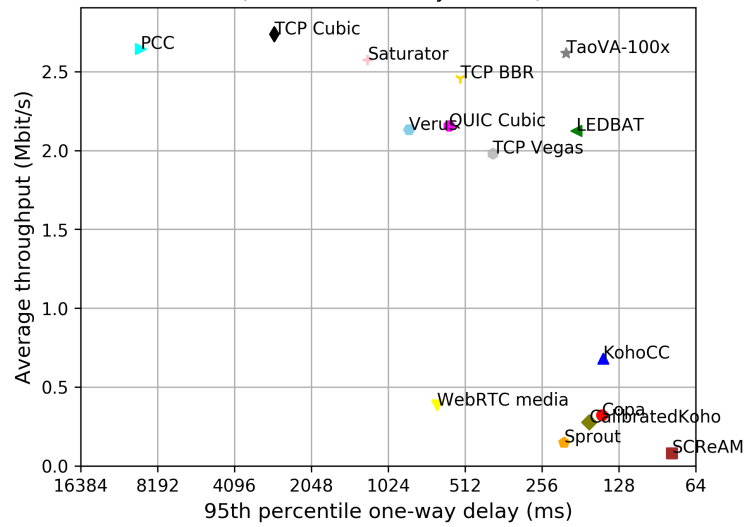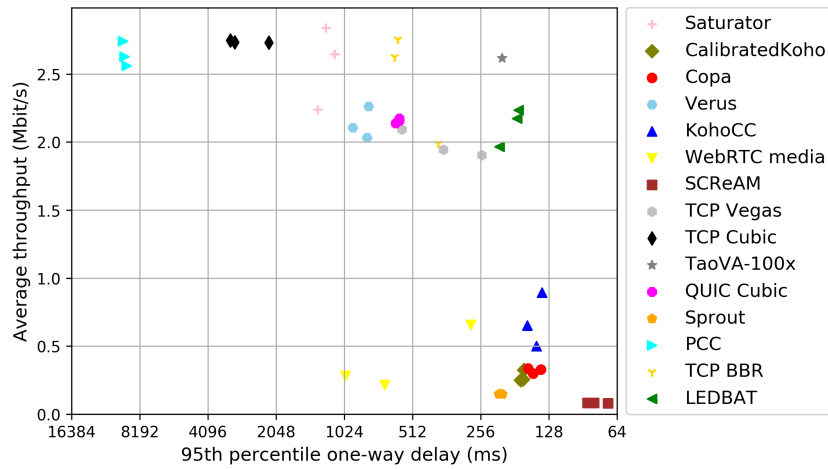**Pantheon Summary** (Generated at Thu, 03 Aug 2017 09:04:21 +0000 with pantheon version `33c7b8d34ce04c76596315aa973f0b30d6129d55`)

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 @ 33c7b8d34ce04c76596315aa973f0b30d6129d55
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	2.46	534.42	1.26
CalibratedKoho	3	0.28	167.29	1.17
Copa	3	0.32	149.07	0.53
TCP Cubic	3	2.74	2863.34	12.66
KohoCC	3	0.68	147.37	0.55
LEDBAT	3	2.13	187.64	1.03
PCC	3	2.64	9547.85	88.72
QUIC Cubic	3	2.16	592.91	2.92
Saturator	3	2.57	1234.64	6.08
SCReAM	3	0.08	79.30	0.33
Sprout	3	0.15	209.95	0.65
TaoVA-100x	3	2.62	206.35	0.82
TCP Vegas	3	1.98	399.41	0.58
Verus	3	2.13	850.90	13.94
WebRTC media	3	0.39	658.78	1.18

```
Run 1: Statistics of TCP BBR

Start at: Thu, 03 Aug 2017 08:12:34 +0000
End at: Thu, 03 Aug 2017 08:13:04 +0000
Local clock offset: 0.201 ms
Remote clock offset: -0.503 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:51 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 593.849 ms
Loss rate: 1.35%
-- Flow 1:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 593.849 ms
Loss rate: 1.35%
```
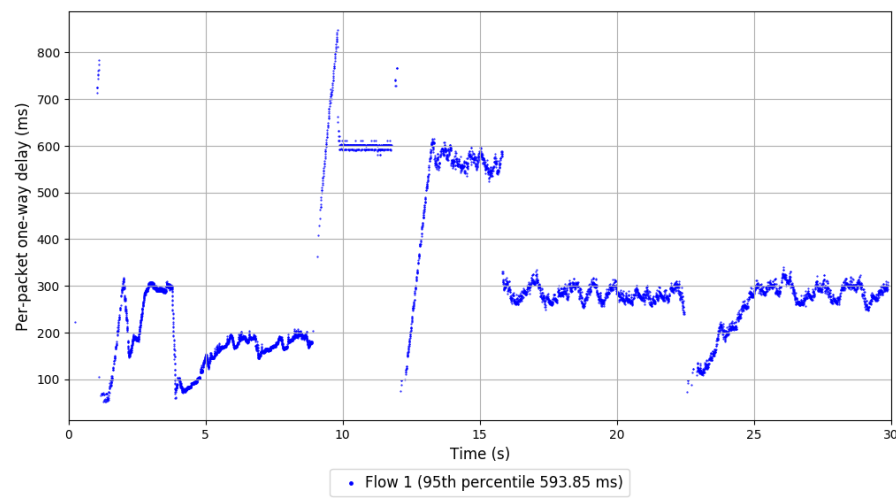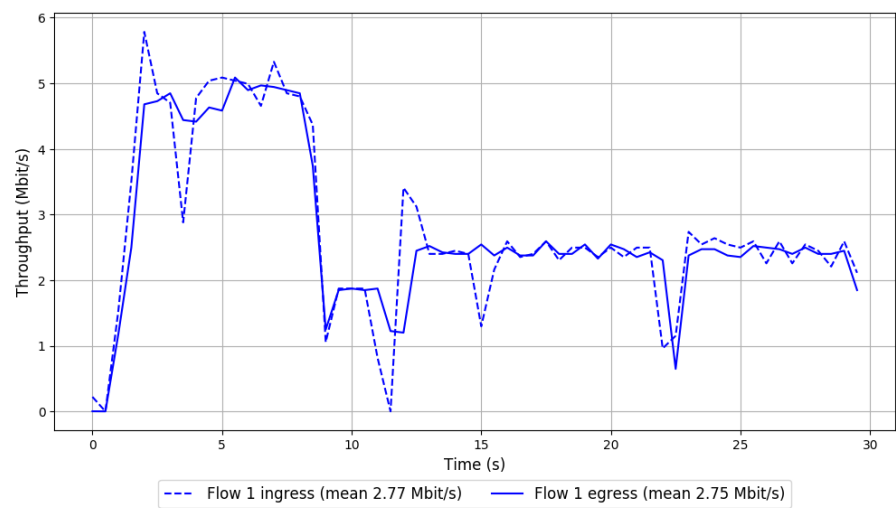
Run 1: Report of TCP BBR — Data Link

```
Run 2: Statistics of TCP BBR

Start at: Thu, 03 Aug 2017 08:32:03 +0000
End at: Thu, 03 Aug 2017 08:32:33 +0000
Local clock offset: 0.386 ms
Remote clock offset: -0.521 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:51 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 395.025 ms
Loss rate: 1.52%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 395.025 ms
Loss rate: 1.52%
```
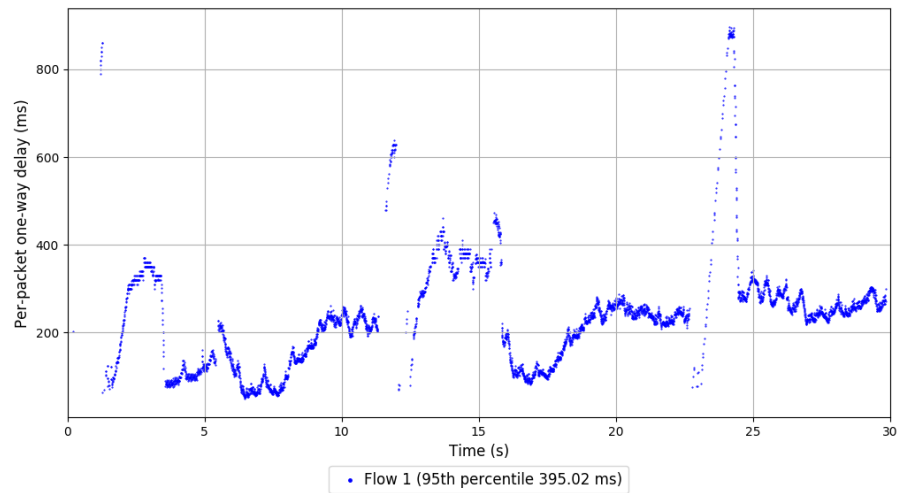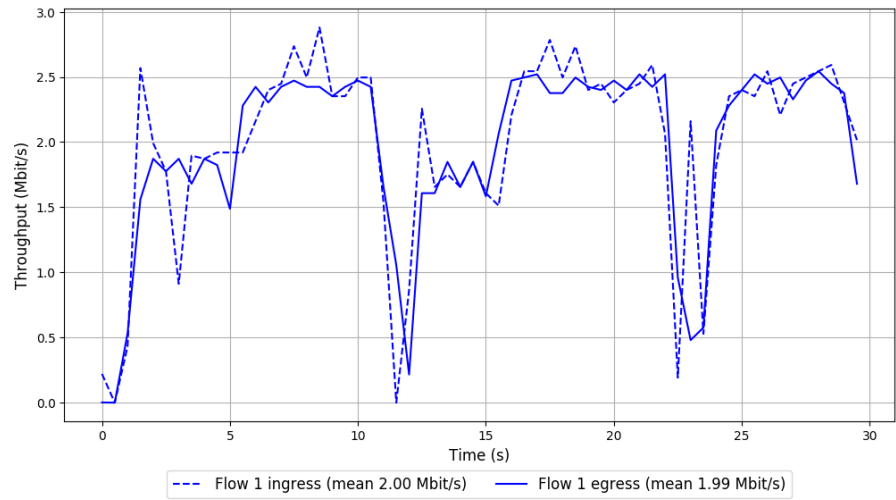
Run 2: Report of TCP BBR — Data Link

```
Run 3: Statistics of TCP BBR

Start at: Thu, 03 Aug 2017 08:51:28 +0000
End at: Thu, 03 Aug 2017 08:51:58 +0000
Local clock offset: 0.472 ms
Remote clock offset: -2.811 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 614.379 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 614.379 ms
Loss rate: 0.90%
```
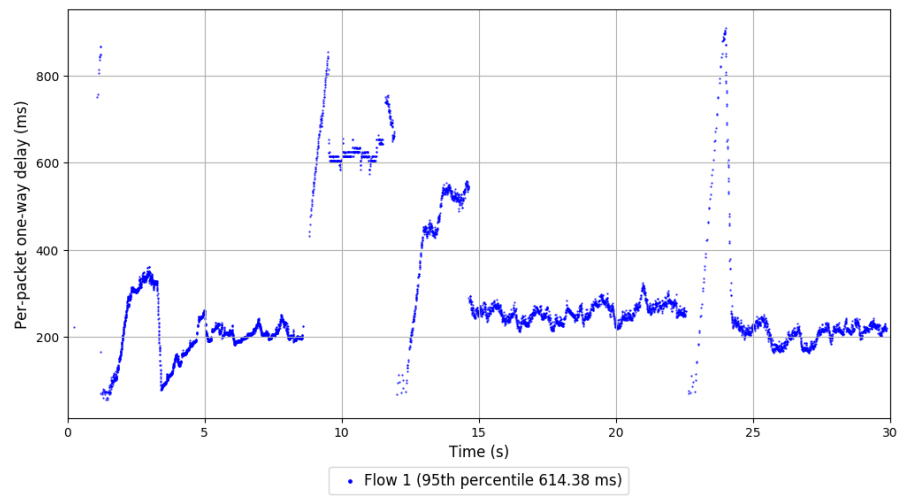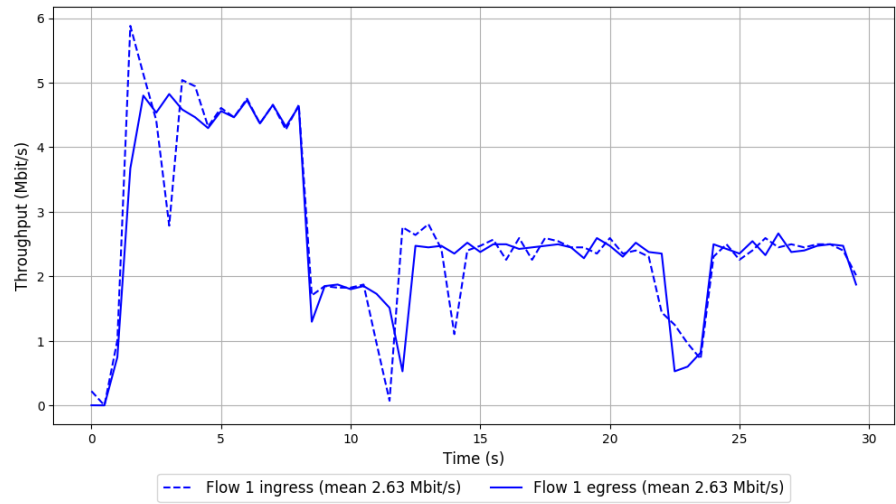
Run 3: Report of TCP BBR — Data Link

```
Run 1: Statistics of CalibratedKoho

Start at: Thu, 03 Aug 2017 08:16:27 +0000
End at: Thu, 03 Aug 2017 08:16:57 +0000
Local clock offset: 0.225 ms
Remote clock offset: -0.655 ms

# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 170.457 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 170.457 ms
Loss rate: 1.14%
```
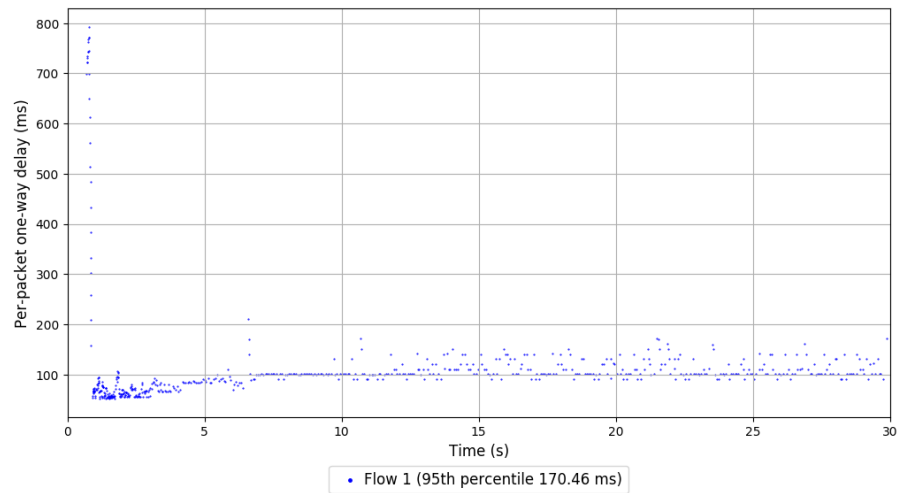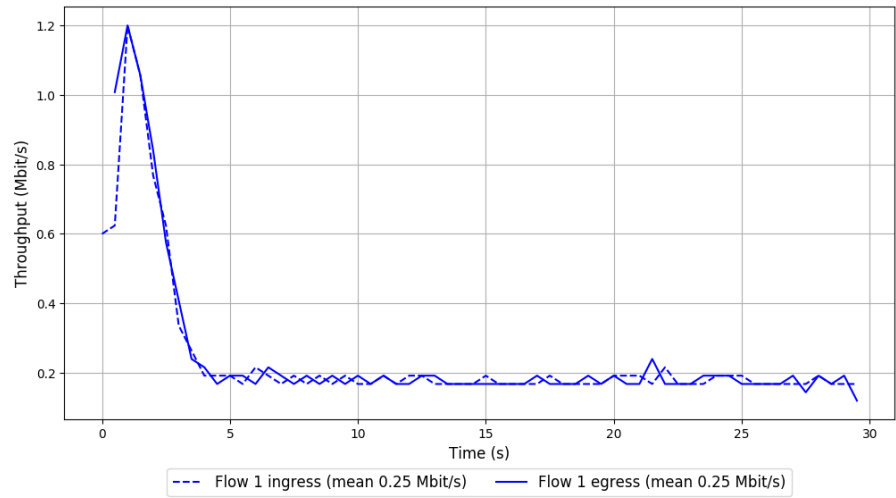
Run 1: Report of CalibratedKoho — Data Link

```
Run 2: Statistics of CalibratedKoho

Start at: Thu, 03 Aug 2017 08:35:55 +0000
End at: Thu, 03 Aug 2017 08:36:25 +0000
Local clock offset: 0.399 ms
Remote clock offset: -1.028 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:53 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 164.609 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 164.609 ms
Loss rate: 1.25%
```
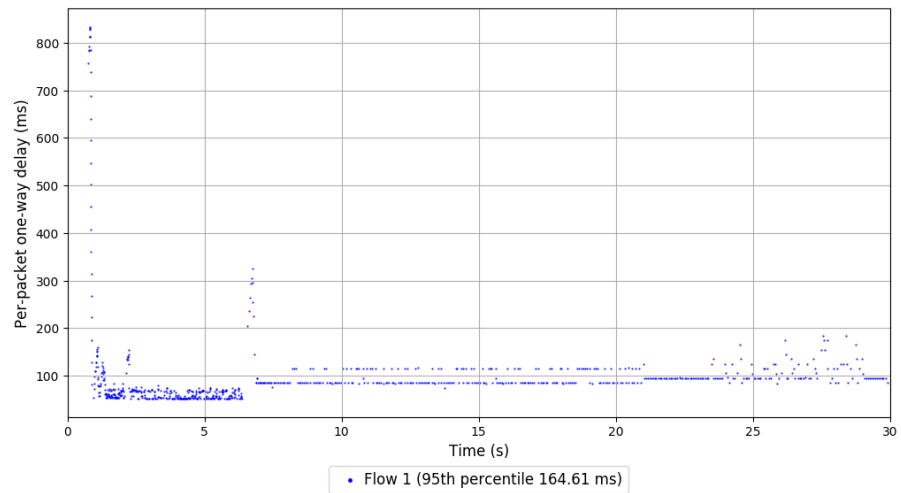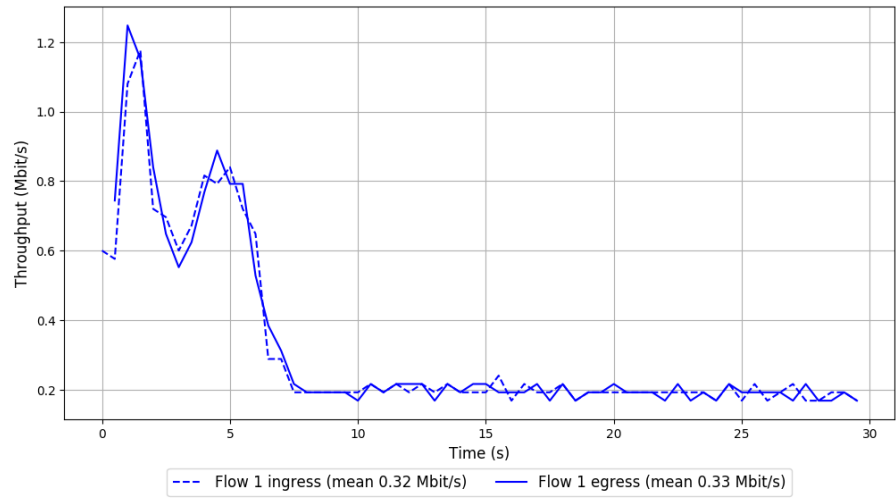
Run 2: Report of CalibratedKoho — Data Link

```
Run 3: Statistics of CalibratedKoho

Start at: Thu, 03 Aug 2017 08:55:21 +0000
End at: Thu, 03 Aug 2017 08:55:51 +0000
Local clock offset: 0.432 ms
Remote clock offset: -0.17 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:54 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 166.814 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 166.814 ms
Loss rate: 1.11%
```
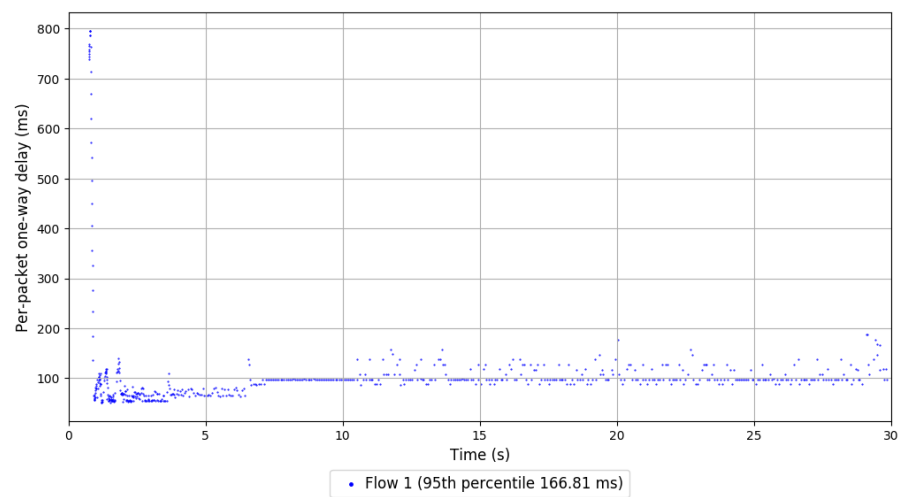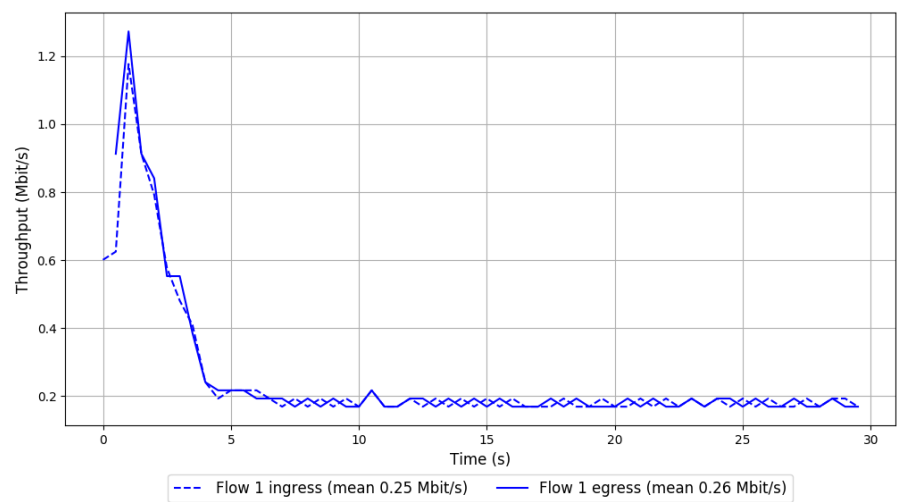
Run 3: Report of CalibratedKoho — Data Link

