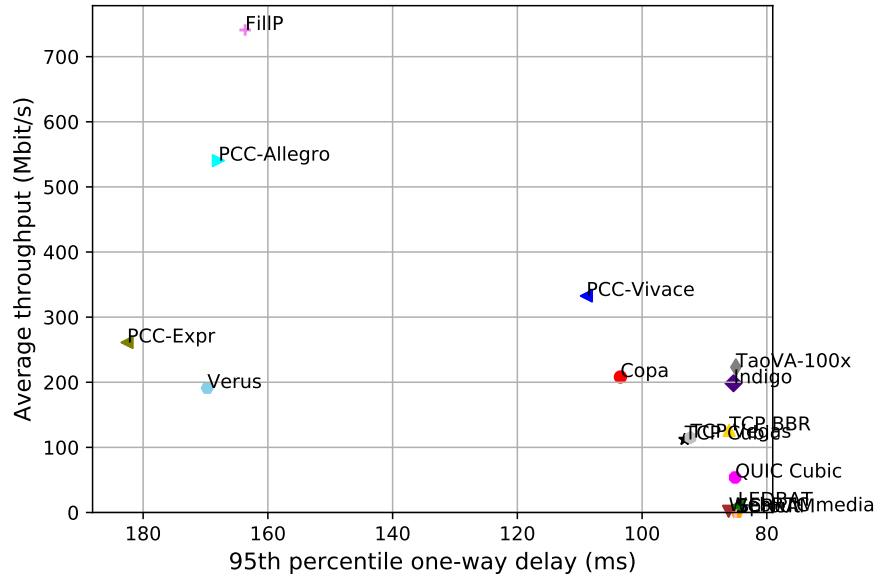# Pantheon Report

Generated at 2018-06-05 08:08:22 (UTC).

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

Repeated the test of 16 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

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

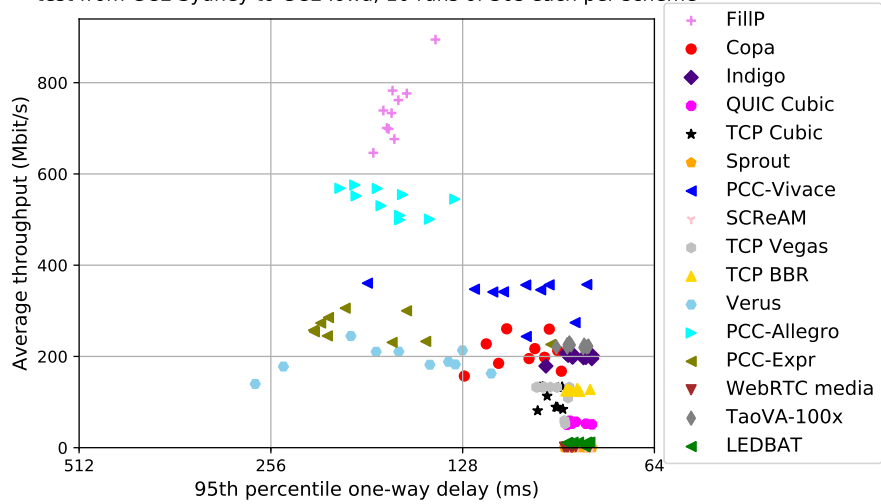NTP offsets were measured against `time.google.com` and have been applied to correct the timestamps in logs.

```
Git summary:
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
 M receiver/src/buffer.h
 M receiver/src/core.cpp
 M sender/src/buffer.h
 M sender/src/core.cpp
third_party/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
 M src/ScreamClient
 M src/ScreamServer
third_party/sprout @ c838669682f0c19f6baf92afc9a596a406d48c1f
 M src/examples/cellsim.cc
 M src/examples/sproutbt2.cc
 M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
 M src/verus.hpp
 M tools/plot.py
third_party/vivace @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webrtc @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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

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

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	126.11	86.05	0.00
Copa	10	208.06	103.48	0.03
TCP Cubic	10	112.15	93.18	0.04
FillP	10	740.95	163.64	5.47
Indigo	10	198.39	85.34	0.01
LEDBAT	10	10.29	84.67	0.00
PCC-Allegro	10	540.33	167.94	1.29
PCC-Expr	10	261.10	182.58	1.03
QUIC Cubic	8	53.78	85.08	0.00
SCReAM	10	0.22	85.01	0.00
Sprout	10	0.27	84.78	0.00
TaoVA-100x	10	223.14	84.97	0.01
TCP Vegas	10	114.96	92.25	0.02
Verus	10	191.15	169.71	1.69
PCC-Vivace	10	332.56	108.94	0.11
WebRTC media	10	1.86	86.13	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-06-05 03:23:42
End at: 2018-06-05 03:24:12
Local clock offset: 46.442 ms
Remote clock offset: -0.086 ms

# Below is generated by plot.py at 2018-06-05 06:50:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.94 Mbit/s
95th percentile per-packet one-way delay: 87.448 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.94 Mbit/s
95th percentile per-packet one-way delay: 87.448 ms
Loss rate: 0.00%
```
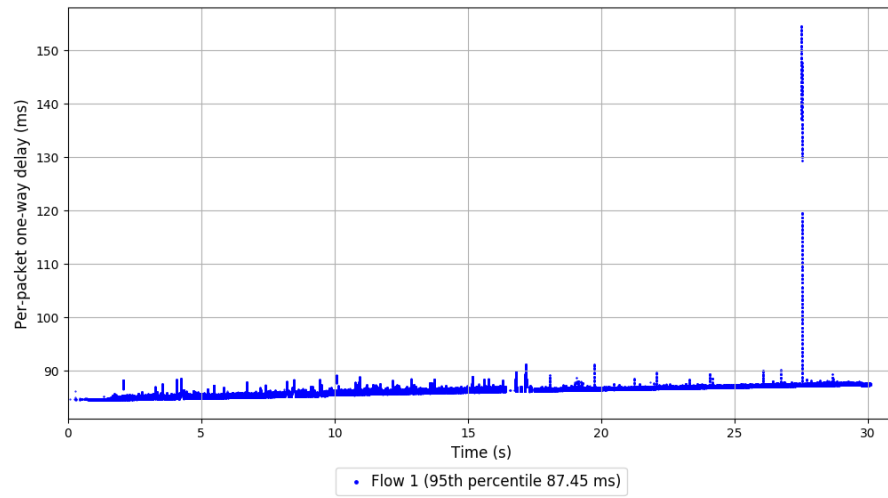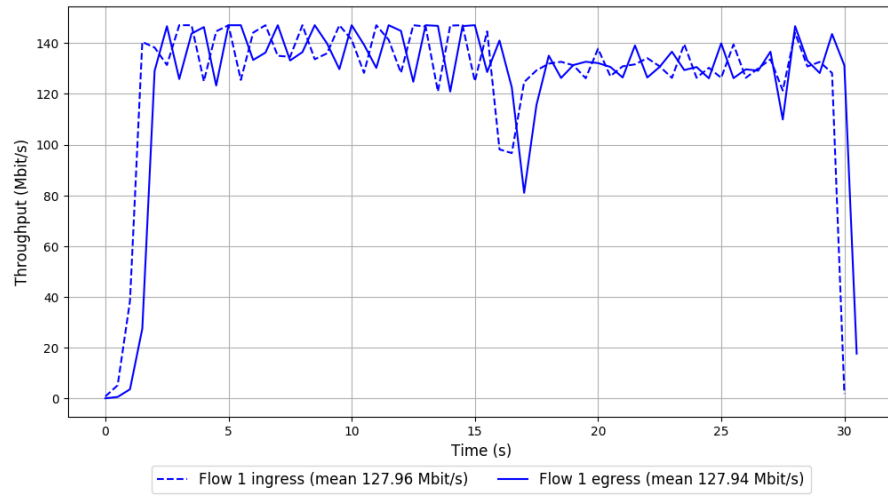
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: 2018-06-05 03:44:17
End at: 2018-06-05 03:44:47
Local clock offset: 29.941 ms
Remote clock offset: 0.176 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 130.00 Mbit/s
95th percentile per-packet one-way delay: 84.579 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 130.00 Mbit/s
95th percentile per-packet one-way delay: 84.579 ms
Loss rate: 0.00%
```
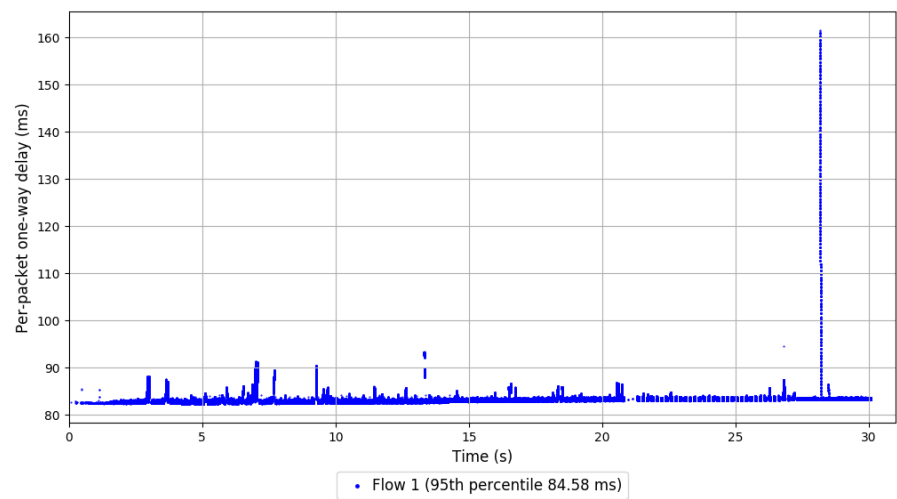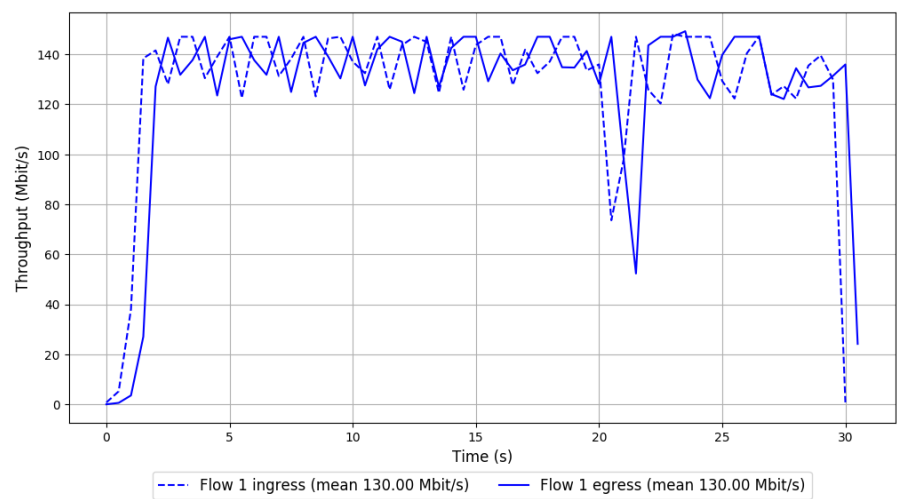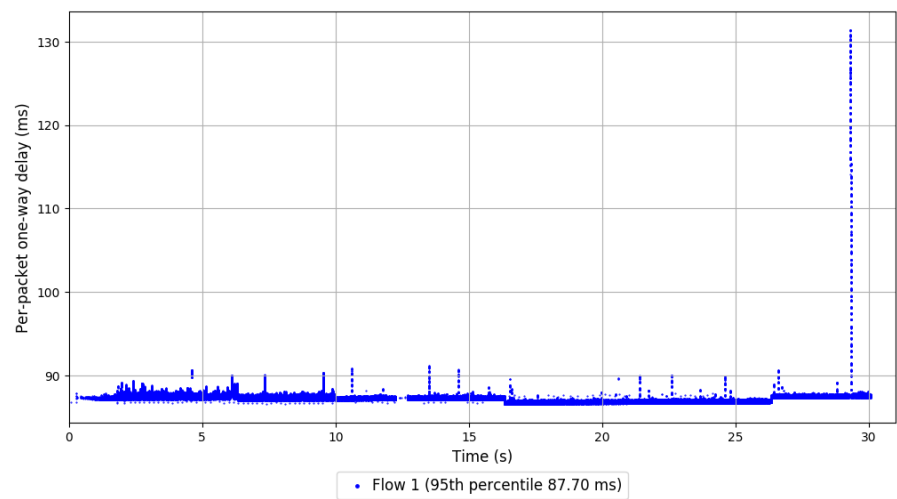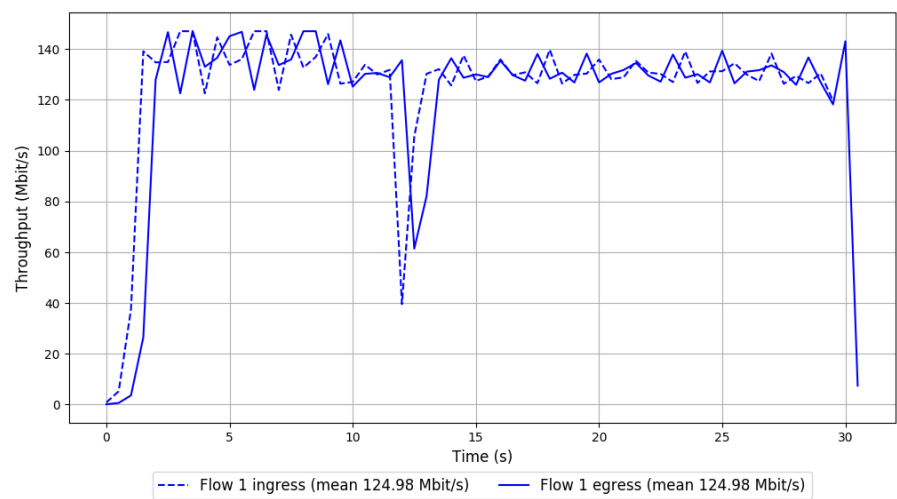
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 130.00 Mbit/s)   Flow 1 egress (mean 130.00 Mbit/s)

Flow 1 (95th percentile 84.58 ms)

7

```
Run 3: Statistics of TCP BBR

Start at: 2018-06-05 04:05:05
End at: 2018-06-05 04:05:35
Local clock offset: 31.209 ms
Remote clock offset: -0.167 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.98 Mbit/s
95th percentile per-packet one-way delay: 87.704 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.98 Mbit/s
95th percentile per-packet one-way delay: 87.704 ms
Loss rate: 0.00%
```
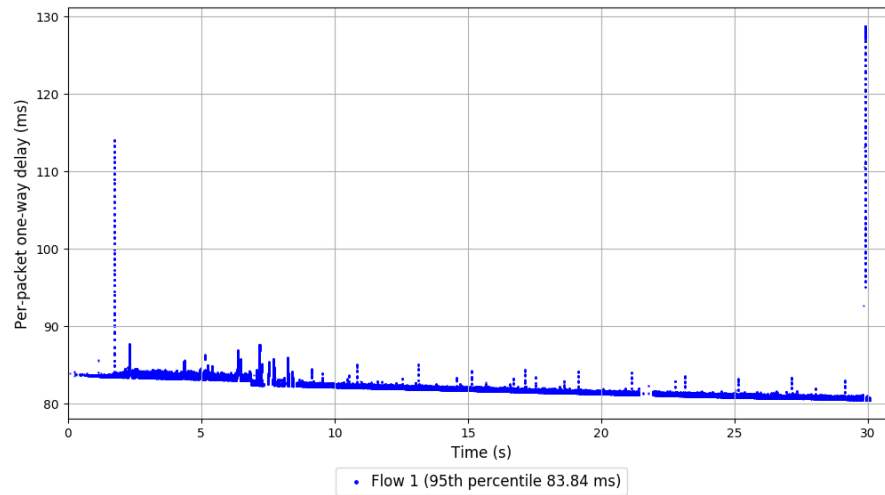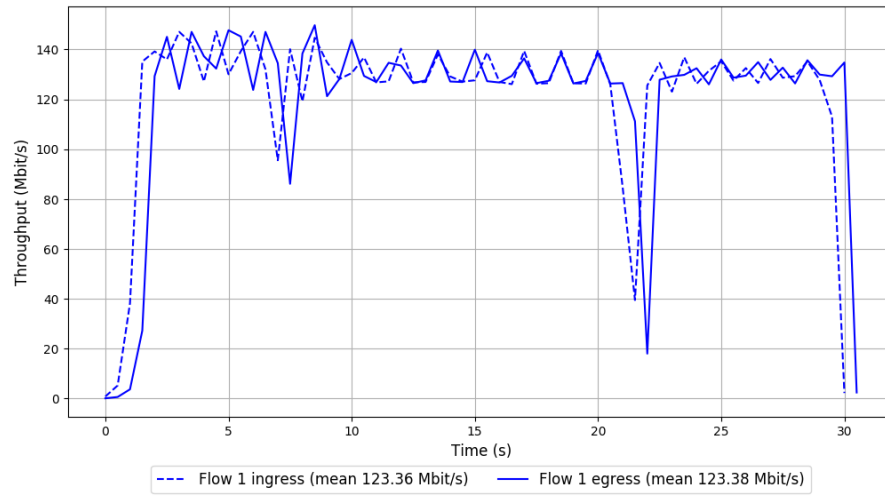
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-06-05 04:25:54
End at: 2018-06-05 04:26:24
Local clock offset: 56.744 ms
Remote clock offset: -0.151 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.38 Mbit/s
95th percentile per-packet one-way delay: 83.837 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 123.38 Mbit/s
95th percentile per-packet one-way delay: 83.837 ms
Loss rate: 0.00%
```

Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-06-05 04:46:47
End at: 2018-06-05 04:47:17
Local clock offset: 22.775 ms
Remote clock offset: -0.11 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.71 Mbit/s
95th percentile per-packet one-way delay: 86.918 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 125.71 Mbit/s
95th percentile per-packet one-way delay: 86.918 ms
Loss rate: 0.01%
```
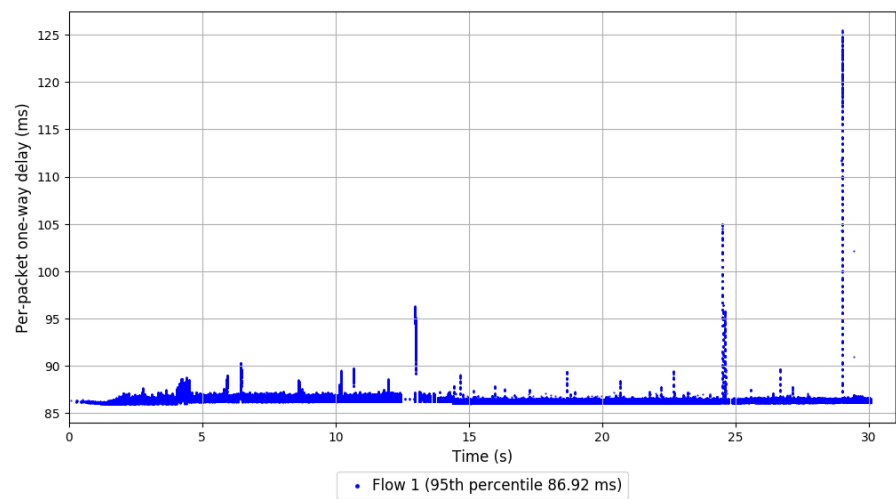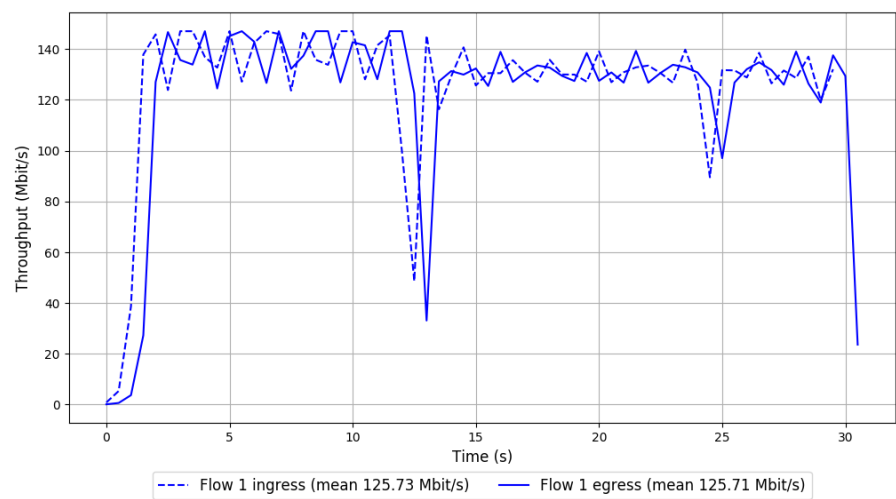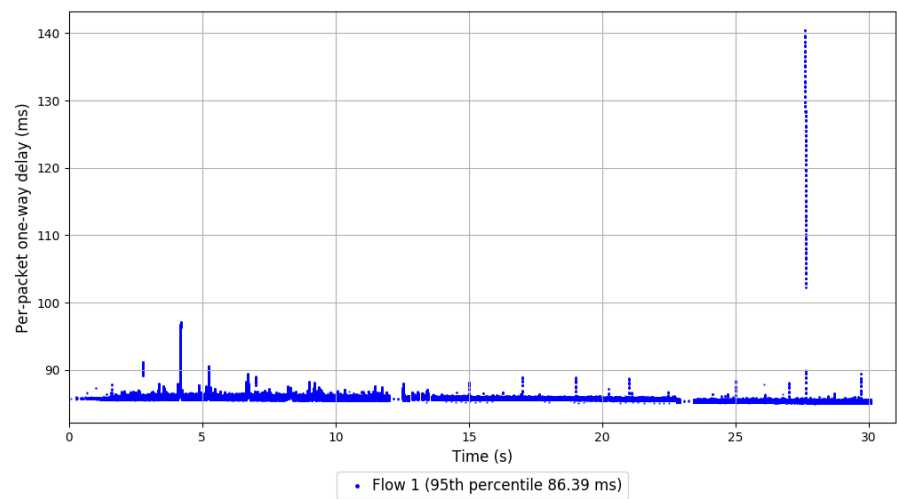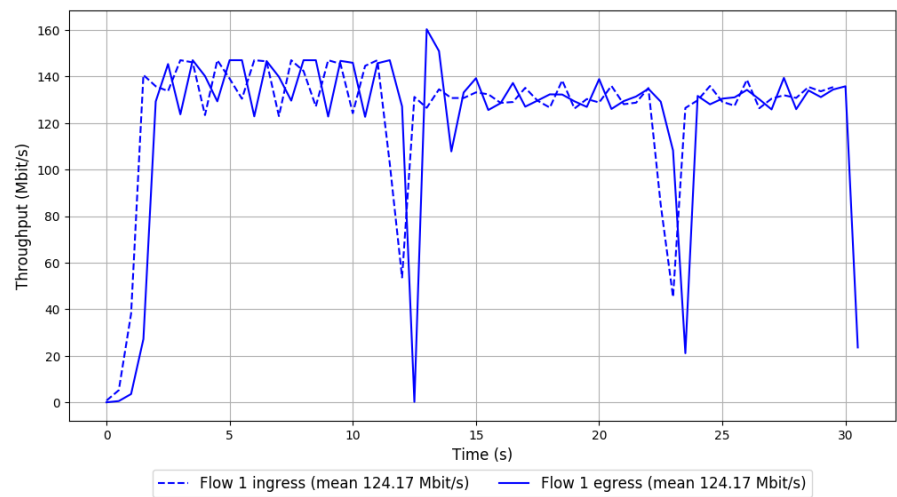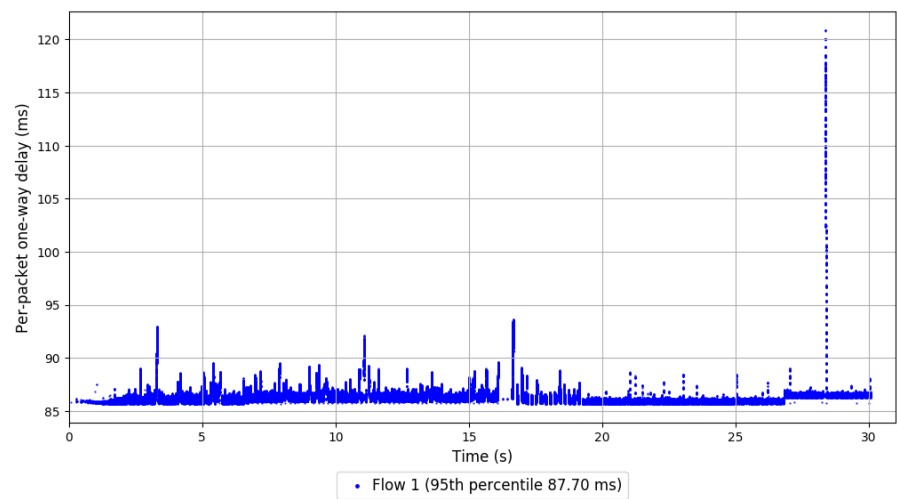
Run 5: Report of TCP BBR — Data Link

```
Run 6: Statistics of TCP BBR

Start at: 2018-06-05 05:07:39
End at: 2018-06-05 05:08:09
Local clock offset: 13.101 ms
Remote clock offset: -0.088 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 86.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.17 Mbit/s
95th percentile per-packet one-way delay: 86.391 ms
Loss rate: 0.00%
```

Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 124.17 Mbit/s)   Flow 1 egress (mean 124.17 Mbit/s)
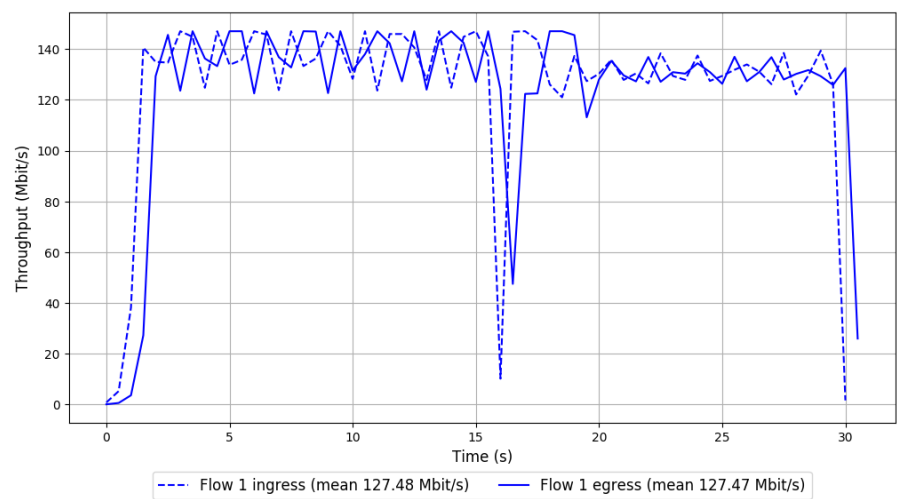

Flow 1 (95th percentile 86.39 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-06-05 05:28:35
End at: 2018-06-05 05:29:05
Local clock offset: 6.642 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.47 Mbit/s
95th percentile per-packet one-way delay: 87.699 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.47 Mbit/s
95th percentile per-packet one-way delay: 87.699 ms
Loss rate: 0.00%
```
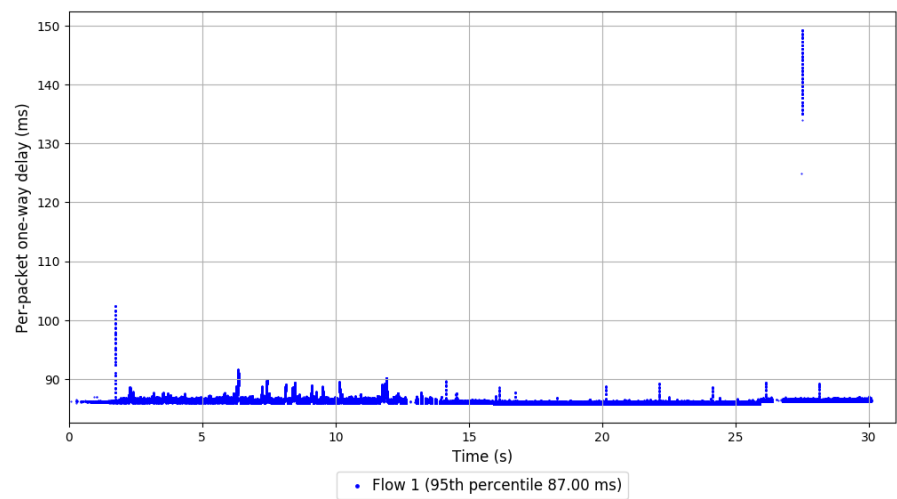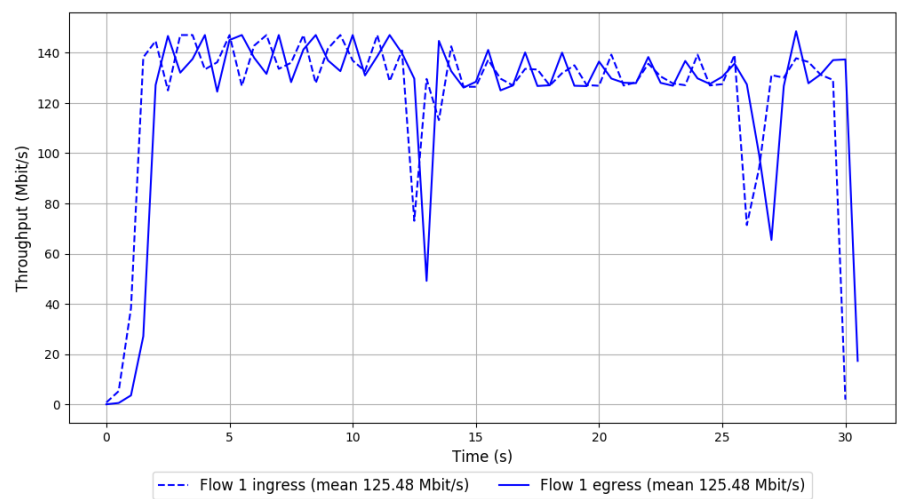
Run 7: Report of TCP BBR — Data Link

Flow 1 ingress (mean 127.48 Mbit/s) ---- Flow 1 egress (mean 127.47 Mbit/s)

• Flow 1 (95th percentile 87.70 ms)

```
Run 8: Statistics of TCP BBR

Start at: 2018-06-05 05:49:35
End at: 2018-06-05 05:50:05
Local clock offset: 2.544 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-05 06:50:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 125.48 Mbit/s
95th percentile per-packet one-way delay: 87.001 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 125.48 Mbit/s
95th percentile per-packet one-way delay: 87.001 ms
Loss rate: 0.00%
```

Run 8: Report of TCP BBR — Data Link

```
Run 9: Statistics of TCP BBR

Start at: 2018-06-05 06:10:43
End at: 2018-06-05 06:11:13
Local clock offset: 8.105 ms
Remote clock offset: -0.062 ms


# Below is generated by plot.py at 2018-06-05 06:51:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 127.71 Mbit/s
95th percentile per-packet one-way delay: 80.736 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 127.71 Mbit/s
95th percentile per-packet one-way delay: 80.736 ms
Loss rate: 0.00%
```
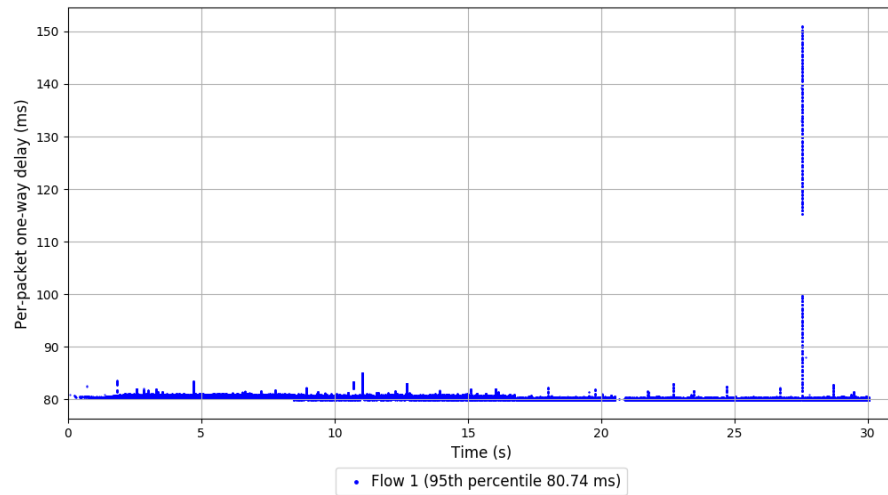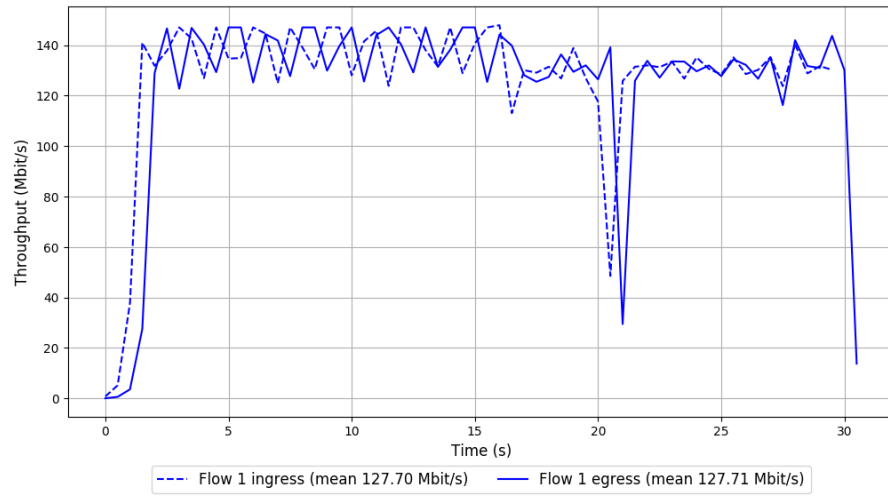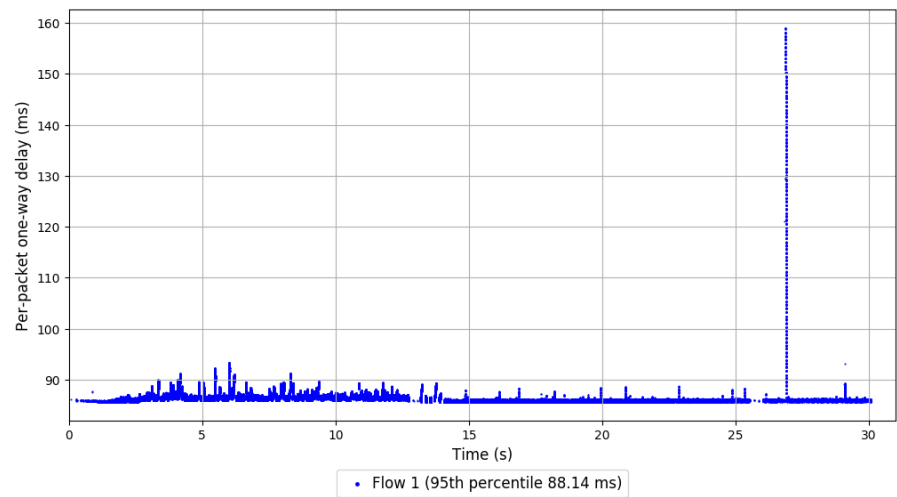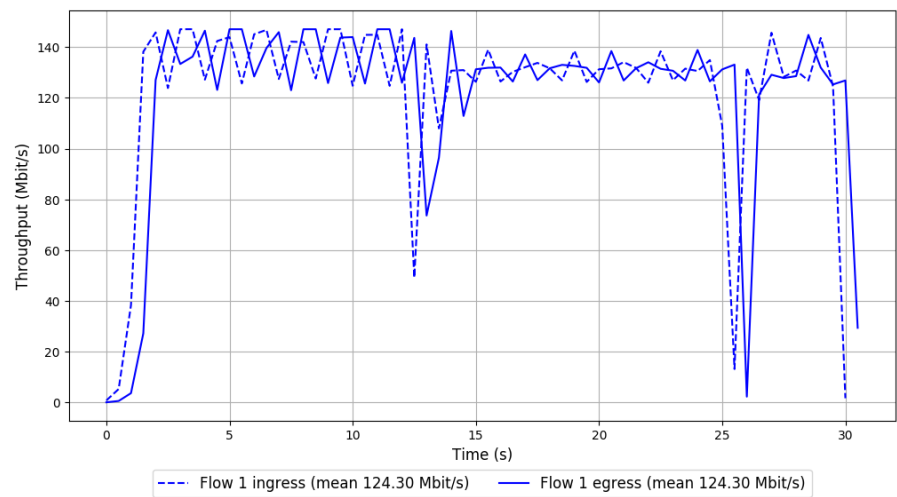
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 127.70 Mbit/s)   Flow 1 egress (mean 127.71 Mbit/s)

Flow 1 (95th percentile 80.74 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-06-05 06:31:29
End at: 2018-06-05 06:31:59
Local clock offset: 1.397 ms
Remote clock offset: 0.041 ms


# Below is generated by plot.py at 2018-06-05 06:51:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 124.30 Mbit/s
95th percentile per-packet one-way delay: 88.138 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 124.30 Mbit/s
95th percentile per-packet one-way delay: 88.138 ms
Loss rate: 0.00%
```

Run 10: Report of TCP BBR — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-06-05 03:29:04
End at: 2018-06-05 03:29:34
Local clock offset: 21.381 ms
Remote clock offset: 0.092 ms


# Below is generated by plot.py at 2018-06-05 06:54:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 157.00 Mbit/s
95th percentile per-packet one-way delay: 127.231 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 157.00 Mbit/s
95th percentile per-packet one-way delay: 127.231 ms
Loss rate: 0.17%
```
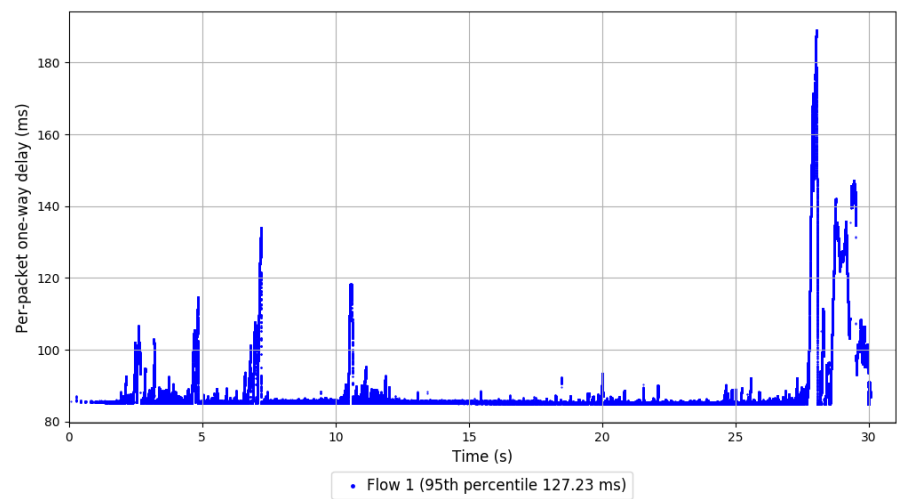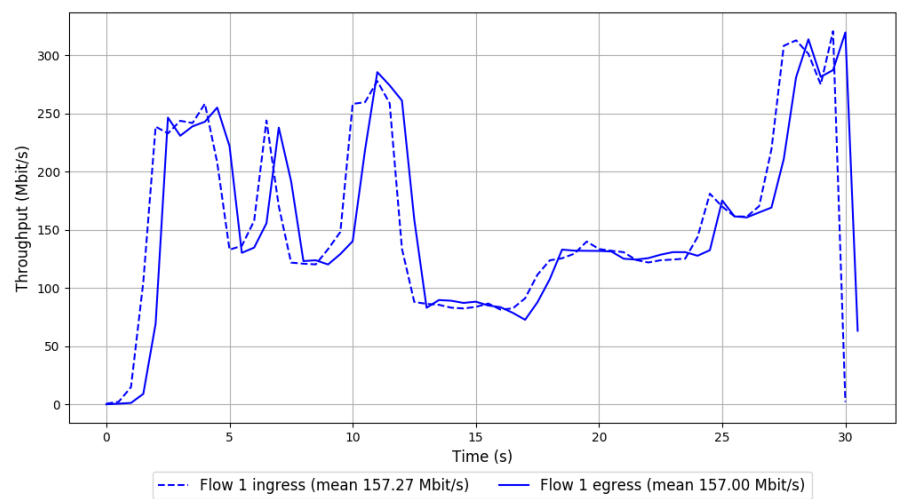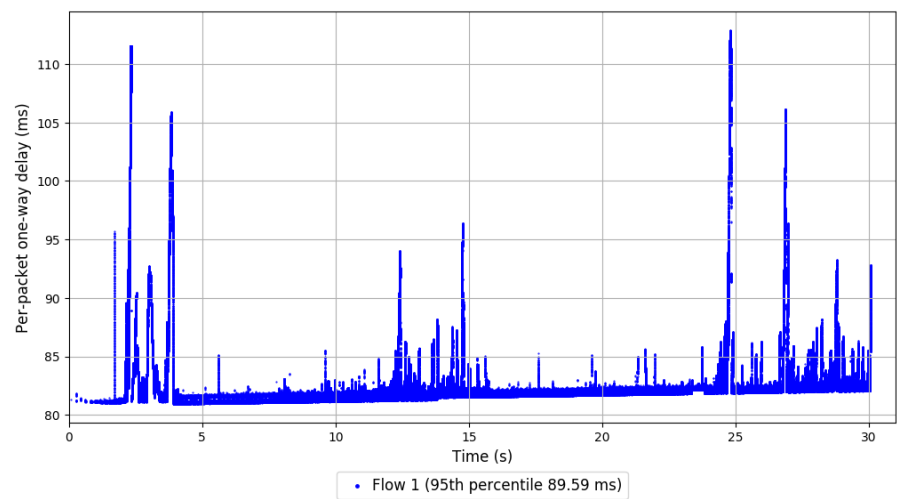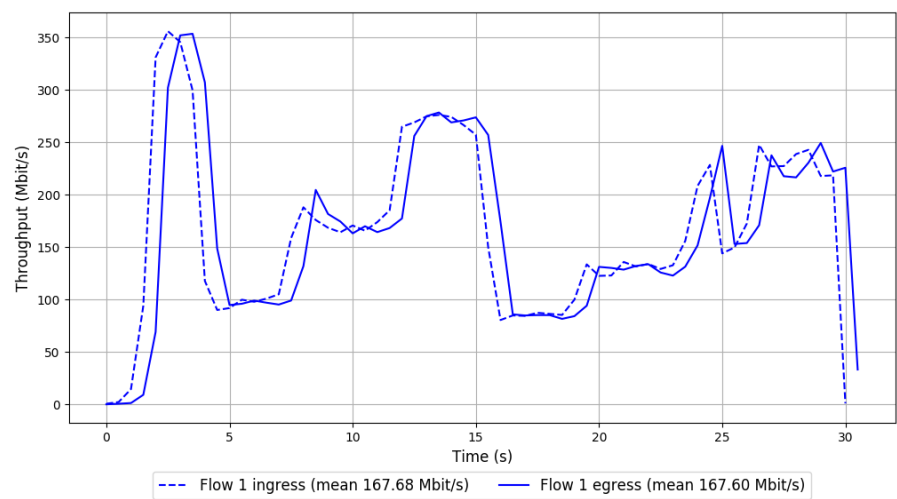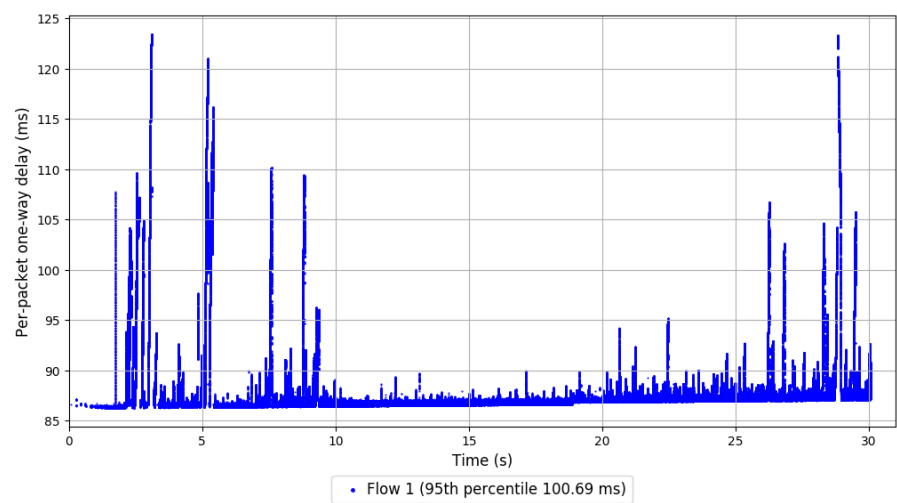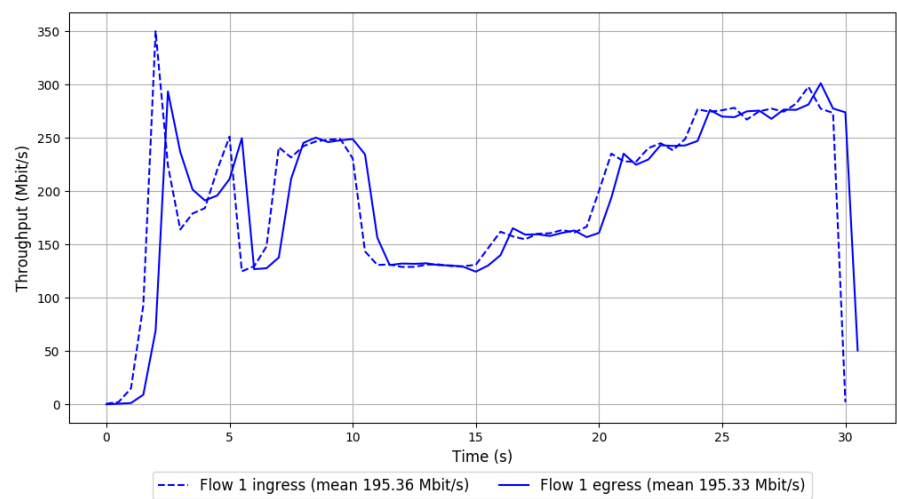
Run 1: Report of Copa — Data Link

Flow 1 ingress (mean 157.27 Mbit/s)   Flow 1 egress (mean 157.00 Mbit/s)

Flow 1 (95th percentile 127.23 ms)

Run 2: Statistics of Copa

Start at: 2018-06-05 03:49:48
End at: 2018-06-05 03:50:18
Local clock offset: 42.175 ms
Remote clock offset: 0.053 ms

Below is generated by plot.py at 2018-06-05 06:55:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 167.60 Mbit/s
95th percentile per-packet one-way delay: 89.591 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 167.60 Mbit/s
95th percentile per-packet one-way delay: 89.591 ms
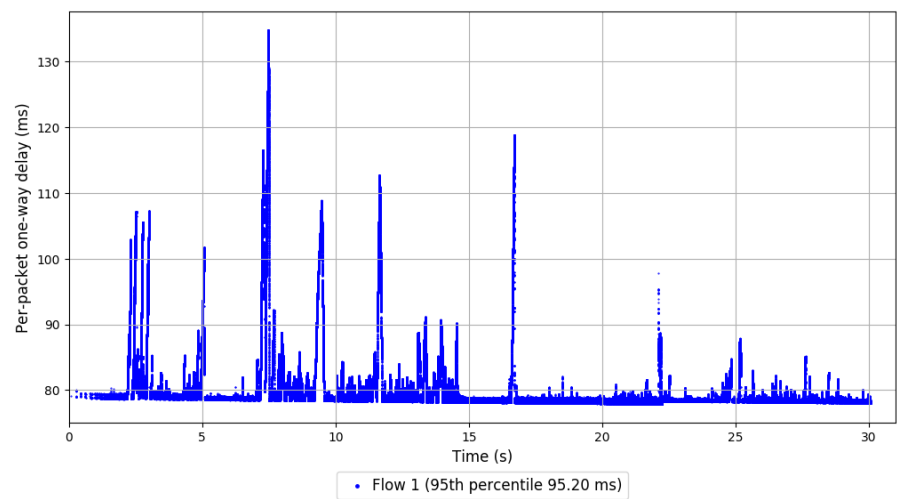Loss rate: 0.04%
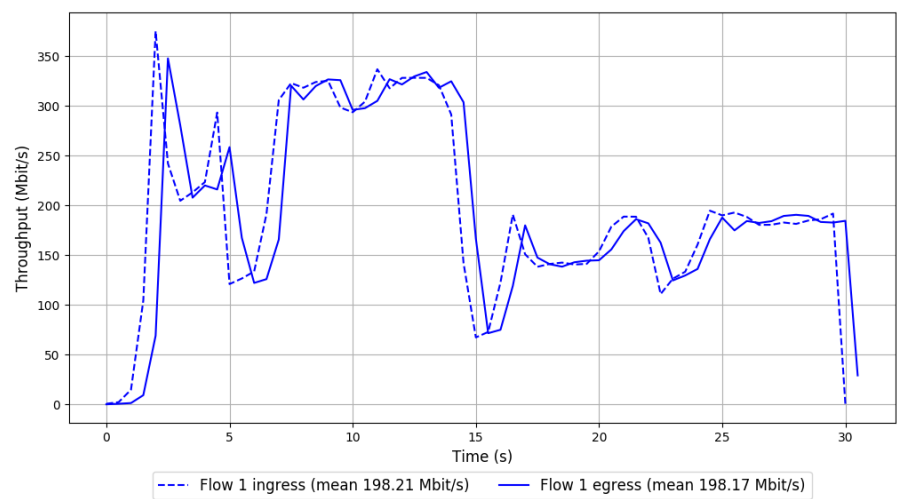
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-06-05 04:10:32
End at: 2018-06-05 04:11:02
Local clock offset: 37.051 ms
Remote clock offset: -0.165 ms

# Below is generated by plot.py at 2018-06-05 06:55:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.33 Mbit/s
95th percentile per-packet one-way delay: 100.689 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 195.33 Mbit/s
95th percentile per-packet one-way delay: 100.689 ms
Loss rate: 0.02%
```
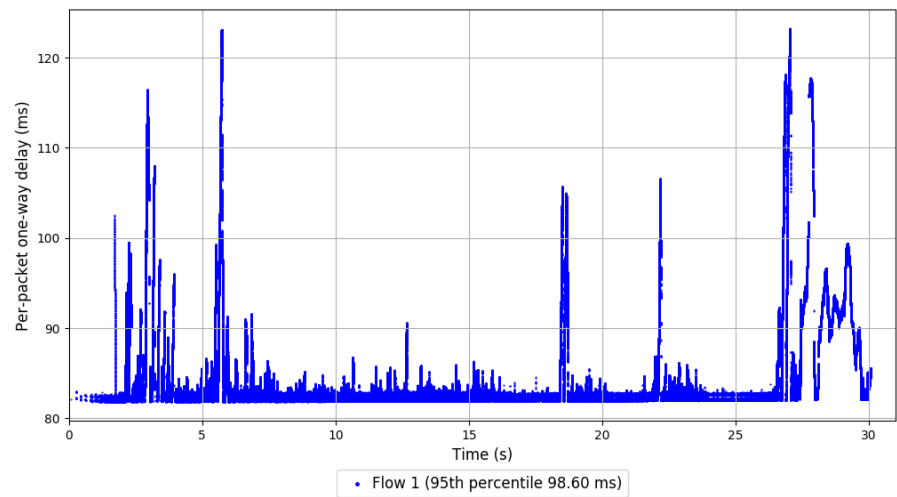
Run 3: Report of Copa — Data Link

```
Run 4: Statistics of Copa

Start at: 2018-06-05 04:31:29
End at: 2018-06-05 04:31:59
Local clock offset: 40.23 ms
Remote clock offset: -0.063 ms


# Below is generated by plot.py at 2018-06-05 06:55:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.17 Mbit/s
95th percentile per-packet one-way delay: 95.204 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 198.17 Mbit/s
95th percentile per-packet one-way delay: 95.204 ms
Loss rate: 0.02%
```

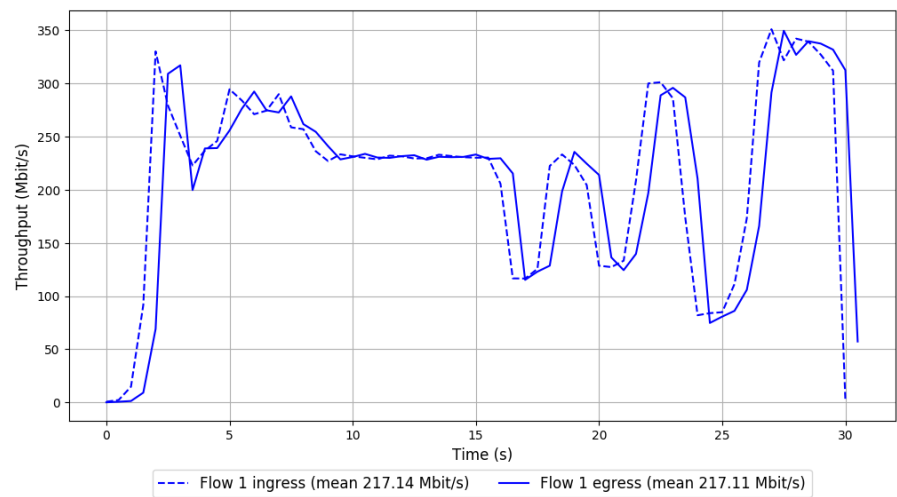# Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-06-05 04:52:24
End at: 2018-06-05 04:52:54
Local clock offset: 29.564 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-06-05 06:56:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 217.11 Mbit/s
95th percentile per-packet one-way delay: 98.604 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 217.11 Mbit/s
95th percentile per-packet one-way delay: 98.604 ms
Loss rate: 0.01%
```

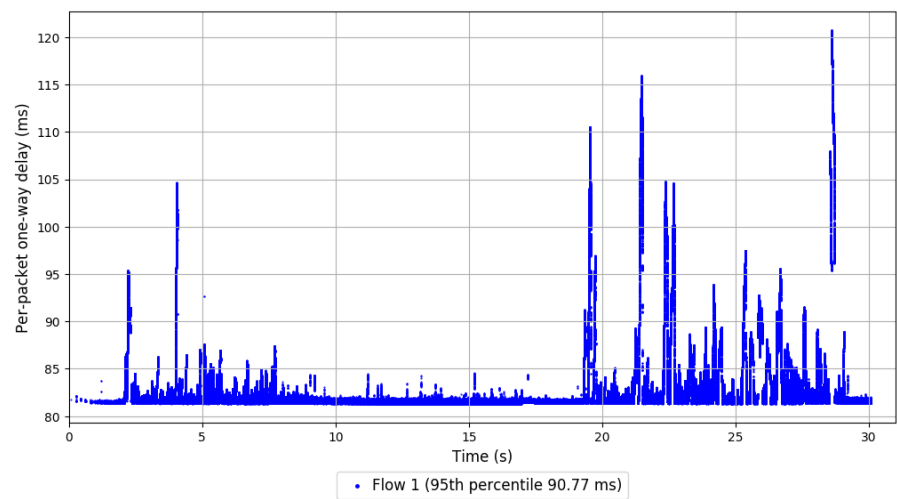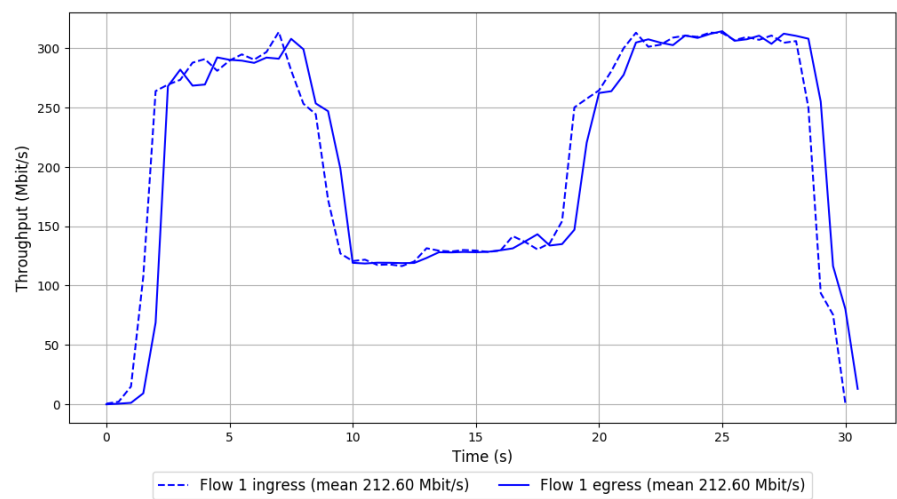Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-06-05 05:13:14
End at: 2018-06-05 05:13:44
Local clock offset: 12.779 ms
Remote clock offset: -0.118 ms


# Below is generated by plot.py at 2018-06-05 06:56:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 212.60 Mbit/s
95th percentile per-packet one-way delay: 90.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 212.60 Mbit/s
95th percentile per-packet one-way delay: 90.767 ms
Loss rate: 0.00%
```

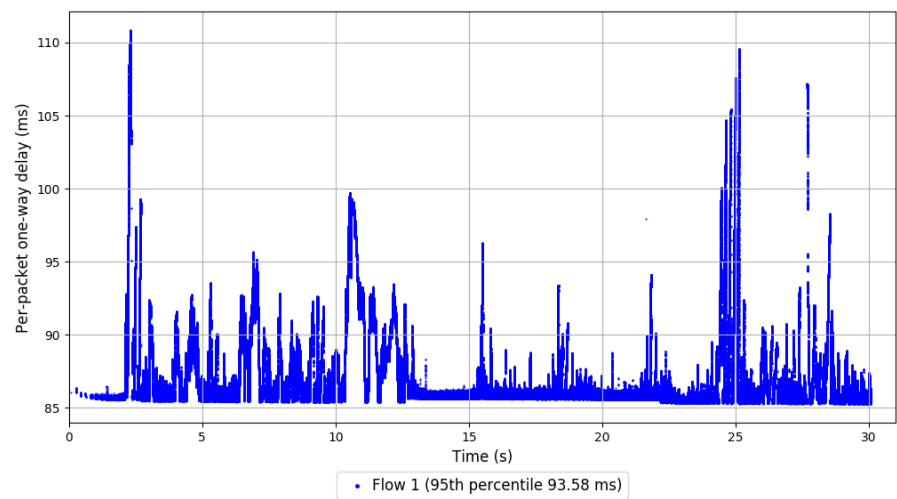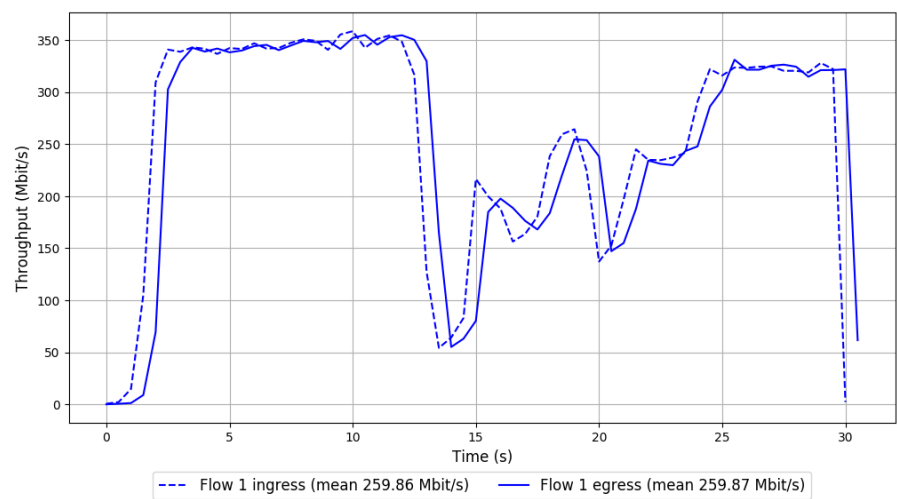Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-06-05 05:34:09
End at: 2018-06-05 05:34:39
Local clock offset: 6.602 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2018-06-05 06:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 259.87 Mbit/s
95th percentile per-packet one-way delay: 93.584 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 259.87 Mbit/s
95th percentile per-packet one-way delay: 93.584 ms
Loss rate: 0.00%
```

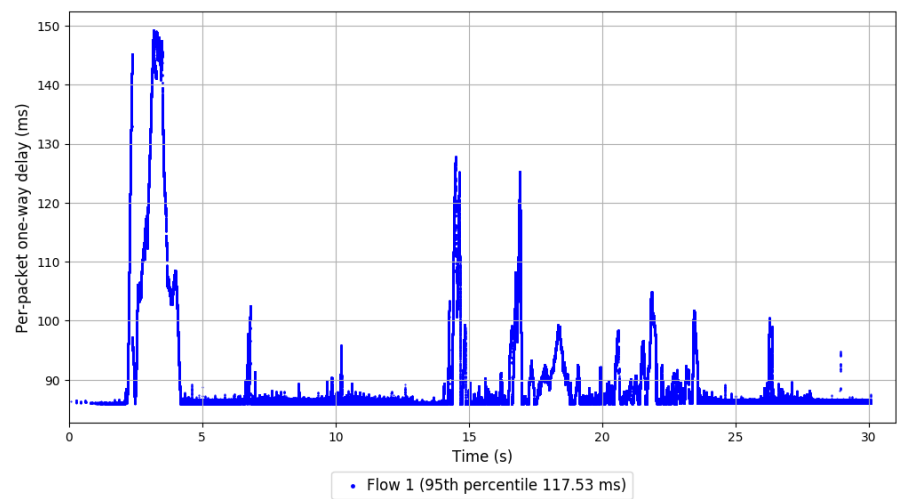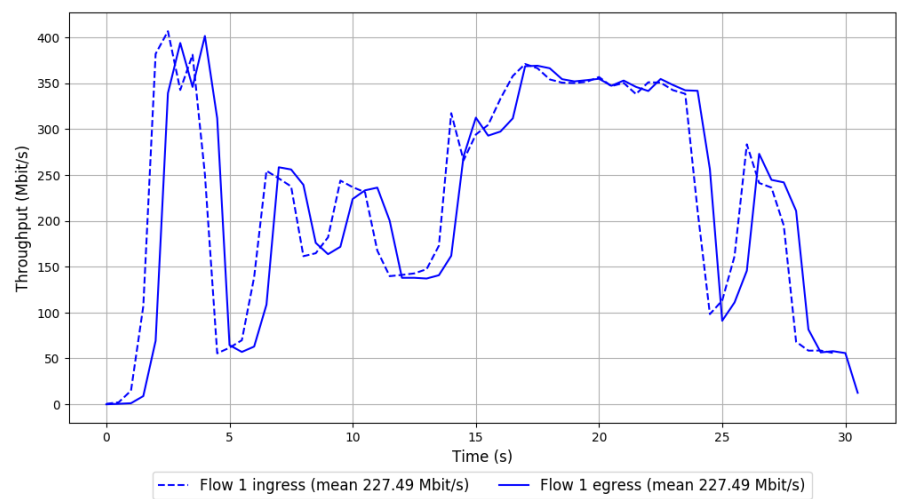Run 7: Report of Copa — Data Link

```
Run 8: Statistics of Copa

Start at: 2018-06-05 05:55:19
End at: 2018-06-05 05:55:49
Local clock offset: 2.325 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-06-05 06:59:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.49 Mbit/s
95th percentile per-packet one-way delay: 117.535 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.49 Mbit/s
95th percentile per-packet one-way delay: 117.535 ms
Loss rate: 0.00%
```
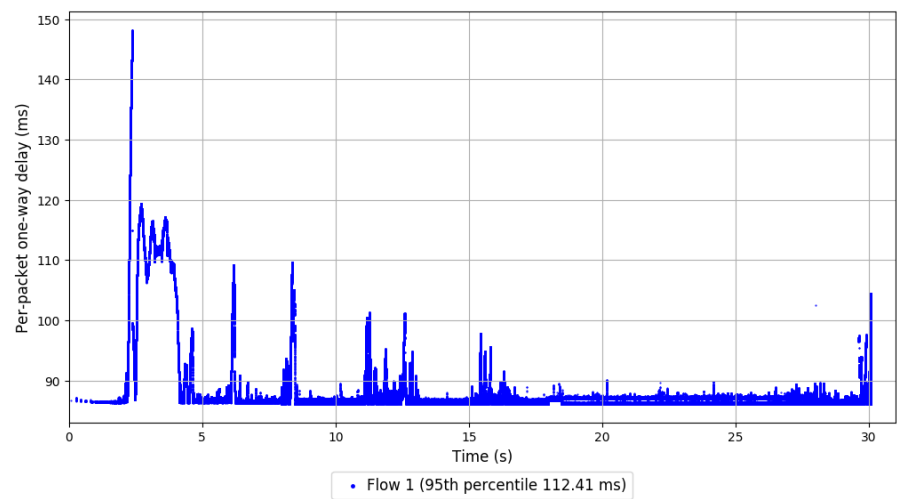
Run 8: Report of Copa — Data Link

Flow 1 ingress (mean 227.49 Mbit/s)   Flow 1 egress (mean 227.49 Mbit/s)

