Pantheon Report

Generated at 2018-02-20 09:08:44 (UTC).

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

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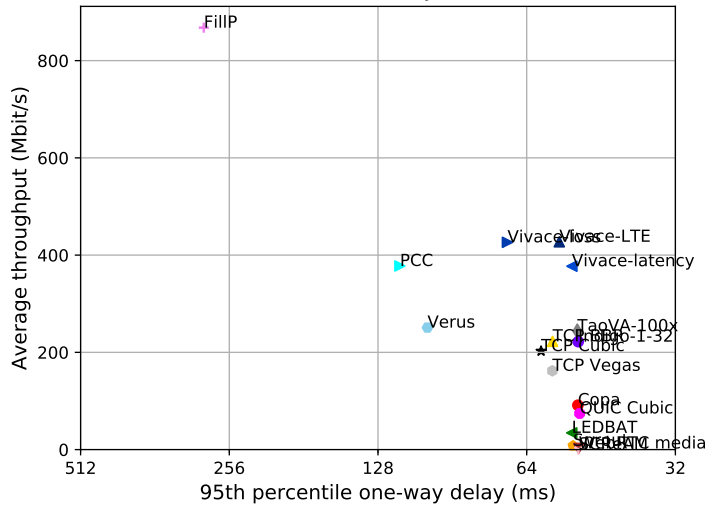
Each test lasted for 30 seconds running 1 flow.

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

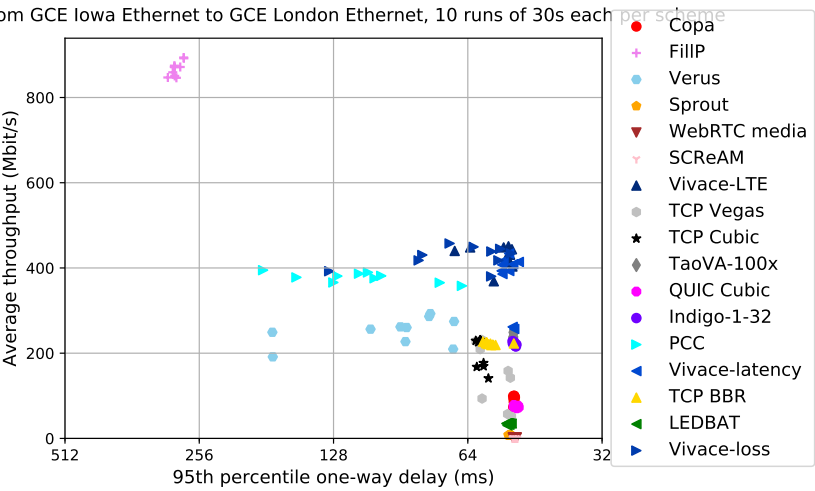Tested BBR with qdisc of Fair Queuing (`fq`), and other schemes with the default Linux qdisc (`pfifo_fast`).

```
Git summary:
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
 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 @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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

test from GCE Iowa Ethernet to GCE London Ethernet, 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	222.64	56.72	0.00
TCP Cubic	10	202.66	59.85	0.02
LEDBAT	10	34.38	51.89	0.00
PCC	10	377.63	115.55	0.12
QUIC Cubic	10	74.41	49.99	0.00
SCReAM	10	0.22	50.30	0.00
WebRTC media	10	2.34	50.23	0.00
Sprout	10	7.90	51.56	0.00
TaoVA-100x	10	243.47	50.55	0.00
TCP Vegas	10	162.03	56.79	0.00
Verus	10	250.91	101.66	0.26
Copa	10	91.27	50.42	0.00
FillP	10	867.81	288.31	5.65
Indigo-1-32	10	221.94	50.33	0.00
Vivace-latency	10	377.16	51.85	0.00
Vivace-loss	10	426.32	70.01	0.01
Vivace-LTE	10	427.42	54.98	0.00

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-20 03:20:29
End at: 2018-02-20 03:20:59

# Below is generated by plot.py at 2018-02-20 07:36:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.17 Mbit/s
95th percentile per-packet one-way delay: 56.238 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.17 Mbit/s
95th percentile per-packet one-way delay: 56.238 ms
Loss rate: 0.00%
```
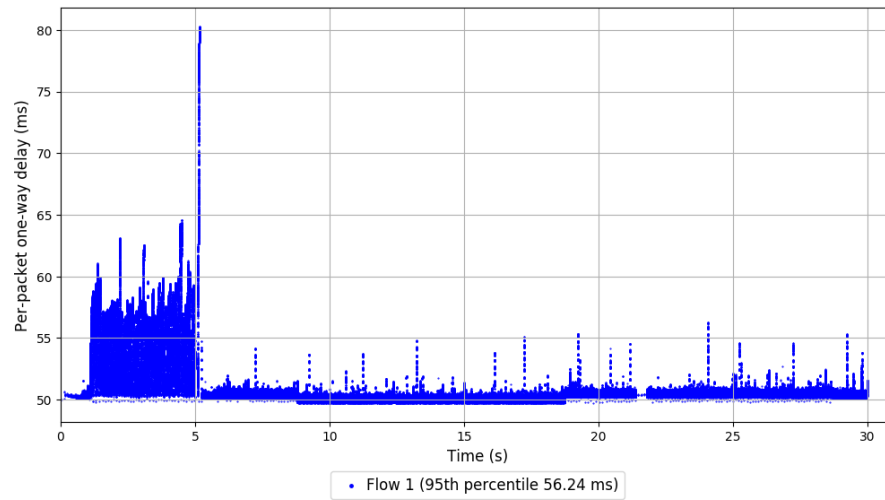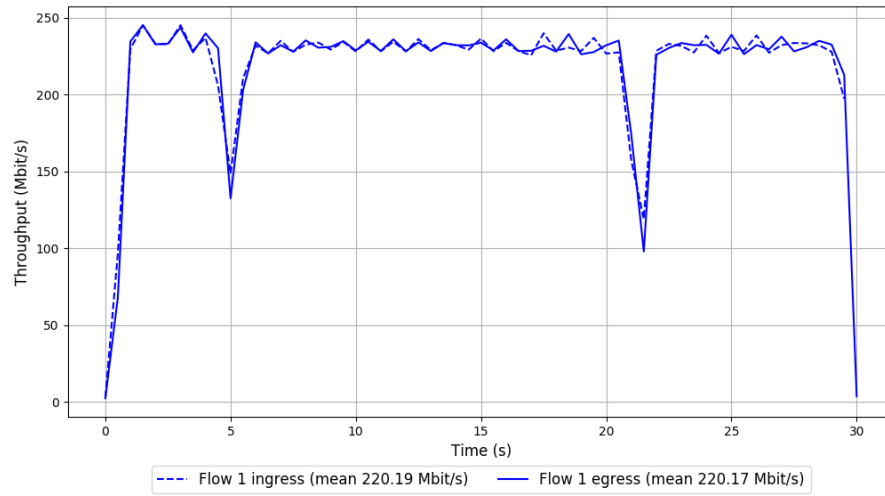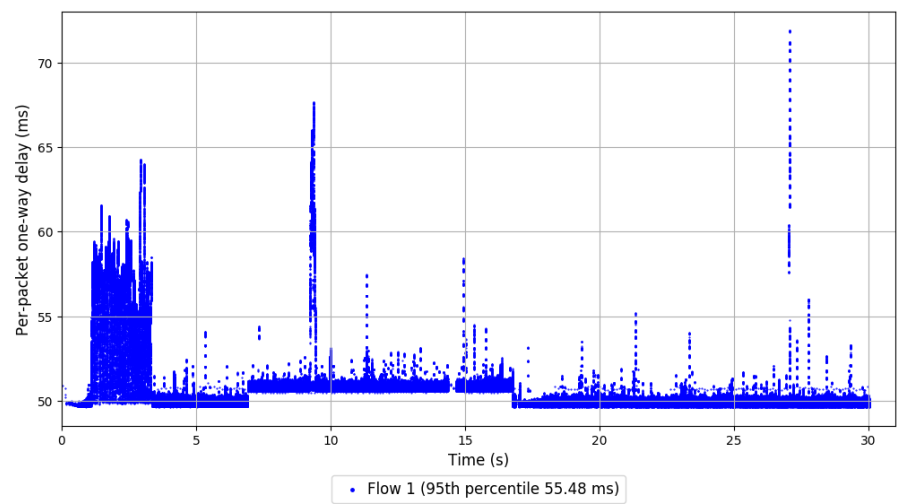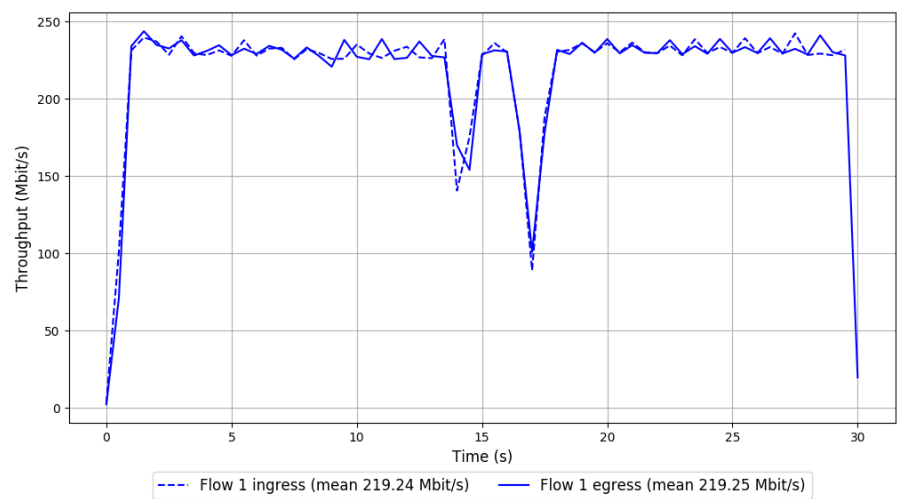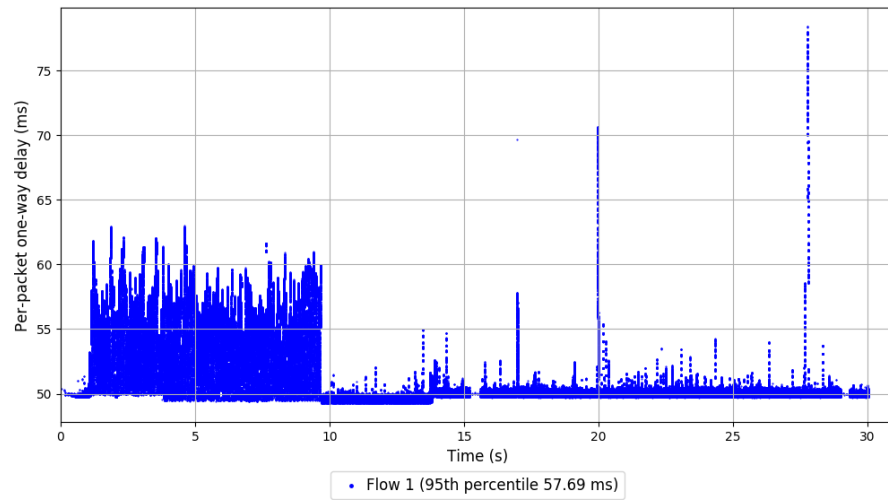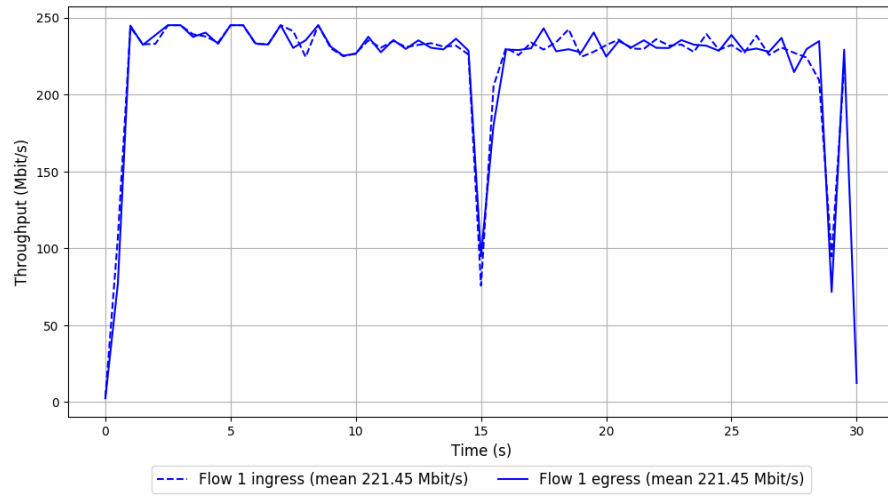
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 220.19 Mbit/s) --- Flow 1 egress (mean 220.17 Mbit/s)

Flow 1 (95th percentile 56.24 ms)

```
Run 2: Statistics of TCP BBR

Start at: 2018-02-20 03:35:21
End at: 2018-02-20 03:35:51

# Below is generated by plot.py at 2018-02-20 07:36:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 219.25 Mbit/s
95th percentile per-packet one-way delay: 55.479 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 219.25 Mbit/s
95th percentile per-packet one-way delay: 55.479 ms
Loss rate: 0.00%
```
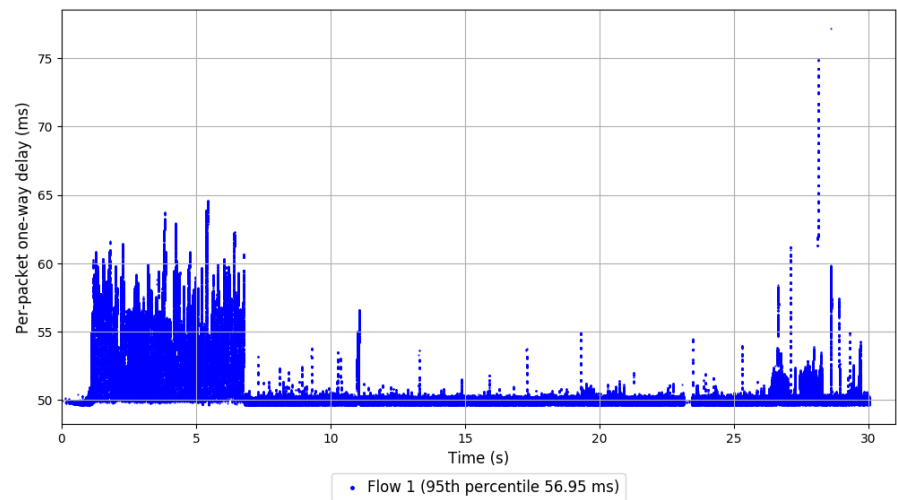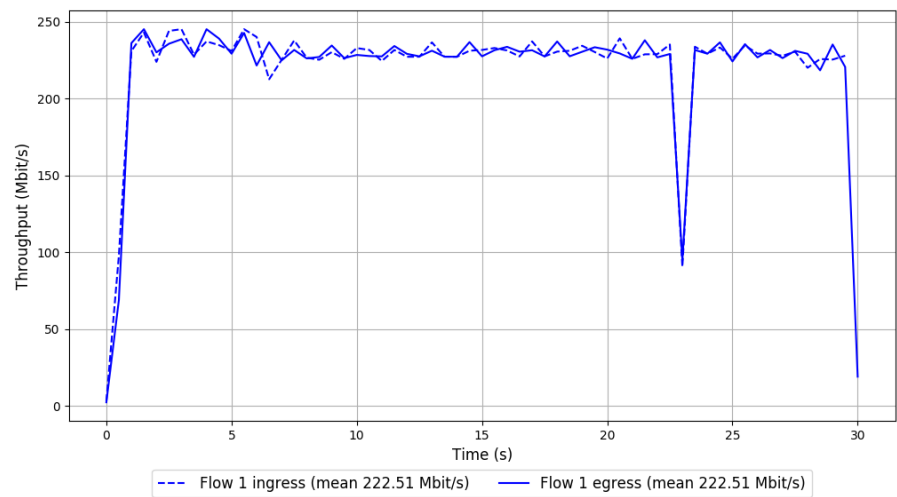
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 219.24 Mbit/s)   Flow 1 egress (mean 219.25 Mbit/s)

Flow 1 (95th percentile 55.48 ms)

```
Run 3: Statistics of TCP BBR

Start at: 2018-02-20 03:50:04
End at: 2018-02-20 03:50:34


# Below is generated by plot.py at 2018-02-20 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 221.45 Mbit/s
95th percentile per-packet one-way delay: 57.685 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 221.45 Mbit/s
95th percentile per-packet one-way delay: 57.685 ms
Loss rate: 0.00%
```
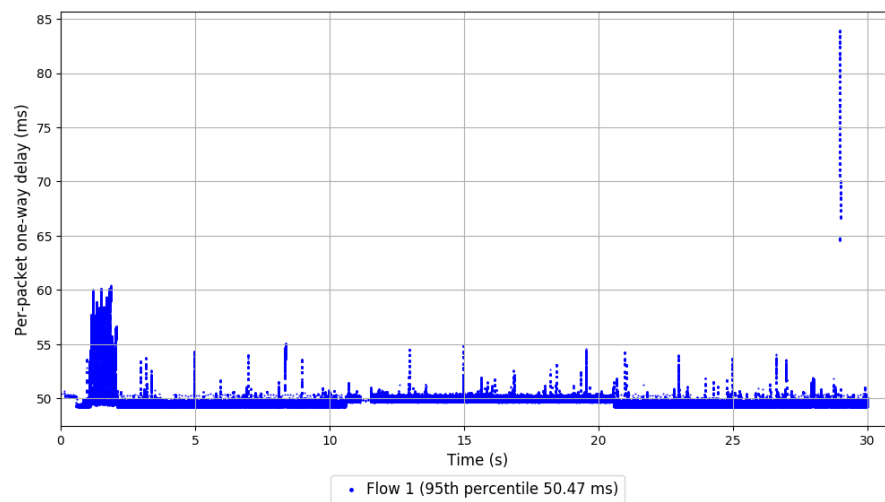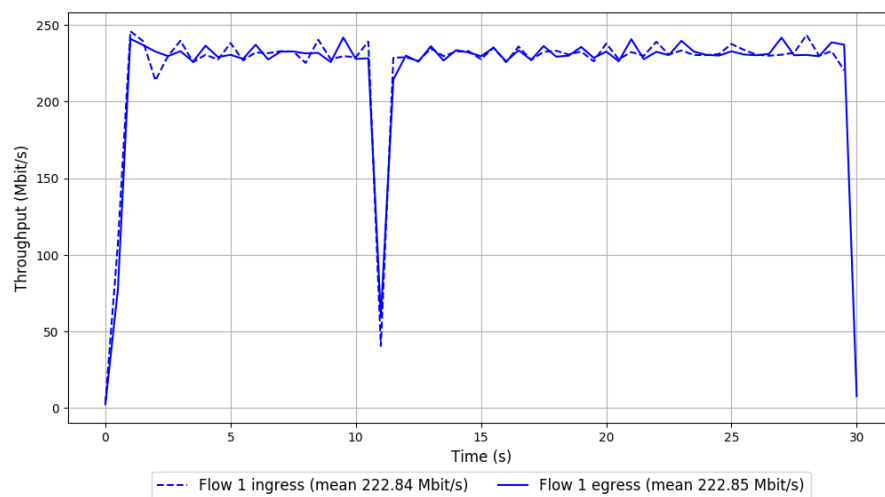
Run 3: Report of TCP BBR — Data Link

```
Run 4: Statistics of TCP BBR

Start at: 2018-02-20 04:04:55
End at: 2018-02-20 04:05:25


# Below is generated by plot.py at 2018-02-20 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.51 Mbit/s
95th percentile per-packet one-way delay: 56.953 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.51 Mbit/s
95th percentile per-packet one-way delay: 56.953 ms
Loss rate: 0.00%
```
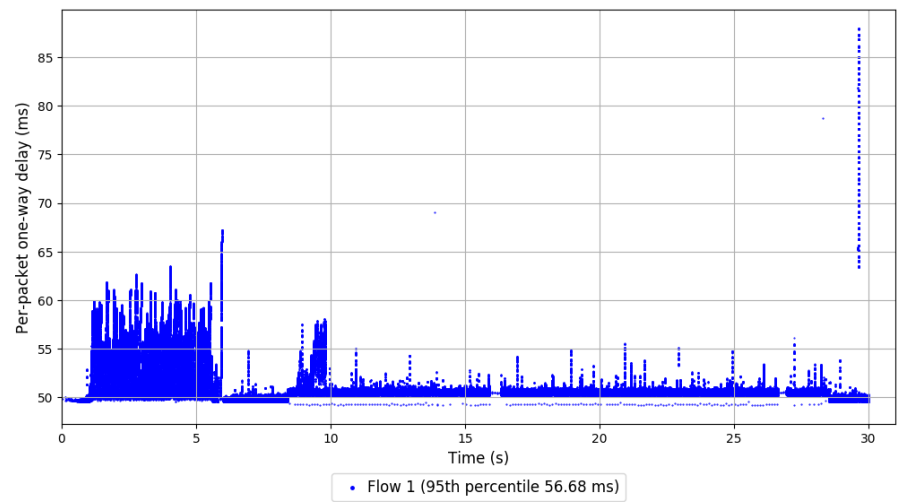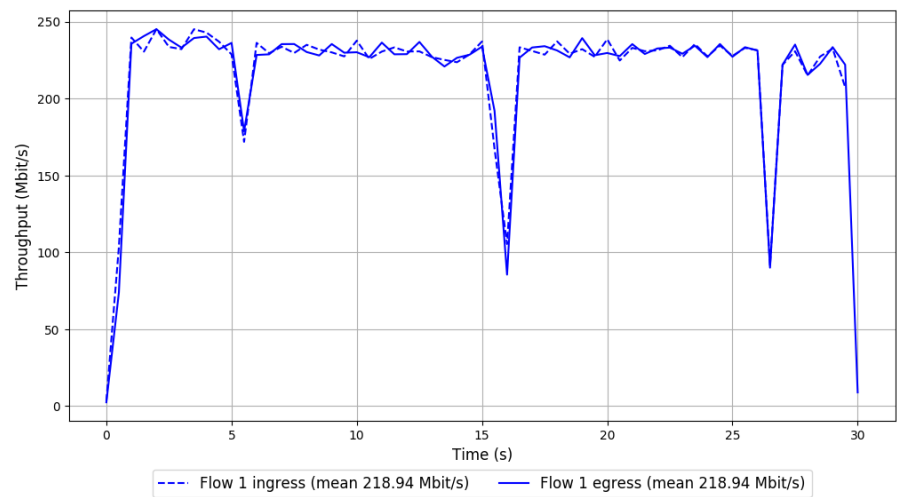
Run 4: Report of TCP BBR — Data Link

```
Run 5: Statistics of TCP BBR

Start at: 2018-02-20 04:19:58
End at: 2018-02-20 04:20:28

# Below is generated by plot.py at 2018-02-20 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.85 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.85 Mbit/s
95th percentile per-packet one-way delay: 50.469 ms
Loss rate: 0.00%
```
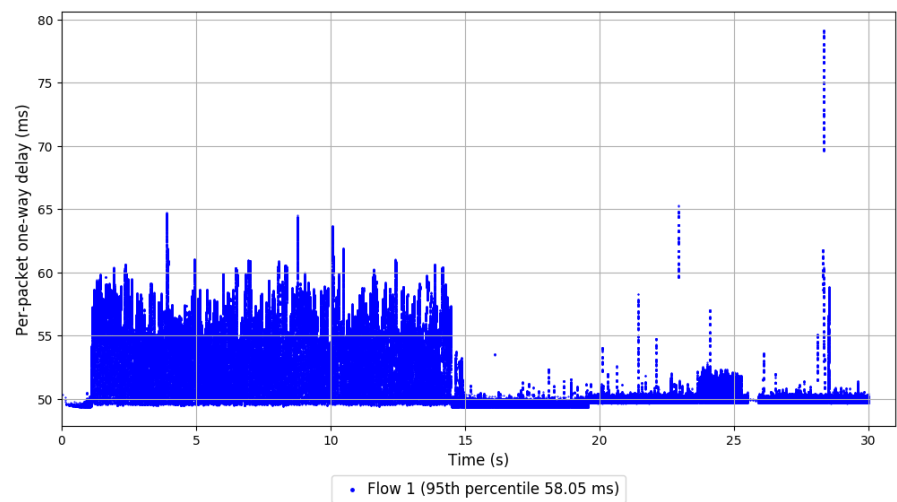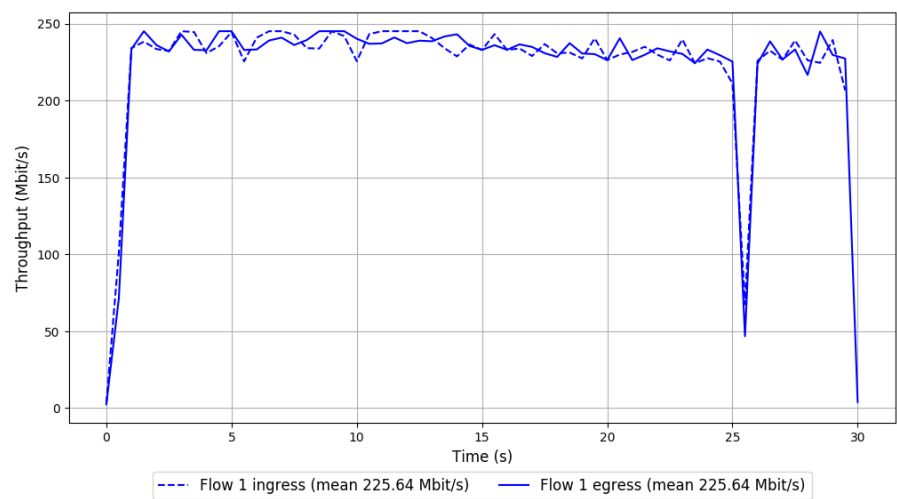
Run 5: Report of TCP BBR — Data Link

Flow 1 ingress (mean 222.84 Mbit/s)   Flow 1 egress (mean 222.85 Mbit/s)

Flow 1 (95th percentile 50.47 ms)

```
Run 6: Statistics of TCP BBR

Start at: 2018-02-20 04:34:50
End at: 2018-02-20 04:35:20

# Below is generated by plot.py at 2018-02-20 07:36:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.94 Mbit/s
95th percentile per-packet one-way delay: 56.680 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.94 Mbit/s
95th percentile per-packet one-way delay: 56.680 ms
Loss rate: 0.00%
```
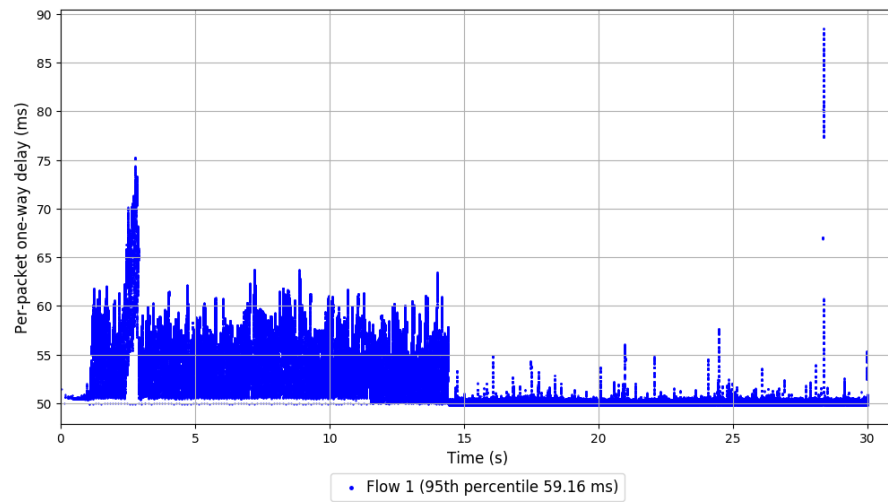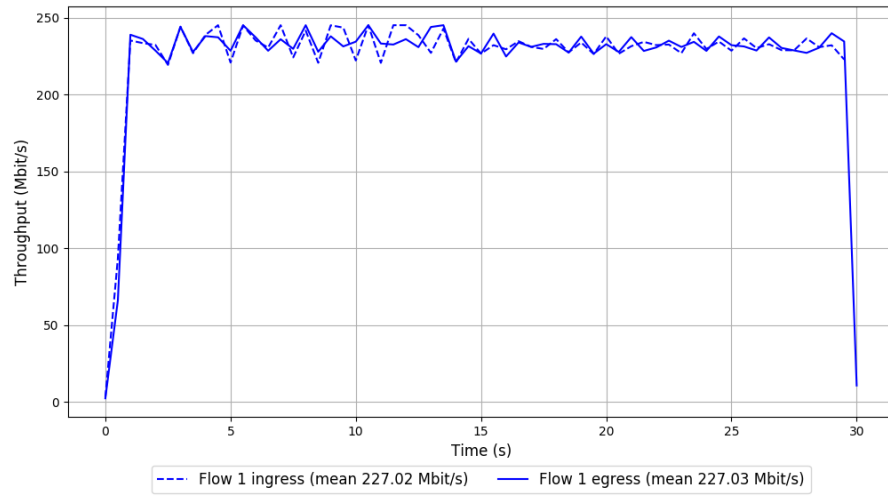
Run 6: Report of TCP BBR — Data Link

Flow 1 ingress (mean 218.94 Mbit/s)   Flow 1 egress (mean 218.94 Mbit/s)

• Flow 1 (95th percentile 56.68 ms)

```
Run 7: Statistics of TCP BBR

Start at: 2018-02-20 04:49:38
End at: 2018-02-20 04:50:08

# Below is generated by plot.py at 2018-02-20 07:36:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.64 Mbit/s
95th percentile per-packet one-way delay: 58.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.64 Mbit/s
95th percentile per-packet one-way delay: 58.047 ms
Loss rate: 0.00%
```
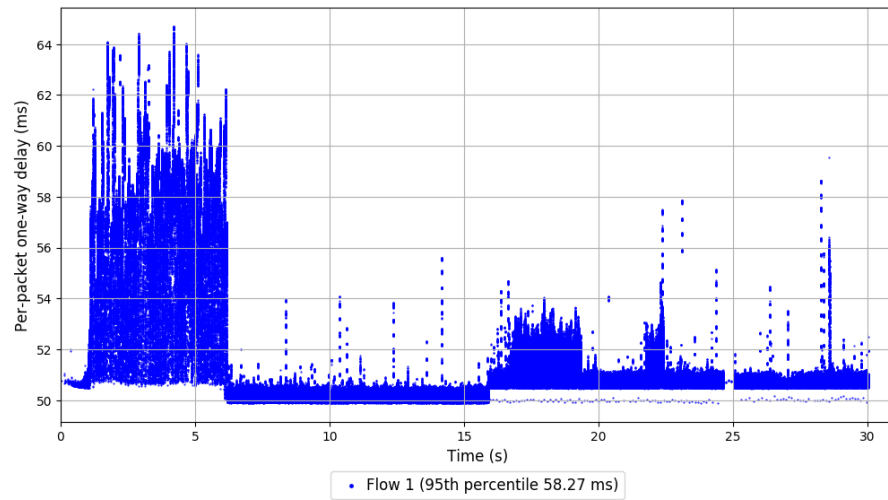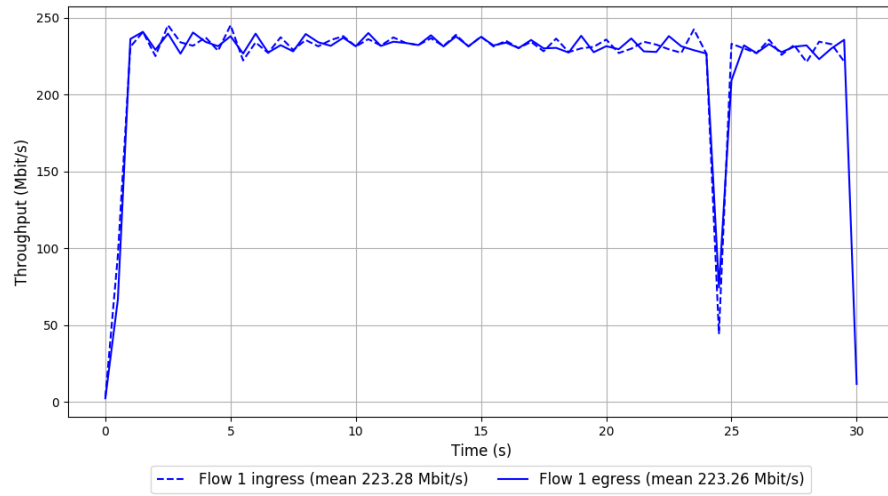
Run 7: Report of TCP BBR — Data Link

```
Run 8: Statistics of TCP BBR

Start at: 2018-02-20 05:04:36
End at: 2018-02-20 05:05:07

# Below is generated by plot.py at 2018-02-20 07:36:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.03 Mbit/s
95th percentile per-packet one-way delay: 59.157 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.03 Mbit/s
95th percentile per-packet one-way delay: 59.157 ms
Loss rate: 0.00%
```
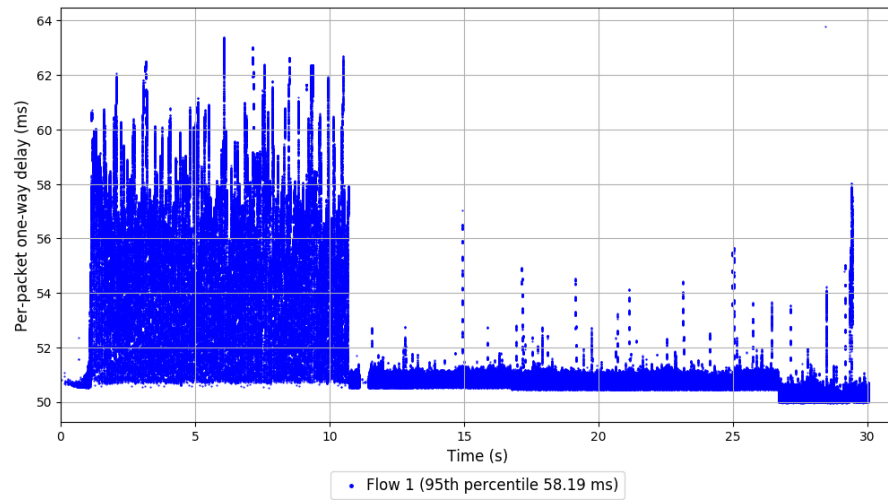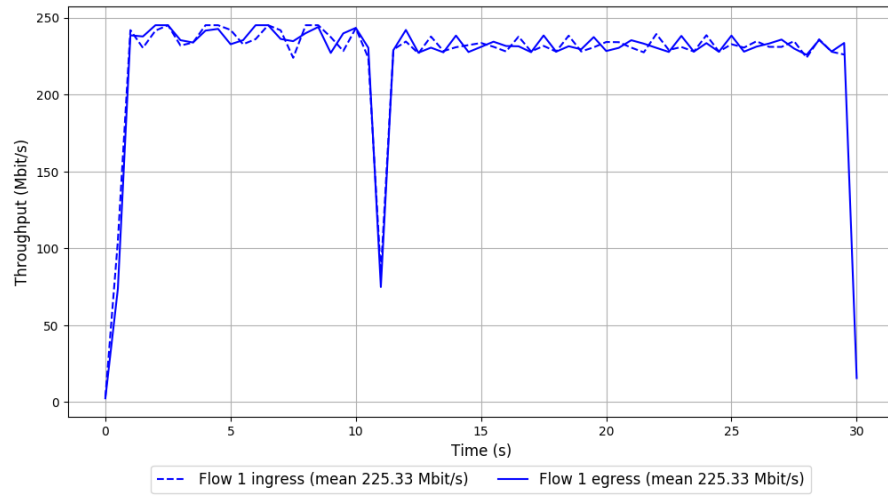
Run 8: Report of TCP BBR — Data Link

Flow 1 ingress (mean 227.02 Mbit/s)   Flow 1 egress (mean 227.03 Mbit/s)

Flow 1 (95th percentile 59.16 ms)

```
Run 9: Statistics of TCP BBR

Start at: 2018-02-20 05:19:32
End at: 2018-02-20 05:20:02

# Below is generated by plot.py at 2018-02-20 07:40:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 223.26 Mbit/s
95th percentile per-packet one-way delay: 58.268 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 223.26 Mbit/s
95th percentile per-packet one-way delay: 58.268 ms
Loss rate: 0.01%
```
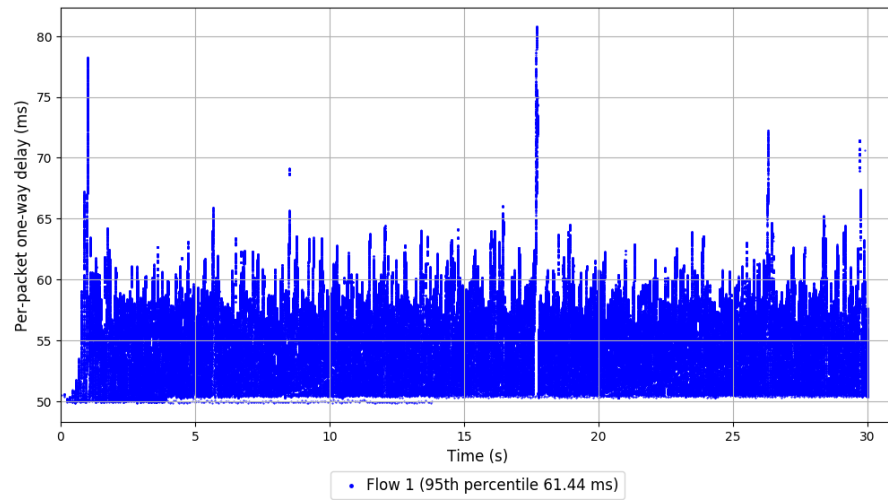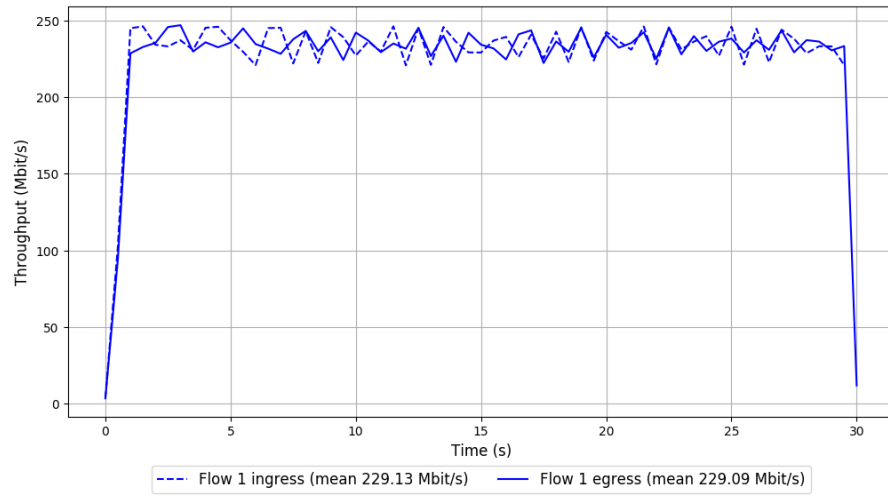
Run 9: Report of TCP BBR — Data Link

Flow 1 ingress (mean 223.28 Mbit/s)   Flow 1 egress (mean 223.26 Mbit/s)

Flow 1 (95th percentile 58.27 ms)

```
Run 10: Statistics of TCP BBR

Start at: 2018-02-20 05:34:31
End at: 2018-02-20 05:35:01

# Below is generated by plot.py at 2018-02-20 07:40:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.33 Mbit/s
95th percentile per-packet one-way delay: 58.192 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.33 Mbit/s
95th percentile per-packet one-way delay: 58.192 ms
Loss rate: 0.00%
```
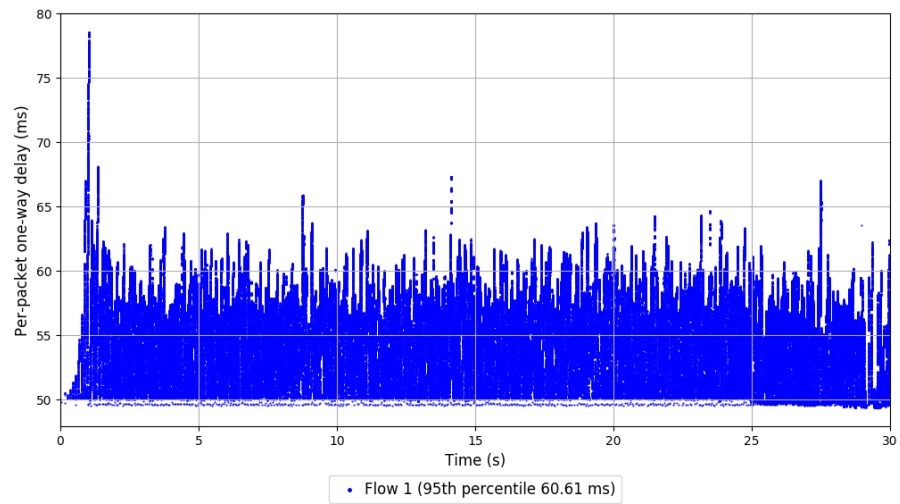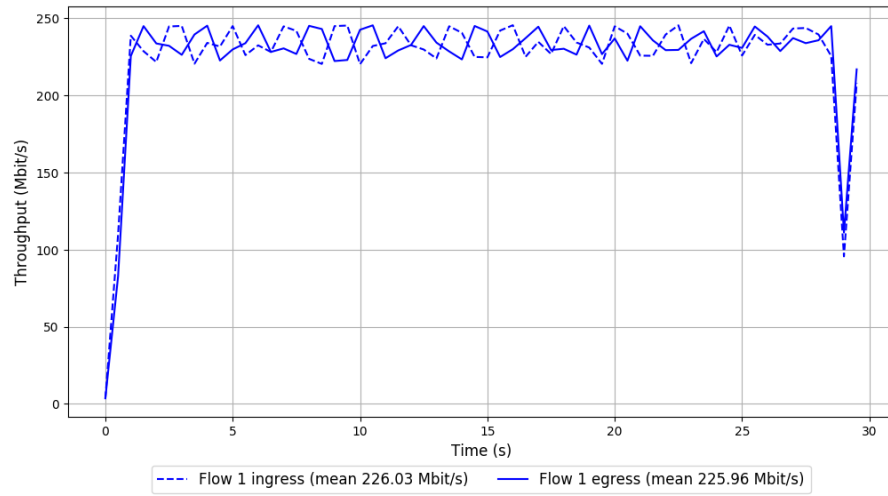
Run 10: Report of TCP BBR — Data Link

Flow 1 ingress (mean 225.33 Mbit/s) — Flow 1 egress (mean 225.33 Mbit/s)

Flow 1 (95th percentile 58.19 ms)

```
Run 1: Statistics of TCP Cubic

Start at: 2018-02-20 03:28:54
End at: 2018-02-20 03:29:24

# Below is generated by plot.py at 2018-02-20 07:40:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.09 Mbit/s
95th percentile per-packet one-way delay: 61.436 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 229.09 Mbit/s
95th percentile per-packet one-way delay: 61.436 ms
Loss rate: 0.00%
```
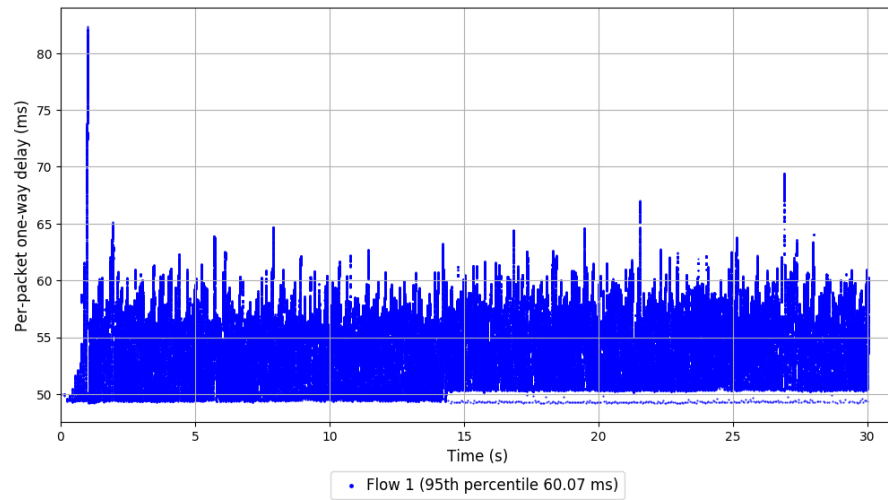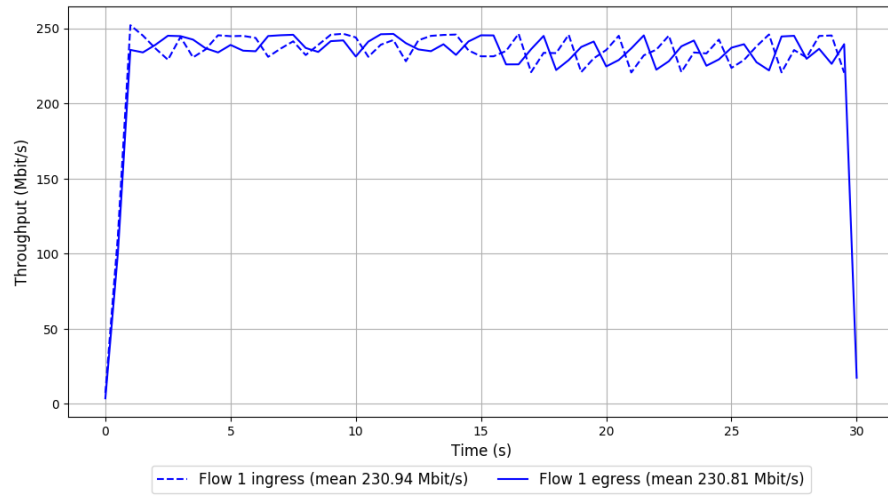
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 229.13 Mbit/s)   Flow 1 egress (mean 229.09 Mbit/s)

• Flow 1 (95th percentile 61.44 ms)

```
Run 2: Statistics of TCP Cubic

Start at: 2018-02-20 03:43:33
End at: 2018-02-20 03:44:03

# Below is generated by plot.py at 2018-02-20 07:40:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 225.96 Mbit/s
95th percentile per-packet one-way delay: 60.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 225.96 Mbit/s
95th percentile per-packet one-way delay: 60.611 ms
Loss rate: 0.00%
```
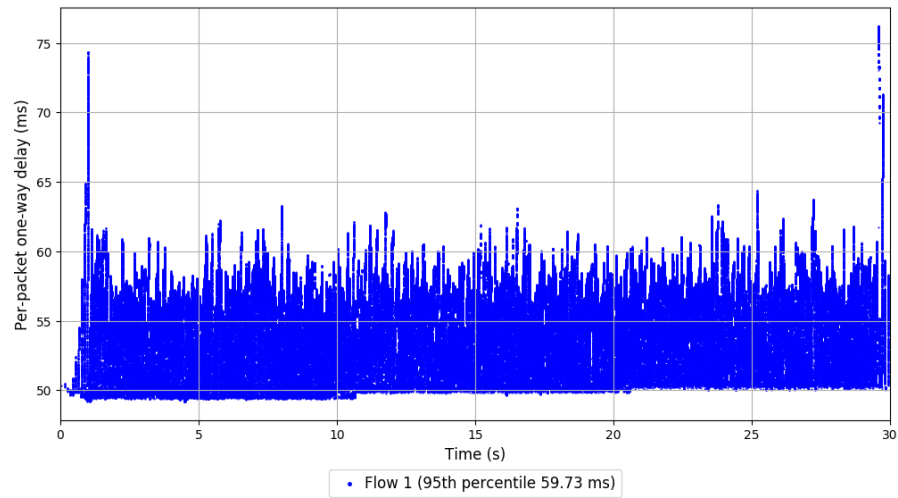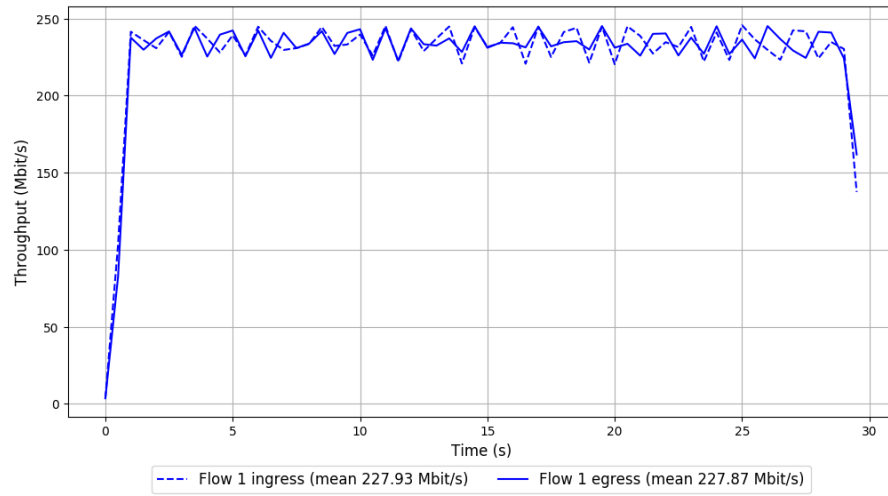
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: 2018-02-20 03:58:24
End at: 2018-02-20 03:58:54


# Below is generated by plot.py at 2018-02-20 07:40:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 60.072 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 60.072 ms
Loss rate: 0.05%
```
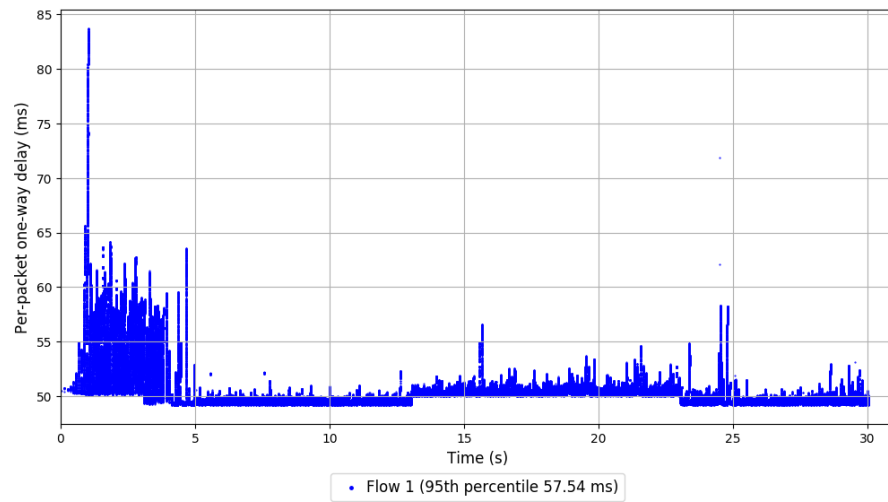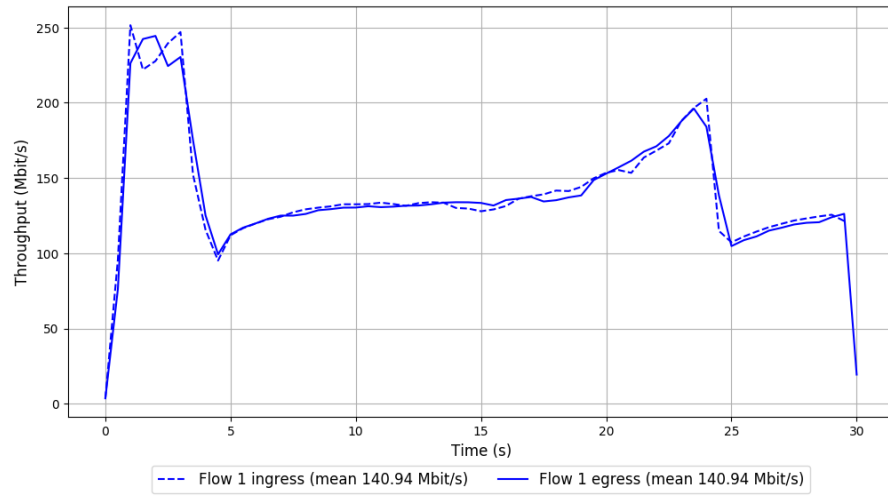
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 230.94 Mbit/s)　——— Flow 1 egress (mean 230.81 Mbit/s)

· Flow 1 (95th percentile 60.07 ms)

```
Run 4: Statistics of TCP Cubic

Start at: 2018-02-20 04:13:27
End at: 2018-02-20 04:13:57


# Below is generated by plot.py at 2018-02-20 07:40:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.87 Mbit/s
95th percentile per-packet one-way delay: 59.728 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.87 Mbit/s
95th percentile per-packet one-way delay: 59.728 ms
Loss rate: 0.00%
```
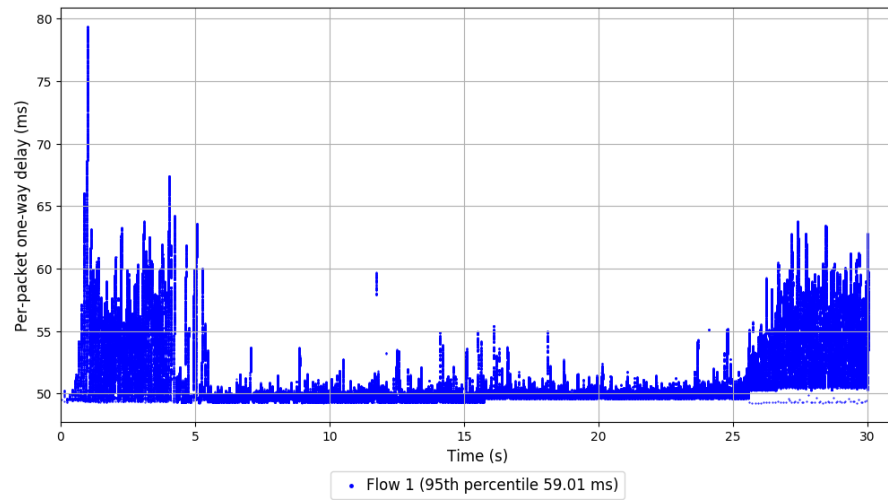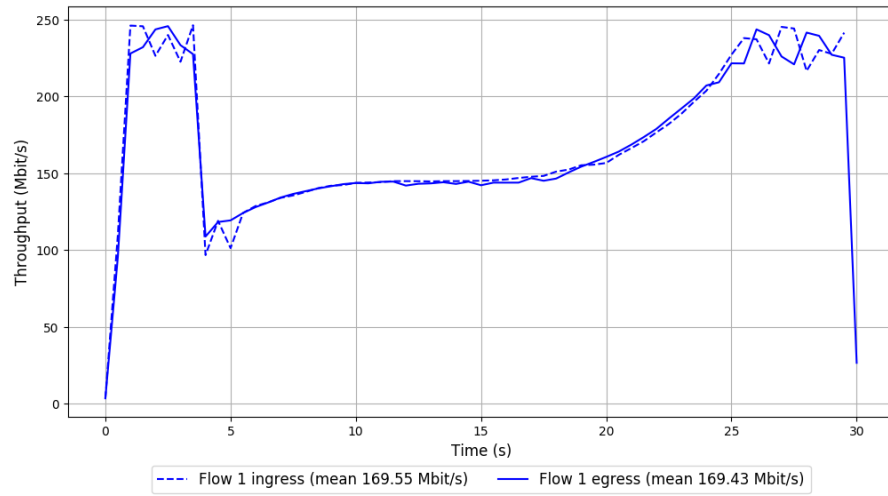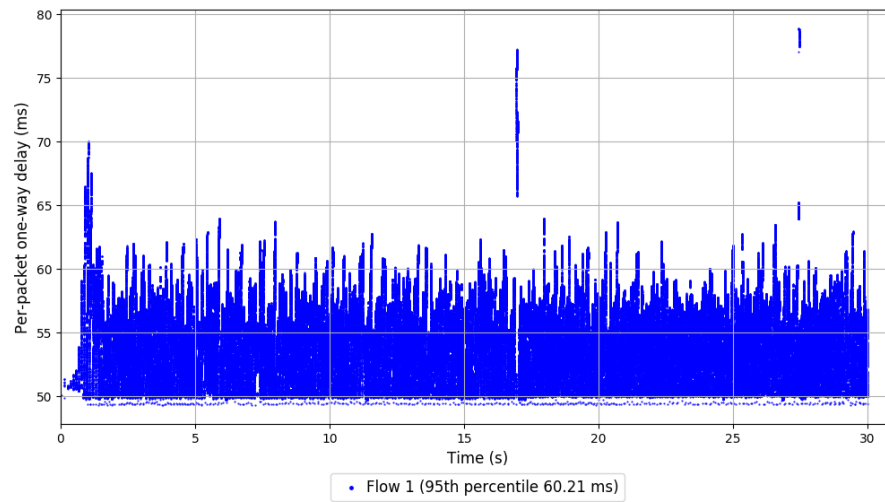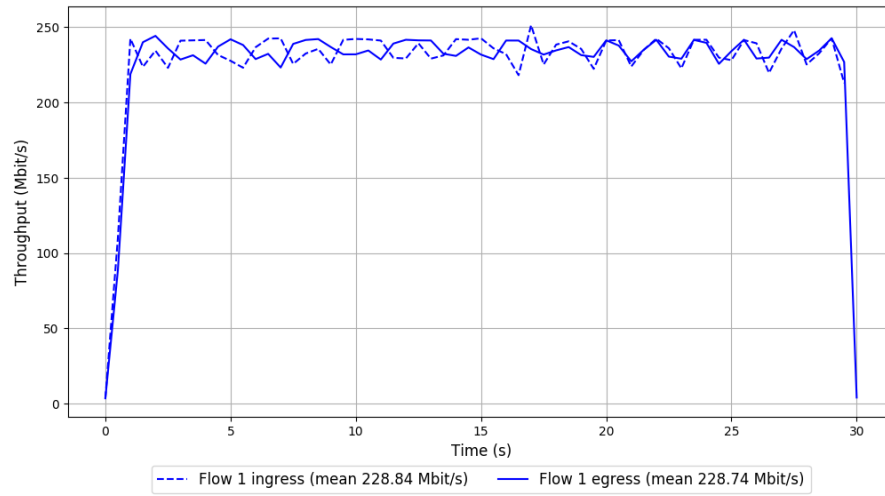
Run 4: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 227.93 Mbit/s)   Flow 1 egress (mean 227.87 Mbit/s)

Flow 1 (95th percentile 59.73 ms)

```
Run 5: Statistics of TCP Cubic

Start at: 2018-02-20 04:28:25
End at: 2018-02-20 04:28:55

# Below is generated by plot.py at 2018-02-20 07:40:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 140.94 Mbit/s
95th percentile per-packet one-way delay: 57.541 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 140.94 Mbit/s
95th percentile per-packet one-way delay: 57.541 ms
Loss rate: 0.01%
```
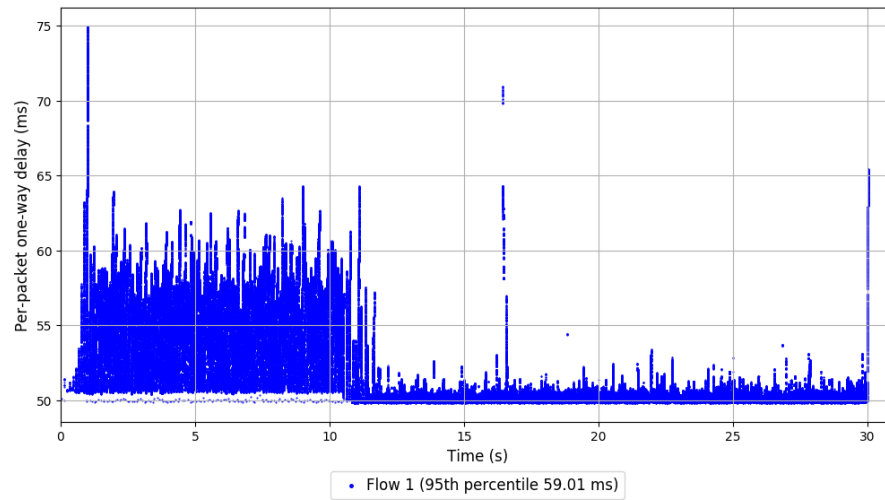
Run 5: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 140.94 Mbit/s)   Flow 1 egress (mean 140.94 Mbit/s)

Flow 1 (95th percentile 57.54 ms)

```
Run 6: Statistics of TCP Cubic

Start at: 2018-02-20 04:43:12
End at: 2018-02-20 04:43:42

# Below is generated by plot.py at 2018-02-20 07:40:36
# Datalink statistics
-- Total of 1 flow:
Average throughput: 169.43 Mbit/s
95th percentile per-packet one-way delay: 59.006 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 169.43 Mbit/s
95th percentile per-packet one-way delay: 59.006 ms
Loss rate: 0.05%
```
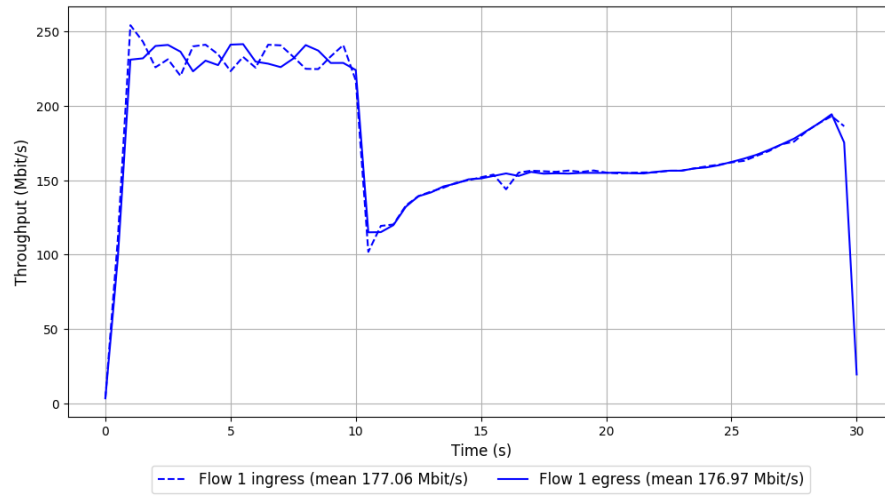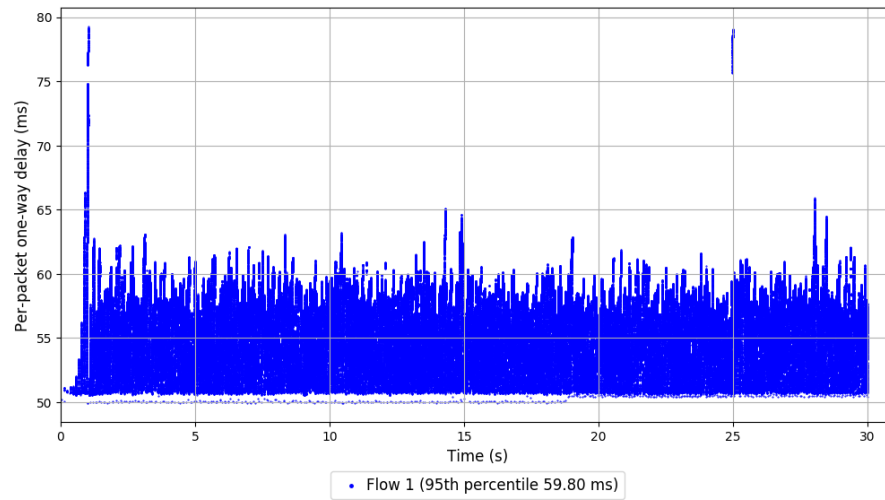
Run 6: Report of TCP Cubic — Data Link

```
Run 7: Statistics of TCP Cubic

Start at: 2018-02-20 04:58:07
End at: 2018-02-20 04:58:37


# Below is generated by plot.py at 2018-02-20 07:43:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.74 Mbit/s
95th percentile per-packet one-way delay: 60.207 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 228.74 Mbit/s
95th percentile per-packet one-way delay: 60.207 ms
Loss rate: 0.04%
```
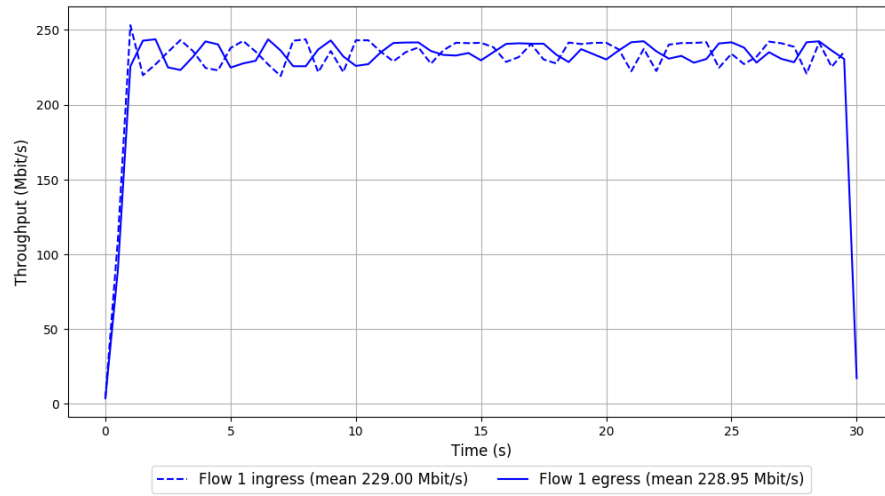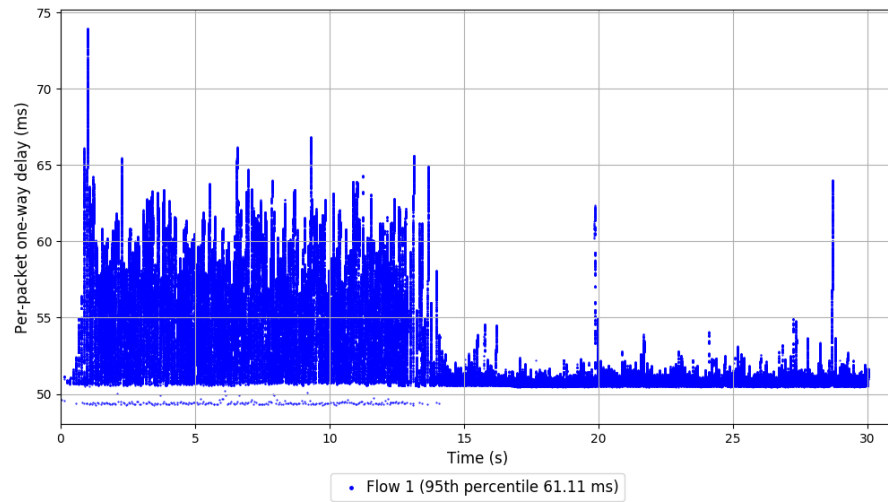
Run 7: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 228.84 Mbit/s)   Flow 1 egress (mean 228.74 Mbit/s)

Flow 1 (95th percentile 60.21 ms)

