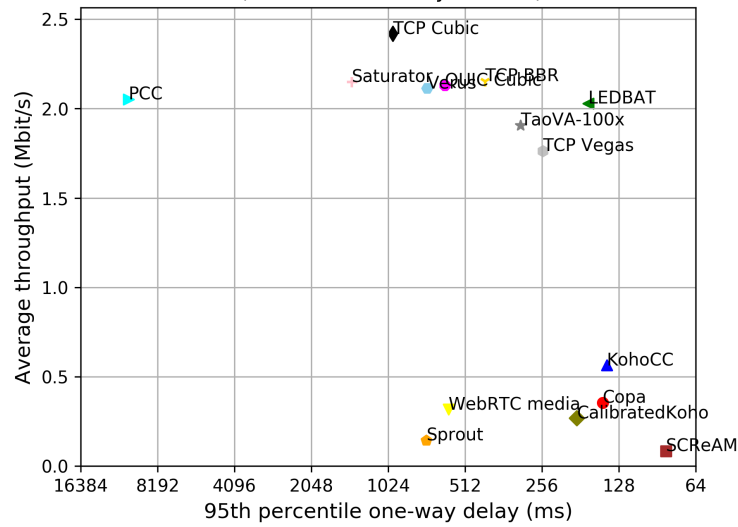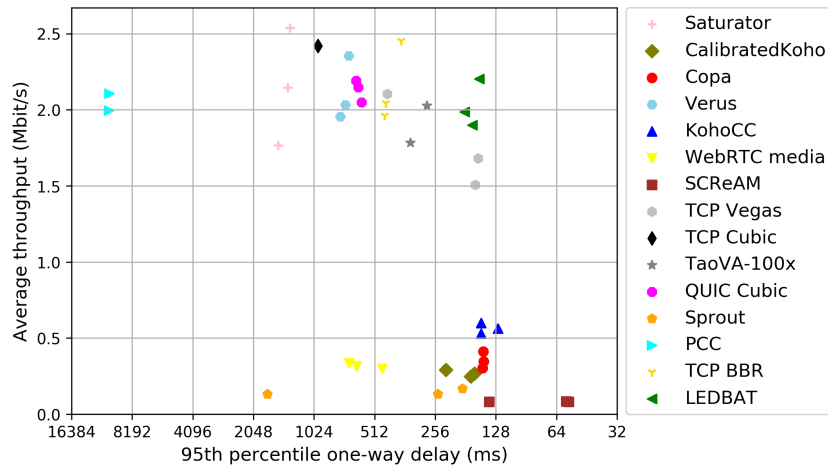**Pantheon Summary** (Generated at Mon, 07 Aug 2017 01:14:58 +0000 with pantheon version `a934ee3822380a12762347e6bc8bd1f3e836e73b`)

Repeated the test of 15 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

Data path: Mexico ppp0 (*remote*) →AWS California 2 Ethernet (*local*).

NTP offset measured against time.stanford.edu and has been applied to correct the timestamps in logs.

```
git branch: master @ a934ee3822380a12762347e6bc8bd1f3e836e73b
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
 M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
 M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
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/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from Mexico ppp0 to AWS California 2 Ethernet, 3 runs of 30s each per scheme
(mean of all runs by scheme)

test from Mexico ppp0 to AWS California 2 Ethernet, 3 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	3	2.15	427.99	1.12
CalibratedKoho	3	0.27	187.08	0.92
Copa	3	0.35	148.12	0.45
TCP Cubic	3	2.42	981.05	2.87
KohoCC	3	0.56	142.76	0.46
LEDBAT	3	2.03	168.40	0.96
PCC	3	2.05	10651.88	95.08
QUIC Cubic	3	2.13	615.18	2.86
Saturator	3	2.15	1423.06	4.29
SCReAM	3	0.08	83.81	0.34
Sprout	3	0.14	727.14	0.85
TaoVA-100x	3	1.90	310.94	0.98
TCP Vegas	3	1.76	254.01	0.52
Verus	3	2.11	720.37	3.75
WebRTC media	3	0.32	595.29	0.78

```
Run 1: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:22:43 +0000
End at: Sun, 06 Aug 2017 23:23:13 +0000
Local clock offset: 0.54 ms
Remote clock offset: -1.369 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:28 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 455.859 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 455.859 ms
Loss rate: 1.22%
```
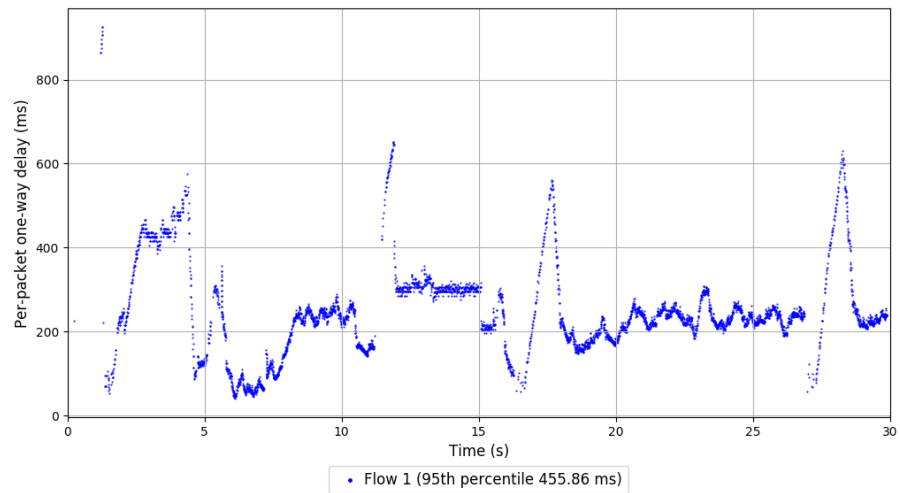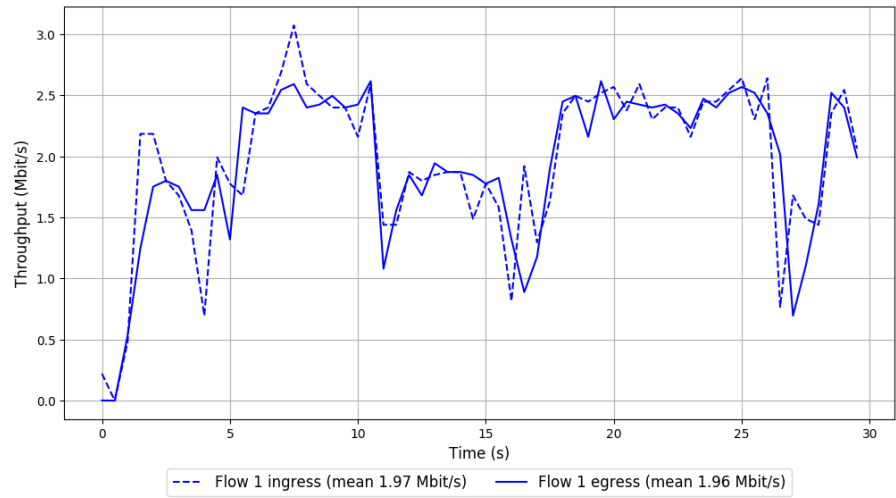
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:42:17 +0000
End at: Sun, 06 Aug 2017 23:42:47 +0000
Local clock offset: 0.506 ms
Remote clock offset: -1.623 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:28 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 450.173 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 450.173 ms
Loss rate: 1.11%
```
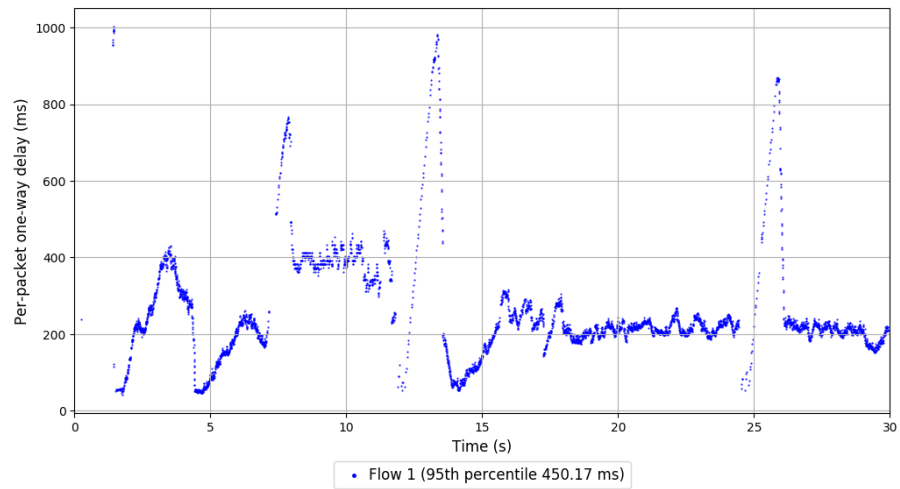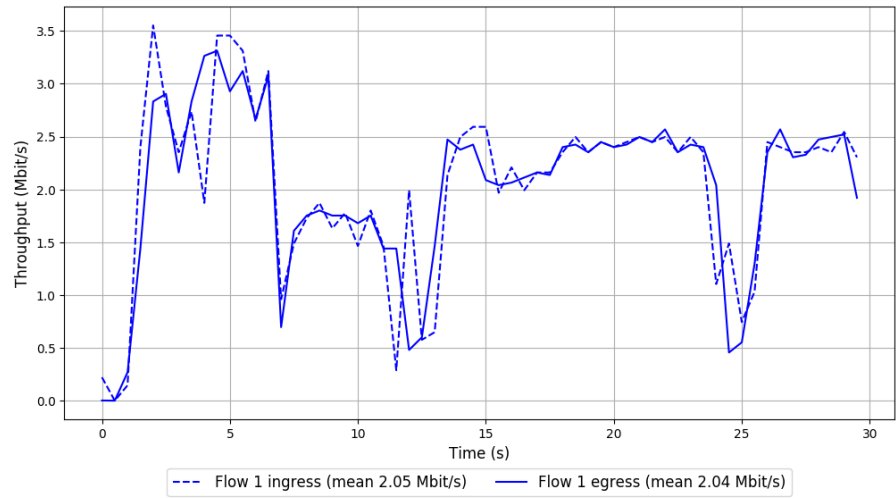
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: Mon, 07 Aug 2017 00:01:47 +0000
End at: Mon, 07 Aug 2017 00:02:17 +0000
Local clock offset: 0.542 ms
Remote clock offset: 0.242 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:29 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 377.942 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 2.45 Mbit/s
95th percentile per-packet one-way delay: 377.942 ms
Loss rate: 1.03%
```
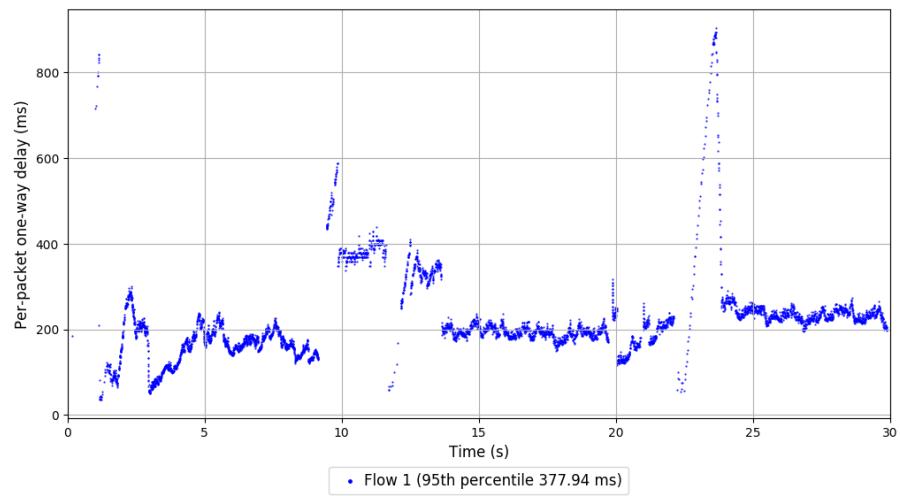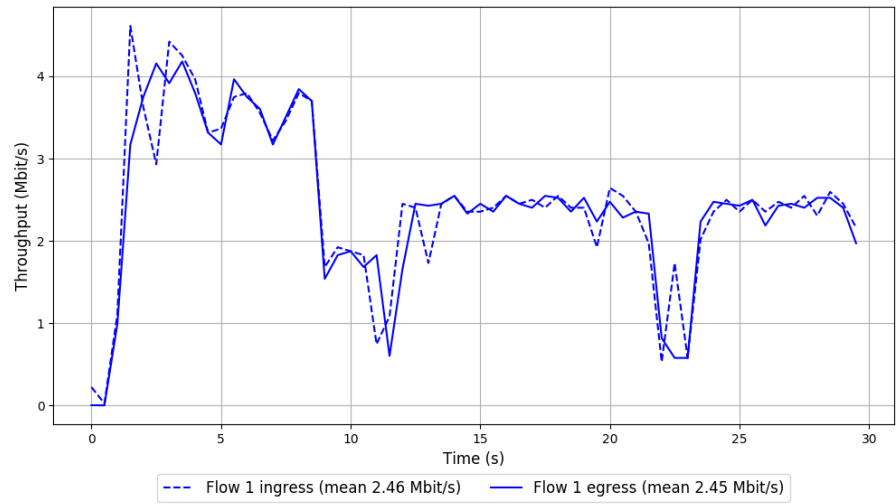
Run 3: Report of TCP BBR — Data Link

```
Run 1: Statistics of CalibratedKoho

Start at: Sun, 06 Aug 2017 23:25:19 +0000
End at: Sun, 06 Aug 2017 23:25:49 +0000
Local clock offset: 0.446 ms
Remote clock offset: 0.637 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:29 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 227.036 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 227.036 ms
Loss rate: 0.85%
```
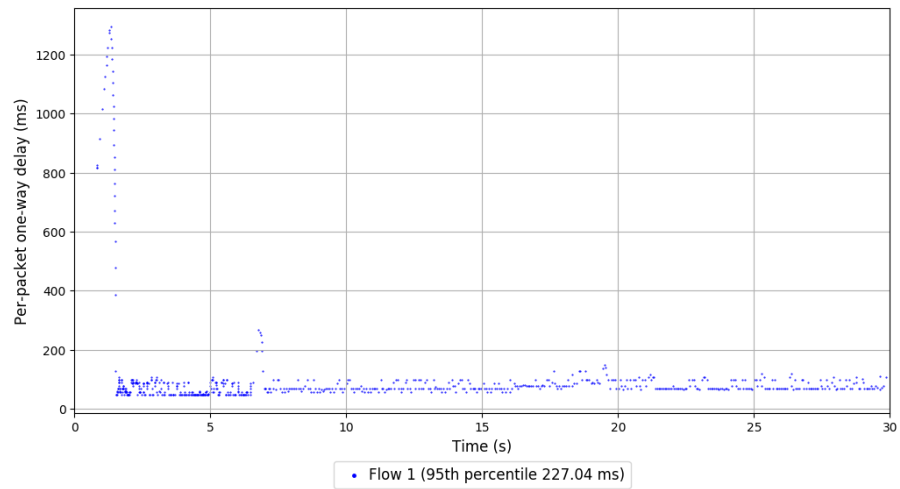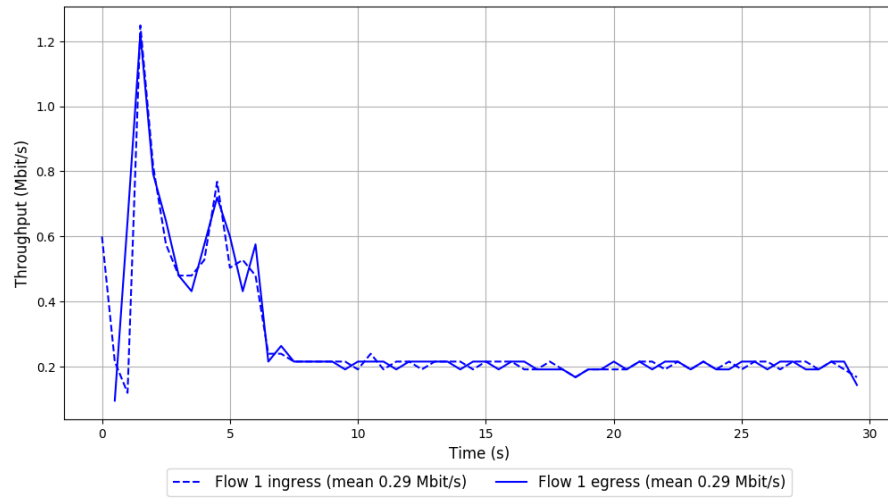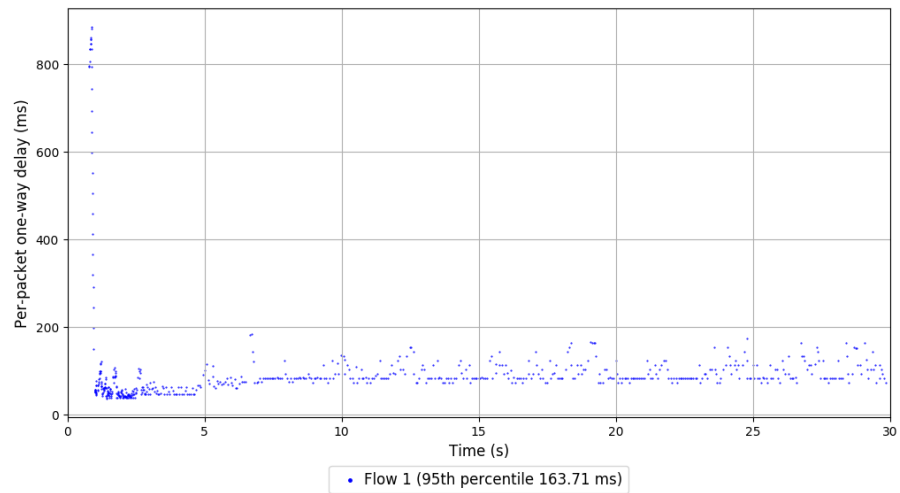
Run 1: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.29 Mbit/s)   Flow 1 egress (mean 0.29 Mbit/s)

Flow 1 (95th percentile 227.04 ms)