Flow 1 (95th percentile 117.53 ms)

```
Run 9: Statistics of Copa

Start at: 2018-06-05 06:16:13
End at: 2018-06-05 06:16:43
Local clock offset: 1.097 ms
Remote clock offset: -0.04 ms


# Below is generated by plot.py at 2018-06-05 07:00:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.87 Mbit/s
95th percentile per-packet one-way delay: 112.408 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.87 Mbit/s
95th percentile per-packet one-way delay: 112.408 ms
Loss rate: 0.00%
```
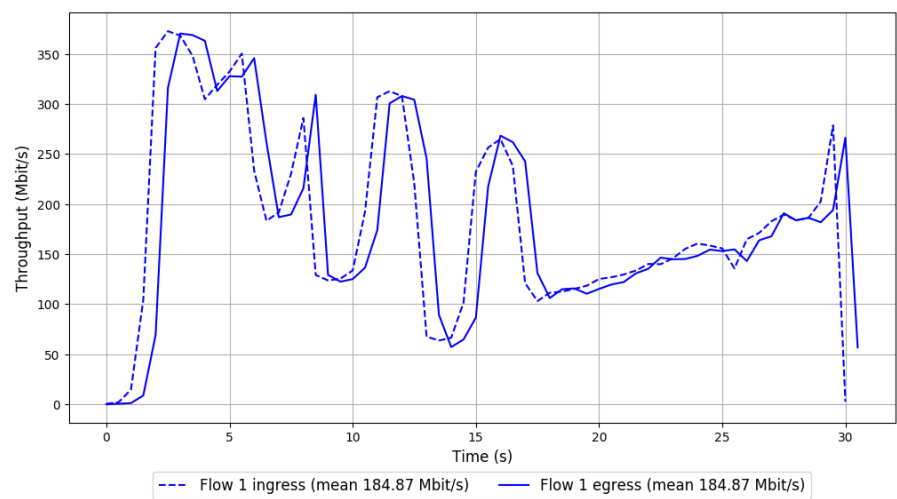
Run 9: Report of Copa — Data Link

```
Run 10: Statistics of Copa

Start at: 2018-06-05 06:37:04
End at: 2018-06-05 06:37:34
Local clock offset: 1.247 ms
Remote clock offset: -0.006 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.60 Mbit/s
95th percentile per-packet one-way delay: 109.171 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 260.60 Mbit/s
95th percentile per-packet one-way delay: 109.171 ms
Loss rate: 0.05%
```
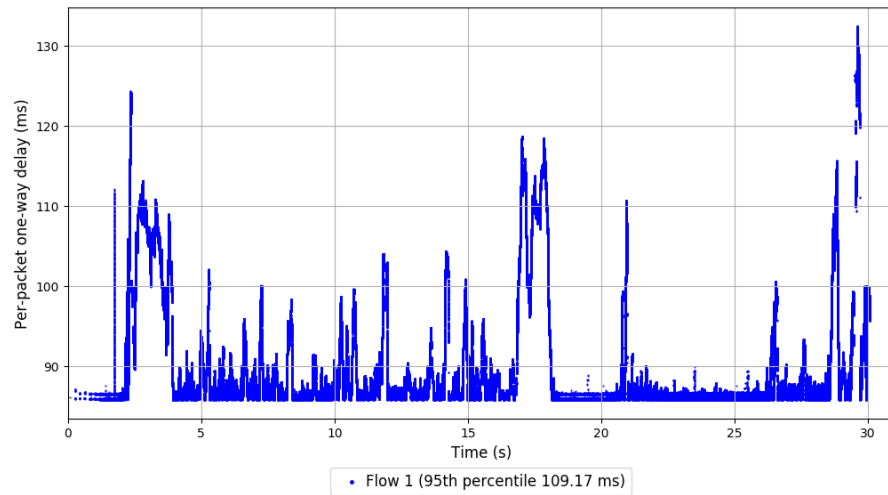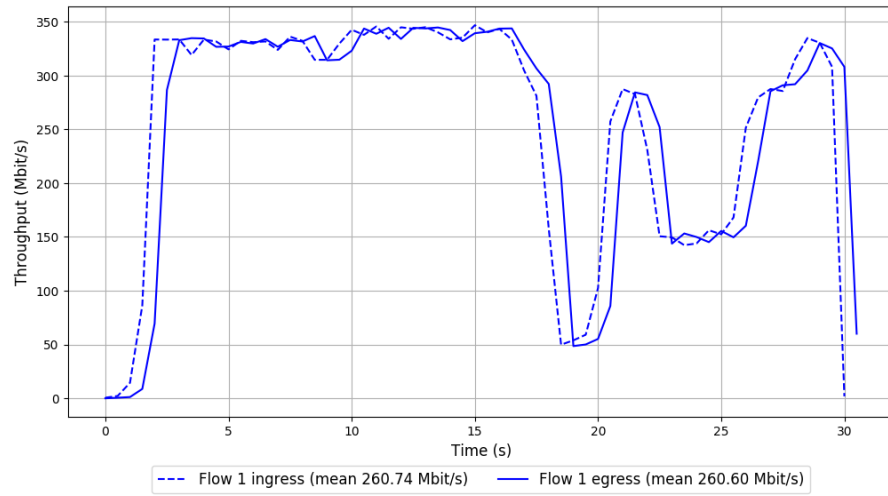
Run 10: Report of Copa — Data Link

Flow 1 ingress (mean 260.74 Mbit/s)   Flow 1 egress (mean 260.60 Mbit/s)

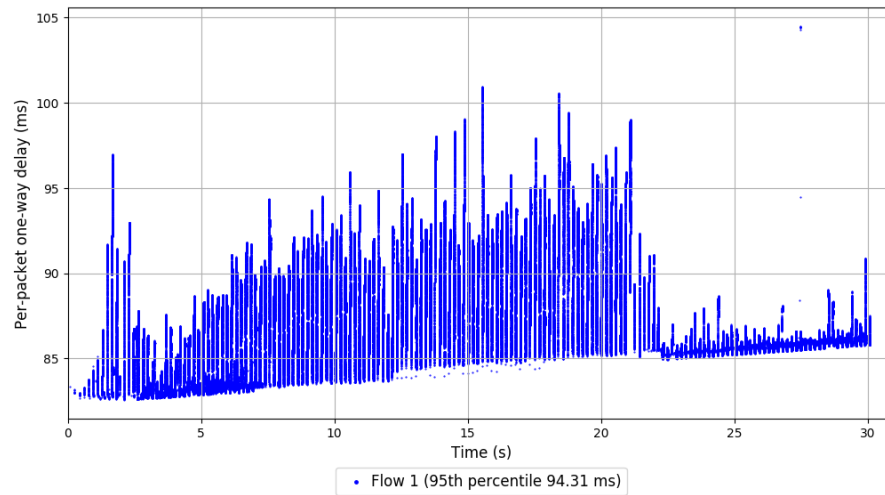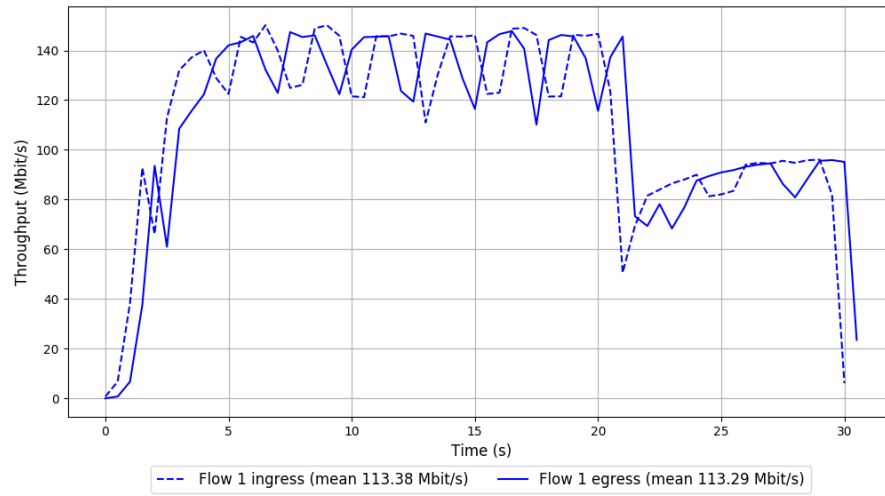Flow 1 (95th percentile 109.17 ms)

43

```
Run 1: Statistics of TCP Cubic

Start at: 2018-06-05 03:14:49
End at: 2018-06-05 03:15:19
Local clock offset: 25.82 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 113.29 Mbit/s
95th percentile per-packet one-way delay: 94.308 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 113.29 Mbit/s
95th percentile per-packet one-way delay: 94.308 ms
Loss rate: 0.06%
```
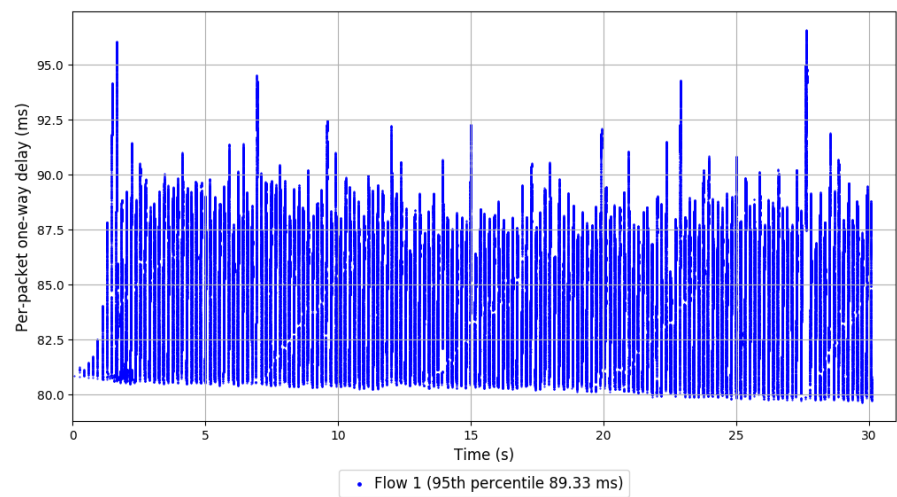
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: 2018-06-05 03:35:20
End at: 2018-06-05 03:35:50
Local clock offset: 27.835 ms
Remote clock offset: 0.17 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.21 Mbit/s
95th percentile per-packet one-way delay: 89.329 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 133.21 Mbit/s
95th percentile per-packet one-way delay: 89.329 ms
Loss rate: 0.01%
```
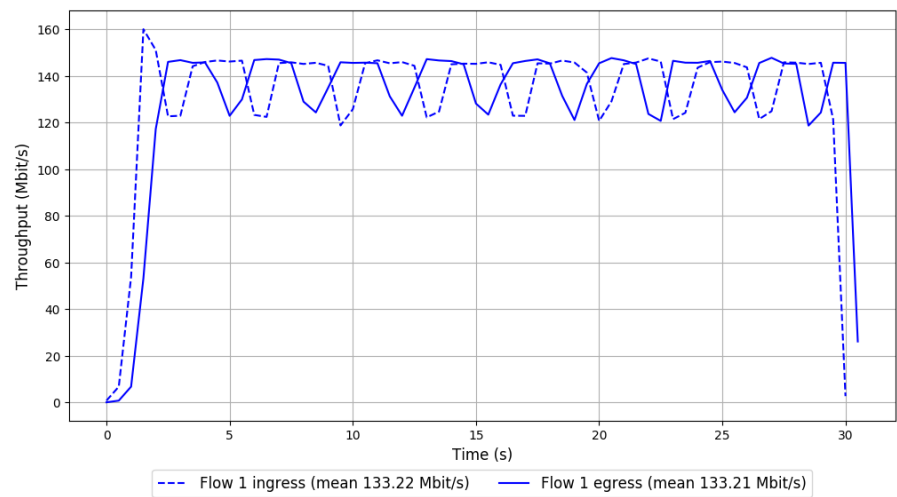
Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 133.22 Mbit/s)   Flow 1 egress (mean 133.21 Mbit/s)

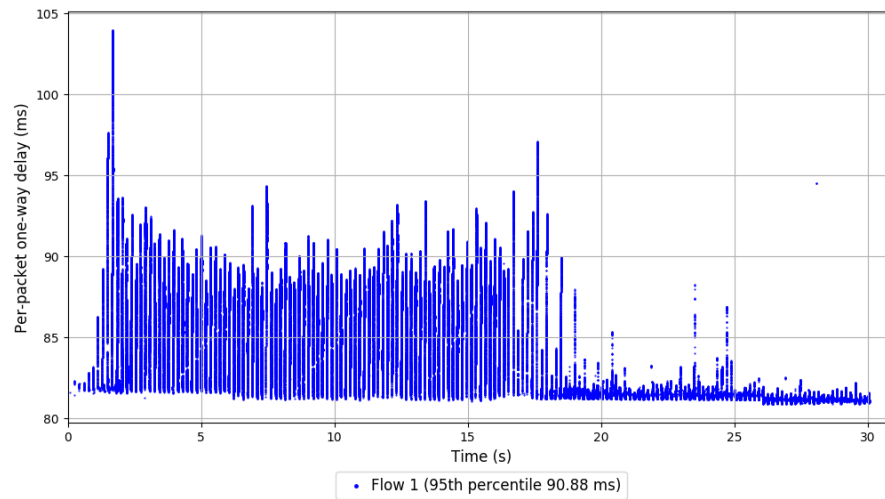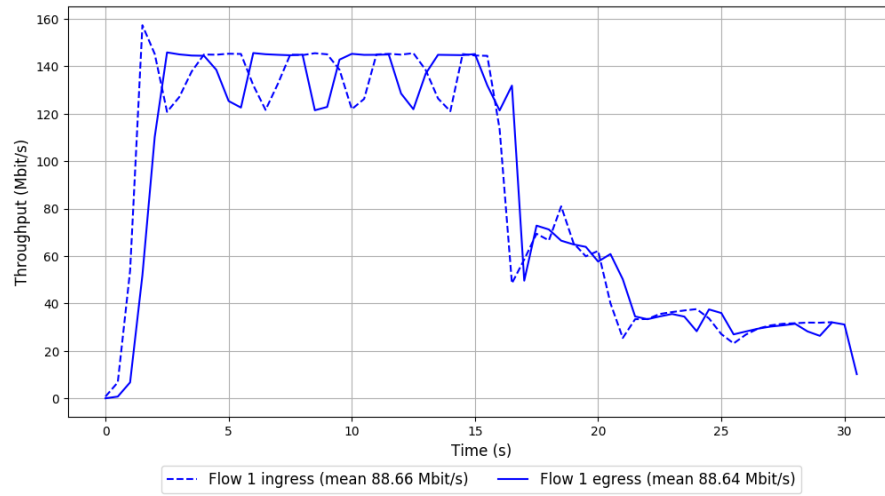Flow 1 (95th percentile 89.33 ms)

```
Run 3: Statistics of TCP Cubic

Start at: 2018-06-05 03:56:05
End at: 2018-06-05 03:56:35
Local clock offset: 35.179 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 90.881 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 88.64 Mbit/s
95th percentile per-packet one-way delay: 90.881 ms
Loss rate: 0.02%
```

Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 88.66 Mbit/s)   Flow 1 egress (mean 88.64 Mbit/s)

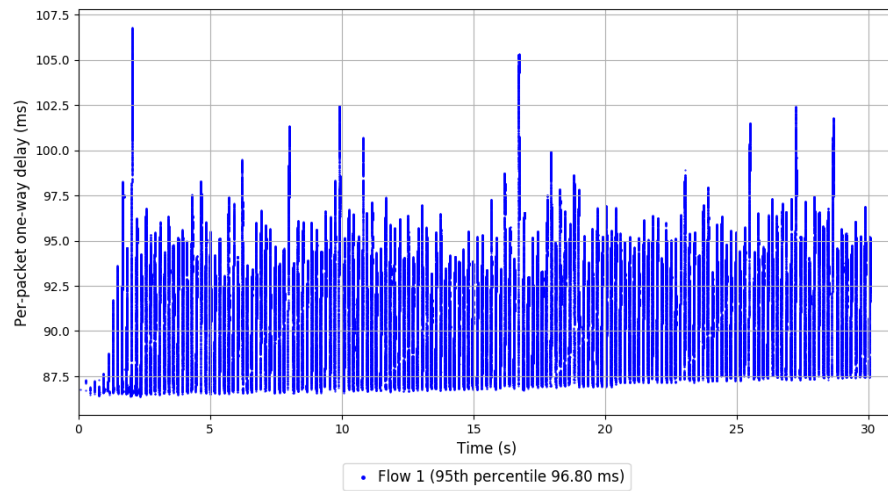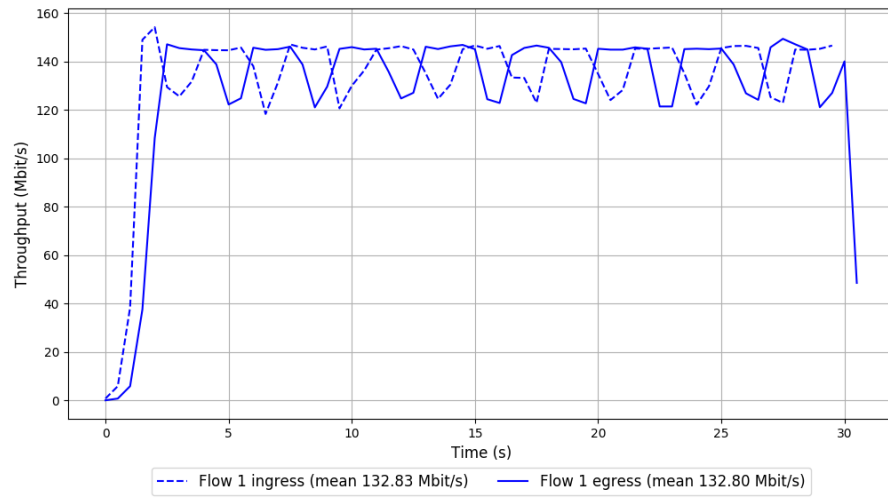Flow 1 (95th percentile 90.88 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-06-05 04:16:51
End at: 2018-06-05 04:17:21
Local clock offset: 45.753 ms
Remote clock offset: -0.172 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.80 Mbit/s
95th percentile per-packet one-way delay: 96.802 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.80 Mbit/s
95th percentile per-packet one-way delay: 96.802 ms
Loss rate: 0.00%
```

Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 132.83 Mbit/s)   Flow 1 egress (mean 132.80 Mbit/s)
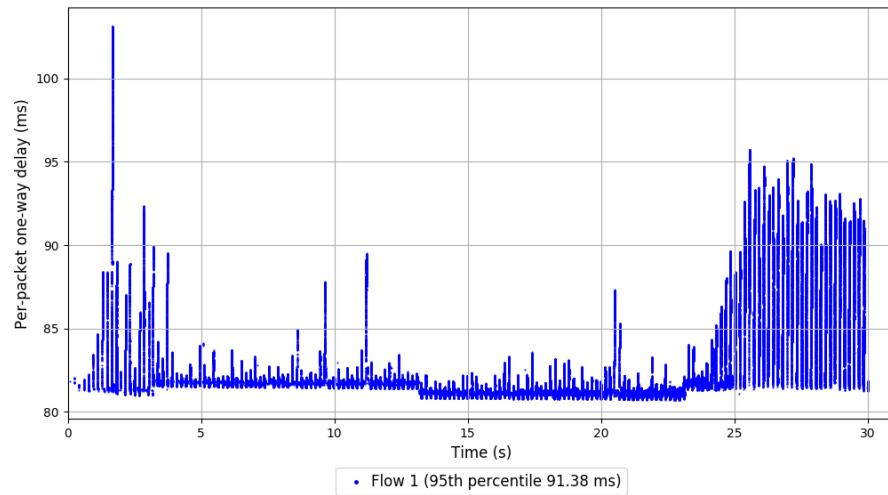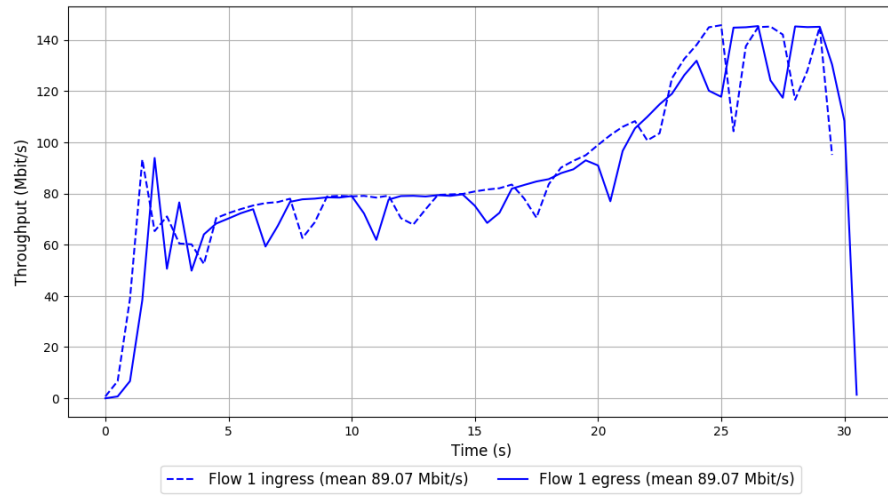

Flow 1 (95th percentile 96.80 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-06-05 04:37:48
End at: 2018-06-05 04:38:18
Local clock offset: 28.788 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 89.07 Mbit/s
95th percentile per-packet one-way delay: 91.378 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 89.07 Mbit/s
95th percentile per-packet one-way delay: 91.378 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 89.07 Mbit/s) — — — Flow 1 egress (mean 89.07 Mbit/s)
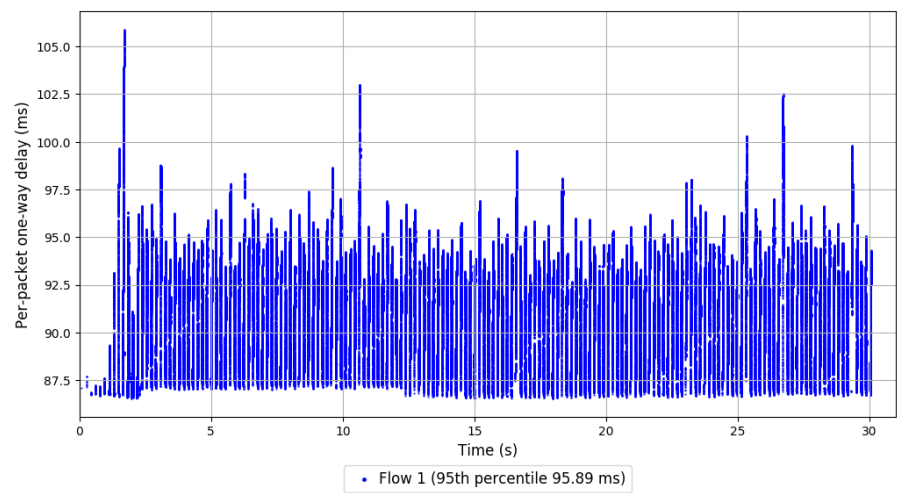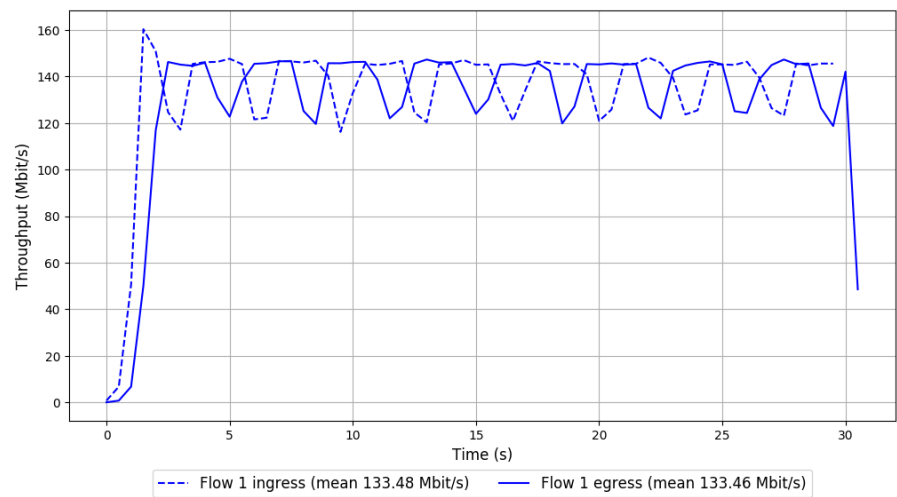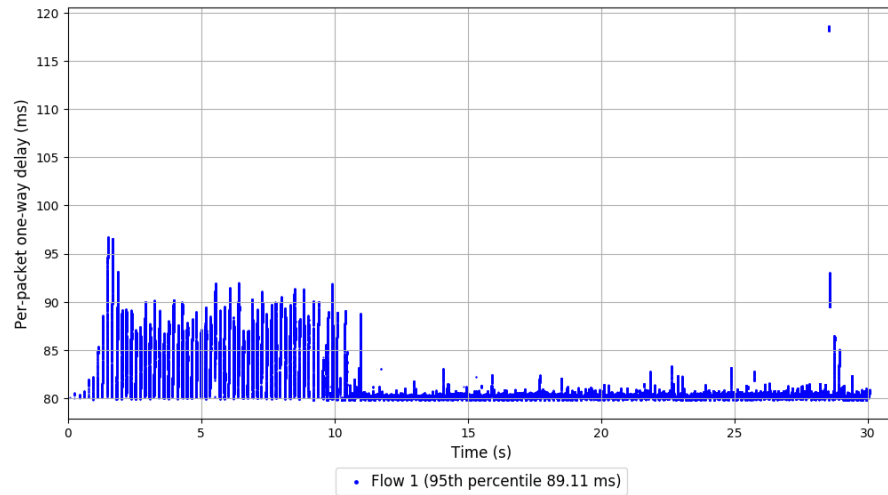

Flow 1 (95th percentile 91.38 ms)

53

```
Run 6: Statistics of TCP Cubic

Start at: 2018-06-05 04:58:39
End at: 2018-06-05 04:59:09
Local clock offset: 29.005 ms
Remote clock offset: -0.128 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.46 Mbit/s
95th percentile per-packet one-way delay: 95.892 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 133.46 Mbit/s
95th percentile per-packet one-way delay: 95.892 ms
Loss rate: 0.00%
```
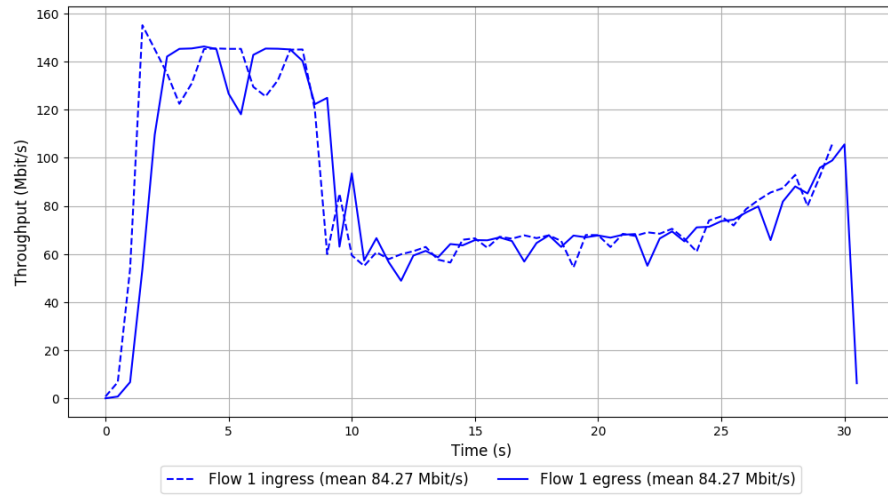
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-06-05 05:19:30
End at: 2018-06-05 05:20:00
Local clock offset: 12.55 ms
Remote clock offset: -0.134 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 89.108 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.27 Mbit/s
95th percentile per-packet one-way delay: 89.108 ms
Loss rate: 0.00%
```

Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 84.27 Mbit/s) --- Flow 1 egress (mean 84.27 Mbit/s)

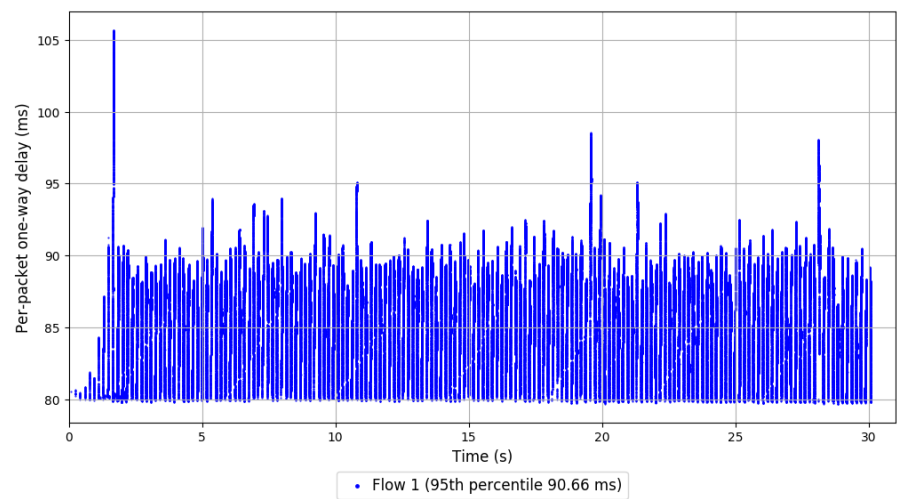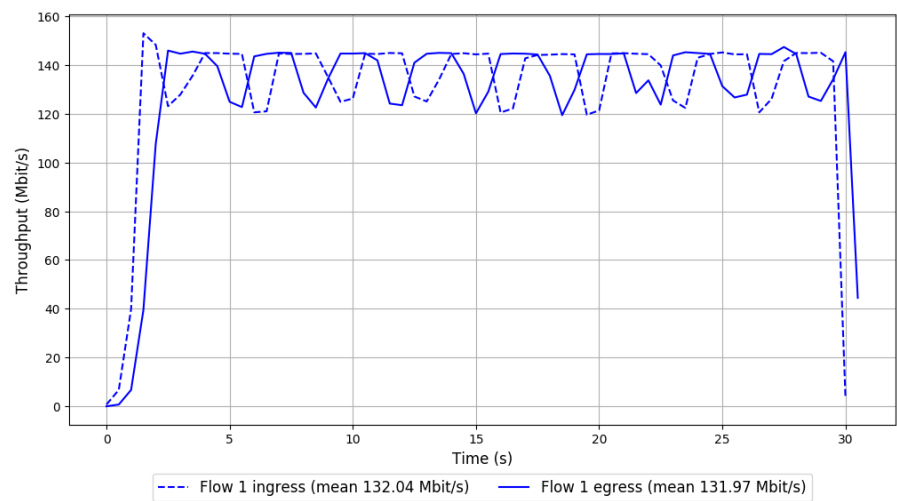

Flow 1 (95th percentile 89.11 ms)

57

```
Run 8: Statistics of TCP Cubic

Start at: 2018-06-05 05:40:34
End at: 2018-06-05 05:41:04
Local clock offset: 9.68 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 131.97 Mbit/s
95th percentile per-packet one-way delay: 90.657 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 131.97 Mbit/s
95th percentile per-packet one-way delay: 90.657 ms
Loss rate: 0.04%
```

Run 8: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 132.04 Mbit/s)   Flow 1 egress (mean 131.97 Mbit/s)
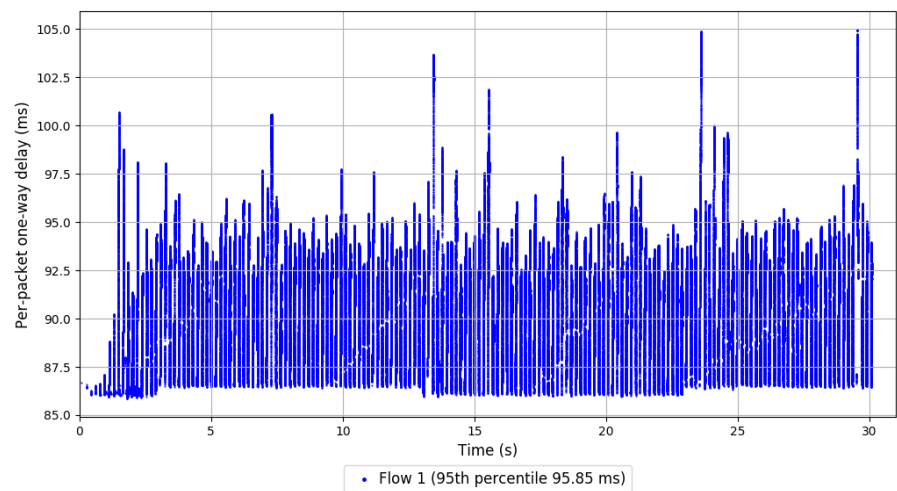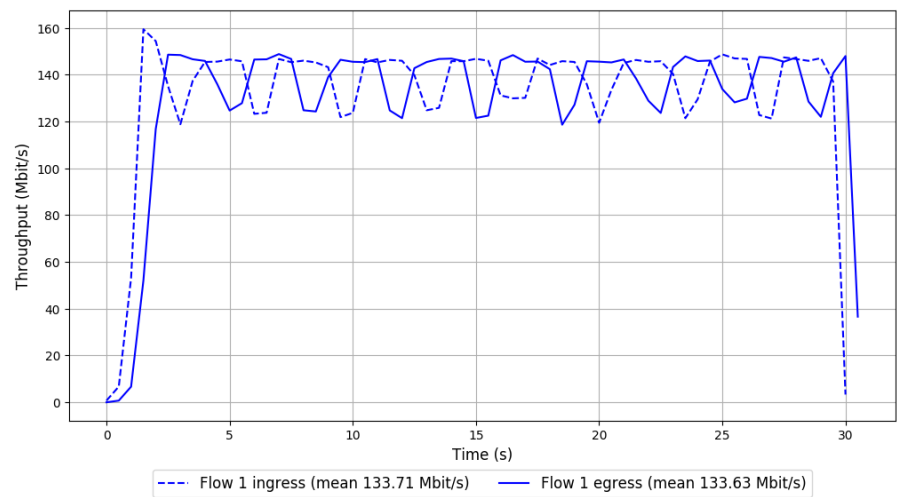

Flow 1 (95th percentile 90.66 ms)

```
Run 9: Statistics of TCP Cubic

Start at: 2018-06-05 06:01:38
End at: 2018-06-05 06:02:08
Local clock offset: 2.621 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.63 Mbit/s
95th percentile per-packet one-way delay: 95.850 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 133.63 Mbit/s
95th percentile per-packet one-way delay: 95.850 ms
Loss rate: 0.05%
```
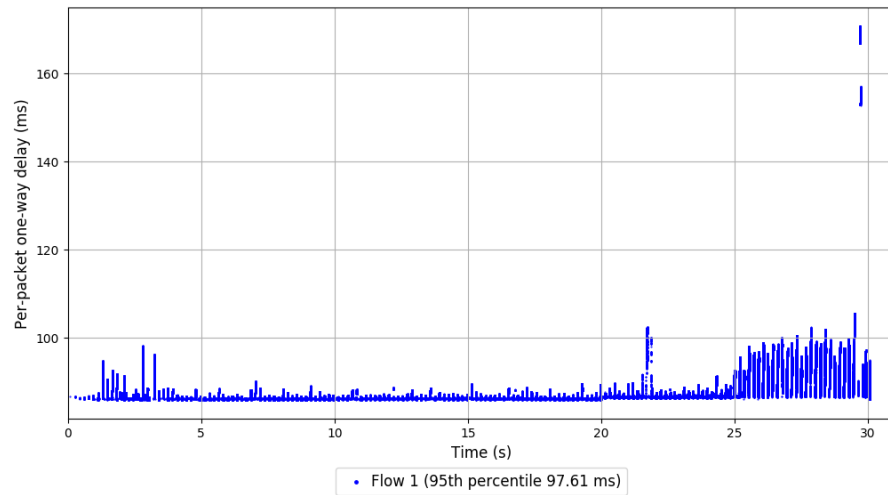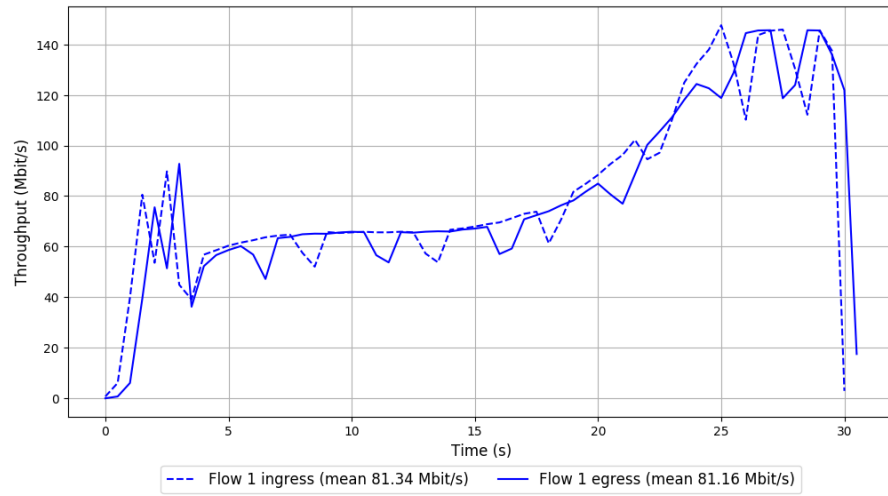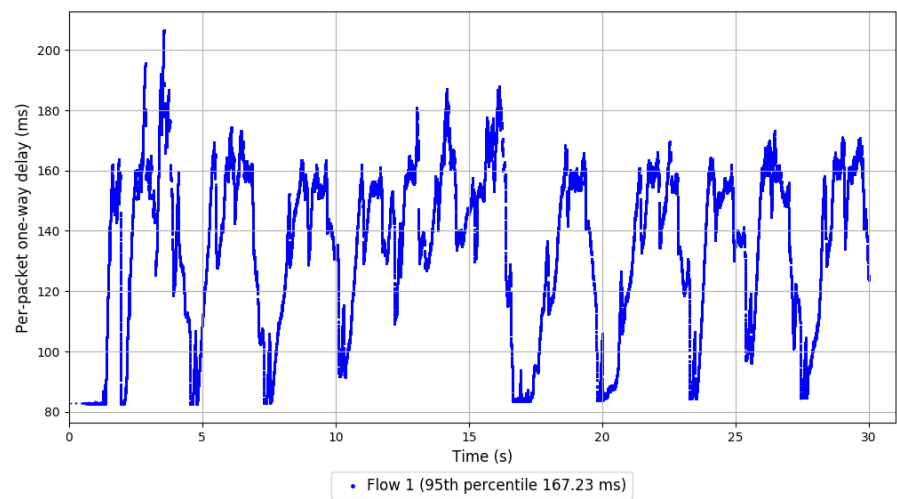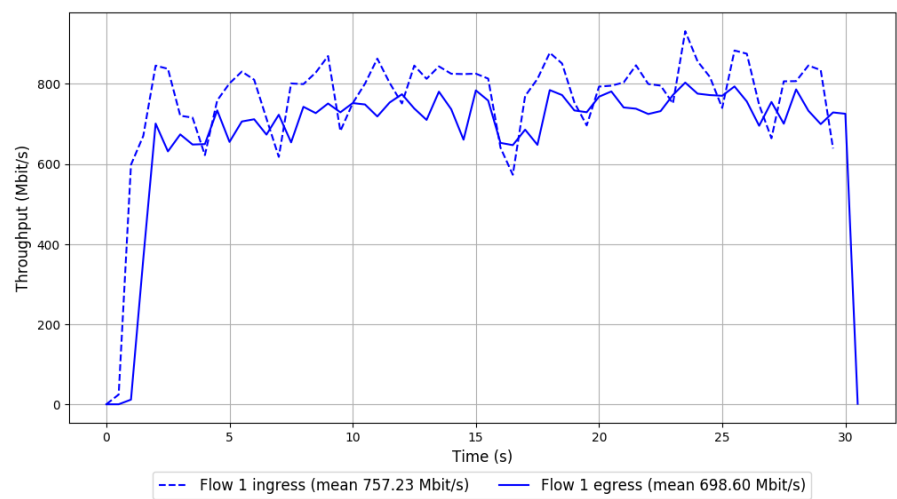
Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 133.71 Mbit/s)   Flow 1 egress (mean 133.63 Mbit/s)

• Flow 1 (95th percentile 95.85 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-06-05 06:22:31
End at: 2018-06-05 06:23:01
Local clock offset: 1.22 ms
Remote clock offset: -0.024 ms


# Below is generated by plot.py at 2018-06-05 07:02:33
# Datalink statistics
-- Total of 1 flow:
Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 97.606 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 81.16 Mbit/s
95th percentile per-packet one-way delay: 97.606 ms
Loss rate: 0.22%
```

Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 81.34 Mbit/s)   Flow 1 egress (mean 81.16 Mbit/s)

• Flow 1 (95th percentile 97.61 ms)

```
Run 1: Statistics of FillP

Start at: 2018-06-05 03:20:40
End at: 2018-06-05 03:21:10
Local clock offset: 33.862 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-06-05 07:12:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 698.60 Mbit/s
95th percentile per-packet one-way delay: 167.234 ms
Loss rate: 7.74%
-- Flow 1:
Average throughput: 698.60 Mbit/s
95th percentile per-packet one-way delay: 167.234 ms
Loss rate: 7.74%
```

Run 1: Report of FillP — Data Link

```
Run 2: Statistics of FillP

Start at: 2018-06-05 03:41:17
End at: 2018-06-05 03:41:47
Local clock offset: 21.247 ms
Remote clock offset: 0.274 ms


# Below is generated by plot.py at 2018-06-05 07:12:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 646.29 Mbit/s
95th percentile per-packet one-way delay: 176.769 ms
Loss rate: 7.51%
-- Flow 1:
Average throughput: 646.29 Mbit/s
95th percentile per-packet one-way delay: 176.769 ms
Loss rate: 7.51%
```
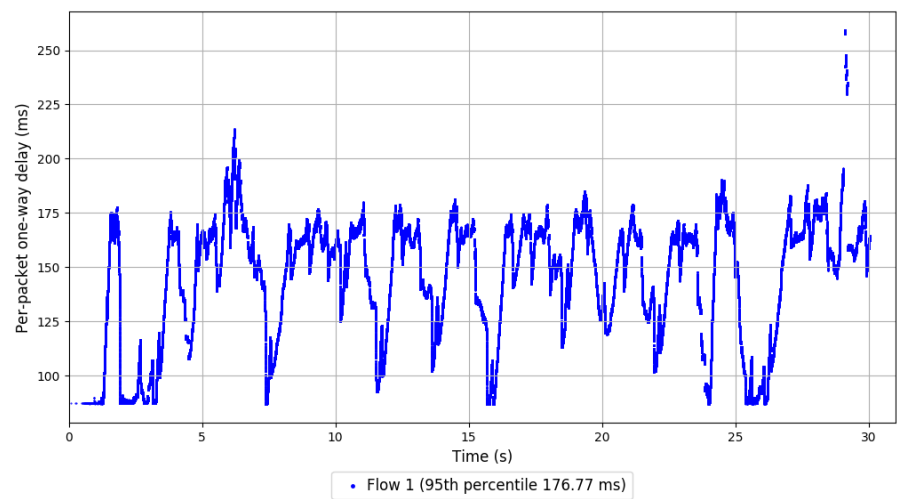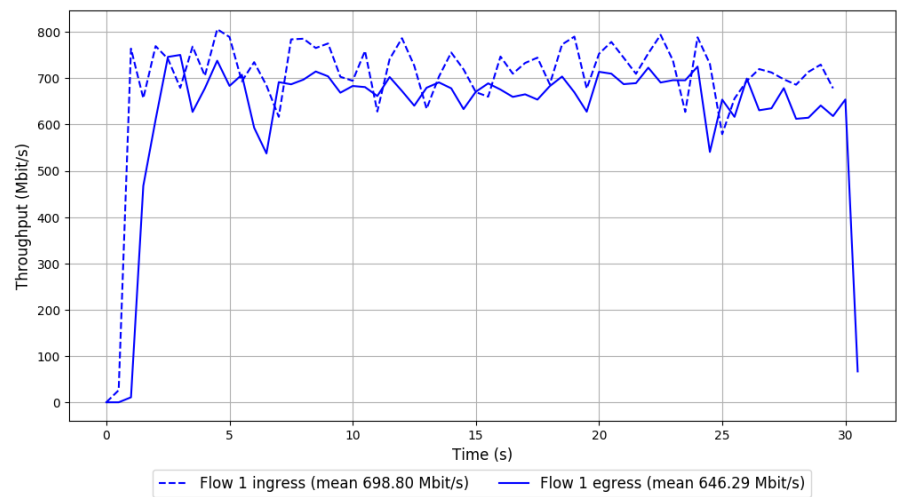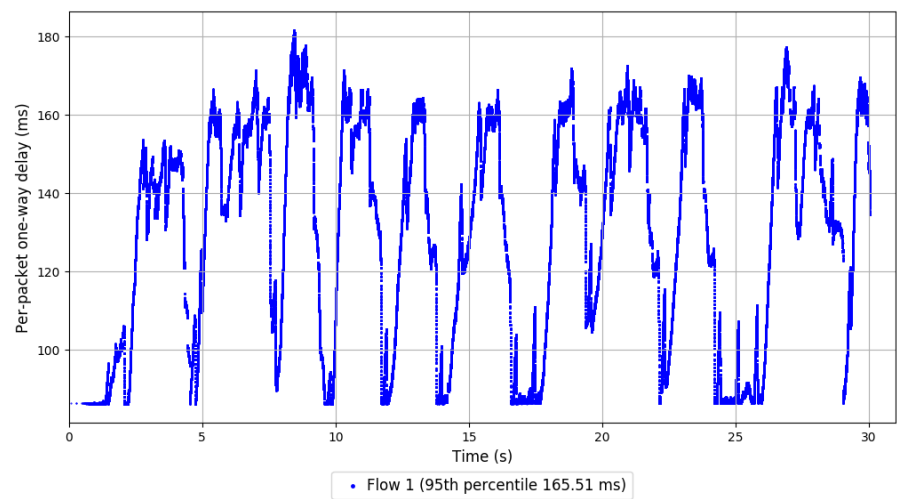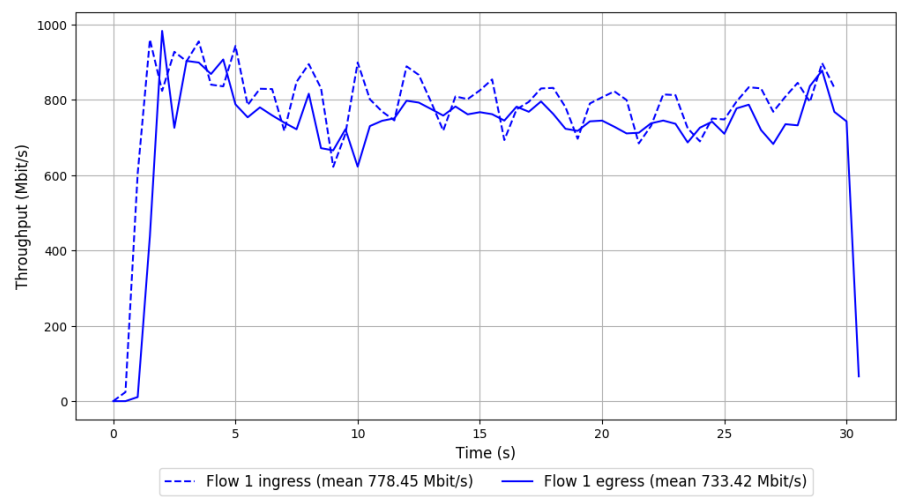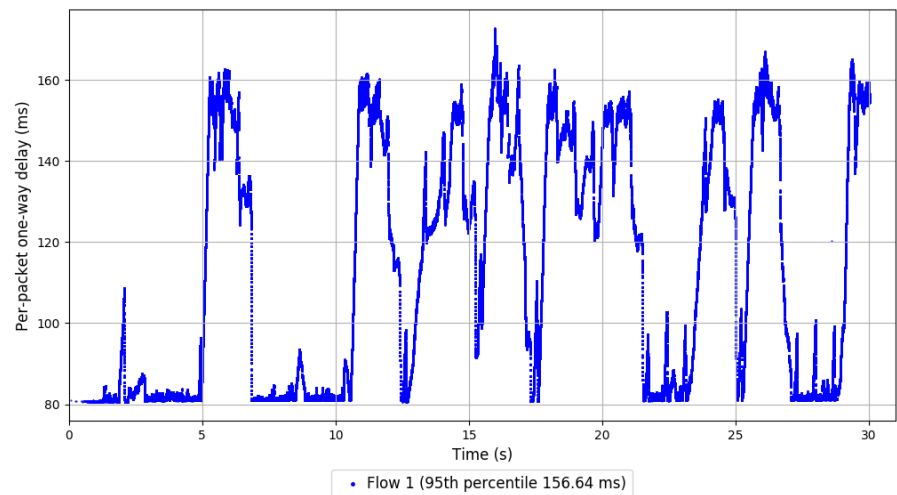
Run 2: Report of FillP — Data Link

```
Run 3: Statistics of FillP

Start at: 2018-06-05 04:02:01
End at: 2018-06-05 04:02:31
Local clock offset: 29.408 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2018-06-05 07:14:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 733.42 Mbit/s
95th percentile per-packet one-way delay: 165.510 ms
Loss rate: 5.78%
-- Flow 1:
Average throughput: 733.42 Mbit/s
95th percentile per-packet one-way delay: 165.510 ms
Loss rate: 5.78%
```

Run 3: Report of FillP — Data Link

Flow 1 ingress (mean 778.45 Mbit/s)   Flow 1 egress (mean 733.42 Mbit/s)

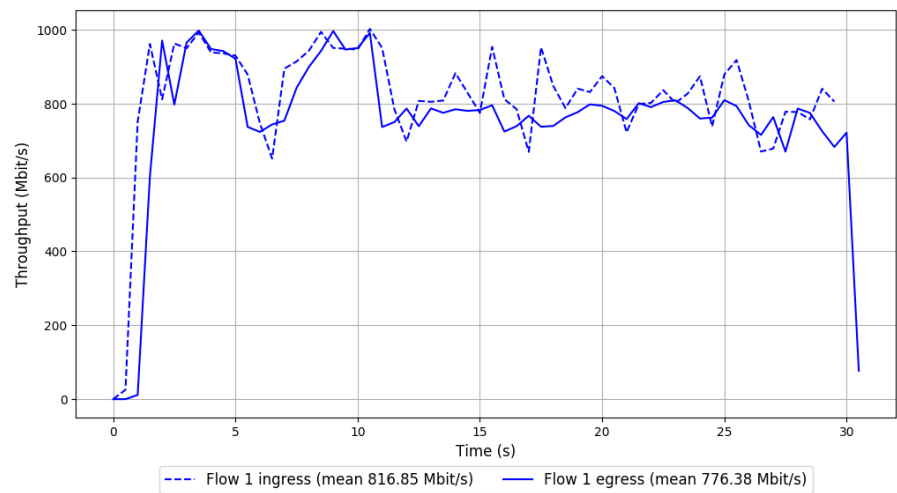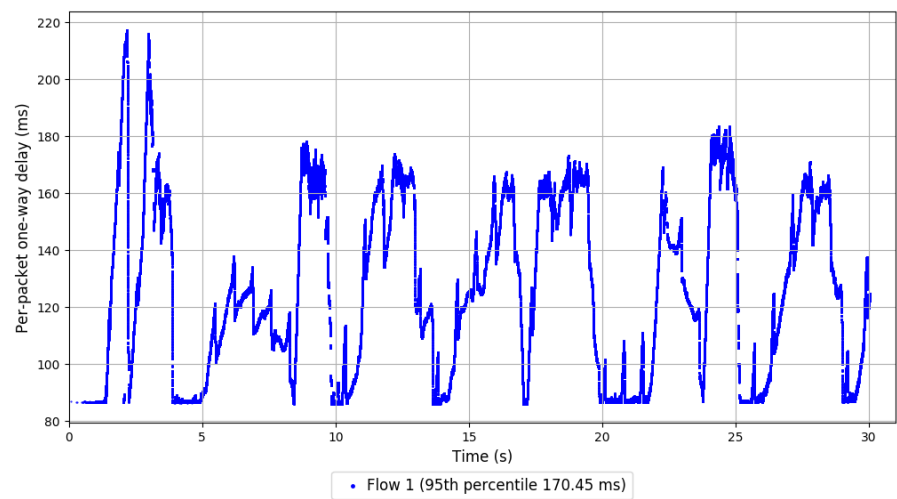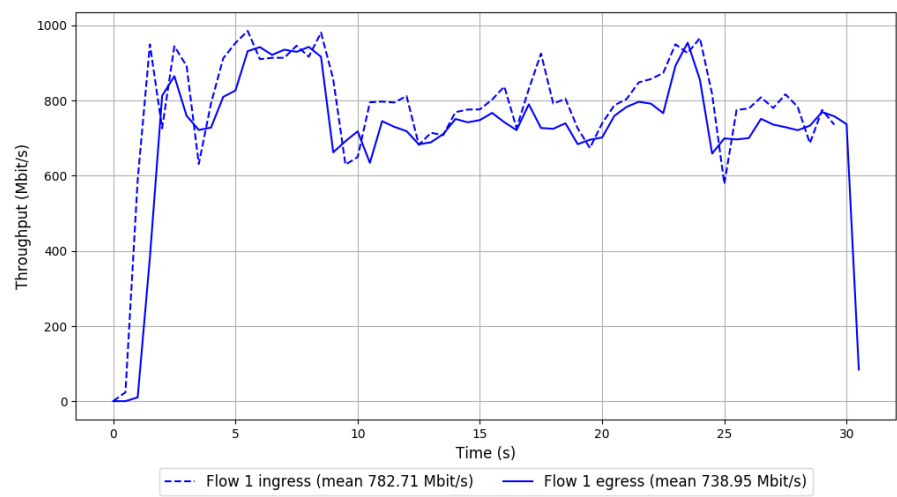• Flow 1 (95th percentile 165.51 ms)

```
Run 4: Statistics of FillP

Start at: 2018-06-05 04:22:49
End at: 2018-06-05 04:23:19
Local clock offset: 60.943 ms
Remote clock offset: -0.152 ms


# Below is generated by plot.py at 2018-06-05 07:15:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 776.38 Mbit/s
95th percentile per-packet one-way delay: 156.636 ms
Loss rate: 4.95%
-- Flow 1:
Average throughput: 776.38 Mbit/s
95th percentile per-packet one-way delay: 156.636 ms
Loss rate: 4.95%
```
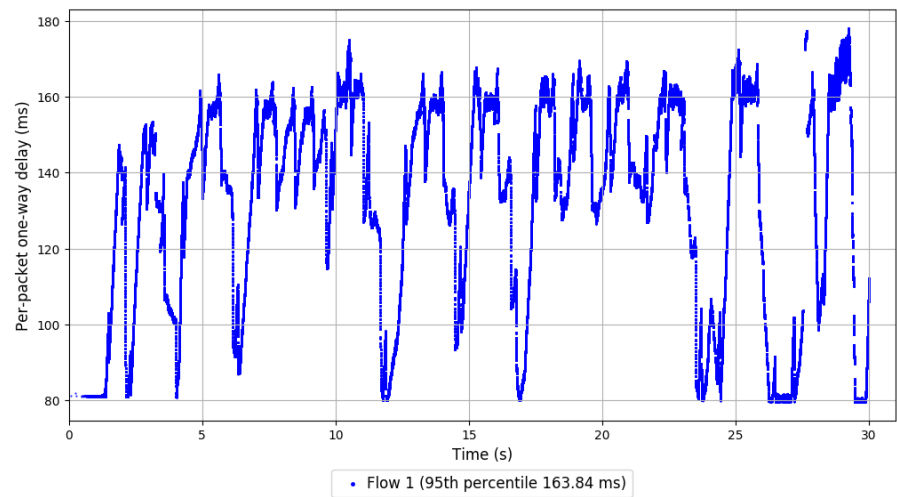
Run 4: Report of FillP — Data Link

```
Run 5: Statistics of FillP

Start at: 2018-06-05 04:43:43
End at: 2018-06-05 04:44:14
Local clock offset: 22.405 ms
Remote clock offset: -0.074 ms


# Below is generated by plot.py at 2018-06-05 07:15:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 738.95 Mbit/s
95th percentile per-packet one-way delay: 170.454 ms
Loss rate: 5.58%
-- Flow 1:
Average throughput: 738.95 Mbit/s
95th percentile per-packet one-way delay: 170.454 ms
Loss rate: 5.58%
```
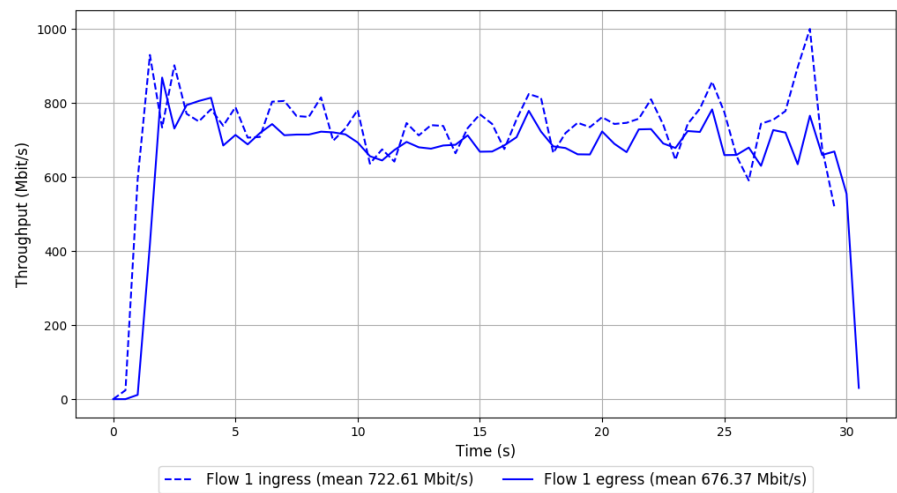
Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-06-05 05:04:37
End at: 2018-06-05 05:05:07
Local clock offset: 22.238 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2018-06-05 07:15:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 676.37 Mbit/s
95th percentile per-packet one-way delay: 163.840 ms
Loss rate: 6.40%
-- Flow 1:
Average throughput: 676.37 Mbit/s
95th percentile per-packet one-way delay: 163.840 ms
Loss rate: 6.40%
```

Run 6: Report of FillP — Data Link

Flow 1 ingress (mean 722.61 Mbit/s) --- Flow 1 egress (mean 676.37 Mbit/s)

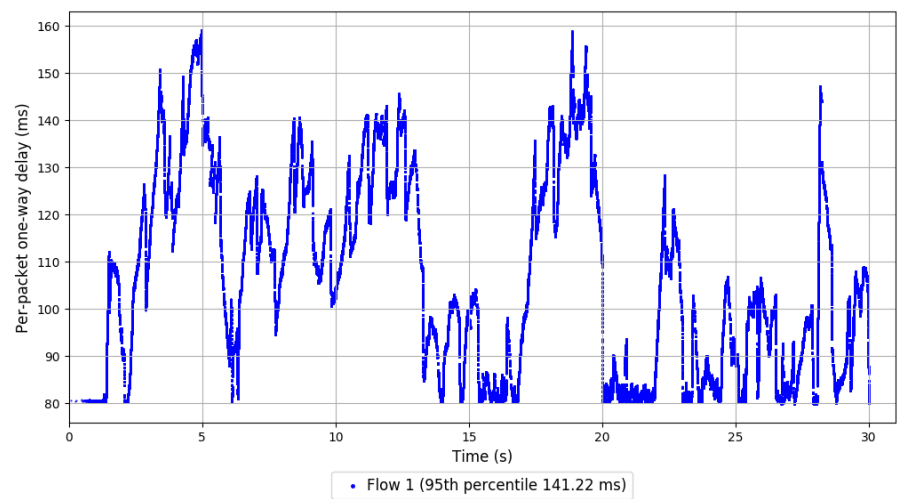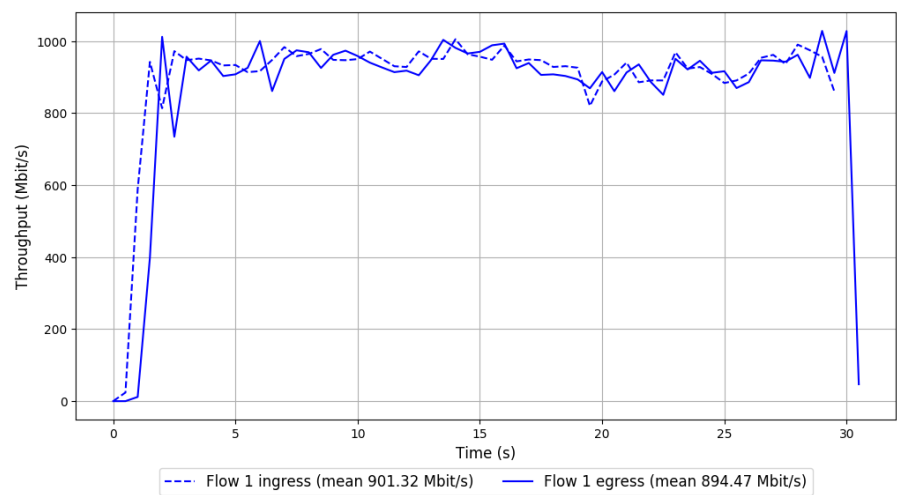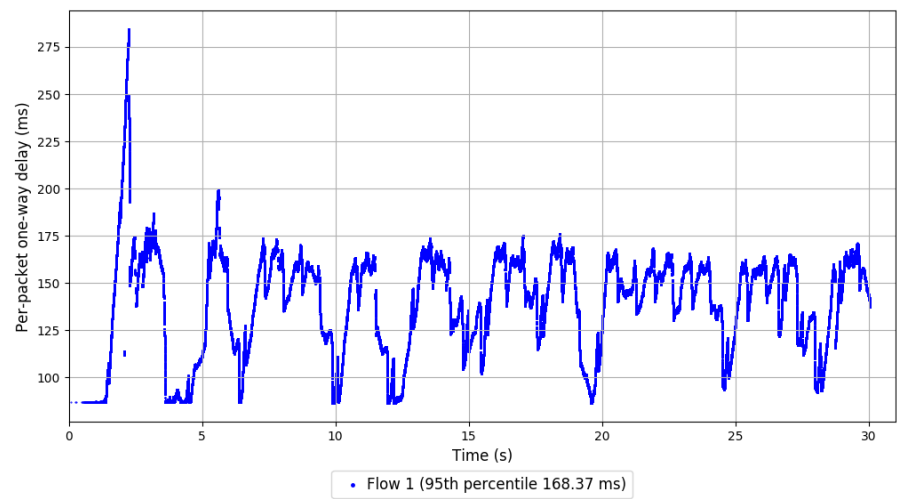
Flow 1 (95th percentile 163.84 ms)

```
Run 7: Statistics of FillP

Start at: 2018-06-05 05:25:25
End at: 2018-06-05 05:25:55
Local clock offset: 12.342 ms
Remote clock offset: -0.132 ms


# Below is generated by plot.py at 2018-06-05 07:18:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 894.47 Mbit/s
95th percentile per-packet one-way delay: 141.218 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 894.47 Mbit/s
95th percentile per-packet one-way delay: 141.218 ms
Loss rate: 0.76%
```

Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 901.32 Mbit/s) Flow 1 egress (mean 894.47 Mbit/s)

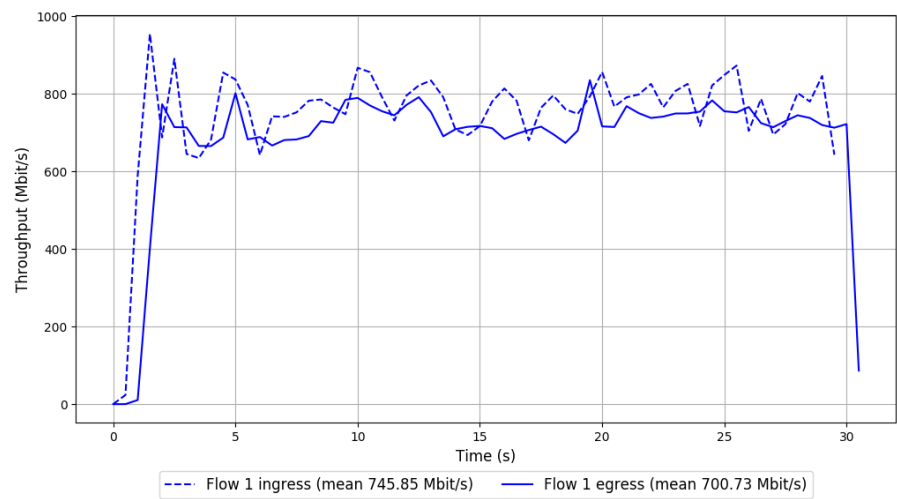Flow 1 (95th percentile 141.22 ms)

```
Run 8: Statistics of FillP

Start at: 2018-06-05 05:46:32
End at: 2018-06-05 05:47:02
Local clock offset: 2.512 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2018-06-05 07:18:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 700.73 Mbit/s
95th percentile per-packet one-way delay: 168.372 ms
Loss rate: 6.05%
-- Flow 1:
Average throughput: 700.73 Mbit/s
95th percentile per-packet one-way delay: 168.372 ms
Loss rate: 6.05%
```

Run 8: Report of FillP — Data Link

```
Run 9: Statistics of FillP

Start at: 2018-06-05 06:07:37
End at: 2018-06-05 06:08:07
Local clock offset: 3.308 ms
Remote clock offset: -0.02 ms