```
Run 8: Statistics of TCP Cubic

Start at: 2018-02-20 05:13:08
End at: 2018-02-20 05:13:38

# Below is generated by plot.py at 2018-02-20 07:43:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 176.97 Mbit/s
95th percentile per-packet one-way delay: 59.008 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 176.97 Mbit/s
95th percentile per-packet one-way delay: 59.008 ms
Loss rate: 0.00%
```
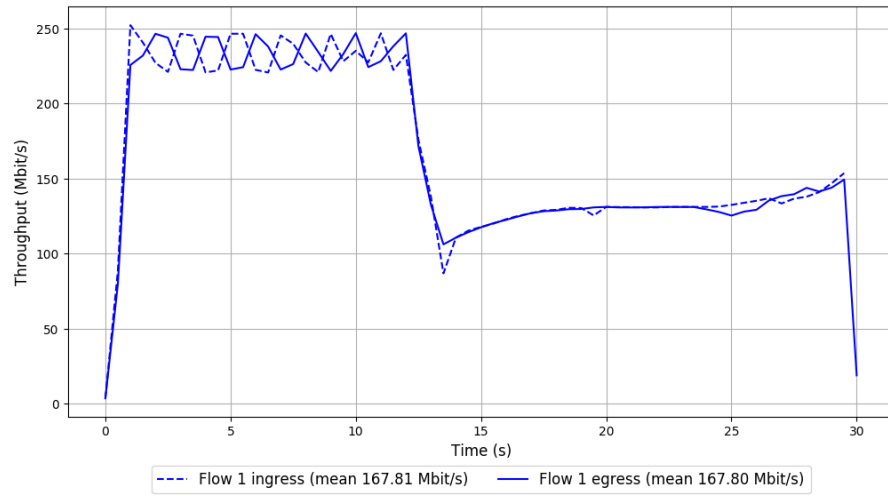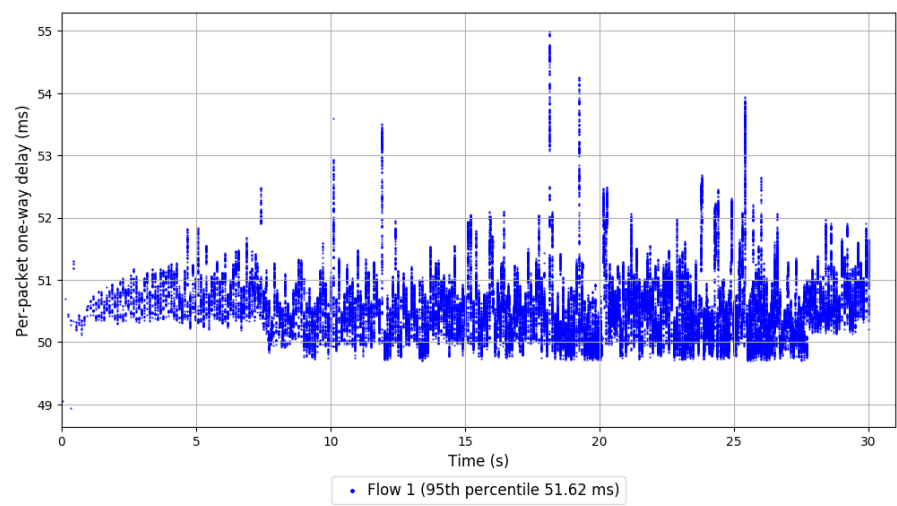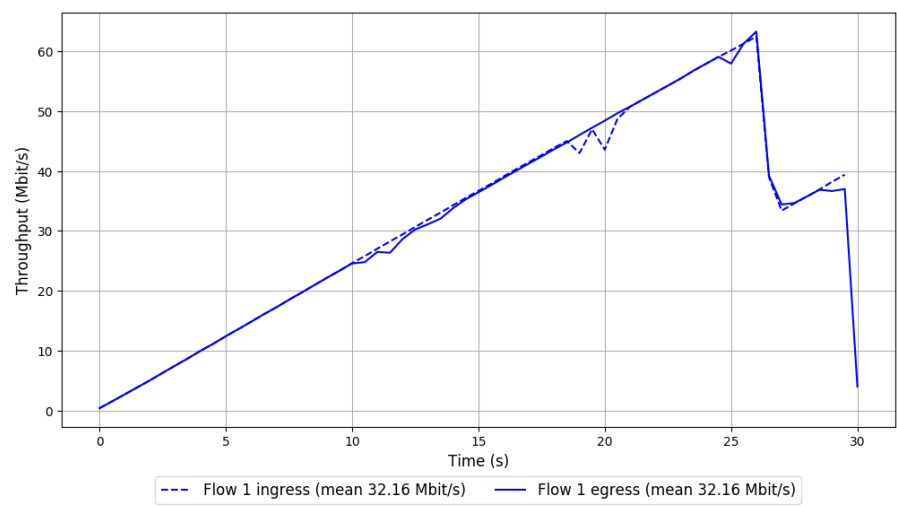
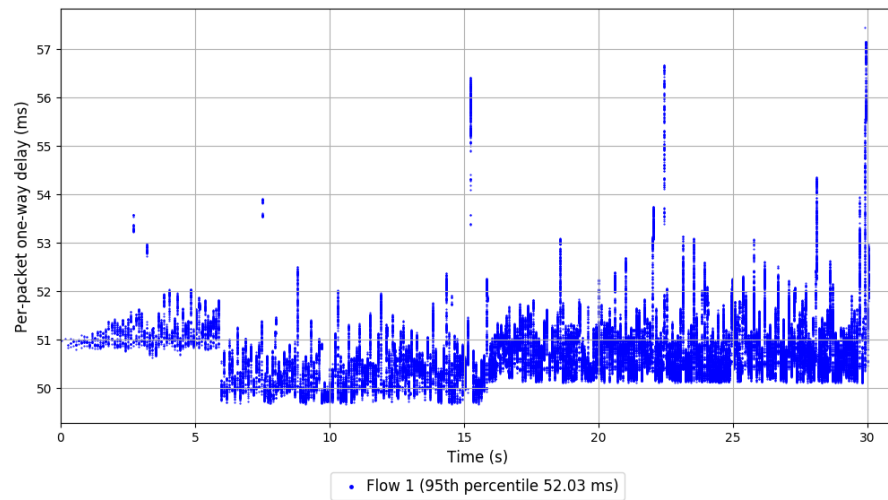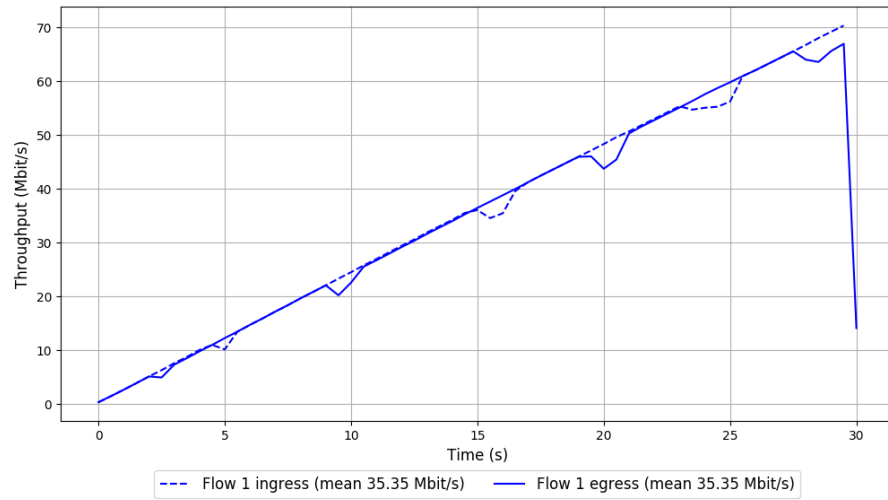Run 8: Report of TCP Cubic — Data Link

```
Run 9: Statistics of TCP Cubic

Start at: 2018-02-20 05:27:59
End at: 2018-02-20 05:28:29

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.95 Mbit/s
95th percentile per-packet one-way delay: 59.804 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.95 Mbit/s
95th percentile per-packet one-way delay: 59.804 ms
Loss rate: 0.00%
```

Run 9: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 229.00 Mbit/s) ---- Flow 1 egress (mean 228.95 Mbit/s)

• Flow 1 (95th percentile 59.80 ms)

```
Run 10: Statistics of TCP Cubic

Start at: 2018-02-20 05:42:51
End at: 2018-02-20 05:43:21

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.80 Mbit/s
95th percentile per-packet one-way delay: 61.106 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 167.80 Mbit/s
95th percentile per-packet one-way delay: 61.106 ms
Loss rate: 0.00%
```
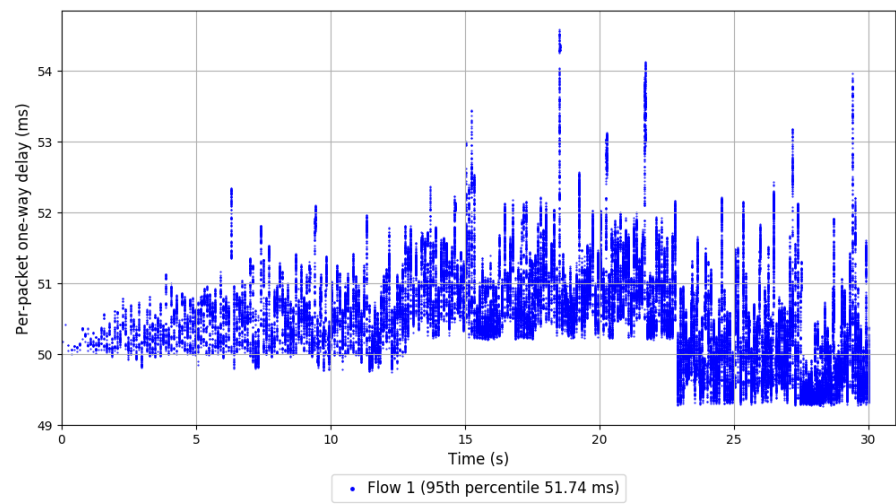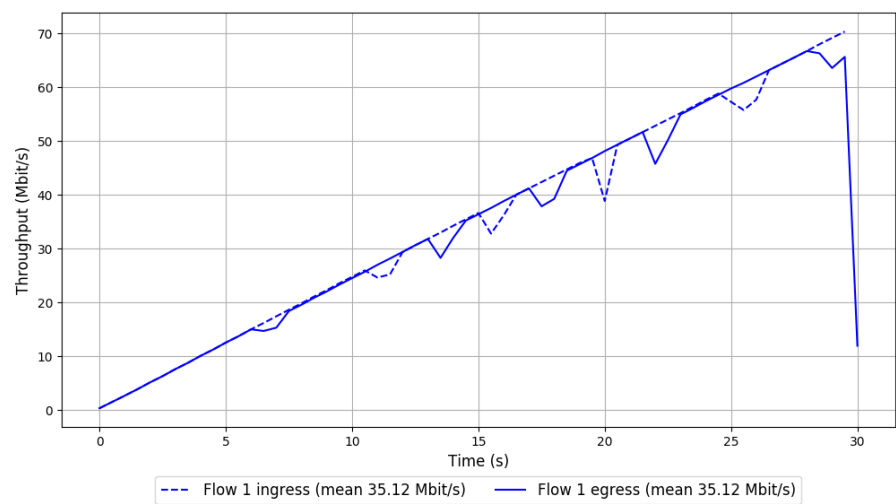
Run 10: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 167.81 Mbit/s) —— Flow 1 egress (mean 167.80 Mbit/s)

• Flow 1 (95th percentile 61.11 ms)

```
Run 1: Statistics of LEDBAT

Start at: 2018-02-20 03:19:50
End at: 2018-02-20 03:20:20

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 32.16 Mbit/s
95th percentile per-packet one-way delay: 51.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 32.16 Mbit/s
95th percentile per-packet one-way delay: 51.625 ms
Loss rate: 0.00%
```
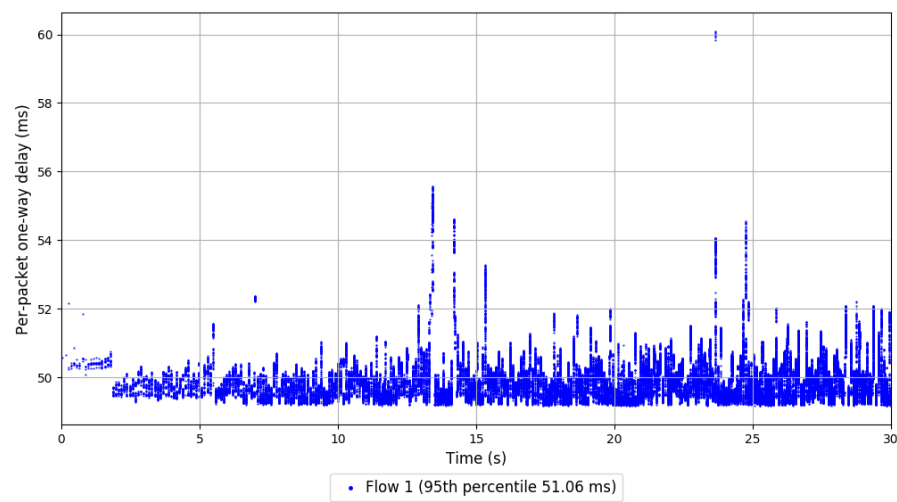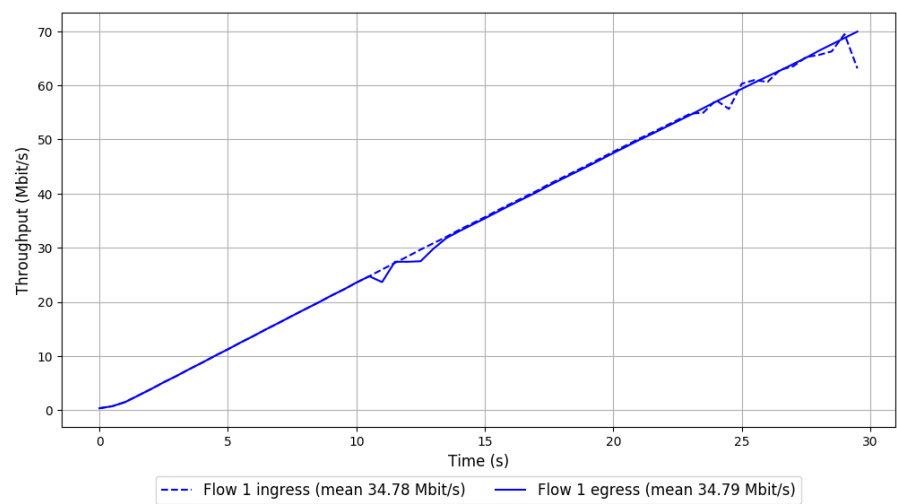
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: 2018-02-20 03:34:42
End at: 2018-02-20 03:35:12

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 52.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.35 Mbit/s
95th percentile per-packet one-way delay: 52.032 ms
Loss rate: 0.00%
```
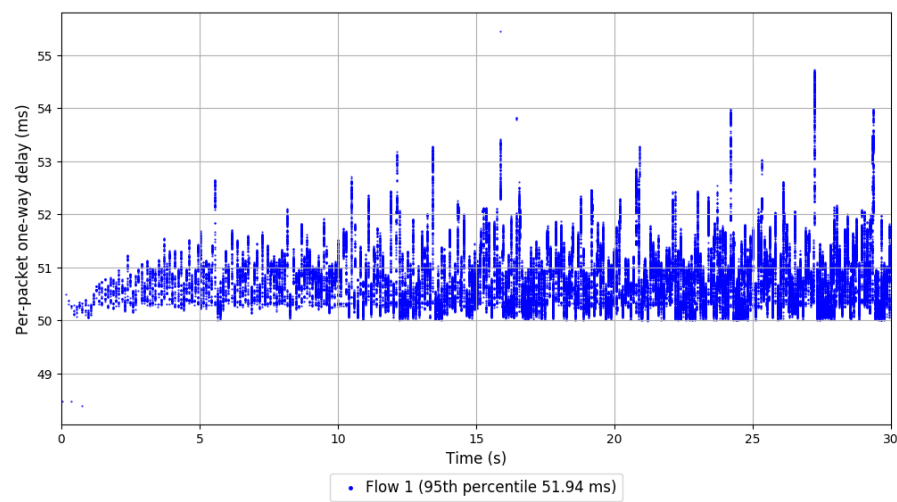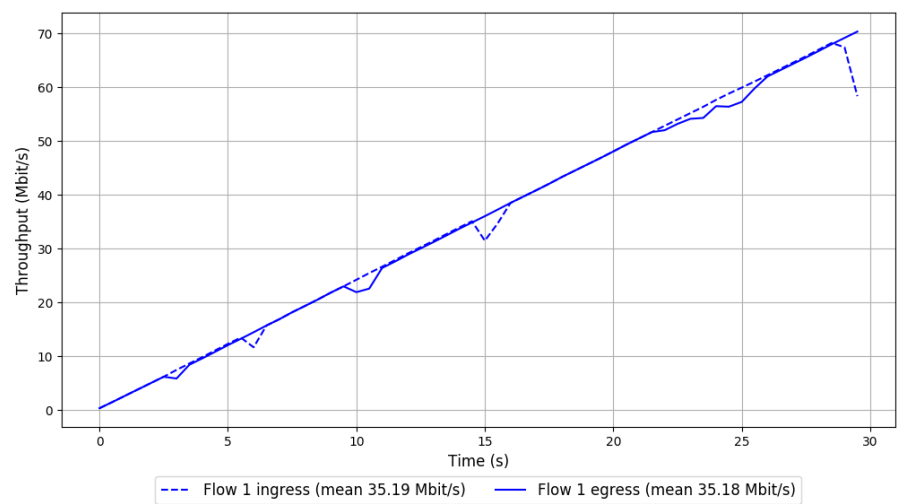
Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.35 Mbit/s) --- Flow 1 egress (mean 35.35 Mbit/s)

• Flow 1 (95th percentile 52.03 ms)

```
Run 3: Statistics of LEDBAT

Start at: 2018-02-20 03:49:25
End at: 2018-02-20 03:49:55

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 51.744 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.12 Mbit/s
95th percentile per-packet one-way delay: 51.744 ms
Loss rate: 0.00%
```
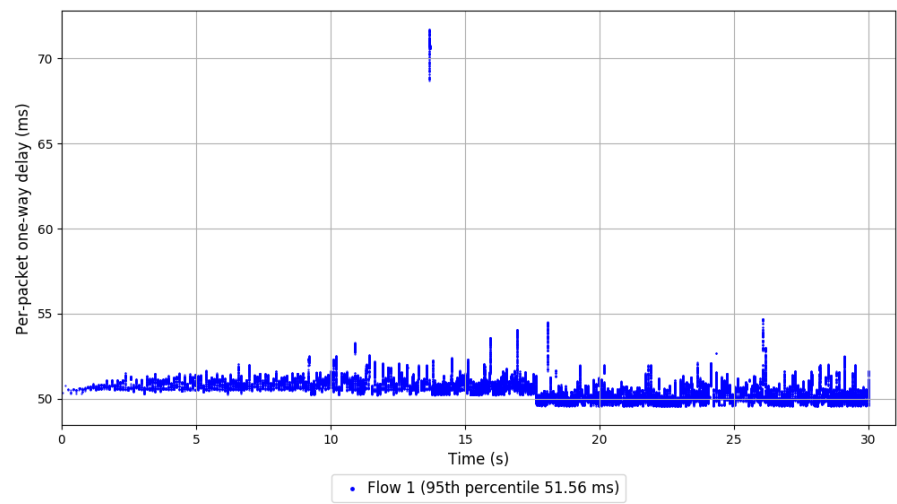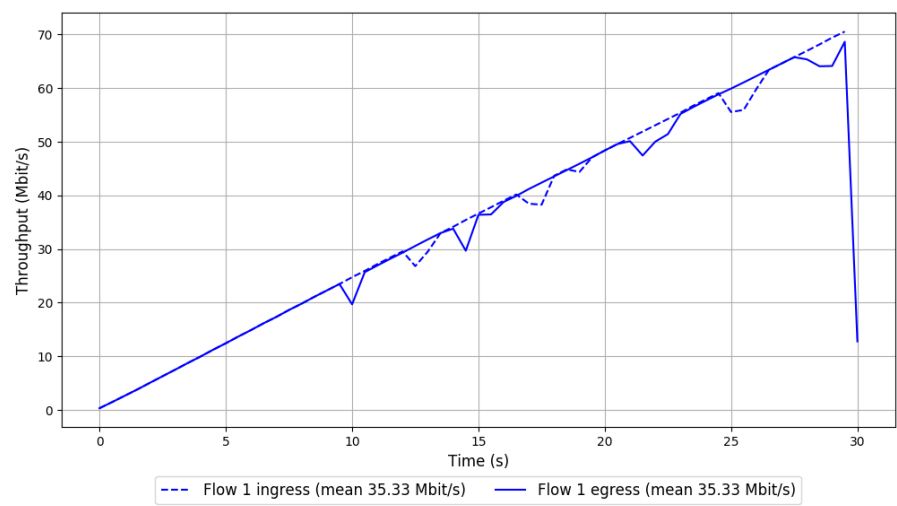
Run 3: Report of LEDBAT — Data Link

```
Run 4: Statistics of LEDBAT

Start at: 2018-02-20 04:04:16
End at: 2018-02-20 04:04:46

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 51.057 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.79 Mbit/s
95th percentile per-packet one-way delay: 51.057 ms
Loss rate: 0.00%
```
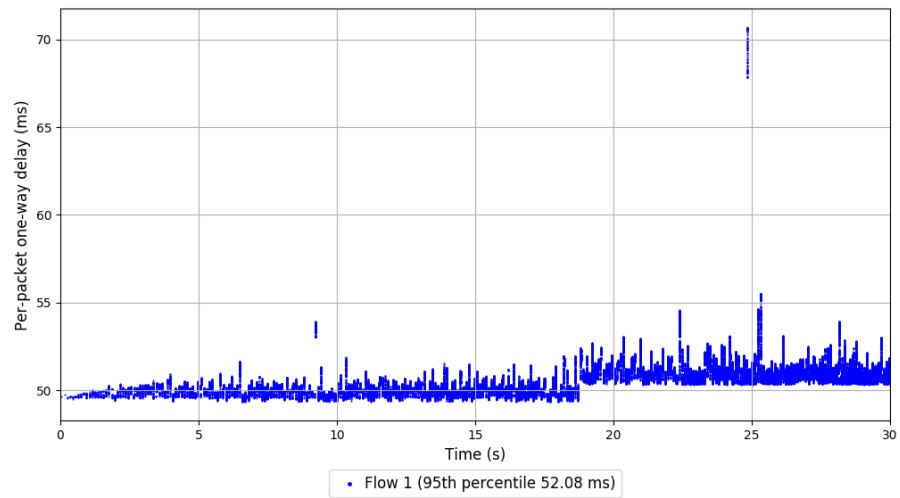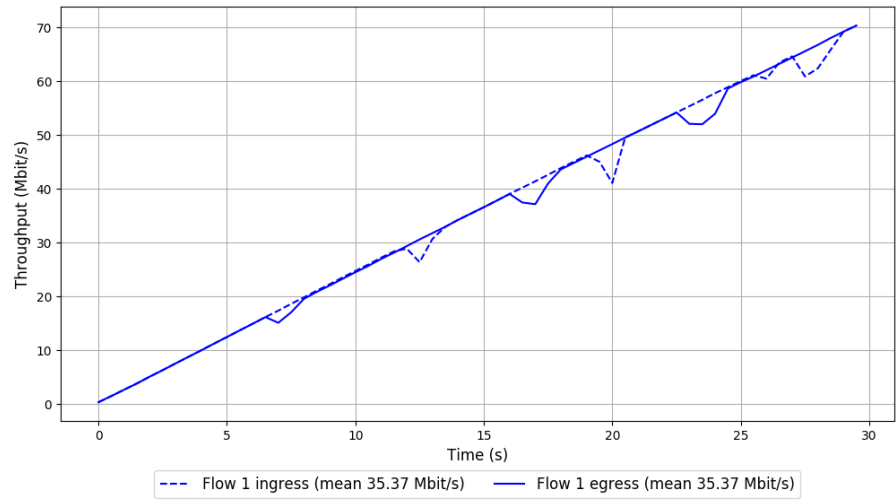
Run 4: Report of LEDBAT — Data Link

```
Run 5: Statistics of LEDBAT

Start at: 2018-02-20 04:19:19
End at: 2018-02-20 04:19:49

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.18 Mbit/s
95th percentile per-packet one-way delay: 51.944 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.18 Mbit/s
95th percentile per-packet one-way delay: 51.944 ms
Loss rate: 0.00%
```
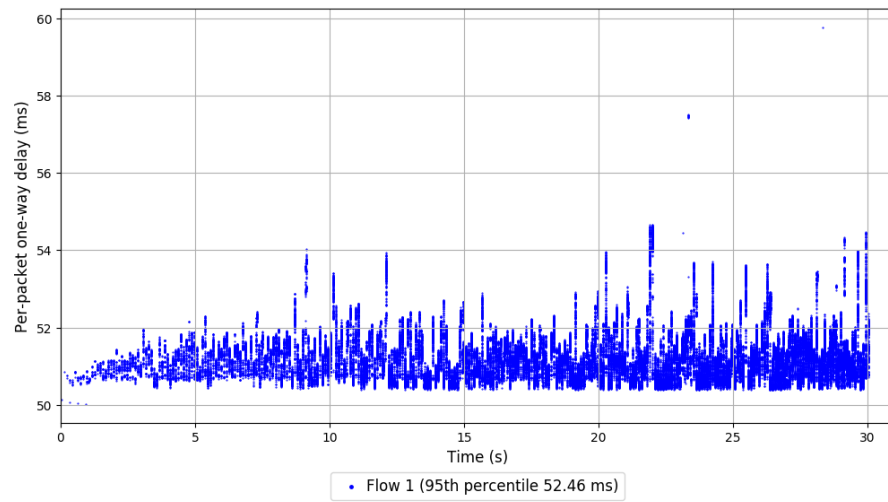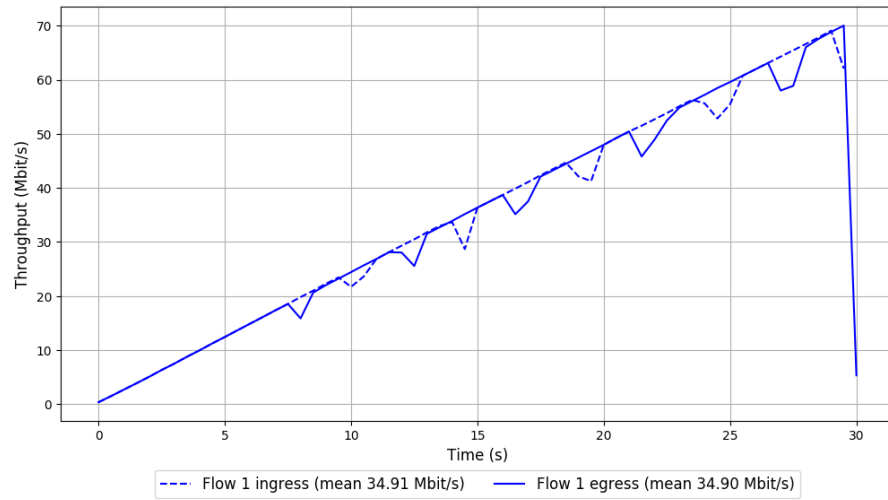
Run 5: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.19 Mbit/s) ——— Flow 1 egress (mean 35.18 Mbit/s)

· Flow 1 (95th percentile 51.94 ms)

```
Run 6: Statistics of LEDBAT

Start at: 2018-02-20 04:34:11
End at: 2018-02-20 04:34:41

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 51.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.33 Mbit/s
95th percentile per-packet one-way delay: 51.559 ms
Loss rate: 0.00%
```
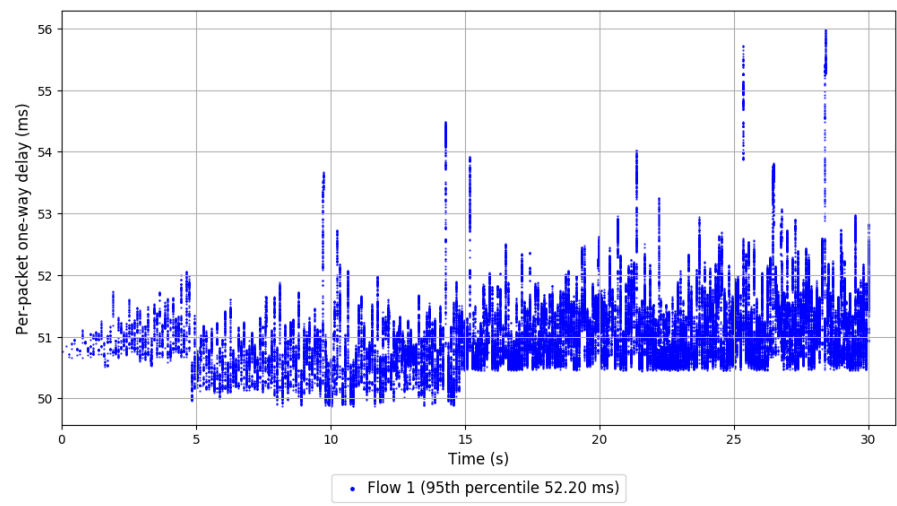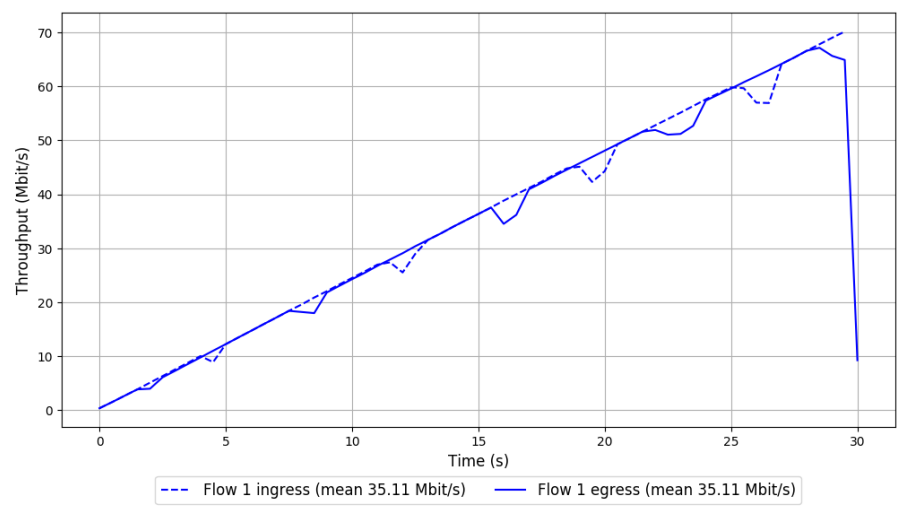
Run 6: Report of LEDBAT — Data Link

```
Run 7: Statistics of LEDBAT

Start at: 2018-02-20 04:48:59
End at: 2018-02-20 04:49:29

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 52.082 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.37 Mbit/s
95th percentile per-packet one-way delay: 52.082 ms
Loss rate: 0.00%
```
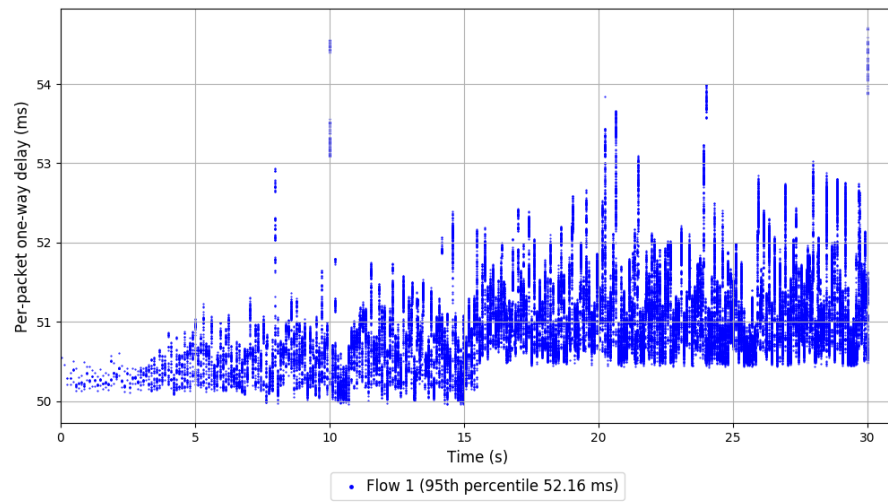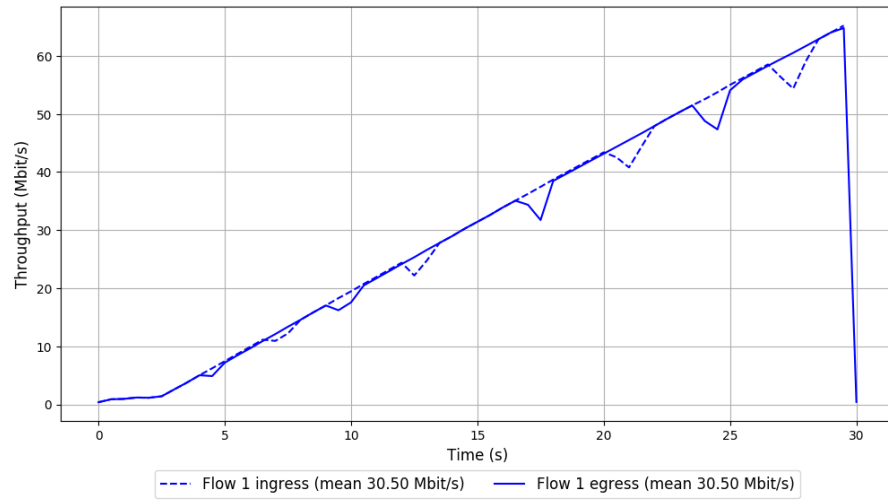
Run 7: Report of LEDBAT — Data Link

Flow 1 ingress (mean 35.37 Mbit/s)   Flow 1 egress (mean 35.37 Mbit/s)

Flow 1 (95th percentile 52.08 ms)

```
Run 8: Statistics of LEDBAT

Start at: 2018-02-20 05:03:57
End at: 2018-02-20 05:04:27

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 52.462 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 34.90 Mbit/s
95th percentile per-packet one-way delay: 52.462 ms
Loss rate: 0.03%
```
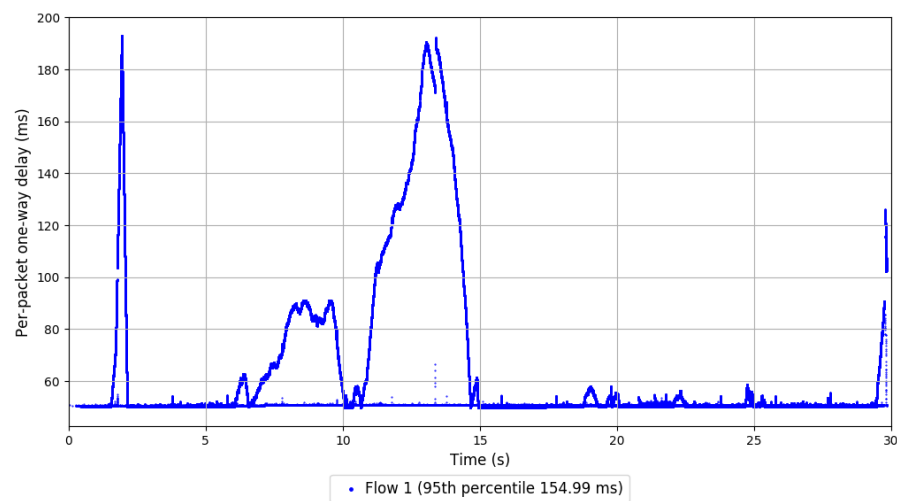
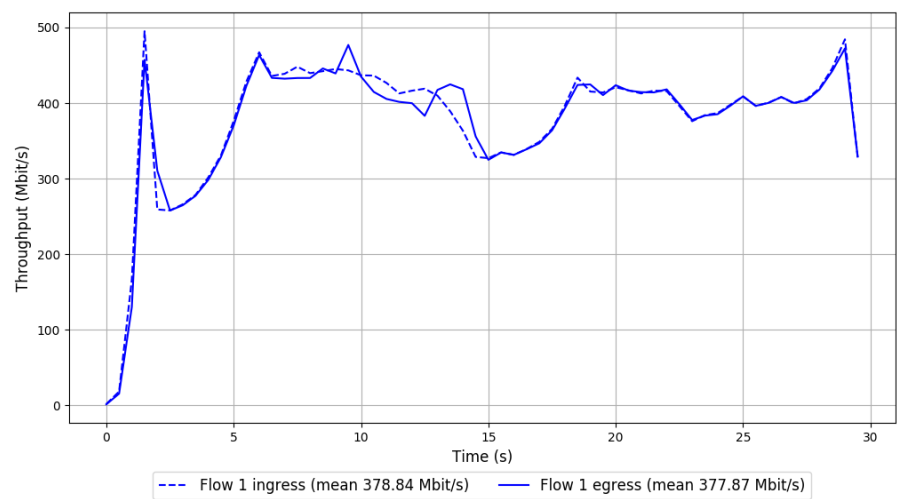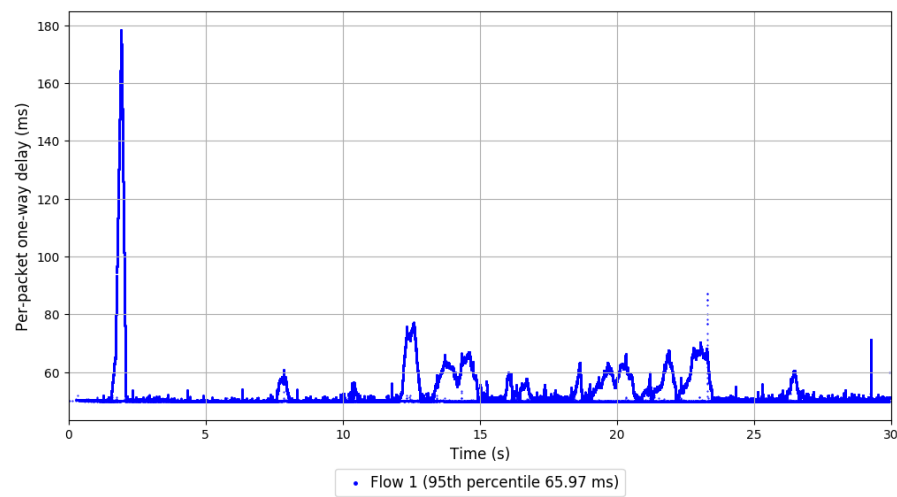Run 8: Report of LEDBAT — Data Link

Flow 1 ingress (mean 34.91 Mbit/s) --- Flow 1 egress (mean 34.90 Mbit/s)

Flow 1 (95th percentile 52.46 ms)

```
Run 9: Statistics of LEDBAT

Start at: 2018-02-20 05:18:53
End at: 2018-02-20 05:19:23

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 52.195 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 35.11 Mbit/s
95th percentile per-packet one-way delay: 52.195 ms
Loss rate: 0.00%
```

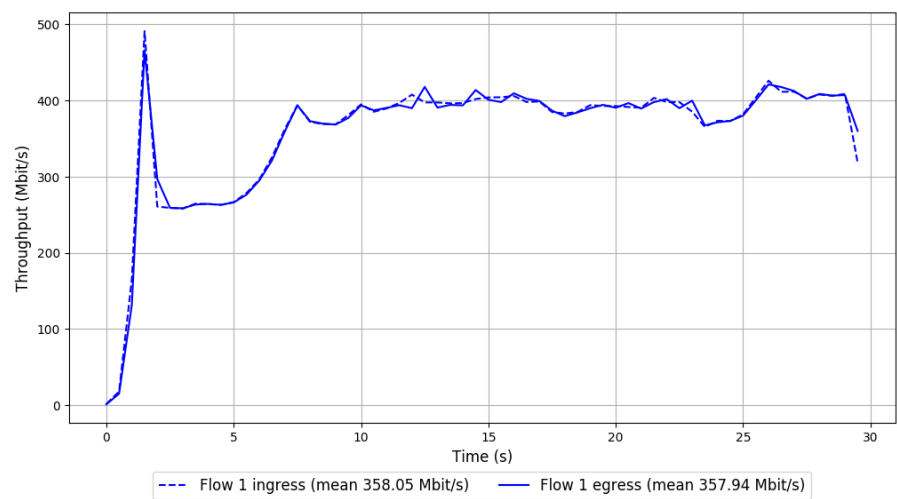Run 9: Report of LEDBAT — Data Link

```
Run 10: Statistics of LEDBAT

Start at: 2018-02-20 05:33:53
End at: 2018-02-20 05:34:23

# Below is generated by plot.py at 2018-02-20 07:44:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 52.157 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.50 Mbit/s
95th percentile per-packet one-way delay: 52.157 ms
Loss rate: 0.00%
```
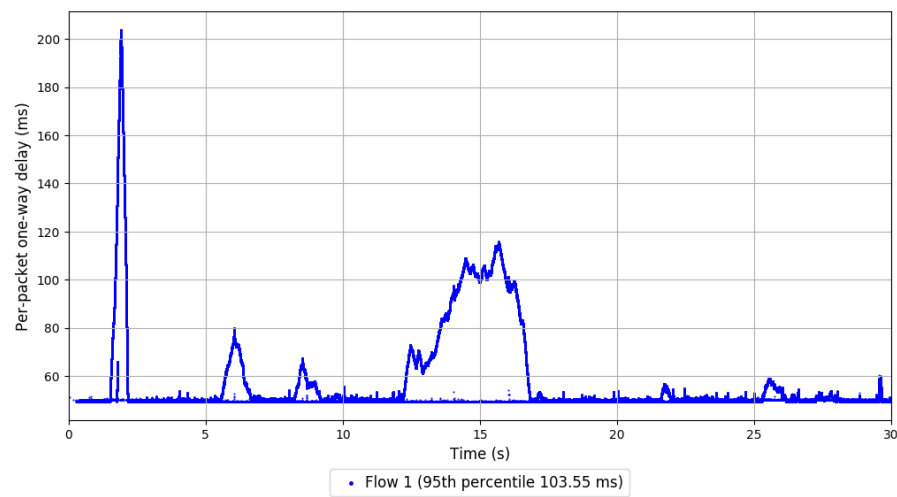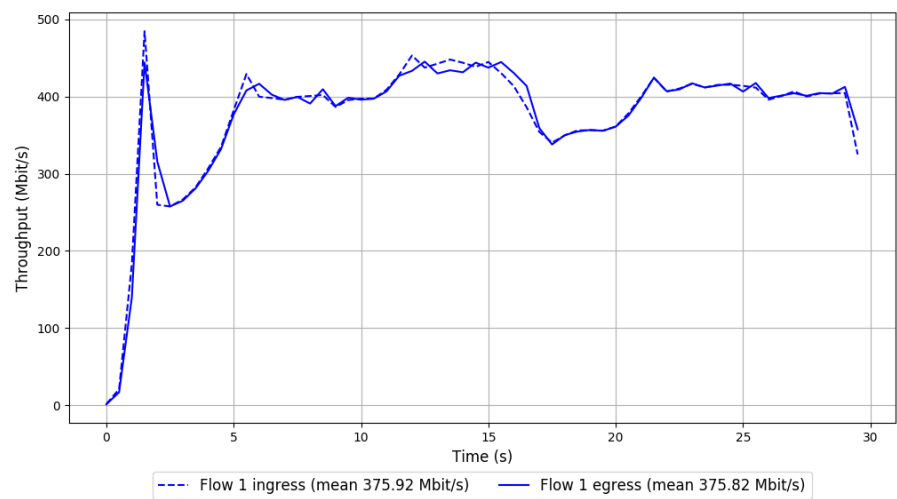
Run 10: Report of LEDBAT — Data Link

```
Run 1: Statistics of PCC

Start at: 2018-02-20 03:17:11
End at: 2018-02-20 03:17:41

# Below is generated by plot.py at 2018-02-20 07:48:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 377.87 Mbit/s
95th percentile per-packet one-way delay: 154.992 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 377.87 Mbit/s
95th percentile per-packet one-way delay: 154.992 ms
Loss rate: 0.25%
```
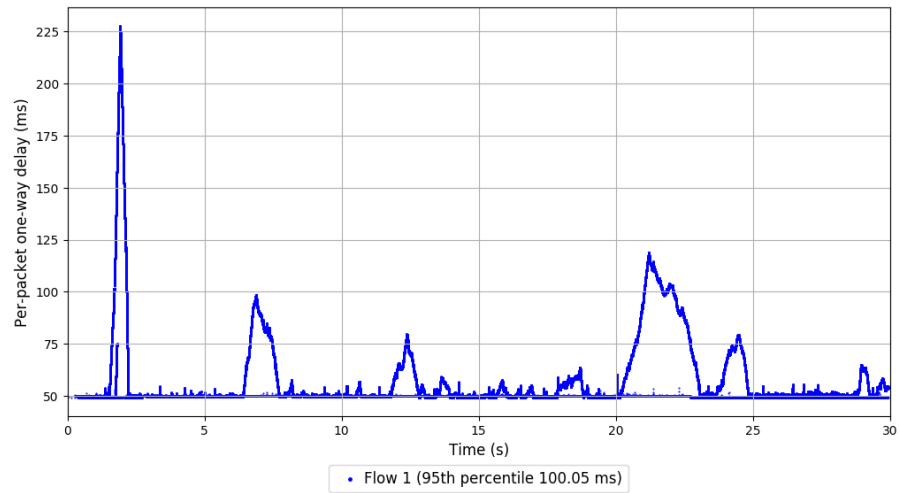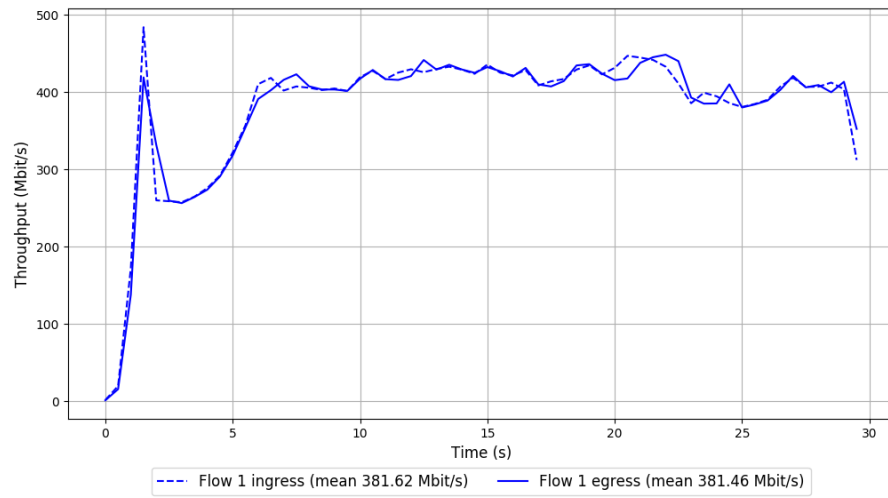
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 378.84 Mbit/s)   Flow 1 egress (mean 377.87 Mbit/s)

Flow 1 (95th percentile 154.99 ms)

```
Run 2: Statistics of PCC

Start at: 2018-02-20 03:32:04
End at: 2018-02-20 03:32:34

# Below is generated by plot.py at 2018-02-20 07:48:38
# Datalink statistics
-- Total of 1 flow:
Average throughput: 357.94 Mbit/s
95th percentile per-packet one-way delay: 65.973 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 357.94 Mbit/s
95th percentile per-packet one-way delay: 65.973 ms
Loss rate: 0.00%
```
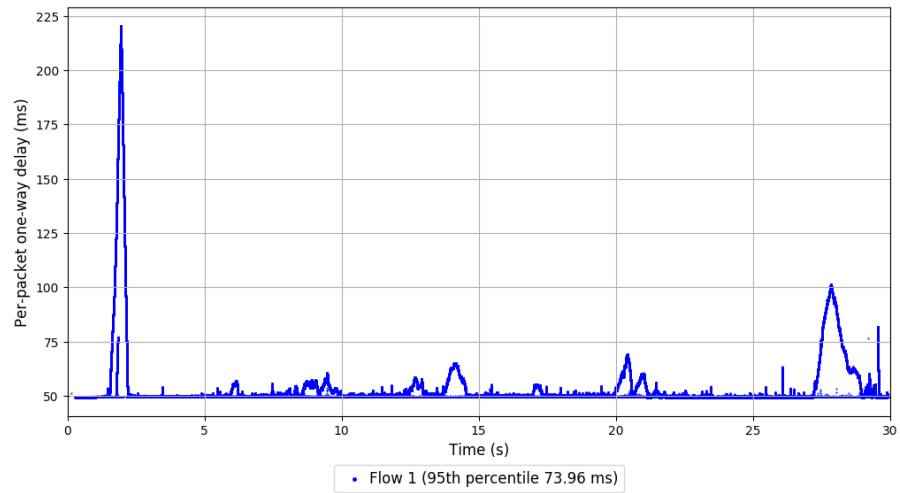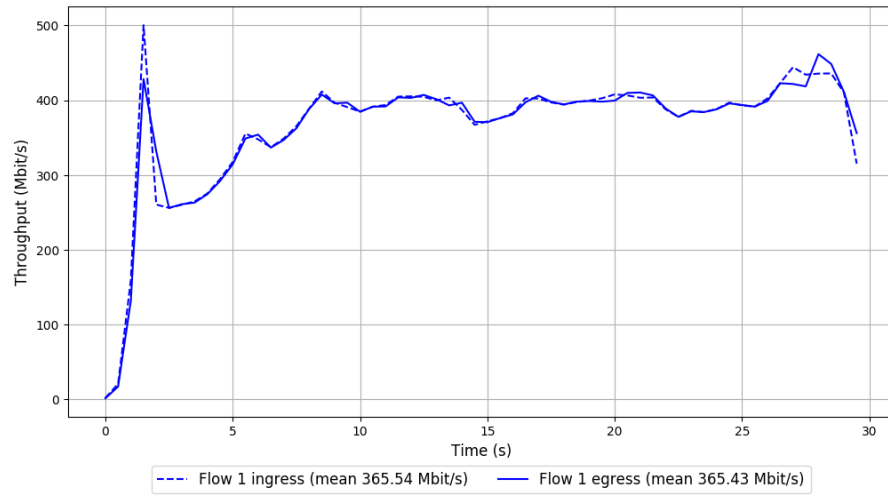
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 358.05 Mbit/s) — Flow 1 egress (mean 357.94 Mbit/s)

Flow 1 (95th percentile 65.97 ms)

```
Run 3: Statistics of PCC

Start at: 2018-02-20 03:46:44
End at: 2018-02-20 03:47:14


# Below is generated by plot.py at 2018-02-20 07:48:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 375.82 Mbit/s
95th percentile per-packet one-way delay: 103.546 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 375.82 Mbit/s
95th percentile per-packet one-way delay: 103.546 ms
Loss rate: 0.03%
```
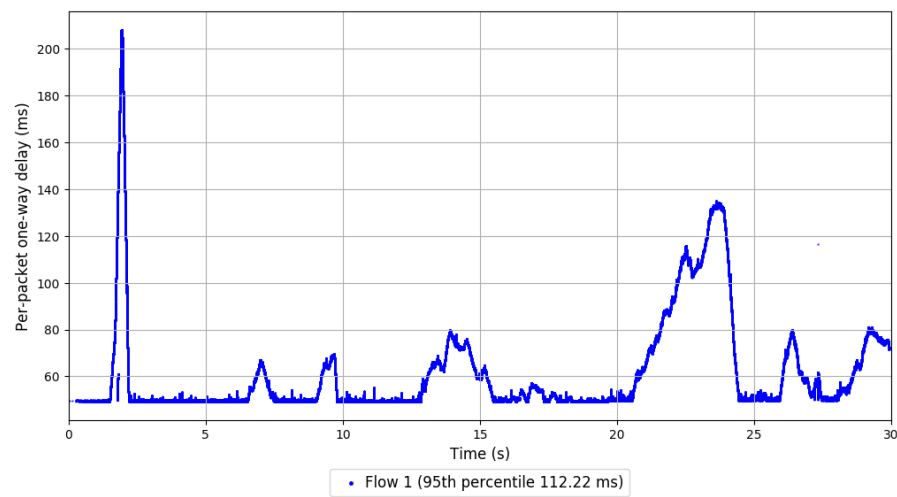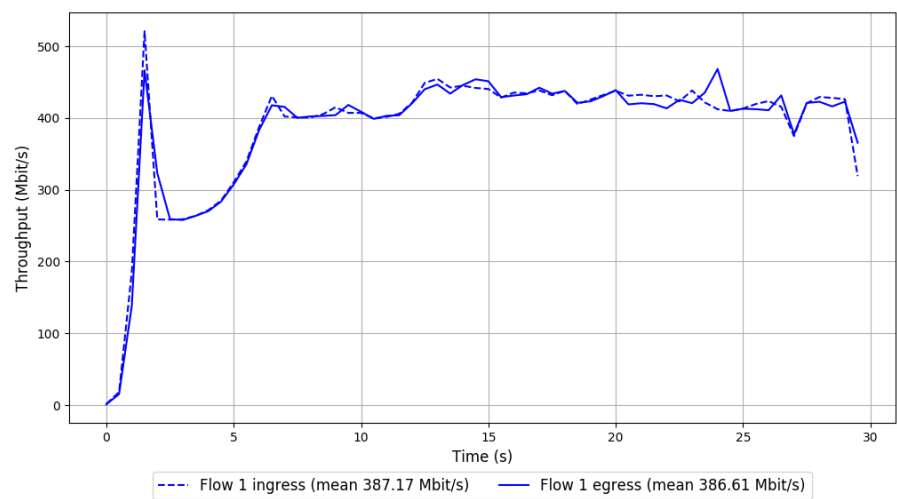
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 375.92 Mbit/s) —— Flow 1 egress (mean 375.82 Mbit/s)

• Flow 1 (95th percentile 103.55 ms)

```
Run 4: Statistics of PCC

Start at: 2018-02-20 04:01:35
End at: 2018-02-20 04:02:05


# Below is generated by plot.py at 2018-02-20 07:48:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 381.46 Mbit/s
95th percentile per-packet one-way delay: 100.053 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 381.46 Mbit/s
95th percentile per-packet one-way delay: 100.053 ms
Loss rate: 0.04%
```
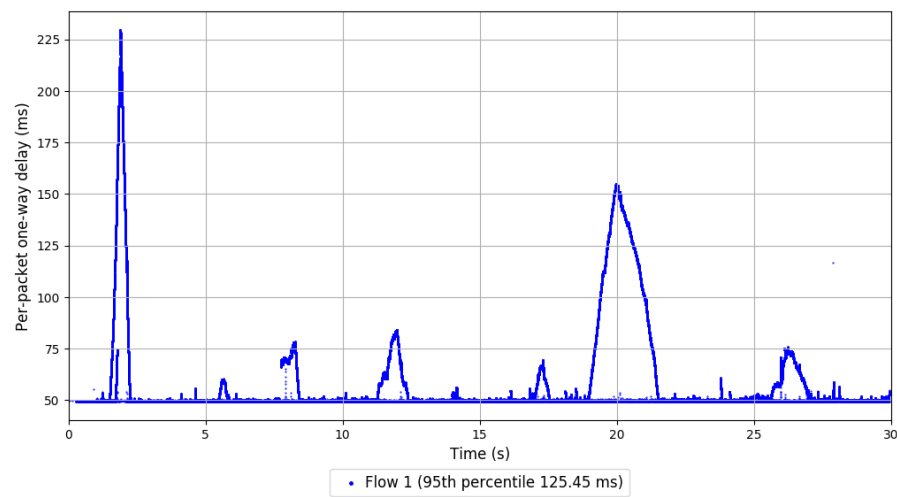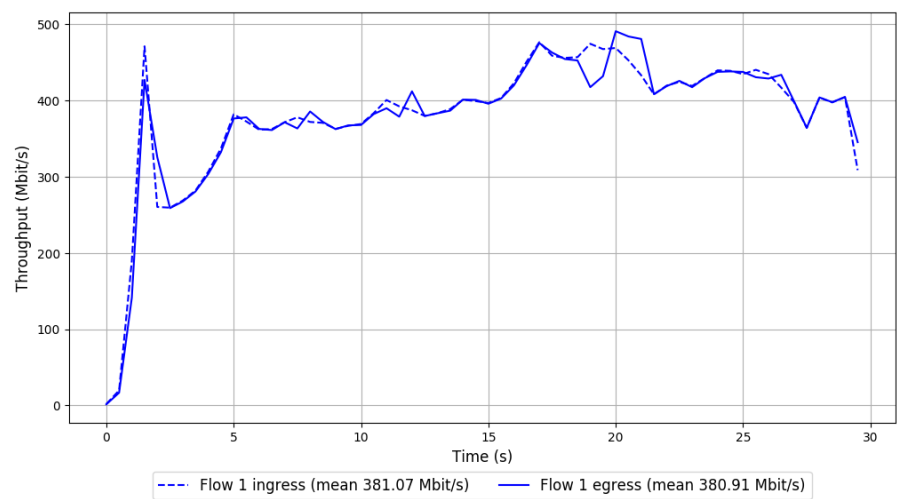
Run 4: Report of PCC — Data Link

Flow 1 ingress (mean 381.62 Mbit/s)   Flow 1 egress (mean 381.46 Mbit/s)

Flow 1 (95th percentile 100.05 ms)

```
Run 5: Statistics of PCC

Start at: 2018-02-20 04:16:37
End at: 2018-02-20 04:17:07


# Below is generated by plot.py at 2018-02-20 07:49:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 365.43 Mbit/s
95th percentile per-packet one-way delay: 73.964 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 365.43 Mbit/s
95th percentile per-packet one-way delay: 73.964 ms
Loss rate: 0.03%
```
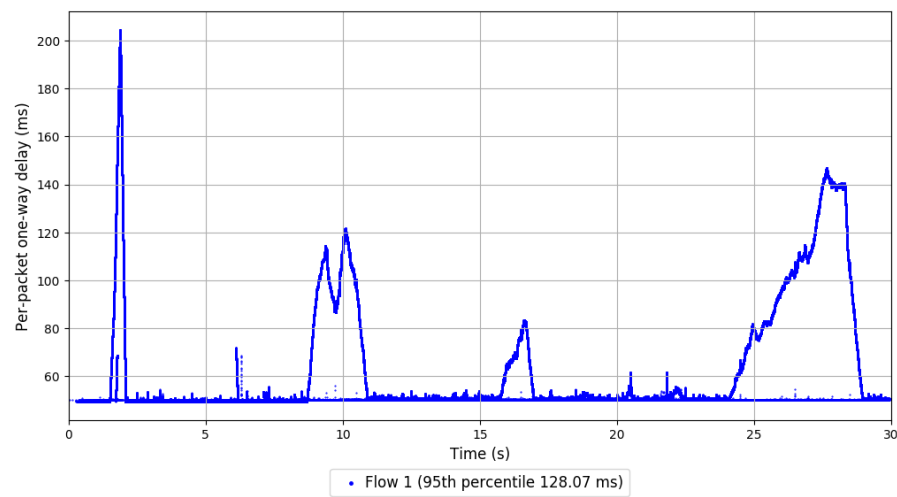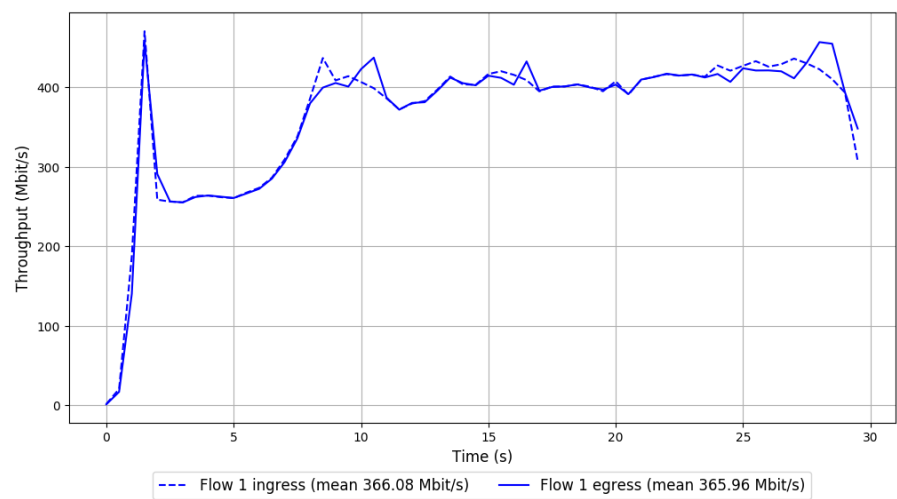
Run 5: Report of PCC — Data Link

73

```
Run 6: Statistics of PCC

Start at: 2018-02-20 04:31:28
End at: 2018-02-20 04:31:58

# Below is generated by plot.py at 2018-02-20 07:50:06
# Datalink statistics
-- Total of 1 flow:
Average throughput: 386.61 Mbit/s
95th percentile per-packet one-way delay: 112.215 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 386.61 Mbit/s
95th percentile per-packet one-way delay: 112.215 ms
Loss rate: 0.14%
```
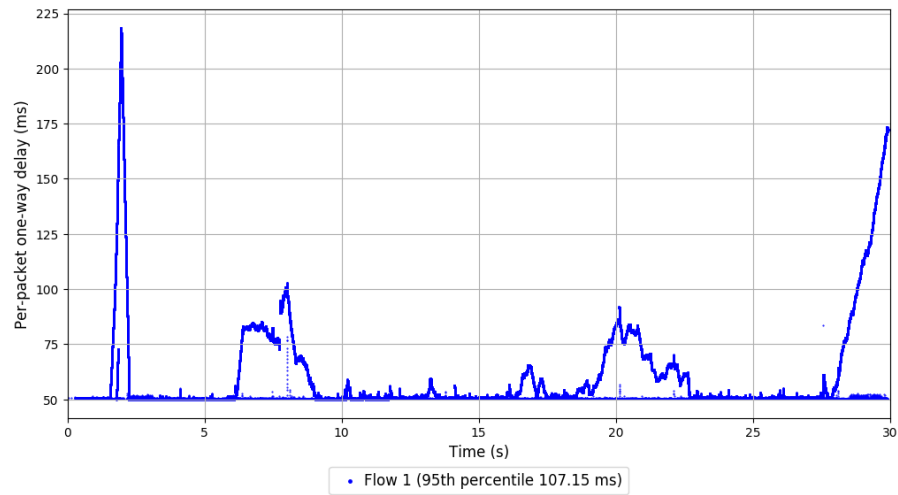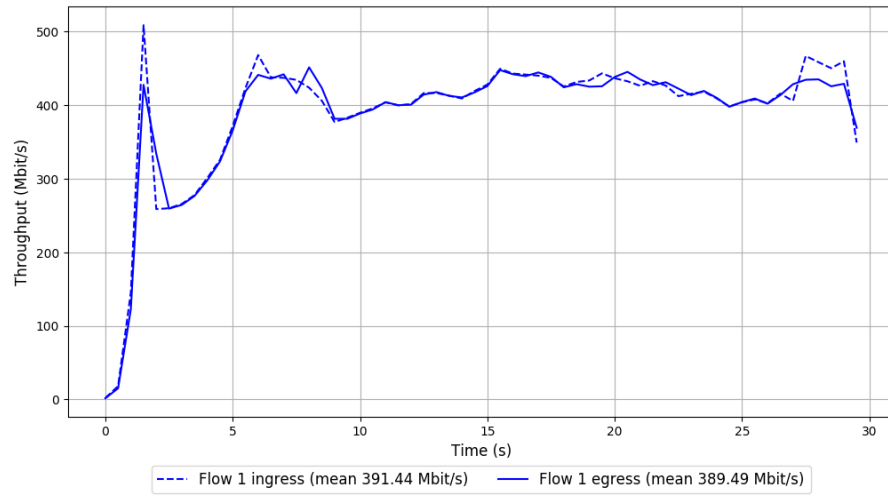
Run 6: Report of PCC — Data Link

```
Run 7: Statistics of PCC

Start at: 2018-02-20 04:46:16
End at: 2018-02-20 04:46:46

# Below is generated by plot.py at 2018-02-20 07:50:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.91 Mbit/s
95th percentile per-packet one-way delay: 125.455 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 380.91 Mbit/s
95th percentile per-packet one-way delay: 125.455 ms
Loss rate: 0.04%
```
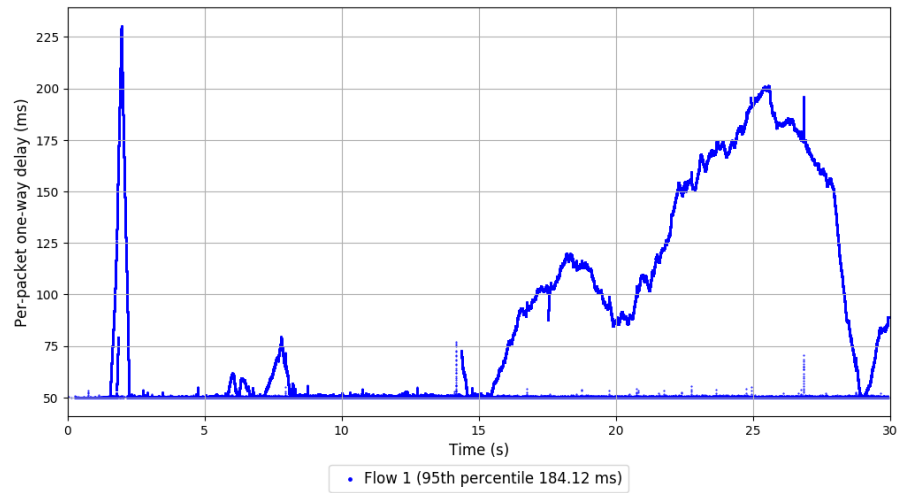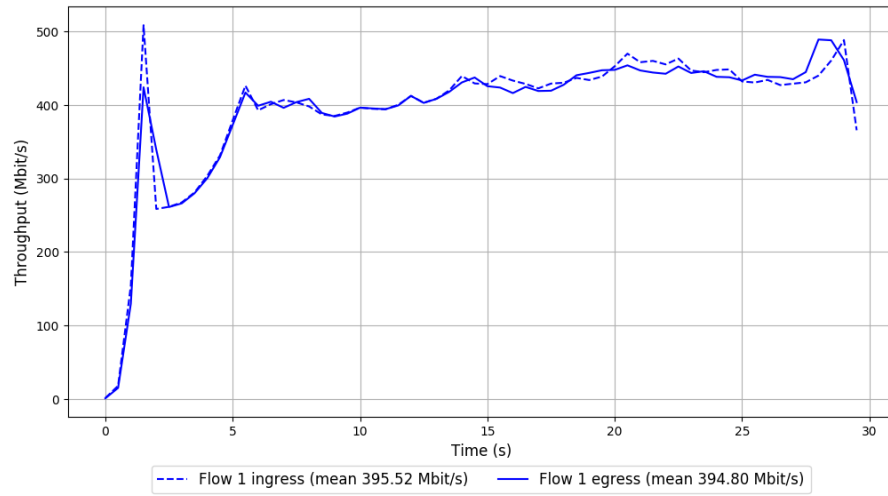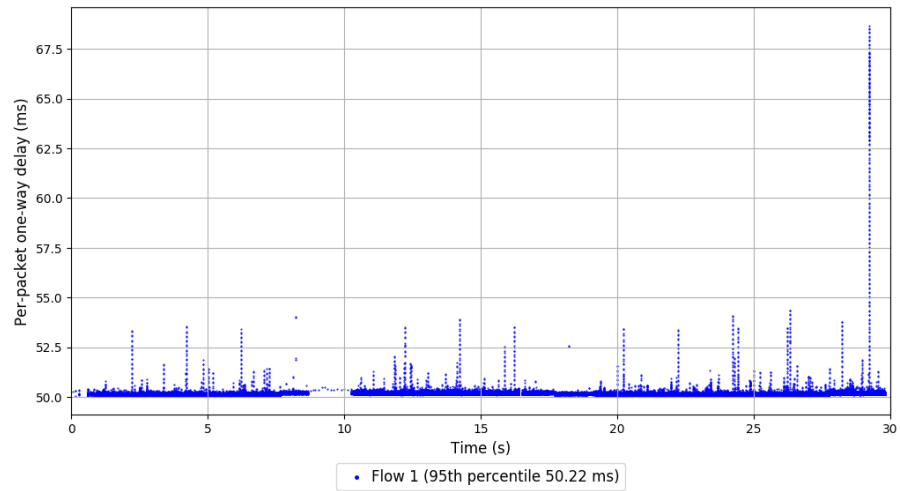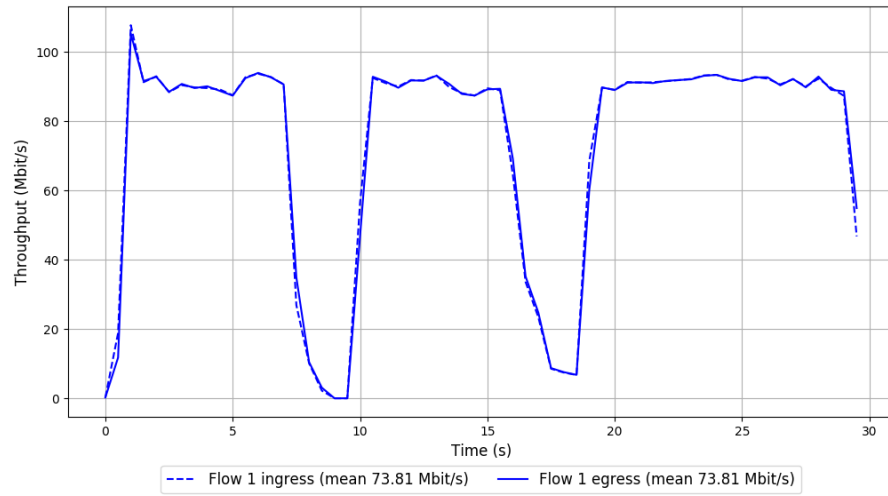
Run 7: Report of PCC — Data Link

```
Run 8: Statistics of PCC

Start at: 2018-02-20 05:01:18
End at: 2018-02-20 05:01:48

# Below is generated by plot.py at 2018-02-20 07:51:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 365.96 Mbit/s
95th percentile per-packet one-way delay: 128.075 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 365.96 Mbit/s
95th percentile per-packet one-way delay: 128.075 ms
Loss rate: 0.03%
```

Run 8: Report of PCC — Data Link

Flow 1 ingress (mean 366.08 Mbit/s) --- Flow 1 egress (mean 365.96 Mbit/s)

• Flow 1 (95th percentile 128.07 ms)

