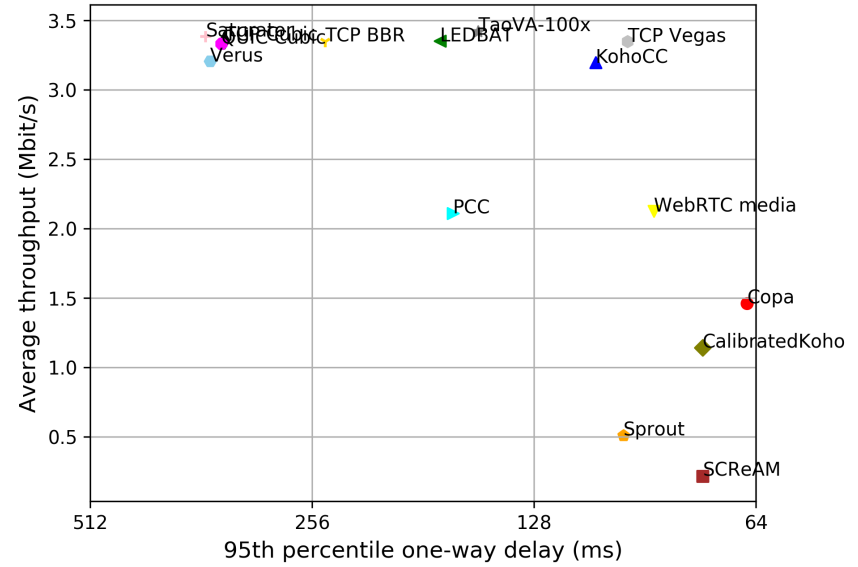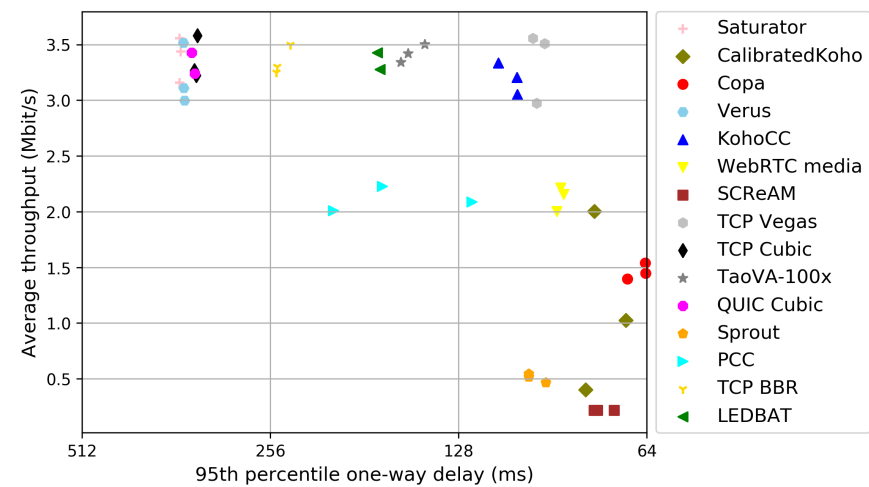**Pantheon Summary** (Generated at Mon, 07 Aug 2017 01:24:08 +0000 with pantheon version `a934ee3822380a12762347e6bc8bd1f3e836e73b`)

Repeated the test of 15 congestion control schemes 3 times.

Each test lasted for 30 seconds running 1 flow.

Data path: India ppp0 (*remote*) →AWS India 1 Ethernet (*local*).

NTP offset measured against nets.org.sg 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 India ppp0 to AWS India 1 Ethernet, 3 runs of 30s each per scheme
(mean of all runs by scheme)

test from India ppp0 to AWS India 1 Ethernet, 3 runs of 30s each per scheme

2

scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	3	3.35	246.08	0.74
CalibratedKoho	3	1.14	75.67	0.38
Copa	3	1.46	65.82	0.25
TCP Cubic	3	3.36	336.80	1.45
KohoCC	3	3.20	105.63	0.38
LEDBAT	3	3.35	171.87	0.62
PCC	3	2.11	164.98	11.80
QUIC Cubic	3	3.33	340.40	1.71
Saturator	3	3.39	357.30	41.03
SCReAM	3	0.22	75.59	0.21
Sprout	3	0.51	96.91	0.27
TaoVA-100x	3	3.42	152.55	0.91
TCP Vegas	3	3.35	95.58	0.36
Verus	3	3.21	352.24	40.18
WebRTC media	3	2.12	88.02	0.26

```
Run 1: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:19:42 +0000
End at: Sun, 06 Aug 2017 23:20:12 +0000
Local clock offset: 0.395 ms
Remote clock offset: -5.187 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 250.493 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 3.25 Mbit/s
95th percentile per-packet one-way delay: 250.493 ms
Loss rate: 0.75%
```
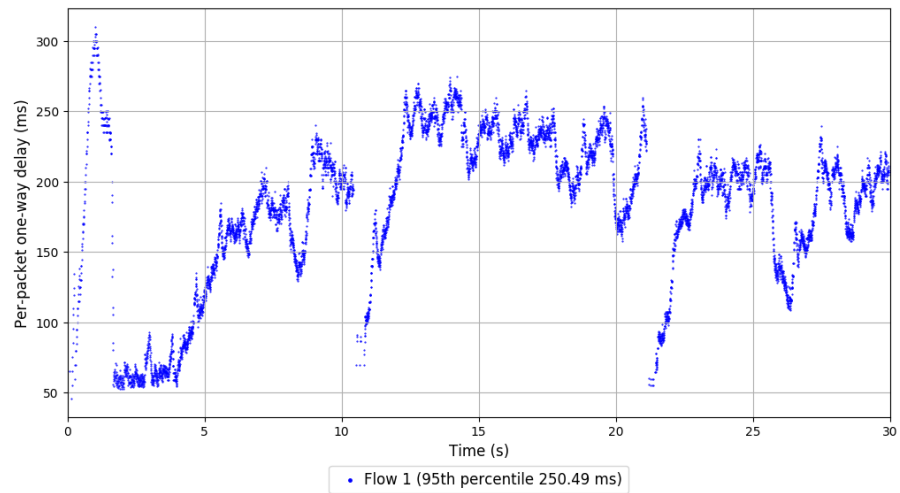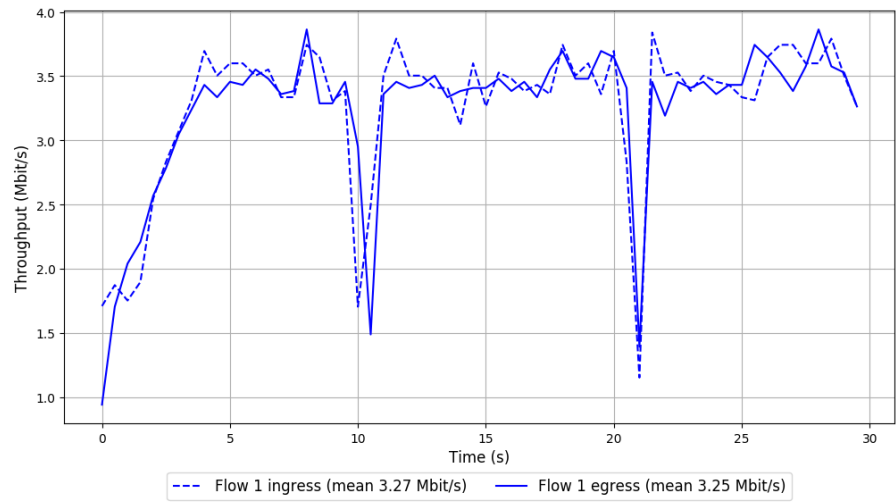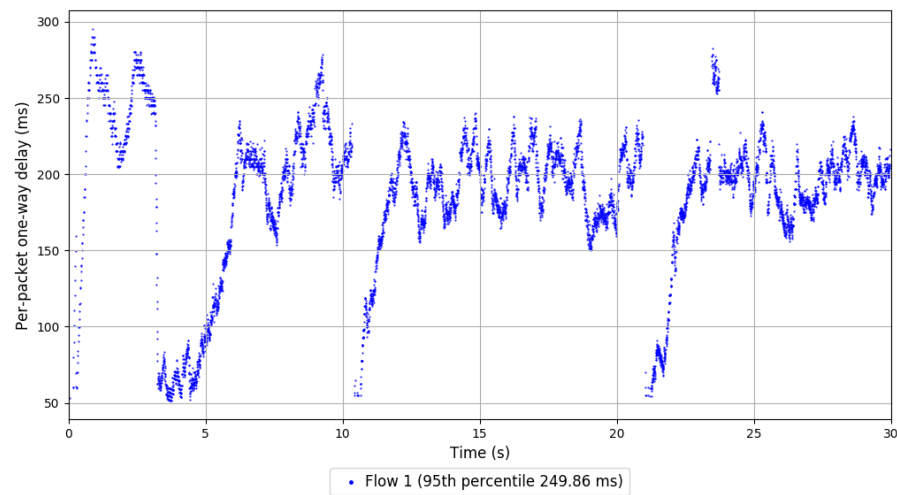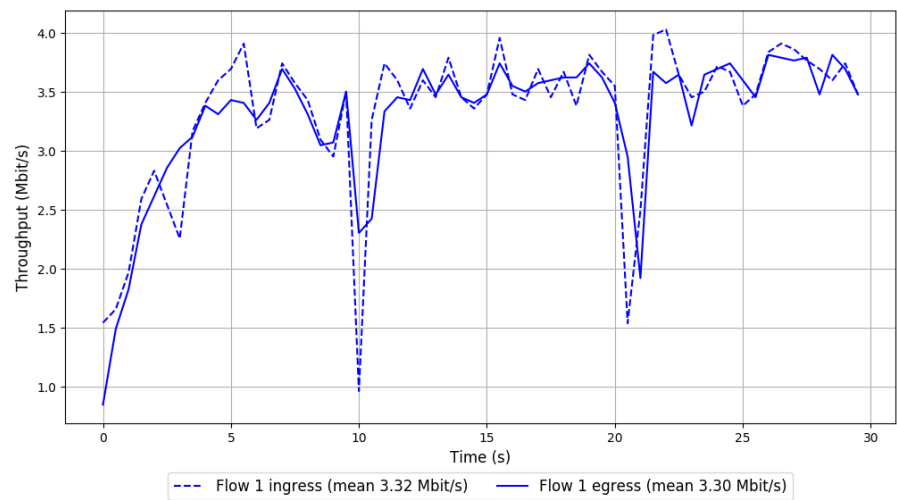
Run 1: Report of TCP BBR — Data Link

Flow 1 ingress (mean 3.27 Mbit/s) Flow 1 egress (mean 3.25 Mbit/s)

Flow 1 (95th percentile 250.49 ms)

```
Run 2: Statistics of TCP BBR

Start at: Sun, 06 Aug 2017 23:46:51 +0000
End at: Sun, 06 Aug 2017 23:47:21 +0000
Local clock offset: 0.17 ms
Remote clock offset: -3.427 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:35 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 249.857 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 249.857 ms
Loss rate: 0.77%
```
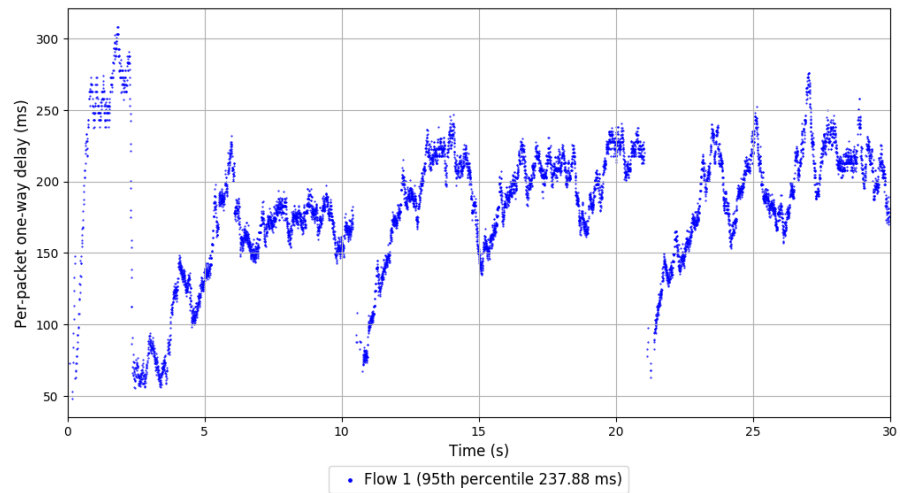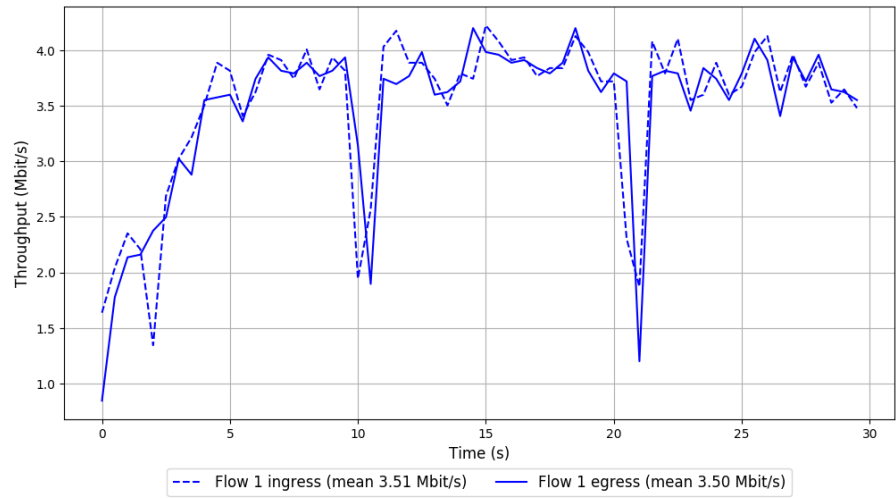
Run 2: Report of TCP BBR — Data Link

Flow 1 ingress (mean 3.32 Mbit/s)   Flow 1 egress (mean 3.30 Mbit/s)

Flow 1 (95th percentile 249.86 ms)

```
Run 3: Statistics of TCP BBR

Start at: Mon, 07 Aug 2017 00:06:37 +0000
End at: Mon, 07 Aug 2017 00:07:07 +0000
Local clock offset: 0.914 ms
Remote clock offset: -6.082 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:37 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 237.877 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 237.877 ms
Loss rate: 0.71%
```
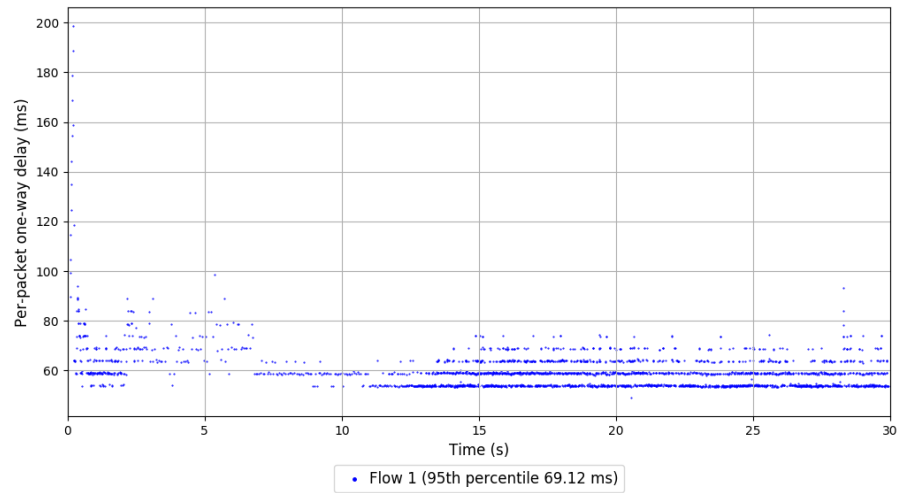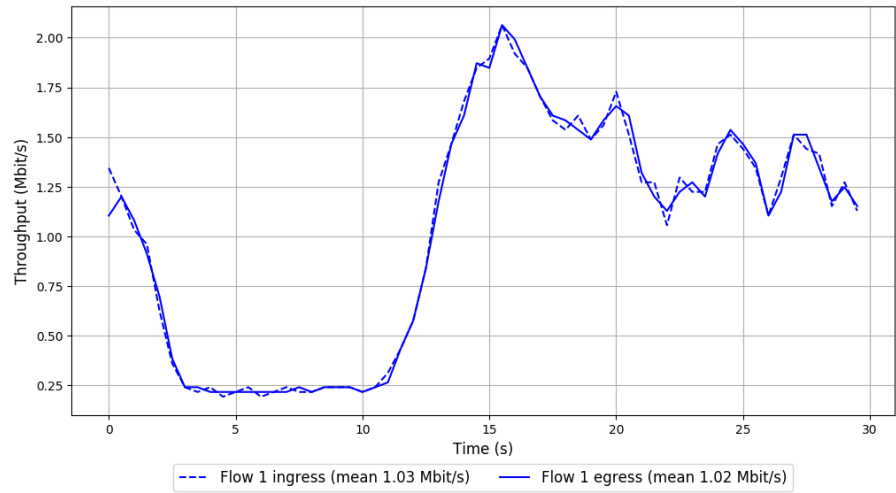
Run 3: Report of TCP BBR — Data Link

Flow 1 ingress (mean 3.51 Mbit/s) ---- Flow 1 egress (mean 3.50 Mbit/s)

Flow 1 (95th percentile 237.88 ms)

```
Run 1: Statistics of CalibratedKoho

Start at: Sun, 06 Aug 2017 23:41:15 +0000
End at: Sun, 06 Aug 2017 23:41:45 +0000
Local clock offset: 1.328 ms
Remote clock offset: -4.641 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:37 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 69.119 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 69.119 ms
Loss rate: 0.43%
```

Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: Mon, 07 Aug 2017 00:01:27 +0000
End at: Mon, 07 Aug 2017 00:01:57 +0000
Local clock offset: 0.857 ms
Remote clock offset: -4.713 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:37 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 77.680 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 77.680 ms
Loss rate: 0.12%
```
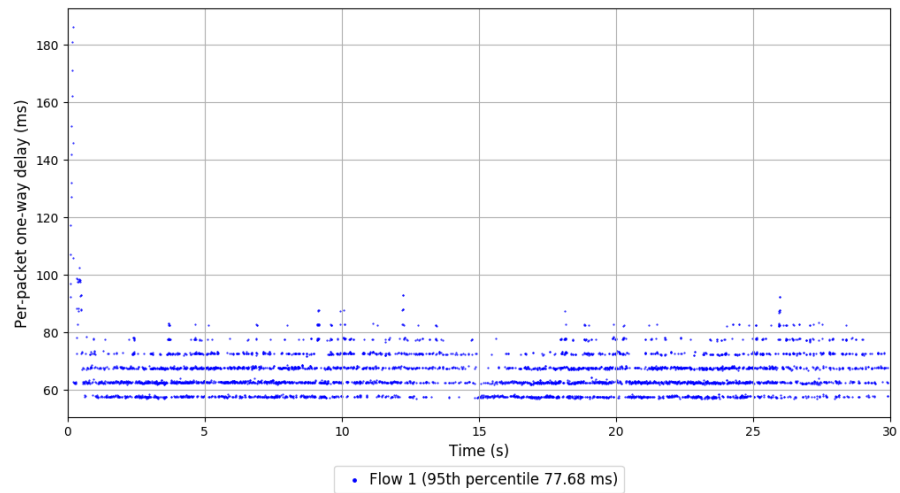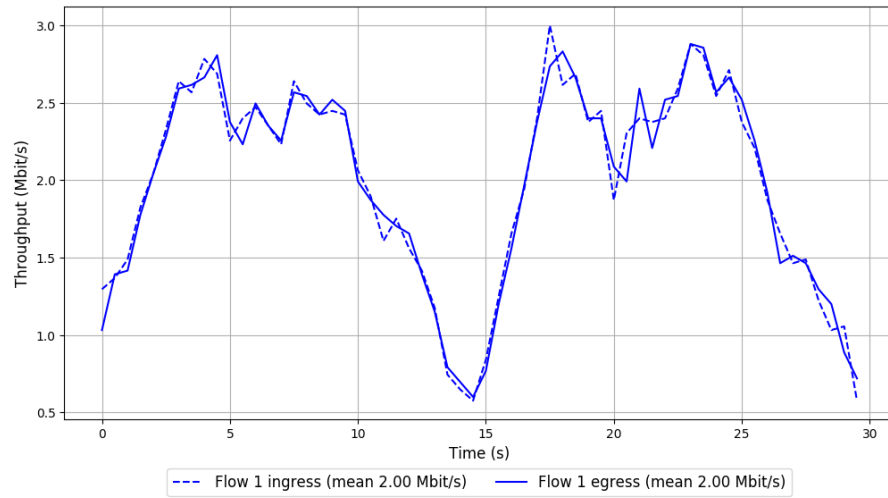
Run 2: Report of CalibratedKoho — Data Link

```
Run 3: Statistics of CalibratedKoho

Start at: Mon, 07 Aug 2017 00:24:30 +0000
End at: Mon, 07 Aug 2017 00:25:00 +0000
Local clock offset: -1.127 ms
Remote clock offset: -5.24 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:38 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 80.199 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 80.199 ms
Loss rate: 0.60%
```
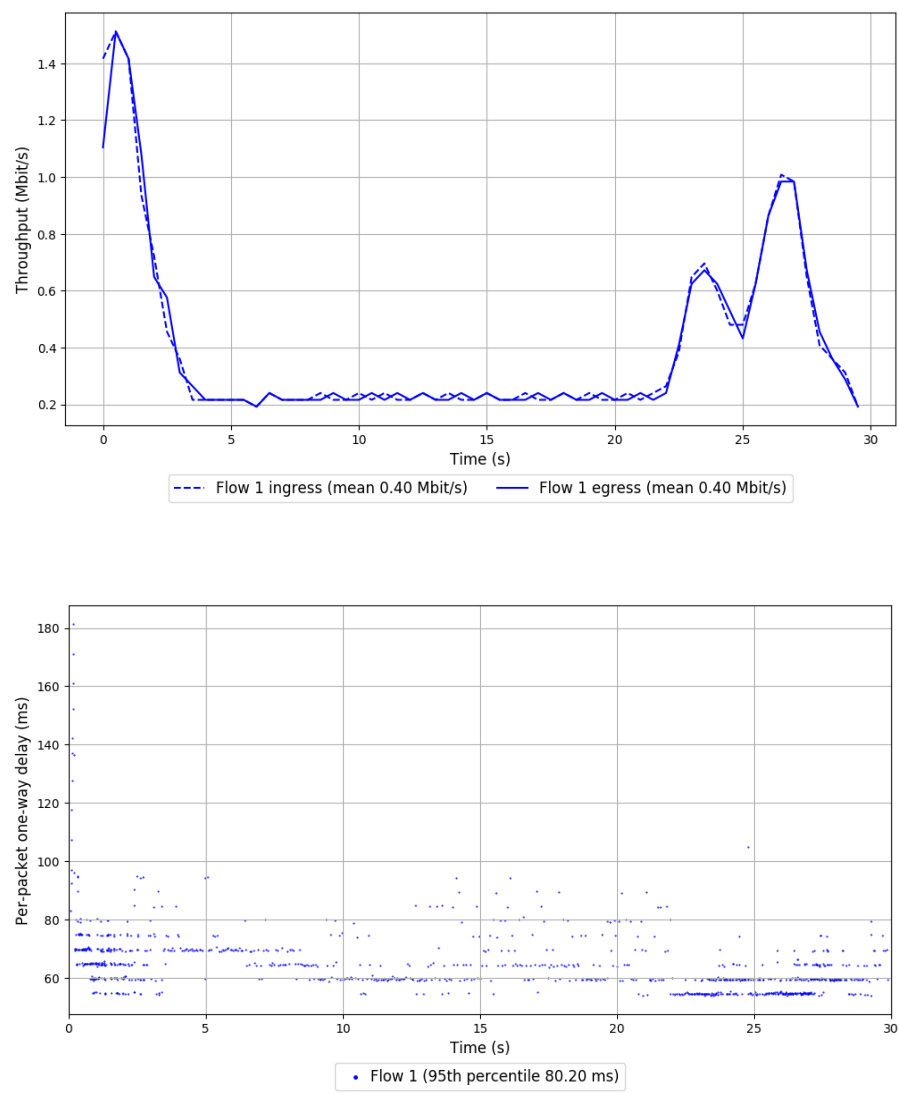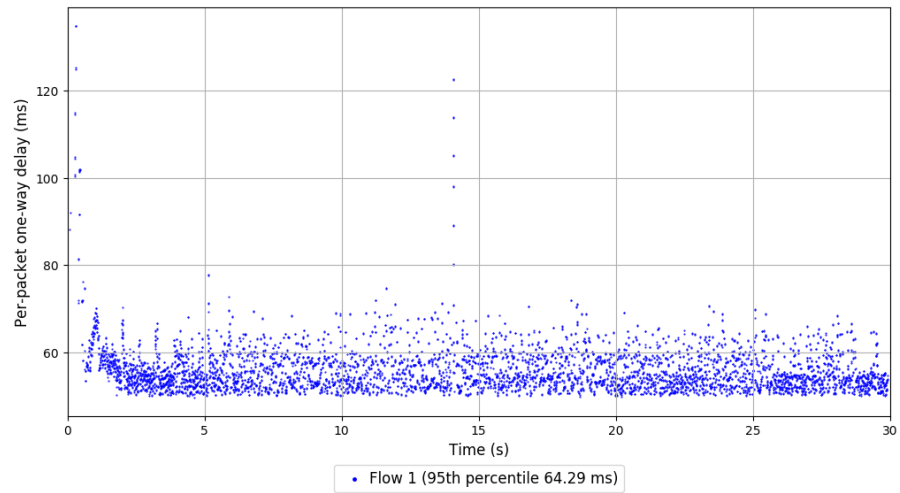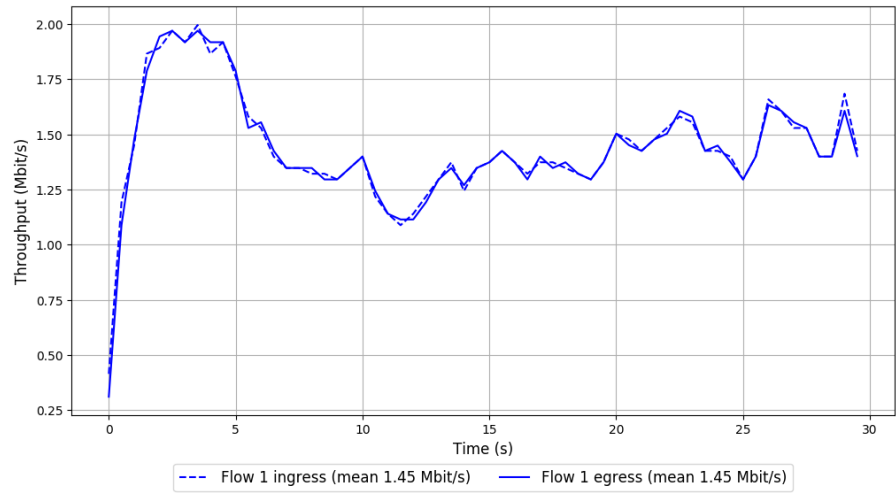
Run 3: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.40 Mbit/s)   Flow 1 egress (mean 0.40 Mbit/s)

Flow 1 (95th percentile 80.20 ms)

```
Run 1: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:21:26 +0000
End at: Sun, 06 Aug 2017 23:21:56 +0000
Local clock offset: -1.27 ms
Remote clock offset: -4.598 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:39 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 64.292 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 64.292 ms
Loss rate: 0.30%
```
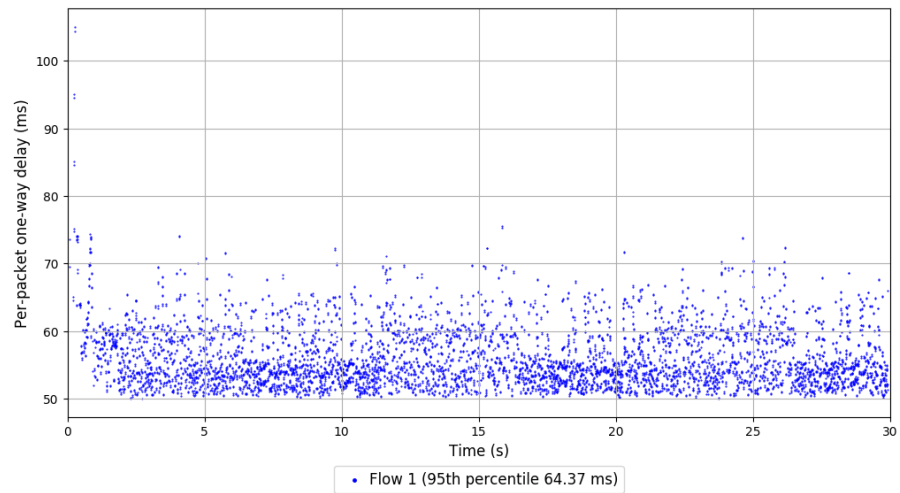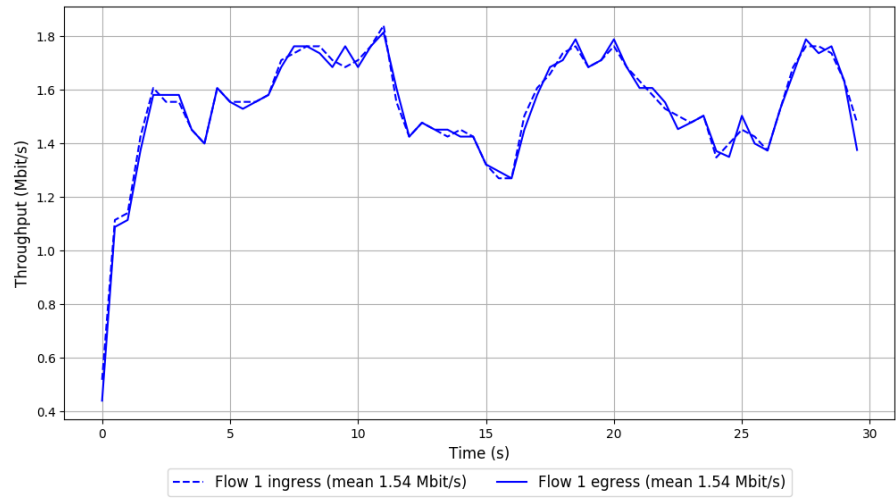
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: Sun, 06 Aug 2017 23:48:15 +0000
End at: Sun, 06 Aug 2017 23:48:45 +0000
Local clock offset: -1.521 ms
Remote clock offset: -4.637 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:40 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 64.371 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 64.371 ms
Loss rate: 0.31%
```
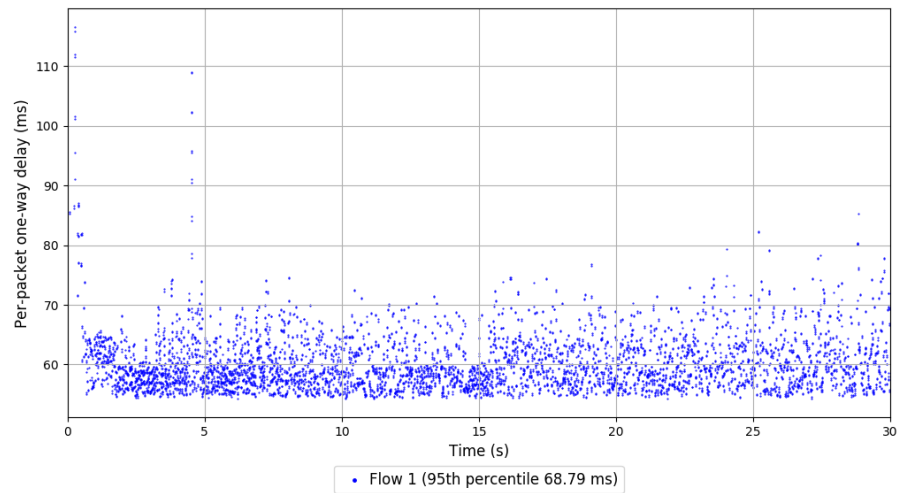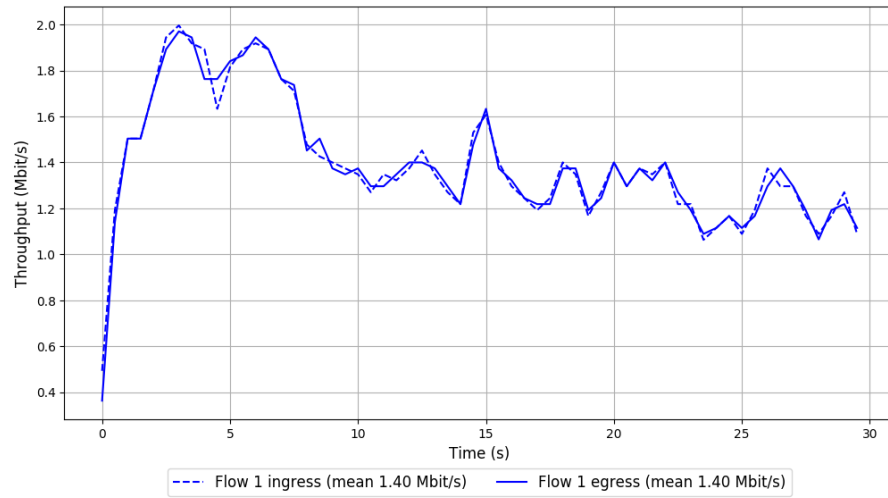
Run 2: Report of Copa — Data Link

```
Run 3: Statistics of Copa

Start at: Mon, 07 Aug 2017 00:07:56 +0000
End at: Mon, 07 Aug 2017 00:08:26 +0000
Local clock offset: 1.836 ms
Remote clock offset: -4.808 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:40 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 68.794 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 68.794 ms
Loss rate: 0.15%
```
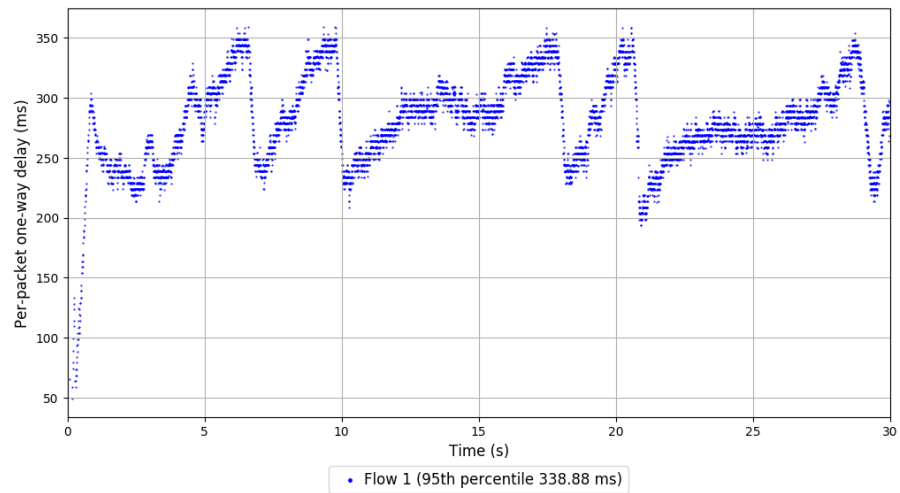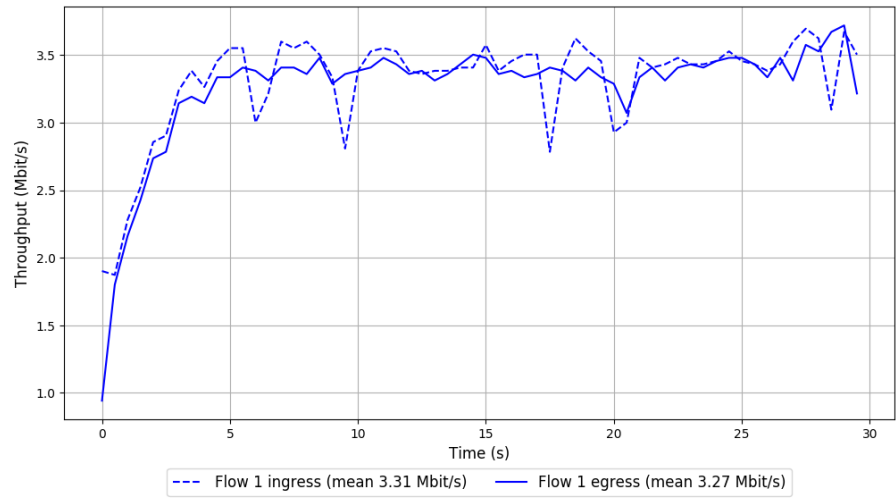
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 1.40 Mbit/s) ----   Flow 1 egress (mean 1.40 Mbit/s) ——