# Below is generated by plot.py at 2018-06-05 07:29:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 782.61 Mbit/s
95th percentile per-packet one-way delay: 164.908 ms
Loss rate: 5.30%
-- Flow 1:
Average throughput: 782.61 Mbit/s
95th percentile per-packet one-way delay: 164.908 ms
Loss rate: 5.30%
```
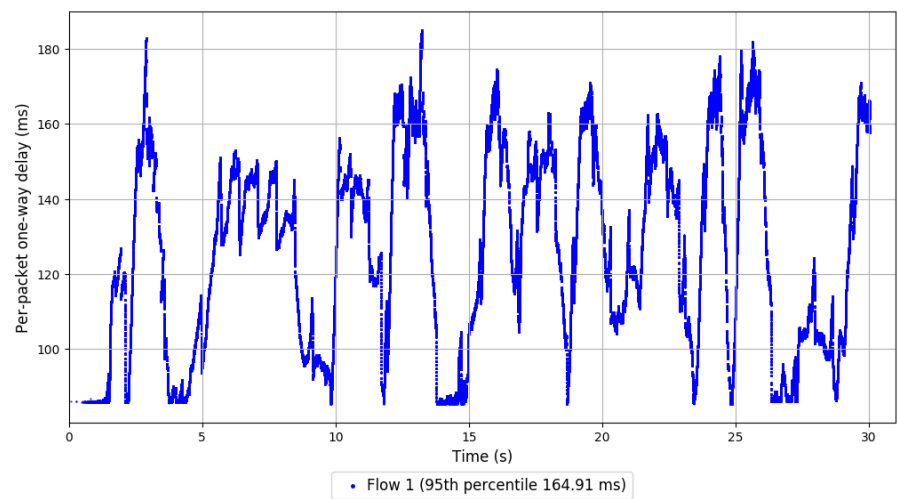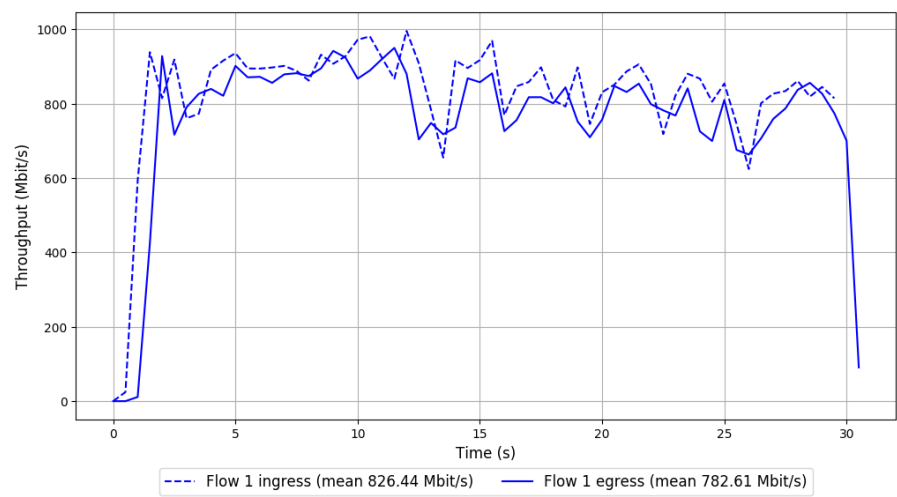
Run 9: Report of FillP — Data Link

```
Run 10: Statistics of FillP

Start at: 2018-06-05 06:28:23
End at: 2018-06-05 06:28:53
Local clock offset: 1.127 ms
Remote clock offset: -0.026 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 761.67 Mbit/s
95th percentile per-packet one-way delay: 161.488 ms
Loss rate: 4.59%
-- Flow 1:
Average throughput: 761.67 Mbit/s
95th percentile per-packet one-way delay: 161.488 ms
Loss rate: 4.59%
```
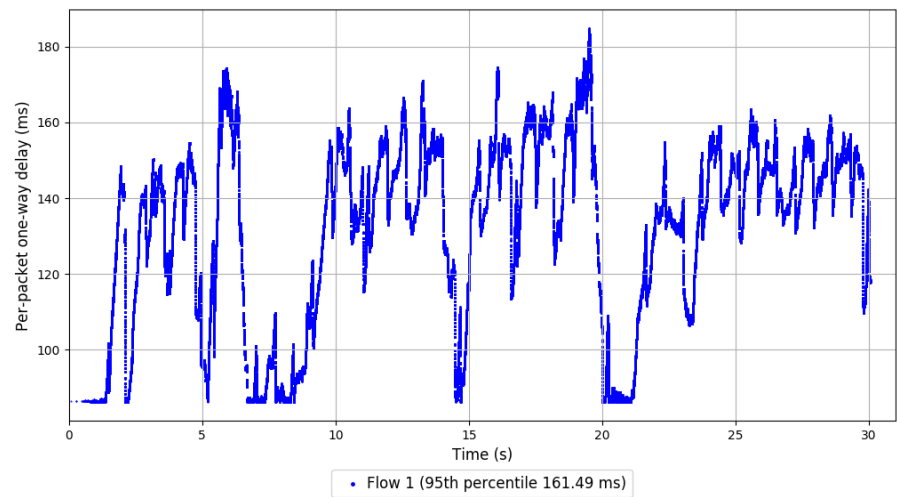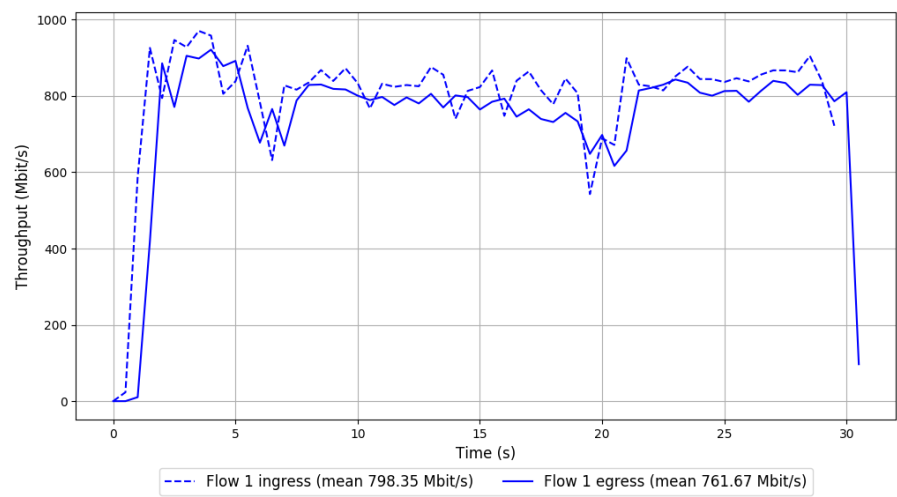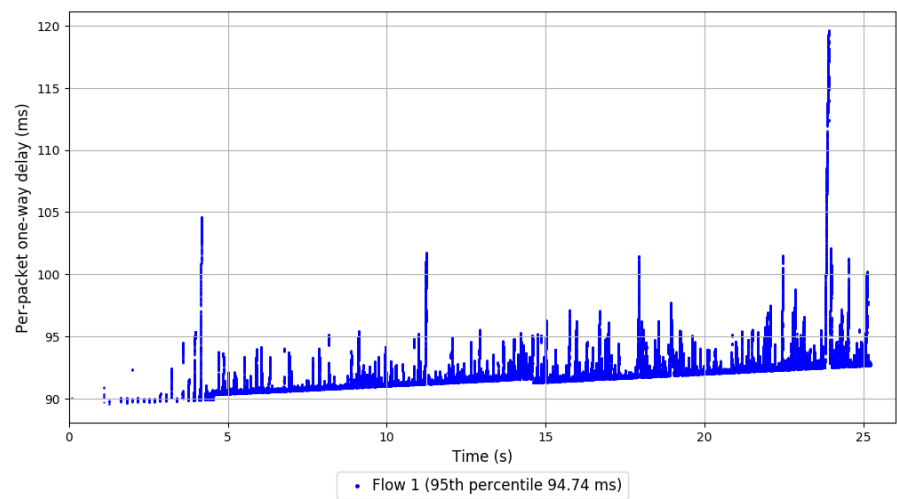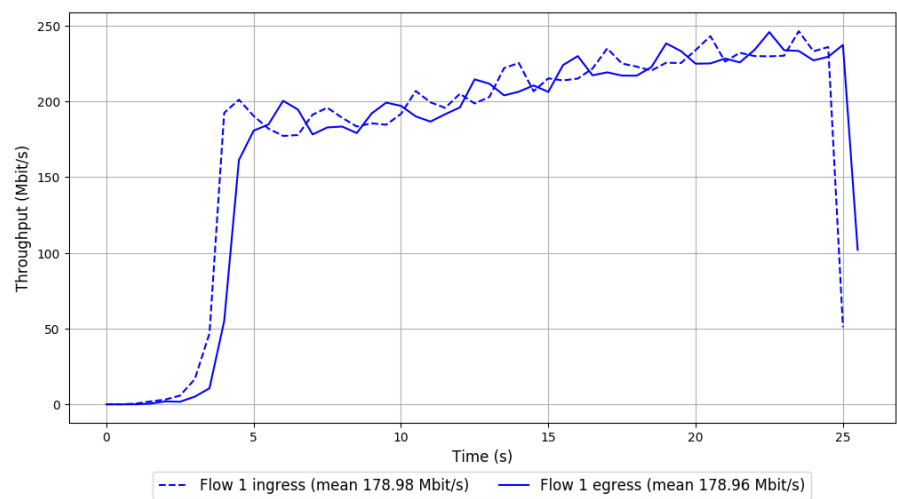
Run 10: Report of FillP — Data Link

```
Run 1: Statistics of Indigo

Start at: 2018-06-05 03:16:02
End at: 2018-06-05 03:16:32
Local clock offset: 27.976 ms
Remote clock offset: -0.067 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.96 Mbit/s
95th percentile per-packet one-way delay: 94.738 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.96 Mbit/s
95th percentile per-packet one-way delay: 94.738 ms
Loss rate: 0.00%
```
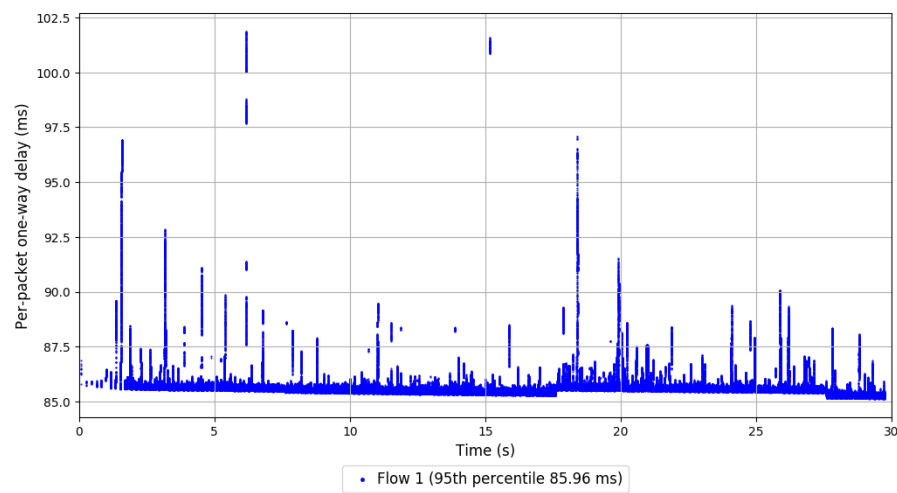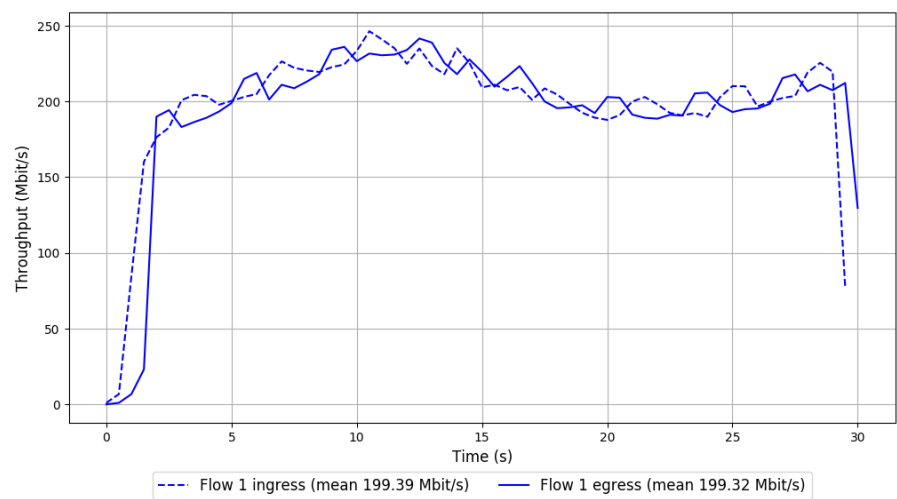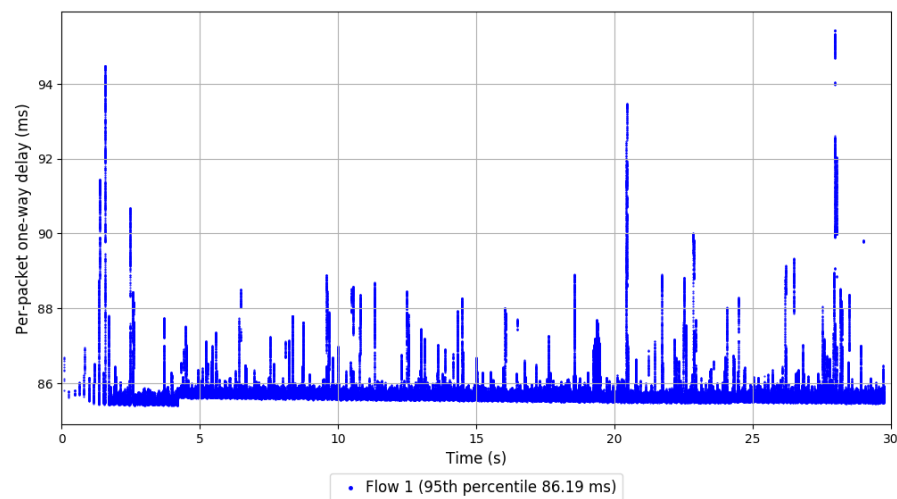
Run 1: Report of Indigo — Data Link

Flow 1 ingress (mean 178.98 Mbit/s)   Flow 1 egress (mean 178.96 Mbit/s)

Flow 1 (95th percentile 94.74 ms)

```
Run 2: Statistics of Indigo

Start at: 2018-06-05 03:36:33
End at: 2018-06-05 03:37:03
Local clock offset: 21.042 ms
Remote clock offset: 0.213 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 199.32 Mbit/s
95th percentile per-packet one-way delay: 85.956 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 199.32 Mbit/s
95th percentile per-packet one-way delay: 85.956 ms
Loss rate: 0.04%
```
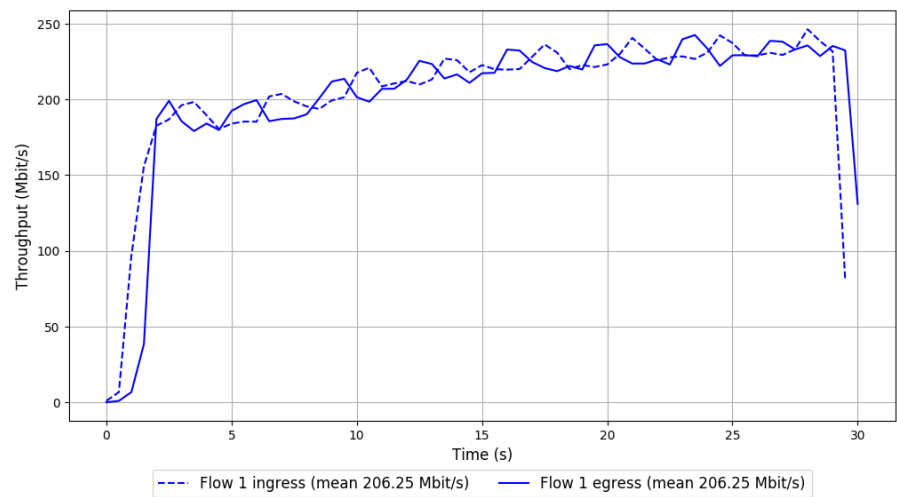
Run 2: Report of Indigo — Data Link

```
Run 3: Statistics of Indigo

Start at: 2018-06-05 03:57:17
End at: 2018-06-05 03:57:47
Local clock offset: 29.937 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.25 Mbit/s
95th percentile per-packet one-way delay: 86.191 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.25 Mbit/s
95th percentile per-packet one-way delay: 86.191 ms
Loss rate: 0.00%
```
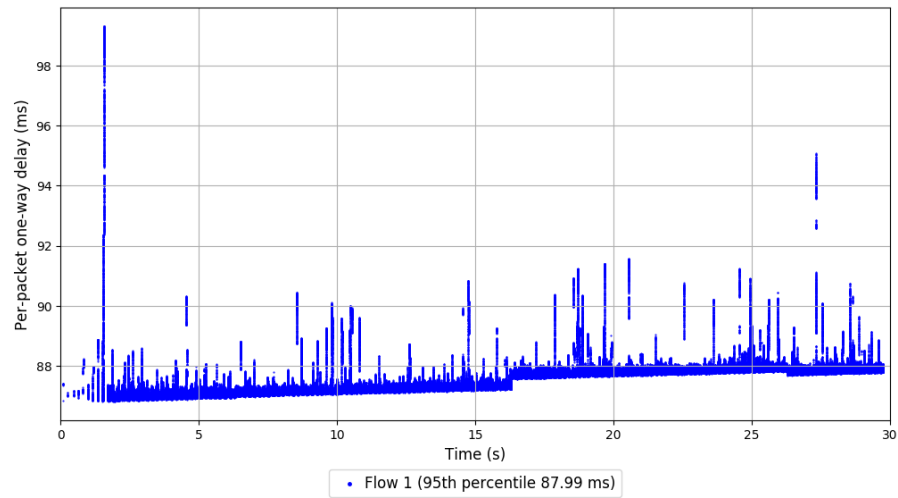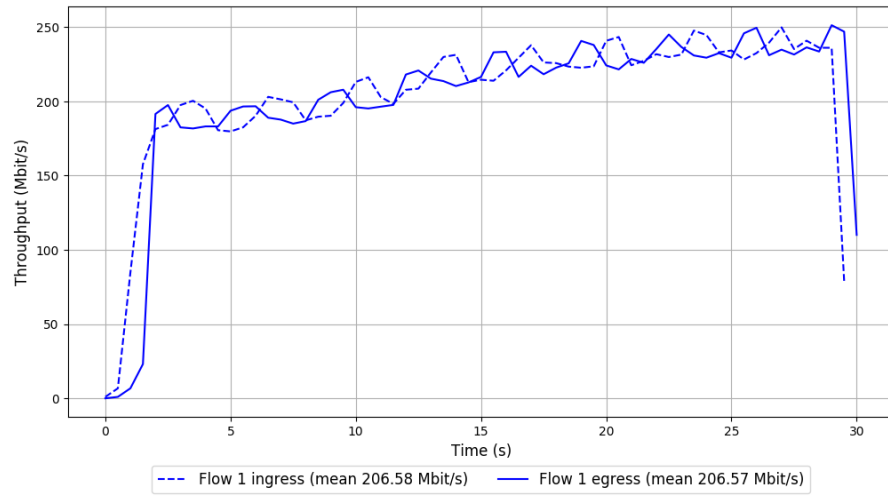
Run 3: Report of Indigo — Data Link

```
Run 4: Statistics of Indigo

Start at: 2018-06-05 04:18:05
End at: 2018-06-05 04:18:35
Local clock offset: 47.281 ms
Remote clock offset: -0.179 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 206.57 Mbit/s
95th percentile per-packet one-way delay: 87.988 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.57 Mbit/s
95th percentile per-packet one-way delay: 87.988 ms
Loss rate: 0.00%
```

Run 4: Report of Indigo — Data Link

Flow 1 ingress (mean 206.58 Mbit/s) ----   Flow 1 egress (mean 206.57 Mbit/s) ——
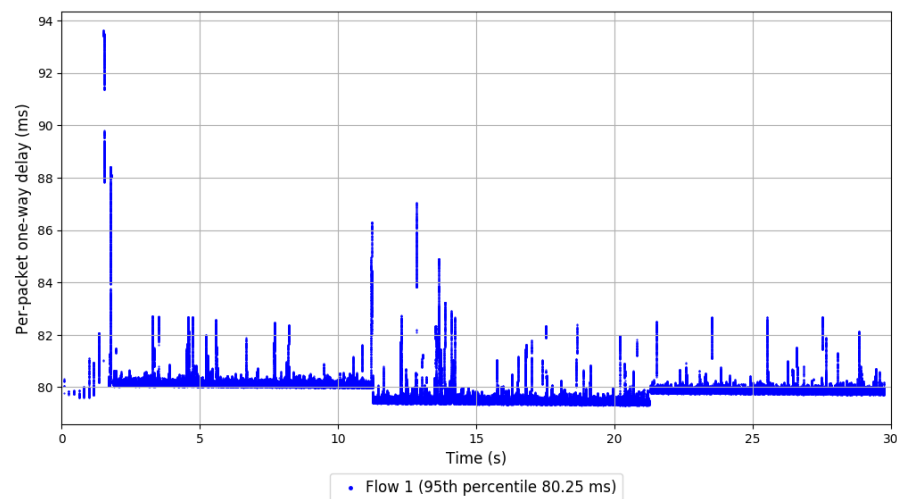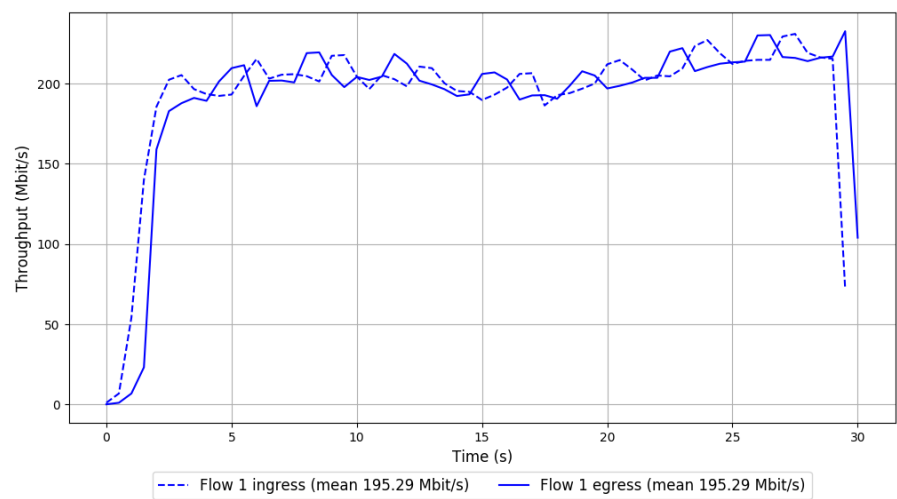

Flow 1 (95th percentile 87.99 ms)

```
Run 5: Statistics of Indigo

Start at: 2018-06-05 04:39:00
End at: 2018-06-05 04:39:30
Local clock offset: 29.586 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.29 Mbit/s
95th percentile per-packet one-way delay: 80.254 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 195.29 Mbit/s
95th percentile per-packet one-way delay: 80.254 ms
Loss rate: 0.00%
```
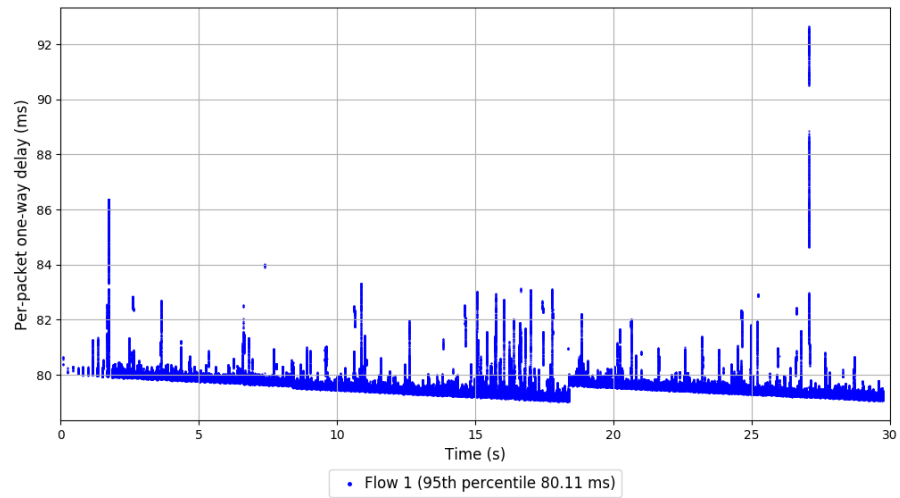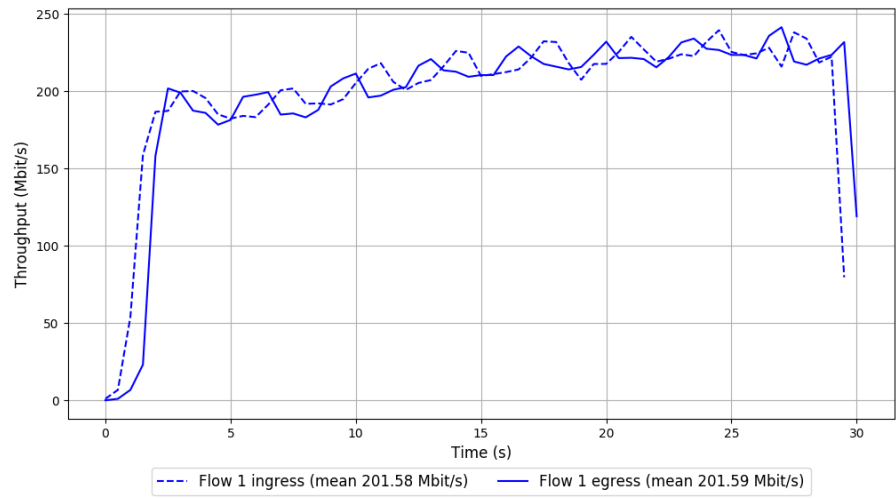
Run 5: Report of Indigo — Data Link

```
Run 6: Statistics of Indigo

Start at: 2018-06-05 04:59:53
End at: 2018-06-05 05:00:23
Local clock offset: 33.488 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.59 Mbit/s
95th percentile per-packet one-way delay: 80.111 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.59 Mbit/s
95th percentile per-packet one-way delay: 80.111 ms
Loss rate: 0.00%
```
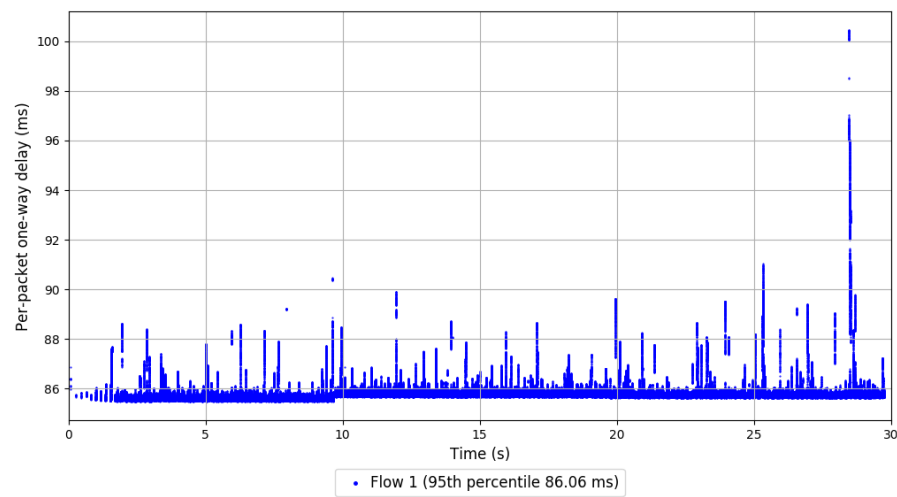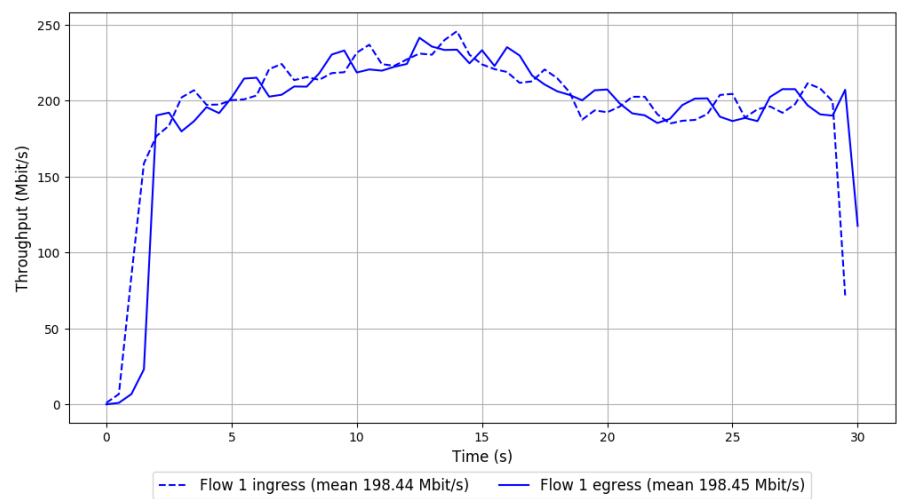
Run 6: Report of Indigo — Data Link

```
Run 7: Statistics of Indigo

Start at: 2018-06-05 05:20:41
End at: 2018-06-05 05:21:11
Local clock offset: 6.794 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.45 Mbit/s
95th percentile per-packet one-way delay: 86.057 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 198.45 Mbit/s
95th percentile per-packet one-way delay: 86.057 ms
Loss rate: 0.00%
```

Run 7: Report of Indigo — Data Link

Flow 1 ingress (mean 198.44 Mbit/s) — Flow 1 egress (mean 198.45 Mbit/s)

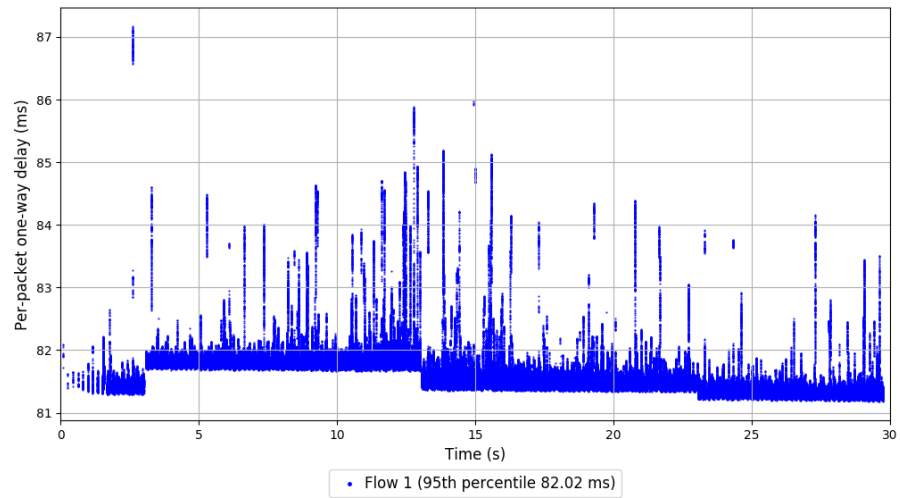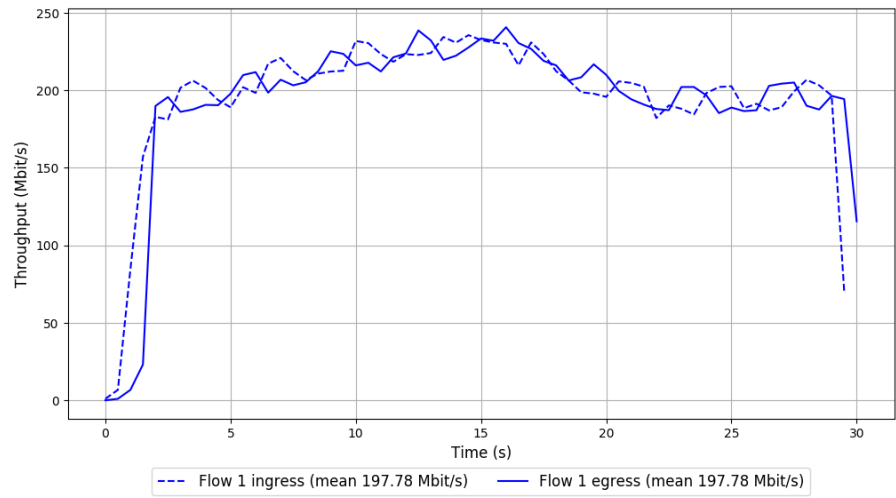Flow 1 (95th percentile 86.06 ms)

```
Run 8: Statistics of Indigo

Start at: 2018-06-05 05:41:48
End at: 2018-06-05 05:42:18
Local clock offset: 7.807 ms
Remote clock offset: -0.112 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.78 Mbit/s
95th percentile per-packet one-way delay: 82.015 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 197.78 Mbit/s
95th percentile per-packet one-way delay: 82.015 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo — Data Link

```
Run 9: Statistics of Indigo

Start at: 2018-06-05 06:02:52
End at: 2018-06-05 06:03:22
Local clock offset: 2.4 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 202.43 Mbit/s
95th percentile per-packet one-way delay: 87.421 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 202.43 Mbit/s
95th percentile per-packet one-way delay: 87.421 ms
Loss rate: 0.00%
```
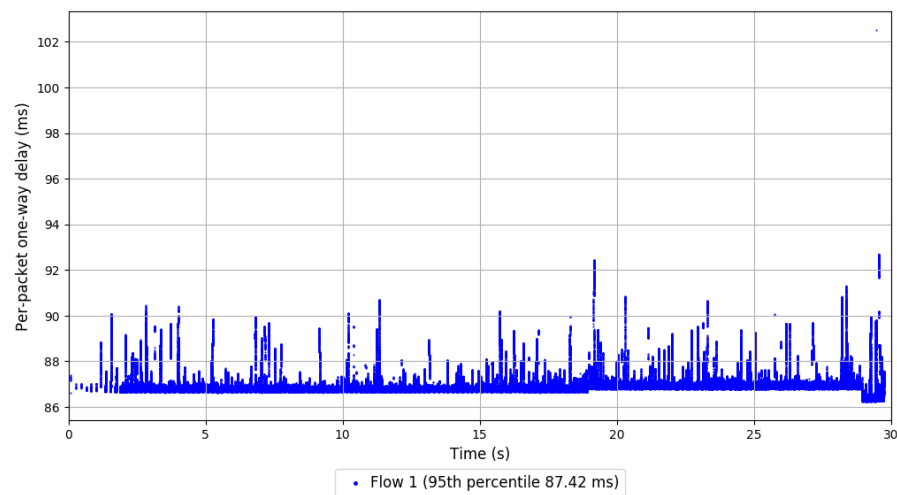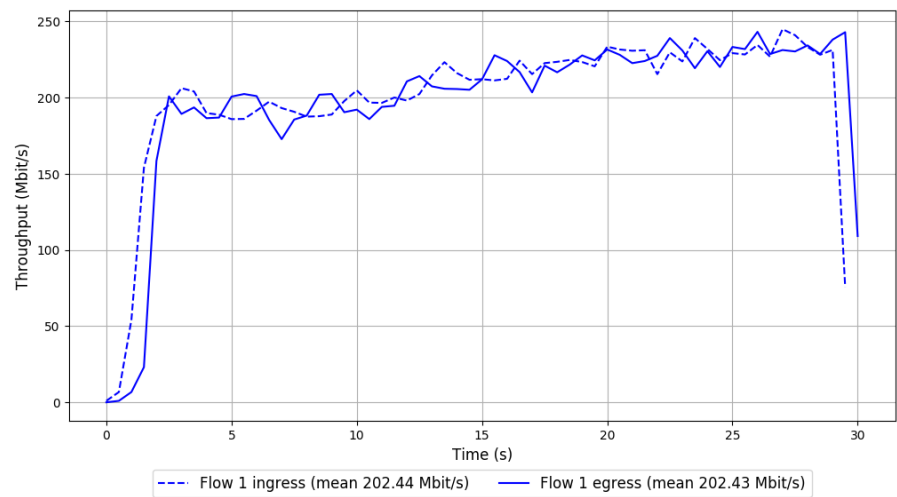
Run 9: Report of Indigo — Data Link

```
Run 10: Statistics of Indigo

Start at: 2018-06-05 06:23:43
End at: 2018-06-05 06:24:13
Local clock offset: 5.524 ms
Remote clock offset: -0.044 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 197.29 Mbit/s
95th percentile per-packet one-way delay: 82.706 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 197.29 Mbit/s
95th percentile per-packet one-way delay: 82.706 ms
Loss rate: 0.02%
```
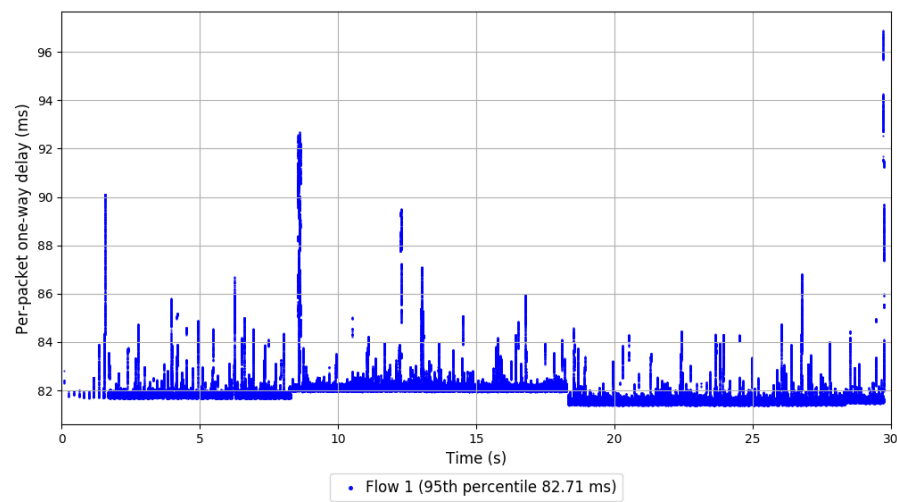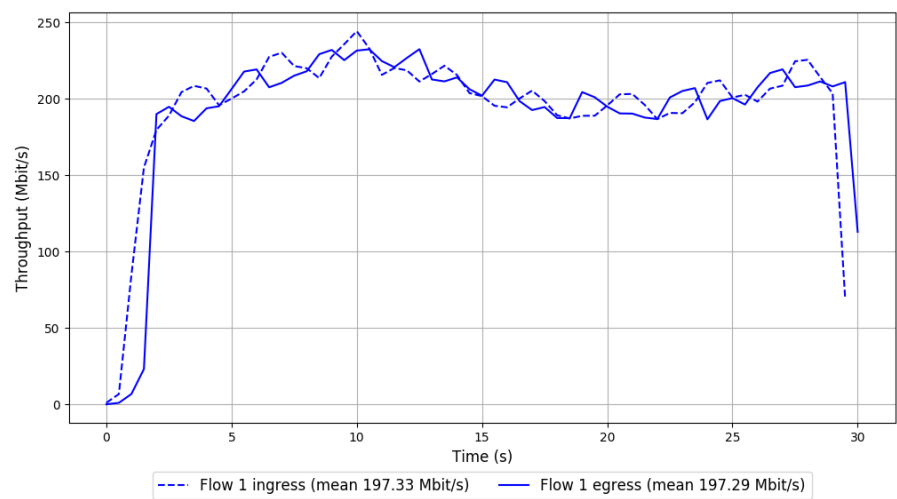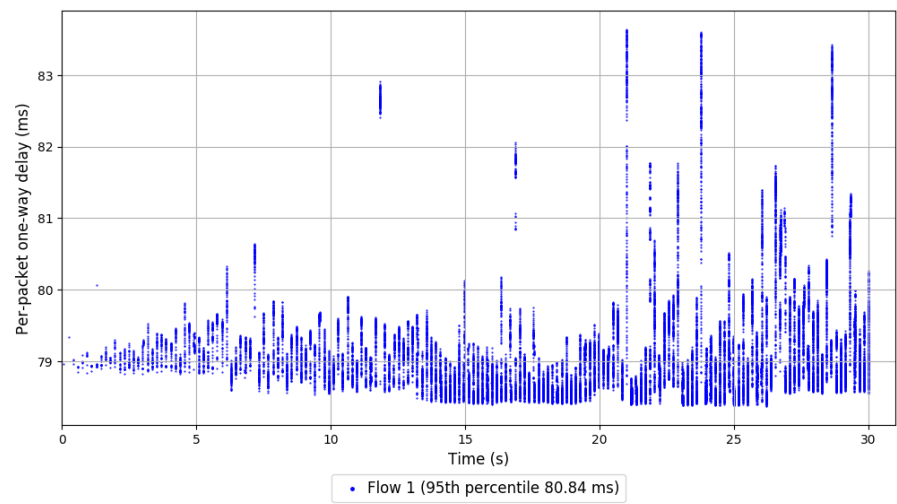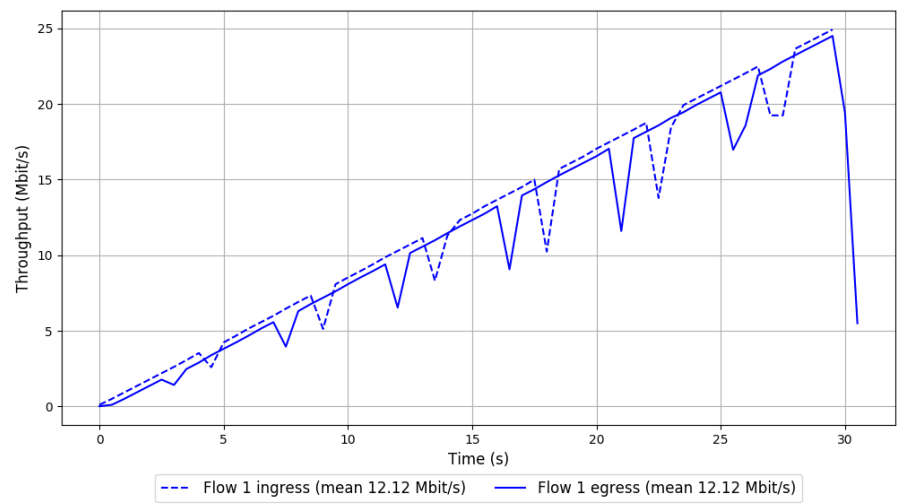
Run 10: Report of Indigo — Data Link

```
Run 1: Statistics of LEDBAT

Start at: 2018-06-05 03:18:25
End at: 2018-06-05 03:18:55
Local clock offset: 34.146 ms
Remote clock offset: -0.024 ms

# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 80.839 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.12 Mbit/s
95th percentile per-packet one-way delay: 80.839 ms
Loss rate: 0.00%
```

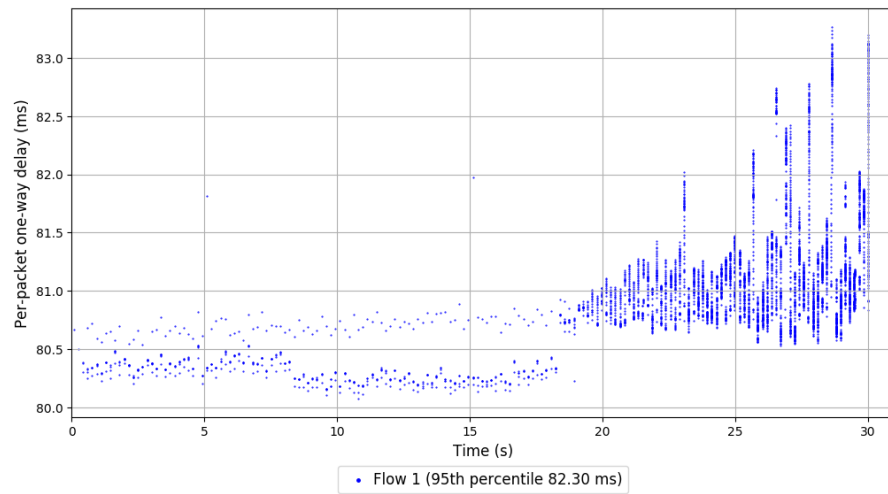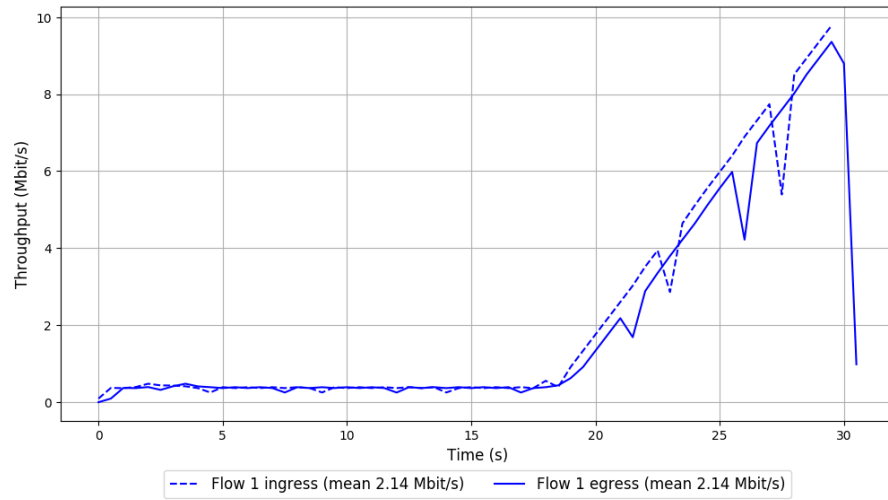# Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-06-05 03:39:03
End at: 2018-06-05 03:39:33
Local clock offset: 25.917 ms
Remote clock offset: 0.261 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 82.297 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 82.297 ms
Loss rate: 0.00%
```

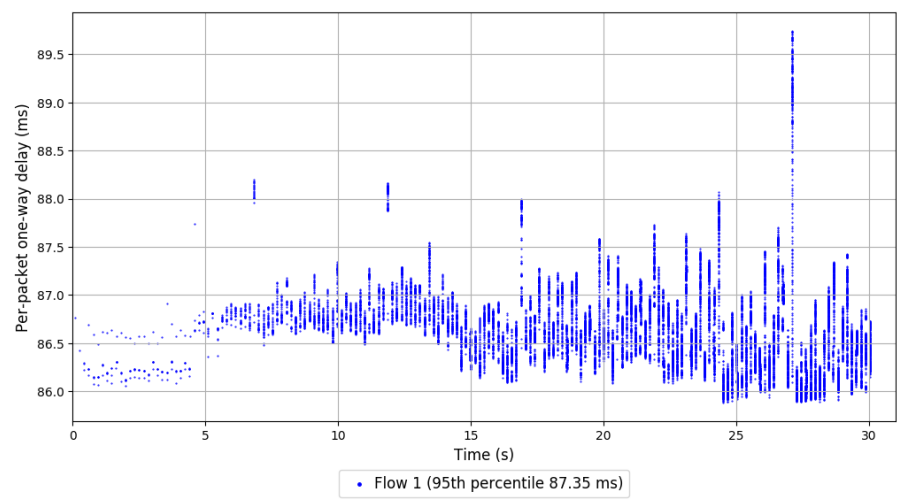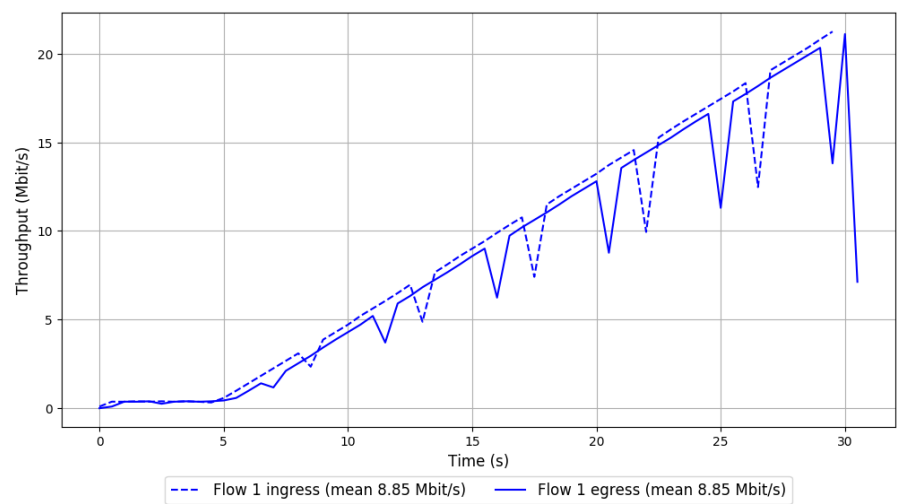## Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: 2018-06-05 03:59:47
End at: 2018-06-05 04:00:17
Local clock offset: 29.053 ms
Remote clock offset: -0.115 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 87.346 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.85 Mbit/s
95th percentile per-packet one-way delay: 87.346 ms
Loss rate: 0.00%
```

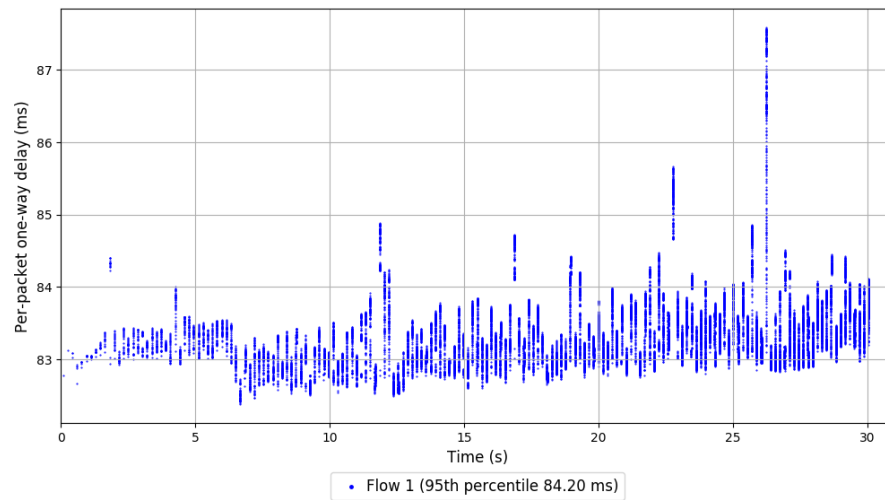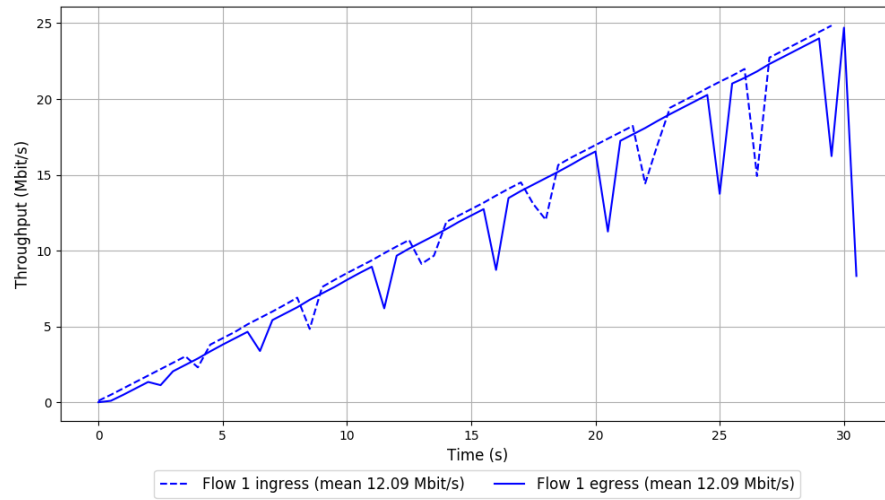# Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-06-05 04:20:35
End at: 2018-06-05 04:21:05
Local clock offset: 55.574 ms
Remote clock offset: -0.155 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.09 Mbit/s
95th percentile per-packet one-way delay: 84.200 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.09 Mbit/s
95th percentile per-packet one-way delay: 84.200 ms
Loss rate: 0.00%
```
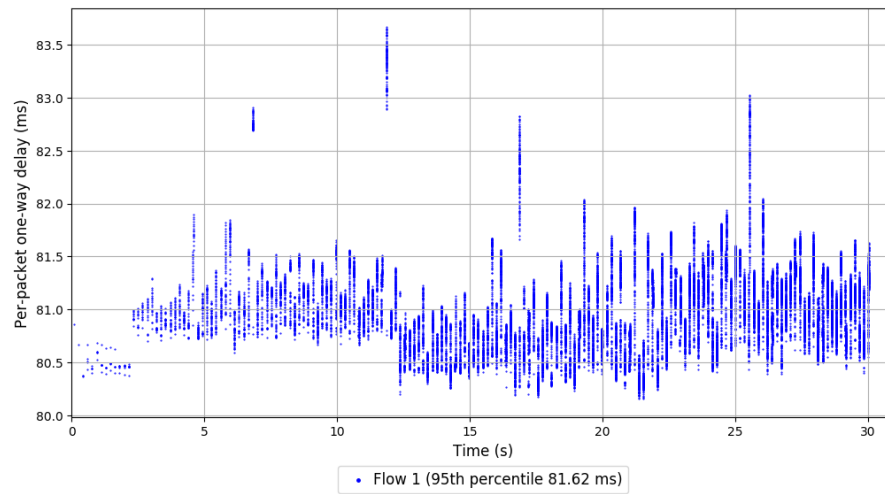
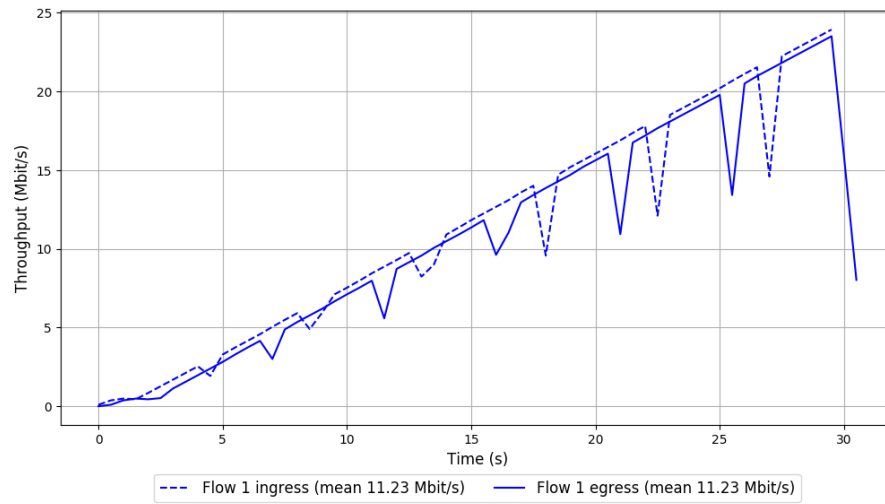## Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-06-05 04:41:29
End at: 2018-06-05 04:41:59
Local clock offset: 28.274 ms
Remote clock offset: -0.082 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 81.616 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.23 Mbit/s
95th percentile per-packet one-way delay: 81.616 ms
Loss rate: 0.00%
```
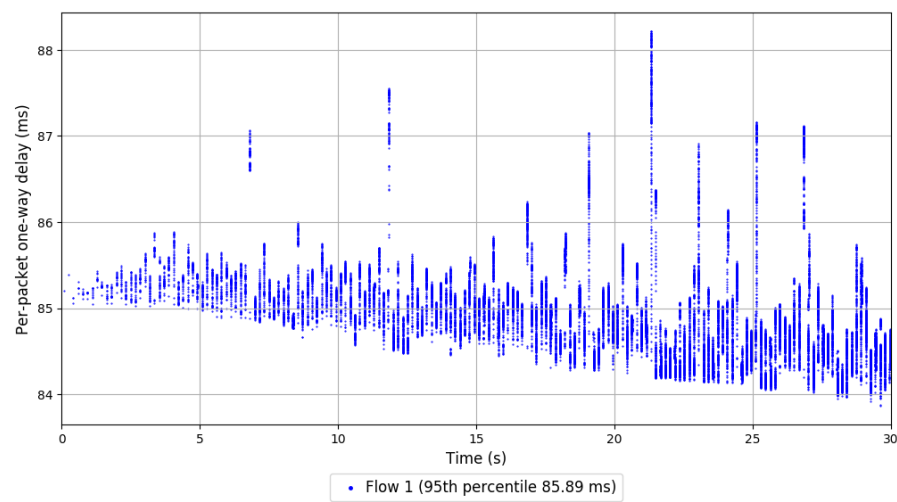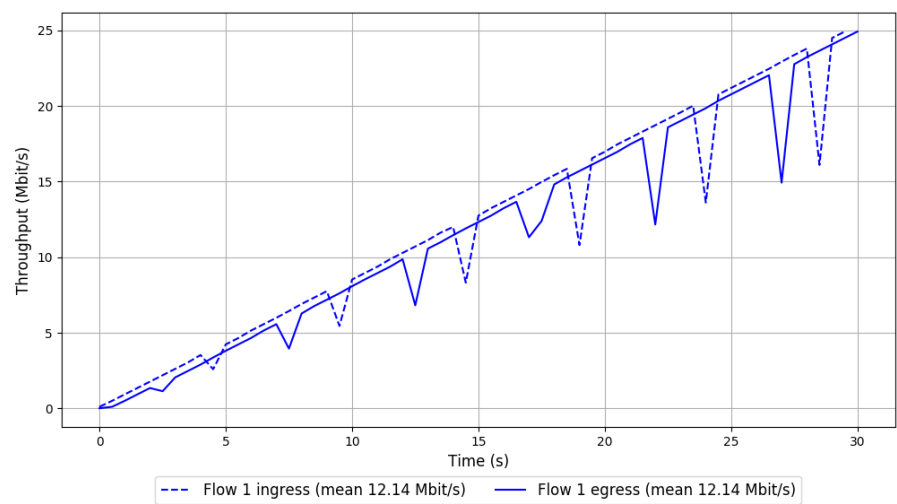
Run 5: Report of LEDBAT — Data Link

```
Run 6: Statistics of LEDBAT

Start at: 2018-06-05 05:02:23
End at: 2018-06-05 05:02:53
Local clock offset: 21.987 ms
Remote clock offset: -0.122 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 85.895 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 85.895 ms
Loss rate: 0.00%
```

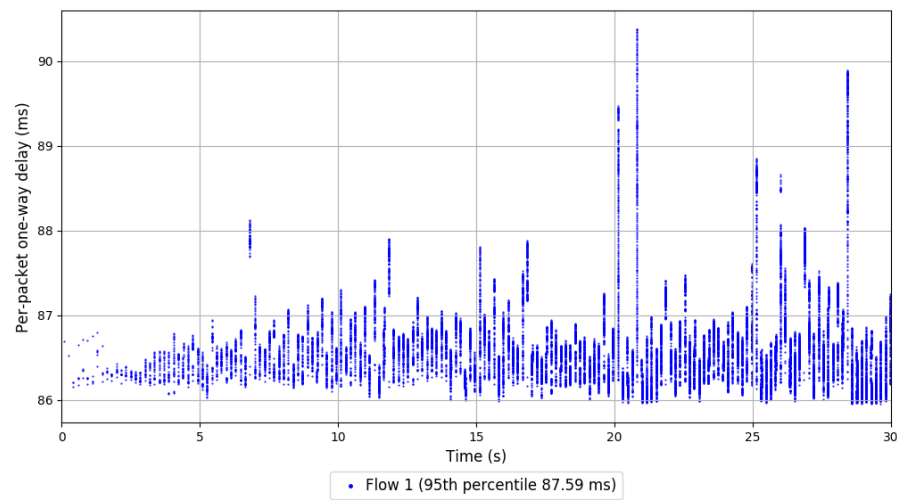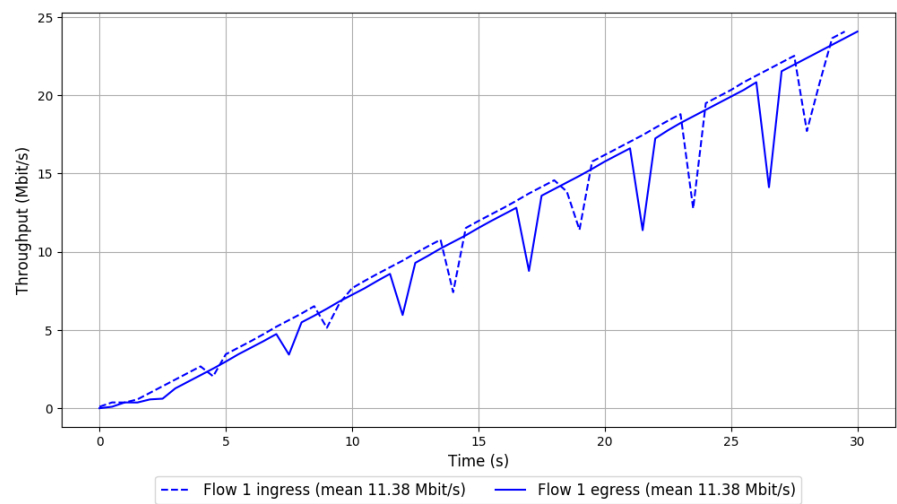## Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-06-05 05:23:11
End at: 2018-06-05 05:23:41
Local clock offset: 6.111 ms
Remote clock offset: -0.156 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 87.593 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 87.593 ms
Loss rate: 0.00%
```

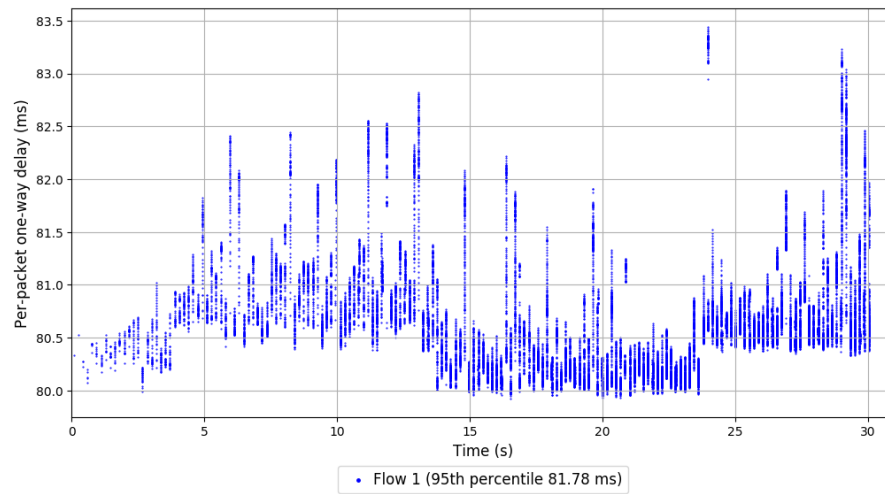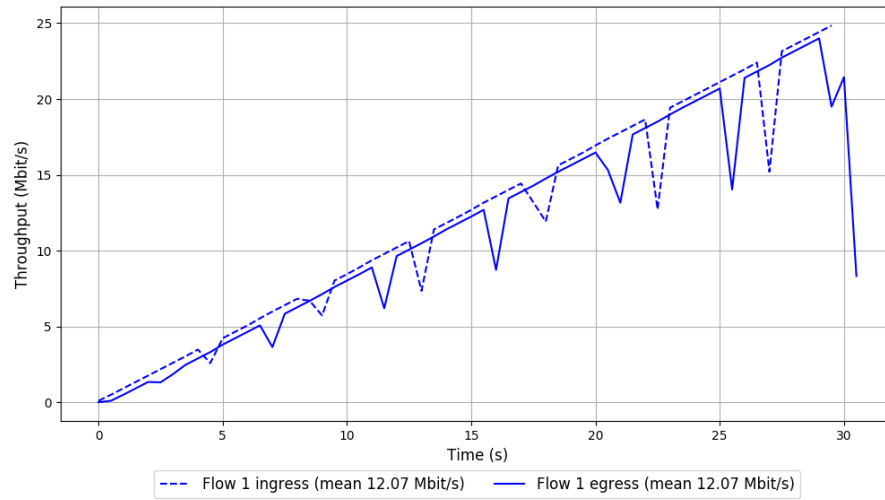## Run 7: Report of LEDBAT — Data Link

```
Run 8: Statistics of LEDBAT

Start at: 2018-06-05 05:44:18
End at: 2018-06-05 05:44:48
Local clock offset: 8.732 ms
Remote clock offset: -0.087 ms


# Below is generated by plot.py at 2018-06-05 07:29:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 81.784 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 12.07 Mbit/s
95th percentile per-packet one-way delay: 81.784 ms
Loss rate: 0.00%
```
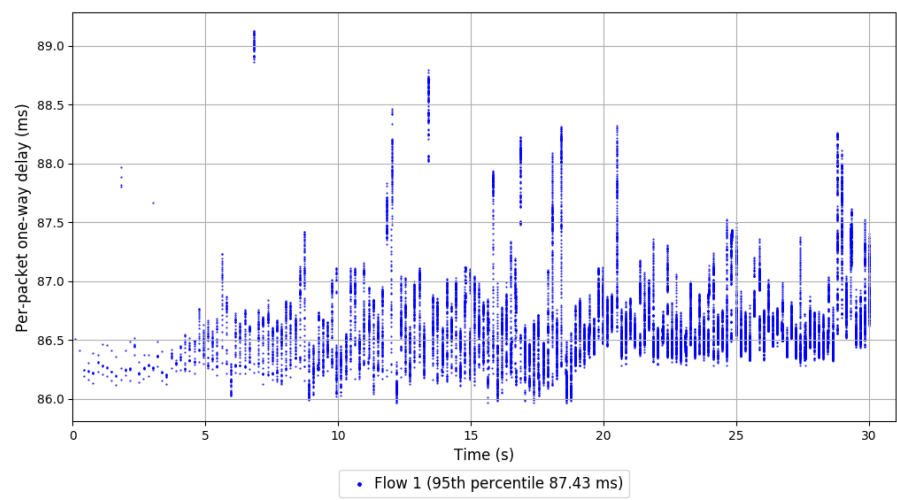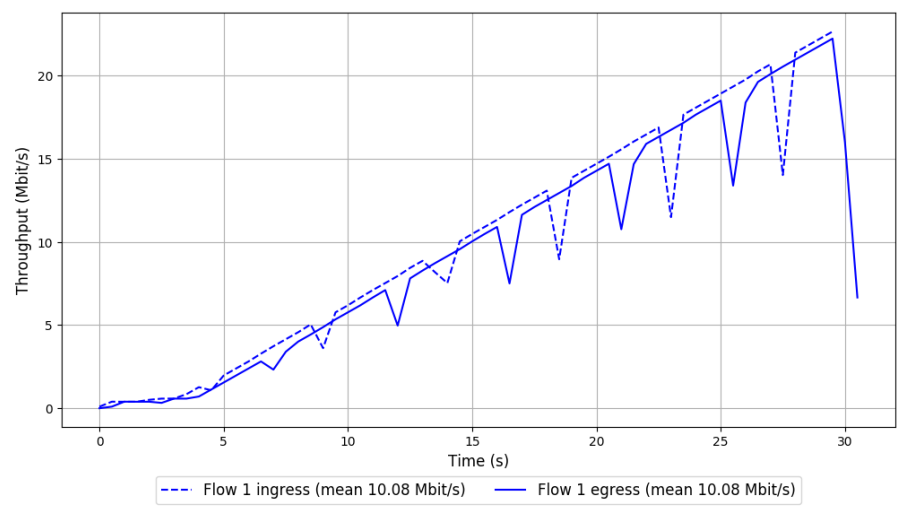
Run 8: Report of LEDBAT — Data Link

