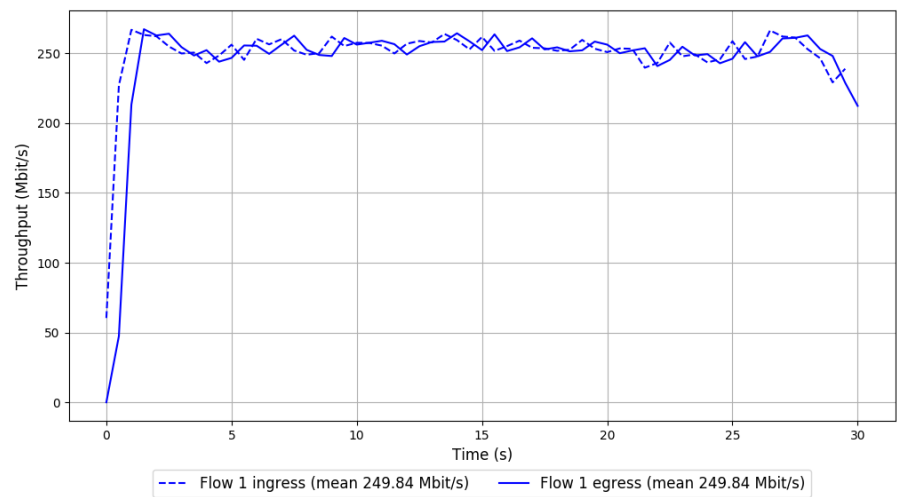
Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-08-03 20:02:06
End at: 2018-08-03 20:02:36
Local clock offset: -0.243 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2018-08-04 00:07:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 159.34 Mbit/s
95th percentile per-packet one-way delay: 52.310 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 159.34 Mbit/s
95th percentile per-packet one-way delay: 52.310 ms
Loss rate: 0.19%
```
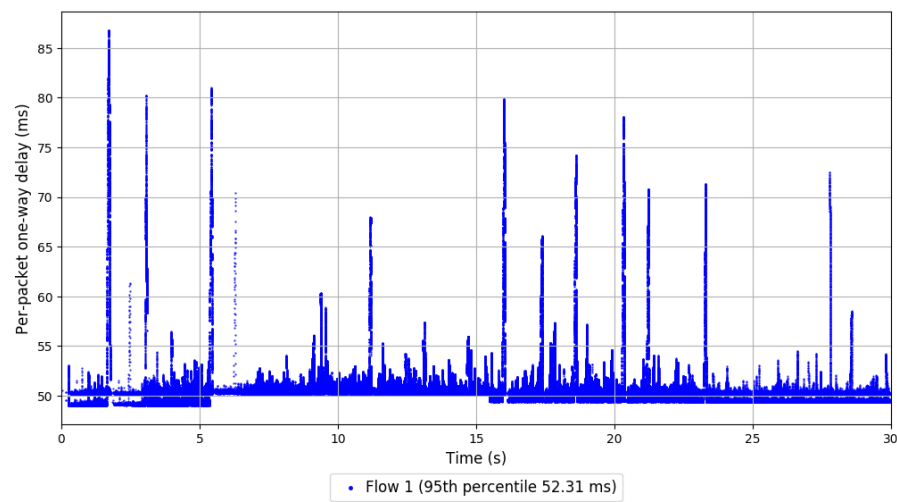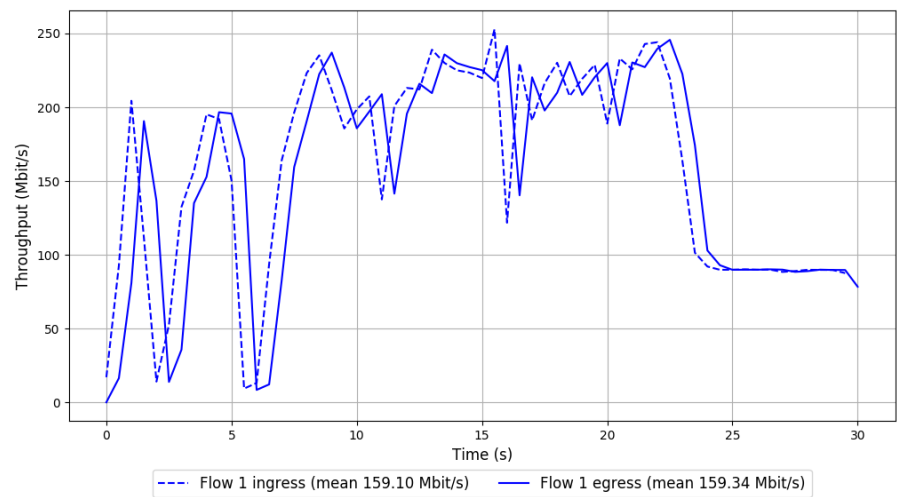
Run 5: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 159.10 Mbit/s) --- Flow 1 egress (mean 159.34 Mbit/s)

• Flow 1 (95th percentile 52.31 ms)

253

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

Start at: 2018-08-03 20:23:49
End at: 2018-08-03 20:24:19
Local clock offset: 0.144 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2018-08-04 00:08:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.11 Mbit/s
95th percentile per-packet one-way delay: 53.397 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 243.11 Mbit/s
95th percentile per-packet one-way delay: 53.397 ms
Loss rate: 0.35%
```
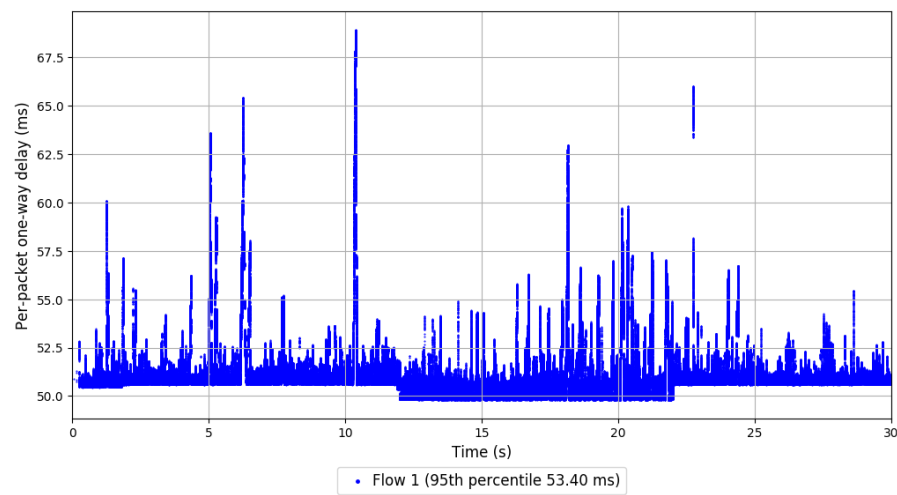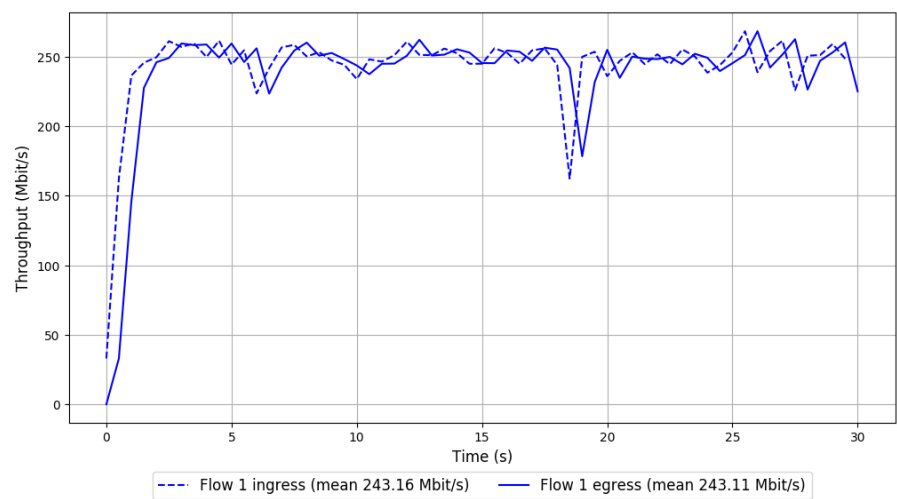
Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-08-03 20:45:54
End at: 2018-08-03 20:46:24
Local clock offset: 0.101 ms
Remote clock offset: 0.001 ms


# Below is generated by plot.py at 2018-08-04 00:09:04
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.77 Mbit/s
95th percentile per-packet one-way delay: 51.547 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 226.77 Mbit/s
95th percentile per-packet one-way delay: 51.547 ms
Loss rate: 0.23%
```
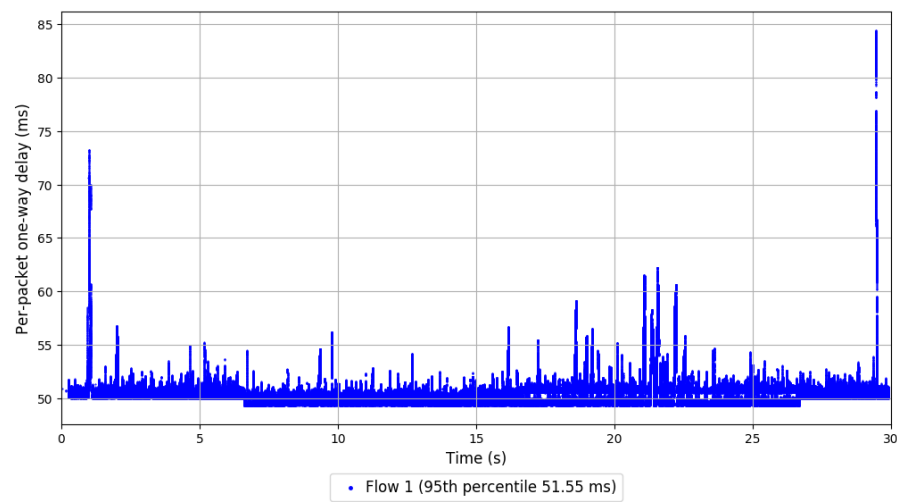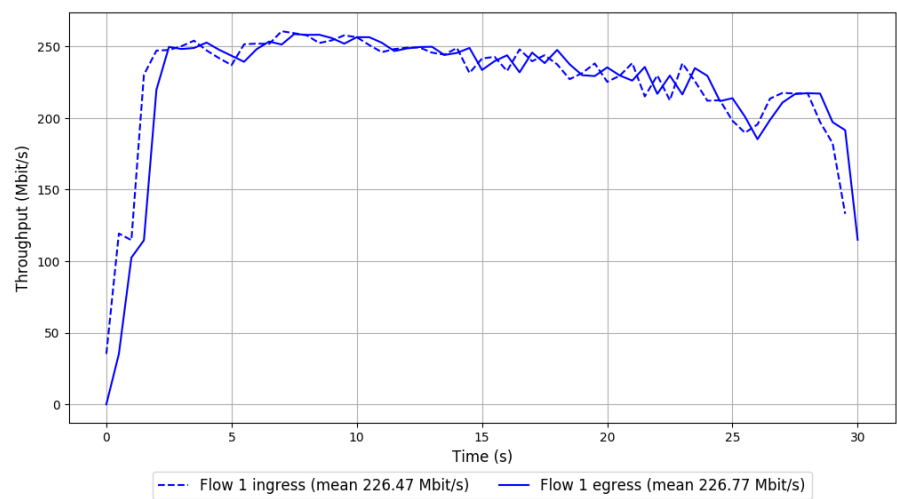
Run 7: Report of TaoVA-100x — Data Link

257

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

Start at: 2018-08-03 21:07:56
End at: 2018-08-03 21:08:26
Local clock offset: 0.126 ms
Remote clock offset: 0.033 ms


# Below is generated by plot.py at 2018-08-04 00:12:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.39 Mbit/s
95th percentile per-packet one-way delay: 52.360 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 228.39 Mbit/s
95th percentile per-packet one-way delay: 52.360 ms
Loss rate: 0.32%
```
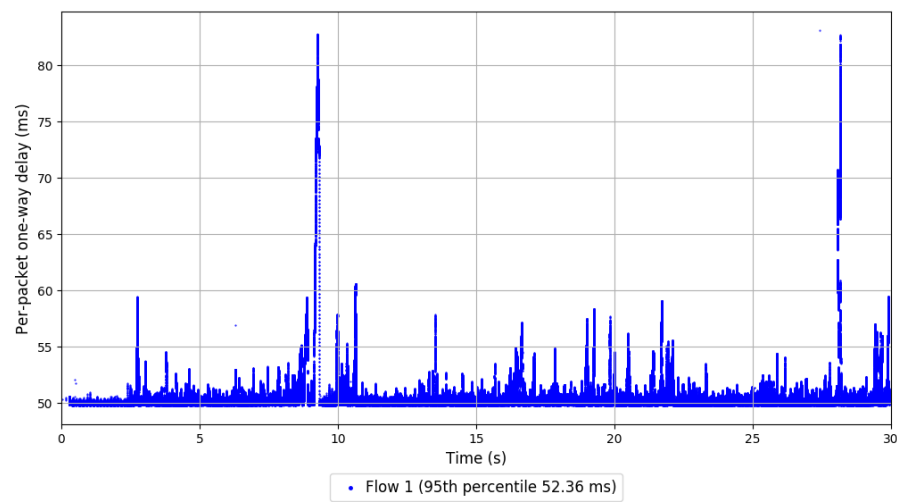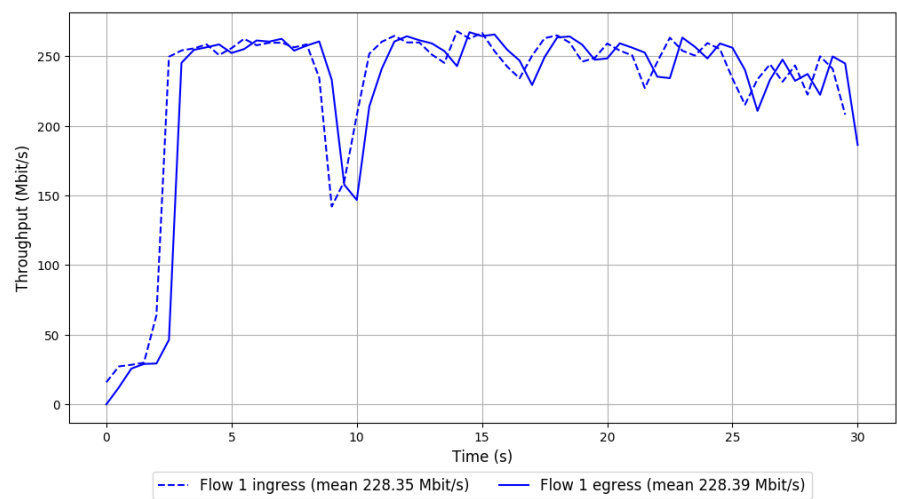
Run 8: Report of TaoVA-100x — Data Link

259

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

Start at: 2018-08-03 21:29:55
End at: 2018-08-03 21:30:26
Local clock offset: 0.504 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2018-08-04 00:13:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.55 Mbit/s
95th percentile per-packet one-way delay: 51.922 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 228.55 Mbit/s
95th percentile per-packet one-way delay: 51.922 ms
Loss rate: 0.37%
```
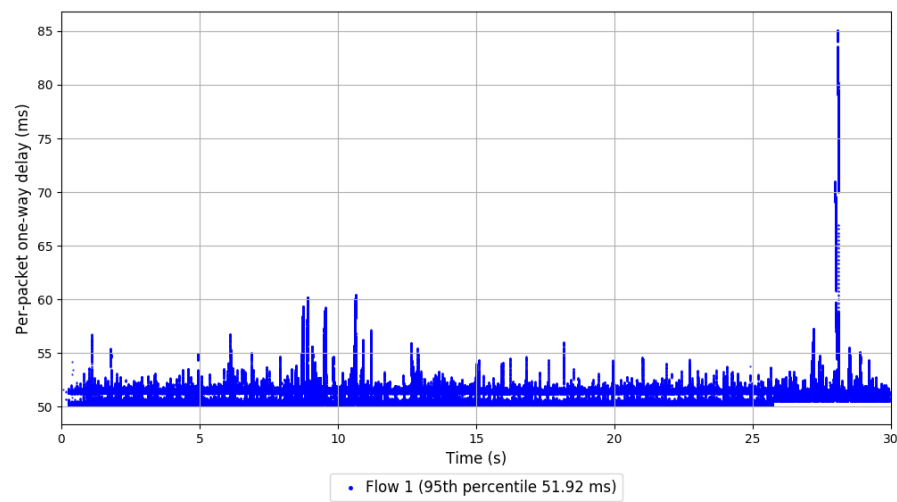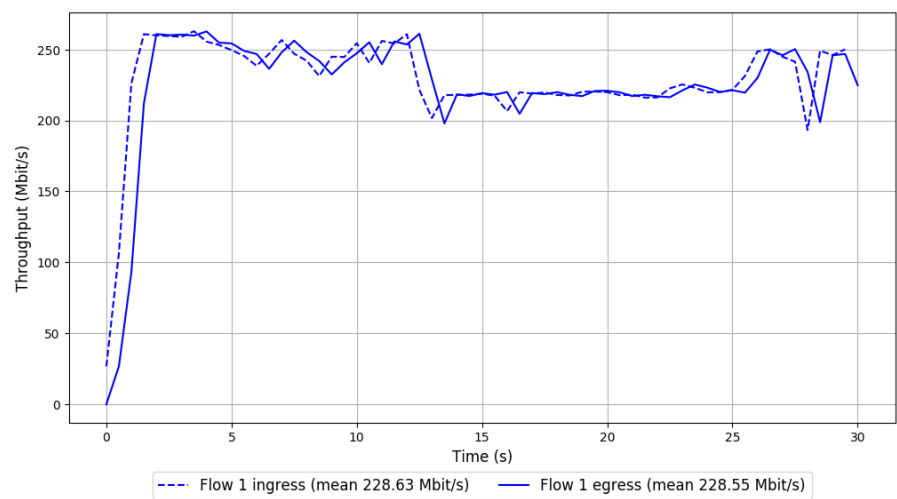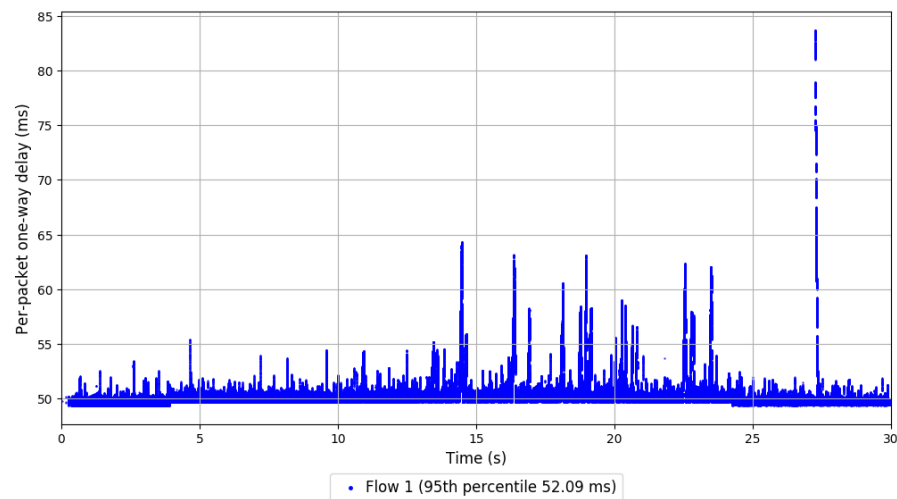
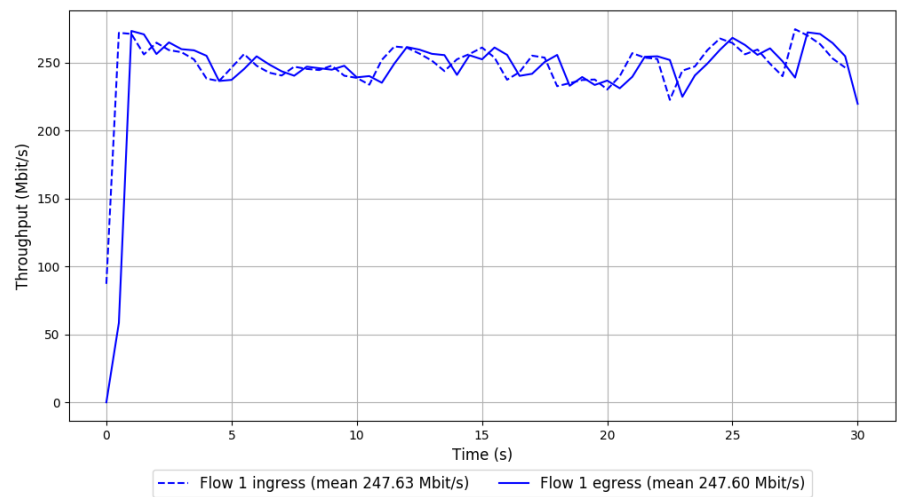Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-08-03 21:51:57
End at: 2018-08-03 21:52:27
Local clock offset: -0.245 ms
Remote clock offset: -0.083 ms

# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 247.60 Mbit/s
95th percentile per-packet one-way delay: 52.091 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 247.60 Mbit/s
95th percentile per-packet one-way delay: 52.091 ms
Loss rate: 0.34%
```