Flow 1 ingress (mean 0.25 Mbit/s)   Flow 1 egress (mean 0.26 Mbit/s)

Flow 1 (95th percentile 166.81 ms)

```
Run 1: Statistics of Copa

Start at: Thu, 03 Aug 2017 08:09:59 +0000
End at: Thu, 03 Aug 2017 08:10:29 +0000
Local clock offset: 0.29 ms
Remote clock offset: -1.084 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:54 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 158.098 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 158.098 ms
Loss rate: 0.75%
```
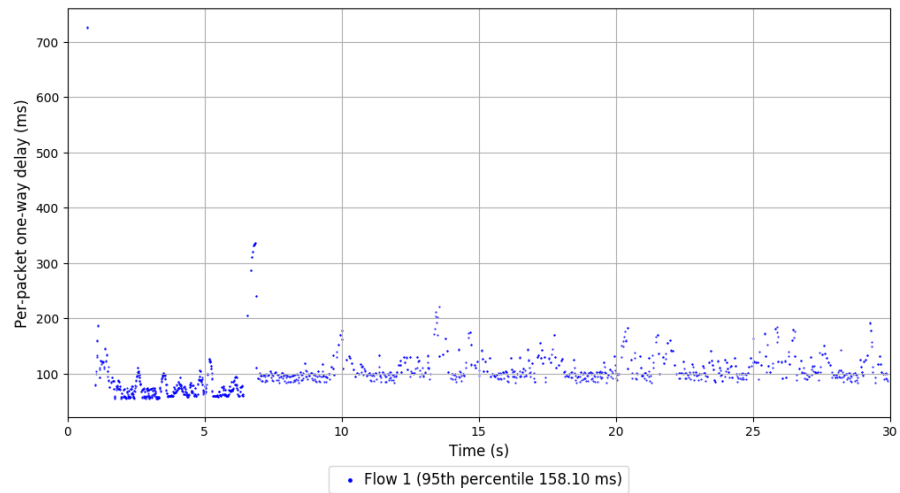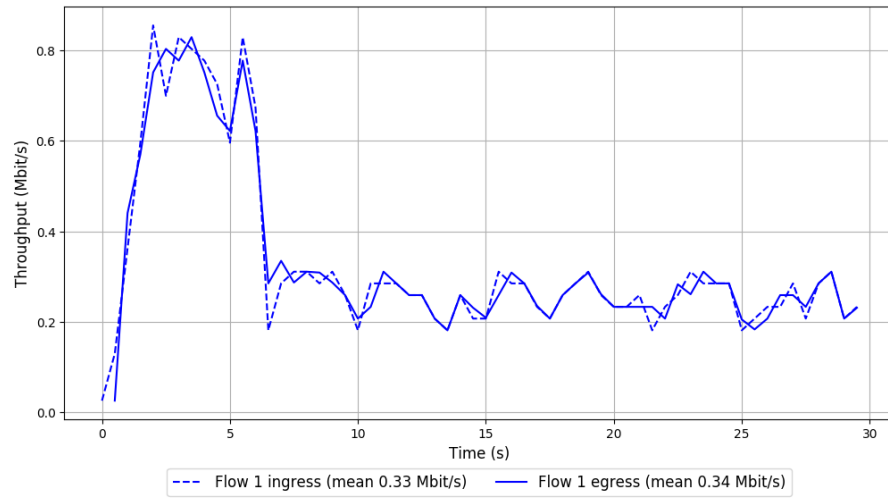
Run 1: Report of Copa — Data Link

```
Run 2: Statistics of Copa

Start at: Thu, 03 Aug 2017 08:29:27 +0000
End at: Thu, 03 Aug 2017 08:29:57 +0000
Local clock offset: 0.365 ms
Remote clock offset: -0.502 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:55 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 150.233 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 150.233 ms
Loss rate: 0.43%
```
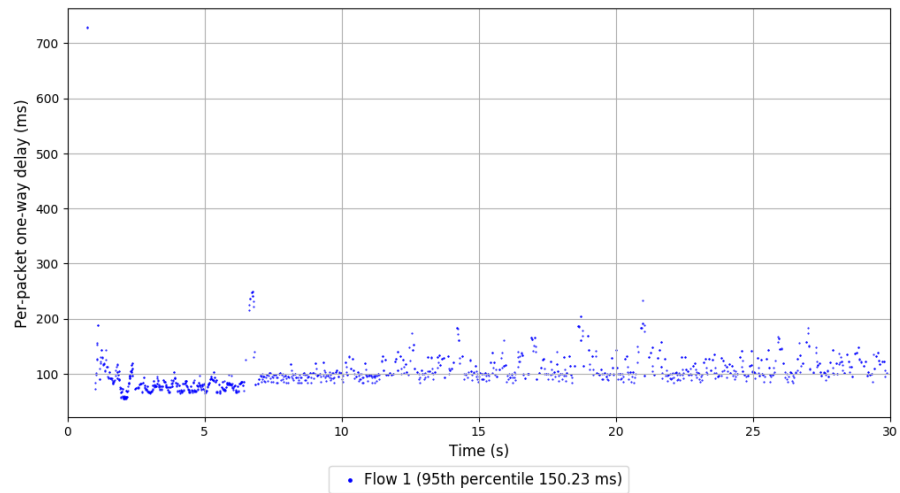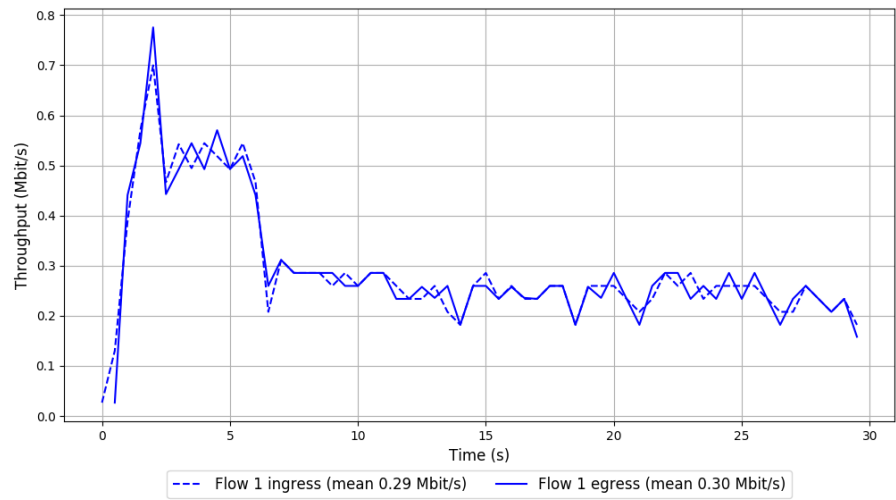
Run 2: Report of Copa — Data Link

Flow 1 ingress (mean 0.29 Mbit/s) ---- Flow 1 egress (mean 0.30 Mbit/s)

• Flow 1 (95th percentile 150.23 ms)

```
Run 3: Statistics of Copa

Start at: Thu, 03 Aug 2017 08:48:53 +0000
End at: Thu, 03 Aug 2017 08:49:23 +0000
Local clock offset: 0.366 ms
Remote clock offset: -0.242 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:56 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 138.872 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 138.872 ms
Loss rate: 0.41%
```
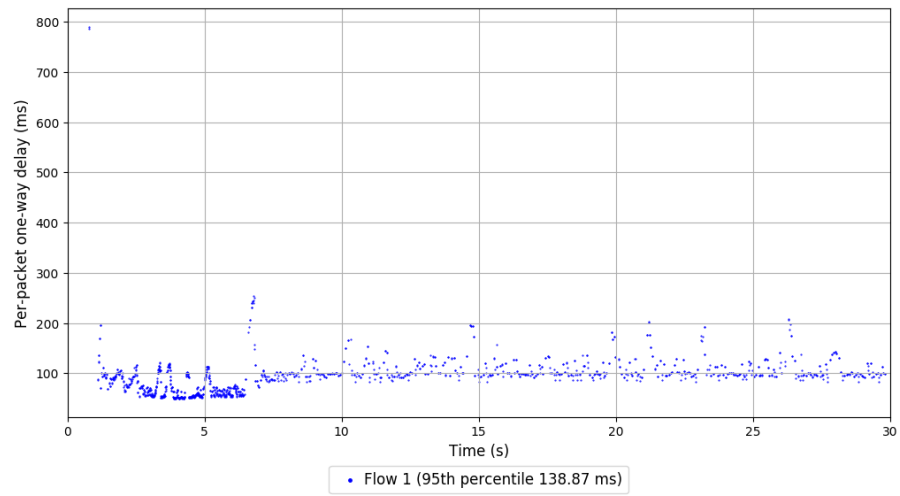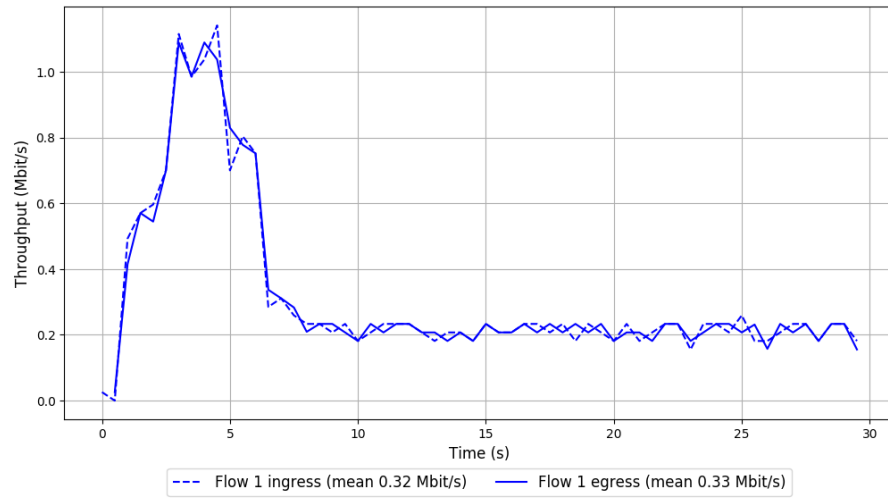
Run 3: Report of Copa — Data Link

Flow 1 ingress (mean 0.32 Mbit/s) --- Flow 1 egress (mean 0.33 Mbit/s)