```
Run 9: Statistics of LEDBAT

Start at: 2018-06-05 06:05:22
End at: 2018-06-05 06:05:52
Local clock offset: 2.789 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at 2018-06-05 07:29:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 87.432 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.08 Mbit/s
95th percentile per-packet one-way delay: 87.432 ms
Loss rate: 0.00%
```

Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-06-05 06:26:09
End at: 2018-06-05 06:26:39
Local clock offset: 0.894 ms
Remote clock offset: -0.01 ms

# Below is generated by plot.py at 2018-06-05 07:29:09
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 87.673 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 10.82 Mbit/s
95th percentile per-packet one-way delay: 87.673 ms
Loss rate: 0.00%
```
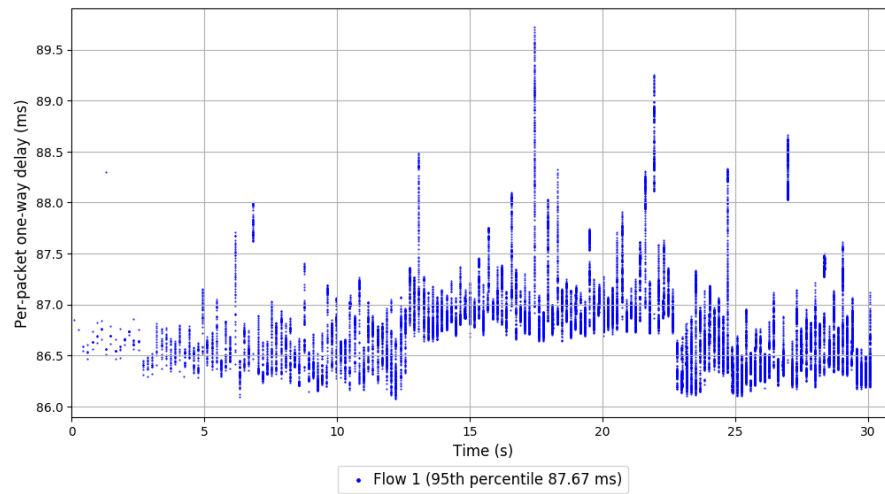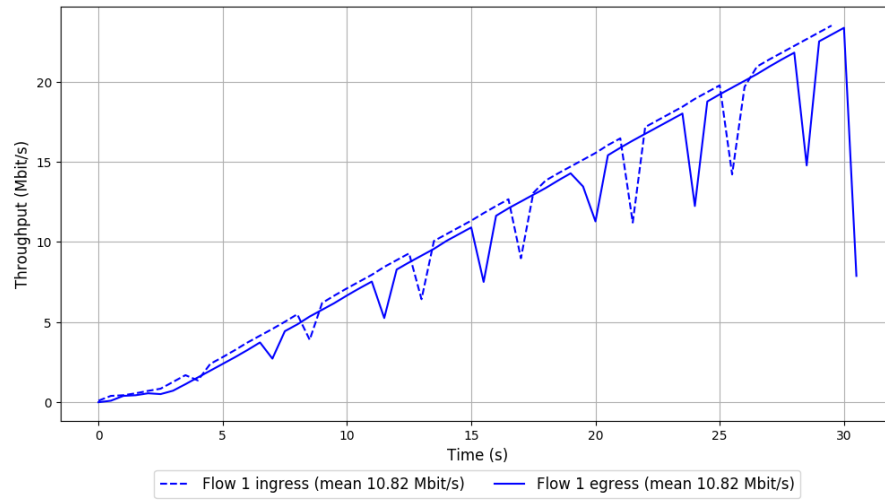
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-05 03:09:56
End at: 2018-06-05 03:10:26
Local clock offset: 11.325 ms
Remote clock offset: -0.054 ms


# Below is generated by plot.py at 2018-06-05 07:29:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 530.32 Mbit/s
95th percentile per-packet one-way delay: 171.915 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 530.32 Mbit/s
95th percentile per-packet one-way delay: 171.915 ms
Loss rate: 1.19%
```
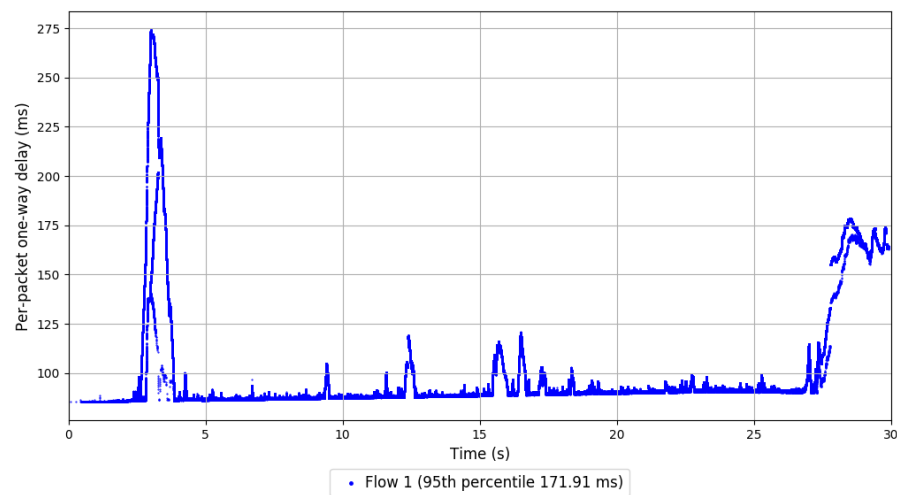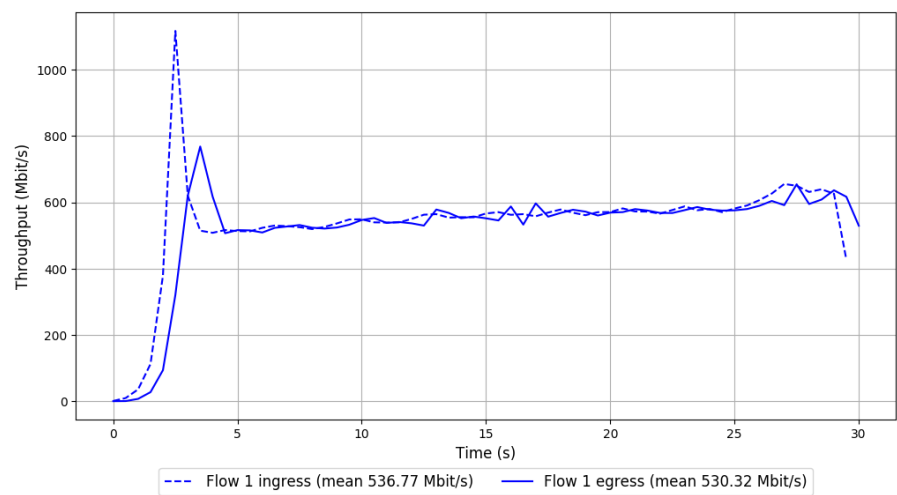
Run 1: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 536.77 Mbit/s) —— Flow 1 egress (mean 530.32 Mbit/s)

• Flow 1 (95th percentile 171.91 ms)

```
Run 2: Statistics of PCC-Allegro

Start at: 2018-06-05 03:30:25
End at: 2018-06-05 03:30:55
Local clock offset: 24.79 ms
Remote clock offset: 0.161 ms


# Below is generated by plot.py at 2018-06-05 07:30:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 568.47 Mbit/s
95th percentile per-packet one-way delay: 199.470 ms
Loss rate: 1.28%
-- Flow 1:
Average throughput: 568.47 Mbit/s
95th percentile per-packet one-way delay: 199.470 ms
Loss rate: 1.28%
```
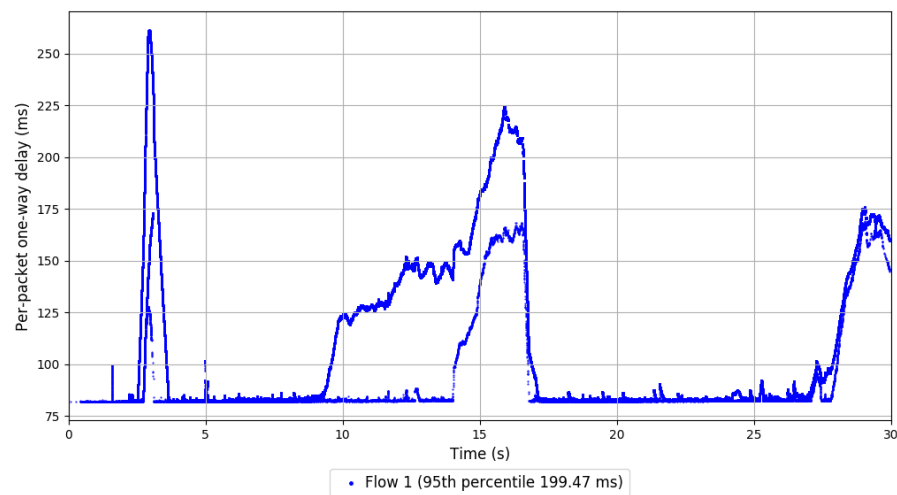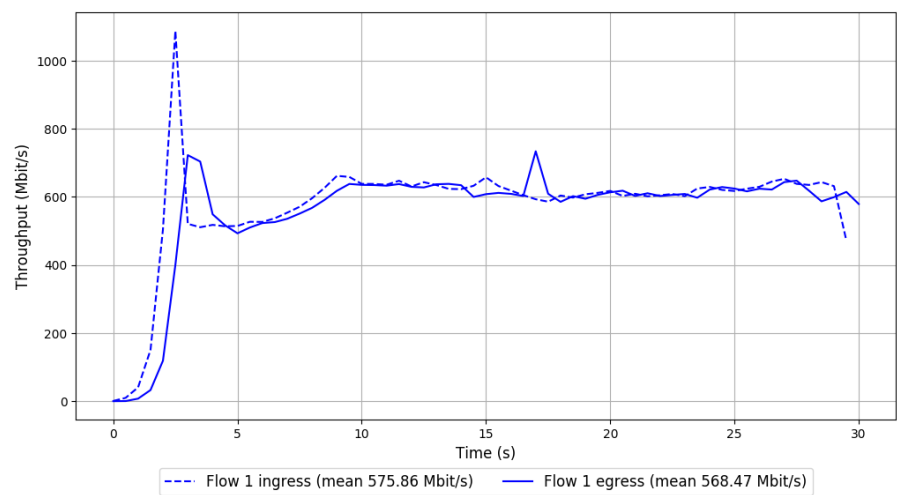
Run 2: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 575.86 Mbit/s) — Flow 1 egress (mean 568.47 Mbit/s)

• Flow 1 (95th percentile 199.47 ms)

```
Run 3: Statistics of PCC-Allegro

Start at: 2018-06-05 03:51:10
End at: 2018-06-05 03:51:40
Local clock offset: 39.349 ms
Remote clock offset: 0.002 ms


# Below is generated by plot.py at 2018-06-05 07:30:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 575.64 Mbit/s
95th percentile per-packet one-way delay: 189.031 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 575.64 Mbit/s
95th percentile per-packet one-way delay: 189.031 ms
Loss rate: 1.10%
```
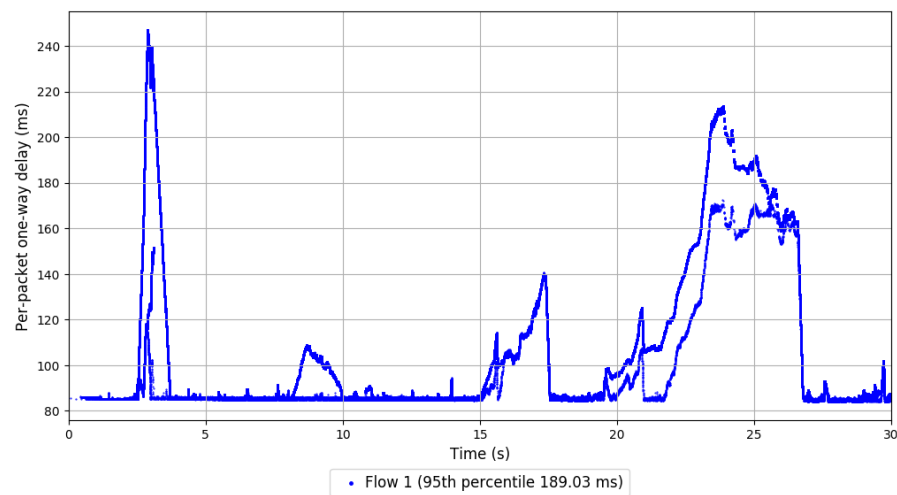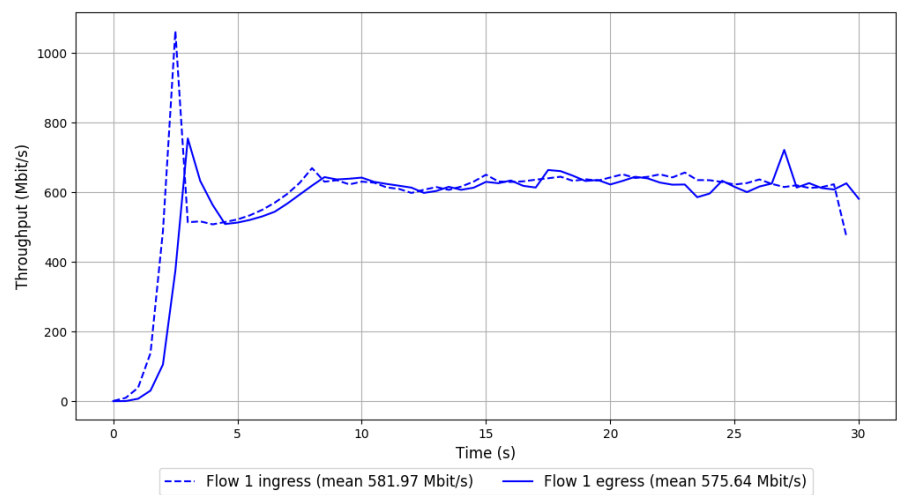
Run 3: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 581.97 Mbit/s) ----- Flow 1 egress (mean 575.64 Mbit/s) ——

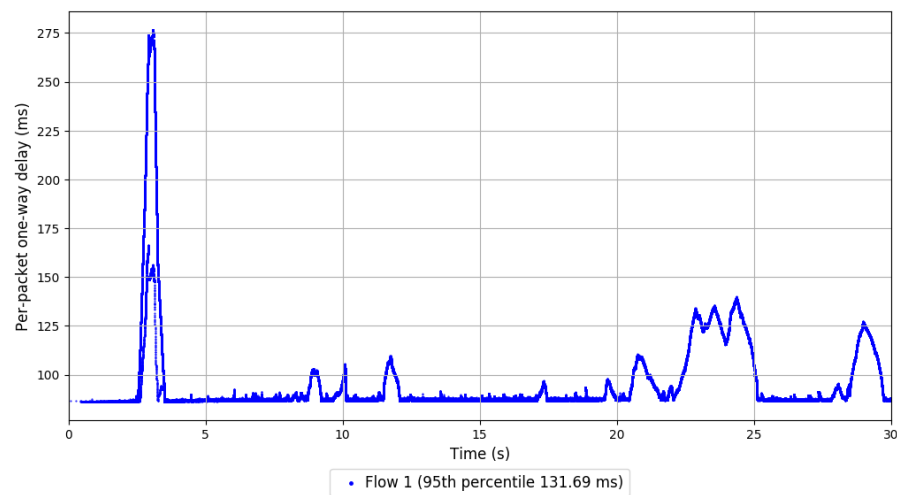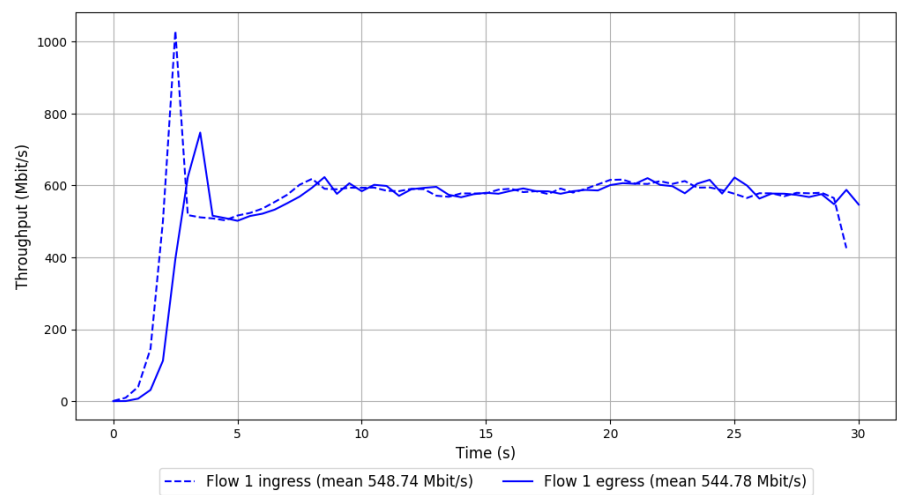
• Flow 1 (95th percentile 189.03 ms)

```
Run 4: Statistics of PCC-Allegro

Start at: 2018-06-05 04:11:57
End at: 2018-06-05 04:12:27
Local clock offset: 39.033 ms
Remote clock offset: -0.161 ms


# Below is generated by plot.py at 2018-06-05 07:30:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.78 Mbit/s
95th percentile per-packet one-way delay: 131.692 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 544.78 Mbit/s
95th percentile per-packet one-way delay: 131.692 ms
Loss rate: 0.72%
```

Run 4: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 548.74 Mbit/s) —— Flow 1 egress (mean 544.78 Mbit/s)

• Flow 1 (95th percentile 131.69 ms)

```
Run 5: Statistics of PCC-Allegro

Start at: 2018-06-05 04:32:54
End at: 2018-06-05 04:33:24
Local clock offset: 35.782 ms
Remote clock offset: -0.071 ms


# Below is generated by plot.py at 2018-06-05 07:31:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 554.68 Mbit/s
95th percentile per-packet one-way delay: 159.071 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 554.68 Mbit/s
95th percentile per-packet one-way delay: 159.071 ms
Loss rate: 0.78%
```
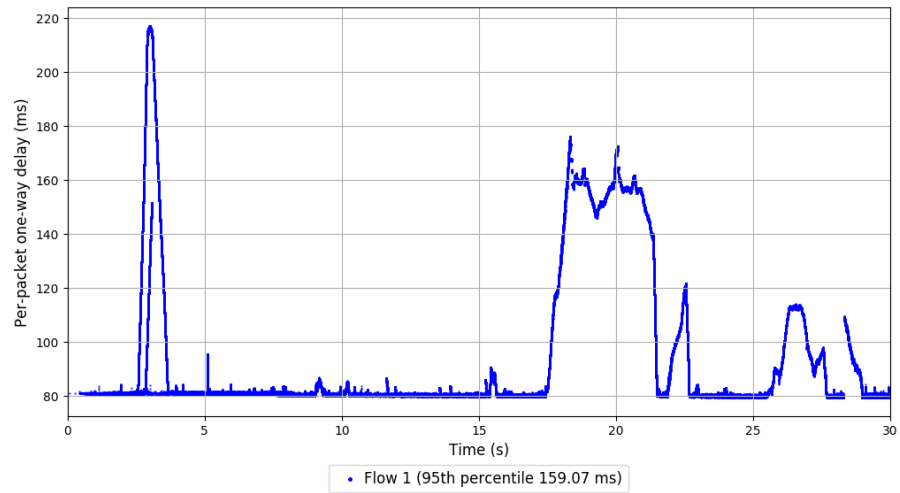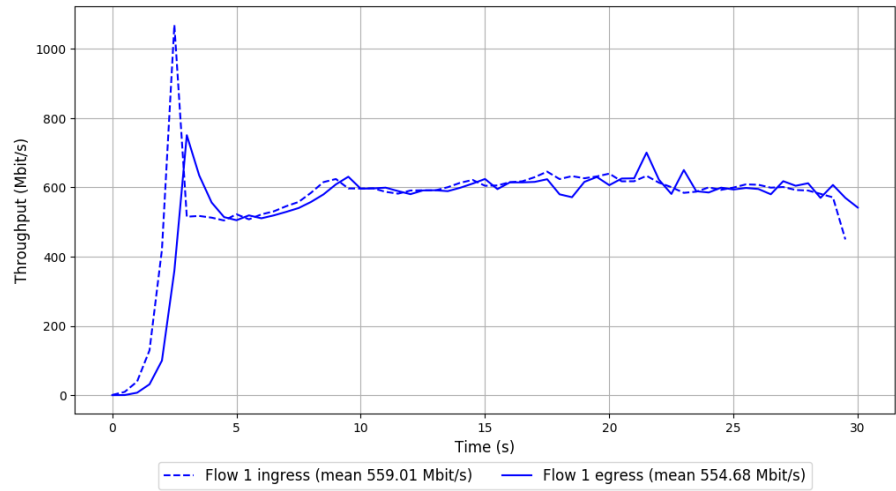
Run 5: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 559.01 Mbit/s) —— Flow 1 egress (mean 554.68 Mbit/s)

• Flow 1 (95th percentile 159.07 ms)

```
Run 6: Statistics of PCC-Allegro

Start at: 2018-06-05 04:53:50
End at: 2018-06-05 04:54:20
Local clock offset: 31.933 ms
Remote clock offset: -0.093 ms


# Below is generated by plot.py at 2018-06-05 07:31:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 499.48 Mbit/s
95th percentile per-packet one-way delay: 160.770 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 499.48 Mbit/s
95th percentile per-packet one-way delay: 160.770 ms
Loss rate: 1.33%
```
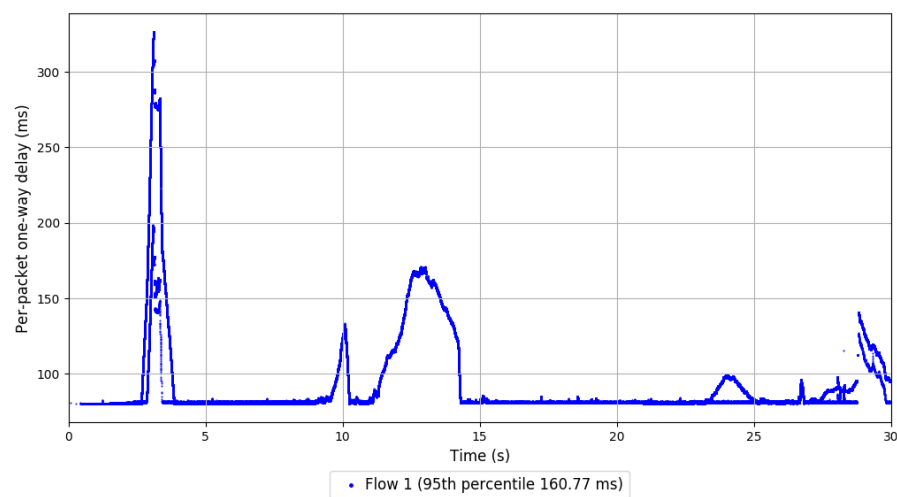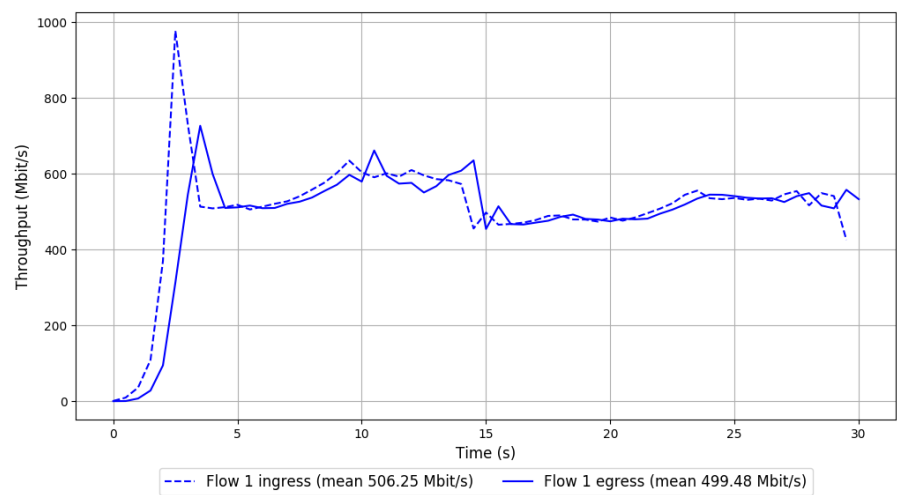
Run 6: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 506.25 Mbit/s) --- Flow 1 egress (mean 499.48 Mbit/s)
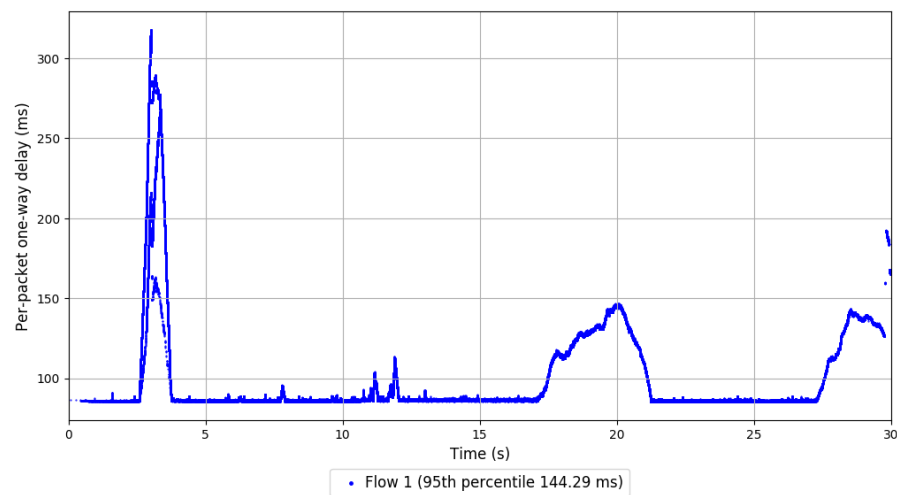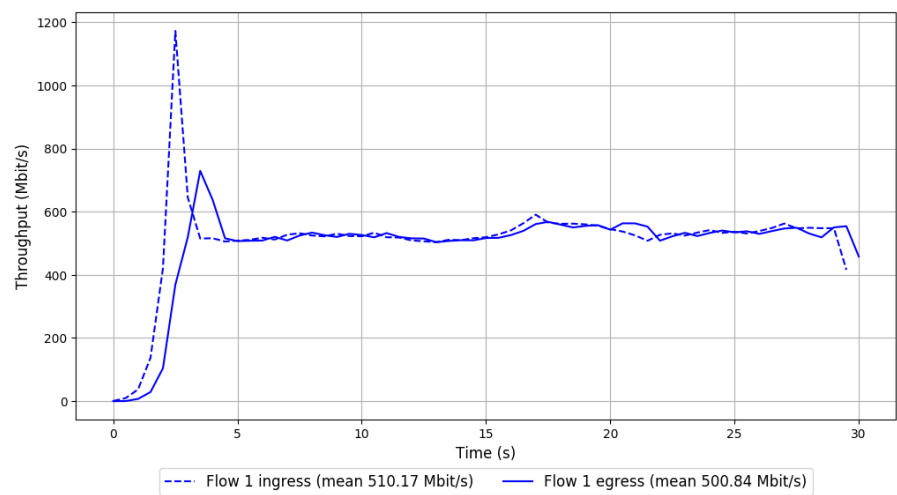

Flow 1 (95th percentile 160.77 ms)

```
Run 7: Statistics of PCC-Allegro

Start at: 2018-06-05 05:14:41
End at: 2018-06-05 05:15:11
Local clock offset: 8.091 ms
Remote clock offset: -0.136 ms


# Below is generated by plot.py at 2018-06-05 07:37:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 500.84 Mbit/s
95th percentile per-packet one-way delay: 144.287 ms
Loss rate: 1.83%
-- Flow 1:
Average throughput: 500.84 Mbit/s
95th percentile per-packet one-way delay: 144.287 ms
Loss rate: 1.83%
```

Run 7: Report of PCC-Allegro — Data Link

```
Run 8: Statistics of PCC-Allegro

Start at: 2018-06-05 05:35:40
End at: 2018-06-05 05:36:10
Local clock offset: 5.549 ms
Remote clock offset: -0.075 ms


# Below is generated by plot.py at 2018-06-05 07:37:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 551.96 Mbit/s
95th percentile per-packet one-way delay: 188.132 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 551.96 Mbit/s
95th percentile per-packet one-way delay: 188.132 ms
Loss rate: 2.91%
```
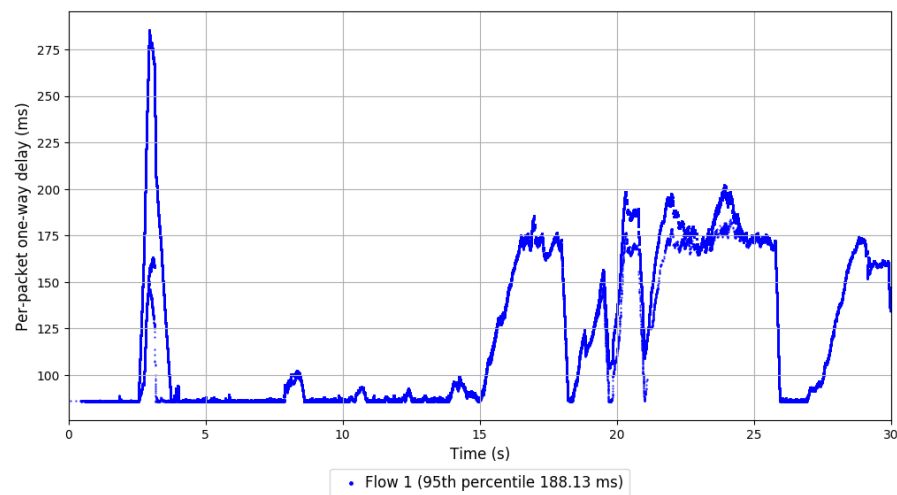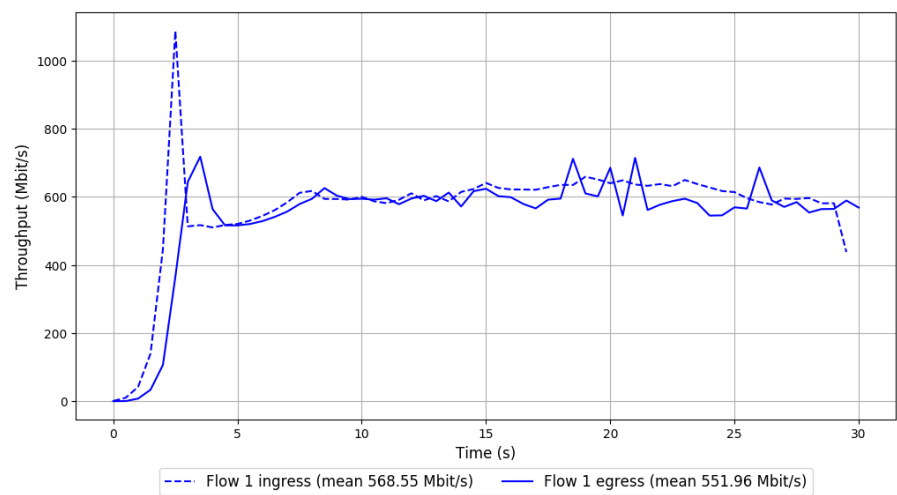
Run 8: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 568.55 Mbit/s)   Flow 1 egress (mean 551.96 Mbit/s)

• Flow 1 (95th percentile 188.13 ms)

```
Run 9: Statistics of PCC-Allegro

Start at: 2018-06-05 05:56:47
End at: 2018-06-05 05:57:17
Local clock offset: 2.523 ms
Remote clock offset: -0.103 ms


# Below is generated by plot.py at 2018-06-05 07:37:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 509.07 Mbit/s
95th percentile per-packet one-way delay: 160.737 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 509.07 Mbit/s
95th percentile per-packet one-way delay: 160.737 ms
Loss rate: 0.73%
```
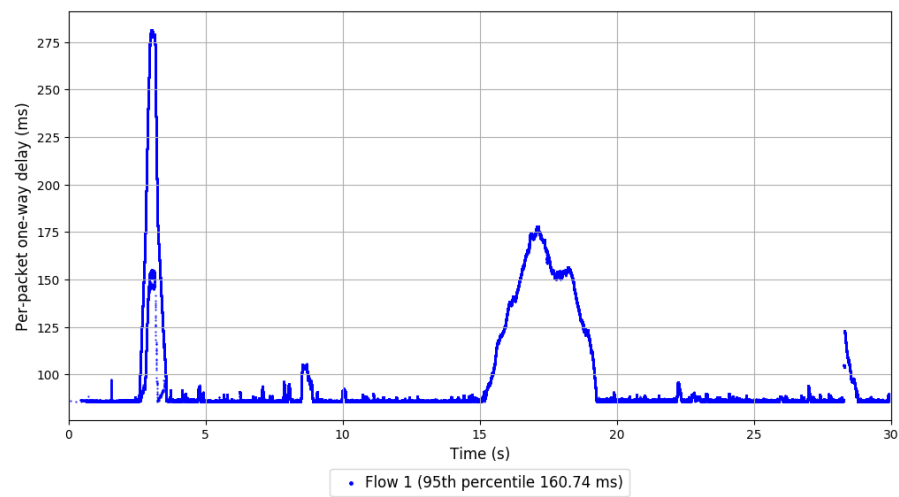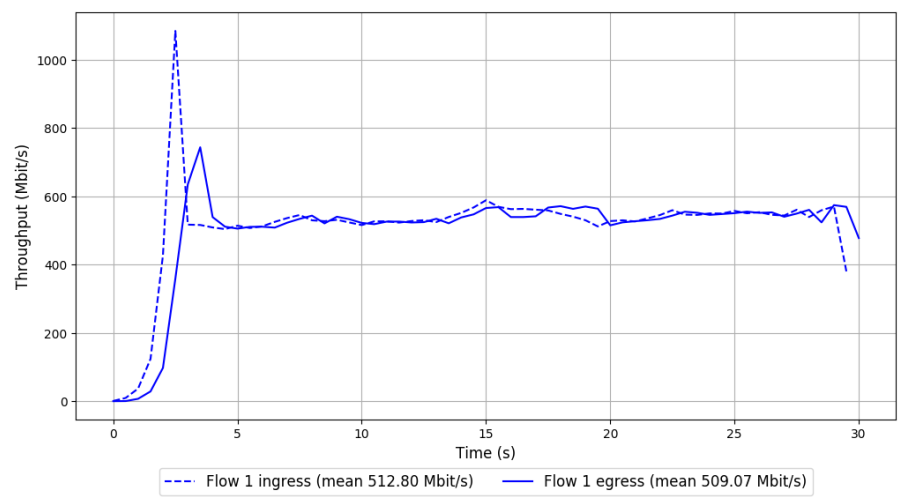
Run 9: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 512.80 Mbit/s) ----- Flow 1 egress (mean 509.07 Mbit/s)

• Flow 1 (95th percentile 160.74 ms)

```
Run 10: Statistics of PCC-Allegro

Start at: 2018-06-05 06:17:37
End at: 2018-06-05 06:18:07
Local clock offset: 1.344 ms
Remote clock offset: -0.069 ms


# Below is generated by plot.py at 2018-06-05 07:39:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 568.10 Mbit/s
95th percentile per-packet one-way delay: 174.257 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 568.10 Mbit/s
95th percentile per-packet one-way delay: 174.257 ms
Loss rate: 1.03%
```
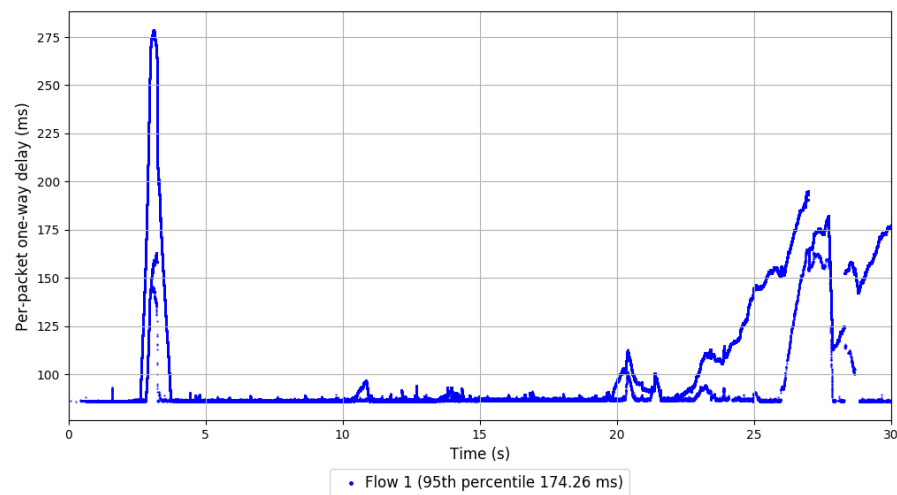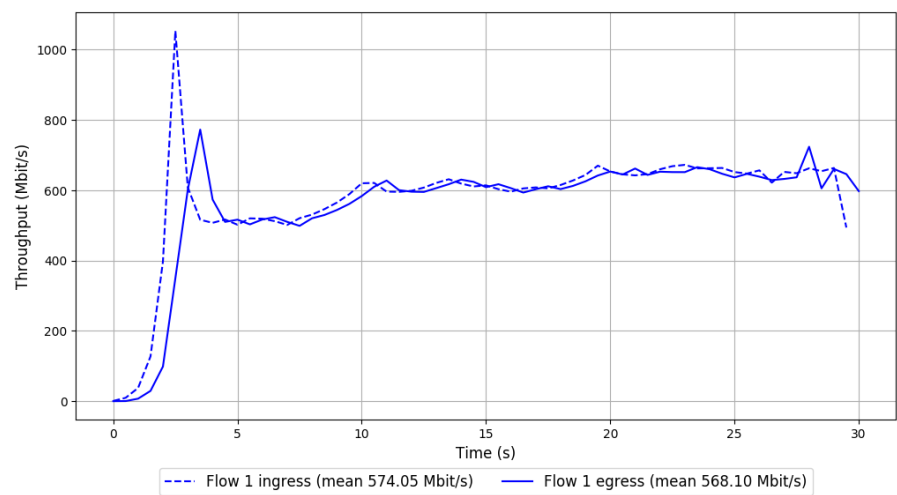
Run 10: Report of PCC-Allegro — Data Link

Flow 1 ingress (mean 574.05 Mbit/s) — Flow 1 egress (mean 568.10 Mbit/s)
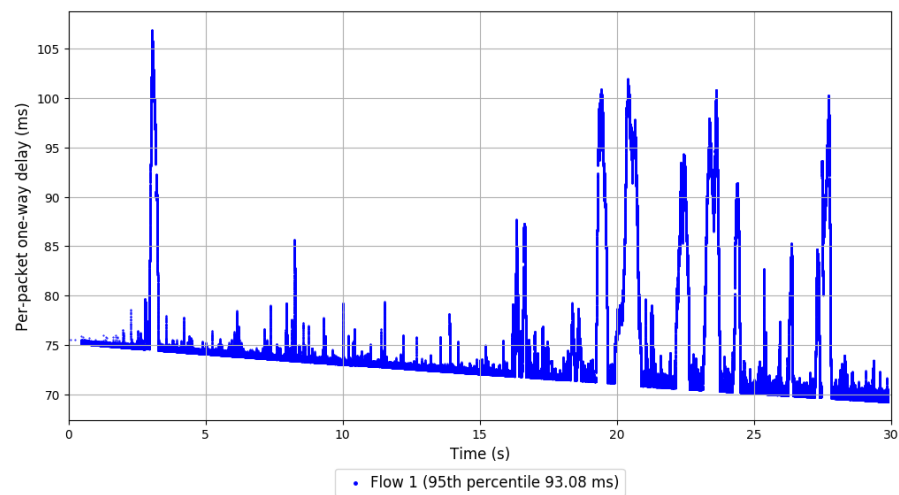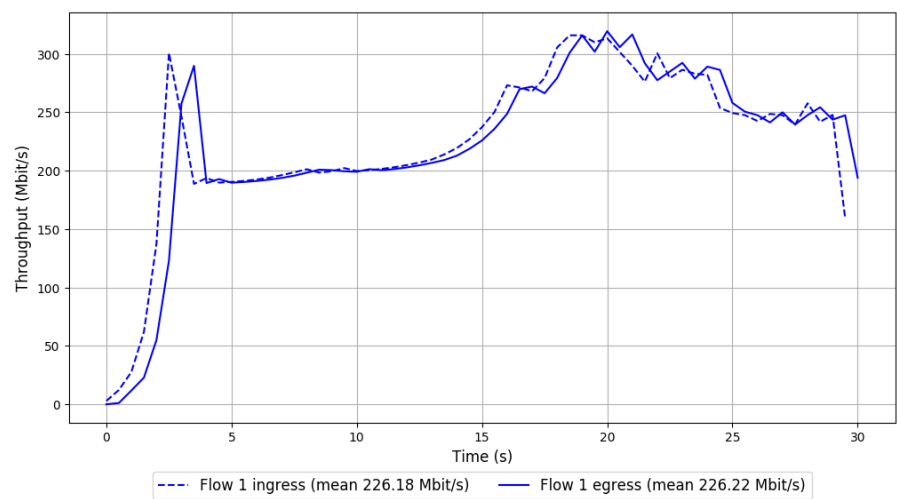

• Flow 1 (95th percentile 174.26 ms)

```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-05 03:26:11
End at: 2018-06-05 03:26:41
Local clock offset: 48.99 ms
Remote clock offset: 0.114 ms


# Below is generated by plot.py at 2018-06-05 07:39:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.22 Mbit/s
95th percentile per-packet one-way delay: 93.081 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.22 Mbit/s
95th percentile per-packet one-way delay: 93.081 ms
Loss rate: 0.00%
```

Run 1: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 226.18 Mbit/s)   Flow 1 egress (mean 226.22 Mbit/s)

Flow 1 (95th percentile 93.08 ms)

```
Run 2: Statistics of PCC-Expr

Start at: 2018-06-05 03:46:49
End at: 2018-06-05 03:47:19
Local clock offset: 34.653 ms
Remote clock offset: 0.11 ms


# Below is generated by plot.py at 2018-06-05 07:39:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.96 Mbit/s
95th percentile per-packet one-way delay: 146.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.96 Mbit/s
95th percentile per-packet one-way delay: 146.300 ms
Loss rate: 0.00%
```
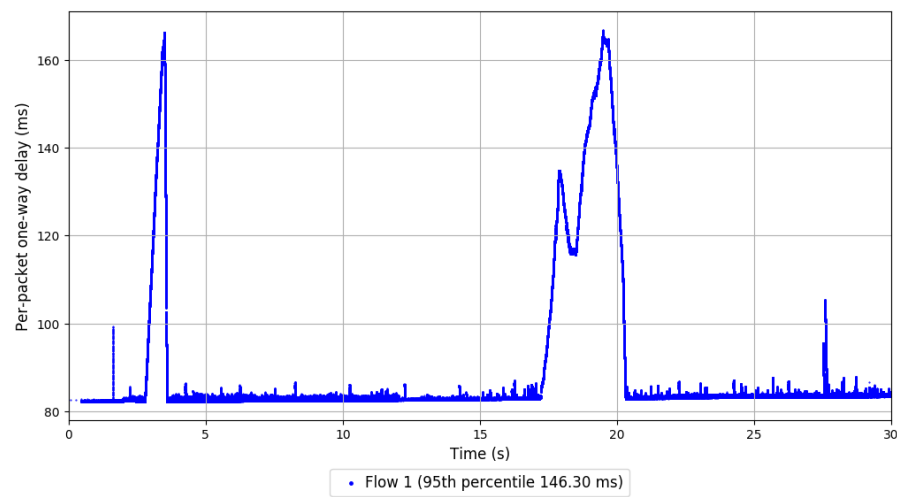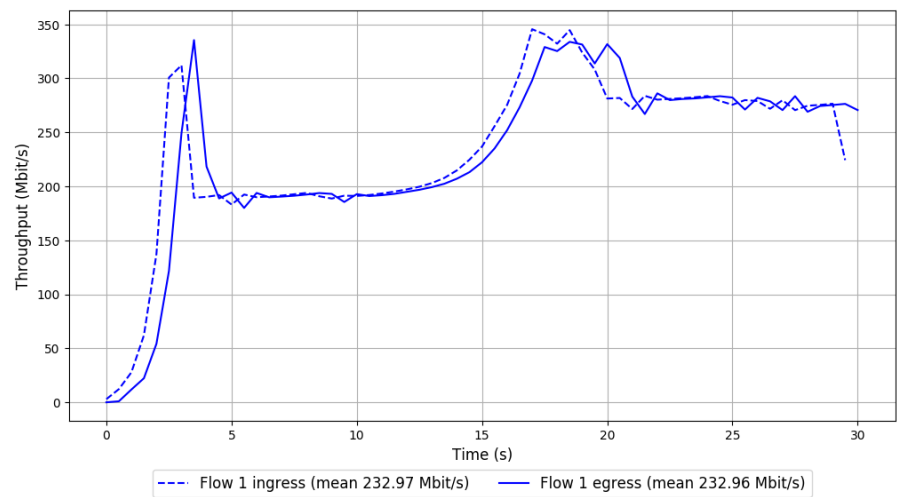
Run 2: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 232.97 Mbit/s) --- Flow 1 egress (mean 232.96 Mbit/s)
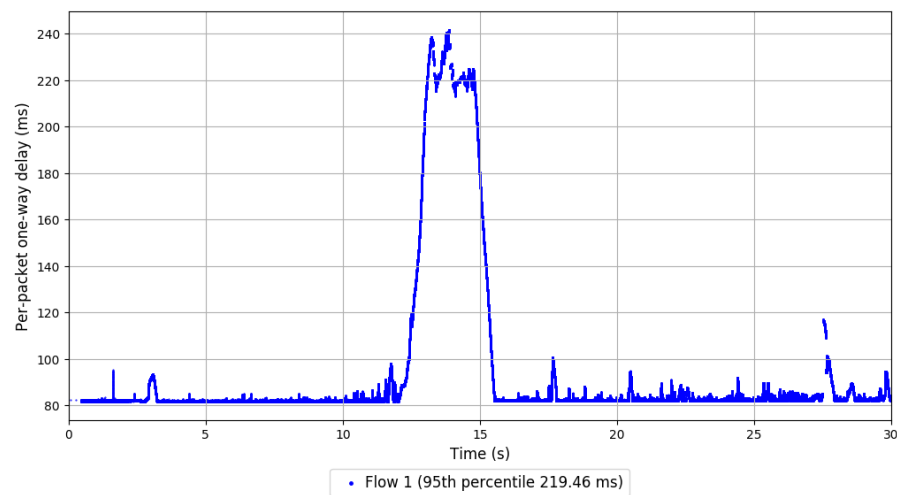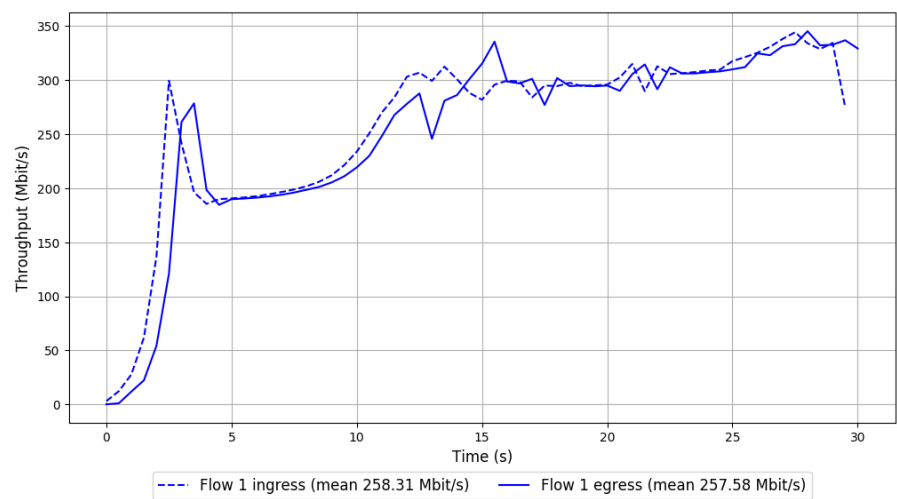

• Flow 1 (95th percentile 146.30 ms)

```
Run 3: Statistics of PCC-Expr

Start at: 2018-06-05 04:07:39
End at: 2018-06-05 04:08:09
Local clock offset: 38.363 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at 2018-06-05 07:39:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.58 Mbit/s
95th percentile per-packet one-way delay: 219.459 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 257.58 Mbit/s
95th percentile per-packet one-way delay: 219.459 ms
Loss rate: 0.28%
```

Run 3: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 258.31 Mbit/s) — — — Flow 1 egress (mean 257.58 Mbit/s)
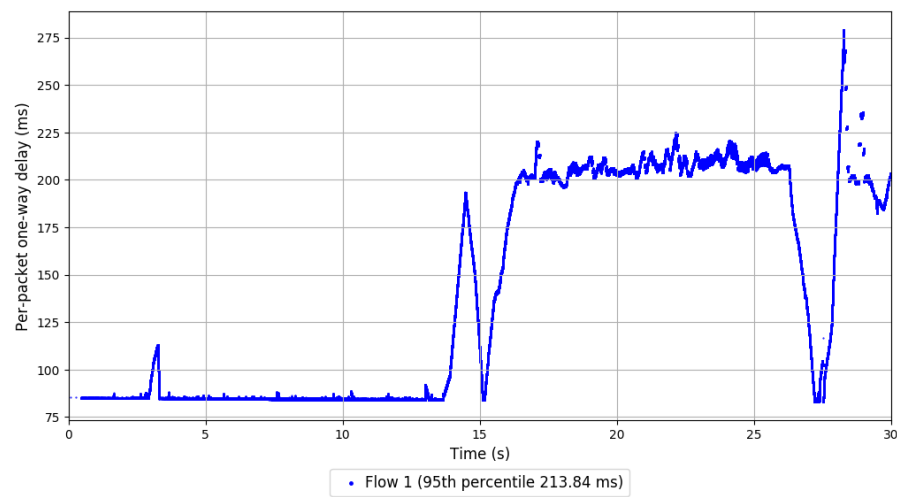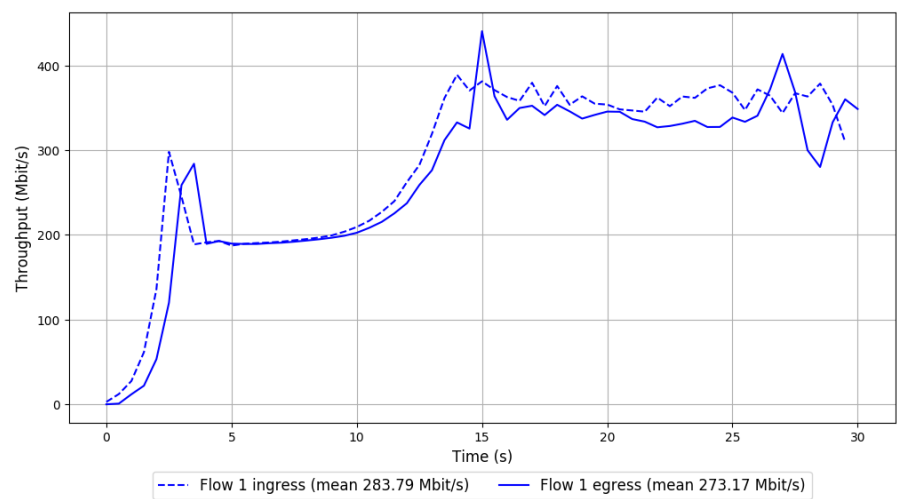

• Flow 1 (95th percentile 219.46 ms)

```
Run 4: Statistics of PCC-Expr

Start at: 2018-06-05 04:28:26
End at: 2018-06-05 04:28:56
Local clock offset: 43.809 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2018-06-05 07:40:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 273.17 Mbit/s
95th percentile per-packet one-way delay: 213.841 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 273.17 Mbit/s
95th percentile per-packet one-way delay: 213.841 ms
Loss rate: 3.75%
```

Run 4: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 283.79 Mbit/s)   Flow 1 egress (mean 273.17 Mbit/s)
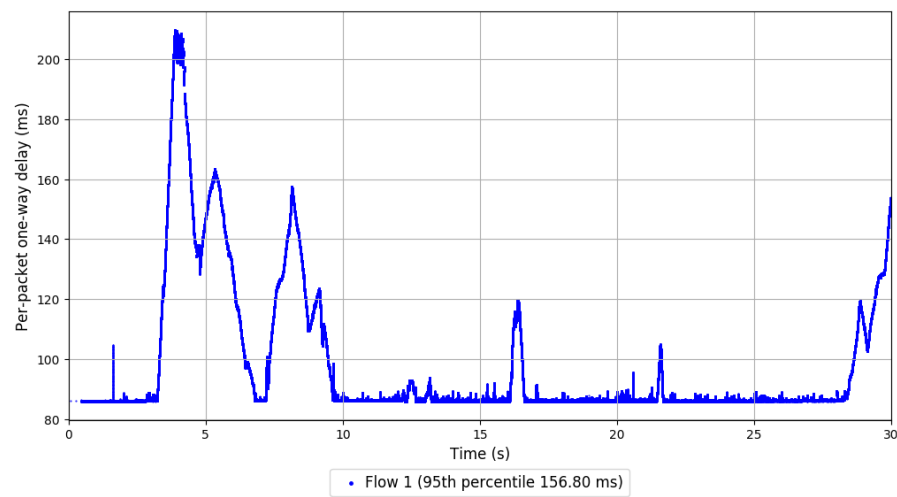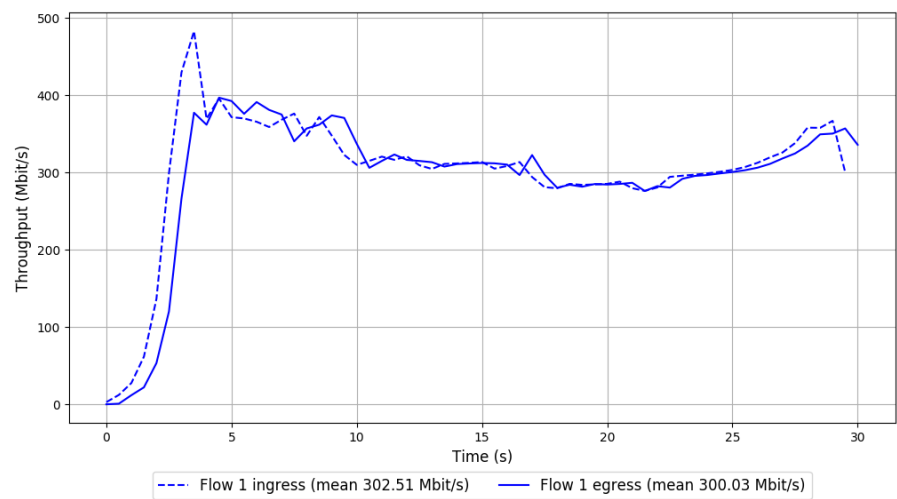

Flow 1 (95th percentile 213.84 ms)

```
Run 5: Statistics of PCC-Expr

Start at: 2018-06-05 04:49:19
End at: 2018-06-05 04:49:50
Local clock offset: 23.889 ms
Remote clock offset: -0.132 ms


# Below is generated by plot.py at 2018-06-05 07:46:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 300.03 Mbit/s
95th percentile per-packet one-way delay: 156.796 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 300.03 Mbit/s
95th percentile per-packet one-way delay: 156.796 ms
Loss rate: 0.82%
```
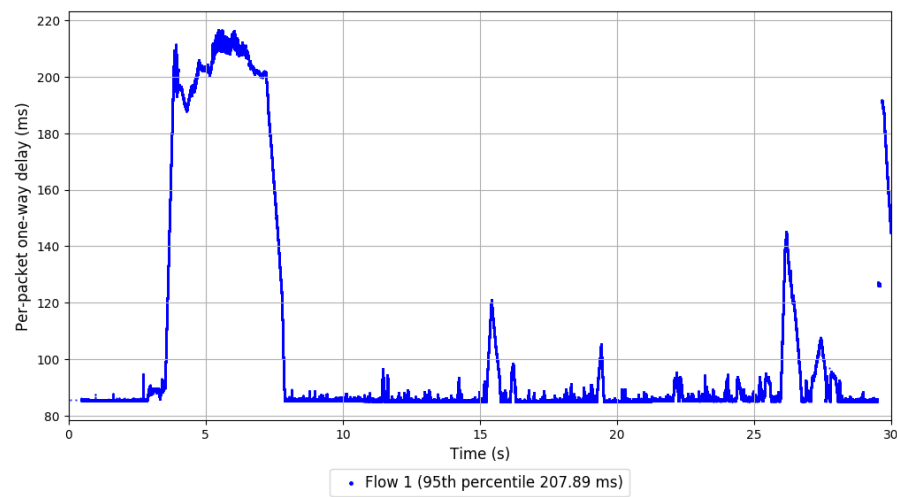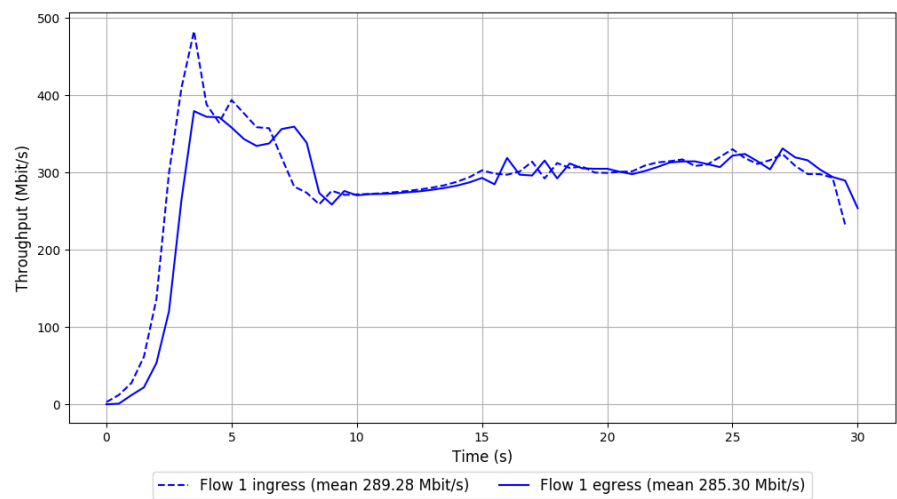
Run 5: Report of PCC-Expr — Data Link

```
Run 6: Statistics of PCC-Expr

Start at: 2018-06-05 05:10:11
End at: 2018-06-05 05:10:41
Local clock offset: 10.895 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2018-06-05 07:46:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 285.30 Mbit/s
95th percentile per-packet one-way delay: 207.894 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 285.30 Mbit/s
95th percentile per-packet one-way delay: 207.894 ms
Loss rate: 1.38%
```
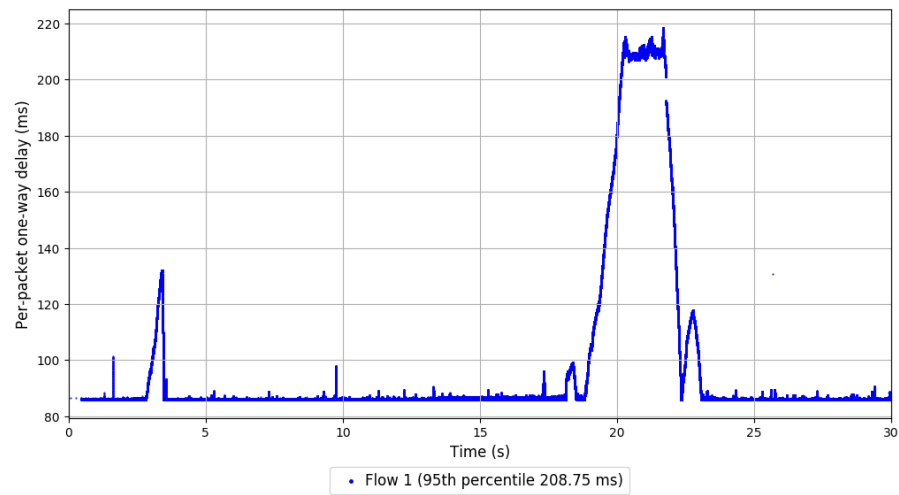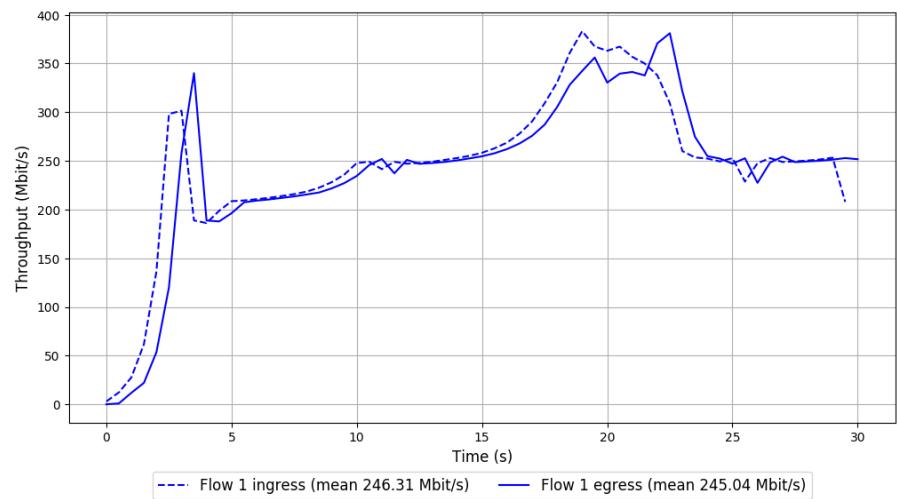
Run 6: Report of PCC-Expr — Data Link

```
Run 7: Statistics of PCC-Expr

Start at: 2018-06-05 05:31:08
End at: 2018-06-05 05:31:38
Local clock offset: 6.572 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-06-05 07:46:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.04 Mbit/s
95th percentile per-packet one-way delay: 208.750 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 245.04 Mbit/s
95th percentile per-packet one-way delay: 208.750 ms
Loss rate: 0.52%
```
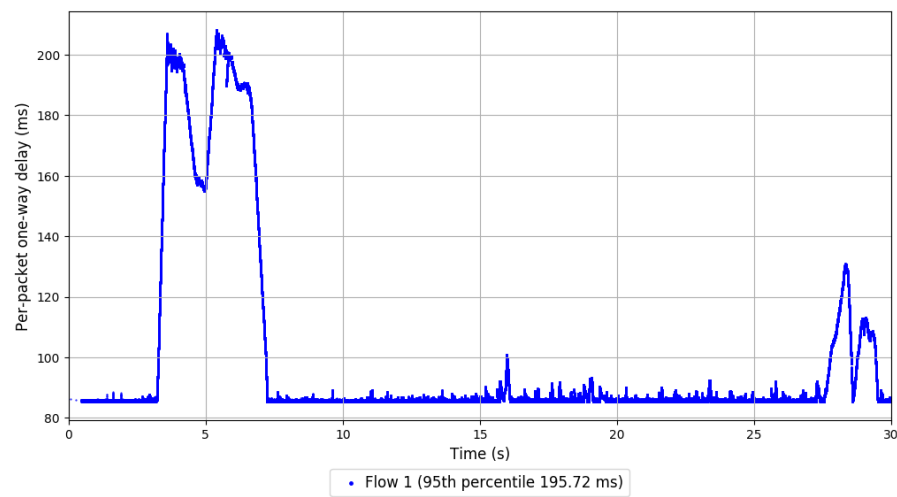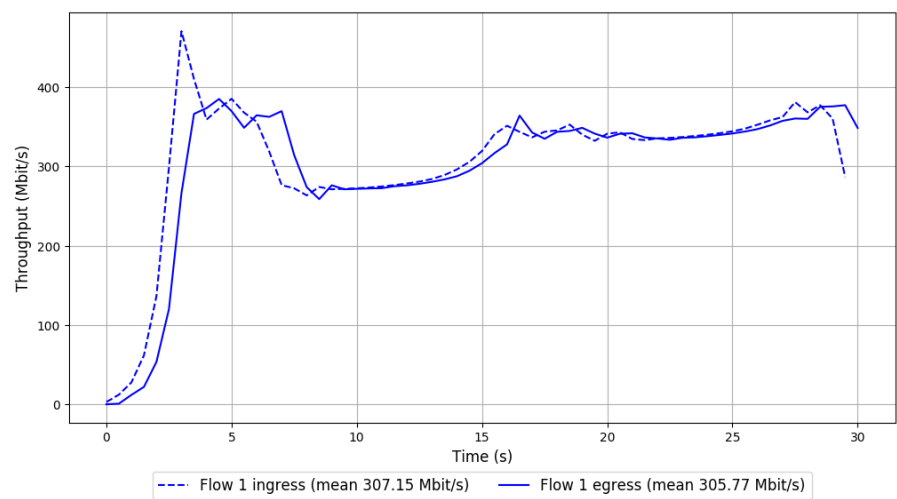
Run 7: Report of PCC-Expr — Data Link