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

Flow 1 ingress (mean 247.63 Mbit/s)   Flow 1 egress (mean 247.60 Mbit/s)

Flow 1 (95th percentile 52.09 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-08-03 18:45:03
End at: 2018-08-03 18:45:33
Local clock offset: 0.012 ms
Remote clock offset: 0.044 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 51.593 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 82.93 Mbit/s
95th percentile per-packet one-way delay: 51.593 ms
Loss rate: 0.31%
```
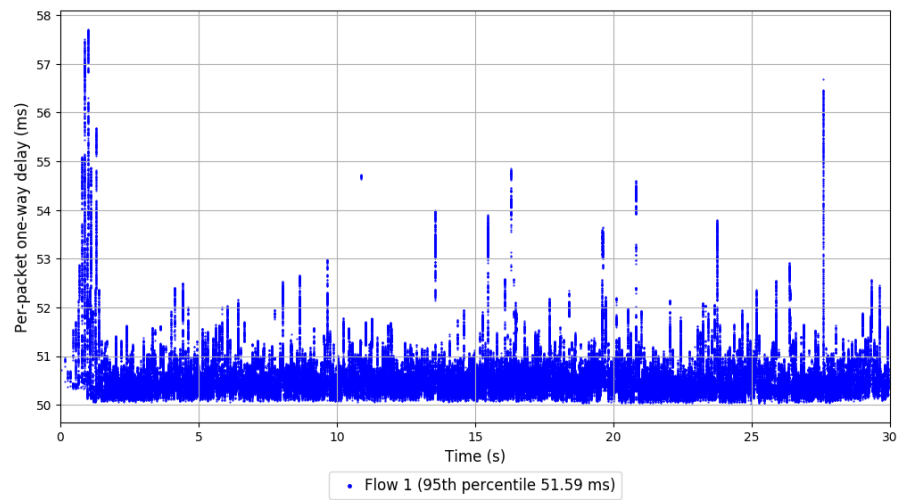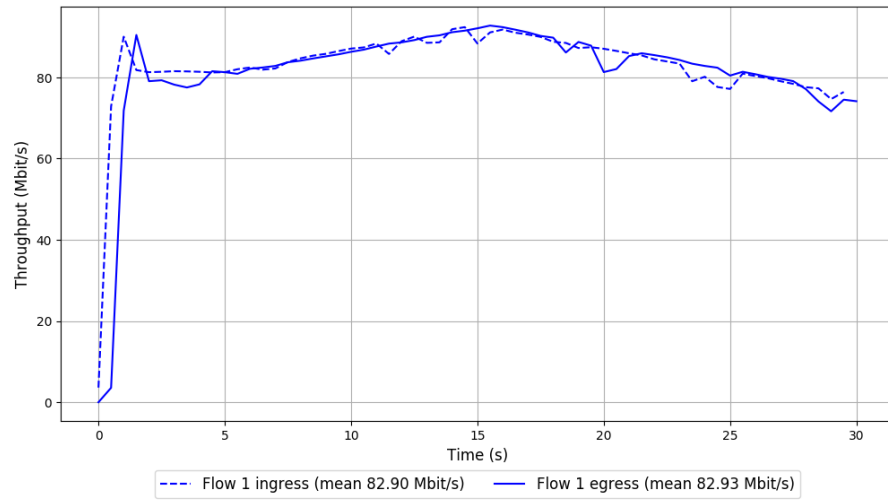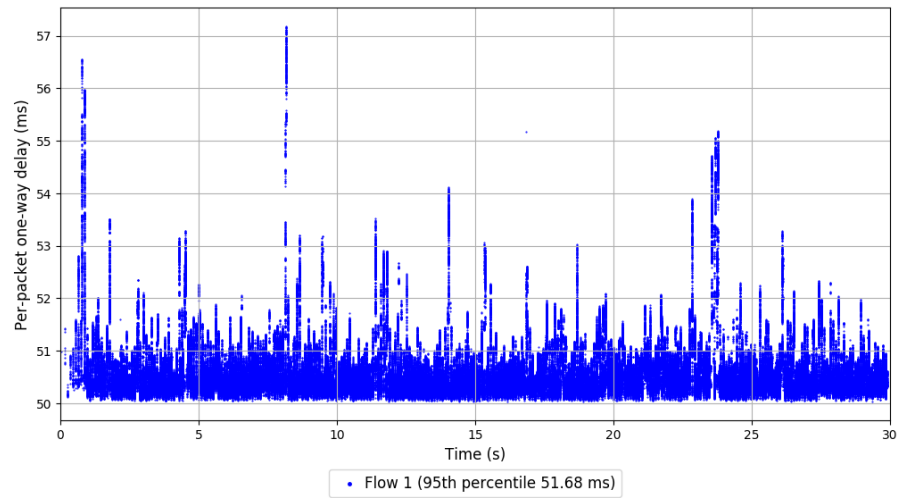
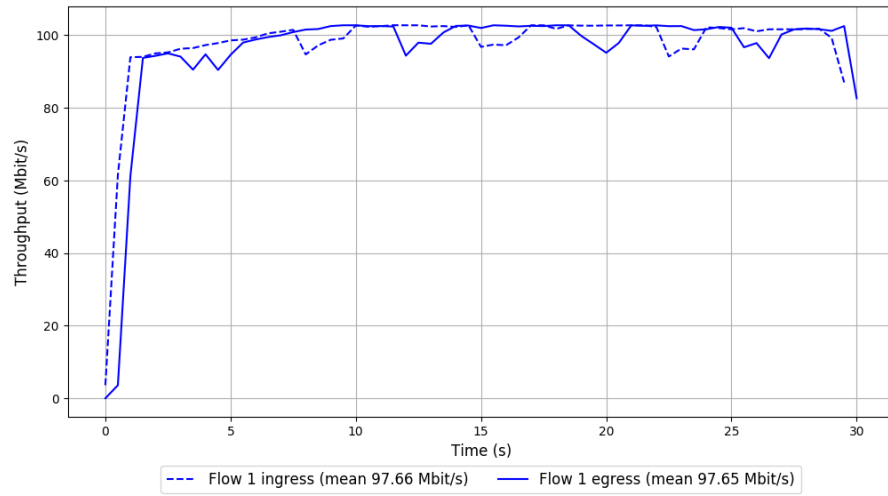Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-08-03 19:06:59
End at: 2018-08-03 19:07:29
Local clock offset: 0.029 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 97.65 Mbit/s
95th percentile per-packet one-way delay: 51.676 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 97.65 Mbit/s
95th percentile per-packet one-way delay: 51.676 ms
Loss rate: 0.35%
```
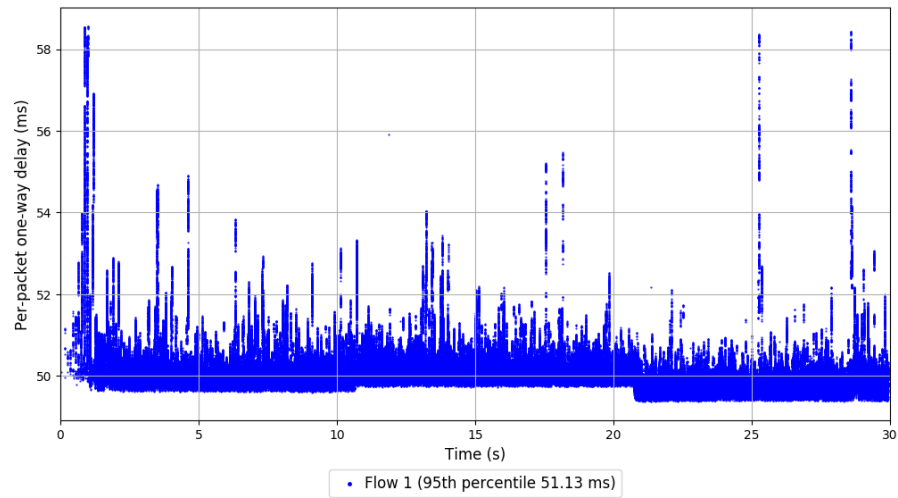
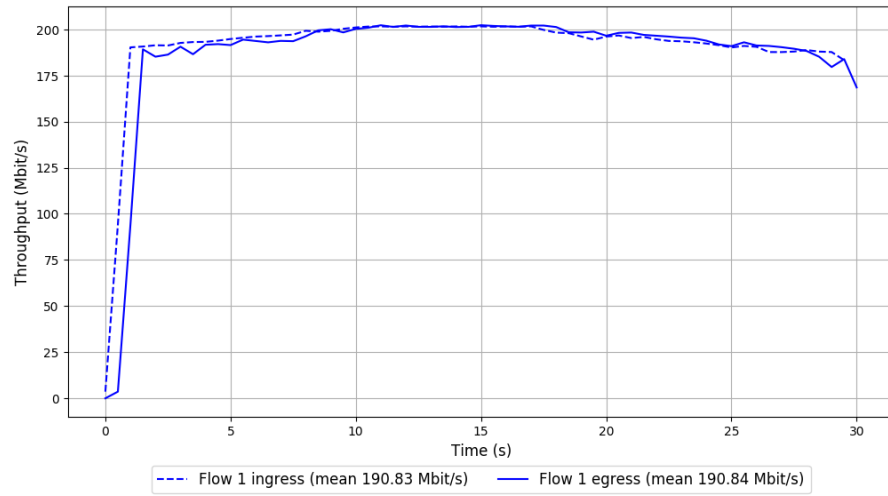Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: 2018-08-03 19:29:00
End at: 2018-08-03 19:29:30
Local clock offset: 0.028 ms
Remote clock offset: -0.139 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 190.84 Mbit/s
95th percentile per-packet one-way delay: 51.132 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 190.84 Mbit/s
95th percentile per-packet one-way delay: 51.132 ms
Loss rate: 0.33%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 190.83 Mbit/s)   Flow 1 egress (mean 190.84 Mbit/s)
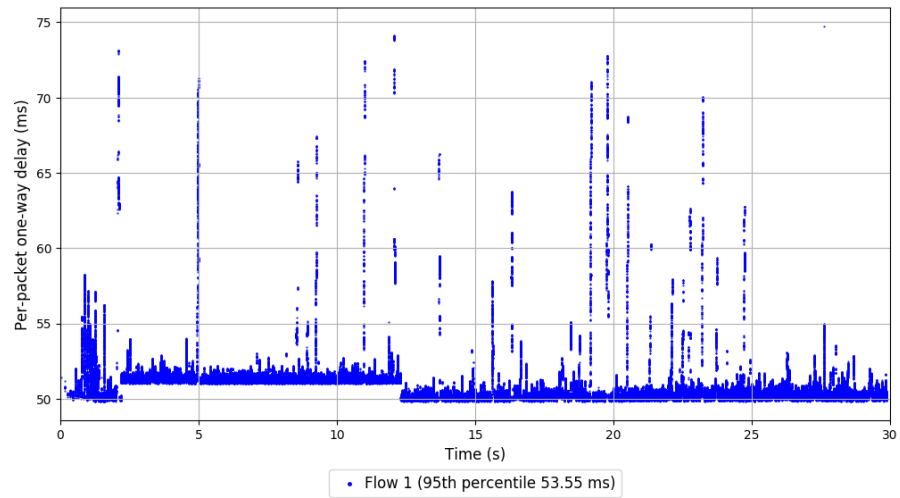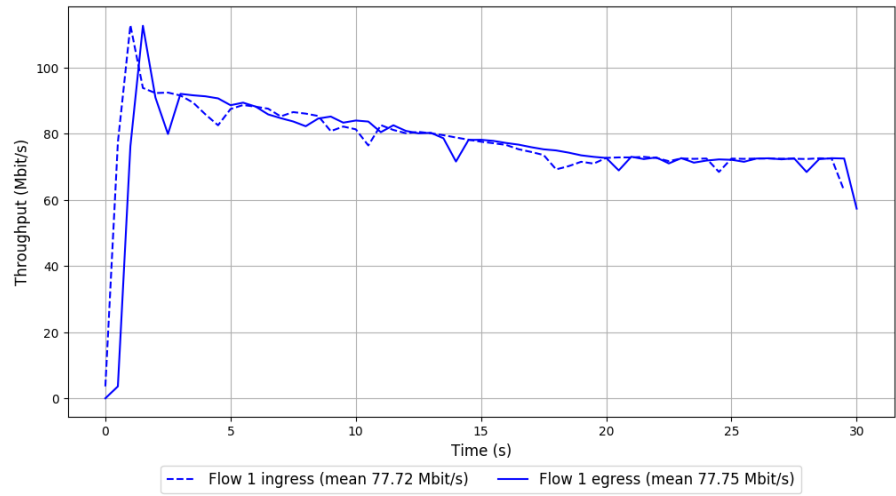

Flow 1 (95th percentile 51.13 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-08-03 19:50:59
End at: 2018-08-03 19:51:29
Local clock offset: 0.526 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.75 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 77.75 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.31%
```

Run 4: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 77.72 Mbit/s)   Flow 1 egress (mean 77.75 Mbit/s)
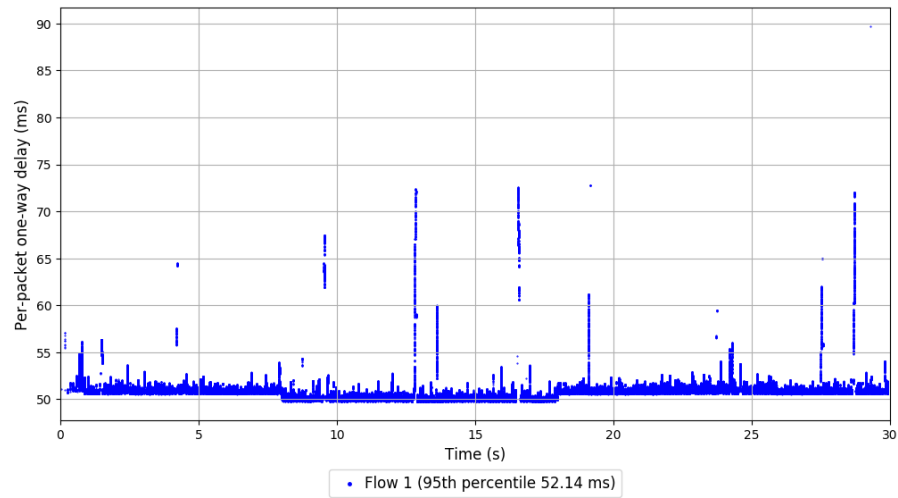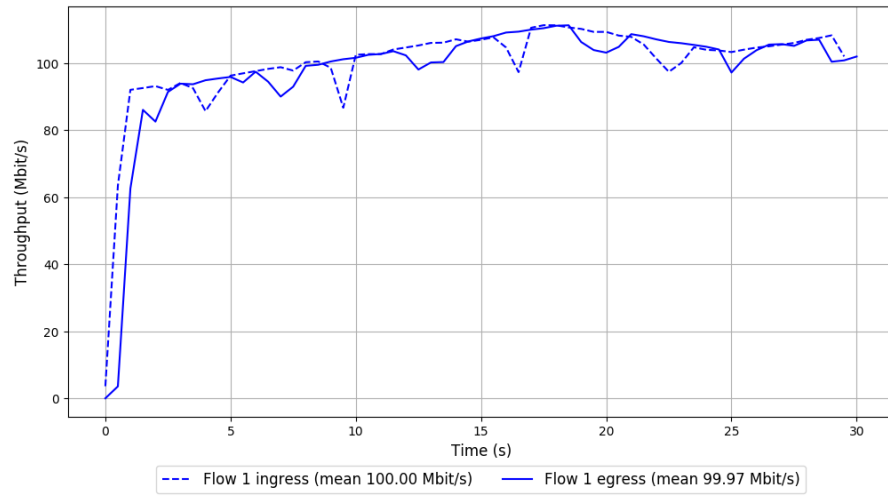

• Flow 1 (95th percentile 53.55 ms)