```
Run 2: Statistics of CalibratedKoho

Start at: Sun, 06 Aug 2017 23:44:53 +0000
End at: Sun, 06 Aug 2017 23:45:23 +0000
Local clock offset: 0.532 ms
Remote clock offset: -1.486 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:30 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 163.706 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 163.706 ms
Loss rate: 0.92%
```
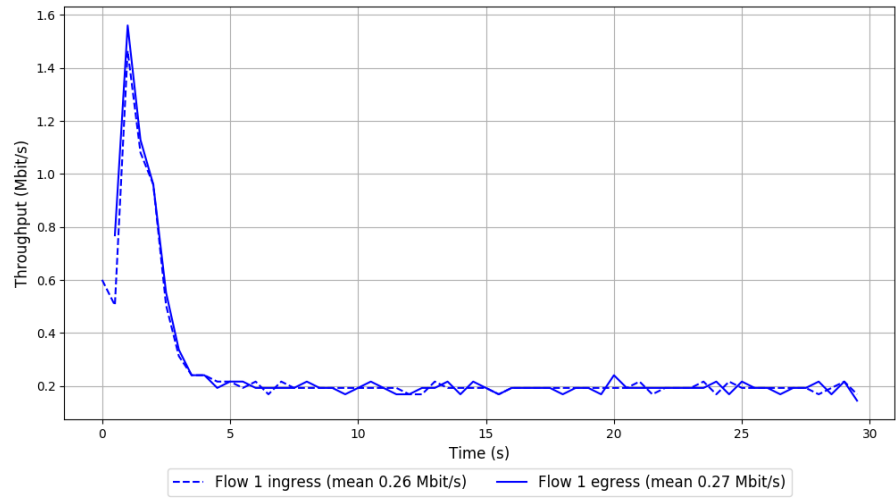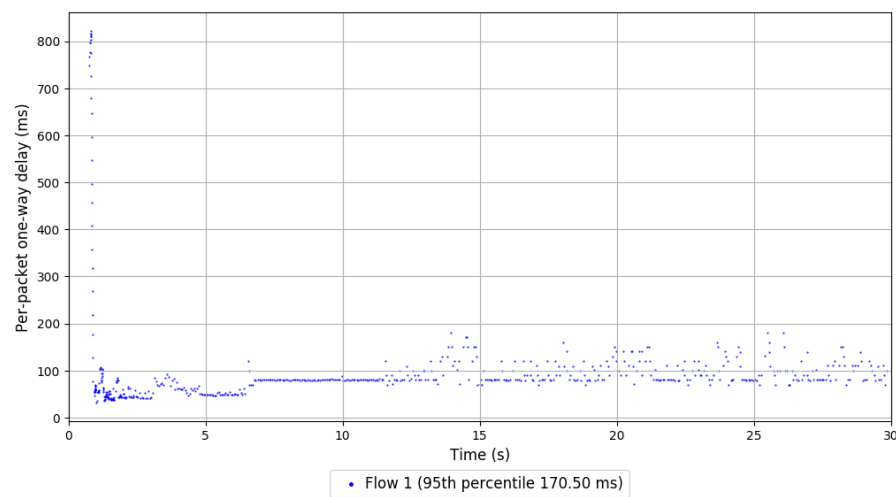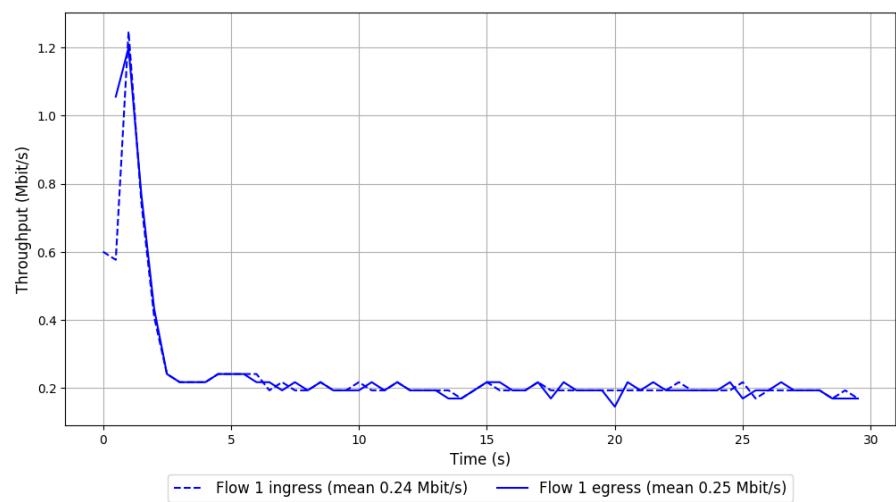
Run 2: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.26 Mbit/s) ----- Flow 1 egress (mean 0.27 Mbit/s) ——

Flow 1 (95th percentile 163.71 ms)

```
Run 3: Statistics of CalibratedKoho

Start at: Mon, 07 Aug 2017 00:04:23 +0000
End at: Mon, 07 Aug 2017 00:04:53 +0000
Local clock offset: 0.63 ms
Remote clock offset: 0.61 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:31 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 170.501 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 170.501 ms
Loss rate: 0.99%
```

Run 3: Report of CalibratedKoho — Data Link

```
Run 1: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:26:38 +0000
End at: Sun, 06 Aug 2017 23:27:08 +0000
Local clock offset: 0.533 ms
Remote clock offset: 0.978 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:32 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 147.835 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 147.835 ms
Loss rate: 0.54%
```
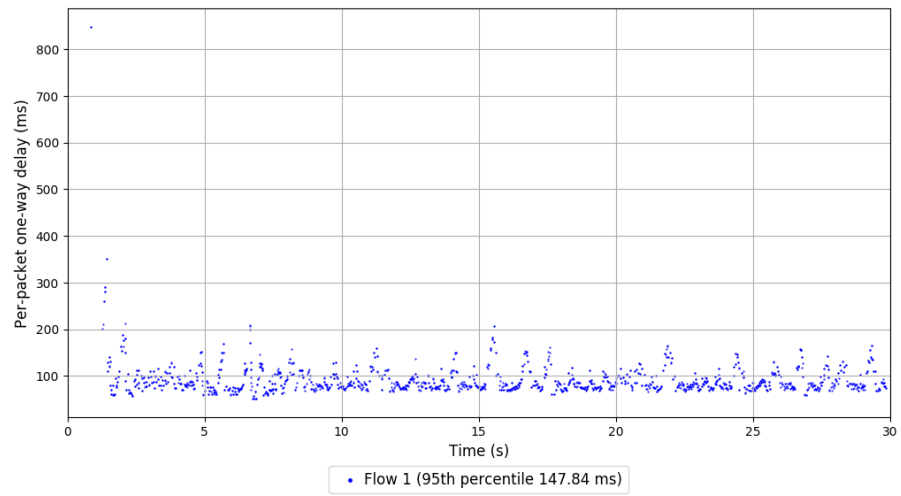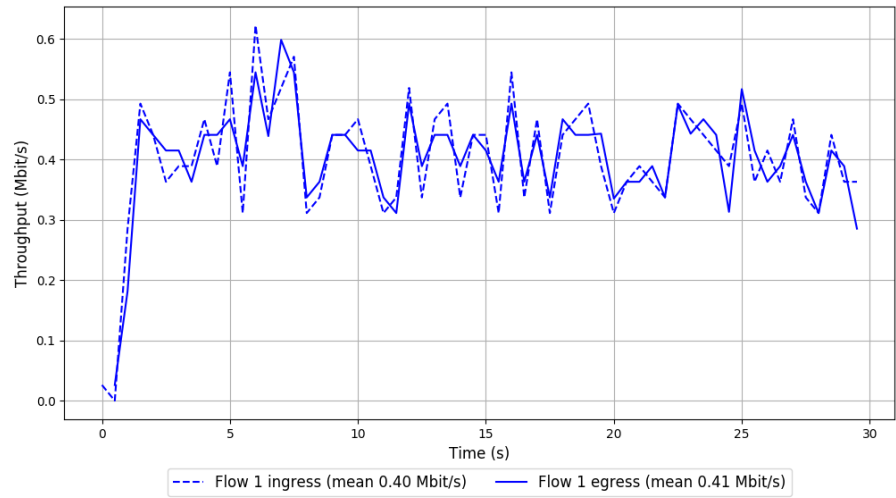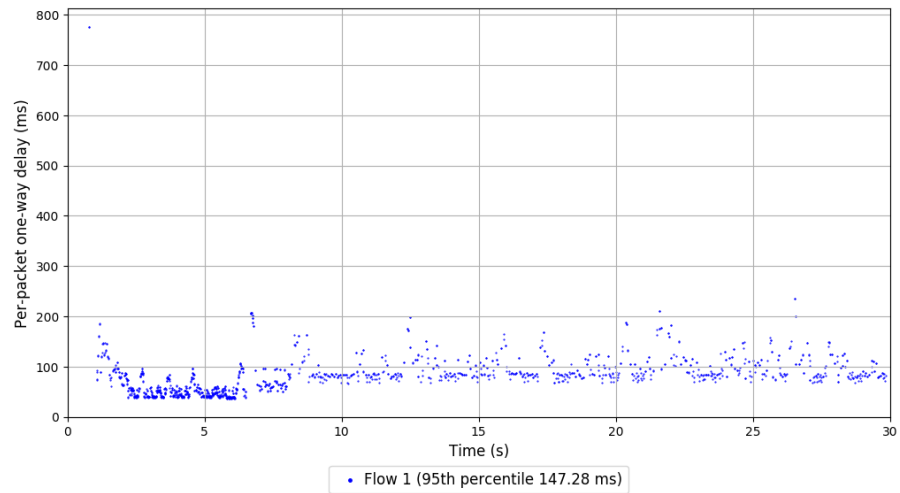
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:46:10 +0000
End at: Sun, 06 Aug 2017 23:46:40 +0000
Local clock offset: 0.517 ms
Remote clock offset: 0.437 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:32 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 147.279 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 147.279 ms
Loss rate: 0.38%
```
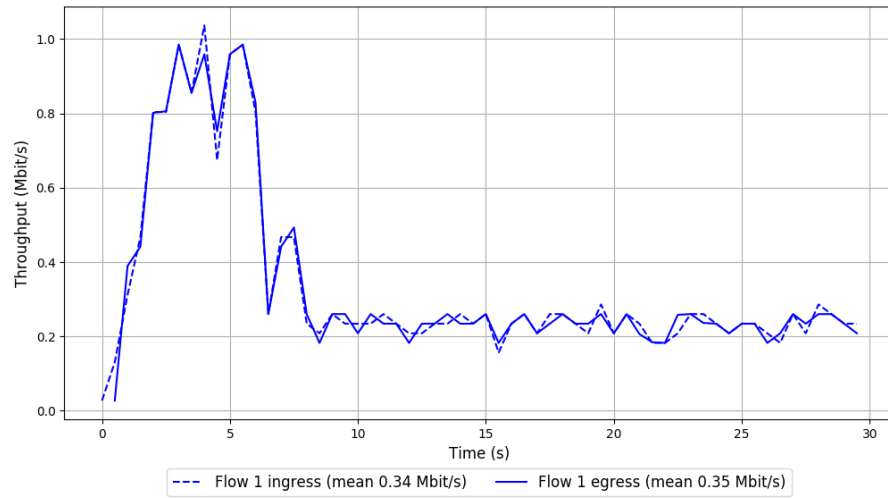
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: Mon, 07 Aug 2017 00:05:42 +0000
End at: Mon, 07 Aug 2017 00:06:12 +0000
Local clock offset: 0.532 ms
Remote clock offset: 0.595 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:33 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 149.254 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 149.254 ms
Loss rate: 0.44%
```
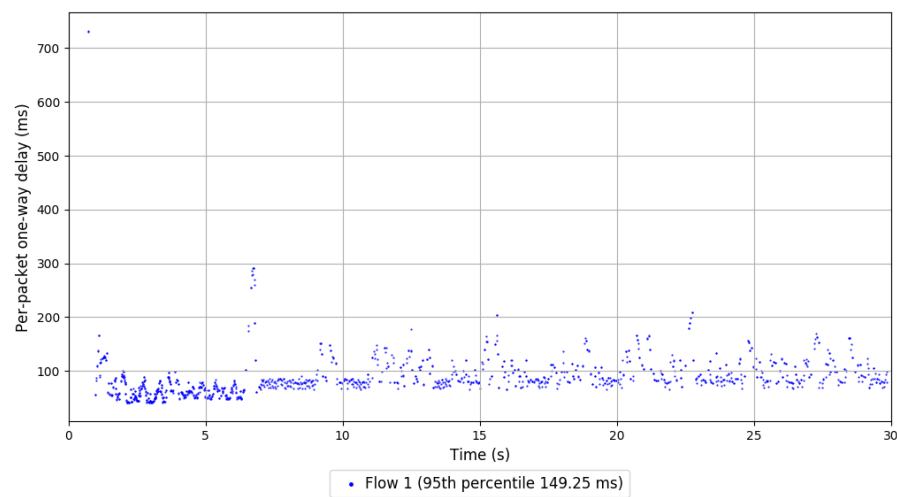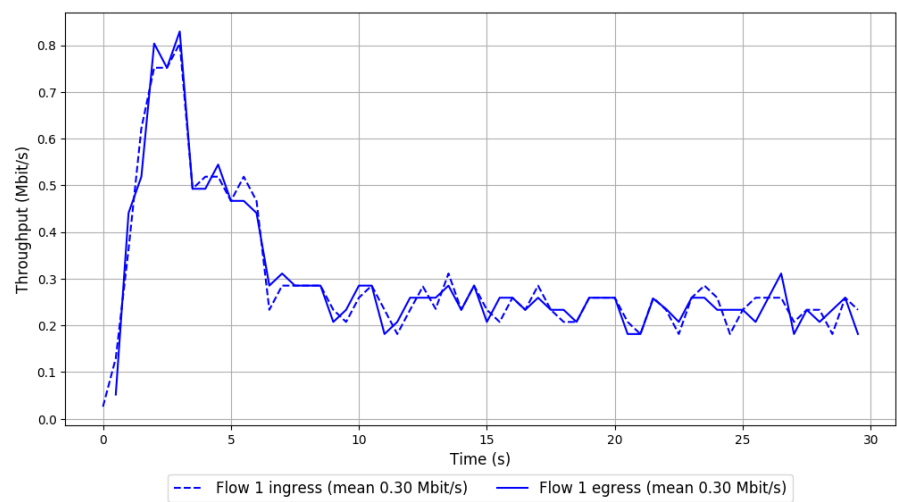
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 0.30 Mbit/s)   Flow 1 egress (mean 0.30 Mbit/s)

• Flow 1 (95th percentile 149.25 ms)

```
Run 1: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:29:15 +0000
End at: Sun, 06 Aug 2017 23:29:45 +0000
Local clock offset: 0.551 ms
Remote clock offset: -1.476 ms
```

Run 1: Report of TCP Cubic — Data Link

Figure is missing
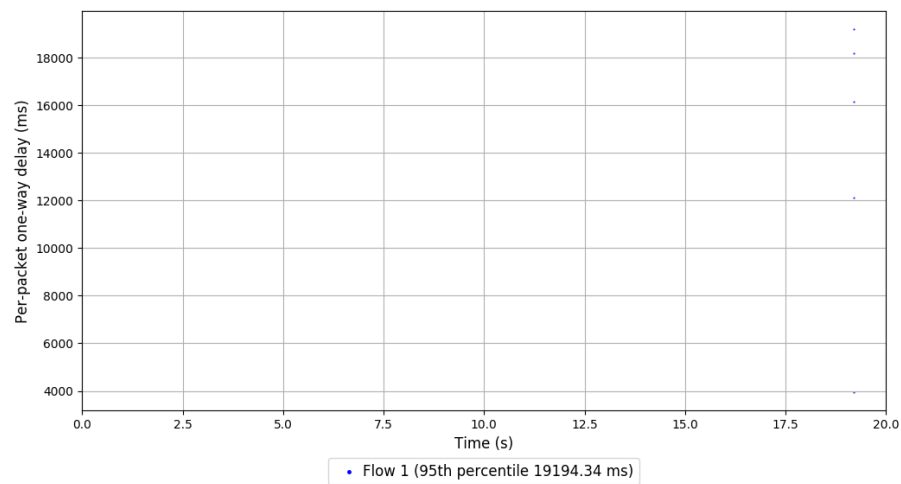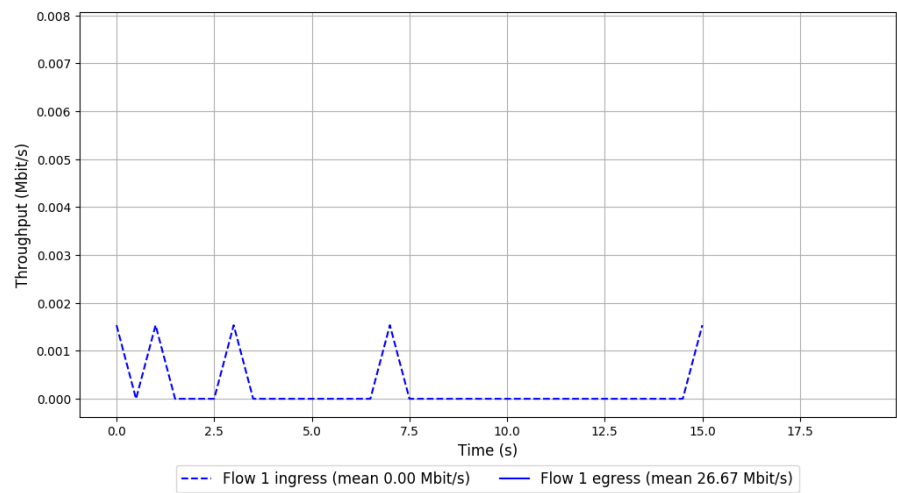
Figure is missing

Run 2: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:48:48 +0000
End at: Sun, 06 Aug 2017 23:49:18 +0000
Local clock offset: 0.521 ms
Remote clock offset: 0.5 ms

Run 2: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 0.00 Mbit/s)   Flow 1 egress (mean 26.67 Mbit/s)

Flow 1 (95th percentile 19194.34 ms)