```
Run 8: Statistics of PCC-Expr

Start at: 2018-06-05 05:52:12
End at: 2018-06-05 05:52:42
Local clock offset: 2.808 ms
Remote clock offset: -0.126 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 305.77 Mbit/s
95th percentile per-packet one-way delay: 195.716 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 305.77 Mbit/s
95th percentile per-packet one-way delay: 195.716 ms
Loss rate: 0.45%
```

Run 8: Report of PCC-Expr — Data Link

Flow 1 ingress (mean 307.15 Mbit/s)   Flow 1 egress (mean 305.77 Mbit/s)
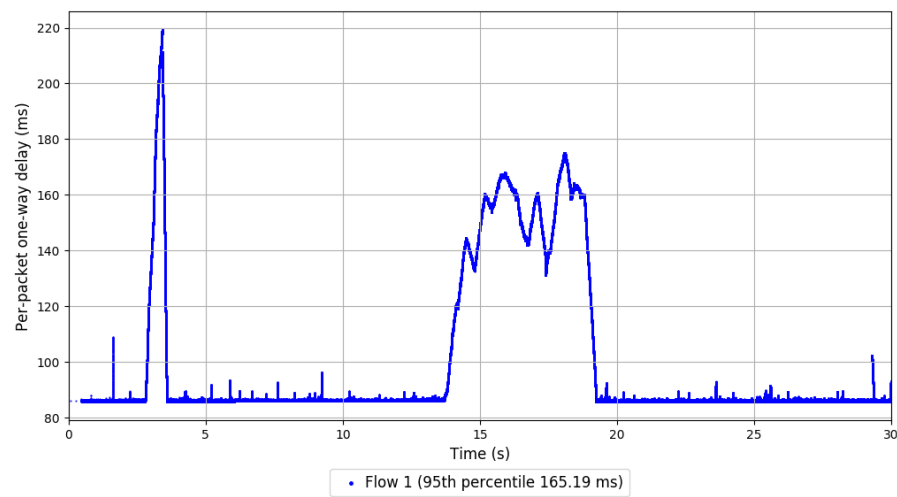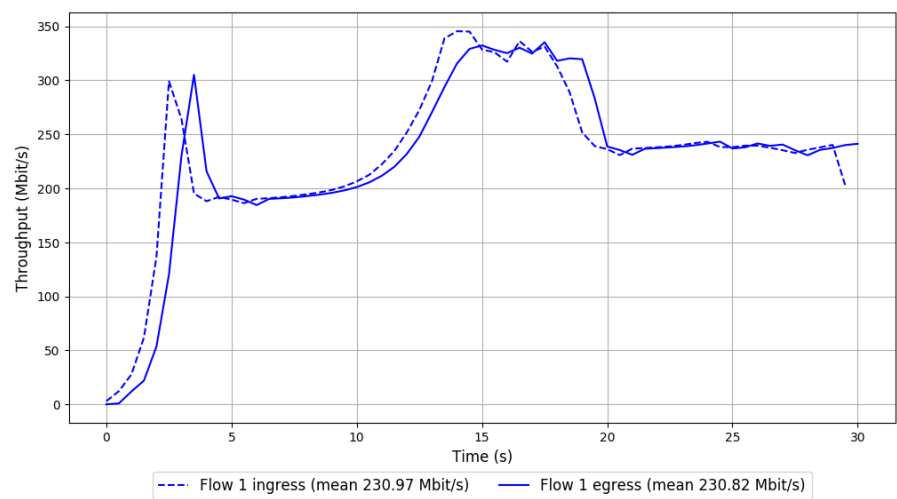

• Flow 1 (95th percentile 195.72 ms)

```
Run 9: Statistics of PCC-Expr

Start at: 2018-06-05 06:13:15
End at: 2018-06-05 06:13:45
Local clock offset: 1.939 ms
Remote clock offset: -0.031 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.82 Mbit/s
95th percentile per-packet one-way delay: 165.187 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 230.82 Mbit/s
95th percentile per-packet one-way delay: 165.187 ms
Loss rate: 0.07%
```

Run 9: Report of PCC-Expr — Data Link

```
Run 10: Statistics of PCC-Expr

Start at: 2018-06-05 06:34:03
End at: 2018-06-05 06:34:33
Local clock offset: 1.306 ms
Remote clock offset: -0.01 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 254.11 Mbit/s
95th percentile per-packet one-way delay: 218.761 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 254.11 Mbit/s
95th percentile per-packet one-way delay: 218.761 ms
Loss rate: 3.01%
```
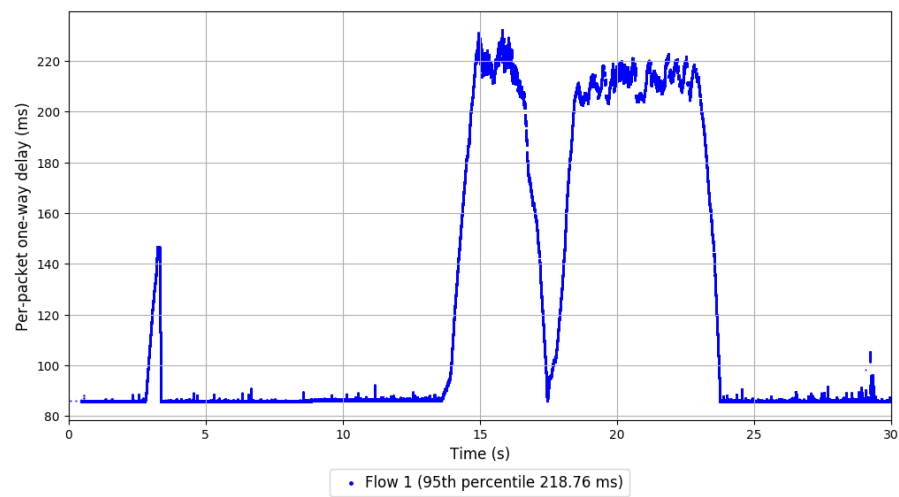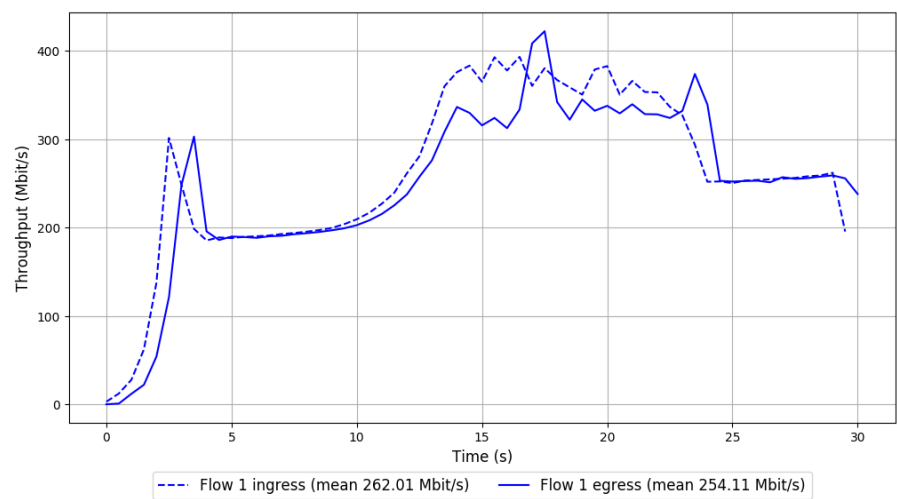
Run 10: Report of PCC-Expr — Data Link

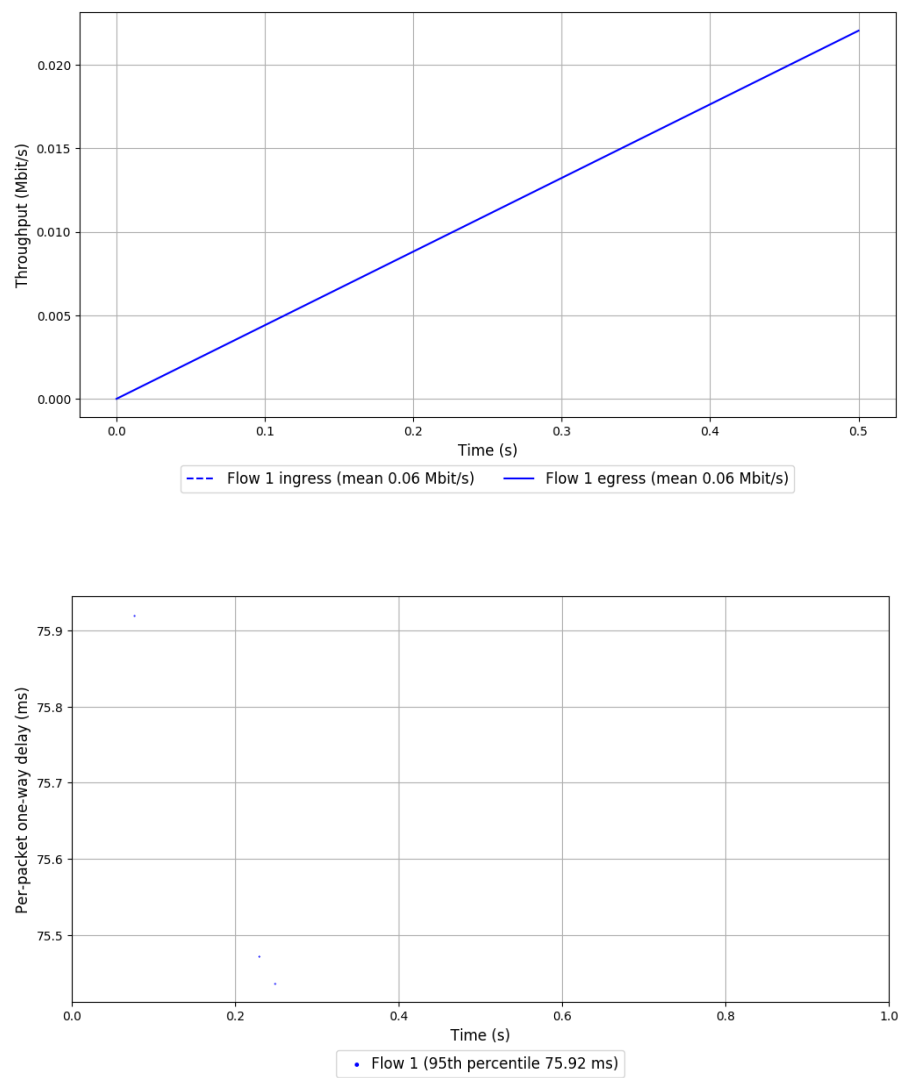Run 1: Statistics of QUIC Cubic

Start at: 2018-06-05 03:17:19
End at: 2018-06-05 03:17:49
Local clock offset: 41.566 ms
Remote clock offset: -0.089 ms

Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-06-05 03:37:53
End at: 2018-06-05 03:38:23
Local clock offset: 25.921 ms
Remote clock offset: 0.209 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 80.243 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.07 Mbit/s
95th percentile per-packet one-way delay: 80.243 ms
Loss rate: 0.00%
```
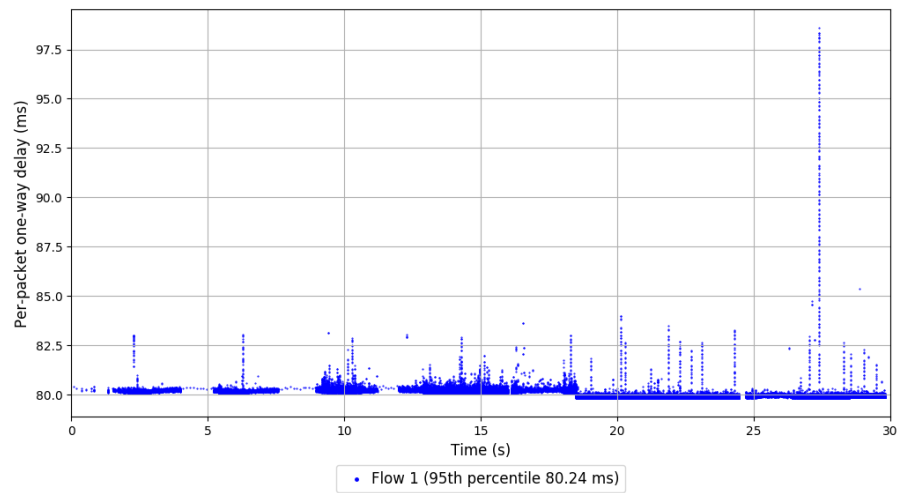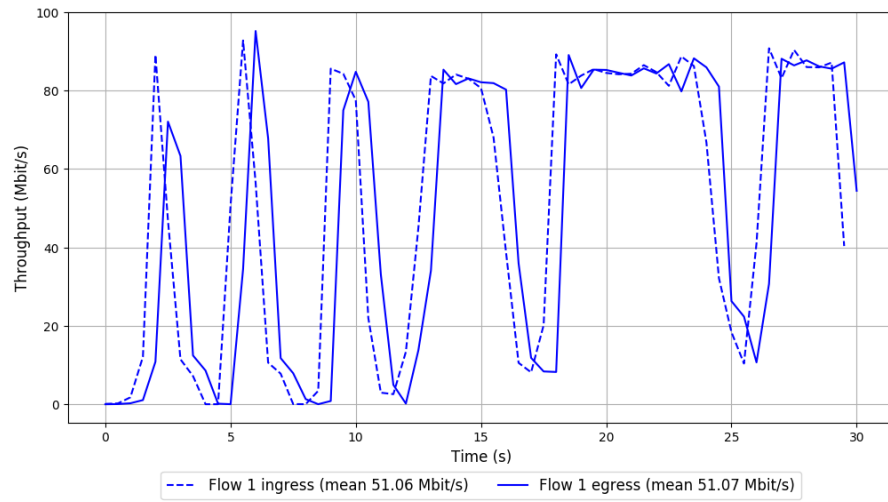
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 51.06 Mbit/s)   Flow 1 egress (mean 51.07 Mbit/s)
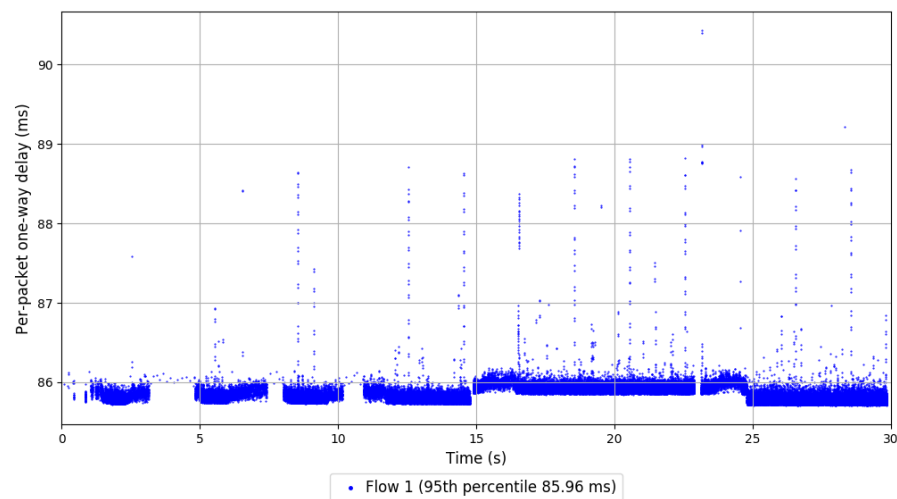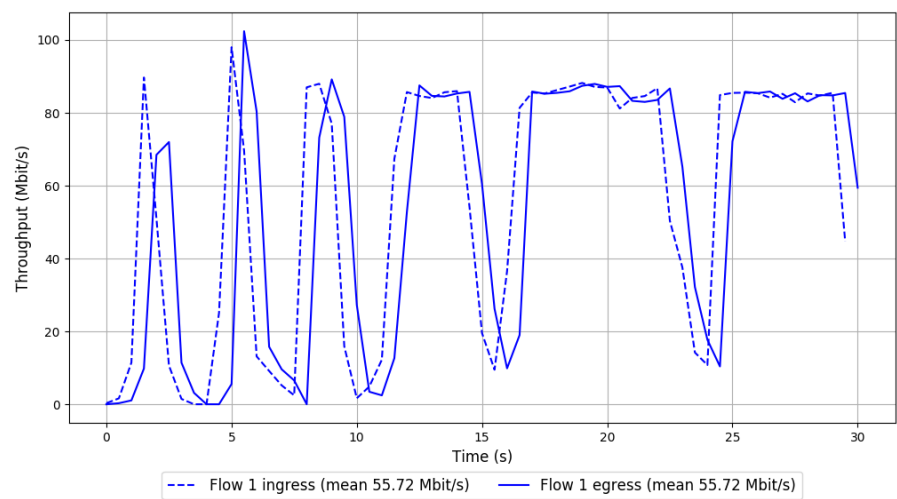

Flow 1 (95th percentile 80.24 ms)

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```
Run 3: Statistics of QUIC Cubic

Start at: 2018-06-05 03:58:37
End at: 2018-06-05 03:59:07
Local clock offset: 29.236 ms
Remote clock offset: -0.092 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 85.964 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.72 Mbit/s
95th percentile per-packet one-way delay: 85.964 ms
Loss rate: 0.00%
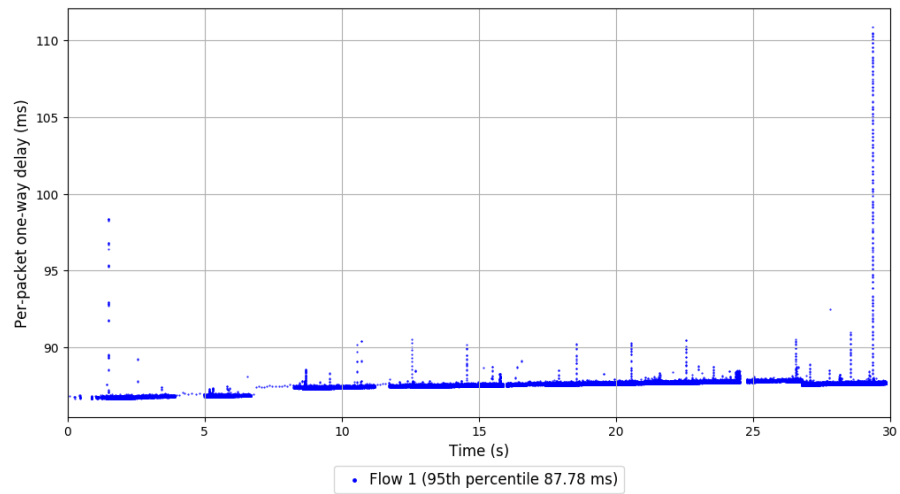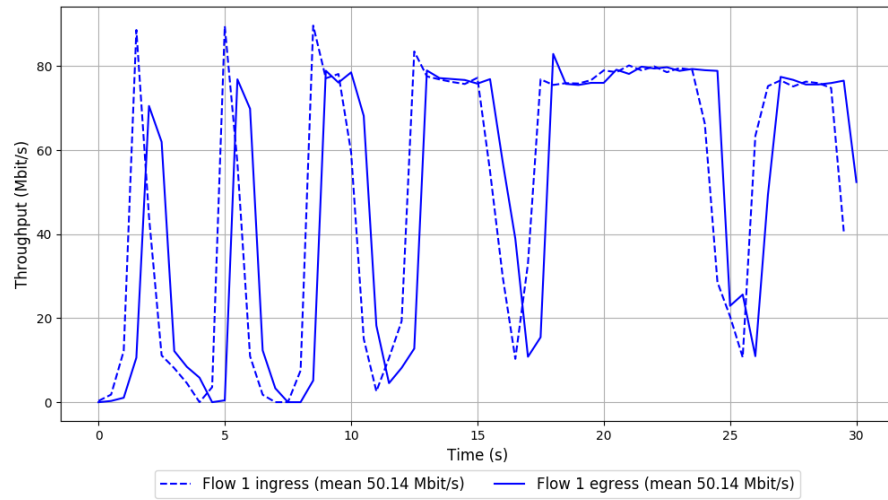```

Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-06-05 04:19:25
End at: 2018-06-05 04:19:55
Local clock offset: 49.263 ms
Remote clock offset: -0.197 ms

Below is generated by plot.py at 2018-06-05 07:47:31
Datalink statistics
-- Total of 1 flow:
Average throughput: 50.14 Mbit/s
95th percentile per-packet one-way delay: 87.777 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 50.14 Mbit/s
95th percentile per-packet one-way delay: 87.777 ms
Loss rate: 0.00%
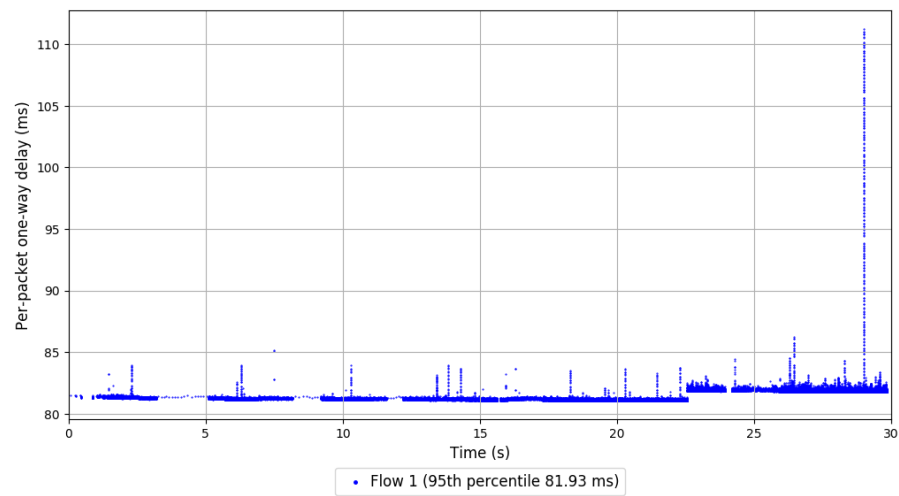```
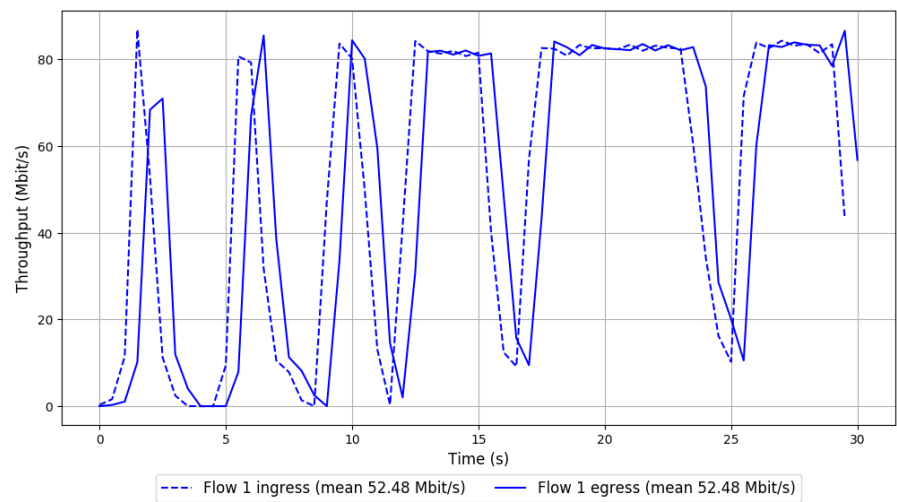
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-06-05 04:40:19
End at: 2018-06-05 04:40:49
Local clock offset: 27.317 ms
Remote clock offset: -0.118 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 81.934 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.48 Mbit/s
95th percentile per-packet one-way delay: 81.934 ms
Loss rate: 0.00%
```

Run 5: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 52.48 Mbit/s)   Flow 1 egress (mean 52.48 Mbit/s)
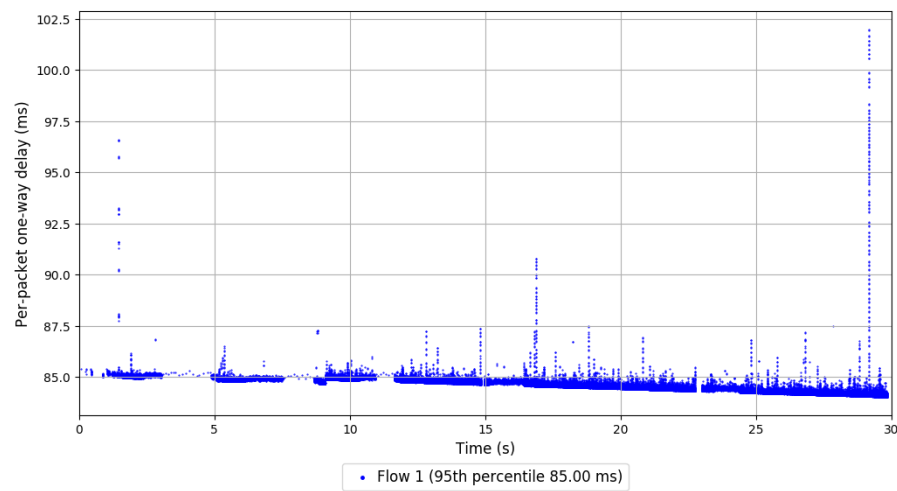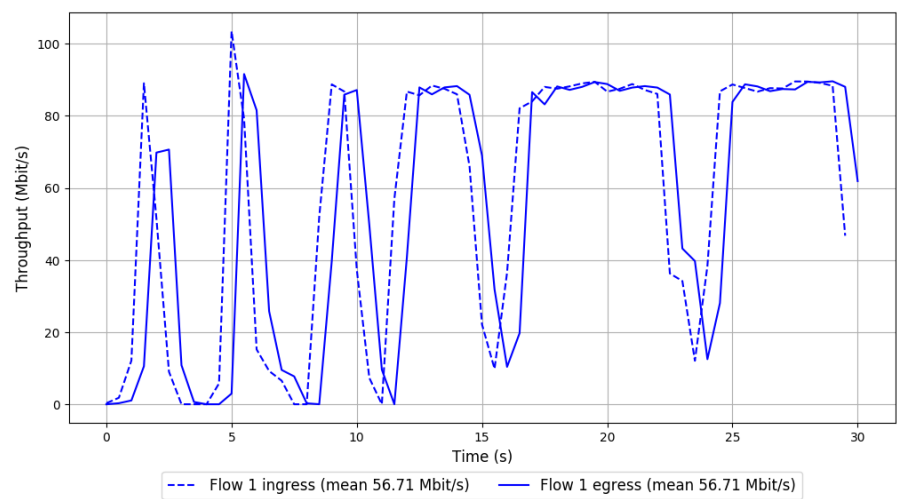

Flow 1 (95th percentile 81.93 ms)

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-06-05 05:01:13
End at: 2018-06-05 05:01:43
Local clock offset: 25.197 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 85.004 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.71 Mbit/s
95th percentile per-packet one-way delay: 85.004 ms
Loss rate: 0.00%
```

Run 6: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 56.71 Mbit/s) --- Flow 1 egress (mean 56.71 Mbit/s)
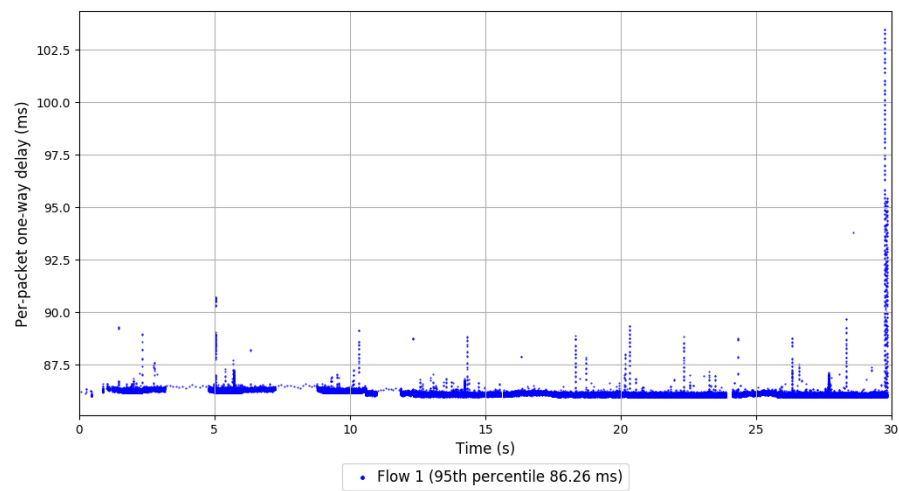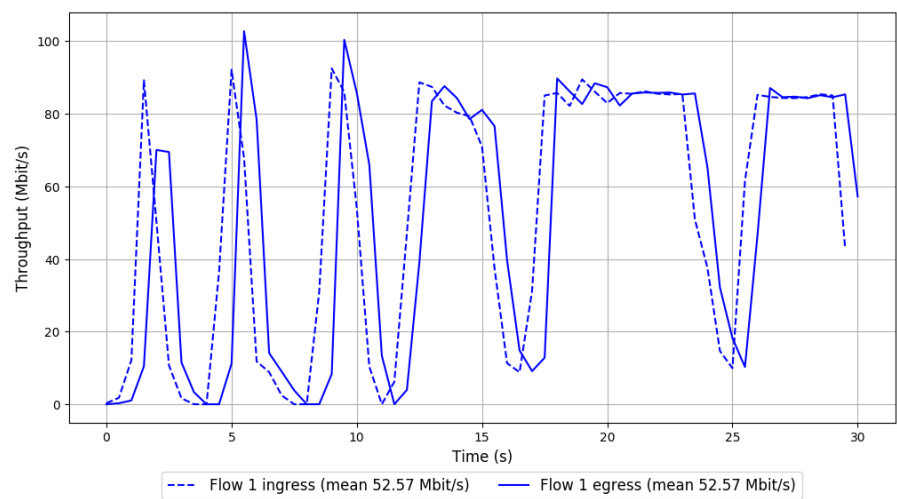

Flow 1 (95th percentile 85.00 ms)

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-06-05 05:22:01
End at: 2018-06-05 05:22:31
Local clock offset: 6.223 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 86.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 86.262 ms
Loss rate: 0.00%
```

Run 7: Report of QUIC Cubic — Data Link

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-06-05 05:43:08
End at: 2018-06-05 05:43:38
Local clock offset: 3.007 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 86.560 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.52 Mbit/s
95th percentile per-packet one-way delay: 86.560 ms
Loss rate: 0.00%
```
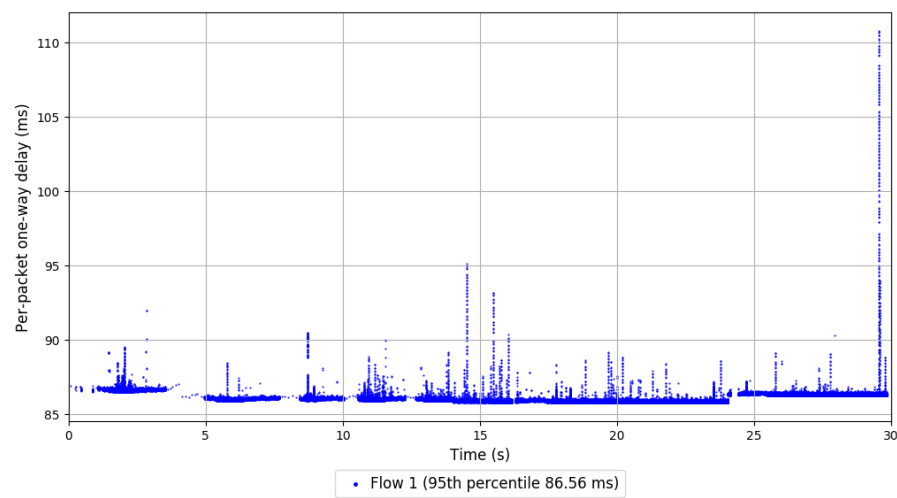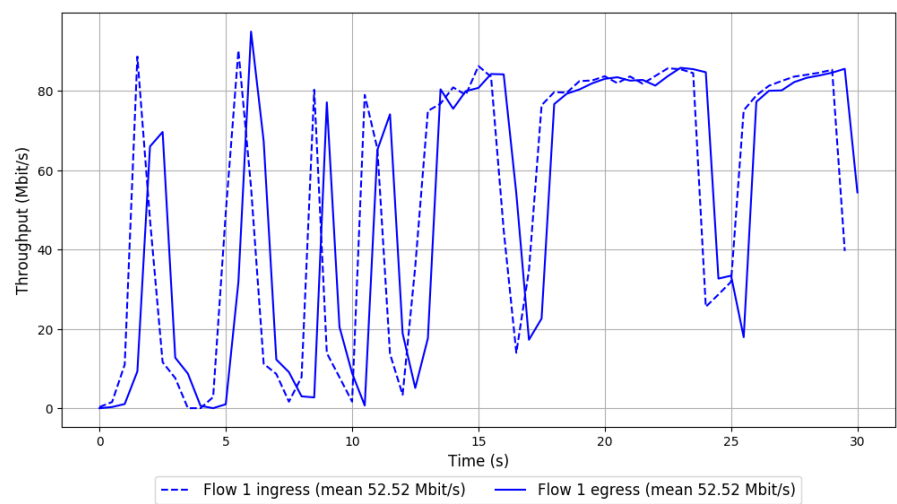
Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-06-05 06:04:12
End at: 2018-06-05 06:04:42
Local clock offset: 2.438 ms
Remote clock offset: -0.064 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 86.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.04 Mbit/s
95th percentile per-packet one-way delay: 86.920 ms
Loss rate: 0.00%
```
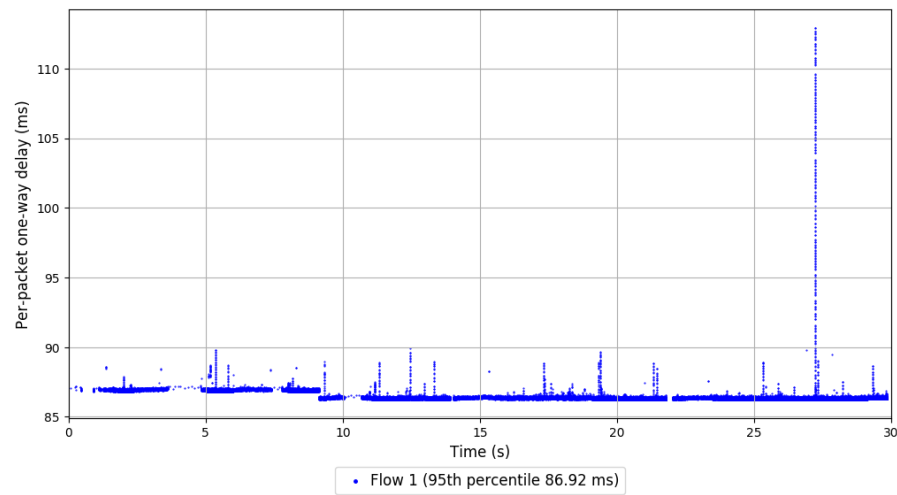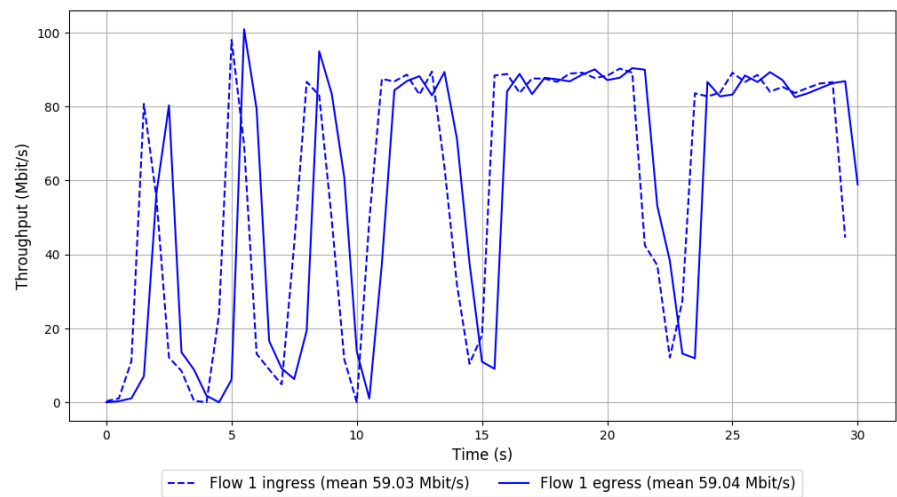
Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 59.03 Mbit/s) --- Flow 1 egress (mean 59.04 Mbit/s)

Flow 1 (95th percentile 86.92 ms)
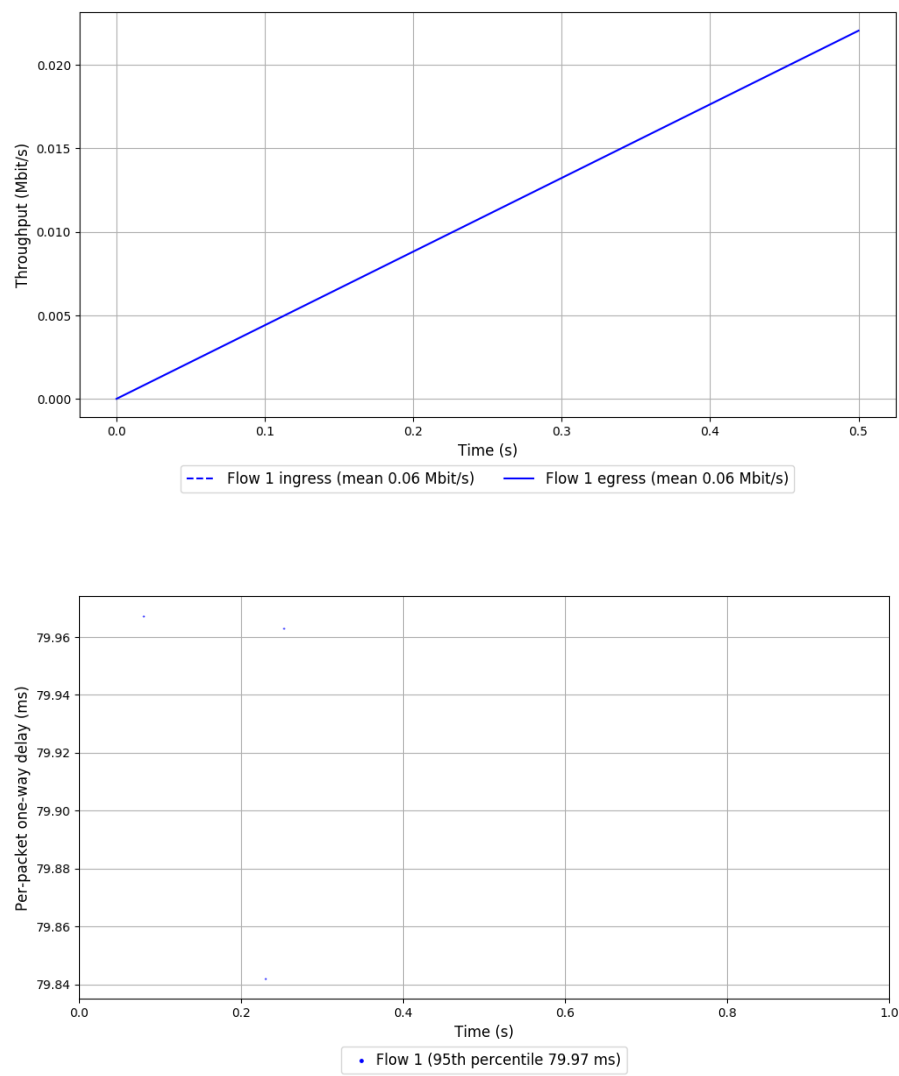
Run 10: Statistics of QUIC Cubic

Start at: 2018-06-05 06:25:02
End at: 2018-06-05 06:25:32
Local clock offset: 7.304 ms
Remote clock offset: -0.024 ms

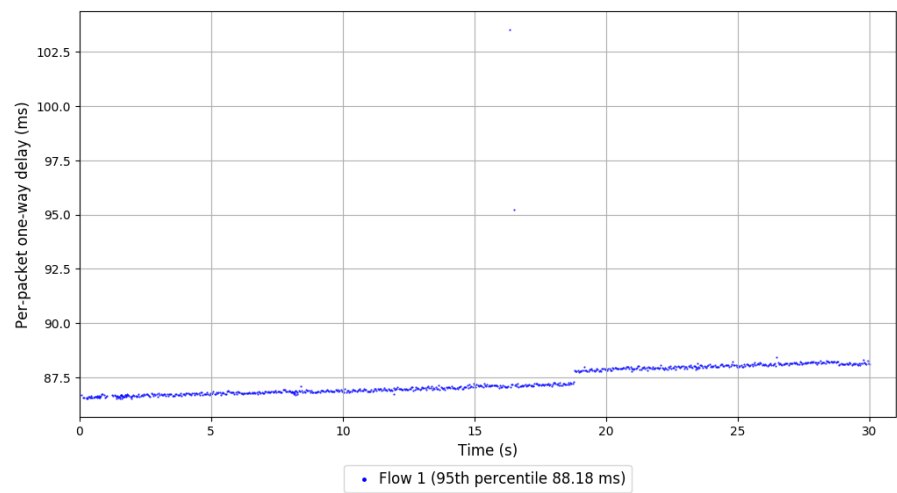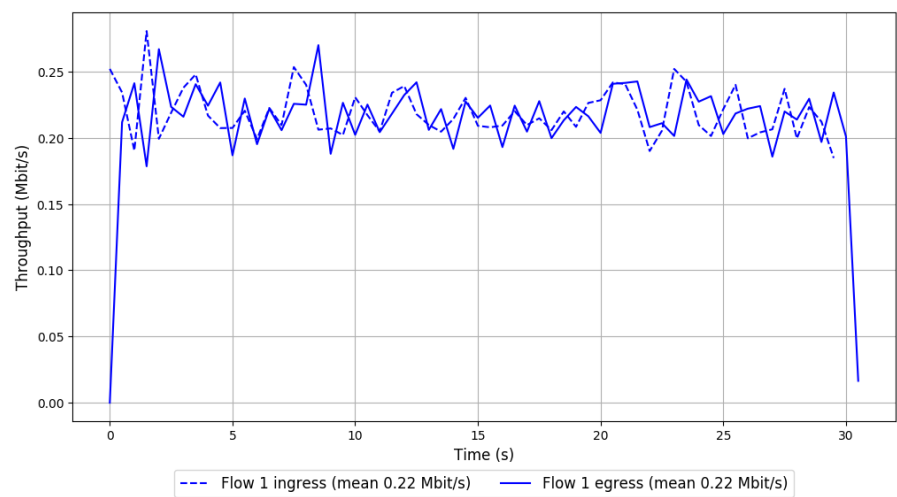# Run 10: Report of QUIC Cubic — Data Link

```
Run 1: Statistics of SCReAM

Start at: 2018-06-05 03:19:33
End at: 2018-06-05 03:20:03
Local clock offset: 26.725 ms
Remote clock offset: -0.071 ms

# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.184 ms
Loss rate: 0.00%
```

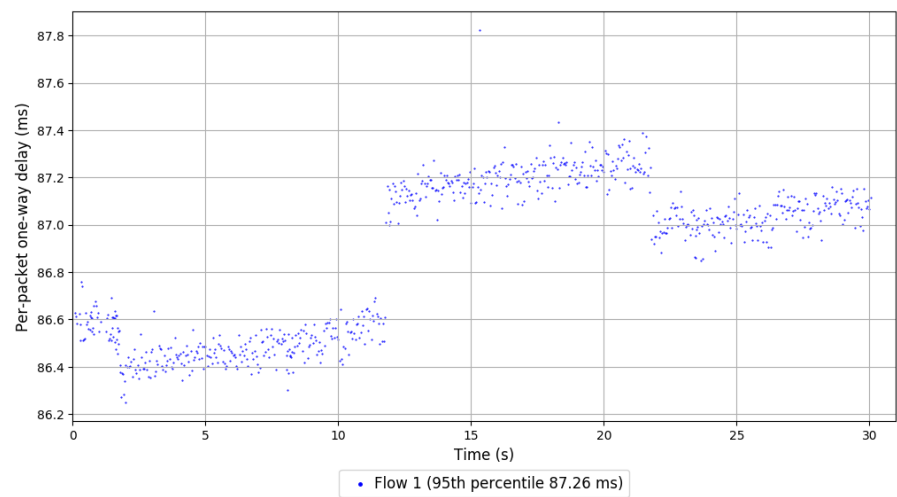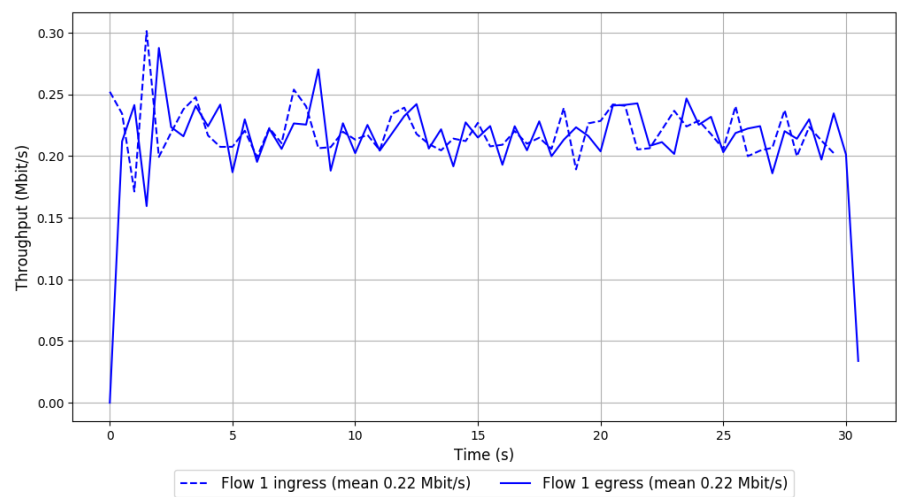Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-06-05 03:40:10
End at: 2018-06-05 03:40:40
Local clock offset: 20.333 ms
Remote clock offset: 0.219 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.261 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.261 ms
Loss rate: 0.00%
```

Run 2: Report of SCReAM — Data Link

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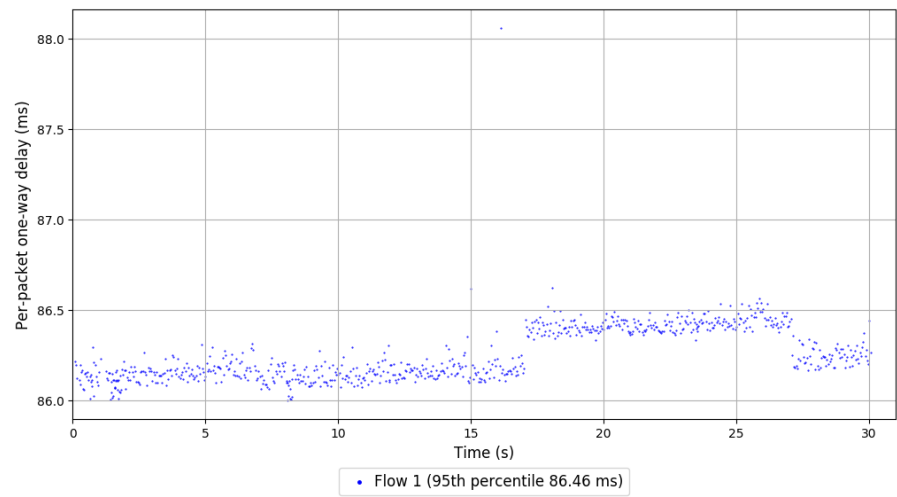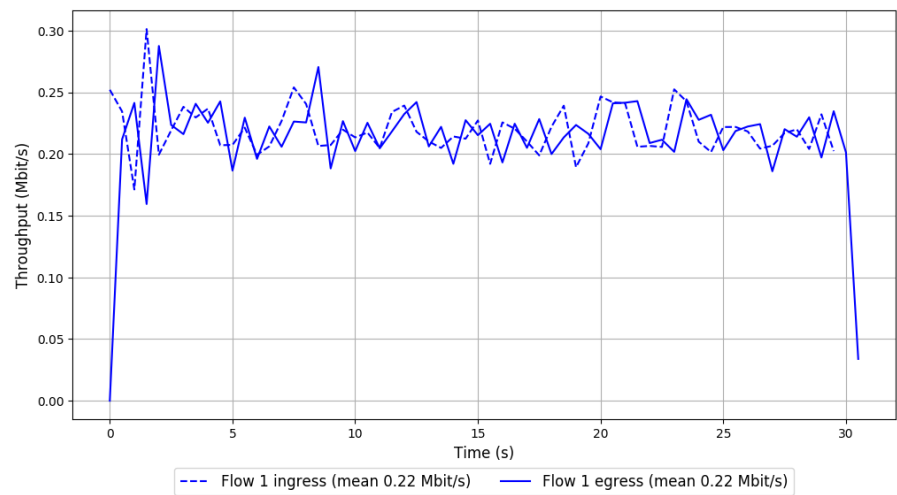

Flow 1 (95th percentile 87.26 ms)

```
Run 3: Statistics of SCReAM

Start at: 2018-06-05 04:00:55
End at: 2018-06-05 04:01:25
Local clock offset: 29.291 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.464 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.464 ms
Loss rate: 0.00%
```

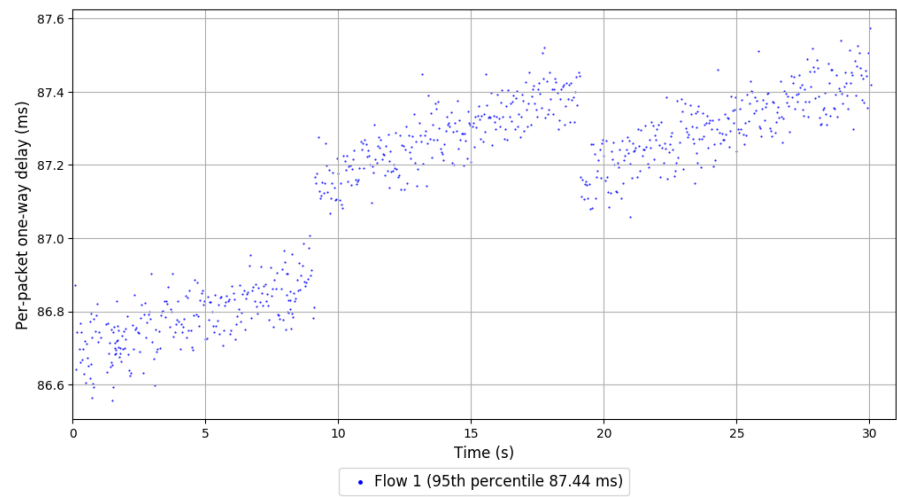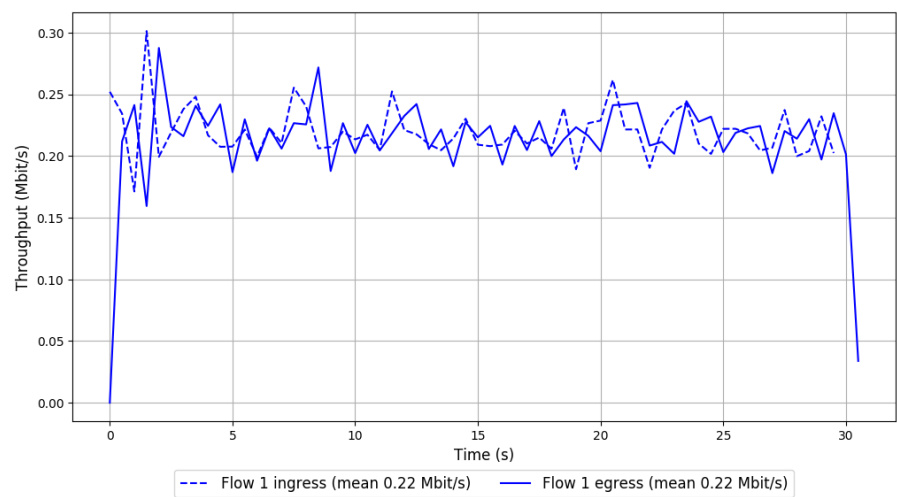Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-06-05 04:21:43
End at: 2018-06-05 04:22:13
Local clock offset: 53.076 ms
Remote clock offset: -0.145 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.440 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.440 ms
Loss rate: 0.00%
```
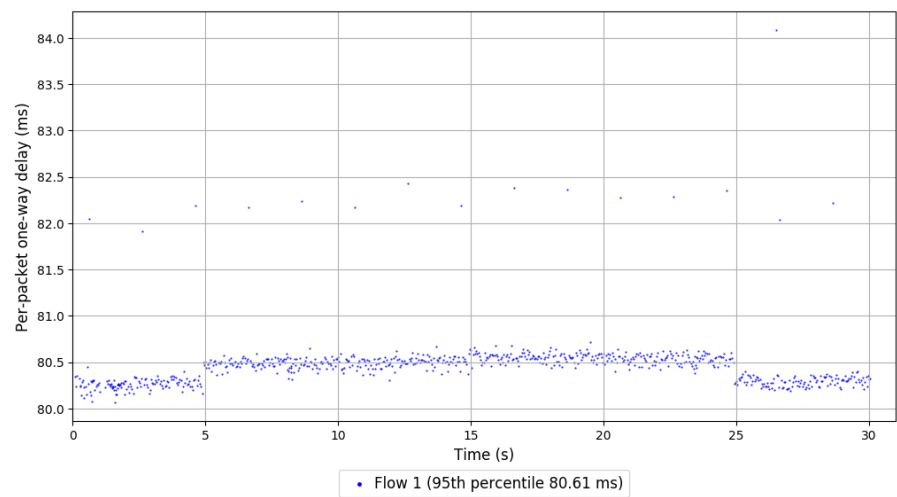
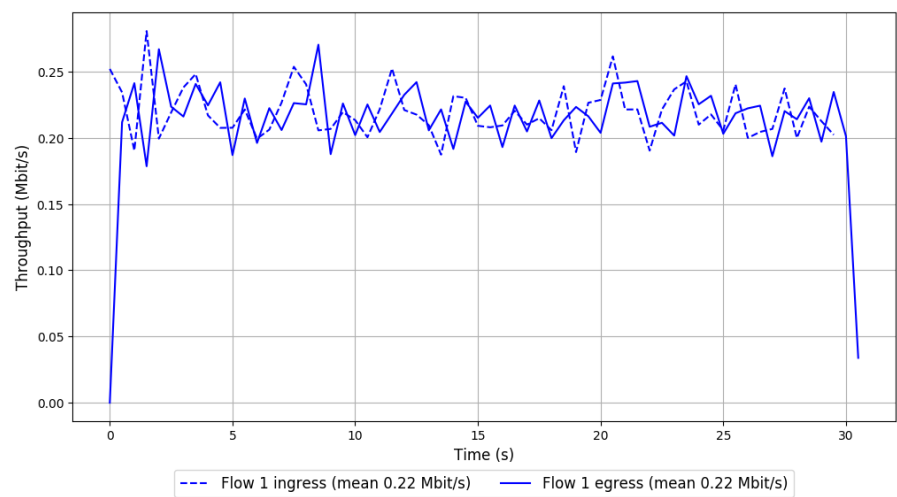# Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-06-05 04:42:37
End at: 2018-06-05 04:43:07
Local clock offset: 28.129 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.615 ms
Loss rate: 0.00%
```

Run 5: Report of SCReAM — Data Link

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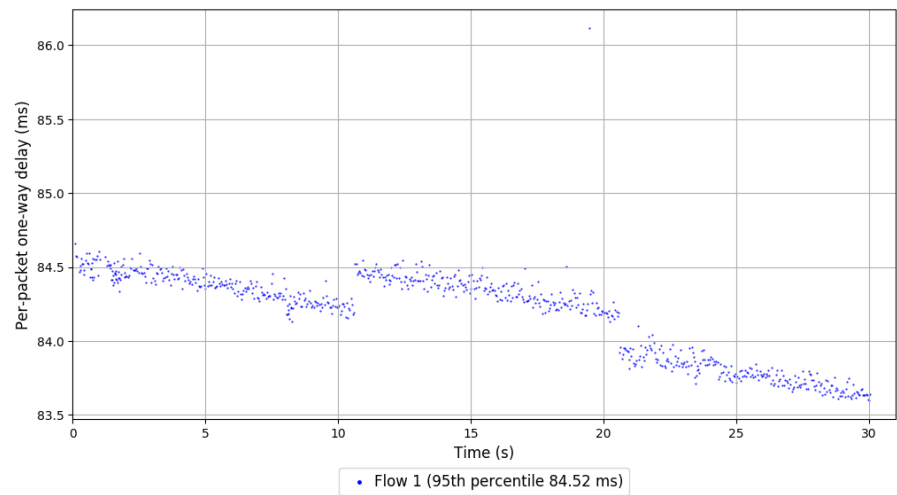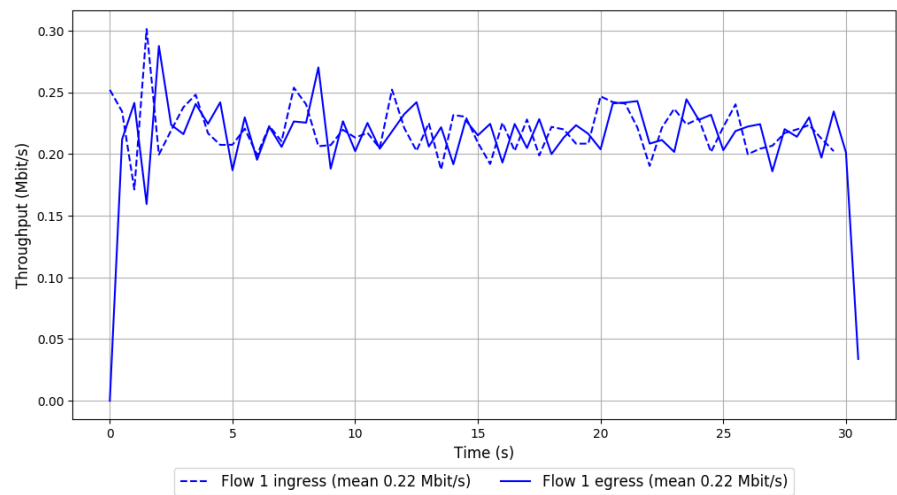

Flow 1 (95th percentile 80.61 ms)

```
Run 6: Statistics of SCReAM

Start at: 2018-06-05 05:03:31
End at: 2018-06-05 05:04:01
Local clock offset: 20.203 ms
Remote clock offset: -0.124 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.518 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.518 ms
Loss rate: 0.00%
```

Run 6: Report of SCReAM — Data Link

```
Run 7: Statistics of SCReAM

Start at: 2018-06-05 05:24:19
End at: 2018-06-05 05:24:49
Local clock offset: 6.369 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.808 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.808 ms
Loss rate: 0.00%
```
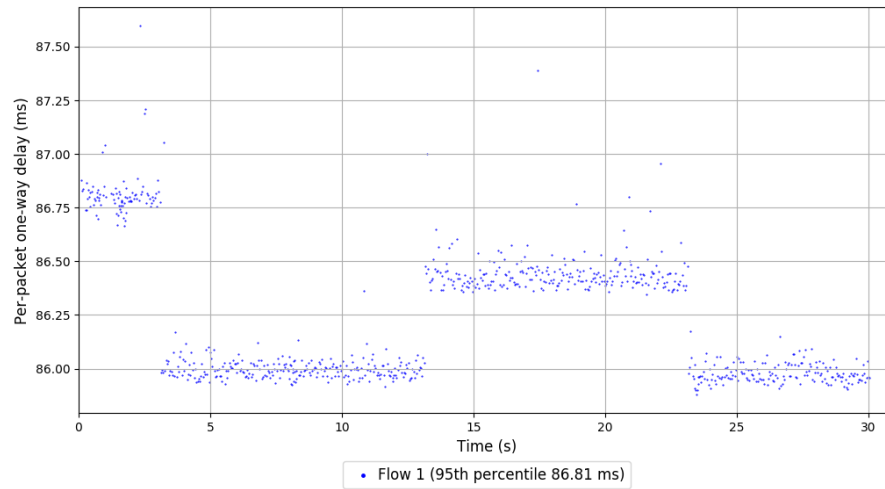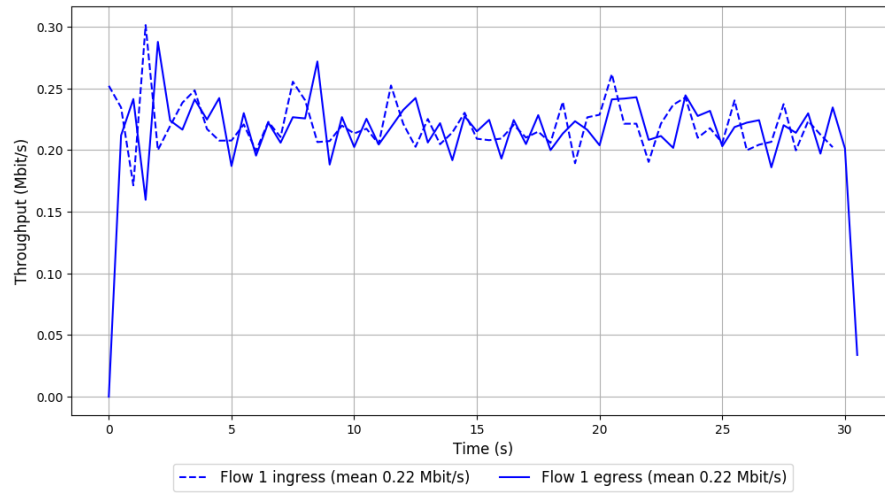
Run 7: Report of SCReAM — Data Link

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

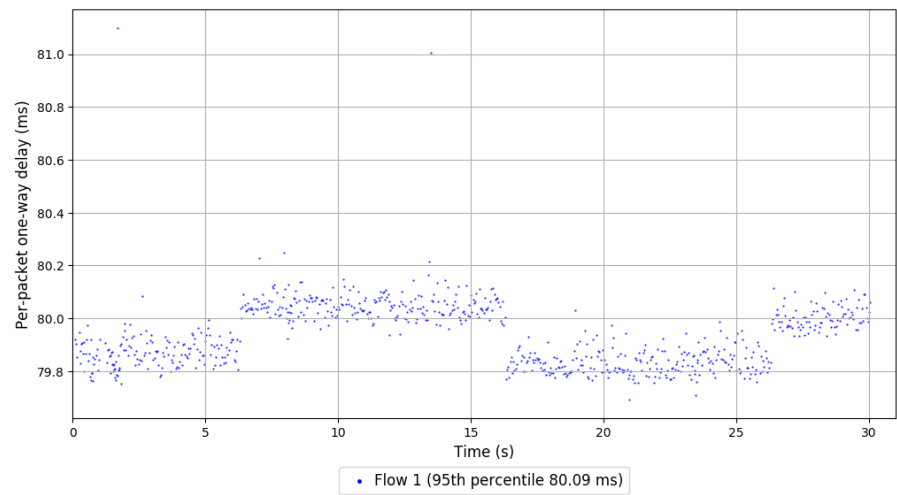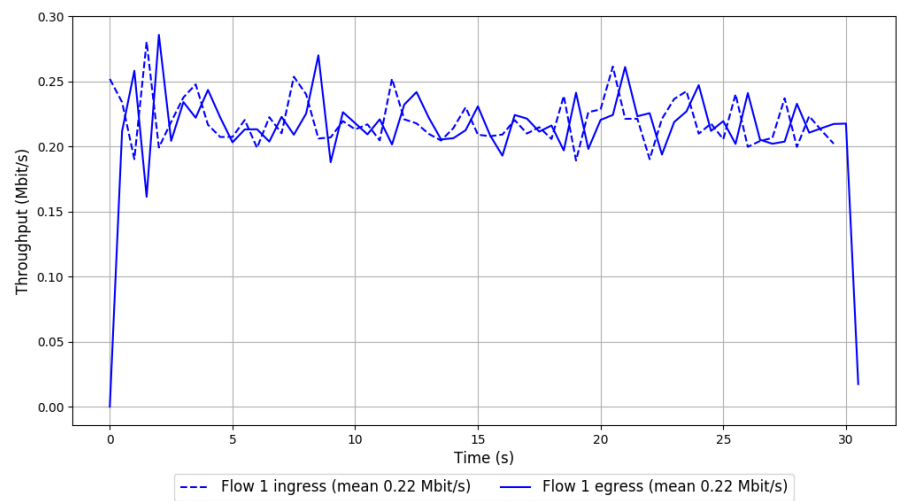Flow 1 (95th percentile 86.81 ms)

197

```
Run 8: Statistics of SCReAM

Start at: 2018-06-05 05:45:26
End at: 2018-06-05 05:45:56
Local clock offset: 8.831 ms
Remote clock offset: -0.095 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.095 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 80.095 ms
Loss rate: 0.00%
```

Run 8: Report of SCReAM — Data Link

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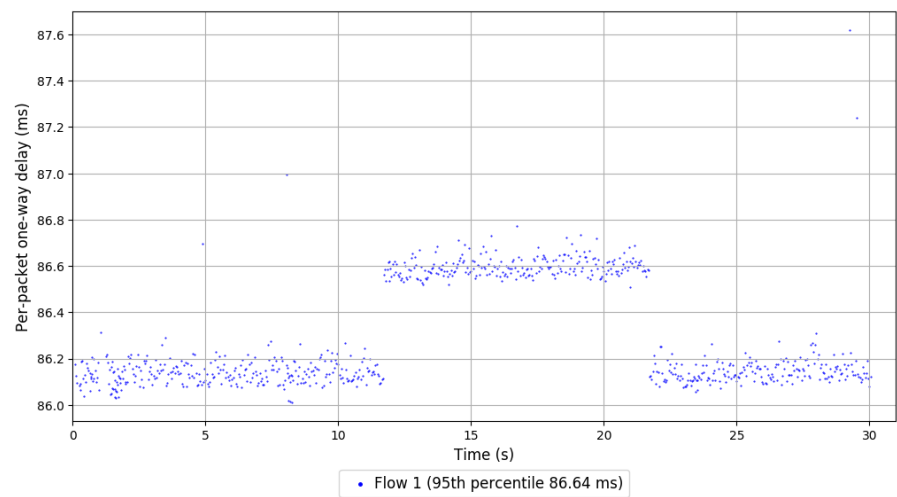