```
Run 5: Statistics of TCP Vegas

Start at: 2018-08-03 20:12:43
End at: 2018-08-03 20:13:13
Local clock offset: 0.131 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 52.139 ms
Loss rate: 0.36%
```
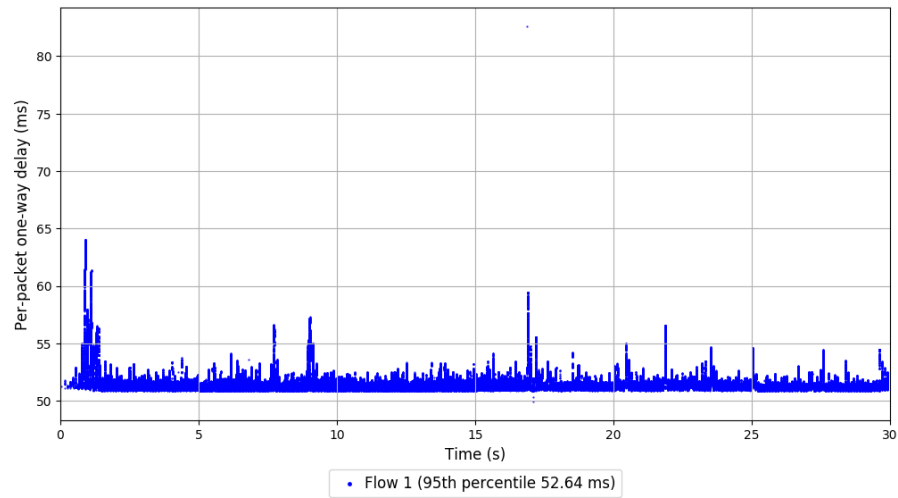
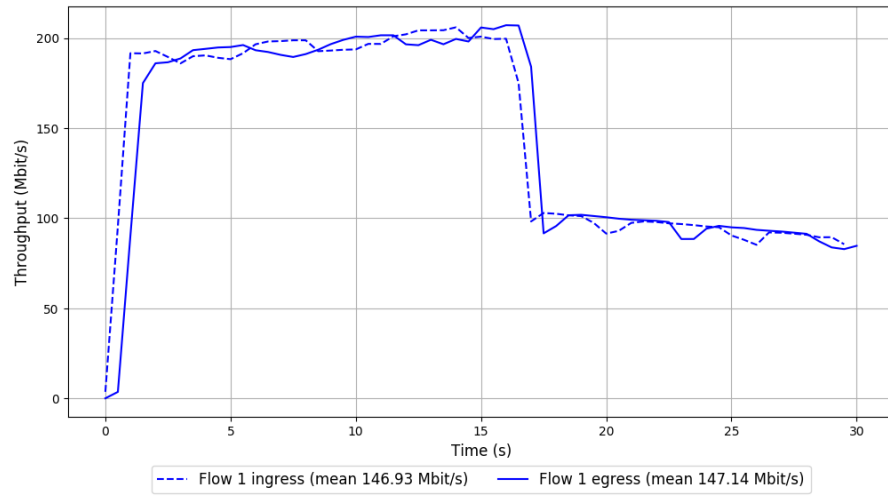Run 5: Report of TCP Vegas — Data Link

```
Run 6: Statistics of TCP Vegas

Start at: 2018-08-03 20:34:46
End at: 2018-08-03 20:35:16
Local clock offset: 0.492 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 147.14 Mbit/s
95th percentile per-packet one-way delay: 52.641 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 147.14 Mbit/s
95th percentile per-packet one-way delay: 52.641 ms
Loss rate: 0.20%
```

Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 146.93 Mbit/s) ----- Flow 1 egress (mean 147.14 Mbit/s) ——
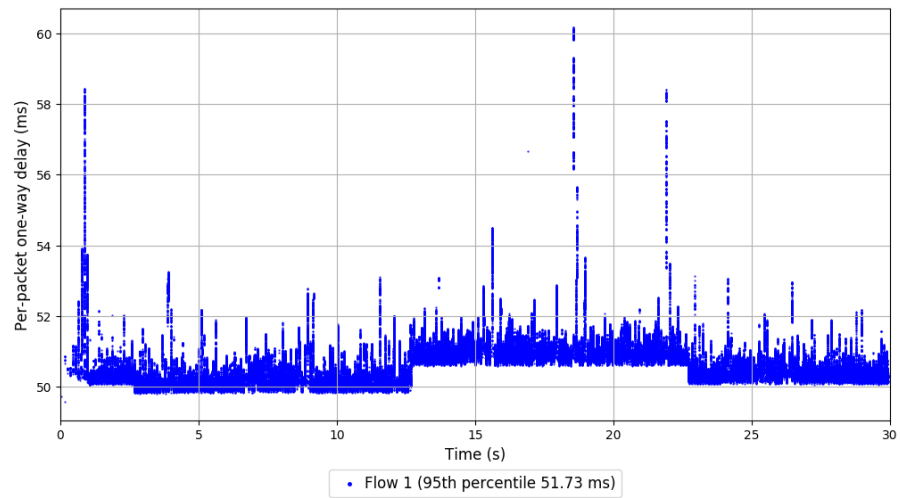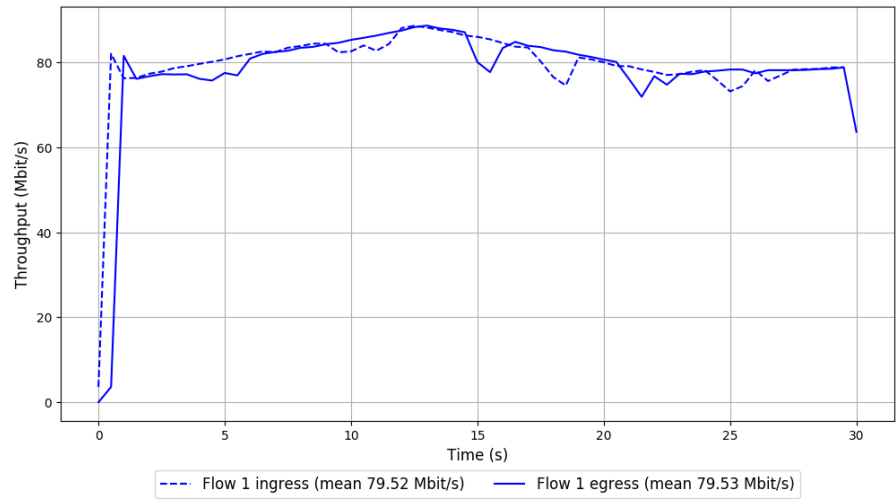

• Flow 1 (95th percentile 52.64 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2018-08-03 20:56:48
End at: 2018-08-03 20:57:18
Local clock offset: 0.121 ms
Remote clock offset: -0.035 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 79.53 Mbit/s
95th percentile per-packet one-way delay: 51.728 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 79.53 Mbit/s
95th percentile per-packet one-way delay: 51.728 ms
Loss rate: 0.33%
```

Run 7: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 79.52 Mbit/s)   Flow 1 egress (mean 79.53 Mbit/s)

Flow 1 (95th percentile 51.73 ms)

```
Run 8: Statistics of TCP Vegas

Start at: 2018-08-03 21:18:50
End at: 2018-08-03 21:19:20
Local clock offset: 0.45 ms
Remote clock offset: 0.02 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 67.47 Mbit/s
95th percentile per-packet one-way delay: 55.814 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 67.47 Mbit/s
95th percentile per-packet one-way delay: 55.814 ms
Loss rate: 0.25%
```
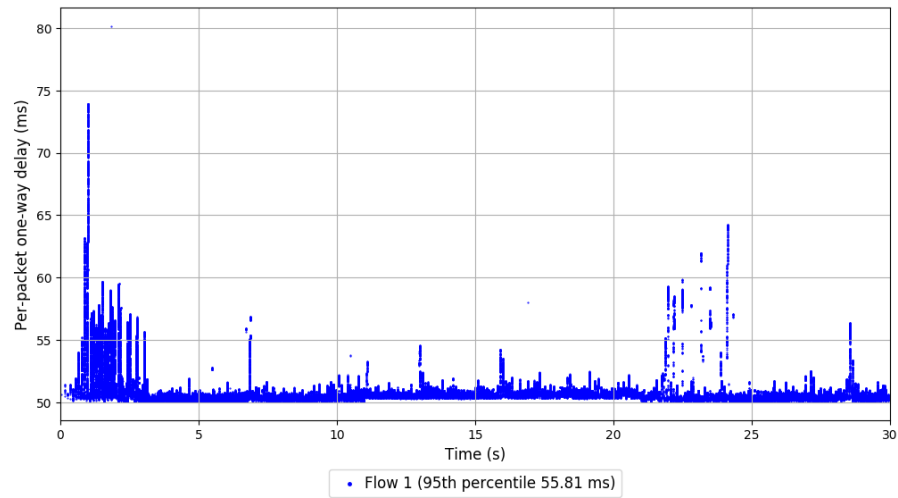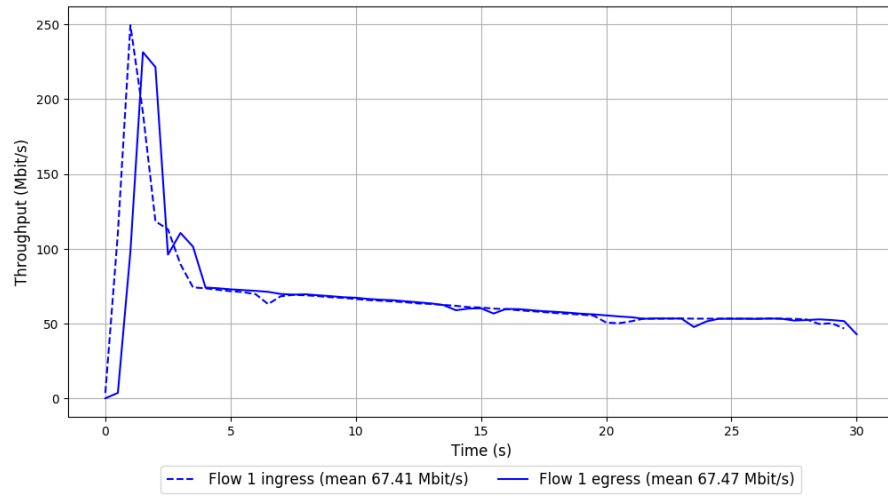
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 67.41 Mbit/s) --- Flow 1 egress (mean 67.47 Mbit/s)

Flow 1 (95th percentile 55.81 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-08-03 21:40:58
End at: 2018-08-03 21:41:28
Local clock offset: 0.146 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 118.01 Mbit/s
95th percentile per-packet one-way delay: 51.869 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 118.01 Mbit/s
95th percentile per-packet one-way delay: 51.869 ms
Loss rate: 0.37%
```
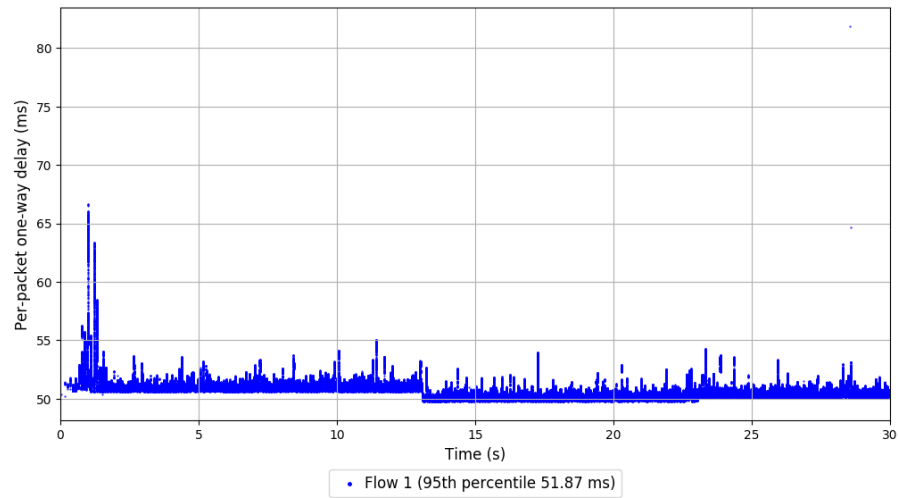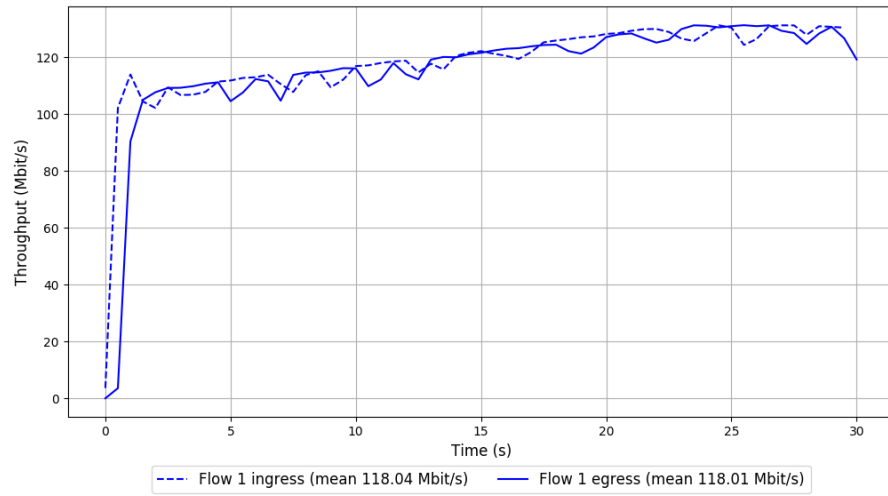
Run 9: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 118.04 Mbit/s) — Flow 1 egress (mean 118.01 Mbit/s)

• Flow 1 (95th percentile 51.87 ms)

```
Run 10: Statistics of TCP Vegas

Start at: 2018-08-03 22:02:58
End at: 2018-08-03 22:03:28
Local clock offset: -0.3 ms
Remote clock offset: -0.016 ms