• Flow 1 (95th percentile 138.87 ms)

```
Run 1: Statistics of TCP Cubic

Start at: Thu, 03 Aug 2017 08:08:41 +0000
End at: Thu, 03 Aug 2017 08:09:11 +0000
Local clock offset: 0.201 ms
Remote clock offset: -3.29 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:56 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 3124.953 ms
Loss rate: 14.73%
-- Flow 1:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 3124.953 ms
Loss rate: 14.73%
```
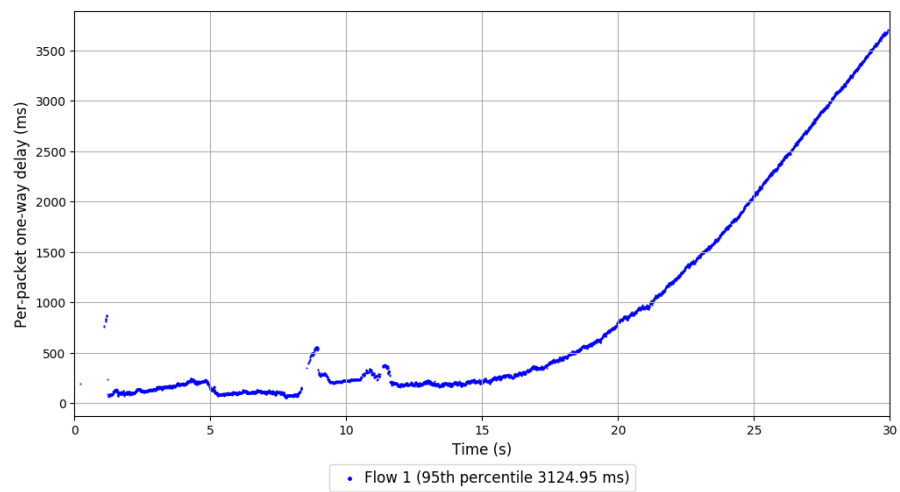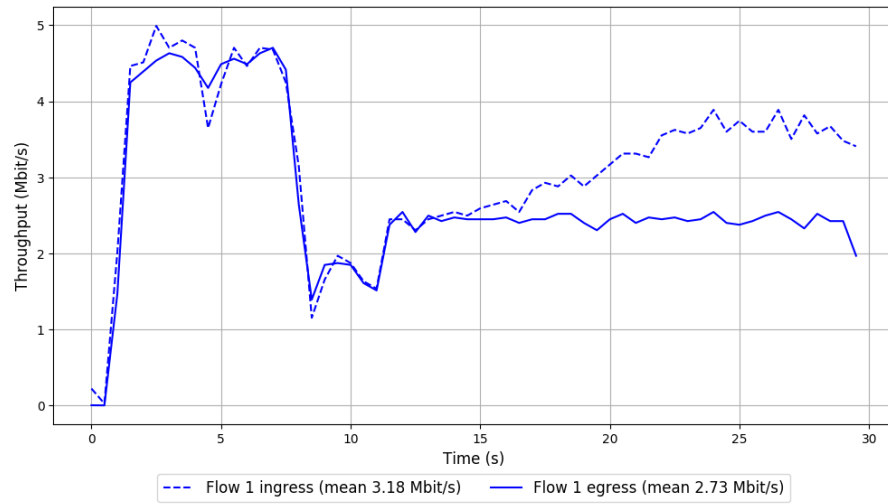
Run 1: Report of TCP Cubic — Data Link

```
Run 2: Statistics of TCP Cubic

Start at: Thu, 03 Aug 2017 08:28:09 +0000
End at: Thu, 03 Aug 2017 08:28:39 +0000
Local clock offset: 0.259 ms
Remote clock offset: -0.552 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:57 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 3258.664 ms
Loss rate: 11.77%
-- Flow 1:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 3258.664 ms
Loss rate: 11.77%
```
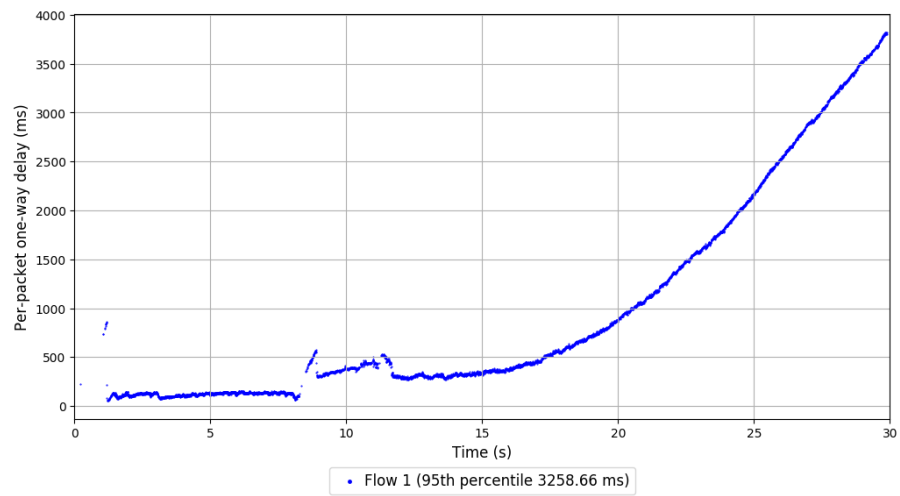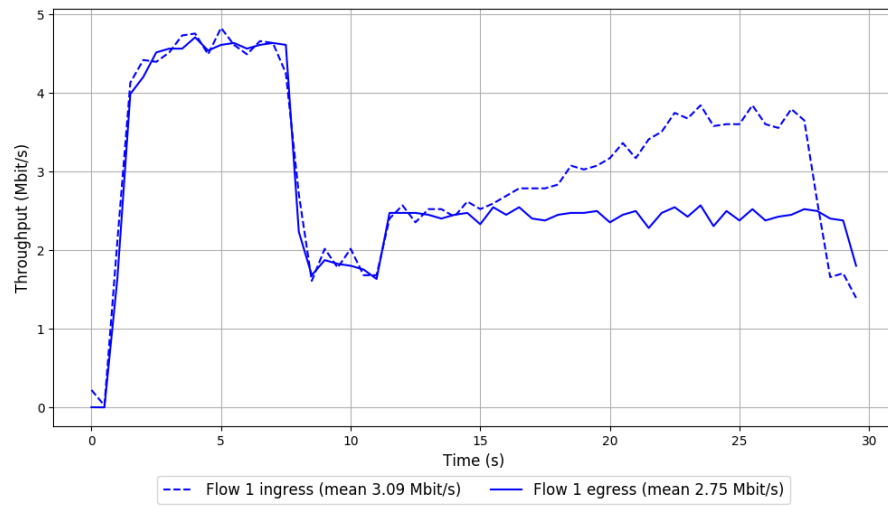
Run 2: Report of TCP Cubic — Data Link

```
Run 3: Statistics of TCP Cubic

Start at: Thu, 03 Aug 2017 08:47:35 +0000
End at: Thu, 03 Aug 2017 08:48:05 +0000
Local clock offset: 0.364 ms
Remote clock offset: -2.825 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:57 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 2206.389 ms
Loss rate: 11.47%
-- Flow 1:
Average throughput: 2.73 Mbit/s
95th percentile per-packet one-way delay: 2206.389 ms
Loss rate: 11.47%
```
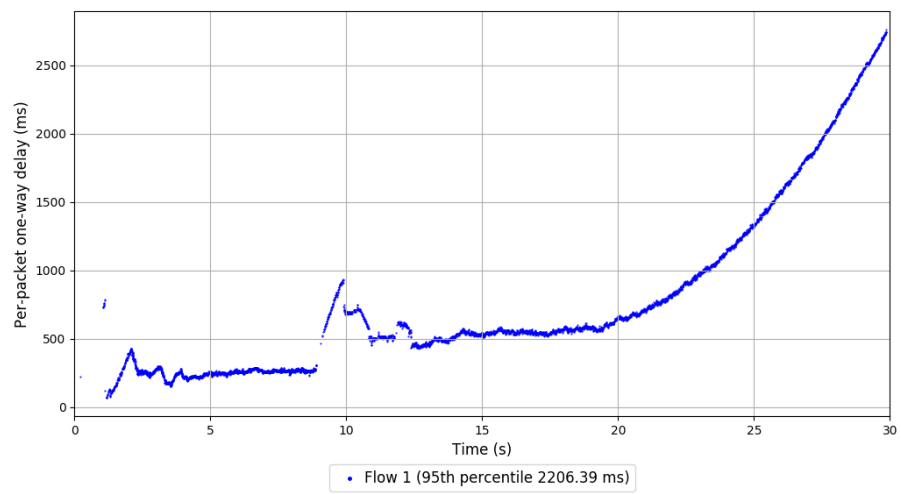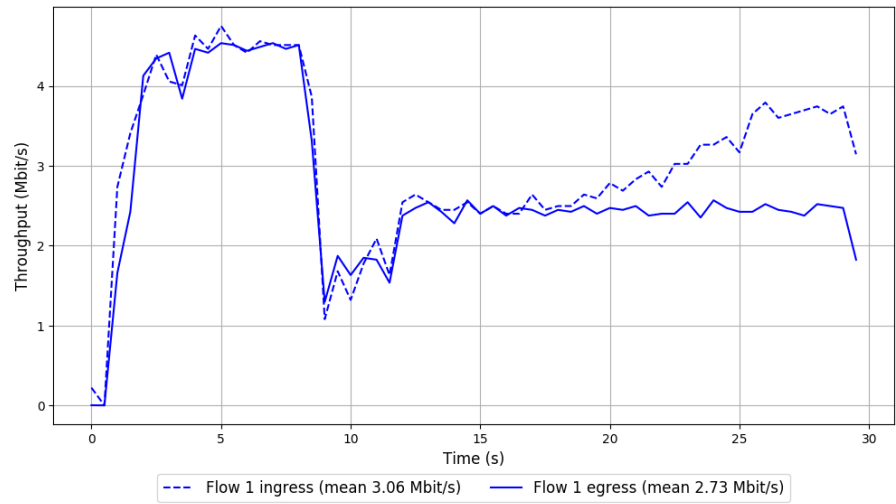
Run 3: Report of TCP Cubic — Data Link

Flow 1 ingress (mean 3.06 Mbit/s) — — — Flow 1 egress (mean 2.73 Mbit/s)

Flow 1 (95th percentile 2206.39 ms)

```
Run 1: Statistics of KohoCC

Start at: Thu, 03 Aug 2017 08:15:09 +0000
End at: Thu, 03 Aug 2017 08:15:39 +0000
Local clock offset: 0.298 ms
Remote clock offset: -1.037 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:58 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 145.024 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 145.024 ms
Loss rate: 0.90%
```
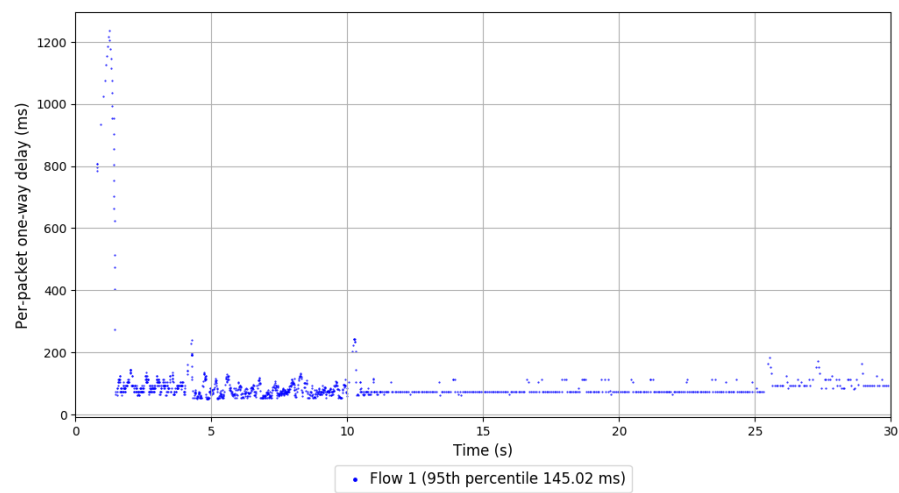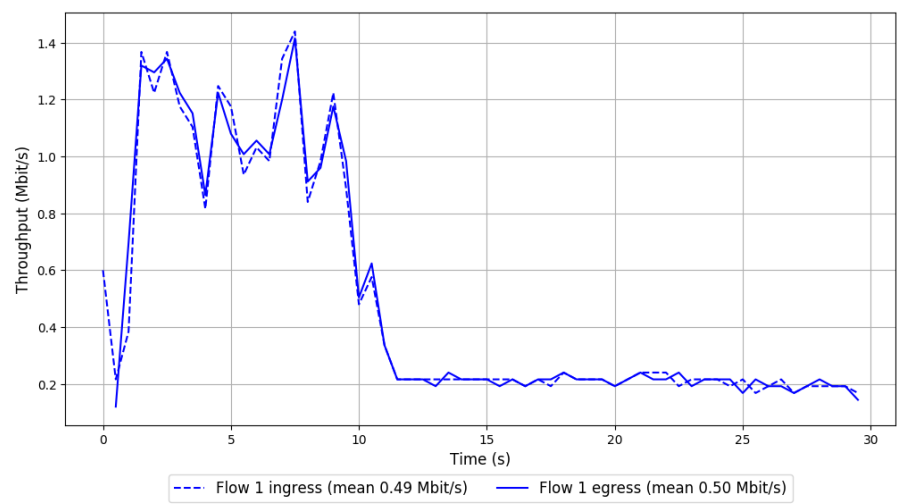
Run 1: Report of KohoCC — Data Link

Flow 1 ingress (mean 0.49 Mbit/s)   Flow 1 egress (mean 0.50 Mbit/s)

Flow 1 (95th percentile 145.02 ms)

```
Run 2: Statistics of KohoCC

Start at: Thu, 03 Aug 2017 08:34:38 +0000
End at: Thu, 03 Aug 2017 08:35:08 +0000
Local clock offset: 0.357 ms
Remote clock offset: -3.154 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:58 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 159.758 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 159.758 ms
Loss rate: 0.38%
```
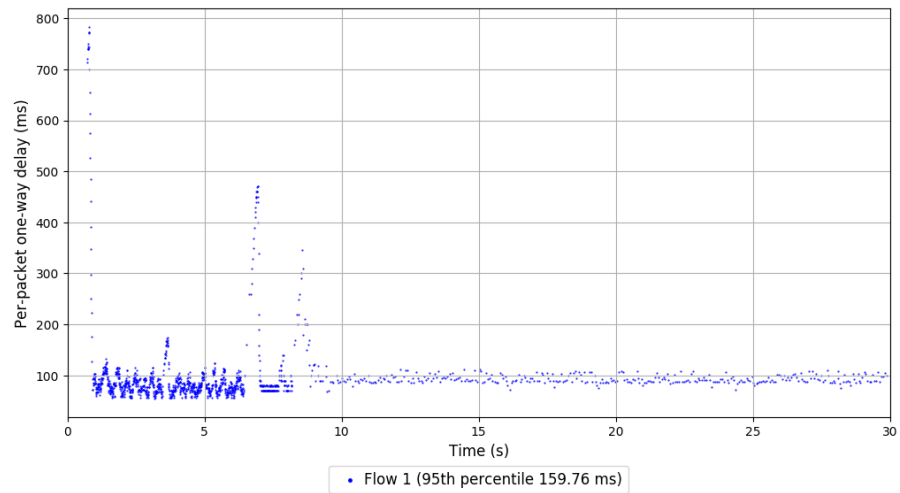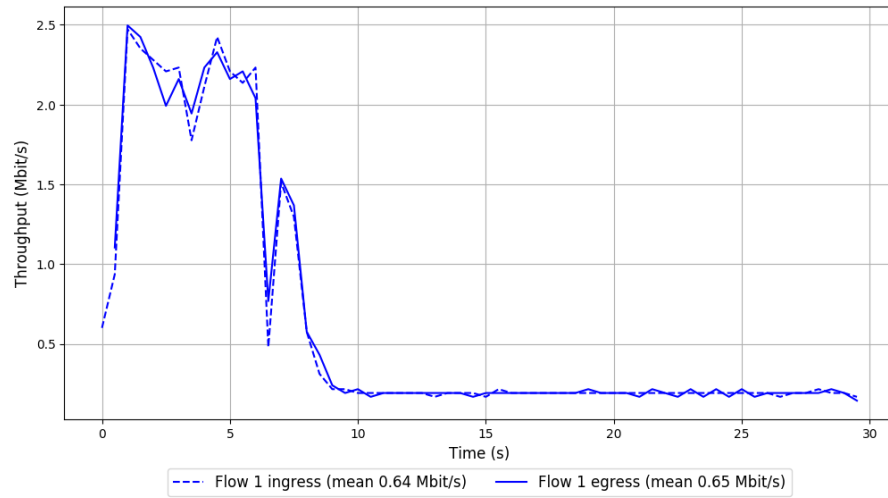
Run 2: Report of KohoCC — Data Link

```
Run 3: Statistics of KohoCC

Start at: Thu, 03 Aug 2017 08:54:03 +0000
End at: Thu, 03 Aug 2017 08:54:34 +0000
Local clock offset: 0.381 ms
Remote clock offset: -0.758 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:03:59 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 137.338 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 137.338 ms
Loss rate: 0.37%
```
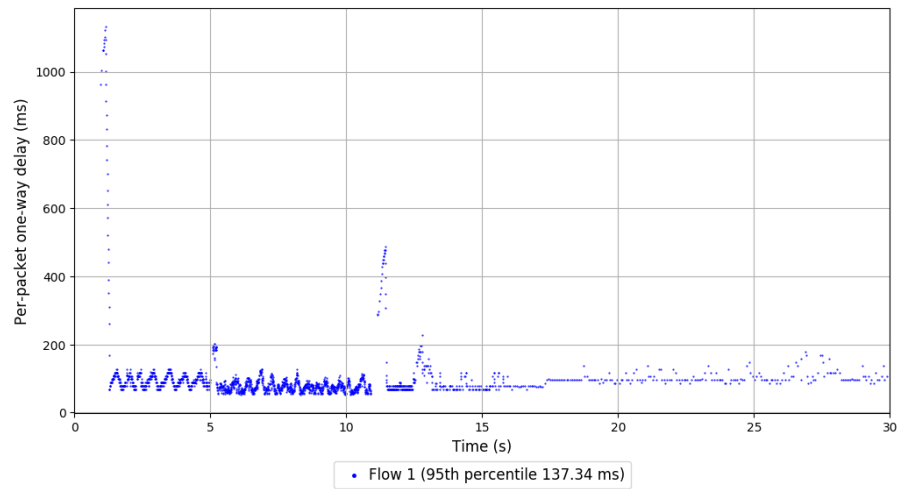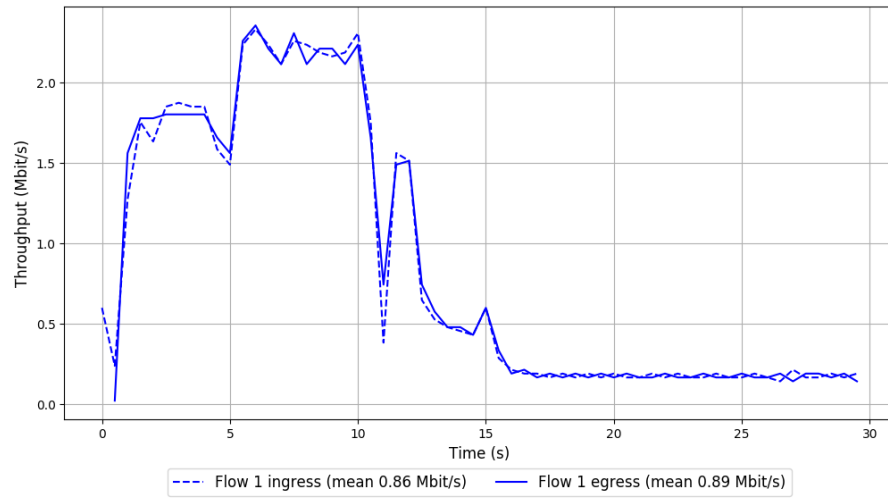
Run 3: Report of KohoCC — Data Link

Flow 1 ingress (mean 0.86 Mbit/s)   Flow 1 egress (mean 0.89 Mbit/s)