Flow 1 (95th percentile 68.79 ms)

```
Run 1: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:24:14 +0000
End at: Sun, 06 Aug 2017 23:24:44 +0000
Local clock offset: -0.218 ms
Remote clock offset: -5.83 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:41 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 338.885 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 338.885 ms
Loss rate: 1.43%
```
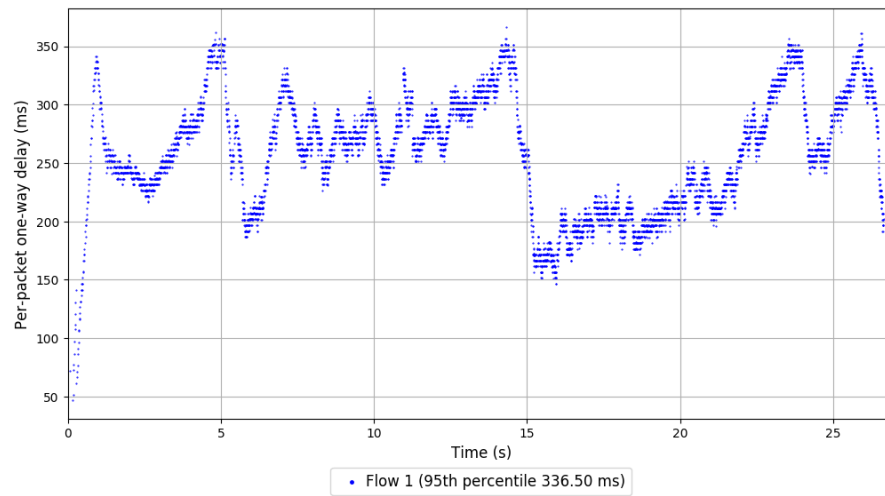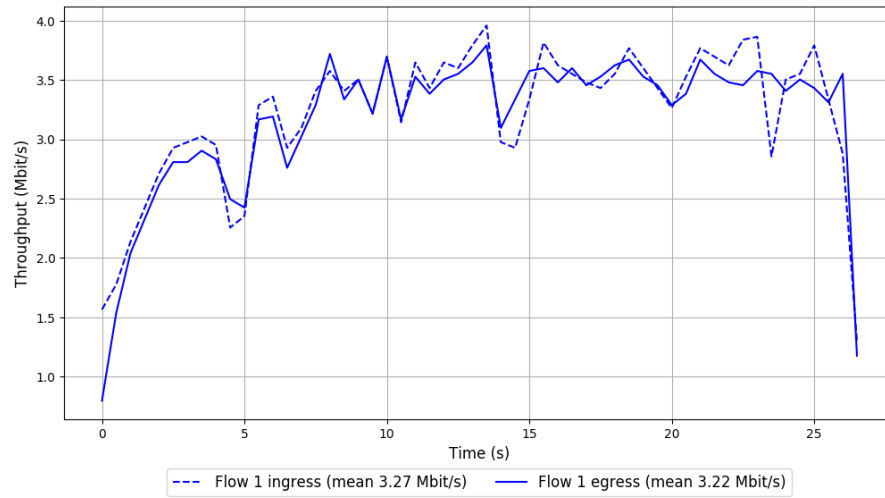
Run 1: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.31 Mbit/s) Flow 1 egress (mean 3.27 Mbit/s)

• Flow 1 (95th percentile 338.88 ms)

```
Run 2: Statistics of TCP Cubic

Start at: Sun, 06 Aug 2017 23:49:53 +0000
End at: Sun, 06 Aug 2017 23:50:23 +0000
Local clock offset: -0.373 ms
Remote clock offset: -6.314 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:42 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 336.497 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 3.22 Mbit/s
95th percentile per-packet one-way delay: 336.497 ms
Loss rate: 1.57%
```

Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: Mon, 07 Aug 2017 00:09:36 +0000
End at: Mon, 07 Aug 2017 00:10:06 +0000
Local clock offset: -6.153 ms
Remote clock offset: -11.174 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 335.018 ms
Loss rate: 1.34%
-- Flow 1:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 335.018 ms
Loss rate: 1.34%
```
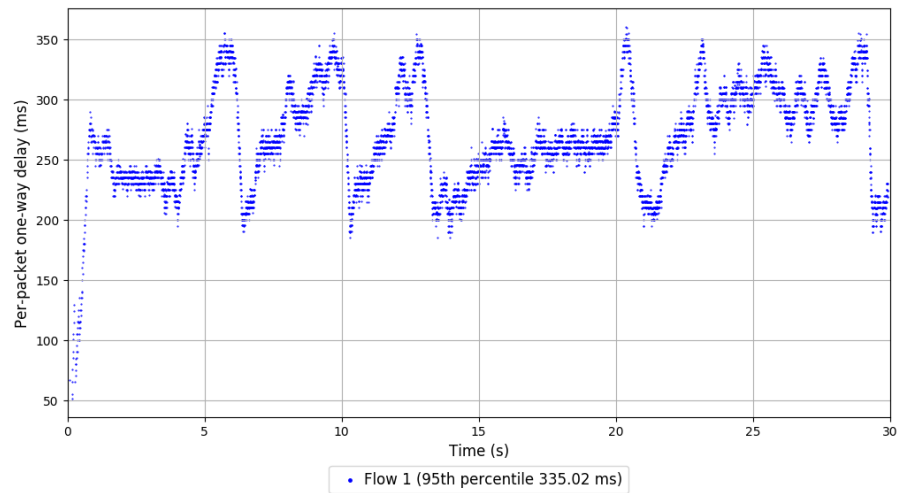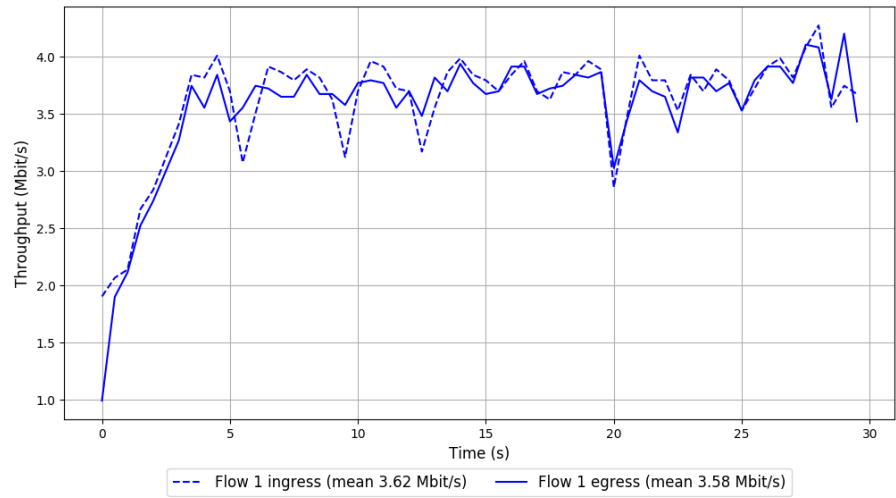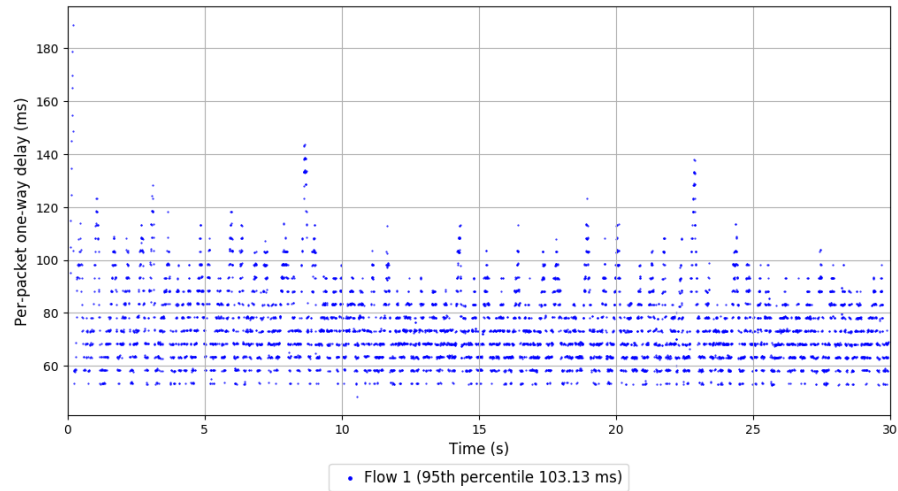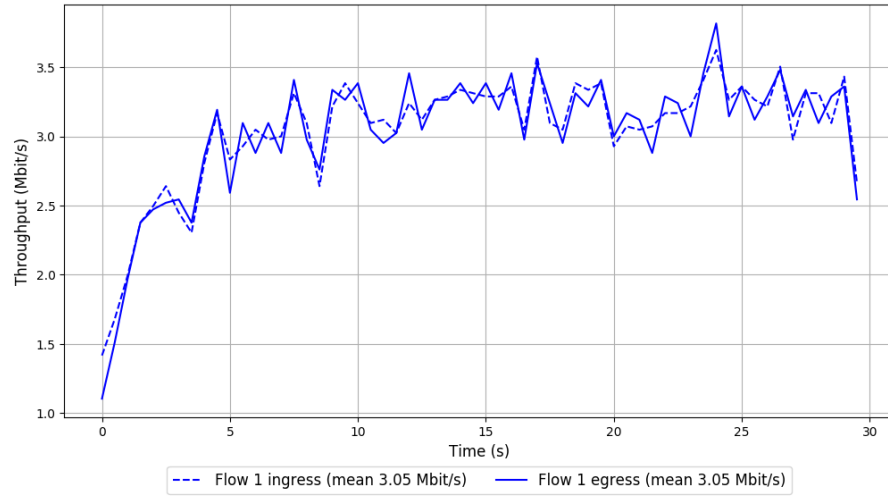
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.62 Mbit/s)   Flow 1 egress (mean 3.58 Mbit/s)

Flow 1 (95th percentile 335.02 ms)

```
Run 1: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:39:15 +0000
End at: Sun, 06 Aug 2017 23:39:45 +0000
Local clock offset: -0.672 ms
Remote clock offset: -5.464 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:43 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 103.132 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 103.132 ms
Loss rate: 0.35%
```
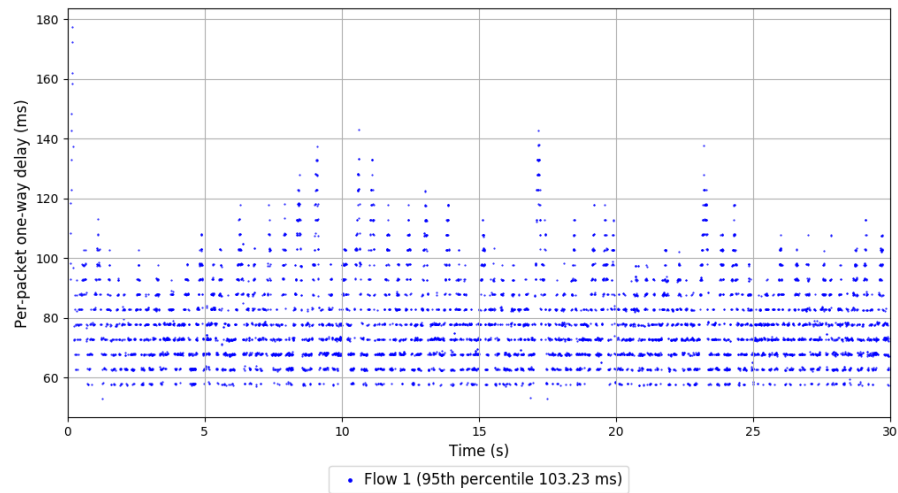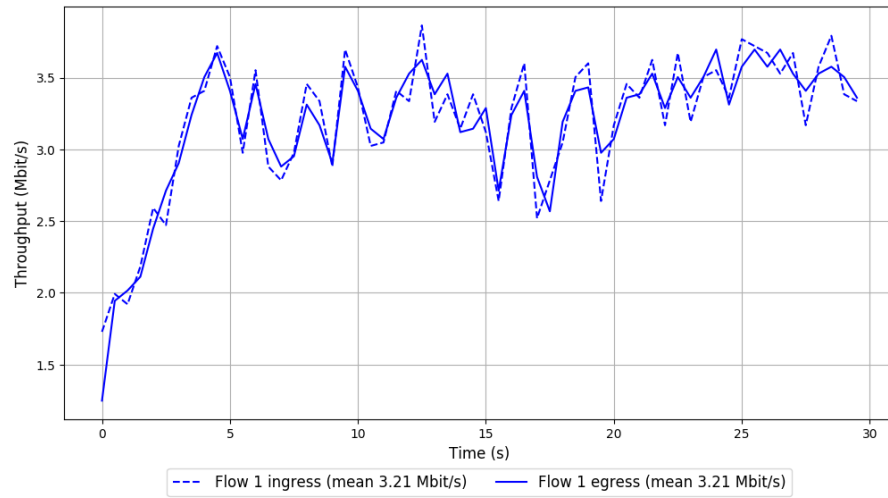
Run 1: Report of KohoCC — Data Link

```
Run 2: Statistics of KohoCC

Start at: Sun, 06 Aug 2017 23:59:54 +0000
End at: Mon, 07 Aug 2017 00:00:24 +0000
Local clock offset: 0.351 ms
Remote clock offset: -4.793 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:45 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 103.233 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 103.233 ms
Loss rate: 0.35%
```
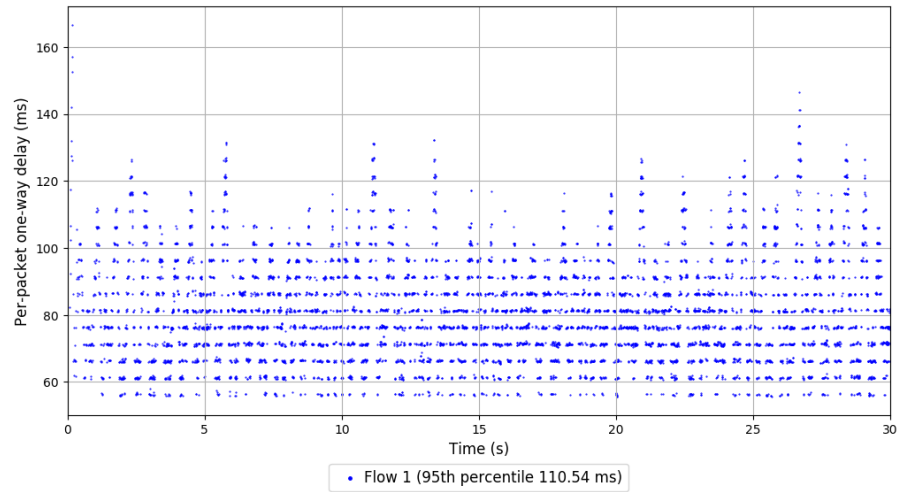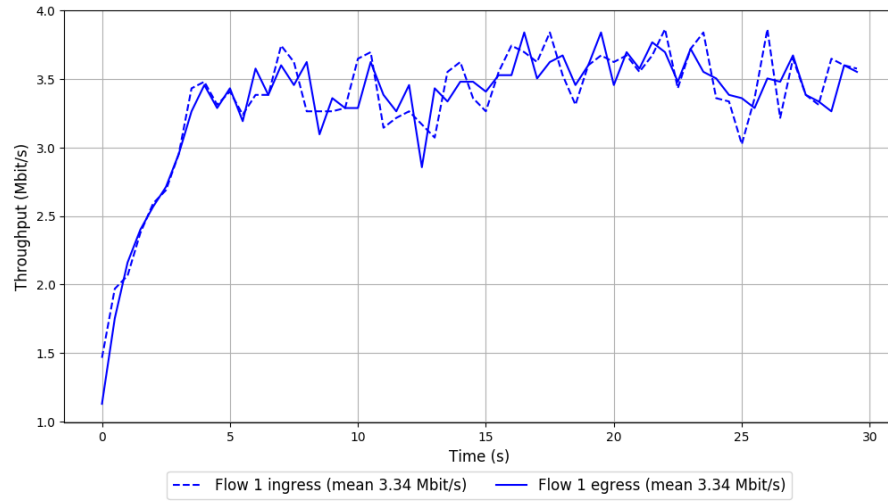
Run 2: Report of KohoCC — Data Link

```
Run 3: Statistics of KohoCC

Start at: Mon, 07 Aug 2017 00:22:56 +0000
End at: Mon, 07 Aug 2017 00:23:26 +0000
Local clock offset: 0.39 ms
Remote clock offset: -4.904 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:45 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 110.539 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 110.539 ms
Loss rate: 0.45%
```
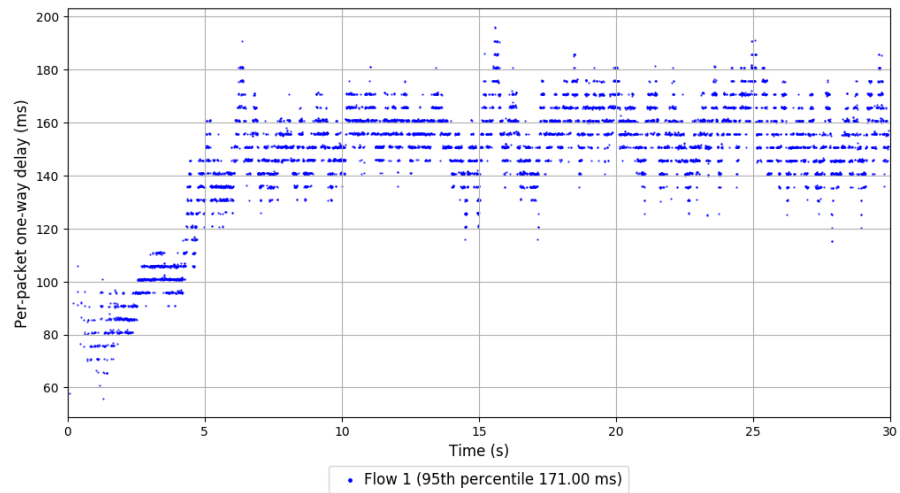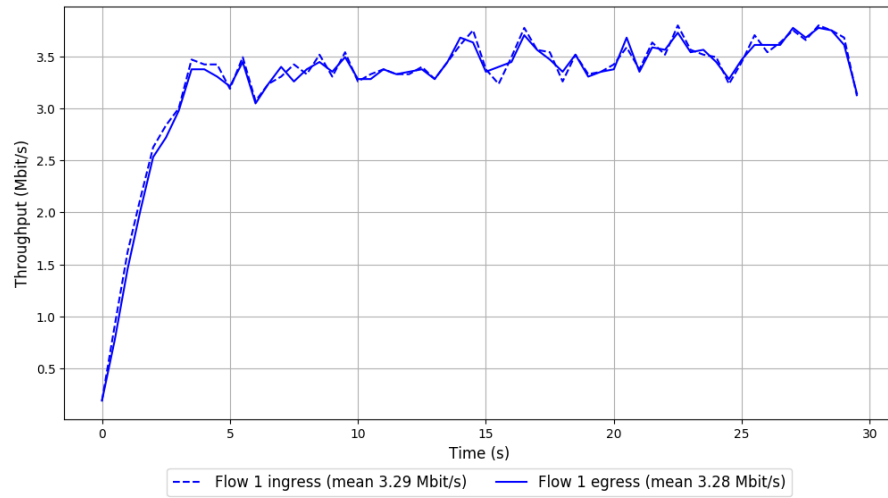
Run 3: Report of KohoCC — Data Link

Flow 1 ingress (mean 3.34 Mbit/s)   Flow 1 egress (mean 3.34 Mbit/s)

Flow 1 (95th percentile 110.54 ms)