# Below is generated by plot.py at 2018-08-04 00:14:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 105.18 Mbit/s
95th percentile per-packet one-way delay: 51.160 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 105.18 Mbit/s
95th percentile per-packet one-way delay: 51.160 ms
Loss rate: 0.38%
```
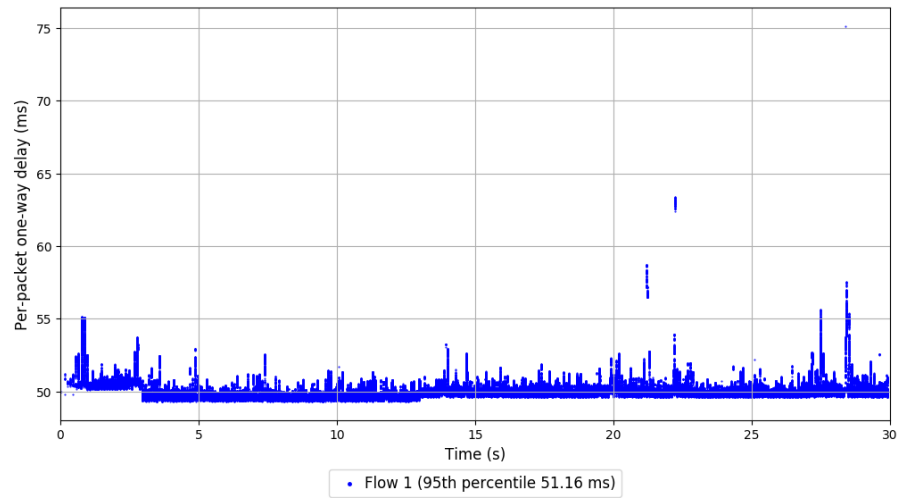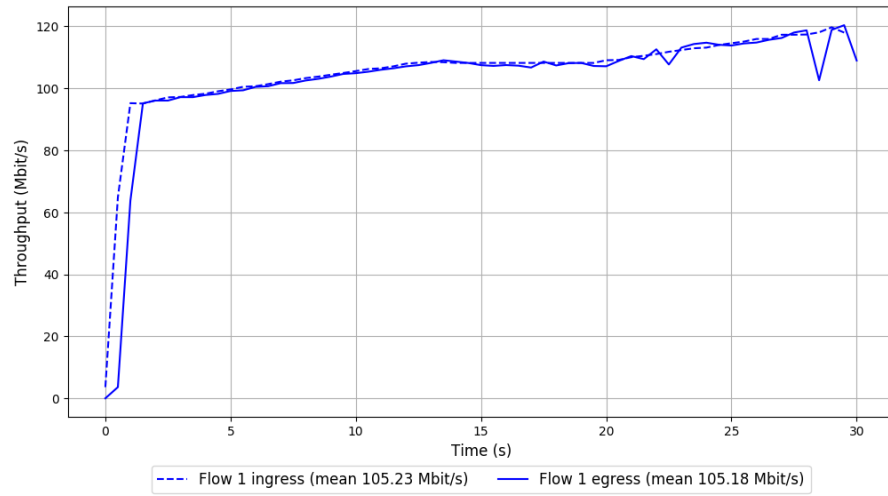
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-08-03 18:46:12
End at: 2018-08-03 18:46:42
Local clock offset: -0.354 ms
Remote clock offset: 0.06 ms


# Below is generated by plot.py at 2018-08-04 00:15:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 77.461 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 202.47 Mbit/s
95th percentile per-packet one-way delay: 77.461 ms
Loss rate: 0.04%
```
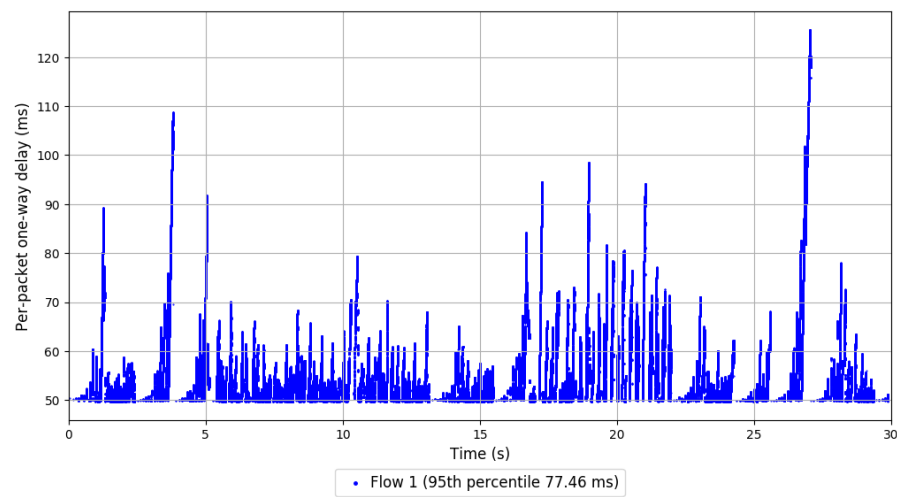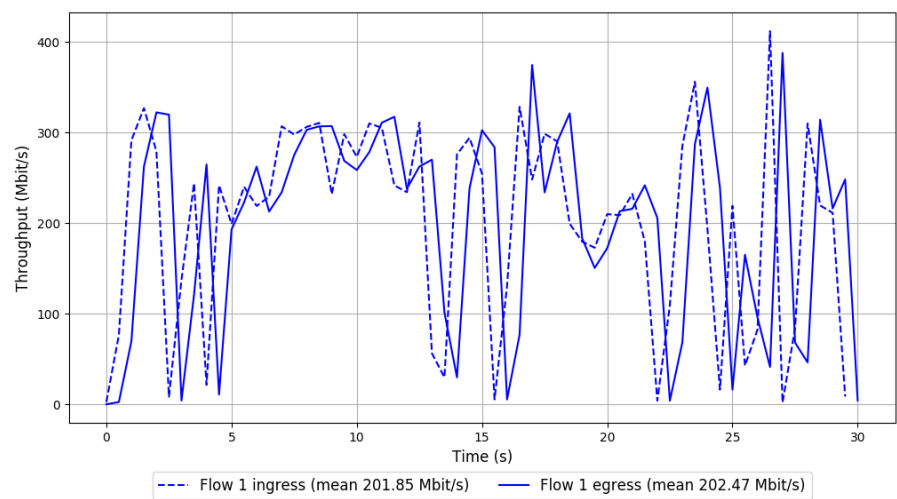
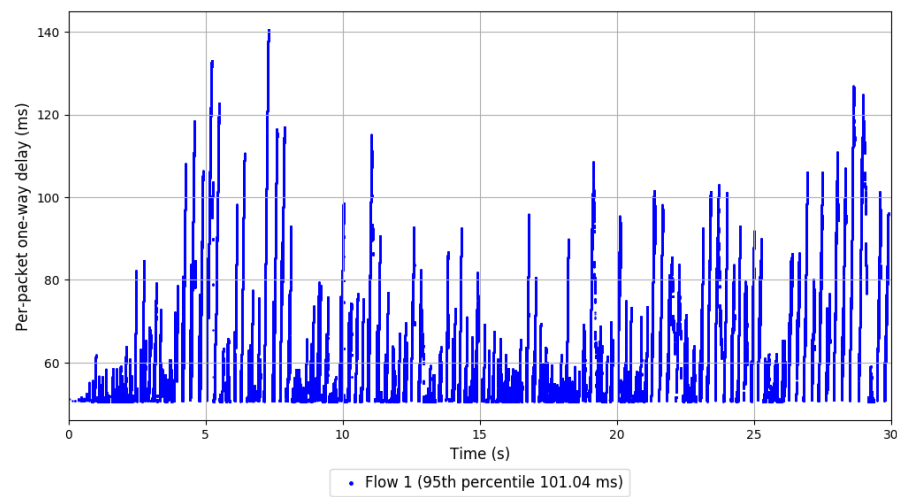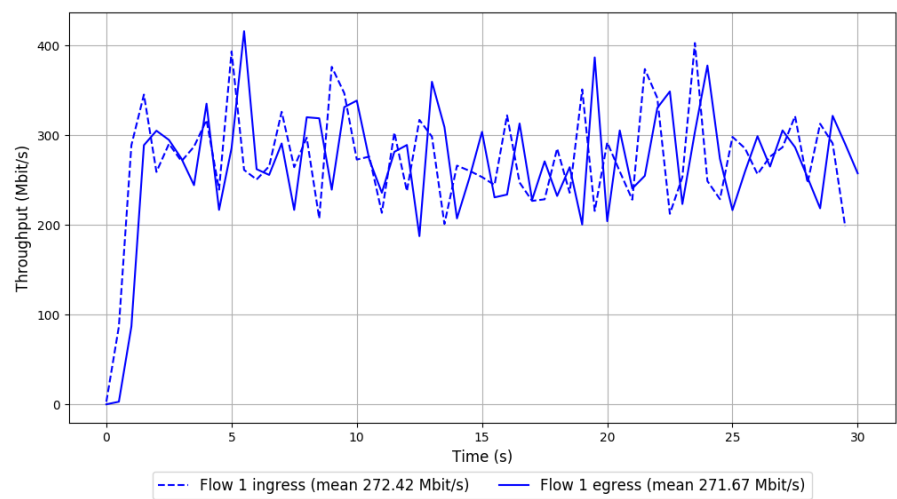Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-08-03 19:08:09
End at: 2018-08-03 19:08:39
Local clock offset: 0.422 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2018-08-04 00:17:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 271.67 Mbit/s
95th percentile per-packet one-way delay: 101.043 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 271.67 Mbit/s
95th percentile per-packet one-way delay: 101.043 ms
Loss rate: 0.18%
```

Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 272.42 Mbit/s)　　Flow 1 egress (mean 271.67 Mbit/s)

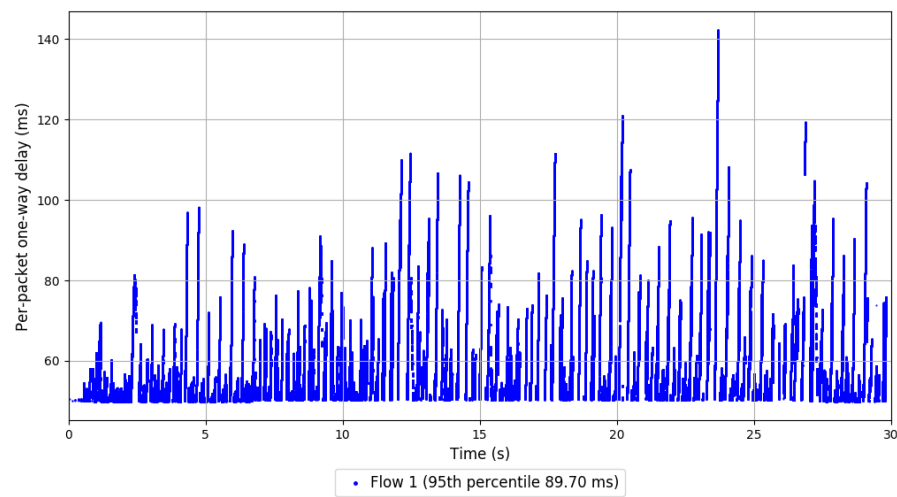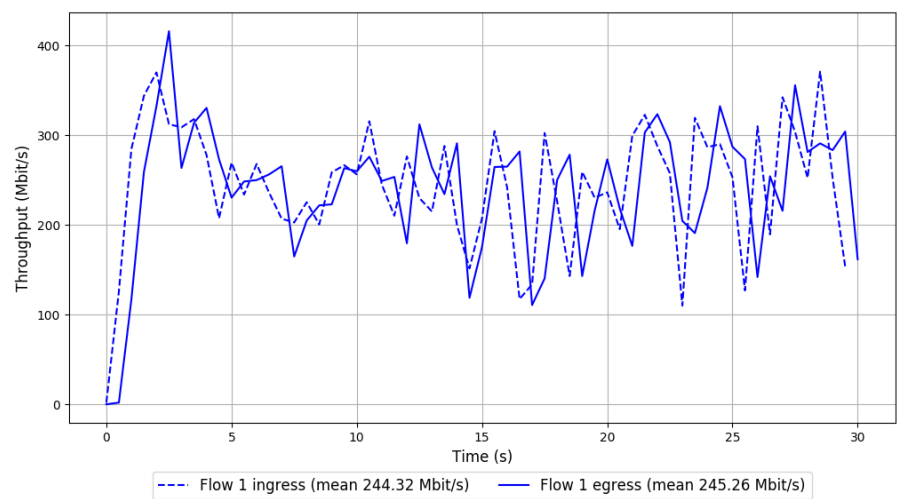Flow 1 (95th percentile 101.04 ms)

```
Run 3: Statistics of Verus

Start at: 2018-08-03 19:30:14
End at: 2018-08-03 19:30:44
Local clock offset: 0.444 ms
Remote clock offset: -0.077 ms


# Below is generated by plot.py at 2018-08-04 00:17:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.26 Mbit/s
95th percentile per-packet one-way delay: 89.699 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 245.26 Mbit/s
95th percentile per-packet one-way delay: 89.699 ms
Loss rate: 0.19%
```

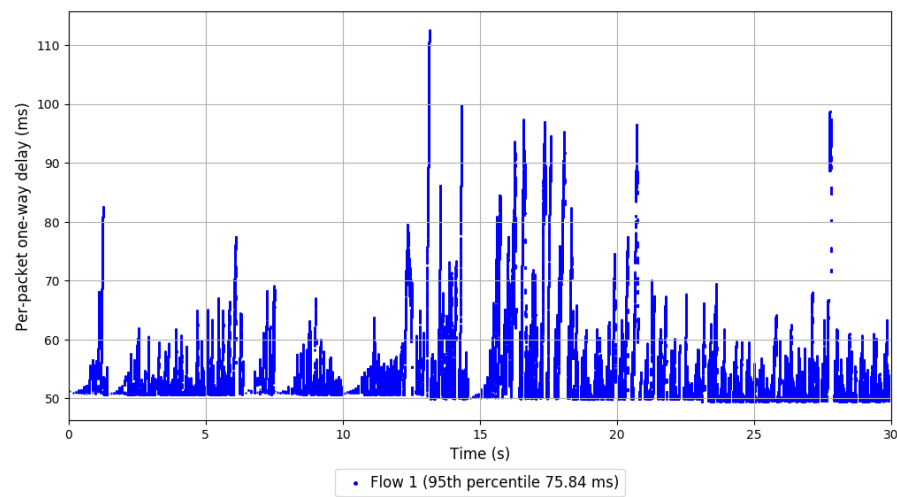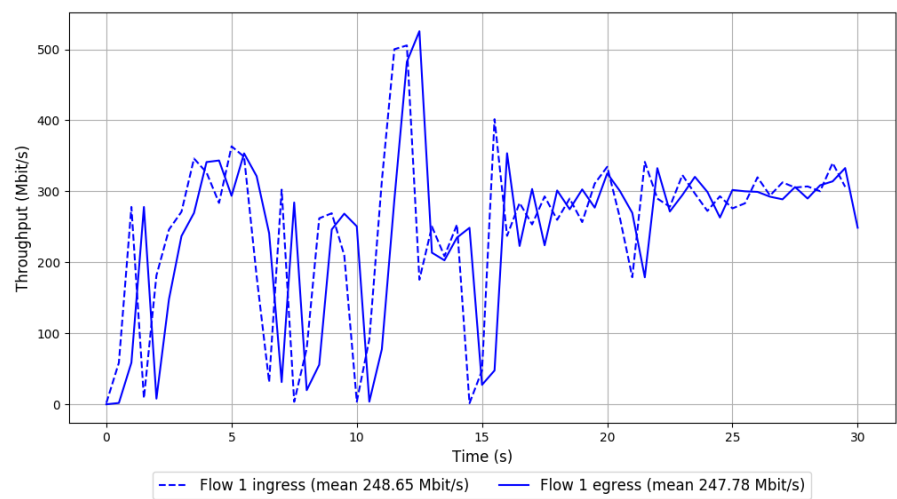Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-08-03 19:52:08
End at: 2018-08-03 19:52:38
Local clock offset: 0.132 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-08-04 00:17:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 247.78 Mbit/s
95th percentile per-packet one-way delay: 75.839 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 247.78 Mbit/s
95th percentile per-packet one-way delay: 75.839 ms
Loss rate: 0.70%
```

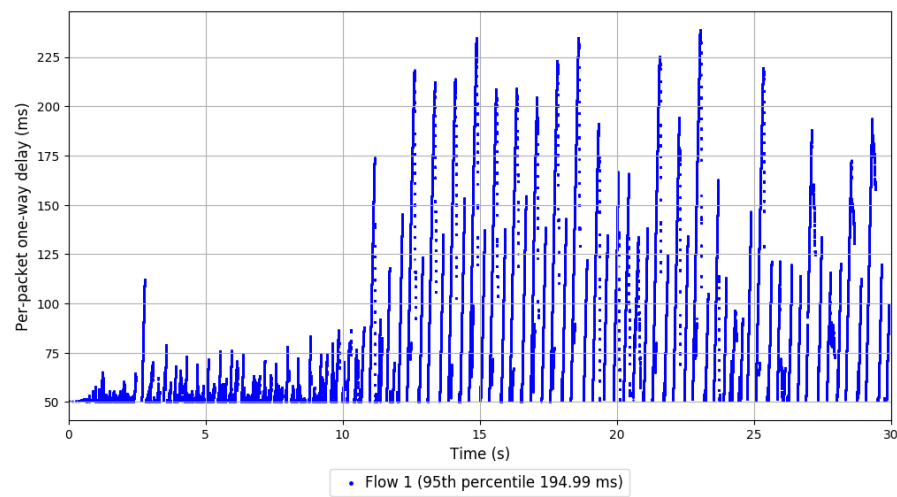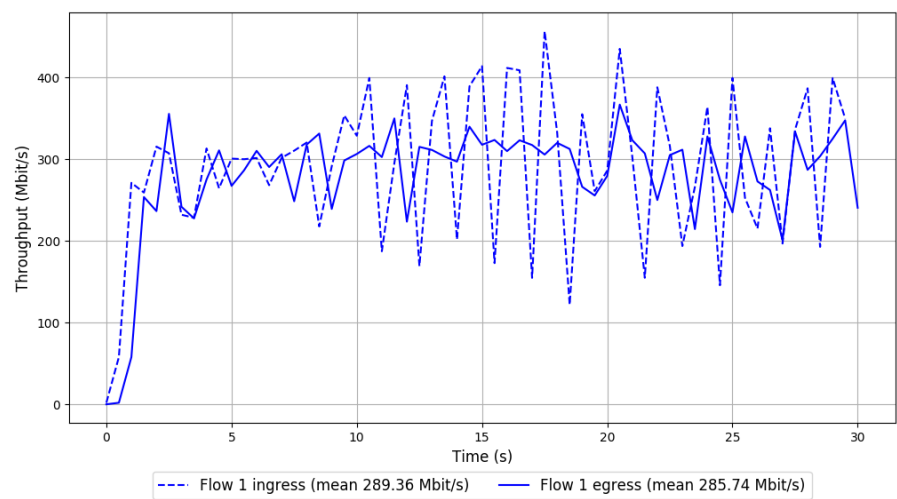Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-08-03 20:13:53
End at: 2018-08-03 20:14:23
Local clock offset: 0.489 ms
Remote clock offset: -0.076 ms