79

```
Run 9: Statistics of PCC

Start at: 2018-02-20 05:16:16
End at: 2018-02-20 05:16:46

# Below is generated by plot.py at 2018-02-20 07:55:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 389.49 Mbit/s
95th percentile per-packet one-way delay: 107.148 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 389.49 Mbit/s
95th percentile per-packet one-way delay: 107.148 ms
Loss rate: 0.50%
```
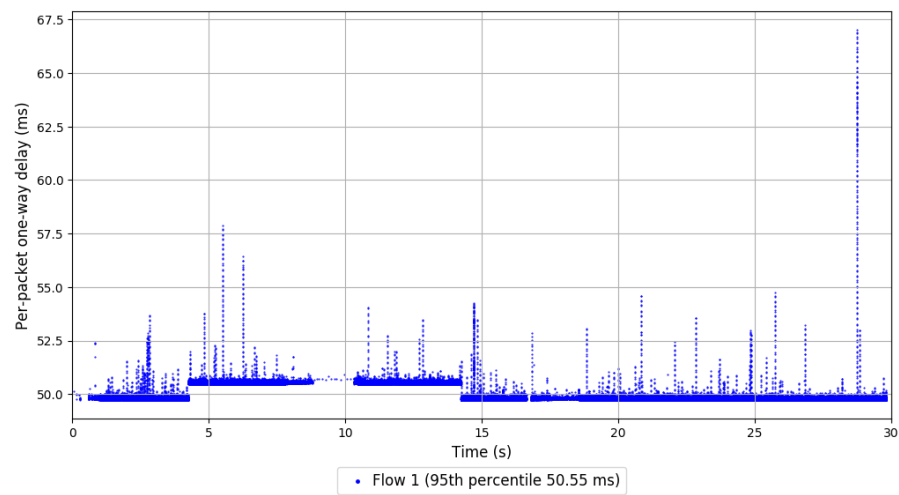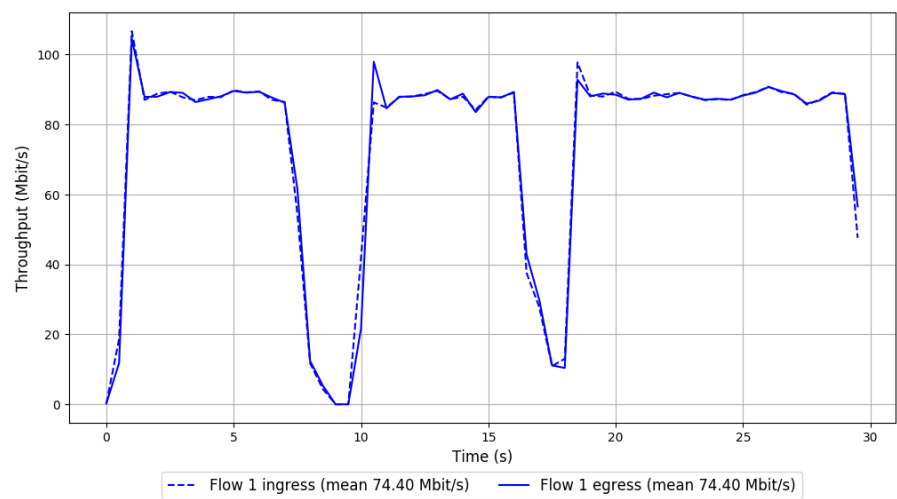
Run 9: Report of PCC — Data Link

Flow 1 ingress (mean 391.44 Mbit/s)   Flow 1 egress (mean 389.49 Mbit/s)

• Flow 1 (95th percentile 107.15 ms)

```
Run 10: Statistics of PCC

Start at: 2018-02-20 05:31:10
End at: 2018-02-20 05:31:40

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 394.80 Mbit/s
95th percentile per-packet one-way delay: 184.116 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 394.80 Mbit/s
95th percentile per-packet one-way delay: 184.116 ms
Loss rate: 0.18%
```
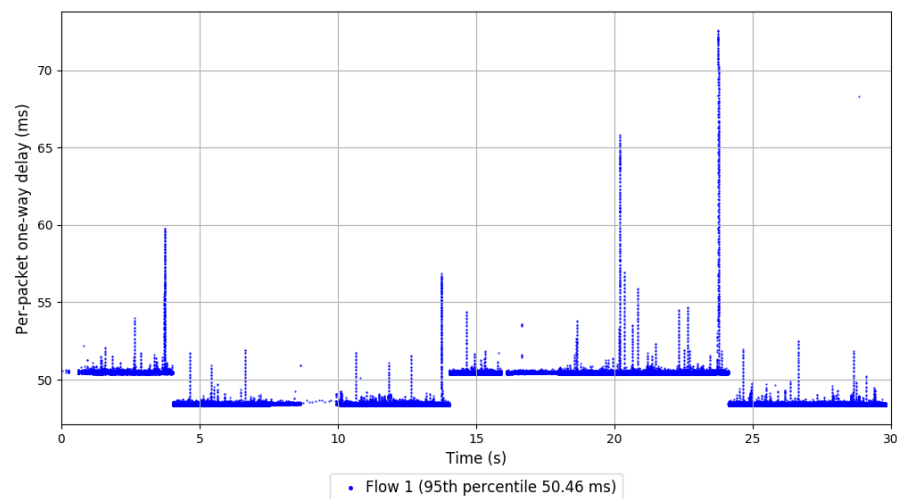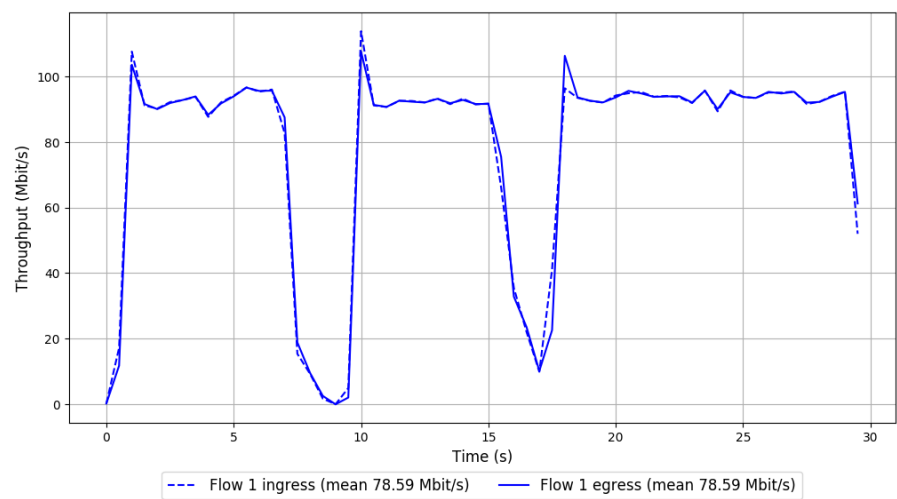
Run 10: Report of PCC — Data Link

Flow 1 ingress (mean 395.52 Mbit/s) Flow 1 egress (mean 394.80 Mbit/s)

Flow 1 (95th percentile 184.12 ms)

83

```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-20 03:16:30
End at: 2018-02-20 03:17:00

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.81 Mbit/s
95th percentile per-packet one-way delay: 50.216 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.81 Mbit/s
95th percentile per-packet one-way delay: 50.216 ms
Loss rate: 0.00%
```
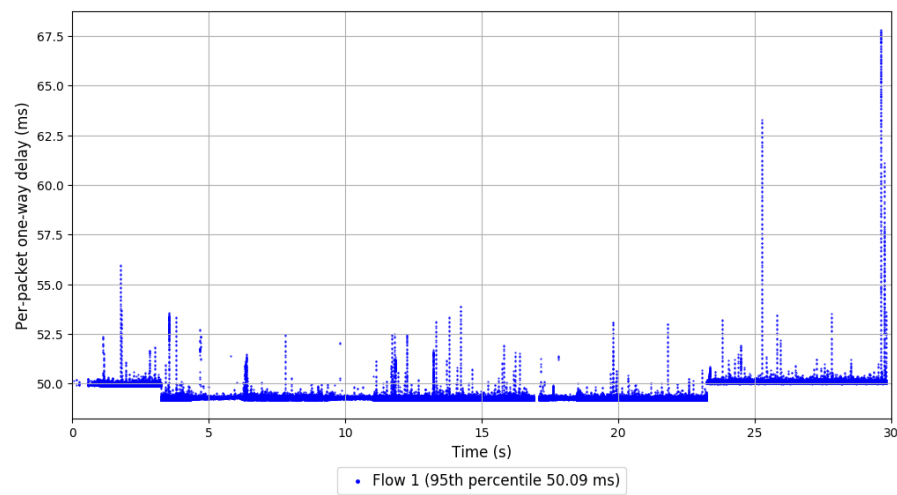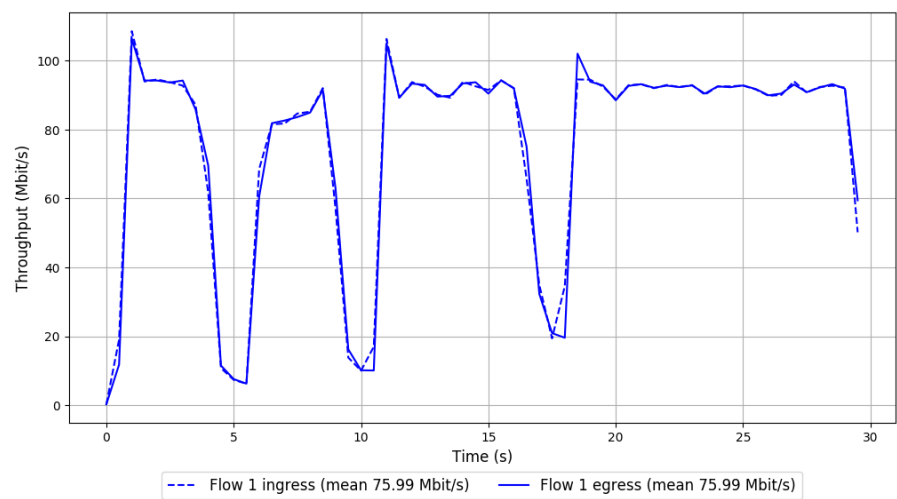
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: 2018-02-20 03:31:24
End at: 2018-02-20 03:31:54

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.40 Mbit/s
95th percentile per-packet one-way delay: 50.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.40 Mbit/s
95th percentile per-packet one-way delay: 50.555 ms
Loss rate: 0.00%
```
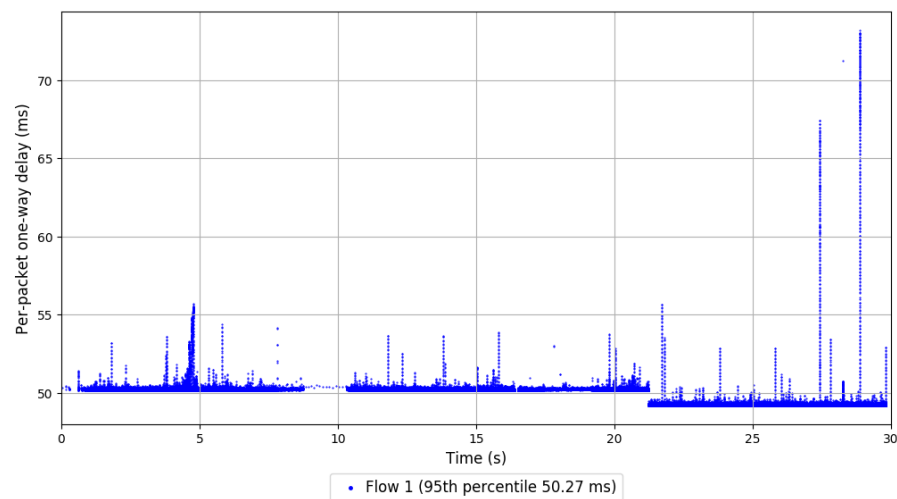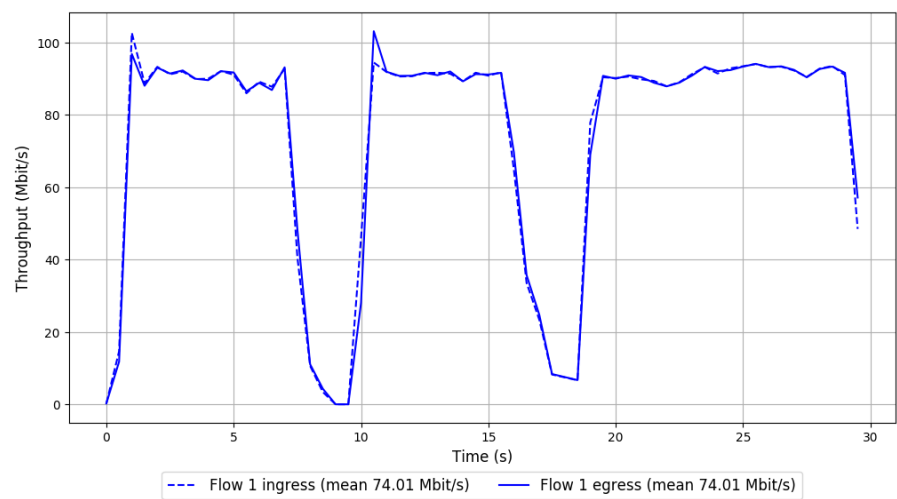
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: 2018-02-20 03:46:04
End at: 2018-02-20 03:46:34


# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.59 Mbit/s
95th percentile per-packet one-way delay: 50.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.59 Mbit/s
95th percentile per-packet one-way delay: 50.457 ms
Loss rate: 0.00%
```
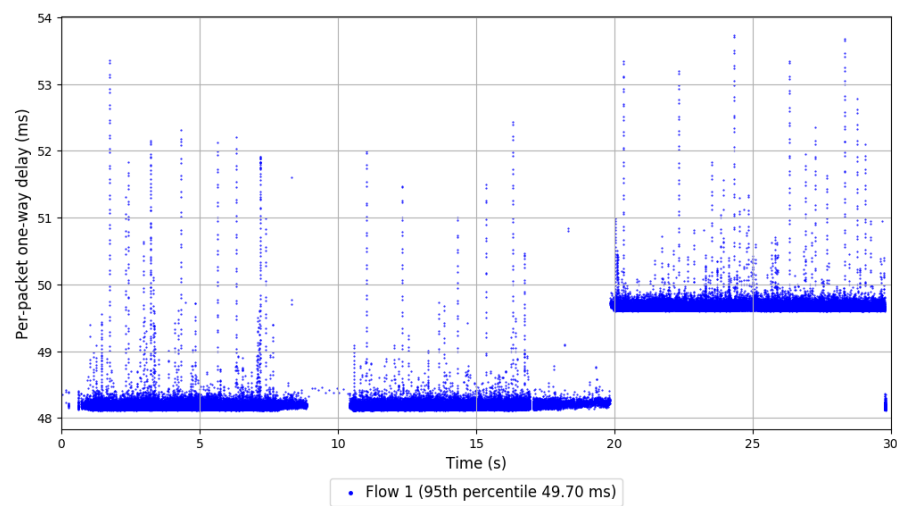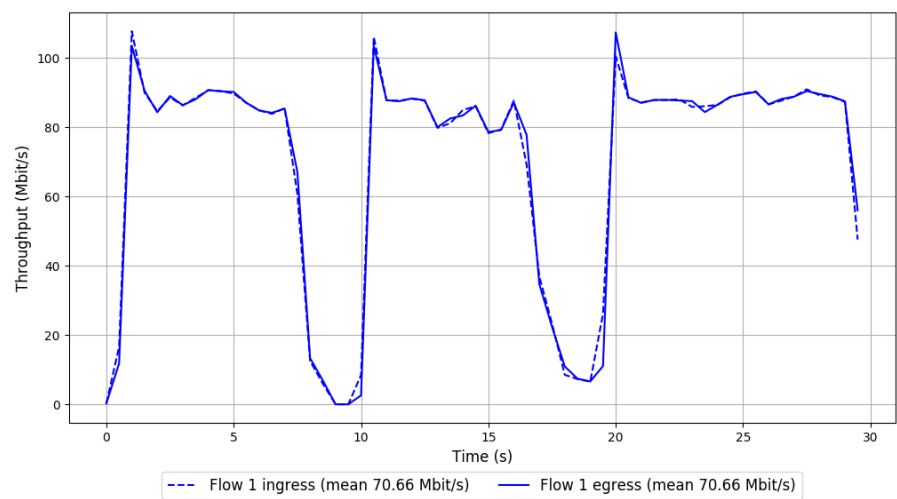
Run 3: Report of QUIC Cubic — Data Link

```
Run 4: Statistics of QUIC Cubic

Start at: 2018-02-20 04:00:55
End at: 2018-02-20 04:01:25

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 50.091 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 75.99 Mbit/s
95th percentile per-packet one-way delay: 50.091 ms
Loss rate: 0.01%
```
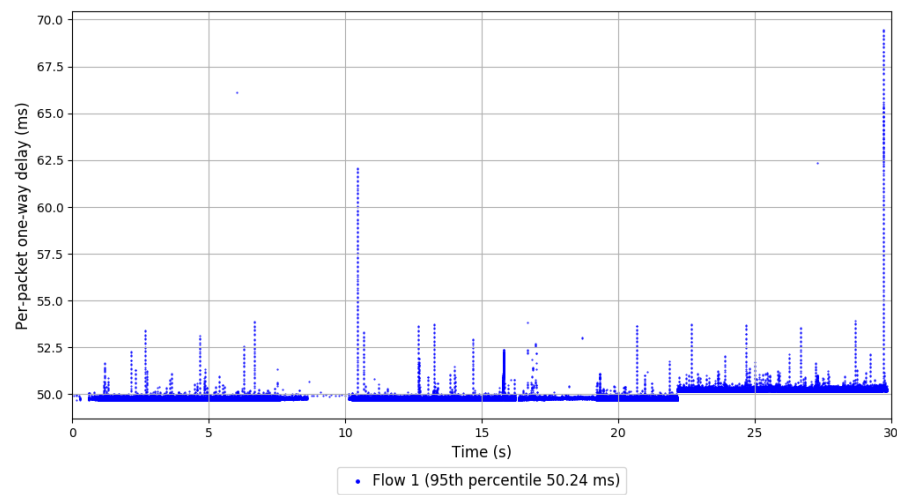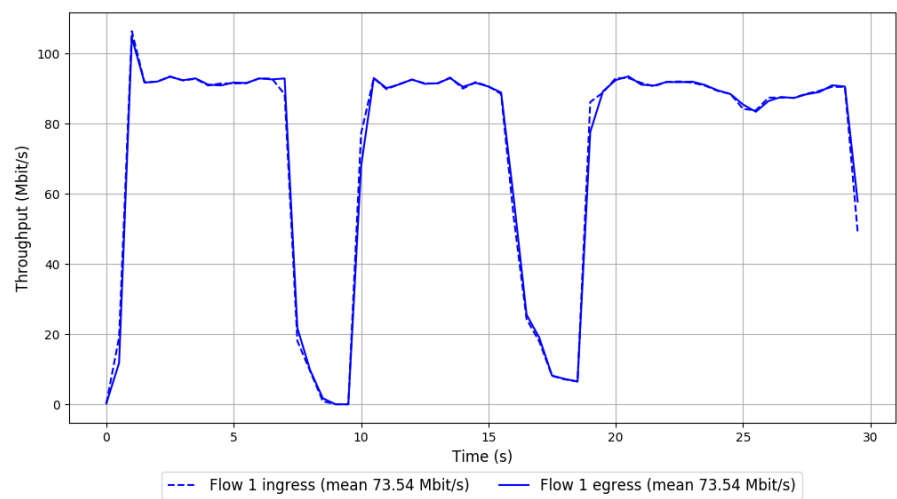
Run 4: Report of QUIC Cubic — Data Link

```
Run 5: Statistics of QUIC Cubic

Start at: 2018-02-20 04:15:57
End at: 2018-02-20 04:16:27

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 50.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 74.01 Mbit/s
95th percentile per-packet one-way delay: 50.274 ms
Loss rate: 0.00%
```
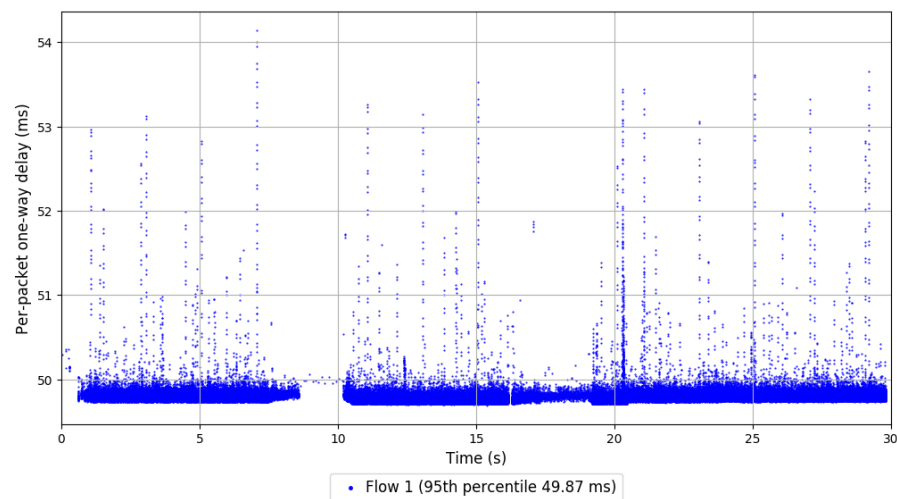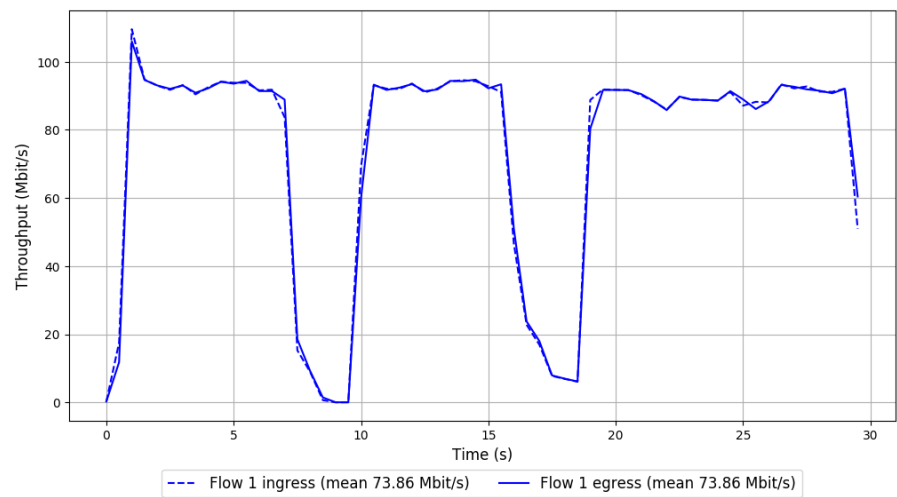
Run 5: Report of QUIC Cubic — Data Link

```
Run 6: Statistics of QUIC Cubic

Start at: 2018-02-20 04:30:48
End at: 2018-02-20 04:31:18

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.66 Mbit/s
95th percentile per-packet one-way delay: 49.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.66 Mbit/s
95th percentile per-packet one-way delay: 49.703 ms
Loss rate: 0.00%
```
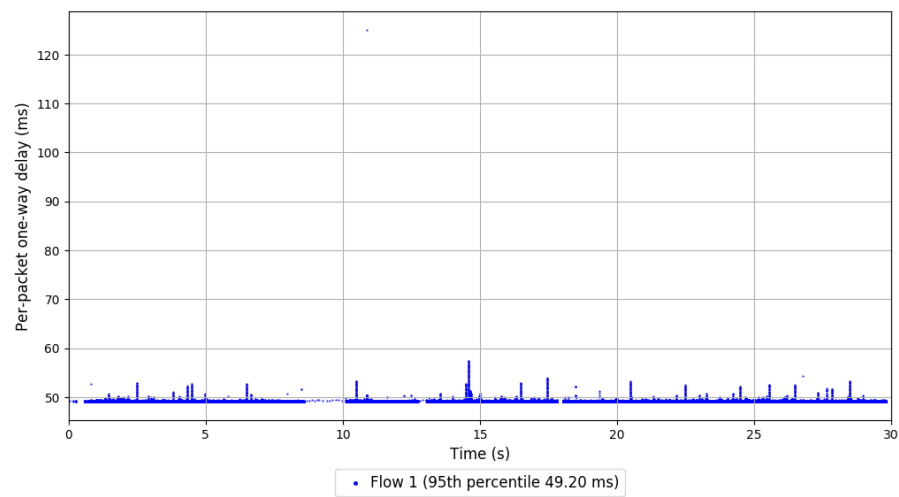
Run 6: Report of QUIC Cubic — Data Link

```
Run 7: Statistics of QUIC Cubic

Start at: 2018-02-20 04:45:36
End at: 2018-02-20 04:46:06

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.54 Mbit/s
95th percentile per-packet one-way delay: 50.241 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.54 Mbit/s
95th percentile per-packet one-way delay: 50.241 ms
Loss rate: 0.00%
```
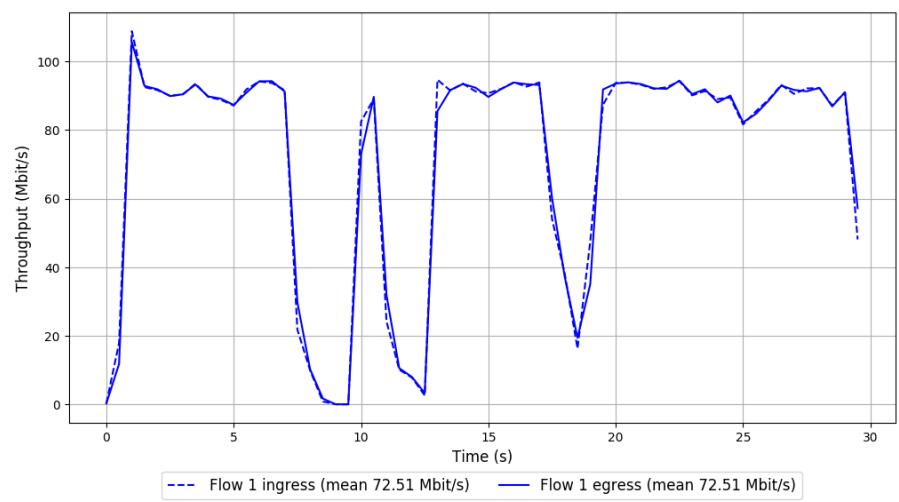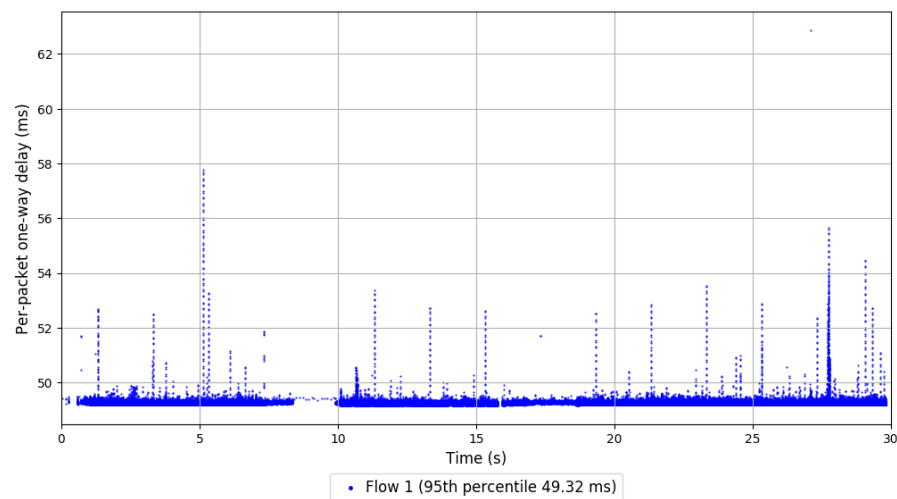
Run 7: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 73.54 Mbit/s) ---- Flow 1 egress (mean 73.54 Mbit/s) ——

Flow 1 (95th percentile 50.24 ms)

```
Run 8: Statistics of QUIC Cubic

Start at: 2018-02-20 05:00:37
End at: 2018-02-20 05:01:07

# Below is generated by plot.py at 2018-02-20 07:55:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 73.86 Mbit/s
95th percentile per-packet one-way delay: 49.869 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.86 Mbit/s
95th percentile per-packet one-way delay: 49.869 ms
Loss rate: 0.00%
```
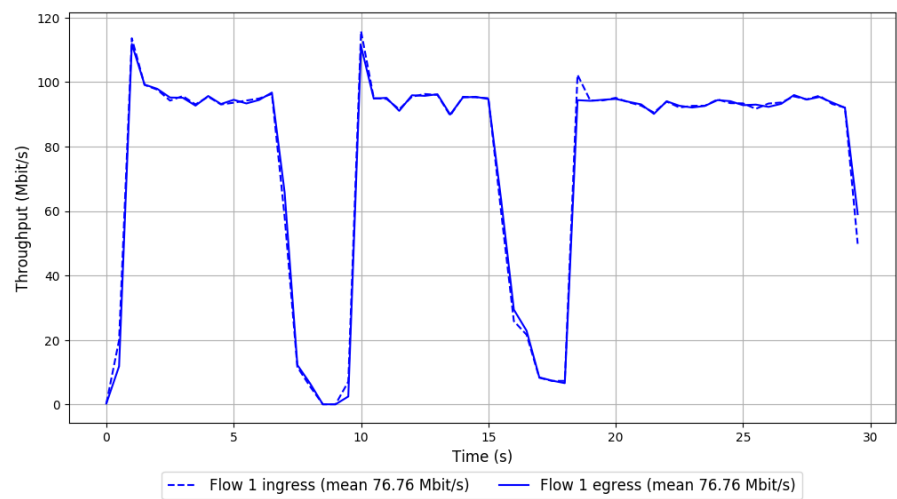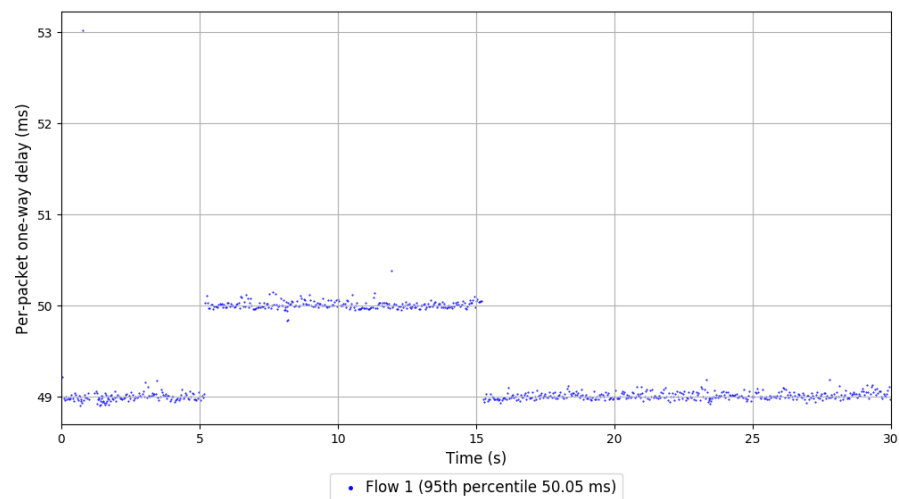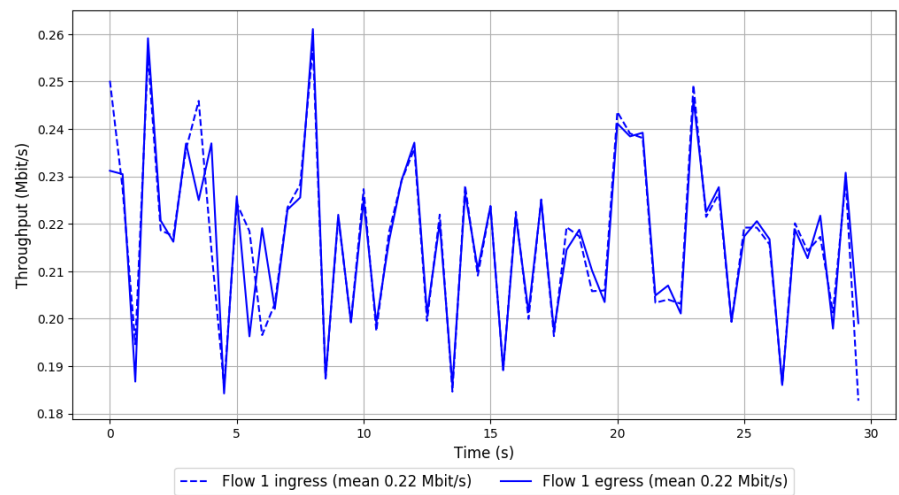
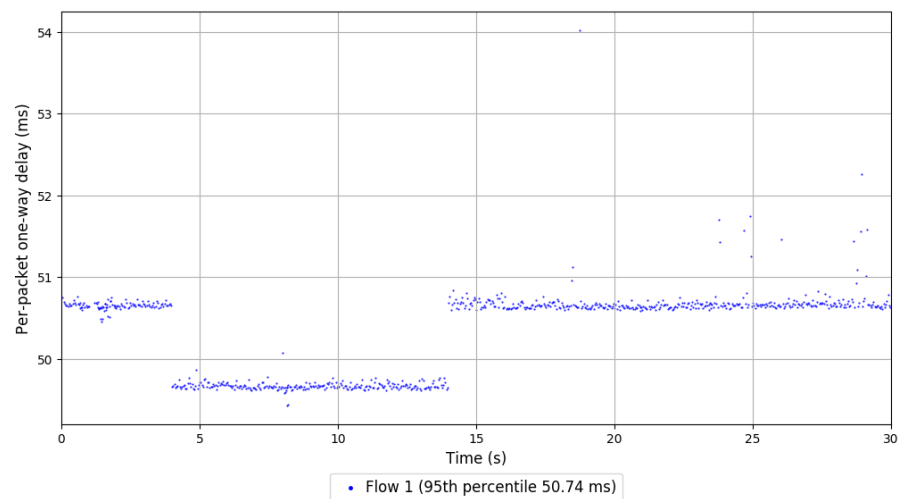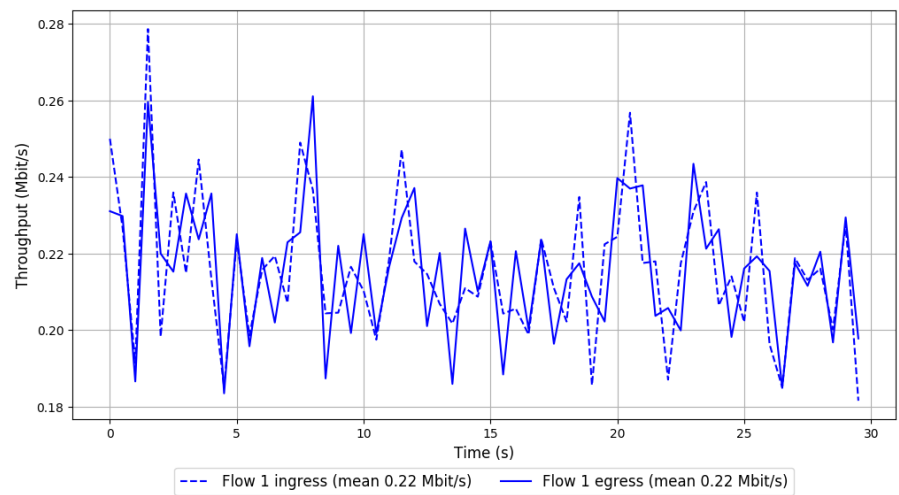## Run 8: Report of QUIC Cubic — Data Link

```
Run 9: Statistics of QUIC Cubic

Start at: 2018-02-20 05:15:36
End at: 2018-02-20 05:16:06

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 72.51 Mbit/s
95th percentile per-packet one-way delay: 49.205 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 72.51 Mbit/s
95th percentile per-packet one-way delay: 49.205 ms
Loss rate: 0.00%
```

Run 9: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 72.51 Mbit/s)   Flow 1 egress (mean 72.51 Mbit/s)

Flow 1 (95th percentile 49.20 ms)

```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-20 05:30:29
End at: 2018-02-20 05:30:59

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 76.76 Mbit/s
95th percentile per-packet one-way delay: 49.322 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 76.76 Mbit/s
95th percentile per-packet one-way delay: 49.322 ms
Loss rate: 0.00%
```
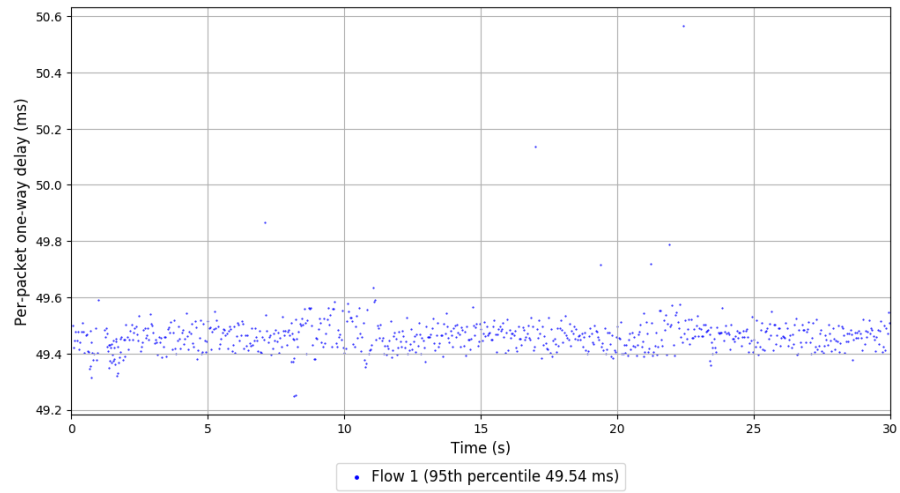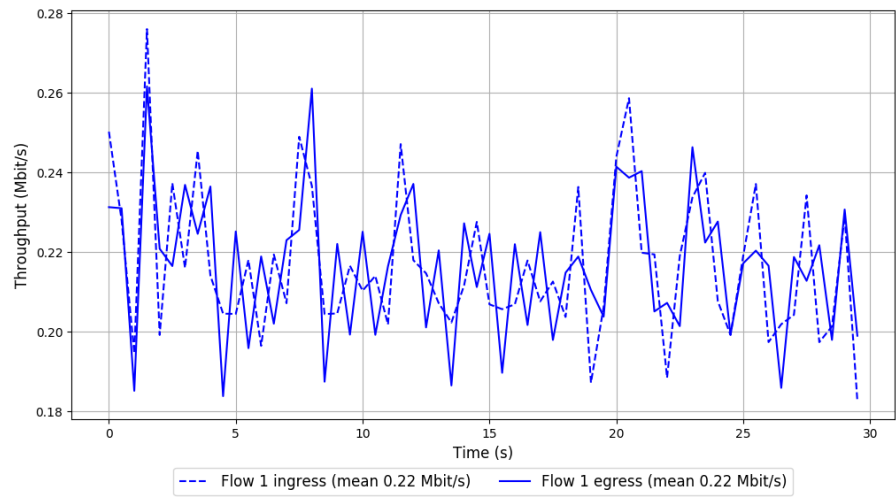
Run 10: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 76.76 Mbit/s)   Flow 1 egress (mean 76.76 Mbit/s)

Flow 1 (95th percentile 49.32 ms)

```
Run 1: Statistics of SCReAM

Start at: 2018-02-20 03:25:53
End at: 2018-02-20 03:26:23

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.047 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.047 ms
Loss rate: 0.00%
```
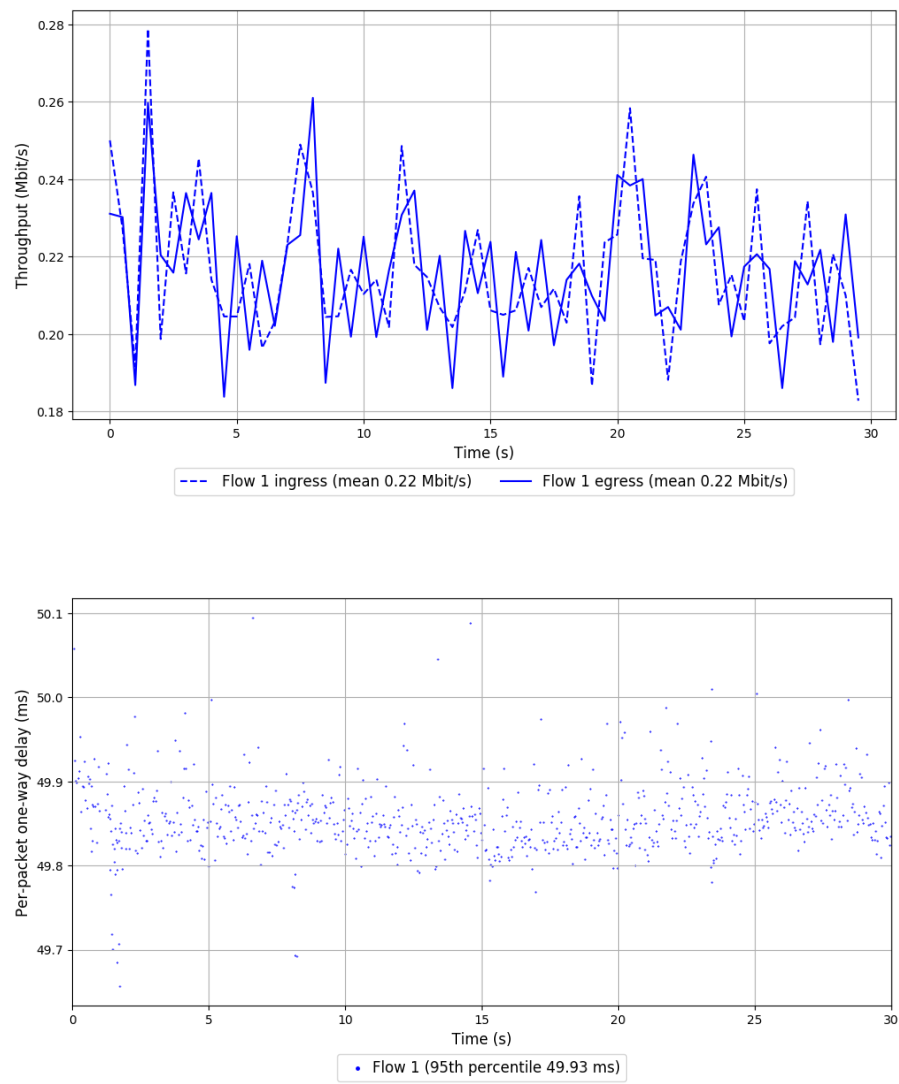
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: 2018-02-20 03:40:34
End at: 2018-02-20 03:41:04

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.744 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.744 ms
Loss rate: 0.00%
```
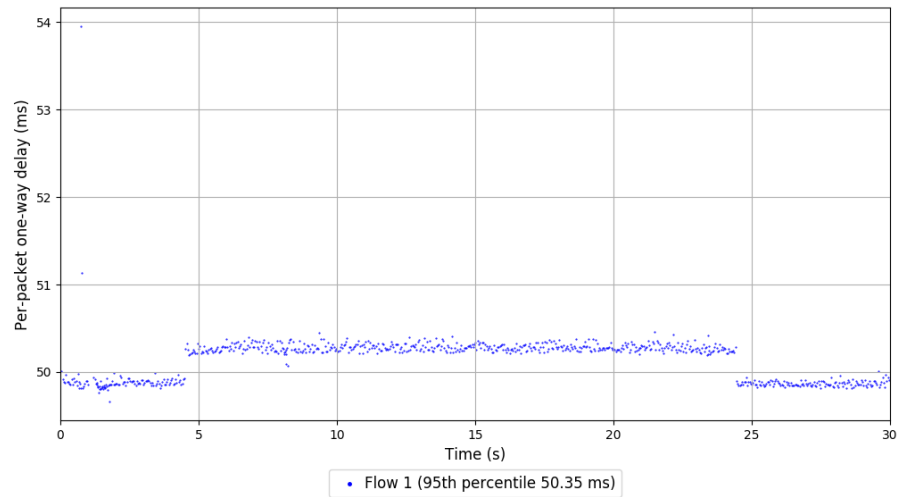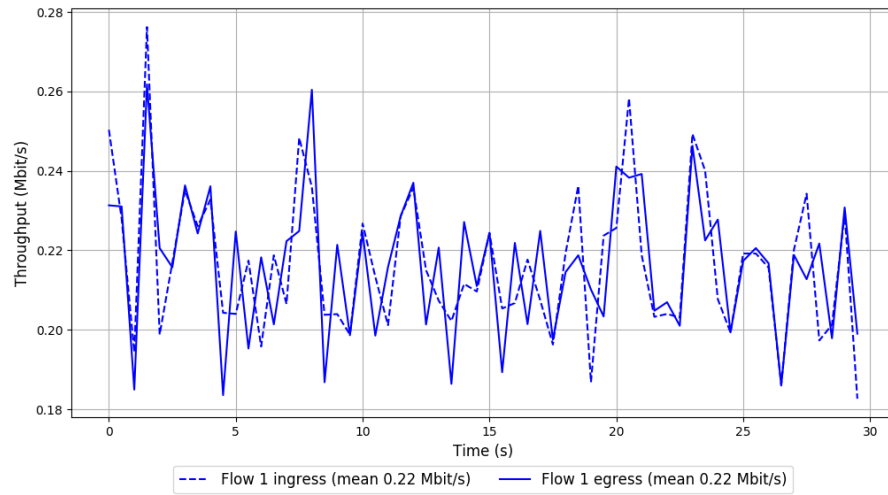
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: 2018-02-20 03:55:22
End at: 2018-02-20 03:55:53

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.537 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.537 ms
Loss rate: 0.00%
```
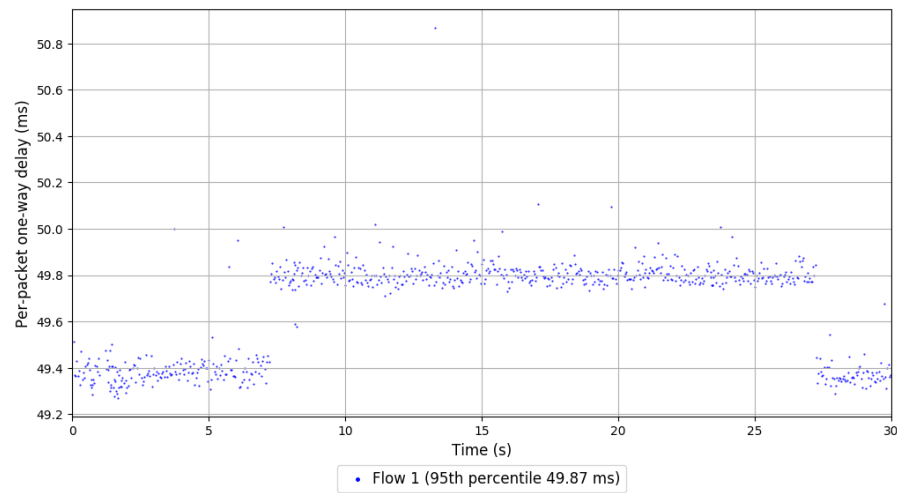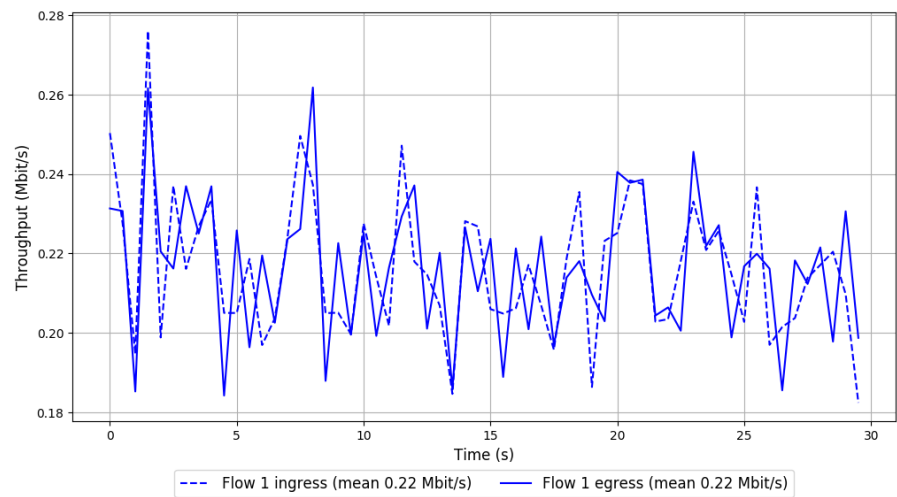
Run 3: Report of SCReAM — Data Link

```
Run 4: Statistics of SCReAM

Start at: 2018-02-20 04:10:26
End at: 2018-02-20 04:10:57


# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.926 ms
Loss rate: 0.00%
```
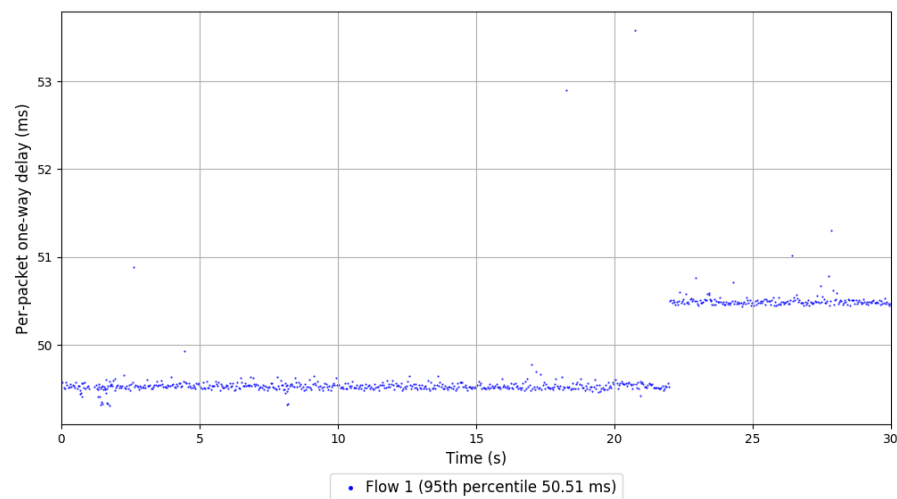
Run 4: Report of SCReAM — Data Link

```
Run 5: Statistics of SCReAM

Start at: 2018-02-20 04:25:24
End at: 2018-02-20 04:25:54

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.351 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.351 ms
Loss rate: 0.00%
```
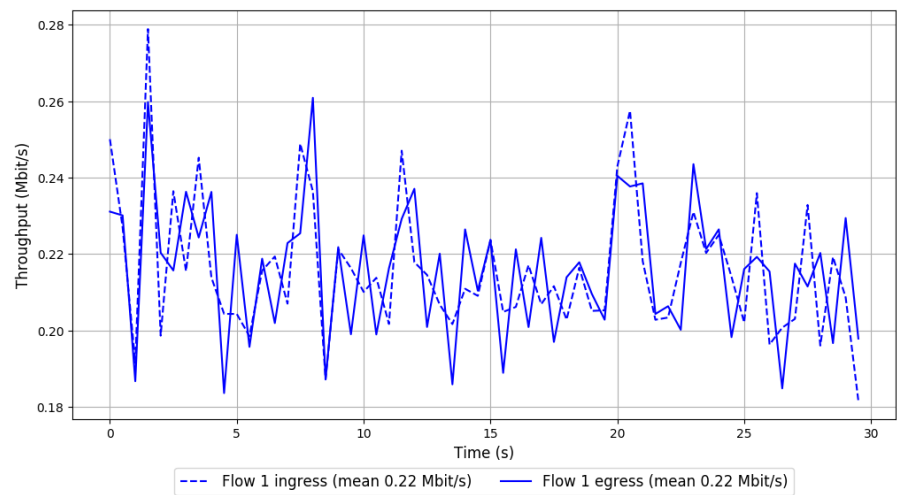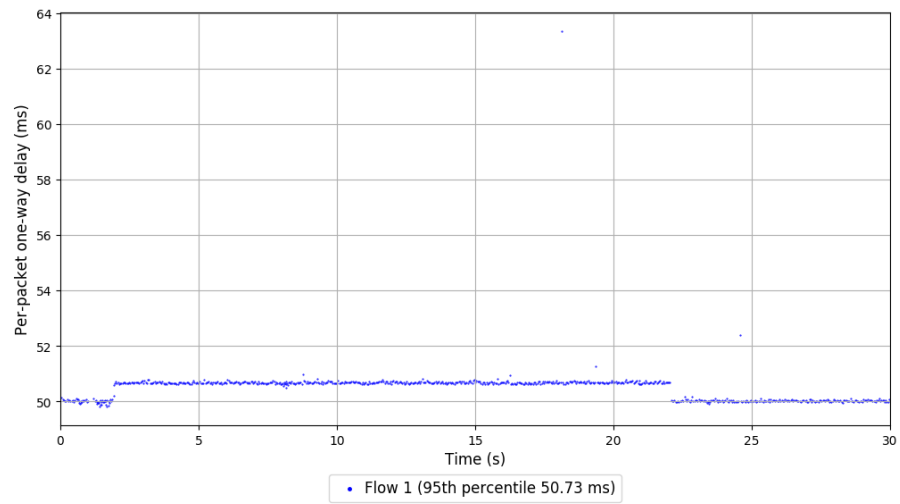
Run 5: Report of SCReAM — Data Link

```
Run 6: Statistics of SCReAM

Start at: 2018-02-20 04:40:11
End at: 2018-02-20 04:40:41

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.865 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.865 ms
Loss rate: 0.00%
```
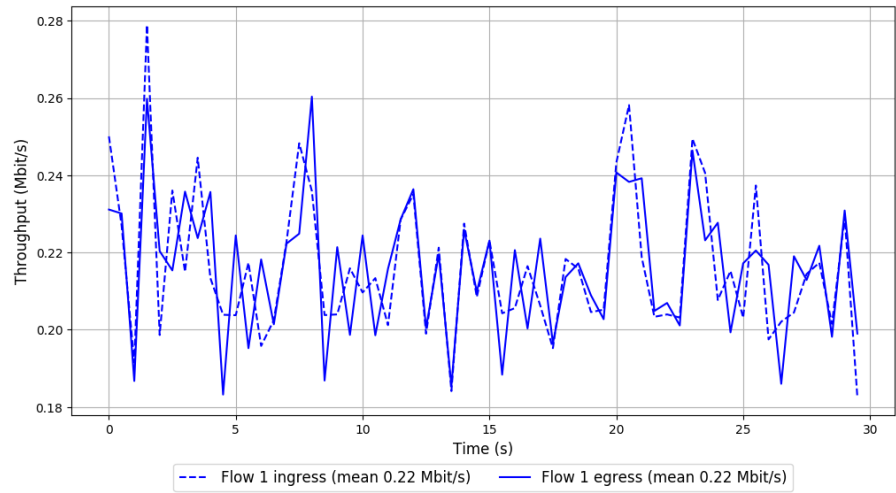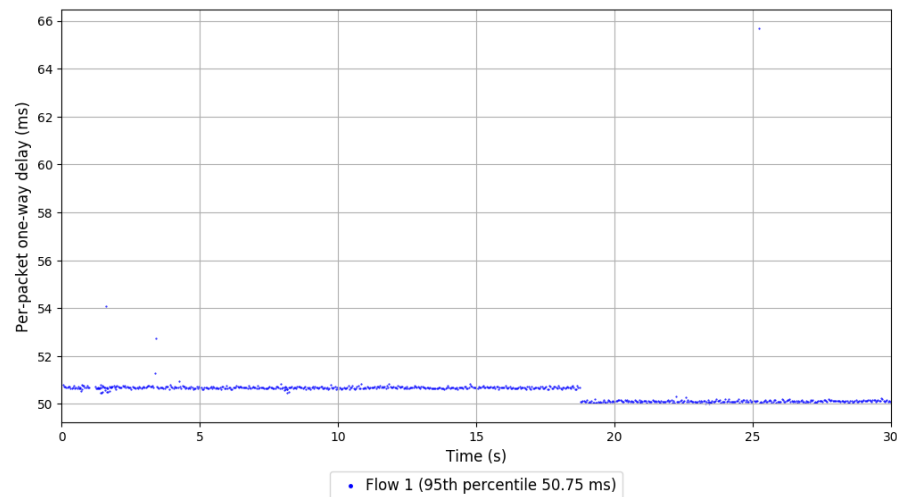
Run 6: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 49.87 ms)

```
Run 7: Statistics of SCReAM

Start at: 2018-02-20 04:55:06
End at: 2018-02-20 04:55:36

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.513 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.513 ms
Loss rate: 0.00%
```
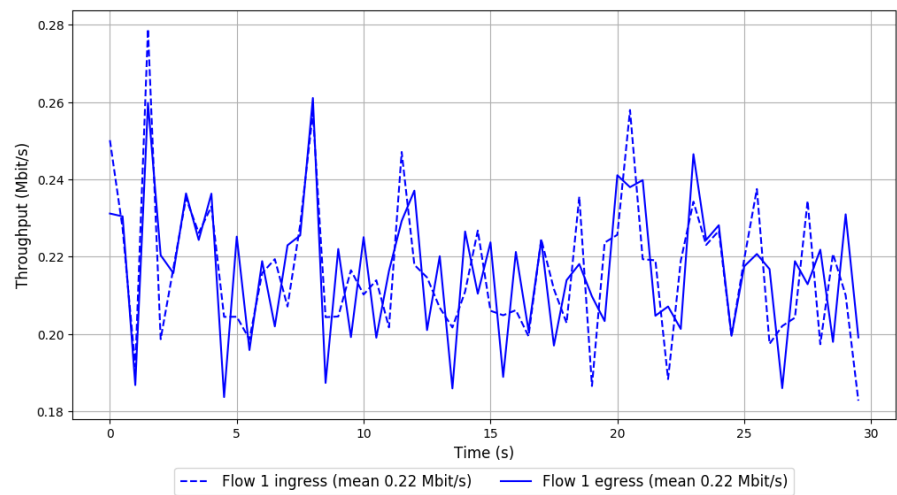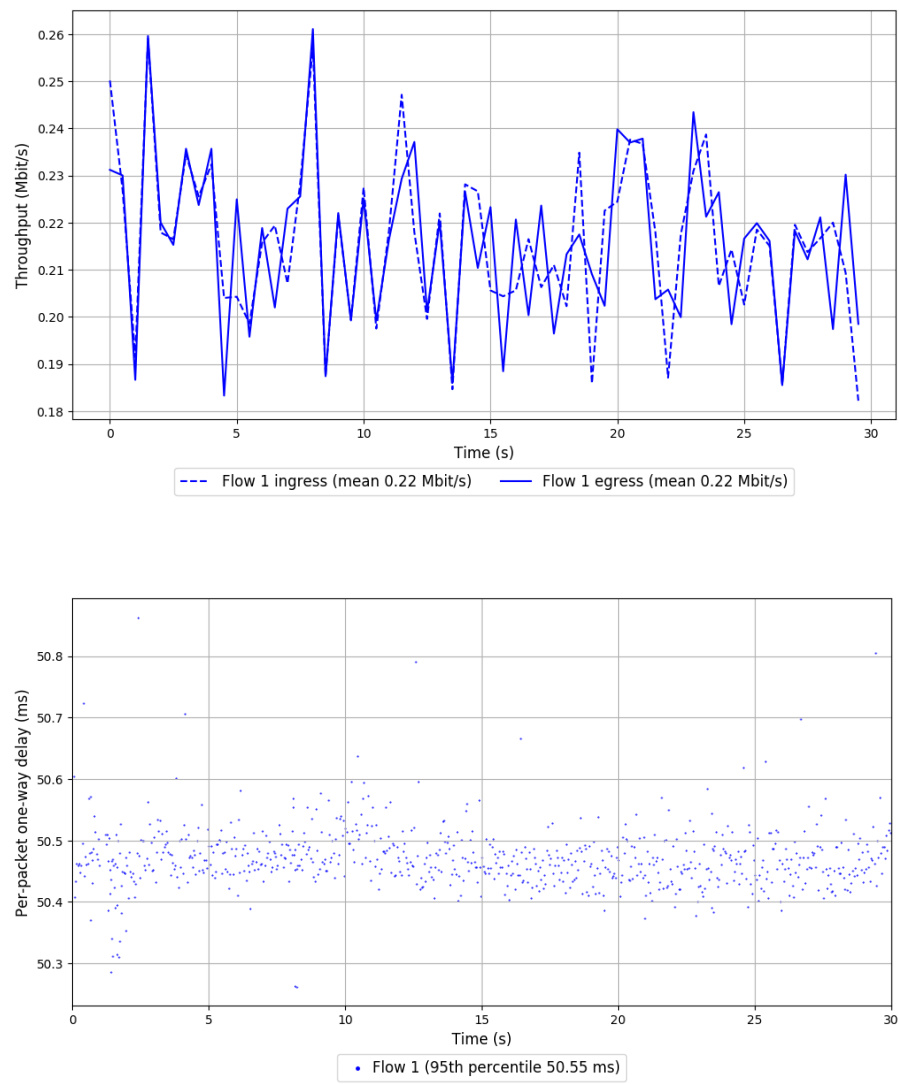
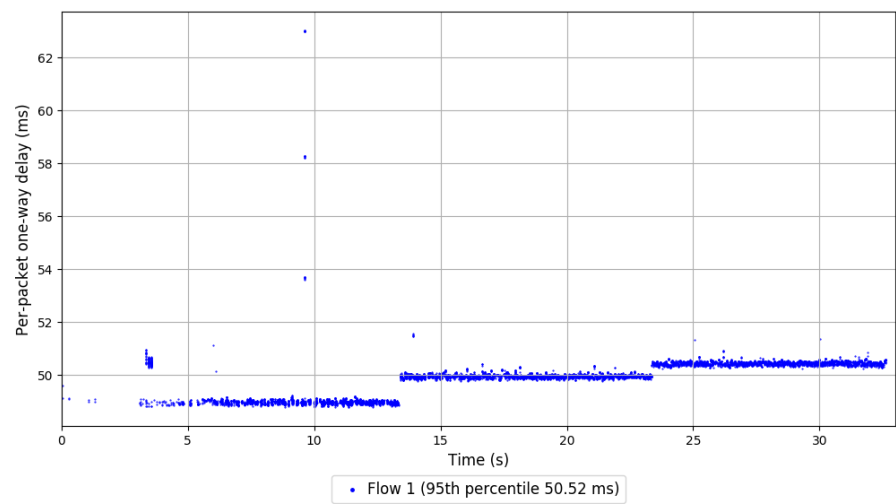## Run 7: Report of SCReAM — Data Link

```
Run 8: Statistics of SCReAM

Start at: 2018-02-20 05:10:06
End at: 2018-02-20 05:10:36

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.728 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.728 ms
Loss rate: 0.00%
```
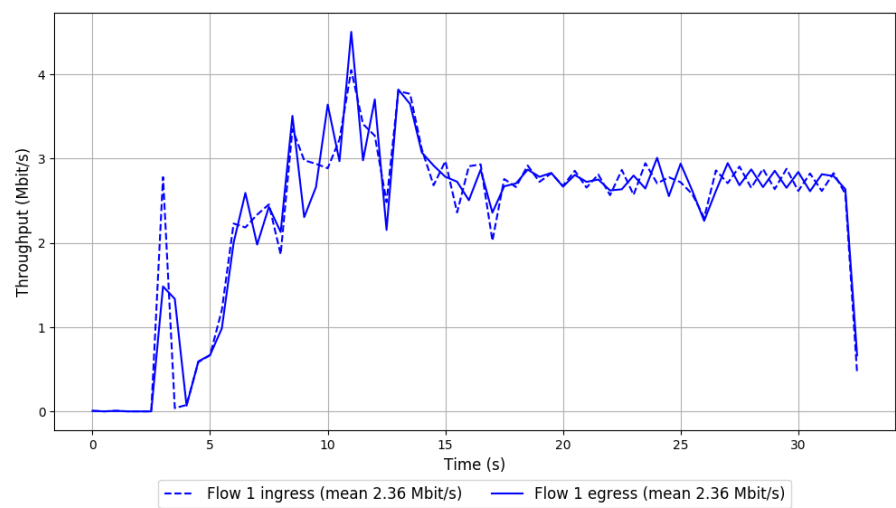
Run 8: Report of SCReAM — Data Link

```
Run 9: Statistics of SCReAM

Start at: 2018-02-20 05:24:59
End at: 2018-02-20 05:25:29

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.749 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.749 ms
Loss rate: 0.00%
```
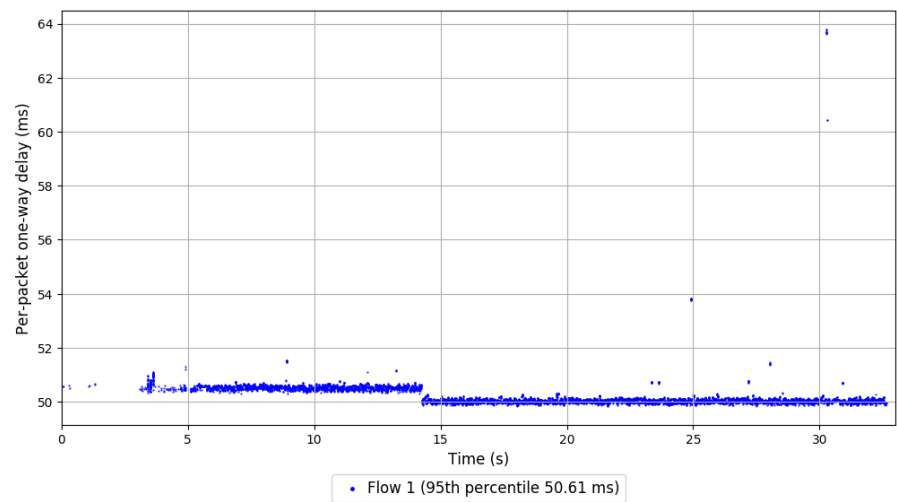
Run 9: Report of SCReAM — Data Link

```
Run 10: Statistics of SCReAM

Start at: 2018-02-20 05:39:51
End at: 2018-02-20 05:40:21

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.551 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.551 ms
Loss rate: 0.00%
```
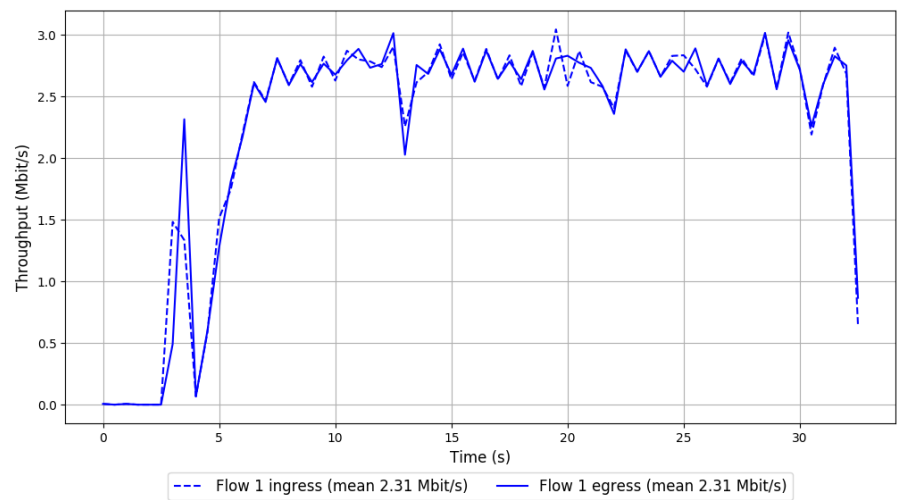
Run 10: Report of SCReAM — Data Link

```
Run 1: Statistics of WebRTC media

Start at: 2018-02-20 03:28:17
End at: 2018-02-20 03:28:47

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 50.516 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 50.516 ms
Loss rate: 0.00%
```
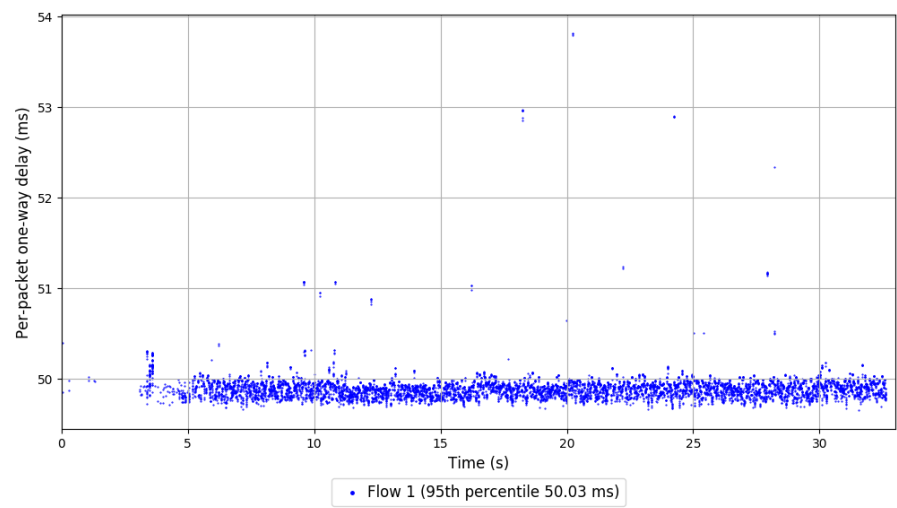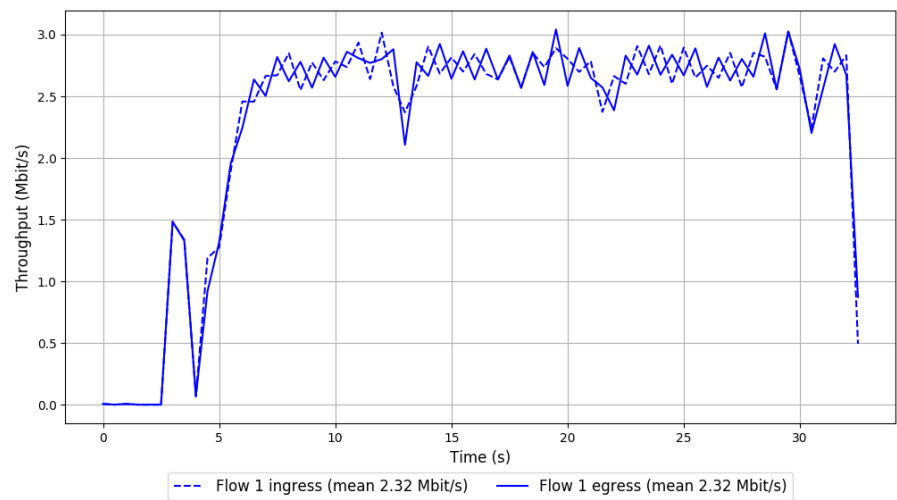
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: 2018-02-20 03:42:56
End at: 2018-02-20 03:43:26