```
Run 3: Statistics of TCP Cubic

Start at: Mon, 07 Aug 2017 00:08:18 +0000
End at: Mon, 07 Aug 2017 00:08:48 +0000
Local clock offset: 0.535 ms
Remote clock offset: 0.089 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 981.052 ms
Loss rate: 2.87%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 981.052 ms
Loss rate: 2.87%
```
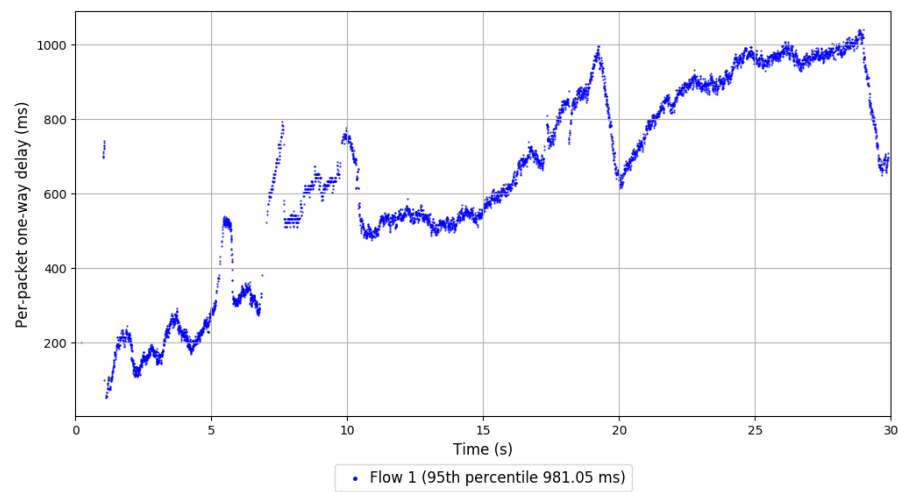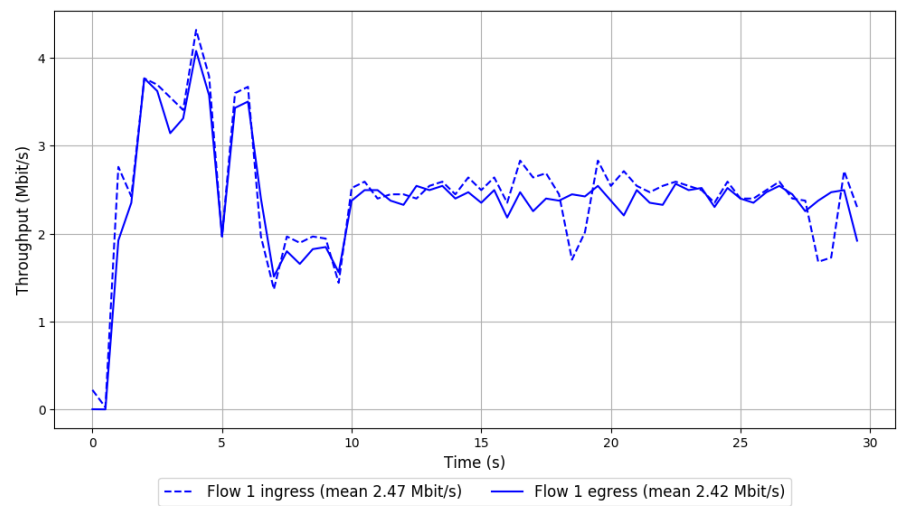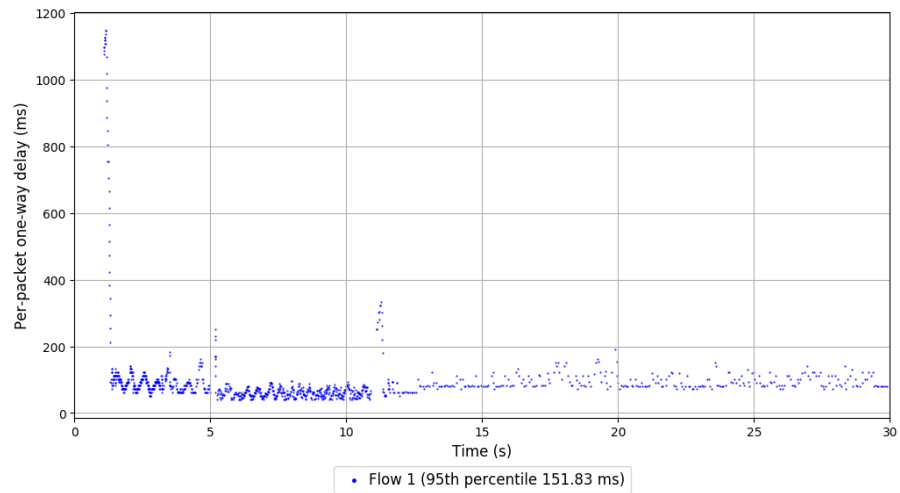
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 2.47 Mbit/s)   Flow 1 egress (mean 2.42 Mbit/s)

Flow 1 (95th percentile 981.05 ms)

```
Run 1: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:21:23 +0000
End at: Sun, 06 Aug 2017 23:21:53 +0000
Local clock offset: 0.556 ms
Remote clock offset: -1.453 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 151.831 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 151.831 ms
Loss rate: 0.47%
```
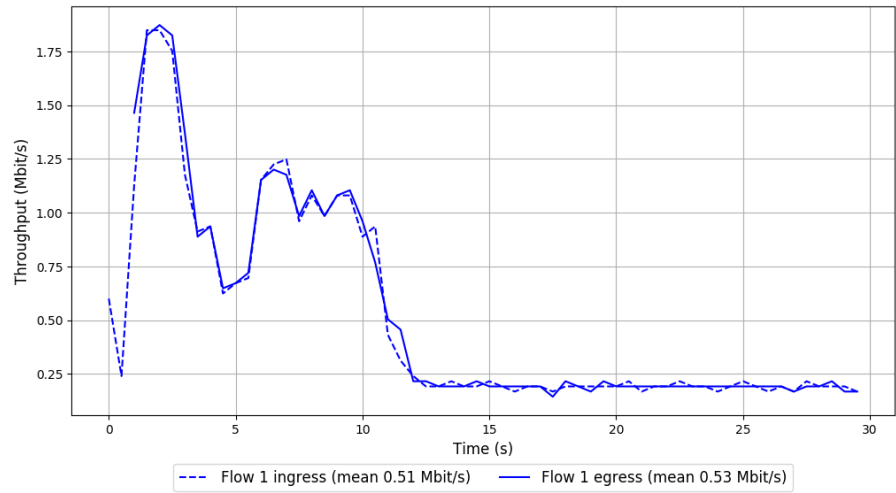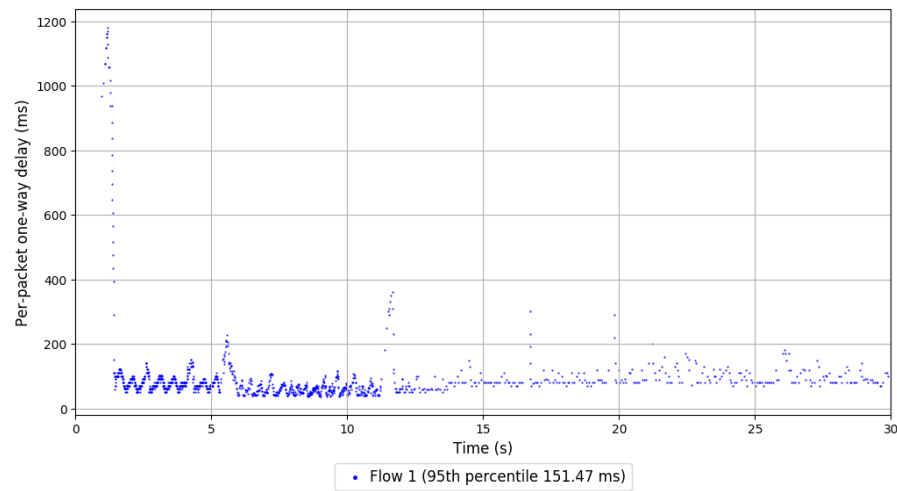
Run 1: Report of KohoCC — Data Link

Flow 1 ingress (mean 0.51 Mbit/s) --- Flow 1 egress (mean 0.53 Mbit/s)

Flow 1 (95th percentile 151.83 ms)

```
Run 2: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:40:57 +0000
End at: Sun, 06 Aug 2017 23:41:27 +0000
Local clock offset: 0.493 ms
Remote clock offset: -1.554 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 151.470 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 151.470 ms
Loss rate: 0.41%
```
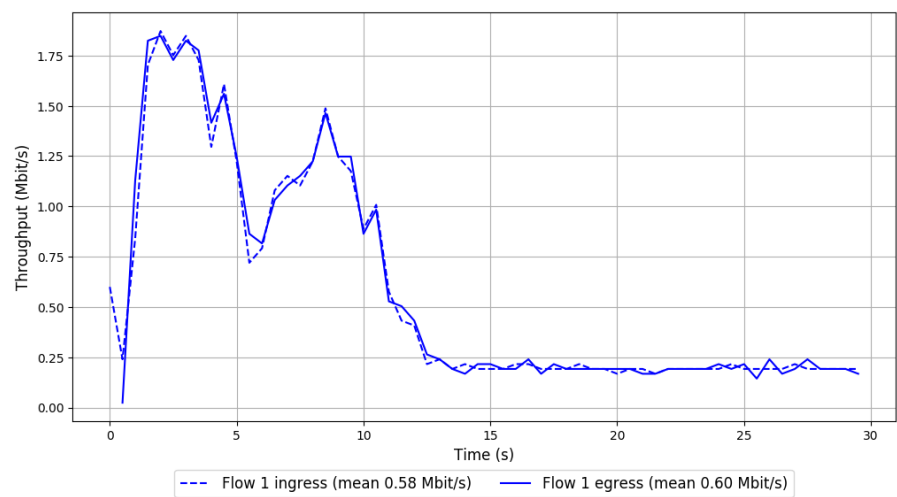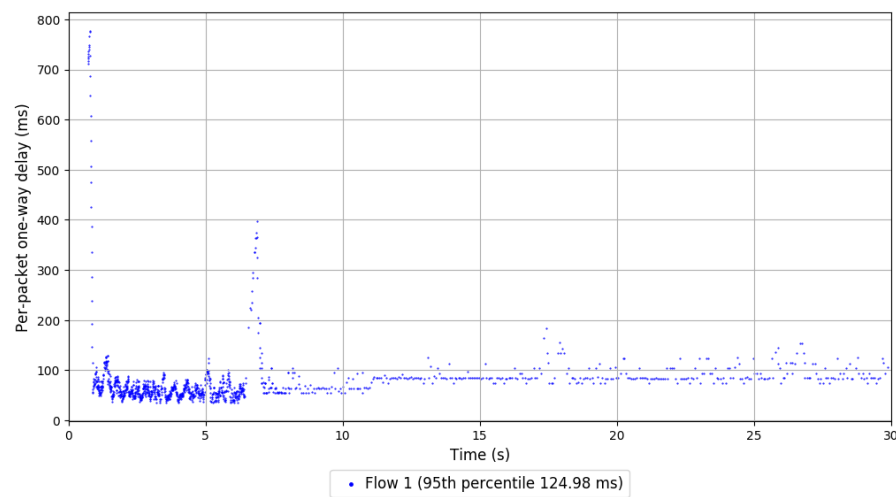
Run 2: Report of KohoCC — Data Link

```
Run 3: Statistics of KohoCC

Start at: Mon, 07 Aug 2017 00:00:30 +0000
End at: Mon, 07 Aug 2017 00:01:00 +0000
Local clock offset: 0.561 ms
Remote clock offset: 0.242 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:36 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 124.980 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 124.980 ms
Loss rate: 0.51%
```
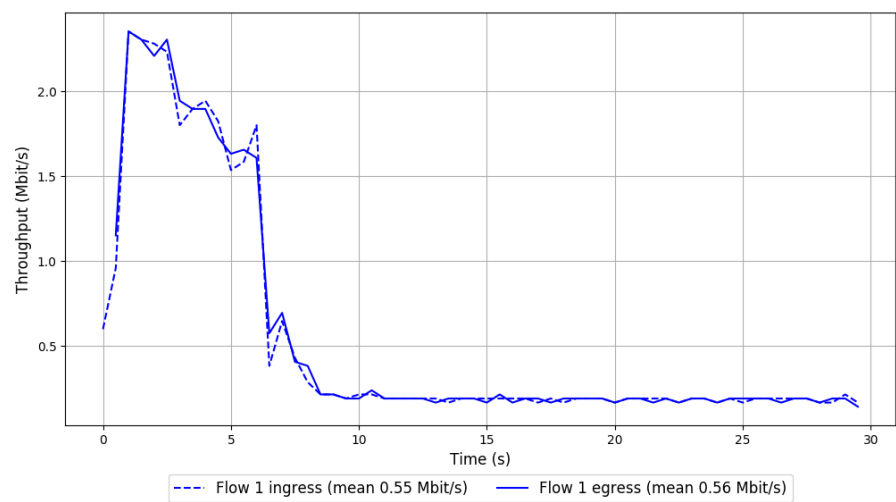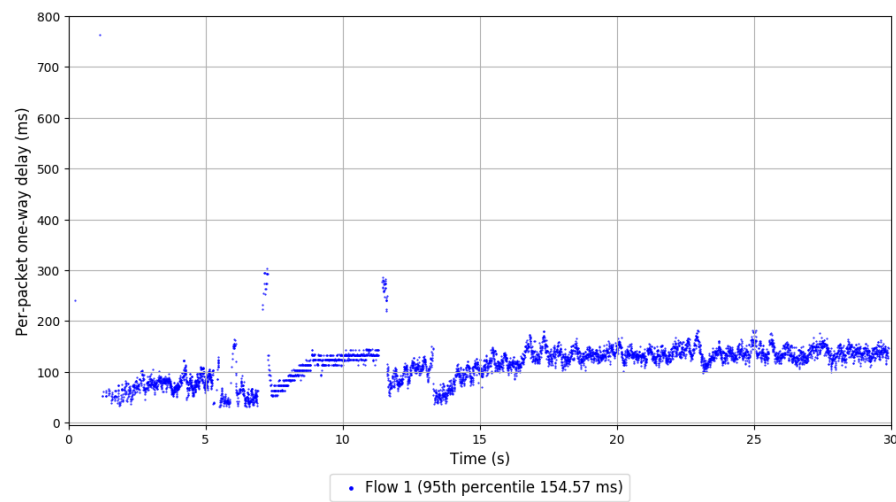
Run 3: Report of KohoCC — Data Link

Flow 1 ingress (mean 0.55 Mbit/s)   Flow 1 egress (mean 0.56 Mbit/s)

Flow 1 (95th percentile 124.98 ms)

```
Run 1: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:27:56 +0000
End at: Sun, 06 Aug 2017 23:28:27 +0000
Local clock offset: 0.525 ms
Remote clock offset: 1.11 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:36 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 154.566 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 154.566 ms
Loss rate: 1.03%
```
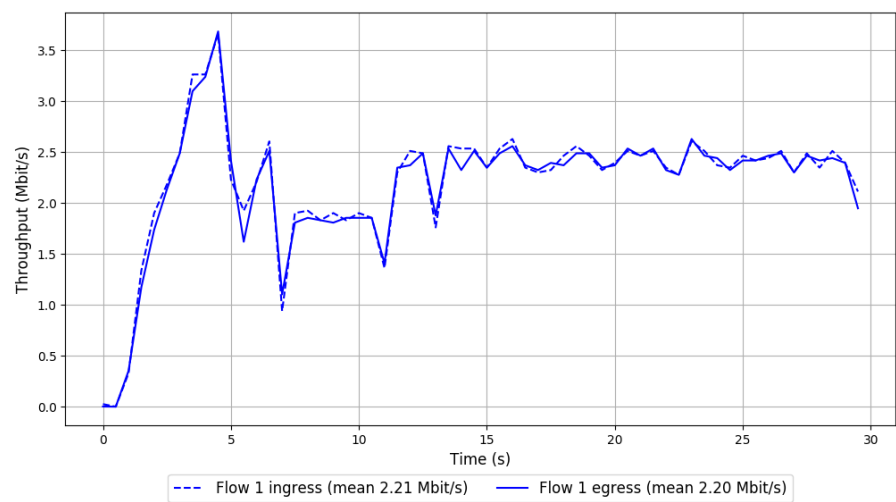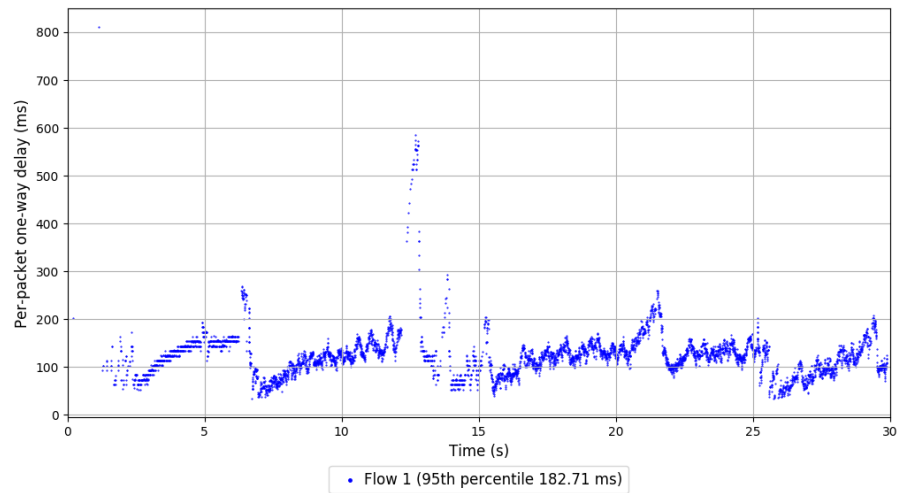
Run 1: Report of LEDBAT — Data Link

Flow 1 ingress (mean 2.21 Mbit/s)   Flow 1 egress (mean 2.20 Mbit/s)

Flow 1 (95th percentile 154.57 ms)