```
Run 1: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:27:40 +0000
End at: Sun, 06 Aug 2017 23:28:10 +0000
Local clock offset: 3.752 ms
Remote clock offset: -4.999 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:46 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 170.997 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 170.997 ms
Loss rate: 0.60%
```

Run 1: Report of LEDBAT — Data Link
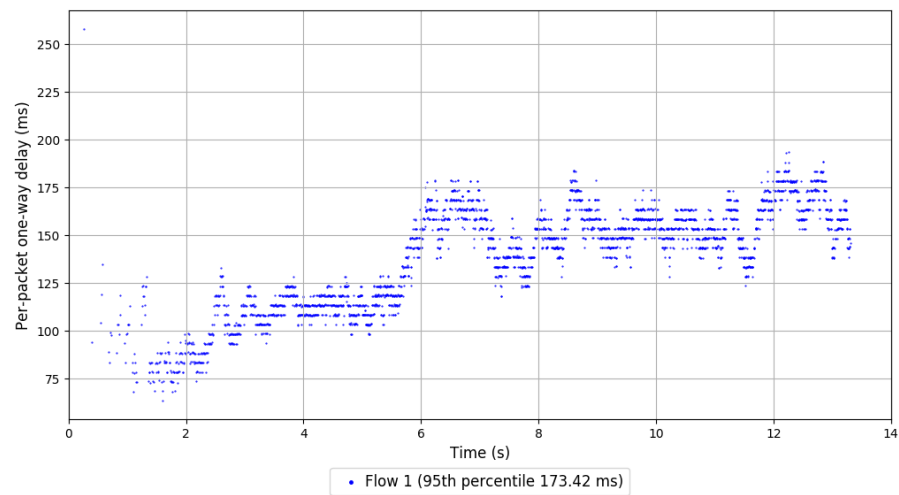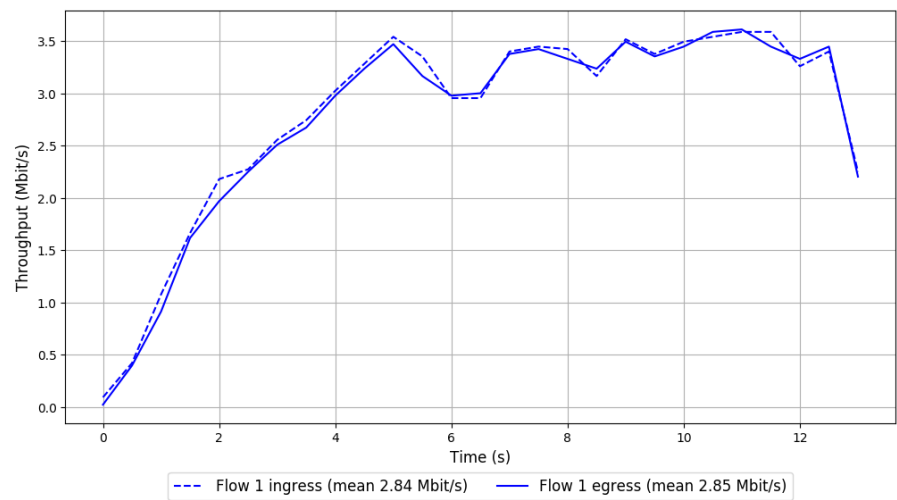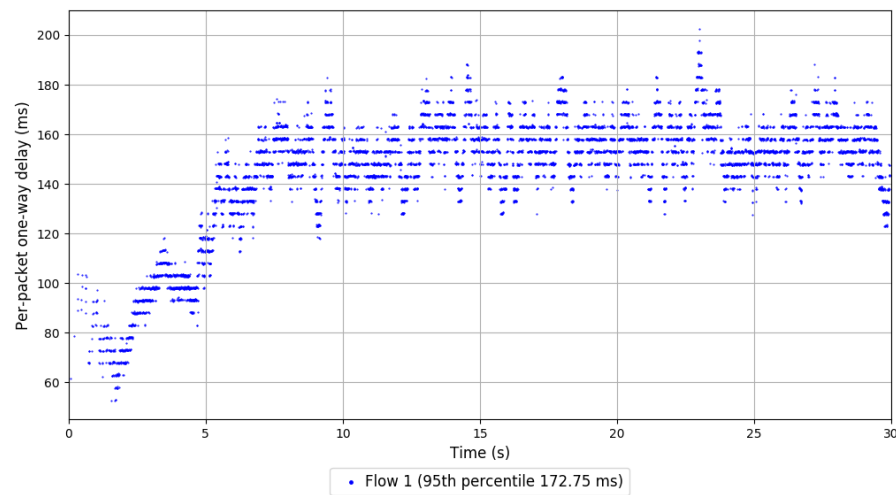
```
Run 2: Statistics of LEDBAT

Start at: Sun, 06 Aug 2017 23:52:39 +0000
End at: Sun, 06 Aug 2017 23:53:09 +0000
Local clock offset: 2.359 ms
Remote clock offset: -6.371 ms
```

Run 2: Report of LEDBAT — Data Link

Flow 1 ingress (mean 2.84 Mbit/s)   Flow 1 egress (mean 2.85 Mbit/s)

Flow 1 (95th percentile 173.42 ms)

```
Run 3: Statistics of LEDBAT

Start at: Mon, 07 Aug 2017 00:13:27 +0000
End at: Mon, 07 Aug 2017 00:13:57 +0000
Local clock offset: -0.914 ms
Remote clock offset: -4.986 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:47 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 172.748 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 172.748 ms
Loss rate: 0.65%
```
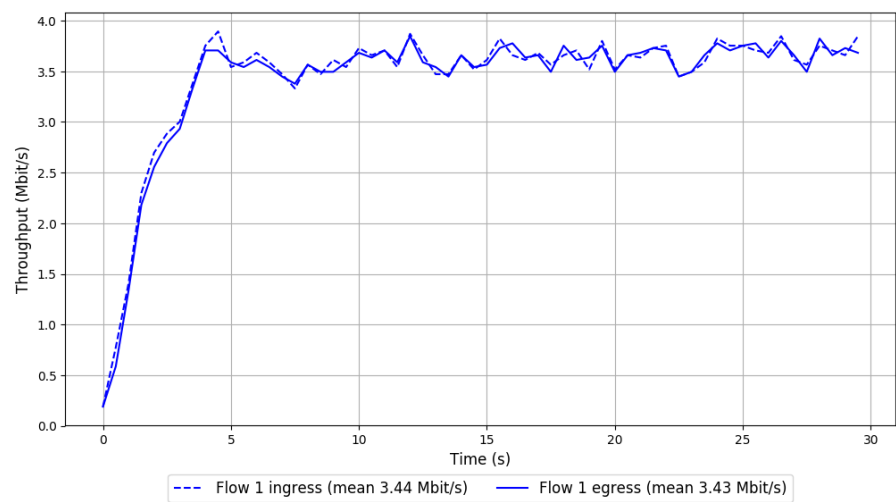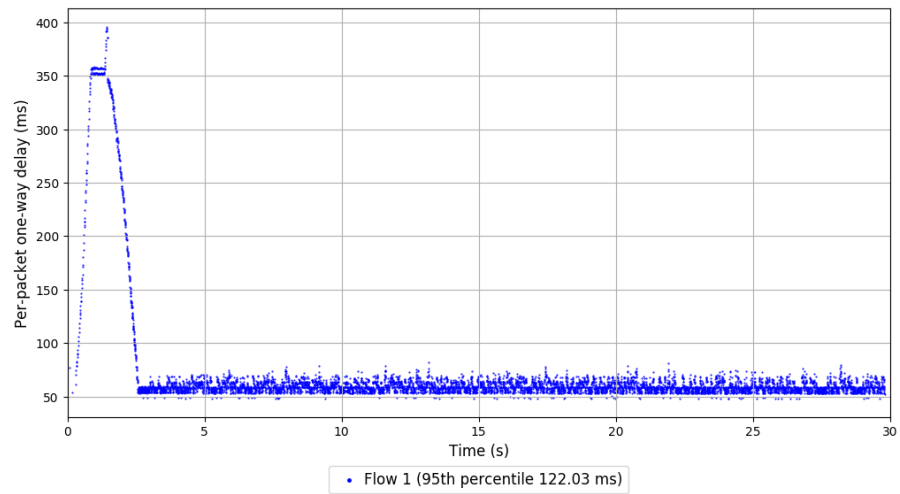
Run 3: Report of LEDBAT — Data Link

Flow 1 ingress (mean 3.44 Mbit/s)   Flow 1 egress (mean 3.43 Mbit/s)

Flow 1 (95th percentile 172.75 ms)

```
Run 1: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:29:45 +0000
End at: Sun, 06 Aug 2017 23:30:15 +0000
Local clock offset: 1.646 ms
Remote clock offset: -5.519 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:48 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 122.027 ms
Loss rate: 10.48%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 122.027 ms
Loss rate: 10.48%
```
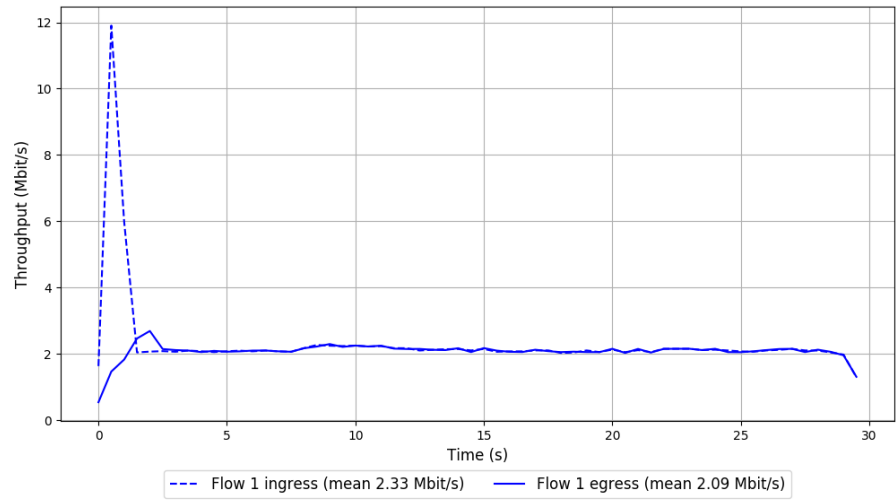
Run 1: Report of PCC — Data Link

```
Run 2: Statistics of PCC

Start at: Sun, 06 Aug 2017 23:53:44 +0000
End at: Sun, 06 Aug 2017 23:54:14 +0000
Local clock offset: 0.044 ms
Remote clock offset: -5.468 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:49 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 203.233 ms
Loss rate: 17.71%
-- Flow 1:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 203.233 ms
Loss rate: 17.71%
```
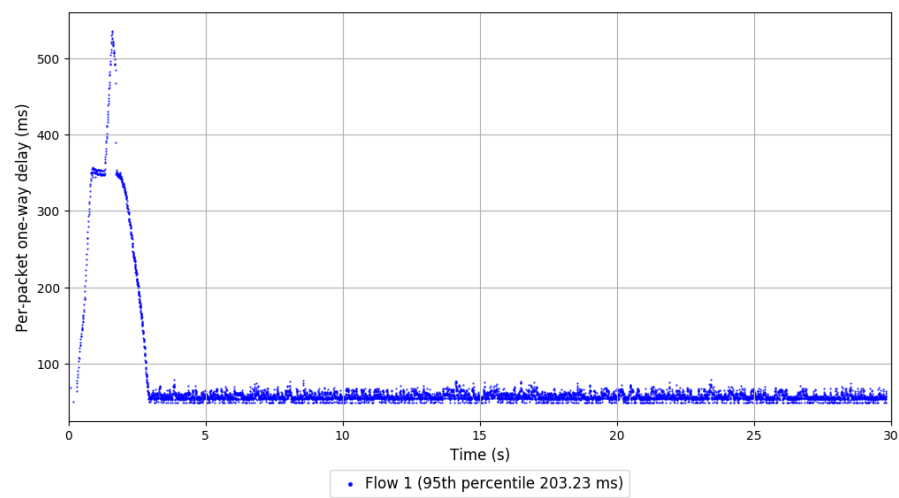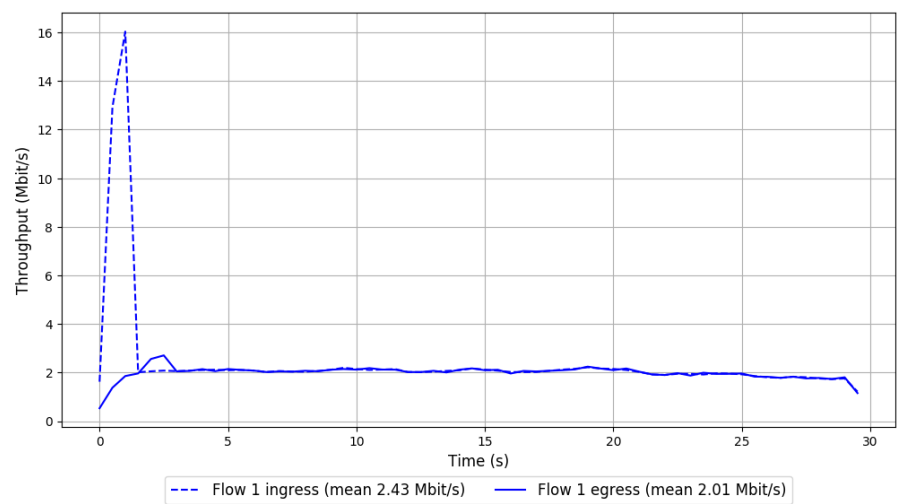
Run 2: Report of PCC — Data Link

```
Run 3: Statistics of PCC

Start at: Mon, 07 Aug 2017 00:14:42 +0000
End at: Mon, 07 Aug 2017 00:15:12 +0000
Local clock offset: 1.453 ms
Remote clock offset: -4.633 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:49 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 169.692 ms
Loss rate: 7.20%
-- Flow 1:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 169.692 ms
Loss rate: 7.20%
```
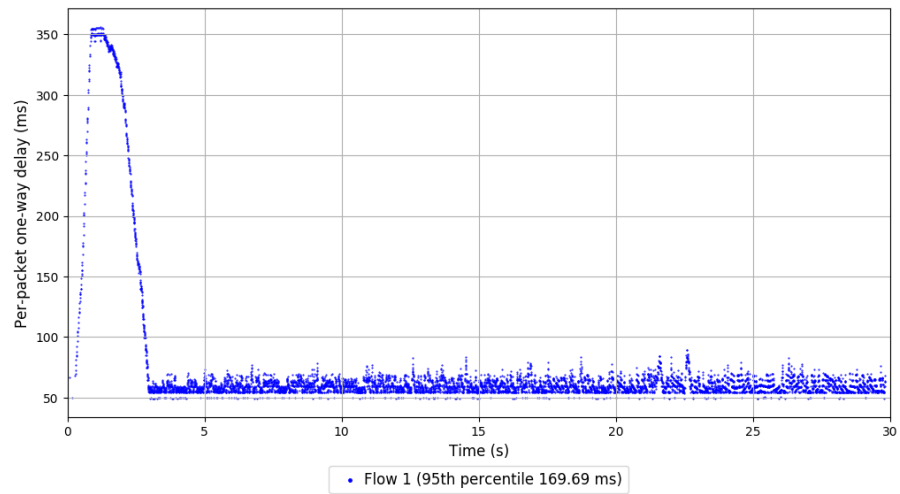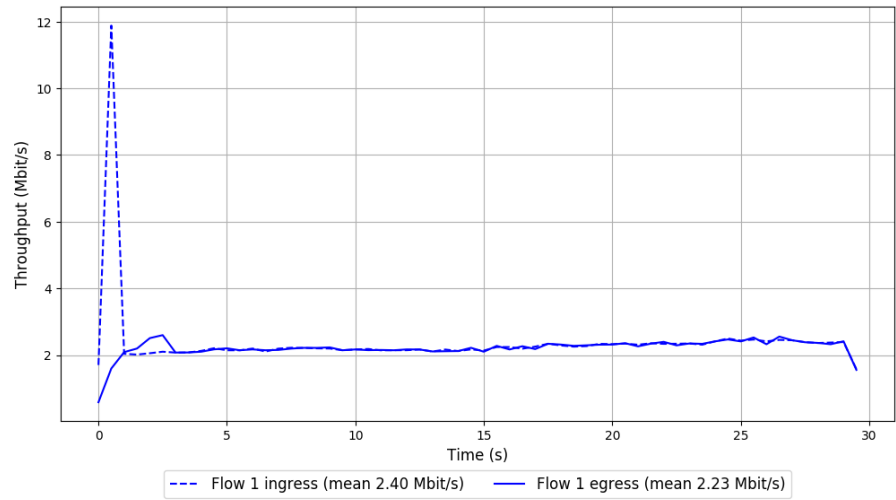
Run 3: Report of PCC — Data Link