Flow 1 (95th percentile 137.34 ms)

```
Run 1: Statistics of LEDBAT

Start at: Thu, 03 Aug 2017 08:22:56 +0000
End at: Thu, 03 Aug 2017 08:23:26 +0000
Local clock offset: 0.35 ms
Remote clock offset: -0.556 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:00 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 211.521 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 211.521 ms
Loss rate: 1.08%
```
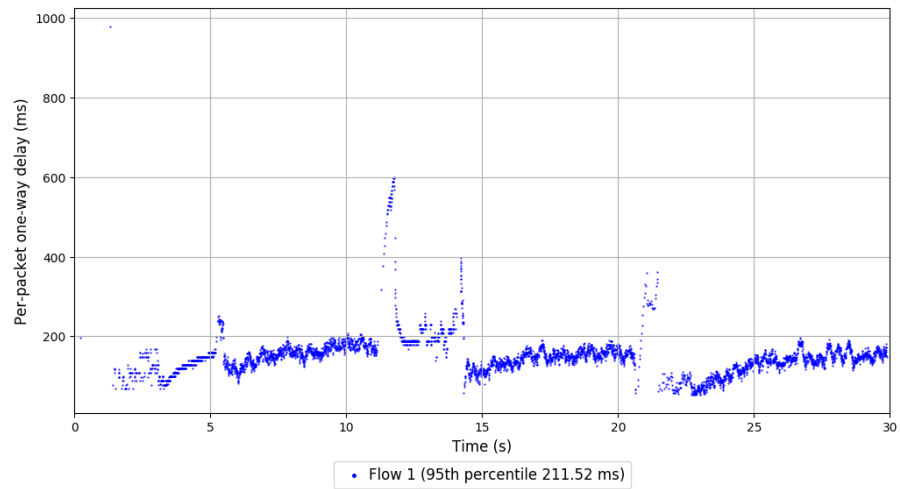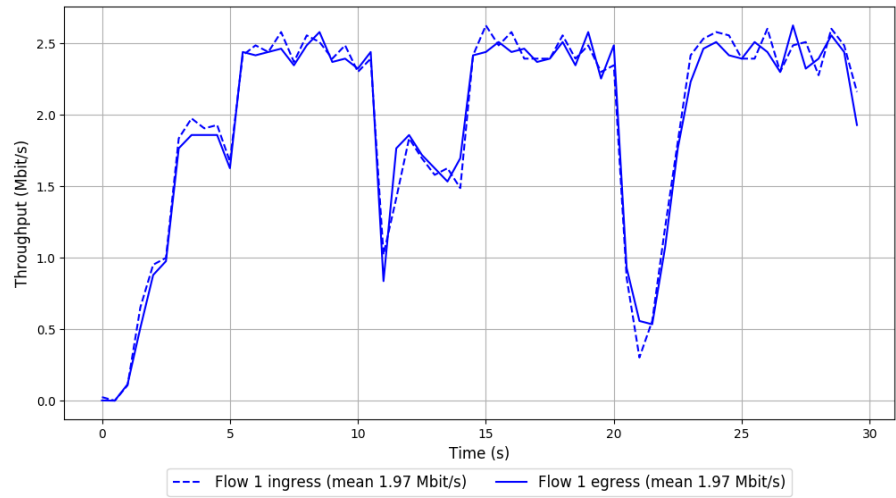
Run 1: Report of LEDBAT — Data Link

```
Run 2: Statistics of LEDBAT

Start at: Thu, 03 Aug 2017 08:42:24 +0000
End at: Thu, 03 Aug 2017 08:42:54 +0000
Local clock offset: 0.356 ms
Remote clock offset: -0.929 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:01 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 176.774 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 176.774 ms
Loss rate: 1.04%
```
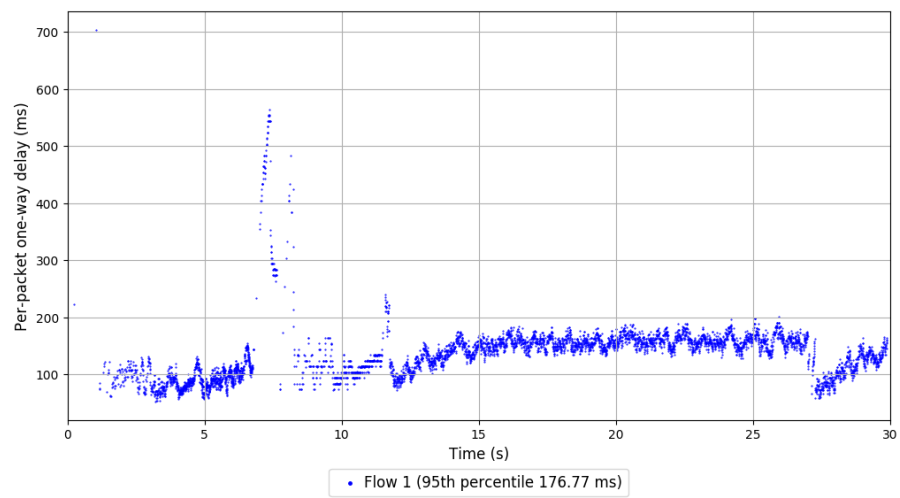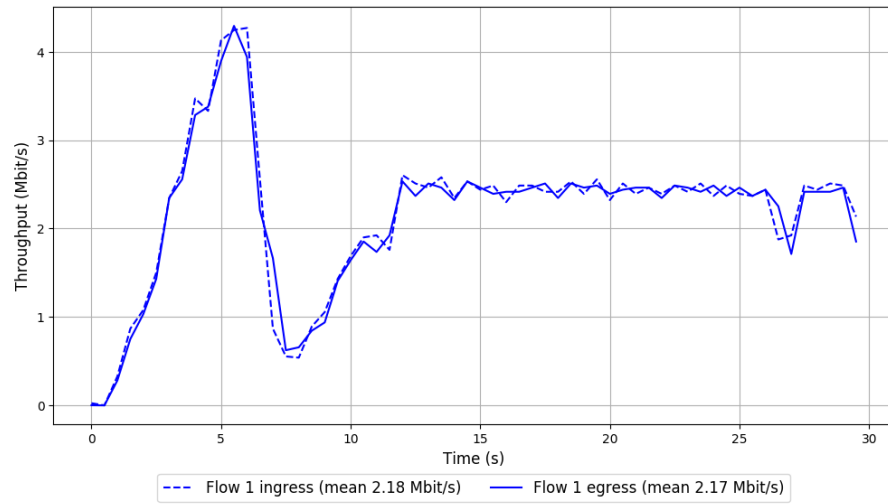
Run 2: Report of LEDBAT — Data Link

```
Run 3: Statistics of LEDBAT

Start at: Thu, 03 Aug 2017 09:01:50 +0000
End at: Thu, 03 Aug 2017 09:02:20 +0000
Local clock offset: 0.436 ms
Remote clock offset: -0.319 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:01 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 174.625 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 174.625 ms
Loss rate: 0.98%
```
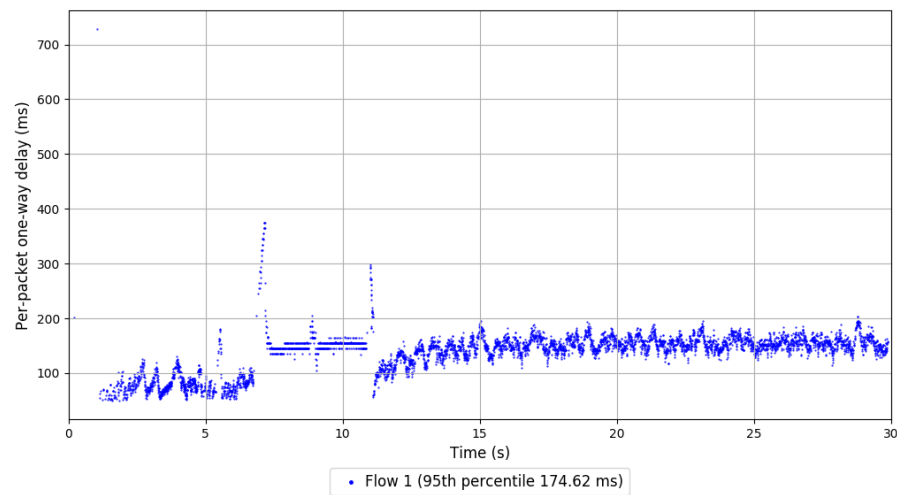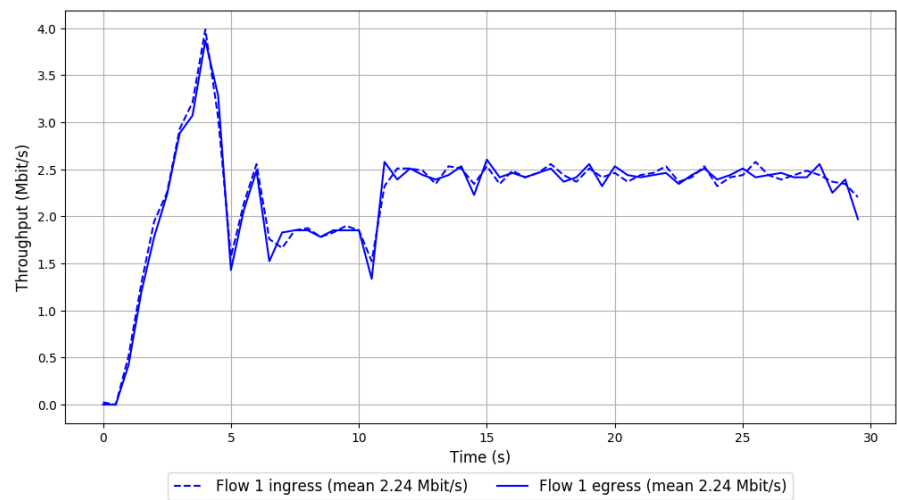
Run 3: Report of LEDBAT — Data Link

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

Flow 1 (95th percentile 174.62 ms)

```
Run 1: Statistics of PCC

Start at: Thu, 03 Aug 2017 08:19:02 +0000
End at: Thu, 03 Aug 2017 08:19:32 +0000
Local clock offset: 0.296 ms
Remote clock offset: -1.125 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:02 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 9570.541 ms
Loss rate: 82.92%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 9570.541 ms
Loss rate: 82.92%
```
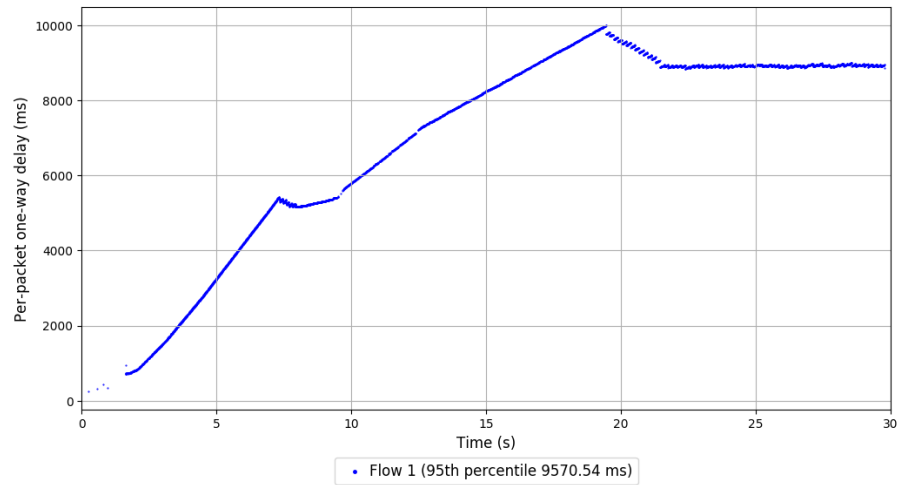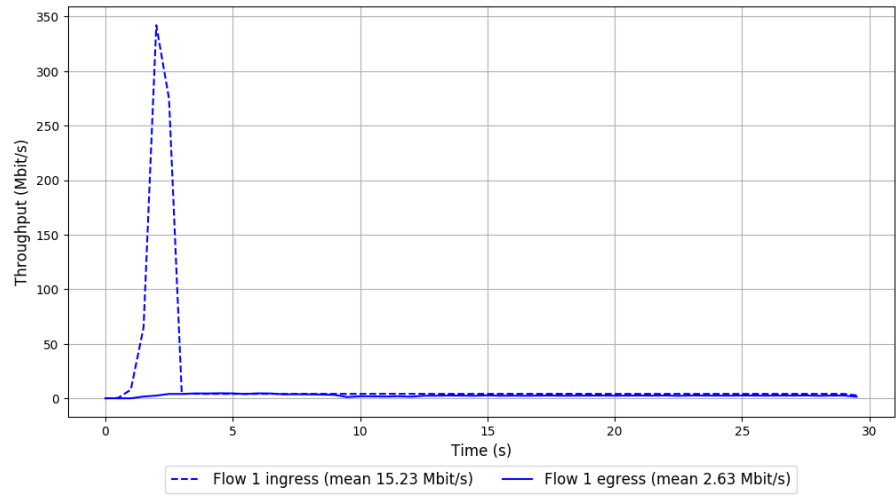
Run 1: Report of PCC — Data Link

Flow 1 ingress (mean 15.23 Mbit/s) --- Flow 1 egress (mean 2.63 Mbit/s) ———

Flow 1 (95th percentile 9570.54 ms)

```
Run 2: Statistics of PCC

Start at: Thu, 03 Aug 2017 08:38:31 +0000
End at: Thu, 03 Aug 2017 08:39:01 +0000
Local clock offset: 0.338 ms
Remote clock offset: -3.087 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:03 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 9717.313 ms
Loss rate: 88.78%
-- Flow 1:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 9717.313 ms
Loss rate: 88.78%
```
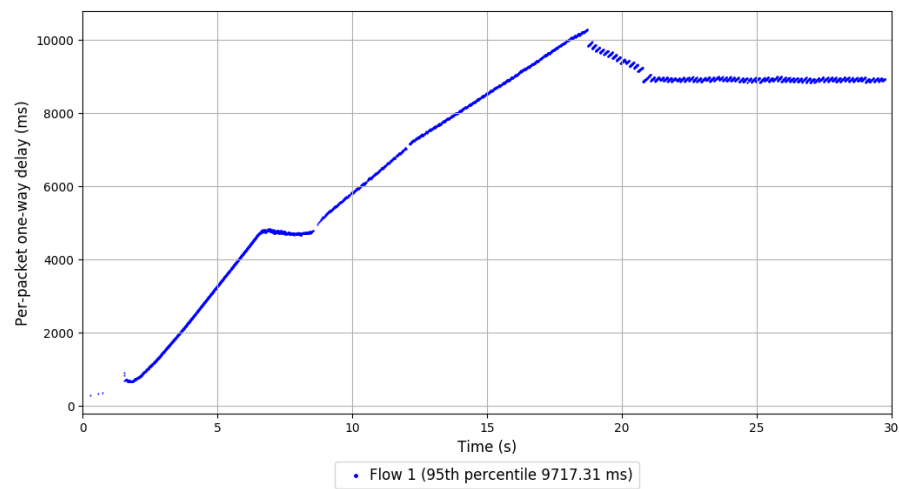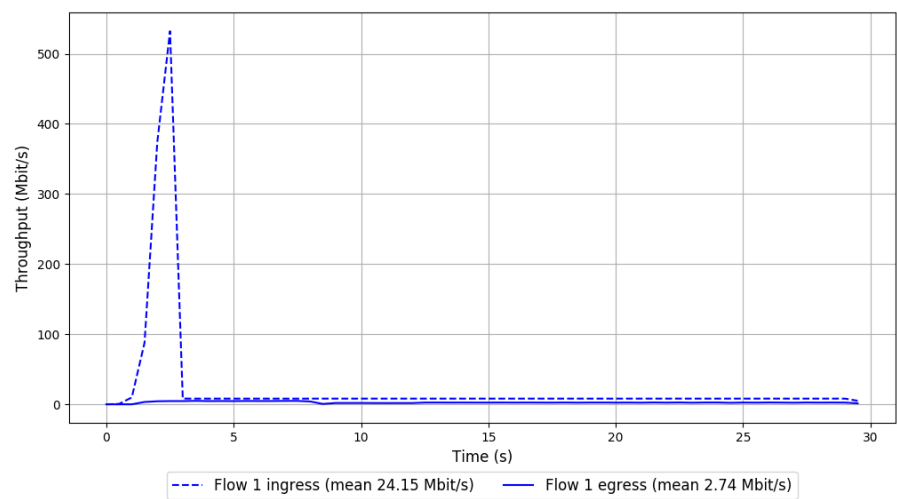
Run 2: Report of PCC — Data Link

Flow 1 ingress (mean 24.15 Mbit/s)   Flow 1 egress (mean 2.74 Mbit/s)

Flow 1 (95th percentile 9717.31 ms)

```
Run 3: Statistics of PCC

Start at: Thu, 03 Aug 2017 08:57:56 +0000
End at: Thu, 03 Aug 2017 08:58:26 +0000
Local clock offset: 0.518 ms
Remote clock offset: -0.736 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:05 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 9355.683 ms
Loss rate: 94.45%
-- Flow 1:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 9355.683 ms
Loss rate: 94.45%
```
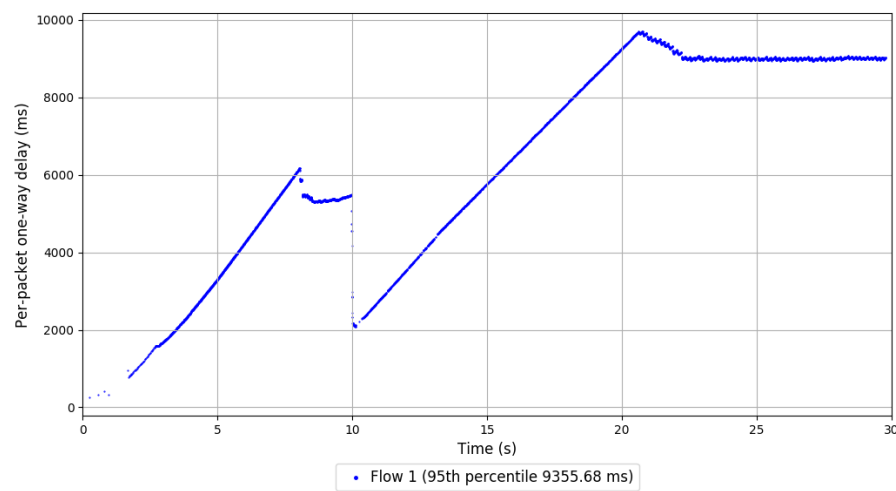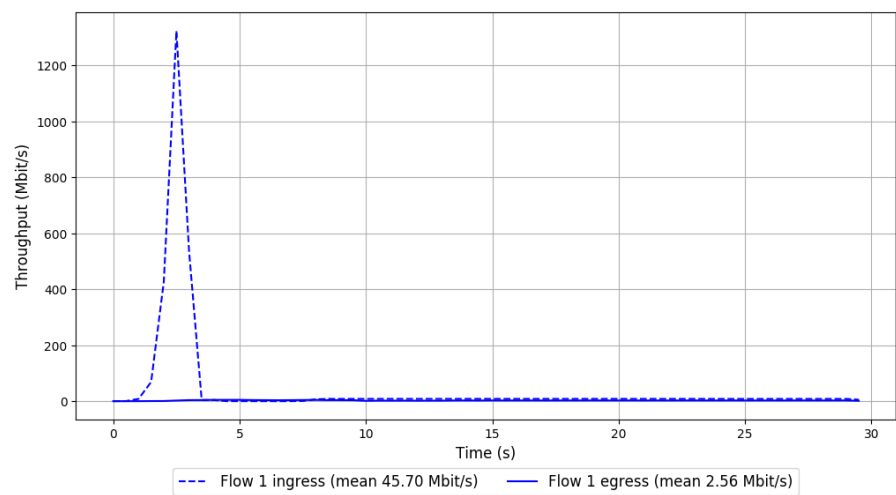
Run 3: Report of PCC — Data Link

Flow 1 ingress (mean 45.70 Mbit/s)   Flow 1 egress (mean 2.56 Mbit/s)