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 50.614 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 50.614 ms
Loss rate: 0.00%
```
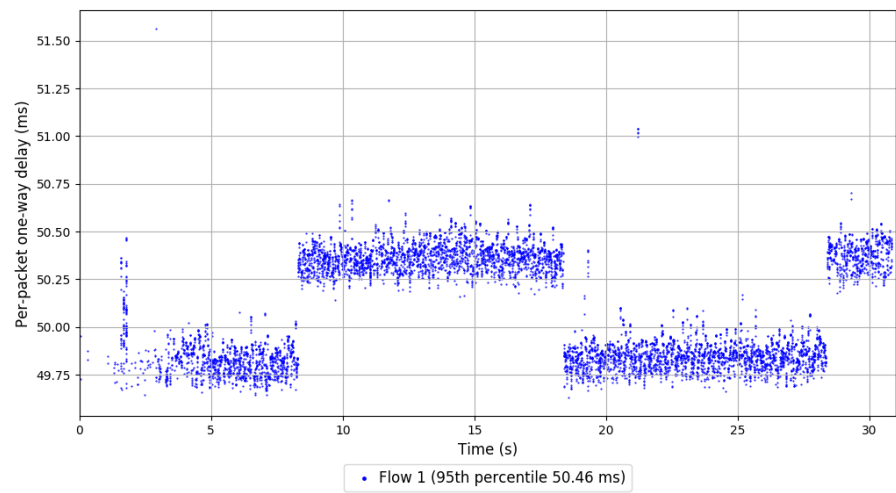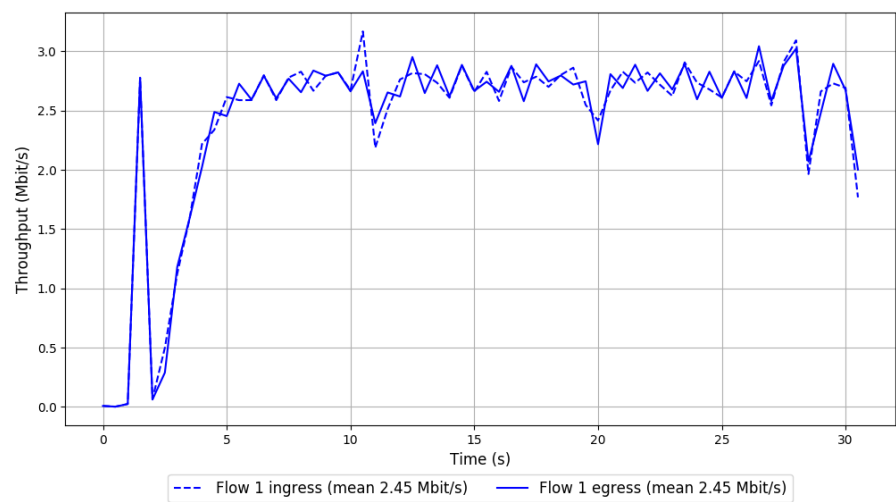
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: 2018-02-20 03:57:47
End at: 2018-02-20 03:58:17

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 50.032 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 50.032 ms
Loss rate: 0.00%
```
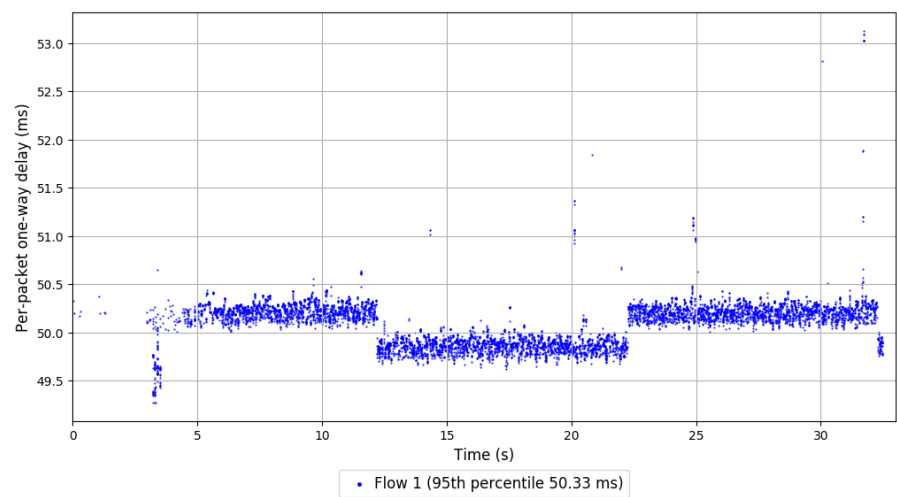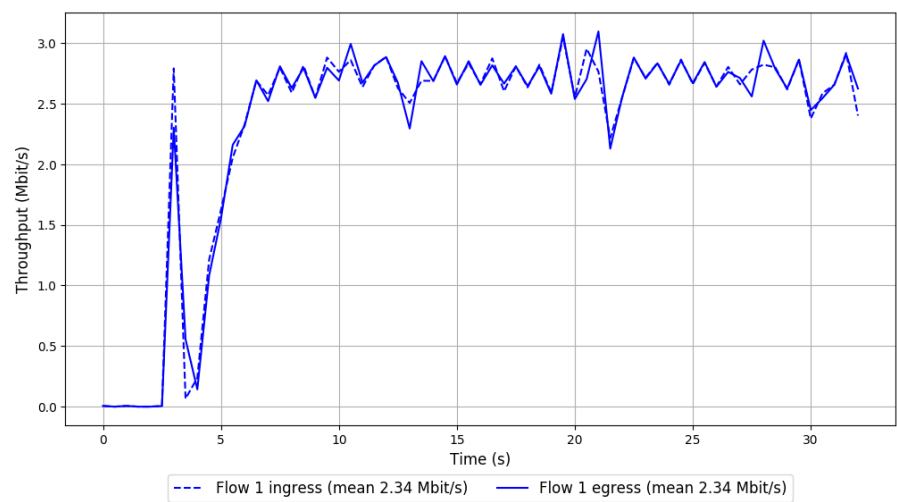
Run 3: Report of WebRTC media — Data Link

```
Run 4: Statistics of WebRTC media

Start at: 2018-02-20 04:12:50
End at: 2018-02-20 04:13:21

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 50.461 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 50.461 ms
Loss rate: 0.00%
```
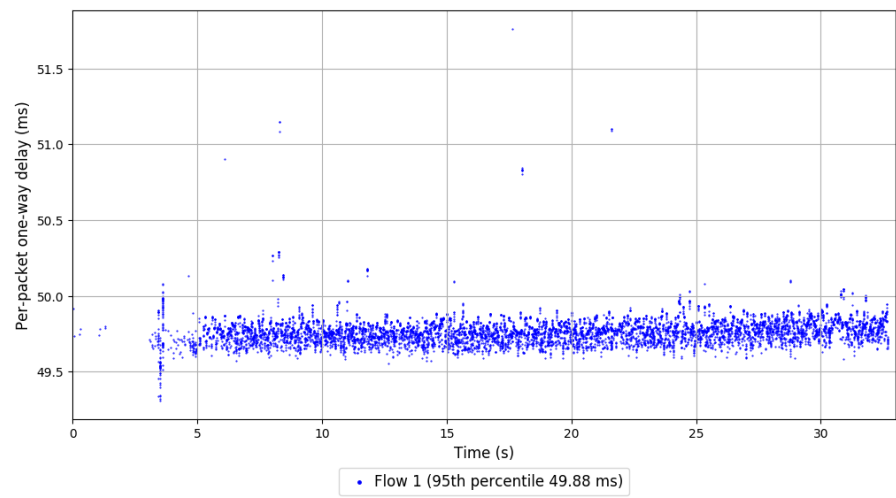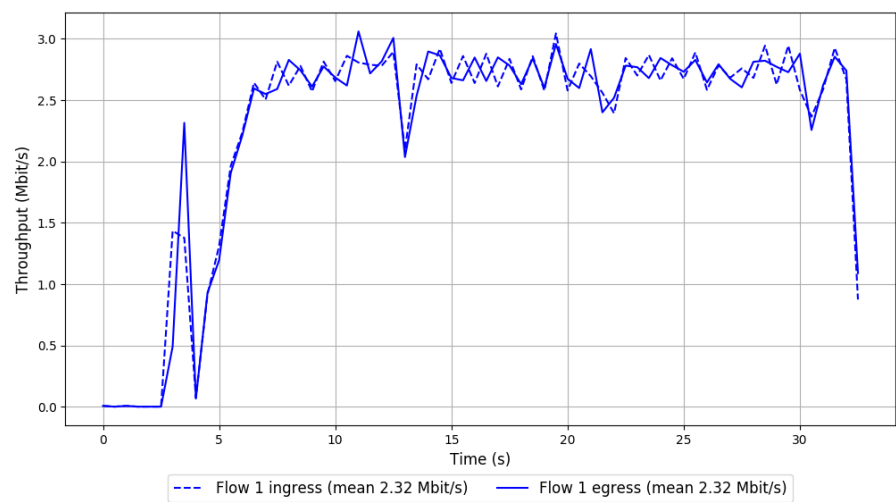
Run 4: Report of WebRTC media — Data Link

```
Run 5: Statistics of WebRTC media

Start at: 2018-02-20 04:27:48
End at: 2018-02-20 04:28:18

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 50.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 50.327 ms
Loss rate: 0.00%
```
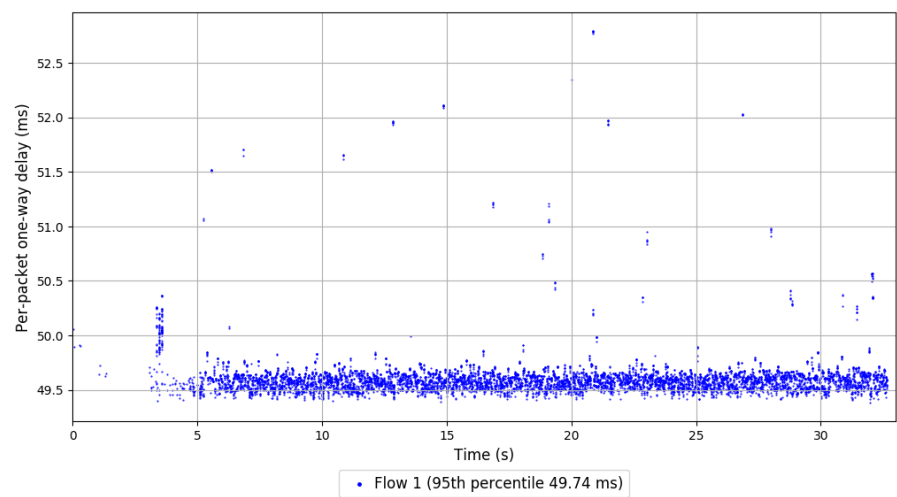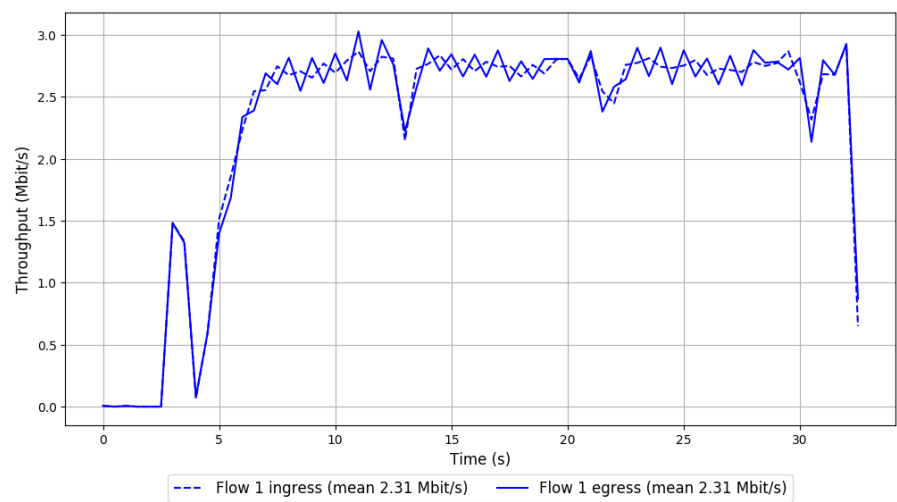
Run 5: Report of WebRTC media — Data Link

```
Run 6: Statistics of WebRTC media

Start at: 2018-02-20 04:42:36
End at: 2018-02-20 04:43:06

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 49.881 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 49.881 ms
Loss rate: 0.00%
```
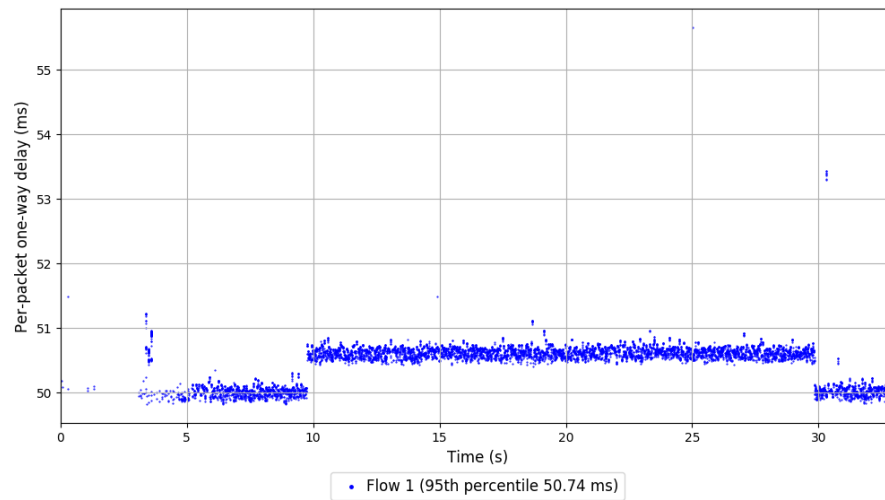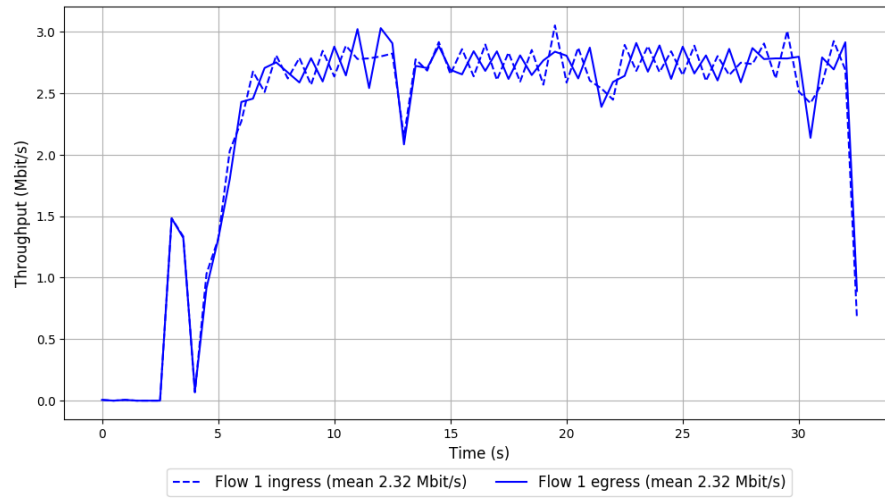
Run 6: Report of WebRTC media — Data Link

```
Run 7: Statistics of WebRTC media

Start at: 2018-02-20 04:57:30
End at: 2018-02-20 04:58:00

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 49.745 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 49.745 ms
Loss rate: 0.00%
```
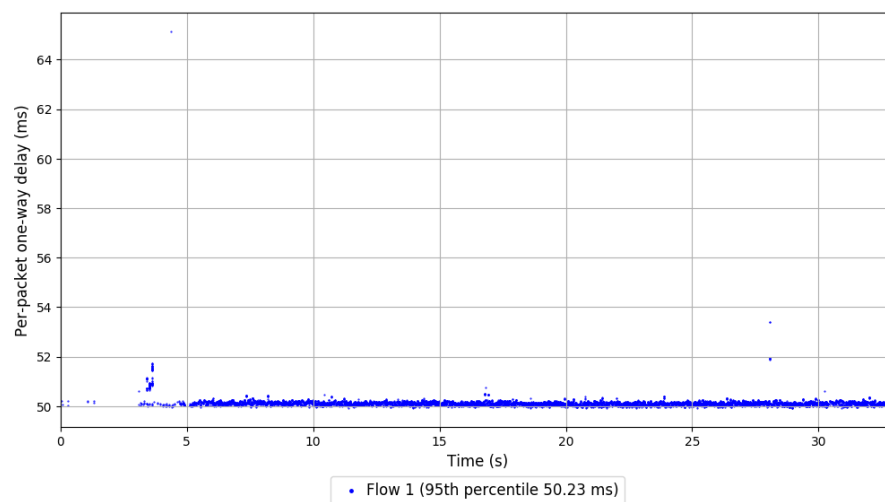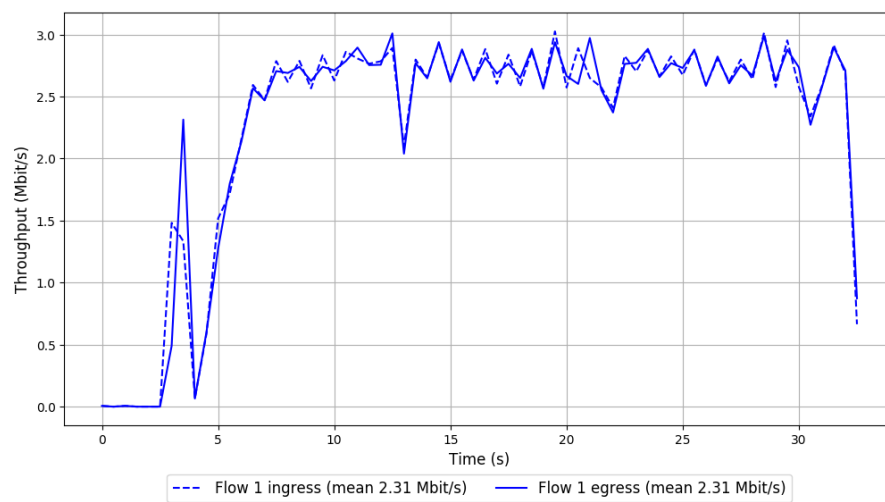
Run 7: Report of WebRTC media — Data Link

```
Run 8: Statistics of WebRTC media

Start at: 2018-02-20 05:12:31
End at: 2018-02-20 05:13:01

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 50.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 50.741 ms
Loss rate: 0.00%
```
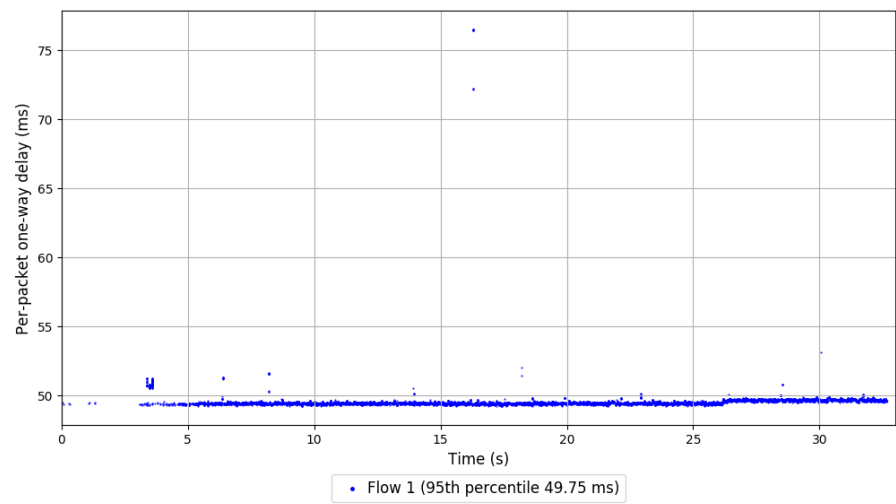
Run 8: Report of WebRTC media — Data Link

```
Run 9: Statistics of WebRTC media

Start at: 2018-02-20 05:27:22
End at: 2018-02-20 05:27:52

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 50.234 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 50.234 ms
Loss rate: 0.00%
```
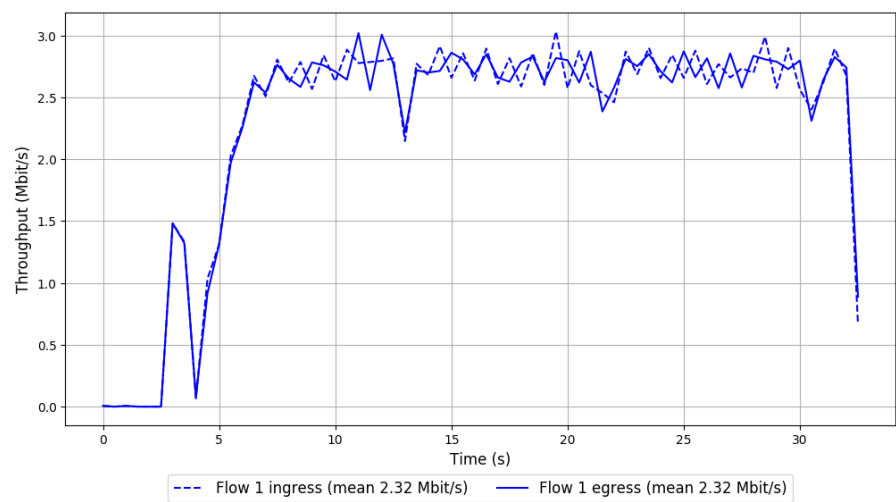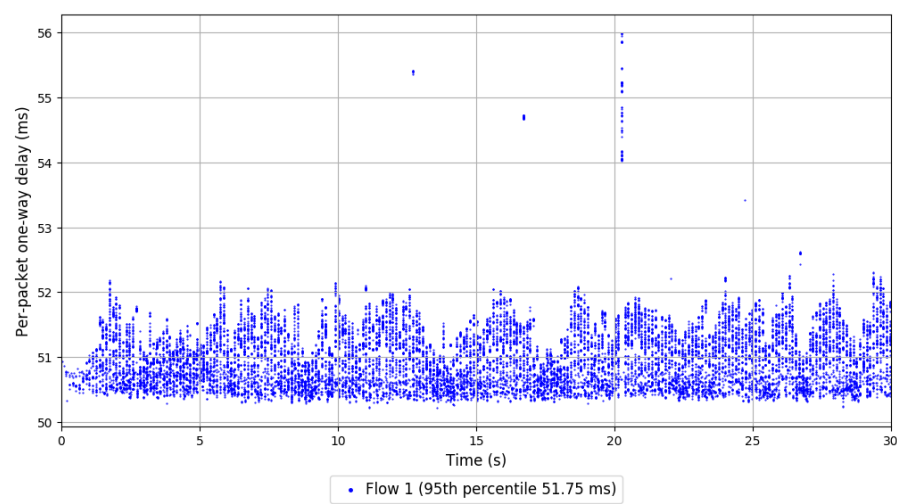
Run 9: Report of WebRTC media — Data Link

```
Run 10: Statistics of WebRTC media

Start at: 2018-02-20 05:42:15
End at: 2018-02-20 05:42:45

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 49.753 ms
Loss rate: 0.00%
```
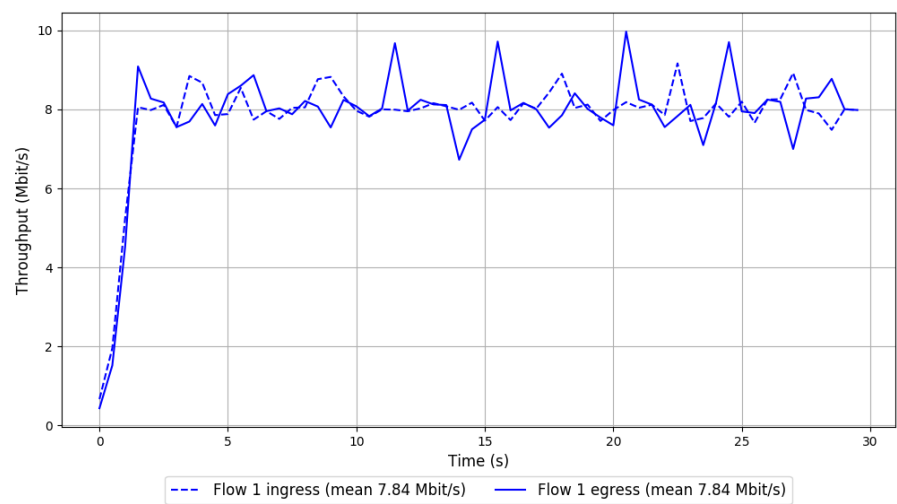
Run 10: Report of WebRTC media — Data Link

```
Run 1: Statistics of Sprout

Start at: 2018-02-20 03:29:42
End at: 2018-02-20 03:30:12

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 51.750 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.84 Mbit/s
95th percentile per-packet one-way delay: 51.750 ms
Loss rate: 0.00%
```
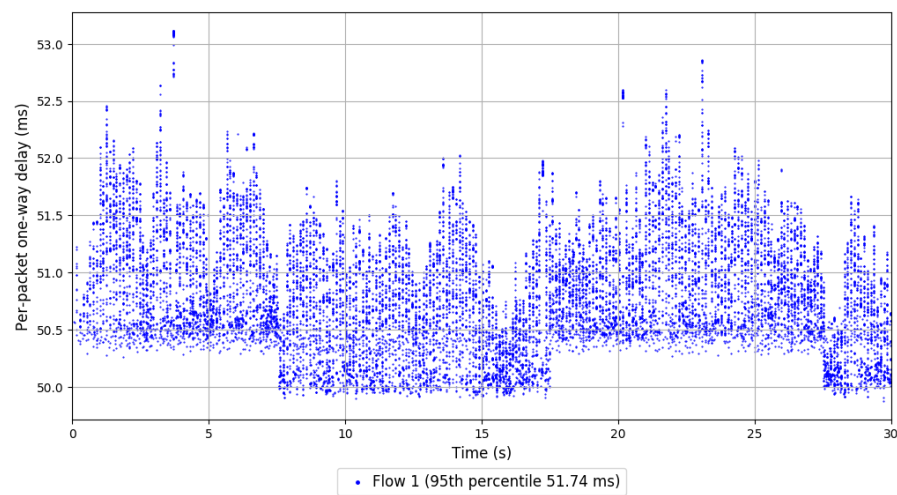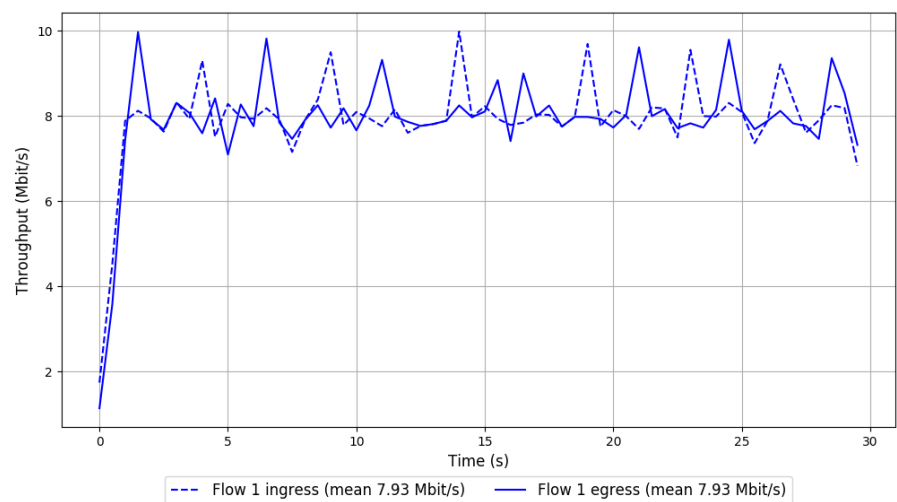
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: 2018-02-20 03:44:20
End at: 2018-02-20 03:44:50

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 51.741 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 51.741 ms
Loss rate: 0.00%
```
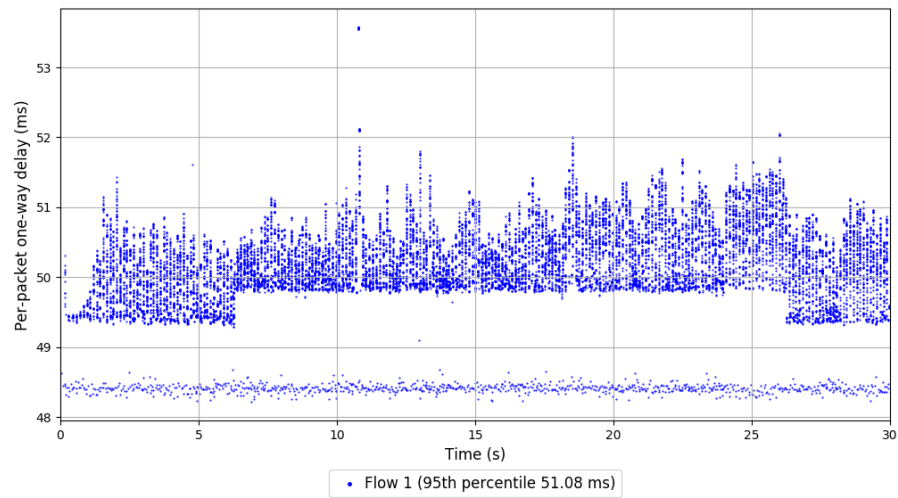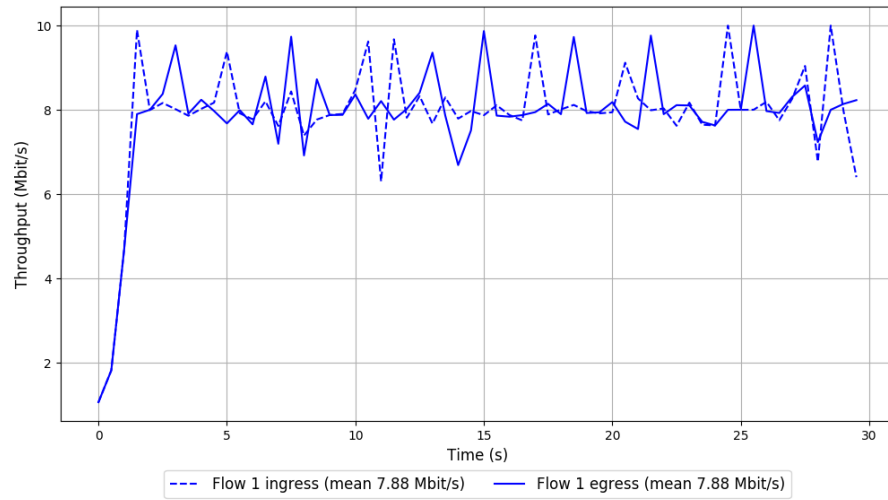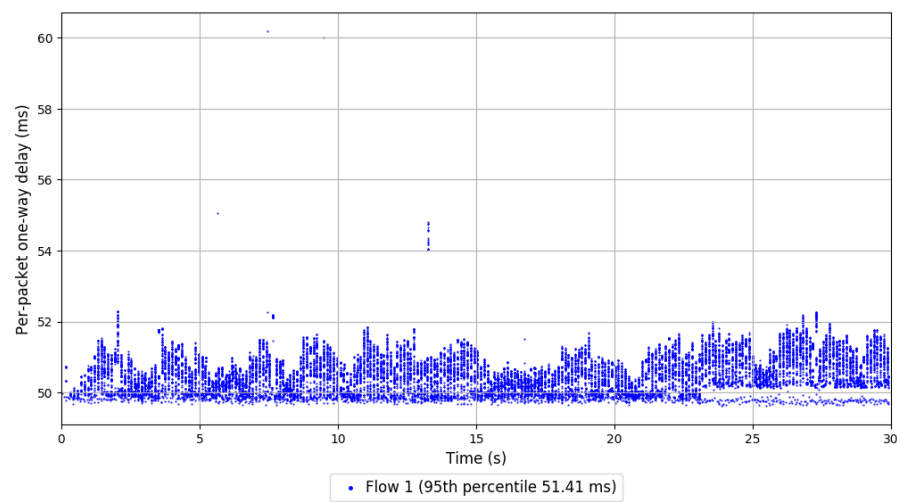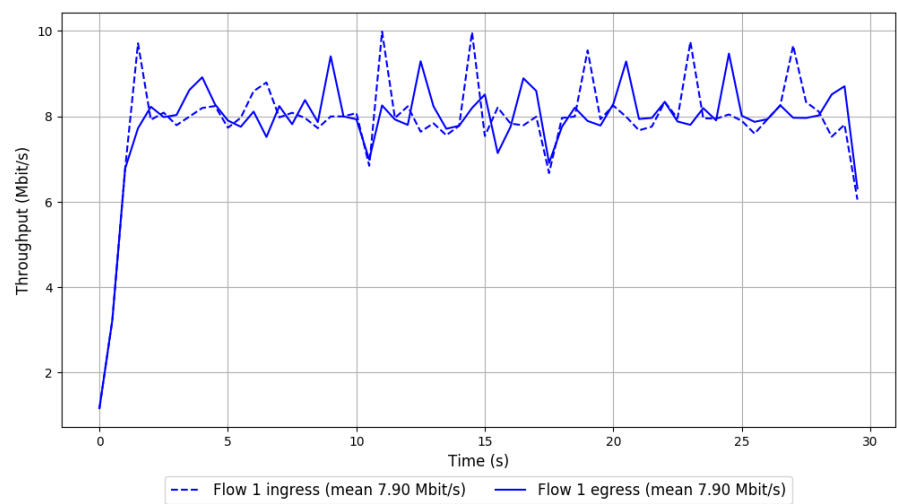
Run 2: Report of Sprout — Data Link

Flow 1 ingress (mean 7.93 Mbit/s)   Flow 1 egress (mean 7.93 Mbit/s)

Flow 1 (95th percentile 51.74 ms)

```
Run 3: Statistics of Sprout

Start at: 2018-02-20 03:59:12
End at: 2018-02-20 03:59:42

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 51.080 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.88 Mbit/s
95th percentile per-packet one-way delay: 51.080 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

```
Run 4: Statistics of Sprout

Start at: 2018-02-20 04:14:15
End at: 2018-02-20 04:14:45

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.414 ms
Loss rate: 0.00%
```
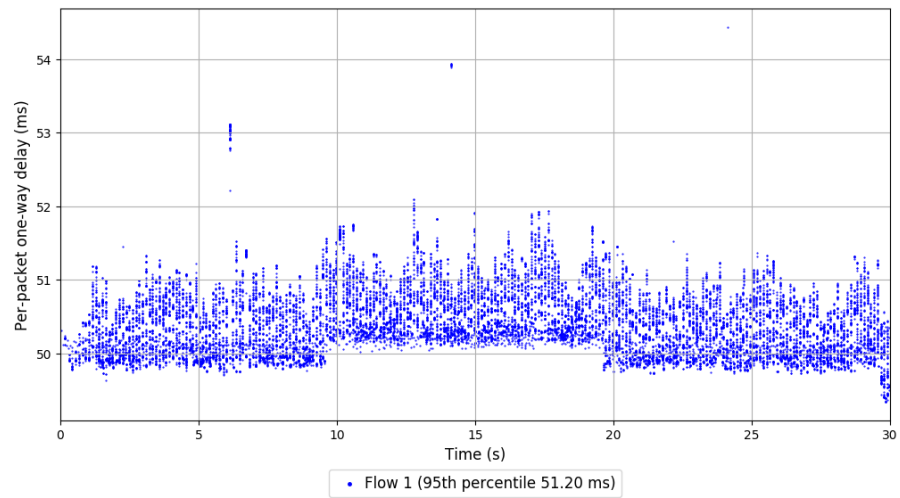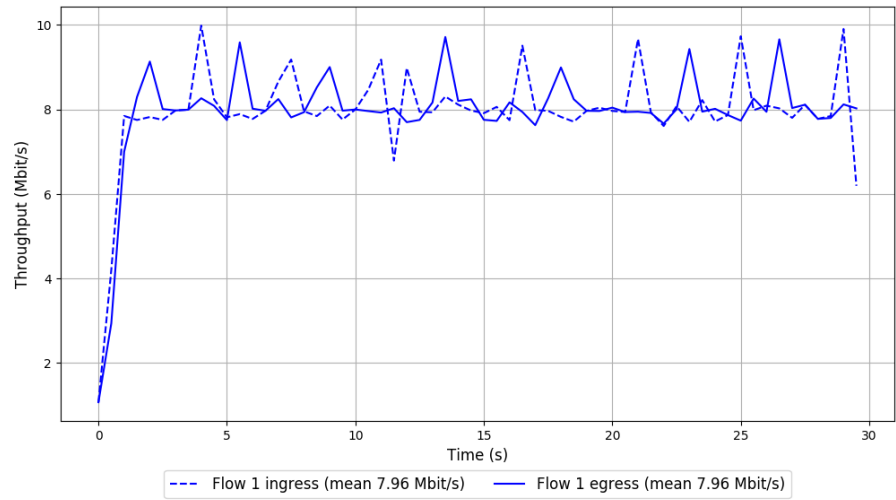
Run 4: Report of Sprout — Data Link

```
Run 5: Statistics of Sprout

Start at: 2018-02-20 04:29:08
End at: 2018-02-20 04:29:38

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 51.196 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 51.196 ms
Loss rate: 0.00%
```
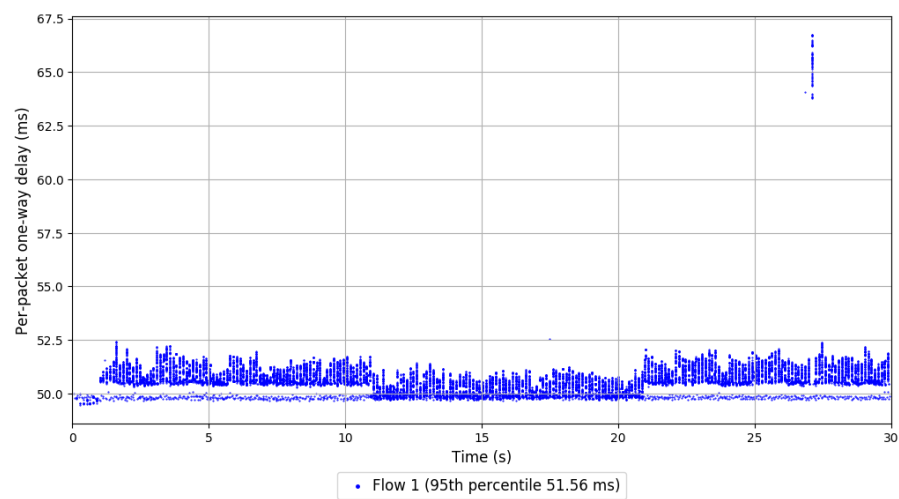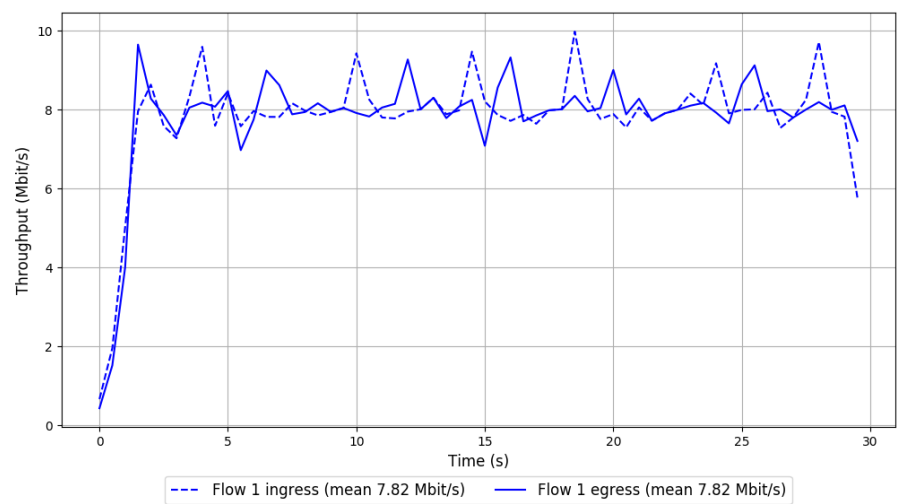
Run 5: Report of Sprout — Data Link

```
Run 6: Statistics of Sprout

Start at: 2018-02-20 04:43:57
End at: 2018-02-20 04:44:27


# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 51.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.82 Mbit/s
95th percentile per-packet one-way delay: 51.561 ms
Loss rate: 0.00%
```
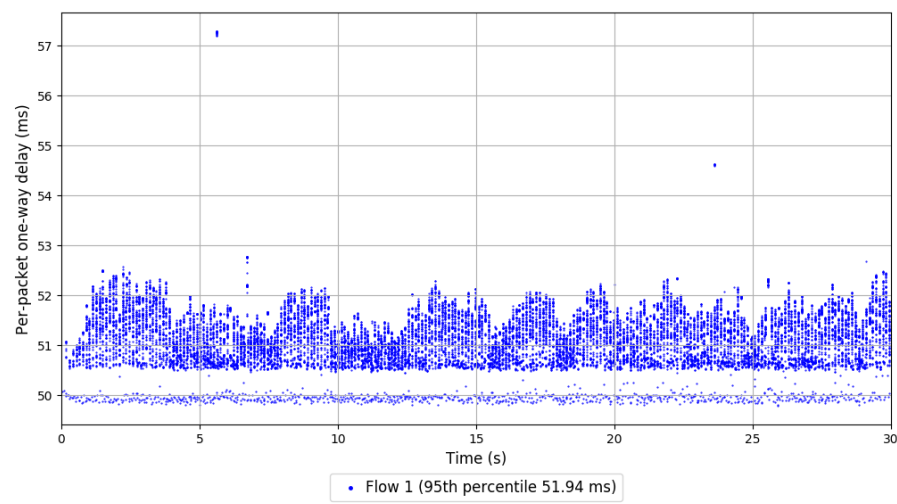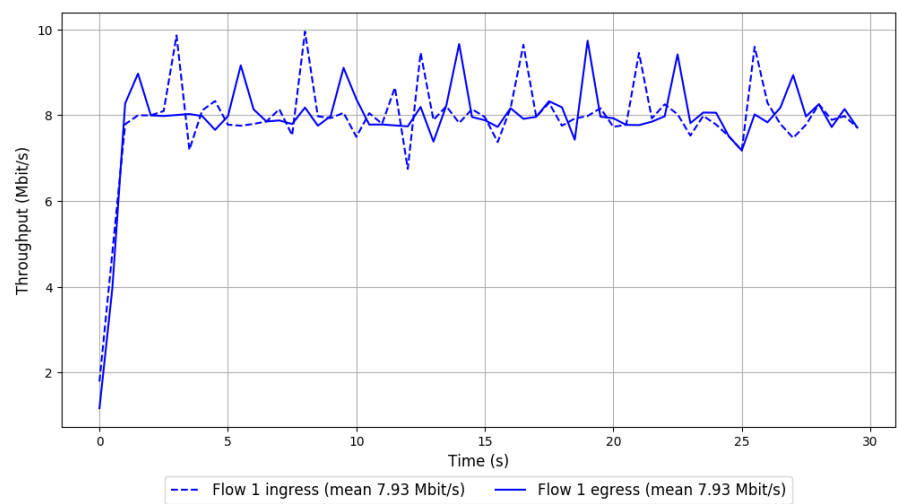
Run 6: Report of Sprout — Data Link

```
Run 7: Statistics of Sprout

Start at: 2018-02-20 04:58:55
End at: 2018-02-20 04:59:25

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 51.943 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.93 Mbit/s
95th percentile per-packet one-way delay: 51.943 ms
Loss rate: 0.00%
```
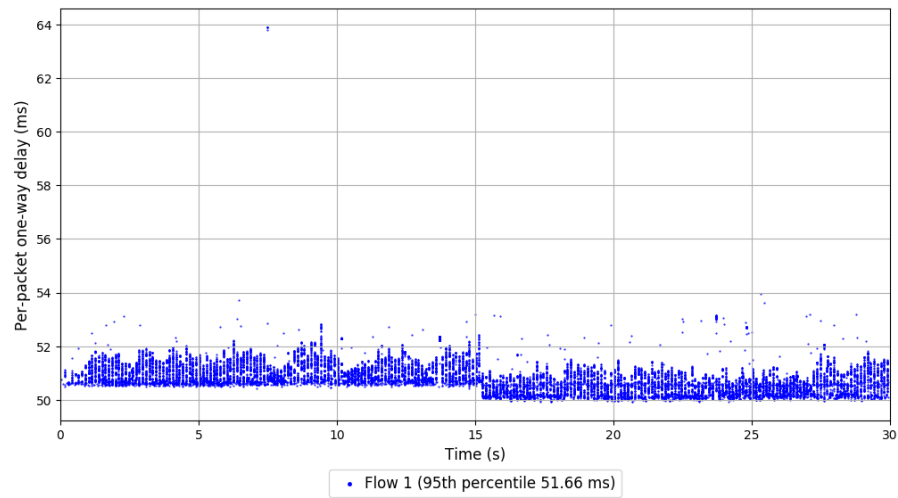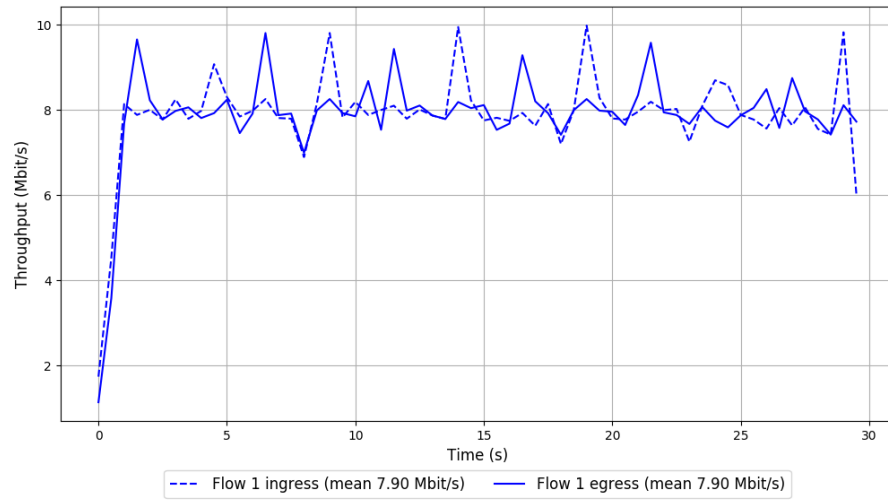
Run 7: Report of Sprout — Data Link

```
Run 8: Statistics of Sprout

Start at: 2018-02-20 05:13:53
End at: 2018-02-20 05:14:23

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.659 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.90 Mbit/s
95th percentile per-packet one-way delay: 51.659 ms
Loss rate: 0.00%
```
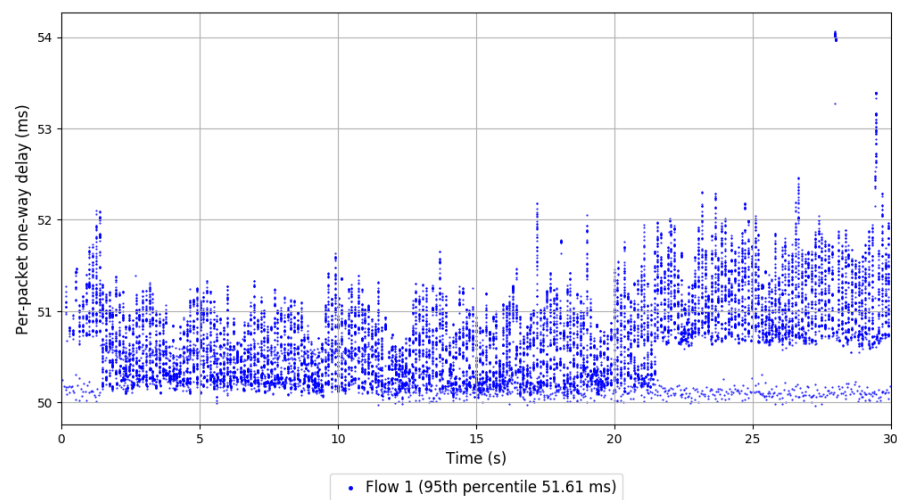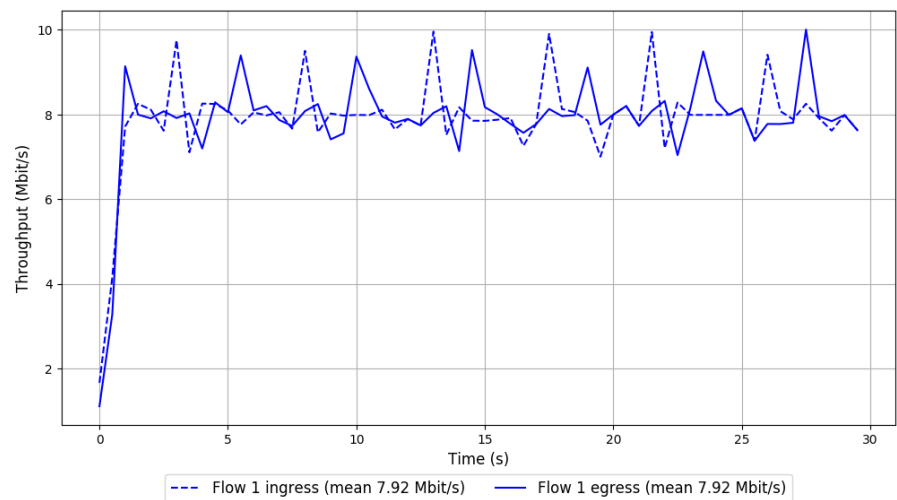
Run 8: Report of Sprout — Data Link

```
Run 9: Statistics of Sprout

Start at: 2018-02-20 05:28:47
End at: 2018-02-20 05:29:17


# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 51.611 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 51.611 ms
Loss rate: 0.00%
```
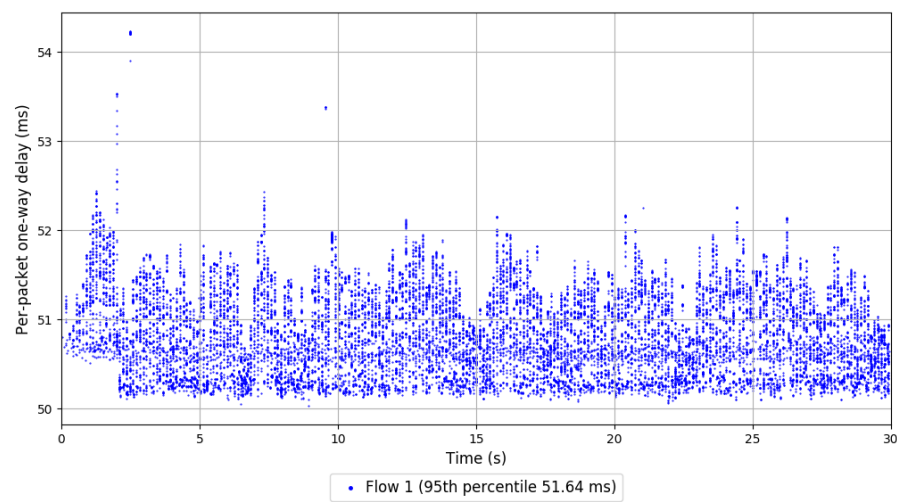
Run 9: Report of Sprout — Data Link

```
Run 10: Statistics of Sprout

Start at: 2018-02-20 05:43:36
End at: 2018-02-20 05:44:06

# Below is generated by plot.py at 2018-02-20 07:55:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 51.638 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.91 Mbit/s
95th percentile per-packet one-way delay: 51.638 ms
Loss rate: 0.00%
```
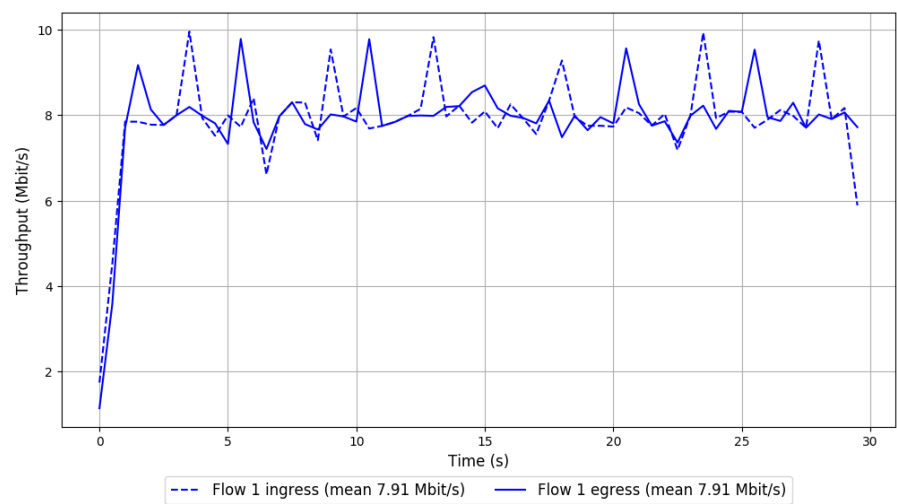
Run 10: Report of Sprout — Data Link

Flow 1 ingress (mean 7.91 Mbit/s)   Flow 1 egress (mean 7.91 Mbit/s)

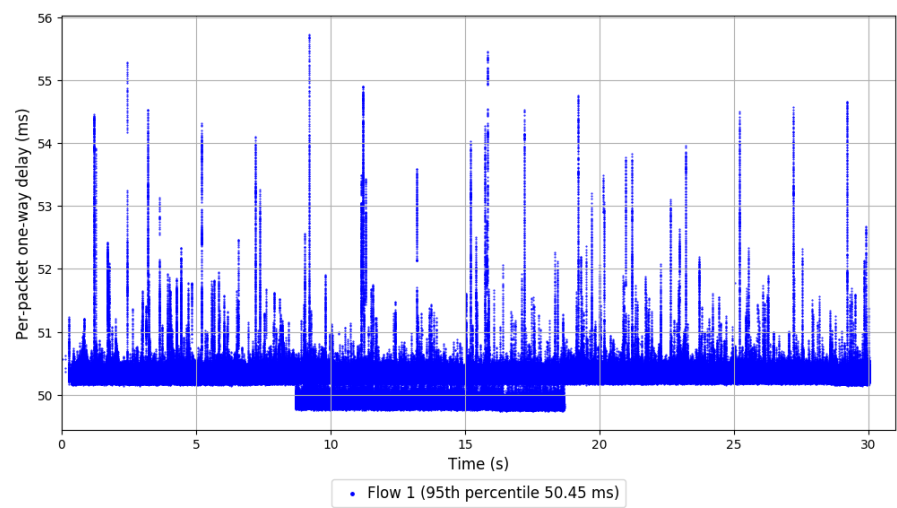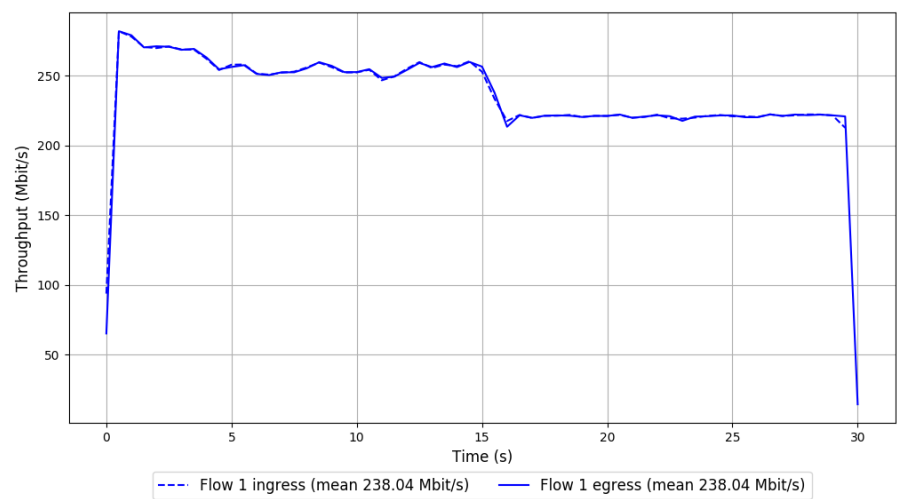• Flow 1 (95th percentile 51.64 ms)

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

Start at: 2018-02-20 03:26:29
End at: 2018-02-20 03:26:59

# Below is generated by plot.py at 2018-02-20 07:59:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 238.04 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.04 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 0.00%
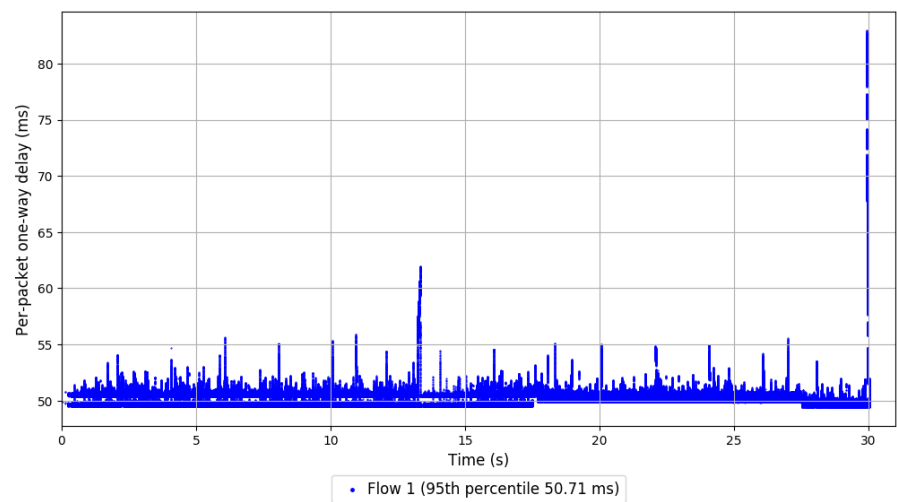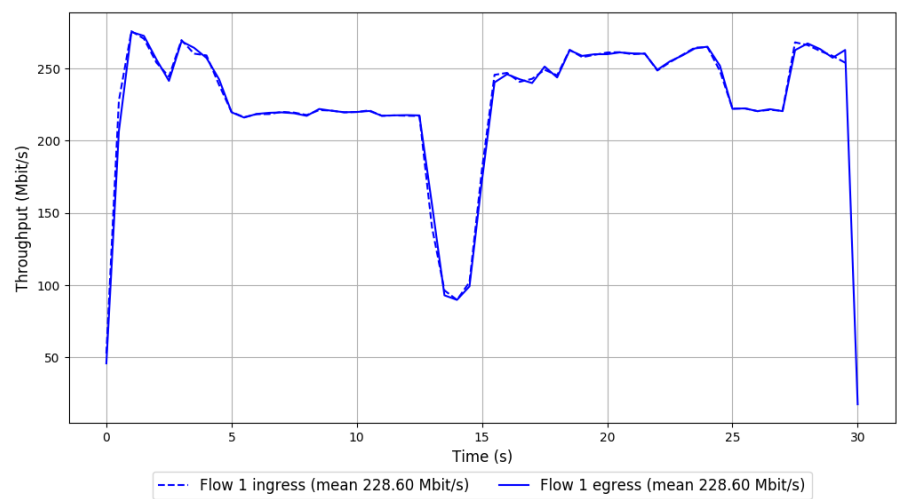```

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

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

Start at: 2018-02-20 03:41:10
End at: 2018-02-20 03:41:41

# Below is generated by plot.py at 2018-02-20 07:59:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.60 Mbit/s
95th percentile per-packet one-way delay: 50.708 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.60 Mbit/s
95th percentile per-packet one-way delay: 50.708 ms
Loss rate: 0.00%
```

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

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

Start at: 2018-02-20 03:55:59
End at: 2018-02-20 03:56:29

# Below is generated by plot.py at 2018-02-20 08:00:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.96 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.96 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.00%
```
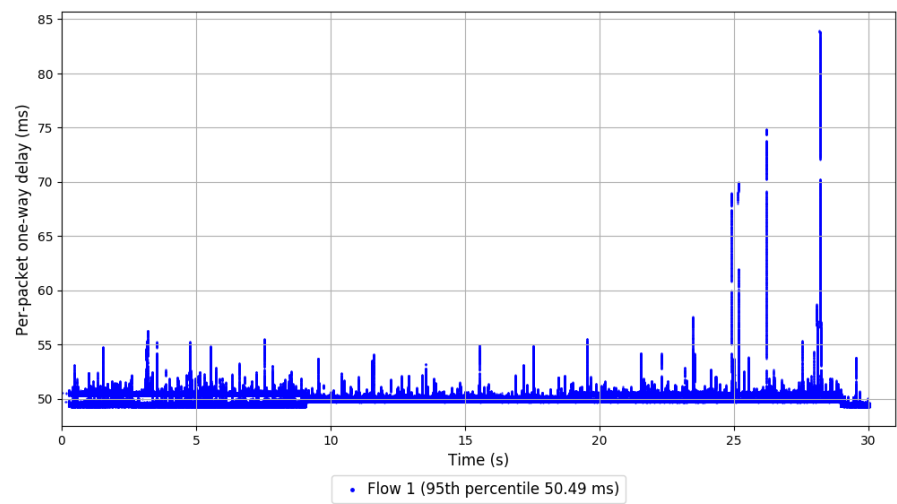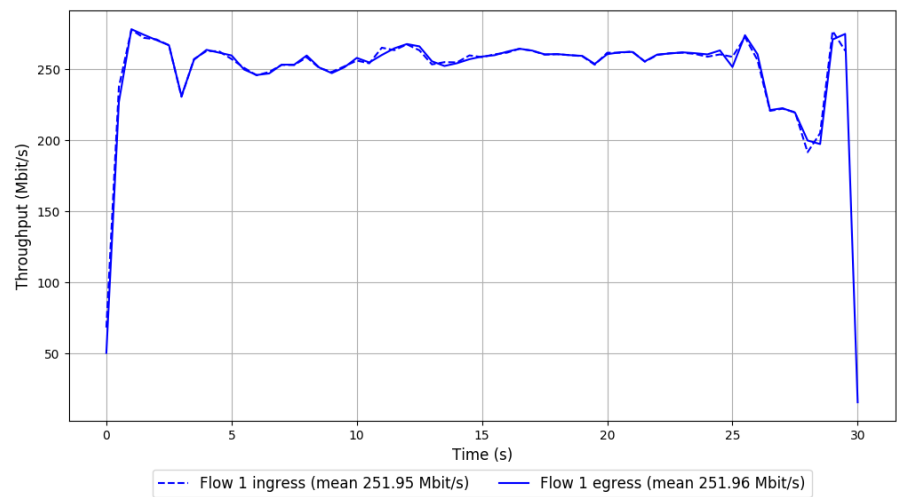
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 251.95 Mbit/s)   Flow 1 egress (mean 251.96 Mbit/s)
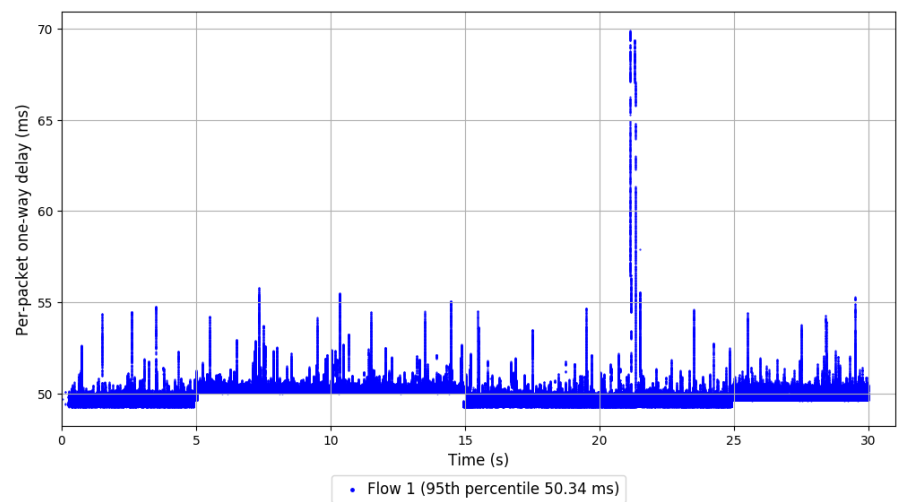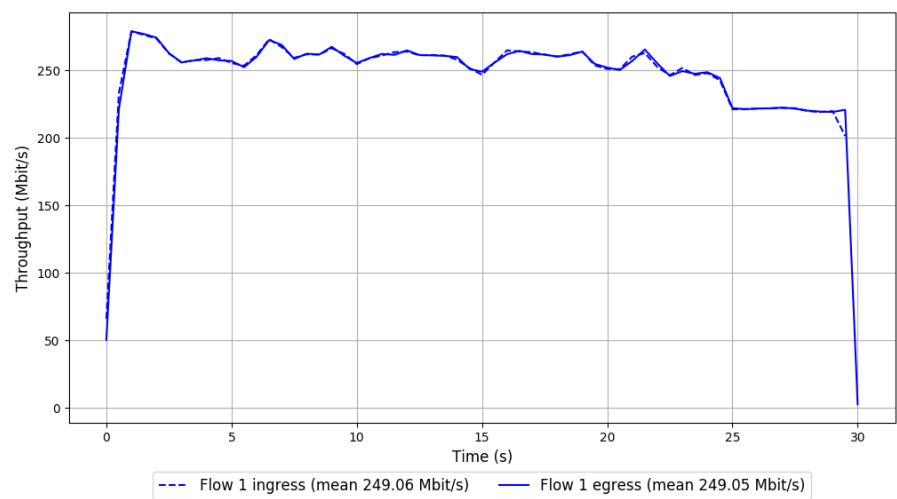

Flow 1 (95th percentile 50.49 ms)

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

Start at: 2018-02-20 04:11:03
End at: 2018-02-20 04:11:33

# Below is generated by plot.py at 2018-02-20 08:00:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.05 Mbit/s
95th percentile per-packet one-way delay: 50.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 249.05 Mbit/s
95th percentile per-packet one-way delay: 50.339 ms
Loss rate: 0.00%
```

Run 4: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-20 04:26:00
End at: 2018-02-20 04:26:30

# Below is generated by plot.py at 2018-02-20 08:00:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 250.36 Mbit/s
95th percentile per-packet one-way delay: 50.302 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 250.36 Mbit/s
95th percentile per-packet one-way delay: 50.302 ms
Loss rate: 0.00%
```
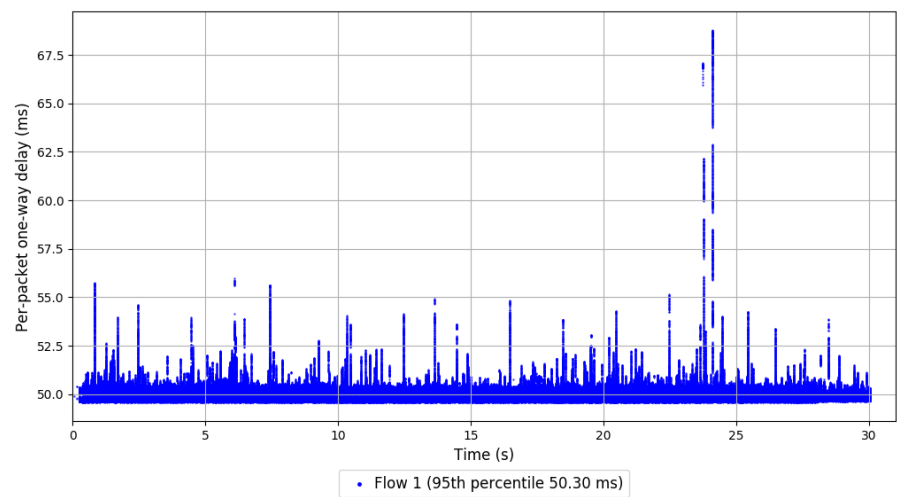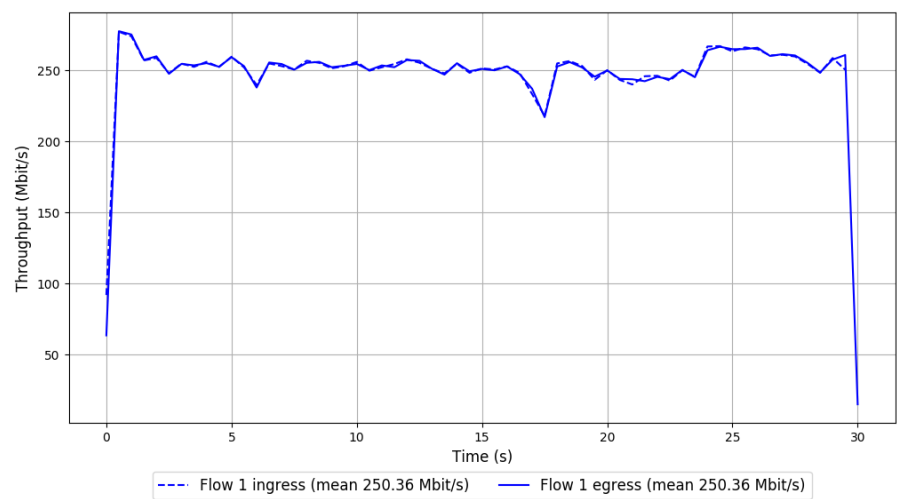
Run 5: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-20 04:40:47
End at: 2018-02-20 04:41:17