```
Run 1: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:26:04 +0000
End at: Sun, 06 Aug 2017 23:26:34 +0000
Local clock offset: 0.595 ms
Remote clock offset: -5.605 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:50 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 338.524 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 338.524 ms
Loss rate: 1.66%
```
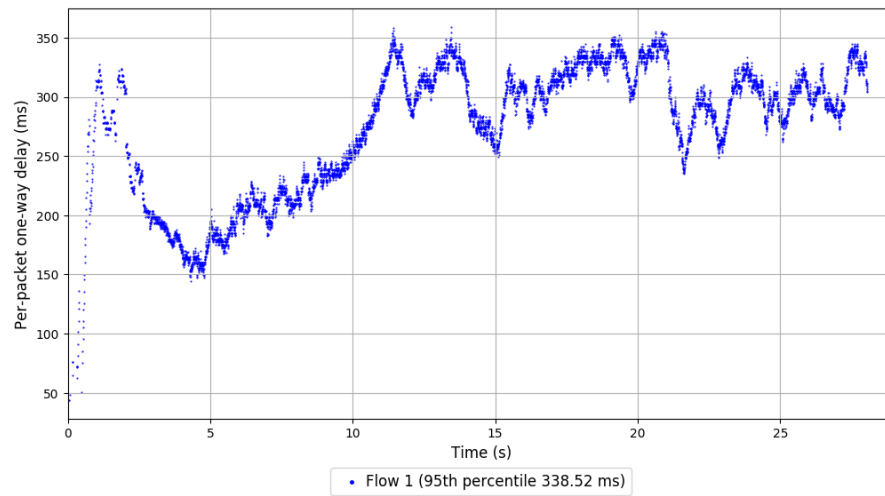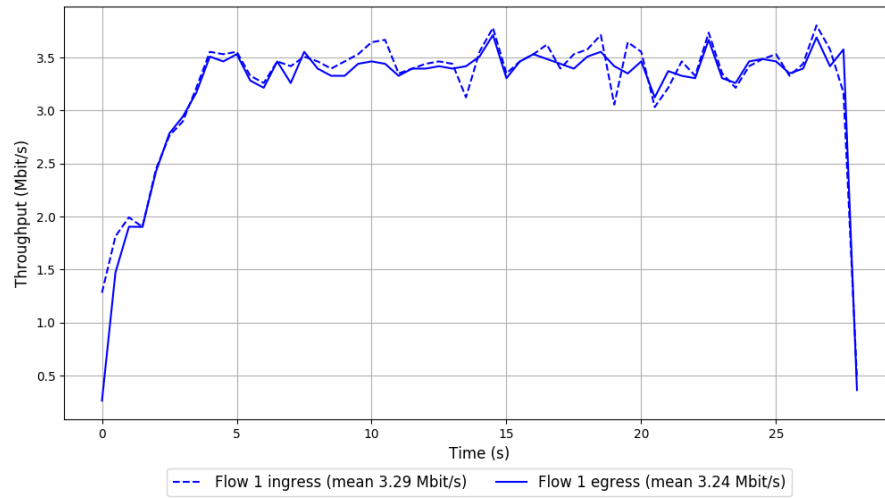
Run 1: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 3.29 Mbit/s)   Flow 1 egress (mean 3.24 Mbit/s)

Flow 1 (95th percentile 338.52 ms)

```
Run 2: Statistics of QUIC Cubic

Start at: Sun, 06 Aug 2017 23:51:33 +0000
End at: Sun, 06 Aug 2017 23:52:03 +0000
Local clock offset: 1.068 ms
Remote clock offset: -5.776 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:51 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 342.284 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 342.284 ms
Loss rate: 1.76%
```
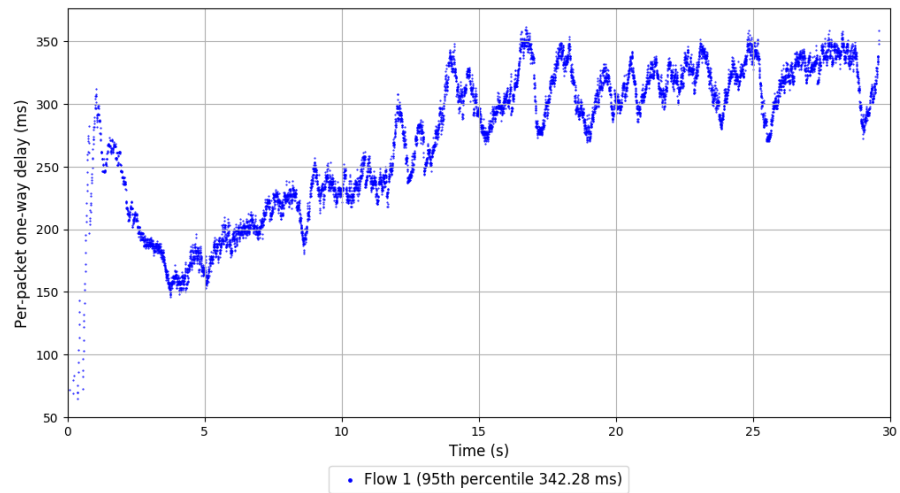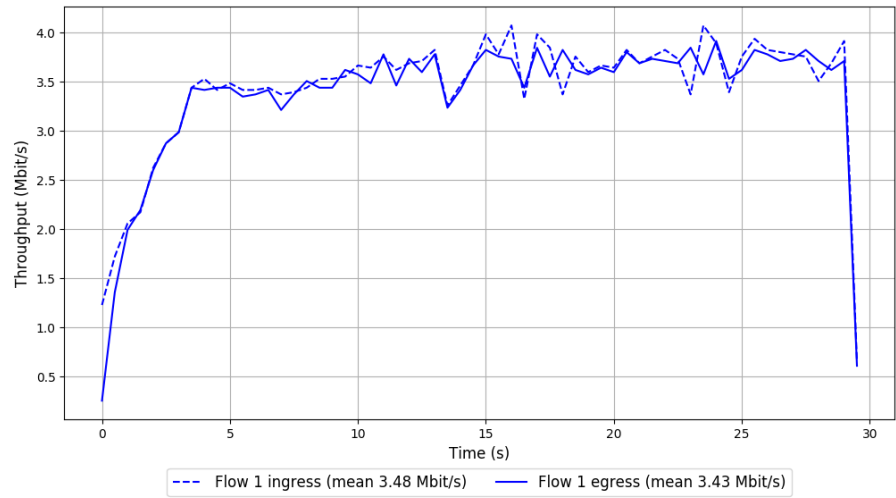
Run 2: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 3.48 Mbit/s)   Flow 1 egress (mean 3.43 Mbit/s)

Flow 1 (95th percentile 342.28 ms)
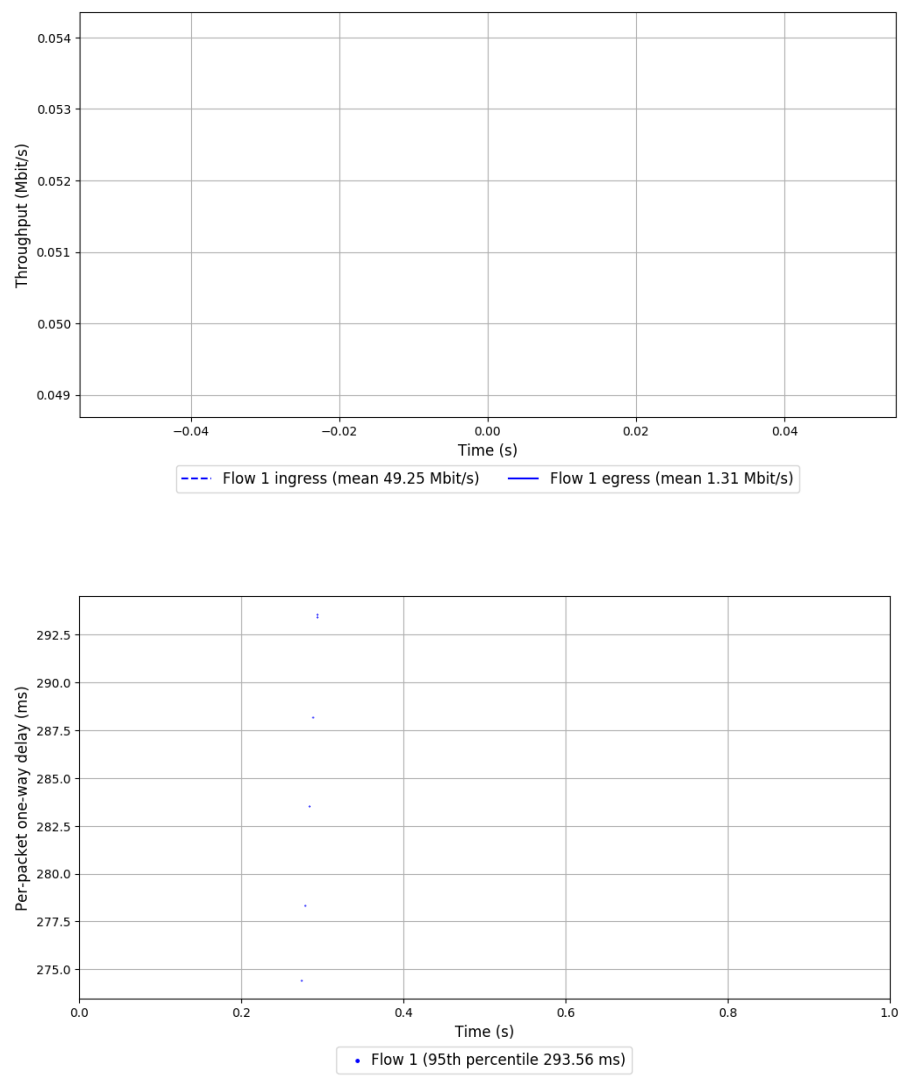
Run 3: Statistics of QUIC Cubic

Start at: Mon, 07 Aug 2017 00:12:13 +0000
End at: Mon, 07 Aug 2017 00:12:43 +0000
Local clock offset: 0.318 ms
Remote clock offset: -3.998 ms

Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 49.25 Mbit/s) ——— Flow 1 egress (mean 1.31 Mbit/s)

• Flow 1 (95th percentile 293.56 ms)

```
Run 1: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:35:00 +0000
End at: Sun, 06 Aug 2017 23:35:30 +0000
Local clock offset: 2.817 ms
Remote clock offset: -4.934 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:52 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 357.637 ms
Loss rate: 44.38%
-- Flow 1:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 357.637 ms
Loss rate: 44.38%
```
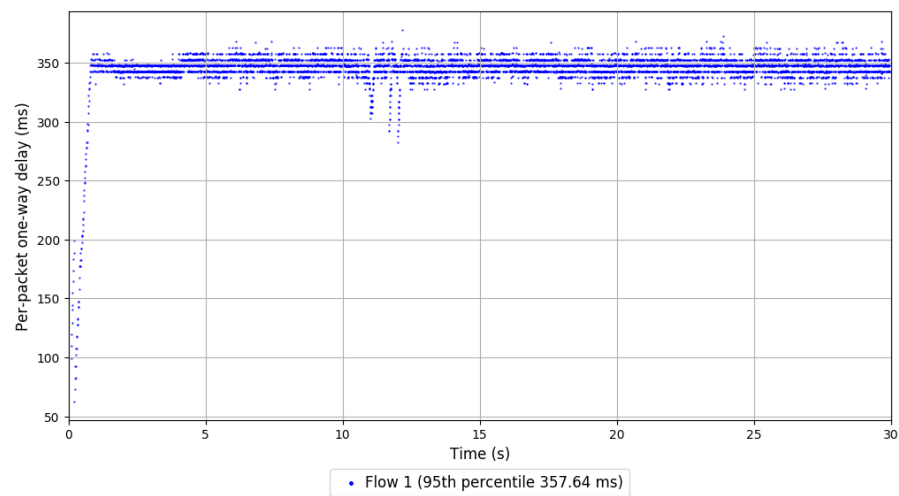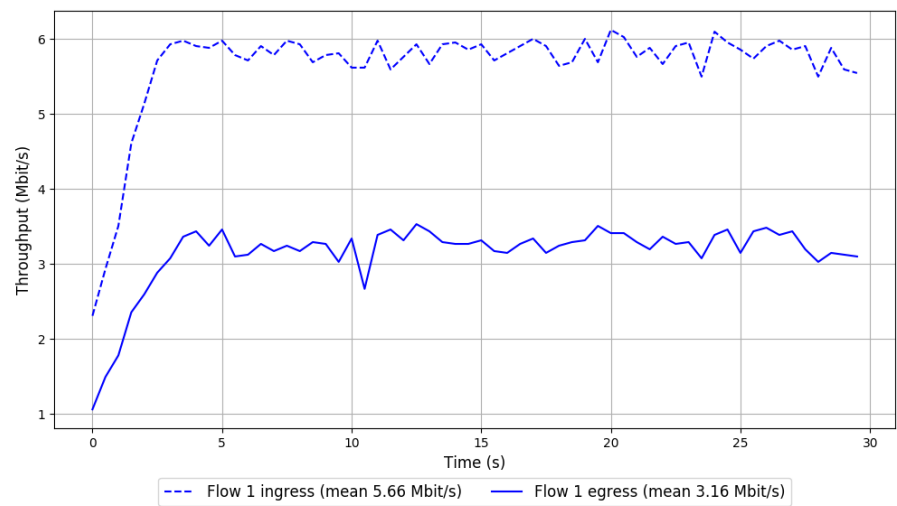
Run 1: Report of Saturator — Data Link

```
Run 2: Statistics of Saturator

Start at: Sun, 06 Aug 2017 23:57:01 +0000
End at: Sun, 06 Aug 2017 23:57:31 +0000
Local clock offset: 3.116 ms
Remote clock offset: -5.759 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 357.824 ms
Loss rate: 38.63%
-- Flow 1:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 357.824 ms
Loss rate: 38.63%
```
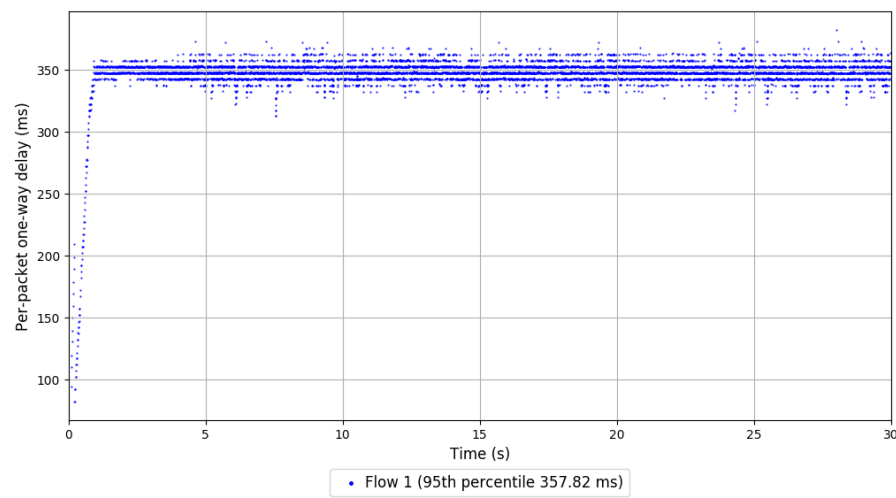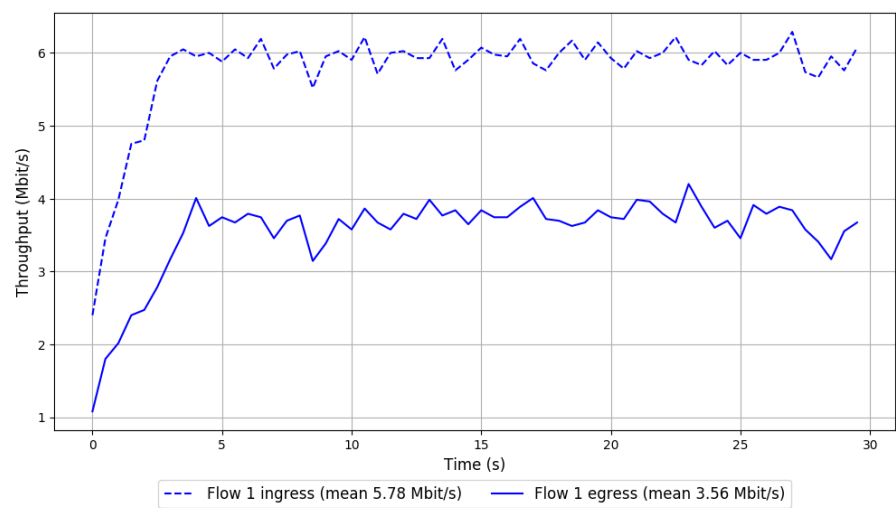
Run 2: Report of Saturator — Data Link

```
Run 3: Statistics of Saturator

Start at: Mon, 07 Aug 2017 00:19:28 +0000
End at: Mon, 07 Aug 2017 00:19:58 +0000
Local clock offset: 0.962 ms
Remote clock offset: -3.822 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:54 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 356.442 ms
Loss rate: 40.08%
-- Flow 1:
Average throughput: 3.44 Mbit/s
95th percentile per-packet one-way delay: 356.442 ms
Loss rate: 40.08%
```
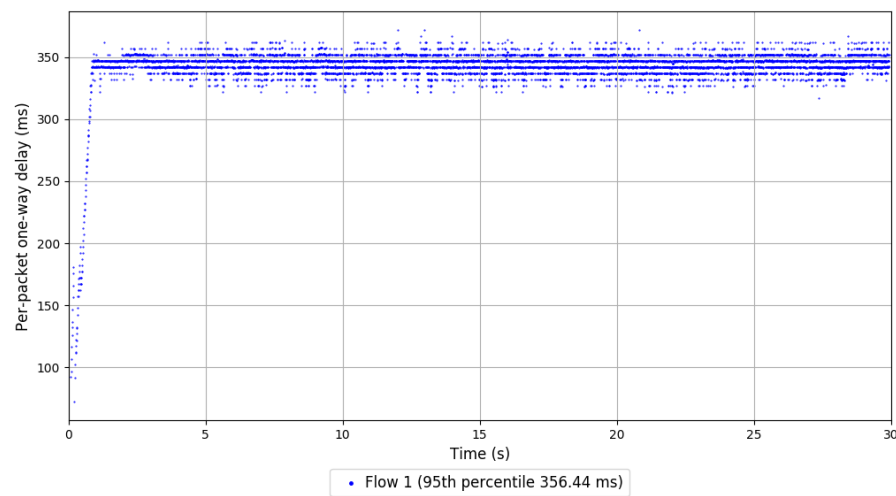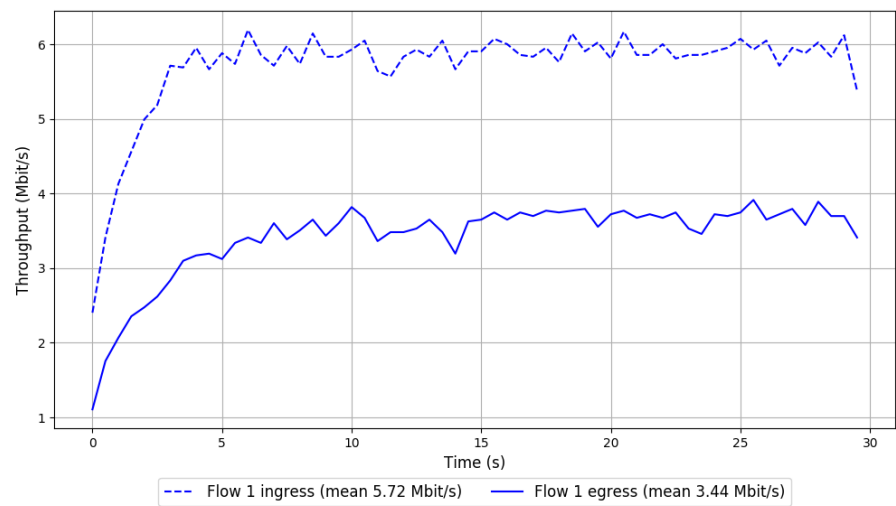
Run 3: Report of Saturator — Data Link

Flow 1 ingress (mean 5.72 Mbit/s)　　　Flow 1 egress (mean 3.44 Mbit/s)

• Flow 1 (95th percentile 356.44 ms)