Flow 1 (95th percentile 9355.68 ms)

```
Run 1: Statistics of QUIC Cubic

Start at: Thu, 03 Aug 2017 08:21:38 +0000
End at: Thu, 03 Aug 2017 08:22:08 +0000
Local clock offset: 0.237 ms
Remote clock offset: -3.189 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:05 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 606.712 ms
Loss rate: 3.04%
-- Flow 1:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 606.712 ms
Loss rate: 3.04%
```
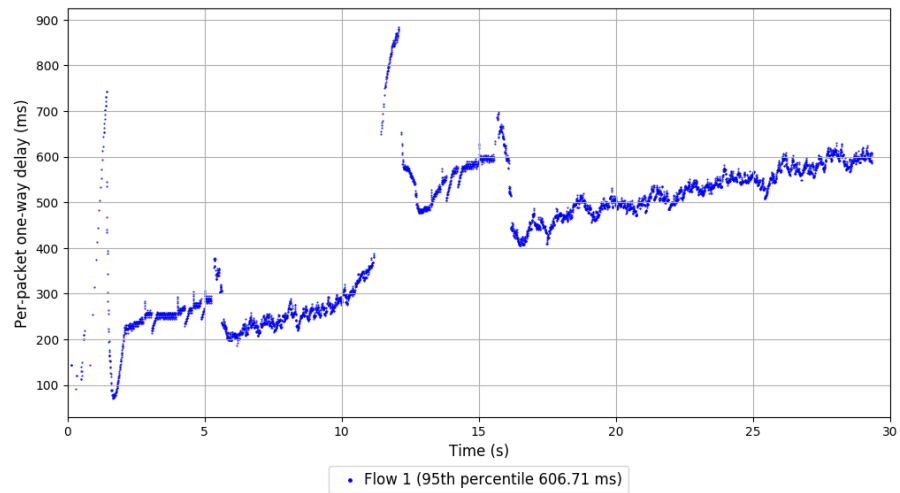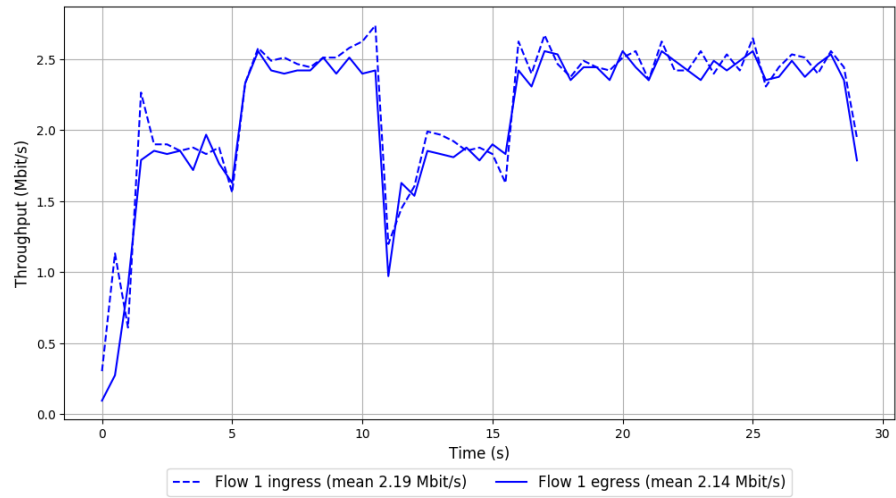
Run 1: Report of QUIC Cubic — Data Link

```
Run 2: Statistics of QUIC Cubic

Start at: Thu, 03 Aug 2017 08:41:07 +0000
End at: Thu, 03 Aug 2017 08:41:37 +0000
Local clock offset: 0.429 ms
Remote clock offset: -0.365 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:05 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 585.732 ms
Loss rate: 2.77%
-- Flow 1:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 585.732 ms
Loss rate: 2.77%
```
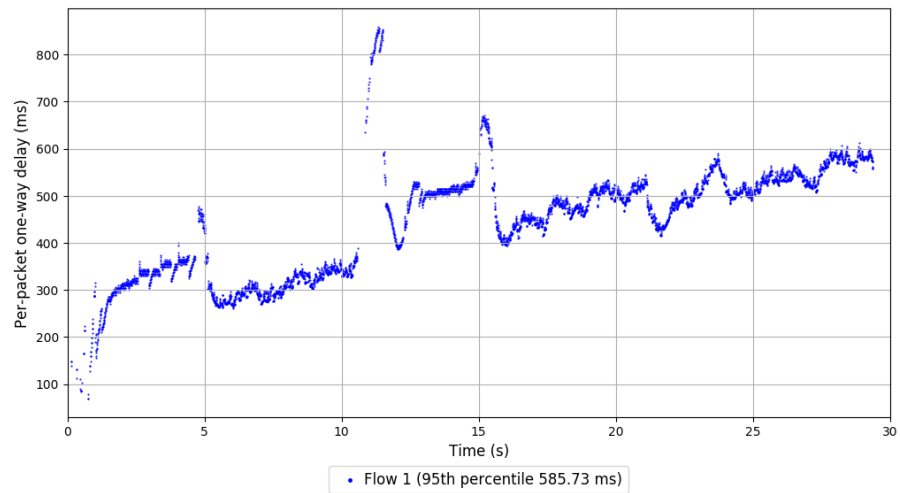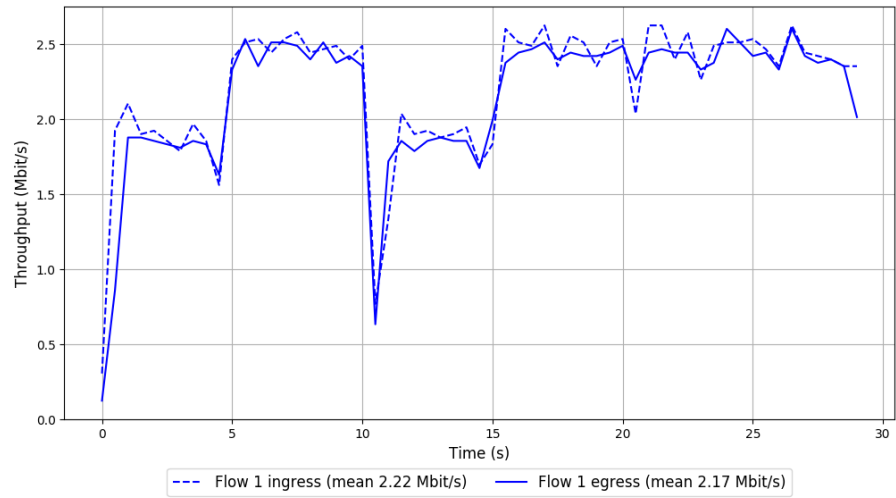
Run 2: Report of QUIC Cubic — Data Link

```
Run 3: Statistics of QUIC Cubic

Start at: Thu, 03 Aug 2017 09:00:32 +0000
End at: Thu, 03 Aug 2017 09:01:02 +0000
Local clock offset: 0.524 ms
Remote clock offset: -2.789 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:06 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 586.277 ms
Loss rate: 2.96%
-- Flow 1:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 586.277 ms
Loss rate: 2.96%
```
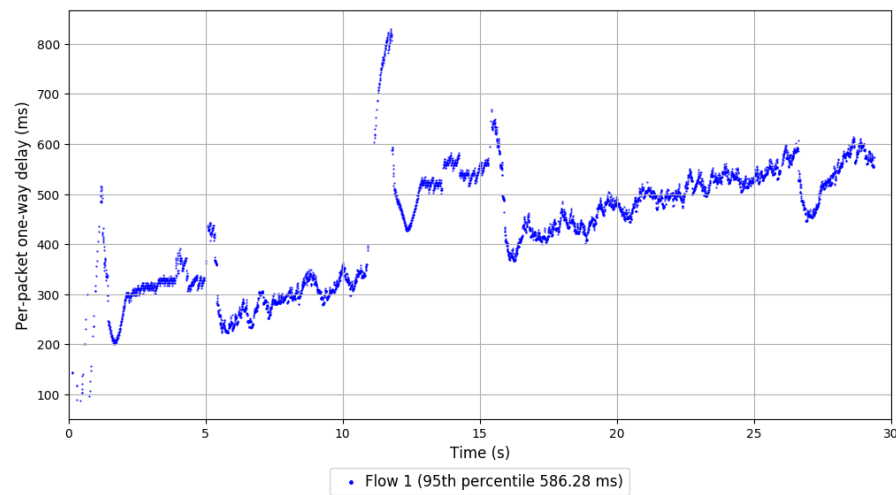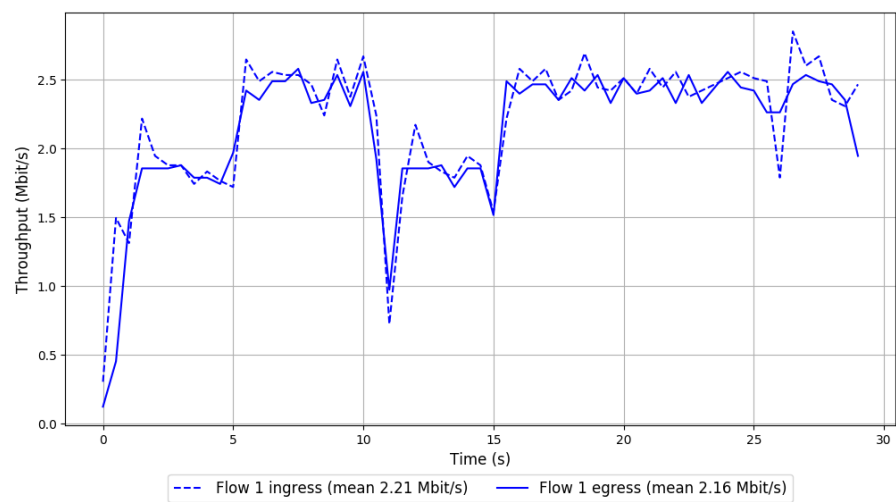
Run 3: Report of QUIC Cubic — Data Link

Flow 1 ingress (mean 2.21 Mbit/s)   Flow 1 egress (mean 2.16 Mbit/s)

Flow 1 (95th percentile 586.28 ms)

```
Run 1: Statistics of Saturator

Start at: Thu, 03 Aug 2017 08:06:05 +0000
End at: Thu, 03 Aug 2017 08:06:35 +0000
Local clock offset: 0.313 ms
Remote clock offset: -1.153 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:06 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 1234.239 ms
Loss rate: 3.23%
-- Flow 1:
Average throughput: 2.84 Mbit/s
95th percentile per-packet one-way delay: 1234.239 ms
Loss rate: 3.23%
```
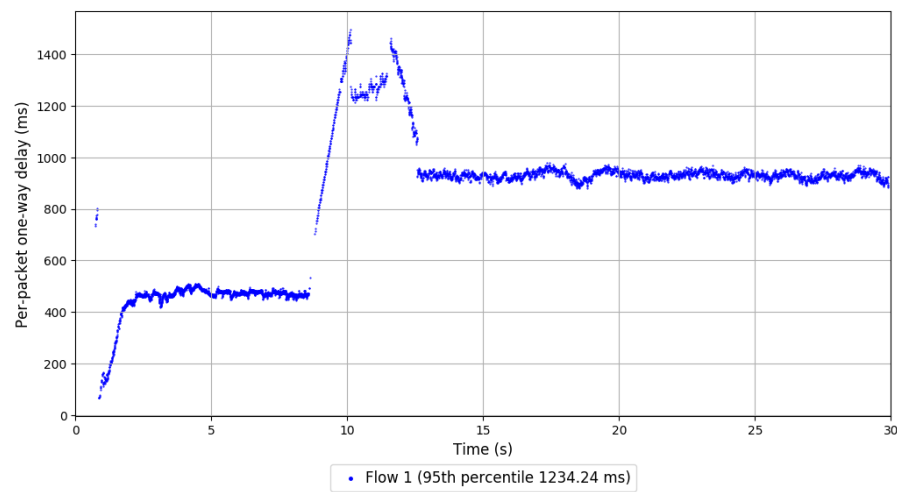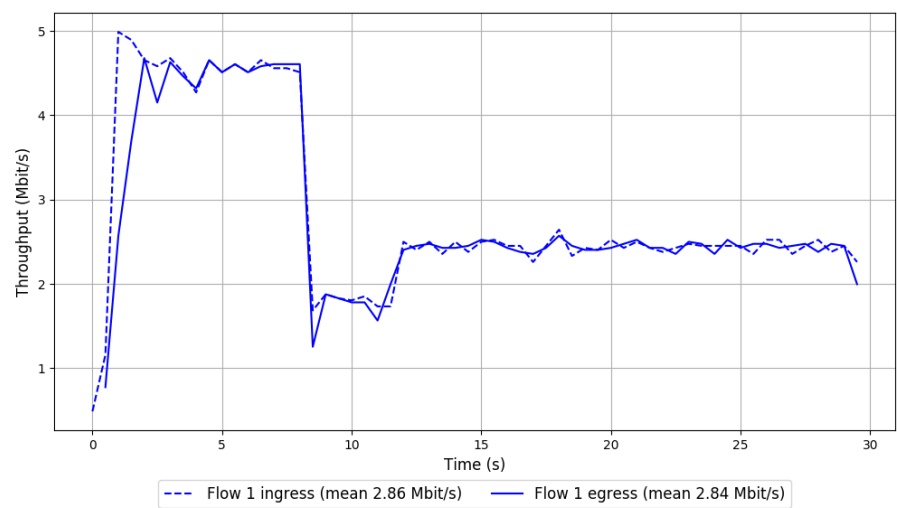
Run 1: Report of Saturator — Data Link

```
Run 2: Statistics of Saturator

Start at: Thu, 03 Aug 2017 08:25:32 +0000
End at: Thu, 03 Aug 2017 08:26:02 +0000
Local clock offset: 0.251 ms
Remote clock offset: -3.215 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:08 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 1129.920 ms
Loss rate: 11.18%
-- Flow 1:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 1129.920 ms
Loss rate: 11.18%
```
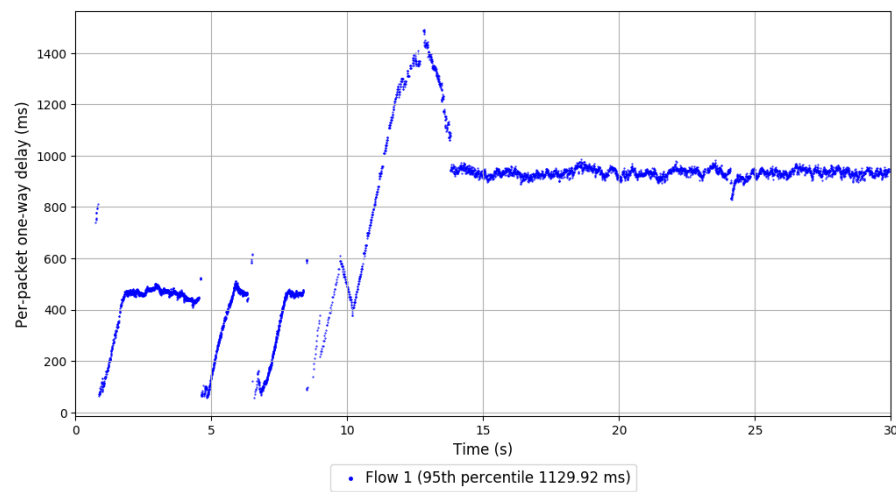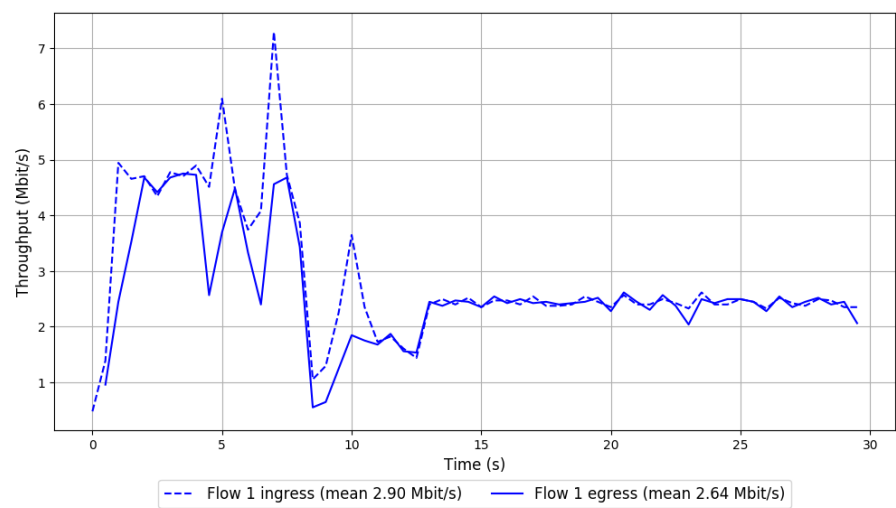
Run 2: Report of Saturator — Data Link

Flow 1 ingress (mean 2.90 Mbit/s)   Flow 1 egress (mean 2.64 Mbit/s)

Flow 1 (95th percentile 1129.92 ms)

```
Run 3: Statistics of Saturator

Start at: Thu, 03 Aug 2017 08:45:00 +0000
End at: Thu, 03 Aug 2017 08:45:30 +0000
Local clock offset: 0.351 ms
Remote clock offset: -2.848 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:08 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 1339.757 ms
Loss rate: 3.83%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 1339.757 ms
Loss rate: 3.83%
```
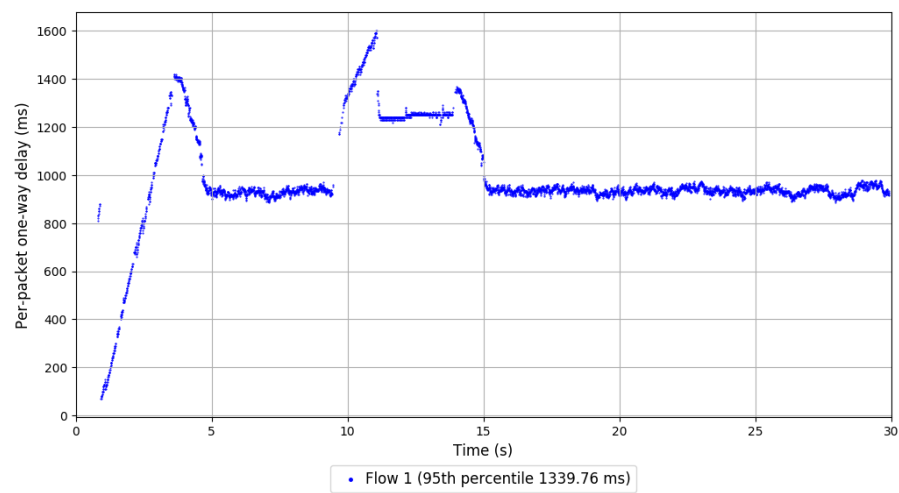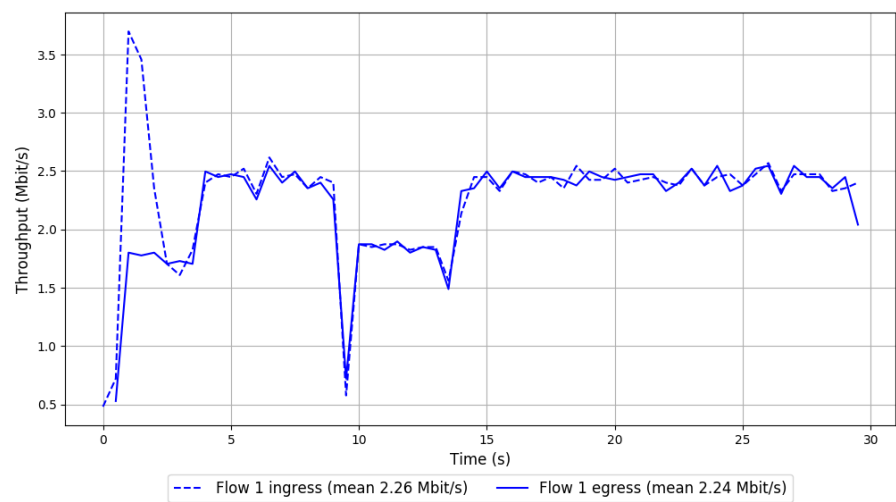
Run 3: Report of Saturator — Data Link

Flow 1 ingress (mean 2.26 Mbit/s)   Flow 1 egress (mean 2.24 Mbit/s)