# Below is generated by plot.py at 2018-02-20 08:00:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.24 Mbit/s
95th percentile per-packet one-way delay: 50.418 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.24 Mbit/s
95th percentile per-packet one-way delay: 50.418 ms
Loss rate: 0.00%
```
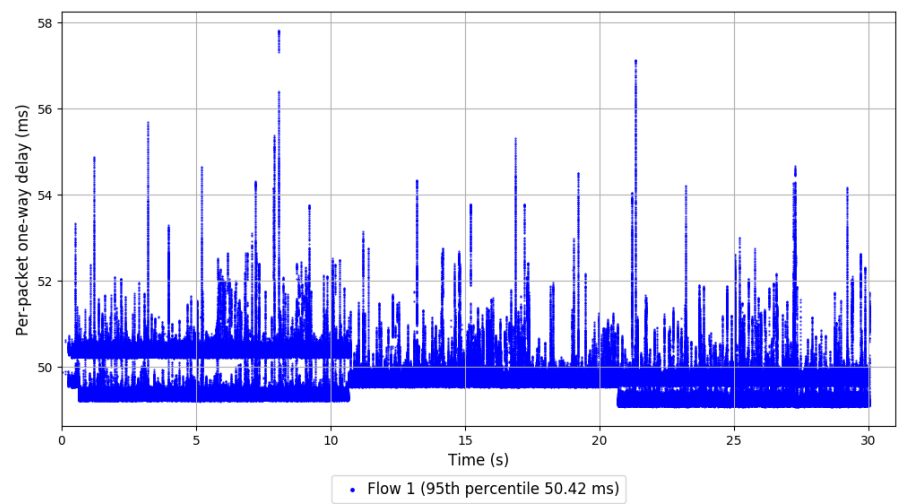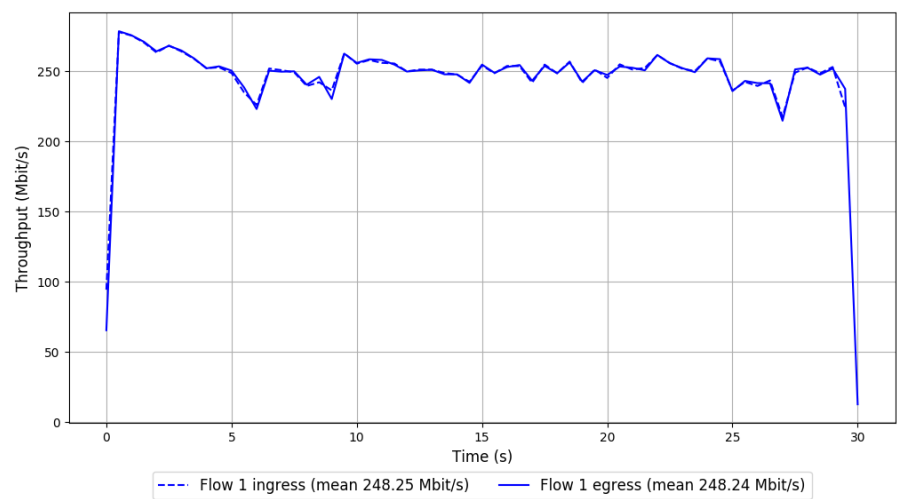
Run 6: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-20 04:55:43
End at: 2018-02-20 04:56:13

# Below is generated by plot.py at 2018-02-20 08:03:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 245.73 Mbit/s
95th percentile per-packet one-way delay: 50.561 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 245.73 Mbit/s
95th percentile per-packet one-way delay: 50.561 ms
Loss rate: 0.00%
```
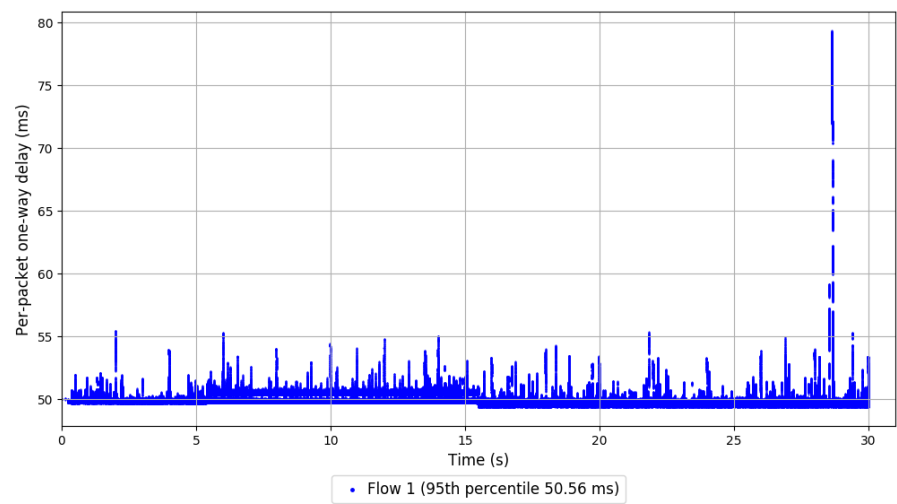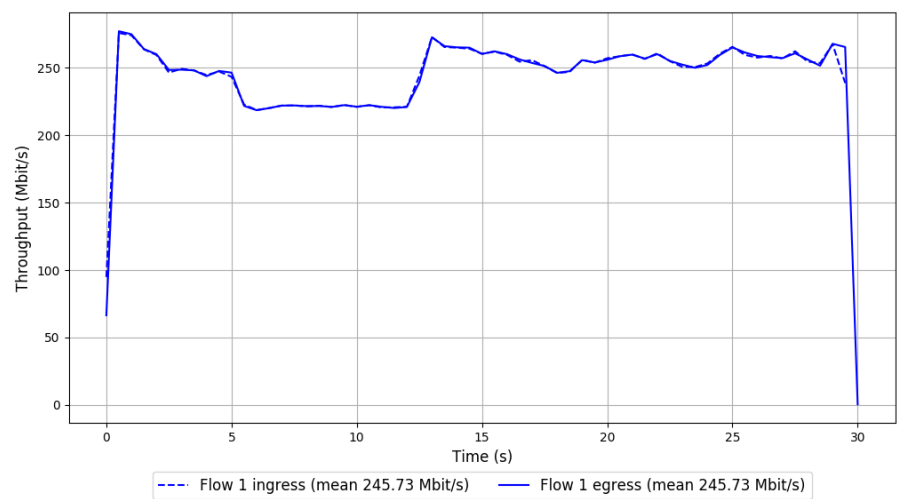
Run 7: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 245.73 Mbit/s)　　Flow 1 egress (mean 245.73 Mbit/s)

Flow 1 (95th percentile 50.56 ms)

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

Start at: 2018-02-20 05:10:43
End at: 2018-02-20 05:11:13


# Below is generated by plot.py at 2018-02-20 08:04:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 248.81 Mbit/s
95th percentile per-packet one-way delay: 50.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 248.81 Mbit/s
95th percentile per-packet one-way delay: 50.703 ms
Loss rate: 0.00%
```
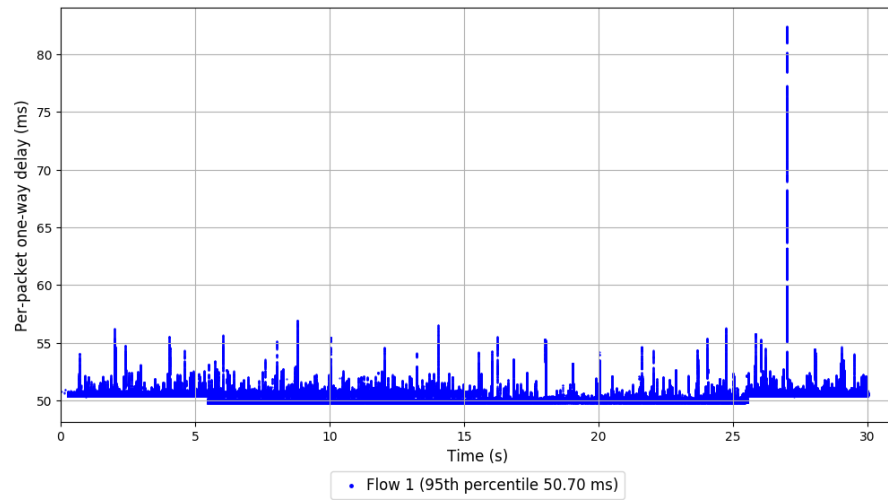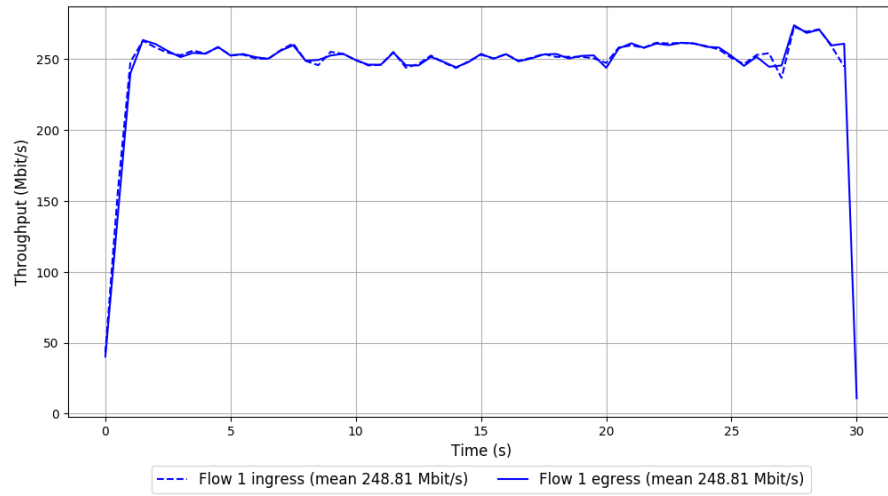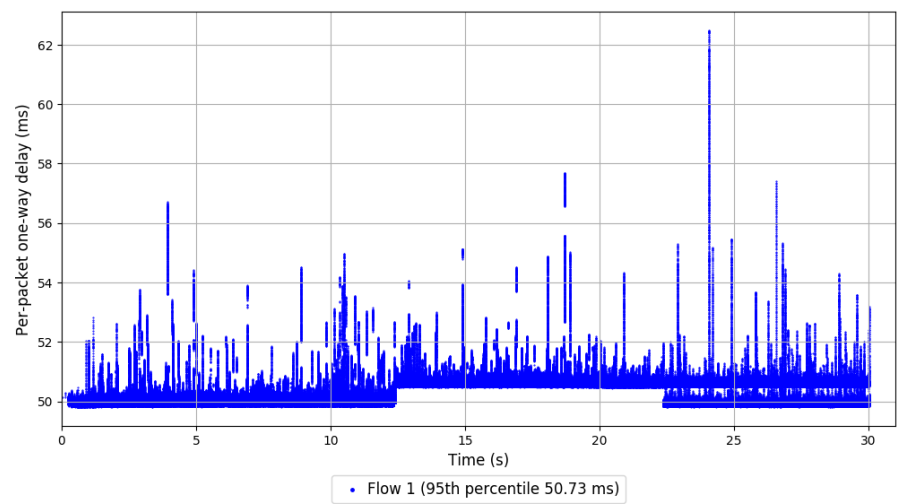
Run 8: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 248.81 Mbit/s) —— Flow 1 egress (mean 248.81 Mbit/s)

• Flow 1 (95th percentile 50.70 ms)

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

Start at: 2018-02-20 05:25:36
End at: 2018-02-20 05:26:06

# Below is generated by plot.py at 2018-02-20 08:07:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.58 Mbit/s
95th percentile per-packet one-way delay: 50.735 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.58 Mbit/s
95th percentile per-packet one-way delay: 50.735 ms
Loss rate: 0.00%
```
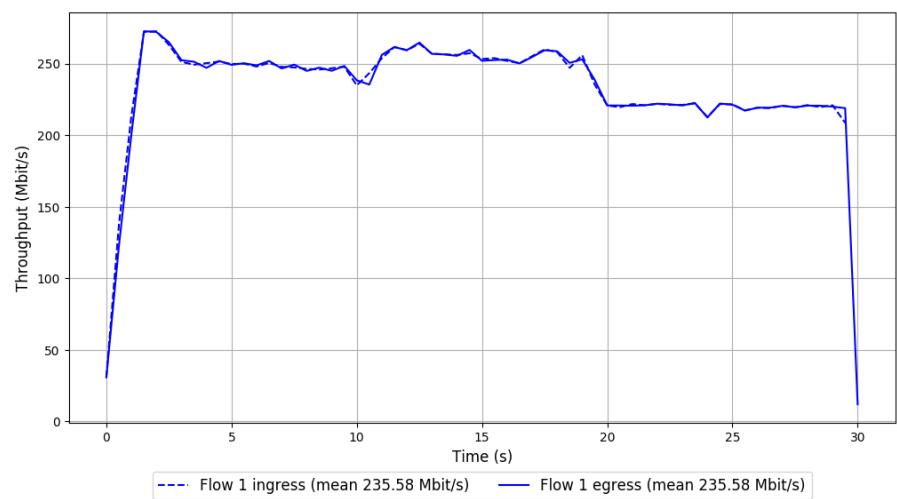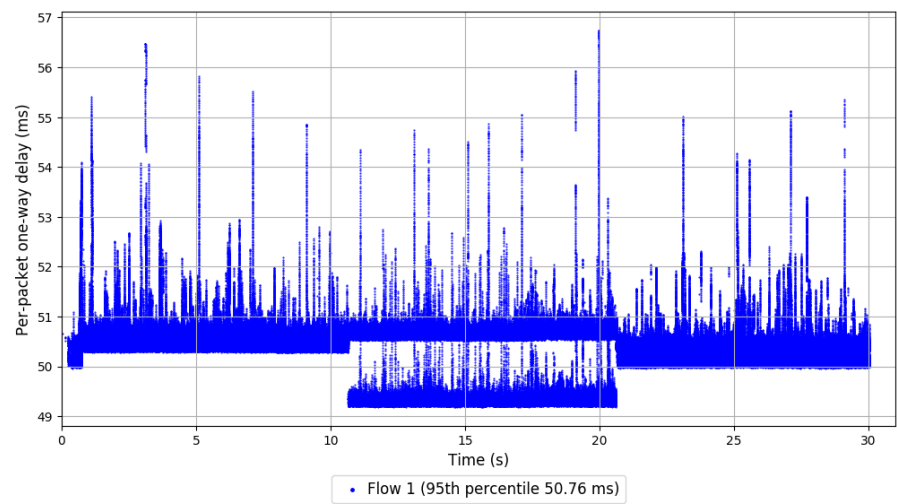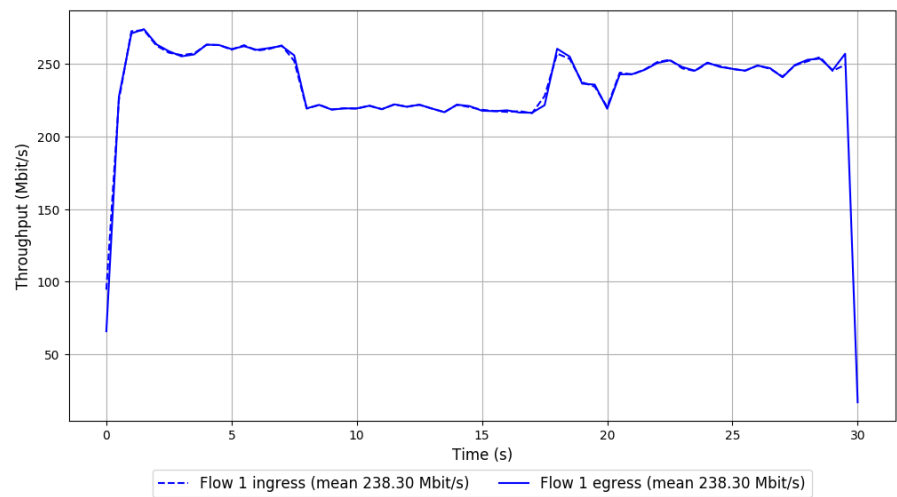
Run 9: Report of TaoVA-100x — Data Link

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

Start at: 2018-02-20 05:40:27
End at: 2018-02-20 05:40:57

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 238.30 Mbit/s
95th percentile per-packet one-way delay: 50.764 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.30 Mbit/s
95th percentile per-packet one-way delay: 50.764 ms
Loss rate: 0.00%
```

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

Flow 1 ingress (mean 238.30 Mbit/s)   Flow 1 egress (mean 238.30 Mbit/s)

Flow 1 (95th percentile 50.76 ms)

```
Run 1: Statistics of TCP Vegas

Start at: 2018-02-20 03:23:14
End at: 2018-02-20 03:23:44

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 51.15 Mbit/s
95th percentile per-packet one-way delay: 51.090 ms
Loss rate: 0.00%
```
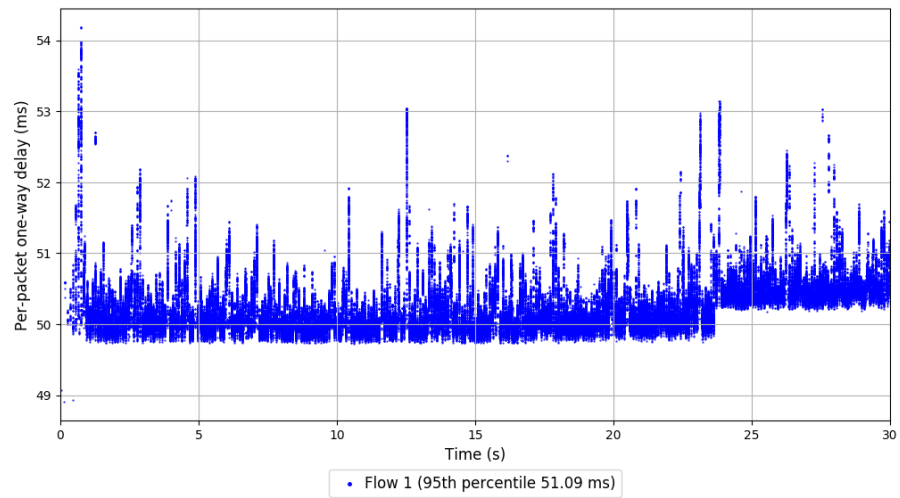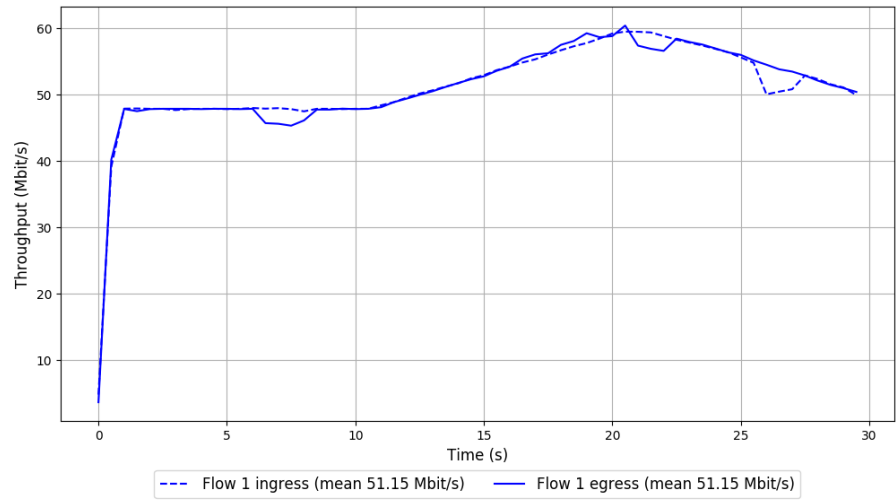
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: 2018-02-20 03:37:56
End at: 2018-02-20 03:38:26

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 59.456 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.54 Mbit/s
95th percentile per-packet one-way delay: 59.456 ms
Loss rate: 0.00%
```
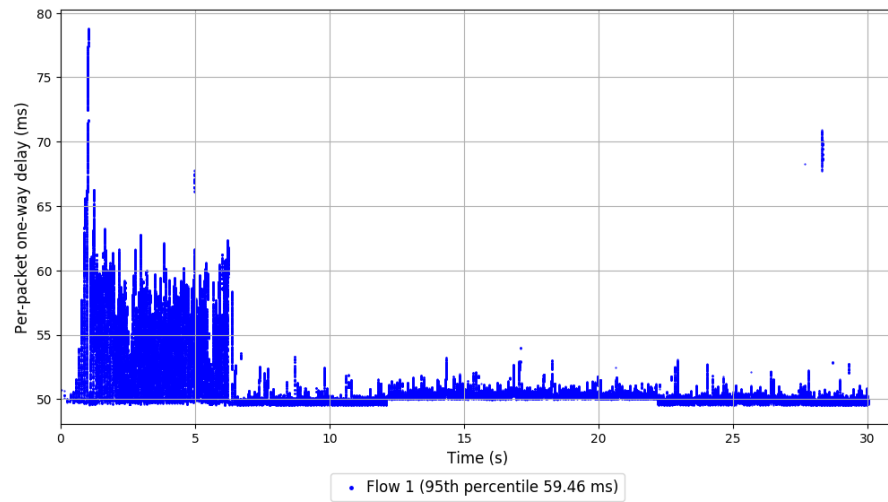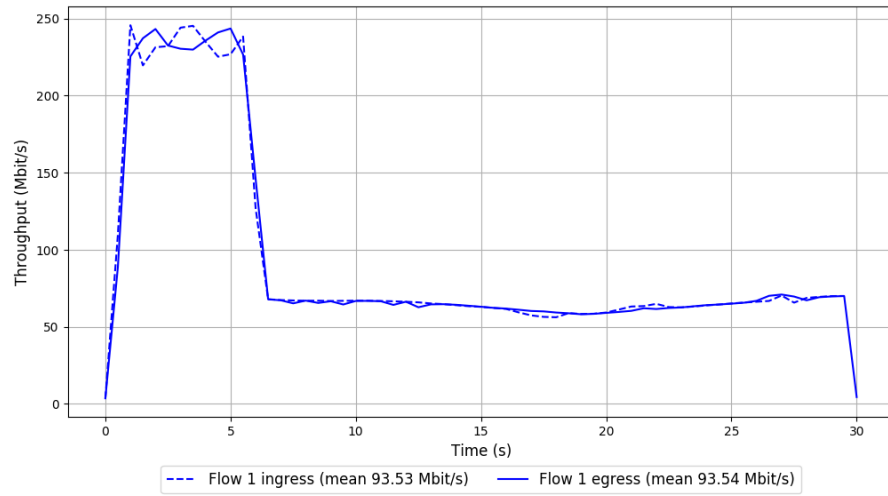
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 93.53 Mbit/s)   Flow 1 egress (mean 93.54 Mbit/s)

Flow 1 (95th percentile 59.46 ms)

```
Run 3: Statistics of TCP Vegas

Start at: 2018-02-20 03:52:37
End at: 2018-02-20 03:53:07

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.41 Mbit/s
95th percentile per-packet one-way delay: 60.030 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 209.41 Mbit/s
95th percentile per-packet one-way delay: 60.030 ms
Loss rate: 0.00%
```
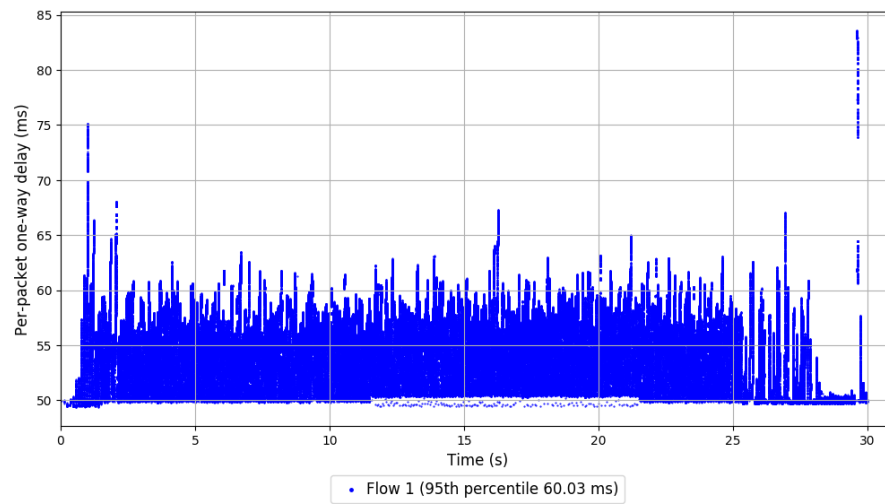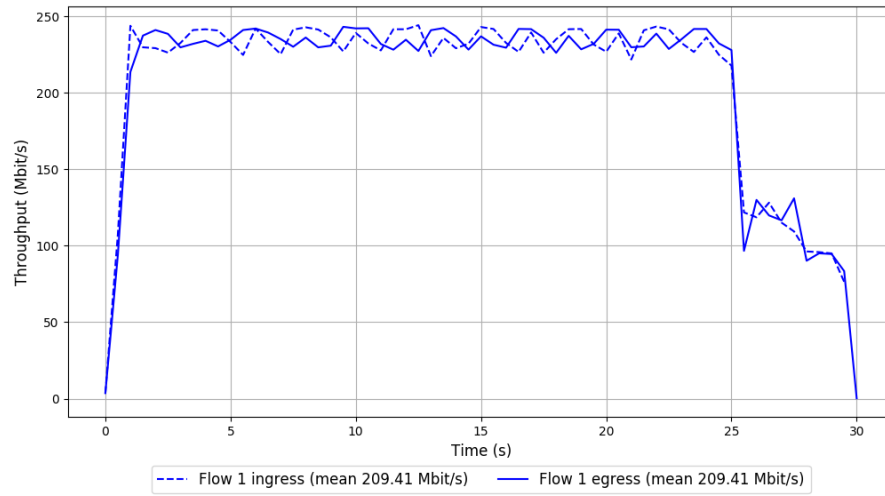
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 209.41 Mbit/s) --- Flow 1 egress (mean 209.41 Mbit/s)

Flow 1 (95th percentile 60.03 ms)

```
Run 4: Statistics of TCP Vegas

Start at: 2018-02-20 04:07:38
End at: 2018-02-20 04:08:08

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.23 Mbit/s
95th percentile per-packet one-way delay: 59.545 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.23 Mbit/s
95th percentile per-packet one-way delay: 59.545 ms
Loss rate: 0.00%
```
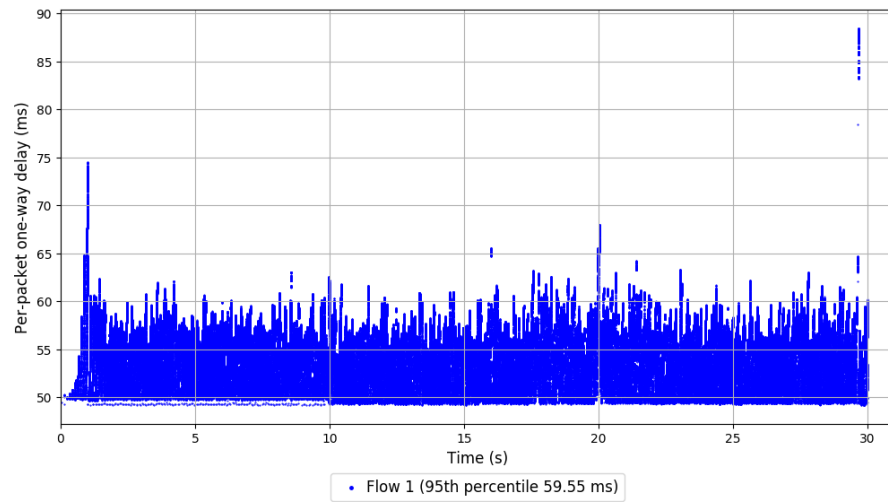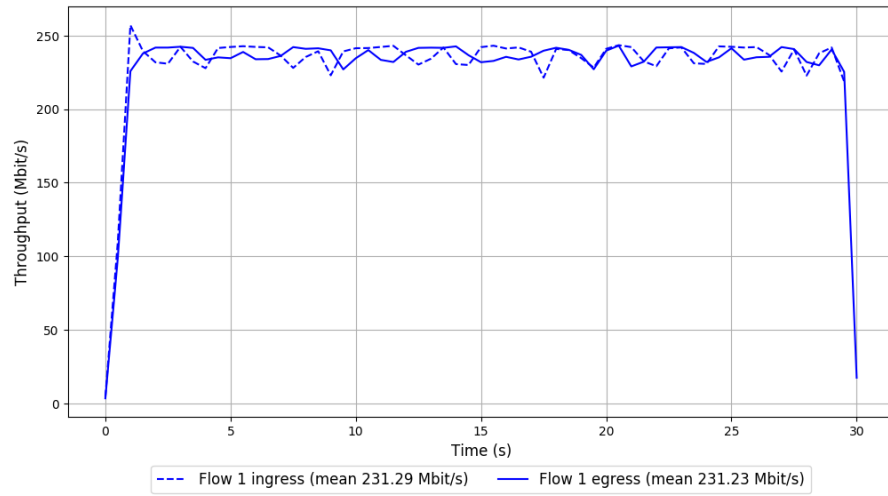
Run 4: Report of TCP Vegas — Data Link

```
Run 5: Statistics of TCP Vegas

Start at: 2018-02-20 04:22:36
End at: 2018-02-20 04:23:06

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.35 Mbit/s
95th percentile per-packet one-way delay: 60.606 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.35 Mbit/s
95th percentile per-packet one-way delay: 60.606 ms
Loss rate: 0.00%
```
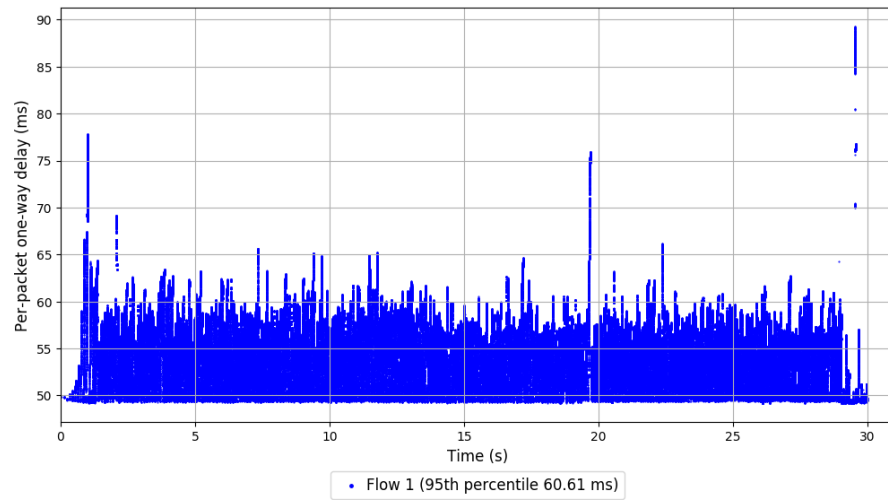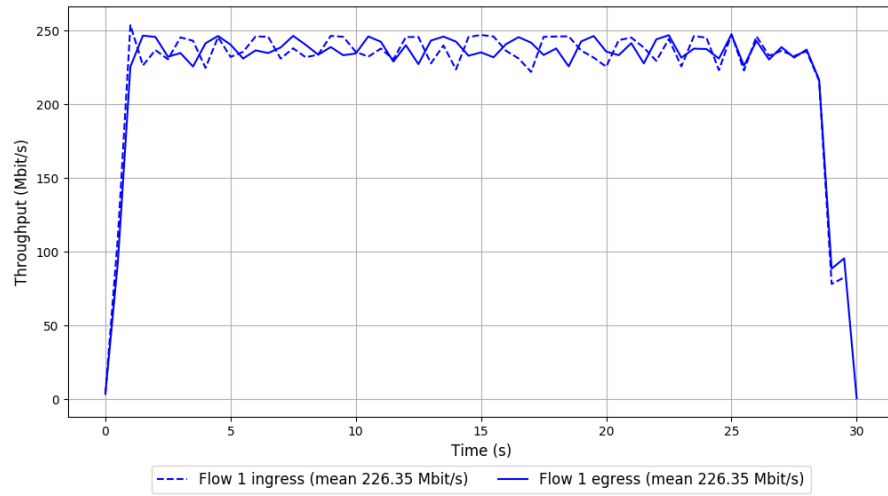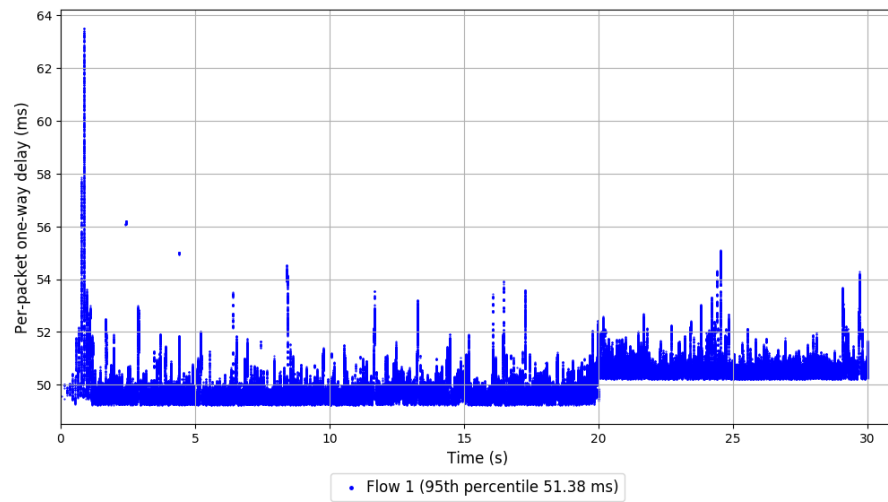
Run 5: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 226.35 Mbit/s) —— Flow 1 egress (mean 226.35 Mbit/s)

• Flow 1 (95th percentile 60.61 ms)

```
Run 6: Statistics of TCP Vegas

Start at: 2018-02-20 04:37:28
End at: 2018-02-20 04:37:58

# Below is generated by plot.py at 2018-02-20 08:07:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 142.37 Mbit/s
95th percentile per-packet one-way delay: 51.383 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 142.37 Mbit/s
95th percentile per-packet one-way delay: 51.383 ms
Loss rate: 0.00%
```
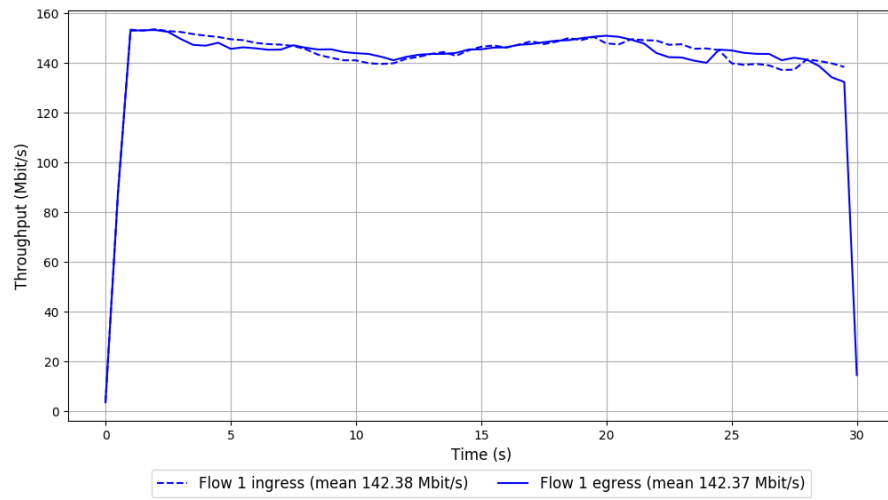
Run 6: Report of TCP Vegas — Data Link

```
Run 7: Statistics of TCP Vegas

Start at: 2018-02-20 04:52:20
End at: 2018-02-20 04:52:50

# Below is generated by plot.py at 2018-02-20 08:07:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.91 Mbit/s
95th percentile per-packet one-way delay: 60.345 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 222.91 Mbit/s
95th percentile per-packet one-way delay: 60.345 ms
Loss rate: 0.01%
```
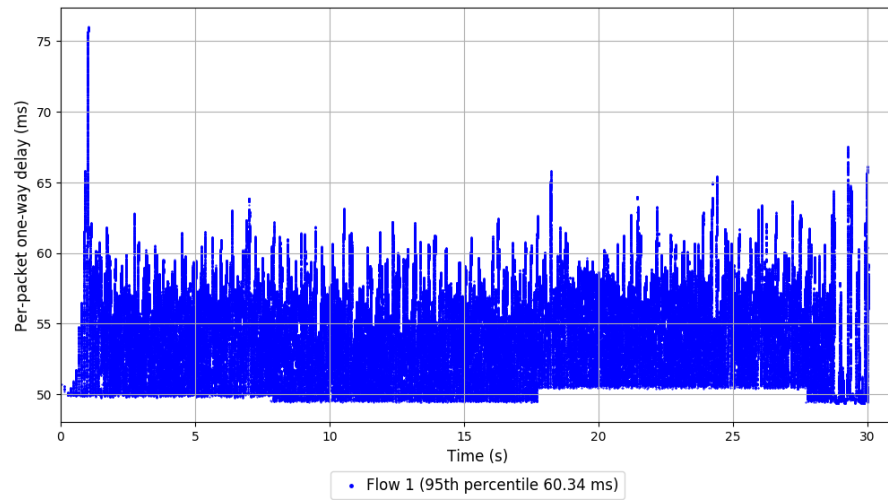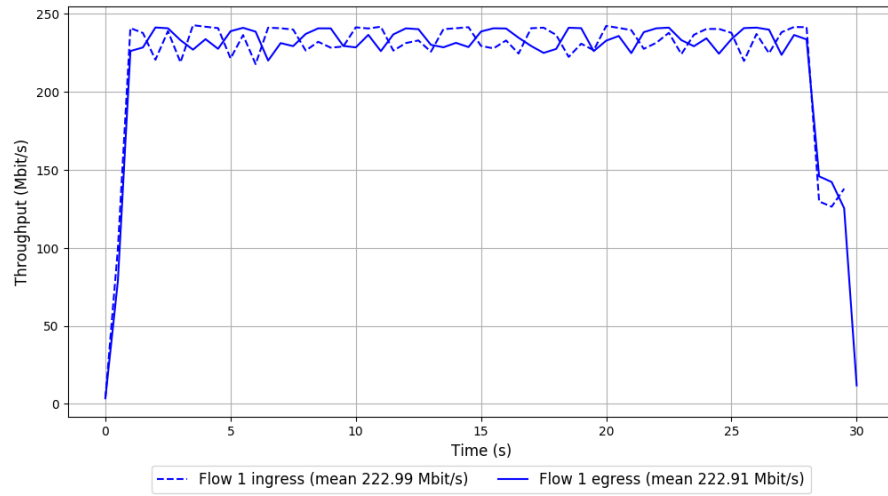
Run 7: Report of TCP Vegas — Data Link

```
Run 8: Statistics of TCP Vegas

Start at: 2018-02-20 05:07:20
End at: 2018-02-20 05:07:50

# Below is generated by plot.py at 2018-02-20 08:07:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.80 Mbit/s
95th percentile per-packet one-way delay: 61.335 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.80 Mbit/s
95th percentile per-packet one-way delay: 61.335 ms
Loss rate: 0.00%
```
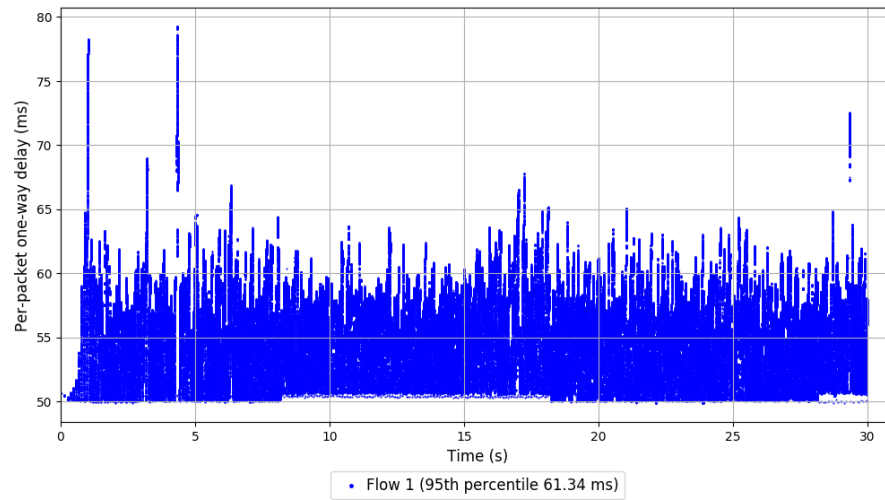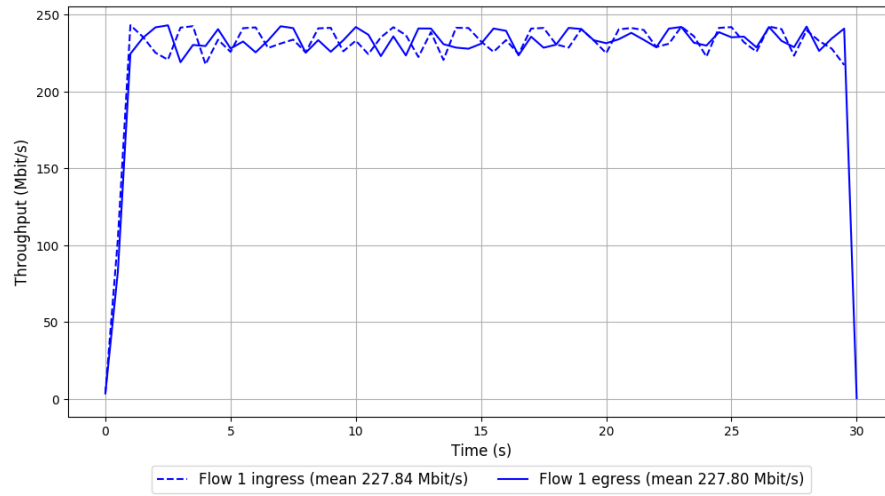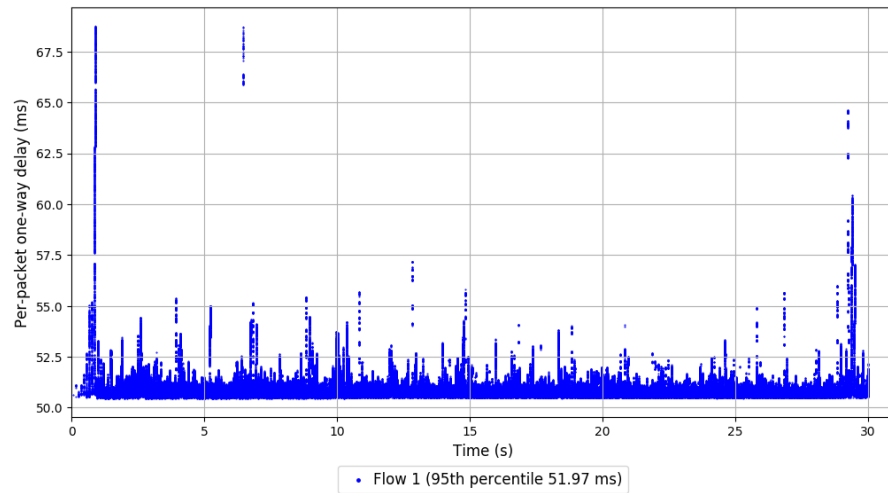
Run 8: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 227.84 Mbit/s) ---- Flow 1 egress (mean 227.80 Mbit/s)

Flow 1 (95th percentile 61.34 ms)

```
Run 9: Statistics of TCP Vegas

Start at: 2018-02-20 05:22:18
End at: 2018-02-20 05:22:48

# Below is generated by plot.py at 2018-02-20 08:07:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 158.34 Mbit/s
95th percentile per-packet one-way delay: 51.973 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 158.34 Mbit/s
95th percentile per-packet one-way delay: 51.973 ms
Loss rate: 0.00%
```
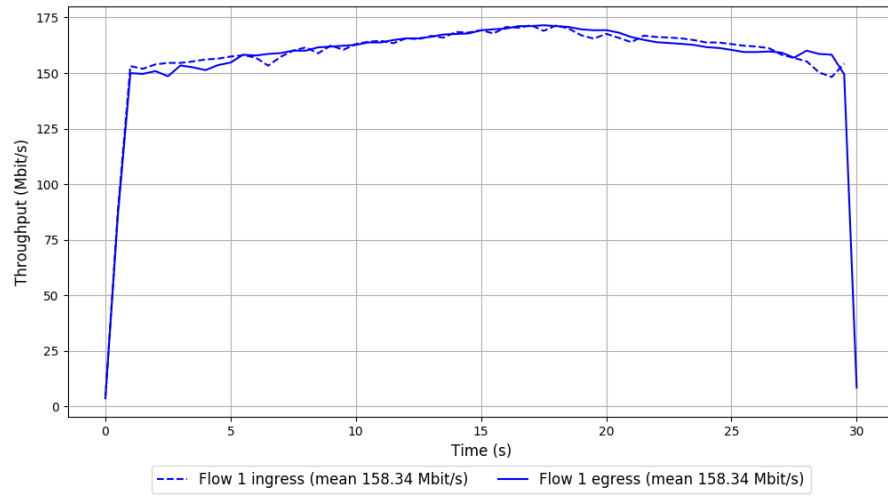
Run 9: Report of TCP Vegas — Data Link

```
Run 10: Statistics of TCP Vegas

Start at: 2018-02-20 05:37:16
End at: 2018-02-20 05:37:46

# Below is generated by plot.py at 2018-02-20 08:07:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 52.112 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 57.15 Mbit/s
95th percentile per-packet one-way delay: 52.112 ms
Loss rate: 0.00%
```
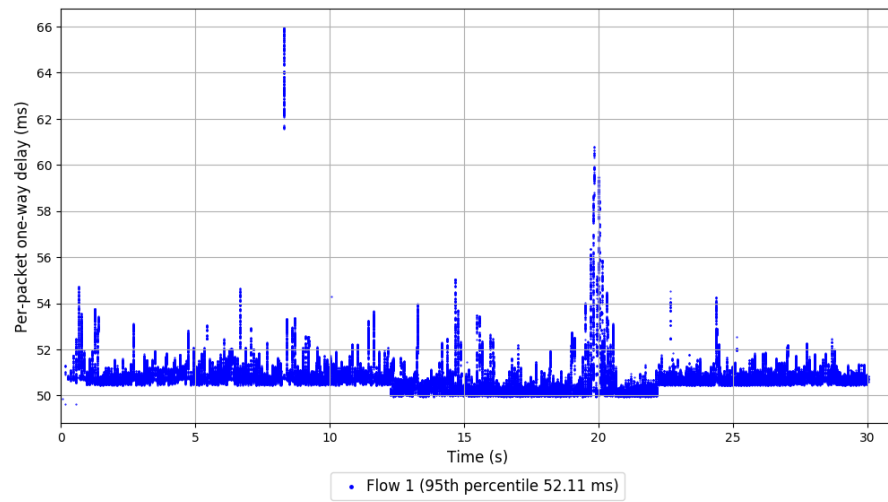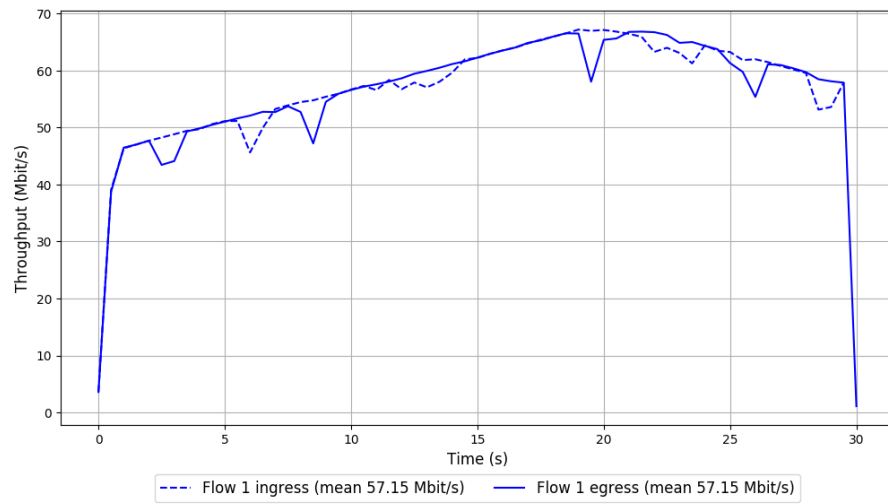
Run 10: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: 2018-02-20 03:21:16
End at: 2018-02-20 03:21:46

# Below is generated by plot.py at 2018-02-20 08:09:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 260.26 Mbit/s
95th percentile per-packet one-way delay: 87.767 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 260.26 Mbit/s
95th percentile per-packet one-way delay: 87.767 ms
Loss rate: 0.00%
```
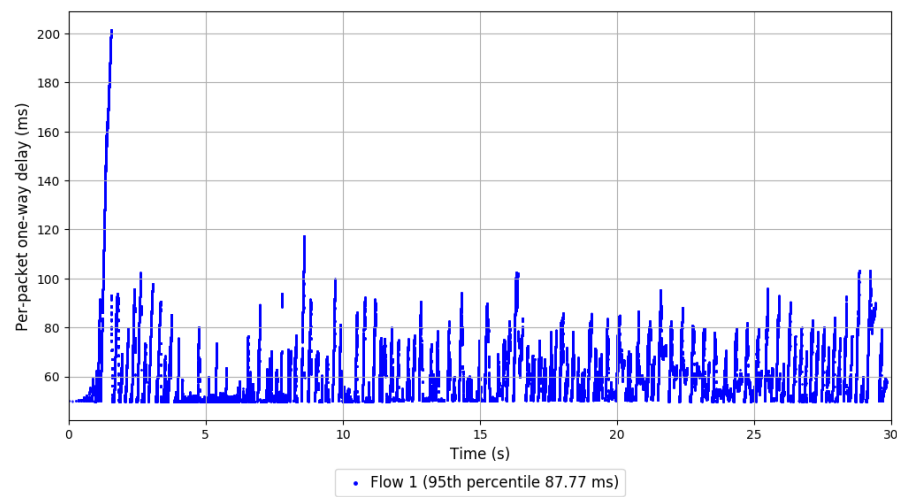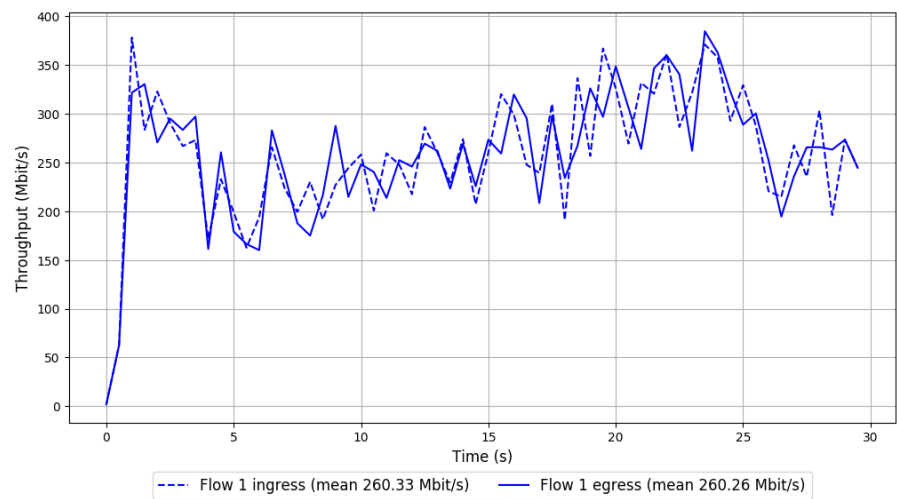
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: 2018-02-20 03:36:08
End at: 2018-02-20 03:36:38

# Below is generated by plot.py at 2018-02-20 08:09:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 274.44 Mbit/s
95th percentile per-packet one-way delay: 68.699 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 274.44 Mbit/s
95th percentile per-packet one-way delay: 68.699 ms
Loss rate: 0.22%
```
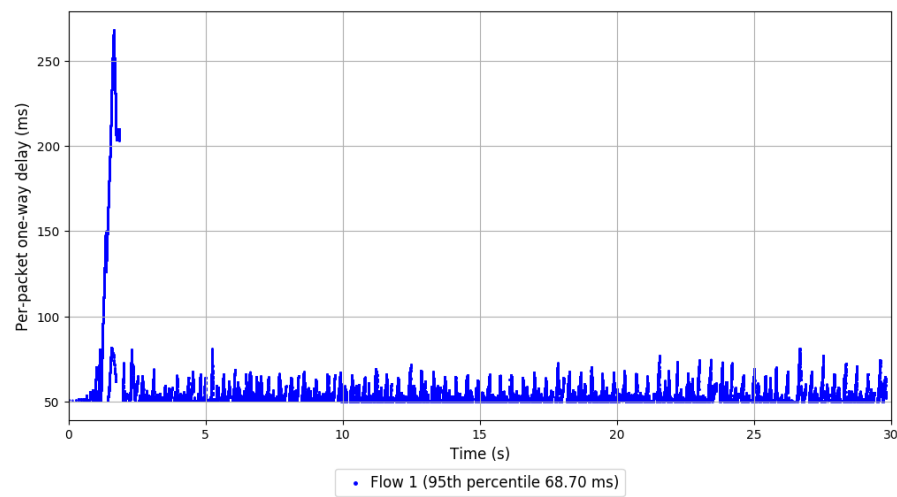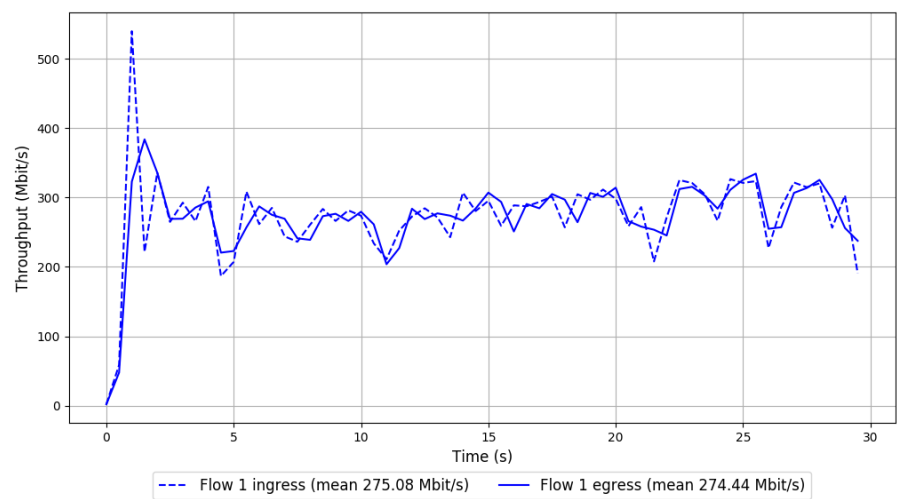
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 275.08 Mbit/s) Flow 1 egress (mean 274.44 Mbit/s)

Flow 1 (95th percentile 68.70 ms)

207

```
Run 3: Statistics of Verus

Start at: 2018-02-20 03:50:51
End at: 2018-02-20 03:51:21

# Below is generated by plot.py at 2018-02-20 08:09:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.36 Mbit/s
95th percentile per-packet one-way delay: 105.743 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 256.36 Mbit/s
95th percentile per-packet one-way delay: 105.743 ms
Loss rate: 0.18%
```
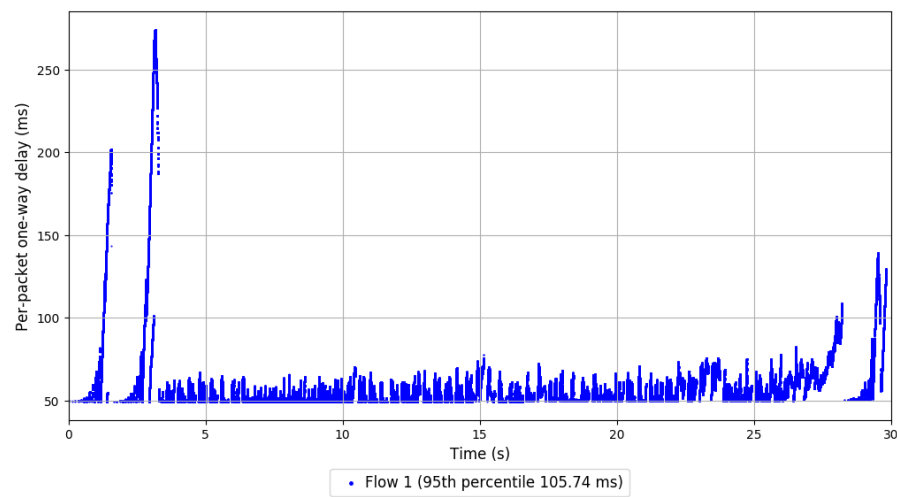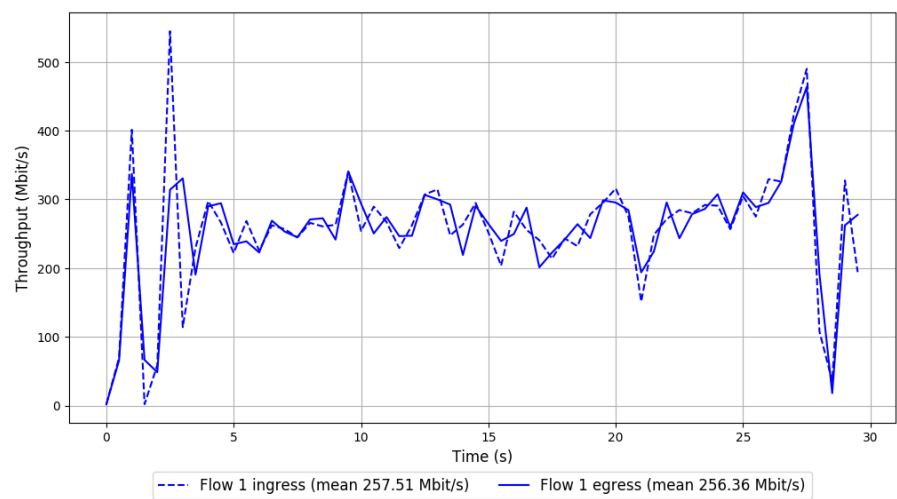
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 257.51 Mbit/s)   Flow 1 egress (mean 256.36 Mbit/s)

Flow 1 (95th percentile 105.74 ms)

```
Run 4: Statistics of Verus

Start at: 2018-02-20 04:05:43
End at: 2018-02-20 04:06:13


# Below is generated by plot.py at 2018-02-20 08:11:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 261.76 Mbit/s
95th percentile per-packet one-way delay: 90.622 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 261.76 Mbit/s
95th percentile per-packet one-way delay: 90.622 ms
Loss rate: 0.33%
```
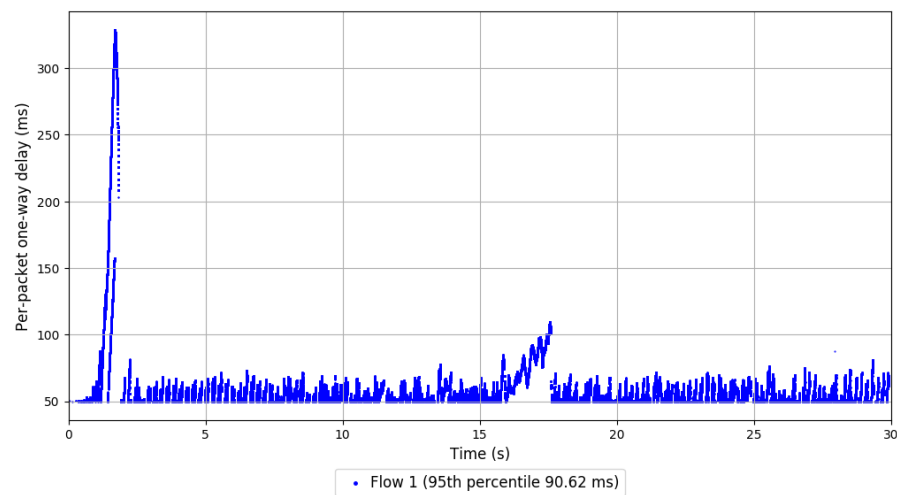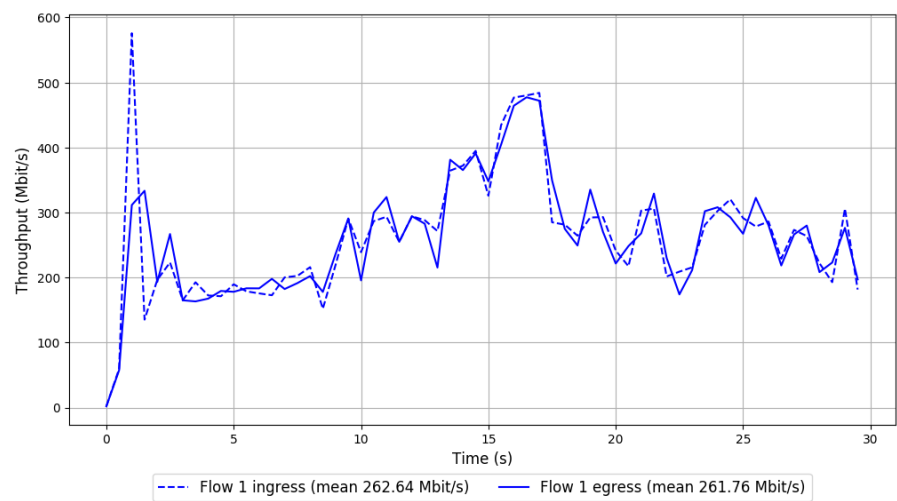
Run 4: Report of Verus — Data Link

```
Run 5: Statistics of Verus

Start at: 2018-02-20 04:20:45
End at: 2018-02-20 04:21:15

# Below is generated by plot.py at 2018-02-20 08:11:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.42 Mbit/s
95th percentile per-packet one-way delay: 175.150 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 191.42 Mbit/s
95th percentile per-packet one-way delay: 175.150 ms
Loss rate: 0.22%
```
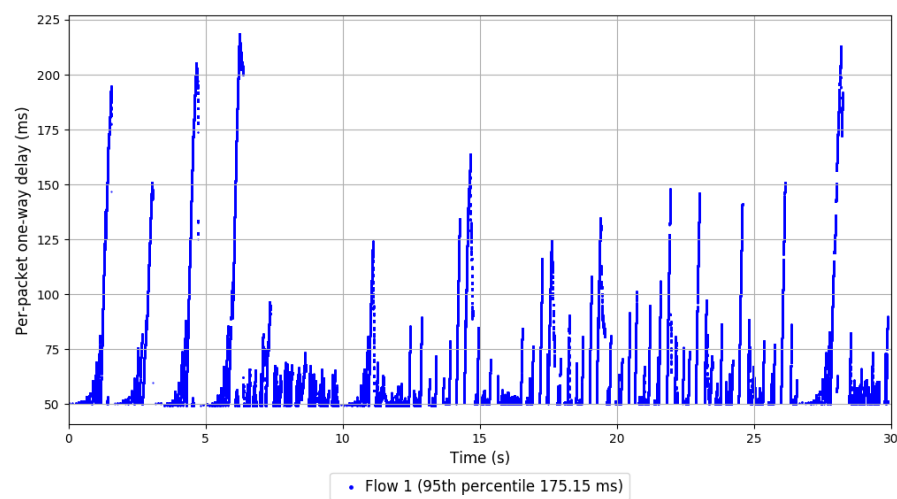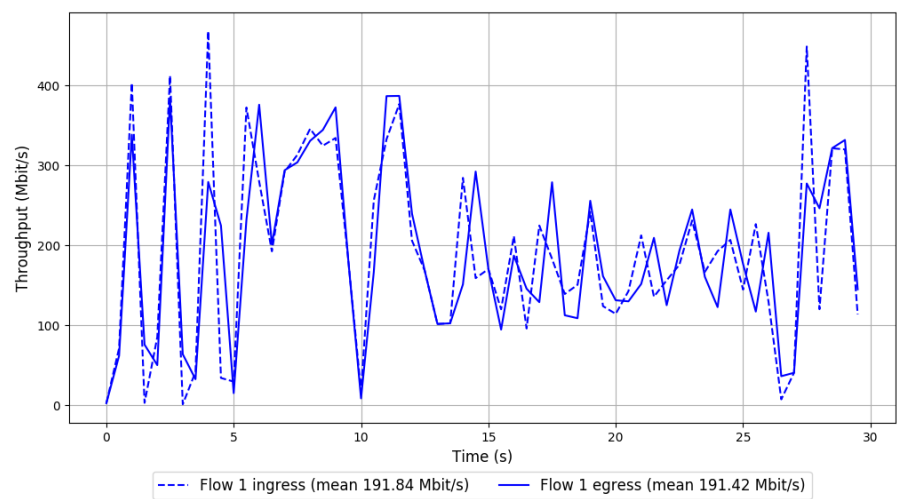
Run 5: Report of Verus — Data Link

```
Run 6: Statistics of Verus

Start at: 2018-02-20 04:35:36
End at: 2018-02-20 04:36:06

# Below is generated by plot.py at 2018-02-20 08:11:14
# Datalink statistics
-- Total of 1 flow:
Average throughput: 209.56 Mbit/s
95th percentile per-packet one-way delay: 69.022 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 209.56 Mbit/s
95th percentile per-packet one-way delay: 69.022 ms
Loss rate: 0.25%
```
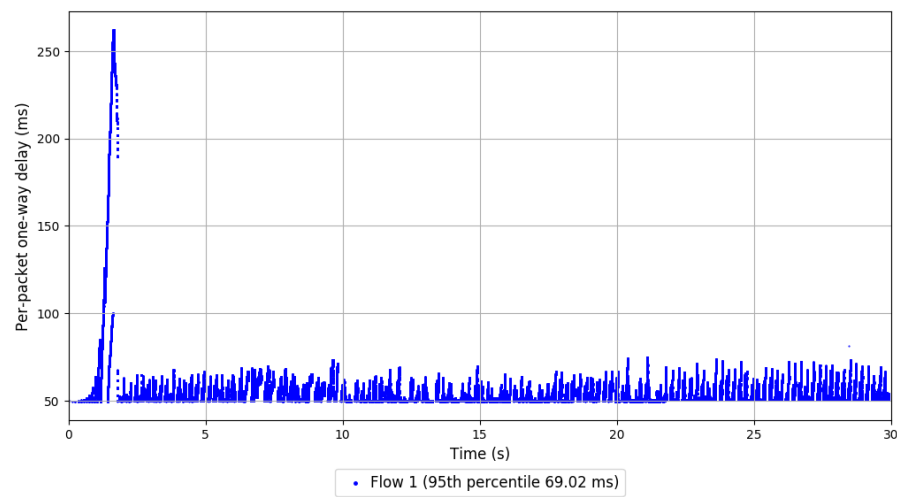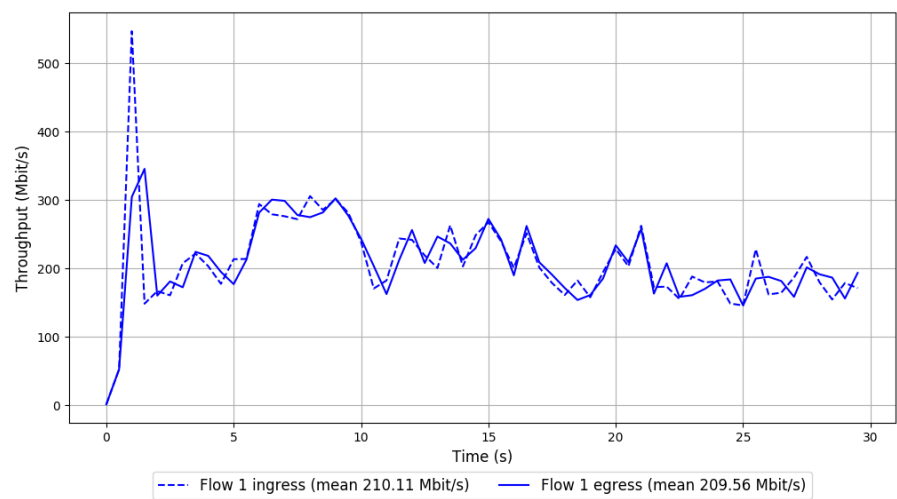
Run 6: Report of Verus — Data Link

```
Run 7: Statistics of Verus

Start at: 2018-02-20 04:50:26
End at: 2018-02-20 04:50:56

# Below is generated by plot.py at 2018-02-20 08:11:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 227.17 Mbit/s
95th percentile per-packet one-way delay: 88.298 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 227.17 Mbit/s
95th percentile per-packet one-way delay: 88.298 ms
Loss rate: 0.00%
```
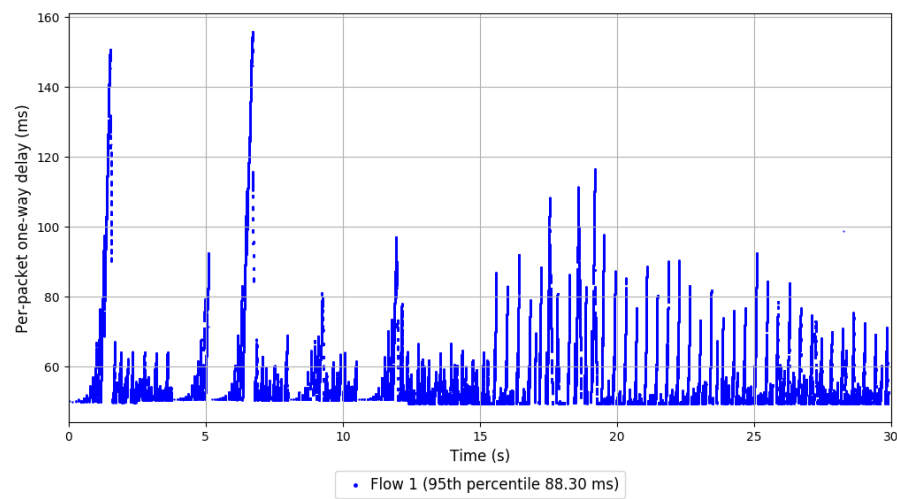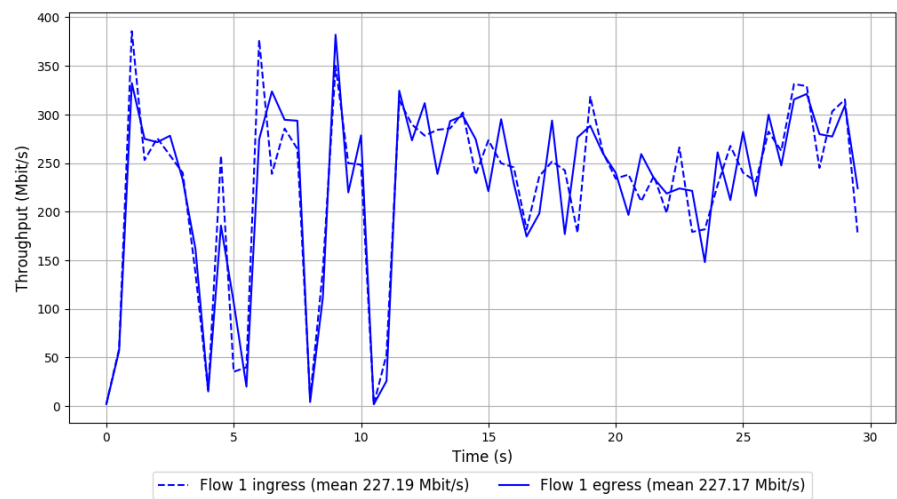
Run 7: Report of Verus — Data Link

```
Run 8: Statistics of Verus

Start at: 2018-02-20 05:05:24
End at: 2018-02-20 05:05:54

# Below is generated by plot.py at 2018-02-20 08:13:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 292.84 Mbit/s
95th percentile per-packet one-way delay: 77.652 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 292.84 Mbit/s
95th percentile per-packet one-way delay: 77.652 ms
Loss rate: 0.77%
```
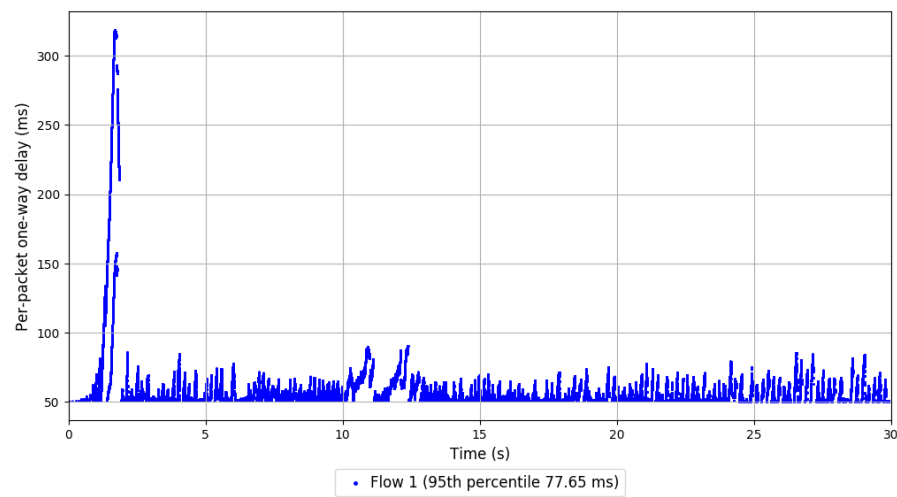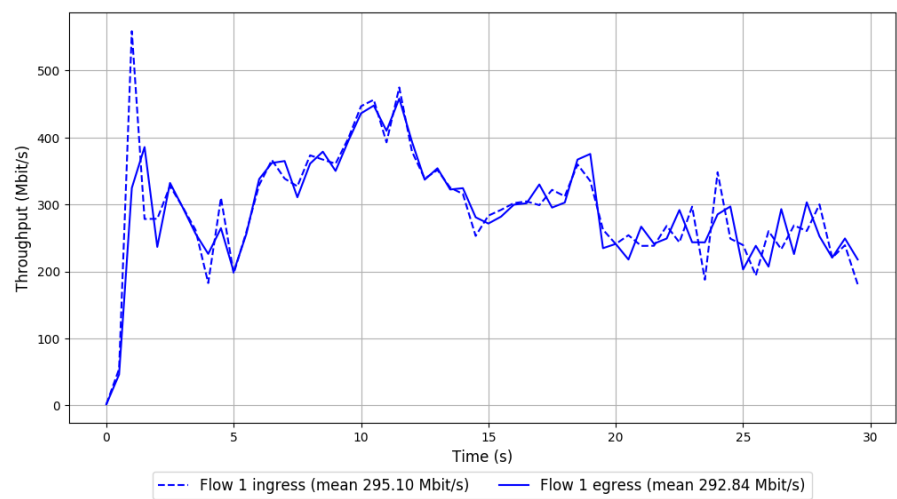
Run 8: Report of Verus — Data Link