```
Run 1: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:18:22 +0000
End at: Sun, 06 Aug 2017 23:18:52 +0000
Local clock offset: 0.497 ms
Remote clock offset: -4.31 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:54 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 76.841 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 76.841 ms
Loss rate: 0.25%
```
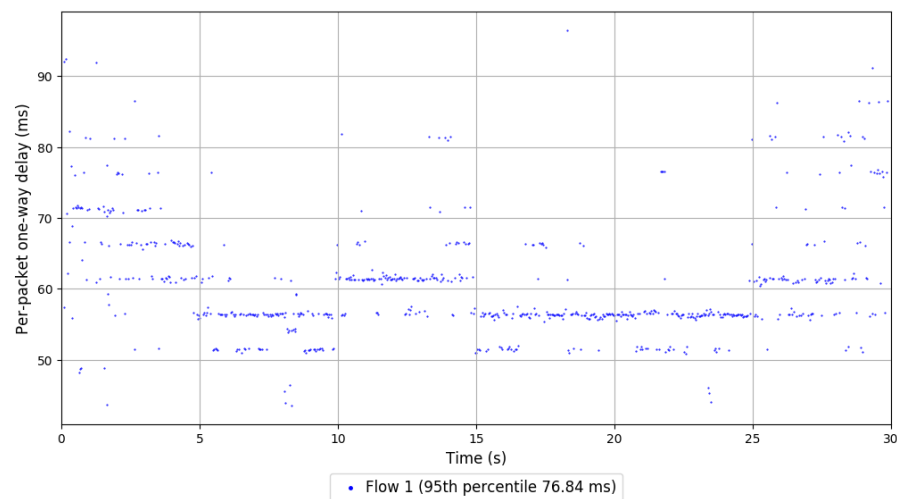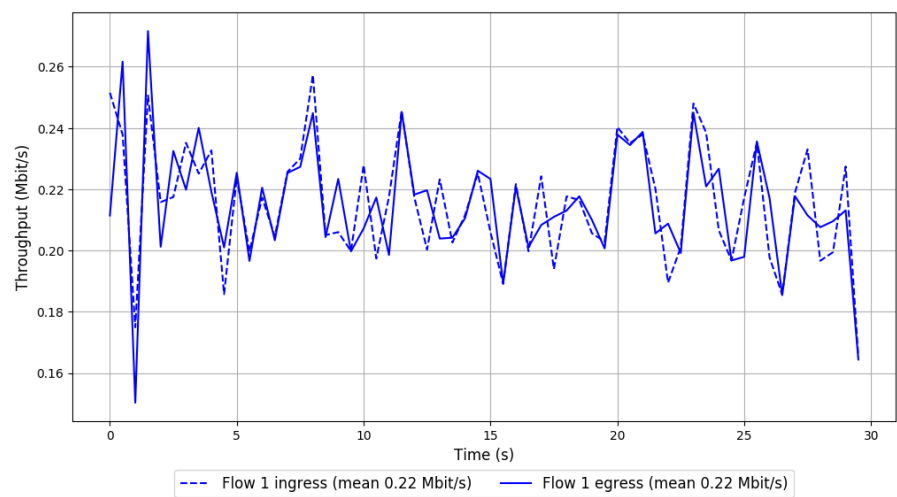
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: Sun, 06 Aug 2017 23:45:39 +0000
End at: Sun, 06 Aug 2017 23:46:09 +0000
Local clock offset: 1.03 ms
Remote clock offset: -5.135 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.754 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.754 ms
Loss rate: 0.26%
```
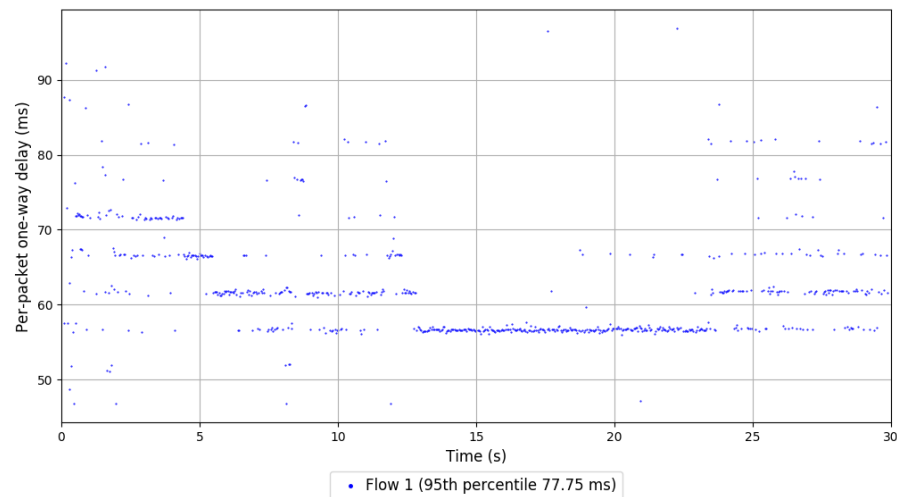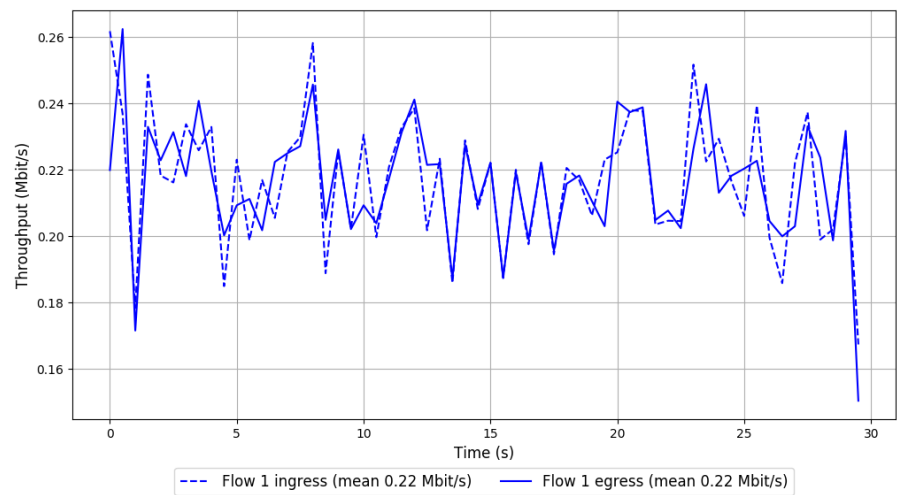
Run 2: Report of SCReAM — Data Link

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

Flow 1 (95th percentile 77.75 ms)

```
Run 3: Statistics of SCReAM

Start at: Mon, 07 Aug 2017 00:05:31 +0000
End at: Mon, 07 Aug 2017 00:06:01 +0000
Local clock offset: -2.093 ms
Remote clock offset: -5.416 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 72.179 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 72.179 ms
Loss rate: 0.13%
```
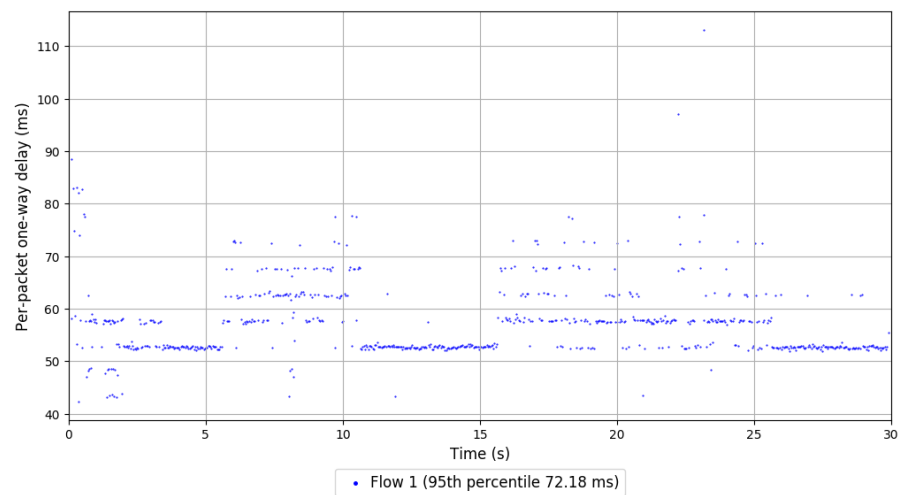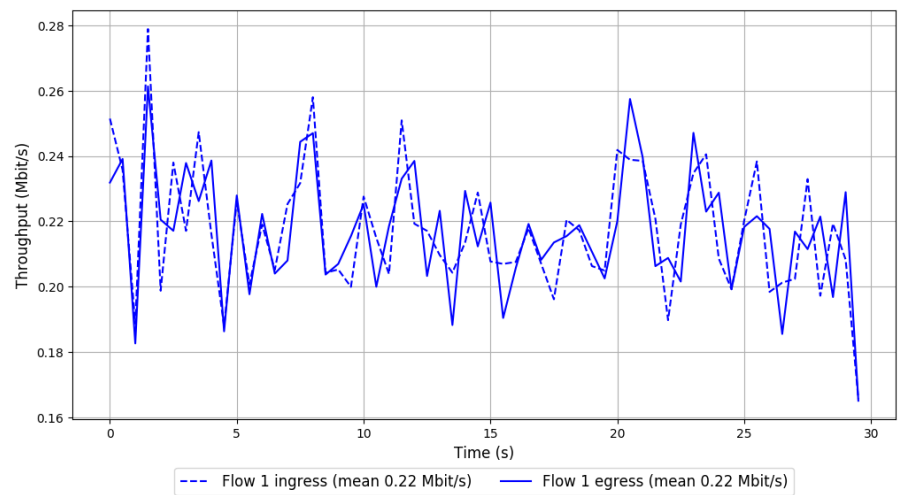
Run 3: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:17:16 +0000
End at: Sun, 06 Aug 2017 23:17:46 +0000
Local clock offset: -1.367 ms
Remote clock offset: -5.613 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:56 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 98.923 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 98.923 ms
Loss rate: 0.07%
```
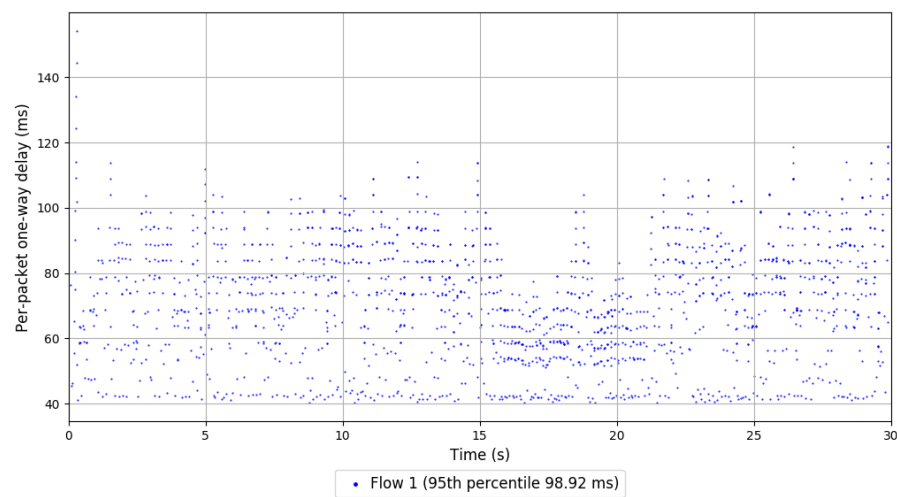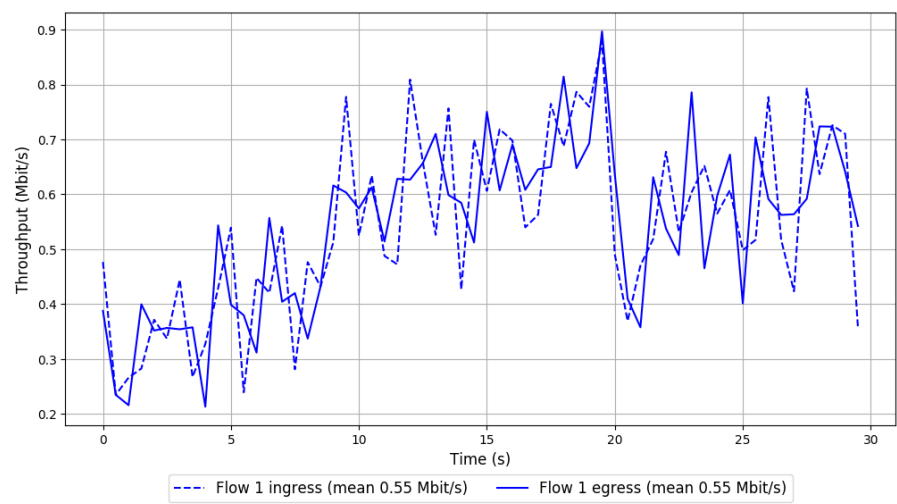
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: Sun, 06 Aug 2017 23:43:58 +0000
End at: Sun, 06 Aug 2017 23:44:28 +0000
Local clock offset: 1.417 ms
Remote clock offset: -4.973 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:56 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 92.927 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 92.927 ms
Loss rate: 0.66%
```
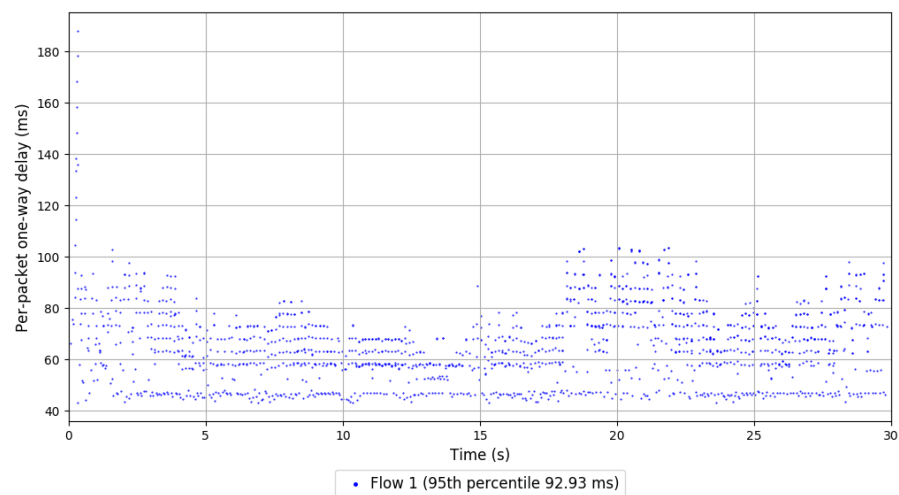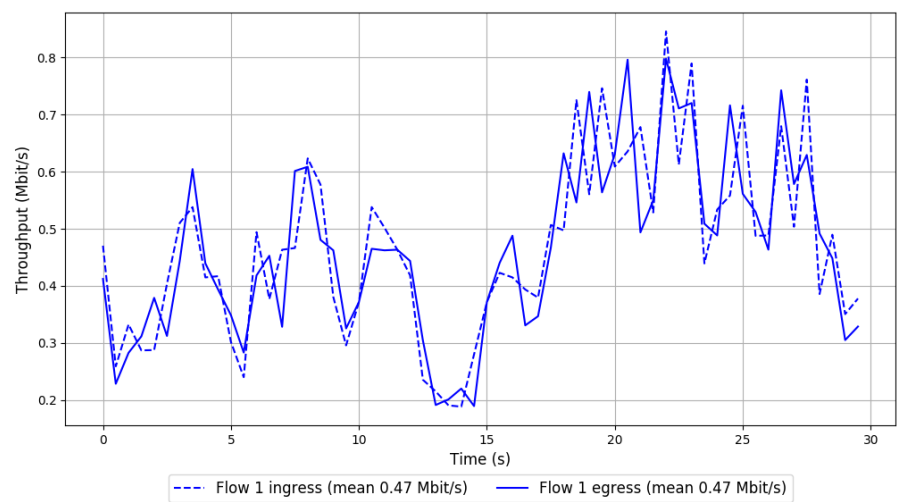
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: Mon, 07 Aug 2017 00:04:20 +0000
End at: Mon, 07 Aug 2017 00:04:50 +0000
Local clock offset: 1.55 ms
Remote clock offset: -5.305 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:57 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 98.892 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 98.892 ms
Loss rate: 0.07%
```
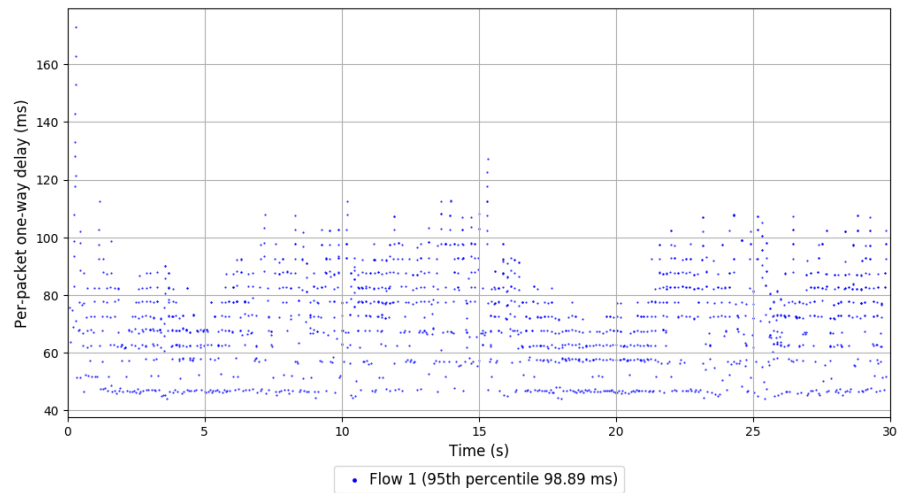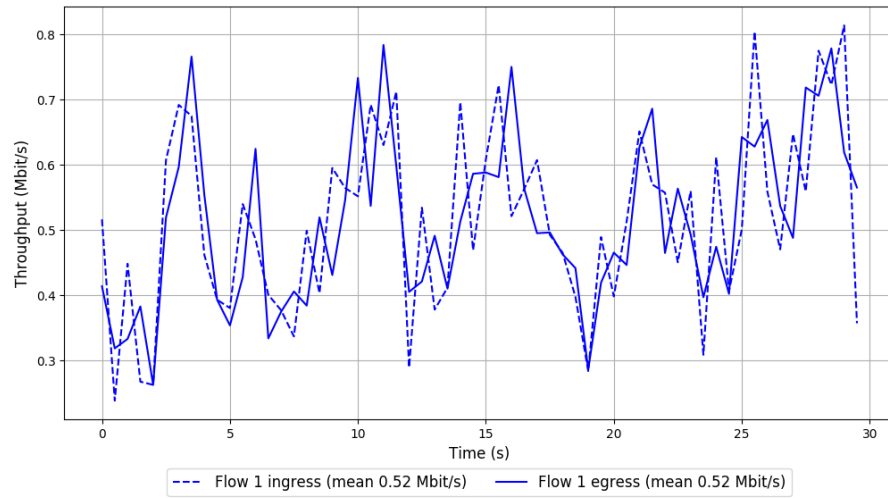
Run 3: Report of Sprout — Data Link

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

Start at: Sun, 06 Aug 2017 23:31:08 +0000
End at: Sun, 06 Aug 2017 23:31:38 +0000
Local clock offset: 2.976 ms
Remote clock offset: -4.957 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:58 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 158.495 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 158.495 ms
Loss rate: 0.86%
```
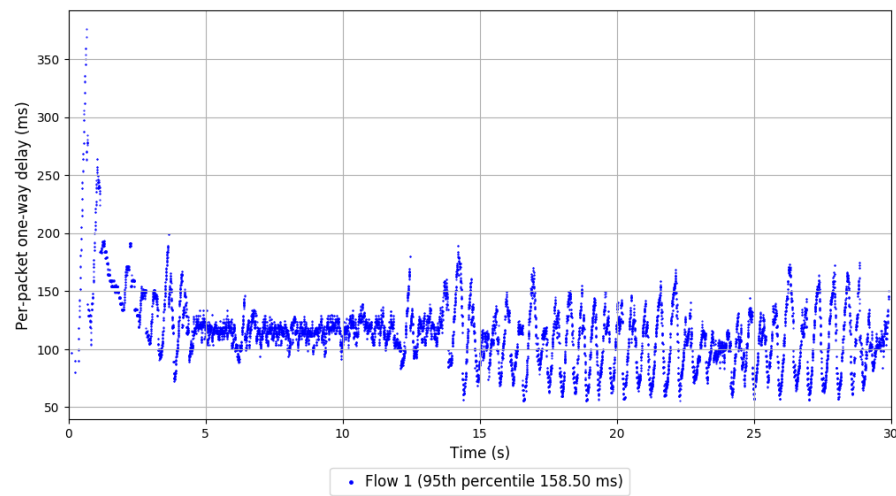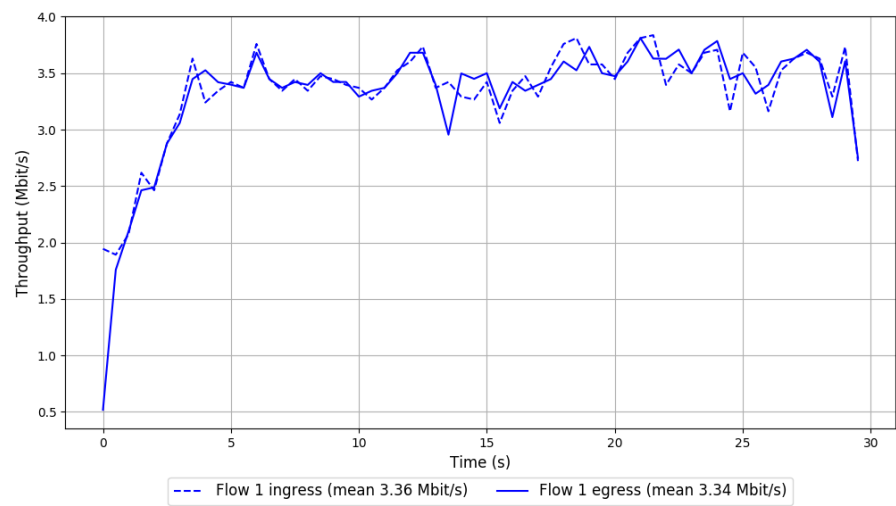
Run 1: Report of TaoVA-100x — Data Link