# Below is generated by plot.py at 2018-08-04 00:19:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.74 Mbit/s
95th percentile per-packet one-way delay: 194.990 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 285.74 Mbit/s
95th percentile per-packet one-way delay: 194.990 ms
Loss rate: 1.53%
```
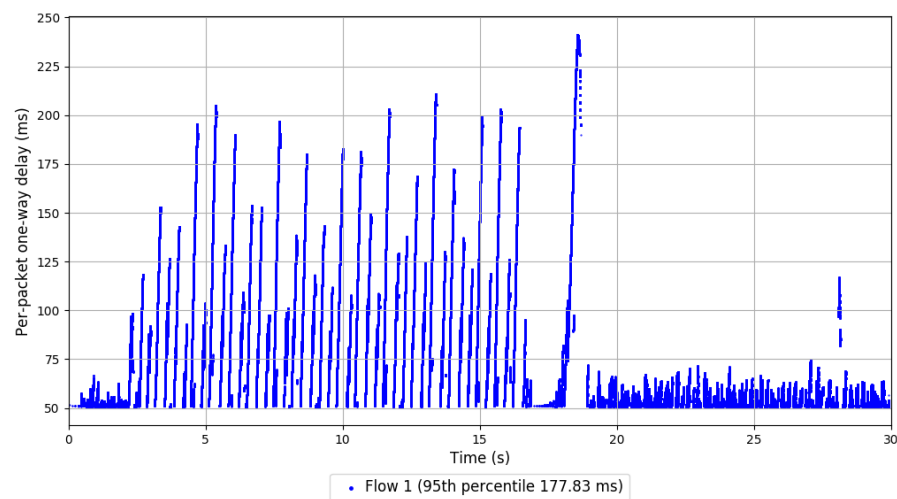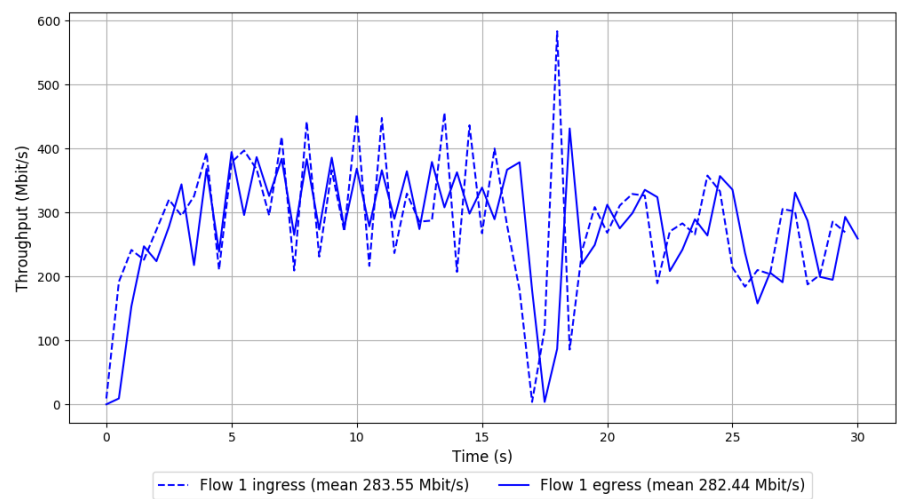
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-08-03 20:35:58
End at: 2018-08-03 20:36:28
Local clock offset: 0.178 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2018-08-04 00:19:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 282.44 Mbit/s
95th percentile per-packet one-way delay: 177.834 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 282.44 Mbit/s
95th percentile per-packet one-way delay: 177.834 ms
Loss rate: 0.58%
```
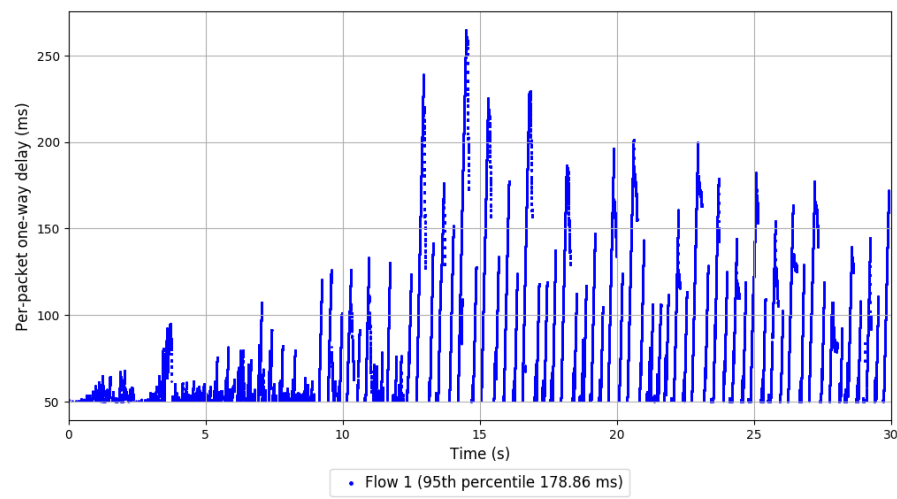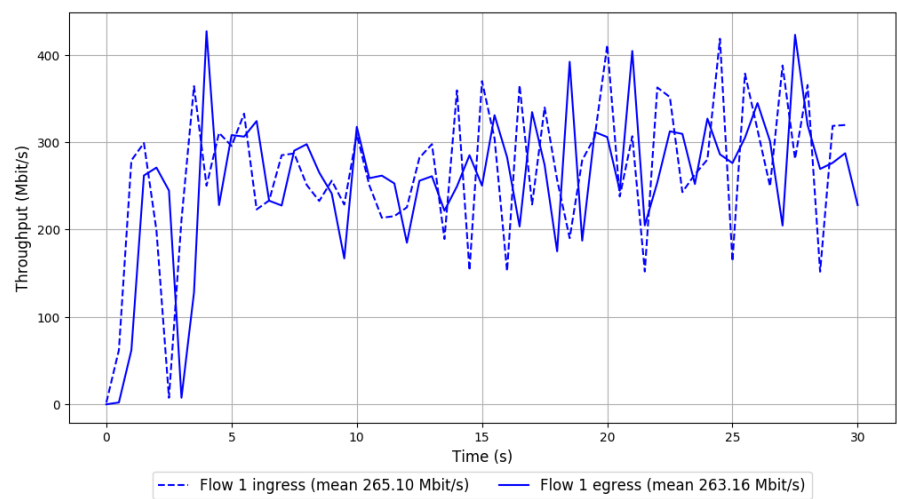
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-08-03 20:57:58
End at: 2018-08-03 20:58:28
Local clock offset: 0.113 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-08-04 00:19:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 263.16 Mbit/s
95th percentile per-packet one-way delay: 178.863 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 263.16 Mbit/s
95th percentile per-packet one-way delay: 178.863 ms
Loss rate: 0.85%
```
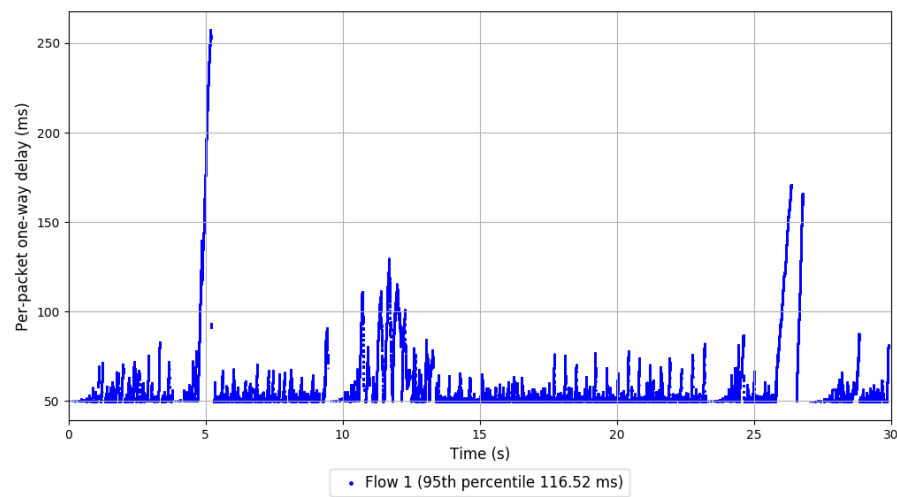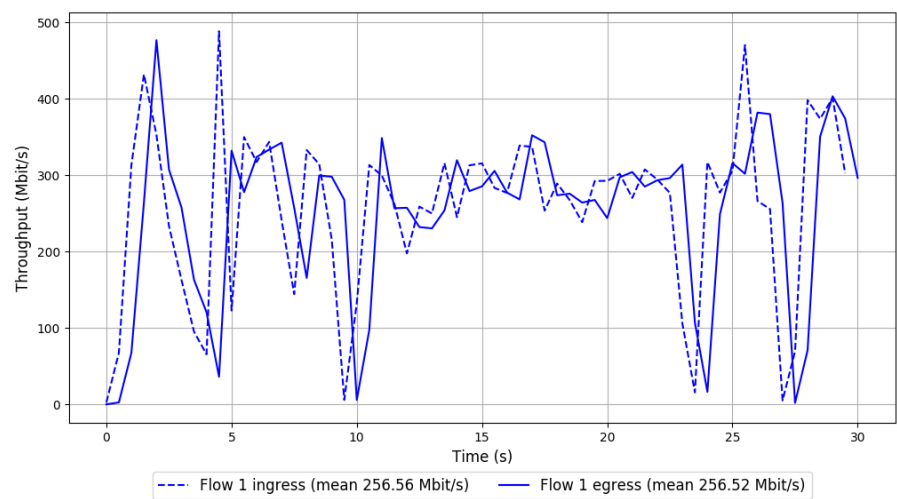
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-08-03 21:19:59
End at: 2018-08-03 21:20:29
Local clock offset: 0.132 ms
Remote clock offset: -0.051 ms


# Below is generated by plot.py at 2018-08-04 00:20:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.52 Mbit/s
95th percentile per-packet one-way delay: 116.524 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 256.52 Mbit/s
95th percentile per-packet one-way delay: 116.524 ms
Loss rate: 0.36%
```

Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-08-03 21:42:10
End at: 2018-08-03 21:42:40
Local clock offset: 0.448 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-08-04 00:20:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.21 Mbit/s
95th percentile per-packet one-way delay: 71.672 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 218.21 Mbit/s
95th percentile per-packet one-way delay: 71.672 ms
Loss rate: 0.22%
```
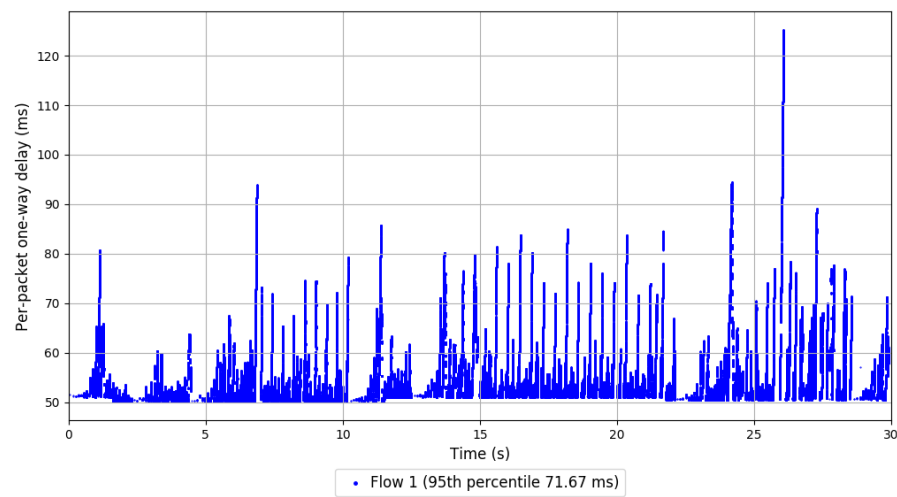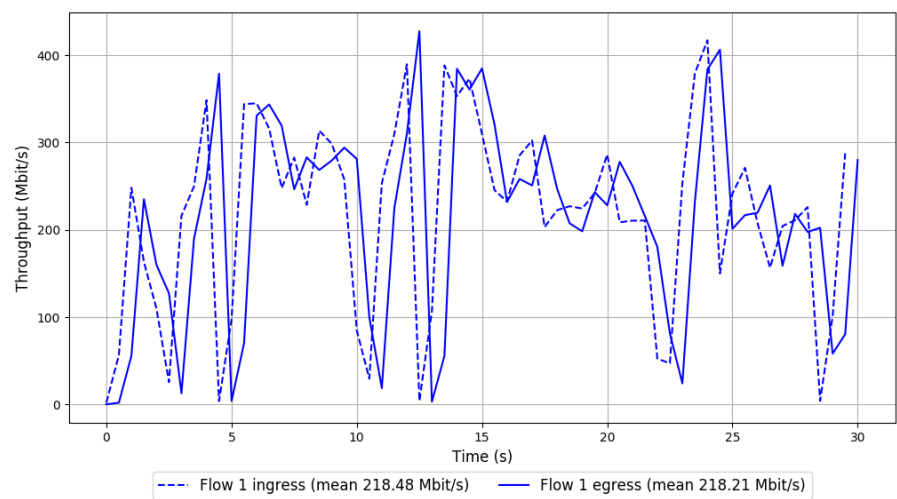
Run 9: Report of Verus — Data Link

Flow 1 ingress (mean 218.48 Mbit/s)   Flow 1 egress (mean 218.21 Mbit/s)
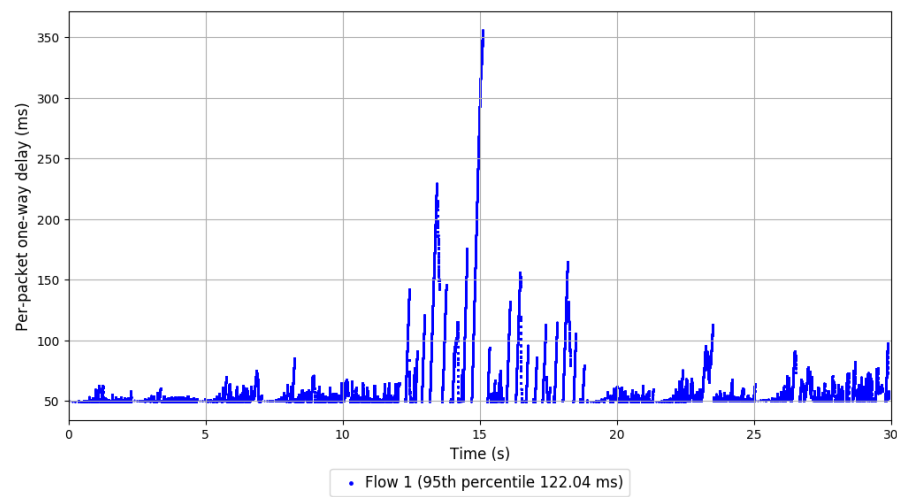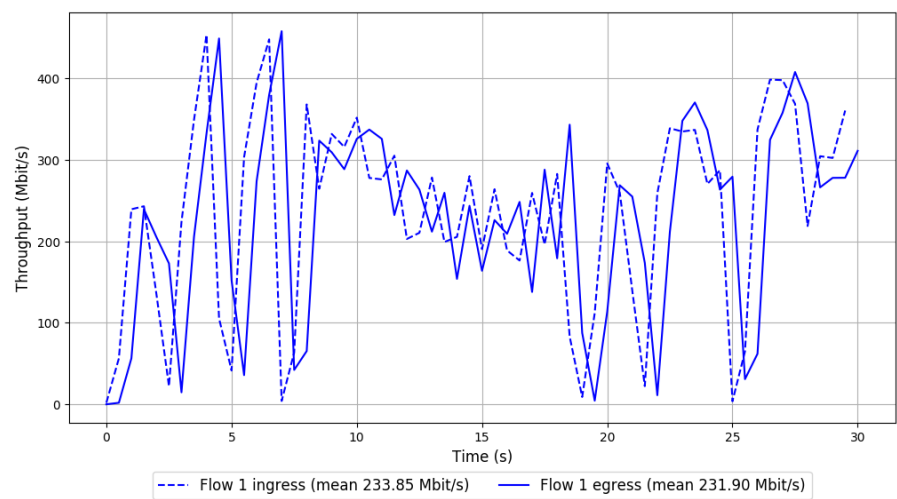

Flow 1 (95th percentile 71.67 ms)

```
Run 10: Statistics of Verus

Start at: 2018-08-03 22:04:09
End at: 2018-08-03 22:04:39
Local clock offset: -0.314 ms
Remote clock offset: -0.135 ms


# Below is generated by plot.py at 2018-08-04 00:21:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.90 Mbit/s
95th percentile per-packet one-way delay: 122.038 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 231.90 Mbit/s
95th percentile per-packet one-way delay: 122.038 ms
Loss rate: 1.17%
```
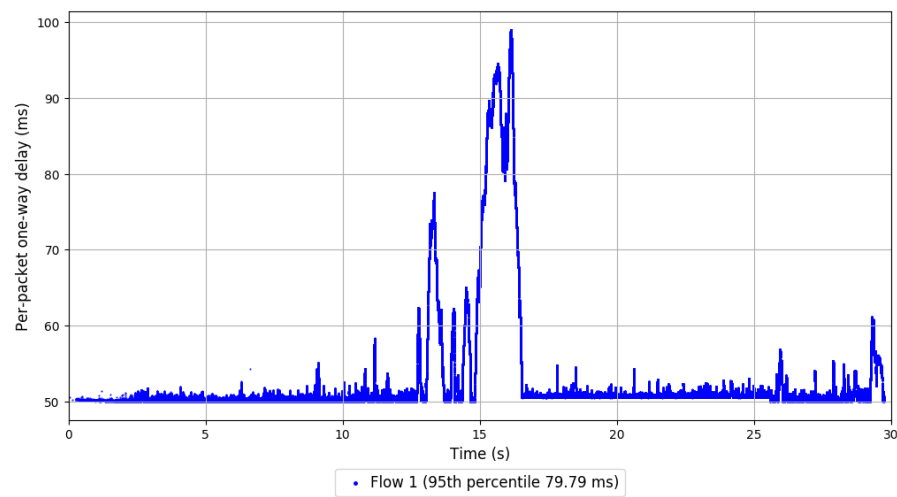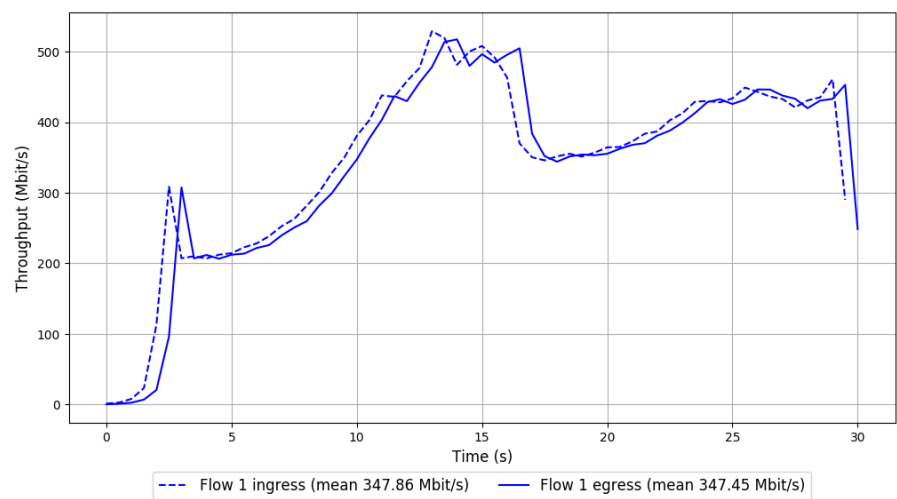
Run 10: Report of Verus — Data Link

```
Run 1: Statistics of PCC-Vivace

Start at: 2018-08-03 18:40:55
End at: 2018-08-03 18:41:25
Local clock offset: 0.021 ms
Remote clock offset: 0.096 ms


# Below is generated by plot.py at 2018-08-04 00:25:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.45 Mbit/s
95th percentile per-packet one-way delay: 79.792 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 347.45 Mbit/s
95th percentile per-packet one-way delay: 79.792 ms
Loss rate: 0.46%
```

Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 347.86 Mbit/s) --- Flow 1 egress (mean 347.45 Mbit/s)
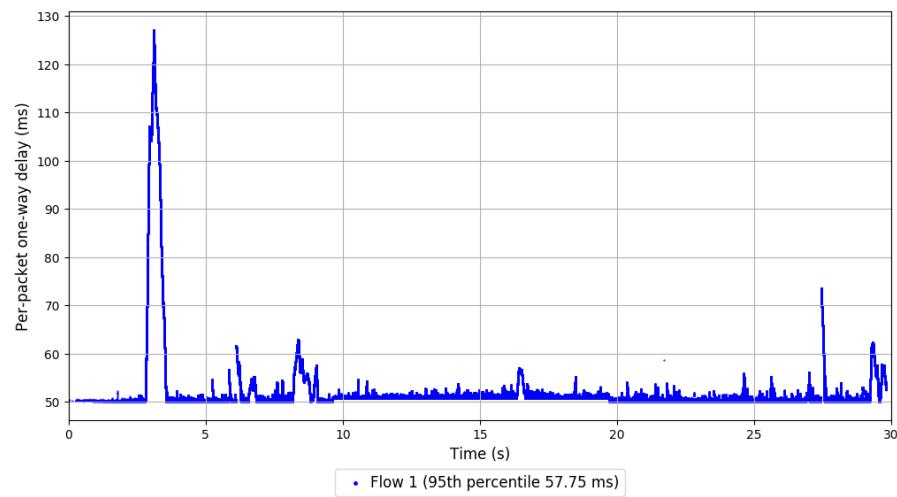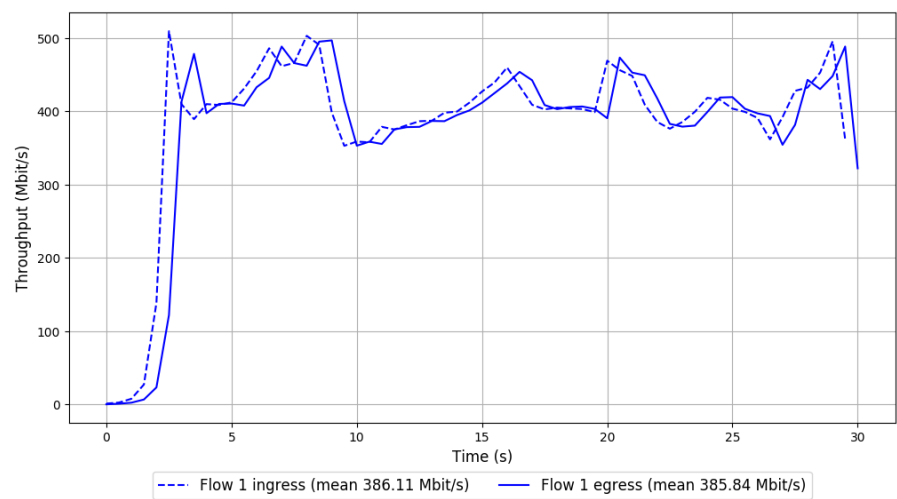

Flow 1 (95th percentile 79.79 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-08-03 19:02:41
End at: 2018-08-03 19:03:11
Local clock offset: 0.101 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2018-08-04 00:25:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 385.84 Mbit/s
95th percentile per-packet one-way delay: 57.751 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 385.84 Mbit/s
95th percentile per-packet one-way delay: 57.751 ms
Loss rate: 0.41%
```