Flow 1 ingress (mean 295.10 Mbit/s) --- Flow 1 egress (mean 292.84 Mbit/s)

Flow 1 (95th percentile 77.65 ms)

```
Run 9: Statistics of Verus

Start at: 2018-02-20 05:20:19
End at: 2018-02-20 05:20:49

# Below is generated by plot.py at 2018-02-20 08:14:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.09 Mbit/s
95th percentile per-packet one-way delay: 175.530 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 249.09 Mbit/s
95th percentile per-packet one-way delay: 175.530 ms
Loss rate: 0.42%
```
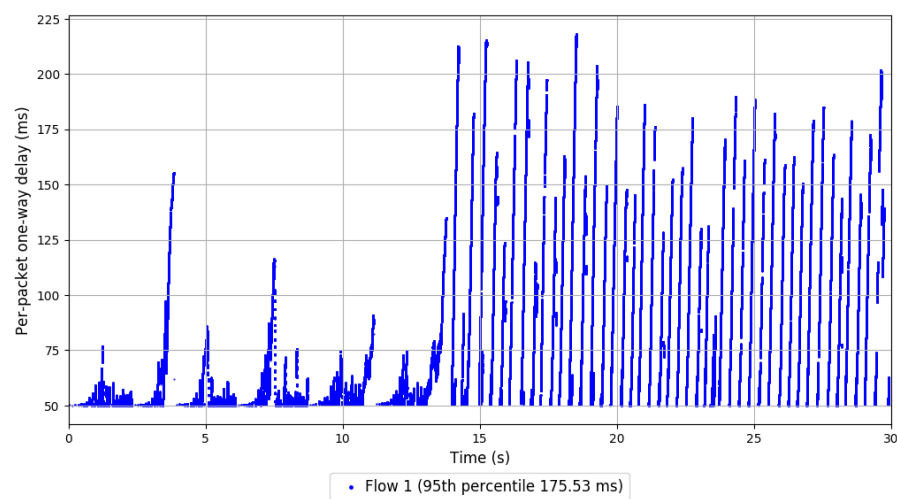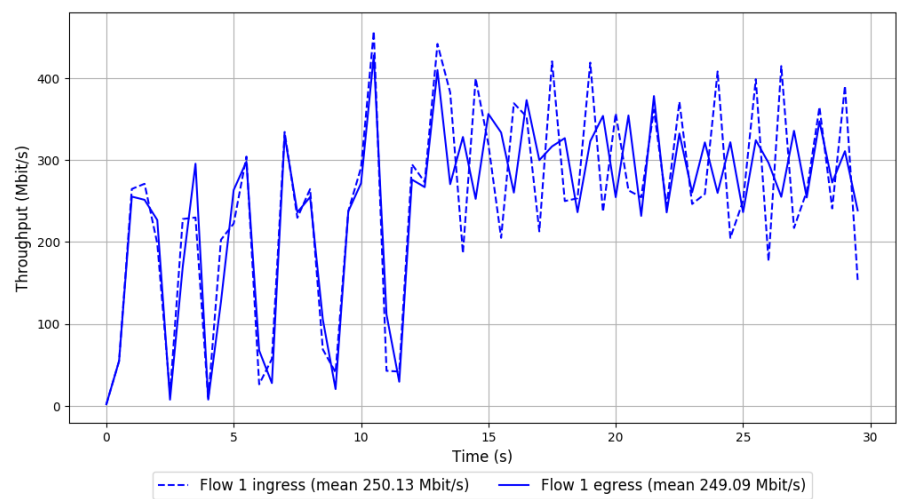
Run 9: Report of Verus — Data Link

```
Run 10: Statistics of Verus

Start at: 2018-02-20 05:35:19
End at: 2018-02-20 05:35:49

# Below is generated by plot.py at 2018-02-20 08:14:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 286.22 Mbit/s
95th percentile per-packet one-way delay: 78.149 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 286.22 Mbit/s
95th percentile per-packet one-way delay: 78.149 ms
Loss rate: 0.18%
```
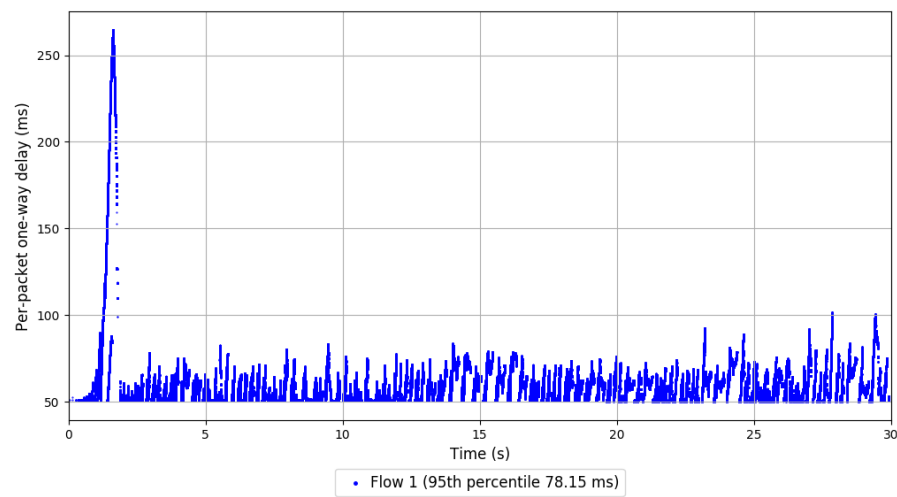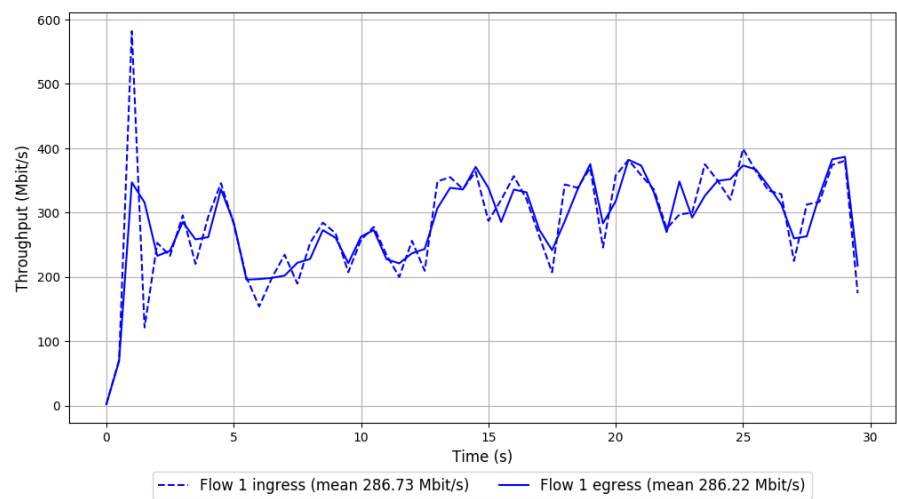
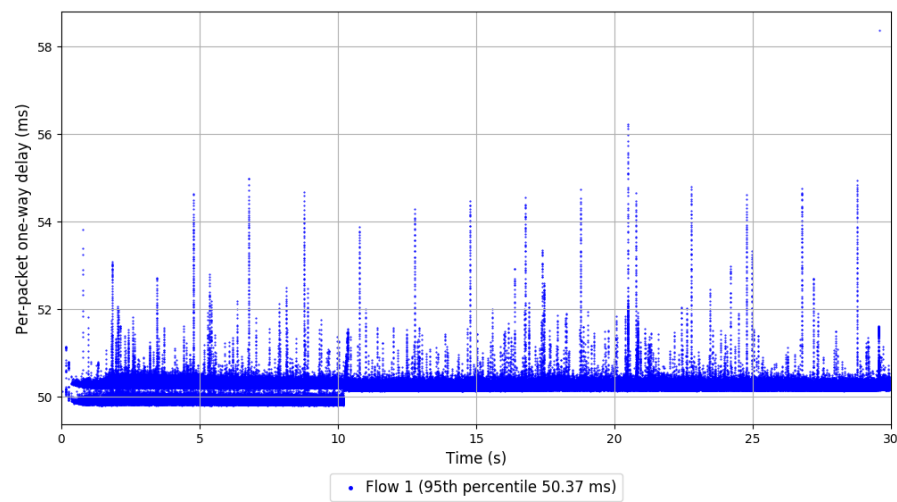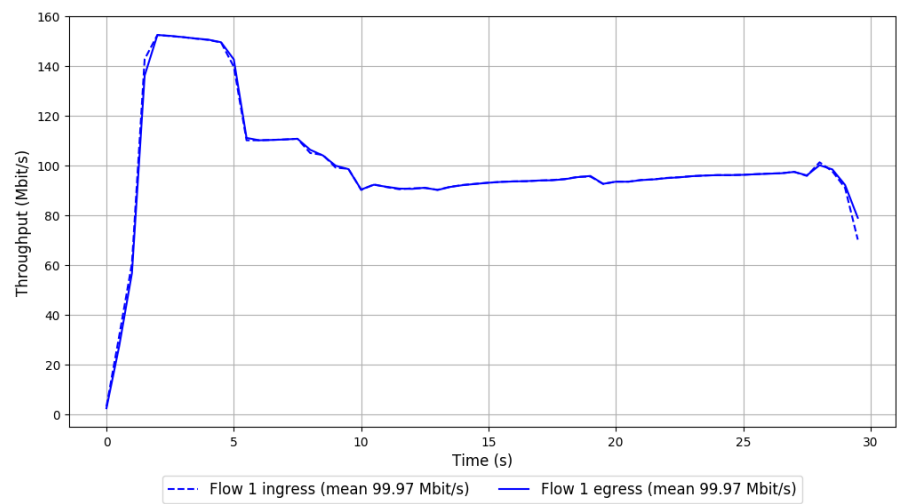## Run 10: Report of Verus — Data Link

```
Run 1: Statistics of Copa

Start at: 2018-02-20 03:25:08
End at: 2018-02-20 03:25:38

# Below is generated by plot.py at 2018-02-20 08:14:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 50.372 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.97 Mbit/s
95th percentile per-packet one-way delay: 50.372 ms
Loss rate: 0.00%
```

Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: 2018-02-20 03:39:50
End at: 2018-02-20 03:40:20

# Below is generated by plot.py at 2018-02-20 08:14:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.42 Mbit/s
95th percentile per-packet one-way delay: 50.384 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.42 Mbit/s
95th percentile per-packet one-way delay: 50.384 ms
Loss rate: 0.00%
```
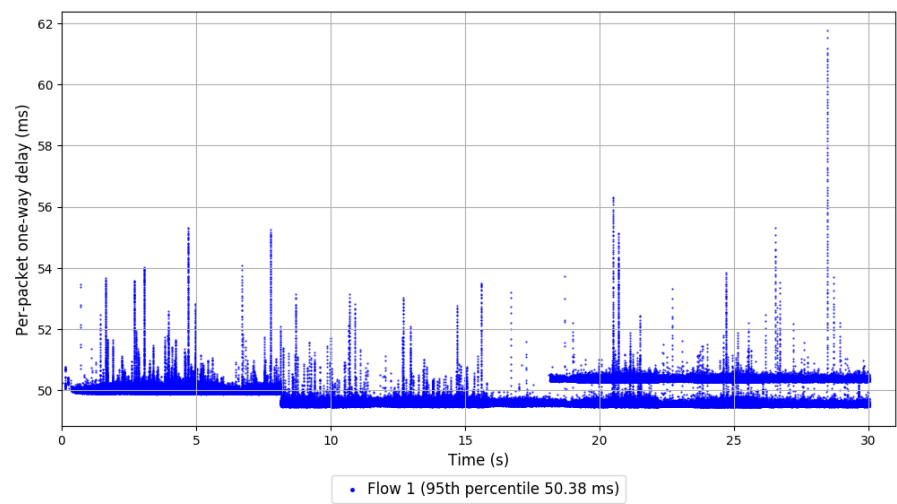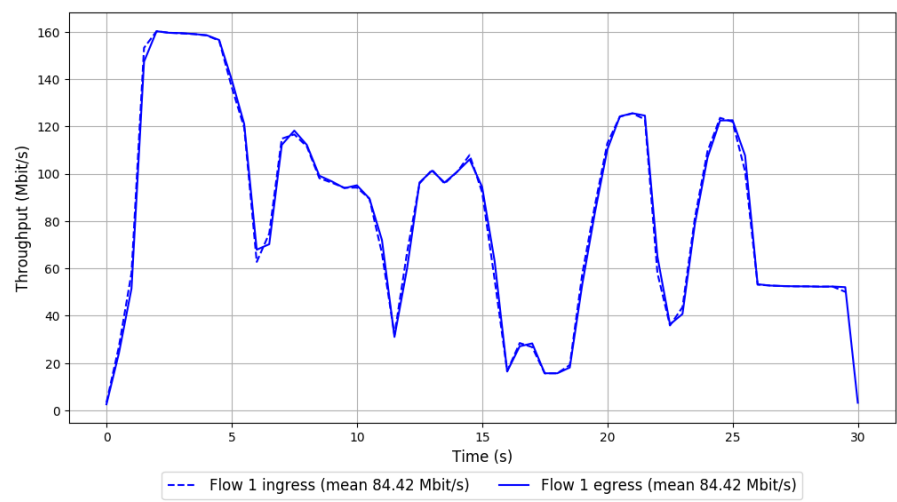
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: 2018-02-20 03:54:38
End at: 2018-02-20 03:55:08

# Below is generated by plot.py at 2018-02-20 08:14:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.61 Mbit/s
95th percentile per-packet one-way delay: 50.327 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.61 Mbit/s
95th percentile per-packet one-way delay: 50.327 ms
Loss rate: 0.00%
```
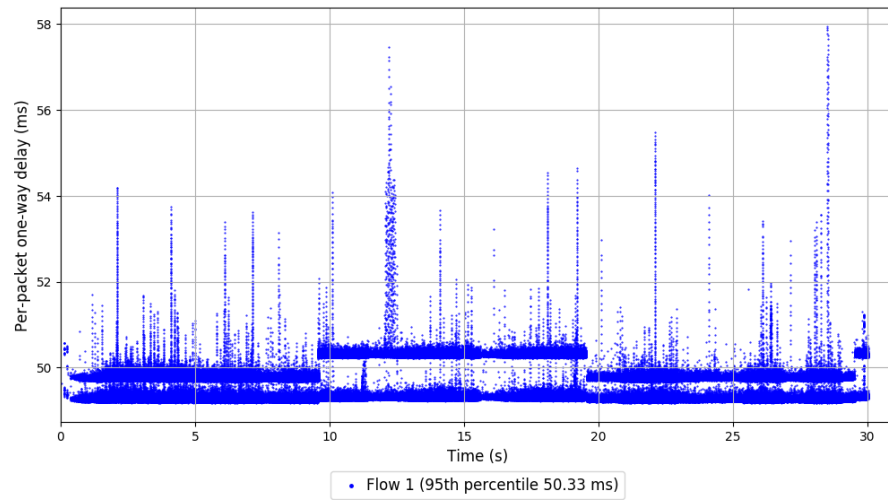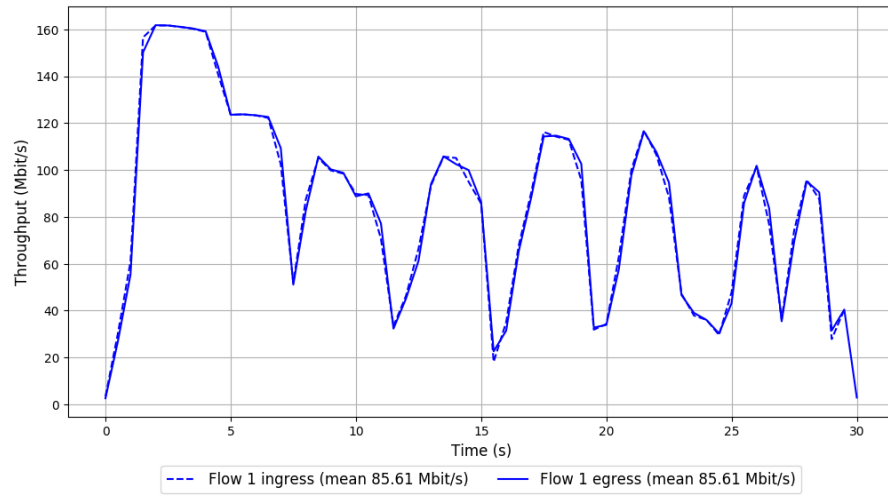
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 85.61 Mbit/s)   Flow 1 egress (mean 85.61 Mbit/s)

Flow 1 (95th percentile 50.33 ms)

```
Run 4: Statistics of Copa

Start at: 2018-02-20 04:09:41
End at: 2018-02-20 04:10:11

# Below is generated by plot.py at 2018-02-20 08:14:46
# Datalink statistics
-- Total of 1 flow:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 50.203 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 96.38 Mbit/s
95th percentile per-packet one-way delay: 50.203 ms
Loss rate: 0.00%
```
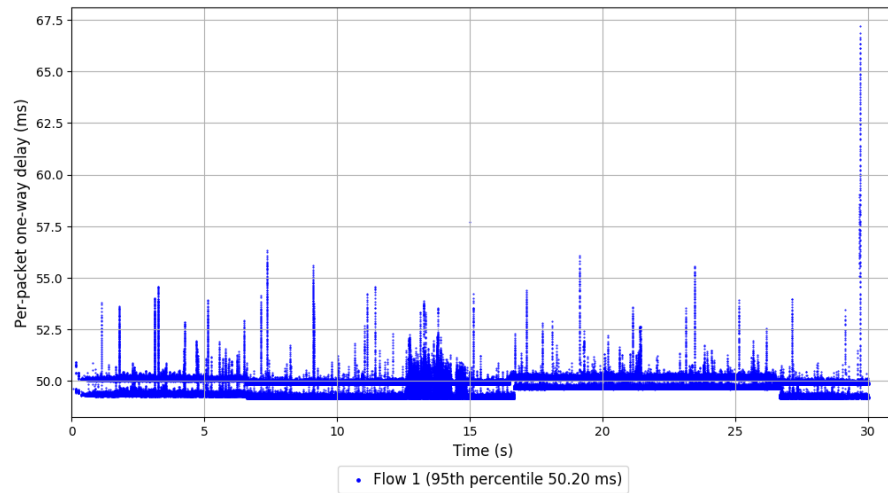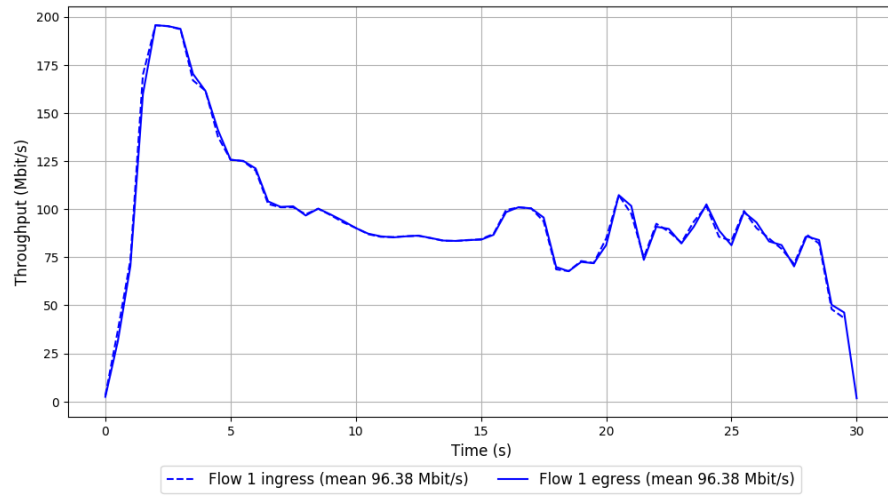
Run 4: Report of Copa — Data Link

```
Run 5: Statistics of Copa

Start at: 2018-02-20 04:24:39
End at: 2018-02-20 04:25:09

# Below is generated by plot.py at 2018-02-20 08:14:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 50.262 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 95.37 Mbit/s
95th percentile per-packet one-way delay: 50.262 ms
Loss rate: 0.00%
```
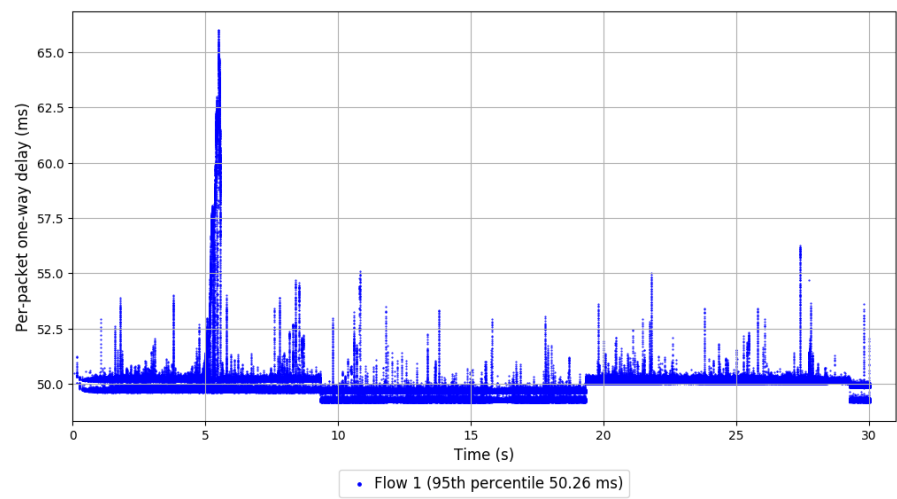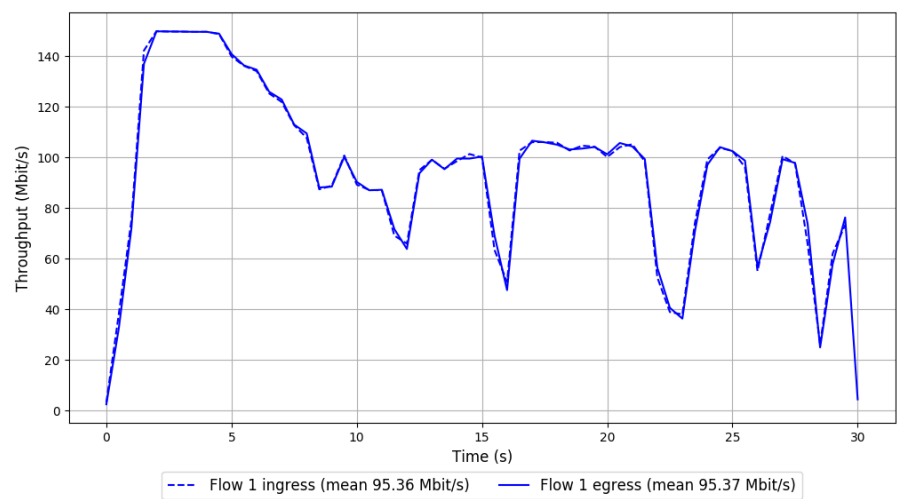
Run 5: Report of Copa — Data Link

```
Run 6: Statistics of Copa

Start at: 2018-02-20 04:39:26
End at: 2018-02-20 04:39:56

# Below is generated by plot.py at 2018-02-20 08:16:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 99.53 Mbit/s
95th percentile per-packet one-way delay: 50.359 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.53 Mbit/s
95th percentile per-packet one-way delay: 50.359 ms
Loss rate: 0.00%
```
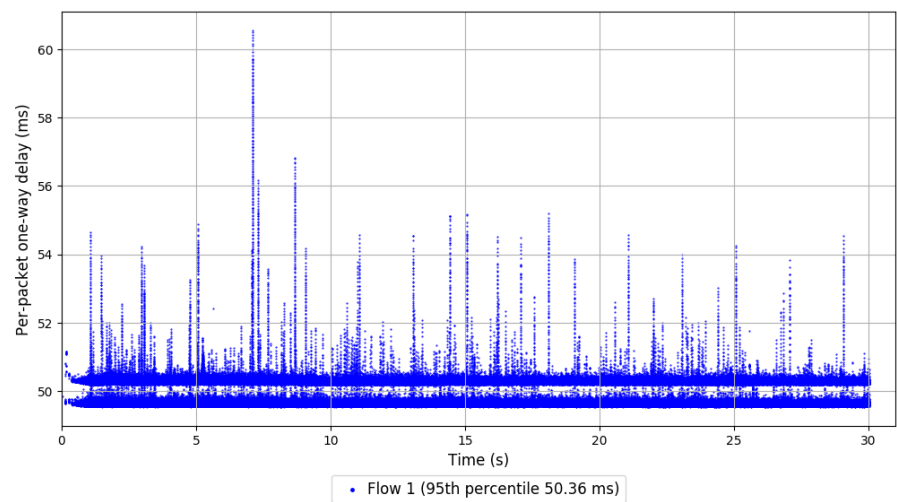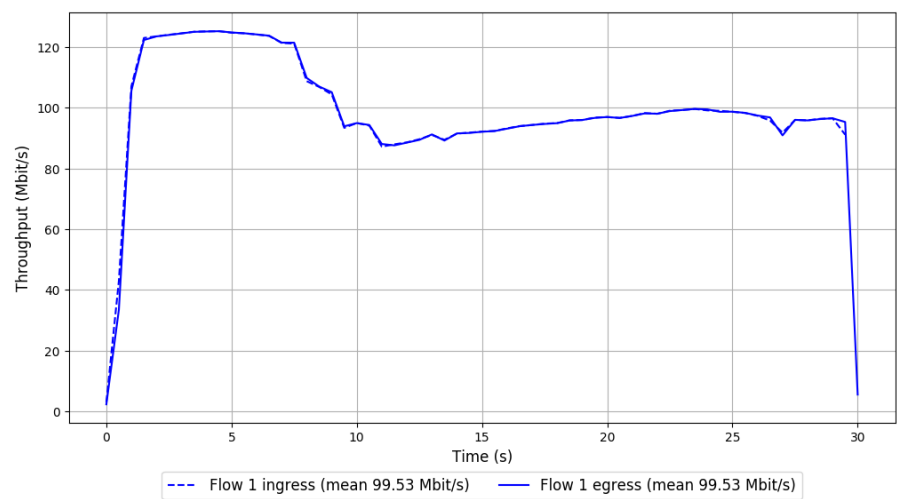
Run 6: Report of Copa — Data Link

```
Run 7: Statistics of Copa

Start at: 2018-02-20 04:54:22
End at: 2018-02-20 04:54:52


# Below is generated by plot.py at 2018-02-20 08:16:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 50.445 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 85.56 Mbit/s
95th percentile per-packet one-way delay: 50.445 ms
Loss rate: 0.00%
```
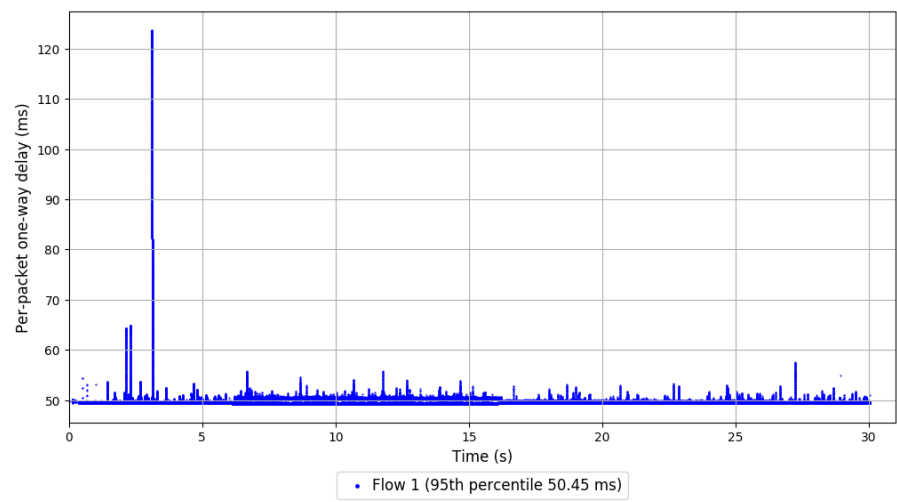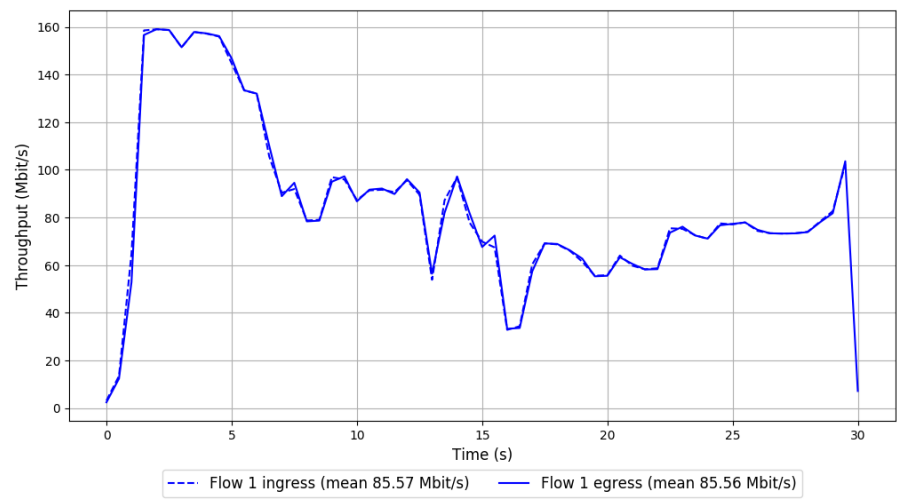
Run 7: Report of Copa — Data Link

Flow 1 ingress (mean 85.57 Mbit/s) — Flow 1 egress (mean 85.56 Mbit/s)

Flow 1 (95th percentile 50.45 ms)

```
Run 8: Statistics of Copa

Start at: 2018-02-20 05:09:21
End at: 2018-02-20 05:09:51


# Below is generated by plot.py at 2018-02-20 08:16:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 50.552 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 93.06 Mbit/s
95th percentile per-packet one-way delay: 50.552 ms
Loss rate: 0.00%
```
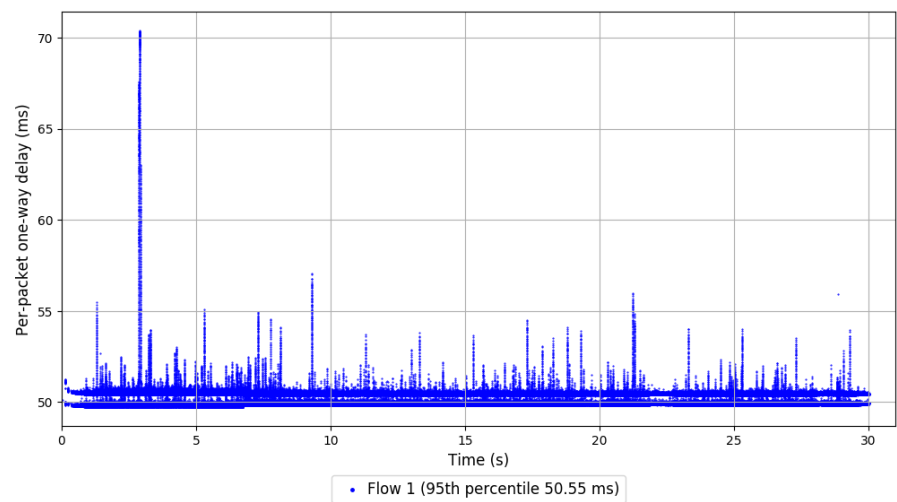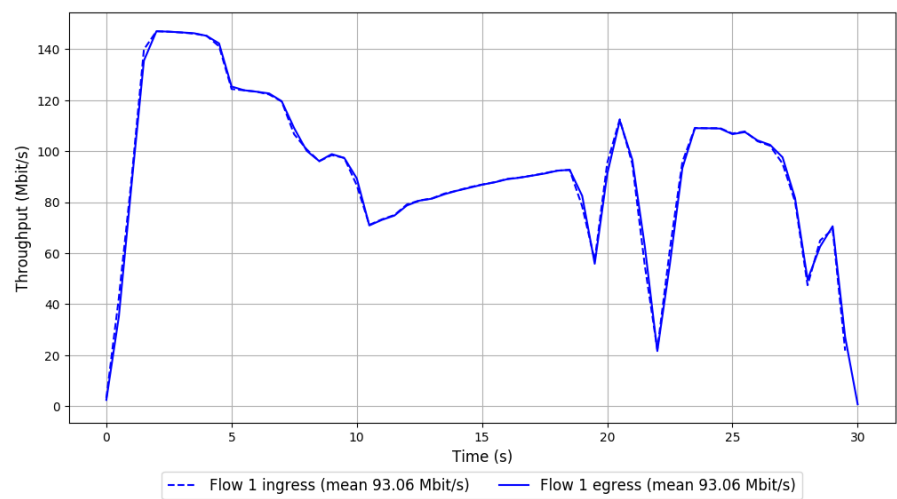
Run 8: Report of Copa — Data Link

```
Run 9: Statistics of Copa

Start at: 2018-02-20 05:24:14
End at: 2018-02-20 05:24:44

# Below is generated by plot.py at 2018-02-20 08:17:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 99.34 Mbit/s
95th percentile per-packet one-way delay: 50.631 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 99.34 Mbit/s
95th percentile per-packet one-way delay: 50.631 ms
Loss rate: 0.00%
```
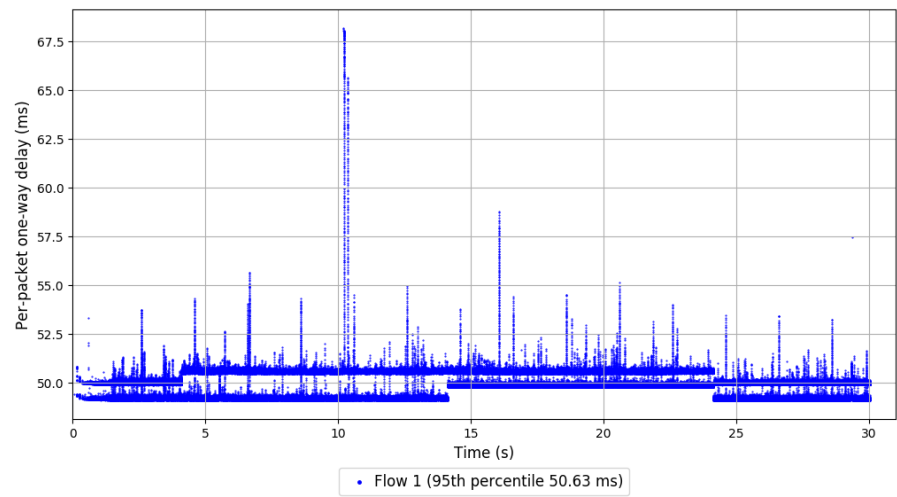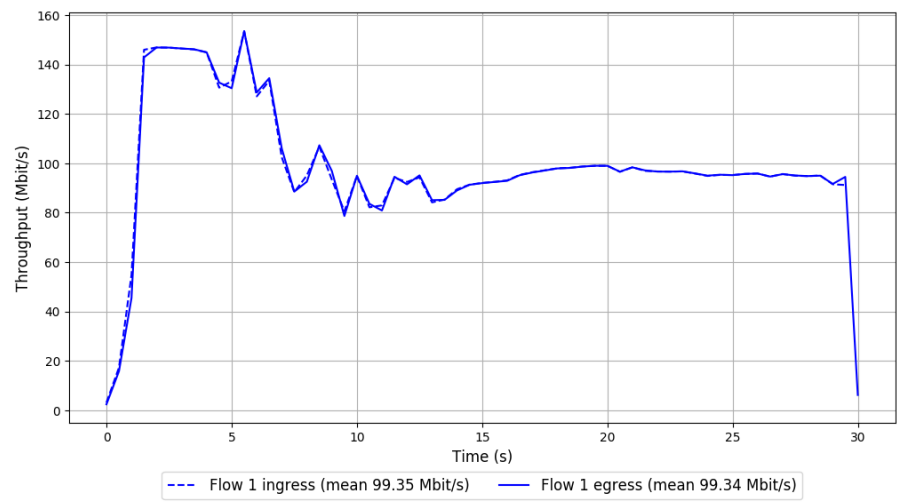
Run 9: Report of Copa — Data Link

Flow 1 ingress (mean 99.35 Mbit/s)   Flow 1 egress (mean 99.34 Mbit/s)

• Flow 1 (95th percentile 50.63 ms)

Run 10: Statistics of Copa

Start at: 2018-02-20 05:39:08
End at: 2018-02-20 05:39:38

Below is generated by plot.py at 2018-02-20 08:17:01
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.50 Mbit/s
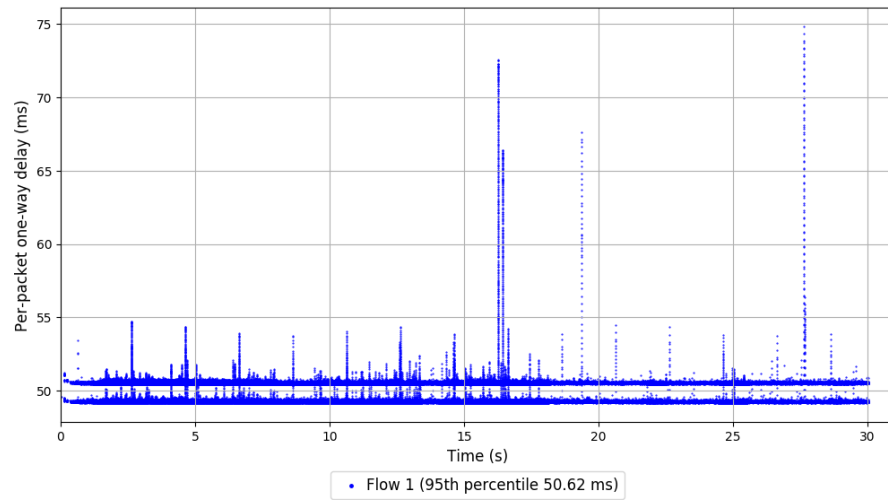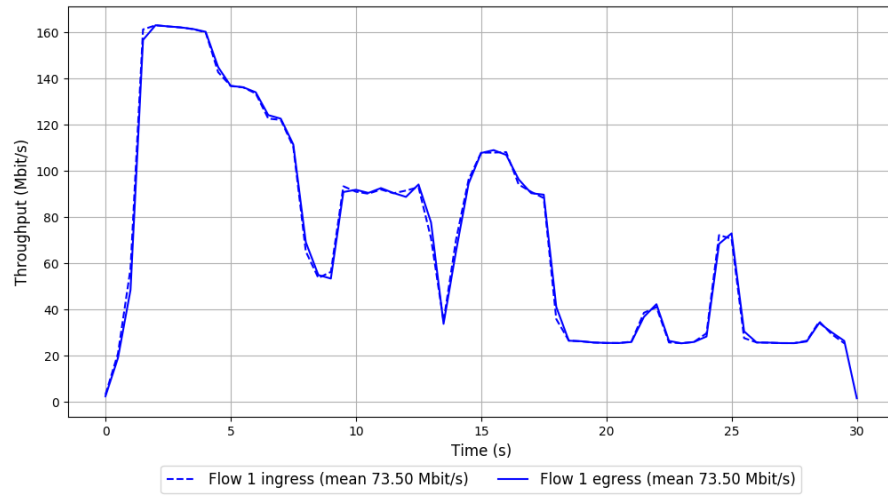95th percentile per-packet one-way delay: 50.617 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 73.50 Mbit/s
95th percentile per-packet one-way delay: 50.617 ms
Loss rate: 0.00%
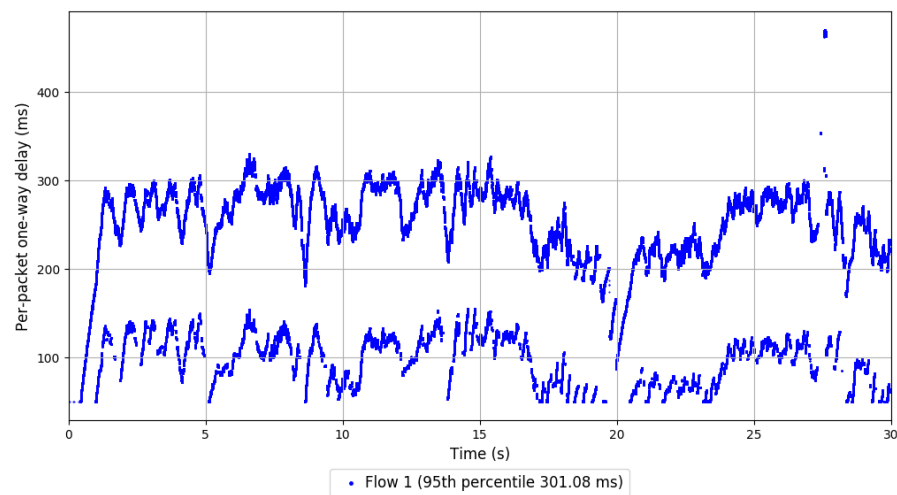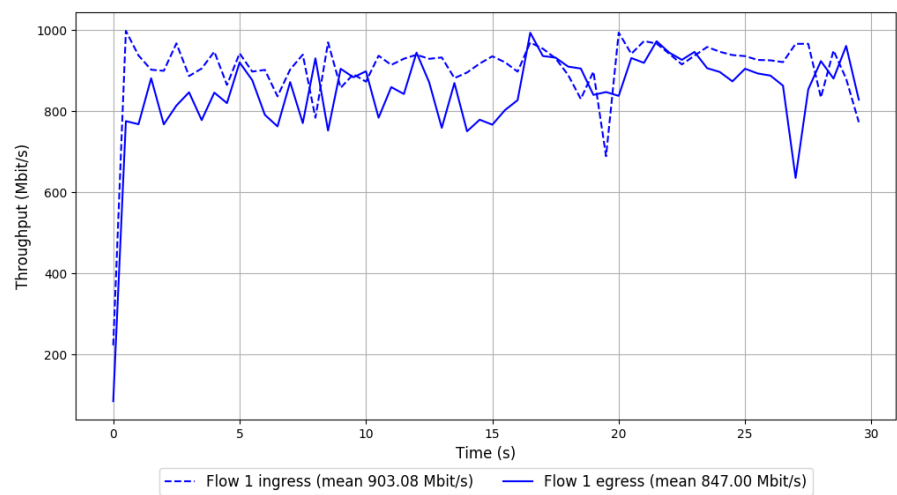
Run 10: Report of Copa — Data Link

```
Run 1: Statistics of FillP

Start at: 2018-02-20 03:23:54
End at: 2018-02-20 03:24:24

# Below is generated by plot.py at 2018-02-20 08:31:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 847.00 Mbit/s
95th percentile per-packet one-way delay: 301.077 ms
Loss rate: 6.21%
-- Flow 1:
Average throughput: 847.00 Mbit/s
95th percentile per-packet one-way delay: 301.077 ms
Loss rate: 6.21%
```

Run 1: Report of FillP — Data Link

Flow 1 ingress (mean 903.08 Mbit/s) ---- Flow 1 egress (mean 847.00 Mbit/s) ——

• Flow 1 (95th percentile 301.08 ms)

```
Run 2: Statistics of FillP

Start at: 2018-02-20 03:38:37
End at: 2018-02-20 03:39:07

# Below is generated by plot.py at 2018-02-20 08:31:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 871.61 Mbit/s
95th percentile per-packet one-way delay: 282.417 ms
Loss rate: 6.66%
-- Flow 1:
Average throughput: 871.61 Mbit/s
95th percentile per-packet one-way delay: 282.417 ms
Loss rate: 6.66%
```
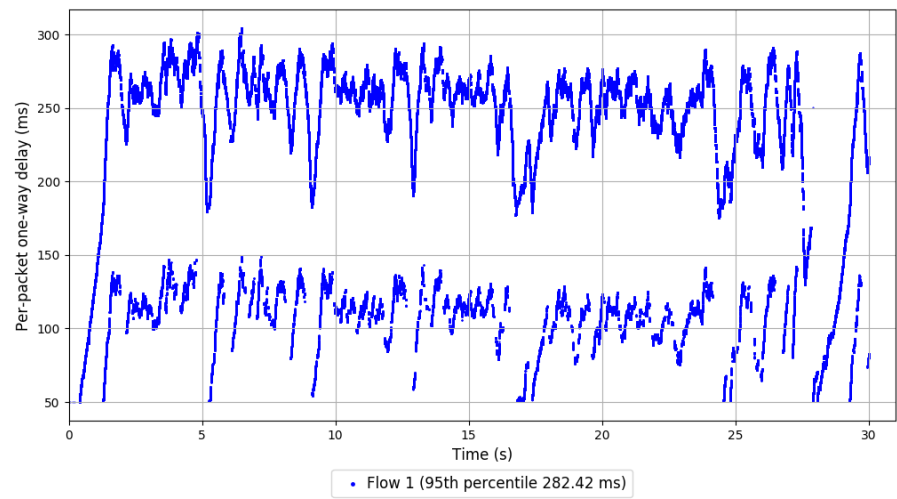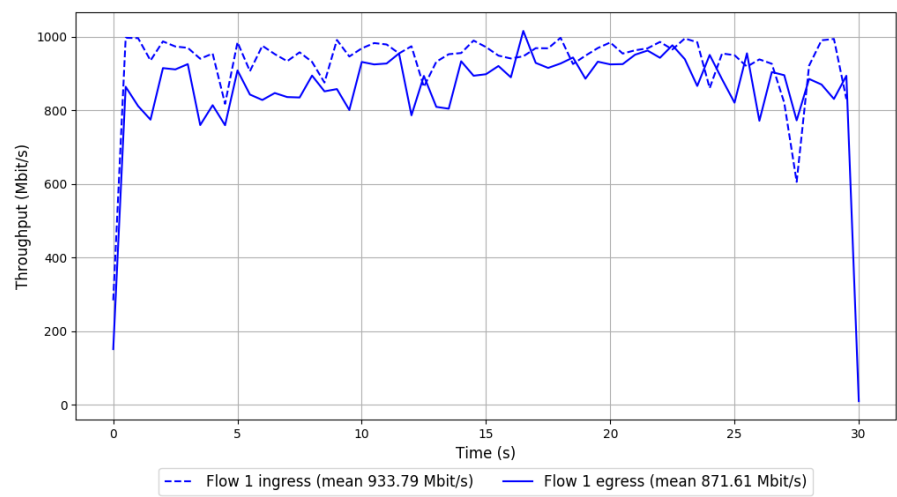
Run 2: Report of FillP — Data Link

Flow 1 ingress (mean 933.79 Mbit/s)   Flow 1 egress (mean 871.61 Mbit/s)

• Flow 1 (95th percentile 282.42 ms)

```
Run 3: Statistics of FillP

Start at: 2018-02-20 03:53:24
End at: 2018-02-20 03:53:54

# Below is generated by plot.py at 2018-02-20 08:31:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 874.64 Mbit/s
95th percentile per-packet one-way delay: 291.035 ms
Loss rate: 7.17%
-- Flow 1:
Average throughput: 874.64 Mbit/s
95th percentile per-packet one-way delay: 291.035 ms
Loss rate: 7.17%
```
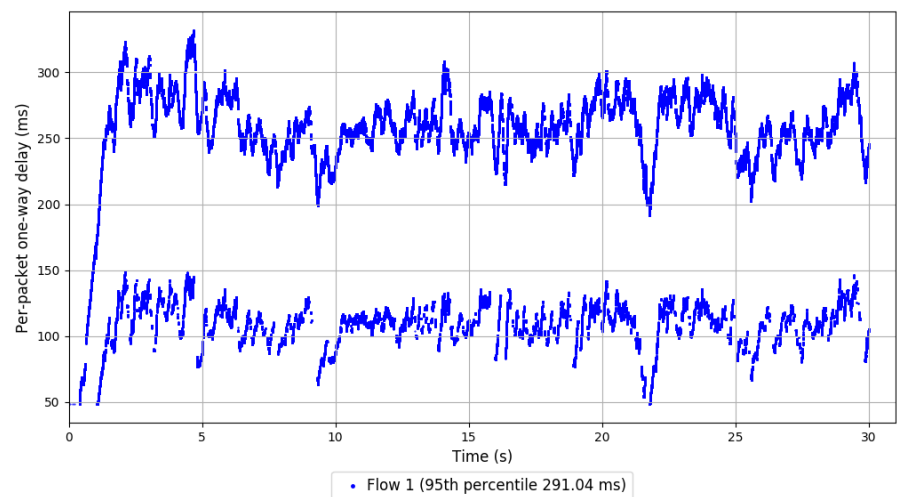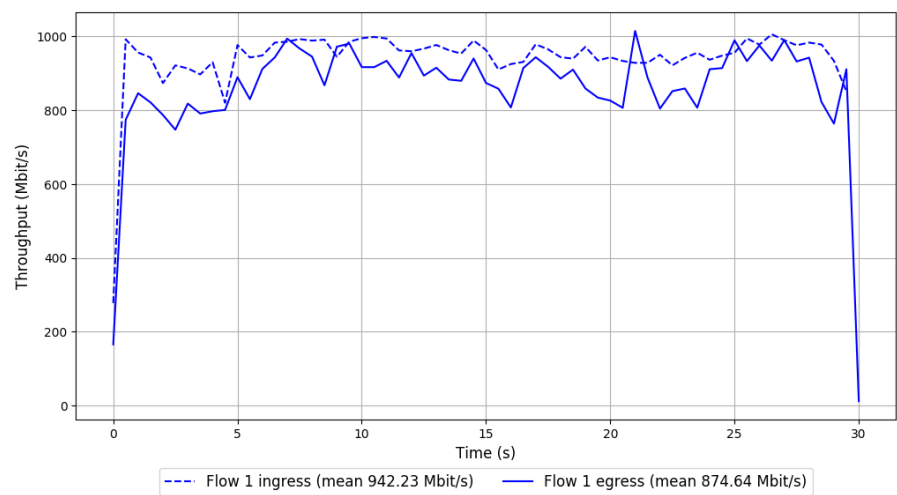
Run 3: Report of FillP — Data Link

```
Run 4: Statistics of FillP

Start at: 2018-02-20 04:08:26
End at: 2018-02-20 04:08:56

# Below is generated by plot.py at 2018-02-20 08:32:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 871.74 Mbit/s
95th percentile per-packet one-way delay: 291.276 ms
Loss rate: 4.89%
-- Flow 1:
Average throughput: 871.74 Mbit/s
95th percentile per-packet one-way delay: 291.276 ms
Loss rate: 4.89%
```
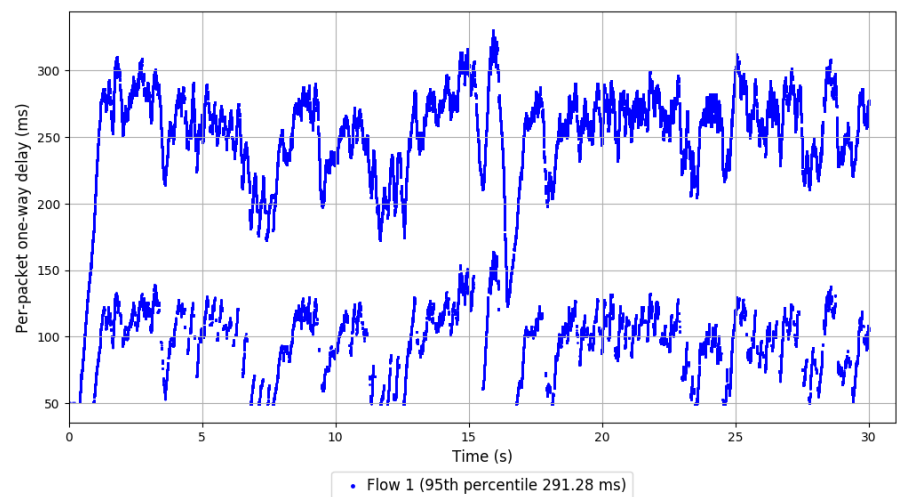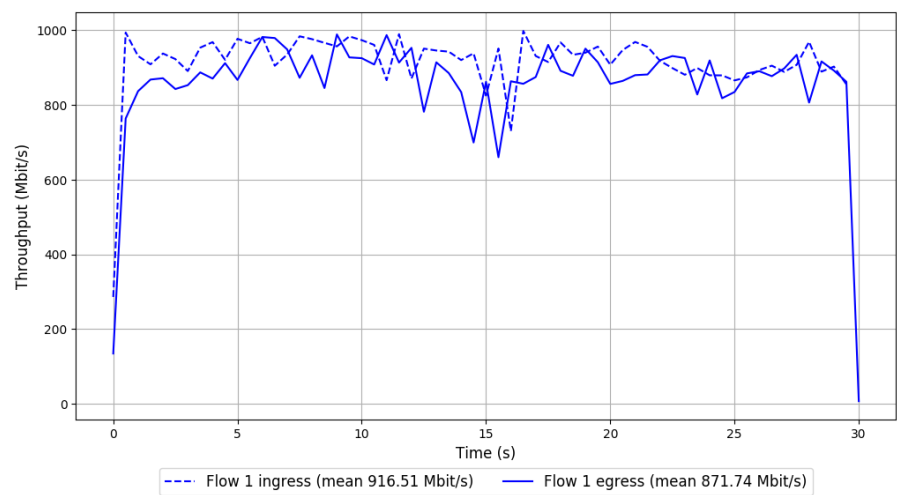
Run 4: Report of FillP — Data Link

Flow 1 ingress (mean 916.51 Mbit/s) ----   Flow 1 egress (mean 871.74 Mbit/s) ——

• Flow 1 (95th percentile 291.28 ms)

```
Run 5: Statistics of FillP

Start at: 2018-02-20 04:23:24
End at: 2018-02-20 04:23:54

# Below is generated by plot.py at 2018-02-20 08:32:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 850.70 Mbit/s
95th percentile per-packet one-way delay: 290.568 ms
Loss rate: 6.02%
-- Flow 1:
Average throughput: 850.70 Mbit/s
95th percentile per-packet one-way delay: 290.568 ms
Loss rate: 6.02%
```
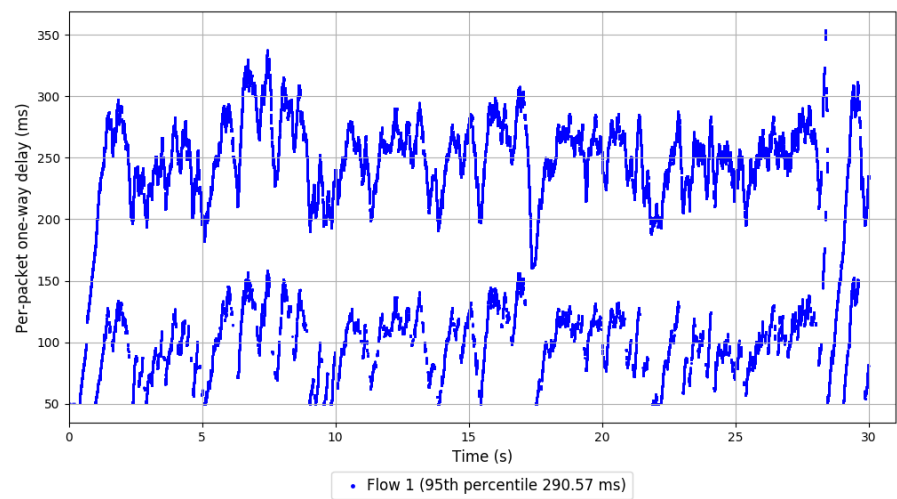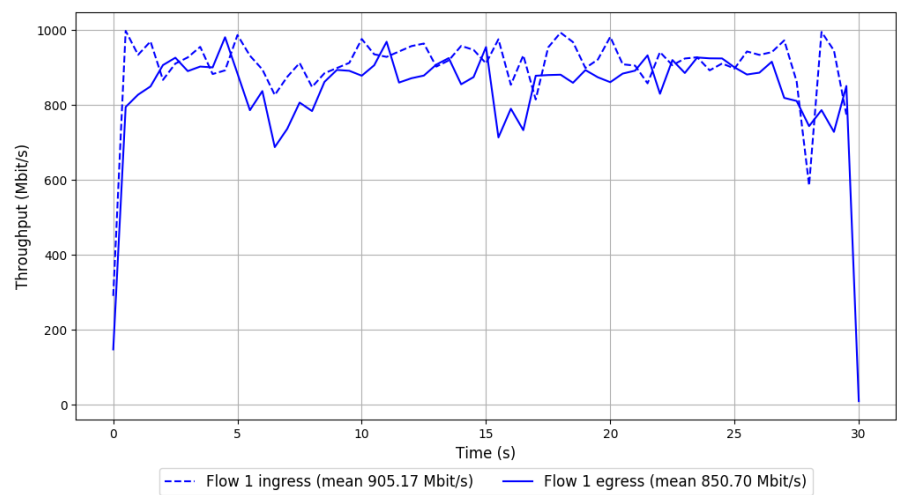
Run 5: Report of FillP — Data Link

```
Run 6: Statistics of FillP

Start at: 2018-02-20 04:38:11
End at: 2018-02-20 04:38:41

# Below is generated by plot.py at 2018-02-20 08:32:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 846.23 Mbit/s
95th percentile per-packet one-way delay: 288.074 ms
Loss rate: 6.98%
-- Flow 1:
Average throughput: 846.23 Mbit/s
95th percentile per-packet one-way delay: 288.074 ms
Loss rate: 6.98%
```
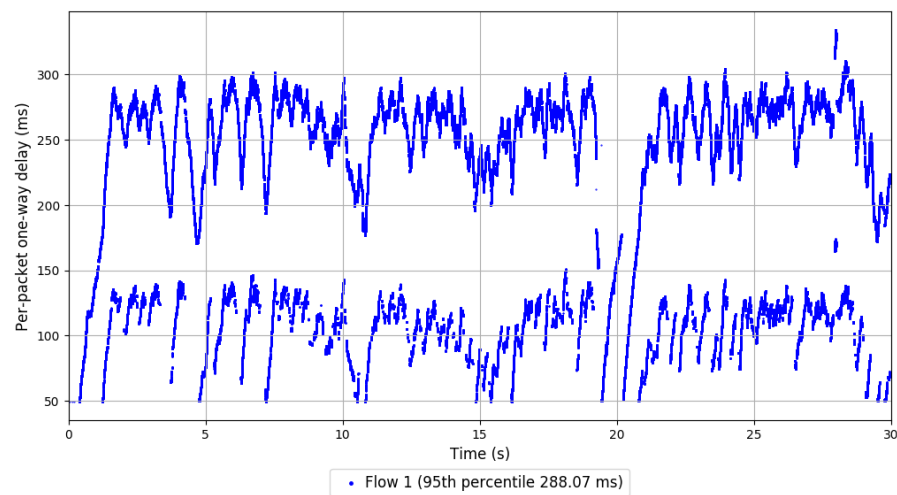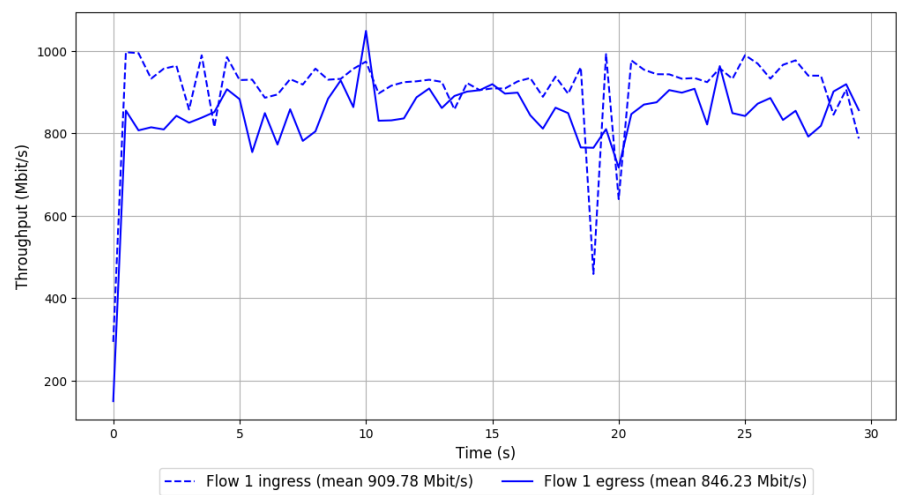
Run 6: Report of FillP — Data Link

```
Run 7: Statistics of FillP

Start at: 2018-02-20 04:53:08
End at: 2018-02-20 04:53:38

# Below is generated by plot.py at 2018-02-20 08:33:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 893.86 Mbit/s
95th percentile per-packet one-way delay: 277.454 ms
Loss rate: 5.52%
-- Flow 1:
Average throughput: 893.86 Mbit/s
95th percentile per-packet one-way delay: 277.454 ms
Loss rate: 5.52%
```
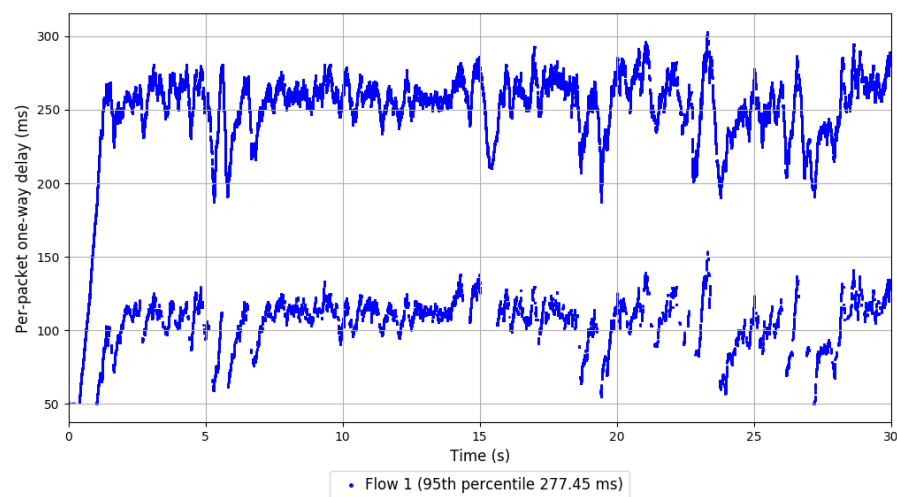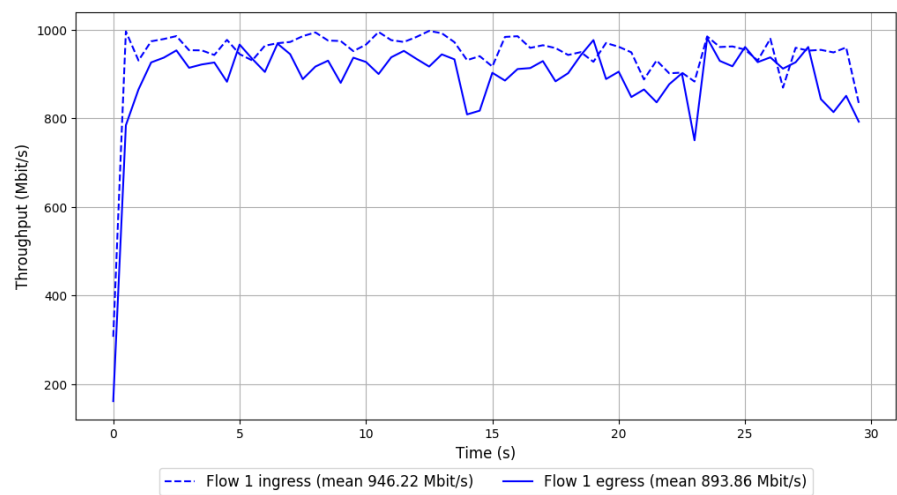
Run 7: Report of FillP — Data Link

Flow 1 ingress (mean 946.22 Mbit/s) — Flow 1 egress (mean 893.86 Mbit/s)