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

Start at: Sun, 06 Aug 2017 23:54:49 +0000
End at: Sun, 06 Aug 2017 23:55:19 +0000
Local clock offset: 0.562 ms
Remote clock offset: -6.463 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:23:59 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 154.198 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 3.42 Mbit/s
95th percentile per-packet one-way delay: 154.198 ms
Loss rate: 0.90%
```
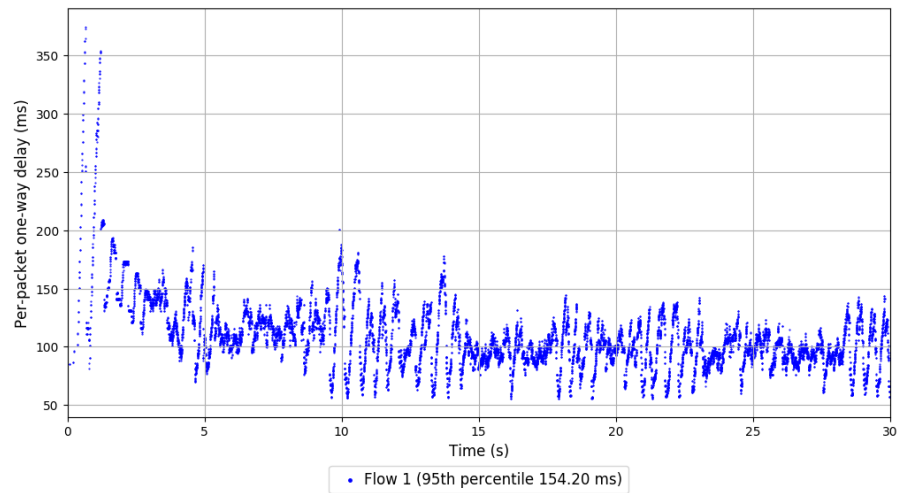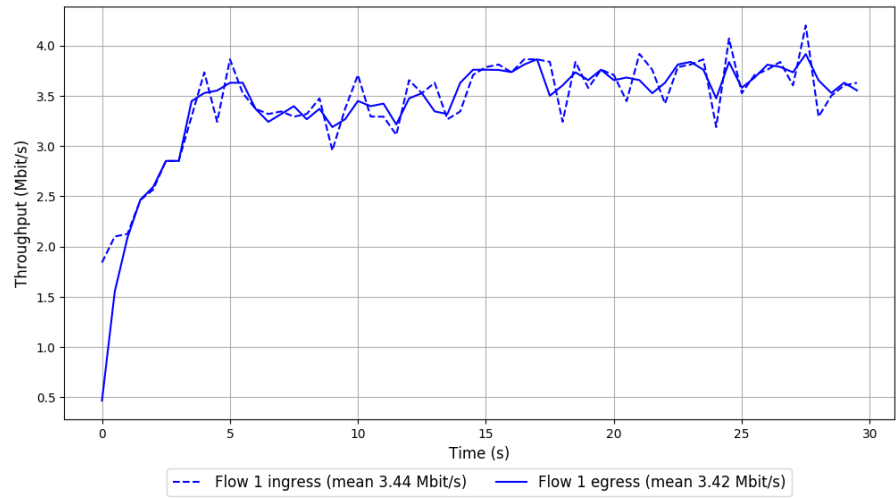
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 3.44 Mbit/s) ---- Flow 1 egress (mean 3.42 Mbit/s)

Flow 1 (95th percentile 154.20 ms)

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

Start at: Mon, 07 Aug 2017 00:16:00 +0000
End at: Mon, 07 Aug 2017 00:16:30 +0000
Local clock offset: -0.451 ms
Remote clock offset: -4.807 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:00 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 144.958 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 3.50 Mbit/s
95th percentile per-packet one-way delay: 144.958 ms
Loss rate: 0.98%
```
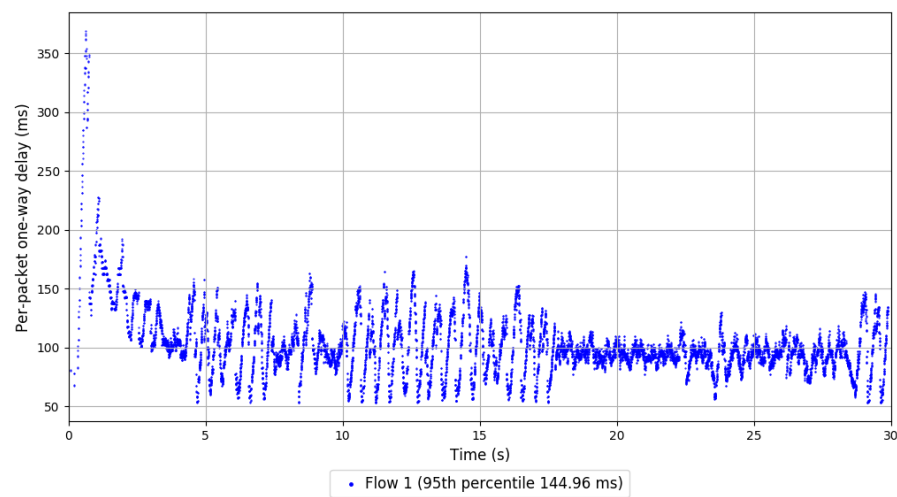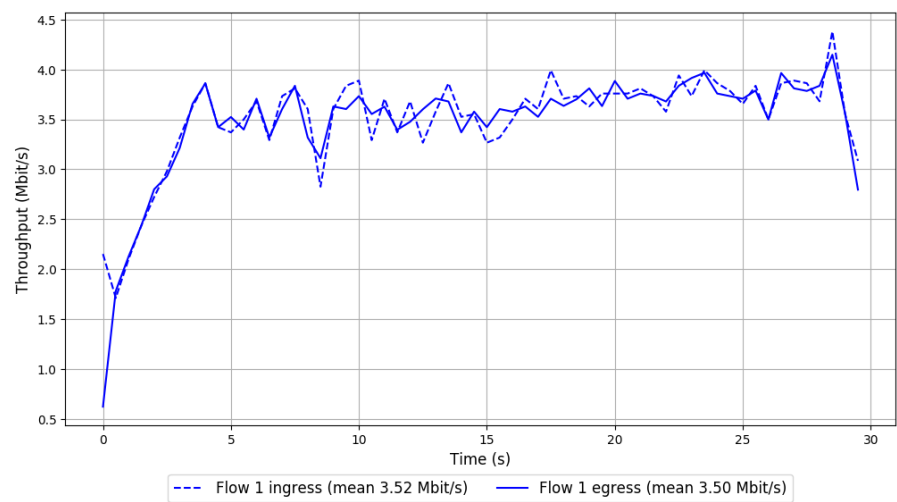
Run 3: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 3.52 Mbit/s) --- Flow 1 egress (mean 3.50 Mbit/s)

Flow 1 (95th percentile 144.96 ms)

```
Run 1: Statistics of TCP Vegas

Start at: Sun, 06 Aug 2017 23:42:39 +0000
End at: Sun, 06 Aug 2017 23:43:09 +0000
Local clock offset: -1.495 ms
Remote clock offset: -4.963 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:00 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 96.055 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 2.98 Mbit/s
95th percentile per-packet one-way delay: 96.055 ms
Loss rate: 0.28%
```
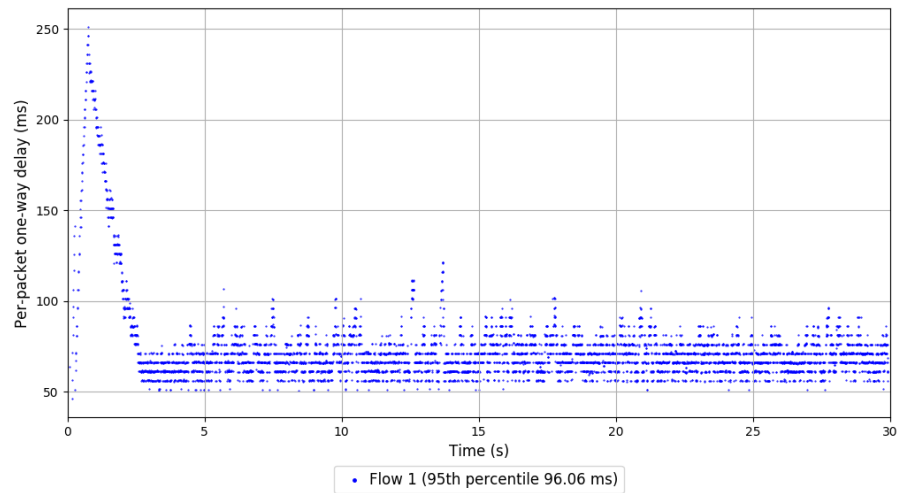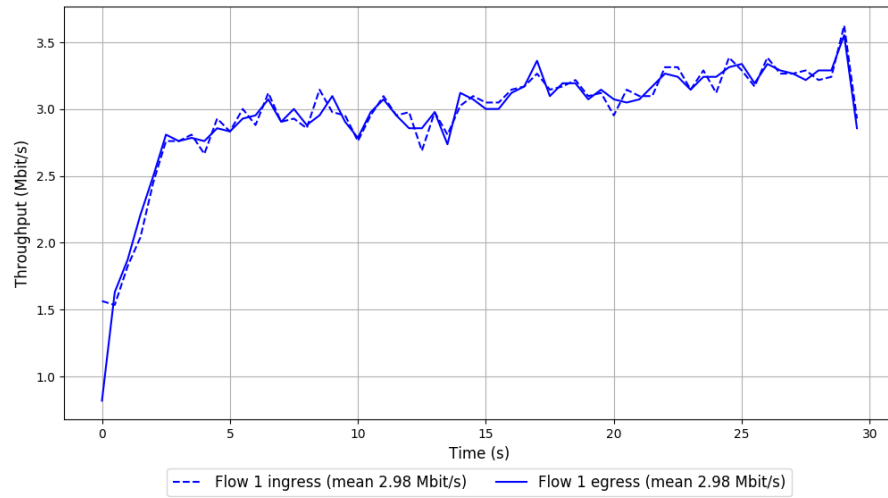
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: Mon, 07 Aug 2017 00:02:40 +0000
End at: Mon, 07 Aug 2017 00:03:10 +0000
Local clock offset: 1.026 ms
Remote clock offset: -5.468 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:01 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 93.305 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 93.305 ms
Loss rate: 0.29%
```
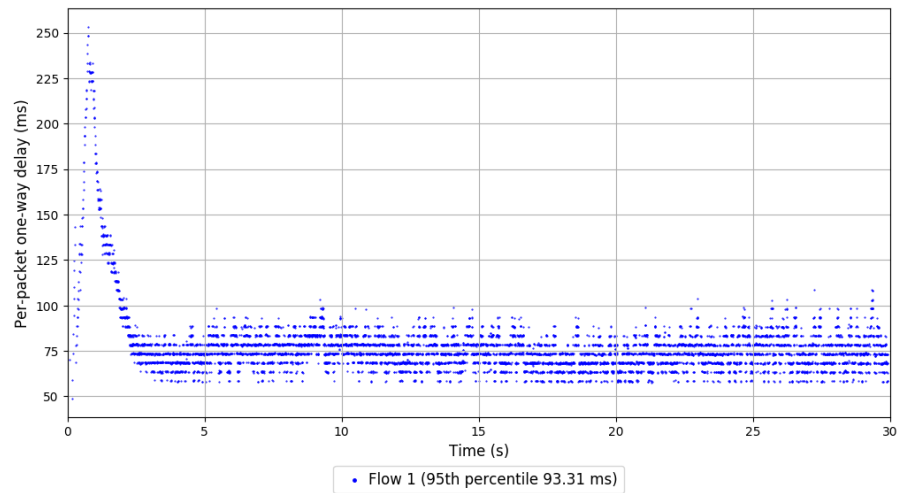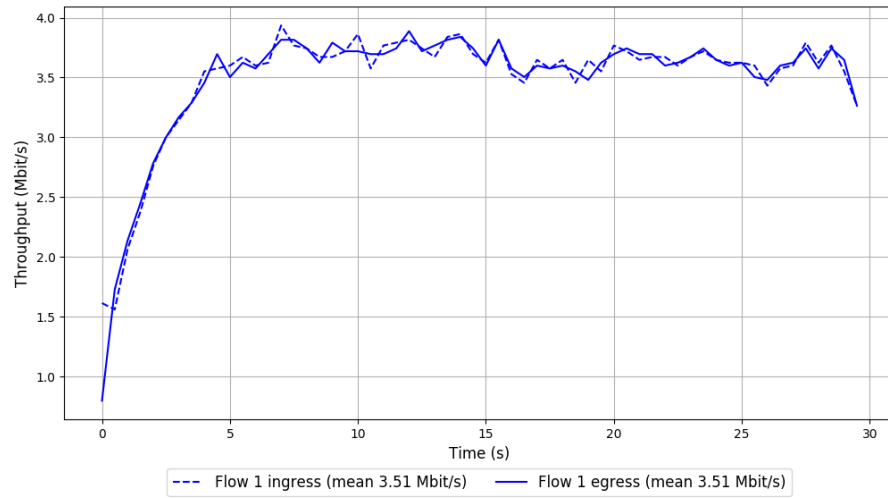
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 3.51 Mbit/s)   Flow 1 egress (mean 3.51 Mbit/s)

Flow 1 (95th percentile 93.31 ms)