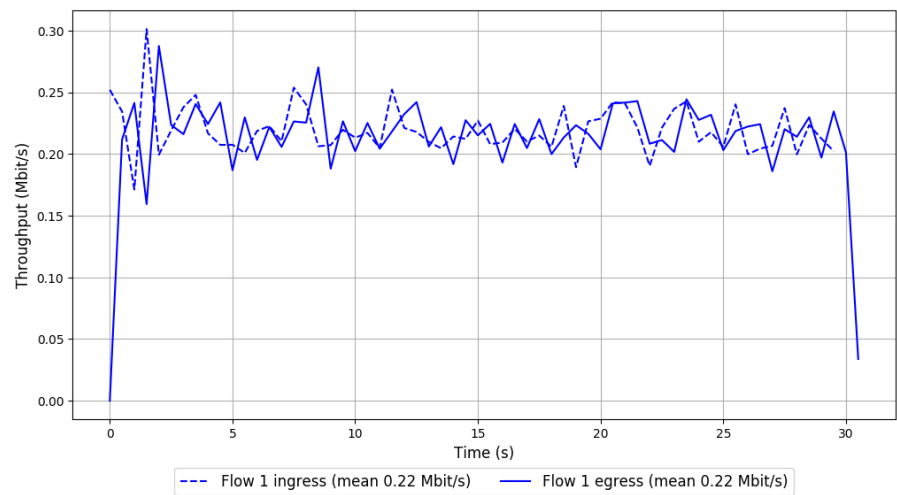Flow 1 (95th percentile 80.09 ms)

199

```
Run 9: Statistics of SCReAM

Start at: 2018-06-05 06:06:30
End at: 2018-06-05 06:07:00
Local clock offset: 2.934 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.638 ms
Loss rate: 0.00%
```

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 86.64 ms)

```
Run 10: Statistics of SCReAM

Start at: 2018-06-05 06:27:17
End at: 2018-06-05 06:27:47
Local clock offset: 5.31 ms
Remote clock offset: -0.041 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.079 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.079 ms
Loss rate: 0.00%
```
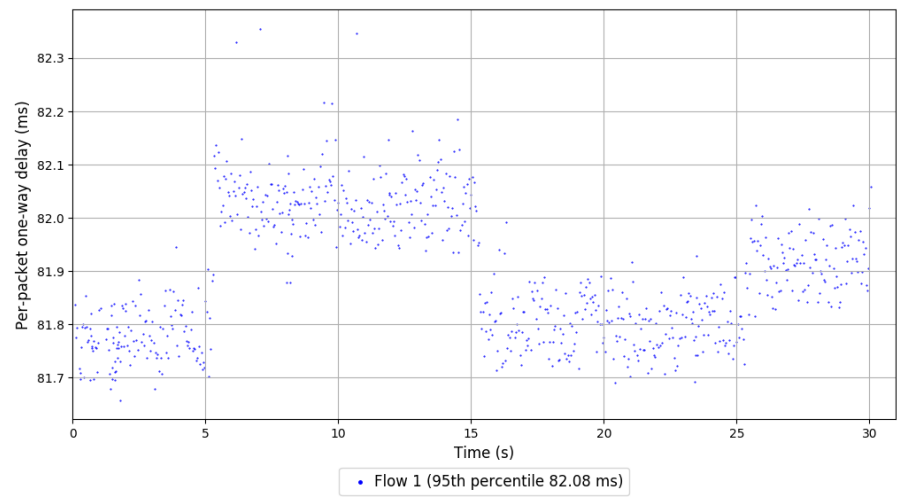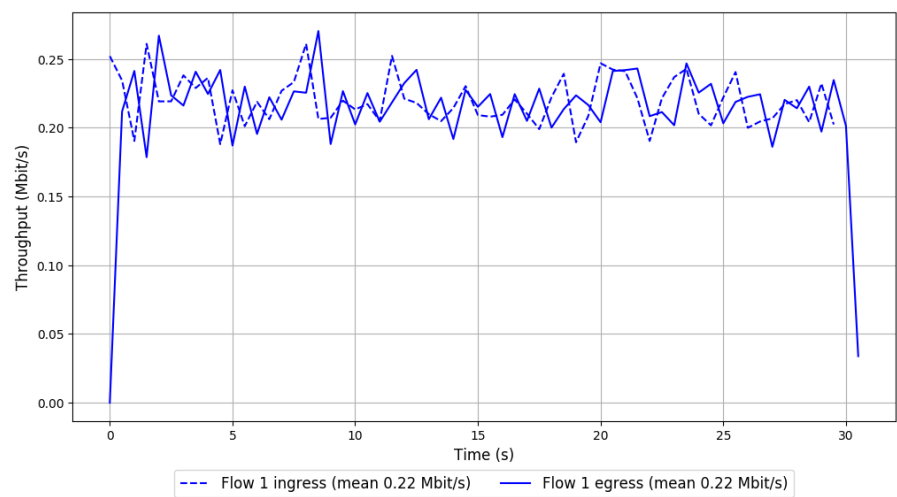
Run 10: Report of SCReAM — Data Link

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

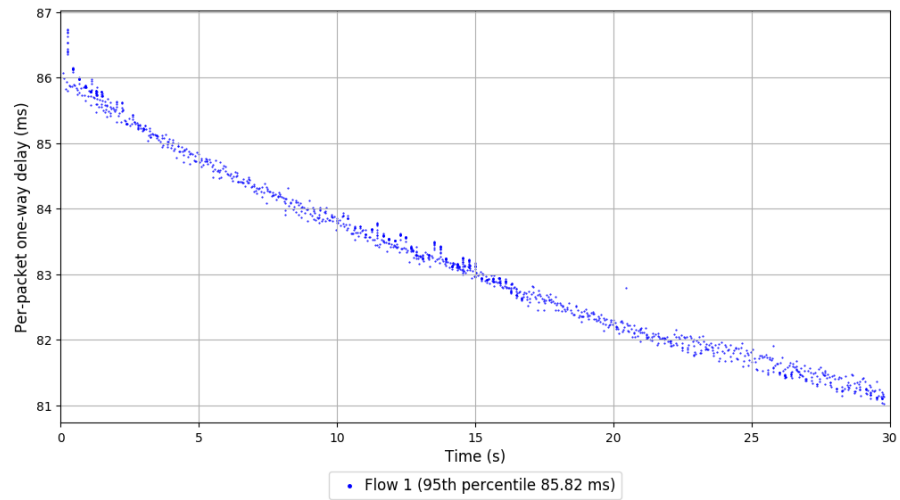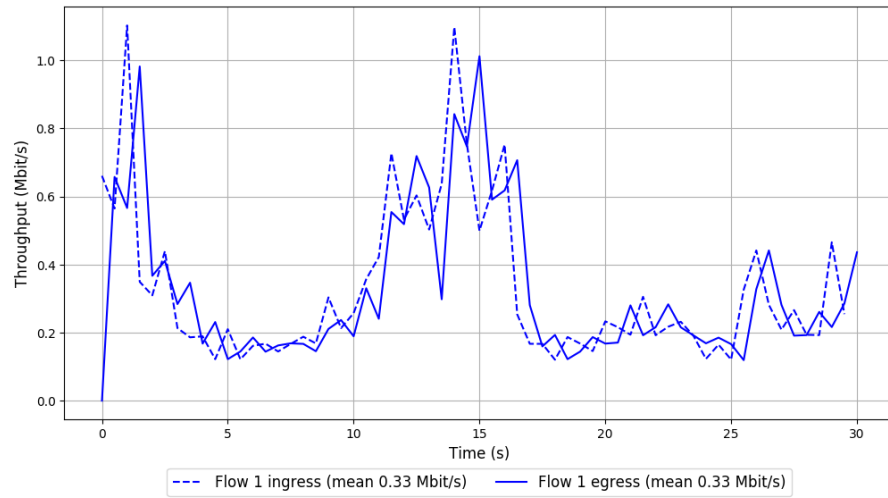Flow 1 (95th percentile 82.08 ms)

```
Run 1: Statistics of Sprout

Start at: 2018-06-05 03:12:29
End at: 2018-06-05 03:12:59
Local clock offset: 24.393 ms
Remote clock offset: -0.058 ms

# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 85.817 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 85.817 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-06-05 03:32:59
End at: 2018-06-05 03:33:29
Local clock offset: 23.92 ms
Remote clock offset: 0.168 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.588 ms
Loss rate: 0.00%
```
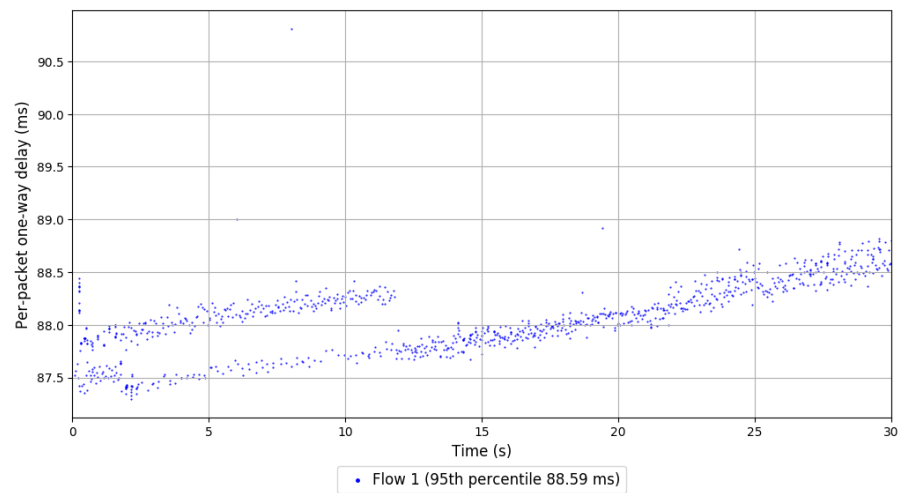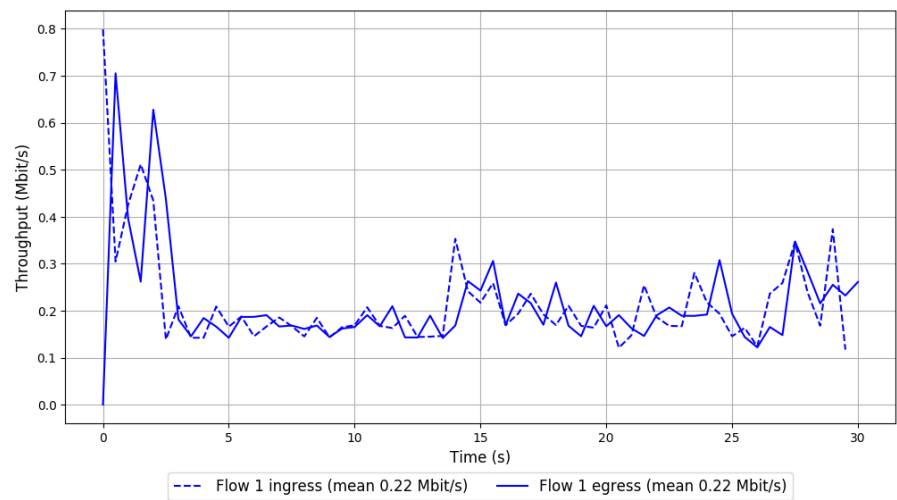
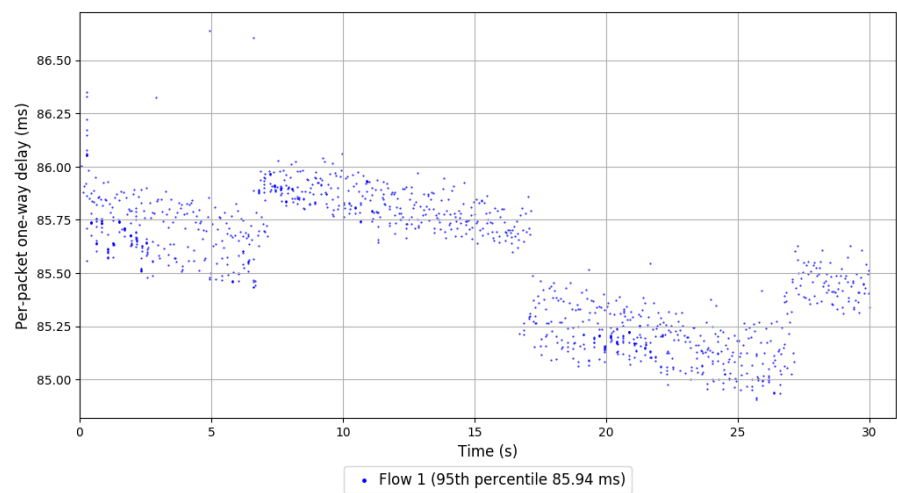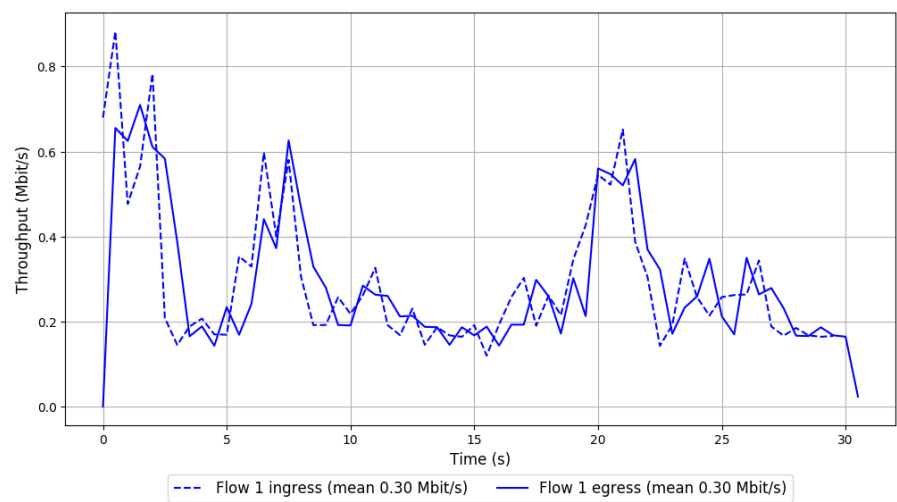## Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: 2018-06-05 03:53:45
End at: 2018-06-05 03:54:15
Local clock offset: 33.568 ms
Remote clock offset: -0.037 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 85.939 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 85.939 ms
Loss rate: 0.00%
```
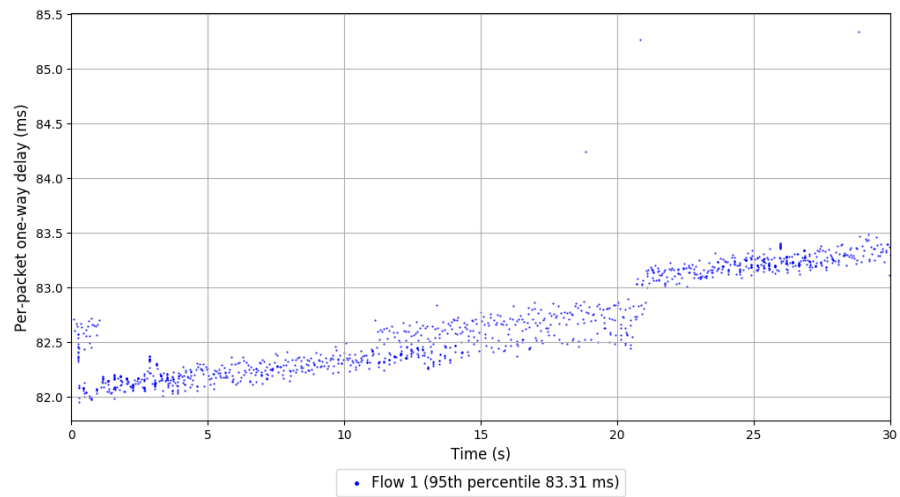
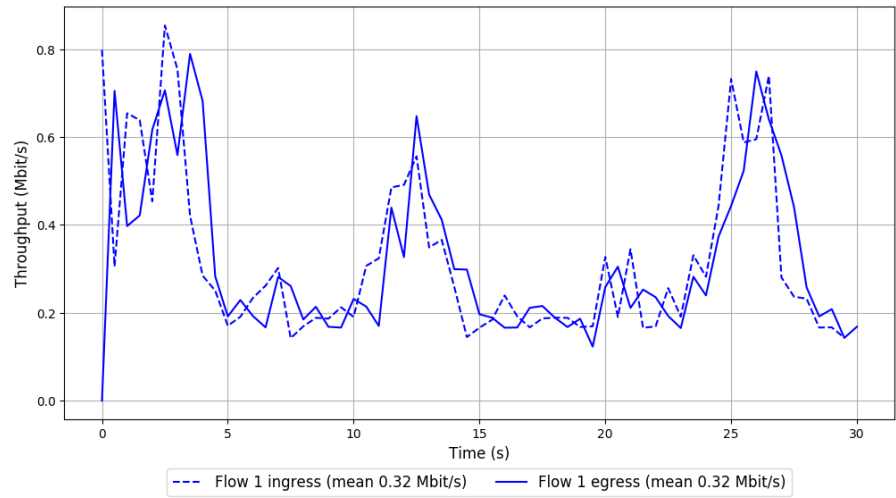# Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-06-05 04:14:31
End at: 2018-06-05 04:15:01
Local clock offset: 46.807 ms
Remote clock offset: -0.212 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 83.311 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 83.311 ms
Loss rate: 0.00%
```
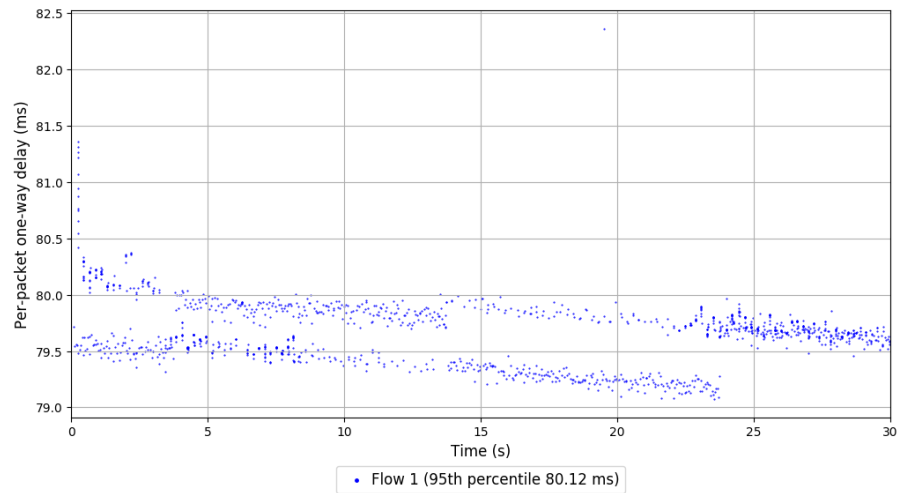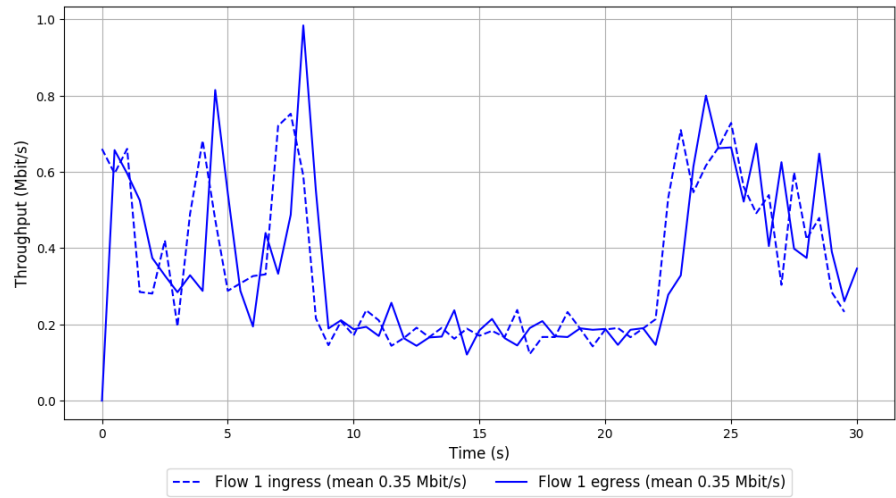
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-06-05 04:35:28
End at: 2018-06-05 04:35:58
Local clock offset: 32.582 ms
Remote clock offset: -0.085 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 80.124 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 80.124 ms
Loss rate: 0.00%
```

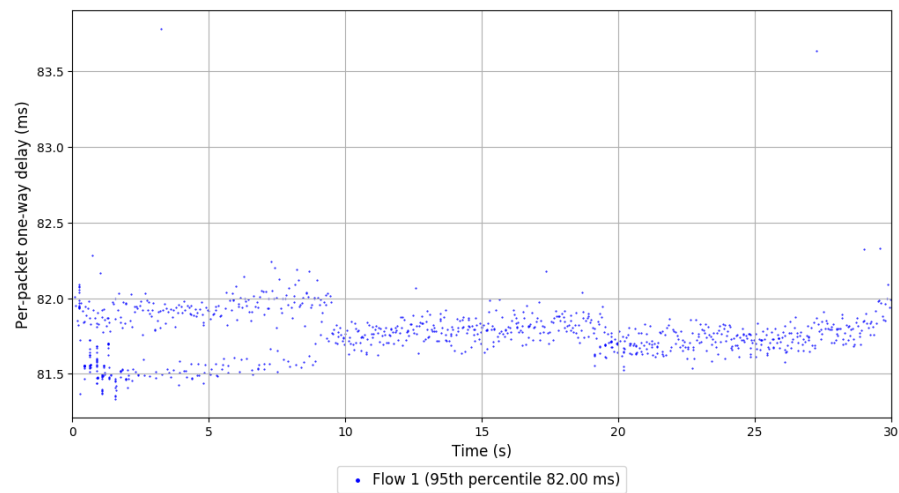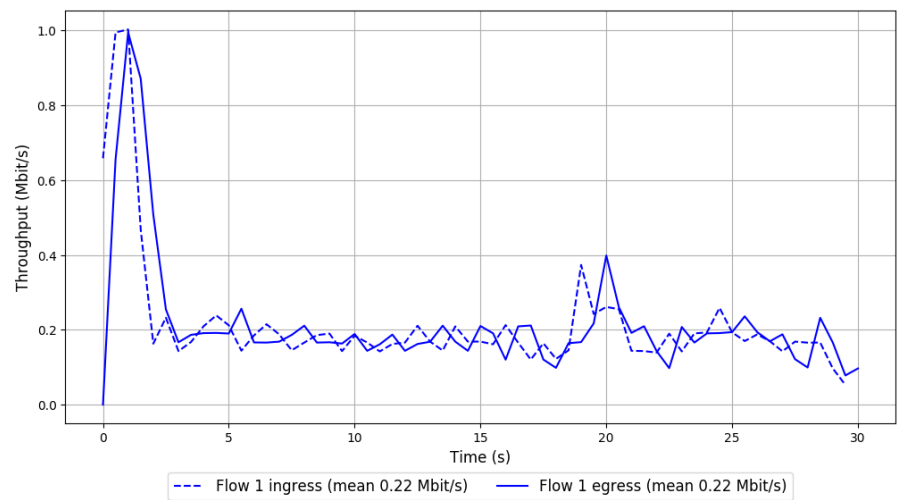## Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-06-05 04:56:22
End at: 2018-06-05 04:56:52
Local clock offset: 32.529 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.002 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.002 ms
Loss rate: 0.00%
```

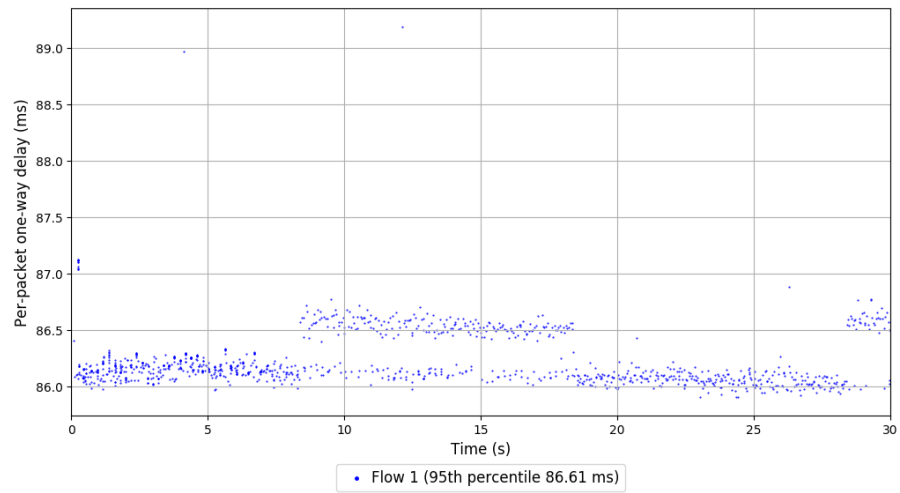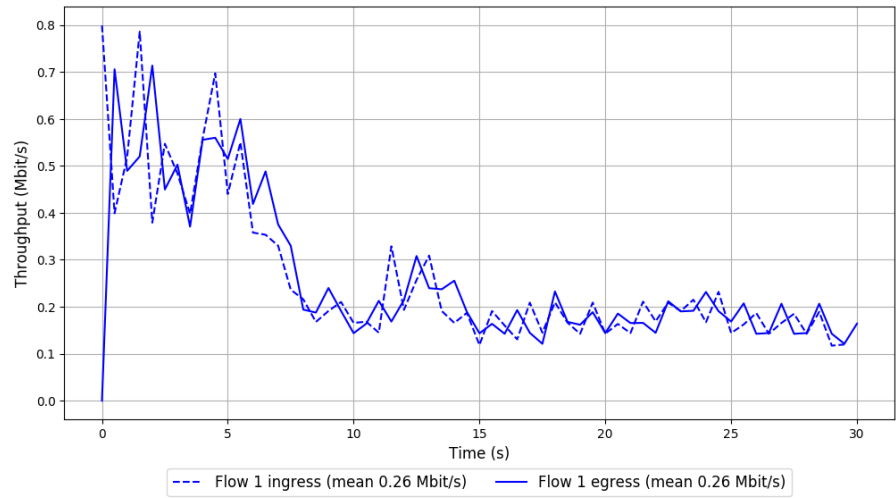## Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-06-05 05:17:13
End at: 2018-06-05 05:17:43
Local clock offset: 6.879 ms
Remote clock offset: -0.121 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 86.615 ms
Loss rate: 0.00%
```

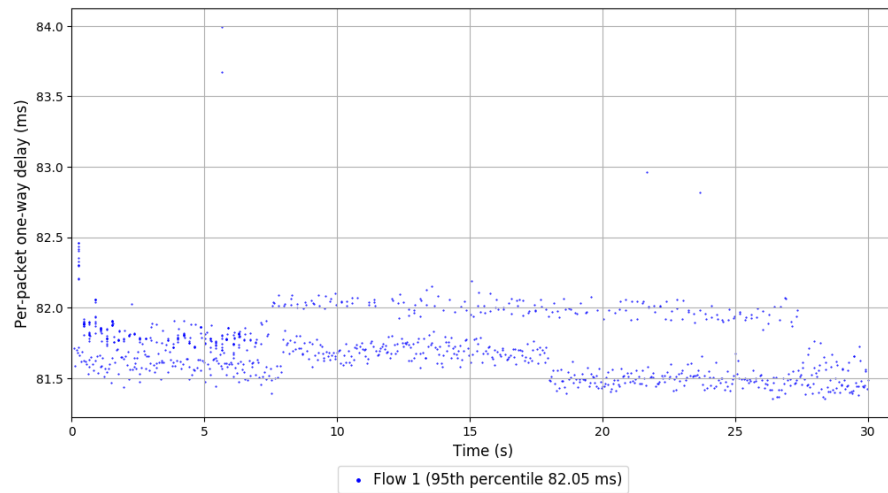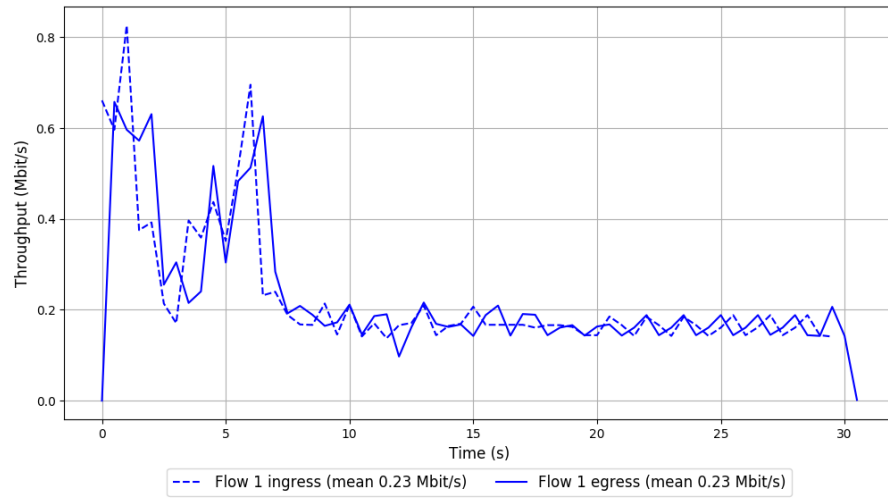## Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-06-05 05:38:14
End at: 2018-06-05 05:38:44
Local clock offset: 8.714 ms
Remote clock offset: -0.107 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 82.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 82.052 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-06-05 05:59:19
End at: 2018-06-05 05:59:49
Local clock offset: 2.756 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 86.543 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 86.543 ms
Loss rate: 0.00%
```
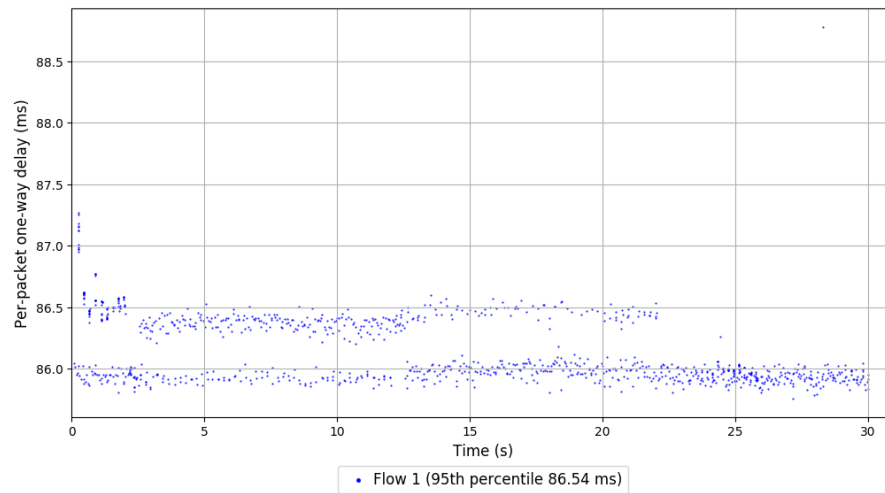
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-06-05 06:20:11
End at: 2018-06-05 06:20:41
Local clock offset: 1.357 ms
Remote clock offset: -0.055 ms


# Below is generated by plot.py at 2018-06-05 07:47:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.816 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.816 ms
Loss rate: 0.00%
```
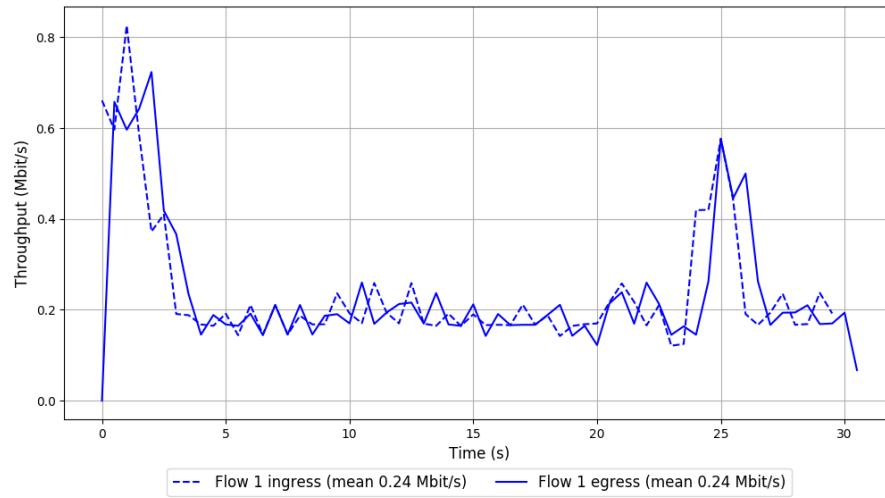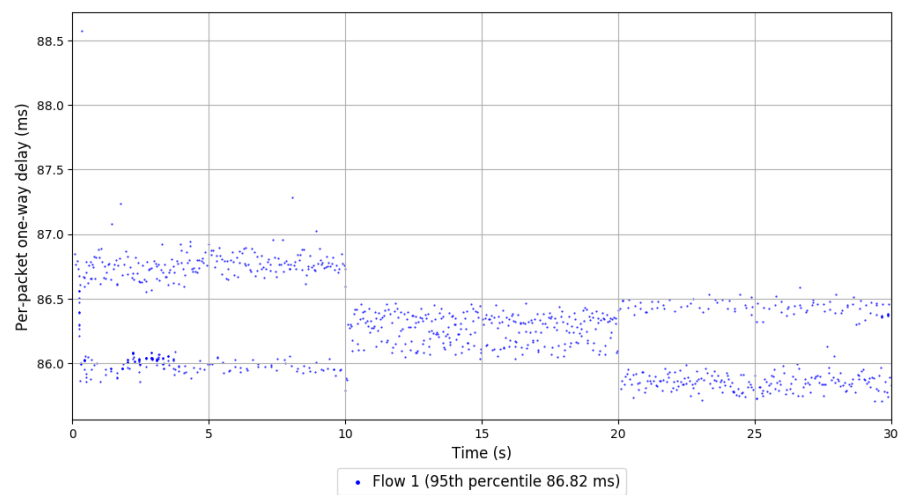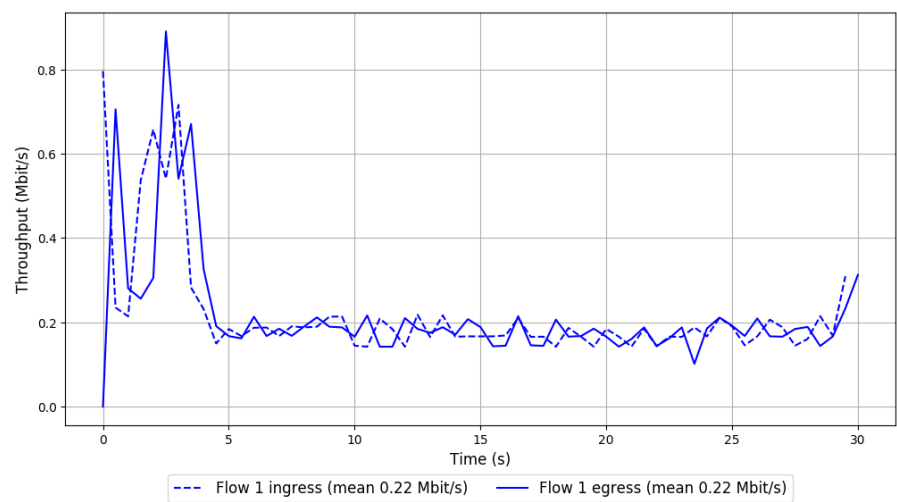
Run 10: Report of Sprout — Data Link

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

Start at: 2018-06-05 03:22:15
End at: 2018-06-05 03:22:45
Local clock offset: 40.091 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-06-05 07:50:39
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 87.722 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 87.722 ms
Loss rate: 0.00%
```
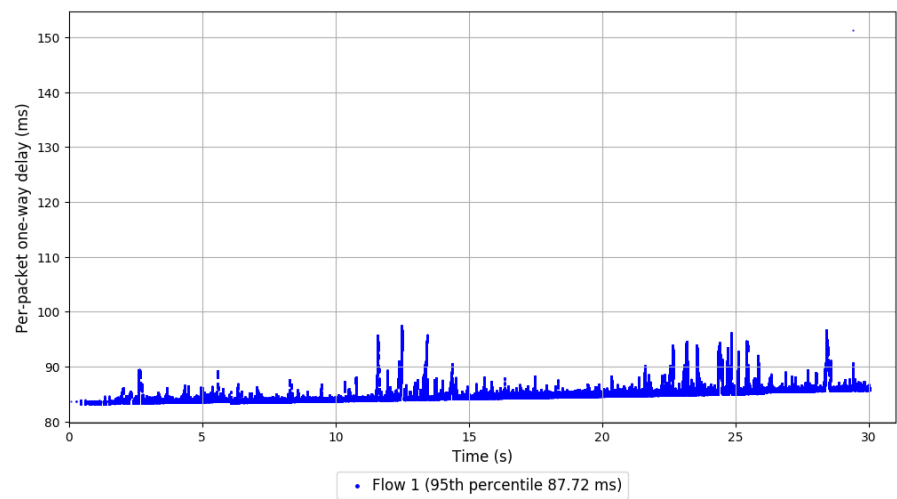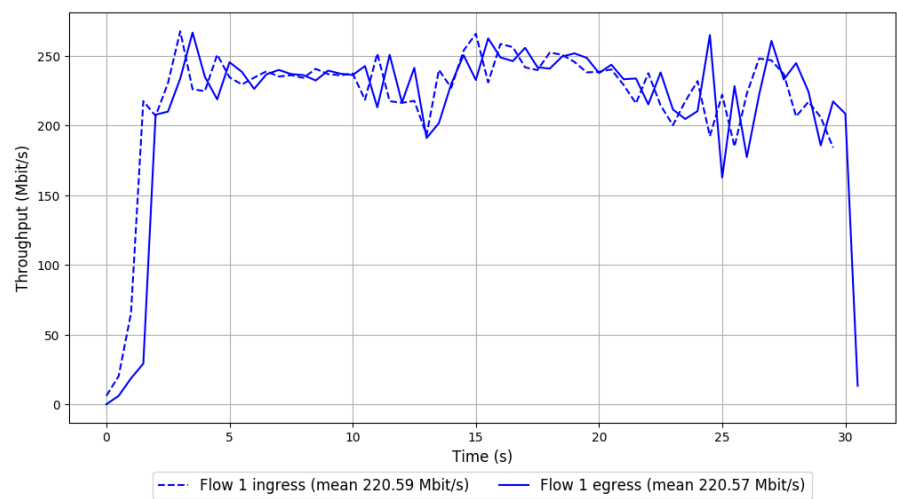
Run 1: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-05 03:42:51
End at: 2018-06-05 03:43:21
Local clock offset: 23.201 ms
Remote clock offset: 0.246 ms


# Below is generated by plot.py at 2018-06-05 07:51:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.64 Mbit/s
95th percentile per-packet one-way delay: 91.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.64 Mbit/s
95th percentile per-packet one-way delay: 91.216 ms
Loss rate: 0.00%
```
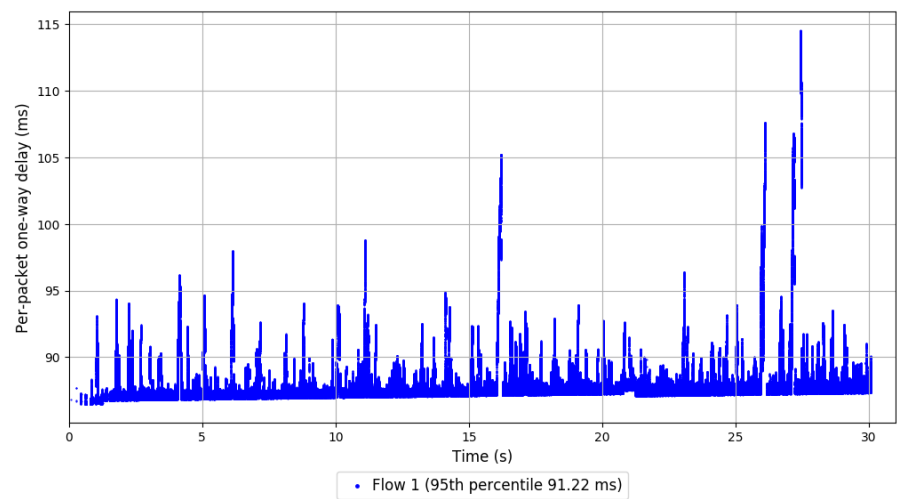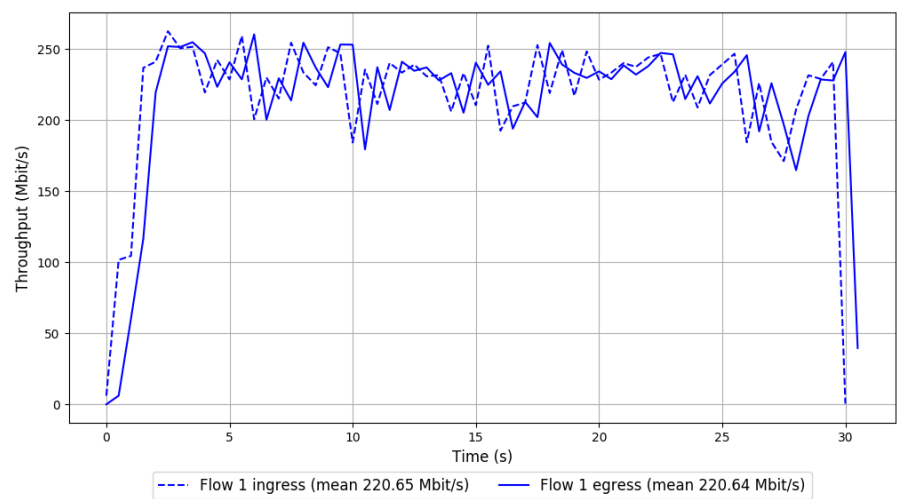
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 220.65 Mbit/s)   Flow 1 egress (mean 220.64 Mbit/s)

Flow 1 (95th percentile 91.22 ms)

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

Start at: 2018-06-05 04:03:38
End at: 2018-06-05 04:04:08
Local clock offset: 36.432 ms
Remote clock offset: -0.105 ms


# Below is generated by plot.py at 2018-06-05 07:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.76 Mbit/s
95th percentile per-packet one-way delay: 81.266 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.76 Mbit/s
95th percentile per-packet one-way delay: 81.266 ms
Loss rate: 0.00%
```

Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 222.77 Mbit/s) — Flow 1 egress (mean 222.76 Mbit/s)

Flow 1 (95th percentile 81.27 ms)

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

Start at: 2018-06-05 04:24:28
End at: 2018-06-05 04:24:58
Local clock offset: 57.421 ms
Remote clock offset: -0.131 ms


# Below is generated by plot.py at 2018-06-05 07:52:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.83 Mbit/s
95th percentile per-packet one-way delay: 87.684 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.83 Mbit/s
95th percentile per-packet one-way delay: 87.684 ms
Loss rate: 0.00%
```
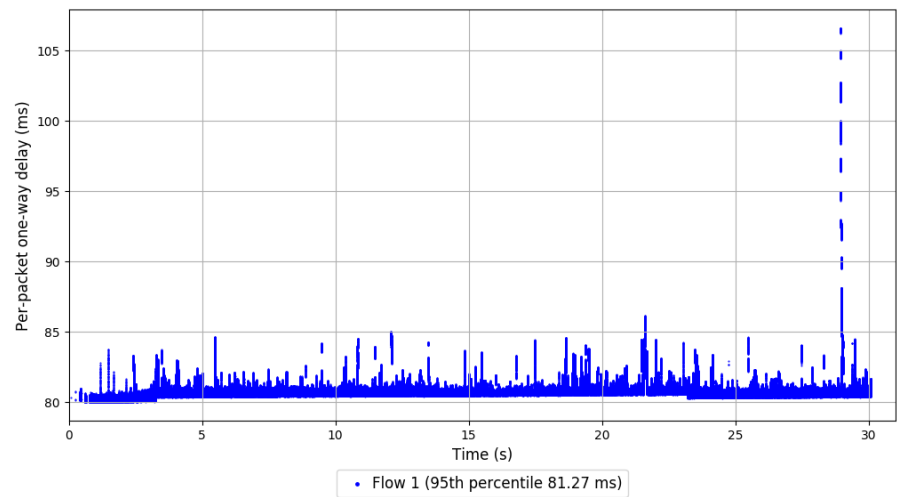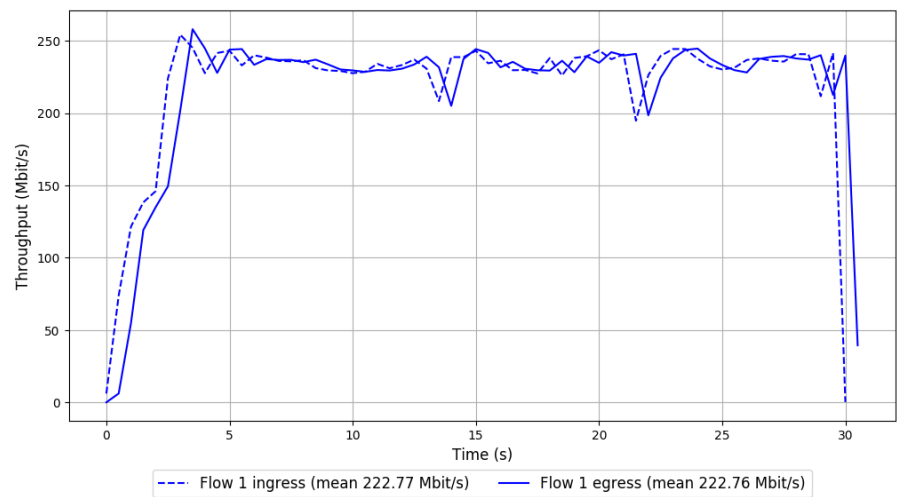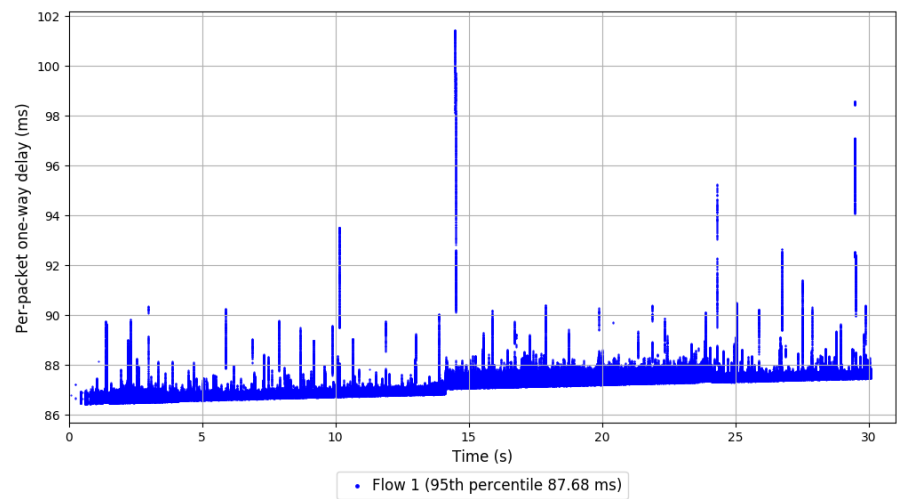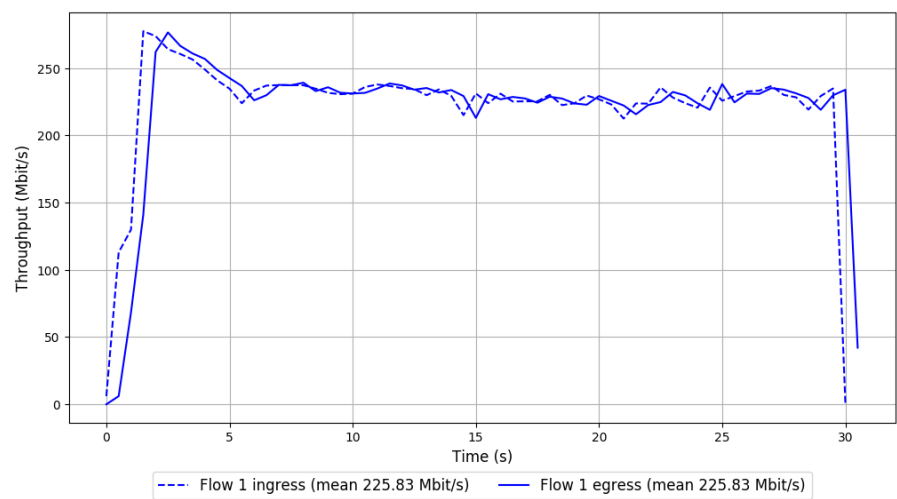
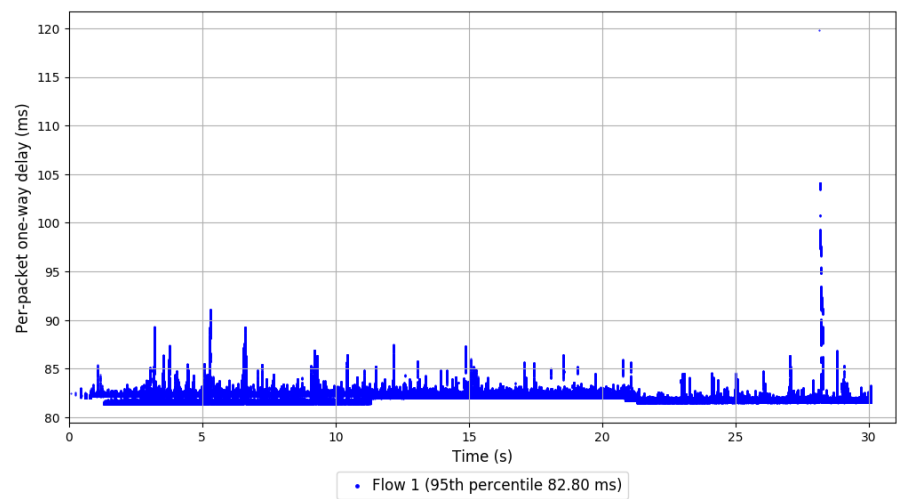Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-05 04:45:21
End at: 2018-06-05 04:45:51
Local clock offset: 26.962 ms
Remote clock offset: -0.098 ms


# Below is generated by plot.py at 2018-06-05 07:53:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.28 Mbit/s
95th percentile per-packet one-way delay: 82.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.28 Mbit/s
95th percentile per-packet one-way delay: 82.804 ms
Loss rate: 0.00%
```
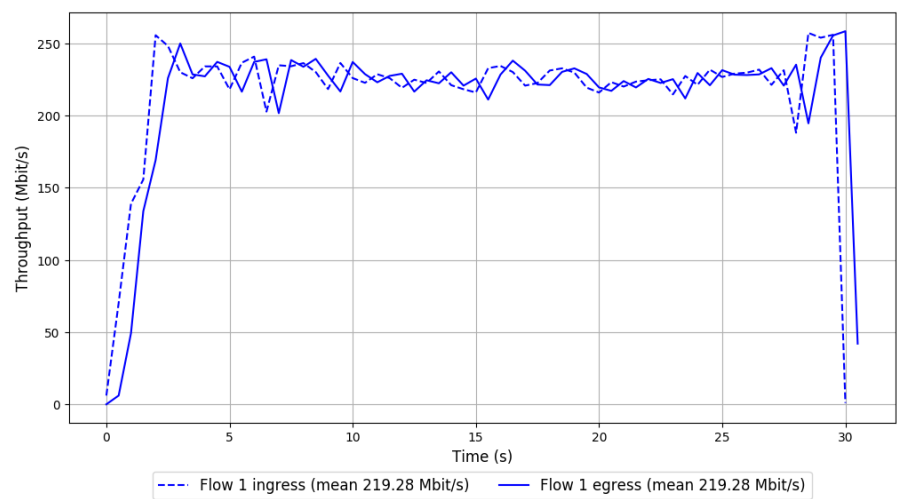
Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-05 05:06:12
End at: 2018-06-05 05:06:42
Local clock offset: 19.392 ms
Remote clock offset: -0.106 ms


# Below is generated by plot.py at 2018-06-05 07:53:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 81.767 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 81.767 ms
Loss rate: 0.02%
```
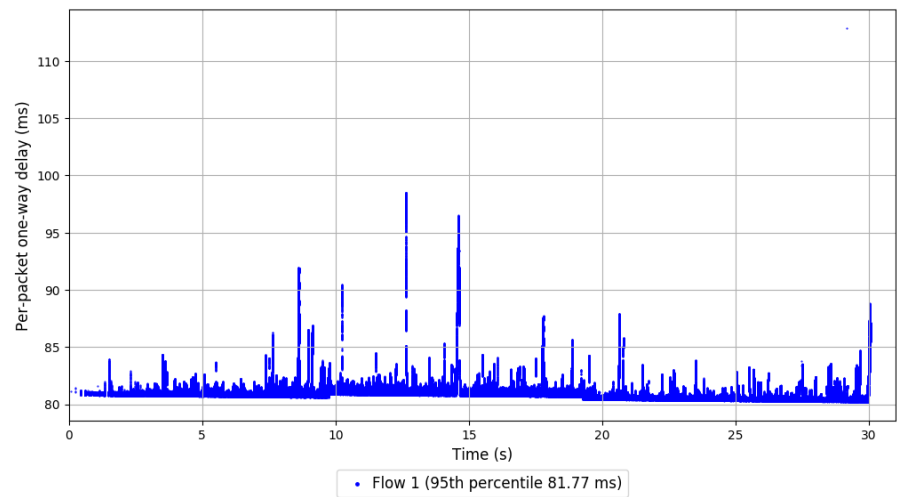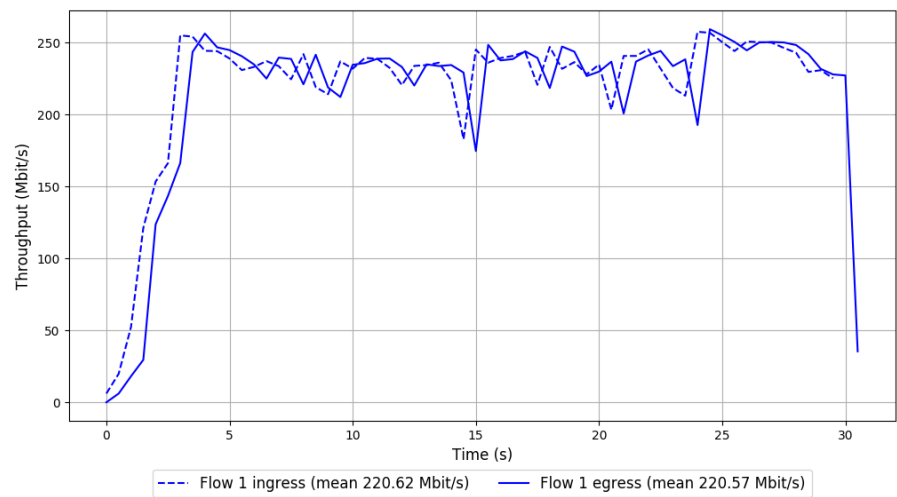
Run 6: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 220.62 Mbit/s) --- Flow 1 egress (mean 220.57 Mbit/s)
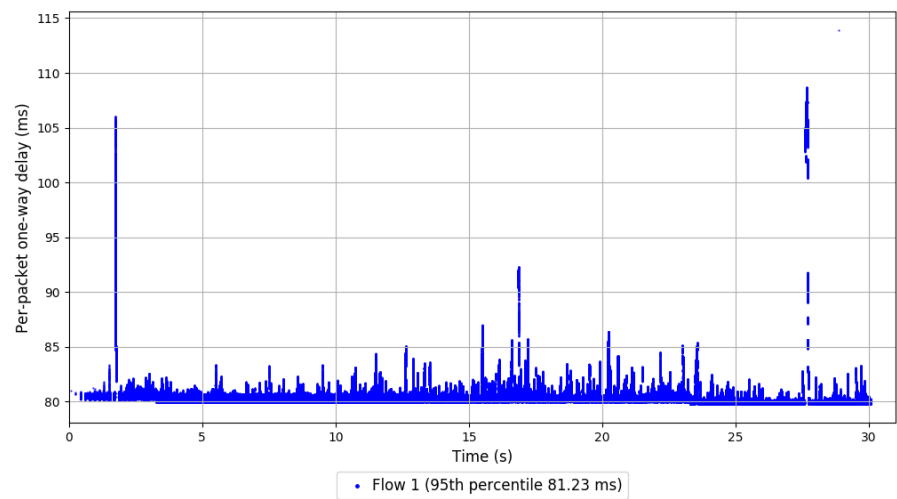

Flow 1 (95th percentile 81.77 ms)

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

Start at: 2018-06-05 05:27:08
End at: 2018-06-05 05:27:38
Local clock offset: 12.387 ms
Remote clock offset: -0.182 ms


# Below is generated by plot.py at 2018-06-05 07:53:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.96 Mbit/s
95th percentile per-packet one-way delay: 81.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.96 Mbit/s
95th percentile per-packet one-way delay: 81.226 ms
Loss rate: 0.00%
```

Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 221.95 Mbit/s)   Flow 1 egress (mean 221.96 Mbit/s)
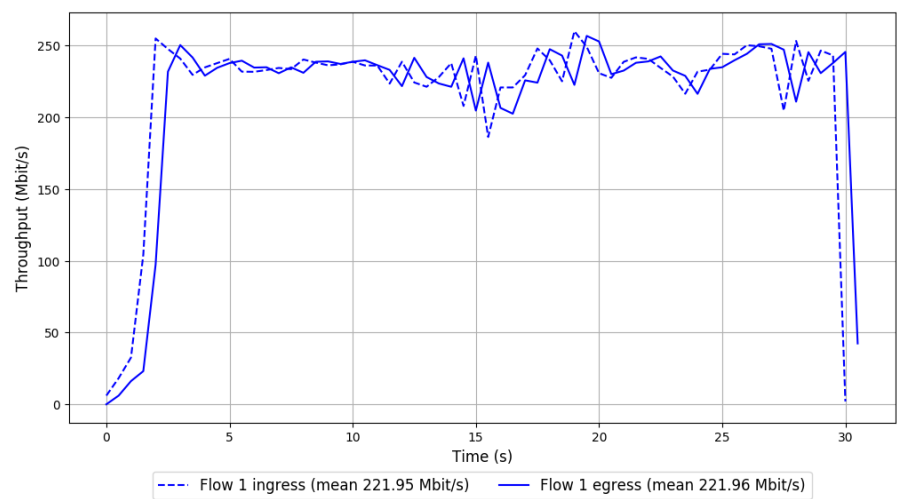

Flow 1 (95th percentile 81.23 ms)

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

Start at: 2018-06-05 05:48:08
End at: 2018-06-05 05:48:38
Local clock offset: 2.688 ms
Remote clock offset: -0.099 ms


# Below is generated by plot.py at 2018-06-05 07:54:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 87.030 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 229.88 Mbit/s
95th percentile per-packet one-way delay: 87.030 ms
Loss rate: 0.11%
```
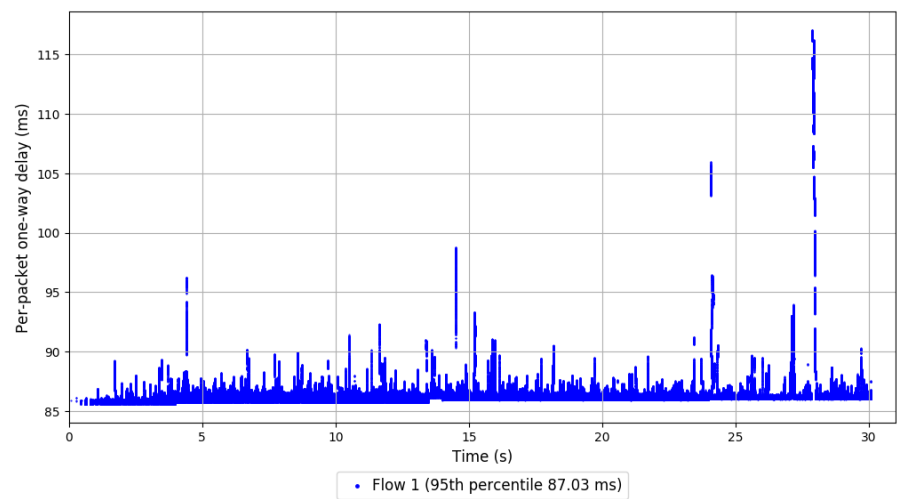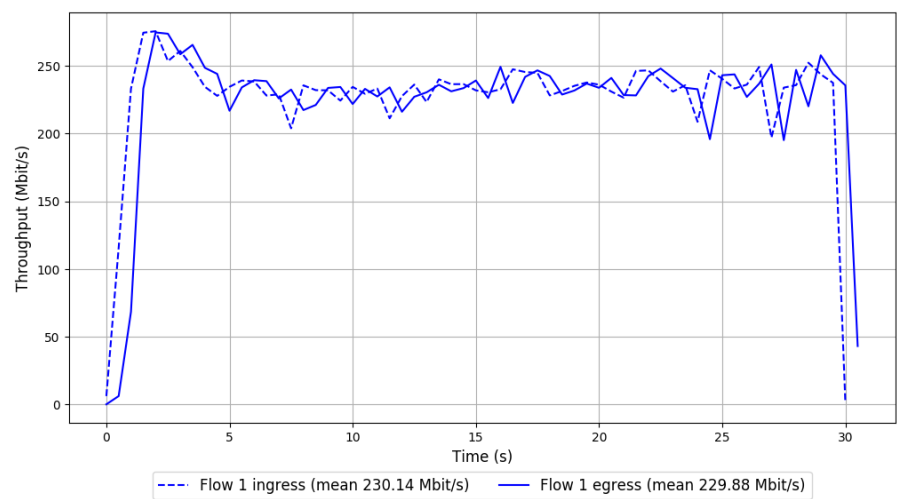
Run 8: Report of TaoVA-100x — Data Link

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

Start at: 2018-06-05 06:09:16
End at: 2018-06-05 06:09:46
Local clock offset: 3.056 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2018-06-05 07:58:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.13 Mbit/s
95th percentile per-packet one-way delay: 86.486 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.13 Mbit/s
95th percentile per-packet one-way delay: 86.486 ms
Loss rate: 0.00%
```

Run 9: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 225.13 Mbit/s)   Flow 1 egress (mean 225.13 Mbit/s)

Flow 1 (95th percentile 86.49 ms)