```
Run 2: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:47:30 +0000
End at: Sun, 06 Aug 2017 23:48:00 +0000
Local clock offset: 0.632 ms
Remote clock offset: 0.964 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:37 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 182.714 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 182.714 ms
Loss rate: 0.95%
```
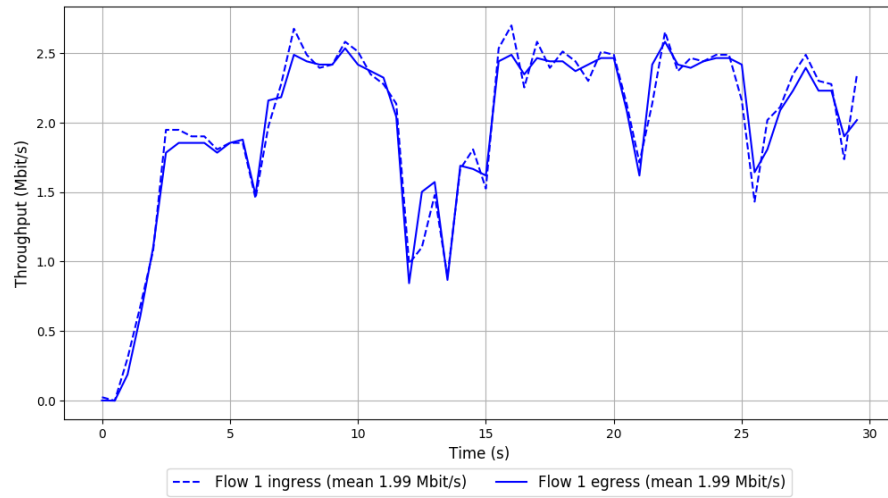
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: Mon, 07 Aug 2017 00:07:00 +0000
End at: Mon, 07 Aug 2017 00:07:30 +0000
Local clock offset: 0.596 ms
Remote clock offset: -1.879 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:38 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 167.933 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 167.933 ms
Loss rate: 0.91%
```
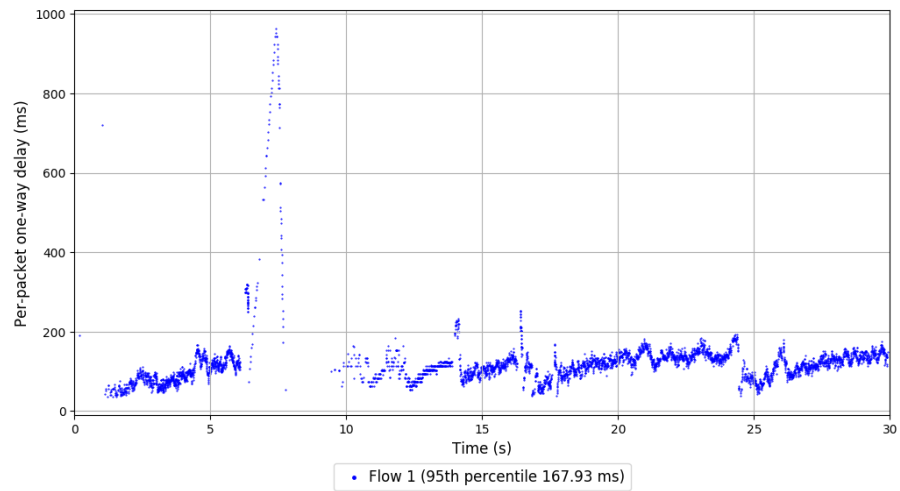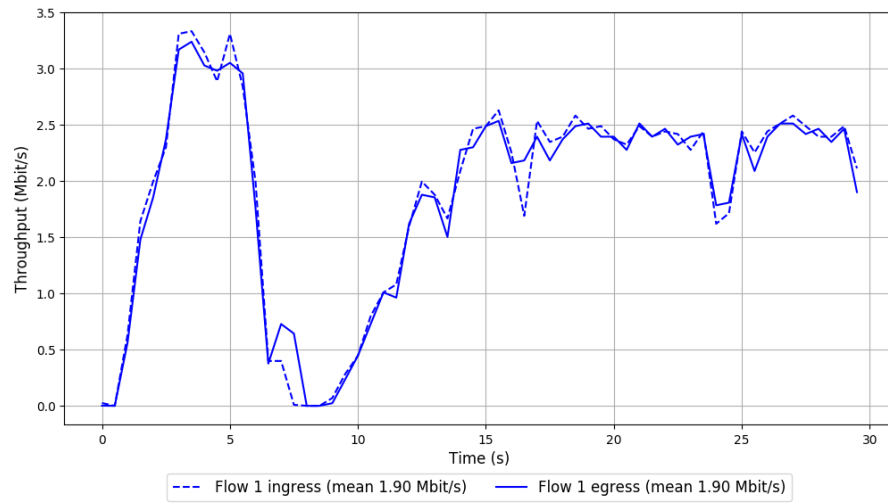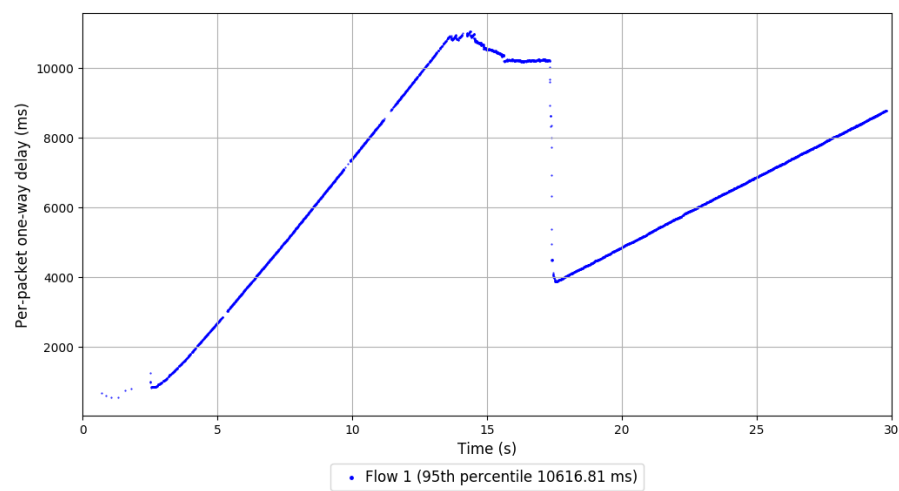
Run 3: Report of LEDBAT — Data Link

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

Flow 1 (95th percentile 167.93 ms)

```
Run 1: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:17:28 +0000
End at: Sun, 06 Aug 2017 23:17:58 +0000
Local clock offset: 0.529 ms
Remote clock offset: 0.628 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:40 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 10616.807 ms
Loss rate: 94.84%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 10616.807 ms
Loss rate: 94.84%
```
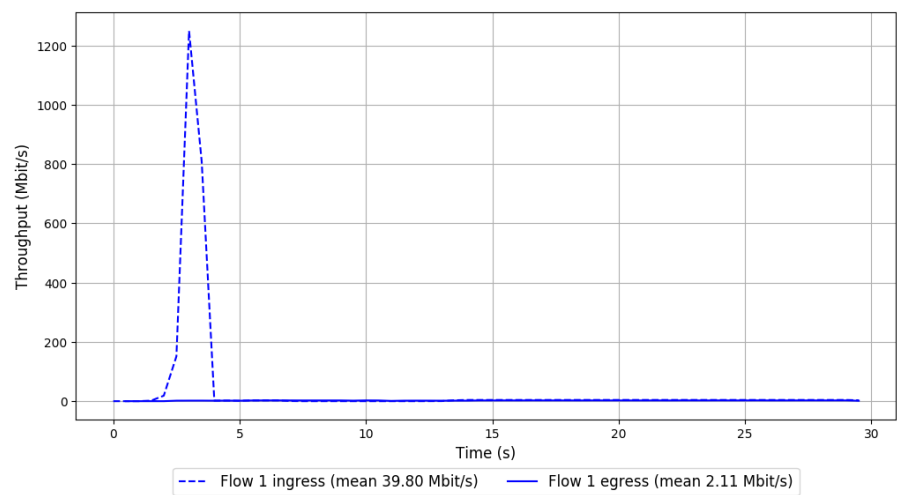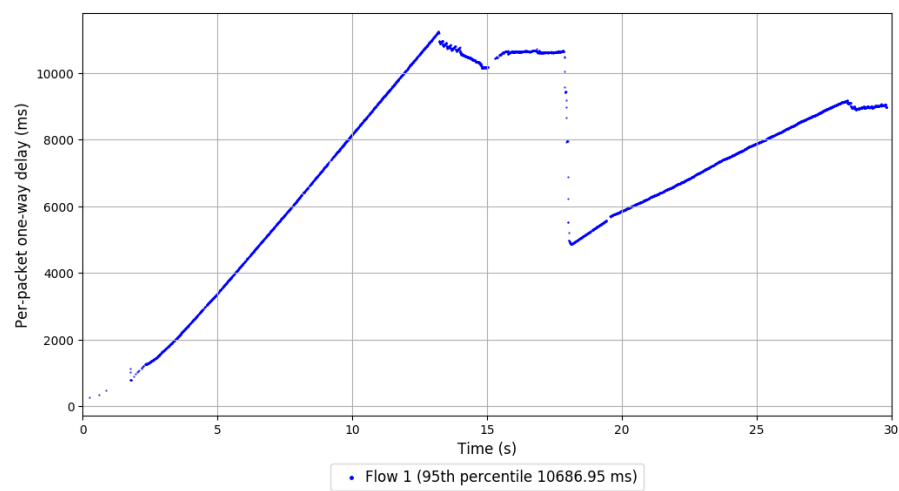
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 39.80 Mbit/s)   Flow 1 egress (mean 2.11 Mbit/s)

· Flow 1 (95th percentile 10616.81 ms)

```
Run 2: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:37:02 +0000
End at: Sun, 06 Aug 2017 23:37:32 +0000
Local clock offset: 0.505 ms
Remote clock offset: 0.498 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:40 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 10686.948 ms
Loss rate: 95.31%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 10686.948 ms
Loss rate: 95.31%
```
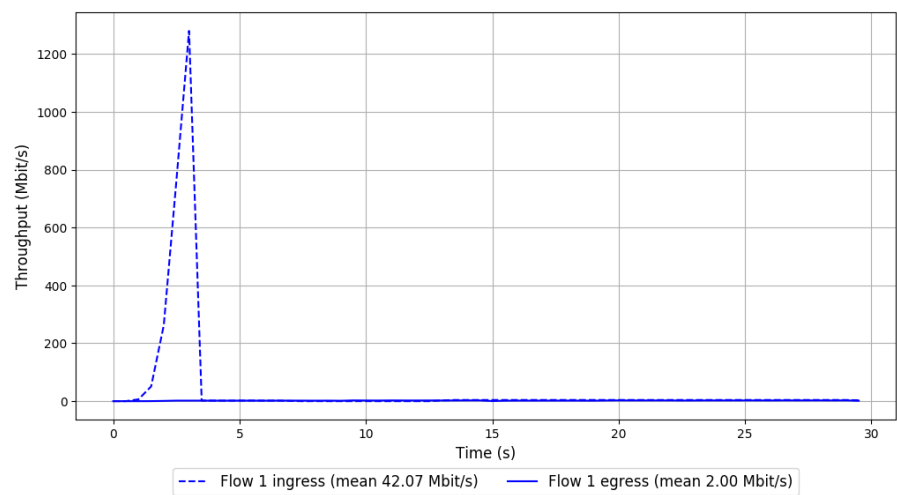
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 42.07 Mbit/s) ——— Flow 1 egress (mean 2.00 Mbit/s)

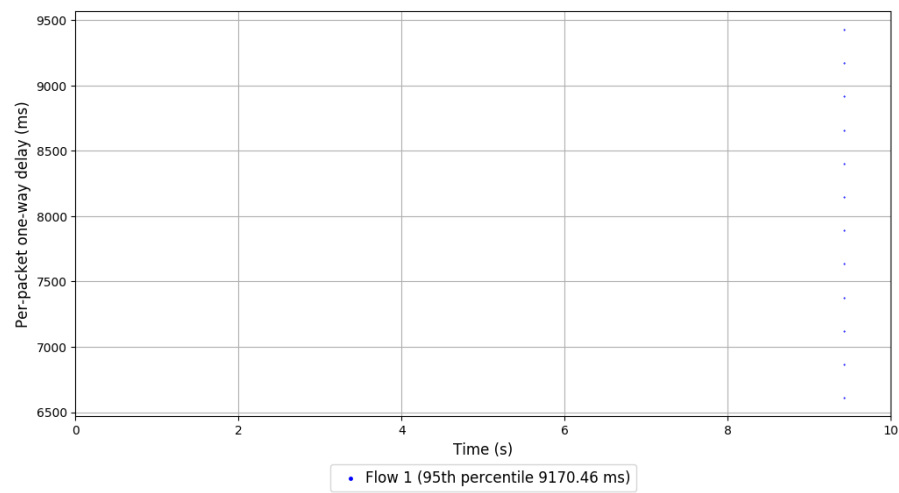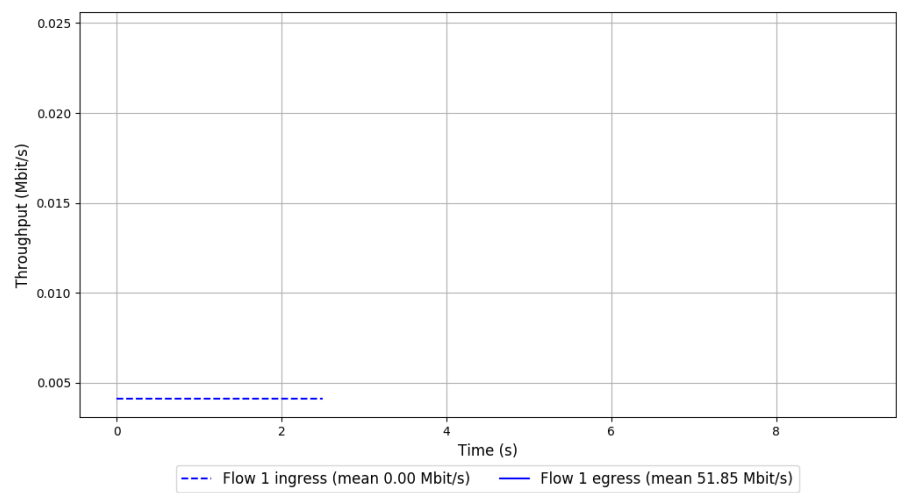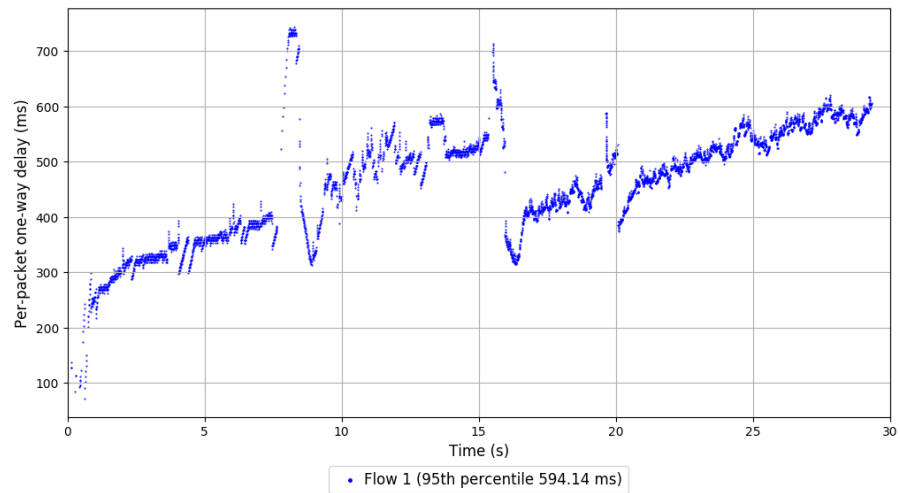• Flow 1 (95th percentile 10686.95 ms)

```
Run 3: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:56:36 +0000
End at: Sun, 06 Aug 2017 23:57:06 +0000
Local clock offset: 0.526 ms
Remote clock offset: 0.354 ms
```

Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 0.00 Mbit/s)   Flow 1 egress (mean 51.85 Mbit/s)