Flow 1 (95th percentile 1339.76 ms)

```
Run 1: Statistics of SCReAM

Start at: Thu, 03 Aug 2017 08:13:52 +0000
End at: Thu, 03 Aug 2017 08:14:22 +0000
Local clock offset: 0.296 ms
Remote clock offset: -3.203 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:09 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 70.315 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 70.315 ms
Loss rate: 0.37%
```
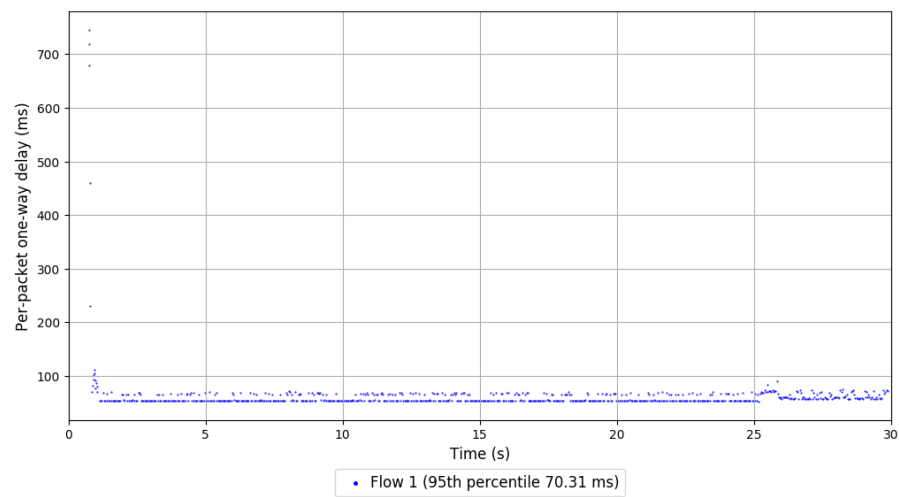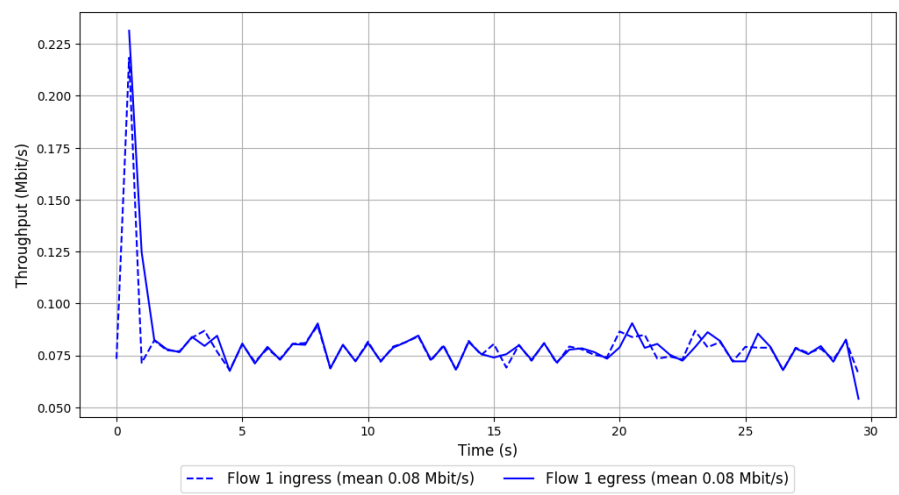
Run 1: Report of SCReAM — Data Link

```
Run 2: Statistics of SCReAM

Start at: Thu, 03 Aug 2017 08:33:20 +0000
End at: Thu, 03 Aug 2017 08:33:50 +0000
Local clock offset: 0.38 ms
Remote clock offset: -0.958 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:09 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 80.956 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 80.956 ms
Loss rate: 0.25%
```
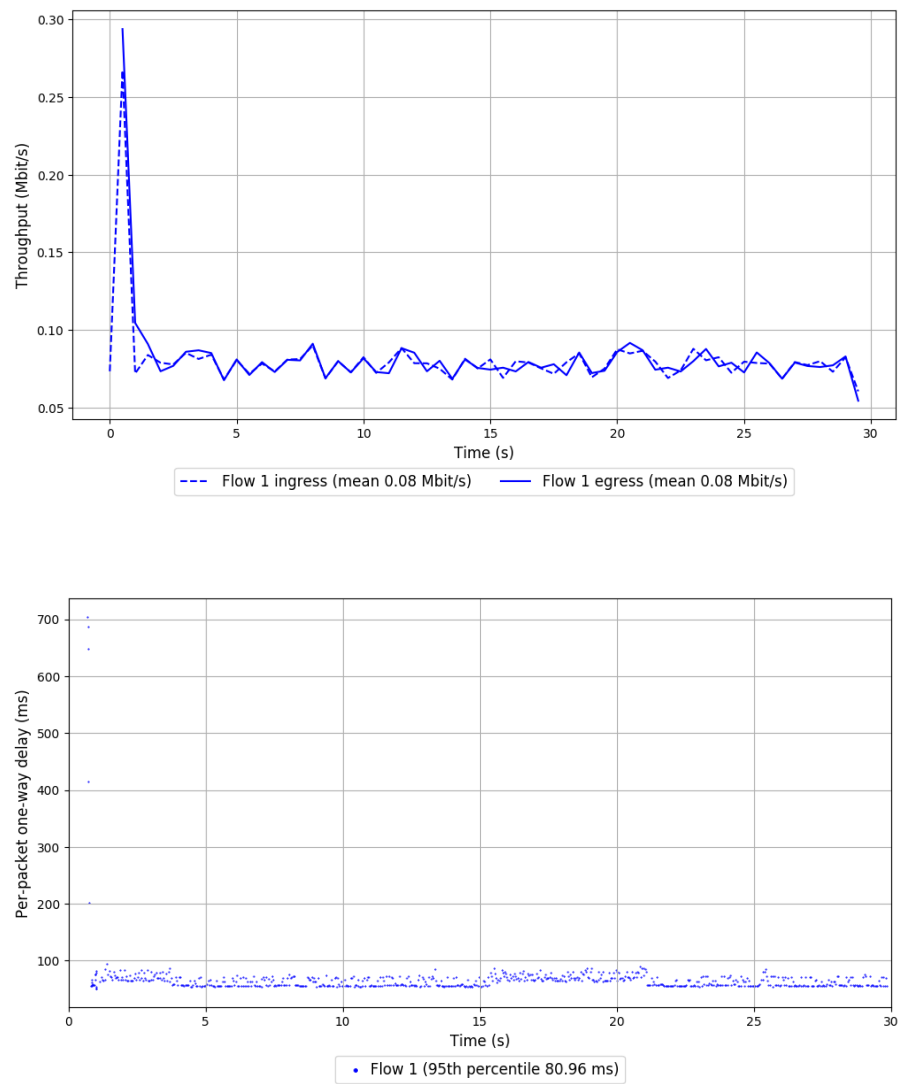
Run 2: Report of SCReAM — Data Link

```
Run 3: Statistics of SCReAM

Start at: Thu, 03 Aug 2017 08:52:46 +0000
End at: Thu, 03 Aug 2017 08:53:16 +0000
Local clock offset: 0.489 ms
Remote clock offset: -2.823 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:10 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 86.643 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 86.643 ms
Loss rate: 0.38%
```
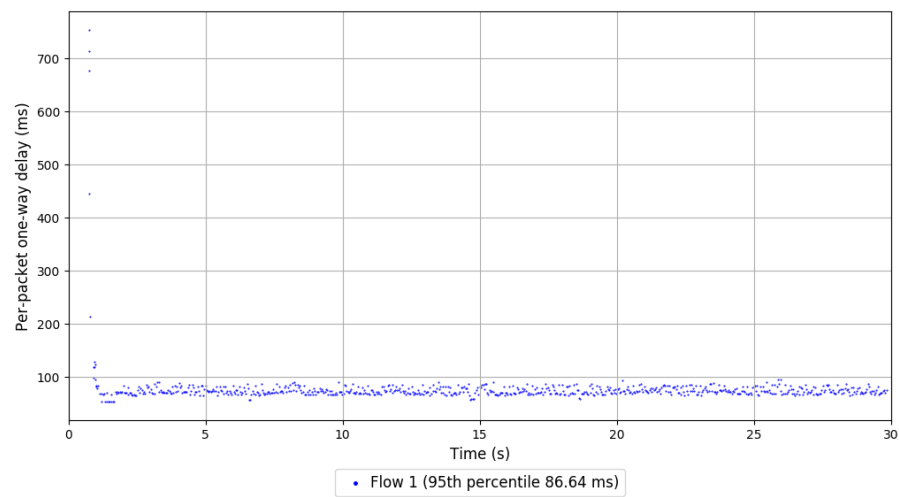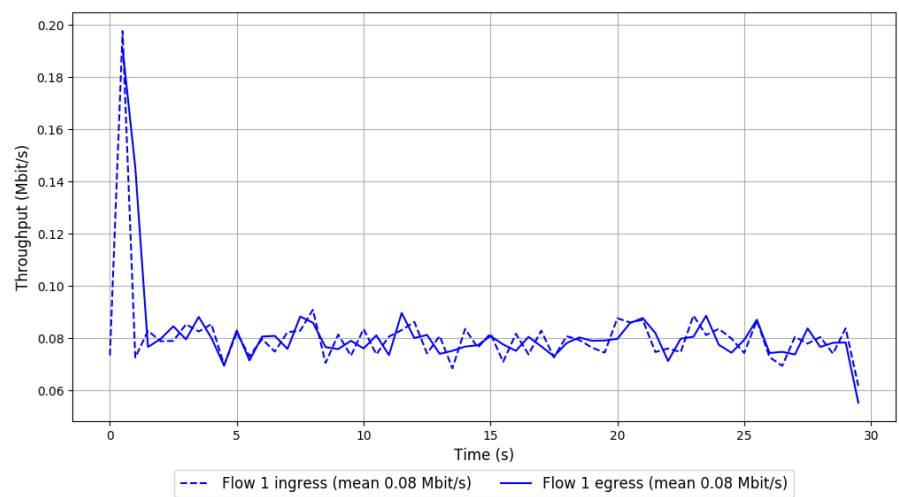
Run 3: Report of SCReAM — Data Link

```
Run 1: Statistics of Sprout

Start at: Thu, 03 Aug 2017 08:20:20 +0000
End at: Thu, 03 Aug 2017 08:20:50 +0000
Local clock offset: 0.216 ms
Remote clock offset: -1.158 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:10 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 211.151 ms
Loss rate: 0.72%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 211.151 ms
Loss rate: 0.72%
```
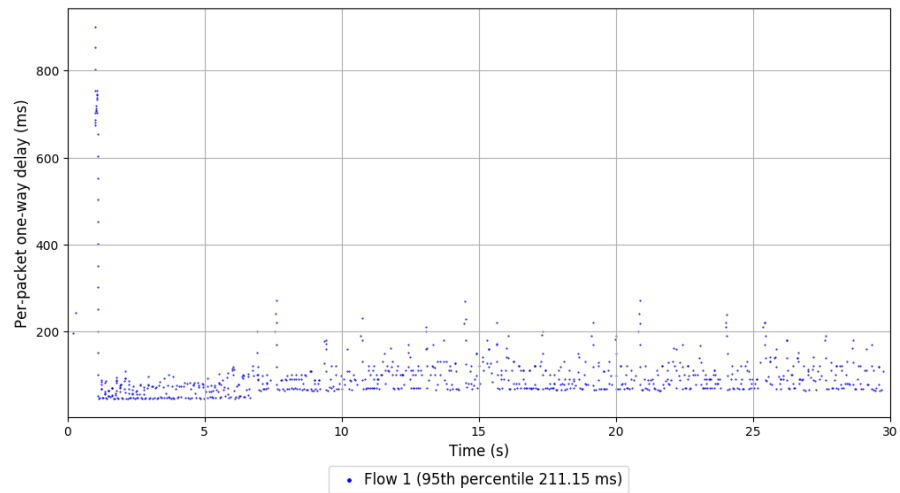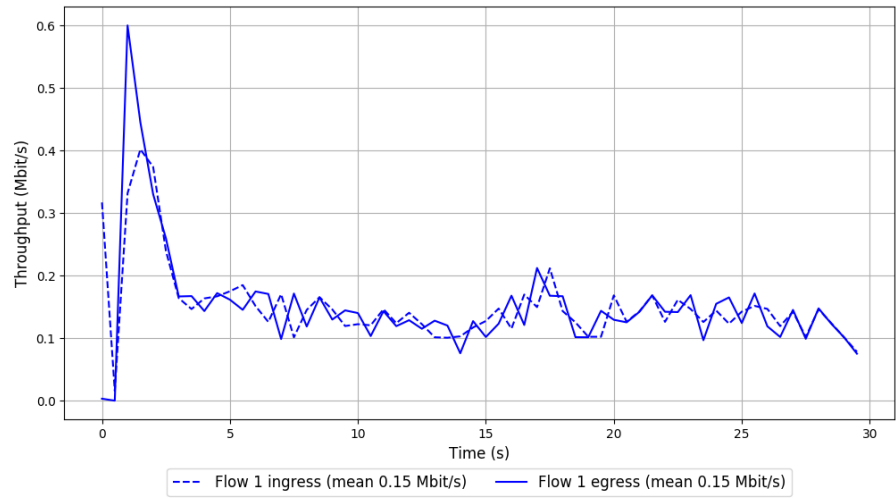
Run 1: Report of Sprout — Data Link

```
Run 2: Statistics of Sprout

Start at: Thu, 03 Aug 2017 08:39:49 +0000
End at: Thu, 03 Aug 2017 08:40:19 +0000
Local clock offset: 0.406 ms
Remote clock offset: -3.082 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:11 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 205.703 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 205.703 ms
Loss rate: 0.54%
```
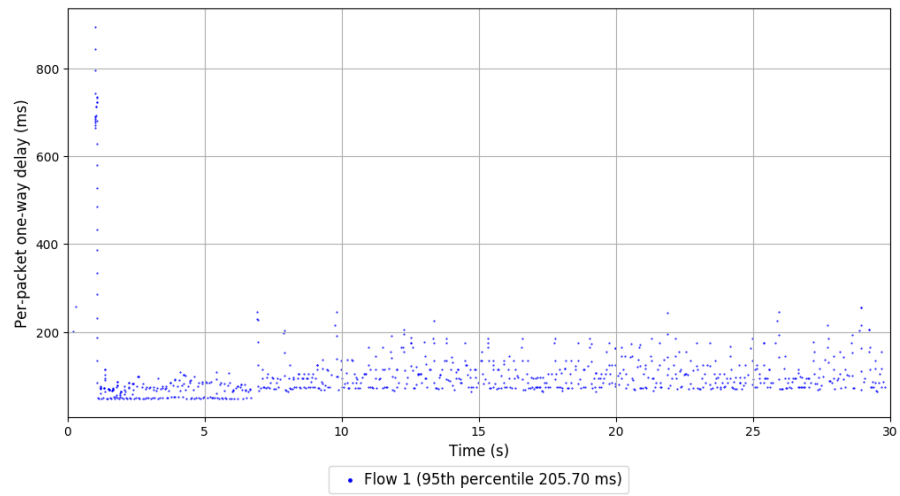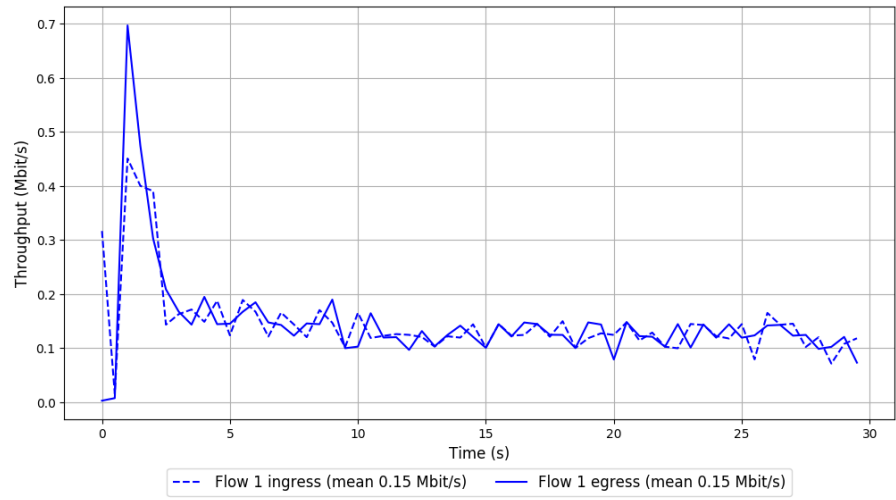
Run 2: Report of Sprout — Data Link

```
Run 3: Statistics of Sprout

Start at: Thu, 03 Aug 2017 08:59:15 +0000
End at: Thu, 03 Aug 2017 08:59:45 +0000
Local clock offset: 0.412 ms
Remote clock offset: -0.322 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:11 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 213.006 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 213.006 ms
Loss rate: 0.70%
```
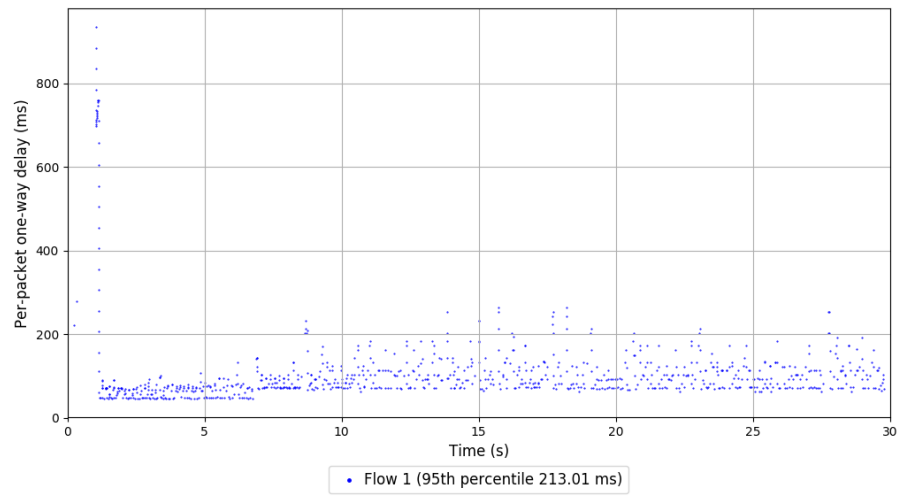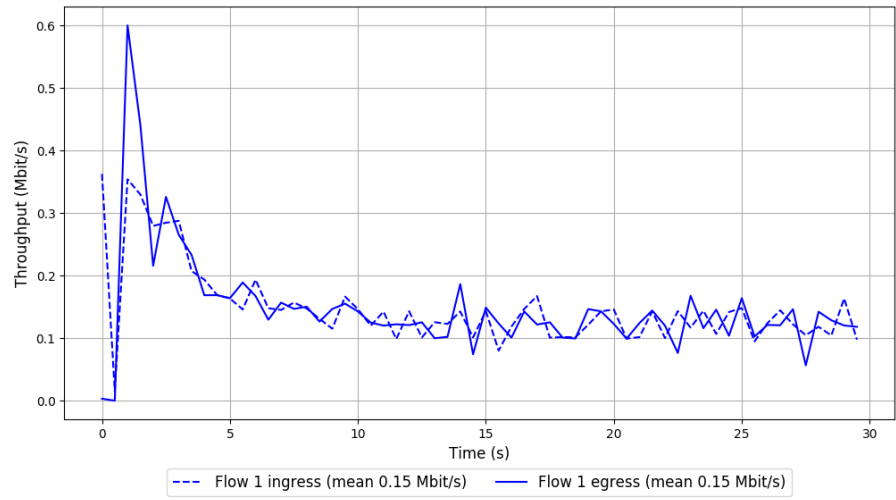
Run 3: Report of Sprout — Data Link
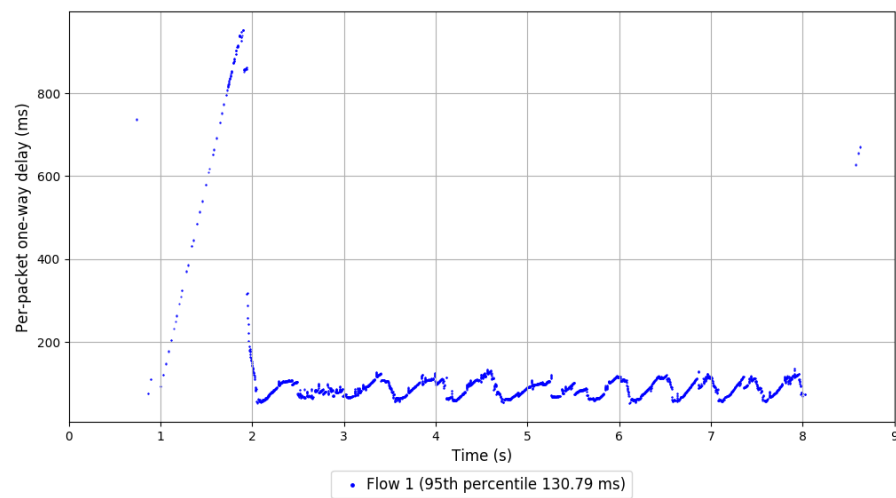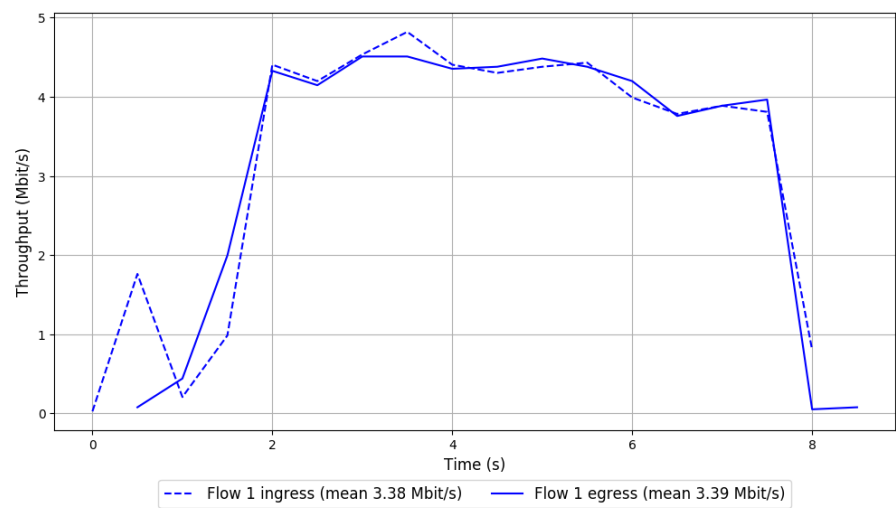
```
Run 1: Statistics of TaoVA-100x

Start at: Thu, 03 Aug 2017 08:04:47 +0000
End at: Thu, 03 Aug 2017 08:05:17 +0000
Local clock offset: 0.332 ms
Remote clock offset: -3.184 ms
```