```
Run 3: Statistics of TCP Vegas

Start at: Mon, 07 Aug 2017 00:25:41 +0000
End at: Mon, 07 Aug 2017 00:26:11 +0000
Local clock offset: 1.303 ms
Remote clock offset: -5.603 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:02 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 97.394 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 97.394 ms
Loss rate: 0.51%
```
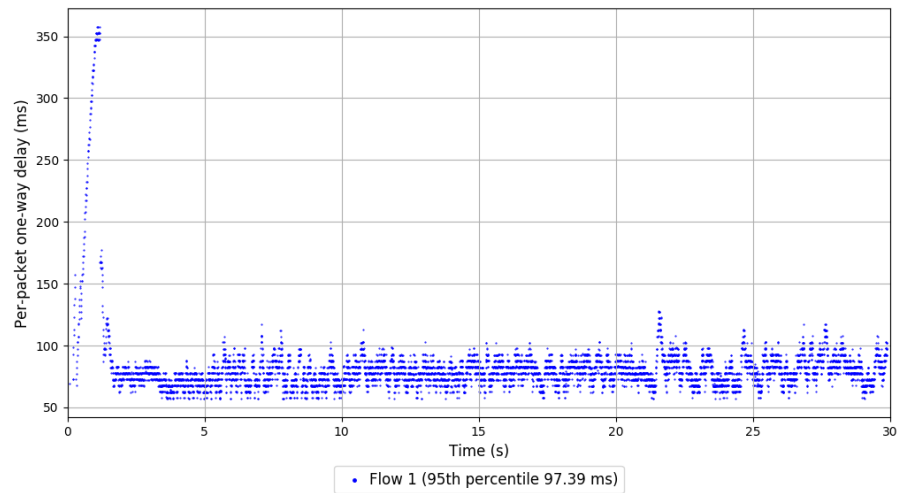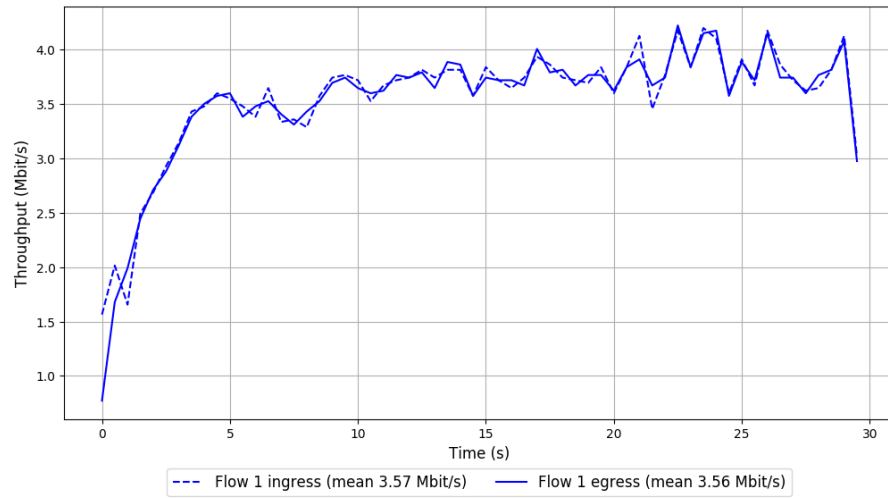
Run 3: Report of TCP Vegas — Data Link

```
Run 1: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:32:55 +0000
End at: Sun, 06 Aug 2017 23:33:25 +0000
Local clock offset: -1.057 ms
Remote clock offset: -4.416 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:03 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 351.235 ms
Loss rate: 33.13%
-- Flow 1:
Average throughput: 3.00 Mbit/s
95th percentile per-packet one-way delay: 351.235 ms
Loss rate: 33.13%
```
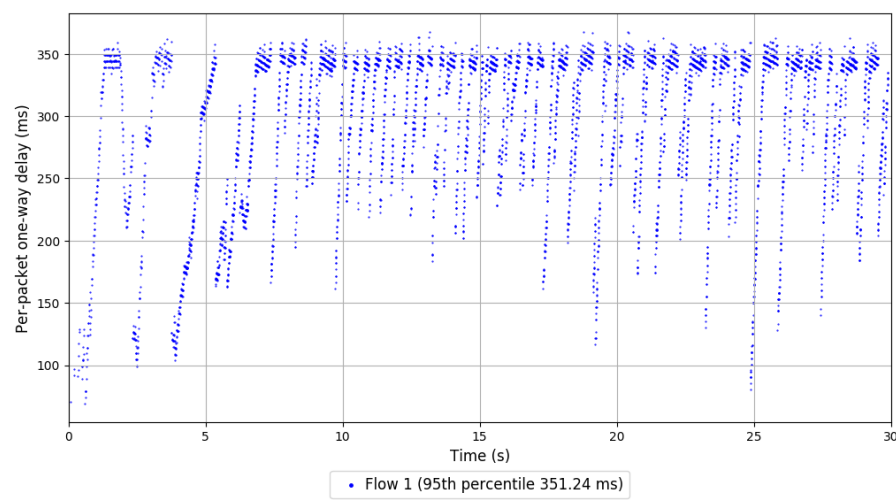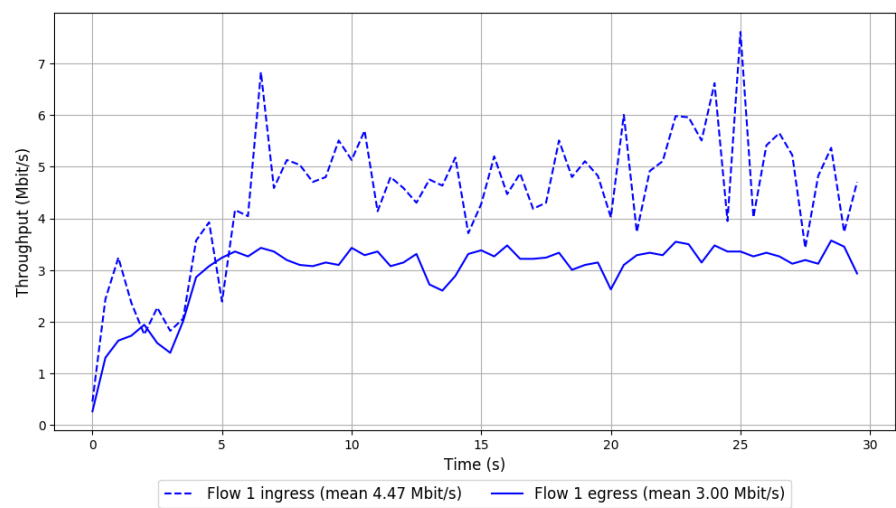
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: Sun, 06 Aug 2017 23:55:55 +0000
End at: Sun, 06 Aug 2017 23:56:25 +0000
Local clock offset: 1.044 ms
Remote clock offset: -5.393 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:03 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 352.532 ms
Loss rate: 60.82%
-- Flow 1:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 352.532 ms
Loss rate: 60.82%
```
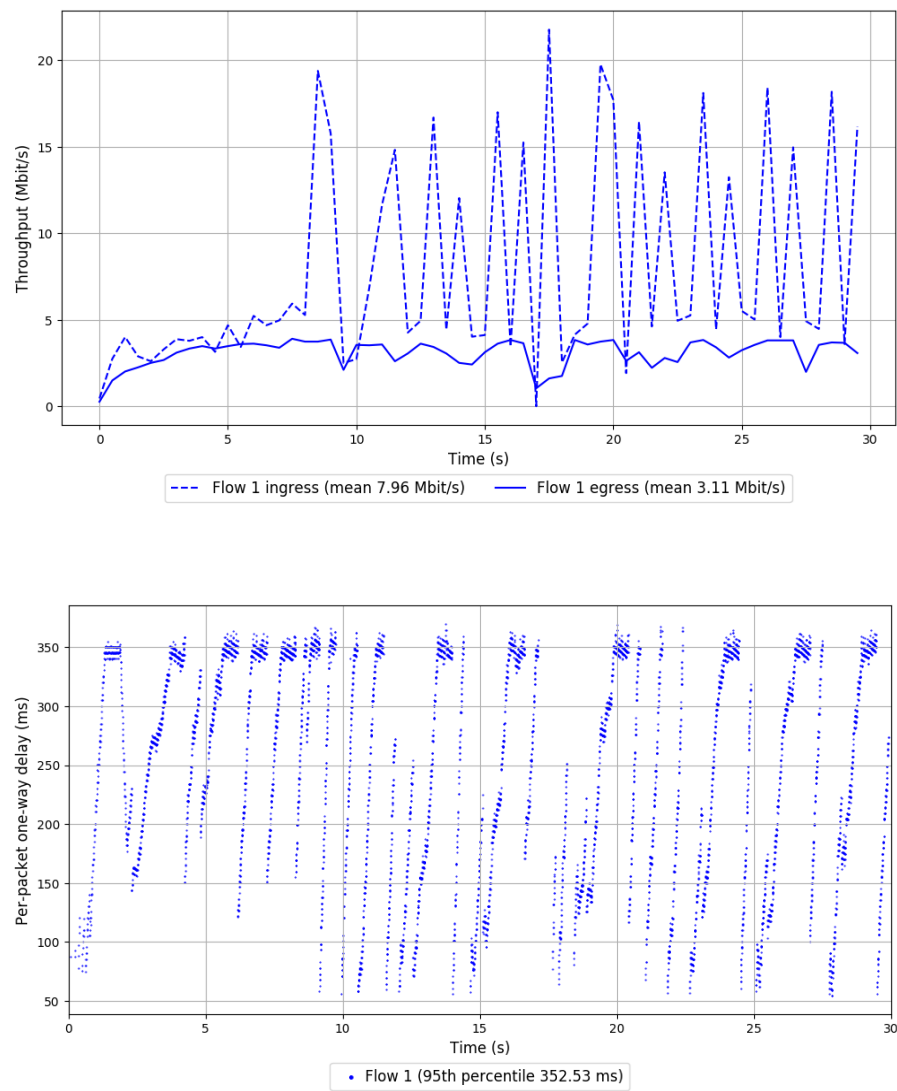
Run 2: Report of Verus — Data Link

Flow 1 ingress (mean 7.96 Mbit/s) --- Flow 1 egress (mean 3.11 Mbit/s)

• Flow 1 (95th percentile 352.53 ms)

```
Run 3: Statistics of Verus

Start at: Mon, 07 Aug 2017 00:17:38 +0000
End at: Mon, 07 Aug 2017 00:18:08 +0000
Local clock offset: -0.242 ms
Remote clock offset: -4.714 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:04 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 352.960 ms
Loss rate: 26.58%
-- Flow 1:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 352.960 ms
Loss rate: 26.58%
```
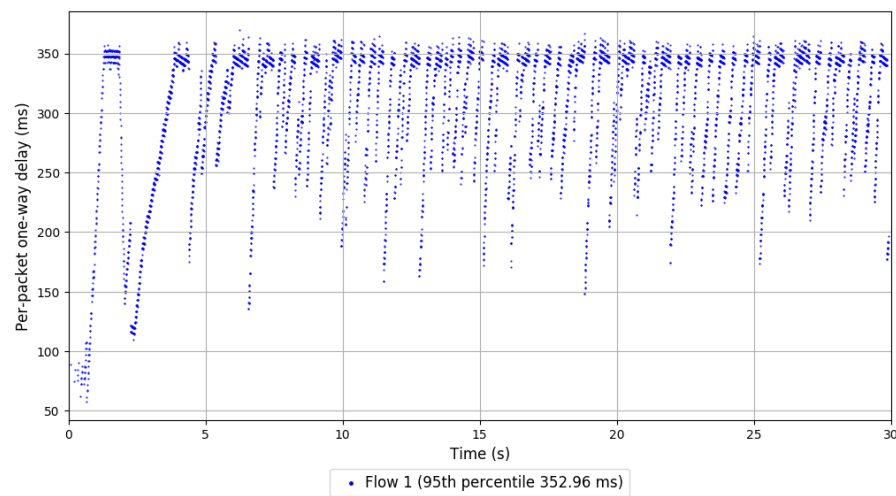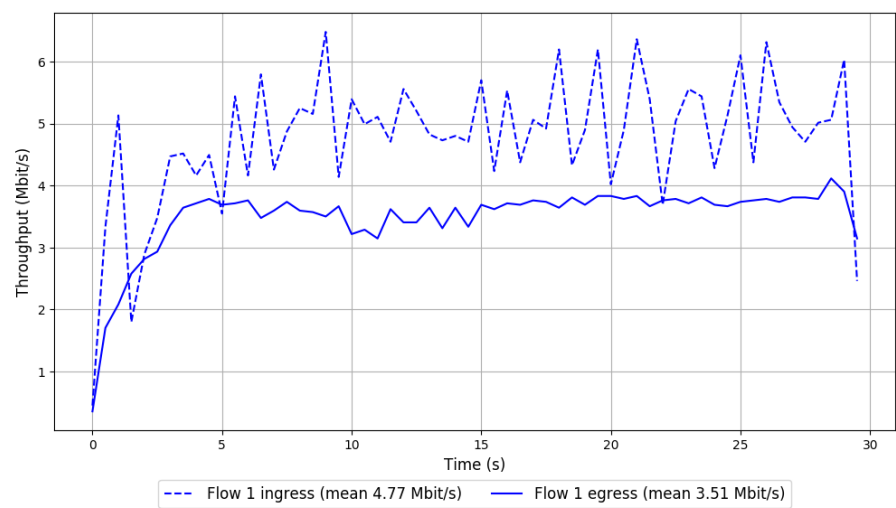
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 4.77 Mbit/s)   Flow 1 egress (mean 3.51 Mbit/s)

• Flow 1 (95th percentile 352.96 ms)

```
Run 1: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:37:22 +0000
End at: Sun, 06 Aug 2017 23:37:52 +0000
Local clock offset: 1.293 ms
Remote clock offset: -5.556 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:05 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 89.151 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 89.151 ms
Loss rate: 0.28%
```
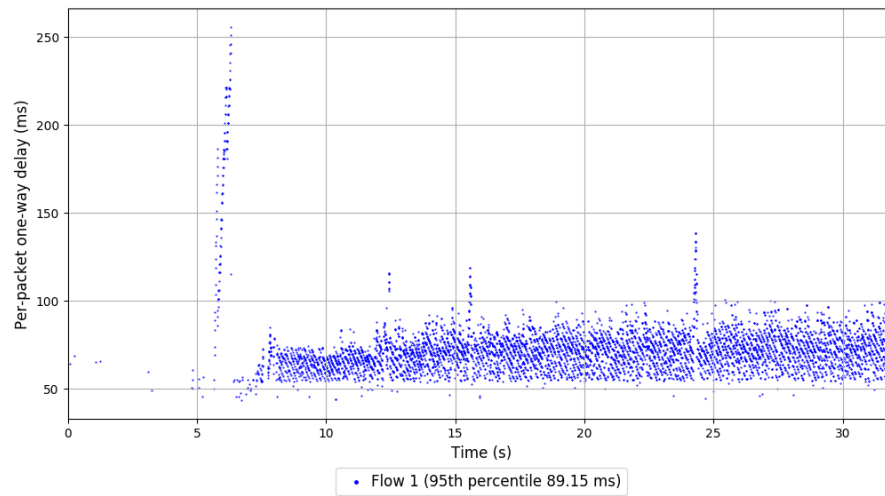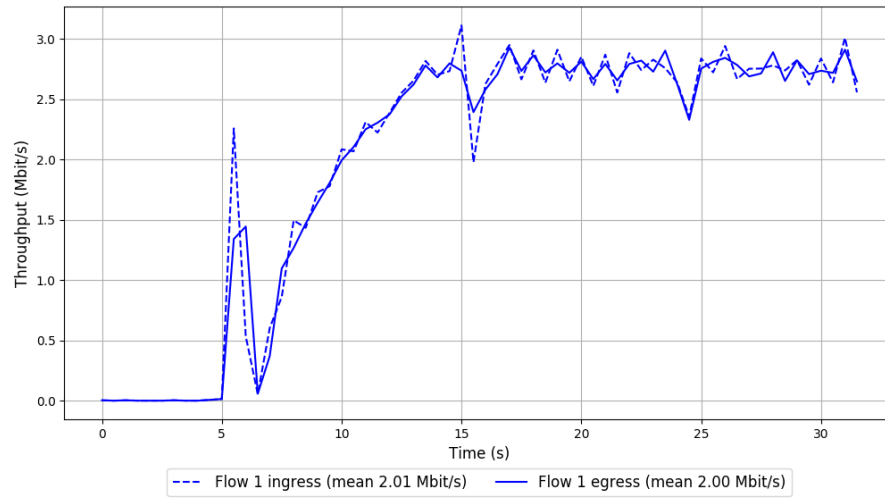
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: Sun, 06 Aug 2017 23:58:06 +0000
End at: Sun, 06 Aug 2017 23:58:36 +0000
Local clock offset: -1.226 ms
Remote clock offset: -5.153 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:05 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 87.002 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 87.002 ms
Loss rate: 0.29%
```
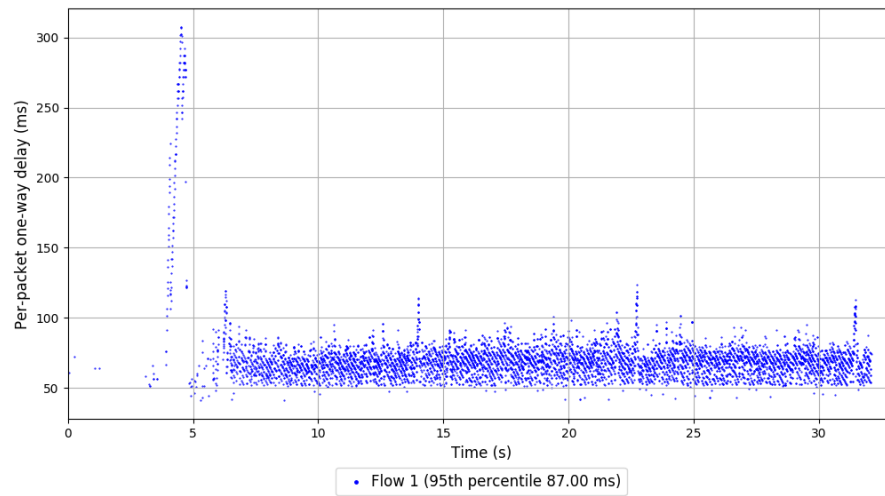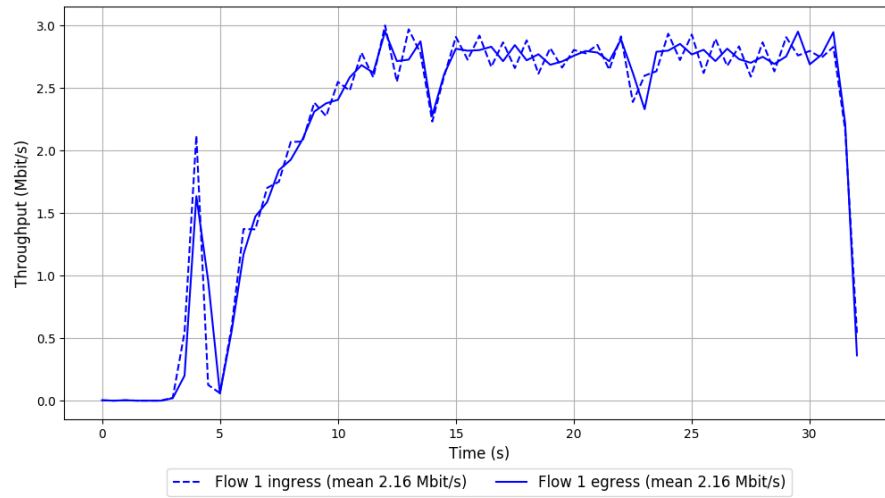
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: Mon, 07 Aug 2017 00:21:22 +0000
End at: Mon, 07 Aug 2017 00:21:52 +0000
Local clock offset: -2.93 ms
Remote clock offset: -6.089 ms


# Below is generated by plot.py at Mon, 07 Aug 2017 01:24:06 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 87.916 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 87.916 ms
Loss rate: 0.22%
```

Run 3: Report of WebRTC media — Data Link