Run 2: Report of PCC-Vivace — Data Link

- - - - Flow 1 ingress (mean 386.11 Mbit/s) ——— Flow 1 egress (mean 385.84 Mbit/s)

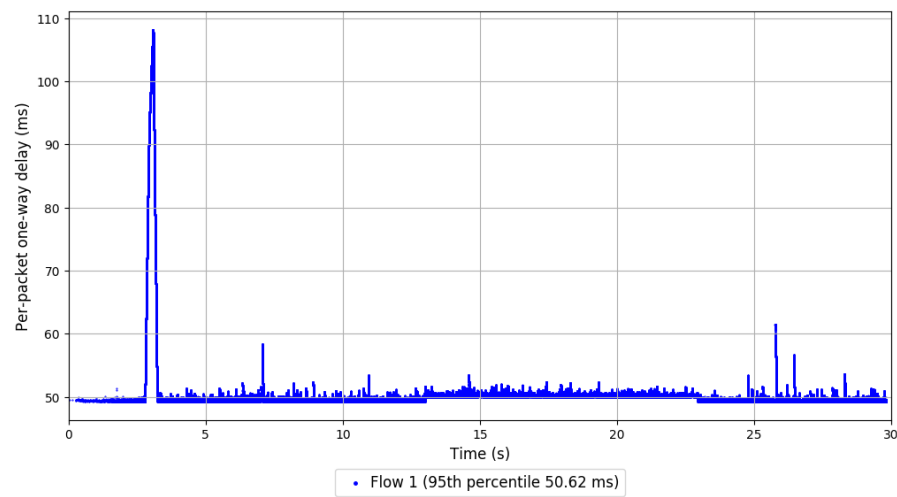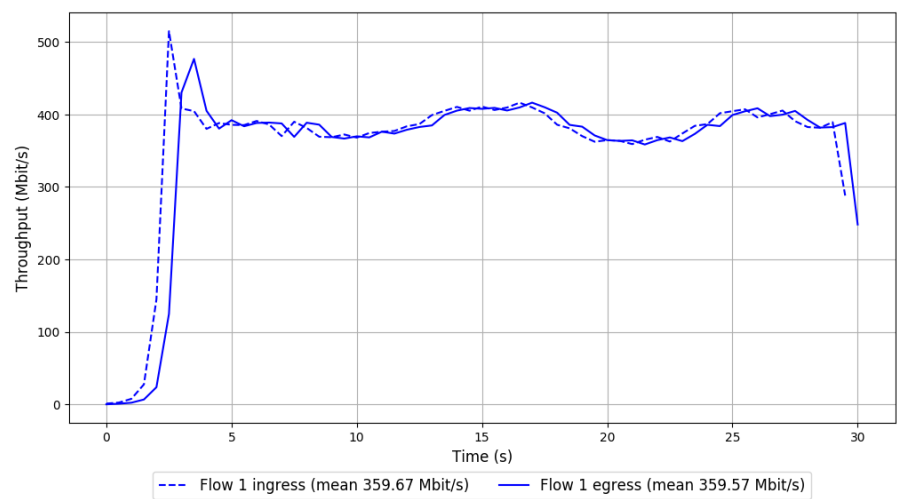• Flow 1 (95th percentile 57.75 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-08-03 19:24:38
End at: 2018-08-03 19:25:08
Local clock offset: -0.303 ms
Remote clock offset: -0.135 ms


# Below is generated by plot.py at 2018-08-04 00:26:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 359.57 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 359.57 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.36%
```

Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 359.67 Mbit/s) Flow 1 egress (mean 359.57 Mbit/s)
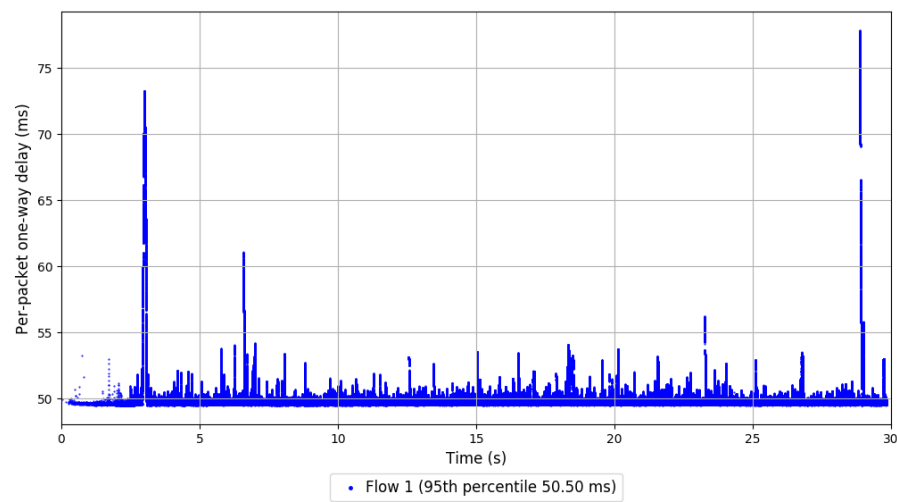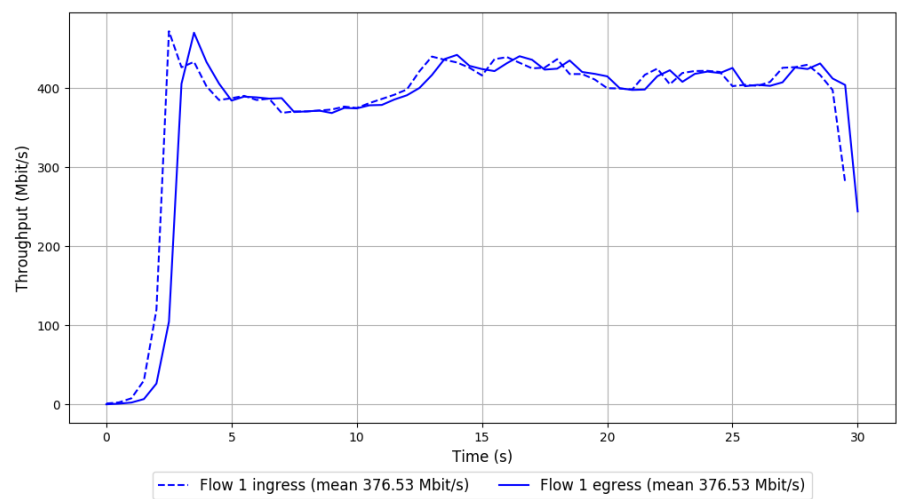

Flow 1 (95th percentile 50.62 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-08-03 19:46:41
End at: 2018-08-03 19:47:11
Local clock offset: 0.125 ms
Remote clock offset: -0.131 ms


# Below is generated by plot.py at 2018-08-04 00:27:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 376.53 Mbit/s
95th percentile per-packet one-way delay: 50.503 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 376.53 Mbit/s
95th percentile per-packet one-way delay: 50.503 ms
Loss rate: 0.34%
```
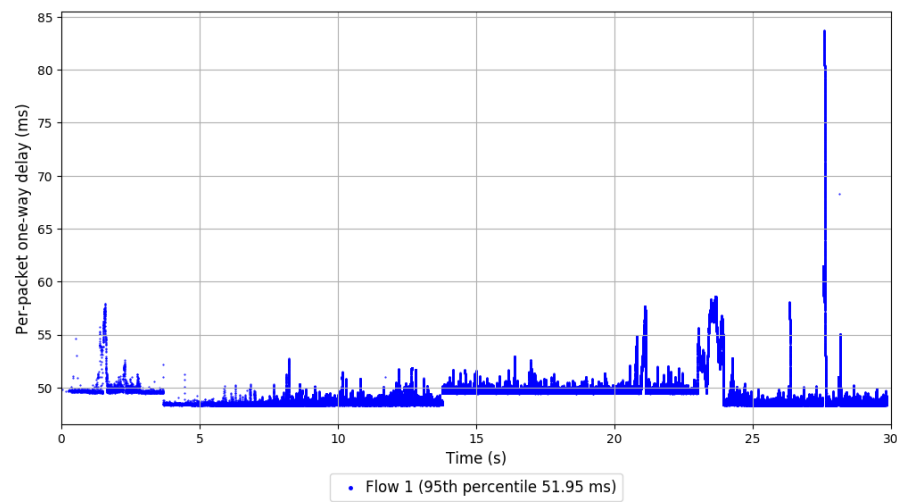
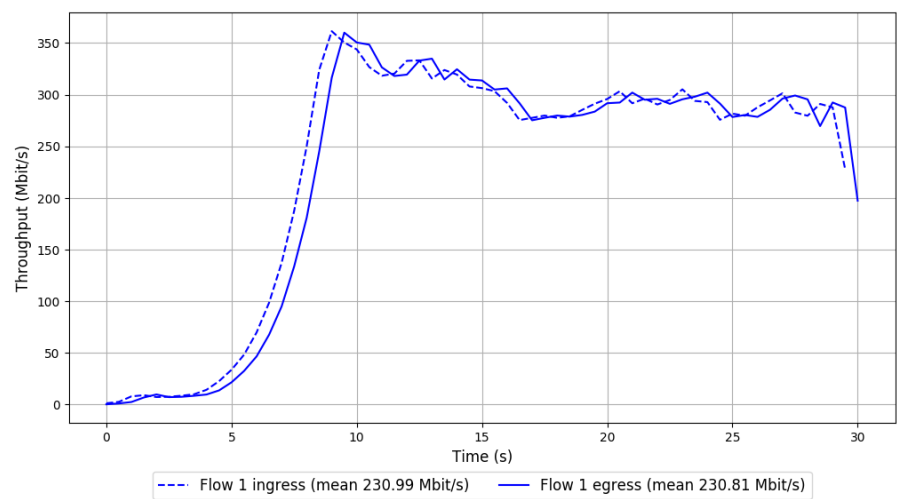Run 4: Report of PCC-Vivace — Data Link

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-08-03 20:08:27
End at: 2018-08-03 20:08:57
Local clock offset: -0.192 ms
Remote clock offset: -0.097 ms


# Below is generated by plot.py at 2018-08-04 00:27:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 51.953 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 51.953 ms
Loss rate: 0.42%
```

Run 5: Report of PCC-Vivace — Data Link

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-08-03 20:30:26
End at: 2018-08-03 20:30:56
Local clock offset: 0.155 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-08-04 00:27:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 283.17 Mbit/s
95th percentile per-packet one-way delay: 52.150 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 283.17 Mbit/s
95th percentile per-packet one-way delay: 52.150 ms
Loss rate: 0.44%
```
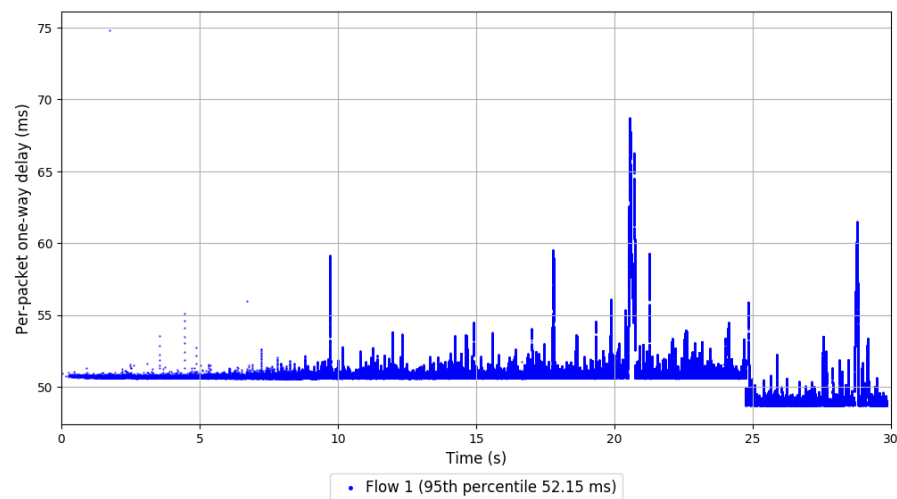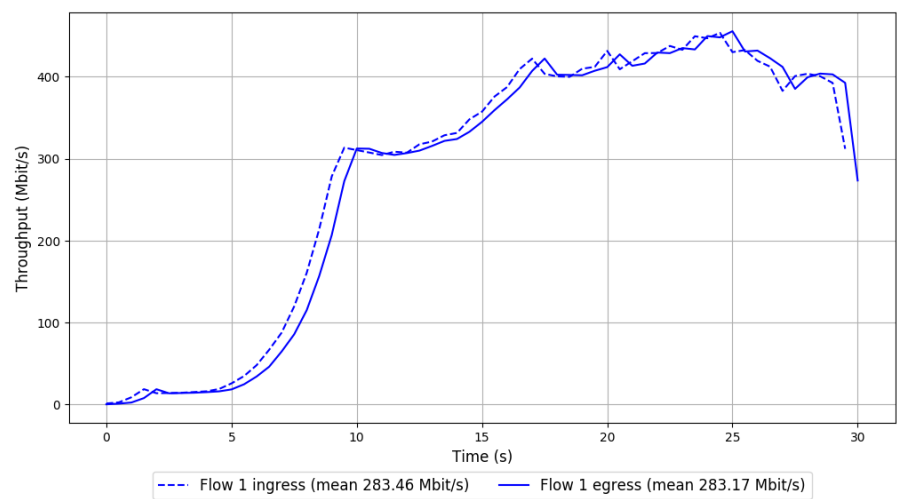
Run 6: Report of PCC-Vivace — Data Link

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-08-03 20:52:29
End at: 2018-08-03 20:52:59
Local clock offset: 0.127 ms
Remote clock offset: -0.06 ms


# Below is generated by plot.py at 2018-08-04 00:27:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 295.08 Mbit/s
95th percentile per-packet one-way delay: 50.922 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 295.08 Mbit/s
95th percentile per-packet one-way delay: 50.922 ms
Loss rate: 0.43%
```
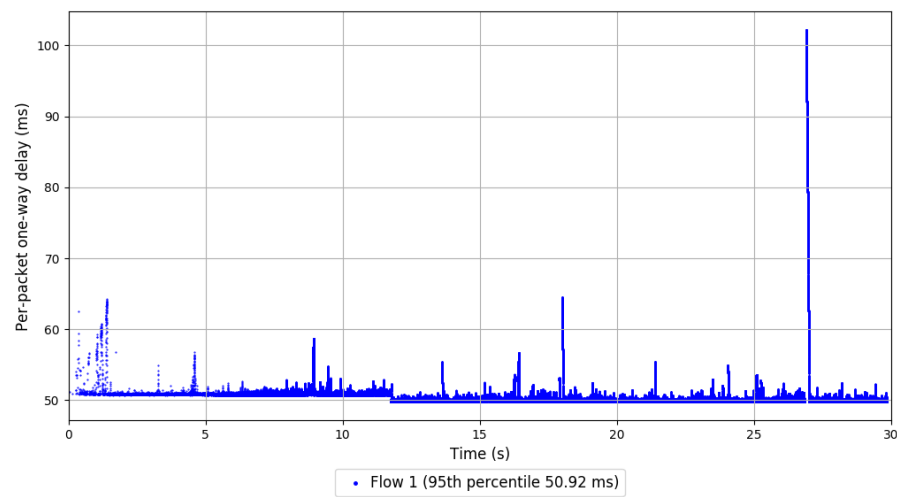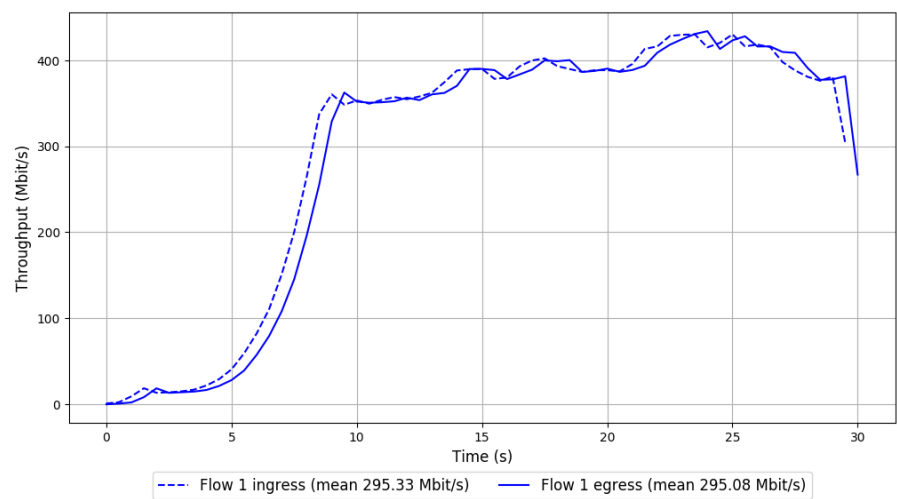
Run 7: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 295.33 Mbit/s)   Flow 1 egress (mean 295.08 Mbit/s)
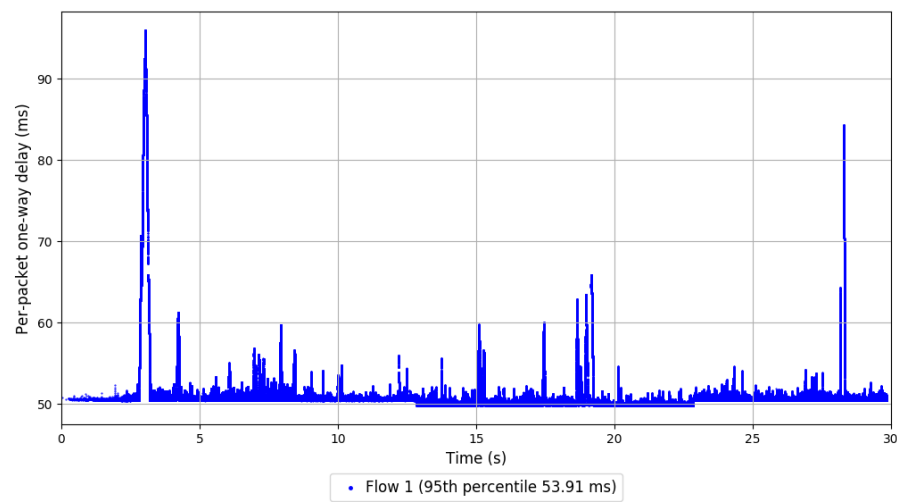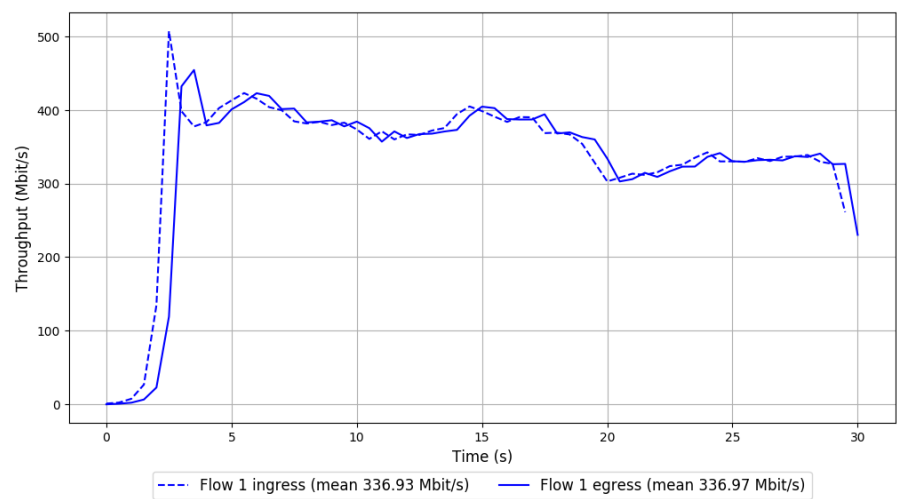

Flow 1 (95th percentile 50.92 ms)

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-08-03 21:14:28
End at: 2018-08-03 21:14:58
Local clock offset: -0.209 ms
Remote clock offset: -0.108 ms

# Below is generated by plot.py at 2018-08-04 00:27:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 336.97 Mbit/s
95th percentile per-packet one-way delay: 53.906 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 336.97 Mbit/s
95th percentile per-packet one-way delay: 53.906 ms
Loss rate: 0.33%
```