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

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

Start at: Thu, 03 Aug 2017 08:24:14 +0000
End at: Thu, 03 Aug 2017 08:24:44 +0000
Local clock offset: 0.351 ms
Remote clock offset: -3.177 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:13 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 206.351 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 206.351 ms
Loss rate: 0.82%
```
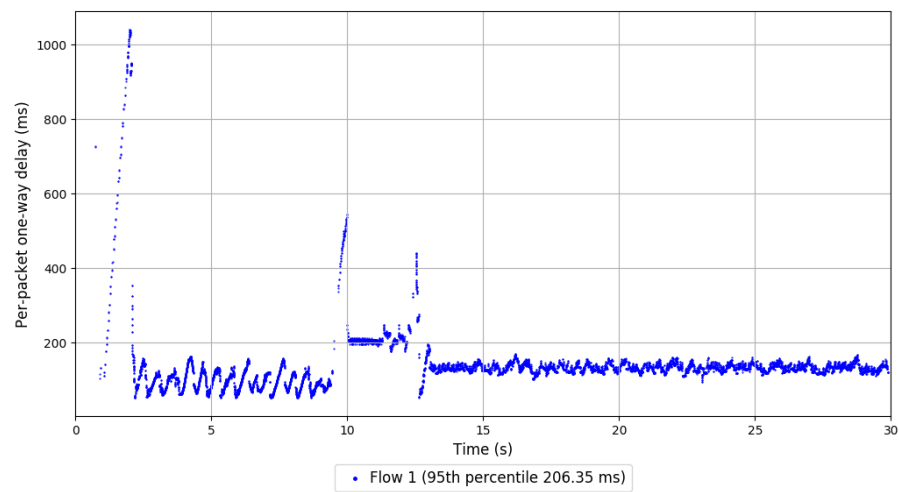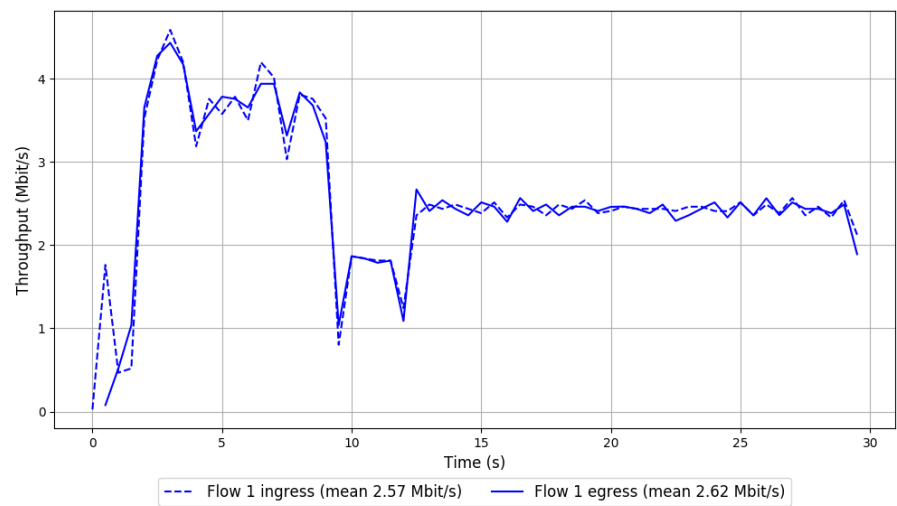
Run 2: Report of TaoVA-100x — Data Link

Flow 1 ingress (mean 2.57 Mbit/s) --- Flow 1 egress (mean 2.62 Mbit/s)

Flow 1 (95th percentile 206.35 ms)
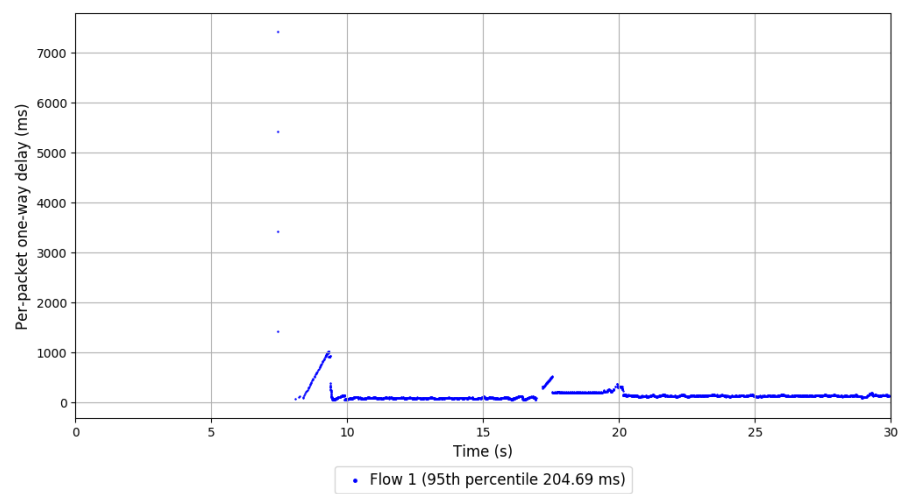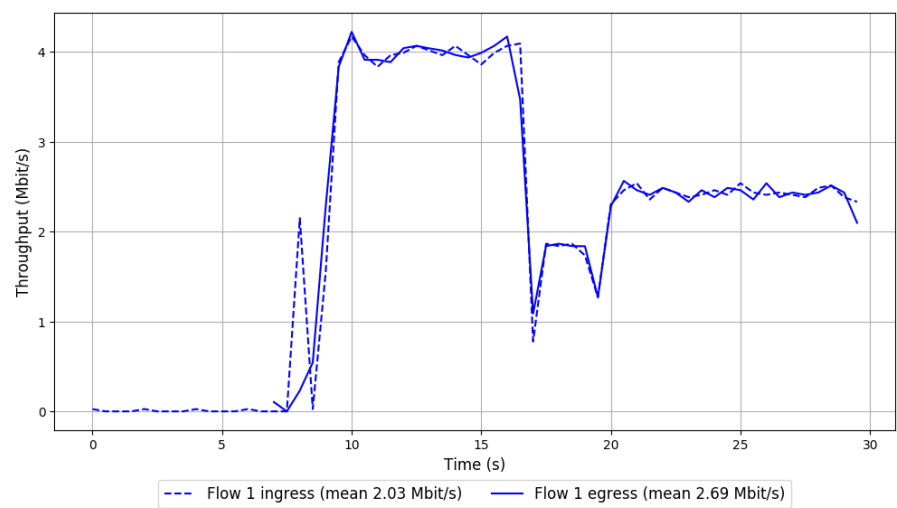
Run 3: Statistics of TaoVA-100x

Start at: Thu, 03 Aug 2017 08:43:42 +0000
End at: Thu, 03 Aug 2017 08:44:12 +0000
Local clock offset: 0.437 ms
Remote clock offset: -0.903 ms

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

Flow 1 ingress (mean 2.03 Mbit/s) --- Flow 1 egress (mean 2.69 Mbit/s)

Flow 1 (95th percentile 204.69 ms)

```
Run 1: Statistics of TCP Vegas

Start at: Thu, 03 Aug 2017 08:11:16 +0000
End at: Thu, 03 Aug 2017 08:11:46 +0000
Local clock offset: 0.309 ms
Remote clock offset: -1.062 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:14 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 570.854 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 570.854 ms
Loss rate: 0.54%
```
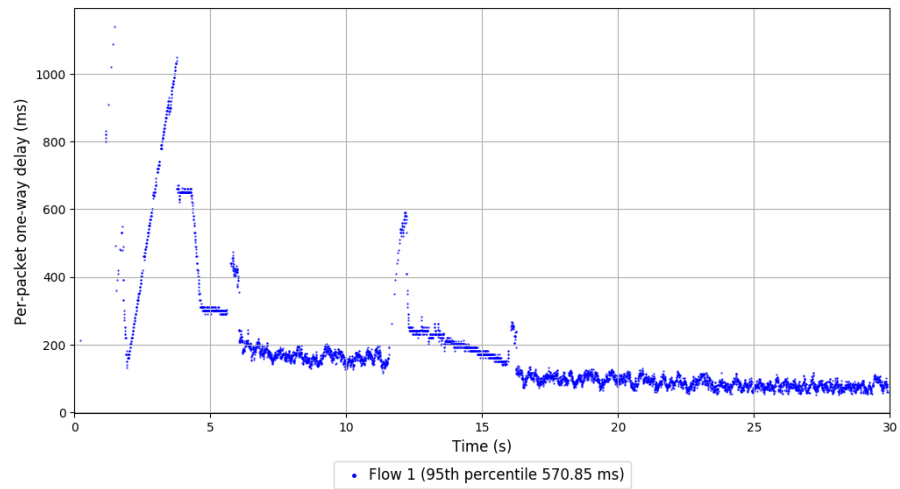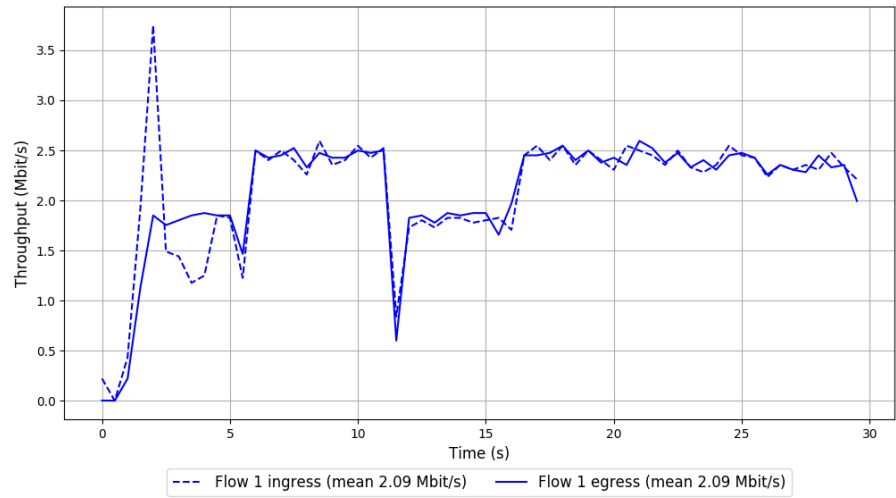
Run 1: Report of TCP Vegas — Data Link

```
Run 2: Statistics of TCP Vegas

Start at: Thu, 03 Aug 2017 08:30:45 +0000
End at: Thu, 03 Aug 2017 08:31:15 +0000
Local clock offset: 0.392 ms
Remote clock offset: -0.98 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:15 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 253.461 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 253.461 ms
Loss rate: 0.53%
```
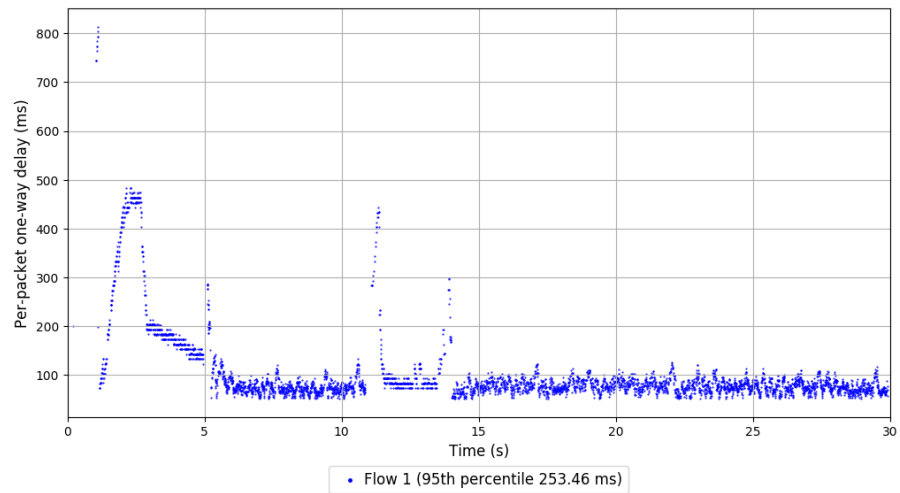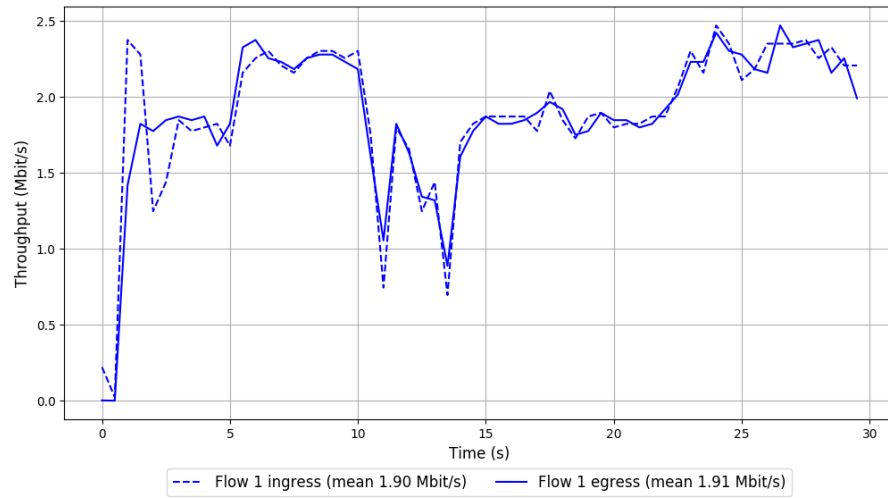
Run 2: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.90 Mbit/s)　　Flow 1 egress (mean 1.91 Mbit/s)

Flow 1 (95th percentile 253.46 ms)

```
Run 3: Statistics of TCP Vegas

Start at: Thu, 03 Aug 2017 08:50:10 +0000
End at: Thu, 03 Aug 2017 08:50:40 +0000
Local clock offset: 0.347 ms
Remote clock offset: -2.795 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:15 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 373.920 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 373.920 ms
Loss rate: 0.68%
```
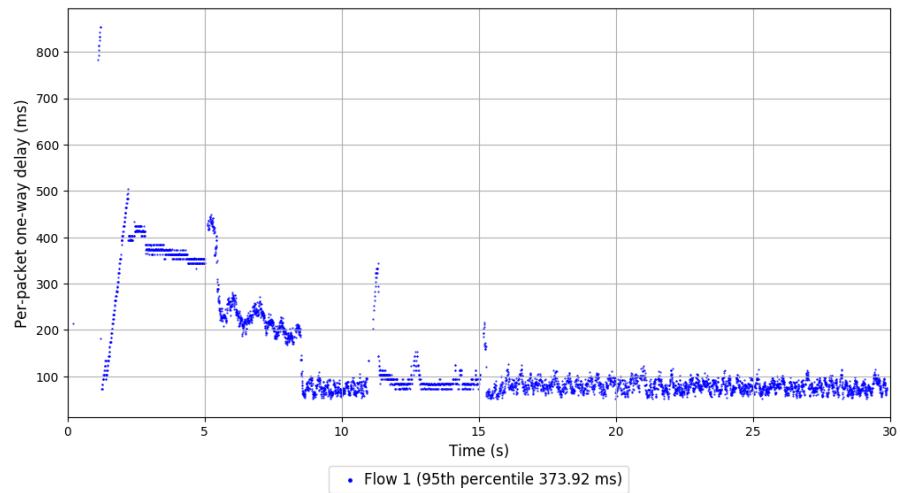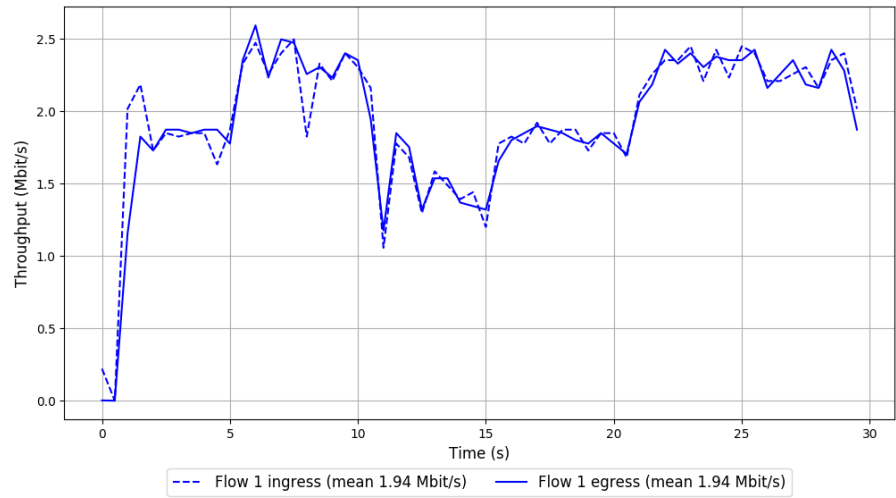
Run 3: Report of TCP Vegas — Data Link

Flow 1 ingress (mean 1.94 Mbit/s) Flow 1 egress (mean 1.94 Mbit/s)

Flow 1 (95th percentile 373.92 ms)