Flow 1 (95th percentile 9170.46 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:18:47 +0000
End at: Sun, 06 Aug 2017 23:19:17 +0000
Local clock offset: 0.543 ms
Remote clock offset: 0.617 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:42 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 594.140 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 594.140 ms
Loss rate: 2.81%
```
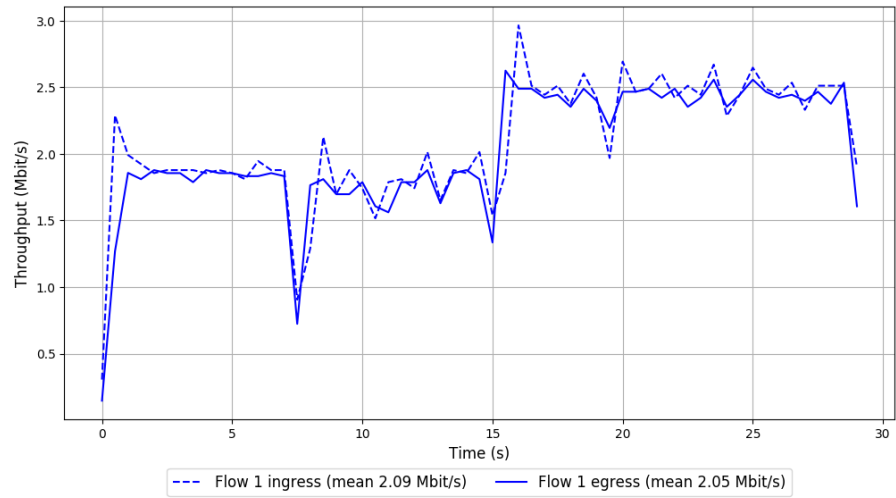
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:38:21 +0000
End at: Sun, 06 Aug 2017 23:38:51 +0000
Local clock offset: 0.501 ms
Remote clock offset: -1.518 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:42 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 618.527 ms
Loss rate: 2.83%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 618.527 ms
Loss rate: 2.83%
```
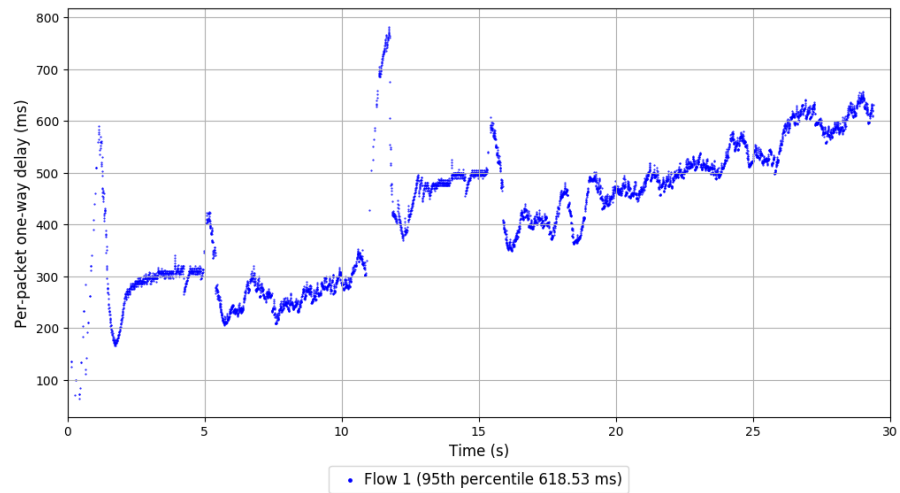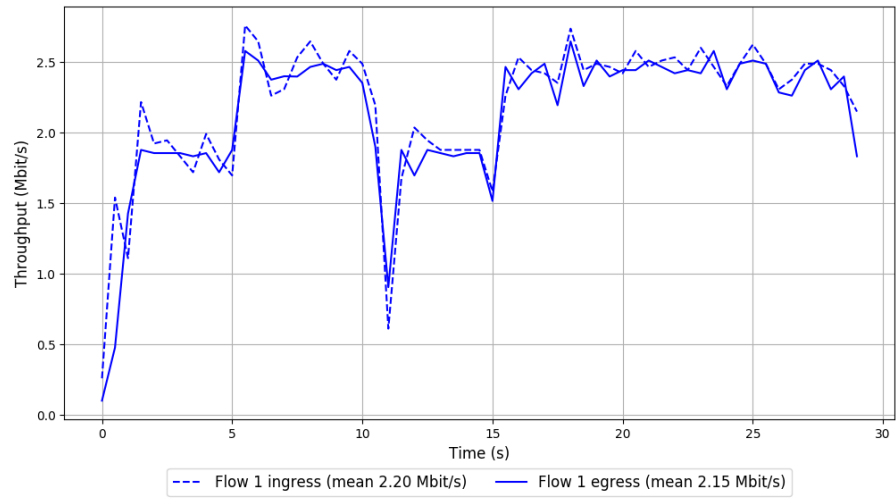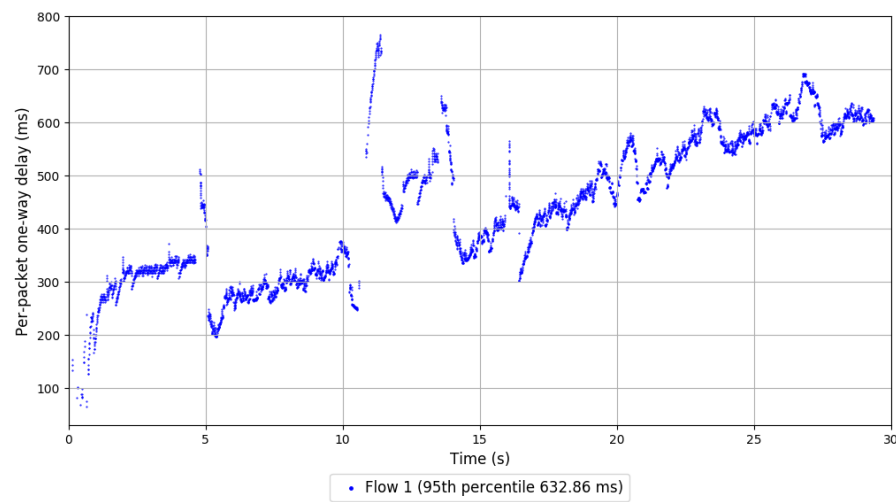
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 2.20 Mbit/s)   Flow 1 egress (mean 2.15 Mbit/s)

Flow 1 (95th percentile 618.53 ms)

```
Run 3: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:57:54 +0000
End at: Sun, 06 Aug 2017 23:58:24 +0000
Local clock offset: 0.553 ms
Remote clock offset: 0.779 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 632.863 ms
Loss rate: 2.93%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 632.863 ms
Loss rate: 2.93%
```
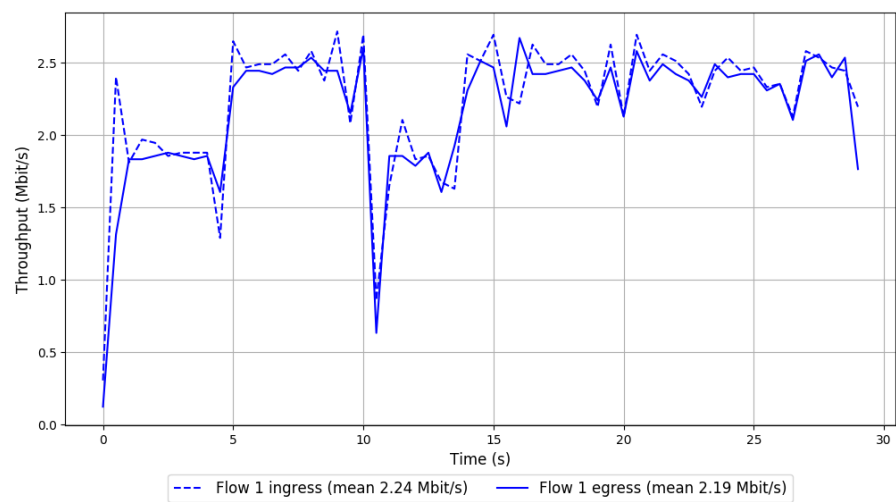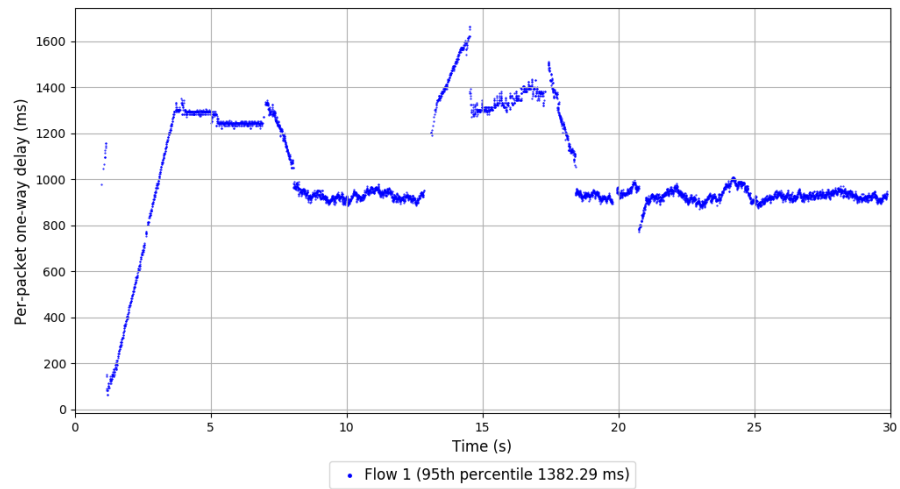
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 2.24 Mbit/s) --- Flow 1 egress (mean 2.19 Mbit/s)

• Flow 1 (95th percentile 632.86 ms)

```
Run 1: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:30:32 +0000
End at: Sun, 06 Aug 2017 23:31:02 +0000
Local clock offset: 0.447 ms
Remote clock offset: 0.629 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 1382.289 ms
Loss rate: 4.28%
-- Flow 1:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 1382.289 ms
Loss rate: 4.28%
```
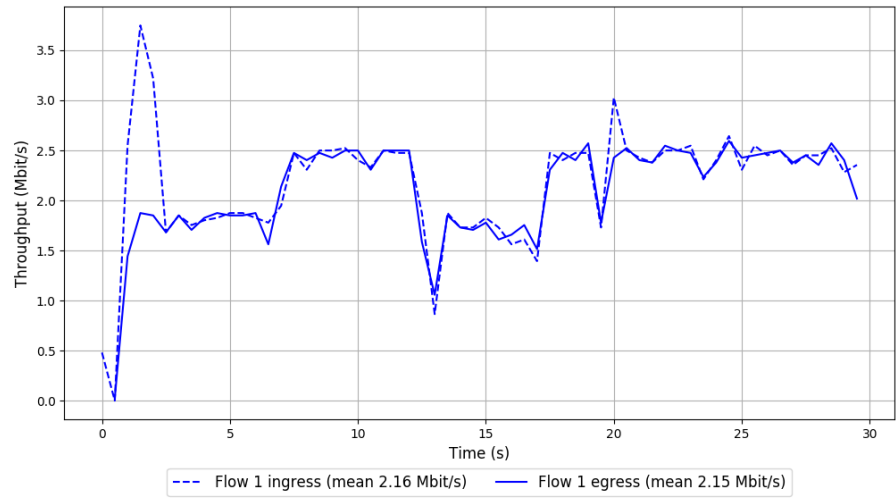
Run 1: Report of Saturator — Data Link

```
Run 2: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:50:05 +0000
End at: Sun, 06 Aug 2017 23:50:35 +0000
Local clock offset: 0.554 ms
Remote clock offset: 0.911 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:44 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1539.640 ms
Loss rate: 4.85%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1539.640 ms
Loss rate: 4.85%
```
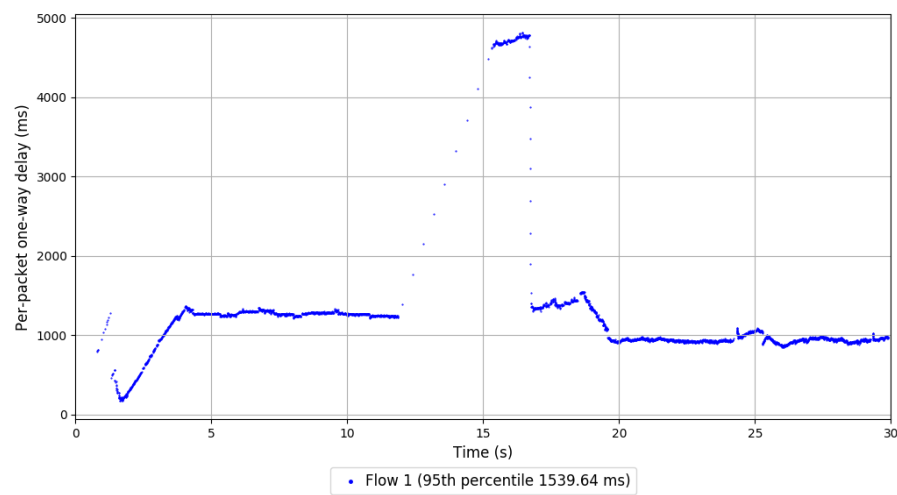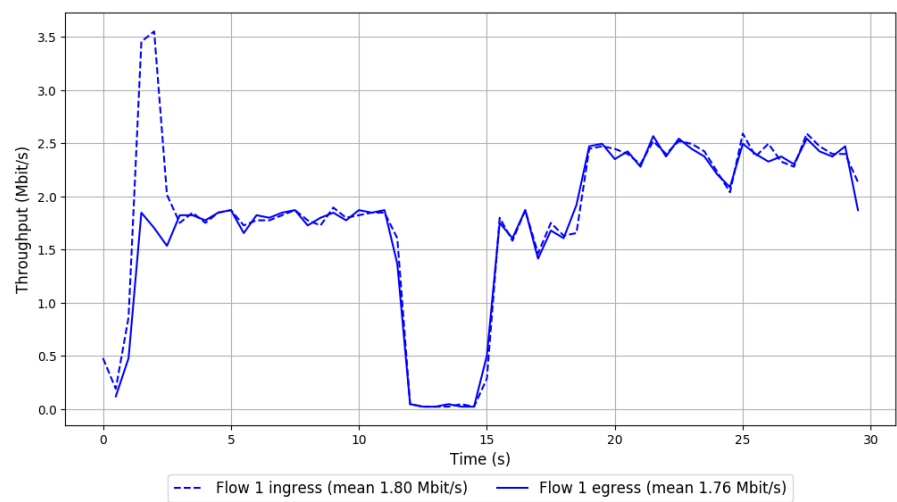
Run 2: Report of Saturator — Data Link

```
Run 3: Statistics of Saturator

Start at: Mon, 07 Aug 2017 00:09:36 +0000
End at: Mon, 07 Aug 2017 00:10:06 +0000
Local clock offset: 0.581 ms
Remote clock offset: -0.072 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:45 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 1347.238 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 1347.238 ms
Loss rate: 3.75%
```
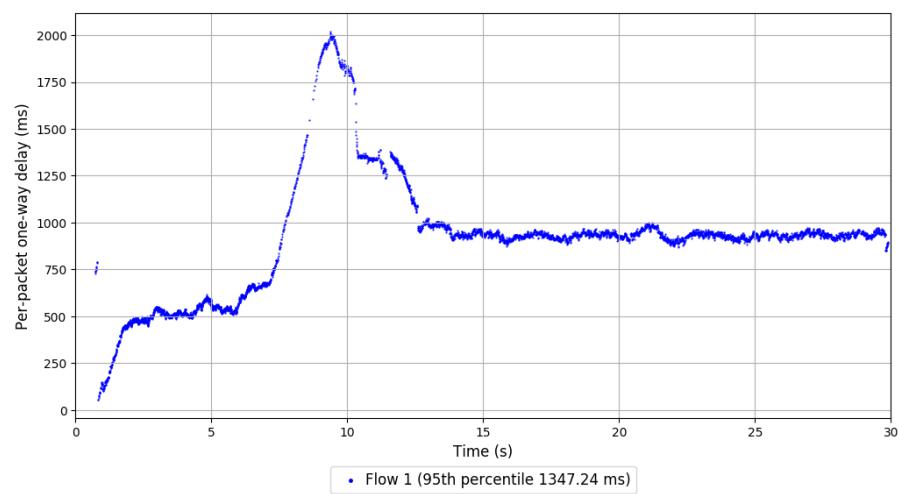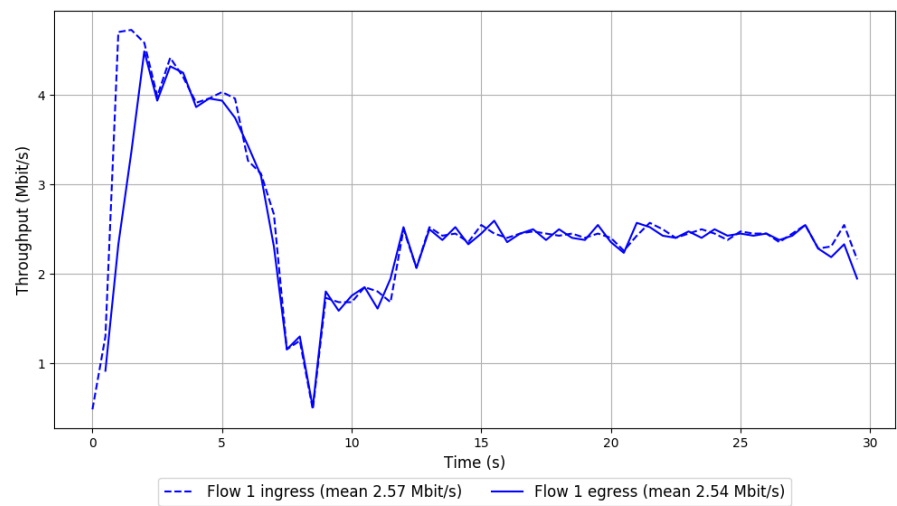
Run 3: Report of Saturator — Data Link

Flow 1 ingress (mean 2.57 Mbit/s) --- Flow 1 egress (mean 2.54 Mbit/s)