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

Start at: 2018-06-05 06:30:02
End at: 2018-06-05 06:30:32
Local clock offset: 5.688 ms
Remote clock offset: -0.003 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.81 Mbit/s
95th percentile per-packet one-way delay: 82.491 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.81 Mbit/s
95th percentile per-packet one-way delay: 82.491 ms
Loss rate: 0.00%
```
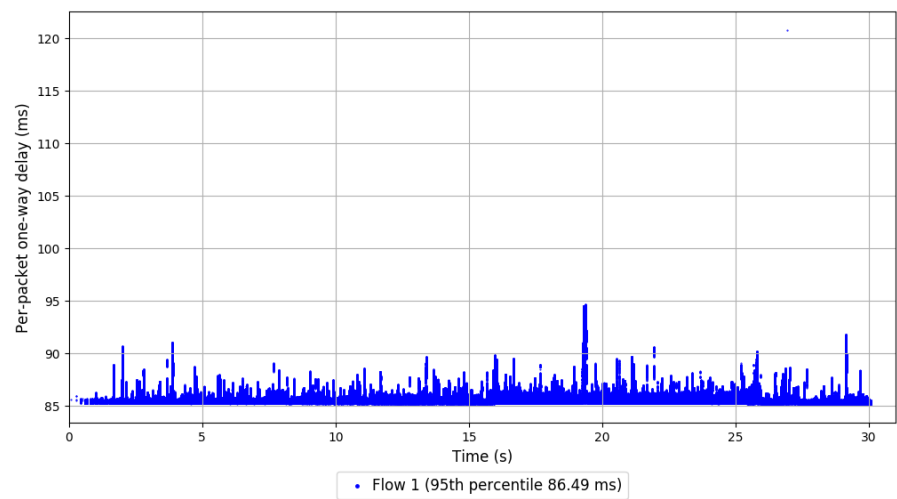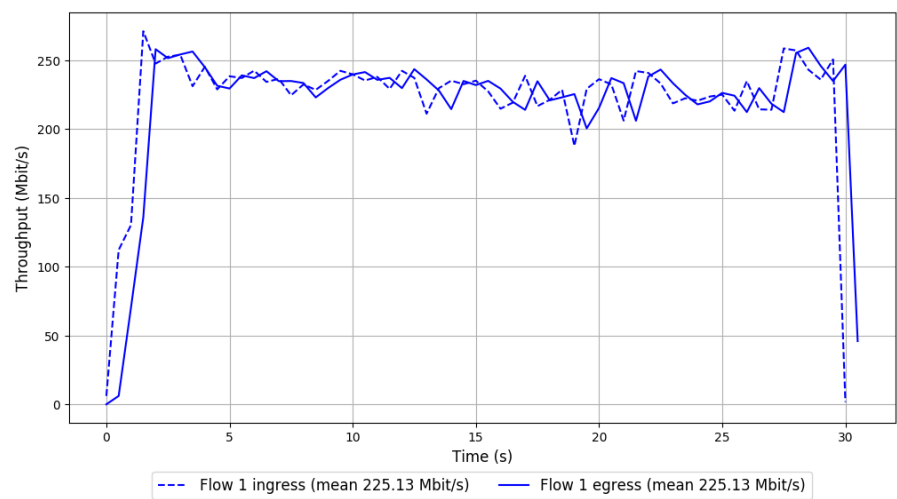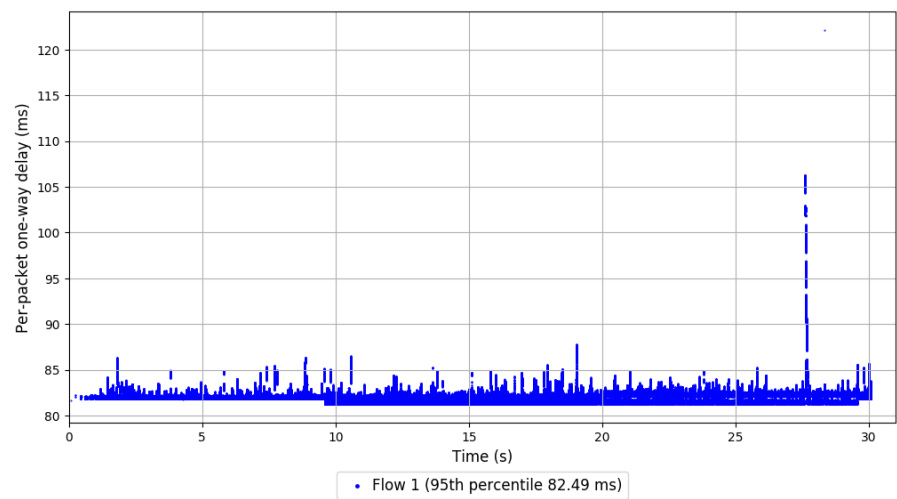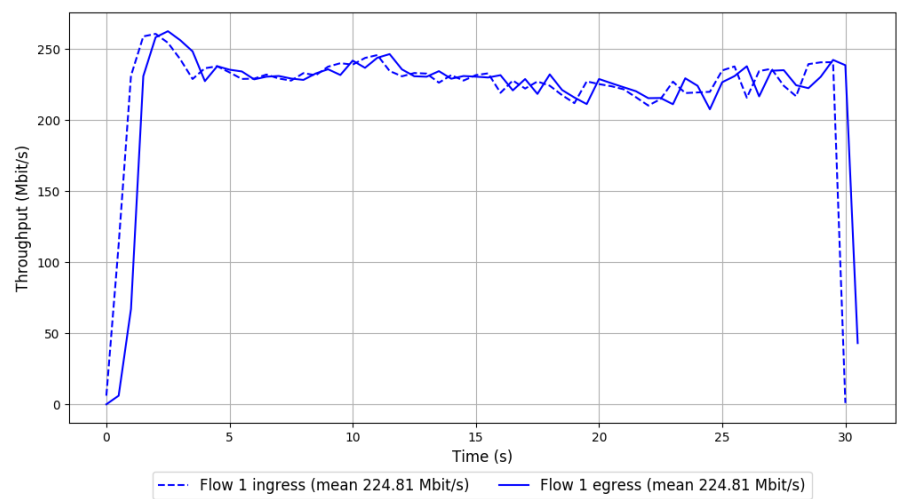
Run 10: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 224.81 Mbit/s)   Flow 1 egress (mean 224.81 Mbit/s)
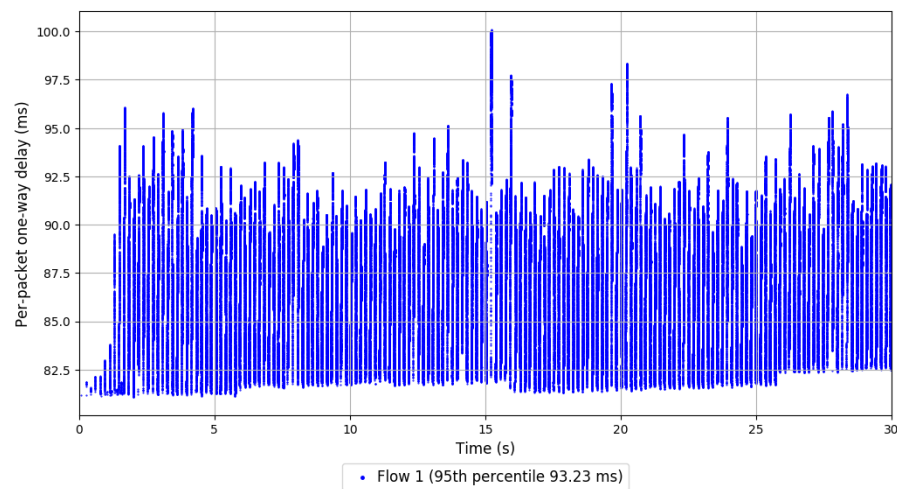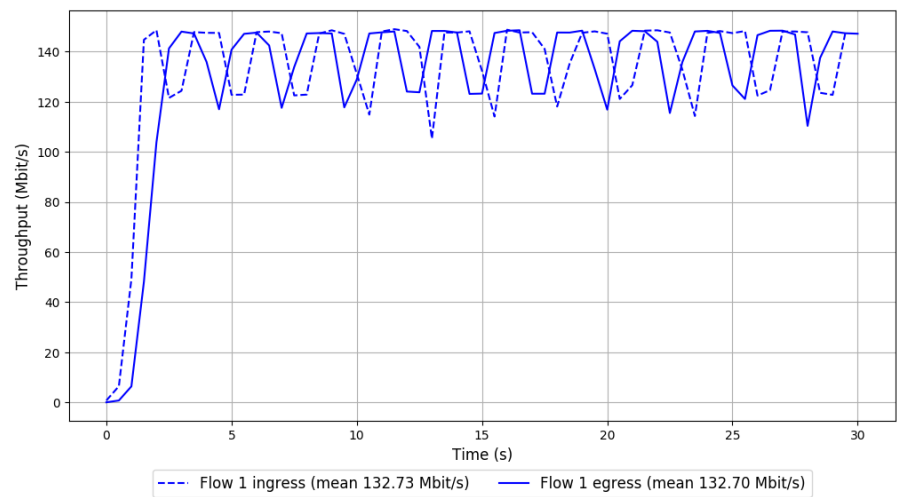

Flow 1 (95th percentile 82.49 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-06-05 03:13:35
End at: 2018-06-05 03:14:05
Local clock offset: 22.911 ms
Remote clock offset: -0.048 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.70 Mbit/s
95th percentile per-packet one-way delay: 93.229 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.70 Mbit/s
95th percentile per-packet one-way delay: 93.229 ms
Loss rate: 0.00%
```

Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-06-05 03:34:06
End at: 2018-06-05 03:34:36
Local clock offset: 33.413 ms
Remote clock offset: 0.188 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.68 Mbit/s
95th percentile per-packet one-way delay: 87.045 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.68 Mbit/s
95th percentile per-packet one-way delay: 87.045 ms
Loss rate: 0.00%
```
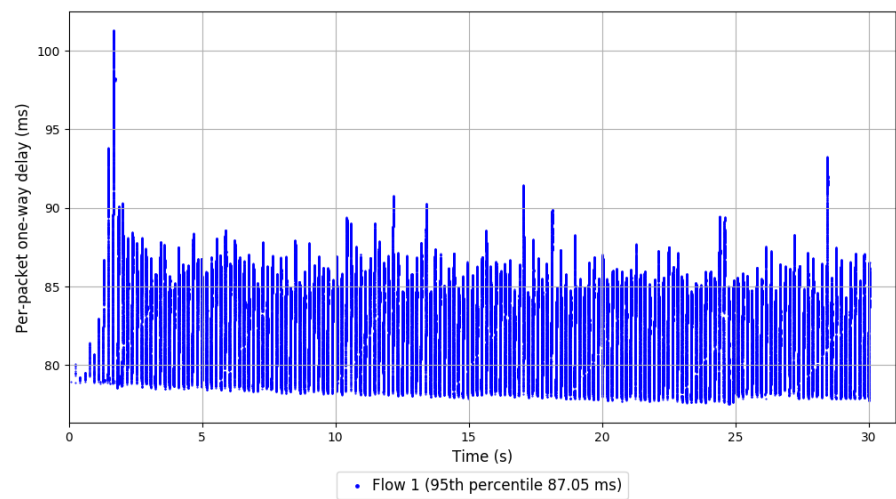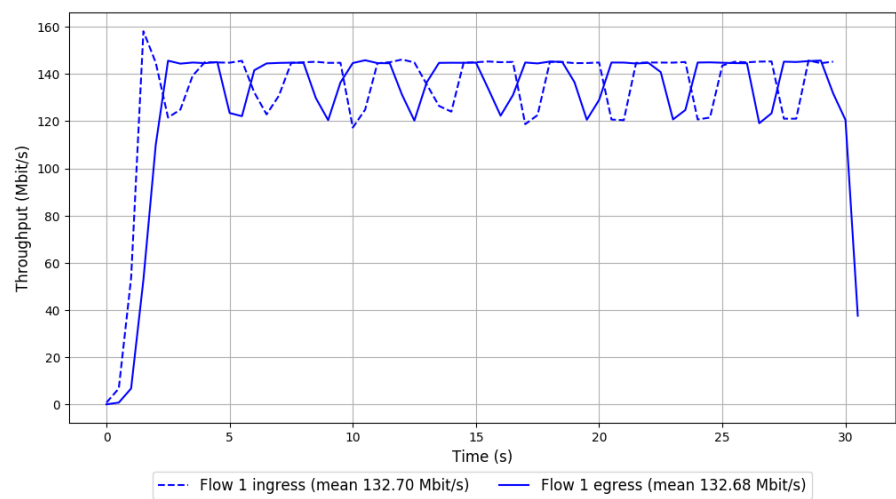
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 132.70 Mbit/s)   Flow 1 egress (mean 132.68 Mbit/s)
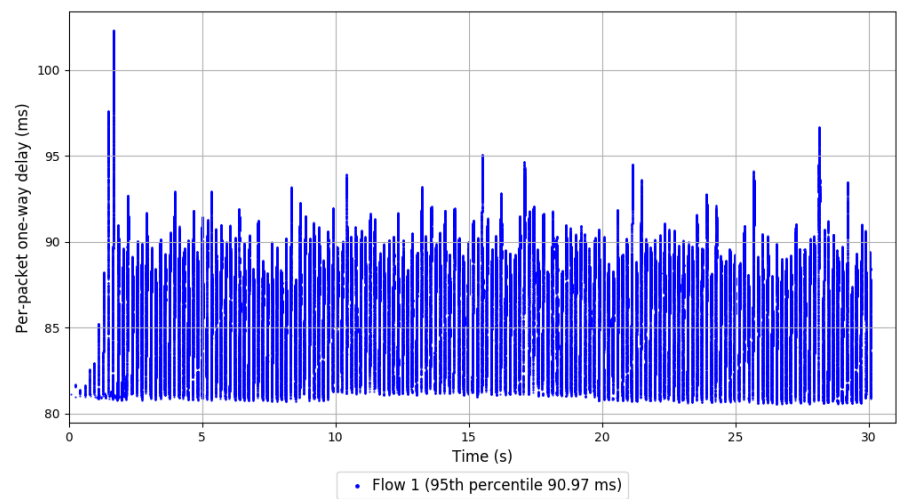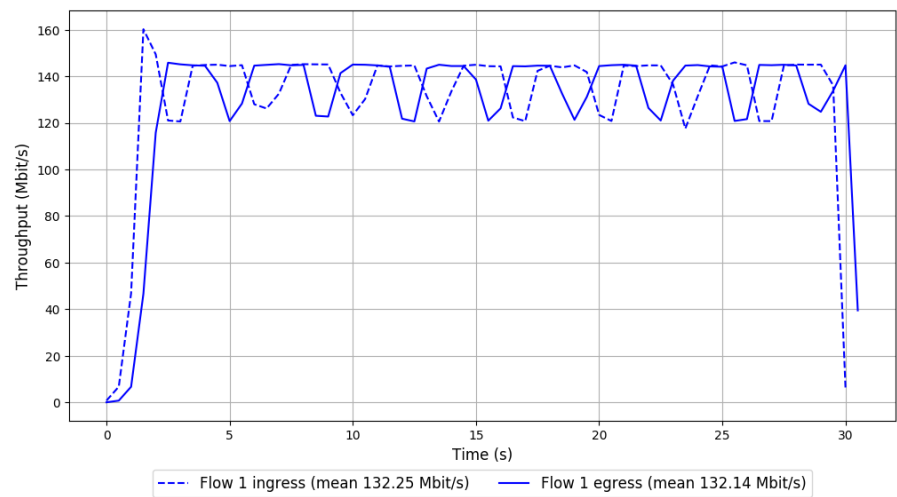

Flow 1 (95th percentile 87.05 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2018-06-05 03:54:52
End at: 2018-06-05 03:55:22
Local clock offset: 36.628 ms
Remote clock offset: -0.059 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.14 Mbit/s
95th percentile per-packet one-way delay: 90.973 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 132.14 Mbit/s
95th percentile per-packet one-way delay: 90.973 ms
Loss rate: 0.08%
```

Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 132.25 Mbit/s) ──── Flow 1 egress (mean 132.14 Mbit/s)

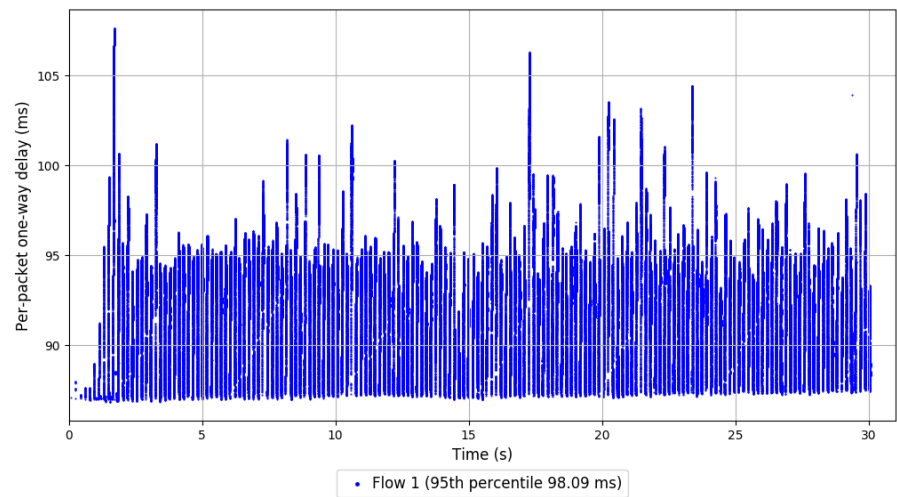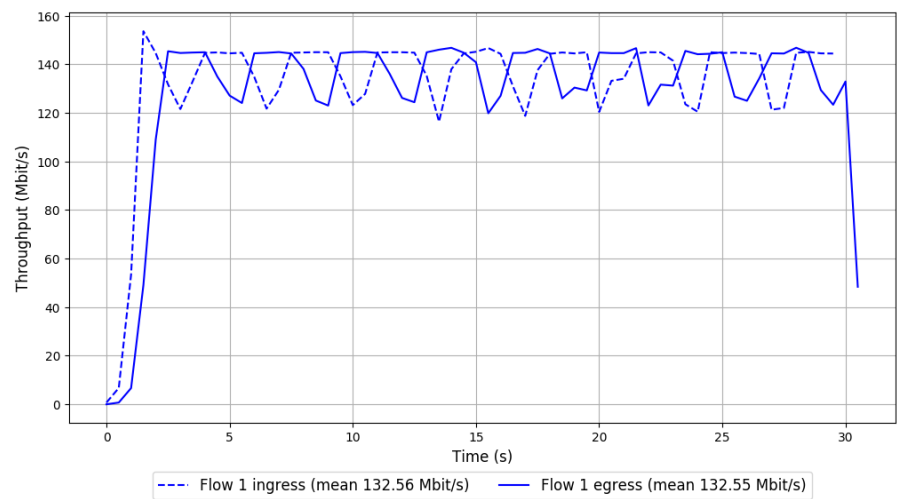

• Flow 1 (95th percentile 90.97 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-06-05 04:15:37
End at: 2018-06-05 04:16:07
Local clock offset: 43.658 ms
Remote clock offset: -0.219 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.55 Mbit/s
95th percentile per-packet one-way delay: 98.091 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.55 Mbit/s
95th percentile per-packet one-way delay: 98.091 ms
Loss rate: 0.00%
```

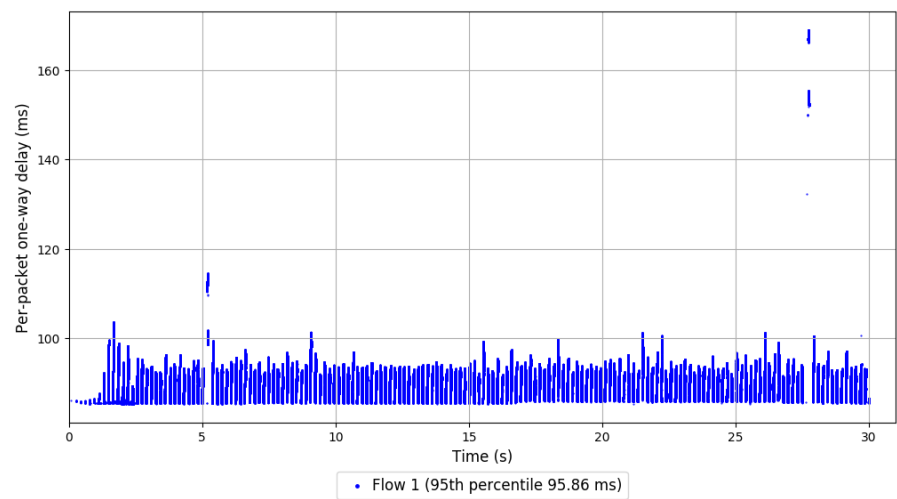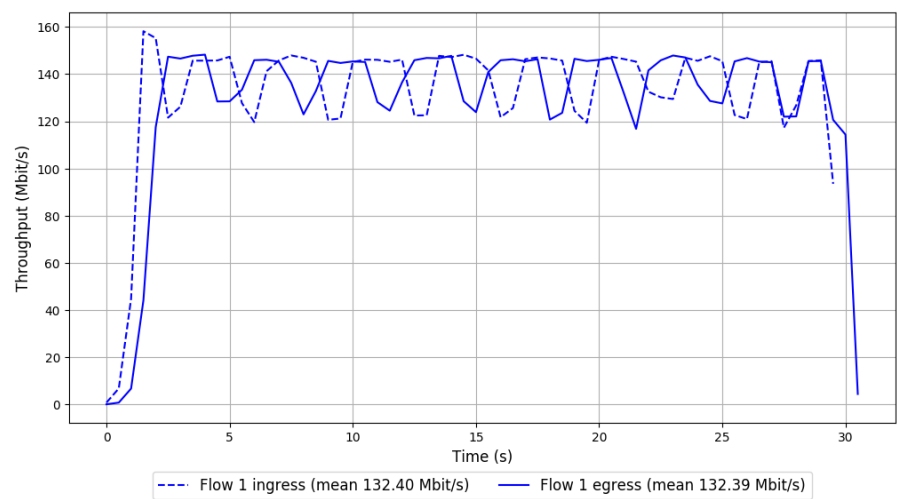# Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-06-05 04:36:35
End at: 2018-06-05 04:37:05
Local clock offset: 25.438 ms
Remote clock offset: -0.086 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.39 Mbit/s
95th percentile per-packet one-way delay: 95.864 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.39 Mbit/s
95th percentile per-packet one-way delay: 95.864 ms
Loss rate: 0.00%
```

Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 132.40 Mbit/s)   Flow 1 egress (mean 132.39 Mbit/s)
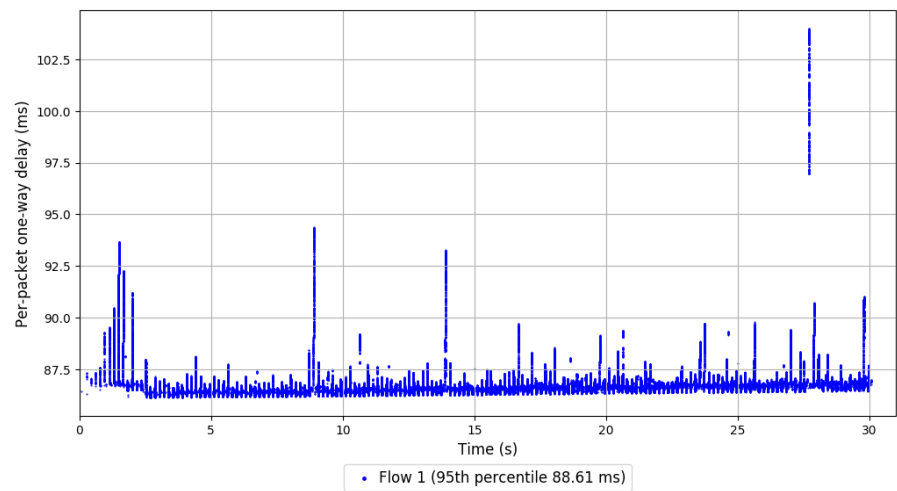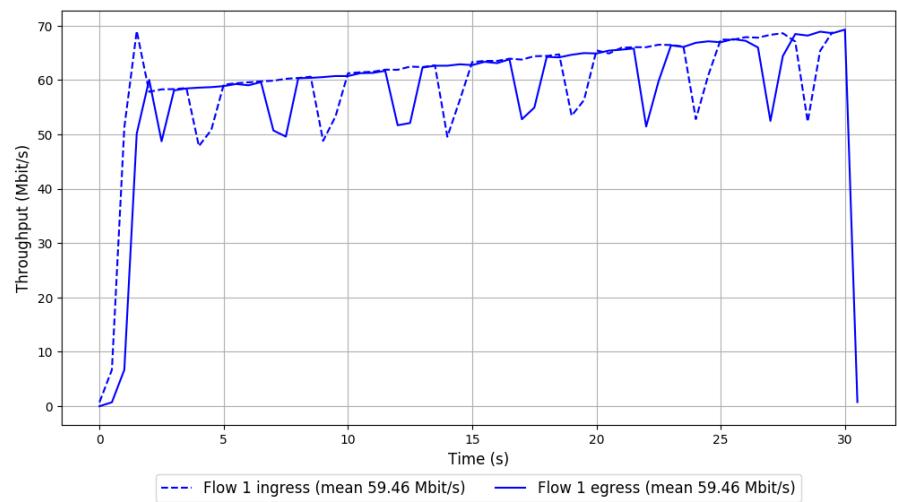

Flow 1 (95th percentile 95.86 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2018-06-05 04:57:29
End at: 2018-06-05 04:57:59
Local clock offset: 28.573 ms
Remote clock offset: -0.124 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 88.606 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 59.46 Mbit/s
95th percentile per-packet one-way delay: 88.606 ms
Loss rate: 0.00%
```

Run 6: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 59.46 Mbit/s) --- Flow 1 egress (mean 59.46 Mbit/s)

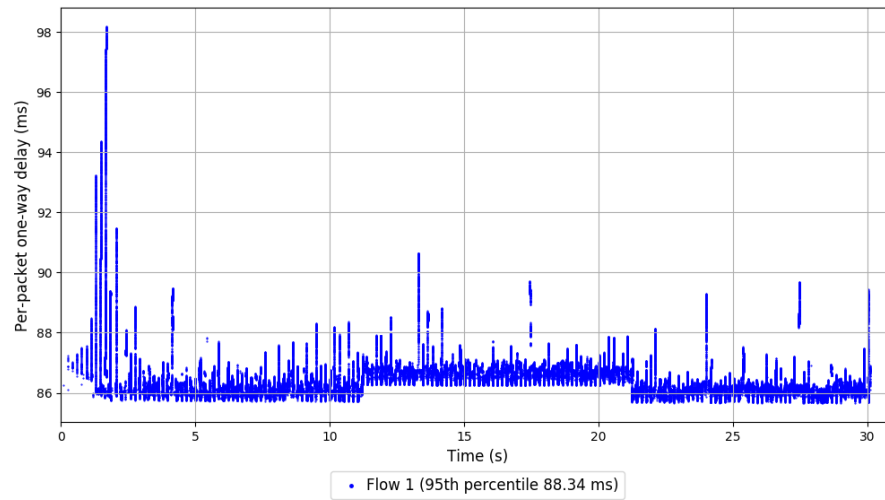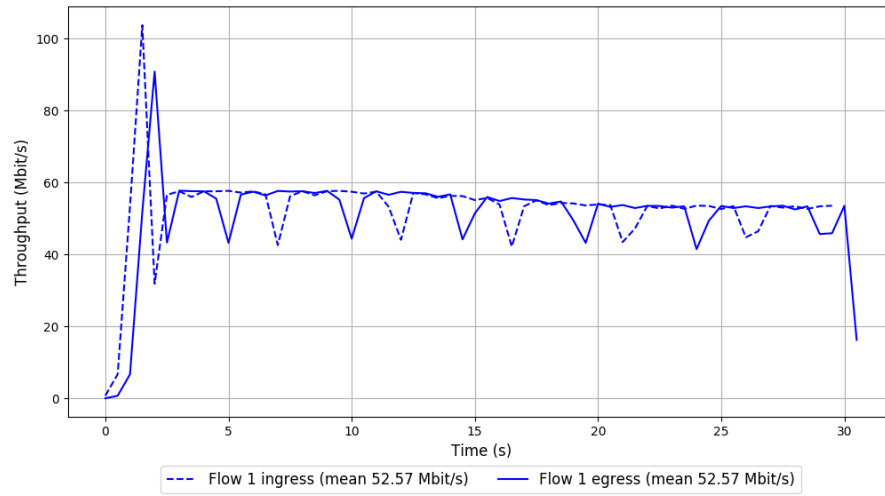

• Flow 1 (95th percentile 88.61 ms)

```
Run 7: Statistics of TCP Vegas

Start at: 2018-06-05 05:18:20
End at: 2018-06-05 05:18:50
Local clock offset: 6.845 ms
Remote clock offset: -0.116 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 88.340 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 52.57 Mbit/s
95th percentile per-packet one-way delay: 88.340 ms
Loss rate: 0.00%
```

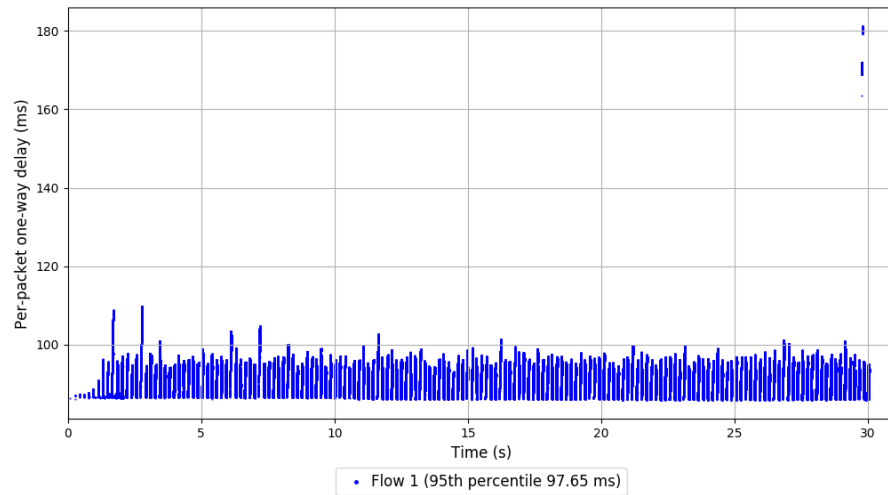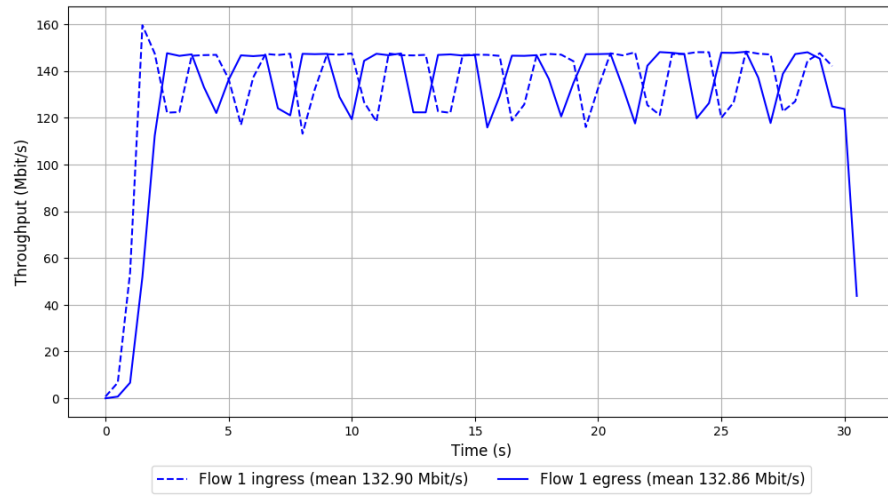Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-06-05 05:39:21
End at: 2018-06-05 05:39:51
Local clock offset: 3.924 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 132.86 Mbit/s
95th percentile per-packet one-way delay: 97.649 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.86 Mbit/s
95th percentile per-packet one-way delay: 97.649 ms
Loss rate: 0.00%
```

Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 132.90 Mbit/s) --- Flow 1 egress (mean 132.86 Mbit/s)
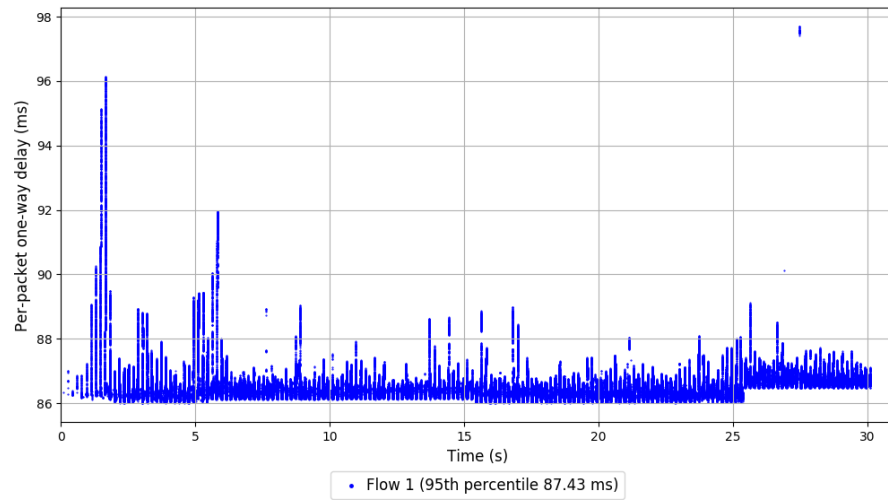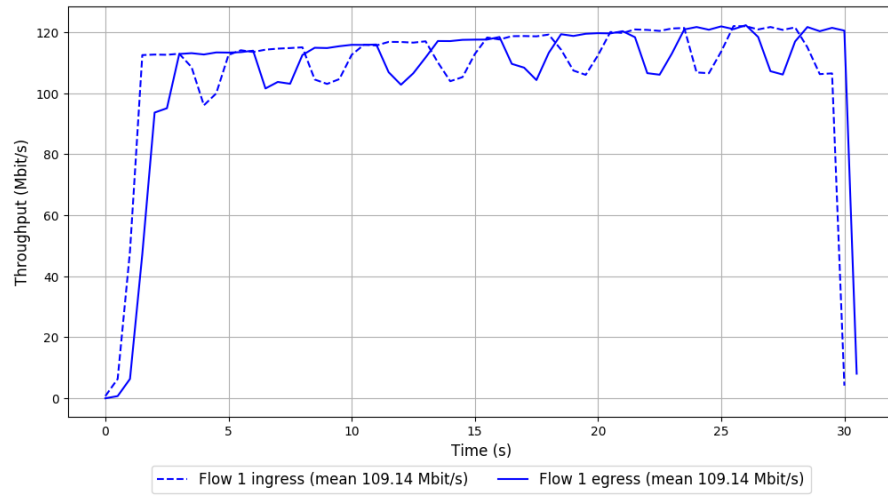

Flow 1 (95th percentile 97.65 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-06-05 06:00:26
End at: 2018-06-05 06:00:56
Local clock offset: 2.445 ms
Remote clock offset: -0.073 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 109.14 Mbit/s
95th percentile per-packet one-way delay: 87.433 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 109.14 Mbit/s
95th percentile per-packet one-way delay: 87.433 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-06-05 06:21:18
End at: 2018-06-05 06:21:48
Local clock offset: 1.122 ms
Remote clock offset: -0.047 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 133.13 Mbit/s
95th percentile per-packet one-way delay: 95.284 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 133.13 Mbit/s
95th percentile per-packet one-way delay: 95.284 ms
Loss rate: 0.09%
```
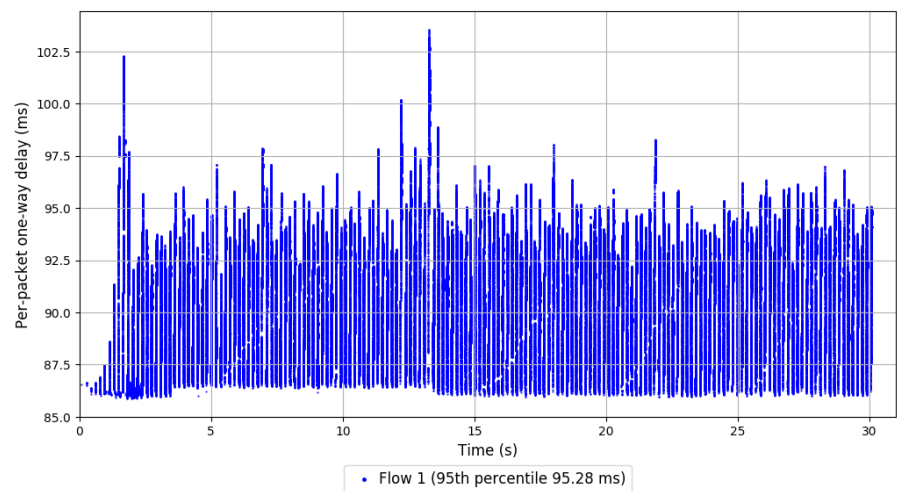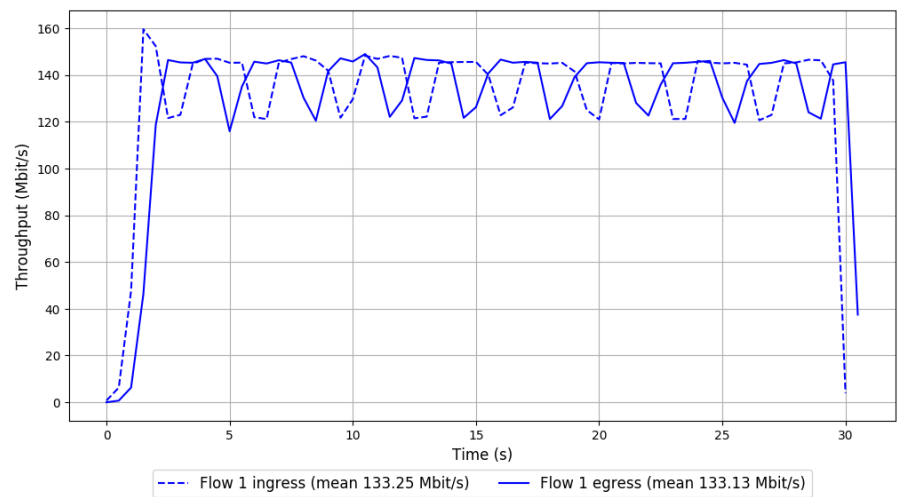
Run 10: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 133.25 Mbit/s) — Flow 1 egress (mean 133.13 Mbit/s)

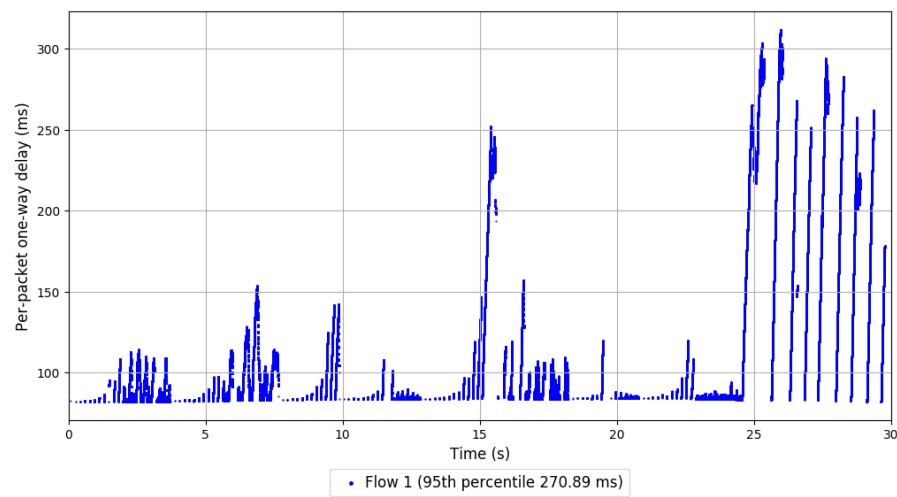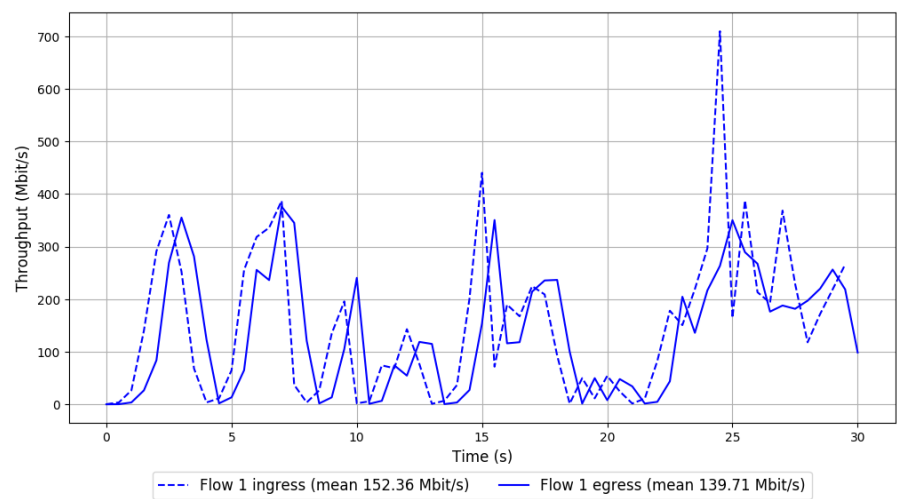• Flow 1 (95th percentile 95.28 ms)

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```
Run 1: Statistics of Verus

Start at: 2018-06-05 03:24:55
End at: 2018-06-05 03:25:25
Local clock offset: 56.057 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2018-06-05 07:58:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 139.71 Mbit/s
95th percentile per-packet one-way delay: 270.889 ms
Loss rate: 8.30%
-- Flow 1:
Average throughput: 139.71 Mbit/s
95th percentile per-packet one-way delay: 270.889 ms
Loss rate: 8.30%
```

Run 1: Report of Verus — Data Link

Flow 1 ingress (mean 152.36 Mbit/s) Flow 1 egress (mean 139.71 Mbit/s)

Flow 1 (95th percentile 270.89 ms)

```
Run 2: Statistics of Verus

Start at: 2018-06-05 03:45:30
End at: 2018-06-05 03:46:00
Local clock offset: 33.83 ms
Remote clock offset: 0.136 ms


# Below is generated by plot.py at 2018-06-05 07:58:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 181.88 Mbit/s
95th percentile per-packet one-way delay: 144.067 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 181.88 Mbit/s
95th percentile per-packet one-way delay: 144.067 ms
Loss rate: 0.97%
```
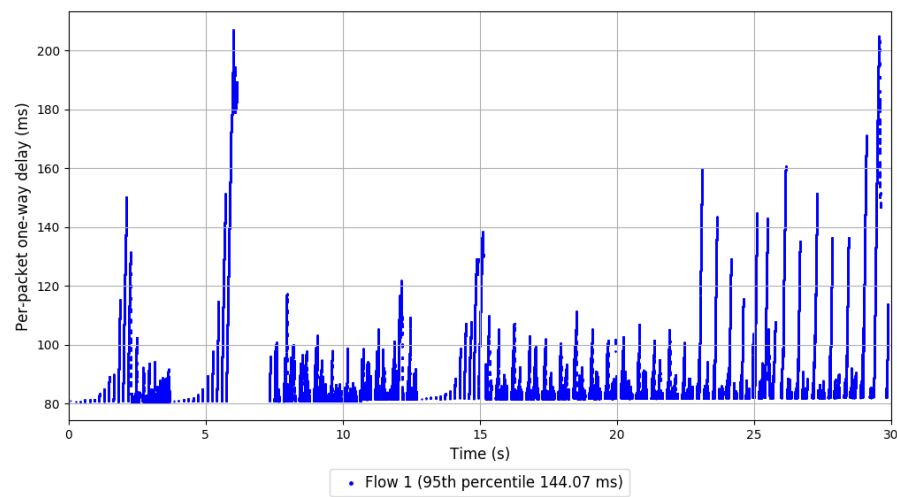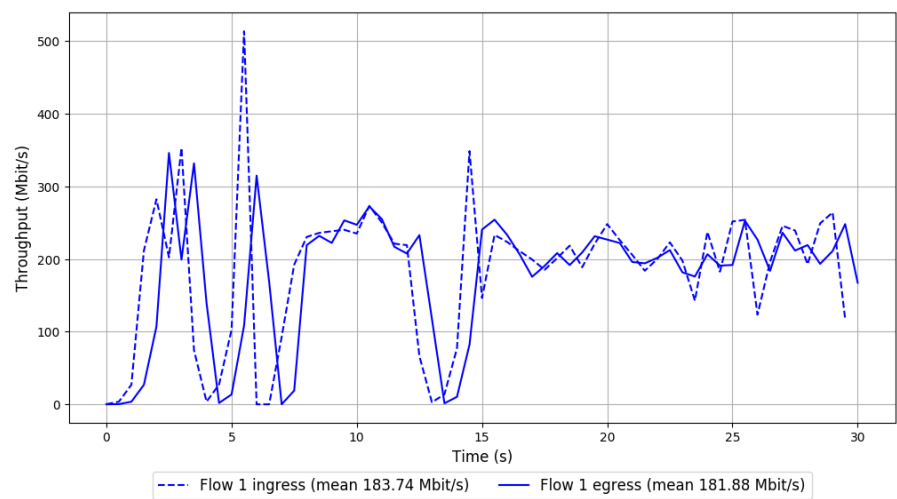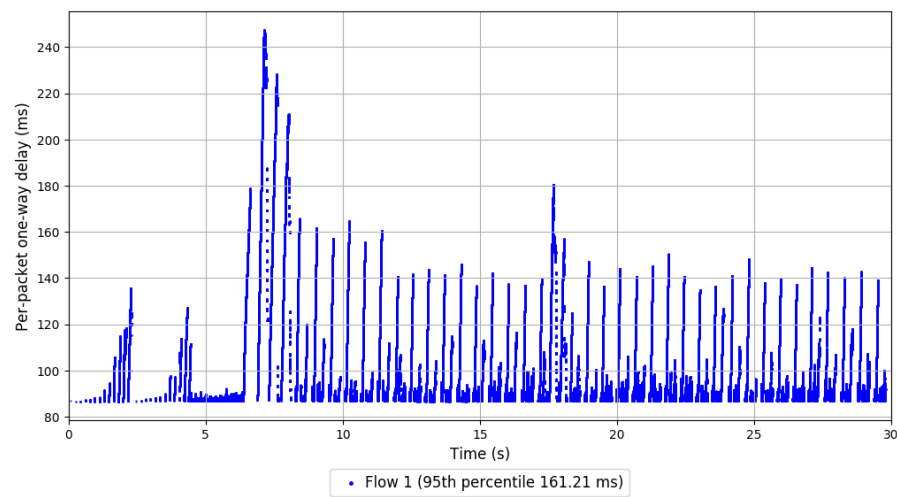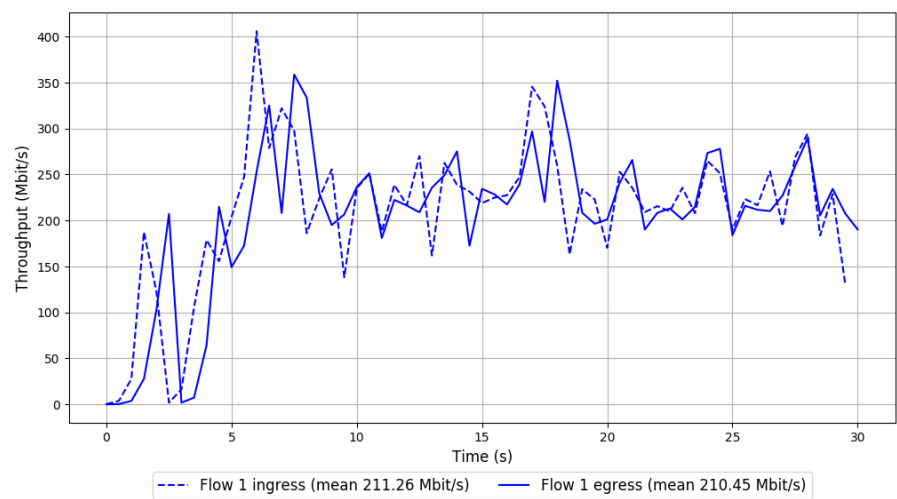
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: 2018-06-05 04:06:18
End at: 2018-06-05 04:06:48
Local clock offset: 32.416 ms
Remote clock offset: -0.143 ms


# Below is generated by plot.py at 2018-06-05 07:59:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.45 Mbit/s
95th percentile per-packet one-way delay: 161.206 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 210.45 Mbit/s
95th percentile per-packet one-way delay: 161.206 ms
Loss rate: 0.36%
```
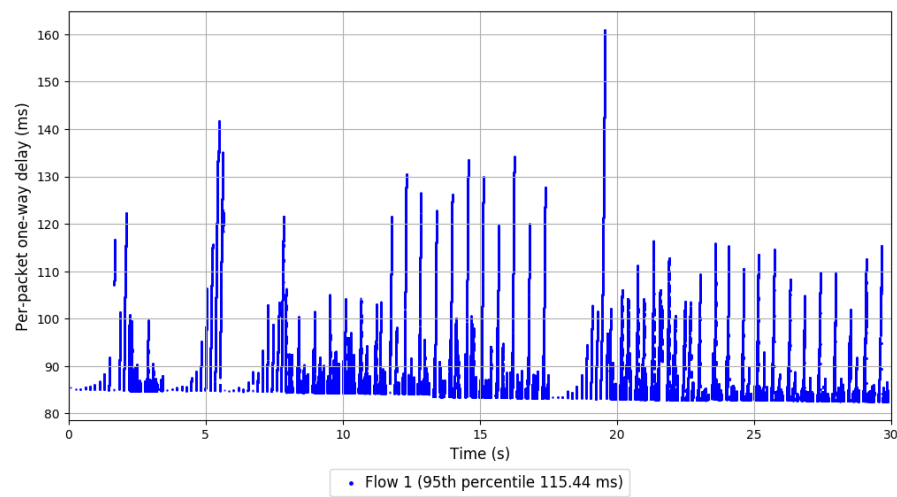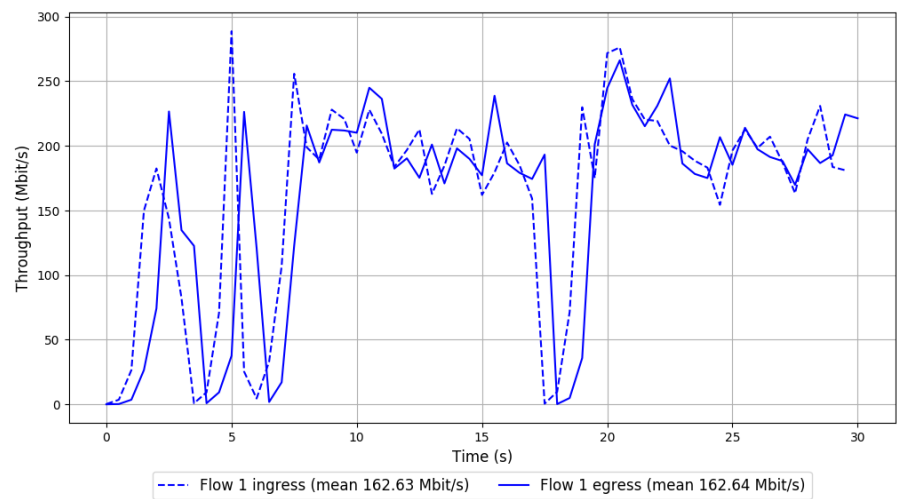
Run 3: Report of Verus — Data Link

```
Run 4: Statistics of Verus

Start at: 2018-06-05 04:27:08
End at: 2018-06-05 04:27:38
Local clock offset: 49.225 ms
Remote clock offset: -0.084 ms


# Below is generated by plot.py at 2018-06-05 07:59:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 162.64 Mbit/s
95th percentile per-packet one-way delay: 115.443 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 162.64 Mbit/s
95th percentile per-packet one-way delay: 115.443 ms
Loss rate: 0.00%
```

Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-06-05 04:48:00
End at: 2018-06-05 04:48:30
Local clock offset: 27.275 ms
Remote clock offset: -0.09 ms


# Below is generated by plot.py at 2018-06-05 08:00:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.23 Mbit/s
95th percentile per-packet one-way delay: 134.735 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 188.23 Mbit/s
95th percentile per-packet one-way delay: 134.735 ms
Loss rate: 0.50%
```
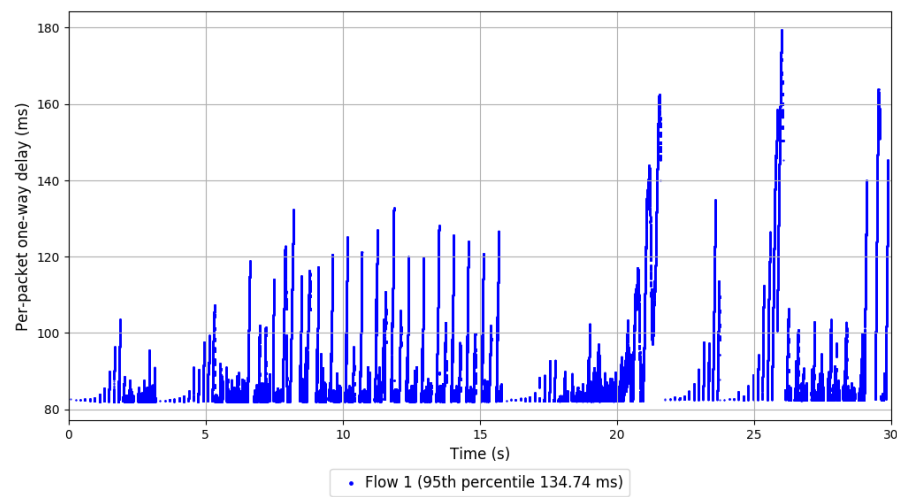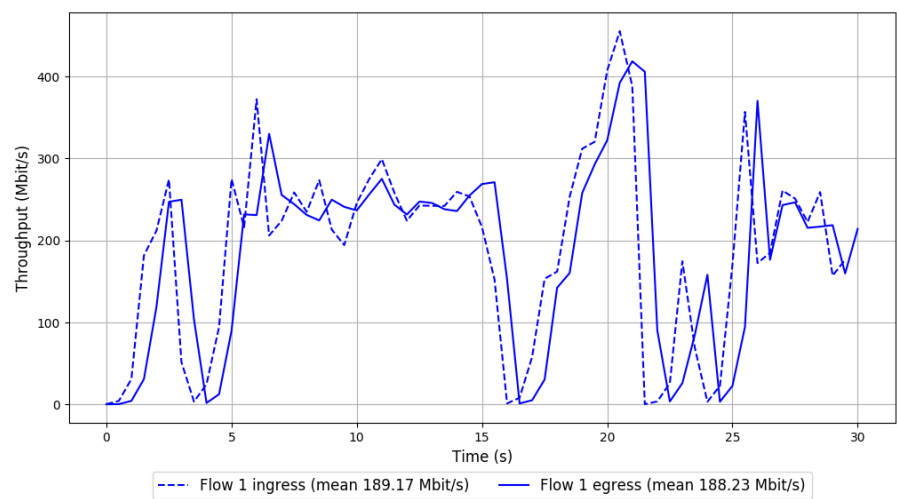
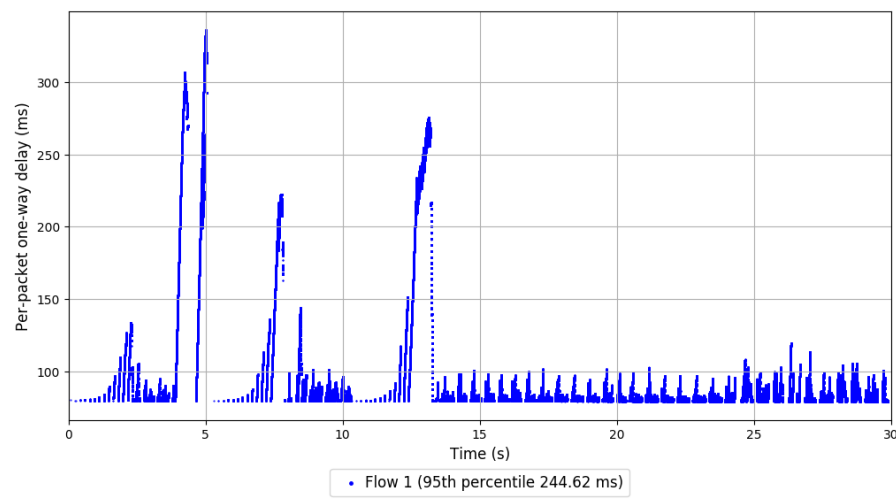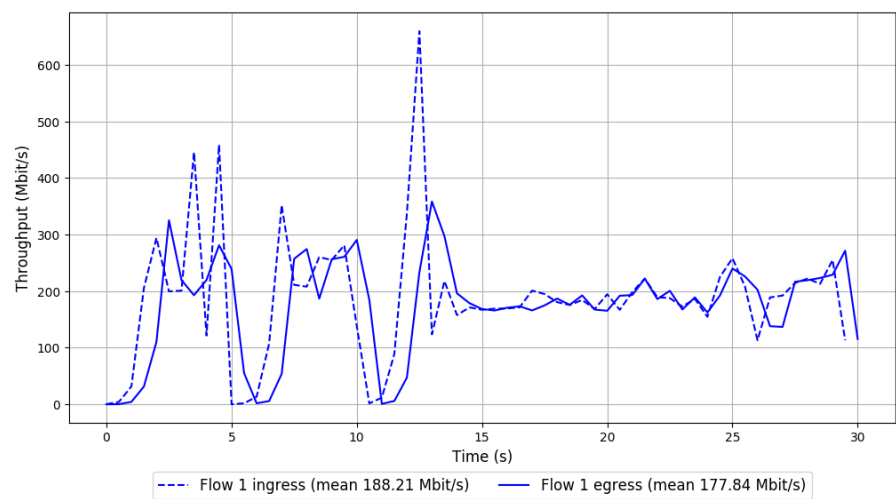## Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-06-05 05:08:52
End at: 2018-06-05 05:09:22
Local clock offset: 17.95 ms
Remote clock offset: -0.096 ms


# Below is generated by plot.py at 2018-06-05 08:00:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 177.84 Mbit/s
95th percentile per-packet one-way delay: 244.623 ms
Loss rate: 5.51%
-- Flow 1:
Average throughput: 177.84 Mbit/s
95th percentile per-packet one-way delay: 244.623 ms
Loss rate: 5.51%
```

Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-06-05 05:29:48
End at: 2018-06-05 05:30:18
Local clock offset: 6.141 ms
Remote clock offset: -0.1 ms


# Below is generated by plot.py at 2018-06-05 08:01:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.16 Mbit/s
95th percentile per-packet one-way delay: 174.966 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 210.16 Mbit/s
95th percentile per-packet one-way delay: 174.966 ms
Loss rate: 0.59%
```
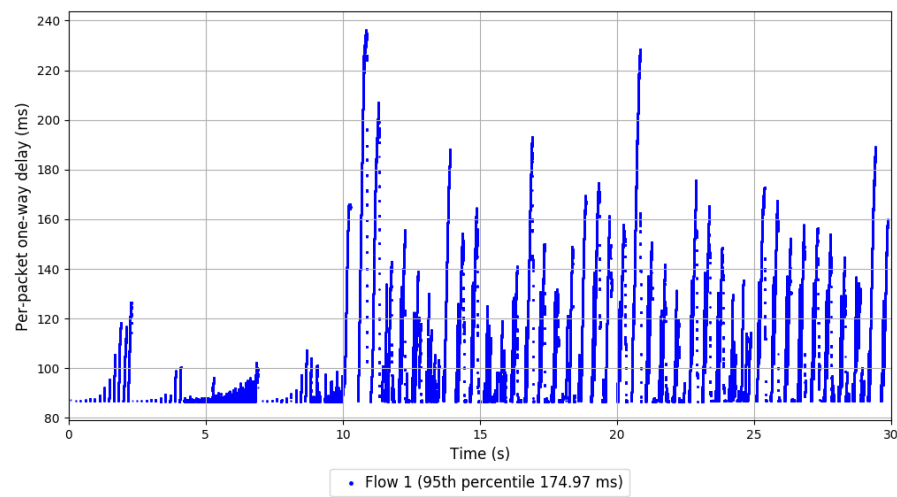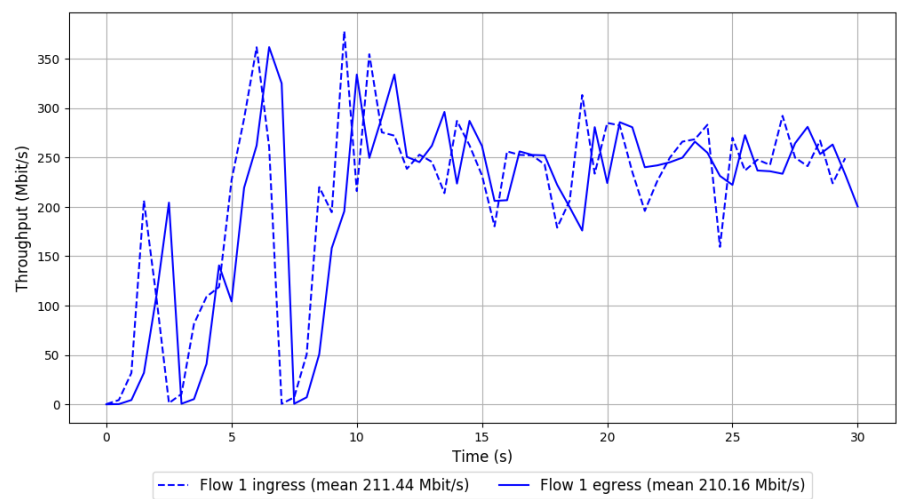
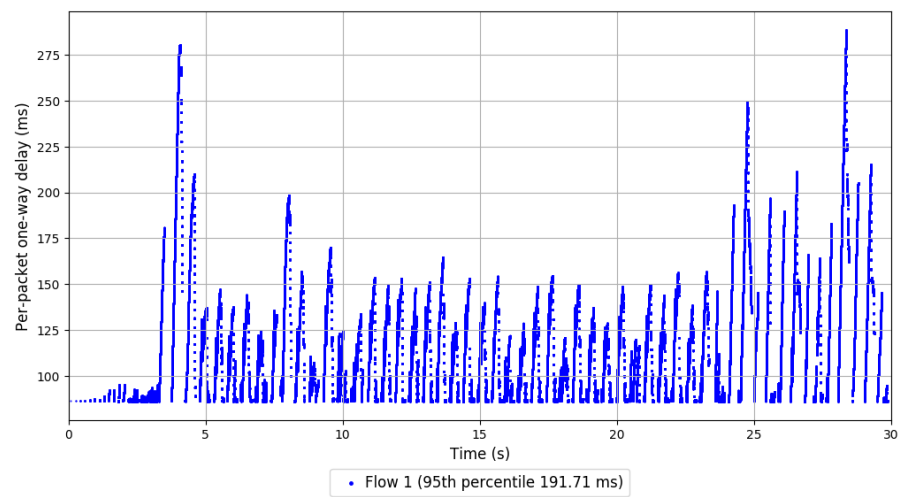## Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-06-05 05:50:49
End at: 2018-06-05 05:51:19
Local clock offset: 2.353 ms
Remote clock offset: -0.065 ms


# Below is generated by plot.py at 2018-06-05 08:01:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 244.75 Mbit/s
95th percentile per-packet one-way delay: 191.707 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 244.75 Mbit/s
95th percentile per-packet one-way delay: 191.707 ms
Loss rate: 0.33%
```
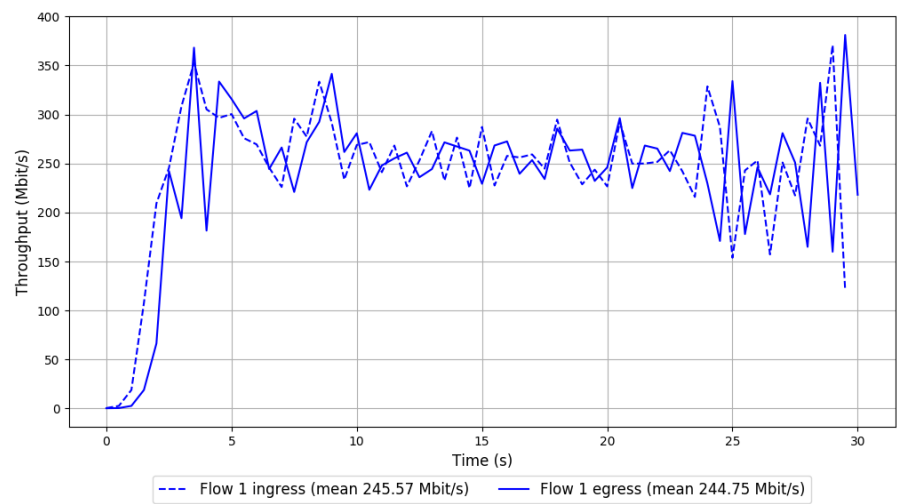
Run 8: Report of Verus — Data Link

```
Run 9: Statistics of Verus

Start at: 2018-06-05 06:11:56
End at: 2018-06-05 06:12:26
Local clock offset: 8.031 ms
Remote clock offset: -0.042 ms