```
Run 1: Statistics of Verus

Start at: Thu, 03 Aug 2017 08:07:23 +0000
End at: Thu, 03 Aug 2017 08:07:53 +0000
Local clock offset: 0.2 ms
Remote clock offset: -1.223 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:16 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 938.251 ms
Loss rate: 25.08%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 938.251 ms
Loss rate: 25.08%
```
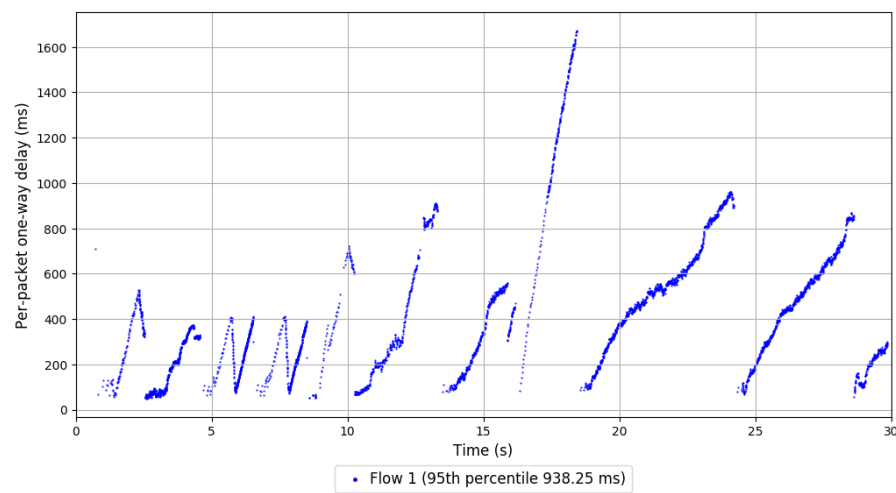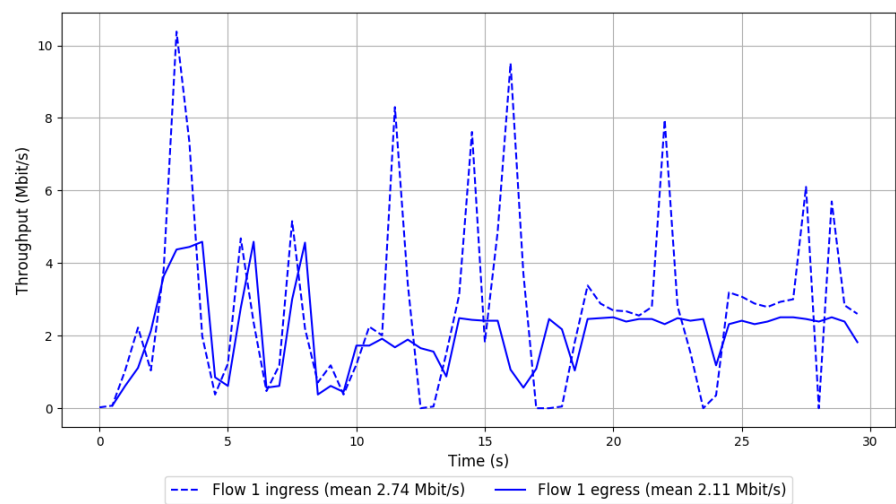
Run 1: Report of Verus — Data Link

```
Run 2: Statistics of Verus

Start at: Thu, 03 Aug 2017 08:26:50 +0000
End at: Thu, 03 Aug 2017 08:27:20 +0000
Local clock offset: 0.27 ms
Remote clock offset: -0.503 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:16 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 813.160 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 813.160 ms
Loss rate: 3.18%
```
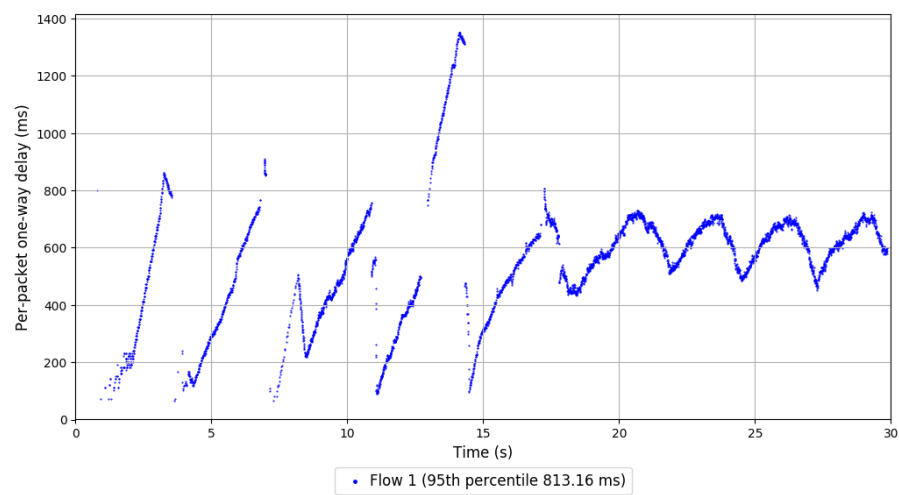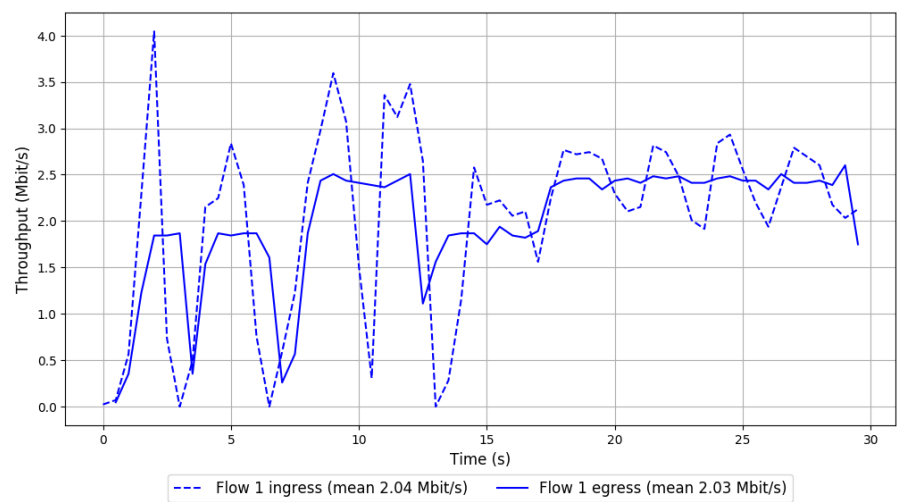
Run 2: Report of Verus — Data Link

```
Run 3: Statistics of Verus

Start at: Thu, 03 Aug 2017 08:46:17 +0000
End at: Thu, 03 Aug 2017 08:46:47 +0000
Local clock offset: 0.465 ms
Remote clock offset: -0.453 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:18 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 801.280 ms
Loss rate: 13.57%
-- Flow 1:
Average throughput: 2.26 Mbit/s
95th percentile per-packet one-way delay: 801.280 ms
Loss rate: 13.57%
```
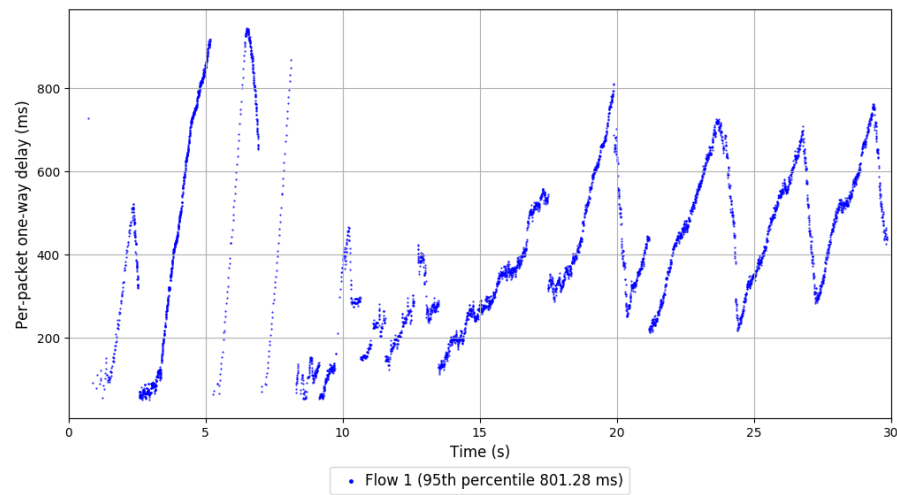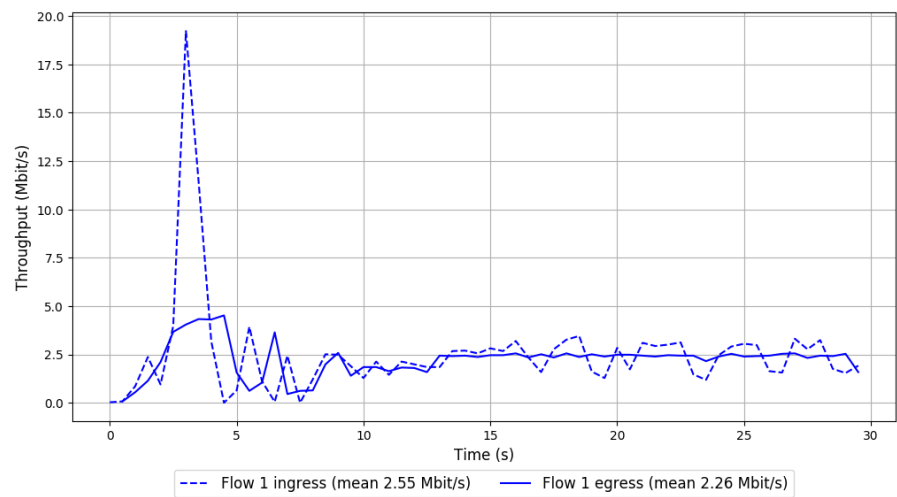
Run 3: Report of Verus — Data Link

Flow 1 ingress (mean 2.55 Mbit/s)   Flow 1 egress (mean 2.26 Mbit/s)

Flow 1 (95th percentile 801.28 ms)

```
Run 1: Statistics of WebRTC media

Start at: Thu, 03 Aug 2017 08:17:44 +0000
End at: Thu, 03 Aug 2017 08:18:14 +0000
Local clock offset: 0.298 ms
Remote clock offset: -1.006 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:18 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 282.675 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 282.675 ms
Loss rate: 1.05%
```
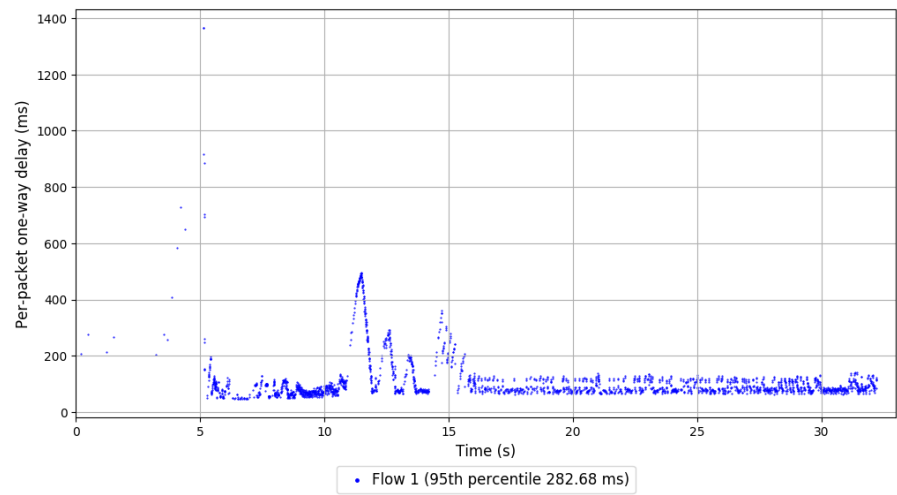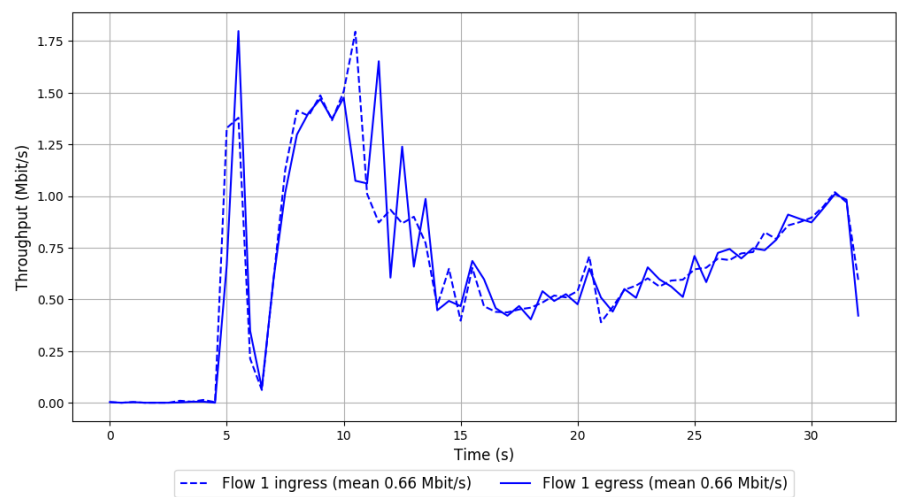
Run 1: Report of WebRTC media — Data Link

```
Run 2: Statistics of WebRTC media

Start at: Thu, 03 Aug 2017 08:37:13 +0000
End at: Thu, 03 Aug 2017 08:37:43 +0000
Local clock offset: 0.32 ms
Remote clock offset: -1.066 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:19 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 680.409 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 680.409 ms
Loss rate: 1.04%
```
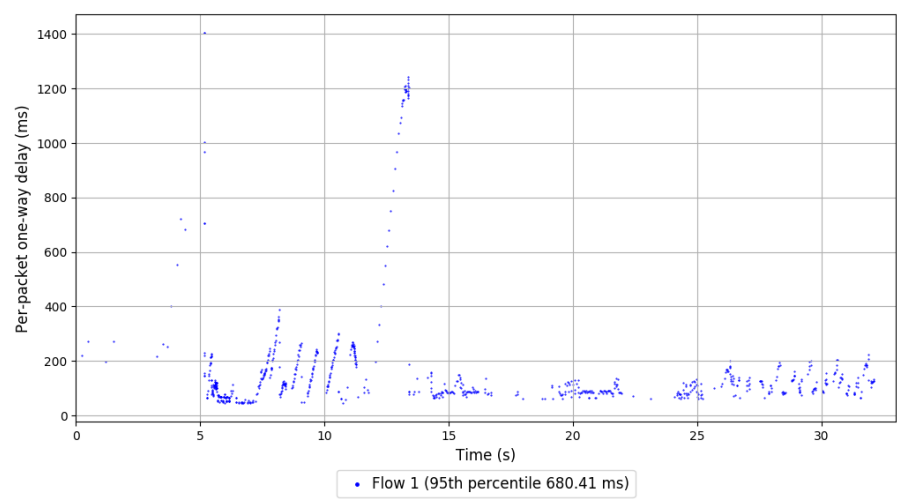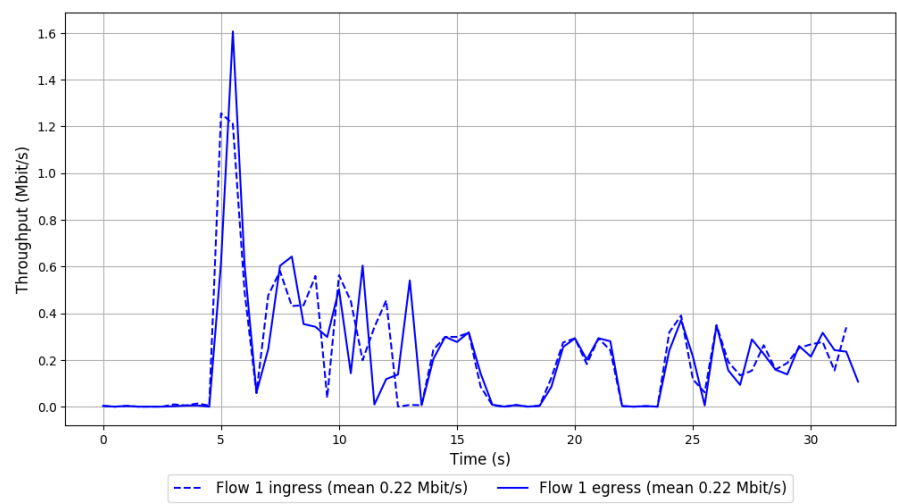
Run 2: Report of WebRTC media — Data Link

```
Run 3: Statistics of WebRTC media

Start at: Thu, 03 Aug 2017 08:56:39 +0000
End at: Thu, 03 Aug 2017 08:57:09 +0000
Local clock offset: 0.477 ms
Remote clock offset: -2.845 ms


# Below is generated by plot.py at Thu, 03 Aug 2017 09:04:19 +0000
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 1013.270 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 1013.270 ms
Loss rate: 1.44%
```

Run 3: Report of WebRTC media — Data Link

Flow 1 ingress (mean 0.28 Mbit/s) --- Flow 1 egress (mean 0.28 Mbit/s)

Flow 1 (95th percentile 1013.27 ms)