• Flow 1 (95th percentile 277.45 ms)

```
Run 8: Statistics of FillP

Start at: 2018-02-20 05:08:08
End at: 2018-02-20 05:08:38

# Below is generated by plot.py at 2018-02-20 08:34:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 892.03 Mbit/s
95th percentile per-packet one-way delay: 277.219 ms
Loss rate: 3.66%
-- Flow 1:
Average throughput: 892.03 Mbit/s
95th percentile per-packet one-way delay: 277.219 ms
Loss rate: 3.66%
```
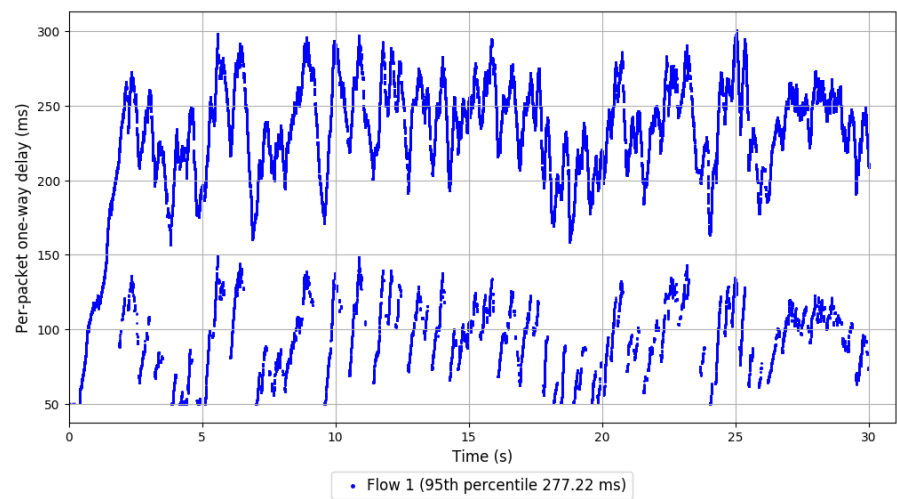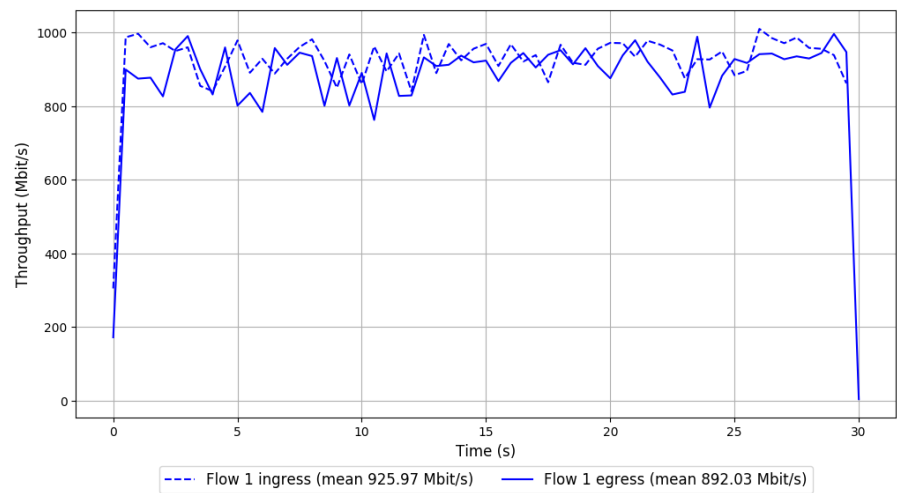
Run 8: Report of FillP — Data Link

Flow 1 ingress (mean 925.97 Mbit/s)   Flow 1 egress (mean 892.03 Mbit/s)

Flow 1 (95th percentile 277.22 ms)

```
Run 9: Statistics of FillP

Start at: 2018-02-20 05:23:02
End at: 2018-02-20 05:23:32

# Below is generated by plot.py at 2018-02-20 08:46:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 859.11 Mbit/s
95th percentile per-packet one-way delay: 293.529 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 859.11 Mbit/s
95th percentile per-packet one-way delay: 293.529 ms
Loss rate: 2.85%
```
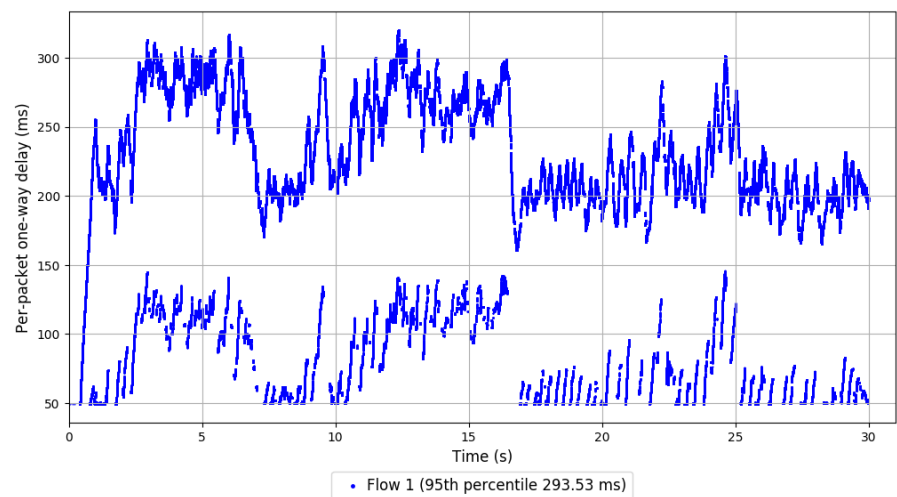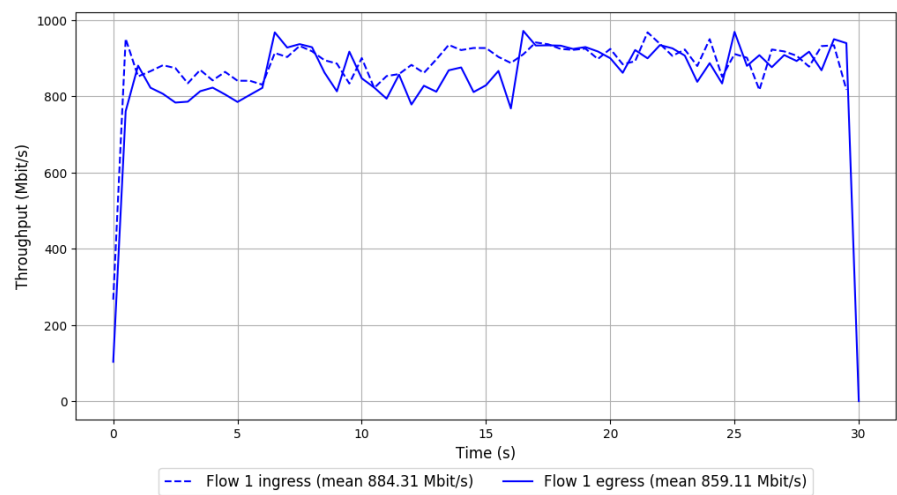
Run 9: Report of FillP — Data Link

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```
Run 10: Statistics of FillP

Start at: 2018-02-20 05:37:55
End at: 2018-02-20 05:38:25

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 871.23 Mbit/s
95th percentile per-packet one-way delay: 290.460 ms
Loss rate: 6.59%
-- Flow 1:
Average throughput: 871.23 Mbit/s
95th percentile per-packet one-way delay: 290.460 ms
Loss rate: 6.59%
```
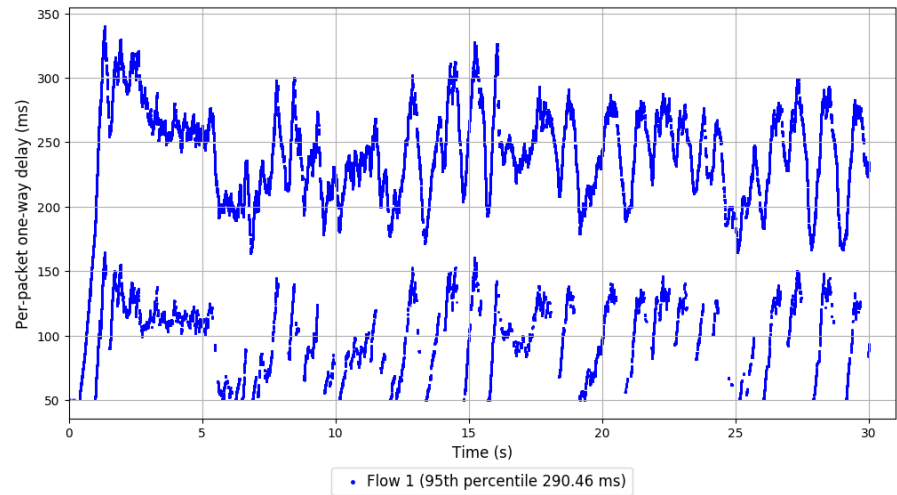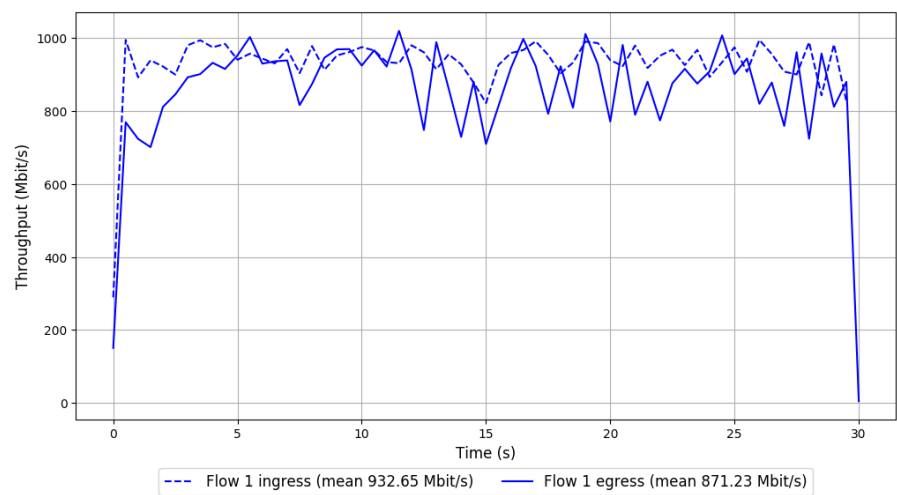
Run 10: Report of FillP — Data Link

Flow 1 ingress (mean 932.65 Mbit/s)   Flow 1 egress (mean 871.23 Mbit/s)
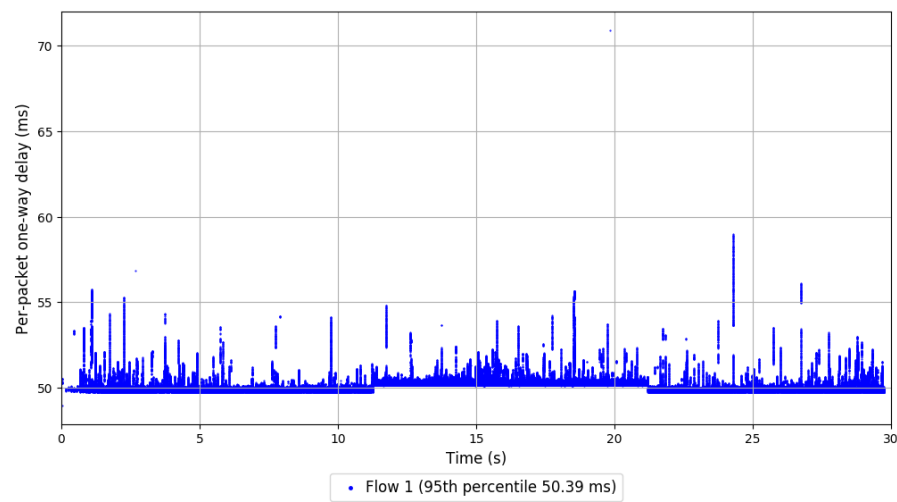

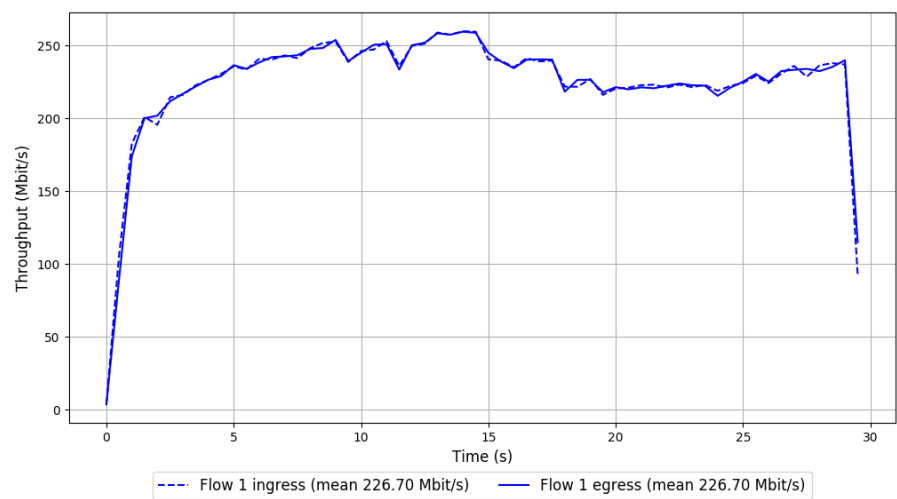Flow 1 (95th percentile 290.46 ms)

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```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-20 03:27:27
End at: 2018-02-20 03:27:57

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.70 Mbit/s
95th percentile per-packet one-way delay: 50.389 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.70 Mbit/s
95th percentile per-packet one-way delay: 50.389 ms
Loss rate: 0.00%
```
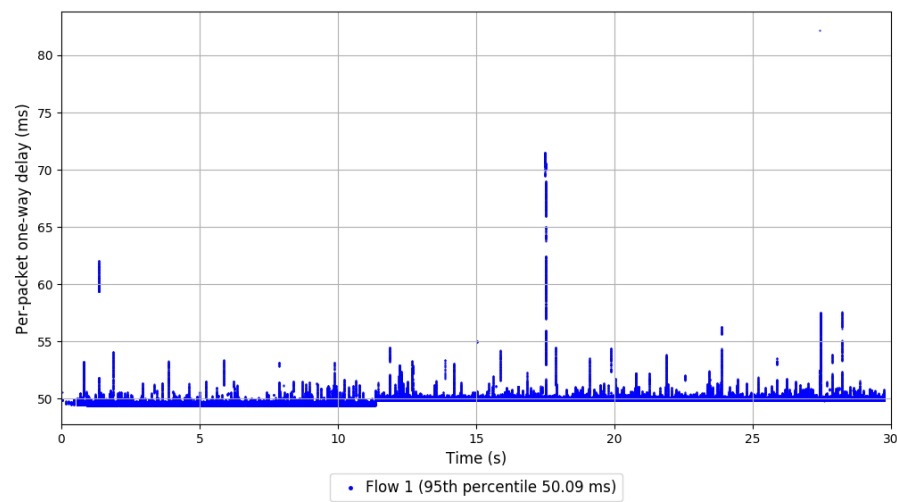
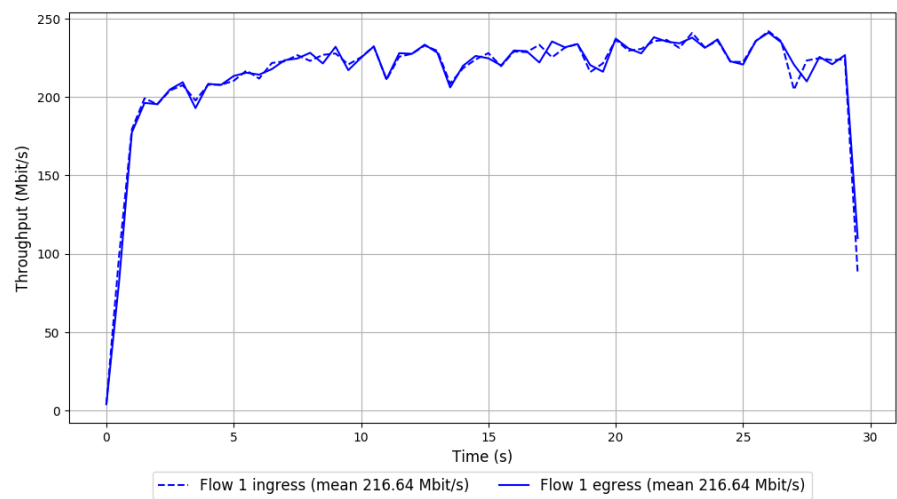Run 1: Report of Indigo-1-32 — Data Link

```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-20 03:42:06
End at: 2018-02-20 03:42:36

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.64 Mbit/s
95th percentile per-packet one-way delay: 50.090 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.64 Mbit/s
95th percentile per-packet one-way delay: 50.090 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-1-32 — Data Link

```
Run 3: Statistics of Indigo-1-32

Start at: 2018-02-20 03:56:57
End at: 2018-02-20 03:57:27

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 218.89 Mbit/s
95th percentile per-packet one-way delay: 49.922 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 218.89 Mbit/s
95th percentile per-packet one-way delay: 49.922 ms
Loss rate: 0.00%
```
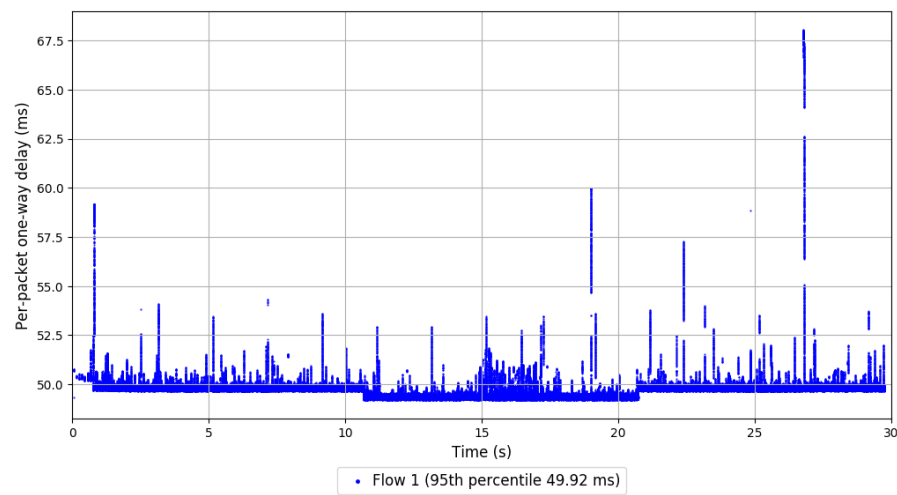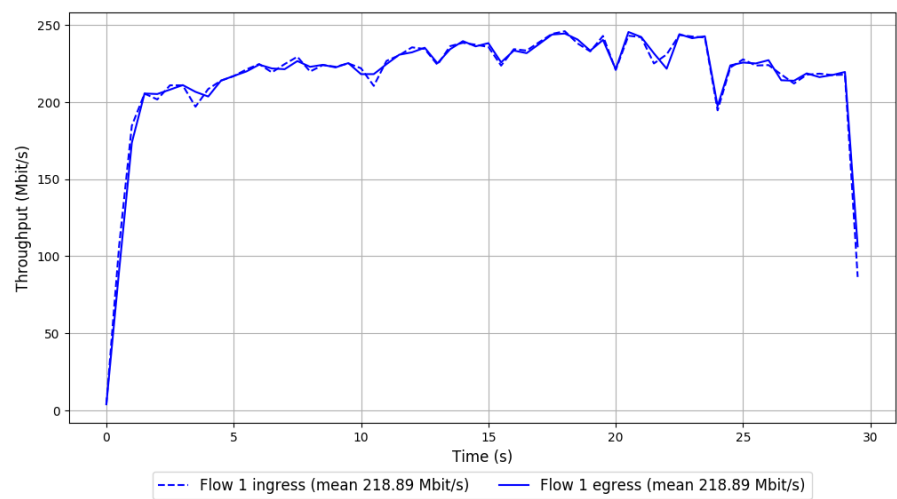
Run 3: Report of Indigo-1-32 — Data Link

```
Run 4: Statistics of Indigo-1-32

Start at: 2018-02-20 04:12:01
End at: 2018-02-20 04:12:31

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.77 Mbit/s
95th percentile per-packet one-way delay: 49.921 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 215.77 Mbit/s
95th percentile per-packet one-way delay: 49.921 ms
Loss rate: 0.00%
```
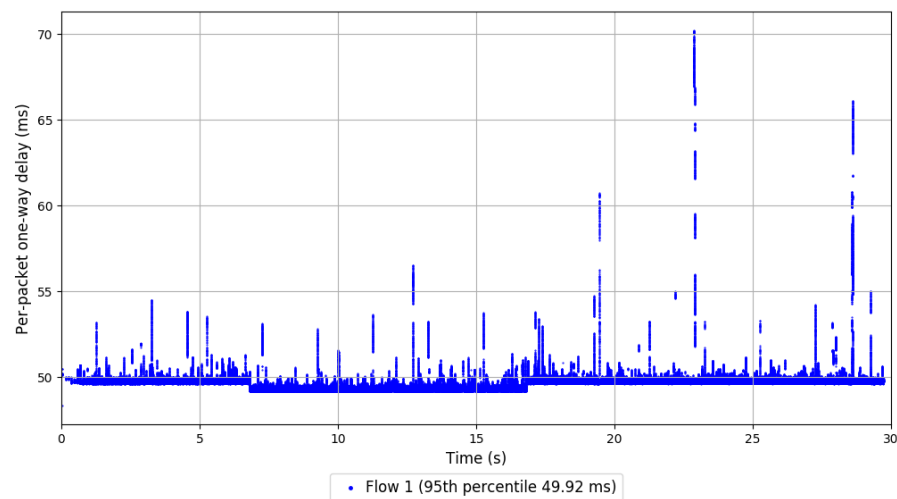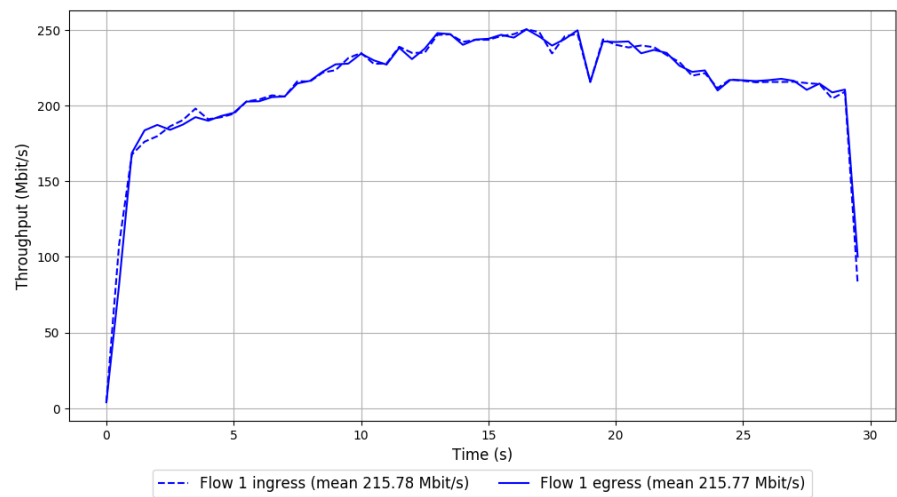
Run 4: Report of Indigo-1-32 — Data Link

```
Run 5: Statistics of Indigo-1-32

Start at: 2018-02-20 04:26:58
End at: 2018-02-20 04:27:28

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 49.810 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 220.57 Mbit/s
95th percentile per-packet one-way delay: 49.810 ms
Loss rate: 0.00%
```
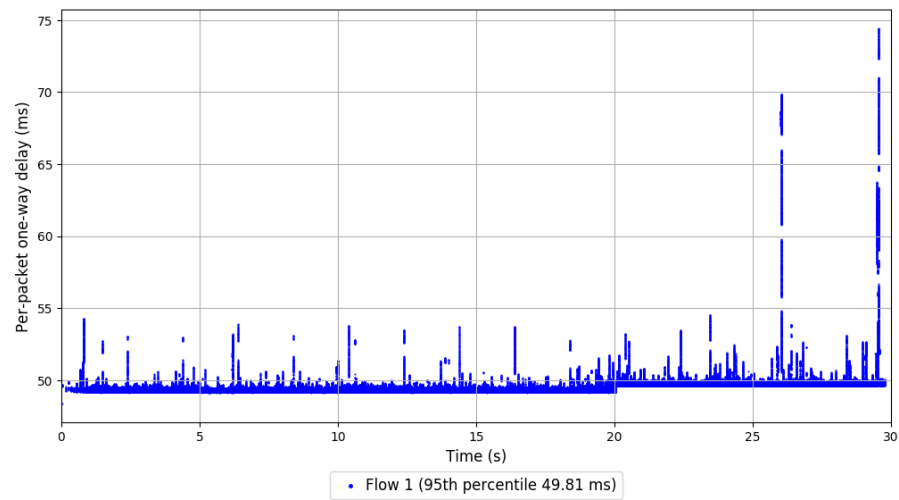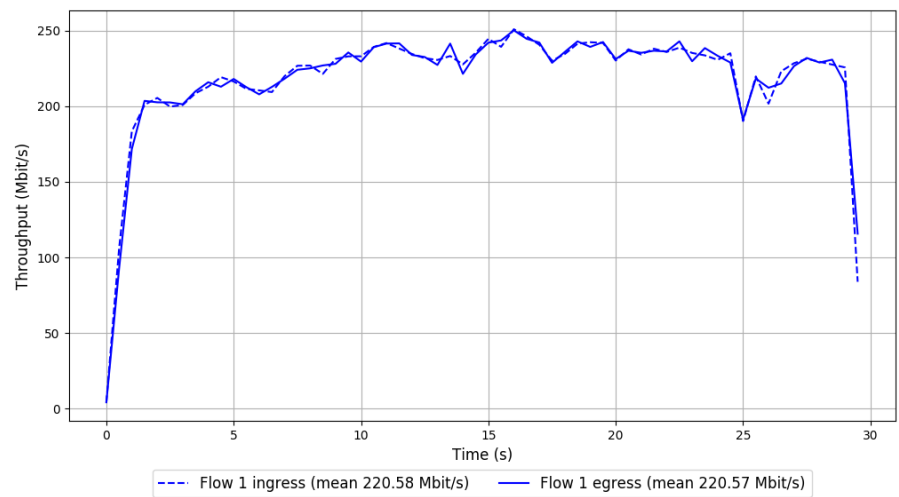
Run 5: Report of Indigo-1-32 — Data Link

```
Run 6: Statistics of Indigo-1-32

Start at: 2018-02-20 04:41:45
End at: 2018-02-20 04:42:15

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.03 Mbit/s
95th percentile per-packet one-way delay: 50.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.03 Mbit/s
95th percentile per-packet one-way delay: 50.526 ms
Loss rate: 0.00%
```
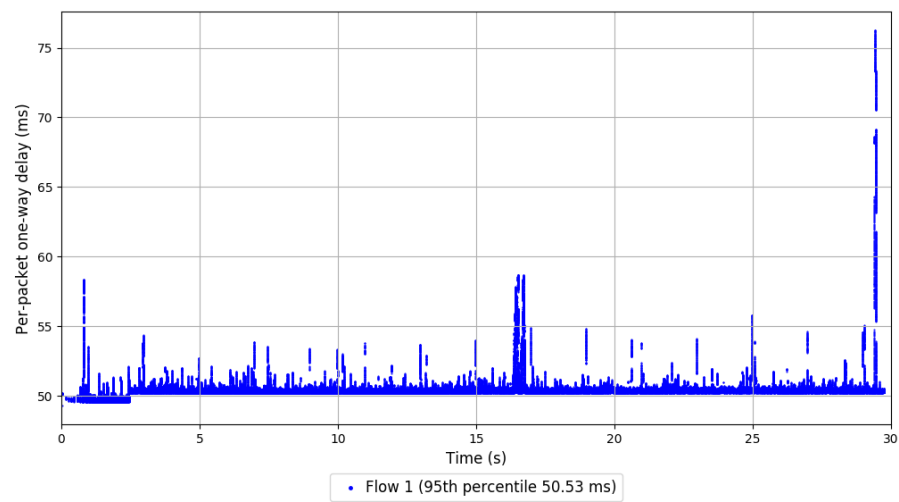
Run 6: Report of Indigo-1-32 — Data Link

```
Run 7: Statistics of Indigo-1-32

Start at: 2018-02-20 04:56:40
End at: 2018-02-20 04:57:10

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 50.527 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.94 Mbit/s
95th percentile per-packet one-way delay: 50.527 ms
Loss rate: 0.00%
```
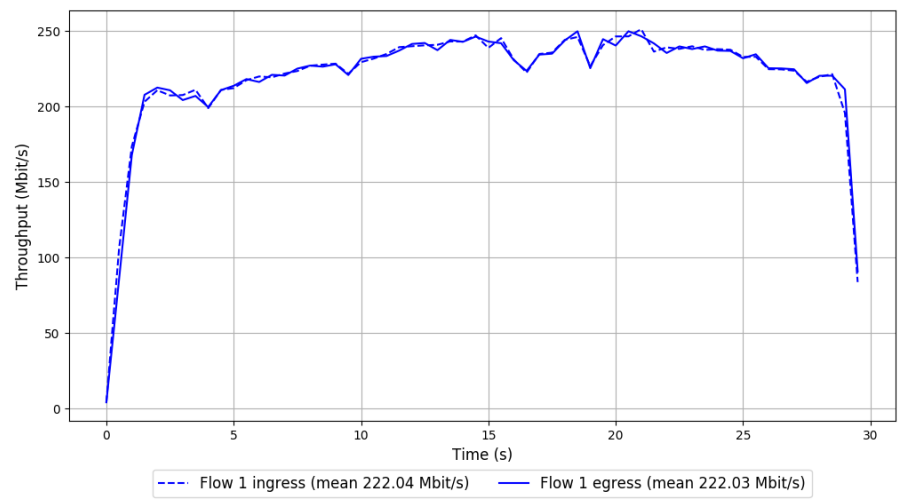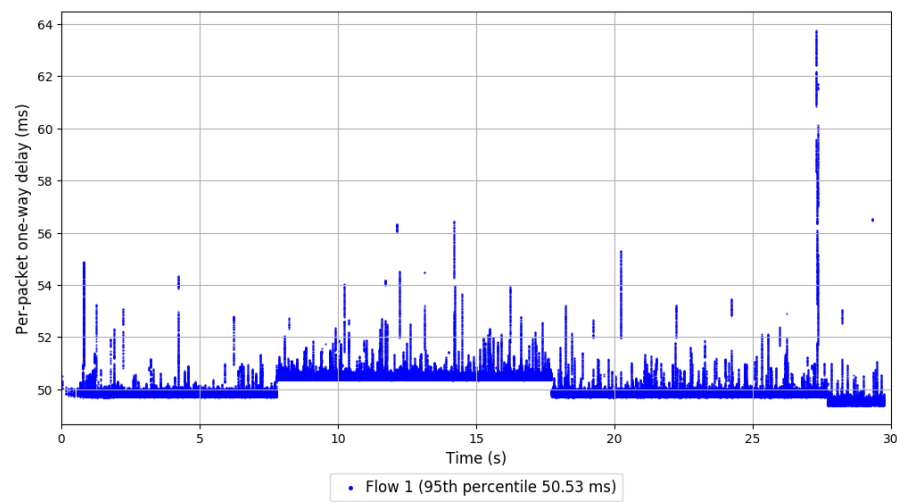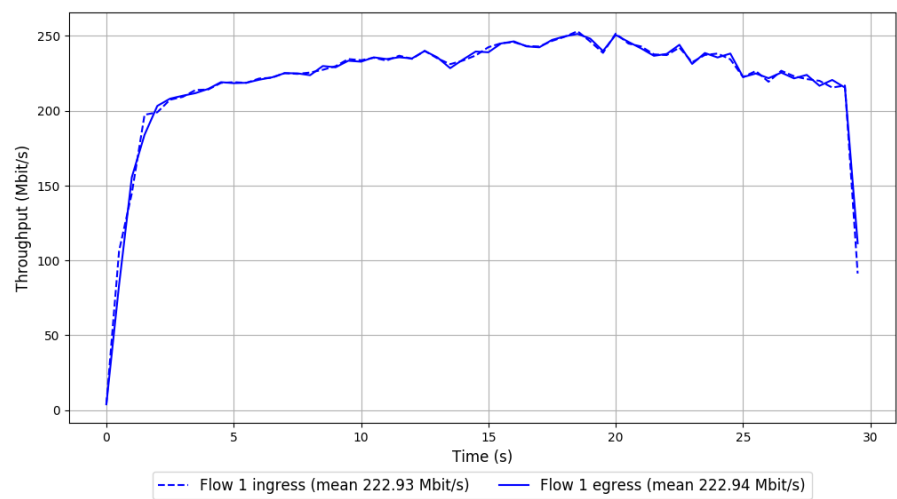
Run 7: Report of Indigo-1-32 — Data Link

```
Run 8: Statistics of Indigo-1-32

Start at: 2018-02-20 05:11:41
End at: 2018-02-20 05:12:11

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.92 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.92 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.00%
```

Run 8: Report of Indigo-1-32 — Data Link

```
Run 9: Statistics of Indigo-1-32

Start at: 2018-02-20 05:26:32
End at: 2018-02-20 05:27:02

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.66 Mbit/s
95th percentile per-packet one-way delay: 50.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.66 Mbit/s
95th percentile per-packet one-way delay: 50.720 ms
Loss rate: 0.00%
```
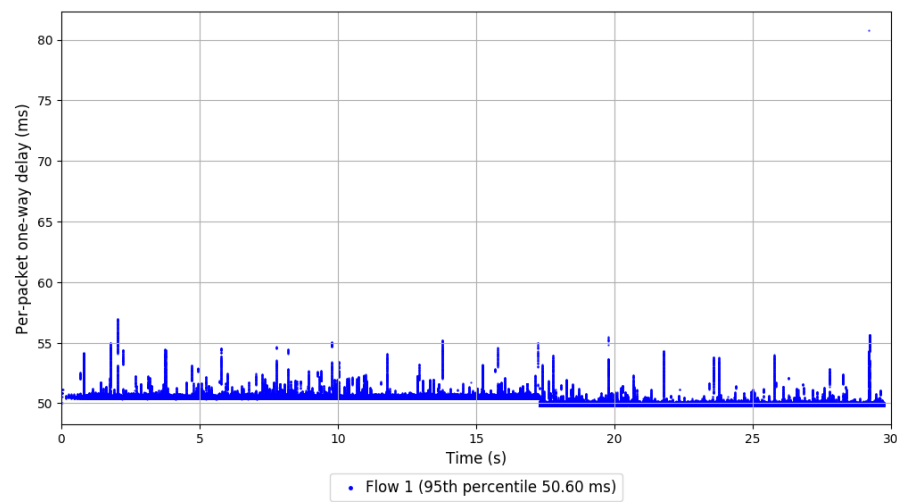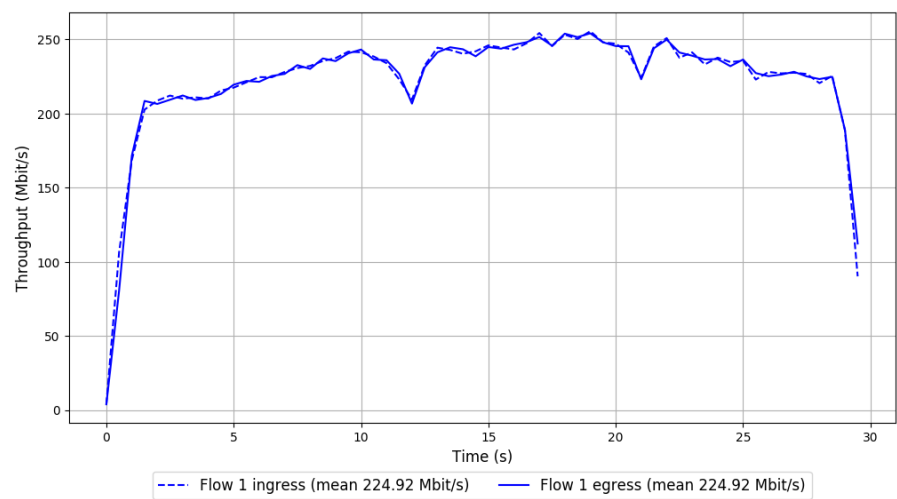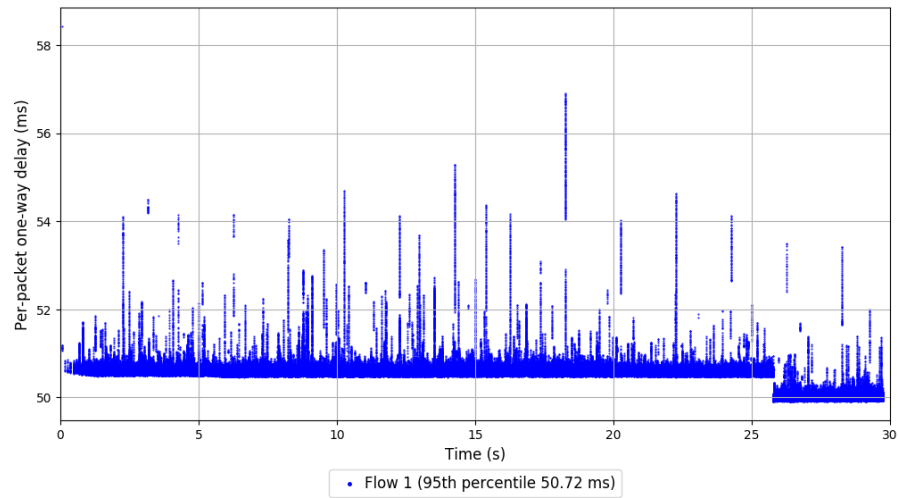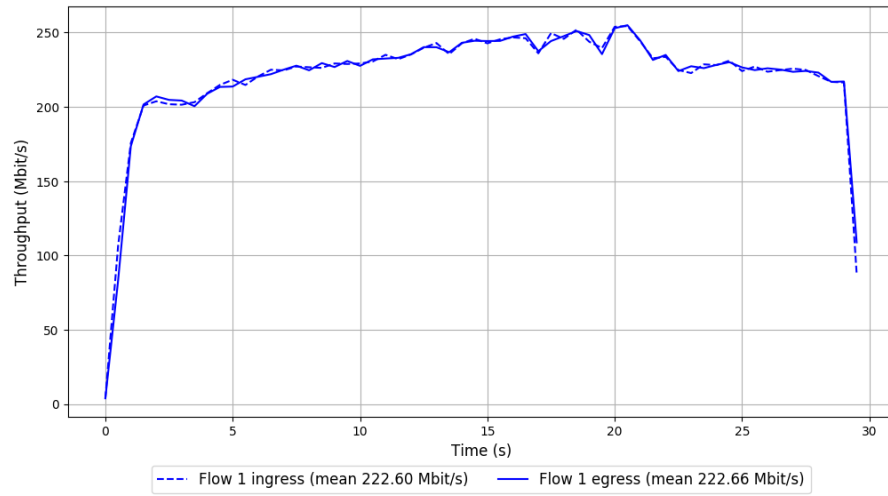
Run 9: Report of Indigo-1-32 — Data Link

```
Run 10: Statistics of Indigo-1-32

Start at: 2018-02-20 05:41:24
End at: 2018-02-20 05:41:54

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 228.28 Mbit/s
95th percentile per-packet one-way delay: 50.805 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 228.28 Mbit/s
95th percentile per-packet one-way delay: 50.805 ms
Loss rate: 0.00%
```
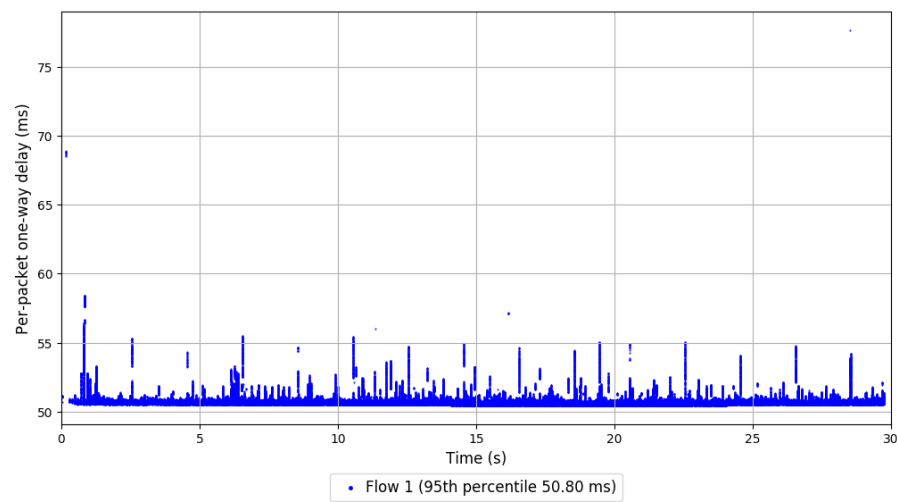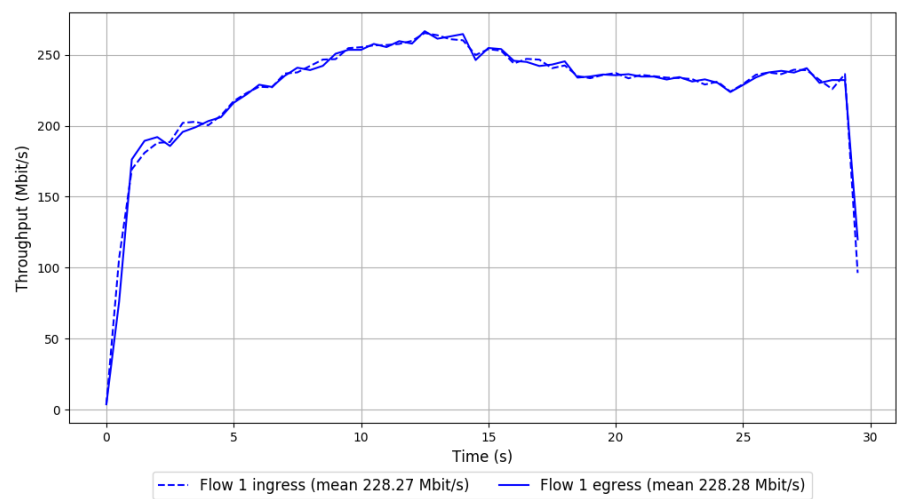
Run 10: Report of Indigo-1-32 — Data Link

Flow 1 ingress (mean 228.27 Mbit/s)   Flow 1 egress (mean 228.28 Mbit/s)

Flow 1 (95th percentile 50.80 ms)

```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-20 03:22:11
End at: 2018-02-20 03:22:41

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 416.86 Mbit/s
95th percentile per-packet one-way delay: 53.244 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 416.86 Mbit/s
95th percentile per-packet one-way delay: 53.244 ms
Loss rate: 0.00%
```
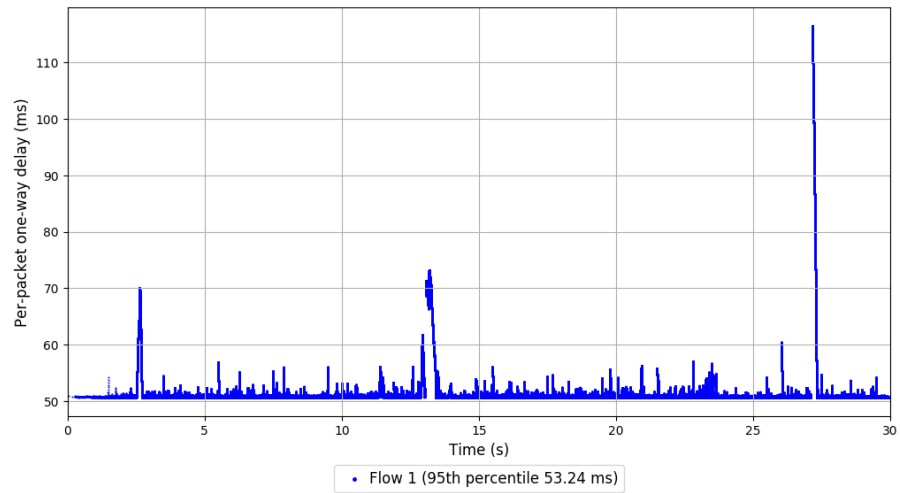
Run 1: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 416.86 Mbit/s)   Flow 1 egress (mean 416.86 Mbit/s)

Flow 1 (95th percentile 53.24 ms)

Run 2: Statistics of Vivace-latency

Start at: 2018-02-20 03:37:01
End at: 2018-02-20 03:37:31

Below is generated by plot.py at 2018-02-20 08:47:37
Datalink statistics
-- Total of 1 flow:
Average throughput: 261.74 Mbit/s
95th percentile per-packet one-way delay: 50.784 ms
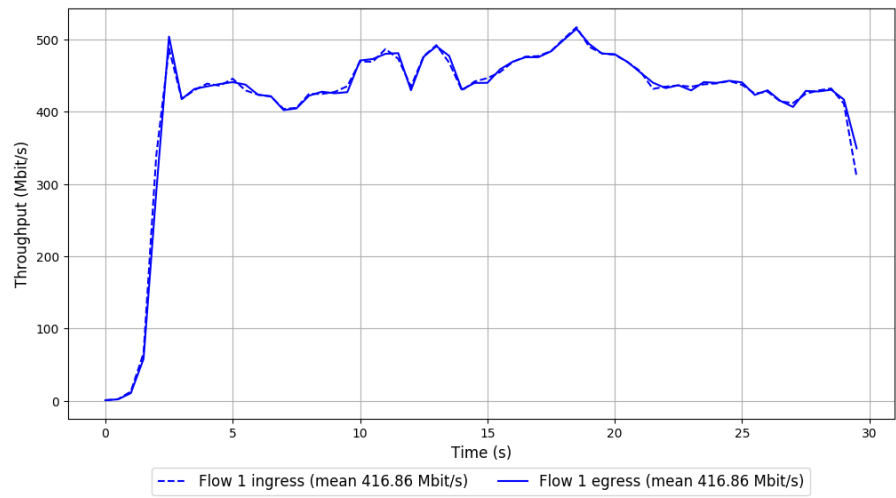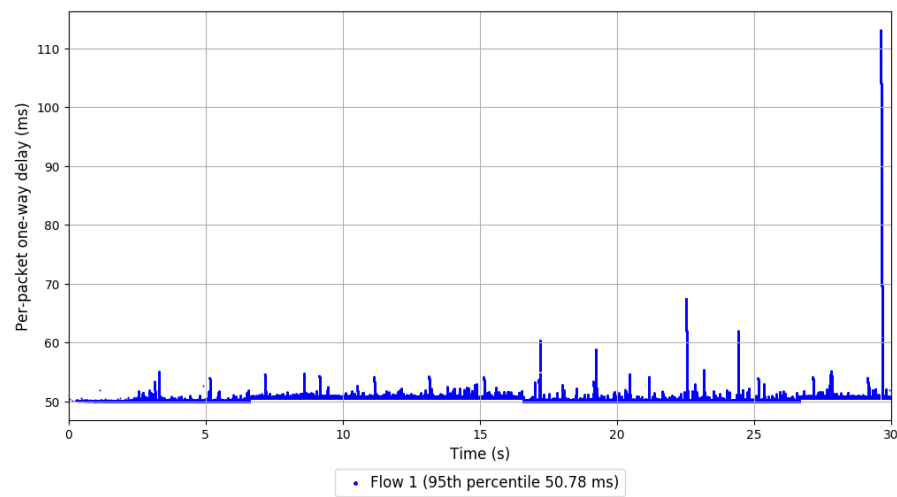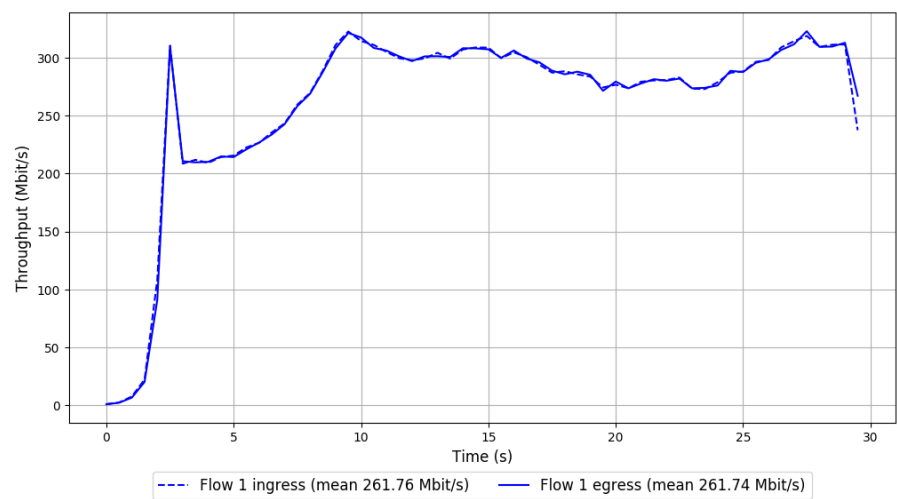Loss rate: 0.00%
-- Flow 1:
Average throughput: 261.74 Mbit/s
95th percentile per-packet one-way delay: 50.784 ms
Loss rate: 0.00%

Run 2: Report of Vivace-latency — Data Link

```
Run 3: Statistics of Vivace-latency

Start at: 2018-02-20 03:51:43
End at: 2018-02-20 03:52:13

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 256.87 Mbit/s
95th percentile per-packet one-way delay: 50.368 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 256.87 Mbit/s
95th percentile per-packet one-way delay: 50.368 ms
Loss rate: 0.00%
```
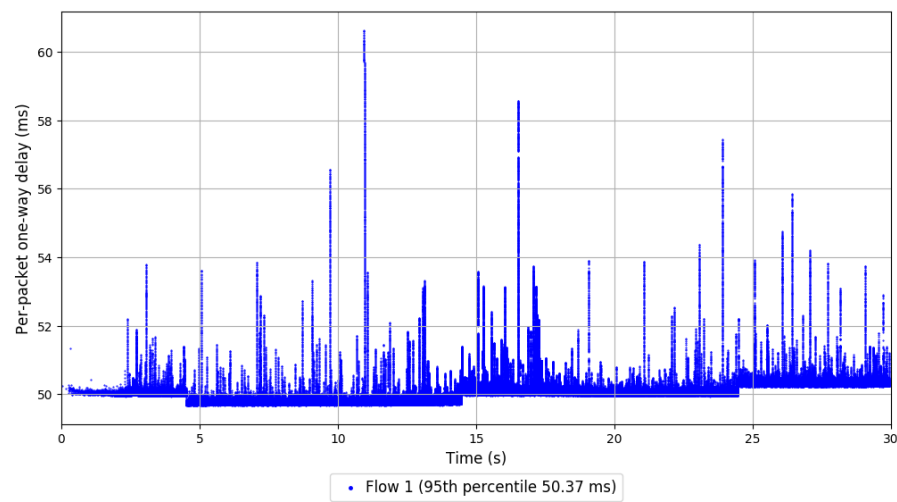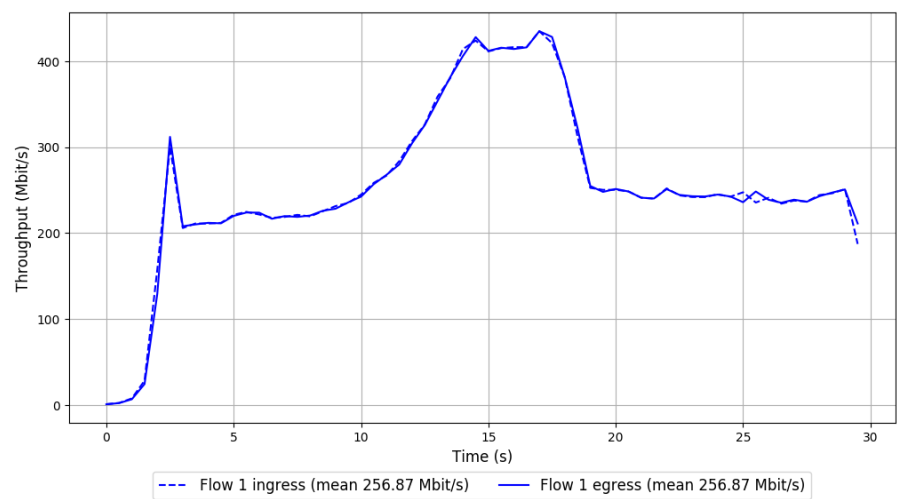
Run 3: Report of Vivace-latency — Data Link

```
Run 4: Statistics of Vivace-latency

Start at: 2018-02-20 04:06:35
End at: 2018-02-20 04:07:05

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 408.81 Mbit/s
95th percentile per-packet one-way delay: 50.622 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 408.81 Mbit/s
95th percentile per-packet one-way delay: 50.622 ms
Loss rate: 0.00%
```
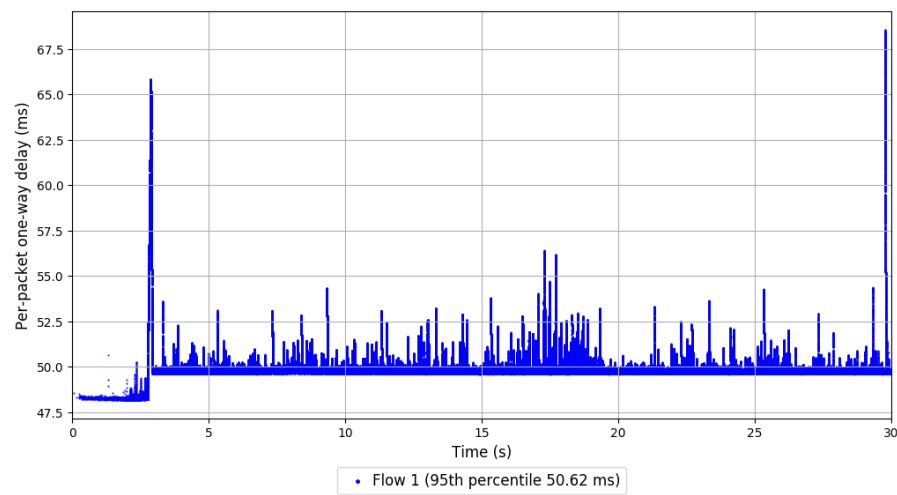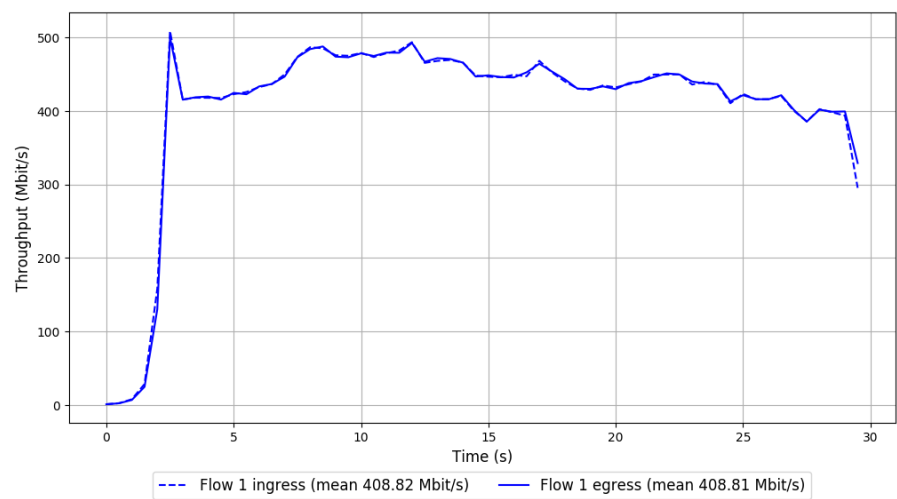
Run 4: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 408.82 Mbit/s)   Flow 1 egress (mean 408.81 Mbit/s)

Flow 1 (95th percentile 50.62 ms)

```
Run 5: Statistics of Vivace-latency

Start at: 2018-02-20 04:21:33
End at: 2018-02-20 04:22:03

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 414.19 Mbit/s
95th percentile per-packet one-way delay: 49.180 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 414.19 Mbit/s
95th percentile per-packet one-way delay: 49.180 ms
Loss rate: 0.00%
```
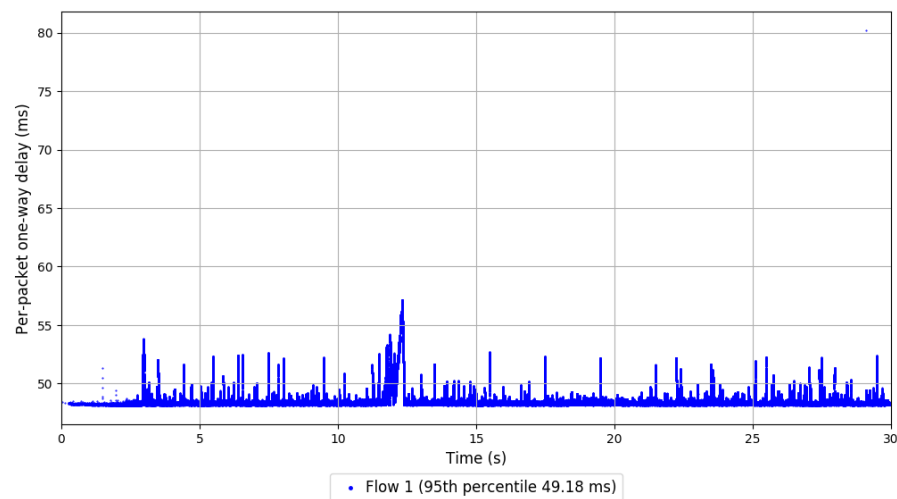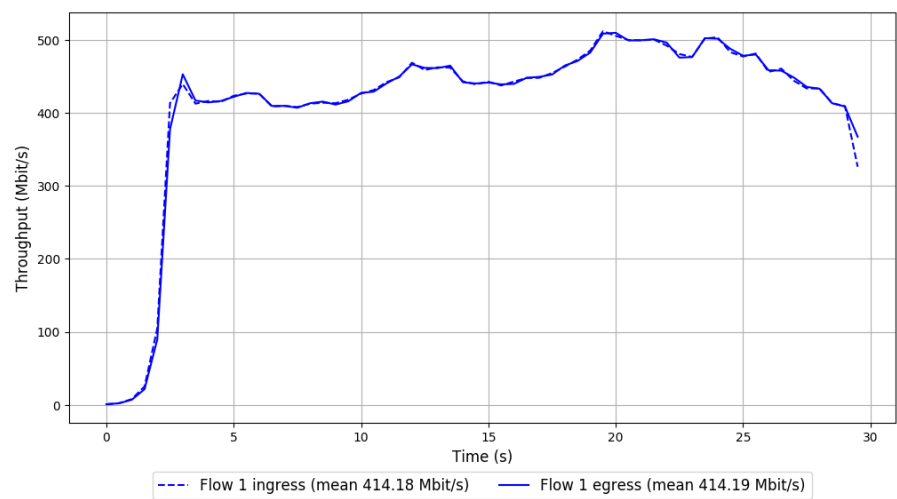
Run 5: Report of Vivace-latency — Data Link

```
Run 6: Statistics of Vivace-latency

Start at: 2018-02-20 04:36:26
End at: 2018-02-20 04:36:56

# Below is generated by plot.py at 2018-02-20 08:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 393.30 Mbit/s
95th percentile per-packet one-way delay: 53.755 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 393.30 Mbit/s
95th percentile per-packet one-way delay: 53.755 ms
Loss rate: 0.00%
```
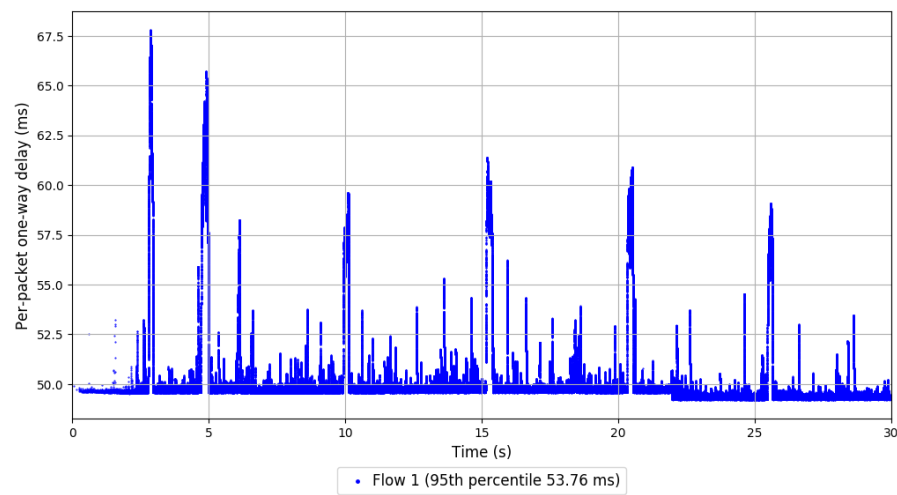
Run 6: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 393.29 Mbit/s) — Flow 1 egress (mean 393.30 Mbit/s)

Flow 1 (95th percentile 53.76 ms)

```
Run 7: Statistics of Vivace-latency

Start at: 2018-02-20 04:51:16
End at: 2018-02-20 04:51:46


# Below is generated by plot.py at 2018-02-20 08:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 433.85 Mbit/s
95th percentile per-packet one-way delay: 51.719 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 433.85 Mbit/s
95th percentile per-packet one-way delay: 51.719 ms
Loss rate: 0.00%
```
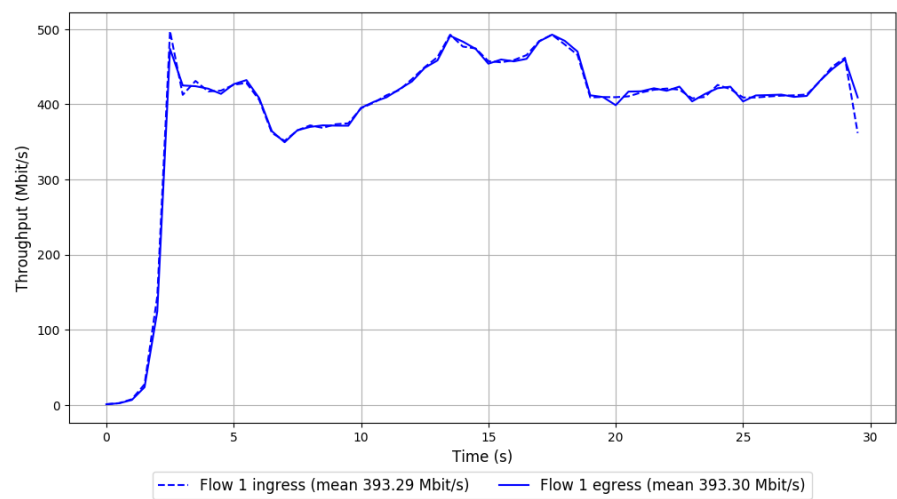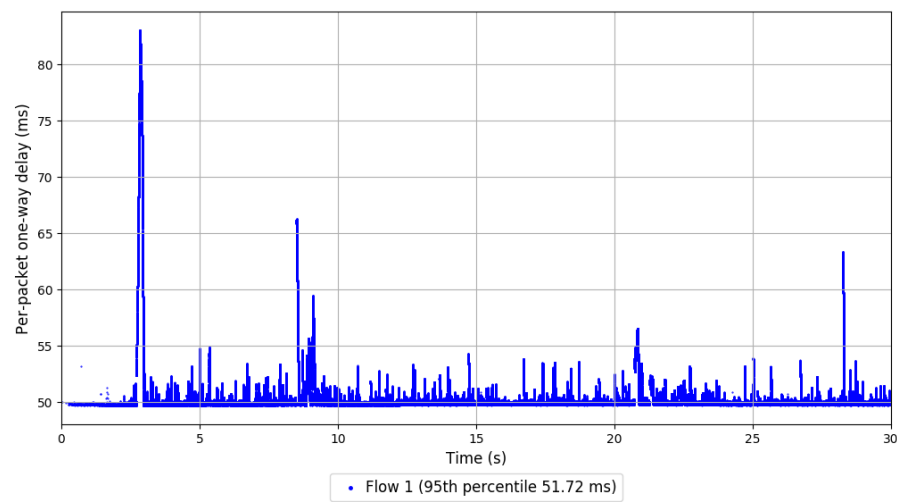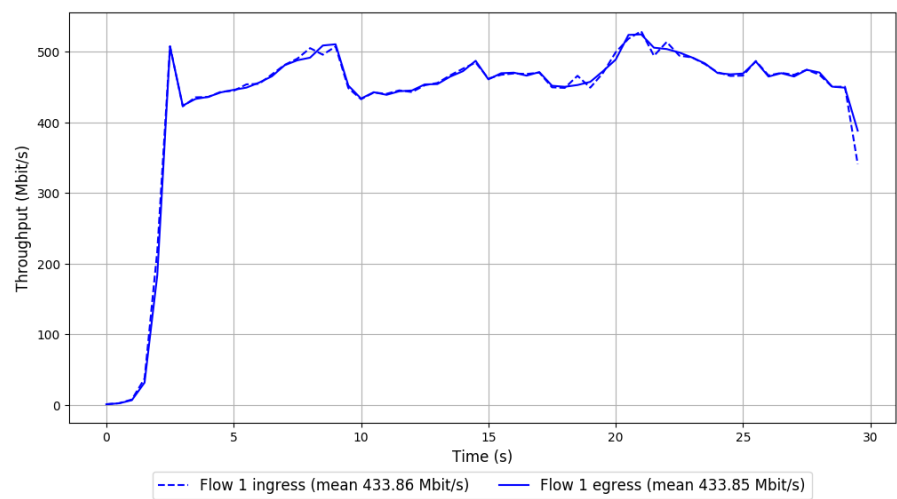
Run 7: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 433.86 Mbit/s) —— Flow 1 egress (mean 433.85 Mbit/s)

• Flow 1 (95th percentile 51.72 ms)

```
Run 8: Statistics of Vivace-latency

Start at: 2018-02-20 05:06:18
End at: 2018-02-20 05:06:48

# Below is generated by plot.py at 2018-02-20 08:50:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 385.70 Mbit/s
95th percentile per-packet one-way delay: 53.522 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 385.70 Mbit/s
95th percentile per-packet one-way delay: 53.522 ms
Loss rate: 0.00%
```
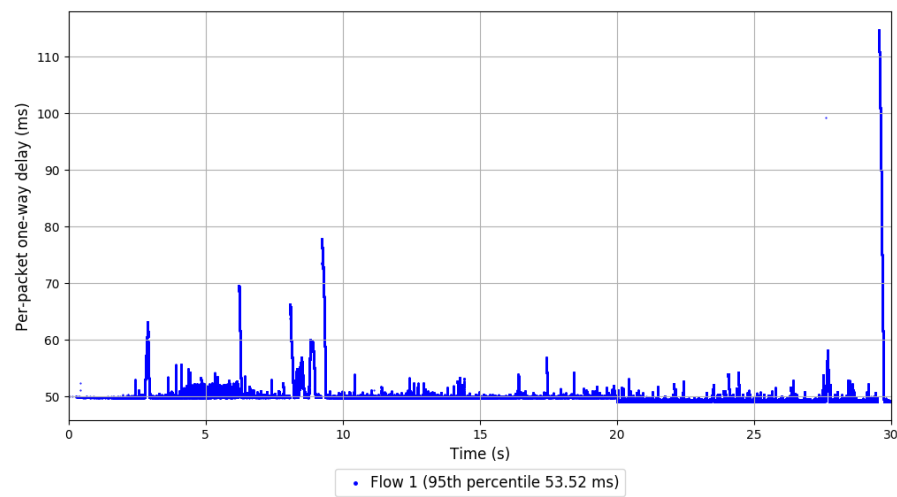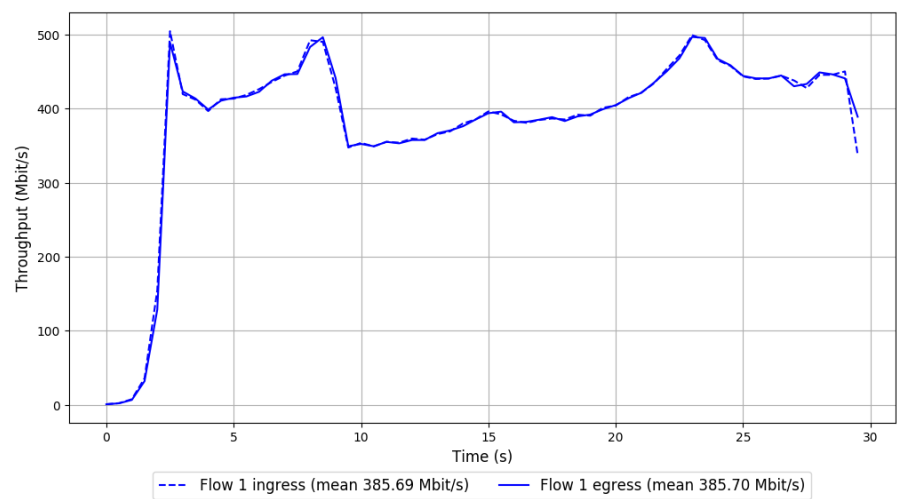
Run 8: Report of Vivace-latency — Data Link