Flow 1 (95th percentile 1347.24 ms)

```
Run 1: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:33:07 +0000
End at: Sun, 06 Aug 2017 23:33:37 +0000
Local clock offset: 0.545 ms
Remote clock offset: -1.49 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:45 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 138.394 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 138.394 ms
Loss rate: 0.38%
```
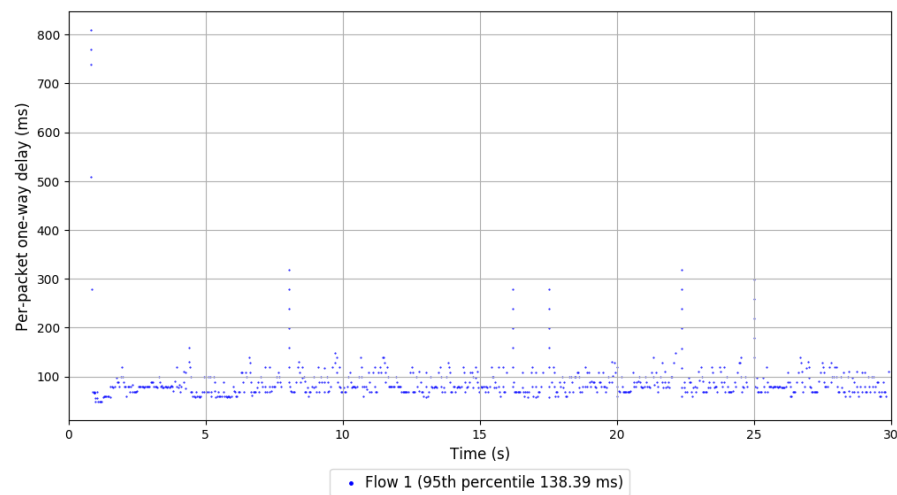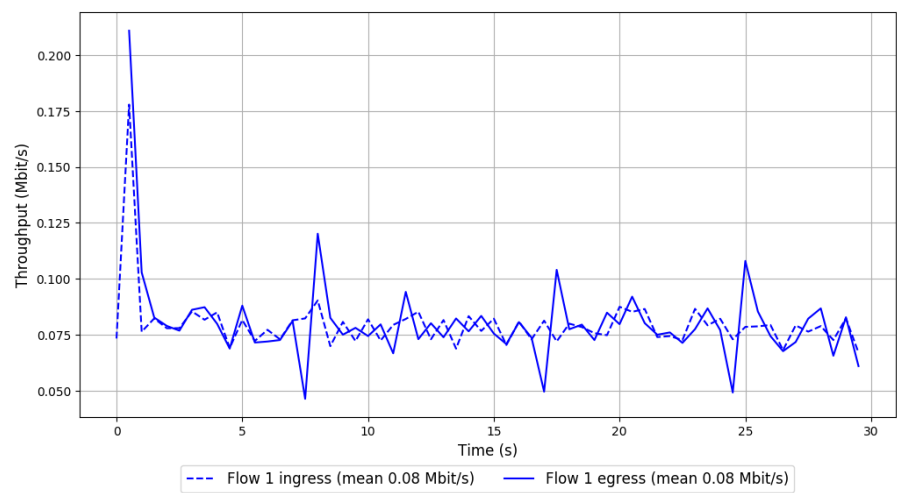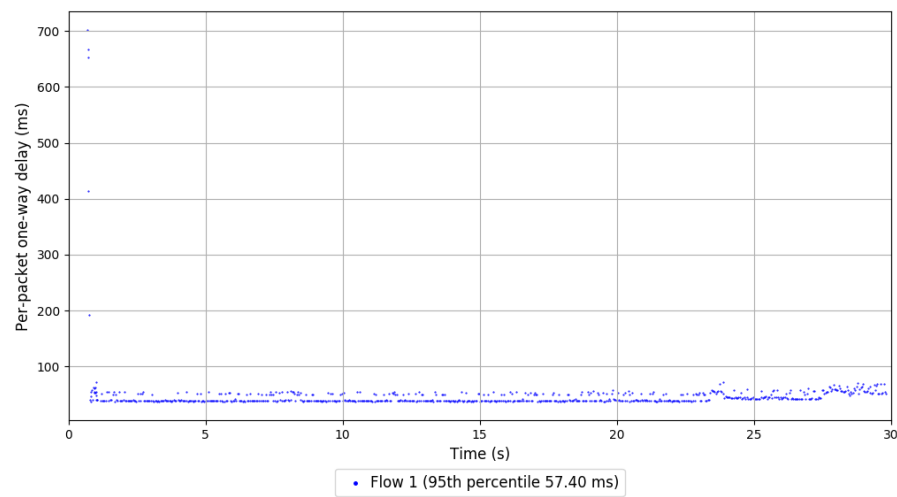
Run 1: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 138.39 ms)

```
Run 2: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:52:43 +0000
End at: Sun, 06 Aug 2017 23:53:13 +0000
Local clock offset: 0.601 ms
Remote clock offset: -1.682 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:46 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 57.404 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 57.404 ms
Loss rate: 0.37%
```
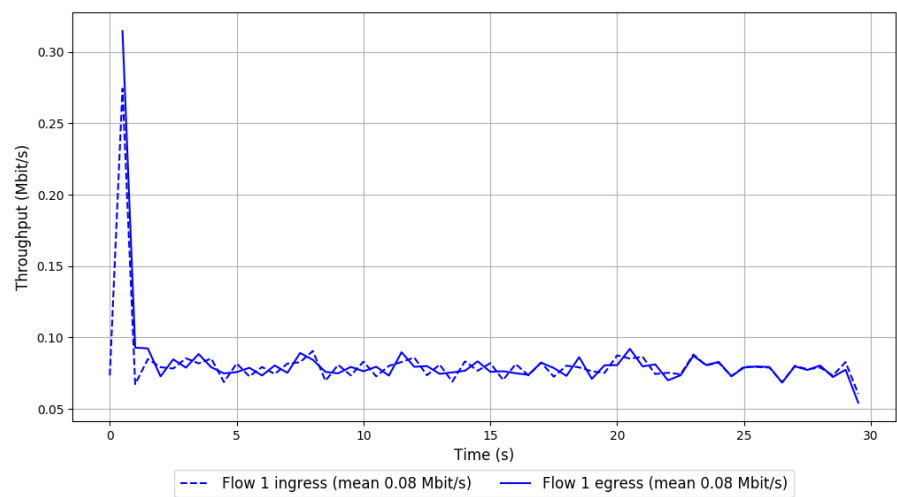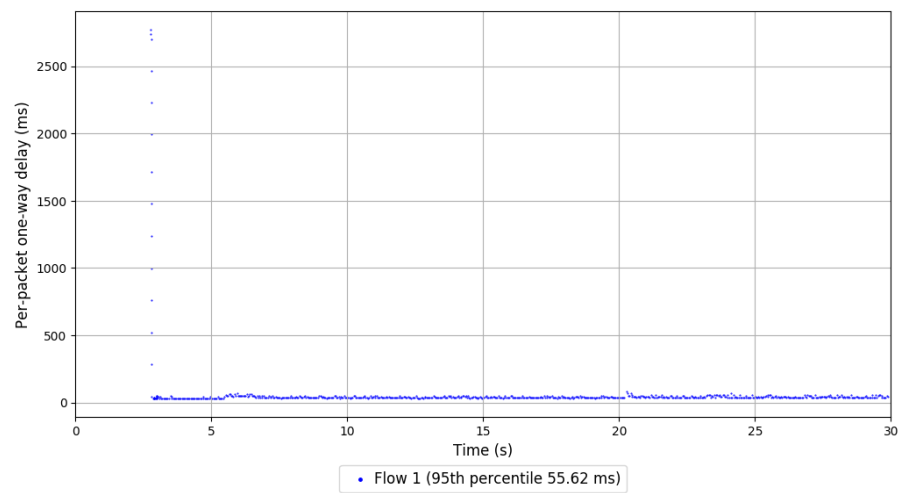
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: Mon, 07 Aug 2017 00:12:12 +0000
End at: Mon, 07 Aug 2017 00:12:42 +0000
Local clock offset: 0.602 ms
Remote clock offset: 0.412 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:46 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 55.620 ms
Loss rate: 0.27%
```
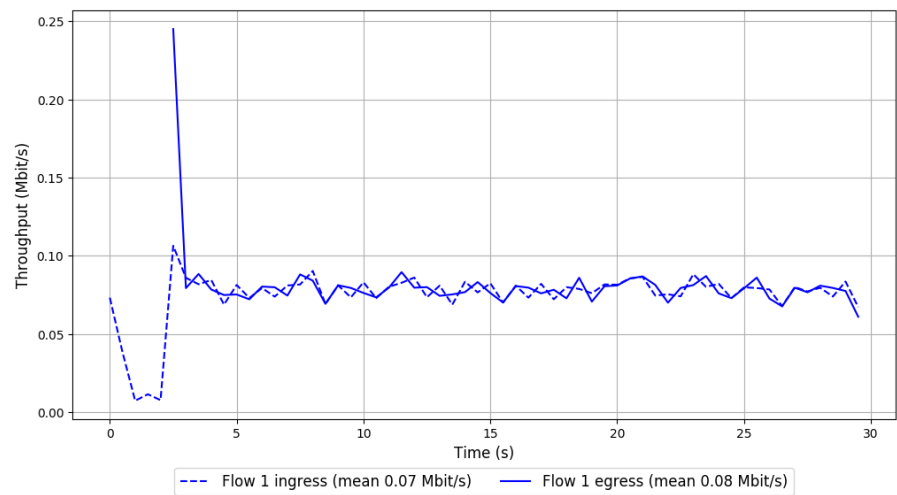
Run 3: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:35:44 +0000
End at: Sun, 06 Aug 2017 23:36:14 +0000
Local clock offset: 0.595 ms
Remote clock offset: -1.582 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:47 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 248.757 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 248.757 ms
Loss rate: 0.62%
```
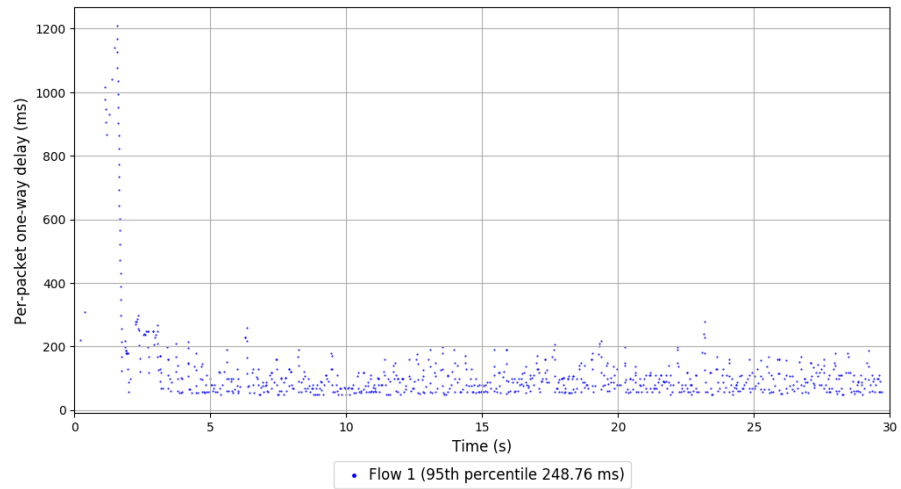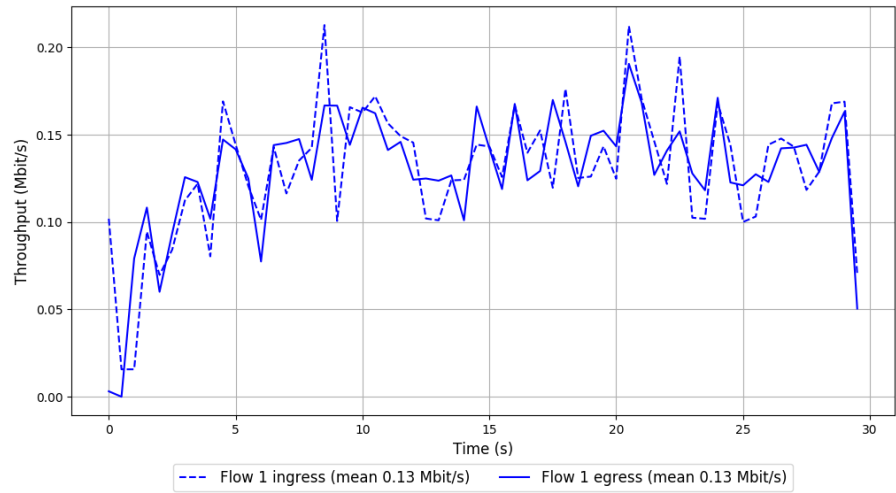
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:55:18 +0000
End at: Sun, 06 Aug 2017 23:55:49 +0000
Local clock offset: 0.63 ms
Remote clock offset: -1.599 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:48 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 1745.203 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 1745.203 ms
Loss rate: 0.80%
```
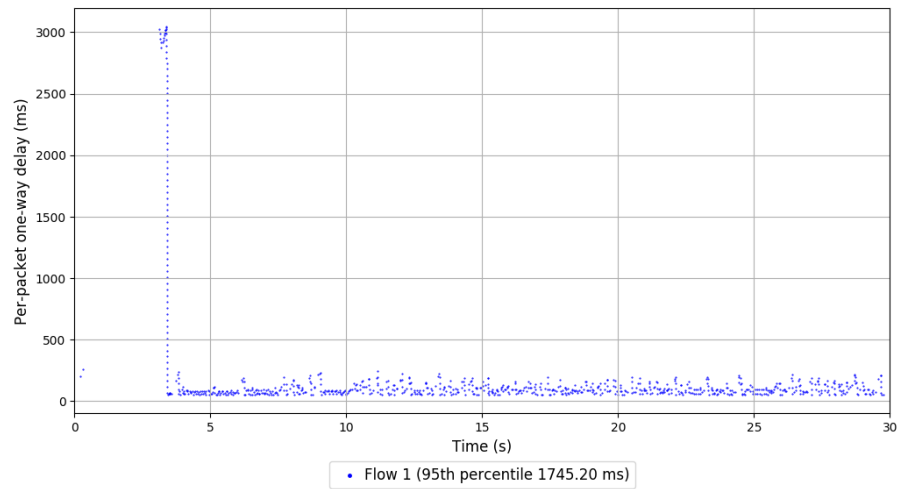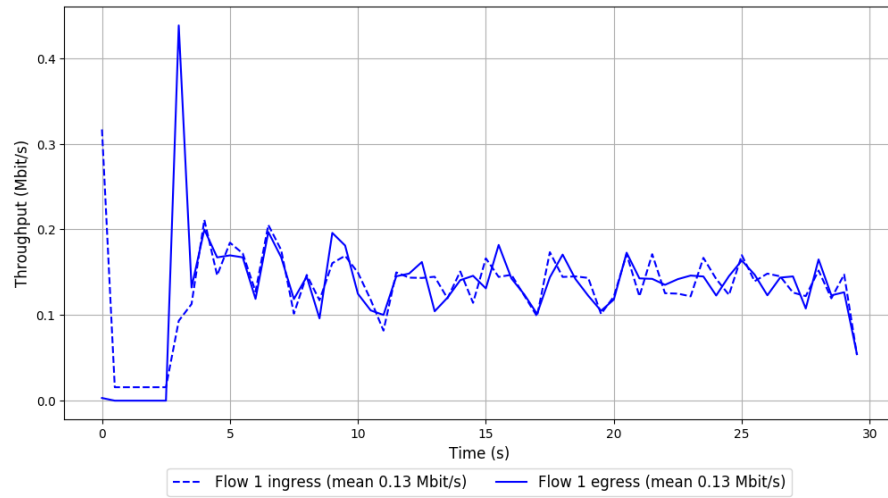
Run 2: Report of Sprout — Data Link

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

Flow 1 (95th percentile 1745.20 ms)

```
Run 3: Statistics of Sprout

Start at: Mon, 07 Aug 2017 00:14:47 +0000
End at: Mon, 07 Aug 2017 00:15:17 +0000
Local clock offset: 0.533 ms
Remote clock offset: 0.403 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:48 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 187.456 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 187.456 ms
Loss rate: 1.12%
```
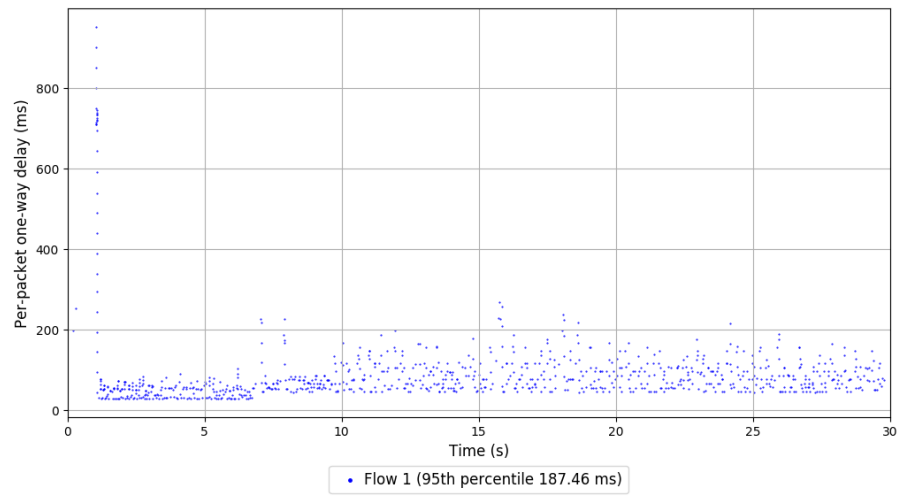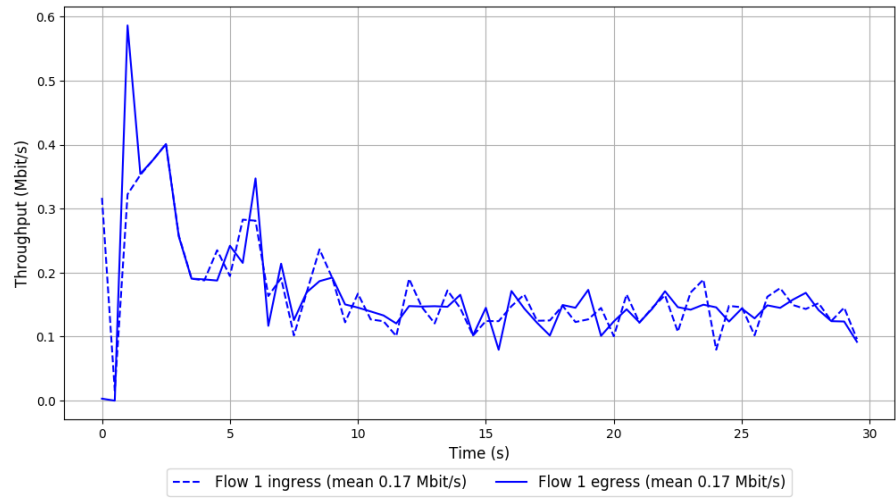
Run 3: Report of Sprout — Data Link

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

Start at: Sun, 06 Aug 2017 23:20:05 +0000
End at: Sun, 06 Aug 2017 23:20:35 +0000
Local clock offset: 0.554 ms
Remote clock offset: -1.473 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:49 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 340.055 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 340.055 ms
Loss rate: 1.09%
```
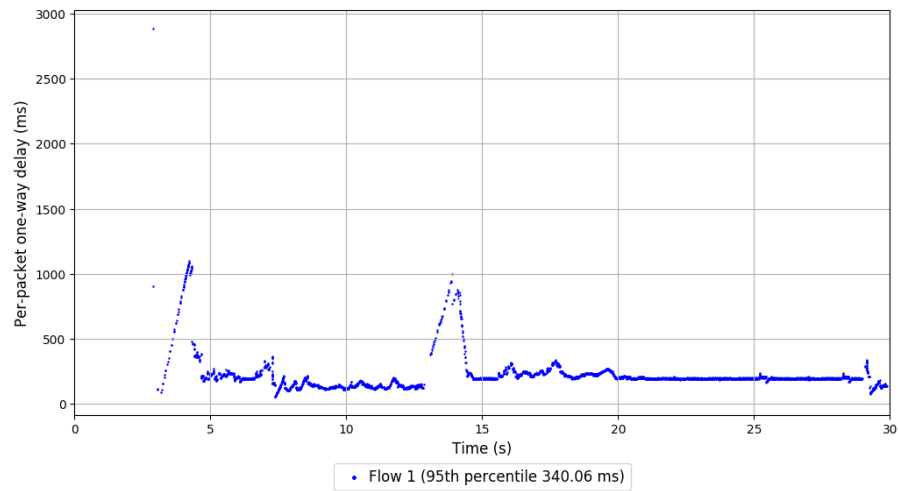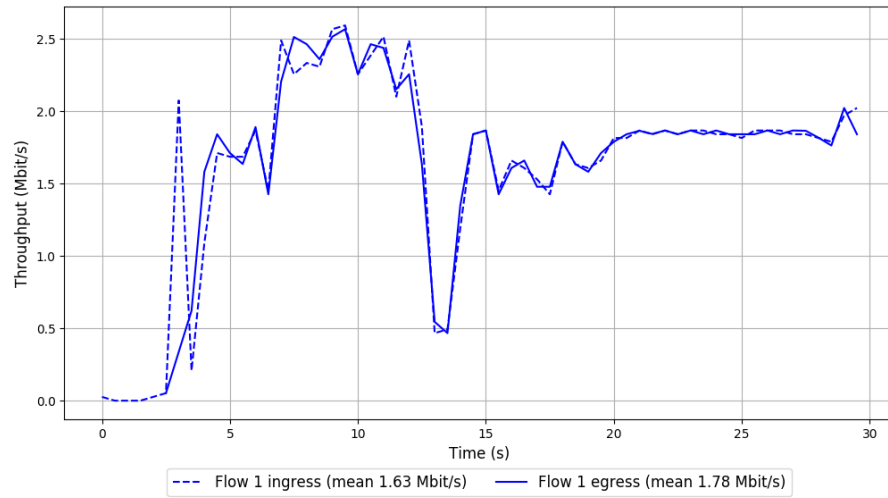
Run 1: Report of TaoVA-100x — Data Link