Run 8: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 336.93 Mbit/s) — Flow 1 egress (mean 336.97 Mbit/s)
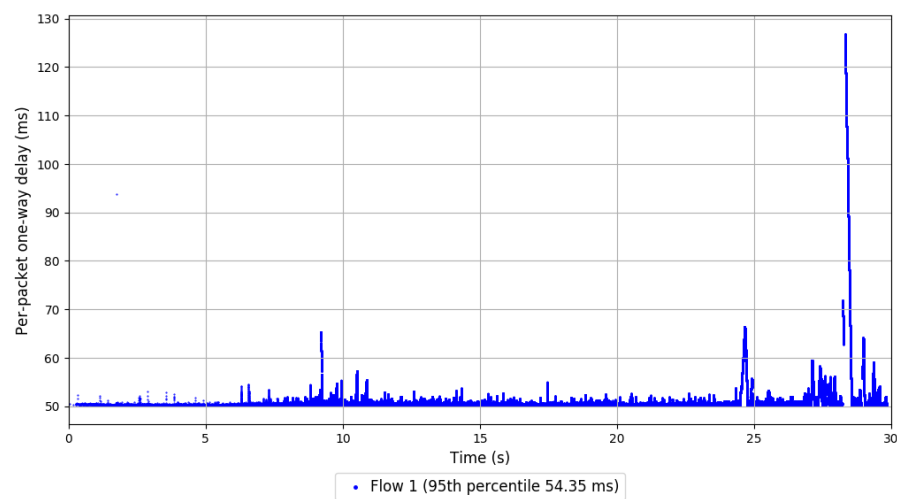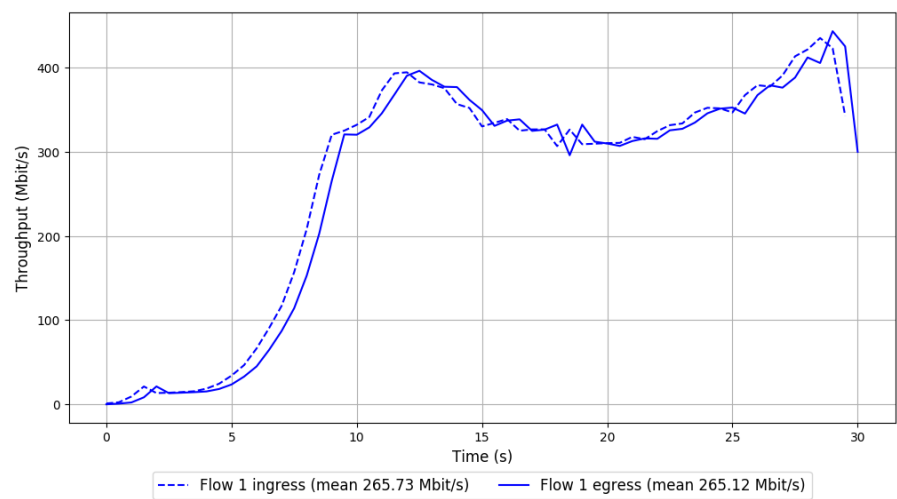

Flow 1 (95th percentile 53.91 ms)

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-08-03 21:36:38
End at: 2018-08-03 21:37:08
Local clock offset: -0.183 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 265.12 Mbit/s
95th percentile per-packet one-way delay: 54.353 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 265.12 Mbit/s
95th percentile per-packet one-way delay: 54.353 ms
Loss rate: 0.57%
```

Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 265.73 Mbit/s) --- Flow 1 egress (mean 265.12 Mbit/s)
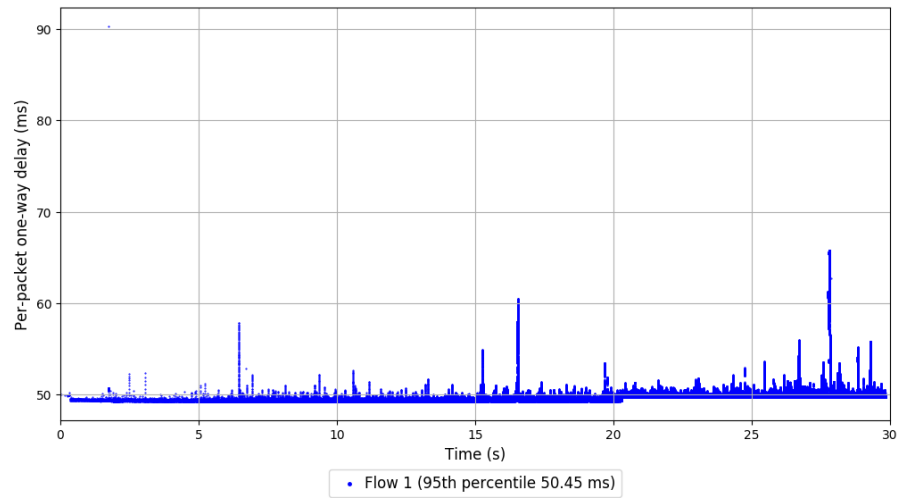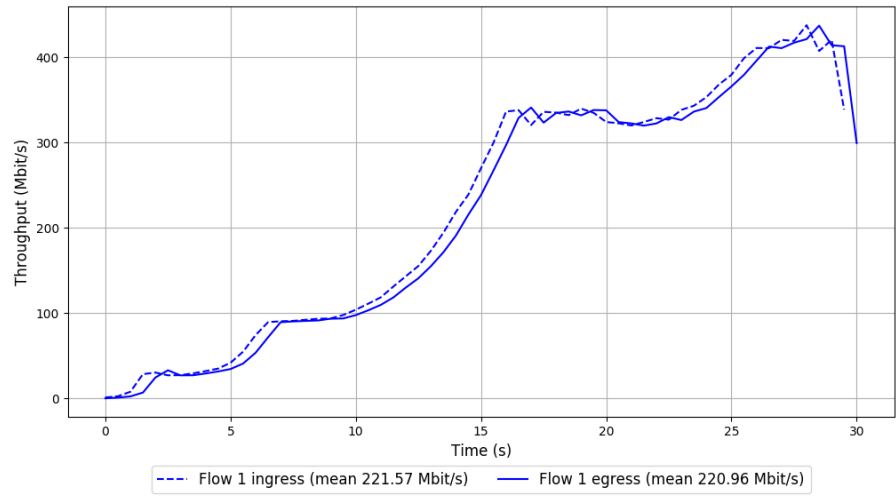

Flow 1 (95th percentile 54.35 ms)

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-08-03 21:58:41
End at: 2018-08-03 21:59:11
Local clock offset: -0.28 ms
Remote clock offset: -0.081 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.96 Mbit/s
95th percentile per-packet one-way delay: 50.453 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 220.96 Mbit/s
95th percentile per-packet one-way delay: 50.453 ms
Loss rate: 0.61%
```

Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 221.57 Mbit/s)   Flow 1 egress (mean 220.96 Mbit/s)

• Flow 1 (95th percentile 50.45 ms)
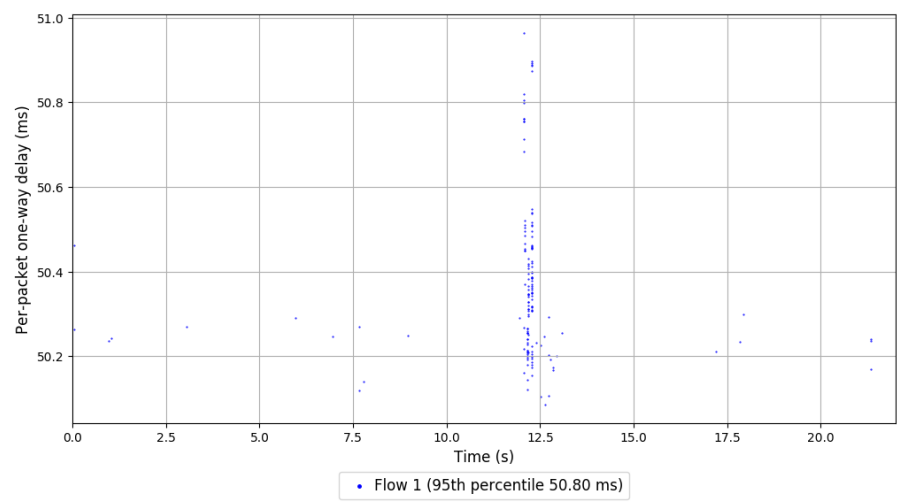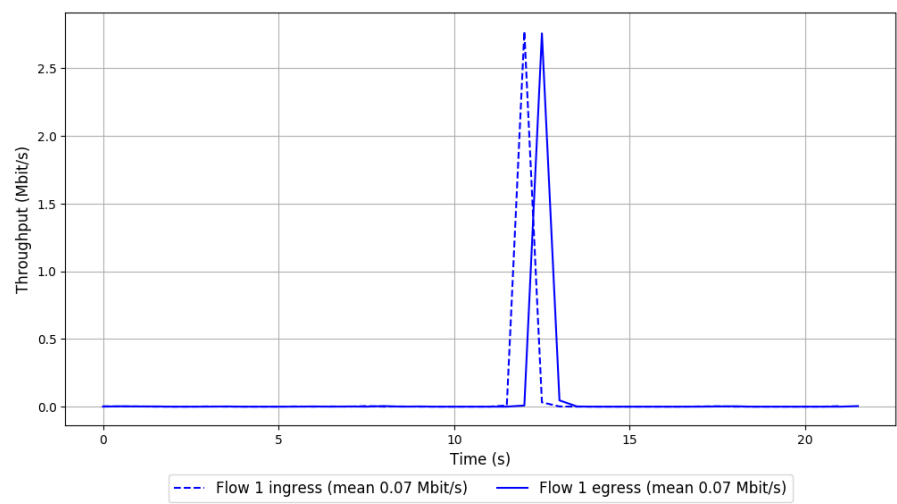
```
Run 1: Statistics of WebRTC media

Start at: 2018-08-03 18:52:23
End at: 2018-08-03 18:52:53
Local clock offset: 0.003 ms
Remote clock offset: 0.069 ms
```

Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.07 Mbit/s) — — —   Flow 1 egress (mean 0.07 Mbit/s) ———

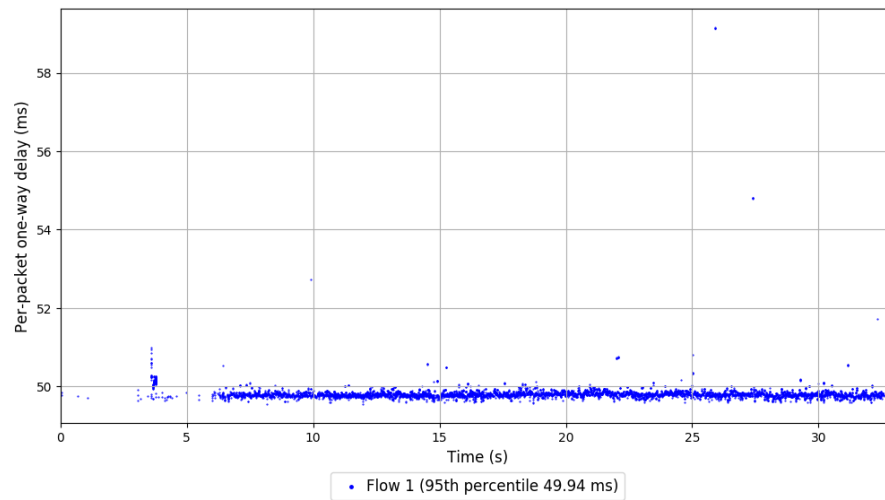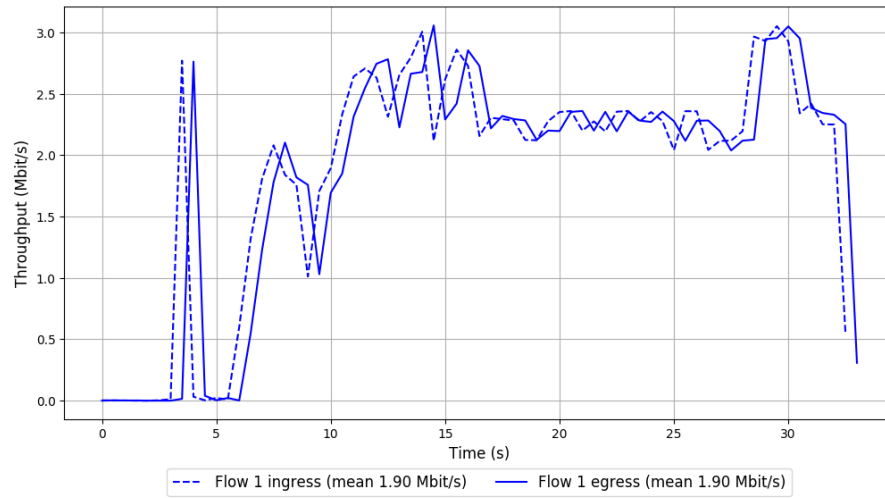• Flow 1 (95th percentile 50.80 ms)

```
Run 2: Statistics of WebRTC media

Start at: 2018-08-03 19:14:23
End at: 2018-08-03 19:14:53
Local clock offset: -0.264 ms
Remote clock offset: -0.202 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 49.941 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 49.941 ms
Loss rate: 0.37%
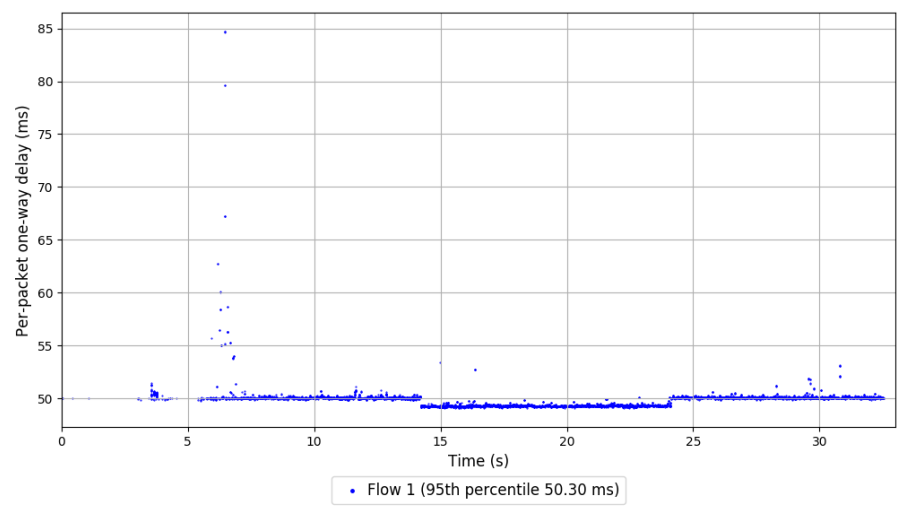```

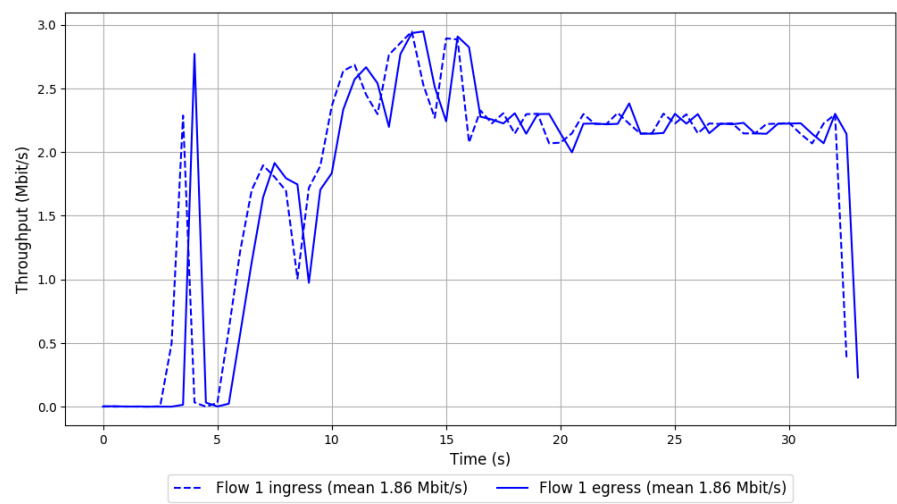Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-08-03 19:36:29
End at: 2018-08-03 19:37:00
Local clock offset: 0.437 ms
Remote clock offset: -0.111 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 50.298 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 50.298 ms
Loss rate: 0.38%
```

Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.86 Mbit/s)   Flow 1 egress (mean 1.86 Mbit/s)