```
Run 9: Statistics of Vivace-latency

Start at: 2018-02-20 05:21:15
End at: 2018-02-20 05:21:45

# Below is generated by plot.py at 2018-02-20 08:52:27
# Datalink statistics
-- Total of 1 flow:
Average throughput: 407.43 Mbit/s
95th percentile per-packet one-way delay: 53.588 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 407.43 Mbit/s
95th percentile per-packet one-way delay: 53.588 ms
Loss rate: 0.00%
```
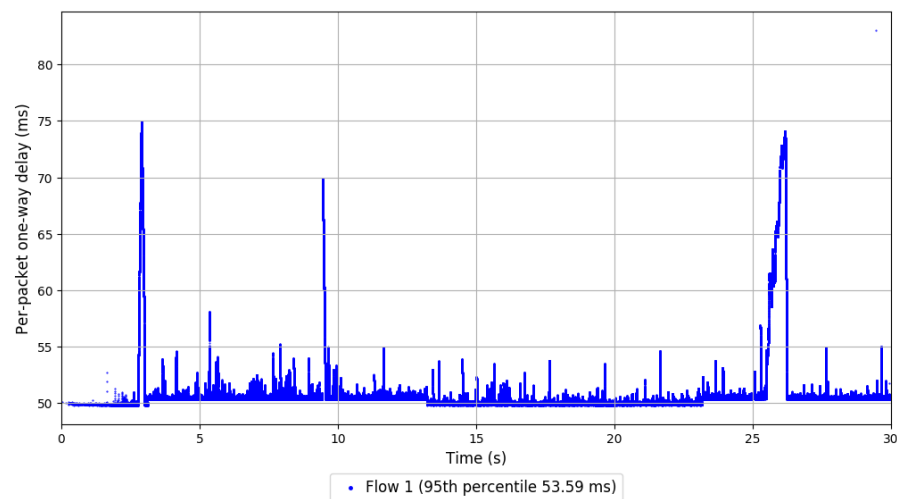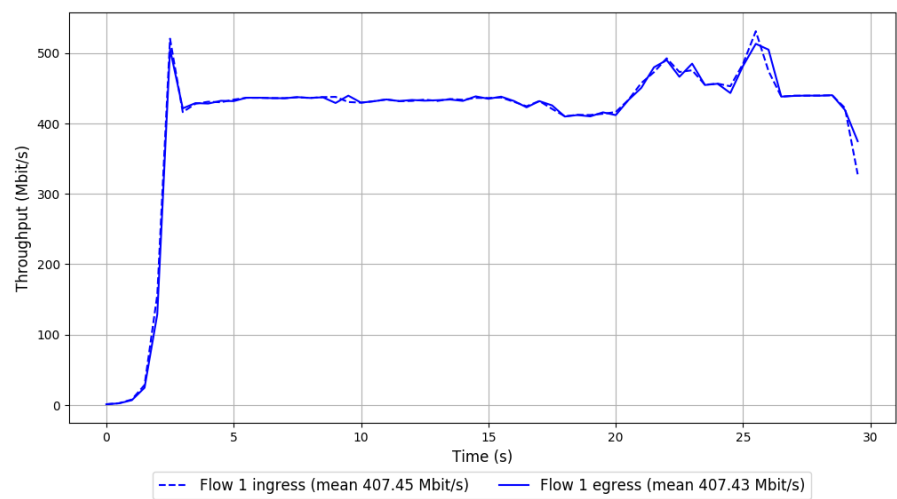
Run 9: Report of Vivace-latency — Data Link

Flow 1 ingress (mean 407.45 Mbit/s)   Flow 1 egress (mean 407.43 Mbit/s)

Flow 1 (95th percentile 53.59 ms)

```
Run 10: Statistics of Vivace-latency

Start at: 2018-02-20 05:36:13
End at: 2018-02-20 05:36:43

# Below is generated by plot.py at 2018-02-20 08:53:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 392.83 Mbit/s
95th percentile per-packet one-way delay: 51.674 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 392.83 Mbit/s
95th percentile per-packet one-way delay: 51.674 ms
Loss rate: 0.00%
```
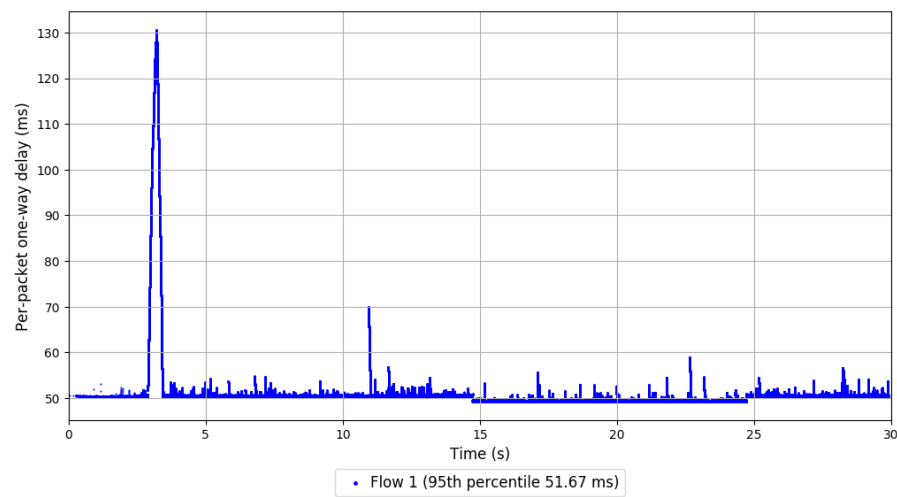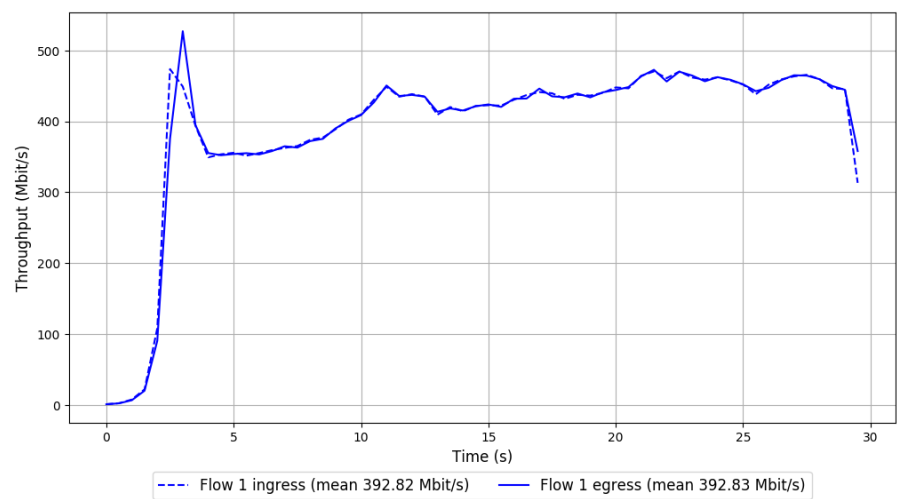
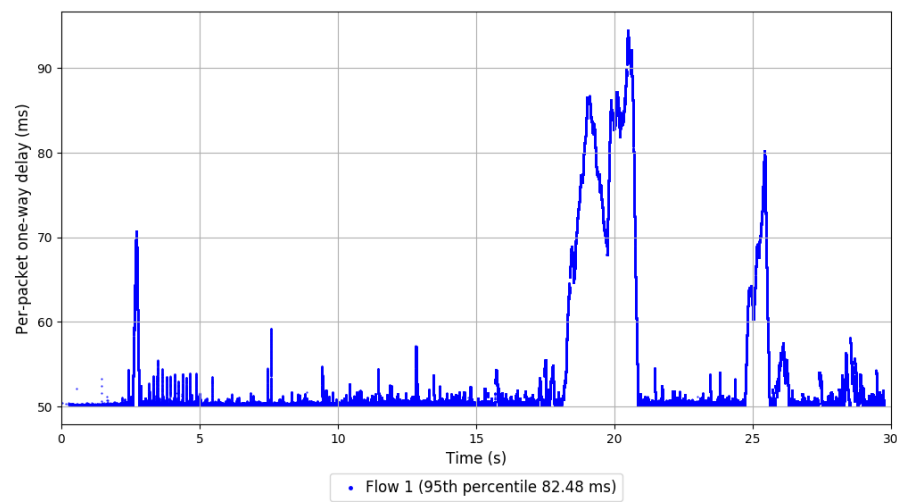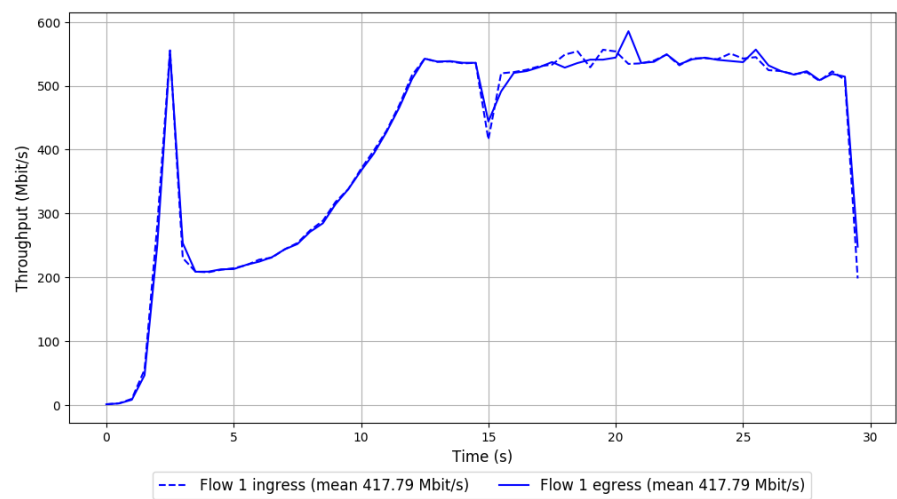Run 10: Report of Vivace-latency — Data Link

```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-20 03:15:27
End at: 2018-02-20 03:15:57

# Below is generated by plot.py at 2018-02-20 08:54:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 417.79 Mbit/s
95th percentile per-packet one-way delay: 82.479 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 417.79 Mbit/s
95th percentile per-packet one-way delay: 82.479 ms
Loss rate: 0.00%
```

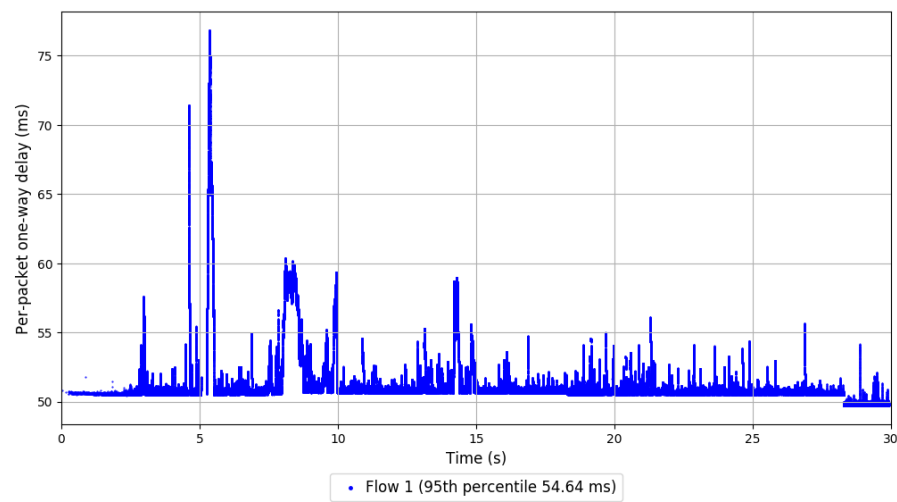Run 1: Report of Vivace-loss — Data Link

```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-20 03:30:20
End at: 2018-02-20 03:30:50

# Below is generated by plot.py at 2018-02-20 08:54:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 417.84 Mbit/s
95th percentile per-packet one-way delay: 54.636 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 417.84 Mbit/s
95th percentile per-packet one-way delay: 54.636 ms
Loss rate: 0.00%
```
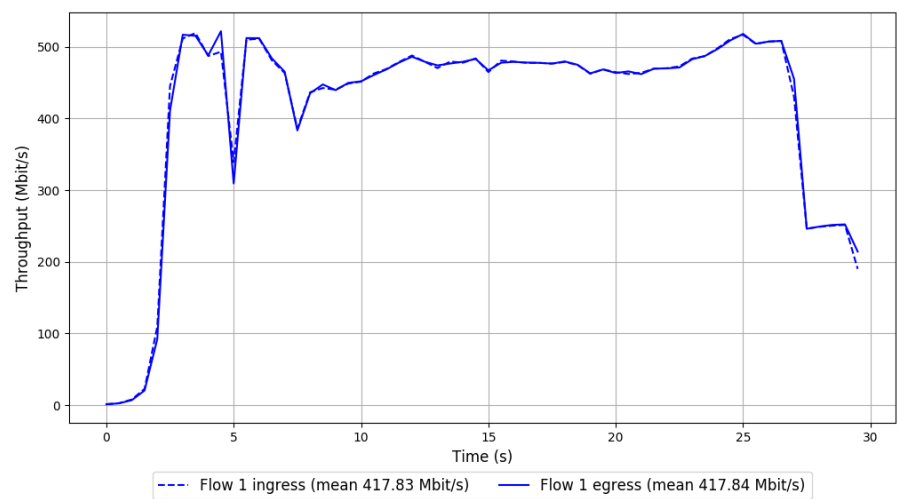
Run 2: Report of Vivace-loss — Data Link

```
Run 3: Statistics of Vivace-loss

Start at: 2018-02-20 03:44:58
End at: 2018-02-20 03:45:28

# Below is generated by plot.py at 2018-02-20 08:54:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 457.48 Mbit/s
95th percentile per-packet one-way delay: 70.293 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 457.48 Mbit/s
95th percentile per-packet one-way delay: 70.293 ms
Loss rate: 0.00%
```
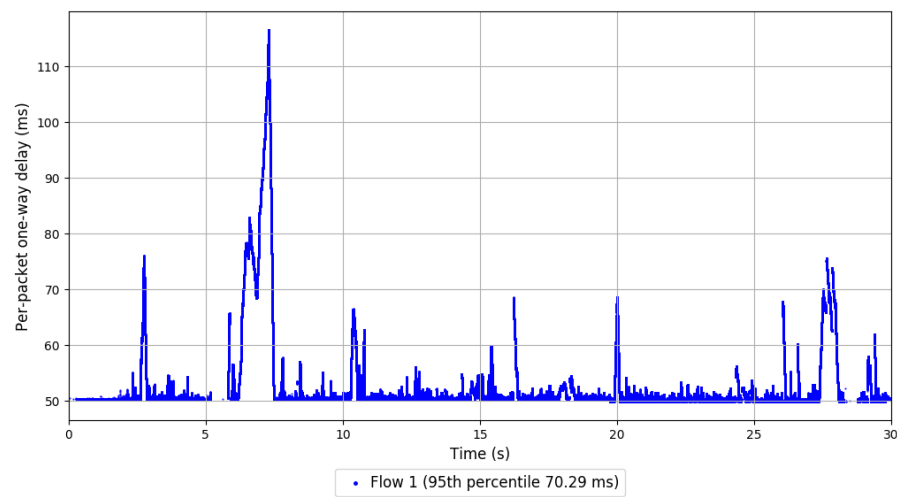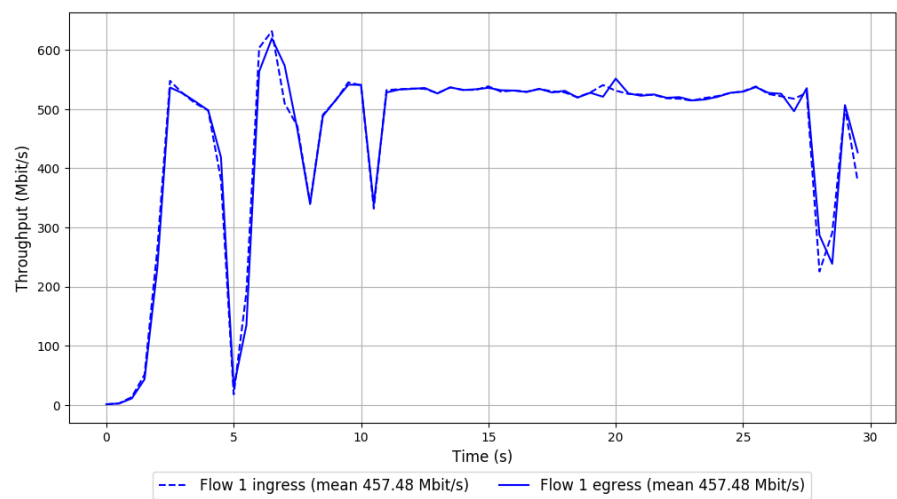
Run 3: Report of Vivace-loss — Data Link

- - - Flow 1 ingress (mean 457.48 Mbit/s)   —— Flow 1 egress (mean 457.48 Mbit/s)

• Flow 1 (95th percentile 70.29 ms)

```
Run 4: Statistics of Vivace-loss

Start at: 2018-02-20 03:59:49
End at: 2018-02-20 04:00:19

# Below is generated by plot.py at 2018-02-20 08:56:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 438.66 Mbit/s
95th percentile per-packet one-way delay: 56.666 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 438.66 Mbit/s
95th percentile per-packet one-way delay: 56.666 ms
Loss rate: 0.01%
```
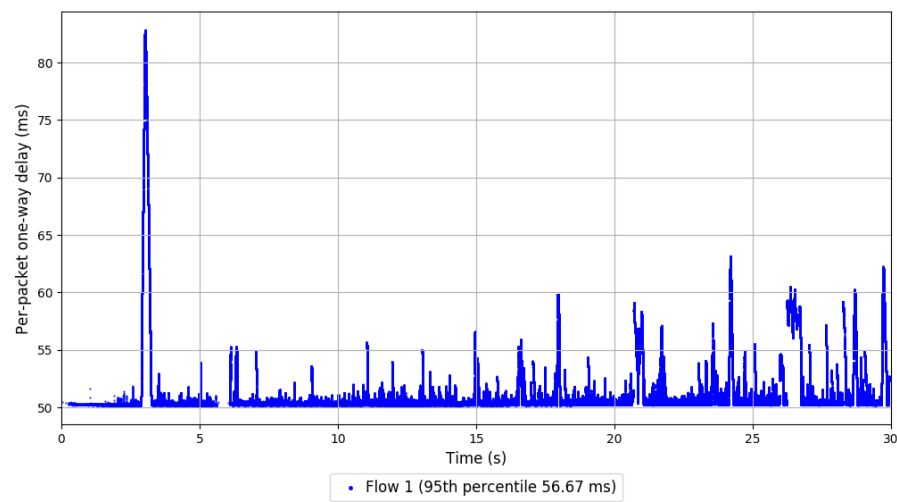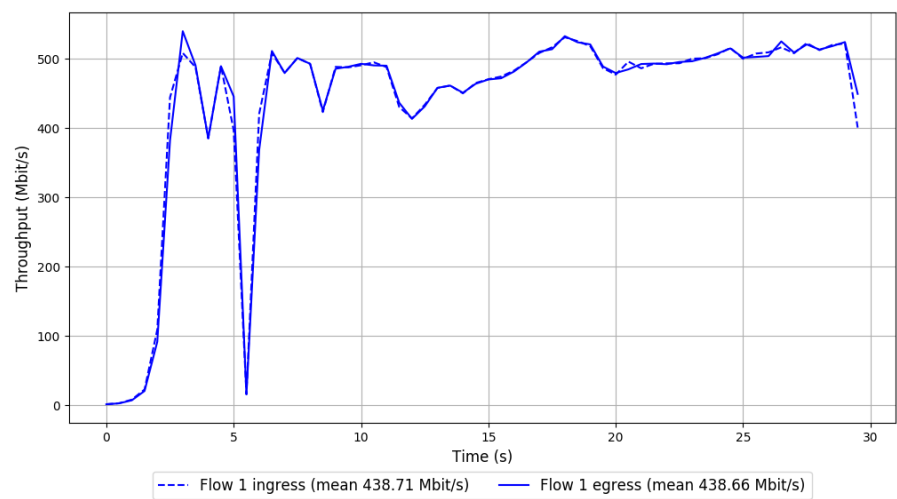
Run 4: Report of Vivace-loss — Data Link

```
Run 5: Statistics of Vivace-loss

Start at: 2018-02-20 04:14:53
End at: 2018-02-20 04:15:23

# Below is generated by plot.py at 2018-02-20 08:58:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 430.40 Mbit/s
95th percentile per-packet one-way delay: 80.924 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 430.40 Mbit/s
95th percentile per-packet one-way delay: 80.924 ms
Loss rate: 0.00%
```
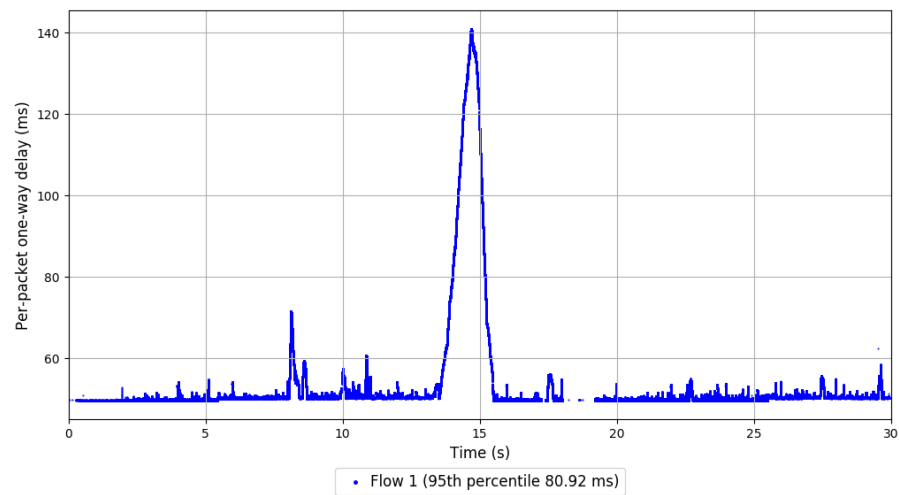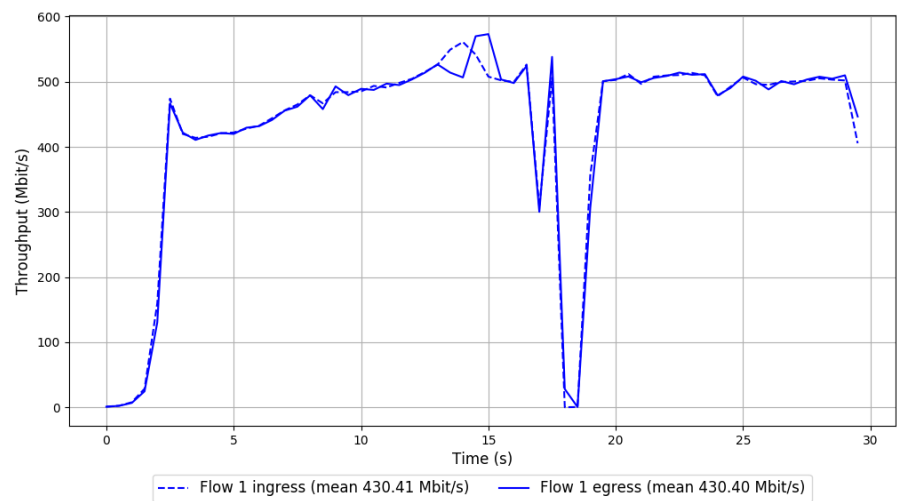
Run 5: Report of Vivace-loss — Data Link

```
Run 6: Statistics of Vivace-loss

Start at: 2018-02-20 04:29:46
End at: 2018-02-20 04:30:16

# Below is generated by plot.py at 2018-02-20 08:58:18
# Datalink statistics
-- Total of 1 flow:
Average throughput: 392.34 Mbit/s
95th percentile per-packet one-way delay: 130.894 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 392.34 Mbit/s
95th percentile per-packet one-way delay: 130.894 ms
Loss rate: 0.00%
```
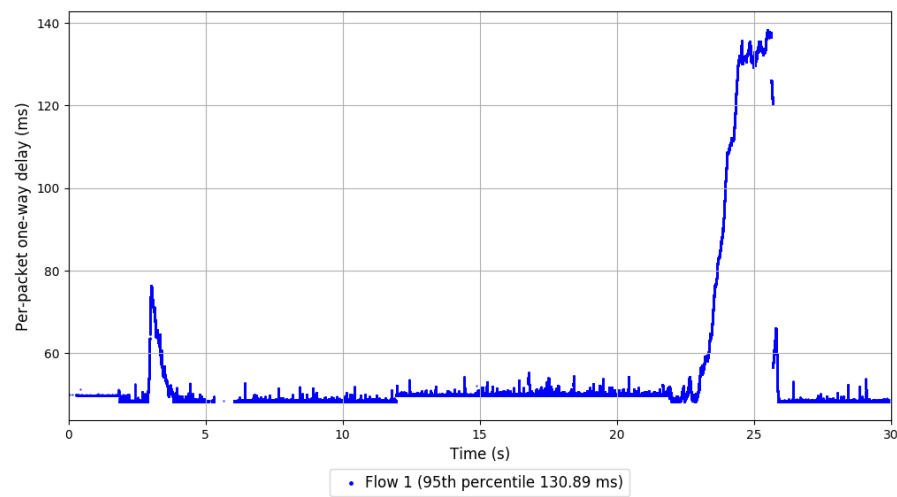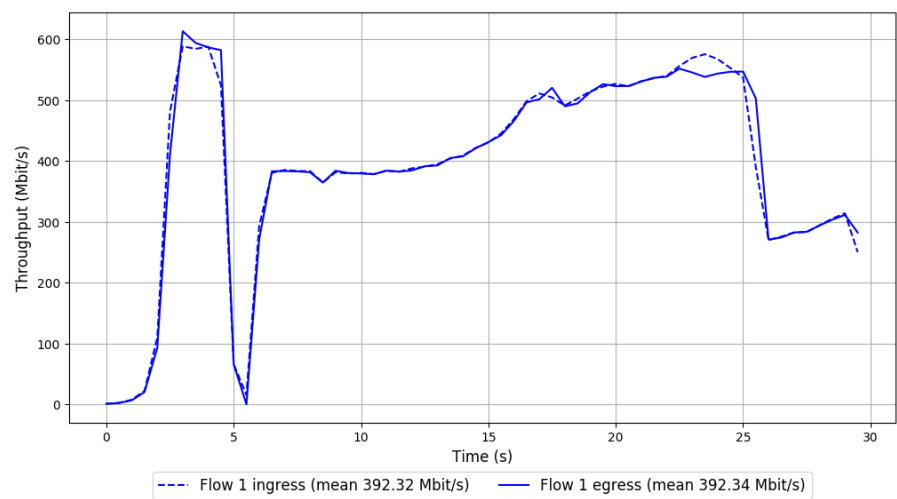
Run 6: Report of Vivace-loss — Data Link

```
Run 7: Statistics of Vivace-loss

Start at: 2018-02-20 04:44:35
End at: 2018-02-20 04:45:05

# Below is generated by plot.py at 2018-02-20 08:59:05
# Datalink statistics
-- Total of 1 flow:
Average throughput: 380.21 Mbit/s
95th percentile per-packet one-way delay: 56.720 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 380.21 Mbit/s
95th percentile per-packet one-way delay: 56.720 ms
Loss rate: 0.00%
```
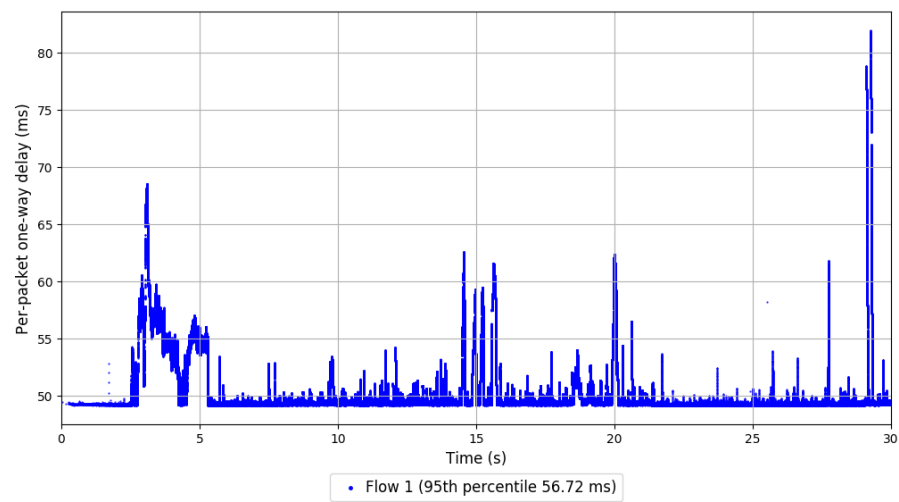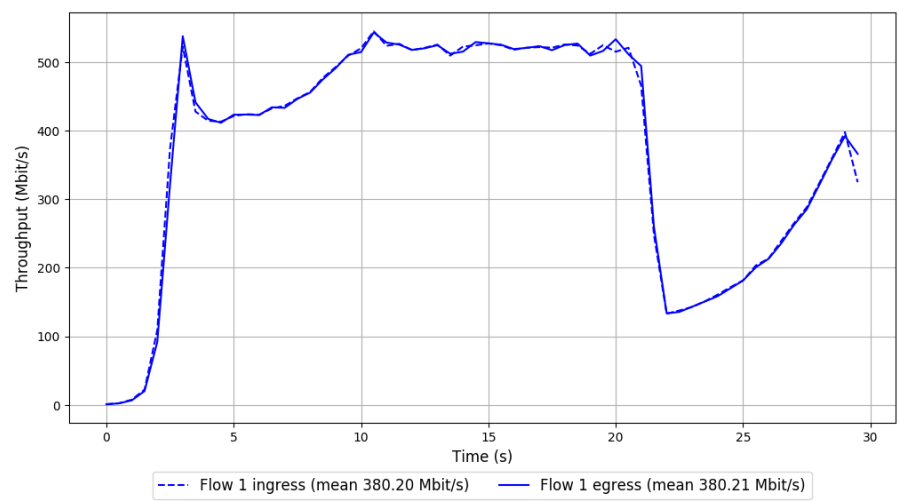
Run 7: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 380.20 Mbit/s)   Flow 1 egress (mean 380.21 Mbit/s)

• Flow 1 (95th percentile 56.72 ms)

317

```
Run 8: Statistics of Vivace-loss

Start at: 2018-02-20 04:59:33
End at: 2018-02-20 05:00:03

# Below is generated by plot.py at 2018-02-20 09:01:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 434.12 Mbit/s
95th percentile per-packet one-way delay: 51.213 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 434.12 Mbit/s
95th percentile per-packet one-way delay: 51.213 ms
Loss rate: 0.01%
```
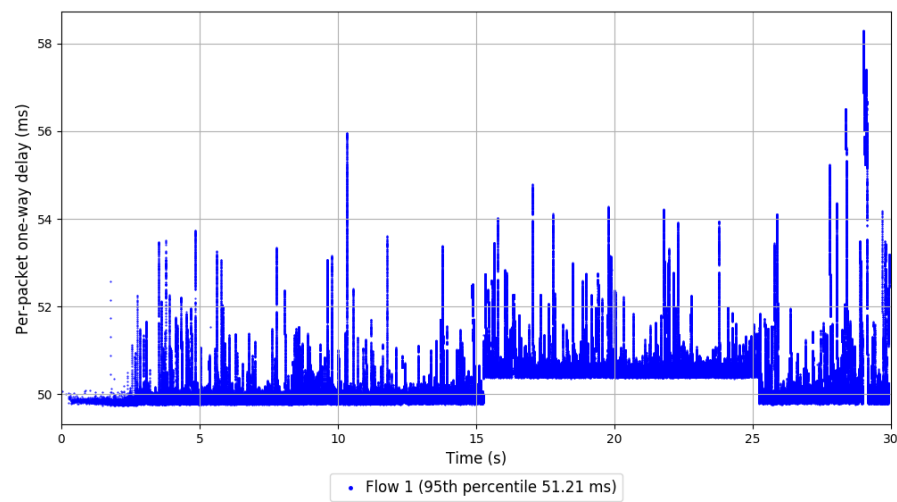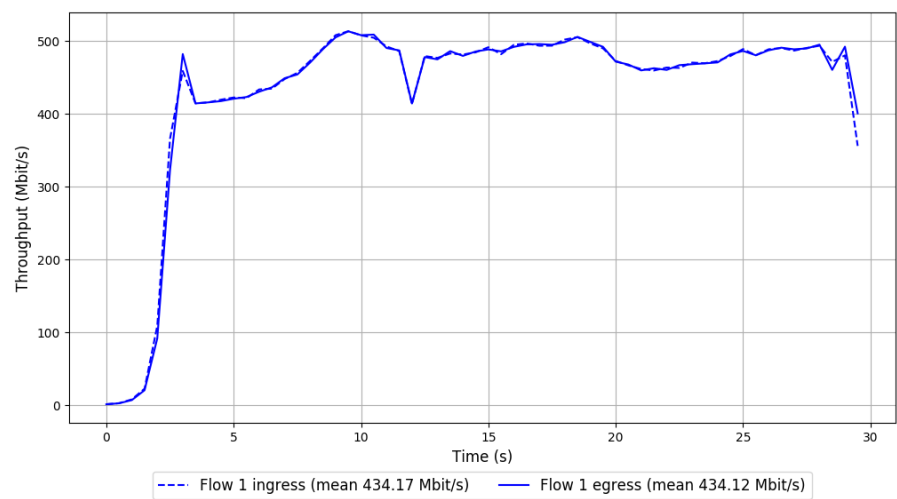
Run 8: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 434.17 Mbit/s) — — — Flow 1 egress (mean 434.12 Mbit/s)

Flow 1 (95th percentile 51.21 ms)

```
Run 9: Statistics of Vivace-loss

Start at: 2018-02-20 05:14:31
End at: 2018-02-20 05:15:01

# Below is generated by plot.py at 2018-02-20 09:02:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 449.49 Mbit/s
95th percentile per-packet one-way delay: 62.118 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 449.49 Mbit/s
95th percentile per-packet one-way delay: 62.118 ms
Loss rate: 0.04%
```
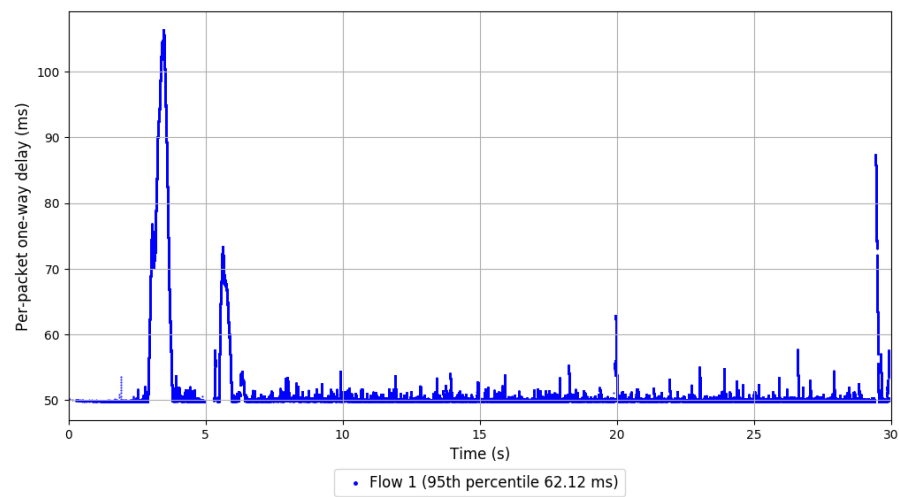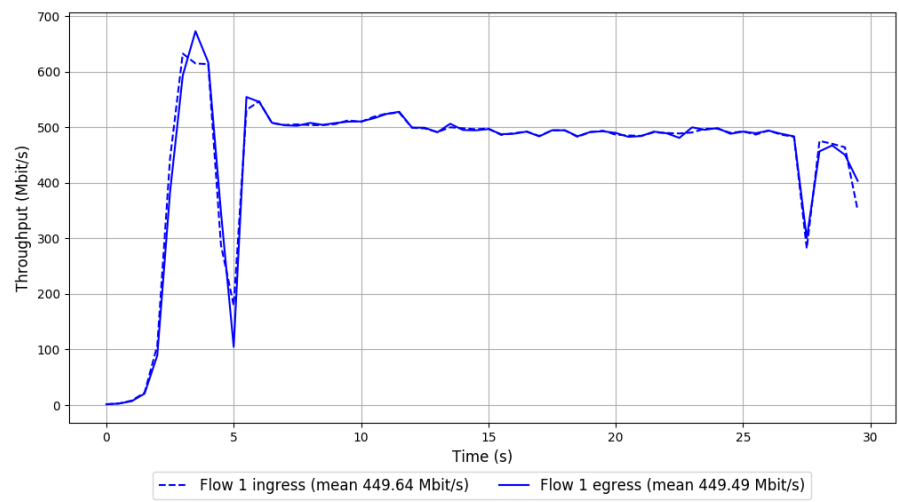
Run 9: Report of Vivace-loss — Data Link

```
Run 10: Statistics of Vivace-loss

Start at: 2018-02-20 05:29:24
End at: 2018-02-20 05:29:54

# Below is generated by plot.py at 2018-02-20 09:02:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 444.89 Mbit/s
95th percentile per-packet one-way delay: 54.146 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 444.89 Mbit/s
95th percentile per-packet one-way delay: 54.146 ms
Loss rate: 0.00%
```
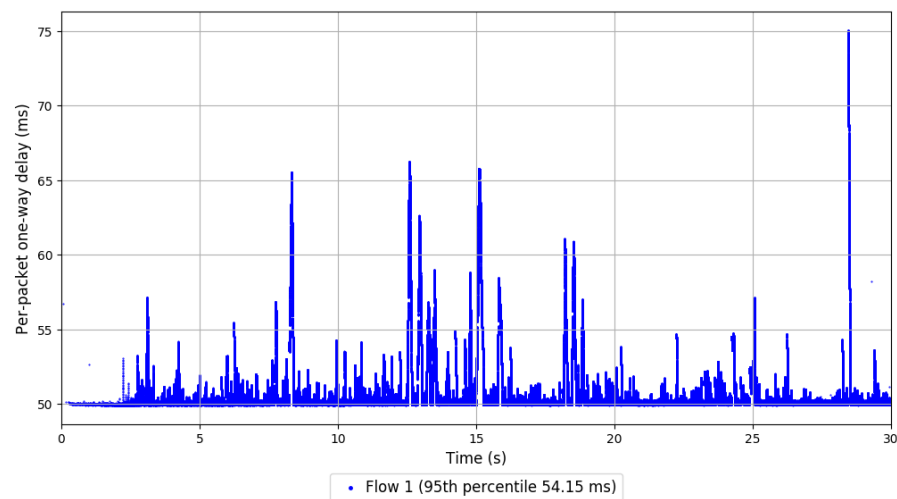
Run 10: Report of Vivace-loss — Data Link

Flow 1 ingress (mean 444.80 Mbit/s)   Flow 1 egress (mean 444.89 Mbit/s)

Flow 1 (95th percentile 54.15 ms)

```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-20 03:18:00
End at: 2018-02-20 03:18:30

# Below is generated by plot.py at 2018-02-20 09:02:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 412.79 Mbit/s
95th percentile per-packet one-way delay: 51.514 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 412.79 Mbit/s
95th percentile per-packet one-way delay: 51.514 ms
Loss rate: 0.00%
```
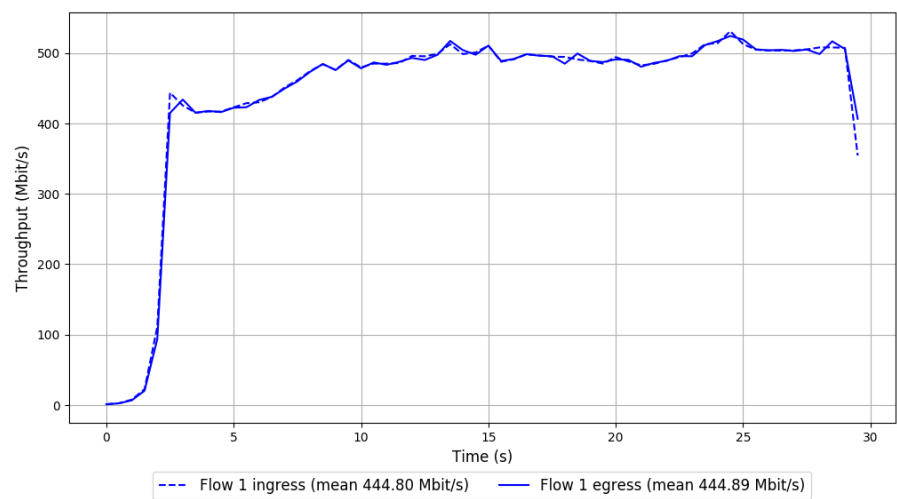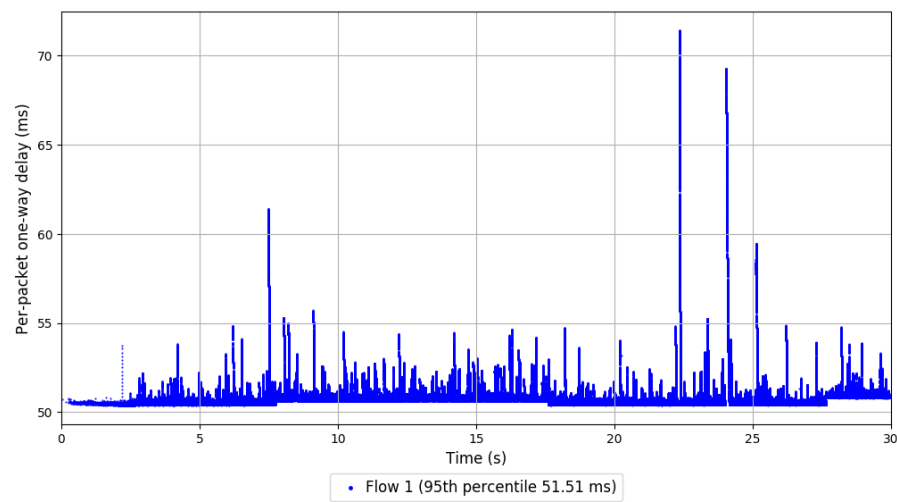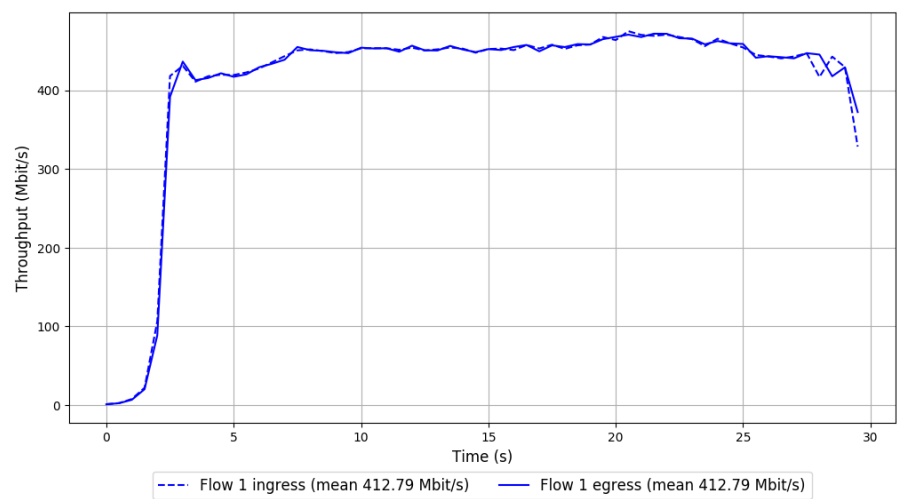
Run 1: Report of Vivace-LTE — Data Link

```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-20 03:32:53
End at: 2018-02-20 03:33:23

# Below is generated by plot.py at 2018-02-20 09:03:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 403.53 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 403.53 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 0.00%
```
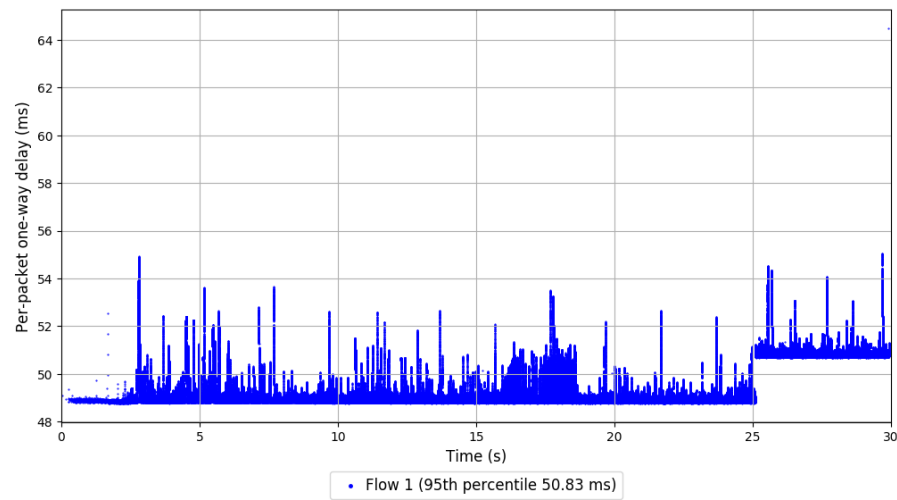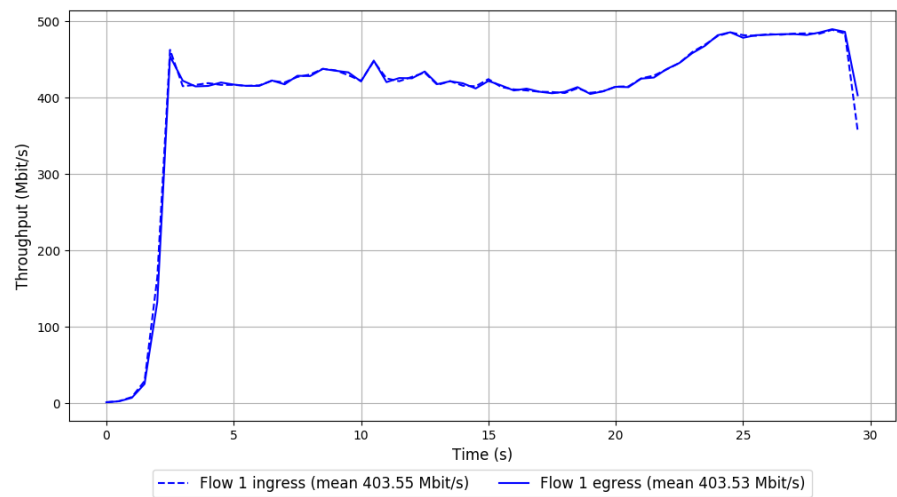
Run 2: Report of Vivace-LTE — Data Link

```
Run 3: Statistics of Vivace-LTE

Start at: 2018-02-20 03:47:34
End at: 2018-02-20 03:48:04

# Below is generated by plot.py at 2018-02-20 09:06:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 426.27 Mbit/s
95th percentile per-packet one-way delay: 52.265 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 426.27 Mbit/s
95th percentile per-packet one-way delay: 52.265 ms
Loss rate: 0.00%
```
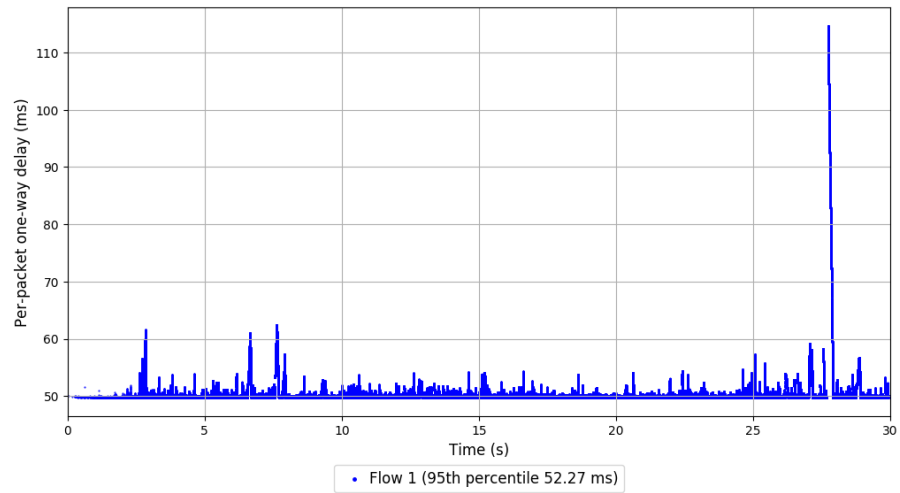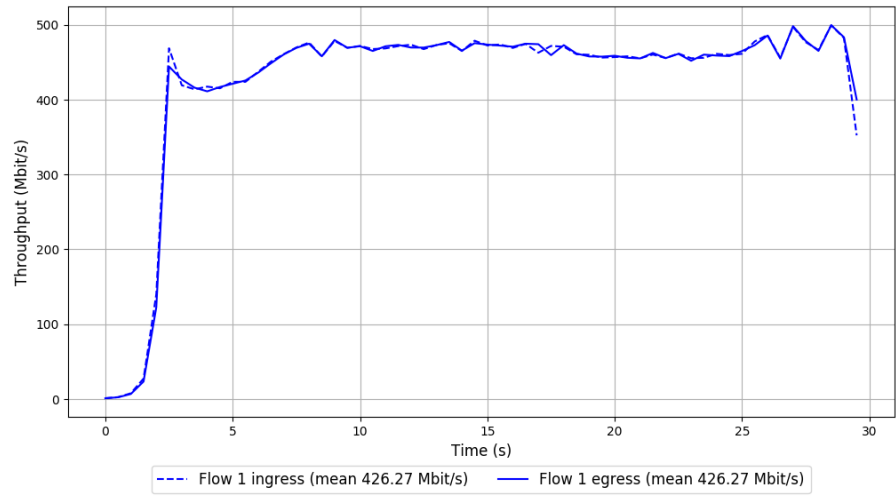
Run 3: Report of Vivace-LTE — Data Link

```
Run 4: Statistics of Vivace-LTE

Start at: 2018-02-20 04:02:25
End at: 2018-02-20 04:02:55

# Below is generated by plot.py at 2018-02-20 09:06:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 440.01 Mbit/s
95th percentile per-packet one-way delay: 68.486 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 440.01 Mbit/s
95th percentile per-packet one-way delay: 68.486 ms
Loss rate: 0.02%
```
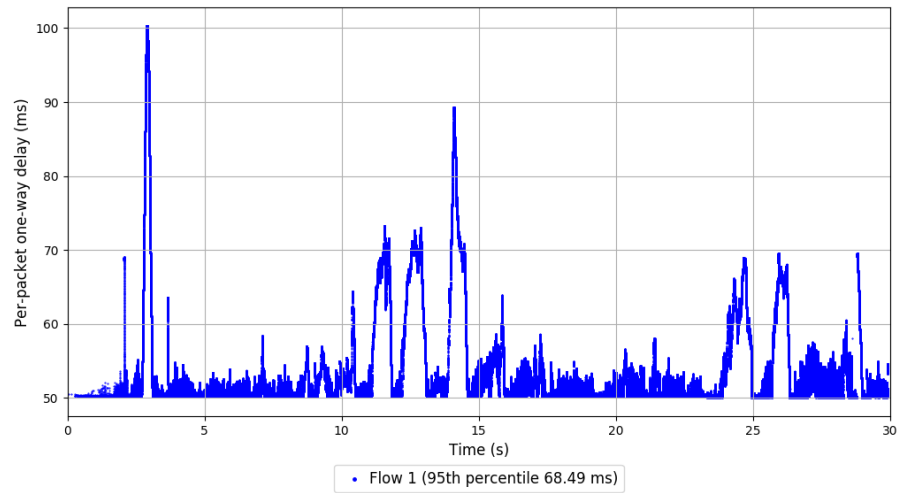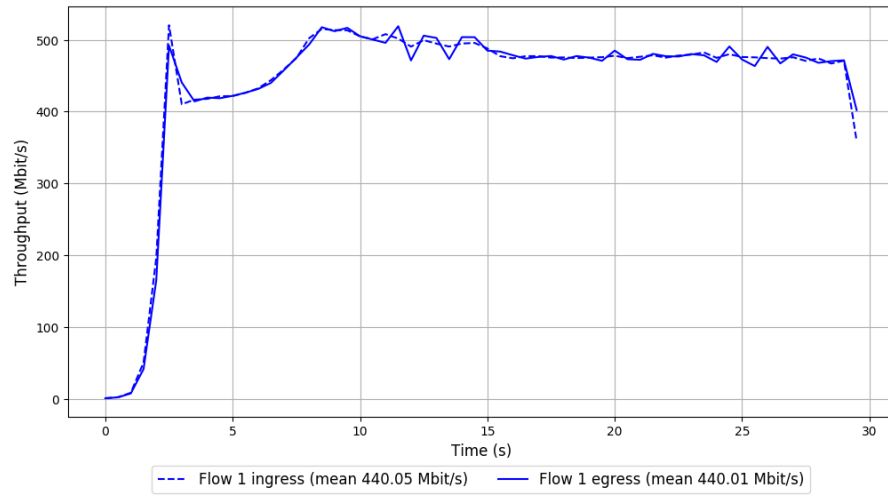
Run 4: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 440.05 Mbit/s)   Flow 1 egress (mean 440.01 Mbit/s)

Flow 1 (95th percentile 68.49 ms)

```
Run 5: Statistics of Vivace-LTE

Start at: 2018-02-20 04:17:26
End at: 2018-02-20 04:17:56

# Below is generated by plot.py at 2018-02-20 09:07:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 444.04 Mbit/s
95th percentile per-packet one-way delay: 50.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 444.04 Mbit/s
95th percentile per-packet one-way delay: 50.961 ms
Loss rate: 0.00%
```
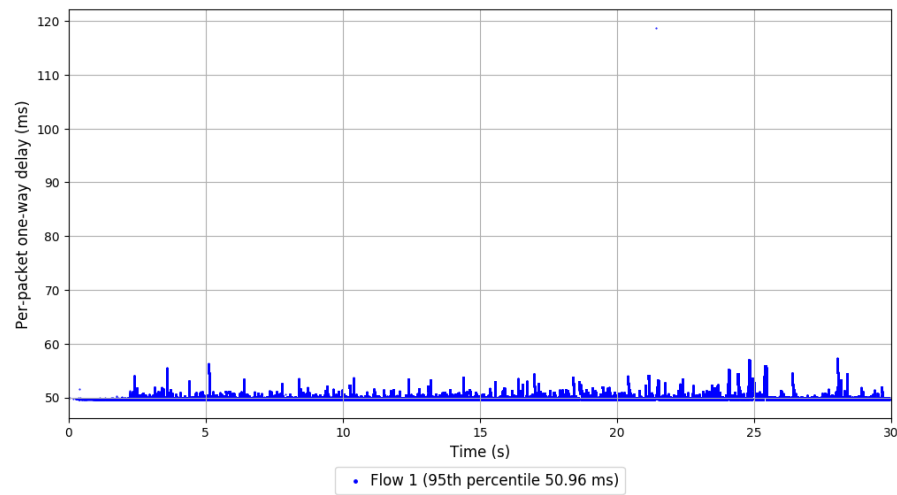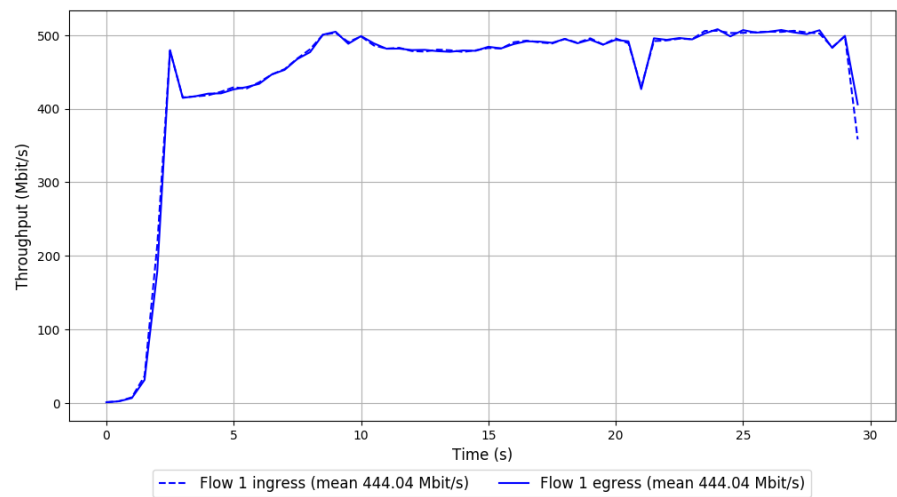
Run 5: Report of Vivace-LTE — Data Link

```
Run 6: Statistics of Vivace-LTE

Start at: 2018-02-20 04:32:18
End at: 2018-02-20 04:32:48

# Below is generated by plot.py at 2018-02-20 09:08:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 448.25 Mbit/s
95th percentile per-packet one-way delay: 63.232 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 448.25 Mbit/s
95th percentile per-packet one-way delay: 63.232 ms
Loss rate: 0.00%
```
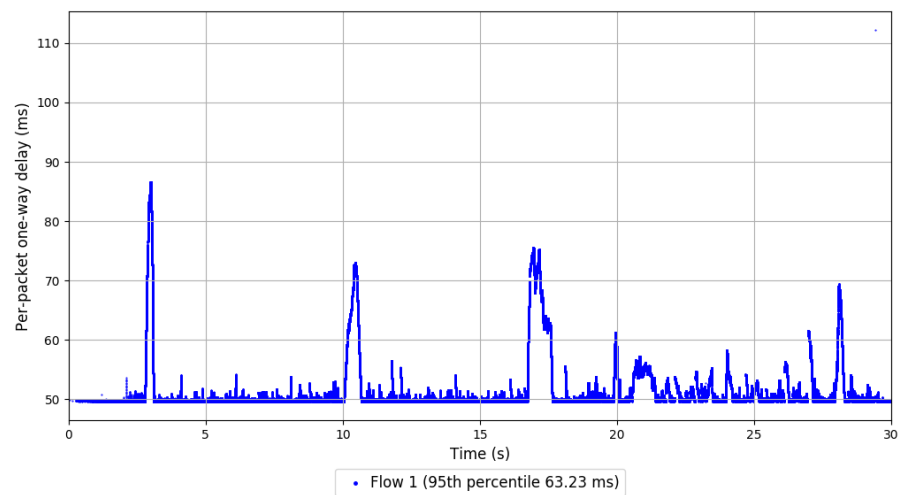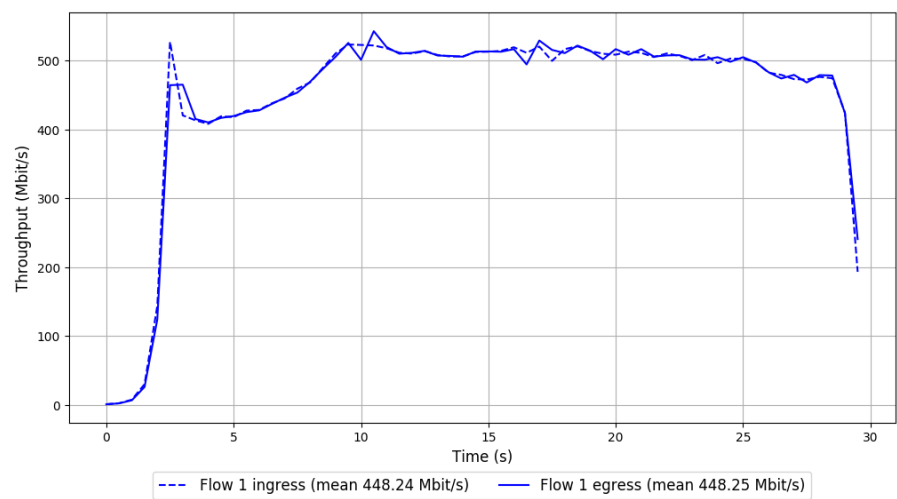
Run 6: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 448.24 Mbit/s)   Flow 1 egress (mean 448.25 Mbit/s)

Flow 1 (95th percentile 63.23 ms)

```
Run 7: Statistics of Vivace-LTE

Start at: 2018-02-20 04:47:06
End at: 2018-02-20 04:47:36


# Below is generated by plot.py at 2018-02-20 09:08:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 450.96 Mbit/s
95th percentile per-packet one-way delay: 51.879 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 450.96 Mbit/s
95th percentile per-packet one-way delay: 51.879 ms
Loss rate: 0.00%
```
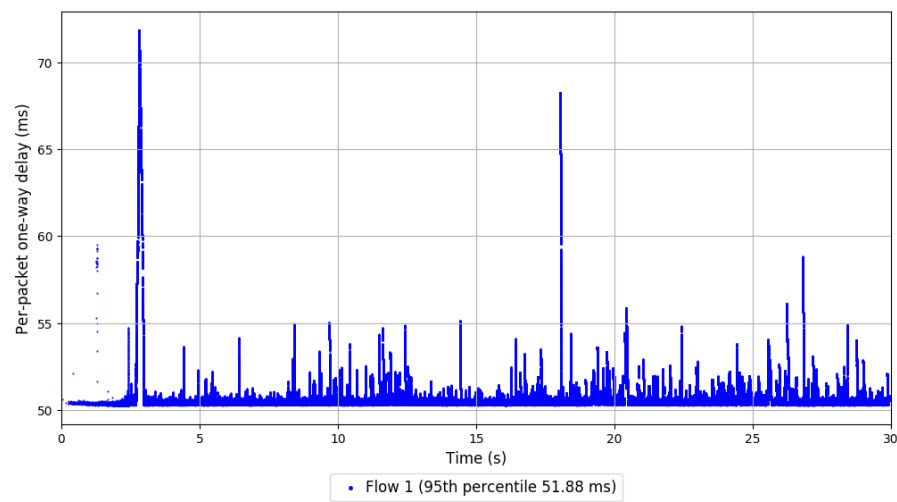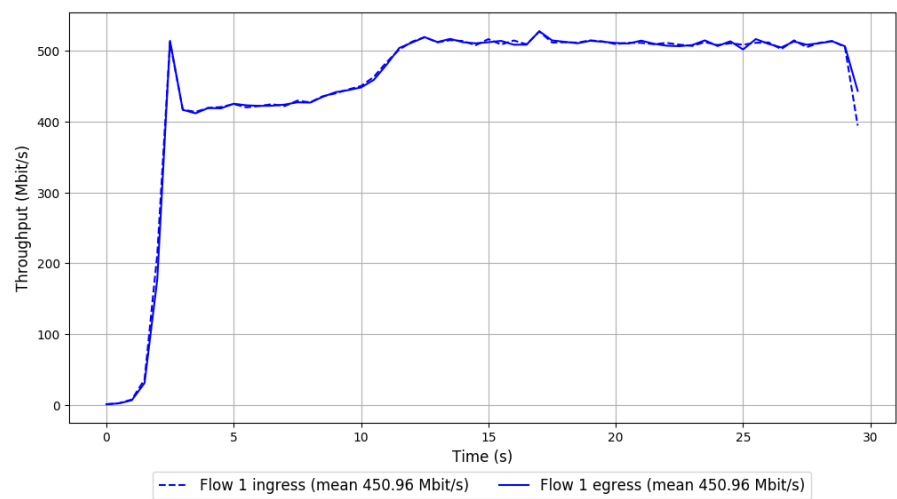
Run 7: Report of Vivace-LTE — Data Link

```
Run 8: Statistics of Vivace-LTE

Start at: 2018-02-20 05:02:07
End at: 2018-02-20 05:02:37

# Below is generated by plot.py at 2018-02-20 09:08:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 431.19 Mbit/s
95th percentile per-packet one-way delay: 51.460 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 431.19 Mbit/s
95th percentile per-packet one-way delay: 51.460 ms
Loss rate: 0.00%
```
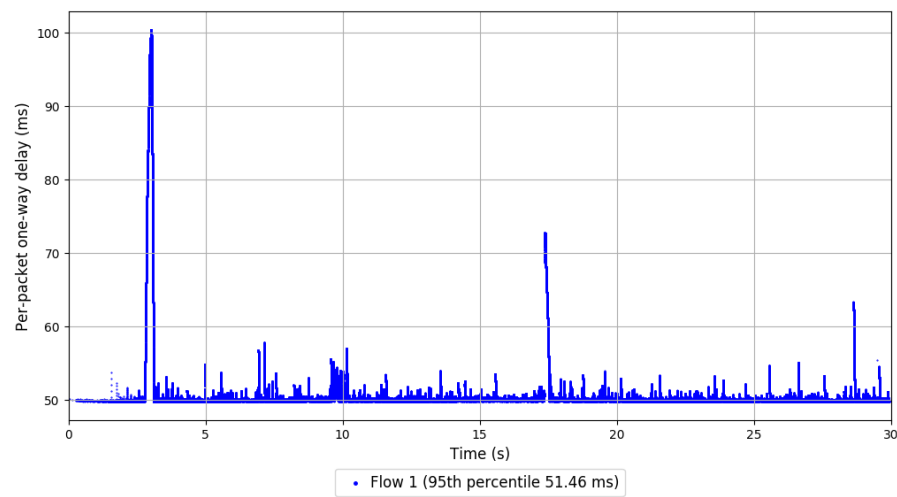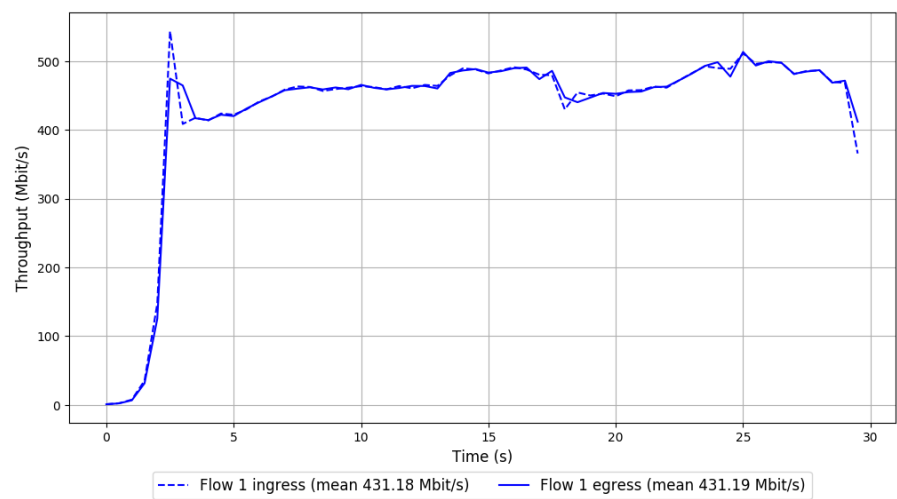
Run 8: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 431.18 Mbit/s) ----   Flow 1 egress (mean 431.19 Mbit/s) ——

Flow 1 (95th percentile 51.46 ms) •

```
Run 9: Statistics of Vivace-LTE

Start at: 2018-02-20 05:17:06
End at: 2018-02-20 05:17:36


# Below is generated by plot.py at 2018-02-20 09:08:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 368.85 Mbit/s
95th percentile per-packet one-way delay: 55.975 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 368.85 Mbit/s
95th percentile per-packet one-way delay: 55.975 ms
Loss rate: 0.00%
```
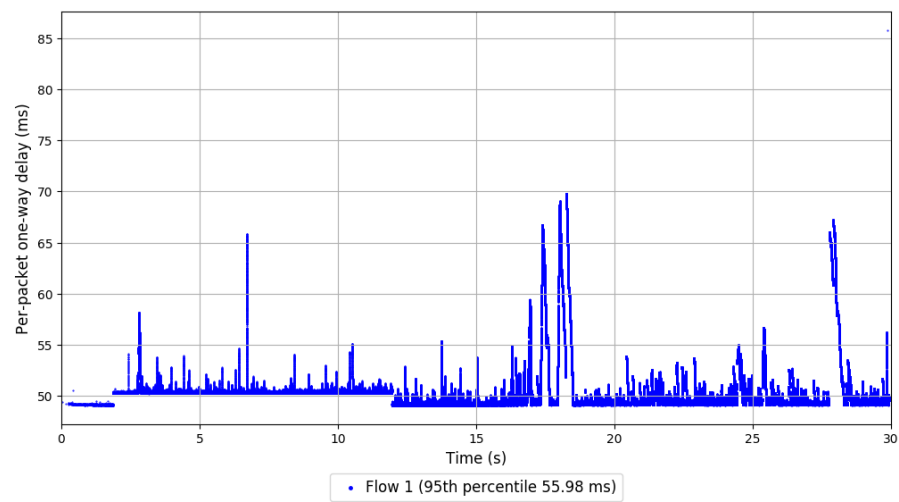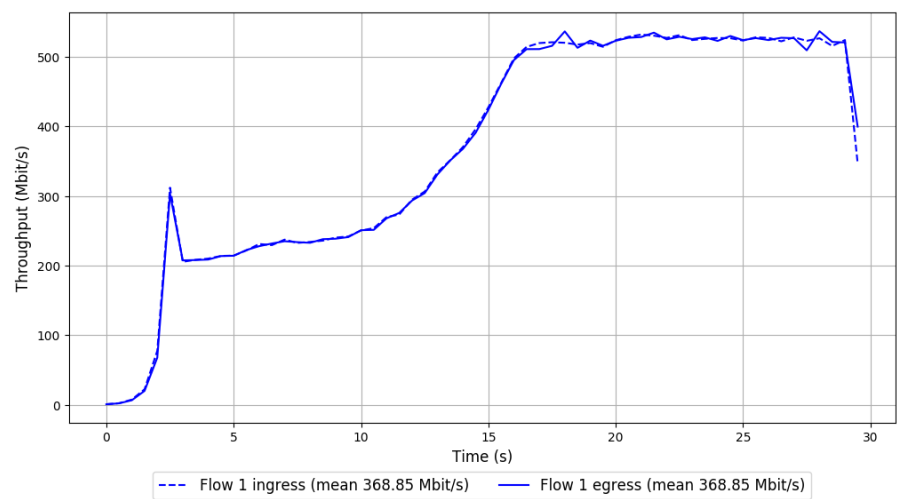
Run 9: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 368.85 Mbit/s)   Flow 1 egress (mean 368.85 Mbit/s)

Flow 1 (95th percentile 55.98 ms)

```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-20 05:32:00
End at: 2018-02-20 05:32:30

# Below is generated by plot.py at 2018-02-20 09:08:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 448.28 Mbit/s
95th percentile per-packet one-way delay: 53.193 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 448.28 Mbit/s
95th percentile per-packet one-way delay: 53.193 ms
Loss rate: 0.01%
```

Run 10: Report of Vivace-LTE — Data Link

Flow 1 ingress (mean 448.31 Mbit/s)   Flow 1 egress (mean 448.28 Mbit/s)

Flow 1 (95th percentile 53.19 ms)