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

Start at: Sun, 06 Aug 2017 23:39:39 +0000
End at: Sun, 06 Aug 2017 23:40:09 +0000
Local clock offset: 0.518 ms
Remote clock offset: 1.012 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:49 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 281.833 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 281.833 ms
Loss rate: 0.87%
```
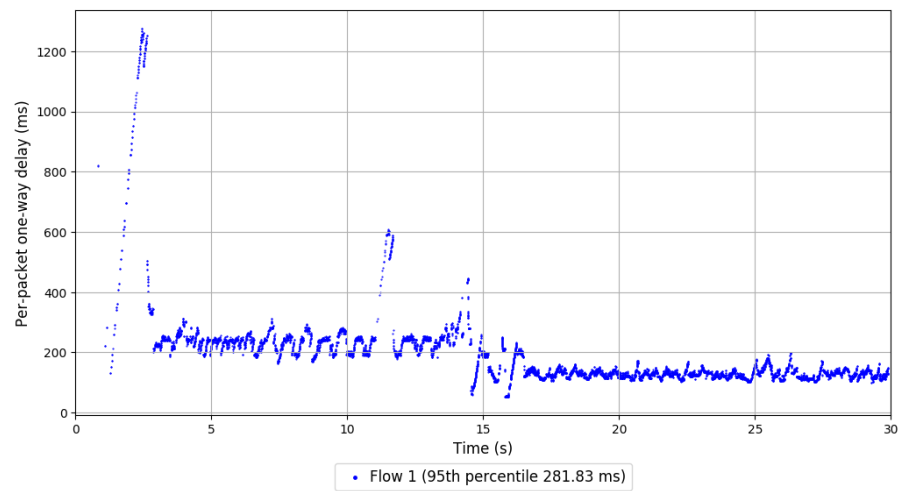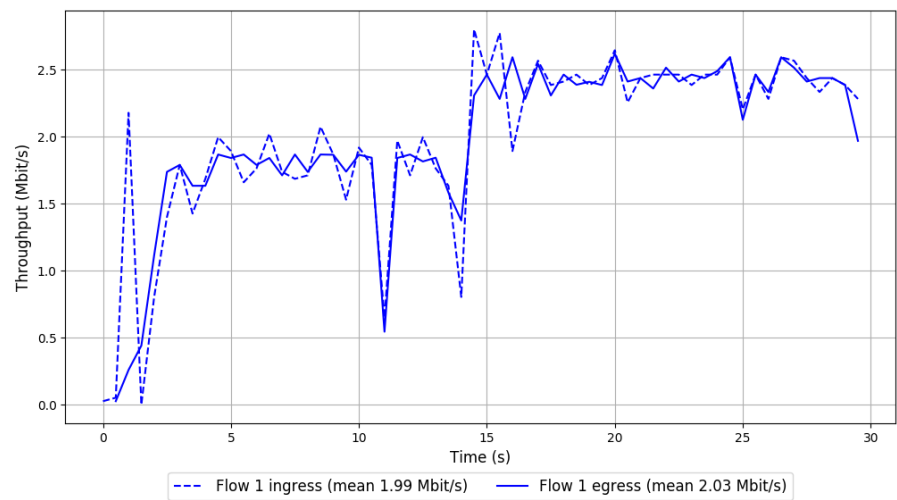
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 1.99 Mbit/s)   Flow 1 egress (mean 2.03 Mbit/s)

Flow 1 (95th percentile 281.83 ms)
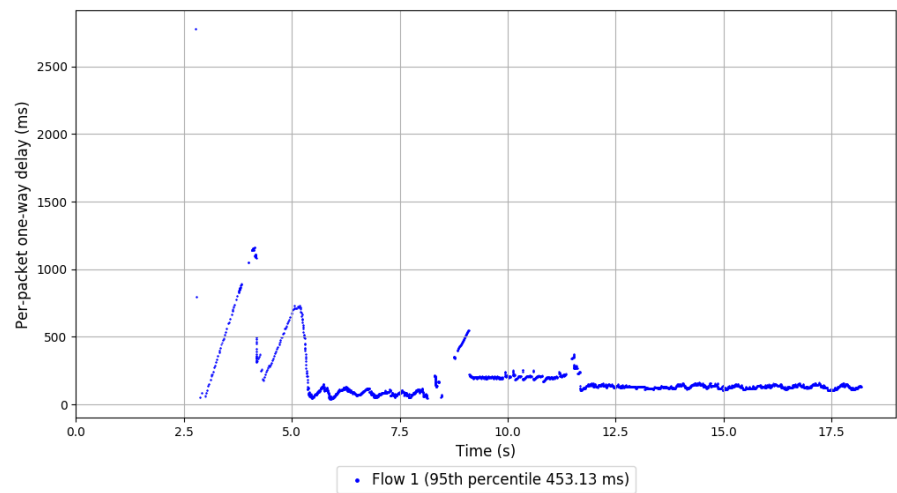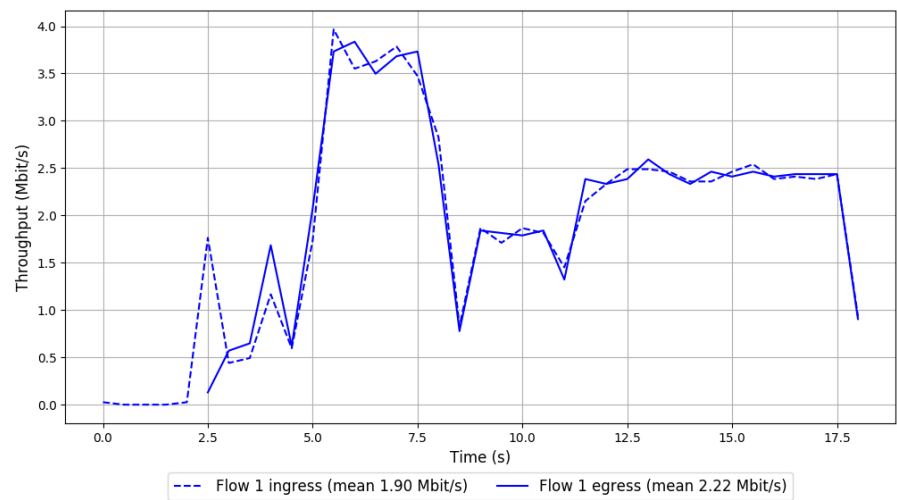
Run 3: Statistics of TaoVA-100x

Start at: Sun, 06 Aug 2017 23:59:12 +0000
End at: Sun, 06 Aug 2017 23:59:42 +0000
Local clock offset: 0.62 ms
Remote clock offset: -1.895 ms

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

```
Run 1: Statistics of TCP Vegas

Start at: Sun, 06 Aug 2017 23:31:50 +0000
End at: Sun, 06 Aug 2017 23:32:20 +0000
Local clock offset: 0.531 ms
Remote clock offset: 0.622 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:51 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 443.356 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 443.356 ms
Loss rate: 0.48%
```
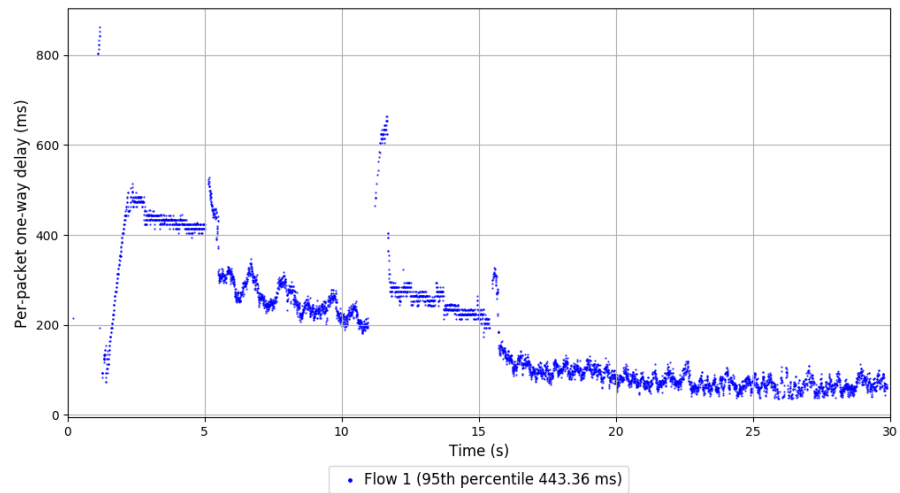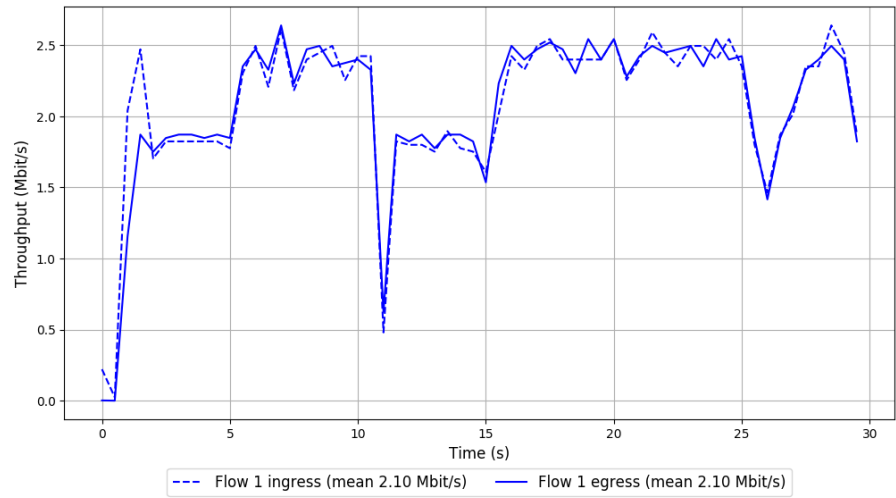
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: Sun, 06 Aug 2017 23:51:25 +0000
End at: Sun, 06 Aug 2017 23:51:55 +0000
Local clock offset: 0.619 ms
Remote clock offset: 0.491 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:51 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 156.637 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 156.637 ms
Loss rate: 0.38%
```
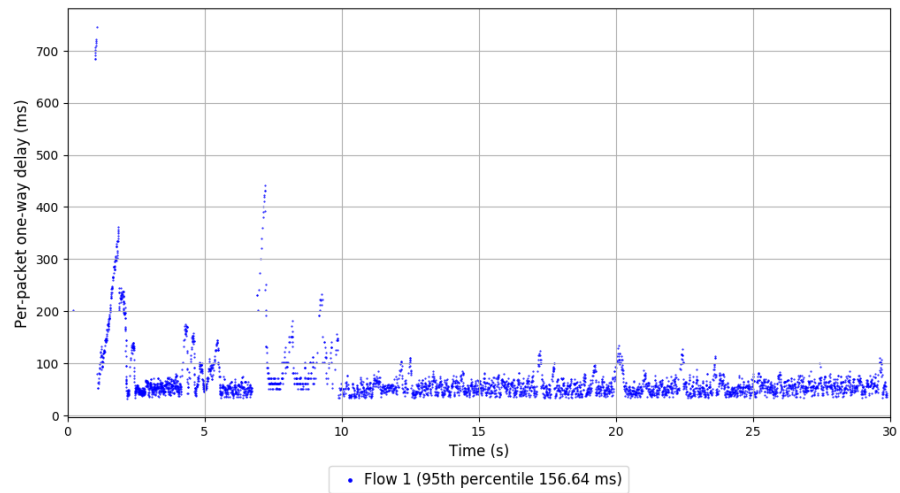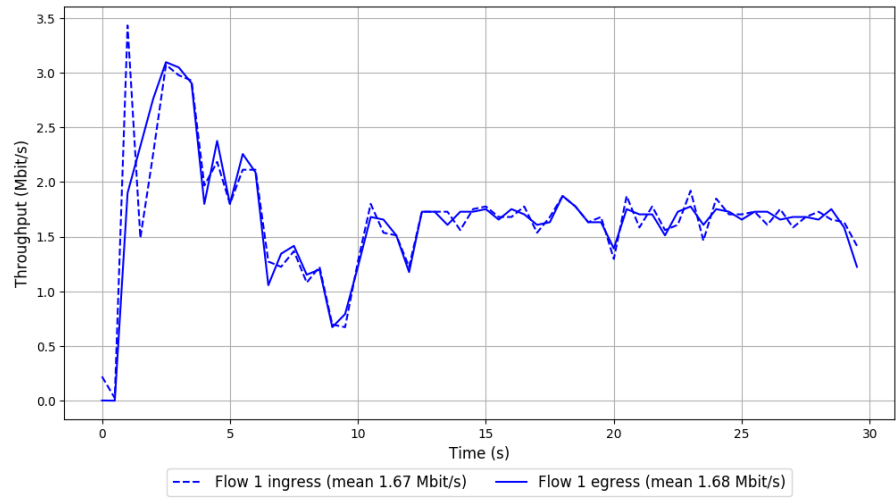
Run 2: Report of TCP Vegas — Data Link

```
Run 3: Statistics of TCP Vegas

Start at: Mon, 07 Aug 2017 00:10:54 +0000
End at: Mon, 07 Aug 2017 00:11:24 +0000
Local clock offset: 0.54 ms
Remote clock offset: -0.005 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:52 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 162.027 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 162.027 ms
Loss rate: 0.69%
```
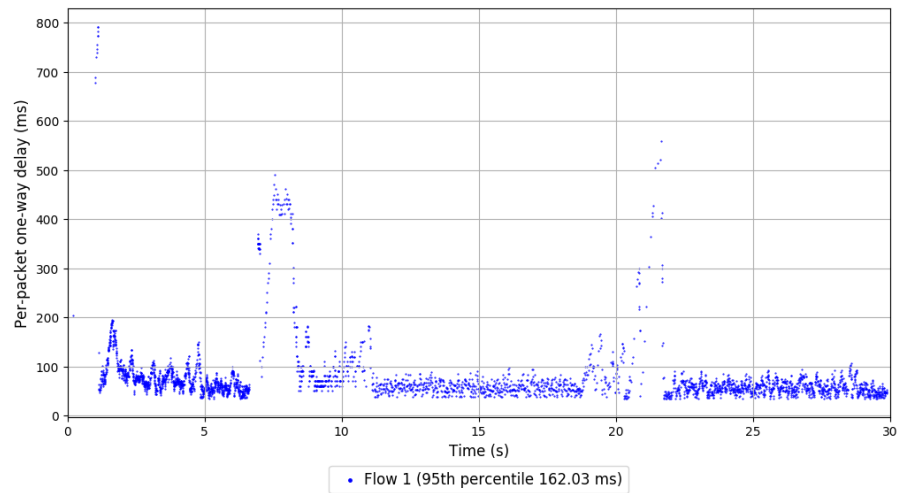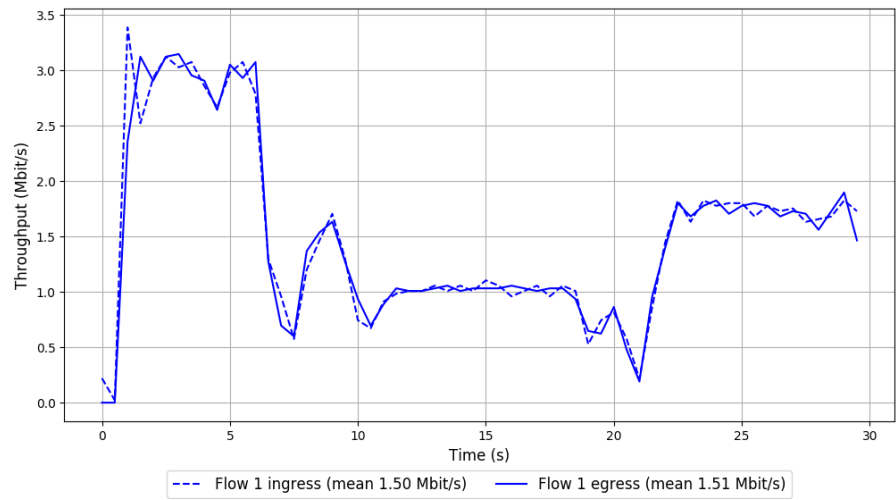
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.50 Mbit/s)   Flow 1 egress (mean 1.51 Mbit/s)