Flow 1 (95th percentile 50.30 ms)

```
Run 4: Statistics of WebRTC media

Start at: 2018-08-03 19:58:23
End at: 2018-08-03 19:58:53
Local clock offset: 0.124 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 50.800 ms
Loss rate: 0.38%
```
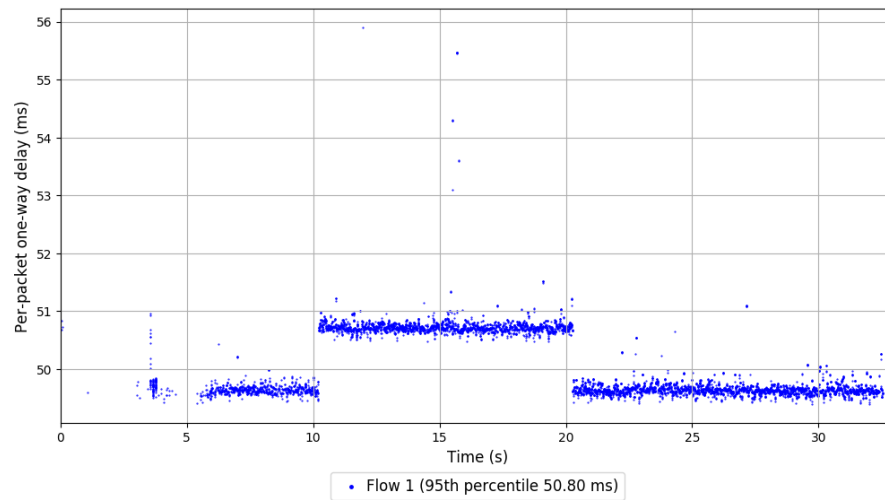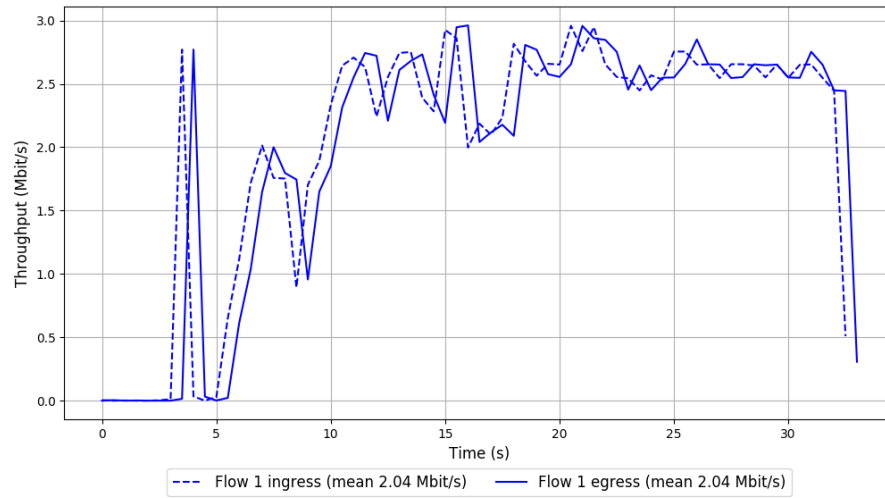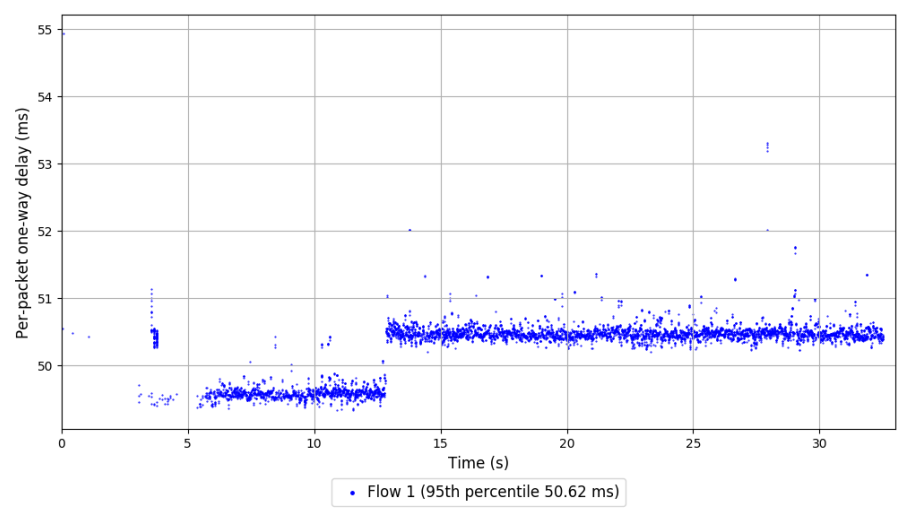
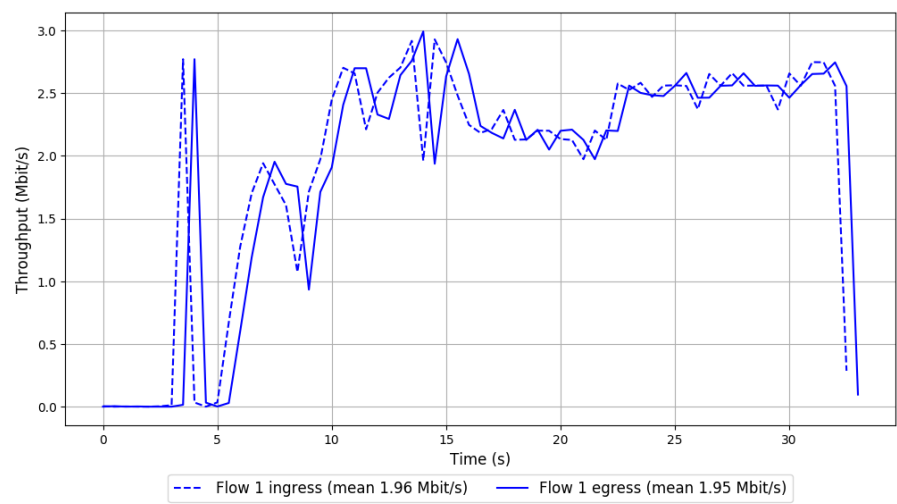# Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-08-03 20:20:11
End at: 2018-08-03 20:20:41
Local clock offset: -0.196 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 50.625 ms
Loss rate: 0.37%
```
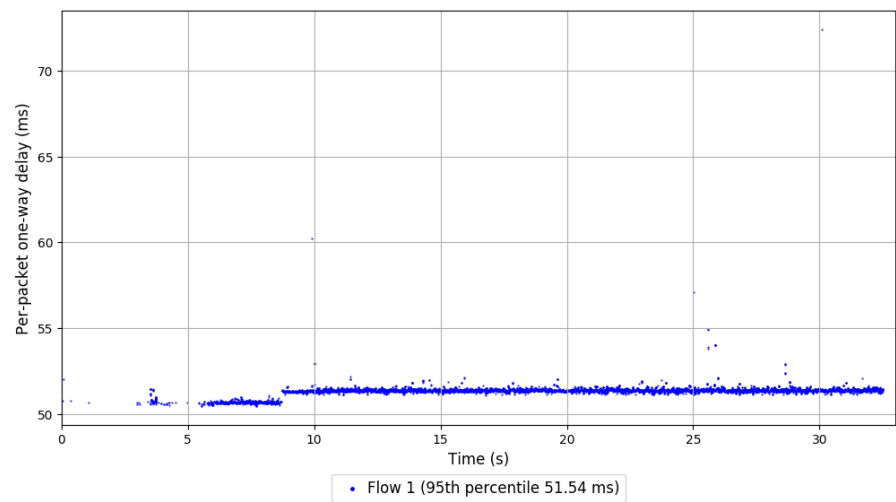
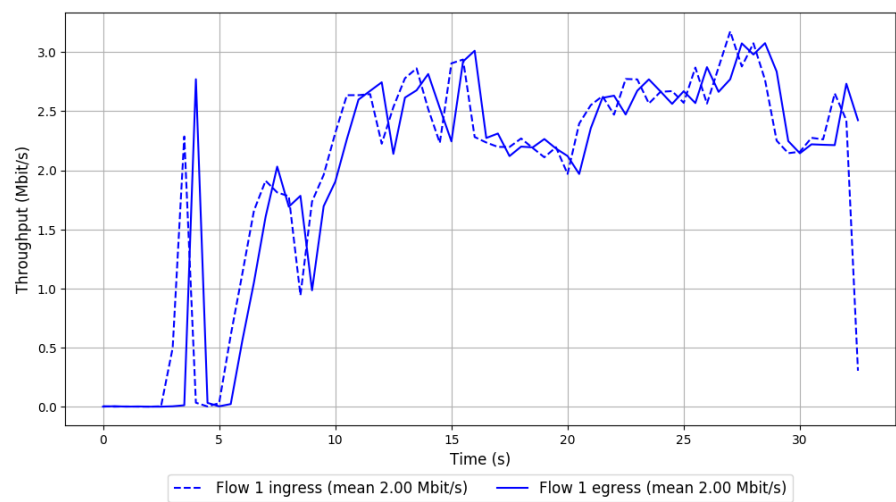# Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-08-03 20:42:15
End at: 2018-08-03 20:42:45
Local clock offset: 0.486 ms
Remote clock offset: -0.079 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 51.544 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 51.544 ms
Loss rate: 0.39%
```

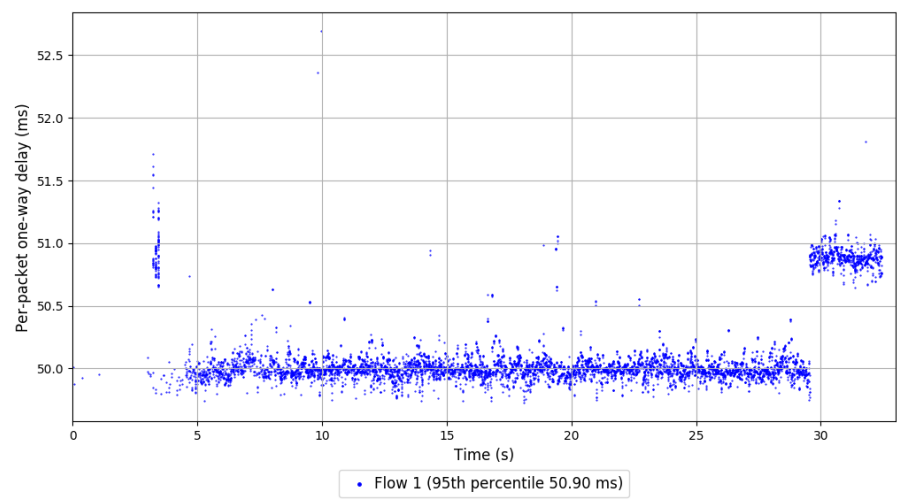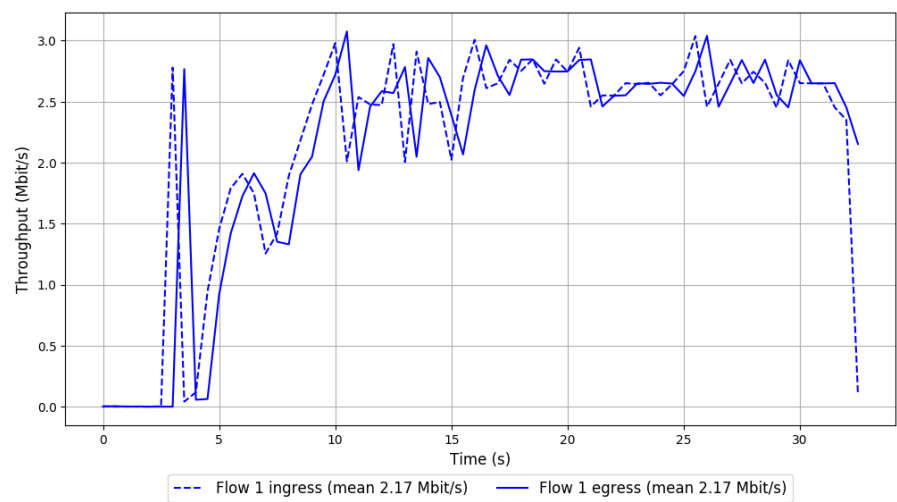# Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-08-03 21:04:14
End at: 2018-08-03 21:04:44
Local clock offset: 0.107 ms
Remote clock offset: -0.032 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 50.898 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 50.898 ms
Loss rate: 0.42%
```

Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-08-03 21:26:16
End at: 2018-08-03 21:26:46
Local clock offset: 0.12 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 50.777 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 50.777 ms
Loss rate: 0.32%
```
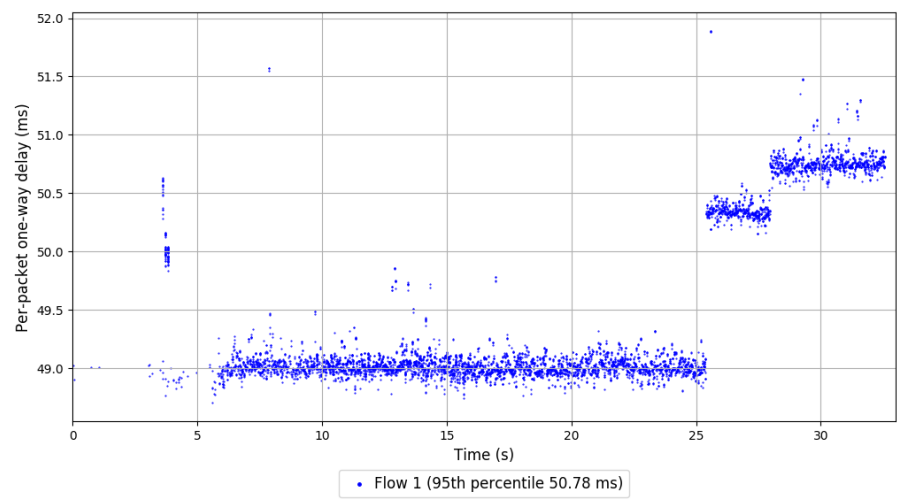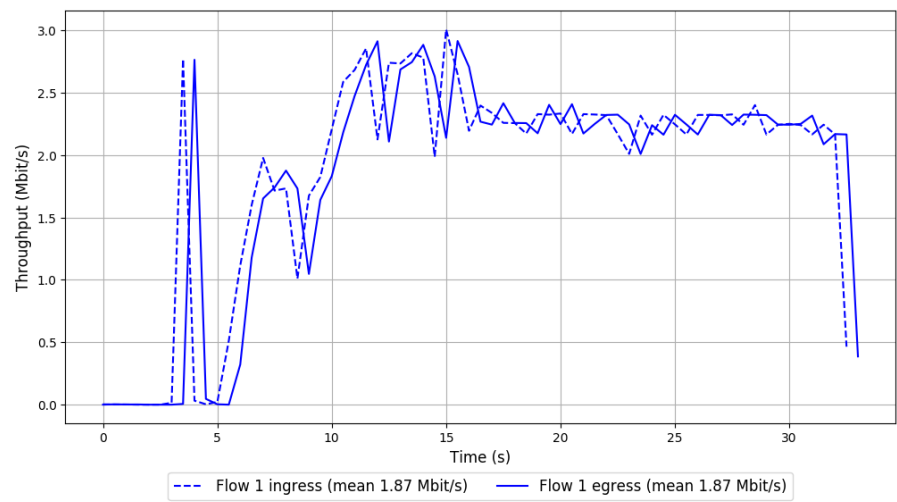
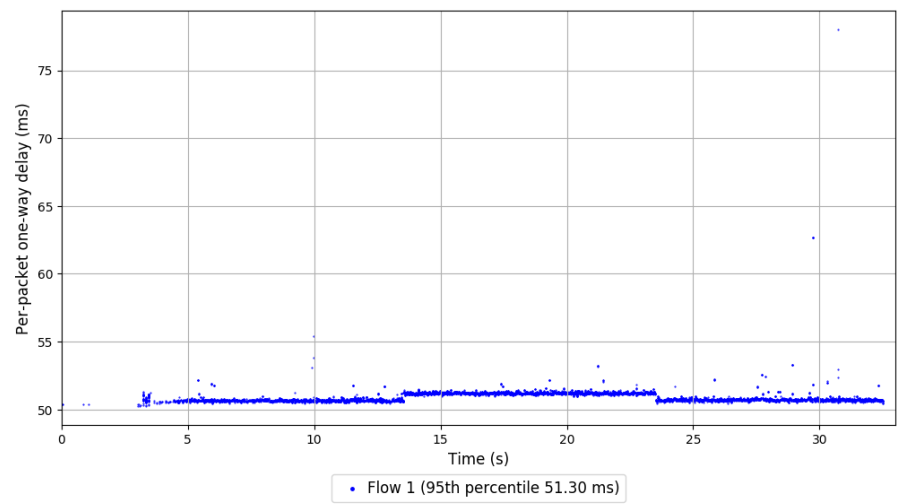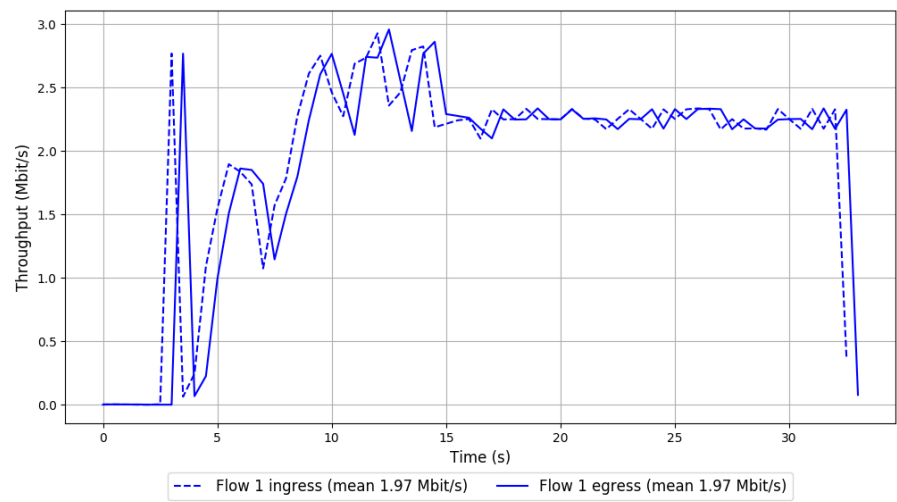## Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-08-03 21:48:20
End at: 2018-08-03 21:48:50
Local clock offset: 0.461 ms
Remote clock offset: -0.068 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 51.302 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 51.302 ms
Loss rate: 0.41%
```

Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-08-03 22:10:23
End at: 2018-08-03 22:10:53
Local clock offset: -0.299 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-08-04 00:27:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 50.685 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 50.685 ms
Loss rate: 0.39%
```

Run 10: Report of WebRTC media — Data Link