# Below is generated by plot.py at 2018-06-05 08:01:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 182.52 Mbit/s
95th percentile per-packet one-way delay: 131.435 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 182.52 Mbit/s
95th percentile per-packet one-way delay: 131.435 ms
Loss rate: 0.00%
```
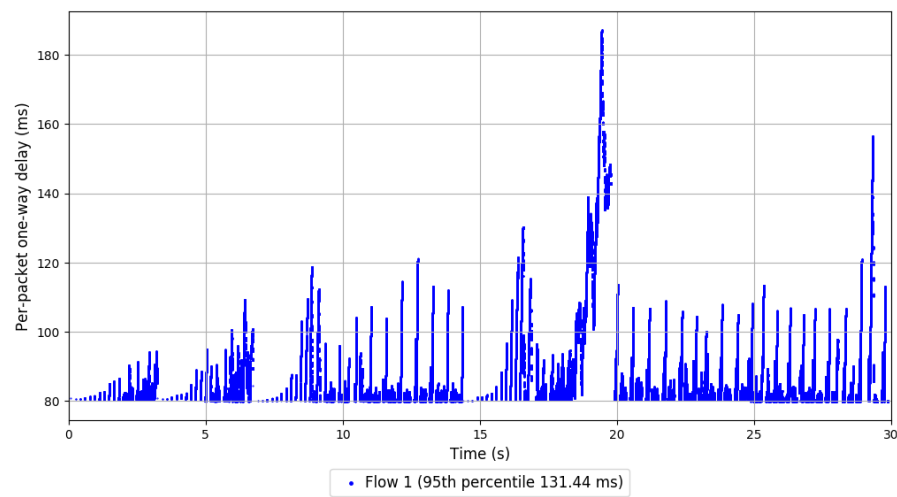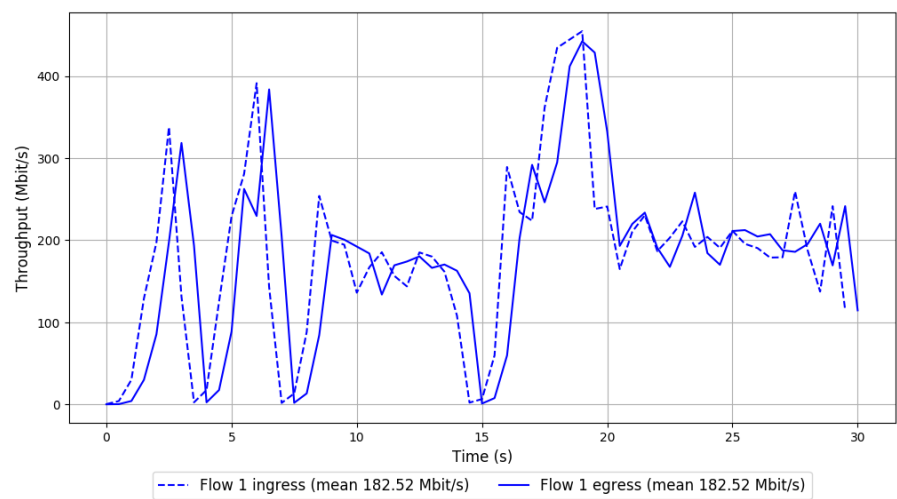
Run 9: Report of Verus — Data Link

Run 10: Statistics of Verus

Start at: 2018-06-05 06:32:42
End at: 2018-06-05 06:33:12
Local clock offset: 1.213 ms
Remote clock offset: -0.042 ms

Below is generated by plot.py at 2018-06-05 08:02:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 128.075 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 213.28 Mbit/s
95th percentile per-packet one-way delay: 128.075 ms
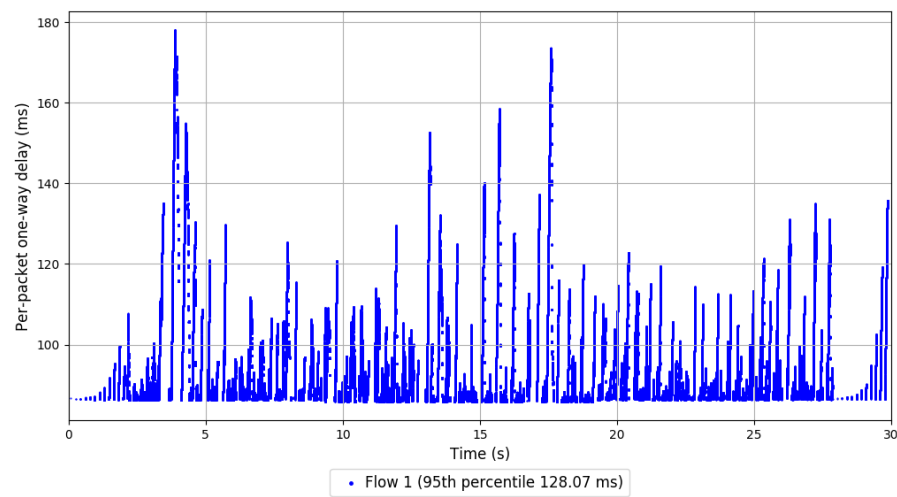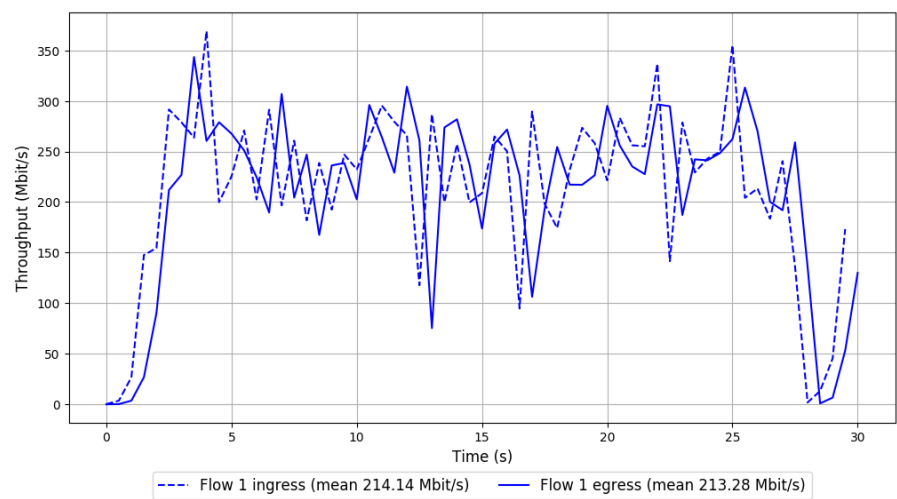Loss rate: 0.34%

Run 10: Report of Verus — Data Link

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```
Run 1: Statistics of PCC-Vivace

Start at: 2018-06-05 03:27:39
End at: 2018-06-05 03:28:09
Local clock offset: 26.998 ms
Remote clock offset: 0.034 ms


# Below is generated by plot.py at 2018-06-05 08:04:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.08 Mbit/s
95th percentile per-packet one-way delay: 85.266 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 274.08 Mbit/s
95th percentile per-packet one-way delay: 85.266 ms
Loss rate: 0.00%
```
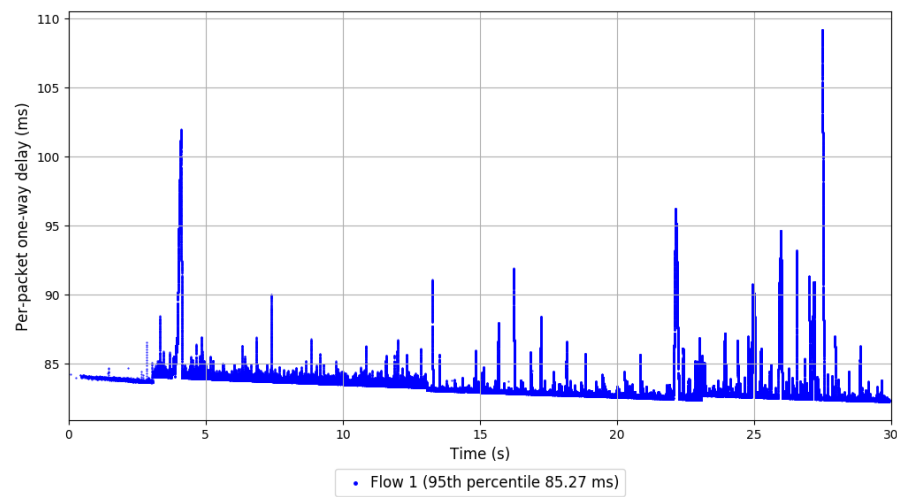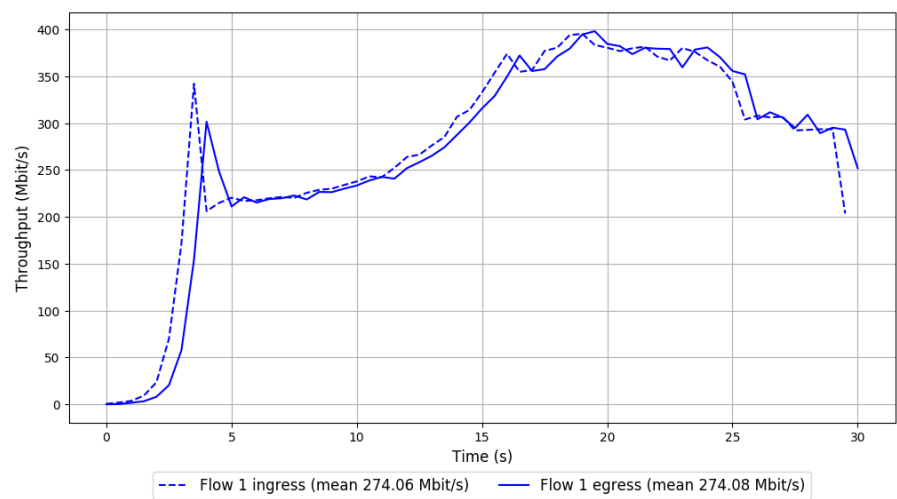
Run 1: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 274.06 Mbit/s) — Flow 1 egress (mean 274.08 Mbit/s)

Flow 1 (95th percentile 85.27 ms)

```
Run 2: Statistics of PCC-Vivace

Start at: 2018-06-05 03:48:17
End at: 2018-06-05 03:48:47
Local clock offset: 33.022 ms
Remote clock offset: 0.089 ms


# Below is generated by plot.py at 2018-06-05 08:05:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 345.99 Mbit/s
95th percentile per-packet one-way delay: 96.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 345.99 Mbit/s
95th percentile per-packet one-way delay: 96.551 ms
Loss rate: 0.00%
```
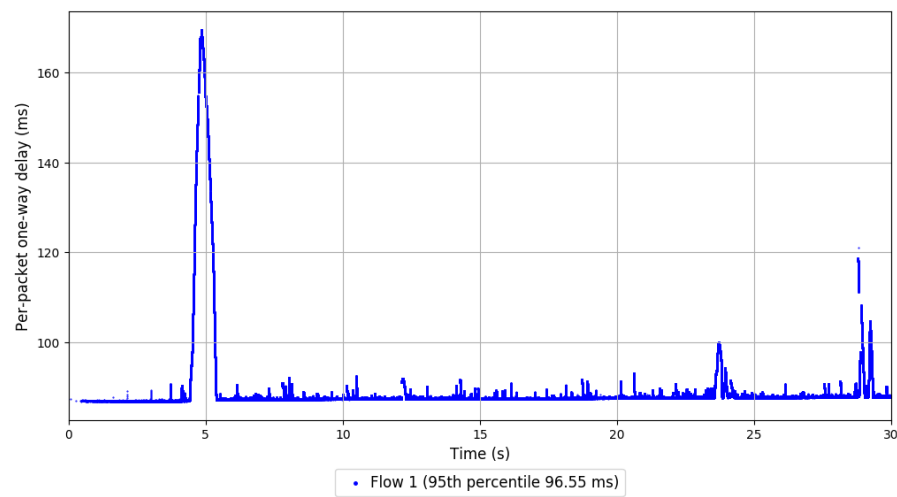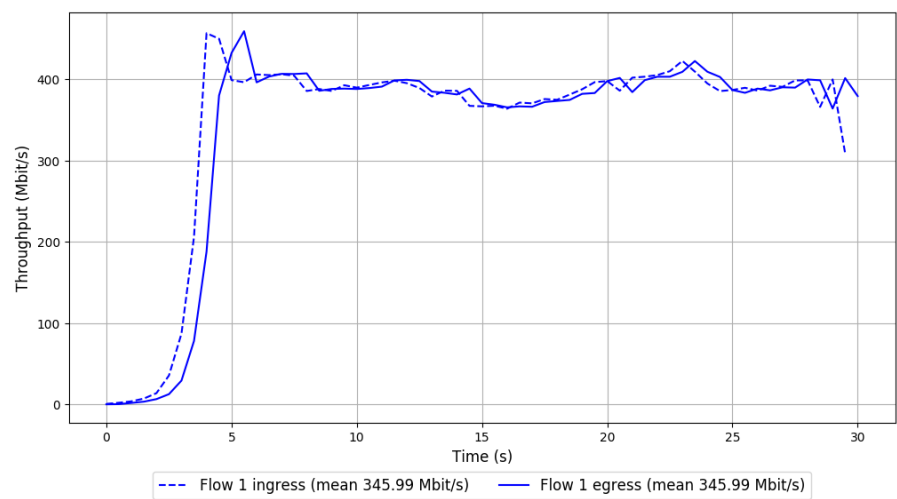
Run 2: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 345.99 Mbit/s) — Flow 1 egress (mean 345.99 Mbit/s)

Flow 1 (95th percentile 96.55 ms)

```
Run 3: Statistics of PCC-Vivace

Start at: 2018-06-05 04:09:09
End at: 2018-06-05 04:09:39
Local clock offset: 39.704 ms
Remote clock offset: -0.18 ms


# Below is generated by plot.py at 2018-06-05 08:05:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 243.71 Mbit/s
95th percentile per-packet one-way delay: 101.723 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 243.71 Mbit/s
95th percentile per-packet one-way delay: 101.723 ms
Loss rate: 0.36%
```
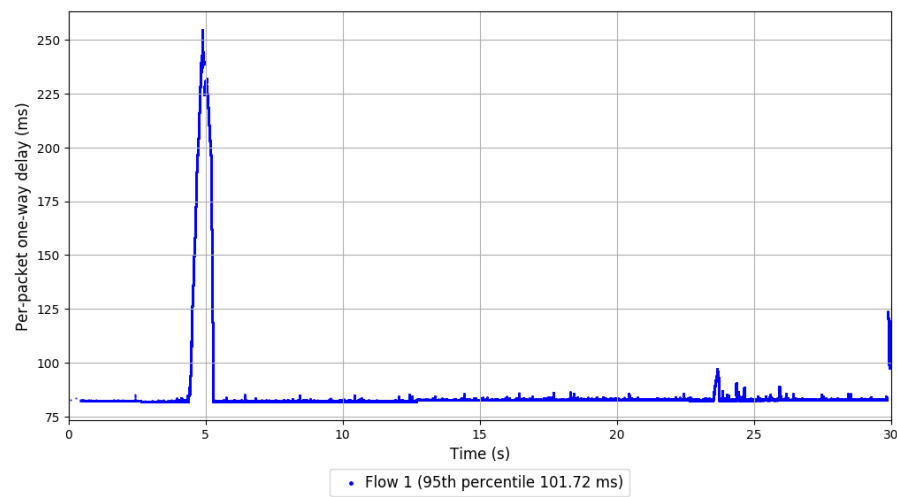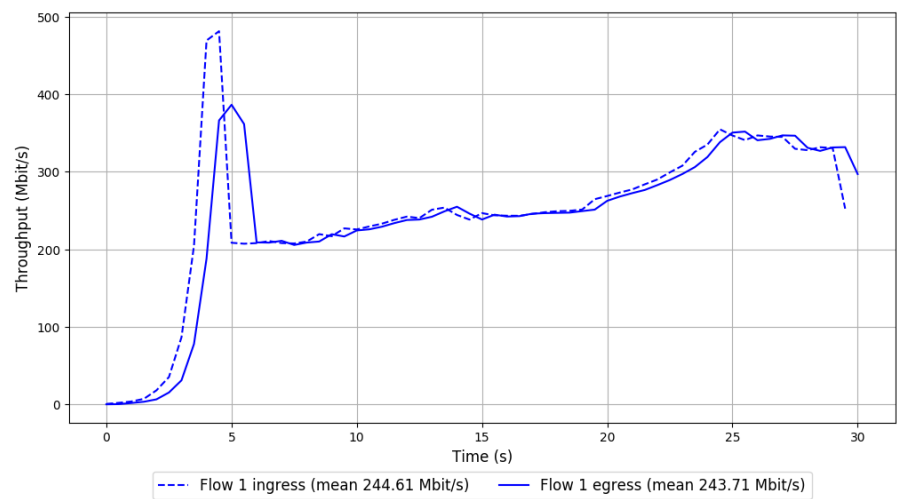
Run 3: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 244.61 Mbit/s) — Flow 1 egress (mean 243.71 Mbit/s)
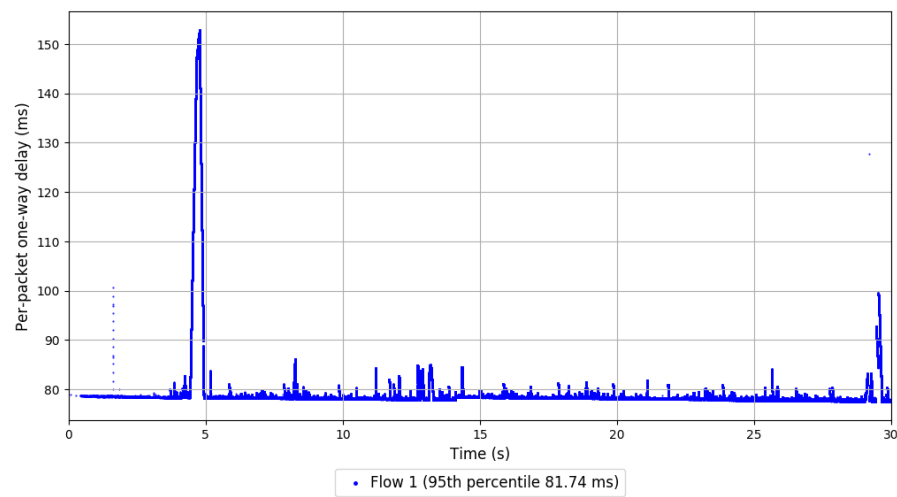

Flow 1 (95th percentile 101.72 ms)

```
Run 4: Statistics of PCC-Vivace

Start at: 2018-06-05 04:29:58
End at: 2018-06-05 04:30:28
Local clock offset: 44.497 ms
Remote clock offset: -0.114 ms


# Below is generated by plot.py at 2018-06-05 08:07:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 357.56 Mbit/s
95th percentile per-packet one-way delay: 81.737 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 357.56 Mbit/s
95th percentile per-packet one-way delay: 81.737 ms
Loss rate: 0.00%
```

Run 4: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 357.54 Mbit/s)   Flow 1 egress (mean 357.56 Mbit/s)
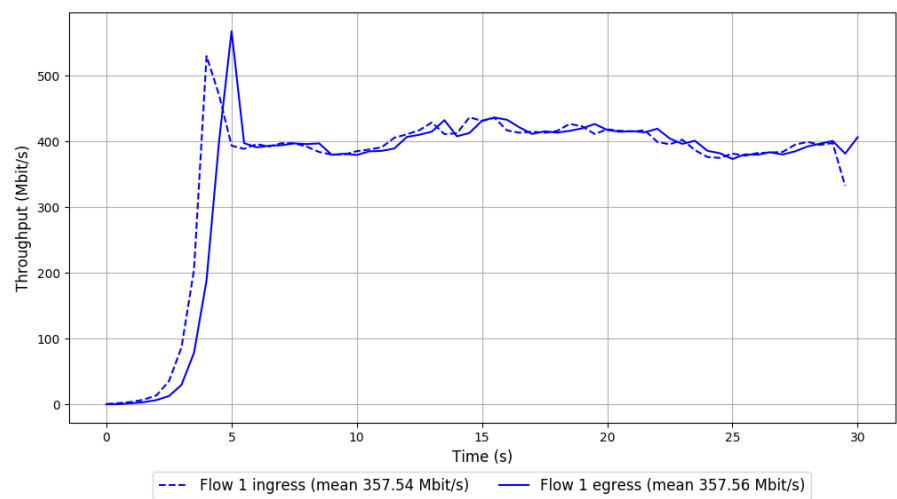

Flow 1 (95th percentile 81.74 ms)

```
Run 5: Statistics of PCC-Vivace

Start at: 2018-06-05 04:50:54
End at: 2018-06-05 04:51:24
Local clock offset: 24.158 ms
Remote clock offset: -0.106 ms


# Below is generated by plot.py at 2018-06-05 08:07:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.63 Mbit/s
95th percentile per-packet one-way delay: 110.458 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 341.63 Mbit/s
95th percentile per-packet one-way delay: 110.458 ms
Loss rate: 0.07%
```
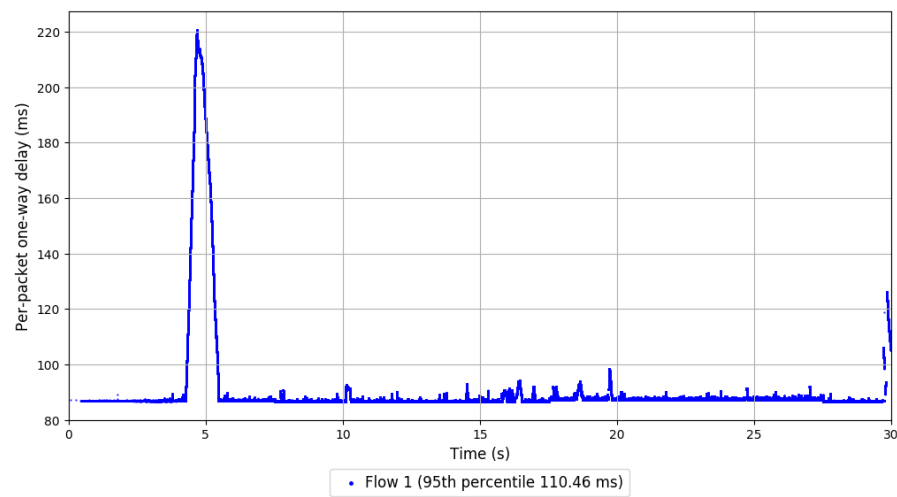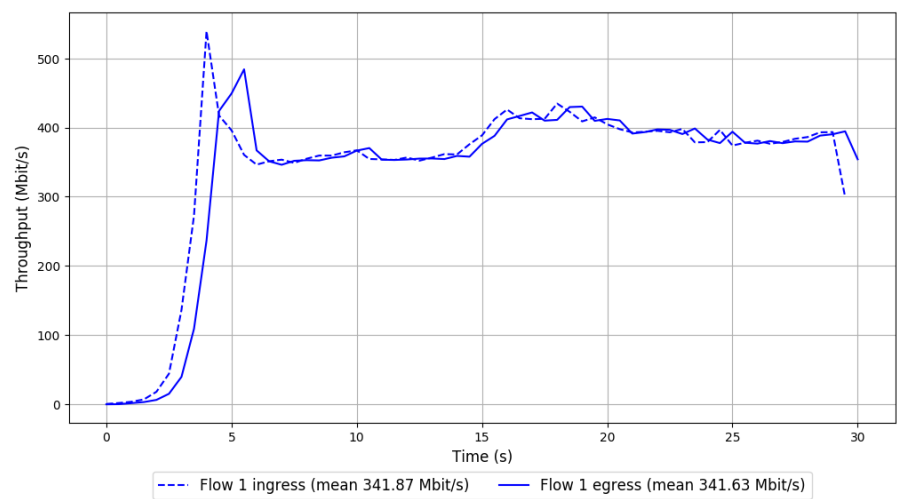
Run 5: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 341.87 Mbit/s) —— Flow 1 egress (mean 341.63 Mbit/s)

• Flow 1 (95th percentile 110.46 ms)

```
Run 6: Statistics of PCC-Vivace

Start at: 2018-06-05 05:11:43
End at: 2018-06-05 05:12:13
Local clock offset: 9.282 ms
Remote clock offset: -0.091 ms


# Below is generated by plot.py at 2018-06-05 08:07:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 360.54 Mbit/s
95th percentile per-packet one-way delay: 180.614 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 360.54 Mbit/s
95th percentile per-packet one-way delay: 180.614 ms
Loss rate: 0.17%
```
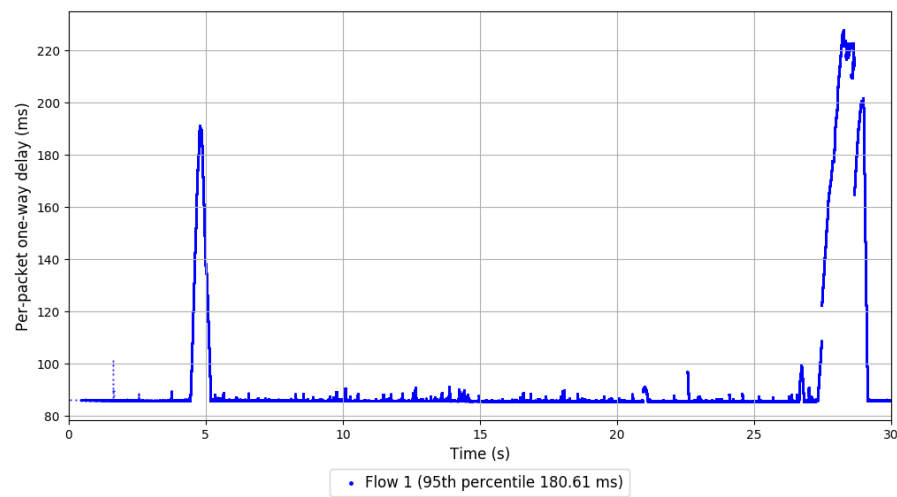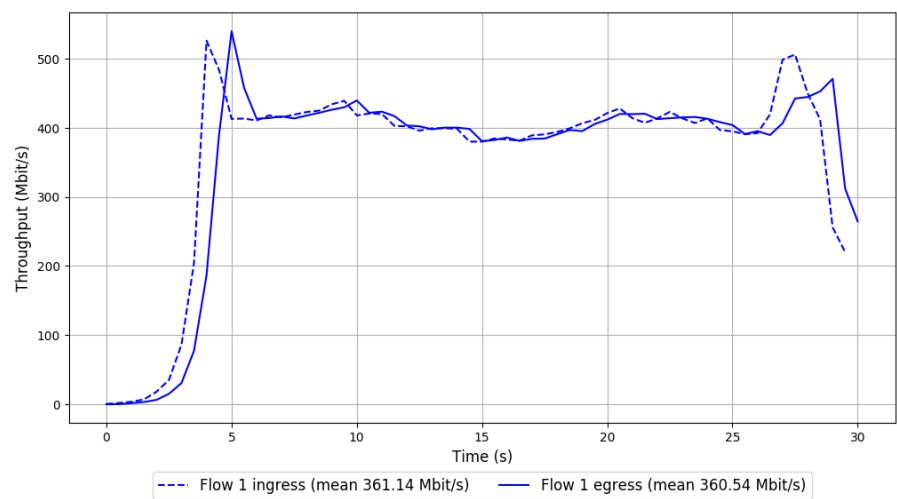
Run 6: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 361.14 Mbit/s) —— Flow 1 egress (mean 360.54 Mbit/s)

• Flow 1 (95th percentile 180.61 ms)

```
Run 7: Statistics of PCC-Vivace

Start at: 2018-06-05 05:32:38
End at: 2018-06-05 05:33:08
Local clock offset: 7.02 ms
Remote clock offset: -0.106 ms


# Below is generated by plot.py at 2018-06-05 08:07:40
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.91 Mbit/s
95th percentile per-packet one-way delay: 93.647 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 356.91 Mbit/s
95th percentile per-packet one-way delay: 93.647 ms
Loss rate: 0.00%
```
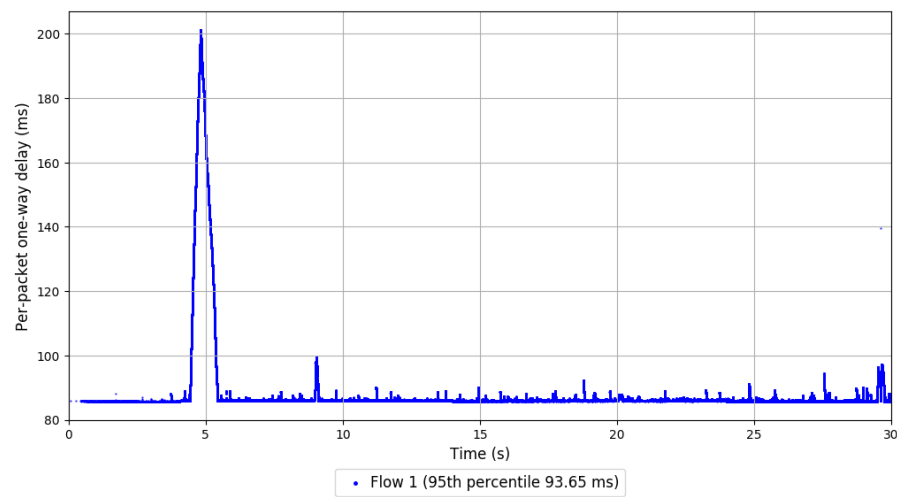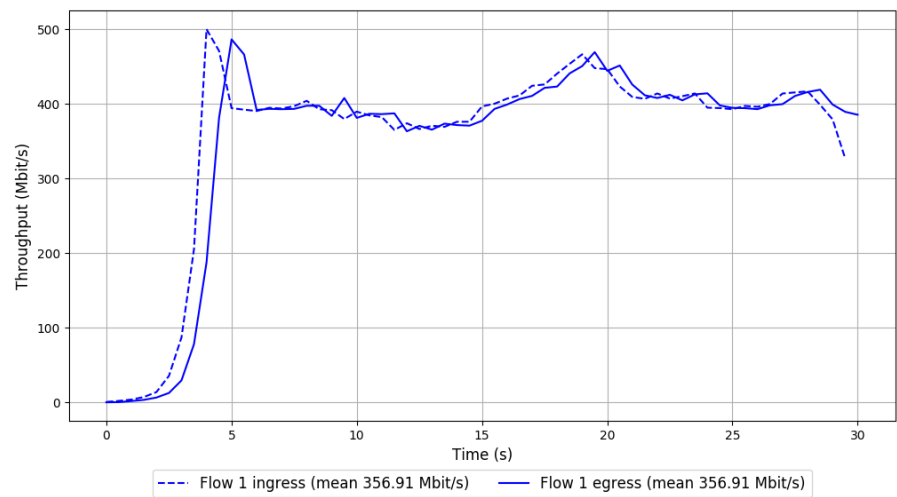
Run 7: Report of PCC-Vivace — Data Link

```
Run 8: Statistics of PCC-Vivace

Start at: 2018-06-05 05:53:47
End at: 2018-06-05 05:54:17
Local clock offset: 2.066 ms
Remote clock offset: -0.049 ms


# Below is generated by plot.py at 2018-06-05 08:07:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 356.58 Mbit/s
95th percentile per-packet one-way delay: 101.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 356.58 Mbit/s
95th percentile per-packet one-way delay: 101.909 ms
Loss rate: 0.00%
```
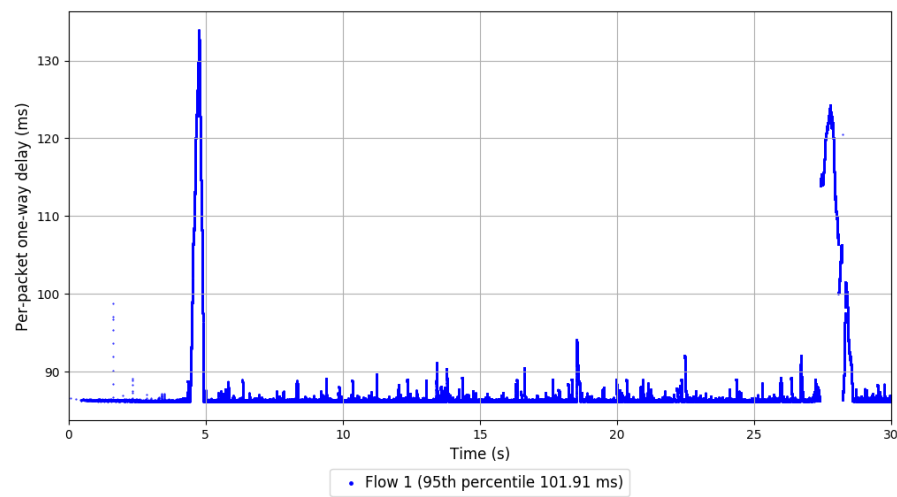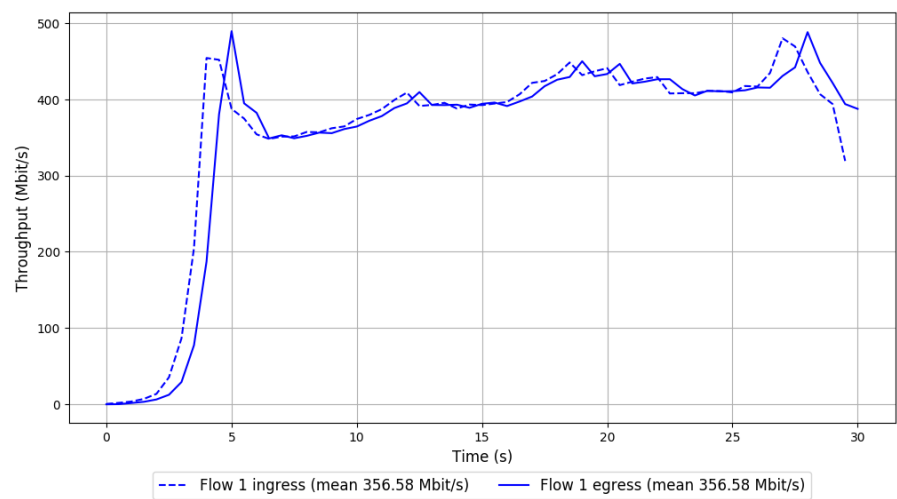
Run 8: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 356.58 Mbit/s) — Flow 1 egress (mean 356.58 Mbit/s)

Flow 1 (95th percentile 101.91 ms)

```
Run 9: Statistics of PCC-Vivace

Start at: 2018-06-05 06:14:43
End at: 2018-06-05 06:15:13
Local clock offset: 1.708 ms
Remote clock offset: -0.05 ms


# Below is generated by plot.py at 2018-06-05 08:08:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 341.22 Mbit/s
95th percentile per-packet one-way delay: 114.798 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 341.22 Mbit/s
95th percentile per-packet one-way delay: 114.798 ms
Loss rate: 0.50%
```
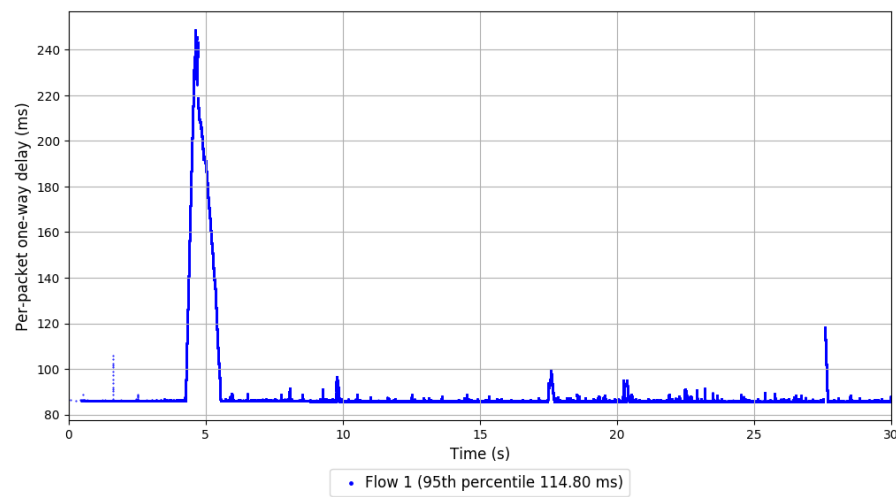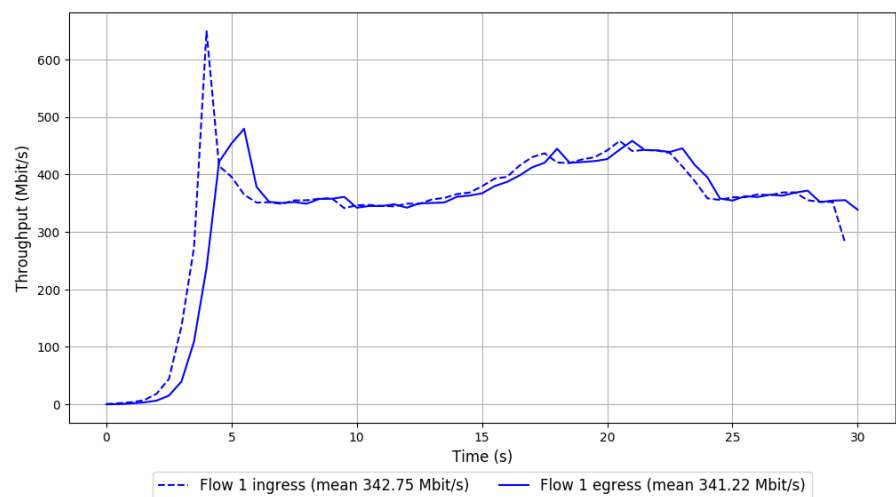
Run 9: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 342.75 Mbit/s)   Flow 1 egress (mean 341.22 Mbit/s)

Flow 1 (95th percentile 114.80 ms)

301

```
Run 10: Statistics of PCC-Vivace

Start at: 2018-06-05 06:35:34
End at: 2018-06-05 06:36:04
Local clock offset: 7.145 ms
Remote clock offset: -0.038 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 347.37 Mbit/s
95th percentile per-packet one-way delay: 122.673 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 347.37 Mbit/s
95th percentile per-packet one-way delay: 122.673 ms
Loss rate: 0.04%
```
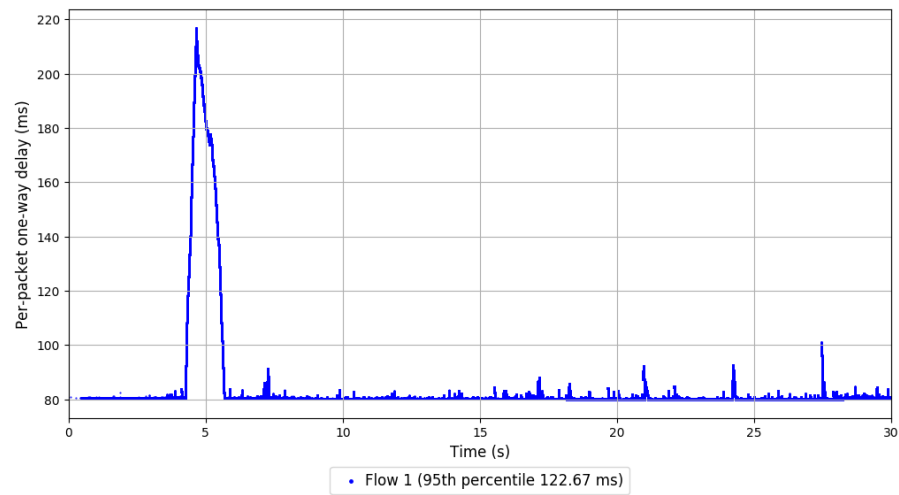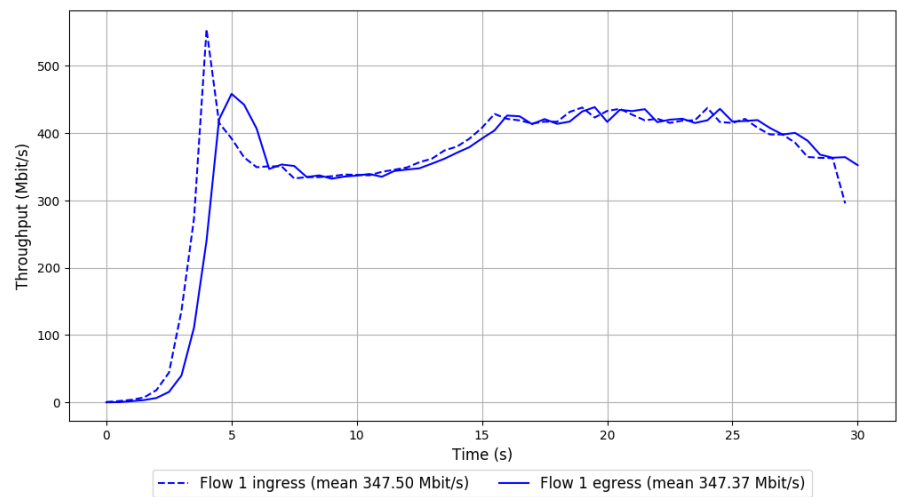
Run 10: Report of PCC-Vivace — Data Link

Flow 1 ingress (mean 347.50 Mbit/s) ---- Flow 1 egress (mean 347.37 Mbit/s)

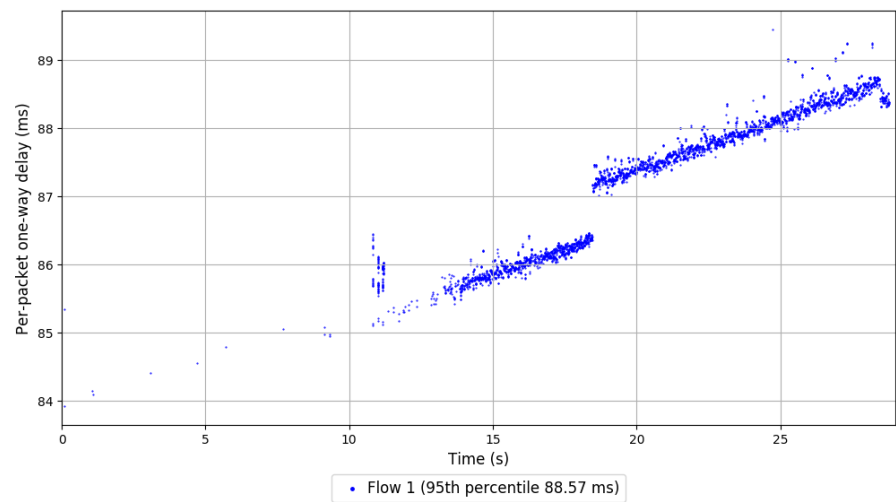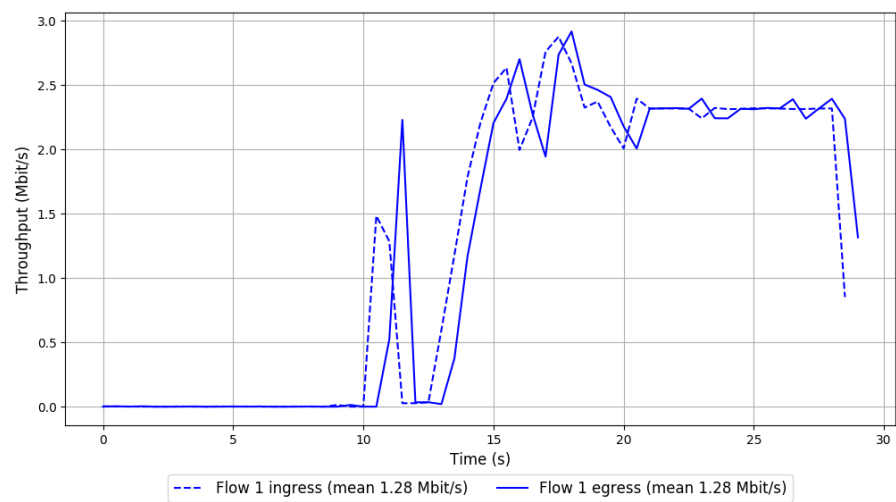
• Flow 1 (95th percentile 122.67 ms)

```
Run 1: Statistics of WebRTC media

Start at: 2018-06-05 03:11:22
End at: 2018-06-05 03:11:52
Local clock offset: 16.27 ms
Remote clock offset: -0.03 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 88.572 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 88.572 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-06-05 03:31:52
End at: 2018-06-05 03:32:22
Local clock offset: 21.95 ms
Remote clock offset: 0.127 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 87.907 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 87.907 ms
Loss rate: 0.00%
```
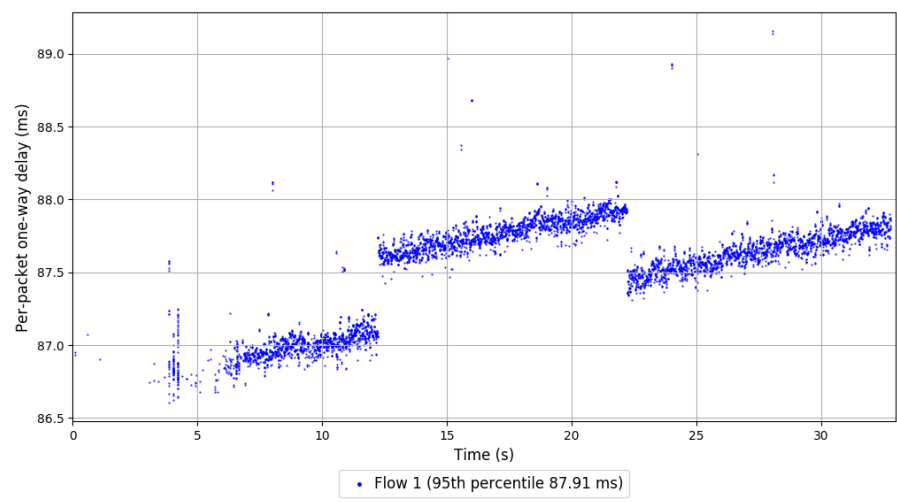
Run 2: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.90 Mbit/s) ---- Flow 1 egress (mean 1.90 Mbit/s)

Flow 1 (95th percentile 87.91 ms)

```
Run 3: Statistics of WebRTC media

Start at: 2018-06-05 03:52:38
End at: 2018-06-05 03:53:08
Local clock offset: 36.1 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 85.057 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 85.057 ms
Loss rate: 0.00%
```
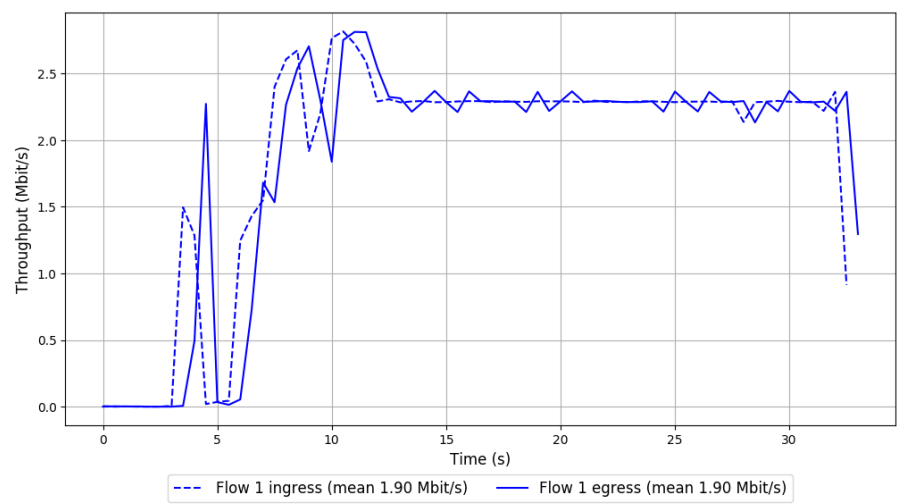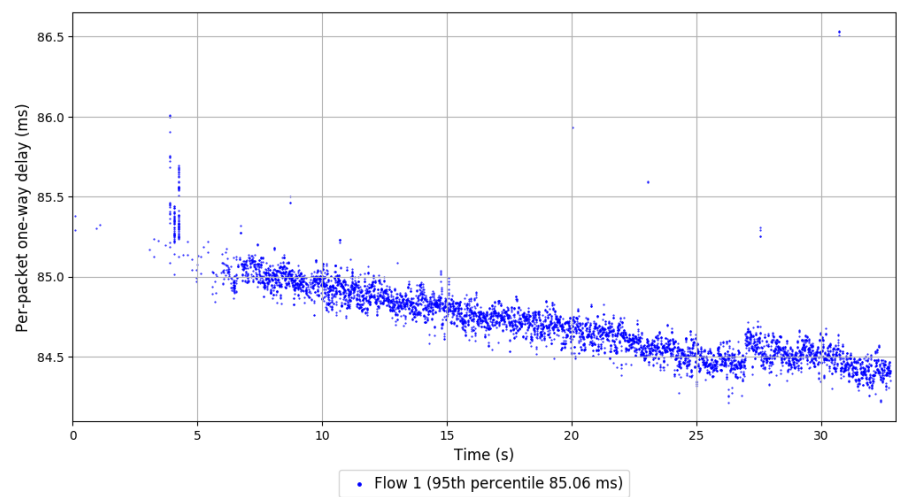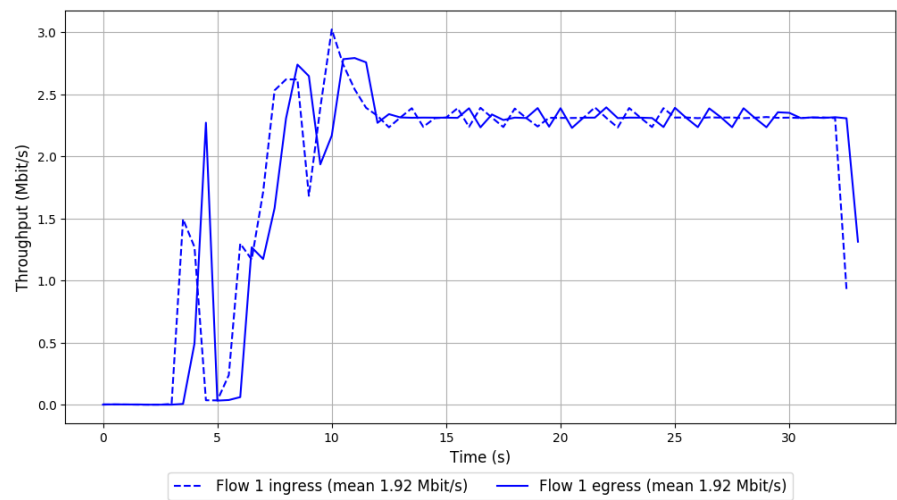
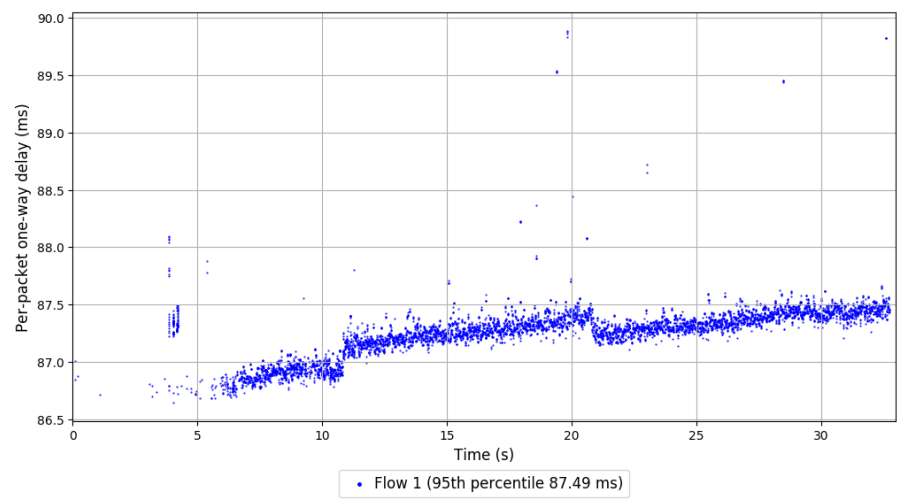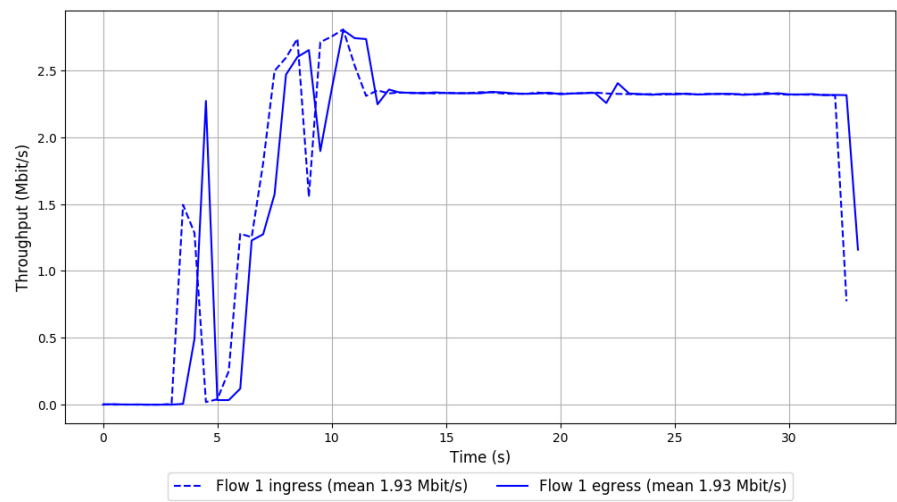## Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-06-05 04:13:24
End at: 2018-06-05 04:13:54
Local clock offset: 40.511 ms
Remote clock offset: -0.195 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 87.491 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 87.491 ms
Loss rate: 0.00%
```

Run 4: Report of WebRTC media — Data Link

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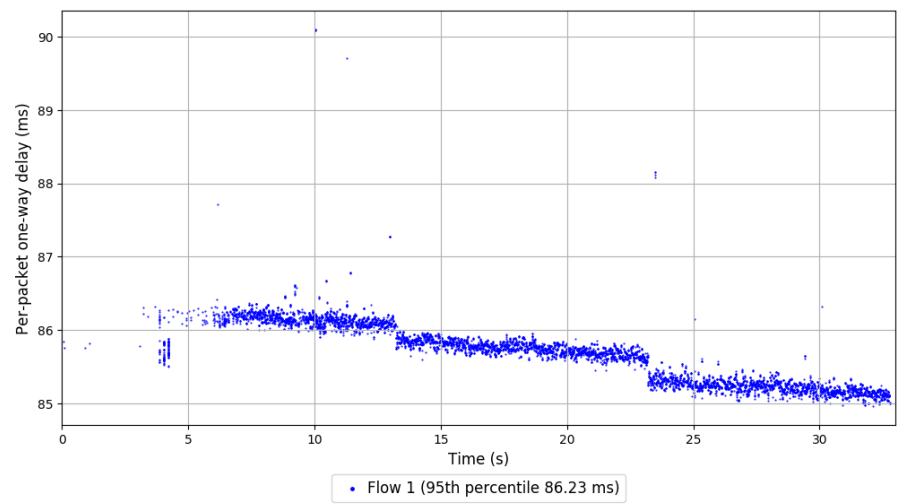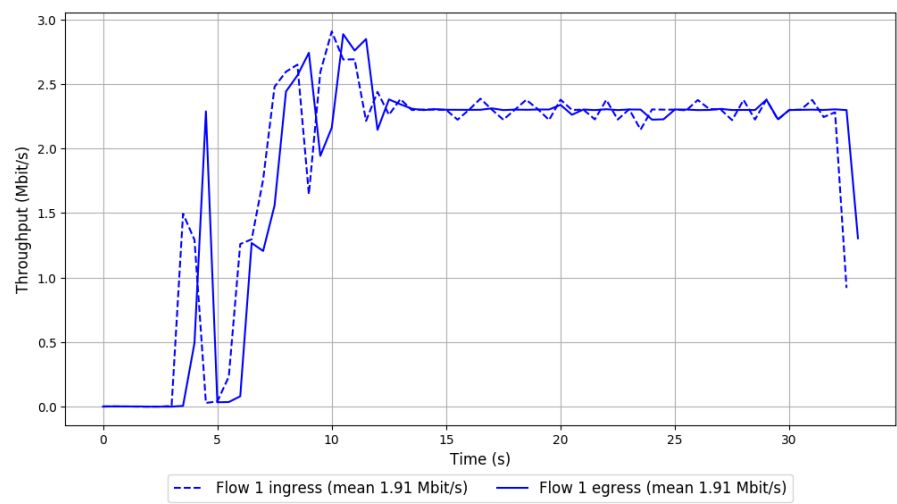

Flow 1 (95th percentile 87.49 ms)

```
Run 5: Statistics of WebRTC media

Start at: 2018-06-05 04:34:21
End at: 2018-06-05 04:34:51
Local clock offset: 28.173 ms
Remote clock offset: -0.119 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.226 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.226 ms
Loss rate: 0.00%
```

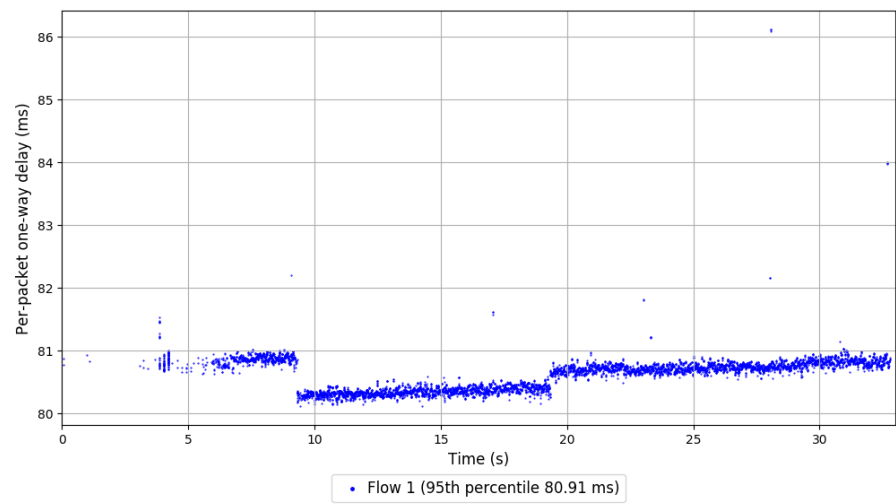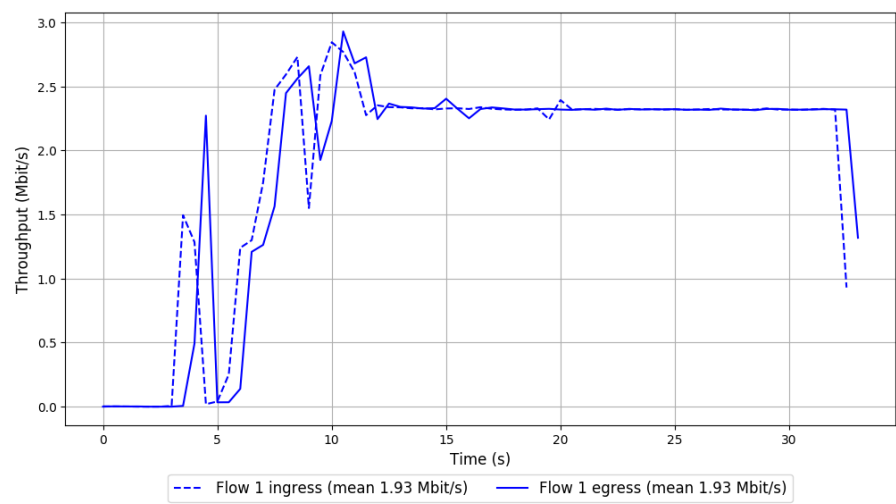Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-06-05 04:55:15
End at: 2018-06-05 04:55:45
Local clock offset: 32.969 ms
Remote clock offset: -0.123 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 80.913 ms
Loss rate: 0.00%
```

Run 6: Report of WebRTC media — Data Link

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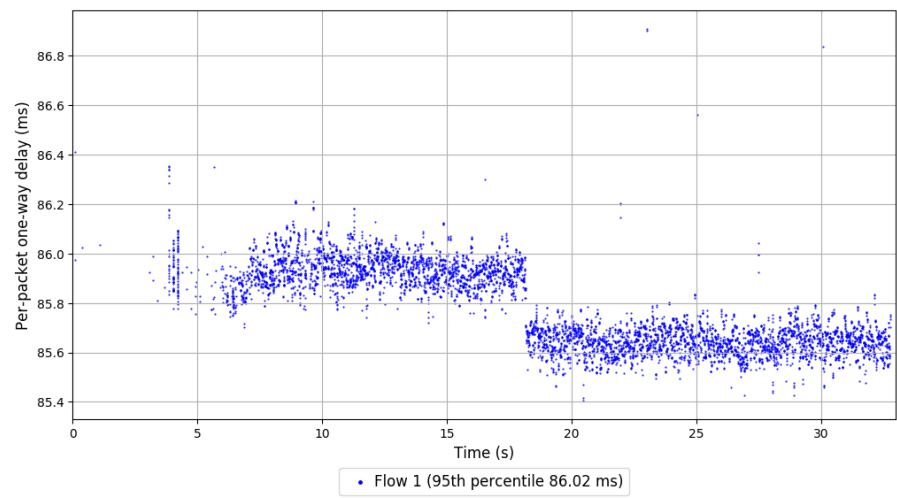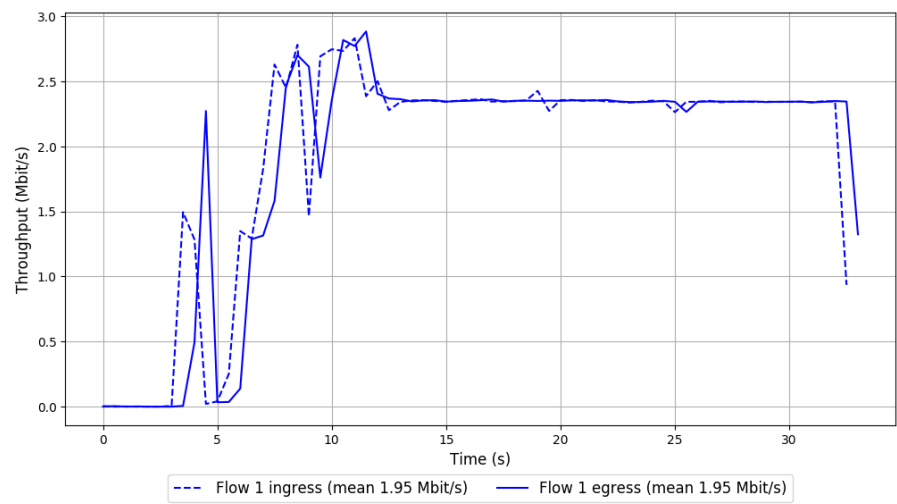

Flow 1 (95th percentile 80.91 ms)

```
Run 7: Statistics of WebRTC media

Start at: 2018-06-05 05:16:06
End at: 2018-06-05 05:16:36
Local clock offset: 7.588 ms
Remote clock offset: -0.113 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 86.023 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 86.023 ms
Loss rate: 0.00%
```

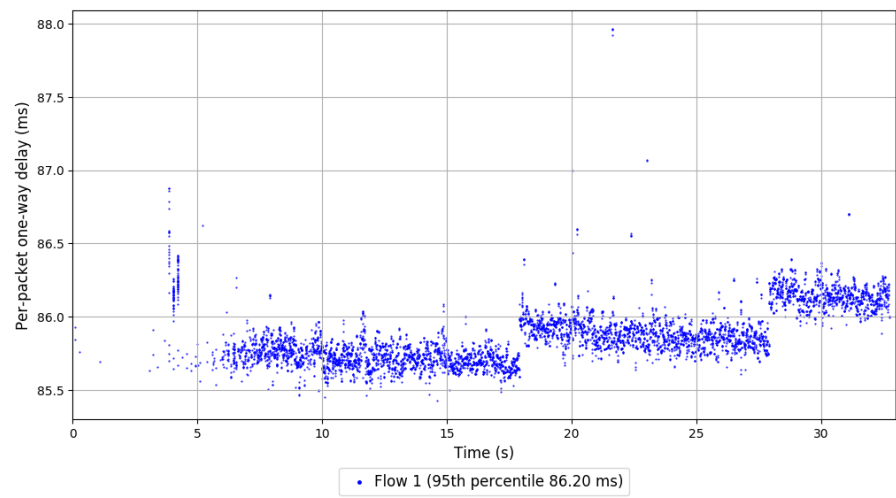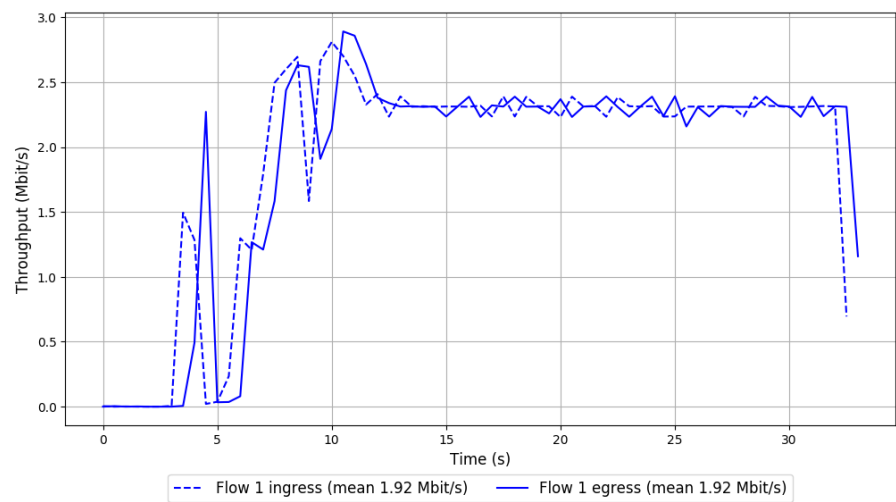Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-06-05 05:37:07
End at: 2018-06-05 05:37:37
Local clock offset: 5.047 ms
Remote clock offset: -0.125 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 86.205 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 86.205 ms
Loss rate: 0.00%
```

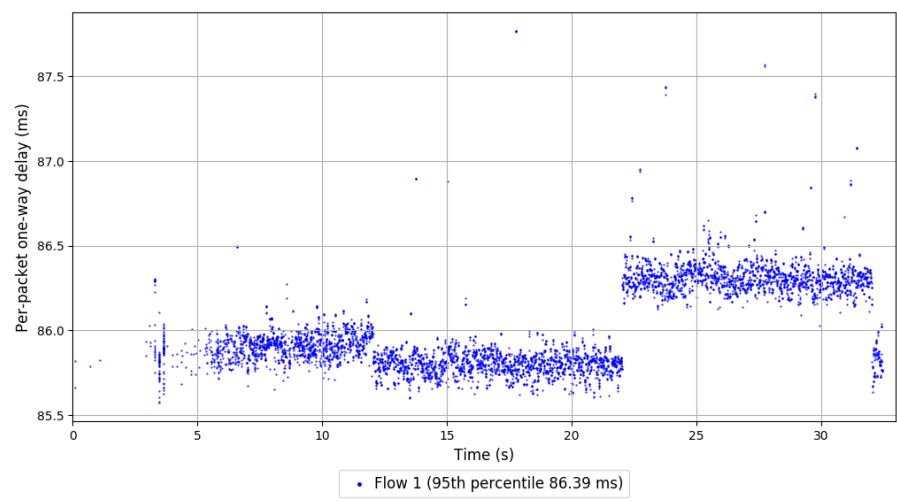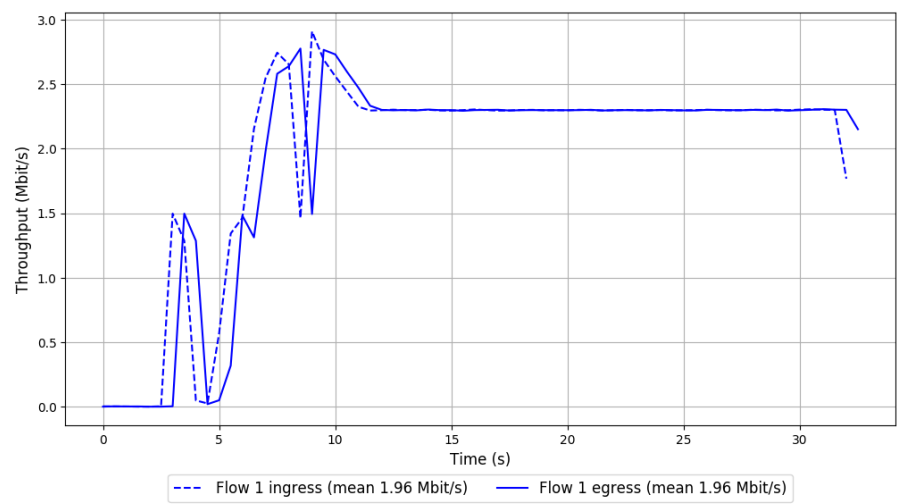Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-06-05 05:58:12
End at: 2018-06-05 05:58:42
Local clock offset: 2.777 ms
Remote clock offset: -0.108 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 86.386 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 86.386 ms
Loss rate: 0.00%
```

Run 9: Report of WebRTC media — Data Link

Flow 1 ingress (mean 1.96 Mbit/s)   Flow 1 egress (mean 1.96 Mbit/s)

Flow 1 (95th percentile 86.39 ms)

```
Run 10: Statistics of WebRTC media

Start at: 2018-06-05 06:19:04
End at: 2018-06-05 06:19:34
Local clock offset: 1.428 ms
Remote clock offset: -0.046 ms


# Below is generated by plot.py at 2018-06-05 08:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.518 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 86.518 ms
Loss rate: 0.00%
```

Run 10: Report of WebRTC media — Data Link