Flow 1 (95th percentile 162.03 ms)

```
Run 1: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:34:26 +0000
End at: Sun, 06 Aug 2017 23:34:56 +0000
Local clock offset: 0.567 ms
Remote clock offset: 0.492 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 757.473 ms
Loss rate: 2.95%
-- Flow 1:
Average throughput: 1.96 Mbit/s
95th percentile per-packet one-way delay: 757.473 ms
Loss rate: 2.95%
```
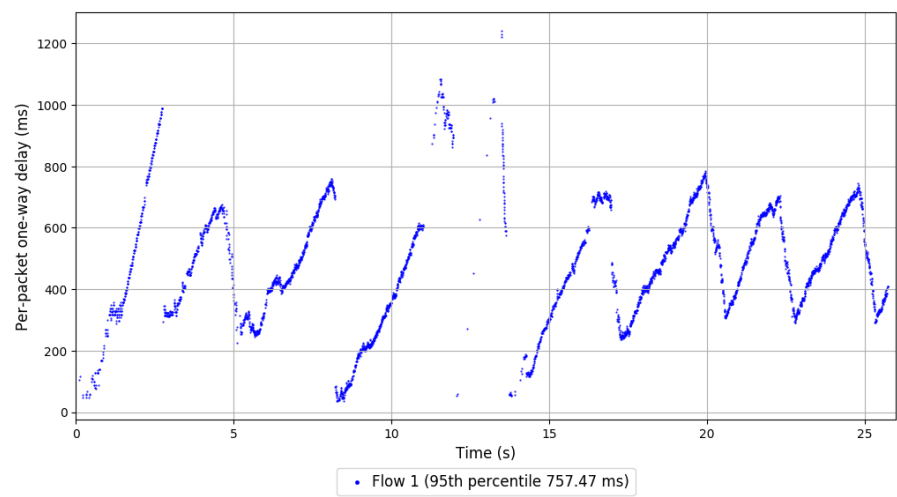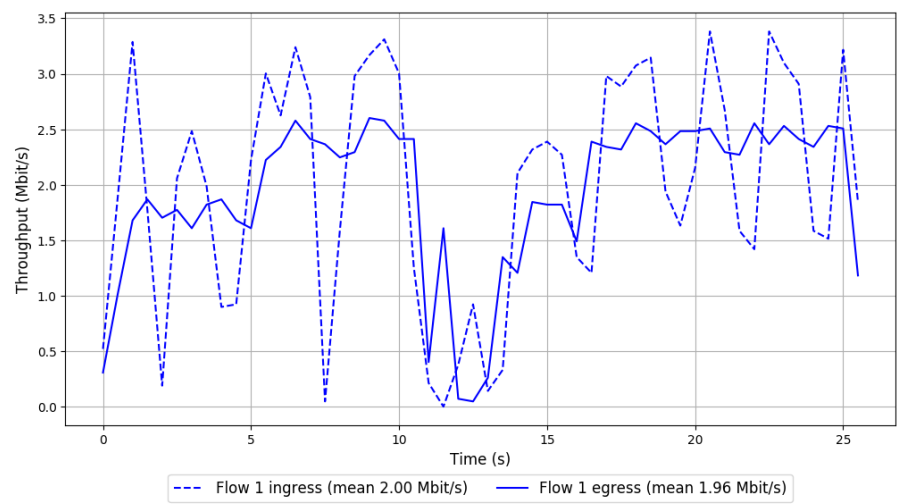
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:54:01 +0000
End at: Sun, 06 Aug 2017 23:54:31 +0000
Local clock offset: 0.625 ms
Remote clock offset: 0.871 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 689.046 ms
Loss rate: 4.62%
-- Flow 1:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 689.046 ms
Loss rate: 4.62%
```
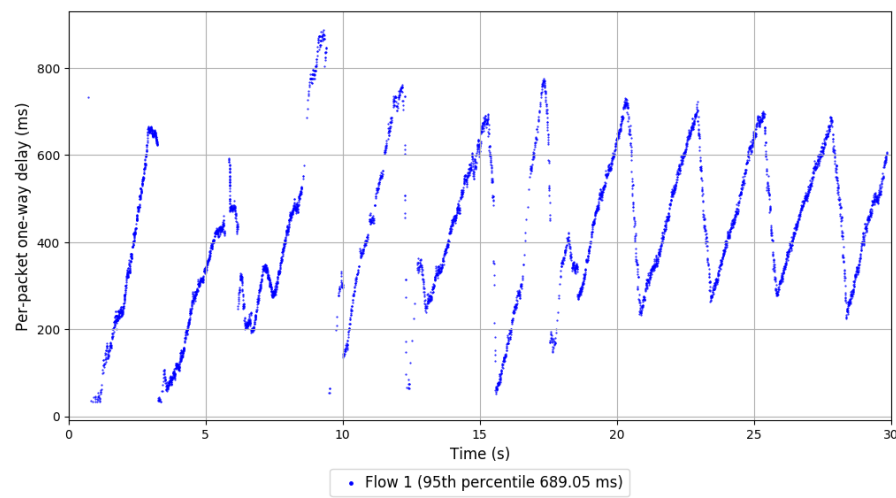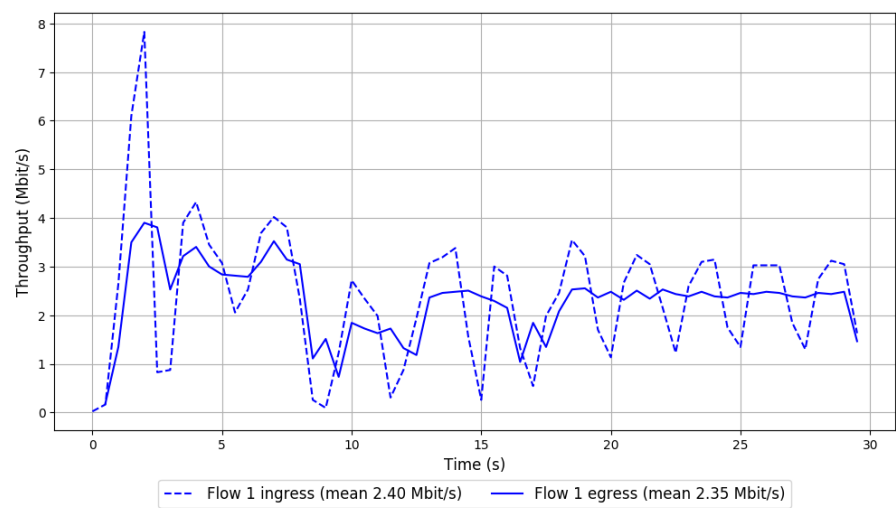
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: Mon, 07 Aug 2017 00:13:29 +0000
End at: Mon, 07 Aug 2017 00:13:59 +0000
Local clock offset: 0.516 ms
Remote clock offset: -0.137 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:54 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 714.595 ms
Loss rate: 3.67%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 714.595 ms
Loss rate: 3.67%
```
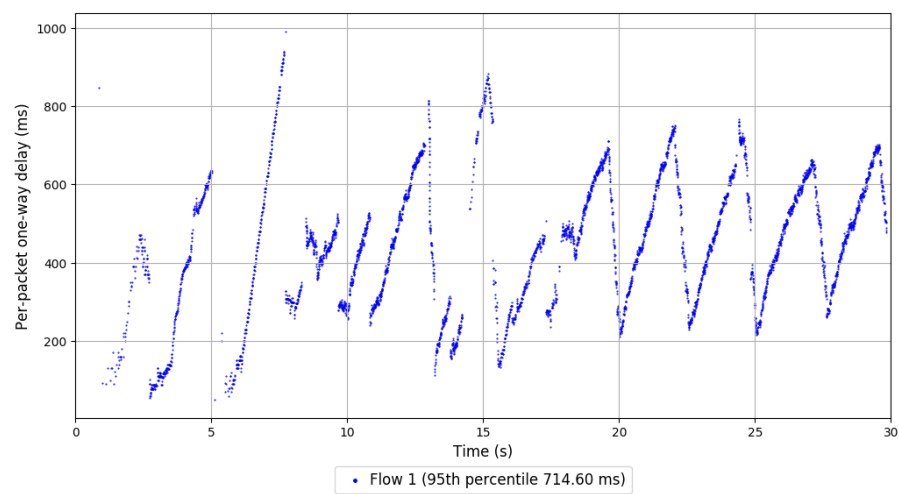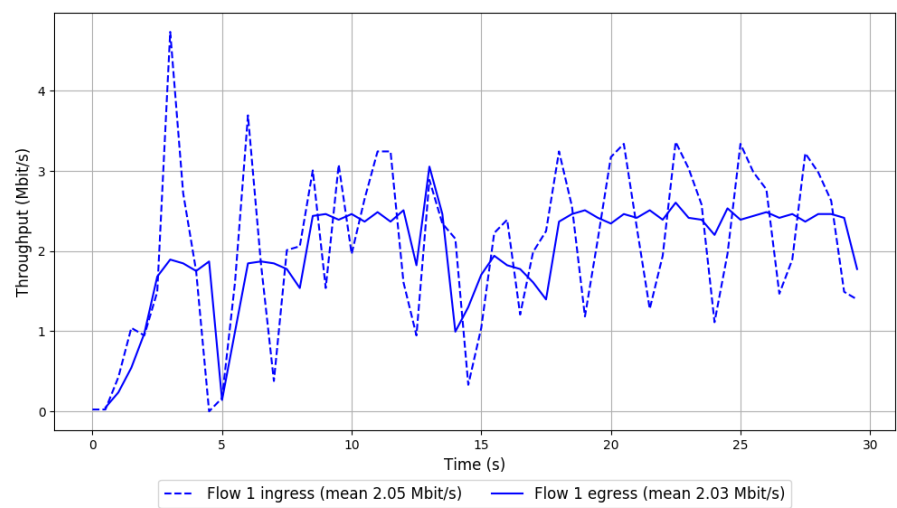
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 2.05 Mbit/s)   ——— Flow 1 egress (mean 2.03 Mbit/s)

· Flow 1 (95th percentile 714.60 ms)

```
Run 1: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:24:01 +0000
End at: Sun, 06 Aug 2017 23:24:31 +0000
Local clock offset: 0.539 ms
Remote clock offset: 0.676 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 631.228 ms
Loss rate: 1.49%
-- Flow 1:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 631.228 ms
Loss rate: 1.49%
```
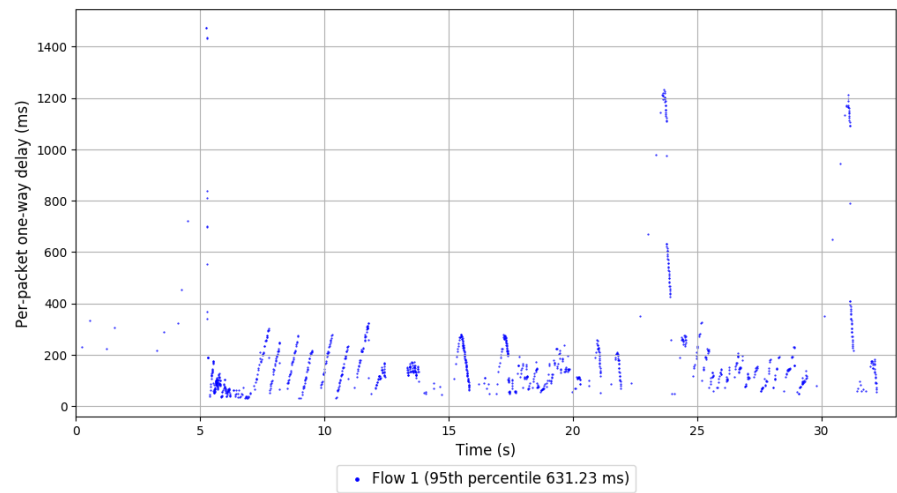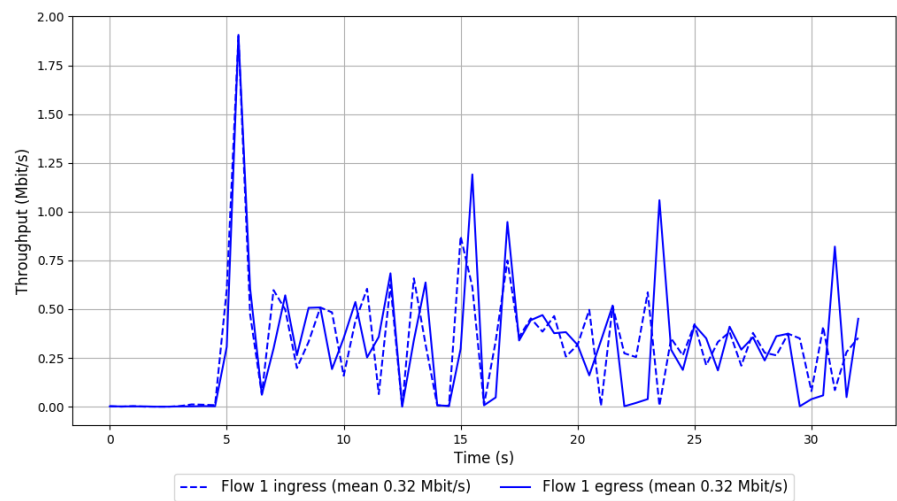
Run 1: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.32 Mbit/s)   Flow 1 egress (mean 0.32 Mbit/s)

Flow 1 (95th percentile 631.23 ms)

```
Run 2: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:43:35 +0000
End at: Sun, 06 Aug 2017 23:44:05 +0000
Local clock offset: 0.514 ms
Remote clock offset: -1.559 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 470.042 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 470.042 ms
Loss rate: 0.39%
```
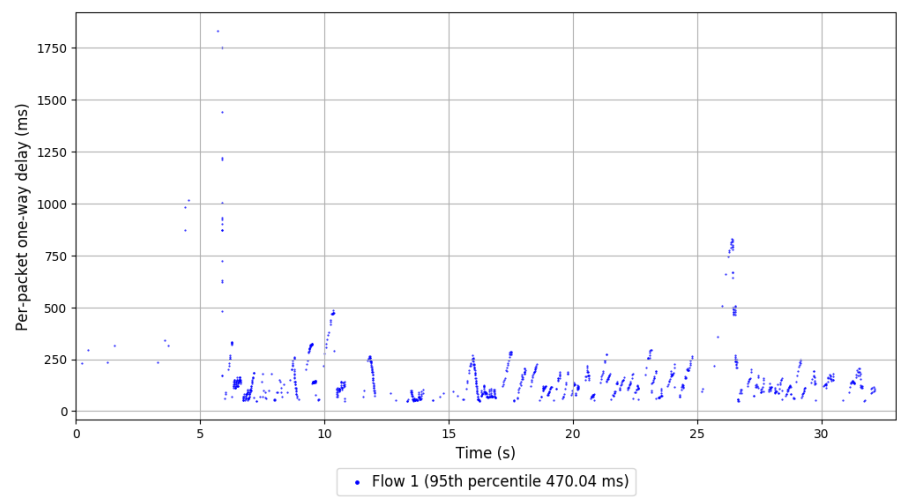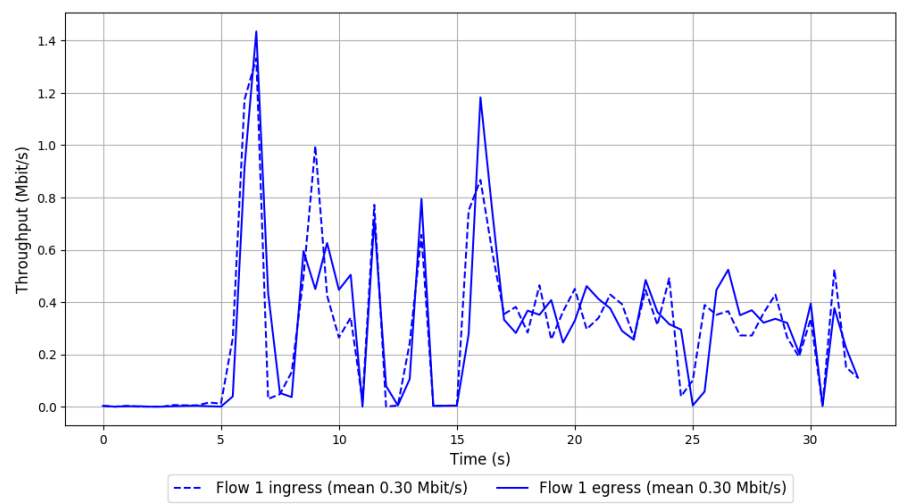
Run 2: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.30 Mbit/s)   Flow 1 egress (mean 0.30 Mbit/s)

Flow 1 (95th percentile 470.04 ms)

```
Run 3: Statistics of WebRTC media

Start at: Mon, 07 Aug 2017 00:03:05 +0000
End at: Mon, 07 Aug 2017 00:03:35 +0000
Local clock offset: 0.548 ms
Remote clock offset: -1.873 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:14:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 684.590 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 684.590 ms
Loss rate: 0.47%
```

Run 3: Report of WebRTC media — Data Link